

Philippe H HÃ¼nberger

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6903093/publications.pdf>

Version: 2024-02-01

126
papers

10,951
citations

41344

49
h-index

32842

100
g-index

128
all docs

128
docs citations

128
times ranked

9300
citing authors

#	ARTICLE	IF	CITATIONS
1	The GROMOS Biomolecular Simulation Program Package. <i>Journal of Physical Chemistry A</i> , 1999, 103, 3596-3607.	2.5	1,354
2	A fast SHAKE algorithm to solve distance constraint equations for small molecules in molecular dynamics simulations. <i>Journal of Computational Chemistry</i> , 2001, 22, 501-508.	3.3	959
3	The GROMOS software for biomolecular simulation: GROMOS05. <i>Journal of Computational Chemistry</i> , 2005, 26, 1719-1751.	3.3	592
4	Biomolecular Modeling: Goals, Problems, Perspectives. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 4064-4092.	13.8	503
5	Thermostat Algorithms for Molecular Dynamics Simulations. <i>Advances in Polymer Science</i> , 0, , 105-149.	0.8	394
6	Martini Coarse-Grained Force Field: Extension to Carbohydrates. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 3195-3210.	5.3	363
7	Comparison of four methods to compute the dielectric permittivity of liquids from molecular dynamics simulations. <i>Journal of Chemical Physics</i> , 2001, 115, 1125-1136.	3.0	327
8	Ewald artifacts in computer simulations of ionic solvation and ion-ion interaction: A continuum electrostatics study. <i>Journal of Chemical Physics</i> , 1999, 110, 1856-1872.	3.0	325
9	A new GROMOS force field for hexopyranose-based carbohydrates. <i>Journal of Computational Chemistry</i> , 2005, 26, 1400-1412.	3.3	286
10	Molecular Dynamics Simulations of a Polyalanine Octapeptide under Ewald Boundary Conditions: Influence of Artificial Periodicity on Peptide Conformation. <i>Journal of Physical Chemistry B</i> , 2000, 104, 3668-3675.	2.6	274
11	Trehalose-protein interaction in aqueous solution. <i>Proteins: Structure, Function and Bioinformatics</i> , 2004, 55, 177-186.	2.6	204
12	New Interaction Parameters for Charged Amino Acid Side Chains in the GROMOS Force Field. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 3705-3723.	5.3	189
13	Calculating the binding free energies of charged species based on explicit-solvent simulations employing lattice-sum methods: An accurate correction scheme for electrostatic finite-size effects. <i>Journal of Chemical Physics</i> , 2013, 139, 184103.	3.0	187
14	Computation of methodology-independent ionic solvation free energies from molecular simulations. II. The hydration free energy of the sodium cation. <i>Journal of Chemical Physics</i> , 2006, 124, 224501.	3.0	176
15	An improved nucleic acid parameter set for the GROMOS force field. <i>Journal of Computational Chemistry</i> , 2005, 26, 725-737.	3.3	161
16	Interaction of the Disaccharide Trehalose with a Phospholipid Bilayer: A Molecular Dynamics Study. <i>Biophysical Journal</i> , 2004, 86, 2273-2285.	0.5	156
17	A reoptimized GROMOS force field for hexopyranose-based carbohydrates accounting for the relative free energies of ring conformers, anomers, epimers, hydroxymethyl rotamers, and glycosidic linkage conformers. <i>Journal of Computational Chemistry</i> , 2011, 32, 998-1032.	3.3	147
18	Computation of methodology-independent ionic solvation free energies from molecular simulations. I. The electrostatic potential in molecular liquids. <i>Journal of Chemical Physics</i> , 2006, 124, 124106.	3.0	140

