Binhua Lin

List of Publications by Year
in descending order

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		236925	197818
66	2,488	25	49
papers	citations	h-index	g-index

66	66	66	2881
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stress and Fold Localization in Thin Elastic Membranes. Science, 2008, 320, 912-916.	12.6	456
2	Ion Distributions near a Liquid-Liquid Interface. Science, 2006, 311, 216-218.	12.6	229
3	Anomalous Hydrodynamic Interaction in a Quasi-Two-Dimensional Suspension. Physical Review Letters, 2004, 92, 258301.	7.8	146
4	From Random Walk to Single-File Diffusion. Physical Review Letters, 2005, 94, 216001.	7.8	128
5	Structure, Wrinkling, and Reversibility of Langmuir Monolayers of Gold Nanoparticles. Journal of Physical Chemistry B, 2006, 110, 24522-24529.	2.6	105
6	Collapse of Particle-Laden Interfaces under Compression: Buckling vs Particle Expulsion. Langmuir, 2015, 31, 7764-7775.	3.5	90
7	Geometric Stability and Elastic Response of a Supported Nanoparticle Film. Physical Review Letters, 2010, 105, 058301.	7.8	78
8	Tuning ion correlations at an electrified soft interface. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20326-20331.	7.1	74
9	Molecular mechanism for differential recognition of membrane phosphatidylserine by the immune regulatory receptor Tim4. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1463-72.	7.1	67
10	Observation of a Rare Earth Ionâ€“Extractant Complex Arrested at the Oilâ€“Water Interface During Solvent Extraction. Journal of Physical Chemistry B, 2014, 118, 10662-10674.	2.6	64
11	Stability of Ligands on Nanoparticles Regulating the Integrity of Biological Membranes at the Nanoâ€“Lipid Interface. ACS Nano, 2019, 13, 8680-8693.	14.6	59
12	Molecular Structure of Canonical Liquid Crystal Interfaces. Journal of the American Chemical Society, 2017, 139, 3841-3850.	13.7	56
13	Interfacial Localization and Voltage-Tunable Arrays of Charged Nanoparticles. Nano Letters, 2014, 14, 6816-6822.	9.1	51
14	Mechanical Stability of Polystyrene and Janus Particle Monolayers at the Air/Water Interface. Journal of the American Chemical Society, 2015, 137, 15370-15373.	13.7	50
15	The liquid surface/interface spectrometer at ChemMatCARS synchrotron facility at the Advanced Photon Source. Physica B: Condensed Matter, 2003, 336, 75-80.	2.7	48
16	X-ray Studies of Interfacial Strontiumâ€“Extractant Complexes in a Model Solvent Extraction System. Journal of Physical Chemistry B, 2014, 118, 12486-12500.	2.6	47
17	Ion distributions at the nitrobenzeneâ€“water interface electrified by a common ion. Journal of Electroanalytical Chemistry, 2006, 593, 142-158.	3.8	42
18	Ion Distributions at the Water/1,2-Dichloroethane Interface: Potential of Mean Force Approach to Analyzing X-ray Reflectivity and Interfacial Tension Measurements. Journal of Physical Chemistry B, 2013, 117, 5365-5378.	2.6	36

