

Ianlan Jiang

List of Publications by Year in descending order

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123
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172457
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times ranked

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#	ARTICLE	IF	CITATIONS
1	Post-combustion CO ₂ capture and separation in flue gas based on hydrate technology: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 154, 111806.	16.4	52
2	High-efficiency gas storage via methane-tetrahydrofuran hydrate formation: Insights from hydrate structure and morphological analyses. <i>Fuel</i> , 2022, 311, 122494.	6.4	8
3	Production Characteristics of Natural Gas Hydrate in Muddy Marine Sediments of Different Moistures by Depressurization. <i>Energy & Fuels</i> , 2022, 36, 1522-1530.	5.1	9
4	Study on Seepage and Mass Transfer Characteristics During CO ₂ Storage in Saline Aquifer. <i>Lecture Notes in Civil Engineering</i> , 2022, , 210-220.	0.4	0
5	Experimental Study on the Density-Driven Convective Mixing of CO ₂ and Brine at Reservoir Temperature and Pressure Conditions. <i>Energy & Fuels</i> , 2022, 36, 10261-10268.	5.1	6
6	Effects of Particle Sizes on Growth Characteristics of Propane Hydrate in Uniform/Nonuniform Sands for Desalination Application. <i>Energy & Fuels</i> , 2022, 36, 1003-1014.	5.1	7
7	High-efficiency separation of CO ₂ from CO ₂ -CH ₄ gas mixtures via gas hydrates under static conditions. <i>Separation and Purification Technology</i> , 2022, 296, 121297.	7.9	26
8	Effect of Methane Solubility on Hydrate Formation and Dissociation: Review and Perspectives. <i>Energy & Fuels</i> , 2022, 36, 7269-7283.	5.1	5
9	New Spectrophotometric Method for Quantitative Characterization of Density-Driven Convective Instability. <i>Polymers</i> , 2021, 13, 661.	4.5	7
10	Experimental study on the CO ₂ -decane displacement front behavior in high permeability sand evaluated by magnetic resonance imaging. <i>Energy</i> , 2021, 217, 119433.	8.8	16
11	Unstable Density-Driven Convection of CO ₂ in Homogeneous and Heterogeneous Porous Media With Implications for Deep Saline Aquifers. <i>Water Resources Research</i> , 2021, 57, e2020WR028132.	4.2	28
12	Quantitative study of density-driven convection mass transfer in porous media by MRI. <i>Journal of Hydrology</i> , 2021, 594, 125941.	5.4	14
13	Pore-scale investigation on nonaqueous phase liquid dissolution and mass transfer in 2D and 3D porous media. <i>International Journal of Heat and Mass Transfer</i> , 2021, 169, 120901.	4.8	16
14	Dependence of the hydrate-based CO ₂ storage process on the hydrate reservoir environment in high-efficiency storage methods. <i>Chemical Engineering Journal</i> , 2021, 415, 128937.	12.7	54
15	Behaviors of NaCl Ions Intruding into Methane Hydrate under a Static Electric Field. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18483-18493.	3.1	11
16	Kinetics and spatial distribution of tetrahydrofuran/methane hydrate formation in an unstirred reactor: Application in natural gas storage. <i>Fuel</i> , 2021, 300, 121011.	6.4	14
17	Pore-scale investigation of wettability impact on residual nonaqueous phase liquid dissolution in natural porous media. <i>Science of the Total Environment</i> , 2021, 787, 147406.	8.0	9
18	Quantitative analysis of methane hydrate formation in size-varied porous media for gas storage and transportation application. <i>Fuel</i> , 2021, 301, 121021.	6.4	33

