Xizheng Liu

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/306789/publications.pdf

Version: 2024-02-01

101	5,889	71102	74163
papers	citations	41 h-index	75 g-index

106	106	106	8190
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metalâ€“organic framework-based separator for lithiumâ€“sulfur batteries. Nature Energy, 2016, 1, .	39.5	1,059
2	Amorphous Phosphorus/Nitrogen-Doped Graphene Paper for Ultrastable Sodium-Ion Batteries. Nano Letters, 2016, 16, 2054-2060.	9.1	314
3	Atomistic Origins of High Rate Capability and Capacity of N-Doped Graphene for Lithium Storage. Nano Letters, 2014, 14, 1164-1171.	9.1	304
4	A quinone-based oligomeric lithium salt for superior Liâ€“organic batteries. Energy and Environmental Science, 2014, 7, 4077-4086.	30.8	259
5	Li₃VO₄: A Promising Insertion Anode Material for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2013, 3, 428-432.	19.5	225
6	Hierarchical micro/nano porous silicon Li-ion battery anodes. Chemical Communications, 2012, 48, 5079.	4.1	142
7	A sustainable aqueous Zn-I2 battery. Nano Research, 2018, 11, 3548-3554.	10.4	122
8	CO₂ Coordination by Inorganic Polyoxoanion in Water. Journal of the American Chemical Society, 2008, 130, 10838-10839.	13.7	120
9	Li₂CO₃-free Liâ€“O₂/CO₂ battery with peroxide discharge product. Energy and Environmental Science, 2018, 11, 1211-1217.	30.8	120
10	Surface coating of lithiumâ€“manganese-rich layered oxides with delaminated MnO2 nanosheets as cathode materials for Li-ion batteries. Journal of Materials Chemistry A, 2014, 2, 4422.	10.3	112
11	The Role of Geometric Sites in 2D Materials for Energy Storage. Joule, 2018, 2, 1075-1094.	24.0	108
12	Synergistic Regulation of Polysulfides Conversion and Deposition by MOFâ€Đerived Hierarchically Ordered Carbonaceous Composite for Highâ€Ɛnergy Lithiumâ€“Sulfur Batteries. Advanced Functional Materials, 2019, 29, 1900875.	14.9	104
13	A MoS2/Carbon hybrid anode for high-performance Li-ion batteries at low temperature. Nano Energy, 2020, 70, 104550.	16.0	101
14	Nitrogen and sulfur co-doped porous carbon derived from bio-waste as a promising electrocatalyst for zinc-air battery. Energy, 2018, 143, 43-55.	8.8	98
15	Few-atomic-layered hollow nanospheres constructed from alternate intercalation of carbon and MoS2 monolayers for sodium and lithium storage. Nano Energy, 2018, 51, 546-555.	16.0	98
16	Rechargeable Alâ€“CO₂ Batteries for Reversible Utilization of CO₂. Advanced Materials, 2018, 30, e1801152.	21.0	96
17	In situ preparation of gel polymer electrolyte for lithium batteries: Progress and perspectives. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	17.3	93
18	Fabrication of FePO4 layer coated LiNi1/3Co1/3Mn1/3O2: Towards high-performance cathode materials for lithium ion batteries. Electrochimica Acta, 2012, 83, 253-258.	5.2	89

