

Benny D Freeman

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/8512109/benny-d-freeman-publications-by-year.pdf>

Version: 2024-04-25

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

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

426
papers

34,142
citations

89
h-index

173
g-index

460
ext. papers

37,920
ext. citations

7.1
avg, IF

7.55
L-index

#	Paper	IF	Citations
4 ²⁶	Ethylene and ethane transport properties of hydrogen-stable Ag ⁺ -based facilitated transport membranes. <i>Journal of Membrane Science</i> , 2022 , 647, 120300	9.6	2
4 ²⁵	Preparation of defect-free asymmetric gas separation membranes with dihydrolevoglucosenone (Cyrene TM) as a greener polar aprotic solvent. <i>Journal of Membrane Science</i> , 2022 , 644, 120173	9.6	0
4 ²⁴	Influence of fixed charge concentration and water uptake on ion sorption in AMPS/PEGDA membranes. <i>Journal of Membrane Science</i> , 2022 , 644, 120171	9.6	2
4 ²³	Cation-Ligand Interactions Dictate Salt Partitioning and Diffusivity in Ligand-Functionalized Polymer Membranes. <i>Macromolecules</i> , 2022 , 55, 2260-2270	5.5	1
4 ²²	Salt and ion transport in a series of crosslinked AMPS/PEGDA hydrogel membranes. <i>Journal of Membrane Science</i> , 2022 , 120549	9.6	1
4 ²¹	Selective Separation of Lithium Chloride by Organogels Containing Strapped Calix[4]pyrroles. <i>Journal of the American Chemical Society</i> , 2021 , 143, 20403-20410	16.4	3
4 ²⁰	Pure- and mixed-gas transport properties of a microporous Tröger's Base polymer (PIM-EA-TB). <i>Polymer</i> , 2021 , 236, 124295	3.9	0
4 ¹⁹	Gas sorption and diffusion in poly(dimethylsiloxane) (PDMS)/graphene oxide (GO) nanocomposite membranes. <i>Polymer</i> , 2021 , 212, 123185	3.9	3
4 ¹⁸	Prediction of lattice energy of benzene crystals: A robust theoretical approach. <i>Journal of Computational Chemistry</i> , 2021 , 42, 248-260	3.5	6
4 ¹⁷	Mobile ion partitioning in ion exchange membranes immersed in saline solutions. <i>Journal of Membrane Science</i> , 2021 , 620, 118760	9.6	9
4 ¹⁶	Versatile Synthetic Platform for Polymer Membrane Libraries Using Functional Networks. <i>Macromolecules</i> , 2021 , 54, 866-873	5.5	2
4 ¹⁵	Gas Separation by Mixed Matrix Membranes with Porous Organic Polymer Inclusions within -Hydroxypolyamides Containing -Terphenyl Moieties. <i>Polymers</i> , 2021 , 13,	4.5	1
4 ¹⁴	Origins of Lithium/Sodium Reverse Permeability Selectivity in 12-Crown-4-Functionalized Polymer Membranes.. <i>ACS Macro Letters</i> , 2021 , 10, 1167-1173	6.6	3
4 ¹³	Engineering Li/Na selectivity in 12-Crown-4-functionalized polymer membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	13
4 ¹²	Boric acid removal with polyol-functionalized polyether membranes. <i>Journal of Membrane Science</i> , 2021 , 638, 119690	9.6	0
4 ¹¹	Aqueous ion partitioning in Nafion: Applicability of Manning's counter-ion condensation theory. <i>Journal of Membrane Science</i> , 2021 , 638, 119687	9.6	5
4 ¹⁰	Impact of humidity on gas transport in polybenzimidazole membranes. <i>Journal of Membrane Science</i> , 2021 , 639, 119758	9.6	1

409	Designing Solute-Tailored Selectivity in Membranes: Perspectives for Water Reuse and Resource Recovery. <i>ACS Macro Letters</i> , 2020 , 9, 1709-1717	6.6	29
408	Influence of water content on alkali metal chloride transport in cross-linked Poly(ethylene glycol) diacrylate.2. Ion diffusion. <i>Polymer</i> , 2020 , 192, 122316	3.9	11
407	Unprecedentedly Low CO Transport through Vertically Aligned, Conical Silicon Nanotube Membranes. <i>Nano Letters</i> , 2020 , 20, 4754-4760	11.5	4
406	Gas transport properties of PDMS-coated reverse osmosis membranes. <i>Journal of Membrane Science</i> , 2020 , 604, 118009	9.6	6
405	Efficient metal ion sieving in rectifying subnanochannels enabled by metal-organic frameworks. <i>Nature Materials</i> , 2020 , 19, 767-774	27	120
404	Single and binary ion sorption equilibria of monovalent and divalent ions in commercial ion exchange membranes. <i>Water Research</i> , 2020 , 175, 115681	12.5	17
403	Competitive sorption in CO ₂ /CH ₄ separations: the case of HAB-6FDA polyimide and its TR derivative and a general analysis of its impact on the selectivity of glassy polymers at multicomponent conditions. <i>Journal of Membrane Science</i> , 2020 , 612, 118374	9.6	16
402	Origin of CO-philic Sorption by Graphene Oxide Layered Nanosheets and Their Derivatives. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 2356-2362	6.4	2
401	Role of free volume in molecular mobility and performance of glassy polymers for corrosion-protective coatings. <i>Corrosion Engineering Science and Technology</i> , 2020 , 55, 145-158	1.7	6
400	Influence of Physicochemical Properties on Gas Transport Properties of Silver-Containing Ionic Liquid Mixtures for Olefin/Paraffin Membrane Separation. <i>ECS Meeting Abstracts</i> , 2020 , MA2020-02, 2968-2968	0	
399	Compositionally Controlled Polyether Membranes via Mono(alkoxo)bis(alkylaluminum)-Initiated Chain-Growth Network Epoxide Polymerization: Synthesis and Transport Properties. <i>Macromolecules</i> , 2020 , 53, 1191-1198	5.5	10
398	Modeling water diffusion in polybenzimidazole membranes using partial immobilization and free volume theory. <i>Polymer</i> , 2020 , 189, 122170	3.9	9
397	CMS membranes from PBI/PI blends: Temperature effect on gas transport and separation performance. <i>Journal of Membrane Science</i> , 2020 , 597, 117703	9.6	10
396	Hydrogen Stable Supported Ionic Liquid Membranes with Silver Carriers: Propylene and Propane Permeability and Solubility. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 5362-5370	3.9	13
395	Reimagining petroleum refining. <i>Science</i> , 2020 , 369, 254-255	33.3	10
394	Co-ion specific effect on sodium halides sorption and transport in a cross-linked poly(p-styrene sulfonate-co-divinylbenzene) for membrane applications. <i>Journal of Membrane Science</i> , 2020 , 612, 118410	8.6	3
393	Tailoring molecular interactions between microporous polymers in high performance mixed matrix membranes for gas separations. <i>Nanoscale</i> , 2020 , 12, 17405-17410	7.7	6
392	Characterization and gas transport properties of UV-irradiated polydimethylsiloxane (PDMS)-containing polyimide copolymer membranes. <i>Polymer</i> , 2020 , 210, 122966	3.9	3

391	Glassy polymers: Historical findings, membrane applications, and unresolved questions regarding physical aging. <i>Polymer</i> , 2020 , 211, 123176	3.9	18
390	Influence of temperature on gas transport properties of tetraaminodiphenylsulfone (TADPS) based polybenzimidazoles. <i>Journal of Membrane Science</i> , 2020 , 593, 117427	9.6	19
389	Water Treatment: Are Membranes the Panacea?. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2020 , 11, 559-585	8.9	23
388	Ion partitioning between brines and ion exchange polymers. <i>Polymer</i> , 2019 , 165, 91-100	3.9	15
387	Influence of water content on alkali metal chloride transport in cross-linked Poly(ethylene glycol) Diacrylate.1. Ion sorption. <i>Polymer</i> , 2019 , 178, 121554	3.9	16
386	Fast and selective fluoride ion conduction in sub-1-nanometer metal-organic framework channels. <i>Nature Communications</i> , 2019 , 10, 2490	17.4	89
385	Synthesis and characterization of post-sulfonated poly(arylene ether sulfone) membranes for potential applications in water desalination. <i>Polymer</i> , 2019 , 177, 250-261	3.9	7
384	Effect of Water Content on Sodium Chloride Sorption in Cross-Linked Cation Exchange Membranes. <i>Macromolecules</i> , 2019 , 52, 2569-2579	5.5	4
383	Gas separation properties of polybenzimidazole/thermally-rearranged polymer blends. <i>Journal of Membrane Science</i> , 2019 , 582, 182-193	9.6	27
382	Influence of concentration polarization and thermodynamic non-ideality on salt transport in reverse osmosis membranes. <i>Journal of Membrane Science</i> , 2019 , 572, 668-675	9.6	22
381	Fouling and in-situ cleaning of ion-exchange membranes during the electrodialysis of fresh acid and sweet whey. <i>Journal of Food Engineering</i> , 2019 , 246, 192-199	6	28
380	Ordered polymeric membranes using metals. <i>Nature Materials</i> , 2019 , 18, 92-93	27	2
379	Thermally cross-linked diaminophenylindane (DAPI) containing polyimides for membrane based gas separations. <i>Polymer</i> , 2019 , 161, 16-26	3.9	18
378	Fouling mechanisms in constant flux crossflow ultrafiltration. <i>Journal of Membrane Science</i> , 2019 , 574, 65-75	9.6	71
377	Large-scale polymeric carbon nanotube membranes with sub-1.27-nm pores. <i>Science Advances</i> , 2018 , 4, e1700938	14.3	32
376	Ultrafast selective transport of alkali metal ions in metal organic frameworks with subnanometer pores. <i>Science Advances</i> , 2018 , 4, eaaq0066	14.3	214
375	Synthesis and characterization of a phosphine oxide based poly(arylene ether ketone) and blends with poly(2,6-dimethyl-1,4-phenylene oxide) for gas separations. <i>Polymer</i> , 2018 , 138, 156-168	3.9	7
374	Salt concentration dependence of ionic conductivity in ion exchange membranes. <i>Journal of Membrane Science</i> , 2018 , 547, 123-133	9.6	73

