Wiebe M De Vos

List of Publications by Year
in descending order

115 papers	4,310 citations	101384 36 h-index	128067 60 g-index
116 all docs	116 docs citations	116 times ranked	4331 citing authors

#	Article	IF	Citations
1	Influence of Molecular Weight on the Performance of Polyelectrolyte Multilayer Nanofiltration Membranes. ACS Applied Polymer Materials, 2022, 4, 2962-2971.	2.0	9
2	Polyelectrolyte Complex Hollow Fiber Membranes Prepared via Aqueous Phase Separation. ACS Applied Polymer Materials, 2022, 4, 1010-1020.	2.0	11
3	CoFe2O4-peroxymonosulfate based catalytic UF and NF polymeric membranes for naproxen removal: The role of residence time. Journal of Membrane Science, 2022, 646, 120209.	4.1	24
4	Hot-pressing polyelectrolyte complexes into tunable dense saloplastics. Polymer, 2022, 242, 124583.	1.8	13
5	Sustainable K+/Na+ monovalent-selective membranes with hot-pressed PSS-PVA saloplastics. Journal of Membrane Science, 2022, 652, 120463.	4.1	7
6	Biocatalytic membranes through aqueous phase separation. Journal of Colloid and Interface Science, 2022, 616, 903-910.	5.0	6
7	Theory of oil fouling for microfiltration and ultrafiltration membranes in produced water treatment. Journal of Colloid and Interface Science, 2022, 621, 431-439.	5.0	16
8	A comparison of complexation induced brittleness in PEI/PSS and PEI/NaPSS single-step coatings. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129143.	2.3	5
9	Quantification of the Retention and Disassembly of Virus Particles by a PEI-Functionalized Microfiltration Membrane. ACS Applied Polymer Materials, 2022, 4, 5173-5179.	2.0	0
10	Fouling of nanofiltration membranes based on polyelectrolyte multilayers: The effect of a zwitterionic final layer. Journal of Membrane Science, 2021, 620, 118793.	4.1	28
11	Tuning the Charge of Polyelectrolyte Complex Membranes Prepared via Aqueous Phase Separation. Soft Matter, 2021, 17, 9420-9427.	1.2	8
12	Tuning the Electrochemical Properties of Novel Asymmetric Integral Sulfonated Polysulfone Cation Exchange Membranes. Molecules, 2021, 26, 265.	1.7	6
13	Single-Step Application of Polyelectrolyte Complex Films as Oxygen Barrier Coatings. ACS Applied Materials & Interfaces, 2021, 13, 21844-21853.	4.0	27
14	Polyelectrolyte Multilayers for Forward Osmosis, Combining the Right Multilayer and Draw Solution. Industrial & Engineering Chemistry Research, 2021, 60, 7331-7341.	1.8	6
15	Bridging the gap between lab-scale and commercial dimensions of hollow fiber nanofiltration membranes. Journal of Membrane Science, 2021, 624, 119100.	4.1	19
16	Sustainable Aqueous Phase Separation membranes prepared through mild pH shift induced polyelectrolyte complexation of PSS and PEI. Journal of Membrane Science, 2021, 625, 119114.	4.1	28
17	Effect of Solution Viscosity on the Precipitation of PSaMA in Aqueous Phase Separation-Based Membrane Formation. Polymers, 2021, 13, 1775.	2.0	6
18	Surface chemistry-dependent antiviral activity of silver nanoparticles. Nanotechnology, 2021, 32, 365101.	1.3	24

