

Bingbing Tian

List of Publications by Year in descending order

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papers

6,135
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66343

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docs citations

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times ranked

9107
citing authors

#	ARTICLE	IF	CITATIONS
1	Reversible multi-electron redox chemistry of π -conjugated N-containing heteroaromatic molecule-based organic cathodes. <i>Nature Energy</i> , 2017, 2, .	39.5	486
2	Niobium doped lithium titanate as a high rate anode material for Li-ion batteries. <i>Electrochimica Acta</i> , 2010, 55, 5453-5458.	5.2	216
3	Phase Restructuring in Transition Metal Dichalcogenides for Highly Stable Energy Storage. <i>ACS Nano</i> , 2016, 10, 9208-9215.	14.6	216
4	Highly photoluminescent two-dimensional imine-based covalent organic frameworks for chemical sensing. <i>Chemical Communications</i> , 2018, 54, 2349-2352.	4.1	205
5	Oxygen-Functionalized Ultrathin $\text{Ti}_3\text{C}_2\text{T}_x$ MXene for Enhanced Electrocatalytic Hydrogen Evolution. <i>ChemSusChem</i> , 2019, 12, 1368-1373.	6.8	204
6	B, N Codoped and Defect-Rich Nanocarbon Material as a Metal-Free Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reactions. <i>Advanced Science</i> , 2018, 5, 1800036.	11.2	202
7	Visible-Light Photocatalysis of Aerobic Oxidation Reactions Using Carbazolic Conjugated Microporous Polymers. <i>ACS Catalysis</i> , 2016, 6, 3594-3599.	11.2	195
8	Interface confined hydrogen evolution reaction in zero valent metal nanoparticles-intercalated molybdenum disulfide. <i>Nature Communications</i> , 2017, 8, 14548.	12.8	174
9	Covalent Organic Framework with Frustrated Bonding Network for Enhanced Carbon Dioxide Storage. <i>Chemistry of Materials</i> , 2018, 30, 1762-1768.	6.7	169
10	Lithium Silicide Surface Enrichment: A Solution to Lithium Metal Battery. <i>Advanced Materials</i> , 2018, 30, e1801745.	21.0	163
11	Salicylideneanilines-Based Covalent Organic Frameworks as Chemoselective Molecular Sieves. <i>Journal of the American Chemical Society</i> , 2017, 139, 8897-8904.	13.7	151
12	Recent advances in Fe (or Co)/N/C electrocatalysts for the oxygen reduction reaction in polymer electrolyte membrane fuel cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18933-18950.	10.3	146
13	Unraveling the Potassium Storage Mechanism in Graphite Foam. <i>Advanced Energy Materials</i> , 2019, 9, 1900579.	19.5	133
14	Ultrafast Electrochemical Expansion of Black Phosphorus toward High-Yield Synthesis of Few-Layer Phosphorene. <i>Chemistry of Materials</i> , 2018, 30, 2742-2749.	6.7	132
15	High-performance NaFePO_4 formed by aqueous ion-exchange and its mechanism for advanced sodium ion batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4882-4892.	10.3	129
16	Chemical Vapor Deposition of High-Quality Large-Sized MoS_2 Crystals on Silicon Dioxide Substrates. <i>Advanced Science</i> , 2016, 3, 1500033.	11.2	128
17	<i>In Situ</i> Observation and Electrochemical Study of Encapsulated Sulfur Nanoparticles by MoS_2 Flakes. <i>Journal of the American Chemical Society</i> , 2017, 139, 10133-10141.	13.7	126
18	Efficient White Photoluminescence from Self-Trapped Excitons in $\text{Sb}^{3+}/\text{Bi}^{3+}$ -Codoped $\text{Cs}_2\text{NaInCl}_6$ Double Perovskites with Tunable Dual-Emission. <i>ACS Energy Letters</i> , 2021, 6, 3343-3351.	17.4	126

