

Richard D Noble

List of Publications by Year in Descending Order

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

250
papers

18,459
citations

75
h-index

128
g-index

258
ext. papers

19,678
ext. citations

7.3
avg, IF

6.83
L-index

#	Paper	IF	Citations
250	CO ₂ /CH ₄ separation characteristics of poly(RTIL)-RTIL-zeolite mixed-matrix membranes evaluated under binary feeds up to 40 bar and 50°C. <i>Journal of Membrane Science</i> , 2021 , 621, 118979	9.6	8
249	Polymerization of Counteranions in the Cationic Nanopores of a Cross-linked Lyotropic Liquid Crystal Network to Modify Ion Transport Properties 2019 , 1, 452-458		7
248	110th Anniversary: Properties of Imidazolium-Based Ionic Liquids Bearing Both Benzylic and n-Alkyl Substituents. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 17956-17964	3.9	12
247	Single crystal texture by directed molecular self-assembly along dual axes. <i>Nature Materials</i> , 2019 , 18, 1235-1243	27	21
246	(Cross-Linked Poly(Ionic Liquid)/Ionic Liquid/Zeolite) Mixed-Matrix Membranes for CO ₂ /CH ₄ Gas Separations Based on Curable Ionic Liquid Prepolymers. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 4704-4708	3.9	26
245	Evaluation of a nanoporous lyotropic liquid crystal polymer membrane for the treatment of hydraulic fracturing produced water via cross-flow filtration. <i>Journal of Membrane Science</i> , 2019 , 592, 117313	9.6	14
244	Breathable, Polydopamine-Coated Nanoporous Membranes That Selectively Reject Nerve and Blister Agent Simulant Vapors. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 21890-21893	3.9	6
243	110th Anniversary: The Dehydration and Loss of Ionic Conductivity in Anion Exchange Membranes Due to FeCl ₄ ⁻ Ion Exchange and the Role of Membrane Microstructure. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 22250-22259	3.9	5
242	Phosphonium-Based Poly(ionic liquid)/Ionic Liquid Ion Gel Membranes: Influence of Structure and Ionic Liquid Loading on Ion Conductivity and Light Gas Separation Performance. <i>Journal of Chemical & Engineering Data</i> , 2018 , 63, 1154-1162	2.8	14
241	Carbon dioxide/alkane separations in a SSZ-13 membrane. <i>Journal of Membrane Science</i> , 2018 , 568, 17-21	9.6	8
240	Low Heat of Adsorption of Ethylene Achieved by Major Solid-State Structural Rearrangement of a Discrete Copper(I) Complex. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 16442-16446	16.4	22
239	Low Heat of Adsorption of Ethylene Achieved by Major Solid-State Structural Rearrangement of a Discrete Copper(I) Complex. <i>Angewandte Chemie</i> , 2018 , 130, 16680-16684	3.6	8
238	Effect of toluene adsorption on permeation through SAPO-34 membranes. <i>Journal of Membrane Science</i> , 2018 , 560, 108-114	9.6	6
237	Catalytic membrane reactor for Suzuki-Miyaura C-C cross-coupling: Explanation for its high efficiency via modeling. <i>AIChE Journal</i> , 2017 , 63, 698-704	3.6	10
236	CO ₂ /CH ₄ separation performance of ionic-liquid-based epoxy-amine ion gel membranes under mixed feed conditions relevant to biogas processing. <i>Journal of Membrane Science</i> , 2017 , 528, 64-71	9.6	50
235	Effect of post-polymerization anion-exchange on the rejection of uncharged aqueous solutes in nanoporous, ionic, lyotropic liquid crystal polymer membranes. <i>Journal of Membrane Science</i> , 2017 , 529, 72-79	9.6	19
234	Cross-linked, polyurethane-based, ammonium poly(ionic liquid)/ionic liquid composite films for organic vapor suppression and ion conduction. <i>Polymer</i> , 2017 , 112, 435-446	3.9	12

