

Haiqing Lin

List of Publications by Year in descending order

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116
papers

8,426
citations

61857

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45213

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121
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121
docs citations

121
times ranked

5881
citing authors

#	ARTICLE	IF	CITATIONS
1	Engineering hierarchical nanochannels in graphene oxide membranes by etching and polydopamine intercalation for highly efficient dye recovery. <i>Chemical Engineering Journal</i> , 2022, 433, 133593.	6.6	11
2	Gas transport characteristics of supramolecular networks of metal-coordinated highly branched Poly(ethylene oxide). <i>Journal of Membrane Science</i> , 2022, 644, 120063.	4.1	10
3	Mixed matrix membranes for post-combustion carbon capture: From materials design to membrane engineering. <i>Journal of Membrane Science</i> , 2022, 644, 120140.	4.1	28
4	Thin-film composite membranes based on hyperbranched poly(ethylene oxide) for CO ₂ /N ₂ separation. <i>Journal of Membrane Science</i> , 2022, 644, 120184.	4.1	17
5	Superior CO ₂ /N ₂ separation performance of highly branched Poly(1,3 dioxolane) plasticized by polyethylene glycol. <i>Journal of Membrane Science</i> , 2022, 648, 120352.	4.1	14
6	Effect of Branch Length on the Structural and Separation Properties of Hyperbranched Poly(1,3-dioxolane). <i>Macromolecules</i> , 2022, 55, 382-389.	2.2	7
7	Supramolecular assemblies of polybenzimidazole and aromatic polycarboxylic acids with superior mechanical and H ₂ /CO ₂ separation properties. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10872-10879.	5.2	4
8	Photopatterning of two stage reactive polymer networks with CO ₂ -philic thiol- <i>acrylate</i> chemistry: enhanced mechanical toughness and CO ₂ /N ₂ selectivity. <i>Polymer Chemistry</i> , 2022, 13, 2495-2505.	1.9	2
9	Tailoring sub-3.3 Å... ultramicropores in advanced carbon molecular sieve membranes for blue hydrogen production. <i>Science Advances</i> , 2022, 8, eabl8160.	4.7	49
10	In Situ Growth of Crystalline and Polymer- <i>incorporated</i> Amorphous ZIFs in Polybenzimidazole Achieving Hierarchical Nanostructures for Carbon Capture. <i>Small</i> , 2022, 18, e2201982.	5.2	9
11	Energy-efficient membranes for microalgae dewatering: Fouling challenges and mitigation strategies. <i>Separation and Purification Technology</i> , 2022, 296, 121382.	3.9	10
12	Spatially Controlled Permeability and Stiffness in Photopatterned Two-Stage Reactive Polymer Films for Enhanced CO ₂ Barrier and Mechanical Toughness. <i>Macromolecules</i> , 2021, 54, 44-52.	2.2	4
13	Facile one-pot synthesis of PdM (M = Ag, Ni, Cu, Y) nanowires for use in mixed matrix membranes for efficient hydrogen separation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12755-12762.	5.2	16
14	Designing organic solvent separation membranes: polymers, porous structures, 2D materials, and their combinations. <i>Materials Advances</i> , 2021, 2, 4574-4603.	2.6	21
15	Facilely Cross-Linking Polybenzimidazole with Polycarboxylic Acids to Improve H ₂ /CO ₂ Separation Performance. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 12521-12530.	4.0	29
16	Single-Step Flame Aerosol Synthesis of Active and Stable Nanocatalysts for the Dry Reforming of Methane. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17618-17628.	4.0	12
17	Deep eutectic solvent functionalized graphene oxide nanofiltration membranes with superior water permeance and dye desalination performance. <i>Chemical Engineering Journal</i> , 2021, 412, 128577.	6.6	48
18	Sustainable MXenes-based membranes for highly energy-efficient separations. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 143, 110878.	8.2	39

