

A Complete Bibliography of Publications in
Journal of Computational Chemistry:
1990–1999

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254
FAX: +1 801 581 4148

E-mail: beebe@math.utah.edu, beebe@acm.org, beebe@computer.org (Internet)
WWW URL: <http://www.math.utah.edu/~beebe/>

13 October 2017
Version 1.04

Title word cross-reference

10 [FK91]. 12 [FK91]. **\$120.00** [Gol92]. **\$142.00** [Dun90]. **\$152** [Dav97].
1 → 4 [GZL⁺94]. 2 [KMM99, SCMV97]. 3 [AT93]. **\$34.95** [Gar90]. **\$35.00**
[Mez91]. 4 [JFR92a, JFR92b, KMM99, KHG96, SCMV97]. $4 \leq n \leq 8$ [KT91].
5 [KHG96]. **\$55.00** [Var92]. 6 [FK91, KMM99, SCMV97]. **\$65.00** [Klo92].
\$72.00 [Ran92]. $[n]$ [BRLD92]. $^+$ [Cha92, CLS⁺97, GS90d, GCG97,
GLLOB91, JKS93, Lóp95b, LDMS99, Mar98, PFFF97, PGBM97, Sie96]. $^{+}_{13}$
[GYT⁺98]. $-$ [GS90d, MI99, Sie96]. 1 [CGBC96, CÉC97]. 11 [WHM⁺96]. 13
[KMM99, Wib99]. 15 [GM98a]. 19 [KMM99]. $^{2+}$
[GWHD99, GLLOB91, Gre95, GSK95, GG96, Mar98, TRG99]. $^{2-}$ [SHM99]. 3
[CGBC96, CLS⁺97, GdAG⁺98, TK94]. $^\alpha$ [HMČ91, Kik96, Kik99]. $^{cdot,2+}$
[GCG97]. $_1$ [AVC93, AVP93, CGBC96, GdAG⁺98, MR93, MRG97]. $_{10}$
[MFG91]. $_{12}$ [FM99]. $_{1A}$ [AT93]. $_{2}$
[AS98a, Arn94, AHLR⁺91, BSvRS95, BADP92, BvH⁺92, BSN99, BBS96,

Cai94, CGBC96, DBS93, GWHD99, GMY97, HK95, IBKvRS92, JKS93, Jur96, KHA90, KHG96, L  p95b, LDMS99, Luk94, Mag95, MFG91, MI99, McD96, MRH99, MQS⁺97, MTR90, NL91, PFC96, RNDP98, SA99, SHM99, SN91, SM91, SB92a, TDFdC91, TEV90, VCLB92, VHV90, ZMC⁺97]. ₂₀ [JKS93]. ₂₁ [JKS93]. _{2h} [Ear90]. _{2v} [vRSD92]. ₃ [Arn94, BSvRS95, BL91, BT92, GH98, GCRSAIVB99, GdAG⁺98, GCG97, JFR92a, JFR92b, Kar99, KMM99, KKE93, KHA90, LSSvRS96, LDMS99, Luk94, Mag95, MI99, NQ99, SI93, Sie96, SS95, SM91, SB92a, TDFdC91]. ₃₀ [FM99]. ₃₉ [KG99]. ₃⁺ [LSSvRS96]. ₄ [CLS⁺97, GCRSAIVB99, GS90d, GPK95, GW95, KCK98, LBAO96, MRW91, MTR90, RP99, SD90, SHM99]. _{4-n} [JFR92a, JFR92b]. ₄⁺ [BW91b, GS90d]. ₄²⁺ [GvRSvEH⁺93]. ₄⁴ [C  C97]. ₅ [BT92, IBKvRS92]. ₆ [HKY98, SHM99]. ₆₀ [Fro91, SD98, SC91, ZY96]. ₇₀ [Fro91, SC91]. ₈ [VK94]. ₈₀ [KG99]. ₈₄ [AOY  96]. _{  } [GdAG⁺98, TDFdC91]. _N [Bic99, LS98, DMV98, JFR92a, JFR92b, KT91, KMM99, KHG96, MI99, PFFF97, RNDP98, SCMV97, VF92]. _{oh} [vDvdRvD92]. _s [vRSD92]. _{  } [AJ97, BPZL96, GM98a, JFKK94, OC98, PC93, RS92, TDFdC91]. _{  (1 → 3)} [ITP90]. _{AX =   BX} [Mit94]. _{  } [BB96a, DLM⁺98, EPBD95, FDMB92, FDMB93, Fro93, IBKvRS92, MGH97, PPAS⁺99, WSV92]. _c [Als95]. _{  } [GS90d]. _d [Mag93b, Mag93a]. _{  } [Had98]. _{  } [GS90d]. _{  } [GS90d, Had98]. _{  } [GWHD99]. _f [Mag93b, Mag93a]. _{log P} [ACDP98, DN92]. _{  } [SW96b]. _N [CK91, FW91, HM  91, ITP90, Kat90b, PS97, SJDW90, SMS98, SVS⁺97, VTR⁺94, HG93, KRM92, Wil94]. _{n = 0} [JFR92a, JFR92b, KMM99]. _{n = 1} [SCMV97]. _{n = 1, 2, 3} [VF92]. _{n = 3} [KHG96]. _{  } [ISH98b]. _p [CH96a, GWHD99, GvRSvEH⁺93, MGPR90]. _{  } [DW98, Had98, HG93, KMM99, KTT94, KTT95, LM96]. _{pK_a} [BF96, DJ93]. _r [ZA94]. → [GBT97, ZMC⁺97]. _t [Ove91]. _{V(r)} [JCV⁺93]. _Z [BH91a, BC96].

-2-acetylaminofluorene [FW91]. **-acetyl-** [HM  91].
-acetyl-N'-methylalaninamide [SVS⁺97]. **-acetylalanyl glycine** [SJDW90]. **-alkanes** [Wil94]. **-alkyl** [TDFdC91]. **-amino** [BB96a]. **-benzene** [GWHD99]. **-bis-crown6** [VW96]. **-Bonding** [LM96]. **-boron** [GM98a].
-butyl [Ove91]. **-carbomethoxy-3** [Fro93]. **-carbon** [RS92]. **-cluster** [RP99]. **-cyclodextrin** [WSV92]. **-D** [AT93]. **-diamminedichloroplatinum** [ACD99]. **-dimethylaniline** [VTR⁺94]. **-dioxins** [MGPR90]. **-enkephalin** [NVS91]. **-ketoboranes** [IBKvRS92]. **-L-fucose** [C  C97]. **-lactam** [FDMB92, FDMB93, PPAS⁺99]. **-lactams** [DLM⁺98]. **-lactoside** [EPBD95].
-linked [ITP90]. **-mannose** [ITP90]. **-matrix** [BH91a, BC96]. **-means** [Als95]. **-methyl** [HM  91, SMS98]. **-methyl-acetamide** [CK91].
'-methylamides [HM  91]. **-methylcarbamates** [Kat90b]. **-naphthyl** [OC98]. **-oxo-ketenes** [JFKK94]. **-P-** [GS90d]. **-P-coordination** [GS90d].
-phenyl [KRM92]. **-pinene** [BPZL96]. **-receptor** [AHLR⁺91, GH98].
-selective [AVC93]. **-substituted** [PC93]. **-symmetric** [SA99].
-toluenesulfonate [GWHD99]. **-type** [KMM99].

/empirical [YM98].

0-947143-84-5 [Ran92].

1 [GdAG⁺98, MRG97, RM94, VHV90, YBD⁺94, YTRB97].

1-amino-3-propenal [FA99]. **1-butene** [PG91]. **1-chlorosilatrane** [CH96b]. **1-difluoro-4** [LCA94]. **1-fluorosilatrane** [CH94].

1-methyl-dihydronicotinamide [CG90].

1-Palmitoyl-2-linoleoyl-phosphatidylcholines [LH96]. **1-X-3-M-bicyclo** [GdAG⁺98]. **10-diazabicyclo** [SHHČ90]. **10-dihydroanthracene** [SR92].

10-dihydrophenanthrene [SR92]. **10-electron** [WAM93]. **10-vertex** [ZBM91]. **10.1002** [Ano15]. **10.1002/** [Ano15]. **1096-987X** [Ano15].

12-dihydropheptadiene [SR92]. **12-vertex** [ZBM91]. **15** [Ano97].

16-tetraoxa-1 [SHHČ90]. **18-crown-6** [LHBF93, SK92b]. **1988** [Chr90]. **1a** [CLQSS98]. **1s** [CDG⁺99].

2 [Ano15, Bic99, CG90, LS98, SBM97]. **2-**

[SK91, VFM⁺90, WJL⁺96, WJV⁺96]. **2-benzodioxaphosphorin** [KTS92].

2-D [SHCY93]. **2-dimensional** [RPGS97]. **2-dinitrosoethylenes** [SCP92].

2-dioxin [FLHP97, PFLH93]. **2-dithiin** [FLPH98, PFLH93]. **2-ethanediol** [RBSB96]. **2-hydroxypyridine** [RGK93]. **2-hydroxypyridine/2-pyridone** [RGK93]. **2-K** [Ano15]. **2-methylbutyronitrile** [CC91b]. **2-phenyl** [WMM⁺95]. **2-pyridone** [RGK93, BA94]. **2-sulfides** [KTS92].

2-trifluoromethylphenol [KKCH96]. **20-hydroxy-4** [SHHČ90]. **21G** [FG96]. **21SP** [MHB97]. **22SP** [MHB97]. **272** [MRG97]. **2A** [HEN⁺94].

3 [ST92, FDMB92, KHF91, Kas90, MFG91, Tay99, VFM⁺90]. **3-**

[SK91, VFM⁺90]. **3-21G** [FG96]. **3-21SP** [MHB97]. **3-amino-1** [IMP91].

3-aminotropanes [LSDB99]. **3-azabicyclo** [SMS98].

3'-azido-3'-deoxythymidine [ST92]. **3-benzazepines** [AVP93].

3-butadiene [JZ96, LV90]. **3-c** [CLQSS98]. **3-diamines** [LSDB99].

3-diaza-1 [JZ96]. **3-dihydro-1** [FLHP97, FLPH98]. **3-diox-4-ene** [FLHP97].

3-dioxanes [HCK95]. **3-dioxin** [FLHP97]. **3-dipolar** [CN98, MP98, SSQ92].

3-dipoles [MM94a]. **3-dithiin** [FLPH98]. **3-methyl-1-butene** [PG91].

3-methyl-1-pentyne [CC91b]. **3-methylindole** [WLKJ92]. **3-shifts** [IBKvRS92]. **3-substituted-1-methyl-1** [BHK⁺91]. **3-triphenyl-1-propyl** [IMP91]. **3.0.CO** [Ano15]. **3.2** [MR92]. **3.2/CHARMm(R)** [MR92]. **31** [MR93, RM94]. **31-8959** [MR93, RM94]. **31g*** [CNOJ93, OJL93, FW93a].

3D [AC94, Cri99, HGB93].

4-22SP [MHB97]. **4-amino-4-oxo-2-butenoic** [Kat90a]. **4-bis**

[WJL⁺96, WJV⁺96]. **4-dihydro-1** [FLHP97, FLPH98]. **4-dihydro-1a**

[CLQSS98]. **4-dihydropyridines** [BHK⁺91]. **4-dimethoxyphenyl**

[WJL⁺96]. **4-dimethylcycloheptane** [LCA94]. **4-dioxene** [FLHP97].

4-dioxin [FLHP97]. **4-dithiin** [FLPH98]. **4-fluorophenyl** [Fro93].
4-monosubstituted [SK91, VFM⁺90]. **4-substituted** [AHLR⁺91].

5 [AT93]. **5-cyclooctadiene** [RD97]. **5-Dimethoxy-1** [WJL⁺96].
5-distyrylpyrazine [ENHE98]. **5-HT** [AT93]. **5-tri-** [OC98].
5-trimethoxyphenyl [WJV⁺96]. **5.1** [GPPS91]. **5.21** [GPPS91]. **500-ps** [SYHW99].

6 [OJL93]. **6-31g*** [FW93a]. **6-31G*-based** [OJL93]. **6-31g*-derived** [CNOJ93]. **6-dihydro-1** [FLHP97, FLPH98, PFLH93].

7 [Zho97]. **7-tetrahydroazepines** [AVC93].

8-methyl-N5-deazapterin [CG96]. **8-methylpterin** [CG96]. **86th** [EHNW96]. **87** [Fro91, Tay99]. **87-118** [GS90c]. **87-16-12049-3** [Tay99].
8959 [MR93, RM94].

9-deazaguanine [KG99]. **987X** [Ano15].

= [AS98a, BSvRS95, BT92, FBTD92, GS90d, JFR92b, L  p95b, SHM99, SM91, ZY96].

A* [LP90]. **A-DNA** [BB98a]. **Ab-initio** [GCRSAIVB99, KHA90]. **Ability** [JS93, Wib99]. **absence** [YBD⁺94]. **absolute** [Âqv96, SCC93]. **absorption** [Che95a]. **accelerator** [TMK⁺99]. **acceptance** [SN90]. **acceptor** [GC98]. **acceptor-substituted** [GC98]. **acceptors** [NPLT97]. **accessibility** [YB95a]. **accessible** [CS95, FB98, FS97, G  95, Her97, PCG⁺92, SNS95, Wan91, WL91a, WWSS98a, WWSS98b, WSS99c, ZKSB93]. **Accompanying** [Ish98a]. **account** [ZS99]. **Accuracy** [CNOJ93, AS97, BNDS97, DM91, Gen99, HW97, HK95, SW96a, RSOF96]. **Accurate** [CB96, DP95, Mar97a, Mar97b, Mar98, MHB97, KUT⁺97, KK92, MFG91, OL90, PFM91, PN95, SSRO92, TKTN99, Tav96, WF94]. **acetamide** [CK91]. **acetate** [LYH⁺95]. **acetic** [MvEP⁺98, PRRD98]. **acetyl** [HM  91, SVS⁺97]. **acetylacetone** [HR97, SHCR97]. **acetylated** [SJDW90]. **acetylaminofluorene** [FW91]. **acetylene** [LSSvRS96]. **achieved** [BNDS97]. **acid** [ALPH91, AGP91, BF96, DW98, HOL98, HM  91, Kat90a, LDVP91, MP98, MvEP⁺98, NBG93, PRRD98, PFM91, RC95, RTGJ98, SV94, SCZC99, TGW96]. **acid-catalyzed** [Kat90a]. **acidic** [GHS97]. **acidities** [Kas90, WCK96]. **acidity** [KHF90, KF94, LS96]. **acids** [ASM⁺92, BB98a, BKK⁺96, CBIT94, GK90, KHF90, Kat90a, Kik99, NTK96, NS98, PC93, Smi99]. **across** [CA95]. **acrylamide** [BB96a]. **acryloyl** [BADP92]. **actinide** [SHM99]. **action** [MSSS95, SSM96]. **activation** [CY98, Vya97]. **active** [CT97, CG96, FA99, GBE92, HK90, SWS⁺90, SBS99]. **active-site** [CG96]. **activity** [AT93, KF94, RdBN90, Ric91]. **acyclic**

[WHF97]. **acyl** [SB98b, SB98c, TD95]. **acyl-chymotrypsin** [TD95]. **ad** [MFG91]. **Adaptation** [Ear90, ZL94]. **Adapted** [JLN98, DZSB94]. **Adaptive** [BRP92, BK97a, FOCB96, FCS98, HOL99, Kul90, LMB96, VS97, WP97]. **addition** [JZ96, LS94, LDJ⁺97, MSSS95, SLD⁺90, VCLB92]. **additional** [Hal96d]. **Additions** [Ano97]. **additive** [DK97]. **additivity** [DH90a, IS91]. **adenine** [KSB⁺93, RTGJ98]. **adenosine** [HK90]. **adiabatic** [AB98a, BB96b, CBSR99]. **adjacent** [MR93]. **adjusted** [SB90]. **adjustment** [CA95]. **adopting** [FM94]. **Adsorption** [JAdV96, SSF90, SW96b, SBJ92]. **advances** [NKA98]. **Advancing** [DK97]. **affecting** [BCF⁺92]. **affinities** [KS91, PMHRG97, STB⁺94, SK91, VFM⁺90, ZG92]. **affinity** [AVP93, RHKK90]. **against** [CT97]. **aggregates** [HYH⁺94]. **agonists** [AHLR⁺91, GH98]. **AID** [Ano15, SOL90]. **AID-JCC10** [Ano15]. **aided** [VHV99]. **Alanine** [HNH⁺91, KG91, PF99, RL99, SMM97, WWXS97, HNH⁺91]. **alcohol** [vOC93]. **alcohols** [VRC91, VRC92, vOC93]. **aldehydes** [DH95]. **Alder** [LV90, SBM97]. **Alfred** [Tay99]. **algebra** [Jem97, JK98]. **algebraic** [Ram90]. **Algorithm** [MKS97, VP92, VP93, VP94, BGBW97, BSS97, BSB⁺97, BB96b, CMC92, CSC96, CBSB94, CSR92, EGHT97, FW93b, FK95, GBE97, GS94a, GS94b, GÖ95, GF96, HO93, Har99b, HGB93, HOL99, Ish98a, JP92a, JP92b, JLW97, JLW99, JG93a, JJTP93, Kea90, KOH97, KV93, Kul90, LP90, MJ93, MJFT96, MK92, MJSV92, MGH⁺98, NIS98, Net94, NH91, NM97, PS97, PSW96, PaST94, PM93, PD92, Pul97, Ram90, RGK93, RS92, RPG⁺95, RBE98, SGB91, SS98a, Sno92, SB90, Tav96, TS99a, VT91, Wan91, WL91a, Wan97, WSS99b, WHHP97, WS98, YG92b, YG92a, YTT97, YB95a, ZvN93, ZS93, vLP90, RBC⁺98]. **Algorithms** [BKLS95, BK97b, KPR91, TvG94, Zup89, BMN99, BP94, DV99, EK97, FS98a, FS00, FTW⁺96, GHR94, GM98b, GT98, HO97, HL96b, HS95a, HH99b, MTBS91, MS95, PFFF97, RWB99, TSZ90, TEHL93, YB95b, Gol92]. **Alignment** [PKRR97, HT99b]. **aliphatic** [DMV98, HMČ91, LCD⁺97]. **alkali** [HHC90, LS98, LHB93, ZY96, VW96]. **alkaline** [Kat90b]. **alkaloids** [GCT96, Gio98]. **alkane** [MHS⁺94]. **alkanes** [Dil95b, DH95, GCRSAIVB99, PHG94, Wil94, Dil95a, LSCA98]. **alkanol** [LPT97]. **alkenes** [ALY90, DBV98, LH96, NCA96, NA96, SC94]. **alkyl** [BMJ90, CPR90, CA93, CBIT94, LK90, LA94, MHS⁺94, TDFdC91]. **all-atom** [DFTRJ97]. **all-electron** [SS95, SCMV97, Van99]. **Allinger** [Ano97, Bow98]. **allocation** [GPF97]. **allopurinol** [CAC99]. **alloys** [CJC⁺96]. **allyl** [LKL95, RCvRS97a]. **alpha** [Jon91, MKS97]. **alpha-function** [Jon91]. **alteration** [SEJ95]. **Alternate** [Cas89, Gar90]. **Alternative** [CKP96, SF92, ACDP98, GW91, TEdV91]. **aluminum** [WHM⁺96]. **AM1** [BHK⁺91, JFKK94, Ste90, Cso93, DBS91, DHHY90, Fab91, Fag91, FRR90, FW93a, FDMB92, FDMB93, FSI95, GJR91, GP94, GMO93, GPPS91, HKŠ⁺97, KHF90, KHF91, Kas90, Kat90a, KWWS91, LBO94, MLBD92,

MFG91, OL90, RC93, SUG92, SMF91, VFM⁺90, WF94, Wel90]. **AM1-calculated** [GMO93]. **AM1/MST** [LBO94]. **AMBER** [Can93, DK93, HKŠ⁺97, HA95, SL95]. **AMBER4** [VM95]. **AMBERCUBE** [DK93]. **ameliorate** [SLPP97]. **amide** [KB92, MR93, SJDW90]. **amides** [BB96a, DH95, GM99, LA91, MHJ⁺98]. **amiloride** [VPV91]. **amine** [GBT97]. **amines** [LCD⁺97, SUG92]. **amino** [BB96a, BF96, DW98, FA99, GK90, HMČ91, IMP91, Kat90a, Kik99, NTK96, NS98, PFM91, Smi99]. **aminotropanes** [LSDB99]. **ammonia** [KS96]. **ammonium** [LCD⁺97]. **among** [CSC96, GPF97, PPK92]. **amorphous** [CJC⁺93, CTJ⁺94, CJC⁺96, DH99]. **AMPAC** [LW92]. **amplitude** [SG95]. **AMSA** [SUG92]. **AMSOL** [HL96a]. **analog** [Fro93]. **analogs** [BH91b, Can93, PRRD98, Sul95]. **analogue** [CG90]. **analogues** [DRF92, HS95a]. **analyses** [KTT94, KTT95]. **Analysis** [BC95, BBR98, BGZP97, CDG⁺96, Cso93, FD94, MJ93, Mer92, SSQ92, VCLB92, AT93, AGN⁺90, AVC93, AJB96, AHLR⁺91, Art94, ARLG⁺94, BPS93, BB98a, BB96a, BF96, BKL⁺90, BW90, BR97, BJK95, Bro99, CGdAC91, CEÁ92, CT97, DNC96, DRF92, DZ97, FBTD92, FGG⁺92, FRC91, FPR97, FCS98, Fro93, GM98a, Gen99, fGGG94, Gio98, Gla90, GSB99, GW98c, GSK95, HS93a, HKK91, HH99b, HCCC99, IMP91, ISH98b, JB95, JVB95, Jem97, KT91, KZ99, KG91, KPI95, KCK98, KHL96, KRB⁺92, KRB⁺95, KTS92, LPD90, LP90, LK92, LSDB99, LFB96, LBA⁺99, MvRSL⁺97, Mar90, MNVM97, MM97, MFG97, MR93, MRG97, PSY⁺99, Pet93, PD99, Ran91, RM94, RD97, RPR⁺98, ST92, SSD93, SD90, SM94, SB98b, SR94b, Sul95, SSO94, SSRS94, SSR94, SSR95, SFB91, TKF92, TGW96, TLBP99]. **analysis** [VTR⁺94, VSF97, WSV92, WCMS91, WJV⁺96, YC95, ZHSB92, dANS⁺96, dVA92, MSSS95, VGN⁺92]. **Analytic** [Jon91, DKK⁺93, EA93, SG95]. **Analytical** [CMC96, Pac93, PT96, ŽRK⁺95, EKS97, FB98, GÖ95, MK92, PCG⁺92, Pet94, WS99a, WS99b, YB95a]. **analyzing** [HH99a, JMH96]. **AnF** [SHM99]. **angle** [BBvG95, CNS96, KG91, LPK99, SF92, TGW96]. **angles** [BK96, GH98, GS90a, LA90, SG95, Tav96, WTLC93]. **angular** [ZS95]. **anharmonicities** [HI98]. **anharmonicity** [VHV99]. **aniline** [AYC94]. **anilines** [KHF90]. **anion** [FSCS99, LH99, O'm99]. **anions** [DBS91, ENvRS94, LK90]. **anisole** [MV91]. **anisotropic** [WAW⁺97]. **Anisotropy** [ST94]. **annealed** [AW90, SSD93]. **annealing** [BM99, CE96, EHNW96, GW95, LSR97, MPBM98, NVS91, Nil91, Sno92, WP97, WCMS91, YTT97]. **Announcement** [Ano90a, Ano90b, Ano92a, Ano93a, Ano94a, Ano94b, Ano94c, Ano94d, Ano95a, Ano95b, Ano96a]. **Announcements** [Ano91a, Ano91b, Ano93b, Ano94e]. **Anomalous** [GvRSvEH⁺93]. **anomeric** [Arn94, FRC91, FVR92, KA96a, KHA90]. **anomers** [BSC⁺98, DDV93]. **anthracycline** [SSM96]. **anti** [FHT99]. **antialiasing** [BNDS97]. **antibiotics** [FDMB92, FDMB93]. **any** [SSRO92]. **apically** [GS90d]. **apicophilicity** [WZG⁺93]. **apparent** [CT95, CTC95]. **Applicability** [GML94, MRM97]. **applicable** [She90]. **Application** [BP94, CCJ⁺99, CCBK95, CHSK96, HEN⁺94, KF94, LJ92, RPGS97, SKA93,

SS93, WMM⁺95, ACD99, AKF93, BMW⁺90, BMD99, Ber97b, BRH90, CPR90, DH95, EKS97, FR90, FW92, FSI95, GGP96, HB91, KT93b, LPD90, LFB96, MK97a, NVK⁺97, PL94, SHM99, VWGF95, AW90, BBH99, CFK97, CT99, CBSR99, CG94, GVH94, GP94, GK90, GW95, HY96, JCV⁺93, Kik96, KJ97, KG99, LKLB⁺99, MN95, PNJS93, PKN⁺95, Pet95, RGK93, RTSM93, SMM97, TEdV90, VRBE93, YTRB97, ZS99, ZM90]. **Applications** [Nil91, TKSM96, VVSV96, WCMS91, ATK94, BDKJL95, DZSB94, GBW98, JM90, Klo92, SJ95, YTT97, AJ99b, BK97a, FRZ93, HK90, LLD98, PS92, WLKJ92, WS93]. **applied** [BMN99, DKL90, FPL95, GH98, ST91, SW93a, SHCR97, TEHL93]. **Approach** [CN98, AD90, BBR96, BDH⁺94, BCG97, BFST93, BWS⁺95, BP93b, CZM98, CC91a, CE96, CS96, DF96, DF97, DM91, DH99, ES99, Flo92, FW93a, GGK98, Gri90, HO93, HY96, JJTP93, JAdV96, Jur96, KW91b, KPI95, LL94, Lim97, ORK⁺91, PS97, PP98, RM91, RCAA99, SB99b, SBK97, SC95, SKM94, SSRS94, TLBP99, TP93, TS99a, WP97, YM98, YH93, ZYY95b, Zho93, ZL94, ŽRK⁺95]. **Approaches** [WH95, ALO94, BT96, BKMH97, BKL⁺90, BBS96, CKP96, ELA⁺95, GCT96, MRM97, NVS91, FM91]. **Approaching** [NBB⁺99]. **Approximate** [KKJ97, WSS99a, dIVM91, ABBC99a, ABBC99b, AGM91, WSS99b, ZG92, ML92]. **approximately** [ZS99]. **approximation** [ACD97, FRSNS92, FTA91, FM91, HHC90, LM93, NBB⁺99, PG98, PS91, PS92, PT99, RHK90, RHKK90, Tru91]. **approximations** [BBS96, AJ99a]. **AQUARIUS2** [PMRG93]. **aqueous** [CG93, CT92, CG94, CG97, CG99, Gao97, GK93, Mar90, NBS94, PPAS⁺99, Pra93, TYMS98, UF93]. **arbitrarily** [TG98]. **arbitrary** [JCV⁺93, Phi90, TAC98, Vya97, YH93]. **architecture** [RBE98]. **area** [BG96a, BG96b, ELA⁺95, GÖ95, Her97, LM93, NBS94, STPA91, VB93, WL91a]. **areas** [FB98, Her93, PCG⁺92, SNS95, WWSS98b, WSS99c, WWSS98a]. **argon** [NQ99, Pul97]. **ARGOS** [SM90]. **aromatic** [BCF⁺92, LDJ⁺97, NPLT97, PNJS93, PMHRG97, SUG92, Sun94]. **aromaticity** [FM99]. **aromatics** [PBS97]. **Artificial** [TYRD92, CS94, FPL95, LPD90]. **aryl** [FHT99, KHF91]. **ASC** [CT95]. **ascent** [HKK91]. **ascorbic** [ALPH91]. **aspects** [CG90, DBS96, Pet94, SN99]. **aspirin** [PRR⁺99]. **assemblies** [ELA⁺95, Tel90]. **Assessing** [VHKB98, VHD⁺98]. **Assessment** [VRBE93, AS97, CSC96, OM96, BG96a, SW96a]. **assignment** [BGBW97, CCN90, ORK⁺91]. **assisted** [LL94, VP92]. **association** [RTSM93]. **asymmetric** [GML94]. **Asymmetrization** [GC98]. **Asymmetry** [MS98]. **atmosphere** [AIDAVB98]. **atmospheric** [GCRSAIVB99]. **Atom** [KVL91, BW90, BR97, DFTRJ97, DK97, GDK92, HREK98, LKSS91b, ML91, ORK⁺91, SKA93, SB99a, ST94, ZA94, ZKA94]. **atom-centered** [BW90, DK97]. **atom-type** [ORK⁺91]. **Atomic** [BMK90, DM94, Din91a, DJ92, GM99, Pac95, SH98, WF94, ACD97, AGM91, BSS90, BRC94, BCG97, CDR⁺95, CDG⁺99, ČTS98, Din91b, DH95, DJ93, FR94b, FS94, FCCG96,

GPF97, GP94, Kik96, Kik99, KOH97, KE95, LP99, Mar97a, Mar98, ML91, Mer92, MHB97, Mul91, NM97, Pac93, PG98, PNJS93, PKN⁺95, PP97, RL99, RC95, SBB⁺93, SR98, SSRO92, SKOR93, SRI92, SC95, SKM94, Su93, TKF92, WSS99a, WLKJ92, WR93, Wil94, WFR99, WKP⁺90, MPJ98]. **atoms** [AMY98, BPC91, BC90, CW91, CSC96, DMV98, FB97, GPF97, HBLL98, HOL99, IRRR93, JDD97, JLN98, LPT97, LKLB⁺99, MAP97, MHB97, PG98, WSS99b, dIVM91]. **attractive** [BPC91]. **Automated** [LP90, MK97a, MSK92, MGH⁺98, NL98, TAC98, EK97, KW91b, KF94]. **Automatic** [FSBMP99, BP93b, CCN90, CS94, CF97a]. **auxiliary** [YG92b]. **available** [ABD⁺98, GBE92, Hal99b, TJP96]. **average** [Kik96, Kik99]. **Averaged** [Mez98, SAdV97]. **avoidable** [GPF97]. **avoiding** [BW96]. **axial** [CPJ98]. **axial/equatorial** [CPJ98]. **azabicyclo** [SMS98]. **azetidin** [FDMB92]. **azetidin-2-one** [FDMB92]. **azide** [SSQ92]. **azido** [ST92]. **azine** [SE94]. **azirine** [CLQSS98]. **azoethene** [SE94]. **azoxy** [FA94]. **azurin** [SJ95].

B [WHM⁺96, BB98a, GYT⁺98, KT91, OS98, RP99]. **B-DNA** [BB98a]. **B-spline** [OS98]. **Ba** [FR94b]. **backbone** [BH98a, BBC⁺98, BSV94, LKC⁺98, MKS97, RS92]. **bacteriopheophytin** [O'm99]. **bacteriorhodopsin** [CBSR99, Non97]. **bad** [AS98b]. **Bader** [HD92]. **balanced** [BW91a]. **balancing** [YB95b]. **band** [PL94, PZBM98, SLPP97]. **bands** [LA92]. **barrier** [IBKvRS92, JZ96, KPSM98, SSHB93]. **barriers** [BB96a, CRP97, GCG97, KHB92, PG91, VTR⁺94]. **barton** [SSV93]. **Base** [SLH96, Mer92, SV94]. **based** [AGM91, BBR96, BFST93, BKL⁺90, DV97, FW93a, FRZ93, GM98a, GM98b, HA95, HBR⁺99, JLN98, KVL91, LWNS95, MTH94, Mar90, Mar97a, Mar97b, Mar98, MSK92, OS98, OJL93, Pet95, PMRG93, RJP97, Ric93, TRJ96, WF94, YG92a]. **bases** [AD90, GCT96, Gio98, GSB99, HK⁺97, LDVP91, RC95, RTGJ98, SV94, SCZC99, VRBE93]. **basic** [BPP90, GS90c]. **basicities** [Pra93]. **Basis** [CH96a, DF97, GC97, IRRR93, SH91, SB92a, AG90, BW91a, BC90, BP93b, BB96b, CDG⁺99, CRME93, CB96, DM94, Flo92, FG96, GvRSvEH⁺93, HVM99, HM90, HK95, IS91, JG91, JDD97, JLN98, KNST96, LMA99, MTRJ95, MHB97, RW99, RKL93, SBA97, SS97, SRI92, WB91, Hal96a]. **Basis-Modified** [IRR93]. **BCH** [MQS⁺97]. **be** [FCCG96, Jai90, FR94b, KT91, Ste91]. **bearing** [LDJ⁺97]. **BeH** [Cha92]. **behavior** [GvRSvEH⁺93, PG98]. **Bell** [ABBC99a, ABBC99b]. **Benchmark** [CW93]. **bend** [TNS97a]. **bending** [Mil90, SF92]. **benzazepines** [AVC93, AVP93]. **Benzene** [LP93, BRLD92, DS92, GWHD99, HT99a, OC98, RTSM93, WM95, WJL⁺96, WJV⁺96]. **benzenes** [JN93, JLTR93]. **benzenoid** [ŽRK⁺95]. **benzodioxaphosphorin** [KTS92]. **benzofurazan** [Rau96]. **benzofurazan-1-oxide** [Rau96]. **benzofuroxan** [RJP97]. **benzoic** [KHF90]. **Benzon** [Tay99]. **beryllium** [SKA93]. **beta** [FR94a]. **beta-lactams** [FR94a]. **between** [AVA93, AB97, BDH⁺94, BCF⁺92, BSL91, CG90, GLLOB91, HL96b, JS93, KRL⁺93, Kik99, LTHY96, LH99, MGH97,

NVER97, Par99, RLG98, SBM97, STB⁺94, SS95, SG95, TRG99, WCK96]. **Beyond** [KT93a, DK97, HKŠ⁺97]. **Bezier** [TS99a]. **BH** [MQS⁺97]. **Bi** [BT92, Ste91]. **biased** [KG93]. **bicyclic** [AW90]. **bicyclo** [GdAG⁺98]. **bidentate** [TRG99]. **Bidirectional** [KLR96]. **bielectronic** [CDR⁺95]. **bifunctional** [VCLB92]. **bilayer** [CCJ⁺99]. **bilayers** [TM95]. **bimolecular** [Lóp95a, Lóp95b, MGLL99]. **binding** [Åqv96, APC98, BPZL96, BG99, BSL91, CS95, Cri95, CG96, GSB99, GJL⁺90, Gre95, GG96, KSB⁺93, MLA⁺99, MGH⁺98, PBS97, RM94, SQ95, SW96a, SN91, SB99b, SR90, TRG99, Van97]. **biochemical** [Mul91, SACKH95]. **biologic** [DDV93]. **biological** [CG90, DDLV95, DVL90, TTKTN99, WNW91, ZKSB93]. **biologically** [BHK⁺91, Gre95, GG96]. **biomacromolecular** [SKT94]. **biomaterials** [PC94b]. **biomolecular** [DZSB94, JLW99, Mar90, SKT93, ZM92]. **biomolecules** [GS93, KWWS91, KRB⁺92, ZM90, ZS93]. **bioorganic** [MRG⁺90]. **biopolymer** [Elv91]. **biopolymers** [CCBK95]. **biorthogonal** [MM94b, MM94a]. **biphenyl** [LH99]. **bis** [GWHD99, VW96, WJL⁺96, WJV⁺96]. **Bleep** [MLAT99, MLA⁺99]. **blocked** [PFM91]. **blockers** [Fro93]. **Bloembergen** [Kar99]. **BO** [IBKvRS92]. **boat** [HCK95]. **bodies** [FS98a, FS00, WM95]. **body** [KL91, Kna92, MPJ98, MPJC98, ZvN93]. **Boltzmann** [AS97, Bru93, BNDS97, CF97a, CF97b, HL96a, HS93c, HS95b, LDM92b, NH91, RM91, Sha91, SQ95, SW96a, SMM97, TG98, ZYY95b, ZPV⁺96]. **Bond** [WB91, ACK⁺96, BPS93, BW91a, BFST93, BKMH97, BBH99, CW91, Che95b, CTJ⁺94, DH94, EGH⁺93, Fag91, GH98, GdAG⁺98, GW98b, GHT98, GMY97, GM99, HD92, Jai90, JB98, LPK99, MM94b, MM94a, McD97, MP90, OL93a, Pao90, PHG94, RR92, SR94b, TK94, TNS97b, VF92, WP96, ZRVD93, LA90]. **bond-charge** [BBH99]. **bond-length** [PHG94]. **bonded** [AG90, Art94, TEv90, VHV90, Zho93]. **Bonding** [LM96, AS98a, CDG⁺96, FF93, JG93b, JS93, KWWS91, KKCH96, LA98, LKC⁺98, LPT97, Mag95, NPLT97, PSY⁺99, SHHČ90, UVRCR92, VRC92, ZM92, PD99]. **bonds** [AJ97, CBSR99, FVR92, FS94, GM90, KPSM98, LBA⁺99, PD99, RBSB96, Rod94, TLBP99, vDvdRvD92]. **Book** [Chr90, Dav97, Dun90, Gar90, Gol92, Klo92, Mez91, Ran92, Tay99, Var92, Zho97]. **Boolean** [LM93]. **boranes** [IBKvRS92, ZBM91, TLBP99]. **Born** [BG93, NBS94]. **Born/surface** [NBS94]. **boron** [GM98a, WHM⁺96]. **boronic** [CBIT94]. **both** [DDV93]. **bound** [DV97, Lóp95a, Lóp95b, YBD⁺94]. **boundary** [BWS⁺95, ÇHP91, DM91, EJ95, För92, FUS⁺94, PN95, Pur98, SKT93, VS97, WWXS97, YKU96, YL90, ZV96]. **bounded** [DF96]. **bovine** [Kik96, PS92]. **Bowl** [SD98, FM99]. **Bowl-shaped** [SD98, FM99]. **box** [Bek97]. **Boys** [BP93b]. **Br** [AS98a, SI93, HK95]. **bracing** [LL94]. **bradykinin** [SSD93]. **Breit** [SCMV97]. **Broken** [RCAA99]. **Brönsted** [BKK⁺96]. **Brownian** [Elv91, SMA92, SWOW97]. **Broyden** [AB98b]. **BSSE** [PS98, VVM93]. **Buckingham** [ZY96]. **Buckminsterfullerene** [BMP⁺91]. **build** [PT98].

Building [YTRB97, PAS90]. **Bulk** [CW93, ACB97, NBB⁺99]. **bulky** [PSK98]. **butadiene** [JZ96, LV90]. **butanal** [LP92]. **butene** [PG91]. **butenoic** [Kat90a]. **butyl** [BH98a, Ove91]. **bz** [GWHD99].

C [CÉC97, GCRSAIVB99, GdAG⁺98, GCG97, JFR92b, MFG91, TDFdC91, ZY96, CLQSS98, AOY⁺96, DJ94, FM99, Fro91, GCRSAIVB99, GdAG⁺98, HDA93, IBKvRS92, KMM99, Kik96, Kik99, KG99, LSSvRS96, MFG91, PT99, SA99, vRSD92, SD98, SC91, TDFdC91, Wib99, YSJ95, ZY96, TDFdC91]. **C-** [HDA93]. **C-NMR** [Wib99]. **C-terminal** [YSJ95]. **C1** [SI93]. **C13** [CBSR99]. **C14** [CBSR99]. **C15** [CBSR99]. **Ca** [FR94b, GG96, Mar98]. **cadmium** [HM90]. **cage** [LKSS91a]. **cages** [LKSS91b]. **calcium** [CHPK91, SN91]. **calculate** [BB96b, Gri90, PL94]. **Calculated** [SCP92, AJB96, DM90, DJ93, GMO93, GPPS91, GLoNP96, HBLL98, HYA92, KHF90, KHF91, Kas90, LSCA98, MGLL99, Nic97, REA⁺98, SC94, SKK⁺93]. **calculates** [AFK⁺95]. **Calculating** [DM90, ZYY95a, ATS90, CR95, HVM99, KPR91, Mul91, Net94, PZBM98, Pur98, RC95, SKT94, SNS95, VDF⁺97, WL91a, WO97]. **Calculation** [Åqv96, BF96, BB98b, DZ97, ER95, GH97, Her93, KOH97, KOH98, KKE93, KSD90, Mit98a, Phi90, RE99, SQ95, SACKH95, ADG99, AC94, ACRC97, BSS90, BG96a, BG96b, CPJ98, CMC92, CGBC96, CD97, CBSR99, Cul92, DKBS97, EA93, Fag91, FW92, FW93a, FB98, FS97, GJR91, GPF97, HGC⁺95, HG93, HW97, KW91b, Kul90, LV90, LDM92a, Mar98, MVS92, MSDC94, Mez92, Mit94, NIS98, NL91, Pet94, RK97, RCAA99, SW96a, SOL97, SMF91, SC95, SKM94, TKTN99, VSF97, WHHP97, WWF95, YG92a, vDvdRvD92, MLA⁺99]. **Calculations** [CMS91, AGN⁺90, AMY98, ALYT90, ASM⁺92, AF93, AF94, AYC94, Ano97, AL98, BLO94, BFH94, BCFM98, Bec99a, BFST93, BB96a, BJ94, Bog99, BB95, BW91b, BNDS97, BLF95, BRH90, CLCL96, CW97, CDG⁺99, CHPK91, CBWF98, CBIT94, CT99, CRME93, CKP96, CW93, Cso93, CG94, CG99, DPK94, DH90a, DB98, DJ92, DBT98, Ear93, EGH⁺93, FGBH90, FA94, Fel96, FR90, FK91, FGG⁺92, FPSK92, FM99, FDMB92, FDMB93, FLHP97, FPC91, GBE97, GC97, GMY97, HK90, HS99, Hil97, HHC90, HWH⁺91, HA95, IRRR93, Jai90, JP92a, JP92b, JFKK94, JK98, JG91, JFR92a, JFR92b, KSP90, KZ99, KMO92, KHB92, KK91, KRB⁺92, KRB⁺95, KPV96, KTS92, LCW93, LSR97, LMRRRL98, LCD⁺97, LA94, LSFFM⁺95, LO98, LDM92a, LW92, MM93, MNVM97, MRW91, MSB95, MSB96, MM91, Mit98a]. **calculations** [MPJ98, MPJC98, MTR90, NCA96, NLA96, NA96, NSA⁺97, OS98, OBL95, PLY98, Pea94, PR95, PC94a, PFLH93, PK91, PN95, RG99, RC93, RPW98, RCv96, RCvRS97b, RCvRS97a, RvRS98, RSOF96, RLA⁺98, RHKK90, RSK92, SN90, SD90, SJDW90, SHM99, SKA93, SS93, SN99, SLH96, SKT93, SR94b, SS95, SRI92, SCR93, SCMV97, TP93, TA94, TNS97a, UF93, VRV99, VÅJ94, VVSV96, Van99, VW96, VFK92, VW91, VES⁺99, VA98, VHV90, WM95, WZG⁺93, WF94, WP96, WSS99c, WH95, WJL⁺96, Wun92, ZA94, ZKA94, ZL94, ZM99, DBS91]. **calix** [VW96]. **cam**

[HL96a]. **Cambridge** [AGN⁺90, LHBF93]. **Can** [FK91, FCCG96, VHWC98]. **Canonical** [OS94, CC98, FCS98, Gen99, HL96b]. **capacity** [BR97]. **capsid** [YKU96]. **capture** [Phi90]. **carbenes** [KHF91]. **Carbó** [MK97b]. **carbocations** [RCv96]. **carbohydrate** [vEK99]. **carbohydrates** [DFTRJ97, EPBD95, KPI95, LMA99, RSB96]. **carbomethoxy** [Fro93]. **carbon** [ACK⁺96, ACRC97, BDH⁺94, Fag91, JB98, JU91, LKSS91a, LKSS91b, MKS97, NBG93, PB92, RS92, MFG91]. **carbon-cage** [LKSS91a]. **carbon-carbon** [Fag91]. **carbonyl** [FBTD92, FSCS99, LKL⁺97, LPT97]. **carbonylation** [IBKvRS92]. **carbonyloxide** [BSGB98]. **carbonyls** [TDFdC91]. **carboxylate** [Pra93, TD95]. **carboxylic** [LMB99, ASM⁺92]. **carboxypeptidase** [AC92]. **cardiotoxin** [SYHW99]. **Carlo** [CLO99, BMJ90, CFK97, CE96, CCJ⁺99, CBSB94, DBV98, Dum91, DN92, DV97, ET98, FB97, FCS98, GLP95, GPB⁺97, GVH94, GLLOB91, GS94c, GBE92, HL96b, HNS⁺97, HHP91, JG93a, JN93, JLNTR93, JJ98, JAdV96, JMH96, KID93, Kul90, Mar90, MM97, MJSV92, NBS94, NVS91, PKRR97, PLB92, PHG94, RPG⁺95, SS98a, SS98b, SMM97, TM95, TS99a, TMCM⁺96, VGN⁺92, vFB91]. **Carlo-with-minimization** [NVS91]. **Carlo/energy** [GBE92]. **Carlo/stochastic** [GS94c]. **carry** [CDG⁺99]. **Cartesian** [BH91a, Bak92, BB93, Bak93, BC96, BSB⁺97, JCV⁺93, KG91, KA92, RKL93, SG95]. **CASE** [KW91b, ACB97, BA94, ITP90, JTM⁺95, PFFF97, RHN94, SK92b, CKP96]. **CASPT2** [FA99]. **CASSCF** [Cul99, FA99]. **CASSCF-CASPT2** [FA99]. **Casti** [Gar90]. **catalysis** [GHS97, VCLB92]. **catalyst** [DBV98]. **Catalytic** [ACB97, MSSS95, vOC93]. **catalyzed** [Kat90a]. **cation** [Bau90, DW98, DvRSH94, FSCS99, GMO93, LP92, MV91, RK95, VW96]. **cations** [FW92, FSI95, LHBF93, Lóp95a, Lóp95b, RCvRS97b, RCvRS97a, RvRS98, VKC96]. **cautionary** [HHC90]. **cavities** [AW91, BLO94, PTCB99]. **cavity** [COR99, CMPT98, FW92, FRZ93, dVA92]. **cavity-induced** [CMPT98]. **CC1** [LBAO96]. **Cd** [FR94b, GG96, Ste91]. **CdS** [TP93]. **cell** [GPF97, SOL90]. **cellobiose** [HS93a, HS93b]. **cellooligomers** [HS93a]. **cells** [Ste98]. **center** [CDR⁺95, Cis93, FPC91, GZ95, HVvRS93, Jon91, SWS⁺90, ZL94]. **centered** [BW90, DK97]. **centers** [MRW91]. **centrifugal** [KK92]. **CEPA** [VHV90]. **CEPA-1** [VHV90]. **cephalothin** [FDMB93]. **cerium** [JDD97]. **CF** [BvH⁺92, KMM99]. **CFF95** [HKŠ⁺97]. **CFT** [Fro93]. **CH** [BSvRS95, JFR92a, JFR92b, KHA90, Luk94, SM91, SB92a, TDFdC91, VK94, Arn94, BADP92, BvH⁺92, DMV98, LSSvRS96, Luk94, MI99, vRSD92, TDFdC91]. **chabazite** [GHS97]. **chain** [BK97a, Dav93, DS92, GM90, HMČ91, KD96, KTnH99, LB96, LOP⁺97, PSW96, Rau96, RCvRS97b, TEHL93, VGN⁺92, PS91]. **chains** [GS94b, GJD94, HP94, PS91, PS92]. **chair** [HCK95]. **change** [SB99b]. **changes** [FPSK92, RK97, SV94, WMM⁺95]. **channels** [LZZ98]. **character** [CC98, LMB99, LB90]. **characteristic** [Bal91a, DOO93, VT91, Živ90]. **Characterization** [TNKM91, WS93, BL91, WAM91, Hal99b, SWAH91].

Charge [SK92a, AM99, ABE⁺96, BRC94, BNDS97, BBH99, CTJ⁺94, DJ92, FS91, HK92, KE95, KTnH99, LDM92a, MSZ96, Non97, Pac95, PSK98, PSY⁺99, PFM91, RC93, REA⁺98, RC95, SR94b, SMA92, SSRO92, SKOR93, WAM91, Wil94, WA99, YTRB97, CCBK95]. **charged** [Åqv96, BPC91, JAdV96, MSB95, MSB96, Mul91, RLG98]. **Charges** [Fer91, FCCG96, BT96, BCG97, BMK90, CT95, CNOJ93, CK91, CTC95, CMPT98, DH95, DJ93, FRR90, FS94, GP94, GK90, HE99a, HE99b, LLD98, Mar97a, Mar98, Mer92, Mul91, OL90, PNJS93, PKN⁺95, RM91, RL99, SWS⁺90, SR98, SCRI93, Spa96, SACKH95, SKM94, SW92, SW93b, Su93, TKF92, UF93, WF94, WLKJ92, WR93, WFR99, WKP⁺90]. **CHARMM** [DZSB94, HK⁺97, MKS90, HA95, Nic97]. **CHARMm(R)** [MR92]. **CHCFO** [BADP92]. **Chem** [Ano97]. **Chemical** [Che99, CW91, Rou90, TNKM91, BH98b, BKMM99, ENHE98, GH98, GM98a, HK⁺97, HB91, Jem97, JB98, KMM99, LBA⁺99, LW92, PFMI97, PS97, PT99, PD99, Ran92, SOL90, SVS⁺97, SKK⁺93, TRG99, TP93, VT91, WHHP97, WJL⁺96, Živ90, GBW98]. **chemical-kinetic** [Jem97]. **chemically** [TKTN99]. **chemisorption** [IRRR93, TP93]. **chemist** [Bow98]. **Chemistry** [Ano15, Dya98, MS89, BKMH97, BSL91, DKL90, DVJ⁺95a, DVJ⁺95b, Fel96, FTW⁺96, Had98, HGK⁺96, PLY98, Rog90, Rog94, Rog03, SOCF98, TYRD92, TSZ90, Var92, Zho97, Chr90, Mez91]. **Chemists** [Zup89, Gol92]. **chemometric** [dANS⁺96]. **ChemX** [GPPS91]. **CHF** [SB92a]. **CHFN** [BvH⁺92]. **chicken** [LK95]. **Chiral** [Pol93, DKL90]. **chloranil** [KT94, KTT95]. **chloride** [IMP91]. **chlorides** [WHM⁺96]. **chlorinated** [RLG98]. **chloroform** [DN92, SFB91, VW96, VHWC98]. **chloroform/water** [DN92]. **chloroformaldehyde** [VKC96]. **chlorosilatrane** [CH96b]. **CHO** [LDMS99]. **choice** [IC96]. **choices** [Bog99]. **cholesterol** [LYH⁺95]. **cholesteryl** [LYH⁺95]. **chromium** [Van97]. **chromophore** [Non97]. **chromophores** [Che95a]. **chymotrypsin** [TD95]. **CI** [BW91a, BMD99, Cul99, FPC91, Gri94, PS96a, PK91, RHKK90, SD90, WWZD92]. **CICADA** [KPI95, MK94]. **circuit** [KL91]. **cis** [ACD99, CK91]. **cis-** [CK91]. **cisplatin** [PSY⁺99]. **Cl** [AS98a, BSvRS95, JFR92a, JFR92b, SHM99, SM91, BKMH97, BBS96]. **class** [MHS⁺94, MHJ⁺98]. **classical** [BvGMP97, HHP91, KLR96, LMB96, SB98a, SHCR97]. **classical/quantum** [BvGMP97]. **classification** [IG94]. **clay** [TYMS98]. **cleavage** [AC92, BFST93, CLQSS98]. **CLOPPA** [CGdAC91]. **closed** [GS97, HBLL98, LLB99, PC94a, TP93]. **closed-ring** [TP93]. **closed-shell** [HBLL98, LLB99, PC94a]. **closest** [SA99]. **Closo** [TLBP99]. **Closo-Boranes** [TLBP99]. **closure** [PS91, WS99b, ZRVD93]. **cloth/\$89** [Dav97]. **Cluster** [BGZP97, SM94, CW93, CJC⁺93, GHS97, Har99b, HS99, IRRR93, NBB⁺99, RP99, RGK93, SCRI93, TP93]. **clustered** [BB98b]. **clustering** [Als95, SB99b, TvG94, VK97]. **clusters** [Art94, BHE⁺93, DV97, GYT⁺98, Hea90, HšR95, JKS93, KT91, LLD98, MvRSL⁺97, MFG91, NM97, PP97, SL95, TKSM96, TP93, UVRCR92]. **CN**

[DvRSH94]. **CNDO** [BMD99]. **CNDO/S** [BMD99]. **CO** [VHV90, Dav97, GBT97, BJ94, MRW91, Cha92]. **coarse** [LMFA92]. **coarse-grain** [LMFA92]. **cobalt** [UVRCR92]. **cobra** [SYHW99]. **cocaine** [Fro93, VL90, WNW91]. **code** [Ear90, LWNS95, MKF⁺97, RBC⁺98]. **codes** [DVJ⁺95a, DVJ⁺95b, FV98, IG94]. **coefficient** [KW91b]. **coefficients** [BH91b, Gen99, MN92]. **Collective** [GPB⁺97, TS99a]. **Collective-variable** [GPB⁺97]. **collision** [BB96b]. **collisional** [LB96]. **COLUMBUS** [DLS⁺97]. **column** [BR97]. **combination** [DS90, DRP98, HH99b, KV93]. **combinations** [Flo92, WSS99a]. **Combinatorial** [TSZ90, GM98b]. **Combined** [BMW⁺90, LS94, Rau96, YM98, BT96, BvGMP97, CCJ⁺99, CG90, CG98, ER95, FBK90, FG96, FUS⁺94, PPAS⁺99, GG96, SR92]. **Combining** [EKS97, WH93, ZS93, WS99a]. **CoMFA** [YC95]. **Comment** [SC99]. **Comments** [Bal91a, DHY90, Ste90, DW98, Hol93]. **commonly** [KNST96]. **Compact** [BC90, HS99]. **Comparative** [AGN⁺90, AVA93, GG96, HL96a, KF99, LIO90, PS98, AT93, Che95b, EPBD95, FSCS99, KHL96, NVS91, SR94b, YC95]. **Comparing** [FPRD99, GW98c]. **Comparison** [ALO94, AVP93, BP93b, Fag91, FGG⁺92, For91, GHS97, HVM99, HKŠ⁺97, KVKK93, KCK98, MSZ96, NBS94, OJL93, PFFF97, RC95, ST91, SS98b, SW93a, SR98, VVM93, VW91, WR93, WO97, Wib99, BP93a, Bak93, BC96, BKL⁺90, DHY90, FGBH90, FRR90, GWHD99, GGP96, GPPS91, GLoNP96, HL96b, JU91, KS96, KHL96, LHBF93, Luk94, MFG91, MJFT96, MLA⁺99, RK97, Ric91, RK99, RMS93, SSD93, STB⁺94, SLH96, Ste90, TS99a, TEHL93, VDF⁺97, WSV92, WCK96, AS97, BL91, FW93a, FV98, HVvRS93, HW97, Her97, JB95, JVB95, JLW99, Kna92, NSA⁺97, PK95, SUG92, Sul95, TRG99, WHM⁺96, WWF95]. **comparisons** [FZL97, HO97]. **compartmentalization** [SOL90]. **Compatibility** [RW99]. **complement** [SSRO92]. **complementarity** [MV91]. **complete** [WAM91, ZPV⁺96]. **completeness** [BKL⁺90]. **complex** [ACD99, Büh99, CFK97, CLQSS98, CR95, CG94, DKJ96, KTT94, KTT95, MGLL99, MP90, NBG93, PDPM97, Yos90, ZS99, ZHSB92]. **complexation** [VHWC98]. **complexes** [Bér97a, BF91, BBS96, CDG⁺96, CHPK91, CA95, CY98, FR90, GGK98, GMY97, GSK95, GMO93, Had98, KT93b, KTT94, KTT95, LHBF93, MM93, Mag95, MKF⁺97, MV91, PKCM99, RCAA99, SCZC99, SH91, SR90, SSO94, TRG99, VW96, VHWC98, VHV90, ZY96]. **component** [HBLL98, HNS⁺97, MPJ98, MPJC98, SSR94, SSR95, SFB91, TEdV90, VES⁺99]. **components** [Gao97, SWOW97]. **composed** [CDG⁺99]. **composite** [Bec99a]. **composition** [BW91a]. **compound** [FDMB92, GSB99, PSK98]. **compounds** [AF94, Ano97, BCMZ99, BCF⁺92, BH98b, BBH99, DDV93, DDLV95, DVL90, ER95, FA94, FRC91, FM94, FSCS99, GPSS93, HDA93, JFR92a, JFR92b, KSP90, LA90, LJ92, LDJ92, LDJ⁺97, MHJ⁺98, MNVM97, Mar98, MSB95, MSB96, PK95, RdBN90, RR92, Rod94, SHM99, SI93, SW93a, SR94b, SUG92, TA98, TYMS98, VF92, VW91, WZG⁺93, WO97]. **Comprehensive** [PSY⁺99, MTRJ95]. **compression** [FW93b, She90, SCC93]. **compuational**

[For91]. **Comput** [Ano97]. **Computation**

[COR99, GS93, TE_dV91, TRLRB96, BMD99, CS94, FO_{CB}96, GM90, G_O95, Klo97, MD95, MOSD97, MGPR90, Ove91, Pa_ST94, Ran91, RM91, RK99, SAF93, Sun94, Tav96, VT91, WWSS98a, WWSS98b, WHHP97].

Computational [Ano15, BSGB98, CY98, DKL90, LSDB99, MM93, PC94b, Rog90, Rog94, Rog94, Rou90, TNKM91, WP96, Zho97, Bog99, BSL91, Chr90, EA93, Fel96, FTA91, FTW⁺96, GSB99, Hal96d, HGK⁺96, MFG97, PC93, SSM96, SE94, SW93a, SR90, TYRD92, WJV⁺96, Ran92, Var92].

computations

[ACFO91, FR94b, Gre95, KL91, KV93, RRR92, TRR⁺94, VS97]. **compute** [ALO94, BG93, OL90]. **computed** [BR97, Fro91, PE92]. **Computer**

[Bal90, Bal91b, Bal93, LB90, TNKM91, DVJ⁺95a, DVJ⁺95b, Ear90, Elv91, HL96b, HEN⁺94, HR97, KW91b, KF94, KUT⁺97, LL94, Mez92, RPG⁺95, SLG93, VP92, VH99]. **computer-aided** [VH99]. **computer-assisted** [LL94, VP92]. **computers** [BBR96, BDKJL95, CS90, DK93, DPK94, FK95, HA93, LBI⁺97, MD95, MOSD97, MTBS91, RBC⁺98]. **Computing**

[ABE⁺96, ZM90, Dum91, HB91, Ish98a, OS91, ZV96, STPA91]. **concentrations** [CR95]. **concepts** [Bic99, PM93, JM90, Klo92]. **concerning** [TMB93]. **concerted** [Bau90]. **Concise** [ABD90]. **concurrent** [CMC92]. **condensation** [DLM⁺98]. **condensed** [CBSB94]. **conditions**

[CHP91, För92, MSZ96, SKT93, YKU96]. **configuration**

[BBR98, CGBC96, DLS⁺97, DKH98, GBE97, PS96a, RBE98, RSK92, SWK99]. **configuration-selecting** [SWK99]. **configurational**

[AGM91, CLO99, WJV⁺96]. **configurations** [Kri90, TvG94].

Conformation [CH88, JFKK94, TK94, ATK94, Cri92, GM90, HO93, HNS⁺97, HM_C91, JLW99, KD96, KPR91, MJ93, MM94c, WP97, Dun90]. **conformation-dependent** [GM90]. **Conformational**

[AVC93, BCMZ99, BFST93, CT97, CSR92, CC91b, DRF92, FBTD92, Fro93, GJK⁺93, GW95, GK93, HS93a, HP94, HCCC99, JJTP93, KS96, KG91, KPI95, KTS92, LK92, LLD98, MNVM97, MR93, MRG97, Nic97, PG91, SSD93, SMM97, SM91, SW92, SW93b, Sul95, SK92b, SSO94, SSRS94, TGW96, TJP96, UF93, VGN⁺92, ZLM92, Art93, AW90, BPS93, BP93a, BKL⁺90, BW90, CHSK96, CÉC97, FGG⁺92, FRC91, FPR97, FCS98, GLP95, GS91, GBE92, GPPS91, GLoNP96, HN96, Hal99b, HKK91, HBR⁺99, IMP91, JLW97, KMKW98, KG99, Kuc96, LPD90, LP90, LSR97, LSDB99, LCA94, MK98, MK94, MJFT96, MJSV92, NBS94, NIS98, NWÅM95, PD92, RJP97, RD97, RPR⁺98, ST92, SB98b, STT95, SB99b, SACKH95, Sun94, SG95, VRC91, VRC92, VTR⁺94, VL90, WMM⁺95, Wan97, WHF97, WSV92, WCMS91]. **Conformational** [BP93a, BB96a, Cso93, Gio98, KG93, LSR97, PHG94]. **conformational-determining** [NWÅM95]. **conformationally**

[KVL91, MKS90]. **conformations** [ALPH91, BK97a, BGZP97, BSV94, Dav93, FM94, GHR93, HCK95, KF99, LHBF93, Luk94, Mez98, Obe98, PS91, Par99, PMIB99, SSD93, SM94, Sno92, TEHL93, Wel90, vFB91]. **Conformers** [ZCP98, BSC⁺98, BB95, FLPH98, PFC96, PE92, Sau91, SJV93, WMM⁺95].

congener [GPK95]. **conjugated** [ALYT90, BB96a, KL91, MSB96, NLA96, NA96, TA98]. **conjugated-circuit** [KL91]. **conjugation** [Che95b, CD97, WMM⁺95]. **connection** [AB98a]. **connectivities** [GM98a]. **conquer** [PLY98, SHCY93]. **conrotation** [MQS⁺97]. **Consensus** [BBH99]. **Consequences** [LP99, BvH⁺92]. **conservation** [Har93, ZS95]. **Conserving** [KHW⁺90]. **consideration** [CD97, fGGG94]. **considerations** [KT93a]. **Consistent** [AJ99a, AJ99b, GH98, FRSNS92, FCNSÁ98, FW92, FM91, Gre95, HOL98, HGK⁺96, JHB96, MPJ98, MPJC98, RW99, TRR⁺94, WH95]. **constant** [ACRC97, EGH⁺93, GdAG⁺98, MGLL99, McD97, YC95, SB99a, SW96b]. **Constant-NT** [SW96b]. **constants** [BP98, BPC91, CGdAC91, Dum91, DBT98, FM99, FPL95, GKM94, GH97, KHF90, KHF91, KK92, MFG91, PPK92, Phi90, Pol93, RCAA99, WL91b]. **Constrained** [BB93, Bak97, BKLS95, Bla91, DKRK95, FSW96, Bak92]. **Constraint** [WS98, FS98a, FS00, GK90, HBBF97]. **constraints** [KID93, LZT91, PHG94]. **Construction** [CHP90, PPK91, FTW⁺96, RWB99]. **containing** [BCB⁺97, BB98a, CW91, DJ94, HBLL98, HDA93, IS91, LA90, Mar98, MSB95, MSB96, PKN⁺95, SAF93, SEJ95]. **Continuous** [KRL⁺93, SA99, CBR97]. **continuum** [BCT98, BF96, CTC95, CMPT98, FTA91, GMM95, HY96, MRS98, PT98, PTCB99, PKCM99, PN95, RCB99, SC99, TRLRB96, WS99a, Zau91, dVA92]. **contouring** [ELA⁺95]. **contracted** [BC90, DKH98]. **contribution** [GdAG⁺98, LM96, Ove91, VRV99]. **contributions** [FTA91, LLB99]. **controlled** [SHHČ90]. **controlling** [BSC⁺98]. **conventional** [AB98a]. **convergence** [AL98, BBR98, DM91, DBS96, MM93, Pea94]. **convergent** [GS94c, She90]. **conversions** [BRLD92]. **cooled** [Sul95]. **cooperativity** [LKC⁺98]. **coordinate** [Bec98, FZL97, GLP95, Ish98a, JDD97, JLN98, KG91, KG93, Maz97, Pol93, TA94]. **coordinated** [BBC⁺98]. **coordinates** [AC94, BH91a, Bak92, BB93, Bak93, BC96, Bak97, Bec97, Bér97a, BSB⁺97, CMC96, LPK99, ML91, MKS97, NIS98, PPK92, PASF96, PP98, RS92, SG95]. **Coordination** [Mar90, GS90d]. **Copenhagen** [Tay99]. **copper** [CG93]. **core** [Cso93, Ear93, GC97, HHC90, KS97, LL92, RCATD96, SR94b]. **core-repulsion** [Cso93]. **corrected** [HVM99, KK91]. **Correction** [CMPT98, CFK97, DW98, GW91, PS98, SKOR93, TEdV90, VVM93]. **corrections** [Ano97, Bec99b, FV98, Klo97, Kut99]. **Correlated** [Gen99, RSK92, VRV99, KA92, KK91, PL94, SKA93, SLH96, WLKJ92, ZA94, ZKA94]. **correlating** [KNST96]. **Correlation** [KHF90, KHF91, dVA92, BPP90, BP93b, BSN99, CB96, DH90a, FR94b, Gen99, GCG97, HKY98, HHC90, ISH98b, Klo97, MAP97, MPJ98, MPJC98, RW99, SI93, SS97, SB92a, SBS99, TA98, Zho93, ZL94, BW91a, SYHW99]. **correlation-consistent** [RW99]. **corresponding** [BMN95, Mit94]. **cosistent** [RRR92]. **Coulomb** [ADG99, KHL96]. **Coulombic** [LLD98, SKT93]. **Counterpoise** [KK91, TEdV90, TEdV91]. **counting** [BK97b]. **Coupled**

[CG97, CG99, FKN⁺93, Kar99, MRS98, RGK93, SHM95, TMCM⁺96]. **coupled-cluster** [RGK93]. **coupling** [BBR98, BSN99, CGdAC91, EGH⁺93, GdAG⁺98, RCAA99, TEdV90, VES⁺99]. **couplings** [O'm99, VRV99]. **covalent** [ER95, WB91]. **CP** [TEdV90]. **Cray** [SOCF98]. **Crick** [SCZC99]. **Crippen** [Dun90]. **criteria** [RWB99]. **criterion** [RBC⁺98, Yos90]. **Critical** [CEÁ92, EK97, SSV93, DV99, FB97, Gri90, HD92, MvRSL⁺97, MFG91, TEHL93]. **critical-point** [FB97]. **crossing** [AB97, FD91]. **crown** [LHBF93, SK92b]. **crown6** [VW96]. **cryptand** [AW90]. **cryptophane** [PKCM99, VHWC98]. **Crystal** [MvEP⁺98, YTT97, HDA93, KG92, KRL⁺93, KRM92, LOP⁺97, PRRD98, VK97, VTR⁺94, WS93, WPLC95, WJL⁺96, vEK99]. **crystalline** [DDV93, DVL90, EKS97, HYH⁺94, TM95, Dil95b]. **crystallography** [BSL91, SYHW99]. **crystals** [ACRC97, FCNSA98, KVKK93, LYH⁺95, SWAH91]. **Cs** [JLN98]. **Csonka** [Ano15]. **Cu** [SWS⁺90, SMA92, TKSM96]. **cube** [HTC98, HGB93]. **cubic** [ACRC97, ELA⁺95]. **Cumulative** [Pet93, SSRO92]. **curves** [BG93, PLB92, WB91]. **cutoff** [GZ95, SB94]. **CVFF** [HKŠ⁺97]. **cyanates** [LS98]. **cyanoketene** [CLQSS98]. **cyclic** [Che95b, CD97, HVvRS93, KG93, KHG96, MV91, NBB⁺99, PD92, PHG94, TA98]. **cyclization** [LK90]. **cycloaddition** [ARLG⁺94, NVER97, SSQ92]. **cycloadditions** [CN98, MP98]. **cycloalkanes** [Cri92, WA99]. **cycloalkene** [SJV93]. **cyclodextrin** [BPZL96, WSV92]. **cyclohexaglycine** [BB95]. **cyclohexanetriol** [BPZL96]. **cyclooctadiene** [RD97]. **cyclooctane** [RPR⁺98]. **cyclopentadienyl** [RvRS98]. **cyclopentane** [CHSK96, Jai90]. **cyclopentenes** [Bal98]. **cyclopropeniumyldiazonium** [Gla90]. **cytochrome** [BO93, HL96a, Kat93]. **cytosine** [RTGJ98, SLH96].

D [AT93, AVC93, AVP93, BO93, Ear90, GH98, MNVM97, MK94, NL91, SHCY93]. **D-CICADA** [MK94]. **D-norcamphor** [BO93]. **data** [Als95, BG93, BB98a, FSW96, FM94, GSB99, Hal96d, HGB93, HBR⁺99, KFML99, LHBF93, LOP⁺97, MTH94, MM97, Mer92, MLA⁺99, NL98, PGAL93, RGK93, SAdV97, She90, SC95, SYHW99, VTR⁺94, WAW⁺97, YB94, YB95b]. **database** [EK97, MK97a, AGN⁺90, LHBF93]. **databases** [Fel96]. **David** [Dav97]. **Davidson** [Cis93, VVSV96, vLP90]. **Davydov** [Für92]. **DD** [BSL91]. **DD-peptidase** [BSL91]. **DDRP** [DBS93]. **dead** [GM98b]. **dead-end** [GM98b]. **deaminase** [HK90]. **deazaguanine** [KG99]. **deazapterin** [CG96]. **debate** [Ove91]. **deca** [KG91]. **deca-alanine** [KG91]. **decahydroisoquinoline** [MR93]. **decarboxylation** [NBG93]. **decaying** [LP99]. **Decomposition** [KTT94, KTT95, ABBC99b, BBR96, DH90b, LZZ98, WAW⁺97, YB94]. **Decoupling** [BBS96]. **dediazoniation** [Gla90]. **dedicated** [CGBC96]. **deduced** [Pac95]. **deduction** [Cri95]. **defined** [DBS96]. **defining** [PP98]. **DefPol** [PT98, PTCB99]. **degenerate** [Ber97b, GML94]. **degradable** [PC94b]. **degradation** [PC93]. **degrees** [Bér97a, DMB91, SEJ95].

dehydroamino [AGP91]. **dehydrogenase** [vOC93]. **delocalized** [Bak97, RCv96, RCvRS97b]. **Demonstrations** [DPK94]. **Dennis** [Ran92]. **dense** [CRME93, CB96]. **densities** [LP99, Mez98, O'm99, WAM91]. **Density** [CAC99, HsR95, Jur96, RJP97, SHM99, VKC96, AB98a, ACD97, ACD99, Ano15, AGM91, Bec99b, Ber97b, BKMH97, BW90, Che99, CRP97, CH96b, CEC97, CNK97, ED99, ES99, For96, FV98, GWHD99, Gla90, GPF97, GHT98, GW91, HGC⁺95, HK95, JJ98, KS96, KA96a, KE95, Koh99, KCK98, LSCA98, LDG99, LMB96, LWNS95, LP99, LBA⁺99, LKLB⁺99, MvRSL⁺97, MSDC94, MRS98, MN92, MPJ98, MPJC98, MTR90, NSA⁺97, NVK⁺97, O'm99, Pac93, Pac95, PSY⁺99, PK95, Rau96, RW99, RTGJ98, SLPP97, SBA97, STB⁺94, SLH96, SOL97, SACKH95, SHM95, SVS⁺97, TMCM⁺96, Van97, Van99, VA98, VSF97, Wib99, ZG92]. **density-dependent** [Pac93]. **deoxythymidine** [ST92]. **dependence** [HK95, JJ98, MN92, SBA97, SB92a, SW92, SW93b, UF93, RE99]. **dependency** [GKM94]. **dependent** [BBvG95, DH95, GM90, KVL91, KD91, MKS90, Pac93, RNDP98]. **depleted** [LBA⁺99]. **Derivation** [DA96, GDK92, MHS⁺94, MHJ⁺98, WKP⁺90, CCBK95, Hil97, Su93, Din91b]. **derivative** [BB96a, JK98, Mil90, SMS98, SFB91, TA94, AS98b]. **Derivative-free** [AS98b]. **derivatives** [AYC94, AS98b, AHLR⁺91, BPZL96, BK96, CW91, CMC96, DH90b, GS90a, HI98, HMČ91, HWH⁺91, KHB92, KB92, KPR91, LKL⁺97, LBB94, LFB96, MOSD97, McD96, NIS98, PT96, Pea94, PCG⁺92, SK92a, SNS95, SB92b, VTR⁺94]. **derived** [ALO93, BC93, BCG97, BMK90, CNOJ93, CK91, DMB91, DW98, FRR90, Fer91, HE99a, Kik96, Kik99, Mar97a, Mar98, Mer92, PS91, PS92, RC95, SSD93, Spa96, SBS99, SW92, SW93b, UF93, WF94, WR93]. **deriving** [SR98]. **describing** [HS99, MLAT99, MLA⁺99, SOL90]. **description** [BMD99, EBD⁺99, GLP95, GGP96, JB98, KE95, LDG99, PSK98, PAS90, PaST94, Sie96, STPA91]. **descriptions** [MM94a]. **Descriptors** [NS98, BR97, KHL96, SKB92]. **Design** [CPR90, LJKL98, SLPP97, Tay99, ATK94, AFK⁺95, CS94, DKL90, LL94, TMK⁺99]. **desulfuration** [Kat93]. **detailed** [ABE⁺96]. **Detection** [AW91, WSS99b]. **Determination** [FSW96, ML91, PNJS93, PKN⁺95, YSJ95, EGH⁺93, FD91, Gen99, LPW⁺97, MLBD92, MJ93, NKA98, PCG⁺92, YB95a]. **determined** [PK98, WWXS97, Zau91]. **Determining** [BW90, NWÅ95, SR90]. **deterministic** [KFML99]. **deuterium** [EGH⁺93]. **developed** [DHHY90, Ste90]. **Developing** [HS95b]. **Development** [BCB⁺97, DW98, JLW97, OBL95, RBC⁺98, SGB91, SLG93, TH93, TMK⁺99, BDKJL95, CC91a, Dil92, KHB92, LCD⁺97]. **developments** [WP96, CE96]. **Dewar** [BRD92]. **DFT** [AS98a, BJ94, BKMM99, GMY97, KMM99, KPSM98, PS97, PS98]. **DFT-predicted** [AS98a]. **Diabatic** [KCK97, PLB92]. **diacetate** [Fag91]. **diagonal** [CHSK96]. **diagrams** [KRL⁺93]. **diamines** [LSDB99]. **diaminobenzene** [KTT94, KTT95]. **diammnedichloroplatinum** [ACD99].

Diamond [DH99]. **diastereoisomers** [BH91b, IMP91]. **diastereomeric** [SR90]. **diastereomers** [VL90]. **diatomic** [BW91a, DKK⁺93, DKK95, Din91a, HK95, HMS93, KTK93, KK92, LKLB⁺99, MAP97, Mit98a, Net94, RL95, HI98]. **diaza** [JZ96]. **diazabicyclo** [SHHČ90]. **diazomethane** [NVER97]. **Diazonium** [Gla90]. **dibenzo** [MGPR90]. **dibenzo-** [MGPR90]. **diborylmethane** [MQS⁺97]. **Dication** [GCG97]. **dications** [Gla90]. **Dielectric** [DM91, ACRC97, BNDS97, PN95]. **Diels** [LV90, SBM97]. **dienoic** [LH96]. **difference** [BNDS97, CGBC96, DM91, LDM92a, LDM92b, MM91, NH91, Sha91, SW96a, SW96b, ZYY95b, ZPV⁺96]. **difference-dedicated** [CGBC96]. **differences** [BCF⁺92, ER95, RE99, SQ95]. **Different** [BKL⁺90, KHL96, BK97b, DDLV95, FA99, JB95, KRL⁺93, LIO90, WR93, WO97]. **differentiable** [AS96]. **differential** [SOL90]. **Difficulties** [BSS97, MM91]. **diffraction** [WJL⁺96]. **diffuse** [AG90]. **diffusion** [KA96b, SOL90, Tel90, Vas92]. **difluoro** [LCA94]. **difluoroethane** [SB92a]. **dihedral** [CNS96, GS90a, KG91, SG95, TGW96]. **dihydro** [CLQSS98, FLHP97, FLP98, PFLH93]. **dihydroanthracene** [SR92]. **dihydrofolate** [CG90, CG94, CG96, CG98, LK95, Wel90]. **dihydronicotinamide** [CG90]. **dihydrophenanthrene** [SR92]. **dihydropyleiadene** [SR92]. **dihydropyridines** [BHK⁺91]. **diimine** [SE94]. **dimension** [Mit94]. **dimensional** [CCN90, CNS96, CF97a, CBSR99, HYH⁺94, KTnH99, NL91, NBB⁺99, RPGS97, YB95a]. **dimensions** [BW96, SB98a]. **dimer** [FS98b, HREK98, KS96, MFG97, SLH96]. **dimeric** [MSSS95]. **dimerization** [LV90, SBM97, PB92]. **dimers** [AG90]. **Dimethoxy** [WJL⁺96]. **dimethoxymethane** [KA96a]. **dimethoxyphenyl** [WJL⁺96]. **dimethylaniline** [VTR⁺94]. **dimethylcycloheptane** [LCA94]. **dinitrosoethylenes** [SCP92]. **dinucleoside** [BB98a]. **diox** [FLHP97]. **dioxanes** [HCK95]. **dioxene** [FLHP97]. **dioxide** [BDH⁺94, JU91, MRW91, NBG93, RMW91]. **dioxin** [FLHP97, PFLH93]. **dioxins** [MGPR90, RLG98]. **dioxirane** [BSGB98]. **dipalmitoyl** [CCJ⁺99]. **dipalmitoylphosphatidicholine** [SB99a]. **dipalmitoylphosphatidicholine/water** [SB99a]. **diparmitoylphosphatidylcholine** [TM95]. **dipeptide** [MKS90, PF99, RL99, SMM97, WWXS97]. **dipeptides** [SSRS94, SSR94, SSR95]. **diphosphate** [HCCC99, HCCC99]. **dipolar** [CN98, GC98, MP98, SSQ92]. **Dipole** [McD96, HMS93, SACKH95, SFB91, XWS92, ZFYY95, XWS92]. **dipoles** [MM94a]. **Dirac** [CLCL96, PC94a, SCMV97]. **Dirac-Fock** [CLCL96]. **Direct** [GBE97, MM94c, PS96a, VÅJ94, BP98, BHE⁺93, DKBS97, DBT98, FKN⁺93, FK95, IC96, Klo97, KTnH99, LMFA92, MVS92, MJFT96, NS95, WWZD92, RBE98]. **Direct-list** [GBE97, RBE98]. **directed** [Bal91b, LP90]. **Directional** [LA98]. **directly** [BG93]. **disaccharides** [DRF92]. **Discrepancies** [SS95]. **Discrete** [CBR97, RL95, Pet93]. **disilane** [CRP97]. **disiloxane** [CER94]. **dismutase** [SWS⁺90, SMA92]. **disordered** [FB97].