233	Pillar[5]arene/Matrimid materials for high-performance methane purification membranes. <i>Journal of Membrane Science</i> , 2017 , 539, 224-228	9.6	33
232	Application of a lyotropic liquid crystal nanofiltration membrane for hydraulic fracturing flowback water: Selectivity and implications for treatment. <i>Journal of Membrane Science</i> , 2017 , 543, 319-327	9.6	22
231	Facile fabrication of CO ₂ separation membranes by cross-linking of poly(ethylene glycol) diglycidyl ether with a diamine and a polyamine-based ionic liquid. <i>Journal of Membrane Science</i> , 2017 , 523, 551-560	9.6	60
230	Combination of ionic liquids with membrane technology: A new approach for CO ₂ separation. <i>Journal of Membrane Science</i> , 2016 , 497, 1-20	9.6	353
229	Phosphonium-based poly(ionic liquid) membranes: The effect of cation alkyl chain length on light gas separation properties and ionic conductivity. <i>Journal of Membrane Science</i> , 2016 , 498, 408-413	9.6	53
228	Adsorption of CO ₂ , CH ₄ , C ₃ H ₈ , and H ₂ O in SSZ-13, SAPO-34, and T-Type Zeolites. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 9749-9757	3.9	42
227	Imidazolium-Based Poly(ionic liquid)/Ionic Liquid Ion-Gels with High Ionic Conductivity Prepared from a Curable Poly(ionic liquid). <i>Macromolecular Rapid Communications</i> , 2016 , 37, 1150-4	4.8	19
226	Thin Polymer Films with Continuous Vertically Aligned 1 nm Pores Fabricated by Soft Confinement. <i>ACS Nano</i> , 2016 , 10, 150-8	16.7	77
225	Determination and optimization of factors affecting CO ₂ /CH ₄ separation performance in poly(ionic liquid)-ionic liquid-zeolite mixed-matrix membranes. <i>Journal of Membrane Science</i> , 2016 , 509, 149-155	9.6	50
224	Poly(ionic liquid)/Ionic Liquid Ion-Gels with High "Free" Ionic Liquid Content: Platform Membrane Materials for CO ₂ /Light Gas Separations. <i>Accounts of Chemical Research</i> , 2016 , 49, 724-32	24.3	143
223	A thermoresponsive poly(ionic liquid) membrane enables concentration of proteins from aqueous media. <i>Chemical Communications</i> , 2016 , 52, 7497-500	5.8	19
222	Curable Imidazolium Poly(ionic liquid)/Ionic Liquid Coating for Containment and Decontamination of Toxic Industrial Chemical-Contacted Substrates. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 6547-6550	3.9	12
221	Hybrid Catalytic Membranes: Tunable and Versatile Materials for Fine Chemistry Applications. <i>Materials Today: Proceedings</i> , 2016 , 3, 419-423	1.4	3
220	Elastic free-standing RTIL composite membranes for CO ₂ /N ₂ separation based on sphere-forming triblock/diblock copolymer blends. <i>Journal of Membrane Science</i> , 2016 , 511, 170-179	9.6	17
219	Fixed-site-carrier facilitated transport of carbon dioxide through ionic-liquid-based epoxy-amine ion gel membranes. <i>Journal of Membrane Science</i> , 2015 , 492, 303-311	9.6	43
218	High catalytic efficiency of palladium nanoparticles immobilized in a polymer membrane containing poly(ionic liquid) in Suzuki-Miyaura cross-coupling reaction. <i>Journal of Membrane Science</i> , 2015 , 492, 331-339	9.6	46
217	Measuring Mixture Adsorption by Temperature-Programmed Desorption. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 5159-5164	3.9	5
216	High ethene/ethane selectivity in 2,2'-bipyridine-based silver(i) complexes by removal of coordinated solvent. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 5740-3	16.4	18

