

Benny D Freeman

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ext. citations

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L-index

#	Paper	IF	Citations
426	Reverse osmosis desalination: water sources, technology, and today's challenges. <i>Water Research</i> , 2009 , 43, 2317-48	12.5	2027
425	Maximizing the right stuff: The trade-off between membrane permeability and selectivity. <i>Science</i> , 2017 , 356,	33.3	1187
424	Basis of Permeability/Selectivity Tradeoff Relations in Polymeric Gas Separation Membranes. <i>Macromolecules</i> , 1999 , 32, 375-380	5.5	1149
423	Ultrapermearable, reverse-selective nanocomposite membranes. <i>Science</i> , 2002 , 296, 519-22	33.3	920
422	Energy-efficient polymeric gas separation membranes for a sustainable future: A review. <i>Polymer</i> , 2013 , 54, 4729-4761	3.9	895
421	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
420	Polymers with cavities tuned for fast selective transport of small molecules and ions. <i>Science</i> , 2007 , 318, 254-8	33.3	791
419	Elucidating the structure of poly(dopamine). <i>Langmuir</i> , 2012 , 28, 6428-35	4	764
418	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
417	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
416	Gas solubility, diffusivity and permeability in poly(ethylene oxide). <i>Journal of Membrane Science</i> , 2004 , 239, 105-117	9.6	581
415	Plasticization-enhanced hydrogen purification using polymeric membranes. <i>Science</i> , 2006 , 311, 639-42	33.3	546
414	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
413	Water permeability and water/salt selectivity tradeoff in polymers for desalination. <i>Journal of Membrane Science</i> , 2011 , 369, 130-138	9.6	488
412	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
411	Fundamental water and salt transport properties of polymeric materials. <i>Progress in Polymer Science</i> , 2014 , 39, 1-42	29.6	450
410	Surface Modification of Water Purification Membranes. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 4662-4711	16.4	402

409	Gas separation using polymer membranes: an overview. <i>Polymers for Advanced Technologies</i> , 1994 , 5, 673-697	3.2	398
408	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
407	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
406	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	9.6	297
405	Confined crystallization of polyethylene oxide in nanolayer assemblies. <i>Science</i> , 2009 , 323, 757-60	33.3	279
404	Perspectives on poly(dopamine). <i>Chemical Science</i> , 2013 , 4, 3796	9.4	277
403	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
402	A bioinspired fouling-resistant surface modification for water purification membranes. <i>Journal of Membrane Science</i> , 2012 , 413-414, 82-90	9.6	262
401	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
400	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
399	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
398	Transport and structural characteristics of crosslinked poly(ethylene oxide) rubbers. <i>Journal of Membrane Science</i> , 2006 , 276, 145-161	9.6	238
397	Effect of Nanoparticles on Gas Sorption and Transport in Poly(1-trimethylsilyl-1-propyne). <i>Macromolecules</i> , 2003 , 36, 6844-6855	5.5	236
396	PEG-coated reverse osmosis membranes: Desalination properties and fouling resistance. <i>Journal of Membrane Science</i> , 2009 , 340, 92-108	9.6	230
395	Ultrafast selective transport of alkali metal ions in metal organic frameworks with subnanometer pores. <i>Science Advances</i> , 2018 , 4, eaaq0066	14.3	214
394	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
393	Physical aging of ultrathin glassy polymer films tracked by gas permeability. <i>Polymer</i> , 2009 , 50, 5565-5575	9.6	197
392	High-Performance Polymer Membranes for Natural-Gas Sweetening. <i>Advanced Materials</i> , 2006 , 18, 39-44	9.4	191

