William A Phillip

List of Publications by Year
in descending order

65 papers	10,435 citations	126907 33 h-index	106344 65 g-index
68 all docs	68 docs citations	68 times ranked	9341 citing authors

#	Article	IF	Citations
1	The Future of Seawater Desalination: Energy, Technology, and the Environment. Science, 2011, 333, 712-717.	12.6	4,908
2	High Performance Thin-Film Composite Forward Osmosis Membrane. Environmental Science & Technology, 2010, 44, 3812-3818.	10.0	814
3	Reverse Draw Solute Permeation in Forward Osmosis: Modeling and Experiments. Environmental Science & Technology, 2010, 44, 5170-5176.	10.0	576
4	Relating performance of thin-film composite forward osmosis membranes to support layer formation and structure. Journal of Membrane Science, 2011, 367, 340-352.	8.2	535
5	Thin-Film Composite Pressure Retarded Osmosis Membranes for Sustainable Power Generation from Salinity Gradients. Environmental Science & Technology, 2011, 45, 4360-4369.	10.0	479
6	Self-Assembled Block Copolymer Thin Films as Water Filtration Membranes. ACS Applied Materials & Interfaces, 2010, 2, 847-853.	8.0	366
7	Forward with Osmosis: Emerging Applications for Greater Sustainability. Environmental Science & Technology, 2011, 45, 9824-9830.	10.0	230
8	Tuning Structure and Properties of Graded Triblock Terpolymer-Based Mesoporous and Hybrid Films. Nano Letters, 2011, 11, 2892-2900.	9.1	220
9	Cylinder Orientation Mechanism in Block Copolymer Thin Films Upon Solvent Evaporation. Macromolecules, 2010, 43, 7763-7770.	4.8	193
10	Gas and water liquid transport through nanoporous block copolymer membranes. Journal of Membrane Science, 2006, 286, 144-152.	8.2	119
11	Robust Nanoporous Membranes Templated by a Doubly Reactive Block Copolymer. Journal of the American Chemical Society, 2007, 129, 13786-13787.	13.7	111
12	Designing block copolymer architectures for targeted membrane performance. Polymer, 2014, 55, 347-353.	3.8	103
13	Solution Small-Angle X-ray Scattering as a Screening and Predictive Tool in the Fabrication of Asymmetric Block Copolymer Membranes. ACS Macro Letters, 2012, 1, 614-617.	4.8	100
14	Achieving high permeability and enhanced selectivity for Angstrom-scale separations using artificial water channel membranes. Nature Communications, 2018, 9, 2294.	12.8	95
15	Bidirectional Permeation of Electrolytes in Osmotically Driven Membrane Processes. Environmental Science & Technology, 2011, 45, 10642-10651.	10.0	94
16	Tunable nanoporous membranes with chemically-tailored pore walls from triblock polymer templates. Journal of Membrane Science, 2014, 470, 246-256.	8.2	88
17	Diffusion and Flow Across Nanoporous Polydicyclopentadiene-Based Membranes. ACS Applied Materials & Interfaces, 2009, 1, 472-480.	8.0	83
18	Nanoporous membranes generated from selfâ€assembled block polymer precursors: <scp>Q</scp>uo <scp>V</scp>adis?. Journal of Applied Polymer Science, 2015, 132, .	2.6	72

