Jianfeng Mao

List of Publications by Year
in descending order

82 papers	9,426 citations	53794 45 h-index	66911 78 g-index
82 all docs	82 docs citations	82 times ranked	7365 citing authors

#	Article	IF	Citations
1	Phosphorus-Based Alloy Materials for Advanced Potassium-Ion Battery Anode. Journal of the American Chemical Society, 2017, 139, 3316-3319.	13.7	755
2	Boosted Charge Transfer in SnS/SnO₂ Heterostructures: Toward High Rate Capability for Sodiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2016, 55, 3408-3413.	13.8	621
3	Recent progress and perspectives on aqueous Zn-based rechargeable batteries with mild aqueous electrolytes. Energy Storage Materials, 2019, 20, 410-437.	18.0	525
4	Electrolyte Design for In Situ Construction of Highly Zn²⁺â€Conductive Solid Electrolyte Interphase to Enable Highâ€Performance Aqueous Znâ€Ion Batteries under Practical Conditions. Advanced Materials, 2021, 33, e2007416.	21.0	484
5	Deeply understanding the Zn anode behaviour and corresponding improvement strategies in different aqueous Zn-based batteries. Energy and Environmental Science, 2020, 13, 3917-3949.	30.8	480
6	Graphitic Carbon Nanocage as a Stable and High Power Anode for Potassiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1801149.	19.5	442
7	Boosting the Potassium Storage Performance of Alloyâ€Based Anode Materials via Electrolyte Salt Chemistry. Advanced Energy Materials, 2018, 8, 1703288.	19.5	382
8	Hydrogen Storage Materials for Mobile and Stationary Applications: Current State of the Art. ChemSusChem, 2015, 8, 2789-2825.	6.8	302
9	Bio-inspired design of an<i>in situ</i>multifunctional polymeric solidâ€“electrolyte interphase for Zn metal anode cycling at 30 mA cm^{âˆ’2}and 30 mA h cm^{âˆ’2}. Energy and Environmental Science, 2021, 14, 5947-5957.	30.8	289
10	The critical role of carbon in marrying silicon and graphite anodes for highâ€energy lithiumâ€ion batteries. , 2019, 1, 57-76.		261
11	Tuning the Electrolyte Solvation Structure to Suppress Cathode Dissolution, Water Reactivity, and Zn Dendrite Growth in Zincâ€Ion Batteries. Advanced Functional Materials, 2021, 31, 2104281.	14.9	225
12	Two-dimensional nanostructures for sodium-ion battery anodes. Journal of Materials Chemistry A, 2018, 6, 3284-3303.	10.3	224
13	Toward a Reversible Mn⁴⁺/Mn²⁺ Redox Reaction and Dendriteâ€Free Zn Anode in Nearâ€Neutral Aqueous Zn/MnO₂ Batteries via Salt Anion Chemistry. Advanced Energy Materials, 2020, 10, 1904163.	19.5	221
14	An Intrinsically Nonâ€flammable Electrolyte for Highâ€Performance Potassium Batteries. Angewandte Chemie - International Edition, 2020, 59, 3638-3644.	13.8	211
15	Cathode Materials for Potassium-Ion Batteries: Current Status and Perspective. Electrochemical Energy Reviews, 2018, 1, 625-658.	25.5	201
16	Superior Stable Selfâ€Healing SnP₃ Anode for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1500174.	19.5	197
17	Solid-State Fabrication of SnS₂/C Nanospheres for High-Performance Sodium Ion Battery Anode. ACS Applied Materials & Interfaces, 2015, 7, 11476-11481.	8.0	176
18	From room temperature to harsh temperature applications: Fundamentals and perspectives on electrolytes in zinc metal batteries. Science Advances, 2022, 8, eabn5097.	10.3	164

