Kai Xi

List of Publications by Year
in descending order

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98	7,789	47409 49	58552 86
papers	citations	h-index	g-index

103	103	103	10613
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Schottky junction and multiheterostructure synergistically enhance rate performance and cycling stability. Chemical Engineering Journal, 2022, 430, 132994.	6.6	8
2	Quantitatively regulating defects of 2D tungsten selenide to enhance catalytic ability for polysulfide conversion in a lithium sulfur battery. Energy Storage Materials, 2022, 45, 1229-1237.	9.5	81
3	Nickel Quantum Dots Anchored in Biomassâ€Derived Nitrogenâ€Doped Carbon as Bifunctional Electrocatalysts for Overall Water Splitting. Advanced Materials Interfaces, 2022, 9, .	1.9	7
4	Unraveling the Intercorrelation Between Micro/Mesopores and K Migration Behavior in Hard Carbon. Small, 2022, 18, e2107113.	5.2	65
5	Polyoxometalate Ionic Sponge Enabled Dendriteâ€Free and Highly Stable Lithium Metal Anode. Small Methods, 2022, 6, e2101613.	4.6	17
6	A Sustainable Multipurpose Separator Directed Against the Shuttle Effect of Polysulfides for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2022, 12, .	10.2	53
7	Boosting the Ion Mobility in Solid Polymer Electrolytes Using Hollow Polymer Nanospheres as an Additive. ACS Applied Materials & Interfaces, 2022, 14, 18360-18372.	4.0	12
8	Expanding the active charge carriers of polymer electrolytes in lithium-based batteries using an anion-hosting cathode. Nature Communications, 2022, 13, .	5.8	18
9	Abnormal spatial heterogeneity governing the charge-carrier mechanism in efficient Ruddlesdenâ€“Popper perovskite solar cells. Energy and Environmental Science, 2021, 14, 4915-4925.	15.6	24
10	Iron Selenide Microcapsules as Universal Conversionâ€Typed Anodes for Alkali Metalâ€Ion Batteries. Small, 2021, 17, e2005745.	5.2	66
11	2021 roadmap on lithium sulfur batteries. JPhys Energy, 2021, 3, 031501.	2.3	74
12	The potential of microplastics as adsorbents of sodium dodecyl benzene sulfonate and chromium in an aqueous environment. Environmental Research, 2021, 197, 111057.	3.7	26
13	Currentâ€Density Regulating Lithium Metal Directional Deposition for Long Cycleâ€Life Li Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 19306-19313.	7.2	35
14	Currentâ€Density Regulating Lithium Metal Directional Deposition for Long Cycleâ€Life Li Metal Batteries. Angewandte Chemie, 2021, 133, 19455-19462.	1.6	2
15	Effect of loading methods on the performance of hierarchical porous carbon/sulfur composites in lithium sulfur batteries. Electrochimica Acta, 2021, 388, 138650.	2.6	17
16	Amorphous CoS1.4 ultrathin nanosheets/amorphous N-doped carbon nanobox: A dual-amorphous confined structure for superior potassium storage. Journal of Power Sources, 2021, 506, 230117.	4.0	11
17	Improvement in potassium ion batteries electrodes: Recent developments and efficient approaches. Journal of Energy Chemistry, 2021, 62, 307-337.	7.1	73
18	Potassium-ion batteries: outlook on present and future technologies. Energy and Environmental Science, 2021, 14, 2186-2243.	15.6	402

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19	Sulfur vacancies in Co₉S_{8â^'x}/N-doped graphene enhancing the electrochemical kinetics for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 10704-10713.	5.2	53
