Fangshu Qu

List of Publications by Year
in descending order

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Version: 2024-02-01

98 papers	5,340 citations	70961 41 h-index	88477 70 g-index
98 all docs	98 docs citations	98 times ranked	3878 citing authors

#	Article	IF	Citations
1	Characterization of dissolved extracellular organic matter (dEOM) and bound extracellular organic matter (bEOM) of Microcystis aeruginosa and their impacts on UF membrane fouling. Water Research, 2012, 46, 2881-2890.	5.3	316
2	Ultrafiltration membrane fouling by extracellular organic matters (EOM) of Microcystis aeruginosa in stationary phase: Influences of interfacial characteristics of foulants and fouling mechanisms. Water Research, 2012, 46, 1490-1500.	5.3	255
3	Ultrafiltration membrane fouling caused by extracellular organic matter (EOM) from Microcystis aeruginosa: Effects of membrane pore size and surface hydrophobicity. Journal of Membrane Science, 2014, 449, 58-66.	4.1	236
4	Applying ultraviolet/persulfate (UV/PS) pre-oxidation for controlling ultrafiltration membrane fouling by natural organic matter (NOM) in surface water. Water Research, 2018, 132, 190-199.	5.3	195
5	Effects of pre-ozonation on the ultrafiltration of different natural organic matter (NOM) fractions: Membrane fouling mitigation, prediction and mechanism. Journal of Membrane Science, 2016, 505, 15-25.	4.1	142
6	Hydraulic backwashing for low-pressure membranes in drinking water treatment: A review. Journal of Membrane Science, 2017, 540, 362-380.	4.1	138
7	Dual-Bioinspired Design for Constructing Membranes with Superhydrophobicity for Direct Contact Membrane Distillation. Environmental Science & Technology, 2018, 52, 3027-3036.	4.6	130
8	Control of natural organic matter fouling of ultrafiltration membrane by adsorption pretreatment: Comparison of mesoporous adsorbent resin and powdered activated carbon. Journal of Membrane Science, 2014, 471, 94-102.	4.1	128
9	Surface modification of UF membranes with functionalized MWCNTs to control membrane fouling by NOM fractions. Journal of Membrane Science, 2015, 492, 400-411.	4.1	121
10	Microcystis aeruginosa-laden water treatment using enhanced coagulation by persulfate/Fe(II), ozone and permanganate: Comparison of the simultaneous and successive oxidant dosing strategy. Water Research, 2017, 125, 72-80.	5.3	113
11	Fabrication of heterostructured Ag/AgCl@g-C3N4@UIO-66(NH2) nanocomposite for efficient photocatalytic inactivation of Microcystis aeruginosa under visible light. Journal of Hazardous Materials, 2021, 404, 124062.	6.5	113
12	Membrane Fouling and Rejection of Organics during Algae-Laden Water Treatment Using Ultrafiltration: A Comparison between in Situ Pretreatment with Fe(II)/Persulfate and Ozone. Environmental Science & Technology, 2018, 52, 765-774.	4.6	111
13	Relationship between soluble microbial products (SMP) and effluent organic matter (EfOM): Characterized by fluorescence excitation emission matrix coupled with parallel factor analysis. Chemosphere, 2015, 121, 101-109.	4.2	107
14	Ultrafiltration (UF) membrane fouling caused by cyanobateria: Fouling effects of cells and extracellular organics matter (EOM). Desalination, 2012, 293, 30-37.	4.0	103
15	Hydraulic irreversibility of ultrafiltration membrane fouling by humic acid: Effects of membrane properties and backwash water composition. Journal of Membrane Science, 2015, 493, 723-733.	4.1	102
16	Free-standing hierarchical Î±-MnO2@CuO membrane for catalytic filtration degradation of organic pollutants. Chemosphere, 2018, 200, 237-247.	4.2	101
17	Comparison of Hydrophilicity and Mechanical Properties of Nanocomposite Membranes with Cellulose Nanocrystals and Carbon Nanotubes. Environmental Science & Technology, 2017, 51, 253-262.	4.6	99
18	Fluorescent natural organic matter fractions responsible for ultrafiltration membrane fouling: Identification by adsorption pretreatment coupled with parallel factor analysis of excitationâ€“emission matrices. Journal of Membrane Science, 2014, 464, 33-42.	4.1	98

