Xin Zhou

List of Publications by Year
in descending order

43 papers	1,331 citations	687363 13 h-index	345221 36 g-index
43 all docs	43 docs citations	43 times ranked	1619 citing authors

#	Article	IF	Citations
1	Robust Prototypical Anti-icing Coatings with a Self-lubricating Liquid Water Layer between Ice and Substrate. ACS Applied Materials & Interfaces, 2013, 5, 4026-4030.	8.0	269
2	Probing the critical nucleus size for ice formation with graphene oxide nanosheets. Nature, 2019, 576, 437-441.	27.8	268
3	Hierarchically structured porous aluminum surfaces for high-efficient removal of condensed water. Soft Matter, 2012, 8, 6680.	2.7	146
4	Investigating the Effects of Solid Surfaces on Ice Nucleation. Langmuir, 2012, 28, 10749-10754.	3.5	139
5	Tuning Ice Nucleation with Supercharged Polypeptides. Advanced Materials, 2016, 28, 5008-5012.	21.0	59
6	Elasticity of the Transition State Leading to an Unexpected Mechanical Stabilization of Titin Immunoglobulin Domains. Angewandte Chemie - International Edition, 2017, 56, 5490-5493.	13.8	59
7	Competing Effects between Condensation and Self-Removal of Water Droplets Determine Antifrosting Performance of Superhydrophobic Surfaces. ACS Applied Materials & Interfaces, 2020, 12, 7805-7814.	8.0	52
8	Spreading fully at the ice-water interface is required for high ice recrystallization inhibition activity. Science China Chemistry, 2019, 62, 909-915.	8.2	39
9	A Jump-from-Cavity Pyrophosphate Ion Release Assisted by a Key Lysine Residue in T7 RNA Polymerase Transcription Elongation. PLoS Computational Biology, 2015, 11, e1004624.	3.2	31
10	Rationally designed surface microstructural features for enhanced droplet jumping and anti-frosting performance. Soft Matter, 2020, 16, 4462-4476.	2.7	30
11	Hydroxyl Groups on the Graphene Surfaces Facilitate Ice Nucleation. Journal of Physical Chemistry Letters, 2019, 10, 2458-2462.	4.6	24
12	Viscosity of interfacial water regulates ice nucleation. Applied Physics Letters, 2014, 104, .	3.3	23
13	Kinetic Transition Network Based on Trajectory Mapping. Journal of Physical Chemistry B, 2010, 114, 10266-10276.	2.6	17
14	Elasticity of the Transition State Leading to an Unexpected Mechanical Stabilization of Titin Immunoglobulin Domains. Angewandte Chemie, 2017, 129, 5582-5585.	2.0	15
15	Hyperdynamics for entropic systems: Time-space compression and pair correlation function approximation. Physical Review E, 2006, 74, 035701.	2.1	13
16	Structuring and sampling complex conformation space: Weighted ensemble dynamics simulations. Physical Review E, 2009, 80, 026707.	2.1	12
17	Parallel Tempering Simulation on Generalized Canonical Ensemble. Communications in Computational Physics, 2012, 12, 1293-1306.	1.7	10
18	Hydrogen polarity of interfacial water regulates heterogeneous ice nucleation. Physical Chemistry Chemical Physics, 2020, 22, 258-264.	2.8	10

#	Article	IF	Citations
19	Ion-Specific Effects on the Growth of Single Ice Crystals. Journal of Physical Chemistry Letters, 2021, 12, 8726-8731.	4.6	10
20	Monte Carlo Simulation of the Neurofilament Brush. Israel Journal of Chemistry, 2016, 56, 599-606.	2.3	9
21	Systematically Constructing Kinetic Transition Network in Polypeptide from Top to Down: Trajectory Mapping. PLoS ONE, 2015, 10, e0125932.	2.5	9
22	Precise Control Over Kinetics of Molecular Assembly: Production of Particles with Tunable Sizes and Crystalline Forms. Angewandte Chemie - International Edition, 2020, 59, 15141-15146.	13.8	8
23	A novel multiscale scheme to accelerate atomistic simulations of bio-macromolecules by adaptively driving coarse-grained coordinates. Journal of Chemical Physics, 2020, 152, 114115.	3.0	8
24	Anisotropy of Local Stress Tensor Leads to Line Tension. Scientific Reports, 2015, 5, 9491.	3.3	7
25	Equilibrium sampling by reweighting nonequilibrium simulation trajectories. Physical Review E, 2016, 93, 033309.	2.1	6
26	Effect of antifreeze protein on heterogeneous ice nucleation based on a two-dimensional random-field Ising model. Physical Review E, 2017, 95, 052140.	2.1	6
27	Influences of the Structure of Lipids on Thermal Stability of Lipid Membranes*. Communications in Theoretical Physics, 2015, 64, 249-258.	2.5	5
28	Jarzynski matrix equality: Calculating the free-energy difference by nonequilibrium simulations with an arbitrary initial distribution. Physical Review E, 2016, 93, 043312.	2.1	5
29	Imaging Metastable States and Transitions in Proteins by Trajectory Map. Journal of Physical Chemistry B, 2017, 121, 4678-4686.	2.6	5
30	Smoothing potential energy surface of proteins by hybrid coarse grained approach. Chinese Physics B, 2017, 26, 050202.	1.4	5
31	Spontaneous Freezing of Water between 233 and 235 K Is Not Due to Homogeneous Nucleation. Journal of the American Chemical Society, 2021, 143, 13548-13556.	13.7	5
32	The construction of general basis functions in reweighting ensemble dynamics simulations: Reproduce equilibrium distribution in complex systems from multiple short simulation trajectories. Chinese Physics B, 2015, 24, 120202.	1.4	4
33	Enhanced sampling based on slow variables of trajectory mapping. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	4
34	Modifying Surfaces with the Primary and Secondary Faces of Cyclodextrins To Achieve a Distinct Anti-icing Capability. Langmuir, 2019, 35, 5176-5182.	3.5	3
35	Identifying metastable states of biomolecules by trajectory mapping and density peak clustering. Physical Review E, 2019, 100, 033301.	2.1	3
36	Fast and accurate determination of phase transition temperature via individual generalized canonical ensemble simulation. Chinese Physics B, 2020, 29, 080505.	1.4	3

#	Article	IF	Citations
37	Find slow dynamic modes via analyzing molecular dynamics simulation trajectories. Chinese Physics B, 2020, 29, 108706.	1.4	3
38	Effectively explore metastable states of proteins by adaptive nonequilibrium driving simulations. Physical Review E, 2017, 95, 033304.	2.1	2
39	Precise Control Over Kinetics of Molecular Assembly: Production of Particles with Tunable Sizes and Crystalline Forms. Angewandte Chemie, 2020, 132, 15253-15258.	2.0	2
40	A theoretical study on entropy-driven polymer translocation through a finite-sized nanochannel. Chemical Physics Letters, 2013, 565, 116-121.	2.6	1
41	Fast adaptive flat-histogram ensemble to enhance the sampling in large systems. Science China: Physics, Mechanics and Astronomy, 2015, 58, 1.	5.1	1
42	The multiple local structures in liquid water. International Journal of Modern Physics B, 2018, 32, 1840003.	2.0	1
43	EspcTM: Kinetic Transition Network Based on Trajectory Mapping in Effective Energy Rescaling Space. Frontiers in Molecular Biosciences, 2020, 7, 589718.	3.5	0