#	ARTICLE	IF	CITATIONS
19	Theoretical Investigation of Solvent Effects on Glycosylation Reactions: Stereoselectivity Controlled by Preferential Conformations of the Intermediate Oxacarbenium-Counterion Complex. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 1783-1797.	5.3	137
20	Computation of methodology-independent single-ion solvation properties from molecular simulations. IV. Optimized Lennard-Jones interaction parameter sets for the alkali and halide ions in water. <i>Journal of Chemical Physics</i> , 2011, 134, 144104.	3.0	136
21	Conformational properties of glucose-based disaccharides investigated using molecular dynamics simulations with local elevation umbrella sampling. <i>Carbohydrate Research</i> , 2010, 345, 1781-1801.	2.3	125
22	Alternative schemes for the inclusion of a reaction-field correction into molecular dynamics simulations: Influence on the simulated energetic, structural, and dielectric properties of liquid water. <i>Journal of Chemical Physics</i> , 1998, 108, 6117-6134.	3.0	122
23	Influence of Artificial Periodicity and Ionic Strength in Molecular Dynamics Simulations of Charged Biomolecules Employing Lattice-Sum Methods. <i>Journal of Physical Chemistry B</i> , 2004, 108, 774-788.	2.6	121
24	A GROMOS-Compatible Force Field for Small Organic Molecules in the Condensed Phase: The 2016H66 Parameter Set. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 3825-3850.	5.3	118
25	Explicit-solvent molecular dynamics simulation at constant pH: Methodology and application to small amines. <i>Journal of Chemical Physics</i> , 2001, 114, 9706-9719.	3.0	114
26	New Interaction Parameters for Oxygen Compounds in the GROMOS Force Field: Improved Pure-Liquid and Solvation Properties for Alcohols, Ethers, Aldehydes, Ketones, Carboxylic Acids, and Esters. <i>Journal of Chemical Theory and Computation</i> , 2011, 7, 1016-1031.	5.3	112
27	Molecular dynamics simulations of the hyperthermophilic protein sac7d from <i>Sulfolobus acidocaldarius</i> : contribution of salt bridges to thermostability 1 Edited by B. Honig. <i>Journal of Molecular Biology</i> , 1999, 285, 1811-1830.	4.2	108
28	Using the local elevation method to construct optimized umbrella sampling potentials: Calculation of the relative free energies and interconversion barriers of glucopyranose ring conformers in water. <i>Journal of Computational Chemistry</i> , 2010, 31, 1-23.	3.3	104
29	New functionalities in the GROMOS biomolecular simulation software. <i>Journal of Computational Chemistry</i> , 2012, 33, 340-353.	3.3	98
30	Conformational and Dynamical Properties of Disaccharides in Water: a Molecular Dynamics Study. <i>Biophysical Journal</i> , 2006, 90, 4337-4344.	0.5	97
31	Interaction of the Sugars Trehalose, Maltose and Glucose with a Phospholipid Bilayer: A Comparative Molecular Dynamics Study. <i>Journal of Physical Chemistry B</i> , 2006, 110, 15572-15581.	2.6	94
32	Determinants of Ligand Binding to cAMP-Dependent Protein Kinase. <i>Biochemistry</i> , 1999, 38, 2358-2366.	2.5	83
33	Conformation, dynamics, solvation and relative stabilities of selected β -hexopyranoses in water: a molecular dynamics study with the gromos 45A4 force field. <i>Carbohydrate Research</i> , 2007, 342, 2097-2124.	2.3	79
34	Revision of the GROMOS 56A6_{CARBO} force field: Improving the description of ring conformational equilibria in hexopyranose-based carbohydrates chains. <i>Journal of Computational Chemistry</i> , 2016, 37, 354-365.	3.3	77
35	Absolute Single-Molecule Entropies from Quasi-Harmonic Analysis of Microsecond Molecular Dynamics: Correction Terms and Convergence Properties. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 3150-3160.	5.3	75
36	Molecular Dynamics Simulations of a Reversibly Folding β -Heptapeptide in Methanol: Influence of the Treatment of Long-Range Electrostatic Interactions. <i>Journal of Physical Chemistry B</i> , 2009, 113, 3112-3128.	2.6	72

