

Membranes with Fast and Selective Gas Transport Characteristics for Efficient CO₂ Capture

Angewandte Chemie - International Edition

54, 578-582

DOI: 10.1002/anie.201409563

Citation Report

#	ARTICLE	IF	CITATIONS
1	High Efficiency Water Transport Channels using the Synergistic Effect of a Hydrophilic Polymer and Graphene Oxide Laminates. <i>Advanced Functional Materials</i> , 2015, 25, 5809-5815.	7.8	177
2	All Carbon Nanoarchitectures as High Performance Separation Membranes with Superior Stability. <i>Advanced Functional Materials</i> , 2015, 25, 7348-7359.	7.8	248
3	Antimicrobial peptide-conjugated graphene oxide membrane for efficient removal and effective killing of multiple drug resistant bacteria. <i>RSC Advances</i> , 2015, 5, 18881-18887.	1.7	99
4	Recent advances in nanoporous graphene membrane for gas separation and water purification. <i>Science Bulletin</i> , 2015, 60, 1807-1823.	4.3	96
5	Graphene Oxide Nanosheets Based Novel Facilitated Transport Membranes for Efficient CO ₂ Capture. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 5403-5414.	1.8	46
6	Graphene oxide membranes in fluid separations. <i>Current Opinion in Chemical Engineering</i> , 2016, 12, 98-105.	3.8	34
7	Molecularly Designed Stabilized Asymmetric Hollow Fiber Membranes for Aggressive Natural Gas Separation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 13754-13758.	7.2	29
8	Molecularly Designed Stabilized Asymmetric Hollow Fiber Membranes for Aggressive Natural Gas Separation. <i>Angewandte Chemie</i> , 2016, 128, 13958-13962.	1.6	9
9	Mixed-Matrix Membranes Containing Carbon Nanotubes Composite with Hydrogel for Efficient CO ₂ Separation. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 29044-29051.	4.0	111
10	Flexible single-layer ionic organic-inorganic frameworks towards precise nano-size separation. <i>Nature Communications</i> , 2016, 7, 10742.	5.8	112
11	Membranen aus zweidimensionalen Materialien: eine neue Familie hochleistungsfähiger Trennmembranen. <i>Angewandte Chemie</i> , 2016, 128, 13580-13595.	1.6	37
12	Two-Dimensional Material Membranes: A New Family of High Performance Separation Membranes. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 13384-13397.	7.2	605
13	Freestanding bacterial cellulose-graphene oxide composite membranes with high mechanical strength for selective ion permeation. <i>Scientific Reports</i> , 2016, 6, 33185.	1.6	73
14	Synthetic Two-Dimensional Materials: A New Paradigm of Membranes for Ultimate Separation. <i>Advanced Materials</i> , 2016, 28, 6529-6545.	11.1	192
15	Gas permeation and selectivity of poly(dimethylsiloxane)/graphene oxide composite elastomer membranes. <i>Journal of Membrane Science</i> , 2016, 518, 131-140.	4.1	73
16	Preparation of graphene oxide/polyethyleneimine layer-by-layer assembled film for enhanced hydrogen barrier property. <i>Composites Part B: Engineering</i> , 2016, 92, 252-258.	5.9	31
17	Size effects of graphene oxide on mixed matrix membranes for CO ₂ separation. <i>AIChE Journal</i> , 2016, 62, 2843-2852.	1.8	117
18	Preparation and characterization of Ni ₂ (mal) ₂ (bpy) homochiral MOF membrane. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2016, 11, 60-69.	0.8	20

