

Zhenyuan Yin

List of Publications by Year in descending order

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70
papers

8,686
citations

50170

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docs citations

70
times ranked

2818
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluid production behavior from water-saturated hydrate-bearing sediments below the quadruple point of CH ₄ +H ₂ O. Applied Energy, 2022, 305, 117902.	5.1	14
2	Experimental investigation on the production performance from oceanic hydrate reservoirs with different buried depths. Energy, 2022, 242, 122542.	4.5	9
3	An electrical resistivity-based method for measuring semi-clathrate hydrate formation kinetics: Application for cold storage and transport. Applied Energy, 2022, 308, 118397.	5.1	23
4	Modeling and characterizing the thermal and kinetic behavior of methane hydrate dissociation in sandy porous media. Applied Energy, 2022, 312, 118804.	5.1	20
5	Effect of sodium montmorillonite clay on the kinetics of CH ₄ hydrate - implication for energy recovery. Chemical Engineering Journal, 2022, 437, 135368.	6.6	56
6	Comparison of SDS and L-Methionine in promoting CO ₂ hydrate kinetics: Implication for hydrate-based CO ₂ storage. Chemical Engineering Journal, 2022, 438, 135504.	6.6	51
7	An investigation on the permeability of hydrate-bearing sediments based on pore-scale CFD simulation. International Journal of Heat and Mass Transfer, 2022, 192, 122901.	2.5	24
8	Key factors influencing the kinetics of tetra-n-butylammonium bromide hydrate formation as a cold storage and transport material. Chemical Engineering Journal, 2022, 446, 136843.	6.6	14
9	Effects of key geological factors in the long-term transport of CH ₄ and the CH ₄ -hydrate formation behavior with formation dip. Journal of Natural Gas Science and Engineering, 2022, 103, 104615.	2.1	2
10	On the importance of DIOX concentration in promoting CH ₄ hydrate formation: A thermodynamic and kinetic investigation. Fuel, 2022, 324, 124355.	3.4	10
11	CO ₂ hydrate stability in oceanic sediments under brine conditions. Energy, 2022, 256, 124625.	4.5	22
12	Tuning the fluid production behaviour of hydrate-bearing sediments by multi-stage depressurization. Chemical Engineering Journal, 2021, 406, 127174.	6.6	69
13	Experimental study on methane hydrate formation in quartz sand under tri-axial condition. Journal of Natural Gas Science and Engineering, 2021, 85, 103707.	2.1	20
14	Experimental Study on Fluid Production from Methane Hydrate Sediments under the Marine Triaxial Condition. Energy & Fuels, 2021, 35, 3915-3924.	2.5	11
15	Amino Acids as Kinetic Promoters for Gas Hydrate Applications: A Mini Review. Energy & Fuels, 2021, 35, 7553-7571.	2.5	97
16	Hydrates for cold energy storage and transport: A review. Advances in Applied Energy, 2021, 2, 100022.	6.6	83
17	Effectiveness of CO ₂ -N ₂ injection for synergistic CH ₄ recovery and CO ₂ sequestration at marine gas hydrates condition. Chemical Engineering Journal, 2021, 420, 129615.	6.6	36
18	Effect of pressure drawdown rate on the fluid production behaviour from methane hydrate-bearing sediments. Applied Energy, 2020, 271, 115195.	5.1	60

