

Feng Wang

List of Publications by Year in descending order

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44
papers

4,178
citations

159585

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254184

43
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46
all docs

46
docs citations

46
times ranked

5627
citing authors

#	ARTICLE	IF	CITATIONS
1	Conversion Reaction Mechanisms in Lithium Ion Batteries: Study of the Binary Metal Fluoride Electrodes. <i>Journal of the American Chemical Society</i> , 2011, 133, 18828-18836.	13.7	492
2	Graphene modified LiFePO ₄ cathode materials for high power lithium ion batteries. <i>Journal of Materials Chemistry</i> , 2011, 21, 3353.	6.7	469
3	Ni/Li Disorder in Layered Transition Metal Oxide: Electrochemical Impact, Origin, and Control. <i>Accounts of Chemical Research</i> , 2019, 52, 2201-2209.	15.6	315
4	Tracking lithium transport and electrochemical reactions in nanoparticles. <i>Nature Communications</i> , 2012, 3, 1201.	12.8	254
5	Chemical Distribution and Bonding of Lithium in Intercalated Graphite: Identification with Optimized Electron Energy Loss Spectroscopy. <i>ACS Nano</i> , 2011, 5, 1190-1197.	14.6	203
6	Kinetic pathways of ionic transport in fast-charging lithium titanate. <i>Science</i> , 2020, 367, 1030-1034.	12.6	197
7	A 3D porous architecture of Si/graphene nanocomposite as high-performance anode materials for Li-ion batteries. <i>Journal of Materials Chemistry</i> , 2012, 22, 7724.	6.7	193
8	Interface Limited Lithium Transport in Solid-State Batteries. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 298-303.	4.6	148
9	Ternary metal fluorides as high-energy cathodes with low cycling hysteresis. <i>Nature Communications</i> , 2015, 6, 6668.	12.8	138
10	The interplay between thermodynamics and kinetics in the solid-state synthesis of layered oxides. <i>Nature Materials</i> , 2020, 19, 1088-1095.	27.5	129
11	Synthetic Control of Kinetic Reaction Pathway and Cationic Ordering in High-Ni Layered Oxide Cathodes. <i>Advanced Materials</i> , 2017, 29, 1606715.	21.0	127
12	Li _{1-x} F _x MnPO ₄ : A cathode for lithium-ion batteries. <i>Journal of Power Sources</i> , 2011, 196, 3659-3663.	7.8	117
13	Cationic Ordering Coupled to Reconstruction of Basic Building Units during Synthesis of High-Ni Layered Oxides. <i>Journal of the American Chemical Society</i> , 2018, 140, 12484-12492.	13.7	113
14	What is the Role of Nb in Nickel-Rich Layered Oxide Cathodes for Lithium-Ion Batteries?. <i>ACS Energy Letters</i> , 0, , 1377-1382.	17.4	107
15	Sodiation via Heterogeneous Disproportionation in FeF ₂ Electrodes for Sodium-Ion Batteries. <i>ACS Nano</i> , 2014, 8, 7251-7259.	14.6	89
16	Intrinsic Role of Cationic Substitution in Tuning Li/Ni Mixing in High-Ni Layered Oxides. <i>Chemistry of Materials</i> , 2019, 31, 2731-2740.	6.7	85
17	Kinetic Limitations in Single-Crystal High-Nickel Cathodes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 17350-17355.	13.8	84
18	Electrochemical Reaction of Lithium with Nanostructured Silicon Anodes: A Study by In-Situ Synchrotron X-Ray Diffraction and Electron Energy Loss Spectroscopy. <i>Advanced Energy Materials</i> , 2013, 3, 1324-1331.	19.5	82

