

CITATION REPORT

List of articles citing

Performance studies of mixed matrix membranes for gas separation: A review

DOI: 10.1016/j.seppur.2010.08.023

Separation and Purification Technology, 2010, 75, 229-242.

Source: <https://exaly.com/paper-pdf/47852463/citation-report.pdf>

Version: 2024-04-20

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
681	Screening Metal-Organic Framework-Based Mixed-Matrix Membranes for CO ₂ /CH ₄ Separations. 2011 , 50, 12606-12616		59
680	Modeling molecular transport in composite membranes with tubular fillers. <i>Journal of Membrane Science</i> , 2011 , 381, 50-63	9.6	46
679	Recent advances of inorganic fillers in mixed matrix membrane for gas separation. <i>Separation and Purification Technology</i> , 2011 , 81, 243-264	8.3	466
678	The effects of aspect ratio of inorganic fillers on the structure and property of composite ion-exchange membranes. 2011 , 363, 431-9		29
677	Analysis of the Development of Membrane Technology for Gas Separation and CO ₂ Capture. <i>ACS Symposium Series</i> , 2011 , 7-26	0.4	6
676	The potential of perylene bisimide derivatives for the solubilization of carbon nanotubes and graphene. 2011 , 23, 2588-601		90
675	Amine-Functionalized MIL-53 Metal-Organic Framework in Polyimide Mixed Matrix Membranes for CO ₂ /CH ₄ Separation. 2012 , 51, 6895-6906		164
674	Detailed Investigation on Laboratory Scale Mixed-matrix-membrane Preparation for Gas Separation. 2012 , 44, 1870-1872		1
673	Preparation and Characterization of Mixed-Matrix-Membranes for the Separation of Higher Hydrocarbons from Methane. 2012 , 44, 1988-1990		1
672	Gas Sorption and Diffusion in Amorphous and Semicrystalline Nanoporous Poly(2,6-dimethyl-1,4-phenylene)oxide. 2012 , 45, 3604-3615		52
671	Determination of carbon dioxide transport coefficients in liquids and polymers by NMR spectroscopy. 2012 , 116, 6050-8		16
670	Mixed matrix membranes of aminosilanes grafted FAU/EMT zeolite and cross-linked polyimide for CO ₂ /CH ₄ separation. 2012 , 53, 3269-3280		77
669	High ionic liquid content polymeric gel membranes: Correlation of membrane structure with gas and vapour transport properties. <i>Journal of Membrane Science</i> , 2012 , 415-416, 801-809	9.6	111
668	The role of solubility partition coefficient at the mixed matrix interface in the performance of mixed matrix membranes. <i>Journal of Membrane Science</i> , 2012 , 415-416, 871-877	9.6	12
667	Novel mixed matrix membranes for sulfur removal and for fuel cell applications. 2012 , 220, 138-146		6
666	Practical Approach to Zeolitic Membranes and Coatings: State of the Art, Opportunities, Barriers, and Future Perspectives. 2012 , 24, 2829-2844		296
665	Interphase layer effects on transport in mixed matrix membranes. <i>Journal of Membrane Science</i> , 2012 , 421-422, 247-257	9.6	12

664	Some approaches for high performance polymer based membranes for gas separation: block copolymers, carbon molecular sieves and mixed matrix membranes. 2012 , 2, 10745		144
663	Gas sorption and permeation in mixed matrix membranes based on glassy polymers and silica nanoparticles. 2012 , 1, 148-155		21
662	Preparation of Multiple Interaction Membrane Chromatography using Mixed Matrix Membrane Preparation Concept. 2012 , 44, 133-135		1
661	PEG Functionalized POSS Incorporated PEBAX Nanocomposite Membranes. 2012 , 44, 1523-1526		6
660	Development of a Mechanistic Model for Mass Transfer in Sorption Selective Mixed-Matrix Membranes for Gas Separation. 2012 , 44, 1867-1869		3
659	Bioadhesion-inspired polymer/inorganic nanohybrid membranes with enhanced CO ₂ capture properties. 2012 , 22, 19617		53
658	Inorganic membranes. 2012 , 1, 156-162		59
657	Polymeric Gas Separation Membranes. 2012 , 45, 3298-3311		537
656	Zeolite filled polyimide membranes for dehydration of isopropanol through pervaporation process. 2012 , 90, 433-441		30
655	Studies on gas permeation performance of asymmetric polysulfone hollow fiber mixed matrix membranes using nanosized fumed silica as fillers. <i>Separation and Purification Technology</i> , 2012 , 86, 41-48	8.3	51
654	A comparison on gas separation between PES (polyethersulfone)/MMT (Na-montmorillonite) and PES/TiO ₂ mixed matrix membranes. <i>Separation and Purification Technology</i> , 2012 , 92, 57-63	8.3	94
653	High-performance membranes comprising polyaniline nanoparticles incorporated into polyvinylamine matrix for CO ₂ /N ₂ separation. <i>Journal of Membrane Science</i> , 2012 , 403-404, 203-215	9.6	60
652	Computational screening of metal organic frameworks for mixed matrix membrane applications. <i>Journal of Membrane Science</i> , 2012 , 407-408, 221-230	9.6	40
651	Advances in Membrane Development Based on Electrically Conducting Polymers. 2013 , 32, E189-E197		10
650	Recent advances in the fabrication of advanced composite membranes. 2013 , 1, 10058		219
649	A highly permeable mixed matrix membrane containing CAU-1-NH ₂ for H ₂ and CO ₂ separation. 2013 , 49, 8513-5		66
648	Amine-functionalized SBA-15 in poly(styrene-b-butadiene-b-styrene) (SBS) yields permeable and selective nanostructured membranes for gas separation. 2013 , 1, 11853		35
647	Gas permeation and separation properties of polyimide/ZSM-5 zeolite composite membranes containing liquid sulfolane. <i>Journal of Applied Polymer Science</i> , 2013 , 128, 3814-3823	2.9	22

646	Recent advances in metal-organic framework-based mixed matrix membranes. 2013 , 8, 1692-704		83
645	A fundamental study of the extent of meaningful application of Maxwell's and Wiener's equations to the permeability of binary composite materials. Part I: A numerical computation approach. 2013 , 104, 630-637		20
644	Development of a novel thin film composite membrane by interfacial polymerization on polyetherimide/modified SiO ₂ support for organic solvent nanofiltration. <i>Separation and Purification Technology</i> , 2013 , 119, 35-45	8.3	93
643	Recent Applications of Polymer Blends in Gas Separation Membranes. 2013 , 36, 1838-1846		119
642	Metal-organic framework thin films for protective coating of Pd-based optical hydrogen sensors. 2013 , 1, 8146		42
641	Rigorous calculations of permeation in mixed-matrix membranes: Evaluation of interfacial equilibrium effects and permeability-based models. <i>Journal of Membrane Science</i> , 2013 , 448, 160-169	9.6	38
640	PEBA [®] with PEG functionalized POSS as nanocomposite membranes for CO ₂ separation. <i>Journal of Membrane Science</i> , 2013 , 437, 286-297	9.6	180
639	Mixed matrix membranes composed of various polymer matrices and magnetic powder for air separation. <i>Separation and Purification Technology</i> , 2013 , 118, 424-431	8.3	30
638	Membrane adsorber with metal organic frameworks for sulphur removal. 2013 , 3, 9889		15
637	Optimization of continuous phase in amino-functionalized metal-organic framework (MIL-53) based co-polyimide mixed matrix membranes for CO ₂ /CH ₄ separation. 2013 , 3, 24266		102
636	Nanoporous organic polymer/cage composite membranes. 2013 , 52, 1253-6		221
635	Nanoporous Organic Polymer/Cage Composite Membranes. 2013 , 125, 1291-1294		52
634	Supported perfluorotributylamine liquid membrane for H ₂ /O ₂ separation. <i>Journal of Membrane Science</i> , 2013 , 448, 262-269	9.6	7
633	Carbon nanotubes-blended poly(phenylene sulfone) membranes for ultrafiltration applications. 2013 , 3, 93-103		26
632	Air Separation by Polymer-based Membrane Technology. 2013 , 42, 130-186		92
631	Thin Film Nanocomposite Membranes for Water Desalination. 2013 , 163-194		3
630	Predictive models for mixed-matrix membrane performance: a review. 2013 , 113, 4980-5028		363
629	MOF-polymer composite microcapsules derived from Pickering emulsions. 2013 , 25, 2717-22		169

628	Separation of CO ₂ from CH ₄ by pure PSF and PSF/PVP blend membranes: Effects of type of nonsolvent, solvent, and PVP concentration. <i>Journal of Applied Polymer Science</i> , 2013 , 130, 1139-1147	2.9	23
627	Beta-cyclodextrin functionalized MWCNT: A potential nano-membrane material for mixed matrix gas separation membranes development. <i>Separation and Purification Technology</i> , 2013 , 115, 39-50	8.3	32
626	Mixed matrix membranes incorporated with size-reduced Cu-BTC for improved gas separation. 2013 , 1, 6350		122
625	Material Advancements in Fabrication of Mixed-Matrix Membranes. 2013 , 36, 717-727		118
624	Challenges and opportunities for mixed-matrix membranes for gas separation. 2013 , 1, 4610		474
623	Reliable prediction of condensation rates for purification of natural gas via supersonic separators. <i>Separation and Purification Technology</i> , 2013 , 116, 458-470	8.3	58
622	Interfacially polymerized layers for oxygen enrichment: a method to overcome Robeson's upper-bound limit. 2013 , 5, 5563-8		19
621	Polysulfone mixed matrix gas separation hollow fibre membranes filled with polymer and carbon xerogels. 2013 , 92, 13-20		28
620	Influence of silica and coupling agent loading on thermal, morphological and mechanical properties of hybrid membranes. 2013 , 70, 2305-2317		2
619	Preparation and characterization of SAPO-34 [Matrimid] 5218 mixed matrix membranes for CO ₂ /CH ₄ separation. 2013 , 91, 1335-1342		55
618	Biohydrogen purification by membranes: An overview on the operational conditions affecting the performance of non-porous, polymeric and ionic liquid based gas separation membranes. 2013 , 38, 9673-9687		119
617	Advances in Hydrogen Separation and Purification with Membrane Technology. 2013 , 245-268		20
616	Mixed matrix membranes based on polyetherurethane and polyesterurethane containing silica nanoparticles for separation of CO ₂ /CH ₄ gases. <i>Separation and Purification Technology</i> , 2013 , 116, 1-12	8.3	64
615	Gas permeation through H ₂ -selective mixed matrix membranes: Experimental and neural network modeling. 2013 , 38, 1128-1135		87
614	Polymeric mixed matrix membranes containing zeolites as a filler for gas separation applications: A review. <i>Journal of Industrial and Engineering Chemistry</i> , 2013 , 19, 375-393	6.3	428
613	Gas permeation parameters of mixed matrix membranes based on the polymer of intrinsic microporosity PIM-1 and the zeolitic imidazolate framework ZIF-8. <i>Journal of Membrane Science</i> , 2013 , 427, 48-62	9.6	276
612	Modification of ideal MMMs permeation prediction models: Effects of partial pore blockage and polymer chain rigidification. <i>Journal of Membrane Science</i> , 2013 , 427, 399-410	9.6	30
611	Metal organic framework based mixed matrix membranes: An increasingly important field of research with a large application potential. <i>Microporous and Mesoporous Materials</i> , 2013 , 166, 67-78	5.3	399

610	CO ₂ Capture. 2013 , 1		2
609	Catalyzed Reactions on Mineral Plaster Materials Used for Indoor Air Purification. 2013 , 41, 437-446		7
608	Thin Films and Membranes with Hierarchical Porosity. 2013 , 1		1
607	Organic-inorganic hybrid membranes in separation processes: a 10-year review. 2013 , 30, 683-700		64
606	Mixed matrix membranes as potential transdermal devices for gemfibrozil release. <i>Journal of Applied Polymer Science</i> , 2014 , 132, n/a-n/a	2.9	1
605	Hybrid gas separation polymeric membranes containing nanoparticles. 2014 , 54, 637-651		22
604	Synthesis and Characterization of Polysulfone/Montmorillonite (PSF/MMT) Mixed Matrix Membrane for Gas Separation. 2014 , 925, 18-22		1
603	Effects of Montmorillonite (MMT) Inorganic Fillers on Polyvinylidene (PVDF) Mixed Matrix Membrane. 2014 , 625, 696-700		4
602	Interfacial Defects on Mixed Matrix Membranes and Mitigation Techniques for Gas Separation: A Review. 2014 , 625, 653-656		5
601	Preparation and Characterization of Newly Developed Polysulfone/Polyethersulfone Blend Membrane for CO ₂ Separation. 2014 , 699, 325-330		8
600	Preparation, characterization, and applicability of novel calix[4]arene-based cellulose acetate membranes in gas permeation. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a	2.9	18
599	Composite membranes with a highly selective polymer skin for hydrogen separation. <i>Separation and Purification Technology</i> , 2014 , 135, 190-198	8.3	17
598	Zeolitic Imidazolate Frameworks (ZIF): A Potential Membrane for CO ₂ /CH ₄ Separation. 2014 , 49, 1490-1508		24
597	Development of Solubility Selective Mixed Matrix Membranes for Gas Separation. 2014 , 86, 83-91		15
596	Hybrid membranes containing inorganic nanoparticles. 2014 , 24, 319-326		49
595	Enhanced gas separation properties of metal organic frameworks/polyetherimide mixed matrix membranes. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a	2.9	11
594	A cellulose acetate/multi-walled carbon nanotube mixed matrix membrane for CO ₂ /N ₂ separation. <i>Journal of Membrane Science</i> , 2014 , 451, 55-66	9.6	143
593	High purity multi-walled carbon nanotubes: Preparation, characterization and performance as filler materials in co-polyimide hollow fiber membranes. <i>Separation and Purification Technology</i> , 2014 , 122, 262-269	8.3	38