#	ARTICLE	IF	CITATIONS
37	Calculation of Relative Free Energies for Ligand-Protein Binding, Solvation, and Conformational Transitions Using the GROMOS Software. <i>Journal of Physical Chemistry B</i> , 2011, 115, 13570-13577.	2.6	71
38	Absolute proton hydration free energy, surface potential of water, and redox potential of the hydrogen electrode from first principles: QM/MM MD free-energy simulations of sodium and potassium hydration. <i>Journal of Chemical Physics</i> , 2018, 148, 222814.	3.0	71
39	Optimal charge-shaping functions for the particle-particle-mesh (P3M) method for computing electrostatic interactions in molecular simulations. <i>Journal of Chemical Physics</i> , 2000, 113, 10464-10476.	3.0	69
40	Influence of cut-off truncation and artificial periodicity of electrostatic interactions in molecular simulations of solvated ions: A continuum electrostatics study. <i>Journal of Chemical Physics</i> , 2003, 119, 9129-9144.	3.0	67
41	Molecular Dynamics Simulations of Phospholipid Bilayers: Influence of Artificial Periodicity, System Size, and Simulation Time. <i>Journal of Physical Chemistry B</i> , 2005, 109, 11643-11652.	2.6	66
42	Car Parrinello Molecular Dynamics Simulations of CaCl_2 Aqueous Solutions. <i>Journal of Chemical Theory and Computation</i> , 2008, 4, 779-789.	5.3	66
43	Computation of methodology-independent single-ion solvation properties from molecular simulations. III. Correction terms for the solvation free energies, enthalpies, entropies, heat capacities, volumes, compressibilities, and expansivities of solvated ions. <i>Journal of Chemical Physics</i> , 2011, 134, 144103.	3.0	66
44	Explicit-Solvent Molecular Dynamics Simulations of the Polysaccharide Schizophyllan in Water. <i>Biophysical Journal</i> , 2007, 93, 442-455.	0.5	61
45	A GROMOS Parameter Set for Vicinal Diether Functions: Properties of Polyethyleneoxide and Polyethyleneglycol. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 3943-3963.	5.3	61
46	Comparison of Atomic-Level and Coarse-Grained Models for Liquid Hydrocarbons from Molecular Dynamics Configurational Entropy Estimates. <i>Journal of Physical Chemistry B</i> , 2006, 110, 8464-8473.	2.6	60
47	Configurational Entropies of Lipids in Pure and Mixed Bilayers from Atomic-Level and Coarse-Grained Molecular Dynamics Simulations. <i>Journal of Physical Chemistry B</i> , 2006, 110, 15602-15614.	2.6	58
48	Free Energies of Transfer of Trp Analogs from Chloroform to Water: A Comparison of Theory and Experiment and the Importance of Adequate Treatment of Electrostatic and Internal Interactions. <i>Journal of the American Chemical Society</i> , 1996, 118, 6285-6294.	13.7	52
49	Comparison of different schemes to treat long-range electrostatic interactions in molecular dynamics simulations of a protein crystal. <i>Proteins: Structure, Function and Bioinformatics</i> , 2001, 43, 509-519.	2.6	51
50	Molecular dynamics simulations of the native and partially folded states of ubiquitin: Influence of methanol cosolvent, pH, and temperature on the protein structure and dynamics. <i>Protein Science</i> , 2007, 16, 1101-1118.	7.6	51
51	A fast pairlist-construction algorithm for molecular simulations under periodic boundary conditions. <i>Journal of Computational Chemistry</i> , 2004, 25, 1474-1486.	3.3	50
52	pH-Dependent Stability of a Decalysine α -Helix Studied by Explicit-Solvent Molecular Dynamics Simulations at Constant pH. <i>Journal of Physical Chemistry B</i> , 2004, 108, 13551-13559.	2.6	50
53	Combining the lattice-sum and reaction-field approaches for evaluating long-range electrostatic interactions in molecular simulations. <i>Journal of Chemical Physics</i> , 2005, 123, 034107.	3.0	47
54	The Transition between the B and Z Conformations of DNA Investigated by Targeted Molecular Dynamics Simulations with Explicit Solvation. <i>Biophysical Journal</i> , 2006, 91, 2976-2990.	0.5	47

