Fangyu Xiong

List of Publications by Year
in descending order

72 papers	4,778 citations	101496 36 h-index	98753 67 g-index
73 all docs	73 docs citations	73 times ranked	5249 citing authors

#	Article	IF	Citations
1	Porous Oneâ€Dimensional Nanomaterials: Design, Fabrication and Applications in Electrochemical Energy Storage. Advanced Materials, 2017, 29, 1602300.	11.1	615
2	Vanadiumâ€Based Nanomaterials: A Promising Family for Emerging Metalâ€Ion Batteries. Advanced Functional Materials, 2020, 30, 1904398.	7.8	262
3	Defectâ€Rich Soft Carbon Porous Nanosheets for Fast and Highâ€Capacity Sodiumâ€Ion Storage. Advanced Energy Materials, 2019, 9, 1803260.	10.2	214
4	Three-Dimensional Crumpled Reduced Graphene Oxide/MoS₂ Nanoflowers: A Stable Anode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 12625-12630.	4.0	183
5	Magnesium storage performance and mechanism of CuS cathode. Nano Energy, 2018, 47, 210-216.	8.2	183
6	Vanadium Oxide Pillared by Interlayer Mg2+ Ions and Water as Ultralong-Life Cathodes for Magnesium-Ion Batteries. CheM, 2019, 5, 1194-1209.	5.8	180
7	Interlayerâ€Spacingâ€Regulated VOPO₄ Nanosheets with Fast Kinetics for Highâ€Capacity and Durable Rechargeable Magnesium Batteries. Advanced Materials, 2018, 30, e1801984.	11.1	171
8	Nanoflakeâ€Assembled Hierarchical Na₃V₂(PO₄)₃/C Microflowers: Superior Li Storage Performance and Insertion/Extraction Mechanism. Advanced Energy Materials, 2015, 5, 1401963.	10.2	169
9	Vanadium-Based Cathode Materials for Rechargeable Multivalent Batteries: Challenges and Opportunities. Electrochemical Energy Reviews, 2018, 1, 169-199.	13.1	142
10	Multidimensional Synergistic Nanoarchitecture Exhibiting Highly Stable and Ultrafast Sodiumâ€Ion Storage. Advanced Materials, 2018, 30, e1707122.	11.1	112
11	Robust three-dimensional graphene skeleton encapsulated Na3V2O2(PO4)2F nanoparticles as a high-rate and long-life cathode of sodium-ion batteries. Nano Energy, 2017, 41, 452-459.	8.2	110
12	VO₂ Nanoflakes as the Cathode Material of Hybrid Magnesiumâ€“Lithium-Ion Batteries with High Energy Density. ACS Applied Materials & Interfaces, 2017, 9, 17060-17066.	4.0	101
13	H₂V₃O₈ Nanowires as High-Capacity Cathode Materials for Magnesium-Based Battery. ACS Applied Materials & Interfaces, 2017, 9, 28667-28673.	4.0	97
14	A rechargeable aluminum-ion battery based on a VS₂ nanosheet cathode. Physical Chemistry Chemical Physics, 2018, 20, 22563-22568.	1.3	97
15	Active sites enriched hard carbon porous nanobelts for stable and high-capacity potassium-ion storage. Nano Energy, 2020, 77, 105018.	8.2	96
16	Lowâ€strain TiP₂O₇ with threeâ€dimensional ion channels as longâ€life and highâ€rate anode material for Mgâ€ion batteries. , 2022, 1, 140-147.		90
17	Defect engineering in molybdenum-based electrode materials for energy storage. EScience, 2022, 2, 278-294.	25.0	83
18	Nickel-iron bimetallic diselenides with enhanced kinetics for high-capacity and long-life magnesium batteries. Nano Energy, 2018, 54, 360-366.	8.2	82