#	Article	IF	Citations
19	Novel Stable Gel Polymer Electrolyte: Toward a High Safety and Long Life Liâ€“Air Battery. ACS Applied Materials & Interfaces, 2015, 7, 23798-23804.	8.0	89
20	Flexible Lithiumâ€“Air Battery in Ambient Air with an Inâ€…Situ Formed Gel Electrolyte. Angewandte Chemie - International Edition, 2018, 57, 16131-16135.	13.8	89
21	PEDOT modified LiNi 1/3 Co 1/3 Mn 1/3 O 2 with enhanced electrochemical performance for lithium ion batteries. Journal of Power Sources, 2013, 243, 374-380.	7.8	86
22	In Situ Electrochemistry of Rechargeable Battery Materials: Status Report and Perspectives. Advanced Materials, 2017, 29, 1606922.	21.0	81
23	Porous Mn₂O₃ cathode for highly durable Liâ€“CO₂ batteries. Journal of Materials Chemistry A, 2018, 6, 20829-20835.	10.3	81
24	A Synergistic System for Lithiumâ€“Oxygen Batteries in Humid Atmosphere Integrating a Composite Cathode and a Hydrophobic Ionic Liquidâ€Based Electrolyte. Advanced Functional Materials, 2016, 26, 3291-3298.	14.9	76
25	Improvement of electrochemical properties of LiNi1/3Co1/3Mn1/3O2 by coating with V2O5 layer. Journal of Alloys and Compounds, 2013, 552, 76-82.	5.5	73
26	Enhancing the performance of MnO by double carbon modification for advanced lithium-ion battery anodes. Journal of Materials Chemistry A, 2016, 4, 920-925.	10.3	70
27	Nanoporous Cu@Cu₂O hybrid arrays enable photo-assisted supercapacitor with enhanced capacities. Journal of Materials Chemistry A, 2019, 7, 15691-15697.	10.3	66
28	Heteropoly blue-intercalated layered double hydroxides for cationic dye removal from aqueous media. Applied Clay Science, 2011, 54, 242-247.	5.2	65
29	Spider-Web-Inspired Nanocomposite-Modified Separator: Structural and Chemical Cooperativity Inhibiting the Shuttle Effect in Liâ€“S Batteries. ACS Nano, 2019, 13, 1563-1573.	14.6	65
30	Low charge overpotentials in lithiumâ€“oxygen batteries based on tetraglyme electrolytes with a limited amount of water. Chemical Communications, 2015, 51, 16860-16863.	4.1	63
31	CoFe2O4 nanoplates synthesized by dealloying method as high performance Li-ion battery anodes. Electrochimica Acta, 2017, 252, 295-305.	5.2	63
32	Flexible Lithiumâ€“Air Battery in Ambient Air with an Inâ€…Situ Formed Gel Electrolyte. Angewandte Chemie, 2018, 130, 16363-16367.	2.0	63
33	A high-power aqueous rechargeable Fe-I2 battery. Energy Storage Materials, 2020, 28, 247-254.	18.0	63
34	A novel tunnel Na0.61Ti0.48Mn0.52O2 cathode material for sodium-ion batteries. Chemical Communications, 2014, 50, 7998.	4.1	61
35	High stable post-spinel NaMn₂O₄ cathode of sodium ion battery. Journal of Materials Chemistry A, 2014, 2, 14822-14826.	10.3	59
36	Yucca fern shaped CuO nanowires on Cu foam for remitting capacity fading of Li-ion battery anodes. Scientific Reports, 2018, 8, 6530.	3.3	56