592	Zeolitic imidazolate framework composite membranes and thin films: synthesis and applications. 2014 , 43, 4470-93		463
591	Mixed matrix membranes comprising MOFs and porous silicate fillers prepared via spin coating for gas separation. 2014 , 107, 66-75		74
590	Pebax/PEG/MWCNT hybrid membranes with enhanced CO ₂ capture properties. <i>Journal of Membrane Science</i> , 2014 , 460, 62-70	9.6	184
589	Pervaporative performances of mixed matrix membranes filled with silica/silicalite-1 particles for purification of toluene from dilute aqueous solution. 2014 , 2, 888-898		10
588	Current and future applications for nanofiltration technology in the food processing. 2014 , 92, 161-177		96
587	Mixed matrix membranes of Pebax-1657 loaded with 4A zeolite for gaseous separations. <i>Separation and Purification Technology</i> , 2014 , 129, 1-8	8.3	206
586	A comprehensive computational strategy for fitting experimental permeation data of mixed matrix membranes. <i>Journal of Membrane Science</i> , 2014 , 452, 271-276	9.6	16
585	Cardo polyimides/TiO ₂ mixed matrix membranes: Synthesis, characterization, and gas separation property improvement. <i>Separation and Purification Technology</i> , 2014 , 122, 367-375	8.3	27
584	State-of-the-art membrane based CO ₂ separation using mixed matrix membranes (MMMs): An overview on current status and future directions. 2014 , 39, 817-861		605
583	PIM-1/MIL-101 hybrid composite membrane material: Transport properties and free volume. 2014 , 54, 477-481		22
582	Fabrication of hybrid polymer/metal organic framework membranes: mixed matrix membranes versus in situ growth. 2014 , 2, 9260-9271		123
581	Magnetic molecularly imprinted microcapsules derived from Pickering emulsion polymerization and their novel adsorption characteristics for β -cyhalothrin. 2014 , 4, 4435-4443		26
580	Dual-functionalized mesoporous TiO ₂ hollow nanospheres for improved CO ₂ separation membranes. 2014 , 50, 5717-20		33
579	High Pervaporation Dehydration Performance of the Composite Membrane with an Ultrathin Alginate/Poly(acrylic acid)/Fe ₃ O ₄ Active Layer. 2014 , 53, 1606-1616		41
578	Mixed matrix membranes for process intensification in electrodialysis of amino acids. 2014 , 89, 425-435		12
577	Magnetic Mixed Matrix Membranes Consisting of PPO Matrix and Magnetic Filler in Gas Separation. 2014 , 49, 1729-1735		20
576	Gas Permeation Models in Mixed Matrix Membranes for Gas Separation. 2014 , 917, 317-324		4
575	Rapid room temperature syntheses of zeolitic-imidazolate framework (ZIF) nanocrystals. 2014 , 50, 13258-60		60

574	Synthesis and electromechanical actuation of a temperature, pH, and electrically responsive hydrogel. 2014 , 21, 1		13
573	Preparation and characterization of PVDF-montmorillonite mixed matrix hollow fiber membrane for gas-liquid contacting process. 2014 , 92, 2449-2460		55
572	Biomimetic and bioinspired membranes: Preparation and application. 2014 , 39, 1668-1720		155
571	Gas transport through nanocomposite membrane composed by polyethylene with dispersed graphite nanoplatelets. <i>Journal of Membrane Science</i> , 2014 , 463, 196-204	9.6	51
570	Enhanced desulfurization performance of PDMS membranes by incorporating silver decorated dopamine nanoparticles. 2014 , 2, 12907		31
569	Mixed matrix membranes with strengthened MOFs/polymer interfacial interaction and improved membrane performance. 2014 , 6, 5609-18		132
568	Self-assembled polyelectrolyte surfactant nanocomposite membranes for pervaporation separation of MeOH/MTBE. <i>Journal of Membrane Science</i> , 2014 , 472, 91-101	9.6	37
567	Influence of various types of silica nanoparticles on permeation properties of polyurethane/silica mixed matrix membranes. <i>Journal of Membrane Science</i> , 2014 , 453, 369-383	9.6	76
566	A facile route to the preparation of mixed matrix polyvinylidene fluoride membranes with in-situ generated polyethyleneimine particles. <i>Journal of Membrane Science</i> , 2014 , 450, 93-102	9.6	36
565	Prediction of CO ₂ /CH ₄ permeability through Sigma-1-Matrimid-5218 MMMs using the Maxwell model. <i>Journal of Membrane Science</i> , 2014 , 466, 265-273	9.6	21
564	Mixed matrix membranes incorporated with cubic-MOF-5 for improved polyetherimide gas separation membranes: Theory and experiment. <i>Journal of Industrial and Engineering Chemistry</i> , 2014 , 20, 3857-3868	6.3	71
563	MIL-53 frameworks in mixed-matrix membranes. <i>Microporous and Mesoporous Materials</i> , 2014 , 196, 165-174	7.4	85
562	Electro-casting aligned MWCNTs/polystyrene composite membranes for enhanced gas separation performance. <i>Journal of Membrane Science</i> , 2014 , 462, 62-68	9.6	35
561	Characterization and gas permeation properties of polyimide/ZSM-5 zeolite composite membranes containing ionic liquid. <i>Journal of Membrane Science</i> , 2014 , 454, 330-338	9.6	59
560	Polyaniline in situ modified halloysite nanotubes incorporated asymmetric mixed matrix membrane for gas separation. <i>Separation and Purification Technology</i> , 2014 , 132, 187-194	8.3	54
559	The role of layered silicate loadings and their dispersion states on the gas separation performance of mixed matrix membrane. <i>Journal of Membrane Science</i> , 2014 , 468, 20-30	9.6	54
558	Mixed Matrix Hollow Fiber Membranes with enhanced gas permeation properties. <i>Separation and Purification Technology</i> , 2014 , 132, 336-345	8.3	30
557	Deoxygenation performance of polydimethylsiloxane mixed-matrix membranes for dissolved oxygen removal from water. <i>Journal of Applied Polymer Science</i> , 2015 , 132, n/a-n/a	2.9	3

556	2D MoS ₂ PDMS Nanocomposites for NO ₂ Separation. 2015 , 11, 5035-40		48
555	Mixed matrix membranes based on 6FDA polyimide with silica and zeolite microsphere dispersed phases. 2015 , 61, 4481-4490		47
554	A Review on Gas Separation Applications of Supported Ionic Liquid Membranes. 2015 , 2, 290-302		19
553	Zeolite Membranes in Catalysis From Separate Units to Particle Coatings. 2015 , 5, 2161-2222		20
552	Enhanced Gas Permeation through Graphene Nanocomposites. 2015 , 119, 13700-13712		62
551	Theoretical investigation of cross flow ultrafiltration by mixed matrix membrane: A case study on fluoride removal. 2015 , 365, 347-354		11
550	Effect of LSCF content on the performance of LSCF/PES mixed matrix membranes. 2015 , 359, 108-112		3
549	Relationship between long-range diffusion and diffusion in the ZIF-8 and polymer phases of a mixed-matrix membrane by high field NMR diffusometry. <i>Journal of Membrane Science</i> , 2015 , 477, 123-130	9.6	29
548	Efficient CO ₂ capture by functionalized graphene oxide nanosheets as fillers to fabricate multi-permselective mixed matrix membranes. 2015 , 7, 5528-37		255
547	Fabrication of a novel ultrafiltration membrane by facile blending with Chitosan/Montmorillonite nanosheets for dyes purification. 2015 , 265, 184-193		207
546	Gas permeation and sorption properties of poly(amide-12-b-ethyleneoxide)(Pebax1074)/SAPO-34 mixed matrix membrane for CO ₂ /CH ₄ and CO ₂ /N ₂ separation. <i>Journal of Industrial and Engineering Chemistry</i> , 2015 , 27, 223-239	6.3	93
545	Fabrication and evaluation of nanocomposite membranes of polyethersulfone/alumina for hydrogen separation. 2015 , 24, 171-183		14
544	Enhancement of the gas separation properties of polyurethane membranes by alumina nanoparticles. <i>Journal of Membrane Science</i> , 2015 , 479, 11-19	9.6	79
543	Mixed-matrix membranes based on polyurethane containing nanohydroxyapatite and its potential applications. <i>Journal of Applied Polymer Science</i> , 2015 , 132,	2.9	2
542	Impact of preparation method on physical properties and gas separation performance of fluorinated copolymer membranes. 2015 , 86, 117-124		5
541	Helium and hydrogen selective carbon hollow fiber membranes: The effect of pyrolysis isothermal time. <i>Separation and Purification Technology</i> , 2015 , 142, 176-181	8.3	51
540	The effect of functionalized carbon nano-fiber (CNF) on gas separation performance of polysulfone (PSf) membranes. 2015 , 90, 41-48		39
539	Mixed matrix membrane performance enhancement using alkanolamine solution. <i>Journal of Membrane Science</i> , 2015 , 483, 84-93	9.6	38

538	Metal-organic framework based mixed matrix membranes: a solution for highly efficient CO ₂ capture?. 2015 , 44, 2421-54		627
537	Nanocellulose-Zeolite Composite Films for Odor Elimination. 2015 , 7, 14254-62		35
536	Preparation and characterization of Matrimid \square 5218 based binary and ternary mixed matrix membranes for CO ₂ separation. 2015 , 39, 225-235		55
535	Effect of Carbon Molecular Sieve (CMS) Concentration on Mixed Matrix Membranes (MMMs) Performance for Carbon Dioxide Removal. 2015 , 754-755, 869-873		11
534	Mixed-Matrix Membranes for CO ₂ /N ₂ Separation Comprising a Poly(vinylamine) Matrix and Metal-Organic Frameworks. 2015 , 54, 5139-5148		55
533	Gas separation performance of thin film nanocomposite membranes incorporated with polymethyl methacrylate grafted multi-walled carbon nanotubes. 2015 , 102, 339-345		27
532	Predictions of effective diffusivity of mixed matrix membranes with tubular fillers. <i>Journal of Membrane Science</i> , 2015 , 485, 123-131	9.6	12
531	Janus composite nanoparticle-incorporated mixed matrix membranes for CO ₂ separation. <i>Journal of Membrane Science</i> , 2015 , 489, 1-10	9.6	49
530	Enhanced CO ₂ /CH ₄ separation properties of asymmetric mixed matrix membrane by incorporating nano-porous ZSM-5 and MIL-53 particles into Matrimid \square 5218. 2015 , 25, 88-102		76
529	Utilizing low ZIF-8 loading for an asymmetric PSf/ZIF-8 mixed matrix membrane for CO ₂ /CH ₄ separation. 2015 , 5, 30206-30215		58
528	Thin film nanocomposite embedded with polymethyl methacrylate modified multi-walled carbon nanotubes for CO ₂ removal. 2015 , 5, 31683-31690		22
527	Membranes for vapour permeation: preparation and characterization. 2015 , 145-175		5
526	Using a New Model for Prediction of Gas Permeability through MMMs: Considering Effects of Particles Shape, Polymer Chain Rigidification, Partial Pore Blockage, and Void Formation. 2015 , 150527095459001		101
525	Facile modification of ZIF-8 mixed matrix membrane for CO ₂ /CH ₄ separation: synthesis and preparation. 2015 , 5, 43110-43120		83
524	Mixed matrix membranes using SAPO-34/polyetherimide for carbon dioxide/methane separation. <i>Separation and Purification Technology</i> , 2015 , 148, 38-48	8.3	26
523	Oxygen Barrier Properties of Waterborne Polyurethane/Silica Hybrids. 2015 , 54, 711-721		2
522	The effects of aminosilane grafting on NaY zeolite/Matrimid \square 5218 mixed matrix membranes for CO ₂ /CH ₄ separation. <i>Journal of Membrane Science</i> , 2015 , 490, 364-379	9.6	116
521	Estimations of effective diffusivity of hollow fiber mixed matrix membranes. <i>Journal of Membrane Science</i> , 2015 , 495, 269-275	9.6	9