#	ARTICLE	IF	CITATIONS
55	Calculation of the group-based pressure in molecular simulations. I. A general formulation including Ewald and particle-particle-particle-mesh electrostatics. <i>Journal of Chemical Physics</i> , 2002, 116, 6880-6897.	3.0	45
56	Intramolecular hydrogen-bonding in aqueous carbohydrates as a cause or consequence of conformational preferences: a molecular dynamics study of cellobiose stereoisomers. <i>European Biophysics Journal</i> , 2013, 42, 521-537.	2.2	44
57	Effect of Trehalose on a Phospholipid Membrane under Mechanical Stress. <i>Biophysical Journal</i> , 2008, 95, 3525-3534.	0.5	43
58	Molecular dynamics simulation of highly charged proteins: Comparison of the particle-particle particle-mesh and reaction field methods for the calculation of electrostatic interactions. <i>Protein Science</i> , 2009, 12, 2161-2172.	7.6	42
59	Origin of Asymmetric Solvation Effects for Ions in Water and Organic Solvents Investigated Using Molecular Dynamics Simulations: The Swain Acidity Scale Revisited. <i>Journal of Physical Chemistry B</i> , 2016, 120, 8485-8517.	2.6	39
60	Lattice-sum methods for computing electrostatic interactions in molecular simulations. , 1999, , .		36
61	The influence of polyhydroxylated compounds on a hydrated phospholipid bilayer: a molecular dynamics study. <i>Molecular Simulation</i> , 2008, 34, 403-420.	2.0	36
62	Polarization around an ion in a dielectric continuum with truncated electrostatic interactions. <i>Journal of Chemical Physics</i> , 1999, 110, 10679-10692.	3.0	34
63	Conformation, dynamics and ion-binding properties of single-chain polyuronates: a molecular dynamics study. <i>Molecular Simulation</i> , 2008, 34, 421-446.	2.0	34
64	Computational Analysis of PKA-Balanol Interactions. <i>Journal of Medicinal Chemistry</i> , 2001, 44, 1530-1539.	6.4	33
65	Interaction of the disaccharides trehalose and gentiobiose with lipid bilayers: A comparative molecular dynamics study. <i>Journal of Molecular Graphics and Modelling</i> , 2010, 29, 331-346.	2.4	33
66	A fast-Fourier transform method to solve continuum-electrostatics problems with truncated electrostatic interactions: Algorithm and application to ionic solvation and ion-ion interaction. <i>Journal of Chemical Physics</i> , 2003, 119, 12205-12223.	3.0	32
67	Explicit-Solvent Molecular Dynamics Simulations of the β (1 \rightarrow 3)- and β (1 \rightarrow 6)-Linked Disaccharides β -Laminarabiose and β -Gentiobiose in Water. <i>Journal of Physical Chemistry B</i> , 2004, 108, 5815-5826.	2.6	32
68	Experimental and Theoretical Approach to Hydrogen-Bonded Diastereomeric Interactions in a Model Complex. <i>Journal of the American Chemical Society</i> , 1997, 119, 7533-7544.	13.7	29
69	Use of Molecular Dynamics in the Design and Structure Determination of a Photoinducible β -Hairpin. <i>Journal of the American Chemical Society</i> , 2005, 127, 4935-4942.	13.7	29
70	Ball-and-Stick Local Elevation Umbrella Sampling: Molecular Simulations Involving Enhanced Sampling within Conformational or Alchemical Subspaces of Low Internal Dimensionalities, Minimal Irrelevant Volumes, and Problem-Adapted Geometries. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 2622-2646.	5.3	29
71	Influence of the Treatment of Nonbonded Interactions on the Thermodynamic and Transport Properties of Pure Liquids Calculated Using the 2016H66 Force Field. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 1806-1826.	5.3	28
72	Evaluating Classical Force Fields against Experimental Cross-Solvation Free Energies. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 7556-7580.	5.3	28

