Jian Liu

List of Publications by Year in descending order

66 papers	8,287 citations	87843 38 h-index	114418 63 g-index
73 all docs	73 docs citations	73 times ranked	10339 citing authors

#	Article	IF	Citations
1	Characteristics of interface between solid electrolyte and electrode in all-solid-state batteries prepared by spark plasma sintering. Journal of Power Sources, 2022, 521, 230964.	4.0	9
2	The cell utilized partitioning model as a predictive tool for optimizing counter-current chromatography processes. Separation and Purification Technology, 2022, 285, 120330.	3.9	1
3	Extracting energy from ocean thermal and salinity gradients to power unmanned underwater vehicles: State of the art, current limitations, and future outlook. Renewable and Sustainable Energy Reviews, 2022, 160, 112283.	8.2	17
4	Rare-earth element extraction from geothermal brine using magnetic core-shell nanoparticles-techno-economic analysis. Geothermics, 2021, 89, 101938.	1.5	15
5	Atomic/molecular layer deposition for energy storage and conversion. Chemical Society Reviews, 2021, 50, 3889-3956.	18.7	109
6	New Hybrid Organic-Inorganic Thin Films by Molecular Layer Deposition for Rechargeable Batteries. Frontiers in Energy Research, 2021, 9, .	1.2	4
7	Improvement of Cyclic Stability of Na0.67Mn0.8Ni0.1Co0.1O2 via Suppressing Lattice Variation. Chinese Physics Letters, 2021, 38, 076102.	1.3	1
8	Carbon capture using nanoporous adsorbents. , 2020, , 265-303.		0
9	Improving LiNi0.9Co0.08Mn0.02O2â€™s cyclic stability via abating mechanical damages. Energy Storage Materials, 2020, 28, 1-9.	9.5	44
10	Ligninâ€derived electrochemical energy materials and systems. Biofuels, Bioproducts and Biorefining, 2020, 14, 650-672.	1.9	73
11	Selective adsorption removal of carbonyl molecular foulants from real fast pyrolysis bio-oils. Biomass and Bioenergy, 2020, 136, 105522.	2.9	10
12	Understanding H₂ Evolution from the Decomposition of Dibutylmagnesium Isomers Using in-Situ X-ray Diffraction Coupled with Mass Spectroscopy. ACS Applied Energy Materials, 2019, 2, 5272-5278.	2.5	4
13	Hyper-Cross-linked Porous Organic Frameworks with Ultramicropores for Selective Xenon Capture. ACS Applied Materials & Interfaces, 2019, 11, 13279-13284.	4.0	43
14	Toward Design Rules of Metalâ€“Organic Frameworks for Adsorption Cooling: Effect of Topology on the Ethanol Working Capacity. Chemistry of Materials, 2019, 31, 2702-2706.	3.2	27
15	MoS₂-modified graphite felt as a high performance electrode material for zincâ€“polyiodide redox flow batteries. Inorganic Chemistry Frontiers, 2019, 6, 731-735.	3.0	17
16	Formation of size-dependent and conductive phase on lithium iron phosphate during carbon coating. Nature Communications, 2018, 9, 929.	5.8	45
17	A Tunable Bimetallic MOFâ€74 for Adsorption Chiller Applications. European Journal of Inorganic Chemistry, 2018, 2018, 885-889.	1.0	41
18	Techno-Economic Analysis of Magnesium Extraction from Seawater via a Catalyzed Organo-Metathetical Process. Jom, 2018, 70, 431-435.	0.9	9

