

Alan R Greenberg

List of Publications by Year in descending order

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87
papers

4,227
citations

94381

37
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114418

63
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88
all docs

88
docs citations

88
times ranked

3407
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermomechanics of shape memory polymers: Uniaxial experiments and constitutive modeling. <i>International Journal of Plasticity</i> , 2006, 22, 279-313.	4.1	650
2	Polymeric membranes for the hydrogen economy: Contemporary approaches and prospects for the future. <i>Journal of Membrane Science</i> , 2009, 327, 18-31.	4.1	313
3	Real-time measurement of inorganic fouling of RO desalination membranes using ultrasonic time-domain reflectometry. <i>Journal of Membrane Science</i> , 1999, 159, 185-196.	4.1	151
4	Synthesis and characterization of interfacially polymerized polyamide thin films. <i>Desalination</i> , 2006, 191, 279-290.	4.0	134
5	Oxidative degradation of polyamide reverse osmosis membranes: Studies of molecular model compounds and selected membranes. <i>Journal of Applied Polymer Science</i> , 2003, 90, 1173-1184.	1.3	130
6	Investigation of membrane fouling and cleaning using ultrasonic time-domain reflectometry. <i>Desalination</i> , 2000, 130, 45-60.	4.0	124
7	Use of nanoimprinted surface patterns to mitigate colloidal deposition on ultrafiltration membranes. <i>Journal of Membrane Science</i> , 2013, 428, 598-607.	4.1	120
8	Vapor-induced phase separation's effect of the humid air exposure step on membrane morphology Part I. Insights from mathematical modeling. <i>Journal of Membrane Science</i> , 2005, 258, 140-156.	4.1	103
9	Dense polymer film and membrane formation via the dry-cast process part I. Model development. <i>Journal of Membrane Science</i> , 1994, 94, 255-280.	4.1	102
10	Dense polymer film and membrane formation via the dry-cast process part II. Model validation and morphological studies. <i>Journal of Membrane Science</i> , 1994, 94, 281-298.	4.1	92
11	Fabrication and characterization of a surface-patterned thin film composite membrane. <i>Journal of Membrane Science</i> , 2014, 452, 11-19.	4.1	90
12	Surface-patterning of polymeric membranes: fabrication and performance. <i>Current Opinion in Chemical Engineering</i> , 2018, 20, 1-12.	3.8	85
13	Studies of oxidative degradation in polyamide RO membrane barrier layers using pendant drop mechanical analysis. <i>Journal of Membrane Science</i> , 2004, 243, 345-355.	4.1	81
14	Poly(ethylene chlorotrifluoroethylene) membrane formation via thermally induced phase separation (TIPS). <i>Journal of Membrane Science</i> , 2010, 362, 211-220.	4.1	76
15	Structure-property relationships in photopolymerizable polymer networks: Effect of composition on the crosslinked structure and resulting thermomechanical properties of a (meth)acrylate-based system. <i>Journal of Applied Polymer Science</i> , 2008, 110, 1559-1572.	1.3	75
16	Membrane formation via thermally induced phase separation (TIPS): Model development and validation. <i>Journal of Membrane Science</i> , 2006, 279, 50-60.	4.1	71
17	Extra-Cellular Polysaccharides, Soluble Microbial Products, and Natural Organic Matter Impact on Nanofiltration Membranes Flux Decline. <i>Environmental Science & Technology</i> , 2007, 41, 2491-2497.	4.6	70
18	Influence of substrate processing and interfacial polymerization conditions on the surface topography and permselective properties of surface-patterned thin-film composite membranes. <i>Journal of Membrane Science</i> , 2016, 512, 50-60.	4.1	68

