Baicang Liu

List of Publications by Year
in descending order

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64 papers	2,465 citations	201658 27 h-index	214788 47 g-index
65 all docs	65 docs citations	65 times ranked	1859 citing authors

#	Article	IF	Citations
1	Synergistic mechanism of combined ferrate and ultrafiltration process for shale gas wastewater treatment. Journal of Membrane Science, 2022, 641, 119921.	8.2	20
2	Solar-driven desalination and resource recovery of shale gas wastewater by on-site interfacial evaporation. Chemical Engineering Journal, 2022, 428, 132624.	12.7	41
3	Efficient removal of organic compounds from shale gas wastewater by coupled ozonation and moving-bed-biofilm submerged membrane bioreactor. Bioresource Technology, 2022, 344, 126191.	9.6	29
4	Environmental applications of graphene oxide composite membranes. Chinese Chemical Letters, 2022, 33, 5001-5012.	9.0	18
5	Aminated Polyacrylonitrile Nanofiber Membranes for the Removal of Organic Dyes. ACS Applied Nano Materials, 2022, 5, 1131-1140.	5.0	30
6	An efficient system of aerogel adsorbent combined with membranes for reuse of shale gas wastewater. Desalination, 2022, 526, 115545.	8.2	10
7	Double-Network Hydrogel: A Potential Practical Adsorbent for Critical Metals Extraction and Recovery from Water. Environmental Science & Technology, 2022, 56, 4715-4717.	10.0	12
8	Oxidation-biotreatment-membrane combined process for external reuse of shale gas wastewater. Separation and Purification Technology, 2022, 291, 120920.	7.9	10
9	Granular activated carbon (GAC) fixed bed adsorption combined with ultrafiltration for shale gas wastewater internal reuse. Environmental Research, 2022, 212, 113486.	7.5	4
10	Shale gas wastewater characterization: Comprehensive detection, evaluation of valuable metals, and environmental risks of heavy metals and radionuclides. Water Research, 2022, 220, 118703.	11.3	12
11	Lithium extraction from shale gas flowback and produced water using H1.33Mn1.67O4 adsorbent. Resources, Conservation and Recycling, 2022, 185, 106476.	10.8	19
12	Efficient integrated module of gravity driven membrane filtration, solar aeration and GAC adsorption for pretreatment of shale gas wastewater. Journal of Hazardous Materials, 2021, 405, 124166.	12.4	17
13	A Critical Review of Membrane Wettability in Membrane Distillation from the Perspective of Interfacial Interactions. Environmental Science & Technology, 2021, 55, 1395-1418.	10.0	105
14	A coral-like polyaniline/barium titanate nanocomposite electrode with double electric polarization for electrochromic energy storage applications. Journal of Materials Chemistry A, 2021, 9, 1669-1677.	10.3	38
15	Toward the Next Generation of Sustainable Membranes from Green Chemistry Principles. ACS Sustainable Chemistry and Engineering, 2021, 9, 50-75.	6.7	110
16	Organics removal from shale gas wastewater by pre-oxidation combined with biologically active filtration. Water Research, 2021, 196, 117041.	11.3	51
17	Organic compounds in Weiyuan shale gas produced water: Identification, detection and rejection by ultrafiltration-reverse osmosis processes. Chemical Engineering Journal, 2021, 412, 128699.	12.7	31
18	Green and sustainable method of manufacturing anti-fouling zwitterionic polymers-modified poly(vinyl chloride) ultrafiltration membranes. Journal of Colloid and Interface Science, 2021, 591, 343-351.	9.4	26

