Tao Gao

List of Publications by Year
in descending order

78 papers	16,869 citations	23544 58 h-index	69214 77 g-index
81 all docs	81 docs citations	81 times ranked	12306 citing authors

#	Article	IF	Citations
1	â€œWater-in-saltâ€• electrolyte enables high-voltage aqueous lithium-ion chemistries. Science, 2015, 350, 938-943.	6.0	2,553
2	Highly reversible zinc metal anode for aqueous batteries. Nature Materials, 2018, 17, 543-549.	13.3	2,080
3	Zn/MnO₂ Battery Chemistry With H⁺ and Zn²⁺ Coinsertion. Journal of the American Chemical Society, 2017, 139, 9775-9778.	6.6	1,375
4	Advanced Highâ€Voltage Aqueous Lithiumâ€Ion Battery Enabled by â€œWaterâ€inâ€Bisaltâ€• Electrolyte. Angewandte Chemie - International Edition, 2016, 55, 7136-7141.	7.2	571
5	Advanced Highâ€Voltage Aqueous Lithiumâ€Ion Battery Enabled by â€œWaterâ€inâ€Bisaltâ€• Electrolyte. Angewandte Chemie, 2016, 128, 7252-7257.	1.6	459
6	A critical review of cathodes for rechargeable Mg batteries. Chemical Society Reviews, 2018, 47, 8804-8841.	18.7	420
7	An Advanced MoS₂/Carbon Anode for High-Performance Sodium-Ion Batteries. Small, 2015, 11, 473-481.	5.2	390
8	Interphase Engineering Enabled All-Ceramic Lithium Battery. Joule, 2018, 2, 497-508.	11.7	378
9	How Solid-Electrolyte Interphase Forms in Aqueous Electrolytes. Journal of the American Chemical Society, 2017, 139, 18670-18680.	6.6	365
10	Red Phosphorusâ€"Single-Walled Carbon Nanotube Composite as a Superior Anode for Sodium Ion Batteries. ACS Nano, 2015, 9, 3254-3264.	7.3	359
11	An artificial interphase enables reversible magnesium chemistry in carbonate electrolytes. Nature Chemistry, 2018, 10, 532-539.	6.6	347
12	High-Performance All-Solid-State Lithiumâ€"Sulfur Battery Enabled by a Mixed-Conductive Li₂S Nanocomposite. Nano Letters, 2016, 16, 4521-4527.	4.5	333
13	Hybrid Aqueous/Non-aqueous Electrolyte for Safe and High-Energy Li-Ion Batteries. Joule, 2018, 2, 927-937.	11.7	303
14	A Battery Made from a Single Material. Advanced Materials, 2015, 27, 3473-3483.	11.1	291
15	Flexible ReS2 nanosheets/N-doped carbon nanofibers-based paper as a universal anode for alkali (Li, Na,) Tj ETQq1 1 0.784314 rgBT /Ov	8.2	280
16	A rechargeable aqueous Zn²⁺-battery with high power density and a long cycle-life. Energy and Environmental Science, 2018, 11, 3168-3175.	15.6	258
17	High-Voltage Aqueous Magnesium Ion Batteries. ACS Central Science, 2017, 3, 1121-1128.	5.3	256
18	High power rechargeable magnesium/iodine battery chemistry. Nature Communications, 2017, 8, 14083.	5.8	251