520	Effects of Gamma Irradiation on Clay Membrane with Poly(vinyl alcohol) for Fire Retardancy. 2015 , 54, 10740-10746		7
519	Sustainability in Petrochemical Industry: Mixed Matrix Membranes from Polyethersulfone/Cloisite15a□ for the Removal of Carbon Dioxide. 2015 , 26, 461-466		5
518	Separations of binary mixtures of CO ₂ /CH ₄ and CO ₂ /N ₂ with mixed-matrix membranes containing Zn(pyrz) ₂ (SiF ₆) metal-organic framework. <i>Journal of Membrane Science</i> , 2015 , 495, 169-175	9.6	46
517	Opportunities and challenges of MOF-based membranes in gas separations. <i>Separation and Purification Technology</i> , 2015 , 152, 207-237	8.3	182
516	Polymeric Composite Membrane for CO ₂ /CH ₄ Separation. 2015 , 167-175		
515	Mixed matrix membranes composed of two-dimensional metalorganic framework nanosheets for pre-combustion CO ₂ capture: a relationship study of filler morphology versus membrane performance. 2015 , 3, 20801-20810		101
514	A high performance O ₂ selective membrane based on CAU-1-NH ₂ @polydopamine and the PMMA polymer for Li-air batteries. 2015 , 51, 4364-7		89
513	Study of morphology and gas separation properties of polysulfone/titanium dioxide mixed matrix membranes. 2015 , 55, 367-374		28
512	Correlation of gas permeation and free volume in new and used high free volume thin film composite membranes. 2015 , 53, 213-217		25
511	Modelling in mixed matrix membranes for gas separation. 2015 , 93, 88-95		18
510	Mixed matrix membranes□gas separation performance prediction using an analytical model. 2015 , 93, 710-719		9
509	CO ₂ /CH ₄ separation through a novel commercializable three-phase PEBA/PEG/NaX nanocomposite membrane. <i>Journal of Industrial and Engineering Chemistry</i> , 2015 , 23, 238-242	6.3	49
508	Compatibilized Immiscible Polymer Blends for Gas Separations. 2016 , 9,		12
507	Enhanced Water Vapor Transmission through Porous Membranes Based on Melt Blending of Polystyrene Sulfonate with Polyethylene Copolymers and Their CNT Nanocomposites. <i>Polymers</i> , 2016 , 8,	4.5	18
506	Origins and Evolution of Inorganic-Based and MOF-Based Mixed-Matrix Membranes for Gas Separations. 2016 , 4, 32		28
505	Effect of MIL-53 on phase inversion and gas separation performance of mixed matrix hollow fiber membranes. 2016 , 6, 69124-69134		30
504	In situ Generation of Reticulate Micropores through Covalent Network/Polymer Nanocomposite Membranes for Reverse-Selective Separation of Carbon Dioxide. 2016 , 128, 1340-1345		8
503	Investigation of Carbon Nanotubes in Mixed Matrix Membranes for Gas Separation: A Review. 2016 , 3, 276-298		30

502 Polymer Nanomembranes. **2016**, 293-328

501 Simultaneous enhancement of mechanical properties and CO₂ selectivity of ZIF-8 mixed matrix membranes: Interfacial toughening effect of ionic liquid. *Journal of Membrane Science*, **2016**, 511, 130-142^{9.6} 171

500 Low-temperature fuel cells: Outlook for application in energy storage systems and materials for their development. **2016**, 63, 385-398 21

499 Mixed matrix membrane of nano-zeolite NaX/poly (ether-block-amide) for gas separation applications. *Journal of Membrane Science*, **2016**, 510, 270-283 9.6 119

498 Improved Salts Transportation of a Positively Charged Loose Nanofiltration Membrane by Introduction of Poly(ionic liquid) Functionalized Hydrotalcite Nanosheets. **2016**, 4, 3292-3304 57

497 The role of compatibility between polymeric matrix and silane coupling agents on the performance of mixed matrix membranes: Polyethersulfone/MCM-41. *Journal of Membrane Science*, **2016**, 513, 20-32^{9.6} 88

496 Progress in Applications of Polymer-Based Membranes in Gas Separation Technology. **2016**, 55, 1282-1298 27

495 Enhanced gas separation performance of mixed matrix membranes from graphitic carbon nitride nanosheets and polymers of intrinsic microporosity. *Journal of Membrane Science*, **2016**, 514, 15-24^{9.6} 78

494 Harnessing the power of latex solutions based on titania particles Using si-ATRP towards larger surface modification for applications in gas separation membranes. **2016**, 510, 245-253 3

493 Synthesis and Characterization of Polyethersulfone/Carbon Molecular Sieve Based Mixed Matrix Membranes for Water Treatment Applications. **2016**, 148, 588-593 16

492 Modeling of gas permeation through mixed matrix membranes using a comprehensive computational method. **2016**, 33, 3194-3202 4

491 Improved Interfacial Affinity and CO₂ Separation Performance of Asymmetric Mixed Matrix Membranes by Incorporating Postmodified MIL-53(Al). **2016**, 8, 22696-704 85

490 Gas Separation of Carbon Dioxide from Methane Using Polysulfone Membrane Incorporated with Zeolite-T. **2016**, 148, 621-629 24

489 Mixed matrix membranes comprising PMP polymer with dispersed alumina nanoparticle fillers to separate CO₂/N₂. **2016**, 24, 782-792 33

488 Thin film nanocomposite: the next generation selective membrane for CO₂ removal. **2016**, 4, 15726-15748 50

487 Recent advances in multi-layer composite polymeric membranes for CO₂ separation: A review. **2016**, 1, 102-128 157

486 Enhancement of the gas separation properties of polyurethane membrane by epoxy nanoparticles. *Journal of Industrial and Engineering Chemistry*, **2016**, 44, 67-72 6.3 57

485 Fabrication of mixed matrix membranes containing TiO₂ nanoparticles in Pebax 1657 as a copolymer on an ultra-porous PVC support. **2016**, 35, 33-41 38

484	Nanoconfined Zeolitic Imidazolate Framework Membranes with Composite Layers of Nearly Zero Thickness. 2016 , 8, 21979-83		46
483	Analysis of the Influence of CMS Variable Percentages on Pure PES Membrane Gas Separation Performance. 2016 , 148, 1206-1212		16
482	Gas separation in mixed matrix membranes based on polyurethane containing SiO ₂ , ZSM-5, and ZIF-8 nanoparticles. 2016 , 35, 695-702		40
481	Graphene oxide/polysulfone hollow fiber mixed matrix membranes for gas separation. 2016 , 6, 89130-89139		48
480	The rheological and mechanical properties of magnetic hybrid membranes for gas mixtures separation. 2016 , 183, 170-174		13
479	Propylene/propane permeation properties of ethyl cellulose (EC) mixed matrix membranes fabricated by incorporation of nanoporous graphene nanosheets. 2016 , 6, 28509		14
478	Microwave-Assisted Synthesis of Highly Monodispersed Single-Walled Aluminosilicate Nanotubes. 2016 , 1, 6212-6216		5
477	Ionic Liquids as the MOFs/Polymer Interfacial Binder for Efficient Membrane Separation. 2016 , 8, 32041-32049	112	
476	Metal Organic Framework Mixed Matrix Membranes for CO ₂ Separation. 2016 ,		1
475	MOF-Based Mixed-Matrix Membranes in Gas Separation [Mystery and Reality. 2016 , 88, 1788-1797		15
474	Sensor systems based on ion exchange membranes for analysis of multicomponent solutions. 2016 , 56, 987-1005		3
473	Investigating the mechanism of nanofiltration separation of glucosamine hydrochloride and N-acetyl glucosamine. 2016 , 3,		3
472	Mixed matrix membranes based on polysulfone and rice husk extracted silica for CO ₂ separation. <i>Separation and Purification Technology</i> , 2016 , 170, 122-129	8.3	43
471	A review on Zeolite-Reinforced Polymeric Membranes: Salient Features and Applications. 2016 , 55, 1971-1987		13
470	Establishment of a nanofiltration rejection sequence and calculated rejections of available monosaccharides. <i>Separation and Purification Technology</i> , 2016 , 163, 319-330	8.3	11
469	Computational Methods for MOF/Polymer Membranes. 2016 , 16, 703-18		13
468	Prospects of practical application of hybrid membranes. 2016 , 56, 281-293		40
467	In situ Generation of Reticulate Micropores through Covalent Network/Polymer Nanocomposite Membranes for Reverse-Selective Separation of Carbon Dioxide. 2016 , 55, 1318-23		12

466	Effect of different organic amino cations on SAPO-34 for PES/SAPO-34 mixed matrix membranes toward CO ₂ /CH ₄ separation. <i>Journal of Applied Polymer Science</i> , 2016 , 133, n/a-n/a	2.9	11
465	The morphology and gas-separation performance of membranes comprising multiwalled carbon nanotubes/polysulfone Kapton. <i>Journal of Applied Polymer Science</i> , 2016 , 133,	2.9	26
464	Gas permeation properties of polymer membranes containing pendant tertiary amine groups. 2016 , 28, 1005-1014		8
463	Surface modification in inorganic filler of mixed matrix membrane for enhancing the gas separation performance. 2016 , 32,		33
462	Hybrid polymer/MOF membranes for Organic Solvent Nanofiltration (OSN): Chemical modification and the quest for perfection. <i>Journal of Membrane Science</i> , 2016 , 503, 166-176	9.6	111
461	Methyl acetate production by coupled esterification-reaction process using synthesized cross-linked PVA/silica nanocomposite membranes. 2016 , 288, 461-472		43
460	Novel nanofiltration membrane with ultrathin zirconia film as selective layer. <i>Journal of Membrane Science</i> , 2016 , 500, 265-271	9.6	72
459	Ultra-thin film composite mixed matrix membranes incorporating iron(III)-dopamine nanoparticles for CO ₂ separation. 2016 , 8, 8312-23		47
458	Polyaniline/polybenzimidazole blends: Characterisation of its physico-chemical properties and gas separation behaviour. 2016 , 77, 98-113		22
457	Market and technology assessment of natural gas processing: A review. 2016 , 30, 487-514		54
456	Prediction of gas transport across amine mixed matrix membranes with ideal morphologies based on the Maxwell model. 2016 , 6, 30130-30138		9
455	Preparation and characterization of nanocomposite PVDF ultrafiltration membrane embedded with nanoporous SAPO-34 to improve permeability and antifouling performance. <i>Separation and Purification Technology</i> , 2016 , 163, 300-309	8.3	47
454	Matrimid mixed matrix membranes for enhanced CO ₂ /CH ₄ separation. 2016 , 36, 499-511		11
453	Gas barrier performance of graphene/polymer nanocomposites. 2016 , 98, 313-333		387
452	Highly selective mixed-matrix membranes with layered fillers for molecular separation. <i>Journal of Membrane Science</i> , 2016 , 497, 394-401	9.6	15
451	Zeolites in Sustainable Chemistry. 2016 ,		14
450	Relationship between mixed and pure gas self-diffusion for ethane and ethene in ZIF-8/6FDA-DAM mixed-matrix membrane by pulsed field gradient NMR. <i>Journal of Membrane Science</i> , 2016 , 499, 12-19	9.6	35
449	Zeolite Thin Films and Membranes: From Fundamental to Applications. 2016 , 435-472		10

448	Polysulfone/poly(ether sulfone) blended membranes for CO ₂ separation. <i>Journal of Applied Polymer Science</i> , 2016 , 133, n/a-n/a	2.9	40
447	Mixed Matrix Membranes for Water Purification Applications. 2017 , 46, 62-80		89
446	Carbon dioxide capture using a superhydrophobic ceramic hollow fibre membrane for gas-liquid contacting process. 2017 , 140, 1731-1738		44
445	Tuning the Interplay between Selectivity and Permeability of ZIF-7 Mixed Matrix Membranes. 2017 , 9, 33401-33407		58
444	Enhanced gas transport properties in silica nanoparticle filler-polystyrene nanocomposite membranes. 2017 , 295, 215-226		44
443	Selective water-permeable channels induced by polystyrene brushes within hairy nanocellulose/cellulose acetate membrane. 2017 , 28, 1357-1365		1
442	Thermal stability and decomposition kinetic studies of antimicrobial PCL/nanoclay packaging films. 2017 , 74, 3833-3853		20
441	Extending effective medium theory to finite size systems: Theory and simulation for permeation in mixed-matrix membranes. <i>Journal of Membrane Science</i> , 2017 , 531, 148-159	9.6	20
440	High-flux polysulfone mixed matrix hollow fiber membrane incorporating mesoporous titania nanotubes for gas separation. <i>Separation and Purification Technology</i> , 2017 , 180, 13-22	8.3	22
439	Interfacial Design of Ternary Mixed Matrix Membranes Containing Pebax 1657/Silver-Nanopowder/[BMIM][BF] for Improved CO Separation Performance. 2017 , 9, 10094-10105		72
438	Fabrication of polycarbonate mixed matrix membranes containing hydrous manganese oxide and alumina nanoparticles for heavy metal decontamination: Characterization and comparative study. 2017 , 120, 240-253		43
437	Gas permeation properties of polymer membranes containing ethylene glycol monomers. 2017 , 29, 237-245		4
436	Performance improvement of PDMS/PES membrane by adding silicalite-1 nanoparticles: separation of xenon and krypton. 2017 , 71, 1587-1596		4
435	A Review Featuring Fabrication, Properties, and Application of Polymeric Mixed Matrix Membrane Reinforced with Different Fillers. 2017 , 56, 2043-2064		7
434	Effect of embedded activated carbon nanoparticles on the performance of polydimethylsiloxane (PDMS) membrane for pervaporation separation of butanol. 2017 , 92, 2901-2911		30
433	CO ₂ /CH ₄ separation using mixed matrix membrane-based polyurethane incorporated with ZIF-8 nanoparticles. 2017 , 71, 1839-1853		20
432	Recent advances in the synthesis and applications of metal organic frameworks doped with ionic liquids for CO ₂ adsorption. 2017 , 351, 189-204		76
431	Determination of Gas Transport Coefficients of Mixed Gases in 6FDA-TMPDA Polyimide by NMR Spectroscopy. 2017 , 50, 3590-3597		10