#	ARTICLE	IF	CITATIONS
19	Highly selective mixed-matrix membranes with layered fillers for molecular separation. Journal of Membrane Science, 2016, 497, 394-401.	4.1	19
20	A Two-Dimensional Lamellar Membrane: MXene Nanosheet Stacks. Angewandte Chemie - International Edition, 2017, 56, 1825-1829.	7.2	831
21	A Two-Dimensional Lamellar Membrane: MXene Nanosheet Stacks. Angewandte Chemie, 2017, 129, 1851-1855.	1.6	95
22	Graphene oxide functionalized by poly(ionic liquid)s for carbon dioxide capture. Journal of Applied Polymer Science, 2017, 134, .	1.3	13
23	Maximizing the right stuff: The trade-off between membrane permeability and selectivity. Science, 2017, 356, .	6.0	1,864
24	Mixed Matrix Membranes with Excellent CO ₂ Capture Induced by Nano-Carbon Hybrids. ChemNanoMat, 2017, 3, 560-568.	1.5	12
25	Water Transport with Ultralow Friction through Partially Exfoliated g-C ₃ N ₄ Nanosheet Membranes with Self-Supporting Spacers. Angewandte Chemie, 2017, 129, 9102-9108.	1.6	31
26	Water Transport with Ultralow Friction through Partially Exfoliated g-C ₃ N ₄ Nanosheet Membranes with Self-Supporting Spacers. Angewandte Chemie - International Edition, 2017, 56, 8974-8980.	7.2	266
27	Highly efficient recovery of propane by mixed-matrix membrane via embedding functionalized graphene oxide nanosheets into polydimethylsiloxane. AIChE Journal, 2017, 63, 3501-3510.	1.8	25
28	Highly Permeable Graphene Oxide/Polyelectrolytes Hybrid Thin Films for Enhanced CO ₂ /N ₂ Separation Performance. Scientific Reports, 2017, 7, 456.	1.6	36
29	<i>50th Anniversary Perspective</i>: Polymers and Mixed Matrix Membranes for Gas and Vapor Separation: A Review and Prospective Opportunities. Macromolecules, 2017, 50, 7809-7843.	2.2	709
30	Ion sieving in graphene oxide membranes via cationic control of interlayer spacing. Nature, 2017, 550, 380-383.	13.7	1,171
31	Strict molecular sieving over electrodeposited 2D-interspacing-narrowed graphene oxide membranes. Nature Communications, 2017, 8, 825.	5.8	110
32	Chemically Cross-Linked MOF Membrane Generated from Imidazolium-Based Ionic Liquid-Decorated UiO-66 Type NMOF and Its Application toward CO ₂ Separation and Conversion. ACS Applied Materials & Interfaces, 2017, 9, 38919-38930.	4.0	83
33	Nanoparticles@rGO membrane enabling highly enhanced water permeability and structural stability with preserved selectivity. AIChE Journal, 2017, 63, 5054-5063.	1.8	107
34	Graphene Oxide Membranes with Heterogeneous Nanodomains for Efficient CO ₂ Separations. Angewandte Chemie - International Edition, 2017, 56, 14246-14251.	7.2	121
35	Graphene Oxide Membranes with Heterogeneous Nanodomains for Efficient CO ₂ Separations. Angewandte Chemie, 2017, 129, 14434-14439.	1.6	13
36	Graphene Oxide-Polycarbonate Track-Etched Nanosieve Platform for Sensitive Detection of Human Immunodeficiency Virus Envelope Glycoprotein. ACS Applied Materials & Interfaces, 2017, 9, 32621-32634.	4.0	21

