

Jian Liu

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

8,287
citations

87888

38
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114465

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. <i>Journal of Power Sources</i> , 2022, 521, 230964. | 7.8 | 9 |
| 2 | The cell utilized partitioning model as a predictive tool for optimizing counter-current chromatography processes. <i>Separation and Purification Technology</i> , 2022, 285, 120330. | 7.9 | 1 |
| 3 | Extracting energy from ocean thermal and salinity gradients to power unmanned underwater vehicles: State of the art, current limitations, and future outlook. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 160, 112283. | 16.4 | 17 |
| 4 | Rare-earth element extraction from geothermal brine using magnetic core-shell nanoparticles-techno-economic analysis. <i>Geothermics</i> , 2021, 89, 101938. | 3.4 | 15 |
| 5 | Atomic/molecular layer deposition for energy storage and conversion. <i>Chemical Society Reviews</i> , 2021, 50, 3889-3956. | 38.1 | 109 |
| 6 | New Hybrid Organic-Inorganic Thin Films by Molecular Layer Deposition for Rechargeable Batteries. <i>Frontiers in Energy Research</i> , 2021, 9, . | 2.3 | 4 |
| 7 | Improvement of Cyclic Stability of Na _{0.67} Mn _{0.8} Ni _{0.1} Co _{0.1} O ₂ via Suppressing Lattice Variation. <i>Chinese Physics Letters</i> , 2021, 38, 076102. | 3.3 | 1 |
| 8 | Carbon capture using nanoporous adsorbents. , 2020, , 265-303. | | 0 |
| 9 | Improving LiNi _{0.9} Co _{0.08} Mn _{0.02} O ₂ â€™s cyclic stability via abating mechanical damages. <i>Energy Storage Materials</i> , 2020, 28, 1-9. | 18.0 | 44 |
| 10 | Ligninâ€‘derived electrochemical energy materials and systems. <i>Biofuels, Bioproducts and Biorefining</i> , 2020, 14, 650-672. | 3.7 | 73 |
| 11 | Selective adsorption removal of carbonyl molecular foulants from real fast pyrolysis bio-oils. <i>Biomass and Bioenergy</i> , 2020, 136, 105522. | 5.7 | 10 |
| 12 | Understanding H ₂ Evolution from the Decomposition of Dibutylmagnesium Isomers Using in-Situ X-ray Diffraction Coupled with Mass Spectroscopy. <i>ACS Applied Energy Materials</i> , 2019, 2, 5272-5278. | 5.1 | 4 |
| 13 | Hyper-Cross-linked Porous Organic Frameworks with Ultramicropores for Selective Xenon Capture. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 13279-13284. | 8.0 | 43 |
| 14 | Toward Design Rules of Metalâ€‘Organic Frameworks for Adsorption Cooling: Effect of Topology on the Ethanol Working Capacity. <i>Chemistry of Materials</i> , 2019, 31, 2702-2706. | 6.7 | 27 |
| 15 | MoS ₂ -modified graphite felt as a high performance electrode material for zincâ€‘polyiodide redox flow batteries. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 731-735. | 6.0 | 17 |
| 16 | Formation of size-dependent and conductive phase on lithium iron phosphate during carbon coating. <i>Nature Communications</i> , 2018, 9, 929. | 12.8 | 45 |
| 17 | A Tunable Bimetallic MOFâ€‘74 for Adsorption Chiller Applications. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 885-889. | 2.0 | 41 |
| 18 | Techno-Economic Analysis of Magnesium Extraction from Seawater via a Catalyzed Organo-Metathetical Process. <i>Jom</i> , 2018, 70, 431-435. | 1.9 | 9 |

