

Lei Xie

List of Publications by Year in descending order

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61
papers

2,518
citations

159358

30
h-index

197535

49
g-index

61
all docs

61
docs citations

61
times ranked

1677
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing Hydrophobic Interactions between Polymer Surfaces and Air Bubbles or Oil Droplets: Effects of Molecular Weight and Surfactants. <i>Langmuir</i> , 2022, 38, 5257-5268.	1.6	4
2	Demystifying constructive strategies on designing functionalized lamellar Nb ₂ CT nanosheet membrane architectures under confined space. <i>Journal of Materials Chemistry A</i> , 2022, 10, 4200-4208.	5.2	0
3	Novel multifunctional solid slippery surfaces with self-assembled fluorine-free small molecules. <i>Chemical Engineering Journal</i> , 2021, 404, 127064.	6.6	10
4	In-situ probing of electrochemical dissolution and surface properties of chalcopyrite with implications for the dissolution kinetics and passivation mechanism. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 103-113.	5.0	14
5	Probing the In Situ Redox Behavior of Selenium on a Pyrite Surface by Scanning Electrochemical Microscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 3018-3026.	1.5	4
6	Nanomechanical Insights into Versatile Polydopamine Wet Adhesive Interacting with Liquid-Infused and Solid Slippery Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 6941-6950.	4.0	23
7	A Dual-Responsive, Freezing-Tolerant Hydrogel Sensor and Related Thermal- and Strain-Sensitive Mechanisms. <i>ACS Applied Polymer Materials</i> , 2021, 3, 1479-1487.	2.0	29
8	Recent advances in bubble-based technologies: Underlying interaction mechanisms and applications. <i>Applied Physics Reviews</i> , 2021, 8, .	5.5	24
9	Nanomechanics of Lignin-Cellulase Interactions in Aqueous Solutions. <i>Biomacromolecules</i> , 2021, 22, 2033-2042.	2.6	32
10	Probing the Interactions between Pickering Emulsion Droplets Stabilized with pH-Responsive Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2021, 125, 7320-7331.	1.2	8
11	Understanding the hetero-aggregation mechanism among sulfide and oxide mineral particles driven by bifunctional surfactants: Intensification flotation of oxide minerals. <i>Minerals Engineering</i> , 2021, 169, 106928.	1.8	11
12	Surface interaction mechanisms in mineral flotation: Fundamentals, measurements, and perspectives. <i>Advances in Colloid and Interface Science</i> , 2021, 295, 102491.	7.0	47
13	Uncovering the hydrophobic mechanism of a novel dithiocarbamate-hydroxamate surfactant towards galena. <i>Chemical Engineering Science</i> , 2021, 245, 116765.	1.9	23
14	Probing the interaction mechanism between oil droplets with asphaltenes and solid surfaces using AFM. <i>Journal of Colloid and Interface Science</i> , 2020, 558, 173-181.	5.0	51
15	Role of molecular architecture in the modulation of hydrophobic interactions. <i>Current Opinion in Colloid and Interface Science</i> , 2020, 47, 58-69.	3.4	36
16	A Nanomechanical Study on Deciphering the Stickiness of SARS-CoV-2 on Inanimate Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 58360-58368.	4.0	25
17	Interfacial ion specificity modulates hydrophobic interaction. <i>Journal of Colloid and Interface Science</i> , 2020, 578, 135-145.	5.0	16
18	Electrochemical investigation of the interactions of organic and inorganic depressants on basal and edge planes of molybdenite. <i>Journal of Colloid and Interface Science</i> , 2020, 570, 350-361.	5.0	22