20	Blowing Iron Chalcogenides into Two-Dimensional Flaky Hybrids with Superior Cyclability and Rate Capability for Potassium-Ion Batteries. ACS Nano, 2021, 15, 2506-2519.	7.3	79
21	Single-Atom Co Doped in Ultrathin WO₃ Arrays for the Enhanced Hydrogen Evolution Reaction in a Wide pH Range. ACS Applied Materials & Interfaces, 2021, 13, 53915-53924.	4.0	17
22	Collaborative Design of Hollow Nanocubes, In Situ Crossâ€Linked Binder, and Amorphous Void@SiO_x@C as a Threeâ€Pronged Strategy for Ultrastable Lithium Storage. Small, 2020, 16, e1905736.	5.2	43
23	Open ZnSe/C nanocages: multi-hierarchy stress-buffer for boosting cycling stability in potassium-ion batteries. Journal of Materials Chemistry A, 2020, 8, 779-788.	5.2	73
24	Expression of interfacial Seebeck coefficient through grain boundary engineering with multi-layer graphene nanoplatelets. Energy and Environmental Science, 2020, 13, 4114-4121.	15.6	78
25	Recyclable cobalt-molybdenum bimetallic carbide modified separator boosts the polysulfide adsorption-catalysis of lithium sulfur battery. Science China Materials, 2020, 63, 2443-2455.	3.5	69
26	Rational formation of solid electrolyte interface for high-rate potassium ion batteries. Nano Energy, 2020, 75, 104979.	8.2	55
27	Phase boundary engineering of metal-organic-framework-derived carbonaceous nickel selenides for sodium-ion batteries. Nano Research, 2020, 13, 2289-2298.	5.8	51
28	Suppressing the Shuttle Effect and Dendrite Growth in Lithiumâ€“Sulfur Batteries. ACS Nano, 2020, 14, 9819-9831.	7.3	209
29	Nitrogen-Doped Hierarchical Porous Carbon-Promoted Adsorption of Anthraquinone for Long-Life Organic Batteries. ACS Applied Materials & Interfaces, 2020, 12, 34910-34918.	4.0	9
30	Review of MXene electrochemical microsupercapacitors. Energy Storage Materials, 2020, 27, 78-95.	9.5	223
31	K0.6CoO2-xNx porous nanoframe: A co-enhanced ionic and electronic transmission for potassium ion batteries. Chemical Engineering Journal, 2020, 396, 125218.	6.6	14
32	Hexagonal boron nitride induces anion trapping in a polyethylene oxide based solid polymer electrolyte for lithium dendrite inhibition. Journal of Materials Chemistry A, 2020, 8, 9579-9589.	5.2	81
33	A textile-based SnO2 ultra-flexible electrode for lithium-ion batteries. Energy Storage Materials, 2019, 16, 597-606.	9.5	150
34	Carbon@titanium nitrideÂdual shell nanospheres as multi-functional hosts for lithium sulfur batteries. Energy Storage Materials, 2019, 16, 228-235.	9.5	276
35	Lithiumâ€“Sulfur Batteries: Flexible and Highâ€Loading Lithiumâ€“Sulfur Batteries Enabled by Integrated Threeâ€inâ€One Fibrous Membranes (Adv. Energy Mater. 38/2019). Advanced Energy Materials, 2019, 9, 1970147.	10.2	5
36	Graphene-like monolayer monoxides and monochlorides. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17213-17218.	3.3	54

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37	Flexible and Highâ€Loading Lithiumâ€“Sulfur Batteries Enabled by Integrated Threeâ€Inâ€One Fibrous Membranes. Advanced Energy Materials, 2019, 9, 1902001.	10.2	98
38	Hollow Multihole Carbon Bowls: A Stressâ€“Release Structure Design for High-Stability and High-Volumetric-Capacity Potassium-Ion Batteries. ACS Nano, 2019, 13, 11363-11371.	7.3	143
39	Interfacial electronic properties of ferroelectric nanocomposites for energy storage application. Materials Today Energy, 2019, 12, 136-145.	2.5	23
40	Galvanic exchange carving growth of Coâ€“Fe LDHs with enhanced water oxidation. International Journal of Hydrogen Energy, 2019, 44, 20085-20092.	3.8	12