#	Article	IF	Citations
37	Chirality and magnetism of an open-framework cobalt phosphite containing helical channels from achiral materials. Chemical Communications, 2010, 46, 2614.	4.1	55
38	Facile fabrication of CuS microflower as a highly durable sodium-ion battery anode. Inorganic Chemistry Frontiers, 2018, 5, 1045-1052.	6.0	52
39	Enhanced low-temperature Li-ion storage in MXene titanium carbide by surface oxygen termination. 2D Materials, 2019, 6, 045025.	4.4	46
40	The first Îµ-Keggin core of molybdogermanate in extended architectures of nickel(II) with N-donor ligands: syntheses, crystal structures and magnetic properties. CrystEngComm, 2009, 11, 2488.	2.6	45
41	Micro/nano-structured FeS2 for high energy efficiency rechargeable Li-FeS2 battery. Chemical Engineering Journal, 2018, 334, 725-731.	12.7	45
42	Scalable synthesis and excellent catalytic effect of hydrangea-like RuO2 mesoporous materials for lithiumâ€“O2 batteries. Energy Storage Materials, 2016, 2, 8-13.	18.0	40
43	Porous-hollow nanorods constructed from alternate intercalation of carbon and MoS2 monolayers for lithium and sodium storage. Nano Research, 2019, 12, 1912-1920.	10.4	39
44	Crystalline Cu-silicide stabilizes the performance of a high capacity Si-based Li-ion battery anode. Journal of Materials Chemistry A, 2016, 4, 19140-19146.	10.3	37
45	1D lanthanide(iii) coordination polymers with disulfide ligand generated in situ. CrystEngComm, 2008, 10, 693.	2.6	32
46	Three-dimensional electrode with conductive Cu framework for stable and fast Li-ion storage. Energy Storage Materials, 2018, 11, 83-90.	18.0	32
47	Porous MnO as efficient catalyst towards the decomposition of Li2CO3 in ambient Li-air batteries. Electrochimica Acta, 2018, 280, 308-314.	5.2	27
48	Temperature-Dependent Li Storage Performance in Nanoporous Cuâ€“Geâ€“Al Alloy. ACS Applied Materials & Interfaces, 2019, 11, 9073-9082.	8.0	24
49	Prevention of Na Corrosion and Dendrite Growth for Long-Life Flexible Naâ€“Air Batteries. ACS Central Science, 2021, 7, 335-344.	11.3	24
50	The Sizeâ€Ðependent Phase Transition of LiFePO₄ Particles during Charging and Discharging in Lithiumâ€Ion Batteries. Energy Technology, 2014, 2, 542-547.	3.8	23
51	Doping-induced memory effect in Li-ion batteries: the case of Al-doped Li₄Ti₅O₁₂. Chemical Science, 2015, 6, 4066-4070.	7.4	23
52	Boosting the ultrastable Li storage performance in electron-sponge-like polyoxovanadates by constructing inorganic 3D structures. Inorganic Chemistry Frontiers, 2017, 4, 2012-2016.	6.0	22
53	An Unexpected Ferromagnetic Coupling in a Dinuclear Manganese(II) Linked Trivacant Heteropolymolybdate Derivative. European Journal of Inorganic Chemistry, 2009, 2009, 1460-1463.	2.0	21
54	A thermodynamically stable quasi-liquid interface for dendrite-free sodium metal anodes. Journal of Materials Chemistry A, 2020, 8, 6822-6827.	10.3	20

