Nai-Xin Wang

List of Publications by Citations

82 papers	2,607 citations	29 h-index	49 g-index
84 ext. papers	3,308 ext. citations	8.9 avg, IF	5.42 L-index

#	Paper	IF	Citations
82	Coordination-driven in situ self-assembly strategy for the preparation of metal-organic framework hybrid membranes. *Angewandte Chemie - International Edition*, **2014**, 53, 9775-9	16.4	284
81	Self-assembly of graphene oxide and polyelectrolyte complex nanohybrid membranes for nanofiltration and pervaporation. *Chemical Engineering Journal*, **2012**, 213, 318-329	14.7	208
80	Layer-by-layer self-assembly of polycation/GO nanofiltration membrane with enhanced stability and fouling resistance. *Separation and Purification Technology*, **2016**, 160, 123-131	8.3	132
79	Graphene oxide membranes with stable porous structure for ultrafast water transport. *Nature Nanotechnology*, **2021**, 16, 337-343	28.7	95
78	Poly(vinyl alcohol)–graphene oxide nanohybrid "pore-filling" membrane for pervaporation of toluene/n-heptane mixtures. *Journal of Membrane Science*, **2014**, 455, 113-120	9.6	82
77	Vacuum-assisted assembly of ZIF-8@GO composite membranes on ceramic tube with enhanced organic solvent nanofiltration performance. *Journal of Membrane Science*, **2018**, 545, 158-166	9.6	80
76	Ceramic tubular MOF hybrid membrane fabricated through in situ layer-by-layer self-assembly for nanofiltration. *AICHE Journal*, **2016**, 62, 538-546	3.6	80
75	Enhanced flux of polydimethylsiloxane membrane for ethanol permselective pervaporation via incorporation of MIL-53 particles. *Journal of Membrane Science*, **2015**, 492, 322-330	9.6	77
74	Oriented Nano-Microstructure-Assisted Controllable Fabrication of Metal-Organic Framework Membranes on Nickel Foam. *Advanced Materials*, **2016**, 28, 2374-81	24	77
73	Nanodisperse ZIF-8/PDMS hybrid membranes for biobutanol permselective pervaporation. *Journal of Materials Chemistry A*, **2014**, 2, 20947-20957	13	67
72	Phosphonium Modification Leads to Ultrapermeable Antibacterial Polyamide Composite Membranes with Unreduced Thickness. *Advanced Materials*, **2020**, 32, e2001383	24	65
71	One-step self-assembly fabrication of amphiphilic hyperbranched polymer composite membrane from aqueous emulsion for dye desalination. *Journal of Membrane Science*, **2014**, 452, 143-151	9.6	65
70	Self-assembly of inner skin hollow fiber polyelectrolyte multilayer membranes by a dynamic negative pressure layer-by-layer technique. *Journal of Membrane Science*, **2008**, 325, 109-116	9.6	63
69	High-flux zwitterionic nanofiltration membrane constructed by in-situ introduction method for monovalent salt/antibiotics separation. *Journal of Membrane Science*, **2020**, 593, 117441	9.6	63
68	Covalent crosslinked assembly of tubular ceramic-based multilayer nanofiltration membranes for dye desalination. *AICHE Journal*, **2013**, 59, 3834-3842	3.6	61
67	Metal–organic framework/poly(vinyl alcohol) nanohybrid membrane for the pervaporation of toluene/ n -heptane mixtures. *Journal of Membrane Science*, **2015**, 489, 144-152	9.6	51
66	MCM-41@ZIF-8/PDMS hybrid membranes with micro- and nanoscaled hierarchical structure for alcohol permselective pervaporation. *Separation and Purification Technology*, **2015**, 153, 146-155	8.3	51