#	ARTICLE	IF	CITATIONS
37	Two-dimensional Materials as Prospective Scaffolds for Mixed-matrix Membrane-based CO ₂ Separation. <i>ChemSusChem</i> , 2017, 10, 3304-3316.	3.6	77
38	Ultrathin graphene oxide-based hollow fiber membranes with brush-like CO ₂ -philic agent for highly efficient CO ₂ capture. <i>Nature Communications</i> , 2017, 8, 2107.	5.8	151
39	Hydrophobic-functionalized ZIF-8 nanoparticles incorporated PDMS membranes for highly selective separation of propane/nitrogen. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2017, 12, 110-120.	0.8	23
40	Spray-evaporation assembled graphene oxide membranes for selective hydrogen transport. <i>Separation and Purification Technology</i> , 2017, 174, 126-135.	3.9	86
41	Thin poly(ether-block-amide)/attapulgite composite membranes with improved CO ₂ permeance and selectivity for CO ₂ /N ₂ and CO ₂ /CH ₄ . <i>Chemical Engineering Science</i> , 2017, 160, 236-244.	1.9	55
42	Two-dimensional materials: an emerging platform for gas separation membranes. <i>Current Opinion in Chemical Engineering</i> , 2018, 20, 28-38.	3.8	53
43	Preparation of mixed matrix membranes based on polyimide and aminated graphene oxide for CO ₂ separation. <i>Polymers for Advanced Technologies</i> , 2018, 29, 1334-1343.	1.6	49
44	Accelerating Membrane-based CO ₂ Separation by Soluble Nanoporous Polymer Networks Produced by Mechanochemical Oxidative Coupling. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2816-2821.	7.2	44
45	Accelerating Membrane-based CO ₂ Separation by Soluble Nanoporous Polymer Networks Produced by Mechanochemical Oxidative Coupling. <i>Angewandte Chemie</i> , 2018, 130, 2866-2871.	1.6	10
46	Graphene oxide membrane for molecular separation: challenges and opportunities. <i>Science China Materials</i> , 2018, 61, 1021-1026.	3.5	33
47	Incorporating Graphene Oxide into Alginate Polymer with a Cationic Intermediate To Strengthen Membrane Dehydration Performance. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 13903-13913.	4.0	37
48	Self-Assembly of Thiourea-Crosslinked Graphene Oxide Framework Membranes toward Separation of Small Molecules. <i>Advanced Materials</i> , 2018, 30, e1705775.	11.1	154
49	Functionalized Boron Nitride Nanosheets: A Thermally Rearranged Polymer Nanocomposite Membrane for Hydrogen Separation. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16056-16061.	7.2	39
50	Functionalized Boron Nitride Nanosheets: A Thermally Rearranged Polymer Nanocomposite Membrane for Hydrogen Separation. <i>Angewandte Chemie</i> , 2018, 130, 16288-16293.	1.6	30
51	Permeability and Selectivity of PPO/Graphene Composites as Mixed Matrix Membranes for CO ₂ Capture and Gas Separation. <i>Polymers</i> , 2018, 10, 129.	2.0	38
52	Engineering Sub-Nanometer Channels in Two-Dimensional Materials for Membrane Gas Separation. <i>Membranes</i> , 2018, 8, 100.	1.4	21
53	Ultrasensitive Pebax Membranes Enabled by Templated Microphase Separation. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 20006-20013.	4.0	48
54	Separation and purification using GO and r-GO membranes. <i>RSC Advances</i> , 2018, 8, 23130-23151.	1.7	80

