## **Fangang Meng**

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6212764/publications.pdf

Version: 2024-02-01

133 papers	9,825 citations	44042 48 h-index	96 g-index
r s.r			8
134 all docs	134 docs citations	134 times ranked	6611 citing authors

#	Article	IF	CITATIONS
1	Carbon sources driven supernatant micro-particles differentiate in submerged anaerobic membrane bioreactors (AnMBRs). Chemical Engineering Journal, 2022, 430, 133020.	6.6	10
2	A unified thermodynamic fouling mechanism based on forward osmosis membrane unique properties: An asymmetric structure and reverse solute diffusion. Science of the Total Environment, 2022, 808, 152219.	3.9	8
3	The counteraction of anammox community to long-term nitrite stress: Crucial roles of rare subcommunity. Science of the Total Environment, 2022, 822, 153062.	3.9	8
4	Comparing biotransformation of extracellular polymeric substances (EPS) under aerobic and anoxic conditions: Reactivities, components, and bacterial responses. Chemosphere, 2022, 296, 133996.	4.2	10
5	Interactive Effects between the Bio-Reactivity Continuum and the Ecological Role of Soluble Microbial Products during Biotransformation. ACS ES&T Water, 2022, 2, 883-894.	2.3	5
6	Synergistic fouling behaviors and thermodynamic mechanisms of proteins and polysaccharides in forward osmosis: The unique role of reverse solute diffusion. Desalination, 2022, 536, 115850.	4.0	9
7	Achieving simultaneous nitrification, denitrification, and phosphorus removal in pilot-scale flow-through biofilm reactor with low dissolved oxygen concentrations: Performance and mechanisms. Bioresource Technology, 2022, 358, 127373.	4.8	9
8	Effect of sodium and potassium on polysaccharide fouling on PVDF and graphene oxide modified PVDF membrane surfaces. Chemical Engineering Research and Design, 2022, 165, 387-395.	2.7	1
9	Roles of nitrite in mediating the composition and metacommunity of multispecies biofilms. Journal of Water Process Engineering, 2021, 40, 101764.	2.6	12
10	Hierarchical Janus membrane with superior fouling and wetting resistance for efficient water recovery from challenging wastewater via membrane distillation. Journal of Membrane Science, 2021, 618, 118676.	4.1	50
11	Greenhouse gases emissions from duckweed pond system treating polyester resin wastewater containing 1,4-dioxane and heavy metals. Ecotoxicology and Environmental Safety, 2021, 207, 111253.	2.9	22
12	Core activated sludge communities are influenced little by immigration: Case study of a membrane bioreactor plant. Journal of Environmental Sciences, 2021, 102, 244-255.	3.2	14
13	Linking dynamics in morphology, components, and microbial communities of biocakes to fouling evolution: A comparative study of anaerobic and aerobic membrane bioreactors. Chemical Engineering Journal, 2021, 413, 127483.	6.6	33
14	An antifouling catechol/chitosan-modified polyvinylidene fluoride membrane for sustainable oil-in-water emulsions separation. Frontiers of Environmental Science and Engineering, 2021, 15, 1.	3.3	48
15	Biochemical characteristics and membrane fouling behaviors of soluble microbial products during the lifecycle of Escherichia coli. Water Research, 2021, 192, 116835.	5.3	16
16	Overlooked Ecological Roles of Influent Wastewater Microflora in Improving Biological Phosphorus Removal in an Anoxic/Aerobic MBR Process. Environmental Science & Environmental Science & 2021, 55, 6270-6280.	4.6	30
17	Activated sludge diffusion for efficient simultaneous treatment of municipal wastewater and odor in a membrane bioreactor. Chemical Engineering Journal, 2021, 415, 128765.	6.6	7
18	A novel pilot-scale IFAS-MBR system with low aeration for municipal wastewater treatment: Linkages between nutrient removal and core functional microbiota. Science of the Total Environment, 2021, 776, 145858.	3.9	18

