

Bin Zheng

List of Publications by Year in descending order

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Version: 2024-02-01

53
papers

1,769
citations

394421

19
h-index

276875

41
g-index

55
all docs

55
docs citations

55
times ranked

2819
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1 | Unravelling surface and interfacial structures of a metal-organic framework by transmission electron microscopy. <i>Nature Materials</i> , 2017, 16, 532-536. | 27.5 | 306 |
| 2 | Strain Effect in Bimetallic Electrocatalysts in the Hydrogen Evolution Reaction. <i>ACS Energy Letters</i> , 2018, 3, 1198-1204. | 17.4 | 183 |
| 3 | Force Field for Molecular Dynamics Computations in Flexible ZIF-8 Framework. <i>Journal of Physical Chemistry C</i> , 2012, 116, 933-938. | 3.1 | 146 |
| 4 | Fast potassium migration in mesoporous carbon with ultrathin framework boosting superior rate performance for high-power potassium storage. <i>Energy Storage Materials</i> , 2021, 40, 490-498. | 18.0 | 96 |
| 5 | Selective Hydrogen Generation from Formic Acid with Well-Defined Complexes of Ruthenium and Phosphorus-Nitrogen Pincer Ligand. <i>Chemistry - an Asian Journal</i> , 2016, 11, 1357-1360. | 3.3 | 94 |
| 6 | Hydrogenation of Esters Catalyzed by Ruthenium Pincer Complexes Containing an Aminophosphine Arm. <i>Organometallics</i> , 2014, 33, 4152-4155. | 2.3 | 74 |
| 7 | Molecular Dynamics Simulations on Gate Opening in ZIF-8: Identification of Factors for Ethane and Propane Separation. <i>Langmuir</i> , 2013, 29, 8865-8872. | 3.5 | 73 |
| 8 | Antiaromatic bisindenylthienoacenes with small singlet biradical characters: syntheses, structures and chain length dependent physical properties. <i>Chemical Science</i> , 2014, 5, 4490-4503. | 7.4 | 62 |
| 9 | Z-shaped Pentalenoacene Dimers with High Stability and Small Band Gap. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2693-2696. | 13.8 | 59 |
| 10 | Towards meso-Ester BODIPYs with Aggregation-Induced Emission Properties: The Effect of Substitution Positions. <i>Chemistry - an Asian Journal</i> , 2015, 10, 1631-1634. | 3.3 | 41 |
| 11 | Indolo[2,3-b]carbazoles with tunable ground states: how Clar's aromatic sextet determines the singlet biradical character. <i>Chemical Science</i> , 2014, 5, 4944-4952. | 7.4 | 39 |
| 12 | Mechanical Control of the Kinetic Propylene/Propane Separation by Zeolitic Imidazolate Framework. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13734-13738. | 13.8 | 39 |
| 13 | Dipolar Quinoidal Acene Analogues as Stable Isoelectronic Structures of Pentacene and Nonacene. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14412-14416. | 13.8 | 36 |
| 14 | LiFSI as a functional additive of the fluorinated electrolyte for rechargeable Li-S batteries. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 5898-5906. | 2.2 | 35 |
| 15 | A hybrid ionic liquid-based electrolyte for high-performance lithium-sulfur batteries. <i>New Journal of Chemistry</i> , 2020, 44, 361-368. | 2.8 | 34 |
| 16 | Synthesis of highly reactive polyisobutylene with FeCl ₃ /ether complexes in hexane; kinetic and mechanistic studies. <i>Polymer Chemistry</i> , 2015, 6, 322-329. | 3.9 | 30 |
| 17 | Engineering micromechanics of soft porous crystals for negative gas adsorption. <i>Chemical Science</i> , 2020, 11, 9468-9479. | 7.4 | 30 |
| 18 | Ligand-Conformer-Induced Formation of Zirconium-Organic Framework for Methane Storage and MTO Product Separation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16521-16528. | 13.8 | 29 |