#	ARTICLE	IF	CITATIONS
73	Solving the Poisson equation for solute-solvent systems using fast Fourier transforms. <i>Journal of Chemical Physics</i> , 2002, 116, 7434-7451.	3.0	26
74	Interaction of alginate single-chain polyguluronate segments with mono- and divalent metal cations: a comparative molecular dynamics study. <i>Molecular Simulation</i> , 2010, 36, 778-795.	2.0	26
75	Simulating the Transition between Gel and Liquid-Crystal Phases of Lipid Bilayers: Dependence of the Transition Temperature on the Hydration Level. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 2488-2500.	5.3	26
76	Enhanced Conformational Sampling in Molecular Dynamics Simulations of Solvated Peptides: Fragment-Based Local Elevation Umbrella Sampling. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 2598-2621.	5.3	25
77	Molecular dynamics simulations of a double unit cell in a protein crystal: Volume relaxation at constant pressure and correlation of motions between the two unit cells. <i>Proteins: Structure, Function and Bioinformatics</i> , 2002, 48, 327-340.	2.6	23
78	Local Elevation Umbrella Sampling Applied to the Calculation of Alchemical Free-Energy Changes via λ -Dynamics: The λ -LEUS Scheme. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 3006-3022.	5.3	23
79	Systematic Optimization of a Fragment-Based Force Field against Experimental Pure-Liquid Properties Considering Large Compound Families: Application to Saturated Haloalkanes. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 7525-7555.	5.3	21
80	Overcoming Orthogonal Barriers in Alchemical Free Energy Calculations: On the Relative Merits of λ -Variations, λ -Extrapolations, and Biasing. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 1630-1645.	5.3	20
81	Temperature Dependence of the Dielectric Permittivity of Acetic Acid, Propionic Acid and Their Methyl Esters: A Molecular Dynamics Simulation Study. <i>ChemPhysChem</i> , 2012, 13, 1182-1190.	2.1	19
82	Single-Ion Thermodynamics from First Principles: Calculation of the Absolute Hydration Free Energy and Single-Electrode Potential of Aqueous Li^+ Using <i>ab Initio</i> Quantum Mechanical/Molecular Mechanical Molecular Dynamics Simulations. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 6443-6459.	5.3	18
83	An Alternative to Conventional λ -Intermediate States in Alchemical Free Energy Calculations: λ -Enveloping Distribution Sampling. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 5407-5423.	5.4	18
84	Alchemical Free-Energy Calculations by Multiple-Replica λ -Dynamics: The Conveyor Belt Thermodynamic Integration Scheme. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 2392-2419.	5.3	17
85	Interfacial solvation can explain attraction between like-charged objects in aqueous solution. <i>Journal of Chemical Physics</i> , 2020, 152, 104713.	3.0	17
86	Reaction-field electrostatics in molecular dynamics simulations: development of a conservative scheme compatible with an atomic cutoff. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 26419-26437.	2.8	16
87	Explicit-solvent molecular dynamics simulations of a DNA tetradecanucleotide duplex: lattice-sum versus reaction-field electrostatics. <i>Molecular Simulation</i> , 2008, 34, 491-499.	2.0	15
88	Efficient Combination of Environment Change and Alchemical Perturbation within the Enveloping Distribution Sampling (EDS) Scheme: Twin-System EDS and Application to the Determination of Octanol-Water Partition Coefficients. <i>Journal of Chemical Theory and Computation</i> , 2013, 9, 1334-1346.	5.3	14
89	Orthogonal sampling in free-energy calculations of residue mutations in a tripeptide: TI versus λ -LEUS. <i>Journal of Computational Chemistry</i> , 2015, 36, 1686-1697.	3.3	14
90	Multistate λ -Local-Elevation Umbrella-Sampling (MS- λ -LEUS): Method and Application to the Complexation of Cations by Crown Ethers. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 2575-2588.	5.3	14

