

# Zhenyuan Yin

## List of Publications by Year in descending order

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70  
papers

8,686  
citations

50170

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98622

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70  
docs citations

70  
times ranked

2818  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of natural gas hydrates as an energy resource: Prospects and challenges. <i>Applied Energy</i> , 2016, 162, 1633-1652.	5.1	1,328
2	A review of the hydrate based gas separation (HBGS) process for carbon dioxide pre-combustion capture. <i>Energy</i> , 2015, 85, 261-279.	4.5	481
3	The clathrate hydrate process for post and pre-combustion capture of carbon dioxide. <i>Journal of Hazardous Materials</i> , 2007, 149, 625-629.	6.5	467
4	Hydrogen storage in clathrate hydrates: Current state of the art and future directions. <i>Applied Energy</i> , 2014, 122, 112-132.	5.1	337
5	Gas hydrate formation from hydrogen/carbon dioxide and nitrogen/carbon dioxide gas mixtures. <i>Chemical Engineering Science</i> , 2007, 62, 4268-4276.	1.9	329
6	Seawater desalination by gas hydrate process and removal characteristics of dissolved ions (Na <sup>+</sup> , K <sup>+</sup> ). <i>Journal of Membrane Science</i> , 2010, 340, 299-307.	4.8	299
7	Enhanced rate of gas hydrate formation in a fixed bed column filled with sand compared to a stirred vessel. <i>Chemical Engineering Science</i> , 2012, 68, 617-623.	1.9	292
8	Rapid methane hydrate formation to develop a cost effective large scale energy storage system. <i>Chemical Engineering Journal</i> , 2016, 290, 161-173.	6.6	261
9	LNG cold energy utilization: Prospects and challenges. <i>Energy</i> , 2019, 170, 557-568.	4.5	236
10	Review of gas hydrate dissociation kinetic models for energy recovery. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 35, 1362-1387.	2.1	231
11	A Review of Clathrate Hydrate Nucleation. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 11176-11203.	3.2	224
12	Gas Hydrate Formation in a Variable Volume Bed of Silica Sand Particles. <i>Energy &amp; Fuels</i> , 2009, 23, 5496-5507.	2.5	218
13	Influence of contact medium and surfactants on carbon dioxide clathrate hydrate kinetics. <i>Fuel</i> , 2013, 105, 664-671.	3.4	214
14	A review of gas hydrate growth kinetic models. <i>Chemical Engineering Journal</i> , 2018, 342, 9-29.	6.6	211
15	Methane hydrates: A future clean energy resource. <i>Chinese Journal of Chemical Engineering</i> , 2019, 27, 2026-2036.	1.7	188
16	An innovative approach to enhance methane hydrate formation kinetics with leucine for energy storage application. <i>Applied Energy</i> , 2017, 188, 190-199.	5.1	180
17	Methane hydrate formation in excess water simulating marine locations and the impact of thermal stimulation on energy recovery. <i>Applied Energy</i> , 2016, 177, 409-421.	5.1	168
18	Morphology of Methane Hydrate Formation in Porous Media. <i>Energy &amp; Fuels</i> , 2013, 27, 3364-3372.	2.5	145