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19	Visualization of electrochemically driven solid-state phase transformations using operando hard X-ray spectro-imaging. <i>Nature Communications</i> , 2015, 6, 6883.	12.8	80
20	Multi-Stage Structural Transformations in Zero-Strain Lithium Titanate Unveiled by <i>in Situ</i> X-ray Absorption Fingerprints. <i>Journal of the American Chemical Society</i> , 2017, 139, 16591-16603.	13.7	57
21	Structure Stabilization by Mixed Anions in Oxyfluoride Cathodes for High-Energy Lithium Batteries. <i>ACS Nano</i> , 2015, 9, 10076-10084.	14.6	54
22	Degradation and (de)lithiation processes in the high capacity battery material LiFeBO ₃ . <i>Journal of Materials Chemistry</i> , 2012, 22, 8799.	6.7	53
23	Structure Tracking Aided Design and Synthesis of Li ₃ V ₂ (PO ₄) ₃ Nanocrystals as High-Power Cathodes for Lithium Ion Batteries. <i>Chemistry of Materials</i> , 2015, 27, 5712-5718.	6.7	50
24	Localized concentration reversal of lithium during intercalation into nanoparticles. <i>Science Advances</i> , 2018, 4, eaao2608.	10.3	50
25	2D Cross Sectional Analysis and Associated Electrochemistry of Composite Electrodes Containing Dispersed Agglomerates of Nanocrystalline Magnetite, Fe ₃ O ₄ . <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 13457-13466.	8.0	43
26	Revisiting Conversion Reaction Mechanisms in Lithium Batteries: Lithiation-Driven Topotactic Transformation in FeF ₂ . <i>Journal of the American Chemical Society</i> , 2018, 140, 17915-17922.	13.7	41
27	Engineering nano-composite Li ₄ Ti ₅ O ₁₂ anodes via scanning electron-probe fabrication. <i>Nano Energy</i> , 2013, 2, 343-350.	16.0	40
28	Excess lithium storage and charge compensation in nanoscale Li ₄ Ti ₅ O ₁₂ . <i>Nanotechnology</i> , 2013, 24, 424006.	2.6	37
29	High-Capacity, Aliovalently Doped Olivine LiMn _{1-x} V _x PO ₄ Cathodes without Carbon Coating. <i>Chemistry of Materials</i> , 2014, 26, 3018-3026.	6.7	37
30	Eliminating Voltage Decay of Lithium-Rich Li _{1.14} Mn _{0.54} Ni _{0.14} Co _{0.14} O ₂ Cathodes by Controlling the Electrochemical Process. <i>Chemistry - A European Journal</i> , 2015, 21, 7503-7510.	3.3	36
31	Kinetic Pathways Templated by Low-Temperature Intermediates during Solid-State Synthesis of Layered Oxides. <i>Chemistry of Materials</i> , 2020, 32, 9906-9913.	6.7	34
32	Solvothermal Synthesis of LiMn _{1-x} Fe _x PO ₄ Cathode Materials: A Study of Reaction Mechanisms by Time-Resolved <i>In Situ</i> Synchrotron X-ray Diffraction. <i>Journal of Physical Chemistry C</i> , 2015, 119, 2266-2276.	3.1	29
33	<i>In Situ</i> Tracking Kinetic Pathways of Li ⁺ /Na ⁺ Substitution during Ion-Exchange Synthesis of Li _x Na _{1.5-x} VOPO ₄ F _{0.5} . <i>Journal of the American Chemical Society</i> , 2017, 139, 12504-12516.	13.7	28
34	Multi-electron transfer enabled by topotactic reaction in magnetite. <i>Nature Communications</i> , 2019, 10, 1972.	12.8	28
35	Structures of Delithiated and Degraded LiFeBO ₃ , and Their Distinct Changes upon Electrochemical Cycling. <i>Inorganic Chemistry</i> , 2014, 53, 6585-6595.	4.0	26
36	Synthesis and Electrochemical and Structural Investigations of Oxidatively Stable Li ₂ MoO ₃ and Li ₂ MoO ₃ ·(1-x)Tj ETQq0 0 0 rgBT /Overlock 1021f 50 57 T		

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37	Structure, defects and thermal stability of delithiated olivine phosphates. Journal of Materials Chemistry, 2012, 22, 20482.	6.7	18
38	Imaging the Phase Transformation in Single Particles of the Lithium Titanate Anode for Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 111-118.	5.1	16
39	Conditioning the Surface and Bulk of High-Nickel Cathodes with a Nb Coating: An <i>In Situ</i> X-ray Study. Journal of Physical Chemistry Letters, 2021, 12, 7908-7913.	4.6	16
40	Ultrafast solid-liquid intercalation enabled by targeted microwave energy delivery. Science Advances, 2020, 6, .	10.3	12
41	Synthesis and Processing by Design of High-Nickel Cathode Materials. Batteries and Supercaps, 2022, 5, .	4.7	11
42	Ambient synthesis, characterization, and electrochemical activity of LiFePO ₄ nanomaterials derived from iron phosphate intermediates. Nano Research, 2015, 8, 2573-2594.	10.4	10
43	Synthesis and Processing by Design of High-Nickel Cathode Materials. Batteries and Supercaps, 2022, 5, .	4.7	3
44	Kinetic Limitations in Single-Crystal High-Nickel Cathodes. Angewandte Chemie, 2021, 133, 17490-17495.	2.0	2