373	Transport of terpenes through composite PDMS/PAN solvent resistant nanofiltration membranes. <i>Separation and Purification Technology</i> , 2018 , 207, 470-476	8.3	17
372	Thermal rearranged poly(imide-co-ethylene glycol) membranes for gas separation. <i>Journal of Membrane Science</i> , 2018 , 563, 676-683	9.6	10
371	Ion Diffusion Coefficients in Ion Exchange Membranes: Significance of Counterion Condensation. <i>Macromolecules</i> , 2018 , 51, 5519-5529	5.5	73
370	Water and ion sorption in a series of cross-linked AMPS/PEGDA hydrogel membranes. <i>Polymer</i> , 2018 , 146, 196-208	3.9	23
369	Infrared Spectroscopy of Polybenzimidazole in the Dry and Hydrate Forms: A Combined Experimental and Computational Study. <i>ACS Omega</i> , 2018 , 3, 11592-11607	3.9	8
368	Equilibrium ion partitioning between aqueous salt solutions and inhomogeneous ion exchange membranes. <i>Desalination</i> , 2018 , 446, 31-41	10.3	24
367	Water Vapor Sorption, Diffusion, and Dilatation in Polybenzimidazoles. <i>Macromolecules</i> , 2018 , 51, 7197-7208	9.8	19
366	Effect of fixed charge group concentration on salt permeability and diffusion coefficients in ion exchange membranes. <i>Journal of Membrane Science</i> , 2018 , 566, 307-316	9.6	21
365	Predicting Salt Permeability Coefficients in Highly Swollen, Highly Charged Ion Exchange Membranes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 4044-4056	9.5	89
364	Effect of fixed charge group concentration on equilibrium ion sorption in ion exchange membranes. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 4638-4650	13	69
363	Poly(2,6-dimethyl-1,4-phenylene oxide) blends with a poly(arylene ether ketone) for gas separation membranes. <i>Polymer</i> , 2017 , 114, 135-143	3.9	12
362	The effects of salt concentration and foulant surface charge on hydrocarbon fouling of a poly(vinylidene fluoride) microfiltration membrane. <i>Water Research</i> , 2017 , 117, 230-241	12.5	27
361	Monovalent and divalent ion sorption in a cation exchange membrane based on cross-linked poly(p-styrene sulfonate-co-divinylbenzene). <i>Journal of Membrane Science</i> , 2017 , 535, 132-142	9.6	37
360	Polybenzoxazole (PBO)-based gas separation membranes thermally derived from blends of Ortho-functional polyimide and polyamide precursors. <i>Separation and Purification Technology</i> , 2017 , 184, 384-393	8.3	3
359	Modeling gas permeability and diffusivity in HAB-6FDA polyimide and its thermally rearranged analogs. <i>Journal of Membrane Science</i> , 2017 , 537, 83-92	9.6	17
358	Maximizing the right stuff: The trade-off between membrane permeability and selectivity. <i>Science</i> , 2017 , 356,	33.3	1187
357	Accounting for frame of reference and thermodynamic non-idealities when calculating salt diffusion coefficients in ion exchange membranes. <i>Journal of Membrane Science</i> , 2017 , 537, 396-406	9.6	33
356	Influence of temperature on gas solubility in thermally rearranged (TR) polymers. <i>Journal of Membrane Science</i> , 2017 , 533, 75-83	9.6	22

355	Polyurethanes containing Poly(arylene ether sulfone) and Poly(ethylene oxide) segments for gas separation membranes. <i>Polymer</i> , 2017 , 118, 256-267	3.9	16
354	Analysis of the transport properties of thermally rearranged (TR) polymers and polymers of intrinsic microporosity (PIM) relative to upper bound performance. <i>Journal of Membrane Science</i> , 2017 , 525, 18-24	9.6	72
353	50th Anniversary Perspective: Polymers and Mixed Matrix Membranes for Gas and Vapor Separation: A Review and Prospective Opportunities. <i>Macromolecules</i> , 2017 , 50, 7809-7843	5.5	481
352	Aromatic poly(ether ether ketone)s capable of crosslinking via UV irradiation to improve gas separation performance. <i>RSC Advances</i> , 2017 , 7, 55371-55381	3.7	4
351	Structure-property relationships of crosslinked disulfonated poly(arylene ether sulfone) membranes for desalination of water. <i>Polymer</i> , 2017 , 132, 286-293	3.9	8
350	Fouling-resistant ultrafiltration membranes prepared via co-deposition of dopamine/zwitterion composite coatings. <i>Journal of Membrane Science</i> , 2017 , 541, 300-311	9.6	40
349	Influence of polydopamine deposition conditions on hydraulic permeability, sieving coefficients, pore size and pore size distribution for a polysulfone ultrafiltration membrane. <i>Journal of Membrane Science</i> , 2017 , 522, 100-115	9.6	61
348	Oberflächenmodifizierung von Wasseraufbereitungsmembranen. <i>Angewandte Chemie</i> , 2017 , 129, 4734-4738	3.8	12
347	Surface Modification of Water Purification Membranes. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 4662-4711	16.4	402
346	The effect of permeate flux on membrane fouling during microfiltration of oily water. <i>Journal of Membrane Science</i> , 2017 , 525, 25-34	9.6	49
345	A Facile Surface Modification for Antifouling Reverse Osmosis Membranes Using Polydopamine under UV Irradiation. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 5756-5760	3.9	37
344	Nonequilibrium Lattice Fluid Modeling of Gas Solubility in HAB-6FDA Polyimide and Its Thermally Rearranged Analogues. <i>Macromolecules</i> , 2016 , 49, 8768-8779	5.5	16
343	Gas permeation properties of thermally rearranged (TR) isomers and their aromatic polyimide precursors. <i>Journal of Membrane Science</i> , 2016 , 518, 88-99	9.6	16
342	Gas permeation and selectivity of poly(dimethylsiloxane)/graphene oxide composite elastomer membranes. <i>Journal of Membrane Science</i> , 2016 , 518, 131-140	9.6	59
341	Cross-Linked Disulfonated Poly(arylene ether sulfone) Telechelic Oligomers. 2. Elevated Transport Performance with Increasing Hydrophilicity. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 1419-1426	3.9	8
340	Charged Polymer Membranes for Environmental/Energy Applications. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2016 , 7, 111-33	8.9	71
339	Effect of UV irradiation and physical aging on O ₂ and N ₂ transport properties of thin glassy poly(arylene ether ketone) copolymer films based on tetramethyl bisphenol A and 4,4'-difluorobenzophenone. <i>Polymer</i> , 2016 , 87, 202-214	3.9	12
338	Partitioning of mobile ions between ion exchange polymers and aqueous salt solutions: importance of counter-ion condensation. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 6021-31	3.6	100

337	Highly CO ₂ -Selective Gas Separation Membranes Based on Segmented Copolymers of Poly(Ethylene oxide) Reinforced with Penttiptycene-Containing Polyimide Hard Segments. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2306-17	9.5	90
336	Underwater Superoleophobic Surfaces Prepared from Polymer Zwitterion/Dopamine Composite Coatings. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1500521	4.6	82
335	Effect of polydopamine deposition conditions on polysulfone ultrafiltration membrane properties and threshold flux during oil/water emulsion filtration. <i>Polymer</i> , 2016 , 97, 247-257	3.9	58
334	Gas permeation and mechanical properties of thermally rearranged (TR) copolyimides. <i>Polymer</i> , 2016 , 82, 378-391	3.9	46
333	Synthesis and gas permeability of highly elastic poly(dimethylsiloxane)/graphene oxide composite elastomers using telechelic polymers. <i>Polymer</i> , 2016 , 93, 53-60	3.9	29
332	Fouling propensity of a poly(vinylidene fluoride) microfiltration membrane to several model oil/water emulsions. <i>Journal of Membrane Science</i> , 2016 , 514, 659-670	9.6	38
331	Influence of toluene on CO ₂ and CH ₄ gas transport properties in thermally rearranged (TR) polymers based on 3,3'-dihydroxy-4,4'-diamino-biphenyl (HAB) and 2,2'-bis-(3,4-dicarboxyphenyl) hexafluoropropane dianhydride (6FDA). <i>Journal of Membrane Science</i> , 2016 , 514, 282-293	9.6	24
330	Materials science: Cracks help membranes to stay hydrated. <i>Nature</i> , 2016 , 532, 445-6	50.4	3
329	Liquid methanol sorption, diffusion and permeation in charged and uncharged polymers. <i>Polymer</i> , 2016 , 102, 281-291	3.9	24
328	Gas transport properties and characterization of UV crosslinked poly(phenylene oxide-co-arylene ether ketone) copolymers. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 16047-16056	13	4
327	Effect of polymer structure on gas transport properties of selected aromatic polyimides, polyamides and TR polymers. <i>Journal of Membrane Science</i> , 2015 , 493, 766-781	9.6	48
326	Synthesis and characterization of polybenzimidazoles derived from tetraaminodiphenylsulfone for high temperature gas separation membranes. <i>Polymer</i> , 2015 , 71, 135-142	3.9	31
325	Size-Dependent Permeability Deviations from Maxwell's Model in Hybrid Cross-Linked Poly(ethylene glycol)/Silica Nanoparticle Membranes. <i>Chemistry of Materials</i> , 2015 , 27, 2421-2429	9.6	46
324	Preparation and properties of polybenzoxazole-based gas separation membranes: A comparative study between thermal rearrangement (TR) of poly(hydroxyimide) and thermal cyclodehydration of poly(hydroxyamide). <i>Polymer</i> , 2015 , 78, 81-93	3.9	28
323	Ion Activity Coefficients in Ion Exchange Polymers: Applicability of Manning's Counterion Condensation Theory. <i>Macromolecules</i> , 2015 , 48, 8011-8024	5.5	100
322	Synthesis and characterization of thermally rearranged (TR) polybenzoxazoles: Influence of isomeric structure on gas transport properties. <i>Polymer</i> , 2015 , 75, 199-210	3.9	21
321	Comparison of transport properties of rubbery and glassy polymers and the relevance to the upper bound relationship. <i>Journal of Membrane Science</i> , 2015 , 476, 421-431	9.6	100
320	Predictive calculation of hydrogen and helium solubility in glassy and rubbery polymers. <i>Journal of Membrane Science</i> , 2015 , 475, 110-121	9.6	22

