Jingwei Hou

List of Publications by Year
in descending order

110 papers	8,587 citations	30070 54 h-index	43889 91 g-index
112 all docs	112 docs citations	112 times ranked	8534 citing authors

#	Article	IF	Citations
1	Janus Membranes: Exploring Duality for Advanced Separation. Angewandte Chemie - International Edition, 2016, 55, 13398-13407.	13.8	407
2	Elevated Performance of Thin Film Nanocomposite Membranes Enabled by Modified Hydrophilic MOFs for Nanofiltration. ACS Applied Materials & Interfaces, 2017, 9, 1975-1986.	8.0	368
3	Surface zwitterionic functionalized graphene oxide for a novel loose nanofiltration membrane. Journal of Materials Chemistry A, 2016, 4, 1980-1990.	10.3	326
4	Status and progress of membrane contactors in post-combustion carbon capture: A state-of-the-art review of new developments. Journal of Membrane Science, 2016, 511, 180-206.	8.2	249
5	The rapid emergence of two-dimensional nanomaterials for high-performance separation membranes. Journal of Materials Chemistry A, 2018, 6, 3773-3792.	10.3	223
6	Dopamine: Just the Right Medicine for Membranes. Advanced Functional Materials, 2018, 28, 1705327.	14.9	222
7	Formation of Ultrathin, Continuous Metalâ€"Organic Framework Membranes on Flexible Polymer Substrates. Angewandte Chemie - International Edition, 2016, 55, 3947-3951.	13.8	207
8	Polymeric antimicrobial membranes enabled by nanomaterials for water treatment. Journal of Membrane Science, 2018, 550, 173-197.	8.2	198
9	Enzymatic degradation of bisphenol-A with immobilized laccase on TiO2 solâ€"gel coated PVDF membrane. Journal of Membrane Science, 2014, 469, 19-30.	8.2	193
10	Janus Membranes: Creating Asymmetry for Energy Efficiency. Advanced Materials, 2018, 30, e1801495.	21.0	193
11	Enhanced CO2/N2 separation by porous reduced graphene oxide/Pebax mixed matrix membranes. Journal of Membrane Science, 2016, 520, 860-868.	8.2	185
12	Improved operational stability of Pebax-based gas separation membranes with ZIF-8: A comparative study of flat sheet and composite hollow fibre membranes. Journal of Membrane Science, 2017, 524, 266-279.	8.2	182
13	Graphene-based antimicrobial polymeric membranes: a review. Journal of Materials Chemistry A, 2017, 5, 6776-6793.	10.3	174
14	Laccase immobilization on titania nanoparticles and titania-functionalized membranes. Journal of Membrane Science, 2014, 452, 229-240.	8.2	173
15	Metalâ€"organic framework gels and monoliths. Chemical Science, 2020, 11, 310-323.	7.4	173
16	MOF-positioned polyamide membranes with a fishnet-like structure for elevated nanofiltration performance. Journal of Materials Chemistry A, 2019, 7, 16313-16322.	10.3	166
17	Surface functionalized UiO-66/Pebax-based ultrathin composite hollow fiber gas separation membranes. Journal of Materials Chemistry A, 2018, 6, 918-931.	10.3	151
18	Rapid water transport through controllable, ultrathin polyamide nanofilms for high-performance nanofiltration. Journal of Materials Chemistry A, 2018, 6, 15701-15709.	10.3	148

