Nanwen Li

List of Publications by Year
in descending order

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100	6,647	53939	73587
papers	citations	47 h-index	79 g-index

107	107	107	4177
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Polynorbornene-based anion exchange membranes with hydrophobic large steric hindrance arylene substituent. Journal of Membrane Science, 2022, 641, 119938.	4.1	21
2	Structural engineering on copolyimide membranes for improved gas separation performance. Journal of Membrane Science, 2022, 643, 119989.	4.1	11
3	Soluble poly(aryl piperidinium) with extended aromatic segments as anion exchange membranes for alkaline fuel cells and water electrolysis. Journal of Membrane Science, 2022, 642, 119966.	4.1	101
4	A stable ion-solvating PBI electrolyte enabled by sterically bulky naphthalene for alkaline water electrolysis. Journal of Membrane Science, 2022, 643, 120042.	4.1	28
5	Performance optimization of imidazole containing copolyimide/functionalized ZIF-8 mixed matrix membrane for gas separations. Journal of Membrane Science, 2022, 644, 120071.	4.1	15
6	Synergistic effect of thermal crosslinking and thermal rearrangement on free volume and gas separation properties of 6FDA based polyimide membranes studied by positron annihilation. Journal of Membrane Science, 2022, 645, 120163.	4.1	22
7	Improved permeability and antifouling performance of TrÃ¶ger's base polymer-based ultrafiltration membrane via zwitterionization. Journal of Membrane Science, 2022, 646, 120251.	4.1	21
8	Fuel cells with an operational range of â€“20â€‰Â°C to 200â€‰Â°C enabled by phosphoric acid-doped intrinsically ultramicroporous membranes. Nature Energy, 2022, 7, 153-162.	19.8	138
9	A strategy to design quaternized poly(2,6-dimethyl-1,4-phenylene oxide) anion exchange membranes by atom transfer radical coupling. Journal of Membrane Science, 2022, 649, 120397.	4.1	15
10	Poly(terphenyl piperidinium) containing hydrophilic crown ether units in main chains as anion exchange membranes for alkaline fuel cells and water electrolysers. Journal of Membrane Science, 2022, 653, 120558.	4.1	40
11	Hydrogen bonding-induced 6FDA-DABA/TB polymer blends for high performance gas separation membranes. Journal of Membrane Science, 2022, 655, 120575.	4.1	12
12	Mechanically flexible bulky imidazolium-based anion exchange membranes by grafting PEG pendants for alkaline fuel cells. Journal of Membrane Science, 2022, 659, 120820.	4.1	12
13	Carbon molecular sieve gas separation membranes from crosslinkable bromomethylated 6FDA-DAM polyimide. Journal of Membrane Science, 2022, 659, 120781.	4.1	23
14	Chemically stable anion exchange membranes based on C2-Protected imidazolium cations for vanadium flow battery. Journal of Membrane Science, 2021, 618, 118696.	4.1	48
15	Symmetric sponge-like porous polybenzimidazole membrane for high temperature proton exchange membrane fuel cells. Journal of Membrane Science, 2021, 620, 118981.	4.1	56
16	Improved antifouling performance of a polyamide composite reverse osmosis membrane by surface grafting of dialdehyde carboxymethyl cellulose (DACMC). Journal of Membrane Science, 2021, 620, 118843.	4.1	28
17	Fe(III) Ions-Assisted Aniline Polymerization Strategy to Nitrogen-Doped Carbon-Supported Bimetallic CoFeP Nanospheres as Efficient Bifunctional Electrocatalysts toward Overall Water Splitting. Materials, 2021, 14, 1473.	1.3	4
18	Piperidinium functionalized aryl ether-free polyaromatics as anion exchange membrane for water electrolysers: Performance and durability. Journal of Membrane Science, 2021, 621, 118964.	4.1	68

