Liguo Shen

List of Publications by Year in descending order

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LICUO SHEN

#	Article	IF	CITATIONS
1	Membrane fouling in a submerged membrane bioreactor: Impacts of floc size. Chemical Engineering Journal, 2015, 269, 328-334.	12.7	190
2	Membrane fouling caused by biological foams in a submerged membrane bioreactor: Mechanism insights. Water Research, 2020, 181, 115932.	11.3	189
3	Preparation and characterization of ZnO/polyethersulfone (PES) hybrid membranes. Desalination, 2012, 293, 21-29.	8.2	179
4	Fabrication of high-performance composite nanofiltration membranes for dye wastewater treatment: mussel-inspired layer-by-layer self-assembly. Journal of Colloid and Interface Science, 2020, 560, 273-283.	9.4	170
5	Mechanistic insights into alginate fouling caused by calcium ions based on terahertz time-domain spectra analyses and DFT calculations. Water Research, 2018, 129, 337-346.	11.3	168
6	Facile synthesis of 2D TiO2@MXene composite membrane with enhanced separation and antifouling performance. Journal of Membrane Science, 2021, 640, 119854.	8.2	154
7	Inkjet printing of dopamine followed by UV light irradiation to modify mussel-inspired PVDF membrane for efficient oil-water separation. Journal of Membrane Science, 2021, 619, 118790.	8.2	149
8	Effect of calcium ions on fouling properties of alginate solution and its mechanisms. Journal of Membrane Science, 2017, 525, 320-329.	8.2	131
9	Enhanced permeability and antifouling performance of polyether sulfone (PES) membrane via elevating magnetic Ni@MXene nanoparticles to upper layer in phase inversion process. Journal of Membrane Science, 2021, 623, 119080.	8.2	130
10	Preparation of Ni@UiO-66 incorporated polyethersulfone (PES) membrane by magnetic field assisted strategy to improve permeability and photocatalytic self-cleaning ability. Journal of Colloid and Interface Science, 2022, 618, 483-495.	9.4	109
11	A conductive PVDF-Ni membrane with superior rejection, permeance and antifouling ability via electric assisted in-situ aeration for dye separation. Journal of Membrane Science, 2019, 581, 401-412.	8.2	107
12	Magnetic field assisted arrangement of photocatalytic TiO2 particles on membrane surface to enhance membrane antifouling performance for water treatment. Journal of Colloid and Interface Science, 2020, 570, 273-285.	9.4	105
13	A novel in-situ micro-aeration functional membrane with excellent decoloration efficiency and antifouling performance. Journal of Membrane Science, 2022, 641, 119925.	8.2	101
14	Novel insights into membrane fouling in a membrane bioreactor: Elucidating interfacial interactions with real membrane surface. Chemosphere, 2018, 210, 769-778.	8.2	97
15	Effects of molecular weight distribution of soluble microbial products (SMPs) on membrane fouling in a membrane bioreactor (MBR): Novel mechanistic insights. Chemosphere, 2020, 248, 126013.	8.2	97
16	Plant polyphenol intermediated metal-organic framework (MOF) membranes for efficient desalination. Journal of Membrane Science, 2021, 618, 118726.	8.2	94
17	A novel strategy based on magnetic field assisted preparation of magnetic and photocatalytic membranes with improved performance. Journal of Membrane Science, 2020, 612, 118378.	8.2	90
18	Novel membranes with extremely high permeability fabricated by 3D printing and nickel coating for oil/water separation. Journal of Materials Chemistry A, 2022, 10, 12055-12061.	10.3	89

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19	Manipulating the mussel-inspired co-deposition of tannic acid and amine for fabrication of nanofiltration membranes with an enhanced separation performance. Journal of Colloid and Interface Science, 2020, 565, 23-34.	9.4	87
