Matthias Wessling

List of Publications by Year
in descending order

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596 papers	30,446 citations	4658 85 h-index	10445 139 g-index
608 all docs	608 docs citations	608 times ranked	21717 citing authors

#	Article	IF	Citations
1	Anion exchange membranes for alkaline fuel cells: A review. Journal of Membrane Science, 2011, 377, 1-35.	8.2	1,486
2	Selectivity of ion exchange membranes: A review. Journal of Membrane Science, 2018, 555, 429-454.	8.2	722
3	CO2-induced plasticization phenomena in glassy polymers. Journal of Membrane Science, 1999, 155, 67-78.	8.2	464
4	Current status of ion exchange membranes for power generation from salinity gradients. Journal of Membrane Science, 2008, 319, 214-222.	8.2	451
5	Membranes and microfluidics: a review. Lab on A Chip, 2006, 6, 1125.	6.0	414
6	Medical applications of membranes: Drug delivery, artificial organs and tissue engineering. Journal of Membrane Science, 2008, 308, 1-34.	8.2	401
7	An algorithm-based topographical biomaterials library to instruct cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16565-16570.	7.1	355
8	Practical Potential of Reverse Electrodialysis As Process for Sustainable Energy Generation. Environmental Science & Technology, 2009, 43, 6888-6894.	10.0	308
9	On the resistances of membrane, diffusion boundary layer and double layer in ion exchange membrane transport. Journal of Membrane Science, 2010, 349, 369-379.	8.2	296
10	Concentration polarization with monopolar ion exchange membranes: currentÃ¢Â€Â“voltage curves and water dissociation. Journal of Membrane Science, 1999, 162, 145-154.	8.2	290
11	Transport limitations in ion exchange membranes at low salt concentrations. Journal of Membrane Science, 2010, 346, 163-171.	8.2	283
12	Flue gas dehydration using polymer membranes. Journal of Membrane Science, 2008, 313, 263-276.	8.2	279
13	Plasticization-resistant glassy polyimide membranes for CO2/CO4 separations. Separation and Purification Technology, 1998, 14, 27-39.	7.9	271
14	Direct Observation of a Nonequilibrium Electro-Osmotic Instability. Physical Review Letters, 2008, 101, 236101.	7.8	260
15	Poly(ethylene glycol) and poly(dimethyl siloxane): Combining their advantages into efficient CO2 gas separation membranes. Journal of Membrane Science, 2010, 352, 126-135.	8.2	247
16	Transforming biogas into biomethane using membrane technology. Renewable and Sustainable Energy Reviews, 2013, 17, 199-212.	16.4	225
17	Anion-exchange membranes containing diamines: preparation and stability in alkaline solution. Journal of Membrane Science, 2004, 244, 25-34.	8.2	220
18	Transport of water vapor and inert gas mixtures through highly selective and highly permeable polymer membranes. Journal of Membrane Science, 2005, 251, 29-41.	8.2	218

#	Article	IF	Citations
19	Layer-by-Layer Modification of Cation Exchange Membranes Controls Ion Selectivity and Water Splitting. ACS Applied Materials & Interfaces, 2014, 6, 1843-1854.	8.0	207
20	Membrane processes in biorefinery applications. Journal of Membrane Science, 2013, 444, 285-317.	8.2	198
21	Bioactive Gyroid Scaffolds Formed by Sacrificial Templating of Nanocellulose and Nanochitin Hydrogels as Instructive Platforms for Biomimetic Tissue Engineering. Advanced Materials, 2015, 27, 2989-2995.	21.0	195
22	Evaporation-Triggered Wetting Transition for Water Droplets upon Hydrophobic Microstructures. Physical Review Letters, 2010, 104, 116102.	7.8	187
23	Microcellular Foaming of Amorphous High-TgPolymers Using Carbon Dioxide. Macromolecules, 2001, 34, 874-884.	4.8	181
