Jiajun Wang

List of Publications by Year in descending order

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66	7,039	61857	114278
papers	citations	43 h-index	63 g-index

67	67	67	8540
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stacking fault disorder induced by Mn doping in Ni(OH)2 for supercapacitor electrodes. Chemical Engineering Journal, 2021, 412, 128617.	6.6	91
2	Principles and Applications of Industrial X-ray Computed Tomography. , 2021, , 179-204.		0
3	A Category of Synchrotron X-ray Imaging Methods. , 2021, , 1-25.		0
4	Tracking Battery Dynamics by Operando Synchrotron X-ray Imaging: Operation from Liquid Electrolytes to Solid-State Electrolytes. Accounts of Materials Research, 2021, 2, 1177-1189.	5.9	15
5	Emerging X-ray imaging technologies for energy materials. Materials Today, 2020, 34, 132-147.	8.3	70
6	Unraveling the Origins of the â€œUnreactive Coreâ€•in Conversion Electrodes to Trigger High Sodium-Ion Electrochemistry. ACS Energy Letters, 2019, 4, 2007-2012.	8.8	33
7	Anisotropically Electrochemicalâ€“Mechanical Evolution in Solidâ€State Batteries and Interfacial Tailored Strategy. Angewandte Chemie - International Edition, 2019, 58, 18647-18653.	7.2	43
8	Anisotropically Electrochemicalâ€“Mechanical Evolution in Solidâ€State Batteries and Interfacial Tailored Strategy. Angewandte Chemie, 2019, 131, 18820-18826.	1.6	12
9	Characterization of dynamic morphological changes of tin anode electrode during (de)lithiation processes using in operando synchrotron transmission X-ray microscopy. Electrochimica Acta, 2019, 314, 212-218.	2.6	10
10	Formation of size-dependent and conductive phase on lithium iron phosphate during carbon coating. Nature Communications, 2018, 9, 929.	5.8	45
11	Origin of phase inhomogeneity in lithium iron phosphate during carbon coating. Nano Energy, 2018, 45, 52-60.	8.2	26
12	Probing Battery Electrochemistry with In Operando Synchrotron Xâ€Ray Imaging Techniques. Small Methods, 2018, 2, 1700293.	4.6	52
13	High capacity Li-ion battery anodes: Impact of crystallite size, surface chemistry and PEG-coating. Electrochimica Acta, 2018, 260, 235-245.	2.6	16
14	Understanding the initial irreversibility of metal sulfides for sodium-ion batteries via operando techniques. Nano Energy, 2018, 43, 184-191.	8.2	61
15	Modifying High-Voltage Olivine-Type LiMnPO₄ Cathode via Mg Substitution in High-Orientation Crystal. ACS Applied Energy Materials, 2018, 1, 5928-5935.	2.5	20
16	Unravelling the origin of irreversible capacity loss in NaNiO2 for high voltage sodium ion batteries. Nano Energy, 2017, 34, 215-223.	8.2	94
17	Lifetime of the solar nebula constrained by meteorite paleomagnetism. Science, 2017, 355, 623-627.	6.0	147
18	Elucidating the Irreversible Mechanism and Voltage Hysteresis in Conversion Reaction for Highâ€Energy Sodiumâ€“Metal Sulfide Batteries. Advanced Energy Materials, 2017, 7, 1602706.	10.2	61