#	Article	IF	CITATIONS
19	Ecological Linkages between a Biofilm Ecosystem and Reactor Performance: The Specificity of Biofilm Development Phases. Environmental Science & Enviro	4.6	41
20	Cellulose-induced shifts in microbial communities and microbial interactions in an anoxic/aerobic membrane bioreactor. Journal of Water Process Engineering, 2021, 42, 102106.	2.6	9
21	Liquid-like surface modification for effective anti-scaling membrane distillation with uncompromised flux. Journal of Membrane Science, 2021, 637, 119673.	4.1	16
22	Efficient treatment of digested piggery wastewater via an improved anoxic/aerobic process with Myriophyllum spicatum and bionic aquatic weed. Bioresource Technology, 2021, 341, 125825.	4.8	4
23	Development of a Flow-through Biofilm Reactor for Anammox Startup and Operation: Nitrogen Removal and Metacommunity. ACS ES&T Water, 2021, 1, 573-583.	2.3	6
24	Discrepant roles of a quorum quenching bacterium (Rhodococcus sp. BH4) in growing dual-species biofilms. Science of the Total Environment, 2020, 713, 136402.	3.9	18
25	Large-sized planktonic bioaggregates possess high biofilm formation potentials: Bacterial succession and assembly in the biofilm metacommunity. Water Research, 2020, 170, 115307.	5.3	31
26	Metagenomics reveals microbial community differences lead to differential nitrate production in anammox reactors with differing nitrogen loading rates. Water Research, 2020, 169, 115279.	5.3	62
27	Response of anammox metacommunity to varying hydrodynamic wash. Journal of Water Process Engineering, 2020, 33, 101096.	2.6	11
28	The short- and long-term effects of formic acid on rapid nitritation start-up. Environment International, 2020, 135, 105350.	4.8	39
29	Development of a Quartz Sand Protocol for Exoproteome Exploration from Anammox Consortia. ACS Sustainable Chemistry and Engineering, 2020, 8, 14330-14339.	3.2	5
30	Metabolome responses of <i>Enterococcus faecium</i> to acid shock and nitrite stress. Biotechnology and Bioengineering, 2020, 117, 3559-3571.	1.7	7
31	Seasonality and Community Separation of Fungi in a Municipal Wastewater Treatment Plant. Applied and Environmental Microbiology, 2020, 86, .	1.4	11
32	Micro-particlesâ€"A Neglected but Critical Cause of Different Membrane Fouling between Aerobic and Anaerobic Membrane Bioreactors. ACS Sustainable Chemistry and Engineering, 2020, 8, 16680-16690.	3.2	35
33	Regularized S-Map Reveals Varying Bacterial Interactions. Applied and Environmental Microbiology, 2020, 86, .	1.4	8
34	Deciphering the genesis of anammox granular sludge floating from the perspective of microbial community. Journal of Water Process Engineering, 2020, 36, 101265.	2.6	18
35	Application of activated sludge for odor control in wastewater treatment plants: Approaches, advances and outlooks. Water Research, 2020, 181, 115915.	<b>5.</b> 3	50
36	Deciphering the succession dynamics of dominant and rare genera in biofilm development process. Science of the Total Environment, 2020, 739, 139961.	3.9	11

