Wu Xiao

List of Publications by Year in descending order

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47 papers	1,025 citations	430874 18 h-index	434195 31 g-index
50 all docs	50 docs citations	50 times ranked	1115 citing authors

#	Article	IF	Citations
1	Protein crystal regulation and harvest via electric field-based method. Current Opinion in Chemical Engineering, 2022, 36, 100744.	7.8	5
2	A Covalent Organic Framework Membrane with Homo Hierarchical Pores for Confined Reactive Crystallization. ACS Applied Materials & Interfaces, 2022, , .	8.0	4
3	Membrane-Assisted Cooling Crystallization for Interfacial Nucleation Induction and Self-Seeding Control. Industrial & Engineering Chemistry Research, 2022, 61, 765-776.	3.7	9
4	Design and Economic Evaluation of a Hybrid Membrane Separation Process from Multiple Refinery Gases Using a Graphic Synthesis Method. Processes, 2022, 10, 820.	2.8	3
5	Na+/Mg2+ interactions on membrane distillation permeation flux and crystallization performance during high saline solution treatment. Separation and Purification Technology, 2021, 259, 118191.	7.9	12
6	Electron-Donating C-NH₂ Link Backbone for Highly Alkaline and Mechanical Stable Anion Exchange Membranes. ACS Applied Materials & Interfaces, 2021, 13, 10490-10499.	8.0	22
7	High-efficient crystal particle manufacture by microscale process intensification technology. Green Chemical Engineering, 2021, 2, 57-69.	6.3	9
8	A Novel Composite Material UiO-66@HNT/Pebax Mixed Matrix Membranes for Enhanced CO2/N2 Separation. Membranes, 2021, 11, 693.	3.0	15
9	A multi-objective optimization strategy of steam power system to achieve standard emission and optimal economic by NSGA-â…¡. Energy, 2021, 232, 120953.	8.8	27
10	Porosity Distribution Simulation and Impure Inclusion Analysis of Porous Crystal Layer Formed via Polythermal Process. Crystals, 2021, 11, 1347.	2.2	3
11	Visual study and simulation of interfacial liquid layer mass transfer in membrane-assisted antisolvent crystallization. Chemical Engineering Science, 2020, 228, 116003.	3.8	14
12	Scalable High-Areal-Capacity Liâ€“S Batteries Enabled by Sandwich-Structured Hierarchically Porous Membranes with Intrinsic Polysulfide Adsorption. Nano Letters, 2020, 20, 6922-6929.	9.1	47
13	Membrane-Assisted Antisolvent Crystallization: Interfacial Mass-Transfer Simulation and Multistage Process Control. Industrial & Engineering Chemistry Research, 2020, 59, 10160-10171.	3.7	13
14	Interfacial microdroplet evaporative crystallization on 3D printed regular matrix platform. AICHE Journal, 2020, 66, e16280.	3.6	6
15	Efficiency Separation Process of H2/CO2/CH4 Mixtures by a Hollow Fiber Dual Membrane Separator. Processes, 2020, 8, 560.	2.8	10
16	A Novel Process of H2/CO2 Membrane Separation of Shifted Syngas Coupled with Gasoil Hydrogenation. Processes, 2020, 8, 590.	2.8	12
17	Membrane separation system for coalâ€fired flue gas reclamation: Process planning and initial design. Canadian Journal of Chemical Engineering, 2019, 97, 717-726.	1.7	2
18	Tailored 3D printed micro-crystallization chip for versatile and high-efficiency droplet evaporative crystallization. Lab on A Chip, 2019, 19, 767-777.	6.0	7

