Tianran Zhang

List of Publications by Year
in descending order

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59	7,615	71102	123424
papers	citations	41 h-index	61 g-index

63	63	63	10223
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhanced polysulfide conversion catalysis in lithium-sulfur batteries with surface cleaning electrolyte additives. Chemical Engineering Journal, 2021, 410, 128284.	12.7	37
2	Enhanced polysulfide conversion through metal oxide-support interaction in MnOx/MXene. Chemical Engineering Journal, 2021, 420, 130452.	12.7	15
3	Stretchable Znâ€Ion Hybrid Battery with Reconfigurable V₂CT_x and Ti₃C₂T_x MXene Electrodes as a Magnetically Actuated Soft Robot. Advanced Energy Materials, 2021, 11, 2101862.	19.5	26
4	Stretchable Znâ€Ion Hybrid Battery with Reconfigurable V₂CT_x and Ti₃C₂T_x MXene Electrodes as a Magnetically Actuated Soft Robot (Adv. Energy Mater. 45/2021). Advanced Energy Materials, 2021, 11, .	19.5	2
5	Overcoming the Technical Challenges in Al Anodeâ€“Based Electrochromic Energy Storage Windows. Small Methods, 2020, 4, 1900545.	8.6	40
6	Bridging the energy efficiency gap between quasi-neutral and alkaline rechargeable zinc-air batteries by an efficient hybrid battery design. Energy Storage Materials, 2020, 33, 181-187.	18.0	19
7	Stabilizing a Lithium Metal Battery by an In Situ Li₂S-modified Interfacial Layer via Amorphous-Sulfide Composite Solid Electrolyte. Nano Letters, 2020, 20, 8273-8281.	9.1	47
8	Plasmonic Oxygenâ€Deficient TiO_{2â€x} Nanocrystals for Dualâ€Band Electrochromic Smart Windows with Efficient Energy Recycling. Advanced Materials, 2020, 32, e2004686.	21.0	155
9	Engineering of the Heterointerface of Porous Carbon Nanofiberâ€“Supported Nickel and Manganese Oxide Nanoparticle for Highly Efficient Bifunctional Oxygen Catalysis. Advanced Functional Materials, 2020, 30, 1910568.	14.9	92
10	110th Anniversary: A Total Water Splitting Electrocatalyst Based on Borate/Fe Co-Doping of Nickel Sulfide. Industrial & Engineering Chemistry Research, 2019, 58, 13053-13063.	3.7	9
11	Isolated Au Atom Anchored on Porous Boron Nitride as a Promising Electrocatalyst for Oxygen Reduction Reaction (ORR): A DFT Study. Frontiers in Chemistry, 2019, 7, 674.	3.6	14
12	Simultaneous Cobalt and Phosphorous Doping of MoS₂ for Improved Catalytic Performance on Polysulfide Conversion in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1902096.	19.5	118
13	A Cathode-Integrated Sulfur-Deficient Co₉S₈ Catalytic Interlayer for the Reutilization of â€œLostâ€•Polysulfides in Lithiumâ€“Sulfur Batteries. ACS Nano, 2019, 13, 7073-7082.	14.6	226
14	Stepwise Electrocatalysis as a Strategy against Polysulfide Shuttling in Liâ€“S Batteries. ACS Nano, 2019, 13, 14208-14216.	14.6	171
15	Dual-Band Electrochromic Devices with a Transparent Conductive Capacitive Charge-Balancing Anode. ACS Applied Materials & Interfaces, 2019, 11, 48062-48070.	8.0	47
16	Electrochemical Performance of Borateâ€Doped Nickel Sulfide: Enhancement of the Bifunctional Activity for Total Water Splitting. ChemElectroChem, 2019, 6, 1443-1449.	3.4	23
17	A Visible Light-Near-Infrared Dual-Band Smart Window with Internal Energy Storage. Joule, 2019, 3, 1152-1162.	24.0	176
18	Metal-doped TiO₂ colloidal nanocrystals with broadly tunable plasmon resonance absorption. Journal of Materials Chemistry C, 2018, 6, 4007-4014.	5.5	46