391	Highly chlorine-tolerant polymers for desalination. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 6019-24	16.4	190
390	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
389	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
388	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
387	Oxygen concentration control of dopamine-induced high uniformity surface coating chemistry. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 233-8	9.5	176
386	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	9.6	174
385	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
384	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
383	Gas and Vapor Sorption, Permeation, and Diffusion in Glassy Amorphous Teflon AF1600. <i>Macromolecules</i> , 2002 , 35, 9513-9522	5.5	149
382	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
381	Gas and Vapor Solubility in Cross-Linked Poly(ethylene Glycol Diacrylate). <i>Macromolecules</i> , 2005 , 38, 8394-8407	5.5	146
380	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
379	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
378	Effect of Basic Substituents on Gas Sorption and Permeation in Polysulfone. <i>Macromolecules</i> , 1996 , 29, 4360-4369	5.5	141
377	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
376	Gas Permeation and Diffusion in Cross-Linked Poly(ethylene glycol diacrylate). <i>Macromolecules</i> , 2006 , 39, 3568-3580	5.5	138
375	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
374	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

373	Characterization of a sulfonated pentablock copolymer for desalination applications. <i>Polymer</i> , 2010 , 51, 5815-5822	3.9	135
372	Modeling multicomponent gas separation using hollow-fiber membrane contactors. <i>AIChE Journal</i> , 1998 , 44, 1289-1302	3.6	133
371	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
370	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
369	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
368	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
367	Efficient metal ion sieving in rectifying subnanochannels enabled by metal-organic frameworks. <i>Nature Materials</i> , 2020 , 19, 767-774	27	120
366	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
365	Molecular Dynamics for Polymeric Fluids Using Discontinuous Potentials. <i>Journal of Computational Physics</i> , 1997 , 134, 16-30	4.1	116
364	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
363	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
362	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
361	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
360	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
359	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
358	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
357	Sorption of Gases and Vapors in an Amorphous Glassy Perfluorodioxole Copolymer. <i>Macromolecules</i> , 1999 , 32, 6163-6171	5.5	106
356	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

355	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
354	Polymeric Membranes for Chiral Separation of Pharmaceuticals and Chemicals. <i>Polymer Reviews</i> , 2010 , 50, 113-143	14	101
353	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
352	Ion Activity Coefficients in Ion Exchange Polymers: Applicability of Manning's Counterion Condensation Theory. <i>Macromolecules</i> , 2015 , 48, 8011-8024	5.5	100
351	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
350	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
349	Sodium chloride sorption in sulfonated polymers for membrane applications. <i>Journal of Membrane Science</i> , 2012 , 423-424, 195-208	9.6	100
348	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
347	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
346	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
345	PEG-based hydrogel membrane coatings. <i>Polymer</i> , 2009 , 50, 756-766	3.9	95
344	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
343	High-performance CO ₂ -philic graphene oxide membranes under wet-conditions. <i>Chemical Communications</i> , 2014 , 50, 13563-6	5.8	93
342	Cavity size, sorption and transport characteristics of thermally rearranged (TR) polymers. <i>Polymer</i> , 2011 , 52, 2244-2254	3.9	91
341	Transport of Gases and Vapors in Glassy and Rubbery Polymers 2006 , 1-47		91
340	Gas separation properties of aromatic polyimides. <i>Journal of Membrane Science</i> , 2003 , 215, 61-73	9.6	91
339	Highly CO ₂ -Selective Gas Separation Membranes Based on Segmented Copolymers of Poly(Ethylene oxide) Reinforced with Pentiphtcene-Containing Polyimide Hard Segments. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2306-17	9.5	90
338	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