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19	Origin of phase inhomogeneity in lithium iron phosphate during carbon coating. Nano Energy, 2018, 45, 52-60.	8.2	26
20	Tailoring grain boundary structures and chemistry of Ni-rich layered cathodes for enhanced cycle stability of lithium-ion batteries. Nature Energy, 2018, 3, 600-605.	19.8	613
21	Minimizing Polysulfide Shuttle Effect in Lithium-Ion Sulfur Batteries by Anode Surface Passivation. ACS Applied Materials & Interfaces, 2018, 10, 21965-21972.	4.0	18
22	Enabling High-Energy-Density Cathode for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 23094-23102.	4.0	67
23	Hollow Carbon Spheres with Abundant Micropores for Enhanced CO₂ Adsorption. Langmuir, 2017, 33, 1248-1255.	1.6	60
24	Electrospun metalâ€“organic framework polymer composites for the catalytic degradation of methyl paraoxon. New Journal of Chemistry, 2017, 41, 8748-8753.	1.4	64
25	Nanoscale Manipulation of Spinel Lithium Nickel Manganese Oxide Surface by Multisite Ti Occupation as Highâ€Performance Cathode. Advanced Materials, 2017, 29, 1703764.	11.1	119
26	Novel highly dispersible, thermally stable core/shell proppants for geothermal applications. Geothermics, 2017, 70, 98-109.	1.5	7
27	Increased Thermal Conductivity in Metal-Organic Heat Carrier Nanofluids. Scientific Reports, 2016, 6, 27805.	1.6	20
28	Redoxâ€Active Metalâ€“Organic Composites for Highly Selective Oxygen Separation Applications. Advanced Materials, 2016, 28, 3572-3577.	11.1	55
29	Metalâ€“Organic Frameworks as Highly Active Electrocatalysts for High-Energy Density, Aqueous Zinc-Polyiodide Redox Flow Batteries. Nano Letters, 2016, 16, 4335-4340.	4.5	79
30	Anomalous water expulsion from carbon-based rods at high humidity. Nature Nanotechnology, 2016, 11, 791-797.	15.6	11
31	Preparation and Characterization of a Hydrophobic Metalâ€“Organic Framework Membrane Supported on a Thin Porous Metal Sheet. Industrial & Engineering Chemistry Research, 2016, 55, 3823-3832.	1.8	27
32	Metalâ€“organic framework with optimally selective xenon adsorption and separation. Nature Communications, 2016, 7, ncomms11831.	5.8	325
33	Unravelling the Role of Electrochemically Active FePO₄ Coating by Atomic Layer Deposition for Increased Highâ€Voltage Stability of LiNi_{0.5}Mn_{1.5}O₄ Cathode Material. Advanced Science, 2015, 2, 1500022.	5.6	108
34	Controlling Porosity in Ligninâ€Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 411-411.	3.6	7
35	Elegant design of electrode and electrode/electrolyte interface in lithium-ion batteries by atomic layer deposition. Nanotechnology, 2015, 26, 024001.	1.3	123
36	Separation of polar compounds using a flexible metalâ€“organic framework. Chemical Communications, 2015, 51, 8421-8424.	2.2	41