#	Article	IF	Citations
19	Manipulating the Solvation Structure of Nonflammable Electrolyte and Interface to Enable Unprecedented Stability of Graphite Anodes beyond 2 Years for Safe Potassiumâ€ion Batteries. Advanced Materials, 2021, 33, e2006313.	21.0	155
20	Enhanced hydrogen sorption properties of Ni and Co-catalyzed MgH2. International Journal of Hydrogen Energy, 2010, 35, 4569-4575.	7.1	149
21	Structural Insight into Layer Gliding and Lattice Distortion in Layered Manganese Oxide Electrodes for Potassiumâ€ion Batteries. Advanced Energy Materials, 2019, 9, 1900568.	19.5	125
22	Electrolyte Engineering Enables High Performance Zincâ€ion Batteries. Small, 2022, 18, e2107033.	10.0	118
23	Boosted Charge Transfer in SnS/SnO₂ Heterostructures: Toward High Rate Capability for Sodiumâ€ion Batteries. Angewandte Chemie, 2016, 128, 3469-3474.	2.0	116
24	In situ formed carbon bonded and encapsulated selenium composites for Liâ€“Se and Naâ€“Se batteries. Journal of Materials Chemistry A, 2015, 3, 555-561.	10.3	115
25	Toward practical lithium-ion battery recycling: adding value, tackling circularity and recycling-oriented design. Energy and Environmental Science, 2022, 15, 2732-2752.	30.8	110
26	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.	10.3	109
27	Challenges and prospects of lithiumâ€“CO₂batteries. , 2022, 1, e9120001.		99
28	Recent Advances in the Use of Sodium Borohydride as a Solid State Hydrogen Store. Energies, 2015, 8, 430-453.	3.1	97
29	Enhanced hydrogen storage performances of NaBH4â€“MgH2 system. Journal of Alloys and Compounds, 2009, 479, 619-623.	5.5	93
30	Building Self-Healing Alloy Architecture for Stable Sodium-Ion Battery Anodes: A Case Study of Tin Anode Materials. ACS Applied Materials & Interfaces, 2016, 8, 7147-7155.	8.0	92
31	Facile synthesis of Co/Pd supported by few-walled carbon nanotubes as an efficient bidirectional catalyst for improving the low temperature hydrogen storage properties of magnesium hydride. Journal of Materials Chemistry A, 2019, 7, 5277-5287.	10.3	88
32	Phase Engineering of Nickel Sulfides to Boost Sodiumâ€and Potassiumâ€ion Storage Performance. Advanced Functional Materials, 2021, 31, 2010832.	14.9	86
33	The hydrogen storage properties and reaction mechanism of the MgH 2 â€“NaAlH 4 composite system. International Journal of Hydrogen Energy, 2011, 36, 9045-9050.	7.1	85
34	Synergy of binders and electrolytes in enabling microsized alloy anodes for high performance potassium-ion batteries. Nano Energy, 2020, 77, 105118.	16.0	82
35	Hydrogen De-/Absorption Improvement of NaBH4 Catalyzed by Titanium-Based Additives. Journal of Physical Chemistry C, 2012, 116, 1596-1604.	3.1	74
36	Constructing nitrided interfaces for stabilizing Li metal electrodes in liquid electrolytes. Chemical Science, 2021, 12, 8945-8966.	7.4	72