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19	Use of ultrasonic TDR for real-time noninvasive measurement of compressive strain during membrane compaction. <i>Desalination</i> , 1998, 116, 115-122.	4.0	66
20	Critical flux of surface-patterned ultrafiltration membranes during cross-flow filtration of colloidal particles. <i>Journal of Membrane Science</i> , 2014, 471, 65-71.	4.1	65
21	A new technique for the simultaneous, real-time measurement of membrane compaction and performance during exposure to high-pressure gas. <i>Journal of Membrane Science</i> , 2000, 171, 217-228.	4.1	64
22	Influence of sub-micron surface patterns on the deposition of model proteins during active filtration. <i>Journal of Membrane Science</i> , 2013, 444, 420-428.	4.1	61
23	Ultrasound, gravimetric, and SEM studies of inorganic fouling in spiral-wound membrane modules. <i>Desalination</i> , 2007, 208, 277-293.	4.0	60
24	The thermal properties of beeswaxes: unexpected findings. <i>Journal of Experimental Biology</i> , 2008, 211, 121-127.	0.8	60
25	Surface patterning of polymeric membranes and its effect on antifouling characteristics. <i>Separation Science and Technology</i> , 2017, 52, 240-257.	1.3	59
26	Fabrication of poly (ECTFE) membranes via thermally induced phase separation. <i>Journal of Membrane Science</i> , 2002, 210, 175-180.	4.1	53
27	Effect of crosslinking and long-term storage on the shape-memory behavior of (meth)acrylate-based shape-memory polymers. <i>Soft Matter</i> , 2012, 8, 7381.	1.2	53
28	Flow-visualization during macrovoid pore formation in dry-cast cellulose acetate membranes. <i>Journal of Membrane Science</i> , 2003, 211, 71-90.	4.1	52
29	Ultrasonic monitoring of early-stage biofilm growth on polymeric surfaces. <i>Journal of Microbiological Methods</i> , 2007, 68, 458-467.	0.7	51
30	Tensile behaviour of grass. <i>Journal of Materials Science</i> , 1989, 24, 2549-2554.	1.7	50
31	Glass transition behaviors of interfacially polymerized polyamide barrier layers on thin film composite membranes via nano-thermal analysis. <i>Polymer</i> , 2011, 52, 2643-2649.	1.8	48
32	Evaporimetry: A novel technique for determining the pore-size distribution of membranes. <i>Journal of Membrane Science</i> , 2013, 438, 153-166.	4.1	48
33	The role of fatty acids in the mechanical properties of beeswax. <i>Apidologie</i> , 2009, 40, 585-594.	0.9	41
34	Correlation between barrier layer T _g and a thin-film composite polyamide membrane's performance: Effect of chlorine treatment. <i>Journal of Membrane Science</i> , 2012, 405-406, 167-175.	4.1	39
35	Influence of nanoimprint lithography on membrane structure and performance. <i>Polymer</i> , 2015, 69, 129-137.	1.8	39
36	Interspecific variation in beeswax as a biological construction material. <i>Journal of Experimental Biology</i> , 2006, 209, 3984-3989.	0.8	38