24	Chronopotentiometry and overlimiting ion transport through monopolar ion exchange membranes. Journal of Membrane Science, 1999, 162, 155-164.	8.2	178
25	Morphology and Microtopology of Cation-Exchange Polymers and the Origin of the Overlimiting Current. Journal of Physical Chemistry B, 2007, 111, 2152-2165.	2.6	174
26	Ion conductive spacers for increased power generation in reverse electrodialysis. Journal of Membrane Science, 2010, 347, 101-107.	8.2	174
27	Open Nanoporous Morphologies from Polymeric Blends by Carbon Dioxide Foaming. Macromolecules, 2002, 35, 1738-1745.	4.8	171
28	Bicontinuous Nanoporous Polymers by Carbon Dioxide Foaming. Macromolecules, 2001, 34, 8792-8801.	4.8	169
29	Materials dependence of mixed gas plasticization behavior in asymmetric membranes. Journal of Membrane Science, 2007, 306, 16-28.	8.2	166
30	Ultralow-k Dielectrics Made by Supercritical Foaming of Thin Polymer Films. Advanced Materials, 2002, 14, 1041.	21.0	164
31	Quantifying effective slip length over micropatterned hydrophobic surfaces. Physics of Fluids, 2009, 21, .	4.0	162
32	Beyond the catalyst: How electrode and reactor design determine the product spectrum during electrochemical CO2 reduction. Chemical Engineering Journal, 2019, 364, 89-101.	12.7	160
33	Suppression of gas separation membrane plasticization by homogeneous polymer blending. AICHE Journal, 2001, 47, 1088-1093.	3.6	159
34	Plasticization of gas separation membranes. Separation and Purification Technology, 1991, 5, 222-228.	0.3	156
35	Gas-Permeation Properties of Poly(ethylene oxide) Poly(butylene terephthalate) Block Copolymers. Macromolecules, 2004, 37, 4590-4597.	4.8	154
36	Effect of PDMS cross-linking degree on the permeation performance of PAN/PDMS composite nanofiltration membranes. Separation and Purification Technology, 2005, 45, 220-231.	7.9	150

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37	Spontaneous Breakdown of Superhydrophobicity. Physical Review Letters, 2007, 99, 156001.	7.8	142
38	Preparation and characterisation of monovalent ion selective cation exchange membranes based on sulphonated poly(ether ether ketone). Journal of Membrane Science, 2005, 263, 137-145.	8.2	140
39	On the subtle balance between competitive sorption and plasticization effects in asymmetric hollow fiber gas separation membranes. Journal of Membrane Science, 2005, 252, 265-277.	8.2	138
40	One-step fabrication of porous micropatterned scaffolds to control cell behavior. Biomaterials, 2007, 28, 1998-2009.	11.4	138
41	Batch mode and continuous desalination of water using flowing carbon deionization (FCDI) technology. Electrochemistry Communications, 2014, 46, 152-156.	4.7	137
42	Porous poly(benzimidazole) membrane for all vanadium redox flow battery. Journal of Power Sources, 2016, 312, 45-54.	7.8	135
43	Cation permeable membranes from blends of sulfonated poly(ether ether ketone) and poly(ether) Tj ETQq1 1 0.784314 rgBT /Overloc	8.2	133
44	An improved flux-step method to determine the critical flux and the critical flux for irreversibility in a membrane bioreactor. Journal of Membrane Science, 2009, 332, 24-29.	8.2	133
45	Influence of membrane properties on fouling in submerged membrane bioreactors. Journal of Membrane Science, 2010, 348, 66-74.	8.2	133
46	Galvanic deposition of Rh and Ru on randomly structured Ti felts for the electrochemical NH₃synthesis. Physical Chemistry Chemical Physics, 2015, 17, 3768-3782.	2.8	131
47	In situ ellipsometry studies on swelling of thin polymer films: A review. Progress in Polymer Science, 2015, 42, 42-78.	24.7	127