Dispersion [FTA91, LLB99]. **Display** [SR94a]. **disrotation** [MQS⁺97]. **dissociation** [Kri90]. **dissociative** [PLB92]. **dissolved** [DS92]. **Distance** [CH88, Bal90, GHR93, GHR94, JCV⁺93, PD92, Pet95, WSV92, PP97, Dun90]. **distances** [Kik96, Kik99]. **distinct** [GSB99]. **distorted** [ATK94]. **distortion** [KK92]. **Distributed** [RGK93, BDKJL95, CS90, DK93, Fer91, FK95, Lim97, LMCPP92, MD95, MOSD97, PFM91, WPLC95, CS96]. **distributed-memory** [CS90, DK93, LMCPP92, CS96]. **distribution** [ABD⁺98, CNS96, DA96, GZ95, HK92, Non97, RM91, SR94b, SKOR93, VGN⁺92, VSF97]. **distributions** [FS91, PFM91, RMS93, SK92a, YTRB97]. **distyrylpyrazine** [ENHE98]. **disubstitution** [WZG⁺93]. **disulfide** [GS97]. **dithiin** [FLPH98, PFLH93]. **Divide** [SHCY93, PLY98]. **Divide-and-conquer** [SHCY93, PLY98]. **DMA** [PSK98]. **DMA-DMPP** [PSK98]. **DMC** [MJSV92]. **DMPP** [PSK98]. **DNA** [BB98a, CDG⁺96, CCBK95, DZ97, FOCB96, FZL97, FW91, GPB⁺97, HNH⁺91, HKŠ⁺97, RTGJ98, SUG92, SWOW97, ZS99]. **DNAs** [SWOW97]. **Docking** [APC98, CFK97, JTM⁺95, ATK94, CA95, DV99, EK97, GSB99, GVD96, KG99, MK97a, MK98, MSK92, MGH⁺98, SKB92, TS99a, TS99b, VHKB98, VHD⁺98, Wan91, ZS99]. **Does** [vRSD92]. **DOI** [Ano15]. **domain** [WAW⁺97, YB94]. **Donald** [Var92]. **donor** [GC98]. **dopamine** [Fro93, GH98, UF93]. **dot** [ELA⁺95]. **double** [DNC96, ELA⁺95, GML94, JB98, RSK92, SWOW97]. **double-excitation** [RSK92]. **double-helix** [SWOW97]. **double-iterated** [DNC96]. **drive** [Jai90]. **driven** [RPG⁺95, WWZD92]. **droplet** [EJ95]. **Drug** [LJKL98, Tay99, CS94, Cri95, PM93]. **drug-design** [CS94]. **DSP** [ENHE98]. **dual** [AL98]. **dual-topology** [AL98]. **due** [SF92]. **Dunham** [Mit98a]. **during** [Dav94b, FS94, KHW⁺90, MS98]. **dye** [ENHE98]. **dyes** [Che95a]. **Dynamic** [YB95b, ACRC97, GVD96, MvRSL⁺97, PM93, RL95]. **dynamically** [DBS96, FB97]. **Dynamics** [GS90a, AFK⁺95, AW90, BBR96, BKLS95, BO93, BvGMP97, BSS97, BBS96, CCJ⁺99, CHSK96, CG96, CG98, DOO93, DDV93, DK93, DS92, DVL90, DBT98, DV97, EGH⁺93, EGHT97, Elv91, FSW96, FHB99, FBK90, För92, FW91, Gen99, GS90b, GMM95, GJD94, GT98, GS94c, GK93, HS93a, HS93b, Har93, HTC98, Her93, HYA92, HEN⁺94, HYH⁺94, HBR⁺99, JP92b, JVB95, JMH96, KR96, KLR96, KG91, KHW⁺90, Kna92, KID93, KUT⁺97, KVKK93, LK95, LPK99, LB96, LHF93, LCA94, LLD98, LBI⁺97, LMCPP92, MV91, Maz97, MTBS91, MN95, MJSV92, NQ99, NSW90, OS94, OL93a, OM96, OC98, PMIB99, PH96, PKCM99, PDPM97, RBC⁺98, SSD93, SAdV97, SN99, SS98b, SHCR97, Sha91, SWM90, SN91, SMA92, Ske91, SMM97, SB99a, SWOW97, SM90, SK92b, SYHW99, SG95, TMB93, TYMS98]. **dynamics** [TvG94, TMK⁺99, TWR⁺95, VDF⁺97, VWGF95, WWXS97, WSV92, WAW⁺97, WS98, YKU96, Yos94, Yos96, YB94, YB95b, ZS93]. **dynamics-based** [HBR⁺99]. **dynamics/Monte** [MJSV92, SMM97].

E2 [Bic99]. **ECEPP** [RPG⁺95]. **Eckart** [AC94]. **Econometrics** [Gar90].

Economical [HKY98]. **ed** [Ran92]. **Edited** [Dav97, Tay99, Chr90]. **Editor** [vRS98]. **Editorial** [AvRS93, AvRS96a, AvRS96b]. **eds** [Klo92]. **Effect** [ABD⁺98, BPP90, CTJ⁺94, ČTS98, MGLL99, Non97, TA98, AG90, CPJ98, FRC91, FVR92, FM94, JZ96, Kar99, KA96a, KHA90, MLBD92, SJDW90, SLD⁺90, WS99a, KVKK93]. **Effective** [BADP92, PTCB99, RL99, Ear93, GC97, HNS⁺97, Kik99, LL92, RCATD96, SR94b]. **Effects** [Dya98, GZ95, GCG97, SR90, WL91b, Åqv96, ACB97, ACK⁺96, Arn94, BFH94, CT92, CG96, For91, FRZ93, GC98, GG91, GK93, HBLL98, HS99, HKY98, IS91, JU91, KJ97, LO98, MRH99, MRS98, PSK98, PMIB99, PC94b, SAdV97, SI93, SMA92, SSV93, SH98, SMF91, SKK⁺93, TRG99, VB93, WCK96, YL90, ZV96, dVA92, SS97, WZG⁺93]. **Efficiency** [BM99, MM97, BKL⁺90, CW93, EA93, ET98, FHB99, OM96, SS93]. **Efficient** [ADG99, CSC96, CBSR99, GLP95, GM90, RS92, SKT93, TA94, TNS97a, Wan97, vFB91, AS96, BMN99, CBSB94, FB98, GS94b, HS95b, KOH97, KV93, NIS98, PS97, SC95, SJ95, ZV96, ELA⁺95, FCS98, FS98a, FS00, KMKW98, WHHP97]. **EHMO** [IMP91]. **EICP** [TEdV91]. **eigenvalues** [BB98b, CMC92, Mit94]. **eigenvector** [KV93, vLP90]. **eigenvectors** [CMC92, Mit94]. **ELECT** [MK98]. **Electric** [HMS93, CEÁ92, GSW90, McD97, Wil94, ZM90, ZYY95a]. **electrolyte** [YL90]. **Electron** [BSN99, FSCS99, LTHY96, LH99, PD99, AGM91, AD90, BPP90, CW97, CC98, Cul92, FPC91, FW93b, Gla90, GCG97, GLLOB91, HKY98, HWH⁺91, Ish98a, JCV⁺93, JFR92a, JFR92b, Jon91, Klo97, KS97, LP99, LBA⁺99, MSDC94, Mez98, Pac95, PLB92, SSM96, SI93, SR94b, SS95, SCMV97, TA98, Van99, VSF97, WAM93, WCC91, YG92b, YG92a, Zho93, ZL94, ZG92, dVA92, ABD90, NVK⁺97]. **electron-repulsion** [Jon91]. **Electronegativity** [HD92, PNJS93, PKN⁺95]. **Electronic** [Dav97, MTR90, RdBN90, ACD99, BA94, BCFM98, Bog99, BR97, Cai94, CBWF98, CJC⁺93, DKJ96, FRSNS92, FRZ93, LWNS95, Lóp95a, Lóp95b, MvRSL⁺97, MM93, MKF⁺97, PZBM98, SV94, SD90, SBB⁺93, SC91, TAC98, UVRCR92, WAM93, Wel90, WLKJ92, Yar95, ZM99]. **electrons** [SWOW97]. **Electrostatic** [BF91, FRZ93, LDM92a, Mag95, PK98, PSW96, SW96a, Åqv96, AGN⁺90, ALO93, ALO94, AVA93, AHLR⁺91, BT96, BRC94, BCG97, BF96, BCF⁺92, BW90, BNDS97, BBH99, CPR90, CK91, DM90, Din91a, DA96, DP95, DKBS97, EGHT97, FOCB96, FRR90, FW93a, FCCG96, GMM95, Hal96b, HE99a, HE99b, KKJ97, KHL96, LCW93, LIO90, Mar97a, Mar97b, Mar98, Mer92, MGPR90, NTK96, Non97, OL90, Pet93, PS96b, PFM91, PDPM97, RC93, Ric91, RC95, RMS93, SAdV97, SWS⁺90, SKT94, SR98, SSRO92, SOL97, SACKH95, SW92, SW93b, Su93, SJ95, UF93, VS97, WF94, WLKJ92, WA99, WPLC95, WKP⁺90, ZV96, Mar97a, Mar97b, WM94]. **electrostatically** [RPG⁺95]. **electrostatics** [Bec99a, BWS⁺95, SC99, WS99a, YL90, YH93, Zau91]. **element** [BvGMP97, BWS⁺95, CF97a, CF97b, FR94b, FRZ93, FUS⁺94, NL91, PN95, Pur98, VS97, WWXS97, YL90, YH93, ZV96]. **elementary** [ACD97, VP93].

elements [AJ99b, AC94, IG94, KTK93, LH99, Mil90, SB95, ZL94].
 elimination [GM98b, ZPV⁺96, BK96, GPF97]. ellisoidal [FW92].
 elucidated [KG99]. elucidation [MK94, VP92]. elusive [Har99b].
 embedded [GHS97, ZY96]. embedding [CSR92, Cri92, IRRR93]. emphasis
 [WHF97]. Empirical [RCvRS97b, RCvRS97a, BFST93, Dil90, Dil92, Dil95a,
 Dil95b, DW98, EJ95, Hal96d, HG93, HNH⁺91, HK⁺97, MKS90, MGH⁺98,
 NTK96, RK97, RCv96, SLH96, VB93, YM98]. empirically [SB90].
 employing [SLPP97]. enamines [AYC94]. enantiomeric [DKL90].
 Enantioselective [BPZL96]. enantioselectivity [Aer95]. end
 [BH91a, GM98b]. ended [ABD90, AD90]. endo [CGdAC91, JZ96].
 endo-endo [CGdAC91]. endo-lone-pair [JZ96]. endohedral
 [KT93b, NKA98]. ene [FLHP97]. energetic
 [CC91a, GK93, KS96, MvRSL⁺97, MGH97]. Energetics
 [AIDAVB98, Gre95, GG96, JMH96, MI99, SS97, TRG99]. energies
 [Åqv96, ADG99, BRLD92, BL91, BKMH97, BB96b, CNOJ93, Che95b, CB96,
 CD97, CPS90, CW93, Cul92, CG94, CG99, ENvRS94, FR94b, FW92,
 FLPH98, Gri94, GPPS91, GLoNP96, HVM99, HN96, Hal99b, HT99a, HL96a,
 HW97, HE99a, HYA92, HCK95, Klo97, KA96a, KTT94, KTT95, LCW93,
 LH99, LDM92a, LW92, MFG97, Mez92, MLA⁺99, ML92, Nic97, OJL93,
 PG91, PE92, Pur98, REA⁺98, RC95, SVM99, SBA97, SACKH95, SR90,
 Sun94, SJ95, SF92, TRLRB96, VVM93, Van97, VF92, Wel90, WM94, WO97].
Energy [Gao97, GS97, HS95a, Pul97, AVP93, AC94, AS98b, AB97, AL98,
 BG93, Bec98, BK97b, BJ94, BADP92, BB95, BW91b, BR97, Bru93,
 CHPK91, CBIT94, CT99, CNS96, CKP96, CP92, CK91, CBSR99, CLS⁺97,
 CG98, DPK94, DB98, DH90b, DH94, DvRSH94, DKRK95, DS90, DP95,
 DRP98, ER95, FD91, FOCB96, FPSK92, FTA91, FPRD99, FV98, FS98b,
 GJR91, GS90a, GS94a, GS94b, GS90c, GLLOB91, GSK95, GBE92, Hal99a,
 HK90, HL96a, Har93, HTC98, HE99a, HREK98, HHC90, IBKvRS92, ITP90,
 JP92a, Jen94, JZ96, KOH97, KOH98, KHW⁺90, KF99, KKE93, Kuc96,
 Kul90, KRB⁺92, KRB⁺95, KPV96, KPR91, LSR97, LPK99, LMA99, Lim97,
 LW94, LP99, LPW⁺97, LLB99, LDM92a, MAP97, MD95, MOSD97, MTRJ95,
 MSK92, MM91, Mit98a, MGH⁺98, MPJ98, MPJC98, NIS98, NVS91]. energy
 [OS98, PPK91, PFFF97, PT96, Pea94, PFC96, PLB92, PGAL93, QHIH98,
 RK97, RM94, RE99, RSOF96, RK95, SN90, SB98a, Sau91, SR94a, SS97,
 SN99, SS98a, SS98b, SEJ95, SQ95, SW96a, SMS98, SB92a, SB90, SWAH91,
 SW96b, SF92, TA94, TK94, VHKB98, VB93, Vya97, Wun92, YC95, ZPV⁺96,
 Zim91, vFB91, DRP98]. Engine [TMK⁺99]. England [Dun90]. enhanced
 [HGB93]. enhancements [GM98b]. enkephalin [NVS91]. enol [LKL⁺97].
 enolate [DLM⁺98]. ensemble [FCS98, HL96b, SVM99, SK92b]. ensembles
 [HBR⁺99]. entanglement [DH99]. enthalpies [BRLD92, HOL98]. entropy
 [SJDW90]. Enumeration [TNKM91, Bal91b, BV97, MSK⁺90]. envelope
 [Mar97b, Wil94]. environment [BA94, HS99, LMRR98]. enzyme
 [AC92, SMA92, vOC93]. enzyme-substrate [SMA92]. enzymes [TYRD92].
ENZYMICX [LCW93]. equalization [PNJS93, PKN⁺95]. equation

[ACB92, AS97, Bru93, CF97a, CF97b, DF97, DM91, HS93c, HS95b, LDM92b, Mit94, NH91, RM91, SOL90, SBA97, SW96a, TG98, ZYY95b, ZPV⁺96].

equations
 [KTNH99, LMB96, Maz97, Pol90, Ram90, RPGS97, SBJ92, WS99b].

equatorial [CPJ98]. **equilibria** [CPJ98, Fab91, NBS94]. **equilibrium** [CR95, LV90, MM95, PASF96, TRLRB96]. **equipartition** [HTC98].

equivalent [BR97, SC94, VK97]. **erased** [BW96]. **Errata** [KTT95, SSR95].

Erratum [Ano15, FS00, WWSS98a]. **Error**
 [AFK⁺95, IC96, HVM99, WB91, KZ99]. **errors**
 [AG90, BG96a, CMPT98, DB98, GPF97, RK97]. **essential** [VDF⁺97]. **ester** [DLM⁺98, LMB99, LPT97]. **esters** [ASM⁺92, FBTD92, GM99]. **estimate** [AVP93]. **estimated** [HI98]. **estimates** [RK97]. **Estimating** [MAP97, SVM99, NBS94]. **Estimation**
 [DJ93, CB96, DNC96, HK92, VTR⁺94]. **ethane** [HMG96, MS98].

ethanediol [RBSB96]. **ethanes** [CPS90]. **ethanol** [LDJ⁺97]. **ethenyl** [WJL⁺96, WJV⁺96]. **ether** [LPT97]. **ethers** [BMJ90, VRC91, VRC92].

ethyl [EPBD95, FBTD92]. **ethylene** [BPS93, Fag91, JB98, LV90, MSSS95].

ethylenes [MP98]. **ethylenic** [JB98]. **ethylnitrene** [KW91a]. **Evaluating** [BDKJL95]. **Evaluation**
 [GJR91, GHT98, GMO93, ISH98b, JCV⁺93, LP95, MGPR90, Vya97, ACFO91, AFK⁺95, ABD90, BBR96, CDR⁺95, CS95, CTC95, DV99, EGHT97, EK97, Fer95, GP94, HA93, HW97, KW91b, KF94, Lim97, LWS⁺95, MSK92, MJSV92, NTK96, RKL93, TRG99, WCC91, YG92b, ZG92, Živ90].

evaluations [OJL93]. **Evans** [ABBC99a, ABBC99b]. **events** [SB98a].

evidence [LP92]. **evolution** [LMB96]. **Ewald** [CQG97, DKBS97, KVKK93].

Exact [FB98, WS99b, BK97b]. **exactly** [GS97]. **examination** [KWWS91, SHM95]. **example** [ACD99, DBS93, JZ96, HREK98]. **excess** [SW96b]. **exchange**
 [AB98a, FS98b, GW91, HVvRS93, HREK98, LP99, MQS⁺97, RCAA99].

Excitation [HT99a, BA94, Gri94, RSK92]. **excited**
 [ČTS98, FA99, FRZ93, GWHD99, GJCC93, RSK92, WLKJ92].

excited-state [FA99, GWHD99]. **excluded** [Bla91, GÖ95, KPR91].

excluding [PaST94]. **Exhaustive** [BV97]. **existence** [SS95]. **Exo** [CGdAC91]. **Exo-exo** [CGdAC91]. **expanded** [TSZ90]. **Expanding** [LCA94]. **expansion** [Ish98a, MGPR90, PG98]. **Experiences** [DBS93].

experiment [JU91, NSA⁺97, Sul95, WWF95, Obe98]. **experimental** [Hal96d, Her93, MLA⁺99, NL98, PK95, SUG92, SF96, Wib99]. **expert** [CCN90]. **explicit** [ED99, JAdV96]. **Explicitly**
 [ZA94, KA92, SKA93, ZKA94]. **Exploiting** [MRM97]. **exploratory** [GS90b, KW91a]. **Exploring**
 [Bec99b, Cri92, SMS98, JLW97, PFFF97, SBA97]. **exponential** [CDR⁺95].

exponential-type [CDR⁺95]. **exponentially** [LP99]. **exponents** [CR95, GvRSvEH⁺93, Mag93b]. **expression** [MN92]. **expressions** [SF92].

Extended [HM90, ML92, BMN95, DJ94, EHNW96]. **Extension**

[LDJ92, LBAO96, MKF⁺97, PS97, WSS99c, Hal96d, Mar98, Ste91]. **Extensions** [HA95]. **extensive** [HK95]. **external** [Yos94]. **extraction** [VW96]. **extrapolation** [CW93]. **extraribosomal** [Dav94b].

F [AS98a, BSvRS95, BT92, Dun90, Jur96, SHM99, SI93, SM91, Tay99, DJ94, HDA93, KMM99]. **F-containing** [HDA93]. **Factors** [BSC⁺98, BPP90, BR97, GH97, WL91b, ZA94, BCF⁺92]. **Failure** [Wil94]. **FAMUSAMM** [EGHT97]. **Fan** [Ano97]. **Fast** [Als95, CCG97, DJ94, FOCB96, HGB93, HC96, KUT⁺97, Pur98, RRR92, RK99, VK97, WSS99b, BCG97, BWS⁺95, BSS97, GGP96, SKT94, VS97, WF94, ZV96]. **Faster** [BR99, MK98]. **Fe** [GLLOB91]. **features** [Als95]. **FeCH** [VF92]. **FEP** [OJL93, VHWC98]. **Fermi** [PD99]. **few** [Mit94]. **Feynman** [HM92]. **field** [AT93, AGP91, ALY90, AF94, ACL96, Ano97, BMW⁺90, BCB⁺97, BPP90, BBH99, Can93, CPR90, CEÁ92, CHSK96, DFTRJ97, DDV93, DDLV95, DMV98, DVJ⁺95a, DVJ⁺95b, DVL90, Dil90, Dil95a, Dil95b, DW98, FRSNS92, FRC91, FR94a, FPR97, FZL97, FW92, FUS⁺94, FSI95, GH98, GZL⁺94, Gre95, Hal96a, Hal96b, Hal96c, HN96, Hal96d, HOL98, HGK⁺96, HA95, HH99b, JHB96, KLV94, KSB⁺93, KHL96, LV90, LYH⁺95, LCD⁺97, LA91, LA98, LOP⁺97, LPW⁺97, LKC⁺98, MHS⁺94, MHJ⁺98, McD97, MRM97, MKS90, MR92, MPJ98, MPJC98, OL93a, OM96, PK98, PGBM97, RG99, RSB96, RCv96, RCvRS97b, RCvRS97a, RRR92, SB99a, Sul95, Sun94, TRR⁺94, UF93, WH95, YC95, Yos94]. **fields** [CK91, Dil92, FSBMP99, GSW90, Hal99b, HGB93, HW97, Hil97, HA95, KE95, KVKK93, LDVP91, MHS⁺94, MHJ⁺98, PPK91, Pet93, RHN94, REA⁺98, SGB91, SCRI93, WS93, WFR99, vEK99]. **files** [ORK⁺91]. **filter** [DNC96]. **finding** [FPRD99, SB90, SA99]. **Finite** [BvGMP97, BNDS97, BSV94, YH93, ZPV⁺96, AC94, CW93, CF97a, CF97b, DM91, FR94b, FRZ93, LDM92b, MGPR90, NL91, NH91, Sha91, SW96a, ZYY95b, LDM92a]. **Finite-difference** [ZPV⁺96, LDM92b, Sha91, ZYY95b, LDM92a]. **finite-element** [CF97b]. **Finite-state** [BSV94]. **First** [FV98, Mil90, AJ99b, BW91a, CW91, CMC96, ENvRS94, HG93, Klo97, She90, dlVM91, ACD97, LS96]. **first-** [AJ99b]. **First-order** [FV98, Klo97, She90]. **first-row** [BW91a, CW91, dlVM91]. **fit** [FCCG96]. **fits** [TAC98]. **Fitted** [ACD99, BBH99, PS91, PS92, SACKH95]. **Fitting** [Ran93, ACD97, CBR97, HOL99, NVK⁺97, PGAL93, SW93b, MSDC94]. **five** [BW96, ENvRS94, PMHRG97]. **five-membered** [PMHRG97]. **fixed** [GS90a, GS90b, NM97, SCC93]. **FK506/rapamycin** [SSO94]. **FKBP** [CFK97, SSO94]. **FKBP-FK506** [SSO94]. **FKBP-FK506/rapamycin** [SSO94]. **FKBP-substrate** [CFK97]. **Fletcher** [AB98b]. **flexibility** [Art93, KPI95, ZS99]. **Flexible** [CA95, TS99a, APC98, Fer95, JTM⁺95, KG99, LK92, MK97a, MK98, MM97, MSZ96, SEJ95, SB99b, Tel90, TGW96, VHKB98, VHD⁺98, WCMS91]. **flexing** [KG93]. **Floating** [HM92]. **flow** [SR94a]. **fluctuation** [Kik99]. **fluctuations** [Art93]. **fluid** [FB97]. **fluids** [YB94]. **fluorescence** [PSK98].

fluoride [BADP92, MvRSL⁺97, SLD⁺90, dANS⁺96]. **fluorides** [SCMV97, WHM⁺96]. **fluorinated** [GS90d]. **fluorine** [GDK92, GG91, IS91]. **fluoro** [VCK96]. **fluoro-** [VCK96]. **fluorocarbons** [BP98]. **fluoroethylenes** [SLD⁺90]. **fluorophenyl** [Fro93]. **fluorosilatrane** [CH94]. **fluorosulfonic** [HOL98]. **flux** [SC95]. **flying** [HTC98]. **Fock** [SCMV97, BLF95, CLCL96, CBWF98, CER94, FTW⁺96, HBLL98, HK⁺97, JDD97, JLN98, Kar99, KZ99, KS96, LL92, NSA⁺97, OS91, Pac93, PC94a, RW99, STB⁺94, SLG93, TKTN99, WHHP97]. **Fock/density** [RW99]. **folate** [CG90]. **folding** [Dav94b, HO97, Sno92]. **following** [QHIH98]. **forbidden** [OS91]. **Force** [AGP91, AF94, Ano97, BBvG95, Din91b, HA95, KSB⁺93, LV90, LYH⁺95, RSB96, Sun94, ACFO91, ALY90, ACL96, BMW⁺90, BP98, BCB⁺97, BPP90, Can93, CPR90, CKP96, CK91, CHSK96, DFTRJ97, DDV93, DDLV95, DMV98, DVL90, Dil90, Dil92, Dil95a, Dil95b, DW98, DKBS97, FSBMP99, FRC91, FR94a, FPR97, FPL95, FS97, GH98, GKM94, GZL⁺94, GH97, Hal96a, Hal96b, Hal96c, HN96, Hal96d, Hal99b, HW97, Hil97, HH99b, KLV94, KE95, KVKK93, LDVP91, LCD⁺97, LA91, LA98, LOP⁺97, LPW⁺97, LKC⁺98, MHS⁺94, MHJ⁺98, McD97, MLAT99, MLA⁺99, MKS90, MR92, OL93a, OM96, PPK91, PPK92, PK98, PGMB97, Pol93, RG99, RHN94, REA⁺98, RCv96, RCvRS97b, RCvRS97a, SGB91, SB99a, Sul95, UF93, WL91b, WS93, WFR99, Yos94, FZL97, vEK99]. **force-field** [BCB⁺97, Can93, GH98, OL93a, RG99, RCvRS97b]. **forces** [AFK⁺95, DM90, Din91a, JP92b, Mor93, SMM97, SB94, SF92, Zau91]. **Foreword** [Fre99, KM99]. **form** [FK91, FD94, Hal96a, O'm99]. **formaldehyde** [MP90, VCLB92]. **formaldimine** [CLQSS98]. **formalism** [GW98a]. **formamide** [BW90, MP90, ACB97, CEÁ92]. **formamide/formaldehyde** [MP90]. **formate** [JU91, TRG99]. **formation** [ASM⁺92, Fro91, HGC⁺95, HKK⁺97, LSCA98, LSSvRS96, MGLL99, SV94, SC94, SHHČ90, Yos90]. **formers** [OC98]. **forming** [MTRJ95]. **forms** [CAC99, LOP⁺97]. **formula** [AB98b]. **formulas** [VP94]. **formulation** [BK96, CTC95, GM90, KLR96, LLB99, Tel90, WS99a, KD91]. **FORTRAN** [BG93, NSWP90]. **Four** [CS90, BW96, CDR⁺95, CA95, HVvRS93, VES⁺99]. **four-** [HVvRS93]. **four-center** [CDR⁺95]. **four-component** [VES⁺99]. **Four-Index** [CS90]. **Fourier** [NVK⁺97]. **Fox** [BB96b]. **Fraga** [GP94, RTSM93]. **fragment** [FRSNS92, HNH⁺91, RHK90, RHKK90]. **fragmentation** [BL91]. **fragments** [YTRB97]. **framework** [FSI95, Klo97, RTGJ98]. **Free** [BW91b, CHPK91, DPK94, DB98, FPSK92, HK90, HW97, HE99a, Kul90, LW94, MM91, Pea94, RK97, Åqv96, AVP93, AS98b, AL98, BBC⁺98, CNOJ93, CBIT94, CT99, CK91, CBSR99, CG94, CG98, CG99, ER95, Gio98, GLLOB91, HL96a, HYA92, KOH97, KOH98, Kuc96, KRB⁺92, KRB⁺95, KPV96, Mez92, MGH⁺98, OJL93, PLB92, PB92, Pur98, RM94, REA⁺98, RE99, SN90, SVM99, SN99, SS98a, SEJ95, SJ95, TRLRB96, Wun92, CKP96, SW96b]. **free-energy** [KRB⁺92, KRB⁺95, KPV96, SEJ95]. **freedom** [Bér97a, SEJ95]. **frequencies** [CMS91, Hal96c, PSY⁺99, RCATD96, SB92a, Sun94, dANS⁺96].

Frequency [KD91, DZ97, NA96, RNDP98]. **frozen** [HHC90, PF99, RHK90, RHKK90]. **frozen-core** [HHC90]. **fucose** [CÉC97]. **Fukui** [PG98]. **Full** [KTK93, RBE98, VES⁺99, SR94b]. **full-electron** [SR94b]. **fullerene** [AOYŌ96, KT93b]. **fullerenes** [Had98]. **Fully** [EBD⁺99, NL91]. **fulminic** [MP98]. **function** [BW91a, BADP92, CNS96, CACD97, CBR97, DKK⁺93, DKK95, FK91, FPSK92, Flo92, FW93a, FSCS99, FM91, HR97, Jon91, KS97, KPR91, MGH⁺98, NIS98, PG98, RK95, Tru91, ZvN93, ZM92, ZY96]. **functional** [AB98a, Ano15, Bec99b, Ber97b, BKMH97, Che99, CRP97, CAC99, CH96b, CÉC97, CNK97, DH94, ES99, FV98, GWHD99, GHT98, GW91, HGC⁺95, HšR95, JK98, Jur96, KS96, KA96a, Koh99, KCK98, LSCA98, LDG99, LWNS95, LP99, LKLB⁺99, MHS⁺94, MRS98, NSA⁺97, O'm99, PK95, Rau96, RJP97, RW99, RTGJ98, SLPP97, SBA97, STB⁺94, SHM99, SLH96, SOL97, SACKH95, SHM95, SVS⁺97, TMCM⁺96, Van97, Van99, VKC96, VA98, Wib99, ZG92, LOP⁺97]. **functional-molecular** [TMCM⁺96]. **functional/molecular** [SHM95]. **functionalized** [GM99]. **functionals** [ED99, HK95, MvRSL⁺97, MPJ98, MPJC98, SLPP97, SBA97]. **functions** [AG90, ACD99, ABD⁺98, BBR98, BMJ90, CP92, CH96a, Cso93, DH94, DRP98, EKS97, GZ95, GS90a, GÖ95, HM92, HOL99, JN93, JLNTR93, KNST96, KA92, LPK99, LJ91, Mag93b, Mag93a, Mar97a, Mar97b, Mar98, MHB97, ML92, NTK96, OL90, PPK91, Ric93, RMS93, RKL93, SKA93, SWAH91, TAC98, VHKB98, VB93, WAM91, WLKJ92, WCC91, WB91, ZA94, ZKA94, Zho93, dIVM91]. **furan4** [LZZ98]. **furanose** [GLP95, TGW96]. **furoxan** [SCP92]. **Further** [AOYŌ96, Hol93, Rod94]. **fused** [DA96]. **fused-sphere** [DA96]. **fuzzy** [Als95].

G [Ano15, Dun90]. **G2** [AMY98, CLS⁺97]. **Ga** [BC90, Ste91]. **gap** [SLPP97, JLW99]. **GAP1.0** [JLW97]. **gaps** [KHF91]. **GARANT** [BGBW97]. **GARANT-a** [BGBW97]. **gas** [BBS96, BKK⁺96, HGC⁺95, Lóp95a, MI99, MGLL99, MSSS95, SK91, UF93, VHWC98, VCLB92, VFM⁺90, WH93, WCK96, ABBC99b]. **gas-phase** [MGLL99, MSSS95, VCLB92]. **gaseous** [FDMB93, ZCP98]. **Gauss** [Ric93]. **Gaussian** [AD90, CDG⁺99, FS91, GGP96, HOL99, Ish98a, JDD97, JLN98, Jur96, KA92, MRS98, MHB97, RKL93, SKA93, TAC98, WAM91, WSS99c, WM94, WCC91, YG92b, ZA94, ZKA94]. **Gaussian-type** [Ish98a, Jur96, KA92, WAM91]. **Gaussians** [JCV⁺93]. **GB** [REA⁺98]. **GB/SA** [REA⁺98]. **Ge** [JFR92b, Ste91]. **gears** [BH98a]. **GeH** [SD90]. **gel** [TM95]. **General** [AD90, FUS⁺94, GGK98, MN92, SB98a, SBB⁺93, ZM99, BGBW97, BBR98, CQG97, CT92, CSR92, Elv91, HHP91, KG92, LJ91, MR92, ORK⁺91, SM90, TNS97b, Bla91, GW98a, RM91]. **Generalized** [CT99, DKK⁺93, DF96, SEJ95, GW91, LB90, LO98, MPBM98, NBS94, WP96]. **generate** [VP92]. **generated** [JDD97, KNST96]. **Generating** [MLAT99]. **Generation** [HE99b, LKSS91a, PRRD98, TNKM91, Bal90, Bal93, CP98, CF97a, HGB93, LB90, MSK⁺90, PTCB99, SC95, SK92b, vEK99]. **generator**

[GM90, JDD97, JLN98]. **Genetic** [MS95, BP94, HS95a, HH99b, JLW97, JLW99, MJ93, MJFT96, MGH⁺98, NM97, Pul97, RWB99, JJTP93]. **geodesic** [Spa96]. **Geometric** [Pet95, VRC91]. **geometrical** [BM99, WCC91]. **geometrical-type** [WCC91]. **geometries** [Fro91, Hal96c, HN96, Hal99b, PASF96, SACKH95, TRLRB96, YH93, BRLD92]. **Geometry** [BH91a, Bak92, BCT98, Bér97a, CH88, DH95, PK91, Bak93, BMD99, BCT91, DJ94, Dun90, EPW97, fGGG94, GS90a, GS90b, GS97, Har99b, KKCH96, LSFFM⁺95, LZT91, MM95, MS95, Mit98b, MKS90, PS91, PS92, PD92, RRR92, SH91, SB92a, WSV92, O'm99]. **Geometry-dependent** [DH95]. **GEPOL** [PAS90, PaST94, STPA91]. **Gerald** [Klo92]. **GIAO** [WHHP97]. **glass** [OC98]. **Global** [AS98b, Art93, Har99b, NM97, CACD97, DV99, DS90, DRP98, FPRD99, KF99, KFML99, MS95, PP97, Sno92, SB99b, SBK97, DS90]. **globular** [DB98, GKS93, Yos94, Yos96]. **glucopyranose** [BSC⁺98]. **glucose** [DDV93, KVKK93, PE92]. **Glycerylphosphorylcholine** [SW92]. **glycine** [DKJ96, NSA⁺97, SS98b, WNW91, ZCP98]. **glycol** [Fag91]. **glycosidic** [DDL95]. **glycyl** [SS98b]. **glyoxal** [AF94, Ano97]. **GMIPp** [HLO99]. **golden** [BBS96]. **Goldfarb** [AB98b]. **good** [AB98b, GKS93, GT98]. **Goodwin** [BB96b]. **Gordon** [AB98a]. **governed** [MGLL99]. **gradient** [Bec99b, BHE⁺93, FV98, HA93, HW⁺91, MK97b, PG98, QHIH98, DKRK95]. **gradients** [BR99, FB98]. **grain** [LMFA92]. **grand** [HL96b]. **GRAPE** [HEN⁺94]. **GRAPE-2A** [HEN⁺94]. **Graph** [Rou90, TNKM91, Bal91a, DMB91, LK91, Ran92, Živ90]. **Graphical** [PP98]. **graphite** [SSF90]. **graphs** [Bal90, Bal91b, VT91]. **green** [ZvN93]. **Grid** [Bru93, Wan91, Bec99a, DM90, LWS⁺95, MSK92, OS98, PFC96]. **grid-based** [MSK92, OS98]. **grid-calculated** [DM90]. **Grid-search** [Wan91]. **GROMOS** [OM96]. **GROMOS96** [DMV98]. **groove** [ZS99]. **ground** [Cul92, FSCS99, FRZ93, GWHD99, GC98, GJCC93, RSK92, SKA93, WLKJ92, ZA94, ZKA94]. **ground-** [GWHD99]. **grounded** [Gre95]. **group** [BPS93, BT92, DvRSH94, ENvRS94, FM91, HS99, HK95, Mag95, MHS⁺94, MS98, MR93, SC94, WMM⁺95, Zho93, ZL94]. **groups** [Ear90, LB90, LDJ⁺97, LPT97, PGBM97, Ste98, WAM93, ZLM92]. **growth** [VGN⁺92]. **guanine** [RTGJ98]. **guanosine** [Can93, FW91]. **guest** [BF91, MV91, VHWC98]. **guests** [VHWC98]. **Guidelines** [Bog99, RG99]. **GVB** [Cul99, MKF⁺97].

H [BSvRS95, BKMH97, CLS⁺97, FM99, GMY97, IBKvRS92, JKS93, KG99, KHG96, Lóp95b, LSSvRS96, MI99, Mez91, Ran92, SM91, TDFdC91, VHV90, ZMC⁺97, KTS92, AG90, AC94, ACD99, AHLR⁺91, CLQSS98, Che95a, DJ94, DBS93, FLHP97, FLPH98, GvRSvEH⁺93, GMY97, GSW90, HDA93, LDMS99, Mag95, MRH99, MQS⁺97, NL91, PT99, RNDP98, RR92, SBM97, Sie96, TEvD90, VCLB92, ZMC⁺97]. **H-** [HDA93]. **h-1** [KTS92, FLHP97, FLPH98]. **H-azirine** [CLQSS98]. **H-bonded** [AG90]. **H-chromophores** [Che95a]. **H-phosphole** [SBM97]. **H/He** [GSW90].

Hadamard [Bal93]. **half** [OS91]. **half-projected** [OS91]. **halide** [LK90]. **halides** [MSSS95, SI93, SB98b, SB98c, VES⁺99]. **haloethanes** [SS97]. **halogen** [ZY96]. **halogenated** [PNJS93, PRRD98, WM93]. **Hamiltonian** [LO98, Maz97, PS97, ZL94]. **Hamiltonians** [OBL95]. **Hammett** [KHF90, KHF91]. **Hammett-type** [KHF90, KHF91]. **Handling** [EA93]. **hardness** [BSS90]. **Harmonic** [BJK95, JB95, JVB95, ZS99, AL98, BPP90, BNDS97, MTH94, RK99, SB92a, DDV93, DVL90]. **Hartree** [BLF95, CBWF98, CER94, HBLL98, HK⁺97, JDD97, JLN98, Kar99, KZ99, KS96, LL92, NSA⁺97, OS91, Pac93, RW99, STB⁺94, SLG93, TKTN99]. **Hash** [IG94]. **Havel** [Dun90]. **HCl** [Lóp95b, HREK98, MSSS95]. **HCN** [MRH99]. **HCO** [PFC96]. **HCP** [GJCC93]. **headgroup** [SW92]. **Heats** [ASM⁺92, LSCA98, SC94, Fro91, HGC⁺95]. **heavy** [HBLL98, ML91]. **Heiles** [AC94]. **helical** [RM91]. **helices** [AJ97]. **helium** [KT93b, ZA94, ZKA94]. **helix** [SWOW97]. **Hellmann** [HM92]. **heneicosane** [SHHČ90]. **Henon** [AC94]. **heptaalanine** [VGN⁺92]. **Hessian** [AB98b, Bof94, BC95, HWH⁺91, Mit98b]. **heteroarotinoids** [WC90]. **heteroatomic** [KS91]. **Heteroatoms** [HK92]. **heterobinuclear** [RCAA99]. **heteroboranes** [ZBM91]. **heterocycles** [GBT97, NPLT97]. **heterocyclic** [Fab91, GH98, SW93a]. **heterodienophiles** [JZ96]. **hexacarbonyls** [Van97]. **hexafluorides** [Klo93]. **hexafluorodisilane** [CRP97]. **hexahydrated** [TRG99]. **hexamer** [BMD99]. **hexamethyldisilane** [CRP97]. **HF** [GS90d, Lóp95b, CW93, FW93a, McD96, MSSS95, YG92a]. **HF/6** [FW93a]. **HF/6-31g*** [FW93a]. **Hg** [FR94b, Ste91]. **HH** [FS98b]. **Hierarchical** [BGZP97]. **High** [AW90, Del96, FR94b, GMY97, Bec99a, BB96b, BW90, BR97, FTW⁺96, HGK⁺96, HEN⁺94, KK92, RC93, TMK⁺99]. **high-energy** [BR97]. **High-level** [GMY97]. **high-order** [Bec99a]. **high-performance** [FTW⁺96, HGK⁺96, HEN⁺94]. **High-precision** [FR94b]. **high-quality** [RC93]. **High-speed** [TMK⁺99]. **higher** [Ear90, GM90, GJR91, Ish98a]. **higher-symmetry** [Ear90]. **Highly** [KK92, SLG93, VM95]. **hindered** [For96, Tru91]. **hints** [DBS93]. **histamine** [AHLR⁺91, Sul95]. **histogram** [KRB⁺92, KRB⁺95]. **HIV** [MR93, MRG97, RM94, YBD⁺94, YTRB97]. **HIV-1** [MRG97, RM94, YBD⁺94, YTRB97]. **hoc** [MFG91]. **hole** [RMW91]. **holes** [PD99]. **homoaromaticity** [Hol93]. **homobinuclear** [RCAA99]. **homology** [DS90, DRP98]. **homolytic** [BFST93]. **homonuclear** [HK95]. **homopolar** [LBA⁺99]. **HONDO** [KD91]. **Hopfield** [KD96]. **Host** [MV91, BF91, VHWC98]. **Host-guest** [MV91, BF91]. **hosts** [BPZL96]. **HPC** [GJCC93]. **HPLC** [BR97]. **HT** [AT93]. **Hückel** [DJ94]. **human** [PS92, YSJ95]. **HUNTER** [WHF97]. **Hybrid** [CBSB94, FCS98, HY96, O'm99, Gao97, MJSV92, RW99, SLPP97]. **hybridization** [ML91]. **hydrated** [FSI95, KF99, SWOW97]. **Hydrating** [Dav94a]. **Hydration** [DBS91, SN90, SWM90, AGN⁺90, AS96, AS97, CNOJ93, CT99, ER95, FW92, GS93, HW97, HE99a, JN93, KOH97, Mar90, OJL93, TRLRB96, WL91b, Zau91, ZV96, SVM99]. **hydride** [CG90, CG98, JU91]. **hydride-ion** [CG90, CG98]. **hydrides** [LS96, WAM93].

Hydrocarbon [Kas90, Gri94, HP94, Her93]. **hydrocarbons** [ALYT90, ACL96, Dil90, FM99, LH96, MSK⁺90, NLA96, NA96, PMHRG97, Sau91, SD98, SSF90]. **Hydrogen** [LPT97, NPLT97, AMY98, AJ97, Art94, CDG⁺96, FHB99, FF93, FVR92, FS94, FOA98, GvRSveH⁺93, GMY97, GDK92, HVvRS93, IRRR93, JG93b, JS93, KWWS91, KKCH96, KPSM98, LA98, LKC⁺98, MvRSL⁺97, MP90, RBSB96, RR92, Rod94, SLD⁺90, SHHČ90, TEvV90, VRC92, VF92, VES⁺99, VHV90, ZM92, vDvdRvD92]. **hydrogen-bonded** [Art94, TEvV90]. **hydrogen-bonding** [LKC⁺98]. **hydrogen-rich** [FHB99]. **hydrogenated** [CJC⁺93, CTJ⁺94]. **hydrogenation** [DBV98]. **hydrolysis** [FDMB92, FDMB93, Kat90a, Kat90b, LMB99, PC94b]. **Hydrolytic** [PC93, PC94b]. **Hydrophobic** [SK95, Her93, Her97, KVL91, VB93, WS99a]. **hydroxy** [LDJ⁺97, SHHČ90]. **hydroxyl** [FOA98, LPT97, SS97, ZLM92]. **hydroxylamine** [LBB94]. **hydroxymethyl** [BSC⁺98]. **hydroxypyridine/2** [RGK93]. **Hylleraas** [FPC91]. **Hyperconjugative** [ACK⁺96]. **hypercube** [DK93]. **hyperfine** [EBD⁺99, O'm99, Ove91]. **hypernetted** [KTnH99]. **hyperpolarizabilities** [BLF95, RNDP98]. **hypersurfaces** [SMS98]. **hypervalent** [PKN⁺95, PD99]. **hypolipidemic** [RdB90].

ice [EGH⁺93, HTC98]. **ICl** [BBS96]. **ICM** [ATK94]. **icosahedral** [CHP91]. **identification** [IG94, PFC96]. **IF** [KMM99]. **IGLO** [FGBH90, MVS92]. **II** [ACD99, Chr90, CY98, Dav97, GWHD99, AJ99b, ABBC99b, BCFM98, BG96b, CLCL96, DDV93, Dil95b, DRP98, FCCG96, Gio98, GW98b, Hal96b, HGK⁺96, HK92, JP92b, JB95, JB98, JFR92b, JJTP93, LSCA98, LA98, LPW⁺97, Lóp95b, MHS⁺94, MHJ⁺98, Mar97b, MLA⁺99, MPJC98, PS92, Rod94, SB98c, STPA91, SB95, SOCF98, SYHW99, TYRD92, VRC92, WZG⁺93, vOC93]. **III** [FDMB92, FPC91, FM91, GBW98, Hal96c, JVB95, LKC⁺98, Mar98, PNJS93, PaST94, Ste91, TJP96, VF92, WFR99, Zho93]. **illustrated** [DBS93]. **imidazole** [AGN⁺90, KS91]. **imido** [Can93]. **imine** [ARLG⁺94, DLM⁺98, FSCS99, KHB92]. **immersed** [DF97]. **IMOMM** [MM95]. **Implementation** [AB98a, CDG⁺99, CS94, DVJ⁺95a, DVJ⁺95b, FKN⁺93, FK95, HKK91, RPG⁺95, YB94, ABD90, Elv91, EHNW96, GF96, KD91, LWNS95, LMFA92, PS97, PL94, PLY98, RBE98, SWK99, SL95, VM95, FPC91]. **implementations** [NS95]. **implementing** [Klo97]. **implications** [AVC93, NBG93, OL93a]. **Implicit** [WS99a, ED99, Vas92, ZS93]. **implicit-integration** [ZS93]. **Importance** [LMA99, PFMI97, Kul90, AVP93]. **Important** [BvH⁺92, BHK⁺91]. **improper** [BK96, TNS97a]. **improve** [DM91]. **Improved** [AL98, Cis93, EA93, LHL⁺95, Tav96, Aer95, ACL96, Dil90, DKRK95, FPR97, Gō95, Har93, KE95, Mor93, NWÅM95, PAS90, PaST94, STPA91, TKTN99, WFR99, CNS96]. **improvement** [VVS96]. **Improvements** [PD92, XWS92]. **Improving** [FHB99, RCB99, SS93]. **inaccessible** [WSS99b]. **including** [CPR90, CT92, TEvV91, VB93, WWXS97]. **inclusion**

[TA98]. **Incorporating** [Sha91, ZFYY95]. **Incorporation** [PHG94, Zau91, SH98]. **Increased** [BNDS97]. **increasing** [BM99]. **incremental** [FR90]. **increments** [BBH99]. **independence** [Bru93]. **independent** [ACB92, GM90]. **Index** [CS90, BP93a, KVL91, MK97b, TSZ90, VÅJ94]. **indexes** [BC93, Che99]. **Indexing** [AS99, YTT97]. **indices** [DMB91, PKRR97]. **indigoid** [Che95a]. **indirect** [TEdV90, VES⁺99]. **INDMOL** [SLG93]. **INDO** [NBB⁺99, SB95]. **induced** [CMPT98, KMM99, RMW91]. **inert** [AIDAVB98]. **Inexpensive** [HI98]. **infer** [VP94]. **Infia** [Bro99]. **Influence** [CPJ98, KS97, LMRRRL98, Arn94, FDMD93, dVA92]. **infrared** [CJC⁺96, LA92, PK98, dANS⁺96]. **inhibition** [LK95]. **inhibitor** [Kik96, MRG97]. **inhibitors** [GBE92, HK90, HL96a, KG99, MR93, MRG97, Wel90, YTRB97]. **inhomogeneous** [Ram90]. **initial** [GCRSAIVB99, För92]. **Initio** [YG92a, ALPH91, AGN⁺90, AMY98, ALO94, AVA93, Arn94, ACRC97, BLO94, BFST93, BB96a, BL91, Bog99, BB95, BvH⁺92, BCT91, BT92, Cai94, CLCL96, CW97, CRP97, CG93, CH94, CH96b, CÉC97, CG90, DH90a, DKJ96, DW98, DBT98, Ear90, Ear93, EPW97, EGH⁺93, EKS97, Fag91, FF93, FRR90, FGG⁺92, FW93a, FLHP97, FLPH98, FG96, GH98, GCRSAIVB99, GPSS93, GM98a, GCT96, GS90d, GJCC93, GMY97, Gre95, GSK95, GG96, HKK⁺97, HOL98, HVvRS93, HS99, HK⁺97, HA95, IBKvRS92, IRRR93, JFKK94, JG91, JZ96, KS91, KG92, Kar99, KRM92, Klo93, KA96a, KHB92, KB92, KCK98, KHA90, KHG96, KPSM98, KTS92, LL92, LKL95, LCD⁺97, LP92, LSFFM⁺95, LSSvRS96, LDMS99, LBAO96, MI99, MM95, MS98, MTRJ95, MRW91, MSB95, MSB96, MVS92, MSDC94, Mit98a, MKS90, NBS94]. **initio** [NWÅM95, NVER97, OL93a, PPK91, PSY⁺99, PFC96, PR95, PG91, PF99, PFLH93, PE92, PK95, Rau96, RCvRS97b, RCvRS97a, RvRS98, RCATD96, RPR⁺98, RMS93, RHK90, RHKK90, RK95, SB98a, SBM97, SD90, SC94, SLH96, SM91, SUG92, SLD⁺90, SOCF98, SCR93, TKTN99, TEdV91, VCLB92, VK94, WZG⁺93, WO97, WL91b, WHM⁺96, WWF95, YM98, dANS⁺96, ASM⁺92, BCF⁺92, BSN99]. **initio-derived** [DW98]. **inorganic** [SH91]. **Insertion** [JB98]. **Insight** [Gao97]. **Institute** [Gar90]. **integer** [SCC93]. **Integral** [RPW98, FW93b, HWH⁺91, Ish98a, KMO92, LTHY96, Mor93, MN95, SBJ92, WHHP97, WCC91, YG92b]. **integrals** [ABD90, AD90, CW97, CDR⁺95, Flo92, JCV⁺93, Jon91, KA92, Ric93, RKL93, YG92b, YG92a, ZL94]. **integrate** [Pol90]. **integrated** [ATS90, MM95, McD96, MRG⁺90]. **Integrating** [Har99a]. **integration** [BRP92, CKP96, CG94, Del96, ELA⁺95, HW97, LMB96, MM91, SC95, ZS93]. **integrator** [Har93, LMB96]. **integrators** [ZS95]. **intelligence** [CS94, LPD90]. **Intensities** [LA92, LDVP91, McD96, PK98, dANS⁺96]. **Inter** [Kik96, BRLD92, JS93, KWWS91, Kik99]. **Inter-C** [Kik96, Kik99]. **inter-conversions** [BRLD92]. **interacting** [PS97]. **Interaction** [BDH⁺94, HNH⁺91, CGBC96, CG93, DLS⁺97, DKH98, DV97, EBD⁺99, GBE97, GSK95, GBT97, GW91, HVM99, Hal99b, HREK98, HK⁺97,

KTnH99, KKE93, KTT94, KTT95, LMB96, LOP⁺97, LLB99, LO98, LDM92a, MFG97, OL93b, Phi90, RLG98, RBE98, RSK92, Sel90, SWK99, VRV99, WWXS97, WNW91, ZY96]. **Interactions** [RLG98, Åqv96, BF91, CKP96, DM94, DH90b, DW98, DKBS97, EGHT97, FM91, GK93, Hal96b, Her93, HLO99, HC96, KID93, LDG99, LYH⁺95, LPW⁺97, LWS⁺95, MLAT99, MLA⁺99, Nil91, Non97, NWÅM95, Ove91, PPAS⁺99, PDPM97, RK95, SKT93, SKT94, TMB93, TNS97a, TNS97b, YB94, ZM92]. **interactive** [CS94]. **interatomic** [HC96]. **intercalating** [SUG92]. **interconversion** [ORK⁺91, Sau91]. **interconversions** [LCA94]. **interdiffusion** [DF96]. **interest** [DDV93, DDLV95, DVL90, Mul91, SACKH95]. **interface** [PMIB99, TYMS98, VW96, VM95]. **intermediate** [SSQ92]. **intermediates** [CLQSS98, ZVP98]. **intermolecular** [BMN95, FM91, HVM99, Hal96b, Hal99b, HREK98, KTT94, KTT95, LYH⁺95, MP90, Nil91, VVM93, WM94]. **intermolecular-interaction** [Hal99b]. **Internal** [EPBD95, FZL97, MQS⁺97, Yos94, Yos96, Bak93, BC96, Bak97, Bér97a, BADP92, CPS90, FBTD92, GLP95, KG93, LPK99, LM96, MS98, Maz97, NIS98, PPK92, PASF96, Pol93, PP98, SGB91, TDFdC91, TA94, Tru91]. **internally** [DKH98]. **internuclear** [Mag93a]. **interparticle** [YB94]. **interpenetrating** [AW91]. **interpolation** [BvGMP97]. **interpretation** [SHCY93, KLR96]. **interresidue** [Kik96]. **Interscience** [Mez91]. **intersecting** [Jen94]. **Intervals** [Cri95]. **intra** [KWW98]. **intramolecular** [BA94, ČTS98, DP95, FA99, HKK⁺97, KKCH96, LK90, RBSB96, RR92, Rod94, SHCR97, SSV93, FVR92, VRC92]. **intrinsic** [AT93]. **invariance** [AGM91]. **invariants** [BC93, DMB91]. **inverse** [JCV⁺93, RPGS97]. **inverse-square** [JCV⁺93]. **inversion** [CT95, IC96, KTnH99, SMS98, SR92]. **Investigating** [AM99]. **Investigation** [ZY96, BB96a, BSvRS95, BvH⁺92, Gre95, GG96, HL96b, JB98, KB92, KPSM98, LZZ98, RTGJ98, SBM97, TRG99, WM93]. **investigations** [BH98b, RBSB96, SI93]. **involving** [BW91b, CG90, FPSK92, HHC90, LKL⁺97, SRI92]. **iodides** [CPR90]. **ion** [CG90, CG98, GCG97, GMO93, LS98, PBS97, Sha91, TD95]. **ion-neutral** [GMO93]. **ionic** [PFMI97, RM91, SCRI93]. **ionization** [ABE⁺96, CC98, GJR91, HG93, ML92]. **ionized** [CG99, HMG96]. **ionophores** [BMW⁺90]. **ions** [CG94, FHT99, Gla90, JAdV96, Sie96, VFM⁺90]. **IPPP** [CGdAC91]. **IPPP-CLOPPA** [CGdAC91]. **IRC** [ZMC⁺97]. **ISBN** [Ran92, Tay99]. **isocyanates** [LS98]. **isodensity** [JKN99, WAM93]. **isodesmic** [WO97]. **isolated** [AOYÖ96, ARLAB99]. **isomer** [GJCC93]. **isomeric** [BH91b]. **isomerization** [CBSR99, Jur96, VKC96]. **isomerizations** [Bal98]. **isomers** [AOYÖ96, BSvRS95, BRLD92, BvH⁺92, HMG96, IBKvRS92, RJP97, SCP92, VK94, WJV⁺96]. **isomorphism** [LK91]. **isotope** [JU91]. **isotopic** [ZVP98]. **iterated** [DNC96]. **iteration** [RPGS97, VVS96]. **Iterative** [Mit94, IC96, KTnH99, KPV96, She90, SB99b, CT95]. **IV** [CW97, DDLV95, DMB91, HN96, PKN⁺95, ZL94, dVA92]. **ix** [Mez91].

J [Ano97, GdAG⁺98]. **Jacobi** [ACD97]. **Jacobian** [GKM94]. **JBW** [SS98a]. **JCC10** [Ano15]. **jet** [Sul95]. **jet-cooled** [Sul95]. **John** [Dun90, Klo92]. **Johnson** [Klo92]. **Joint** [TRG99, WJV⁺96]. **Jones** [CS95, FK91, FG96, LLD98, LW94, PP97, YM98]. **Jørgensen** [Tay99]. **Journal** [Ano15]. **Jure** [Gol92].

Kalman [DNC96]. **Kendall** [RPG⁺95]. **ketene** [ARLG⁺94, SB92b]. **ketenes** [JFKK94]. **keto** [LKL⁺97]. **keto-enol** [LKL⁺97]. **ketoboranes** [IBKvRS92]. **ketone** [GBT97]. **ketones** [DH95]. **Kinetic** [SMA92, AOYŌ96, BRP92, HB91, Jem97, JU91, GS90a]. **kinetics** [PBRP91, SOL90, Vas92]. **Kirkwood** [ZFYY95]. **KNC** [DvRSH94]. **KNI** [MRG97]. **KNI-272** [MRG97]. **knots** [HH99a]. **Knowledge** [PMRG93]. **Knowledge-based** [PMRG93]. **Kohn** [Bic99, HT99a, SBA97]. **Kolossváry** [Ano15]. **Koopmans** [ML92]. **Kr** [BC90]. **Kramers** [LL92]. **Krogsgaard** [Tay99]. **Krogsgaard-Larsen** [Tay99]. **KSR1** [RPG⁺95].

L [Ano97, CÉC97, Gar90, PFC96, BO93, HMČ91]. **L-** [BO93]. **L-amino** [HMČ91]. **labeling** [ZVP98]. **lack** [Hol93]. **Lacks** [AB98a]. **lactam** [BKL⁺90, BSL91, FDMB92, FDMB93, PPAS⁺99]. **lactams** [DLM⁺98, FR94a]. **lactone** [SJV93]. **lactoside** [EPBD95]. **Lamarckian** [MGH⁺98]. **Lanczos** [KV93]. **landscapes** [FPRD99]. **Langevin** [GJD94, Phi90, XWS92, ZFYY95]. **Langevin-type** [Phi90]. **lanthanide** [FR90]. **large** [BMD99, BB98b, BWS⁺95, BJK95, Cul92, EPW97, EKS97, FHB99, FRSNS92, FPL95, GM90, GSB99, Hea90, Jai90, JB95, JVB95, JHB96, LBI⁺97, Mag93a, Mer92, MSDC94, Mit94, Ram90, RPW98, RCB99, ST91, SKM94, TKTN99, TRR⁺94, WH95, ZV96, ŽRK⁺95]. **large-scale** [TKTN99, WH95]. **larger** [HS93a]. **Larsen** [Tay99]. **laser** [ENHE98]. **Lattice** [GKS93, RSOF96, DH99, ELA⁺95, KID93, LOP⁺97, LPW⁺97, LKC⁺98, YB95a]. **law** [BMN95]. **lawrencium** [JDD97]. **LCPO** [WSS99a]. **LD** [LW92]. **LD/AMPAC** [LW92]. **leads** [HTC98]. **learns** [GW95]. **least** [HOL99]. **least-square** [HOL99]. **lecithin** [SWAH91]. **leishmaniaisis** [CT97]. **length** [Pao90, PHG94, RE99]. **lengths** [ACK⁺96, EGH⁺93, GH98, LA90]. **Lennard** [CS95, FK91, FG96, LLD98, LW94, PP97, YM98]. **Lennard-Jones** [CS95, FK91, FG96, LLD98, LW94, PP97, YM98]. **level** [BSN99, BBS96, CPJ98, GMY97, KK91]. **levels** [AC94, BK97b, CP92, KK92, Mit98a, NL91, PS98]. **Li** [GS90d, HK95, Mar98]. **librational** [SJDW90]. **ligand** [BG99, CA95, GSK95, LL94, LWS⁺95, MM93, MK97a, MLAT99, MLA⁺99, SQ95, SB99b, WZG⁺93, WTLC93, ZS99, GJL⁺90]. **ligands** [Åqv96, AT93, APC98, BBC⁺98, CG94, Gre95, GG96, LK92, Mag95]. **ligated** [GSK95]. **light** [NQ99]. **lignin** [RL95]. **like** [HE99b, RM91, AB98b]. **Liljefors** [Tay99]. **limit** [NBB⁺99]. **Limitations** [Ber97b]. **limited** [PS91]. **limits** [Bec99b]. **LIN** [ZS93]. **LiNC** [DvRSH94]. **LINCS** [HBBF97]. **line** [PFFF97]. **Linear** [GKM94, KV93, Bro99, CT99, DPK94, Flo92, HE99a,

HBBF97, LDM92b, Mil90, PHG94, Ram90, WSS99a, ZYY95b]. **linearized** [CSR92, Cri92, SW96a]. **linkages** [DDL95, SE94]. **linked** [FS98a, FS00, GZL⁺94, ITP90]. **linoleoyl** [LH96]. **lipid** [CCJ⁺99, HP94, SWAH91, SW92, TM95, WS93]. **lipophilicity** [VRBE93]. **lipopolysaccharide** [JMH96]. **liquid** [BMJ90, EGH⁺93, FB97, GZ95, GDK92, JLNTR93, Mez92, TM95, TMCM⁺96]. **liquid-crystalline** [TM95]. **liquids** [FSBMP99]. **list** [GBE97, RBC⁺98, RBE98, WWSS98b, WWSS98a]. **lithium** [AKF93]. **liver** [vOC93]. **LMOs** [KK91]. **load** [YB95b]. **Local** [LKL⁺99, BSS90, BP93b, CN98, CS95, GS90c, GW91, MTR90, RPW98, SB99b, SB90, TRR⁺94]. **local-density** [GW91]. **Local-scaling** [LKL⁺99]. **local-spin-density** [MTR90]. **Localization** [CS95, FSCS99, KS97]. **localizations** [BP93b]. **Localized** [Cul92, KKE93, RCv96, Zho93, ZL94, BCFM98]. **Locally** [Vas92, CRME93, CB96]. **locate** [AB98b]. **locates** [Sno92]. **locating** [AB97, BG99, Bof94, BC95]. **location** [BC96, Har99b]. **logic** [LM93]. **logical** [YB94]. **lone** [JZ96, Pra93]. **Long** [BPC91, GJD94, Kna92, Ric93, Åqv96, LOP⁺97, SB94, TMB93, KID93]. **Long-range** [Ric93, Åqv96, LOP⁺97, SB94, TMB93]. **Long-time** [GJD94, KID93]. **look** [LM93]. **look-up** [LM93]. **lookup** [HC96]. **Loop** [BW96, CE96, DH99, ZRVD93, PS91, WWZD92, WS99b]. **Loop-erased** [BW96]. **loops** [DS90, GS97, PS92]. **loosely** [FKN⁺93]. **LORG** [FGBH90]. **Lou** [Bow98]. **Low** [KG99, KPSM98, AIDAVB98, BB95, BB96b, BSN99, BBS96, Cai94, DZ97, Har99b, MGLL99, RPW98, RK99, SLPP97, vFB91]. **Low-barrier** [KPSM98]. **low-energy** [BB95]. **low-level** [BBS96]. **low-lying** [Cai94]. **Low-mode** [KG99]. **low-order** [Har99b, RPW98]. **low-pressure** [MGLL99]. **low-spin** [BSN99]. **Löwdin** [Jon91]. **lowest** [Mit94]. **Lr** [JLN98]. **LTB** [GW95]. **Ltd** [Dav97]. **LUMO** [YC95]. **lying** [Cai94]. **Lysine** [HNH⁺91]. **Lysine-Alanine-Alanine** [HNH⁺91]. **lysozyme** [EHNW96, PS92].

M [BT92, Dun90, GdAG⁺98, JFR92b, Klo92, HKŠ⁺97, JFR92b, KWWS91, Mar97a, Mar97b, Mar98, SUG92, GdAG⁺98]. **m-AMSA** [SUG92]. **machines** [Lim97]. **macrocyclic** [Wan97]. **MACROMODEL** [TJP96, MRG⁺90]. **Macromolecular** [Ske91, DKRK95, LK92, PH96, SB94, VS97, WM95]. **macromolecules** [FB98, MTBS91, Pur98, SB99b, WL91a, WS98, YH93, ZKSB93, ZYY95a]. **Madelung** [FCNSÁ98, PFM97, SCR93]. **Maggiora** [Klo92]. **magic** [JKS93]. **magnesium** [CHPK91, GPSS93, KSP90]. **magnetic** [BGBW97, CCN90, CRME93, EBD⁺99, EPBD95, FGBH90, FSW96, Kut99, MvRSL⁺97, MVS92]. **main** [BK97a, ENvRS94, HK95]. **maleamic** [Kat90a]. **Man** [Cas89, Gar90]. **mannose** [ITP90]. **mannose-** [ITP90]. **Many** [KL91, Als95, BBH99, FPC91, KOH97, ZvN93, Zho93, ZL94]. **Many-body** [KL91, ZvN93]. **many-center** [FPC91, ZL94]. **many-electron** [Zho93, ZL94]. **Mapping** [SBS99, AS99]. **maps**

[BP93a, Bec98, CBSR99, NTK96]. **marching** [CP98, HGB93]. **Mark** [Klo92]. **massively** [BBR96, DLS⁺97, HL96b, LBI⁺97, RBE98, SOCF98]. **master** [RPGS97]. **Masthead**
 [Ano90c, Ano90d, Ano90e, Ano90f, Ano90g, Ano90h, Ano90i, Ano90j, Ano90k, Ano90l, Ano91c, Ano91d, Ano91e, Ano91f, Ano91g, Ano91h, Ano91i, Ano91j, Ano91k, Ano91l, Ano92b, Ano92c, Ano92d, Ano92e, Ano92f, Ano92g, Ano92h, Ano92i, Ano92j, Ano92k, Ano93c, Ano93d, Ano93e, Ano93f, Ano93g, Ano93h, Ano93i, Ano93j, Ano93k, Ano93l, Ano93m, Ano93n, Ano94f, Ano94g, Ano94h, Ano94i, Ano94j, Ano94k, Ano94l, Ano94m, Ano94n, Ano94o, Ano94p, Ano94q, Ano95c, Ano95d, Ano95e, Ano95f, Ano95g, Ano95h, Ano95i, Ano95j, Ano95k, Ano95l, Ano95m, Ano95n, Ano96b, Ano96c, Ano96d, Ano96e, Ano96f, Ano96g, Ano96h, Ano96i, Ano96j, Ano96k, Ano96l, Ano96m, Ano96n, Ano96o, Ano96p]. **matching** [MRM97, PS96b, SHCY93]. **materials** [BR97, GC98]. **Mathematical** [Cas89, Gar90, Jem97, PPK91]. **matrices**
 [Bal93, BB98b, BC95, BB96b, CMC92, GM90, GHR93, Mit94]. **matrix**
 [BH91a, BC96, BB98a, Bof94, CT95, CLCL96, CW97, FTW⁺96, GHR94, KTK93, KV93, LMB96, LH99, Mil90, ZL94]. **matrix-inversion** [CT95]. **matter** [CBSB94]. **maxima** [Che95a]. **maximization** [CACD97]. **maximum** [JJ98]. **MC** [SS98a]. **McLafferty** [LP92]. **McMurchie** [Cis93]. **MCSCF** [LDJ⁺97, ML92, SSHB93, ZL94]. **MD**
 [DK93, LCA94, TMK⁺99, VHWC98]. **MD-FEP** [VHWC98]. **mean**
 [CKP96, FS97, GZ95, GS93, MLAT99, MLA⁺99]. **means**
 [Als95, SAdV97, SBJ92, VFM⁺90]. **measure** [Art93, Che95b, KRL⁺93]. **measures** [ACD97, ACDP98, ACD99, SA99, WM95]. **mechanical**
 [AGP91, ACFO91, AD90, BT96, BFH94, BvGMP97, Che95b, CG98, ER95, FCNSÁ98, FBK90, FG96, HCK95, JS93, JKS93, KMO92, KB92, LMA99, LS94, LW92, NL98, PSY⁺99, RD97, SHM95, TRR⁺94]. **mechanical/molecular** [FCNSÁ98]. **mechanics** [ALY90, ALYT90, AF93, AYC94, ACK⁺96, AF97, BFST93, BB96a, BK96, BBC⁺98, CPR90, CDG⁺99, CA93, CBIT94, CRP97, CK91, CT97, CC91b, CG97, CG99, DK97, FA94, FR90, FK91, FGG⁺92, FRC91, GGK98, GS90c, GCT96, Gre95, GG96, GBT97, GPPS91, GLoNP96, Har99a, HW97, HKK91, IMP91, KR96, KLV94, KRM92, KLR96, KHB92, LPK99, LA90, LH96, LBB94, LCD⁺97, LA92, LA94, LWS⁺95, MTH94, MM95, MV91, MSB95, MSB96, MRG⁺90, NBS94, NCA96, NLA96, NA96, Nic97, NWÅM95, NL98, OS98, OL93a, PPK91, PPK92, PK98, PGBM97, PG91, PB92, PPAS⁺99, RvRS98, RD97, SS93, SB98b, SB98c, SB92b, SL95, SR92, TH93, TRG99, TA94, TMCM⁺96, TNS97a, UF93, VWGF95, VRC91, VRC92, VFK92, Yos90, Zau91, Zim91]. **mechanics/grid** [LWS⁺95]. **mechanism**
 [AIDAVB98, HY96, IBKvRS92, LP92, PC94b, CLS⁺97]. **mechanisms**
 [AC92, ARLG⁺94, LMRR98, vOC93]. **Mechanistic** [CG90, Bic99]. **mediated** [Kat93]. **medium** [GBT97]. **medium-sized** [GBT97]. **Medla** [WM95]. **melt** [WHM⁺96]. **membered**
 [AMY98, BKL⁺90, HKK⁺97, PMHRG97]. **membrane** [PMIB99].

membranes [SB99a, TM95]. **memories** [GW95]. **memory** [BDKJL95, CS90, DK93, FK95, fGGG94, Lim97, LMCPP92, MD95, MOSD97, MTBS91, Ske91, CS96]. **mercaptans** [AF97]. **Merck** [Hal96a, Hal96b, Hal96c, HN96, Hal96d]. **mercury** [CY98]. **Merrifield** [Mez91]. **mesh** [BBR96, Bec99a, CF97a, LWNS95]. **mesh-based** [LWNS95]. **Meshed** [BH98a]. **meshes** [CF97b]. **message** [VM95]. **metabolism** [WM93]. **metal** [BCMZ99, Bér97a, BBC⁺98, DvRS94, DBV98, FSI95, GGK98, GSK95, LS98, LHF93, LJ92, LDJ92, MM93, Mag95, MKF⁺97, RCAA99, SH91, Yos90, dIVM91]. **metal-free** [BBC⁺98]. **metallofullerenes** [NKA98]. **metals** [CH96a, HM90, HHC90]. **methane** [CY98, FS98b, MFG97, PSvRS⁺95, SK95]. **methanes** [WM93]. **Method** [BF96, KPV96, PZBM98, ATK94, Aer95, AT93, AS98b, AB97, BRP92, BSS90, BB98b, BWS⁺95, BG99, Bof94, BBR98, BR97, ČHP91, CR95, CLCL96, CT99, CCJ⁺99, CT97, DBS91, DHY90, DJ94, DBS93, DBS96, DKRK95, Dum91, ELA⁺95, ET98, FOCA96, FCNSÁ98, FRZ93, FPC91, FS97, FUS⁺94, GKM94, GML94, GJK⁺93, GPF97, GGP96, GS94c, HBLL98, HNS⁺97, HKŠ⁺97, HKK91, IC96, Ish98a, JLW97, Jon91, JDD97, JLN98, JMH96, JS93, JKS93, KZ99, KMKW98, KID93, KTK93, KD96, KTnH99, KK91, KRB⁺92, KRB⁺95, LL92, LSR97, LB96, LZT91, LBO94, LBAO96, LMFA92, LDM92a, LWS⁺95, MK97a, MK98, MM94b, Mar90, MLBD92, Mar98, MJ93, MVS92, MJFT96, MRS98, Mit98a, Mul91, NL91, NM97, Nil91, NWÅM95, OS98, PS96a, PNJS93, PKN⁺95, Pea94, PP97, PH96, PN95, Pur98, RK97, RM91]. **method** [RW99, RE99, RCv96, RPG⁺95, Rod94, RH90, RHKK90, SN90, SEJ95, Sha91, SQ95, She90, SMM97, SMF91, SNS95, SWK99, Ste90, Su93, SW96b, SBJ92, TH93, TKSM96, TRR⁺94, TMCM⁺96, VVSV96, VGN⁺92, VTR⁺94, VS97, WMM⁺95, WWXS97, WF94, WHHP97, YTT97, YL90, YB94, ZM90, ZV96, ZYY95a, ZM99, EKS97]. **Methodical** [KT93a]. **methodological** [Bog99]. **methodology** [CCBK95, KF94, SB98a, BJK95, DH95, MHS⁺94]. **Methods** [MS89, TNKM91, WHHP97, vDvdRvD92, AB98a, AVP93, AJB96, Ano15, BCG97, BMK90, BR99, CT95, CW93, CMS91, CNK97, DVJ⁺95a, DVJ⁺95b, DN92, Fab91, FGBH90, FKN⁺93, For91, FSI95, GH98, GJK⁺93, GPPS91, GLoNP96, HL96a, HKŠ⁺97, HS95b, HBR⁺99, JJTP93, KS96, KCK98, LSDB99, LHL⁺95, Luk94, MK97b, MM94c, Mez91, Mit94, MN95, NBS94, OS94, OBL95, PS98, PT96, PPAS⁺99, PT98, RK97, Ric93, ST91, STB⁺94, SW93a, SHCR97, SKT94, SR98, SOL97, SHCY93, SB94, Ste91, SKK⁺93, TJP96, VRBE93, WJV⁺96, ZvN93, Zho93, ZL94, vFB91, DB98, NSWP90, Chr90]. **methyl** [BHK⁺91, CK91, CC91b, CG90, CG96, ENvRS94, HMČ91, HCCC99, KSP90, LBB94, MS98, PG91, SMS98, dANS⁺96]. **methylalaninamide** [SVS⁺97]. **methylamides** [HMČ91]. **methylation** [CPJ98]. **methylbutyronitrile** [CC91b]. **methylcarbamates** [Kat90b]. **methylidioxirane** [ABBC99b]. **methylene** [Can93]. **methylenecyclohexane** [Jai90]. **methylenecyclopentane** [Jai90]. **methylhydroxycarbene** [NBG93]. **methylindole** [WLKJ92].

methylpterin [CG96]. **methylsulfonyl** [SSQ92]. **Metropolis** [Dum91, JMH96, SS98b]. **Mezey** [BP93b]. **Mg** [GG96, Mar98, PFFF97, Ste91]. **microcanonical** [Dum91]. **microclusters** [Pul97]. **Microscopic** [LCW93, LW92]. **Miertus** [VWGF95]. **MIMIC** [MRM97]. **mimicking** [BPS93]. **MINDO** [FDMB92, KHF91, Kas90, MFG91, VFM⁺90]. **MINDO/3** [FDMB92, KHF91, Kas90, MFG91, VFM⁺90]. **mineral** [TYMS98]. **mineral/aqueous** [TYMS98]. **minima** [Art93, GML94, GS90c, HO93, Har99b, RTSM93, SB90]. **minimal** [AG90]. **Minimization** [FW91, VB93, AS98b, BMN99, BB98b, CFK97, DKRK95, DS90, DRP98, GS94a, GS94b, GS97, GBE92, Hal99a, HS95a, KPR91, LLD98, MM97, NVS91, OS98, PFFF97, Pet95, Pul97, RPG⁺95, SBK97, TS99a]. **minimized** [KZ99]. **minimizer** [DZSB94, PGAL93, Zim91]. **minimum** [FD91, GvRSvEH⁺93, KF99, MS95, NVS91, Sno92]. **minimum-energy** [NVS91]. **minor** [ZS99]. **Mixed** [GS94c, PF99, FCS98, GM90, JG91, LMB96, LO98, Pul97]. **mixed-canonical** [FCS98]. **Mixing** [SHCR97]. **MM** [CG97, CG99, IMP91, Gao97, IMP91, LO98, PF99]. **MM-EHMO** [IMP91]. **MM2** [AYC94, CT97, FRC91, MSB95, MSB96, BMW⁺90, Fro91, GPPS91, HMČ91, Jai90, KHB92, Sau91, SGB91, SS93, SAF93, SHHČ90, SR90, TNS97a]. **MM2-87** [Fro91]. **MM2/MM3** [SGB91]. **MM3** [ALYT90, AF93, AF94, AYC94, Ano97, CRP97, FA94, LBB94, LCD⁺97, LA92, LA94, MSB95, MSB96, ALY90, DRF92, FD94, KPI95, LCA94, LFB96, LA91, LA98, Sau91, SGB91, Sul95, TA98, TNS97a]. **MM3-MD** [LCA94]. **MM4** [ACK⁺96, ACL96, AF97, NCA96, NLA96, NA96, TNS97a]. **MMFF** [Hal99b, Hal99a]. **MMFF94** [BBH99, Hal96a, Hal96b, Hal96c, HN96, Hal96d, Hal99b]. **MMFF94s** [Hal99b, Hal99a]. **MNDO** [Fab91, FDMB92, FSI95, GJR91, HKŠ⁺97, KHF90, KHF91, Kas90, Kat93, KWWS91, KT93a, KT93b, LIO90, MFG91, OL90, OBL95, PT96, PT99, Rod94, SUG92, VFM⁺90]. **MNDO-PM3** [Fab91, Kat93]. **MNDO/M** [HKŠ⁺97, KWWS91]. **MO** [PSY⁺99, PK91, AC92, GPK95, MTRJ95, ST91, VK94, WHM⁺96, SR94b]. **MO-Studies** [AC92]. **MO-theoretical** [GPK95]. **mobile** [SB99b]. **mode** [fGGG94, KG91, KG99, SSM96, ZS93]. **Model** [TP93, ABE⁺96, BCT98, BRC94, BF96, BKMH97, BSL91, CPR90, CHPK91, CTC95, CT92, CG97, CG98, DDV93, DDLV95, DVL90, DK97, DBV98, Fer95, FTA91, FSCS99, FRZ93, FS98b, Gao97, GMM95, HS99, HCK95, HCCC99, IRRR93, JS93, Kat93, Kna92, KID93, KA96a, KT93a, KTnH99, LMRRRL98, LDJ⁺97, MFG91, MNVM97, MRS98, OS91, O'm99, PK98, PTCB99, PKCM99, RC93, REA⁺98, RCB99, RL95, SBM97, SSM96, SSR92, SCRI93, SK95, TKSM96, TRG99, TRLRB96, VWGF95, Wib99, WPLC95, XWS92, ZFY95, dVA92, AC92, MTR90]. **Modeling** [Her97, JKS93, PB92, PPAS⁺99, ATK94, Aer95, BMW⁺90, BDH⁺94,

BPZL96, BBC⁺98, BP94, CHP91, CHP90, CEÁ92, DP95, EHNW96, EPBD95, FZL97, FM91, GC97, Jen94, LP95, MRG⁺90, PFMI97, PF99, PMRG93, RSOF96, RL95, TRJ96, TS99b, WC90]. **Models** [Cas89, Sie96, BRP92, BMN99, CJC⁺93, CMPT98, Cri95, Gar90, GHS97, HK90, HVvRS93, JB95, LHL⁺95, LW92, Mag95, MK92, MSZ96, PFC96, PFM91, RC95, SC99, SLH96, SKOR93, TD95, TSZ90, WS99a, WO97, Wil94, WA99, WWF95]. **Modern** [Yar95, KLR96, Dav97]. **modes** [DOO93, DZ97, GW98c, KCK97, TRG99, ZS99]. **modification** [vLP90]. **modifications** [AJ99a, AJ99b, KRL⁺93, SMA92]. **Modified** [IRRR93, SAF93, AS99, DJ94, DW98, FW91, FS97, GLP95, KTnH99, Mar97a, Mar97b, Mar98, NM97, PNJS93, PKN⁺95, Rod94, TG98, WF94, WFR99, KLV94]. **modular** [TH93]. **Modulation** [BA94, AVP93]. **module** [DK93]. **molar** [WWF95]. **Molecular** [ALY90, ALYT90, AF93, AYC94, AF97, ACDP98, BBR96, BB96a, Bla91, BBC⁺98, BCF⁺92, BSL91, CLCL96, CW97, CP98, CBIT94, CH88, CG98, DS92, DMB91, FA94, FR90, FRC91, Fro91, GS90c, GMM95, GHR93, GBT97, HS93b, IMP91, LB96, LA90, LHBF93, LH96, LBB94, LJKL98, LBI⁺97, LMCPP92, LA94, NCA96, NLA96, NA96, NQ99, NSWP90, Obe98, OL93b, OC98, PKCM99, RvRS98, SBA97, SB98b, SB98c, SKB92, SB92b, Tay99, TYMS98, VHV99, Van97, VRC92, WC90, WLKJ92, YKU96, Yos90, vOC93, AM99, Aer95, AT93, AGP91, ALO93, AC92, ALO94, AVA93, ACK⁺96, AFK⁺95, AS98b, AHLR⁺91, Art93, AW90, BT96, BCB⁺97, BCT98, BKLS95, BO93, BDH⁺94, BRC94, Bec98, Bek97, BFST93, BvGMP97, BWS⁺95, Bic99, BSS97, BPZL96, BG96a, BG96b, BK96, BCT91, BV97]. **molecular** [BSB⁺97, BGZP97, BW90, BP94, BRH90, CZM98, CPR90, CDG⁺99, CHP90, CA93, Che95a, CC98, CCJ⁺99, CRP97, CK91, CACD97, CMS91, CMC96, CT97, CT92, CC91b, CH94, CH96b, CG96, CG97, CG99, DM94, DOO93, DDV93, DDLV95, DK93, DNC96, DVL90, DH90a, DV99, DK97, DA96, Dun90, Ear93, EGH⁺93, EGHT97, EA93, ELA⁺95, EPBD95, EK97, FSW96, FHB99, FCNSÁ98, FK91, FGG⁺92, FBK90, FW93a, FLHP97, FLPH98, FG96, FW91, FPC91, GGK98, GPS93, Gen99, fGGG94, GS90b, GCT96, GC97, GC98, GGP96, Gre95, GG96, GJD94, GT98, GH97, GPPS91, GLoNP96, Hal96a, Hal96b, Hal96c, HN96, Hal96d, HS93a, Har93, Har99a, HTC98, HGB93, HW97, HE99b, Her93, Her97, HYA92, HBBF97, HEN⁺94, HYH⁺94, HšR95, HKK91, HCK95, IG94, JP92b, JVB95]. **molecular** [JM90, JG93a, JS93, KR96, KLV94, KRM92, KLR96, KWWS91, KHW⁺90, Klo92, KE95, KUT⁺97, KHB92, KB92, KVKK93, KKCH96, KKJ97, KHL96, KPR91, KTS92, LDVP91, LM93, LK95, LKL95, LPK99, LCA94, LLD98, LCD⁺97, LA92, LP95, LS94, LIO90, LO98, LWS⁺95, Mag93b, Mag93a, MK98, MTH94, Mar97a, Mar97b, Mar98, MI99, MM95, MV91, Maz97, MJ93, MSB95, MSB96, MK97b, ML91, MTBS91, MSDC94, MRM97, MM94c, Mit98b, MRG⁺90, MN95, MPBM98, Mul91, NBS94, NTK96, Nic97, NM97, NWÅM95, NL98, ORK⁺91, OS98, OS94, OL93a, OM96, PPK91, PPK92, PK98, PKRR97, PAS90, PaST94, PMIB99, PSY⁺99, PGBM97, PZBM98,

Pet95, PG91, PB92, PPAS⁺99, PS96b, PH96, PFLH93, PE92, PT98, PTCB99, PDPM97, RLG98, RC93, Ric91, RLA⁺98, RK99, RBC⁺98]. **molecular** [RD97, RMS93, RHK90, RHKK90, RSK92, RTSM93, RKL93, SSD93, SAdV97, SBB⁺93, SS93, SN99, SHCR97, Sha91, SWM90, SM94, SN91, STPA91, SB99a, SKOR93, SACKH95, SB90, SHM95, SKM94, SM90, SK92b, SYHW99, SL95, SR92, TH93, TMB93, Tav96, TRR⁺94, TRG99, TRJ96, TvG94, TMK⁺99, TMCM⁺96, TWR⁺95, TNS97a, TNS97b, UF93, VP94, VWGF95, VRC91, VFK92, VPV91, WAM91, Wan91, WWSS98a, WWSS98b, Wel90, WSV92, WA99, WPLC95, WAW⁺97, WKP⁺90, WNW91, YC95, YL90, YB94, YB95b, YTRB97, ZHSB92, ZM90, Zau91, ZYY95a, Zho93, ZL94, ZG92, Zim91, CBIT94, Hal96c, RJP97, SB98b]. **molecular-field** [MRM97]. **molecule** [AC94, Bro99, Kri90, NSA⁺97, RPR⁺98, TKTN99, TMCM⁺96, YB95a]. **molecules** [AS98a, ASM⁺92, BLO94, BP93a, BW91a, BKMH97, CNOJ93, CW91, CSC96, CACD97, Cul92, CG97, CG99, DF97, Din91a, Din91b, DJ94, EPW97, Fab91, FPL95, FW92, FRZ93, FS97, GM90, GJK⁺93, GP94, GW98c, Gri94, GSW90, HBLL98, HG93, HI98, Hea90, HK95, HMS93, JHB96, JJTP93, JTM⁺95, JS93, KG92, KD91, KJ97, KG93, KHA90, KSD90, LSCA98, LPD90, LL92, LKLB⁺99, MAP97, MK98, MHS⁺94, Mit98a, MRG⁺90, MPJC98, Net94, NVK⁺97, OJL93, PNJS93, PKN⁺95, PKRR97, PHG94, Phi90, PC94a, PD99, RCB99, RRR92, ST91, SC94, SR94a, SS98a, SNS95, SACKH95, SWAH91, TKF92, Tel90, TG98, TGW96, TJP96, WAM93, Wan97, WHF97, WS93, WCMS91, ZV96, vEK99]. **Møller** [BCFM98, Klo93, RPW98]. **MolSurf** [NS98]. **molybdenum** [Van97]. **moment** [LP95, McD96, SFB91]. **moments** [BRC94, Din91b, GM90, KE95, RSK92, SR98, SSRO92, SACKH95]. **momentum** [ZS95]. **Mono** [GSK95]. **Mono-** [GSK95]. **monodentate** [TRG99]. **monomer** [Kna92]. **monophosphate** [BB98a]. **monopole** [SKOR93]. **monopoles** [BW90]. **monosaccharides** [GZL⁺94]. **monosubstituted** [SK91, Van97, VFM⁺90]. **Monte** [Dum91, JJ98, JMH96, SS98b, BMJ90, CFK97, CE96, CCJ⁺99, CBSB94, CLO99, DBV98, DN92, DV97, ET98, FB97, FCS98, GLP95, GPB⁺97, GVH94, GLLOB91, GS94c, GBE92, HL96b, HNS⁺97, HHP91, JG93a, JN93, JLNTR93, JAdV96, KID93, Kul90, Mar90, MM97, MJSV92, NBS94, NVS91, PKRR97, PLB92, PHG94, RPG⁺95, SS98a, SMM97, TM95, TS99a, TMCM⁺96, VGN⁺92, vFB91]. **mori** [MN92]. **MORMIN** [PGAL93]. **Morse** [DKK⁺93, DKK95]. **most** [PP97, RTSM93]. **motion** [DOO93, DvRSH94, Maz97, Mil90]. **motions** [EPBD95, Gen99]. **MP2** [BvH⁺92, CW93, FV98, HA93, Lim97, MD95, PS98, VHV90]. **MP2-energy** [Lim97]. **MPGRAD** [HA93]. **MPSim** [LBI⁺97]. **MRCEPA** [VVS96]. **MRCI** [VVS96]. **MRD** [BW91a, Gri94, RHKK90]. **MSEED** [PCG⁺92]. **MST** [BLO94, CLO99, LBO94, LBAO96, OJL93, OBL95]. **MST-SCRF** [BLO94, LBO94]. **MST/SCRF** [LBAO96, OJL93, OBL95]. **Multi** [TG98, WHHP97]. **multi-Fock** [WHHP97]. **Multi-multigrid** [TG98].

multibody [TNS97b]. **multicanonical** [HO93, HNS⁺97]. **Multicenter** [KA92, RC93, Ric93, RSK92]. **multicomponent** [DF96]. **multiconfiguration** [VÅJ94]. **multiconformational** [CCBK95, SS98a]. **Multidimensional** [BK97a, KRB⁺95, ACB92, BGBW97, Kuc96, PFFF97, BB98a]. **multifunctional** [MJSV92]. **Multigrid** [Bec99a, HS93c, TG98, VS97]. **multimolecule** [CCBK95]. **multiparticle** [KA92]. **Multiple** [GT98, SB99b, BSS97, FM94, GMY97, HO93, HVvRS93, KF94, RSK92, SMA92, Sno92]. **multiple-hydrogen** [HVvRS93]. **multiple-minima** [HO93]. **Multiple-site** [SB99b]. **multiple-solution** [FM94]. **Multipole** [SKOR93, BWS⁺95, BSS97, FOCB96, Fer91, GK90, KE95, MGPR90, PSW96, PS96b, PFM91, RC95, RSK92, SKT94, SSRO92, WPLC95, BRC94]. **multipoles** [Din91a, Din91b, WM94]. **multiprocessor** [LMCPP92, Ske91]. **multipurpose** [PBRP91]. **multireference** [DLS⁺97, DKH98, SWK99]. **multistrand** [GS94a]. **Multivariate** [BB98a, AJB96, Ran91]. **Munksgaard** [Tay99]. **mutants** [EHNW96]. **Mutation** [Wun92]. **MX** [BT92]. **myelin** [GS90c].