65	Tubular thermal crosslinked-PEBA/ceramic membrane for aromatic/aliphatic pervaporation. *Journal of Membrane Science*, **2015**, 486, 1-9	9.6	47
64	Nanoconfined Zeolitic Imidazolate Framework Membranes with Composite Layers of Nearly Zero Thickness. *ACS Applied Materials & Interfaces*, **2016**, 8, 21979-83	9.5	46
63	Hybrid membranes of metal-organic molecule nanocages for aromatic/aliphatic hydrocarbon separation by pervaporation. *Chemical Communications*, **2014**, 50, 13921-3	5.8	46
62	Membrane materials in the pervaporation separation of aromatic/aliphatic hydrocarbon mixtures A review. *Chinese Journal of Chemical Engineering*, **2018**, 26, 1-16	3.2	45
61	Tuning properties of silicalite-1 for enhanced ethanol/water pervaporation separation in its PDMS hybrid membrane. *Microporous and Mesoporous Materials*, **2015**, 201, 35-42	5.3	43
60	The salt-, pH- and oxidant-responsive pervaporation behaviors of weak polyelectrolyte multilayer membranes. *Journal of Membrane Science*, **2010**, 354, 14-22	9.6	43
59	Coordination-Driven In Situ Self-Assembly Strategy for the Preparation of Metal Organic Framework Hybrid Membranes. *Angewandte Chemie*, **2014**, 126, 9933-9937	3.6	40
58	Pervaporation dehydration of acetic acid using NH2-UiO-66/PEI mixed matrix membranes. *Separation and Purification Technology*, **2017**, 186, 20-27	8.3	39
57	Tuning inter-layer spacing of graphene oxide laminates with solvent green to enhance its nanofiltration performance. *Journal of Membrane Science*, **2017**, 527, 43-50	9.6	37
56	Functionalized metal-organic polyhedra hybrid membranes for aromatic hydrocarbons recovery. *AICHE Journal*, **2016**, 62, 3706-3716	3.6	33
55	In situ ultraviolet-light-induced TiO2 nanohybrid superhydrophilic membrane for pervaporation dehydration. *Separation and Purification Technology*, **2014**, 122, 32-40	8.3	32
54	Layer-by-layer assembled nanohybrid multilayer membranes for pervaporation dehydration of acetone water mixtures. *Journal of Membrane Science*, **2012**, 415-416, 745-757	9.6	32
53	Preparation of acid-resistant PEI/SA composite membranes for the pervaporation dehydration of ethanol at low pH. *Separation and Purification Technology*, **2018**, 192, 205-212	8.3	29
52	Preparation of pilot-scale inner skin hollow fiber pervaporation membrane module: Effects of dynamic assembly conditions. *Journal of Membrane Science*, **2009**, 338, 43-50	9.6	26
51	Covalent crosslinked polyelectrolyte complex membrane with high negative charges towards anti-natural organic matter fouling nanofiltration. *RSC Advances*, **2015**, 5, 11515-11523	3.7	25
50	Co(HCOO)2-based hybrid membranes for the pervaporation separation of aromatic/aliphatic hydrocarbon mixtures. *Journal of Membrane Science*, **2016**, 520, 646-656	9.6	24
49	Highly stable pore-filling tubular composite membrane by self-crosslinkable hyperbranched polymers for toluene/n-heptane separation. *Journal of Membrane Science*, **2015**, 474, 263-272	9.6	22
48	Facile fabrication of mixed matrix membranes from simultaneously polymerized hyperbranched polymer/modified graphene oxide for MTBE/MeOH separation. *Journal of Membrane Science*, **2018**, 559, 8-18	9.6	21

