Hao Wang

List of Publications by Year
in descending order

100 papers	6,022 citations	94269 37 h-index	74018 75 g-index
102 all docs	102 docs citations	102 times ranked	6315 citing authors

#	Article	IF	Citations
1	Sensing and capture of toxic and hazardous gases and vapors by metalâ€“organic frameworks. Chemical Society Reviews, 2018, 47, 4729-4756.	18.7	530
2	Platinum single-atom catalyst coupled with transition metal/metal oxide heterostructure for accelerating alkaline hydrogen evolution reaction. Nature Communications, 2021, 12, 3783.	5.8	355
3	Effective Detection of Mycotoxins by a Highly Luminescent Metalâ€“Organic Framework. Journal of the American Chemical Society, 2015, 137, 16209-16215.	6.6	350
4	Highly Efficient Luminescent Metalâ€“Organic Framework for the Simultaneous Detection and Removal of Heavy Metals from Water. ACS Applied Materials & Interfaces, 2016, 8, 30294-30303.	4.0	320
5	Topologically guided tuning of Zr-MOF pore structures for highly selective separation of C6 alkane isomers. Nature Communications, 2018, 9, 1745.	5.8	251
6	Tailorâ€Made Microporous Metalâ€“Organic Frameworks for the Full Separation of Propane from Propylene Through Selective Size Exclusion. Advanced Materials, 2018, 30, e1805088.	11.1	241
7	The first example of commensurate adsorption of atomic gas in a MOF and effective separation of xenon from other noble gases. Chemical Science, 2014, 5, 620-624.	3.7	203
8	Designer Metalâ€“Organic Frameworks for Sizeâ€Exclusionâ€Based Hydrocarbon Separations: Progress and Challenges. Advanced Materials, 2020, 32, e2002603.	11.1	182
9	Climbing the Volcano of Electrocatalytic Activity while Avoiding Catalyst Corrosion: Ni₃P, a Hydrogen Evolution Electrocatalyst Stable in Both Acid and Alkali. ACS Catalysis, 2018, 8, 4408-4419.	5.5	178
10	Capture of organic iodides from nuclear waste by metal-organic framework-based molecular traps. Nature Communications, 2017, 8, 485.	5.8	171
11	Microporous Metalâ€“Organic Frameworks for Adsorptive Separation of C5â€“C6 Alkane Isomers. Accounts of Chemical Research, 2019, 52, 1968-1978.	7.6	160
12	Coordination Geometry and Oxidation State Requirements of Corner-Sharing MnO₆ Octahedra for Water Oxidation Catalysis: An Investigation of Manganite (Î³-MnOOH). ACS Catalysis, 2016, 6, 2089-2099.	5.5	156
13	Water Reaction Mechanism in Metal Organic Frameworks with Coordinatively Unsaturated Metal Ions: MOF-74. Chemistry of Materials, 2014, 26, 6886-6895.	3.2	149
14	Achieving exceptionally high luminescence quantum efficiency by immobilizing an AIE molecular chromophore into a metalâ€“organic framework. Chemical Communications, 2015, 51, 3045-3048.	2.2	148
15	A Boric Acid-Functionalized Lanthanide Metalâ€“Organic Framework as a Fluorescence â€œTurn-onâ€•Probe for Selective Monitoring of Hg²⁺ and CH₃Hg⁺. Analytical Chemistry, 2020, 92, 3366-3372.	3.2	135
16	Effective sensing of RDX via instant and selective detection of ketone vapors. Chemical Science, 2014, 5, 4873-4877.	3.7	112
17	One-of-a-kind: a microporous metalâ€“organic framework capable of adsorptive separation of linear, mono- and di-branched alkane isomers <i>via</i> temperature- and adsorbate-dependent molecular sieving. Energy and Environmental Science, 2018, 11, 1226-1231.	15.6	103
18	Interaction of Acid Gases SO₂ and NO₂ with Coordinatively Unsaturated Metal Organic Frameworks: M-MOF-74 (M = Zn, Mg, Ni, Co). Chemistry of Materials, 2017, 29, 4227-4235.	3.2	99

#	Article	IF	Citations
19	Vapor phase detection of nitroaromatic and nitroaliphatic explosives by fluorescence active metalâ€“organic frameworks. CrystEngComm, 2013, 15, 9745.	1.3	95
