

Zhigang Hu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

55 papers	4,058 citations	31 h-index	60 g-index
60 ext. papers	4,794 ext. citations	7.5 avg, IF	5.84 L-index

#	Paper	IF	Citations
55	Construction of Confined Bifunctional 2D Material for Efficient Sulfur Resource Recovery and Hg Adsorption in Desulfurization.. <i>Environmental Science & Technology</i> , 2022 ,	10.3	4
54	Low-grade energy harvesting from dispersed exhaust steam for power generation using a soft biomimetic actuator. <i>Nano Energy</i> , 2021 , 91, 106677	17.1	1
53	A general strategy for designing metal-free catalysts for highly-efficient nitric oxide reduction to ammonia. <i>Fuel</i> , 2021 , 122442	7.1	5
52	Amphiphilic engineering of reduced graphene oxides using a carbon nitride coating for superior removal of organic pollutants from wastewater. <i>Carbon</i> , 2021 , 184, 479-491	10.4	0
51	The chemistry and applications of hafnium and cerium(iv) metal-organic frameworks. <i>Chemical Society Reviews</i> , 2021 , 50, 4629-4683	58.5	41
50	Modulated Hydrothermal Synthesis of Highly Stable MOF-808(Hf) for Methane Storage. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 17042-17053	8.3	18
49	XAS investigation of silica aerogel supported cobalt rhenium catalysts for ammonia decomposition. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 18932-18949	3.6	2
48	Harnessing solvent effects to integrate alkylamine into metal-organic frameworks for exceptionally high CO ₂ uptake. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 7867-7874	13	27
47	A MOF-templated approach for designing ruthenium-cesium catalysts for hydrogen generation from ammonia. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 30108-30118	6.7	14
46	Pore Size Reduction in Zirconium Metal-Organic Frameworks for Ethylene/Ethane Separation. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 7118-7126	8.3	24
45	CO ₂ Capture in Metal-Organic Framework Adsorbents: An Engineering Perspective. <i>Advanced Sustainable Systems</i> , 2019 , 3, 1800080	5.9	153
44	Adsorption-Based CO ₂ Capture: CO ₂ Capture in Metal-Organic Framework Adsorbents: An Engineering Perspective (Adv. Sustainable Syst. 1/2019). <i>Advanced Sustainable Systems</i> , 2019 , 3, 1970002	5.9	3
43	Ru-Based Catalysts for H ₂ Production from Ammonia: Effect of 1D Support. <i>Topics in Catalysis</i> , 2019 , 62, 1169-1177	2.3	25
42	Solution-reprocessable microporous polymeric adsorbents for carbon dioxide capture. <i>AIChE Journal</i> , 2018 , 64, 3376-3389	3.6	7
41	Metal-Organic Frameworks Based Heterogeneous Catalysts for Biomass Conversion. <i>Series on Chemistry, Energy and the Environment</i> , 2018 , 495-518	0.2	1
40	Metal-Organic Frameworks with Reduced Hydrophilicity for Postcombustion CO ₂ Capture from Wet Flue Gas. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 11904-11912	8.3	29
39	Metal-organic frameworks with Lewis acidity: synthesis, characterization, and catalytic applications. <i>CrystEngComm</i> , 2017 , 19, 4066-4081	3.3	154

38	Silver-Decorated Hafnium Metal-Organic Framework for Ethylene/Ethane Separation. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 4508-4516	3.9	44
37	A highly stable metal-organic framework with optimum aperture size for CO ₂ capture. <i>AIChE Journal</i> , 2017 , 63, 4103-4114	3.6	64
36	Breathing-induced new phase transition in an MIL-53(Al)-NH metal-organic framework under high methane pressures. <i>Chemical Communications</i> , 2017 , 53, 8118-8121	5.8	45
35	Kinetically controlled synthesis of two-dimensional Zr/Hf metal-organic framework nanosheets via a modulated hydrothermal approach. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 8954-8963	13	85
34	Improving Water-Treatment Performance of Zirconium Metal-Organic Framework Membranes by Postsynthetic Defect Healing. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 37848-37855	9.5	54
33	A Triphasic Modulated Hydrothermal Approach for the Synthesis of Multivariate Metal-Organic Frameworks with Hydrophobic Moieties for Highly Efficient Moisture-Resistant CO ₂ Capture. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1700092	5.9	26
32	Mechanical Properties of Microcrystalline Metal-Organic Frameworks (MOFs) Measured by Bimodal Amplitude Modulated-Frequency Modulated Atomic Force Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 32202-32210	9.5	33
31	Probing nanoscale functionalities of metal-organic framework nanocrystals. <i>Nanoscale</i> , 2017 , 9, 12163-12169	17.69	17
30	Structural-failure resistance of metal-organic frameworks toward multiple-cycle CO sorption. <i>Chemical Communications</i> , 2017 , 53, 8653-8656	5.8	21
29	A metal-free ORR/OER bifunctional electrocatalyst derived from metal-organic frameworks for rechargeable Zn-Air batteries. <i>Carbon</i> , 2017 , 111, 641-650	10.4	233
28	Highly efficient photocatalysts by pyrolyzing a Zn ^{II} /i heterometallic metal-organic framework. <i>CrystEngComm</i> , 2016 , 18, 4046-4052	3.3	23
27	Modulated Hydrothermal Synthesis of UiO-66(Hf)-Type Metal-Organic Frameworks for Optimal Carbon Dioxide Separation. <i>Inorganic Chemistry</i> , 2016 , 55, 1134-41	5.1	117
26	Modulator Effects on the Water-Based Synthesis of Zr/Hf Metal-Organic Frameworks: Quantitative Relationship Studies between Modulator, Synthetic Condition, and Performance. <i>Crystal Growth and Design</i> , 2016 , 16, 2295-2301	3.5	99
25	A pH-responsive phase transformation of a sulfonated metal-organic framework from amorphous to crystalline for efficient CO ₂ capture. <i>CrystEngComm</i> , 2016 , 18, 2803-2807	3.3	21
24	Mixed Matrix Membranes (MMMs) Comprising Exfoliated 2D Covalent Organic Frameworks (COFs) for Efficient CO ₂ Separation. <i>Chemistry of Materials</i> , 2016 , 28, 1277-1285	9.6	404
23	Mixed Matrix Membranes Containing UiO-66(Hf)-(OH) ₂ Metal-Organic Framework Nanoparticles for Efficient H ₂ /CO ₂ Separation. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 7933-7940	3.9	31
22	Room Temperature Batch and Continuous Flow Synthesis of Water-Stable Covalent Organic Frameworks (COFs). <i>Chemistry of Materials</i> , 2016 , 28, 5095-5101	9.6	150
21	Mechanoassisted Synthesis of Sulfonated Covalent Organic Frameworks with High Intrinsic Proton Conductivity. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 18505-12	9.5	160

