Richard D Noble

List of Publications by Citations

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	Guide to CO2 Separations in Imidazolium-Based Room-Temperature Ionic Liquids. *Industrial & Engineering Chemistry Research*, **2009**, 48, 2739-2751	3.9	618
249	Chemistry. Designing the next generation of chemical separation membranes. *Science*, **2011**, 332, 674-6	33.3	554
248	Room-temperature ionic liquids and composite materials: platform technologies for CO(2) capture. *Accounts of Chemical Research*, **2010**, 43, 152-9	24.3	519
247	Fundamentals and applications of pervaporation through zeolite membranes. *Journal of Membrane Science*, **2004**, 245, 1-33	9.6	502
246	Gas separations using non-hexafluorophosphate [PF6]□anion supported ionic liquid membranes. *Journal of Membrane Science*, **2004**, 238, 57-63	9.6	409
245	Room-Temperature Ionic Liquid□Amine Solutions: Tunable Solvents for Efficient and Reversible Capture of CO2. *Industrial & Engineering Chemistry Research*, **2008**, 47, 8496-8498	3.9	378
244	Combination of ionic liquids with membrane technology: A new approach for CO2 separation. *Journal of Membrane Science*, **2016**, 497, 1-20	9.6	353
243	Synthesis and Performance of Polymerizable Room-Temperature Ionic Liquids as Gas Separation Membranes. *Industrial & Engineering Chemistry Research*, **2007**, 46, 5397-5404	3.9	344
242	Room-Temperature Ionic Liquids:□Temperature Dependence of Gas Solubility Selectivity. *Industrial & Engineering Chemistry Research*, **2008**, 47, 3453-3459	3.9	292
241	Gas Solubilities in Room-Temperature Ionic Liquids. *Industrial & Engineering Chemistry Research* , **2004**, 43, 3049-3054	3.9	286
240	Alumina-supported SAPO-34 membranes for CO2/CH4 separation. *Journal of the American Chemical Society*, **2008**, 130, 5412-3	16.4	261
239	Regular Solution Theory and CO2 Gas Solubility in Room-Temperature Ionic Liquids. *Industrial & Engineering Chemistry Research*, **2004**, 43, 6855-6860	3.9	251
238	Ending aging in super glassy polymer membranes. *Angewandte Chemie - International Edition*, **2014**, 53, 5322-6	16.4	222
237	Highly CO2-selective organic molecular cages: what determines the CO2 selectivity. *Journal of the American Chemical Society*, **2011**, 133, 6650-8	16.4	214
236	New type of membrane material for water desalination based on a cross-linked bicontinuous cubic lyotropic liquid crystal assembly. *Journal of the American Chemical Society*, **2007**, 129, 9574-5	16.4	214
235	Improving CO2 selectivity in polymerized room-temperature ionic liquid gas separation membranes through incorporation of polar substituents. *Journal of Membrane Science*, **2008**, 321, 3-7	9.6	210
234	Enhanced CO2Separation Selectivity in Oligo(ethylene glycol) Functionalized Room-Temperature Ionic Liquids. *Industrial & Engineering Chemistry Research*, **2007**, 46, 5380-5386	3.9	204

233	Bulk-Fluid Solubility and Membrane Feasibility of Rmim-Based Room-Temperature Ionic Liquids. *Industrial & Engineering Chemistry Research*, **2006**, 45, 6279-6283	3.9	203
232	High density, vertically-aligned carbon nanotube membranes. *Nano Letters*, **2009**, 9, 225-9	11.5	202
231	Improving CO2 permeability in polymerized room-temperature ionic liquid gas separation membranes through the formation of a solid composite with a room-temperature ionic liquid. *Polymers for Advanced Technologies*, **2008**, 19, 1415-1420	3.2	202
230	Perspective on ionic liquids and ionic liquid membranes. *Journal of Membrane Science*, **2011**, 369, 1-4	9.6	199
229	Low Pressure Hydrocarbon Solubility in Room Temperature Ionic Liquids Containing Imidazolium Rings Interpreted Using Regular Solution Theory. *Industrial & Engineering Chemistry Research*, **2005**, 44, 1928-1933	3.9	197
228	Gas separations in fluoroalkyl-functionalized room-temperature ionic liquids using supported liquid membranes. *Chemical Engineering Journal*, **2009**, 147, 43-50	14.7	190
227	A shape-persistent organic molecular cage with high selectivity for the adsorption of CO2 over N2. *Angewandte Chemie - International Edition*, **2010**, 49, 6348-51	16.4	189
226	Diffusion and Solubility Measurements in Room Temperature Ionic Liquids. *Industrial & Engineering Chemistry Research*, **2006**, 45, 445-450	3.9	189
225	Characterization and permeation properties of ZSM-5 tubular membranes. *AICHE Journal*, **1997**, 43, 1797-1812	3.6	180
224	Perspectives on mixed matrix membranes. *Journal of Membrane Science*, **2011**, 378, 393-397	9.6	175
223	Separation of light gas mixtures using SAPO-34 membranes. *AICHE Journal*, **2000**, 46, 779-789	3.6	171
222	Ceramic-zeolite composite membranes and their application for separation of vapor/gas mixtures. *Journal of Membrane Science*, **1994**, 90, 1-10	9.6	171
221	High-Pressure CO2/CH4 Separation Using SAPO-34 Membranes. *Industrial & Engineering Chemistry Research*, **2005**, 44, 3220-3228	3.9	167
220	Zeolite membranes: microstructure characterization and permeation mechanisms. *Accounts of Chemical Research*, **2011**, 44, 1196-206	24.3	158
219	Permeation of Aromatic Hydrocarbon Vapors through Silicalite-2 Zeolite Membranes. *The Journal of Physical Chemistry*, **1996**, 100, 7676-7679		157
218	Scalable fabrication of polymer membranes with vertically aligned 1 nm pores by magnetic field directed self-assembly. *ACS Nano*, **2014**, 8, 11977-86	16.7	155
217	Novel mixed matrix membranes based on polymerizable room-temperature ionic liquids and SAPO-34 particles to improve CO2 separation. *Journal of Membrane Science*, **2011**, 370, 141-148	9.6	155
216	Ideal gas solubilities and solubility selectivities in a binary mixture of room-temperature ionic liquids. *Journal of Physical Chemistry B*, **2008**, 112, 2335-9	3.4	155

