Tailoring Polyamide Rejection Layer with Aqueous Carb Membrane Separation: Mechanistic Insights, Chemistry and Environmental Implications

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Citation Report

#	Article	IF	Citations
2	Membrane and Electrochemical Processes for Water Desalination: A Short Perspective and the Role of Nanotechnology. Membranes, 2020, 10, 280.	1.4	9
3	Preparation and characterization of high-performance electrospun forward osmosis membrane by introducing a carbon nanotube interlayer. Journal of Membrane Science, 2020, 616, 118563.	4.1	45
4	A Critical Review on Thin-Film Nanocomposite Membranes with Interlayered Structure: Mechanisms, Recent Developments, and Environmental Applications. Environmental Science & Technology, 2020, 54, 15563-15583.	4.6	308
5	Immobilization of sulfonated polysulfone via 2D LDH nanosheets during phase-inversion: A novel strategy towards greener membrane synthesis and enhanced desalination performance. Journal of Membrane Science, 2020, 614, 118508.	4.1	23
6	Mechanistic Insights into the Role of Polydopamine Interlayer toward Improved Separation Performance of Polyamide Nanofiltration Membranes. Environmental Science & Technology, 2020, 54, 11611-11621.	4.6	137
7	Rationally designed in-situ fabrication of thin film nanocomposite membranes with enhanced desalination and anti-biofouling performance. Journal of Membrane Science, 2020, 615, 118542.	4.1	40
8	Metalâ€“Organic Framework Nanosheets for Thin-Film Composite Membranes with Enhanced Permeability and Selectivity. ACS Applied Nano Materials, 2020, 3, 9238-9248.	2.4	57
9	Molecular Dynamics Insights into the Structural and Water Transport Properties of a Forward Osmosis Polyamide Thin-Film Nanocomposite Membrane Modified with Graphene Quantum Dots. Industrial & Engineering Chemistry Research, 2020, 59, 14447-14457.	1.8	22
10	Dissecting the Role of Substrate on the Morphology and Separation Properties of Thin Film Composite Polyamide Membranes: Seeing Is Believing. Environmental Science & Technology, 2020, 54, 6978-6986.	4.6	123
11	Engineering a Nanocomposite Interlayer for a Novel Ceramic-Based Forward Osmosis Membrane with Enhanced Performance. Environmental Science & Technology, 2020, 54, 7715-7724.	4.6	63
12	Intrinsic Nanoscale Structure of Thin Film Composite Polyamide Membranes: Connectivity, Defects, and Structureâ€“Property Correlation. Environmental Science & Technology, 2020, 54, 3559-3569.	4.6	135
13	Toward enhancing the separation and antifouling performance of thin-film composite nanofiltration membranes: A novel carbonate-based preoccupation strategy. Journal of Colloid and Interface Science, 2020, 571, 155-165.	5.0	47
14	Second interfacial polymerization of thinâ€filmcomposite hollow fibers with <scp>amineâ€</scp>cyclodextrin<scp>s</scp> for pervaporation dehydration. AICHE Journal, 2021, 67, e17144.	1.8	16
15	Enhanced Water Permeability and Antifouling Property of Coffee-Ring-Textured Polyamide Membranes by In Situ Incorporation of a Zwitterionic Metalâ€“Organic Framework. Environmental Science & Technology, 2021, 55, 5324-5334.	4.6	28
16	A review on the synthesis of fully aromatic polyamide reverse osmosis membranes. Desalination, 2021, 502, 114939.	4.0	64
17	Does interfacial vaporization of organic solvent affect the structure and separation properties of polyamide RO membranes?. Journal of Membrane Science, 2021, 625, 119173.	4.1	47
18	A review of surface roughness impact on dielectric film properties. IET Nanodielectrics, 2022, 5, 1-23.	2.0	27
19	Finely tuned polyamide structure with green plasticizers to construct ultrafast water channels for effective desalination. Science of the Total Environment, 2021, 784, 147089.	3.9	6

