Mixed matrix membranes based on MIL-101 metalâ€“or intrinsic microporosity PIM-1

Separation and Purification Technology

212, 545-554

DOI: 10.1016/j.seppur.2018.11.055

Citation Report

#	Article	IF	Citations
2	High Performance of PIM-1/ZIF-8 Composite Membranes for O₂/N₂ Separation. ACS Omega, 2019, 4, 16572-16577.	3.5	31
3	Polymer-Based Shaping Strategy for Zeolite Templated Carbons (ZTC) and Their Metal Organic Framework (MOF) Composites for Improved Hydrogen Storage Properties. Frontiers in Chemistry, 2019, 7, 864.	3.6	24
4	Polymers of Intrinsic Microporosity and Their Potential in Process Intensification. , 2020, , 231-264.		2
5	Comparison of pure and mixed gas permeation of the highly fluorinated polymer of intrinsic microporosity PIM-2 under dry and humid conditions: Experiment and modelling. Journal of Membrane Science, 2020, 594, 117460.	8.2	39
6	Mixed matrix membranes comprising a polymer of intrinsic microporosity loaded with surface-modified non-porous pearl-necklace nanoparticles. Journal of Membrane Science, 2020, 597, 117627.	8.2	18
7	Exploiting the effects of zirconium-based metal organic framework decorated carbon nanofibers to improve CO2/CH4 separation performance of thin film nanocomposite membranes. Journal of Industrial and Engineering Chemistry, 2020, 85, 102-110.	5.8	34
8	Boosting gas separation performance and suppressing the physical aging of polymers of intrinsic microporosity (PIM-1) by nanomaterial blending. Nanoscale, 2020, 12, 23333-23370.	5.6	81
9	Synthetic Saponite Clays as Additives for Reducing Aging Effects in PIM1 Membranes. ACS Applied Polymer Materials, 2020, 2, 3481-3490.	4.4	8
10	Superglassy Polymers to Treat Natural Gas by Hybrid Membrane/Amine Processes: Can Fillers Help?. Membranes, 2020, 10, 413.	3.0	7
11	Metal-organic framework MOF-801/PIM-1 mixed-matrix membranes for enhanced CO2/N2 separation performance. Separation and Purification Technology, 2020, 250, 117198.	7.9	65
12	Mixed matrix membranes (MMMs) using an emerging metal-organic framework (MUF-15) for CO2 separation. Journal of Membrane Science, 2020, 609, 118245.	8.2	42
13	Mixed Matrix Membranes from a Microporous Polymer Blend and Nanosized Metalâ€“Organic Frameworks with Exceptional CO₂/N₂ Separation Performance. , 2020, 2, 821-828.		27
14	Modeling rapid and selective capture of nNOSâ€“PSD-95 uncouplers from Sanhuang Xiexin decoction by novel molecularly imprinted polymers based on metalâ€“organic frameworks. RSC Advances, 2020, 10, 7671-7681.	3.6	6
15	Effect of porous organic polymers in gas separation properties of polycarbonate based mixed matrix membranes. Journal of Membrane Science, 2021, 619, 118795.	8.2	24
16	The sensing applications of metal-organic frameworks and their basic features affecting the fate of detection. , 2021, , 271-293.		0
17	Porous liquids â€“ Future for CO2 capture and separation?. Current Research in Green and Sustainable Chemistry, 2021, 4, 100070.	5.6	23
18	From Macro- to Nanoscale: Finite Size Effects on Metalâ€“Organic Framework Switchability. Trends in Chemistry, 2021, 3, 291-304.	8.5	41
19	Hyper Cross-Linked Polymers as Additives for Preventing Aging of PIM-1 Membranes. Membranes, 2021, 11, 463.	3.0	8

