Lai-Sen Wang

List of Publications by Year
in descending order

76 papers	3,581 citations	126907 33 h-index	144013 57 g-index
76 all docs	76 docs citations	76 times ranked	3631 citing authors

#	Article	IF	Citations
1	Promising Electrode and Electrolyte Materials for Highâ€Energyâ€Density Thinâ€Film Lithium Batteries. Energy and Environmental Materials, 2022, 5, 133-156.	12.8	25
2	Multi-strategy synergistic Li-rich layered oxides with fluorine-doping and surface coating of oxygen vacancy bearing CeO2 to achieve excellent cycling stability. Chemical Engineering Journal, 2022, 431, 133799.	12.7	35
3	Mechanisms and applications of layer/spinel phase transition in Li- and Mn-rich cathodes for lithium-ion batteries. Rare Metals, 2022, 41, 1456-1476.	7.1	41
4	Challenge and Strategies in Room Temperature Sodiumâ€"Sulfur Batteries: A Comparison with Lithiumâ€"Sulfur Batteries. Small, 2022, 18, e2107368.	10.0	32
5	Recent Advances and Strategies toward Polysulfides Shuttle Inhibition for Highâ€Performance Liâ€"S Batteries. Advanced Science, 2022, 9, e2106004.	11.2	161
6	Enhancing cycling stability in Li-rich Mn-based cathode materials by solid-liquid-gas integrated interface engineering. Nano Energy, 2022, 97, 107201.	16.0	17
7	Preparation of LiNi0.5Mn1.5O4 cathode materials by using different-sized Mn3O4 nanocrystals as precursors. Journal of Solid State Electrochemistry, 2022, 26, 1359-1368.	2.5	3
8	In Situ Induced Latticeâ€Matched Interfacial Oxygenâ€Passivationâ€Layer Endowing Liâ€Rich and Mnâ€Based Cathodes with Ultralong Life. Small, 2022, 18, .	10.0	10
9	Electrochemically induced high ion and electron conductive interlayer in porous multilayer Si film anode with enhanced lithium storage properties. Journal of Power Sources, 2021, 481, 228833.	7.8	9
10	MOFs-derived Co-C@C hollow composites with high-performance electromagnetic wave absorption. Journal of Alloys and Compounds, 2021, 856, 158183.	5.5	47
11	Multiscale Deficiency Integration by Na-Rich Engineering for High-Stability Li-Rich Layered Oxide Cathodes. ACS Applied Materials & Interfaces, 2021, 13, 8239-8248.	8.0	23
12	Multifunctional roles of carbonâ€based hosts for Liâ€metal anodes: A review. , 2021, 3, 303-329.		93
13	Nickel Colloidal Superparticles: Microemulsion-Based Self-Assembly Preparation and Their Transition from Room-Temperature Superparamagnetism to Ferromagnetism. Journal of Physical Chemistry C, 2021, 125, 5880-5889.	3.1	6
14	Anchoring Polysulfides and Accelerating Redox Reaction Enabled by Feâ€Based Compounds in Lithiumâ€"Sulfur Batteries. Advanced Functional Materials, 2021, 31, 2100970.	14.9	94
15	Challenges and Recent Advances in High Capacity Liâ€Rich Cathode Materials for High Energy Density Lithiumâ€Ion Batteries. Advanced Materials, 2021, 33, e2005937.	21.0	253
16	Manipulating the Local Electronic Structure in Liâ€Rich Layered Cathode Towards Superior Electrochemical Performance. Advanced Functional Materials, 2021, 31, 2100783.	14.9	79
17	Utilizing the different distribution habit of La and Zr in Li-rich Mn-based cathode to achieve fast lithium-ion diffusion kinetics. Journal of Power Sources, 2021, 499, 229915.	7.8	21
18	A Universal Strategy toward the Precise Regulation of Initial Coulombic Efficiency of Liâ€Rich Mnâ€Based Cathode Materials. Advanced Materials, 2021, 33, e2103173.	21.0	116