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19	Conceptual Design of Pyrolytic Oil Upgrading Process Enhanced by Membrane-Integrated Hydrogen Production System. Processes, 2019, 7, 284.	2.8	7
20	Simultaneous optimization strategies for heat exchanger network synthesis and detailed shell-and-tube heat-exchanger design involving phase changes using GA/SA. Energy, 2019, 183, 1166-1177.	8.8	30
21	Superhydrophobic polypropylene membrane with fabricated antifouling interface for vacuum membrane distillation treating high concentration sodium/magnesium saline water. Journal of Membrane Science, 2019, 579, 240-252.	8.2	66
22	Interfaceâ€based crystal particle autoselection via membrane crystallization: From scaling to process control. AICHE Journal, 2019, 65, 723-733.	3.6	27
23	A novel hollow fiber membraneâ€assisted antisolvent crystallization for enhanced mass transfer process control. AICHE Journal, 2019, 65, 734-744.	3.6	29
24	Enhanced performance of superhydrophobic polypropylene membrane with modified antifouling surface for high salinity water treatment. Separation and Purification Technology, 2019, 214, 11-20.	7.9	62
25	Pulverization Control by Confining Fe₃O₄ Nanoparticles Individually into Macropores of Hollow Carbon Spheres for High-Performance Li-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 2581-2590.	8.0	56
26	Hybrid Control Mechanism of Crystal Morphology Modification for Ternary Solution Treatment via Membrane Assisted Crystallization. Crystal Growth and Design, 2018, 18, 934-943.	3.0	21
27	Tailored Robust Hydrogel Composite Membranes for Continuous Protein Crystallization with Ultrahigh Morphology Selectivity. ACS Applied Materials & Interfaces, 2018, 10, 26653-26661.	8.0	19
28	Elimination of Product Inhibition by Ethanol Competitive Adsorption on Carbon Catalyst Support in a Maleic Acid Electrochemical Hydrogen Pump Hydrogenation Reactor. ACS Sustainable Chemistry and Engineering, 2017, 5, 8738-8746.	6.7	7
29	Simultaneous recovery and crystallization control of saline organic wastewater by membrane distillation crystallization. AICHE Journal, 2017, 63, 2187-2197.	3.6	39
30	Coupling hydrogen separation with butanone hydrogenation in an electrochemical hydrogen pump with sulfonated poly (phthalazinone ether sulfone ketone) membrane. Journal of Power Sources, 2016, 327, 178-186.	7.8	13
31	Dual-membrane natural gas pretreatment process as CO 2 source for enhanced gas recovery with synergy hydrocarbon recovery. Journal of Natural Gas Science and Engineering, 2016, 34, 563-574.	4.4	12
32	Membrane assisted cooling crystallization: Process model, nucleation, metastable zone, and crystal size distribution. AICHE Journal, 2016, 62, 829-841.	3.6	46
33	Dual-Membrane Module and Its Optimal Flow Pattern for H₂/CO₂ Separation. Industrial & Engineering Chemistry Research, 2016, 55, 1064-1075.	3.7	15
34	Effects of Hydrophobicity of Diffusion Layer on the Electroreduction of Biomass Derivatives in Polymer Electrolyte Membrane Reactors. ChemSusChem, 2015, 8, 288-300.	6.8	11
35	A novel membrane distillation response technology for nucleation detection, metastable zone width measurement and analysis. Chemical Engineering Science, 2015, 134, 671-680.	3.8	27
36	Synergy of CO 2 removal and light hydrocarbon recovery from oil-field associated gas by dual-membrane process. Journal of Natural Gas Science and Engineering, 2015, 26, 1254-1263.	4.4	18

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37	Preparation of porous PPy TiO 2 composites: Improved visible light photoactivity and the mechanism. Chemical Engineering Journal, 2014, 236, 480-489.	12.7	72
38	Falling film melt crystallization (III): Model development, separation effect compared to static melt crystallization and process optimization. Chemical Engineering Science, 2014, 117, 198-209.	3.8	26
39	Microspheroidization treatment of macroporous TiO2 to enhance its recycling and prevent membrane fouling of photocatalysisâ€“membrane system. Chemical Engineering Journal, 2014, 251, 58-68.	12.7	14
40	Optimization of the scheduling and water integration in batch processes based on the Timed Petri net. Computer Aided Chemical Engineering, 2012, , 1447-1451.	0.5	0
41	Pore size and surface area control of MgO nanostructures using a surfactant-templated hydrothermal process: High adsorption capability to azo dyes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 408, 79-86.	4.7	100
42	10.2478/s11814-010-0157-z. , 2011, 27, 373.		0
43	Simultaneous optimal integration of water utilization and heat exchange networks using holistic mathematical programming. Korean Journal of Chemical Engineering, 2009, 26, 1161-1174.	2.7	11
44	Simultaneous optimization of batch process schedules and water-allocation network. Computers and Chemical Engineering, 2009, 33, 1153-1168.	3.8	40
45	A Simultaneous Approach for Batch Water-allocation Network Design. , 2009, , 213-222.		0
46	An automated method for synthesizing a multi-stream heat exchanger network based on stream pseudo-temperature. Computer Aided Chemical Engineering, 2006, 21, 919-924.	0.5	0
47	Synthesis of Large-scale Multistream Heat Exchanger Networks Based on Stream Pseudo Temperature. Chinese Journal of Chemical Engineering, 2006, 14, 574-583.	3.5	34