

Xiaobin Jiang

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

2,210
citations

201385

27
h-index

276539

41
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93
all docs

93
docs citations

93
times ranked

1970
citing authors

#	ARTICLE	IF	CITATIONS
1	Protein crystal regulation and harvest via electric field-based method. <i>Current Opinion in Chemical Engineering</i> , 2022, 36, 100744.	3.8	5
2	A Covalent Organic Framework Membrane with Homo Hierarchical Pores for Confined Reactive Crystallization. <i>ACS Applied Materials & Interfaces</i> , 2022, , .	4.0	4
3	Low boiling point solvent-soluble, highly conductive and stable poly (ether phenylene piperidinium) anion exchange membrane. <i>Journal of Membrane Science</i> , 2022, 644, 120185.	4.1	20
4	Membrane crystallization: Engineering the crystallization via microscale interfacial technology. <i>Chemical Engineering Research and Design</i> , 2022, 178, 454-465.	2.7	10
5	Position difference between Mo clusters and N sites induced highly synergistic electrocatalysis in integrated electrode-separator membranes with crosslinked hierarchically porous interface. <i>Energy Storage Materials</i> , 2022, 45, 370-379.	9.5	13
6	Hierarchically porous membranes with synergistic Co clusters and N active sites enabled High-Efficient Li-ion transporting and redox reaction activity in Liâ€“S batteries. <i>Chemical Engineering Journal</i> , 2022, 434, 134797.	6.6	22
7	Hollow COF Selective Layer Based Flexible Composite Membranes Constructed by an Integrated â€œCastingâ€“Precipitationâ€“Evaporationâ€“Strategy. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	20
8	Interfacial induction and regulation for microscale crystallization process: a critical review. <i>Frontiers of Chemical Science and Engineering</i> , 2022, 16, 838-853.	2.3	3
9	Membrane-Assisted Cooling Crystallization for Interfacial Nucleation Induction and Self-Seeding Control. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 765-776.	1.8	9
10	Design and Economic Evaluation of a Hybrid Membrane Separation Process from Multiple Refinery Gases Using a Graphic Synthesis Method. <i>Processes</i> , 2022, 10, 820.	1.3	3
11	PNIPAm hydrogel composite membrane for high-throughput adsorption of biological macromolecules. <i>Separation and Purification Technology</i> , 2022, 294, 121224.	3.9	6
12	Na ⁺ /Mg ²⁺ interactions on membrane distillation permeation flux and crystallization performance during high saline solution treatment. <i>Separation and Purification Technology</i> , 2021, 259, 118191.	3.9	12
13	Membrane Crystallization for Process Intensification and Control: A Review. <i>Engineering</i> , 2021, 7, 50-62.	3.2	45
14	Ion/Molecule-selective transport nanochannels of membranes for redox flow batteries. <i>Energy Storage Materials</i> , 2021, 34, 648-668.	9.5	37
15	High-efficient crystal particle manufacture by microscale process intensification technology. <i>Green Chemical Engineering</i> , 2021, 2, 57-69.	3.3	9
16	Two-dimensional MoS ₂ nanosheets constructing highly ion-selective composite membrane for vanadium redox flow battery. <i>Journal of Membrane Science</i> , 2021, 623, 119051.	4.1	25
17	High-efficient nucleic acid separation from animal tissue samples via surface modified magnetic nanoparticles. <i>Separation and Purification Technology</i> , 2021, 262, 118348.	3.9	12
18	Redistributing Li-ion flux and homogenizing Li-metal growth by N-doped hierarchically porous membranes for dendrite-free Lithium metal batteries. <i>Energy Storage Materials</i> , 2021, 37, 233-242.	9.5	41