48	Coupled transport phenomena in overlimiting current electrodialysis. Separation and Purification Technology, 1998, 14, 255-267.	7.9	125
49	Gasâ€“liquid membrane contactors for CO2 removal. Journal of Membrane Science, 2009, 340, 214-220.	8.2	124
50	Effect of pH on the performance of polyamide/polyacrylonitrile based thin film composite membranes. Journal of Membrane Science, 2011, 372, 228-238.	8.2	124
51	Mixed matrix hollow fiber membranes for removal of protein-bound toxins from human plasma. Biomaterials, 2013, 34, 7819-7828.	11.4	124
52	Print your own membrane: direct rapid prototyping of polydimethylsiloxane. Lab on A Chip, 2014, 14, 2610.	6.0	124
53	Preparation of composite hollow fiber membranes: co-extrusion of hydrophilic coatings onto porous hydrophobic support structures. Journal of Membrane Science, 2002, 207, 143-156.	8.2	123
54	Insight into the transport of hexaneâ€“solute systems through tailor-made composite membranes. Journal of Membrane Science, 2004, 228, 103-116.	8.2	123

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55	Ultraâ€High Proton/Vanadium Selectivity for Hydrophobic Polymer Membranes with Intrinsic Nanopores for Redox Flow Battery. Advanced Energy Materials, 2016, 6, 1600517.	19.5	123
56	On the Dynamical Regimes of Pattern-Accelerated Electroconvection. Scientific Reports, 2016, 6, 22505.	3.3	120
57	Mixed water vapor/gas transport through the rubbery polymer PEBAXÂ® 1074. Journal of Membrane Science, 2009, 338, 11-16.	8.2	119
58	Suppression of CO2-plasticization by semiinterpenetrating polymer network formation. Journal of Polymer Science, Part B: Polymer Physics, 1998, 36, 1547-1556.	2.1	118
59	Phase Separation Micromoldingâ€"PSÎ¼M. Advanced Materials, 2003, 15, 1385-1389.	21.0	118
60	Intermediate polymer to carbon gas separation membranes based on Matrimid PI. Journal of Membrane Science, 2004, 238, 93-102.	8.2	118
61	Phase Separation Micromolding: A New Generic Approach for Microstructuring Various Materials. Small, 2005, 1, 645-655.	10.0	118
62	Single module flow-electrode capacitive deionization for continuous water desalination. Electrochemistry Communications, 2015, 60, 34-37.	4.7	117
63	Electrochemical depolymerisation of lignin in a deep eutectic solvent. Green Chemistry, 2016, 18, 6021-6028.	9.0	116
64	Preparation and characterization of nanofiltration membranes by coating polyethersulfone hollow fibers with sulfonated poly(ether ether ketone) (SPEEK). Journal of Membrane Science, 2008, 307, 62-72.	8.2	115
65	Role of membrane surface in concentration polarization at cation exchange membranes. Journal of Membrane Science, 2004, 239, 119-128.	8.2	112
66	Multi-layer spacer geometries with improved mass transport. Journal of Membrane Science, 2006, 282, 351-361.	8.2	110
67	A novel approach for blood purification: Mixed-matrix membranes combining diffusion and adsorption in one step. Acta Biomaterialia, 2012, 8, 2279-2287.	8.3	108
68	Temperatureâ€Modulated Water Filtration Using Microgelâ€Functionalized Hollowâ€Fiber Membranes. Angewandte Chemie - International Edition, 2014, 53, 5706-5710.	13.8	106
69	Nutrient removal by NF and RO membranes in a decentralized sanitation system. Water Research, 2005, 39, 3657-3667.	11.3	104
70	Preparation of mixed matrix adsorber membranes for protein recovery. Journal of Membrane Science, 2003, 218, 219-233.	8.2	103
71	Estimation of the structure dependent performance of 3-D rapid prototyped membranes. Chemical Engineering Journal, 2015, 273, 438-445.	12.7	102