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19	Scalable Polymeric Few-Nanometer Organosilica Membranes with Hydrothermal Stability for Selective Hydrogen Separation. ACS Nano, 2021, 15, 12119-12128.	7.3	28
20	Effects of peracetic acid on aromatic polyamide nanofiltration membranes: a comparative study with chlorine. Environmental Science: Water Research and Technology, 2021, 7, 306-320.	1.2	6
21	Corrosion Resistance of Sulfurâ€“Selenium Alloy Coatings. Advanced Materials, 2021, 33, e2104467.	11.1	21
22	Volumetric Properties and Sorption Behavior of Perfluoropolymers with Dioxolane Pendant Rings. Industrial & Engineering Chemistry Research, 2020, 59, 5276-5286.	1.8	12
23	Reduced Holey Graphene Oxide Membranes for Desalination with Improved Water Permeance. ACS Applied Materials & Interfaces, 2020, 12, 1387-1394.	4.0	64
24	â€œNonstickâ€•Membranes Prepared by Facile Surface Fluorination for Water Purification. Industrial & Engineering Chemistry Research, 2020, 59, 5307-5314.	1.8	7
25	Zwitterionic Hydrogel-Impregnated Membranes with Polyamide Skin Achieving Superior Water/Salt Separation Properties. ACS Applied Materials & Interfaces, 2020, 12, 49192-49199.	4.0	15
26	Grafting Activated Graphene Oxide Nanosheets onto Ultrafiltration Membranes Using Polydopamine to Enhance Antifouling Properties. ACS Applied Materials & Interfaces, 2020, 12, 48179-48187.	4.0	24
27	Molecularly engineering polymeric membranes for H_2 separation at 100â€“300 Â°C. Journal of Polymer Science, 2020, 58, 2467-2481.	2.0	41
28	Polymeric membranes: chemistry, physics, and applications. Journal of Polymer Science, 2020, 58, 2433-2434.	2.0	17
29	Structure and gas transport characteristics of triethylene oxideâ€“grafted polystyreneâ€“bâ€“poly(ethyleneâ€“ Tj ETQo1 1 0.784314 rgB	2.0	8
30	Modeling the transport of neutral disinfection byproducts in forward osmosis: Roles of reverse salt flux. Water Research, 2020, 185, 116255.	5.3	4
31	Suppressed crystallization and enhanced gas permeability in thin films of cellulose acetate blends. Polymer, 2020, 205, 122790.	1.8	9
32	Etching and acidifying graphene oxide membranes to increase gas permeance while retaining molecular sieving ability. AIChE Journal, 2020, 66, e17022.	1.8	19
33	Perfluorodioxolane Polymers for Gas Separation Membrane Applications. Membranes, 2020, 10, 394.	1.4	15
34	Thermally stable, homogeneous blends of cross-linked poly(ethylene oxide) and crown ethers with enhanced CO ₂ permeability. Journal of Membrane Science, 2020, 610, 118253.	4.1	33
35	Maximizing the grafting of zwitterions onto the surface of ultrafiltration membranes to improve antifouling properties. Journal of Membrane Science, 2020, 601, 117909.	4.1	45
36	Interpenetrating networks of mixed matrix materials comprising metal-organic polyhedra for membrane CO ₂ capture. Journal of Membrane Science, 2020, 606, 118122.	4.1	22