319	Pure- and mixed-gas permeation of CO ₂ and CH ₄ in thermally rearranged polymers based on 3,3'-dihydroxy-4,4'-diamino-biphenyl (HAB) and 2,2'-bis-(3,4-dicarboxyphenyl) hexafluoropropane dianhydride (6FDA). <i>Journal of Membrane Science</i> , 2015 , 475, 204-214	9.6	79
318	Pentipitycene-based polyimides with hierarchically controlled molecular cavity architecture for efficient membrane gas separation. <i>Journal of Membrane Science</i> , 2015 , 480, 20-30	9.6	68
317	Gas permeation in thin films of High free-volume glassy perfluoropolymers: Part II. CO ₂ plasticization and sorption. <i>Polymer</i> , 2015 , 61, 1-14	3.9	45
316	Equation of State Modeling of the Solubility of CO ₂ /C ₂ H ₆ Mixtures in Cross-Linked Poly(ethylene oxide). <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 1142-1152	3.9	13
315	Effect of ambient carbon dioxide on salt permeability and sorption measurements in ion-exchange membranes. <i>Journal of Membrane Science</i> , 2015 , 479, 55-66	9.6	35
314	Free volume characterization of sulfonated styrenic pentablock copolymers using positron annihilation lifetime spectroscopy. <i>Journal of Membrane Science</i> , 2014 , 453, 425-434	9.6	37
313	Gas transport in coextruded multilayered membranes with alternating dense and porous polymeric layers. <i>Polymer</i> , 2014 , 55, 1259-1266	3.9	10
312	Ozonation of phosphonate antiscalants used for reverse osmosis desalination: Parameter effects on the extent of oxidation. <i>Chemical Engineering Journal</i> , 2014 , 244, 505-513	14.7	13
311	Solute and water transport in forward osmosis using polydopamine modified thin film composite membranes. <i>Desalination</i> , 2014 , 343, 8-16	10.3	72
310	Thermal rearranged poly(benzoxazole)/polyimide blended membranes for CO ₂ separation. <i>Separation and Purification Technology</i> , 2014 , 124, 134-140	8.3	32
309	Cross-Linking Disulfonated Poly(arylene ether sulfone) Telechelic Oligomers. 1. Synthesis, Characterization, and Membrane Preparation. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 2583-2593	3.9	8
308	Contributions of diffusion and solubility selectivity to the upper bound analysis for glassy gas separation membranes. <i>Journal of Membrane Science</i> , 2014 , 453, 71-83	9.6	132
307	High-performance CO ₂ -philic graphene oxide membranes under wet-conditions. <i>Chemical Communications</i> , 2014 , 50, 13563-6	5.8	93
306	Gas permeation in thin films of High free-volume glassy perfluoropolymers: Part I. Physical aging. <i>Polymer</i> , 2014 , 55, 5788-5800	3.9	69
305	Water vapor permeability and competitive sorption in thermally rearranged (TR) membranes. <i>Journal of Membrane Science</i> , 2014 , 470, 132-137	9.6	35
304	Synthesis, oxidation and crosslinking of tetramethyl bisphenol F (TMBPF)-based polymers for oxygen/nitrogen gas separations. <i>Polymer</i> , 2014 , 55, 5623-5634	3.9	11
303	Graphene oxide: a new platform for high-performance gas- and liquid-separation membranes. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 10286-8	16.4	113
302	Synthesis and characterization of triptycene-based polyimides with tunable high fractional free volume for gas separation membranes. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 13309-13320	13	144

301	Influence of Diffusivity and Sorption on Helium and Hydrogen Separations in Hydrocarbon, Silicon, and Fluorocarbon-Based Polymers. <i>Macromolecules</i> , 2014 , 47, 3170-3184	5.5	50
300	Thermal analysis of disulfonated poly(arylene ether sulfone) plasticized with poly(ethylene glycol) for membrane formation. <i>Polymer</i> , 2014 , 55, 235-247	3.9	25
299	Constant flux crossflow filtration evaluation of surface-modified fouling-resistant membranes. <i>Journal of Membrane Science</i> , 2014 , 452, 171-183	9.6	79
298	Influence of polyimide precursor synthesis route and ortho-position functional group on thermally rearranged (TR) polymer properties: Pure gas permeability and selectivity. <i>Journal of Membrane Science</i> , 2014 , 463, 73-81	9.6	35
297	Comparison of membrane fouling at constant flux and constant transmembrane pressure conditions. <i>Journal of Membrane Science</i> , 2014 , 454, 505-515	9.6	137
296	An improved method for surface modification of porous water purification membranes. <i>Polymer</i> , 2014 , 55, 1375-1383	3.9	43
295	Co-extruded polymeric films for gas separation membranes. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a	2.9	15
294	Effect of UV Crosslinking on Transport Properties of CO ₂ and N ₂ Through Poly(Imide-siloxane) Segmented Copolymer. <i>Energy Procedia</i> , 2014 , 63, 210-216	2.3	4
293	Investigation of the chemical and morphological structure of thermally rearranged polymers. <i>Polymer</i> , 2014 , 55, 6649-6657	3.9	23
292	Graphenoxid: eine neue Plattform für hochleistungsflüssige Gas- und Flüssigtrennmembranen. <i>Angewandte Chemie</i> , 2014 , 126, 10452-10454	3.6	5
291	Influence of polyimide precursor synthesis route and ortho-position functional group on thermally rearranged (TR) polymer properties: Conversion and free volume. <i>Polymer</i> , 2014 , 55, 1636-1647	3.9	49
290	Rheological studies of disulfonated poly(arylene ether sulfone) plasticized with poly(ethylene glycol) for membrane formation. <i>Polymer</i> , 2014 , 55, 1574-1582	3.9	17
289	Thermal rearranged poly(benzoxazole-co-imide) membranes for CO ₂ separation. <i>Journal of Membrane Science</i> , 2014 , 450, 72-80	9.6	63
288	Fundamental water and salt transport properties of polymeric materials. <i>Progress in Polymer Science</i> , 2014 , 39, 1-42	29.6	450
287	Energy-efficient polymeric gas separation membranes for a sustainable future: A review. <i>Polymer</i> , 2013 , 54, 4729-4761	3.9	895
286	Synthesis and characterization of thermally rearranged (TR) polymers: effect of glass transition temperature of aromatic poly(hydroxyimide) precursors on TR process and gas permeation properties. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 6063	13	69
285	Influence of processing strategies on porosity and permeability of nucleated isotactic polypropylene stretched films. <i>Polymer</i> , 2013 , 54, 2796-2807	3.9	39
284	Dynamic relaxation characteristics of thermally rearranged aromatic polyimides. <i>Polymer</i> , 2013 , 54, 891-900	3.9	34

283	Hydrogen sorption in polymers for membrane applications. <i>Polymer</i> , 2013 , 54, 3026-3037	3.9	40
282	Fouling-resistant membranes for the treatment of flowback water from hydraulic shale fracturing: A pilot study. <i>Journal of Membrane Science</i> , 2013 , 437, 265-275	9.6	103
281	Porosity enhancement in nucleated isotactic polypropylene stretched films by thermal annealing. <i>Polymer</i> , 2013 , 54, 2577-2589	3.9	63
280	Enhanced desalination performance of polyamide bi-layer membranes prepared by sequential interfacial polymerization. <i>Journal of Membrane Science</i> , 2013 , 437, 33-39	9.6	32
279	Pervaporative Separation of Aromatic/Aliphatic Mixtures with Poly(Siloxane-co-Imide) and Poly(Ether-co-Imide) Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 8906-8916	3.9	23
278	Perspectives on poly(dopamine). <i>Chemical Science</i> , 2013 , 4, 3796	9.4	277
277	Effect of polydopamine deposition conditions on fouling resistance, physical properties, and permeation properties of reverse osmosis membranes in oil/water separation. <i>Journal of Membrane Science</i> , 2013 , 425-426, 208-216	9.6	213
276	Sodium chloride diffusion in sulfonated polymers for membrane applications. <i>Journal of Membrane Science</i> , 2013 , 427, 186-196	9.6	78
275	Oxygen concentration control of dopamine-induced high uniformity surface coating chemistry. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 233-8	9.5	176
274	Characterization of Aluminum-Neutralized Sulfonated Styrenic Pentablock Copolymer Films. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 1056-1068	3.9	46
273	Synthesis and characterization of Thermally Rearranged (TR) polymers: influence of ortho-positioned functional groups of polyimide precursors on TR process and gas transport properties. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 262-272	13	77
272	A crossflow filtration system for constant permeate flux membrane fouling characterization. <i>Review of Scientific Instruments</i> , 2013 , 84, 035003	1.7	22
271	Impact of feed spacer and membrane modification by hydrophilic, bactericidal and biocidal coating on biofouling control. <i>Desalination</i> , 2012 , 295, 1-10	10.3	76
270	Disulfonated poly(arylene ether sulfone) random copolymer thin film composite membrane fabricated using a benign solvent for reverse osmosis applications. <i>Journal of Membrane Science</i> , 2012 , 389, 363-371	9.6	32
269	Aromatic polyimide and polybenzoxazole membranes for the fractionation of aromatic/aliphatic hydrocarbons by pervaporation. <i>Journal of Membrane Science</i> , 2012 , 390-391, 182-193	9.6	50
268	Hydrophilic silica additives for disulfonated poly(arylene ether sulfone) random copolymer membranes. <i>Journal of Membrane Science</i> , 2012 , 392-393, 157-166	9.6	10
267	Enhancing water permeability of fouling-resistant POSS/PEGM hydrogels using addition-extraction of sacrificial additives. <i>Journal of Membrane Science</i> , 2012 , 401-402, 306-312	9.6	25
266	Polyamide interfacial composite membranes prepared from m-phenylene diamine, trimesoyl chloride and a new disulfonated diamine. <i>Journal of Membrane Science</i> , 2012 , 403-404, 152-161	9.6	271

