Zhigang Hu

List of Publications by Citations

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	Two-dimensional metal-organic framework with wide channels and responsive turn-on fluorescence for the chemical sensing of volatile organic compounds. *Journal of the American Chemical Society*, **2014**, 136, 7241-4	16.4	527
54	Mixed Matrix Membranes (MMMs) Comprising Exfoliated 2D Covalent Organic Frameworks (COFs) for Efficient CO2 Separation. *Chemistry of Materials*, **2016**, 28, 1277-1285	9.6	404
53	A metal-free ORR/OER bifunctional electrocatalyst derived from metal-organic frameworks for rechargeable Zn-Air batteries. *Carbon*, **2017**, 111, 641-650	10.4	233
52	A Modulated Hydrothermal (MHT) Approach for the Facile Synthesis of UiO-66-Type MOFs. *Inorganic Chemistry*, **2015**, 54, 4862-8	5.1	232
51	Mechanoassisted Synthesis of Sulfonated Covalent Organic Frameworks with High Intrinsic Proton Conductivity. *ACS Applied Materials & Interfaces*, **2016**, 8, 18505-12	9.5	160
50	Facile Preparation of Graphene Oxide Membranes for Gas Separation. *Chemistry of Materials*, **2016**, 28, 2921-2927	9.6	158
49	Metal□rganic frameworks with Lewis acidity: synthesis, characterization, and catalytic applications. *CrystEngComm*, **2017**, 19, 4066-4081	3.3	154
48	CO2 Capture in Metal□rganic Framework Adsorbents: An Engineering Perspective. *Advanced Sustainable Systems*, **2019**, 3, 1800080	5.9	153
47	Room Temperature Batch and Continuous Flow Synthesis of Water-Stable Covalent Organic Frameworks (COFs). *Chemistry of Materials*, **2016**, 28, 5095-5101	9.6	150
46	De facto methodologies toward the synthesis and scale-up production of UiO-66-type metal-organic frameworks and membrane materials. *Dalton Transactions*, **2015**, 44, 19018-40	4.3	129
45	Direct Synthesis of Hierarchically Porous Metal□rganic Frameworks with High Stability and Strong Br□sted Acidity: The Decisive Role of Hafnium in Efficient and Selective Fructose Dehydration. *Chemistry of Materials*, **2016**, 28, 2659-2667	9.6	127
44	Synthesis of a Sulfonated Two-Dimensional Covalent Organic Framework as an Efficient Solid Acid Catalyst for Biobased Chemical Conversion. *ChemSusChem*, **2015**, 8, 3208-12	8.3	122
43	Modulated Hydrothermal Synthesis of UiO-66(Hf)-Type Metal-Organic Frameworks for Optimal Carbon Dioxide Separation. *Inorganic Chemistry*, **2016**, 55, 1134-41	5.1	117
42	Mixed matrix membranes composed of two-dimensional metal□rganic framework nanosheets for pre-combustion CO2 capture: a relationship study of filler morphology versus membrane performance. *Journal of Materials Chemistry A*, **2015**, 3, 20801-20810	13	101
41	Modulator Effects on the Water-Based Synthesis of Zr/Hf Metal□rganic Frameworks: Quantitative Relationship Studies between Modulator, Synthetic Condition, and Performance. *Crystal Growth and Design*, **2016**, 16, 2295-2301	3.5	99
40	Ionized Zr-MOFs for highly efficient post-combustion CO 2 capture. *Chemical Engineering Science*, **2015**, 124, 61-69	4.4	91
39	Kinetically controlled synthesis of two-dimensional Zr/Hf metal□rganic framework nanosheets via a modulated hydrothermal approach. *Journal of Materials Chemistry A*, **2017**, 5, 8954-8963	13	85

38	Sulfated Mesoporous Niobium Oxide Catalyzed 5-Hydroxymethylfurfural Formation from Sugars. *Industrial & Engineering Chemistry Research*, **2014**, 53, 14225-14233	3.9	77
37	A combinatorial approach towards water-stable metal-organic frameworks for highly efficient carbon dioxide separation. *ChemSusChem*, **2014**, 7, 2791-5	8.3	68
36	A highly stable metal-organic framework with optimum aperture size for CO2 capture. *AICHE Journal*, **2017**, 63, 4103-4114	3.6	64
35	Combination of Optimization and Metalated-Ligand Exchange: An Effective Approach to Functionalize UiO-66(Zr) MOFs for CO2 Separation. *Chemistry - A European Journal*, **2015**, 21, 17246-55	4.8	64
34	Activation of sucrose-derived carbon spheres for high-performance supercapacitor electrodes. *RSC Advances*, **2015**, 5, 9307-9313	3.7	61
33	Improving Water-Treatment Performance of Zirconium Metal-Organic Framework Membranes by Postsynthetic Defect Healing. *ACS Applied Materials & Interfaces*, **2017**, 9, 37848-37855	9.5	54
32	Metal-organic frameworks (MOFs) as precursors towards TiOx/C composites for photodegradation of organic dye. *RSC Advances*, **2014**, 4, 34221-34225	3.7	50
31	Improving the hydrogen selectivity of graphene oxide membranes by reducing non-selective pores with intergrown ZIF-8 crystals. *Chemical Communications*, **2016**, 52, 8087-90	5.8	48
30	Breathing-induced new phase transition in an MIL-53(Al)-NH metal-organic framework under high methane pressures. *Chemical Communications*, **2017**, 53, 8118-8121	5.8	45
29	Silver-Decorated Hafnium Metal□Organic Framework for Ethylene/Ethane Separation. *Industrial & Engineering Chemistry Research*, **2017**, 56, 4508-4516	3.9	44
28	The chemistry and applications of hafnium and cerium(iv) metal-organic frameworks. *Chemical Society Reviews*, **2021**, 50, 4629-4683	58.5	41
27	Mechanical Properties of Microcrystalline Metal-Organic Frameworks (MOFs) Measured by Bimodal Amplitude Modulated-Frequency Modulated Atomic Force Microscopy. *ACS Applied Materials & Interfaces*, **2017**, 9, 32202-32210	9.5	33
26	Enhanced catalytic activity of a hierarchical porous metal□organic framework CuBTC. *CrystEngComm*, **2015**, 17, 7124-7129	3.3	31
25	Mixed Matrix Membranes Containing UiO-66(Hf)-(OH)2 Metal□Organic Framework Nanoparticles for Efficient H2/CO2 Separation. *Industrial & Engineering Chemistry Research*, **2016**, 55, 7933-7940	3.9	31
24	Metal□Organic Frameworks with Reduced Hydrophilicity for Postcombustion CO2 Capture from Wet Flue Gas. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 11904-11912	8.3	29
23	Harnessing solvent effects to integrate alkylamine into metal□organic frameworks for exceptionally high CO2 uptake. *Journal of Materials Chemistry A*, **2019**, 7, 7867-7874	13	27
22	A Triphasic Modulated Hydrothermal Approach for the Synthesis of Multivariate Metal□Organic Frameworks with Hydrophobic Moieties for Highly Efficient Moisture-Resistant CO2 Capture. *Advanced Sustainable Systems*, **2017**, 1, 1700092	5.9	26
21	Ru-Based Catalysts for H2 Production from Ammonia: Effect of 1D Support. *Topics in Catalysis*, **2019** , 62, 1169-1177	2.3	25