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37	Elucidating the Role of Embedded Metal-Organic Frameworks in Water and Ion Transport Properties in Polymer Nanocomposite Membranes. <i>Chemistry of Materials</i> , 2020, 32, 10165-10175.	3.2	23
38	Grafting polysiloxane onto ultrafiltration membranes to optimize surface energy and mitigate fouling. <i>Soft Matter</i> , 2020, 16, 5044-5053.	1.2	12
39	Maximizing the grafting of zwitterions onto the surface of ultrafiltration membranes to improve antifouling properties. <i>Journal of Membrane Science</i> , 2020, 601, .	4.1	2
40	Highly Polar but Amorphous Polymers with Robust Membrane CO ₂ /N ₂ Separation Performance. <i>Joule</i> , 2019, 3, 1881-1894.	11.7	60
41	Gas transport characteristics of fluorinated polystyrene-b-polybutadiene-b-polystyrene (F-SBS). <i>Journal of Membrane Science</i> , 2019, 591, 117296.	4.1	2
42	Sorption-Enhanced Mixed Matrix Membranes with Facilitated Hydrogen Transport for Hydrogen Purification and CO ₂ Capture. <i>Advanced Functional Materials</i> , 2019, 29, 1904357.	7.8	45
43	Effect of Pendant Dioxolane Rings in Polymers on Gas Transport Characteristics. <i>ACS Applied Polymer Materials</i> , 2019, 1, 1641-1647.	2.0	7
44	Suppression of crystallization in thin films of cellulose diacetate and its effect on CO ₂ /CH ₄ separation properties. <i>Journal of Membrane Science</i> , 2019, 586, 7-14.	4.1	27
45	Maximizing Ether Oxygen Content in Polymers for Membrane CO ₂ Removal from Natural Gas. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10933-10940.	4.0	35
46	Unexpectedly Strong Size-Sieving Ability in Carbonized Polybenzimidazole for Membrane H ₂ /CO ₂ Separation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 47365-47372.	4.0	63
47	Elucidating the relationship between states of water and ion transport properties in hydrated polymers. <i>Journal of Membrane Science</i> , 2019, 574, 299-308.	4.1	33
48	Thermally stable cross-linked P84 with superior membrane H ₂ /CO ₂ separation properties at 100°C. <i>Journal of Membrane Science</i> , 2019, 575, 118-125.	4.1	28
49	Reduced Holey Graphene Oxide Membranes for Desalination with Improved Water Permeance. <i>Journal of Membrane Science</i> , 2019, 12, .	4.1	0
50	Sorption-enhanced membrane materials for gas separation: a road less traveled. <i>Current Opinion in Chemical Engineering</i> , 2018, 20, 50-59.	3.8	28
51	Self-cleaning membranes for water purification by co-deposition of photo-mobile 4-azodaniline and bio-adhesive polydopamine. <i>Journal of Membrane Science</i> , 2018, 554, 164-174.	4.1	35
52	Mixed-matrix materials using metal-organic polyhedra with enhanced compatibility for membrane gas separation. <i>Dalton Transactions</i> , 2018, 47, 7905-7915.	1.6	42
53	Membrane Surface Modification Using Thiol-Containing Zwitterionic Polymers via Bioadhesive Polydopamine. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 2336-2345.	1.8	49
54	Dioxolane-Based Perfluoropolymers with Superior Membrane Gas Separation Properties. <i>Macromolecules</i> , 2018, 51, 2489-2497.	2.2	55

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55	The role of halogens in polychlorotrifluoroethylene (PCTFE) in membrane gas separations. <i>Journal of Membrane Science</i> , 2018, 548, 380-389.	4.1	20
56	Unprecedented size-sieving ability in polybenzimidazole doped with polyprotic acids for membrane H ₂ /CO ₂ separation. <i>Energy and Environmental Science</i> , 2018, 11, 94-100.	15.6	115
57	Rightsizing Nanochannels in Reduced Graphene Oxide Membranes by Solvating for Dye Desalination. <i>Environmental Science & Technology</i> , 2018, 52, 12649-12655.	4.6	85
58	Effects of tertiary amines and quaternary ammonium halides in polysulfone on membrane gas separation properties. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2018, 56, 1239-1250.	2.4	9
59	Engineering Sub-Nanometer Channels in Two-Dimensional Materials for Membrane Gas Separation. <i>Membranes</i> , 2018, 8, 100.	1.4	21
60	Flame-based synthesis and <i>in situ</i> functionalization of palladium alloy nanoparticles. <i>AIChE Journal</i> , 2018, 64, 3826-3834.	1.8	6
61	Removal of disinfection byproducts in forward osmosis for wastewater recycling. <i>Journal of Membrane Science</i> , 2018, 564, 352-360.	4.1	50
62	Highly Selective and Permeable Microporous Polymer Membranes for Hydrogen Purification and CO ₂ Removal from Natural Gas. <i>Chemistry of Materials</i> , 2018, 30, 5322-5332.	3.2	121
63	Highly permeable mixed matrix materials comprising ZIF-8 nanoparticles in rubbery amorphous poly(ethylene oxide) for CO ₂ capture. <i>Separation and Purification Technology</i> , 2018, 205, 58-65.	3.9	67
64	Geometric restriction of microporous supports on gas permeance efficiency of thin film composite membranes. <i>Journal of Membrane Science</i> , 2018, 563, 643-654.	4.1	26
65	Physical aging of glassy perfluoropolymers in thin film composite membranes. Part I. Gas transport properties. <i>Journal of Membrane Science</i> , 2017, 525, 387-398.	4.1	42
66	Highly-branched cross-linked poly(ethylene oxide) with enhanced ionic conductivity. <i>Polymer</i> , 2017, 111, 1-8.	1.8	36
67	One-Step Assembly of Molecular Separation Membranes by Direct Atomizing Oligomers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 4074-4083.	4.0	11
68	Geometric Restriction of Gas Permeance in Ultrathin Film Composite Membranes Evaluated Using an Integrated Experimental and Modeling Approach. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 351-358.	1.8	31
69	Manipulating Polyimide Nanostructures via Cross-linking for Membrane Gas Separation. , 2017, , 243-270.		5
70	Tightening polybenzimidazole (PBI) nanostructure via chemical cross-linking for membrane H ₂ /CO ₂ separation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 19914-19923.	5.2	91
71	Synthesis of Hydrogels with Antifouling Properties As Membranes for Water Purification. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	6
72	Facile Grafting of Zwitterions onto the Membrane Surface To Enhance Antifouling Properties for Wastewater Reuse. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 9202-9212.	1.8	53