20	Efficient kinetic separation of propene and propane using two microporous metal organic frameworks. Chemical Communications, 2017, 53, 9332-9335.	2.2	91
21	Light Hydrocarbon Adsorption Mechanisms in Two Calcium-Based Microporous Metal Organic Frameworks. Chemistry of Materials, 2016, 28, 1636-1646.	3.2	87
22	Defect Termination in the UiO-66 Family of Metalâ€“Organic Frameworks: The Role of Water and Modulator. Journal of the American Chemical Society, 2021, 143, 6328-6332.	6.6	74
23	Pore Distortion in a Metalâ€“Organic Framework for Regulated Separation of Propane and Propylene. Journal of the American Chemical Society, 2021, 143, 19300-19305.	6.6	72
24	Chromophore-immobilized luminescent metalâ€“organic frameworks as potential lighting phosphors and chemical sensors. Chemical Communications, 2016, 52, 10249-10252.	2.2	70
25	Innovative application of metal-organic frameworks for encapsulation and controlled release of allyl isothiocyanate. Food Chemistry, 2017, 221, 926-935.	4.2	64
26	Crystallizing Atomic Xenon in a Flexible MOF to Probe and Understand Its Temperature-Dependent Breathing Behavior and Unusual Gas Adsorption Phenomenon. Journal of the American Chemical Society, 2020, 142, 20088-20097.	6.6	62
27	Trapping gases in metal-organic frameworks with a selective surface molecular barrier layer. Nature Communications, 2016, 7, 13871.	5.8	60
28	Splitting Mono- and Dibranched Alkane Isomers by a Robust Aluminum-Based Metalâ€“Organic Framework Material with Optimal Pore Dimensions. Journal of the American Chemical Society, 2020, 142, 6925-6929.	6.6	60
29	Metalâ€“Organic Frameworks and Metalâ€“Organic Gels for Oxygen Electrocatalysis: Structural and Compositional Considerations. Advanced Materials, 2021, 33, e2008023.	11.1	60
30	Separation of alkane and alkene mixtures by metalâ€“organic frameworks. Journal of Materials Chemistry A, 2021, 9, 20874-20896.	5.2	54
31	Effects of an electrospun fluorinated poly(ether ether ketone) separator on the enhanced safety and electrochemical properties of lithium ion batteries. Electrochimica Acta, 2018, 290, 150-164.	2.6	48
32	Iron-Based Metalâ€“Organic Framework with Hydrophobic Quadrilateral Channels for Highly Selective Separation of Hexane Isomers. ACS Applied Materials & Interfaces, 2018, 10, 6031-6038.	4.0	43
33	Highâ€Efficiency Separation of<i>n</i>â€Hexane by a Dynamic Metalâ€Organic Framework with Reduced Energy Consumption. Angewandte Chemie - International Edition, 2021, 60, 10593-10597.	7.2	42
34	In situ spectroscopy studies of CO₂ adsorption in a dually functionalized microporous metalâ€“organic framework. Journal of Materials Chemistry A, 2015, 3, 4945-4953.	5.2	41
35	High stability of ultra-small and isolated gold nanoparticles in metalâ€“organic framework materials. Journal of Materials Chemistry A, 2019, 7, 17536-17546.	5.2	41
36	Influence of Metalâ€“Organic Framework Porosity on Hydrogen Generation from Nanoconfined Ammonia Borane. Journal of Physical Chemistry C, 2017, 121, 27369-27378.	1.5	40

#	Article	IF	Citations
37	Fluorescent In based MOFs showing â€œturn onâ€•luminescence towards thiols and acting as a ratiometric fluorescence thermometer. Journal of Materials Chemistry C, 2019, 7, 3049-3055.	2.7	39
38	Functionalized metal organic frameworks for effective capture of radioactive organic iodides. Faraday Discussions, 2017, 201, 47-61.	1.6	38
39	The moisture-triggered controlled release of a natural food preservative from a microporous metalâ€“organic framework. Chemical Communications, 2016, 52, 2129-2132.	2.2	37
