

Tianran Zhang

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

7,615
citations

71102

41
h-index

123424

61
g-index

63
all docs

63
docs citations

63
times ranked

10223
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrocatalysis of polysulfide conversion by sulfur-deficient MoS ₂ nanoflakes for lithium-sulfur batteries. Energy and Environmental Science, 2017, 10, 1476-1486.	30.8	805
2	Enhancing Electrocatalytic Oxygen Reduction on MnO ₂ with Vacancies. Angewandte Chemie - International Edition, 2013, 52, 2474-2477.	13.8	623
3	Ultra-small 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
4	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
5	Magnesium-air batteries: from principle to application. Materials Horizons, 2014, 1, 196-206.	12.2	371
6	Porous LiMn ₂ O ₄ nanorods with durable high-rate capability for rechargeable Li-ion batteries. Energy and Environmental Science, 2011, 4, 3668.	30.8	264
7	Al ³⁺ 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
8	Hydrogenated Uniform Pt Clusters Supported on Porous CaMnO ₃ as a Bifunctional Electrocatalyst for Enhanced Oxygen Reduction and Evolution. Advanced Materials, 2014, 26, 2047-2051.	21.0	244
9	A Cathode-Integrated Sulfur-Deficient Co ₉ S ₈ Catalytic Interlayer for the Reutilization of Lost Polysulfides in Lithium-Sulfur Batteries. ACS Nano, 2019, 13, 7073-7082.	14.6	226
10	Nonstoichiometric Perovskite CaMnO _{3-x} for Oxygen Electrocatalysis with High Activity. Inorganic Chemistry, 2014, 53, 9106-9114.	4.0	202
11	A Visible Light-Near-Infrared Dual-Band Smart Window with Internal Energy Storage. Joule, 2019, 3, 1152-1162.	24.0	176
12	A quantum-chemical study on the discharge reaction mechanism of lithium-sulfur batteries. Journal of Energy Chemistry, 2013, 22, 72-77.	12.9	174
13	Porous Li ₂ FeSiO ₄ /C nanocomposite as the cathode material of lithium-ion batteries. Journal of Power Sources, 2012, 198, 229-235.	7.8	173
14	Stepwise Electrocatalysis as a Strategy against Polysulfide Shuttling in Li-S Batteries. ACS Nano, 2019, 13, 14208-14216.	14.6	171
15	First-Principles Study of Zigzag MoS ₂ Nanoribbon As a Promising Cathode Material for Rechargeable Mg Batteries. Journal of Physical Chemistry C, 2012, 116, 1307-1312.	3.1	164
16	Porous calcium-manganese oxide microspheres for electrocatalytic oxygen reduction with high activity. Chemical Science, 2013, 4, 368-376.	7.4	164
17	Elucidating the Catalytic Activity of Oxygen Deficiency in the Polysulfide Conversion Reactions of Lithium-Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1801868.	19.5	164
18	Plasmonic Oxygen-Deficient TiO _{2-x} Nanocrystals for Dual-Band Electrochromic Smart Windows with Efficient Energy Recycling. Advanced Materials, 2020, 32, e2004686.	21.0	155

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19	Controlled Crumpling of Two-Dimensional Titanium Carbide (MXene) for Highly Stretchable, Bendable, Efficient Supercapacitors. ACS Nano, 2018, 12, 8048-8059.	14.6	136
20	Simultaneous Cobalt and Phosphorous Doping of MoS ₂ for Improved Catalytic Performance on Polysulfide Conversion in Lithium-Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1902096.	19.5	118
21	Engineering Co ₉ S ₈ /WS ₂ array films as bifunctional electrocatalysts for efficient water splitting. Journal of Materials Chemistry A, 2017, 5, 23361-23368.	10.3	117
22	Recycling Application of LiMnO ₂ Batteries as Rechargeable Lithium-Air Batteries. Angewandte Chemie - International Edition, 2015, 54, 4338-4343.	13.8	109
23	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
24	A Fe/Mn-Based Prussian Blue Analogue as a K ⁺ -Rich Cathode Material for Potassium-Ion Batteries. ChemElectroChem, 2017, 4, 2237-2242.	3.4	96
25	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
26	Engineering of the Heterointerface of Porous Carbon Nanofiber-Supported Nickel and Manganese Oxide Nanoparticle for Highly Efficient Bifunctional Oxygen Catalysis. Advanced Functional Materials, 2020, 30, 1910568.	14.9	92
27	Oxygen Bubble-Templated Hierarchical Porous γ -MnO ₂ as a Superior Catalyst for Rechargeable Li-O ₂ Batteries. Small, 2015, 11, 809-813.	10.0	90
28	Fluoride-Assisted Synthesis of Plasmonic Colloidal Ta-Doped TiO ₂ Nanocrystals for Near-Infrared and Visible-Light Selective Electrochromic Modulation. Chemistry of Materials, 2018, 30, 4838-4846.	6.7	84
29	Efficiently Enhancing Oxygen Reduction Electrocatalytic Activity of MnO ₂ Using Facile Hydrogenation. Advanced Energy Materials, 2015, 5, 1400654.	19.5	78
30	Facile solvothermal synthesis of CaMn ₂ O ₄ nanorods for electrochemical oxygen reduction. Journal of Materials Chemistry, 2012, 22, 15812.	6.7	76
31	Ni nanoparticles supported on carbon as efficient catalysts for the hydrolysis of ammonia borane. Nano Research, 2014, 7, 774-781.	10.4	74
32	Understanding electrode materials of rechargeable lithium batteries via DFT calculations. Progress in Natural Science: Materials International, 2013, 23, 256-272.	4.4	68
33	Unconventional noble metal-free catalysts for oxygen evolution in aqueous systems. Journal of Materials Chemistry A, 2018, 6, 8147-8158.	10.3	66
34	Activating Mn ₃ O ₄ by Morphology Tailoring for Oxygen Reduction Reaction. Electrochimica Acta, 2016, 205, 38-44.	5.2	65
35	A Red-Phosphorous-Assisted Ball-Milling Synthesis of Few-Layered Ti ₃ C ₂ T _x (MXene) Nanodot Composite. ChemNanoMat, 2018, 4, 56-60.	2.8	64
36	Balancing the chemisorption and charge transport properties of the interlayer in lithium-sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 12506-12512.	10.3	62