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19	Asymmetric competitive adsorption of CO ₂ /CH ₄ binary mixture in shale matrix with heterogeneous surfaces. <i>Chemical Engineering Journal</i> , 2021, 422, 130025.	12.7	33
20	MRI investigation of hydrate pore habits and dynamic seepage characteristics in natural gas hydrates sand matrix. <i>Fuel</i> , 2021, 303, 121287.	6.4	20
21	Effect of nanoparticles as a substitute for kinetic additives on the hydrate-based CO ₂ capture. <i>Chemical Engineering Journal</i> , 2021, 424, 130329.	12.7	30
22	High resolution MRI studies of CO ₂ hydrate formation and dissociation near the gas-water interface. <i>Chemical Engineering Journal</i> , 2021, 425, 131426.	12.7	11
23	Microscope insights into gas hydrate formation and dissociation in sediments by using microfluidics. <i>Chemical Engineering Journal</i> , 2021, 425, 130633.	12.7	32
24	Production Behaviors of Water-Saturated Methane Hydrate Deposits during the Depressurization with/without Thermal Water Compensation Process. <i>Energy & Fuels</i> , 2021, 35, 1638-1647.	5.1	16
25	Fast Peel-Off Ultrathin, Transparent, and Free-Standing Films Assembled from Low-Dimensional Materials Using MXene Sacrificial Layers and Produced Bubbles. <i>Small Methods</i> , 2021, , 2101388.	8.6	3
26	Quantitative analysis of CO ₂ hydrate formation in porous media by proton NMR. <i>AIChE Journal</i> , 2020, 66, e16820.	3.6	27
27	NMR quantitative investigation on methane hydrate formation characteristics under different driving forces. <i>Fuel</i> , 2020, 261, 116364.	6.4	28
28	Pore-throat characterization of unconsolidated porous media using watershed-segmentation algorithm. <i>Powder Technology</i> , 2020, 362, 635-644.	4.2	21
29	Dispersion characteristics of CO ₂ enhanced gas recovery over a wide range of temperature and pressure. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 73, 103056.	4.4	12
30	A review of micro computed tomography studies on the gas hydrate pore habits and seepage properties in hydrate bearing sediments. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 83, 103555.	4.4	21
31	Review of Morphology Studies on Gas Hydrate Formation for Hydrate-Based Technology. <i>Crystal Growth and Design</i> , 2020, 20, 8148-8161.	3.0	29
32	Change in Convection Mixing Properties with Salinity and Temperature: CO ₂ Storage Application. <i>Polymers</i> , 2020, 12, 2084.	4.5	7
33	Promoting and Inhibitory Effects of Hydrophilic/Hydrophobic Modified Aluminum Oxide Nanoparticles on Carbon Dioxide Hydrate Formation. <i>Energies</i> , 2020, 13, 5380.	3.1	7
34	Morphology-Based Kinetic Study of the Formation of Carbon Dioxide Hydrates with Promoters. <i>Energy & Fuels</i> , 2020, 34, 7307-7315.	5.1	15
35	An experimental study of density-driven convection of fluid pairs with viscosity contrast in porous media. <i>International Journal of Heat and Mass Transfer</i> , 2020, 152, 119514.	4.8	25
36	Experimental study on the displacement patterns and the phase diagram of immiscible fluid displacement in three-dimensional porous media. <i>Advances in Water Resources</i> , 2020, 140, 103584.	3.8	32

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37	Enhanced Mass Transfer by Density-Driven Convection during CO ₂ Geological Storage. Industrial & Engineering Chemistry Research, 2020, 59, 9300-9309.	3.7	9
38	Kinetic analysis of nano-SiO ₂ promoting methane hydrate formation in porous medium. Journal of Natural Gas Science and Engineering, 2020, 79, 103375.	4.4	16
39	MRI observation of CO ₂ -C ₃ H ₈ hydrate-induced water migration in glass sand. Chemical Engineering Science, 2019, 207, 1096-1106.	3.8	17
40	The effect of density difference on the development of density-driven convection under large Rayleigh number. International Journal of Heat and Mass Transfer, 2019, 139, 1087-1095.	4.8	13
41	Dissociation characteristics of methane hydrate using depressurization combined with thermal stimulation. Chinese Journal of Chemical Engineering, 2019, 27, 2089-2098.	3.5	26
42	Enhancement of CO ₂ dissolution and sweep efficiency in saline aquifer by micro bubble CO ₂ injection. International Journal of Heat and Mass Transfer, 2019, 138, 1211-1221.	4.8	14
43	CO ₂ and alkane minimum miscible pressure estimation by the extrapolation of interfacial tension. Fluid Phase Equilibria, 2019, 494, 103-114.	2.5	26
44	Application of X-Ray Computed Tomography Technology in Gas Hydrate. Energy Technology, 2019, 7, 1800699.	3.8	15
45	Phase Equilibrium Data of CO ₂ -MCP Hydrates and CO ₂ Gas Uptake Comparisons with CO ₂ -CP Hydrates and CO ₂ -C ₃ H ₈ Hydrates. Journal of Chemical & Engineering Data, 2019, 64, 372-379.	1.9	15
46	Dynamic evolution of the CO ₂ -brine interfacial area during brine imbibition in porous media. International Journal of Heat and Mass Transfer, 2019, 128, 1125-1135.	4.8	14
47	Measurement and estimation of CO ₂ -brine interfacial tension and rock wettability under CO ₂ sub- and super-critical conditions. Journal of Colloid and Interface Science, 2019, 534, 605-617.	9.4	79
48	Displacement and Dissolution Characteristics of CO ₂ /Brine System in Unconsolidated Porous Media. Transport in Porous Media, 2018, 122, 595-609.	2.6	2
49	The horizontal dispersion properties of CO ₂ -CH ₄ in sand packs with CO ₂ displacing the simulated natural gas. Journal of Natural Gas Science and Engineering, 2018, 50, 293-300.	4.4	14
50	Gravitational Fingering Due to Density Increase by Mixing at a Vertical Displacing Front in Porous Media. Energy & Fuels, 2018, 32, 658-669.	5.1	10
51	Assessment of fluid distribution and flow properties in two phase fluid flow using X-ray CT technology. Heat and Mass Transfer, 2018, 54, 1217-1224.	2.1	4
52	The role of flow rates on flow patterns and saturation in high-permeability porous media. International Journal of Greenhouse Gas Control, 2018, 78, 364-374.	4.6	8
53	Production characteristics of two class water-excess methane hydrate deposits during depressurization. Fuel, 2018, 232, 99-107.	6.4	60
54	Characterizing the Dissolution Rate of CO ₂ -Brine in Porous Media under Gaseous and Supercritical Conditions. Applied Sciences (Switzerland), 2018, 8, 4.	2.5	13