72	Accelerated plasticization of thin-film composite membranes used in gas separation. Separation and Purification Technology, 2001, 24, 223-233.	7.9	101

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73	New cross-linked PVA based polymer electrolyte membranes for alkaline fuel cells. Journal of Membrane Science, 2012, 409-410, 191-199.	8.2	101
74	High-Throughput Generation of Emulsions and Microgels in Parallelized Microfluidic Drop-Makers Prepared by Rapid Prototyping. ACS Applied Materials & Interfaces, 2015, 7, 12635-12638.	8.0	99
75	Thermoforming of Filmâ€Based Biomedical Microdevices. Advanced Materials, 2011, 23, 1311-1329.	21.0	98
76	Hollow fiber dead-end ultrafiltration: Influence of ionic environment on filtration of alginates. Journal of Membrane Science, 2008, 308, 218-229.	8.2	97
77	Development and analysis of multi-layer scaffolds for tissue engineering. Biomaterials, 2009, 30, 6228-6239.	11.4	97
78	Pushing the limits of block copolymer membranes for CO2 separation. Journal of Membrane Science, 2011, 378, 479-484.	8.2	97
79	On the effects of plasticization in CO2/light gas separation using polymeric solubility selective membranes. Journal of Membrane Science, 2011, 367, 33-44.	8.2	97
80	Tubular carbon nanotube-based gas diffusion electrode removes persistent organic pollutants by a cyclic adsorption â€“ Electro-Fenton process. Journal of Hazardous Materials, 2016, 307, 1-6.	12.4	97
81	Solar driven membrane pervaporation for desalination processes. Journal of Membrane Science, 2005, 250, 235-246.	8.2	96
82	Challenges and advances in the field of self-assembled membranes. Chemical Society Reviews, 2013, 42, 6578.	38.1	96
83	Preparation and characterization of highly selective dense and hollow fiber asymmetric membranes based on BTDA-TDI/MDI co-polyimide. Journal of Membrane Science, 2003, 216, 195-205.	8.2	95
84	High permeable PTMSP/PAN composite membranes for solvent nanofiltration. Journal of Membrane Science, 2009, 333, 88-93.	8.2	95
85	Insights into the role of material surface topography and wettability on cell-material interactions. Soft Matter, 2010, 6, 4377.	2.7	90
86	Print your membrane: Rapid prototyping of complex 3D-PDMS membranes via a sacrificial resist. Journal of Membrane Science, 2015, 478, 12-18.	8.2	90
87	In situ product recovery: Submerged membranes vs. external loop membranes. Journal of Membrane Science, 2012, 394-395, 1-36.	8.2	89
88	High capacity polyethylenimine impregnated microtubes made of carbon nanotubes for CO2 capture. Carbon, 2018, 126, 338-345.	10.3	89
89	Techno-economic Analysis of Hybrid Processes for Biogas Upgrading. Industrial & Engineering Chemistry Research, 2013, 52, 16929-16938.	3.7	85
90	Structural optimization of membrane-based biogas upgrading processes. Journal of Membrane Science, 2015, 474, 1-10.	8.2	85

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91	Superhydrophobic Surfaces Having Two-Fold Adjustable Roughness Prepared in a Single Step. Langmuir, 2006, 22, 3125-3130.	3.5	84
92	Membrane with integrated spacer. Journal of Membrane Science, 2010, 360, 185-189.	8.2	84
93	Supported liquid membranes modification with sulphonated poly(ether ether ketone). Journal of Membrane Science, 1998, 147, 117-130.	8.2	83
94	Highly hydrophilic, rubbery membranes for CO2 capture and dehydration of flue gas. International Journal of Greenhouse Gas Control, 2011, 5, 26-36.	4.6	83
95	Optimisation strategies for the preparation of bipolar membranes with reduced salt ion leakage in acidâ€“base electrodialysis. Journal of Membrane Science, 2001, 182, 13-28.	8.2	81
