Zhengcai Zhang

List of Publications by Year
in descending order

24 papers	538 citations	623734 14 h-index	642732 23 g-index
24 all docs	24 docs citations	24 times ranked	378 citing authors

#	Article	IF	Citations
1	Molecular study on the behavior of methane hydrate decomposition induced by ions electrophoresis. Fuel, 2022, 307, 121866.	6.4	11
2	Revealing the growth mechanism of sH hydrate by molecular simulations. Journal of Molecular Liquids, 2022, 363, 119873.	4.9	3
3	Molecular simulation study on the stability of methane hydrate confined in slit-shaped pores. Energy, 2022, 257, 124738.	8.8	12
4	Insight on the stability of polycrystalline natural gas hydrates by molecular dynamics simulations. Fuel, 2021, 289, 119946.	6.4	23
5	Nanopore Surfaces Control the Shale Gas Adsorption via Roughness and Layer-Accumulated Adsorption Potential: A Molecular Dynamics Study. Energy & Fuels, 2021, 35, 4893-4900.	5.1	16
6	Comment on â€œIterative Cup Overlapping: An Efficient Identification Algorithm for Cage Structures of Amorphous Phase Hydratesâ€• Journal of Physical Chemistry B, 2021, 125, 5451-5453.	2.6	5
7	Nucleation probability and memory effect of methane-propane mixed gas hydrate. Fuel, 2021, 291, 120103.	6.4	29
8	Open questions on methane hydrate nucleation. Communications Chemistry, 2021, 4, .	4.5	15
9	Revealing the Growth of H₂ + THF Binary Hydrate through Molecular Simulations. Energy & Fuels, 2020, 34, 15004-15010.	5.1	13
10	Molecular Insights into Guest and Composition Dependence of Mixed Hydrate Nucleation. Journal of Physical Chemistry C, 2020, 124, 25078-25086.	3.1	20
11	Effects of italicized angle and turning angle on shale gas nanoflows in non-straight nanopores: A nonequilibrium molecular dynamics study. Fuel, 2020, 278, 118275.	6.4	6
12	Might a 2,2-Dimethylbutane Molecule Serve as a Site to Promote Gas Hydrate Nucleation?. Journal of Physical Chemistry C, 2019, 123, 20579-20586.	3.1	19
13	Mechanolysis mechanisms of the fused aromatic rings of anthracite coal under shear stress. Fuel, 2019, 253, 1247-1255.	6.4	33
14	Characterizing key features in the formation of ice and gas hydrate systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180167.	3.4	22
15	Molecular Insight into the Growth of Hydrogen and Methane Binary Hydrates. Journal of Physical Chemistry C, 2018, 122, 7771-7778.	3.1	30
16	Does Local Structure Bias How a Crystal Nucleus Evolves?. Journal of Physical Chemistry Letters, 2018, 9, 6991-6998.	4.6	19
17	Bridging solution properties to gas hydrate nucleation through guest dynamics. Physical Chemistry Chemical Physics, 2018, 20, 24535-24538.	2.8	33
18	Effects of gas reservoir configuration and pore radius on shale gas nanoflow: A molecular dynamics study. Journal of Chemical Physics, 2018, 148, 204703.	3.0	8

#	Article	IF	Citations
19	The effects of ice on methane hydrate nucleation: a microcanonical molecular dynamics study. Physical Chemistry Chemical Physics, 2017, 19, 19496-19505.	2.8	33
20	Unraveling Mixed Hydrate Formation: Microscopic Insights into Early Stage Behavior. Journal of Physical Chemistry B, 2016, 120, 13218-13223.	2.6	14
21	Effects of ensembles on methane hydrate nucleation kinetics. Physical Chemistry Chemical Physics, 2016, 18, 15602-15608.	2.8	53
22	Effect of guests on the adsorption interaction between a hydrate cage and guests. RSC Advances, 2016, 6, 106443-106452.	3.6	13
23	Microcanonical molecular simulations of methane hydrate nucleation and growth: evidence that direct nucleation to sI hydrate is among the multiple nucleation pathways. Physical Chemistry Chemical Physics, 2015, 17, 8870-8876.	2.8	94
24	Effects of cage type and adsorption face on the cageâ€“methane adsorption interaction: Implications for hydrate nucleation studies. Chemical Physics Letters, 2013, 575, 54-58.	2.6	14