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19	A Novel Composite Material UiO-66@HNT/Pebax Mixed Matrix Membranes for Enhanced CO ₂ /N ₂ Separation. <i>Membranes</i> , 2021, 11, 693.	1.4	15
20	3D printed integrated separator with hybrid micro-structures for high throughput and magnetic-free nucleic acid separation from organism samples. <i>Separation and Purification Technology</i> , 2021, 271, 118881.	3.9	4
21	Defective graphene coating-induced exposed interfaces on CoS nanosheets for high redox electrocatalysis in lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2021, 40, 358-367.	9.5	63
22	A multi-objective optimization strategy of steam power system to achieve standard emission and optimal economic by NSGA-III. <i>Energy</i> , 2021, 232, 120953.	4.5	27
23	High selective synthesis of CaCO ₃ superstructures via ultra-homoporous interfacial crystallizer. <i>Chemical Engineering Journal Advances</i> , 2021, 8, 100179.	2.4	2
24	N-Doped Hierarchically Porous CNT@C Membranes for Accelerating Polysulfide Redox Conversion for High-Energy Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 2521-2529.	4.0	20
25	Porosity Distribution Simulation and Impure Inclusion Analysis of Porous Crystal Layer Formed via Polythermal Process. <i>Crystals</i> , 2021, 11, 1347.	1.0	3
26	A highly proton-conductive and vanadium-rejected long-side-chain sulfonated polybenzimidazole membrane for redox flow battery. <i>Journal of Membrane Science</i> , 2020, 596, 117616.	4.1	68
27	Flexibly crosslinked and post-morpholinium-functionalized poly(2,6-dimethyl-1,4-phenylene oxide) anion exchange membranes. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 29681-29689.	3.8	18
28	Morphology Regulation of Monosodium Urate Monohydrate Crystals via Fabricated Uniform Hydrogel Slices. <i>Crystal Research and Technology</i> , 2020, 55, 2000039.	0.6	6
29	Bioinspired Hybrid Micro/Nanostructure Compositing Membrane with Intensified Mass Transfer and Antifouling for High Saline Water Membrane Distillation. <i>ACS Nano</i> , 2020, 14, 17376-17386.	7.3	64
30	Visual study and simulation of interfacial liquid layer mass transfer in membrane-assisted antisolvent crystallization. <i>Chemical Engineering Science</i> , 2020, 228, 116003.	1.9	14
31	High-Performance Anion Exchange Membranes with Para-Type Cations on Electron-Withdrawing Câ•O Links Free Backbone. <i>Macromolecules</i> , 2020, 53, 10988-10997.	2.2	36
32	Scalable High-Areal-Capacity Liâ€S Batteries Enabled by Sandwich-Structured Hierarchically Porous Membranes with Intrinsic Polysulfide Adsorption. <i>Nano Letters</i> , 2020, 20, 6922-6929.	4.5	47
33	Membrane-Assisted Antisolvent Crystallization: Interfacial Mass-Transfer Simulation and Multistage Process Control. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 10160-10171.	1.8	13
34	Interfacial microdroplet evaporative crystallization on 3D printed regular matrix platform. <i>AIChE Journal</i> , 2020, 66, e16280.	1.8	6
35	Efficiency Separation Process of H ₂ /CO ₂ /CH ₄ Mixtures by a Hollow Fiber Dual Membrane Separator. <i>Processes</i> , 2020, 8, 560.	1.3	10
36	Covalent organic framework (COF) constructed proton permselective membranes for acid supporting redox flow batteries. <i>Chemical Engineering Journal</i> , 2020, 399, 125833.	6.6	68