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19	Understanding the Interaction Mechanism between Elemental Selenium and Ferric Hydroxide in Wastewater Treatment. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 6662-6671.	1.8	7
20	Probing the Interaction Mechanism between Benzohydroxamic Acid and Mineral Surface in the Presence of Pb ²⁺ Ions by AFM Force Measurements and First-Principles Calculations. <i>Langmuir</i> , 2020, 36, 8199-8208.	1.6	24
21	Novel sodium alginate-assisted MXene nanosheets for ultrahigh rejection of multiple cations and dyes. <i>Journal of Colloid and Interface Science</i> , 2020, 568, 36-45.	5.0	31
22	Recent Advances in the Quantification and Modulation of Hydrophobic Interactions for Interfacial Applications. <i>Langmuir</i> , 2020, 36, 2985-3003.	1.6	47
23	Probing the intermolecular interaction mechanisms between humic acid and different substrates with implications for its adsorption and removal in water treatment. <i>Water Research</i> , 2020, 176, 115766.	5.3	50
24	A wet adhesion strategy <i>via</i> synergistic cationic and hydrogen bonding interactions of antifouling zwitterions and mussel-inspired binding moieties. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21944-21952.	5.2	66
25	Probing the Self-Assembly and Nonlinear Friction Behavior of Confined Gold Nano-Particles. <i>Langmuir</i> , 2019, 35, 15701-15709.	1.6	4
26	Probing effects of molecular-level heterogeneity of surface hydrophobicity on hydrophobic interactions in air/water/solid systems. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 438-449.	5.0	29
27	Interfacial behavior and interaction mechanism of pentol/water interface stabilized with asphaltenes. <i>Journal of Colloid and Interface Science</i> , 2019, 553, 341-349.	5.0	31
28	Probing the interactions of hydroxamic acid and mineral surfaces: Molecular mechanism underlying the selective separation. <i>Chemical Engineering Journal</i> , 2019, 374, 123-132.	6.6	68
29	Facile preparation of novel and active 2D nanosheets from non-layered and traditionally non-exfoliable earth-abundant materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15411-15419.	5.2	28
30	Hetero-difunctional Reagent with Superior Flotation Performance to Chalcopyrite and the Associated Surface Interaction Mechanism. <i>Langmuir</i> , 2019, 35, 4353-4363.	1.6	31
31	Probing the Molecular Interactions and Lubrication Mechanisms of Purified Full-Length Recombinant Human Proteoglycan 4 (rhPRG4) and Hyaluronic Acid (HA). <i>Biomacromolecules</i> , 2019, 20, 1056-1067.	2.6	20
32	Intermolecular and surface forces at solid/oil/water/gas interfaces in petroleum production. <i>Journal of Colloid and Interface Science</i> , 2019, 537, 505-519.	5.0	31
33	Understanding the stabilization mechanism of bitumen-coated fine solids in organic media from non-aqueous extraction of oil sands. <i>Fuel</i> , 2019, 242, 255-264.	3.4	30
34	Novel Fe ₃ O ₄ based superhydrophilic core-shell microspheres for breaking asphaltenes-stabilized water-in-oil emulsion. <i>Chemical Engineering Journal</i> , 2019, 358, 869-877.	6.6	67
35	Probing Anisotropic Surface Properties and Surface Forces of Fluorite Crystals. <i>Langmuir</i> , 2018, 34, 2511-2521.	1.6	67
36	Probing the Interaction Mechanism between Air Bubbles and Bitumen Surfaces in Aqueous Media Using Bubble Probe Atomic Force Microscopy. <i>Langmuir</i> , 2018, 34, 729-738.	1.6	49