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19	Improving the Acidic Stability of Zeolitic Imidazolate Frameworks by Biofunctional Molecules. CheM, 2019, 5, 1597-1608.	11.7	148
20	Surface and interface engineering for organicâ€"inorganic composite membranes. Journal of Materials Chemistry A, 2016, 4, 9716-9729.	10.3	143
21	Liquid-phase sintering of lead halide perovskites and metal-organic framework glasses. Science, 2021, 374, 621-625.	12.6	137
22	Switchable oil/water separation with efficient and robust Janus nanofiber membranes. Carbon, 2017, 115, 477-485.	10.3	131
23	High-flux thin film composite membranes for nanofiltration mediated by a rapid co-deposition of polydopamine/piperazine. Journal of Membrane Science, 2018, 554, 97-108.	8.2	131
24	Direct immobilization of laccase on titania nanoparticles from crude enzyme extracts of P. ostreatus culture for micro-pollutant degradation. Separation and Purification Technology, 2017, 178, 215-223.	7.9	125
25	Nanostructured mesoporous carbon polyethersulfone composite ultrafiltration membrane with significantly low protein adsorption and bacterial adhesion. Carbon, 2017, 111, 689-704.	10.3	122
26	Janus Membranes with Asymmetric Wettability for Fine Bubble Aeration. Advanced Materials Interfaces, 2016, 3, 1500774.	3.7	119
27	Janus hollow fiber membrane with a mussel-inspired coating on the lumen surface for direct contact membrane distillation. Journal of Membrane Science, 2017, 523, 1-7.	8.2	110
28	Rational approach to guest confinement inside MOF cavities for low-temperature catalysis. Nature Communications, 2019, 10, 1340.	12.8	100
29	Graphene oxide-enzyme hybrid nanoflowers for efficient water soluble dye removal. Journal of Hazardous Materials, 2017, 338, 93-101.	12.4	99
30	Biocatalytic degradation of carbamazepine with immobilized laccase-mediator membrane hybrid reactor. Journal of Membrane Science, 2016, 502, 11-20.	8.2	98
31	Metal-organic framework crystal-glass composites. Nature Communications, 2019, 10, 2580.	12.8	97
32	Biocatalytic Janus membranes for CO₂ removal utilizing carbonic anhydrase. Journal of Materials Chemistry A, 2015, 3, 17032-17041.	10.3	92
33	Long-lasting antibacterial behavior of a novel mixed matrix water purification membrane. Journal of Materials Chemistry A, 2015, 3, 18696-18705.	10.3	85
34	Zwitterionic functionalized layered double hydroxides nanosheets for a novel charged mosaic membrane with high salt permeability. Journal of Membrane Science, 2016, 510, 27-37.	8.2	85
35	Surface Ligands Stabilized Lead Halide Perovskite Quantum Dot Photocatalyst for Visible Lightâ€Driven Hydrogen Generation. Advanced Functional Materials, 2019, 29, 1905683.	14.9	85
36	Cross-linked carbon nanotubes-based biocatalytic membranes for micro-pollutants degradation: Performance, stability, and regeneration. Journal of Membrane Science, 2016, 520, 869-880.	8.2	83