96	Cassie-Baxter to Wenzel state wetting transition: Scaling of the front velocity. European Physical Journal E, 2009, 29, 391-397.	1.6	81
97	Energy Recovery and Process Design in Continuous Flowâ€“Electrode Capacitive Deionization Processes. ACS Sustainable Chemistry and Engineering, 2018, 6, 13007-13015.	6.7	81
98	How do polymerized room-temperature ionic liquid membranes plasticize during high pressure CO2 permeation?. Journal of Membrane Science, 2010, 360, 202-209.	8.2	79
99	Sulfonated poly(ether ether ketone) based composite membranes for nanofiltration of acidic and alkaline media. Journal of Membrane Science, 2011, 381, 81-89.	8.2	79
100	Free energy calculations of small molecules in dense amorphous polymers. Effect of the initial guess configuration in molecular dynamics studies. Journal of Chemical Physics, 1996, 105, 8849-8857.	3.0	78
101	Polymeric microsieves produced by phase separation micromolding. Journal of Membrane Science, 2006, 283, 411-424.	8.2	78
102	CO2 permeation properties of poly(ethylene oxide)-based segmented block copolymers. Journal of Membrane Science, 2010, 346, 194-201.	8.2	78
103	Microstructured hollow fibers for ultrafiltration. Journal of Membrane Science, 2010, 347, 32-41.	8.2	78
104	Mixed-matrix membrane adsorbers for protein separation. Journal of Chromatography A, 2003, 1006, 171-183.	3.7	77
105	Mixed gas water vapor/N transport in poly(ethylene oxide) poly(butylene terephthalate) block copolymers. Journal of Membrane Science, 2005, 266, 51-61.	8.2	76
106	Gas foaming of segmented poly(ester amide) films. Polymer, 2005, 46, 9396-9403.	3.8	76
107	When Do Sorption-Induced Relaxations in Glassy Polymers Set In?. Macromolecules, 2007, 40, 4992-5000.	4.8	76
108	Hybrid membrane with TiO 2 based bio-catalytic nanoparticle suspension system for the degradation of bisphenol-A. Bioresource Technology, 2014, 169, 475-483.	9.6	73

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109	Kinetics of CO₂Absorption in Aqueous Sarcosine Salt Solutions: Influence of Concentration, Temperature, and CO₂Loading. Industrial & Engineering Chemistry Research, 2010, 49, 9693-9702.	3.7	72
110	Chronopotentiometry for the advanced currentâ€“voltage characterisation of bipolar membranes. Journal of Electroanalytical Chemistry, 2001, 502, 152-166.	3.8	71
111	Porous stainless steel hollow fiber membranes via dryâ€“wet spinning. Journal of Membrane Science, 2011, 370, 124-130.	8.2	71
112	Unraveling charge transport in carbon flow-electrodes: Performance prediction for desalination applications. Carbon, 2019, 145, 507-520.	10.3	71
113	Early-stage evaluation of emerging CO₂utilization technologies at low technology readiness levels. Green Chemistry, 2020, 22, 3842-3859.	9.0	71
114	Carbon molecular sieve membranes prepared from porous fiber precursor. Journal of Membrane Science, 2002, 205, 239-246.	8.2	70
115	CO2 Plasticization of polyethersulfone/polyimide gas-separation membranes. AICHE Journal, 2003, 49, 1702-1711.	3.6	70
116	Towards single step production of multi-layer inorganic hollow fibers. Journal of Membrane Science, 2004, 239, 265-269.	8.2	70
117	The development of electro-membrane filtration for the isolation of bioactive peptides: the effect of membrane selection and operating parameters on the transport rate. Desalination, 2002, 149, 369-374.	8.2	69
118	Electro-catalytic membrane reactors and the development of bipolar membrane technology. Chemical Engineering and Processing: Process Intensification, 2004, 43, 1115-1127.	3.6	69
