Zhaoxiang Wang

List of Publications by Year
in descending order

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		50276	42399
100	8,698	46	92
papers	citations	h-index	g-index

100	100	100	10177
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Research on Advanced Materials for Liâ€ion Batteries. Advanced Materials, 2009, 21, 4593-4607.	21.0	1,633
2	Lithium storage in nitrogen-rich mesoporous carbon materials. Energy and Environmental Science, 2012, 5, 7950.	30.8	593
3	Atomic-Scale Clarification of Structural Transition of MoS₂ upon Sodium Intercalation. ACS Nano, 2014, 8, 11394-11400.	14.6	355
4	Highly Ordered Mesoporous Crystalline MoSe₂ Material with Efficient Visibleâ€Lightâ€Driven Photocatalytic Activity and Enhanced Lithium Storage Performance. Advanced Functional Materials, 2013, 23, 1832-1838.	14.9	285
5	Extended â€œAdsorptionâ€“Insertionâ€•Model: A New Insight into the Sodium Storage Mechanism of Hard Carbons. Advanced Energy Materials, 2019, 9, 1901351.	19.5	284
6	Atomic-scale investigation on lithium storage mechanism in TiNb2O7,. Energy and Environmental Science, 2011, 4, 2638.	30.8	256
7	First-principles study of Li ion diffusion inLiFePO4. Physical Review B, 2004, 69, .	3.2	250
8	Electrode reactions of manganese oxides for secondary lithium batteries. Electrochemistry Communications, 2010, 12, 1520-1523.	4.7	242
9	Surface Doping to Enhance Structural Integrity and Performance of Liâ€Rich Layered Oxide. Advanced Energy Materials, 2018, 8, 1802105.	19.5	228
10	Tuning chargeâ€“discharge induced unit cell breathing in layer-structured cathode materials for lithium-ion batteries. Nature Communications, 2014, 5, 5381.	12.8	180
11	Lithium storage performance in ordered mesoporous MoS2 electrode material. Microporous and Mesoporous Materials, 2012, 151, 418-423.	4.4	173
12	Mechanism of Lithium Storage in MoS₂ and the Feasibility of Using Li₂S/Mo Nanocomposites as Cathode Materials for Lithiumâ€“Sulfur Batteries. Chemistry - an Asian Journal, 2012, 7, 1013-1017.	3.3	158
13	Studies of Stannic Oxide as an Anode Material for Lithiumâ€ion Batteries. Journal of the Electrochemical Society, 1998, 145, 59-62.	2.9	156
14	Selecting Substituent Elements for Li-Rich Mn-Based Cathode Materials by Density Functional Theory (DFT) Calculations. Chemistry of Materials, 2015, 27, 3456-3461.	6.7	149
15	Enhanced electrochemical performance of Ti-doped Li1.2Mn0.54Co0.13Ni0.13O2 for lithium-ion batteries. Journal of Power Sources, 2016, 317, 74-80.	7.8	134
16	New Insight into the Atomic Structure of Electrochemically Delithiated O3-Li_(1â€“x)CoO₂ (0 â‰ x â‰ 0.5) Nanoparticles. Nano Letters, 2012, 12, 6192-6197.	12.1	128
17	Iron migration and oxygen oxidation during sodium extraction from NaFeO2. Nano Energy, 2018, 47, 519-526.	16.0	111
18	Feasibility of Using Li₂MoO₃ in Constructing Li-Rich High Energy Density Cathode Materials. Chemistry of Materials, 2014, 26, 3256-3262.	6.7	106

