Jun Zhang

List of Publications by Year
in descending order

69 papers	1,964 citations	201575 27 h-index	265120 42 g-index
69 all docs	69 docs citations	69 times ranked	2093 citing authors

#	Article	IF	Citations
1	Nanoparticles Mimicking Viral Surface Topography for Enhanced Cellular Delivery. Advanced Materials, 2013, 25, 6233-6237.	11.1	174
2	Improved hydrogen storage in the modified metal-organic frameworks by hydrogen spillover effect. International Journal of Hydrogen Energy, 2007, 32, 4005-4010.	3.8	160
3	Adsorption mechanism of oil components on water-wet mineral surface: A molecular dynamics simulation study. Energy, 2013, 59, 295-300.	4.5	118
4	Molecular dynamics simulation on volume swelling of CO2â€“alkane system. Fuel, 2015, 143, 194-201.	3.4	67
5	Highly efficient water desalination in carbon nanocones. Carbon, 2018, 129, 374-379.	5.4	66
6	Displacement Mechanism of Oil in Shale Inorganic Nanopores by Supercritical Carbon Dioxide from Molecular Dynamics Simulations. Energy & Fuels, 2017, 31, 738-746.	2.5	62
7	Competitive adsorption and diffusion of CH4/CO2 binary mixture within shale organic nanochannels. Journal of Natural Gas Science and Engineering, 2018, 53, 329-336.	2.1	62
8	Enhanced oil recovery mechanism of CO 2 water-alternating-gas injection in silica nanochannel. Fuel, 2017, 190, 253-259.	3.4	59
9	Nanoconfined deep eutectic solvent in laminated MXene for efficient CO2 separation. Chemical Engineering Journal, 2021, 405, 126961.	6.6	56
10	Oil detachment mechanism in CO 2 flooding from silica surface: Molecular dynamics simulation. Chemical Engineering Science, 2017, 164, 17-22.	1.9	50
11	A graphene-like membrane with an ultrahigh water flux for desalination. Nanoscale, 2017, 9, 18951-18958.	2.8	46
12	Study on the transformation from linear to branched wormlike micelles: An insight from molecular dynamics simulation. Journal of Colloid and Interface Science, 2017, 494, 47-53.	5.0	44
13	Enantioselective Molecular Transport in Multilayer Graphene Nanopores. Nano Letters, 2017, 17, 6742-6746.	4.5	42
14	Molecular insight into the miscible mechanism of CO2/C10 in bulk phase and nanoslits. International Journal of Heat and Mass Transfer, 2019, 141, 643-650.	2.5	40
15	Electrical field facilitates selective transport of CO₂ through a laminated MoS₂ supported ionic liquid membrane. Journal of Materials Chemistry A, 2019, 7, 10041-10046.	5.2	40
16	Static and dynamic behavior of CO2 enhanced oil recovery in nanoslits: Effects of mineral type and oil components. International Journal of Heat and Mass Transfer, 2020, 153, 119583.	2.5	40
17	A solution-processable and ultra-permeable conjugated microporous thermoset for selective hydrogen separation. Nature Communications, 2020, 11, 1633.	5.8	40
18	CO₂-philic WS₂ laminated membranes with a nanoconfined ionic liquid. Journal of Materials Chemistry A, 2018, 6, 16566-16573.	5.2	39