265	Gas permeability, diffusivity, and free volume of thermally rearranged polymers based on 3,3'-dihydroxy-4,4'-diamino-biphenyl (HAB) and 2,2'-bis-(3,4-dicarboxyphenyl) hexafluoropropane dianhydride (6FDA). <i>Journal of Membrane Science</i> , 2012 , 409-410, 232-241	9.6	136
264	Gas permeability of melt-processed poly(ether block amide) copolymers and the effects of orientation. <i>Polymer</i> , 2012 , 53, 1383-1392	3.9	58
263	Influence of processing history on water and salt transport properties of disulfonated polysulfone random copolymers. <i>Polymer</i> , 2012 , 53, 1581-1592	3.9	38
262	Structural relaxation of polystyrene in nanolayer confinement. <i>Polymer</i> , 2012 , 53, 1925-1931	3.9	20
261	Characterization of Oxygen Scavenging Films Based on 1,4-Polybutadiene. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 7138-7145	3.9	19
260	Short-term adhesion and long-term biofouling testing of polydopamine and poly(ethylene glycol) surface modifications of membranes and feed spacers for biofouling control. <i>Water Research</i> , 2012 , 46, 3737-53	12.5	178
259	A bioinspired fouling-resistant surface modification for water purification membranes. <i>Journal of Membrane Science</i> , 2012 , 413-414, 82-90	9.6	262
258	Gas sorption and characterization of thermally rearranged polyimides based on 3,3'-dihydroxy-4,4'-diamino-biphenyl (HAB) and 2,2'-bis-(3,4-dicarboxyphenyl) hexafluoropropane dianhydride (6FDA). <i>Journal of Membrane Science</i> , 2012 , 415-416, 558-567	9.6	103
257	Introduction to Membrane Science and Technology. Von Heinrich Strathmann.. <i>Angewandte Chemie</i> , 2012 , 124, 9623-9623	3.6	1
256	Elucidating the structure of poly(dopamine). <i>Langmuir</i> , 2012 , 28, 6428-35	4	764
255	Enthalpy recovery and structural relaxation in layered glassy polymer films. <i>Polymer</i> , 2012 , 53, 4002-4009	3.9	19
254	Characterization of the oxygen scavenging capacity and kinetics of SBS films. <i>Polymer</i> , 2012 , 53, 4211-4224	3.9	14
253	Sodium chloride sorption in sulfonated polymers for membrane applications. <i>Journal of Membrane Science</i> , 2012 , 423-424, 195-208	9.6	100
252	Disulfonated Poly(arylene ether sulfone) Random Copolymer Blends Tuned for Rapid Water Permeation via Cation Complexation with Poly(ethylene glycol) Oligomers. <i>Chemistry of Materials</i> , 2011 , 23, 1039-1049	9.6	37
251	Solid-state NMR molecular dynamics characterization of a highly chlorine-resistant disulfonated poly(arylene ether sulfone) random copolymer blended with poly(ethylene glycol) oligomers for reverse osmosis applications. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 6876-84	3.4	14
250	Effect of Free Volume on Water and Salt Transport Properties in Directly Copolymerized Disulfonated Poly(arylene ether sulfone) Random Copolymers. <i>Macromolecules</i> , 2011 , 44, 4428-4438	5.5	111
249	Modeling of multicomponent mass transfer across polymer films using a thermodynamically consistent formulation of the Maxwell-Stefan equations in terms of volume fractions. <i>Polymer</i> , 2011 , 52, 3970-3983	3.9	36
248	Physical aging of layered glassy polymer films via gas permeability tracking. <i>Polymer</i> , 2011 , 52, 6117-6125	3.9	42

247	Separation of Aromatic/Aliphatic Mixtures by Pervaporation Using ortho-Functionalized Polyimide Membranes. <i>ACS Symposium Series</i> , 2011 , 81-105	0.4	1
246	Comparison of the Permeation of MgCl ₂ versus NaCl in Highly Charged Sulfonated Polymer Membranes. <i>ACS Symposium Series</i> , 2011 , 239-245	0.4	2
245	Surface modification of thin film composite membrane support layers with polydopamine: Enabling use of reverse osmosis membranes in pressure retarded osmosis. <i>Journal of Membrane Science</i> , 2011 , 375, 55-62	9.6	261
244	Phosphorylcholine-Substituted ROMP Polyolefin Coatings Provide Fouling Resistance to Membrane Materials. <i>Macromolecular Materials and Engineering</i> , 2011 , 296, 1142-1148	3.9	12
243	Surface modification of commercial polyamide desalination membranes using poly(ethylene glycol) diglycidyl ether to enhance membrane fouling resistance. <i>Journal of Membrane Science</i> , 2011 , 367, 273-287	9.6	187
242	Gas permeation properties of poly(urethane-urea)s containing different polyethers. <i>Journal of Membrane Science</i> , 2011 , 369, 49-58	9.6	86
241	Effect of antiscalant degradation on salt precipitation and solid/liquid separation of RO concentrate. <i>Journal of Membrane Science</i> , 2011 , 366, 48-61	9.6	37
240	On the effects of plasticization in CO ₂ /light gas separation using polymeric solubility selective membranes. <i>Journal of Membrane Science</i> , 2011 , 367, 33-44	9.6	79
239	Water permeability and water/salt selectivity tradeoff in polymers for desalination. <i>Journal of Membrane Science</i> , 2011 , 369, 130-138	9.6	488
238	Bifunctional hydrogel coatings for water purification membranes: Improved fouling resistance and antimicrobial activity. <i>Journal of Membrane Science</i> , 2011 , 372, 285-291	9.6	71
237	Pure- and mixed-gas carbon dioxide/ethane permeability and diffusivity in a cross-linked poly(ethylene oxide) copolymer. <i>Journal of Membrane Science</i> , 2011 , 377, 110-123	9.6	36
236	Fundamental salt and water transport properties in directly copolymerized disulfonated poly(arylene ether sulfone) random copolymers. <i>Polymer</i> , 2011 , 52, 2032-2043	3.9	86
235	Cavity size, sorption and transport characteristics of thermally rearranged (TR) polymers. <i>Polymer</i> , 2011 , 52, 2244-2254	3.9	91
234	Effect of film thickness on auto-oxidation in cobalt-catalyzed 1,4-polybutadiene films. <i>Polymer</i> , 2011 , 52, 2772-2783	3.9	12
233	CO ₂ Permeation with Pebax [®] -based Membranes for Global Warming Reduction 2010 , 255-277		10
232	Membrane Engineering: Progress and Potentialities in Gas Separations 2010 , 279-312		7
231	Amorphous Glassy Perfluoropolymer Membranes of Hyflon AD [®] : Free Volume Distribution by Photochromic Probing and Vapour Transport Properties 2010 , 59-83		0
230	Advances in membrane materials: desalination membranes based on directly copolymerized disulfonated poly(arylene ether sulfone) random copolymers. <i>Water Science and Technology</i> , 2010 , 61, 619-24	2.2	34