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19	A nonmagnetic differentiated early planetary body. Earth and Planetary Science Letters, 2017, 468, 119-132.	1.8	15
20	X-ray nanotomography analysis of the microstructural evolution of LiMn2O4 electrodes. Journal of Power Sources, 2017, 360, 460-469.	4.0	17
21	Scalable Dry Printing Manufacturing to Enable Longâ€Life and High Energy Lithiumâ€Ion Batteries. Advanced Materials Technologies, 2017, 2, 1700106.	3.0	30
22	Achieving high specific capacity of lithium-ion battery cathodes by modification with â€œNâ€“OË™â€•radicals and oxygen-containing functional groups. Journal of Materials Chemistry A, 2017, 5, 24636-24644.	5.2	17
23	Dispersion of Nanocrystalline Fe₃O₄ within Composite Electrodes: Insights on Battery-Related Electrochemistry. ACS Applied Materials & Interfaces, 2016, 8, 11418-11430.	4.0	45
24	In Operando XRD and TXM Study on the Metastable Structure Change of NaNi_{1/3}Fe_{1/3}Mn_{1/3}O₂ under Electrochemical Sodiumâ€Ion Intercalation. Advanced Energy Materials, 2016, 6, 1601306.	10.2	147
25	Visualization of anisotropic-isotropic phase transformation dynamics in battery electrode particles. Nature Communications, 2016, 7, 12372.	5.8	113
26	Redox chemistry of a binary transition metal oxide (AB₂O₄): a study of the Cu²⁺/Cu⁰ and Fe³⁺/Fe⁰ interconversions observed upon lithiation in a CuFe₂O₄ battery using X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 16930-16940.	1.3	21
27	2D Cross Sectional Analysis and Associated Electrochemistry of Composite Electrodes Containing Dispersed Agglomerates of Nanocrystalline Magnetite, Fe₃O₄. ACS Applied Materials & Interfaces, 2015, 7, 13457-13466.	4.0	43
28	Olivine LiFePO₄: the remaining challenges for future energy storage. Energy and Environmental Science, 2015, 8, 1110-1138.	15.6	412
29	Probing three-dimensional sodiationâ€“desodiation equilibrium in sodium-ion batteries by in situ hard X-ray nanotomography. Nature Communications, 2015, 6, 7496.	5.8	123
30	Size-dependent surface phase change of lithium iron phosphate during carbon coating. Nature Communications, 2014, 5, 3415.	5.8	66
31	Inâ€…Situ Threeâ€Dimensional Synchrotron Xâ€Ray Nanotomography of the (De)lithiation Processes in Tin Anodes. Angewandte Chemie - International Edition, 2014, 53, 4460-4464.	7.2	105
32	In operando tracking phase transformation evolution of lithium iron phosphate with hard X-ray microscopy. Nature Communications, 2014, 5, 4570.	5.8	155
33	Hierarchical nanostructured coreâ€“shell Sn@C nanoparticles embedded in graphene nanosheets: spectroscopic view and their application in lithium ion batteries. Physical Chemistry Chemical Physics, 2013, 15, 3535.	1.3	113
34	Ptâ€“SnO2/nitrogen-doped CNT hybrid catalysts for proton-exchange membrane fuel cells (PEMFC): Effects of crystalline and amorphous SnO2 by atomic layer deposition. Journal of Power Sources, 2013, 238, 144-149.	4.0	44
35	In situ chemical mapping of a lithium-ion battery using full-field hard X-ray spectroscopic imaging. Chemical Communications, 2013, 49, 6480.	2.2	87
36	Surface aging at olivine LiFePO₄: a direct visual observation of iron dissolution and the protection role of nano-carbon coating. Journal of Materials Chemistry A, 2013, 1, 1579-1586.	5.2	93