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19	Controllable deuteration of halogenated compounds by photocatalytic D ₂ O splitting. <i>Nature Communications</i> , 2018, 9, 80.	12.8	123
20	Controlled growth of ultrathin Mo ₂ C superconducting crystals on liquid Cu surface. <i>2D Materials</i> , 2017, 4, 011012.	4.4	112
21	In-Plane Ferroelectric Tin Monosulfide and Its Application in a Ferroelectric Analog Synaptic Device. <i>ACS Nano</i> , 2020, 14, 7628-7638.	14.6	106
22	Phase Transformations in TiS ₂ during K Intercalation. <i>ACS Energy Letters</i> , 2017, 2, 1835-1840.	17.4	104
23	Carbonyl-based polyimide and polyquinoneimide for potassium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 9997-10003.	10.3	102
24	“Electron/Ion Sponge”-Like V-Based Polyoxometalate: Toward High-Performance Cathode for Rechargeable Sodium Ion Batteries. <i>ACS Nano</i> , 2017, 11, 6911-6920.	14.6	95
25	Sol-gel synthesis and electrochemical performance of Li ₄ Ti ₅ O ₁₂ /graphene composite anode for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2011, 509, 7205-7209.	5.5	92
26	Polyquinoneimines for lithium storage: more than the sum of its parts. <i>Materials Horizons</i> , 2016, 3, 429-433.	12.2	85
27	Upgrading Traditional Organic Electrolytes toward Future Lithium Metal Batteries: A Hierarchical Nano-SiO ₂ -Supported Gel Polymer Electrolyte. <i>ACS Energy Letters</i> , 2020, 5, 1681-1688.	17.4	85
28	Amino group enhanced phenazine derivatives as electrode materials for lithium storage. <i>Chemical Communications</i> , 2017, 53, 2914-2917.	4.1	81
29	Vanadium Doping Enhanced Electrochemical Performance of Molybdenum Oxide in Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , 2019, 29, 1805227.	14.9	79
30	Polycation ionic liquid tailored PEO-based solid polymer electrolytes for high temperature lithium metal batteries. <i>Energy Storage Materials</i> , 2020, 33, 173-180.	18.0	78
31	Effect of Nb-doping on electrochemical stability of Li ₄ Ti ₅ O ₁₂ discharged to 0V. <i>Journal of Solid State Electrochemistry</i> , 2012, 16, 205-211.	2.5	72
32	Crystal Engineering of Naphthalenediimide-Based Metal-Organic Frameworks: Structure-Dependent Lithium Storage. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 31067-31075.	8.0	71
33	Reticular V ₂ O ₅ ·0.6H ₂ O Xerogel as Cathode for Rechargeable Potassium Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 642-650.	8.0	70
34	Photocatalytic Bacterial Inactivation by a Rape Pollen-MoS ₂ Biohybrid Catalyst: Synergetic Effects and Inactivation Mechanisms. <i>Environmental Science & Technology</i> , 2020, 54, 537-549.	10.0	69
35	Nanocomposite with fast Li ⁺ conducting percolation network: Solid polymer electrolyte with Li ⁺ non-conducting filler. <i>Nano Energy</i> , 2021, 79, 105475.	16.0	61
36	Rechargeable Aqueous Zinc-Ion Batteries in MgSO ₄ /ZnSO ₄ Hybrid Electrolytes. <i>Nano-Micro Letters</i> , 2020, 12, 60.	27.0	60

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37	Combined Surface and Electrochemical Study of the Lithiation/Delithiation Mechanism of the Iron Oxide Thin-Film Anode for Lithium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2013, 117, 21651-21661.	3.1	59
38	Lateral Epitaxy of Atomically Sharp WSe_2/WS_2 Heterojunctions on Silicon Dioxide Substrates. <i>Chemistry of Materials</i> , 2016, 28, 7194-7197.	6.7	59
39	Porosity Engineering of MXene Membrane towards Polysulfide Inhibition and Fast Lithium Ion Transportation for Lithium-Sulfur Batteries. <i>Small</i> , 2021, 17, e2007442.	10.0	57
40	Single-Atom Iron and Doped Sulfur Improve the Catalysis of Polysulfide Conversion for Obtaining High-Performance Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 7171-7177.	8.0	56
41	<i>In Situ</i> Raman and Nuclear Magnetic Resonance Study of Trapped Lithium in the Solid Electrolyte Interface of Reduced Graphene Oxide. <i>Journal of Physical Chemistry C</i> , 2016, 120, 2600-2608.	3.1	53
42	Phase transformation and grain-boundary segregation in Al-Doped $Li_7La_3Zr_2O_{12}$ ceramics. <i>Ceramics International</i> , 2021, 47, 22768-22775.	4.8	50
43	$NiCeO_2$ Heterostructures in Li-S Batteries: A Balancing Act between Adsorption and Catalytic Conversion of Polysulfide. <i>Advanced Science</i> , 2022, 9, e2105538.	11.2	45
44	Formation of $NiFe_2O_4$ /Expanded Graphite Nanocomposites with Superior Lithium Storage Properties. <i>Nano-Micro Letters</i> , 2017, 9, 34.	27.0	42
45	$2D Cs_2AgBiBr_6$ with Boosted Light-Matter Interaction for High-Performance Photodetectors. <i>Advanced Optical Materials</i> , 2021, 9, 2001930.	7.3	42
46	Co_3Se_4 Quantum Dots as an Ultrastable Host Material for Potassium-Ion Intercalation. <i>Advanced Materials</i> , 2021, 33, e2102164.	21.0	40
47	Self-templating construction of N, P-co-doped carbon nanosheets for efficient electrocatalytic oxygen reduction reaction. <i>Chemical Engineering Journal</i> , 2021, 410, 128015.	12.7	33
48	Towards Dendrite-Free Potassium-Metal Batteries: Rational Design of a Multifunctional 3D Polyvinyl Alcohol-Borax Layer. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 25122-25127.	13.8	32
49	Adsorption and visible-light photocatalytic degradation of organic pollutants by functionalized biochar: Role of iodine doping and reactive species. <i>Environmental Research</i> , 2021, 197, 111026.	7.5	31
50	Recent Advances on Porous Materials for Synergetic Adsorption and Photocatalysis. <i>Energy and Environmental Materials</i> , 2022, 5, 711-730.	12.8	30
51	Insight into Lithium Diffusion in Conversion-Type Iron Oxide Negative Electrode. <i>Journal of Physical Chemistry C</i> , 2015, 119, 919-925.	3.1	29
52	Constructing stable Li-solid electrolyte interphase to achieve dendrites-free solid-state battery: A nano-interlayer/Li pre-reduction strategy. <i>Nano Research</i> , 2022, 15, 7180-7189.	10.4	28
53	The effect of Na_2S additive in alkaline electrolyte on improved performances of Fe-based air batteries. <i>Electrochimica Acta</i> , 2018, 259, 196-203.	5.2	26
54	Effect of mechanical forces on thermal stability reinforcement for lead based perovskite materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 540-548.	10.3	26