337	Fast and selective fluoride ion conduction in sub-1-nanometer metal-organic framework channels. <i>Nature Communications</i> , 2019 , 10, 2490	17.4	89
336	Gas transport properties of MgO filled poly(1-trimethylsilyl-1-propyne) nanocomposites. <i>Polymer</i> , 2008 , 49, 1659-1675	3.9	89
335	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
334	Gas permeation properties of poly(urethane-urea)s containing different polyethers. <i>Journal of Membrane Science</i> , 2011 , 369, 49-58	9.6	86
333	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
332	Reactive Amphiphilic Graft Copolymer Coatings Applied to Poly(vinylidene fluoride) Ultrafiltration Membranes. <i>Macromolecules</i> , 2007 , 40, 3624-3630	5.5	83
331	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
330	Underwater Superoleophobic Surfaces Prepared from Polymer Zwitterion/Dopamine Composite Coatings. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1500521	4.6	82
329	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
328	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
327	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
326	Constant flux crossflow filtration evaluation of surface-modified fouling-resistant membranes. <i>Journal of Membrane Science</i> , 2014 , 452, 171-183	9.6	79
325	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
324	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
323	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
322	Sodium chloride diffusion in sulfonated polymers for membrane applications. <i>Journal of Membrane Science</i> , 2013 , 427, 186-196	9.6	78
321	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
320	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

319	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
318	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
317	Salt concentration dependence of ionic conductivity in ion exchange membranes. <i>Journal of Membrane Science</i> , 2018 , 547, 123-133	9.6	73
316	Ion Diffusion Coefficients in Ion Exchange Membranes: Significance of Counterion Condensation. <i>Macromolecules</i> , 2018 , 51, 5519-5529	5.5	73
315	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
314	Dynamic relaxation characteristics of Matrimid [®] polyimide. <i>Polymer</i> , 2009 , 50, 891-897	3.9	73
313	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
312	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
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	Charged Polymer Membranes for Environmental/Energy Applications. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2016 , 7, 111-33	8.9	71
309	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
308	Fouling mechanisms in constant flux crossflow ultrafiltration. <i>Journal of Membrane Science</i> , 2019 , 574, 65-75	9.6	71
307	Gas Permeability and Free Volume of Highly Branched Substituted Acetylene Polymers. <i>Macromolecules</i> , 2001 , 34, 1788-1796	5.5	70
306	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
305	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
304	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
303	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
302	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

301	Pentiptycene-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
300	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
299	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
298	Thermal rearranged poly(benzoxazole-co-imide) membranes for CO ₂ separation. <i>Journal of Membrane Science</i> , 2014 , 450, 72-80	9.6	63
297	Porosity enhancement in nucleated isotactic polypropylene stretched films by thermal annealing. <i>Polymer</i> , 2013 , 54, 2577-2589	3.9	63
296	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
295	Gas separation properties of aromatic polyamides containing hexafluoroisopropylidene groups. <i>Journal of Membrane Science</i> , 1995 , 104, 231-241	9.6	63
294	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
293	Segmental Relaxation Characteristics of Cross-Linked Poly(ethylene oxide) Copolymer Networks. <i>Macromolecules</i> , 2005 , 38, 9679-9687	5.5	61
292	Preparation and gas permeation of immobilized fullerene membranes. <i>Journal of Applied Polymer Science</i> , 2000 , 77, 529-537	2.9	61
291	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
290	Cavity size distributions in high free volume glassy polymers by molecular simulation. <i>Polymer</i> , 2004 , 45, 3907-3912	3.9	59
289	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
288	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
287	Synthesis and Properties of Poly(diphenylacetylenes) Having Hydroxyl Groups. <i>Macromolecules</i> , 2005 , 38, 4096-4102	5.5	58
286	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
285	Polymeric Materials for Gas Separations. <i>ACS Symposium Series</i> , 1999 , 1-27	0.4	57
284	Molecular dynamics study of entangled hard-chain fluids. <i>Journal of Chemical Physics</i> , 1996 , 104, 5616-5637	3.7	54

283	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
282	Gas and Vapor Sorption, Permeation, and Diffusion in Poly(tetrafluoroethylene-co-perfluoromethyl vinyl ether). <i>Macromolecules</i> , 2005 , 38, 7043-7055	5.5	52
281	Nonisothermal model for gas separation hollow-fiber membranes. <i>AIChE Journal</i> , 1999 , 45, 1451-1468	3.6	52
280	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
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