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37	Boosted Charge Transfer in Twinborn Î±-(Mn₂O₃â€“MnO₂) Heterostructures: Toward High-Rate and Ultralong-Life Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 32526-32535.	8.0	70
38	Highly porous, low band-gap Ni_xMn_{3âˆ'x}O₄(0.55 â‰<i>x</i>â‰ 1.2) spinel nanoparticles with<i>in situ</i>coated carbon as advanced cathode materials for zinc-ion batteries. Journal of Materials Chemistry A, 2019, 7, 17854-17866.	10.3	65
39	Nanoconfinement of lithium borohydride in Cu-MOFs towards low temperature dehydrogenation. Dalton Transactions, 2011, 40, 5673.	3.3	64
40	Carbonâ€based metalâ€free catalysts for electrochemical CO₂ reduction: Activity, selectivity, and stability. , 2021, 3, 24-49.		60
41	Improved Hydrogen Storage of LiBH₄ Catalyzed Magnesium. Journal of Physical Chemistry C, 2007, 111, 12495-12498.	3.1	58
42	Enhanced hydrogen storage performance of LiAlH4â€“MgH2â€“TiF3 composite. International Journal of Hydrogen Energy, 2011, 36, 5369-5374.	7.1	58
43	Synergistic catalysis in monodispersed transition metal oxide nanoparticles anchored on amorphous carbon for excellent low-temperature dehydrogenation of magnesium hydride. Materials Today Energy, 2019, 12, 146-154.	4.7	57
44	Study on the dehydrogenation kinetics and thermodynamics of Ca(BH4)2. Journal of Alloys and Compounds, 2010, 500, 200-205.	5.5	53
45	Alkaline Exchange Polymer Membrane Electrolyte for High Performance of All-Solid-State Electrochemical Devices. ACS Applied Materials & Interfaces, 2018, 10, 29593-29598.	8.0	52
46	Reversible hydrogen storage in titanium-catalyzed LiAlH4â€“LiBH4 system. Journal of Alloys and Compounds, 2009, 487, 434-438.	5.5	51
47	Electrochemical Reduction of CO₂ by SnO_{<i>x</i>} Nanosheets Anchored on Multiwalled Carbon Nanotubes with Tunable Functional Groups. ChemSusChem, 2019, 12, 1443-1450.	6.8	50
48	Reversible Hydrogen Storage in Destabilized LiAlH₄âˆ'MgH₂âˆ'LiBH₄ Ternary-Hydride System Doped with TiF₃. Journal of Physical Chemistry C, 2010, 114, 11643-11649.	3.1	48
49	Large-scale synthesis of ternary Sn5SbP3/C composite by ball milling for superior stable sodium-ion battery anode. Electrochimica Acta, 2017, 235, 107-113.	5.2	45
50	Improvement of the LiAlH4âˆ'NaBH4 System for Reversible Hydrogen Storage. Journal of Physical Chemistry C, 2009, 113, 10813-10818.	3.1	42
51	Improved Hydrogen Storage Properties of NaBH₄ Destabilized by CaH₂ and Ca(BH₄)₂. Journal of Physical Chemistry C, 2011, 115, 9283-9290.	3.1	41
52	Combined effects of hydrogen back-pressure andÂNbF5 addition on the dehydrogenation and rehydrogenation kinetics of the LiBH4â€“MgH2 composite system. International Journal of Hydrogen Energy, 2013, 38, 3650-3660.	7.1	41
53	Improved hydrogen sorption performance of NbF5-catalysed NaAlH4. International Journal of Hydrogen Energy, 2011, 36, 14503-14511.	7.1	39
54	Ultrafast Li-ion migration in holey-graphene-based composites constructed by a generalized <i>ex situ</i> method towards high capacity energy storage. Journal of Materials Chemistry A, 2019, 7, 4788-4796.	10.3	34