#	Article	IF	Citations
20	CO2/CH4 separation by mixed-matrix membranes holding functionalized NH2-MIL-101(Al) nanoparticles: Effect of amino-silane functionalization. Chemical Engineering Research and Design, 2021, 176, 49-59.	5.6	34
21	PEEKâ€“WC-Based Mixed Matrix Membranes Containing Polyimine Cages for Gas Separation. Molecules, 2021, 26, 5557.	3.8	8
22	2D boron nitride nanosheets in PIM-1 membranes for CO2/CH4 separation. Journal of Membrane Science, 2021, 636, 119527.	8.2	52
23	PIM-based mixed-matrix membranes containing MOF-801/ionic liquid nanocomposites for enhanced CO2 separation performance. Journal of Membrane Science, 2021, 636, 119581.	8.2	64
24	Polymers of intrinsic microporosity and thermally rearranged polymer membranes for highly efficient gas separation. Separation and Purification Technology, 2021, 278, 119513.	7.9	44
25	Adsorption-based membranes for air separation using transition metal oxides. Nanoscale Advances, 2021, 3, 4502-4512.	4.6	3
26	Revisiting the MIL-101 metalâ€“organic framework: design, synthesis, modifications, advances, and recent applications. Journal of Materials Chemistry A, 2021, 9, 22159-22217.	10.3	100
27	Metal and Covalent Organic Frameworks for Membrane Applications. Membranes, 2020, 10, 107.	3.0	38
28	Gas Permeable Mixed Matrix Membranes Composed of a Polymer of Intrinsic Microporosity (PIM-1) and Surface-modified Pearl-necklace Silica Nanoparticles: Effect of Expansion of Nano-space on Gas Permeability. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2020, 33, 313-320.	0.3	4
29	Interface regulation of mixed matrix membranes by ultrathin MOF nanosheet for faster CO2 transfer. Journal of Membrane Science, 2022, 642, 119991.	8.2	17
30	Recent progress in PIM-1 based membranes for sustainable CO2 separations: Polymer structure manipulation and mixed matrix membrane design. Separation and Purification Technology, 2022, 284, 120277.	7.9	64
31	Nanostructured membranes for gas and vapor separation. , 2022, , 139-201.		0
32	Seeking synergy in membranes: blends and mixtures with polymers of intrinsic microporosity. Current Opinion in Chemical Engineering, 2022, 36, 100792.	7.8	5
33	Novel Mixed Matrix Membranes Based on Polymer of Intrinsic Microporosity PIM-1 Modified with Metal-Organic Frameworks for Removal of Heavy Metal Ions and Food Dyes by Nanofiltration. Membranes, 2022, 12, 14.	3.0	19
34	Metal organic framework (MOF)-based composite filler incorporated thin film nanocomposite of hollow fiber membrane for carbon dioxide permeance. Materials Today: Proceedings, 2022, 65, 3060-3065.	1.8	1
35	PIM-1 membranes containing POSS - graphene oxide for CO2 separation. Separation and Purification Technology, 2022, 298, 121447.	7.9	28
36	Highly efficient of CO2/CH4 separation performance via the pebax membranes with multi-functional polymer nanotubes. Microporous and Mesoporous Materials, 2022, 342, 112120.	4.4	5
37	Incorporating KAUST-7 into PIM-1 towards mixed matrix membranes with long-term stable CO2/CH4 separation performance. Journal of Membrane Science, 2022, 661, 120848.	8.2	17

#	Article	IF	Citations
38	Ester-crosslinked polymers of intrinsic microporosity membranes with enhanced plasticization resistance for CO2 separation. Separation and Purification Technology, 2023, 314, 123623.	7.9	19
39	Elucidating Improvements to MILâ€101(Cr)â€™s Porosity andÂParticle Size Distributions based on Innovations andÂFineâ€Tuning in Synthesis Procedures. Advanced Materials Interfaces, 2023, 10, .	3.7	1
40	Heteroatom-doped noble carbon-tailored mixed matrix membranes with ultrapermeability for efficient CO₂ separation. Materials Horizons, 2023, 10, 3660-3667.	12.2	5
41	Recent progress in ternary mixed matrix membranes for CO2 separation. Green Energy and Environment, 2023, , .	8.7	11
42	The Difference in Performance and Compatibility between Crystalline and Amorphous Fillers in Mixed Matrix Membranes for Gas Separation (MMMs). Polymers, 2023, 15, 2951.	4.5	4
43	Amidoxime Modified UiO-66@PIM-1 Mixed-Matrix Membranes to Enhance CO2 Separation and Anti-Aging Performance. Membranes, 2023, 13, 781.	3.0	0
44	Hydrogen-bonded hybrid membranes based on hydroxylated metal-organic frameworks and PIM-1 for ultrafast hydrogen separation. Results in Engineering, 2023, 20, 101398.	5.1	3
46	Pore-optimized MOF-808 made through a facile method using for fabrication of high-performance mixed matrix composite CO2 capture membranes. Carbon Capture Science & Technology, 2024, 10, 100156.	10.4	1
47	New perspectives in O2/N2 gas separation. , 2024, , 383-426.		0
48	Membrane Separation Technology in Direct Air Capture. Membranes, 2024, 14, 30.	3.0	0
49	In-situ crosslinking of TrÃ¶ger's base polymer onto a 3D TrÃ¶ger's base-bridged porous network as gas separation membranes. Separation and Purification Technology, 2024, 338, 126561.	7.9	2
50	Penetrant-induced plasticization in microporous polymer membranes. Chemical Society Reviews, 2024, 53, 2435-2529.	38.1	1
51	Single and mixed gas permeability studies on mixed matrix membranes composed of MIL-101(Cr) or MIL-177(Ti) and highly permeable polymers of intrinsic microporosity. Journal of Membrane Science, 2024, 697, 122475.	8.2	0
52	Polymers of intrinsic microporosity for membrane-based precise separations. Progress in Materials Science, 2024, 144, 101285.	32.8	0
53	Conversion of SOD zeolite into type I porous liquid and preparation of mixed matrix membrane with AO-PIM for efficient gas separation. Journal of Cleaner Production, 2024, 448, 141737.	9.3	0