Zhizhang Yuan

List of Publications by Year
in descending order

44 papers	3,273 citations	186265 28 h-index	254184 43 g-index
45 all docs	45 docs citations	45 times ranked	2139 citing authors

#	Article	IF	Citations
1	Porous membranes in secondary battery technologies. Chemical Society Reviews, 2017, 46, 2199-2236.	38.1	357
2	Technologies and perspectives for achieving carbon neutrality. Innovation(China), 2021, 2, 100180.	9.1	306
3	Advanced porous membranes with ultra-high selectivity and stability for vanadium flow batteries. Energy and Environmental Science, 2016, 9, 441-447.	30.8	265
4	Degradation mechanism of sulfonated poly(ether ether ketone) (SPEEK) ion exchange membranes under vanadium flow battery medium. Physical Chemistry Chemical Physics, 2014, 16, 19841-19847.	2.8	161
5	Advanced Materials for Zincâ€Based Flow Battery: Development and Challenge. Advanced Materials, 2019, 31, e1902025.	21.0	160
6	A Highly Ionâ€Selective Zeolite Flake Layer on Porous Membranes for Flow Battery Applications. Angewandte Chemie - International Edition, 2016, 55, 3058-3062.	13.8	148
7	Advanced Charged Spongeâ€Like Membrane with Ultrahigh Stability and Selectivity for Vanadium Flow Batteries. Advanced Functional Materials, 2016, 26, 210-218.	14.9	139
8	Negatively charged nanoporous membrane for a dendrite-free alkaline zinc-based flow battery with long cycle life. Nature Communications, 2018, 9, 3731.	12.8	133
9	Mechanism of Polysulfone-Based Anion Exchange Membranes Degradation in Vanadium Flow Battery. ACS Applied Materials & Interfaces, 2015, 7, 19446-19454.	8.0	123
10	Toward a Low-Cost Alkaline Zinc-Iron Flow Battery with a Polybenzimidazole Custom Membrane for Stationary Energy Storage. IScience, 2018, 3, 40-49.	4.1	119
11	Highly Stable Anion Exchange Membranes with Internal Crossâ€Linking Networks. Advanced Functional Materials, 2015, 25, 2583-2589.	14.9	114
12	High-performance porous uncharged membranes for vanadium flow battery applications created by tuning cohesive and swelling forces. Energy and Environmental Science, 2016, 9, 2319-2325.	30.8	108
13	Layered double hydroxide membrane with high hydroxide conductivity and ion selectivity for energy storage device. Nature Communications, 2021, 12, 3409.	12.8	94
14	Porous membrane with high curvature, three-dimensional heat-resistance skeleton: a new and practical separator candidate for high safety lithium ion battery. Scientific Reports, 2015, 5, 8255.	3.3	80
15	Advanced porous PBI membranes with tunable performance induced by the polymer-solvent interaction for flow battery application. Energy Storage Materials, 2018, 10, 40-47.	18.0	80
16	Ion conducting membranes for aqueous flow battery systems. Chemical Communications, 2018, 54, 7570-7588.	4.1	79
17	Dendrite-Free Zinc-Based Battery with High Areal Capacity via the Region-Induced Deposition Effect of Turing Membrane. Journal of the American Chemical Society, 2021, 143, 13135-13144.	13.7	73
18	A Boron Nitride Nanosheets Composite Membrane for a Longâ€Life Zincâ€Based Flow Battery. Angewandte Chemie - International Edition, 2020, 59, 6715-6719.	13.8	67