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37	Comprehensive experimental studies of early-stage membrane scaling during nanofiltration. <i>Desalination</i> , 2011, 283, 40-51.	4.0	38
38	Characterization of nanofiltration and reverse osmosis membrane performance for aqueous salt solutions using irreversible thermodynamics. <i>Desalination</i> , 2007, 208, 1-18.	4.0	37
39	Macrovoid pore formation in dry-cast cellulose acetate membranes: buoyancy studies. <i>Journal of Membrane Science</i> , 2002, 205, 11-21.	4.1	36
40	Synthesis and characterization of dense and porous cellulose films. <i>Journal of Applied Polymer Science</i> , 2007, 105, 1228-1236.	1.3	36
41	Relationship between permeation and deformation for porous membranes. <i>Journal of Membrane Science</i> , 2017, 526, 293-300.	4.1	34
42	Influence of support-layer deformation on the intrinsic resistance of thin film composite membranes. <i>Journal of Membrane Science</i> , 2018, 567, 49-57.	4.1	29
43	Non-invasive measurement of membrane morphology via UFDR: pore-size characterization. <i>Journal of Membrane Science</i> , 2004, 239, 143-154.	4.1	28
44	Use of capacitive microsensors and ultrasonic time-domain reflectometry for in-situ quantification of concentration polarization and membrane fouling in pressure-driven membrane filtration. <i>Sensors and Actuators B: Chemical</i> , 2006, 117, 323-331.	4.0	25
45	Influence of silica reinforcement upon the glass transition behavior of acrylic polymers. <i>Journal of Applied Polymer Science</i> , 1990, 39, 995-1014.	1.3	24
46	Development of pendant drop mechanical analysis as a technique for determining the stress-relaxation and water-permeation properties of interfacially polymerized barrier layers. <i>Journal of Applied Polymer Science</i> , 2003, 90, 2618-2628.	1.3	23
47	A novel process for membrane fabrication: thermally assisted evaporative phase separation (TAEPS). <i>Journal of Membrane Science</i> , 2004, 230, 99-109.	4.1	23
48	Fractionation and flux decline studies of surface-patterned nanofiltration membranes using NaCl-glycerol-BSA solutions. <i>Journal of Membrane Science</i> , 2017, 527, 102-110.	4.1	23
49	Investigation of the viscoelastic and transport properties of interfacially polymerized barrier layers using pendant drop mechanical analysis. <i>Journal of Applied Polymer Science</i> , 2004, 94, 558-568.	1.3	22
50	Ultrasonic sensor control of flow reversal in RO desalination—Part 1: Mitigation of calcium sulfate scaling. <i>Journal of Membrane Science</i> , 2012, 419-420, 20-32.	4.1	22
51	Dry-casting: Computer simulation, sensitivity analysis, experimental and phenomenological model studies. <i>Journal of Membrane Science</i> , 2010, 354, 178-188.	4.1	21
52	Biofouling potential of industrial fermentation broth components during microfiltration. <i>Journal of Membrane Science</i> , 2010, 349, 44-55.	4.1	19
53	Monitoring Protein Fouling on Polymeric Membranes Using Ultrasonic Frequency-Domain Reflectometry. <i>Membranes</i> , 2011, 1, 195-216.	1.4	19
54	Ultrasonic sensor control of flow reversal in RO desalination. Part 2: Mitigation of calcium carbonate scaling. <i>Journal of Membrane Science</i> , 2012, 419-420, 9-19.	4.1	19