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19	Enhancing the Separation Performance of Aqueous Phase Separation-Based Membranes through Polyelectrolyte Multilayer Coatings and Interfacial Polymerization. ACS Applied Polymer Materials, 2021, 3, 3560-3568.	2.0	13
20	Fouling of polyelectrolyte multilayer based nanofiltration membranes during produced water treatment: The role of surfactant size and chemistry. Journal of Colloid and Interface Science, 2021, 594, 9-19.	5.0	25
21	Hot-pressed polyelectrolyte complexes as novel alkaline stable monovalent-ion selective anion exchange membranes. Journal of Colloid and Interface Science, 2021, 593, 11-20.	5.0	17
22	Polyelectrolytes as Building Blocks for Next-Generation Membranes with Advanced Functionalities. ACS Applied Polymer Materials, 2021, 3, 4347-4374.	2.0	66
23	Structural Evidence for a Reinforcing Response and Retention of Hydration During Confinement of Cartilage Lipids. Frontiers in Physics, 2021, 9, .	1.0	3
24	Solvent and pH Stability of Poly(styrene-alt-maleic acid) (PSaMA) Membranes Prepared by Aqueous Phase Separation (APS). Membranes, 2021, 11, 835.	1.4	1
25	High-pressure CO2/CH4 separation of Zr-MOFs based mixed matrix membranes. Separation and Purification Technology, 2020, 230, 115858.	3.9	94
26	Asymmetric polyelectrolyte multilayer membranes with ultrathin separation layers for highly efficient micropollutant removal. Applied Materials Today, 2020, 18, 100471.	2.3	36
27	Sulfonated polyethersulfone based cation exchange membranes for reverse electrodialysis under high salinity gradients. Journal of Membrane Science, 2020, 595, 117585.	4.1	40
28	Multiple Approaches to the Buildup of Asymmetric Polyelectrolyte Multilayer Membranes for Efficient Water Purification. ACS Applied Polymer Materials, 2020, 2, 715-724.	2.0	42
29	Stimuli-Responsive Membranes through Sustainable Aqueous Phase Separation. ACS Applied Polymer Materials, 2020, 2, 659-667.	2.0	48
30	Sustainable Membrane Production through Polyelectrolyte Complexation Induced Aqueous Phase Separation. Advanced Functional Materials, 2020, 30, 1907344.	7.8	74
31	Tuning the structure and performance of polyelectrolyte complexation based aqueous phase separation membranes. Journal of Membrane Science, 2020, 615, 118502.	4.1	22
32	Weak polyanion and strong polycation complex based membranes: Linking aqueous phase separation to traditional membrane fabrication. European Polymer Journal, 2020, 139, 110015.	2.6	22
33	Enrichment of Charged Monomers Explains Non-monotonic Polymer Volume Fraction Profiles of Multi-stimulus Responsive Copolymer Brushes. Langmuir, 2020, 36, 12460-12472.	1.6	8
34	Role of Polycation and Cross-Linking in Polyelectrolyte Multilayer Membranes. ACS Applied Polymer Materials, 2020, 2, 5278-5289.	2.0	27
35	On the long-term pH stability of polyelectrolyte multilayer nanofiltration membranes. Journal of Membrane Science, 2020, 615, 118532.	4.1	63
36	Interplay of Composition, pH, and Temperature on the Conformation of Multi-stimulus-responsive Copolymer Brushes: Comparison of Experiment and Theory. Langmuir, 2020, 36, 5765-5777.	1.6	7