119	Fouling mitigation in tubular membranes by 3D-printed turbulence promoters. Journal of Membrane Science, 2018, 554, 156-163.	8.2	68
120	The electrolyte matters: Stable systems for high rate electrochemical CO2 reduction. Journal of CO2 Utilization, 2019, 32, 202-213.	6.8	68
121	Regenerable polymer/ceramic hybrid nanofiltration membrane based on polyelectrolyte assembly by layer-by-layer technique. Journal of Membrane Science, 2016, 520, 924-932.	8.2	67
122	Precise tuning of salt retention of backwashable polyelectrolyte multilayer hollow fiber nanofiltration membranes. Journal of Membrane Science, 2016, 499, 396-405.	8.2	67
123	Functionalized Carbon Molecular Sieve membranes containing Ag-nanoclusters. Journal of Membrane Science, 2003, 219, 47-57.	8.2	66
124	Enzyme capturing and concentration with mixed matrix membrane adsorbers. Journal of Membrane Science, 2006, 280, 406-417.	8.2	66
125	Tuning of mass transport properties of multi-block copolymers for CO2 capture applications. Journal of Membrane Science, 2010, 359, 54-63.	8.2	66
126	Behaviour of bipolar membranes at high current densityWater diffusion limitation. Separation and Purification Technology, 1998, 14, 41-52.	7.9	65

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127	Adsorptive membranes for bilirubin removal. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2004, 803, 215-223.	2.3	64
128	Microcontact Printing of Dendrimers, Proteins, and Nanoparticles by Porous Stamps. Journal of the American Chemical Society, 2009, 131, 797-803.	13.7	63
129	An integrated electrochemical process to convert lignin to value-added products under mild conditions. Green Chemistry, 2016, 18, 4999-5007.	9.0	63
130	Optimization of membrane based nitrogen removal from natural gas. Journal of Membrane Science, 2016, 498, 291-301.	8.2	63
131	Capillary hollow fiber nanofiltration membranes. Separation and Purification Technology, 2001, 22-23, 499-506.	7.9	62
132	Controlled depolymerization of lignin in an electrochemical membrane reactor. Electrochemistry Communications, 2015, 61, 49-52.	4.7	62
133	A comprehensive mathematical model of water splitting in bipolar membranes: Impact of the spatial distribution of fixed charges and catalyst at bipolar junction. Journal of Membrane Science, 2020, 603, 118010.	8.2	62
134	The sorption induced glass transition in amorphous glassy polymers. Journal of Chemical Physics, 1999, 110, 11061-11069.	3.0	61
135	Porous Photocatalytic Membrane Microreactor (P2M2): A new reactor concept for photochemistry. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 225, 36-41.	3.9	61
136	Helically microstructured spacers improve mass transfer and fractionation selectivity in ultrafiltration. Journal of Membrane Science, 2014, 463, 41-48.	8.2	61
137	From Batch to Continuous Precipitation Polymerization of Thermoresponsive Microgels. ACS Applied Materials & Interfaces, 2018, 10, 24799-24806.	8.0	61
138	Effect of spinning conditions on the structure and the gas permeation properties of high flux polyethersulfoneâ€"polyimide blend hollow fibers. Desalination, 2002, 144, 121-125.	8.2	60
139	Super selective membranes in gasâ€"liquid membrane contactors for olefin/paraffin separation. Journal of Membrane Science, 2004, 232, 107-114.	8.2	60
140	Silicon for the perfect membrane. Nature, 2007, 445, 726-726.	27.8	60
141	Fouling Behavior of Microstructured Hollow Fiber Membranes in Dead-End Filtrations: Critical Flux Determination and NMR Imaging of Particle Deposition. Langmuir, 2011, 27, 1643-1652.	3.5	60