N [Ano97, Ano15, BvH⁺92, GBT97, KTT94, KTT95, SVS⁺97, KTT94, DJ94, GM98a, HMČ91, HDA93, KTT94, KTT95, McD96, PT99, TK94, VTR⁺94]. **N-** [HDA93]. **N-NMR** [GM98a]. **N'-tetramethyl-P-diaminobenzene-chloranil** [KTT94]. **N16** [CBSR99]. **N5** [CG96]. **NAD** [PGBM97]. **NADH** [CG90, PGBM97]. **NaNC** [DvRSH94]. **nanocrystal** [YTT97]. **naphthalene** [BDH⁺94]. **naphthyl** [OC98]. **native** [ATK94, CNS96]. **Natural** [GW98a, GW98b, GBW98, Bak93, BC96, BRC94, Bér97a, FSW96, PP98, SRI92, GW98b]. **Nature** [Cas89, TLBP99, BSGB98, Gar90, LP99, MP90]. **NCO** [FRC91]. **NDDO** [ALO94, FRSNS92]. **necine** [GCT96, Gio98]. **need** [BW90]. **Neighbor** [WWSS98b, WWSS98a]. **Neighbor-list** [WWSS98b, WWSS98a]. **neolignans** [CT97]. **neon** [MN95]. **neopentane** [MFG97, PKCM99]. **net** [PNJS93, PKN⁺95, Su93, Wil94, WKP⁺90]. **network** [KD96, MK94]. **networks** [AM99, Art94, BBR96, FKN⁺93, FPL95, HH99b, MAP97, TNS97b]. **neural** [AM99, FPL95, HH99b, MAP97]. **neutral** [BLO94, BKK⁺96, CAC99, FW92, GMO93, JS93, LBAO96, OJL93, VHWC98, LMB99]. **Newton** [AB97, DZSB94, SB90, ZKA94]. **Newtonian** [PGAL93]. **Nguyen** [Ano15]. **NH** [GS90d, LDMS99, PFC96, BW91b, Mag95]. **NHOC** [MP90]. **Niches** [Har99b]. **nine** [BKL⁺90, Sau91]. **nine-** [Sau91]. **nine-membered** [BKL⁺90]. **nitrate** [BL91]. **nitrenium** [FHT99]. **nitride** [GM98a]. **nitriles** [CLQSS98, FVR92]. **nitrogen** [LA90, MSB95, MSB96, NPLT97]. **nitrogen-containing** [MSB95, MSB96]. **nitrone** [MP98]. **nitrophenols** [BLF95]. **nitroxide** [ISH98b]. **nitroxyl** [BL91]. **nitroxylum** [BL91]. **NLO** [GC98]. **NMR** [BH98b, BKMM99, FM99, For91, GM98a, GdAG⁺98, KMM99, KFML99, LCA94, MM97, MRH99, PT99, SSD93, SHCY93,

SVS⁺97, SYHW99, VES⁺99, Wib99, WHM⁺96, WHHP97]. **NMR-derived** [SSD93]. **NO** [BL91, Tay99]. **non** [BRP92, BGZP97, LDM92b]. **non-Hierarchical** [BGZP97]. **non-linear** [LDM92b]. **non-stiff** [BRP92]. **nonadditive** [DK97]. **nonadditivity** [TRG99]. **nonan** [SMS98]. **nonan-9-one** [SMS98]. **nonbond** [SK95]. **nonbonded** [AFK⁺95, BPC91, GK93, KID93]. **nonbonding** [KMM99]. **nonclassical** [TLBP99]. **nonconjugated** [MSB95]. **nondegenerate** [BC93, GML94]. **nonempirical** [HKŠ⁺97, Ove91]. **nonidentity** [LKL95]. **Nonlinear** [RP99, AS99, HS95b, HOL99, KD91, KSD90, Ran93, ZYY95b, TLBP99]. **nonlinearized** [RM91]. **Nonlocal** [HGC⁺95]. **nonmagnetic** [EBD⁺99]. **nonoptimum** [Mag93b]. **nonorthogonal** [FM91]. **nonoverlapping** [KRL⁺93]. **nonpolar** [CKP96]. **nonproximate** [CTS98]. **nonreactive** [SB98a]. **nonspherical** [Her97, HREK98]. **norbornane** [CGdAC91]. **norbornene** [CGdAC91]. **norcamphor** [BO93]. **Normal** [AC94, fGGG94, DZ97, GW98c, KCK97, ZS93, KG91]. **Normalization** [BB96b]. **note** [HHC90]. **Nova** [Ran92]. **novel** [DH90b, JLW97, TSZ90, WC90]. **novo** [PM93]. **Np** [SHM99]. **NPT** [JJ98]. **NT** [SW96b]. **nuclear** [BGBW97, CCN90, CRME93, CMC96, EPBD95, FGBH90, FSW96, For91, FM94, PGAL93, VRV99]. **nucleic** [BB98a, LDVP91, RC95, RTGJ98, SV94, SCZC99, TGW96]. **nucleophilic** [HKK⁺97, LS94]. **Nucleoside** [Wun92, VRBE93]. **nucleosides** [GLP95, VRBE93, Wun92]. **nucleotides** [PGBM97]. **nucleus** [McD97]. **number** [BMP⁺91, TSZ90]. **numbers** [Mar90, SCC93]. **Numerical** [BG96a, BG96b, CDR⁺95, CF97b, HO97, HS95b, SOL90, ACB92, ELA⁺95, För92, FPC91, HOL99, KTK93, KT93a, OS94, Pet94, RK97].
O [FBTD92, GS90d, GMY97, JKS93, KHA90, Lóp95b, LDMS99, MI99, Sie96, VHV90, BSN99, DJ94, GMY97, HDA93, Mag95, NL91, NQ99, PT99, RR92, Rod94, TK94, VCLB92, vDvdRvD92, SUG92]. **O-** [HDA93]. **o-AMSA** [SUG92]. **O-H** [VHV90, RR92]. **obeying** [LJ91]. **object** [SA99]. **Observations** [TMB93]. **obtain** [SSRO92]. **obtained** [LIO90, MM97, Mit98a, SAdV97]. **obtaining** [LJ91, MM91]. **OCN** [SAF93]. **OCN-containing** [SAF93]. **octane** [GHT98]. **octupole** [Din91b]. **OCXYCH** [Arn94]. **Off** [KID93, LOP⁺97, LPW⁺97, LKC⁺98]. **Off-lattice** [KID93, LOP⁺97, LPW⁺97, LKC⁺98]. **OH** [SHM99, Sie96, AIDAVB98, Luk94, vDvdRvD92]. **OH-propene** [AIDAVB98]. **OHF** [TEdV90]. **OHO** [VHV90]. **olefinic** [Sel90]. **oligoazine** [SE94]. **oligomeric** [fGGG94]. **oligomers** [RHN94, RCATD96, WJV⁺96]. **oligonucleotides** [GVH94]. **oligosaccharides** [DDL95, ITP90, OM96]. **oncogenic** [YSJ95]. **One** [Kuc96, AD90, BBR98, CLQSS98, Cis93, FDMB92, JCV⁺93, Mit98b, SSM96, SMS98, VÅJ94, VHWC98, ARLG⁺94]. **One-** [Kuc96, SSM96]. **one-center** [Cis93]. **one-configuration-type** [BBR98]. **one-electron** [AD90, JCV⁺93]. **one-index** [VÅJ94]. **One-step** [ARLG⁺94]. **onto** [CBR97, JAdV96]. **open**

[ABD90, AD90, BCB⁺97, Cha92, ES99, LLB99, RCvRS97b]. **open-ended** [ABD90, AD90]. **open-shell** [BCB⁺97, LLB99]. **Operations** [Gar90]. **operator** [BBR98, LZT91]. **operators** [AD90, JCV⁺93, LL92]. **OPKINE** [PBRP91]. **OPLS** [BMJ90, DFTRJ97, HE99b, HKŠ⁺97, JN93, JLNR93]. **OPLS-like** [HE99b]. **Oppenheimer** [BG93]. **optical** [KD91, KSD90, RP99]. **optima** [FPRD99]. **Optimal** [Mez97, RKL93, BWS⁺95, NSW90, Ran91, TAC98, DF96]. **Optimization** [AKF93, BLO94, FG96, HH99b, MK97b, Ste91, WWSS98a, WSS99c, AS98b, BH91a, Bak92, BB93, Bak93, Bak97, BCT98, BMD99, Bér97a, BCT91, DV99, DJ94, EPW97, FSBMP99, FPL95, GM98b, Har99b, Hea90, KFML99, LSR97, LPW⁺97, LZT91, MM95, Mit98b, MPBM98, NM97, PKRR97, PP97, PK91, TEHL93, YM98, ZKA94, KT93b, WWSS98b]. **optimizationin** [RRR92]. **optimizations** [BvH⁺92, MS95, SH91]. **optimize** [PASF96]. **optimized** [BGZP97, FW92, LBO94, OBL95, SCRI93, CH96a]. **Optimizing** [ET98, AB97, AB98b, PPK92]. **Optimum** [Mag93b]. **option** [Hal99a]. **ORAC** [PDPM97]. **ORAL** [Zim91]. **orbit** [HBLL98, KMM99, LL92, VRV99]. **orbital** [AC92, BRC94, Bic99, CT92, CH94, CH96b, CG97, DM94, DH90a, FLHP97, FLPH98, GPSS93, Jur96, KWWS91, KTS92, LKL95, MI99, PNJS93, PKN⁺95, PSY⁺99, PFLH93, SRI92, SR92, VPV91, Wel90, vOC93]. **orbitals** [CDR⁺95, CDG⁺99, CC98, Ish98a, Jon91, KMM99, PF99, RLA⁺98, Zho93, ZL94, ZM99]. **orbiting** [DvRSH94]. **order** [ACD97, BW91a, Bec99a, Del96, FR94b, FV98, GW98b, Har99b, Ish98a, Klo97, NS95, Pao90, RPW98, She90, SG95]. **ordering** [KCK97]. **orders** [KK92]. **organic** [ASM⁺92, BMD99, BFST93, BBC⁺98, CNOJ93, CG97, DJ93, DN92, ER95, GC98, Gri90, HG93, HDA93, KG92, KJ97, LSCA98, LBAO96, MTR95, MRG⁺90, OC98, SC94, SACKH95, TYMS98]. **organization** [JMH96]. **organo** [LJ92]. **organo-transition** [LJ92]. **organolithium** [PK95]. **Organometallic** [Had98, JFR92a, JFR92b, SH91, VF92]. **orientation** [PS96b]. **orienting** [HP94]. **Origin** [LKC⁺98]. **Origins** [LS96]. **ortho** [OC98, SMF91]. **ortho-terphenyl** [OC98]. **Orthogonal** [Zho93]. **orthogonalized** [Ran93]. **other** [Bic99, Fro93, Hal99b, SCP92, SW93a, Tel90]. **out-of-plane** [LPK99, Mil90, TNS97a]. **outer** [CH96a]. **over-relaxation** [NH91]. **overall** [Tel90]. **overdamped** [GJD94]. **Overestimation** [TEdV90]. **Overhauser** [For91, FM94, PGAL93]. **overlap** [LTHY96]. **overlaps** [WSS99a]. **oxazole** [KS91, SW93a]. **oxidation** [BHK⁺91, GCRSAIVB99, SSV93, vOC93]. **oxide** [Rau96]. **oxo** [JFKK94, Kat90a]. **oxovanadium** [BH98b]. **oxyacids** [DJ93]. **oxyethylene** [DS92]. **oxygen** [BSGB98, LDJ⁺97, LPT97, NPLT97]. **oxygenated** [GS90d]. **oxymethylpyridines** [NWÅM95]. **oxyphosphoranes** [GS90d].

P [BT92, CLS⁺97, KTT94, KTT95, MRG97, Tay99, MR93, CLS⁺97, GS90d]. **P.C.** [Var92]. **P450** [HL96a, Kat93]. **P450-mediated** [Kat93]. **P450cam**

[BO93]. **pack** [vEK99]. **package** [SL95, TS99b, vEK99]. **packing** [CC91a, GS94a, GS94b]. **pair** [BMW⁺90, Cul92, GZ95, JZ96, LS98, RBC⁺98, SV94, SCZC99]. **pairing** [PD99]. **pairs** [Pra93, RC95]. **pairwise** [DH90b, WSS99a]. **palladium** [Sel90]. **Palmitoyl** [LH96]. **pancreatic** [Kik96, PS92]. **papain** [KR96]. **paperback** [Dav97, Dav97]. **paracyclophanes** [BRLD92]. **Parallel** [BCFM98, BHE⁺93, CBWF98, DKH98, GF96, LWNS95, Lim97, MD95, MOSD97, NIS98, Net94, NS95, PLY98, VT91, BBR96, Bec97, BDKJL95, CDG⁺96, CMC92, CS90, CS96, DLS⁺97, DPK94, FK95, GJL⁺90, HL96b, JP92a, JP92b, LBI⁺97, LMFA92, MTBS91, PH96, RGK93, RBC⁺98, RBE98, SS93, SLG93, SOCF98, SWK99, SL95, TMK⁺99, VM95, VA98, WHHP97, WH95, YB94, JP92a, JP92b]. **parallel-coordinates** [Bec97]. **Parallelization** [JG93a, KMO92, DK93, TA94]. **PARAM** [SLG93]. **paramagnetic** [Kar99]. **Parameter** [LFB96, BSV94, CA95, ISH98b]. **Parameterization** [Fer95, CT92, FSBMP99, FUS⁺94, GH98, Hal96a, LA90, LBB94, LFB96, NL98, SGB91, LPW⁺97]. **parameterized** [TRLRB96]. **parameters** [AJ99a, AGP91, ACF091, AKF93, BLO94, BCB⁺97, Can93, FG96, GDK92, Hal96b, Hil97, HA95, HH99b, KT93b, KHB92, LOP⁺97, MTRJ95, MRH99, NWÅM95, Ran91, RSB96, SEJ95, SB95, Smi99, Ste91, SWAH91, SK95, VFK92, WH93, YM98, DLLV95, PT99]. **Parametrization** [DMV98, FR94a, HLO99, OM96, SN91, KVL91, LBAO96, NS98, OL93a, FRC91]. **Part** [Dav97, Dya98, VRC91]. **Partial** [GK90, Hea90, SWS⁺90, BT96, CNOJ93, PNJS93, PKN⁺95, SOL90, WLKJ92]. **particle** [Hil97, LW94]. **particles** [LLD98]. **particular** [YTT97]. **partition** [BH91b, KW91b, Tru91]. **Partitioning** [DOO93]. **passing** [VM95]. **Path** [Mor93, MN95, Bau90, DBS96, Mez92, PB92]. **paths** [HH99a, ZMC⁺97]. **pathway** [VP94, ZVP98]. **Pathways** [SR92, AJB96, Sau91, VP92]. **pattern** [CBR97, Mar90, SHCY93]. **Pauli** [Cha92]. **Pb** [JFR92b, Ste91]. **PC** [Rog90, Rog94, Rog03]. **PCs** [TRJ96]. **peak** [CCN90]. **PEFF** [Dil92]. **Penning** [CC98]. **penta** [TRG99]. **penta-** [TRG99]. **pentagon** [AOYØ96]. **pentahalides** [BT92]. **pentanes** [GdAG⁺98]. **Pentium** [TRJ96]. **Pentium-based** [TRJ96]. **pentyne** [CC91b]. **peptidase** [BSL91]. **Peptide** [GVD96, PFC96, BPS93, BK97a, Bec97, Büh99, Dav94b, GS90c, HO93, HS95a, JLW97, KOH98, KFML99, MTRJ95, Par99, PMIB99, RK95, SS98b, WP97]. **peptides** [AC92, AS96, BCB⁺97, BM99, BMN99, Dav93, Dav94a, GS90a, GS90b, HYA92, KF99, MHJ⁺98, MM97, NTK96, SKOR93]. **Pepto** [CCN90]. **Performance** [BMN99, DNC96, HKŠ⁺97, SKT94, VA98, FTW⁺96, GM98b, Hal96a, HGK⁺96, HEN⁺94, RCB99, BBR96]. **pericyclic** [OS91]. **period** [LS96]. **periodic** [SKT93]. **periods** [ENvRS94]. **peroxides** [BFST93, CA93]. **peroxy** [ARLAB99]. **perpendicular** [Din91a]. **perturbation** [CKP96, CG98, DPK94, ER95, FPSK92, HVM99, HK90, Klo97, MP90, NS95, RM94, RE99, Wun92, ZvN93]. **perturbations** [HE99a, SEJ95]. **Perturbative** [LLB99, ET98]. **perturbed** [DKK95]. **PES** [MK94]. **PESP** [Mar98]. **PF** [Cai94]. **PH** [GS90d, Mag95]. **pharmacophores** [SSM96].

phase [ABBC99b, BKK⁺96, FDMB93, HGC⁺95, MI99, MGLL99, MSSS95, SK91, UF93, VHW98, VCLB92, VFM⁺90, WCK96]. **phases** [DKL90, TM95]. **PHC** [FBTD92]. **phenol** [FF93]. **phenolate** [VFM⁺90]. **phenols** [KHF90]. **phenotype** [Har99b]. **phenyl** [KRM92, LK95, WMM⁺95]. **Phenylene** [WJV⁺96]. **phenylimidazole** [HL96a]. **phenylnitrene** [CGBC96]. **phosphaacetylene** [NVER97]. **phosphaethene** [SBM97]. **phosphatidylcholine** [CCJ⁺99]. **phosphatidylcholines** [LH96]. **phosphatriafulvene** [SSH93]. **phosphine** [LFB96]. **phosphole** [SBM97]. **phospholipase** [SN91]. **phospholipid** [CHP90, CHPK91, SB99a]. **phosphoranes** [GS90d, WZG⁺93]. **phosphorothionate** [Kat93]. **phosphorus** [LA90, PKN⁺95, WZG⁺93]. **phosphorus-containing** [PKN⁺95]. **phosphorylcholine** [SK92a]. **Photoelectron** [CC98, MTR90]. **photolysis** [NQ99]. **photooxidation** [LDJ⁺97]. **photoreaction** [GJ95]. **phthalimide** [KRM92, RdBN90]. **phylogenetic** [RWB99]. **physical** [Gri90]. **pinene** [BPZL96]. **Pipek** [BP93b]. **piperidines** [CPJ98]. **Pitfalls** [Jai90]. **PK** [YG92a]. **planar** [Din91a, Din91b]. **plane** [LPK99, Mil90, Par99, TNS97a]. **plasticities** [COR99]. **platinum** [KSB⁺93]. **plausibility** [VP93]. **Plenum** [Chr90]. **Plessset** [Klo93, RPW98, BCFM98]. **PLOR** [Dav93]. **PLORing** [Dav94b]. **plots** [BB98a]. **PM3** [JFK94, Ste90, ALO93, AKF93, BMD99, BRC94, CT92, Cso93, DHY90, Fab91, FSI95, GJR91, GPPS91, HKŠ⁺97, JS93, JKS93, KHF90, KHF91, Kat93, MFG91, OBL95, SUG92, Ste91, SK91]. **PM3-derived** [ALO93]. **PM3-SM3** [CT92]. **PNP** [KG99]. **point** [BRC94, Ear90, FB97, GP94, HD92, KTnH99, MSZ96, RC93, SCR93, Spa96]. **points** [AB97, AB98b, QHIH98, RTSM93, YB95a]. **Poisson** [AS97, Bru93, BNDS97, CF97a, CF97b, DF97, DM91, HL96a, HS93c, HS95b, LDM92b, NH91, RM91, Sha91, SQ95, SW96a, SMM97, TG98, ZYY95b, ZPV⁺96]. **Polanyi** [ABBC99a, ABBC99b]. **polar** [FCNSÁ98, PLB92]. **POLARIS** [LCW93]. **polarity** [HMS93]. **polarizabilities** [RNDP98]. **polarizability** [ACRC97, BLF95, GdAG⁺98]. **polarizable** [BCT98, BDKJL95, CTC95, Gao97, HY96, MRS98, PTCB99, RCB99, TRG99, dVA92]. **Polarization** [LO98, PMIB99, CPR90, CTC95, CMPT98, DH90a, WFR99]. **polaronic** [RMW91]. **Poling** [STT95]. **POLTEV** [HKŠ⁺97]. **poly** [BMD99, DS92, GSK95, SE94]. **poly-ligated** [GSK95]. **poly/oligoazine** [SE94]. **polyacenes** [CW93]. **polyatomic** [For96, HBL98, LL92]. **polybenzenoid** [PMHRG97]. **polycyclic** [WHF97]. **polyelectrolyte** [FOCB96]. **polyelectrolytes** [RM91]. **polyesters** [Sun94]. **Polyethylene** [DH99]. **Polyglycolic** [PC93]. **Polygonal** [HH99a]. **Polyhedra** [LKSS91a]. **Polyhex** [MSK⁺90]. **Polymer** [Kna92, LB96, RL95]. **polymers** [Maz97, NSW90, PL94, SLPP97, ŽRK⁺95]. **polymorphs** [EKS97, PRR⁺99]. **Polynomial** [Mez92, ABD90, Bal91a, WS99b, Živ90]. **polynomials** [Bal90, VT91]. **polyparaphenylenes** [PL94]. **polypeptide** [GS94a, GS94b, PSW96]. **polypeptides** [CNS96, GS97, KG91, KMKW98, LSR97, LA91, NVS91, PFM91, SHCY93, SKM94, vFB91]. **polysaccharide**

[PC94b]. **polysaccharides** [FPR97, GZL⁺94]. **polythiophene** [RHN94]. **popular** [GvRSvEH⁺93]. **population** [TKF92, TLBP99]. **populations** [ATS90, GC98]. **Portable** [CS96, VM95]. **portrait** [Bow98]. **position** [Mez97]. **positioning** [Bru93]. **positions** [ZY96]. **positively** [MSB95, MSB96, RLG98]. **possible** [BG99, HDA93, KG92, PSvRS⁺95, SF96]. **post** [TEdV91, CER94, KS96, NSA⁺97, STB⁺94]. **Post-Hartree** [CER94, KS96, NSA⁺97, STB⁺94]. **post-SCF** [TEdV91]. **posteriori** [VVM93]. **potent** [CS95, Fro93, MRG97]. **Potential** [BJ94, FS97, PRR⁺99, RK95, Spa96, AB97, AHLR⁺91, AS96, AS97, BW91a, BG93, BCG97, Bec98, BADP92, BCF⁺92, BMJ90, BBH99, CKP96, CPS90, CK91, CG93, CLS⁺97, DKK⁺93, DKK95, DA96, DV97, EKS97, EJ95, FD91, FRR90, FCNSÁ98, FPSK92, FBK90, FS91, FS98b, FG96, GZ95, GS90a, GC97, GP94, HG93, HP94, HE99a, HE99b, HREK98, HR97, HNH⁺91, IBKvRS92, ITP90, JP92a, JK98, Jen94, JN93, JLNTR93, Kik99, LPK99, LMA99, LS94, LIO90, LO98, MTH94, Mar97a, Mar98, Mer92, MLAT99, MLA⁺99, Mit98a, MTR90, NTK96, OL93b, PFMI97, PFFF97, PFC96, QHIH98, RLG98, RC95, RMS93, RTSM93, SB98a, SS98b, SLH96, SR94b, SR98, SMS98, SACKH95, SB90, SHM95, SWAH91, SW92, SW93b, Su93, TKSM96, UF93, WM93, Wil94, WB91]. **potential** [ZM90, ZYY95a, ZY96, DvRSH94]. **potential-derived** [BCG97, Mar98, RC95, SW93b, UF93]. **potentials** [ALO93, ALO94, AVA93, AC94, BMW⁺90, BT96, BRC94, BMN95, BBvG95, BDKJL95, BW90, CCG97, DM90, DH90b, DKBS97, Ear93, FRR90, FW93a, FCCG96, GJR91, HS99, HKŠ⁺97, Kik96, KKJ97, KHL96, LL92, LOP⁺97, LKC⁺98, Mar97a, Mar97b, Mar98, MKS90, MGPR90, Pac93, Pet93, Phi90, PS96b, RC93, RCATD96, Ric91, RC95, SAdV97, Sno92, TEdV91, WF94, WLKJ92, WM94, WA99, WAW⁺97, WKP⁺90]. **powder** [KRL⁺93]. **power** [Ran93]. **Powerful** [Sno92]. **pp** [Dav97, Dun90, Gar90, Gol92, Klo92, Mez91, Ran92, Tay99, Var92]. **PPP** [PL94]. **PPR** [Par99]. **practical** [DBS93, DBS96, SN99]. **practice** [WM94]. **PRDDO** [Mar97a, Mar97b, Mar98]. **PRDDO/M** [Mar97a, Mar97b, Mar98]. **precise** [MM91]. **Precision** [HYA92, FR94b, SCC93]. **Preconditioners** [GHR94]. **predict** [VHWC98]. **predicted** [AS98a]. **Predicting** [BP98, BH91b, KFML99, VRBE93]. **Prediction** [ABBC99a, ABBC99b, HO93, HDA93, WP97, YC95, ATK94, Aer95, CDG⁺96, DS90, DRP98, FPL95, GM98a, KG92, KD96, MFG91, VK97, ZVP98, vEK99, LBF93]. **predictions** [EKS97, MvEP⁺98]. **predissociation** [BBS96]. **preface** [vRS98]. **prefer** [vRSD92]. **preference** [RM94]. **preferences** [SM91, ZLM92]. **preorganization** [MV91]. **Prescreening** [HWH⁺91]. **presence** [YBD⁺94]. **presentation** [Bog99, Pol93]. **Press** [Chr90, Dun90]. **pressure** [MGLL99, SB99a]. **pressures** [AIDAVB98]. **Price** [Dun90, Gol92, Klo92, Mez91, Ran92, Var92]. **primitive** [BP98]. **Principal** [Bec98, SSR94, SFB91, SSR95]. **principle** [ABBC99a, ABBC99b]. **priori** [VVM93]. **prismane** [GPK95]. **probability** [BP93a, CNS96]. **probe**

[RLG98]. **probed** [EPBD95]. **Probing** [GBE92, Pea94]. **problem** [CE96, Cis93, DF96, Flo92, HO93, HO97, HT99b, KA96b, LK91, MFG91, MM94c, Pea94, RBSB96, SLPP97, Wan91, Zho93, ZL94]. **problems** [Bla91, CT95, MS95]. **procedure** [För92, LJ91, LLD98, PT98, PTCB99, SW93b]. **procedures** [CT95, MM97, She90, WR93]. **process** [EHNW96]. **processes** [LW92, TP93, TRLRB96, WMM⁺95]. **processing** [GJL⁺90, SS93, YG92b, YG92a]. **processor** [AFK⁺95, TMK⁺99]. **processors** [CDG⁺96, JP92a, JP92b]. **PRODEN** [ATS90]. **Prodock** [TS99b]. **produced** [FS91]. **product** [LB90]. **products** [FSW96, ZVP98]. **profiles** [MTRJ95, MRS98]. **Program** [HH99a, ATS90, BHE⁺93, Bro99, DLS⁺97, Dil92, Elv91, GW95, HA93, HGK⁺96, HHP91, JHB96, KLV94, KD91, LBI⁺97, MRM97, Nic97, PL94, PCG⁺92, PBRP91, PDPM97, RLA⁺98, SLG93, SM90, TH93, WHF97, vEK99, BMD99, BDKJL95, DBT98]. **programming** [GVD96, NSWP90, TH93]. **programs** [LCW93]. **progress** [SHM99]. **projected** [ATS90, OS91]. **Projection** [LZT91, AS99, GCG97, GW98c, SBS99]. **Promoting** [STT95]. **Propella** [GPK95]. **propenal** [FA99]. **propene** [AIDAVB98]. **proper** [Kri90, LMA99]. **properties** [AS98a, AGM91, BP93a, BFST93, CW93, DBS96, DA96, GM90, GWHD99, GCT96, GM99, Gri90, KD91, KS96, KSD90, Kut99, LV90, MvRSL⁺97, MVS92, NPLT97, Pac95, PSW96, RP99, SBA97, SR94b, SSRO92, SOL97, TKTN99, TEdV91, UVRCR92, Wel90, dVA92]. **property** [BSB⁺97, BR97, DJ92, DV97, Ran91, SV94]. **property-based** [DV97]. **proposed** [HO97, LDVP91, RMW91, VP93]. **propyl** [IMP91]. **protease** [MR93, MRG97, YBD⁺94, YTRB97]. **Protein** [DS90, DRP98, HT99b, JP92a, JP92b, ATK94, BFH94, Bec97, BF96, BG99, BSL91, BSV94, CDG⁺96, GS90c, GSB99, GJL⁺90, GK93, GF96, HO97, HYH⁺94, JB95, Kik99, Kna92, KID93, KUT⁺97, LOP⁺97, LPW⁺97, LKC⁺98, MKS97, MLAT99, MLA⁺99, Non97, RS92, Sno92, SG95, TS99b, TEHL93, VDF⁺97, Wan91, XWS92, YSJ95, Yos94, Yos96, ZFY95, CHPK91]. **protein-DNA** [CDG⁺96]. **protein-folding** [Sno92]. **protein-structure** [LOP⁺97, LPW⁺97, LKC⁺98]. **proteinase** [RM94, SBS99]. **proteins** [ABE⁺96, AS99, AS96, BBR96, BCB⁺97, BMN99, CC91a, CE96, CCN90, CNS96, CCBK95, DB98, DP95, fGGG94, GKS93, GG91, GT98, JTM⁺95, JAdV96, Kik96, Kik99, KG91, KHW⁺90, LCW93, LA91, NTK96, PS92, PMRG93, SN91, VB93, WS99b]. **protocols** [REA⁺98]. **Proton** [PMHRG97, ACB97, BA94, CGdAC91, ČTS98, FS94, FA99, HR97, KS91, LMRR98, RHKK90, STB⁺94, SHCR97, SK91, VFM⁺90, GHS97]. **proton-transfer** [LMRR98]. **protonated** [LCD⁺97, NBG93, ZCP98]. **Protonation** [HOL98, RTGJ98, Wel90]. **prototypes** [GMY97]. **proximity** [SSV93]. **prudent** [HKK91]. **ps** [SYHW99, MKF⁺97]. **PS-GVB** [MKF⁺97]. **pseudo** [RL95]. **pseudo-diatom** [RL95]. **pseudodiagonalization** [WHHP97]. **Pseudopotential** [KSP90, JFR92a, JFR92b, SS95, VSF97]. **pseudopotentials** [SRI92]. **pseudospectral** [BCFM98, CBWF98, KZ99].

psicose [FD94]. **Pte** [Dav97]. **Pu** [SHM99]. **publication** [Bog99, RG99]. **Publisher** [Ran92]. **Publishers** [Var92]. **Publishing** [Dav97]. **pulse** [FR90]. **pure** [Gri90, JLNTR93, VW96]. **purine** [Wun92]. **purine-to-pyrimidine** [Wun92]. **purpose** [AFK⁺95, DV99, HEN⁺94, KUT⁺97, MR92, Zim91]. **PVM** [SL95]. **PVM-AMBER** [SL95]. **pyrazole** [LSFFM⁺95]. **pyridines** [BHK⁺91, SK91]. **pyridone** [RGK93, BA94]. **pyrimidine** [WMM⁺95, Wun92]. **pyrimidine-to-purine** [Wun92]. **pyrophosphate** [HCCC99, PGBM97]. **pyrrol** [CLQSS98]. **pyrrol-2-one** [CLQSS98]. **Pyrrolizidine** [GCT96, Gio98]. **pyruvate** [NBG93]. **pyruvic** [NBG93].

QCFF [KLV94]. **QM** [CG97, CG99, Gao97, LO98, PF99]. **QM/MM** [CG97, CG99, Gao97, LO98, PF99]. **QSAR** [AT93, ACDP98, Cri99, RdBN90]. **QSPR** [BR97]. **quadratic** [RHN94]. **quadrupole** [Din91b, EGH⁺93]. **qualitative** [RK97]. **Quality** [KNST96, RWB99, BPP90, RC93]. **QUANTA(R)** [MR92]. **Quantification** [WTLC93]. **Quantitative** [Ric91, RMS93, CSC96, CS95, DJ92, DKBS97, KF94, Mar90]. **quantitatively** [GW98c]. **Quantum** [ACD97, DV97, ENHE98, FCNSÁ98, RD97, TRR⁺94, ACFO91, ACDP98, ACD99, AD90, BT96, BFH94, BvGMP97, BBS96, CDG⁺99, Che95b, CG98, CG99, DVJ⁺95a, DVJ⁺95b, ER95, FBK90, FG96, GH98, Har99a, HKŠ⁺97, JB98, JS93, JKS93, KMO92, LMB96, LMB99, LMA99, LS94, LW92, MHS⁺94, MSDC94, NL98, PFMI97, PLY98, PSY⁺99, PPAS⁺99, SHCR97, SOCF98, SKK⁺93, TRG99, TP93, WJL⁺96, MHJ⁺98]. **quantum-classical** [LMB96, SHCR97]. **Quantum-mechanical** [RD97, JS93, JKS93]. **Quasi** [Maz97, ALO94, AB97, PGAL93]. **quasi-** [ALO94]. **Quasi-Hamiltonian** [Maz97]. **quasi-Newtonian** [PGAL93]. **quasirigid** [BH98a]. **quaternions** [SA99]. **Quinhydrone** [KTT94, KTT95]. **quinones** [AF94, Ano97].

R [Dav97, Mez91]. **Radial** [PG98, ABD⁺98, ZY96]. **radiation** [RMW91]. **radiation-induced** [RMW91]. **Radical** [GCG97, GM98b, Bau90, Cai94, FSCS99, FOA98, GMO93, ISH98b, Kar99, LP92, O'm99, Ove91, VKC96]. **radicals** [ARLAB99, Arn94, FOA98, LH99, LA94, PB92, SS97]. **radii** [AGM91, Pac95, SH98]. **Ramachandran** [BB98a]. **Raman** [LDVP91, PR95]. **Ramifications** [UF93]. **random** [BW96, FR90]. **range** [Åqv96, ADG99, BPC91, LOP⁺97, LPW⁺97, Ric93, SB94, TMB93]. **rank** [Mit98b]. **rank-one** [Mit98b]. **rapamycin** [SSO94]. **Raphson** [AB97, SB90, ZKA94]. **Rapid** [HG93, HK92, Ish98a, LM93, NTK96, EGHT97, FW93a, GS94b, MKS97, NH91, PCG⁺92, SNS95, YB95a, LDM92a]. **rapidly** [GS94c]. **rare** [BBS96, WH93, Lóp95a]. **Rare-gas** [Lóp95a]. **ras** [YSJ95]. **rate** [Dum91, DBT98, MGLL99, Phi90, Pol90, YC95]. **rather** [vRSD92]. **ratio** [SN90]. **Rational** [LJKL98, Tay99]. **rationale** [SSM96]. **Rationalizing** [FM94]. **rattle** [FS98a, FS00, MK92]. **ray** [BSL91, KRL⁺93, PS91, PS92, SYHW99, WJL⁺96, WJV⁺96]. **reaction**

[AC92, AJB96, AIDAVB98, ARLG⁺94, Bau90, CLS⁺97, DVJ⁺95a, DVJ⁺95b, DBS93, DBS96, FW92, FA99, FOA98, FUS⁺94, FSI95, GLLOB91, HOL98, HB91, IBKvRS92, JZ96, KCK97, LMB99, LV90, LS94, LSSvRS96, LDMS99, MGLL99, MRS98, NVER97, PLB92, PB92, RRR92, SBM97, SS97, VP92, VP93, VP94, Vas92, WO97, ZVP98]. **reaction-diffusion** [Vas92]. **reactions** [CG90, GCRSAIVB99, GHS97, JB98, JKN99, LKL95, LS98, LDJ⁺97, OS91, SMA92, SSV93, SWOW97, Vya97, ZMC⁺97]. **reactive** [SB98a, TRLRB96]. **reactivities** [BH98b]. **Reactivity** [BHK⁺91, SS97, Bic99, BSN99, Che99, ISH98b, JFKK94, LO98, OL93b, SSM96]. **real** [BC93, CMC92, Mit94, SCC93]. **realistic** [PDPM97]. **Realities** [Cas89, Gar90]. **realization** [WWZD92]. **Rearrangement** [CLQSS98, Bau90, HY96, LP92, RJP97]. **rearrangements** [KW91a]. **recently** [DHY90, HO97, Ste90]. **receptor** [AT93, AVP93, AHLR⁺91, CA95, GH98, LK92, LWS⁺95, SQ95, ZS99]. **recipe** [Klo97]. **recognition** [CBR97, Mar90]. **Recommendations** [Pol93]. **Reconsideration** [SKK⁺93]. **reconstruction** [MKS97, RS92]. **recurrence** [RKL93]. **redox** [CG90, TYRD92]. **reduce** [DB98]. **Reduced** [TWR⁺95, AB97, BHK⁺91, BSV94, QHIH98]. **reduced-parameter** [BSV94]. **reduced-restricted-quasi-Newton** [AB97]. **reductase** [CG90, CG94, CG96, CG98, LK95, Wel90]. **reduction** [Bru93, WWSS98a, WWSS98b, fGGG94]. **reductive** [WM93]. **redundancies** [PPK92]. **redundant** [PASF96]. **reevaluation** [SSV93]. **Reference** [RLA⁺98, KTnH99, RSK92]. **refine** [MKS90]. **refinement** [Bec99a, GKM94, GF96, LFB96]. **Refinements** [FTA91]. **refining** [NWÅM95]. **reflection** [SA99]. **reflection-symmetric** [SA99]. **reformulation** [AB98b]. **regiochemistry** [CN98]. **region** [DH99]. **Regioselectivity** [NVER97]. **Registration** [PS96b]. **regressions** [Ran93]. **Regressive** [DMB91]. **regular** [GS94a]. **regularization** [SBJ92]. **related** [AF94, Ano97, Din91b, GS90d, Gri90, LPK99, LS98, Mag95, MHJ⁺98, MR93, MGPR90, RdBN90, SD98, SSV93, SB92b, WO97]. **relating** [Kna92]. **Relation** [McD97, SG95]. **relations** [MGH97, RKL93]. **relationship** [KF94, Pao90, Par99, Ran91]. **relationships** [DJ92, GLLOB91]. **Relative** [CGBC96, DN92, Pra93, BSC⁺98, BSvRS95, CK91, CG94, ER95, HCK95, LS96, RE99, SVM99, SCP92, SACK95]. **Relativistic** [Dya98, ES99, HOL99, Kut99, PC94a, SCMV97, Van99, EBD⁺99, FV98, HKY98, Klo97, LL92, VES⁺99, SI93, Van97]. **relaxation** [NH91, SHCY93, WPLC95, ZRVD93]. **Relaxed** [ITP90]. **relevant** [Gre95, GG96, ZM92]. **Reliability** [SRI92, BKL⁺90, LIO90]. **Remarks** [CT95]. **renormalization** [CT95]. **Reorganization** [LH99]. **reparametrization** [MFG91]. **replace** [FK91]. **Replicated** [WAW⁺97, YB95b]. **Reply** [Ste90]. **represent** [Wil94]. **Representation** [TKF92, CZM98, CLO99, DH94, FS91, KKE93, LMB96, LBO94, Pac93, PSW96, Bér97a, TKSM96]. **representations** [BSV94, GKS93]. **representative** [CKP96]. **represented** [HH99a, WAM91]. **Representing**

[Bec97, BKMH97]. **reproduce** [Wib99]. **reproduced** [KD96]. **reproduces** [HCK95]. **repulsion** [CW97, Cha92, Cso93, FTA91, FS98b, FW93b, HREK98, Ish98a, Jon91, YG92a]. **repulsions** [ST94]. **required** [GM90]. **requirement** [fGGG94]. **rescaling** [HTC98]. **Research** [Dun90, Gar90, LJKL98, RG99, RPG⁺95, YTT97, Tay99]. **residence** [GS93]. **residue** [EHNW96, LOP⁺97, LPW⁺97, LKC⁺98, MRG97, PFM91]. **residues** [AGP91, BCB⁺97]. **resolution** [Cri99, RK99]. **Resonance** [CD97, BGBW97, CCN90, CRME93, EPBD95, FSW96, GW98a, GW98b, GBW98, LDVP91, PR95]. **RESP** [CCBK95]. **respect** [CMC96]. **response** [CT99, HE99a, VRV99, VÅJ94]. **restrained** [HE99a]. **restraints** [AL98, HE99b]. **restricted** [AB97, Bof94, LL92, LM96, PS96a, SLG93]. **restrictions** [BM99]. **results** [Bog99, BCF⁺92, FW93a, FV98, HKŠ⁺97, HOL99, KT93a, PT99, PK95, RG99, REA⁺98, RE99, SUG92, WJV⁺96, DJ94]. **retinal** [CBSR99]. **reuptake** [Fro93]. **Reversed** [RM94]. **Review** [Chr90, Dav97, Dun90, Dya98, Gar90, Gol92, Klo92, Mez91, Ran92, Tay99, Var92, Zho97]. **Reviews** [Zho97]. **revisited** [CD97]. **Rh** [BJ94]. **RHF** [MOSD97]. **rhinovirus** [YKU96]. **rhombic** [RP99]. **ribonuclease** [PS92]. **rich** [FHB99]. **rigid** [FS98a, FS00, fGGG94, GS97, Kna92, LP93, MK92, MSZ96, PS91, PS92]. **rigid-geometry** [GS97, PS91, PS92]. **ring** [Cso93, FGG⁺92, FDMB92, FD94, HKK⁺97, Jai90, LL94, MR93, Rau96, Sau91, SSM96, SR92, TP93, WO97]. **ring-bracing** [LL94]. **ring-form** [FD94]. **rings** [AMY98, KS91, PMHRG97, TGW96]. **RISM** [KOH97, KOH98]. **RKR** [DKK⁺93]. **Rn** [ACD99]. **RNA** [CCBK95, FCS98, GVH94]. **ro** [Net94, MR93, RM94]. **ro-vibrational** [Net94]. **robust** [HS95b, KOH97, MS95]. **rod** [RM91]. **rod-like** [RM91]. **Rogers** [Var92]. **role** [ARLG⁺94, Fel96, KMM99, TD95, AMY98]. **roll** [FS98a, FS00]. **rotamers** [KD96]. **rotating** [Phi90]. **rotation** [BADP92, CPS90, Fag91, FBTD92, MS98, Par99, RK99, TDFdC91, Tru91, MR93]. **Rotational** [CRP97, SSHB93, BB96a, Bro99, GCG97, KHB92, MTRJ95, PG91, Tel90, YKU96, QHP91]. **rotations** [ACD97, LM96]. **rotors** [For96]. **rouse** [Kna92]. **route** [BKMM99, DLM⁺98]. **routine** [BG93]. **Rouvray** [Ran92]. **rovibrational** [Mit98a]. **row** [AJ99b, BW91a, BC90, CW91, MHB97, SH91, dlVM91]. **rows** [SB95]. **RPA** [FKN⁺93]. **RRIGS** [AS97]. **Ru** [GWHD99]. **rule** [AOYÖ96, BBS96]. **rules** [Hal96d, WH93]. **rupture** [GHT98]. **ruthenium** [GWHD99]. **Rys** [ABD90].

S [Bic99, FBTD92, MI99, MRH99, RNDP98, Tay99, TDFdC91, BMD99, Jur96, LS98, Mag95, BF96]. **SA** [REA⁺98]. **saccharides** [LM96]. **saddle** [AB98b, QHIH98]. **salt** [KOH98]. **Sammon** [AS99]. **Sampling** [SS98b, AW90, BK97a, BW90, CSR92, GLP95, HP94, HNS⁺97, Kul90, PD92, PHG94, SMM97, SK92b]. **satisfying** [HM92]. **saturated** [ACL96, Dil90]. **saving** [vLP90]. **saxitoxin** [Pet95]. **Sb** [MTR90, Ste91]. **SCAAS** [LW92]. **SCAAS/AMPAC** [LW92]. **scalable** [DPK94, HGK⁺96, FTW⁺96]. **scale**

[BPP90, FHB99, LCA94, TKTN99, WL91b, WH95]. **Scaled** [TS99a]. **scales** [Pac95]. **scaling** [BP98, GH97, Har99b, LKLB⁺99, PP97, RPW98, ZRVD93]. **scattering** [BB96b]. **SCF** [BB95, BHE⁺93, EGH⁺93, FKN⁺93, FK95, GG96, HWH⁺91, Klo93, LMFA92, PS97, PK91, TEDV91, VVM93, VHV90, WHHP97, ZBM91]. **scheme** [DV97, HM92, MM95, MS95, SC94, SAF93, Spa96]. **schemes** [Del96, HB91, VVM93]. **Schroedinger** [ACB92]. **Science** [Ran92]. **Scientific** [Dav97]. **scope** [Hal96a]. **score** [LPW⁺97]. **screening** [BFH94, EK97, Sha91]. **SCRF** [BLO94, LBO94, LBAO96, OJL93, OBL95]. **Scrocco** [VWGF95]. **Se** [Ste91]. **seam** [FD91]. **Search** [BC93, Cis93, EK97, FR90, FPRD99, GJK⁺93, GS91, JLW97, KG99, LP90, LLD98, MK97a, MK98, MM94c, MJFT96, PS91, PFFF97, PFC96, Sau91, TEHL93, VHD⁺98, Wan91, Wan97, WHF97, vFB91]. **searches** [CNS96, PS92, PP97, SJV93]. **Searching** [QHIH98, Sau91, BCMZ99, GJK⁺93, JLW99, JJTP93, KMKW98, KG93, MJFT96, SGB91, TJP96]. **second** [AJ99b, DH90b, LS96, MOSD97, Mil90, MHB97, NIS98, NS95, PT96, RPW98, SH91, FR94b, SG95]. **second-order** [NS95, RPW98, FR94b, SG95]. **second-row** [AJ99b, MHB97, SH91]. **secondary** [CNS96]. **Seeking** [JJ98]. **SeH** [SS95]. **selected** [DBT98, PFC96, WHM⁺96]. **selecting** [LMA99, SWK99]. **selection** [BP93b, Spa96, TAC98]. **selective** [AVC93, GH97]. **selectivity** [VW96, VHWC98]. **selenium** [Klo93]. **Self** [FM91, MPJ98, MPJC98, ZKSB93, BW96, Bru93, FRSNS92, FCNSÁ98, FW92, Gre95, GW91, HOL98, HGK⁺96, JHB96, RRR92, TRR⁺94, WH95, ZPV⁺96]. **self-avoiding** [BW96]. **Self-consistent** [FM91, MPJ98, MPJC98, FRSNS92, FCNSÁ98, FW92, Gre95, HOL98, HGK⁺96, JHB96, TRR⁺94, WH95]. **self-consistent** [RRR92]. **self-energy** [Bru93, ZPV⁺96]. **self-interaction** [GW91]. **Self-Similarity** [ZKSB93]. **semiclassic** [Mor93]. **semicrystalline** [DH99]. **Semidirect** [HA93]. **Semiempirical** [BT96, FRR90, RR92, Rod94, SC91, UVRCR92, ALO94, AVA93, BCG97, BMK90, BR99, BCF⁺92, BHK⁺91, CMS91, Cso93, CER94, CG90, CG97, CG99, DBS91, Fab91, FGG⁺92, FW93a, GCT96, GH97, GPPS91, HKŠ⁺97, JFKK94, KWWS91, KKJ97, LHL⁺95, LIO90, LBAO96, MLBD92, OBL95, PLY98, PK91, PC93, PK95, RHN94, RMS93, SSM96, ST91, SKM94, Ste91, SKK⁺93, VCLB92, VW91, WNW91, NBB⁺99]. **semiflexible** [WS98]. **semimicroscopic** [LCW93]. **sensitivity** [BF96, SSO94, SSRS94, REA⁺98]. **separation** [Che95b, DKL90, KS97, SB99b]. **separations** [Mag93a]. **sequence** [CS94, DS90, DRP98, HT99b]. **sequences** [SCC93]. **SER** [PFC96]. **series** [Fer91, Gre95, KMM99, Kea90, Pol90, Ran93, ZY96]. **set** [AG90, AW91, BPP90, BR97, BBH99, CDG⁺99, DF97, FG96, GC97, HVM99, HK95, IS91, JDD97, LMA99, PAS90, SBA97, SS97, SB92a, WB91]. **sets** [Als95, BW91a, BC90, CRME93, CB96, CH96a, DM94, GvRSvEH⁺93, HM90, JG91, JLN98, KNST96, MHB97, RW99, REA⁺98, SH91, SRI92]. **Settle** [MK92]. **several** [BL91, DV99, FR90, GLoNP96, RMS93, SBA97]. **SH** [GCG97, SS95]. **SHAKE** [DKRK95, FS98a, FS00, MK92]. **Sham**

[Bic99, HT99a, SBA97]. **Shanno** [AB98b]. **Shanno-like** [AB98b]. **Shape** [Art94, WAM93, Art93, GGP96, MTH94, PZBM98, SKB92, WAM91, WMM⁺95, dVA92, WMM⁺95]. **shaped** [FM99, SD98, TG98]. **shapes** [Bek97, COR99, WAM93]. **shared** [Lim97, MTBS91, Ske91]. **shared-memory** [MTBS91, Ske91]. **shell** [ACD97, BCB⁺97, Cha92, HBLL98, LLB99, PG98, PC94a]. **shells** [ES99, GS93]. **shielding** [CRME93, FM99, SVS⁺97, VES⁺99, Wib99]. **shieldings** [FGBH90]. **shift** [CW91, GM98a]. **shifted** [DKBS97]. **shifted-force** [DKBS97]. **shifts** [BH98b, BKMM99, GP94, IBKvRS92, KMM99, PT99, WHHP97]. **shooting** [KTK93]. **short** [ADG99, GVH94, LPW⁺97, PS92]. **short-range** [ADG99, LPW⁺97]. **shorter** [RHN94]. **should** [Jai90]. **Si** [CLS⁺97, JFR92b, BKMH97, IRR93]. **SICI** [Ano15]. **side** [BK97a, Dav93, HMČ91, KD96, LOP⁺97, TEHL93]. **side-chain** [KD96, LOP⁺97, TEHL93]. **signs** [SFB91]. **SiH** [VK94, Kar99]. **Silaacetylene** [SF96]. **silane** [CLS⁺97]. **silica** [EKS97]. **silicates** [Ear93]. **silicide** [UVRCR92]. **silicon** [ACRC97, CJC⁺93, CTJ⁺94, CJC⁺96, MRW91, RMW91, VW91]. **siloxanes** [Ear93, KHG96]. **silverware** [Bla91]. **SIMD** [RBC⁺98]. **similar** [GW98c, Par99]. **similarities** [CSC96, MSDC94]. **Similarity** [ZKSB93, ACD97, ACDP98, ACD99, BP93a, BRH90, CACD97, KRL⁺93, MK98, MK97b, MRM97, PKRR97, Pet95, Pet93, PS96b, WM95, JM90, Klo92]. **Simmons** [Mez91]. **Simple** [Ano15, BG99, BGZP97, CNK97, Klo97, SS98a, BP98, CHSK96, FTA91, GGP96, IS91, KTnH99, LKL⁺97, MSZ96, Mul91, PN95, Tru91, VRC91, VRC92, WS99a, ZYY95a]. **simplex** [FSBMP99]. **simplified** [FS91, KK91, KTK93]. **simulate** [PDPM97, ZS93]. **simulated** [BM99, CE96, EHNW96, GW95, MPBM98, NVS91, Ni91, Sno92, WP97, WCMS91, YTT97, Lim97]. **simulated-annealing** [NVS91, Sno92]. **simulating** [For91]. **Simulation** [CJC⁺93, CJC⁺96, LMB99, AGP91, BSB⁺97, CBIT94, CCJ⁺99, CBSB94, CG93, CHSK96, DS92, Elv91, GPB⁺97, GMM95, GLLOB91, GS94c, GK93, HS93a, HS93b, HL96a, HL96b, HR97, HBR⁺99, JG93a, KUT⁺97, LB96, LH96, MTBS91, Mor93, MJSV92, NBS94, NQ99, OC98, PSW96, PMIB99, PLB92, PH96, RE99, SB98a, SN99, SWM90, SN91, SB99a, SB94, SYHW99, SJ95, TMCM⁺96, WWXS97, WSV92, WAW⁺97, WS98, YKU96, TM95]. **Simulations** [CPS90, SWAH91, YBD⁺94, AFK⁺95, AW90, BCB⁺97, BO93, Bek97, BvGMP97, BSL91, BMJ90, CG96, DOO93, Dav93, DKRK95, EGH⁺93, EGHT97, EJ95, FB97, FHB99, FOCB96, FBK90, GLP95, Gao97, GVH94, GDK92, GT98, HYA92, HBBF97, JN93, JLNTR93, JJ98, KHW⁺90, KVKK93, Kuc96, LPK99, LCA94, LOP⁺97, LPW⁺97, LKC⁺98, Mar90, Mez92, Mez97, NSWP90, OS94, OM96, PHG94, SS98a, SKT93, SKT94, SMA92, SWOW97, SK92b, SW96b, TMB93, TYMS98, TMK⁺99, TS99a, TNS97b, VWGF95, ZS99, Zau91]. **simulator** [Zim91]. **Simultaneous** [LMB96, Kea90, NL98]. **SINDO1**

[AJ99a, AJ99b, GJ95, JG93b, KJ97, LJ92, LDJ92]. **single** [GVH94, HM92, SVM99, TK94, WJL⁺96]. **single-stranded** [GVH94]. **singlet** [KHF91, LDJ⁺97]. **singlet-triplet** [KHF91]. **singularities** [BK96, EA93, GÖ95]. **SiO** [AS98a, KHG96]. **Site** [WA99, Cri95, CG96, GBE92, KTnH99, SN91, SB99b]. **sites** [APC98, BG99, CS95, GSB99, HK90, KOH97, LK92, PMRG93, SBS99]. **six** [HVvRS93]. **six-center** [HVvRS93]. **Sixty** [LKSS91b]. **Sixty-atom** [LKSS91b]. **size** [Har99b, WTLC93, dVA92]. **sized** [GBT97]. **sizes** [COR99]. **skeletal** [Bér97a]. **Slater** [CDG⁺99, Jon91, Ric93, RLA⁺98]. **Slater-type** [CDG⁺99, Jon91, RLA⁺98]. **slow** [LMB99]. **SM3** [CT92]. **Small** [SG95, APC98, DF97, DBS91, DN92, GJK⁺93, JJTP93, KT91, LW94, Mag93a, OJL93, SACKH95, TP93, TJP96, WAM93, WO97, vEK99, MHB97, MPJC98]. **Small-amplitude** [SG95]. **smart** [SS98a]. **Smoothing** [PP97, BNDS97, DM91]. **Sn** [JFR92b, Ste91]. **soft** [Kul90]. **softness** [CN98]. **Software** [TS99b, MK94, MRG⁺90]. **solid** [Kul90, NQ99, Tav96, Vya97, WTLC93, FB97]. **solid-state** [Vya97]. **solids** [DKBS97, EBD⁺99, NBB⁺99, Ste98]. **soliton** [För92]. **solubilities** [Her93]. **solute** [BLO94, FS97, KOH97, Mez97, YB95a]. **solutes** [BCT91, DN92, LBAO96]. **Solution** [KR96, KTnH99, ACB92, BCT98, Bru93, CR95, CLO99, CF97b, CG94, CG97, DF96, DF97, DN92, FM94, Gao97, HYA92, HS93c, HS95b, KOH98, LB96, LS94, NBS94, PPAS⁺99, Pra93, RCB99, SOL90, SW96a, SYHW99, SBJ92, TYMS98, TG98, TRLRB96, UF93, VHWC98, Vas92, WCK96, YBD⁺94, ZPV⁺96]. **solutions** [AS97, Bla91, Cis93, CG93, DM91, JKN99, LW92, Mar90]. **solvated** [ARLAB99, LBO94, RRR92]. **Solvation** [KJ97, MRS98, REA⁺98, Smi99, Art94, CFK97, CT95, CBIT94, CK91, CMPT98, CT92, CG99, FTA91, HL96a, HY96, Her97, KOH98, LW94, LHL⁺95, LW92, PT98, Pur98, RE99, SH98, SK95, VWGF95, WWXS97, WWF95, dVA92, AVP93]. **solve** [NH91]. **Solvent** [CG96, MRH99, SJDW90, WCK96, ACB97, ARLG⁺94, BFH94, CTC95, CLO99, DF97, FRZ93, FDMB93, FS97, Gao97, GMM95, GÖ95, LDM92a, PSK98, PaST94, PLB92, PMRG93, PKCM99, SAdV97, Sha91, SNS95, SKK⁺93, VS97, WS99a, WWSS98a, WWSS98b, WSS99b, WSS99c, YB95a, ZKSB93]. **solvent-accessible** [FS97, GÖ95, WWSS98a, WWSS98b, WSS99c, ZKSB93]. **solvent-excluded** [GÖ95]. **solvent-excluding** [PaST94]. **solvent-inaccessible** [WSS99b]. **solvents** [LBAO96]. **solver** [HBBF97]. **Solving** [LDM92b, ZYY95b, Ram90, Wan91]. **Some** [SN99, Arn94, AGM91, BP98, BPC91, BPZL96, BH91b, BBS96, CKP96, FVR92, FR94a, GH98, IS91, KS91, RC95, SCP92, GS90c, Pet94]. **SONHICA** [BGZP97]. **Sons** [Dun90, Gar90, Klo92]. **sorption** [TYMS98]. **sp** [TK94]. **space** [BBR96, CLO99, Cri92, CEC97, GLP95, GPF97, GS91, GBE92, JLW97, JLW99, KG91, KMKW98, KG93, LSR97, MJSV92, NM97, TGW96, vLP90, ZV96]. **Space-efficient** [ZV96]. **space-fixed** [NM97]. **space-saving** [vLP90]. **spaces** [FA99, PS96a]. **spanning** [BMP⁺91]. **sparse**

[KV93]. **SPC** [JJ98]. **special** [AFK⁺95, HEN⁺94, KUT⁺97, WHF97]. **special-purpose** [AFK⁺95, HEN⁺94, KUT⁺97]. **species** [CR95, Cha92, HCCC99]. **Specific** [AB98b]. **specificity** [BO93]. **spectra** [BP98, BGBW97, BMD99, BSB⁺97, Bro99, CCN90, CC98, CJC⁺96, ENHE98, MTR90, PSK98, PZBM98, PR95, SCZC99, SB98c, SHCY93, WHM⁺96]. **spectral** [GP94, TKSM96]. **spectral-Representation** [TKSM96]. **spectroscopic** [BG93, BK97b, MFG91, TEdV91]. **spectroscopically** [PK98]. **spectroscopy** [CC91b, For91]. **spectrum** [Bic99, SD90]. **speed** [TMK⁺99, BG96b]. **speedup** [DPK94]. **spherand** [MV91]. **sphere** [Del96, DA96, Kul90]. **spheres** [AW91]. **Spherical** [KA96b, MTH94, PAS90, RK99, SB94]. **spherical-cutoff** [SB94]. **Spin** [HBLL98, BSN99, CGdAC91, GCG97, KMM99, LL92, MTR90, O'm99, VRV99, VES⁺99]. **Spin-orbit** [HBLL98]. **spin-spin** [CGdAC91]. **Splicing** [JG91]. **spline** [OS98]. **splines** [TS99a]. **split** [MHB97]. **split-valence** [MHB97]. **Sprouting** [Dav93, Dav94a]. **square** [HOL99, JCV⁺93, RPG⁺95]. **SR** [Bau90, FR94b]. **SS** [BSvRS95]. **β -lactam-binding** [BSL91]. **Stabilities** [KT91, AOY96, BSvRS95, BvH⁺92, SCP92]. **Stability** [HYH⁺94, Arn94, BSC⁺98, CGBC96, FM99, Gla90, GYT⁺98]. **stabilization** [ENvRS94]. **Stable** [Luk94, PP97]. **stacking** [HLO99, KTT94, KTT95, SLH96]. **Standard** [PS91, PS92, FV98, GvRSvEH⁺93, TS99a, VM95]. **Standard-geometry** [PS91, PS92]. **Stark** [MLBD92]. **starting** [Sno92]. **state** [BSV94, Cul92, ČTS98, DDV93, DBT98, FA99, För92, FSCS99, GWHD99, GC98, Mez92, SKA93, Vya97, ZA94, ZKA94]. **states** [ABBC99a, ABBC99b, ABE⁺96, BC96, BMN95, Ber97b, BL91, Cai94, CGBC96, For96, FRZ93, GJCC93, LTHY96, MM95, ML91, Net94, PASF96, RSK92, WLKJ92]. **Static** [RNDP98, EBD⁺99]. **stationary** [DKL90, RTSM93]. **Statistical** [GSB99, Dum91, Gen99]. **statistics** [Kik96, LP95]. **step** [ARLG⁺94, Bof94, CG98, GS90b, GT98, HT99b, LMB96]. **Stephen** [Chr90]. **stepping** [BSS97]. **steps** [BB98a]. **stepsize** [KMKW98]. **stepwise** [LP92, CS94]. **stereochemical** [RM94]. **stereochemistry** [FSW96, WHF97]. **stereomutation** [PSvRS⁺95]. **steric** [ISH98b, SMF91]. **Stevens** [HY96]. **stiff** [BRP92, Vas92]. **Stiffness** [BRP92, Har93]. **Stiffness-Adaptive** [BRP92]. **stimulated** [Vya97]. **STO** [dlVM91]. **Stochastic** [MPBM98, SJV93, WWXS97, GS94c, SS98b, SMM97, TJP96, Sau91]. **storage** [KV93]. **storage-efficient** [KV93]. **story** [Bow98]. **STOs** [KZ99]. **strain** [BRLD92]. **strained** [LPD90]. **stranded** [GVH94]. **strategies** [FPRD99, JG93a, VHD⁺98]. **strategy** [ACFO91, CLO99, EA93, HT99b]. **Strength** [AJ97, CTJ⁺94]. **stretching** [OL93a]. **stringent** [Tel90]. **strong** [GSW90]. **Structural** [AGN⁺90, GG91, LHBF93, MGH97, SV94, SUG92, AS98a, Gri90, Kea90, MvRSL⁺97, NKA98, VP93]. **Structure** [ARLAB99, CER94, Dav97, GYT⁺98, ATK94, Arn94, BSGB98, BCFM98, Bog99, CBWF98, CNS96, CJC⁺93, CH96b, DNC96, DKJ96, DJ92, DS90, DRP98, DN92, EKS97, FRZ93, GF96, IG94, Jen94, JMH96, KR96, KRM92,

KW91b, KF94, LS98, LWNS95, LOP⁺97, LPW⁺97, LKC⁺98, López95a,
 López95b, MM93, MKF⁺97, MS95, MvEP⁺98, MTR90, ORK⁺91, PG98, PL94,
 RdBN90, Ran91, Ric91, vRSD92, SBB⁺93, SEJ95, TAC98, VK97, Van97,
 VTR⁺94, Yar95, YSJ95, YBD⁺94, ZM92, ZM99, vEK99, HBR⁺99, PSY⁺99].
structure-activity [Ric91]. **structure-property** [Ran91]. **structured**
 [YB94]. **Structures**
 [ENvRS94, RCATD96, TNKM91, AB98b, BCT98, BMD99, Bec97, Bof94,
 BC95, BvH⁺92, Che95a, CNS96, DvRSH94, ENHE98, EHNW96, GS94a,
 GC98, HBLL98, HDA93, KG92, KFML99, KA96a, MI99, MM95, NVS91,
 Obe98, PS91, PS92, PL94, PPK91, PRRD98, PD92, PE92, SCP92, SB98b,
 SC91, SB92b, Sun94, VP94, VK97, Wel90, WS93, WPLC95, VF92]. **studied**
 [BO93, HYH⁺94, KR96, SWM90, WJL⁺96, WJV⁺96]. **Studies**
 [AC92, Dun90, AF97, ACDP98, BRLD92, CRP97, CC91b, ENHE98, FW91,
 GPSS93, Gri94, Hal99a, HKK⁺97, HR97, JFR92a, JFR92b, Kat90b,
 KWWS91, Klo93, KCK97, KHA90, LK90, LKL95, LH96, LYH⁺95, LMA99,
 LO98, MKS90, O'm99, Ric91, SB98b, SB98c, SUG92, SF96, SB92b, TA98,
 VHWC98, VF92, Wel90, WC90, ZVP98, ZMC⁺97, vOC93, LCA94, SW93b].
Study [Kik99, SAdV97, ZM92, Zho93, ZL94, ACB97, ALPH91, AGN⁺90,
 AC92, AVA93, Arn94, BSGB98, BA94, BPZL96, BKMH97, BKL⁺90, BT92,
 BHK⁺91, BSN99, Büh99, Cai94, CLQSS98, CA93, Che95b, CKP96, CAC99,
 CLS⁺97, CH94, CER94, CH96b, CÉC97, CG90, CG98, CY98, DLM⁺98,
 DKJ96, DH90b, DKBS97, ER95, FF93, FVR92, FA99, FSCS99, FLPH98,
 FOA98, GCRSAIVB99, GJ95, GS90c, GS90d, GPK95, GJCC93, GJL⁺90,
 GHS97, GBT97, HL96a, HREK98, HLO99, HK95, HMČ91, HNH⁺91,
 IBKvRS92, JTM⁺95, Jur96, JZ96, KS91, KW91a, Kar99, Kat90a, Kat93,
 KMM99, KRM92, KF99, KF94, KA96a, KHB92, KKCH96, KHG96, LK95,
 LKL⁺97, LS98, LS94, LDJ⁺97, LSSvRS96, LDMS99, LIO90, MP98, MI99,
 MS98, MTRJ95, MV91, MSSS95, MP90, NVS91, NSA⁺97, NBB⁺99,
 NWÅM95, NBG93, NVER97, OL93a]. **study**
 [OL93b, PS98, PG91, PC93, PC94b, PFM91, PBS97, RdBN90, Rau96, RJP97,
 RCB99, RCATD96, RR92, Rod94, RK95, SSM96, SE94, SSHB93, SR94b,
 SLD⁺90, SSF90, SHHČ90, SVS⁺97, SSRS94, SR92, SK91, TM95, TYRD92,
 UVRCR92, Van97, VRC91, VRC92, VPV91, VCLB92, VKC96, VK94, VL90,
 VFM⁺90, WHM⁺96, WNW91, ZBM91, GJK⁺93, TJP96, TRLRB96].
studying [FR94a]. **subspace** [IC96, KTnH99]. **substances** [Gri90].
substituent [ISH98b, KHF90, KHF91, SLD⁺90, WTLC93, PC94b].
substituents [ENvRS94, SMF91]. **substituted**
 [AHLR⁺91, BCF⁺92, BHK⁺91, CPS90, GC98, JN93, JLNTR93, KHF90,
 MP98, PC93, TDFdC91, WM95, ZLM92]. **substitution**
 [ČTS98, GG91, HKK⁺97]. **Substrate** [BO93, CFK97, SMA92, WNW91].
substrates [CG90]. **substructures** [BV97]. **subsystems** [PS97]. **successive**
 [NH91]. **suggestion** [PM93]. **Suitability** [ALO93, SOL97]. **suited** [MFG91].
sulfamates [HA95]. **sulfated** [FPR97]. **sulfates** [HA95]. **sulfide** [Kat93].
sulfides [AF97, KTS92]. **sulfone** [GJ95]. **sulfones** [AF93]. **sulfur**

[PKN⁺95]. **sulfur-** [PKN⁺95]. **Sum** [For96]. **summation** [DKBS97, Pur98]. **sums** [CQG97, KVKK93]. **Super acidity** [BKK⁺96]. **supercomputer** [SOCF98]. **supercritical** [MSZ96]. **superior** [Cul99]. **supermatrix** [CLCL96, CW97, YG92a]. **supermolecular** [Gre95]. **supermolecule** [GG96, HY96]. **supermolecule-polarizable** [HY96]. **superoxide** [SWM90, SWS⁺90, SMA92]. **Superposition** [NVK⁺97, AG90, HVM99, Kea90, WB91, CACD97]. **Supplementary** [Mag93b, Mag93a]. **support** [Fel96]. **supramolecular** [JMH96]. **surface** [BG96a, BG96b, BKMH97, BR97, CZM98, CT95, CP98, CS95, CLS⁺97, DvRSH94, DS90, EA93, ELA⁺95, FB98, FS97, Gō95, Her93, Her97, HREK98, IBKvRS92, LM93, NBS94, PAS90, PaST94, PCG⁺92, SS98b, SNS95, SBS99, SVS⁺97, TA94, VB93, Wan91, WL91a, WWSS98a, WWSS98b, WSS99c, ZM90, ZYY95a]. **surface-derived** [SBS99]. **surfaces** [AVA93, AB97, AHLR⁺91, BW91a, Bec98, BJ94, BG99, CHP90, CMC96, DA96, FD91, HGB93, IRR93, ITP90, Jen94, JAdV96, JKN99, LMA99, MTH94, PFMI97, PFFF97, PAS90, PaST94, PFC96, Pet94, PT98, QHIH98, RK99, SB98a, Sau91, STPA91, SB90, SC95, WAM93, WSS99a, ZHSB92, ZKSB93]. **Survey** [SHM99]. **switches** [AM99]. **sybyl** [GJK⁺93, TJP96, GPPS91]. **Symbolic** [Jem97, JK98, HB91]. **symmetric** [CMC92, KA96b, Mit94, Mit98b, SA99, SMS98]. **Symmetry** [Ste98, CHP91, CLCL96, CW97, Ear90, fGGG94, RCAA99, SA99, YKU96, ZL94, ZM99, CLCL96, CW97]. **symmetry-adaptation** [ZL94]. **Symmetry-matrix** [CLCL96, CW97]. **symmetry-supermatrix** [CLCL96, CW97]. **Symplectic** [ZS95]. **Symposium** [Tay99]. **Syn** [FHT99]. **Synergy** [BSL91]. **synthesis** [Dav94b]. **synthetic** [CT97]. **synthetical** [ZKSB93]. **System** [Gar90, BSN99, CCN90, CF97a, DN92, FF93, KKE93, LFB96, MRG⁺90, MR93, Ram90, SOL90, SBB⁺93, SE94, SB99a, TEdV90, Vas92]. **Systematic** [KMKW98, ZVP98, BT92, GS91, PFC96, dVA92, PS92]. **systems** [BFH94, BWS⁺95, BJK95, CHPK91, Cso93, DF96, EKS97, EA93, FB97, FHB99, FRSNS92, FGG⁺92, For96, GMY97, HVvRS93, Her97, IS91, JB95, JVB95, Jem97, Kar99, LMB96, LBI⁺97, Lóp95a, Lóp95b, LLB99, LBO94, MTRJ95, MSDC94, MFG97, Mor93, MPJ98, Mul91, MR93, MGPR90, PHG94, PH96, PDPM97, SSM96, Sel90, SAF93, SEJ95, SQ95, SM91, SCR93, SKM94, TRR⁺94, TEdV91, TNS97b, WM95].