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73	Formation of a Crack-Free, Hybrid Skin Layer with Tunable Surface Topography and Improved Gas Permeation Selectivity on Elastomers Using Gelâ€“Liquid Infiltration Polymerization. ACS Applied Materials & Interfaces, 2017, 9, 28100-28106.	4.0	9
74	Optimal membranes for biogas upgrade by removing CO ₂ : High permeance or high selectivity?. Separation Science and Technology, 2017, 52, 186-196.	1.3	23
75	Physical aging of glassy perfluoropolymers in thin film composite membranes. Part II. Glass transition temperature and the free volume model. Journal of Membrane Science, 2017, 525, 399-408.	4.1	35
76	Membranes with Surface-Enhanced Antifouling Properties for Water Purification. Membranes, 2017, 7, 13.	1.4	146
77	Transport properties of small molecules in zwitterionic polymers. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1924-1934.	2.4	19
78	Preparation and gas transport properties of triptycene-containing polybenzoxazole (PBO)-based polymers derived from thermal rearrangement (TR) and thermal cyclodehydration (TC) processes. Journal of Materials Chemistry A, 2016, 4, 17050-17062.	5.2	59
79	Structurally Defined 3D Nanographene Assemblies via Bottomâ€“Up Chemical Synthesis for Highly Efficient Lithium Storage. Advanced Materials, 2016, 28, 10250-10256.	11.1	72
80	Highâ€“Performance Polymers for Membrane CO ₂ /N ₂ Separation. Chemistry - A European Journal, 2016, 22, 15980-15990.	1.7	112
81	Effect of porous supports on the permeance of thin film composite membranes: Part I. Track-etched polycarbonate supports. Journal of Membrane Science, 2016, 514, 684-695.	4.1	36
82	Cellulose triacetate doped with ionic liquids for membrane gas separation. Polymer, 2016, 89, 1-11.	1.8	72
83	Cross-Linked Poly(ethylene oxide) Membranes. , 2016, , 484-486.		0
84	Designing ultrathin film composite membranes: the impact of a gutter layer. Scientific Reports, 2015, 5, 15016.	1.6	98
85	Impregnated Membranes for Water Purification Using Forward Osmosis. Industrial & Engineering Chemistry Research, 2015, 54, 12354-12366.	1.8	27
86	Gas permeation in thin films of â€“high free-volumeâ€“glassy perfluoropolymers: Part II. CO ₂ plasticization and sorption. Polymer, 2015, 61, 1-14.	1.8	52
87	CO ₂ -selective membranes for hydrogen production and CO ₂ capture â€“ Part II: Techno-economic analysis. Journal of Membrane Science, 2015, 493, 794-806.	4.1	79
88	Structureâ€“Function Assessment of Mannosylated Poly(Î²-amino esters) upon Targeted Antigen Presenting Cell Gene Delivery. Biomacromolecules, 2015, 16, 1534-1541.	2.6	24
89	Upper bound of polymeric membranes for mixed-gas CO ₂ /CH ₄ separations. Journal of Membrane Science, 2015, 475, 101-109.	4.1	124
90	Integrated membrane material and process development for gas separation. Current Opinion in Chemical Engineering, 2014, 4, 54-61.	3.8	32