#	ARTICLE	IF	CITATIONS
19	Dendriteâ€Free Reverse Lithium Deposition Induced by Ion Rectification Layer toward Superior Lithium Metal Batteries. Advanced Functional Materials, 2021, 31, 2104081.	14.9	39
20	Morphology Control and Na⁺ Doping toward High-Performance Li-Rich Layered Cathode Materials for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 197-206.	6.7	25
21	Boosting the Electrochemical Performance of Li- and Mn-Rich Cathodes by a Three-in-One Strategy. Nano-Micro Letters, 2021, 13, 205.	27.0	28
22	Challenges and Recent Advances in High Capacity Liâ€Rich Cathode Materials for High Energy Density Lithiumâ€Ion Batteries (Adv. Mater. 50/2021). Advanced Materials, 2021, 33, .	21.0	3
23	Sputtering Coating of Lithium Fluoride Film on Lithium Cobalt Oxide Electrodes for Reducing the Polarization of Lithium-Ion Batteries. Nanomaterials, 2021, 11, 3393.	4.1	4
24	Surface Ni-rich engineering towards highly stable Li1.2Mn0.54Ni0.13Co0.13O2 cathode materials. Energy Storage Materials, 2020, 25, 76-85.	18.0	47
25	Bottom-top channeling Li nucleation and growth by a gradient lithiophilic 3D conductive host for highly stable Li-metal anodes. Journal of Materials Chemistry A, 2020, 8, 1678-1686.	10.3	31
26	3D lithiophilicâ€“lithiophobicâ€“lithiophilic dual-gradient porous skeleton for highly stable lithium metal anode. Journal of Materials Chemistry A, 2020, 8, 313-322.	10.3	76
27	Recent developments and challenges of Li-rich Mn-based cathode materials for high-energy lithium-ion batteries. Materials Today Energy, 2020, 18, 100518.	4.7	36
28	Function and Application of Defect Chemistry in Highâ€Capacity Electrode Materials for Liâ€Based Batteries. Chemistry - an Asian Journal, 2020, 15, 3620-3636.	3.3	12
29	Conductive polyaniline doped with phytic acid as a binder and conductive additive for a commercial silicon anode with enhanced lithium storage properties. Journal of Materials Chemistry A, 2020, 8, 16323-16331.	10.3	46
30	A novel morphology-controlled synthesis of Na+-doped Li- and Mn-rich cathodes by the self-assembly of amphiphilic spherical micelles. Sustainable Materials and Technologies, 2020, 25, e00171.	3.3	10
31	Manipulating External Electric Field and Tensile Strain toward High Energy Density Stability in Fast-Charging Li-Rich Cathode Materials. Journal of Physical Chemistry Letters, 2020, 11, 2322-2329.	4.6	10
32	Intrinsic performance regulation in hierarchically porous Co3O4 microrods towards high-rate lithium ion battery anode. Materials Today Energy, 2020, 16, 100383.	4.7	10
33	MoSe2-Ni3Se4 Hybrid Nanoelectrocatalysts and Their Enhanced Electrocatalytic Activity for Hydrogen Evolution Reaction. Nanoscale Research Letters, 2020, 15, 132.	5.7	19
34	Engineering oxygen vacancies in hierarchically Li-rich layered oxide porous microspheres for high-rate lithium ion battery cathode. Science China Materials, 2019, 62, 1374-1384.	6.3	58
35	Lithium Deficiencies Engineering in Li-Rich Layered Oxide Li_{1.098}Mn_{0.533}Ni_{0.113}Co_{0.138}O₂ for High-Stability Cathode. Journal of the American Chemical Society, 2019, 141, 10876-10882.	13.7	171
36	Uniform Na⁺ Dopingâ€Induced Defects in Liâ€•and Mnâ€Rich Cathodes for Highâ€Performance Lithiumâ€Ion Batteries. Advanced Science, 2019, 6, 1802114.	11.2	78

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37	A Guideline for Tailoring Lattice Oxygen Activity in Lithium-Rich Layered Cathodes by Strain. Journal of Physical Chemistry Letters, 2019, 10, 2202-2207.	4.6	6
38	Electrochemically induced highly ion conductive porous scaffolds to stabilize lithium deposition for lithium metal anodes. Journal of Materials Chemistry A, 2019, 7, 11683-11689.	10.3	47
39	Enhanced electrochemical performances of layered-spinel heterostructured lithium-rich Li1.2Ni0.13Co0.13Mn0.54O2 cathode materials. Chemical Engineering Journal, 2019, 370, 499-507.	12.7	106
40	Lithium-rich layered oxide nanowires bearing porous structures and spinel domains as cathode materials for lithium-ion batteries. Journal of Power Sources, 2019, 418, 122-129.	7.8	40
41	Double-shell Li-rich layered oxide hollow microspheres with sandwich-like carbon@spinel@layered@spinel@carbon shells as high-rate lithium ion battery cathode. Nano Energy, 2019, 59, 184-196.	16.0	194
42	Ionâ€•and Electronâ€Conductive Buffering Layerâ€Modified Si Film for Use as a Highâ€Rate Longâ€Term Lithiumâ€Ion Battery Anode. ChemSusChem, 2019, 12, 252-260.	6.8	17
43	Dual Electrostatic Assembly of Graphene Encapsulated Nanosheetâ€Assembled ZnOâ€Mnâ€C Hollow Microspheres as a Lithium Ion Battery Anode. Advanced Functional Materials, 2018, 28, 1707433.	14.9	83
44	3D Graphene Encapsulated Hollow CoSnO₃ Nanoboxes as a High Initial Coulombic Efficiency and Lithium Storage Capacity Anode. Small, 2018, 14, 1703513.	10.0	60
45	Influence of surface and interface modification on the electrical transport behaviors in Co@Cu nanocomposite films. Journal of Magnetism and Magnetic Materials, 2018, 460, 34-40.	2.3	1
46	Facile synthesis of Fe 3 O 4 /C composites for broadband microwave absorption properties. Applied Surface Science, 2018, 445, 82-88.	6.1	65
47	Facile synthesis and microwave absorption properties of yolk-shell ZnO-Ni-C/RGO composite materials. Chemical Engineering Journal, 2018, 333, 92-100.	12.7	102
48	High-Performance Naâ€“O₂ Batteries Enabled by Oriented NaO₂ Nanowires as Discharge Products. Nano Letters, 2018, 18, 3934-3942.	9.1	33
49	Enhanced Microwave Absorption Properties by Tuning Cation Deficiency of Perovskite Oxides of Two-Dimensional LaFeO₃/C Composite in X-Band. ACS Applied Materials & Interfaces, 2017, 9, 7601-7610.	8.0	123
50	Shape-dependent magnetic and microwave absorption properties of iron oxide nanocrystals. Materials Chemistry and Physics, 2017, 192, 339-348.	4.0	35
51	One-pot fabrication of graphene sheets decorated Co2P-Co hollow nanospheres for advanced lithium ion battery anodes. Electrochimica Acta, 2017, 232, 465-473.	5.2	49
52	Facile fabrication of ZnOâ€“CuO porous hybrid microspheres as lithium ion battery anodes with enhanced cyclability. Rare Metals, 2017, 36, 403-410.	7.1	9
53	Electrical transport properties in Fe-Cr nanocluster-assembled granular films. Journal of Magnetism and Magnetic Materials, 2017, 438, 185-192.	2.3	2
54	Electrical transport properties in Co nanocluster-assembled granular film. Journal of Applied Physics, 2017, 121, .	2.5	6