T [Dun90, Tay99]. **T1** [SI93]. **T3E** [SOCF98]. **T4** [EHNW96]. **tables** [HC96, LM93, LB90]. **Taiwan** [SYHW99]. **taken** [VSF97]. **Tanford** [ZFYY95]. **target** [SF96]. **Taunton** [Dun90]. **Tautomeric** [Fab91, CAC99]. **tautomerism** [Rau96, RGK93]. **tautomerization** [LKL⁺97]. **tautomers** [FD94]. **taxotere** [BMD99]. **Taylor** [BRP92]. **Te** [Ste91]. **Technical** [Gar90]. **technique** [Dav94a, FPL95, GS90b, Jai90, MGPR90, SJ95, TEdV90, TEdV91]. **Techniques** [Bak93, Dya98, SCC93, Bec99a, EKS97, FR94b, GBE92, KR96,

KPV96, PP97, SS93, SM91, VDF⁺97, WSV92, WAW⁺97, ZS93]. **TeCl** [KCK98]. **TeH** [SS95]. **tellurium** [Klo93]. **Temperature** [JJ98, AW90, FCS98, Gri90, Vya97]. **temperatures** [BK97b, JJ98]. **tensor** [GdAG⁺98]. **tensors** [BSB⁺97, VES⁺99, ZM99]. **terminal** [YSJ95]. **terms** [DW98, GS90a, KLR96, LPW⁺97]. **terphenyl** [OC98]. **tert** [BH98a]. **tert-butyl** [BH98a]. **test** [AOYŌ96, Fab91, Hil97, LDVP91, LSFFM⁺95, Mag95, PHG94, SK92b, VP93, WM95]. **tested** [Mez92]. **tests** [Ano15, BBS96, CNK97, KT93b, PF99]. **tetrachloroborate** [WHM⁺96]. **tetrahedra** [CP98]. **tetrahedral** [CF97b, GvRSvEH⁺93]. **tetrahedrane** [WA99]. **tetrahydroazepines** [AVC93]. **tetrahydropyrans** [ZLM92]. **tetramethyl** [KTT94, KTT95]. **tetramethyl-P-diaminobenzene-chloranil** [KTT95]. **tetramethylammonium** [PKCM99, PBS97]. **tetramethylene** [GJ95]. **tetraoxa** [SHHČ90]. **tetrapeptide** [PF99]. **tetrodotoxin** [Pet95]. **thallium** [SI93]. **their** [Arn94, BRLD92, FB98, Gla90, HK95, HMČ91, KPR91, LS98, LHB93, MFG91, MM97, PS97, PCG⁺92, SCZC99]. **theorem** [GM98b, LJ91, ML92, HM92]. **Theoretical** [ARLG⁺94, BP93a, BSvRS95, BRLD92, BH98b, Büh99, DLM⁺98, DBS96, FVR92, FM99, FDMB92, FDMB93, FOA98, HREK98, JFR92a, JFR92b, JU91, Kat90b, KKCH96, LK90, LS98, LZZ98, MP98, MSSS95, NBG93, PSK98, PBS97, RBSB96, SD90, SI93, SSF90, SMF91, VW96, VF92, VFM⁺90, WM93, BPS93, Bau90, BKMH97, GPK95, Jur96, KW91a, LKL⁺97, LMRR98, Luk94, MNVM97, OL93b, RK97, WO97, WNW91, WJV⁺96, CLQSS98, MLBD92, RTGJ98]. **theories** [HVM99, NS95]. **Theory** [Dya98, Gar90, Rou90, TNKM91, Bec99b, Ber97b, Bic99, Che99, CH96b, Cul92, FV98, FPC91, FUS⁺94, FSI95, GWHD99, GW98a, GW98b, GBW98, GHT98, GW91, HT99a, HOL98, HšR95, JU91, KOH97, KOH98, Klo97, KA96a, Koh99, LSCA98, LDG99, LKLB⁺99, MTRJ95, MP90, Mor93, Obe98, PS98, RTGJ98, SLPP97, SBA97, SC94, SLH96, SACKH95, TAC98, Wib99, Yar95, ZFYY95, Zho93, ZL94, ZG92, Dav97, Ran92]. **TheRate** [DBT98]. **Thermal** [Bal98, DBT98]. **thermally** [OS91, Vya97]. **Thermodynamic** [CG94, KLV94, CKP96, HW97, LV90, MM91, RE99, AOYŌ96]. **thermolysin** [GBE92]. **thiazole** [KS91, SW93a]. **thiocarbonyl** [FBTD92]. **thiocarbonyls** [TDFdC91]. **thiophosphoryl** [Kat93]. **Thioproline** [MRG97]. **third** [BC90]. **third-row** [BC90]. **those** [PMHRC97]. **Thoughts** [Koh99]. **threading** [HT99b]. **Three** [JLW99, AMY98, CDR⁺95, CNS96, CF97a, FPC91, HKK⁺97, HO97, HCCC99, JTM⁺95, KTnH99, NL91, NBB⁺99, SLH96, YB95a]. **three-** [CDR⁺95]. **three-dimensional** [CNS96, CF97a, KTnH99, NL91, NBB⁺99, YB95a]. **three-electron** [FPC91]. **three-membered** [AMY98, HKK⁺97]. **through-water** [TRG99]. **thymine** [RTGJ98]. **Ti** [JFR92a]. **TICT** [GP94]. **time** [ACB92, BSS97, FHB99, GS93, GJD94, GT98, Kna92, KID93, LMB96, LCA94]. **time-independent** [ACB92]. **time-scale** [FHB99]. **TIP3P** [JJ98, SK95].

TIP4P [JJ98]. **titanium** [JB98]. **Tl** [Ste91]. **ToBaD** [VTR⁺94]. **toluenesulfonate** [GWHD99]. **Tomasi** [VWGF95]. **tool** [AW90, BGZP97, GW98c, OL93b]. **toolkit** [LFB96]. **topography** [PFFF97]. **Topological** [LBA⁺99, MS89, VSF97, ZHSB92, ZMC⁺97, AHLR⁺91, BC93, DMB91, SR94b, TSZ90, Gla90, Mez91]. **topology** [AL98, DMB91, ML91]. **torsion** [BK96, TNS97a, VTR⁺94]. **Torsional** [CP92, KG93, BBvG95, DH90b, MTRJ95, SF92]. **torsional-angle-dependent** [BBvG95]. **training** [BBH99]. **trajectories** [Gen99]. **trajectory** [HHP91, SYHW99]. **trans** [CK91]. **trans-** [CK91]. **transannular** [GBT97]. **Transfer** [BSB⁺97, ACB97, BSGB98, BA94, BSN99, ČTS98, CG90, CG98, FS94, FA99, GLLOB91, GHS97, HR97, JU91, LKL95, LTHY96, LMRR98, LH99, PSK98, PLB92, SSM96, SHCR97]. **transferability** [AGM91]. **Transferable** [RHN94, BR97, PFM91, VFK92]. **transform** [Ric93]. **transform-based** [Ric93]. **transformation** [CS90, CS96, LKLB⁺99, PPK91, RPW98]. **transformations** [VÅJ94]. **transforms** [NVK⁺97]. **Transition** [Jen94, AB98b, ABBC99a, ABBC99b, BSGB98, BC96, BCMZ99, Bof94, BC95, CH96a, GGK98, HM90, LJ92, LDJ92, MM93, MKF⁺97, MM95, PASF96, RCAA99, SH91, SB95, dIVM91]. **transitions** [BK97b, McD96]. **transport** [AM99]. **trapping** [ISH98b]. **Treatment** [JG93b, JKN99, PPK92, TNS97b, BT96, FCNSÁ98, GÖ95, PK95, TMB93, TNS97a, VHV99]. **treatments** [HKY98]. **tree** [Cis93]. **trees** [BMP⁺91, RWB99]. **trehalose** [DRF92]. **trends** [MKS90, VRC91, VRC92]. **tri** [OC98]. **triacetylene** [BMD99]. **triads** [LMRRL98]. **triangulation** [ZM90, ZYY95a]. **Triazene** [STB⁺94]. **triazine** [LK95, Wel90]. **trifluoride** [Kat93]. **trifluoromethyl** [FOA98]. **trifluoromethylphenol** [KKCH96]. **trihalides** [BT92]. **trimer** [KKE93]. **trimers** [GVH94]. **trimethoxyphenyl** [WJV⁺96]. **trimethyl** [Kat93]. **trimethylphosphine** [Kat93]. **tripeptide** [BH91b, HNH⁺91]. **triphenyl** [IMP91]. **triphasophate** [Can93, HCCC99]. **triple** [SMS98]. **triplet** [CLS⁺97, FSCS99, KHF91]. **triquinacene** [Hol93]. **trithiocarbenium** [GCG97]. **tropane** [Fro93]. **true** [DKK⁺93, DKK95]. **truly** [Ove91]. **truncated** [DZSB94]. **truncating** [GK93]. **trypsin** [Kik96]. **tryptophan** [Sul95]. **tungsten** [Van97]. **tunneling** [MGLL99]. **TURBOMOLE** [VA98]. **turns** [MGH97]. **twelve** [Sau91]. **twelve-ring** [Sau91]. **twist** [HCK95]. **twist-boat** [HCK95]. **Two** [HNS⁺97, WCC91, AB97, ARLG⁺94, ABD90, CW97, CCN90, CACD97, CBSR99, FD91, HBLL98, HL96b, HYH⁺94, HWH⁺91, HT99b, Jai90, Jon91, KVKK93, KTT94, KTT95, LTHY96, MPJ98, MPJC98, SB98a, SSM96, YG92b]. **two-body** [MPJ98, MPJC98]. **two-bond** [Jai90]. **two-center** [Jon91]. **Two-component** [HNS⁺97, HBLL98]. **two-dimensional** [CCN90, CBSR99, HYH⁺94]. **Two-electron** [WCC91, CW97, HWH⁺91, YG92b, ABD90]. **two-ring** [SSM96]. **two-step** [ARLG⁺94, HT99b]. **type** [BBR98, CDR⁺95, CDG⁺99, DKK⁺93, Ish98a, Jon91, Jur96, KHF90, KHF91, KMM99, KA92, KHA90, LLB99, ORK⁺91, Phi90, RLA⁺98, WAM91, WCC91].

U [SHM99, vEK99]. **ultraviolet** [LDVP91, NQ99, PR95]. **umbrella** [BK97a]. **unambiguously** [FCCG96]. **unbounded** [GS91]. **uncontracted** [WCC91]. **Uncoupled** [BLF95]. **undergo** [WM93]. **Understanding** [Bic99]. **Unification** [Bek97]. **Unimolecular** [KW91a, ABBC99b, LZZ98]. **unit** [BPS93, Del96, SA99, Ste98]. **United** [LKC⁺98, SB99a, DMV98, LOP⁺97, LPW⁺97]. **United-residue** [LKC⁺98, LOP⁺97, LPW⁺97]. **units** [FRC91, Kna92]. **universal** [JDD97]. **University** [Gar90]. **unsaturated** [Gri94, LDJ⁺97]. **unsymmetrical** [LSDB99]. **Unusual** [NWÅM95]. **UO** [SHM99]. **update** [AB98b, Mit98b]. **Updated** [Bof94, BC95]. **upon** [BFST93, FRZ93, SV94, YG92a]. **uracil** [PR95]. **urea** [DVL90, LHBF93, MV91]. **urea-anisole** [MV91]. **ureas** [KB92]. **Use** [AJB96, CRME93, Ear93, EGH⁺93, GJL⁺90, Hil97, KZ99, Mit98b, ACD99, AL98, CT95, CNS96, CK91, GP94, Her97, HHC90, HKK91, KPR91, LDVP91, LM93, MM97, MKS90, OL90, Pol90, PT98, RBC⁺98, RKL93, WTLC93, WWF95]. **used** [Cso93, Hil97, KNST96, VRBE93]. **Using** [PASF96, ACD97, AS98b, AS99, BBR96, BW91a, Bér97a, BB98b, BKMH97, BR97, CDG⁺96, CDR⁺95, CP98, CN98, CB96, CJC⁺93, CMS91, CF97b, CT97, CG98, Dav94a, DJ93, DJ94, DBS93, DRF92, DS90, DRP98, DN92, FA99, FG96, GLP95, Gao97, GWHD99, GC97, GDK92, GBE92, GVD96, Hal96d, HOL98, HE99a, HE99b, HS95a, HKK91, ISH98b, JG93a, KOH97, KOH98, KFML99, KPI95, KUT⁺97, KD96, KVKK93, KK91, Kul90, KRB⁺95, KPV96, LP90, LL92, LMB96, LCA94, LLD98, MK98, MTH94, MK97b, MRG⁺90, MPBM98, MGH⁺98, MPJ98, MPJC98, NM97, NS98, PNJS93, PKN⁺95, PFC96, PF99, PKCM99, Pul97, REA⁺98, RCATD96, Rog90, Rog94, Rog03, SA99, SBA97, Sha91, SQ95, SW96a, SKB92, Spa96, SR90, Sul95, TH93, TS99a, TRLRB96, Var92, VGN⁺92, VM95, WS99b, WPLC95]. **using** [YTT97, Zho93, ZL94, JG91]. **Utilization** [MTH94, NL98]. **utilizing** [NH91]. **UV** [BMD99]. **UV/Vis** [BMD99].

V [RCATD96, BH98b, BT92, FDMB93, Hal96d, MHJ⁺98, vDvdRvD92]. **valence** [BP98, BRLD92, GH98, KS97, MM94b, MM94a, MHB97, VK94, WP96]. **valency** [GW98b]. **Validation** [MR92, AB98a, BCB⁺97, SC99, PS91, PS92]. **validity** [DH90a]. **valley** [KCK97]. **value** [MM91]. **values** [ACDP98, FRR90, Wib99]. **vanadate** [Büh99]. **vanadium** [RCATD96]. **Variable** [AGM91, GS90b, Cri99, GPB⁺97, TS99a, TWR⁺95]. **variables** [ZS99]. **variance** [BB98b, KZ99]. **variance-minimized** [KZ99]. **Variation** [FS94, KMKW98, STT95, Vya97]. **Variational** [MM94a, MM94b]. **variations** [JLW99, SR90]. **VCH** [Var92]. **Vector** [MTBS91, YG92a, Elv91, IC96, YG92b]. **Vectorizable** [ZvN93]. **Vectorization** [HHP91]. **vectorized** [SM90, WL91a]. **vectors** [KV93, SBS99]. **Velocity** [HTC98]. **venom** [SYHW99]. **VENUS** [HHP91]. **verification** [FPC91, Rod94]. **version** [LKLB⁺99, MK92]. **versions** [PS97]. **versus** [ARLG⁺94, CT95, CKP96, DKBS97, GMY97]. **vertex**

[BC93, DMB91, ZBM91]. **vertical** [Gri94]. **very** [LBI⁺97, LP93, TRR⁺94, ŽRK⁺95]. **VESPA** [BCG97]. **VI** [BW91a, Hal99a]. **via** [HE99a, LM93, NBB⁺99, PFC96, WR93, ZRVD93]. **Viability** [TRJ96]. **Vibrational** [DDV93, GW98c, MLBD92, SCZC99, AS98a, ACB92, AC94, BP98, BSB⁺97, BBS96, CJC⁺93, CMS91, CC91b, DDLV95, DVL90, DBT98, DV97, Hal96c, HI98, JHB96, KT91, KCK97, KCK98, McD96, NL91, Net94, NA96, PSY⁺99, RJP97, RCATD96, SC91, Sun94, Tru91, dANS⁺96, SB98c]. **vibrational-state-selected** [DBT98]. **vibrations** [GH97]. **vicinal** [CGdAC91]. **Vienna** [Gar90]. **VII** [Hal99b]. **VIII** [BHK⁺91, CW93]. **vinylcyclobutane** [Bau90]. **vinylcyclopropanes** [Bal98]. **vinylene** [WJV⁺96]. **Vinyloxyborane** [IBKvRS92]. **violation** [HTC98]. **virial** [BBvG95, LJ91]. **virions** [CHP91]. **virtual** [BP93b]. **Vis** [BMD99]. **vitamin** [MNVM97]. **Volume** [Zho97, Bla91, Chr90, ELA⁺95, GPF97, Gō95, Gri90, KPR91, Pet95, STPA91]. **volume-based** [Pet95]. **volumes** [ABD⁺98, Pet94, WWF95]. **Voronoi** [GPF97]. **VRI** [Cri99]. **vs** [AGN⁺90, SSM96].

W [Var92]. **Waals**

[WWSS98a, AHLR⁺91, BLO94, BR97, CCG97, Hal96b, Hil97, LDG99, LLB99, Mar97b, Pet94, TEv91, VHWC98, WH93, WWSS98b, Wil94]. **walks** [Bal91b, BW96]. **water** [BW91b, CG93, DKJ96, DN92, EGH⁺93, EJ95, FF93, Fer95, FS97, GZ95, GS93, GLLOB91, HS93b, JJ98, JKS93, KHW⁺90, KTnH99, Mez92, MK92, MSZ96, PMIB99, Sie96, SB99a, SK95, TRG99, TMCM⁺96, TRLRB96, VW96, VCLB92, Yos96]. **water/chloroform** [VW96]. **waters** [LLD98]. **Watson** [SCZC99]. **wave** [BBR98, CP92, FW93a, LJ91, Mag93b, Mag93a, Mar97a, Mar97b, Mar98, ML92, OL90, RMS93, WLKJ92]. **wavefunction** [LIO90]. **wavefunctions** [KKJ97, LIO90]. **weakly** [DV97, Lóp95a, Lóp95b]. **weighted** [KRB⁺92, KRB⁺95]. **weights** [LPW⁺97]. **well** [MFG91]. **wells** [GML94]. **WH** [HKY98]. **widely** [Hal99b]. **Wiener** [TSZ90]. **Wiley** [Dun90, Gar90, Gol92, Klo92, Mez91]. **Wilson** [Chr90]. **within** [LDG99, RHKK90, VP94]. **without** [CA95, KID93]. **WKB** [GML94]. **workstation** [BHE⁺93, HA93, SL95]. **workstations** [FKN⁺93, MK94]. **World** [Dav97]. **wreath** [LB90].

X

[AS98a, BSvRS95, BT92, FBTD92, GdAG⁺98, Lóp95b, SHM99, SI93, SM91, TDFdC91, ZY96, Dun90, AS98a, BSvRS95, BSL91, Dav93, Dav94b, KRL⁺93, KHA90, PS91, PS92, SI93, SYHW99, WJL⁺96, WJV⁺96, ZMC⁺97, TDFdC91]. **X-PLOR** [Dav93]. **X-PLORing** [Dav94b]. **X-ray** [BSL91, KRL⁺93, PS91, PS92, SYHW99, WJL⁺96, WJV⁺96]. **XeF** [SCMV97]. **xenon** [Pul97, SCMV97]. **XH** [ZMC⁺97]. **XONO** [SM91]. **XSiO** [AS98a]. **XSSX** [BSvRS95]. **XVI** [PFC96]. **xvii** [Gar90].

Yammp [TH93]. **Yarkony** [Dav97]. **Yb** [FR94b]. **YO** [TDFdC91]. **York** [Chr90, Dun90, Gar90, Gol92, Klo92, Mez91, Ran92, Var92]. **yttrium** [HM90]. **Yukawa** [JCV⁺93].

Z [FW91, LPW⁺97]. **Z-DNA** [FW91]. **Z-score** [LPW⁺97]. **zeolite** [GHS97]. **zero** [LTHY96, SC95]. **zero-flux** [SC95]. **zero-overlap** [LTHY96]. **zinc** [KSP90, YBD⁺94]. **Zn** [Gre95, GSK95, GG96, Mar98, SWS⁺90, SMA92, Ste91, TRG99]. **Zupan** [Gol92]. **zwitterion** [DKJ96]. **zwitterion-water** [DKJ96].

References

Anglada:1997:RRQ

- [AB97] Josep Maria Anglada and Josep Maria Bofill. A reduced-restricted-quasi-Newton–Raphson method for locating and optimizing energy crossing points between two potential energy surfaces. *Journal of Computational Chemistry*, 18(8):992–1003, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Adamo:1998:IVL

- [AB98a] Carlo Adamo and Vincenzo Barone. Implementation and validation of the Lacks–Gordon exchange functional in conventional density functional and adiabatic connection methods. *Journal of Computational Chemistry*, 19(4):418–429, March 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anglada:1998:HGB

- [AB98b] Josep Maria Anglada and Josep Maria Bofill. How good is a Broyden–Fletcher–Goldfarb–Shanno-like update Hessian formula to locate transition structures? Specific reformulation of Broyden–Fletcher–Goldfarb–Shanno for optimizing saddle points. *Journal of Computational Chemistry*, 19(3):349–362, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anglada:1999:PATA

- [ABBC99a] Josep Maria Anglada, Emili Besalú, Josep Maria Bofill, and Ramon Crehuet. Prediction of approximate transition states by Bell–Evans–Polanyi principle: I. *Journal of Computational Chemistry*, 20(11):1112–1129, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anglada:1999:PATb

- [ABBC99b] Josep Maria Anglada, Emili Besalú, Josep Maria Bofill, and Ramon Crehuet. Prediction of approximate transition states by Bell–Evans–Polanyi principle: II. Gas phase unimolecular decomposition of methyldioxirane. *Journal of Computational Chemistry*, 20(11):1130–1137, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Augspurger:1990:COE

- [ABD90] Joseph D. Augspurger, David E. Bernholdt, and Clifford E. Dykstra. Concise, open-ended implementation of Rys polynomial evaluation of two-Electron integrals. *Journal of Computational Chemistry*, 11(8):972–977, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Astley:1998:EAV

- [ABD⁺98] Timothy Astley, Gordon G. Birch, Michael G. B. Drew, P. Mark Rodger, and Gareth R. H. Wilden. Effect of available volumes on radial distribution functions. *Journal of Computational Chemistry*, 19(3):363–367, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Antosiewicz:1996:CIS

- [ABE⁺96] Jan Antosiewicz, James M. Briggs, Adrian H. Elcock, Michael K. Gilson, and J. Andrew McCammon. Computing ionization states of proteins with a detailed charge model. *Journal of Computational Chemistry*, 17(14):1633–1644, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alex:1992:MSE

- [AC92] Alexander Alex and Timothy Clark. MO-studies of enzyme reaction mechanisms. I. Model molecular orbital study of the cleavage of peptides by carboxypeptidase A. *Journal of Computational Chemistry*, 13(6):704–717, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alvarez-Collado:1994:NCF

- [AC94] J. R. Alvarez-Collado. Normal coordinates–finite elements calculation of 3D vibrational energy levels: Henon–Heiles and Eckart potentials, H molecule. *Journal of Computational*

Chemistry, 15(4):377–384, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alvarez-Collado:1992:NSM

- [ACB92] J. R. Alvarez-Collado and Robert J. Buenker. On the numerical solution of the multidimensional vibrational time-independent Schroedinger equation. *Journal of Computational Chemistry*, 13(2):135–141, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Adamo:1997:CBS

- [ACB97] Carlo Adamo, Maurizio Cossi, and Vincenzo Barone. Catalytic and bulk solvent effects on proton transfer: Formamide as a case study. *Journal of Computational Chemistry*, 18(16):1993–2000, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Amat:1997:QSM

- [ACD97] Lluís Amat and Ramon Carbó-Dorca. Quantum similarity measures under atomic shell approximation: First order density fitting using elementary Jacobi rotations. *Journal of Computational Chemistry*, 18(16):2023–2039, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Amat:1999:FED

- [ACD99] Lluís Amat and Ramon Carbó-Dorca. Fitted electronic density functions from H to Rn for use in quantum similarity measures: cis -diamminedichloroplatinum(II) complex as an application example. *Journal of Computational Chemistry*, 20(9):911–920, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Amat:1998:MQS

- [ACDP98] Lluís Amat, Ramon Carbó-Dorca, and Robert Ponec. Molecular quantum similarity measures as an alternative to log P values in QSAR studies. *Journal of Computational Chemistry*, 19(14):1575–1583, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Aleman:1991:NSE

- [ACFO91] Carlos Alemán, Enric I. Canela, Rafael Franco, and Modesto Orozco. A new strategy for the evaluation of force parameters

from quantum mechanical computations. *Journal of Computational Chemistry*, 12(6):664–674, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1996:HEC

- [ACK⁺96] Norman L. Allinger, Kuohsiang Chen, J. A. Katzenellenbogen, Scott R. Wilson, and Gregory M. Anstead. Hyperconjugative effects on carbon–carbon bond lengths in molecular mechanics (MM4). *Journal of Computational Chemistry*, 17(5–6):747–755, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1996:IFF

- [ACL96] Norman L. Allinger, Kuohsiang Chen, and Jenn-Huei Lii. An improved force field (MM4) for saturated hydrocarbons. *Journal of Computational Chemistry*, 17(5–6):642–668, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ayma:1997:ICD

- [ACRC97] David Ayma, Jean Pierre Campillo, Michel Rérat, and Mauro Causà. Ab initio calculation of dynamic polarizability and dielectric constant of carbon and silicon cubic crystals. *Journal of Computational Chemistry*, 18(10):1253–1263, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Augspurger:1990:GQM

- [AD90] Joseph D. Augspurger and Clifford E. Dykstra. General quantum mechanical operators. An open-ended approach for one-electron integrals with Gaussian bases. *Journal of Computational Chemistry*, 11(1):105–111, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Adamson:1999:ECS

- [ADG99] Ross D. Adamson, Jeremy P. Dombroski, and Peter M. W. Gill. Efficient calculation of short-range Coulomb energies. *Journal of Computational Chemistry*, 20(9):921–927, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Aerts:1995:IMM

- [Aer95] J. Aerts. An improved molecular modeling method for the prediction of enantioselectivity. *Journal of Computational Chemistry*, 16(7):914–922, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1993:MMC

- [AF93] Norman L. Allinger and Yi Fan. Molecular mechanics calculations (MM3) on sulfones. *Journal of Computational Chemistry*, 14(6):655–666, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1994:FFC

- [AF94] Norman L. Allinger and Yi Fan. Force field calculations (MM3) on glyoxal, quinones, and related compounds. *Journal of Computational Chemistry*, 15(3):251–268, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See additions and corrections [Ano97].

Allinger:1997:MMS

- [AF97] Norman L. Allinger and Yi Fan. Molecular mechanics studies (MM4) of sulfides and mercaptans. *Journal of Computational Chemistry*, 18(15):1827–1847, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Amisaki:1995:EED

- [AFK⁺95] Takashi Amisaki, Takaji Fujiwara, Akihiro Kusumi, Hiroo Miyagawa, and Kunihiro Kitamura. Error evaluation in the design of a special-purpose processor that calculates nonbonded forces in molecular dynamics simulations. *Journal of Computational Chemistry*, 16(9):1120–1130, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alagona:1990:EDF

- [AG90] Giuliano Alagona and Caterina Ghio. The effect of diffuse functions on minimal basis set superposition errors for H-bonded dimers. *Journal of Computational Chemistry*, 11(8):930–942, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Arteca:1991:VAR

- [AGM91] Gustavo A. Arteca, Naomi D. Grant, and Paul G. Mezey. Variable atomic radii based on some approximate configurational invariance and transferability properties of the electron density. *Journal of Computational Chemistry*, 12(10):1198–1210, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alagona:1990:CSI

- [AGN⁺90] Giuliano Alagona, Caterina Ghio, Péter Nagy, Kálmán Simon, and Gábor Náray-Szabo. Comparative study of imidazole hydration: ab initio and electrostatic calculations vs. Cambridge Structural Database analysis. *Journal of Computational Chemistry*, 11(9):1038–1046, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alagona:1991:FFP

- [AGP91] Giuliano Alagona, Caterina Ghio, and Claudio Pratesi. Force field parameters for molecular mechanical simulation of dehydroamino acid residues. *Journal of Computational Chemistry*, 12(8):934–942, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Arteca:1991:TAM

- [AHLR⁺91] Gustavo A. Arteca, Alfonso Hernández-Laguna, Juan J. Rández, Yves G. Smeyers, and Paul G. Mezey. A topological analysis of molecular electrostatic potential on van der Waals surfaces for histamine and 4-substituted derivatives as H₂-receptor agonists. *Journal of Computational Chemistry*, 12(6):705–716, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alvarez-Idaboy:1998:EMO

- [AIDAVB98] J. Raúl Alvarez-Idaboy, Irina Díaz-Acosta, and Annik Vivier-Bunge. Energetics of mechanism of OH-propene reaction at low pressures in inert atmosphere. *Journal of Computational Chemistry*, 19(8):811–819, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Arora:1997:SHB

- [AJ97] Nidhi Arora and B. Jayaram. Strength of hydrogen bonds in α helices. *Journal of Computational Chemistry*, 18(9):1245–1252,

- July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- [AJ99a] Bernd Ahlswede and Karl Jug. Consistent modifications of SINDO1: I. Approximations and parameters. *Journal of Computational Chemistry*, 20(6):563–571, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Ahlswede:1999:CMSa**
- [AJ99b] Bernd Ahlswede and Karl Jug. Consistent modifications of SINDO1: II. Applications to first- and second-row elements. *Journal of Computational Chemistry*, 20(6):572–578, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Ahlswede:1999:CMSb**
- [AJB96] Bjørn K. Alsberg, Vidar R. Jensen, and Knut J. Børve. Use of multivariate methods in the analysis of calculated reaction pathways. *Journal of Computational Chemistry*, 17(10):1197–1216, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Alsberg:1996:UMM**
- [AKF93] Ernst Anders, Rainer Koch, and Peter Freunsch. Optimization and application of lithium parameters for PM3. *Journal of Computational Chemistry*, 14(11):1301–1312, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anders:1993:OAL**
- [AL98] Paul H. Axelsen and Daohui Li. Improved convergence in dual-topology free energy calculations through use of harmonic restraints. *Journal of Computational Chemistry*, 19(11):1278–1283, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Axelsen:1998:ICD**
- [ALO93] Carlos Alemán, F. J. Luque, and M. Orozco. Suitability of the PM3-derived molecular electrostatic potentials. *Journal of Computational Chemistry*, 14(7):799–808, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Aleman:1993:SPD**

[ALO94]

C. Alhambra, F. J. Luque, and Modesto Orozco. Comparison of NDDO and quasi- ab initio approaches to compute semiempirical molecular electrostatic potentials. *Journal of Computational Chemistry*, 15(1):12–22, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alhambra:1994:CNQ

[ALPH91]

Mohammad A. Al-Laham, G. A. Petersson, and Paul Haaake. Ab initio study of ascorbic acid conformations. *Journal of Computational Chemistry*, 12(1):113–118, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Al-Laham:1991:ISA

[Als95]

Bjørn K. Alsberg. Fast, fuzzy c -means clustering of data sets with many features. *Journal of Computational Chemistry*, 16(4):414–421, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alsberg:1995:FFM

[ALY90]

Norman L. Allinger, Fanbing Li, and Liqun Yan. Molecular mechanics. The MM3 force field for alkenes. *Journal of Computational Chemistry*, 11(7):848–867, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1990:MMMa

[ALYT90]

Norman L. Allinger, Fanbing Li, Liqun Yan, and Julia C. Tai. Molecular mechanics (MM3) calculations on conjugated hydrocarbons. *Journal of Computational Chemistry*, 11(7):868–895, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1990:MMMb

[AM99]

Paulo Hora Acioli and Geraldo Magela e Silva. Investigating charge transport in molecular switches with neural networks. *Journal of Computational Chemistry*, 20(10):1060–1066, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Acioli:1999:ICT

[AMY98]

M. Alcamí, O. Mó, and M. Yáñez. G2 ab initio calculations on three-membered rings: Role of hydrogen atoms. *Journal of Computational Chemistry*, 19(9):1072–1086, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alcamí:1998:GIC

[Ano90a]

Anonymous. Announcement. *Journal of Computational Chemistry*, 11(2):268, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1990:Aa

[Ano90b]

Anonymous. Announcement. *Journal of Computational Chemistry*, 11(10):1247, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1990:Ab

[Ano90c]

Anonymous. Masthead. *Journal of Computational Chemistry*, 11(1):fmi, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1990:Ma

[Ano90d]

Anonymous. Masthead. *Journal of Computational Chemistry*, 11(2):fmi, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1990:Mb

[Ano90e]

Anonymous. Masthead. *Journal of Computational Chemistry*, 11(3):fmi, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1990:Mc

[Ano90f]

Anonymous. Masthead. *Journal of Computational Chemistry*, 11(4):fmi, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1990:Md

[Ano90g]

Anonymous. Masthead. *Journal of Computational Chemistry*, 11(5):fmi, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1990:Me

- [Ano90h] Anonymous. Masthead. *Journal of Computational Chemistry*, 11(6):fmi, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1990:Mf**
- [Ano90i] Anonymous. Masthead. *Journal of Computational Chemistry*, 11(7):fmi, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1990:Mg**
- [Ano90j] Anonymous. Masthead. *Journal of Computational Chemistry*, 11(8):fmi, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1990:Mh**
- [Ano90k] Anonymous. Masthead. *Journal of Computational Chemistry*, 11(9):fmi, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1990:Mi**
- [Ano90l] Anonymous. Masthead. *Journal of Computational Chemistry*, 11(10):fmi, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1990:Mj**
- [Ano91a] Anonymous. Announcements. *Journal of Computational Chemistry*, 12(6):778, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Aa**
- [Ano91b] Anonymous. Announcements. *Journal of Computational Chemistry*, 12(9):1163, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Ab**
- [Ano91c] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(1):fmi, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Ma**

- [Ano91d] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(2):fmi, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Mb**
- [Ano91e] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(3):fmi, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Mc**
- [Ano91f] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(4):fmi, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Md**
- [Ano91g] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(5):fmi, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Me**
- [Ano91h] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(6):fmi, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Mf**
- [Ano91i] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(7):fmi, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Mg**
- [Ano91j] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(8):fmi, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Mh**
- [Ano91k] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(9):fmi, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Mi**

- [Ano91l] Anonymous. Masthead. *Journal of Computational Chemistry*, 12(10):fmi, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1991:Mj**
- [Ano92a] Anonymous. Announcement. *Journal of Computational Chemistry*, 13(9):1170, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:A**
- [Ano92b] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(1):fmi, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Ma**
- [Ano92c] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(2):fmi, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Mb**
- [Ano92d] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(3):fmi, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Mc**
- [Ano92e] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(4):fmi, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Md**
- [Ano92f] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(5):fmi, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Me**
- [Ano92g] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(6):fmi, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Mf**

- [Ano92h] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(7):fmi, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Mg**
- [Ano92i] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(8):fmi, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Mh**
- [Ano92j] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(9):fmi, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Mi**
- [Ano92k] Anonymous. Masthead. *Journal of Computational Chemistry*, 13(10):fmi, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1992:Mj**
- [Ano93a] Anonymous. Announcement. *Journal of Computational Chemistry*, 14(9):1123, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1993:Ab**
- [Ano93b] Anonymous. Announcements. *Journal of Computational Chemistry*, 14(3):378, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1993:Aa**
- [Ano93c] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(1):fmi, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1993:Ma**
- [Ano93d] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(2):fmi, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1993:Mb**

Anonymous:1993:Mc

- [Ano93e] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(3):fmi, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1993:Md

- [Ano93f] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(4):fmi, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1993:Me

- [Ano93g] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(5):fmi, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1993:Mf

- [Ano93h] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(6):fmi, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1993:Mg

- [Ano93i] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(7):fmi, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1993:Mh

- [Ano93j] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(8):fmi, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1993:Mi

- [Ano93k] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(9):fmi, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1993:Mj

- [Ano93l] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(10):fmi, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- [Ano93m] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(11):fmi, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1993:Mk**
- [Ano93n] Anonymous. Masthead. *Journal of Computational Chemistry*, 14(12):fmi, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1993:Mi**
- [Ano94a] Anonymous. Announcement. *Journal of Computational Chemistry*, 15(2):249, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Aa**
- [Ano94b] Anonymous. Announcement. *Journal of Computational Chemistry*, 15(3):374, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Ab**
- [Ano94c] Anonymous. Announcement. *Journal of Computational Chemistry*, 15(5):571, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Ad**
- [Ano94d] Anonymous. Announcement. *Journal of Computational Chemistry*, 15(8):917, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Ae**
- [Ano94e] Anonymous. Announcements. *Journal of Computational Chemistry*, 15(4):475, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Ac**
- [Ano94f] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(1):fmi, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Ma**

- [Ano94g] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(2):fmi, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mb**
- [Ano94h] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(3):fmi, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mc**
- [Ano94i] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(4):fmi, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Md**
- [Ano94j] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(5):fmi, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Me**
- [Ano94k] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(6):fmi, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mf**
- [Ano94l] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(7):fmi, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mg**
- [Ano94m] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(8):fmi, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mh**
- [Ano94n] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(9):fmi, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mi**

- [Ano94o] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(10):fmi, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mj**
- [Ano94p] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(11):fmi, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mk**
- [Ano94q] Anonymous. Masthead. *Journal of Computational Chemistry*, 15(12):fmi, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1994:Mi**
- [Ano95a] Anonymous. Announcement. *Journal of Computational Chemistry*, 16(1):129, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1995:Aa**
- [Ano95b] Anonymous. Announcement. *Journal of Computational Chemistry*, 16(11):1447, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1995:Ab**
- [Ano95c] Anonymous. Masthead. *Journal of Computational Chemistry*, 16(1):fmi, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1995:Ma**
- [Ano95d] Anonymous. Masthead. *Journal of Computational Chemistry*, 16(2):fmi, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1995:Mb**
- [Ano95e] Anonymous. Masthead. *Journal of Computational Chemistry*, 16(3):fmi, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Anonymous:1995:Mc**

[Ano95f]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(4):fmi, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Md

[Ano95g]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(5):fmi, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Me

[Ano95h]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(6):fmi, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Mf

[Ano95i]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(7):fmi, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Mg

[Ano95j]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(8):fmi, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Mh

[Ano95k]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(9):fmi, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Mi

[Ano95l]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(10):fmi, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Mj

[Ano95m]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(11):fmi, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:Mk

[Ano95n]

Anonymous. Masthead. *Journal of Computational Chemistry*, 16(12):fmi, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1995:MI

[Ano96a]

Anonymous. Announcement. *Journal of Computational Chemistry*, 17(13):ii, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:A

[Ano96b]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(1):fmi, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Ma

[Ano96c]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(2):fmi, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mb

[Ano96d]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(3):fmi, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mc

[Ano96e]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(4):fmi, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Md

[Ano96f]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(5–6):fmi, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Me

[Ano96g]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(7):fmi, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mf

[Ano96h]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(8):fmi, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mg

[Ano96i]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(9):fmi, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mh

[Ano96j]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(10):fmi, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mi

[Ano96k]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(11):fmi, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mj

[Ano96l]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(12):fmi, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mk

[Ano96m]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(13):fmi, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:MI

[Ano96n]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(14):fmi, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mm

[Ano96o]

Anonymous. Masthead. *Journal of Computational Chemistry*, 17(15):fmi, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Anonymous:1996:Mn

- Anonymous:1996:Mo**
- [Ano96p] Anonymous. Masthead. *Journal of Computational Chemistry*, 17(16):fmi, December 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Anonymous:1997:ACF**
- [Ano97] Anonymous. Additions and corrections: "Force field calculations (MM3) on glyoxal, quinones, and related compounds," N. L. Allinger and Y. Fan, *J. Comput. Chem.*, **15**:251 (1994). *Journal of Computational Chemistry*, 18(16):2093, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [AF94].
- Anonymous:2015:ECG**
- [Ano15] Anonymous. Erratum to Csonka, G. I., Nguyen, N. A., & Kolossváry, I. (1997). Simple tests for density functional methods. *Journal of Computational Chemistry*, 18 (12), 1534–1545. (DOI: 10.1002/(SICI)1096-987X(199709)18:12;1534::AID-JCC10;3.0.CO;2-K). *Journal of Computational Chemistry*, 36(30):2270, November 15, 2015. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [CNK97].
- Aihara:1996:FTI**
- [AOYŌ96] Jun-Ichi Aihara, Sumio Oe, Mitsuho Yoshida, and Eiji Ōsawa. Further test of the isolated pentagon rule: Thermodynamic and kinetic stabilities of C_{84} fullerene isomers. *Journal of Computational Chemistry*, 17(12):1387–1394, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Apostolakis:1998:DSL**
- [APC98] Joannis Apostolakis, Andreas Plückthun, and Amedeo Caflisch. Docking small ligands in flexible binding sites. *Journal of Computational Chemistry*, 19(1):21–37, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- AAqvist:1996:CAB**
- [Åqv96] Johan Åqvist. Calculation of absolute binding free energies for charged ligands and effects of long-range electrostatic interactions. *Journal of Computational Chemistry*, 17(14):1587–

1597, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Aplincourt:1999:SIS

- [ARLAB99] P. Aplincourt, M. F. Ruiz-López, X. Assfeld, and F. Bohr. Structure of isolated and solvated peroxy radicals. *Journal of Computational Chemistry*, 20(10):1039–1048, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Assfeld:1994:TAR

- [ARLG⁺94] X. Assfeld, M. F. Ruiz-Lopez, J. Gonzalez, R. Lopez, J. A. Sordo, and T. L. Sordo. Theoretical analysis of the role of the solvent on the reaction mechanisms: One-step versus two-step ketene–imine cycloaddition. *Journal of Computational Chemistry*, 15(5):479–487, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Arnaud:1994:ISS

- [Arn94] R. Arnaud. Ab initio study of some CH₃OCXYCH₂ radicals: the influence of anomeric effects on their structure and their stability. *Journal of Computational Chemistry*, 15(12):1341–1356, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Arteca:1993:GMM

- [Art93] Gustavo A. Arteca. Global measure of molecular flexibility and shape fluctuations about conformational minima. *Journal of Computational Chemistry*, 14(6):718–727, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Arteca:1994:SAH

- [Art94] Gustavo A. Arteca. Shape analysis of hydrogen-bonded networks in solvation clusters. *Journal of Computational Chemistry*, 15(6):633–643, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Augspurger:1996:EDH

- [AS96] Joseph D. Augspurger and Harold A. Scheraga. An efficient, differentiable hydration potential for peptides and proteins. *Journal of Computational Chemistry*, 17(13):1549–1558, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Augspurger:1997:AAR

- [AS97] Joseph D. Augspurger and Harold A. Scheraga. An assessment of the accuracy of the RRIGS hydration potential: Comparison to solutions of the Poisson–Boltzmann equation. *Journal of Computational Chemistry*, 18(8):1072–1078, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alikhani:1998:DPS

- [AS98a] M. E. Alikhani and B. Silvi. DFT-predicted structural, vibrational, and bonding properties of XSiO and X₂SiO (X = F, Cl, or Br) molecules. *Journal of Computational Chemistry*, 19(11):1205–1214, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Andricioaei:1998:GOU

- [AS98b] Ioan Andricioaei and John E. Straub. Global optimization using bad derivatives: Derivative-free method for molecular energy minimization. *Journal of Computational Chemistry*, 19(13):1445–1455, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Apostol:1999:IMP

- [AS99] Izydor Apostol and Wojciech Szpankowski. Indexing and mapping of proteins using a modified nonlinear Sammon projection. *Journal of Computational Chemistry*, 20(10):1049–1059, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1992:HFO

- [ASM⁺92] Norman L. Allinger, Lawrence R. Schmitz, Ioan Motoc, Charles Bender, and Jan K. Labanowski. Heats of formation of organic molecules by Ab Initio calculations: Carboxylic acids and esters. *Journal of Computational Chemistry*, 13(7):838–841, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Agarwal:1993:DQI

- [AT93] Atul Agarwal and Ethan Will Taylor. 3-D QSAR for intrinsic activity of 5-HT_{1A} receptor ligands by the method of comparative molecular field analysis. *Journal of Computational*

- Chemistry*, 14(2):237–245, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Abagyan:1994:INM**
- [ATK94] Ruben Abagyan, Maxim Totrov, and Dmitry Kuznetsov. ICM — a new method for protein modeling and design: applications to docking and structure prediction from the distorted native conformation. *Journal of Computational Chemistry*, 15 (5):488–506, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Agrafiotis:1990:PNP**
- [ATS90] Dimitris K. Agrafiotis, Brian Tansy, and Andrew Streitwieser. PRODEN: a new program for calculating integrated projected populations. *Journal of Computational Chemistry*, 11(9):1101–1110, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Alkorta:1993:CSB**
- [AVA93] Ibon Alkorta, Hugo O. Villar, and Gustavo A. Arteca. Comparative study between ab initio and semiempirical electrostatic potentials on molecular surfaces. *Journal of Computational Chemistry*, 14(5):530–540, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Alkorta:1993:CAT**
- [AVC93] Ibon Alkorta, Hugo O. Villar, and Raul E. Cachau. Conformational analysis of 2,3,6,7-tetrahydroazepines with implications for D₁-selective benzazepines. *Journal of Computational Chemistry*, 14(5):571–578, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Alkorta:1993:CME**
- [AVP93] Ibon Alkorta, Hugo O. Villar, and Juan J. Perez. Comparison of methods to estimate the free energy of solvation:Importance in the modulation of the affinity of 3-benzazepines for the D₁ receptor. *Journal of Computational Chemistry*, 14(5):620–626, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Allinger:1993:E**
- [AvRS93] Norman L. Allinger and Paul von R. Schleyer. Editorial. *Journal of Computational Chemistry*, 14(1):1, January 1993. CO-

DEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1996:Ea

- [AvRS96a] Norman L. Allinger and Paul von R. Schleyer. Editorial. *Journal of Computational Chemistry*, 17(4):385, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1996:Eb

- [AvRS96b] Norman L. Allinger and Paul von R. Schleyer. Editorial. *Journal of Computational Chemistry*, 17(5–6):489, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Auffinger:1990:HTA

- [AW90] P. Auffinger and G. Wipff. High temperature annealed molecular dynamics simulations as a tool for conformational sampling. Application to the bicyclic “222” cryptand. *Journal of Computational Chemistry*, 11(1):19–31, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Alard:1991:DCS

- [AW91] Philippe Alard and Shoshana J. Wodak. Detection of cavities in a set of interpenetrating spheres. *Journal of Computational Chemistry*, 12(8):918–922, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Allinger:1994:MMC

- [AYC94] N. L. Allinger, Liquan Yan, and Kuohsiang Chen. Molecular mechanics calculations (MM2 and MM3) on enamines and aniline derivatives. *Journal of Computational Chemistry*, 15(12):1321–1330, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Barone:1994:MIP

- [BA94] Vincenzo Barone and Carlo Adamo. Modulation of intramolecular proton transfer by electronic excitation and environment: 2-Pyridone as a case study. *Journal of Computational Chemistry*, 15(4):395–404, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bock:1992:EIR

- [BADP92] Charles W. Bock, Alexander V. Abramakov, George R. De Maré, and Yurii N. Panchenko. Effective internal rotation potential energy function of acryloyl fluoride, CH₂CHCFO. *Journal of Computational Chemistry*, 13(6):718–721, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baker:1992:GOC

- [Bak92] Jon Baker. Geometry optimization in Cartesian coordinates: Constrained optimization. *Journal of Computational Chemistry*, 13(2):240–253, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baker:1993:TGO

- [Bak93] Jon Baker. Techniques for geometry optimization: a comparison of Cartesian and natural internal coordinates. *Journal of Computational Chemistry*, 14(9):1085–1100, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baker:1997:COD

- [Bak97] Jon Baker. Constrained optimization in delocalized internal coordinates. *Journal of Computational Chemistry*, 18(8):1079–1095, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Balasubramanian:1990:CGD

- [Bal90] K. Balasubramanian. Computer generation of distance polynomials of graphs. *Journal of Computational Chemistry*, 11(7):829–836, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Balasubramanian:1991:CCP

- [Bal91a] K. Balasubramanian. Comments on the characteristic polynomial of a graph. *Journal of Computational Chemistry*, 12(2):248–253, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [Živ90].

Balasubramanian:1991:CEW

- [Bal91b] K. Balasubramanian. Computer enumeration of walks on directed graphs. *Journal of Computational Chemistry*, 12(1):

106–112, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Balasubramanian:1993:CGH

- [Bal93] K. Balasubramanian. Computer generation of Hadamard matrices. *Journal of Computational Chemistry*, 14(5):603–619, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baldwin:1998:TIV

- [Bal98] John E. Baldwin. Thermal isomerizations of vinylcyclopropanes to cyclopentenes. *Journal of Computational Chemistry*, 19(2):222–231, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bauld:1990:TRP

- [Bau90] Nathan L. Bauld. The theoretical reaction path for the cation radical vinylcyclobutane rearrangement: a concerted SR path. *Journal of Computational Chemistry*, 11(7):896–898, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baker:1993:COC

- [BB93] Jon Baker and Doreen Bergeron. Constrained optimization in Cartesian coordinates. *Journal of Computational Chemistry*, 14(11):1339–1346, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bohm:1995:ISC

- [BB95] Hans-Joachim Böhm and Stefan Brode. Ab initio SCF calculations on low-energy conformers of cyclohexaglycine. *Journal of Computational Chemistry*, 16(2):146–153, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Berg:1996:MMC

- [BB96a] Ulf Berg and Nina Bladh. Molecular mechanics calculations of conjugated amides and an ab initio investigation of acrylamide and its β -amino derivative: Conformational analysis and rotational barriers. *Journal of Computational Chemistry*, 17(4):396–408, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Braga:1996:NFG

- [BB96b] J. P. Braga and J. C. Belchior. Normalization of the Fox-Goodwin algorithm to calculate scattering matrices in an adiabatic basis at low and high collision energies. *Journal of Computational Chemistry*, 17(13):1559–1563, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Beckers:1998:MAD

- [BB98a] M. L. M. Beckers and L. M. C. Buydens. Multivariate analysis of a data matrix containing A-DNA and B-DNA dinucleoside monophosphate steps: Multidimensional Ramachandran plots for nucleic acids. *Journal of Computational Chemistry*, 19(7):695–715, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Besalu:1998:CCE

- [BB98b] Emili Besalú and Josep Maria Bofill. Calculation of clustered eigenvalues of large matrices using variance minimization method. *Journal of Computational Chemistry*, 19(15):1777–1785, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bol:1998:MMM

- [BBC⁺98] Johan E. Bol, Christian Buning, Peter Comba, Jan Reedijk, and Marc Ströhle. Molecular mechanics modeling of organic backbone of metal-free and coordinated ligands. *Journal of Computational Chemistry*, 19(5):512–523, April 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bush:1999:cbc

- [BBH99] Bruce L. Bush, Christopher I. Bayly, and Thomas A. Halgren. Consensus bond-charge increments fitted to electrostatic potential or field of many compounds: Application to MMFF94 training set. *Journal of Computational Chemistry*, 20(14):1495–1516, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ballestrero:1996:MDP

- [BBR96] P. Ballestrero, P. Baglietto, and C. Ruggiero. Molecular dynamics for proteins: Performance evaluation on massively par-

allel computers based on mesh networks using a space decomposition approach. *Journal of Computational Chemistry*, 17(4):469–475, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bofill:1998:ACG

- [BBR98] Josep Maria Bofill, Hugo Bono, and Jaime Rubio. Analysis of the convergence of the general coupling operator method for one-configuration-type wave functions. *Journal of Computational Chemistry*, 19(3):368–376, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Buchachenko:1996:DAQ

- [BBS96] A. A. Buchachenko, A. Yu. Baisogolov, and N. F. Stepanov. Decoupling approximations for quantum vibrational predissociation dynamics: the tests on the low-level golden rule approaches for some rare gas — Cl₂, ICl complexes. *Journal of Computational Chemistry*, 17(8):919–930, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bekker:1995:FVT

- [BBvG95] H. Bekker, H. J. C. Berendsen, and W. F. van Gunsteren. Force and virial of torsional-angle-dependent potentials. *Journal of Computational Chemistry*, 16(5):527–533, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Binning:1990:CCB

- [BC90] R. C. Binning Jr. and L. A. Curtiss. Compact contracted basis sets for third-row atoms: Ga–Kr. *Journal of Computational Chemistry*, 11(10):1206–1216, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Balaban:1993:SNR

- [BC93] Alexandru T. Balaban and Cornel Catana. Search for nondegenerate real vertex invariants and derived topological indexes. *Journal of Computational Chemistry*, 14(2):155–160, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bofill:1995:AUH

- [BC95] Josep Maria Bofill and Móanica Comajuan. Analysis of the updated Hessian matrices for locating transition structures. *Journal of Computational Chemistry*, 16(11):1326–1338, November

1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baker:1996:LTS

- [BC96] Jon Baker and Fora Chan. The location of transition states: a comparison of Cartesian, Z-matrix, and natural internal coordinates. *Journal of Computational Chemistry*, 17(7):888–904, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Barone:1997:DVF

- [BCB⁺97] Vincenzo Barone, Gabriella Capecchi, Yvon Brunel, Marie-Louise Dheu Andriés, and Robert Subra. Development and validation of force-field parameters for molecular simulations of peptides and proteins containing open-shell residues. *Journal of Computational Chemistry*, 18(14):1720–1728, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bonati:1992:MEP

- [BCF⁺92] L. Bonati, U. Cosentino, E. Fraschini, G. Moro, and D. Pitea. Molecular electrostatic potential of substituted aromatic compounds: Factors affecting the differences between Ab Initio and semiempirical results. *Journal of Computational Chemistry*, 13 (7):842–850, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Beachy:1998:PPE

- [BCFM98] Michael D. Beachy, David Chasman, Richard A. Friesner, and Robert B. Murphy. Parallel pseudospectral electronic structure: II. Localized Møller-Plesset calculations. *Journal of Computational Chemistry*, 19(9):1030–1038, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Beck:1997:VNF

- [BCG97] Bernd Beck, Timothy Clark, and Robert C. Glen. VESPA: a new, fast approach to electrostatic potential-derived atomic charges from semiempirical methods. *Journal of Computational Chemistry*, 18(6):744–756, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bartol:1999:CST

- [BCMZ99] Jessica Bartol, Peter Comba, Michael Melter, and Marc Zimmer. Conformational searching of transition metal compounds. *Journal of Computational Chemistry*, 20(14):1549–1558, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bonaccorsi:1991:IGO

- [BCT91] Rosanna Bonaccorsi, Roberto Cammi, and Jacopo Tomasi. On the ab initio geometry optimization of molecular solutes. *Journal of Computational Chemistry*, 12(3):301–309, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Barone:1998:GOM

- [BCT98] Vincenzo Barone, Maurizio Cossi, and Jacopo Tomasi. Geometry optimization of molecular structures in solution by the polarizable continuum model. *Journal of Computational Chemistry*, 19(4):404–417, March 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Battersby:1994:IBC

- [BDH⁺94] P. Battersby, J. R. Dean, S. M. Hitchen, W. R. Tomlinson, and P. M. Myers. Interaction between carbon dioxide and naphthalene: a molecular modeling approach. *Journal of Computational Chemistry*, 15(6):580–587, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bernardo:1995:EPP

- [BDKJL95] Dan N. Bernardo, Yanbo Ding, Karsten Krogh-Jespersen, and Ronald M. Levy. Evaluating polarizable potentials on distributed memory parallel computers: Program development and applications. *Journal of Computational Chemistry*, 16(9):1141–1152, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Becker:1997:RPP

- [Bec97] Oren M. Becker. Representing protein and peptide structures with parallel-coordinates. *Journal of Computational Chemistry*, 18(15):1893–1902, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- [Bec98] Oren M. Becker. Principal coordinate maps of molecular potential energy surfaces. *Journal of Computational Chemistry*, 19(11):1255–1267, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Becker:1998:PCM**
- [Bec99a] Thomas L. Beck. Multigrid high-order mesh refinement techniques for composite grid electrostatics calculations. *Journal of Computational Chemistry*, 20(16):1731–1739, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Beck:1999:MHO**
- [Bec99b] Axel D. Becke. Exploring the limits of gradient corrections in density functional theory. *Journal of Computational Chemistry*, 20(1):63–69, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Becke:1999:ELG**
- [Bek97] H. Bekker. Unification of box shapes in molecular simulations. *Journal of Computational Chemistry*, 18(15):1930–1942, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Bekker:1997:UBS**
- [Bér97a] Attila Bérces. Geometry optimization of metal complexes using natural internal coordinates: Representation of skeletal degrees of freedom. *Journal of Computational Chemistry*, 18(1):45–55, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Berces:1997:GOM**
- [Ber97b] Isaac B. Bersuker. Limitations of density functional theory in application to degenerate states. *Journal of Computational Chemistry*, 18(2):260–267, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Bersuker:1997:LDF**
- [BF91] H. Bruning and D. Feil. Electrostatic interactions in host-guest complexes 2. *Journal of Computational Chemistry*, 12(1):1–8, **Bruning:1991:EIH**

January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Beroza:1996:CAA

- [BF96] P. Beroza and D. R. Fredkin. Calculation of amino acid pK_{as} in a protein from a continuum electrostatic model: Method and sensitivity analysis. *Journal of Computational Chemistry*, 17(10):1229–1244, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baldridge:1994:ESS

- [BFH94] K. Baldridge, R. Fine, and A. Hagler. The effects of solvent screening in quantum mechanical calculations in protein systems. *Journal of Computational Chemistry*, 15(11):1217–1227, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Benassi:1993:CPH

- [BFST93] Rois Benassi, Ugo Folli, Silvia Sbardellati, and Ferdinando Taddei. Conformational properties and homolytic bond cleavage of organic peroxides. I. An empirical approach based upon molecular mechanics and ab initio calculations. *Journal of Computational Chemistry*, 14(4):379–391, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Battaglia:1993:FRC

- [BG93] Franco Battaglia and Emilio Gallicchio. FORTRAN routine to compute Born–Oppenheimer potential energy curves directly from spectroscopic data. *Journal of Computational Chemistry*, 14(5):579–586, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bliznyuk:1996:NCMa

- [BG96a] Andrey A. Bliznyuk and Jill E. Gready. Numerical calculation of molecular surface area. I. Assessment of errors. *Journal of Computational Chemistry*, 17(8):962–969, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bliznyuk:1996:NCMb

- [BG96b] Andrey A. Bliznyuk and Jill E. Gready. Numerical calculation of molecular surface area. II. Speed of calculation. *Journal of Computational Chemistry*, 17(8):970–975, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bliznyuk:1999:SML

- [BG99] Andrey A. Bliznyuk and Jill E. Gready. Simple method for locating possible ligand binding sites on protein surfaces. *Journal of Computational Chemistry*, 20(9):983–988, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bartels:1997:GGA

- [BGBW97] Christian Bartels, Peter Güntert, Martin Billeter, and Kurt Wüthrich. GARANT-a general algorithm for resonance assignment of multidimensional nuclear magnetic resonance spectra. *Journal of Computational Chemistry*, 18(1):139–149, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bravi:1997:SSO

- [BGZP97] Gianpaolo Bravi, Emanuela Gancia, Andrea Zaliani, and Monica Pegna. SONHICA (Simple optimized non-Hierarchical Cluster Analysis): a new tool for analysis of molecular conformations. *Journal of Computational Chemistry*, 18(10):1295–1311, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baker:1991:GOC

- [BH91a] Jon Baker and Warren J. Hehre. Geometry optimization in Cartesian coordinates: the end of the Z -matrix? *Journal of Computational Chemistry*, 12(5):606–610, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bodor:1991:PPC

- [BH91b] Nicholas Bodor and Ming-Ju Huang. Predicting partition coefficients for isomeric diastereoisomers of some tripeptide analogs. *Journal of Computational Chemistry*, 12(10):1182–1186, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Belostotskii:1998:MTB

- [BH98a] Anatoly M. Belostotskii and Alfred Hassner. Meshed tert-butyl gears on a quasirigid backbone. *Journal of Computational Chemistry*, 19(15):1786–1794, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Buhl:1998:TIN

- [BH98b] Michael Bühl and Fred A. Hamprecht. Theoretical investigations of NMR chemical shifts and reactivities of oxovanadium(v) compounds. *Journal of Computational Chemistry*, 19(2):113–122, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Brode:1993:PDS

- [BHE⁺93] Stefan Brode, Hans Horn, Michael Ehrig, Diane Moldrup, Julia E. Rice, and Reinhart Ahlrichs. Parallel direct SCF and gradient program for workstation clusters. *Journal of Computational Chemistry*, 14(10):1142–1148, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Brewster:1991:RBI

- [BHK⁺91] Marcus E. Brewster, Ming-Ju Huang, James J. Kaminski, Emil Pop, and Nicholas Bodor. Reactivity of biologically important reduced pyridines. VIII. A semiempirical (AM1) study of the oxidation of 3-substituted-1-methyl-1,4-dihydropyridines. *Journal of Computational Chemistry*, 12(10):1278–1282, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bickelhaupt:1999:URK

- [Bic99] F. Matthias Bickelhaupt. Understanding reactivity with Kohn–Sham molecular orbital theory: E2–S_N2 mechanistic spectrum and other concepts. *Journal of Computational Chemistry*, 20(1):114–128, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Biemolt:1994:PES

- [BJ94] W. Biemolt and A. P. J. Jansen. Potential energy surfaces for Rh CO from DFT calculations. *Journal of Computational Chemistry*, 15(10):1053–1063, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Brooks:1995:HAL

- [BJK95] Bernard R. Brooks, Dušanka Janežič, and Martin Karplus. Harmonic analysis of large systems. I. Methodology. *Journal of Computational Chemistry*, 16(12):1522–1542, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- [BK96] Arnaud Blondel and Martin Karplus. New formulation for derivatives of torsion angles and improper torsion angles in molecular mechanics: Elimination of singularities. *Journal of Computational Chemistry*, 17(9):1132–1141, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Blondel:1996:NFD**
- [BK97a] Christian Bartels and Martin Karplus. Multidimensional adaptive umbrella sampling: Applications to main chain and side chain peptide conformations. *Journal of Computational Chemistry*, 18(12):1450–1462, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Bartels:1997:MAU**
- [BK97b] R. Berger and M. Klessinger. Algorithms for exact counting of energy levels of spectroscopic transitions at different temperatures. *Journal of Computational Chemistry*, 18(10):1312–1319, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Berger:1997:AEC**
- [BKK⁺96] Peeter Burk, Ilmar A. Koppel, Ivar Koppel, Lev M. Yagupolskii, and Robert W. Taft. Superacidity of neutral Brönsted acids in gas phase. *Journal of Computational Chemistry*, 17(1):30–41, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Burk:1996:SNB**
- [BKL⁺90] Hans-Joachim Böhm, Gerhard Klebe, Thomas Lorenz, Thomas Mietzner, and Lorenz Siggel. Different approaches to conformational analysis: a comparison of completeness, efficiency, and reliability based on the study of a nine-membered lactam. *Journal of Computational Chemistry*, 11(9):1021–1028, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Bohm:1990:DAC**
- [BKLS95] Eric Barth, Krzysztof Kuczera, Benedict Leimkuhler, and Robert D. Skeel. Algorithms for constrained molecular dynamics. *Journal of Computational Chemistry*, 16(10):1192–1209, **Barth:1995:ACM**

October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Boehm:1997:TSB

- [BKMH97] Randall C. Boehm, Joel D. Kress, Richard L. Martin, and P. Jeffrey Hay. A theoretical study of bond energies in model Si–H–Cl molecules using density functional approaches for representing Si surface chemistry. *Journal of Computational Chemistry*, 18(16):2075–2085, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Buhl:1999:DRN

- [BKMM99] Michael Bühl, Martin Kaupp, Olga L. Malkina, and Vladimir G. Malkin. The DFT route to NMR chemical shifts. *Journal of Computational Chemistry*, 20(1):91–105, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Boehm:1991:ICS

- [BL91] Randall C. Boehm and Lawrence L. Lohr. Ab initio characterization of several states of nitroxylium (NO). Comparison of fragmentation energies of nitroxylium, nitroxyl (NO_3), and nitrate. *Journal of Computational Chemistry*, 12(1):119–125, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Blanco:1991:MSG

- [Bla91] Mario Blanco. Molecular silverware. I. General solutions to excluded volume constrained problems. *Journal of Computational Chemistry*, 12(2):237–247, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bursi:1995:UHF

- [BLF95] R. Bursi, M. Lankhorst, and D. Feil. Uncoupled Hartree–Fock calculations of the polarizability and hyperpolarizabilities of nitrophenols. *Journal of Computational Chemistry*, 16(5):545–562, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bachs:1994:OSC

- [BLO94] M. Bachs, F. J. Luque, and Modesto Orozco. Optimization of solute cavities and van der Waals parameters in ab initio

MST-SCRF calculations of neutral molecules. *Journal of Computational Chemistry*, 15(4):446–454, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baysal:1999:ESA

- [BM99] Canan Baysal and Hagai Meirovitch. Efficiency of simulated annealing for peptides with increasing geometrical restrictions. *Journal of Computational Chemistry*, 20(15):1659–1670, November 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baumann:1999:PGO

- [BMD99] Harold Baumann, Rainer E. Martin, and François Diederich. PM3 geometry optimization and CNDO/S-CI computation of UV/Vis spectra of large organic structures: Program description and application to poly(triacetylene) hexamer and taxotere. *Journal of Computational Chemistry*, 20(4):396–411, March 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Briggs:1990:MCS

- [BMJ90] James M. Briggs, Tooru Matsui, and William L. Jorgensen. Monte Carlo simulations of liquid alkyl ethers with the OPLS potential functions. *Journal of Computational Chemistry*, 11(8):958–971, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Besler:1990:ACD

- [BMK90] Brent H. Besler, Kenneth M. Merz Jr., and Peter A. Kollman. Atomic charges derived from semiempirical methods. *Journal of Computational Chemistry*, 11(4):431–439, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Behnejad:1995:ELC

- [BMN95] H. Behnejad, A. Maghari, and M. Najafi. The extended law of corresponding states and the intermolecular potentials for He He and Ne Ne. *Journal of Computational Chemistry*, 16(4):441–444, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

[BMN99]

C. Baysal, H. Meirovitch, and I. M. Navon. Performance of efficient minimization algorithms as applied to models of peptides and proteins. *Journal of Computational Chemistry*, 20(3):354–364, February 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baysal:1999:PEM[BMP⁺91]

T. J. N. Brown, R. B. Mallion, P. Pollak, Branca R. M. de Castro, and J. A. N. F. Gomes. The number of spanning trees in Buckminsterfullerene. *Journal of Computational Chemistry*, 12(9):1118–1124, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Brown:1991:NST[BMW⁺90]

Martin Badertscher, Stefano Musso, Martin Welti, Ernö Pretsch, Takuya Maruizumi, and Tae kyu Ha. Combined application of pair potentials and the MM2 force field for the modeling of ionophores. *Journal of Computational Chemistry*, 11(7):819–828, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Badertscher:1990:CAP

[BNDS97]

Robert E. Bruccoleri, Jiri Novotny, Malcolm E. Davis, and Kim A. Sharp. Finite difference Poisson–Boltzmann electrostatic calculations: Increased accuracy achieved by harmonic dielectric smoothing and charge antialiasing. *Journal of Computational Chemistry*, 18(2):268–276, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bruccoleri:1997:FDP

[BO93]

Michael B. Bass and Rick L. Ornstein. Substrate specificity of cytochrome P450cam for L- and D-norcamphor as studied by molecular dynamics simulations. *Journal of Computational Chemistry*, 14(5):541–548, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bass:1993:SSC

[Bof94]

Josep Maria Bofill. Updated Hessian matrix and the restricted step method for locating transition structures. *Journal of Com-*

Bofill:1994:UHM

putational Chemistry, 15(1):1–11, January 1994. CODEN JC-CHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Boggs:1999:GPM

- [Bog99] James E. Boggs. Guidelines for presentation of methodological choices in the publication of computational results: Ab initio electronic structure calculations. *Journal of Computational Chemistry*, 20(14):1587–1590, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bowen:1998:PCL

- [Bow98] J. Philip Bowen. A portrait of the chemist: the Lou Allinger story. *Journal of Computational Chemistry*, 19(2):vii–ix, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baginski:1993:TCC

- [BP93a] Maciej Bagiński and Lucjan Piela. Theoretical comparison of conformational properties of molecules: Conformational probability maps and similarity index. *Journal of Computational Chemistry*, 14(4):478–483, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Boughton:1993:CBP

- [BP93b] James W. Boughton and Peter Pulay. Comparison of the Boys and Pipek–Mezey localizations in the local correlation approach and automatic virtual basis selection. *Journal of Computational Chemistry*, 14(6):736–740, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Brodmeier:1994:AGA

- [BP94] Tilman Brodmeier and Ernö Pretsch. Application of genetic algorithms in molecular modeling. *Journal of Computational Chemistry*, 15(6):588–595, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baker:1998:PVS

- [BP98] Jon Baker and Peter Pulay. Predicting the vibrational spectra of some simple fluorocarbons by direct scaling of primitive valence force constants. *Journal of Computational Chemistry*, 19(10):1187–1204, July 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bartolotti:1991:LRN

- [BPC91] Libero J. Bartolotti, Lee G. Pedersen, and Paul S. Charifson. Long range nonbonded attractive constants for some charged atoms. *Journal of Computational Chemistry*, 12(9):1125–1128, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bock:1990:EBS

- [BPP90] C. W. Bock, Y. N. Panchenko, and V. I. Pupyshev. Effect of basic set quality and electron correlation on the scale factors of a harmonic force field. *Journal of Computational Chemistry*, 11(5):623–628, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baginski:1993:EGP

- [BPS93] Maciej Bagiński, Lucjan Piela, and Jeffrey Skolnick. The ethylene group as a peptide bond mimicking unit: a theoretical conformational analysis. *Journal of Computational Chemistry*, 14(4):471–477, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Black:1996:EBP

- [BPZL96] Delbert R. Black, Craig G. Parker, S. Scott Zimmerman, and Milton L. Lee. Enantioselective binding of α -pinene and of some cyclohexanetriol derivatives by cyclodextrin hosts: a molecular modeling study. *Journal of Computational Chemistry*, 17(8):931–939, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Breneman:1997:QAH

- [BR97] Curt M. Breneman and Marlon Rhem. QSPR analysis of HPLC column capacity factors for a set of high-energy materials using electronic van der Waals surface property descriptors computed by transferable atom equivalent method. *Journal of Computational Chemistry*, 18(2):182–197, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bliznyuk:1999:FGS

- [BR99] Andrey A. Bliznyuk and Alistair P. Rendell. Faster gradients for semiempirical methods. *Journal of Computational Chem-*

istry, 20(6):629–635, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Beck:1994:NAO

- [BRC94] Bernd Beck, Guntram Rauhut, and Timothy Clark. The natural atomic orbital point charge model for PM3: Multipole moments and molecular electrostatic potentials. *Journal of Computational Chemistry*, 15(10):1064–1073, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Burt:1990:AMS

- [BRH90] Catherine Burt, W. Graham Richards, and Philip Huxley. The application of molecular similarity calculations. *Journal of Computational Chemistry*, 11(10):1139–1146, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bockisch:1992:TST

- [BRLD92] F. Bockisch, J. C. Rayez, D. Liotard, and B. Duguay. Theoretical studies of $[n]$ paracyclophanes and their valence isomers. I. Geometries, strain energies, and enthalpies of the interconversions of $[n]$ paracyclophanes and their Dewar benzene isomers. *Journal of Computational Chemistry*, 13(9):1047–1056, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Brotherus:1999:IPR

- [Bro99] Robert Brotherus. Infia — program for rotational analysis of linear molecule spectra. *Journal of Computational Chemistry*, 20(6):610–622, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baeza:1992:SAT

- [BRP92] J. J. Baeza Baeza, G. Ramis Ramos, and F. Pérez Plá. Stiffness-adaptive Taylor method for the integration of non-stiff and stiff kinetic models. *Journal of Computational Chemistry*, 13(7):810–820, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bruccoleri:1993:GPI

- [Bru93] Robert E. Bruccoleri. Grid positioning independence and the reduction of self-energy in the solution of the Poisson-

Boltzmann equation. *Journal of Computational Chemistry*, 14(12):1417–1422, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bour:1997:TMP

- [BSB⁺97] Petr Bouř, Jana Sopková, Lucie Bednárová, Petr Maloň, and Timothy A. Keiderling. Transfer of molecular property tensors in Cartesian coordinates: a new algorithm for simulation of vibrational spectra. *Journal of Computational Chemistry*, 18(5):646–659, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Barrows:1998:FCR

- [BSC⁺98] Susan E. Barrows, Joey W. Storer, Christopher J. Cramer, Alfred D. French, and Donald G. Truhlar. Factors controlling relative stability of anomers and hydroxymethyl conformers of glucopyranose. *Journal of Computational Chemistry*, 19(10):1111–1129, July 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baboul:1998:CSN

- [BSGB98] Anwar G. Baboul, H. Bernhard Schlegel, Mikhail N. Glukhovtsev, and Robert D. Bach. Computational study on nature of transition structure for oxygen transfer from dioxirane and carbonyloxide. *Journal of Computational Chemistry*, 19(12):1353–1369, September 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Boyd:1991:MSD

- [BSL91] Donald B. Boyd, John D. Snoddy, and Ho-Shen Lin. Molecular simulations of DD-peptidase, a model β -lactam-binding protein: Synergy between X-ray crystallography and computational chemistry. *Journal of Computational Chemistry*, 12(5):635–644, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bu:1999:ETR

- [BSN99] Yuxiang Bu, Haitao Sun, and Hongbo Niu. Electron transfer reactivity of $O_2 + O$ system in low-spin coupling: Ab Initio study at electron correlation level. *Journal of Computational Chemistry*, 20(10):989–998, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Baumer:1990:NMC

- [BSS90] Luca Baumer, Giordano Sala, and Guido Sello. A new method for the calculation of atomic and local hardness. *Journal of Computational Chemistry*, 11(6):694–699, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bishop:1997:DMT

- [BSS97] Thomas C. Bishop, Robert D. Skeel, and Klaus Schulten. Difficulties with multiple time stepping and fast multipole algorithm in molecular dynamics. *Journal of Computational Chemistry*, 18(14):1785–1791, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Buturovic:1994:FSR

- [BSV94] Ljubomir J. Buturović, Temple F. Smith, and Sandor Vajda. Finite-state and reduced-parameter representations of protein backbone conformations. *Journal of Computational Chemistry*, 15(3):300–312, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bickelhaupt:1995:TIR

- [BSvRS95] F. Matthias Bickelhaupt, Miquel Solà, and Paul von Ragué Schleyer. Theoretical investigation of the relative stabilities of XSSX and X₂SS isomers (X = F, Cl, H, and CH₃). *Journal of Computational Chemistry*, 16(4):465–477, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Breidung:1992:SIS

- [BT92] Jürgen Breidung and Walter Thiel. A systematic ab initio study of the group V trihalides MX₃ and pentahalides MX₅ (M = P Bi, X = F I). *Journal of Computational Chemistry*, 13 (2):165–176, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bakowies:1996:STE

- [BT96] Dirk Bakowies and Walter Thiel. Semiempirical treatment of electrostatic potentials and partial charges in combined quantum mechanical and molecular mechanical approaches. *Journal of Computational Chemistry*, 17(1):87–108, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Buhl:1999:TSV

- [Büh99] Michael Bühl. Theoretical study of a vanadate peptide complex. *Journal of Computational Chemistry*, 20(12):1254–1261, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bone:1997:EEM

- [BV97] Richard G. A. Bone and Hugo O. Villar. Exhaustive enumeration of molecular substructures. *Journal of Computational Chemistry*, 18(1):86–107, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Berweger:1997:FEI

- [BvGMP97] Christian D. Berweger, Wilfred F. van Gunsteren, and Florian Müller-Plathe. Finite element interpolation for combined classical/quantum mechanical molecular dynamics simulations. *Journal of Computational Chemistry*, 18(12):1484–1495, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Boldyrev:1992:IIS

- [BvH⁺92] Alexander I. Boldyrev, Paul v. R. Schleyer, D. Higgins, Colin Thomson, and Sofia S. Kramarenko. Ab initio investigation of the structures and stabilities of CH₂N₂, CHFN₂, and CF₂N₂ isomers: Important consequences of MP2 optimizations. *Journal of Computational Chemistry*, 13(9):1066–1078, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Breneman:1990:DAC

- [BW90] Curt M. Breneman and Kenneth B. Wiberg. Determining atom-centered monopoles from molecular electrostatic potentials. The need for high sampling density in formamide conformational analysis. *Journal of Computational Chemistry*, 11(3):361–373, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Barclay:1991:MCP

- [BW91a] V. J. Barclay and James S. Wright. MRD–CI potential surfaces using balanced basis sets. VI. Correlation of bond order with bond function composition for first-row diatomic

molecules. *Journal of Computational Chemistry*, 12(6):690–696, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Boudon:1991:FEC

- [BW91b] Stéphane Boudon and Georges Wipff. Free energy calculations involving NH_4^+ in water. *Journal of Computational Chemistry*, 12(1):42–51, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bradley:1996:LES

- [BW96] R. E. Bradley and S. Windwer. Loop-erased self-avoiding random walks in four and five dimensions. *Journal of Computational Chemistry*, 17(15):1750–1756, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Bharadwaj:1995:FMB

- [BWS⁺95] Ranganathan Bharadwaj, Andreas Windemuth, S. Sridharan, Barry Honig, and Anthony Nicholls. The fast multipole boundary element method for molecular electrostatics: an optimal approach for large systems. *Journal of Computational Chemistry*, 16(7):898–913, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chen:1993:MMS

- [CA93] Kuohsiang Chen and Norman L. Allinger. A molecular mechanics study of alkyl peroxides. *Journal of Computational Chemistry*, 14(7):755–768, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Clark:1995:FLD

- [CA95] Kevin P. Clark and Ajay. Flexible ligand docking without parameter adjustment across four ligand–receptor complexes. *Journal of Computational Chemistry*, 16(10):1210–1226, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Costas:1999:DFS

- [CAC99] María Eugenia Costas and Rodolfo Acevedo-Chávez. Density functional study of neutral allopurinol tautomeric forms. *Journal of Computational Chemistry*, 20(2):200–206, January 30,

1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Constans:1997:TGM

- [CACD97] Pere Constans, Lluís Amat, and Ramon Carbó-Dorca. Toward a global maximization of the molecular similarity function: Superposition of two molecules. *Journal of Computational Chemistry*, 18(6):826–846, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cai:1994:ISL

- [Cai94] Z.-L. Cai. Ab initio study of low-lying electronic states of the PF₂ radical. *Journal of Computational Chemistry*, 15(3):346–350, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cannon:1993:AFF

- [Can93] John F. Cannon. AMBER force-field parameters for guanosine triphosphate and its imido and methylene analogs. *Journal of Computational Chemistry*, 14(8):995–1005, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Casti:1989:ARM

- [Cas89] John L. Casti. *Alternate Realities: Mathematical Models of Nature and Man*. John Wiley, New York, NY, USA, 1989. ISBN 0-471-61842-X. xvii + 493 pp. LCCN QA401 .C358 1988.

Chesnut:1996:AEC

- [CB96] D. B. Chesnut and E. F. C. Byrd. Accurate estimation of correlation energies using locally dense basis sets. *Journal of Computational Chemistry*, 17(12):1431–1443, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chen:1994:MSA

- [CBIT94] Xiannong Chen, Libero Bartolotti, Khalid Ishaq, and Alexander Tropsha. Molecular simulation of alkyl boronic acids: Molecular mechanics and solvation free energy calculations. *Journal of Computational Chemistry*, 15(3):333–345, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cosse-Barbi:1997:DPR

- [CBR97] Aliette Cossé-Barbi and Mourad Raji. Discrete pattern recognition by fitting onto a continuous function. *Journal of Computational Chemistry*, 18(15):1875–1892, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Clamp:1994:HMC

- [CBSB94] M. E. Clamp, P. G. Baker, C. J. Stirling, and A. Brass. Hybrid Monte Carlo: an efficient algorithm for condensed matter simulation. *Journal of Computational Chemistry*, 15(8):838–846, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Crouzy:1999:ECT

- [CBSR99] Serge Crouzy, Jérôme Baudry, Jeremy C. Smith, and Benoît Roux. Efficient calculation of two-dimensional adiabatic and free energy maps: Application to the isomerization of the C13 C14 and C15 N16 bonds in the retinal of bacteriorhodopsin. *Journal of Computational Chemistry*, 20(15):1644–1658, November 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chasman:1998:PPE

- [CBWF98] David Chasman, Michael D. Beachy, Limin Wang, and Richard A. Friesner. Parallel pseudospectral electronic structure: I. Hartree–Fock calculations. *Journal of Computational Chemistry*, 19(9):1017–1029, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Carlacci:1991:NDE

- [CC91a] Louis Carlacci and Kuo-Chen Chou. New development on energetic approach to the packing in proteins. *Journal of Computational Chemistry*, 12(3):410–415, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Crowder:1991:CSM

- [CC91b] G. A. Crowder and G. O. Carlisle. Conformational studies of 2-methylbutyronitrile and 3-methyl-1-pentyne by vibrational spectroscopy and molecular mechanics. *Journal of Computational Chemistry*, 12(7):880–884, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chen:1998:PSP

- [CC98] Erh-Hao Chen and Tse-Chiang Chang. Photoelectron spectra, Penning ionization electron spectra, and character of canonical molecular orbitals. *Journal of Computational Chemistry*, 19(8):882–892, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cieplak:1995:AMM

- [CCBK95] Piotr Cieplak, Wendy D. Cornell, Christopher Bayly, and Peter A. Kollman. Application of the multimolecule and multiconformational RESP methodology to biopolymers: Charge derivation for DNA, RNA, and proteins. *Journal of Computational Chemistry*, 16(11):1357–1377, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chen:1997:FES

- [CQG97] Zhuo-Min Chen, Tahir Çağın, and William A. Goddard III. Fast Ewald sums for general van der Waals potentials. *Journal of Computational Chemistry*, 18(11):1365–1370, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chiu:1999:ACM

- [CCJ⁺99] S. W. Chiu, M. M. Clark, Eric Jakobsson, Shankar Subramaniam, and H. Larry Scott. Application of combined Monte Carlo and molecular dynamics method to simulation of di-palmitoyl phosphatidylcholine lipid bilayer. *Journal of Computational Chemistry*, 20(11):1153–1164, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Catasti:1990:PES

- [CCN90] Paolo Catasti, Enrico Carrara, and Claudio Nicolini. Pepto: an expert system for automatic peak assignment of two-dimensional nuclear magnetic resonance spectra of proteins. *Journal of Computational Chemistry*, 11(7):805–818, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chesnut:1997:RRC

- [CD97] D. B. Chesnut and K. M. Davis. Resonance revisited: a consideration of the calculation of cyclic conjugation energies. *Journal of Computational Chemistry*, 18(4):584–593, March 1997.