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37	Halogenated Metalâ€"Organic Framework Glasses and Liquids. Journal of the American Chemical Society, 2020, 142, 3880-3890.	13.7	83
38	Morphologically Tunable MOF Nanosheets in Mixed Matrix Membranes for CO₂ Separation. Chemistry of Materials, 2020, 32, 4174-4184.	6.7	82
39	Gelled Graphene Oxideâ€"Ionic Liquid Composite Membranes with Enriched Ionic Liquid Surfaces for Improved CO₂ Separation. ACS Applied Materials & Interfaces, 2018, 10, 7389-7400.	8.0	79
40	Preparation of titania based biocatalytic nanoparticles and membranes for CO₂conversion. Journal of Materials Chemistry A, 2015, 3, 3332-3342.	10.3	77
41	Enzyme-embedded metalâ€"organic framework membranes on polymeric substrates for efficient CO₂ capture. Journal of Materials Chemistry A, 2017, 5, 19954-19962.	10.3	74
42	Hybrid membrane with TiO 2 based bio-catalytic nanoparticle suspension system for the degradation of bisphenol-A. Bioresource Technology, 2014, 169, 475-483.	9.6	73
43	Biocatalytic self-propelled submarine-like metal-organic framework microparticles with pH-triggered buoyancy control for directional vertical motion. Materials Today, 2019, 28, 10-16.	14.2	73
44	Intermarriage of Halide Perovskites and Metalâ€Organic Framework Crystals. Angewandte Chemie - International Edition, 2020, 59, 19434-19449.	13.8	73
45	Novel metalâ€"organic framework materials: blends, liquids, glasses and crystalâ€"glass composites. Chemical Communications, 2019, 55, 8705-8715.	4.1	72
46	High-flux nanofiltration membranes tailored by bio-inspired co-deposition of hydrophilic g-C₃N₄ nanosheets for enhanced selectivity towards organics and salts. Environmental Science: Nano, 2019, 6, 2958-2967.	4.3	68
47	Flux melting of metalâ€"organic frameworks. Chemical Science, 2019, 10, 3592-3601.	7.4	67
48	Superassembled Biocatalytic Porous Framework Micromotors with Reversible and Sensitive pHâ€Speed Regulation at Ultralow Physiological H₂O₂ Concentration. Advanced Functional Materials, 2019, 29, 1808900.	14.9	66
49	Linking defects, hierarchical porosity generation and desalination performance in metalâ€"organic frameworks. Chemical Science, 2018, 9, 3508-3516.	7.4	65
50	Synthesis and Properties of a Compositional Series of MIL-53(Al) Metalâ€"Organic Framework Crystal-Glass Composites. Journal of the American Chemical Society, 2019, 141, 15641-15648.	13.7	65
51	Oriented Clay Nanotube Membrane Assembled on Microporous Polymeric Substrates. ACS Applied Materials & Interfaces, 2016, 8, 34914-34923.	8.0	62
52	Composite PVA/PVDF pervaporation membrane for concentrated brine desalination: Salt rejection, membrane fouling and defect control. Desalination, 2017, 422, 49-58.	8.2	62
53	Biomimetic synthesis of coordination network materials: Recent advances in MOFs and MPNs. Applied Materials Today, 2018, 10, 93-105.	4.3	62
54	Shear-aligned graphene oxide laminate/Pebax ultrathin composite hollow fiber membranes using a facile dip-coating approach. Journal of Materials Chemistry A, 2017, 5, 7732-7737.	10.3	61

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55	In-situ growth of metal-organic framework film on a polydopamine-modified flexible substrate for antibacterial and forward osmosis membranes. Separation and Purification Technology, 2020, 236, 116239.	7.9	56
56	Biocatalytic gas-liquid membrane contactors for CO2 hydration with immobilized carbonic anhydrase. Journal of Membrane Science, 2016, 520, 303-313.	8.2	53
57	Superhydrophobic membranes via facile bio-inspired mineralization for vacuum membrane distillation. Journal of Membrane Science, 2017, 540, 98-107.	8.2	53
58	Improving the hydrostability of ZIF-8 membrane by biomolecule towards enhanced nanofiltration performance for dye removal. Journal of Membrane Science, 2021, 618, 118630.	8.2	52
59	Phase boundary engineering of metal-organic-framework-derived carbonaceous nickel selenides for sodium-ion batteries. Nano Research, 2020, 13, 2289-2298.	10.4	51
60	A novel long-lasting antifouling membrane modified with bifunctional capsaicin-mimic moieties via in situ polymerization for efficient water purification. Journal of Materials Chemistry A, 2016, 4, 10352-10362.	10.3	48
61	Ultraselective Pebax Membranes Enabled by Templated Microphase Separation. ACS Applied Materials & Interfaces, 2018, 10, 20006-20013.	8.0	48
62	Preparation of Iridescent 2D Photonic Crystals by Using a Mussel-Inspired Spatial Patterning of ZIF-8 with Potential Applications in Optical Switch and Chemical Sensor. ACS Applied Materials & Interfaces, 2017, 9, 38076-38080.	8.0	47
63	Designing Angstromâ€Scale Asymmetric MOFâ€onâ€MOF Cavities for High Monovalent Ion Selectivity. Advanced Materials, 2022, 34, e2107878.	21.0	47
64	Graphene Oxide Nanosheets Based Novel Facilitated Transport Membranes for Efficient CO₂ Capture. Industrial & Engineering Chemistry Research, 2016, 55, 5403-5414.	3.7	46
65	Impact of wastewater derived dissolved interfering compounds on growth, enzymatic activity and trace organic contaminant removal of white rot fungi â€“ A critical review. Journal of Environmental Management, 2017, 201, 89-109.	7.8	46
66	Thin film nanocomposite membrane incorporated with 2D-MOF nanosheets for highly efficient reverse osmosis desalination. Journal of Membrane Science, 2022, 653, 120520.	8.2	44
67	Interfacial engineering of a polymerâ€“MOF composite by in situ vitrification. Chemical Communications, 2020, 56, 3609-3612.	4.1	43
68	Mechanochemically Synthesised Flexible Electrodes Based on Bimetallic Metalâ€“Organic Framework Glasses for the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	41
69	Templated growth of vertically aligned 2D metalâ€“organic framework nanosheets. Journal of Materials Chemistry A, 2019, 7, 5811-5818.	10.3	40
70	Pinning Down the Water Transport Mechanism in Graphene Oxide Pervaporation Desalination Membranes. Industrial & Engineering Chemistry Research, 2019, 58, 4231-4239.	3.7	35
71	Nanofilms directly formed on macro-porous substrates for molecular and ionic sieving. Journal of Materials Chemistry A, 2018, 6, 2908-2913.	10.3	33
72	Formation of Ultrathin, Continuous Metalâ€“Organic Framework Membranes on Flexible Polymer Substrates. Angewandte Chemie, 2016, 128, 4015-4019.	2.0	32