#	ARTICLE	IF	CITATIONS
91	Development of a lattice-sum method emulating nonperiodic boundary conditions for the treatment of electrostatic interactions in molecular simulations: A continuum-electrostatics study. <i>Journal of Chemical Physics</i> , 2006, 124, 124108.	3.0	13
92	Calculation of Derivative Thermodynamic Hydration and Aqueous Partial Molar Properties of Ions Based on Atomistic Simulations. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 3542-3564.	5.3	13
93	Reoptimized interaction parameters for the peptide backbone model compound <i>N</i> -methylacetamide in the GROMOS force field: Influence on the folding properties of two beta-peptides in methanol. <i>Journal of Computational Chemistry</i> , 2012, 33, 1907-1917.	3.3	13
94	Flexible Boundaries for Multiresolution Solvation: An Algorithm for Spatial Multiscaling in Molecular Dynamics Simulations. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 5447-5463.	5.3	12
95	Simulating Bilayers of Nonionic Surfactants with the GROMOS-Compatible 2016H66 Force Field. <i>Langmuir</i> , 2017, 33, 10225-10238.	3.5	12
96	On the Effect of the Various Assumptions and Approximations used in Molecular Simulations on the Properties of Bio-Molecular Systems: Overview and Perspective on Issues. <i>ChemPhysChem</i> , 2021, 22, 264-282.	2.1	12
97	Calculation of the group-based pressure in molecular simulations. II. Numerical tests and application to liquid water. <i>Journal of Chemical Physics</i> , 2002, 116, 6898-6909.	3.0	11
98	Enantiomeric Segregation in the Gel Phase of Lipid Bilayers. <i>Journal of the American Chemical Society</i> , 2011, 133, 8464-8466.	13.7	11
99	Communication: Estimating the initial biasing potential for local-elevation umbrella-sampling (LEUS) simulations via slow growth. <i>Journal of Chemical Physics</i> , 2014, 141, 201101.	3.0	11
100	Solvent-Modulated Influence of Intramolecular Hydrogen Bonding on the Conformational Properties of the Hydroxymethyl Group in Glucose and Galactose: A Molecular Dynamics Simulation Study. <i>Helvetica Chimica Acta</i> , 2017, 100, e1600158.	1.6	11
101	Phase-transition properties of glycerol-monopalmitate lipid bilayers investigated by molecular dynamics simulation: influence of the system size and force-field parameters. <i>Molecular Simulation</i> , 2013, 39, 563-583.	2.0	10
102	Effect of the cosolutes trehalose and methanol on the equilibrium and phase-transition properties of glycerol-monopalmitate lipid bilayers investigated using molecular dynamics simulations. <i>European Biophysics Journal</i> , 2014, 43, 517-544.	2.2	10
103	Evaluation of nine condensed-phase force fields of the GROMOS, CHARMM, OPLS, AMBER, and OpenFF families against experimental cross-solvation free energies. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 13055-13074.	2.8	9
104	Systematic optimization of a fragment-based force field against experimental pure-liquid properties considering large compound families: application to oxygen and nitrogen compounds. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 17774-17793.	2.8	9
105	Effect of mutations involving charged residues on the stability of staphylococcal nuclease: a continuum electrostatics study. <i>Protein Engineering, Design and Selection</i> , 2003, 16, 831-840.	2.1	8
106	On the relative stabilities of the alkali cations 222 cryptates in the gas phase and in water-methanol solution. <i>Journal of Molecular Modeling</i> , 2007, 13, 1017-1025.	1.8	8
107	Effect of methanol on the phase-transition properties of glycerol-monopalmitate lipid bilayers investigated using molecular dynamics simulations: In quest of the biphasic effect. <i>Journal of Molecular Graphics and Modelling</i> , 2015, 55, 85-104.	2.4	8
108	Efficient Alchemical Intermediate States in Free Energy Calculations Using Enveloping Distribution Sampling. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 5805-5815.	5.3	8

