

Yanghui Li

List of Publications by Year in descending order

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105
papers

4,625
citations

71061

41
h-index

110317

64
g-index

105
all docs

105
docs citations

105
times ranked

1248
citing authors

#	ARTICLE	IF	CITATIONS
1	The status of natural gas hydrate research in China: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 31, 778-791.	8.2	235
2	Effects of dissociation on the shear strength and deformation behavior of methane hydrate-bearing sediments. <i>Marine and Petroleum Geology</i> , 2014, 51, 52-62.	1.5	191
3	Mechanical behavior of gas-saturated methane hydrate-bearing sediments. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 5185-5194.	1.4	189
4	Numerical simulation of gas recovery from a low-permeability hydrate reservoir by depressurization. <i>Applied Energy</i> , 2019, 250, 7-18.	5.1	162
5	Analysis of the effect of particle size on permeability in hydrate-bearing porous media using pore network models combined with CT. <i>Fuel</i> , 2016, 163, 34-40.	3.4	132
6	Analyzing the effects of inhomogeneity on the permeability of porous media containing methane hydrates through pore network models combined with CT observation. <i>Energy</i> , 2018, 163, 27-37.	4.5	123
7	Numerical simulation of gas production from hydrate deposits using a single vertical well by depressurization in the Qilian Mountain permafrost, Qinghai-Tibet Plateau, China. <i>Energy</i> , 2013, 52, 308-319.	4.5	117
8	Permeability of laboratory-formed porous media containing methane hydrate: Observations using X-ray computed tomography and simulations with pore network models. <i>Fuel</i> , 2015, 145, 170-179.	3.4	113
9	Mechanical Characteristics of Hydrate-Bearing Sediment: A Review. <i>Energy & Fuels</i> , 2021, 35, 1041-1057.	2.5	108
10	Mechanical behaviors of permafrost-associated methane hydrate-bearing sediments under different mining methods. <i>Applied Energy</i> , 2016, 162, 1627-1632.	5.1	101
11	The status of exploitation techniques of natural gas hydrate. <i>Chinese Journal of Chemical Engineering</i> , 2019, 27, 2133-2147.	1.7	98
12	Cementation Failure Behavior of Consolidated Gas Hydrate-Bearing Sand. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018623.	1.4	94
13	Microstructure Evolution of Hydrate-Bearing Sands During Thermal Dissociation and Ensued Impacts on the Mechanical and Seepage Characteristics. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB019103.	1.4	90
14	A comparative analysis of the mechanical behavior of carbon dioxide and methane hydrate-bearing sediments. <i>American Mineralogist</i> , 2014, 99, 178-183.	0.9	88
15	Experimental study on the effect of methane hydrate decomposition on gas phase permeability of clayey sediments. <i>Applied Energy</i> , 2018, 230, 1304-1310.	5.1	86
16	Numerical modeling for the mechanical behavior of marine gas hydrate-bearing sediments during hydrate production by depressurization. <i>Journal of Petroleum Science and Engineering</i> , 2019, 177, 971-982.	2.1	85
17	Microstructure Observations of Natural Gas Hydrate Occurrence in Porous Media Using Microfocus X-ray Computed Tomography. <i>Energy & Fuels</i> , 2015, 29, 4835-4841.	2.5	81
18	Triaxial experiments on the mechanical properties of hydrate-bearing marine sediments of South China Sea. <i>Marine and Petroleum Geology</i> , 2016, 77, 507-514.	1.5	79