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19	Molecular insight into the fluidity of cement pastes: Nano-boundary lubrication of cementitious materials. Construction and Building Materials, 2022, 316, 125800.	3.2	37
20	Oil extraction mechanism in CO2 flooding from rough surface: Molecular dynamics simulation. Applied Surface Science, 2019, 494, 80-86.	3.1	35
21	Water desalination of a new three-dimensional covalent organic framework: a molecular dynamics simulation study. Physical Chemistry Chemical Physics, 2020, 22, 16978-16984.	1.3	35
22	Photothermalâ€Responsive Microporous Nanosheets Confined Ionic Liquid for Efficient CO₂ Separation. Small, 2020, 16, e2002699.	5.2	33
23	Coarse-grained molecular dynamics study on the self-assembly of Gemini surfactants: the effect of spacer length. Physical Chemistry Chemical Physics, 2017, 19, 4462-4468.	1.3	32
24	Oil detachment by modified nanoparticles: A molecular dynamics simulation study. Computational Materials Science, 2019, 170, 109177.	1.4	32
25	Unusual, photo-induced self-assembly of azobenzene-containing amphiphiles. Soft Matter, 2014, 10, 8758-8764.	1.2	31
26	The molecular mechanism of the inhibition effects of PVCaps on the growth of sI hydrate: an unstable adsorption mechanism. Physical Chemistry Chemical Physics, 2018, 20, 8326-8332.	1.3	29
27	Correlated Rectification Transport in Ultranarrow Charged Nanocones. Journal of Physical Chemistry Letters, 2017, 8, 435-439.	2.1	28
28	How the oil recovery in deep oil reservoirs is affected by injected gas types: A molecular dynamics simulation study. Chemical Engineering Science, 2021, 231, 116286.	1.9	28
29	CO₂ activating hydrocarbon transport across nanopore throat: insights from molecular dynamics simulation. Physical Chemistry Chemical Physics, 2017, 19, 30439-30444.	1.3	27
30	Bottom-up self-assembly of heterotrimeric nanoparticles and their secondary Janus generations. Chemical Science, 2019, 10, 10388-10394.	3.7	26
31	Mechanism of asphaltene aggregation induced by supercritical CO₂: insights from molecular dynamics simulation. RSC Advances, 2017, 7, 50786-50793.	1.7	25
32	Migration of oil/methane mixture in shale inorganic nano-pore throat: A molecular dynamics simulation study. Journal of Petroleum Science and Engineering, 2020, 187, 106784.	2.1	24
33	Vesicle formation of catanionic mixtures of CTAC/SDS induced by ratio: a coarse-grained molecular dynamic simulation study. RSC Advances, 2016, 6, 13442-13449.	1.7	20
34	Why synthetic virus-like nanoparticles can achieve higher cellular uptake efficiency?. Nanoscale, 2020, 12, 14911-14918.	2.8	19
35	Molecular Insights into the Effect of a Solid Surface on the Stability of a Hydrate Nucleus. Journal of Physical Chemistry C, 2020, 124, 2664-2671.	1.5	18
36	One-pot production of porous assemblies by PISA of star architecture copolymers: a simulation study. Physical Chemistry Chemical Physics, 2018, 20, 10069-10076.	1.3	16

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37	Molecular insight into the oil charging mechanism in tight reservoirs. Chemical Engineering Science, 2020, 211, 115297.	1.9	15
38	Molecular dynamics study of di-CF4 based reverse micelles in supercritical CO₂. Physical Chemistry Chemical Physics, 2016, 18, 29156-29163.	1.3	14
39	The self-assembly structure and the CO₂-philicity of a hybrid surfactant in supercritical CO₂: effects of hydrocarbon chain length. Soft Matter, 2016, 12, 8177-8185.	1.2	14
40	Ionic liquid gated 2D-CAP membrane for highly efficient CO2/N2 and CO2/CH4 separation. Applied Surface Science, 2019, 494, 477-483.	3.1	14
41	Optimal aggregation number of reverse micelles in supercritical carbon dioxide: a theoretical perspective. Soft Matter, 2019, 15, 3323-3329.	1.2	14
42	Atypical adsorption of polycarboxylate superplasticizers on calcium silicate hydrate surface: Converting interaction by solvent effects. Construction and Building Materials, 2022, 330, 127160.	3.2	14
43	Cooperative assembly of Janus particles and amphiphilic oligomers: the role of Janus balance. Nanoscale, 2019, 11, 7221-7228.	2.8	12
44	Insight into the pressure-induced displacement mechanism for selecting efficient nanofluids in various capillaries. Environmental Science: Nano, 2020, 7, 2785-2794.	2.2	11
45	Molecular insights into the separation mechanism of imidazole-based ionic liquid supported membranes. Journal of Molecular Liquids, 2021, 340, 117173.	2.3	11
46	Voltage-gated multilayer graphene nanochannel for K+/Na+ separation: A molecular dynamics study. Journal of Molecular Liquids, 2020, 317, 114025.	2.3	10
47	An ion sieving conjugated microporous thermoset ultrathin membrane for high-performance Li-S battery. Energy Storage Materials, 2022, 49, 1-10.	9.5	10
48	Effect of organic salt on the self-assembly of ammonium gemini surfactant: An experiment and simulation study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 548, 198-205.	2.3	9
49	Prediction of efficient promoter molecules of sH hydrogen hydrate: An ab initio study. Chemical Physics, 2019, 516, 15-21.	0.9	9
50	Composite Nanotube Ring Structures Formed by Two-Step Self-Assembly for Drug Loading/Release. Langmuir, 2019, 35, 3108-3115.	1.6	9
51	Combined DFT and kinetic Monte Carlo study of a bridging-spillover mechanism on fluorine-decorated graphene. Physical Chemistry Chemical Physics, 2021, 23, 2384-2391.	1.3	9
52	Molecular-Scale Design of Hydrocarbon Surfactant Self-Assembly in Supercritical CO₂. Langmuir, 2017, 33, 5291-5297.	1.6	8
53	Two-dimensional hydrogen hydrates: structure and stability. Physical Chemistry Chemical Physics, 2020, 22, 5774-5784.	1.3	8
54	Molecular insight into the aggregation and dispersion behavior of modified nanoparticles. Journal of Petroleum Science and Engineering, 2020, 191, 107193.	2.1	8