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19	Removal of iron, manganese and ammonia from groundwater using a PAC-MBR system: The anti-pollution ability, microbial population and membrane fouling. Desalination, 2017, 403, 97-106.	4.0	92
20	Algae-laden water treatment using ultrafiltration: Individual and combined fouling effects of cells, debris, extracellular and intracellular organic matter. Journal of Membrane Science, 2017, 528, 178-186.	4.1	91
21	Biodiesel production with the simultaneous removal of nitrogen, phosphorus and COD in microalgal-bacterial communities for the treatment of anaerobic digestion effluent in photobioreactors. Chemical Engineering Journal, 2018, 350, 1092-1102.	6.6	80
22	Combined influence by humic acid (HA) and powdered activated carbon (PAC) particles on ultrafiltration membrane fouling. Journal of Membrane Science, 2016, 500, 99-105.	4.1	79
23	Microcystis aeruginosa -laden surface water treatment using ultrafiltration: Membrane fouling, cell integrity and extracellular organic matter rejection. Water Research, 2017, 112, 83-92.	5.3	78
24	Effect of biopolymers and humic substances on gypsum scaling and membrane wetting during membrane distillation. Journal of Membrane Science, 2021, 617, 118638.	4.1	78
25	Impact of dataset diversity on accuracy and sensitivity of parallel factor analysis model of dissolved organic matter fluorescence excitation-emission matrix. Scientific Reports, 2015, 5, 10207.	1.6	72
26	Combined effects of PAC adsorption and in situ chlorination on membrane fouling in a pilot-scale coagulation and ultrafiltration process. Chemical Engineering Journal, 2016, 283, 1374-1383.	6.6	72
27	Removal of antimony (III) from polluted surface water using a hybrid coagulationâ€“flocculationâ€“ultrafiltration (CFâ€“UF) process. Chemical Engineering Journal, 2014, 254, 293-301.	6.6	70
28	Reverse osmosis brine treatment using direct contact membrane distillation: Effects of feed temperature and velocity. Desalination, 2017, 423, 149-156.	4.0	67
29	Growth inhibition of harmful cyanobacteria by nanocrystalline Cu-MOF-74: Efficiency and its mechanisms. Journal of Hazardous Materials, 2019, 367, 529-538.	6.5	66
30	Role of backwash water composition in alleviating ultrafiltration membrane fouling by sodium alginate and the effectiveness of salt backwashing. Journal of Membrane Science, 2016, 499, 429-441.	4.1	65
31	Application of membrane distillation to anaerobic digestion effluent treatment: Identifying culprits of membrane fouling and scaling. Science of the Total Environment, 2019, 688, 880-889.	3.9	63
32	Fabrication of Mn oxide incorporated ceramic membranes for membrane fouling control and enhanced catalytic ozonation of p -chloronitrobenzene. Chemical Engineering Journal, 2017, 308, 1010-1020.	6.6	62
33	Control of ultrafiltration membrane fouling caused by Microcystis cells with permanganate preoxidation: Significance of in situ formed manganese dioxide. Chemical Engineering Journal, 2015, 279, 56-65.	6.6	61
34	Performance of mesoporous adsorbent resin and powdered activated carbon in mitigating ultrafiltration membrane fouling caused by algal extracellular organic matter. Desalination, 2014, 336, 129-137.	4.0	60
35	Cation exchange resin-induced hydrolysis for improving biodegradability of waste activated sludge: Characterization of dissolved organic matters and microbial community. Bioresource Technology, 2020, 302, 122870.	4.8	60
36	Biofouling control by biostimulation of quorumâ€quenching bacteria in a membrane bioreactor for wastewater treatment. Biotechnology and Bioengineering, 2016, 113, 2624-2632.	1.7	59