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19	Tailoring the Microporosity of Polymers of Intrinsic Microporosity for Advanced Gas Separation by Atomic Layer Deposition. Angewandte Chemie - International Edition, 2021, 60, 17875-17880.	7.2	41
20	â€œAll Polyimideâ€•Mixed Matrix Membranes for High Performance Gas Separation. Polymers, 2021, 13, 1329.	2.0	2
21	Crucial role of side-chain functionality in anion exchange membranes: Properties and alkaline fuel cell performance. Journal of Membrane Science, 2021, 625, 119172.	4.1	48
22	The effect of â€“NHâ€˜ on quaternized polybenzimidazole anion exchange membranes for alkaline fuel cells. Journal of Membrane Science, 2021, 626, 119178.	4.1	58
23	Enhanced mechanical strength and performance of sulfonated polysulfone/TrÃ¶ger's base polymer blend ultrafiltration membrane. Journal of Membrane Science, 2021, 625, 119138.	4.1	31
24	The alkaline stability and fuel cell performance of poly(N-spirocyclic quaternary ammonium) ionenes as anion exchange membrane. Journal of Membrane Science, 2021, 630, 119325.	4.1	25
25	Rational design of comb-shaped poly(arylene indole piperidinium) to enhance hydroxide ion transport for H2/O2 fuel cell. Journal of Membrane Science, 2021, 631, 119335.	4.1	71
26	Enhanced molecular selectivity and plasticization resistance in ring-opened TrÃ¶ger's base polymer membranes. Journal of Membrane Science, 2021, 634, 119399.	4.1	19
27	Sealing TrÃ¶ger base/ZIF-8 mixed matrix membranes defects for improved gas separation performance. Journal of Membrane Science, 2021, 636, 119582.	4.1	28
28	Self-crosslinking of bromomethylated 6FDA-DAM polyimide for gas separations. Journal of Membrane Science, 2021, 636, 119534.	4.1	36
29	Blending and in situ thermally crosslinking of dual rigid polymers for anti-plasticized gas separation membranes. Journal of Membrane Science, 2021, 638, 119668.	4.1	15
30	Synthesis and gas separation properties of polyimide membranes derived from oxygencyclic pseudo-TrÃ¶ger's base. Journal of Membrane Science, 2021, 637, 119604.	4.1	18
31	Polybenzimidazole/cerium dioxide/graphitic carbon nitride nanosheets for high performance and durable high temperature proton exchange membranes. Journal of Membrane Science, 2021, 639, 119760.	4.1	33
32	Ultra-selective molecular-sieving gas separation membranes enabled by multi-covalent-crosslinking of microporous polymer blends. Nature Communications, 2021, 12, 6140.	5.8	49
33	On the stability of imidazolium and benzimidazolium salts in phosphoric acid based fuel cell electrolytes. Journal of Power Sources, 2021, 515, 230642.	4.0	10
34	Zn(II)-modified imidazole containing polyimide/ZIF-8 mixed matrix membranes for gas separations. Journal of Membrane Science, 2020, 597, 117775.	4.1	68
35	Olefin metathesis-crosslinked, bulky imidazolium-based anion exchange membranes with excellent base stability and mechanical properties. Journal of Membrane Science, 2020, 598, 117793.	4.1	45
36	Enhanced antifouling and separation properties of TrÃ¶ger's base polymer ultrafiltration membrane via ring-opening modification. Journal of Membrane Science, 2020, 597, 117763.	4.1	13

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37	Enhancement of the mechanical properties of anion exchange membranes with bulky imidazolium by â€œthiol-eneâ€•crosslinking. Journal of Membrane Science, 2020, 596, 117700.	4.1	59
38	Properties and stability of quaternary ammonium-biphosphate ion-pair poly(sulfone)s high temperature proton exchange membranes for H2/O2 fuel cells. Journal of Power Sources, 2020, 475, 228521.	4.0	33