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55	Tuning the self-assembly of surfactants by the confinement of carbon nanotube arrays: a cornucopia of lamellar phase variants. Nanoscale, 2015, 7, 6069-6074.	2.8	7
56	Alternating electric field-induced ion current rectification and electroosmotic pump in ultranarrow charged carbon nanocones. Physical Chemistry Chemical Physics, 2018, 20, 27910-27916.	1.3	7
57	Molecular insight into the oil displacement mechanism of gas flooding in deep oil reservoir. Chemical Physics Letters, 2021, 783, 139044.	1.2	7
58	Dissipative Particle Dynamics Simulation on Vesicles Self-Assembly Controlled by Terminal Groups. Journal of Physical Chemistry B, 2018, 122, 10607-10614.	1.2	6
59	Polymerization-Induced Self-Assembly of Comb-like Amphiphilic Copolymers into Onion-like Vesicles. Macromolecules, 2021, 54, 7448-7459.	2.2	6
60	Molecular insights into the resistance of phospholipid heads to the membrane penetration of graphene nanosheets. Nanoscale, 2022, 14, 5384-5391.	2.8	6
61	Shape transition of water-in-CO₂ reverse micelles controlled by the surfactant midpiece. Physical Chemistry Chemical Physics, 2018, 20, 15535-15542.	1.3	5
62	Manipulating Hybrid Nanostructures by the Cooperative Assembly of Amphiphilic Oligomers and Triblock Janus Nanoparticles. Journal of Physical Chemistry Letters, 2020, 11, 3369-3375.	2.1	5
63	Molecular mechanism of formation of the face-sharing double cages in structure-I methane hydrate. Chemical Physics Letters, 2018, 691, 155-162.	1.2	4
64	Quantum Chemical Study of the Carbon Dioxide-Philicity of Surfactants: Effects of Tail Functionalization. Langmuir, 2020, 36, 15352-15361.	1.6	4
65	The biphasic effect of ABA triblock copolymers on the self-assembly of surfactants: insight from dissipative particle dynamics. Molecular Systems Design and Engineering, 2019, 4, 921-928.	1.7	3
66	Novel joint catalytic properties of Fe and N co-doped graphene for CO oxidation. Physical Chemistry Chemical Physics, 2020, 22, 28376-28382.	1.3	3
67	Stability of CH4, CO2, and H2S in two-dimensional clathrate hydrates. Computational Materials Science, 2021, 188, 110174.	1.4	1
68	Manipulating the interactions between the lipid bilayer and triblock Janus nanoparticles: insight from dissipative particle dynamics. Molecular Systems Design and Engineering, 2021, 6, 156-162.	1.7	1
69	A bottom-up strategy to surface assembly: Second growth from metal-rich embryos. Materials Chemistry and Physics, 2018, 204, 228-235.	2.0	0