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37	Ion specific effects on aqueous phase separation of responsive copolymers for sustainable membranes. Journal of Colloid and Interface Science, 2020, 576, 186-194.	5.0	14
38	Recent Developments and Practical Feasibility of Polymerâ€Based Antifouling Coatings. Advanced Functional Materials, 2020, 30, 2000936.	7.8	358
39	Defect free hollow fiber reverse osmosis membranes by combining layer-by-layer and interfacial polymerization. Journal of Membrane Science, 2020, 610, 118277.	4.1	21
40	Polyelectrolyte Complex Membranes via Salinity Change Induced Aqueous Phase Separation. ACS Applied Polymer Materials, 2020, 2, 2612-2621.	2.0	45
41	Surfactant-dependent critical interfacial tension in silicon carbide membranes for produced water treatment. Journal of Colloid and Interface Science, 2020, 571, 222-231.	5.0	11
42	Aqueous Phase Separation of Responsive Copolymers for Sustainable and Mechanically Stable Membranes. ACS Applied Polymer Materials, 2020, 2, 1702-1710.	2.0	27
43	Structure and Hydration of Asymmetric Polyelectrolyte Multilayers as Studied by Neutron Reflectometry: Connecting Multilayer Structure to Superior Membrane Performance. Macromolecules, 2020, 53, 10644-10654.	2.2	12
44	Aquaporin-Containing Proteopolymersomes in Polyelectrolyte Multilayer Membranes. Membranes, 2020, 10, 103.	1.4	5
45	Micropollutant rejection of annealed polyelectrolyte multilayer based nanofiltration membranes for treatment of conventionally-treated municipal wastewater. Separation and Purification Technology, 2019, 209, 470-481.	3.9	38
46	Surfactant specific ionic strength effects on membrane fouling during produced water treatment. Journal of Colloid and Interface Science, 2019, 556, 12-23.	5.0	34
47	Nafion-Based Low-Hydration Polyelectrolyte Multilayer Membranes for Enhanced Water Purification. ACS Applied Polymer Materials, 2019, 1, 2543-2551.	2.0	27
48	Stable Polyelectrolyte Multilayer-Based Hollow Fiber Nanofiltration Membranes for Produced Water Treatment. ACS Applied Polymer Materials, 2019, 1, 2230-2239.	2.0	51
49	Overcharging and charge inversion: Finding the correct explanation(s). Advances in Colloid and Interface Science, 2019, 274, 102040.	7.0	38
50	Combined Experimental and Theoretical Study of Weak Polyelectrolyte Brushes in Salt Mixtures. Langmuir, 2019, 35, 2709-2718.	1.6	17
51	Membrane Filtration of Anionic Surfactant Stabilized Emulsions: Effect of Ionic Strength on Fouling and Droplet Adhesion. Colloids and Interfaces, 2019, 3, 9.	0.9	5
52	Enhanced selectivity and performance of heterogeneous cation exchange membranes through addition of sulfonated and protonated Montmorillonite. Journal of Colloid and Interface Science, 2019, 533, 658-670.	5.0	31
53	Layer-by-layer coatings on ion exchange membranes: Effect of multilayer charge and hydration on monovalent ion selectivities. Journal of Membrane Science, 2019, 570-571, 513-521.	4.1	66
54	Cationically modified membranes using covalent layer-by-layer assembly for antiviral applications in drinking water. Journal of Membrane Science, 2019, 570-571, 494-503.	4.1	58

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55	Role of anion exchange membrane fouling in reverse electrodialysis using natural feed waters. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 560, 198-204.	2.3	56
56	Divalent Cation Removal by Donnan Dialysis for Improved Reverse Electrodialysis. ACS Sustainable Chemistry and Engineering, 2018, 6, 7035-7041.	3.2	39
57	Behavior of Weak Polyelectrolyte Brushes in Mixed Salt Solutions. Macromolecules, 2018, 51, 1198-1206.	2.2	25
58	Systematic variation of membrane casting parameters to control the structure of thermo-responsive isoporous membranes. Journal of Membrane Science, 2018, 548, 502-509.	4.1	19
59	Enhanced gas separation performance of 6FDA-DAM based mixed matrix membranes by incorporating MOF UiO-66 and its derivatives. Journal of Membrane Science, 2018, 558, 64-77.	4.1	126
60	Virus reduction through microfiltration membranes modified with a cationic polymer for drinking water applications. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 551, 33-41.	2.3	54
61	Micropollutants removal from secondary-treated municipal wastewater using weak polyelectrolyte multilayer based nanofiltration membranes. Journal of Membrane Science, 2018, 548, 654-666.	4.1	58
62	Wettability of Amphoteric Surfaces: The Effect of pH and Ionic Strength on Surface Ionization and Wetting. Langmuir, 2018, 34, 15174-15180.	1.6	37
63	Thermoresponsive Membranes from Electrospun Mats with Switchable Wettability for Efficient Oil/Water Separations. Macromolecules, 2018, 51, 8435-8442.	2.2	43
64	Annealing of Polyelectrolyte Multilayers for Control over Ion Permeation. Advanced Materials Interfaces, 2018, 5, 1800651.	1.9	32
65	Adhesion of emulsified oil droplets to hydrophilic and hydrophobic surfaces â€“ effect of surfactant charge, surfactant concentration and ionic strength. Soft Matter, 2018, 14, 5452-5460.	1.2	32
66	Weak polyelectrolyte multilayers as tunable separation layers for micro-pollutant removal by hollow fiber nanofiltration membranes. Journal of Membrane Science, 2017, 537, 220-228.	4.1	81
67	Free-standing thermo-responsive nanoporous membranes from high molecular weight PS-PNIPAM block copolymers synthesized via RAFT polymerization. Polymer Chemistry, 2017, 8, 2235-2243.	1.9	37
68	Preparation of multifunctional hollow fiber nanofiltration membranes by dynamic assembly of weak polyelectrolyte multilayers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 533, 286-295.	2.3	27
69	Fouling behavior of silica nanoparticle-surfactant mixtures during constant flux dead-end ultrafiltration. Journal of Colloid and Interface Science, 2017, 506, 308-318.	5.0	9
70	Produced water treatment by membranes: A review from a colloidal perspective. Journal of Colloid and Interface Science, 2017, 487, 523-534.	5.0	320
71	Theory of gel expansion to generate electrical energy. Europhysics Letters, 2017, 120, 46002.	0.7	3
72	Influence of Anion Hydrophilicity on the Conformation of a Hydrophobic Weak Polyelectrolyte Brush. Macromolecules, 2016, 49, 9605-9617.	2.2	39