#	ARTICLE	IF	CITATIONS
55	Performance of Nanocomposite Membranes Containing OD to 2D Nanofillers for CO ₂ Separation: A Review. <i>Membranes</i> , 2018, 8, 24.	1.4	52
56	Precisely Controlling Nanochannels of Graphene Oxide Membranes through Lignin-Based Cation Decoration for Dehydration of Biofuels. <i>ChemSusChem</i> , 2018, 11, 2315-2320.	3.6	33
57	2D MXene Nanofilms with Tunable Gas Transport Channels. <i>Advanced Functional Materials</i> , 2018, 28, 1801511.	7.8	332
58	FUNCTIONALIZED GRAPHENE-BASED MATERIALS AS INNOVATIVE ADSORBENTS OF ORGANIC POLLUTANTS: A CONCISE OVERVIEW. <i>Brazilian Journal of Chemical Engineering</i> , 2019, 36, 1-31.	0.7	55
59	Graphene-Based Membranes for CO ₂ /CH ₄ Separation: Key Challenges and Perspectives. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2784.	1.3	29
60	Molecular simulations on graphene-based membranes. <i>Carbon</i> , 2019, 153, 481-494.	5.4	51
61	Polyvinylamine/graphene oxide/PANI@CNTs mixed matrix composite membranes with enhanced CO ₂ /N ₂ separation performance. <i>Journal of Membrane Science</i> , 2019, 589, 117246.	4.1	54
62	Liquid-like CNT/SiO ₂ nanoparticle organic hybrid materials as fillers in mixed matrix composite membranes for enhanced CO ₂ -selective separation. <i>New Journal of Chemistry</i> , 2019, 43, 11949-11958.	1.4	28
63	Ultrapermeable graphene oxide membranes with tunable interlayer distances via vein-like supramolecular dendrimers. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18642-18652.	5.2	48
64	CO ₂ -philic Separation Membrane: Deep Eutectic Solvent Filled Graphene Oxide Nanoslits. <i>Small</i> , 2019, 15, e1904145.	5.2	53
66	Gas and Solution Uptake Properties of Graphene Oxide-Based Composite Materials: Organic vs. Inorganic Cross-Linkers. <i>Journal of Composites Science</i> , 2019, 3, 80.	1.4	8
67	Improving hydrogen permeation and interface property of ceramic-supported graphene oxide membrane via embedding of silicalite-1 zeolite into Al ₂ O ₃ hollow fiber. <i>Separation and Purification Technology</i> , 2019, 227, 115712.	3.9	12
68	Laminated mica nanosheets supported ionic liquid membrane for CO ₂ separation. <i>Nanotechnology</i> , 2019, 30, 385705.	1.3	25
69	High-Performance CO ₂ Capture through Polymer-Based Ultrathin Membranes. <i>Advanced Functional Materials</i> , 2019, 29, 1900735.	7.8	70
70	Preparation of modified graphene oxide/polyethyleneimine film with enhanced hydrogen barrier properties by reactive layer-by-layer self-assembly. <i>Composites Part B: Engineering</i> , 2019, 166, 663-672.	5.9	28
71	Gas molecule modulated ionic migration through graphene oxide laminates. <i>Journal of Electroanalytical Chemistry</i> , 2019, 840, 182-186.	1.9	2
72	Enhanced carbon dioxide flux by catechol-Zn ²⁺ synergistic manipulation of graphene oxide membranes. <i>Chemical Engineering Science</i> , 2019, 195, 230-238.	1.9	26
73	Simultaneously tuning dense skin and porous substrate of asymmetric hollow fiber membranes for efficient purification of aggressive natural gas. <i>AIChE Journal</i> , 2019, 65, 1269-1280.	1.8	20

#	ARTICLE	IF	CITATIONS
74	A GO-Induced Assembly Strategy To Repair MOF Nanosheet-Based Membrane for Efficient H ₂ /CO ₂ Separation. ACS Applied Materials & Interfaces, 2019, 11, 990-997.	4.0	63
75	Mixed matrix membranes comprising aminosilane-functionalized graphene oxide for enhanced CO ₂ separation. Journal of Membrane Science, 2019, 570-571, 343-354.	4.1	175
76	Orientation of an Amphiphilic Copolymer to a Lamellar Structure on a Hydrophobic Surface and Implications for CO ₂ Capture Membranes. Angewandte Chemie - International Edition, 2019, 58, 1143-1147.	7.2	19
77	Orientation of an Amphiphilic Copolymer to a Lamellar Structure on a Hydrophobic Surface and Implications for CO ₂ Capture Membranes. Angewandte Chemie, 2019, 131, 1155-1159.	1.6	9
78	Metal-organic framework membranes: Production, modification, and applications. Progress in Materials Science, 2019, 100, 21-63.	16.0	169
79	Pebax-Based Membrane Filled with Two-Dimensional Mxene Nanosheets for Efficient CO ₂ Capture. Chemistry - an Asian Journal, 2020, 15, 2364-2370.	1.7	72
80	Cysteamine-crosslinked graphene oxide membrane with enhanced hydrogen separation property. Journal of Membrane Science, 2020, 595, 117568.	4.1	54
81	Molecular Bridges Stabilize Graphene Oxide Membranes in Water. Angewandte Chemie - International Edition, 2020, 59, 1689-1695.	7.2	166
82	Molecular Bridges Stabilize Graphene Oxide Membranes in Water. Angewandte Chemie, 2020, 132, 1706-1712.	1.6	17
83	Preparation and Characterization of Poly(vinyl alcohol)/ZIF-8 Porous Composites by Ice-templating Method with High ZIF-8 Loading Amount. Chinese Journal of Polymer Science (English Edition), 2020, 38, 638-643.	2.0	4
84	Microwave reduction of graphene oxide. Carbon, 2020, 170, 277-293.	5.4	80
85	Applications of nanocomposite membranes. , 2020, , 209-253.		0
86	Nanocomposite membrane fabrication. , 2020, , 125-162.		0
87	Rational design of poly(ethylene oxide) based membranes for sustainable CO ₂ capture. Journal of Materials Chemistry A, 2020, 8, 24233-24252.	5.2	94
88	Surface Modifications of Nanofillers for Carbon Dioxide Separation Nanocomposite Membrane. Symmetry, 2020, 12, 1102.	1.1	12
89	Optimized nanospace of coordination isomers with selenium sites for acetylene separation. Inorganic Chemistry Frontiers, 2020, 7, 3195-3203.	3.0	12
90	Carbon Quantum Dot-Enabled Tuning of the Microphase Structures of Poly(ether- <i>b</i> -amide) Membrane for CO ₂ Separation. Industrial & Engineering Chemistry Research, 2020, 59, 14960-14969.	1.8	13
91	Ultrafast Semi-Solid Processing of Highly Durable ZIF-8 Membranes for Propylene/Propane Separation. Angewandte Chemie, 2020, 132, 22093-22098.	1.6	10