430	CO ₂ separation of polymer membranes containing silica nanoparticles with gas permeable nano-space. <i>Journal of Membrane Science</i> , 2017 , 536, 148-155	9.6	47
429	Synthesis and Gas-Transport Properties of Novel Copolymers Based on Tricyclononenes Containing One and Three Me ₃ Si-Groups. 2017 , 218, 1600385		13
428	Recent progress in developments of membrane materials and modification techniques for high performance helium separation and recovery: A review. 2017 , 122, 296-318		35
427	Description of gas transport in perfluoropolymer/SAPO-34 mixed matrix membranes using four-resistance model. <i>Separation and Purification Technology</i> , 2017 , 185, 160-174	8.3	11
426	Polycarbonate/silica nanocomposite membranes: Fabrication, characterization, and performance evaluation. <i>Journal of Applied Polymer Science</i> , 2017 , 134, 45310	2.9	15
425	Molecular transport through mixed matrix membranes: A time-dependent density functional approach. 2017 , 63, 4586-4594		8
424	Polymer rigidification in graphene based nanocomposites: Gas barrier effects and free volume reduction. 2017 , 121, 17-25		29
423	Enhancing Mixed-Matrix Membrane Performance with Metal-Organic Framework Additives. 2017 , 17, 4467-4488		92
422	Aminosilane-functionalized ZIF-8/PEBA mixed matrix membrane for gas separation application. <i>Microporous and Mesoporous Materials</i> , 2017 , 247, 124-135	5.3	60
421	Mechanical behavior of MWCNTs based mixed-matrix polymeric and carbon hollow fiber membranes. <i>Separation and Purification Technology</i> , 2017 , 183, 21-31	8.3	10
420	Polydimethylsiloxane/postmodified MIL-53 composite layer coated on asymmetric hollow fiber membrane for improving gas separation performance. <i>Journal of Applied Polymer Science</i> , 2017 , 134,	2.9	4
419	Mixed Matrix Membranes Based on PIMs for Gas Permeation: Principles, Synthesis, and Current Status. 2017 , 204, 295-309		46
418	Dehydration of acetonitrile using cross-linked sodium alginate membrane containing nano-sized NaA zeolite. 2017 , 71, 1143-1153		8
417	Preparation and characterization of (Pebax 1657 + silica nanoparticle)/PVC mixed matrix composite membrane for CO ₂ /N ₂ separation. 2017 , 71, 803-818		32
416	Effective enhancement of gas separation performance in mixed matrix membranes using core/shell structured multi-walled carbon nanotube/graphene oxide nanoribbons. 2017 , 28, 065702		31
415	Ultra-thin MFI membranes for olefin/nitrogen separation. <i>Journal of Membrane Science</i> , 2017 , 524, 428-435	9.5	32
414	Preparation and gas separation performance of mixed-matrix membranes based on triptycene-containing polyimide and zeolite imidazole framework (ZIF-90). 2017 , 131, 209-216		26
413	Self-Organized Frameworks on Textiles (SOFT): Conductive Fabrics for Simultaneous Sensing, Capture, and Filtration of Gases. 2017 , 139, 16759-16767		155

412	Highly CO Selective Microporous Metal-Imidazolate Framework-Based Mixed Matrix Membranes. 2017 , 9, 35936-35946		11
411	Chemically Cross-Linked MOF Membrane Generated from Imidazolium-Based Ionic Liquid-Decorated UiO-66 Type NMOF and Its Application toward CO Separation and Conversion. 2017 , 9, 38919-38930		65
410	Biogas as a renewable energy fuel □ A review of biogas upgrading, utilisation and storage. 2017 , 150, 277-294		352
409	Humid permeation of CO ₂ and hydrocarbons in Aquivion □ perfluorosulfonic acid ionomer membranes, experimental and modeling. <i>Journal of Membrane Science</i> , 2017 , 542, 367-377	9.6	18
408	Synthesis of Coordination Polymer Nanoparticles using Self-Assembled Block Copolymers as Template. 2017 , 23, 18093-18100		28
407	Mixed Matrix Membranes for Gas Separation Applications. 2017 , 1-57		3
406	Modified Bruggeman models for prediction of CO ₂ permeance in polycarbonate/silica nanocomposite membranes. 2017 , 95, 2398-2409		12
405	WITHDRAWN: Synthesis, characterization of zeolitic imidazolate frameworks 8 (ZIF 8) and carbon molecular sieves (CMS) membranes for gas separation. 2017 ,		
404	Hydrogen gas separation with controlled selectivity via efficient and cost effective block copolymer coated PET membranes. 2017 , 42, 19977-19983		10
403	Molecular dynamics and Monte Carlo simulation of the structural properties, diffusion and adsorption of poly (amide-6-b-ethylene oxide)/Faujasite mixed matrix membranes. <i>Journal of Molecular Liquids</i> , 2017 , 242, 404-415	6	11
402	Facile synthesis of Cu ₃ (BTC) ₂ /cellulose acetate mixed matrix membranes and their catalytic applications in continuous flow process. 2017 , 41, 9123-9129		13
401	Improved CO ₂ /CH ₄ separation using a nanocomposite ionic liquid gel membrane. 2017 , 46, 275-288		31
400	Short fiber/polyurethane composite membrane for gas separation. <i>Journal of Membrane Science</i> , 2017 , 543, 40-48	9.6	15
399	Novel copolyaramides with bulky flexible groups for pure and mixed-gas separation. <i>Separation and Purification Technology</i> , 2017 , 189, 366-374	8.3	8
398	Recognition of polymer-particle interfacial morphology in mixed matrix membranes through ideal permeation predictive models. 2017 , 63, 25-37		15
397	Effective hydrogen purification from methane via polyimide Matrimid □ 5218- Deca-dodecyl 3R type zeolite mixed matrix membrane. 2017 , 141, 2100-2107		14
396	Carbon nanotubes as potential candidate for separation of H ₂ CO ₂ gas pairs. 2017 , 42, 29283-29299		21
395	Effect of nanofillers on selectivity of high performance mixed matrix membranes for separating gas mixtures. 2017 , 34, 2119-2134		18

394	A review of recent advances in molecular simulation of graphene-derived membranes for gas separation. 2017 , 71, 1		11
393	Post-Synthetic Annealing: Linker Self-Exchange in UiO-66 and Its Effect on Polymer/Metal Organic Framework Interaction. 2017 , 17, 4384-4392		27
392	Recent progress in molecular simulation of nanoporous graphene membranes for gas separation. 2017 , 71, 54-62		8
391	Enhancing mechanical stability and uniformity of 2-D continuous ZIF-8 membranes by Zn(II)-doped polydopamine modification. <i>Journal of Membrane Science</i> , 2017 , 541, 101-107	9.6	19
390	On the effect of fumed silica particles on the structure, properties and application of PVDF membranes. <i>Separation and Purification Technology</i> , 2017 , 187, 365-373	8.3	39
389	High speed spin coating in fabrication of Pebax 1657 based mixed matrix membrane filled with ultra-porous ZIF-8 particles for CO ₂ /CH ₄ separation. 2017 , 34, 440-453		40
388	Pebax/polydopamine microsphere mixed-matrix membranes for efficient CO ₂ separation. <i>Journal of Applied Polymer Science</i> , 2017 , 134,	2.9	5
387	Study of different titanosilicate (TS-1 and ETS-10) as fillers for Mixed Matrix Membranes for CO ₂ /CH ₄ gas separation applications. <i>Journal of Membrane Science</i> , 2017 , 523, 24-35	9.6	42
386	Modification of gas selective SAPO zeolites using imidazolium ionic liquid to develop polysulfone mixed matrix membrane for CO ₂ gas separation. <i>Microporous and Mesoporous Materials</i> , 2017 , 244, 21-30	5.3	52
385	Enhancing water vapor permeability in mixed matrix polypropylene membranes through carbon nanotubes dispersion. <i>Journal of Membrane Science</i> , 2017 , 524, 576-584	9.6	26
384	Gas and water vapor transport properties of mixed matrix membranes containing 13X zeolite. <i>Journal of Membrane Science</i> , 2017 , 526, 334-347	9.6	24
383	Ionic liquid-modified Pebax 1657 membrane filled by ZIF-8 particles for separation of CO ₂ from CH ₄ , N ₂ and H ₂ . <i>Journal of Membrane Science</i> , 2017 , 524, 652-662	9.6	100
382	Fabrication and characterization of affordable hydrophobic ceramic hollow fibre membrane for contacting processes. 2017 , 6, 330-340		14
381	Performance of Carbon Nanotube/Polysulfone (CNT/Psf) Composite Membranes during Oil-Water Mixture Separation: Effect of CNT Dispersion Method. <i>Membranes</i> , 2017 , 7,	3.8	25
380	1.2 Modeling and Simulation of Membrane Structure and Transport Properties. 2017 , 17-56		
379	Economic Estimation of Various Membranes and Distillation for Propylene and Propane Separation. 2018 , 57, 4366-4376		21
378	Fluorinated and sulfonated poly (ether ether ketone) and Matrimid blend membranes for CO ₂ separation. <i>Separation and Purification Technology</i> , 2018 , 203, 233-241	8.3	21
377	Synthesis, preparation and characterization of novel hyperbranched 6FDA-TTM based polyimide membranes for effective CO ₂ separation: Effect of embedded mesoporous silica particles and siloxane linkages. 2018 , 144, 33-42		23

376	Modified zeoliticimidazolate framework 8/poly(ether-block-amide) mixed-matrix membrane for propylene and propane separation. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 46273	2.9	13
375	Status and improvement of dual-layer hollow fiber membranes via co-extrusion process for gas separation: A review. 2018 , 52, 215-234		32
374	The influence of fumed silica content and particle size in poly (amide 6-b-ethylene oxide) mixed matrix membranes for gas separation. <i>Separation and Purification Technology</i> , 2018 , 199, 47-56	8.3	35
373	Increasing M2(dobdc) Loading in Selective Mixed-Matrix Membranes: A Rubber Toughening Approach. 2018 , 30, 1484-1495		34
372	Defect-Free Mixed-Matrix Membranes with Hydrophilic Metal-Organic Polyhedra for Efficient Carbon Dioxide Separation. 2018 , 13, 631-635		28
371	Effects of nanofillers on the characteristics and performance of PEBA-based mixed matrix membranes. 2018 , 34, 797-836		19
370	Tailoring ion exchange membranes to enable low osmotic water transport and energy efficient electro dialysis. <i>Journal of Membrane Science</i> , 2018 , 552, 22-30	9.6	30
369	In situ synthesis of polymer grafted ZIFs and application in mixed matrix membrane for CO2 separation. 2018 , 6, 3151-3161		69
368	Modern Trends and Applications of Gas Transport Through Various Polymers. 2018 , 363-389		2
367	Concentration-dependent transport in finite sized composites: Modified effective medium theory. <i>Journal of Membrane Science</i> , 2018 , 550, 110-125	9.6	6
366	Grand canonical Monte Carlo and molecular dynamics simulations of the structural properties, diffusion and adsorption of hydrogen molecules through poly(benzimidazoles)/nanoparticle oxides composites. 2018 , 43, 2803-2816		14
365	Recent Membrane Developments for CO2 Separation and Capture. 2018 , 41, 211-223		72
364	Metal-organic framework/graphene oxide composite fillers in mixed-matrix membranes for CO2 separation. 2018 , 212, 513-522		51
363	Preparation and characterization of MWCNT-TEPA/polyurethane nanocomposite membranes for CO2/CH4 separation: Experimental and modeling. 2018 , 133, 222-234		15
362	Block copolymer based novel magnetic mixed matrix membranes-magnetic modulation of water permeation by irreversible structural changes. <i>Journal of Membrane Science</i> , 2018 , 551, 273-282	9.6	7
361	Carbon capture and storage (CCS): the way forward. 2018 , 11, 1062-1176		1368
360	Enhanced gas separation performance of mixed matrix hollow fiber membranes containing post-functionalized S-MIL-53. 2018 , 27, 781-790		13
359	Gas barrier and optical properties of cellulose nanofiber coatings with dispersed TiO 2 nanoparticles. 2018 , 343, 131-137		13

358	Issues and Current Trends of Hollow-Fiber Mixed-Matrix Membranes for CO ₂ Separation from N ₂ and CH ₄ . 2018 , 41, 235-252		28
357	Vacuum-assisted assembly of ZIF-8@GO composite membranes on ceramic tube with enhanced organic solvent nanofiltration performance. <i>Journal of Membrane Science</i> , 2018 , 545, 158-166	9.6	80
356	Matrimid [®] 5218 in preparation of membranes for gas separation: Current state-of-the-art. 2018 , 205, 161-196		65
355	Nanostructured membranes containing UiO-66 (Zr) and MIL-101 (Cr) for O ₂ /N ₂ and CO ₂ /N ₂ separation. <i>Separation and Purification Technology</i> , 2018 , 192, 491-500	8.3	61
354	Improving CO ₂ separation performance by incorporating MWCNTs@mSiO ₂ core@shell filler in mixed matrix membranes. 2018 , 39, 4486-4495		9
353	Gas permeation modeling of mixed matrix membranes: Adsorption isotherms and permeability models. 2018 , 39, 4560-4568		17
352	A theoretical model for the effective thermal conductivity of silica aerogel composites. 2018 , 128, 1634-1645		31
351	ANFIS modeling of CO ₂ separation from natural gas using hollow fiber polymeric membrane. 2018 , 40, 193-199		2
350	[Ni ₃ (HCOO) ₆]/Poly(styrene- <i>b</i> -butadiene- <i>b</i> -styrene) Mixed-Matrix Membranes for CH ₄ /N ₂ Gas Separation. 2018 , 41, 353-366		4
349	Molecular modeling of the gaseous penetrants permeabilities through 4A, DDR and silicalite-1 zeolites incorporated in mixed matrix membranes. 2018 , 53, 910-927		3
348	High performance mixed matrix membranes (MMMs) composed of ZIF-94 filler and 6FDA-DAM polymer. <i>Journal of Membrane Science</i> , 2018 , 550, 198-207	9.6	71
347	Pore plugging synthesis and characterization of silicalite-1 membranes using tubular TiO ₂ supports: Effect of support pore size on membrane performance. 2018 , 96, 1597-1611		4
346	Metal organic framework based mixed matrix membranes: an overview on filler/polymer interfaces. 2018 , 6, 293-312		235
345	Interfacial control in perfluoropolymer mixed matrix membranes for natural gas sweetening. <i>Journal of Industrial and Engineering Chemistry</i> , 2018 , 60, 169-176	6.3	15
344	Gas-permeation performance of metal organic framework/polyimide mixed-matrix membranes and additional explanation from the particle size angle. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 45728 ²⁻⁹		9
343	Isothermal membrane-based air dehumidification: A comprehensive review. <i>Renewable and Sustainable Energy Reviews</i> , 2018 , 82, 4060-4069	16.2	60
342	Synthesis and Gas Transport Properties of Poly(2,6-dimethyl-1,4-phenylene oxide)/Silica Nanocomposite Membranes. <i>Membranes</i> , 2018 , 8,	3.8	0
341	Functionalized ionic liquid membranes for CO separation. 2018 , 54, 12671-12685		51