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Campbell:1996:APH

[CDG⁺96]

Graham Campbell, Yuefan Deng, James Glimm, Yuan Wang, Qiqing Yu, Moisés Eisenberg, and Arthur Grollman. Analysis and prediction of hydrogen bonding in protein-DNA complexes using parallel processors. *Journal of Computational Chemistry*, 17(15):1712–1725, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cesco:1999:IAB

[CDG⁺99]

J. C. Cesco, C. C. Denner, G. O. Giubergia, A. E. Rosso, J. E. Pérez, F. S. Ortiz, O. E. Taurian, and R. H. Contreras. Implementation of atomic basis set composed of 1s Gaussian and 1s Slater-type orbitals to carry out quantum mechanics molecular calculations. *Journal of Computational Chemistry*, 20(6):604–609, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cesco:1995:NET

[CDR⁺95]

J. C. Cesco, C. C. Denner, A. E. Rosso, J. E. Perez, F. S. Ortiz, R. H. Contreras, C. G. Giribet, and M. C. Ruiz De Azúa. Numerical evaluation of three- and four-center bielectronic integrals using exponential-type atomic orbitals. *Journal of Computational Chemistry*, 16(12):1507–1512, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Carlacci:1996:LPP

[CE96]

Louis Carlacci and S. Walter Englander. Loop problem in proteins: Developments on Monte Carlo simulated annealing approach. *Journal of Computational Chemistry*, 17(8):1002–1012, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Colonna:1992:CAE

[CEÁ92]

François Colonna, Earl Evleth, and János G. Ángyán. Critical analysis of electric field modeling: Formamide. *Journal of Computational Chemistry*, 13(10):1234–1245, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Csonka:1997:IDF

- [CÉC97] Gabor I. Csonka, Krisztina Éliás, and Imre G. Csizmadia. Ab initio and density functional study of the conformational space of ${}^1\text{C}_4\alpha$ -L-fucose. *Journal of Computational Chemistry*, 18(3):330–342, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Csonka:1994:SDS

- [CER94] Gábor I. Csonka, Miklós Erdösy, and József Réffy. Structure of disiloxane: a semiempirical and Post-Hartree–Fock study. *Journal of Computational Chemistry*, 15(9):925–936, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cortis:1997:ATD

- [CF97a] Christian M. Cortis and Richard A. Friesner. An automatic three-dimensional finite element mesh generation system for the Poisson–Boltzmann equation. *Journal of Computational Chemistry*, 18(13):1570–1590, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cortis:1997:NSP

- [CF97b] Christian M. Cortis and Richard A. Friesner. Numerical solution of the Poisson–Boltzmann equation using tetrahedral finite-element meshes. *Journal of Computational Chemistry*, 18(13):1591–1608, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cafisch:1997:DMC

- [CFK97] Amedeo Caflisch, Stefan Fischer, and Martin Karplus. Docking by Monte Carlo minimization with a solvation correction: Application to an FKBP-substrate complex. *Journal of Computational Chemistry*, 18(6):723–743, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cummins:1990:MAB

- [CG90] Peter L. Cummins and Jill E. Gready. Mechanistic aspects of biological redox reactions involving NADH 2: a combined semiempirical and ab initio study of hydride-ion transfer between the NADH analogue, 1-methyl-dihydronicotinamide, and folate and dihydrofolate analogue substrates of dihydrofolate reductase. *Journal of Computational Chemistry*, 11(7):

791–804, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cordeiro:1993:ICW

- [CG93] M. Natália D. S. Cordeiro and José A. N. F. Gomes. Ab initio copper–water interaction potential for the simulation of aqueous solutions. *Journal of Computational Chemistry*, 14(6):629–638, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cummins:1994:TIC

- [CG94] Peter L. Cummins and Jill E. Gready. Thermodynamic integration calculations on the relative free energies of complex ions in aqueous solution: Application to ligands of dihydrofolate reductase. *Journal of Computational Chemistry*, 15(7):704–718, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cummins:1996:SEA

- [CG96] Peter L. Cummins and Jill E. Gready. Solvent effects in active-site molecular dynamics simulations on the binding of 8-methyl-N5-deazapterin and 8-methylpterin to dihydrofolate reductase. *Journal of Computational Chemistry*, 17(14):1598–1611, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cummins:1997:CSM

- [CG97] Peter L. Cummins and Jill E. Gready. Coupled semiempirical molecular orbital and molecular mechanics model (QM/MM) for organic molecules in aqueous solution. *Journal of Computational Chemistry*, 18(12):1496–1512, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cummins:1998:MDF

- [CG98] Peter L. Cummins and Jill E. Gready. Molecular dynamics and free energy perturbation study of hydride-ion transfer step in dihydrofolate reductase using combined quantum and molecular mechanical model. *Journal of Computational Chemistry*, 19(8):977–988, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cummins:1999:CSQ

- [CG99] Peter L. Cummins and Jill E. Gready. Coupled semiempirical quantum mechanics and molecular mechanics (QM/MM) calculations on the aqueous solvation free energies of ionized molecules. *Journal of Computational Chemistry*, 20(10):1028–1038, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Castell:1996:RSS

- [CGBC96] O. Castell, V. M. García, C. Bo, and R. Caballol. Relative stability of the 3A_2 , 1A_2 , and 1A_1 states of phenylnitrene: a difference-dedicated configuration interaction calculation. *Journal of Computational Chemistry*, 17(1):42–48, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cavasotto:1991:EEE

- [CGdAC91] C. N. Cavasotto, C. G. Giribet, M. C. Ruiz de Azúa, and R. H. Contreras. Exo-exo and endo-endo vicinal proton spin-spin coupling constants in norbornane and norbornene. An IPPP-CLOPPA analysis. *Journal of Computational Chemistry*, 12 (2):141–146, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Crippen:1988:DGM

- [CH88] G. M. Crippen and T. F. (Timothy F.) Havel. *Distance Geometry and Molecular Conformation*, volume 15 of *Chemometrics series*. Research Studies Press, Taunton, Somerset, England, 1988. ISBN 0-471-92061-4 (Wiley), 0-86380-073-4. x + 541 pp. LCCN QD481 .C76 1988.

Csonka:1994:IMO

- [CH94] G. I. Csonka and P. Hencsei. Ab initio molecular orbital study of 1-fluorosilatrane. *Journal of Computational Chemistry*, 15 (4):385–394, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Couty:1996:BST

- [CH96a] Marc Couty and Michael B. Hall. Basis sets for transition metals: Optimized outer p functions. *Journal of Computational Chemistry*, 17(11):1359–1370, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Csonka:1996:SCI

- [CH96b] Gábor I. Csonka and Pál Hencsei. The structure of 1-chlorosilatrane: an ab initio molecular orbital and a density functional theory study. *Journal of Computational Chemistry*, 17(7):767–780, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chang:1992:PRO

- [Cha92] T. C. Chang. Pauli repulsion in the open shell species BeH and Co⁺. *Journal of Computational Chemistry*, 13(3):268–274, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chen:1995:MSA

- [Che95a] P. C. Chen. The molecular structures and the absorption maxima of the H-chromophores of the indigoid dyes. *Journal of Computational Chemistry*, 16(8):945–950, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chesnut:1995:CQM

- [Che95b] D. B. Chesnut. A comparative quantum mechanical study of bond separation energies as a measure of cyclic conjugation. *Journal of Computational Chemistry*, 16(10):1227–1237, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chermette:1999:CRI

- [Che99] H. Chermette. Chemical reactivity indexes in density functional theory. *Journal of Computational Chemistry*, 20(1):129–154, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Charifson:1990:CMM

- [CHP90] Paul S. Charifson, Richard G. Hiskey, and Lee G. Pedersen. Construction and molecular modeling of phospholipid surfaces. *Journal of Computational Chemistry*, 11(10):1181–1186, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cagin:1991:MMI

- [CHP91] Tahir Çağin, Michael Holder, and B. Montgomery Pettitt. A method for modeling icosahedral virions: Rotational symmetry boundary conditions. *Journal of Computational Chemistry*, 12(5):627–634, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Charifson:1991:FEC

- [CHPK91] Paul S. Charifson, Richard G. Hiskey, Lee G. Pedersen, and Lee F. Kuyper. Free energy calculations on calcium and magnesium complexes: Protein and phospholipid model systems. *Journal of Computational Chemistry*, 12(7):899–908, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Christiansen:1990:BRB

- [Chr90] Phillip Christiansen. Book review: *Methods in computational chemistry*, volume II, edited by Stephen Wilson, Plenum Press, New York, 1988. *Journal of Computational Chemistry*, 11(3):410, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cornell:1996:ASD

- [CHSK96] Wendy D. Cornell, Maria P. Ha, Yax Sun, and Peter A. Kollman. Application of a simple diagonal force field to the simulation of cyclopentane conformational dynamics. *Journal of Computational Chemistry*, 17(13):1541–1548, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cisneros:1993:ISO

- [Cis93] Gerardo Cisneros. Improved solutions to the one-center McMurchie–Davidson tree search problem. *Journal of Computational Chemistry*, 14(4):452–454, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Clare:1993:SEV

- [CJC⁺93] B. W. Clare, P. J. Jennings, J. C. L. Cornish, G. Talukder, C. P. Lund, and G. T. Hefter. Simulation of the electronic and vibrational structure of hydrogenated amorphous silicon using cluster models. *Journal of Computational Chemistry*,

14(12):1423–1428, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Clare:1996:SIS

[CJC⁺96]

B. W. Clare, P. J. Jennings, J. C. L. Cornish, G. T. Hefter, and D. J. Santjojo. Simulation of the infrared spectra of amorphous silicon alloys. *Journal of Computational Chemistry*, 17(3):306–312, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cieplak:1991:UEP

[CK91]

Piotr Cieplak and Peter Kollman. On the use of electrostatic potential derived charges in molecular mechanics force fields. The relative solvation free energy of cis- and trans-*N*-methylacetamide. *Journal of Computational Chemistry*, 12(10):1232–1236, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chipot:1996:AAP

[CKP96]

Christophe Chipot, Peter A. Kollman, and David A. Pearlman. Alternative approaches to potential of mean force calculations: Free energy perturbation versus thermodynamic integration. Case study of some representative nonpolar interactions. *Journal of Computational Chemistry*, 17(9):1112–1131, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cao:1996:MSI

[CLCL96]

Xiaoping Cao, Muzhen Liao, Xuejun Chen, and Bo Li. Molecular symmetry and ab initio calculations. II. Symmetry-matrix and symmetry-supermatrix in the Dirac-Fock method. *Journal of Computational Chemistry*, 17(7):851–863, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Colominas:1999:MCM

[CLO99]

Carles Colominas, F. Javier Luque, and Modesto Orozco. Monte Carlo-MST: New strategy for representation of solvent configurational space in solution. *Journal of Computational Chemistry*, 20(7):665–678, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Calvo-Losada:1998:RAI

- [CLQSS98] Saturnino Calvo-Losada, José Joaquín Quirante, Dimas Suárez, and Tomás Luis Sordo. Rearrangement of azirine intermediates to nitriles: Theoretical study of cleavage of 3,4-dihydro-1a H-azirine[2,3-c]pyrrol-2-one to cyanoketene-formaldimine complex. *Journal of Computational Chemistry*, 19(8):912–922, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cruz:1997:GST

- [CLS⁺97] Elso M. Cruz, Xabier Lopez, Martín Sarobe, Fernando P. Cossío, and Jesus M. Ugalde. G2 study of triplet [H₄, Si, P]⁺ potential energy surface: Mechanism for reaction of P⁺ (³P) with silane. *Journal of Computational Chemistry*, 18(1):9–19, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Carbo:1992:CAP

- [CMC92] Ramon Carbo, Lluís Molino, and Blanca Calabuig. A concurrent algorithm for parallel calculation of eigenvalues and eigenvectors of real symmetric matrices. *Journal of Computational Chemistry*, 13(2):155–159, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cossi:1996:AFD

- [CMC96] Maurizio Cossi, Benedetta Mennucci, and Roberto Cammi. Analytical first derivatives of molecular surfaces with respect to nuclear coordinates. *Journal of Computational Chemistry*, 17(1):57–73, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cossi:1998:CCI

- [CMPT98] Maurizio Cossi, Benedetta Mennucci, Jesus Pitarch, and Jacopo Tomasi. Correction of cavity-induced errors in polarization charges of continuum solvation models. *Journal of Computational Chemistry*, 19(8):833–846, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Coolidge:1991:CMV

- [CMS91] Michael B. Coolidge, John E. Marlin, and James J. P. Stewart. Calculations of molecular vibrational frequencies using semiempirical methods. *Journal of Computational Chemistry*,

12(8):948–952, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chandra:1998:ARU

- [CN98] Asit K. Chandra and Minh Tho Nguyen. Approach to re-giochemistry using local softness in 1,3-dipolar cycloadditions. *Journal of Computational Chemistry*, 19(2):195–202, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Csonka:1997:STD

- [CNK97] Gábor I. Csonka, Nam Anh Nguyen, and István Kolossváry. Simple tests for density functional methods. *Journal of Computational Chemistry*, 18(12):1534–1545, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Carlson:1993:AFE

- [CNOJ93] Heather A. Carlson, Toan B. Nguyen, Modesto Orozco, and William L. Jorgensen. Accuracy of free energies of hydration for organic molecules from 6-31g*-derived partial charges. *Journal of Computational Chemistry*, 14(10):1240–1249, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cheng:1996:SST

- [CNS96] Betty Cheng, Akbar Nayeem, and Harold A. Scheraga. From secondary structure to three-dimensional structure: Improved dihedral angle probability distribution function for use with energy searches for native structures of polypeptides and proteins. *Journal of Computational Chemistry*, 17(12):1453–1480, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Comba:1999:CCS

- [COR99] Peter Comba, Norbert Okon, and Rainer Remenyi. Computation of cavity shapes, sizes, and plasticities. *Journal of Computational Chemistry*, 20(8):781–785, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chung-Phillips:1992:TEL

- [CP92] Alice Chung-Phillips. Torsional energy levels and wave functions. *Journal of Computational Chemistry*, 13(7):874–882,

September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chan:1998:MSG

- [CP98] Shek Ling Chan and Enrico O. Purisima. Molecular surface generation using marching tetrahedra. *Journal of Computational Chemistry*, 19(11):1268–1277, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Carballeira:1998:ICL

- [CPJ98] Luis Carballeira and Ignacio Pérez-Juste. Influence of calculation level and effect of methylation on axial/equatorial equilibria in piperidines. *Journal of Computational Chemistry*, 19(8):961–976, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Carballeira:1990:DAM

- [CPR90] L. Carballeira, A. J. Pereiras, and M. A. Rios. Design and application of a molecular mechanics force field for alkyl iodides including an electrostatic polarization model. *Journal of Computational Chemistry*, 11(6):734–742, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chung-Phillips:1990:SIR

- [CPS90] Alice Chung-Phillips and Thomas A. Stevenson. Simulations of internal rotation potential energies for substituted ethanes. *Journal of Computational Chemistry*, 11(6):743–753, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Campos:1995:EMC

- [CR95] Frederico F. Campos and John S. Rollett. The exponents method for calculating equilibrium concentrations of complex species in solution. *Journal of Computational Chemistry*, 16(5):534–544, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Crippen:1992:ECS

- [Cri92] Gordon M. Crippen. Exploring the conformation space of cycloalkanes by linearized embedding. *Journal of Computational Chemistry*, 13(3):351–361, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Crippen:1995:IDD

- [Cri95] Gordon M. Crippen. Intervals and the deduction of drug binding site models. *Journal of Computational Chemistry*, 16(4):486–500, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Crippen:1999:VQV

- [Cri99] Gordon M. Crippen. VRI: 3D QSAR at variable resolution. *Journal of Computational Chemistry*, 20(14):1577–1585, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chesnut:1993:ULD

- [CRME93] D. B. Chesnut, B. E. Rusiloski, K. D. Moore, and D. A. Egolf. Use of locally dense basis sets for nuclear magnetic resonance shielding calculations. *Journal of Computational Chemistry*, 14(11):1364–1375, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cho:1997:RBD

- [CRP97] Soo Gyeong Cho, One Kwon Rim, and Gyoosoon Park. Rotational barriers of disilane, hexafluorodisilane, and hexamethyl-disilane: ab initio, density functional, and molecular mechanics (MM3) studies. *Journal of Computational Chemistry*, 18(12):1523–1533, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Covick:1990:FIT

- [CS90] Lawrence A. Covick and Kenneth M. Sando. Four-index transformation on distributed-memory parallel computers. *Journal of Computational Chemistry*, 11(10):1151–1159, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cohen:1994:IAI

- [CS94] Alexander A. Cohen and Shimon E. Shatzmiller. Implementation of artificial intelligence for automatic drug design. I. Stepwise computation of the interactive drug-design sequence. *Journal of Computational Chemistry*, 15(12):1393–1402, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cohen:1995:LQE

- [CS95] Alexander A. Cohen and Shimon E. Shatzmiller. Localization and quantitative evaluation of potent local binding sites on the accessible Lennard-Jones surface. *Journal of Computational Chemistry*, 16(12):1459–1467, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Covick:1996:PPT

- [CS96] Lawrence A. Covick and Kenneth M. Sando. Portable, parallel transformation: Distributed-Memory approach. *Journal of Computational Chemistry*, 17(8):992–1001, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cioslowski:1996:EAQ

- [CSC96] Jerzy Cioslowski, Boris B. Stefanov, and Pere Constans. Efficient algorithm for quantitative assessment of similarities among atoms in molecules. *Journal of Computational Chemistry*, 17(11):1352–1358, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Csonka:1993:ACR

- [Cso93] G. I. Csonka. Analysis of the core-repulsion functions used in AM1 and PM3 semiempirical calculations: Conformational analysis of ring systems. *Journal of Computational Chemistry*, 14(8):895–898, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Crippen:1992:CSG

- [CSR92] Gordon M. Crippen, Andrew S. Smellie, and Wendy W. Richardson. Conformational sampling by a general linearized embedding algorithm. *Journal of Computational Chemistry*, 13(10):1262–1274, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cramer:1992:PSG

- [CT92] Christopher J. Cramer and Donald G. Truhlar. PM3-SM3: a general parameterization for including aqueous solvation effects in the PM3 molecular orbital model. *Journal of Computational Chemistry*, 13(9):1089–1097, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cammi:1995:RUA

- [CT95] R. Cammi and J. Tomasi. Remarks on the use of the apparent surface charges (ASC) methods in solvation problems: Iterative versus matrix-inversion procedures and the renormalization of the apparent charges. *Journal of Computational Chemistry*, 16(12):1449–1458, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Costa:1997:CAS

- [CT97] Maria Cristina Andreazza Costa and Yuji Takahata. Conformational analysis of synthetic neolignans active against leishmaniasis, using the molecular mechanics method (MM2). *Journal of Computational Chemistry*, 18(5):712–721, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chen:1999:GLR

- [CT99] Xin Chen and Alexander Tropsha. Generalized linear response method: Application to hydration free energy calculations. *Journal of Computational Chemistry*, 20(8):749–759, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Coitino:1995:ESP

- [CTC95] Elena L. Coitiño, Jacopo Tomasi, and Roberto Cammi. On the evaluation of the solvent polarization apparent charges in the polarizable continuum model: a new formulation. *Journal of Computational Chemistry*, 16(1):20–30, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Clare:1994:ECB

- [CTJ⁺94] B. W. Clare, G. Talukder, P. J. Jennings, J. C. L. Cornish, and G. T. Hefter. Effect of charge on bond strength in hydrogenated amorphous silicon. *Journal of Computational Chemistry*, 15(6):644–652, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cuma:1998:ENA

- [CTS98] Martin Čuma, Clifton Thompson, and Steve Scheiner. Effect of nonproximate atomic substitution on excited state intramolecular proton transfer. *Journal of Computational Chemistry*, 19

(2):129–138, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cullen:1992:LEP

- [Cul92] J. M. Cullen. Localized electron pair theory for the calculation of ground state energies of large molecules. *Journal of Computational Chemistry*, 13(7):901–911, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cullen:1999:GCS

- [Cul99] John Cullen. Is GVB-CI superior to CASSCF? *Journal of Computational Chemistry*, 20(10):999–1008, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Chesnut:1991:CSB

- [CW91] D. B. Chesnut and D. W. Wright. Chemical shift bond derivatives for molecules containing first-row atoms. *Journal of Computational Chemistry*, 12(5):546–559, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cioslowski:1993:BPF

- [CW93] Jerzy Cioslowski and Ernst Joachim Weniger. Bulk properties from finite cluster calculations. VIII. Benchmark calculations of the efficiency of extrapolation methods for the HF and MP2 energies of polyacenes. *Journal of Computational Chemistry*, 14(12):1468–1481, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cao:1997:MSI

- [CW97] Xiaoping Cao and Yan Wang. Molecular symmetry and ab initio calculations: IV. Symmetry-matrix and symmetry-supermatrix in calculations of two-electron repulsion integrals. *Journal of Computational Chemistry*, 18(8):971–979, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cundari:1998:CSM

- [CY98] Thomas R. Cundari and Akihiko Yoshikawa. Computational study of methane activation by mercury(II) complexes. *Journal of Computational Chemistry*, 19(8):902–911, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Cai:1998:NAR

- [CZM98] Wensheng Cai, Maosen Zhang, and Bernard Maigret. New approach for representation of molecular surface. *Journal of Computational Chemistry*, 19(16):1805–1815, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Du:1996:DFS

- [DA96] Qishi Du and Gustavo A. Arteca. Derivation of fused-sphere molecular surfaces from properties of the electrostatic potential distribution. *Journal of Computational Chemistry*, 17(10):1258–1268, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

deAzevedo:1996:CAI

- [dANS⁺96] Ana Luiza M. S. de Azevedo, Benício B. Neto, Ieda S. Scarminio, Anselmo E. de Oliveira, and Roy E. Bruns. A chemometric analysis of ab initio vibrational frequencies and infrared intensities of methyl fluoride. *Journal of Computational Chemistry*, 17(2):167–177, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

David:1993:SSC

- [Dav93] Carl W. David. Sprouting side chain conformations in X-PLOR simulations of peptides. *Journal of Computational Chemistry*, 14(6):715–717, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

David:1994:HPU

- [Dav94a] Carl W. David. Hydrating peptides using a sprouting technique. *Journal of Computational Chemistry*, 15(1):23–27, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

David:1994:XPE

- [Dav94b] Carl W. David. X-PLORing extraribosomal peptide folding during synthesis. *Journal of Computational Chemistry*, 15(6):662–665, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Davidson:1997:BRB

- [Dav97] Ernest R. Davidson. Book review: *Modern Electronic Structure Theory*, Edited by David R. Yarkony, World Scientific Publishing Co. Pte. Ltd., 1995, Part I, 768 pp., \$152 cloth/\$89 paperback, Part II, 784 pp., \$152 cloth/\$89 paperback. *Journal of Computational Chemistry*, 18(10):1328, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

DiNola:1998:FEC

- [DB98] Alfredo Di Nola and Axel T. Brünger. Free energy calculations in globular proteins: Methods to reduce errors. *Journal of Computational Chemistry*, 19(11):1229–1240, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Davis:1991:HSA

- [DBS91] Larry P. Davis, Larry W. Burggraf, and Donn M. Storch. Hydration of small anions: Calculations by the AM1 semiempirical method. *Journal of Computational Chemistry*, 12(3):350–358, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Domotor:1993:EPH

- [DBS93] Gy. Dömötör, M. I. Bán, and L. L. Stachó. Experiences and practical hints on using the DDRP method, illustrated by the example of the H₂ + H reaction. *Journal of Computational Chemistry*, 14(12):1491–1497, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Domotor:1996:TPA

- [DBS96] Gy. Dömötör, M. I. Bán, and L. L. Stachó. Theoretical and practical aspects of the convergence properties of the dynamically defined reaction path method. *Journal of Computational Chemistry*, 17(3):289–297, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Duncan:1998:TPI

- [DBT98] Wendell T. Duncan, Robert L. Bell, and Thanh N. Truong. TheRate: Program for ab initio direct dynamics calculations of thermal and vibrational-state-selected rate constants. *Journal of Computational Chemistry*, 19(9):1039–1052, July 15, 1998.

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Duca:1998:MCM

- [DBV98] Dario Duca, Péter Baranyai, and Tamás Vidóczy. Monte-Carlo model for the hydrogenation of alkenes on metal catalyst. *Journal of Computational Chemistry*, 19(4):396–403, March 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dauchez:1995:VMF

- [DDLV95] Manuel Dauchez, Philippe Derreumaux, Philippe Lagant, and Gérard Vergoten. A vibrational molecular force field of model compounds with biological interest. IV. Parameters for the different glycosidic linkages of oligosaccharides. *Journal of Computational Chemistry*, 16(2):188–199, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dauchez:1993:VMF

- [DDV93] Manuel Dauchez, Philippe Derreumaux, and Gérard Vergoten. Vibrational molecular force field of model compounds with biologic interest. II. Harmonic dynamics of both anomers of glucose in the crystalline state. *Journal of Computational Chemistry*, 14(3):263–277, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Delley:1996:HOI

- [Del96] Bernard Delley. High order integration schemes on the unit sphere. *Journal of Computational Chemistry*, 17(9):1152–1155, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Danielewski:1996:GSI

- [DF96] M. Danielewski and R. Filipek. Generalized solution of interdiffusion problem: Optimal approach for multicomponent bounded systems. *Journal of Computational Chemistry*, 17(13):1497–1507, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

David:1997:BSA

- [DF97] Laurent David and Martin J. Field. Basis set approach to solution of Poisson equation for small molecules immersed in

solvent. *Journal of Computational Chemistry*, 18(3):343–350, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Damm:1997:OAA

- [DFTRJ97] Wolfgang Damm, Antonio Frontera, Julian Tirado-Rives, and William L. Jorgensen. OPLS all-atom force field for carbohydrates. *Journal of Computational Chemistry*, 18(16):1955–1970, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dewar:1990:VPC

- [DH90a] Michael J. S. Dewar and Andrew J. Holder. On the validity of polarization and correlation additivity in ab initio molecular orbital calculations. *Journal of Computational Chemistry*, 11(3):311–313, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dinur:1990:NDT

- [DH90b] U. Dinur and A. T. Hagler. A novel decomposition of torsional potentials into pairwise interactions: a study of energy second derivatives. *Journal of Computational Chemistry*, 11(10):1234–1246, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dinur:1994:FRB

- [DH94] U. Dinur and A. T. Hagler. On the functional representation of bond energy functions. *Journal of Computational Chemistry*, 15(9):919–924, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dinur:1995:GDA

- [DH95] U. Dinur and A. T. Hagler. Geometry-dependent atomic charges: Methodology and application to alkanes, aldehydes, ketones, and amides. *Journal of Computational Chemistry*, 16(2):154–170, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Duan:1999:LES

- [DH99] Zhong-Hui Duan and Louis N. Howard. Loop entanglement of semicrystalline polyethylene in amorphous region: Diamond lattice approach. *Journal of Computational Chemistry*, 20(3):

348–353, February 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dewar:1990:CCA

- [DHHY90] Michael J. S. Dewar, Eamonn F. Healy, Andrew J. Holder, and Yate-Ching Yuan. Comments on a comparison of AM1 with the recently developed PM3 method. *Journal of Computational Chemistry*, 11(4):541–542, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See reply [Ste90].

Dillen:1990:IEF

- [Dil90] Jan L. M. Dillen. An improved empirical force field for saturated hydrocarbons. *Journal of Computational Chemistry*, 11 (10):1125–1138, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dillen:1992:PPD

- [Dil92] Jan L. M. Dillen. PEFF: a program for the development of empirical force fields. *Journal of Computational Chemistry*, 13 (3):257–267, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dillen:1995:EFFa

- [Dil95a] Jan L. M. Dillen. An empirical force field. I. Alkanes. *Journal of Computational Chemistry*, 16(5):595–609, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dillen:1995:EFFb

- [Dil95b] Jan L. M. Dillen. An empirical force field. II. Crystalline alkanes. *Journal of Computational Chemistry*, 16(5):610–619, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dinur:1991:AMP

- [Din91a] Uri Dinur. Atomic multipoles and perpendicular electrostatic forces in diatomic and planar molecules. *Journal of Computational Chemistry*, 12(4):469–486, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dinur:1991:FRA

- [Din91b] Uri Dinur. Force related atomic multipoles in planar molecules. Derivation of atomic quadrupole and octupole moments. *Jour-*

nal of Computational Chemistry, 12(1):91–105, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dixon:1992:ACC

- [DJ92] Steven L. Dixon and Peter C. Jurs. Atomic charge calculations for quantitative structure–property relationships. *Journal of Computational Chemistry*, 13(4):492–504, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dixon:1993:EOO

- [DJ93] Steven L. Dixon and Peter C. Jurs. Estimation of pK_a for organic oxyacids using calculated atomic charges. *Journal of Computational Chemistry*, 14(12):1460–1467, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dixon:1994:FGO

- [DJ94] Steven L. Dixon and Peter C. Jurs. Fast geometry optimization using a modified extended Hückel method: Results for molecules containing H, C, N, O, and F. *Journal of Computational Chemistry*, 15(7):733–746, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Debolt:1993:AMP

- [DK93] Stephen E. Debolt and Peter A. Kollman. AMBERCUBE MD, parallelization of AMBER’s molecular dynamics module for distributed-memory hypercube computers. *Journal of Computational Chemistry*, 14(3):312–329, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dixon:1997:ABA

- [DK97] Richard W. Dixon and Peter A. Kollman. Advancing beyond the atom-centered model in additive and nonadditive molecular mechanics. *Journal of Computational Chemistry*, 18(13):1632–1646, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dufner:1997:ESV

- [DKBS97] H. Dufner, S. M. Kast, J. Brickmann, and M. Schlenkrich. Ewald summation versus direct summation of shifted-force potentials for the calculation of electrostatic interactions in solids:

a quantitative study. *Journal of Computational Chemistry*, 18(5):660–676, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dobbyn:1998:PIC

- [DKH98] Abigail J. Dobbyn, Peter J. Knowles, and Robert J. Harrison. Parallel internally contracted multireference configuration interaction. *Journal of Computational Chemistry*, 19(11):1215–1228, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ding:1996:GZW

- [DKJ96] Yanbo Ding and Karsten Krogh-Jespersen. The 1:1 glycine zwitterion-water complex: an ab initio electronic structure study. *Journal of Computational Chemistry*, 17(3):338–349, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dagher:1993:GMA

- [DKK⁺93] M. Dagher, H. Kobeissi, M. Kobressi, J. D’Incan, and C. Efantin. Generalized Morse analytic function for the “true” diatomic potential of the RKR type. *Journal of Computational Chemistry*, 14(11):1320–1325, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dagher:1995:TDP

- [DKK95] Mounzer Dagher, Mounif Kobersi, and Hafez Kobeissi. The true diatomic potential as a perturbed Morse function. *Journal of Computational Chemistry*, 16(6):723–728, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dappen:1990:CCA

- [DKL90] Richard Däppen, Heinrich R. Karfunkel, and Frank J. J. Leusen. Computational chemistry applied to the design of chiral stationary phases for enantiomeric separation. *Journal of Computational Chemistry*, 11(2):181–193, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Duan:1995:GSI

- [DKRK95] Yong Duan, Shankar Kumar, John M. Rosenberg, and Peter A. Kollman. Gradient SHAKE: an improved method for

constrained energy minimization in macromolecular simulations. *Journal of Computational Chemistry*, 16(11):1351–1356, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

DelRio:1998:TSE

- [DLM⁺98] E. Del Río, R. López, M. I. Menéndez, T. L. Sordo, and M. F. Ruiz-López. Theoretical study of ester enolate–imine condensation route to β -lactams. *Journal of Computational Chemistry*, 19(16):1826–1833, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dachsel:1997:MPM

- [DLS⁺97] Holger Dachsel, Hans Lischka, Ron Shepard, Jaroslaw Nieplocha, and Robert J. Harrison. A massively parallel multireference configuration interaction program: the parallel COLUMBUS program. *Journal of Computational Chemistry*, 18(3):430–448, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

delaVega:1991:ASF

- [dlVM91] J. M. García de la Vega and B. Miguel. Approximate STO functions for the first-row transition metal atoms. *Journal of Computational Chemistry*, 12(10):1172–1181, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Davis:1990:CEF

- [DM90] M. E. Davis and J. A. McCammon. Calculating electrostatic forces from grid-calculated potentials. *Journal of Computational Chemistry*, 11(3):401–409, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Davis:1991:DBS

- [DM91] Malcolm E. Davis and J. Andrew McCammon. Dielectric boundary smoothing in finite difference solutions of the Poisson equation: an approach to improve accuracy and convergence. *Journal of Computational Chemistry*, 12(7):909–912, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

DaCosta:1994:AOB

- [DM94] Herbert F. M. Da Costa and David A. Micha. Atomic orbital basis sets for molecular interactions. *Journal of Computational Chemistry*, 15(6):653–661, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Diudea:1991:MTI

- [DMB91] Mircea V. Diudea, Ovidiu Minailiuc, and Alexandru T. Balaban. Molecular topology. IV. Regressive vertex degrees (new graph invariants) and derived topological indices. *Journal of Computational Chemistry*, 12(5):527–535, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Daura:1998:PAC

- [DMV98] Xavier Daura, Alan E. Mark, and Wilfred F. Van Gunsteren. Parametrization of aliphatic CH_n united atoms of GROMOS96 force field. *Journal of Computational Chemistry*, 19(5):535–547, April 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dunn:1992:RSS

- [DN92] William J. Dunn III and Peter I. Nagy. Relative log P and solution structure for small organic solutes in the chloroform/water system using Monte Carlo methods. *Journal of Computational Chemistry*, 13(4):468–477, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Delfini:1996:PAD

- [DNC96] D. Delfini, C. Nicolini, and E. A. Carrara. Performance analysis of the double-iterated Kalman filter for molecular structure estimation. *Journal of Computational Chemistry*, 17(1):74–86, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dauber-Osguthorpe:1993:PMM

- [DOO93] Pnina Dauber-Osguthorpe and David J. Osguthorpe. Partitioning the motion in molecular dynamics simulations into characteristic modes of motion. *Journal of Computational Chemistry*, 14(11):1259–1271, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dudek:1995:AMI

- [DP95] Michael J. Dudek and Jay W. Ponder. Accurate modeling of the intramolecular electrostatic energy of proteins. *Journal of Computational Chemistry*, 16(7):791–816, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Debolt:1994:FEP

- [DPK94] Stephen E. Debolt, David A. Pearlman, and Peter A. Kollman. Free energy perturbation calculations on parallel computers: Demonstrations of scalable linear speedup. *Journal of Computational Chemistry*, 15(3):351–373, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dowd:1992:CAT

- [DRF92] Michael K. Dowd, Peter J. Reilly, and Alfred D. French. Conformational analysis of trehalose disaccharides and analogues using MM3. *Journal of Computational Chemistry*, 13(1):102–114, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dudek:1998:PSP

- [DRP98] Michael J. Dudek, K. Ramnarayan, and Jay W. Ponder. Protein structure prediction using a combination of sequence homology and global energy minimization: II. Energy functions. *Journal of Computational Chemistry*, 19(5):548–573, April 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dudek:1990:PSP

- [DS90] Michael J. Dudek and Harold A. Scheraga. Protein structure prediction using a combination of sequence homology and global energy minimization I. Global energy minimization of surface loops. *Journal of Computational Chemistry*, 11(1):121–151, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Depner:1992:MDS

- [DS92] M. Depner and B. L. Schürmann. Molecular dynamics simulation of a poly(oxyethylene) chain dissolved in benzene. *Journal of Computational Chemistry*, 13(10):1210–1215, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dumont:1991:MMC

- [Dum91] Randall S. Dumont. A Metropolis Monte Carlo method for computing microcanonical statistical rate constants. *Journal of Computational Chemistry*, 12(3):391–401, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dunitz:1990:BRB

- [Dun90] Jack D. Dunitz. Book review: *Distance geometry and molecular conformation*, by G. M. Crippen and T. F. Havel, Research Studies Press, Taunton, England, John Wiley and Sons, New York, 1988. pp. 541 + x pp. Price: \$142.00. *Journal of Computational Chemistry*, 11(2):265–266, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dykstra:1997:QMC

- [DV97] Clifford E. Dykstra and Troy A. Van Voorhis. Quantum Monte Carlo vibrational dynamics in a property-based interaction potential scheme for weakly bound clusters. *Journal of Computational Chemistry*, 18(5):702–711, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Diller:1999:CES

- [DV99] David J. Diller and Christophe L. M. J. Verlinde. A critical evaluation of several global optimization algorithms for the purpose of molecular docking. *Journal of Computational Chemistry*, 20(16):1740–1751, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

delValle:1992:CSE

- [dVA92] F. J. Olivares del Valle and M. A. Aguilar. Correlation and solvation effects. IV. A systematic analysis of the influence of cavity size and shape on solvation properties in the polarizable continuum model with electron correlation. *Journal of Computational Chemistry*, 13(2):115–134, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

DeVries:1995:IRFa

- [DVJ⁺95a] A. H. De Vries, P. Th. Van Duijnen, A. H. Juffer, J. A. C. Rullmann, J. P. Dijkman, H. Merenga, and B. T. Thole. Implementation of reaction field methods in quantum chemistry computer codes. *Journal of Computational Chemistry*, 16(1):

37–55, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

DeVries:1995:IRFb

- [DVJ⁺95b] A. H. De Vries, P. Th. Van Duijnen, A. H. Juffer, J. A. C. Rullmann, J. P. Dijkman, H. Merenga, and B. T. Thole. Implementation of reaction field methods in quantum chemistry computer codes. *Journal of Computational Chemistry*, 16(11):1445–1446, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Derreumaux:1990:VMF

- [DVL90] Philippe Derreumaux, Gérard Vergoten, and Philippe Lagant. A vibrational molecular force field of model compounds with biological interest. I. Harmonic dynamics of crystalline urea at 123 K. *Journal of Computational Chemistry*, 11(5):560–568, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dorigo:1994:SLN

- [DvRSH94] Andrea Dorigo, Paul von Ragué Schleyer, and Pavel Hobza. The structures of LiNC, NaNc, and KNC: Potential energy surface for the orbiting motion of the metal cation around the CN group. *Journal of Computational Chemistry*, 15(3):322–332, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Donini:1998:DMF

- [DW98] Oreola Donini and Donald F. Weaver. Development of modified force field for cation–amino acid interactions: ab initio-derived empirical correction terms with comments on cation–π interactions. *Journal of Computational Chemistry*, 19(13):1515–1525, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Dyall:1998:RRE

- [Dya98] Kenneth G. Dyall. Review of relativistic effects in chemistry part A: Theory and techniques. *Journal of Computational Chemistry*, 19(13):1553–1554, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Duong:1997:CAL

- [DZ97] Tap Ha Duong and Krystyna Zakrzewska. Calculation and analysis of low frequency normal modes for DNA. *Journal of Computational Chemistry*, 18(6):796–811, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Derreumaux:1994:TNM

- [DZSB94] Philippe Derreumaux, Guihua Zhang, Tamar Schlick, and Bernard Brooks. A truncated Newton minimizer adapted for CHARMM and biomolecular applications. *Journal of Computational Chemistry*, 15(5):532–552, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Eisenhaber:1993:ISA

- [EA93] Frank Eisenhaber and Patrick Argos. Improved strategy in analytic surface calculation for molecular systems: Handling of singularities and computational efficiency. *Journal of Computational Chemistry*, 14(11):1272–1280, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Earl:1990:ADI

- [Ear90] Edward Earl. Adaptation of D_{2h} ab initio computer code to higher-symmetry point groups. *Journal of Computational Chemistry*, 11(5):636–643, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Earley:1993:UEC

- [Ear93] Clarke W. Earley. Use of effective core potentials for ab initio calculations on molecular siloxanes and silicates. *Journal of Computational Chemistry*, 14(2):216–225, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ebert:1999:FRD

- [EBD⁺99] H. Ebert, M. Battocletti, M. Deng, H. Freyer, and J. Voitländer. Fully relativistic description of static magnetic hyperfine interaction in magnetic and nonmagnetic solids. *Journal of Computational Chemistry*, 20(12):1246–1253, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Engel:1999:EID

- [ED99] E. Engel and R. M. Dreizler. From explicit to implicit density functionals. *Journal of Computational Chemistry*, 20(1):31–50, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Eggenberger:1993:UMD

- [EGH⁺93] Rolf Eggenberger, Stefan Gerber, Hanspeter Huber, Debra Searles, and Marc Welker. Use of molecular dynamics simulations with ab initio SCF calculations for the determination of the deuterium quadrupole coupling constant in liquid water and bond lengths in ice. *Journal of Computational Chemistry*, 14(12):1553–1560, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Eichinger:1997:FAR

- [EGHT97] M. Eichinger, H. Grubmüller, Helmut Heller, and Paul Tavan. FAMUSAMM: an algorithm for rapid evaluation of electrostatic interactions in molecular dynamics simulations. *Journal of Computational Chemistry*, 18(14):1729–1749, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Endo:1996:NIM

- [EHNW96] Shigeru Endo, Junichi Higo, Kuniaki Nagayama, and Hiroshi Wako. New implementation of and the modeling by the extended simulated annealing process to structures of T4 lysozyme mutants at the 86th residue. *Journal of Computational Chemistry*, 17(4):476–488, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Essex:1995:EBP

- [EJ95] Jonathan W. Essex and William L. Jorgensen. An empirical boundary potential for water droplet simulations. *Journal of Computational Chemistry*, 16(8):951–972, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ewing:1997:CES

- [EK97] Todd J. A. Ewing and Irwin D. Kuntz. Critical evaluation of search algorithms for automated molecular docking and database screening. *Journal of Computational Chemistry*, 18

(9):1175–1189, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Eichler:1997:CIT

[EKS97]

Uwe Eichler, Christoph M. Kölmel, and Joachim Sauer. Combining ab initio techniques with analytical potential functions for structure predictions of large systems: Method and application to crystalline silica polymorphs. *Journal of Computational Chemistry*, 18(4):463–477, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Eisenhaber:1995:DCL

[ELA⁺95]

Frank Eisenhaber, Philip Lijnzaad, Patrick Argos, Chris Sander, and Michael Scharf. The double cubic lattice method: Efficient approaches to numerical integration of surface area and volume and to dot surface contouring of molecular assemblies. *Journal of Computational Chemistry*, 16(3):273–284, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Elvingson:1991:GBD

[Elv91]

Christer Elvingson. A general Brownian dynamics simulation program for biopolymer dynamics and its implementation on a vector computer. *Journal of Computational Chemistry*, 12(1):71–77, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

El-Nahas:1998:QCS

[ENHE98]

Ahmed M. El-Nahas, Essam Hammam, and El-Zeiny M. Ebeid. Quantum chemical studies on structures and spectra of 2,5-distyrylpyrazine (DSP) laser dye. *Journal of Computational Chemistry*, 19(6):585–592, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

El-Nahas:1994:SSE

[ENvRS94]

Ahmed M. El-Nahas and Paul von Ragué Schleyer. Structures and stabilization energies of methyl anions with main group substituents from the first five periods. *Journal of Computational Chemistry*, 15(6):596–626, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- [EPBD95] Søren Balling Engelsen, Serge Pérez, Isabelle Braccini, and Catherine Hervé Du Penhoat. Internal motions of carbohydrates as probed by comparative molecular modeling and nuclear magnetic resonance of ethyl β -lactoside. *Journal of Computational Chemistry*, 16(9):1096–1119, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Engelsen:1995:IMC**
- [EPW97] Frank Eckert, Peter Pulay, and Hans-Joachim Werner. Ab initio geometry optimization for large molecules. *Journal of Computational Chemistry*, 18(12):1473–1483, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Eckert:1997:IGO**
- [ER95] Mark D. Erion and M. Rami Reddy. Calculation of relative free energy differences for the covalent hydration of organic compounds: a combined quantum mechanical and free energy perturbation study. *Journal of Computational Chemistry*, 16(12):1513–1521, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Erion:1995:CRF**
- [ES99] H. Eschrig and V. D. P. Servedio. Relativistic density functional approach to open shells. *Journal of Computational Chemistry*, 20(1):23–30, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Eschrig:1999:RDF**
- [ET98] Tom J. Evans and Thanh N. Truong. Optimizing efficiency of perturbative Monte Carlo method. *Journal of Computational Chemistry*, 19(14):1632–1638, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Evans:1998:OEP**
- [FA94] Yi Fan and Norman L. Allinger. Molecular mechanics (MM3) calculations on azoxy compounds. *Journal of Computational Chemistry*, 15(12):1446–1460, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Fan:1994:MMM**

Fores:1999:CCS

- [FA99] Marta Forés and Ludwik Adamowicz. A CASSCF-CASPT2 study of the excited-state intramolecular proton transfer reaction in 1-amino-3-propenal using different active spaces. *Journal of Computational Chemistry*, 20(13):1422–1431, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fabian:1991:TEH

- [Fab91] Walter M. F. Fabian. Tautomeric equilibria of heterocyclic molecules. A test of the semiempirical AM1 and MNDO-PM3 methods. *Journal of Computational Chemistry*, 12(1):17–35, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fagerburg:1991:CAI

- [Fag91] David R. Fagerburg. Comparison of AM1 and ab initio calculation of the carbon-carbon bond rotation in ethylene glycol diacetate. *Journal of Computational Chemistry*, 12(6):742–745, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fajardo:1997:MCS

- [FB97] Mario E. Fajardo and Jerry A. Boatz. Monte Carlo simulations of Na atoms in dynamically disordered Ar systems: Solid, liquid, and critical-point fluid Ar. *Journal of Computational Chemistry*, 18(3):381–392, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fraczkiewicz:1998:EEA

- [FB98] Robert Fraczkiewicz and Werner Braun. Exact and efficient analytical calculation of the accessible surface areas and their gradients for macromolecules. *Journal of Computational Chemistry*, 19(3):319–333, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Field:1990:CQM

- [FBK90] Martin J. Field, Paul A. Bash, and Martin Karplus. A combined quantum mechanical and molecular mechanical potential for molecular dynamics simulations. *Journal of Computational Chemistry*, 11(6):700–733, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fausto:1992:CAC

- [FBTD92] R. Fausto, L. A. E. Batista De Carvalho, and J. J. C. Teixeira-Dias. Conformational analysis of carbonyl and thiocarbonyl ethyl esters: the PHC(X) (X, Y = O or S) internal rotation. *Journal of Computational Chemistry*, 13(7):799–809, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

FrancI:1996:CFE

- [FCCG96] Michelle Miller FrancI, Christina Carey, Lisa Emily Chirlan, and David M. Gange. Charges fit to electrostatic potentials. II. Can atomic charges be unambiguously fit to electrostatic potentials? *Journal of Computational Chemistry*, 17(3):367–383, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferenczy:1998:QMM

- [FCNSÁ98] György G. Ferenczy, Gábor I. Csonka, Gábor Náray-Szabó, and János G. Ángyán. Quantum mechanical/molecular mechanical self-consistent Madelung potential method for treatment of polar molecular crystals. *Journal of Computational Chemistry*, 19(1):38–50, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fischer:1998:HMC

- [FCS98] Alexander Fischer, Frank Cordes, and Christof Schütte. Hybrid Monte Carlo with adaptive temperature in mixed-canonical ensemble: Efficient conformational analysis of RNA. *Journal of Computational Chemistry*, 19(15):1689–1697, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Farazdel:1991:DMC

- [FD91] Abbas Farazdel and Michel Dupuis. On the determination of the minimum on the crossing seam of two potential energy surfaces. *Journal of Computational Chemistry*, 12(2):276–282, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

French:1994:ARF

- [FD94] Alfred D. French and Michael K. Dowd. Analysis of the ring-form tautomers of psicose with MM3 (92). *Journal of Com-*

putational Chemistry, 15(5):561–570, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Frau:1992:TCL

- [FDMB92] J. Frau, J. Donoso, F. Muñoz, and F. García Blanco. Theoretical calculations of β -lactam antibiotics. III. AM1, MNDO, and MINDO/3 calculations of hydrolysis of β -lactam compound (azetidin-2-one ring). *Journal of Computational Chemistry*, 13 (6):681–692, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Frau:1993:TCL

- [FDMB93] J. Frau, J. Donoso, F. Muñoz, and F. García Blanco. Theoretical calculations of β -lactam antibiotics. V. AM1 calculations of hydrolysis of cephalothin in gaseous phase and influence of the solvent. *Journal of Computational Chemistry*, 14(12):1545–1552, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Feller:1996:RDS

- [Fel96] David Feller. The role of databases in support of computational chemistry calculations. *Journal of Computational Chemistry*, 17(13):1571–1586, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferenczy:1991:CDD

- [Fer91] György G. Ferenczy. Charges derived from distributed multipole series. *Journal of Computational Chemistry*, 12(8):913–917, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferguson:1995:PEF

- [Fer95] David M. Ferguson. Parameterization and evaluation of a flexible water model. *Journal of Computational Chemistry*, 16 (4):501–511, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Feller:1993:ISH

- [FF93] David Feller and Martin W. Feyereisen. Ab initio study of hydrogen bonding in the phenol–water system. *Journal of Computational Chemistry*, 14(9):1027–1035, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Freindorf:1996:OLJ

- [FG96] Marek Freindorf and Jiali Gao. Optimization of the Lennard-Jones parameters for a combined ab initio quantum mechanical and molecular mechanical potential using the 3-21G basis set. *Journal of Computational Chemistry*, 17(4):386–395, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Facelli:1990:CIL

- [FGBH90] Julio C. Facelli, David M. Grant, Thomas D. Bouman, and Aage E. Hansen. A comparison of the IGLO and LORG methods for the calculations of nuclear magnetic shieldings. *Journal of Computational Chemistry*, 11(1):32–44, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferguson:1992:CIS

- [FGG⁺92] David M. Ferguson, Ian R. Gould, William A. Glauser, Stefan Schroeder, and Peter A. Kollman. Comparison of ab initio, semiempirical, and molecular mechanics calculations for the conformational analysis of ring systems. *Journal of Computational Chemistry*, 13(4):525–532, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gibrat:1994:NMA

- [fGGG94] Jean fran ois Gibrat, Jean Garnier, and Nobuhiro G . Normal mode analysis of oligomeric proteins: Reduction of the memory requirement by consideration of rigid geometry and molecular symmetry. *Journal of Computational Chemistry*, 15(8):820–837, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Feenstra:1999:IEL

- [FHB99] K. Anton Feenstra, Berk Hess, and Herman J. C. Berendsen. Improving efficiency of large time-scale molecular dynamics simulations of hydrogen-rich systems. *Journal of Computational Chemistry*, 20(8):786–798, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ford:1999:SAA

- [FHT99] George P. Ford, P. S. Herman, and Jon W. Thompson. Syn and anti aryl nitrenium ions. *Journal of Computational Chemistry*,

20(2):231–243, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferguson:1991:CLJ

- [FK91] David M. Ferguson and Peter A. Kollman. Can the Lennard-Jones 6–12 function replace the 10–12 form in molecular mechanics calculations? *Journal of Computational Chemistry*, 12(5):620–626, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Furlani:1995:IPD

- [FK95] Thomas R. Furlani and Harry F. King. Implementation of a parallel direct SCF algorithm on distributed memory computers. *Journal of Computational Chemistry*, 16(1):91–104, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Feyereisen:1993:IDS

- [FKN⁺93] Martin W. Feyereisen, Rick A. Kendall, Jeff Nichols, David Dame, and Joseph T. Golab. Implementation of the direct SCF and RPA methods on loosely coupled networks of workstations. *Journal of Computational Chemistry*, 14(7):818–830, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Freeman:1997:IMO

- [FLHP97] Fillmore Freeman, Choonsun Lee, Warren J. Hehre, and Henry N. Po. Ab initio molecular orbital calculations of 3,4-dihydro-1,2-dioxin, 3,6-dihydro-1,2-dioxin, 4 H-1,3-dioxin (1,3-diox-4-ene), and 2,3-dihydro-1,4-dioxin (1,4-dioxene). *Journal of Computational Chemistry*, 18(11):1392–1406, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Flores:1992:LCI

- [Flo92] Jesús R. Flores. From linear combinations to integrals: a new approach to the basis function problem. *Journal of Computational Chemistry*, 13(10):1199–1209, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Freeman:1998:IMO

- [FLPH98] Fillmore Freeman, Choonsun Lee, Henry N. Po, and Warren J. Hehre. Ab initio molecular orbital study of energies and con-

formers of 3,4-dihydro-1,2-dithiin, 3,6-dihydro-1,2-dithiin, 4 H-1,3-dithiin, and 2,3-dihydro-1,4-dithiin. *Journal of Computational Chemistry*, 19(9):1064–1071, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fulscher:1991:SCN

- [FM91] M. P. Fülscher and E. L. Mehler. Self-consistent, nonorthogonal group function approximation. III. Approaches for modeling intermolecular interactions. *Journal of Computational Chemistry*, 12(7):811–828, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Forster:1994:RNO

- [FM94] Mark J. Forster and Barbara Mulloy. Rationalizing nuclear Overhauser effect data for compounds adopting multiple-solution conformations. *Journal of Computational Chemistry*, 15(2):155–161, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferrer:1999:TCC

- [FM99] Santiago Melchor Ferrer and Jose Molina Molina. Theoretical calculations on C₃₀H₁₂ bowl-shaped hydrocarbons: NMR shielding constants, stability, and aromaticity. *Journal of Computational Chemistry*, 20(13):1412–1421, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fukaya:1998:TSR

- [FOA98] Haruhiko Fukaya, Taizo Ono, and Takashi Abe. Theoretical study of reaction of trifluoromethyl radical with hydroxyl and hydrogen radicals. *Journal of Computational Chemistry*, 19(3):277–289, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fenley:1996:FAM

- [FOCB96] Marcia O. Fenley, Wilma K. Olson, Kiat Chua, and Alexander H. Boschitsch. Fast adaptive multipole method for computation of electrostatic energy in simulations of polyelectrolyte DNA. *Journal of Computational Chemistry*, 17(8):976–991, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Forster:1991:CCM

- [For91] Mark J. Forster. Comparison of computational methods for simulating nuclear Overhauser effects in NMR spectroscopy. *Journal of Computational Chemistry*, 12(3):292–300, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Forner:1992:DSD

- [Für92] Wolfgang Förner. Davydov soliton dynamics: Initial state, boundary conditions, and numerical procedure. *Journal of Computational Chemistry*, 13(3):275–313, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Forst:1996:SDS

- [For96] Wendell Forst. Sum and density of states of polyatomic systems with hindered rotors. *Journal of Computational Chemistry*, 17(8):954–961, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Frye:1991:HCM

- [FPC91] D. Frye, A. Preiskorn, and E. Clementi. The Hylleraas–CI method in molecular calculations. III. Implementation and numerical verification of a three-electron many-center theory. *Journal of Computational Chemistry*, 12(5):560–564, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fischer:1995:NOT

- [FPL95] Thomas H. Fischer, Wesley P. Petersen, and Hans Peter Lüthi. A new optimization technique for artificial neural networks applied to prediction of force constants of large molecules. *Journal of Computational Chemistry*, 16(8):923–936, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferro:1997:IFF

- [FPR97] Dino R. Ferro, Paolo Pumilia, and Massimo Ragazzi. An improved force field for conformational analysis of sulfated polysaccharides. *Journal of Computational Chemistry*, 18(3):351–367, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Foreman:1999:CSS

- [FPRD99] K. W. Foreman, A. T. Phillips, J. B. Rosen, and K. A. Dill. Comparing search strategies for finding global optima on energy landscapes. *Journal of Computational Chemistry*, 20(14):1527–1532, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferguson:1992:FEP

- [FPSK92] David M. Ferguson, David A. Pearlman, William C. Swope, and Peter A. Kollman. Free energy perturbation calculations involving potential function changes. *Journal of Computational Chemistry*, 13(3):362–370, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferguson:1990:MMC

- [FR90] David M. Ferguson and Douglas J. Raber. Molecular mechanics calculations of several lanthanide complexes: an application of the random incremental pulse search. *Journal of Computational Chemistry*, 11(9):1061–1071, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fernandez:1994:PFF

- [FR94a] Berta Fernández and Miguel A. Ríos. Parametrization of a force field for studying some beta-lactams. *Journal of Computational Chemistry*, 15(4):455–465, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Flores:1994:HPA

- [FR94b] Jesús R. Flores and P. Redondo. High-precision atomic computations from finite element techniques: Second-order correlation energies for Be, Ca, Sr, Cd, Ba, Yb, and Hg. *Journal of Computational Chemistry*, 15(7):782–790, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fernandez:1991:MMM

- [FRC91] Berta Fernández, Miguel A. Ríos, and Luís Carballeira. Molecular mechanics (MM2) and conformational analysis of compounds with N — C — O units. Parametrization of the force field and anomeric effect. *Journal of Computational Chemistry*, 12(1):78–90, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Frenking:1999:F

- [Fre99] Gernot Frenking. Foreword. *Journal of Computational Chemistry*, 20(1):v–vi, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Froimowitz:1991:MGH

- [Fro91] Mark Froimowitz. Molecular geometries and heats of formation of C₆₀ and C₇₀ as computed by MM2-87. *Journal of Computational Chemistry*, 12(9):1129–1133, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Froimowitz:1993:CAC

- [Fro93] Mark Froimowitz. Conformational analysis of cocaine, the potent analog 2β-carbomethoxy-3β-(4-fluorophenyl)tropane (CFT), and other dopamine reuptake blockers. *Journal of Computational Chemistry*, 14(8):934–943, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferenczy:1990:SAE

- [FRR90] Gyorgy G. Ferenczy, Christopher A. Reynolds, and W. Graham Richards. Semiempirical AM1 electrostatic potentials and AM1 electrostatic potential derived charges: a comparison with ab initio values. *Journal of Computational Chemistry*, 11(2):159–169, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ferenczy:1992:NFS

- [FRSNS92] György G. Ferenczy, Jean-Louis Rivail, Péter R. Surján, and Gábor Náray-Szabó. NDDO fragment self-consistent field approximation for large electronic systems. *Journal of Computational Chemistry*, 13(7):830–837, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fox:1993:ESE

- [FRZ93] Thomas Fox, Notker Rösch, and Randy J. Zauhar. Electrostatic solvent effects on the electronic structure of ground and excited states of molecules: Applications of a cavity model based upon a finite element method. *Journal of Computational Chemistry*, 14(3):253–262, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fortunelli:1991:SRP

- [FS91] Alessandro Fortunelli and Oriano Salvetti. A simplified representation of the potential produced by Gaussian charge distributions. *Journal of Computational Chemistry*, 12(1):36–41, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

FloriaN:1994:VAC

- [FS94] Jan FloriÁN and Steve Scheiner. Variation of atomic charges during proton transfer in hydrogen bonds. *Journal of Computational Chemistry*, 15(5):553–560, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fukunishi:1997:PMF

- [FS97] Yoshifumi Fukunishi and Makoto Suzuki. Potential of mean force calculation of solute molecules in water by a modified solvent-accessible surface method. *Journal of Computational Chemistry*, 18(13):1656–1663, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Forester:1998:SRR

- [FS98a] Timothy R. Forester and William Smith. SHAKE, rattle, and roll: Efficient constraint algorithms for linked rigid bodies. *Journal of Computational Chemistry*, 19(1):102–111, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See erratum [FS00].

Fraschini:1998:HMP

- [FS98b] Elena Fraschini and Anthony J. Stone. H· · · H model potential for exchange–repulsion energy of methane dimer. *Journal of Computational Chemistry*, 19(8):847–857, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Forester:2000:ESR

- [FS00] Timothy R. Forester and William Smith. Erratum: SHAKE, rattle, and roll: Efficient constraint algorithms for linked rigid bodies. *Journal of Computational Chemistry*, 21(2):157, January 30, 2000. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [FS98a].

Faller:1999:APF

- [FSBMP99] Roland Faller, Heiko Schmitz, Oliver Biermann, and Florian Müller-Plathe. Automatic parameterization of force fields for liquids by simplex optimization. *Journal of Computational Chemistry*, 20(10):1009–1017, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fourre:1999:ELF

- [FSCS99] Isabelle Fourré, Bernard Silvi, Patrick Chaquin, and Alain Sevin. Electron localization function comparative study of ground state, triplet state, radical anion, and cation in model carbonyl and imine compounds. *Journal of Computational Chemistry*, 20(9):897–910, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Furuki:1995:ARF

- [FSI95] Takao Furuki, Minoru Sakurai, and Yoshio Inoue. An application of the reaction field theory to hydrated metal cations in the framework of the MNDO, AM1, and PM3 methods. *Journal of Computational Chemistry*, 16(3):378–384, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Falk:1996:DSN

- [FSW96] Michael Falk, Peter F. Spierenburg, and John A. Walter. Determination of the stereochemistry of natural products from nuclear magnetic resonance data by constrained molecular dynamics. *Journal of Computational Chemistry*, 17(4):409–417, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Floris:1991:DRC

- [FTA91] F. M. Floris, J. Tomasi, and J. L. Pascual Ahuir. Dispersion and repulsion contributions to the solvation energy: Refinements to a simple computational model in the continuum approximation. *Journal of Computational Chemistry*, 12(7):784–791, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Foster:1996:THP

- [FTW⁺96] Ian T. Foster, Jeffrey L. Tilson, Albert F. Wagner, Ron L. Shepard, Robert J. Harrison, Rick A. Kendall, and Rik J. Lit-

tlefield. Toward high-performance computational chemistry: I. Scalable Fock matrix construction algorithms. *Journal of Computational Chemistry*, 17(1):109–123, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Furuki:1994:GPR

[FUS⁺94]

Takao Furuki, Akihiro Umeda, Minoru Sakurai, Yoshio Inoue, Riichirô Chûjô, and Kazuaki Harata. General parameterization of a reaction field theory combined with the boundary element method. *Journal of Computational Chemistry*, 15(1):90–104, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Franke:1998:FOR

[FV98]

Robert Franke and Christoph Van Wüllen. First-order relativistic corrections to MP2 energy from standard gradient codes: Comparison with results from density functional theory. *Journal of Computational Chemistry*, 19(14):1596–1603, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fernandez:1992:TSS

[FVR92]

Berta Fernández, Saulo A. Vázquez, and Miguel A. Ríos. Theoretical study of some nitriles: Intramolecular hydrogen bonds and anomeric effect. *Journal of Computational Chemistry*, 13 (6):722–729, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fritsch:1991:MMD

[FW91]

V. Fritsch and E. Westhof. Minimization and molecular dynamics studies of guanosine and Z-DNA modified by N-2-acetylaminofluorene. *Journal of Computational Chemistry*, 12 (2):147–166, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ford:1992:OEC

[FW92]

George P. Ford and Bingze Wang. The optimized ellipsoidal cavity and its application to the self-consistent reaction field calculation of hydration energies of cations and neutral molecules. *Journal of Computational Chemistry*, 13(2):229–239, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ford:1993:NAR

- [FW93a] George P. Ford and Bingze Wang. New approach to the rapid semiempirical calculation of molecular electrostatic potentials based on the AM1 wave function: Comparison with ab initio HF/6-31g* results. *Journal of Computational Chemistry*, 14(9):1101–1111, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Fulscher:1993:ERI

- [FW93b] Markus P. Fülscher and Per-Olof Widmark. An electron repulsion integral compression algorithm. *Journal of Computational Chemistry*, 14(1):8–12, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Flatters:1997:ICM

- [FZL97] Delphine Flatters, Krystyna Zakrzewska, and Richard Lavery. Internal coordinate modeling of DNA: Force field comparisons. *Journal of Computational Chemistry*, 18(8):1043–1055, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gao:1997:ECA

- [Gao97] Jiali Gao. Energy components of aqueous solution: Insight from hybrid QM/MM simulations using a polarizable solvent model. *Journal of Computational Chemistry*, 18(8):1061–1071, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Garst:1990:BRB

- [Gar90] John F. Garst. Book review: *Alternate realities — mathematical models of nature and man*, by John L. Casti, Institute for Econometrics, Operations Research, and System Theory, Technical University of Vienna, John Wiley & Sons, New York, 1989, xvii + 493 pp. \$34.95. *Journal of Computational Chemistry*, 11(2):266–267, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Guida:1992:PCS

- [GBE92] Wayne C. Guida, Regine S. Bohacek, and Mark D. Erion. Probing the conformational space available to inhibitors in the thermolysin active site using Monte Carlo/energy minimization techniques. *Journal of Computational Chemistry*, 13(2):

214–228, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gagliardi:1997:DIA

- [GBE97] Laura Gagliardi, Gian Luigi Bendazzoli, and Stefano Evangelisti. Direct-list algorithm for configuration interaction calculations. *Journal of Computational Chemistry*, 18(11):1329–1343, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Griffith:1997:MMS

- [GBT97] R. Griffith, J. B. Bremner, and S. J. Titmuss. Molecular mechanics study of transannular amine–ketone ($\text{N} \rightarrow \text{C}=\text{O}$) interaction in medium-sized heterocycles. *Journal of Computational Chemistry*, 18(9):1211–1221, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glendening:1998:NRTc

- [GBW98] E. D. Glendening, J. K. Badenhoop, and F. Weinhold. Natural resonance theory: III. Chemical applications. *Journal of Computational Chemistry*, 19(6):628–646, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Giordan:1997:BSM

- [GC97] Marcelo Giordan and Rogério Custodio. Basis set modeling for molecular calculations using effective core potential. *Journal of Computational Chemistry*, 18(15):1918–1929, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glaser:1998:AES

- [GC98] Rainer Glaser and Grace Shiahuy Chen. Asymmetrization effects on structures and populations of the ground state of dipolar donor–acceptor-substituted molecular organic NLO materials. *Journal of Computational Chemistry*, 19(10):1130–1140, July 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glaser:1997:EEC

- [GCG97] Rainer Glaser, Grace Shiahuy Chen, and Hansjörg Grützmacher. Effects of electron correlation and spin projection on rotational barriers of trithiocarbenium ion $[\text{C}(\text{SH})_3]^+$ and radical dication $[\text{C}(\text{SH})_3]^{cdot,2+}$. *Journal of Computational Chemistry*, 18

(8):1023–1035, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Garcia-Cruz:1999:ISI

- [GCRSAIVB99] Isidoro García-Cruz, M. E. Ruiz-Santoyo, J. Raúl Alvarez-Idaboy, and Annik Vivier-Bunge. Ab-initio study of initial atmospheric oxidation reactions of C₃ and C₄ alkanes. *Journal of Computational Chemistry*, 20(8):845–856, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Giordan:1996:PAN

- [GCT96] Marcelo Giordan, Rogério Custodio, and José Roberto Trigo. Pyrrolizidine alkaloids necine bases: ab initio, semiempirical, and molecular mechanics approaches to molecular properties. *Journal of Computational Chemistry*, 17(2):156–166, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Giribet:1998:CSB

- [GdAG⁺98] C. G. Giribet, M. C. Ruiz de Azúa, S. B. Gómez, E. L. Botek, R. H. Contreras, W. Adcock, E. W. Della, A. R. Krstic, and I. J. Lochert. C₃ — M_α bond contribution to polarizability tensor and ³J(C₁M_α) NMR coupling constant in 1-X-3-M-bicyclo[1.1.1]pentanes. *Journal of Computational Chemistry*, 19(2):181–188, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gough:1992:DFH

- [GDK92] Craig A. Gough, Stephen E. Debolt, and Peter A. Kollman. Derivation of fluorine and hydrogen atom parameters using liquid simulations. *Journal of Computational Chemistry*, 13 (8):963–970, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Genest:1999:CMA

- [Gen99] D. Genest. Correlated motions analysis from molecular dynamics trajectories: Statistical accuracy on the determination of canonical correlation coefficients. *Journal of Computational Chemistry*, 20(14):1571–1576, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gunn:1996:PIP

- [GF96] John R. Gunn and Richard A. Friesner. Parallel implementation of a protein structure refinement algorithm. *Journal of Computational Chemistry*, 17(10):1217–1228, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gregory:1991:SEF

- [GG91] D. H. Gregory and J. T. Gerig. Structural effects of fluorine substitution in proteins. *Journal of Computational Chemistry*, 12(2):180–185, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gresh:1996:CBE

- [GG96] Nohad Gresh and David R. Garmer. Comparative binding energetics of Mg^{2+} , Ca^{2+} , Zn^{2+} , and Cd^{2+} to biologically relevant ligands: Combined ab initio SCF supermolecule and molecular mechanics investigation. *Journal of Computational Chemistry*, 17(12):1481–1495, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gajewski:1998:GMM

- [GGK98] Joseph J. Gajewski, Kevin E. Gilbert, and Thomas W. Kreek. General molecular mechanics approach to transition metal complexes. *Journal of Computational Chemistry*, 19(10):1167–1178, July 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grant:1996:FMM

- [GGP96] J. A. Grant, M. A. Gallardo, and B. T. Pickup. A fast method of molecular shape comparison: a simple application of a Gaussian description of molecular shape. *Journal of Computational Chemistry*, 17(14):1653–1666, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grunenberg:1997:CMV

- [GH97] J. Grunenberg and R. Herges. Calculation of molecular vibrations: Selective scaling factors for semiempirical force constants. *Journal of Computational Chemistry*, 18(16):2050–2059, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gaedt:1998:CVF

- [GH98] Katrin Gaedt and Hans-Dieter Höltje. Consistent valence force-field parameterization of bond lengths and angles with quantum chemical ab initio methods applied to some heterocyclic dopamine D₃-receptor agonists. *Journal of Computational Chemistry*, 19(8):935–946, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glunt:1993:MCD

- [GHR93] W. Glunt, T. L. Hayden, and M. Raydan. Molecular conformations from distance matrices. *Journal of Computational Chemistry*, 14(1):114–120, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glunt:1994:PDM

- [GHR94] W. Glunt, T. L. Hayden, and M. Raydan. Preconditioners for distance matrix algorithms. *Journal of Computational Chemistry*, 15(2):227–232, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Greatbanks:1997:CEC

- [GHS97] Stephen P. Greatbanks, Ian H. Hillier, and Paul Sherwood. Comparison of embedded cluster models to study zeolite catalysis: Proton transfer reactions in acidic chabazite. *Journal of Computational Chemistry*, 18(4):562–568, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Goldstein:1998:EDF

- [GHT98] E. Goldstein, M. Haught, and Y. Tang. Evaluation of density functional theory in the bond rupture of octane. *Journal of Computational Chemistry*, 19(2):154–167, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Giordan:1998:PAN

- [Gio98] Marcelo Giordan. Pyrrolizidine alkaloids necine bases: II. Conformational analysis of free bases. *Journal of Computational Chemistry*, 19(16):1853–1861, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gerwens:1995:SSP

- [GJ95] Heiko Gerwens and Karl Jug. SINDO1 study of the photoreaction of tetramethylene sulfone. *Journal of Computational Chemistry*, 16(4):405–413, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Goldstein:1993:ISG

- [GJCC93] Elisheva Goldstein, Suqian Jin, M. Robyn Carrillo, and Robert J. Cave. Ab initio study of the ground and excited states of HCP and its isomer HPC. *Journal of Computational Chemistry*, 14(2):186–194, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gronbech-Jensen:1994:LTO

- [GJD94] Niels Grønbech-Jensen and Sebastian Doniach. Long-time overdamped Langevin dynamics of molecular chains. *Journal of Computational Chemistry*, 15(9):997–1012, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ghose:1993:CSM

- [GJK⁺93] A. K. Ghose, E. P. Jaeger, P. J. Kowalczyk, M. L. Peterson, and A. M. Treasurywala. Conformational searching methods for small molecules. I. Study of the sybyl search method. *Journal of Computational Chemistry*, 14(9):1050–1065, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Goodfellow:1990:UPP

- [GJL⁺90] Julia M. Goodfellow, Douglas M. Jones, Roman A. Laskowski, David S. Moss, Mansoor Saqi, Narmada Thanki, and Richard Westlake. Use of parallel processing in the study of protein-Ligand binding. *Journal of Computational Chemistry*, 11(3):314–325, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gano:1991:EPA

- [GJR91] James E. Gano, E. Jean Jacob, and Rebecca Roesner. Evaluation of PM3, AM1, and MNDO for calculation of higher energy ionization potentials. *Journal of Computational Chemistry*, 12(1):126–134, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gruschus:1990:PCM

- [GK90] James M. Gruschus and Atsuo Kuki. Partial charges by multipole constraint. Application to the amino acids. *Journal of Computational Chemistry*, 11(8):978–993, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Guenot:1993:CEE

- [GK93] Jeanmarie Guenot and Peter A. Kollman. Conformational and energetic effects of truncating nonbonded interactions in an aqueous protein dynamics simulation. *Journal of Computational Chemistry*, 14(3):295–311, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ganda-Kesuma:1994:LDR

- [GKM94] Fransiska S. Ganda-Kesuma and Kenneth J. Miller. Linear dependency in the refinement of force constants with the Jacobian method. *Journal of Computational Chemistry*, 15(11):1291–1301, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Godzik:1993:LRG

- [GKS93] Adam Godzik, Andrzej Kolinski, and Jeffrey Skolnick. Lattice representations of globular proteins: How good are they? *Journal of Computational Chemistry*, 14(10):1194–1202, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glaser:1990:DIT

- [Gla90] Rainer Glaser. Diazonium ions. Topological electron density analysis of cyclopropeniumyldiazonium dications and of their stability toward dediazonation. *Journal of Computational Chemistry*, 11(6):663–679, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gonzalez-Lafont:1991:MCS

- [GLLOB91] Angels González-Lafont, José M. Lluch, Antonio Oliva, and Juan Bertrán. A Monte Carlo simulation of free energy relationships for the electron transfer reaction between Fe^+ and Fe^{2+} in water. *Journal of Computational Chemistry*, 12(10):1165–1171, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gundertofte:1996:CCE

- [GLoNP96] Klaus Gundertofte, Tommy Liljefors, Per ola Norrby, and Ingrid Pettersson. A comparison of conformational energies calculated by several molecular mechanics methods. *Journal of Computational Chemistry*, 17(4):429–449, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gabb:1995:ECS

- [GLP95] H. A. Gabb, R. Lavery, and C. Prévost. Efficient conformational space sampling for nucleosides using internal coordinate Monte Carlo simulations and a modified furanose description. *Journal of Computational Chemistry*, 16(6):667–680, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Galiatsatos:1990:EFL

- [GM90] V. Galiatsatos and Wayne L. Mattice. Efficient formulation of the large generator matrices required for computation of the higher moments, and mixed moments, of conformation-dependent properties of chain molecules with independent bonds. *Journal of Computational Chemistry*, 11(3):396–400, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gastreich:1998:IPN

- [GM98a] Marcus Gastreich and Christel M. Marian. Ab initio prediction of ^{15}N -NMR chemical shift in α -boron nitride based on an analysis of connectivities. *Journal of Computational Chemistry*, 19(7):716–725, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gordon:1998:RPE

- [GM98b] D. Benjamin Gordon and Stephen L. Mayo. Radical performance enhancements for combinatorial optimization algorithms based on the dead-end elimination theorem. *Journal of Computational Chemistry*, 19(13):1505–1514, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grana:1999:ABP

- [GM99] Ana M. Graña and Ricardo A. Mosquera. Atomic and bond properties in functionalized esters and amides. *Journal of Computational Chemistry*, 20(13):1444–1454, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gelabert:1994:AWM

- [GML94] Ricard Gelabert, Miquel Moreno, and José M. Lluch. Applicability of the WKB method in asymmetric double wells with degenerate and nondegenerate minima. *Journal of Computational Chemistry*, 15(2):125–131, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gilson:1995:MDS

- [GMM95] Michael K. Gilson, J. Andrew McCammon, and Jeffry D. Madura. Molecular dynamics simulation with a continuum electrostatic model of the solvent. *Journal of Computational Chemistry*, 16(9):1081–1095, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Griffin:1993:EAC

- [GMO93] Lawrence L. Griffin, David J. McAdoo, and Santiago Olivella. Evaluation of AM1-calculated radical cation ion-neutral complexes. *Journal of Computational Chemistry*, 14(12):1561–1574, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gonzalez:1997:HLI

- [GMY97] Leticia González, Otilia Mó, and Manuel Yáñez. High-level ab initio versus DFT calculations on $(\text{H}_2\text{O}_2)_2$ and $\text{H}_2\text{O}_2\text{--H}_2\text{O}$ complexes as prototypes of multiple hydrogen bond systems. *Journal of Computational Chemistry*, 18(9):1124–1135, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gogonea:1995:IAA

- [GŌ95] Valentin Gogonea and Eiji Ōsawa. An improved algorithm for the analytical computation of solvent-excluded volume. The treatment of singularities in solvent-accessible surface area and volume functions. *Journal of Computational Chemistry*, 16

(7):817–842, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Goldstein:1992:BRB

[Gol92]

Elisheva Goldstein. Book review: *Algorithms for chemists*, by Jure Zupan, Wiley, New York, 1989, pp. 290. Price: \$120.00. *Journal of Computational Chemistry*, 13(2):254, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gorse:1994:UFP

[GP94]

Alain-Dominique Gorse and Michel Pesquer. The use of Fraga's potential with AM1 atomic point charges in the evaluation of spectral shifts: Application to TICT molecules. *Journal of Computational Chemistry*, 15(10):1139–1150, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gabb:1997:CVM

[GPB⁺97]

H. A. Gabb, C. Prévost, G. Bertucat, C. H. Robert, and R. Lavery. Collective-variable Monte Carlo simulation of DNA. *Journal of Computational Chemistry*, 18(16):2001–2011, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Goede:1997:VCN

[GPF97]

A. Goede, R. Preissner, and C. Frömmel. Voronoi cell: New method for allocation of space among atoms: Elimination of avoidable errors in calculation of atomic volume and density. *Journal of Computational Chemistry*, 18(9):1113–1123, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gleiter:1995:PPC

[GPK95]

Rolf Gleiter, Karl-Heinz Pfeifer, and Wolfram Koch. Propella[3₄] prismane and its congeners: a MO-theoretical study. *Journal of Computational Chemistry*, 16(1):31–36, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gundertofte:1991:CCE

[GPPS91]

Klaus Gundertofte, Jonas Palm, Ingrid Pettersson, and Anders Stamvik. A comparison of conformational energies calculated

by molecular mechanics (MM2(85), Sybyl 5.1, Sybyl 5.21, and ChemX) and semiempirical (AM1 and PM3) methods. *Journal of Computational Chemistry*, 12(2):200–208, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gardner:1993:IMO

- [GPSS93] Peter J. Gardner, Steve R. Preston, Rachel Siertsema, and Derek Steele. Ab initio molecular orbital studies for compounds of magnesium. *Journal of Computational Chemistry*, 14(12):1523–1533, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gresh:1995:EZB

- [Gre95] Nohad Gresh. Energetics of Zn^{2+} binding to a series of biologically relevant ligands: a molecular mechanics investigation grounded on ab initio self-consistent field supermolecular computations. *Journal of Computational Chemistry*, 16(7):856–882, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grigoras:1990:SAC

- [Gri90] Stelian Grigoras. A structural approach to calculate physical properties of pure organic substances: the critical temperature, critical volume and related properties. *Journal of Computational Chemistry*, 11(4):493–510, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grimme:1994:MCS

- [Gri94] S. Grimme. MRD-CI studies of vertical excitation energies of unsaturated hydrocarbon molecules. *Journal of Computational Chemistry*, 15(4):424–432, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gibson:1990:DPF

- [GS90a] Kenneth D. Gibson and Harold A. Scheraga. Dynamics of peptides with fixed geometry: Kinetic energy terms and potential energy derivatives as functions of dihedral angles. *Journal of Computational Chemistry*, 11(4):487–492, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gibson:1990:VSM

- [GS90b] Kenneth D. Gibson and Harold A. Scheraga. Variable step molecular dynamics: an exploratory technique for peptides with fixed geometry. *Journal of Computational Chemistry*, 11(4):468–486, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gilliom:1990:MMS

- [GS90c] Richard D. Gilliom and Gerald L. Stoner. Molecular mechanics study of myelin basic protein peptide 87-118: Some local energy minima. *Journal of Computational Chemistry*, 11(9):1087–1093, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glaser:1990:PPC

- [GS90d] Rainer Glaser and Andrew Streitwieser. η^5 -P- or η^4 -P-coordination in apically oxygenated phosphoranes? An ab initio study of PH_4O^- , $\text{PH}_4\text{O}^- \cdot \text{E}$ ($\text{E} = \text{Li}^+$, NH_4^+ , and HF) and related fluorinated oxyphosphoranes. *Journal of Computational Chemistry*, 11(2):249–264, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Goodman:1991:USS

- [GS91] Jonathan M. Goodman and W. Clark Still. An unbounded systematic search of conformational space. *Journal of Computational Chemistry*, 12(9):1110–1117, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Garcia:1993:CMR

- [GS93] Angel E. García and Lewis Stiller. Computation of the mean residence time of water in the hydration shells of biomolecules. *Journal of Computational Chemistry*, 14(11):1396–1406, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gibson:1994:APR

- [GS94a] Kenneth D. Gibson and Harold A. Scheraga. An algorithm for packing regular multistrand polypeptide structures by energy minimization. *Journal of Computational Chemistry*, 15(12):1414–1428, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gibson:1994:REA

