Chun-Gang Xu

List of Publications by Year
in descending order

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Version: 2024-02-01

74	3,170	147801	155660
papers	citations	31 h-index	55 g-index

76	76	76	1423
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Investigation into gas production from natural gas hydrate: A review. Applied Energy, 2016, 172, 286-322.	10.1	519
2	Tetra-n-butyl ammonium bromide semi-clathrate hydrate process for post-combustion capture of carbon dioxide in the presence of dodecyl trimethyl ammonium chloride. Energy, 2010, 35, 3902-3908.	8.8	190
3	Hydrate-based pre-combustion carbon dioxide capture process in the system with tetra-n-butyl ammonium bromide solution in the presence of cyclopentane. Energy, 2011, 36, 1394-1403.	8.8	170
4	Research progress of hydrate-based CO₂separation and capture from gas mixtures. RSC Advances, 2014, 4, 18301-18316.	3.6	156
5	CO2 (carbon dioxide) separation from CO2â€“H2 (hydrogen) gas mixtures by gas hydrates in TBAB (tetra-n-butyl ammonium bromide) solution and Raman spectroscopic analysis. Energy, 2013, 59, 719-725.	8.8	110
6	Synergic effect of cyclopentane and tetra-n-butyl ammonium bromide on hydrate-based carbon dioxide separation from fuel gas mixture by measurements of gas uptake and X-ray diffraction patterns. International Journal of Hydrogen Energy, 2012, 37, 720-727.	7.1	97
7	Research progress on methane production from natural gas hydrates. RSC Advances, 2015, 5, 54672-54699.	3.6	94
8	Effects of Tetrabutyl-(ammonium/phosphonium) Salts on Clathrate Hydrate Capture of CO₂ from Simulated Flue Gas. Energy & Fuels, 2012, 26, 2518-2527.	5.1	93
9	Hydrate-based CO2 capture and CH4 purification from simulated biogas with synergic additives based on gas solvent. Applied Energy, 2016, 162, 1153-1159.	10.1	90
10	Effect of pressure on methane recovery from natural gas hydrates by methane-carbon dioxide replacement. Applied Energy, 2018, 217, 527-536.	10.1	88
11	Hydrate-based CO2 (carbon dioxide) capture from IGCC (integrated gasification combined cycle) synthesis gas using bubble method with a set of visual equipment. Energy, 2012, 44, 358-366.	8.8	83
12	Evaluation of CO 2 hydrate formation from mixture of graphite nanoparticle and sodium dodecyl benzene sulfonate. Journal of Industrial and Engineering Chemistry, 2018, 59, 64-69.	5.8	65
13	Study on Pilot-Scale CO₂ Separation from Flue Gas by the Hydrate Method. Energy & Fuels, 2014, 28, 1242-1248.	5.1	61
14	Raman analysis on methane production from natural gas hydrate by carbon dioxideâ€“methane replacement. Energy, 2015, 79, 111-116.	8.8	61
15	Molecular Dynamics Simulation of the Crystal Nucleation and Growth Behavior of Methane Hydrate in the Presence of the Surface and Nanopores of Porous Sediment. Langmuir, 2016, 32, 7975-7984.	3.5	60
16	Research on micro-mechanism and efficiency of CH4 exploitation via CH4-CO2 replacement from natural gas hydrates. Fuel, 2018, 216, 255-265.	6.4	56
17	Hydrate-based methane separation from coal mine methane gas mixture by bubbling using the scale-up equipment. Applied Energy, 2017, 204, 1526-1534.	10.1	52
18	Experimental Investigation of the Formation of Cyclopentane-Methane Hydrate in a Novel and Large-Size Bubble Column Reactor. Industrial & Engineering Chemistry Research, 2012, 51, 5967-5975.	3.7	51