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19	Green aerogel adsorbent for removal of organic compounds in shale gas wastewater: High-performance tuning and adsorption mechanism. Chemical Engineering Journal, 2021, 416, 129100.	12.7	28
20	Can pre-ozonation be combined with gravity-driven membrane filtration to treat shale gas wastewater?. Science of the Total Environment, 2021, 797, 149181.	8.0	12
21	Facile preparation of antifouling nanofiltration membrane by grafting zwitterions for reuse of shale gas wastewater. Separation and Purification Technology, 2021, 276, 119310.	7.9	24
22	Effect of Ultrafiltrationâ€“Reverse-Osmosis-Treated Shale Gas Wastewater on Seed Germination and Plant Growth. Energy & Fuels, 2021, 35, 1629-1637.	5.1	8
23	Performance improvement for thin-film composite nanofiltration membranes prepared on PSf/PSf-g-PEG blended substrates. Separation and Purification Technology, 2020, 230, 115855.	7.9	39
24	Effects of membrane property and hydrostatic pressure on the performance of gravity-driven membrane for shale gas flowback and produced water treatment. Journal of Water Process Engineering, 2020, 33, 101117.	5.6	13
25	First Exploration on a Poly(vinyl chloride) Ultrafiltration Membrane Prepared by Using the Sustainable Green Solvent PolarClean. ACS Sustainable Chemistry and Engineering, 2020, 8, 91-101.	6.7	36
26	Sustainable reuse of shale gas wastewater by pre-ozonation with ultrafiltration-reverse osmosis. Chemical Engineering Journal, 2020, 392, 123743.	12.7	60
27	Efficient adsorption of organic matters and ions by porous biochar aerogel as pre-treatment of ultrafiltration for shale gas wastewater reuse. Chemical Engineering Journal Advances, 2020, 2, 100011.	5.2	14
28	Superwettable PVDF/PVDF-<i>g</i>-PEGMA Ultrafiltration Membranes. ACS Omega, 2020, 5, 23450-23459.	3.5	25
29	On-Site Treatment of Shale Gas Flowback and Produced Water in Sichuan Basin by Fertilizer Drawn Forward Osmosis for Irrigation. Environmental Science & Technology, 2020, 54, 10926-10935.	10.0	25
30	Rare Earth Elements Occurrence and Economical Recovery Strategy from Shale Gas Wastewater in the Sichuan Basin, China. ACS Sustainable Chemistry and Engineering, 2020, 8, 11914-11920.	6.7	40
31	Reuse of shale gas flowback and produced water: Effects of coagulation and adsorption on ultrafiltration, reverse osmosis combined process. Science of the Total Environment, 2019, 689, 47-56.	8.0	55
32	Improving the Performance of PVDF/PVDF-<i>g</i>-PEGMA Ultrafiltration Membranes by Partial Solvent Substitution with Green Solvent Dimethyl Sulfoxide during Fabrication. ACS Omega, 2019, 4, 19799-19807.	3.5	23
33	Resource Recovery and Reuse for Hydraulic Fracturing Wastewater in Unconventional Shale Gas and Oil Extraction. Environmental Science & Technology, 2019, 53, 13547-13548.	10.0	25
34	Evaluating the performance of gravity-driven membrane filtration as desalination pretreatment of shale gas flowback and produced water. Journal of Membrane Science, 2019, 587, 117187.	8.2	48
35	Smart ultrafiltration membrane fouling control as desalination pretreatment of shale gas fracturing wastewater: The effects of backwash water. Environment International, 2019, 130, 104869.	10.0	32
36	Conductive Polymer Nanotubes for Electrochromic Applications. ACS Applied Nano Materials, 2019, 2, 3154-3160.	5.0	18