#	Article	IF	CITATIONS
37	Taxonomic and functional variations in the microbial community during the upgrade process of a full-scale landfill leachate treatment plant $\hat{a}\in \hat{c}$ from conventional to partial nitrification-denitrification. Frontiers of Environmental Science and Engineering, 2020, 14, 1.	3.3	18
38	Roles of Organic Matter-Induced Heterotrophic Bacteria in Nitritation Reactors: Ammonium Removal and Bacterial Interactions. ACS Sustainable Chemistry and Engineering, 2020, 8, 3976-3985.	3.2	17
39	Ecological insights into the underlying evolutionary patterns of biofilm formation from biological wastewater treatment systems: Red or Black Queen Hypothesis?. Biotechnology and Bioengineering, 2020, 117, 1270-1280.	1.7	4
40	Aggregate size-dependence of bacterial community separation in a full-scale membrane bioreactor plant. FEMS Microbiology Ecology, 2020, 96, .	1.3	2
41	Reactive Nitrogen Species Are Also Involved in the Transformation of Micropollutants by the UV/Monochloramine Process. Environmental Science & Environmental Science & 2019, 53, 11142-11152.	4.6	127
42	Molecular traits of phenolic moieties in dissolved organic matter: Linkages with membrane fouling development. Environment International, 2019, 133, 105202.	4.8	14
43	Impacts of diel temperature variations on nitrogen removal and metacommunity of anammox biofilm reactors. Water Research, 2019, 160, 1-9.	5.3	42
44	Size-dependent microbial diversity of sub-visible particles in a submerged anaerobic membrane bioreactor (SAnMBR): Implications for membrane fouling. Water Research, 2019, 159, 20-29.	5.3	58
45	Metagenomics Response of Anaerobic Ammonium Oxidation (anammox) Bacteria to Bio-Refractory Humic Substances in Wastewater. Water (Switzerland), 2019, 11, 365.	1.2	18
46	Floc-size effects of the pathogenic bacteria in a membrane bioreactor plant. Environment International, 2019, 127, 645-652.	4.8	10
47	Changes in nitrogen removal and microbiota of anammox biofilm reactors under tetracycline stress at environmentally and industrially relevant concentrations. Science of the Total Environment, 2019, 668, 379-388.	3.9	54
48	Bacterial assembly in the bio-cake of membrane bioreactors: Stochastic vs. deterministic processes. Water Research, 2019, 157, 535-545.	5.3	74
49	Combination of self-organizing map and parallel factor analysis to characterize the evolution of fluorescent dissolved organic matter in a full-scale landfill leachate treatment plant. Science of the Total Environment, 2019, 654, 1187-1195.	3.9	37
50	Response of Microbial Community Structures and Functions of Nitrosifying Consortia to Biorefractory Humic Substances. ACS Sustainable Chemistry and Engineering, 2019, 7, 4744-4754.	3.2	33
51	Roles of ammonia-oxidizing bacteria in improving metabolism and cometabolism of trace organic chemicals in biological wastewater treatment processes: A review. Science of the Total Environment, 2019, 659, 419-441.	3.9	93
52	Linking Exoproteome Function and Structure to Anammox Biofilm Development. Environmental Science & Env	4.6	77
53	Roles of quorum sensing in biological wastewater treatment: A critical review. Chemosphere, 2019, 221, 616-629.	4.2	128
54	Effect of driving force on the performance of anaerobic osmotic membrane bioreactors: New insight into enhancing water flux of FO membrane via controlling driving force in a two-stage pattern. Journal of Membrane Science, 2019, 569, 41-47.	4.1	31

#	Article	IF	Citations
55	Removal of sulfadiazine and tetracycline in membrane bioreactors: linking pathway to microbial community shift. Environmental Technology (United Kingdom), 2019, 40, 134-143.	1.2	23
56	Interactive effects between tetracycline and nitrosifying sludge microbiota in a nitritation membrane bioreactor. Chemical Engineering Journal, 2018, 341, 556-564.	6.6	34
57	Multi-objective optimization integrated with life cycle assessment for rainwater harvesting systems. Journal of Hydrology, 2018, 558, 659-666.	2.3	33
58	Sunlight irradiation triggers changes in the fouling potentials of natural dissolved organic matter. Science of the Total Environment, 2018, 627, 227-234.	3.9	7
59	Effect of support material pore size on the filtration behavior of dynamic membrane bioreactor. Bioresource Technology, 2018, 255, 359-363.	4.8	37
60	Deciphering the core fouling-causing microbiota in a membrane bioreactor: Low abundance but important roles. Chemosphere, 2018, 195, 108-118.	4.2	54
61	The mechanical scouring of bio-carriers improves phosphorus removal and mediates functional microbiomes in membrane bioreactors. Environmental Science: Water Research and Technology, 2018, 4, 241-252.	1.2	12
62	Increased salinity triggers significant changes in the functional proteins of ANAMMOX bacteria within a biofilm community. Chemosphere, 2018, 207, 655-664.	4.2	33
63	Functional Determinants of Extracellular Polymeric Substances in Membrane Biofouling: Experimental Evidence from Pure-Cultured Sludge Bacteria. Applied and Environmental Microbiology, 2018, 84, .	1.4	46
64	Removal of non-point source pollutants from domestic sewage and agricultural runoff by vegetated drainage ditches (VDDs): Design, mechanism, management strategies, and future directions. Science of the Total Environment, 2018, 639, 742-759.	3.9	128
65	Two-Dimensional FTIR Spectroscopic Characterization of Functional Groups of NaOCl-Exposed Alginate: Insights into Membrane Refouling after Online Chemical Cleaning. ACS Applied Bio Materials, 2018, 1, 593-603.	2.3	11
66	Day/night temperature differences (DNTD) trigger changes in nutrient removal and functional bacteria in membrane bioreactors. Science of the Total Environment, 2018, 636, 1202-1210.	3.9	11
67	Interactions between algal (AOM) and natural organic matter (NOM): Impacts on their photodegradation in surface waters. Environmental Pollution, 2018, 242, 1185-1197.	3.7	41
68	Using UV–vis spectral parameters to characterize the cleaning efficacy and mechanism of sodium hypochlorite (NaOCl) on fouled membranes. Journal of Membrane Science, 2017, 527, 18-25.	4.1	14
69	Fouling in membrane bioreactors: An updated review. Water Research, 2017, 114, 151-180.	5.3	773
70	Seeking urbanization security and sustainability: Multi-objective optimization of rainwater harvesting systems in China. Journal of Hydrology, 2017, 550, 42-53.	2.3	29
71	Selective elimination of chromophoric and fluorescent dissolved organic matter in a full-scale municipal wastewater treatment plant. Journal of Environmental Sciences, 2017, 57, 150-161.	3.2	27
72	Factors affecting the roles of reactive species in the degradation of micropollutants by the UV/chlorine process. Water Research, 2017, 126, 351-360.	5.3	263