40	Evidence of Amineâ€“CO₂ Interactions in Two Pillaredâ€•Layer MOFs Probed by Xâ€•ray Crystallography. Chemistry - A European Journal, 2015, 21, 7238-7244.	1.7	36
41	A Microporous Metalâ€“Organic Framework Incorporating Both Primary and Secondary Building Units for Splitting Alkane Isomers. Journal of the American Chemical Society, 2022, 144, 3766-3770.	6.6	36
42	Effect of temperature on hydrogen and carbon dioxide adsorption hysteresis in an ultramicroporous MOF. Microporous and Mesoporous Materials, 2016, 219, 186-189.	2.2	35
43	Zero-dimensional ionic antimony halide inorganicâ€“organic hybrid with strong greenish yellow emission. Journal of Materials Chemistry C, 2020, 8, 7300-7303.	2.7	35
44	General strategies for effective capture and separation of noble gases by metalâ€“organic frameworks. Dalton Transactions, 2018, 47, 4027-4031.	1.6	33
45	A Water-Resistant Hydrogen-Bonded Organic Framework for Ethane/Ethylene Separation in Humid Environments. , 2022, 4, 1227-1232.		33
46	Calciumâ€•Based Metalâ€“Organic Frameworks and Their Potential Applications. Small, 2021, 17, e2005165.	5.2	30
47	Surface and Structural Investigation of a MnO_{<i>x</i>} Birnessiteâ€•Type Water Oxidation Catalyst Formed under Photocatalytic Conditions. Chemistry - A European Journal, 2015, 21, 14218-14228.	1.7	29
48	Direct Structural Identification of Gas Induced Gateâ€•Opening Coupled with Commensurate Adsorption in a Microporous Metalâ€“Organic Framework. Chemistry - A European Journal, 2016, 22, 11816-11825.	1.7	27
49	Ligand Functionalization in Metal-Organic Frameworks for Enhanced Carbon Dioxide Adsorption. Chemical Record, 2016, 16, 1298-1310.	2.9	26
50	Role of Hydrogen Bonding on Transport of Coadsorbed Gases in Metalâ€“Organic Frameworks Materials. Journal of the American Chemical Society, 2018, 140, 856-859.	6.6	26
51	Supramolecular vesicle: triggered by formation of pseudorotaxane between cucurbit[6]uril and surfactant. Chemical Communications, 2011, 47, 11315.	2.2	25
52	New hybrid lead iodides: From one-dimensional chain to two-dimensional layered perovskite structure. Journal of Solid State Chemistry, 2015, 230, 143-148.	1.4	25
53	Selective Carbon Dioxide Adsorption by Two Robust Microporous Coordination Polymers. Inorganic Chemistry, 2016, 55, 12923-12929.	1.9	25
54	Direct structural evidence of commensurate-to-incommensurate transition of hydrocarbon adsorption in a microporous metal organic framework. Chemical Science, 2016, 7, 759-765.	3.7	24

#	Article	IF	Citations
55	Synthesis, Structure, and Selective Gas Adsorption of a Single-Crystalline Zirconium Based Microporous Metalâ€“Organic Framework. Crystal Growth and Design, 2017, 17, 2034-2040.	1.4	24
56	Adsorption of Fluorocarbons and Chlorocarbons by Highly Porous and Robust Fluorinated Zirconium Metalâ€“Organic Frameworks. Inorganic Chemistry, 2020, 59, 4167-4171.	1.9	23
57	Tuning the Channel Size and Structure Flexibility of Metalâ€“Organic Frameworks for the Selective Adsorption of Noble Gases. Inorganic Chemistry, 2019, 58, 15025-15028.	1.9	22
58	Flexible Zn-MOF with Rare Underlying <i>scu</i> Topology for Effective Separation of C6 Alkane Isomers. ACS Applied Materials & Interfaces, 2021, 13, 51997-52005.	4.0	22
59	Strongly emissive white-light-emitting silver iodide based inorganicâ€“organic hybrid structures with comparable quantum efficiency to commercial phosphors. Chemical Communications, 2020, 56, 1481-1484.	2.2	20
