

Zhi Xu

List of Publications by Year in descending order

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76
papers

2,779
citations

126907

33
h-index

189892

50
g-index

77
all docs

77
docs citations

77
times ranked

2649
citing authors

#	ARTICLE	IF	CITATIONS
1	Perovskite Cathode Materials for Low-Temperature Solid Oxide Fuel Cells: Fundamentals to Optimization. <i>Electrochemical Energy Reviews</i> , 2022, 5, 263-311.	25.5	35
2	Anchoring metal organic frameworks on nanofibers via etching-assisted strategy: Toward water-in-oil emulsion separation membranes. <i>Separation and Purification Technology</i> , 2022, 281, 119812.	7.9	30
3	Rapid removal of PFOA and PFOS via modified industrial solid waste: Mechanisms and influences of water matrices. <i>Chemical Engineering Journal</i> , 2022, 433, 133271.	12.7	16
4	Two-dimensional sub-nanometer confinement channels enabled by functional carbon dots for ultra-permeable alcohol dehydration. <i>Journal of Membrane Science</i> , 2022, 644, 120069.	8.2	7
5	Gravity-driven electrospun membranes for effective removal of perfluoro-organics from synthetic groundwater. <i>Journal of Membrane Science</i> , 2022, 644, 120180.	8.2	14
6	Induced activation of the commercial Cu/ZnO/Al ₂ O ₃ catalyst for the steam reforming of methanol. <i>Nature Catalysis</i> , 2022, 5, 99-108.	34.4	155
7	Fast proton-selective transport through covalent organic frameworks in aqueous phase. <i>Journal of Membrane Science</i> , 2022, 648, 120361.	8.2	6
8	<sc>MOF</sc>-801 polycrystalline membrane with sub-10 nm polymeric assembly layer for ion sieving and flow battery storage. <i>AIChE Journal</i> , 2022, 68, .	3.6	14
9	Structural Buffer Engineering on Metal Oxide for Long-Term Stable Seawater Splitting. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	64
10	Rigidly and intrinsically microporous polymer reinforced sulfonated polyether ether ketone membrane for vanadium flow battery. <i>Journal of Membrane Science</i> , 2022, 653, 120517.	8.2	10
11	Regulating multiscale structures of nickel-iron-based electrocatalysts for efficient water oxidation. <i>Cell Reports Physical Science</i> , 2022, 3, 100870.	5.6	4
12	Fish-scale-like nano-porous membrane based on zeolite nanosheets for long stable zinc-based flow battery. <i>AIChE Journal</i> , 2022, 68, .	3.6	10
13	Recent Advances on Hydrogen Evolution and Oxygen Evolution Catalysts for Direct Seawater Splitting. <i>Coatings</i> , 2022, 12, 659.	2.6	14
14	Optimizing pore structure of nanoporous membranes for high-performance salinity gradient power conversion. <i>Chemical Engineering Journal</i> , 2022, 444, 136675.	12.7	7
15	Electrostatic-Induced Crystal-Rearrangement of Porous Organic Cage Membrane for CO ₂ Capture. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	18
16	Microscopic transport and phase behaviors of CO ₂ injection in heterogeneous formations using microfluidics. <i>Energy</i> , 2022, 256, 124524.	8.8	19
17	High-Flux Nanofibrous Membranes with an Under-oil Superhydrophobic Surface Modulated by Zeolitic Imidazolate Framework-71 for Gravity-Driven Water-in-Oil Separation. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 9037-9043.	3.7	5
18	Room-Temperature Synthesis of NiCo-Layered Double Hydroxide/MXene Composites for High-Performance Supercapacitors. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 8800-8808.	3.7	7

