Lianfa Song

List of Publications by Year
in descending order

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80	3,906	126858	123376
papers	citations	33	61
		h-index	g-index

81	81	81	3084
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Soluble microbial products in membrane bioreactor operation: Behaviors, characteristics, and fouling potential. Water Research, 2007, 41, 95-101.	5.3	291
2	Theory of concentration polarization in crossflow filtration. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 3389.	1.7	288
3	Flux decline in crossflow microfiltration and ultrafiltration: mechanisms and modeling of membrane fouling. Journal of Membrane Science, 1998, 139, 183-200.	4.1	284
4	Kinetics of Colloid Deposition onto Heterogeneously Charged Surfaces in Porous Media. Environmental Science & Technology, 1994, 28, 1164-1171.	4.6	225
5	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
6	New insights into the rapid formation of initial membrane fouling after in-situ cleaning in a membrane bioreactor. Process Biochemistry, 2019, 78, 108-113.	1.8	143
7	Fate of NaClO and membrane foulants during in-situ cleaning of membrane bioreactors: Combined effect on thermodynamic properties of sludge. Biochemical Engineering Journal, 2019, 147, 146-152.	1.8	132
8	Particle Deposition onto a Permeable Surface in Laminar Flow. Journal of Colloid and Interface Science, 1995, 173, 165-180.	5.0	123
9	Dynamics of colloid deposition in porous media: Modeling the role of retained particles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1993, 73, 49-63.	2.3	119
10	A numerical study on concentration polarization and system performance of spiral wound RO membrane modules. Journal of Membrane Science, 2006, 271, 38-46.	4.1	97
11	A new model for the calculation of the limiting flux in ultrafiltration. Journal of Membrane Science, 1998, 144, 173-185.	4.1	88
12	The development of membrane fouling in full-scale RO processes. Journal of Membrane Science, 2004, 232, 63-72.	4.1	86
13	Transient Deposition of Colloidal Particles in Heterogeneous Porous Media. Journal of Colloid and Interface Science, 1994, 167, 301-313.	5.0	85
14	Energy analysis and efficiency assessment of reverse osmosis desalination process. Desalination, 2011, 276, 352-358.	4.0	85
15	Effect of pH and ionic strength on boron removal by RO membranes. Desalination, 2009, 246, 605-612.	4.0	84
16	Flux decline in crossflow microfiltration and ultrafiltration: experimental verification of fouling dynamics. Journal of Membrane Science, 1999, 160, 41-50.	4.1	75
17	Fouling behavior and foulant characteristics of reverse osmosis membranes for treated secondary effluent reclamation. Journal of Membrane Science, 2010, 349, 65-74.	4.1	73
18	Performance limitation of the full-scale reverse osmosis process. Journal of Membrane Science, 2003, 214, 239-244.	4.1	66

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19	Numerical study on permeate flux enhancement by spacers in a crossflow reverse osmosis channel. Journal of Membrane Science, 2006, 284, 102-109.	4.1	63
20	Mechanisms and Parameters Affecting Flux Decline in Cross-Flow Microfiltration and Ultrafiltration of Colloids. Environmental Science & Technology, 2000, 34, 3767-3773.	4.6	61
21	Fouling of RO membranes by effluent organic matter (EfOM): Relating major components of EfOM to their characteristic fouling behaviors. Journal of Membrane Science, 2010, 349, 75-82.	4.1	60
22	Emergence of thermodynamic restriction and its implications for full-scale reverse osmosis processes. Desalination, 2003, 155, 213-228.	4.0	59
23	Effect of solution chemistry on the fouling potential of dissolved organic matter in membrane bioreactor systems. Journal of Membrane Science, 2008, 310, 503-511.	4.1	57
24	Simulations of Full-Scale Reverse Osmosis Membrane Process. Journal of Environmental Engineering, ASCE, 2002, 128, 960-966.	0.7	53
25	Concentration polarization in cross-flow reverse osmosis. AICHE Journal, 1999, 45, 921-928.	1.8	51
26	Quantifying the effect of ionic strength on colloidal fouling potential in membrane filtration. Journal of Colloid and Interface Science, 2005, 284, 630-638.	5.0	51
27	Improvement of recoveries for the determination of protozoa Cryptosporidium and Giardia in water using method 1623. Journal of Microbiological Methods, 2004, 58, 321-325.	0.7	49
28	Numerical Studies of the Impact of Spacer Geometry on Concentration Polarization in Spiral Wound Membrane Modules. Industrial & Engineering Chemistry Research, 2005, 44, 7638-7645.	1.8	47
29	Performance enhancement and fouling mitigation by organic flocculant addition in membrane bioreactor at high salt shock. Bioresource Technology, 2014, 164, 34-40.	4.8	46
30	Experimental correlations of pH and ionic strength effects on the colloidal fouling potential of silica nanoparticles in crossflow ultrafiltration. Journal of Membrane Science, 2007, 303, 112-118.	4.1	43
31	Calcium ion on membrane fouling reduction and bioflocculation promotion in membrane bioreactor at high salt shock. Bioresource Technology, 2016, 200, 535-540.	4.8	39
32	Calculation of particle deposition rate under unfavourable particleâ€“surface interactions. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 3443-3452.	1.7	38
33	Experimental Study of Water and Salt Fluxes through Reverse Osmosis Membranes. Environmental Science & Technology, 2005, 39, 3382-3387.	4.6	38
34	Effects of NaClO shock on MBR performance under continuous operating conditions. Environmental Science: Water Research and Technology, 2021, 7, 396-404.	1.2	35
35	Theoretical investigation of colloid separation from dilute aqueous suspensions by oppositely charged granular media. Separation and Purification Technology, 1992, 2, 2-12.	0.7	34
36	A more effective method for fouling characterization in a full-scale reverse osmosis process. Desalination, 2005, 177, 95-107.	4.0	32