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19	Experimental research on the mechanical properties of methane hydrate-bearing sediments during hydrate dissociation. <i>Marine and Petroleum Geology</i> , 2014, 51, 70-78.	1.5	78
20	Undrained triaxial tests on water-saturated methane hydrate-bearing clayey-silty sediments of the South China Sea. <i>Canadian Geotechnical Journal</i> , 2021, 58, 351-366.	1.4	78
21	Experimental study on mechanical properties of gas hydrate-bearing sediments using kaolin clay. <i>China Ocean Engineering</i> , 2011, 25, 113-122.	0.6	72
22	Mechanical property of artificial methane hydrate under triaxial compression. <i>Journal of Natural Gas Chemistry</i> , 2010, 19, 246-250.	1.8	70
23	Effect of methane hydrate dissociation and reformation on the permeability of clayey sediments. <i>Applied Energy</i> , 2020, 261, 114479.	5.1	68
24	Hydrate-bearing sediment of the South China Sea: Microstructure and mechanical characteristics. <i>Engineering Geology</i> , 2022, 307, 106782.	2.9	67
25	Experimental study on the gas phase permeability of methane hydrate-bearing clayey sediments. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 36, 378-384.	2.1	64
26	The effects of compressibility of natural gas hydrate-bearing sediments on gas production using depressurization. <i>Energy</i> , 2019, 185, 837-846.	4.5	64
27	Analyses of stress strain behavior and constitutive model of artificial methane hydrate. <i>Journal of Petroleum Science and Engineering</i> , 2011, 77, 183-188.	2.1	63
28	Comparative analysis of the consolidation and shear behaviors of CH ₄ and CO ₂ hydrate-bearing silty sediments. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 75, 103157.	2.1	56
29	The effects of methane hydrate dissociation at different temperatures on the stability of porous sediments. <i>Journal of Petroleum Science and Engineering</i> , 2016, 147, 77-86.	2.1	53
30	Physical and mechanical properties of the overburden layer on gas hydrate-bearing sediments of the South China sea. <i>Journal of Petroleum Science and Engineering</i> , 2020, 189, 107020.	2.1	53
31	The seepage characteristics of methane hydrate-bearing clayey sediments under various pressure gradients. <i>Energy</i> , 2020, 191, 116507.	4.5	52
32	Experimental study on the gas phase permeability of montmorillonite sediments in the presence of hydrates. <i>Marine and Petroleum Geology</i> , 2018, 91, 373-380.	1.5	51
33	Numerical Simulation of Methane Production from Hydrates Induced by Different Depressurizing Approaches. <i>Energies</i> , 2012, 5, 438-458.	1.6	49
34	Experimental Research on the Mechanical Properties of Methane Hydrate-Ice Mixtures. <i>Energies</i> , 2012, 5, 181-192.	1.6	49
35	A microfocuss x-ray computed tomography based gas hydrate triaxial testing apparatus. <i>Review of Scientific Instruments</i> , 2019, 90, 055106.	0.6	49
36	Analysis of the influence of wettability on permeability in hydrate-bearing porous media using pore network models combined with computed tomography. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 26, 1372-1379.	2.1	48

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37	In-situ visual observation for the formation and dissociation of methane hydrates in porous media by magnetic resonance imaging. <i>Magnetic Resonance Imaging</i> , 2015, 33, 485-490.	1.0	45
38	Experimental measurements of mechanical properties of carbon dioxide hydrate-bearing sediments. <i>Marine and Petroleum Geology</i> , 2013, 46, 201-209.	1.5	44
39	Effect of sediment particle size on the mechanical properties of CH ₄ hydrate-bearing sediments. <i>Journal of Petroleum Science and Engineering</i> , 2018, 171, 302-314.	2.1	44
40	Mechanical behaviours of gas-hydrate-bearing clayey sediments of the South China Sea. <i>Environmental Geotechnics</i> , 2022, 9, 210-222.	1.3	44
41	Pore-scale 3D Morphological Modeling and Physical Characterization of Hydrate-bearing Sediment Based on Computed Tomography. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020570.	1.4	44
42	Hydrate-based heavy metal separation from aqueous solution. <i>Scientific Reports</i> , 2016, 6, 21389.	1.6	42
43	Strength behaviors of CH ₄ hydrate-bearing silty sediments during thermal decomposition. <i>Journal of Natural Gas Science and Engineering</i> , 2019, 72, 103031.	2.1	41
44	A new strength criterion and constitutive model of gas hydrate-bearing sediments under high confining pressures. <i>Journal of Petroleum Science and Engineering</i> , 2013, 109, 45-50.	2.1	40
45	Deformation behaviors of hydrate-bearing silty sediment induced by depressurization and thermal recovery. <i>Applied Energy</i> , 2020, 276, 115468.	5.1	40
46	Rheology of methane hydrate slurries formed from water-in-oil emulsion with different surfactants concentrations. <i>Fuel</i> , 2020, 275, 117961.	3.4	38
47	Methane recovery and carbon dioxide storage from gas hydrates in fine marine sediments by using CH ₄ /CO ₂ replacement. <i>Chemical Engineering Journal</i> , 2021, 425, 131562.	6.6	37
48	Experimental study on the mechanical properties of sediments containing CH ₄ and CO ₂ hydrate mixtures. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 32, 20-27.	2.1	35
49	Numerical study of gas production from marine hydrate formations considering soil compression and hydrate dissociation due to depressurization. <i>Marine and Petroleum Geology</i> , 2019, 102, 759-774.	1.5	34
50	Effect of Temperature on the Mechanical Properties of Hydrate-Bearing Sand under Different Confining Pressures. <i>Energy & Fuels</i> , 2021, 35, 4106-4117.	2.5	33
51	Analysis of the mechanical properties of methane hydrate-bearing sands with various pore pressures and confining pressures. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 87, 103786.	2.1	33
52	Influence factors of methane hydrate formation from ice: Temperature, pressure and SDS surfactant. <i>Chinese Journal of Chemical Engineering</i> , 2019, 27, 405-410.	1.7	32
53	Triaxial tests on the overconsolidated methane hydrate-bearing clayey-silty sediments. <i>Journal of Petroleum Science and Engineering</i> , 2021, 206, 109035.	2.1	32
54	Effect of confining pressure on mechanical behavior of methane hydrate-bearing sediments. <i>Petroleum Exploration and Development</i> , 2011, 38, 637-640.	3.0	31

