Tailored design of nanofiltration membranes for water synthesis–property–performance relationships

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Citation Report

#	Article	IF	Citations
1	Nanofiltration membranes with enhanced performance by constructing an interlayer integrated with dextran nanoparticles and polyethyleneimine coating. Journal of Membrane Science, 2022, 654, 120537.	4.1	24
2	Incorporating catalytic ceramic membrane into the integrated process of in situ ozonation, membrane filtration and biological degradation: Enhanced performance and underlying mechanisms. Journal of Membrane Science, 2022, 652, 120509.	4.1	16
3	In situ coupling of electrochemical oxidation and membrane filtration processes for simultaneous decontamination and membrane fouling mitigation. Separation and Purification Technology, 2022, 290, 120918.	3.9	7
4	Comparison of Polyamide, Polyesteramide and Polyester Nanofiltration Membranes: Properties and Separation Performance. SSRN Electronic Journal, 0, , .	0.4	O
5	Cu2+/alginate nanofiltration membranes fabricated at the aqueous contra-diffusion "interface―for salt/dye rejection. Desalination, 2022, 535, 115806.	4.0	9
6	Developing a molecularly imprinted channels catalyst based on template effect for targeted removal of organic micropollutants from wastewaters. Chemical Engineering Journal, 2022, 445, 136755.	6.6	11
7	The coming of age of water channels for separation membranes: from biological to biomimetic to synthetic. Chemical Society Reviews, 2022, 51, 4537-4582.	18.7	70
8	Novel thin-film nanocomposite membranes with crosslinked polyvinyl alcohol interlayer for Perfluorinated Compounds (PFCs) removal. Chemical Engineering Research and Design, 2022, 163, 498-505.	2.7	6
9	Lamellar MXene Nanofiltration Membranes for Electrostatic Modulation of Molecular Permeation: Implications for Fine Separation. ACS Applied Nano Materials, 2022, 5, 7373-7381.	2.4	9
10	Double Polyamide Layers with CaCO <sub>3</sub> Nanoparticles as Scaffolds for High Performance Nanofiltration Membranes. ACS Applied Nano Materials, 2022, 5, 8279-8287.	2.4	O
11	Two strategies of stubborn biofouling strains surviving from NaClO membrane cleaning: EPS shielding and/or quorum sensing. Science of the Total Environment, 2022, 838, 156421.	3.9	8
12	Separation mechanism, selectivity enhancement strategies and advanced materials for mono-/multivalent ion-selective nanofiltration membrane., 2022, 2, 100032.		26
13	Comparison of polyamide, polyesteramide and polyester nanofiltration membranes: properties and separation performance. Separation and Purification Technology, 2022, 297, 121579.	3.9	20
14	Zwitterionic Liquid Hydrogel Sustained-Release Strategy for High-Performance Nanofiltration Membrane. SSRN Electronic Journal, 0, , .	0.4	1
15	Exploitation of Amine Groups Cooped up in Polyamide Nanofiltration Membranes to Achieve High Rejection of Micropollutants and High Permeance of Divalent Cations. Environmental Science & Emp; Technology, 2022, 56, 10954-10962.	4.6	17
16	Recent advances in nanofiltration, reverse osmosis membranes and their applications in biomedical separation field. Chinese Journal of Chemical Engineering, 2022, 49, 76-99.	1.7	11
17	Removal of antibiotics and antibiotic resistance genes by self-assembled nanofiltration membranes with tailored selectivity. Journal of Membrane Science, 2022, 659, 120836.	4.1	14
18	Enhancing the Antifouling Ability of a Polyamide Nanofiltration Membrane by Narrowing the Pore Size Distribution via One-Step Multiple Interfacial Polymerization. ACS Applied Materials & Samp; Interfaces, 2022, 14, 36132-36142.	4.0	27

#	ARTICLE	IF	Citations
19	Positively Charged Poly(Piperazinamide) Nanofiltration Membranes for the Fast Removal of Metal Ions. Advanced Materials Interfaces, 2022, 9, .	1.9	8