#	Article	IF	CITATIONS
73	DOM-mediated membrane retention of fluoroquinolone as revealed by fluorescence quenching properties. Scientific Reports, 2017, 7, 5372.	1.6	5
74	Unveiling the Susceptibility of Functional Groups of Poly(ether sulfone)/Polyvinylpyrrolidone Membranes to NaOCl: A Two-Dimensional Correlation Spectroscopic Study. Environmental Science & Technology, 2017, 51, 14342-14351.	4.6	50
75	New insights into the spatial variability of biofilm communities and potentially negative bacterial groups in hydraulic concrete structures. Water Research, 2017, 123, 495-504.	5.3	33
76	Chemically induced alterations in the characteristics of fouling-causing bio-macromolecules – Implications for the chemical cleaning of fouled membranes. Water Research, 2017, 108, 115-123.	5.3	77
77	Effects of carbon-to-sulfur (C/S) ratio and nitrate (N) dosage on Denitrifying Sulfur cycle-associated Enhanced Biological Phosphorus Removal (DS-EBPR). Scientific Reports, 2016, 6, 23221.	1.6	14
78	Roles of reactive chlorine species in trimethoprim degradation in the UV/chlorine process: Kinetics and transformation pathways. Water Research, 2016, 104, 272-282.	5.3	267
79	Differential ultraviolet–visible absorbance spectra for characterizing metal ions binding onto extracellular polymeric substances in different mixed microbial cultures. Chemosphere, 2016, 159, 267-274.	4.2	20
80	Characteristics and fouling propensity of polysaccharides in the presence of different monovalent ions. AICHE Journal, 2016, 62, 2501-2507.	1.8	7
81	Aluminum-induced changes in properties and fouling propensity of DOM solutions revealed by UV–vis absorbance spectral parameters. Water Research, 2016, 93, 153-162.	5.3	29
82	Monovalent ion-mediated fouling propensity of model proteins during low-pressure membrane filtration. Separation and Purification Technology, 2015, 152, 200-206.	3.9	11
83	Metaproteomic Analysis of Biocake Proteins To Understand Membrane Fouling in a Submerged Membrane Bioreactor. Environmental Science & Technology, 2015, 49, 1068-1077.	4.6	57
84	Using UV–vis absorbance spectral parameters to characterize the fouling propensity of humic substances during ultrafiltration. Water Research, 2015, 87, 311-319.	5.3	42
85	Effects of naturally occurring grit on the reactor performance and microbial community structure of membrane bioreactors. Journal of Membrane Science, 2015, 496, 284-292.	4.1	32
86	Effects of fluoroquinolone antibiotics on reactor performance and microbial community structure of a membrane bioreactor. Chemical Engineering Journal, 2015, 280, 448-458.	6.6	88
87	Spectroscopic characterization of extracellular polymeric substances from a mixed culture dominated by ammonia-oxidizing bacteria. Water Research, 2015, 68, 740-749.	5.3	357
88	Interactions between protein-like and humic-like components in dissolved organic matter revealed by fluorescence quenching. Water Research, 2015, 68, 404-413.	5.3	148
89	A critical review of extracellular polymeric substances (EPSs) in membrane bioreactors: Characteristics, roles in membrane fouling and control strategies. Journal of Membrane Science, 2014, 460, 110-125.	4.1	583
90	Improving nitrogen removal in an ANAMMOX reactor using a permeable reactive biobarrier. Water Research, 2014, 58, 82-91.	5.3	46