229	Basis of Solubility versus TC Correlations in Polymeric Gas Separation Membranes. <i>Macromolecules</i> , 2010 , 43, 1473-1479	5.5	16
228	Effect of antiscalants on precipitation of an RO concentrate: metals precipitated and particle characteristics for several water compositions. <i>Water Research</i> , 2010 , 44, 2672-84	12.5	38
227	The effect of antiscalant addition on calcium carbonate precipitation for a simplified synthetic brackish water reverse osmosis concentrate. <i>Water Research</i> , 2010 , 44, 2957-69	12.5	96
226	Novel thin film composite membrane containing ionizable hydrophobes: pH-dependent reverse osmosis behavior and improved chlorine resistance. <i>Journal of Materials Chemistry</i> , 2010 , 20, 4615		73
225	Composite Membranes Based on a Selective Chitosan/Poly(ethylene glycol) Hybrid Layer: Synthesis, Characterization, and Performance in Oil/Water Purification. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 366-373	3.9	49
224	Modelling Gas Separation in Porous Membranes 2010 , 85-109		7
223	Vapor Sorption and Diffusion in Mixed Matrices Based on Teflon AF 2400 2010 , 125-142		5
222	Physical and Gas Transport Properties of Hyperbranched Polyimide/Silica Hybrid Membranes 2010 , 143-158		3
221	Tailoring Polymeric Membrane Based on Segmented Block Copolymers for CO ₂ Separation 2010 , 227-253		5
220	Addition-Type Polynorbornene with Si(CH ₃) ₃ Side Groups: Detailed Study of Gas Permeation, Free Volume and Thermodynamic Properties 2010 , 43-57		2
219	The Effect of Sweep Uniformity on Gas Dehydration Module Performance 2010 , 333-353		3
218	Gas Permeation Parameters and Other Physicochemical Properties of a Polymer of Intrinsic Microporosity (PIM-1) 2010 , 29-42		9
217	Glassy Perfluoropolymer/Zeolite Hybrid Membranes for Gas Separations 2010 , 111-124		1
216	Polymeric Membranes for Chiral Separation of Pharmaceuticals and Chemicals. <i>Polymer Reviews</i> , 2010 , 50, 113-143	14	101
215	Water uptake, transport and structure characterization in poly(ethylene glycol) diacrylate hydrogels. <i>Journal of Membrane Science</i> , 2010 , 347, 197-208	9.6	73
214	Characterization of sodium chloride and water transport in crosslinked poly(ethylene oxide) hydrogels. <i>Journal of Membrane Science</i> , 2010 , 358, 131-141	9.6	129
213	Glass-transition and gas-transport characteristics of polymer nanocomposites based on crosslinked poly(ethylene oxide). <i>Journal of Applied Polymer Science</i> , 2010 , 117, 2395-2405	2.9	12
212	Carbon dioxide/ethane mixed-gas sorption and dilation in a cross-linked poly(ethylene oxide) copolymer. <i>Polymer</i> , 2010 , 51, 1156-1168	3.9	32

211	Influence of polydopamine deposition conditions on pure water flux and foulant adhesion resistance of reverse osmosis, ultrafiltration, and microfiltration membranes. <i>Polymer</i> , 2010 , 51, 3472-3485	3.9	297
210	Influence of previous history on physical aging in thin glassy polymer films as gas separation membranes. <i>Polymer</i> , 2010 , 51, 3784-3792	3.9	47
209	Gas permeability of cross-linked poly(ethylene-oxide) based on poly(ethylene glycol) dimethacrylate and a miscible siloxane co-monomer. <i>Polymer</i> , 2010 , 51, 5734-5743	3.9	25
208	Characterization of a sulfonated pentablock copolymer for desalination applications. <i>Polymer</i> , 2010 , 51, 5815-5822	3.9	135
207	Effect of UV intensity on structure, water sorption, and transport properties of crosslinked N-vinyl-2-pyrrolidone/N,N'-methylenebisacrylamide films. <i>Journal of Membrane Science</i> , 2010 , 348, 47-55	9.6	12
206	Influence of TRIS-based co-monomer on structure and gas transport properties of cross-linked poly(ethylene oxide). <i>Journal of Membrane Science</i> , 2010 , 359, 25-36	9.6	29
205	Influence of temperature on the upper bound: Theoretical considerations and comparison with experimental results. <i>Journal of Membrane Science</i> , 2010 , 360, 58-69	9.6	147
204	Solubility and partial molar volume of carbon dioxide and ethane in crosslinked poly(ethylene oxide) copolymer. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2010 , 48, 456-468	2.6	13
203	Water purification by membranes: The role of polymer science. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2010 , 48, 1685-1718	2.6	690
202	PEG-based hydrogel membrane coatings. <i>Polymer</i> , 2009 , 50, 756-766	3.9	95
201	Modeling of oxygen scavenging for improved barrier behavior: Blend films. <i>Journal of Membrane Science</i> , 2009 , 329, 183-192	9.6	34
200	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
199	Preparation and characterization of crosslinked poly(ethylene glycol) diacrylate hydrogels as fouling-resistant membrane coating materials. <i>Journal of Membrane Science</i> , 2009 , 330, 180-188	9.6	123
198	Influence of phenoxy-terminated short-chain pendant groups on gas transport properties of cross-linked poly(ethylene oxide) copolymers. <i>Journal of Membrane Science</i> , 2009 , 341, 84-95	9.6	33
197	Effect of crossflow testing conditions, including feed pH and continuous feed filtration, on commercial reverse osmosis membrane performance. <i>Journal of Membrane Science</i> , 2009 , 345, 97-109	9.6	77
196	Influence of chemical structure of short chain pendant groups on gas transport properties of cross-linked poly(ethylene oxide) copolymers. <i>Journal of Membrane Science</i> , 2009 , 327, 195-207	9.6	53
195	PEG-coated reverse osmosis membranes: Desalination properties and fouling resistance. <i>Journal of Membrane Science</i> , 2009 , 340, 92-108	9.6	230
194	Response to comments in the Letter to the Editor by Solovyov. <i>Journal of Membrane Science</i> , 2009 , 341, 1	9.6	1

193	An empirical correlation of gas permeability and permselectivity in polymers and its theoretical basis. <i>Journal of Membrane Science</i> , 2009 , 341, 178-185	9.6	155
192	Transient and steady-state effective diffusivity in high free volume glassy polymers. <i>Journal of Membrane Science</i> , 2009 , 344, 144-154	9.6	10
191	Structure, water sorption, and transport properties of crosslinked N-vinyl-2-pyrrolidone/N,N'-methylenebisacrylamide films. <i>Journal of Membrane Science</i> , 2009 , 344, 182-189	9.6	20
190	Dynamic relaxation characteristics of Matrimid [®] polyimide. <i>Polymer</i> , 2009 , 50, 891-897	3.9	73
189	Physical aging of ultrathin glassy polymer films tracked by gas permeability. <i>Polymer</i> , 2009 , 50, 5565-5575	3.9	197
188	A variable energy positron annihilation lifetime spectroscopy study of physical aging in thin glassy polymer films. <i>Polymer</i> , 2009 , 50, 6149-6156	3.9	86
187	Relation between structure and gas transport properties of polyethylene oxide networks based on crosslinked bisphenol A ethoxylate diacrylate. <i>Chemical Engineering Science</i> , 2009 , 64, 4707-4718	4.4	26
186	Reverse osmosis desalination: water sources, technology, and today's challenges. <i>Water Research</i> , 2009 , 43, 2317-48	12.5	2027
185	Confined crystallization of polyethylene oxide in nanolayer assemblies. <i>Science</i> , 2009 , 323, 757-60	33.3	279
184	Not all membrane pores are made equal; some are more equal than others. <i>Nature</i> , 2008 , 454, 671	50.4	1
183	Gas Permeability, Solubility, and Diffusion Coefficients in 1,2-Polybutadiene Containing Magnesium Oxide. <i>Macromolecules</i> , 2008 , 41, 2144-2156	5.5	49
182	Sorption, Dilation, and Partial Molar Volumes of Carbon Dioxide and Ethane in Cross-Linked Poly(ethylene oxide). <i>Macromolecules</i> , 2008 , 41, 9458-9468	5.5	24
181	Synthesis and Properties of Indan-Based Polyacetylenes That Feature the Highest Gas Permeability among All the Existing Polymers. <i>Macromolecules</i> , 2008 , 41, 8525-8532	5.5	79
180	Gas permeability, solubility and diffusivity in 1,2-polybutadiene containing brookite nanoparticles. <i>Polymer</i> , 2008 , 49, 757-773	3.9	46
179	Oxygen and carbon dioxide permeability of EAA/PEO blends and microlayers. <i>Journal of Applied Polymer Science</i> , 2008 , 110, 1411-1419	2.9	27
178	Highly chlorine-tolerant polymers for desalination. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 6019-24	16.4	190
177	Gas transport properties of MgO filled poly(1-trimethylsilyl-1-propyne) nanocomposites. <i>Polymer</i> , 2008 , 49, 1659-1675	3.9	89
176	Synthesis and crosslinking of partially disulfonated poly(arylene ether)sulfone) random copolymers as candidates for chlorine resistant reverse osmosis membranes. <i>Polymer</i> , 2008 , 49, 2243-2252	3.9	108

175	The influence of crosslinking and fumed silica nanoparticles on mixed gas transport properties of poly[1-(trimethylsilyl)-1-propyne]. <i>Polymer</i> , 2008 , 49, 3029-3041	3.9	23
174	Non-invasive headspace measurement for characterizing oxygen-scavenging in polymers. <i>Polymer</i> , 2008 , 49, 4541-4545	3.9	22
173	Crosslinked poly(ethylene oxide) fouling resistant coating materials for oil/water separation. <i>Journal of Membrane Science</i> , 2008 , 307, 260-267	9.6	182
172	Gas transport in TiO ₂ nanoparticle-filled poly(1-trimethylsilyl-1-propyne). <i>Journal of Membrane Science</i> , 2008 , 307, 196-217	9.6	108
171	Crosslinking poly[1-(trimethylsilyl)-1-propyne] and its effect on physical stability. <i>Journal of Membrane Science</i> , 2008 , 320, 123-134	9.6	69
170	Structural, sorption and transport characteristics of an ultrapermeable polymer. <i>Journal of Membrane Science</i> , 2008 , 314, 15-23	9.6	31
169	Molecular Dynamics of Poly(ethylene glycol) and Poly(propylene glycol) Copolymer Networks by Broadband Dielectric Spectroscopy. <i>Macromolecules</i> , 2007 , 40, 2773-2781	5.5	22
168	Effect of copolymer composition, temperature, and carbon dioxide fugacity on pure- and mixed-gas permeability in poly(ethylene glycol)-based materials: Free volume interpretation. <i>Journal of Membrane Science</i> , 2007 , 291, 131-139	9.6	68
167	Pure and mixed gas CH ₄ and n-C ₄ H ₁₀ permeability and diffusivity in poly(dimethylsiloxane). <i>Journal of Membrane Science</i> , 2007 , 306, 75-92	9.6	112
166	Pure and mixed gas CH ₄ and n-C ₄ H ₁₀ sorption and dilation in poly(dimethylsiloxane). <i>Journal of Membrane Science</i> , 2007 , 292, 45-61	9.6	101
165	CO ₂ /C ₂ H ₆ separation using solubility selective membranes. <i>Journal of Membrane Science</i> , 2007 , 305, 57-68	9.6	44
164	Molecular relaxation in cross-linked poly(ethylene glycol) and poly(propylene glycol) diacrylate networks by dielectric spectroscopy. <i>Polymer</i> , 2007 , 48, 579-589	3.9	23
163	Pure and mixed gas CH ₄ and n-C ₄ H ₁₀ sorption and dilation in poly(1-trimethylsilyl-1-propyne). <i>Polymer</i> , 2007 , 48, 6097-6114	3.9	39
162	Crosslinking poly(1-trimethylsilyl-1-propyne) and its effect on solvent resistance and transport properties. <i>Polymer</i> , 2007 , 48, 6881-6892	3.9	41
161	Pure and mixed gas CH ₄ and n-C ₄ H ₁₀ permeability and diffusivity in poly(1-trimethylsilyl-1-propyne). <i>Polymer</i> , 2007 , 48, 7329-7344	3.9	39
160	Effect of Fumed Silica Nanoparticles on the Gas Permeation Properties of Substituted Polyacetylene Membranes. <i>Polymer Bulletin</i> , 2007 , 58, 995-1003	2.4	16
159	Dynamic relaxation characteristics of crosslinked poly(ethylene oxide) copolymer networks: Influence of short chain pendant groups. <i>Polymer</i> , 2007 , 48, 7316-7328	3.9	15
158	Desilylation of Substituted Polyacetylenes by Nanoparticles. <i>Macromolecules</i> , 2007 , 40, 3337-3347	5.5	20