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19	The effect of hydrate promoters on gas uptake. Physical Chemistry Chemical Physics, 2017, 19, 21769-21776.	2.8	50
20	Integrated Process Study on Hydrate-Based Carbon Dioxide Separation from Integrated Gasification Combined Cycle (IGCC) Synthesis Gas in Scaled-Up Equipment. Energy & Fuels, 2012, 26, 6442-6448.	5.1	45
21	Experimental Study on Methane Hydrate Dissociation by Depressurization in Porous Sediments. Energies, 2012, 5, 518-530.	3.1	41
22	Research progress in hydrate-based technologies and processes in China: A review. Chinese Journal of Chemical Engineering, 2019, 27, 1998-2013.	3.5	41
23	Methane recovery from natural gas hydrate with simulated IGCC syngas. Energy, 2017, 120, 192-198.	8.8	39
24	Hydrate-based acidic gases capture for clean methane with new synergic additives. Applied Energy, 2017, 207, 584-593.	10.1	39
25	Thermodynamic Equilibrium Conditions for Simulated Landfill Gas Hydrate Formation in Aqueous Solutions of Additives. Journal of Chemical & Engineering Data, 2012, 57, 3290-3295.	1.9	38
26	Hydrate-Based Methane Separation from the Drainage Coal-Bed Methane with Tetrahydrofuran Solution in the Presence of Sodium Dodecyl Sulfate. Energy & Fuels, 2012, 26, 1144-1151.	5.1	38
27	Study on developing a novel continuous separation device and carbon dioxide separation by process of hydrate combined with chemical absorption. Applied Energy, 2019, 255, 113791.	10.1	38
28	Raman spectroscopic studies on carbon dioxide separation from fuel gas via clathrate hydrate in the presence of tetrahydrofuran. Applied Energy, 2018, 214, 92-102.	10.1	37
29	Experimental studies on hydrogen hydrate with tetrahydrofuran by differential scanning calorimeter and in-situ Raman. Applied Energy, 2019, 243, 1-9.	10.1	37
30	A review of numerical research on gas production from natural gas hydrates in China. Journal of Natural Gas Science and Engineering, 2021, 85, 103713.	4.4	37
31	Insight into micro-mechanism of hydrate-based methane recovery and carbon dioxide capture from methane-carbon dioxide gas mixtures with thermal characterization. Applied Energy, 2019, 239, 57-69.	10.1	32
32	Hydrate-based carbon dioxide capture from simulated integrated gasification combined cycle gas. Journal of Natural Gas Chemistry, 2012, 21, 501-507.	1.8	31
33	Molecular dynamics simulation of the intercalation behaviors of methane hydrate in montmorillonite. Journal of Molecular Modeling, 2014, 20, 2311.	1.8	30
34	Molecular dynamics simulation of methane hydrate dissociation by depressurisation. Molecular Simulation, 2013, 39, 251-260.	2.0	29
35	Review of methods and applications for promoting gas hydrate formation process. Journal of Natural Gas Science and Engineering, 2022, 101, 104528.	4.4	29
36	Hydrate-based hydrogen purification from simulated syngas with synergic additives. International Journal of Hydrogen Energy, 2016, 41, 2649-2659.	7.1	28

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37	Carbon dioxide hydrate separation from Integrated Gasification Combined Cycle (IGCC) syngas by a novel hydrate heat-mass coupling method. Energy, 2020, 199, 117420.	8.8	26
38	The Formation of CH₄ Hydrate in the Slit Nanopore between the Smectite Basal Surfaces by Molecular Dynamics Simulation. Energy & Fuels, 2018, 32, 6467-6474.	5.1	25
39	Crystal morphology-based kinetic study of carbon dioxide-hydrogen-tetra-n-butyl ammonium bromide hydrates formation in a static system. Energy, 2018, 143, 546-553.	8.8	23
40	Effect of temperature fluctuation on hydrate-based CO2 separation from fuel gas. Journal of Natural Gas Chemistry, 2011, 20, 647-653.	1.8	22
41	Study on the influencing factors of gas consumption in hydrate-based CO2 separation in the presence of CP by Raman analysis. Energy, 2020, 198, 117316.	8.8	21
42	Replacement of CH₄ in Hydrate in Porous Sediments with Liquid CO₂ Injection. Chemical Engineering and Technology, 2014, 37, 2022-2029.	1.5	20
43	The plateau effects and crystal transition study in Tetrahydrofuran (THF)/CO2/H2 hydrate formation processes. Applied Energy, 2019, 238, 195-201.	10.1	20
44	Phase equilibrium and Raman spectroscopic studies of semi-clathrate hydrates for methane, nitrogen and tetra-butyl-ammonium fluoride. Fluid Phase Equilibria, 2016, 413, 48-52.	2.5	18
45	Recovery of methane from coal-bed methane gas mixture via hydrate-based methane separation method by adding anionic surfactants. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2018, 40, 1019-1026.	2.3	18
46	Hydrate-based Capture CO2 and Purification CH4 from Simulated Landfill Gas with Synergic Additives Based on Gas Solvent. Energy Procedia, 2014, 61, 450-454.	1.8	16
47	Methane hydrate formation and dissociation behaviors in montmorillonite. Chinese Journal of Chemical Engineering, 2019, 27, 1212-1218.	3.5	14
48	The Effect of CO2 Partial Pressure on CH4 Recovery in CH4-CO2 Swap with Simulated IGCC Syngas. Energies, 2020, 13, 1017.	3.1	13
49	A novel method for evaluating effects of promoters on hydrate formation. Energy, 2016, 102, 567-575.	8.8	12
50	Formation Behaviors of CO 2 Hydrate in Kaoline and Bentonite Clays with Partially Water Saturated. Energy Procedia, 2017, 143, 547-552.	1.8	11
51	Numerical Investigation of the Production Behavior of Methane Hydrates under Depressurization Conditions Combined with Well-Wall Heating. Energies, 2017, 10, 161.	3.1	11
52	Anti-Agglomerator of Tetra-n-Butyl Ammonium Bromide Hydrate and Its Effect on Hydrate-Based CO2 Capture. Energies, 2018, 11, 399.	3.1	11
53	Effect of Fulvic Acid and Sodium Chloride on the Phase Equilibrium of Methane Hydrate in Mixed Sandâ€“Clay Sediment. Journal of Chemical & Engineering Data, 2019, 64, 632-639.	1.9	11
54	Research on micro mechanism and influence of hydrate-based methane-carbon dioxide replacement for realizing simultaneous clean energy exploitation and carbon emission reduction. Chemical Engineering Science, 2022, 248, 117266.	3.8	11