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37	A Novel Process of H ₂ /CO ₂ Membrane Separation of Shifted Syngas Coupled with Gasoil Hydrogenation. <i>Processes</i> , 2020, 8, 590.	1.3	12
38	“Fishnet-like” ion-selective nanochannels in advanced membranes for flow batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21112-21119.	5.2	50
39	Comb-shaped ether-free poly(biphenyl indole) based alkaline membrane. <i>Journal of Membrane Science</i> , 2019, 588, 117216.	4.1	44
40	Tailored 3D printed micro-crystallization chip for versatile and high-efficiency droplet evaporative crystallization. <i>Lab on A Chip</i> , 2019, 19, 767-777.	3.1	7
41	Fabrication of defect-free Matrimid® asymmetric membranes and the elevated temperature application for N ₂ /SF ₆ separation. <i>Journal of Membrane Science</i> , 2019, 577, 258-265.	4.1	17
42	Simultaneous optimization strategies for heat exchanger network synthesis and detailed shell-and-tube heat-exchanger design involving phase changes using GA/SA. <i>Energy</i> , 2019, 183, 1166-1177.	4.5	30
43	Triple-Layered Carbon-SiO ₂ Composite Membrane for High Energy Density and Long Cycling Li-S Batteries. <i>ACS Nano</i> , 2019, 13, 5900-5909.	7.3	93
44	Membrane-based separation technologies: from polymeric materials to novel process: an outlook from China. <i>Reviews in Chemical Engineering</i> , 2019, 36, 67-105.	2.3	28
45	Superhydrophobic polypropylene membrane with fabricated antifouling interface for vacuum membrane distillation treating high concentration sodium/magnesium saline water. <i>Journal of Membrane Science</i> , 2019, 579, 240-252.	4.1	66
46	Novel piperidinium functionalized anionic membrane for alkaline polymer electrolysis with excellent electrochemical properties. <i>Journal of Membrane Science</i> , 2019, 581, 283-292.	4.1	55
47	Quantitative real-time PCR with high-throughput automatable DNA preparation for molecular screening of <i>Nosema</i> spp. in <i>Antheraea pernyi</i> . <i>Journal of Invertebrate Pathology</i> , 2019, 164, 16-22.	1.5	8
48	Multishelled Transition Metal-Based Microspheres: Synthesis and Applications for Batteries and Supercapacitors. <i>Small</i> , 2019, 15, e1804737.	5.2	47
49	Interface-based crystal particle autoselection via membrane crystallization: From scaling to process control. <i>AIChE Journal</i> , 2019, 65, 723-733.	1.8	27
50	A novel hollow fiber membrane-assisted antisolvent crystallization for enhanced mass transfer process control. <i>AIChE Journal</i> , 2019, 65, 734-744.	1.8	29
51	Enhanced performance of superhydrophobic polypropylene membrane with modified antifouling surface for high salinity water treatment. <i>Separation and Purification Technology</i> , 2019, 214, 11-20.	3.9	62
52	ZIF-8 heterogeneous nucleation and growth mechanism on Zn(II)-doped polydopamine for composite membrane fabrication. <i>Separation and Purification Technology</i> , 2019, 214, 95-103.	3.9	22
53	Graphic synthesis method for multi-technique integration separation sequences of multi-input refinery gases. <i>Separation and Purification Technology</i> , 2019, 214, 187-195.	3.9	12
54	Dissolution-regrowth synthesis of SiO ₂ nanoplates and embedment into two carbon shells for enhanced lithium-ion storage. <i>Chinese Journal of Chemical Engineering</i> , 2018, 26, 1522-1527.	1.7	2

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55	Facile fabrication of reinforced homoporous MF membranes by in situ breath figure and thermal adhesion method on substrates. <i>Journal of Membrane Science</i> , 2018, 554, 291-299.	4.1	9
56	Pulverization Control by Confining Fe ₃ O ₄ Nanoparticles Individually into Macropores of Hollow Carbon Spheres for High-Performance Li-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 2581-2590.	4.0	56
57	Highly efficient tetrafluoroethylene recovery for batch polymerization system: Membrane preparation and process development. <i>Journal of Membrane Science</i> , 2018, 549, 403-410.	4.1	2
58	Hybrid Control Mechanism of Crystal Morphology Modification for Ternary Solution Treatment via Membrane Assisted Crystallization. <i>Crystal Growth and Design</i> , 2018, 18, 934-943.	1.4	21
59	Tailored Robust Hydrogel Composite Membranes for Continuous Protein Crystallization with Ultrahigh Morphology Selectivity. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 26653-26661.	4.0	19
60	Microscale flow and separation process analysis in the nanoporous crystal layer. , 2018, , 175-206.		1
61	Comparative study on ATR-FTIR calibration models for monitoring solution concentration in cooling crystallization. <i>Journal of Crystal Growth</i> , 2017, 459, 50-55.	0.7	27
62	Modeling and simulation of mitigating membrane fouling under a baffle-filled turbulent flow with permeate boundary. <i>Separation and Purification Technology</i> , 2017, 179, 13-24.	3.9	24
63	Crystal Size Distribution and Aspect Ratio Control for Rodlike Urea Crystal via Two-Dimensional Growth Evaluation. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 2573-2581.	1.8	12
64	Interpenetrated Networks between Graphitic Carbon Infilling and Ultrafine TiO ₂ Nanocrystals with Patterned Macroporous Structure for High-Performance Lithium Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 20491-20500.	4.0	37
65	Measurement and Correlation of the Solubility of 2,6-Dihydroxybenzoic Acid in Alcohols and Binary Solvents. <i>Journal of Chemical & Engineering Data</i> , 2017, 62, 3009-3014.	1.0	5
66	Progress in membrane distillation crystallization: Process models, crystallization control and innovative applications. <i>Frontiers of Chemical Science and Engineering</i> , 2017, 11, 647-662.	2.3	39
67	Polyimide membrane system for tetrafluoroethylene recovery: Industrial plant, optimal operation and economic analysis. <i>Separation and Purification Technology</i> , 2017, 188, 468-475.	3.9	4
68	Enhancing mechanical stability and uniformity of 2-D continuous ZIF-8 membranes by Zn(II)-doped polydopamine modification. <i>Journal of Membrane Science</i> , 2017, 541, 101-107.	4.1	21
69	Simultaneous recovery and crystallization control of saline organic wastewater by membrane distillation crystallization. <i>AIChE Journal</i> , 2017, 63, 2187-2197.	1.8	39
70	Pressure swing adsorption/membrane hybrid processes for hydrogen purification with a high recovery. <i>Frontiers of Chemical Science and Engineering</i> , 2016, 10, 255-264.	2.3	62
71	Dual-membrane natural gas pretreatment process as CO ₂ source for enhanced gas recovery with synergy hydrocarbon recovery. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 34, 563-574.	2.1	12
72	Membrane assisted cooling crystallization: Process model, nucleation, metastable zone, and crystal size distribution. <i>AIChE Journal</i> , 2016, 62, 829-841.	1.8	46