215	Increasing H ₂ /N ₂ separation selectivity in CHA zeolite membranes by adding a third gas. <i>Journal of Membrane Science</i> , 2015 , 496, 118-124	9.6	7
214	Effect of Monomer Structure on Curing Behavior, CO ₂ Solubility, and Gas Permeability of Ionic Liquid-Based Epoxy/Amine Resins and Ion-Gels. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 4396-4406	3.9	34
213	Influence of propane on CO ₂ /CH ₄ and N ₂ /CH ₄ separations in CHA zeolite membranes. <i>Journal of Membrane Science</i> , 2015 , 473, 201-209	9.6	107
212	High Ethene/Ethane Selectivity in 2,2'-Bipyridine-Based Silver(I) Complexes by Removal of Coordinated Solvent. <i>Angewandte Chemie</i> , 2015 , 127, 5832-5835	3.6	11
211	Reversible and Selective O ₂ Binding Using a New Thermoresponsive Cobalt(II)-Based Ionic Liquid. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 12214-12216	3.9	7
210	Separating molecules by size in SAPO-34 membranes. <i>Journal of Membrane Science</i> , 2014 , 456, 185-191	9.6	42
209	Cross-linked ionic resins and gels from epoxide-functionalized imidazolium ionic liquid monomers. <i>Polymer</i> , 2014 , 55, 3305-3313	3.9	54
208	Ending aging in super glassy polymer membranes. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5322-6	16.4	222
207	A cobalt(II) bis(salicylate)-based ionic liquid that shows thermoresponsive and selective water coordination. <i>Chemical Communications</i> , 2014 , 50, 6633-6	5.8	20
206	Ionic Liquid Membrane Technology 2014 , 87-116		2
205	Scalable fabrication of polymer membranes with vertically aligned 1 nm pores by magnetic field directed self-assembly. <i>ACS Nano</i> , 2014 , 8, 11977-86	16.7	155
204	A silver(I) coordinated phenanthroline-based polymer with high ethylene/ethane adsorption selectivity. <i>Chemical Communications</i> , 2014 , 50, 5745-7	5.8	24
203	Vinyl-Functionalized Poly(imidazolium)s: A Curable Polymer Platform for Cross-Linked Ionic Liquid Gel Synthesis. <i>Chemistry of Materials</i> , 2014 , 26, 1294-1296	9.6	39
202	Thin-film composite bicontinuous cubic lyotropic liquid crystal polymer membranes: Effects of anion-exchange on water filtration performance. <i>Journal of Membrane Science</i> , 2014 , 455, 143-151	9.6	22
201	High-Permeance Room-Temperature Ionic-Liquid-Based Membranes for CO ₂ /N ₂ Separation. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 20064-20067	3.9	52
200	Ending Aging in Super Glassy Polymer Membranes. <i>Angewandte Chemie</i> , 2014 , 126, 5426-5430	3.6	40
199	Imidazolium-containing, hydrophobic/hydrophilic ABC triblock copolymers: synthesis, ordered phase-separation, and supported membrane fabrication. <i>Soft Matter</i> , 2013 , 9, 7923	3.6	35
198	Effect of composition and nanostructure on CO ₂ /N ₂ transport properties of supported alkyl-imidazolium block copolymer membranes. <i>Journal of Membrane Science</i> , 2013 , 430, 312-320	9.6	42