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55	Band Gap Renormalization, Carrier Multiplication, and Stark Broadening in Photoexcited Black Phosphorus. <i>Nano Letters</i> , 2019, 19, 488-493.	9.1	26
56	Ageing-Induced Chemical and Morphological Modifications of Thin Film Iron Oxide Electrodes for Lithium-Ion Batteries. <i>Langmuir</i> , 2014, 30, 3538-3547.	3.5	25
57	Direct Observation of Perovskite Photodetector Performance Enhancement by Atomically Thin Interface Engineering. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 36493-36504.	8.0	25
58	Lithium Titanate Matrix-Supported Nanocrystalline Silicon Film as an Anode for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 534-540.	8.0	24
59	Chiral Ligand-Induced Structural Transformation of Low-Dimensional Hybrid Perovskite for Circularly Polarized Photodetection. <i>Chemistry of Materials</i> , 2022, 34, 2955-2962.	6.7	24
60	Aqueous Zn ²⁺ /Na ⁺ dual-salt batteries with stable discharge voltage and high coulombic efficiency by systematic electrolyte regulation. <i>Science China Chemistry</i> , 2022, 65, 399-407.	8.2	23
61	Ternary SiO ₂ /Al Composite Films as High-Performance Anodes for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 34447-34456.	8.0	20
62	Combining Surface Holistic Ge Coating and Subsurface Mg Doping to Enhance the Electrochemical Performance of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 25490-25500.	8.0	20
63	Developing Preparation Craft Platform for Solid Electrolytes Containing Volatile Components: Experimental Study of Competition between Lithium Loss and Densification in Li ₇ La ₃ Zr ₂ O ₁₂ . <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 33340-33354.	8.0	20
64	A multiphase sodium vanadium phosphate cathode material for high-rate sodium-ion batteries. <i>Journal of Materials Science and Technology</i> , 2021, 66, 121-127.	10.7	19
65	Bubble-assisted fabrication of hollow CoMoO ₄ spheres for energy storage. <i>Chemical Communications</i> , 2018, 54, 10355-10358.	4.1	18
66	Carbon Supported MoO ₂ Spheres Boosting Ultra-Stable Lithium Storage with High Volumetric Density. <i>Energy and Environmental Materials</i> , 2022, 5, 245-252.	12.8	18
67	Oxygen permeability and structural stability of a novel tantalum-doped perovskite BaCo _{0.7} Fe _{0.2} Ta _{0.1} O ₃ . <i>AICHE Journal</i> , 2010, 56, 604-610.	3.6	17
68	Nitrogen-doped 3D nanocarbon with nanopore defects as high-capacity and stable anode materials for sodium/lithium-ion batteries. <i>Materials Today Energy</i> , 2020, 16, 100395.	4.7	17
69	Lithiophilic Silver Coating on Lithium Metal Surface for Inhibiting Lithium Dendrites. <i>Frontiers in Chemistry</i> , 2020, 8, 109.	3.6	16
70	A Scalable H ₂ O-DMSO Solvent Synthesis of Highly Luminescent Inorganic Perovskite-Related Cesium Lead Bromides. <i>Advanced Optical Materials</i> , 2021, 9, 2001435.	7.3	16
71	Crosslinked Polyimide and Reduced Graphene Oxide Composites as Long Cycle Life Positive Electrode for Lithium-Ion Cells. <i>ChemSusChem</i> , 2020, 13, 5571-5579.	6.8	14
72	Direct Observation of Band Gap Renormalization in Layered Indium Selenide. <i>ACS Nano</i> , 2019, 13, 13486-13491.	14.6	13