20	Quantification of interfacial energies associated with membrane fouling in a membrane bioreactor by using BP and GRNN artificial neural networks. Journal of Colloid and Interface Science, 2020, 565, 1-10.	9.4	86
21	Novel conductive membranes breaking through the selectivity-permeability trade-off for Congo red removal. Separation and Purification Technology, 2019, 211, 368-376.	7.9	82
22	Surface modification of polyvinylidene fluoride (PVDF) membrane via radiation grafting: novel mechanisms underlying the interesting enhanced membrane performance. Scientific Reports, 2017, 7, 2721.	3.3	80
23	Realization of quantifying interfacial interactions between a randomly rough membrane surface and a foulant particle. Bioresource Technology, 2017, 226, 220-228.	9.6	77
24	Effects of surface morphology on alginate adhesion: Molecular insights into membrane fouling based on XDLVO and DFT analysis. Chemosphere, 2019, 233, 373-380.	8.2	76
25	Mechanism analyses of high specific filtration resistance of gel and roles of gel elasticity related with membrane fouling in a membrane bioreactor. Bioresource Technology, 2018, 257, 39-46.	9.6	75
26	Radial basis function artificial neural network (RBF ANN) as well as the hybrid method of RBF ANN and grey relational analysis able to well predict trihalomethanes levels in tap water. Journal of Hydrology, 2020, 591, 125574.	5.4	74
27	Polymeric Membranes Incorporated With ZnO Nanoparticles for Membrane Fouling Mitigation: A Brief Review. Frontiers in Chemistry, 2020, 8, 224.	3.6	74
28	New insights into membrane fouling by alginate: Impacts of ionic strength in presence of calcium ions. Chemosphere, 2020, 246, 125801.	8.2	73
29	Facile fabrication of superhydrophilic nanofiltration membranes via tannic acid and irons layer-by-layer self-assembly for dye separation. Applied Surface Science, 2020, 515, 146063.	6.1	73
30	Electric field endowing the conductive polyvinylidene fluoride (PVDF)-graphene oxide (GO)‑nickel (Ni) membrane with high-efficient performance for dye wastewater treatment. Applied Surface Science, 2019, 483, 1006-1016.	6.1	72
31	Flame-retardant ethylene vinyl acetate composite materials by combining additions of aluminum hydroxide and melamine cyanurate: Preparation and characteristic evaluations. Journal of Colloid and Interface Science, 2021, 589, 525-531.	9.4	72
32	Thermodynamic mechanisms of membrane fouling during filtration of alginate solution in coagulation-ultrafiltration (UF) process in presence of different ionic strength and iron(III) ion concentration. Journal of Membrane Science, 2021, 635, 119532.	8.2	72
33	Electroless Ni–Sn–P plating to fabricate nickel alloy coated polypropylene membrane with enhanced performance. Journal of Membrane Science, 2021, 640, 119820.	8.2	72
34	Inkjet printing assisted fabrication of polyphenol-based coating membranes for oil/water separation. Chemosphere, 2020, 250, 126236.	8.2	71
35	Quantification of interfacial interactions between a rough sludge floc and membrane surface in a membrane bioreactor. Journal of Colloid and Interface Science, 2017, 490, 710-718.	9.4	69
36	A novel strategy to develop antifouling and antibacterial conductive Cu/polydopamine/polyvinylidene fluoride membranes for water treatment. Journal of Colloid and Interface Science, 2018, 531, 493-501.	9.4	68

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37	Facile preparation of polyvinylidene fluoride substrate supported thin film composite polyamide nanofiltration: Effect of substrate pore size. Journal of Membrane Science, 2021, 638, 119699.	8.2	68
38	Novel insights into membrane fouling caused by gel layer in a membrane bioreactor: Effects of hydrogen bonding. Bioresource Technology, 2019, 276, 219-225.	9.6	65
39	Facile preparation of recyclable magnetic Ni@filter paper composite materials for efficient photocatalytic degradation of methyl orange. Journal of Colloid and Interface Science, 2021, 582, 291-300.	9.4	65