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55	In situ observation of gas hydrates growth hosted in porous media. <i>Chemical Physics Letters</i> , 2014, 612, 124-128.	1.2	31
56	CO ₂ Hydrate Formation Characteristics in a Water/Brine-Saturated Silica Gel. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 10753-10761.	1.8	31
57	Aggregation Behavior of Asphalt on the Natural Gas Hydrate Surface with Different Surfactant Coverages. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16378-16390.	1.5	28
58	Formation of Methane Hydrate in Oil-Water Emulsion Governed by the Hydrophilic and Hydrophobic Properties of Non-Ionic Surfactants. <i>Energy & Fuels</i> , 2019, 33, 5777-5784.	2.5	27
59	Comprehensive review of geomechanical constitutive models of gas hydrate-bearing sediments. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 88, 103755.	2.1	27
60	Numerical studies of hydrate dissociation and gas production behavior in porous media during depressurization process. <i>Journal of Natural Gas Chemistry</i> , 2012, 21, 381-392.	1.8	25
61	Triaxial Tests on Water-Saturated Gas Hydrate-Bearing Fine-Grained Samples of the South China Sea under Different Drainage Conditions. <i>Energy & Fuels</i> , 2021, 35, 4118-4126.	2.5	24
62	Mechanical behaviors of hydrate-bearing sediment with different cementation spatial distributions at microscales. <i>IScience</i> , 2021, 24, 102448.	1.9	23
63	Gas production from different classes of methane hydrate deposits by the depressurization method. <i>International Journal of Energy Research</i> , 2019, 43, 5493-5505.	2.2	21
64	Creep Behaviors of Methane Hydrate-Bearing Frozen Sediments. <i>Energies</i> , 2019, 12, 251.	1.6	20
65	Adsorption isotherms and kinetic characteristics of methane on block anthracite over a wide pressure range. <i>Journal of Energy Chemistry</i> , 2015, 24, 245-256.	7.1	19
66	Experimental study on the permeability of methane hydrate-bearing sediments during triaxial loading. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 82, 103510.	2.1	19
67	Mechanical properties of methane hydrate-bearing sandy sediments under various temperatures and pore pressures. <i>Journal of Petroleum Science and Engineering</i> , 2022, 208, 109474.	2.1	19
68	Viscosity investigation on metastable hydrate suspension in oil-dominated systems. <i>Chemical Engineering Science</i> , 2021, 238, 116608.	1.9	18
69	Experimental Study on the Gas Permeability of Marine Sediments with Various Hydrate Saturations and Effective Stresses. <i>Energy & Fuels</i> , 2021, 35, 17479-17489.	2.5	18
70	Hydrate phase equilibrium measurements for (THF+SDS+CO ₂ +N ₂) aqueous solution systems in porous media. <i>Fluid Phase Equilibria</i> , 2014, 370, 12-18.	1.4	17
71	Creep behaviors of methane hydrate coexisting with ice. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 33, 347-354.	2.1	16
72	Investigation of the Stress-Strain and Strength Behaviors of Ice Containing Methane Hydrate. <i>Journal of Cold Regions Engineering - ASCE</i> , 2012, 26, 149-159.	0.5	15