#	ARTICLE	IF	CITATIONS
92	Pebax® 2533/Graphene Oxide Nanocomposite Membranes for Carbon Capture. <i>Membranes</i> , 2020, 10, 188.	1.4	23
93	Ultrafast Semi-Solid Processing of Highly Durable ZIF-8 Membranes for Propylene/Propane Separation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21909-21914.	7.2	75
94	The novel micro-phase separated CO ₂ -selective mixed matrix membranes (MMMs) modified with ester group by EPEG. <i>Chemical Engineering Research and Design</i> , 2020, 164, 281-292.	2.7	2
95	Thin laminar composite solid electrolyte with high ionic conductivity and mechanical strength towards advanced all-solid-state lithium-sulfur battery. <i>Journal of Materials Chemistry A</i> , 2020, 8, 23344-23353.	5.2	52
96	Graphene-based membranes for pervaporation processes. <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 1755-1766.	1.7	35
97	Synthesis of silver-nanoparticles composite with highly catalytic activity supported on the reduced graphene oxide. <i>Applied Surface Science</i> , 2020, 525, 146597.	3.1	11
98	g-C ₃ N ₄ nanosheets with tunable affinity and sieving effect endowing polymeric membranes with enhanced CO ₂ capture property. <i>Separation and Purification Technology</i> , 2020, 250, 117200.	3.9	41
99	Negative Charge Confined Amine Carriers within the Nanowire Network for Stable and Efficient Membrane Carbon Capture. <i>Advanced Functional Materials</i> , 2020, 30, 2002804.	7.8	14
100	Effective Separation of CO ₂ Using Metal-Incorporated rGO Membranes. <i>Advanced Materials</i> , 2020, 32, e1907580.	11.1	63
101	Enhanced CO ₂ separation in membranes with anion-cation dual pathways. <i>Journal of CO₂ Utilization</i> , 2020, 38, 355-365.	3.3	6
102	CO ₂ selective separation of Pebax-based mixed matrix membranes (MMMs) accelerated by silica nanoparticle organic hybrid materials (NOHMs). <i>Separation and Purification Technology</i> , 2020, 241, 116708.	3.9	41
103	Gas transport through two-dimensional nanoslits. <i>Materials Today Nano</i> , 2020, 10, 100074.	2.3	23
104	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.	4.1	26
105	The effect of surface wrinkles on the properties of water in graphene slit pores. <i>Molecular Simulation</i> , 2020, 46, 604-615.	0.9	3
106	Ionic liquid tuning nanocage size of MOFs through a two-step adsorption/infiltration strategy for enhanced gas screening of mixed-matrix membranes. <i>Journal of Membrane Science</i> , 2020, 605, 118101.	4.1	59
107	Molecular transport in ionic liquid/nanomembrane hybrids. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 9808-9814.	1.3	9
108	Enhanced CO ₂ separation properties by incorporating acid-functionalized graphene oxide into polyimide membrane. <i>High Performance Polymers</i> , 2021, 33, 405-416.	0.8	4
109	Carbon Capture and Utilization by graphenes-path covered and ahead. <i>Journal of Cleaner Production</i> , 2021, 284, 124712.	4.6	18