157	Polymers with cavities tuned for fast selective transport of small molecules and ions. <i>Science</i> , 2007 , 318, 254-8	33.3	791
156	Effect of Sorbed Water and Temperature on the Optical Properties and Density of Thin Glassy Polymer Films on a Silicon Substrate. <i>Macromolecules</i> , 2007 , 40, 2806-2813	5.5	27
155	Reactive Amphiphilic Graft Copolymer Coatings Applied to Poly(vinylidene fluoride) Ultrafiltration Membranes. <i>Macromolecules</i> , 2007 , 40, 3624-3630	5.5	83
154	Relation between network structure and gas transport in crosslinked poly(propylene glycol diacrylate). <i>Journal of Membrane Science</i> , 2006 , 283, 253-265	9.6	47
153	Modeling the stretching of microporous membranes. <i>Journal of Membrane Science</i> , 2006 , 283, 430-439	9.6	14
152	Gas permeability analysis of photo-cured cyclohexyl-substituted polysiloxane films. <i>Journal of Applied Polymer Science</i> , 2006 , 102, 2343-2351	2.9	7
151	High-Performance Polymer Membranes for Natural-Gas Sweetening. <i>Advanced Materials</i> , 2006 , 18, 39-44	4.4	191
150	Transport of Gases and Vapors in Glassy and Rubbery Polymers 2006 , 1-47		91
149	Water Sorption, Proton Conduction, and Methanol Permeation Properties of Sulfonated Polyimide Membranes Cross-Linked with N,N-Bis(2-hydroxyethyl)-2-aminoethanesulfonic Acid (BES). <i>Macromolecules</i> , 2006 , 39, 755-764	5.5	144
148	Plasticization-enhanced hydrogen purification using polymeric membranes. <i>Science</i> , 2006 , 311, 639-42	33.3	546
147	Synthesis and Permeation Properties of Substituted Polyacetylenes for Gas Separation and Pervaporation 2006 , 231-250		11
146	The Solution-Diffusion Model: A Unified Approach to Membrane Permeation 2006 , 159-189		26
145	Review of Facilitated Transport Membranes 2006 , 411-435		9
144	Prediction of Gas Permeation Parameters of Polymers 2006 , 211-229		4
143	Molecular Simulation of Gas and Vapor Transport in Highly Permeable Polymers 2006 , 95-136		21
142	Molecular simulation and experimental study of substituted polyacetylenes: fractional free volume, cavity size distributions and diffusion coefficients. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 12666-72	3.4	45
141	Synthesis and Properties of Membranes of Poly(diphenylacetylenes) Having Fluorines and Hydroxyl Groups. <i>Macromolecules</i> , 2006 , 39, 569-574	5.5	36
140	Gas Permeation and Diffusion in Cross-Linked Poly(ethylene glycol diacrylate). <i>Macromolecules</i> , 2006 , 39, 3568-3580	5.5	138

139	Gas and Vapor Transport Properties of Perfluoropolymers 2006 , 251-270		46
138	Polymer Membranes for Separation of Organic Liquid Mixtures 2006 , 355-372		9
137	Solid-State Facilitated Transport Membranes for Separation of Olefins/Paraffins and Oxygen/Nitrogen 2006 , 391-410		6
136	Predicting Gas Solubility in Membranes through Non-Equilibrium Thermodynamics for Glassy Polymers 2006 , 137-158		6
135	Positron Annihilation Lifetime Spectroscopy and Other Methods for Free Volume Evaluation in Polymers 2006 , 191-210		32
134	Principles of Molecular Simulation of Gas Transport in Polymers 2006 , 49-94		23
133	Structure and Transport Properties of Polyimides as Materials for Gas and Vapor Membrane Separation 2006 , 271-291		14
132	Zeolite Membranes for Pervaporation and Vapor Permeation 2006 , 373-389		5
131	Gas Separations Perspectives. <i>Membrane</i> , 2006 , 31, 86-90		0
130	Zeolite Membranes for Gas and Liquid Separations 2006 , 307-336		7
129	The Impact of Physical Aging of Amorphous Glassy Polymers on Gas Separation Membranes 2006 , 293-306		9
128	Gas and Vapor Separation Membranes Based on Carbon Membranes 2006 , 337-354		10
127	Viscoelastic characteristics of UV polymerized poly(ethylene glycol) diacrylate networks with varying extents of crosslinking. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006 , 44, 2058-2070	2.6	43
126	Modeling gas sorption in amorphous Teflon through the non equilibrium thermodynamics for glassy polymers (NET-GP) approach. <i>Desalination</i> , 2006 , 193, 82-89	10.3	24
125	Pure and mixed gas transport properties of novel asymmetric poly(ether ether ketone) membranes with different morphologies. <i>Desalination</i> , 2006 , 199, 461-463	10.3	3
124	Transport and structural characteristics of crosslinked poly(ethylene oxide) rubbers. <i>Journal of Membrane Science</i> , 2006 , 276, 145-161	9.6	238
123	The effect of uni-axial stretching on the roughness of microfiltration membranes. <i>Journal of Membrane Science</i> , 2006 , 280, 712-719	9.6	9
122	Effect of crosslinked chain length in sulfonated polyimide membranes on water sorption, proton conduction, and methanol permeation properties. <i>Journal of Membrane Science</i> , 2006 , 285, 432-443	9.6	106

121	Molecular simulations of physical aging in polymer membrane materials. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 16685-93	3.4	46
120	The effect of uni-axial orientation on macroporous membrane structure. <i>Journal of Porous Materials</i> , 2006 , 13, 61-72	2.4	21
119	Self-Consistent Model of Concentration and Temperature Dependence of Permeability in Rubbery Polymers. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 1547-1556	3.9	44
118	Sorption and Transport Properties of Propane and Perfluoropropane in Poly(dimethylsiloxane) and Poly(1-trimethylsilyl-1-propyne). <i>Macromolecules</i> , 2005 , 38, 1899-1910	5.5	63
117	Segmental Relaxation Characteristics of Cross-Linked Poly(ethylene oxide) Copolymer Networks. <i>Macromolecules</i> , 2005 , 38, 9679-9687	5.5	61
116	Translation and Rotation of Penetrants in Ultrapermeable Nanocomposite Membrane of Poly(2,2-bis(trifluoromethyl)-4,5-difluoro-1,3-dioxole-co-tetrafluoroethylene) and Fumed Silica. <i>Macromolecules</i> , 2005 , 38, 3754-3764	5.5	21
115	Gas and Vapor Sorption, Permeation, and Diffusion in Poly(tetrafluoroethylene-co-perfluoromethyl vinyl ether). <i>Macromolecules</i> , 2005 , 38, 7043-7055	5.5	52
114	Gas and Vapor Solubility in Cross-Linked Poly(ethylene Glycol Diacrylate). <i>Macromolecules</i> , 2005 , 38, 8394-8407	3.4	146
113	Synthesis and Properties of Poly(diphenylacetylenes) Having Hydroxyl Groups. <i>Macromolecules</i> , 2005 , 38, 4096-4102	5.5	58
112	Modeling Transport Properties in High Free Volume Glassy Polymers. <i>ACS Symposium Series</i> , 2005 , 187-200		3
111	The Effect of Cross-Linking on Gas Permeability in Cross-Linked Poly(Ethylene Glycol Diacrylate). <i>Macromolecules</i> , 2005 , 38, 8381-8393	5.5	240
110	Materials selection guidelines for membranes that remove CO ₂ from gas mixtures. <i>Journal of Molecular Structure</i> , 2005 , 739, 57-74	3.4	618
109	Pure gas and vapor permeation properties of poly[1-phenyl-2-[p-(trimethylsilyl)phenyl]acetylene] (PTMSDPA) and its desilylated analog, poly[diphenylacetylene] (PDPA). <i>Polymer</i> , 2005 , 46, 6316-6324	3.9	25
108	Synthesis and Properties of F-Containing Poly(diphenylacetylene) Membranes. <i>Macromolecules</i> , 2005 , 38, 8327-8332	5.5	44
107	Low-velocity impact of nanocomposite and polymer plates. <i>Journal of Applied Polymer Science</i> , 2005 , 96, 2309-2315	2.9	4
106	A molecular simulation study of cavity size distributions and diffusion in para and meta isomers. <i>Polymer</i> , 2005 , 46, 9155-9161	3.9	69
105	Cavity size distributions in high free volume glassy polymers by molecular simulation. <i>Polymer</i> , 2004 , 45, 3907-3912	3.9	59
104	Sorption and transport of linear and branched ketones in biaxially oriented polyethylene terephthalate. <i>Polymer</i> , 2004 , 45, 5619-5628	3.9	12