39	Effect of N-cyclic cationic groups in poly(phenylene oxide)-based catalyst ionomer membranes for anion exchange membrane fuel cells. Journal of Membrane Science, 2020, 608, 118183.	4.1	32
40	A facile strategy for disentangling the conductivity and selectivity dilemma enables advanced composite membrane for vanadium flow batteries. Journal of Membrane Science, 2020, 607, 118177.	4.1	36
41	Enhanced proton/iron permselectivity of sulfonated poly (ether ether ketone) membrane functionalized with basic pendant groups during electrodialysis. Journal of Membrane Science, 2020, 610, 118227.	4.1	18
42	The effect of polymer backbones and cation functional groups on properties of anion exchange membranes for fuel cells. Journal of Membrane Science, 2020, 603, 118025.	4.1	49
43	Quaternized poly(2,6-dimethyl-1,4-phenylene oxide)s with zwitterion groups as diffusion dialysis membranes for acid recovery. Separation and Purification Technology, 2020, 250, 117267.	3.9	19
44	Polymers of Intrinsic Microporosity Having Bulky Substitutes and Cross-Linking for Gas Separation Membranes. ACS Applied Polymer Materials, 2020, 2, 987-995.	2.0	29
45	Quaternized poly(2,6-dimethyl-1,4-phenylene oxide) anion exchange membranes with pendant sterically-protected imidazoliums for alkaline fuel cells. Journal of Membrane Science, 2020, 601, 117881.	4.1	48
46	Synthesis and properties of phosphonated polysulfones for durable high-temperature proton exchange membranes fuel cell. Journal of Membrane Science, 2020, 605, 118107.	4.1	27
47	Quaternized poly (2, 6-dimethyl-1, 4-phenylene oxide) anion exchange membranes based on isomeric benzyltrimethylammonium cations for alkaline fuel cells. Journal of Membrane Science, 2020, 606, 118133.	4.1	31
48	Polyvinylamine/graphene oxide/PANI@CNTs mixed matrix composite membranes with enhanced CO2/N2 separation performance. Journal of Membrane Science, 2019, 589, 117246.	4.1	54
49	A novel polybenzimidazole membrane containing bulky naphthalene group for vanadium flow battery. Journal of Membrane Science, 2019, 586, 231-239.	4.1	63
50	N-cyclic quaternary ammonium-functionalized anion exchange membrane with improved alkaline stability enabled by aryl-ether free polymer backbones for alkaline fuel cells. Journal of Membrane Science, 2019, 587, 117135.	4.1	53
51	Piperidinium-functionalized anion exchange membranes and their application in alkaline fuel cells and water electrolysis. Journal of Materials Chemistry A, 2019, 7, 7717-7727.	5.2	143
52	Practical implementation of bis-six-membered N-cyclic quaternary ammonium cations in advanced anion exchange membranes for fuel cells: Synthesis and durability. Journal of Membrane Science, 2019, 578, 239-250.	4.1	113
53	Combâ€shaped diblock copolystyrene for anion exchange membranes. Journal of Applied Polymer Science, 2019, 136, 47370.	1.3	12
54	Molecularly designed, solvent processable tetraalkylammonium-functionalized fluoropolyolefin for durable anion exchange membrane fuel cells. Journal of Membrane Science, 2019, 574, 212-221.	4.1	59

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55	Simultaneously tuning dense skin and porous substrate of asymmetric hollow fiber membranes for efficient purification of aggressive natural gas. AIChE Journal, 2019, 65, 1269-1280.	1.8	20
56	Anion-conductive poly(2,6-dimethyl-1,4-phenylene oxide) grafted with tailored polystyrene chains for alkaline fuel cells. Journal of Membrane Science, 2019, 573, 247-256.	4.1	30