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19	Impact of Surface Amphiphilicity on the Interfacial Behavior of Janus Particle Layers under Compression. Langmuir, 2019, 35, 15813-15824.	3.5	33
20	Armoring the Interface with Surfactants to Prevent the Adsorption of Monoclonal Antibodies. ACS Applied Materials & Interfaces, 2020, 12, 9977-9988.	8.0	32
21	Equilibrium structure and effective pair interaction in a quasi-one-dimensional colloid liquid. Journal of Chemical Physics, 2002, 116, 3119-3127.	3.0	31
22	Synchrotron X-ray Studies of Rapidly Evolving Morphology of Self-Assembled Nanoparticle Films under Lateral Compression. Langmuir, 2013, 29, 14050-14056.	3.5	30
23	Robust Gold Nanoparticle Sheets by Ligand Cross-Linking at the Airâ€“Water Interface. ACS Nano, 2017, 11, 1292-1300.	14.6	28
24	Two-Step Adsorption of PtCl62â€“ Complexes at a Charged Langmuir Monolayer: Role of Hydration and Ion Correlations. Journal of Physical Chemistry C, 2017, 121, 25377-25383.	3.1	28
25	Structure and phase transitions in confined binary colloid mixtures. Journal of Chemical Physics, 2003, 119, 2386-2398.	3.0	25
26	Geometric tools for complex interfaces: from lung surfactant to the mussel byssus. Soft Matter, 2009, 5, 1963.	2.7	25
27	A comparative study of Langmuir surfactant films: Grazing incidence x-ray off-specular scattering vs. x-ray specular reflectivity. Journal of Applied Physics, 2011, 110, .	2.5	24
28	Comparison of the Mechanical Properties of Self-Assembled Langmuir Monolayers of Nanoparticles and Phospholipids. Langmuir, 2013, 29, 11751-11757.	3.5	23
29	Influence of Hydrodynamic Coupling on Pair Diffusion in a Quasi-One-Dimensional Colloid System. Physical Review Letters, 2005, 95, 158301.	7.8	22
30	Humidity-dependent compression-induced glass transition of the airâ€“water interfacial Langmuir films of poly(<scp>d</scp>,<scp>l</scp>-lactic acid-ran-glycolic acid) (PLGA). Soft Matter, 2015, 11, 5666-5677.	2.7	20
31	The role of ligands in the mechanical properties of Langmuir nanoparticle films. Soft Matter, 2017, 13, 3125-3133.	2.7	20
32	No ordinary proteins: Adsorption and molecular orientation of monoclonal antibodies. Science Advances, 2021, 7, .	10.3	20
33	Liquid Surface X-ray Studies of Gold Nanoparticleâ€“Phospholipid Films at the Air/Water Interface. Journal of Physical Chemistry B, 2016, 120, 9132-9141.	2.6	18
34	Antagonistic Role of Aqueous Complexation in the Solvent Extraction and Separation of Rare Earth Ions. ACS Central Science, 2021, 7, 1908-1918.	11.3	18
35	Pair and many-body interactions between ligated Au nanoparticles. Journal of Chemical Physics, 2019, 150, 044904.	3.0	17
36	Evolution and Reversible Polarity of Multilayering at the Ionic Liquid/Water Interface. Journal of Physical Chemistry B, 2020, 124, 6412-6419.	2.6	17