197	Improving SAPO-34 membrane synthesis. <i>Journal of Membrane Science</i> , 2013 , 444, 384-393	9.6	95
196	Physically Gelled Room-Temperature Ionic Liquid-Based Composite Membranes for CO ₂ /N ₂ Separation: Effect of Composition and Thickness on Membrane Properties and Performance. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 8812-8821	3.9	42
195	Ideal CO ₂ /Light Gas Separation Performance of Poly(vinylimidazolium) Membranes and Poly(vinylimidazolium)-Ionic Liquid Composite Films. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 1023-1032	3.9	113
194	CO ₂ /light gas separation performance of cross-linked poly(vinylimidazolium) gel membranes as a function of ionic liquid loading and cross-linker content. <i>Journal of Membrane Science</i> , 2012 , 397-398, 24-37	9.6	90
193	Spatially resolved gas permeation through SAPO-34 membranes. <i>Journal of Membrane Science</i> , 2012 , 409-410, 212-221	9.6	38
192	Modified normal-phase ion-pair chromatographic methods for the facile separation and purification of imidazolium-based ionic compounds. <i>Tetrahedron Letters</i> , 2012 , 53, 3456-3458	2	8
191	Glycerol-Based Bicontinuous Cubic Lyotropic Liquid Crystal Monomer System for the Fabrication of Thin-Film Membranes with Uniform Nanopores. <i>Chemistry of Materials</i> , 2012 , 24, 4005-4007	9.6	60
190	Microwave-assisted syntheses of highly CO ₂ -selective organic cage frameworks (OCFs). <i>Chemical Science</i> , 2012 , 3, 874-877	9.4	67
189	A Highly Breathable Organic/Inorganic Barrier Material that Blocks the Passage of Mustard Agent Simulants. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 7453-7456	3.9	15
188	Seeded-gel synthesis of SAPO-34 single channel and monolith membranes, for CO ₂ /CH ₄ separations. <i>Journal of Membrane Science</i> , 2012 , 415-416, 770-775	9.6	59
187	Ionic Liquid Gel-Based Containment and Decontamination Coating for Blister Agent-Contacted Substrates. <i>Chemistry of Materials</i> , 2012 , 24, 1174-1180	9.6	10
186	Ionic liquids as novel materials for energy efficient CO ₂ separations. <i>Sustainable Technologies Systems & Policies</i> , 2012 , 15		
185	H ₂ separation using defect-free, inorganic composite membranes. <i>Journal of the American Chemical Society</i> , 2011 , 133, 1748-50	16.4	108
184	Zeolite membranes: microstructure characterization and permeation mechanisms. <i>Accounts of Chemical Research</i> , 2011 , 44, 1196-206	24.3	158
183	Chemistry. Designing the next generation of chemical separation membranes. <i>Science</i> , 2011 , 332, 674-6	33.3	554
182	Semi-empirical model of toluene transport in polyethylene membranes based on the data using a new type of apparatus for determining gas permeability, diffusivity and solubility. <i>Chemical Engineering Science</i> , 2011 , 66, 5566-5574	4.4	8
181	Influence of zeolite crystal expansion/contraction on NaA zeolite membrane separations. <i>Journal of Membrane Science</i> , 2011 , 366, 413-420	9.6	38
180	Highly CO ₂ -selective organic molecular cages: what determines the CO ₂ selectivity. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6650-8	16.4	214