40	A novel composite membrane for simultaneous separation and catalytic degradation of oil/water emulsion with high performance. Chemosphere, 2022, 288, 132490.	8.2	65
41	Inkjet printing assisted electroless Ni plating to fabricate nickel coated polypropylene membrane with improved performance. Journal of Colloid and Interface Science, 2020, 565, 546-554.	9.4	64
42	Novel in-situ electroflotation driven by hydrogen evolution reaction (HER) with polypyrrole (PPy)-Ni-modified fabric membrane for efficient oil/water separation. Journal of Membrane Science, 2021, 635, 119502.	8.2	60
43	Physicochemical correlations between membrane surface hydrophilicity and adhesive fouling in membrane bioreactors. Journal of Colloid and Interface Science, 2017, 505, 900-909.	9.4	56
44	Hydrogen bubbles template-directed synthesis of self-supported AuPt nanowire networks for improved ethanol oxidation and oxygen reduction reactions. International Journal of Hydrogen Energy, 2016, 41, 8871-8880.	7.1	55
45	In-situ coating TiO2 surface by plant-inspired tannic acid for fabrication of thin film nanocomposite nanofiltration membranes toward enhanced separation and antibacterial performance. Journal of Colloid and Interface Science, 2020, 572, 114-121.	9.4	55
46	Magnetic field assisted preparation of PES-Ni@MWCNTs membrane with enhanced permeability and antifouling performance. Chemosphere, 2020, 243, 125446.	8.2	53
47	Preparation of nickel@polyvinyl alcohol (PVA) conductive membranes to couple a novel electrocoagulation-membrane separation system for efficient oil-water separation. Journal of Membrane Science, 2022, 653, 120541.	8.2	52
48	Novel catalytic self-cleaning membrane with peroxymonosulfate activation for dual-function wastewater purification: Performance and mechanism. Journal of Cleaner Production, 2022, 355, 131858.	9.3	49
49	Improved thermal stability and heat-aging resistance of silicone rubber via incorporation of UiO-66-NH2. Materials Chemistry and Physics, 2021, 274, 125182.	4.0	47
50	A glassy carbon electrode modified with porous Cu2O nanospheres on reduced graphene oxide support for simultaneous sensing of uric acid and dopamine with high selectivity over ascorbic acid. Mikrochimica Acta, 2016, 183, 2039-2046.	5.0	46
51	Fabrication of hydrophilic and antibacterial poly(vinylidene fluoride) based separation membranes by a novel strategy combining radiation grafting of poly(acrylic acid) (PAA) and electroless nickel plating. Journal of Colloid and Interface Science, 2019, 543, 64-75.	9.4	45
52	Influence of membrane surface roughness on interfacial interactions with sludge flocs in a submerged membrane bioreactor. Journal of Colloid and Interface Science, 2015, 446, 84-90.	9.4	44
53	<i>In situ</i> conversion of ZnO into zeolitic imidazolate framework-8 in polyamide layers for well-structured high-permeance thin-film nanocomposite nanofiltration membranes. Journal of Materials Chemistry A, 2021, 9, 7684-7691.	10.3	43
54	A new strategy to accelerate co-deposition of plant polyphenol and amine for fabrication of antibacterial nanofiltration membranes by in-situ grown Ag nanoparticles. Separation and Purification Technology, 2022, 280, 119866.	7.9	43

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55	Effects of polysaccharides' molecular structure on membrane fouling and the related mechanisms. Science of the Total Environment, 2022, 836, 155579.	8.0	41
56	Effects of surface charge on interfacial interactions related to membrane fouling in a submerged membrane bioreactor based on thermodynamic analysis. Journal of Colloid and Interface Science, 2016, 465, 33-41.	9.4	39
57	Mechanistic insights into Ca-alginate gel-associated membrane fouling affected by ethylene diamine tetraacetic acid (EDTA). Science of the Total Environment, 2022, 842, 156912.	8.0	38