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91	Gas permeation in thin films of "high free-volume" glassy perfluoropolymers: Part I. Physical aging. <i>Polymer</i> , 2014, 55, 5788-5800.	1.8	83
92	Membrane selective exchange process for dilute methane recovery. <i>Journal of Membrane Science</i> , 2014, 469, 11-18.	4.1	7
93	CO2-selective membranes for hydrogen production and CO2 capture " Part I: Membrane development. <i>Journal of Membrane Science</i> , 2014, 457, 149-161.	4.1	140
94	Photopolymerization. , 2014, , 1-3.		0
95	Membrane-Based Oxygen-Enriched Combustion. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 10820-10834.	1.8	66
96	Dehydration of natural gas using membranes. Part II: Sweep/countercurrent design and field test. <i>Journal of Membrane Science</i> , 2013, 432, 106-114.	4.1	48
97	Dehydration of natural gas using membranes. Part I: Composite membranes. <i>Journal of Membrane Science</i> , 2012, 413-414, 70-81.	4.1	145
98	Synthesis of antifouling nanoporous membranes having tunable nanopores via click chemistry. <i>Journal of Membrane Science</i> , 2012, 401-402, 109-117.	4.1	34
99	Power plant post-combustion carbon dioxide capture: An opportunity for membranes. <i>Journal of Membrane Science</i> , 2010, 359, 126-139.	4.1	1,321
100	Molecular Dynamics of Poly(ethylene glycol) and Poly(propylene glycol) Copolymer Networks by Broadband Dielectric Spectroscopy. <i>Macromolecules</i> , 2007, 40, 2773-2781.	2.2	23
101	Effect of copolymer composition, temperature, and carbon dioxide fugacity on pure- and mixed-gas permeability in poly(ethylene glycol)-based materials: Free volume interpretation. <i>Journal of Membrane Science</i> , 2007, 291, 131-139.	4.1	75
102	CO2/C2H6 separation using solubility selective membranes. <i>Journal of Membrane Science</i> , 2007, 305, 57-68.	4.1	54
103	Molecular relaxation in cross-linked poly(ethylene glycol) and poly(propylene glycol) diacrylate networks by dielectric spectroscopy. <i>Polymer</i> , 2007, 48, 579-589.	1.8	23
104	Plasticization-Enhanced Hydrogen Purification Using Polymeric Membranes. <i>Science</i> , 2006, 311, 639-642.	6.0	616
105	Gas Permeation and Diffusion in Cross-Linked Poly(ethylene glycol diacrylate). <i>Macromolecules</i> , 2006, 39, 3568-3580.	2.2	165
106	Viscoelastic characteristics of UV polymerized poly(ethylene glycol) diacrylate networks with varying extents of crosslinking. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 2058-2070.	2.4	52
107	Transport and structural characteristics of crosslinked poly(ethylene oxide) rubbers. <i>Journal of Membrane Science</i> , 2006, 276, 145-161.	4.1	288
108	Relation between network structure and gas transport in crosslinked poly(propylene glycol) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td	4.1	50

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109	Gas permeability analysis of photo-cured cyclohexyl-substituted polysiloxane films. Journal of Applied Polymer Science, 2006, 102, 2343-2351.	1.3	7
110	High-Performance Polymer Membranes for Natural-Gas Sweetening. Advanced Materials, 2006, 18, 39-44.	11.1	217
111	Materials selection guidelines for membranes that remove CO ₂ from gas mixtures. Journal of Molecular Structure, 2005, 739, 57-74.	1.8	697
112	Self-Consistent Model of Concentration and Temperature Dependence of Permeability in Rubbery Polymers. Industrial & Engineering Chemistry Research, 2005, 44, 1547-1556.	1.8	46
113	Segmental Relaxation Characteristics of Cross-Linked Poly(ethylene oxide) Copolymer Networks. Macromolecules, 2005, 38, 9679-9687.	2.2	80
114	Gas and Vapor Solubility in Cross-Linked Poly(ethylene Glycol Diacrylate). Macromolecules, 2005, 38, 8394-8407.	2.2	157
115	The Effect of Cross-Linking on Gas Permeability in Cross-Linked Poly(Ethylene Glycol Diacrylate). Macromolecules, 2005, 38, 8381-8393.	2.2	277
116	Gas solubility, diffusivity and permeability in poly(ethylene oxide). Journal of Membrane Science, 2004, 239, 105-117.	4.1	664