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37	Selective flotation separation of molybdenite and talc by humic substances. Minerals Engineering, 2018, 117, 34-41.	1.8	46
38	Anisotropic Polymer Adsorption on Molybdenite Basal and Edge Surfaces and Interaction Mechanism With Air Bubbles. Frontiers in Chemistry, 2018, 6, 361.	1.8	29
39	Robust polymer nanofilms with bioengineering and environmental applications <i>via</i> facile and highly efficient covalent layer-by-layer assembly. Journal of Materials Chemistry B, 2018, 6, 3742-3750.	2.9	18
40	Modulation of Hydrophobic Interaction by Mediating Surface Nanoscale Structure and Chemistry, not Monotonically by Hydrophobicity. Angewandte Chemie, 2018, 130, 12079-12084.	1.6	16
41	Modulation of Hydrophobic Interaction by Mediating Surface Nanoscale Structure and Chemistry, not Monotonically by Hydrophobicity. Angewandte Chemie - International Edition, 2018, 57, 11903-11908.	7.2	62
42	Surface Interaction of Water-in-Oil Emulsion Droplets with Interfacially Active Asphaltenes. Langmuir, 2017, 33, 1265-1274.	1.6	110
43	Mapping the Nanoscale Heterogeneity of Surface Hydrophobicity on the Sphalerite Mineral. Journal of Physical Chemistry C, 2017, 121, 5620-5628.	1.5	55
44	Surface Forces and Interaction Mechanisms of Emulsion Drops and Gas Bubbles in Complex Fluids. Langmuir, 2017, 33, 3911-3925.	1.6	98
45	Interaction Mechanisms between Air Bubble and Molybdenite Surface: Impact of Solution Salinity and Polymer Adsorption. Langmuir, 2017, 33, 2353-2361.	1.6	67
46	Probing the Effect of Salinity and pH on Surface Interactions between Air Bubbles and Hydrophobic Solids: Implications for Colloidal Assembly at Air/Water Interfaces. Chemistry - an Asian Journal, 2017, 12, 1568-1577.	1.7	26
47	Octadecyltrichlorosilane Deposition on Mica Surfaces: Insights into the Interface Interaction Mechanism. Journal of Physical Chemistry B, 2017, 121, 3151-3161.	1.2	25
48	Probing interactions between sphalerite and hydrophobic/hydrophilic surfaces: Effect of water chemistry. Powder Technology, 2017, 320, 511-518.	2.1	21
49	Mechanistic Understanding of Asphaltene Surface Interactions in Aqueous Media. Energy & Fuels, 2017, 31, 3348-3357.	2.5	38
50	A two-step flocculation process on oil sands tailings treatment using oppositely charged polymer flocculants. Science of the Total Environment, 2016, 565, 369-375.	3.9	66
51	Probing Surface Interactions of Electrochemically Active Galena Mineral Surface Using Atomic Force Microscopy. Journal of Physical Chemistry C, 2016, 120, 22433-22442.	1.5	48
52	Interactions between elemental selenium and hydrophilic/hydrophobic surfaces: Direct force measurements using AFM. Chemical Engineering Journal, 2016, 303, 646-654.	6.6	47
53	Long-Range Hydrophilic Attraction between Water and Polyelectrolyte Surfaces in Oil. Angewandte Chemie, 2016, 128, 15241-15245.	1.6	4
54	Long-Range Hydrophilic Attraction between Water and Polyelectrolyte Surfaces in Oil. Angewandte Chemie - International Edition, 2016, 55, 15017-15021.	7.2	103

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55	In situ probing the self-assembly of 3-hexyl-4-amino-1,2,4-triazole-5-thione on chalcopyrite surfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 511, 285-293.	2.3	42
56	Probing Interactions between Air Bubble and Hydrophobic Polymer Surface: Impact of Solution Salinity and Interfacial Nanobubbles. <i>Langmuir</i> , 2016, 32, 11236-11244.	1.6	63
57	Interaction Mechanism of Oil-in-Water Emulsions with Asphaltenes Determined Using Droplet Probe AFM. <i>Langmuir</i> , 2016, 32, 2302-2310.	1.6	124
58	Probing the Interaction between Air Bubble and Sphalerite Mineral Surface Using Atomic Force Microscope. <i>Langmuir</i> , 2015, 31, 2438-2446.	1.6	90
59	Measuring Forces and Spatiotemporal Evolution of Thin Water Films between an Air Bubble and Solid Surfaces of Different Hydrophobicity. <i>ACS Nano</i> , 2015, 9, 95-104.	7.3	164
60	Effects of salinity on xanthate adsorption on sphalerite and bubble-sphalerite interactions. <i>Minerals Engineering</i> , 2015, 77, 34-41.	1.8	37
61	Probing Anisotropic Surface Properties and Interaction Forces of Chrysotile Rods by Atomic Force Microscopy and Rheology. <i>Langmuir</i> , 2014, 30, 10809-10817.	1.6	60