179	Water filtration performance of a lyotropic liquid crystal polymer membrane with uniform, sub-1-nm pores. <i>Journal of Membrane Science</i> , 2011 , 366, 62-72	9.6	51
178	Perspective on ionic liquids and ionic liquid membranes. <i>Journal of Membrane Science</i> , 2011 , 369, 1-4	9.6	199
177	Novel mixed matrix membranes based on polymerizable room-temperature ionic liquids and SAPO-34 particles to improve CO ₂ separation. <i>Journal of Membrane Science</i> , 2011 , 370, 141-148	9.6	155
176	Perspectives on mixed matrix membranes. <i>Journal of Membrane Science</i> , 2011 , 378, 393-397	9.6	175
175	High Water Vapor Flux Membranes Based on Novel Diolimidazolium Polymers. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 11914-11919	3.9	9
174	Thermotropic liquid crystal behaviour of gemini imidazolium-based ionic amphiphiles. <i>Liquid Crystals</i> , 2010 , 37, 1587-1599	2.3	46
173	Nanoporous, Bicontinuous Cubic Lyotropic Liquid Crystal Networks via Polymerizable Gemini Ammonium Surfactants. <i>Chemistry of Materials</i> , 2010 , 22, 4525-4527	9.6	63
172	Room-temperature ionic liquids and composite materials: platform technologies for CO ₂ capture. <i>Accounts of Chemical Research</i> , 2010 , 43, 152-9	24.3	519
171	Gated ion transport through dense carbon nanotube membranes. <i>Journal of the American Chemical Society</i> , 2010 , 132, 8285-90	16.4	39
170	A comparison of fluoroalkyl-derivatized imidazolium:TFSI and alkyl-derivatized imidazolium:TFSI ionic liquids: a molecular dynamics simulation study. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 7064-76	3.6	44
169	Inhibiting crystal swelling in MFI zeolite membranes. <i>Journal of Membrane Science</i> , 2010 , 357, 54-61	9.6	8
168	Blocking defects in SAPO-34 membranes with cyclodextrin. <i>Journal of Membrane Science</i> , 2010 , 358, 7-12	9.6	61
167	A shape-persistent organic molecular cage with high selectivity for the adsorption of CO ₂ over N ₂ . <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 6348-51	16.4	189
166	Main-chain imidazolium polymer membranes for CO ₂ separations: An initial study of a new ionic liquid-inspired platform. <i>Journal of Membrane Science</i> , 2010 , 359, 37-43	9.6	123
165	A three-component mixed-matrix membrane with enhanced CO ₂ separation properties based on zeolites and ionic liquid materials. <i>Journal of Membrane Science</i> , 2010 , 350, 117-123	9.6	135
164	Influence of crystal expansion/contraction on zeolite membrane permeation. <i>Journal of Membrane Science</i> , 2010 , 357, 98-104	9.6	22
163	How do polymerized room-temperature ionic liquid membranes plasticize during high pressure CO ₂ permeation?. <i>Journal of Membrane Science</i> , 2010 , 360, 202-209	9.6	68
162	Scale-up of SAPO-34 membranes for CO ₂ /CH ₄ separation. <i>Journal of Membrane Science</i> , 2010 , 352, 7-13	9.6	83

161	Template removal from SAPO-34 crystals and membranes. <i>Journal of Membrane Science</i> , 2010 , 363, 29-35.6		75
160	New protein-resistant coatings for water filtration membranes based on quaternary ammonium and phosphonium polymers. <i>Journal of Membrane Science</i> , 2009 , 330, 104-116	9.6	58
159	Adsorption-induced expansion of defects in MFI membranes. <i>Journal of Membrane Science</i> , 2009 , 341, 238-245	9.6	26
158	Concentration polarization in SAPO-34 membranes at high pressures. <i>Journal of Membrane Science</i> , 2009 , 335, 32-36	9.6	71
157	Alcohol and water adsorption and capillary condensation in MFI zeolite membranes. <i>Journal of Membrane Science</i> , 2009 , 334, 23-29	9.6	17
156	Gas separations in fluoroalkyl-functionalized room-temperature ionic liquids using supported liquid membranes. <i>Chemical Engineering Journal</i> , 2009 , 147, 43-50	14.7	190
155	Effect of Cation Substituent on Gas Separation Performance of Polymer/Room-Temperature Ionic Liquid Composite Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 4607-4610	3.9	113
154	Correlation of Crystal Lattice Expansion and Membrane Properties for MFI Zeolites. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 10021-10024	3.9	18
153	High density, vertically-aligned carbon nanotube membranes. <i>Nano Letters</i> , 2009 , 9, 225-9	11.5	202
152	Guide to CO ₂ Separations in Imidazolium-Based Room-Temperature Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 2739-2751	3.9	618
151	Physically Gelled Ionic Liquids: Solid Membrane Materials with Liquidlike CO ₂ Gas Transport. <i>Chemistry of Materials</i> , 2009 , 21, 3027-3029	9.6	109
150	Diol-Functionalized Imidazolium-Based Room-Temperature Ionic Liquids with Bis(trifluoromethanesulfonimide) Anions that Exhibit Variable Water Miscibility. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 8757-8759	3.9	17
149	Room-Temperature Ionic Liquids: Temperature Dependence of Gas Solubility Selectivity. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 3453-3459	3.9	292
148	Room-Temperature Ionic Liquid/Amine Solutions: Tunable Solvents for Efficient and Reversible Capture of CO ₂ . <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 8496-8498	3.9	378
147	Alumina-supported SAPO-34 membranes for CO ₂ /CH ₄ separation. <i>Journal of the American Chemical Society</i> , 2008 , 130, 5412-3	16.4	261
146	Ideal gas solubilities and solubility selectivities in a binary mixture of room-temperature ionic liquids. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 2335-9	3.4	155
145	Effect of Anion on Gas Separation Performance of Polymer/Room-Temperature Ionic Liquid Composite Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 9919-9924	3.9	136
144	Adsorbate-Induced Expansion of Silicalite-1 Crystals. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 9611-9616	3.9	24