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73	Mechanical Behaviors of Methane Hydrate-Bearing Sediments Using Montmorillonite Clay. <i>Energy Procedia</i> , 2019, 158, 5281-5286.	1.8	15
74	Creep behaviours of methane hydrate-bearing sediments. <i>Environmental Geotechnics</i> , 2022, 9, 199-209.	1.3	14
75	Strength Behaviors of Remolded Hydrate-Bearing Marine Sediments in Different Drilling Depths of the South China Sea. <i>Energies</i> , 2019, 12, 253.	1.6	14
76	Mechanical Characteristics of the Hydrate-Bearing Sediments in the South China Sea Using a Multistage Triaxial Loading Test. <i>Energy & Fuels</i> , 2021, 35, 4127-4137.	2.5	14
77	A numerical investigation on the mechanical properties of hydrate-bearing sand using Distinct Element Method. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 96, 104328.	2.1	14
78	Influence of grain size distribution on the physical characteristics of cementing hydrate-bearing sediment. <i>Energy Reports</i> , 2021, 7, 8187-8197.	2.5	13
79	Dynamic strength characteristics of methane hydrate-bearing sediments under seismic load. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 26, 608-616.	2.1	12
80	Consolidation deformation of hydrate-bearing sediments: A pore-scale computed tomography investigation. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 95, 104184.	2.1	12
81	Permeability Analysis of Hydrate-Bearing Sediments during the Hydrate Formation Process. <i>Energy & Fuels</i> , 2021, 35, 19606-19613.	2.5	12
82	Effect of Hydrate Distribution on the Mechanical Response of Hydrate-Bearing Sand: Discrete Element Method Simulation. <i>Energy & Fuels</i> , 2022, 36, 3802-3815.	2.5	12
83	Review on Carbon Dioxide Replacement of Natural Gas Hydrate: Research Progress and Perspectives. <i>Energy & Fuels</i> , 2022, 36, 7321-7336.	2.5	12
84	Stress dependence of the gas permeability of montmorillonite sediments in the presence of methane hydrate. <i>Journal of Petroleum Science and Engineering</i> , 2022, 208, 109697.	2.1	11
85	Permeability analysis of gas hydrate-bearing sand/clay mixed sediments using effective stress laws. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 97, 104376.	2.1	11
86	Stress behavior of hydrate-bearing sands with changing temperature and hydrate saturation. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 98, 104389.	2.1	11
87	Experimental Study on the Mechanical Properties of CH ₄ and CO ₂ Hydrate Remodeling Cores in Qilian Mountain. <i>Energies</i> , 2017, 10, 2078.	1.6	10
88	Rheological Properties of Hydrate Slurry Formed from Mudflows in South China Sea. <i>Energy & Fuels</i> , 2021, 35, 10575-10583.	2.5	10
89	Permeability analysis of hydrate-bearing sediments considering the effect of phase transition during the hydrate dissociation process. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 97, 104337.	2.1	10
90	Influence of Porous Media on Methane Hydrate Formation from Ice Powders. <i>Energy Procedia</i> , 2017, 105, 224-229.	1.8	9

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91	Modeling Gas Hydrate Formation from Ice Powders Based on Diffusion Theory. Theoretical Foundations of Chemical Engineering, 2019, 53, 305-317.	0.2	8
92	Study of the Physical Characteristics of a Pore-Filling Hydrate Reservoir: Particle Shape Effect. Energy & Fuels, 2021, 35, 15502-15512.	2.5	7
93	Study on Shear Strength of Artificial Methane Hydrate. , 2010, , .		6
94	Effects of Different Mining Methods on the Strength Behavior of Gas Hydrate-Bearing Sediments. Energy Procedia, 2014, 61, 547-551.	1.8	6
95	Effect of brine salinity on the rheological properties of hydrate-in-oil slurries. Journal of Petroleum Science and Engineering, 2022, 208, 109756.	2.1	6
96	Experimental Study on the Difference of Fluid Flow between Methane Hydrate-Bearing Sand and Clay Sediments. Energy & Fuels, 2022, 36, 2739-2750.	2.5	6
97	Deformation behaviors of hydrate-bearing silty sediments during CH ₄ →CO ₂ replacement. Journal of Petroleum Science and Engineering, 2022, 211, 110225.	2.1	5
98	The Study of Flow Characteristics During the Decomposition Process in Hydrate-Bearing Porous Media Using Magnetic Resonance Imaging. Energies, 2019, 12, 1736.	1.6	4
99	Influence of Particle Size Distribution on the Physical Characteristics of Pore-Filling Hydrate-Bearing Sediment. Geofluids, 2021, 2021, 1-13.	0.3	4
100	Mechanical Properties of Methane Hydrate Interbedded with Clayey Sediments. Journal of Energy and Natural Resources, 2018, 7, 24.	0.2	4
101	Drucker-Prager elasto-plastic constitutive model for methane hydrate-bearing sediment. Transactions of Tianjin University, 2016, 22, 441-450.	3.3	3
102	Hydrogen bonds and hydrate interaction between RiAFP and water revealed by molecular dynamics simulations. Chemical Physics, 2020, 538, 110860.	0.9	3
103	Fast Peel-Off Ultrathin, Transparent, and Free-Standing Films Assembled from Low-Dimensional Materials Using MXene Sacrificial Layers and Produced Bubbles. Small Methods, 2021, , 2101388.	4.6	3
104	Effects of Porosity on the Creep Behavior of Hydrate-Bearing Sediments. , 2012, , .		1
105	Mechanical Properties of Stratified Hydrate-bearing Sediments. Energy Procedia, 2017, 105, 200-205.	1.8	0