41	Optimization of Von Mises Stress Distribution in Mesoporous Î±â€Fe₂O₃/C Hollow Bowls Synergistically Boosts Gravimetric/Volumetric Capacity and Highâ€Rate Stability in Alkaliâ€Ion Batteries. Advanced Functional Materials, 2019, 29, 1902822.	7.8	65
42	Deeply Nesting Zinc Sulfide Dendrites in Tertiary Hierarchical Structure for Potassium Ion Batteries: Enhanced Conductivity from Interior to Exterior. ACS Nano, 2019, 13, 6906-6916.	7.3	139
43	Facile mechanochemical synthesis of non-stoichiometric silica-carbon composite for enhanced lithium storage properties. Journal of Alloys and Compounds, 2019, 801, 658-665.	2.8	11
44	Enhancing Catalytic Activity of Titanium Oxide in Lithiumâ€“Sulfur Batteries by Band Engineering. Advanced Energy Materials, 2019, 9, 1900953.	10.2	326
45	Construction of ultrafine ZnSe nanoparticles on/in amorphous carbon hollow nanospheres with high-power-density sodium storage. Nano Energy, 2019, 59, 762-772.	8.2	155
46	Synthesis and Luminescence Properties of a Novel Green-Yellow-Emitting Phosphor BiOCl:Pr3+ for Blue-Light-Based w-LEDs. Molecules, 2019, 24, 1296.	1.7	7
47	Enhanced Sulfur Transformation by Multifunctional FeS₂/FeS/S Composites for Highâ€Volumetric Capacity Cathodes in Lithiumâ€“Sulfur Batteries. Advanced Science, 2019, 6, 1800815.	5.6	178
48	A carbon microtube array with a multihole cross profile: releasing the stress and boosting long-cycling and high-rate potassium ion storage. Journal of Materials Chemistry A, 2019, 7, 25845-25852.	5.2	36
49	Strong (001) facet-induced growth of multi-hierarchical tremella-like Sn-doped V₂O₅ for high-performance potassium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 25993-26001.	5.2	18
50	Chemical sintering reduced grain boundary defects for stable planar perovskite solar cells. Nano Energy, 2019, 56, 741-750.	8.2	65
51	Lithiumâ€“Sulfur Capacitors. ACS Applied Materials & Interfaces, 2018, 10, 6199-6206.	4.0	7
52	Allâ€Inorganic Heteroâ€Structured Cesium Tin Halide Perovskite Lightâ€Emitting Diodes With Current Density Over 900â€‰Aâ€‰cm^{â^'2} and Its Amplified Spontaneous Emission Behaviors. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800090.	2.2	47
53	Thickness controllable and mass produced WC@C@Pt hybrid for efficient hydrogen production. Energy Storage Materials, 2018, 10, 268-274.	9.5	28
54	CTAB-assisted growth of self-supported Zn₂GeO₄ nanosheet network on a conductive foam as a binder-free electrode for long-life lithium-ion batteries. Nanoscale, 2018, 10, 921-929.	2.8	44

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55	Cationic Surfactant-Based Electrolyte Additives for Uniform Lithium Deposition via Lithiophobic Repulsion Mechanisms. Journal of the American Chemical Society, 2018, 140, 17515-17521.	6.6	211
56	Thickness-control of ultrathin bimetallic Feâ€“Mo selenide@N-doped carbon core/shell â€œnano-crispsâ€• for high-performance potassium-ion batteries. Applied Materials Today, 2018, 13, 344-351.	2.3	69
57	Zero-strain K_{0.6}Mn₁F_{2.7} hollow nanocubes for ultrastable potassium ion storage. Energy and Environmental Science, 2018, 11, 3033-3042.	15.6	87
58	A Strategy for Architecture Design of Crystalline Perovskite Lightâ€Emitting Diodes with High Performance. Advanced Materials, 2018, 30, e1800251.	11.1	148