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73	Switching the Interpenetration of Confined Asymmetric Polymer Brushes. Macromolecules, 2016, 49, 4349-4357.	2.2	20
74	Weak polyelectrolyte multilayers as tunable membranes for solvent resistant nanofiltration. Journal of Membrane Science, 2016, 514, 322-331.	4.1	58
75	Monitoring the Switching of Single BSA-ATTO 488 Molecules Covalently End-Attached to a pH-Responsive PAA Brush. Langmuir, 2016, 32, 8803-8811.	1.6	9
76	Fouling behavior during microfiltration of silica nanoparticles and polymeric stabilizers. Journal of Membrane Science, 2016, 505, 205-215.	4.1	11
77	Dryâ€“wet phase inversion block copolymer membranes with a minimum evaporation step from NMP/THF mixtures. Journal of Membrane Science, 2016, 504, 230-239.	4.1	10
78	Composite ultrafiltration membranes with tunable properties based on a self-assembling block copolymer/homopolymer system. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 1546-1558.	2.4	16
79	Multifunctional polyelectrolyte multilayers as nanofiltration membranes and as sacrificial layers for easy membrane cleaning. Journal of Colloid and Interface Science, 2015, 446, 386-393.	5.0	55
80	Adsorption of charged and neutral polymer chains on silica surfaces: The role of electrostatics, volume exclusion, and hydrogen bonding. Physical Review E, 2015, 91, 012601.	0.8	34
81	Responsive polymer brushes for biomedical applications. , 2015, , 119-146.		3
82	Towards controlled fouling and rejection in dead-end microfiltration of nanoparticles â€“ Role of electrostatic interactions. Journal of Membrane Science, 2015, 496, 174-184.	4.1	25
83	Long term physical and chemical stability of polyelectrolyte multilayer membranes. Journal of Membrane Science, 2015, 489, 153-159.	4.1	80
84	Interpolymer Complexation: Comparisons of Bulk and Interfacial Structures. Langmuir, 2015, 31, 4151-4159.	1.6	8
85	The adsorption of fluorinated dopants at the surface of 5CB: a neutron reflection study. Liquid Crystals, 2015, , 1-9.	0.9	0
86	Is Osmotic Pressure Relevant in the Mechanical Confinement of a Polymer Brush?. Macromolecules, 2015, 48, 2224-2234.	2.2	27
87	Responsive polymer brushes for controlled nanoparticle exposure. Nanoscale, 2015, 7, 17871-17878.	2.8	17
88	The role of ionic strength and oddâ€“even effects on the properties of polyelectrolyte multilayer nanofiltration membranes. Journal of Membrane Science, 2015, 475, 311-319.	4.1	132
89	Complexation of polymeric stabilisers in solution and at the silica nanoparticle interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 449, 57-64.	2.3	2
90	Building Polyzwitterion-Based Multilayers for Responsive Membranes. Langmuir, 2014, 30, 5152-5161.	1.6	43