340	Polymers of intrinsic microporosity for energy-intensive membrane-based gas separations. 2018 , 3, 69-95		128
339	Zeolites-Mixed-Matrix Nanofiltration Membranes for the Next Generation of Water Purification. 2018 ,		4
338	Natural Gas Composition: Which Are the Requested Separations for Them?. 2018 , 553-590		
337	A review of material development in the field of carbon capture and the application of membrane-based processes in power plants and energy-intensive industries. 2018 , 8,		54
336	Gas Separation Membrane Composed of Polyimide and Surface-modified Nanoparticles: Influence of Surface-modification Structures on Gas Permeation Properties. 2018 , 31, 593-598		1
335	Membrane Optimization and Process Condition Investigation for Enhancing the CO ₂ Separation From Natural Gas. 2018 , 469-509		2
334	Polymeric Membrane Materials for CO ₂ Separations. 2018 , 3-50		4
333	Hybrid Membranes for Carbon Dioxide Removal From High-Pressure Natural Gas. 2018 , 439-467		
332	Facilitated Transport Membranes for CO ₂ /H ₂ Separation. 2018 , 359-384		1
331	The effect of pressure and mixed gas composition on humid CO ₂ and hydrocarbons permeation in Aquivion [®] PFSA. <i>Journal of Membrane Science</i> , 2018 , 566, 96-103	9.6	6
330	Ni@zeolite-Y nanoporous; a valuable and efficient nanocatalyst for the synthesis of N-benzimidazole-1,3-thiazolidinones. 2018 , 11, 334-344		22
329	Modeling Permeation through Mixed-Matrix Membranes: A Review. 2018 , 6, 172		29
328	The Gas Permeation Characteristics of Ternary Component Mixed Matrix Membranes Prepared Using ZIF-8 with a Large Range of Average Particle Size. 2018 , 57, 16041-16050		11
327	Zeolite Mixed Matrix Membranes (Zeolite-MMMs) for Sustainable Engineering. 2018 ,		4
326	Modeling Amorphous Microporous Polymers for CO Capture and Separations. 2018 , 118, 5488-5538		134
325	Layer-by-layer assembly of carbide derived carbon-polyamide membrane for CO ₂ separation from natural gas. 2018 , 157, 188-199		16
324	Comparison of hollow fiber and flat mixed-matrix membranes: Theory and simulation. 2018 , 187, 174-188		8
323	Activation Entropy for Diffusion of Gases Through Mixed Matrix Membranes. 2018 , 547-572		1

322	Synthesis of High-Performance Pebax [®] -1074/DD3R Mixed-Matrix Membranes for CO ₂ /CH ₄ Separation. 2018 , 41, 1767-1775		12
321	Carbon-Based Nanocomposite Membrane for Acidic Gas Separation. 2018 , 233-260		1
320	Interfacial polymerization of facilitated transport polyamide membrane prepared from PIP and IPC for gas separation applications. 2018 , 35, 1700-1709		11
319	The role of MOFs in Thin-Film Nanocomposite (TFN) membranes. <i>Journal of Membrane Science</i> , 2018 , 563, 938-948	9.6	74
318	Enhancing CO ₂ /CH ₄ separation performance and mechanical strength of mixed-matrix membrane via combined use of graphene oxide and ZIF-8. <i>Journal of Industrial and Engineering Chemistry</i> , 2018 , 67, 156-163	6.3	48
317	Progress on Incorporating Zeolites in Matrimid5218 Mixed Matrix Membranes towards Gas Separation. <i>Membranes</i> , 2018 , 8,	3.8	37
316	Development and Characterization of Defect-Free Matrimid Mixed-Matrix Membranes Containing Activated Carbon Particles for Gas Separation. <i>Polymers</i> , 2018 , 10,	4.5	32
315	CO Selective PolyActive Membrane: Thermal Transitions and Gas Permeance as a Function of Thickness. 2018 , 10, 26733-26744		9
314	Experimental and modeling investigations towards tailoring cellulose triacetate membranes for high performance helium separation. 2018 , 137, 194-212		20
313	Polymer Nanocomposite Membranes. 2018 , 8, 1181		22
312	Incorporation of functionalized multi-walled carbon nanotubes (MWCNTs) into cellulose acetate butyrate (CAB) polymeric matrix to improve the CO ₂ /N ₂ separation. 2018 , 117, 159-167		22
311	Preliminary study on gas separation performance of flat sheet mixed matrix (PVDF/Zeolite). 2018 , 342, 012073		
310	Hybridization of MWCNTs and reduced graphene oxide on random and electrically aligned nanocomposite membrane for selective separation of O ₂ /N ₂ gas pair. 2018 , 53, 15442-15464		9
309	Pebax/ionic liquid modified graphene oxide mixed matrix membranes for enhanced CO ₂ capture. <i>Journal of Membrane Science</i> , 2018 , 565, 370-379	9.6	92
308	Harnessing Filler Materials for Enhancing Biogas Separation Membranes. 2018 , 118, 8655-8769		154
307	Blending of compatible polymer of intrinsic microporosity (PIM-1) with Tröger's Base polymer for gas separation membranes. <i>Journal of Membrane Science</i> , 2018 , 566, 77-86	9.6	47
306	Recent advances on mixed-matrix membranes for gas separation: Opportunities and engineering challenges. 2018 , 35, 1577-1600		70
305	Improved Ni and Cd Rejection in Cellulose Acetate Mixed Matrix Membranes Coated with PVA/Fe ₃ O ₄ . 2018 , 43, 237-243		

304	Theoretical Aspects of Gas Transport in Polymers. 2018 , 425-439	1
303	The Fabrication of Carbon-Based Polymer Nanocomposite. 2018 , 3-25	1
302	Recent Advances in Poly (Amide-B-Ethylene) Based Membranes for Carbon Dioxide (CO ₂) Capture: A Review. 2019 , 58, 366-383	7
301	Effect of Polyvinyl Alcohol Modified Silica Particles on the Physical and Gas Separation Properties of the Polyurethane Mixed Matrix Membranes. 2019 , 11, 1451-1460	7
300	Mixed matrix membranes (MMMs) for ethanol purification through pervaporation: current state of the art. 2019 , 35, 565-590	42
299	Polypropylene/organically modified-grafted mica/organoclay hybrid nanocomposites: Preparation, characterization, and mechanical properties. 2019 , 40, 1718-1730	4
298	Recent progress and challenges in membrane-based O ₂ /N ₂ separation. 2019 , 35, 591-625	39
297	Performances of PCL/PVC/Organoclay Nanobioblends Films for Packaging Applications. 2019 , 386, 1800239	6
296	Olefin/paraffin separation through membranes: from mechanisms to critical materials. 2019 , 7, 23489-23511	36
295	Polysulfone mixed matrix hollow fiber membranes using zeolite templated carbon as a performance enhancement filler for gas separation. 2019 , 150, 274-288	12
294	Molecular Transport Behavior of CO in Ionic Polyimides and Ionic Liquid Composite Membrane Materials. 2019 , 123, 7455-7463	14
293	A Review on Computational Modeling Tools for MOF-Based Mixed Matrix Membranes. 2019 , 7, 36	8
292	Investigation of the attapulgite hybrid carbon molecular sieving membranes for permanent gas separation. 2019 , 151, 146-156	5
291	. 2019 ,	5
290	Transport Properties of Mixed-Matrix Membranes: A Kinetic Monte Carlo Study. 2019 , 12,	7
289	Fabrication of Mixed Matrix Membrane Polysulfone - Zeolite Carbon Composites (ZCC) For Gas Separation. 2019 , 546, 042020	0
288	Membrane technologies for microalgal cultivation and dewatering: Recent progress and challenges. 2019 , 44, 101686	27
287	Mixed Matrix Membranes. 2019 , 161-194	

286	Various Techniques for Preparation of Thin-Film Composite Mixed-Matrix Membranes for CO ₂ Separation. 2019 , 42, 2608-2620		5
285	Preparation and Permeation Properties of PESU-Based Mixed Matrix Membranes with Nano-Sized CHA Zeolites. 2019 , 52, 514-520		6
284	Electrochemically Assisted Interfacial Growth of MOF Membranes. 2019 , 1, 1285-1292		35
283	A review of different synthetic approaches of amorphous intrinsic microporous polymers and their potential applications in membrane-based gases separation. 2019 , 120, 109262		22
282	Comparison of porous and nonporous filler effect on performance of poly (ether-block-amide) mixed matrix membranes for gas separation applications. 2019 , 147, 545-560		25
281	An adjustable permeation membrane up to the separation for multicomponent gas mixture. 2019 , 9, 7380		8
280	. 2019 ,		239
279	Mixed-matrix membranes based on 6FDA-ODA polyimide and silicalite-1 with homogeneous spatial distribution of particles. 2019 , 178, 121576		1
278	Modification of membrane hydrophobicity in membrane contactors for environmental remediation. <i>Separation and Purification Technology</i> , 2019 , 227, 115721	8.3	11
277	The Role of Interfacial Morphology in the Gas Transport Behavior of Nanocomposite Membranes: A Mathematical Modeling Approach. 2019 , 58, 11022-11037		13
276	A stable polymeric chain configuration producing high performance PEBAX-1657 membranes for CO ₂ separation. 2019 , 1, 2633-2644		10
275	Effect of ionic liquids (ILs) on MOFs/polymer interfacial enhancement in mixed matrix membranes. <i>Journal of Membrane Science</i> , 2019 , 587, 117157	9.6	49
274	Investigation of Azo-COP-2 as a Photoresponsive Low-Energy CO ₂ Adsorbent and Porous Filler in Mixed Matrix Membranes for CO ₂ /N ₂ Separation. 2019 , 58, 9959-9969		13
273	CO-philic moderate selective layer mixed matrix membranes containing surface functionalized NaX towards highly-efficient CO capture.. 2019 , 9, 15542-15553		16
272	CO ₂ separation over light gases for nano-composite membrane comprising modified polyurethane with SiO ₂ nanoparticles. 2019 , 36, 763-779		15
271	Predicting CO ₂ Permeation through an Enhanced Ionic Liquid Mixed Matrix Membrane (IL3M). 2019 , 2019, 1-10		7
270	Membrane-based liquid desiccant air dehumidification: A comprehensive review on materials, components, systems and performances. <i>Renewable and Sustainable Energy Reviews</i> , 2019 , 110, 444-466 ^{16.2}		50
269	High-performance ultrathin mixed-matrix membranes based on an adhesive PGMA-co-POEM comb-like copolymer for CO ₂ capture. 2019 , 7, 14723-14731		24

268	A new permeation model in porous filler-based mixed matrix membranes for CO ₂ separation. 2019 , 9, 719-742		7
267	Effects of aluminogermanate imogolite nanotube orientation on mass transport across polyamide nanocomposite membranes. <i>Journal of Membrane Science</i> , 2019 , 585, 38-51	9.6	9
266	Membranes utilization for biogas upgrading to synthetic natural gas. 2019 , 245-274		2
265	110th Anniversary: Mixed Matrix Membranes with Fillers of Intrinsic Nanopores for Gas Separation. 2019 , 58, 7706-7724		27
264	Defect-Free MOF-Based Mixed-Matrix Membranes Obtained by Corona Cross-Linking. 2019 , 11, 13029-13037		57
263	Research on Natural Gas Separation Flow Laws in a New Type of Supersonic Cyclone Separator. 2019 ,		
262	Cellulose Acetate Mixed Matrix Membranes Coated with PEG/TiO ₂ for Removal of Pb(II) Ions from Aqueous Solutions: Combined Experimental and Quantum Chemical Modeling Investigation. 2019 , 44, 193-202		1
261	Liquid- and Gas-Phase Separation in MOFs. 2019 , 365-393		2
260	Enhancement of anti-fouling properties during the treatment of paper mill effluent using functionalized zeolite and activated carbon nanomaterials based ultrafiltration. 2019 , 94, 2805-2815		7
259	Preparation of Mixed Matrix Membranes Containing ZIF-8 and UiO-66 for Multicomponent Light Gas Separation. 2019 , 9, 15		8
258	Enhanced CO ₂ /CH ₄ selectivity and mechanical strength of mixed-matrix membrane incorporated with NiDOBDC/GO composite. <i>Journal of Industrial and Engineering Chemistry</i> , 2019 , 74, 118-125	6.3	26
257	Silica applied as mixed matrix membrane inorganic filler for gas separation: a review. 2019 , 29,		26
256	The Influence of Polymer Concentration and Formation Technique on Gas Transport and Gas Sorption Properties of Copolyetherimide-Based Composite Membranes Containing MIL-101 Filler. 2019 , 74, 273-278		
255	Influence of Chemical Modification on CO ₂ Permeability of Polymers of Intrinsic Microporosity / Silica Nanoparticles Composite Membranes. 2019 , 32, 457-461		2
254	Mixed-matrix membranes for CO ₂ separation: role of the third component. 2019 , 7, 24738-24759		52
253	Deep-Permeation Nanocomposite Structure of ZIF-8 inside Porous Poly(tetrafluoroethylene) by Flow Synergistic Synthesis. 2019 , 58, 23083-23092		7
252	Nanocomposite membranes for water separation and purification: Fabrication, modification, and applications. <i>Separation and Purification Technology</i> , 2019 , 213, 465-499	8.3	217
251	High nanoparticles loadings mixed matrix membranes via chemical bridging-crosslinking for CO ₂ separation. <i>Journal of Membrane Science</i> , 2019 , 573, 455-464	9.6	51