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37	Control of ultrafiltration membrane fouling caused by algal extracellular organic matter (EOM) using enhanced Al coagulation with permanganate. Separation and Purification Technology, 2017, 172, 51-58.	3.9	54
38	Treatment of anaerobic digestion effluent using membrane distillation: Effects of feed acidification on pollutant removal, nutrient concentration and membrane fouling. Desalination, 2019, 449, 6-15.	4.0	54
39	Understanding ultrafiltration membrane fouling by extracellular organic matter of Microcystis aeruginosa using fluorescence excitationâ€“emission matrix coupled with parallel factor analysis. Desalination, 2014, 337, 67-75.	4.0	52
40	Characterization of fluorescence foulants on ultrafiltration membrane using front-face excitation-emission matrix (FF-EEM) spectroscopy: Fouling evolution and mechanism analysis. Water Research, 2019, 148, 546-555.	5.3	52
41	Fluorescent natural organic matter responsible for ultrafiltration membrane fouling: Fate, contributions and fouling mechanisms. Chemosphere, 2017, 182, 183-193.	4.2	49
42	Towards a better hydraulic cleaning strategy for ultrafiltration membrane fouling by humic acid: Effect of backwash water composition. Journal of Environmental Sciences, 2016, 43, 177-186.	3.2	45
43	Effect of adding wood chips on sewage sludge dewatering in a pilot-scale plate-and-frame filter press process. RSC Advances, 2014, 4, 24762-24768.	1.7	40
44	Effect of operation parameters on the flux stabilization of gravity-driven membrane (GDM) filtration system for decentralized water supply. Environmental Science and Pollution Research, 2016, 23, 16771-16780.	2.7	39
45	Front-face fluorescence excitation-emission matrix (FF-EEM) for direct analysis of flocculated suspension without sample preparation in coagulation-ultrafiltration for wastewater reclamation. Water Research, 2020, 187, 116452.	5.3	39
46	Effect of residual commercial antiscalants on gypsum scaling and membrane wetting during direct contact membrane distillation. Desalination, 2020, 486, 114493.	4.0	39
47	Separation performance of ultrafiltration during the treatment of algae-laden water in the presence of an anionic surfactant. Separation and Purification Technology, 2022, 281, 119894.	3.9	38
48	Performance of adsorption pretreatment in mitigating humic acid fouling of ultrafiltration membrane under environmentally relevant ionic conditions. Desalination, 2016, 377, 91-98.	4.0	37
49	Fast photocatalytic inactivation of Microcystis aeruginosa by metal-organic frameworks under visible light. Chemosphere, 2020, 239, 124721.	4.2	37
50	Development of correlation spectroscopy (COS) method for analyzing fluorescence excitation emission matrix (EEM): A case study of effluent organic matter (EfOM) ozonation. Chemosphere, 2019, 228, 35-43.	4.2	33
51	Evaluation of applying membrane distillation for landfill leachate treatment. Desalination, 2021, 520, 115358.	4.0	33
52	Effect of solid retention time on membrane fouling in membrane bioreactor: from the perspective of quorum sensing and quorum quenching. Applied Microbiology and Biotechnology, 2016, 100, 7887-7897.	1.7	32
53	Recyclable self-floating A-GUN-coated foam as effective visible-light-driven photocatalyst for inactivation of Microcystis aeruginosa. Journal of Hazardous Materials, 2021, 419, 126407.	6.5	32
54	Comparison of evaluation methods for Microcystis cell breakage based on dissolved organic carbon release, potassium release and flow cytometry. Chemical Engineering Journal, 2015, 281, 174-182.	6.6	30