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19	Morphology Study of Methane Hydrate Formation and Dissociation in the Presence of Amino Acid. <i>Crystal Growth and Design</i> , 2016, 16, 5932-5945.	1.4	143
20	Effect of Biofriendly Amino Acids on the Kinetics of Methane Hydrate Formation and Dissociation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 6145-6154.	1.8	142
21	Experimental investigations on energy recovery from water-saturated hydrate bearing sediments via depressurization approach. <i>Applied Energy</i> , 2017, 204, 1513-1525.	5.1	135
22	HBGS (hydrate based gas separation) process for carbon dioxide capture employing an unstirred reactor with cyclopentane. <i>Energy</i> , 2013, 63, 252-259.	4.5	125
23	Size Effect of Porous Media on Methane Hydrate Formation and Dissociation in an Excess Gas Environment. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 7981-7991.	1.8	108
24	Medium pressure hydrate based gas separation (HBGS) process for pre-combustion capture of carbon dioxide employing a novel fixed bed reactor. <i>International Journal of Greenhouse Gas Control</i> , 2013, 17, 206-214.	2.3	107
25	Systematic Evaluation of Tetra- <i>n</i> -butyl Ammonium Bromide (TBAB) for Carbon Dioxide Capture Employing the Clathrate Process. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 4878-4887.	1.8	104
26	Numerical analysis of experimental studies of methane hydrate dissociation induced by depressurization in a sandy porous medium. <i>Applied Energy</i> , 2018, 230, 444-459.	5.1	104
27	Recovery of Methane from Hydrate Formed in a Variable Volume Bed of Silica Sand Particles. <i>Energy &amp; Fuels</i> , 2009, 23, 5508-5516.	2.5	103
28	Amino Acids as Kinetic Promoters for Gas Hydrate Applications: A Mini Review. <i>Energy &amp; Fuels</i> , 2021, 35, 7553-7571.	2.5	97
29	Semiclathrate hydrate process for pre-combustion capture of CO <sub>2</sub> at near ambient temperatures. <i>Applied Energy</i> , 2017, 194, 267-278.	5.1	94
30	Numerical analysis of experimental studies of methane hydrate formation in a sandy porous medium. <i>Applied Energy</i> , 2018, 220, 681-704.	5.1	92
31	A New Porous Material to Enhance the Kinetics of Clathrate Process: Application to Precombustion Carbon Dioxide Capture. <i>Environmental Science &amp; Technology</i> , 2013, 47, 13191-13198.	4.6	91
32	Morphology of Carbon Dioxide-Hydrogen-Cyclopentane Hydrates with or without Sodium Dodecyl Sulfate. <i>Crystal Growth and Design</i> , 2013, 13, 2047-2059.	1.4	86
33	Hydrates for cold energy storage and transport: A review. <i>Advances in Applied Energy</i> , 2021, 2, 100022.	6.6	83
34	Enhanced carbon dioxide hydrate formation kinetics in a fixed bed reactor filled with metallic packing. <i>Chemical Engineering Science</i> , 2015, 122, 78-85.	1.9	80
35	Effect of horizontal wellbore on the production behavior from marine hydrate bearing sediment. <i>Applied Energy</i> , 2018, 214, 117-130.	5.1	80
36	Effect of wellbore design on the production behaviour of methane hydrate-bearing sediments induced by depressurization. <i>Applied Energy</i> , 2019, 254, 113635.	5.1	80

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37	Tuning the fluid production behaviour of hydrate-bearing sediments by multi-stage depressurization. <i>Chemical Engineering Journal</i> , 2021, 406, 127174.	6.6	69
38	Thermodynamic and Kinetic Verification of Tetra- <i>n</i> -butyl Ammonium Nitrate (TBANO <sub>3</sub> ) as a Promoter for the Clathrate Process Applicable to Precombustion Carbon Dioxide Capture. <i>Environmental Science &amp; Technology</i> , 2014, 48, 3550-3558.	4.6	67
39	Effect of pressure drawdown rate on the fluid production behaviour from methane hydrate-bearing sediments. <i>Applied Energy</i> , 2020, 271, 115195.	5.1	60
40	Semiclathrate based CO <sub>2</sub> capture from fuel gas mixture at ambient temperature: Effect of concentrations of tetra- <i>n</i> -butylammonium fluoride (TBAF) and kinetic additives. <i>Applied Energy</i> , 2018, 217, 377-389.	5.1	58
41	Coaxial electrohydrodynamic atomization process for production of polymeric composite microspheres. <i>Chemical Engineering Science</i> , 2013, 104, 330-346.	1.9	56
42	Effect of sodium montmorillonite clay on the kinetics of CH <sub>4</sub> hydrate - implication for energy recovery. <i>Chemical Engineering Journal</i> , 2022, 437, 135368.	6.6	56
43	Gas Production from Methane Hydrates in a Dual Wellbore System. <i>Energy &amp; Fuels</i> , 2015, 29, 35-42.	2.5	53
44	Advances in nuclear magnetic resonance (NMR) techniques for the investigation of clathrate hydrates. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 74, 1346-1360.	8.2	52
45	Numerical Analysis of Experiments on Thermally Induced Dissociation of Methane Hydrates in Porous Media. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 5776-5791.	1.8	51
46	Comparison of SDS and L-Methionine in promoting CO <sub>2</sub> hydrate kinetics: Implication for hydrate-based CO <sub>2</sub> storage. <i>Chemical Engineering Journal</i> , 2022, 438, 135504.	6.6	51
47	On the importance of phase saturation heterogeneity in the analysis of laboratory studies of hydrate dissociation. <i>Applied Energy</i> , 2019, 255, 113861.	5.1	44
48	Effectiveness of multi-stage cooling processes in improving the CH <sub>4</sub> -hydrate saturation uniformity in sandy laboratory samples. <i>Applied Energy</i> , 2019, 250, 729-747.	5.1	44
49	Effect of vertical wellbore incorporation on energy recovery from aqueous rich hydrate sediments. <i>Applied Energy</i> , 2018, 229, 637-647.	5.1	42
50	Methane hydrate formation in mixed-size porous media with gas circulation: Effects of sediment properties on gas consumption, hydrate saturation and rate constant. <i>Fuel</i> , 2018, 233, 94-102.	3.4	39
51	Effectiveness of CO <sub>2</sub> -N <sub>2</sub> injection for synergistic CH <sub>4</sub> recovery and CO <sub>2</sub> sequestration at marine gas hydrates condition. <i>Chemical Engineering Journal</i> , 2021, 420, 129615.	6.6	36
52	Evaluation and comparison of gas production potential of the typical four gas hydrate deposits in Shenhu area, South China sea. <i>Energy</i> , 2020, 204, 117955.	4.5	29
53	An investigation on the permeability of hydrate-bearing sediments based on pore-scale CFD simulation. <i>International Journal of Heat and Mass Transfer</i> , 2022, 192, 122901.	2.5	24
54	An electrical resistivity-based method for measuring semi-clathrate hydrate formation kinetics: Application for cold storage and transport. <i>Applied Energy</i> , 2022, 308, 118397.	5.1	23

