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	Progress in adsorption-based CO₂capture by metalâ€“organic frameworks. Chemical Society Reviews, 2012, 41, 2308-2322.	18.7	1,205
2	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
3	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
4	Separation of rare gases and chiral molecules by selective binding in porous organic cages. Nature Materials, 2014, 13, 954-960.	13.3	532
5	CO₂/H₂O Adsorption Equilibrium and Rates on Metalâ^'Organic Frameworks: HKUST-1 and Ni/DOBDC. Langmuir, 2010, 26, 14301-14307.	1.6	390
6	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
7	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
8	Potential of Metalâ€“Organic Frameworks for Separation of Xenon and Krypton. Accounts of Chemical Research, 2015, 48, 211-219.	7.6	330
9	Metalâ€“organic framework with optimally selective xenon adsorption and separation. Nature Communications, 2016, 7, ncomms11831.	5.8	325
10	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
11	Controlling Porosity in Ligninâ€Đerived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 428-432.	3.6	196
12	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
13	Metalâ€“Organic Frameworks for Removal of Xe and Kr from Nuclear Fuel Reprocessing Plants. Langmuir, 2012, 28, 11584-11589.	1.6	172
14	Stability Effects on CO₂ Adsorption for the DOBDC Series of Metalâ€“Organic Frameworks. Langmuir, 2011, 27, 11451-11456.	1.6	171
15	Switching Kr/Xe Selectivity with Temperature in a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2012, 134, 9046-9049.	6.6	160
16	Enhanced noble gas adsorption in Ag@MOF-74Ni. Chemical Communications, 2014, 50, 466-468.	2.2	153
17	A porous covalent porphyrin framework with exceptional uptake capacity of saturated hydrocarbons for oil spill cleanup. Chemical Communications, 2013, 49, 1533.	2.2	136
18	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

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19	Elegant design of electrode and electrode/electrolyte interface in lithium-ion batteries by atomic layer deposition. Nanotechnology, 2015, 26, 024001.	1.3	123
20	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
21	Atomic/molecular layer deposition for energy storage and conversion. Chemical Society Reviews, 2021, 50, 3889-3956.	18.7	109
22	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
23	Mesoporous silicaâ€“metal organic composite: synthesis, characterization, and ammonia adsorption. Journal of Materials Chemistry, 2011, 21, 6698.	6.7	88
24	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
25	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
26	Ligninâ€derived electrochemical energy materials and systems. Biofuels, Bioproducts and Biorefining, 2020, 14, 650-672.	1.9	73
27	Enabling High-Energy-Density Cathode for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 23094-23102.	4.0	67
28	Size-dependent surface phase change of lithium iron phosphate during carbon coating. Nature Communications, 2014, 5, 3415.	5.8	66
29	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
30	Electrospun metalâ€“organic framework polymer composites for the catalytic degradation of methyl paraoxon. New Journal of Chemistry, 2017, 41, 8748-8753.	1.4	64
31	Hollow Carbon Spheres with Abundant Micropores for Enhanced CO₂ Adsorption. Langmuir, 2017, 33, 1248-1255.	1.6	60
32	Redoxâ€Active Metalâ€“Organic Composites for Highly Selective Oxygen Separation Applications. Advanced Materials, 2016, 28, 3572-3577.	11.1	55
33	Calcination Effects on the Properties of Gallium-Doped Zinc Oxide Powders. Journal of the American Ceramic Society, 2006, 89, 2440-2443.	1.9	52
34	The effect of pyridine modification of Niâ€“DOBDC on CO₂ capture under humid conditions. Chemical Communications, 2014, 50, 3296-3298.	2.2	52
35	Formation of size-dependent and conductive phase on lithium iron phosphate during carbon coating. Nature Communications, 2018, 9, 929.	5.8	45
36	Improving LiNi0.9Co0.08Mn0.02O2â€™s cyclic stability via abating mechanical damages. Energy Storage Materials, 2020, 28, 1-9.	9.5	44

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37	Hyper-Cross-linked Porous Organic Frameworks with Ultramicropores for Selective Xenon Capture. ACS Applied Materials & Interfaces, 2019, 11, 13279-13284.	4.0	43
38	Separation of polar compounds using a flexible metalâ€“organic framework. Chemical Communications, 2015, 51, 8421-8424.	2.2	41
39	A Tunable Bimetallic MOFâ€74 for Adsorption Chiller Applications. European Journal of Inorganic Chemistry, 2018, 2018, 885-889.	1.0	41
40	Template-free synthesis of NiO hollow microspheres covered with nanoflakes. Materials Letters, 2006, 60, 3601-3604.	1.3	36
41	Identification of solid-state forms of cucurbit[6]uril for carbon dioxide capture. CrystEngComm, 2013, 15, 1528.	1.3	32
42	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
43	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
44	Origin of phase inhomogeneity in lithium iron phosphate during carbon coating. Nano Energy, 2018, 45, 52-60.	8.2	26
45	Increased Thermal Conductivity in Metal-Organic Heat Carrier Nanofluids. Scientific Reports, 2016, 6, 27805.	1.6	20
46	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
47	Minimizing Polysulfide Shuttle Effect in Lithium-Ion Sulfur Batteries by Anode Surface Passivation. ACS Applied Materials & Interfaces, 2018, 10, 21965-21972.	4.0	18
48	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
49	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
50	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
51	Rare-earth element extraction from geothermal brine using magnetic core-shell nanoparticles-techno-economic analysis. Geothermics, 2021, 89, 101938.	1.5	15
52	Anomalous water expulsion from carbon-based rods at high humidity. Nature Nanotechnology, 2016, 11, 791-797.	15.6	11
53	Selective adsorption removal of carbonyl molecular foulants from real fast pyrolysis bio-oils. Biomass and Bioenergy, 2020, 136, 105522.	2.9	10
54	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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55	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
56	Large-scale preparation of needle-like zinc oxide with high electrical conductivity. Materials Letters, 2006, 60, 3133-3136.	1.3	8
57	Controlling Porosity in Ligninâ€Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 411-411.	3.6	7
58	Novel highly dispersible, thermally stable core/shell proppants for geothermal applications. Geothermics, 2017, 70, 98-109.	1.5	7
59	METAL ORGANIC FRAMEWORKSâ€“SYNTHESIS AND APPLICATIONS. , 2014, , 61-103.		6
60	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
61	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
62	New Hybrid Organic-Inorganic Thin Films by Molecular Layer Deposition for Rechargeable Batteries. Frontiers in Energy Research, 2021, 9, .	1.2	4
63	Improvement of Cyclic Stability of Na0.67Mn0.8Ni0.1Co0.1O2 via Suppressing Lattice Variation. Chinese Physics Letters, 2021, 38, 076102.	1.3	1
64	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
65	Carbon capture using nanoporous adsorbents. , 2020, , 265-303.		0
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