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20	High-hydrophilic and antifouling reverse osmosis membrane prepared based an unconventional radiation method for pharmaceutical plant effluent treatment. Separation and Purification Technology, 2022, 280, 119838.	3.9	18
21	Crumple-textured polyamide membranes via MXene nanosheet-regulated interfacial polymerization for enhanced nanofiltration performance. Journal of Membrane Science, 2021, 635, 119536.	4.1	64
22	Engineering of Ag-nanoparticle-encapsulated intermediate layer by tannic acid-inspired chemistry towards thin film nanocomposite membranes of superior antibiofouling property. Journal of Membrane Science, 2022, 641, 119922.	4.1	21
23	Polyamide desalination membranes: Formation, structure, and properties. Progress in Polymer Science, 2021, 122, 101451.	11.8	123
24	Electrospun nanofiber based forward osmosis membrane using graphene oxide as substrate modifier for enhanced water flux and rejection performance. Desalination, 2021, 518, 115283.	4.0	23
25	Star polymer-mediated in-situ synthesis of silver-incorporated reverse osmosis membranes with excellent and durable biofouling resistance. Journal of Membrane Science, 2021, 639, 119778.	4.1	15
26	A critical review on porous substrates of TFC polyamide membranes: Mechanisms, membrane performances, and future perspectives. Journal of Membrane Science, 2022, 641, 119871.	4.1	167
27	Facile polyamide microstructure adjustment of the composite reverse osmosis membrane assisted by PF127/SDS mixed micelles for improving seawater desalination performance. Desalination, 2022, 521, 115395.	4.0	7
28	Accessing greater thickness and new morphology features in polyamide active layers of thin-film composite membranes by reducing restrictions in amine monomer supply. Journal of Membrane Science, 2022, 644, 120112.	4.1	27
29	Toward Enhancing Desalination and Heavy Metal Removal of TFC Nanofiltration Membranes: A Cost-Effective Interface Temperature-Regulated Interfacial Polymerization. ACS Applied Materials & Interfaces, 2021, 13, 57998-58010.	4.0	57
30	Mechanistic Insights of a Thermoresponsive Interface for Fouling Control of Thin-Film Composite Nanofiltration Membranes. Environmental Science & Technology, 2022, 56, 1927-1937.	4.6	32
31	Biocidal surfactant-assisted fabrication of thin film composite membranes with excellent and durable anti-biofouling performance. Chemical Engineering Journal, 2022, 431, 134114.	6.6	18
32	Polyamide-based membranes with structural homogeneity for ultrafast molecular sieving. Nature Communications, 2022, 13, 500.	5.8	84
33	Removal of chloride from water and wastewater: Removal mechanisms and recent trends. Science of the Total Environment, 2022, 821, 153174.	3.9	54
34	MXene-regulation polyamide membrane featuring with bubble-like nodule for efficient dye/salt separation and antifouling performance. RSC Advances, 2022, 12, 10267-10279.	1.7	21
35	Deciphering the Role of Amine Concentration on Polyamide Formation toward Enhanced RO Performance. ACS ES&T Engineering, 2022, 2, 903-912.	3.7	23
36	Development of high-performance electrospun nanofiber based forward osmosis membrane by introducing graphene oxideâ€'calcium carbonate particle composite intermediate layer. Desalination, 2022, 531, 115672.	4.0	7
37	Re-thinking polyamide thin film formation: How does interfacial destabilization dictate film morphology?. Journal of Membrane Science, 2022, 656, 120593.	4.1	24