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19	Monoclinic oxygen-deficient tungsten oxide nanowires for dynamic and independent control of near-infrared and visible light transmittance. Materials Horizons, 2018, 5, 291-297.	12.2	102
20	Nitrogenatedâ€Graphiteâ€Encapsulated Carbon Black as a Metalâ€Free Electrocatalyst for the Oxygen Evolution Reaction in Acid. ChemElectroChem, 2018, 5, 583-588.	3.4	18
21	Enhancement Effect of Borate Doping on the Oxygen Evolution Activity of Î±-Nickel Hydroxide. ACS Applied Nano Materials, 2018, 1, 751-758.	5.0	39
22	Promotion of the bifunctional electrocatalytic oxygen activity of manganese oxides with dual-affinity phosphate. Electrochimica Acta, 2018, 277, 143-150.	5.2	14
23	Unconventional noble metal-free catalysts for oxygen evolution in aqueous systems. Journal of Materials Chemistry A, 2018, 6, 8147-8158.	10.3	66
24	Improving the Electrochemical Oxygen Reduction Activity of Manganese Oxide Nanosheets with Sulfurizationâ€Induced Nanopores. ChemCatChem, 2018, 10, 422-429.	3.7	23
25	A Redâ€Phosphorousâ€Assisted Ballâ€Milling Synthesis of Fewâ€Layered Ti₃C₂T_x (MXene) Nanodot Composite. ChemNanoMat, 2018, 4, 56-60.	2.8	64
26	A Self-Templating Redox-Mediated Synthesis of Hollow Phosphated Manganese Oxide Nanospheres as Noble-Metal-like Oxygen Electrocatalysts. Chemistry of Materials, 2018, 30, 8270-8279.	6.7	31
27	Elucidating the Catalytic Activity of Oxygen Deficiency in the Polysulfide Conversion Reactions of Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1801868.	19.5	164
28	Necklace-like Multishelled Hollow Spinel Oxides with Oxygen Vacancies for Efficient Water Electrolysis. Journal of the American Chemical Society, 2018, 140, 13644-13653.	13.7	430
29	Fluoride-Assisted Synthesis of Plasmonic Colloidal Ta-Doped TiO₂ Nanocrystals for Near-Infrared and Visible-Light Selective Electrochromic Modulation. Chemistry of Materials, 2018, 30, 4838-4846.	6.7	84
30	Al³⁺ intercalation/de-intercalation-enabled dual-band electrochromic smart windows with a high optical modulation, quick response and long cycle life. Energy and Environmental Science, 2018, 11, 2884-2892.	30.8	248
31	Controlled Crumpling of Two-Dimensional Titanium Carbide (MXene) for Highly Stretchable, Bendable, Efficient Supercapacitors. ACS Nano, 2018, 12, 8048-8059.	14.6	136
32	Balancing the chemisorption and charge transport properties of the interlayer in lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 12506-12512.	10.3	62
33	A Fe/Mnâ€Based Prussian Blue Analogue as a Kâ€Rich Cathode Material for Potassiumâ€Ion Batteries. ChemElectroChem, 2017, 4, 2237-2242.	3.4	96
34	Electrocatalysis of polysulfide conversion by sulfur-deficient MoS₂ nanoflakes for lithiumâ€“sulfur batteries. Energy and Environmental Science, 2017, 10, 1476-1486.	30.8	805
35	Engineering Co₉S₈/WS₂ array films as bifunctional electrocatalysts for efficient water splitting. Journal of Materials Chemistry A, 2017, 5, 23361-23368.	10.3	117
36	Facile synthesis of N/M/O (M= Fe, Co, Ni) doped carbons for oxygen evolution catalysis in acid solution. Energy Storage Materials, 2017, 6, 140-148.	18.0	36

