Hongsheng Dong

List of Publications by Year
in descending order

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45 papers	1,513 citations	331259 21 h-index	315357 38 g-index
45 all docs	45 docs citations	45 times ranked	678 citing authors

#	Article	IF	Citations
1	Enhanced CH 4 recovery and CO 2 storage via thermal stimulation in the CH 4 /CO 2 replacement of methane hydrate. Chemical Engineering Journal, 2017, 308, 40-49.	6.6	207
2	Flexible graphene aerogel-based phase change film for solar-thermal energy conversion and storage in personal thermal management applications. Chemical Engineering Journal, 2021, 419, 129637.	6.6	109
3	The design of phase change materials with carbon aerogel composites for multi-responsive thermal energy capture and storage. Journal of Materials Chemistry A, 2021, 9, 1213-1220.	5.2	84
4	Evaluation of thermal stimulation on gas production from depressurized methane hydrate depositsâ˜†. Applied Energy, 2018, 227, 710-718.	5.1	83
5	Influence of reservoir permeability on methane hydrate dissociation by depressurization. International Journal of Heat and Mass Transfer, 2016, 103, 265-276.	2.5	73
6	Behaviors of CO₂ Hydrate Formation in the Presence of Acid-Dissolvable Organic Matters. Environmental Science & Technology, 2021, 55, 6206-6213.	4.6	70
7	The Controlling Factors and Ion Exclusion Mechanism of Hydrate-Based Pollutant Removal. ACS Sustainable Chemistry and Engineering, 2019, 7, 7932-7940.	3.2	68
8	Magnetic resonance imaging for in-situ observation of the effect of depressurizing range and rate on methane hydrate dissociation. Chemical Engineering Science, 2016, 144, 135-143.	1.9	59
9	Simulation of microwave stimulation for the production of gas from methane hydrate sediment. Applied Energy, 2016, 168, 25-37.	5.1	59
10	Potential applications based on the formation and dissociation of gas hydrates. Renewable and Sustainable Energy Reviews, 2021, 143, 110928.	8.2	53
11	One-step synthesis of graphene-based composite phase change materials with high solar-thermal conversion efficiency. Chemical Engineering Journal, 2022, 429, 132439.	6.6	50
12	Two-dimensional materials and their derivatives for high performance phase change materials: emerging trends and challenges. Energy Storage Materials, 2021, 42, 845-870.	9.5	47
13	Numerical analysis of microwave stimulation for enhancing energy recovery from depressurized methane hydrate sediments. Applied Energy, 2020, 262, 114559.	5.1	43
14	Hydrate-based heavy metal separation from aqueous solution. Scientific Reports, 2016, 6, 21389.	1.6	42
15	Enhancing the gas production efficiency of depressurization-induced methane hydrate exploitation via fracturing. Fuel, 2021, 288, 119740.	3.4	40
16	Pressure oscillation controlled CH4/CO2 replacement in methane hydrates: CH4 recovery, CO2 storage, and their characteristics. Chemical Engineering Journal, 2021, 425, 129709.	6.6	39
17	Promotion effect of graphite on cyclopentane hydrate based desalination. Desalination, 2018, 445, 197-203.	4.0	36
18	Desalination and Li+ enrichment via formation of cyclopentane hydrate. Separation and Purification Technology, 2020, 231, 115921.	3.9	29