57	TrÃ¶ger 's base mixed matrix membranes for gas separation incorporating NH2-MIL-53(Al) nanocrystals. Journal of Membrane Science, 2019, 573, 359-369.	4.1	51
58	A thermally crosslinked multiblock sulfonated poly(arylene ether ketone nitrile) copolymer with a 1,2,3-triazole pendant for proton conducting membranes. Journal of Materials Chemistry A, 2018, 6, 3560-3570.	5.2	27
59	Mixed-charge poly(2,6-dimethyl-phenylene oxide)anion exchange membrane for diffusion dialysis in acid recovery. Journal of Membrane Science, 2018, 549, 543-549.	4.1	47
60	Tuning the properties of poly(2,6-dimethyl-1,4-phenylene oxide) anion exchange membranes and their performance in H₂/O₂ fuel cells. Energy and Environmental Science, 2018, 11, 435-446.	15.6	225
61	Mixed-matrix membranes based on Zn/Ni-ZIF-8-PEBA for high performance CO2 separation. Journal of Membrane Science, 2018, 560, 38-46.	4.1	97
62	Anion conductive poly(2,6-dimethyl phenylene oxide)s with clicked bulky quaternary phosphonium groups. Journal of Membrane Science, 2018, 558, 9-16.	4.1	61
63	Proton blockage membrane with tertiary amine groups for concentration of sulfonic acid in electrodialysis. Journal of Membrane Science, 2018, 555, 78-87.	4.1	35
64	Synthesis of cellulose acetate propionate and cellulose acetate butyrate in a CO2/DBU/DMSO system. Cellulose, 2018, 25, 205-216.	2.4	21
65	Antifouling polysulfone ultrafiltration membranes with pendent sulfonamide groups. Journal of Membrane Science, 2018, 548, 481-489.	4.1	94
66	Comb-shaped sulfonated poly(ether ether ketone) as a cation exchange membrane for electrodialysis in acid recovery. Journal of Materials Chemistry A, 2018, 6, 22940-22950.	5.2	35
67	Side-chain-type anion exchange membranes for vanadium flow battery: properties and degradation mechanism. Journal of Materials Chemistry A, 2018, 6, 22778-22789.	5.2	66
68	Semi-interpenetrating polymer networks by azideâ€“alkyne cycloaddition as novel anion exchange membranes. Journal of Materials Chemistry A, 2018, 6, 11317-11326.	5.2	67
69	Preparation and antifouling property improvement of TrÃ¶ger's base polymer ultrafiltration membrane. Journal of Membrane Science, 2018, 561, 59-68.	4.1	35
70	Solidâ€State Rechargeable Zincâ€“Air Battery with Long Shelf Life Based on Nanoengineered Polymer Electrolyte. ChemSusChem, 2018, 11, 3215-3224.	3.6	55
71	Blending of compatible polymer of intrinsic microporosity (PIM-1) with TrÃ¶ger's Base polymer for gas separation membranes. Journal of Membrane Science, 2018, 566, 77-86.	4.1	74
72	Highly anion conductive, alkyl-chain-grafted copolymers as anion exchange membranes for operable alkaline H₂/O₂ fuel cells. Journal of Materials Chemistry A, 2017, 5, 10301-10310.	5.2	90

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73	UV-crosslinking of polystyrene anion exchange membranes by azidated macromolecular crosslinker for alkaline fuel cells. Journal of Membrane Science, 2017, 535, 322-330.	4.1	60
74	Self-crosslinking of comb-shaped polystyrene anion exchange membranes for alkaline fuel cell application. Journal of Membrane Science, 2017, 536, 133-140.	4.1	67
75	Synthesis of midblock-quaternized triblock copolystyrenes as highly conductive and alkaline-stable anion-exchange membranes. Polymer Chemistry, 2017, 8, 2074-2086.	1.9	51
76	Multiblock poly(Phenylene ether nitrile)s with pendant sulfoalkoxyl side chain for H₂/air fuel cells at low humidity condition. Journal of Polymer Science Part A, 2017, 55, 1940-1948.	2.5	11
77	Organocatalytic Cellulose Dissolution and In Situ Grafting of Ïµâ€Caprolactone via ROP in a Reversible DBU/DMSO/CO₂ System. ChemistrySelect, 2017, 2, 7128-7134.	0.7	16