103	Effects of physical aging on solubility, diffusivity, and permeability of propane and n-butane in poly(4-methyl-2-pentyne). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004 , 42, 2407-2418	2.6	28
102	Gas solubility, diffusivity and permeability in poly(ethylene oxide). <i>Journal of Membrane Science</i> , 2004 , 239, 105-117	9.6	581
101	Influence of methanol conditioning and physical aging on carbon spin-lattice relaxation times of poly(1-trimethylsilyl-1-propyne). <i>Journal of Membrane Science</i> , 2004 , 243, 37-44	9.6	83
100	Gas and Vapor Sorption and Permeation in Poly(2,2,4-trifluoro-5-trifluoromethoxy-1,3-dioxole-co-tetrafluoroethylene). <i>Macromolecules</i> , 2004 , 37, 7688-7697	5.5	95
99	Sorption and Transport of Linear Esters and Branched Alkanes in Biaxially Oriented Poly(ethylene terephthalate). <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 2966-2976	3.9	8
98	Gas and Liquid Separations Using Membranes: An Overview. <i>ACS Symposium Series</i> , 2004 , 1-23	0.4	28
97	Fluoropolymer-Hydrocarbon Polymer Composite Membranes for Natural Gas Separation. <i>ACS Symposium Series</i> , 2004 , 106-128	0.4	
96	Gas separation properties of aromatic polyimides. <i>Journal of Membrane Science</i> , 2003 , 215, 61-73	9.6	91
95	Sorption, Transport, and Structural Evidence for Enhanced Free Volume in Poly(4-methyl-2-pentyne)/Fumed Silica Nanocomposite Membranes. <i>Chemistry of Materials</i> , 2003 , 15, 109-123	9.6	319
94	Sorption and Transport in Poly(2,2-bis(trifluoromethyl)-4,5-difluoro-1,3-dioxole-co-tetrafluoroethylene) Containing Nanoscale Fumed Silica. <i>Macromolecules</i> , 2003 , 36, 8406-8414	5.5	124
93	Effect of Nanoparticles on Gas Sorption and Transport in Poly(1-trimethylsilyl-1-propyne). <i>Macromolecules</i> , 2003 , 36, 6844-6855	5.5	236
92	Kinetic gravimetric sorption of low volatility gases and vapors in polymers. <i>Review of Scientific Instruments</i> , 2003 , 74, 5173-5178	1.7	8
91	Gas permeability and n-butane solubility of poly(1-trimethylgermyl-1-propyne). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2002 , 40, 2228-2236	2.6	13
90	Application of hydrocarbon-fluorocarbon interactions in membrane-based gas separations. <i>Desalination</i> , 2002 , 144, 79-83	10.3	12
89	Barrier Polymers 2002 ,		6
88	Novel Block Copolymers as Nanofiltration Materials. <i>Environmental Engineering Science</i> , 2002 , 19, 497-511		11
87	Gas Sorption and Dilation in Poly(2,2-bistrifluoromethyl-4,5-difluoro-1,3-dioxole-co-tetrafluoroethylene): Comparison of Experimental Data with Predictions of the Nonequilibrium Lattice Fluid Model. <i>Macromolecules</i> , 2002 , 35, 1276-1288	5.5	79
86	Microphase-Separated Block Copolymers Comprising Low Surface Energy Fluorinated Blocks and Hydrophilic Blocks: Synthesis and Characterization. <i>Macromolecules</i> , 2002 , 35, 3697-3707	5.5	45

85	Ultrapерmeable, reverse-selective nanocomposite membranes. <i>Science</i> , 2002 , 296, 519-22	33.3	920
84	Gas and Vapor Sorption, Permeation, and Diffusion in Glassy Amorphous Teflon AF1600. <i>Macromolecules</i> , 2002 , 35, 9513-9522	5.5	149
83	Propane and propylene sorption in solid polymer electrolytes based on poly(ethylene oxide) and silver salts. <i>Journal of Membrane Science</i> , 2001 , 182, 1-12	9.6	109
82	Mixed-gas permeation of syngas components in poly(dimethylsiloxane) and poly(1-trimethylsilyl-1-propyne) at elevated temperatures. <i>Journal of Membrane Science</i> , 2001 , 191, 85-94 ⁶	9.6	174
81	Solubility and diffusivity of sodium chloride in phase-separated block copolymers of poly(2-dimethylaminoethyl methacrylate), poly(1,1,2-dihydroperfluorooctyl methacrylate) and poly(1,1,2,2-tetrahydroperfluorooctyl acrylate). <i>Polymer</i> , 2001 , 42, 09941-09948	3.9	20
80	Sorption and transport of linear alkane hydrocarbons in biaxially oriented polyethylene terephthalate. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2001 , 39, 1160-1172	2.6	21
79	Gas and vapor sorption and diffusion in poly(ethylene terephthalate). <i>Polymer</i> , 2001 , 42, 6929-6943	3.9	41
78	Poly[1-(trimethylsilyl)-1-propyne] and related polymers: synthesis, properties and functions. <i>Progress in Polymer Science</i> , 2001 , 26, 721-798	29.6	534
77	Gas Permeability and Free Volume of Highly Branched Substituted Acetylene Polymers. <i>Macromolecules</i> , 2001 , 34, 1788-1796	5.5	70
76	Gas Permeation Properties of Poly(1,1-dihydroperfluorooctyl acrylate), Poly(1,1-dihydroperfluorooctyl methacrylate), and Poly(styrene)-b-poly(1,1-dihydroperfluorooctyl acrylate) Block Copolymers. <i>Macromolecules</i> , 2001 , 34, 5611-5619	5.5	27
75	Preparation and gas permeation of immobilized fullerene membranes. <i>Journal of Applied Polymer Science</i> , 2000 , 77, 529-537	2.9	61
74	Sorption and transport of hydrocarbon and perfluorocarbon gases in poly(1-trimethylsilyl-1-propyne). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 273-296	2.6	153
73	Gas sorption, diffusion, and permeation in poly(dimethylsiloxane). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 415-434	2.6	824
72	Sorption, diffusion, and permeation of ethylbenzene in poly(1-trimethylsilyl-1-propyne). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 1078-1089	2.6	33
71	Effect of physical aging of poly(1-trimethylsilyl-1-propyne) films synthesized with TaCl ₅ and NbCl ₅ on gas permeability, fractional free volume, and positron annihilation lifetime spectroscopy parameters. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 1222-1239	2.6	65
70	Ethylbenzene solubility, diffusivity, and permeability in poly(dimethylsiloxane). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 1461-1473	2.6	34
69	Gas permeability and hydrocarbon solubility of poly[1-phenyl-2-[p-(triisopropylsilyl)phenyl]acetylene]. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 1474-1484	2.6	22
68	Gas permeation of fullerene-dispersed poly(1-trimethylsilyl-1-propyne) membranes. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 1749-1755	2.6	18

67	Gas transport properties of poly(ether-b-amide) segmented block copolymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000 , 38, 2051-2062	2.6	326
66	Gas permeability of poly(bis-trifluoroethoxyphosphazene) and blends with adamantane amino/trifluoroethoxy (50/50) polyphosphazene. <i>Journal of Membrane Science</i> , 2000 , 172, 167-176	9.6	46
65	Synthesis, characterization, and oxygen permeability of homo- and copolymers from p-[tris(trimethylsilyl)silyl]-phenylacetylene. <i>Polymer Bulletin</i> , 2000 , 45, 215-221	2.4	8
64	Pure-Gas and Vapor Permeation and Sorption Properties of Poly[1-phenyl-2-[p-(trimethylsilyl)phenyl]acetylene] (PTMSDPA). <i>Macromolecules</i> , 2000 , 33, 2516-2524	5.5	100
63	Gas sorption, diffusion, and permeation in poly(dimethylsiloxane) 2000 , 38, 415		1
62	Gas sorption, diffusion, and permeation in poly(dimethylsiloxane) 2000 , 38, 415		2
61	Ethylbenzene solubility, diffusivity, and permeability in poly(dimethylsiloxane) 2000 , 38, 1461		1
60	Free Volume and Transport Properties of Barrier and Membrane Polymers. <i>ACS Symposium Series</i> , 1999 , 306-325	0.4	21
59	Study of high permeability polymers by means of the spin probe technique. <i>Polymer</i> , 1999 , 40, 1745-1753	3.9	28
58	Acetone sorption and uptake kinetic in poly(ethylene terephthalate). <i>Polymer</i> , 1999 , 40, 3487-3499	3.9	44
57	Gas separation properties of pendent phenyl substituted aromatic polyamides containing sulfone and hexafluoroisopropylidene groups. <i>Polymer</i> , 1999 , 40, 5715-5722	3.9	39
56	Acetone solubility and diffusivity in poly(ethylene terephthalate) modified with low levels of 2,6-naphthalene dicarboxylic acid, isophthalic acid, and 2,5-bis-(4-carboxyphenyl)-1,3,4-oxadiazole. <i>Journal of Membrane Science</i> , 1999 , 163, 39-49	9.6	11
55	Basis of Permeability/Selectivity Tradeoff Relations in Polymeric Gas Separation Membranes. <i>Macromolecules</i> , 1999 , 32, 375-380	5.5	1149
54	Nonisothermal model for gas separation hollow-fiber membranes. <i>AIChE Journal</i> , 1999 , 45, 1451-1468	3.6	52
53	The influence of annealing on thermal transitions in a nematic copolyester. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1999 , 37, 505-522	2.6	15
52	Gas sorption and characterization of poly(ether-b-amide) segmented block copolymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1999 , 37, 2463-2475	2.6	245
51	Interval kinetic gravimetric sorption of acetone in random copolymers of poly(ethylene terephthalate) and poly(ethylene 2,6-naphthalate). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1999 , 37, 2973-2984	2.6	1
50	Hydrocarbon and fluorocarbon solubility and dilation in poly(dimethylsiloxane): Comparison of experimental data with predictions of the Sanchez-Lacombe equation of state. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1999 , 37, 3011-3026	2.6	80