20	Pore Size Reduction in Zirconium Metal–Organic Frameworks for Ethylene/Ethane Separation. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 7118-7126	8.3	24
19	Highly efficient photocatalysts by pyrolyzing a Zn–Ti heterometallic metal–organic framework. *CrystEngComm*, **2016**, 18, 4046-4052	3.3	23
18	A pH-responsive phase transformation of a sulfonated metal–organic framework from amorphous to crystalline for efficient CO2 capture. *CrystEngComm*, **2016**, 18, 2803-2807	3.3	21
17	Structural-failure resistance of metal-organic frameworks toward multiple-cycle CO sorption. *Chemical Communications*, **2017**, 53, 8653-8656	5.8	21
16	Fe/Fe C/N-Doped Carbon Materials from Metal-Organic Framework Composites as Highly Efficient Oxygen Reduction Reaction Electrocatalysts. *ChemPlusChem*, **2016**, 81, 718-723	2.8	21
15	Modulated Hydrothermal Synthesis of Highly Stable MOF-808(Hf) for Methane Storage. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 17042-17053	8.3	18
14	Probing nanoscale functionalities of metal-organic framework nanocrystals. *Nanoscale*, **2017**, 9, 12163-12169	7.7	17
13	A MOF-templated approach for designing ruthenium–cesium catalysts for hydrogen generation from ammonia. *International Journal of Hydrogen Energy*, **2019**, 44, 30108-30118	6.7	14
12	A 2D metal–organic framework composed of a bi-functional ligand with ultra-micropores for post-combustion CO2 capture. *RSC Advances*, **2015**, 5, 47384-47389	3.7	9
11	Solution-reprocessable microporous polymeric adsorbents for carbon dioxide capture. *AICHE Journal*, **2018**, 64, 3376-3389	3.6	7
10	A general strategy for designing metal-free catalysts for highly-efficient nitric oxide reduction to ammonia. *Fuel*, **2021**, 122442	7.1	5
9	Construction of Confined Bifunctional 2D Material for Efficient Sulfur Resource Recovery and Hg Adsorption in Desulfurization.. *Environmental Science & Technology*, **2022**,	10.3	4
8	Adsorption-Based CO2 Capture: CO2 Capture in Metal–Organic Framework Adsorbents: An Engineering Perspective (Adv. Sustainable Syst. 1/2019). *Advanced Sustainable Systems*, **2019**, 3, 1970002	5.9	3
7	POLYMERIZATION WITHIN CONFINED NANOCHANNELS OF POROUS METAL-ORGANIC FRAMEWORKS. *Journal of Molecular and Engineering Materials*, **2013**, 01, 1330001	1.3	2
6	XAS investigation of silica aerogel supported cobalt rhenium catalysts for ammonia decomposition. *Physical Chemistry Chemical Physics*, **2020**, 22, 18932-18949	3.6	2
5	Metal-Organic Frameworks Based Heterogeneous Catalysts for Biomass Conversion. *Series on Chemistry, Energy and the Environment*, **2018**, 495-518	0.2	1
4	Frontispiece: Combination of Optimization and Metalated-Ligand Exchange: An Effective Approach to Functionalize UiO-66(Zr) MOFs for CO2 Separation. *Chemistry - A European Journal*, **2015**, 21, n/a-n/a	4.8	1
3	Low-grade energy harvesting from dispersed exhaust steam for power generation using a soft biomimetic actuator. *Nano Energy*, **2021**, 91, 106677	17.1	1

2	Amphiphilic engineering of reduced graphene oxides using a carbon nitride coating for superior removal of organic pollutants from wastewater. *Carbon*, **2021**, 184, 479-491	10.4	0
1	Smart Nanocarriers: A New Paradigm for Tumor Targeting Drug Delivery Systems. *Drug Delivery Letters*, **2011**, 1, 67-84	0.8	