20	Interafacially grown ultrathin high flux polymeric nanofilm for molecular separation: An improved trade-off between permeance and selectivity. European Polymer Journal, 2022, 179, 111508.	2.6	2
21	Finely regulated polyamide membranes with rapid water transport for low-pressure precise nanofiltration. Journal of Membrane Science, 2022, 662, 120987.	4.1	16
22	Loose nanofiltration membranes for selective rejection of natural organic matter and mineral salts in drinking water treatment. Journal of Membrane Science, 2022, 662, 120970.	4.1	24
23	Unveiling the interlayers and edges predominant controlling transport pathways in laminar graphene oxide membranes via different assembly strategies. Separation and Purification Technology, 2022, 302, 122094.	3.9	4
24	Tailored design of highly permeable polyamide-based nanofiltration membrane via a complex-dissociation regulated interfacial polymerization. Chemical Engineering Journal, 2023, 452, 139197.	6.6	12
25	Janus Membrane with Tailored Upper and Lower Surface Charges for Ion Penetration Manipulation in High-Performance Nanofiltrations. SSRN Electronic Journal, 0, , .	0.4	0
26	Robust and multifunctional natural polyphenolic composites for water remediation. Materials Horizons, 2022, 9, 2496-2517.	6.4	59
27	Roles of Anion–Cation Coupling Transport and Dehydration-Induced Ion–Membrane Interaction in Precise Separation of Ions by Nanofiltration Membranes. Environmental Science & Environmental Scienc	4.6	27
28	Modulating the Asymmetry of the Active Layer in Pursuit of Nanofiltration Selectivity via Differentiating Interfacial Reactions of Piperazine. Environmental Science & Environ	4.6	16
29	Fabrication of Loose Nanofiltration Membranes with High Rejection Selectivity between Natural Organic Matter and Salts for Drinking Water Treatment. Membranes, 2022, 12, 887.	1.4	3
30	Poly(piperazine-amide) nanofiltration membrane with innate positive charge for enhanced bivalent cation rejection and mono/bivalent cation selectivity. Journal of Membrane Science, 2022, 664, 121060.	4.1	7
31	Tuneable ion transport by electrically responsive membranes under electrical assistance. Journal of Membrane Science, 2022, 663, 121046.	4.1	5
32	Hollow Fiber Membrane for Organic Solvent Nanofiltration: A Mini Review. Membranes, 2022, 12, 995.	1.4	3
33	Synchronous Removal of Small-Sized Antibiotics by a Bifunctional Photocatalytic Nanofiltration Membrane in a Continuous Flow-Through Process under Multiple Influent Matrices. ACS ES&T Water, 2022, 2, 2567-2578.	2.3	4
34	Positively charged modification of commercial nanofiltration membrane to enhance the separation of monoâ^/divalent cation. Journal of Applied Polymer Science, 0, , .	1.3	0
35	Metal–Polyphenol Coordination at the Aqueous Contra-diffusion "Interface― A Green Way to High-Performance Iron(III)/Tannic Acid Thin-Film-Composite Nanofiltration Membranes. Langmuir, 2022, 38, 13793-13802.	1.6	6
36	A review on polyester and polyester-amide thin film composite nanofiltration membranes: Synthesis, characteristics and applications. Science of the Total Environment, 2023, 858, 159922.	3.9	32

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37	Cu-HAB/GO composite with superior active surface area/sites and conductivity properties for the electrocatalytic degradation of tetracycline hydrochloride. Journal of Physics and Chemistry of Solids, 2023, 172, 111053.	1.9	6
38	Janus membrane with tailored upper and lower surface charges for ion penetration manipulation in high-performance nanofiltration. Journal of Membrane Science, 2022, , 121191.	4.1	4
39	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
40	Boosting the Performance of Nanofiltration Membranes in Removing Organic Micropollutants: Trade-Off Effect, Strategy Evaluation, and Prospective Development. Environmental Science & Science & Technology, 2022, 56, 15220-15237.	4.6	25