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19	Improved electron/Li-ion transport and oxygen stability of Mo-doped Li2MnO3. Journal of Materials Chemistry A, 2014, 2, 4811.	10.3	101
20	Lithium Plating and Stripping on Carbon Nanotube Sponge. Nano Letters, 2019, 19, 494-499.	9.1	101
21	Nano-SnSb alloy deposited on MCMB as an anode material for lithium ion batteries. Journal of Materials Chemistry, 2001, 11, 1502-1505.	6.7	98
22	Gelatin-pyrolyzed mesoporous carbon as a high-performance sodium-storage material. Journal of Materials Chemistry A, 2015, 3, 7849-7854.	10.3	97
23	Novel Largeâ€Scale Synthesis of a C/S Nanocomposite with Mixed Conducting Networks through a Spray Drying Approach for Liâ€“S Batteries. Advanced Energy Materials, 2015, 5, 1500046.	19.5	96
24	Competitive Solvation Enhanced Stability of Lithium Metal Anode in Dual-Salt Electrolyte. Nano Letters, 2021, 21, 3310-3317.	9.1	95
25	Surface modification of Li1.2Mn0.54Co0.13Ni0.13O2 with conducting polypyrrole. Journal of Power Sources, 2013, 231, 44-49.	7.8	91
26	Insights into Lithium and Sodium Storage in Porous Carbon. Nano Letters, 2020, 20, 3836-3843.	9.1	86
27	New Binary Room-Temperature Molten Salt Electrolyte Based on Urea and LiTFSI. Journal of Physical Chemistry B, 2001, 105, 9966-9969.	2.6	85
28	Reversible reduction of Li₂CO₃. Journal of Materials Chemistry A, 2015, 3, 14173-14177.	10.3	80
29	Trimethyl Borate as Film-Forming Electrolyte Additive To Improve High-Voltage Performances. ACS Applied Materials & Interfaces, 2019, 11, 17435-17443.	8.0	77
30	Liâ€“Ti Cation Mixing Enhanced Structural and Performance Stability of Liâ€Rich Layered Oxide. Advanced Energy Materials, 2019, 9, 1901530.	19.5	76
31	Nano-CaCO3 templated mesoporous carbon as anode material for Li-ion batteries. Electrochimica Acta, 2011, 56, 6464-6468.	5.2	73
32	Spectroscopic studies on interactions and microstructures in propylene carbonate?LiTFSI electrolytes. Journal of Raman Spectroscopy, 2001, 32, 900-905.	2.5	70
33	Controlled deposition of Li metal. Nano Energy, 2017, 32, 241-246.	16.0	70
34	Native Vacancy Enhanced Oxygen Redox Reversibility and Structural Robustness. Advanced Energy Materials, 2019, 9, 1803087.	19.5	70
35	LiFSI to improve lithium deposition in carbonate electrolyte. Energy Storage Materials, 2019, 23, 350-357.	18.0	65
36	Phase Diagram Determined Lithium Plating/Stripping Behaviors on Lithiophilic Substrates. ACS Energy Letters, 2021, 6, 4118-4126.	17.4	65

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37	Origin of Solid Electrolyte Interphase on Nanosized LiCoO[sub 2]. Electrochemical and Solid-State Letters, 2006, 9, A328.	2.2	63
38	Polypyrrole-iron-oxygen coordination complex as high performance lithium storage material. Energy and Environmental Science, 2011, 4, 3442.	30.8	62
39	Polymer electrolytes based on interactions between [solvent-Li+] complex and solvent-modified polymer. Energy Storage Materials, 2022, 51, 443-452.	18.0	62
40	Reversible conversion of MoS2 upon sodium extraction. Nano Energy, 2017, 41, 217-224.	16.0	60
41	Interface Engineering to Eliminate Hysteresis of Carbon-Based Planar Heterojunction Perovskite Solar Cells via CuSCN Incorporation. ACS Applied Materials & Interfaces, 2019, 11, 28431-28441.	8.0	60
42	Ion Association and Salvation Studies of LiClO4/Ethylene Carbonate Electrolyte by Raman and Infrared Spectroscopy. Journal of the Electrochemical Society, 1998, 145, 3346-3350.	2.9	57
43	First-principles investigation of the structural, magnetic, and electronic properties of olivineLiFePO4. Physical Review B, 2005, 71, .	3.2	57
44	A Conductive Polypyrroleâ€Coated, Sulfurâ€“Carbon Nanotube Composite for Use in Lithiumâ€“Sulfur Batteries. ChemPlusChem, 2013, 78, 318-324.	2.8	57
45	Competition Between the Plasticizer and Polymer on Associating with Liâ€‰+â€‰ Ions in Polyacrylonitrileâ€Based Electrolytes. Journal of the Electrochemical Society, 1997, 144, 778-786.	2.9	55
46	A Vibrational Spectroscopic Study on the Interaction Between Lithium Salt and Ethylene Carbonate Plasticizer for PANâ€Based Electrolytes. Journal of the Electrochemical Society, 1996, 143, 1510-1514.	2.9	47
47	Anionic Effect on Enhancing the Stability of a Solid Electrolyte Interphase Film for Lithium Deposition on Graphite. Nano Letters, 2021, 21, 5316-5323.	9.1	46
48	Eliminating Transition Metal Migration and Anionic Redox to Understand Voltage Hysteresis of Lithiumâ€Rich Layered Oxides. Advanced Energy Materials, 2020, 10, 1903634.	19.5	45
49	Dispersion effects of Raman lines in carbons. Journal of Applied Physics, 1998, 84, 227-231.	2.5	44
50	Capacitive Energy Storage on Fe/Li₃PO₄ Grain Boundaries. Journal of Physical Chemistry C, 2011, 115, 3803-3808.	3.1	44
51	Understanding the dropping of lithium plating potential in carbonate electrolyte. Nano Energy, 2020, 70, 104486.	16.0	42
52	Structural and electrochemical stability of Li-rich layer structured Li2MoO3 in air. Journal of Power Sources, 2014, 258, 314-320.	7.8	41
53	Polypyrroleâ€“NiO composite as high-performance lithium storage material. Electrochimica Acta, 2013, 105, 162-169.	5.2	40
54	Superiority of native vacancies in activating anionic redox in P2-type Na2/3[Mn7/9Mg1/9â–¡1/9]O2. Nano Energy, 2020, 78, 105172.	16.0	40