#	Article	IF	Citations
55	Tungstocobaltate-pillared layered double hydroxides: Preparation, characterization, magnetic and catalytic properties. Journal of Solid State Chemistry, 2008, 181, 1292-1297.	2.9	19
56	Multidimensional frameworks constructed from Keggin-type heteropoly blue of molybdenumâ€“tungsten cluster. CrystEngComm, 2011, 13, 410-413.	2.6	19
57	Facile fabrication of polyether sulfone (PES) protecting layer on Cu foil for stable Li metal anode. Electrochimica Acta, 2018, 260, 407-412.	5.2	19
58	Filling and unfilling carbon capsules with transition metal oxide nanoparticles for Li-ion hybrid supercapacitors: towards hundred grade energy density. Science China Materials, 2017, 60, 217-227.	6.3	17
59	Hierarchical Sulfideâ€Rich Modification Layer on SiO/C Anode for Lowâ€Temperature Liâ€Ion Batteries. Advanced Science, 2022, 9, e2104531.	11.2	17
60	Graphene Nucleation Preference at CuO Defects Rather Than Cu₂O on Cu(111): A Combination of DFT Calculation and Experiment. ACS Applied Materials & Interfaces, 2018, 10, 43156-43165.	8.0	16
61	Low-temperature and high-performance Si/graphite composite anodes enabled by sulfite additive. Chemical Engineering Journal, 2021, 421, 127782.	12.7	16
62	A hybrid phase-transition model of olivine LiFePO4 for the charge and discharge processes. Journal of Power Sources, 2013, 233, 299-303.	7.8	15
63	Rechargeable Naâ€“SO 2 Battery with Ethylenediamine Additive in Etherâ€Based Electrolyte. Advanced Functional Materials, 2020, 30, 2002120.	14.9	15
64	3D framework constructed from Keggin polymolybdate anion covalently linked by meso-helical mixed-valence copper(I/II) complex. Inorganic Chemistry Communication, 2009, 12, 259-262.	3.9	14
65	Multidimensional crystal frameworks based on heteropoly blue building block of [SiW10MoV2O40]6â^': synthesis, structures and magnetic properties. Dalton Transactions, 2013, 42, 5839.	3.3	14
66	Improved sodium-ion storage properties by fabricating nanoporous CuSn alloy architecture. RSC Advances, 2017, 7, 29458-29463.	3.6	14
67	Ambient stable Na0.76Mn0.48Ti0.44O2 as anode for Na-ion battery. Electrochimica Acta, 2019, 295, 181-186.	5.2	14
68	Magnetic relaxation behavior of lanthanide substituted Dawson-type tungstoarsenates. Journal of Solid State Chemistry, 2010, 183, 350-355.	2.9	13
69	Bottom-Up Li Deposition by Constructing a Multiporous Lithiophilic Gradient Layer on 3D Cu Foam for Stable Li Metal Anodes. ACS Sustainable Chemistry and Engineering, 2022, 10, 7188-7195.	6.7	13
70	Electrochemical and magnetic properties of inorganic polymers constructed from Mn(II)/Co(II)-substituted heteropolymolybdates. Solid State Sciences, 2009, 11, 1433-1438.	3.2	12
71	Solvothermal synthesis and magnetic properties of cobalt(II) phosphite structures of varying dimensionality. CrystEngComm, 2010, 12, 383-386.	2.6	12
72	Study on the capacity fading of pristine and FePO 4 coated LiNi 1/3 Co 1/3 Mn 1/3 O 2 by Electrochemical and Magnetical techniques. Electrochimica Acta, 2014, 148, 26-32.	5.2	11

#	Article	IF	Citations
73	Promotional recyclable Li-ion batteries by a magnetic binder with anti-vibration and non-fatigue performance. Journal of Materials Chemistry A, 2015, 3, 15403-15407.	10.3	11
74	High performance Zn-I2 battery with acetonitrile electrolyte working at low temperature. Nano Research, 2022, 15, 3170-3177.	10.4	11
75	Preparation of bilayer graphene utilizing CuO as nucleation sites by CVD method. Journal of Materials Science: Materials in Electronics, 2018, 29, 4495-4502.	2.2	10
76	A hierarchically structured Si/Cu/Ag integrated anode for efficient lithium-ion batteries. Materials Letters, 2019, 244, 199-202.	2.6	10
77	Reversible Low Temperature <scp>Liâ€Storage</scp> in Liquid Metal Based Anodes via a <scp>Coâ€Solvent</scp> Strategy^{â€}. Chinese Journal of Chemistry, 2021, 39, 2801-2807.	4.9	10
78	Synergetic enhancement of the electronic/ionic conductivity of a Li-ion battery by fabrication of a carbon-coated nanoporous SnOxSb alloy anode. Nanoscale, 2018, 10, 7605-7611.	5.6	9
79	Rational reconfiguration of a gradient redox mediator with in-situ fabricated gel electrolyte for Liâ€“air batteries. Chemical Engineering Journal, 2021, 416, 129016.	12.7	9
80	Liquid Metal-Modified Nanoporous SiGe Alloy as an Anode for Li-Ion Batteries and Its Self-Healing Performance. ACS Applied Energy Materials, 2021, 4, 14575-14581.	5.1	9
81	Hydrothermal synthesis and crystal structure of Na(NH4)[C13N2H16]2[Mo7O24]ÂÂ·Â8H2O: A novel 3-D extended supramolecular network with 1-D channels. Structural Chemistry, 2008, 19, 801-805.	2.0	8
82	Bifunctional polymer-of-intrinsic-microporosity membrane for flexible Li/Naâ€“H₂O₂ batteries with hybrid electrolytes. Journal of Materials Chemistry A, 2020, 8, 3491-3498.	10.3	8
83	Enhanced Safety Performance of Automotive Lithiumâ€Ion Batteries with Al₂O₃â€Coated Nonâ€Woven Separator. Batteries and Supercaps, 2021, 4, 146-151.	4.7	8
84	Immobilizing Ceramic Electrolyte Particles into a Gel Matrix Formed In Situ for Stable Li-Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 38179-38187.	8.0	8
85	A Strategy To Prepare High-Quality Monocrystalline Graphene: Inducing Graphene Growth with Seeding Chemical Vapor Deposition and Its Mechanism. ACS Applied Materials & Interfaces, 2020, 12, 1306-1314.	8.0	7
86	Synthesis, characterization and magnetic properties of a novel fluorinated iron phosphite Fe2(HPO3)F2 with infinite â€“Feâ€“Fâ€“Feâ€“Oâ€“Feâ€“ linkage and â€“Feâ€“Fâ€“Feâ€“ layer. Inorganica Chimica Acta, 2009, 362, 3881-3884.	2.4	7
87	Ligand substitution in sandwich-type complexes of germanotungstates: Syntheses, crystal structures and magnetic properties. Inorganic Chemistry Communication, 2010, 13, 964-967.	3.9	6
88	Enhanced anode performance of manganese oxides with petal-like microsphere structures by optimizing the sintering conditions. RSC Advances, 2016, 6, 34501-34506.	3.6	6
89	Inâ€…Situ Fabrication of Hierarchical Porous CoO/Cu₂O Composites on Cu Foam as Highâ€Performance Freestanding Anodes for Lithiumâ€Ion Batteries. Energy Technology, 2017, 5, 1720-1727.	3.8	6
90	Induced growth of quasi-free-standing graphene on SiC substrates. RSC Advances, 2019, 9, 32226-32231.	3.6	6

