Qilei Song

List of Publications by Year
in descending order

48 papers	4,825 citations	147566 31 h-index	205818 48 g-index
49 all docs	49 docs citations	49 times ranked	5375 citing authors

#	Article	IF	Citations
1	Zeolitic imidazolate framework (ZIF-8) based polymer nanocomposite membranes for gas separation. Energy and Environmental Science, 2012, 5, 8359.	15.6	627
2	Polymer nanofilms with enhanced microporosity by interfacial polymerization. Nature Materials, 2016, 15, 760-767.	13.3	594
3	Enhanced selectivity in mixed matrix membranes for CO2 capture through efficient dispersion of amine-functionalized MOF nanoparticles. Nature Energy, 2017, 2, .	19.8	428
4	Porous Organic Cage Thin Films and Molecularâ€Sieving Membranes. Advanced Materials, 2016, 28, 2629-2637.	11.1	275
5	Controlled thermal oxidative crosslinking of polymers of intrinsic microporosity towards tunable molecular sieve membranes. Nature Communications, 2014, 5, 4813.	5.8	252
6	Chemical-Looping Combustion of Biomass in a 10 kW_{th}Reactor with Iron Oxide As an Oxygen Carrier. Energy & Fuels, 2009, 23, 2498-2505.	2.5	237
7	Hydrophilic microporous membranes for selective ion separation and flow-battery energy storage. Nature Materials, 2020, 19, 195-202.	13.3	237
8	Size-Dependent Photon Emission from Organometal Halide Perovskite Nanocrystals Embedded in an Organic Matrix. Journal of Physical Chemistry Letters, 2015, 6, 446-450.	2.1	160
9	Sulfonated Microporous Polymer Membranes with Fast and Selective Ion Transport for Electrochemical Energy Conversion and Storage. Angewandte Chemie - International Edition, 2020, 59, 9564-9573.	7.2	145
10	Pressurized chemical-looping combustion of coal with an iron ore-based oxygen carrier. Combustion and Flame, 2010, 157, 1140-1153.	2.8	141
11	In situ NMR metrology reveals reaction mechanisms in redox flow batteries. Nature, 2020, 579, 224-228.	13.7	132
12	Photo-oxidative enhancement of polymeric molecular sieve membranes. Nature Communications, 2013, 4, 1918.	5.8	117
13	A high performance oxygen storage material for chemical looping processes with CO₂capture. Energy and Environmental Science, 2013, 6, 288-298.	15.6	112
14	Chemical-looping combustion of methane with CaSO4 oxygen carrier in a fixed bed reactor. Energy Conversion and Management, 2008, 49, 3178-3187.	4.4	108
15	Effect of Temperature on Reduction of CaSO₄ Oxygen Carrier in Chemical-Looping Combustion of Simulated Coal Gas in a Fluidized Bed Reactor. Industrial & Engineering Chemistry Research, 2008, 47, 8148-8159.	1.8	89
16	Multicycle Study on Chemical-Looping Combustion of Simulated Coal Gas with a CaSO₄ Oxygen Carrier in a Fluidized Bed Reactor. Energy & Fuels, 2008, 22, 3661-3672.	2.5	86
17	Numerical simulation of chemical looping combustion process with CaSO4 oxygen carrier. International Journal of Greenhouse Gas Control, 2009, 3, 368-375.	2.3	78
18	Catalytic Conversion of Bio-ethanol to Ethylene over La-Modified HZSM-5 Catalysts in a Bioreactor. Catalysis Letters, 2009, 132, 64-74.	1.4	76