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55	Iron carbide allured lithium metal storage in carbon nanotube cavities. Energy Storage Materials, 2021, 36, 459-465.	18.0	39
56	Improved lithium deposition on silver plated carbon fiber paper. Nano Energy, 2019, 66, 104144.	16.0	38
57	Characterizations of crystalline structure and electrical properties of pyrolyzed polyfurfuryl alcohol. Journal of Applied Physics, 1997, 82, 5705-5710.	2.5	36
58	Carbon-coated hierarchically porous silicon as anode material for lithium ion batteries. RSC Advances, 2014, 4, 15314.	3.6	35
59	A new possible mechanism of lithium insertion and extraction in low-temperature pyrolytic carbon electrode. Carbon, 1999, 37, 685-692.	10.3	34
60	Molybdenum Substitution for Improving the Charge Compensation and Activity of Li₂MnO₃. Chemistry - A European Journal, 2014, 20, 8723-8730.	3.3	33
61	Regulating Anion Redox and Cation Migration to Enhance the Structural Stability of Li-Rich Layered Oxides. ACS Applied Materials & Interfaces, 2021, 13, 12159-12168.	8.0	32
62	<scp>Antiâ€perovskite</scp> materials for energy storage batteries. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	17.3	32
63	Transitionâ€Metalâ€Catalyzed Oxidation of Metallic Sn in NiO/SnO₂ Nanocomposite. Chemistry - A European Journal, 2014, 20, 5487-5491.	3.3	30
64	Another Strategy, Detouring Potential Decay by Fast Completion of Cation Mixing. Advanced Energy Materials, 2018, 8, 1703092.	19.5	30
65	Ab initiostudies on the stability and electronic structure ofLiCoO2(003) surfaces. Physical Review B, 2005, 71, .	3.2	29
66	Li₂C₂, a Highâ€Capacity Cathode Material for Lithium Ion Batteries. Angewandte Chemie - International Edition, 2016, 55, 644-648.	13.8	29
67	LiCoO2-catalyzed electrochemical oxidation of Li2CO3. Nano Research, 2016, 9, 3903-3913.	10.4	29
68	Vacancy-induced MnO₆ distortion and its impacts on structural transition of Li₂MnO₃. Physical Chemistry Chemical Physics, 2017, 19, 7025-7031.	2.8	29
69	Configurationâ€dependent anionic redox in cathode materials. , 2022, 1, .		28
70	Anionic redox reaction and structural evolution of Ni-rich layered oxide cathode material. Nano Energy, 2022, 98, 107335.	16.0	27
71	Minimizing carbon particle size to improve lithium deposition on natural graphite. Carbon, 2019, 155, 9-15.	10.3	26
72	Self-charging flexible solar capacitors based on integrated perovskite solar cells and quasi-solid-state supercapacitors fabricated at low temperature. Journal of Power Sources, 2020, 479, 229046.	7.8	25