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73	Iron Phthalocyanine/Two-Dimensional Metalâ€“Organic Framework Composite Nanosheets for Enhanced Alkaline Hydrogen Evolution. Inorganic Chemistry, 2021, 60, 9987-9995.	4.0	32
74	Strategically Designing a Pumpless Microfluidic Device on an â€œInertâ€•Polypropylene Substrate with Potential Application in Biosensing and Diagnostics. Langmuir, 2017, 33, 5565-5576.	3.5	31
75	Removal of trace organic contaminants by enzymatic membrane bioreactors: Role of membrane retention and biodegradation. Journal of Membrane Science, 2020, 611, 118345.	8.2	30
76	Unraveling the Interfacial Structureâ€“Performance Correlation of Flexible Metalâ€“Organic Framework Membranes on Polymeric Substrates. ACS Applied Materials & Interfaces, 2019, 11, 5570-5577.	8.0	29
77	Functional Group Mapping by Electron Beam Vibrational Spectroscopy from Nanoscale Volumes. Nano Letters, 2020, 20, 1272-1279.	9.1	28
78	Iono-Elastomer-Based Wearable Strain Sensor with Real-Time Thermomechanical Dual Response. ACS Applied Materials & Interfaces, 2018, 10, 32435-32443.	8.0	27
79	Machine Learning Guided Dopant Selection for Metal Oxideâ€Based Photoelectrochemical Water Splitting: The Case Study of Fe₂O₃and CuO. Advanced Materials, 2022, 34, e2106776.	21.0	26
80	Janus Reactors with Highly Efficient Enzymatic CO₂ Nanocascade at Airâ€“Liquid Interface. ACS Applied Materials & Interfaces, 2017, 9, 42806-42815.	8.0	25
81	Suppressing Salt Transport through Composite Pervaporation Membranes for Brine Desalination. Applied Sciences (Switzerland), 2017, 7, 856.	2.5	24
82	Singleâ€Enzyme Biofuel Cells. Angewandte Chemie - International Edition, 2017, 56, 9762-9766.	13.8	23
83	Flexible solar-rechargeable energy system. Energy Storage Materials, 2020, 32, 356-376.	18.0	23
84	Biodesalinationâ€”On harnessing the potential of natureâ€™s desalination processes. Bioinspiration and Biomimetics, 2016, 11, 041001.	2.9	21
85	Heteroepitaxial growth of vertically orientated zeolitic imidazolate frameworkâ€Ł (Co/Znâ€ZIFâ€Ł) molecular sieve membranes. AICHE Journal, 2020, 66, e16935.	3.6	21
86	Oriented Zeolitic imidazolate framework membranes within polymeric matrices for effective N2/CO2 separation. Journal of Membrane Science, 2019, 572, 82-91.	8.2	20
87	Fouling mitigation in submerged VMD for the treatment of brackish groundwater concentrates with transverse vibration and crystallizer. Desalination, 2018, 426, 32-41.	8.2	19
88	Experimental investigation of low temperature distillation coupled with spray evaporation. Desalination, 2010, 258, 5-11.	8.2	18
89	Gold/silver decorated magnetic nanostructures as theranostic agents: Synthesis, characterization and in-vitro study. Journal of Molecular Liquids, 2017, 247, 238-245.	4.9	18
90	Effect of Inorganic Salt Blending on the CO₂ Separation Performance and Morphology of Pebax1657/Ionic Liquid Gel Membranes. Industrial & Engineering Chemistry Research, 2019, 58, 3304-3313.	3.7	18