250	Effect of silane coupling agents on properties and performance of polycarbonate/silica MMMs. 2019 , 73, 159-170		13
249	Mixed matrix membranes based on MIL-101 metal-organic frameworks in polymer of intrinsic microporosity PIM-1. <i>Separation and Purification Technology</i> , 2019 , 212, 545-554	8.3	31
248	Creation of tiny defects in ZIF-8 by thermal annealing to improve the CO ₂ /N ₂ separation of mixed matrix membranes. <i>Journal of Membrane Science</i> , 2019 , 572, 410-418	9.6	19
247	Polyhedral Oligomeric Silsesquioxane (POSS) Nano-Composite Separation Membranes [A Review]. 2019 , 21, 1800667		28
246	Mixed matrix membranes containing well-designed composite microcapsules for CO ₂ separation. <i>Journal of Membrane Science</i> , 2019 , 572, 650-657	9.6	24
245	Collegial effect of carbonaceous hybrid fillers in mixed matrix membrane development. 2019 , 135, 8-15		6
244	Polyimide-TiO ₂ nanocomposites and their corresponding membranes: Synthesis, characterization, and gas separation applications. 2019 , 89, 25-36		11
243	Surfactant-based modification of sodic-Algerian illite clay for the preparation of polymeric membranes: application for separation of iron and zinc ions from aqueous solutions. 2019 , 76, 3659-3676		1
242	Quantitative elucidation of the elusive role of defects in polycrystalline MFI zeolite membranes on xylene separation performance. <i>Journal of Membrane Science</i> , 2019 , 569, 91-103	9.6	15
241	Methoxy poly (ethylene glycol) methacrylate-TiO ₂ /poly (methyl methacrylate) nanocomposite: an efficient membrane for gas separation. 2019 , 58, 789-802		3
240	Nano-silica/polysulfone asymmetric mixed-matrix membranes (MMMs) with high CO ₂ permeance in the application of CO ₂ /N ₂ separation. 2019 , 58, 678-689		15
239	Enhanced CO ₂ /N ₂ separation performance by using dopamine/polyethyleneimine-grafted TiO ₂ nanoparticles filled PEBA mixed-matrix membranes. <i>Separation and Purification Technology</i> , 2019 , 214, 78-86	8.3	34
238	Carbon nanostructures for advanced nanocomposite mixed matrix membranes: a comprehensive overview. 2020 , 36, 723-748		7
237	Zeolitic imidazolate framework membranes for gas and water purification. 2020 , 18, 1-52		38
236	Separation behavior of amorphous amino-modified silica nanoparticle/polyimide mixed matrix membranes for gas separation. <i>Journal of Membrane Science</i> , 2020 , 595, 117542	9.6	24
235	Performance evaluation of iron nanoparticles infused polyethersulphone (Fe-NPs/PES) membrane during treatment of BTEX-contaminated wastewater. 2020 , 34, 74-86		2
234	Thermally rearranged (TR) HAB-6FDA nanocomposite membranes for hydrogen separation. 2020 , 45, 18685-18692		10
233	Membranes for CO ₂ /CH ₄ and CO ₂ /N ₂ Gas Separation. 2020 , 43, 184-199		29

232	Mixed-Matrix Membranes with Covalent Triazine Framework Fillers in Polymers of Intrinsic Microporosity for CO ₂ Separations. 2020 , 59, 5296-5306		20
231	A favored CO ₂ separation over light gases using mixed matrix membrane comprising polysulfone/polyethylene glycol and graphene hydroxyl nanoparticles. 2020 , 133, 394-407		23
230	Metal-organic framework-based CO ₂ capture: From precise material design to high-efficiency membranes. 2020 , 14, 188-215		18
229	Carbon nanotube-based mixed-matrix membranes with supramolecularly engineered interface for enhanced gas separation performance. <i>Journal of Membrane Science</i> , 2020 , 598, 117794	9.6	21
228	Recent progress in molecular engineering to tailor organic/inorganic interfaces in composite membranes. 2020 , 5, 433-444		33
227	Reverse osmosis membrane fabrication and modification technologies and future trends: A review. 2020 , 276, 102100		59
226	Poly(piperazine trimesamide) thin film nanocomposite membrane formation based on MIL-101: Filler aggregation and interfacial polymerization dynamics. <i>Journal of Membrane Science</i> , 2020 , 596, 117482	9.6	15
225	High-speed CO ₂ transport channel containing carboxymethyl chitosan/hydroxycalcite membrane for CO ₂ separation. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 48715	2.9	5
224	Interfaces in biopolymer nanocomposites: Their role in the gas barrier properties and kinetics of residual solvent desorption. 2020 , 507, 145066		6
223	Exploiting Giant-Pore Systems of Nanosized MIL-101 in PDMS Matrix for Facilitated Reverse-Selective Hydrocarbon Transport. 2020 , 12, 1511-1522		2
222	PBI mixed matrix hollow fiber membrane: Influence of ZIF-8 filler over H ₂ /CO ₂ separation performance at high temperature and pressure. <i>Separation and Purification Technology</i> , 2020 , 237, 116347	8.3	35
221	Structure and gas transport of nanocomposite membranes. 2020 , 101-123		
220	Nanocomposite membrane fabrication. 2020 , 125-162		
219	Effect of the Zwitterion, p(MAO-DMPA), on the Internal Structure, Fouling Characteristics, and Dye Rejection Mechanism of PVDF Membranes. <i>Membranes</i> , 2020 , 10,	3.8	0
218	Boosting gas separation performance and suppressing the physical aging of polymers of intrinsic microporosity (PIM-1) by nanomaterial blending. 2020 , 12, 23333-23370		37
217	Two-Dimensional COF-Three-Dimensional MOF Dual-Layer Membranes with Unprecedentedly High H ₂ /CO Selectivity and Ultrahigh Gas Permeabilities. 2020 , 12, 52899-52907		22
216	Surface Modifications of Nanofillers for Carbon Dioxide Separation Nanocomposite Membrane. 2020 , 12, 1102		3
215	Characterization of the polymer/particle interphase in composite materials by molecular probing. 2020 , 205, 122792		10

214	CO ₂ Separation Properties of a Ternary Mixed-Matrix Membrane Using Ultrasensitive Synthesized Macrocyclic Organic Compounds. 2020 , 8, 12775-12787		18
213	A novel polyethersulfone/modified activated carbon fiber composite membrane: potential for removal micropollutants from water under the electric field. 2020 , 82, 2234-2249		2
212	Dispersion engineering of MWCNT to control structural and gas transport properties of PU mixed matrix membranes. 2020 , 8, 104493		7
211	Hydrocarbon Molecules Separation using Nanoporous Materials. 2020 , 217-264		
210	Pebax 2533/Graphene Oxide Nanocomposite Membranes for Carbon Capture. <i>Membranes</i> , 2020 , 10,	3.8	15
209	Graphene and Polyethylene: A Strong Combination Towards Multifunctional Nanocomposites. <i>Polymers</i> , 2020 , 12,	4.5	9
208	Metal-organic framework-based mixed-matrix membranes for gas separation: An overview. 2020 , 58, 2518-2546		17
207	Surface modification of ZIF-90 with triptycene for enhanced interfacial interaction in mixed-matrix membranes for gas separation. 2020 , 58, 2675-2687		7
206	Determination of maximum possible contribution of porous particles in gas transport properties of their corresponding mixed matrix membranes. 2020 , 1, 125-138		2
205	Self-cleaning, antibacterial mixed matrix membranes enabled by photocatalyst Ti-MOFs for efficient dye removal. <i>Journal of Membrane Science</i> , 2020 , 610, 118219	9.6	37
204	MXene Materials for Designing Advanced Separation Membranes. 2020 , 32, e1906697		103
203	Synthetic polymeric membranes for gas and vapor separations. 2020 , 217-272		1
202	Polymeric composite membranes for gas separation: State-of-the-art 2D fillers. 2020 , 293-306		
201	Competing non ideal behaviour of SAPO-34 and Poly(hexafluoropropylene) in mixed matrix membranes. <i>Microporous and Mesoporous Materials</i> , 2020 , 303, 110241	5.3	4
200	Modified zeolite-based polymer nanocomposite membranes for pervaporation. 2020 , 263-300		2
199	Controlling the formation of porous polyketone membranes via a cross-linkable alginate additive for oil-in-water emulsion separations. <i>Journal of Membrane Science</i> , 2020 , 611, 118362	9.6	17
198	Gas Transport through Mixed Matrix Membranes (MMMs). 2020 , 237-256		
197	Effects of phenylenediamines and alkoxysilanes on gas transport properties of polyimide - silica hybrid membranes. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 49168	2.9	0

196	Interface nanocavities in poly (lactic acid) membranes with dispersed cellulose nanofibrils: Their role in the gas barrier performances. 2020 , 202, 122729		4
195	Two-Dimensional Microporous Material-based Mixed Matrix Membranes for Gas Separation. 2020 , 15, 2303-2315		9
194	Enhanced CO ₂ capture through bulky poly(urethane-urea)-based MMMs containing hyperbranched triazine based silica nanoparticles. <i>Separation and Purification Technology</i> , 2020 , 241, 116734	8.3	6
193	ZIF-8 based polysulfone hollow fiber membranes for natural gas purification. 2020 , 84, 106415		14
192	Metal organic frameworks-based mixed matrix membranes for gas separation. 2020 , 273-292		3
191	High gas permeability of nanoZIF-8/polymer-based mixed matrix membranes intended for biogas purification. 2020 , 40, 459-467		5
190	Microporous Elastomer Filter Coated with Metal Organic Frameworks for Improved Selectivity and Stability of Metal Oxide Gas Sensors. 2020 , 12, 13338-13347		18
189	Fabrication and characterization of polyvinyl chloride mixed matrix membranes containing high aspect ratio anatase titania and hydrous manganese oxide nanoparticle for efficient removal of heavy metal ions: Competitive removal study. 2020 , 98, 1558-1579		7
188	On the effects of water exposure of as-synthesized LTA membranes on their structural properties and dehydration performances. <i>Separation and Purification Technology</i> , 2020 , 238, 116493	8.3	1
187	High performance MIL-101(Cr)@6FDA-mPD and MOF-199@6FDA-mPD mixed-matrix membranes for CO/CH separation. 2020 , 49, 1822-1829		11
186	Tuning of Nano-Based Materials for Embedding Into Low-Permeability Polyimides for a Featured Gas Separation. 2019 , 7, 897		34
185	Polyvinylamine/amorphous metakaolin mixed-matrix composite membranes with facilitated transport carriers for highly efficient CO ₂ /N ₂ separation. <i>Journal of Membrane Science</i> , 2020 , 599, 117828	8.6	12
184	Role of ionic liquids in eliminating interfacial defects in mixed matrix membranes. 2020 , 269-309		
183	Preparation and characterization of PVDF-filled MWCNT hollow fiber mixed matrix membranes for gas absorption by Al ₂ O ₃ nanofluid absorbent via gas-liquid membrane contactor. 2020 , 156, 478-494		11
182	Comparison of micro- and nano-sized CuBTC particles on the CO ₂ /CH ₄ separation performance of PEBA mixed matrix membranes. 2020 , 95, 2951-2963		4
181	Synthesis route for the fabrication of nanocomposite membranes. 2020 , 69-89		4
180	Application of functional single-element and double-element oxide nanoparticles for the development of nanocomposite membranes. 2020 , 113-144		1
179	Prospects of nanocomposite membranes for natural gas treatment. 2020 , 355-378		1

