Yao-bin Xu

List of Publications by Year
in descending order

71 papers	5,198 citations	101543 36 h-index	102487 66 g-index
72 all docs	72 docs citations	72 times ranked	6123 citing authors

#	Article	IF	Citations
1	Enhanced Longâ€Term Cathode Stability by Tuning Interfacial Nanocomposite for Intermediate Temperature Solid Oxide Fuel Cells. Advanced Materials Interfaces, 2022, 9, .	3.7	3
2	Stacking Faults Assist Lithium-Ion Conduction in a Halide-Based Superionic Conductor. Journal of the American Chemical Society, 2022, 144, 5795-5811.	13.7	50
3	Sulfone-based electrolytes for high energy density lithium-ion batteries. Journal of Power Sources, 2022, 527, 231171.	7.8	21
4	Facile Dual-Protection Layer and Advanced Electrolyte Enhancing Performances of Cobalt-free/Nickel-rich Cathodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 17405-17414.	8.0	8
5	Early Failure of Lithiumâ€“Sulfur Batteries at Practical Conditions: Crosstalk between Sulfur Cathode and Lithium Anode. Advanced Science, 2022, 9, e2201640.	11.2	12
6	Low-solvation electrolytes for high-voltage sodium-ion batteries. Nature Energy, 2022, 7, 718-725.	39.5	137
7	A hybrid lithium storage mechanism of hard carbon enhances its performance as anodes for lithium-ion batteries. Carbon, 2021, 178, 443-450.	10.3	53
8	All solid thick oxide cathodes based on low temperature sintering for high energy solid batteries. Energy and Environmental Science, 2021, 14, 5044-5056.	30.8	41
9	Strategies towards enabling lithium metal in batteries: interphases and electrodes. Energy and Environmental Science, 2021, 14, 5289-5314.	30.8	156
10	Electrolyte Regulating toward Stabilization of Cobalt-Free Ultrahigh-Nickel Layered Oxide Cathode in Lithium-Ion Batteries. ACS Energy Letters, 2021, 6, 1324-1332.	17.4	53
11	Advanced Lowâ€Flammable Electrolytes for Stable Operation of Highâ€Voltage Lithiumâ€Ion Batteries. Angewandte Chemie, 2021, 133, 13109-13116.	2.0	16
12	Advanced Lowâ€Flammable Electrolytes for Stable Operation of Highâ€Voltage Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2021, 60, 12999-13006.	13.8	70
13	In Situ, Atomicâ€Resolution Observation of Lithiation and Sodiation of WS₂ Nanoflakes: Implications for Lithiumâ€Ion and Sodiumâ€Ion Batteries. Small, 2021, 17, e2100637.	10.0	22
14	Polymer-ceramic composite electrolytes for all-solid-state lithium batteries: Ionic conductivity and chemical interaction enhanced by oxygen vacancy in ceramic nanofibers. Journal of Power Sources, 2021, 495, 229796.	7.8	40
15	Lithium/Sodiumâ€Ion Batteries: In Situ, Atomicâ€Resolution Observation of Lithiation and Sodiation of WS₂ Nanoflakes: Implications for Lithiumâ€Ion and Sodiumâ€Ion Batteries (Small 24/2021). Small, 2021, 17, 2170120.	10.0	0
16	Sweeping Potential Regulated Structural and Chemical Evolution of Solid-Electrolyte Interphase on Cu and Li as Revealed by Cryogenic Transmission Electron Microscopy. Microscopy and Microanalysis, 2021, 27, 1250-1253.	0.4	0
17	Progressive growth of the solidâ€“electrolyte interphase towards the Si anode interior causes capacity fading. Nature Nanotechnology, 2021, 16, 1113-1120.	31.5	147
18	Galvanic Transformation Dynamics in Heterostructured Nanoparticles. Advanced Functional Materials, 2021, 31, 2105866.	14.9	7

