

Zhen Cao

List of Publications by Year in descending order

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42
papers

4,375
citations

196777

29
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299063

42
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43
all docs

43
docs citations

43
times ranked

6129
citing authors

#	ARTICLE	IF	CITATIONS
1	A random forest classifier for protein-protein docking models. <i>Bioinformatics Advances</i> , 2022, 2, .	0.9	5
2	Unraveling the New Role of an Ethylene Carbonate Solvation Shell in Rechargeable Metal Ion Batteries. <i>ACS Energy Letters</i> , 2021, 6, 69-78.	8.8	99
3	Electrolyte-Mediated Stabilization of High-Capacity Micro-Sized Antimony Anodes for Potassium-Ion Batteries. <i>Advanced Materials</i> , 2021, 33, e2005993.	11.1	96
4	Superconductivity and High-Pressure Performance of 2D Mo ₂ C Crystals. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2219-2225.	2.1	3
5	[Ag ₉ (1,2-BDT) ₆] ³⁺ : How Square-Pyramidal Building Blocks Self-Assemble into the Smallest Silver Nanocluster. <i>Inorganic Chemistry</i> , 2021, 60, 4306-4312.	1.9	16
6	Tungsten Blue Oxide as a Reusable Electrocatalyst for Acidic Water Oxidation by Plasma-Induced Vacancy Engineering. <i>CCS Chemistry</i> , 2021, 3, 1553-1561.	4.6	34
7	Highly Active Heterogeneous Catalyst for Ethylene Dimerization Prepared by Selectively Doping Ni on the Surface of a Zeolitic Imidazolate Framework. <i>Journal of the American Chemical Society</i> , 2021, 143, 7144-7153.	6.6	42
8	Electrolyte Chemistry in 3D Metal Oxide Nanorod Arrays Deciphers Lithium Dendrite-Free Plating/Stripping Behaviors for High-Performance Lithium Batteries. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 4857-4866.	2.1	19
9	Molecular Engineering of Covalent Organic Framework Cathodes for Enhanced Zinc-Ion Batteries. <i>Advanced Materials</i> , 2021, 33, e2103617.	11.1	151
10	Interfacial Model Deciphering High-Voltage Electrolytes for High Energy Density, High Safety, and Fast-Charging Lithium-Ion Batteries. <i>Advanced Materials</i> , 2021, 33, e2102964.	11.1	122
11	Enhancing the Cycling Stability of Transition-Metal-Oxide-Based Electrochemical Electrode via Pourbaix Diagram Engineering. <i>Energy Storage Materials</i> , 2021, 42, 252-258.	9.5	22
12	The CASP13-CAPRI targets as case studies to illustrate a novel scoring pipeline integrating CONSRANK with clustering and interface analyses. <i>BMC Bioinformatics</i> , 2020, 21, 262.	1.2	7
13	High-valence metals improve oxygen evolution reaction performance by modulating 3d metal oxidation cycle energetics. <i>Nature Catalysis</i> , 2020, 3, 985-992.	16.1	390
14	Model-Based Design of Graphite-Compatible Electrolytes in Potassium-Ion Batteries. <i>ACS Energy Letters</i> , 2020, 5, 2651-2661.	8.8	88
15	Model-Based Design of Stable Electrolytes for Potassium Ion Batteries. <i>ACS Energy Letters</i> , 2020, 5, 3124-3131.	8.8	71
16	Additives Engineered Nonflammable Electrolyte for Safer Potassium Ion Batteries. <i>Advanced Functional Materials</i> , 2020, 30, 2001934.	7.8	77
17	Ledge-directed epitaxy of continuously self-aligned single-crystalline nanoribbons of transition metal dichalcogenides. <i>Nature Materials</i> , 2020, 19, 1300-1306.	13.3	104
18	3D Crumpled Ultrathin 1T MoS ₂ for Inkjet Printing of Mg-Ion Asymmetric Micro-supercapacitors. <i>ACS Nano</i> , 2020, 14, 7308-7318.	7.3	100