- [GS94b] Kenneth D. Gibson and Harold A. Scheraga. A rapid and efficient algorithm for packing polypeptide chains by energy minimization. *Journal of Computational Chemistry*, 15(12):1403–1413, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Guarnieri:1994:RCS

- [GS94c] Frank Guarnieri and W. Clark Still. A rapidly convergent simulation method: Mixed Monte Carlo/stochastic dynamics. *Journal of Computational Chemistry*, 15(11):1302–1310, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gibson:1997:EMR

- [GS97] K. D. Gibson and H. A. Scheraga. Energy minimization of rigid-geometry polypeptides with exactly closed disulfide loops. *Journal of Computational Chemistry*, 18(3):403–415, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Godden:1999:SAC

- [GSB99] Jeffrey W. Godden, Florence L. Stahura, and Jürgen Bajorath. Statistical analysis of computational docking of large compound data bases to distinct protein binding sites. *Journal of Computational Chemistry*, 20(15):1634–1643, November 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gresh:1995:MPL

- [GSK95] Nohad Gresh, Walter J. Stevens, and Morris Krauss. Mono- and poly-ligated complexes of Zn^{2+} : an ab initio analysis of the metal–ligand interaction energy. *Journal of Computational Chemistry*, 16(7):843–855, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grundler:1990:HMS

- [GSW90] W. Gründler, T. Steinke, and P. Walther. H/He molecules in strong electric fields. *Journal of Computational Chemistry*, 11(5):548–559, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grubmuller:1998:MTS

- [GT98] Helmut Grubmüller and Paul Tavan. Multiple time step algorithms for molecular dynamics simulations of proteins: How good are they? *Journal of Computational Chemistry*, 19(13):1534–1552, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gulukota:1996:PDU

- [GVD96] Kamalakar Gulukota, Sandor Vajda, and Charles Delisi. Peptide docking using dynamic programming. *Journal of Computational Chemistry*, 17(4):418–428, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ghomı:1994:MCS

- [GVH94] Mahmoud Ghomi, Jean-Marc Victor, and Charles Henriet. Monte Carlo simulations on short single-stranded oligonucleotides. I. Application to RNA trimers. *Journal of Computational Chemistry*, 15(4):433–445, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glukhovtsev:1993:THM

- [GvRSvEH⁺93] Mikhail N. Glukhovtsev, Paul von Ragué Schleyer, Nicolaas J. R. van Eikema Hommes, Jose Walkimar De M. Carneiro, and Wolfram Koch. Is tetrahedral H_4^{2+} a minimum? Anomalous behavior of popular basis sets with the standard p exponents on hydrogen. *Journal of Computational Chemistry*, 14(3):285–294, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Guo:1991:ASI

- [GW91] Yufei Guo and M. A. Whitehead. An alternative self-interaction correction in the generalized exchange local-density functional theory. *Journal of Computational Chemistry*, 12(7):803–810, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Guarnieri:1995:CMS

- [GW95] Frank Guarnieri and Stephen R. Wilson. Conformational memories and a simulated annealing program that learns: Application to LTB₄. *Journal of Computational Chemistry*, 16(5):648–653, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glendening:1998:NRTa

- [GW98a] E. D. Glendening and F. Weinhold. Natural resonance theory: I. General formalism. *Journal of Computational Chemistry*, 19(6):593–609, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glendening:1998:NRTb

- [GW98b] E. D. Glendening and F. Weinhold. Natural resonance theory: II. Natural bond order and valency. *Journal of Computational Chemistry*, 19(6):610–627, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Grafton:1998:VPA

- [GW98c] Anthony K. Grafton and Ralph A. Wheeler. Vibrational projection analysis: New tool for quantitatively comparing vibrational normal modes of similar molecules. *Journal of Computational Chemistry*, 19(14):1663–1674, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gilardoni:1999:CGE

- [GWHD99] F. Gilardoni, J. Weber, A. Hauser, and C. Daul. A comparison of ground- and excited-state properties of $[\text{Ru}(\text{bz})_2]^{2+}$ and bis(η^6 -benzene)ruthenium(II) *p*-toluenesulfonate using the density functional theory. *Journal of Computational Chemistry*, 20(13):1343–1353, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gu:1998:SSB

- [GYT⁺98] Feng Long Gu, Xiaomei Yang, Au-Chin Tang, Haijun Jiao, and Paul von R. Schleyer. Structure and stability of B_{13}^+ clusters. *Journal of Computational Chemistry*, 19(2):203–214, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Gabdoulline:1995:ECC

- [GZ95] Razif R. Gabdoulline and Chong Zheng. Effects of the cutoff center on the mean potential and pair distribution functions in liquid water. *Journal of Computational Chemistry*, 16(11):1428–1433, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

[GZL⁺94]

Timothy M. Glennon, Ya-Jun Zheng, Scott M. Le Grand, Brad A. Shutzberg, and Kenneth M. Merz Jr. A force field for monosaccharides and (1 → 4) linked polysaccharides. *Journal of Computational Chemistry*, 15(9):1019–1040, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Glennon:1994:FFM

[HA93]

Frank Haase and Reinhart Ahlrichs. Semidirect MP2 gradient evaluation on workstation computers: the MPGRAD program. *Journal of Computational Chemistry*, 14(8):907–912, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Haase:1993:SMG

[HA95]

Cornelis J. M. Huige and Cornelis Altona. Force field parameters for sulfates and sulfamates based on ab initio calculations: Extensions of AMBER and CHARMM fields. *Journal of Computational Chemistry*, 16(1):56–79, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Huige:1995:FFP

[Had98]

R. C. Haddon. Organometallic chemistry of fullerenes: η^2 - and η^5 -(π) complexes. *Journal of Computational Chemistry*, 19(2):139–143, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Haddon:1998:OCF

[Hal96a]

Thomas A. Halgren. Merck molecular force field. I. Basis, form, scope, parameterization, and performance of MMFF94. *Journal of Computational Chemistry*, 17(5–6):490–519, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halgren:1996:MMFa

[Hal96b]

Thomas A. Halgren. Merck molecular force field. II. MMFF94 van der Waals and electrostatic parameters for intermolecular interactions. *Journal of Computational Chemistry*, 17(5–6):520–552, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halgren:1996:MMFb

[Hal96c]

Thomas A. Halgren. Merck molecular force field. III. Molecular geometries and vibrational frequencies for MMFF94. *Journal of Computational Chemistry*, 17(5–6):553–586, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halgren:1996:MMFc

[Hal96d]

Thomas A. Halgren. Merck molecular force field. V. Extension of MMFF94 using experimental data, additional computational data, and empirical rules. *Journal of Computational Chemistry*, 17(5–6):616–641, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halgren:1996:MMFe

[Hal99a]

Thomas A. Halgren. MMFF VI. MMFF94s option for energy minimization studies. *Journal of Computational Chemistry*, 20(7):720–729, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halgren:1999:MVM

[Hal99b]

Thomas A. Halgren. MMFF VII. Characterization of MMFF94, MMFF94s, and other widely available force fields for conformational energies and for intermolecular-interaction energies and geometries. *Journal of Computational Chemistry*, 20(7):730–748, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halgren:1999:MVC

[Har93]

Robert W. Harrison. Stiffness and energy conservation in molecular dynamics: an improved integrator. *Journal of Computational Chemistry*, 14(9):1112–1122, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Harrison:1993:SEC

[Har99a]

Robert W. Harrison. Integrating quantum and molecular mechanics. *Journal of Computational Chemistry*, 20(15):1618–1633, November 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Harrison:1999:IQM

Hartke:1999:GCG

- [Har99b] Bernd Hartke. Global cluster geometry optimization by a phenotype algorithm with Niches: Location of elusive minima, and low-order scaling with cluster size. *Journal of Computational Chemistry*, 20(16):1752–1759, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Holmes:1991:ASC

- [HB91] Mark H. Holmes and Jonathan Bell. The application of symbolic computing to chemical kinetic reaction schemes. *Journal of Computational Chemistry*, 12(10):1223–1231, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hess:1997:LLC

- [HBBF97] Berk Hess, Henk Bekker, Herman J. C. Berendsen, and Johannes G. E. M. Fraaije. LINCS: a linear constraint solver for molecular simulations. *Journal of Computational Chemistry*, 18(12):1463–1472, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Han:1998:SOE

- [HBLL98] Young-Kyu Han, Cheolbeom Bae, Yoon Sup Lee, and Sang Yeon Lee. Spin-orbit effects on structures of closed-shell polyatomic molecules containing heavy atoms calculated by two-component Hartree–Fock method. *Journal of Computational Chemistry*, 19(13):1526–1533, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Huisinga:1999:SDC

- [HBR⁺99] Wilhelm Huisinga, Christoph Best, Rainer Roitzsch, Christof Schütte, and Frank Cordes. From simulation data to conformational ensembles: Structure and dynamics-based methods. *Journal of Computational Chemistry*, 20(16):1760–1774, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hunt:1996:FLT

- [HC96] Nathan G. Hunt and Fred E. Cohen. Fast lookup tables for interatomic interactions. *Journal of Computational Chemistry*, 17(16):1857–1862, December 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hwang:1999:CAT

- [HCCC99] Ming-Jing Hwang, Pei-Ying Chu, Jye-Chan Chen, and Ito Chao. Conformational analysis of three pyrophosphate model species: Diphosphate, methyl diphosphate, and triphosphate. *Journal of Computational Chemistry*, 20(16):1702–1715, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Howard:1995:MMM

- [HCK95] Allison E. Howard, Piotr Cieplak, and Peter A. Kollman. A molecular mechanical model that reproduces the relative energies for chair and twist-boat conformations of 1,3-dioxanes. *Journal of Computational Chemistry*, 16(2):243–261, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hati:1992:EBB

- [HD92] Sanchita Hati and Dipankar Datta. Electronegativity and Bader’s bond critical point. *Journal of Computational Chemistry*, 13(7):912–918, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Holden:1993:PPC

- [HDA93] James R. Holden, Zuyue Du, and Herman L. Ammon. Prediction of possible crystal structures for C-, H-, N-, O-, and F-containing organic compounds. *Journal of Computational Chemistry*, 14(4):422–437, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Henchman:1999:FEH

- [HE99a] Richard H. Henchman and Jonathan W. Essex. Free energies of hydration using restrained electrostatic potential derived charges via free energy perturbations and linear response. *Journal of Computational Chemistry*, 20(5):499–510, April 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Henchman:1999:GOL

- [HE99b] Richard H. Henchman and Jonathan W. Essex. Generation of OPLS-like charges from molecular electrostatic potential using restraints. *Journal of Computational Chemistry*, 20(5):

483–498, April 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Head:1990:POL

[Hea90]

John D. Head. Partial optimization of large molecules and clusters. *Journal of Computational Chemistry*, 11(1):67–75, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Higo:1994:AHP

[HEN⁺94]

Junichi Higo, Shigeru Endo, Kuniaki Nagayama, Tomoyoshi Ito, Toshiyuki Fukushige, Toshikazu Ebisuzaki, Daiichiro Sugimoto, Hiroo Miyagawa, Kunihiro Kitamura, and Junichiro Makino. Application of a high-performance, special-purpose computer, GRAPE-2A, to molecular dynamics. *Journal of Computational Chemistry*, 15(12):1372–1376, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hermann:1993:CHI

[Her93]

Robert B. Hermann. Calculation of hydrophobic interactions from molecular dynamics, surface areas, and experimental hydrocarbon solubilities. *Journal of Computational Chemistry*, 14(6):741–750, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hermann:1997:MHS

[Her97]

Robert B. Hermann. Modeling hydrophobic solvation of non-spherical systems: Comparison of use of molecular surface area with accessible surface area. *Journal of Computational Chemistry*, 18(1):115–125, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hanebeck:1993:REC

[HG93]

W. Hanebeck and J. Gasteiger. Rapid empirical calculation of the first (n or π) ionization potential of organic molecules. *Journal of Computational Chemistry*, 14(2):138–154, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Heiden:1993:FGM

[HGB93]

W. Heiden, T. Goetze, and J. Brickmann. Fast generation of molecular surfaces from 3D data fields with an enhanced

“marching cube” algorithm. *Journal of Computational Chemistry*, 14(2):246–250, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Habibollahzadeh:1995:NDF

- [HGC⁺95] Dariush Habibollahzadeh, M. Edward Grice, Monica C. Concha, Jane S. Murray, and Peter Politzer. Nonlocal density functional calculation of gas phase heats of formation. *Journal of Computational Chemistry*, 16(5):654–658, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Harrison:1996:THP

- [HGK⁺96] Robert J. Harrison, Martyn F. Guest, Rick A. Kendall, David E. Bernholdt, Adrian T. Wong, Mark Stave, James L. Anchell, Anthony C. Hess, Rik J. Littlefield, George L. Fann, Jaroslaw Nieplocha, Greg S. Thomas, David Elwood, Jeffrey L. Tilson, Ron L. Shepard, Albert F. Wagner, Ian T. Foster, Ewing Lusk, and Rick Stevens. Toward high-performance computational chemistry: II. A scalable self-consistent field program. *Journal of Computational Chemistry*, 17(1):124–132, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Harris:1999:PAK

- [HH99a] Brett A. Harris and Stephen C. Harvey. Program for analyzing knots represented by polygonal paths. *Journal of Computational Chemistry*, 20(8):813–818, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hunger:1999:OAF

- [HH99b] J. Hunger and G. Huttner. Optimization and analysis of force field parameters by combination of genetic algorithms and neural networks. *Journal of Computational Chemistry*, 20(4):455–471, March 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hofmann:1990:CNU

- [HHC90] Heinz Hofmann, Elke Hünsele, and Timothy Clark. A cautionary note on the use of the frozen-core approximation for correlation energy calculations involving alkali metals. *Journal of Computational Chemistry*, 11(10):1147–1150, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hu:1991:VGM

- [HHP91] Xiche Hu, William L. Hase, and Tony Pirraglia. Vectorization of the general Monte Carlo classical trajectory program VENUS. *Journal of Computational Chemistry*, 12(8):1014–1024, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hassanzadeh:1998:IVA

- [HI98] Parviz Hassanzadeh and Karl K. Irikura. Inexpensive vibrational anharmonicities from estimated derivatives: Diatomic molecules. *Journal of Computational Chemistry*, 19(11):1315–1324, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hill:1997:UTP

- [Hil97] Jörg-R. Hill. Use of test particle calculations for the derivation of van der Waals parameters used in force fields. *Journal of Computational Chemistry*, 18(2):211–220, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hansen:1990:FEP

- [HK90] Lillian M. Hansen and Peter A. Kollman. Free energy perturbation calculations on models of active sites: Applications to adenosine deaminase inhibitors. *Journal of Computational Chemistry*, 11(8):994–1002, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Houser:1992:REC

- [HK92] John J. Houser and Gilles Klopman. Rapid estimation of charge distribution. II. Heteroatoms. *Journal of Computational Chemistry*, 13(8):990–996, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hertwig:1995:ADF

- [HK95] Roland H. Hertwig and Wolfram Koch. On the accuracy of density functionals and their basis set dependence: an extensive study on the main group homonuclear diatomic molecules Li₂ to Br₂. *Journal of Computational Chemistry*, 16(5):576–585, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hooft:1991:IUM

- [HKK91] Rob W. W. Hooft, Jan A. Kanders, and Jan Kroon. Implementation and use of the method of prudent ascent in conformational analysis using molecular mechanics. *Journal of Computational Chemistry*, 12(8):943–947, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Han:1997:IST

- [HKK⁺97] In-Suk Han, Chang Kon Kim, Chan Kyung Kim, Bon-Su Lee, and Ikchoon Lee. Ab initio studies of three-membered ring formation through intramolecular nucleophilic substitution. *Journal of Computational Chemistry*, 18(14):1773–1784, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hobza:1997:PEP

- [HKŠ⁺97] Pavel Hobza, Martin Kabeláč, Jiří Šponer, Petr Mejzlík, and Jiří Vondrášek. Performance of empirical potentials (AMBER, CFF95, CVFF, CHARMM, OPLS, POLTEV), semiempirical quantum chemical methods (AM1, MNDO/M, PM3), and ab initio Hartree–Fock method for interaction of DNA bases: Comparison with nonempirical beyond Hartree–Fock results. *Journal of Computational Chemistry*, 18(9):1136–1150, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hertwig:1998:ETR

- [HKY98] Roland H. Hertwig, Wolfram Koch, and Brian F. Yates. Economical treatments of relativistic effects and electron correlation in WH₆. *Journal of Computational Chemistry*, 19(14):1604–1611, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Harris:1996:CSF

- [HL96a] Dan Harris and Gilda Loew. Comparative study of free energies of solvation of phenylimidazole inhibitors of cytochrome P450 *cam* by free energy simulation, AMSOL, and Poisson Boltzmann methods. *Journal of Computational Chemistry*, 17(3):273–288, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Heffelfinger:1996:CBT

- [HL96b] Grant S. Heffelfinger and Martin E. Lewitt. A comparison between two massively parallel algorithms for Monte Carlo computer simulation: an investigation in the grand canonical ensemble. *Journal of Computational Chemistry*, 17(2):250–265, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hernandez:1999:PGS

- [HLO99] Begoña Hernández, F. Javier Luque, and Modesto Orozco. Parametrization of the GMIPp for the study of stacking interactions. *Journal of Computational Chemistry*, 20(9):937–946, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hansen:1990:EBS

- [HM90] Lillian M. Hansen and Dennis S. Marynick. Extended basis sets for the transition metals yttrium through cadmium. *Journal of Computational Chemistry*, 11(4):518–523, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hirao:1992:FFS

- [HM92] K. Hirao and K. Mogi. Floating functions satisfying the Hellmann–Feynman Theorem: single floating scheme. *Journal of Computational Chemistry*, 13(4):457–467, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hlavacek:1991:MSC

- [HMČ91] Jan Hlaváček, Václav Matějka, and Petr Čársky. MM2 study on the conformation of *N*-acetyl- L-amino acid *N'*-methylamides with aliphatic side chain and their N^α -methyl derivatives. *Journal of Computational Chemistry*, 12(7):829–838, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hudson:1996:IIE

- [HMG96] Charles E. Hudson, David J. McAdoo, and C. S. Giam. The isomers of ionized ethane. *Journal of Computational Chemistry*, 17(13):1532–1540, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Huzinaga:1993:EDP

- [HMS93] S. Huzinaga, E. Miyoshi, and M. Sekiya. Electric dipole polarity of diatomic molecules. *Journal of Computational Chemistry*, 14(12):1440–1445, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halgren:1996:MMFd

- [HN96] Thomas A. Halgren and Robert B. Nachbar. Merck molecular force field. IV. conformational energies and geometries for MMFF94. *Journal of Computational Chemistry*, 17(5–6):587–615, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hobza:1991:ILA

- [HNH⁺91] Pavel Hobza, Dana Nachtigallová, Zdeněk Havlas, Petr Maloň, and Jaroslav Šponar. Interaction of Lysine-Alanine-Alanine tripeptide with a fragment of DNA: an empirical potential study. *Journal of Computational Chemistry*, 12(1):9–16, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Higo:1997:TCM

- [HNS⁺97] Junichi Higo, Nobuyuki Nakajima, Hiroki Shirai, Akinori Kidera, and Haruki Nakamura. Two-component multicanonical Monte Carlo method for effective conformation sampling. *Journal of Computational Chemistry*, 18(16):2086–2092, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hansmann:1993:PPC

- [HO93] Ulrich H. E. Hansmann and Yuko Okamoto. Prediction of peptide conformation by multicanonical algorithm: New approach to the multiple-minima problem. *Journal of Computational Chemistry*, 14(11):1333–1338, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hansmann:1997:NCT

- [HO97] Ulrich H. E. Hansmann and Yuko Okamoto. Numerical comparisons of three recently proposed algorithms in the protein folding problem. *Journal of Computational Chemistry*, 18(7):920–933, May 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Holder:1993:FCL

- [Hol93] Andrew Holder. Further comments on the lack of homoaromaticity in triquinacene. *Journal of Computational Chemistry*, 14(2):251, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Harris:1998:PEF

- [HOL98] Nathan J. Harris, Tomohiko Ohwada, and Koop Lammertsma. Protonation enthalpies in fluorosulfonic acid using ab initio self-consistent reaction field theory. *Journal of Computational Chemistry*, 19(2):250–257, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hu:1999:RGF

- [HOL99] A. Hu, P. Otto, and J. Ladik. Relativistic Gaussian functions for atoms by fitting numerical results with adaptive nonlinear least-square algorithm. *Journal of Computational Chemistry*, 20(7):655–664, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hardy:1994:CSH

- [HP94] Barry J. Hardy and Richard W. Pastor. Conformational sampling of hydrocarbon and lipid chains in an orienting potential. *Journal of Computational Chemistry*, 15(2):208–226, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hinsen:1997:PFC

- [HR97] Konrad Hinsen and Benoît Roux. A potential function for computer simulation studies of proton transfer in acetylacetone. *Journal of Computational Chemistry*, 18(3):368–380, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hermida-Ramon:1998:TSI

- [HREK98] Jose M. Hermida-Ramón, Ola Engkvist, and Gunnar Karlström. Theoretical study of intermolecular potential energy surface for HCl dimer: Example of nonspherical atom–atom exchange repulsion interaction. *Journal of Computational Chemistry*, 19(16):1816–1825, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hardy:1993:CAM

- [HS93a] B. J. Hardy and A. Sarko. Conformational analysis and molecular dynamics simulation of cellobiose and larger cellobiomers. *Journal of Computational Chemistry*, 14(7):831–847, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hardy:1993:MDS

- [HS93b] B. J. Hardy and A. Sarko. Molecular dynamics simulation of cellobiose in water. *Journal of Computational Chemistry*, 14(7):848–857, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Holst:1993:MSP

- [HS93c] Michael Holst and Faisal Saied. Multigrid solution of the Poisson–Boltzmann equation. *Journal of Computational Chemistry*, 14(1):105–113, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Herrmann:1995:EMP

- [HS95a] Frank Herrmann and Sándor Suhai. Energy minimization of peptide analogues using genetic algorithms. *Journal of Computational Chemistry*, 16(11):1434–1444, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Holst:1995:NSN

- [HS95b] Michael J. Holst and Faisal Saied. Numerical solution of the nonlinear Poisson–Boltzmann equation: Developing more robust and efficient methods. *Journal of Computational Chemistry*, 16(3):337–364, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hernandez:1999:ICG

- [HS99] Norge Cruz Hernández and Javier Fdez. Sanz. Ab initio compact group model potentials for describing environment effects in cluster calculations. *Journal of Computational Chemistry*, 20(11):1145–1152, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hobza:1995:DFT

- [HšR95] Pavel Hobza, Jiří Šponer, and Tomáš Reschel. Density functional theory and molecular clusters. *Journal of Computational Chemistry*, 16(11):1315–1325, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Handy:1999:EEB

- [HT99a] Nicholas C. Handy and David J. Tozer. Excitation energies of benzene from Kohn–Sham theory. *Journal of Computational Chemistry*, 20(1):106–113, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Huber:1999:PST

- [HT99b] Thomas Huber and Andrew E. Torda. Protein sequence threading, the alignment problem, and a two-step strategy. *Journal of Computational Chemistry*, 20(14):1455–1467, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Harvey:1998:FIC

- [HTC98] Stephen C. Harvey, Robert K.-Z. Tan, and Thomas E. Cheatham III. The flying ice cube: Velocity rescaling in molecular dynamics leads to violation of energy equipartition. *Journal of Computational Chemistry*, 19(7):726–740, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Halász:1999:CBS

- [HVM99] G. J. Halász, Á. Vibók, and I. Mayer. Comparison of basis set superposition error corrected perturbation theories for calculating intermolecular interaction energies. *Journal of Computational Chemistry*, 20(2):274–283, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Heidrich:1993:IMM

- [HVvRS93] Dietmar Heidrich, Nicolaas J. R. Van Eikema Hommes, and Paul von Ragué Schleyer. Ab initio models for multiple-hydrogen exchange: Comparison of cyclic four- and six-center systems. *Journal of Computational Chemistry*, 14(10):1149–1163, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Helms:1997:FEH

[HW97]

Volkhard Helms and Rebecca C. Wade. Free energies of hydration from thermodynamic integration: Comparison of molecular mechanics force fields and evaluation of calculation accuracy. *Journal of Computational Chemistry*, 18(4):449–462, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Horn:1991:PTE[HWH⁺91]

Hans Horn, Horst Weiß, Marco Hásér, Michael Ehrig, and Reinhart Ahlrichs. Prescreening of two-electron integral derivatives in SCF gradient and Hessian calculations. *Journal of Computational Chemistry*, 12(9):1058–1064, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Heard:1996:HSP

[HY96]

George L. Heard and Brian F. Yates. Hybrid supermolecule-polarizable continuum approach to solvation: Application to the mechanism of the Stevens rearrangement. *Journal of Computational Chemistry*, 17(12):1444–1452, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Hermans:1992:PFE

[HYA92]

Jan Hermans, R. H. Yun, and Amil G. Anderson. Precision of free energies calculated by molecular dynamics simulations of peptides in solution. *Journal of Computational Chemistry*, 13(4):429–442, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Higo:1994:STD[HYH⁺94]

Junichi Higo, Mariko Yamaki, Michiru Hogyoku, Takuya Takahashi, Shigeru Endo, and Kuniaki Nagayama. Stability of two-dimensional crystalline aggregates of a protein studied by molecular dynamics. *Journal of Computational Chemistry*, 15(11):1278–1290, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ibrahim:1992:VII

[IBKvRS92]

Mustafa R. Ibrahim, Michael Bühl, Reinhard Knab, and Paul von Ragué Schleyer. Vinyloxyborane and its isomers. An ab

initio study of the C₂H₅BO potential energy surface, the barrier to 1,3-shifts in β -ketoboranes, and the mechanism of the carbonylation reaction of boranes. *Journal of Computational Chemistry*, 13(4):423–428, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ionova:1996:EVC

[IC96]

Irina V. Ionova and Emily A. Carter. Error vector choice in direct inversion in the iterative subspace method. *Journal of Computational Chemistry*, 17(16):1836–1847, December 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ihlenfeldt:1994:HCI

[IG94]

Wolf Dietrich Ihlenfeldt and Johann Gasteiger. Hash codes for the identification and classification of molecular structure elements. *Journal of Computational Chemistry*, 15(8):793–813, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ivanov:1991:MMM

[IMP91]

Petko M. Ivanov, Tatyana G. Momchilova, and Ivan G. Pajarlieff. Molecular mechanics (MM) and MM-EHMO conformational analysis of the diastereoisomers of 3-amino-1,2,3-triphenyl-1-propyl chloride. *Journal of Computational Chemistry*, 12(4):427–434, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Illas:1993:BMH

[IRRR93]

F. Illas, L. Roset, J. M. Ricart, and J. Rubio. Basis-modified hydrogen atoms as embedding atoms in ab initio chemisorption cluster model calculations on Si surfaces. *Journal of Computational Chemistry*, 14(12):1534–1544, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ignacio:1991:ABS

[IS91]

Edgar W. Ignacio and H. Bernhard Schlegel. On the additivity of basis set effects in some simple fluorine containing systems. *Journal of Computational Chemistry*, 12(6):751–760, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ishida:1998:RAC

- [Ish98a] Kazuhiro Ishida. Rapid algorithm for computing the electron repulsion integral over higher order Gaussian-type orbitals: Accompanying coordinate expansion method. *Journal of Computational Chemistry*, 19(8):923–934, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Iwao:1998:ERN

- [ISH98b] Keiji Iwao, Kazuhisa Sakakibara, and Minoru Hirota. Evaluation of reactivity for nitroxide radical trapping by correlation analysis using steric substituent parameter (Ω_S). *Journal of Computational Chemistry*, 19(2):215–221, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Imberty:1990:RPE

- [ITP90] Anne Imbert, Vinh Tran, and Serge Pérez. Relaxed potential energy surfaces of *N*-linked oligosaccharides: the mannose- $\alpha(1 \rightarrow 3)$ -mannose case. *Journal of Computational Chemistry*, 11(2):205–216, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Juffer:1996:APC

- [JAdV96] A. H. Juffer, P. Argos, and J. de Vlieg. Adsorption of proteins onto charged surfaces: a Monte Carlo approach with explicit ions. *Journal of Computational Chemistry*, 17(16):1783–1803, December 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jaime:1990:MCM

- [Jai90] Carlos Jaime. MM2' calculations on methylenecyclohexane, methylenecyclopentane, and cyclopentane. Pitfalls in the two-bond drive technique: How large should the ring be? *Journal of Computational Chemistry*, 11(4):411–415, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Janezic:1995:HALa

- [JB95] Dšanka Janežič and Bernard R. Brooks. Harmonic analysis of large systems. II. Comparison of different protein models. *Journal of Computational Chemistry*, 16(12):1543–1553, December

1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jensen:1998:IQC

- [JB98] Vidar R. Jensen and Knut J. Børve. An investigation of the quantum chemical description of the ethylenic double bond in reactions: II. Insertion of ethylene into a titanium–carbon bond. *Journal of Computational Chemistry*, 19(8):947–960, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jensen:1993:EOE

- [JCV⁺93] James O. Jensen, Arthur H. Carrieri, Constantine P. Vlahacos, Daniel Zeroka, Hendrik F. Hameka, and Clifton N. Merrow. Evaluation of one-electron integrals for arbitrary operators $V(r)$ over Cartesian Gaussians: Application to inverse-square distance and Yukawa operators. *Journal of Computational Chemistry*, 14(8):986–994, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jorge:1997:UGB

- [JDD97] F. E. Jorge, E. V. R. De Castro, and A. B. F. Da Silva. A universal Gaussian basis set for atoms cerium through lawrencium generated with the generator coordinate Hartree–Fock method. *Journal of Computational Chemistry*, 18(13):1565–1569, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jemmer:1997:SAM

- [Jem97] Patrick Jemmer. Symbolic algebra in mathematical analysis of chemical-kinetic systems. *Journal of Computational Chemistry*, 18(15):1903–1917, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jensen:1994:TSM

- [Jen94] Frank Jensen. Transition structure modeling by intersecting potential energy surfaces. *Journal of Computational Chemistry*, 15(11):1199–1216, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Janoschek:1994:CRO

- [JFKK94] Rudolf Janoschek, Walter M. F. Fabian, Gert Kollenz, and C. Oliver Kappe. Conformation and reactivity of α -oxo-

ketenes: ab initio and semiempirical (AM1, PM3) calculations. *Journal of Computational Chemistry*, 15(2):132–143, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jonas:1992:TSOa

[JFR92a]

Volker Jonas, Gernot Frenking, and Manfred T. Reetz. Theoretical studies of organometallic compounds. I. All electron and pseudopotential calculations of $\text{Ti}(\text{CH}_3)_n\text{Cl}_{4-n}$ ($n = 0\text{--}4$). *Journal of Computational Chemistry*, 13(8):919–934, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jonas:1992:TSOb

[JFR92b]

Volker Jonas, Gernot Frenking, and Manfred T. Reetz. Theoretical studies of organometallic compounds. II. All electron and pseudopotential calculations of $M(\text{CH}_3)_n\text{Cl}_{4-n}$ ($M = \text{C, Si, Ge, Sn, Pb}$; $n = 0\text{--}4$). *Journal of Computational Chemistry*, 13(8):935–943, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jensen:1991:SUM

[JG91]

Jan H. Jensen and Mark S. Gordon. Splicing I: Using mixed basis sets in ab initio calculations. *Journal of Computational Chemistry*, 12(4):421–426, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jones:1993:PSM

[JG93a]

Douglas M. Jones and Julia M. Goodfellow. Parallelization strategies for molecular simulation using the Monte Carlo algorithm. *Journal of Computational Chemistry*, 14(2):127–137, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jug:1993:THB

[JG93b]

Karl Jug and Gerald Geudtner. Treatment of hydrogen bonding in SINDO1. *Journal of Computational Chemistry*, 14(6):639–646, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jelski:1996:NVS

[JHB96]

Daniel A. Jelski, Randall H. Haley, and Joel M. Bowman. New vibrational self-consistent field program for large

molecules. *Journal of Computational Chemistry*, 17(14):1645–1652, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jorgensen:1998:TDT

- [JJ98] William L. Jorgensen and Corky Jenson. Temperature dependence of TIP3P, SPC, and TIP4P water from NPT Monte Carlo simulations: Seeking temperatures of maximum density. *Journal of Computational Chemistry*, 19(10):1179–1186, July 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Judson:1993:CSM

- [JJTP93] R. S. Judson, E. P. Jaeger, A. M. Treasurywala, and M. L. Peterson. Conformational searching methods for small molecules. II. Genetic algorithm approach. *Journal of Computational Chemistry*, 14(11):1407–1414, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jemmer:1998:SAF

- [JK98] Patrick Jemmer and Peter J. Knowles. Symbolic algebra in functional derivative potential calculations. *Journal of Computational Chemistry*, 19(3):300–307, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jug:1999:TRS

- [JKN99] Karl Jug, Christian Kölle, and Frank Neumann. Treatment of reactions in solutions with isodensity surfaces. *Journal of Computational Chemistry*, 20(3):301–304, February 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jurema:1993:MMW

- [JKS93] Marcus W. Jurema, Karl N. Kirschner, and George C. Shields. Modeling of magic water clusters $(\text{H}_2\text{O})_{20}$ and $(\text{H}_2\text{O})_{21}\text{H}^+$ with the PM3 quantum-mechanical method. *Journal of Computational Chemistry*, 14(11):1326–1332, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jorge:1998:AGB

- [JLN98] F. E. Jorge, P. R. Librelon, and A. Canal Neto. Adapted Gaussian basis sets for atoms Cs to Lr based on the generator coordi-

nate Hartree–Fock method. *Journal of Computational Chemistry*, 19(8):858–865, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jorgensen:1993:MCSb

- [JLNTR93] William L. Jorgensen, Ellen R. Laird, Toan B. Nguyen, and Julian Tirado-Rives. Monte Carlo simulations of pure liquid substituted benzenes with OPLS potential functions. *Journal of Computational Chemistry*, 14(2):206–215, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jin:1997:DNG

- [JLW97] A. Y. Jin, F. Y. Leung, and D. F. Weaver. Development of a novel genetic algorithm search method (GAP1.0) for exploring peptide conformational space. *Journal of Computational Chemistry*, 18(16):1971–1984, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jin:1999:TVG

- [JLW99] A. Y. Jin, F. Y. Leung, and D. F. Weaver. Three variations of genetic algorithm for searching biomolecular conformation space: Comparison of GAP 1.0, 2.0, and 3.0. *Journal of Computational Chemistry*, 20(13):1329–1342, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Johnson:1990:CAM

- [JM90] Mark A. Johnson and Gerald M. Maggiora, editors. *Concepts and applications of molecular similarity*. John Wiley, New York, NY, USA, 1990. ISBN 0-471-62175-7. LCCN QD461 .C634 1990. URL <http://www.loc.gov/catdir/description/wiley032/89049633.html>; <http://www.loc.gov/catdir/toc/onix02/89049633.html>.

Jung:1996:MMC

- [JMH96] Seunho Jung, Dugki Min, and Rawle I. Hollingsworth. A Metropolis Monte Carlo method for analyzing the energetics and dynamics of lipopolysaccharide supramolecular structure and organization. *Journal of Computational Chemistry*, 17(2):238–249, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jorgensen:1993:MCSa

- [JN93] William L. Jorgensen and Toan B. Nguyen. Monte Carlo simulations of the hydration of substituted benzenes with OPLS potential functions. *Journal of Computational Chemistry*, 14(2):195–205, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jones:1991:ALA

- [Jon91] Herbert W. Jones. Analytic Löwdin alpha-function method for two-center electron-repulsion integrals over Slater-type orbitals. *Journal of Computational Chemistry*, 12(10):1217–1222, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Janak:1992:PCPa

- [JP92a] J. F. Janak and P. C. Pattnaik. Protein calculations on parallel processors. I. Parallel algorithm for the potential energy. *Journal of Computational Chemistry*, 13(4):533–538, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Janak:1992:PCPb

- [JP92b] J. F. Janak and P. C. Pattnaik. Protein calculations on parallel processors. II. Parallel algorithm for the forces and molecular dynamics. *Journal of Computational Chemistry*, 13(9):1098–1102, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jurema:1993:APQ

- [JS93] Marcus W. Jurema and George C. Shields. Ability of the PM3 quantum-mechanical method to model inter molecular hydrogen bonding between neutral molecules. *Journal of Computational Chemistry*, 14(1):89–104, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Judson:1995:DFM

- [JTM⁺95] R. S. Judson, Y. T. Tan, E. Mori, C. Melius, E. P. Jaeger, A. M. Treasurywala, and A. Mathiowitz. Docking flexible molecules: a case study of three proteins. *Journal of Computational Chemistry*, 16(11):1405–1419, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jones:1991:TKI

- [JU91] Jeffrey P. Jones and Jeffrey L. Urbauer. Theoretical kinetic isotope effects for the hydride transfer from formate to carbon dioxide: a comparison of theory with experiment. *Journal of Computational Chemistry*, 12(9):1134–1141, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jursic:1996:DFG

- [Jur96] Branko S. Jursic. Density functional Gaussian-type orbital approach in theoretical study of S_2F_2 isomerization. *Journal of Computational Chemistry*, 17(7):835–840, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Janezic:1995:HALb

- [JVB95] Dušanka Janežič, Richard M. Venable, and Bernard R. Brooks. Harmonic analysis of large systems. III. Comparison with molecular dynamics. *Journal of Computational Chemistry*, 16(12):1554–1566, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Jursic:1996:ISH

- [JZ96] Branko S. Jursic and Zoran Zdravkovski. An ab initio study of heterodienophiles addition to 2,3-diaza-1,3-butadiene: an example of endo-lone-pair effect on the reaction energy barrier. *Journal of Computational Chemistry*, 17(3):298–305, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kozlowski:1992:MMI

- [KA92] Paweł M. Kozłowski and Ludwik Adamowicz. Multicenter and multiparticle integrals for explicitly correlated Cartesian Gaussian-type functions. *Journal of Computational Chemistry*, 13(5):602–613, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kneisler:1996:IDF

- [KA96a] John R. Kneisler and Norman L. Allinger. Ab initio and density functional theory study of structures and energies for dimethoxymethane as a model for the anomeric effect. *Journal of Computational Chemistry*, 17(7):757–766, May 1996.

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Krissinel:1996:SSD

- [KA96b] Evgenii B. Krissinel' and Noam Agmon. Spherical symmetric diffusion problem. *Journal of Computational Chemistry*, 17(9): 1085–1098, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Karna:1999:ICH

- [Kar99] Shashi P. Karna. Ab initio coupled Hartree–Fock study of the Bloembergen effect on paramagnetic systems: SiH₃ radical. *Journal of Computational Chemistry*, 20(12):1274–1280, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kass:1990:HAC

- [Kas90] Steven R. Kass. Hydrocarbon acidities calculated with MINDO/3, MNDO, and AM1. *Journal of Computational Chemistry*, 11(1):94–104, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Katagi:1990:ASA

- [Kat90a] Toshiyuki Katagi. AM1 study of acid-catalyzed hydrolysis of maleamic (4-amino-4-oxo-2-butenoic) acids. *Journal of Computational Chemistry*, 11(9):1094–1100, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Katagi:1990:TSA

- [Kat90b] Toshiyuki Katagi. Theoretical studies on the alkaline hydrolysis of *N*-methylcarbamates. *Journal of Computational Chemistry*, 11(4):524–530, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Katagi:1993:MPS

- [Kat93] Toshiyuki Katagi. MNDO-PM3 study on model cytochrome P450-mediated desulfuration of thiophosphoryl trifluoride, trimethylphosphine sulfide, and trimethyl phosphorothionate. *Journal of Computational Chemistry*, 14(10):1250–1257, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kontoyianni:1992:IMMb

- [KB92] Maria Kontoyianni and J. Phillip Bowen. An ab initio and molecular mechanical investigation of ureas and amide derivatives. *Journal of Computational Chemistry*, 13(5):657–666, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Konkoli:1997:DOV

- [KCK97] Zoran Konkoli, Dieter Cremer, and Elfi Kraka. Diabatic ordering of vibrational normal modes in reaction valley studies. *Journal of Computational Chemistry*, 18(10):1282–1294, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kovacs:1998:CID

- [KCK98] Attila Kovács, Gábor I. Csonka, and György M. Keserű. Comparison of ab initio and density functional methods for vibrational analysis of TeCl₄. *Journal of Computational Chemistry*, 19(3):308–318, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Karna:1991:FDN

- [KD91] S. P. Karna and M. Dupuis. Frequency dependent nonlinear optical properties of molecules: Formulation and implementation in the HONDO program. *Journal of Computational Chemistry*, 12(4):487–504, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kono:1996:NMS

- [KD96] Hideyoshi Kono and Junta Doi. A new method for side-chain conformation prediction using a Hopfield network and reproduced rotamers. *Journal of Computational Chemistry*, 17(14):1667–1683, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Koch:1995:IDM

- [KE95] Uwe Koch and Ernst Egert. An improved description of the molecular charge density in force fields with atomic multipole moments. *Journal of Computational Chemistry*, 16(8):937–944, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kearsley:1990:ASS

- [Kea90] Simon K. Kearsley. An algorithm for the simultaneous superposition of a structural series. *Journal of Computational Chemistry*, 11(10):1187–1192, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klopman:1994:AMC

- [KF94] Gilles Klopman and Dan Fercu. Application of the multiple computer automated structure evaluation methodology to a quantitative structure–activity relationship study of acidity. *Journal of Computational Chemistry*, 15(9):1041–1050, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klepeis:1999:CSG

- [KF99] J. L. Klepeis and C. A. Floudas. Comparative study of global minimum energy conformations of hydrated peptides. *Journal of Computational Chemistry*, 20(6):636–654, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klepeis:1999:PPS

- [KFML99] J. L. Klepeis, C. A. Floudas, D. Morikis, and J. D. Lambris. Predicting peptide structures using NMR data and deterministic global optimization. *Journal of Computational Chemistry*, 20(13):1354–1370, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kitao:1991:CDP

- [KG91] Akio Kitao and Nobuhiro Gō. Conformational dynamics of polypeptides and proteins in the dihedral angle space and in the Cartesian coordinate space: Normal mode analysis of deca-alanine. *Journal of Computational Chemistry*, 12(3):359–368, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Karfunkel:1992:IPP

- [KG92] H. R. Karfunkel and R. J. Gdanitz. Ab initio prediction of possible crystal structures for general organic molecules. *Journal of Computational Chemistry*, 13(10):1171–1183, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kolossvary:1993:TFC

- [KG93] István Kolossváry and Wayne C. Guida. Torsional flexing: Conformational searching of cyclic molecules in biased internal coordinate space. *Journal of Computational Chemistry*, 14(6):691–698, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kolossvary:1999:LMC

- [KG99] István Kolossváry and Wayne C. Guida. Low-mode conformational search elucidated: Application to $C_{39}H_{80}$ and flexible docking of 9-deazaguanine inhibitors into PNP. *Journal of Computational Chemistry*, 20(15):1671–1684, November 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Krol:1990:AEI

- [KHA90] Maarten C. Krol, Cornelis J. M. Huige, and Cornelis Altona. The anomeric effect: Ab-initio studies on molecules of the type X CH₂O CH₃. *Journal of Computational Chemistry*, 11(7):765–790, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kontoyianni:1992:IMMa

- [KHB92] Maria Kontoyianni, Andrew J. Hoffman, and J. Phillip Bowen. Ab initio and molecular mechanics calculations on imine derivatives: a study of the rotational barriers and the development of MM2 parameters. *Journal of Computational Chemistry*, 13(1):57–65, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Karaman:1990:CASE

- [KHF90] Rafik Karaman, Jun-Tsu Luke Huang, and James L. Fry. Correlation of the acidity of substituted phenols, anilines, and benzoic acids calculated by MNDO, AM1, and PM3 with Hammett-type substituent constants. *Journal of Computational Chemistry*, 11(9):1009–1016, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Karaman:1991:CST

- [KHF91] Rafik Karaman, Jun-Tsu Luke Huang, and James L. Fry. Correlation of singlet-triplet gaps for aryl carbenes calculated by

MINDO/3, MNDO, AM1, and PM3 with Hammett-type substituent constants. *Journal of Computational Chemistry*, 12(5):536–545, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kudo:1996:ISC

[KHG96]

Takako Kudo, Fujiko Hashimoto, and Mark S. Gordon. Ab initio study of cyclic siloxanes (H_2SiO) $_n$: $n = 3, 4, 5$. *Journal of Computational Chemistry*, 17(9):1163–1170, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kroemer:1996:DED

[KHL96]

Romano T. Kroemer, Peter Hecht, and Klaus R. Liedl. Different electrostatic descriptors in comparative molecular field analysis: a comparison of molecular electrostatic and Coulomb potentials. *Journal of Computational Chemistry*, 17(11):1296–1308, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kitchen:1990:CED

[KHW⁺90]

Douglas B. Kitchen, Fumio Hirata, John D. Westbrook, Ronald Levy, David Kofke, and Martin Yarmush. Conserving energy during molecular dynamics simulations of water, proteins, and proteins in water. *Journal of Computational Chemistry*, 11(10):1169–1180, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Knapp:1993:LMC

[KID93]

E. W. Knapp and A. Irgens-Defregger. Off-lattice Monte Carlo method with constraints: Long-time dynamics of a protein model without nonbonded interactions. *Journal of Computational Chemistry*, 14(1):19–29, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kikuchi:1996:ICA

[Kik96]

Takeshi Kikuchi. Inter- C^α atomic potentials derived from the statistics of average interresidue distances in proteins: Application to bovine pancreatic trypsin inhibitor. *Journal of Computational Chemistry*, 17(2):226–237, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kikuchi:1999:SPF

- [Kik99] Takeshi Kikuchi. Study of protein fluctuation with an effective inter-C α atomic potential derived from average distances between amino acids in proteins. *Journal of Computational Chemistry*, 20(7):713–719, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kolle:1997:SES

- [KJ97] Christian Kölle and Karl Jug. Solvation effects in SINDO1: Application to organic molecules. *Journal of Computational Chemistry*, 18(1):1–8, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kozmutza:1991:CCC

- [KK91] C. Kozmutza and E. Kapuy. Counterpoise corrected calculations at the correlated level: a simplified method using LMOs. *Journal of Computational Chemistry*, 12(8):953–958, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Korek:1992:HAD

- [KK92] Mahmoud Korek and Hafez Kobeissi. Highly accurate diatomic centrifugal distortion constants for high orders and high levels. *Journal of Computational Chemistry*, 13(9):1103–1108, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kovacs:1996:TSI

- [KKCH96] Attila Kovács, István Kolossváry, Gábor I. Csonka, and István Hargittai. Theoretical study of intramolecular hydrogen bonding and molecular geometry of 2-trifluoromethylphenol. *Journal of Computational Chemistry*, 17(16):1804–1819, December 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kozmutza:1993:CIE

- [KKE93] C. Kozmutza, E. Kapuy, and E. M. Evleth. Calculation of the interaction energy in a localized representation for a trimer (Ne_3) system. *Journal of Computational Chemistry*, 14(10):1136–1141, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Krack:1997:AME

- [KKJ97] Matthias Krack, Andreas M. Köster, and Karl Jug. Approximate molecular electrostatic potentials from semiempirical wavefunctions. *Journal of Computational Chemistry*, 18(3):301–312, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klein:1991:MBC

- [KL91] D. J. Klein and X. Liu. Many-body conjugated-circuit computations. *Journal of Computational Chemistry*, 12(10):1260–1264, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klopmand:1992:BRB

- [Klo92] Gilles Klopmand. Book review: *Concepts and applications of molecular similarity*, by Mark A. Johnson and Gerald M. Maggiora, eds., John Wiley & Sons, New York, 1990, 393 pp. Price: \$65.00. *Journal of Computational Chemistry*, 13(4):539–540, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klobukowski:1993:ISM

- [Klo93] Mariusz Klobukowski. Ab initio SCF and Møller–Plesset studies on hexafluorides of selenium and tellurium. *Journal of Computational Chemistry*, 14(10):1234–1239, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klopper:1997:SRI

- [Klo97] Wim Klopper. Simple recipe for implementing computation of first-order relativistic corrections to electron correlation energies in framework of direct perturbation theory. *Journal of Computational Chemistry*, 18(1):20–27, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kerdcharoen:1996:BMD

- [KLR96] Teerakiat Kerdcharoen, Klaus R. Liedl, and Bernd M. Rode. Bidirectional molecular dynamics: Interpretation in terms of a modern formulation of classical mechanics. *Journal of Computational Chemistry*, 17(13):1564–1570, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kar:1994:TMM

- [KLV94] Mangalya Kar, Terry G. Lenz, and John D. Vaughan. Thermodynamic molecular mechanics force field: Modified QCFF program. *Journal of Computational Chemistry*, 15(11):1254–1265, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kaupp:1999:F

- [KM99] Martin Kaupp and Vladimir G. Malkin. Foreword. *Journal of Computational Chemistry*, 20(12):v–vii, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klein:1998:SSV

- [KMKW98] Christian T. Klein, Bernd Mayer, Gottfried Köhler, and Peter Wolschann. Systematic stepsize variation: Efficient method for searching conformational space of polypeptides. *Journal of Computational Chemistry*, 19(13):1470–1481, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kaupp:1999:RTN

- [KMM99] Martin Kaupp, Olga L. Malkina, and Vladimir G. Malkin. The role of π -type nonbonding orbitals for spin–orbit induced NMR chemical shifts: DFT study of ^{13}C and ^{19}F shifts in the series CF_3IF_n ($n = 0, 2, 4, 6$). *Journal of Computational Chemistry*, 20(12):1304–1313, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kindermann:1992:PQM

- [KMO92] S. Kindermann, E. Michel, and P. Otto. Parallelization of quantum mechanical integral calculations. *Journal of Computational Chemistry*, 13(4):414–422, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Knapp:1992:LTD

- [Kna92] E. W. Knapp. Long time dynamics of a polymer with rigid body monomer units relating to a protein model: Comparison with the rouse model. *Journal of Computational Chemistry*, 13(7):793–798, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Komatsu:1996:QCF

- [KNST96] T. Komatsu, T. Noro, F. Sasaki, and H. Tatewaki. Quality of correlating functions generated from commonly used basis sets. *Journal of Computational Chemistry*, 17(10):1276–1286, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kinoshita:1997:CHF

- [KOH97] Masahiro Kinoshita, Yuko Okamoto, and Fumio Hirata. Calculation of hydration free energy for a solute with many atomic sites using the RISM theory: a robust and efficient algorithm. *Journal of Computational Chemistry*, 18(10):1320–1326, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kinoshita:1998:CSF

- [KOH98] Masahiro Kinoshita, Yuko Okamoto, and Fumio Hirata. Calculation of solvation free energy using RISM theory for peptide in salt solution. *Journal of Computational Chemistry*, 19 (15):1724–1735, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kohn:1999:TAD

- [Koh99] Walter Kohn. Thoughts about density functional theory in 1998. *Journal of Computational Chemistry*, 20(1):1, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Koca:1995:CAF

- [KPI95] Jaroslav Koča, Serge Pérez, and Anne Imberty. Conformational analysis and flexibility of carbohydrates using the CI-CADA approach with MM3. *Journal of Computational Chemistry*, 16(3):296–310, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kundrot:1991:ACE

- [KPR91] Craig E. Kundrot, Jay W. Ponder, and Frederic M. Richards. Algorithms for calculating excluded volume and its derivatives as a function of molecular conformation and their use in energy minimization. *Journal of Computational Chemistry*, 12 (3):402–409, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kumar:1998:LBH

- [KPSM98] Ganesh A. Kumar, Yongping Pan, C. Jay Smallwood, and Michael A. McAllister. Low-barrier hydrogen bonds: ab initio and DFT investigation. *Journal of Computational Chemistry*, 19(12):1345–1352, September 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kumar:1996:MFE

- [KPV96] Shankar Kumar, Philip W. Payne, and Maximiliano Vásquez. Method for free-energy calculations using iterative techniques. *Journal of Computational Chemistry*, 17(10):1269–1275, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kandadai:1996:SSP

- [KR96] N. Swamy Kandadai and M. Rami Reddy. Solution structure of papain as studied by molecular mechanics and molecular dynamics techniques. *Journal of Computational Chemistry*, 17(11):1328–1338, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kumar:1992:WHA

- [KRB⁺92] Shankar Kumar, John M. Rosenberg, Djamel Bouzida, Robert H. Swendsen, and Peter A. Kollman. THE weighted histogram analysis method for free-energy calculations on biomolecules. I. The method. *Journal of Computational Chemistry*, 13(8):1011–1021, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kumar:1995:MFE

- [KRB⁺95] Shankar Kumar, John M. Rosenberg, Djamel Bouzida, Robert H. Swendsen, and Peter A. Kollman. Multidimensional free-energy calculations using the weighted histogram analysis method. *Journal of Computational Chemistry*, 16(11):1339–1350, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Krishna:1990:PDC

- [Kri90] M. V. Rama Krishna. On proper dissociation configurations of a molecule. *Journal of Computational Chemistry*, 11(5):629–635, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- Karfunkel:1993:CSM**
- [KRL⁺93] H. R. Karfunkel, B. Rohde, F. J. J. Leusen, R. J. Gdanitz, and G. Rihs. Continuous similarity measure between nonoverlapping X-ray powder diagrams of different crystal modifications. *Journal of Computational Chemistry*, 14(10):1125–1135, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Kendrick:1992:IMM**
- [KRM92] John Kendrick, Elizabeth Robson, and Sara McIntyre. Ab initio and molecular mechanics study of *n*-phenyl phthalimide and its crystal structure. *Journal of Computational Chemistry*, 13(4):408–413, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Kabir:1991:ISP**
- [KS91] Shahrzad Kabir and Anne-Marie Sapse. An ab initio study of the proton affinities of some heteroatomic rings: Imidazole, oxazole, and thiazole. *Journal of Computational Chemistry*, 12(9):1142–1146, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Kieninger:1996:CEP**
- [KS96] Martina Kieninger and Sándor Suhai. Conformational and energetic properties of the ammonia dimer — comparison of post-Hartree–Fock and density functional methods. *Journal of Computational Chemistry*, 17(13):1508–1519, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Kohout:1997:ICV**
- [KS97] Miroslav Kohout and Andreas Savin. Influence of core–valence separation of electron localization function. *Journal of Computational Chemistry*, 18(12):1431–1439, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Kozelka:1993:FFP**
- [KSB⁺93] Jiří Kozelka, Roger Savinelli, Gaston Berthier, Jean-Pierre Flament, and Richard Lavery. Force field for platinum binding to adenine. *Journal of Computational Chemistry*, 14(1):45–53,

January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kurtz:1990:CNO

- [KSD90] Henry A. Kurtz, James J. P. Stewart, and Kenneth M. Dieter. Calculation of the nonlinear optical properties of molecules. *Journal of Computational Chemistry*, 11(1):82–87, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kaupp:1990:PCM

- [KSP90] M. Kaupp, H. Stoll, and H. Preuss. Pseudopotential calculations for methyl compounds of zinc and magnesium. *Journal of Computational Chemistry*, 11(9):1029–1037, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kato:1991:SSB

- [KT91] Hiroshi Kato and Eishi Tanaka. Stabilities of small Be_n and B_n clusters ($4 \leq n \leq 8$) by vibrational analysis. *Journal of Computational Chemistry*, 12(9):1097–1109, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kolb:1993:BMM

- [KT93a] Matthias Kolb and Walter Thiel. Beyond the MNDO model: Methodical considerations and numerical results. *Journal of Computational Chemistry*, 14(7):775–789, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kolb:1993:MPH

- [KT93b] Matthias Kolb and Walter Thiel. MNDO parameters for helium: Optimization, tests, and application to endohedral fullerene–helium complexes. *Journal of Computational Chemistry*, 14(1):37–44, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kobeissi:1993:FND

- [KTK93] Hafez Kobeissi, Chafia H. Trad, and Majida Kobeissi. “full numerical” diatomic matrix elements: Simplified shooting method. *Journal of Computational Chemistry*, 14(12):1519–1522, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- [KTnH99] Andriy Kovalenko, Seiichiro Ten-no, and Fumio Hirata. Solution of three-dimensional reference interaction site model and hypernetted chain equations for simple point charge water by modified method of direct inversion in iterative subspace. *Journal of Computational Chemistry*, 20(9):928–936, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Kovalenko:1999:STD**
- [KTS92] Yasuyuki Kurita, Chiyozo Takayama, and Mitsuru Sasaki. Conformational analysis of 4 h-1,3,2-benzodioxaphosphorin 2-sulfides with ab initio molecular orbital calculations. *Journal of Computational Chemistry*, 13(5):560–564, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Kurita:1992:CAH**
- [KTT94] Yasuyuki Kurita, Chiyozo Takayama, and Shizuya Tanaka. Decomposition analyses of the intermolecular interaction energies in two π stacking complexes: Quinhydrone and N, N, N', N'-tetramethyl-P-diaminobenzene-chloranil complex. *Journal of Computational Chemistry*, 15(9):1013–1018, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See errata [KTT95]. **Kurita:1994:DAI**
- [KTT95] Yasuyuki Kurita, Chiyozo Takayama, and Shizuya Tanaka. Errata: Decomposition analyses of the intermolecular interaction energies in two $\pi-\pi$ stacking complexes: Quinhydrone and N, N, N', N tetramethyl-P-diaminobenzene-chloranil complex. *Journal of Computational Chemistry*, 16(1):131, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [KTT94]. **Kurita:1995:EDA**
- [Kuc96] Krzysztof Kuczera. One- and multidimensional conformational free energy simulations. *Journal of Computational Chemistry*, 17(15):1726–1749, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Kuczera:1996:OMC**

Kulver:1990:FEC

- [Kul90] Robert Kulver. Free energy calculation of a soft sphere solid using an adaptive, importance sampling Monte Carlo algorithm. *Journal of Computational Chemistry*, 11(4):511–517, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Komeiji:1997:FAM

- [KUT⁺97] Yuto Komeiji, Masami Uebayasi, Ryo Takata, Akihiro Shimizu, Keiji Itsukashi, and Makoto Taiji. Fast and accurate molecular dynamics simulation of a protein using a special-purpose computer. *Journal of Computational Chemistry*, 18(12):1546–1563, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kutzelnigg:1999:RCM

- [Kut99] Werner Kutzelnigg. Relativistic corrections to magnetic properties. *Journal of Computational Chemistry*, 20(12):1199–1219, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Koslowski:1993:LCL

- [KV93] T. Koslowski and W. Von Niessen. Linear combination of Lanczos vectors: a storage-efficient algorithm for sparse matrix eigenvector computations. *Journal of Computational Chemistry*, 14(7):769–774, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kouwijzer:1993:CTF

- [KVKK93] M. L. C. E. Kouwijzer, B. P. Van Eijck, S. J. Kroes, and J. Kroon. Comparison of two force fields by molecular dynamics simulations of glucose crystals: Effect of using Ewald sums. *Journal of Computational Chemistry*, 14(11):1281–1289, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kantola:1991:ABP

- [KVL91] Angelina Kantola, Hugo O. Villar, and Gilda H. Loew. Atom based parametrization for a conformationally dependent hydrophobic index. *Journal of Computational Chemistry*, 12(6):681–689, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kakkar:1991:URE

- [KW91a] Rita Kakkar and Vibha Walia. Unimolecular rearrangements of ethylnitrene: an exploratory theoretical study. *Journal of Computational Chemistry*, 12(10):1211–1216, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Klopman:1991:CASE

- [KW91b] Gilles Klopman and Shaomeng Wang. A computer automated structure evaluation (CASE) approach to calculation of partition coefficient. *Journal of Computational Chemistry*, 12(8):1025–1032, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Khalil:1991:EIM

- [KWW91] Maged Khalil, Robert J. Woods, Donald F. Weaver, and Venedene H. Smith Jr. An examination of inter molecular and intra molecular hydrogen bonding in biomolecules by AM1 and MNDO/M semiempirical molecular orbital studies. *Journal of Computational Chemistry*, 12(5):584–593, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Kennedy:1999:USH

- [KZ99] H. L. Kennedy and Y. Zhao. Use of STOs in Hartree–Fock calculations: Error analysis and variance-minimized pseudospectral method. *Journal of Computational Chemistry*, 20(14):1537–1548, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leonard:1990:MMP

- [LA90] Joseph M. Leonard and William P. Ashman. Molecular mechanics parameterization: Bond lengths and angles for nitrogen and phosphorus containing compounds. *Journal of Computational Chemistry*, 11(8):952–957, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lii:1991:MFF

- [LA91] Jenn-Huei Lii and Norman L. Allinger. The MM3 force field for amides, polypeptides and proteins. *Journal of Computational Chemistry*, 12(2):186–199, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lii:1992:IIB

- [LA92] Jenn-Huei Lii and Norman L. Allinger. Intensities of infrared bands in molecular mechanics (MM3). *Journal of Computational Chemistry*, 13(9):1138–1141, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1994:MMM

- [LA94] Ruifeng Liu and Norman L. Allinger. Molecular mechanics (MM3) calculations on alkyl radicals. *Journal of Computational Chemistry*, 15(3):283–299, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lii:1998:DHB

- [LA98] Jenn-Huei Lii and Norman L. Allinger. Directional hydrogen bonding in the MM3 force field: II. *Journal of Computational Chemistry*, 19(9):1001–1016, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1990:CGC

- [LB90] Xiaoyu Liu and K. Balasubramanian. Computer generation of character tables of generalized wreath product groups. *Journal of Computational Chemistry*, 11(5):589–602, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lemak:1996:MDS

- [LB96] A. S. Lemak and N. K. Balabaev. Molecular dynamics simulation of a polymer chain in solution by collisional dynamics method. *Journal of Computational Chemistry*, 17(15):1685–1695, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Llusrat:1999:TAE

- [LBA⁺99] Rosa Llusrat, Armando Beltrán, Juan Andrés, Stéphane Noury, and Bernard Silvi. Topological analysis of electron density in depleted homopolar chemical bonds. *Journal of Computational Chemistry*, 20(14):1517–1526, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luque:1996:EMS

- [LBAO96] F. J. Luque, M. Bachs, C. Alemán, and Modesto Orozco. Extension of MST/SCRF method to organic solvents: ab initio

tio and semiempirical parametrization for neutral solutes in CCl₄. *Journal of Computational Chemistry*, 17(7):806–820, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liang:1994:MMM

[LBB94]

Guyan Liang, J. Phillip Bowen, and James A. Bentley. Molecular mechanics (MM3) parameterization of hydroxylamine and methyl derivatives. *Journal of Computational Chemistry*, 15(8):866–874, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lim:1997:MDV

[LBI⁺97]

Kian-Tat Lim, Sharon Brunett, Mihail Iotov, Richard B. McClurg, Nagarajan Vaidehi, Siddharth Dasgupta, Stephen Taylor, and William A. Goddard III. Molecular dynamics for very large systems on massively parallel computers: the MPSim program. *Journal of Computational Chemistry*, 18(4):501–521, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luque:1994:OAM

[LBO94]

F. J. Luque, M. Bachs, and Modesto Orozco. An optimized AM1/MST method for the MST-SCRF representation of solvated systems. *Journal of Computational Chemistry*, 15(8):847–857, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1994:EMD

[LCA94]

Fanbing Li, Weili Cui, and Norman L. Allinger. Expanding molecular dynamics simulations to the NMR time scale. I. Studies of conformational interconversions of 1, 1-difluoro-4, 4-dimethylcycloheptane using MM3-MD. *Journal of Computational Chemistry*, 15(7):769–781, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liang:1997:ICM

[LCD⁺97]

Guyan Liang, Xiannong Chen, J. A. Dustman, Anita H. Lewin, and J. Phillip Bowen. Ab initio calculations and molecular mechanics (MM3) force field development for ammonium and protonated aliphatic amines. *Journal of Computational Chemistry*, 18(11):1371–1391, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lee:1993:MSC

- [LCW93] Frederick S. Lee, Zhen Tao Chu, and Arieh Warshel. Microscopic and semimicroscopic calculations of electrostatic energies in proteins by the POLARIS and ENZYMIX programs. *Journal of Computational Chemistry*, 14(2):161–185, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lein:1999:TDV

- [LDG99] M. Lein, J. F. Dobson, and E. K. U. Gross. Toward the description of van der Waals interactions within density functional theory. *Journal of Computational Chemistry*, 20(1):12–22, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1992:EST

- [LDJ92] Jian Li, Paulo Correa De Mello, and Karl Jug. Extension of SINDO1 to transition metal compounds. *Journal of Computational Chemistry*, 13(1):85–92, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liwo:1997:MSS

- [LDJ⁺97] Adam Liwo, Dariusz Dyl, Danuta Jeziorek, Małgorzata Nowacka, Tadeusz Ossowski, and Wiesław Woźnicki. MCSCF study of singlet oxygen addition to ethenol — a model of photooxidation reactions of unsaturated and aromatic compounds bearing hydroxy groups. *Journal of Computational Chemistry*, 18(13):1668–1681, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luty:1992:EEC

- [LDM92a] Brock A. Luty, Malcolm E. Davis, and J. Andrew McCammon. Electrostatic energy calculations by a Finite-difference method: Rapid calculation of charge–solvent interaction energies. *Journal of Computational Chemistry*, 13(6):768–771, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luty:1992:SFD

- [LDM92b] Brock A. Luty, Malcolm E. Davis, and J. Andrew McCammon. Solving the finite-difference non-linear Poisson–Boltzmann equation. *Journal of Computational Chemistry*,

13(9):1114–1118, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lopez:1999:ISR

- [LDMS99] R. López, E. Del Río, M. I. Menéndez, and T. L. Sordo. Ab initio study of the reaction of CHO⁺ with H₂O and NH₃. *Journal of Computational Chemistry*, 20(13):1432–1443, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lagant:1991:UUR

- [LDVP91] Philippe Lagant, Philippe Derreumaux, Gerard Vergoten, and Warner Peticolas. The use of ultraviolet resonance Raman intensities to test proposed molecular force fields for nucleic acid bases. *Journal of Computational Chemistry*, 12(6):731–741, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liang:1996:PAR

- [LFB96] Guyan Liang, Peter C. Fox, and J. Phillip Bowen. Parameter analysis and refinement toolkit system and its application in MM3 parameterization for phosphine and its derivatives. *Journal of Computational Chemistry*, 17(8):940–953, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1996:MMS

- [LH96] Shusen Li and Ching-Hsien Huang. Molecular mechanics simulation studies of dienoic hydrocarbons: From alkenes to 1-Palmitoyl-2-linoleoyl-phosphatidylcholines. *Journal of Computational Chemistry*, 17(8):1013–1024, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1999:ETB

- [LH99] Xiang-Yuan Li and Fu-Cheng He. Electron transfer between biphenyl and biphenyl anion radicals: Reorganization energies and electron transfer matrix elements. *Journal of Computational Chemistry*, 20(6):597–603, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leuwerink:1993:MDC

- [LHBF93] E. T. H. Leuwerink, S. Harkema, W. J. Briels, and D. Feil. Molecular dynamics of 18-crown-6 complexes with alkali–metal

cations and urea: Prediction of their conformations and comparison with data from the Cambridge Structural Database. *Journal of Computational Chemistry*, 14(8):899–906, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liotard:1995:IMS

- [LHL⁺95] Daniel A. Liotard, Gregory D. Hawkins, Gillian C. Lynch, Christopher J. Cramer, and Donald G. Truhlar. Improved methods for semiempirical solvation models. *Journal of Computational Chemistry*, 16(4):422–440, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Limaye:1997:PME

- [Lim97] Ajay C. Limaye. Parallel MP2-energy evaluation: Simulated shared memory approach on distributed memory parallel machines. *Journal of Computational Chemistry*, 18(4):552–561, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luque:1990:CSM

- [LIO90] F. J. Luque, F. Illas, and M. Orozco. Comparative study of the molecular electrostatic potential obtained from different wavefunctions. Reliability of the semiempirical MNDO wavefunction. *Journal of Computational Chemistry*, 11(4):416–430, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lehd:1991:GPO

- [LJ91] Michael Lehd and Frank Jensen. A general procedure for obtaining wave functions obeying the virial theorem. *Journal of Computational Chemistry*, 12(9):1089–1096, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1992:ASO

- [LJ92] Jian Li and Karl Jug. Application of SINDO1 to organo-transition metal compounds. *Journal of Computational Chemistry*, 13(1):93–101, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

[LJKL98]

Tommy Liljefors, Flemming Steen Jørgensen, and Povl Krogsgaard-Larsen, editors. *Rational Molecular Design in Drug research*, volume 42 of *Alfred Benzon Symposium*. Munksgaard, København, Danmark, 1998. ISBN 87-16-12049-3. 399 pp. LCCN ????

Liljefors:1998:RMD

[LK90]

Ikchoon Lee and Chang Kon Kim. Theoretical studies on the intramolecular cyclization of alkyl halide anions. *Journal of Computational Chemistry*, 11(10):1119–1124, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lee:1990:TSI

[LK91]

X. Liu and D. J. Klein. The graph isomorphism problem. *Journal of Computational Chemistry*, 12(10):1243–1251, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1991:GIP

[LK92]

Andrew R. Leach and Irwin D. Kuntz. Conformational analysis of flexible ligands in macromolecular receptor sites. *Journal of Computational Chemistry*, 13(6):730–748, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leach:1992:CAF

[LK95]

Andrew R. Leach and Teri E. Klein. A molecular dynamics study of the inhibition of chicken dihydrofolate reductase by a phenyl triazine. *Journal of Computational Chemistry*, 16(11):1378–1393, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leach:1995:MDS[LKC⁺98]

A. Liwo, R. Kaźmierkiewicz, C. Czaplewski, M. Groth, S. Ołdziej, R. J. Wawak, S. Rackovsky, M. R. Pincus, and H. A. Scheraga. United-residue force field for off-lattice protein-structure simulations: III. Origin of backbone hydrogen-bonding cooperativity in united-residue potentials. *Journal of Computational Chemistry*, 19(3):259–276, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liwo:1998:URF

Lee:1995:IMO

- [LKL95] Ikchoon Lee, Chang Kon Kim, and Bon-Su Lee. Ab initio molecular orbital studies of nonidentity allyl transfer reactions. *Journal of Computational Chemistry*, 16(8):1045–1054, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lee:1997:TSK

- [LKL⁺97] Doyoung Lee, Chang Kon Kim, Bon-Su Lee, Ikchoon Lee, and Byung Choon Lee. A theoretical study on keto-enol tautomerization involving simple carbonyl derivatives. *Journal of Computational Chemistry*, 18(1):56–69, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ludena:1999:LST

- [LKLB⁺99] E. V. Ludeña, V. Karasiev, R. López-Boada, E. Valderrama, and J. Maldonado. Local-scaling transformation version of density functional theory: Application to atoms and diatomic molecules. *Journal of Computational Chemistry*, 20(1):155–183, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1991:GCC

- [LKSS91a] X. Liu, D. J. Klein, T. G. Schmalz, and W. A. Seitz. Generation of carbon-cage polyhedra. *Journal of Computational Chemistry*, 12(10):1252–1259, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1991:SAC

- [LKSS91b] X. Liu, D. J. Klein, W. A. Seitz, and T. G. Schmalz. Sixty-atom carbon cages. *Journal of Computational Chemistry*, 12(10):1265–1269, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lee:1992:KRH

- [LL92] Sang Yeon Lee and Yoon Sup Lee. Kramers’ restricted Hartree–Fock method for polyatomic molecules using ab initio relativistic effective core potentials with spin–orbit operators. *Journal of Computational Chemistry*, 13(5):595–601, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leach:1994:RBA

- [LL94] Andrew R. Leach and Richard A. Lewis. A ring-bracing approach to computer-assisted ligand design. *Journal of Computational Chemistry*, 15(2):233–240, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lukes:1999:PFD

- [LLB99] Vladimír Lukeš, Viliam Laurinc, and Stanislav Biskupič. Perturbative formulation of dispersion contributions to interaction energy of van der Waals systems of “closed-shell–open-shell” type. *Journal of Computational Chemistry*, 20(8):857–866, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1998:CSU

- [LLD98] Zhenqin Li, Keith E. Laidig, and Valerie Daggett. Conformational search using a molecular dynamics–minimization procedure: Applications to clusters of Coulombic charges, Lennard-Jones particles, and waters. *Journal of Computational Chemistry*, 19(1):60–70, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

LeGrand:1993:RAM

- [LM93] Scott M. Le Grand and Kenneth M. Merz Jr. Rapid approximation to molecular surface area via the use of Boolean logic and look-up tables. *Journal of Computational Chemistry*, 14 (3):349–352, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Llano:1996:BCR

- [LM96] Jorge Llano and Luis A. Montero. π -bonding contribution to restricted internal rotations in saccharides. *Journal of Computational Chemistry*, 17(11):1371–1384, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lii:1999:ISP

- [LMA99] Jenn-Huei Lii, Buyong Ma, and Norman L. Allinger. Importance of selecting proper basis set in quantum mechanical studies of potential energy surfaces of carbohydrates. *Journal of Computational Chemistry*, 20(15):1593–1603, November 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lensink:1996:SIM

- [LMB96] Marc F. Lensink, Janez Mavri, and Herman J. C. Berendsen. Simultaneous integration of mixed quantum-classical systems by density matrix evolution equations using interaction representation and adaptive time step integrator. *Journal of Computational Chemistry*, 17(11):1287–1295, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lensink:1999:SSR

- [LMB99] Marc F. Lensink, Janez Mavri, and Herman J. C. Berendsen. Simulation of slow reaction with quantum character: Neutral hydrolysis of carboxylic ester. *Journal of Computational Chemistry*, 20(8):886–895, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lin:1992:MDD

- [LMCPP92] S. L. Lin, J. Mellor-Crummey, B. M. Pettitt, and G. N. Phillips Jr. Molecular dynamics on a distributed-memory multiprocessor. *Journal of Computational Chemistry*, 13(8):1022–1035, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luthi:1992:CGP

- [LMFA92] Hans P. Lüthi, John E. Mertz, Martin W. Feyereisen, and Jan E. Almlöf. A coarse-grain parallel implementation of the direct SCF method. *Journal of Computational Chemistry*, 13(2):160–164, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1998:IEP

- [LMRRL98] G.-S. Li, B. Maigret, D. Rinaldi, and M. F. Ruiz-López. Influence of environment on proton-transfer mechanisms in model triads from theoretical calculations. *Journal of Computational Chemistry*, 19(15):1675–1688, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luque:1998:PEG

- [LO98] F. Javier Luque and Modesto Orozco. Polarization effects in generalized molecular interaction potential: New Hamiltonian for reactivity studies and mixed QM/MM calculations. *Journal of Computational Chemistry*, 19(8):866–881, June 1998.

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lopez:1995:ESWa

- [L  p95a] Gustavo E. L  pez. The electronic structure of weakly bound systems. I. Rare-gas bimolecular cations. *Journal of Computational Chemistry*, 16(6):758–767, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lopez:1995:ESWb

- [L  p95b] Gustavo E. L  pez. The electronic structure of weakly bound systems. II. Ne X⁺ and Ar X⁺ (X = H₂O, HCl, and HF) bimolecular cations. *Journal of Computational Chemistry*, 16 (6):768–776, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liwo:1997:URFa

- [LOP⁺97] A. Liwo, S. O  dziej, M. R. Pincus, R. J. Wawak, S. Rackovsky, and H. A. Scheraga. A united-residue force field for off-lattice protein-structure simulations. I. Functional forms and parameters of long-range side-chain interaction potentials from protein crystal data. *Journal of Computational Chemistry*, 18(7):849–873, May 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leach:1990:ACA

- [LP90] Andrew R. Leach and Keith Prout. Automated conformational analysis: Directed conformational search using the A* algorithm. *Journal of Computational Chemistry*, 11(10):1193–1205, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1992:IES

- [LP92] Ruifeng Liu and Peter Pulay. Ab initio evidence for the stepwise mechanism of the McLafferty rearrangement of the butanal radical cation. *Journal of Computational Chemistry*, 13 (2):183–186, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lipkowitz:1993:BVR

- [LP93] Kenny B. Lipkowitz and Michael A. Peterson. Benzene is not very rigid. *Journal of Computational Chemistry*, 14(1):

121–125, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lipkowitz:1995:EMS

- [LP95] Kenny B. Lipkowitz and Michael A. Peterson. Evaluation of moment statistics for molecular modeling. *Journal of Computational Chemistry*, 16(3):285–295, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1999:CEE

- [LP99] Shubin Liu and Robert G. Parr. Consequences for exchange energy density functional of exponentially decaying nature of atomic electron densities. *Journal of Computational Chemistry*, 20(1):2–11, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leach:1990:AAI

- [LPD90] Andrew R. Leach, Keith Prout, and Daniel P. Dolata. The application of Artificial Intelligence to the conformational analysis of strained molecules. *Journal of Computational Chemistry*, 11(6):680–693, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lee:1999:NPA

- [LPK99] Sang-Ho Lee, Kim Palmo, and Samuel Krimm. New out-of-plane angle and bond angle internal coordinates and related potential energy functions for molecular mechanics and dynamics simulations. *Journal of Computational Chemistry*, 20(10):1067–1084, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lommerse:1997:HBC

- [LPT97] Jos P. M. Lommerse, Sarah L. Price, and Robin Taylor. Hydrogen bonding of carbonyl, ether, and ester oxygen atoms with alkanol hydroxyl groups. *Journal of Computational Chemistry*, 18(6):757–774, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liwo:1997:URFb

- [LPW⁺97] A. Liwo, M. R. Pincus, R. J. Wawak, S. Rackovsky, S. Ołdziej, and H. A. Scheraga. A united-residue force field for off-lattice protein-structure simulations. II. Parameterization of

short-range interactions and determination of weights of energy terms by Z-score optimization. *Journal of Computational Chemistry*, 18(7):874–887, May 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1994:CMM

- [LS94] Haiyan Liu and Yunyu Shi. Combined molecular mechanical and quantum mechanical potential study of a nucleophilic addition reaction in solution. *Journal of Computational Chemistry*, 15(11):1311–1318, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Laidig:1996:ORA

- [LS96] Keith E. Laidig and Andrew Streitwieser. Origins of relative acidity: First and second period hydrides. *Journal of Computational Chemistry*, 17(15):1771–1781, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Leung:1998:TSS

- [LS98] Simon Shun-Wang Leung and Andrew Streitwieser. Theoretical study of structure of alkali metal cyanates and isocyanates and their related ion pair S_N2 reactions. *Journal of Computational Chemistry*, 19(12):1325–1336, September 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Labanowski:1998:HFO

- [LSCA98] Jan Labanowski, Lawrence Schmitz, Kuo-Hsiang Chen, and Norman L. Allinger. Heats of formation of organic molecules calculated by density functional theory: II. Alkanes. *Journal of Computational Chemistry*, 19(12):1421–1430, September 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lewin:1999:CMC

- [LSDB99] Anita H. Lewin, Jennifer B. Sorensen, John A. Dustman, and J. Phillip Bowen. Computational methods for conformational analysis of unsymmetrical 1,3-diamines: 3-aminotropanes. *Journal of Computational Chemistry*, 20(13):1371–1378, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- Llamas-Saiz:1995:GPT**
- [LSFFM⁺95] Antonio L. Llamas-Saiz, Concepción Foces-Foces, Otilia Mó, Manuel Yáñez, Eric Elguero, and José Elguero. The geometry of pyrazole: a test for ab initio calculations. *Journal of Computational Chemistry*, 16(3):263–272, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Lee:1997:NOM**
- [LSR97] Jooyoung Lee, Harold A. Scheraga, and S. Rackovsky. New optimization method for conformational energy calculations on polypeptides: Conformational space annealing. *Journal of Computational Chemistry*, 18(9):1222–1232, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Lopez:1996:ISF**
- [LSSvRS96] Ramón López, José A. Sordo, Tomás L. Sordo, and Paul von Ragué Schleyer. Ab initio study of the formation of C₃H₃⁺ from the reaction of CH₃⁺ with acetylene. *Journal of Computational Chemistry*, 17(7):905–909, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Li:1996:ETI**
- [LTHY96] Xiang-Yuan Li, An-Min Tian, Fu-Cheng He, and Guo-Sen Yan. Electron transfer integral between two zero-overlap states. *Journal of Computational Chemistry*, 17(9):1108–1111, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Luke:1994:SCC**
- [Luk94] Brian T. Luke. Stable conformations of CH₃CH₂OCH₂CH₂OH: a comparison of theoretical methods. *Journal of Computational Chemistry*, 15(10):1176–1185, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Lenz:1990:FFC**
- [LV90] Terry G. Lenz and John D. Vaughan. Force field calculation of equilibrium thermodynamic properties: Diels–Alder reaction of 1,3-butadiene and ethylene and Diels–Alder dimerization of 1,3-butadiene. *Journal of Computational Chemistry*, 11 (3):351–360, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luzhkov:1992:MMQ

- [LW92] V. Luzhkov and A. Warshel. Microscopic models for quantum mechanical calculations of chemical processes in solutions: LD/AMPAC and SCAAS/AMPAC calculations of solvation energies. *Journal of Computational Chemistry*, 13(2):199–213, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lin:1994:FES

- [LW94] Ching-Lung Lin and Robert H. Wood. Free energy of solvation of a small Lennard-Jones particle. *Journal of Computational Chemistry*, 15(2):149–154, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Li:1995:PIM

- [LWNS95] Y. S. Li, M. C. Wrinn, J. M. Newsam, and M. P. Sears. Parallel implementation of a mesh-based density functional electronic structure code. *Journal of Computational Chemistry*, 16(2):226–234, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Luty:1995:MMG

- [LWS⁺95] Brock A. Luty, Zelda R. Wasserman, Pieter F. W. Stouten, C. Nicholas Hodge, Martin Zacharias, and J. Andrew McCammon. A molecular mechanics/grid method for evaluation of ligand–receptor interactions. *Journal of Computational Chemistry*, 16(4):454–464, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liang:1995:FFS

- [LYH⁺95] Congxin Liang, Liqun Yan, Jörg-R. Hill, Carl S. Ewig, Terry R. Stouch, and Arnold T. Hagler. Force field studies of cholesterol and cholestryl acetate crystals and cholesterol–cholesterol intermolecular interactions. *Journal of Computational Chemistry*, 16(7):883–897, July 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Lu:1991:POM

- [LZT91] Da-Hong Lu, Meishan Zhao, and Donald G. Truhlar. Projection operator method for geometry optimization with constraints. *Journal of Computational Chemistry*, 12(3):376–384,

April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Liu:1998:TIU

[LZZ98]

Ruifeng Liu, Xuefeng Zhou, and Lei Zhai. Theoretical investigation of unimolecular decomposition channels of furan4. *Journal of Computational Chemistry*, 19(2):240–249, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Magnusson:1993:SFMb

[Mag93a]

Eric Magnusson. Supplementary *d* and *f* functions in molecular wave functions at large and small internuclear separations. *Journal of Computational Chemistry*, 14(1):67–74, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Magnusson:1993:SFMa

[Mag93b]

Eric Magnusson. Supplementary *d* and *f* functions in molecular wave functions: Optimum and nonoptimum exponents. *Journal of Computational Chemistry*, 14(1):54–66, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Magnusson:1995:EBM

[Mag95]

Eric Magnusson. Electrostatic bonding models: a test on group 1 and 2 metal complexes with H₂O, NH₃, H₂S, PH₃, and related ligands. *Journal of Computational Chemistry*, 16(8):1027–1037, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

MagelaeSilva:1997:ECE

[MAP97]

Geraldo Magela e Silva, Paulo Hora Acioli, and Antonio Carlos Pedroza. Estimating correlation energy of diatomic molecules and atoms with neural networks. *Journal of Computational Chemistry*, 18(11):1407–1414, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Marchese:1990:CNB

[Mar90]

Francis T. Marchese. Coordination numbers for biomolecular hydration: a quantitative method based on pattern recognition analysis of Monte Carlo simulations of aqueous solutions. *Journal of Computational Chemistry*, 11(3):374–381, April 1990.