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19	The passivity of lithium electrodes in liquid electrolytes for secondary batteries. Nature Reviews Materials, 2021, 6, 1036-1052.	48.7	201
20	Toward the Practical Use of Cobalt-Free Lithium-Ion Batteries by an Advanced Ether-Based Electrolyte. ACS Applied Materials & Interfaces, 2021, 13, 44339-44347.	8.0	24
21	Controllable Nonclassical Conductance Switching in Nanoscale Phaseâ€Separated (PbI₂)_{1â^'}_x(BiI₃)_x Layered Crystals. Advanced Materials, 2021, 33, e2103098.	21.0	1
22	Atomic to Nanoscale Origin of Vinylene Carbonate Enhanced Cycling Stability of Lithium Metal Anode Revealed by Cryo-Transmission Electron Microscopy. Nano Letters, 2020, 20, 418-425.	9.1	102
23	Superior Oxygen Reduction Reaction on Phosphorusâ€Doped Carbon Dot/Graphene Aerogel for Allâ€Solidâ€State Flexible Alâ€“Air Batteries. Advanced Energy Materials, 2020, 10, 1902736.	19.5	93
24	Unravelling high-temperature stability of lithium-ion battery with lithium-rich oxide cathode in localized high-concentration electrolyte. Journal of Power Sources Advances, 2020, 5, 100024.	5.1	23
25	Enabling Ether-Based Electrolytes for Long Cycle Life of Lithium-Ion Batteries at High Charge Voltage. ACS Applied Materials & Interfaces, 2020, 12, 54893-54903.	8.0	35
26	Highly Reversible Sodium Ion Batteries Enabled by Stable Electrolyte-Electrode Interphases. ACS Energy Letters, 2020, 5, 3212-3220.	17.4	97
27	Reversible planar gliding and microcracking in a single-crystalline Ni-rich cathode. Science, 2020, 370, 1313-1317.	12.6	472
28	Sweeping potential regulated structural and chemical evolution of solid-electrolyte interphase on Cu and Li as revealed by cryo-TEM. Nano Energy, 2020, 76, 105040.	16.0	16
29	Current Density Regulated Atomic to Nanoscale Process on Li Deposition and Solid Electrolyte Interphase Revealed by Cryogenic Transmission Electron Microscopy. ACS Nano, 2020, 14, 8766-8775.	14.6	54
30	Single-Crystal Polycationic Polymers Obtained by Single-Crystal-to-Single-Crystal Photopolymerization. Journal of the American Chemical Society, 2020, 142, 6180-6187.	13.7	50
31	Electrolyte design for LiF-rich solidâ€“electrolyte interfaces to enable high-performance microsized alloy anodes for batteries. Nature Energy, 2020, 5, 386-397.	39.5	621
32	Advanced Electrolytes for Fastâ€Charging Highâ€Voltage Lithiumâ€Ion Batteries in Wideâ€Temperature Range. Advanced Energy Materials, 2020, 10, 2000368.	19.5	159
33	Atomic Structure of Electrochemically Deposited Lithium Metal and Its Solid Electrolyte Interphases Revealed by Cryoâ€“electron Microscopy. Microscopy and Microanalysis, 2019, 25, 2220-2221.	0.4	8
34	A Hierarchical Nanoporous Diamondoid Superstructure. CheM, 2019, 5, 2353-2364.	11.7	23
35	Controllable growth of LiMn2O4 by carbohydrate-assisted combustion synthesis for high performance Li-ion batteries. Nano Energy, 2019, 64, 103936.	16.0	47
36	Polymerâ€inâ€âœQuasiâ€Ionic Liquidâ€•Electrolytes for Highâ€Voltage Lithium Metal Batteries. Advanced Energy Materials, 2019, 9, 1902108.	19.5	65