178	Enhancing the gas separation properties of mixed matrix membranes via impregnation of sieve phases with metal and nonmetal promoters. <i>Separation and Purification Technology</i> , 2020 , 245, 116859	8.3	5
177	Covalent Organic Frameworks in Separation. 2020 , 11, 131-153		19
176	Activated carbon in mixed-matrix membranes. 2021 , 50, 1-31		7
175	Novel MMM using CO ₂ selective SSZ-16 and high-performance 6FDA-polyimide for CO ₂ /CH ₄ separation. <i>Separation and Purification Technology</i> , 2021 , 254, 117582	8.3	30
174	Influence of PLGA nanoparticles on the deposition of model water-soluble biocompatible polymers by dip coating. 2021 , 608, 125591		5
173	Gas separation performance of MMMs containing (PIM-1)-functionalized GO derivatives. <i>Journal of Membrane Science</i> , 2021 , 623, 118902	9.6	18
172	High-temperature CO ₂ perm-selectivity of yttrium-doped SDC ceramic-carbonate dual-phase membranes. 2021 , 6, 321-334		
171	Effect of incorporating different ZIF-8 crystal sizes in the polymer of intrinsic microporosity, PIM-1, for CO ₂ /CH ₄ separation. <i>Microporous and Mesoporous Materials</i> , 2021 , 312, 110761	5.3	12
170	Effect of porous organic polymers in gas separation properties of polycarbonate based mixed matrix membranes. <i>Journal of Membrane Science</i> , 2021 , 619, 118795	9.6	7
169	Composite porous nanostructures as multi-action adsorbents and membrane fillers for carbon dioxide separation: Comparative performance of metal organic framework-graphene oxide hybrids. 2021 , 37, 4044-4048		3
168	Mixed matrix membranes for hydrocarbons separation and recovery: a critical review. 2021 , 37, 363-406		13
167	3D printed MOF-based mixed matrix thin-film composite membranes.. 2021 , 11, 25658-25663		2
166	A Review on CO ₂ Capture Technologies with Focus on CO ₂ -Enhanced Methane Recovery from Hydrates. 2021 , 14, 387		19
165	A review on the recent advancements in graphene-based membranes and their applications as stimuli-responsive separation materials.		8
164	Modelling the Molecular Permeation through Mixed-Matrix Membranes Incorporating Tubular Fillers. <i>Membranes</i> , 2021 , 11,	3.8	0
163	Nanocomposite membranes of polybenzimidazole and amine-functionalized carbon nanofibers for high temperature proton exchange membrane fuel cells.. 2021 , 11, 9964-9976		9
162	Recent progress in the development of ionic liquid-based mixed matrix membrane for CO ₂ separation: A review. 2021 , 45, 9800-9830		8
161	Interface Design for Stretchable Electronic Devices. 2021 , 8, 2004170		16

160	Gas transport properties of thermally rearranged (TR) polybenzoxazole silica hybrid membranes. 2021 , 214, 123274		1
159	Development of Novel Polyamide-Imide/DES Composites and Their Application for Pervaporation and Gas Separation. 2021 , 26,		3
158	Superhydrophobic ceramic hollow fibre membranes for trapping carbon dioxide from natural gas via the membrane contactor system. 2021 , 57, 705		2
157	Integration of Stable Ionic Liquid-Based Nanofluids into Polymer Membranes. Part I: Membrane Synthesis and Characterization. 2021 , 11,		2
156	A Review on Polymer Nanocomposites and Their Effective Applications in Membranes and Adsorbents for Water Treatment and Gas Separation. <i>Membranes</i> , 2021 , 11,	3.8	38
155	Investigation of cellulose acetate/gamma-cyclodextrin MOF based mixed matrix membranes for CO ₂ /CH ₄ gas separation. 2021 , 11, 313-330		7
154	Laponite-Incorporated UiO-66-NH-Polyethylene Oxide Composite Membranes for Protection against Chemical Warfare Agent Simulants. 2021 , 13, 10500-10512		5
153	CO ₂ /CH ₄ mixed gas separation using graphene oxide nanosheets embedded hollow fiber membranes: Evaluating effect of filler concentration on performance. 2021 , 5, 100074		10
152	Synthesis and Evaluation of HSOD/PSF and SSOD/PSF Membranes for Removal of Phenol from Industrial Wastewater. <i>Polymers</i> , 2021 , 13,	4.5	5
151	Elevated performance of the neat, hybrid and composite membranes by the addition of nanoparticles (ZIF-67): A molecular dynamics study. 1		3
150	Activated carbon and halloysite nanotubes membrane for CO ₂ and CH ₄ separation. 2021 , 1142, 012012		1
149	Mitigating the Agglomeration of Nanofiller in a Mixed Matrix Membrane by Incorporating an Interface Agent. <i>Membranes</i> , 2021 , 11,	3.8	2
148	Fabrication of ZIF-8/polyethersulfone (PES) mixed matrix hollow fiber membranes for O ₂ /N ₂ separation. 2021 , 75, 4129-4145		3
147	Advanced mixed matrix membranes of Pebax embedded with amino acid ionic liquids@PIM core-shell composite nanoparticles for CO ₂ separation. <i>Separation and Purification Technology</i> , 2021 , 263, 118350	8.3	10
146	High loading and high-selectivity H ₂ purification using SBC@ZIF based thin film composite hollow fiber membranes. <i>Journal of Membrane Science</i> , 2021 , 626, 119191	9.6	5
145	Current and future trends in polymer membrane-based gas separation technology: A comprehensive review. <i>Journal of Industrial and Engineering Chemistry</i> , 2021 , 98, 103-129	6.3	27
144	Improving Gas Selectivity in Membranes Using Polymer-Grafted Silica Nanoparticles. 2021 , 4, 5895-5903		6
143	Fabrication and characterization of Pebax-1657 mixed matrix membrane loaded with Si-CHA zeolite for CO ₂ separation from CH ₄ . 2021 , 90, 103947		5

142	Insights into changes of anthocyanins-rich blueberry extracts concentrated by different nanofiltrations and their storage stability. 2021 , 144, 111196		0
141	Preparation of alumina nanotubes for incorporation into CO ₂ permselective Pebax-based nanocomposite membranes. 2021 , 38, 1469-1486		0
140	Advances in the Use of Nanocomposite Membranes for Carbon Capture Operations. 2021 , 2021, 1-22		1
139	Thermomechanical and gas transport behavior of silica-doped polymer blend nanocomposites. 2021 , 10, 101-110		
138	Ceramic-Polymer Composite Membranes for Water and Wastewater Treatment: Bridging the Big Gap between Ceramics and Polymers. 2021 , 26,		6
137	Highly permeable and selective polymeric blend mixed matrix membranes for CO ₂ /CH ₄ separation. 2021 , 75, 5663-5685		0
136	Graphene - based membranes for carbon dioxide separation. <i>Journal of CO₂ Utilization</i> , 2021 , 49, 101544.6	6	6
135	Evaluation of the effect of silica nanoparticles, temperature and pressure on the performance of PSF/PEG/SiO ₂ mixed matrix membranes: A molecular dynamics simulation (MD) and design of experiments (DOE) study. <i>Journal of Molecular Liquids</i> , 2021 , 333, 115957	6	10
134	Synthesis and characterization of a benzoyl modified Pebax materials for gas separation applications. 2021 , 228, 123944		0
133	A Prospective Concept on the Fabrication of Blend PES/PEG/DMF/NMP Mixed Matrix Membranes with Functionalised Carbon Nanotubes for CO/N Separation. <i>Membranes</i> , 2021 , 11,	3.8	
132	Predicting Gas Permeability through Mixed-matrix Membranes Filled with Nanofillers of Different Shapes. 1		2
131	The potential of additively manufactured membranes for selective separation and capture of CO ₂ . 2021 , 11, 391-401		4
130	Mixed-Matrix Membrane Fabrication for Water Treatment. <i>Membranes</i> , 2021 , 11,	3.8	4
129	Polysulfone Mixed-Matrix Membranes Comprising Poly(ethylene glycol)-Grafted Carbon Nanotubes: Mechanical Properties and CO ₂ Separation Performance. 2021 , 60, 11289-11308		6
128	Natural Rubber/Carbon Nanotube/Ionic Liquid Composite Membranes: Vapor Permeation and Gas Permeability Properties. 2021 , 398, 2000222		1
127	Advances in materials process and separation mechanism of the membrane towards hydrogen separation. 2021 , 46, 27062-27087		9
126	Exclusive and ultrasensitive detection of formaldehyde at room temperature using a flexible and monolithic chemiresistive sensor. 2021 , 12, 4955		15
125	State of the art and prospects of chemically and thermally aggressive membrane gas separations: Insights from polymer science. 2021 , 229, 123988		4

124	A Novel Composite Material UiO-66@HNT/Pebax Mixed Matrix Membranes for Enhanced CO ₂ /N ₂ Separation. <i>Membranes</i> , 2021 , 11,	3.8	5
123	A comprehensive modeling approach for determining the role and nature of interfacial morphology in mixed matrix membranes. 2021 , 197, 110590		3
122	Mixed Matrix Membranes Incorporated with Aminosilane-Functionalized SAPO-34 for Upgrading CO ₂ /CH ₄ Separation Performances. 2021 , 60, 13927-13937		2
121	Microcellular sensing media with ternary transparency states for fast and intuitive identification of unknown liquids. 2021 , 7, eabg8013		1
120	Preparation and characterization of modified halloysite nanotubes/Pebax nanocomposite membranes for CO ₂ /CH ₄ separation. 2021 , 174, 199-212		2
119	Current status of biogas upgrading for direct biomethane use: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 149, 111343	16.2	36
118	Hollow fibre polymeric membranes for desalination by membrane distillation technology: A review of different morphological structures and key strategic improvements. 2021 , 516, 115235		9
117	Sorption and permeation study of polyetherimide/hydrophobic silica nanocomposite membrane for effective syngas (H ₂ /CO/CO ₂) separation. <i>Separation and Purification Technology</i> , 2021 , 279, 119774	8.3	1
116	CO ₂ /CH ₄ separation properties of PES mixed matrix membranes containing Fullerene-MWCNTs hybrids. <i>Separation and Purification Technology</i> , 2021 , 277, 119636	8.3	2
115	Hydrogen sulfide mix gas permeation in Aquivion [®] perfluorosulfonic acid (PFSA) ionomer membranes for natural gas sweetening. <i>Journal of Membrane Science</i> , 2021 , 640, 119809	9.6	0
114	MOF-based membranes for pervaporation. <i>Separation and Purification Technology</i> , 2022 , 278, 119233	8.3	7
113	Metal-induced microporous aminosilica creates a highly permeable gas-separation membrane. 2021 , 5, 3029-3042		6
112	Hybrid Membranes for Carbon Capture. 2019 , 85-120		1
111	Role and Characterization of Nano-Based Membranes for Environmental Applications. 2020 , 295-352		1
110	Preparation of multi-layer pervaporation membrane by electro-spraying of nano zeolite X. <i>Microporous and Mesoporous Materials</i> , 2017 , 251, 135-145	5.3	5
109	Pervaporation separation of ethanol via adsorbent-filled silicon rubber membranes. 2014 , 5, 265-279		5
108	The CO ₂ /CH ₄ Separation Potential of ZIF-8/Polysulfone Mixed Matrix Membranes at Elevated Particle Loading for Biogas Upgradation Process. 2021 , 10, 213-219		1
107	Potential of adsorbents from agricultural wastes as alternative fillers in mixed matrix membrane for gas separation: A review. 2020 , 9, 219-229		4

106	MOF-5 Based Matriksli Membranların Sentezi, Karakterizasyonu ve Gaz Ayırma Özellikleri. 6, 415-423			1
105	The Formed Voids around the Filler Particles Impact on the Mixed Matrix Membranes Gas Permeabilities. 2014, 5, 198-203			9
104	New Permeation Model for Mixed Matrix Membrane with Porous Particles. 2015, 6, 325-330			2
103	A Highly Permeable Mixed Matrix Membrane Containing a Vertically Aligned Metal-Organic Framework for CO Separation. 2021, 13, 50441-50450			1
102	Sporopollenin supported methylimidazolium ionic liquids based mixed matrix membrane for dispersive membrane micro-extraction of nitro and chloro-substituted phenols from various matrices. 2022, 172, 106936			1
101	Encyclopedia of Membranes. 2015, 1-13			
100	MWCNT/PDMS Mixed Matrix Membrane for Oxygen Enriched Air Production. 2020, 633-636			
99	High Performance Membrane for Natural Gas Sweetening Plants. 2021, 59-72			
98	A generalized model for the prediction of the permeability of mixed-matrix membranes using impermeable fillers of diverse geometry. <i>Journal of Membrane Science</i> , 2022, 641, 119951	9.6		0
97	Membrane gas separation. 2022, 77-111			1
96	Prospects of nanocomposite membranes for gas separation by membrane contactors. 2020, 439-456			0
95	Insights into the progress of polymeric nano-composite membranes for hydrogen separation and purification in the direction of sustainable energy resources. <i>Separation and Purification Technology</i> , 2021, 120029	8.3		2
94	A comprehensive review of MXene-based water-treatment membranes and technologies: Recent progress and perspectives. 2022, 522, 115448			6
93	Study on recent progress and advances in air-to-air membrane enthalpy exchangers: Materials selection, performance improvement, design optimisation and effects of operating conditions. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 156, 111941	16.2		1
92	Preparation of polybenzimidazole/ZIF-8 and polybenzimidazole/UiO-66 composite membranes with enhanced proton conductivity. 2021,			2
91	Metal-Organic Frameworks. 2022, 637-666			0
90	CO/CH ₄ and H ₂ /CH ₄ Gas Separation Performance of CTA-TNT@CNT Hybrid Mixed Matrix Membranes. <i>Membranes</i> , 2021, 11,	3.8		1
89	Asymmetric Mass Transport through Dense Heterogeneous Polymer Membranes: Fundamental Principles, Lessons from Nature, and Artificial Systems. 2021, e2100654			