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55	A spectrophotometric method for measuring dissolved CO ₂ in saline water. <i>Experiments in Fluids</i> , 2018, 59, 1.	2.4	8
56	Effects of Na ⁺ , K ⁺ , Ca ²⁺ , and Mg ²⁺ cations on CO ₂ -brine interfacial tension under offshore storage conditions. , 2018, 8, 762-780.		10
57	Permeability estimation of porous media by using an improved capillary bundle model based on micro-CT derived pore geometries. <i>Heat and Mass Transfer</i> , 2017, 53, 49-58.	2.1	29
58	Displacement front behavior of near miscible CO ₂ flooding in decane saturated synthetic sandstone cores revealed by magnetic resonance imaging. <i>Magnetic Resonance Imaging</i> , 2017, 37, 171-178.	1.8	18
59	In Situ Local Contact Angle Measurement in a CO ₂ -Brine-Sand System Using Microfocused X-ray CT. <i>Langmuir</i> , 2017, 33, 3358-3366.	3.5	38
60	Quantifying the dynamic density driven convection in high permeability packed beds. <i>Magnetic Resonance Imaging</i> , 2017, 39, 168-174.	1.8	22
61	Investigation of CO ₂ dissolution via mass transfer inside a porous medium. <i>Advances in Water Resources</i> , 2017, 110, 97-106.	3.8	28
62	An Experimental Study on the Influence of CO ₂ Containing N ₂ on CO ₂ Sequestration by X-ray CT Scanning. <i>Energy Procedia</i> , 2017, 114, 4119-4128.	1.8	5
63	Pore-scale Imaging and Analysis of Phase Topologies and Displacement Mechanisms for CO ₂ -Brine Two-Phase Flow in Unconsolidated Sand Packs. <i>Water Resources Research</i> , 2017, 53, 9127-9144.	4.2	19
64	Study of Density Driven Convection in a Hele-Shaw Cell with Application to the Carbon Sequestration in Aquifers. <i>Energy Procedia</i> , 2017, 114, 4303-4312.	1.8	11
65	The Effect of Water Flushing on CO ₂ Concentration Around Injection Well as Identified through Laboratory Study. <i>Energy Procedia</i> , 2017, 114, 4896-4901.	1.8	2
66	Mass transfer coefficient measurement during brine flush in a CO ₂ -filled packed bed by X-ray CT scanning. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 615-624.	4.8	38
67	Pore-scale investigation of effects of heterogeneity on CO ₂ geological storage using stratified sand packs. , 2017, 7, 972-987.		14
68	Effects of Multiple Factors on Methane Hydrate Reformation in a Porous Medium. <i>ChemistrySelect</i> , 2017, 2, 6030-6035.	1.5	8
69	Experimental Study of Density-driven Convection in Porous Media by Using MRI. <i>Energy Procedia</i> , 2017, 105, 4210-4215.	1.8	9
70	Behavior of CO ₂ /water flow in porous media for CO ₂ geological storage. <i>Magnetic Resonance Imaging</i> , 2017, 37, 100-106.	1.8	11
71	Gas recovery from depressurized methane hydrate deposits with different water saturations. <i>Applied Energy</i> , 2017, 187, 180-188.	10.1	85
72	Experimental determination of wettability and heterogeneity effect on CO ₂ distribution in porous media. , 2016, 6, 401-415.		20