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37	Origin of lithium whisker formation and growth under stress. Nature Nanotechnology, 2019, 14, 1042-1047.	31.5	211
38	Shape regulation of high-index facet nanoparticles by dealloying. Science, 2019, 365, 1159-1163.	12.6	108
39	Nonflammable Electrolytes for Lithium Ion Batteries Enabled by Ultraconformal Passivation Interphases. ACS Energy Letters, 2019, 4, 2529-2534.	17.4	112
40	Sodium storage in hard carbon with curved graphene platelets as the basic structural units. Journal of Materials Chemistry A, 2019, 7, 3327-3335.	10.3	113
41	A Coherently Strained Monoclinic [111]PbTiO₃ Film Exhibiting Zero Poisson's Ratio State. Advanced Functional Materials, 2019, 29, 1901687.	14.9	30
42	Experimental investigation of heat transfer and flow characteristics in finned copper foam heat sinks subjected to jet impingement cooling. Applied Energy, 2019, 241, 433-443.	10.1	70
43	Two-dimensional copper nanosheets for electrochemical reduction of carbon monoxide to acetate. Nature Catalysis, 2019, 2, 423-430.	34.4	368
44	Dynamic imaging of crystalline defects in lithium-manganese oxide electrodes during electrochemical activation to high voltage. Nature Communications, 2019, 10, 1692.	12.8	68
45	Mapping Hot Spots at Heterogeneities of Few-Layer Ti₃C₂ MXene Sheets. ACS Nano, 2019, 13, 3301-3309.	14.6	29
46	Strain-Induced Metastable Phase Stabilization in Ga₂O₃ Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 5536-5543.	8.0	42
47	Dynamic imaging of metastable reaction pathways in lithiated cobalt oxide electrodes. Nano Energy, 2018, 44, 15-22.	16.0	24
48	Anisotropic Lithiation and Sodiation of ReS2 Studied by In-situ TEM. Microscopy and Microanalysis, 2018, 24, 1570-1571.	0.4	2
49	Thin Film RuO₂ Lithiation: Fast Lithiumâ€ion Diffusion along the Interface. Advanced Functional Materials, 2018, 28, 1805723.	14.9	11
50	Morphological Engineering of Winged Au@MoS₂ Heterostructures for Electrocatalytic Hydrogen Evolution. Nano Letters, 2018, 18, 7104-7110.	9.1	96
51	Meltâ€Centrifuged (Bi,Sb)₂Te₃: Engineering Microstructure toward High Thermoelectric Efficiency. Advanced Materials, 2018, 30, e1802016.	21.0	133
52	Revealing the Effects of Electrode Crystallographic Orientation on Battery Electrochemistry via the Anisotropic Lithiation and Sodiation of ReS₂. ACS Nano, 2018, 12, 7875-7882.	14.6	28
53	Lithium Electrochemistry of WS2 Nanoflakes Studied by In-situ TEM. Microscopy and Microanalysis, 2018, 24, 1860-1861.	0.4	4
54	Site-Specific Positioning and Patterning of MoS₂ Monolayers: The Role of Au Seeding. ACS Nano, 2018, 12, 8970-8976.	14.6	50

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55	Local Enhancement of Polarization at PbTiO₃/BiFeO₃ Interfaces Mediated by Charge Transfer. Nano Letters, 2017, 17, 3619-3628.	9.1	56
56	Atomic Level Structural Modulations at the Negatively Charged Domain Walls in BiFeO3 Films. Microscopy and Microanalysis, 2017, 23, 1666-1667.	0.4	0
57	Designing of metallic nanocrystals embedded in non-stoichiometric perovskite nanomaterial and its surface-electronic characteristics. Scientific Reports, 2017, 7, 8343.	3.3	12
58	3D polarization texture of a symmetric 4-fold flux closure domain in strained ferroelectric PbTiO₃ films. Journal of Materials Research, 2017, 32, 957-967.	2.6	13
59	Large scale arrays of four-state vortex domains in BiFeO3 thin film. Applied Physics Letters, 2016, 109, .	3.3	22
60	Misfit Strain Relaxation of Ferroelectric PbTiO3/LaAlO3 (111) Thin Film System. Scientific Reports, 2016, 6, 35172.	3.3	16
61	Atomically resolved precipitates/matrix interfaces in KTaO₃crystals. Philosophical Magazine, 2016, 96, 486-497.	1.6	3
62	1D Modulation: Atomic Level 1D Structural Modulations at the Negatively Charged Domain Walls in BiFeO₃ Films (Adv. Mater. Interfaces 9/2015). Advanced Materials Interfaces, 2015, 2, .	3.7	0
63	Atomic mapping of Ruddlesden-Popper faults in transparent conducting BaSnO3-based thin films. Scientific Reports, 2015, 5, 16097.	3.3	42
64	Atomic Level 1D Structural Modulations at the Negatively Charged Domain Walls in BiFeO₃ Films. Advanced Materials Interfaces, 2015, 2, 1500024.	3.7	29
65	Observation of a periodic array of flux-closure quadrants in strained ferroelectric PbTiO ₃ films. Science, 2015, 348, 547-551.	12.6	430
66	Atomic-scale mapping of dipole frustration at 90Â° charged domain walls in ferroelectric PbTiO3 films. Scientific Reports, 2014, 4, 4115.	3.3	56
67	Influence of Higher Zn/Y Ratio on the Microstructure and Mechanical Properties of Mg-Zn-Y-Zr Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1727-1740.	2.2	46
68	Atomic structure and deformation behaviour around the crack tip induced during indentation of GaAs single crystal. Philosophical Magazine Letters, 2008, 88, 19-26.	1.2	1
69	The Influence of Developed Texture on the Mechanical Anisotropy and Deformation Modes of an As-Extruded Mg-Zn-Zr Alloy. Materials Transactions, 2008, 49, 1011-1014.	1.2	6
70	Shear-activated indentation crack in GaAs single crystal. Journal of Materials Research, 2001, 16, 2845-2849.	2.6	12
71	A straining test within an SEM and its application. Scanning, 1986, 8, 34-39.	1.5	0