142	Modeling continuous flow-electrode capacitive deionization processes with ion-exchange membranes. Journal of Membrane Science, 2018, 546, 188-196.	8.2	60
143	A method for characterizing membranes during nanofiltration at extreme pH. Journal of Membrane Science, 2010, 363, 188-194.	8.2	59
144	Modeling Gas Permeation by Linking Nonideal Effects. Industrial & Engineering Chemistry Research, 2013, 52, 1079-1088.	3.7	59

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145	Asymmetric bipolar membrane: A tool to improve product purity. Journal of Membrane Science, 2007, 287, 246-256.	8.2	58
146	CO2 sorption and transport behavior of ODPA-based polyetherimide polymer films. Polymer, 2010, 51, 3907-3917.	3.8	58
147	Methanol production via direct carbon dioxide hydrogenation using hydrogen from photocatalytic water splitting: Process development and techno-economic analysis. Journal of Cleaner Production, 2019, 208, 1446-1458.	9.3	58
148	Tailoring the interface layer of the bipolar membrane. Journal of Membrane Science, 2010, 365, 389-398.	8.2	57
149	On negative retentions in organic solvent nanofiltration. Journal of Membrane Science, 2013, 447, 57-65.	8.2	57
150	Ion transport through electrolyte/polyelectrolyte multi-layers. Scientific Reports, 2015, 5, 11583.	3.3	57
151	Catalytic Polyelectrolyte Multilayers at the Bipolar Membrane Interface. ACS Applied Materials & Interfaces, 2013, 5, 10445-10455.	8.0	56
152	Sieving of Hot Gases by Hyper-Cross-Linked Nanoscale-Hybrid Membranes. Journal of the American Chemical Society, 2014, 136, 330-335.	13.7	56
153	Towards a carbon independent and CO₂-free electrochemical membrane process for NH₃ synthesis. Physical Chemistry Chemical Physics, 2014, 16, 6129-6138.	2.8	56
154	Dual-Charged Hollow Fiber Membranes for Low-Pressure Nanofiltration Based on Polyelectrolyte Complexes: One-Step Fabrication with Tailored Functionalities. ACS Applied Materials & Interfaces, 2016, 8, 19145-19157.	8.0	56
155	Pervaporation of aromatic C8-isomers. Journal of Membrane Science, 1991, 57, 257-270.	8.2	55
156	Novel open-cellular polysulfone morphologies produced with trace concentrations of solvents as pore opener. Journal of Membrane Science, 2001, 187, 181-192.	8.2	55
157	Observations on the permeation performance of solvent resistant nanofiltration membranes. Journal of Membrane Science, 2006, 279, 424-433.	8.2	55
158	Microstructured spacers for submerged membrane filtration systems. Journal of Membrane Science, 2013, 446, 189-200.	8.2	55
159	Tunable permeability and selectivity: Heatable inorganic porous hollow fiber membrane with a thermo-responsive microgel coating. Journal of Membrane Science, 2017, 539, 451-457.	8.2	55
160	3D nanofabrication inside rapid prototyped microfluidic channels showcased by wet-spinning of single micrometre fibres. Lab on A Chip, 2018, 18, 1341-1348.	6.0	55
161	Asymmetric Bipolar Membranes in Acidâ^'Base Electrodialysis. Industrial & Engineering Chemistry Research, 2002, 41, 579-586.	3.7	54
162	A polyelectrolyte membrane-based vanadium/air redox flow battery. Electrochemistry Communications, 2011, 13, 751-754.	4.7	54

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163	Membrane-based recovery of glucose from enzymatic hydrolysis of ionic liquid pretreated cellulose. Bioresource Technology, 2013, 149, 58-64.	9.6	54
164	The effect of NaCl and glucose concentration on retentions for nanofiltration membranes processing concentrated solutions. Separation and Purification Technology, 2014, 134, 46-57.	7.9	54