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91	Aggregation Behavior of Polyisopreneâ€“Pluronic Graft Copolymers in Selective Solvents. Langmuir, 2014, 30, 5747-5754.	1.6	8
92	Hydration of Oddâ€“Even Terminated Polyelectrolyte Multilayers under Mechanical Confinement. Macromolecules, 2014, 47, 3263-3273.	2.2	20
93	Adsorption and Surfactant-Mediated Desorption of Poly(vinylpyrrolidone) on Plasma- and Piranha-Cleaned Silica Surfaces. Langmuir, 2014, 30, 8425-8431.	1.6	19
94	Charged Micropollutant Removal With Hollow Fiber Nanofiltration Membranes Based On Polycation/Polyzwitterion/Polyanion Multilayers. ACS Applied Materials & Interfaces, 2014, 6, 17009-17017.	4.0	69
95	Swelling dynamics of zwitterionic copolymers: The effects of concentration and type of anion and cation. European Polymer Journal, 2014, 55, 57-65.	2.6	17
96	Control of pore size and pore uniformity in films based on selfâ€assembling block copolymers. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1568-1579.	2.4	13
97	A solvent-shrinkage method for producing polymeric microsieves with sub-micron size pores. Journal of Membrane Science, 2013, 446, 10-18.	4.1	7
98	Nonuniform Hydration and Oddâ€“Even Effects in Polyelectrolyte Multilayers under a Confining Pressure. Macromolecules, 2013, 46, 1027-1034.	2.2	37
99	Measuring the structure of thin soft matter films under confinement: A surface-force type apparatus for neutron reflection, based on a flexible membrane approach. Review of Scientific Instruments, 2012, 83, 113903.	0.6	20
100	Manipulating Interfacial Polymer Structures through Mixed Surfactant Adsorption and Complexation. Langmuir, 2012, 28, 6282-6290.	1.6	25
101	Growth and Shrinkage of Pluronic Micelles by Uptake and Release of Flurbiprofen: Variation of pH. Langmuir, 2012, 28, 6539-6545.	1.6	34
102	Modeling the Structure and Antifouling Properties of a Polymer Brush of Grafted Comb-Polymers. Macromolecules, 2011, 44, 2334-2342.	2.2	41
103	Thin polymer films as sacrificial layers for easier cleaning. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 358, 6-12.	2.3	29
104	Field Theoretical Analysis of Driving Forces for the Uptake of Proteins by Like-Charged Polyelectrolyte Brushes: Effects of Charge Regulation and Patchiness. Langmuir, 2010, 26, 249-259.	1.6	86
105	Charge-driven and reversible assembly of ultra-dense polymer brushes: formation and antifouling properties of a zipper brush. Soft Matter, 2010, 6, 2499.	1.2	23
106	Ultradense Polymer Brushes by Adsorption. Angewandte Chemie - International Edition, 2009, 48, 5369-5371.	7.2	25
107	Modeling the structure of a polydisperse polymer brush. Polymer, 2009, 50, 305-316.	1.8	104
108	The Production of PEO Polymer Brushes via Langmuirâ^'Blodgett and Langmuirâ^'Schaeffer Methods: Incomplete Transfer and Its Consequences. Langmuir, 2009, 25, 4490-4497.	1.6	20

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109	Adsorption of Anionic Surfactants in a Nonionic Polymer Brush: Experiments, Comparison with Mean-Field Theory, and Implications for Brushâ^'Particle Interaction. Langmuir, 2009, 25, 9252-9261.	1.6	40
110	Interaction of Particles with a Polydisperse Brush: A Self-Consistent-Field Analysis. Macromolecules, 2009, 42, 5881-5891.	2.2	37
111	Internal Structure of a Thin Film of Mixed Polymeric Micelles on a Solid/Liquid Interface. Journal of Physical Chemistry B, 2008, 112, 6937-6945.	1.2	20
112	Adsorption of the Protein Bovine Serum Albumin in a Planar Poly(acrylic acid) Brush Layer As Measured by Optical Reflectometry. Langmuir, 2008, 24, 6575-6584.	1.6	154
113	Semianalytical Continuum Model for Nondilute Neutral and Charged Brushes Including Finite Stretching. Macromolecules, 2008, 41, 6254-6259.	2.2	52
114	Why Surfaces Modified by Flexible Polymers Often Have a Finite Contact Angle for Good Solvents. Langmuir, 2006, 22, 1722-1728.	1.6	60
115	3-D Water-Soluble Reversible Neodymium(III) and Lanthanum(III) Coordination Polymers. European Journal of Inorganic Chemistry, 2004, 2004, 2847-2852.	1.0	54