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37	A new normalization method for determination of colloidal fouling potential in membrane processes. Journal of Colloid and Interface Science, 2004, 271, 426-433.	5.0	31
38	Attachment of selenium to a reverse osmosis membrane to inhibit biofilm formation of S. aureus. Journal of Membrane Science, 2011, 378, 171-178.	4.1	31
39	Evaluation of Feed Concentration Effects on Salt/Ion Transport through RO/NF Membranes with the Nernst-Planck-Donnan Model. Environmental Engineering Science, 2002, 19, 429-439.	0.8	27
40	A Modeling Study of Fouling Development in Membrane Bioreactors for Wastewater Treatment. Water Environment Research, 2006, 78, 857-864.	1.3	27
41	Performance prediction of a long crossflow reverse osmosis membrane channel. Journal of Membrane Science, 2006, 281, 163-169.	4.1	26
42	Dynamic analysis of self-forming dynamic membrane (SFDM) filtration in submerged anaerobic bioreactor: Performance, characteristic, and mechanism. Bioresource Technology, 2018, 270, 383-390.	4.8	26
43	Characteristics and Fouling Behaviors of Dissolved Organic Matter in Submerged Membrane Bioreactor Systems. Environmental Engineering Science, 2007, 24, 652-662.	0.8	25
44	Deposition of Brownian particles in porous media: Modified boundary conditions for the sphere-in-cell model. Journal of Colloid and Interface Science, 1992, 153, 294-297.	5.0	23
45	Decolorization and Mineralization of Rhodamine B in Aqueous Solution with a Triple System of Cerium(IV)/H₂O₂/Hydroxylamine. ACS Omega, 2018, 3, 18456-18465.	1.6	23
46	Influence of various monovalent cations and calcium ion on the colloidal fouling potential. Journal of Colloid and Interface Science, 2005, 289, 479-487.	5.0	22
47	Cake Compressibility of Silica Colloids in Membrane Filtration Processes. Industrial & Engineering Chemistry Research, 2006, 45, 7633-7638.	1.8	22
48	True driving force and characteristics of water transport in osmotic membranes. Desalination, 2021, 520, 115360.	4.0	20
49	Two-Step Optimization of Pressure and Recovery of Reverse Osmosis Desalination Process. Environmental Science & Technology, 2009, 43, 3272-3277.	4.6	18
50	The use of covalently attached organo-selenium to inhibit S. aureus and E. coli biofilms on RO membranes and feed spacers. Desalination, 2013, 317, 142-151.	4.0	16
51	Attachment of organo-selenium to polyamide composite reverse osmosis membranes to inhibit biofilm formation of S. aureus and E. coli. Desalination, 2013, 309, 291-295.	4.0	16
52	Stratification structure of polysaccharides and proteins in activated sludge with different aeration in membrane bioreactor. Bioresource Technology, 2015, 192, 361-366.	4.8	16
53	Permeate Flux in Crossflow Ultrafiltration under Intermediate Pressures. Journal of Colloid and Interface Science, 1999, 214, 251-263.	5.0	15
54	THERMODYNAMIC MODELING OF SOLUTE TRANSPORT THROUGH REVERSE OSMOSIS MEMBRANE. Chemical Engineering Communications, 2000, 180, 145-167.	1.5	15