59	Anchoring Fe₃O₄ Nanoparticles on Carbon Nanotubes for Microwave-Induced Catalytic Degradation of Antibiotics. ACS Applied Materials & Interfaces, 2018, 10, 29467-29475.	4.0	83
60	A Mixed Microporous/Low-range Mesoporous Composite with High Sulfur Loading from Hierarchically-structured Carbon for Lithium Sulfur Batteries. Electrochimica Acta, 2017, 230, 181-188.	2.6	36
61	Challenges and Perspectives for NASICONâ€Type Electrode Materials for Advanced Sodiumâ€Ion Batteries. Advanced Materials, 2017, 29, 1700431.	11.1	499
62	Improve the catalytic property of La0.6Sr0.4Co0.2Fe0.8O3/Ce0.9Gd0.1O2 (LSCF/CGO) cathodes with CuO nanoparticles infiltration. Electrochimica Acta, 2017, 246, 148-155.	2.6	16
63	Quick one-pot synthesis of amorphous carbon-coated cobaltâ€“ferrite twin elliptical frustums for enhanced lithium storage capability. Journal of Materials Chemistry A, 2017, 5, 8062-8069.	5.2	47
64	Online Digital Holographic Method for Interface Reaction Monitoring in Lithium-Ion Batteries. Journal of Physical Chemistry C, 2017, 121, 24733-24739.	1.5	13
65	A Pralineâ€Like Flexible Interlayer with Highly Mounted Polysulfide Anchors for Lithiumâ€“Sulfur Batteries. Small, 2017, 13, 1700357.	5.2	37
66	High Stability and Ultralow Threshold Amplified Spontaneous Emission from Formamidinium Lead Halide Perovskite Films. Journal of Physical Chemistry C, 2017, 121, 15318-15325.	1.5	50
67	Li-S-Batteries: Advanced Lithium-Sulfur Batteries Enabled by a Bio-Inspired Polysulfide Adsorptive Brush (Adv. Funct. Mater. 46/2016). Advanced Functional Materials, 2016, 26, 8564-8564.	7.8	4
68	Mesoporous Co₃V₂O₈nanoparticles grown on reduced graphene oxide as a high-rate and long-life anode material for lithium-ion batteries. Journal of Materials Chemistry A, 2016, 4, 6264-6270.	5.2	88
69	Ultra-small B₂O₃ nanocrystals grown in situ on highly porous carbon microtubes for lithiumâ€“iodine and lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2016, 4, 8541-8547.	5.2	74
70	Formation of ultrasmooth perovskite films toward highly efficient inverted planar heterojunction solar cells by micro-flowing anti-solvent deposition in air. Journal of Materials Chemistry A, 2016, 4, 6295-6303.	5.2	61
71	Construction of sandwich-type hybrid structures by anchoring mesoporous ZnMn2O4 nanofoams on reduced graphene oxide with highly enhanced capability. Journal of Materials Chemistry A, 2016, 4, 10419-10424.	5.2	45
72	A universal synthetic route to carbon nanotube/transition metal oxide nano-composites for lithium ion batteries and electrochemical capacitors. Scientific Reports, 2016, 6, 37752.	1.6	58

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73	P-type transparent conducting oxides. Journal of Physics Condensed Matter, 2016, 28, 383002.	0.7	274
74	Sea urchin-like NiCoO2@C nanocomposites for Li-ion batteries and supercapacitors. Nano Energy, 2016, 27, 457-465.	8.2	127
75	Advanced Lithiumâ€“Sulfur Batteries Enabled by a Bioâ€inspired Polysulfide Adsorptive Brush. Advanced Functional Materials, 2016, 26, 8418-8426.	7.8	120
76	Initiating crystal growth kinetics of Î±-HC(NH2)2PbI3 for flexible solar cells with long-term stability. Nano Energy, 2016, 26, 438-445.	8.2	35
77	Rational Design of NiCoO₂@SnO₂ Heterostructure Attached on Amorphous Carbon Nanotubes with Improved Lithium Storage Properties. ACS Applied Materials & Interfaces, 2016, 8, 6004-6010.	4.0	44
78	A NiCo2O4 nanosheet-mesoporous carbon composite electrode for enhanced reversible lithium storage. Carbon, 2016, 99, 633-641.	5.4	77