41	Architecting dual coordination interactions in polyimide for constructing structurally controllable high-performance nanofiltration membranes. European Polymer Journal, 2022, 181, 111702.	2.6	4
42	Efficient capture of endocrine-disrupting compounds by a high-performance nanofiltration membrane for wastewater treatment. Water Research, 2022, 227, 119322.	5.3	16
43	Synchronous removal of antibiotics in sewage effluents by surface-anchored photocatalytic nanofiltration membrane in a continuous dynamic process. Environmental Science: Nano, 2023, 10, 567-580.	2.2	3
44	Electrospun porous engineered nanofiber materials: A versatile medium for energy and environmental applications. Chemical Engineering Journal, 2023, 456, 140989.	6.6	33
45	A comprehensive review of recent advances in nanofiltration membranes for heavy metal removal from wastewater. Chemical Engineering Research and Design, 2023, 189, 530-571.	2.7	28
46	Revealing key structural and operating features on water/salts selectivity of polyamide nanofiltration membranes by ensemble machine learning. Desalination, 2023, 548, 116293.	4.0	11
47	Dynamic evolution of membrane biofouling in feed channels affected by spacer–membrane clearance and the induced hydrodynamic conditions. Journal of Membrane Science, 2023, 668, 121209.	4.1	7
48	Nanorod-interlayered thin film composite membranes for ultrafast nanofiltration. Desalination, 2023, 548, 116255.	4.0	6
49	Simultaneous degradation and separation of antibiotics in sewage effluent by photocatalytic nanofiltration membrane in a continuous dynamic process. Water Research, 2023, 229, 119460.	5.3	14
50	A nanofiltration membrane with outstanding antifouling ability: Exploring the structure-property-performance relationship. Journal of Membrane Science, 2023, 668, 121205.	4.1	23
51	Polyaniline-based acid resistant membranes for controllable ion rejection performance. Separation and Purification Technology, 2023, 308, 122910.	3.9	3
52	Hierarchically porous carbon derived from pore remodeling of waste polymeric membranes for high-efficiency adsorption applications. Resources, Conservation and Recycling, 2023, 190, 106845.	5.3	8
53	Rigorous determination of pore size non-uniformity for nanofiltration membranes by incorporating the effects on mass transport. Desalination, 2023, 549, 116318.	4.0	3
54	Membranes prepared from graphene-based nanomaterials for water purification: a mini-review. Nanoscale, 2022, 14, 17871-17886.	2.8	9

#	Article	IF	CITATIONS
55	Molecular Design of the Polyamide Layer Structure of Nanofiltration Membranes by Sacrificing Hydrolyzable Groups toward Enhanced Separation Performance. Environmental Science & Emp; Technology, 2022, 56, 17955-17964.	4.6	11
56	Polyamide thin film nanocomposite membranes with in-situ integration of multiple functional nanoparticles for high performance reverse osmosis. Journal of Membrane Science, 2023, 669, 121311.	4.1	12
57	Recent Advances in Stimuliâ€Responsive Smart Membranes for Nanofiltration. Advanced Functional Materials, 2023, 33, .	7.8	24
58	$\langle i \rangle N \langle i \rangle$ -Oxide Zwitterion Functionalized Positively Charged Polyamide Composite Membranes for Nanofiltration. Langmuir, 2022, 38, 16094-16103.	1.6	6
59	High-permeable graphene oxide/graphitic carbon nitride composite nanofiltration membrane for selective separation of dye and desalination. Journal of Environmental Chemical Engineering, 2023, 11, 109306.	3.3	6
60	Effect of surface grafting with quaternized carbon quantum dots on nanofiltration membrane removing contaminants from micro-polluted river water. Journal of Environmental Chemical Engineering, 2023, 11, 109244.	3.3	2
61	An antifouling loose nanofiltration membrane prepared by cross-linking HPAN ultrafiltration membrane with zwitterionic polymer PEI-CA for efficient dye desalination. Desalination, 2023, 549, 116354.	4.0	8