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19	Top-down fabrication of three-dimensional porous V₂O₅ hierarchical microplates with tunable porosity for improved lithium battery performance. Journal of Materials Chemistry A, 2014, 2, 3297-3302.	5.2	76
20	Three-dimensional porous V2O5 hierarchical octahedrons with adjustable pore architectures for long-life lithium batteries. Nano Research, 2015, 8, 481-490.	5.8	74
21	Alkali ions pre-intercalated layered vanadium oxide nanowires for stable magnesium ions storage. Nano Energy, 2019, 58, 347-354.	8.2	72
22	Crystal regulation towards rechargeable magnesium battery cathode materials. Materials Horizons, 2020, 7, 1971-1995.	6.4	69
23	Revealing the atomistic origin of the disorder-enhanced Na-storage performance in NaFePO4 battery cathode. Nano Energy, 2019, 57, 608-615.	8.2	67
24	VOPO₄Â·2H₂O as a new cathode material for rechargeable Ca-ion batteries. Chemical Communications, 2020, 56, 3805-3808.	2.2	67
25	Surface Pseudocapacitive Mechanism of Molybdenum Phosphide for Highâ€Energy and Highâ€Power Sodiumâ€Ion Capacitors. Advanced Energy Materials, 2019, 9, 1900967.	10.2	62
26	Manganese ion pre-intercalated hydrated vanadium oxide as a high-performance cathode for magnesium ion batteries. Journal of Materials Chemistry A, 2019, 7, 10644-10650.	5.2	62
27	Recent Progress and Challenges in the Optimization of Electrode Materials for Rechargeable Magnesium Batteries. Small, 2021, 17, e2004108.	5.2	62
28	Crystal defect modulation in cathode materials for non-lithium ion batteries: Progress and challenges. Materials Today, 2021, 45, 169-190.	8.3	53
29	Universal construction of ultrafine metal oxides coupled in N-enriched 3D carbon nanofibers for high-performance lithium/sodium storage. Nano Energy, 2020, 67, 104222.	8.2	51
30	Three-dimensional graphene frameworks wrapped Li3V2(PO4)3 with reversible topotactic sodium-ion storage. Nano Energy, 2017, 32, 347-352.	8.2	50
31	Salt-controlled dissolution in pigment cathode for high-capacity and long-life magnesium organic batteries. Nano Energy, 2019, 65, 103902.	8.2	49
32	Hierarchical Copper Sulfide Porous Nanocages for Rechargeable Multivalent-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 10471-10478.	4.0	48
33	Intercalation pseudocapacitance of FeVO4Â·nH2O nanowires anode for high-energy and high-power sodium-ion capacitor. Nano Energy, 2020, 73, 104838.	8.2	48
34	Interchain-Expanded Vanadium Tetrasulfide with Fast Kinetics for Rechargeable Magnesium Batteries. ACS Applied Materials & Interfaces, 2019, 11, 31954-31961.	4.0	43
35	Lithium- and Magnesium-Storage Mechanisms of Novel Hexagonal NbSe₂. ACS Applied Materials & Interfaces, 2018, 10, 36988-36995.	4.0	42
36	Revealing the Origin of Highly Efficient Polysulfide Anchoring and Transformation on Anionâ€Substituted Vanadium Nitride Host. Advanced Functional Materials, 2021, 31, 2008034.	7.8	39

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37	Organicâ€Inorganic Superlattices of Vanadium Oxide@PolyanilineÂfor Highâ€Performance Magnesiumâ€Ion Batteries. ChemSusChem, 2021, 14, 2093-2099.	3.6	38
38	Fast and stable Mg2+ intercalation in a high voltage NaV2O2(PO4)2F/rGO cathode material for magnesium-ion batteries. Science China Materials, 2020, 63, 1651-1662.	3.5	36
39	Ultrathin ZrO2 coating layer regulates Zn deposition and raises long-life performance of aqueous Zn batteries. Materials Today Energy, 2022, 28, 101056.	2.5	35
40	Unexpected discovery of magnesium-vanadium spinel oxide containing extractable Mg2+ as a high-capacity cathode material for magnesium ion batteries. Chemical Engineering Journal, 2021, 405, 127005.	6.6	34
41	Polyaniline nanoarrays/carbon cloth as binder-free and flexible cathode for magnesium ion batteries. Chemical Engineering Journal, 2022, 433, 133772.	6.6	34
42	High-capacity and small-polarization aluminum organic batteries based on sustainable quinone-based cathodes with Al3+ insertion. Cell Reports Physical Science, 2021, 2, 100354.	2.8	32
43	Surface pseudocapacitance of mesoporous Mo3N2 nanowire anode toward reversible high-rate sodium-ion storage. Journal of Energy Chemistry, 2021, 55, 295-303.	7.1	31
44	Robust LiTi₂(PO₄)₃ microflowers as high-rate and long-life cathodes for Mg-based hybrid-ion batteries. Journal of Materials Chemistry A, 2017, 5, 13950-13956.	5.2	30
45	Multi-electron reactions of vanadium-based nanomaterials for high-capacity lithium batteries: challenges and opportunities. Materials Today Nano, 2020, 10, 100073.	2.3	30
46	MOF derived TiO2 with reversible magnesium pseudocapacitance for ultralong-life Mg metal batteries. Chemical Engineering Journal, 2021, 418, 128491.	6.6	28
47	Improved zinc-ion storage performance of the metal-free organic anode by the effect of binder. Chemical Engineering Journal, 2022, 428, 131092.	6.6	28
48	CaV₆O₁₆Â·2.8H₂O with Ca²⁺ Pillar and Water Lubrication as a Highâ€Rate and Longâ€Life Cathode Material for Caâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	7.8	28
49	Pseudocapacitive layered birnessite sodium manganese dioxide for high-rate non-aqueous sodium ion capacitors. Journal of Materials Chemistry A, 2018, 6, 12259-12266.	5.2	26
50	Hierarchical Mn₃O₄/Graphene Microflowers Fabricated via a Selective Dissolution Strategy for Alkali-Metal-Ion Storage. ACS Applied Materials & Interfaces, 2019, 11, 14120-14125.	4.0	26
51	Role of Amorphous Phases in Enhancing Performances of Electrode Materials for Alkali Ion Batteries. Frontiers in Materials, 2020, 6, .	1.2	25
52	Novel hollow Ni0.33Co0.67Se nanoprisms for high capacity lithium storage. Nano Research, 2019, 12, 1371-1374.	5.8	22
53	Dual redox groups enable organic cathode material with a high capacity for aqueous zinc-organic batteries. Electrochimica Acta, 2022, 404, 139620.	2.6	21
54	MnO₂ Polymorphs as Cathode Materials for Rechargeable Caâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	7.8	21