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19	Electrostaticâ€Induced Crystalâ€Rearrangement of Porous Organic Cage Membrane for CO ₂ Capture. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	6
20	Solvent-induced interfacial polymerization enables highly crystalline covalent organic framework membranes. <i>Journal of Membrane Science</i> , 2022, 659, 120799.	8.2	24
21	Catalytic partial oxidation of methane to syngas: review of perovskite catalysts and membrane reactors. <i>Catalysis Reviews - Science and Engineering</i> , 2021, 63, 1-67.	12.9	71
22	Unveiling the effects of dimensionality of tin oxide-derived catalysts on CO ₂ reduction by using gas-diffusion electrodes. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 345-352.	3.7	20
23	Two-dimensional material separation membranes for renewable energy purification, storage, and conversion. <i>Green Energy and Environment</i> , 2021, 6, 193-211.	8.7	90
24	Phase and morphology engineering of porous cobaltâ€copper sulfide as a bifunctional oxygen electrode for rechargeable Znâ€air batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18329-18337.	10.3	14
25	Tailoring of a catalyst La _{0.8} Ce _{0.1} Ni _{0.4} Ti _{0.6} O ₃ interlayer via in situ exsolution for a catalytic membrane reactor. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 1395-1403.	3.7	2
26	Recent progress in the design and fabrication of MXene-based membranes. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 820-836.	4.4	27
27	Novel Ag-AgBr decorated composite membrane for dye rejection and photodegradation under visible light. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 892-901.	4.4	8
28	Advanced Nafion hybrid membranes with fast proton transport channels toward high-performance vanadium redox flow battery. <i>Journal of Membrane Science</i> , 2021, 624, 119047.	8.2	39
29	Porous Structure Engineering of Iridium Oxide Nanoclusters on Atomic Scale for Efficient pHâ€Universal Overall Water Splitting. <i>Small</i> , 2021, 17, e2100121.	10.0	40
30	Novel membrane separation technologies and membrane processes. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 717-719.	4.4	16
31	Computational Design and Experimental Validation of the Optimal Bimetal-Doped SrCoO ₃ Perovskite as Solid Oxide Fuel Cell Cathode. <i>Journal of the American Chemical Society</i> , 2021, 143, 9507-9514.	13.7	48
32	Influence of porous media heterogeneity on water-oil immiscible displacement and mechanism analysis. <i>Zhongguo Kexue Jishu Kexue/Scientia Sinica Technologica</i> , 2021, , .	0.5	1
33	Zrâ€MOFâ€Enabled Controllable Ion Sieving and Proton Conductivity in Flow Battery Membrane. <i>Advanced Functional Materials</i> , 2021, 31, 2104629.	14.9	64
34	Ultrafast Water Transport in Twoâ€Dimensional Channels Enabled by Spherical Polyelectrolyte Brushes with Controllable Flexibility. <i>Angewandte Chemie</i> , 2021, 133, 20086-20094.	2.0	4
35	Ultrafast Water Transport in Twoâ€Dimensional Channels Enabled by Spherical Polyelectrolyte Brushes with Controllable Flexibility. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 19933-19941.	13.8	39
36	Li ⁺ /Mg ²⁺ separation by membrane separation: The role of the compensatory effect. <i>Journal of Membrane Science</i> , 2021, 636, 119542.	8.2	47

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37	Self-crosslinked MXene hollow fiber membranes for H ₂ /CO ₂ separation. <i>Journal of Membrane Science</i> , 2021, 638, 119669.	8.2	37
38	Pore-scale investigation of immiscible displacement in rough fractures. <i>Journal of Petroleum Science and Engineering</i> , 2021, 207, 109107.	4.2	7
39	The Simulation of Liquid Flow in the Pore Network Model of Nanoporous Media. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2021, 143, .	2.3	7
40	Adaptation and evolution of freshwater Anammox communities treating saline/brackish wastewater. <i>Water Research</i> , 2021, 207, 117815.	11.3	15
41	Biomimetic Strain-Induced Stiffening Self-Assembled Hydrogels. <i>Angewandte Chemie</i> , 2020, 132, 4860-4864.	2.0	14
42	High-flux, anti-fouling dendrimer grafted PAN membrane: Fabrication, performance and mechanisms. <i>Journal of Membrane Science</i> , 2020, 596, 117743.	8.2	35
43	Biomimetic Strain-Induced Stiffening Self-Assembled Hydrogels. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4830-4834.	13.8	48
44	Microfluidic-Assembled Nanoarrays/Porous Core-Shell Fibers toward Robust Micro-Energy Storage. <i>Advanced Science</i> , 2020, 7, 1901931.	11.2	47
45	Sulfur-Modified Oxygen Vacancies in Iron-Cobalt Oxide Nanosheets: Enabling Extremely High Activity of the Oxygen Evolution Reaction to Achieve the Industrial Water Splitting Benchmark. <i>Angewandte Chemie</i> , 2020, 132, 14772-14778.	2.0	89
46	Sulfur-Modified Oxygen Vacancies in Iron-Cobalt Oxide Nanosheets: Enabling Extremely High Activity of the Oxygen Evolution Reaction to Achieve the Industrial Water Splitting Benchmark. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14664-14670.	13.8	178
47	Thumbnail: Biomimetic Strain-Induced Stiffening Self-Assembled Hydrogels (<i>Angew. Chem.</i> 12/2020). <i>Angewandte Chemie</i> , 2020, 132, 5001-5001.	2.0	0
48	A Surfactant-Free and Scalable General Strategy for Synthesizing Ultrathin Two-Dimensional Metal-Organic Framework Nanosheets for the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2019, 131, 13699-13706.	2.0	64
49	A Surfactant-Free and Scalable General Strategy for Synthesizing Ultrathin Two-Dimensional Metal-Organic Framework Nanosheets for the Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13565-13572.	13.8	205
50	Mineralized Supramolecular Hydrogels Bearing Tunable Thermo-Responsiveness. <i>Macromolecular Rapid Communications</i> , 2019, 40, 1900516.	3.9	2
51	Investigations on a Mesoporous Glass Membrane as Ion Separator for a Redox Flow Battery. <i>Batteries</i> , 2019, 5, 6.	4.5	9
52	Ag NPs coated PVDF@TiO ₂ nanofiber membrane prepared by epitaxial growth on TiO ₂ inter-layer for 4-NP reduction application. <i>Separation and Purification Technology</i> , 2019, 227, 115700.	7.9	33
53	Assembly of 2D MXene nanosheets and TiO ₂ nanoparticles for fabricating mesoporous TiO ₂ -MXene membranes. <i>Journal of Membrane Science</i> , 2018, 564, 35-43.	8.2	57
54	Selective Swelling of Electrospun Block Copolymers: From Perforated Nanofibers to High Flux and Responsive Ultrafiltration Membranes. <i>Macromolecules</i> , 2018, 51, 2283-2292.	4.8	36