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37	Electrochemically synthesized freestanding 3D nanoporous silver electrode with high electrocatalytic activity. Catalysis Science and Technology, 2016, 6, 7163-7171.	4.1	18
38	Activating Mn3O4 by Morphology Tailoring for Oxygen Reduction Reaction. Electrochimica Acta, 2016, 205, 38-44.	5.2	65
39	Recycling Application of Liâ€“MnO₂ Batteries as Rechargeable Lithiumâ€“Air Batteries. Angewandte Chemie - International Edition, 2015, 54, 4338-4343.	13.8	109
40	3D Cu-doped CoS porous nanosheet films as superior counterelectrodes for quantum dot-sensitized solar cells. Nano Energy, 2015, 16, 163-172.	16.0	42
41	Efficiently Enhancing Oxygen Reduction Electrocatalytic Activity of MnO₂ Using Facile Hydrogenation. Advanced Energy Materials, 2015, 5, 1400654.	19.5	78
42	Oxygen Bubble-Templated Hierarchical Porous Îµ-MnO₂as a Superior Catalyst for Rechargeable Li-O₂Batteries. Small, 2015, 11, 809-813.	10.0	90
43	Magnesiumâ€“air batteries: from principle to application. Materials Horizons, 2014, 1, 196-206.	12.2	371
44	Ultrasmall Sn Nanoparticles Embedded in Nitrogen-Doped Porous Carbon As High-Performance Anode for Lithium-Ion Batteries. Nano Letters, 2014, 14, 153-157.	9.1	538
45	Nonstoichiometric Perovskite CaMnO_{3â^'Î´} for Oxygen Electrocatalysis with High Activity. Inorganic Chemistry, 2014, 53, 9106-9114.	4.0	202
46	Hydrogenated Uniform Pt Clusters Supported on Porous CaMnO₃ as a Bifunctional Electrocatalyst for Enhanced Oxygen Reduction and Evolution. Advanced Materials, 2014, 26, 2047-2051.	21.0	244
47	Ni nanoparticles supported on carbon as efficient catalysts for the hydrolysis of ammonia borane. Nano Research, 2014, 7, 774-781.	10.4	74
48	M(Salen)-derived Nitrogen-doped M/C (M = Fe, Co, Ni) Porous Nanocomposites for Electrocatalytic Oxygen Reduction. Scientific Reports, 2014, 4, 4386.	3.3	93
49	Understanding electrode materials of rechargeable lithium batteries via DFT calculations. Progress in Natural Science: Materials International, 2013, 23, 256-272.	4.4	68
50	Porous calciumâ€“manganese oxide microspheres for electrocatalytic oxygen reduction with high activity. Chemical Science, 2013, 4, 368-376.	7.4	164
51	Enhancing Electrocatalytic Oxygen Reduction on MnO₂ with Vacancies. Angewandte Chemie - International Edition, 2013, 52, 2474-2477.	13.8	623
52	A quantum-chemical study on the discharge reaction mechanism of lithium-sulfur batteries. Journal of Energy Chemistry, 2013, 22, 72-77.	12.9	174
53	First-principles Study on Metal-doped LiNi_{0.5}Mn_{1.5}O₄as a Cathode Material for Rechargeable Li-Ion Batteries. Acta Chimica Sinica, 2013, 71, 1029.	1.4	11
54	Facile solvothermal synthesis of CaMn2O4 nanorods for electrochemical oxygen reduction. Journal of Materials Chemistry, 2012, 22, 15812.	6.7	76

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55	First-Principles Study of Zigzag MoS₂ Nanoribbon As a Promising Cathode Material for Rechargeable Mg Batteries. Journal of Physical Chemistry C, 2012, 116, 1307-1312.	3.1	164
56	Porous Li2FeSiO4/C nanocomposite as the cathode material of lithium-ion batteries. Journal of Power Sources, 2012, 198, 229-235.	7.8	173
57	Silica hollow nanospheres as new nanoscaffold materials to enhance hydrogen releasing from ammonia borane. Physical Chemistry Chemical Physics, 2011, 13, 18592.	2.8	37
58	Porous LiMn2O4 nanorods with durable high-rate capability for rechargeable Li-ion batteries. Energy and Environmental Science, 2011, 4, 3668.	30.8	264
59	Ab initio investigation of structures, electronic and thermodynamic properties for Liâ€“Mgâ€“H ternary system. Journal of Alloys and Compounds, 2011, 509, 8228-8234.	5.5	18