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37	Dual-Band Electrochromic Devices with a Transparent Conductive Capacitive Charge-Balancing Anode. ACS Applied Materials & Interfaces, 2019, 11, 48062-48070.	8.0	47
38	Stabilizing a Lithium Metal Battery by an In Situ Li ₂ S-modified Interfacial Layer via Amorphous-Sulfide Composite Solid Electrolyte. Nano Letters, 2020, 20, 8273-8281.	9.1	47
39	Metal-doped TiO ₂ colloidal nanocrystals with broadly tunable plasmon resonance absorption. Journal of Materials Chemistry C, 2018, 6, 4007-4014.	5.5	46
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	Overcoming the Technical Challenges in Al Anode-Based Electrochromic Energy Storage Windows. Small Methods, 2020, 4, 1900545.	8.6	40
42	Enhancement Effect of Borate Doping on the Oxygen Evolution Activity of γ -Nickel Hydroxide. ACS Applied Nano Materials, 2018, 1, 751-758.	5.0	39
43	Silica hollow nanospheres as new nanoscaffold materials to enhance hydrogen releasing from ammonia borane. Physical Chemistry Chemical Physics, 2011, 13, 18592.	2.8	37
44	Enhanced polysulfide conversion catalysis in lithium-sulfur batteries with surface cleaning electrolyte additives. Chemical Engineering Journal, 2021, 410, 128284.	12.7	37
45	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
46	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
47	Stretchable Zn-Ion Hybrid Battery with Reconfigurable V ₂ CT _x and Ti ₃ C ₂ T _x MXene Electrodes as a Magnetically Actuated Soft Robot. Advanced Energy Materials, 2021, 11, 2101862.	19.5	26
48	Improving the Electrochemical Oxygen Reduction Activity of Manganese Oxide Nanosheets with Sulfurization-Induced Nanopores. ChemCatChem, 2018, 10, 422-429.	3.7	23
49	Electrochemical Performance of Borate-Doped Nickel Sulfide: Enhancement of the Bifunctional Activity for Total Water Splitting. ChemElectroChem, 2019, 6, 1443-1449.	3.4	23
50	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
51	Ab initio investigation of structures, electronic and thermodynamic properties for Li-Mg-H ternary system. Journal of Alloys and Compounds, 2011, 509, 8228-8234.	5.5	18
52	Electrochemically synthesized freestanding 3D nanoporous silver electrode with high electrocatalytic activity. Catalysis Science and Technology, 2016, 6, 7163-7171.	4.1	18
53	Nitrogenated Graphite-Encapsulated Carbon Black as a Metal-Free Electrocatalyst for the Oxygen Evolution Reaction in Acid. ChemElectroChem, 2018, 5, 583-588.	3.4	18
54	Enhanced polysulfide conversion through metal oxide-support interaction in MnOx/MXene. Chemical Engineering Journal, 2021, 420, 130452.	12.7	15

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55	Promotion of the bifunctional electrocatalytic oxygen activity of manganese oxides with dual-affinity phosphate. <i>Electrochimica Acta</i> , 2018, 277, 143-150.	5.2	14
56	Isolated Au Atom Anchored on Porous Boron Nitride as a Promising Electrocatalyst for Oxygen Reduction Reaction (ORR): A DFT Study. <i>Frontiers in Chemistry</i> , 2019, 7, 674.	3.6	14
57	First-principles Study on Metal-doped $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ as a Cathode Material for Rechargeable Li-Ion Batteries. <i>Acta Chimica Sinica</i> , 2013, 71, 1029.	1.4	11
58	110th Anniversary: A Total Water Splitting Electrocatalyst Based on Borate/Fe Co-Doping of Nickel Sulfide. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 13053-13063.	3.7	9
59	Stretchable Zn-Ion Hybrid Battery with Reconfigurable V_2CT_x and $\text{Ti}_3\text{C}_2\text{T}_x$ MXene Electrodes as a Magnetically Actuated Soft Robot (<i>Adv. Energy Mater.</i> 45/2021). <i>Advanced Energy Materials</i> , 2021, 11, .	19.5	2