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73	Hydrate phase equilibrium for CH ₄ -CO ₂ -H ₂ O system in porous media. Canadian Journal of Chemical Engineering, 2016, 94, 1592-1598.	1.7	15
74	Characterization of dissolution process during brine injection in Berea sandstones: an experiment study. RSC Advances, 2016, 6, 114320-114328.	3.6	10
75	Estimation of minimum miscibility pressure (MMP) of CO ₂ and liquid n-alkane systems using an improved MRI technique. Magnetic Resonance Imaging, 2016, 34, 97-104.	1.8	29
76	Solar radiation transfer and performance analysis for a low concentrating photovoltaic/thermal system. Environmental Progress and Sustainable Energy, 2016, 35, 263-270.	2.3	6
77	A visualization study on two-phase gravity drainage in porous media by using magnetic resonance imaging. Magnetic Resonance Imaging, 2016, 34, 855-863.	1.8	8
78	Pore-scale contact angle measurements of CO ₂ -brine-glass beads system using micro-focused X-ray computed tomography. Micro and Nano Letters, 2016, 11, 524-527.	1.3	17
79	Experimental study of 3D Rayleigh-Taylor convection between miscible fluids in a porous medium. Advances in Water Resources, 2016, 97, 224-232.	3.8	47
80	Three-dimensional structure of natural convection in a porous medium: Effect of dispersion on finger structure. International Journal of Greenhouse Gas Control, 2016, 53, 274-283.	4.6	50
81	CO ₂ /water two-phase flow in a two-dimensional micromodel of heterogeneous pores and throats. RSC Advances, 2016, 6, 73897-73905.	3.6	18
82	CO ₂ capillary trapping behaviour in glass sand packed heterogeneous porous media during drainage and imbibition revealed by magnetic resonance imaging. RSC Advances, 2016, 6, 101452-101461.	3.6	2
83	Noninvasive temperature and velocity mapping using magnetic resonance imaging. Journal of Visualization, 2016, 19, 403-415.	1.8	0
84	Experimental study of two-phase flow properties of CO ₂ -containing N ₂ in porous media. RSC Advances, 2016, 6, 59360-59369.	3.6	6
85	Three-Dimensional Visualization of Natural Convection in Porous Media. Energy Procedia, 2016, 86, 460-468.	1.8	20
86	Effect of depressurization pressure on methane recovery from hydrate-gas-water bearing sediments. Fuel, 2016, 166, 419-426.	6.4	93
87	Experimental study on CO ₂ diffusion in bulk n-decane and n-decane saturated porous media using micro-CT. Fluid Phase Equilibria, 2016, 417, 212-219.	2.5	30
88	Experiment Study on Temperature Distribution in Water-Saturated Porous Media. Applied Magnetic Resonance, 2015, 46, 793-808.	1.2	0
89	Methane hydrate formation/reformation in three experimental modes: A preliminary investigation of blockage prevention during exploitation. Journal of Natural Gas Science and Engineering, 2015, 27, 1814-1820.	4.4	33
90	Adsorption isotherms and kinetic characteristics of methane on block anthracite over a wide pressure range. Journal of Energy Chemistry, 2015, 24, 245-256.	12.9	19