143	Characterizing Nonzeolitic Pores in MFI Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 3943-3948	3.9	23
142	Interpretation of CO ₂ Solubility and Selectivity in Nitrile-Functionalized Room-Temperature Ionic Liquids Using a Group Contribution Approach. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 7005-7012	3.9	154
141	Synthesis and light gas separations in cross-linked gemini room temperature ionic liquid polymer membranes. <i>Journal of Membrane Science</i> , 2008 , 316, 186-191	9.6	133
140	High selectivities in defective MFI membranes. <i>Journal of Membrane Science</i> , 2008 , 321, 309-315	9.6	48
139	Improving CO ₂ permeability in polymerized room-temperature ionic liquid gas separation membranes through the formation of a solid composite with a room-temperature ionic liquid. <i>Polymers for Advanced Technologies</i> , 2008 , 19, 1415-1420	3.2	202
138	Polymerized Lyotropic Liquid Crystal Assemblies for Membrane Applications. <i>Macromolecular Rapid Communications</i> , 2008 , 29, 367-389	4.8	95
137	Improving CO ₂ selectivity in polymerized room-temperature ionic liquid gas separation membranes through incorporation of polar substituents. <i>Journal of Membrane Science</i> , 2008 , 321, 3-7	9.6	210
136	Characterizing non-zeolitic pore volume in zeolite membranes by temperature-programmed desorption. <i>Microporous and Mesoporous Materials</i> , 2008 , 113, 224-230	5.3	16
135	Investigation of slowing-down and speeding-up effects in binary mixture permeation across SAPO-34 and MFI membranes. <i>Separation and Purification Technology</i> , 2008 , 60, 230-236	8.3	39
134	Hydrogen purification using a SAPO-34 membrane. <i>Journal of Membrane Science</i> , 2008 , 307, 277-283	9.6	125
133	SAPO-34 membranes for CO ₂ /CH ₄ separations: Effect of Si/Al ratio. <i>Microporous and Mesoporous Materials</i> , 2008 , 110, 310-317	5.3	123
132	Reversible H ₂ storage using a SAPO-34 zeolite layer. <i>Microporous and Mesoporous Materials</i> , 2008 , 110, 579-582	5.3	10
131	2,2-Dimethylbutane adsorption and diffusion in MFI zeolite. <i>Microporous and Mesoporous Materials</i> , 2008 , 111, 24-31	5.3	28
130	Synthesis and Performance of Polymerizable Room-Temperature Ionic Liquids as Gas Separation Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 5397-5404	3.9	344
129	New type of membrane material for water desalination based on a cross-linked bicontinuous cubic lyotropic liquid crystal assembly. <i>Journal of the American Chemical Society</i> , 2007 , 129, 9574-5	16.4	214
128	Modeling Permeation of CO ₂ /CH ₄ , CO ₂ /N ₂ , and N ₂ /CH ₄ Mixtures Across SAPO-34 Membrane with the Maxwell-Stefan Equations. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 3904-3911	3.9	67
127	Interpreting Unary, Binary, and Ternary Mixture Permeation Across a SAPO-34 Membrane with Loading-Dependent Maxwell-Stefan Diffusivities. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 5075-5082	3.8	75
126	Ion-exchanged SAPO-34 membranes for light gas separations. <i>Microporous and Mesoporous Materials</i> , 2007 , 106, 140-146	5.3	65