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55	Impact of sludge cation distribution pattern on its filterability in membrane bioreactor. Bioresource Technology, 2014, 171, 16-21.	4.8	14
56	Effects of Loosely Bound EPS Release and Floc Reconstruction on Sludge Dewaterability. Water, Air, and Soil Pollution, 2018, 229, 1.	1.1	13
57	Impact of feed water acidification with weak and strong acids on colloidal silica fouling in ultrafiltration membrane processes. Water Research, 2008, 42, 707-713.	5.3	12
58	Quantitative Analysis of Membrane Fouling Mechanisms Involved in Microfiltration of Humic Acidâ€“Protein Mixtures at Different Solution Conditions. Water (Switzerland), 2018, 10, 1306.	1.2	12
59	Numerical analysis of performance of ideal counter-current flow pressure retarded osmosis. Desalination, 2018, 433, 41-47.	4.0	10
60	Concentration polarization in a narrow reverse osmosis membrane channel. AICHE Journal, 2010, 56, 143-149.	1.8	9
61	Influence of selective permeation of backwashing solution on the cleaning effectiveness in hollow fiber system. Journal of Membrane Science, 2018, 546, 139-150.	4.1	9
62	Characterization of the Fouling Layer on the Membrane Surface in a Membrane Bioreactor: Evolution of the Foulantsâ€™ Composition and Aggregation Ability. Membranes, 2019, 9, 85.	1.4	8
63	The Seminole Project: Renewable Energy for Municipal Water Desalination. Journal of Contemporary Water Research and Education, 2013, 151, 50-60.	0.7	7
64	Calculation of energy consumption for crossflow RO desalination processes. Desalination and Water Treatment, 2012, 42, 295-303.	1.0	6
65	Integration of Renewable Energy Technologies With Desalination. Current Sustainable/Renewable Energy Reports, 2014, 1, 11-18.	1.2	6
66	Modeling of Concentration Polarization in a Reverse Osmosis Channel with Parabolic Crossflow. Water Environment Research, 2014, 86, 56-62.	1.3	5
67	Micro-bubbles enhanced breakage warning for hollow fiber membrane integrity with a low-cost real-time monitoring device. Environmental Science and Pollution Research, 2018, 25, 24639-24652.	2.7	5
68	Independence of hydraulic pressures on the feed and draw solutions in the osmotically driven membrane processes. Journal of Membrane Science, 2019, 586, 1-6.	4.1	5
69	Metastable State of Water and Performance of Osmotically Driven Membrane Processes. Membranes, 2019, 9, 43.	1.4	5
70	Relation between sludge properties and filterability in MBR: Under infinite SRT. Membrane Water Treatment, 2015, 6, 501-512.	0.5	5
71	Bisection method for accurate modeling and simulation of fouling in hollow fiber membrane system. Environmental Science and Pollution Research, 2017, 24, 14346-14354.	2.7	4
72	Limiting extractable energy from pressure retarded osmosis with different pretreatment costs for feed and draw solutions. Journal of Membrane Science, 2017, 544, 208-212.	4.1	4

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73	On rigorous definition of ion transport process and accurate determination of membrane potential at steady state. AICHE Journal, 2019, 65, e16715.	1.8	4
74	Accurate Determination of Electrical Potential on Ion Exchange Membranes in Reverse Electrodialysis. Separations, 2021, 8, 170.	1.1	4
75	Characterization of activated sludge flocs in membrane bioreactor: stable and unstable flocs. Environmental Science and Pollution Research, 2019, 26, 31786-31792.	2.7	3
76	Modeling and Optimization of Membrane Process for Salinity Gradient Energy Production. Separations, 2021, 8, 64.	1.1	3
77	Differential Pressure in Membrane Channel Caused by Foulant Capture onto Spacers. Water Environment Research, 2007, 79, 788-794.	1.3	2
78	Evaluating RO performance with biological pretreatment of graywater. Journal of Water Reuse and Desalination, 2012, 2, 109-120.	1.2	2
79	Sulfate-enhanced degradation of Rhodamine B in the hydrogen peroxide/hydroxylamine system. Environmental Chemistry Letters, 2019, 17, 1831-1837.	8.3	1
80	Emerging research needs for membrane processes. Water Environment Research, 2003, 75, 99-100.	1.3	0