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55	Effect of calcium addition on sludge properties and membrane fouling potential of the membrane-coupled expanded granular sludge bed process. Journal of Membrane Science, 2015, 489, 55-63.	4.1	30
56	Tertiary treatment of secondary effluent using ultrafiltration for wastewater reuse: correlating membrane fouling with rejection of effluent organic matter and hydrophobic pharmaceuticals. Environmental Science: Water Research and Technology, 2019, 5, 672-683.	1.2	30
57	Application of response surface methodology to the chemical cleaning process of ultrafiltration membrane. Chinese Journal of Chemical Engineering, 2016, 24, 651-657.	1.7	28
58	Effect of quorum quenching on biofouling and ammonia removal in membrane bioreactor under stressful conditions. Chemosphere, 2018, 199, 114-121.	4.2	28
59	Synergistic effects of wheat straw powder and persulfate/Fe(II) on enhancing sludge dewaterability. Chemosphere, 2019, 215, 333-341.	4.2	28
60	Membrane distillation treatment of landfill leachate: Characteristics and mechanism of membrane fouling. Separation and Purification Technology, 2022, 289, 120787.	3.9	28
61	Membrane fouling during ultrafiltration (UF) of surface water: Effects of sludge discharge interval (SDI). Desalination, 2013, 319, 18-24.	4.0	27
62	Effect of granular activated carbon addition on the effluent properties and fouling potentials of membrane-coupled expanded granular sludge bed process. Bioresource Technology, 2014, 171, 240-246.	4.8	27
63	Understanding ultrafiltration membrane fouling by soluble microbial product and effluent organic matter using fluorescence excitationâ€“emission matrix coupled with parallel factor analysis. International Biodeterioration and Biodegradation, 2015, 102, 56-63.	1.9	27
64	Impact of bubbly flow in feed channel of forward osmosis for wastewater treatment: Flux performance and biofouling. Chemical Engineering Journal, 2017, 316, 1047-1058.	6.6	27
65	Membrane fouling control by UV/persulfate in tertiary wastewater treatment with ultrafiltration: A comparison with UV/hydroperoxide and role of free radicals. Separation and Purification Technology, 2021, 257, 117877.	3.9	27
66	Integration of seeding- and heating-induced crystallization with membrane distillation for membrane gypsum scaling and wetting control. Desalination, 2021, 511, 115115.	4.0	27
67	Reverse osmosis brine treatment using direct contact membrane distillation (DCMD): effect of membrane characteristics on desalination performance and the wetting phenomenon. Environmental Science: Water Research and Technology, 2018, 4, 428-437.	1.2	23
68	A novel integrated vertical membrane bioreactor (IVMBR) for removal of nitrogen from synthetic wastewater/domestic sewage. Chemical Engineering Journal, 2013, 223, 908-914.	6.6	22
69	Preliminary Study on the Removal of Steroidal Estrogens Using TiO2-Doped PVDF Ultrafiltration Membranes. Water (Switzerland), 2016, 8, 134.	1.2	22
70	The influence of environmental factor on the coagulation enhanced ultrafiltration of algae-laden water: Role of two anionic surfactants to the separation performance. Chemosphere, 2022, 291, 132745.	4.2	21
71	Effects of manganese dioxides on the ultrafiltration membrane fouling by algal extracellular organic matter. Separation and Purification Technology, 2015, 153, 29-36.	3.9	20
72	Effects of agricultural waste-based conditioner on ultrasonic-aided activated sludge dewatering. RSC Advances, 2015, 5, 43065-43073.	1.7	19