47	Enhanced permeance for PDMS organic solvent nanofiltration membranes using modified mesoporous silica nanoparticles. *Journal of Membrane Science*, **2020**, 612, 118257	9.6	19
46	MoS 2 /polyelectrolytes hybrid nanofiltration (NF) membranes with enhanced permselectivity. *Journal of the Taiwan Institute of Chemical Engineers*, **2018**, 84, 196-202	5.3	19
45	Designing superhydrophobic surfaces with SAM modification on hierarchical ZIF-8/polymer hybrid membranes for efficient bioalcohol pervaporation. *RSC Advances*, **2014**, 4, 59750-59753	3.7	19
44	The potential of pervaporation for biofuel recovery from fermentation: An energy consumption point of view. *Chinese Journal of Chemical Engineering*, **2019**, 27, 1296-1306	3.2	19
43	Construction of well-arranged graphene oxide/polyelectrolyte complex nanoparticles membranes for pervaporation ethylene glycol dehydration. *Journal of Membrane Science*, **2019**, 577, 104-112	9.6	18
42	Dynamic layer-by-layer self-assembly of organic□inorganic composite hollow fiber membranes. *AICHE Journal*, **2012**, 58, 3176-3182	3.6	18
41	Self-assembled soft nanoparticle membranes with programmed free volume hierarchy. *Journal of Materials Chemistry A*, **2018**, 6, 22925-22930	13	17
40	Tuning molecular sieving channels of layered double hydroxides membrane with direct intercalation of amino acids. *Journal of Materials Chemistry A*, **2018**, 6, 17148-17155	13	16
39	Self-modified fabrication of inner skin ZIF-8 tubular membranes by a counter diffusion assisted secondary growth method. *RSC Advances*, **2014**, 4, 33007-33012	3.7	16
38	Roll-coating of defect-free membranes with thin selective layer for alcohol permselective pervaporation: From laboratory scale to pilot scale. *Chemical Engineering Journal*, **2016**, 289, 106-113	14.7	15
37	Nanostructure array assisted aggregation-based growth of a Co-MOF-74 membrane on a Ni-foam substrate for gas separation. *RSC Advances*, **2016**, 6, 94177-94183	3.7	15
36	Nano-array assisted metal-organic polyhedra membranes for the pervaporation of aromatic/aliphatic mixtures. *Journal of Membrane Science*, **2019**, 575, 1-8	9.6	14
35	Covalent organic frameworks hybird membrane with optimized mass transport nanochannel for aromatic/aliphatic mixture pervaporation. *Journal of Membrane Science*, **2020**, 598, 117652	9.6	12
34	PDMS/ZIF-8 coating polymeric hollow fiber substrate for alcohol permselective pervaporation membranes. *Chinese Journal of Chemical Engineering*, **2019**, 27, 2376-2382	3.2	11
33	Nano-confinement-inspired metal organic framework/polymer composite separation membranes. *Journal of Materials Chemistry A*, **2020**, 8, 17212-17218	13	10
32	A vertically channeled lamellar membrane for molecular sieving of water from organic solvents. *Journal of Materials Chemistry A*, **2018**, 6, 18095-18102	13	10
31	A comprehensive study on phase inversion behavior of a novel polysulfate membrane for high-performance ultrafiltration applications. *Journal of Membrane Science*, **2020**, 610, 118404	9.6	9
30	Enhanced pH and oxidant resistance of polyelectrolyte multilayers via the confinement effect of lamellar graphene oxide nanosheets. *Separation and Purification Technology*, **2018**, 193, 274-282	8.3	9