79	Nitrogen, sulfur-codoped graphene sponge as electroactive carbon interlayer for high-energy and -power lithiumâ€“sulfur batteries. Journal of Power Sources, 2016, 303, 22-28.	4.0	180
80	Design and synthesis of a novel d10â€“d10 mixed metal-based polymer with superior luminescent properties to select Ca2+ and Zn2+. Inorganic Chemistry Communication, 2015, 54, 66-68.	1.8	2
81	Soluble polysulphide sorption using carbon nanotube forest for enhancing cycle performance in a lithiumâ€“sulphur battery. Nano Energy, 2015, 12, 538-546.	8.2	95
82	Tuning and understanding the phase interface of TiO₂ nanoparticles for more efficient lithium ion storage. Nanoscale, 2015, 7, 12833-12838.	2.8	36
83	Sustainable seaweed-based one-dimensional (1D) nanofibers as high-performance electrocatalysts for fuel cells. Journal of Materials Chemistry A, 2015, 3, 14188-14194.	5.2	72
84	Ultrathin NiO nanosheets anchored on a highly ordered nanostructured carbon as an enhanced anode material for lithium ion batteries. Nano Energy, 2015, 16, 152-162.	8.2	152
85	Reinforced Conductive Confinement of Sulfur for Robust and High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2015, 7, 23885-23892.	4.0	35
86	Bamboo-like amorphous carbon nanotubes clad in ultrathin nickel oxide nanosheets for lithium-ion battery electrodes with long cycle life. Carbon, 2015, 84, 491-499.	5.4	145
87	Graphene-wrapped sulfur/metal organic framework-derived microporous carbon composite for lithium sulfur batteries. APL Materials, 2014, 2, .	2.2	76
88	Synthesis of Semiconducting Polymer Microparticles as Solid Ionophore with Abundant Complexing Sites for Long-Life Pb(II) Sensors. ACS Applied Materials & Interfaces, 2014, 6, 22096-22107.	4.0	70
89	Polyvinyl formal based gel polymer electrolyte prepared using initiator free in-situ thermal polymerization method. Journal of Power Sources, 2014, 245, 95-100.	4.0	26
90	Hedgehog-like hierarchical ZnO needle-clusters with superior electron transfer kinetics for dye-sensitized solar cells. RSC Advances, 2014, 4, 11430-11437.	1.7	28

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91	Introduction of â€˜lattice-voidsâ€™ in high tap density TiO₂-B nanowires for enhanced high-rate and high volumetric capacity lithium storage. RSC Advances, 2014, 4, 22989-22994.	1.7	8
92	Enhancement of diffusion kinetics in porous MoN nanorods-based counter electrode in a dye-sensitized solar cell. Journal of Materials Chemistry A, 2014, 2, 10041.	5.2	53
93	Binder free three-dimensional sulphur/few-layer graphene foam cathode with enhanced high-rate capability for rechargeable lithium sulphur batteries. Nanoscale, 2014, 6, 5746-5753.	2.8	166
94	Graphene-wrapped sulfur-based composite cathodes: ball-milling synthesis and high discharge capacity. RSC Advances, 2014, 4, 48438-48442.	1.7	4
95	Carbon with hierarchical pores from carbonized metalâ€“organic frameworks for lithium sulphur batteries. Chemical Communications, 2013, 49, 2192.	2.2	354
96	General synthesis and electrochemical performance of TiO2-based microspheres with core-shell structure. Materials Letters, 2012, 84, 143-146.	1.3	10
97	Electrochemical lithium storage of Liâ€“Tiâ€“O compound calcined at different temperatures. Materials Letters, 2009, 63, 304-306.	1.3	5
98	Preparation and electrochemical properties of Coâ€“Si3N4 nanocomposites. Journal of Power Sources, 2008, 184, 657-662.	4.0	30