

Bin Zheng

List of Publications by Year in descending order

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53
papers

1,769
citations

394421

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276875

41
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docs citations

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times ranked

2819
citing authors

#	ARTICLE	IF	CITATIONS
1	Facile Exfoliation of Two-Dimensional Crystalline Monolayer Nanosheets from an Amorphous Metal-Organic Framework. <i>CCS Chemistry</i> , 2022, 4, 1879-1888.	7.8	12
2	Adsorptive separation of butanol, acetone and ethanol in zeolite imidazolate frameworks with desirable pore apertures. <i>Chemical Engineering Science</i> , 2022, 248, 117251.	3.8	11
3	Monolayer Nanosheets Exfoliated from Cage-Based Cationic Metal-Organic Frameworks. <i>Inorganic Chemistry</i> , 2022, 61, 1521-1529.	4.0	6
4	Confined Water Vapor in ZIF-8 Nanopores. <i>ACS Omega</i> , 2022, 7, 64-69.	3.5	8
5	High-temperature vanadium-free catalyst for selective catalytic reduction of NO with NH ₃ and theoretical study of La ₂ O ₃ over CeO ₂ /TiO ₂ . <i>Catalysis Science and Technology</i> , 2021, 11, 6112-6125.	4.1	8
6	Exploring the redox decomposition of ethylene carbonate-propylene carbonate in Li-ion batteries. <i>Materials Advances</i> , 2021, 2, 1747-1751.	5.4	18
7	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
8	Interaction Mechanisms between Lithium Polysulfides/Sulfide and Small Organic Molecules. <i>ACS Omega</i> , 2021, 6, 4995-5000.	3.5	10
9	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
10	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
11	Investigation of interface compatibility in stiff polymer/metal-organic frameworks. <i>Materials Today Chemistry</i> , 2021, 20, 100458.	3.5	17
12	Designing highly incompressible transition metal nitrides: A new class of W _{0.5} Al _{0.5} N phases. <i>Journal of Applied Physics</i> , 2021, 130, 065105.	2.5	1
13	Residual Guest-Assisted MOF-5 Powder Densification. <i>Inorganic Chemistry</i> , 2021, 60, 13419-13424.	4.0	5
14	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
15	Improved electrochemical performance of a LiCoO ₂ /MCMB cell by regulating fluorinated electrolytes. <i>RSC Advances</i> , 2021, 11, 30763-30770.	3.6	0
16	Coupling external and internal pressure for the structural transition of MIL-53(Cr). <i>Dalton Transactions</i> , 2021, 50, 16371-16376.	3.3	1
17	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
18	Engineering micromechanics of soft porous crystals for negative gas adsorption. <i>Chemical Science</i> , 2020, 11, 9468-9479.	7.4	30

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19	Adsorptive Separation of Furfural/5-Hydroxymethylfurfural in MAF-5 with Ellipsoidal Pores. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 11734-11742.	3.7	15
20	Controllable Synthesis of Metal-Organic Framework/Polyethersulfone Composites. <i>Crystals</i> , 2020, 10, 39.	2.2	6
21	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
22	The force of MOFs: the potential of switchable metal-organic frameworks as solvent stimulated actuators. <i>Chemical Communications</i> , 2020, 56, 7411-7414.	4.1	15
23	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
24	Mechanical Control of the Kinetic Propylene/Propane Separation by Zeolitic Imidazolate Frameworks. <i>Angewandte Chemie</i> , 2019, 131, 13872-13876.	2.0	17
25	Mechanical Control of the Kinetic Propylene/Propane Separation by Zeolitic Imidazolate Frameworks. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13734-13738.	13.8	39
26	Surfactant Crystals as Stimulable Foam Stabilizers: Tuning Stability with Counterions. <i>Journal of Surfactants and Detergents</i> , 2019, 22, 1237-1245.	2.1	4
27	Investigation of Methane Adsorption in Strained IRMOF-1. <i>Journal of Physical Chemistry C</i> , 2019, 123, 24592-24597.	3.1	8
28	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
29	Effect of Defects on the Mechanical Deformation Mechanisms of Metal-Organic Framework-5: A Molecular Dynamics Investigation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4300-4306.	3.1	13
30	Strain Effect in Bimetallic Electrocatalysts in the Hydrogen Evolution Reaction. <i>ACS Energy Letters</i> , 2018, 3, 1198-1204.	17.4	183
31	Investigation of the Linker Swing Motion in the Zeolitic Imidazolate Framework ZIF-90. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7203-7209.	3.1	19
32	Size-Controllable Synthesis of Zeolitic Imidazolate Framework/Carbon Nanotube Composites. <i>Crystals</i> , 2018, 8, 367.	2.2	23
33	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
34	Theoretical prediction of the mechanical properties of zeolitic imidazolate frameworks (ZIFs). <i>RSC Advances</i> , 2017, 7, 41499-41503.	3.6	18
35	Z-shaped Pentalenoacene Dimers with High Stability and Small Band Gap. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2693-2696.	13.8	59
36	Selective Hydrogen Generation from Formic Acid with Well-Defined Complexes of Ruthenium and Phosphorus-Nitrogen PN_3 Pincer Ligand. <i>Chemistry - an Asian Journal</i> , 2016, 11, 1357-1360.	3.3	94

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37	Extended Dislocations in Plastically Deformed Metallic Nanoparticles. <i>Nanomaterials and Nanotechnology</i> , 2016, 6, 34.	3.0	2
38	Diffusion as a function of guest molecule length and functionalization in flexible metal-organic frameworks. <i>Materials Horizons</i> , 2016, 3, 355-361.	12.2	19
39	ZIF-8 gate tuning via terminal group modification: A computational study. <i>Chemical Physics Letters</i> , 2016, 658, 270-275.	2.6	9
40	Zn-Shaped Pentaleno-Acene Dimers with High Stability and Small Band Gap. <i>Angewandte Chemie</i> , 2016, 128, 2743-2746.	2.0	15
41	Impact of mechanical deformation on guest diffusion in zeolitic imidazolate frameworks. <i>Dalton Transactions</i> , 2016, 45, 4346-4351.	3.3	11
42	Neodymium complex obtained from reductive-coupling of carbodiimide: Synthesis and structure of [(Cp ³) ₂ Nd(NR) ₂ C≡C(NR) ₂ Nd(Cp ³) ₂]. <i>Chemical Research in Chinese Universities</i> , 2015, 31, 704-707.	2.6	2
43	Towards <i>meso</i> -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
44	Quinoidal Oligo(9,10-anthryl)s with Chain Length-Dependent Ground States: A Balance between Aromatic Stabilization and Steric Strain Release. <i>Chemistry - A European Journal</i> , 2015, 21, 18724-18729.	3.3	13
45	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
46	Theoretical model estimation of guest diffusion in metal-organic frameworks (MOFs). <i>RSC Advances</i> , 2015, 5, 70433-70438.	3.6	5
47	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
48	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
49	Antiaromatic bisindeno-[n]thienoacenes with small singlet biradical characters: syntheses, structures and chain length dependent physical properties. <i>Chemical Science</i> , 2014, 5, 4490-4503.	7.4	62
50	Hydrogenation of Esters Catalyzed by Ruthenium PN ³ -Pincer Complexes Containing an Aminophosphine Arm. <i>Organometallics</i> , 2014, 33, 4152-4155.	2.3	74
51	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
52	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
53	Phase boundary effects on the mechanical deformation of core/shell Cu/Ag nanoparticles. <i>Journal of Materials Research</i> , 2009, 24, 2210-2214.	2.6	12