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37	Potential of Metalâ€“Organic Frameworks for Separation of Xenon and Krypton. Accounts of Chemical Research, 2015, 48, 211-219.	7.6	330
38	Controlling Porosity in Ligninâ€Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 428-432.	3.6	196
39	Size-dependent surface phase change of lithium iron phosphate during carbon coating. Nature Communications, 2014, 5, 3415.	5.8	66
40	The effect of pyridine modification of Niâ€“DOBDC on CO₂ capture under humid conditions. Chemical Communications, 2014, 50, 3296-3298.	2.2	52
41	Enhanced noble gas adsorption in Ag@MOF-74Ni. Chemical Communications, 2014, 50, 466-468.	2.2	153
42	Atomic layer deposited coatings to significantly stabilize anodes for Li ion batteries: effects of coating thickness and the size of anode particles. Journal of Materials Chemistry A, 2014, 2, 2306.	5.2	78
43	Separation of rare gases and chiral molecules by selective binding in porous organic cages. Nature Materials, 2014, 13, 954-960.	13.3	532
44	A Two-Column Method for the Separation of Kr and Xe from Process Off-Gases. Industrial & Engineering Chemistry Research, 2014, 53, 12893-12899.	1.8	65
45	Atomic layer deposition of solid-state electrolyte coated cathode materials with superior high-voltage cycling behavior for lithium ion battery application. Energy and Environmental Science, 2014, 7, 768-778.	15.6	363
46	Introduction of Ï€-Complexation into Porous Aromatic Framework for Highly Selective Adsorption of Ethylene over Ethane. Journal of the American Chemical Society, 2014, 136, 8654-8660.	6.6	383
47	Significant impact on cathode performance of lithium-ion batteries by precisely controlled metal oxide nanocoatings via atomic layer deposition. Journal of Power Sources, 2014, 247, 57-69.	4.0	212
48	METAL ORGANIC FRAMEWORKSâ€“SYNTHESIS AND APPLICATIONS. , 2014, , 61-103.		6
49	Identification of solid-state forms of cucurbit[6]uril for carbon dioxide capture. CrystEngComm, 2013, 15, 1528.	1.3	32
50	Mechanism of Preferential Adsorption of SO₂ into Two Microporous Paddle Wheel Frameworks M(bdc)(ted)_{0.5}. Chemistry of Materials, 2013, 25, 4653-4662.	3.2	127
51	A porous covalent porphyrin framework with exceptional uptake capacity of saturated hydrocarbons for oil spill cleanup. Chemical Communications, 2013, 49, 1533.	2.2	136
52	Progress in adsorption-based CO₂capture by metalâ€“organic frameworks. Chemical Society Reviews, 2012, 41, 2308-2322.	18.7	1,205
53	Selective CO₂ Capture from Flue Gas Using Metalâ€“Organic Frameworksâ€•A Fixed Bed Study. Journal of Physical Chemistry C, 2012, 116, 9575-9581.	1.5	176
54	Metalâ€“Organic Frameworks for Removal of Xe and Kr from Nuclear Fuel Reprocessing Plants. Langmuir, 2012, 28, 11584-11589.	1.6	172

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55	Switching Kr/Xe Selectivity with Temperature in a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2012, 134, 9046-9049.	6.6	160
56	Accessible Volumes for Adsorption in Carbon Nanopores of Different Geometries and Wall Thicknesses. Journal of Physical Chemistry C, 2011, 115, 12077-12081.	1.5	4
57	Stability Effects on CO₂ Adsorption for the DOBDC Series of Metalâ€“Organic Frameworks. Langmuir, 2011, 27, 11451-11456.	1.6	171
58	Mesoporous silicaâ€“metal organic composite: synthesis, characterization, and ammonia adsorption. Journal of Materials Chemistry, 2011, 21, 6698.	6.7	88
59	Henryâ€™s law constants and isosteric heats of adsorption at zero loading for multi-wall carbon surfaces with different geometries. Carbon, 2010, 48, 3454-3462.	5.4	16
60	CO₂/H₂O Adsorption Equilibrium and Rates on Metalâ˜Organic Frameworks: HKUST-1 and Ni/DOBDC. Langmuir, 2010, 26, 14301-14307.	1.6	390
61	Isosteric heats of adsorption in the Henryâ€™s law region for carbon single wall cylindrical nanopores and spherical nanocavities. Carbon, 2009, 47, 3415-3423.	5.4	19
62	Screening of Metalâ˜Organic Frameworks for Carbon Dioxide Capture from Flue Gas Using a Combined Experimental and Modeling Approach. Journal of the American Chemical Society, 2009, 131, 18198-18199.	6.6	816
63	Calcination Effects on the Properties of Gallium-Doped Zinc Oxide Powders. Journal of the American Ceramic Society, 2006, 89, 2440-2443.	1.9	52
64	Large-scale preparation of needle-like zinc oxide with high electrical conductivity. Materials Letters, 2006, 60, 3133-3136.	1.3	8
65	Template-free synthesis of NiO hollow microspheres covered with nanoflakes. Materials Letters, 2006, 60, 3601-3604.	1.3	36
66	Understanding the Adsorption of Noble Gases in Metalâ€“Organic Frameworks Using Diffuse Reflectance Infrared Fourier Transform Spectroscopy. Industrial & Engineering Chemistry Research, 0, , .	1.8	0