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19	Fit-for-purpose block polymer membranes molecularly engineered for water treatment. Npj Clean Water, 2018, 1, .	8.0	72
20	Unusually Stable Hysteresis in the pH-Response of Poly(Acrylic Acid) Brushes Confined within Nanoporous Block Polymer Thin Films. Journal of the American Chemical Society, 2016, 138, 7030-7039.	13.7	70
21	Block Polymer Membranes Functionalized with Nanoconfined Polyelectrolyte Brushes Achieve Sub-Nanometer Selectivity. ACS Macro Letters, 2017, 6, 726-732.	4.8	63
22	Understanding the structure and performance of self-assembled triblock terpolymer membranes. Journal of Membrane Science, 2013, 444, 461-468.	8.2	59
23	Rapid fabrication of precise high-throughput filters from membrane protein nanosheets. Nature Materials, 2020, 19, 347-354.	27.5	59
24	Ion Selective Permeation Through Cellulose Acetate Membranes in Forward Osmosis. Environmental Science & Technology, 2013, 47, 13745-13753.	10.0	58
25	Facile Synthesis of a Pentiptycene-Based Highly Microporous Organic Polymer for Gas Storage and Water Treatment. ACS Applied Materials & Interfaces, 2018, 10, 15174-15182.	8.0	57
26	Mixed Mosaic Membranes Prepared by Layer-by-Layer Assembly for Ionic Separations. ACS Nano, 2014, 8, 12338-12345.	14.6	56
27	High-Affinity Detection and Capture of Heavy Metal Contaminants using Block Polymer Composite Membranes. ACS Central Science, 2018, 4, 1697-1707.	11.3	56
28	Ultrafiltration of Uranyl Peroxide Nanoclusters for the Separation of Uranium from Aqueous Solution. ACS Applied Materials & Interfaces, 2014, 6, 473-479.	8.0	49
29	Nanoporous Block Polymer Thin Films Functionalized with Bio-Inspired Ligands for the Efficient Capture of Heavy Metal Ions from Water. ACS Applied Materials & Interfaces, 2017, 9, 19152-19160.	8.0	48
30	Preparation of Chemically-Tailored Copolymer Membranes with Tunable Ion Transport Properties. ACS Applied Materials & Interfaces, 2015, 7, 19746-19754.	8.0	44
31	Nanostructured Membranes from Triblock Polymer Precursors as High Capacity Copper Adsorbents. Langmuir, 2015, 31, 11113-11123.	3.5	41
32	Synthesis of degradable molecular brushes via a combination of ringâ€opening polymerization and click chemistry. Journal of Polymer Science Part A, 2015, 53, 239-248.	2.3	36
33	Seeking an ammonia selective membrane based on nanostructured sulfonated block copolymers. Journal of Membrane Science, 2009, 337, 39-46.	8.2	35
34	A Method for the Efficient Fabrication of Multifunctional Mosaic Membranes by Inkjet Printing. ACS Applied Materials & Interfaces, 2016, 8, 19772-19779.	8.0	35
35	Processing used nuclear fuel with nanoscale control of uranium and ultrafiltration. Journal of Nuclear Materials, 2016, 473, 125-130.	2.7	30
36	Maximizing selectivity: An analysis of isoporous membranes. Journal of Membrane Science, 2021, 633, 119389.	8.2	29