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19	Enhancing the Reversibility of Mg/S Battery Chemistry through Li⁺ Mediation. Journal of the American Chemical Society, 2015, 137, 12388-12393.	6.6	225
20	A Rechargeable Al/S Battery with an Ionicâ€Liquid Electrolyte. Angewandte Chemie - International Edition, 2016, 55, 9898-9901.	7.2	215
21	Intercalation of Bi nanoparticles into graphite results in an ultra-fast and ultra-stable anode material for sodium-ion batteries. Energy and Environmental Science, 2018, 11, 1218-1225.	15.6	212
22	Electrospun FeS₂@Carbon Fiber Electrode as a High Energy Density Cathode for Rechargeable Lithium Batteries. ACS Nano, 2016, 10, 1529-1538.	7.3	199
23	Superior Stable Selfâ€Healing SnP₃ Anode for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1500174.	10.2	197
24	Stabilizing high voltage LiCoO₂ cathode in aqueous electrolyte with interphase-forming additive. Energy and Environmental Science, 2016, 9, 3666-3673.	15.6	190
25	A Universal Organic Cathode for Ultrafast Lithium and Multivalent Metal Batteries. Angewandte Chemie - International Edition, 2018, 57, 7146-7150.	7.2	177
26	Solid-State Fabrication of SnS₂/C Nanospheres for High-Performance Sodium Ion Battery Anode. ACS Applied Materials & Interfaces, 2015, 7, 11476-11481.	4.0	176
27	Flexible Aqueous Liâ€Ion Battery with High Energy and Power Densities. Advanced Materials, 2017, 29, 1701972.	11.1	175
28	A Pyrazineâ€Based Polymer for Fastâ€Charge Batteries. Angewandte Chemie - International Edition, 2019, 58, 17820-17826.	7.2	173
29	Interplay of Lithium Intercalation and Plating on a Single Graphite Particle. Joule, 2021, 5, 393-414.	11.7	168
30	Hybrid Mg²⁺/Li⁺ Battery with Long Cycle Life and High Rate Capability. Advanced Energy Materials, 2015, 5, 1401507.	10.2	155
31	Unique aqueous Li-ion/sulfur chemistry with high energy density and reversibility. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6197-6202.	3.3	151
32	Reversible S⁰/MgS_{<i>x</i>} Redox Chemistry in a MgTFSI₂/MgCl₂/DME Electrolyte for Rechargeable Mg/S Batteries. Angewandte Chemie - International Edition, 2017, 56, 13526-13530.	7.2	149
33	High energy-density and reversibility of iron fluoride cathode enabled via an intercalation-extrusion reaction. Nature Communications, 2018, 9, 2324.	5.8	136
34	Graphene oxide wrapped croconic acid disodium salt for sodium ion battery electrodes. Journal of Power Sources, 2014, 250, 372-378.	4.0	134
35	Spatial dynamics of lithiation and lithium plating during high-rate operation of graphite electrodes. Energy and Environmental Science, 2020, 13, 2570-2584.	15.6	124
36	How Water Accelerates Bivalent Ion Diffusion at the Electrolyte/Electrode Interface. Angewandte Chemie - International Edition, 2018, 57, 11978-11981.	7.2	123

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37	Superior reversible tin phosphide-carbon spheres for sodium ion battery anode. Nano Energy, 2017, 38, 350-357.	8.2	122
38	Thermodynamics and Kinetics of Sulfur Cathode during Discharge in MgTFSI₂â€"DME Electrolyte. Advanced Materials, 2018, 30, 1704313.	11.1	122
39	Ether-based electrolyte enabled Na/FeS2 rechargeable batteries. Electrochemistry Communications, 2015, 54, 18-22.	2.3	121
40	Scalable synthesis of Na₃V₂(PO₄)₃/C porous hollow spheres as a cathode for Na-ion batteries. Journal of Materials Chemistry A, 2015, 3, 10378-10385.	5.2	109
41	Reducing Mg Anode Overpotential via Ion Conductive Surface Layer Formation by Iodine Additive. Advanced Energy Materials, 2018, 8, 1701728.	10.2	107
42	Electrochemical Techniques for Intercalation Electrode Materials in Rechargeable Batteries. Accounts of Chemical Research, 2017, 50, 1022-1031.	7.6	105
43	Spinel LiNi_{0.5}Mn_{1.5}O₄ Cathode for Highâ€Energy Aqueous Lithiumâ€Ion Batteries. Advanced Energy Materials, 2017, 7, 1600922.	10.2	103
44	A chemically stabilized sulfur cathode for lean electrolyte lithium sulfur batteries. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14712-14720.	3.3	102
45	Self-Healing Chemistry between Organic Material and Binder for Stable Sodium-Ion Batteries. CheM, 2017, 3, 1050-1062.	5.8	99
46	â€œWater-in-Saltâ€•electrolyte enabled LiMn2O4/TiS2 Lithium-ion batteries. Electrochemistry Communications, 2017, 82, 71-74.	2.3	99
47	Existence of Solid Electrolyte Interphase in Mg Batteries: Mg/S Chemistry as an Example. ACS Applied Materials & Interfaces, 2018, 10, 14767-14776.	4.0	99
48	Tailoring Surface Acidity of Metal Oxide for Better Polysulfide Entrapment in Liâ€S Batteries. Advanced Functional Materials, 2016, 26, 7164-7169.	7.8	95
49	Tuning Anionic Chemistry To Improve Kinetics of Mg Intercalation. Chemistry of Materials, 2019, 31, 3183-3191.	3.2	91
50	Stabilizing high sulfur loading Liâ€"S batteries by chemisorption of polysulfide on three-dimensional current collector. Nano Energy, 2016, 30, 700-708.	8.2	90
51	Pomegranate-Structured Conversion-Reaction Cathode with a Built-in Li Source for High-Energy Li-Ion Batteries. ACS Nano, 2016, 10, 5567-5577.	7.3	88
52	Activation of Oxygenâ€Stabilized Sulfur for Li and Na Batteries. Advanced Functional Materials, 2016, 26, 745-752.	7.8	80
53	End-of-life or second-life options for retired electric vehicle batteries. Cell Reports Physical Science, 2021, 2, 100537.	2.8	77
54	Carbon cage encapsulating nano-cluster Li2S by ionic liquid polymerization and pyrolysis for high performance Liâ€"S batteries. Nano Energy, 2015, 13, 467-473.	8.2	76