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55	Amorphous CuSnO₃ nanospheres anchored on interconnected carbon networks for use as novel anode materials for high-performance sodium ion batteries. Inorganic Chemistry Frontiers, 2018, 5, 2756-2762.	3.0	20
56	Mo₂C Nanoparticles Embedded in Carbon Nanowires with Surface Pseudocapacitance Enables Highâ€Energy and Highâ€Power Sodium Ion Capacitors. Small, 2022, 18, e2200805.	5.2	20
57	Porous yolk-shell structured Na3(VO)2(PO4)2F microspheres with enhanced Na-ion storage properties. Journal of Materials Science and Technology, 2021, 83, 83-89.	5.6	19
58	Constructing a disorder/order structure for enhanced magnesium storage. Chemical Engineering Journal, 2020, 382, 123049.	6.6	18
59	Iron metal anode for aqueous rechargeable batteries. Materials Today Advances, 2021, 11, 100156.	2.5	18
60	Electrochemical activation induced multi-valence variation of (NH₄)₂V₄O₉ as a high-performance cathode material for zinc-ion batteries. Chemical Communications, 2021, 57, 3615-3618.	2.2	16
61	Intercalation-Type V₂O₃ with Fast Mg²⁺ Diffusion Kinetics for High-Capacity and Long-Life Mg-Ion Storage. ACS Sustainable Chemistry and Engineering, 2020, 8, 16164-16171.	3.2	13
62	Structural properties and electrochemical performance of different polymorphs of Nb2O5 in magnesium-based batteries. Journal of Energy Chemistry, 2021, 58, 586-592.	7.1	13
63	Flexible three-dimensional-networked iron vanadate nanosheet arrays/carbon cloths as high-performance cathodes for magnesium ion batteries. Science China Materials, 2022, 65, 2197-2206.	3.5	13
64	In situ construction of amorphous hierarchical iron oxyhydroxide nanotubes via selective dissolution-regrowth strategy for enhanced lithium storage. Science China Materials, 2020, 63, 1993-2001.	3.5	11
65	Insight into the capacity decay of layered sodium nickel manganese oxide cathodes in sodium ion batteries. Journal of Alloys and Compounds, 2020, 820, 153093.	2.8	9
66	A high energy density hybrid magnesiumâ€"lithium ion battery based on LiV3O8@GO cathode. Electrochimica Acta, 2019, 320, 134556.	2.6	8
67	Revealing the role of the amorphous phase in Na0.74CoO2/C/N composite cathode. Journal of Alloys and Compounds, 2020, 815, 152616.	2.8	7
68	Revealing the Multiâ€Electron Reaction Mechanism of Na₃V₂O₂(PO₄)₂F Towards Improved Lithium Storage. ChemSusChem, 2021, 14, 2984-2991.	3.6	6
69	Energy Storage: Porous Oneâ€Dimensional Nanomaterials: Design, Fabrication and Applications in Electrochemical Energy Storage (Adv. Mater. 20/2017). Advanced Materials, 2017, 29, .	11.1	5
70	Operando Observation of Structural Evolution and Kinetics of Li[Ni0.6Co0.2Mn0.2]O2 at Elevated Temperature. Chemical Research in Chinese Universities, 2020, 36, 690-693.	1.3	3
71	Polyol Solvation Effect on Tuning the Universal Growth of Binary Metal Oxide Nanodots@Graphene Oxide Heterostructures for Electrochemical Applications. Chemistry - A European Journal, 2019, 25, 14604-14612.	1.7	2
72	A room-temperature rechargeable dual-plating lithiumâ€"aluminium battery. Chemical Communications, 2021, 57, 11529-11532.	2.2	2