58	Fractal reconstruction of rough membrane surface related with membrane fouling in a membrane bioreactor. Bioresource Technology, 2016, 216, 817-823.	9.6	37
59	Microfiltration membranes prepared from poly(N-vinyl-2-pyrrolidone) grafted poly(vinylidene) Tj ETQq1 1 0.784	1314 _{8.2} BT /	Overlock 10
60	Membrane fouling in a submerged membrane bioreactor: New method and its applications in interfacial interaction quantification. Bioresource Technology, 2017, 241, 406-414.	9.6	36
61	New strategy of grafting hydroxyethyl acrylate (HEA) via Î ³ ray radiation to modify polyvinylidene fluoride (PVDF) membrane: Thermodynamic mechanisms of the improved antifouling performance. Separation and Purification Technology, 2018, 207, 83-91.	7.9	32
62	A novel insight into membrane fouling mechanism regarding gel layer filtration: Flory-Huggins based filtration mechanism. Scientific Reports, 2016, 6, 33343.	3.3	31
63	Using regression models to evaluate the formation of trihalomethanes and haloacetonitriles via chlorination of source water with low SUVA values in the Yangtze River Delta region, China. Environmental Geochemistry and Health, 2016, 38, 1303-1312.	3.4	30
64	Thermodynamic analysis of effects of contact angle on interfacial interactions and its implications for membrane fouling control. Bioresource Technology, 2016, 201, 245-252.	9.6	30
65	Influences of fractal dimension of membrane surface on interfacial interactions related to membrane fouling in a membrane bioreactor. Journal of Colloid and Interface Science, 2017, 500, 79-87.	9.4	28
66	Ultrathin graphene layer activated dendritic α-Fe2O3 for high performance asymmetric supercapacitors. Journal of Alloys and Compounds, 2019, 780, 212-219.	5.5	26
67	Effect of nitrite on the formation of halonitromethanes during chlorination of organic matter from different origin. Journal of Hydrology, 2015, 531, 802-809.	5.4	24
68	Effects of molecular weight distribution (Md) on the performances of the polyethersulfone (PES) ultrafiltration membranes. Journal of Membrane Science, 2015, 490, 220-226.	8.2	24
69	A novel integrated method for quantification of interfacial interactions between two rough bioparticles. Journal of Colloid and Interface Science, 2018, 516, 295-303.	9.4	24
70	Facile preparation of polyacrylonitrile-co-methylacrylate based integrally skinned asymmetric nanofiltration membranes for sustainable molecular separation: An one-step method. Journal of Colloid and Interface Science, 2019, 546, 251-261.	9.4	24
71	Preparation and characterization of ethylene–vinyl acetate copolymer (EVA)–magnesium hydroxide (MH)–hexaphenoxycyclotriphosphazene (HPCTP) composite flame-retardant materials. Polymer Bulletin, 2019, 76, 2399-2410.	3.3	24
72	A new strategy to produce low-density polyethylene (LDPE)-based composites simultaneously with high flame retardancy and high mechanical properties. Applied Surface Science, 2018, 437, 75-81.	6.1	22

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73	Thermodynamic assessment of adsorptive fouling with the membranes modified via layer-by-layer self-assembly technique. Journal of Colloid and Interface Science, 2017, 494, 194-203.	9.4	21
74	Estimation of maize straw production and appropriate straw return rate in China. Agriculture, Ecosystems and Environment, 2022, 328, 107865.	5.3	21
75	A facile strategy to prepare superhydrophilic polyvinylidene fluoride (PVDF) based membranes and the thermodynamic mechanisms underlying the improved performance. Separation and Purification Technology, 2018, 197, 271-280.	7.9	20
76	Quantitative evaluation of the interfacial interactions between a randomly rough sludge floc and membrane surface in a membrane bioreactor based on fractal geometry. Bioresource Technology, 2017, 234, 198-207.	9.6	19