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55	Molecular layer deposition for the fabrication of desalination membranes with tunable metrics. <i>Desalination</i> , 2021, 520, 115334.	4.0	19
56	Study of membrane fouling and cleaning in spiral wound modules using ultrasonic time-domain reflectometry. <i>Membrane Science and Technology</i> , 2003, 8, 65-88.	0.5	18
57	Effects of concentration polarization, temperature and pressure on ultrasound detection of inorganic fouling and cleaning in a spiral-wound membrane module. <i>Desalination and Water Treatment</i> , 2012, 50, 411-422.	1.0	16
58	Influence of ionic environment on the stress relaxation behavior of an invertebrate connective tissue. <i>Journal of Biomechanics</i> , 1984, 17, 161-166.	0.9	15
59	In situ measurement of permeability. <i>Journal of the Acoustical Society of America</i> , 2009, 125, EL123-EL128.	0.5	15
60	Influence of filler chemistry on the glass transition behaviour of a polymer matrix composite material. <i>Journal of Materials Science Letters</i> , 1987, 6, 78-80.	0.5	13
61	A Biomechanical Perspective on Beeswax. <i>American Entomologist</i> , 2005, 51, 39-41.	0.1	13
62	Use of infrared thermography for temperature measurement during evaporative casting of thin polymeric films. <i>Journal of Membrane Science</i> , 1995, 107, 249-261.	4.1	12
63	Macrovoid growth during polymer membrane casting. <i>Desalination</i> , 2002, 145, 17-23.	4.0	12
64	Real-Time Detection of Reverse-Osmosis Membrane Scaling via Raman Spectroscopy. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 16021-16026.	1.8	12
65	Review: ultrasonic characterization of membranes. <i>Desalination and Water Treatment</i> , 2014, 52, 1217-1249.	1.0	11
66	Real-time monitoring of calcium sulfate scale removal from RO desalination membranes using Raman spectroscopy. <i>Desalination</i> , 2021, 497, 114736.	4.0	11
67	Real-time detection of early-stage calcium sulfate and calcium carbonate scaling using Raman spectroscopy. <i>Journal of Membrane Science</i> , 2020, 596, 117603.	4.1	10
68	Development of A Technique for the In-Situ Measurement of the Mechanical Properties of Ultra-Thin Interfacially Polymerized Films. <i>Materials Research Society Symposia Proceedings</i> , 1994, 356, 541.	0.1	9
69	Continuous polymer films deposited on top of porous substrates using plasma-enhanced atomic layer deposition and molecular layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	0.9	9
70	Thin film composite membranes: Does the porous support truly have negligible resistance?. <i>Journal of Membrane Science</i> , 2020, 609, 118207.	4.1	9
71	Use of an electric field to alter membrane morphology in a polysulfone-polyvinylpyrrolidone blend. <i>Journal of Membrane Science</i> , 1993, 79, 115-122.	4.1	8
72	Studies of convective transport in evaporative casting of dense polymer films. <i>Journal of Membrane Science</i> , 1995, 108, 245-255.	4.1	8

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73	Chemical Modification of Cellulose Acetate with Titanium Isopropoxide. International Journal of Polymer Analysis and Characterization, 2002, 7, 162-180.	0.9	8
74	Use of Ultrasonic Sensors for Characterization of Membrane Fouling and Cleaning. Journal of Engineered Fibers and Fabrics, 2008, 3, 155892500800300.	0.5	8
75	On the relevance of the 8â€chain model and the fullâ€network model for the deformation and failure of networks formed through photopolymerization of multifunctional monomers. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 1226-1234.	2.4	7
76	Membrane Characterization by Ultrasonic Time-Domain Reflectometry. , 0, , 879-897.		6
77	Integrated electrolytic sensors for monitoring of concentration polarization during nanofiltration. Sensors and Actuators B: Chemical, 2011, 160, 730-739.	4.0	4
78	Evaluation of the gibbs-DiMarzio theory for the case of polyisobutylene. Journal of Polymer Science, Part B: Polymer Physics, 1987, 25, 435-439.	2.4	3
79	Effect of pressure on fouling of microfiltration membranes by activated sludge. Desalination and Water Treatment, 2016, 57, 6159-6171.	1.0	3
80	Elastic modulus of polyamide thin films formed by molecular layer deposition. Polymer, 2022, 255, 125167.	1.8	3
81	Thermomechanics of the Shape Memory Effect in Polymers. Materials Research Society Symposia Proceedings, 2004, 855, 135.	0.1	2
82	Instrumentation for Studying Polymer Film Formation in Low Gravity. ACS Symposium Series, 2001, , 126-137.	0.5	1
83	Slidingâ€Cavity Fluid Contactors in Lowâ€Gravity Fluids, Materials, and Biotechnology Research. Annals of the New York Academy of Sciences, 2002, 974, 581-590.	1.8	1
84	Observation of solutocapillary flow during polymer membrane casting. , 2001, , .		1
85	Optimizing the Thermomechanics of Shape-Memory Polymers for Biomedical Applications. Materials Research Society Symposia Proceedings, 2004, 855, 99.	0.1	0
86	Effect of chemical crosslinking on the free-strain recovery characteristics of amorphous shape-memory polymers. Materials Research Society Symposia Proceedings, 2009, 1190, 13.	0.1	0
87	Real-time detection of scaling on reverse osmosis membranes with Raman spectroscopy. , 2018, , .		0