#	Article	IF	CITATIONS
91	Reactor performance and microbial ecology of a nitritation membrane bioreactor. Journal of Membrane Science, 2014, 462, 139-146.	4.1	51
92	Photochemical alteration of biogenic particles in wastewater effluents. Science Bulletin, 2014, 59, 3659-3668.	1.7	8
93	Simultaneous alkali supplementation and fouling mitigation in membrane bioreactors by on-line NaOH backwashing. Journal of Membrane Science, 2014, 457, 120-127.	4.1	34
94	Optimisation and performance of NaClO-assisted maintenance cleaning for fouling control in membrane bioreactors. Water Research, 2014, 53, 1-11.	5.3	65
95	Sunlight-induced changes in chromophores and fluorophores of wastewater-derived organic matter in receiving waters – The role of salinity. Water Research, 2014, 62, 281-292.	5.3	45
96	A novel nearly plugâ€flow membrane bioreactor for enhanced biological nutrient removal. AICHE Journal, 2013, 59, 46-54.	1.8	16
97	Identifying the sources and fate of anthropogenically impacted dissolved organic matter (DOM) in urbanized rivers. Water Research, 2013, 47, 5027-5039.	5.3	165
98	Denitrification aused suppression of soluble microbial products (SMP) in MBRs used for biological nitrogen removal. AICHE Journal, 2013, 59, 3569-3573.	1.8	5
99	Effect of sludge properties on the filtration characteristics of self-forming dynamic membranes (SFDMs) in aerobic bioreactors: Formation time, filtration resistance, and fouling propensity. Journal of Membrane Science, 2013, 436, 186-194.	4.1	54
100	Occurrence and fate of PPCPs and correlations with water quality parameters in urban riverine waters of the Pearl River Delta, South China. Environmental Science and Pollution Research, 2013, 20, 5864-5875.	2.7	87
101	A novel nonwoven hybrid bioreactor (NWHBR) for enhancing simultaneous nitrification and denitrification. Biotechnology and Bioengineering, 2013, 110, 1903-1912.	1.7	22
102	Role of microorganism growth phase in the accumulation and characteristics of biomacromolecules (BMM) in a membrane bioreactor. RSC Advances, 2012, 2, 453-460.	1.7	14
103	Cure of Filament-Caused MBR Fouling in the Presence of Antibiotics: Taking Ciprofloxacin Exposure As an Example. Industrial & Engineering Chemistry Research, 2012, 51, 13784-13791.	1.8	17
104	Microbial Transformation of Structural and Functional Makeup of Human-Impacted Riverine Dissolved Organic Matter. Industrial & Engineering Chemistry Research, 2012, 51, 6212-6218.	1.8	16
105	Recent Advances in Membrane Bioreactors: Configuration Development, Pollutant Elimination, and Sludge Reduction. Environmental Engineering Science, 2012, 29, 139-160.	0.8	77
106	Membrane Bioreactors for Industrial Wastewater Treatment: A Critical Review. Critical Reviews in Environmental Science and Technology, 2012, 42, 677-740.	6.6	256
107	Microbial Transformation of Biomacromolecules in a Membrane Bioreactor: Implications for Membrane Fouling Investigation. PLoS ONE, 2012, 7, e42270.	1.1	21
108	Characterization of the size-fractionated biomacromolecules: Tracking their role and fate in a membrane bioreactor. Water Research, 2011, 45, 4661-4671.	5.3	98