#	ARTICLE	IF	CITATIONS
110	MXene versus graphene oxide: Investigation on the effects of 2D nanosheets in mixed matrix membranes for CO ₂ separation. <i>Journal of Membrane Science</i> , 2021, 620, 118850.	4.1	65
111	Analogous Mixed Matrix Membranes with Self-Assembled Interface Pathways. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5864-5870.	7.2	29
112	Analogous Mixed Matrix Membranes with Self-Assembled Interface Pathways. <i>Angewandte Chemie</i> , 2021, 133, 5928-5934.	1.6	3
113	Construction of graphene oxide membrane through non-covalent cross-linking by sulfonated cyclodextrin for ultra-permeable butanol dehydration. <i>Journal of Membrane Science</i> , 2021, 621, 118938.	4.1	30
114	Sorption-enhanced thin film composites with metal-organic polyhedral nanocages for CO ₂ separation. <i>Journal of Membrane Science</i> , 2021, 620, 118826.	4.1	9
115	Nanoconfined deep eutectic solvent in laminated MXene for efficient CO ₂ separation. <i>Chemical Engineering Journal</i> , 2021, 405, 126961.	6.6	56
116	Ultrahigh water permeation with a high multivalent metal ion rejection rate through graphene oxide membranes. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10672-10677.	5.2	31
117	Elevated-temperature H ₂ separation using a dense electron and proton mixed conducting polybenzimidazole-based membrane with 2D sulfonated graphene. <i>Green Chemistry</i> , 2021, 23, 3374-3385.	4.6	14
118	A review on the recent advancements in graphene-based membranes and their applications as stimuli-responsive separation materials. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21510-21531.	5.2	36
119	Ultrathin Reduced Graphene Oxide/Organosilica Hybrid Membrane for Gas Separation. <i>Jacs Au</i> , 2021, 1, 328-335.	3.6	16
120	Intensification of water/ethanol separation by PVA hybrid membrane with different functional ligand UiO-66-X nanochannels in pervaporation process. <i>Separation and Purification Technology</i> , 2021, 256, 117802.	3.9	31
121	Recent progress in the design and fabrication of MXene-based membranes. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 820-836.	2.3	27
122	Incorporation of open-pore MFI zeolite nanosheets in polydimethylsiloxane (PDMS) to isomer-selective mixed matrix membranes. <i>Microporous and Mesoporous Materials</i> , 2021, 315, 110930.	2.2	18
123	Polypyrrole-aided surface decoration of graphene oxide nanosheets as fillers for poly(ether ether ketone) membranes. <i>Journal of Energy Research</i> , 2021, 45, 10843-10857.	2.2	18
124	High-efficiency CO ₂ separation using hybrid LDH-polymer membranes. <i>Nature Communications</i> , 2021, 12, 3069.	5.8	56
125	High-performance membrane with angstrom-scale manipulation of gas transport channels via polymeric decorated MOF cavities. <i>Journal of Membrane Science</i> , 2021, 625, 119175.	4.1	27
126	Hollow Silica-Based Porous Liquids Functionalized Mixed Matrix Membranes for CO ₂ Capture. <i>ChemistrySelect</i> , 2021, 6, 5027-5033.	0.7	14
127	Vesicles-shaped MOF-based mixed matrix membranes with intensified interfacial affinity and CO ₂ transport freeway. <i>Chemical Engineering Journal</i> , 2021, 414, 128807.	6.6	36