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19	Evaluation and comparison of gas production potential of the typical four gas hydrate deposits in Shenhu area, South China sea. Energy, 2020, 204, 117955.	4.5	29
20	Estimation of the thermal conductivity of a heterogeneous CH ₄ -hydrate bearing sample based on particle swarm optimization. Applied Energy, 2020, 271, 115229.	5.1	17
21	On the importance of phase saturation heterogeneity in the analysis of laboratory studies of hydrate dissociation. Applied Energy, 2019, 255, 113861.	5.1	44
22	Effect of wellbore design on the production behaviour of methane hydrate-bearing sediments induced by depressurization. Applied Energy, 2019, 254, 113635.	5.1	80
23	Effect of Multi-Stage Cooling on the Kinetic Behavior of Methane Hydrate Formation in Sandy Medium. Energy Procedia, 2019, 158, 5374-5381.	1.8	3
24	Methane hydrates: A future clean energy resource. Chinese Journal of Chemical Engineering, 2019, 27, 2026-2036.	1.7	188
25	Effectiveness of multi-stage cooling processes in improving the CH ₄ -hydrate saturation uniformity in sandy laboratory samples. Applied Energy, 2019, 250, 729-747.	5.1	44
26	Kinetic Behavior of CH-Hydrate Formation in a Sandy Medium Induced by a Multi-Stage Cooling Process. , 2019, , .		0
27	LNG cold energy utilization: Prospects and challenges. Energy, 2019, 170, 557-568.	4.5	236
28	Semiclathrate based CO ₂ capture from fuel gas mixture at ambient temperature: Effect of concentrations of tetra-n-butylammonium fluoride (TBAF) and kinetic additives. Applied Energy, 2018, 217, 377-389.	5.1	58
29	Numerical analysis of experimental studies of methane hydrate formation in a sandy porous medium. Applied Energy, 2018, 220, 681-704.	5.1	92
30	A review of gas hydrate growth kinetic models. Chemical Engineering Journal, 2018, 342, 9-29.	6.6	211
31	Effect of horizontal wellbore on the production behavior from marine hydrate bearing sediment. Applied Energy, 2018, 214, 117-130.	5.1	80
32	Enhanced Gas Recovery from Water Saturated Hydrate Bearing Sediments Using Horizontal Wellbore. , 2018, , .		3
33	Numerical Modelling of Methane Hydrate Dissociation in Sandy Porous Media by Depressurization with a Parametric Study. , 2018, , .		0
34	Numerical Analysis of Experiments on Thermally Induced Dissociation of Methane Hydrates in Porous Media. Industrial & Engineering Chemistry Research, 2018, 57, 5776-5791.	1.8	51
35	Numerical analysis of experimental studies of methane hydrate dissociation induced by depressurization in a sandy porous medium. Applied Energy, 2018, 230, 444-459.	5.1	104
36	Methane hydrate formation in mixed-size porous media with gas circulation: Effects of sediment properties on gas consumption, hydrate saturation and rate constant. Fuel, 2018, 233, 94-102.	3.4	39

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37	Effect of vertical wellbore incorporation on energy recovery from aqueous rich hydrate sediments. Applied Energy, 2018, 229, 637-647.	5.1	42
38	Experimental investigations on energy recovery from water-saturated hydrate bearing sediments via depressurization approach. Applied Energy, 2017, 204, 1513-1525.	5.1	135
39	Effect of Biofriendly Amino Acids on the Kinetics of Methane Hydrate Formation and Dissociation. Industrial & Engineering Chemistry Research, 2017, 56, 6145-6154.	1.8	142
40	An innovative approach to enhance methane hydrate formation kinetics with leucine for energy storage application. Applied Energy, 2017, 188, 190-199.	5.1	180
41	Advances in nuclear magnetic resonance (NMR) techniques for the investigation of clathrate hydrates. Renewable and Sustainable Energy Reviews, 2017, 74, 1346-1360.	8.2	52
42	Production Behavior from Hydrate Bearing Marine Sediments using Depressurization Approach. Energy Procedia, 2017, 105, 4963-4969.	1.8	10
43	A Review of Clathrate Hydrate Nucleation. ACS Sustainable Chemistry and Engineering, 2017, 5, 11176-11203.	3.2	224
44	Semiclathrate hydrate process for pre-combustion capture of CO ₂ at near ambient temperatures. Applied Energy, 2017, 194, 267-278.	5.1	94
45	Recovering Natural Gas from Gas Hydrates using Horizontal Wellbore. Energy Procedia, 2017, 143, 780-785.	1.8	14
46	Methane hydrate formation in excess water simulating marine locations and the impact of thermal stimulation on energy recovery. Applied Energy, 2016, 177, 409-421.	5.1	168
47	Review of gas hydrate dissociation kinetic models for energy recovery. Journal of Natural Gas Science and Engineering, 2016, 35, 1362-1387.	2.1	231
48	Morphology Study of Methane Hydrate Formation and Dissociation in the Presence of Amino Acid. Crystal Growth and Design, 2016, 16, 5932-5945.	1.4	143
49	Review of natural gas hydrates as an energy resource: Prospects and challenges. Applied Energy, 2016, 162, 1633-1652.	5.1	1,328
50	Rapid methane hydrate formation to develop a cost effective large scale energy storage system. Chemical Engineering Journal, 2016, 290, 161-173.	6.6	261
51	Size Effect of Porous Media on Methane Hydrate Formation and Dissociation in an Excess Gas Environment. Industrial & Engineering Chemistry Research, 2016, 55, 7981-7991.	1.8	108
52	Gas Production from Methane Hydrates in a Dual Wellbore System. Energy & Fuels, 2015, 29, 35-42.	2.5	53
53	A review of the hydrate based gas separation (HBGS) process for carbon dioxide pre-combustion capture. Energy, 2015, 85, 261-279.	4.5	481
54	Enhanced carbon dioxide hydrate formation kinetics in a fixed bed reactor filled with metallic packing. Chemical Engineering Science, 2015, 122, 78-85.	1.9	80