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37	Coupling X-Ray Reflectivity and In Silico Binding to Yield Dynamics of Membrane Recognition by Tim1. Biophysical Journal, 2017, 113, 1505-1519.	0.5	17
38	Monitoring x-ray beam damage on lipid films by an integrated Brewster angle microscope/x-ray diffractometer. Review of Scientific Instruments, 2007, 78, 103705.	1.3	15
39	X-ray fluorescence from a model liquid/liquid solvent extraction system. Journal of Applied Physics, 2011, 110, .	2.5	15
40	Observation of Ordered Structures in Counterion Layers near Wet Charged Surfaces: A Potential Mechanism for Charge Inversion. Langmuir, 2016, 32, 73-77.	3.5	14
41	Atomic Number Dependent â€œStructural Transitionsâ€•in Ordered Lanthanide Monolayers: Role of the Hydration Shell. Langmuir, 2017, 33, 1412-1418.	3.5	13
42	Evanescent wave light scattering study of a diblock copolymer adsorbed at the air/water interface. Journal of Chemical Physics, 1993, 98, 6561-6563.	3.0	12
43	Reverse Self-Assembly: (111)-Oriented Gold Crystallization at Alkylthiol Monolayer Templates. Physical Review Letters, 2011, 107, 115503.	7.8	12
44	Spreading of colloid clusters in a quasi-one-dimensional channel. Journal of Chemical Physics, 2010, 132, 084902.	3.0	11
45	Tailoring Biomimetic Phosphorylcholine-Containing Block Copolymers as Membrane-Targeting Cellular Rescue Agents. Biomacromolecules, 2019, 20, 3385-3391.	5.4	11
46	Increased humidity can soften glassy Langmuir polymer films by two mechanisms: plasticization of the polymer material, and suppression of the evaporation cooling effect. Physical Chemistry Chemical Physics, 2017, 19, 10663-10675.	2.8	10
47	The influence of fractional surface coverage on the coreâ€“core separation in ordered monolayers of thiol-ligated Au nanoparticles. Soft Matter, 2019, 15, 8800-8807.	2.7	10
48	Structure and dynamics of lipid membranes interacting with antivirulence end-phosphorylated polyethylene glycol block copolymers. Soft Matter, 2020, 16, 983-989.	2.7	10
49	Diffuse scattering from the liquid-vapor interfaces of diluteBi:Ga,Tl:Ga, andPb:Gaalloys. Physical Review B, 2005, 72, .	3.2	9
50	A comment on the position dependent diffusion coefficient representation of structural heterogeneity. Journal of Chemical Physics, 2018, 148, 194901.	3.0	9
51	Stress relaxation in quasi-two-dimensional self-assembled nanoparticle monolayers. Physical Review E, 2018, 97, 052803.	2.1	8
52	Molecular interactions of phospholipid monolayers with a model phospholipase. Soft Matter, 2019, 15, 4068-4077.	2.7	8
53	Free Thiols Regulate the Interactions and Self-Assembly of Thiol-Passivated Metal Nanoparticles. Nano Letters, 2021, 21, 1613-1619.	9.1	8
54	Hydrodynamic interactions in ribbon channels: From quasi-one-dimensional to quasi-two-dimensional behavior. Physical Review E, 2010, 82, 031403.	2.1	6

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55	Long-range hydrodynamic correlations in quasi-one-dimensional circular and straight geometries. Physical Review E, 2012, 86, 041402.	2.1	5
56	Spontaneous collapse of palmitic acid films on an alkaline buffer containing calcium ions. Colloids and Surfaces B: Biointerfaces, 2020, 193, 111100.	5.0	5
57	How Tim proteins differentially exploit membrane features to attain robust target sensitivity. Biophysical Journal, 2021, 120, 4891-4902.	0.5	5
58	Novel comparison of microscopy and diffraction techniques on the structure of iron oxide nanoparticle monolayers transferred by Langmuir-Schaefer method. Review of Scientific Instruments, 2015, 86, 063704.	1.3	4
59	Polyunsaturated Phospholipid Modified Membrane Degradation Catalyzed by a Secreted Phospholipase A2. Langmuir, 2019, 35, 11643-11650.	3.5	4
60	Correlating Ligand Density with Cellular Uptake of Gold Nanorods Revealed by X-ray Reflectivity. Journal of Nanoscience and Nanotechnology, 2019, 19, 7557-7563.	0.9	4
61	Impeded Molecular Reorganization by Polyethylene Glycol Conjugation Revealed by X-ray Reflectivity and Diffraction Measurements. Langmuir, 2020, 36, 7573-7581.	3.5	2
62	Structure of polymer-capped gold nanorods binding to model phospholipid monolayers. JPhys Materials, 2021, 4, 034004.	4.2	2
63	Influence of Substitutional Groups on the Ordering and Crystallization of Amphiphilic Silsesquioxanes at the Airâ€“Water Interface. Langmuir, 2021, 37, 6232-6242.	3.5	1
64	Interaction between dilute water vapor and dodecane thiol ligated Au nanoparticles: Hydrated structure and pair potential of mean force. Journal of Chemical Physics, 2021, 155, 144902.	3.0	1
65	Colloid-colloid hydrodynamic interaction around a bend in a quasi-one-dimensional channel. Physical Review E, 2017, 96, 012606.	2.1	0
66	Knowledge-Based Design of 5-Fluoroacil Prodrug Liposomal Formulation: Molecular Packing and Interaction Revealed by Interfacial Isotherms and X-ray Scattering Techniques. Molecular Pharmaceutics, 2021, 18, 4331-4340.	4.6	0