#	ARTICLE	IF	CITATIONS
128	Interfacial Ions Sieving for Ultrafast and Complete Desalination through 2D Nanochannel Defined Graphene Composite Membranes. <i>ACS Nano</i> , 2021, 15, 9871-9881.	7.3	39
129	Porous Medium Equation in Graphene Oxide Membrane: Nonlinear Dependence of Permeability on Pressure Gradient Explained. <i>Membranes</i> , 2021, 11, 665.	1.4	2
130	Ultrathin, Highly Permeable Graphene Oxide/Zeolitic Imidazole Framework Polymeric Mixed-Matrix Composite Membranes: Engineering the CO ₂ -Philic Pathway. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 11903-11915.	3.2	11
131	MIL-101(Cr) Microporous Nanocrystals Intercalating Graphene Oxide Membrane for Efficient Hydrogen Purification. <i>Chemistry - an Asian Journal</i> , 2021, 16, 3162-3169.	1.7	11
132	Smart light-responsive hierarchical metal organic frameworks constructed mixed matrix membranes for efficient gas separation. <i>Green Chemical Engineering</i> , 2022, 3, 71-82.	3.3	12
133	Polyvinylamine/ZIF-8-decorated metakaolin composite membranes for CO ₂ /N ₂ separation. <i>Separation and Purification Technology</i> , 2021, 270, 118800.	3.9	22
134	Constructing MOF-doped two-dimensional composite material ZIF-90@C ₃ N ₄ mixed matrix membranes for CO ₂ /N ₂ separation. <i>Separation and Purification Technology</i> , 2022, 280, 119803.	3.9	31
135	Pervaporation membrane materials: Recent trends and perspectives. <i>Journal of Membrane Science</i> , 2021, 636, 119557.	4.1	140
136	Graphene oxide membranes tuned by metal-phytic acid coordination complex for butanol dehydration. <i>Journal of Membrane Science</i> , 2021, 638, 119736.	4.1	16
137	A facile direct spray-coating of Pebax® 1657: Towards large-scale thin-film composite membranes for efficient CO ₂ /N ₂ separation. <i>Journal of Membrane Science</i> , 2021, 638, 119708.	4.1	31
138	Carbon nanomaterials and their impact on membrane separation applications. <i>Environmental Science: Nano</i> , 2021, 8, 3056-3066.	2.2	2
139	Nickel(II) ion-intercalated MXene membranes for enhanced H ₂ /CO ₂ separation. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 882-891.	2.3	22
140	Mixed matrix composite membranes based on amination of reduced graphene oxide for CO ₂ separation: Effects of heating time and nanofiller loading. <i>Korean Journal of Chemical Engineering</i> , 2020, 37, 2287-2294.	1.2	3
141	CAN GRAPHENE BILAYERS BE THE MEMBRANE MIMETIC MATERIALS? ION CHANNELS IN GRAPHENE-BASED NANOSTRUCTURES. <i>Radioelektronika, Nanosistemy, Informacionnye Tehnologii</i> , 2016, 8, 154-170.	0.2	1
142	Liquid-phase water isotope separation using graphene-oxide membranes. <i>Carbon</i> , 2022, 186, 344-354.	5.4	15
143	Efficient Separation of Acetylene-Containing Mixtures Using ZIF-8 Membranes. <i>ACS Omega</i> , 2021, 6, 33018-33023.	1.6	9
144	CO ₂ separation of membranes consisting of Mxene/ILs with X: A perspective from molecular dynamics simulation. <i>Journal of Molecular Liquids</i> , 2022, 349, 118099.	2.3	7
145	An analytical model for evaluating fluid flux across carbon-based membrane. <i>Journal of Membrane Science</i> , 2022, 644, 120157.	4.1	1