78	Nafion-Initiated ATRP of 1-Vinylimidazole for Preparation of Proton Exchange Membranes. ACS Applied Materials & Interfaces, 2016, 8, 11516-11525.	4.0	53
79	Molecularly Designed Stabilized Asymmetric Hollow Fiber Membranes for Aggressive Natural Gas Separation. Angewandte Chemie - International Edition, 2016, 55, 13754-13758.	7.2	29
80	Molecularly Designed Stabilized Asymmetric Hollow Fiber Membranes for Aggressive Natural Gas Separation. Angewandte Chemie, 2016, 128, 13958-13962.	1.6	9
81	Facilitating Anion Transport in Polyolefin-Based Anion Exchange Membranes via Bulky Side Chains. ACS Applied Materials & Interfaces, 2016, 8, 23321-23330.	4.0	91
82	Functionalization of polyacrylonitrile with tetrazole groups for ultrafiltration membranes. RSC Advances, 2016, 6, 72133-72140.	1.7	14
83	Photoluminescence properties of Tb3+-doped stalk-like Al2O3. International Journal of Materials Research, 2016, 107, 280-282.	0.1	2
84	Crosslinking of comb-shaped polymer anion exchange membranes via thiolâ€“ene click chemistry. Polymer Chemistry, 2016, 7, 2464-2475.	1.9	131
85	Azide-assisted self-crosslinking of highly ion conductive anion exchange membranes. Journal of Membrane Science, 2016, 509, 48-56.	4.1	68
86	Controlled functionalization of poly(4-methyl-1-pentene) films for high energy storage applications. Journal of Materials Chemistry A, 2016, 4, 4797-4807.	5.2	58
87	1,2,3-Triazolium-Based Poly(2,6-Dimethyl Phenylene Oxide) Copolymers as Anion Exchange Membranes. ACS Applied Materials & Interfaces, 2016, 8, 4651-4660.	4.0	111
88	Highly stable anion exchange membranes based on quaternized polypropylene. Journal of Materials Chemistry A, 2015, 3, 12284-12296.	5.2	144
89	Cross-linked comb-shaped anion exchange membranes with high base stability. Chemical Communications, 2014, 50, 4092.	2.2	148
90	Ion Transport by Nanochannels in Ion-Containing Aromatic Copolymers. Macromolecules, 2014, 47, 2175-2198.	2.2	388

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91	Highly Stable, Anion Conductive, Comb-Shaped Copolymers for Alkaline Fuel Cells. Journal of the American Chemical Society, 2013, 135, 10124-10133.	6.6	471
92	Towards High Conductivity in Anionâ€Exchange Membranes for Alkaline Fuel Cells. ChemSusChem, 2013, 6, 1376-1383.	3.6	120
93	A new class of highly-conducting polymer electrolyte membranes: Aromatic ABA triblock copolymers. Energy and Environmental Science, 2012, 5, 5346-5355.	15.6	131
94	Morphological transformation during cross-linking of a highly sulfonated poly(phenylene sulfide) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	15.6	90
95	Comb-shaped polymers to enhance hydroxide transport in anion exchange membranes. Energy and Environmental Science, 2012, 5, 7888.	15.6	317
96	Densely Sulfophenylated Segmented Copoly(arylene ether sulfone) Proton Exchange Membranes. Macromolecules, 2011, 44, 4901-4910.	2.2	94
97	Fluorene-Based Poly(arylene ether sulfone)s Containing Clustered Flexible Pendant Sulfonic Acids as Proton Exchange Membranes. Macromolecules, 2011, 44, 7296-7306.	2.2	211
98	Click-chemistry for nanoparticle-modification. Journal of Materials Chemistry, 2011, 21, 16717.	6.7	157
99	Enhancement of Proton Transport by Nanochannels in Combâ€Shaped Copoly(arylene ether sulfone)s. Angewandte Chemie - International Edition, 2011, 50, 9158-9161.	7.2	157
100	Polymer Electrolyte Membranes Derived from New Sulfone Monomers with Pendent Sulfonic Acid Groups. Macromolecules, 2010, 43, 9810-9820.	2.2	102