60	Upgrading Octane Number of Naphtha by a Robust and Easily Attainable Metalâ€Organic Framework through Selective Molecular Sieving of Alkane Isomers. Chemistry - A European Journal, 2021, 27, 11795-11798.	1.7	20
61	Cucurbiturilâ€Encapsulating Metalâ€“Organic Framework via Mechanochemistry: Adsorbents with Enhanced Performance. Angewandte Chemie - International Edition, 2021, 60, 15365-15370.	7.2	19
62	A robust and multifunctional calcium coordination polymer as a selective fluorescent sensor for acetone and iron (+3) and as a tunable proton conductor. Journal of Materials Chemistry C, 2020, 8, 16784-16789.	2.7	18
63	An antimony based organicâ€“inorganic hybrid coating material with high quantum efficiency and thermal quenching effect. Chemical Communications, 2021, 57, 1754-1757.	2.2	18
64	Customized H-bonding acceptor and aperture chemistry within a metal-organic framework for efficient C3H6/C3H8 separation. Chemical Engineering Journal, 2021, 426, 131302.	6.6	18
65	Magnesium based coordination polymers: Syntheses, structures, properties and applications. Coordination Chemistry Reviews, 2019, 399, 213025.	9.5	17
66	Probing the Node Chemistry of a Metalâ€“Organic Framework to Achieve Ultrahigh Hydrophobicity and Highly Efficient CO₂/CH₄ Separation. ACS Sustainable Chemistry and Engineering, 2021, 9, 15897-15907.	3.2	17
67	Reactivity of Atomic Layer Deposition Precursors with OH/H2O-Containing Metal Organic Framework Materials. Chemistry of Materials, 2019, 31, 2286-2295.	3.2	16
68	Synthesis, structure and enhanced photoluminescence properties of two robust, water stable calcium and magnesium coordination networks. Dalton Transactions, 2015, 44, 20459-20463.	1.6	14
69	Selective, Stable Production of Ethylene Using a Pulsed Cu-Based Electrode. ACS Applied Materials & Interfaces, 2022, 14, 19388-19396.	4.0	14
70	Blue-Light-Excitable, Quantum Yield Enhanced, Yellow-Emitting, Zirconium-Based Metalâ€“Organic Framework Phosphors Formed by Immobilizing Organic Chromophores. Crystal Growth and Design, 2019, 19, 6850-6854.	1.4	13
71	Customized Synthesis: Solvent- and Acid-Assisted Topology Evolution in Zirconium-Tetracarboxylate Frameworks. Inorganic Chemistry, 2022, 61, 7980-7988.	1.9	13
72	A generalized adsorption-phase transition model to describe adsorption rates in flexible metal organic framework RPM3-Zn. Dalton Transactions, 2016, 45, 4242-4257.	1.6	12

#	Article	IF	Citations
73	A CuI modified Mg-coordination polymer as a ratiometric fluorescent probe for toxic thiol molecules. Journal of Materials Chemistry C, 2018, 6, 13367-13374.	2.7	12
74	Large scale synthesis and propylene purification by a high-performance MOF sorbent Y-abtc. Separation and Purification Technology, 2022, 282, 120010.	3.9	12
75	Separation of naphtha on a series of ultramicroporous MOFs: A comparative study with zeolites. Separation and Purification Technology, 2022, 294, 121219.	3.9	12
76	Polypyrrole assisted synthesis of nanosized iridium oxide for oxygen evolution reaction in acidic medium. International Journal of Hydrogen Energy, 2020, 45, 33491-33499.	3.8	11
77	Separation of ethane and ethylene by a robust ethane-selective calcium-based metalâ€“organic framework. New Journal of Chemistry, 2020, 44, 11933-11936.	1.4	11
78	Controlling Chemical Reactions in Confined Environments: Water Dissociation in MOF-74. Applied Sciences (Switzerland), 2018, 8, 270.	1.3	10
79	Highâ€Efficiency Separation of<i>n</i>â€Hexane by a Dynamic Metalâ€Organic Framework with Reduced Energy Consumption. Angewandte Chemie, 2021, 133, 10687-10691.	1.6	10