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37	Challenges and opportunities of nanostructured materials for aprotic rechargeable lithiumâ€“air batteries. Nano Energy, 2013, 2, 443-467.	8.2	315
38	LiFePO4â€“graphene as a superior cathode material for rechargeable lithium batteries: impact of stacked graphene and unfolded graphene. Energy and Environmental Science, 2013, 6, 1521.	15.6	199
39	Nature of LiFePO4 aging process: Roles of impurity phases. Journal of Power Sources, 2013, 238, 454-463.	4.0	30
40	In situ self-catalyzed formation of coreâ€“shell LiFePO4@CNT nanowires for high rate performance lithium-ion batteries. Journal of Materials Chemistry A, 2013, 1, 7306.	5.2	78
41	Interaction of Carbon Coating on LiFePO₄: A Local Visualization Study of the Influence of Impurity Phases. Advanced Functional Materials, 2013, 23, 806-814.	7.8	47
42	Advanced Carbon Materials for Electrochemical Energy Conversion and Storage. World Scientific Series on Carbon Nanoscience, 2012, , 55-94.	0.1	0
43	Understanding and recent development of carbon coating on LiFePO₄cathode materials for lithium-ion batteries. Energy and Environmental Science, 2012, 5, 5163-5185.	15.6	839
44	Novel approach toward a binder-free and current collector-free anode configuration: highly flexible nanoporous carbon nanotube electrodes with strong mechanical strength harvesting improved lithium storage. Journal of Materials Chemistry, 2012, 22, 18847.	6.7	91
45	Hierarchically porous LiFePO4/nitrogen-doped carbon nanotubes composite as a cathode for lithium ion batteries. Journal of Materials Chemistry, 2012, 22, 7537.	6.7	135
46	Discharge product morphology and increased charge performance of lithiumâ€“oxygen batteries with graphene nanosheet electrodes: the effect of sulphur doping. Journal of Materials Chemistry, 2012, 22, 20170.	6.7	136
47	Defect-Rich Crystalline SnO₂ Immobilized on Graphene Nanosheets with Enhanced Cycle Performance for Li Ion Batteries. Journal of Physical Chemistry C, 2012, 116, 22149-22156.	1.5	138
48	Observation of Surface/Defect States of SnO₂ Nanowires on Different Substrates from X-ray Excited Optical Luminescence. Crystal Growth and Design, 2012, 12, 397-402.	1.4	37
49	Soft X-ray XANES studies of various phases related to LiFePO4 based cathode materials. Energy and Environmental Science, 2012, 5, 7007.	15.6	116
50	Graphene and N-Doped Graphene as Cathodes for Li-Air Batteries. ECS Meeting Abstracts, 2012, , .	0.0	0
51	Nitrogen-doped graphene nanosheets as cathode materials with excellent electrocatalytic activity for high capacity lithium-oxygen batteries. Electrochemistry Communications, 2012, 18, 12-15.	2.3	248
52	3D porous LiFePO4/graphene hybrid cathodes with enhanced performance for Li-ion batteries. Journal of Power Sources, 2012, 208, 340-344.	4.0	201
53	3D boron doped carbon nanorods/carbon-microfiber hybrid composites: synthesis and applications in a highly stable proton exchange membrane fuel cell. Journal of Materials Chemistry, 2011, 21, 18195.	6.7	38
54	Nitrogen Doping Effects on Carbon Nanotubes and the Origin of the Enhanced Electrocatalytic Activity of Supported Pt for Proton-Exchange Membrane Fuel Cells. Journal of Physical Chemistry C, 2011, 115, 3769-3776.	1.5	228

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55	Superior energy capacity of graphene nanosheets for a nonaqueous lithium-oxygen battery. Chemical Communications, 2011, 47, 9438.	2.2	293
56	Atomic layer deposition assisted Pt-SnO2 hybrid catalysts on nitrogen-doped CNTs with enhanced electrocatalytic activities for low temperature fuel cells. International Journal of Hydrogen Energy, 2011, 36, 11085-11092.	3.8	57
57	Nitrogen-doped carbon nanotubes as cathode for lithiumâ€“air batteries. Electrochemistry Communications, 2011, 13, 668-672.	2.3	261
58	Enhanced stability of Pt electrocatalysts by nitrogen doping in CNTs for PEM fuel cells. Electrochemistry Communications, 2009, 11, 2071-2076.	2.3	196
59	Pd nanoparticles deposited on vertically aligned carbon nanotubes grown on carbon paper for formic acid oxidation. International Journal of Hydrogen Energy, 2009, 34, 8270-8275.	3.8	66
60	Carbon nanotubes supported Ptâ€“Au catalysts for methanol-tolerant oxygen reduction reaction: A comparison between Pt/Au and PtAu nanoparticles. Journal of Power Sources, 2009, 194, 668-673.	4.0	69
61	Electrochemical durability investigation of single-walled and multi-walled carbon nanotubes under potentiostatic conditions. Journal of Power Sources, 2008, 176, 128-131.	4.0	46
62	A novel Pt/Au/C cathode catalyst for direct methanol fuel cells with simultaneous methanol tolerance and oxygen promotion. Electrochemistry Communications, 2008, 10, 831-834.	2.3	63
63	Investigation of Further Improvement of Platinum Catalyst Durability with Highly Graphitized Carbon Nanotubes Support. Journal of Physical Chemistry C, 2008, 112, 5784-5789.	1.5	130
64	Platinum Deposition on Multiwalled Carbon Nanotubes by Ion-Exchange Method as Electrocatalysts for Oxygen Reduction. Journal of the Electrochemical Society, 2007, 154, B687.	1.3	30
65	Effect of carbon black support corrosion on the durability of Pt/C catalyst. Journal of Power Sources, 2007, 171, 331-339.	4.0	383
66	Multi-walled carbon nanotubes based Pt electrodes prepared with in situ ion exchange method for oxygen reduction. Journal of Power Sources, 2006, 161, 47-53.	4.0	114