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19	Catalysis of silica-based anode (de-)lithiation: compositional design within a hollow structure for accelerated conversion reaction kinetics. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12306-12313.	5.2	43
20	Phenanthroline Covalent Organic Framework Electrodes for High-Performance Zinc-Ion Supercapattery. <i>ACS Energy Letters</i> , 2020, 5, 2256-2264.	8.8	175
21	Electrolyte Engineering Enables High Stability and Capacity Alloying Anodes for Sodium and Potassium Ion Batteries. <i>ACS Energy Letters</i> , 2020, 5, 766-776.	8.8	134
22	Hydration Effect Promoting Ni-Fe Oxyhydroxide Catalysts for Neutral Water Oxidation. <i>Advanced Materials</i> , 2020, 32, e1906806.	11.1	62
23	Toward the Sustainable Lithium Metal Batteries with a New Electrolyte Solvation Chemistry. <i>Advanced Energy Materials</i> , 2020, 10, 2000567.	10.2	111
24	Bio-inspired heteroatom-doped hollow auralve-like structured carbon for high-performance sodium-ion batteries and supercapacitors. <i>Journal of Power Sources</i> , 2020, 461, 228128.	4.0	24
25	Engineering Sodium-Ion Solvation Structure to Stabilize Sodium Anodes: Universal Strategy for Fast-Charging and Safer Sodium-Ion Batteries. <i>Nano Letters</i> , 2020, 20, 3247-3254.	4.5	78
26	Blind prediction of homo- and hetero-protein complexes: The CASP13 CAPRI experiment. <i>Proteins: Structure, Function and Bioinformatics</i> , 2019, 87, 1200-1221.	1.5	99
27	New Insight on the Role of Electrolyte Additives in Rechargeable Lithium Ion Batteries. <i>ACS Energy Letters</i> , 2019, 4, 2613-2622.	8.8	160
28	Towards the online computer-aided design of catalytic pockets. <i>Nature Chemistry</i> , 2019, 11, 872-879.	6.6	710
29	Electrochemical Conversion of CO ₂ to 2-Bromoethanol in a Membraneless Cell. <i>ACS Energy Letters</i> , 2019, 4, 600-605.	8.8	21
30	Molecular-Scale Interfacial Model for Predicting Electrode Performance in Rechargeable Batteries. <i>ACS Energy Letters</i> , 2019, 4, 1584-1593.	8.8	117
31	2D Nanomaterials for Photocatalytic Hydrogen Production. <i>ACS Energy Letters</i> , 2019, 4, 1687-1709.	8.8	375
32	Lithium dendrite-free plating/stripping: a new synergistic lithium ion solvation structure effect for reliable lithium-sulfur full batteries. <i>Chemical Communications</i> , 2019, 55, 5713-5716.	2.2	24
33	New Insights on Graphite Anode Stability in Rechargeable Batteries: Li Ion Coordination Structures Prevail over Solid Electrolyte Interphases. <i>ACS Energy Letters</i> , 2018, 3, 335-340.	8.8	217
34	Recognizing the Mechanism of Sulfurized Polyacrylonitrile Cathode Materials for Li-S Batteries and beyond in Al-S Batteries. <i>ACS Energy Letters</i> , 2018, 3, 2899-2907.	8.8	224
35	Hydrogen atom induced magnetic behaviors in two-dimensional materials: insight on origination in the model of $\text{1}\pm\text{MoO}_3$. <i>Nanoscale</i> , 2018, 10, 14100-14106.	2.8	9
36	Phase Inversion Strategy to Flexible Freestanding Electrode: Critical Coupling of Binders and Electrolytes for High Performance Li-S Battery. <i>Advanced Functional Materials</i> , 2018, 28, 1802244.	7.8	64

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37	Activity enhancement <i>via</i> borate incorporation into a NiFe (oxy)hydroxide catalyst for electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2018, 6, 16959-16964.	5.2	21
38	Impact of Interfacial Defects on the Properties of Monolayer Transition Metal Dichalcogenide Lateral Heterojunctions. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1664-1669.	2.1	34
39	Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment. <i>Advanced Energy Materials</i> , 2017, 7, 1701536.	10.2	104
40	Substrate Lattice-Guided Seed Formation Controls the Orientation of 2D Transition-Metal Dichalcogenides. <i>ACS Nano</i> , 2017, 11, 9215-9222.	7.3	102
41	Solar Water Splitting: Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment (<i>Adv. Energy Mater.</i> 22/2017). <i>Advanced Energy Materials</i> , 2017, 7, .	10.2	1
42	Photophysics and electrochemistry relevant to photocatalytic water splitting involved at solid–electrolyte interfaces. <i>Journal of Energy Chemistry</i> , 2017, 26, 259-269.	7.1	20