Zhenzhong Yang

List of Publications by Year
in descending order

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47 papers	1,467 citations	361296 20 h-index	345118 36 g-index
47 all docs	47 docs citations	47 times ranked	1842 citing authors

#	Article	IF	Citations
1	The influence of large cations on the electrochemical properties of tunnel-structured metal oxides. Nature Communications, 2016, 7, 13374.	5.8	180
2	Stabilizing atomic Pt with trapped interstitial F in alloyed PtCo nanosheets for high-performance zinc-air batteries. Energy and Environmental Science, 2020, 13, 884-895.	15.6	99
3	Extreme Fast Charge Challenges for Lithium-Ion Battery: Variability and Positive Electrode Issues. Journal of the Electrochemical Society, 2019, 166, A1926-A1938.	1.3	92
4	Boosting alkaline hydrogen evolution: the dominating role of interior modification in surface electrocatalysis. Energy and Environmental Science, 2020, 13, 3110-3118.	15.6	87
5	Design and Optimization of the Direct Recycling of Spent Li-Ion Battery Cathode Materials. ACS Sustainable Chemistry and Engineering, 2021, 9, 4543-4553.	3.2	81
6	Investigation of Fluoroethylene Carbonate Effects on Tin-based Lithium-Ion Battery Electrodes. ACS Applied Materials & Interfaces, 2015, 7, 6557-6566.	4.0	60
7	Influence of Fe Substitution into LaCoO₃ Electrocatalysts on Oxygen-Reduction Activity. ACS Applied Materials & Interfaces, 2019, 11, 5682-5686.	4.0	54
8	Design of High-Voltage Stable Hybrid Electrolyte with an Ultrahigh Li Transference Number. ACS Energy Letters, 0, , 1315-1323.	8.8	50
9	Extended cycle life implications of fast charging for lithium-ion battery cathode. Energy Storage Materials, 2021, 41, 656-666.	9.5	50
10	From bulk to interface: electrochemical phenomena and mechanism studies in batteries <i>via</i> electrochemical quartz crystal microbalance. Chemical Society Reviews, 2021, 50, 10743-10763.	18.7	48
11	Long cycle life microporous spherical carbon anodes for sodium-ion batteries derived from furfuryl alcohol. Journal of Materials Chemistry A, 2016, 4, 6271-6275.	5.2	46
12	Achieving low-temperature hydrothermal relithiation by redox mediation for direct recycling of spent lithium-ion battery cathodes. Energy Storage Materials, 2022, 51, 54-62.	9.5	44
13	In situ high-energy synchrotron X-ray diffraction studies and first principles modeling of Î±-MnO₂ electrodes in Liâ€“O₂ and Li-ion coin cells. Journal of Materials Chemistry A, 2015, 3, 7389-7398.	5.2	43
14	Doping-modulated strain control of bifunctional electrocatalysis for rechargeable zincâ€“air batteries. Energy and Environmental Science, 2021, 14, 5035-5043.	15.6	39
15	Significance of a Solid Electrolyte Interphase on Separation of Anode and Cathode Materials from Spent Li-Ion Batteries by Froth Flotation. ACS Sustainable Chemistry and Engineering, 2021, 9, 531-540.	3.2	38
16	A Comprehensive Understanding of the Aging Effects of Extreme Fast Charging on High Ni NMC Cathode. Advanced Energy Materials, 2022, 12, .	10.2	32
17	Native lattice strain induced structural earthquake in sodium layered oxide cathodes. Nature Communications, 2022, 13, 436.	5.8	29
18	Fast Charge-Driven Li Plating on Anode and Structural Degradation of Cathode. Journal of the Electrochemical Society, 2020, 167, 140506.	1.3	28