77	Quantitative assessment of interfacial interactions with rough membrane surface and its implications for membrane selection and fabrication in a MBR. Bioresource Technology, 2015, 179, 367-372.	9.6	18
78	Tuning anti-adhesion ability of membrane for a membrane bioreactor by thermodynamic analysis. Bioresource Technology, 2016, 216, 691-698.	9.6	18
79	Pesticides in human milk collected from Jinhua, China: Levels, influencing factors and health risk assessment. Ecotoxicology and Environmental Safety, 2020, 205, 111331.	6.0	18
80	Simultaneously improving mechanical strength, hydrophobic property and flame retardancy of ethylene vinyl acetate copolymer/intumescent flame retardant/FeOOH by introducing modified fumed silica. Materials Today Communications, 2021, 26, 102114.	1.9	18
81	A biobased flame retardant towards improvement of flame retardancy and mechanical property of ethylene vinyl acetate. Chinese Chemical Letters, 2023, 34, 107202.	9.0	17
82	In-situ growth of UiO-66-NH2 in porous polymeric substrates at room temperature for fabrication of mixed matrix membranes with fast molecular separation performance. Chemical Engineering Journal, 2022, 435, 134804.	12.7	13
83	Remarkable effects of silicone rubber on flame retardant property of high-density polyethylene/magnesium hydroxide composites. Polymer Degradation and Stability, 2022, 203, 110061.	5.8	13
84	Antifouling microfiltration membranes prepared from poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 graft polymerization. Journal of Applied Polymer Science, 2013, 128, 3949-3956.	' Td (fluoria 2.6	de)â€∢i>graft 11
85	Membrane fouling in a submerged membrane bioreactor: An unified approach to construct topography and to evaluate interaction energy between two randomly rough surfaces. Bioresource Technology, 2017, 243, 1121-1132.	9.6	11
86	Editorial: Advanced Membrane Science and Technology for Sustainable Environmental Applications. Frontiers in Chemistry, 2020, 8, 609774.	3.6	11
87	The enhanced compatibility and flame retarding ability of UHMWPE-MH composites by adding phenoxycyclophosphazene (HPCTP). Polymer Bulletin, 2017, 74, 3639-3655.	3.3	10
88	Impacts of morphology on fouling propensity in a membrane bioreactor based on thermodynamic analyses. Journal of Colloid and Interface Science, 2018, 531, 282-290.	9.4	9
89	Investigation of hindered phenol antioxidant effects on the aging performance of cross-linked LDPE in the presence of copper. Scientific Reports, 2020, 10, 10189.	3.3	9
90	Electron beam irradiation influencing the mechanical properties and water absorption of polycaprolactam (PA6) and polyhexamethylene adipamide (PA66). RSC Advances, 2020, 10, 21481-21486.	3.6	7

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91	Hot-pressed membrane assemblies enhancing the biofilm formation and nitrogen removal in a membrane-aerated biofilm reactor. Science of the Total Environment, 2022, 833, 155003.	8.0	6
92	The observation of <scp>PP</scp> / <scp>EVA</scp> blends in which isotactic <scp>PP</scp> was preradiated with different radiation absorbed doses. Journal of Applied Polymer Science, 2017, 134, 45057.	2.6	3
93	Advanced membrane bioreactor fouling control and prevention strategies. , 2020, , 209-224.		1
94	Effects of Van Der Waals Surface Energy on Membrane Fouling in a Submerged Membrane Bioreactor (MBR). Current Environmental Engineering, 2015, 2, 50-55.	0.6	1
95	In-Situ Growth of Uio-66-Nh2 in Porous Polymeric Substrates at Room Temperature for Fabrication of Mixed Matrix Membranes with Fast Molecular Separation Performance. SSRN Electronic Journal, 0, , .	0.4	0
96	Effects of Polysaccharides' Molecular Structure on Membrane Fouling and the Related Mechanisms. SSRN Electronic Journal, 0, , .	0.4	0