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|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Size-Controllable Synthesis of Zeolitic Imidazolate Framework/Carbon Nanotube Composites. Crystals, 2018, 8, 367. | 2.2 | 23 |
| 20 | Diffusion as a function of guest molecule length and functionalization in flexible metal-organic frameworks. Materials Horizons, 2016, 3, 355-361. | 12.2 | 19 |
| 21 | Investigation of the Linker Swing Motion in the Zeolitic Imidazolate Framework ZIF-90. Journal of Physical Chemistry C, 2018, 122, 7203-7209. | 3.1 | 19 |
| 22 | Theoretical prediction of the mechanical properties of zeolitic imidazolate frameworks (ZIFs). RSC Advances, 2017, 7, 41499-41503. | 3.6 | 18 |
| 23 | Exploring the redox decomposition of ethylene carbonate-propylene carbonate in Li-ion batteries. Materials Advances, 2021, 2, 1747-1751. | 5.4 | 18 |
| 24 | Mechanical Control of the Kinetic Propylene/Propane Separation by Zeolitic Imidazolate Frameworks. Angewandte Chemie, 2019, 131, 13872-13876. | 2.0 | 17 |
| 25 | Investigation of interface compatibility in stiff polymer/metal-organic frameworks. Materials Today Chemistry, 2021, 20, 100458. | 3.5 | 17 |
| 26 | Zn-Shaped Pentaleno-Acene Dimers with High Stability and Small Band Gap. Angewandte Chemie, 2016, 128, 2743-2746. | 2.0 | 15 |
| 27 | Adsorptive Separation of Furfural/5-Hydroxymethylfurfural in MAF-5 with Ellipsoidal Pores. Industrial & Engineering Chemistry Research, 2020, 59, 11734-11742. | 3.7 | 15 |
| 28 | The force of MOFs: the potential of switchable metal-organic frameworks as solvent stimulated actuators. Chemical Communications, 2020, 56, 7411-7414. | 4.1 | 15 |
| 29 | Quinoidal Oligo(9,10-anthryl)s with Chain-Length-Dependent Ground States: A Balance between Aromatic Stabilization and Steric Strain Release. Chemistry - A European Journal, 2015, 21, 18724-18729. | 3.3 | 13 |
| 30 | Effect of Defects on the Mechanical Deformation Mechanisms of Metal-Organic Framework-5: A Molecular Dynamics Investigation. Journal of Physical Chemistry C, 2018, 122, 4300-4306. | 3.1 | 13 |
| 31 | Phase boundary effects on the mechanical deformation of core/shell Cu/Ag nanoparticles. Journal of Materials Research, 2009, 24, 2210-2214. | 2.6 | 12 |
| 32 | Facile Exfoliation of Two-Dimensional Crystalline Monolayer Nanosheets from an Amorphous Metal-Organic Framework. CCS Chemistry, 2022, 4, 1879-1888. | 7.8 | 12 |
| 33 | Impact of mechanical deformation on guest diffusion in zeolitic imidazolate frameworks. Dalton Transactions, 2016, 45, 4346-4351. | 3.3 | 11 |
| 34 | Adsorptive separation of butanol, acetone and ethanol in zeolite imidazolate frameworks with desirable pore apertures. Chemical Engineering Science, 2022, 248, 117251. | 3.8 | 11 |
| 35 | Interaction Mechanisms between Lithium Polysulfides/Sulfide and Small Organic Molecules. ACS Omega, 2021, 6, 4995-5000. | 3.5 | 10 |
| 36 | ZIF-8 gate tuning via terminal group modification: A computational study. Chemical Physics Letters, 2016, 658, 270-275. | 2.6 | 9 |

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|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Tribological Properties of Typical Zeolitic Imidazolate Frameworks as Grease-Based Lubricant Additives. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 1668-1677. | 2.5 | 9 |
| 38 | Synergistic Effect of Fluorinated Solvents for Improving High Voltage Performance of $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ Cathode. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120534. | 2.9 | 9 |
| 39 | Investigation of Methane Adsorption in Strained IRMOF-1. <i>Journal of Physical Chemistry C</i> , 2019, 123, 24592-24597. | 3.1 | 8 |
| 40 | Low Temperature Calorimetry Coupled with Molecular Simulations for an In-Depth Characterization of the Guest-Dependent Compliant Behavior of MOFs. <i>Chemistry of Materials</i> , 2020, 32, 3489-3498. | 6.7 | 8 |
| 41 | High-temperature vanadium-free catalyst for selective catalytic reduction of NO with NH_3 and theoretical study of La_2O_3 over $\text{CeO}_2/\text{TiO}_2$. <i>Catalysis Science and Technology</i> , 2021, 11, 6112-6125. | 4.1 | 8 |
| 42 | Confined Water Vapor in ZIF-8 Nanopores. <i>ACS Omega</i> , 2022, 7, 64-69. | 3.5 | 8 |
| 43 | Controllable Synthesis of Metal-Organic Framework/Polyethersulfone Composites. <i>Crystals</i> , 2020, 10, 39. | 2.2 | 6 |
| 44 | Monolayer Nanosheets Exfoliated from Cage-Based Cationic Metal-Organic Frameworks. <i>Inorganic Chemistry</i> , 2022, 61, 1521-1529. | 4.0 | 6 |
| 45 | Theoretical model estimation of guest diffusion in metal-organic frameworks (MOFs). <i>RSC Advances</i> , 2015, 5, 70433-70438. | 3.6 | 5 |
| 46 | Residual Guest-Assisted MOF-5 Powder Densification. <i>Inorganic Chemistry</i> , 2021, 60, 13419-13424. | 4.0 | 5 |
| 47 | Surfactant Crystals as Stimulable Foam Stabilizers: Tuning Stability with Counterions. <i>Journal of Surfactants and Detergents</i> , 2019, 22, 1237-1245. | 2.1 | 4 |
| 48 | Elevated electrochemical performances enabled by a core-shell titanium hydride coated separator in lithium-sulphur batteries. <i>RSC Advances</i> , 2021, 11, 30755-30762. | 3.6 | 3 |
| 49 | Neodymium complex obtained from reductive-coupling of carbodiimide: Synthesis and structure of $[(\text{Cp}^*)_2\text{Nd}(\text{NR})_2\text{C}(\text{NR})_2\text{Nd}(\text{Cp}^*)_2]$. <i>Chemical Research in Chinese Universities</i> , 2015, 31, 704-707. | 2.6 | 2 |
| 50 | Extended Dislocations in Plastically Deformed Metallic Nanoparticles. <i>Nanomaterials and Nanotechnology</i> , 2016, 6, 34. | 3.0 | 2 |
| 51 | Designing highly incompressible transition metal nitrides: A new class of $\text{W}_0.5\text{Al}_0.5\text{N}$ phases. <i>Journal of Applied Physics</i> , 2021, 130, 065105. | 2.5 | 1 |
| 52 | Coupling external and internal pressure for the structural transition of MIL-53(Cr). <i>Dalton Transactions</i> , 2021, 50, 16371-16376. | 3.3 | 1 |
| 53 | Improved electrochemical performance of a $\text{LiCoO}_2/\text{MCMB}$ cell by regulating fluorinated electrolytes. <i>RSC Advances</i> , 2021, 11, 30763-30770. | 3.6 | 0 |