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|----|--|------|-----------|
| 19 | Origin of phase inhomogeneity in lithium iron phosphate during carbon coating. Nano Energy, 2018, 45, 52-60. | 16.0 | 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. | 39.5 | 613 |
| 21 | Minimizing Polysulfide Shuttle Effect in Lithium-Ion Sulfur Batteries by Anode Surface Passivation. ACS Applied Materials & Interfaces, 2018, 10, 21965-21972. | 8.0 | 18 |
| 22 | Enabling High-Energy-Density Cathode for Lithium-Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 23094-23102. | 8.0 | 67 |
| 23 | Hollow Carbon Spheres with Abundant Micropores for Enhanced CO ₂ Adsorption. Langmuir, 2017, 33, 1248-1255. | 3.5 | 60 |
| 24 | Electrospun metal-organic framework polymer composites for the catalytic degradation of methyl paraoxon. New Journal of Chemistry, 2017, 41, 8748-8753. | 2.8 | 64 |
| 25 | Nanoscale Manipulation of Spinel Lithium Nickel Manganese Oxide Surface by Multisite Ti Occupation as High-Performance Cathode. Advanced Materials, 2017, 29, 1703764. | 21.0 | 119 |
| 26 | Novel highly dispersible, thermally stable core/shell proppants for geothermal applications. Geothermics, 2017, 70, 98-109. | 3.4 | 7 |
| 27 | Increased Thermal Conductivity in Metal-Organic Heat Carrier Nanofluids. Scientific Reports, 2016, 6, 27805. | 3.3 | 20 |
| 28 | Redox-Active Metal-Organic Composites for Highly Selective Oxygen Separation Applications. Advanced Materials, 2016, 28, 3572-3577. | 21.0 | 55 |
| 29 | Metal-Organic Frameworks as Highly Active Electrocatalysts for High-Energy Density, Aqueous Zinc-Polyiodide Redox Flow Batteries. Nano Letters, 2016, 16, 4335-4340. | 9.1 | 79 |
| 30 | Anomalous water expulsion from carbon-based rods at high humidity. Nature Nanotechnology, 2016, 11, 791-797. | 31.5 | 11 |
| 31 | Preparation and Characterization of a Hydrophobic Metal-Organic Framework Membrane Supported on a Thin Porous Metal Sheet. Industrial & Engineering Chemistry Research, 2016, 55, 3823-3832. | 3.7 | 27 |
| 32 | Metal-organic framework with optimally selective xenon adsorption and separation. Nature Communications, 2016, 7, ncomms11831. | 12.8 | 325 |
| 33 | Unravelling the Role of Electrochemically Active FePO ₄ Coating by Atomic Layer Deposition for Increased High-Voltage Stability of LiNi _{0.5} Mn _{1.5} O ₄ Cathode Material. Advanced Science, 2015, 2, 1500022. | 11.2 | 108 |
| 34 | Controlling Porosity in Lignin-Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 411-411. | 6.8 | 7 |
| 35 | Elegant design of electrode and electrode/electrolyte interface in lithium-ion batteries by atomic layer deposition. Nanotechnology, 2015, 26, 024001. | 2.6 | 123 |
| 36 | Separation of polar compounds using a flexible metal-organic framework. Chemical Communications, 2015, 51, 8421-8424. | 4.1 | 41 |