#	Article	IF	Citations
91	Unveiling the structural evolution of 1T SnS2 anode upon lithiation/delithiation by TEM. Chemical Communications, 2019, 55, 7800-7803.	4.1	5
92	Boosting the electrochemical performance of nanoporous CuGe anode by regulating the porous structure and solid electrolyte interface layer through Ni-doping. Applied Surface Science, 2021, 558, 149868.	6.1	5
93	New Câ€•C bond formation with induced chiral carbon atoms under the presence of polyoxometalate. Inorganic Chemistry Communication, 2011, 14, 594-596.	3.9	4
94	A â€œdirected precursor self-assemblyâ€•strategy for the facile synthesis of heteropoly blues: crystal structures, formation mechanism and electron distribution. Dalton Transactions, 2019, 48, 14347-14353.	3.3	4
95	Accelerated Hydrogen â€œSpillâ€Overâ€•Enhances Anode Performance of Tensile Strained Pdâ€Based Fuel Cell Electrocatalysts. Small Methods, 2022, 6, e2101328.	8.6	4
96	A new cation induced chain-like complex [Cu(H₂tea)(H₂O)(imi)][Cu(H₃tea)(imi)][Na{Mo₈O₂₆}]Â· 4H₂O. Journal of Coordination Chemistry, 2009, 62, 2583-2590.	2.2	3
97	Wide-temperature rechargeable Li metal batteries enabled by an in-situ fabricated composite gel electrolyte with a hierarchical structure. Fundamental Research, 2022, 2, 611-618.	3.3	3
98	A new complex based on chelate copper coordination with divacant polyanion ligand [Î³-PW10O36]7â^'. Inorganic Chemistry Communication, 2008, 11, 1313-1315.	3.9	2
99	An unusual 3D complex showing 5,8-connected topology with encapsulated 8-connected octamolybdate polyoxoanions. Inorganic Chemistry Communication, 2009, 12, 875-878.	3.9	1
100	A Liâ€“urine battery based on organic/aqueous hybrid electrolytes. Inorganic Chemistry Frontiers, 2019, 6, 1654-1659.	6.0	0
101	A stable tunnel-type NaGe3/2Mn1/2O4 anode for Na-ion batteries. RSC Advances, 2020, 10, 1426-1429.	3.6	0