#	Article	IF	CITATIONS
109	Biodegradation behavior of natural organic matter (NOM) in a biological aerated filter (BAF) as a pretreatment for ultrafiltration (UF) of river water. Applied Microbiology and Biotechnology, 2011, 90, 1795-1803.	1.7	64
110	High flux and antifouling filtration membrane based on non-woven fabric with chitosan coating for membrane bioreactors. Bioresource Technology, 2010, 101, 5469-5474.	4.8	42
111	Morphological visualization, componential characterization and microbiological identification of membrane fouling in membrane bioreactors (MBRs). Journal of Membrane Science, 2010, 361, 1-14.	4.1	149
112	Searching for a universal fouling indicator for membrane bioreactors. Desalination and Water Treatment, 2010, 18, 264-269.	1.0	20
113	Fouling mitigation through flocculants and adsorbents addition in membrane bioreactors: Comparing lab and pilot studies. Journal of Membrane Science, 2009, 345, 21-30.	4.1	57
114	Occurrence, Source, and Fate of Dissolved Organic Matter (DOM) in a Pilot-Scale Membrane Bioreactor. Environmental Science & E	4.6	66
115	Recent advances in membrane bioreactors (MBRs): Membrane fouling and membrane material. Water Research, 2009, 43, 1489-1512.	5.3	1,577
116	Application of seawater to enhance SO2 removal from simulated flue gas through hollow fiber membrane contactor. Journal of Membrane Science, 2008, 312, 6-14.	4.1	51
117	A comprehensive study on membrane fouling in submerged membrane bioreactors operated under different aeration intensities. Separation and Purification Technology, 2008, 59, 91-100.	3.9	191
118	Enhanced anammox consortium activity for nitrogen removal: Impacts of static magnetic field. Journal of Biotechnology, 2008, 138, 96-102.	1.9	124
119	Application of anaerobic ammonium-oxidizing consortium to achieve completely autotrophic ammonium and sulfate removal. Bioresource Technology, 2008, 99, 6817-6825.	4.8	117
120	Effects of COD/N ratio and DO concentration on simultaneous nitrifcation and denitrifcation in an airlift internal circulation membrane bioreactor. Journal of Environmental Sciences, 2008, 20, 933-939.	3.2	69
121	Characterization of Cake Layer in Submerged Membrane Bioreactor. Environmental Science & Emp; Technology, 2007, 41, 4065-4070.	4.6	230
122	Membrane fouling behavior during filtration of sludge supernatant. Environmental Progress, 2007, 26, 86-93.	0.8	5
123	New insights into membrane fouling in submerged membrane bioreactor based on rheology and hydrodynamics concepts. Journal of Membrane Science, 2007, 302, 87-94.	4.1	<b>7</b> 3
124	Fouling mechanisms of deflocculated sludge, normal sludge, and bulking sludge in membrane bioreactor. Journal of Membrane Science, 2007, 305, 48-56.	4.1	108
125	Comparison of membrane fouling during short-term filtration of aerobic granular sludge and activated sludge. Journal of Environmental Sciences, 2007, 19, 1281-1286.	3.2	81
126	Effect of hydraulic retention time on membrane fouling and biomass characteristics in submerged membrane bioreactors. Bioprocess and Biosystems Engineering, 2007, 30, 359-367.	1.7	138

#	Article	IF	CITATION
127	A new insight into membrane fouling mechanism during membrane filtration of bulking and normal sludge suspension. Journal of Membrane Science, 2006, 285, 159-165.	4.1	72
128	Effect of filamentous bacteria on membrane fouling in submerged membrane bioreactor. Journal of Membrane Science, 2006, 272, 161-168.	4.1	193
129	Identification of activated sludge properties affecting membrane fouling in submerged membrane bioreactors. Separation and Purification Technology, 2006, 51, 95-103.	3.9	218
130	Application of fractal permeation model to investigate membrane fouling in membrane bioreactor. Journal of Membrane Science, 2005, 262, 107-116.	4.1	76
131	Cake layer morphology in microfiltration of activated sludge wastewater based on fractal analysis. Separation and Purification Technology, 2005, 44, 250-257.	3.9	74
132	Ultrastable Nanofiltration Membranes Engineered by Polydopamine-Assisted Polyelectrolyte Layer-by-Layer Assembly for Water Reclamation. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	6
133	Timeâ€lagged interspecies interactions prevail during biofilm development in moving bed biofilm reactor. Biotechnology and Bioengineering, 0, , .	1.7	0