29	"Mix-Then-On-Demand-Complex": Cascade Anionization and Complexation of Graphene Oxide for High-Performance Nanofiltration Membranes. *ACS Nano*, **2021**, 15, 4440-4449	16.7	9
28	Hollow Polyhedron-Modified Graphene Oxide Membranes for Organic Solvent Nanofiltration with Enhanced Permeance. *ACS Applied Nano Materials*, **2020**, 3, 5874-5880	5.6	8
27	Green Techniques for Rapid Fabrication of Unprecedentedly High-Performance PEO Membranes for CO2 Capture. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 10167-10175	8.3	8
26	Facile Fabrication of High Performance Nanofiltration Membranes by Using Molecular Coordination Complexes as Pore-Forming Agents. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 2728-2738	8.3	8
25	Vacuum-assisted assembly of iron cage intercalated layered double hydroxide composite membrane for water purification. *Journal of Membrane Science*, **2020**, 603, 118032	9.6	7
24	Acid-Resistance and Self-Repairing Supramolecular Nanoparticle Membranes via Hydrogen-Bonding for Sustainable Molecules Separation. *Advanced Science*, **2021**, 8, e2102594	13.6	7
23	Recovery of bio-butanol from aqueous solution with ZIF-8 modified graphene oxide composite membrane. *Journal of Membrane Science*, **2020**, 598, 117671	9.6	7
22	Development of high-performance polyelectrolyte-complex-nanoparticle-based pervaporation membranes via convenient tailoring of charged groups. *Journal of Materials Science*, **2020**, 55, 12607-12620	4.3	6
21	Ice-crystal templating approach for tailoring mass transfer channels in graphene oxide membranes for high-performance dye/salt separation. *Carbon*, **2021**, 183, 119-127	10.4	6
20	Hyperbranched polymer composite membrane using water as solvent for separating aromatic/aliphatic hydrocarbon mixtures. *Separation and Purification Technology*, **2017**, 179, 225-235	8.3	5
19	Chlorine-resistant positively charged polyamide nanofiltration membranes for heavy metal ions removal. *Separation and Purification Technology*, **2021**, 275, 119264	8.3	5
18	In situ repairing the large defects of macroporous ceramic membranes by polyelectrolyte-coated nanoparticles. *Separation and Purification Technology*, **2017**, 183, 318-326	8.3	4
17	Calcination of layered double hydroxide membrane with enhanced nanofiltration performance. *Journal of Industrial and Engineering Chemistry*, **2020**, 89, 368-374	6.3	4
16	3D re-crosslinking of an acid-resistant layer on NaA tubular membrane for application in acidic feed. *Journal of Membrane Science*, **2019**, 589, 117259	9.6	4
15	Freezing assisted in situ growth of nano-confined ZIF-8 composite membrane for dye removal from water. *Journal of Membrane Science*, **2021**, 632, 119352	9.6	4
14	TiO2-incorporated polyelectrolyte composite membrane with transformable hydrophilicity/hydrophobicity for nanofiltration separation. *Chinese Journal of Chemical Engineering* , **2020**, 28, 2533-2541	3.2	3
13	A review of nano-confined composite membranes fabricated inside the porous support **2021**, 1, 100005		2
12	Ultralow Ti3C2TX doping polysulfate membrane for high ultrafiltration performance. *Journal of Membrane Science*, **2021**, 637, 119603	9.6	2

11	POSS-graphene oxide nanocomposite membranes for ethanol permselective pervaporation. *Microporous and Mesoporous Materials*, **2022**, 331, 111635	5.3	1
10	Tailor-made microstructures lead to high-performance robust PEO membrane for CO2 capture via green fabrication technique. *Green Energy and Environment*, **2022**,	5.7	1
9	Intensification of mass transfer for zwitterionic amine monomers in interfacial polymerization to fabricate monovalent salt/antibiotics separation membrane. *Journal of Membrane Science*, **2021**, 643, 120050	9.6	1
8	Tailoring of polysulfate/polyvinylpyrrolidone membrane structure via NIPS coupled physical aging technique for high-performance dye/salt separation. *Separation and Purification Technology*, **2021**, 283, 120163	8.3	1
7	Fabrication of MOF derivatives composite membrane via in-situ sulfurization for dye/salt separation. *Journal of Membrane Science*, **2022**, 645, 120211	9.6	1
6	In situ growth of covalent triazine frameworks membrane on alumina substrate for dye/salt separation. *Separation and Purification Technology*, **2022**, 280, 119930	8.3	1
5	Development of high-performance and robust membrane via Hard-crosslinking-soft technique for dehydration of acetic acid. *Journal of Membrane Science*, **2022**, 643, 120033	9.6	1
4	In-situ growth of graphene quantum dots modified MoS2 membrane on tubular ceramic substrate with high permeability for both water and organic solvent. *Journal of Membrane Science*, **2021**, 627, 119247	9.6	1
3	Two-step hierarchical crosslinking to construct acid-resistance membrane for pervaporation dehydration of artificial esterification reaction. *Journal of Membrane Science*, **2022**, 649, 120396	9.6	1
2	Impact of crosslinking on organic solvent nanofiltration performance in polydimethylsiloxane composite membrane: Probed by in-situ low-field nuclear magnetic resonance spectroscopy. *Journal of Membrane Science*, **2021**, 633, 119382	9.6	0
1	Fabrication of stable polyelectrolyte complexed membrane for dye/salt separation via dynamic self-assembly coupled ice-templating technique. *Desalination*, **2022**, 535, 115803	10.3	0