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91	Application of X-ray CT investigation of CO ₂ brine flow in porous media. Experiments in Fluids, 2015, 56, 1.	2.4	9
92	Effects of an additive mixture (THF+TBAB) on CO ₂ hydrate phase equilibrium. Fluid Phase Equilibria, 2015, 401, 27-33.	2.5	32
93	MRI investigation of water-oil two phase flow in straight capillary, bifurcate channel and monolayered glass bead pack. Magnetic Resonance Imaging, 2015, 33, 918-926.	1.8	5
94	Dynamic stability characteristics of fluid flow in CO ₂ miscible displacements in porous media. RSC Advances, 2015, 5, 34839-34853.	3.6	10
95	Interfacial tension and contact angle measurements for the evaluation of CO ₂ -brine two-phase flow characteristics in porous media. Environmental Progress and Sustainable Energy, 2015, 34, 1756-1762.	2.3	35
96	Minimum miscibility pressure estimation for a CO ₂ /n-decane system in porous media by X-ray CT. Experiments in Fluids, 2015, 56, 1.	2.4	20
97	Behaviour of hydrate-based technology for H ₂ /CO ₂ separation in glass beads. Separation and Purification Technology, 2015, 141, 170-178.	7.9	24
98	An experiment study on fluid heat and mass transfer properties in porous media using MRI. Russian Journal of Physical Chemistry A, 2014, 88, 2214-2219.	0.6	2
99	Magnetic resonance imaging analysis on the in-situ mixing zone of CO ₂ miscible displacement flows in porous media. Journal of Applied Physics, 2014, 115, 244904.	2.5	14
100	CO ₂ /Water Displacement in Porous Medium Under Pressure and Temperature Conditions for Geological Storage. Energy Procedia, 2014, 61, 282-285.	1.8	5
101	Hydrate phase equilibrium measurements for (THF+SDS+CO ₂ +N ₂) aqueous solution systems in porous media. Fluid Phase Equilibria, 2014, 370, 12-18.	2.5	17
102	An improved differential box-counting method to estimate fractal dimensions of gray-level images. Journal of Visual Communication and Image Representation, 2014, 25, 1102-1111.	2.8	107
103	Hydrate-based technology for CO ₂ capture from fossil fuel power plants. Applied Energy, 2014, 116, 26-40.	10.1	118
104	Effects of operating mode and pressure on hydrate-based desalination and CO ₂ capture in porous media. Applied Energy, 2014, 135, 504-511.	10.1	66
105	CO ₂ diffusion in n-hexadecane investigated using magnetic resonance imaging and pressure decay measurements. RSC Advances, 2014, 4, 50180-50187.	3.6	9
106	CO ₂ Hydrate Formation Characteristics in a Water/Brine-Saturated Silica Gel. Industrial & Engineering Chemistry Research, 2014, 53, 10753-10761.	3.7	31
107	The effects of porous medium and temperature on exothermic tetrahydrofuran hydrate formation. Journal of Chemical Thermodynamics, 2014, 78, 167-174.	2.0	11
108	Dynamic measurements of hydrate based gas separation in cooled silica gel. Journal of Industrial and Engineering Chemistry, 2014, 20, 322-330.	5.8	22

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109	Study of the fluid flow characteristics in a porous medium for CO ₂ geological storage using MRI. Magnetic Resonance Imaging, 2014, 32, 574-584.	1.8	5
110	Dynamic Measurements of CO ₂ Flow in Water Saturated Porous Medium at Low Temperature Using MRI. Energy Procedia, 2013, 37, 1267-1274.	1.8	10
111	Measurement of Two Phase Flow in Porous Medium Using High-resolution Magnetic Resonance Imaging. Chinese Journal of Chemical Engineering, 2013, 21, 85-93.	3.5	4
112	Effects of additive mixtures (THF/SDS) on carbon dioxide hydrate formation and dissociation in porous media. Chemical Engineering Science, 2013, 90, 69-76.	3.8	63
113	Study of Selected Factors Affecting Hydrate-Based Carbon Dioxide Separation from Simulated Fuel Gas in Porous Media. Energy & Fuels, 2013, 27, 3341-3348.	5.1	67
114	Effects of Additive Mixture (THF/SDS) on the Thermodynamic and Kinetic Properties of CO ₂ /H ₂ O Hydrate in Porous Media. Industrial & Engineering Chemistry Research, 2013, 52, 4911-4918.	3.7	53
115	CO ₂ Hydrate Formation and Dissociation in Cooled Porous Media: A Potential Technology for CO ₂ Capture and Storage. Environmental Science & Technology, 2013, 47, 9739-9746.	10.0	55
116	Magnetic resonance imaging study on near miscible supercritical CO ₂ flooding in porous media. Physics of Fluids, 2013, 25, .	4.0	28
117	An experimental study on CO ₂ /water displacement in porous media using high-resolution Magnetic Resonance Imaging. International Journal of Greenhouse Gas Control, 2012, 10, 501-509.	4.6	39
118	MRI measurements of CO ₂ hydrate dissociation rate in a porous medium. Magnetic Resonance Imaging, 2011, 29, 1007-1013.	1.8	36
119	Visualization of CO ₂ and oil immiscible and miscible flow processes in porous media using NMR micro-imaging. Petroleum Science, 2011, 8, 183-193.	4.9	42
120	Pore-scale visualization of gas trapping in porous media by X-ray CT scanning. Flow Measurement and Instrumentation, 2010, 21, 262-267.	2.0	42
121	Application of MRI in the Measurement of Two-Phase Flow of Supercritical CO ₂ and Water in Porous Rocks. Journal of Porous Media, 2009, 12, 143-154.	1.9	43
122	Geological storage of carbon dioxide by residual gas and solubility trapping. International Journal of Greenhouse Gas Control, 2008, 2, 58-64.	4.6	168
123	Diffusion Properties for CO ₂ in "Brine System under Sequestration-Related Pressures with Consideration of the Swelling Effect and Interfacial Area. Industrial & Engineering Chemistry Research, 0, , .	3.7	7