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73	Influence of the Organic Chain on the Optical Properties of Two-Dimensional Organic-Inorganic Hybrid Lead Iodide Perovskites. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2253-2259.	4.3	13
74	Hermetically encapsulating sulfur by FePS ₃ flakes for high-performance lithium sulfur batteries. <i>Chemical Communications</i> , 2020, 56, 810-813.	4.1	13
75	Spectroscopy of buried states in black phosphorus with surface doping. <i>2D Materials</i> , 2020, 7, 035027.	4.4	13
76	Cryogenic engineering of solid polymer electrolytes for room temperature and 4V-class all-solid-state lithium batteries. <i>Chemical Engineering Journal</i> , 2021, 420, 127623.	12.7	13
77	Template growth of perovskites on yarn fibers induced by capillarity for flexible photoelectric applications. <i>Journal of Materials Chemistry C</i> , 2019, 7, 9496-9503.	5.5	12
78	Cerium Oxysulfide with O-Ce-S Bindings for Efficient Adsorption and Conversion of Lithium Polysulfide in Li-S Batteries. <i>Inorganic Chemistry</i> , 2021, 60, 12847-12854.	4.0	12
79	Improving Lithium-Sulfur Batteries' Performance via Inverse Vulcanization of Vinylene-Linked Covalent Organic Frameworks. <i>Energy & Fuels</i> , 2022, 36, 5998-6004.	5.1	12
80	High-Efficiency Sky-Blue Perovskite Light-Emitting Diodes via the Trade-Off between the Electron-Phonon Coupling Loss and Defect Passivation. <i>ACS Photonics</i> , 2022, 9, 2422-2430.	6.6	12
81	Nitrogen, Oxygen and Cobalt multiple-doped graphitized mesoporous carbon as a cost-effective carbon host with high sulfur content for lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2019, 787, 1356-1364.	5.5	11
82	Synergistic Effect of Salinized Quinone for Entrapment of Polysulfides for High-Performance Li-S Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 23867-23873.	8.0	11
83	Binary iron-chromium oxide as negative electrode for lithium-ion micro-batteries - spectroscopic and microscopic characterization. <i>Applied Surface Science</i> , 2015, 353, 1170-1178.	6.1	10
84	Controllable nonlinear optical properties of different-sized iron phosphorus trichalcogenide (FePS ₃) nanosheets. <i>Nanophotonics</i> , 2020, 9, 4555-4564.	6.0	9
85	Suppressing Li Dendrite Puncture with a Hierarchical h-BN Protective Layer. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 56109-56115.	8.0	9
86	Expanding the ReS ₂ Interlayer Promises High-Performance Potassium-Ion Storage. <i>ACS Applied Materials & Interfaces</i> , 0, , .	8.0	9
87	Networked Spin Cages: Tunable Magnetism and Lithium Ion Storage via Modulation of Spin-Electron Interactions. <i>Inorganic Chemistry</i> , 2016, 55, 9892-9897.	4.0	8
88	Post-Treatment of CH ₃ NH ₃ PbI ₃ /PbI ₂ Composite Films with Methylamine to Realize High-Performance Photoconductor Devices. <i>Chemistry - an Asian Journal</i> , 2019, 14, 2861-2868.	3.3	7
89	Staging: Unraveling the Potassium Storage Mechanism in Graphite Foam (<i>Adv. Energy Mater.</i> 22/2019). <i>Advanced Energy Materials</i> , 2019, 9, 1970081.	19.5	5
90	Towards Dendrite-Free Potassium-Metal Batteries: Rational Design of a Multifunctional 3D Polyvinyl Alcohol-Borax Layer. <i>Angewandte Chemie</i> , 2021, 133, 25326-25331.	2.0	4

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91	Phase engineering of Mo-V oxides molecular sieves for zinc-ion batteries. Science China Materials, 2022, 65, 939-946.	6.3	4
92	A Generic Protocol for Highly Reproducible Manufacturing of Efficient Perovskite Light-Emitting Diodes Using In-situ Photoluminescence Monitoring. Advanced Materials Technologies, 2022, 7, 2100987.	5.8	3
93	Self-Assembly of Monodispersed Closely Packed Composite Superstructures by Anchoring Nanoparticles into Multihierarchical Frameworks. ACS Sustainable Chemistry and Engineering, 2020, 8, 18966-18974.	6.7	1
94	A Scalable H ₂ O/DMF/DMSO Solvent Synthesis of Highly Luminescent Inorganic Perovskite-Related Cesium Lead Bromides (Advanced Optical Materials 3/2021). Advanced Optical Materials, 2021, 9, 2170012.	7.3	1