62	Enhancing the desalination performance of polyamide nanofiltration membranes via in-situ incorporation of zwitterionic nanohydrogel. Desalination, 2023, 549, 116355.	4.0	2
63	Machine Learning Guided Polyamide Membrane with Exceptional Solute–Solute Selectivity and Permeance. Environmental Science & Environmental Science	4.6	7
64	Ultraâ€Fast Preparation of Largeâ€Area Graphdiyneâ€Based Membranes via Alkynylated Surfaceâ€Modification for Nanofiltration. Angewandte Chemie - International Edition, 2023, 62, .	7.2	5
65	Ultraâ€schnelle PrÃ <b>¤</b> aration großflÃ <b>¤</b> higer Graphdiinâ€basierter Membranen mittels Alkinâ€OberflÃ <b>¤</b> henmodifizierung. Angewandte Chemie, 2023, 135, .	1.6	1
66	Selective Removal of Sulfamethoxazole by Molecularly Imprinted Channel Catalyst Activating Persulfate Based on Interfacial Confinement. ACS ES&T Water, 2023, 3, 475-487.	2.3	2
67	A High-Permeance Organic Solvent Nanofiltration Membrane via Polymerization of Ether Oxide-Based Polymeric Chains for Sustainable Dye Separation. Sustainability, 2023, 15, 3446.	1.6	1
68	Chlorine resistant polyamide desalination membrane prepared via organic-organic interfacial polymerization. Journal of Membrane Science, 2023, 672, 121444.	4.1	12
69	Sulfonium-polyamide membranes for high flux Mg2+/Li+ separation. Journal of Membrane Science, 2023, 674, 121515.	4.1	6
70	Making waves: Why do we need ultra-permeable nanofiltration membranes for water treatment?. Water Research X, 2023, 19, 100172.	2.8	12
71	Polyamide/polyethylene thin film composite (PA/PE-TFC) NF membranes prepared from reverse-phase interface polymerization (RIP) for improved Mg(II)/Li(I) separation. Desalination, 2023, 553, 116463.	4.0	13
72	Mix-charged nanofiltration membrane: Engineering charge spatial distribution for highly selective separation. Chemical Engineering Journal, 2023, 464, 142689.	6.6	16

#	Article	IF	CITATIONS
73	Significant insights of Cu and Fe as key metals to cause RO membrane fouling under coal-mining wastewater treatment. Desalination, 2023, 555, 116517.	4.0	2
74	Unveiling the role of post-treatment in thin-film composite nanofiltration membranes: Performance and mechanism. Desalination, 2023, 556, 116579.	4.0	9
75	Fenton induced microdefects enable fast water transfer of graphene oxide membrane for efficient water purification. Journal of Membrane Science, 2023, 675, 121542.	4.1	7
76	An efficient co-solvent tailoring interfacial polymerization for nanofiltration: enhanced selectivity and mechanism. Journal of Membrane Science, 2023, 677, 121615.	4.1	7
77	Enhanced performance of thin-film nanocomposite membranes achieved by hierarchical zeolites for nanofiltration. Journal of Membrane Science, 2023, 671, 121405.	4.1	13
78	Removal of natural organic matter from surface water sources by nanofiltration and surface engineering membranes for fouling mitigation – A review. Chemosphere, 2023, 321, 138070.	4.2	14
79	Impact of Heavy Metal-Based Nanomaterials on Environment and Health. Advances in Environmental Engineering and Green Technologies Book Series, 2023, , 224-277.	0.3	1
80	Polyamide membranes with nanoscale ordered structures for fast permeation and highly selective ion-ion separation. Nature Communications, $2023,14,.$	5.8	35
81	The Veiled Impacts of H <sup>+</sup> on Interfacial Polymerization and Its Effects on Nanofiltration Performance. Environmental Science and Technology Letters, 2023, 10, 274-279.	3.9	8
82	Simultaneous regulation of pore size and surface charge of nanofiltration membrane using carbon quantum dots for improved selective separation. Separation and Purification Technology, 2023, 317, 123870.	3.9	2
83	Hydroxypropyl-Î <sup>2</sup> -cyclodextrin-based polyester TFC membrane for efficient antibiotic desalination. Separation and Purification Technology, 2023, 317, 123884.	3.9	5