80	Balancing uptake and selectivity in a copper-based metalâ€“organic framework for xenon and krypton separation. Separation and Purification Technology, 2022, 291, 120932.	3.9	9
81	Separation of Light Hydrocarbons through Selective Molecular Exclusion by a Microporous Metalâ€“Organic Framework. ChemPlusChem, 2016, 81, 872-876.	1.3	8
82	Thermally Activated Adsorption in Metalâ€“Organic Frameworks with a Temperatureâ€Tunable Diffusion Barrier Layer. Angewandte Chemie - International Edition, 2020, 59, 18468-18472.	7.2	8
83	Enhanced thermal stability and wettability of an electrospun fluorinated poly(aryl ether ketone) fibrous separator for lithium-ion batteries. New Journal of Chemistry, 2020, 44, 3838-3846.	1.4	8
84	Adsorption and Release of 1-Methylcyclopropene by Metalâ€“Organic Frameworks for Fruit Preservation. , 2022, 4, 1053-1057.		8
85	Oxygen-selective adsorption in RPM3-Zn metal organic framework. Chemical Engineering Science, 2017, 165, 122-130.	1.9	7
86	[Ba₁₃Sb₃₆Cl₃₄O₅₄]^{8âˆ’}: high-nuclearity cluster for the assembly of nanocluster-based compounds. Chemical Communications, 2019, 55, 7442-7445.	2.2	7
87	Crystalline Al₂O₃ modified porous poly(aryl ether ketone) (PAEK) composite separators for high performance lithium-ion batteries <i>via</i> an electrospinning technique. CrystEngComm, 2020, 22, 1577-1585.	1.3	7
88	A dual linker metal-organic framework demonstrating ligand-based emission for the selective detection of carbon tetrachloride. Inorganica Chimica Acta, 2018, 470, 312-317.	1.2	7
89	Efficient separation of xylene isomers by using a robust calcium-based metalâ€“organic framework through a synergetic thermodynamically and kinetically controlled mechanism. Journal of Materials Chemistry A, 2021, 9, 26202-26207.	5.2	7
90	Enhanced fluorescence by increasing dimensionality: a novel three-dimensional luminescent metalâ€“organic framework with rigidified ligands. CrystEngComm, 2020, 22, 5946-5948.	1.3	6

#	ARTICLE	IF	CITATIONS
91	Tuning the Adsorption Properties of Metalâ€“Organic Frameworks through Coadsorbed Ammonia. ACS Applied Materials & Interfaces, 2021, 13, 43661-43667.	4.0	6
92	Metalâ€Organic Frameworks and their Applications in Hydrogen and Oxygen Evolution Reactions. , 0, , .		5
93	A Facile Route to Efficient Water Oxidation Electrodes via Electrochemical Activation of Iron in Nickel Sulfate Solution. ACS Sustainable Chemistry and Engineering, 2020, 8, 15550-15559.	3.2	5
94	Metalâ€“organic frameworks with ftw-type connectivity: design, pore structure engineering, and potential applications. CrystEngComm, 2022, 24, 2189-2200.	1.3	5
95	Highly selective C2H2 and CO2 capture and photoluminescence properties of two Tb(III)-based MOFs. Journal of Solid State Chemistry, 2020, 285, 121257.	1.4	4
96	Enhanced acetone sensing from Zn(II)-MOFs comprising tetranuclear metal clusters built with EDC and BDC ligands. Inorganic Chemistry Communication, 2021, 123, 108339.	1.8	4
97	A microporous Zr₆@Zr-MOF for the separation of Xe and Kr. Dalton Transactions, 2022, 51, 10856-10859.	1.6	3
98	Cucurbiturilâ€verkapselnde metallorganische GerÃ¼stverbindung Ã¼ber Mechanochemie: Adsorbentien mit verbesserter Leistung. Angewandte Chemie, 2021, 133, 15493-15498.	1.6	2
99	Ultrafast, scalable and green synthesis of amorphous iron-nickel based durable water oxidation electrode with very high intrinsic activity via potential pulses. Chemical Engineering Journal, 2022, 428, 130688.	6.6	2
100	Thermally Activated Adsorption in Metalâ€“Organic Frameworks with a Temperatureâ€Tunable Diffusion Barrier Layer. Angewandte Chemie, 2020, 132, 18626-18630.	1.6	0