125	Influence of nanostructure on light gas separations in cross-linked lyotropic liquid crystal membranes. <i>Journal of Membrane Science</i> , 2007 , 288, 13-19	9.6	48
124	Measurement of sorption and diffusion in nonporous membranes by transient permeation experiments. <i>Journal of Membrane Science</i> , 2007 , 287, 111-118	9.6	24
123	Flexible nanostructure of MFI zeolite membranes. <i>Journal of Membrane Science</i> , 2007 , 298, 182-189	9.6	42
122	Investigation of an aqueous lithium iodide/triiodide electrolyte for dual-chamber electrochemical actuators. <i>Sensors and Actuators B: Chemical</i> , 2007 , 125, 180-188	8.5	8
121	Modeling transient permeation of polar organic mixtures through a MFI zeolite membrane using the Maxwell-Stefan equations. <i>Journal of Membrane Science</i> , 2007 , 293, 167-173	9.6	29
120	Enhanced flux through double-sided zeolite membranes. <i>Journal of Membrane Science</i> , 2007 , 304, 112-117	9.6	13
119	Enhanced CO ₂ Separation Selectivity in Oligo(ethylene glycol) Functionalized Room-Temperature Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 5380-5386	3.9	204
118	Role of conditioning on water uptake and hydraulic permeability of Nafion [®] membranes. <i>Journal of Membrane Science</i> , 2006 , 279, 521-528	9.6	57
117	Analysis of transient permeation as a technique for determination of sorption and diffusion in supported membranes. <i>Journal of Membrane Science</i> , 2006 , 280, 452-460	9.6	16
116	Review of Facilitated Transport Membranes 2006 , 411-435		9
115	Overview of Green Separation Processes 2006 , 103-126		
114	Diffusion and Solubility Measurements in Room Temperature Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 445-450	3.9	189
113	A Nonmechanical, Membrane-Based Liquid Pressurization System. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 472-475	3.9	9
112	Modeling Transient Permeation of Binary Mixtures through Zeolite Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6032-6043	3.9	17
111	New Materials for Selective Gas Separations. <i>Membrane</i> , 2006 , 31, 91-94	0	
110	Adsorption of benzene mixtures on silicalite-1 and NaX zeolites. <i>Microporous and Mesoporous Materials</i> , 2006 , 96, 376-385	5.3	31
109	Separation of binary C ₅ and C ₆ hydrocarbon mixtures through MFI zeolite membranes. <i>Journal of Membrane Science</i> , 2006 , 269, 171-176	9.6	33
108	Bulk-Fluid Solubility and Membrane Feasibility of Rmim-Based Room-Temperature Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6279-6283	3.9	203

107	Characterization of a membrane-based, electrochemically driven pumping system using aqueous electrolyte solutions. <i>Analytical Chemistry</i> , 2005 , 77, 6374-80	7.8	7
106	Modification of Zeolite Membranes for H ₂ Separation by Catalytic Cracking of Methyl-diethoxysilane. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 4035-4041	3.9	102
105	Adsorption of liquid mixtures on silicalite-1 zeolite: a density-bottle method. <i>Langmuir</i> , 2005 , 21, 7390-74		32
104	Low Pressure Hydrocarbon Solubility in Room Temperature Ionic Liquids Containing Imidazolium Rings Interpreted Using Regular Solution Theory. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 1928-1933	3.9	197
103	Separations Research Needs for the 21st Century. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 2887-2892	3.9	69
102	High-Pressure CO ₂ /CH ₄ Separation Using SAPO-34 Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 3220-3228	3.9	167
101	A convective turbulent state that spatially orders upon increased drive. <i>Physics of Fluids</i> , 2005 , 17, 055104	4.4	3
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