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37	Nanomanufacturing of high-performance hollow fiber nanofiltration membranes by coating uniform block polymer films from solution. Journal of Materials Chemistry A, 2017, 5, 3358-3370.	10.3	27
38	Thermal-energy conversion: Under pressure. Nature Energy, 2016, 1, .	39.5	25
39	Template Synthesis of Nanostructured Polymeric Membranes by Inkjet Printing. ACS Applied Materials & Interfaces, 2016, 8, 3386-3395.	8.0	25
40	Reverse Permeation of Weak Electrolyte Draw Solutes in Forward Osmosis. Industrial & Engineering Chemistry Research, 2012, 51, 13463-13472.	3.7	23
41	Data science-enabled molecular-to-systems engineering for sustainable water treatment. Current Opinion in Chemical Engineering, 2019, 26, 122-130.	7.8	22
42	100th Anniversary of Macromolecular Science Viewpoint: Integrated Membrane Systems. ACS Macro Letters, 2020, 9, 1267-1279.	4.8	19
43	A coarse-grained thermodynamic model for the predictive engineering of valence-selective membranes. Molecular Systems Design and Engineering, 2016, 1, 301-312.	3.4	16
44	Dual-Functional Nanofiltration Membranes Exhibit Multifaceted Ion Rejection and Antifouling Performance. ACS Applied Materials & Interfaces, 2020, 12, 19944-19954.	8.0	16
45	Copolymer Nanofilters with Charge-Patterned Domains for Enhanced Electrolyte Transport. Chemistry of Materials, 2017, 29, 762-772.	6.7	15
46	Functionalized Nanoporous Membranes from Reactive Triblock Polymers. Australian Journal of Chemistry, 2011, 64, 1074.	0.9	14
47	Biocatalytic membranes prepared by inkjet printing functionalized yeast cells onto microfiltration substrates. Journal of Membrane Science, 2018, 550, 91-100.	8.2	14
48	Forward Osmosis Processes in the Limit of Osmotic Equilibrium. Industrial & Engineering Chemistry Research, 2015, 54, 480-490.	3.7	13
49	Interfacial Junctions Control Electrolyte Transport through Charge-Patterned Membranes. ACS Nano, 2019, 13, 7655-7664.	14.6	13
50	Water recovery and solute rejection in forward osmosis modules: Modeling and bench-scale experiments. Journal of Membrane Science, 2016, 505, 26-35.	8.2	12
51	Polymerization Rate Considerations for High Molecular Weight Polyisopreneâ€bâ€Polystyreneâ€bâ€Poly(N,Nâ€dimethylacrylamide) Triblock Polymers Synthesized Via Sequential Reversible Additionâ€Fragmentation Chain Transfer (RAFT) Reactions. Macromolecular Chemistry and Physics, 2015, 216, 1831-1840.	2.2	10
52	Salt permeation mechanisms in charge-patterned mosaic membranes. Molecular Systems Design and Engineering, 2018, 3, 959-969.	3.4	9
53	A rheometry method to assess the evaporationâ€induced mechanical strength development of polymer solutions used for membrane applications. Journal of Applied Polymer Science, 2019, 136, 47038.	2.6	9
54	Water and salt transport properties of pentiptycene-containing sulfonated polysulfones for desalination membrane applications. Journal of Membrane Science, 2021, 640, 119806.	8.2	9

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55	Polymeric Ion Pumps: Using an Oscillating Stimulus To Drive Solute Transport in Reactive Membranes. Langmuir, 2018, 34, 4503-4514.	3.5	8
56	Resilient hollow fiber nanofiltration membranes fabricated from crosslinkable phase-separated copolymers. Molecular Systems Design and Engineering, 2020, 5, 943-953.	3.4	8
57	Tunable mesoporous films from copolymers with degradable side chains as membrane precursors. Journal of Membrane Science, 2018, 567, 104-114.	8.2	6
58	Design Considerations for Nextâ€Generation Polymer Sorbents: From Polymer Chemistry to Device Configurations. Macromolecular Chemistry and Physics, 2022, 223, .	2.2	6
59	Material Property Targets to Enable Adsorptive Water Treatment and Resource Recovery Systems. ACS ES&T Engineering, 2021, 1, 1171-1182.	7.6	5
60	DATA: Diafiltration Apparatus for high-Throughput Analysis. Journal of Membrane Science, 2022, 641, 119743.	8.2	5
61	Staged Diafiltration Cascades Provide Opportunities to Execute Highly Selective Separations. Industrial & Engineering Chemistry Research, 2021, 60, 15706-15719.	3.7	5
62	Solution selfâ€assembly behavior of A â€•B â€•C triblock polymers and the implications for nanoporous membrane fabrication. Journal of Applied Polymer Science, 2018, 135, 45531.	2.6	4
63	Controlled Postassembly Functionalization of Mesoporous Copolymer Membranes Informed by Fourier Transform Infrared Spectroscopy. ACS Applied Polymer Materials, 2019, 1, 2120-2130.	4.4	3
64	Material Property Goals to Enable Continuous Diafiltration Membrane Cascades for Lithium-ion Battery Recycling. Computer Aided Chemical Engineering, 2019, 47, 469-474.	0.5	3
65	Device for the Acquisition of Dynamic Data Enables the Rapid Characterization of Polymer Membranes. ACS Applied Polymer Materials, 0, , .	4.4	2