#	ARTICLE	IF	CITATIONS
109	A multiple time step algorithm compatible with a large number of distance classes and an arbitrary distance dependence of the time step size for the fast evaluation of nonbonded interactions in molecular simulations. <i>Journal of Computational Chemistry</i> , 2006, 27, 1163-1176.	3.3	7
110	Residual structure in a peptide fragment of the outer membrane protein X under denaturing conditions: a molecular dynamics study. <i>European Biophysics Journal</i> , 2010, 39, 1421-1432.	2.2	7
111	Empirical Classical Force Fields for Molecular Systems. <i>Lecture Notes in Quantum Chemistry II</i> , 1999, , 177-214.	0.3	7
112	Molecular dynamics simulations of the interaction between polyhydroxylated compounds and Lennard-Jones walls: preferential affinity/exclusion effects and their relevance for bioprotection. <i>Molecular Simulation</i> , 2010, 36, 708-728.	2.0	6
113	Long-timescale motions in glycerol-monopalmitate lipid bilayers investigated using molecular dynamics simulation. <i>Journal of Molecular Graphics and Modelling</i> , 2015, 55, 48-64.	2.4	6
114	RestraintMaker: a graph-based approach to select distance restraints in free-energy calculations with dual topology. <i>Journal of Computer-Aided Molecular Design</i> , 2022, 36, 175-192.	2.9	5
115	Replica-Exchange Enveloping Distribution Sampling Using Generalized AMBER Force-Field Topologies: Application to Relative Hydration Free-Energy Calculations for Large Sets of Molecules. <i>Journal of Chemical Information and Modeling</i> , 2022, 62, 3043-3056.	5.4	5
116	On the ambiguity of conformational states: A B&S-LEUS simulation study of the helical conformations of decaalanine in water. <i>Journal of Chemical Physics</i> , 2015, 142, 165102.	3.0	4
117	Measuring ^1H and ^{13}C RDCs in methyl groups: example of pulse sequences with numerically optimized coherence transfer schemes. <i>Journal of Magnetic Resonance</i> , 2005, 172, 36-47.	2.1	3
118	Preferential Affinity of the Components of Liquid Mixtures at a Rigid Non-Polar Surface: Enthalpic and Entropic Driving Forces. <i>ChemPhysChem</i> , 2011, 12, 3214-3223.	2.1	3
119	<sc>Vase</sc> and <sc>Kite</sc> Equilibrium of Resorcin[4]arene Cavitands Investigated Using Molecular Dynamics Simulations with Ball-and-Stick Local Elevation Umbrella Sampling. <i>Helvetica Chimica Acta</i> , 2019, 102, e1900060.	1.6	3
120	The Role of Surface Chemistry in the Orientational Behavior of Water at an Interface. <i>Journal of Physical Chemistry B</i> , 2022, 126, 4697-4710.	2.6	3
121	In the eye of the beholder: Inhomogeneous distribution of high-resolution shapes within the random-walk ensemble. <i>Journal of Chemical Physics</i> , 2009, 130, 214904.	3.0	2
122	Phase-transition properties of glycerol-dipalmitate lipid bilayers investigated using molecular dynamics simulation. <i>Journal of Molecular Graphics and Modelling</i> , 2015, 59, 136-147.	2.4	2
123	Solvent-scaling as an alternative to coarse-graining in adaptive-resolution simulations: The adaptive solvent-scaling (AdSoS) scheme. <i>Journal of Chemical Physics</i> , 2021, 155, 094107.	3.0	2
124	Wilfred van Gunsteren: 35 Years of Biomolecular Simulation. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 3425-3429.	5.3	1
125	The Conveyor Belt Umbrella Sampling (CBUS) Scheme: Principle and Application to the Calculation of the Absolute Binding Free Energies of Alkali Cations to Crown Ethers. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 2474-2493.	5.3	1
126	Simultaneous parametrization of torsional and third-neighbor interaction terms in force-field development: The LLS-C algorithm. <i>Journal of Computational Chemistry</i> , 2022, , .	3.3	1