#	Article	IF	Citations
19	Effects of Extended Aqueous Processing on Structure, Chemistry, and Performance of Polycrystalline LiNi<i>_x</i>Mn<i>_y</i>Co<i>_z</i>O₂ Cathode Powders. ACS Applied Materials & Interfaces, 2020, 12, 57963-57974.	4.0	26
20	Achieving High Stability and Performance in P2â€Type Mnâ€Based Layered Oxides with Tetravalent Cations for Sodiumâ€Ion Batteries. Small, 2022, 18, e2201086.	5.2	25
21	Reviewâ€"The Lithiation/Delithiation Behavior of Si-Based Electrodes: A Connection between Electrochemistry and Mechanics. Journal of the Electrochemical Society, 2021, 168, 010523.	1.3	21
22	Stabilized Lithium, Manganese-Rich Layered Cathode Materials Enabled by Integrating Co-Doping and Nanocoating. ACS Applied Materials & Interfaces, 2021, 13, 22597-22607.	4.0	21
23	Positive Role of Fluorine Impurity in Recovered LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ Cathode Materials. ACS Applied Materials & Interfaces, 2021, 13, 57171-57181.	4.0	20
24	Enabling Silicon Anodes with Novel Isosorbide-Based Electrolytes. ACS Energy Letters, 2022, 7, 897-905.	8.8	20
25	Extreme Fastâ€Charging of Lithiumâ€Ion Cells: Effect on Anode and Electrolyte. Energy Technology, 2021, 9, .	1.8	16
26	Investigation of Ca Insertion into Î±-MoO₃ Nanoparticles for High Capacity Ca-Ion Cathodes. Nano Letters, 2022, 22, 2228-2235.	4.5	16
27	A chemical switch enabled autonomous two-stage crosslinking polymeric binder for high performance silicon anodes. Journal of Materials Chemistry A, 2022, 10, 1380-1389.	5.2	15
28	Extreme fast charge aging: Correlation between electrode scale and heterogeneous degradation in Ni-rich layered cathodes. Journal of Power Sources, 2022, 521, 230961.	4.0	15
29	Understanding the Effect of Cathode Composition on the Interface and Crosstalk in NMC/Si Full Cells. ACS Applied Materials & Interfaces, 2022, 14, 15103-15111.	4.0	15
30	Effect of Anode Porosity and Temperature on the Performance and Lithium Plating During Fastâ€Charging of Lithiumâ€Ion Cells. Energy Technology, 2021, 9, 2000666.	1.8	14
31	Unveiling the Influence of Carbon Impurity on Recovered NCM622 Cathode Material. ACS Sustainable Chemistry and Engineering, 2021, 9, 6087-6096.	3.2	14
32	Pushing Lithiumâ€"Sulfur Batteries towards Practical Working Conditions through a Cathodeâ€"Electrolyte Synergy. Angewandte Chemie - International Edition, 2022, 61, .	7.2	14
33	Comprehensive Insights into Nucleation, Autocatalytic Growth, and Stripping Efficiency for Lithium Plating in Full Cells. ACS Energy Letters, 2021, 6, 3725-3733.	8.8	13
34	Chemical Interplay of Silicon and Graphite in a Composite Electrode in SEI Formation. ACS Applied Materials & Interfaces, 2021, 13, 56073-56084.	4.0	13
35	Engineering the Si Anode Interface via Particle Surface Modification: Embedded Organic Carbonates Lead to Enhanced Performance. ACS Applied Energy Materials, 2021, 4, 8193-8200.	2.5	11
36	Investigating Ternary Liâ€"Mgâ€"Si Zintl Phase Formation and Evolution for Si Anodes in Li-Ion Batteries with Mg(TFSI)₂ Electrolyte Additive. Chemistry of Materials, 2021, 33, 4960-4970.	3.2	10

#	ARTICLE	IF	CITATIONS
37	Approaching theoretical specific capacity of iron-rich lithium iron silicate using graphene-incorporation and fluorine-doping. Journal of Materials Chemistry A, 2022, 10, 4006-4014.	5.2	10
38	Super-resolving microscopy images of Li-ion electrodes for fine-feature quantification using generative adversarial networks. Npj Computational Materials, 2022, 8, .	3.5	9
39	Effect of temperature on capacity fade in silicon-rich anodes. Journal of Power Sources, 2021, 487, 229322.	4.0	8
40	Effect of cathode on crosstalk in Si-based lithium-ion cells. Journal of Materials Chemistry A, 2021, 9, 26904-26916.	5.2	8
41	Design of a Single-Ion Conducting Polymer Electrolyte for Sodium-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 120543.	1.3	8
42	Revealing the Fast and Durable Na⁺ Insertion Reactions in a Layered Na₃Fe₃(PO₄)₄ Anode for Aqueous Na-Ion Batteries. ACS Materials Au, 2022, 2, 63-71.	2.6	7
43	An Environmentally Benign Electrolyte for High Energy Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 58229-58237.	4.0	5
44	Upgrading the Performance and Stability of Lithium, Manganeseâ€Rich Layered Oxide Cathodes with Combinedâ€Formic Acid and Spinel Coating Treatment. Batteries and Supercaps, 2022, 5, .	2.4	4
45	Enabling High-Temperature and High-Voltage Lithium-Ion Battery Performance through a Novel Cathode Surface-Targeted Additive. ACS Applied Materials & Interfaces, 2021, 13, 59538-59545.	4.0	4
46	Building a Spontaneously Formed and Self-healing Protective Layer with a F-rich Electrochemically Active Organic Molecule for Ultra-stable Li Metal Batteries. Sustainable Energy and Fuels, 0, , .	2.5	3
47	Pushing Lithiumâ€"Sulfur Batteries towards Practical Working Conditions through a Cathodeâ€"Electrolyte Synergy. Angewandte Chemie, 2022, 134, .	1.6	2