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55	CO2 hydrate stability in oceanic sediments under brine conditions. <i>Energy</i> , 2022, 256, 124625.	4.5	22
56	Experimental study on methane hydrate formation in quartz sand under tri-axial condition. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 85, 103707.	2.1	20
57	Modeling and characterizing the thermal and kinetic behavior of methane hydrate dissociation in sandy porous media. <i>Applied Energy</i> , 2022, 312, 118804.	5.1	20
58	Estimation of the thermal conductivity of a heterogeneous CH4-hydrate bearing sample based on particle swarm optimization. <i>Applied Energy</i> , 2020, 271, 115229.	5.1	17
59	Recovering Natural Gas from Gas Hydrates using Horizontal Wellbore. <i>Energy Procedia</i> , 2017, 143, 780-785.	1.8	14
60	Fluid production behavior from water-saturated hydrate-bearing sediments below the quadruple point of CH4+H2O. <i>Applied Energy</i> , 2022, 305, 117902.	5.1	14
61	Key factors influencing the kinetics of tetra-n-butylammonium bromide hydrate formation as a cold storage and transport material. <i>Chemical Engineering Journal</i> , 2022, 446, 136843.	6.6	14
62	Experimental Study on Fluid Production from Methane Hydrate Sediments under the Marine Triaxial Condition. <i>Energy &amp; Fuels</i> , 2021, 35, 3915-3924.	2.5	11
63	Production Behavior from Hydrate Bearing Marine Sediments using Depressurization Approach. <i>Energy Procedia</i> , 2017, 105, 4963-4969.	1.8	10
64	On the importance of DIOX concentration in promoting CH4 hydrate formation: A thermodynamic and kinetic investigation. <i>Fuel</i> , 2022, 324, 124355.	3.4	10
65	Experimental investigation on the production performance from oceanic hydrate reservoirs with different buried depths. <i>Energy</i> , 2022, 242, 122542.	4.5	9
66	Enhanced Gas Recovery from Water Saturated Hydrate Bearing Sediments Using Horizontal Wellbore. , 2018, , .		3
67	Effect of Multi-Stage Cooling on the Kinetic Behavior of Methane Hydrate Formation in Sandy Medium. <i>Energy Procedia</i> , 2019, 158, 5374-5381.	1.8	3
68	Effects of key geological factors in the long-term transport of CH4 and the CH4-hydrate formation behavior with formation dip. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 103, 104615.	2.1	2
69	Numerical Modelling of Methane Hydrate Dissociation in Sandy Porous Media by Depressurization with a Parametric Study. , 2018, , .		0
70	Kinetic Behavior of CH-Hydrate Formation in a Sandy Medium Induced by a Multi-Stage Cooling Process. , 2019, , .		0