49	Effects of Physical Aging on Gas Permeability and Molecular Motion in Poly(1-trimethylsilyl-1-propyne). <i>ACS Symposium Series</i> , 1999 , 95-101	0.4	3
48	Polymeric Materials for Gas Separations. <i>ACS Symposium Series</i> , 1999 , 1-27	0.4	57
47	Hydrocarbon and Perfluorocarbon Gas Sorption in Poly(dimethylsiloxane), Poly(1-trimethylsilyl-1-propyne), and Copolymers of Tetrafluoroethylene and 2,2-Bis(trifluoromethyl)-4,5-difluoro-1,3-dioxole. <i>Macromolecules</i> , 1999 , 32, 370-374	5.5	96
46	Formation and Modification of Polymeric Membranes: Overview. <i>ACS Symposium Series</i> , 1999 , 1-22	0.4	41
45	Fourier Transform Infrared Spectroscopic Characterization of Olefin Complexation by Silver Salts in Solution. <i>Industrial & Engineering Chemistry Research</i> , 1999 , 38, 4051-4059	3.9	23
44	Synthesis and Characterization of Poly[[1,1-biphenyl]-4,4-diyl[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]]. <i>Macromolecules</i> , 1999 , 32, 6418-6424	5.5	17
43	Sorption of Gases and Vapors in an Amorphous Glassy Perfluorodioxole Copolymer. <i>Macromolecules</i> , 1999 , 32, 6163-6171	5.5	106
42	Gas Sorption, Diffusion, and Permeation in Poly(2,2-bis(trifluoromethyl)-4,5-difluoro-1,3-dioxole-co-tetrafluoroethylene). <i>Macromolecules</i> , 1999 , 32, 8427-8440	5.5	140
41	Gas sorption and characterization of poly(ether-b-amide) segmented block copolymers 1999 , 37, 2463		9
40	Modeling multicomponent gas separation using hollow-fiber membrane contactors. <i>AIChE Journal</i> , 1998 , 44, 1289-1302	3.6	133
39	Pure and mixed gas acetone/nitrogen permeation properties of polydimethylsiloxane [PDMS]. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998 , 36, 289-301	2.6	118
38	Synthesis, physical characterization, and acetone sorption kinetics in random copolymers of poly(ethylene terephthalate) and poly(ethylene 2,6-naphthalate). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998 , 36, 2981-3000	2.6	27
37	Modeling weakly non-linear two-stage sorption kinetics in glassy polymer films. <i>Journal of Membrane Science</i> , 1998 , 143, 1-11	9.6	9
36	An automated spring balance for kinetic gravimetric sorption of gases and vapors in polymers. <i>Review of Scientific Instruments</i> , 1998 , 69, 2510-2513	1.7	18
35	Self Diffusion Coefficients and Atomic Mean-Squared Displacements in Entangled Hard Chain Fluids. <i>The IMA Volumes in Mathematics and Its Applications</i> , 1998 , 203-215	0.5	1
34	Pure and mixed gas acetone/nitrogen permeation properties of polydimethylsiloxane [PDMS] 1998 , 36, 289		1
33	Gas Permeability and Phase Morphology of Poly(1-(trimethylsilyl)-1-propyne)/Poly(1-phenyl-1-propyne) Blends. <i>Macromolecules</i> , 1997 , 30, 4766-4769	5.5	29
32	Pressure-Dependent Photon Correlation Spectroscopic Investigation of Poly(propylene oxide) near the Glass Transition. <i>Macromolecules</i> , 1997 , 30, 2052-2057	5.5	17

31	Chemical potential gradient driven permeation of small molecules through polymeric media. <i>Journal of Chemical Physics</i> , 1997 , 107, 10714-10722	3.9	7
30	Long-term permeation properties of poly(1-trimethylsilyl-1-propyne) membranes in hydrocarbon vapor environment. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1997 , 35, 1483-1490 ^{2.6}	4.1	41
29	Molecular Dynamics for Polymeric Fluids Using Discontinuous Potentials. <i>Journal of Computational Physics</i> , 1997 , 134, 16-30	4.1	116
28	Effect of Basic Substituents on Gas Sorption and Permeation in Polysulfone. <i>Macromolecules</i> , 1996 , 29, 4360-4369	5.5	141
27	Synthesis and thermal transitions of a soluble, main chain, nematic liquid crystalline polymer exhibiting a kinetically trapped, disordered structure. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996 , 34, 1347-1361	2.6	6
26	Pure hydrocarbon sorption properties of poly(1-trimethylsilyl-1-propyne) (PTMSP), poly(1-phenyl-1-propyne) (PPP), and PTMSP/PPP blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996 , 34, 1925-1934	2.6	30
25	Polymer characterization and gas permeability of poly(1-trimethylsilyl-1-propyne) [PTMSP], poly(1-phenyl-1-propyne) [PPP], and PTMSP/PPP blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996 , 34, 2209-2222	2.6	77
24	Hydrocarbon/hydrogen mixed gas permeation in poly(1-trimethylsilyl-1-propyne) (PTMSP), poly(1-phenyl-1-propyne) (PPP), and PTMSP/PPP blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996 , 34, 2613-2621	2.6	80
23	Corrections for analytical gas-permeation models for separation of binary gas mixtures using membrane modules. <i>Journal of Membrane Science</i> , 1996 , 118, 289-294	9.6	12
22	Estimation of mutual diffusion coefficients in polymer/penetrant systems using nonequilibrium molecular dynamics simulations. <i>Journal of Chemical Physics</i> , 1996 , 105, 1621-1632	3.9	33
21	Molecular dynamics study of entangled hard-chain fluids. <i>Journal of Chemical Physics</i> , 1996 , 104, 5616-5637	9.3	54
20	Smith, Hall, and Freeman Reply. <i>Physical Review Letters</i> , 1996 , 76, 4449	7.4	3
19	The effect of aryl nitration on gas sorption and permeation in polysulfone. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1995 , 33, 657-666	2.6	33
18	Gas separation properties of aromatic polyamides containing hexafluoroisopropylidene groups. <i>Journal of Membrane Science</i> , 1995 , 104, 231-241	9.6	63
17	Large-scale molecular dynamics study of entangled hard-chain fluids. <i>Physical Review Letters</i> , 1995 , 75, 1316-1319	7.4	32
16	Molecular dynamics study of transport coefficients for hard-chain fluids. <i>Journal of Chemical Physics</i> , 1995 , 102, 1057-1073	3.9	42
15	Gas separation properties of aromatic polyamides with sulfone groups. <i>Polymer</i> , 1995 , 36, 793-800	3.9	49
14	Gas separation using polymer membranes: an overview. <i>Polymers for Advanced Technologies</i> , 1994 , 5, 673-697	3.2	398

13	Organic vapor sorption and transport in a thermotropic liquid crystalline polyester. <i>Journal of Membrane Science</i> , 1994 , 94, 67-83	9.6	20
12	The Sensitivity of Small Molecule Sorption to Annealing in Glassy Liquid Crystalline Polymers. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 321, 81		2
11	The influence of chain configuration and, in turn, chain packing on the sorption and transport properties of poly(tert-butyl acetylene). <i>Journal of Applied Polymer Science</i> , 1993 , 49, 2065-2074	2.9	19
10	Equation of state predictions of sorption isotherms in polymeric materials. <i>Journal of Applied Polymer Science</i> , 1993 , 50, 1781-1795	2.9	27
9	Gas permeability of radel a polysulfone. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1993 , 31, 891-893	2.6	17
8	Using the emission properties of an intramolecular excimer-forming probe molecule to determine the effect of hydrostatic pressure on local polymer dynamics. <i>Journal of Luminescence</i> , 1991 , 48-49, 259-264	3.8	4
7	The relative contribution of adsorption to the overall sorption and transport of small molecules in amber. <i>Journal of Membrane Science</i> , 1991 , 60, 147-155	9.6	3
6	The effect of hydrostatic pressure on local polymer dynamics in polyisoprene. <i>Polymer</i> , 1990 , 31, 1045-1050	9.5	3
5	Effect of hydrostatic pressure on polystyrene diffusivity in toluene. <i>Macromolecules</i> , 1990 , 23, 245-251	5.5	12
4	Effect of hydrostatic pressure on local polymer dynamics in poly(propylene oxide). <i>Macromolecules</i> , 1990 , 23, 2566-2573	5.5	18
3	Mutual Diffusion in Polymeric Systems 1989 , 167-198		
2	Structure/Property Characteristics of Polar Rubbery Membranes for Carbon Dioxide Removal	929-953	5
1	Mechanically robust hydrophobized double network hydrogels and their fundamental salt transport properties. <i>Journal of Polymer Science</i> ,	2.4	1