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19	Effect of a weak electric field on THF hydrate formation: Induction time and morphology. Journal of Petroleum Science and Engineering, 2020, 194, 107486.	2.1	24
20	Analyzing spatially and temporally visualized formation behavior of methane hydrate in unconsolidated porous media. Magnetic Resonance Imaging, 2019, 61, 224-230.	1.0	23
21	In-situ observation for natural gas hydrate in porous medium: Water performance and formation characteristic. Magnetic Resonance Imaging, 2020, 65, 166-174.	1.0	23
22	Effects of depressurization on gas production and water performance from excess-gas and excess-water methane hydrate accumulations. Chemical Engineering Journal, 2022, 431, 133223.	6.6	23
23	Ionogels at the Water-Energy Nexus for Desalination Powered by Ultralow-Grade Heat. Environmental Science & Technology, 2020, 54, 3591-3598.	4.6	21
24	Molecular dynamics simulation and in-situ MRI observation of organic exclusion during CO2 hydrate growth. Chemical Physics Letters, 2021, 764, 138287.	1.2	16
25	Hydrate-based Reduction of Heavy Metal ion from Aqueous Solution. Energy Procedia, 2017, 105, 4706-4712.	1.8	14
26	MXene (Ti₃C₂T_x) as a Promising Substrate for Methane Storage via Enhanced Gas Hydrate Formation. Journal of Physical Chemistry Letters, 2021, 12, 6622-6627.	2.1	14
27	Gas Production from Methane Hydrate Deposits Induced by Depressurization in Conjunction with Thermal Stimulation. Energy Procedia, 2017, 105, 4713-4717.	1.8	14
28	Synthesis and application of magnetically recyclable nanoparticles as hydrate inhibitors. Chemical Engineering Journal, 2022, 431, 133966.	6.6	14
29	Hydrothermal stability of water sorption ionogels. Energy, 2019, 189, 116186.	4.5	13
30	Capillary pressure in the anisotropy of sediments with hydrate formation. Fuel, 2021, 289, 119938.	3.4	13
31	Enhancing Gas Production from Hydrate-Bearing Reservoirs through Depressurization-Based Approaches: Knowledge from Laboratory Experiments. Energy & Fuels, 2021, 35, 6344-6358.	2.5	13
32	Enhanced Gas Production from Hydrate Reservoirs with Underlying Water Layer. Energy & Fuels, 2021, 35, 1347-1357.	2.5	12
33	Numerical analysis of the gas recovery performance in hydrate reservoirs with various parameters by stepwise depressurization. Journal of Petroleum Science and Engineering, 2021, 203, 108670.	2.1	11
34	A combined hydrate-based method for removing heavy metals from simulated wastewater with high concentrations. Journal of Environmental Chemical Engineering, 2021, 9, 106633.	3.3	11
35	Experimental investigation on blockage predictions in gas pipelines using the pressure pulse wave method. Energy, 2021, 230, 120897.	4.5	10
36	Self-Organized Colloids Thermodynamically Weaken the Effect of Salt on Methane Hydrate Formation. ACS Sustainable Chemistry and Engineering, 2021, 9, 11323-11330.	3.2	9

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37	Association between multiphase seepage and exploitation of natural gas hydrate based on the Shenhu area of South China Sea. Journal of Petroleum Science and Engineering, 2022, 209, 109855.	2.1	9
38	Analytical Investigation of Gas and Water Production from Aqueous-Rich Hydrate-Bearing Sediments by Depressurization. Energy & Fuels, 2021, 35, 1414-1421.	2.5	8
39	Magnetically Recyclable â˜SO₃^{â€“}-Coated Nanoparticles Promote Gas Storage via Forming Hydrates. ACS Applied Materials & Interfaces, 2022, 14, 33141-33150.	4.0	7
40	Behaviors of CH4 hydrate formation in cold seeps with underlying gas plume. Fuel, 2021, 304, 121364.	3.4	6
41	Fenton-like reaction driving the degradation and uptake of multi-walled carbon nanotubes mediated by bacterium. Chemosphere, 2021, 275, 129888.	4.2	5
42	Rapid nucleation and growth of tetrafluoroethane hydrate in the cyclic process of boilingâ€“condensation. Energy, 2022, 256, 124647.	4.5	4
43	Evolution process and stabilization mechanism of different gas nanobubbles based on improved statistical analysis. Nano Select, 2022, 3, 1091-1101.	1.9	3
44	Pore-scale Displacement Mechanisms Investigation in CO 2 -brine-glass Beads System. Energy Procedia, 2017, 105, 4122-4127.	1.8	2
45	Effect of Gas Hydrate Cementation Mode on Acoustic and Electrical Properties of Natural Gas Hydrate Reservoirs Based On. , 2018, , .		0