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55	Reverse Microemulsion Synthesis of Sulfur/Graphene Composite for Lithium/Sulfur Batteries. ACS Nano, 2017, 11, 9048-9056.	7.3	73
56	A Rechargeable Al/S Battery with an Ionicâ€Liquid Electrolyte. Angewandte Chemie, 2016, 128, 10052-10055.	1.6	64
57	In situ lithiated FeF3/C nanocomposite as high energy conversion-reaction cathode for lithium-ion batteries. Journal of Power Sources, 2016, 307, 435-442.	4.0	64
58	High-Energy-Density Rechargeable Mg Battery Enabled by a Displacement Reaction. Nano Letters, 2019, 19, 6665-6672.	4.5	59
59	Reversible S⁰/MgS_{<i>x</i>} Redox Chemistry in a MgTFSI₂/MgCl₂/DME Electrolyte for Rechargeable Mg/S Batteries. Angewandte Chemie, 2017, 129, 13711-13715.	1.6	58
60	Small-scale desalination of seawater by shock electrodialysis. Desalination, 2020, 476, 114219.	4.0	52
61	A Universal Organic Cathode for Ultrafast Lithium and Multivalent Metal Batteries. Angewandte Chemie, 2018, 130, 7264-7268.	1.6	51
62	A scaling law to determine phase morphologies during ion intercalation. Energy and Environmental Science, 2020, 13, 2142-2152.	15.6	43
63	Modeling the Metalâ€"Insulator Phase Transition in Li_xCoO₂ for Energy and Information Storage. Advanced Functional Materials, 2019, 29, 1902821.	7.8	40
64	Active control of viscous fingering using electric fields. Nature Communications, 2019, 10, 4002.	5.8	40
65	Continuous Separation of Radionuclides from Contaminated Water by Shock Electrodialysis. Environmental Science & Technology, 2019, 54, 527-536.	4.6	39
66	Mitigating irreversible capacity loss for higher-energy lithium batteries. Energy Storage Materials, 2022, 48, 44-73.	9.5	25
67	Self-Healable, Highly Stretchable, Ionic Conducting Polymers as Efficient Protecting Layers for Stable Lithium-Metal Electrodes. ACS Applied Materials & Interfaces, 2022, 14, 26014-26023.	4.0	23
68	A Pyrazineâ€Based Polymer for Fastâ€Charge Batteries. Angewandte Chemie, 2019, 131, 17984-17990.	1.6	19
69	How Water Accelerates Bivalent Ion Diffusion at the Electrolyte/Electrode Interface. Angewandte Chemie, 2018, 130, 12154-12157.	1.6	17
70	Acidâ€inâ€Clay Electrolyte for Wideâ€Temperatureâ€Range and Longâ€Cycle Proton Batteries. Advanced Materials, 2022, 34, e2202063.	11.1	16
71	Operando probing ion and electron transport in porous electrodes. Nano Energy, 2020, 67, 104254.	8.2	13
72	Enhancing the Charging Performance of Lithium-Ion Batteries by Reducing SEI and Charge Transfer Resistances. ACS Applied Materials & Interfaces, 2022, 14, 33004-33012.	4.0	12

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73	Sodium-Ion Batteries: An Advanced MoS₂/Carbon Anode for High-Performance Sodium-Ion Batteries (Small 4/2015). Small, 2015, 11, 472-472.	5.2	11
74	Aqueous Electrolytes Reinforced by Mg and Ca Ions for Highly Reversible Fe Metal Batteries. ACS Central Science, 2022, 8, 729-740.	5.3	7
75	Nonaqueous Mg Flow Battery with a Polymer Catholyte. ACS Applied Energy Materials, 2022, 5, 2675-2678.	2.5	6
76	Enhancing Liâ€Ion Transport in Solid Electrolytes by Confined Water. Small, 2022, 18, .	5.2	2
77	The Mechanism of Li Plating on Graphite Particles. ECS Meeting Abstracts, 2021, MA2021-01, 159-159.	0.0	0
78	Lithium Deposition on Graphite and Silicon: Mechanism, Morphology and Reversibility. ECS Meeting Abstracts, 2021, MA2021-02, 378-378.	0.0	0