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55	Hydrogen storage in clathrate hydrates: Current state of the art and future directions. Applied Energy, 2014, 122, 112-132.	5.1	337
56	Seawater desalination by gas hydrate process and removal characteristics of dissolved ions (Na ⁺ , K ⁺). Tj ETQq0 0 0 JgBT /Overlock 10 Tf	4.8	299
57	Thermodynamic and Kinetic Verification of Tetra- <i>n</i> -butyl Ammonium Nitrate (TBANO ₃) as a Promoter for the Clathrate Process Applicable to Precombustion Carbon Dioxide Capture. Environmental Science & Technology, 2014, 48, 3550-3558.	4.6	67
58	Systematic Evaluation of Tetra- <i>n</i> -butyl Ammonium Bromide (TBAB) for Carbon Dioxide Capture Employing the Clathrate Process. Industrial & Engineering Chemistry Research, 2014, 53, 4878-4887.	1.8	104
59	HBGS (hydrate based gas separation) process for carbon dioxide capture employing an unstirred reactor with cyclopentane. Energy, 2013, 63, 252-259.	4.5	125
60	A New Porous Material to Enhance the Kinetics of Clathrate Process: Application to Precombustion Carbon Dioxide Capture. Environmental Science & Technology, 2013, 47, 13191-13198.	4.6	91
61	Coaxial electrohydrodynamic atomization process for production of polymeric composite microspheres. Chemical Engineering Science, 2013, 104, 330-346.	1.9	56
62	Medium pressure hydrate based gas separation (HBGS) process for pre-combustion capture of carbon dioxide employing a novel fixed bed reactor. International Journal of Greenhouse Gas Control, 2013, 17, 206-214.	2.3	107
63	Morphology of Carbon Dioxide-Hydrogen-Cyclopentane Hydrates with or without Sodium Dodecyl Sulfate. Crystal Growth and Design, 2013, 13, 2047-2059.	1.4	86
64	Morphology of Methane Hydrate Formation in Porous Media. Energy & Fuels, 2013, 27, 3364-3372.	2.5	145
65	Influence of contact medium and surfactants on carbon dioxide clathrate hydrate kinetics. Fuel, 2013, 105, 664-671.	3.4	214
66	Enhanced rate of gas hydrate formation in a fixed bed column filled with sand compared to a stirred vessel. Chemical Engineering Science, 2012, 68, 617-623.	1.9	292
67	Recovery of Methane from Hydrate Formed in a Variable Volume Bed of Silica Sand Particles. Energy & Fuels, 2009, 23, 5508-5516.	2.5	103
68	Gas Hydrate Formation in a Variable Volume Bed of Silica Sand Particles. Energy & Fuels, 2009, 23, 5496-5507.	2.5	218
69	Gas hydrate formation from hydrogen/carbon dioxide and nitrogen/carbon dioxide gas mixtures. Chemical Engineering Science, 2007, 62, 4268-4276.	1.9	329
70	The clathrate hydrate process for post and pre-combustion capture of carbon dioxide. Journal of Hazardous Materials, 2007, 149, 625-629.	6.5	467