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37	Process optimization for producing ultrapure water with high resistivity and low total organic carbon. Chemical Engineering Research and Design, 2019, 126, 232-241.	5.6	17
38	Using the Green Solvent Dimethyl Sulfoxide To Replace Traditional Solvents Partly and Fabricating PVC/PVC-g-PEGMA Blended Ultrafiltration Membranes with High Permeability and Rejection. Industrial & Engineering Chemistry Research, 2019, 58, 6413-6423.	3.7	65
39	Effect of volatile solvent and evaporation time on formation and performance of PVC/PVC-g-PEGMA blended membranes. RSC Advances, 2019, 9, 34486-34495.	3.6	18
40	Potential and implemented membrane-based technologies for the treatment and reuse of flowback and produced water from shale gas and oil plays: A review. Desalination, 2019, 455, 34-57.	8.2	233
41	Effect of adding a smart potassium ion-responsive copolymer into polysulfone support membrane on the performance of thin-film composite nanofiltration membrane. Frontiers of Chemical Science and Engineering, 2019, 13, 400-414.	4.4	5
42	An integrated coagulation-ultrafiltration-nanofiltration process for internal reuse of shale gas flowback and produced water. Separation and Purification Technology, 2019, 211, 310-321.	7.9	98
43	Salt backwashing of organic-fouled ultrafiltration membranes: Effects of feed water properties and hydrodynamic conditions. Journal of Water Process Engineering, 2019, 30, 100429.	5.6	6
44	PVDF ultrafiltration membranes of controlled performance via blending PVDF-g-PEGMA copolymer synthesized under different reaction times. Frontiers of Environmental Science and Engineering, 2018, 12, 1.	6.0	21
45	High-performance polyamide thin-film composite nanofiltration membrane: Role of thermal treatment. Applied Surface Science, 2018, 435, 415-423.	6.1	28
46	Non-woven PET fabric reinforced and enhanced the performance of ultrafiltration membranes composed of PVDF blended with PVDF-g-PEGMA for industrial applications. Applied Surface Science, 2018, 435, 1072-1079.	6.1	36
47	Development of an efficient approach for separating bubbles and flocs in a submerged membrane ultrafiltration process. Water Science and Technology: Water Supply, 2018, 18, 808-818.	2.1	1
48	Blended PVC/PVC-g-PEGMA ultrafiltration membranes with enhanced performance and antifouling properties. Applied Surface Science, 2018, 455, 987-996.	6.1	62
49	A combined ultrafiltrationâ€“reverse osmosis process for external reuse of Weiyuan shale gas flowback and produced water. Environmental Science: Water Research and Technology, 2018, 4, 942-955.	2.4	39
50	Removal of calcium and magnesium ions from shale gas flowback water by chemically activated zeolite. Water Science and Technology, 2017, 76, 575-583.	2.5	21
51	Effect of filtration mode and backwash water on hydraulically irreversible fouling of ultrafiltration membrane. Chemosphere, 2017, 179, 254-264.	8.2	26
52	PVDF blended PVDF-g-PMAA pH-responsive membrane: Effect of additives and solvents on membrane properties and performance. Journal of Membrane Science, 2017, 541, 558-566.	8.2	38
53	Optimization of aeration conditions in the hybrid process of coagulation-ultrafiltration with air sparging. Journal of Water Supply: Research and Technology - AQUA, 2017, 66, 632-640.	1.4	3
54	Hydraulic backwashing for low-pressure membranes in drinking water treatment: A review. Journal of Membrane Science, 2017, 540, 362-380.	8.2	138

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55	Thin-film composite forward osmosis membranes with substrate layer composed of polysulfone blended with PEG or polysulfone grafted PEG methyl ether methacrylate. Frontiers of Chemical Science and Engineering, 2016, 10, 562-574.	4.4	23
56	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.	8.2	102
57	Forming mechanism study of unique pillar-like and defect-free PVDF ultrafiltration membranes with high flux. Journal of Membrane Science, 2015, 487, 1-11.	8.2	32
58	Fouling mechanisms in the early stage of an enhanced coagulation-ultrafiltration process. Frontiers of Environmental Science and Engineering, 2015, 9, 73-83.	6.0	4
59	Coagulationâ€“bubblingâ€“ultrafiltration: Effect of floc properties on the performance of the hybrid process. Desalination, 2014, 333, 126-133.	8.2	14
60	High performance ultrafiltration membrane composed of PVDF blended with its derivative copolymer PVDF-g-PEGMA. Journal of Membrane Science, 2013, 445, 66-75.	8.2	82
61	Low-cost antifouling PVC ultrafiltration membrane fabrication with Pluronic F 127: Effect of additives on properties and performance. Desalination, 2012, 307, 26-33.	8.2	145
62	Two-Dimensional LDV Measurement, Modeling, and Optimal Design of Rectangular Primary Settling Tanks. Journal of Environmental Engineering, ASCE, 2010, 136, 501-507.	1.4	25
63	Degradation characteristics of secondary effluent of domestic wastewater by combined process of ozonation and biofiltration. Journal of Hazardous Materials, 2008, 150, 109-114.	12.4	68
64	Two-Dimensional Numerical Simulation of Primary Settling Tanks by Hybrid Finite Analytic Method. Journal of Environmental Engineering, ASCE, 2008, 134, 273-282.	1.4	4