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55	Ultrathin ZSM-5 zeolite nanosheet laminated membrane for high-flux desalination of concentrated brines. <i>Science Advances</i> , 2018, 4, eaau8634.	10.3	88
56	Microfluidic-Directed Hydrogel Fabrics Based on Interfibrillar Self-Healing Effects. <i>Chemistry of Materials</i> , 2018, 30, 8822-8828.	6.7	42
57	A Fiber Optic Interferometric Sensor Platform for Determining Gas Diffusivity in Zeolite Films. <i>Sensors</i> , 2018, 18, 1090.	3.8	7
58	Two-dimensional MXene incorporated chitosan mixed-matrix membranes for efficient solvent dehydration. <i>Journal of Membrane Science</i> , 2018, 563, 625-632.	8.2	135
59	Fabrication of microporous GO-TiO ₂ membrane via an improved weak alkaline sol-gel method. <i>Journal of Membrane Science</i> , 2018, 561, 10-18.	8.2	26
60	Tunable dextran retention of MXene-TiO ₂ mesoporous membranes by adjusting the 2D MXene content. <i>2D Materials</i> , 2018, 5, 045003.	4.4	42
61	Co-immobilization of cellulase and lysozyme on amino-functionalized magnetic nanoparticles: An activity-tunable biocatalyst for extraction of lipids from microalgae. <i>Bioresource Technology</i> , 2018, 263, 317-324.	9.6	60
62	Insight into effective denitrification and desulfurization of liquid fuel with deep eutectic solvents: an innovative evaluation criterion to filtrate extractants using the compatibility index. <i>Green Chemistry</i> , 2018, 20, 3112-3120.	9.0	46
63	Sulfonic acid-grafted polyvinylidene fluoride electrospun mats as electro-Fenton reactor membrane components. <i>RSC Advances</i> , 2017, 7, 29193-29199.	3.6	2
64	Balancing Osmotic Pressure of Electrolytes for Nanoporous Membrane Vanadium Redox Flow Battery with a Draw Solute. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 35289-35297.	8.0	42
65	Proton-Selective Ion Transport in ZSM-5 Zeolite Membrane. <i>Journal of Physical Chemistry C</i> , 2016, 120, 26386-26392.	3.1	31
66	DDR-type zeolite membrane synthesis, modification and gas permeation studies. <i>Journal of Membrane Science</i> , 2016, 505, 194-204.	8.2	77
67	Zeolite membranes for ion separations from aqueous solutions. <i>Current Opinion in Chemical Engineering</i> , 2015, 8, 15-20.	7.8	28
68	Colloidal silicalite-nafion composite ion exchange membrane for vanadium redox-flow battery. <i>Journal of Membrane Science</i> , 2015, 484, 1-9.	8.2	51
69	A zeolite ion exchange membrane for redox flow batteries. <i>Chemical Communications</i> , 2014, 50, 2416.	4.1	35
70	Proton-Conducting Nanocrystalline Ceramics for High-Temperature Hydrogen Sensing. <i>Metallurgical and Materials Transactions E</i> , 2014, 1, 48-57.	0.5	0
71	Nonionic zeolite membrane as potential ion separator in redox-flow battery. <i>Journal of Membrane Science</i> , 2014, 450, 12-17.	8.2	55
72	Effect of Pressure on High-Temperature Water Gas Shift Reaction in Microporous Zeolite Membrane Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 1364-1375.	3.7	60

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73	Acidic ZSM-5 zeolite-coated long period fiber grating for optical sensing of ammonia. <i>Journal of Materials Chemistry</i> , 2011, 21, 181-186.	6.7	34
74	Preparation and characterization of mixed-conducting thin tubular membrane. <i>Journal of Membrane Science</i> , 2007, 299, 261-267.	8.2	22
75	Chemical Expansion, Crystal Structural Stability, and Oxygen Permeability of $\text{SrCo}_{0.4}\text{Fe}_{0.6}\text{Al}_x\text{O}_{3-\delta}$ Oxides. <i>Journal of the American Ceramic Society</i> , 2007, 90, 3923-3929.	3.8	10
76	Mechanochemically Synthesised Flexible Electrodes based on Bimetallic Metal-Organic Framework Glasses for the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 0, , .	2.0	7