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Marynick:1997:AMEa

- [Mar97a] Dennis S. Marynick. Accurate molecular electrostatic potentials based on modified PRDDO/M wave functions. I. Electrostatic potential derived atomic charges. *Journal of Computational Chemistry*, 18(7):955–969, May 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Marynick:1997:AMEb

- [Mar97b] Dennis S. Marynick. Accurate molecular electrostatic potentials based on modified PRDDO/M wave functions: II. Electrostatic potentials inside the molecular van der Waals envelope. *Journal of Computational Chemistry*, 18(13):1682–1693, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Marynick:1998:AME

- [Mar98] Dennis S. Marynick. Accurate molecular electrostatic potentials based on modified PRDDO/M wave functions: III. Extension of the PESP method for calculation of electrostatic potential-derived atomic charges to compounds containing Li⁺, Na⁺, Mg²⁺, K⁺, Ca²⁺, Zn²⁺, and I. *Journal of Computational Chemistry*, 19(13):1456–1469, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mazur:1997:QHE

- [Maz97] Alexey K. Mazur. Quasi-Hamiltonian equations of motion for internal coordinate molecular dynamics of polymers. *Journal of Computational Chemistry*, 18(11):1354–1364, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

McDowell:1996:DMD

- [McD96] S. A. C. McDowell. Dipole moment derivatives and integrated intensities for the vibrational transitions of N₂ . . . HF. *Journal of Computational Chemistry*, 17(11):1339–1343, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

McDowell:1997:RFC

- [McD97] Sean A. C. McDowell. Relation of the force constant of a bond to the electric field at a nucleus. *Journal of Computational Chemistry*, 18(13):1664–1667, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Marquez:1995:PCM

- [MD95] Antonio M. Márquez and Michel Dupuis. Parallel computation of the MP2 energy on distributed memory computers. *Journal of Computational Chemistry*, 16(4):395–404, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Merz:1992:ALD

- [Mer92] Kenneth M. Merz Jr. Analysis of a large data base of electrostatic potential derived atomic charges. *Journal of Computational Chemistry*, 13(6):749–767, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mezey:1991:BRB

- [Mez91] Paul G. Mezey. Book review: *Topological methods in chemistry*, by R. E. Merrifield and H. E. Simmons, Wiley Interscience, New York, 1989. pp. 233 + ix pp. Price: \$35.00. *Journal of Computational Chemistry*, 12(1):139, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mezei:1992:PPC

- [Mez92] Mihaly Mezei. Polynomial path for the calculation of liquid state free energies from computer simulations tested on liquid water. *Journal of Computational Chemistry*, 13(5):651–656, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mezei:1997:OPS

- [Mez97] Mihaly Mezei. Optimal position of solute for simulations. *Journal of Computational Chemistry*, 18(6):812–815, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mezey:1998:AED

- [Mez98] Paul G. Mezey. Averaged electron densities for averaged conformations. *Journal of Computational Chemistry*, 19(12):1337–1344, September 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Martin:1991:CCM

- [MFG91] J. M. L. Martin, J. P. François, and R. Gijbels. A critical comparison of MINDO/3, MNDO, AM1, and PM3 for a model problem: Carbon clusters C₂–C₁₀. An ad hoc reparametrization of MNDO well suited for the accurate prediction of their spectroscopic constants. *Journal of Computational Chemistry*, 12(1):52–70, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Metzger:1997:CAI

- [MFG97] Thomas G. Metzger, David M. Ferguson, and William A. Glauser. A computational analysis of interaction energies in methane and neopentane dimer systems. *Journal of Computational Chemistry*, 18(1):70–79, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mohle:1997:SER

- [MGH97] Kerstin Möhle, Martin Gußmann, and Hans-Jörg Hofmann. Structural and energetic relations between β turns. *Journal of Computational Chemistry*, 18(11):1415–1430, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Morris:1998:ADU

- [MGH⁺98] Garrett M. Morris, David S. Goodsell, Robert S. Halliday, Ruth Huey, William E. Hart, Richard K. Belew, and Arthur J. Olson. Automated docking using a Lamarckian genetic algorithm and an empirical binding free energy function. *Journal of Computational Chemistry*, 19(14):1639–1662, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Masgrau:1999:ECF

- [MGLL99] Laura Masgrau, Àngels González-Lafont, and José M. Lluch. Effect of a complex formation on the calculated low-pressure rate constant of a bimolecular gas-phase reaction governed by

tunneling. *Journal of Computational Chemistry*, 20(16):1685–1692, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Murray:1990:EFM

- [MGPR90] Jane S. Murray, M. Edward Grice, Peter Politzer, and James R. Rabinowitz. Evaluation of a finite multipole expansion technique for the computation of electrostatic potentials of dibenzo-*p*-dioxins and related systems. *Journal of Computational Chemistry*, 11(1):112–120, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitin:1997:AAG

- [MHB97] Alexander V. Mitin, Gerhard Hirsch, and Robert J. Buenker. Accurate atomic Gaussian basis functions for second-row atoms: Small split-valence 3-21SP and 4-22SP basis sets. *Journal of Computational Chemistry*, 18(9):1200–1210, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Maple:1998:DCI

- [MHJ⁺98] J. R. Maple, M.-J. Hwang, K. J. Jalkanen, T. P. Stockfisch, and A. T. Hagler. Derivation of class II force fields: V. Quantum force field for amides, peptides, and related compounds. *Journal of Computational Chemistry*, 19(4):430–458, March 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Maple:1994:DCI

- [MHS⁺94] J. R. Maple, M.-J. Hwang, T. P. Stockfisch, U. Dinur, M. Waldman, C. S. Ewig, and A. T. Hagler. Derivation of class II force fields. I. Methodology and quantum force field for the alkyl functional group and alkane molecules. *Journal of Computational Chemistry*, 15(2):162–182, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Masamura:1999:IMO

- [MI99] Masao Masamura and Shigeru Ikuta. Ab initio molecular orbital study on structures and energetics of $\text{CH}_3\text{O}^-(\text{H}_2\text{O})_n$ and $\text{CH}_3\text{S}^-(\text{H}_2\text{O})_n$ in gas phase. *Journal of Computational Chemistry*, 20(11):1138–1144, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Miller:1990:FSD

- [Mil90] Kenneth J. Miller. First and second derivative matrix elements for linear and out-of-plane bending motion. *Journal of Computational Chemistry*, 11(3):336–345, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitin:1994:IMC

- [Mit94] Alexander V. Mitin. Iterative methods for the calculation of a few of the lowest eigenvalues and corresponding eigenvectors of the $AX = \lambda BX$ equation with real symmetric matrices of large dimension. *Journal of Computational Chemistry*, 15(7):747–751, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitin:1998:CRE

- [Mit98a] Alexander V. Mitin. Calculation of rovibrational energy levels of diatomic molecules by Dunham method with potential obtained from ab initio calculations. *Journal of Computational Chemistry*, 19(1):94–101, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitin:1998:USR

- [Mit98b] Alexander V. Mitin. Use of symmetric rank-one Hessian update in molecular geometry optimization. *Journal of Computational Chemistry*, 19(16):1877–1886, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

McGarrah:1993:AGA

- [MJ93] D. B. McGarrah and R. S. Judson. Analysis of the genetic algorithm method of molecular conformation determination. *Journal of Computational Chemistry*, 14(11):1385–1395, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Meza:1996:CDS

- [MJFT96] J. C. Meza, R. S. Judson, T. R. Faulkner, and A. M. Treasurywala. A comparison of a direct search method and a genetic algorithm for conformational searching. *Journal of Computational Chemistry*, 17(9):1142–1151, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Morley:1992:DMH

- [MJSV92] S. D. Morley, D. E. Jackson, M. R. Saunders, and J. G. Vinter. DMC: a multifunctional hybrid dynamics/Monte Carlo simulation algorithm for the evaluation of conformational space. *Journal of Computational Chemistry*, 13(6):693–703, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Miyamoto:1992:SAV

- [MK92] Shuichi Miyamoto and Peter A. Kollman. Settle: an analytical version of the SHAKE and RATTLE algorithm for rigid water models. *Journal of Computational Chemistry*, 13(8):952–962, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Matyska:1994:DCS

- [MK94] Luděk Matyska and Jaroslav Koča. D-CICADA: a software for conformational PES elucidation on network of workstations. *Journal of Computational Chemistry*, 15(9):937–946, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Makino:1997:AFL

- [MK97a] Shingo Makino and Irwin D. Kuntz. Automated flexible ligand docking method and its application for database search. *Journal of Computational Chemistry*, 18(14):1812–1825, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

McMahon:1997:OCM

- [MK97b] Alan J. McMahon and Paul M. King. Optimization of Carbó molecular similarity index using gradient methods. *Journal of Computational Chemistry*, 18(2):151–158, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Makino:1998:EFC

- [MK98] Shingo Makino and Irwin D. Kuntz. ELECT++: Faster conformational search method for docking flexible molecules using molecular similarity. *Journal of Computational Chemistry*, 19(16):1834–1852, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mainz:1997:EPG

- [MKF⁺97] Daniel T. Mainz, Jasna J. Klicic, Richard A. Friesner, Jean-Marc Langlois, and Jason K. Perry. Extension of the PS-GVB electronic structure code to transition metal complexes. *Journal of Computational Chemistry*, 18(15):1863–1874, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Momany:1990:UCD

- [MKS90] Frank A. Momany, Valentine J. Klimkowski, and Lothar Schäfer. On the use of conformationally dependent geometry trends from ab initio dipeptide studies to refine potentials for the empirical force field CHARMM. *Journal of Computational Chemistry*, 11(5):654–662, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Milik:1997:ARR

- [MKS97] Mariusz Milik, Andrzej Kolinski, and Jeffrey Skolnick. Algorithm for rapid reconstruction of protein backbone from alpha carbon coordinates. *Journal of Computational Chemistry*, 18 (1):80–85, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Meng:1991:DMT

- [ML91] Elaine C. Meng and Richard A. Lewis. Determination of molecular topology and atomic hybridization states from heavy atom coordinates. *Journal of Computational Chemistry*, 12(7):891–898, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Morrison:1992:EKT

- [ML92] Robert C. Morrison and Guanghua Liu. Extended Koopmans' theorem: Approximate ionization energies from MCSCF wave functions. *Journal of Computational Chemistry*, 13(8):1004–1010, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitchell:1999:BPMb

- [MLA⁺99] John B. O. Mitchell, Roman A. Laskowski, Alexander Alex, Mark J. Forster, and Janet M. Thornton. BLEEP — potential of mean force describing protein–ligand interactions: II. Calculation of binding energies and comparison with experimental

data. *Journal of Computational Chemistry*, 20(11):1177–1185, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitchell:1999:BPMa

[MLAT99]

John B. O. Mitchell, Roman A. Laskowski, Alexander Alex, and Janet M. Thornton. BLEEP — potential of mean force describing protein-ligand interactions: I. Generating potential. *Journal of Computational Chemistry*, 20(11):1165–1176, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Marti:1992:VSE

[MLBD92]

Josep Martí, Agustí Lledós, Juan Bertrán, and Miquel Duran. Vibrational Stark effect: Theoretical determination through the semiempirical AM1 method. *Journal of Computational Chemistry*, 13(7):821–829, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitchell:1991:FED

[MM91]

Michael J. Mitchell and J. Andrew McCammon. Free energy difference calculations by thermodynamic integration: Difficulties in obtaining a precise value. *Journal of Computational Chemistry*, 12(2):271–275, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Magnusson:1993:CCE

[MM93]

Eric Magnusson and Nigel W. Moriarty. Computational convergence of electronic structure calculations of transition metal ligand complexes. *Journal of Computational Chemistry*, 14(8):961–969, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Malcolm:1994:VBVb

[MM94a]

Nathaniel O. J. Malcolm and Joseph J. W. McDouall. Variational biorthogonal valence bond descriptions of 1,3-dipoles. *Journal of Computational Chemistry*, 15(12):1365–1371, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Malcolm:1994:VBVa

[MM94b]

Nathaniel O. J. Malcolm and Joseph J. W. McDouall. A variational biorthogonal valence bond method. *Journal of Computa-*

tional Chemistry, 15(12):1357–1364, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Meza:1994:DSM

- [MM94c] J. C. Meza and M. L. Martinez. Direct search methods for the molecular conformation problem. *Journal of Computational Chemistry*, 15(6):627–632, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Maseras:1995:INI

- [MM95] Feliu Maseras and Keiji Morokuma. IMOMM: a new integrated ab initio + molecular mechanics geometry optimization scheme of equilibrium structures and transition states. *Journal of Computational Chemistry*, 16(9):1170–1179, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Meirovitch:1997:EMC

- [MM97] Hagai Meirovitch and Eva Meirovitch. Efficiency of Monte Carlo minimization procedures and their use in analysis of NMR data obtained from flexible peptides. *Journal of Computational Chemistry*, 18(2):240–253, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Morales:1992:GED

- [MN92] Juan J. Morales and María J. Nuevo. General expression for the density dependence of the mori coefficients. *Journal of Computational Chemistry*, 13(9):1119–1124, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Morales:1995:PIM

- [MN95] Juan J. Morales and María J. Nuevo. Path integral molecular dynamics methods: Application to neon. *Journal of Computational Chemistry*, 16(1):105–112, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Martinez-Nunez:1997:CAM

- [MNVM97] Emilio Martínez-Núñez, Saulo A. Vázquez, and Ricardo A. Mosquera. Conformational analysis of model compounds of vitamin D by theoretical calculations. *Journal of Computational Chemistry*, 18(13):1647–1655, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Morales:1993:PIT

- [Mor93] Juan J. Morales. Path integral theory: an improved simulation for the forces in semiclassical systems. *Journal of Computational Chemistry*, 14(6):728–735, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Marquez:1997:PCS

- [MOSD97] Antonio M. Márquez, Jaime Oviedo, Javier Fernández Sanz, and Michel Dupuis. Parallel computation of second derivatives of RHF energy on distributed memory computers. *Journal of Computational Chemistry*, 18(2):159–168, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mitchell:1990>NNH

- [MP90] John B. O. Mitchell and Sarah L. Price. The nature of the N — H···O — C hydrogen bond: an intermolecular perturbation theory study of the formamide/formaldehyde complex. *Journal of Computational Chemistry*, 11(10):1217–1233, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Magnuson:1998:TSD

- [MP98] Eric C. Magnuson and Julianto Pranata. Theoretical study of 1,3-dipolar cycloadditions of nitrone and fulminic acid with substituted ethylenes. *Journal of Computational Chemistry*, 19(16):1795–1804, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Moret:1998:SMO

- [MPBM98] M. A. Moret, P. G. Pascutti, P. M. Bisch, and K. C. Mundim. Stochastic molecular optimization using generalized simulated annealing. *Journal of Computational Chemistry*, 19(6):647–657, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Moscardo:1998:SCFa

- [MPJ98] F. Moscardó and Angel J. Pérez-Jiménez. Self-consistent field calculations using two-body density functionals for correlation energy component: I. Atomic systems. *Journal of Computational Chemistry*, 19(16):1887–1898, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Moscardo:1998:SCFb

- [MPJC98] F. Moscardó, Angel J. Pérez-Jiménez, and J. Américo Cjuno. Self-consistent field calculations using two-body density functionals for correlation energy component: II. Small molecules. *Journal of Computational Chemistry*, 19(16):1899–1908, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Minyaev:1997:ICD

- [MQS⁺97] Ruslan M. Minyaev, Wolfgang Quapp, Govindan Subramanian, Paul von R. Schleyer, and Yirong Mo. Internal conrotation and disrotation in H₂BCH₂BH₂ and diborylmethane 1,3 H exchange. *Journal of Computational Chemistry*, 18(14):1792–1803, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Momany:1992:VGP

- [MR92] Frank A. Momany and Rebecca Rone. Validation of the general purpose QUANTA(R) 3.2/CHARMm(R) force field. *Journal of Computational Chemistry*, 13(7):888–900, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Murcko:1993:CAH

- [MR93] Mark A. Murcko and B. Govinda Rao. Conformational analysis of HIV protease inhibitors. I. Rotation of the amide group adjacent to the P'1 decahydroisoquinoline ring system in Ro 31-8959 and related systems. *Journal of Computational Chemistry*, 14(12):1446–1453, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mohamadi:1990:MIS

- [MRG⁺90] Fariborz Mohamadi, Nigel G. J. Richards, Wayne C. Guida, Rob Liskamp, Mark Lipton, Craig Caufield, George Chang, Thomas Hendrickson, and W. Clark Still. Macromodel — an integrated software system for modeling organic and bioorganic molecules using molecular mechanics. *Journal of Computational Chemistry*, 11(4):440–467, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Murcko:1997:CAH

- [MRG97] Mark A. Murcko, B. Govinda Rao, and Roberto Gomperts. Conformational analysis of HIV-1 protease inhibitors: 2. Thio-proline P_{1'} residue in the potent inhibitor KNI-272. *Journal of Computational Chemistry*, 18(9):1151–1166, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mikkelsen:1999:SEN

- [MRH99] Kurt V. Mikkelsen, Kenneth Ruud, and Trygve Helgaker. Solvent effects on the NMR parameters of H₂S and HCN. *Journal of Computational Chemistry*, 20(12):1281–1291, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mestres:1997:MMF

- [MRM97] Jordi Mestres, Douglas C. Rohrer, and Gerald M. Maggiore. MIMIC: a molecular-field matching program. Exploiting applicability of molecular similarity approaches. *Journal of Computational Chemistry*, 18(7):934–954, May 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mineva:1998:SER

- [MRS98] Tzonka Mineva, Nino Russo, and Emilia Sicilia. Solvation effects on reaction profiles by the polarizable continuum model coupled with the Gaussian density functional method. *Journal of Computational Chemistry*, 19(3):290–299, February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

McEachern:1991:ICC

- [MRW91] R. J. McEachern, P. S. Rao, and J. A. Weil. Ab initio calculations on CO₄ centers in silicon dioxide. *Journal of Computational Chemistry*, 12(4):446–453, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Merrifield:1989:TMC

- [MS89] Richard E. Merrifield and Howard Simmons. *Topological Methods in Chemistry*. John Wiley, New York, NY, USA, 1989. ISBN 0-471-83817-9. ix + 233 pp. LCCN QD39.3.M3 M46 1989.

Mestres:1995:GAR

- [MS95] Jordi Mestres and Gustavo E. Scuseria. Genetic algorithms: a robust scheme for geometry optimizations and global minimum structure problems. *Journal of Computational Chemistry*, 16(6):729–742, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mastryukov:1998:AMG

- [MS98] Vladimir S. Mastryukov and Svein Samdal. Asymmetry in methyl group of ethane during internal rotation: ab initio study. *Journal of Computational Chemistry*, 19(10):1141–1145, July 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

McGaughey:1995:IMM

- [MSB95] Georgia B. McGaughey, Eugene L. Stewart, and J. Phillip Bowen. Ab initio and molecular mechanics (MM2 and MM3) calculations of nonconjugated positively charged nitrogen-containing compounds. *Journal of Computational Chemistry*, 16(10):1250–1260, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

McGaughey:1996:IMM

- [MSB96] Georgia B. McGaughey, Eugene L. Stewart, and J. Phillip Bowen. Ab initio and molecular mechanics (MM2 and MM3) calculations of positively charged conjugated nitrogen-containing compounds. *Journal of Computational Chemistry*, 17(12):1395–1405, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mestres:1994:CIQ

- [MSDC94] Jordi Mestres, Miquel Solà, Miquel Duran, and Ramon Carbó. On the calculation of ab initio quantum molecular similarities for large systems: Fitting the electron density. *Journal of Computational Chemistry*, 15(10):1113–1120, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Muller:1990:EGP

- [MSK⁺90] W. R. Müller, K. Szymanski, J. V. Knop, S. Nikolić, and N. Trinajstić. On the enumeration and generation of polyhex hydrocarbons. *Journal of Computational Chemistry*, 11(2):223–235,

March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Meng:1992:ADG

- [MSK92] Elaine C. Meng, Brian K. Shoichet, and Irwin D. Kuntz. Automated docking with grid-based energy evaluation. *Journal of Computational Chemistry*, 13(4):505–524, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Menendez:1995:TSG

- [MSSS95] M. I. Menéndez, D. Suárez, J. A. Sordo, and T. L. Sordo. Theoretical study of the gas-phase addition of HF and HCl to ethylene: Analysis of the catalytic action of dimeric halides. *Journal of Computational Chemistry*, 16(6):659–666, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mizan:1996:CRF

- [MSZ96] Tahmid I. Mizan, Phillip E. Savage, and Robert M. Ziff. Comparison of rigid and flexible simple point charge water models at supercritical conditions. *Journal of Computational Chemistry*, 17(15):1757–1770, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mertz:1991:VPA

- [MTBS91] John E. Mertz, Douglas J. Tobias, Charles L. Brooks III, and U. C. Singh. Vector and parallel algorithms for the molecular dynamics simulation of macromolecules on shared-memory computers. *Journal of Computational Chemistry*, 12(10):1270–1277, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Malhotra:1994:USD

- [MTH94] Arun Malhotra, Robert K.-Z. Tan, and Stephen C. Harvey. Utilization of shape data in molecular mechanics using a potential based on spherical harmonic surfaces. *Journal of Computational Chemistry*, 15(2):190–199, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Musolino:1990:ESP

- [MTR90] V. Musolino, M. Toscano, and N. Russo. Electronic structure and photoelectron spectra of Sb₂ and Sb₄ from local-spin-

density calculations. Model potential for Sb. *Journal of Computational Chemistry*, 11(8):924–929, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Maxwell:1995:CSR

- [MTRJ95] David S. Maxwell, Julian Tirado-Rives, and William L. Jorgensen. A comprehensive study of the rotational energy profiles of organic systems by ab initio MO theory, forming a basis for peptide torsional parameters. *Journal of Computational Chemistry*, 16(8):984–1010, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mullay:1991:SMC

- [Mul91] John Mullay. A simple method for calculating atomic charges in charged molecular systems of biochemical interest. *Journal of Computational Chemistry*, 12(3):369–375, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Maye:1991:HGP

- [MV91] P. V. Maye and C. A. Venanzi. Host-guest preorganization and complementarity: a molecular mechanics and molecular dynamics study of cation complexes of a cyclic urea-anisole spherand. *Journal of Computational Chemistry*, 12(8):994–1007, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Mooij:1998:CSP

- [MvEP⁺98] Wijnand T. M. Mooij, Bouke P. van Eijck, Sarah L. Price, Paul Verwer, and Jan Kroon. Crystal structure predictions for acetic acid. *Journal of Computational Chemistry*, 19(4):459–474, March 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Maerker:1997:CAE

- [MvRSL⁺97] Christoph Maerker, Paul von R. Schleyer, Klaus R. Liedl, T.-K. Ha, Martin Quack, and Martin A. Suhm. A critical analysis of electronic density functionals for structural, energetic, dynamic, and magnetic properties of hydrogen fluoride clusters. *Journal of Computational Chemistry*, 18(14):1695–1719, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Meier:1992:ICM

- [MVS92] Ulrich Meier, Christoph Van Wüllen, and Michael Schindler. Ab initio calculation of magnetic properties by the “direct” IGLO method. *Journal of Computational Chemistry*, 13(5):551–559, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nevins:1996:MMMc

- [NA96] Neysa Nevins and Norman L. Allinger. Molecular mechanics (MM4) vibrational frequency calculations for alkenes and conjugated hydrocarbons. *Journal of Computational Chemistry*, 17(5–6):730–746, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Noga:1999:ABL

- [NBB⁺99] Jozef Noga, Pavol Baňacký, Stanislav Biskupič, Roman Boča, Peter Pelikán, Michal Svrček, and Anton Zajac. Approaching bulk limit for three-dimensional solids via the cyclic cluster approximation: Semiempirical INDO study. *Journal of Computational Chemistry*, 20(2):253–261, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Norris:1993:TSP

- [NBG93] Kathryn E. Norris, George B. Bacskey, and Jill E. Gready. Theoretical study of “protonated pyruvate”: a methylhydroxycarbene–carbon dioxide complex — implications for the decarboxylation of pyruvic acid. *Journal of Computational Chemistry*, 14(6):699–714, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nagy:1994:CMM

- [NBS94] Peter I. Nagy, Joseph E. Bitar, and Douglas A. Smith. Comparison of the molecular mechanics + generalized Born/surface area and the ab initio + Monte Carlo simulation methods in estimating conformational equilibria in aqueous solution. *Journal of Computational Chemistry*, 15(11):1228–1240, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nevins:1996:MMMa

- [NCA96] Neysa Nevins, Kuohsiang Chen, and Norman L. Allinger. Molecular mechanics (MM4) calculations on alkenes. *Jour-*

nal of Computational Chemistry, 17(5–6):669–694, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Neto:1994:PAC

- [Net94] J. J. Soares Neto. Parallel algorithm for calculating ro-vibrational states of diatomic molecules. *Journal of Computational Chemistry*, 15(2):144–148, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nicholls:1991:RFD

- [NH91] Anthony Nicholls and Barry Honig. A rapid finite difference algorithm, utilizing successive over-relaxation to solve the Poisson–Boltzmann equation. *Journal of Computational Chemistry*, 12(4):435–445, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nicklaus:1997:CEC

- [Nic97] Marc C. Nicklaus. Conformational energies calculated by the molecular mechanics program CHARMM. *Journal of Computational Chemistry*, 18(8):1056–1060, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nilar:1991:ASA

- [Nil91] Shahul H. Nilar. Applications of the simulated annealing method to intermolecular interactions. *Journal of Computational Chemistry*, 12(8):1008–1013, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nakamura:1998:PAE

- [NIS98] Shugo Nakamura, Mitsunori Ikeguchi, and Kentaro Shimizu. Parallel algorithm for efficient calculation of second derivatives of conformational energy function in internal coordinates. *Journal of Computational Chemistry*, 19(15):1716–1723, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nagase:1998:RAS

- [NKA98] Shigeru Nagase, Kaoru Kobayashi, and Takeshi Akasaka. Recent advances in the structural determination of endohedral metallofullerenes. *Journal of Computational Chemistry*, 19(2):232–239, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Neto:1991:FTD

- [NL91] J. J. Soares Neto and Jan Linderberg. A fully three-dimensional finite element method calculation for the vibrational levels of H₂O and D₂O. *Journal of Computational Chemistry*, 12(10):1237–1242, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Norrby:1998:AMM

- [NL98] Per-Ola Norrby and Tommy Liljefors. Automated molecular mechanics parameterization with simultaneous utilization of experimental and quantum mechanical data. *Journal of Computational Chemistry*, 19(10):1146–1166, July 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nevins:1996:MMMb

- [NLA96] Neysa Nevins, Jenn-Huei Lii, and Norman L. Allinger. Molecular mechanics (MM4) calculations on conjugated hydrocarbons. *Journal of Computational Chemistry*, 17(5–6):695–729, April 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Niesse:1997:GOA

- [NM97] J. A. Niesse and Howard R. Mayne. Global optimization of atomic and molecular clusters using the space-fixed modified genetic algorithm method. *Journal of Computational Chemistry*, 18(9):1233–1244, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nonella:1997:ECD

- [Non97] Marco Nonella. Effect of charge distribution on electrostatic chromophore–protein interactions in Bacteriorhodopsin. *Journal of Computational Chemistry*, 18(5):677–693, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nobel:1997:HBP

- [NPLT97] I. Nobel, S. L. Price, J. P. M. Lommerse, and R. Taylor. Hydrogen bonding properties of oxygen and nitrogen acceptors in aromatic heterocycles. *Journal of Computational Chemistry*, 18(16):2060–2074, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ning:1999:MDS

- [NQ99] Xi-Jing Ning and Qi-Zong Qin. Molecular dynamics simulation of O₃ photolysis by ultraviolet light in solid argon. *Journal of Computational Chemistry*, 20(6):623–628, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nielsen:1995:PDI

- [NS95] Ida M. B. Nielsen and Edward T. Seidl. Parallel direct implementations of second-order perturbation theories. *Journal of Computational Chemistry*, 16(10):1301–1313, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Norinder:1998:DAA

- [NS98] Ulf Norinder and Peter Svensson. Descriptors for amino acids using MolSurf parametrization. *Journal of Computational Chemistry*, 19(1):51–59, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nguyen:1997:DFS

- [NSA⁺97] D. T. Nguyen, A. C. Scheiner, J. W. Andzelm, S. Sirois, D. R. Salahub, and A. T. Hagler. A density functional study of the glycine molecule: Comparison with post-Hartree–Fock calculations and experiment. *Journal of Computational Chemistry*, 18(13):1609–1631, October 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Noid:1990:MDS

- [NSWP90] D. W. Noid, B. G. Sumpter, B. Wunderlich, and G. A. Pfeffer. Molecular dynamics simulations of polymers: Methods for optimal Fortran programming. *Journal of Computational Chemistry*, 11(2):236–241, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nakajima:1996:REM

- [NTK96] Hideo Nakajima, Ohgi Takahashi, and Osamu Kikuchi. Rapid evaluation of molecular electrostatic potential maps for amino acids, peptides, and proteins by empirical functions. *Journal of Computational Chemistry*, 17(7):790–805, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nyulaszi:1997:RCR

- [NVER97] László Nyulászi, Péter Várnai, Wolfgang Eisfeld, and Manfred Regitz. Regioselectivity in cycloaddition reaction between phosphaacetylene and diazomethane: an ab initio study. *Journal of Computational Chemistry*, 18(5):609–616, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nissink:1997:SME

- [NVK⁺97] J. W. M. Nissink, M. L. Verdonk, J. Kroon, T. Mietzner, and G. Klebe. Superposition of molecules: Electron density fitting by application of Fourier transforms. *Journal of Computational Chemistry*, 18(5):638–645, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Nayeem:1991:CSS

- [NVS91] Akbar Nayeem, Jorge Vila, and Harold A. Scheraga. A comparative study of the simulated-annealing and Monte Carlo-with-minimization approaches to the minimum-energy structures of polypeptides: [Met]-enkephalin. *Journal of Computational Chemistry*, 12(5):594–605, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Norrby:1995:UCD

- [NWÅM95] Per-Ola Norrby, Kenneth Wärnmark, Björn Åkermark, and Christina Moberg. Unusual conformational-determining interactions in oxymethylpyridines: an ab initio study and an improved method for refining molecular mechanics parameters. *Journal of Computational Chemistry*, 16(5):620–627, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Oberhammer:1998:MSC

- [Obe98] Heinz Oberhammer. Molecular structures and conformations: Experiment and theory. *Journal of Computational Chemistry*, 19(2):123–128, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Orozco:1995:DOM

- [OBL95] Modesto Orozco, M. Bachs, and F. J. Luque. Development of optimized MST/SCRF methods for semiempirical calculations: the MNDO and PM3 Hamiltonians. *Journal of Com-*

putational Chemistry, 16(5):563–575, May 1995. CODEN JC-CHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ou:1998:MDS

[OC98]

Jane J. Ou and Shaw H. Chen. Molecular dynamics simulation of organic glass formers: I. ortho-terphenyl and 1,3,5-tri- α -naphthyl benzene. *Journal of Computational Chemistry*, 19(1):86–93, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Orozco:1993:CBM

[OJL93]

Modesto Orozco, William L. Jorgensen, and F. J. Luque. Comparison of 6-31G*-based MST/SCRF and FEP evaluations of the free energies of hydration for small neutral molecules. *Journal of Computational Chemistry*, 14(12):1498–1503, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Orozco:1990:UAM

[OL90]

M. Orozco and F. J. Luque. On the use of AM1 and MNDO wave functions to compute accurate electrostatic charges. *Journal of Computational Chemistry*, 11(8):909–923, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Orozco:1993:ISB

[OL93a]

Modesto Orozco and F. J. Luque. Ab initio study of bond stretching: Implications in force-field parametrization for molecular mechanics and dynamics. *Journal of Computational Chemistry*, 14(8):881–894, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Orozco:1993:MIP

[OL93b]

Modesto Orozco and F. J. Luque. Molecular interaction potential: a new tool for the theoretical study of molecular reactivity. *Journal of Computational Chemistry*, 14(5):587–602, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ott:1996:PGF

[OM96]

Karl-Heinz Ott and Bernd Meyer. Parametrization of GROMOS force field for oligosaccharides and assessment of effi-

ciency of molecular dynamics simulations. *Journal of Computational Chemistry*, 17(8):1068–1084, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Omalley:1999:HDF

- [O'm99] Patrick J. O'malley. Hybrid density functional studies of a bacteriopheophytin a model and its anion radical form: Geometry, spin densities, and hyperfine couplings. *Journal of Computational Chemistry*, 20(12):1292–1298, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

O'Donnell:1991:GAA

- [ORK⁺91] T. J. O'Donnell, Shashidhar N. Rao, Konrad Koehler, Yvonne C. Martin, and Beverly Eccles. A general approach for atom-type assignment and the interconversion of molecular structure files. *Journal of Computational Chemistry*, 12(2):209–214, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Olivella:1991:HPH

- [OS91] Santiago Olivella and José Salvador. The half-projected Hartree–Fock model for computing thermally “forbidden” pericyclic reactions. *Journal of Computational Chemistry*, 12(7):792–802, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Okunbor:1994:CNM

- [OS94] Daniel I. Okunbor and Robert D. Skeel. Canonical numerical methods for molecular dynamics simulations. *Journal of Computational Chemistry*, 15(1):72–79, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Oberlin:1998:BSM

- [OS98] Daniel Oberlin and Harold A. Scheraga. B-spline method for energy minimization in grid-based molecular mechanics calculations. *Journal of Computational Chemistry*, 19(1):71–85, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Overill:1991:TTN

- [Ove91] Richard E. Overill. Towards the truly nonempirical computation of hyperfine interactions: a contribution to the debate on

the *t*-butyl radical. *Journal of Computational Chemistry*, 12(2):231–236, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pacios:1993:ADD

[Pac93]

L. Fernandez Pacios. Analytical density-dependent representation of Hartree–Fock atomic potentials. *Journal of Computational Chemistry*, 14(4):410–421, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pacios:1995:ARS

[Pac95]

L. Fernández Pacios. Atomic radii scales and electron properties deduced from the charge density. *Journal of Computational Chemistry*, 16(2):133–145, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Paolini:1990:BOB

[Pao90]

John P. Paolini. The bond order–bond length relationship. *Journal of Computational Chemistry*, 11(10):1160–1163, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Parker:1999:RBP

[Par99]

J. M. R. Parker. The relationship between peptide plane rotation (PPR) and similar conformations. *Journal of Computational Chemistry*, 20(9):947–955, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pascual-Ahuir:1990:GID

[PAS90]

Juan Luis Pascual-Ahuir and Estanislao Silla. GEPOL: an improved description of molecular surfaces. I. Building the spherical surface set. *Journal of Computational Chemistry*, 11(9):1047–1060, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Peng:1996:URI

[PASF96]

Chunyang Peng, Philippe Y. Ayala, H. Bernhard Schlegel, and Michael J. Frisch. Using redundant internal coordinates to optimize equilibrium geometries and transition states. *Journal of Computational Chemistry*, 17(1):49–56, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pascual-ahuir:1994:GID

- [PaST94] J. L. Pascual-ahuir, E. Silla, and I. Tuñon. GEPOL: an improved description of molecular surfaces. III. A new algorithm for the computation of a solvent-excluding surface. *Journal of Computational Chemistry*, 15(10):1127–1138, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Peyman:1992:MRP

- [PB92] Anusch Peyman and Hans-Dieter Beckhaus. Modeling a reaction path by molecular mechanics: Dimerization of carbon free radicals. *Journal of Computational Chemistry*, 13(5):541–550, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pla:1991:OMP

- [PBRP91] F. Perez Pla, J. J. Baeza Baeza, G. Ramis Ramos, and J. Palou. OPKINE, a multipurpose program for kinetics. *Journal of Computational Chemistry*, 12(3):283–291, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pullman:1997:TSB

- [PBS97] A. Pullman, G. Berthier, and R. Savinelli. Theoretical study of binding of tetramethylammonium ion with aromatics. *Journal of Computational Chemistry*, 18(16):2012–2022, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pratt:1993:HDS

- [PC93] Lawrence M. Pratt and C. C. Chu. Hydrolytic degradation of α -substituted polyglycolic acids: a semiempirical computational study. *Journal of Computational Chemistry*, 14(7):809–817, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pisani:1994:RDF

- [PC94a] L. Pisani and E. Clementi. Relativistic Dirac–Fock calculations for closed-shell molecules. *Journal of Computational Chemistry*, 15(4):466–474, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pratt:1994:CSH

- [PC94b] Lawrence M. Pratt and C. C. Chu. Computational study of the hydrolysis of degradable polysaccharide biomaterials: Substituent effects on the hydrolytic mechanism. *Journal of Computational Chemistry*, 15(2):241–248, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Perrot:1992:MPR

- [PCG⁺92] G. Perrot, B. Cheng, K. D. Gibson, J. Vila, K. A. Palmer, A. Nayeem, B. Maigret, and H. A. Scheraga. MSEED: a program for the rapid analytical determination of accessible surface areas and their derivatives. *Journal of Computational Chemistry*, 13(1):1–11, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Peishoff:1992:IDG

- [PD92] Catherine E. Peishoff and J. Scott Dixon. Improvements to the distance geometry algorithm for conformational sampling of cyclic structures. *Journal of Computational Chemistry*, 13 (5):565–569, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ponec:1999:EPC

- [PD99] Robert Ponec and Anthony J. Duben. Electron pairing and chemical bonds: Bonding in hypervalent molecules from analysis of Fermi holes. *Journal of Computational Chemistry*, 20 (8):760–771, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Procacci:1997:OMD

- [PDPM97] Piero Procacci, Tom A. Darden, Emanuele Paci, and Massimo Marchi. ORAC: a molecular dynamics program to simulate complex molecular systems with realistic electrostatic interactions. *Journal of Computational Chemistry*, 18(15):1848–1862, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Polavarapu:1992:ICM

- [PE92] P. L. Polavarapu and C. S. Ewig. Ab initio computed molecular structures and energies of the conformers of glucose. *Journal of Computational Chemistry*, 13(10):1255–1261, December

1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pearlman:1994:FED

[Pea94]

David A. Pearlman. Free energy derivatives: a new method for probing the convergence problem in free energy calculations. *Journal of Computational Chemistry*, 15(1):105–123, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Petke:1993:CDS

[Pet93]

J. D. Petke. Cumulative and discrete similarity analysis of electrostatic potentials and fields. *Journal of Computational Chemistry*, 14(8):928–933, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Petitjean:1994:ACV

[Pet94]

Michel Petitjean. On the analytical calculation of van der Waals surfaces and volumes: Some numerical aspects. *Journal of Computational Chemistry*, 15(5):507–523, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Petitjean:1995:GMS

[Pet95]

Michel Petitjean. Geometric molecular similarity from volume-based distance minimization: Application to saxitoxin and tetrodotoxin. *Journal of Computational Chemistry*, 16(1):80–90, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Philipp:1999:MIQ

[PF99]

Dean M. Philipp and Richard A. Friesner. Mixed ab initio QM/MM modeling using frozen orbitals and tests with alanine dipeptide and tetrapeptide. *Journal of Computational Chemistry*, 20(14):1468–1494, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Perczel:1996:PMX

[PFC96]

András Perczel, Ödön Farkas, and Imre G. Csizmadia. Peptide models XVI. The identification of selected HCO-L-SER-NH₂ conformers via a systematic grid search using ab initio potential energy surfaces. *Journal of Computational Chemistry*, 17

(7):821–834, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Papadakis:1997:CLS

- [PFFF97] J. Papadakis, G. S. Fanourgakis, S. C. Farantos, and M. Founargiotakis. Comparison of line search minimization algorithms for exploring topography of multidimensional potential energy surfaces: Mg^+Ar_n case. *Journal of Computational Chemistry*, 18(8):1011–1022, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Po:1993:IMO

- [PFLH93] Henry N. Po, Fillmore Freeman, Choonsun Lee, and Warren J. Hehre. Ab initio molecular orbital calculations for 3,6-dihydro-1,2-dithiin and 3,6-dihydro-1,2-dioxin. *Journal of Computational Chemistry*, 14(11):1376–1384, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Price:1991:TAT

- [PFM91] S. L. Price, C. H. Faerman, and C. W. Murray. Toward accurate transferable electrostatic models for polypeptides: a distributed multipole study of blocked amino acid residue charge distributions. *Journal of Computational Chemistry*, 12(10):1187–1197, December 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pacchioni:1997:IMP

- [PFMI97] Gianfranco Pacchioni, Anna Maria Ferrari, Antonio M. Márquez, and Francesc Illas. Importance of Madelung potential in quantum chemical modeling of ionic surfaces. *Journal of Computational Chemistry*, 18(5):617–628, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pettersson:1991:CER

- [PG91] Ingrid Pettersson and Klaus Gundertofte. Conformational energies and rotational barriers in 3-methyl-1-butene and 1-butene: an ab initio and molecular mechanics study. *Journal of Computational Chemistry*, 12(7):839–843, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pacíos:1998:RBG

- [PG98] L. F. Pacíos and P. C. Gómez. Radial behavior of gradient expansion approximation to atomic Fukui function and shell structure of atoms. *Journal of Computational Chemistry*, 19(5):488–503, April 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pothier:1993:MQN

- [PGAL93] Joël Pothier, Jacques Gabarro-Arpa, and Marc Le Bret. MORMIN: a quasi-Newtonian energy minimizer fitting the nuclear Overhauser data. *Journal of Computational Chemistry*, 14(2):226–236, February 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pavelites:1997:MMF

- [PGBM97] Joseph J. Pavelites, Jiali Gao, Paul A. Bash, and Alexander D. Mackerell Jr. A molecular mechanics force field for NAD⁺, NADH, and the pyrophosphate groups of nucleotides. *Journal of Computational Chemistry*, 18(2):221–239, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Plimpton:1996:NPM

- [PH96] Steve Plimpton and Bruce Hendrickson. A new parallel method for molecular dynamics simulation of macromolecular systems. *Journal of Computational Chemistry*, 17(3):326–337, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pertsin:1994:IBL

- [PHG94] Alexander J. Pertsin, Jutta Hahn, and Hans P. Grossmann. Incorporation of bond-length constraints in Monte Carlo simulations of cyclic and linear molecules: Conformational sampling for cyclic alkanes as test systems. *Journal of Computational Chemistry*, 15(10):1121–1126, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Phillips:1990:CLT

- [Phi90] Leon F. Phillips. Calculation of Langevin-type capture rate constants for rotating molecules with arbitrary interaction potentials. *Journal of Computational Chemistry*, 11(1):88–93,

January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Potter:1991:GOS

- [PK91] T. Pötter and M. Klessinger. Geometry optimization in semiempirical SCF-MO-CI calculations. *Journal of Computational Chemistry*, 12(2):167–171, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pratt:1995:DFT

- [PK95] Lawrence M. Pratt and Ishrat M. Khan. A density functional treatment of organolithium compounds: Comparison to ab initio, semiempirical, and experimental results. *Journal of Computational Chemistry*, 16(9):1067–1080, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Palmo:1998:EMI

- [PK98] Kim Palmo and Samuel Krimm. Electrostatic model for infrared intensities in a spectroscopically determined molecular mechanics force field. *Journal of Computational Chemistry*, 19(7):754–768, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Potter:1999:MDC

- [PKCM99] Michael J. Potter, Paul D. Kirchhoff, Heather A. Carlson, and J. Andrew McCammon. Molecular dynamics of cryptophane and its complexes with tetramethylammonium and neopentane using a continuum solvent model. *Journal of Computational Chemistry*, 20(9):956–970, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Park:1995:DNA

- [PKN⁺95] Je Myung Park, Oh Young Kwon, Kyung Tai No, Mu Shik Jhon, and Harold A. Scheraga. Determination of net atomic charges using a modified partial equalization of orbital electronegativity method. IV. Application to hypervalent sulfur- and phosphorus-containing molecules. *Journal of Computational Chemistry*, 16(8):1011–1026, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

- [PKRR97] Martin F. Parretti, Romano T. Kroemer, Jeffrey H. Rothman, and W. Graham Richards. Alignment of molecules by the Monte Carlo optimization of molecular similarity indices. *Journal of Computational Chemistry*, 18(11):1344–1353, August 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Parretti:1997:AMM**
- [PL94] Ian J. Palmer and Janos Ladik. New implementation of a program to calculate correlated band structures of polymers: an application to the band structure of polyparaphenylenne (PPP). *Journal of Computational Chemistry*, 15(8):814–819, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Palmer:1994:NIP**
- [PLB92] Victor Pérez, José M. Lluch, and Juan Bertrán. Monte Carlo simulation of the diabatic free energy curves for a dissociative electron transfer reaction in a polar solvent. *Journal of Computational Chemistry*, 13(9):1057–1065, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Perez:1992:MCS**
- [PLY98] Wei Pan, Tai-Sung Lee, and Weitao Yang. Parallel implementation of divide-and-conquer semiempirical quantum chemistry calculations. *Journal of Computational Chemistry*, 19(9):1101–1109, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Pan:1998:PID**
- [PM93] David A. Pearlman and Mark A. Murcko. CONCEPTS: New dynamic algorithm for de novo drug suggestion. *Journal of Computational Chemistry*, 14(10):1184–1193, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). **Pearlman:1993:CND**
- [PMHRG97] K. Pointet, A. Milliet, S. Hoyau, and M. F. Renou-Gonnord. Proton affinities of polybenzenoid aromatic hydrocarbons and those with five-membered rings. *Journal of Computational* **Pointet:1997:PAP**

Chemistry, 18(5):629–637, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pascutti:1999:PEP

[PMIB99]

Pedro G. Pascutti, Kleber C. Mundim, Amando S. Ito, and Paulo M. Bisch. Polarization effects on peptide conformations at water–membrane interface by molecular dynamics simulation. *Journal of Computational Chemistry*, 20(9):971–982, July 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pitt:1993:AKB

[PMRG93]

William R. Pitt, Judith Murray-Rust, and Julia M. Goodfellow. AQUARIUS2: Knowledge-based modeling of solvent sites around proteins. *Journal of Computational Chemistry*, 14(9):1007–1018, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Purisima:1995:SYA

[PN95]

Enrico O. Purisima and Shahul H. Nilar. A simple yet accurate boundary element method for continuum dielectric calculations. *Journal of Computational Chemistry*, 16(6):681–689, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Park:1993:DNA

[PNJS93]

Je Myung Park, Kyoung Tai No, Mu Shik Jhon, and Harold A. Scheraga. Determination of net atomic charges using a modified partial equalization of orbital electronegativity method. III. Application to halogenated and aromatic molecules. *Journal of Computational Chemistry*, 14(12):1482–1490, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Poland:1990:USI

[Pol90]

Douglas Poland. On the use of series to integrate rate equations. *Journal of Computational Chemistry*, 11(3):382–395, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Polavarapu:1993:CFC

[Pol93]

P. L. Polavarapu. Chiral force constants: Recommendations for the presentation of internal coordinate force constants. *Jour-*

nal of Computational Chemistry, 14(6):751–752, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pillardy:1997:STG

- [PP97] Jarosław Pillardy and Lucjan Piela. Smoothing techniques of global optimization: Distance scaling method in searches for most stable Lennard-Jones atomic clusters. *Journal of Computational Chemistry*, 18(16):2040–2049, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pye:1998:GAD

- [PP98] Cory C. Pye and Raymond A. Poirier. Graphical approach for defining natural internal coordinates. *Journal of Computational Chemistry*, 19(5):504–511, April 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pitarch:1999:MLI

- [PPAS⁺99] Jesús Pitarch, Juan-Luis Pascual-Ahuir, Estanislao Silla, Iñaki Tuñón, and Manuel F. Ruiz-López. Modeling β -lactam interactions in aqueous solution through combined quantum mechanics–molecular mechanics methods. *Journal of Computational Chemistry*, 20(13):1401–1411, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Palmo:1991:CMM

- [PPK91] K. Palmö, L.-O. Pietilä, and S. Krimm. Construction of molecular mechanics energy functions by mathematical transformation of ab initio force fields and structures. *Journal of Computational Chemistry*, 12(3):385–390, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Palmo:1992:TRA

- [PPK92] K. Palmö, L.-O. Pietilä, and S. Krimm. Treatment of redundancies among internal coordinates in optimizing molecular mechanics force constants. *Journal of Computational Chemistry*, 13(9):1142–1150, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Peticolas:1995:ICU

- [PR95] Warner L. Peticolas and Thomas Rush III. Ab initio calculations of the ultraviolet resonance Raman spectra of uracil.

Journal of Computational Chemistry, 16(10):1261–1270, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pranata:1993:RBC

- [Pra93] Julianto Pranata. Relative basicities of carboxylate lone pairs in aqueous solution. *Journal of Computational Chemistry*, 14(6):685–690, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Payne:1999:PPA

- [PRR⁺99] R. S. Payne, R. C. Rowe, R. J. Roberts, M. H. Charlton, and R. Docherty. Potential polymorphs of aspirin. *Journal of Computational Chemistry*, 20(2):262–273, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Payne:1998:GCS

- [PRRD98] R. S. Payne, R. J. Roberts, R. C. Rowe, and R. Docherty. Generation of crystal structures of acetic acid and its halogenated analogs. *Journal of Computational Chemistry*, 19(1):1–20, January 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Palmer:1991:SGC

- [PS91] Kathleen A. Palmer and Harold A. Scheraga. Standard-geometry chains fitted to X-ray derived structures: Validation of the rigid-geometry approximation. I. Chain closure through a limited search of “loop” conformations. *Journal of Computational Chemistry*, 12(4):505–526, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Palmer:1992:SGC

- [PS92] Kathleen A. Palmer and Harold A. Scheraga. Standard-geometry chains fitted to X-ray derived structures: Validation of the rigid-geometry approximation. II. Systematic searches for short loops in proteins: Applications to bovine pancreatic ribonuclease A and human lysozyme. *Journal of Computational Chemistry*, 13(3):329–350, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Panin:1996:DCM

- [PS96a] A. I. Panin and O. V. Sizova. Direct CI method in restricted configuration spaces. *Journal of Computational Chemistry*, 17(2):178–184, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Platt:1996:ROS

- [PS96b] Daniel E. Platt and B. David Silverman. Registration, orientation, and similarity of molecular electrostatic potentials through multipole matching. *Journal of Computational Chemistry*, 17(3):358–366, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Paizs:1997:ESD

- [PS97] Béla Paizs and Sándor Suhai. Extension of SCF and DFT versions of chemical Hamiltonian approach to N interacting subsystems and an algorithm for their efficient implementation. *Journal of Computational Chemistry*, 18(5):694–701, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Paizs:1998:CSB

- [PS98] Béla Paizs and Sándor Suhai. Comparative study of BSSE correction methods at DFT and MP2 levels of theory. *Journal of Computational Chemistry*, 19(6):575–584, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Parusel:1998:TDS

- [PSK98] Andreas B. J. Parusel, Rudolf Schamschule, and Gottfried Köhler. Theoretical description of solvent effects on fluorescence spectra of bulky charge transfer compound DMA-DMPP. *Journal of Computational Chemistry*, 19(14):1584–1595, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pepper:1995:SMP

- [PSvRS⁺95] Melanie J. M. Pepper, Isaiah Shavitt, Paul von Ragué Schleyer, Mikhail N. Glukhovtsev, Rudolf Janoscheck, and Martin Quack. Is the stereomutation of methane possible? *Journal of Computational Chemistry*, 16(2):207–225, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pappu:1996:EMR

- [PSW96] Rohit V. Pappu, William J. Schneller, and David L. Weaver. Electrostatic multipole representation of a polypeptide chain: an algorithm for simulation of polypeptide properties. *Journal of Computational Chemistry*, 17(8):1033–1055, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pavankumar:1999:CIQ

- [PSY⁺99] P. N. V. Pavankumar, P. Seetharamulu, S. Yao, Jeffrey D. Saxe, Dasharatha G. Reddy, and Frederick H. Hausheer. Comprehensive ab initio quantum mechanical and molecular orbital (MO) analysis of cisplatin: Structure, bonding, charge density, and vibrational frequencies. *Journal of Computational Chemistry*, 20(3):365–382, February 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Patchkovskii:1996:ASD

- [PT96] Serguei Patchkovskii and Walter Thiel. Analytical second derivatives of the energy in MNDO methods. *Journal of Computational Chemistry*, 17(11):1318–1327, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pomelli:1998:DNP

- [PT98] Christian S. Pomelli and Jacopo Tomasi. DefPol: New procedure to build molecular surfaces and its use in continuum solvation methods. *Journal of Computational Chemistry*, 19(15):1758–1776, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Patchkovskii:1999:NCS

- [PT99] S. Patchkovskii and W. Thiel. NMR chemical shifts in MNDO approximation: Parameters and results for H, C, N, and O. *Journal of Computational Chemistry*, 20(12):1220–1245, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pomelli:1999:EGM

- [PTCB99] Christian Silvio Pomelli, Jacopo Tomasi, Maurizio Cossi, and Vincenzo Barone. Effective generation of molecular cavities

in polarizable continuum model by DefPol procedure. *Journal of Computational Chemistry*, 20(16):1693–1701, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pullan:1997:EMM

[Pul97]

W. J. Pullan. Energy minimization of mixed argon–xenon microclusters using a genetic algorithm. *Journal of Computational Chemistry*, 18(8):1096–1111, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Purisima:1998:FSB

[Pur98]

Enrico O. Purisima. Fast summation boundary element method for calculating solvation free energies of macromolecules. *Journal of Computational Chemistry*, 19(13):1494–1504, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Pearl:1998:MCB

[PZBM98]

Greg M. Pearl, M. C. Zerner, Anders Broo, and John McKelvey. Method of calculating band shape for molecular electronic spectra. *Journal of Computational Chemistry*, 19(7):781–796, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Quapp:1998:SSP

[QHIH98]

Wolfgang Quapp, Michael Hirsch, Olaf Imig, and Dietmar Heidrich. Searching for saddle points of potential energy surfaces by following a reduced gradient. *Journal of Computational Chemistry*, 19(9):1087–1100, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ramasesha:1990:NAS

[Ram90]

S. Ramasesha. A new algorithm for solving large inhomogeneous linear system of algebraic equations. *Journal of Computational Chemistry*, 11(5):545–547, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Randic:1991:COP

[Ran91]

Milan Randić. On computation of optimal parameters for multivariate analysis of structure-property relationship. *Journal of Computational Chemistry*, 12(8):970–980, October 1991.

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Randic:1992:BRB

- [Ran92] Milan Randić. Book review: *Computational chemical graph theory*, Dennis H. Rouvray, ed., Nova Science Publisher, Inc., New York, 1990, 331 pp. ISBN 0-947143-84-5. Price: \$72.00. *Journal of Computational Chemistry*, 13(6):792, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Randic:1993:FNR

- [Ran93] Milan Randić. Fitting of nonlinear regressions by orthogonalized power series. *Journal of Computational Chemistry*, 14(3):363–370, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rauhut:1996:CID

- [Rau96] Guntram Rauhut. Combined ab initio and density functional study of ring chain tautomerism in benzofurazan-1-oxide. *Journal of Computational Chemistry*, 17(16):1848–1856, December 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Roccatano:1998:DPM

- [RBC⁺98] D. Roccatano, R. Bizzarri, G. Chillemi, N. Sanna, and A. Di Nola. Development of a parallel molecular dynamics code on SIMD computers: Algorithm for use of pair list criterion. *Journal of Computational Chemistry*, 19(7):685–694, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rossi:1998:FCI

- [RBE98] Elda Rossi, Gian Luigi Bendazzoli, and Stefano Evangelisti. Full configuration interaction algorithm on a massively parallel architecture: Direct-list implementation. *Journal of Computational Chemistry*, 19(6):658–672, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reiling:1996:TIE

- [RBSB96] Stephan Reiling, Jürgen Brickmann, Michael Schlenkrich, and Philippe A. Bopp. Theoretical investigations on 1,2-ethanediol:

the problem of intramolecular hydrogen bonds. *Journal of Computational Chemistry*, 17(2):133–147, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rauhut:1993:MPC

- [RC93] Guntram Rauhut and Timothy Clark. Multicenter point charge model for high-quality molecular electrostatic potentials from AM1 calculations. *Journal of Computational Chemistry*, 14 (5):503–509, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ritchie:1995:CPD

- [RC95] James P. Ritchie and Ann S. Copenhaver. Comparison of potential-derived charge and atomic multipole models in calculating electrostatic potentials and energies of some nucleic acid bases and pairs. *Journal of Computational Chemistry*, 16 (6):777–789, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ruiz:1999:BSA

- [RCAA99] Eliseo Ruiz, Joan Cano, Santiago Alvarez, and Pere Alemany. Broken symmetry approach to calculation of exchange coupling constants for homobinuclear and heterobinuclear transition metal complexes. *Journal of Computational Chemistry*, 20(13):1391–1400, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ribeiro-Claro:1996:SVF

- [RCATD96] Paulo J. A. Ribeiro-Claro, Ana Margarida Amado, and J. J. C. Teixeira-Dias. Structures and vibrational frequencies of vanadium (V) oligomers: an ab initio study using effective core potentials. *Journal of Computational Chemistry*, 17(10):1183–1196, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rega:1999:IPP

- [RCB99] Nadia Rega, Maurizio Cossi, and Vincenzo Barone. Improving performance of polarizable continuum model for study of large molecules in solution. *Journal of Computational Chemistry*, 20 (11):1186–1198, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reindl:1996:NME

- [RCv96] Bernd Reindl, Timothy Clark, and Paul v. R. Schleyer. A new method for empirical force field calculations on localized and delocalized carbocations. *Journal of Computational Chemistry*, 17(12):1406–1430, September 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reindl:1997:EFFb

- [RCvRS97a] Bernd Reindl, Timothy Clark, and Paul v. R. Schleyer. Empirical force field and ab initio calculations on allyl cations. *Journal of Computational Chemistry*, 18(4):533–551, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reindl:1997:EFFa

- [RCvRS97b] Bernd Reindl, Timothy Clark, and Paul von R. Schleyer. Empirical force-field and ab initio calculations on delocalized open chain cations. *Journal of Computational Chemistry*, 18(1):28–44, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rocha:1997:QMM

- [RD97] Willian R. Rocha and Wagner B. De Almeida. Quantum-mechanical and molecular mechanics conformational analysis of 1,5-cyclooctadiene. *Journal of Computational Chemistry*, 18(2):254–259, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ramos:1990:ESH

- [RdBN90] Mozart N. Ramos and Benício de B. Neto. Electronic structure and hypolipidemic activity of phthalimide and related compounds. A QSAR study. *Journal of Computational Chemistry*, 11(5):569–572, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reddy:1999:CRS

- [RE99] M. Rami Reddy and Mark D. Erion. Calculation of relative solvation free energy differences by thermodynamic perturbation method: Dependence of free energy results on simulation length. *Journal of Computational Chemistry*, 20(10):1018–1027, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reddy:1998:SFE

- [REA⁺98] M. Rami Reddy, Mark D. Erion, Atul Agarwal, Vellarkad N. Viswanadhan, D. Quentin McDonald, and W. Clark Still. Solvation free energies calculated using the GB/SA model: Sensitivity of results on charge sets, protocols, and force fields. *Journal of Computational Chemistry*, 19(7):769–780, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Raber:1999:GPR

- [RG99] Douglas J. Raber and Wayne C. Guida. Guidelines for publication of research results from force-field calculations. *Journal of Computational Chemistry*, 20(14):1591–1592, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rendell:1993:DDP

- [RGK93] Alistair P. Rendell, Martyn F. Guest, and Rick A. Kendall. Distributed data parallel coupled-cluster algorithm: Application to the 2-hydroxypyridine/2-pyridone tautomerism. *Journal of Computational Chemistry*, 14(12):1429–1439, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Roszak:1990:IMA

- [RHK90] S. Roszak, P. C. Hariharan, and Joyce J. Kaufman. An ab initio method for approximation of the frozen molecular fragment. *Journal of Computational Chemistry*, 11(9):1072–1075, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Roszak:1990:MCC

- [RHKK90] S. Roszak, P. C. Hariharan, Joyce J. Kaufman, and W. S. Koski. MRD-CI calculations of proton affinity within the ab initio method for approximation of the frozen molecular fragment. *Journal of Computational Chemistry*, 11(9):1076–1079, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ramirez:1994:TSQ

- [RHN94] F. J. Ramírez, V. Hernández, and J. T. López Navarrete. Transferable semiempirical quadratic force fields: the case of

polythiophene and shorter oligomers. *Journal of Computational Chemistry*, 15(4):405–423, April 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Richard:1991:QCM

- [Ric91] Ann M. Richard. Quantitative comparison of molecular electrostatic potentials for structure-activity studies. *Journal of Computational Chemistry*, 12(8):959–969, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rico:1993:LRM

- [Ric93] J. Fernández Rico. Long-range multicenter integrals with Slater functions: Gauss transform-based methods. *Journal of Computational Chemistry*, 14(10):1203–1211, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rauhut:1997:DFB

- [RJP97] Guntram Rauhut, Andrzej A. Jarzecki, and Peter Pulay. Density functional based vibrational study of conformational isomers: Molecular rearrangement of benzofuroxan. *Journal of Computational Chemistry*, 18(4):489–500, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Roux:1995:PEF

- [RK95] Benoît Roux and Martin Karplus. Potential energy function for cation–peptide interactions: an ab initio study. *Journal of Computational Chemistry*, 16(6):690–704, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Radmer:1997:FEC

- [RK97] Randall J. Radmer and Peter A. Kollman. Free energy calculation methods: a theoretical and empirical comparison of numerical errors and a new method qualitative estimates of free energy changes. *Journal of Computational Chemistry*, 18(7):902–919, May 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ritchie:1999:FCR

- [RK99] David W. Ritchie and Graham J. L. Kemp. Fast computation, rotation, and comparison of low resolution spherical harmonic

molecular surfaces. *Journal of Computational Chemistry*, 20(4):383–395, March 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ryu:1993:OUR

- [RKL93] Ungsik Ryu, Myeongcheol Kim, and Yoon Sup Lee. Optimal use of the recurrence relations for the evaluation of molecular integrals over Cartesian Gaussian basis functions. *Journal of Computational Chemistry*, 14(1):30–36, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Roussel:1995:DDP

- [RL95] Marc R. Roussel and Carmay Lim. Discrete, dynamic polymer modeling: a pseudo-diatom model of lignin. *Journal of Computational Chemistry*, 16(10):1181–1191, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ridard:1999:EAC

- [RL99] J. Ridard and B. Lévy. Effective atomic charges in alanine dipeptide. *Journal of Computational Chemistry*, 20(5):473–482, April 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rico:1998:RPM

- [RLA⁺98] J. Fernández Rico, R. López, A. Aguado, I. Ema, and G. Ramírez. Reference program for molecular calculations with Slater-type orbitals. *Journal of Computational Chemistry*, 19(11):1284–1293, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rabinowitz:1998:IBC

- [RLG98] James R. Rabinowitz, Stephen B. Little, and Eric M. Gifford. Interactions between chlorinated dioxins and a positively charged molecular probe: New molecular interaction potential. *Journal of Computational Chemistry*, 19(6):673–684, April 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rashin:1991:NMC

- [RM91] Alexander A. Rashin and Joseph Malinsky. New method for the computation of ionic distribution around rod-like polyelec-

trolytes with the helical distribution of charges. I. General approach and a nonlinearized Poisson–Boltzmann equation. *Journal of Computational Chemistry*, 12(8):981–993, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rao:1994:RSP

[RM94]

B. G. Rao and M. A. Murcko. Reversed stereochemical preference in binding of Ro 31-8959 to HIV-1 proteinase: a free energy perturbation analysis. *Journal of Computational Chemistry*, 15(11):1241–1253, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rodriguez:1993:QCM

[RMS93]

Jesús Rodríguez, Francesc Manaut, and Ferran Sanz. Quantitative comparison of molecular electrostatic potential distributions from several semiempirical and ab initio wave functions. *Journal of Computational Chemistry*, 14(8):922–927, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rao:1991:PRI

[RMW91]

P. S. Rao, R. J. McEachern, and J. A. Weil. On a proposed radiation-induced polaronic hole in silicon dioxide. *Journal of Computational Chemistry*, 12(2):254–265, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Raptis:1998:SFD

[RNDP98]

S. G. Raptis, S. M. Nasiou, I. N. Demetropoulos, and M. G. Papadopoulos. Static and frequency dependent polarizabilities and hyperpolarizabilities of H_2S_n . *Journal of Computational Chemistry*, 19(15):1698–1715, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rodriguez:1994:SSC

[Rod94]

Jesús Rodríguez. Semiempirical study of compounds with intramolecular O H...O hydrogen bonds. II. Further verification of a modified MNDO method. *Journal of Computational Chemistry*, 15(2):183–189, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rogers:1990:CCU

- [Rog90] Donald W. Rogers. *Computational chemistry using the PC*. VCH, New York, NY, USA, 1990. ISBN 0-89573-770-1. viii + 224 pp. LCCN QD39.3.E46 R64 1990.

Rogers:1994:CCU

- [Rog94] Donald W. Rogers. *Computational chemistry using the PC*. VCH, New York, NY, USA, second edition, 1994. ISBN 1-56081-672-4. xiv + 247 pp. LCCN QD39.3.E46 R64 1994.

Rogers:2003:CCU

- [Rog03] Donald Rogers. *Computational chemistry using the PC*. Wiley-Interscience, New York, NY, USA, third edition, 2003. ISBN 0-471-42800-0 (paperback). xx + 349 pp. LCCN QD39.3.E46 R64 2003. URL <http://www.loc.gov/catdir/bios/wiley045/2003011758.html>; <http://www.loc.gov/catdir/description/wiley038/2003011758.html>; <http://www.loc.gov/catdir/toc/wiley031/2003011758.html>.

Rouvray:1990:CCG

- [Rou90] Dennis H. Rouvray, editor. *Computational Chemical Graph Theory*. Nova Science Publishers, New York, NY, USA, 1990. ISBN 0-941743-84-5. LCCN ???? Expanded versions of papers delivered at a special symposium held September 27, during the 1988 Fall Meeting of the American Chemical Society in Los Angeles.

Reis:1999:NOP

- [RP99] H. Reis and M. G. Papadopoulos. Nonlinear optical properties of the rhombic B₄-cluster. *Journal of Computational Chemistry*, 20(7):679–687, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ripoll:1995:IEA

- [RPG⁺95] D. R. Ripoll, M. S. Pottle, K. D. Gibson, H. A. Scheraga, and A. Liwo. Implementation of the ECEPP algorithm, the Monte Carlo minimization method, and the electrostatically driven Monte Carlo method on the Kendall square research KSR1 computer. *Journal of Computational Chemistry*, 16(9):1153–1163, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Robertson:1997:AII

- [RPGS97] Struan H. Robertson, Michael J. Pilling, Kevin E. Gates, and Sean C. Smith. Application of inverse iteration to 2-dimensional master equations. *Journal of Computational Chemistry*, 18(8):1004–1010, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rocha:1998:ICA

- [RPR⁺98] Willian R. Rocha, Josefredo R. Pliego Jr., Stella M. Resende, Hélio F. Dos Santos, Marcos A. De Oliveira, and Wagner B. De Almeida. Ab initio conformational analysis of cyclooctane molecule. *Journal of Computational Chemistry*, 19(5):524–534, April 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rauhut:1998:ITL

- [RPW98] Guntram Rauhut, Peter Pulay, and Hans-Joachim Werner. Integral transformation with low-order scaling for large local second-order Møller–Plesset calculations. *Journal of Computational Chemistry*, 19(11):1241–1254, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rios:1992:SSC

- [RR92] Miguel A. Ríos and Jesús Rodríguez. Semiempirical study of compounds with O-H O intramolecular hydrogen bond. *Journal of Computational Chemistry*, 13(7):860–866, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rinaldi:1992:FGO

- [RRR92] Daniel Rinaldi, Jean-Louis Rivail, and Noureddine Rguimi. Fast geometry optimizationin self-consistent reaction field computations on solvated molecules. *Journal of Computational Chemistry*, 13(6):675–680, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rey:1992:EAR

- [RS92] Antonio Rey and Jeffrey Skolnick. Efficient algorithm for the reconstruction of a protein backbone from the α -carbon coordinates. *Journal of Computational Chemistry*, 13(4):443–456, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reiling:1996:FFP

- [RSB96] Stephan Reiling, Michael Schlenkrich, and Jürgen Brickmann. Force field parameters for carbohydrates. *Journal of Computational Chemistry*, 17(4):450–468, March 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Roszak:1992:CMM

- [RSK92] Szczepan Roszak, W. Andrzej Sokalski, and Joyce J. Kaufman. Correlated molecular and multicenter multipole moments in ground and excited states from multiple reference double-excitation configuration interaction calculations. *Journal of Computational Chemistry*, 13(8):944–951, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reva:1996:LMA

- [RSOF96] Boris A. Reva, Michel F. Sanner, Arthur J. Olson, and Alexei V. Finkelstein. Lattice modeling: Accuracy of energy calculations. *Journal of Computational Chemistry*, 17(8):1025–1032, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Russo:1998:PTC

- [RTGJ98] Nino Russo, Marirosa Toscano, André Grand, and Franck Jolibois. Protonation of thymine, cytosine, adenine, and guanine DNA nucleic acid bases: Theoretical investigation into the framework of density functional theory. *Journal of Computational Chemistry*, 19(9):989–1000, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Rubio:1993:MSP

- [RTSM93] Mercedes Rubio, Francisco Torrens, and José Sánchez-Marín. Are most of the stationary points in a molecular association minima? Application of Fraga’s potential to benzene–benzene. *Journal of Computational Chemistry*, 14(6):647–654, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reindl:1998:MMI

- [RvRS98] Bernd Reindl and Paul von R. Schleyer. Molecular mechanics and ab initio calculations on cyclopentadienyl cations. *Journal of Computational Chemistry*, 19(12):1402–1420, September

1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Raymond:1999:CCC

- [RW99] Kevin S. Raymond and Ralph A. Wheeler. Compatibility of correlation-consistent basis sets with a hybrid Hartree–Fock/density functional method. *Journal of Computational Chemistry*, 20(2):207–216, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Reijmers:1999:QCG

- [RWB99] T. H. Reijmers, R. Wehrens, and L. M. C. Buydens. Quality criteria of genetic algorithms for construction of phylogenetic trees. *Journal of Computational Chemistry*, 20(8):867–876, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Salomon:1999:CSM

- [SA99] Yair Salomon and David Avnir. Continuous symmetry measures: Finding the closest C_2 -symmetric object or closest reflection-symmetric object using unit quaternions. *Journal of Computational Chemistry*, 20(8):772–780, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

St-Amant:1995:CMG

- [SACKH95] Alain St.-Amant, Wendy D. Cornell, Peter A. Kollman, and Thomas A. Halgren. Calculation of molecular geometries, relative conformational energies, dipole moments, and molecular electrostatic potential fitted charges of small organic molecules of biochemical interest by density functional theory. *Journal of Computational Chemistry*, 16(12):1483–1506, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sanchez:1997:SSE

- [SAdV97] M. L. Sanchez, M. A. Aguilar, and F. J. Olivares del Valle. Study of solvent effects by means of averaged solvent electrostatic potentials obtained from molecular dynamics data. *Journal of Computational Chemistry*, 18(3):313–322, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Senderowitz:1993:MMS

- [SAF93] Hanoch Senderowitz, Pinchas Aped, and Benzion Fuchs. Modified MM2 scheme for computation of O — C — N-containing systems. *Journal of Computational Chemistry*, 14(8):944–960, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Saunders:1991:SCN

- [Sau91] Martin Saunders. Searching for conformers of nine- to twelve-ring hydrocarbons on the MM2 and MM3 energy surfaces: Stochastic search for interconversion pathways. *Journal of Computational Chemistry*, 12(6):645–663, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stanton:1990:EAN

- [SB90] John F. Stanton and David E. Bernholdt. An empirically adjusted Newton–Raphson algorithm for finding local minima on molecular potential energy surfaces. *Journal of Computational Chemistry*, 11(1):58–63, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Speis:1992:BSC

- [SB92a] Martin Speis and Volker Buss. Basis set and correlation energy dependence of geometry and harmonic frequencies of difluoroethane, CHF₂CH₃. *Journal of Computational Chemistry*, 13(2):142–147, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stewart:1992:MMS

- [SB92b] Eugene L. Stewart and J. Phillip Bowen. Molecular mechanics studies of ketene derivatives and related structures. *Journal of Computational Chemistry*, 13(9):1125–1137, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Steinbach:1994:NSC

- [SB94] Peter J. Steinbach and Bernard R. Brooks. New spherical-cutoff methods for long-range forces in macromolecular simulation. *Journal of Computational Chemistry*, 15(7):667–683, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sizova:1995:IPE

- [SB95] O. V. Sizova and V. I. Baranovski. INDO parameters for the elements of the I and II transition rows. *Journal of Computational Chemistry*, 16(5):586–594, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Salazar:1998:GMT

- [SB98a] Michael R. Salazar and Richard L. Bell. General methodology in two dimensions for classical simulation of reactive and non-reactive events on ab initio potential energy surfaces. *Journal of Computational Chemistry*, 19(13):1431–1444, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shim:1998:MMSa

- [SB98b] Joong-Youn Shim and J. Phillip Bowen. Molecular mechanics studies of acyl halides: I. Molecular structures and conformational analysis. *Journal of Computational Chemistry*, 19(12):1370–1386, September 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shim:1998:MMSc

- [SB98c] Joong-Youn Shim and J. Phillip Bowen. Molecular mechanics studies of acyl halides: II. Vibrational spectra. *Journal of Computational Chemistry*, 19(12):1387–1401, September 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smondyrev:1999:UAF

- [SB99a] Alexander M. Smondyrev and Max L. Berkowitz. United atom force field for phospholipid membranes: Constant pressure molecular dynamics simulation of dipalmitoylphosphatidicholine/water system. *Journal of Computational Chemistry*, 20(5):531–545, April 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Spassov:1999:MSL

- [SB99b] Velin Z. Spassov and Donald Bashford. Multiple-site ligand binding to flexible macromolecules: Separation of global and local conformational change and an iterative mobile clustering approach. *Journal of Computational Chemistry*, 20(11):

1091–1111, August 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Scheiner:1997:MEP

- [SBA97] Andrew C. Scheiner, Jon Baker, and Jan W. Andzelm. Molecular energies and properties from density functional theory: Exploring basis set dependence of Kohn–Sham equation using several density functionals. *Journal of Computational Chemistry*, 18(6):775–795, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schmidt:1993:GAM

- [SBB⁺93] Michael W. Schmidt, Kim K. Baldrige, Jerry A. Boatz, Steven T. Elbert, Mark S. Gordon, Jan H. Jensen, Shiro Koseki, Nikita Matsunaga, Kiet A. Nguyen, Shujun Su, Theresa L. Windus, Michel Dupuis, and John A. Montgomery Jr. General atomic and molecular electronic structure system. *Journal of Computational Chemistry*, 14(11):1347–1363, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Szombathely:1992:SAI

- [SBJ92] M. V. Szombathely, P. Bräuer, and M. Jaroniec. The solution of adsorption integral equations by means of the regularization method. *Journal of Computational Chemistry*, 13(1):17–32, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stanton:1997:NAG

- [SBK97] Aaron F. Stanton, Richard E. Bleil, and Sabre Kais. A new approach to global minimization. *Journal of Computational Chemistry*, 18(4):594–599, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Salzner:1997:IID

- [SBM97] Ulrike Salzner, Steven M. Bachrach, and Debbie C. Mulhearn. Ab initio investigation of the Diels–Alder reaction between 2 H-phosphole and phosphaethene: a model for phosphole dimerization. *Journal of Computational Chemistry*, 18(2):198–210, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stahl:1999:MPA

- [SBS99] Martin Stahl, Daniel Bur, and Gisbert Schneider. Mapping of proteinase active sites by projection of surface-derived correlation vectors. *Journal of Computational Chemistry*, 20(3):336–347, February 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stewart:1991:SVE

- [SC91] James J. P. Stewart and Michael B. Coolidge. Semiempirical vibrational and electronic structures of C₆₀ and C₇₀. *Journal of Computational Chemistry*, 12(9):1157–1162, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schmitz:1994:HFO

- [SC94] Lawrence R. Schmitz and Yi Ren Chen. Heats of formation of organic molecules calculated from ab initio theory and a group equivalent scheme: Alkenes. *Journal of Computational Chemistry*, 15(12):1437–1445, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stefanov:1995:EAC

- [SC95] Boris B. Stefanov and Jerzy Cioslowski. An efficient approach to calculation of zero-flux atomic surfaces and generation of atomic integration data. *Journal of Computational Chemistry*, 16(11):1394–1404, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Scarsi:1999:CVC

- [SC99] Marco Scarsi and Amedeo Caflisch. Comment on the validation of continuum electrostatics models. *Journal of Computational Chemistry*, 20(14):1533–1536, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stradella:1993:TCS

- [SCC93] Omar G. Stradella, Giorgina Corongiu, and Enrico Clementi. Techniques for the compression of sequences of integer numbers and real numbers with fixed absolute precision. *Journal of Computational Chemistry*, 14(6):673–679, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Styszynski:1997:RAE

- [SCMV97] Jacek Styszynski, Xiaoping Cao, Gulzari L. Malli, and Lucas Visscher. Relativistic all-electron Dirac–Fock–Breit calculations on xenon fluorides (XeF_n , $n = 1, 2, 4, 6$). *Journal of Computational Chemistry*, 18(5):601–608, April 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Seminario:1992:CSR

- [SCP92] Jorge M. Seminario, Monica C. Concha, and Peter Politzer. Calculated structures and relative stabilities of furoxan, some 1,2-dinitrosoethylenes and other isomers. *Journal of Computational Chemistry*, 13(2):177–182, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sousa:1993:MFO

- [SCRI93] C. Sousa, J. Casanovas, J. Rubio, and F. Illas. Madelung fields from optimized point charges for ab initio cluster model calculations on ionic systems. *Journal of Computational Chemistry*, 14(6):680–684, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Santamaria:1999:VSN

- [SCZC99] R. Santamaria, E. Charro, A. Zacarías, and M. Castro. Vibrational spectra of nucleic acid bases and their Watson–Crick pair complexes. *Journal of Computational Chemistry*, 20(5):511–530, April 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sanz:1990:TAE

- [SD90] Javier Fernández Sanz and Alain Dargelos. Theoretical analysis of the electronic spectrum of GeH_4 from ab initio CI calculations. *Journal of Computational Chemistry*, 11(9):1017–1020, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schulman:1998:BSH

- [SD98] Jerome M. Schulman and Raymond L. Disch. Bowl-shaped hydrocarbons related to C_{60} . *Journal of Computational Chemistry*, 19(2):189–194, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schmitz:1994:CSA

- [SE94] Brian K. Schmitz and William B. Euler. A computational study of azine, azoethene, and diimine linkages in the poly/oligoazine system. *Journal of Computational Chemistry*, 15(10):1163–1175, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Severance:1995:GAS

- [SEJ95] Daniel L. Severance, Jonathan W. Essex, and William L. Jorgensen. Generalized alteration of structure and parameters: a new method for free-energy perturbations in systems containing flexible degrees of freedom. *Journal of Computational Chemistry*, 16(3):311–327, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sellers:1990:IPO

- [Sel90] Harrell Sellers. On the interaction of palladium with olefinic systems. *Journal of Computational Chemistry*, 11(6):754–763, July 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Swope:1992:AEE

- [SF92] William C. Swope and David M. Ferguson. Alternative expressions for energies and forces due to angle bending and torsional energy. *Journal of Computational Chemistry*, 13(5):585–594, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stegmann:1996:SPT

- [SF96] Ralf Stegmann and Gernot Frenking. Silaacetylene: a possible target for experimental studies. *Journal of Computational Chemistry*, 17(7):781–789, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Suto:1991:PCA

- [SFB91] Elisabete Suto, M. M. C. Ferreira, and Roy E. Bruns. Principal component analysis of dipole moment derivative signs of chloroform. *Journal of Computational Chemistry*, 12(7):885–890, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sunada:1995:SAP

- [SG95] Shinji Sunada and Nobuhiro Go. Small-amplitude protein conformational dynamics: Second-order analytic relation between Cartesian coordinates and dihedral angles. *Journal of Computational Chemistry*, 16(3):328–336, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schnur:1991:DIS

- [SGB91] Dora M. Schnur, Mark V. Grieshaber, and J. Phillip Bowen. Development of an internal searching algorithm for parameterization of the MM2/MM3 force fields. *Journal of Computational Chemistry*, 12(7):844–849, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sargent:1991:BSG

- [SH91] Andrew L. Sargent and Michael B. Hall. Basis sets for geometry optimizations of second-row transition metal inorganic and organometallic complexes. *Journal of Computational Chemistry*, 12(8):923–933, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smith:1998:ARI

- [SH98] Brian J. Smith and Nathan E. Hall. Atomic radii: Incorporation of solvation effects. *Journal of Computational Chemistry*, 19(13):1482–1493, October 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sharp:1991:ISI

- [Sha91] Kim Sharp. Incorporating solvent and ion screening into molecular dynamics using the finite-difference Poisson–Boltzmann method. *Journal of Computational Chemistry*, 12(4):454–468, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sharafeddin:1997:MQC

- [SHCR97] Omar A. Sharafeddin, Konrad Hinsen, Tucker Carrington Jr., and Benoît Roux. Mixing quantum-classical molecular dynamics methods applied to intramolecular proton transfer in acetylacetone. *Journal of Computational Chemistry*, 18(14):1760–1772, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Soo:1993:DCP

- [SHCY93] Von-Wun Soo, Jan-Fu Hwang, Tung-Bo Chen, and Chin Yu. Divide-and-conquer, pattern matching, and relaxation methods in interpretation of 2-D NMR spectra of polypeptides. *Journal of Computational Chemistry*, 14(10):1164–1171, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shepard:1990:DCM

- [She90] Ron Shepard. A data compression method applicable to first-order convergent iterative procedures. *Journal of Computational Chemistry*, 11(1):45–57, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stibor:1990:MSH

- [SHHČ90] Ivan Stibor, Petr Holý, Pavel Hobza, and Petr Čársky. MM2 study of 20-hydroxy-4,7,13,16-tetraoxa-1,10-diazabicyclo [8,8,3] heneicosane and its formation controlled by hydrogen bonding. *Journal of Computational Chemistry*, 11(7):837–847, August 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stanton:1995:EDF

- [SHM95] Robert V. Stanton, David S. Hartsough, and Kenneth M. Merz Jr. An examination of a density functional/molecular mechanical coupled potential. *Journal of Computational Chemistry*, 16(1):113–128, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schreckenbach:1999:DFC

- [SHM99] Georg Schreckenbach, P. Jeffrey Hay, and Richard L. Martin. Density functional calculations on actinide compounds: Survey of recent progress and application to $[\text{UO}_2\text{X}_4]^{2-}$ ($\text{X} = \text{F}, \text{Cl}, \text{OH}$) and AnF_6 ($\text{An} = \text{U}, \text{Np}, \text{Pu}$). *Journal of Computational Chemistry*, 20(1):70–90, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schwerdtfeger:1993:TIT

- [SI93] Peter Schwerdtfeger and Josef Ischtwan. Theoretical investigations on thallium halides: Relativistic and electron correlation effects in Tl X and Tl X_3 compounds ($\text{X F}, \text{Cl}, \text{Br}, \text{I}$). *Journal of Computational Chemistry*, 14(8):913–921, August

1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Siegbahn:1996:MDH

- [Sie96] Per E. M. Siegbahn. Models for the description of the H₃O⁺ and OH⁻ ions in water. *Journal of Computational Chemistry*, 17(9):1099–1107, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Svensson:1995:EST

- [SJ95] Bo Svensson and Bo Jönsson. An efficient simulation technique for electrostatic free energies with applications to azurin. *Journal of Computational Chemistry*, 16(3):370–377, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sapse:1990:SEL

- [SJDW90] Anne-Marie Sapse, Duli C. Jain, Denyse De Gale, and T. C. Wu. Solvent effect and librational entropy calculations on *N*-acetylalanylglycine amide. *Journal of Computational Chemistry*, 11(5):573–575, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Saunders:1993:SSL

- [SJV93] Martin Saunders and Hugo Alejandro Jiménez-Vázquez. Stochastic searches for lactone and cycloalkene conformers. *Journal of Computational Chemistry*, 14(3):330–348, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Szafran:1991:PSP

- [SK91] Miroslaw Szafran and Jacek Koput. PM3 study of the proton affinities of 2-, 3-, and 4-monosubstituted pyridines in the gas phase. *Journal of Computational Chemistry*, 12(6):675–680, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schaumberger:1992:CDP

- [SK92a] M. Schaumberger and J. Köhler. Charge distributions of phosphorylcholine and its derivatives. *Journal of Computational Chemistry*, 13(3):318–328, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sun:1992:CSE

- [SK92b] Yaxiong Sun and Peter A. Kollman. Conformational sampling and ensemble generation by molecular dynamics simulations: 18-Crown-6 as a test case. *Journal of Computational Chemistry*, 13(1):33–40, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sun:1995:HSM

- [SK95] Yaxiong Sun and Peter A. Kollman. Hydrophobic solvation of methane and nonbond parameters of the TIP3P water model. *Journal of Computational Chemistry*, 16(9):1164–1169, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schwegler:1993:AEC

- [SKA93] Eric Schwegler, Paweł M. Kozłowski, and Ludwik Adamowicz. Application of explicitly correlated Gaussian functions for calculations of the ground state of the beryllium atom. *Journal of Computational Chemistry*, 14(5):566–570, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shoichet:1992:MDU

- [SKB92] Brian K. Shoichet, Irwin D. Kuntz, and Dale L. Bodian. Molecular docking using shape descriptors. *Journal of Computational Chemistry*, 13(3):380–397, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Skeel:1991:MDS

- [Ske91] Robert D. Skeel. Macromolecular dynamics on a shared-memory multiprocessor. *Journal of Computational Chemistry*, 12(2):175–179, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Szafran:1993:RSE

- [SKK⁺93] Mirosław Szafran, Mati M. Karelson, Alan R. Katritzky, Jacek Koput, and Michael C. Zerner. Reconsideration of solvent effects calculated by semiempirical quantum chemical methods. *Journal of Computational Chemistry*, 14(3):371–377, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

[SKM94]

Ulrich Sternberg, Frank-Thomas Koch, and Margit Möllhoff. New approach to the semiempirical calculation of atomic charges for polypeptides and large molecular systems. *Journal of Computational Chemistry*, 15(5):524–531, May 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sternberg:1994:NAS

[SKOR93]

W. A. Sokalski, D. A. Keller, R. L. Ornstein, and R. Rein. Multipole correction of atomic monopole models of molecular charge distribution. I. Peptides. *Journal of Computational Chemistry*, 14(8):970–976, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sokalski:1993:MCA

[SKT93]

Jiro Shimada, Hiroki Kaneko, and Toshikazu Takada. Efficient calculations of Coulombic interactions in biomolecular simulations with periodic boundary conditions. *Journal of Computational Chemistry*, 14(7):867–878, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shimada:1993:ECC

[SKT94]

Jiro Shimada, Hiroki Kaneko, and Toshikazu Takada. Performance of fast multipole methods for calculating electrostatic interactions in biomacromolecular simulations. *Journal of Computational Chemistry*, 15(1):28–43, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shimada:1994:PFM

[SL95]

Eric Swanson and Terry P. Lybrand. PVM-AMBER: a parallel implementation of the AMBER molecular mechanics package for workstation clusters. *Journal of Computational Chemistry*, 16(9):1131–1140, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Swanson:1995:PAP[SLD⁺90]

Miquel Solà, Agustí Lledós, Miquel Duran, Juan Bertrán, and Oscar N. Ventura. Ab initio study of substituent effect on the addition of hydrogen fluoride to fluoroethylenes. *Journal of Computational Chemistry*, 11(2):170–180, March 1990.