88	A review of nano-confined composite membranes fabricated inside the porous support. 2021 , 1, 100005		2
87	Simultaneous increase in CO ₂ permeability and selectivity by BIT-72 and modified BIT-72 based mixed matrix membranes. 2022 , 178, 136-147		3
86	Preparation and structures of PEBA gas separation membrane modified by fumed silica for oil vapor separation.. 2022 , 12, 1025		0
85	Mixed matrix membranes for gas separation. 2022 , 203-254		
84	Nanostructured catalytic membranes for water filtration. 2022 , 389-412		1
83	Biopolymer-based membranes from polysaccharides for CO ₂ separation: a review. 2022 , 20, 1083		3
82	PAN electrospun nanofiber skeleton induced MOFs continuous distribution in MMMs to boost CO ₂ capture. <i>Journal of Membrane Science</i> , 2022 , 120330	9.6	2
81	Gas Permeability, Fractional Free Volume and Molecular Kinetic Diameters: The Effect of Thermal Rearrangement on -hydroxy Polyamide Membranes Loaded with a Porous Polymer Network.. <i>Membranes</i> , 2022 , 12,	3.8	0
80	Hydrogen Recovery by Mixed Matrix Membranes Made from 6FCl-APAF HPA with Different Contents of a Porous Polymer Network and Their Thermal Rearrangement.. <i>Polymers</i> , 2021 , 13,	4.5	0
79	Novel polymeric additives in the preparation and modification of polymeric membranes: A comprehensive review. <i>Journal of Industrial and Engineering Chemistry</i> , 2022 ,	6.3	0
78	Fabrication of polyarylate thin-film nanocomposite membrane based on graphene quantum dots interlayer for enhanced gas separation performance. <i>Separation and Purification Technology</i> , 2022 , 121035	8.3	0
77	Engineered graphene-based mixed matrix membranes to boost CO ₂ separation performance: Latest developments and future prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2022 , 160, 112294	16.2	0
76	Impact of Ionic Liquid Structure and Loading on Gas Sorption and Permeation for ZIF-8-Based Composites and Mixed Matrix Membranes.. <i>Membranes</i> , 2021 , 12,	3.8	2
75	Module Design and Membrane Materials. 2022 , 99-142		0
74	The phase transition of polyamide 6 with pre-stretching process at different temperatures. <i>Physica Scripta</i> , 2021 , 96, 125732	2.6	1
73	Challenges in commercialization of sustainable membranes with FNMs. 2022 , 329-353		
72	Theoretical concepts of membrane-nanomaterial composites. 2022 , 37-80		
71	MOF/Polymer Mixed-Matrix Membranes Preparation: Effect of Main Synthesis Parameters on CO/CH Separation Performance.. <i>Membranes</i> , 2022 , 12,	3.8	2

70	Microporous structure control of SiO ₂ -ZrO ₂ composite membranes via Yttrium doping and an evaluation of thermal stability. <i>Journal of Sol-Gel Science and Technology</i> , 1	2.3	0
69	Self-diffusion of mixed xylene isomers in ZIF-71 crystals dispersed in a polymer to form a hybrid membrane. <i>Microporous and Mesoporous Materials</i> , 2022 , 111960	5.3	
68	Emerging ionic liquid engineered polymeric membrane for carbon dioxide removal: A review. <i>Journal of Molecular Liquids</i> , 2022 , 358, 119192	6	3
67	Use of Conductive Polymers in Separation/Identification Stage of Analysis. <i>ACS Symposium Series</i> , 141-163, 4	3.4	
66	Carbon Nanotubes-Based Mixed Matrix Membranes in Separation Technology. <i>Composites Science and Technology</i> , 2022 , 171-221		
65	Incorporating Carbon Nanotubes in Nanocomposite Mixed-Matrix Membranes for Gas Separation: A Review. <i>Membranes</i> , 2022 , 12, 589	3.8	1
64	The Effect of Solution Casting Temperature and Ultrasound Treatment on PEBAX MH-1657/ZIF-8 Mixed Matrix Membranes Morphology and Performance. <i>Membranes</i> , 2022 , 12, 584	3.8	0
63	Development of blend PEG-PES/NMP-DMF mixed matrix membrane for CO ₂ /N ₂ separation. <i>Environmental Science and Pollution Research</i> ,	5.1	
62	In-Situ Growth of Zif-8 Nanoparticles in Pebax-2533 for Facile Preparation of High Co ₂ -Selective Mixed Matrix Membranes. <i>SSRN Electronic Journal</i> ,	1	
61	Challenges, Opportunities and Future Directions of Membrane Technology for Natural Gas Purification: A Critical Review. <i>Membranes</i> , 2022 , 12, 646	3.8	1
60	Mixed matrix membrane development progress and prospect of using 2D nanosheet filler for CO ₂ separation and capture. <i>Journal of CO₂ Utilization</i> , 2022 , 62, 102094	7.6	1
59	Polymeric membranes and their derivatives for H ₂ /CH ₄ separation: State of the art. <i>Separation and Purification Technology</i> , 2022 , 297, 121504	8.3	1
58	A novel IL/MOF/polymer mixed matrix membrane having superior CO ₂ /N ₂ selectivity. <i>Journal of Membrane Science</i> , 2022 , 658, 120712	9.6	2
57	Design, fabrication, and physicochemical characterization of polyamideimide membranes containing ZIF-8 and CMS particles for potential gas separation applications. <i>Fuel</i> , 2022 , 325, 124947	7.1	
56	Lattice Model of Fluid Transport in Mixed Matrix Membranes. <i>Advanced Theory and Simulations</i> , 2200159, 5	3.5	
55	Gas permselectivity of novel polypyrroloneSilica hybrid membranes. <i>Journal of Applied Polymer Science</i> ,	2.9	0
54	Engineering Cau-10-H for Preparation of Mixed Matrix Membrane for Gas Separations.		
53	Free Volume and Permeability of Mixed Matrix Membranes Made from a Terbutyl-M-terphenyl Polyamide and a Porous Polymer Network. 2022 , 14, 3176		0

- 52 Construction of selective gas permeation channels in polymeric membranes using nanocage tuned ionic liquid/MIL-53 (Al) filler nanoparticles for effective CO₂ separation. **2022**, 106, 104728 ○
- 51 ZIF-8/styrene-IL polymerization hollow fiber membrane for improved CO₂/N₂ separation. **2022**, 372, 133785 ○
- 50 ZIF-filler incorporated mixed matrix membranes (MMMs) for efficient gas separation: A review. **2022**, 10, 108541 ○
- 49 Application of membrane technology for CO₂ capture and separation. **2022**, 257-289 ○
- 48 In-Situ Growth of Zif-8 Nanoparticles in Pebax-2533 for Facile Preparation of High Co₂-Selective Mixed Matrix Membranes. ○
- 47 Material and Process Tests of Heterogeneous Membranes Containing ZIF-8, SiO₂ and POSS-Ph. **2022**, 15, 6455 ○
- 46 Recent Advances in Membrane-Based Biogas and Biohydrogen Upgrading. **2022**, 10, 1918 ○
- 45 Cellulose Triacetate-Based Mixed-Matrix Membranes with MXene 2D Filler—CO₂/CH₄ Separation Performance and Comparison with TiO₂-Based 1D and 0D Fillers. **2022**, 12, 917 ○
- 44 Polyurethane-based separation membranes: a review on fabrication techniques, applications, and future perspectives. **2022**, ○
- 43 A review on seawater desalination with membrane distillation: material development and energy requirements. ○
- 42 Metal-Induced Aminosilica Rigidity Improves Highly Permeable Microporous Membranes via Different Types of Pendant Precursors. **2022**, 14, 42692-42704 ○
- 41 Engineering CAU-10-H in the preparation of mixed matrix membranes for gas separation. **2022**, 663, 121024 ○
- 40 CO₂ separation of fluorinated 6FDA-based polyimides, performance-improved ZIF-incorporated mixed matrix membranes and gas permeability model evaluations. **2022**, 10, 108611 ○
- 39 Thermally Rearranged Mixed Matrix Membranes from Copoly(o-hydroxyamide)s and Copoly(o-hydroxyamide-amide)s with a Porous Polymer Network as a Filler—A Comparison of Their Gas Separation Performances. **2022**, 12, 998 ○
- 38 Investigations of Thermal, Mechanical, and Gas Barrier Properties of PA11-SiO₂ Nanocomposites for Flexible Riser Application. **2022**, 14, 4260 ○
- 37 Performance Evaluation of Matrix-Matrix Multiplication using Parallel Programming Models on CPU Platforms. ○
- 36 Mixed matrix membranes for H₂/CO₂ gas separation- a critical review. **2023**, 333, 126285 ○
- 35 Developing a Hybrid Neuro-Fuzzy Method to Predict Carbon Dioxide (CO₂) Permeability in Mixed Matrix Membranes Containing SAPO-34 Zeolite. **2022**, 12, 1147 1

- 34 In-situ growth of ZIF-8 nanoparticles in Pebax-2533 for facile preparation of high CO₂-selective mixed matrix membranes. **2023**, 659, 130747 ○
- 33 A new ternary Pebax-1657/maltitol/ZIF-8 mixed matrix membrane for efficient CO₂ separation. **2023**, 170, 709-719 ○
- 32 Space and charge effect on the desalination performance of BNNT(8,8) membranes: A molecular dynamics study. **2023**, 812, 140266 ○
- 31 Challenge and promise of mixed matrix hollow fiber composite membranes for CO₂ separations. **2023**, 308, 122876 ○
- 30 Effect of poly(ether block amide)-graphene/ ZnO membranes in mixed gas separation performance. ○
- 29 Synthesis and Characterization of PES/Pebax-MWCNTs Mixed Matrix Membranes for Gas Separation. 340, 3-10 ○
- 28 Photoresponsive Polymer and Polymer Composite Membranes for Gas Separation. ○
- 27 Effect of Nanofillers on Properties and Pervaporation Performance of Nanocomposite Membranes: A Review. **2022**, 12, 1232 1
- 26 Novel Magnetic Mixed Cellulose Acetate Matrix Membranes with Oxygen-Enrichment Potential. **2022**, 12, 1259 ○
- 25 A comprehensive review on zeolite-based mixed matrix membranes for CO₂/CH₄ separation. **2023**, 314, 137709 ○
- 24 The barrier properties of sustainable multiphase and multicomponent packaging materials: A review. **2023**, 133, 101071 ○
- 23 Recent Development in Physical, Chemical, Biological and Hybrid Biogas Upgradation Techniques. **2023**, 15, 476 1
- 22 Theoretical models for gas separation prediction of mixed matrix membranes: effects of the shape factor of nanofillers and interface voids. **2023**, ○
- 21 MOF mixed matrix membranes for syngas purification. **2023**, 307-323 ○
- 20 Principles of electrospinning and nanofiber membranes. **2023**, 3-25 ○
- 19 Chemical, physical, and morphological characteristics of nanomaterials for CO₂ capture and conversion. **2023**, 63-87 ○
- 18 Polymeric membranes and surfaces for CO₂ capture. **2023**, 17-55 ○
- 17 Optimizing hydrogen purification performance by membrane from industrial waste of methanol production. **2023**, 14, 100490 ○

- 16 Technological development of evaporative cooling systems and its integration with air dehumidification processes: A review. **2023**, 283, 112805
- 15 Fabrication, Characterization, and Design of Facilitated Transport Membranes (FTMs). **2023**, 47-91
- 14 Effect of magnetic force on O₂ gas transmission rate for porous alumina. **2023**, 49, 17348-17353
- 13 Polymer Membranes of Zeolitic Imidazole Framework-8 with Sodium Alginate Synthesized from ZIF-8 and Their Application in Light Gas Separation. **2023**, 15, 1011
- 12 Polymer-Infiltrated Metal-Organic Frameworks for Thin-Film Composite Mixed-Matrix Membranes with High Gas Separation Properties. **2023**, 13, 287
- 11 Realizing high performance gas filters through nano-particle deposition. **2023**, 25, 9300-9310
- 10 Study of the physicochemical and transport performance of neat Matrimid 5218 membrane with nanoparticles: A molecular dynamics simulation. **2023**, 150, 642-661
- 9 Gas permeation through polyethylene glycol/polytetramethylene glycol based polyurethane/silica mixed matrix membranes and interfacial morphology study via modeling approach. **2023**, 140,
- 8 Polydimethylsiloxane/Magnesium Oxide Nanosheet Mixed Matrix Membrane for CO₂ Separation Application. **2023**, 13, 337
- 7 Membrane Technology. 1-48
- 6 Utilization and Comparison of Different Food Wastes for the Synthesis of Two-Stage Activated Carbon-Based Mixed Matrix Membranes for Gas Separation Applications.
- 5 Review on Multidimensional Adsorbents for CO₂ Capture from Ambient Air: Recent Advances and Future Perspectives.
- 4 Advances in Halloysite Nanotubes (HNTs)-Based Mixed-Matrix Membranes for CO₂ Capture.
- 3 A review of membrane material for biogas and natural gas upgrading. **2023**, 204969
- 2 Constructing Gas Transmission Pathways in Two-Dimensional Composite Material ZIF-8@BNNS Mixed-Matrix Membranes to Enhance CO₂/N₂ Separation Performance. **2023**, 13, 444
- 1 Delaminated or Multi-layer Ti₃C₂TX-MXene-incorporated polydimethylsiloxane mixed matrix membrane for enhancing CO₂ /N₂ separation. **2023**, 100410