165	Dimensionally stable Nafionâ€“polyethylene composite membranes for direct methanol fuel cell applications. Journal of Membrane Science, 2008, 321, 364-372.	8.2	53
166	Integration of biohydrogen fermentation and gas separation processes to recover and enrich hydrogen. International Journal of Hydrogen Energy, 2006, 31, 1490-1495.	7.1	52
167	Multiple time scale dynamics in the breakdown of superhydrophobicity. Europhysics Letters, 2008, 81, 66002.	2.0	52
168	NMR imaging of local cumulative permeate flux and local cake growth in submerged microfiltration processes. Journal of Membrane Science, 2011, 371, 52-64.	8.2	52
169	Ultra-thin hybrid polyhedral silsesquioxaneâ€“polyamide films with potentially unlimited 2D dimensions. Journal of Materials Chemistry, 2012, 22, 14835.	6.7	52
170	Emulsion electro-oxidation of kraft lignin. Green Chemistry, 2017, 19, 4778-4784.	9.0	52
171	From beech wood to itaconic acid: case study on biorefinery process integration. Biotechnology for Biofuels, 2018, 11, 279.	6.2	52
172	Composite hollow fiber gasâ€“liquid membrane contactors for olefin/paraffin separation. Separation and Purification Technology, 2004, 37, 209-220.	7.9	51
173	Particle-loaded hollow-fiber membrane adsorbers for lysozyme separation. Journal of Membrane Science, 2008, 322, 306-313.	8.2	51
174	Subambient Temperature CO₂ and Light Gas Permeation Through Segmented Block Copolymers with Tailored Soft Phase. ACS Applied Materials & Interfaces, 2010, 2, 551-560.	8.0	51
175	Improved phosphoric acid recovery from sewage sludge ash using layer-by-layer modified membranes. Journal of Membrane Science, 2019, 587, 117162.	8.2	51
176	Hollow fiber ultrafiltration membranes with microstructured inner skin. Journal of Membrane Science, 2011, 369, 221-227.	8.2	50
177	Composite capillary membrane for solvent resistant nanofiltration. Journal of Membrane Science, 2011, 372, 182-190.	8.2	50
178	Spectroscopic Ellipsometry Analysis of a Thin Film Composite Membrane Consisting of Polysulfone on a Porous Î±-Alumina Support. ACS Applied Materials & Interfaces, 2012, 4, 935-943.	8.0	50
179	Coupling between Buoyancy Forces and Electroconvective Instability near Ion-Selective Surfaces. Physical Review Letters, 2016, 116, 194501.	7.8	50
180	Microfluidic colloid filtration. Scientific Reports, 2016, 6, 22376.	3.3	50

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181	Dilation kinetics of glassy, aromatic polyimides induced by carbon dioxide sorption. Journal of Polymer Science, Part B: Polymer Physics, 1995, 33, 1371-1384.	2.1	49
182	Poly[1-(trimethylsilyl)-1-propyne] as a solvent resistance nanofiltration membrane material. Journal of Membrane Science, 2006, 281, 351-357.	8.2	49
183	Highly permeable and mechanically robust silicon carbide hollow fiber membranes. Journal of Membrane Science, 2015, 475, 480-487.	8.2	49
184	Ion mobility and partition determine the counter-ion selectivity of ion exchange membranes. Journal of Membrane Science, 2020, 597, 117645.	8.2	49
185	Ion Adsorption Parameters Determined from Zeta Potential and Titration Data for a Î³-Alumina Nanofiltration Membrane. Langmuir, 2003, 19, 5861-5868.	3.5	48
186	Mixed matrix microporous hollow fibers with ion-exchange functionality. Journal of Membrane Science, 2004, 231, 109-115.	8.2	48
187	Porous ceramic mesoreactors: A new approach for gasâ€“liquid contacting in multiphase microreaction technology. Chemical Engineering Journal, 2011, 169, 239-246.	12.7	48
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