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73	Dual-Membrane Module and Its Optimal Flow Pattern for H ₂ /CO ₂ Separation. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 1064-1075.	1.8	15
74	A novel membrane distillation response technology for nucleation detection, metastable zone width measurement and analysis. <i>Chemical Engineering Science</i> , 2015, 134, 671-680.	1.9	27
75	Synergy of CO ₂ removal and light hydrocarbon recovery from oil-field associated gas by dual-membrane process. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 26, 1254-1263.	2.1	18
76	Formation Mechanism of Zinc Oxalate Particles in the Internal Aqueous Droplets of Emulsion Liquid Membrane. <i>Journal of Dispersion Science and Technology</i> , 2014, 35, 1369-1377.	1.3	2
77	Application of membrane separation technology in postcombustion carbon dioxide capture process. <i>Frontiers of Chemical Science and Engineering</i> , 2014, 8, 233-239.	2.3	13
78	Research Progress and Model Development of Crystal Layer Growth and Impurity Distribution in Layer Melt Crystallization: A Review. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 13211-13227.	1.8	46
79	Falling film melt crystallization (III): Model development, separation effect compared to static melt crystallization and process optimization. <i>Chemical Engineering Science</i> , 2014, 117, 198-209.	1.9	26
80	Progress in the Application of Fractal Porous Media Theory to Property Analysis and Process Simulation in Melt Crystallization. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 15685-15701.	1.8	29
81	Falling film melt crystallization (II): Model to simulate the dynamic sweating using fractal porous media theory. <i>Chemical Engineering Science</i> , 2013, 91, 111-121.	1.9	32
82	Fractal slice model analysis for effective thermal conductivity and temperature distribution of porous crystal layer via layer crystallization. <i>Crystal Research and Technology</i> , 2013, 48, 574-581.	0.6	11
83	Falling film melt crystallization (I): Model development, experimental validation of crystal layer growth and impurity distribution process. <i>Chemical Engineering Science</i> , 2012, 84, 120-133.	1.9	47
84	Kinetics Study on the Liquid Entrapment and Melt Transport of Static and Falling-Film Melt Crystallization. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 5037-5044.	1.8	24
85	Determination of Thermodynamics in Various Solvents and Kinetics of Cefuroxime Sodium during Antisolvent Crystallization. <i>Journal of Chemical & Engineering Data</i> , 2012, 57, 952-956.	1.0	8
86	Isolation, characterization and phase transformation of new ginsenoside compound k hydrate and methanol solvates. <i>Crystal Research and Technology</i> , 2012, 47, 377-384.	0.6	9
87	Coarse crystal layer growth and liquid entrapment study with gradient freeze technology. <i>Crystal Research and Technology</i> , 2012, 47, 649-657.	0.6	7
88	Model to Simulate the Structure of a Crystal Pillar and Optimize the Separation Efficiency in Melt Crystallization by Fractal Theory and Technique. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 10229-10245.	1.8	30
89	Density, Viscosity, and Thermal Conductivity of Electronic Grade Phosphoric Acid. <i>Journal of Chemical & Engineering Data</i> , 2011, 56, 205-211.	1.0	22
90	Permeability analysis and seepage process study on crystal layer in melt crystallization with fractal and porous media theory. <i>Frontiers of Chemical Science and Engineering</i> , 2011, 5, 435-441.	2.3	4

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91	Measurement and Correlation of Solubility of Cefuroxime Acid in Pure and Binary Solvents at Various Temperatures. Journal of Chemical & Engineering Data, 2010, 55, 3369-3372.	1.0	8
92	Nanocage-oriented induction for highly ion-selective sub-1-nanometer channels of membranes. Journal of Materials Chemistry A, 0, , .	5.2	5