215	Interpretation of CO2 Solubility and Selectivity in Nitrile-Functionalized Room-Temperature Ionic Liquids Using a Group Contribution Approach. *Industrial & Engineering Chemistry Research*, **2008**, 47, 7005-7012	3.9	154
214	Synthesis and Permeation Properties of SAPO-34 Tubular Membranes. *Industrial & Engineering Chemistry Research*, **1998**, 37, 3924-3929	3.9	150
213	Separations of Cyclic, Branched, and Linear Hydrocarbon Mixtures through Silicalite Membranes. *Industrial & Engineering Chemistry Research*, **1997**, 36, 137-143	3.9	143
212	Temperature and pressure effects on CO2 and CH4 permeation through MFI zeolite membranes. *Journal of Membrane Science*, **1999**, 160, 115-125	9.6	143
211	Poly(ionic liquid)/Ionic Liquid Ion-Gels with High "Free" Ionic Liquid Content: Platform Membrane Materials for CO2/Light Gas Separations. *Accounts of Chemical Research*, **2016**, 49, 724-32	24.3	143
210	Effect of Anion on Gas Separation Performance of Polymer Room-Temperature Ionic Liquid Composite Membranes. *Industrial & Engineering Chemistry Research*, **2008**, 47, 9919-9924	3.9	136
209	A three-component mixed-matrix membrane with enhanced CO2 separation properties based on zeolites and ionic liquid materials. *Journal of Membrane Science*, **2010**, 350, 117-123	9.6	135
208	Synthesis and light gas separations in cross-linked gemini room temperature ionic liquid polymer membranes. *Journal of Membrane Science*, **2008**, 316, 186-191	9.6	133
207	Synthesis and Separation Performance of SSZ-13 Zeolite Membranes on Tubular Supports. *Chemistry of Materials*, **2002**, 14, 3458-3464	9.6	133
206	Generalized microscopic mechanism of facilitated transport in fixed site carrier membranes. *Journal of Membrane Science*, **1992**, 75, 121-129	9.6	130
205	Separations of C4 and C6 Isomers in ZSM-5 Tubular Membranes. *Industrial & Engineering Chemistry Research*, **1998**, 37, 166-176	3.9	129
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199	Separation of Hydrocarbon Isomer Vapors with Silicalite Zeolite Membranes. *Industrial & Engineering Chemistry Research*, **1996**, 35, 1575-1582	3.9	120
198	Ideal CO2/Light Gas Separation Performance of Poly(vinylimidazolium) Membranes and Poly(vinylimidazolium)-Ionic Liquid Composite Films. *Industrial & Engineering Chemistry Research*, **2013**, 52, 1023-1032	3.9	113

197	Effect of Free Cation Substituent on Gas Separation Performance of Polymer Room-Temperature Ionic Liquid Composite Membranes. *Industrial & Engineering Chemistry Research*, **2009**, 48, 4607-4610	3.9	113
196	Physically Gelled Ionic Liquids: Solid Membrane Materials with Liquidlike CO2 Gas Transport. *Chemistry of Materials*, **2009**, 21, 3027-3029	9.6	109
195	H2 separation using defect-free, inorganic composite membranes. *Journal of the American Chemical Society*, **2011**, 133, 1748-50	16.4	108
194	Influence of propane on CO2/CH4 and N2/CH4 separations in CHA zeolite membranes. *Journal of Membrane Science*, **2015**, 473, 201-209	9.6	107
193	Pervaporation of organic/water mixtures through B-ZSM-5 zeolite membranes on monolith supports. *Journal of Membrane Science*, **2003**, 215, 235-247	9.6	103
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181	Analysis of facilitated transport with fixed site carrier membranes. *Journal of Membrane Science*, **1990**, 50, 207-214	9.6	78
180	Thin Polymer Films with Continuous Vertically Aligned 1 nm Pores Fabricated by Soft Confinement. *ACS Nano*, **2016**, 10, 150-8	16.7	77

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168	Microwave-assisted syntheses of highly CO2-selective organic cage frameworks (OCFs). *Chemical Science*, **2012**, 3, 874-877	9.4	67
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160	Separation of 1,3-Propanediol from Aqueous Solutions Using Pervaporation through an X-type Zeolite Membrane. *Industrial & Engineering Chemistry Research*, **2001**, 40, 1952-1959	3.9	61
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144	X-type zeolite membranes: preparation, characterization, and pervaporation performance. *Microporous and Mesoporous Materials*, **2002**, 53, 59-70	5.3	51

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121	Facilitated transport separation of benzene and cyclohexane with poly(vinyl alcohol)-AgNO3 membranes. *Journal of Membrane Science*, **1997**, 127, 161-170	9.6	41
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