#	Article	IF	Citations
38	Enhancing the Permselectivity of Thin-Film Composite Membranes Interlayered with MoS₂ Nanosheets via Precise Thickness Control. Environmental Science & Technology, 2022, 56, 8807-8818.	4.6	27
39	Tailoring the substrate of thin film reverse osmosis membrane through a novel Î²-FeOOH nanorods templating strategy: An insight into the effects on interfacial polymerization of polyamide. Journal of Membrane Science, 2022, 657, 120706.	4.1	8
40	Modulating interfacial polymerization with phytate as aqueous-phase additive for highly-permselective nanofiltration membranes. Journal of Membrane Science, 2022, 657, 120673.	4.1	47
41	Vacuum-assisted MPD loading toward promoted nanoscale structure and enhanced water permeance of polyamide RO membrane. Separation and Purification Technology, 2022, 297, 121547.	3.9	6
42	Cosolvent-Assisted Interfacial Polymerization toward Regulating the Morphology and Performance of Polyamide Reverse Osmosis Membranes: Increased m-Phenylenediamine Solubility or Enhanced Interfacial Vaporization?. Environmental Science & Technology, 2022, 56, 10308-10316.	4.6	20
43	Quantitatively relating the structural performance of polyamide layer with skin layer modified via in-situ precipitation. Journal of Membrane Science, 2022, , 120783.	4.1	1
44	Modeling Water Transport in Interlayered Thin-Film Nanocomposite Membranes: Gutter Effect vs Funnel Effect. ACS ES&T Engineering, 2022, 2, 2023-2033.	3.7	27
45	Hyaluronic acid-modified nanofiltration membrane for ultrahigh water permeance and efficient rejection of PFASs. Chemical Engineering Research and Design, 2022, 166, 214-221.	2.7	10
46	Effect of the interlayer construction on the performances of the TFC-FO membranes: A review from materials perspective. Desalination, 2022, 541, 116033.	4.0	11
47	Distinct impact of substrate hydrophilicity on performance and structure of TFC NF and RO polyamide membranes. Journal of Membrane Science, 2022, 662, 120966.	4.1	24
48	Controllable Preparation of Acid and Alkali Resistant and Antifouling 3d Flower-Like Uio-66-Nh2/Zif-8 Imbedding Ppta Composite Nanofiltration Membrane for Dye Wastewater Separation. SSRN Electronic Journal, 0, , .	0.4	0
49	Nanofiltration Membranes with Crumpled Polyamide Films: A Critical Review on Mechanisms, Performances, and Environmental Applications. Environmental Science & Technology, 2022, 56, 12811-12827.	4.6	92
50	pH-regulated interfacially polymerized nanofiltration membranes to achieve high separation of NOM and moderate desalination for purifying ground water. Desalination, 2022, 544, 116148.	4.0	16
51	Facile synthesis of nanofiltration membrane with asymmetric selectivity towards enhanced water recovery for groundwater remediation. Journal of Membrane Science, 2022, 663, 121038.	4.1	13
52	Demystifying viscous isoalkanes as the organic solvent in interfacial polymerization for manufacturing desalination membranes. Desalination, 2023, 545, 116166.	4.0	3
53	MPD and TMC supply as parameters to describe synthesis-morphology-performance relationships of polyamide thin film composite membranes. Journal of Membrane Science, 2023, 667, 121155.	4.1	10
54	Controllable preparation of acid and alkali resistant 3D flower-like UiO-66-NH2/ZiF-8 imbedding PPTA composite nanofiltration membrane for dye wastewater separation. Journal of Water Process Engineering, 2022, 50, 103320.	2.6	3
55	Recent advances in thin film nanocomposite membranes containing an interlayer (TFNi): fabrication, applications, characterization and perspectives. RSC Advances, 2022, 12, 34245-34267.	1.7	2

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56	Ionic liquid modified COF nanosheet interlayered polyamide membranes for elevated nanofiltration performance. Desalination, 2023, 548, 116300.	4.0	16
57	Inverse Design of Pore Wall Chemistry To Control Solute Transport and Selectivity. ACS Central Science, 2022, 8, 1609-1617.	5.3	6
58	Demystifying the Role of Surfactant in Tailoring Polyamide Morphology for Enhanced Reverse Osmosis Performance: Mechanistic Insights and Environmental Implications. Environmental Science & Technology, 2023, 57, 1819-1827.	4.6	15
59	Tailoring the crumpled structures of a polyamide membrane with a heterostructural MXene-TiO2 interlayer for high water permeability. Desalination, 2023, 549, 116352.	4.0	11
60	Does Surface Roughness Necessarily Increase the Fouling Propensity of Polyamide Reverse Osmosis Membranes by Humic Acid?. Environmental Science & Technology, 2023, 57, 2548-2556.	4.6	14
61	Tailoring properties and performance of thin-film composite membranes by salt additives for water treatment: A critical review. Water Research, 2023, 234, 119821.	5.3	7
62	Bird's nest -inspired fabrication of ZIF-8 interlayer for organic solvent nanofiltration membranes. Journal of Membrane Science, 2023, 675, 121520.	4.1	9
63	Modeling nanovoid-enhanced water permeance of thin film composite membranes. Journal of Membrane Science, 2023, 675, 121555.	4.1	7
64	Polyelectrolyte-assisted interfacial polymerization for polyamide nanofiltration membrane with enhanced separation and anti-biofouling properties in groundwater treatment. Desalination, 2023, 555, 116546.	4.0	7
65	Polyamide layer modulation for PA-TFC membranes Optimization: Developments, Mechanisms, and implications. Separation and Purification Technology, 2023, 311, 123200.	3.9	11
66	Hydrophilic-hydrophobic heterogeneous interface enables the formation of a high-performance polyamide membrane for water purification. Separation and Purification Technology, 2023, 316, 123752.	3.9	4
67	Enhanced performance of thin-film nanocomposite membranes achieved by hierarchical zeolites for nanofiltration. Journal of Membrane Science, 2023, 671, 121405.	4.1	13
68	Thin-film composite membrane for desalination containing a sulfonated UiO-66 material. Journal of Materials Science, 2023, 58, 3134-3146.	1.7	0
69	Confined mass transfer mechanism and preparation strategies of separation membranes: A review. Materials and Design, 2023, 227, 111805.	3.3	1