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73	Stacking Faults Hinder Lithium Insertion in Li₂RuO₃. Advanced Energy Materials, 2020, 10, 2002631.	19.5	22
74	Workfunction, a new viewpoint to understand the electrolyte/electrode interface reaction. Journal of Materials Chemistry A, 2015, 3, 23420-23425.	10.3	21
75	Synergy Effect of Trimethyl Borate on Protecting High-Voltage Cathode Materials in Dual-Additive Electrolytes. ACS Applied Materials & Interfaces, 2021, 13, 21459-21466.	8.0	21
76	Feasibility to Improve the Stability of Lithium-Rich Layered Oxides by Surface Doping. ACS Applied Materials & Interfaces, 2022, 14, 18353-18359.	8.0	21
77	Localizedâ€domains staging structure and evolution in lithiated graphite. , 2023, 5, .		21
78	Structural stability and stabilization of Li₂MoO₃. Physical Chemistry Chemical Physics, 2017, 19, 17538-17543.	2.8	20
79	Lithium insertion/extraction in pyrolyzed phenolic resin. Journal of Power Sources, 1999, 81-82, 328-334.	7.8	19
80	Ternary Porous Sulfur/Dual-Carbon Architectures for Lithium/Sulfur Batteries Obtained Continuously and on a Large Scale via an Industry-Oriented Spray-Pyrolysis/Sublimation Method. ACS Applied Materials & Interfaces, 2016, 8, 25251-25260.	8.0	15
81	Anti-P2 structured Na0.5NbO2and its negative strain effect. Energy and Environmental Science, 2015, 8, 2753-2759.	30.8	14
82	First-principles calculations on lithium and sodium adsorption on graphene edges. Electrochimica Acta, 2018, 282, 205-212.	5.2	14
83	Iodine ion transport in solid electrolyte LiI(C3H5NO)2: a first-principles identification. Ionics, 2007, 12, 343-347.	2.4	13
84	Atomistic understanding of structural evolution, ion transport and oxygen stability in layered NaFeO₂. Journal of Materials Chemistry A, 2019, 7, 2619-2625.	10.3	13
85	Electrolyte and current collector designs for stable lithium metal anodes. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 953-964.	4.9	12
86	Europium-Doped Ceria Nanowires as Anode for Solid Oxide Fuel Cells. Frontiers in Chemistry, 2020, 8, 348.	3.6	11
87	High performance pure sulfur honeycomb-like architectures synthesized by a cooperative self-assembly strategy for lithiumâ€“sulfur batteries. RSC Advances, 2014, 4, 36513-36516.	3.6	8
88	Reduction Depth Dependent Structural Reversibility of Sn₃(PO₄)₂. ACS Applied Energy Materials, 2018, 1, 129-133.	5.1	8
89	Lithium Storage in Heatâ€Treated SnF₂/Polyacrylonitrile Anode. Chemistry - A European Journal, 2015, 21, 8491-8496.	3.3	7
90	Experimental Evidence of the Interaction Between Polyacrylonitrile and Ethylene Carbonate Plasticizer by Raman Spectroscopy. Journal of Raman Spectroscopy, 1996, 27, 609-613.	2.5	5

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91	Raman Spectroscopic Investigation of the Dissociation of Dimethylsulphoxide Induced by Polyacrylonitrile. Journal of Raman Spectroscopy, 1996, 27, 901-906.	2.5	5
92	Crystallization mechanism in amorphous material of 0.5LiMnO2-0.5B2O3. Journal of Materials Science, 2000, 35, 1695-1698.	3.7	5
93	Design and Properties Prediction of AMCO₃F by First-Principles Calculations. ACS Applied Materials & Interfaces, 2017, 9, 13255-13261.	8.0	5
94	Impact of hydrogen on lithium storage on graphene edges. Applied Surface Science, 2020, 515, 145886.	6.1	5
95	Sodium Storage Mechanism: Extended â€œAdsorptionâ€“Insertionâ€•Model: A New Insight into the Sodium Storage Mechanism of Hard Carbons (Adv. Energy Mater. 32/2019). Advanced Energy Materials, 2019, 9, 1970125.	19.5	4
96	Cationic disordering modulated electrochemical performances of layer-structured Li2MoO3. Materials Today Physics, 2021, 21, 100561.	6.0	4
97	Controlled Lithium Deposition. Frontiers in Energy Research, 2022, 10, .	2.3	3
98	SPECTROSCOPIC STUDIES OF SOLID-ELECTROLYTE INTERPHASE ON POSITIVE AND NEGATIVE ELECTRODES FOR LITHIUM ION BATTERIES. , 2004, , 140-197.		2
99	Polymer-in-salt electrolytes based on PAN-LiTFSI. , 2000, , .		0
100	Atomic Scale Recognition of Structure in the Intercalation of Sodium by Aberration-Corrected Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2019, 25, 2120-2121.	0.4	0