Sola:1990:ISS

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shirsat:1993:DRH

- [SLG93] Rajendra N. Shirsat, Ajay C. Limaye, and Shridhar R. Gadre. Development of a restricted Hartree–Fock program INDMOL on PARAM: a highly parallel computer. *Journal of Computational Chemistry*, 14(4):445–451, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Seponer:1996:BSC

- [SLH96] Jireí Seponer, Jerzy Leszczynski, and Pavel Hobza. Base stacking in cytosine dimer. A comparison of correlated ab initio calculations with three empirical potential models and density functional theory calculations. *Journal of Computational Chemistry*, 17(7):841–850, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Salzner:1997:DLB

- [SLPP97] U. Salzner, J. B. Lagowski, P. G. Pickup, and R. A. Poirier. Design of low band gap polymers employing density functional theory — hybrid functionals ameliorate band gap problem. *Journal of Computational Chemistry*, 18(15):1943–1953, November 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Straatsma:1990:AVG

- [SM90] T. P. Straatsma and J. A. McCammon. ARGOS, a vectorized general molecular dynamics program. *Journal of Computational Chemistry*, 11(8):943–951, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smith:1991:CPX

- [SM91] Brian J. Smith and Colin J. Marsden. Conformational preferences of XONO₂ systems (X = H, F, Cl, CH₃) from ab initio techniques. *Journal of Computational Chemistry*, 12(5):565–574, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shenkin:1994:CAM

- [SM94] Peter S. Shenkin and D. Quentin McDonald. Cluster analysis of molecular conformations. *Journal of Computational Chem-*

istry, 15(8):899–916, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sines:1992:KEM

- [SMA92] Jacqueline J. Sines, J. Andrew McCammon, and Stuart A. Allison. Kinetic effects of multiple charge modifications in enzyme-substrate reactions: Brownian dynamics simulations of Cu, Zn superoxide dismutase. *Journal of Computational Chemistry*, 13(1):66–69, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sotomatsu:1991:TCS

- [SMF91] Tomoko Sotomatsu, Yoshiyuki Murata, and Toshio Fujita. Theoretical calculation of the steric effects of ortho substituents by the AM1 method. *Journal of Computational Chemistry*, 12(1):135–138, January 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smith:1999:SPA

- [Smi99] Brian J. Smith. Solvation parameters for amino acids. *Journal of Computational Chemistry*, 20(4):428–442, March 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smart:1997:CSP

- [SMM97] Jason L. Smart, Tami J. Marrone, and J. Andrew McCammon. Conformational sampling with Poisson–Boltzmann forces and a stochastic dynamics/Monte Carlo method: Application to alanine dipeptide. *Journal of Computational Chemistry*, 18(14):1750–1759, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smeyers:1998:EPE

- [SMS98] N. J. Smeyers, F. J. Melendez, and Y. G. Smeyers. Exploring potential energy hypersurfaces for triple symmetric inversion in 3-azabicyclo[3.3.1]nonan-9-one and its *N*-methyl derivative. *Journal of Computational Chemistry*, 19(14):1567–1574, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Saito:1990:HFE

- [SN90] Minoru Saito and Haruki Nakamura. Hydration free energy calculations by the acceptance ratio method. *Journal of Com-*

putational Chemistry, 11(1):76–81, January 1990. CODEN JC-CHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shiratori:1991:PCB

[SN91]

Yasuhiko Shiratori and Setsuko Nakagawa. Parametrization of calcium binding site in proteins and molecular dynamics simulation on phospholipase A₂. *Journal of Computational Chemistry*, 12(6):717–730, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sen:1999:SPA

[SN99]

Srikanta Sen and Lennart Nilsson. Some practical aspects of free energy calculations from molecular dynamics simulation. *Journal of Computational Chemistry*, 20(8):877–885, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Snow:1992:PSA

[Sno92]

Mark E. Snow. Powerful simulated-annealing algorithm locates global minimum of protein-folding potentials from multiple starting conformations. *Journal of Computational Chemistry*, 13(5):579–584, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sridharan:1995:RMC

[SNS95]

S. Sridharan, Anthony Nicholls, and Kim A. Sharp. A rapid method for calculating derivatives of solvent accessible surface areas of molecules. *Journal of Computational Chemistry*, 16(8):1038–1044, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sosa:1998:IQC

[SOCF98]

C. P. Sosa, J. Ochterski, J. Carpenter, and M. J. Frisch. Ab initio quantum chemistry on the Cray T3E massively parallel supercomputer: II. *Journal of Computational Chemistry*, 19(9):1053–1063, July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Salzner:1990:NSP

[SOL90]

U. Salzner, P. Otto, and J. Ladik. Numerical solution of a partial differential equation system describing chemical kinetics and diffusion in a cell with the aid of compartmentalization.

Journal of Computational Chemistry, 11(2):194–204, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Soliva:1997:SDF

[SOL97]

Robert Soliva, Modesto Orozco, and F. Javier Luque. Suitability of density functional methods for calculation of electrostatic properties. *Journal of Computational Chemistry*, 18 (8):980–991, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Spackman:1996:PDC

[Spa96]

Mark A. Spackman. Potential derived charges using a geodesic point selection scheme. *Journal of Computational Chemistry*, 17(1):1–18, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shen:1995:CBE

[SQ95]

Jian Shen and Florante A. Quiocho. Calculation of binding energy differences for receptor–ligand systems using the Poisson–Boltzmann method. *Journal of Computational Chemistry*, 16 (4):445–448, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Still:1990:ECV

[SR90]

Miron G. Still and L. B. Rogers. Effects of computational variations for determining binding energies of diastereomeric complexes when using MM2. *Journal of Computational Chemistry*, 11(2):242–248, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sygula:1992:PRI

[SR92]

Andrzej Sygula and Peter W. Rabideau. Pathways for ring inversion in 9, 10-dihydroanthracene, 9, 10-dihydrophenanthrene, and 7, 12-dihydropleiadene: Combined molecular orbital and molecular mechanics study. *Journal of Computational Chemistry*, 13(5):633–639, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schwieters:1994:DFE

[SR94a]

Charles D. Schwieters and Herschel Rabitz. Display of the flow of energy in molecules. *Journal of Computational Chemistry*,

15(1):80–89, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sierraalta:1994:CSE

- [SR94b] Anibal Sierraalta and Fernando Ruette. A comparative study of effective core potential and full-electron calculations in Mo compounds. I. An analysis of topological properties of bond charge distribution. *Journal of Computational Chemistry*, 15(3):313–321, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sigfridsson:1998:CMD

- [SR98] Emma Sigfridsson and Ulf Ryde. Comparison of methods for deriving atomic charges from the electrostatic potential and moments. *Journal of Computational Chemistry*, 19(4):377–395, March 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sousa:1992:RAN

- [SRI92] C. Sousa, J. Rubio, and F. Illas. Reliability of atomic natural orbital basis sets in calculations involving pseudopotentials. *Journal of Computational Chemistry*, 13(2):148–154, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schweitzer:1993:APP

- [SS93] Robert C. Schweitzer and Gary W. Small. Application of parallel processing techniques to improving the efficiency of MM2 molecular mechanics calculations. *Journal of Computational Chemistry*, 14(8):977–985, August 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smart:1995:ESS

- [SS95] Bruce A. Smart and Carl H. Schiesser. On the existence of SH₃, SeH₃, and TeH₃: Discrepancies between all-electron and pseudopotential calculations. *Journal of Computational Chemistry*, 16(9):1055–1066, September 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sekusak:1997:RHH

- [SS97] Sanja Sekušak and Aleksandar Sabljić. Reactivity of haloethanes with hydroxyl radicals: Effects of basis set and

correlation energy on reaction energetics. *Journal of Computational Chemistry*, 18(9):1190–1199, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Senderowitz:1998:MJS

- [SS98a] Hanoch Senderowitz and W. Clark Still. MC(JBW): Simple but smart Monte Carlo algorithm for free energy simulations of multiconformational molecules. *Journal of Computational Chemistry*, 19(15):1736–1745, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Senderowitz:1998:SPE

- [SS98b] Hanoch Senderowitz and W. Clark Still. Sampling potential energy surface of glycyl glycine peptide: Comparison of Metropolis Monte Carlo and stochastic dynamics. *Journal of Computational Chemistry*, 19(11):1294–1299, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Salvino:1993:CAB

- [SSD93] Joseph M. Salvino, Peter R. Seoane, and Roland E. Dolle. Conformational analysis of bradykinin by annealed molecular dynamics and comparison to NMR-derived conformations. *Journal of Computational Chemistry*, 14(4):438–444, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sordo:1990:TSA

- [SSF90] T. L. Sordo, J. A. Sordo, and R. Flórez. Theoretical study of adsorption of hydrocarbons on graphite. *Journal of Computational Chemistry*, 11(3):291–296, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schoeller:1993:RBP

- [SSHB93] Wolfgang W. Schoeller, Jörg Strutwolf, Wilfried Haug, and Thilo Busch. Rotational barrier in phosphatriafulvene: an MC-SCF study. *Journal of Computational Chemistry*, 14(1):3–7, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sawyer:1996:SCS

- [SSM96] Alesia Sawyer, Erica Sullivan, and Yitbarek H. Mariam. A semiempirical computational study of electron transfer reactivity of one- vs. two-ring model systems for anthracycline

pharmacophores. I. A rationale for mode of action. *Journal of Computational Chemistry*, 17(2):204–225, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Susnow:1994:CSA

[SSO94]

Roberta Susnow, Nancie Senko, and Timothy Ocain. Conformational sensitivity analysis of FKBP-FK506/rapamycin complexes. *Journal of Computational Chemistry*, 15(10):1074–1090, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sustmann:1992:AID

[SSQ92]

Reiner Sustmann, Willi Sicking, and Helmut Quast. Analysis of an intermediate in a 1,3-dipolar cycloaddition of methylsulfonyl azide. *Journal of Computational Chemistry*, 13(3):314–317, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Susnow:1994:PCA

[SSR94]

Roberta Susnow, Clarence Schutt, and Herschel Rabitz. Principal component analysis of dipeptides. *Journal of Computational Chemistry*, 15(9):963–980, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See errata [SSR95].

Susnow:1995:EPC

[SSR95]

Roberta Susnow, Clarence Schutt, and Herschel Rabitz. Errata: Principal component analysis of dipeptides. *Journal of Computational Chemistry*, 16(1):130, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [SSR94].

Sokalski:1992:CAM

[SSRO92]

W. A. Sokalski, M. Shibata, R. Rein, and R. L. Ornstein. Cumulative atomic multipole moments complement any atomic charge model to obtain more accurate electrostatic properties. *Journal of Computational Chemistry*, 13(7):883–887, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Susnow:1994:CSD

- [SSRS94] Roberta Susnow, Clarence Schutt, Herschel Rabitz, and Shankar Subramaniam. Conformational study of dipeptides: a sensitivity analysis approach. *Journal of Computational Chemistry*, 15(9):947–962, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smith:1993:CRP

- [SSV93] Douglas A. Smith, Douglas A. Smith, and S. Vijayakumar. Critical reevaluation of proximity effects in the Barton oxidation and related intramolecular reactions. *Journal of Computational Chemistry*, 14(11):1313–1319, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Scano:1991:CSM

- [ST91] P. Scano and C. Thomson. Comparison of semiempirical MO methods applied to large molecules. *Journal of Computational Chemistry*, 12(2):172–174, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sabio:1992:CAA

- [ST92] Michael Sabio and Sid Topiol. A conformational analysis of 3'-azido-3'-deoxythymidine. *Journal of Computational Chemistry*, 13(4):478–491, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stone:1994:AAA

- [ST94] A. J. Stone and C.-S. Tong. Anisotropy of atom–atom repulsions. *Journal of Computational Chemistry*, 15(12):1377–1392, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schmiedekamp:1994:TPA

- [STB⁺94] Ann M. Schmiedekamp, Igor A. Topol, Stanley K. Burt, Holy Razafinjanahary, Henry Chermette, Timothy Pfaltzgraff, and Christopher J. Michejda. Triazene proton affinities: a comparison between density functional, Hartree–Fock, and post-Hartree–Fock methods. *Journal of Computational Chemistry*, 15(8):875–892, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stewart:1990:RCC

- [Ste90] James J. P. Stewart. Reply to “Comments on a comparison of AM1 with the recently developed PM3 method”. *Journal of Computational Chemistry*, 11(4):543–544, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [DHY90].

Stewart:1991:OPS

- [Ste91] James J. P. Stewart. Optimization of parameters for semiempirical methods. III Extension of PM3 to Be, Mg, Zn, Ga, Ge, As, Se, Cd, In, Sn, Sb, Te, Hg, Tl, Pb, and Bi. *Journal of Computational Chemistry*, 12(3):320–341, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stewart:1998:SGU

- [Ste98] James J. P. Stewart. Symmetry groups for unit cells in solids. *Journal of Computational Chemistry*, 19(2):168–180, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Silla:1991:GID

- [STPA91] Estanislao Silla, Iñaki Tuñón, and Juan Luis Pascual-Ahuir. GEPOL: an improved description of molecular surfaces II. Computing the molecular area and volume. *Journal of Computational Chemistry*, 12(9):1077–1088, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smellie:1995:PPC

- [STT95] Andrew Smellie, Steven L. Teig, and Peter Towbin. Poling: Promoting conformational variation. *Journal of Computational Chemistry*, 16(2):171–187, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Su:1993:NMD

- [Su93] Zhengwei Su. New method for the derivation of net atomic charges from the electrostatic potential. *Journal of Computational Chemistry*, 14(9):1036–1041, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Smith:1992:SSA

- [SUG92] Douglas A. Smith, Charles W. Ulmer II, and Matthew J. Gilbert. Structural studies of aromatic amines and the DNA

- intercalating compounds m-AMSA and o-AMSA: Comparison of MNDO, AM1, and PM3 to experimental and ab initio results. *Journal of Computational Chemistry*, 13(5):640–650, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Sulkes:1995:CAJ**
- [Sul95] Mark Sulkes. Conformational analysis of jet-cooled tryptophan analogs and Histamine using the MM3(94) force field: Comparison with experiment. *Journal of Computational Chemistry*, 16 (8):973–983, August 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Sun:1994:FFC**
- [Sun94] H. Sun. Force field for computation of conformational energies, structures, and vibrational frequencies of aromatic polyesters. *Journal of Computational Chemistry*, 15(7):752–768, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Santamaria:1994:SEP**
- [SV94] R. Santamaria and A. Vázquez. Structural and electronic property changes of the nucleic acid bases upon base pair formation. *Journal of Computational Chemistry*, 15(9):981–996, September 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Schafer:1999:ERF**
- [SVM99] Heiko Schäfer, Wilfred F. Van Gunsteren, and Alan E. Mark. Estimating relative free energies from a single ensemble: Hydration free energies. *Journal of Computational Chemistry*, 20 (15):1604–1617, November 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).
- Sulzbach:1997:NCS**
- [SVS⁺97] Horst M. Sulzbach, George Vacek, Peter R. Schreiner, John Morrison Galbraith, Paul von R. Schleyer, and Henry F. Schaefer III. NMR chemical shielding surface of *N*-acetyl-*N'*-methylalaninamide: a density functional study. *Journal of Computational Chemistry*, 18(1):126–138, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stouch:1992:CDE

- [SW92] T. R. Stouch and Donald E. Williams. Conformational dependence of electrostatic potential derived charges of a lipid headgroup: Glycerylphosphorylcholine. *Journal of Computational Chemistry*, 13(5):622–632, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shaffer:1993:CCM

- [SW93a] Alan A. Shaffer and Scott G. Wierschke. Comparison of computational methods applied to oxazole, thiazole, and other heterocyclic compounds. *Journal of Computational Chemistry*, 14 (1):75–88, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stouch:1993:CDE

- [SW93b] Terry R. Stouch and Donald E. Williams. Conformational dependence of electrostatic potential-derived charges: Studies of the fitting procedure. *Journal of Computational Chemistry*, 14 (7):858–866, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shen:1996:EBE

- [SW96a] Jian Shen and John Wendoloski. Electrostatic binding energy calculation using the finite difference solution to the linearized Poisson–Boltzmann equation: Assessment of its accuracy. *Journal of Computational Chemistry*, 17(3):350–357, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Svensson:1996:CNS

- [SW96b] Bo R. Svensson and Clifford E. Woodward. Constant- $NT\mu$ simulations: Free energy difference method for excess adsorption. *Journal of Computational Chemistry*, 17(9):1156–1162, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stouch:1991:SLC

- [SWAH91] Terry R. Stouch, Keith B. Ward, Amanda Altieri, and Arnold T. Hagler. Simulations of lipid crystals: Characterization of potential energy functions and parameters for lecithin molecules. *Journal of Computational Chemistry*, 12(8):1033–

1046, October 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Stampfuss:1999:PIC

- [SWK99] P. Stampfuss, W. Wenzel, and H. Keiter. The parallel implementation of configuration-selecting multireference configuration interaction method. *Journal of Computational Chemistry*, 20(14):1559–1570, November 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shen:1990:HSS

- [SWM90] Jian Shen, Chung F. Wong, and J. Andrew McCammon. Hydration of superoxide studied by molecular dynamics simulation. *Journal of Computational Chemistry*, 11(8):1003–1008, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Soirat:1997:BDS

- [SWOW97] Arnaud J. A. Soirat, Chung F. Wong, Roman Osman, and Harel Weinstein. Brownian dynamics simulations of the reactions of hydrated electrons with components of DNAs and a DNA double-helix. *Journal of Computational Chemistry*, 18 (7):888–901, May 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Shen:1990:PEC

- [SWS⁺90] Jian Shen, Chung F. Wong, Shankar Subramaniam, Thomas A. Albright, and J. Andrew McCammon. Partial electrostatic charges for the active center of Cu, Zn superoxide dismutase. *Journal of Computational Chemistry*, 11(3):346–350, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Sun:1999:PMD

- [SYHW99] Ying-Chieh Sun, Shu-Fen Yang, I-Lung Hwang, and Tzu-Hsien Wu. A 500-ps molecular dynamics simulation trajectory of cardiotoxin II from Taiwan cobra venom in solution: Correlation with NMR and X-ray crystallography data. *Journal of Computational Chemistry*, 20(5):546–562, April 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Totrov:1994:EPE

- [TA94] Maxim Totrov and Ruben Abagyan. Efficient parallelization of the energy, surface, and derivative calculations for internal coordinate mechanics. *Journal of Computational Chemistry*, 15(10):1105–1112, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tai:1998:EIE

- [TA98] Julia C. Tai and Norman L. Allinger. Effect of inclusion of electron correlation in MM3 studies of cyclic conjugated compounds. *Journal of Computational Chemistry*, 19(5):475–487, April 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tazartes:1998:ASO

- [TAC98] Claudine C. Tazartes, Christopher R. Anderson, and Emily A. Carter. Automated selection of optimal Gaussian fits to arbitrary functions in electronic structure theory. *Journal of Computational Chemistry*, 19(11):1300–1314, August 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Taverner:1996:IAA

- [Tav96] B. Craig Taverner. Improved algorithm for accurate computation of molecular solid angles. *Journal of Computational Chemistry*, 17(14):1612–1623, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Taylor:1999:BRB

- [Tay99] Ethan Will Taylor. Book review: *Rational Molecular Design in Drug Research*, Alfred Benzon Symposium No. 42. Edited by T. Liljefors, F. S. Jørgensen, and P. Krogsgaard-Larsen, Munksgaard, Copenhagen, 1998, 399 pp. ISBN 87-16-12049-3. *Journal of Computational Chemistry*, 20(2):284–286, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tong:1995:RCI

- [TD95] Weida Tong and Valerian T. D’Souza. The role of the carboxylate ion in models of acyl-chymotrypsin. *Journal of Computational Chemistry*, 16(6):705–714, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Teixeira-Dias:1991:CBI

- [TDFdC91] J. J. C. Teixeira-Dias, R. Fausto, and L. A. E. Batista de Carvalho. The C_α — C internal rotation in α -alkyl substituted carbonyls and thiocarbonyls: $CH(CH_3)_2C(=X)YH$ ($X, Y = O$ or S). *Journal of Computational Chemistry*, 12(9):1047–1057, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tolosa:1990:OCC

- [TEdV90] S. Tolosa, J. J. Esperilla, and F. J. Olivares del Valle. Overestimation of the coupling component in the CP technique. Application of the indirect counterpoise correction to the $H_2O \cdots HF$ hydrogen-bonded system. *Journal of Computational Chemistry*, 11(5):576–588, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tolosa:1991:CSP

- [TEdV91] S. Tolosa, J. Espinosa, and F. J. Olivares del Valle. Computation of spectroscopic properties of van der Waals systems from post-SCF ab initio potentials including the EICP alternative counterpoise technique. *Journal of Computational Chemistry*, 12(5):611–619, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tuffery:1993:CCS

- [TEHL93] P. Tufféry, C. Etchebest, S. Hazout, and R. Lavery. A critical comparison of search algorithms applied to the optimization of protein side-chain conformations. *Journal of Computational Chemistry*, 14(7):790–798, July 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Teleman:1990:SFO

- [Tel90] Olle Teleman. A stringent formulation of the overall rotational diffusion in molecules and other flexible assemblies. *Journal of Computational Chemistry*, 11(1):64–66, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tomac:1998:MMS

- [TG98] Sebastian Tomac and Astrid Gräslund. Multi-multigrid solution of modified Poisson–Boltzmann equation for arbitrarily shaped molecules. *Journal of Computational Chemistry*, 19

(8):893–901, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tomimoto:1996:CAN

- [TGW96] Masaki Tomimoto, Nobuhiro Go, and Hiroshi Wako. Conformational analysis of nucleic acid molecules with flexible furanose rings in dihedral angle space. *Journal of Computational Chemistry*, 17(7):910–917, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tan:1993:YDM

- [TH93] Robert K.-Z. Tan and Stephen C. Harvey. Yammp: Development of a molecular mechanics program using the modular programming method. *Journal of Computational Chemistry*, 14(4):455–470, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Treasurywala:1996:CSM

- [TJP96] A. M. Treasurywala, E. P. Jaeger, and M. L. Peterson. Conformational searching methods for small molecules. III. Study of stochastic methods available in SYBYL and MACROMODEL. *Journal of Computational Chemistry*, 17(9):1171–1182, July 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tronchet:1994:CEA

- [TK94] Jean M. J. Tronchet and Istvan Komaromi. Conformation energy around the N(sp³)O single bond. *Journal of Computational Chemistry*, 15(10):1091–1104, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tasi:1992:RMA

- [TKF92] Gyula Tasi, Imre Kiricsi, and Horst Förster. Representation of molecules by atomic charges: a new population analysis. *Journal of Computational Chemistry*, 13(3):371–379, April 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tatewaki:1996:ASR

- [TKSM96] Hiroshi Tatewaki, Shinichi Katsuki, Yoshiko Sakai, and Eisaku Miyoshi. Applications of spectral-Representation model as a potential method for Cu clusters. *Journal of Computational*

Chemistry, 17(8):1056–1067, June 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Takashima:1999:LSI

- [TKTN99] Hajime Takashima, Kunihiro Kitamura, Kazutoshi Tanabe, and Umpei Nagashima. Is large-scale ab initio Hartree–Fock calculation chemically accurate? Toward improved calculation of biological molecule properties. *Journal of Computational Chemistry*, 20(4):443–454, March 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Torre:1999:NNB

- [TLBP99] A. Torre, L. Lain, R. Bochicchio, and R. Ponec. Nature of non-classical bonds in Closو-Boranes: Nonlinear population analysis approach. *Journal of Computational Chemistry*, 20(10):1085–1090, July 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Taga:1995:MCS

- [TM95] Tooru Taga and Kazuhumi Masuda. Monte Carlo study of lipid membranes: Simulation of dipalmitoylphosphatidylcholine bilayers in gel and liquid-crystalline phases. *Journal of Computational Chemistry*, 16(2):235–242, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tasaki:1993:OCT

- [TMB93] K. Tasaki, S. McDonald, and J. W. Brady. Observations concerning the treatment of long-range interactions in molecular dynamics simulations. *Journal of Computational Chemistry*, 14(3):278–284, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tunon:1996:CDF

- [TMCM⁺96] I. Tuñón, M. T. C. Martins-Costa, C. Millot, M. F. Ruiz-López, and J. L. Rivail. A coupled density functional-molecular mechanics Monte Carlo simulation method: the water molecule in liquid water. *Journal of Computational Chemistry*, 17(1):19–29, January 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Toyoda:1999:DME

- [TMK⁺99] Shinjiro Toyoda, Hiroh Miyagawa, Kunihiro Kitamura, Takashi Amisaki, Eiri Hashimoto, Hitoshi Ikeda, Akihiro

Kusumi, and Nobuaki Miyakawa. Development of MD Engine: High-speed accelerator with parallel processor design for molecular dynamics simulations. *Journal of Computational Chemistry*, 20(2):185–199, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Trinajstic:1991:CCG

[TNKM91]

Nenad Trinajstić, S. Nikolic, J. V. Knop, and W. R. Muller, editors. *Computational Chemical Graph Theory: Characterization, Enumeration, and Generation of Chemical Structures by Computer Methods*. Ellis Horwood series in chemical computation, statistics, and information. Ellis Horwood, New York, NY, USA, 1991. ISBN 0-13-151739-2. 278 pp. LCCN QD461 .C6314 1991. Translation editor John M. Mellor.

Tuzun:1997:ETP

[TNS97a]

Robert E. Tuzun, Donald W. Noid, and Bobby G. Sumpter. Efficient treatment of out-of-plane bend and improper torsion interactions in MM2, MM3, and MM4 molecular mechanics calculations. *Journal of Computational Chemistry*, 18(14):1804–1811, November 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tuzun:1997:TMI

[TNS97b]

Robert E. Tuzun, Donald W. Noid, and Bobby G. Sumpter. Treatment of multibody interactions in molecular simulations of systems with general bond networks. *Journal of Computational Chemistry*, 18(12):1513–1522, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Toth:1993:MCS

[TP93]

Katalin Tóth and Tapani A. Pakkanen. Model calculations for small closed-ring CdS clusters and chemisorption processes by a quantum chemical cluster approach. *Journal of Computational Chemistry*, 14(6):667–672, June 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tiraboschi:1999:JQC

[TRG99]

Gilles Tiraboschi, Bernard-Pierre Roques, and Nohad Gresh. Joint quantum chemical and polarizable molecular mechanics investigation of formate complexes with penta- and hexahydrated Zn²⁺: Comparison between energetics of model bidentate, monodentate, and through-water Zn²⁺ binding modes

and evaluation of nonadditivity effects. *Journal of Computational Chemistry*, 20(13):1379–1390, October 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tirado-Rives:1996:VMM

- [TRJ96] Julian Tirado-Rives and William L. Jorgensen. Viability of molecular modeling with Pentium-based PCs. *Journal of Computational Chemistry*, 17(11):1385–1386, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tunon:1996:CHF

- [TRLRB96] Iñaki Tuñón, Manuel F. Ruiz-López, Daniel Rinaldi, and Juan Bertrán. Computation of hydration free energies using a parameterized continuum model: Study of equilibrium geometries and reactive processes in water solution. *Journal of Computational Chemistry*, 17(2):148–155, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Theiry:1994:QMC

- [TRR⁺94] Vincent Théry, Daniel Rinaldi, Jean-Louis Rivail, Bernard Maigret, and György G. Ferenczy. Quantum mechanical computations on very large molecular systems: the local self-consistent field method. *Journal of Computational Chemistry*, 15(3):269–282, March 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Truhlar:1991:SAV

- [Tru91] Donald G. Truhlar. A simple approximation for the vibrational partition function of a hindered internal rotation. *Journal of Computational Chemistry*, 12(2):266–270, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Trosset:1999:FDS

- [TS99a] Jean-Yves Trosset and Harold A. Scheraga. Flexible docking simulations: Scaled collective variable Monte Carlo minimization approach using Bezier splines, and comparison with a standard Monte Carlo algorithm. *Journal of Computational Chemistry*, 20(2):244–252, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Trosset:1999:PSP

- [TS99b] Jean-Yves Trosset and Harold A. Scheraga. PRODOCK: Software package for protein modeling and docking. *Journal of Computational Chemistry*, 20(4):412–427, March 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tratch:1990:CMA

- [TSZ90] S. S. Tratch, M. I. Stankevitch, and N. S. Zefirov. Combinatorial models and algorithms in chemistry. The expanded Wiener number — a novel topological index. *Journal of Computational Chemistry*, 11(8):899–908, September 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Torda:1994:ACM

- [TvG94] Andrew E. Torda and Wilfred F. van Gunsteren. Algorithms for clustering molecular dynamics configurations. *Journal of Computational Chemistry*, 15(12):1331–1340, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Turner:1995:RVM

- [TWR⁺95] James Turner, Paul Weiner, Barry Robson, Ravi Venugopal, Harry Schubele III, and Ramen Singh. Reduced variable molecular dynamics. *Journal of Computational Chemistry*, 16(10):1271–1290, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Teppen:1998:MDS

- [TYMS98] Brian J. Teppen, Ching-Hsing Yu, David M. Miller, and Lothar Schäfer. Molecular dynamics simulations of sorption of organic compounds at the clay mineral/aqueous solution interface. *Journal of Computational Chemistry*, 19(2):144–153, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Tong:1992:ARE

- [TYRD92] Weida Tong, Hongping Ye, Ding Rong, and Valerian T. D’Souza. Artificial redox enzymes. II. A computational chemistry study. *Journal of Computational Chemistry*, 13(5):614–621, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Urban:1993:CDE

- [UF93] Joseph J. Urban and George R. Fanni. Conformational dependence of the electrostatic potential-derived charges of dopamine: Ramifications in molecular mechanics force field calculations in the gas phase and in aqueous solution. *Journal of Computational Chemistry*, 14(3):353–362, March 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Urbina-Villalba:1992:SSE

- [UVRCR92] German Urbina-Villalba, Leonardo J. Rodriguez, German R. Castro, and Fernando Ruette. Semiempirical study of electronic and bonding properties of cobalt silicide clusters. *Journal of Computational Chemistry*, 13(7):867–873, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

VonArnim:1998:PPT

- [VA98] Malte Von Arnim and Reinhart Ahlrichs. Performance of parallel TURBOMOLE for density functional calculations. *Journal of Computational Chemistry*, 19(15):1746–1757, November 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vahtras:1994:DOI

- [VÅJ94] Olav Vahtras, Hans Årgren, and Hans Jørgen Aa. Jensen. Direct one-index transformations in multiconfiguration response calculations. *Journal of Computational Chemistry*, 15(6):573–579, June 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

VanWullen:1997:MSB

- [Van97] Christoph Van Wüllen. Molecular structure and binding energies of monosubstituted hexacarbonyls of chromium, molybdenum, and tungsten: Relativistic density functional study. *Journal of Computational Chemistry*, 18(16):1985–1992, December 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

VanWullen:1999:RAE

- [Van99] Christoph Van Wüllen. Relativistic all-electron density functional calculations. *Journal of Computational Chemistry*, 20

(1):51–62, January 15, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Varnali:1992:BRB

[Var92]

Tereza Varnali. Book review: *Computational chemistry using the P.C.*, by Donald W. Rogers, VCH Publishers, Inc., New York, 1990. pp. 224. Price: \$55.00. *Journal of Computational Chemistry*, 13(2):254–255, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vasquez:1992:LIS

[Vas92]

Desiderio A. Vasquez. Locally implicit solution of a reaction-diffusion system with stiff kinetics. *Journal of Computational Chemistry*, 13(5):570–578, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

VonFreyberg:1993:MEE

[VB93]

Berthold Von Freyberg and Werner Braun. Minimization of empirical energy functions in proteins including hydrophobic surface area effects. *Journal of Computational Chemistry*, 14 (5):510–521, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ventura:1992:AGP

[VCLB92]

Oscar N. Ventura, Elena L. CoitiñO, Agustí Lledós, and Juan Bertran. Analysis of the gas-phase addition of water to formaldehyde: a semiempirical and ab initio study of bifunctional catalysis by H₂O. *Journal of Computational Chemistry*, 13(9):1037–1046, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

VanAalten:1997:CTC

[VDF⁺97]

D. M. F. Van Aalten, B. L. De Groot, J. B. C. Findlay, H. J. C. Berendsen, and A. Amadei. A comparison of techniques for calculating protein essential dynamics. *Journal of Computational Chemistry*, 18(2):169–181, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

deRijdt:1992:MCV

[vDvdRvD92]

Jeanne G. C. M. van Duijneveldt-van de Rijdt and Frans B. van Duijneveldt. Methods for the calculation of V_{oh} in OH O hydrogen bonds. *Journal of Computational Chemistry*, 13

(4):399–407, May 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

vanEijck:1999:UPP

[vEK99]

Bouke P. van Eijck and Jan Kroon. U pack program package for crystal structure prediction: Force fields and crystal structure generation for small carbohydrate molecules. *Journal of Computational Chemistry*, 20(8):799–812, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Visscher:1999:FFC

[VES⁺99]

Lucas Visscher, Thomas Enevoldsen, Trond Saue, Hans Jørgen Aagard Jensen, and Jens Oddershede. Full four-component relativistic calculations of NMR shielding and indirect spin–spin coupling tensors in hydrogen halides. *Journal of Computational Chemistry*, 20(12):1262–1273, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Veldkamp:1992:TSO

[VF92]

Achim Veldkamp and Gernot Frenking. Theoretical studies of organometallic compounds. III. Structures and bond energies of FeCH_n and FeCH ($n = 1, 2, 3$). *Journal of Computational Chemistry*, 13(10):1184–1198, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

vonFreyberg:1991:ESA

[vFB91]

Berthold von Freyberg and Werner Braun. Efficient search for all low energy conformations of polypeptides by Monte Carlo methods. *Journal of Computational Chemistry*, 12(9):1065–1076, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Veenstra:1992:HTH

[VFK92]

David L. Veenstra, David M. Ferguson, and Peter A. Kollman. How transferable are hydrogen parameters in molecular mechanics calculations? *Journal of Computational Chemistry*, 13(8):971–978, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Voets:1990:TSP

[VFM⁺90]

R. Voets, J.-P. François, J. M. L. Martin, J. Mullens, J. Yperman, and L. C. Van Poucke. Theoretical study of the proton

affinities of 2-, 3-, and 4-monosubstituted phenolate ions in the gas phase by means of MINDO/3, MNDO, and AM1. *Journal of Computational Chemistry*, 11(3):269–290, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Velikson:1992:CDH

[VGN⁺92]

B. Velikson, T. Garel, J.-C. Niel, H. Orland, and J. C. Smith. Conformational distribution of heptaalanine: Analysis using a new Monte Carlo chain growth method. *Journal of Computational Chemistry*, 13(10):1216–1233, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vieth:1998:ASS

[VHD⁺98]

Michal Vieth, Jonathan D. Hirst, Brian N. Dominy, Heidi Daigler, and Charles L. Brooks III. Assessing search strategies for flexible docking. *Journal of Computational Chemistry*, 19(14):1623–1631, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vieth:1998:AEF

[VHKB98]

Michal Vieth, Jonathan D. Hirst, Andrzej Kolinski, and Charles L. Brooks III. Assessing energy functions for flexible docking. *Journal of Computational Chemistry*, 19(14):1612–1622, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vos:1990:SMC

[VHV90]

R. J. Vos, R. Hendriks, and F. B. Van Duijneveldt. SCF, MP2, and CEPA-1 calculations on the OH···O hydrogen bonded complexes (H₂O)₂ and (H₂O-H₂CO). *Journal of Computational Chemistry*, 11(1):1–18, January 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Valle:1999:MAC

[VHV99]

R. G. Della Valle, L. Halonen, and E. Venuti. Molecular anharmonicity: a computer-aided treatment. *Journal of Computational Chemistry*, 20(16):1716–1730, December 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Varnek:1998:VWH

[VHWC98]

Alexandre Varnek, Severine Helissen, Georges Wipff, and André Collet. van der Waals host–guest complexes: Can one

predict complexation selectivity of neutral guests by a cryptophane? MD-FEP studies in gas phase and chloroform solution. *Journal of Computational Chemistry*, 19(8):820–832, June 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Versteeg:1994:VIC

- [VK94] Uwe Versteeg and Wolfram Koch. The valence isomers of $(\text{CH})_8$ and $(\text{SiH})_8$: an ab initio MO study. *Journal of Computational Chemistry*, 15(10):1151–1162, October 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

VanEijck:1997:FCE

- [VK97] Bouke P. Van Eijck and Jan Kroon. Fast clustering of equivalent structures in crystal structure prediction. *Journal of Computational Chemistry*, 18(8):1036–1042, June 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ventura:1996:DFS

- [VKC96] Oscar N. Ventura, Martina Kieninger, and Elena L. Coitño. Density functional study of isomerization of fluoro- and chloroformaldehyde radical cations. *Journal of Computational Chemistry*, 17(11):1309–1317, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Villar:1990:CSC

- [VL90] Hugo O. Villar and Gilda H. Loew. A conformational study of cocaine and its diastereomers. *Journal of Computational Chemistry*, 11(9):1111–1118, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

vanLenthe:1990:SSM

- [vLP90] Johan H. van Lenthe and Peter Pulay. A space-saving modification of Davidson’s eigenvector algorithm. *Journal of Computational Chemistry*, 11(10):1164–1168, November 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vincent:1995:HPP

- [VM95] James J. Vincent and Kenneth M. Merz Jr. A highly portable parallel implementation of AMBER4 using the message passing interface standard. *Journal of Computational Chemistry*, 16(11):1420–1427, November 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

[vOC93]

Andreas Ritter von Onciul and Timothy Clark. Molecular orbital studies of enzyme mechanisms. II. Catalytic oxidation of alcohols by liver alcohol dehydrogenase. *Journal of Computational Chemistry*, 14(4):392–400, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

vonOnciul:1993:MOS

[VP92]

Raúl E. Valdés-Pérez. Algorithm to generate reaction pathways for computer-assisted elucidation. *Journal of Computational Chemistry*, 13(9):1079–1088, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Valdes-Perez:1992:AGR

[VP93]

Raúl E. Valdés-Pérez. Algorithm to test the structural plausibility of a proposed elementary reaction. *Journal of Computational Chemistry*, 14(12):1454–1459, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Valdes-Perez:1993:ATS

[VP94]

Raúl E. Valdés-Pérez. Algorithm to infer the structures of molecular formulas within a reaction pathway. *Journal of Computational Chemistry*, 15(11):1266–1277, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Valdes-Perez:1994:AIS

[VPV91]

Carol A. Venanzi, Christopher Plant, and Thomas J. Venanzi. A molecular orbital study of amiloride. *Journal of Computational Chemistry*, 12(7):850–861, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Venanzi:1991:MOS

[VRBE93]

Vellarkad N. Viswanadhan, M. Rami Reddy, Russell J. Bacquet, and Mark D. Erion. Assessment of methods used for predicting lipophilicity: Application to nucleosides and nucleoside bases. *Journal of Computational Chemistry*, 14(9):1019–1026, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Viswanadhan:1993:AMU

Vazquez:1991:MMS

- [VRC91] Saulo A. Vázquez, Miguel A. Ríos, and Luis Carballeira. A molecular mechanics study of conformational trends in simple alcohols and ethers. Part I: Geometric trends. *Journal of Computational Chemistry*, 12(7):872–879, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vazquez:1992:MMS

- [VRC92] Saulo A. Vázquez, Miguel A. Ríos, and Luís Carballeira. Molecular mechanics study of conformational trends in simple alcohols and ethers. II. Intramolecular hydrogen bonding. *Journal of Computational Chemistry*, 13(7):851–859, September 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schleyer:1998:EP

- [vRS98] Paul von R. Schleyer. Editor’s preface. *Journal of Computational Chemistry*, 19(2):v, January 30, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Schleyer:1992:DCP

- [vRSD92] Paul von Ragué Schleyer and José Walkimar De M. Carneiro. Does CH prefer a C_{2v} rather than a C_s structure? *Journal of Computational Chemistry*, 13(8):997–1003, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vaara:1999:CRC

- [VRV99] Juha Vaara, Kenneth Ruud, and Olav Vahtras. Correlated response calculations of the spin-orbit interaction contribution to nuclear spin-spin couplings. *Journal of Computational Chemistry*, 20(12):1314–1327, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vorobjev:1997:FAM

- [VS97] Yury N. Vorobjev and Harold A. Scheraga. A fast adaptive multigrid boundary element method for macromolecular electrostatic computations in a solvent. *Journal of Computational Chemistry*, 18(4):569–583, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vyboishchikov:1997:TAE

- [VSF97] Sergei F. Vyboishchikov, Anibal Sierraalta, and Gernot Frenking. Topological analysis of electron density distribution taken from a pseudopotential calculation. *Journal of Computational Chemistry*, 18(3):416–429, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Venuvanalingam:1991:PAC

- [VT91] P. Venuvanalingam and P. Thangavel. Parallel algorithm for the computation of characteristic polynomials of chemical graphs. *Journal of Computational Chemistry*, 12(7):779–783, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Verdonk:1994:TME

- [VTR⁺94] M. L. Verdonk, R. W. Tjerkstra, I. S. Ridder, J. A. Kanters, J. Kroon, and W. J. M. van der Kemp. ToBaD: a method for the estimation of torsion barriers from crystal structure data; conformational analysis of N, N-dimethylaniline and derivatives. *Journal of Computational Chemistry*, 15(12):1429–1436, December 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Valiron:1993:CPP

- [VVM93] Pierre Valiron, Ágnes Vibók, and István Mayer. Comparison of a posteriori and a priori BSSE correction schemes for SCF intermolecular energies. *Journal of Computational Chemistry*, 14(4):401–409, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

VanDam:1996:IDI

- [VVSV96] H. J. J. Van Dam, J. H. Van Lenthe, G. L. G. Sleijpen, and H. A. Van Der Vorst. An improvement of Davidson’s iteration method: Applications to MRCI and MRCEPA calculations. *Journal of Computational Chemistry*, 17(3):267–272, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Verwoerd:1991:CSC

- [VW91] W. S. Verwoerd and K. Weimer. Comparison of semiempirical calculations for silicon compounds. *Journal of Compu-*

tational Chemistry, 12(4):417–420, May 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Varnek:1996:TCE

[VW96]

A. Varnek and G. Wipff. Theoretical calculations of extraction selectivity: Alkali cation complexes of calix[4]-bis-crown6 in pure water, chloroform, and at a water/chloroform interface. *Journal of Computational Chemistry*, 17(13):1520–1531, October 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Varnek:1995:AMS

[VWGF95]

A. A. Varnek, G. Wipff, A. S. Glebov, and D. Feil. An application of the Miertus–Scrocco–Tomasi solvation model in molecular mechanics and dynamics simulations. *Journal of Computational Chemistry*, 16(1):1–19, January 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Vyazovkin:1997:EAE

[Vya97]

Sergey Vyazovkin. Evaluation of activation energy of thermally stimulated solid-state reactions under arbitrary variation of temperature. *Journal of Computational Chemistry*, 18(3):393–402, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Williams:1999:SCM

[WA99]

Donald E. Williams and Aron Abraha. Site charge models for molecular electrostatic potentials of cycloalkanes and tetrahedrane. *Journal of Computational Chemistry*, 20(6):579–585, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Walker:1991:CSC

[WAM91]

P. Duane Walker, Gustavo A. Arteca, and Paul G. Mezey. A complete shape characterization for molecular charge densities represented by Gaussian-type functions. *Journal of Computational Chemistry*, 12(2):220–230, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Walker:1993:SGE

[WAM93]

P. Duane Walker, Gustavo A. Arteca, and Paul G. Mezey. Shape groups of the electronic isodensity surfaces for small

molecules: Shapes of 10-electron hydrides. *Journal of Computational Chemistry*, 14(10):1172–1183, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1991:GSM

- [Wan91] Huajun Wang. Grid-search molecular accessible surface algorithm for solving the protein docking problem. *Journal of Computational Chemistry*, 12(6):746–750, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1997:EAC

- [Wan97] Cheuk-San Wang. Efficient algorithm for conformational search of macrocyclic molecules. *Journal of Computational Chemistry*, 18(2):277–289, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wilson:1997:RDD

- [WAW⁺97] Mark R. Wilson, Michael P. Allen, Mark A. Warren, Alain Sauron, and William Smith. Replicated data and domain decomposition molecular dynamics techniques for simulation of anisotropic potentials. *Journal of Computational Chemistry*, 18(4):478–488, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wright:1991:BFC

- [WB91] James S. Wright and V. J. Barclay. Bond functions, covalent potential curves, and the basis set superposition error. *Journal of Computational Chemistry*, 12(6):697–704, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Welsh:1990:MMS

- [WC90] William J. Welsh and Vivian Cody. Molecular modeling studies of novel heteroarotinoids. *Journal of Computational Chemistry*, 11(4):531–540, May 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wong:1991:TEI

- [WCC91] M. W. Wong, G. Corongiu, and E. Clementi. Two-electron integral evaluation for uncontracted geometrical-type Gaussian functions. *Journal of Computational Chemistry*, 12(2):215–219, March 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wiberg:1996:SEC

- [WCK96] Kenneth B. Wiberg, Henry Castejon, and Todd A. Keith. Solvent effects: 6. A comparison between gas phase and solution acidities. *Journal of Computational Chemistry*, 17(2):185–190, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wilson:1991:ASA

- [WCMS91] Stephen R. Wilson, Weili Cui, Jules W. Moskowitz, and Kevin E. Schmidt. Applications of simulated annealing to the conformational analysis of flexible molecules. *Journal of Computational Chemistry*, 12(3):342–349, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Welsh:1990:AMO

- [Wel90] William J. Welsh. AM1 molecular orbital studies of the structures, conformations, protonation energies, and electronic properties of triazine dihydrofolate reductase inhibitors. *Journal of Computational Chemistry*, 11(5):644–653, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1994:ACD

- [WF94] Bingze Wang and George P. Ford. Atomic charges derived from a fast and accurate method for electrostatic potentials based on modified AM1 calculations. *Journal of Computational Chemistry*, 15(2):200–207, February 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Winn:1999:TIF

- [WFR99] Peter J. Winn, György G. Ferenczy, and Christopher A. Reynolds. Towards improved force fields: III. Polarization through modified atomic charges. *Journal of Computational Chemistry*, 20(7):704–712, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Waldman:1993:NCR

- [WH93] Marvin Waldman and A. T. Hagler. New combining rules for rare gas van der Waals parameters. *Journal of Computational Chemistry*, 14(9):1077–1084, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wong:1995:ALS

- [WH95] Adrian T. Wong and Robert J. Harrison. Approaches to large-scale parallel self-consistent field calculations. *Journal of Computational Chemistry*, 16(10):1291–1300, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Weiser:1997:HCS

- [WHF97] Jörg Weiser, Max C. Holthausen, and Lutz Fitjer. HUNTER: a conformational search program for acyclic to polycyclic molecules with special emphasis on stereochemistry. *Journal of Computational Chemistry*, 18(10):1264–1281, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wolinski:1997:MPC

- [WHHP97] Krzysztof Wolinski, Robert Haacke, James F. Hinton, and Peter Pulay. Methods for parallel computation of SCF NMR chemical shifts by GIAO method: Efficient integral calculation, multi-Fock algorithm, and pseudodiagonalization. *Journal of Computational Chemistry*, 18(6):816–825, April 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Williams:1996:IMS

- [WHM⁺96] Stephen D. Williams, Warren Harper, Gleb Mamantov, Louis J. Tortorelli, and George Shankle. Ab initio MO study of selected aluminum and boron chlorides and fluorides: Comparison with ¹¹B NMR spectra of a tetrachloroborate melt. *Journal of Computational Chemistry*, 17(15):1696–1711, November 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wiberg:1999:CDF

- [Wib99] Kenneth B. Wiberg. Comparison of density functional theory models' ability to reproduce experimental ¹³C-NMR shielding values. *Journal of Computational Chemistry*, 20(12):1299–1303, September 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Williams:1994:FNA

- [Wil94] Donald E. Williams. Failure of net atomic charge models to represent the van der Waals envelope electric potential of *n*-alkanes. *Journal of Computational Chemistry*, 15(7):719–732, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wu:1996:DBD

- [WJL⁺96] G. Wu, S. Jacobs, A. T. H. Lenstra, C. van Alsenoy, and H. J. Geise. 2,5-dimethoxy-1,4-bis[2-(2,4-dimethoxyphenyl)ethenyl]benzene studied by quantum chemical calculations and single crystal X-ray diffraction. *Journal of Computational Chemistry*, 17(16):1820–1835, December 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wu:1996:PVO

- [WJV⁺96] Guang Wu, S. Jacobs, M. G. Verbruggen, A. T. H. Lenstra, C. van Alsenoy, H. J. Geise, and L. van Meervelt. Phenylene vinylene oligomers studied by theoretical methods: Joint analysis of computational and X-ray results of the configurational isomers of 1,4-bis[2-(3,4,5-trimethoxyphenyl)ethenyl]benzene. *Journal of Computational Chemistry*, 17(10):1245–1257, July 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Woods:1990:DNA

- [WKP⁺90] Robert J. Woods, Maged Khalil, Wendy Pell, Steven H. Moffat, and Vedene H. Smith Jr. Derivation of net atomic charges from molecular electrostatic potentials. *Journal of Computational Chemistry*, 11(3):297–310, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1991:VAC

- [WL91a] Huajun Wang and Cyrus Levinthal. A vectorized algorithm for calculating the accessible surface area of macromolecules. *Journal of Computational Chemistry*, 12(7):868–871, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Williams:1991:EHS

- [WL91b] Robert W. Williams and Alfred H. Lowrey. Effects of hydration on scale factors for ab initio force constants. *Journal of*

Computational Chemistry, 12(6):761–777, July 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Westbrook:1992:MEP

- [WLKJ92] John D. Westbrook, Ronald M. Levy, and Karsten Krogh-Jespersen. Molecular electrostatic potentials and partial atomic charges from correlated wave functions: Applications to the electronic ground and excited states of 3-methylindole. *Journal of Computational Chemistry*, 13(8):979–989, October 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Waller:1993:TIP

- [WM93] Chris L. Waller and James D. McKinney. Theoretical investigation into the potential of halogenated methanes to undergo reductive metabolism. *Journal of Computational Chemistry*, 14(12):1575–1579, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wheatley:1994:GMP

- [WM94] Richard J. Wheatley and John B. O. Mitchell. Gaussian multipoles in practice: Electrostatic energies for intermolecular potentials. *Journal of Computational Chemistry*, 15(11):1187–1198, November 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Walker:1995:TSM

- [WM95] P. Duane Walker and Paul G. Mezey. Toward similarity measures for macromolecular bodies: Medla test calculations for substituted benzene systems. *Journal of Computational Chemistry*, 16(10):1238–1249, October 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Walker:1995:ASG

- [WMM⁺95] P. Duane Walker, Paul G. Mezey, Gerald M. Maggiora, Mark A. Johnson, and James D. Petke. Application of the shape group method to conformational processes: Shape and conjugation changes in the conformers of 2-phenyl pyrimidine. *Journal of Computational Chemistry*, 16(12):1474–1482, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wu:1991:STS

- [WNW91] C. S. Wu, W. C. Neely, and S. D. Worley. A semiempirical theoretical study of the molecular interaction of cocaine with the biological substrate glycine. *Journal of Computational Chemistry*, 12(7):862–867, September 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wiberg:1997:CDI

- [WO97] Kenneth B. Wiberg and Joseph W. Ochterski. Comparison of different ab initio theoretical models for calculating isodesmic reaction energies for small ring and related compounds. *Journal of Computational Chemistry*, 18(1):108–114, January 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1996:CDG

- [WP96] Youliang Wang and Raymond A. Poirier. Computational developments in generalized valence bond calculations. *Journal of Computational Chemistry*, 17(3):313–325, February 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1997:PPC

- [WP97] Zhiqiang Wang and Ruth Pachter. Prediction of peptide conformation: the adaptive simulated annealing approach. *Journal of Computational Chemistry*, 18(3):323–329, February 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Willock:1995:RMC

- [WPLC95] D. J. Willock, S. L. Price, M. Leslie, and C. R. A. Catlow. The relaxation of molecular crystal structures using a distributed multipole electrostatic model. *Journal of Computational Chemistry*, 16(5):628–647, May 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wiberg:1993:CAC

- [WR93] Kenneth B. Wiberg and Paul R. Rablen. Comparison of atomic charges derived via different procedures. *Journal of Computational Chemistry*, 14(12):1504–1518, December 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Williams:1993:CFF

- [WS93] Donald E. Williams and Terry R. Stouch. Characterization of force fields for lipid molecules: Applications to crystal structures. *Journal of Computational Chemistry*, 14(9):1066–1076, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wu:1998:CDA

- [WS98] Xiong-Wu Wu and Shen-Shu Sung. Constraint dynamics algorithm for simulation of semiflexible macromolecules. *Journal of Computational Chemistry*, 19(14):1555–1566, November 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wagner:1999:ISM

- [WS99a] François Wagner and Thomas Simonson. Implicit solvent models: Combining an analytical formulation of continuum electrostatics with simple models of the hydrophobic effect. *Journal of Computational Chemistry*, 20(3):322–335, February 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wedemeyer:1999:EAL

- [WS99b] William J. Wedemeyer and Harold A. Scheraga. Exact analytical loop closure in proteins using polynomial equations. *Journal of Computational Chemistry*, 20(8):819–844, June 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Weiser:1999:AAS

- [WSS99a] Jörg Weiser, Peter S. Shenkin, and W. Clark Still. Approximate atomic surfaces from linear combinations of pairwise overlaps (LCPO). *Journal of Computational Chemistry*, 20(2):217–230, January 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Weiser:1999:FAA

- [WSS99b] Jörg Weiser, Peter S. Shenkin, and W. Clark Still. Fast, approximate algorithm for detection of solvent-inaccessible atoms. *Journal of Computational Chemistry*, 20(6):586–596, April 30, 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Weiser:1999:OGS

- [WSS99c] Jörg Weiser, Peter S. Shenkin, and W. Clark Still. Optimization of Gaussian surface calculations and extension to solvent-accessible surface areas. *Journal of Computational Chemistry*, 20(7):688–703, May 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wertz:1992:CDG

- [WSV92] David A. Wertz, Chen-Xi Shi, and Carol A. Venanzi. A comparison of distance geometry and molecular dynamics simulation techniques for conformational analysis of β -cyclodextrin. *Journal of Computational Chemistry*, 13(1):41–56, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

White:1993:QSL

- [WTLC93] David White, B. Craig Taverner, P. G. L. Leach, and Neil J. Coville. Quantification of substituent and ligand size by the use of solid angles. *Journal of Computational Chemistry*, 14 (9):1042–1049, September 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wunz:1992:NFE

- [Wun92] Timothy P. Wunz. Nucleoside free energy perturbation calculations: Mutation of purine-to-pyrimidine and pyrimidine-to-purine nucleosides. *Journal of Computational Chemistry*, 13 (5):667–673, June 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wong:1995:ICM

- [WWF95] Ming Wah Wong, Kenneth B. Wiberg, and Michael J. Frisch. Ab initio calculation of molar volumes: Comparison with experiment and use in solvation models. *Journal of Computational Chemistry*, 16(3):385–394, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Weiser:1998:ENL

- [WWSS98a] Jörg Weiser, Armin A. Weiser, Peter S. Shenkin, and W. Clark Still. Erratum: Neighbor-list reduction: Optimization for computation of molecular van der Waals and solvent-accessible surface areas. *Journal of Computational Chemistry*, 19(9):1110,

July 15, 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See [WWSS98b].

Weiser:1998:NLR

- [WWSS98b] Jörg Weiser, Armin A. Weiser, Peter S. Shenkin, and W. Clark Still. Neighbor-list reduction: Optimization for computation of molecular van der Waals and solvent-accessible surface areas. *Journal of Computational Chemistry*, 19(7):797–808, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See erratum [WWSS98a].

Wan:1997:SDS

- [WWXS97] Shun Zhou Wan, Cun Xin Wang, Zhe Xin Xiang, and Yun Yu Shi. Stochastic dynamics simulation of alanine dipeptide: Including solvation interaction determined by boundary element method. *Journal of Computational Chemistry*, 18(12):1440–1449, September 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1992:NRL

- [WWZD92] Yubin Wang, Zhenyi Wen, Zhiyong Zhang, and Quishi Du. New realization of loop driven direct CI. *Journal of Computational Chemistry*, 13(2):187–198, March 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Wang:1993:ICP

- [WZG⁺93] Peng Wang, Yala Zhang, Rainer Glaser, Andrew Streitwieser, and Paul von R. Schleyer. Ab initio calculations on phosphorus compounds. II. Effects of disubstitution on ligand apicophilicity in phosphoranes. *Journal of Computational Chemistry*, 14 (5):522–529, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Xu:1992:IPD

- [XWS92] Y. W. Xu, C. X. Wang, and Y. Y. Shi. Improvements on the protein–dipole Langevin–dipole model. *Journal of Computational Chemistry*, 13(9):1109–1113, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yarkony:1995:MES

- [Yar95] David Yarkony, editor. *Modern electronic structure theory*, volume 2 of *Advanced series in physical chemistry*. World

Scientific Publishing Co., Singapore; Philadelphia, PA, USA; River Edge, NJ, USA, 1995. ISBN 981-02-1318-2 (hardcover: set), 981-02-2108-8 (paperback: set), 981-02-1959-8 (hardcover: part 1), 981-02-2987-9 (paperback: part 1), 981-02-1960-1 (hardcover: part 2), 981-02-2988-7 (paperback: part 2). xiii + 1462 + i + 30 (two volumes) pp. LCCN QD461 .M5967 1995.

Young:1994:IDP

[YB94]

William S. Young and Charles L. Brooks III. Implementation of a data parallel, logical domain decomposition method for interparticle interactions in molecular dynamics of structured molecular fluids. *Journal of Computational Chemistry*, 15(1): 44–53, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

You:1995:AAR

[YB95a]

Tony You and Donald Bashford. An analytical algorithm for the rapid determination of the solvent accessibility of points in a three-dimensional lattice around a solute molecule. *Journal of Computational Chemistry*, 16(6):743–757, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Young:1995:DLB

[YB95b]

William S. Young and Charles L. Brooks III. Dynamic load balancing algorithms for replicated data molecular dynamics. *Journal of Computational Chemistry*, 16(6):715–722, June 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

York:1994:SSS

[YBD⁺94]

D. M. York, L. J. Bartolotti, T. A. Darden, L. G. Pedersen, and M. W. Anderson. Simulations of the solution structure of HIV-1 protease in the presence and absence of bound zinc. *Journal of Computational Chemistry*, 15(1):61–71, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yoo:1995:PLE

[YC95]

Sung-Eun Yoo and Ok Ja Cha. Prediction of LUMO energy and rate constant by comparative molecular field analysis

(CoMFA). *Journal of Computational Chemistry*, 16(4):449–453, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yahiro:1992:VPAb

- [YG92a] Shuichi Yahiro and Yasuhiko Gondo. Vector processing algorithm for electron repulsion integrals in Ab Initio HF calculation based upon the PK supermatrix. *Journal of Computational Chemistry*, 13(10):1246–1254, December 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yahiro:1992:VPAa

- [YG92b] Shuichi Yahiro and Yasuhiko Gondo. A vector processing algorithm of auxiliary integral evaluation for two-electron Gaussian integrals. *Journal of Computational Chemistry*, 13(1):12–16, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

You:1993:FEA

- [YH93] Tony J. You and Stephen C. Harvey. Finite element approach to the electrostatics of macromolecules with arbitrary geometries. *Journal of Computational Chemistry*, 14(4):484–501, April 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yoneda:1996:MDS

- [YKU96] Shigetaka Yoneda, Masako Kitazawa, and Hideaki Umeyama. Molecular dynamics simulation of a rhinovirus capsid under rotational symmetry boundary conditions. *Journal of Computational Chemistry*, 17(2):191–203, January 30, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yoon:1990:BEM

- [YL90] Byung Jun Yoon and A. M. Lenhoff. A boundary element method for molecular electrostatics with electrolyte effects. *Journal of Computational Chemistry*, 11(9):1080–1086, October 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yin:1998:CIS

- [YM98] Daxu Yin and Alexander D. MacKerell Jr. Combined ab initio /empirical approach for optimization of Lennard-Jones parameters. *Journal of Computational Chemistry*, 19(3):334–348,

February 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yoshikawa:1990:MMC

- [Yos90] Yuzo Yoshikawa. Molecular mechanics criterion for metal complex formation. *Journal of Computational Chemistry*, 11(3): 326–335, April 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yoshioki:1994:IDG

- [Yos94] Shuzo Yoshioki. Internal dynamics of a globular protein under external force field. *Journal of Computational Chemistry*, 15 (7):684–703, July 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yoshioki:1996:IDG

- [Yos96] Shuzo Yoshioki. Internal dynamics of a globular protein in water. *Journal of Computational Chemistry*, 17(7):878–887, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yoon:1995:DCT

- [YSJ95] Jeong Hyeok Yoon, Jae Kwang Shin, and Mu Shik Jhon. Determination of C-terminal structure of human C Ha ras oncogenic protein. *Journal of Computational Chemistry*, 16(4):478–485, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Young:1997:BMC

- [YTRB97] L. Young, I. A. Topol, A. A. Rashin, and S. K. Burt. Building molecular charge distributions from fragments: Application to HIV-1 protease inhibitors. *Journal of Computational Chemistry*, 18(4):522–532, March 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Yiu:1997:CIM

- [YTT97] K. F. C. Yiu, K. Y. Tam, and S. C. Tsang. Crystal indexing method using a simulated annealing algorithm with particular applications in nanocrystal research. *Journal of Computational Chemistry*, 18(2):290–299, January 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhang:1994:ECG

- [ZA94] Zhenghong Zhang and Ludwik Adamowicz. Explicitly correlated Gaussian functions with r factors for calculations of the ground state of the helium atom. *Journal of Computational Chemistry*, 15(8):893–898, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zauhar:1991:IHF

- [Zau91] R. J. Zauhar. The incorporation of hydration forces determined by continuum electrostatics into molecular mechanics simulations. *Journal of Computational Chemistry*, 12(5):575–583, June 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zahradník:1991:SSV

- [ZBM91] Rudolf Zahradník, V. Balaji, and Josef Michl. An SCF study of 10-vertex and 12-vertex boranes and heteroboranes. *Journal of Computational Chemistry*, 12(9):1147–1156, November 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhang:1998:CGP

- [ZCP98] Kui Zhang and Alice Chung-Phillips. Conformers of gaseous protonated glycine. *Journal of Computational Chemistry*, 19(16):1862–1876, December 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhexin:1995:IPD

- [ZFYY95] Xiang Zhexin, Huang Fuhua, Shi Yunyu, and Xu Yinwu. Incorporating the protein–dipole Langevin–dipole model into Tanford–Kirkwood theory. *Journal of Computational Chemistry*, 16(12):1468–1473, December 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Ziegler:1992:EME

- [ZG92] T. Ziegler and G. L. Gutsev. On the evaluation of molecular electron affinities by approximate density functional theory. *Journal of Computational Chemistry*, 13(1):70–75, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhou:1993:SLM

- [Zho93] Taijin Zhou. Study of localized molecular orbitals using group theory methods and its approach to the many-electron correlation problem. III. Orthogonal bonded functions. *Journal of Computational Chemistry*, 14(5):549–555, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhou:1997:BRB

- [Zho97] Xuefeng Zhou. Book review: *Reviews in Computational Chemistry*, Volume 7. *Journal of Computational Chemistry*, 18(10):1327, July 30, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zachmann:1992:TAC

- [ZHSB92] Carl-Dieter Zachmann, Wolfgang Heiden, Micheal Schlenkrich, and Jürgen Brickmann. Topological analysis of complex molecular surfaces. *Journal of Computational Chemistry*, 13(1):76–84, January 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zimmermann:1991:OAP

- [Zim91] Karel Zimmermann. ORAL: All purpose molecular mechanics simulator and energy minimizer. *Journal of Computational Chemistry*, 12(3):310–319, April 1991. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zivkovic:1990:ECP

- [Živ90] Tomislav P. Živković. On the evaluation of the characteristic polynomial of a chemical graph. *Journal of Computational Chemistry*, 11(2):217–222, March 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic). See comment [Bal91a].

Zhang:1994:NRO

- [ZKA94] Zhenghong Zhang, Paweł M. Kozłowski, and Ludwik Adamowicz. Newton–Raphson optimization of the explicitly correlated Gaussian functions for calculations of the ground state of the helium atom. *Journal of Computational Chemistry*, 15(1):54–60, January 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zachmann:1993:SSS

- [ZKSB93] Carl-Dieter Zachmann, Stefan Michael Kast, Alla Sariban, and Jürgen Brickmann. Self-similarity of solvent-accessible surfaces of biological and synthetical macromolecules. *Journal of Computational Chemistry*, 14(11):1290–1300, November 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhou:1994:SLM

- [ZL94] Taijin Zhou and Aimin Liu. Study of localized molecular orbitals using group theory methods and its approach to the many-electron correlation problem. IV. The symmetry-adaptation of many-center integrals and Hamiltonian matrix elements in MCSCF calculations. *Journal of Computational Chemistry*, 15(8):858–865, August 1994. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zheng:1992:CPH

- [ZLM92] Ya-Jun Zheng, Scott M. Le Grand, and Kenneth M. Merz Jr. Conformational preferences for hydroxyl groups in substituted tetrahydropyrans. *Journal of Computational Chemistry*, 13 (6):772–791, July 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zauhar:1990:CEP

- [ZM90] R. J. Zauhar and R. S. Morgan. Computing the electric potential of biomolecules: Application of a new method of molecular surface triangulation. *Journal of Computational Chemistry*, 11 (5):603–622, June 1990. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zheng:1992:SHB

- [ZM92] Ya-Jun Zheng and Kenneth M. Merz Jr. Study of hydrogen bonding interactions relevant to biomolecular structure and function. *Journal of Computational Chemistry*, 13(9):1151–1169, November 1992. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhou:1999:GMS

- [ZM99] Taijin Zhou and Yirong Mo. General method for symmetry orbitals and tensors in electronic structure calculations. *Journal of Computational Chemistry*, 20(3):305–321, February 1999.

CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zheng:1997:TSI

- [ZMC⁺97] Shijun Zheng, Lingpeng Meng, Xinhua Cai, Zhenfeng Xu, and Xiaoyuan Fu. Topological studies on IRC paths of $X + H_2 \rightarrow XH + H$ reactions. *Journal of Computational Chemistry*, 18(9):1167–1174, July 15, 1997. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhou:1996:FDS

- [ZPV⁺96] Zhongxiang Zhou, Philip Payne, Max Vasquez, Nat Kuhn, and Michael Levitt. Finite-difference solution of the Poisson-Boltzmann equation: Complete elimination of self-energy. *Journal of Computational Chemistry*, 17(11):1344–1351, August 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zivkovic:1995:AAV

- [ŽRK⁺95] T. Živković, M. Randić, D. J. Klein, H.-Y. Zhu, and N. Trinajstić. Analytical approach to very large benzenoid polymers. *Journal of Computational Chemistry*, 16(4):517–526, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zheng:1993:LCB

- [ZRVD93] Qiang Zheng, Rakefet Rosenfeld, Sandor Vajda, and Charles Delisi. Loop closure via bond scaling and relaxation. *Journal of Computational Chemistry*, 14(5):556–565, May 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhang:1993:LNA

- [ZS93] Guihua Zhang and Tamar Schlick. LIN: a new algorithm to simulate the dynamics of biomolecules by combining implicit-integration and normal mode techniques. *Journal of Computational Chemistry*, 14(10):1212–1233, October 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhang:1995:SIC

- [ZS95] Mei-Qing Zhang and Robert D. Skeel. Symplectic integrators and the conservation of angular momentum. *Journal of Computational Chemistry*, 16(3):365–369, March 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

[ZS99]

Martin Zacharias and Heinz Sklenar. Harmonic modes as variables to approximately account for receptor flexibility in ligand–receptor docking simulations: Application to DNA minor groove ligand complex. *Journal of Computational Chemistry*, 20(3):287–300, February 1999. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zacharias:1999:HMV

[Zup89]

Jure Zupan. *Algorithms for Chemists*. John Wiley, New York, NY, USA, 1989. ISBN 0-471-92173-4. xv + 290 pp. LCCN QA76.6.

Zupan:1989:AC

[ZV96]

Randy J. Zauhar and Alexander Varnek. A fast and Space-efficient boundary element method for computing electrostatic and hydration effects in large molecules. *Journal of Computational Chemistry*, 17(7):864–877, May 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zauhar:1996:FSE

[ZvN93]

Vyacheslav G. Zakrzewski and Wolfgang von Niessen. Vectorizable algorithm for green function and many-body perturbation methods. *Journal of Computational Chemistry*, 14(1):13–18, January 1993. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zakrzewski:1993:VAG

[ZVP98]

Andrew V. Zeigarnik and Raúl E. Valdés-Pérez. Systematic prediction of the products and intermediates of isotopic labeling in reaction pathway studies. *Journal of Computational Chemistry*, 19(7):741–753, May 1998. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zeigarnik:1998:SPP

[ZY96]

Chuan-Bao Zhu and Ji-Min Yan. Investigation of interaction in C₆₀ embedded complexes (X@C₆₀) (X = alkali or halogen) at a series of radial positions by Buckingham potential function. *Journal of Computational Chemistry*, 17(14):1624–1632, November 15, 1996. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhu:1996:IIC

Zhexin:1995:CEP

- [ZYY95a] Xiang Zhexin, Shi Yunyu, and Xu Yingwu. Calculating the electric potential of macromolecules: a simple method for molecular surface triangulation. *Journal of Computational Chemistry*, 16(4):512–516, April 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).

Zhexin:1995:SFD

- [ZYY95b] Xiang Zhexin, Shi Yunyu, and Xu Yinwu. Solving the finite-difference, nonlinear, Poisson–Boltzmann equation under a linear approach. *Journal of Computational Chemistry*, 16(2):200–206, February 1995. CODEN JCCHDD. ISSN 0192-8651 (print), 1096-987X (electronic).