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55	Studies on temperature characteristics and initial formation interface during cyclopentane-methane hydrate formation in large-scale equipment with bubbling. Applied Energy, 2020, 258, 114076.	10.1	10
56	Hydrate-based Methane Recovery from Coal Mine Methane Gas in Scale-up Equipment with Bubbling. Energy Procedia, 2017, 105, 4983-4989.	1.8	9
57	Sulfonated poly (fluorenyl ether ketone nitrile) membranes used for high temperature PEM fuel cell. Heliyon, 2020, 6, e04855.	3.2	9
58	Research progress on the effects of nanoparticles on gas hydrate formation. RSC Advances, 2022, 12, 20227-20238.	3.6	9
59	Effects of Salinity on Formation Behavior of Methane Hydrate in Montmorillonite. Energies, 2020, 13, 231.	3.1	8
60	Effect of H₂O Molecules on the CO₂ Replacement in CH₄ Hydrate Behavior by Molecular Simulation. Energy & Fuels, 2021, 35, 8126-8140.	5.1	8
61	Influence of nickel foam on kinetics and separation efficiency of hydrate-based Carbon dioxide separation. Energy, 2021, 231, 120826.	8.8	8
62	Formation and Dissociation Behavior Studies of Hydrogen Hydrate in the presence of Tetrahydrofuran by using High Pressure DSC. Energy Procedia, 2019, 158, 5149-5155.	1.8	7
63	Study of Hydrate-Based Methane Separation from Coal-Bed Methane in Scale-up Equipment with Bubbling. Energy Procedia, 2014, 61, 812-816.	1.8	6
64	Similarity Analysis in Scaling a Gas Hydrates Reservoir. Energies, 2013, 6, 2468-2480.	3.1	5
65	Exploring Guestâ€“Host Interactions in Gas Hydrates: Insights from Quantum Mechanics. Energy & Fuels, 2021, 35, 18604-18614.	5.1	5
66	Raman Spectroscopic Analysis on the Hydrate Formed in the Hydrate-Based Flue Gas Separation Process in Presence of Sulfur Dioxide and Tetra-n-butyl Ammonium Bromide. Spectroscopy Letters, 2015, 48, 499-505.	1.0	4
67	Hydrate-based Capture of Acidic Gases for Clean Fuels with New Synergic Additives. Energy Procedia, 2017, 105, 648-653.	1.8	4
68	Raman Spectroscopic Study on Hydrate-based Carbon Dioxide Separation from Fuel Gas in the Presence of THF. Energy Procedia, 2017, 143, 540-546.	1.8	4
69	Gas-liquid asynchronous cooling promoting gas hydrate formation with high energy efficiency and its promoting mechanism. Chemical Engineering Journal, 2022, 438, 135631.	12.7	4
70	Microscopic Insights into the Effect of the Initial Gasâ€“Liquid Interface on Hydrate Formation by In-Situ Raman in the System of Coalbed Methane and Tetrahydrofuran. ACS Omega, 2021, 6, 35467-35475.	3.5	3
71	Experimental and Modeling Study of Kinetics for Hydrate Decomposition Induced by Depressurization in a Porous Medium. Frontiers in Energy Research, 2021, 9, .	2.3	3
72	The Relationship between Thermal Characteristics and Microstructure/Composition of Carbon Dioxide Hydrate in the Presence of Cyclopentane. Energies, 2021, 14, 870.	3.1	2

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73	Influence of Direct Currentâ€“Voltage Accompanied by Charge Flow on CO2 Hydrate Formation. Frontiers in Energy Research, 2021, 9, .	2.3	2
74	Study on Temperature Characteristics of Hydrate Slurry during Cyclopentaneâ€“Methane Hydrate Formation. Energy & Fuels, 2018, 32, 1558-1566.	5.1	1