20	Fe/Fe C/N-Doped Carbon Materials from Metal-Organic Framework Composites as Highly Efficient Oxygen Reduction Reaction Electrocatalysts. <i>ChemPlusChem</i> , 2016 , 81, 718-723	2.8	21
19	Direct Synthesis of Hierarchically Porous Metal-Organic Frameworks with High Stability and Strong Brønsted Acidity: The Decisive Role of Hafnium in Efficient and Selective Fructose Dehydration. <i>Chemistry of Materials</i> , 2016 , 28, 2659-2667	9.6	127
18	Facile Preparation of Graphene Oxide Membranes for Gas Separation. <i>Chemistry of Materials</i> , 2016 , 28, 2921-2927	9.6	158
17	Improving the hydrogen selectivity of graphene oxide membranes by reducing non-selective pores with intergrown ZIF-8 crystals. <i>Chemical Communications</i> , 2016 , 52, 8087-90	5.8	48
16	A Modulated Hydrothermal (MHT) Approach for the Facile Synthesis of UiO-66-Type MOFs. <i>Inorganic Chemistry</i> , 2015 , 54, 4862-8	5.1	232
15	Enhanced catalytic activity of a hierarchical porous metal-organic framework CuBTC. <i>CrystEngComm</i> , 2015 , 17, 7124-7129	3.3	31
14	De facto methodologies toward the synthesis and scale-up production of UiO-66-type metal-organic frameworks and membrane materials. <i>Dalton Transactions</i> , 2015 , 44, 19018-40	4.3	129
13	Mixed matrix membranes composed of two-dimensional metal-organic framework nanosheets for pre-combustion CO ₂ capture: a relationship study of filler morphology versus membrane performance. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 20801-20810	13	101
12	Ionized Zr-MOFs for highly efficient post-combustion CO ₂ capture. <i>Chemical Engineering Science</i> , 2015 , 124, 61-69	4.4	91
11	Frontispiece: Combination of Optimization and Metalated-Ligand Exchange: An Effective Approach to Functionalize UiO-66(Zr) MOFs for CO ₂ Separation. <i>Chemistry - A European Journal</i> , 2015 , 21, n/a-n/a	4.8	1
10	Combination of Optimization and Metalated-Ligand Exchange: An Effective Approach to Functionalize UiO-66(Zr) MOFs for CO ₂ Separation. <i>Chemistry - A European Journal</i> , 2015 , 21, 17246-55	4.8	64
9	Synthesis of a Sulfonated Two-Dimensional Covalent Organic Framework as an Efficient Solid Acid Catalyst for Biobased Chemical Conversion. <i>ChemSusChem</i> , 2015 , 8, 3208-12	8.3	122
8	A 2D metal-organic framework composed of a bi-functional ligand with ultra-micropores for post-combustion CO ₂ capture. <i>RSC Advances</i> , 2015 , 5, 47384-47389	3.7	9
7	Activation of sucrose-derived carbon spheres for high-performance supercapacitor electrodes. <i>RSC Advances</i> , 2015 , 5, 9307-9313	3.7	61
6	Two-dimensional metal-organic framework with wide channels and responsive turn-on fluorescence for the chemical sensing of volatile organic compounds. <i>Journal of the American Chemical Society</i> , 2014 , 136, 7241-4	16.4	527
5	Metal-organic frameworks (MOFs) as precursors towards TiO _x /C composites for photodegradation of organic dye. <i>RSC Advances</i> , 2014 , 4, 34221-34225	3.7	50
4	Sulfated Mesoporous Niobium Oxide Catalyzed 5-Hydroxymethylfurfural Formation from Sugars. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 14225-14233	3.9	77
3	A combinatorial approach towards water-stable metal-organic frameworks for highly efficient carbon dioxide separation. <i>ChemSusChem</i> , 2014 , 7, 2791-5	8.3	68

- 2 POLYMERIZATION WITHIN CONFINED NANOCHANNELS OF POROUS METAL-ORGANIC FRAMEWORKS. *Journal of Molecular and Engineering Materials*, **2013**, 01, 1330001 1.3 2
- 1 SmartNanocarriers: A New Paradigm for Tumor Targeting Drug Delivery Systems. *Drug Delivery Letters*, **2011**, 1, 67-84 0.8