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73	Microbial community composition and electricity generation in cattle manure slurry treatment using microbial fuel cells: effects of inoculum addition. Environmental Science and Pollution Research, 2017, 24, 23226-23235.	2.7	19
74	An innovative alkaline protease-based pretreatment approach for enhanced short-chain fatty acids production via a short-term anaerobic fermentation of waste activated sludge. Bioresource Technology, 2020, 312, 123397.	4.8	19
75	Characterization of membrane foulants in a pilot-scale powdered activated carbonâ€“membrane bioreactor for drinking water treatment. Process Biochemistry, 2014, 49, 1741-1746.	1.8	18
76	A moderate activated sulfite pre-oxidation on ultrafiltration treatment of algae-laden water: Fouling mitigation, organic rejection, cell integrity and cake layer property. Separation and Purification Technology, 2022, 282, 120102.	3.9	17
77	Fouling Mechanisms Analysis via Combined Fouling Models for Surface Water Ultrafiltration Process. Membranes, 2020, 10, 149.	1.4	16
78	A pilot study of hybrid biological activated carbon (BAC) filtration-ultrafiltration process for water supply in rural areas: role of BAC pretreatment in alleviating membrane fouling. Environmental Science: Water Research and Technology, 2018, 4, 315-324.	1.2	15
79	Efficient biostimulants for bacterial quorum quenching to control fouling in MBR. Chemosphere, 2022, 286, 131689.	4.2	14
80	Oxidation-enhanced ferric coagulation for alleviating ultrafiltration membrane fouling by algal organic matter: A comparison of moderate and strong oxidation. Algal Research, 2022, 63, 102652.	2.4	14
81	Powdered activated carbon â€“ membrane bioreactor operated underÂintermittent aeration and short sludge retention times forÂmicro-polluted surface water treatment. International Biodeterioration and Biodegradation, 2015, 102, 81-88.	1.9	13
82	Start up of a gravity flow CANON-like MBR treating surface water under low temperature. Chemical Engineering Journal, 2013, 217, 466-474.	6.6	12
83	Cake properties in ultrafiltration of TiO2 fine particles combined with HA: in situ measurement of cake thickness by fluid dynamic gauging and CFD calculation of imposed shear stress for cake controlling. Environmental Science and Pollution Research, 2016, 23, 8806-8818.	2.7	12
84	Use of threshold flux concept to aid selection of sustainable operating flux: A multi-scale study from laboratory to full scale. Separation and Purification Technology, 2014, 123, 69-78.	3.9	10
85	Sewage sludge ash-based thermo-responsive hydrogel as a novel draw agent towards high performance of water flux and recovery for forward-osmosis. Desalination, 2021, 512, 115147.	4.0	10
86	A pilot-scale study of a powdered activated carbon-membrane bioreactor for the treatment of water with a high concentration of ammonia. Environmental Science: Water Research and Technology, 2016, 2, 125-133.	1.2	9
87	Impacts of Natural Organic Matter Adhesion on Irreversible Membrane Fouling during Surface Water Treatment Using Ultrafiltration. Membranes, 2020, 10, 238.	1.4	9
88	Effect of sewage sludge ash contents on the performance of thermo-sensitive hydrogel as draw agent for forward osmosis application. Journal of Cleaner Production, 2021, 313, 127941.	4.6	9
89	Confining Nano-Fe₃O₄ in the Superhydrophilic Membrane Skin Layer to Minimize Internal Fouling. ACS Applied Materials & Interfaces, 2022, 14, 26044-26056.	4.0	9
90	A Pilot Study of the Sludge Recycling Enhanced Coagulationâ€“Ultrafiltration Process for Drinking Water: The Effects of Sludge Recycling Ratio and Coagulation Stirring Strategy. Water (Switzerland), 2017, 9, 183.	1.2	8

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91	Preparation and properties of polyvinyl chloride ultrafiltration membranes blended with functionalized multiâ€walled carbon nanotubes and MWCNTs/Fe₃O₄ hybrids. Journal of Applied Polymer Science, 2016, 133, .	1.3	7
92	Algae-laden water treatment with ultrafiltration: effects of moderate oxidation by Fe(<scp>ii</scp>)/permanganate on hydraulically irreversible fouling and deposition of iron and manganese oxides. Environmental Science: Water Research and Technology, 2021, 7, 122-133.	1.2	6
93	Correlating ultrafiltration membrane fouling with membrane properties, water quality, and permeate flux. Desalination and Water Treatment, 2015, 56, 1746-1757.	1.0	5
94	Chemical Cleaning and Membrane Aging in MBR for Textile Wastewater Treatment. Membranes, 2022, 12, 704.	1.4	5
95	Quick start-up of membrane bioreactor for treating micro-polluted surface water under low temperature. Journal of Water Supply: Research and Technology - AQUA, 2014, 63, 350-357.	0.6	2
96	Effects of poly aluminum chloride dosing positions on the performance of a pilot scale anoxic/oxic-membrane bioreactor (A/O-MBR). Water Science and Technology, 2015, 72, 689-695.	1.2	2
97	Effect of low temperature on the performance of a gravity flow CANON-like pilot plant MBR treating surface water. Desalination and Water Treatment, 0, , 1-11.	1.0	1
98	A new backwash strategy for reducing the cost of an immersed ultrafiltration system by restricting cake layer breakage. Water Science and Technology: Water Supply, 2020, 20, 1453-1462.	1.0	0