#	Article	IF	Citations
19	Solventâ€Induced Rearrangement of Ionâ€Transport Channels: A Way to Create Advanced Porous Membranes for Vanadium Flow Batteries. Advanced Functional Materials, 2017, 27, 1604587.	14.9	66
20	Low-cost hydrocarbon membrane enables commercial-scale flow batteries for long-duration energy storage. Joule, 2022, 6, 884-905.	24.0	53
21	Highly stable aromatic poly (ether sulfone) composite ion exchange membrane for vanadium flow battery. Journal of Membrane Science, 2017, 541, 465-473.	8.2	50
22	Polypyrrole modified porous poly(ether sulfone) membranes with high performance for vanadium flow batteries. Journal of Materials Chemistry A, 2016, 4, 12955-12962.	10.3	46
23	Organic Electrolytes for pHâ€Neutral Aqueous Organic Redox Flow Batteries. Advanced Functional Materials, 2022, 32, 2108777.	14.9	43
24	In Situ Defectâ€Free Vertically Aligned Layered Double Hydroxide Composite Membrane for High Areal Capacity and Longâ€Cycle Zincâ€Based Flow Battery. Advanced Functional Materials, 2021, 31, 2102167.	14.9	36
25	Mechanism and transfer behavior of ions in Nafion membranes under alkaline media. Journal of Membrane Science, 2018, 566, 8-14.	8.2	35
26	Advanced charged porous membranes with flexible internal crosslinking structures for vanadium flow batteries. Journal of Materials Chemistry A, 2017, 5, 6193-6199.	10.3	34
27	Morphology and performance of poly(ether sulfone)/sulfonated poly(ether ether ketone) blend porous membranes for vanadium flow battery application. RSC Advances, 2014, 4, 40400-40406.	3.6	33
28	A Venus-flytrap-inspired pH-responsive porous membrane with internal crosslinking networks. Journal of Materials Chemistry A, 2017, 5, 25555-25561.	10.3	32
29	Rechargeable aqueous zincâ€"bromine batteries: an overview and future perspectives. Physical Chemistry Chemical Physics, 2021, 23, 26070-26084.	2.8	32
30	Highly stable membranes based on sulfonated fluorinated poly(ether ether ketone)s with bifunctional groups for vanadium flow battery application. Polymer Chemistry, 2015, 6, 5385-5392.	3.9	27
31	A Highly Ionâ€Selective Zeolite Flake Layer on Porous Membranes for Flow Battery Applications. Angewandte Chemie, 2016, 128, 3110-3114.	2.0	25
32	A highly stable membrane with hierarchical structure for wide pH range flow batteries. Journal of Energy Chemistry, 2021, 56, 80-86.	12.9	22
33	A non-ionic membrane with high performance for alkaline zinc-iron flow battery. Journal of Membrane Science, 2021, 618, 118585.	8.2	22
34	A Costâ€Effective Mixed Matrix Polyethylene Porous Membrane for Longâ€Cycle High Power Density Alkaline Zincâ€Based Flow Batteries. Advanced Functional Materials, 2019, 29, 1901674.	14.9	20
35	Porous Membrane with High Selectivity for Alkaline Quinone-Based Flow Batteries. ACS Applied Materials & Interfaces, 2020, 12, 48533-48541.	8.0	18
36	Low-cost all-iron flow battery with high performance towards long-duration energy storage. Journal of Energy Chemistry, 2022, 73, 445-451.	12.9	17

#	ARTICLE	IF	CITATIONS
37	Effect of Electrolyte Additives on the Water Transfer Behavior for Alkaline Zincâ€“Iron Flow Batteries. ACS Applied Materials & Interfaces, 2020, 12, 51573-51580.	8.0	13
38	Composite membrane with ultra-thin ion exchangeable functional layer: a new separator choice for manganese-based cathode material in lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 7006-7013.	10.3	12
39	A data-driven and DFT assisted theoretic guide for membrane design in flow batteries. Journal of Materials Chemistry A, 2021, 9, 14545-14552.	10.3	9
40	Recent development and prospect of membranes for alkaline zinc-iron flow battery. , 2022, 2, 100029.		8
41	Porous polybenzimidazole membranes with positive charges enable an excellent anti-fouling ability for vanadium-methylene blue flow battery. Journal of Energy Chemistry, 2022, 68, 247-254.	12.9	7
42	A Boron Nitride Nanosheets Composite Membrane for a Longâ€•Life Zincâ€•Based Flow Battery. Angewandte Chemie, 2020, 132, 6781-6785.	2.0	4
43	Zincâ€•Based Flow Batteries: Advanced Materials for Zincâ€•Based Flow Battery: Development and Challenge (Adv. Mater. 50/2019). Advanced Materials, 2019, 31, 1970356.	21.0	2
44	Mixed Matrix Membranes: A Costâ€•Effective Mixed Matrix Polyethylene Porous Membrane for Longâ€•Cycle High Power Density Alkaline Zincâ€•Based Flow Batteries (Adv. Funct. Mater. 29/2019). Advanced Functional Materials, 2019, 29, 1970201.	14.9	1