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91	Open-source industrial-scale module simulation: Paving the way towards the right configuration choice for membrane distillation. Desalination, 2019, 464, 48-62.	8.2	18
92	Aquatic environment remediation by atomic layer deposition-based multi-functional materials: A review. Journal of Hazardous Materials, 2021, 402, 123513.	12.4	15
93	Intermarriage of Halide Perovskites and Metalâ€Organic Framework Crystals. Angewandte Chemie, 2020, 132, 19602-19617.	2.0	14
94	A facile, bio-inspired synthetic route toward flower-like copper phosphate crystals with high specific surface area. Materials Letters, 2015, 161, 601-604.	2.6	13
95	Janusâ€Membranen: Erforschung ihrer DualitÃt fÃ¼r hochentwickelte Stofftrennungen. Angewandte Chemie, 2016, 128, 13596-13605.	2.0	13
96	Binder-free mechanochemical metalâ€“organic framework nanocrystal coatings. Nanoscale, 2022, 14, 2221-2229.	5.6	11
97	Crosslinked microporous polyarylate membranes with high Kr/Xe separation performance and high stability under irradiation. Journal of Membrane Science, 2020, 611, 118280.	8.2	9
98	Mechanically stable structured porous boron nitride with high volumetric adsorption capacity. Journal of Materials Chemistry A, 2021, 9, 13366-13373.	10.3	9
99	Janus Membrane: Janus Membranes: Creating Asymmetry for Energy Efficiency (Adv. Mater. 43/2018). Advanced Materials, 2018, 30, 1870328.	21.0	7
100	Mechanochemically Synthesised Flexible Electrodes based on Bimetallic Metalâ€organic Framework Glasses for the Oxygen Evolution Reaction. Angewandte Chemie, 0, , .	2.0	7
101	Membranes: Dopamine: Just the Right Medicine for Membranes (Adv. Funct. Mater. 8/2018). Advanced Functional Materials, 2018, 28, 1870052.	14.9	6
102	Transport tuning strategies in MOF film synthesis â€“ a perspective. Journal of Materials Chemistry A, 2022, 10, 14641-14654.	10.3	6
103	Singleâ€Enzyme Biofuel Cells. Angewandte Chemie, 2017, 129, 9894-9898.	2.0	4
104	Fluorescence Enhancement through Confined Oligomerization in Nanochannels: An Anthryl Oligomer in a Metal-Organic Framework. , 2021, 3, 1599-1604.		4
105	Carbonic anhydrase membranes for carbon capture and storage. , 2022, 2, 100031.		4
106	Electron Ptychography Using Fast Binary 4D STEM Data. Microscopy and Microanalysis, 2019, 25, 1662-1663.	0.4	3
107	Editorial: Superwetting Interfaces for Oil/Water Separation. Frontiers in Chemistry, 2021, 9, 667106.	3.6	2
108	Dynamic single-site polysulfide immobilization in long-range disorder Cu-MOFs. Chemical Communications, 2020, 56, 10074-10077.	4.1	1

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109	Sintering of metal-organic frameworks. Cell Reports Physical Science, 2022, 3, 100932.	5.6	1
110	Local Coordination in Metal-Organic Frameworks Probed in the Vibrational and Optical Regime by EELS. Microscopy and Microanalysis, 2019, 25, 606-607.	0.4	0