#	ARTICLE	IF	CITATIONS
146	Synthesis and Applications of Graphene Oxide. <i>Materials</i> , 2022, 15, 920.	1.3	121
147	Light-responsive metal-organic framework sheets constructed smart membranes with tunable transport channels for efficient gas separation. <i>RSC Advances</i> , 2021, 12, 517-527.	1.7	10
149	A reduced pressure-assisted vapor penetration of ionic liquid into the laminated graphene oxide membranes for efficient CO ₂ separation. <i>Separation and Purification Technology</i> , 2022, 287, 120514.	3.9	10
150	Membrane materials targeting carbon capture and utilization. , 2022, 2, 100025.		27
151	Mixed Matrix Membranes for Efficient CO ₂ Separation Using an Engineered UiO-66 MOF in a Pebax Polymer. <i>Polymers</i> , 2022, 14, 655.	2.0	28
152	A Review of the Recent Progress in the Development of Nanocomposites Based on Poly(ether-block-amide) Copolymers as Membranes for CO ₂ Separation. <i>Polymers</i> , 2022, 14, 10.	2.0	17
153	Novel graphene oxide/polymer composite membranes for the food industry: structures, mechanisms and recent applications. <i>Critical Reviews in Food Science and Nutrition</i> , 2022, 62, 3705-3722.	5.4	15
154	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.	8.2	22
155	Recent advances in membrane-enabled water desalination by 2D frameworks: Graphene and beyond. <i>Desalination</i> , 2022, 531, 115684.	4.0	50
156	High Performance Pps-Ngo/Mxene Membrane Overcoming the Trade-Off Effect for Harsh Environment Wastewater Treatment. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
157	Pervaporation as a Successful Tool in the Treatment of Industrial Liquid Mixtures. <i>Polymers</i> , 2022, 14, 1604.	2.0	10
158	Two-step surface functionalization/alignment strategy to improve CO ₂ /N ₂ separation from mixed matrix membranes based on PEBAX and graphene oxide. <i>Chemical Engineering Research and Design</i> , 2022, 163, 36-47.	2.7	6
159	Preparation of Pebax 1657/MAF-7 Mixed Matrix Membranes with Enhanced CO ₂ /N ₂ Separation by Active Site of Triazole Ligand. <i>Membranes</i> , 2022, 12, 786.	1.4	3
161	Molecular simulation study on CO ₂ separation performance of GO/ionic liquid membrane. <i>International Journal of Heat and Mass Transfer</i> , 2022, 197, 123360.	2.5	4
162	Experimental and theoretical study of the effect of different functionalities of graphene oxide/polymer composites on selective CO ₂ capture. <i>Scientific Reports</i> , 2022, 12, .	1.6	3
163	Thin film nanocomposite membranes of superglassy PIM-1 and amine-functionalised 2D fillers for gas separation. <i>Journal of Materials Chemistry A</i> , 2022, 10, 23341-23351.	5.2	10
164	Fast evaporation of ultra-thin pure and saline water film through functionalized holey graphene membrane. <i>International Communications in Heat and Mass Transfer</i> , 2023, 140, 106542.	2.9	1
165	A review on the recent advances in composite membranes for CO ₂ capture processes. <i>Separation and Purification Technology</i> , 2023, 307, 122752.	3.9	22

#	ARTICLE	IF	CITATIONS
166	Hansen solubility parameters-guided mixed matrix membranes with linker-exchanged metal-organic framework fillers showing enhanced gas separation performance. <i>Journal of Membrane Science</i> , 2023, 668, 121238.	4.1	7
167	Enhanced CO ₂ /H ₂ separation by GO and PVA-GO embedded PVAm nanocomposite membranes. <i>Journal of Membrane Science</i> , 2023, 671, 121397.	4.1	9
168	Water pumping effect over the organic ions defined graphene oxide membrane impules high flux desalination. <i>Npj Clean Water</i> , 2022, 5, .	3.1	9
169	Graphene-based nanomaterials for CO ₂ capture and conversion. , 2023, , 211-243.		1
170	2D lamellar membrane with MXene hetero-intercalated small sized graphene oxide for harsh environmental wastewater treatment. <i>Separation and Purification Technology</i> , 2023, 311, 123248.	3.9	17
171	Quantum mechanical analysis of adsorption for CH ₄ and CO ₂ onto graphene oxides. <i>Materials Chemistry and Physics</i> , 2023, 301, 127602.	2.0	3
172	Preparation of mixed matrix membranes by layered double hydroxides of amino acid intercalation and Pebax for ameliorated CO ₂ separation. <i>Journal of Environmental Chemical Engineering</i> , 2023, 11, 109399.	3.3	4
173	Ultrafast Molecular-Sieving Graphene Oxide Membranes for Selective Separation of Volatile Aromatic Compounds. <i>ACS Applied Nano Materials</i> , 2023, 6, 4978-4986.	2.4	1