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19	Pressurized Chemical-Looping Combustion of Chinese Bituminous Coal: Cyclic Performance and Characterization of Iron Ore-Based Oxygen Carrier. Energy & Fuels, 2010, 24, 1449-1463.	2.5	73
20	Nanofiller-tuned microporous polymer molecular sieves for energy and environmental processes. Journal of Materials Chemistry A, 2016, 4, 270-279.	5.2	69
21	Computational Fluid Dynamics Modeling of Coal Gasification in a Pressurized Spout-Fluid Bed. Energy & Fuels, 2008, 22, 1560-1569.	2.5	64
22	Multiphase CFD Modeling for a Chemical Looping Combustion Process (Fuel Reactor). Chemical Engineering and Technology, 2008, 31, 1754-1766.	0.9	62
23	Regulating the aqueous phase monomer balance for flux improvement in polyamide thin film composite membranes. Journal of Membrane Science, 2015, 487, 74-82.	4.1	62
24	Development of efficient aqueous organic redox flow batteries using ion-sieving sulfonated polymer membranes. Nature Communications, 2022, 13, .	5.8	58
25	Characterization and kinetics of reduction of CaSO4 with carbon monoxide for chemical-looping combustion. Combustion and Flame, 2011, 158, 2524-2539.	2.8	55
26	Low-cost hydrocarbon membrane enables commercial-scale flow batteries for long-duration energy storage. Joule, 2022, 6, 884-905.	11.7	53
27	Catalytic Carbon Dioxide Reforming of Methane to Synthesis Gas over Activated Carbon Catalyst. Industrial & Engineering Chemistry Research, 2008, 47, 4349-4357.	1.8	48
28	Use of Coal as Fuel for Chemical-Looping Combustion with Ni-Based Oxygen Carrier. Industrial & Engineering Chemistry Research, 2008, 47, 9279-9287.	1.8	45
29	The production of separate streams of pure hydrogen and carbon dioxide from coal via an iron-oxide redox cycle. Chemical Engineering Journal, 2011, 166, 1052-1060.	6.6	38
30	Reactivity of a CaSO4-oxygen carrier in chemical-looping combustion of methane in a fixed bed reactor. Korean Journal of Chemical Engineering, 2009, 26, 592-602.	1.2	37
31	Oriented Twoâ€Dimensional Porous Organic Cage Crystals. Angewandte Chemie - International Edition, 2017, 56, 9391-9395.	7.2	33
32	pH-induced reversal of ionic diode polarity in 300 nm thin membranes based on a polymer of intrinsic microporosity. Electrochemistry Communications, 2016, 69, 41-45.	2.3	30
33	Triphasic Nature of Polymers of Intrinsic Microporosity Induces Storage and Catalysis Effects in Hydrogen and Oxygen Reactivity at Electrode Surfaces. ChemElectroChem, 2019, 6, 252-259.	1.7	30
34	Comparison of the ionic conductivity properties of microporous and mesoporous MOFs infiltrated with a Na-ion containing IL mixture. Dalton Transactions, 2020, 49, 15914-15924.	1.6	20
35	Sulfonated Microporous Polymer Membranes with Fast and Selective Ion Transport for Electrochemical Energy Conversion and Storage. Angewandte Chemie, 2020, 132, 9651-9660.	1.6	20
36	Hydrodynamics of a Novel Biomass Autothermal Fast Pyrolysis Reactor: Flow Pattern and Pressure Drop. Chemical Engineering and Technology, 2009, 32, 27-37.	0.9	17

#	Article	IF	Citations
37	Co-precipitated Cu-Mn mixed metal oxides as oxygen carriers for chemical looping processes. Chemical Engineering Journal, 2021, 407, 127093.	6.6	16
38	Thin, Flexible Supercapacitors Made from Carbon Nanofiber Electrodes Decorated at Room Temperature with Manganese Oxide Nanosheets. Journal of Nanomaterials, 2013, 2013, 1-6.	1.5	15
39	A cost-effective alkaline polysulfide-air redox flow battery enabled by a dual-membrane cell architecture. Nature Communications, 2022, 13, 2388.	5.8	15
40	Free Volume, Molecular Mobility and Polymer Structure: Towards the Rational Design of Multi-Functional Materials. Acta Physica Polonica A, 2014, 125, 801-805.	0.2	14
41	Oriented Twoâ€Dimensional Porous Organic Cage Crystals. Angewandte Chemie, 2017, 129, 9519-9523.	1.6	13
42	Computational Fluid Dynamics Modeling of Chemical Looping Combustion Process with Calcium Sulphate Oxygen Carrier. International Journal of Chemical Reactor Engineering, 2009, 7, .	0.6	12
43	Computational Evaluation of the Diffusion Mechanisms for C8 Aromatics in Porous Organic Cages. Journal of Physical Chemistry C, 2019, 123, 21011-21021.	1.5	11
44	Biomimetic water channels: general discussion. Faraday Discussions, 2018, 209, 205-229.	1.6	10
45	Applications to water transport systems: general discussion. Faraday Discussions, 2018, 209, 389-414.	1.6	4
46	The modelling and enhancement of water hydrodynamics: general discussion. Faraday Discussions, 2018, 209, 273-285.	1.6	2
47	Molecular Sieves: Porous Organic Cage Thin Films and Molecularâ€Sieving Membranes (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Over	11.1	1
48	High Performance Ordered Nanoporous Membranes from Block Copolymers. Procedia Engineering, 2012, 44, 632-633.	1.2	0