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|----|--|------|-----------|
| 37 | Potential of Metal-Organic Frameworks for Separation of Xenon and Krypton. <i>Accounts of Chemical Research</i> , 2015, 48, 211-219. | 15.6 | 330 |
| 38 | Controlling Porosity in Lignin-Derived Nanoporous Carbon for Supercapacitor Applications. <i>ChemSusChem</i> , 2015, 8, 428-432. | 6.8 | 196 |
| 39 | Size-dependent surface phase change of lithium iron phosphate during carbon coating. <i>Nature Communications</i> , 2014, 5, 3415. | 12.8 | 66 |
| 40 | The effect of pyridine modification of Ni-DOBDC on CO ₂ capture under humid conditions. <i>Chemical Communications</i> , 2014, 50, 3296-3298. | 4.1 | 52 |
| 41 | Enhanced noble gas adsorption in Ag@MOF-74Ni. <i>Chemical Communications</i> , 2014, 50, 466-468. | 4.1 | 153 |
| 42 | Atomic layer deposited coatings to significantly stabilize anodes for Li ion batteries: effects of coating thickness and the size of anode particles. <i>Journal of Materials Chemistry A</i> , 2014, 2, 2306. | 10.3 | 78 |
| 43 | Separation of rare gases and chiral molecules by selective binding in porous organic cages. <i>Nature Materials</i> , 2014, 13, 954-960. | 27.5 | 532 |
| 44 | A Two-Column Method for the Separation of Kr and Xe from Process Off-Gases. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 12893-12899. | 3.7 | 65 |
| 45 | Atomic layer deposition of solid-state electrolyte coated cathode materials with superior high-voltage cycling behavior for lithium ion battery application. <i>Energy and Environmental Science</i> , 2014, 7, 768-778. | 30.8 | 363 |
| 46 | Introduction of π -Complexation into Porous Aromatic Framework for Highly Selective Adsorption of Ethylene over Ethane. <i>Journal of the American Chemical Society</i> , 2014, 136, 8654-8660. | 13.7 | 383 |
| 47 | Significant impact on cathode performance of lithium-ion batteries by precisely controlled metal oxide nanocoatings via atomic layer deposition. <i>Journal of Power Sources</i> , 2014, 247, 57-69. | 7.8 | 212 |
| 48 | METAL ORGANIC FRAMEWORKS-SYNTHESIS AND APPLICATIONS. , 2014, , 61-103. | | 6 |
| 49 | Identification of solid-state forms of cucurbit[6]uril for carbon dioxide capture. <i>CrystEngComm</i> , 2013, 15, 1528. | 2.6 | 32 |
| 50 | Mechanism of Preferential Adsorption of SO ₂ into Two Microporous Paddle Wheel Frameworks M(bdc)(ted) _{0.5} . <i>Chemistry of Materials</i> , 2013, 25, 4653-4662. | 6.7 | 127 |
| 51 | A porous covalent porphyrin framework with exceptional uptake capacity of saturated hydrocarbons for oil spill cleanup. <i>Chemical Communications</i> , 2013, 49, 1533. | 4.1 | 136 |
| 52 | Progress in adsorption-based CO ₂ capture by metal-organic frameworks. <i>Chemical Society Reviews</i> , 2012, 41, 2308-2322. | 38.1 | 1,205 |
| 53 | Selective CO ₂ Capture from Flue Gas Using Metal-Organic Frameworks-A Fixed Bed Study. <i>Journal of Physical Chemistry C</i> , 2012, 116, 9575-9581. | 3.1 | 176 |
| 54 | Metal-Organic Frameworks for Removal of Xe and Kr from Nuclear Fuel Reprocessing Plants. <i>Langmuir</i> , 2012, 28, 11584-11589. | 3.5 | 172 |

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|----|---|------|-----------|
| 55 | Switching Kr/Xe Selectivity with Temperature in a Metal-Organic Framework. Journal of the American Chemical Society, 2012, 134, 9046-9049. | 13.7 | 160 |
| 56 | Accessible Volumes for Adsorption in Carbon Nanopores of Different Geometries and Wall Thicknesses. Journal of Physical Chemistry C, 2011, 115, 12077-12081. | 3.1 | 4 |
| 57 | Stability Effects on CO ₂ Adsorption for the DOBDC Series of Metal-Organic Frameworks. Langmuir, 2011, 27, 11451-11456. | 3.5 | 171 |
| 58 | Mesoporous silica-metal organic composite: synthesis, characterization, and ammonia adsorption. Journal of Materials Chemistry, 2011, 21, 6698. | 6.7 | 88 |
| 59 | Henry's law constants and isosteric heats of adsorption at zero loading for multi-wall carbon surfaces with different geometries. Carbon, 2010, 48, 3454-3462. | 10.3 | 16 |
| 60 | CO ₂ /H ₂ O Adsorption Equilibrium and Rates on Metal-Organic Frameworks: HKUST-1 and Ni/DOBDC. Langmuir, 2010, 26, 14301-14307. | 3.5 | 390 |
| 61 | Isosteric heats of adsorption in the Henry's law region for carbon single wall cylindrical nanopores and spherical nanocavities. Carbon, 2009, 47, 3415-3423. | 10.3 | 19 |
| 62 | Screening of Metal-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. | 13.7 | 816 |
| 63 | Calcination Effects on the Properties of Gallium-Doped Zinc Oxide Powders. Journal of the American Ceramic Society, 2006, 89, 2440-2443. | 3.8 | 52 |
| 64 | Large-scale preparation of needle-like zinc oxide with high electrical conductivity. Materials Letters, 2006, 60, 3133-3136. | 2.6 | 8 |
| 65 | Template-free synthesis of NiO hollow microspheres covered with nanoflakes. Materials Letters, 2006, 60, 3601-3604. | 2.6 | 36 |
| 66 | Understanding the Adsorption of Noble Gases in Metal-Organic Frameworks Using Diffuse Reflectance Infrared Fourier Transform Spectroscopy. Industrial & Engineering Chemistry Research, 0, , . | 3.7 | 0 |