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55	Organic electrolyte design for practical potassium-ion batteries. Journal of Materials Chemistry A, 2022, 10, 19090-19106.	10.3	30
56	MOFs-derived core-shell Co3Fe7@Fe2N nanopaticles supported on rGO as high-performance bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. Materials Today Energy, 2020, 17, 100433.	4.7	29
57	Synthesis of porous MoV2O8 nanosheets as anode material for superior lithium storage. Energy Storage Materials, 2019, 22, 128-137.	18.0	28
58	A GBH/LiBH4 coordination system with favorable dehydrogenation. Journal of Materials Chemistry, 2011, 21, 7138.	6.7	27
59	Carbon-encapsulated Bi2Te3 derived from metal-organic framework as anode for highly durable lithium and sodium storage. Journal of Alloys and Compounds, 2020, 837, 155536.	5.5	26
60	Enhanced hydrogen sorption properties in the LiBH4â€“MgH2 system catalysed by Ru nanoparticles supported on multiwalled carbon nanotubes. Journal of Alloys and Compounds, 2011, 509, 5012-5016.	5.5	25
61	Enhanced hydrogen storage properties of NaAlH4co-catalysed with niobium fluoride and single-walled carbon nanotubes. RSC Advances, 2012, 2, 1569-1576.	3.6	25
62	<i>In situ</i> incorporation of nanostructured antimony in an N-doped carbon matrix for advanced sodium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 12842-12850.	10.3	25
63	Insights into 2D graphene-like TiO2 (B) nanosheets as highly efficient catalyst for improved low-temperature hydrogen storage properties of MgH2. Materials Today Energy, 2020, 16, 100411.	4.7	25
64	Application of commercial ferrovanadium to reduce cost of Tiâ€“V-based BCC phase hydrogen storage alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 476, 34-38.	5.6	20
65	Sodium borohydride hydrazinates: synthesis, crystal structures, and thermal decomposition behavior. Journal of Materials Chemistry A, 2015, 3, 11269-11276.	10.3	19
66	Improved reversible dehydrogenation of 2LiBH₄+MgH₂ system by introducing Ni nanoparticles. Journal of Materials Research, 2011, 26, 1143-1150.	2.6	18
67	Revisiting the Hydrogen Storage Behavior of the Na-O-H System. Materials, 2015, 8, 2191-2203.	2.9	18
68	Creating fast ion conducting composites via in-situ introduction of titanium as oxygen getter. Nano Energy, 2018, 49, 549-554.	16.0	18
69	Investigation on the Catalytic Performance of Reducedâ€Grapheneâ€Oxideâ€Interpolated FeS₂ and FeS for Oxygen Reduction Reaction. ChemistrySelect, 2018, 3, 10418-10427.	1.5	17
70	Electrochemical impacts of sheet-like hafnium phosphide and hafnium disulfide catalysts bonded with reduced graphene oxide sheets for bifunctional oxygen reactions in alkaline electrolytes. RSC Advances, 2019, 9, 2599-2607.	3.6	17
71	An Intrinsically Nonâ€flammable Electrolyte for Highâ€Performance Potassium Batteries. Angewandte Chemie, 2020, 132, 3667-3673.	2.0	16
72	Reversible storage of hydrogen in NaFâ€“MB2 (M = Mg, Al) composites. Journal of Materials Chemistry A, 2013, 1, 2806.	10.3	13

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73	Enhanced lithium storage for MoS2-based composites via a vacancy-assisted method. Applied Surface Science, 2020, 515, 146103.	6.1	13
74	Synergistic Catalytic Effect of Hollow Carbon Nanosphere and Silver Nanoparticles for Oxygen Reduction Reaction. ChemistrySelect, 2020, 5, 8099-8105.	1.5	11
75	NiS2 nanodots on N,S-doped graphene synthesized via interlayer confinement for enhanced lithium-/sodium-ion storage. Journal of Colloid and Interface Science, 2022, 619, 359-368.	9.4	11
76	Ultrafast Li-ion migration in eggshell-inspired 2D@2D dual porous construction towards high rate energy storage. Carbon, 2020, 170, 66-74.	10.3	10
77	Co/Ni-MOF-74-derived CoNi₂S₄ nanoparticles embedded in porous carbon as a high performance anode material for sodium ion batteries. New Journal of Chemistry, 2020, 44, 13141-13147.	2.8	10
78	A Highâ€Performance Alginate Hydrogel Binder for Aqueous Znâˆ’Ion Batteries. ChemPhysChem, 2022, 23, .	2.1	7
79	Bi2Se0.5Te2.5/S, N-doped reduced graphene oxide as anode materials for high-performance Lithium ion batteries. Journal of Alloys and Compounds, 2022, 920, 166003.	5.5	7
80	Photoelectrochemical Catalysis of Fluorineâ€Doped Amorphous TiO₂ Nanotube Array for Water Splitting. ChemistrySelect, 2020, 5, 8831-8838.	1.5	4
81	Catalytic Performances of NiCuP@rGO and NiCuN@rGO for Oxygen Reduction and Oxygen Evolution Reactions in Alkaline Electrolyte. ChemistrySelect, 2020, 5, 5855-5863.	1.5	4
82	Back Cover Image, Volume 3, Number 1, March 2021. , 2021, 3, ii.		0