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55	Synthesis of ZnO-Cu-C yolk-shell hybrid microspheres with enhanced electrochemical properties for lithium ion battery anodes. Electrochimica Acta, 2017, 226, 79-88.	5.2	31
56	Multistage Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ Microâ€architecture towards Highâ€Performance Cathode Materials for Lithiumâ€Ion Batteries. ChemElectroChem, 2017, 4, 3250-3256.	3.4	17
57	Self-assembly synthesis of 3D graphene-encapsulated hierarchical Fe 3 O 4 nano-flower architecture with high lithium storage capacity and excellent rate capability. Journal of Power Sources, 2017, 365, 98-108.	7.8	61
58	Facile preparation and microwave absorption properties of porous Co/CoO microrods. Journal of Alloys and Compounds, 2017, 721, 411-418.	5.5	52
59	Copper-Nanoparticle-Induced Porous Si/Cu Composite Films as an Anode for Lithium Ion Batteries. ACS Nano, 2017, 11, 6893-6903.	14.6	82
60	Controllable synthesis of Cuâ€“Ni coreâ€“shell nanoparticles and nanowires with tunable magnetic properties. Chemical Communications, 2016, 52, 6918-6921.	4.1	30
61	Electrostatic Assembly of Sandwich-like Ag-C@ZnO-C@Ag-C Hybrid Hollow Microspheres with Excellent High-Rate Lithium Storage Properties. ACS Nano, 2016, 10, 1283-1291.	14.6	109
62	Integrated On-Chip Solenoid Inductors With Nanogranular Magnetic Cores. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	8
63	Preparation and high-frequency soft magnetic property of FeCo-based thin films. Rare Metals, 2016, 35, 742-746.	7.1	11
64	Facile fabrication of various zinc-nickel citrate microspheres and their transformation to ZnO-NiO hybrid microspheres with excellent lithium storage properties. Scientific Reports, 2015, 5, 8351.	3.3	46
65	Enhanced microwave absorption properties in GHz range of Fe3O4/C composite materials. Journal of Alloys and Compounds, 2015, 649, 537-543.	5.5	95
66	Effect of Component Distribution and Nanoporosity in CuPt Nanotubes on Electrocatalysis of the Oxygen Reduction Reaction. ChemSusChem, 2015, 8, 486-494.	6.8	28
67	Electron transport properties of magnetic granular films. Science China: Physics, Mechanics and Astronomy, 2013, 56, 15-28.	5.1	25
68	Disproportionation route to monodispersed copper nanoparticles for the catalytic synthesis of propargylamines. RSC Advances, 2013, 3, 19812.	3.6	31
69	Gas-phase synthesis and magnetism of HfO2 nanoclusters. European Physical Journal D, 2013, 67, 1.	1.3	2
70	Transition from paramagnetism to ferromagnetism in HfO2 nanorods. Journal of Applied Physics, 2013, 113, 076102.	2.5	7
71	SnS homojunction nanowire-based solar cells. Journal of Materials Chemistry, 2012, 22, 16437.	6.7	48
72	One-pot synthesis of hexagonal and triangular nickelâ€“copper alloy nanoplates and their magnetic and catalytic properties. Journal of Materials Chemistry, 2012, 22, 8336.	6.7	66

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73	High Frequency Characteristics of Fe65Co35 Alloy Cluster-Assembled Films Prepared by Energetic Cluster Deposition. Journal of Nanoscience and Nanotechnology, 2011, 11, 11119-11123.	0.9	4
74	Blue-luminescent hafnia nanoclusters synthesized by plasma gas-phase method. Materials Chemistry and Physics, 2011, 130, 823-826.	4.0	10
75	High frequency characteristics of Fe<inf>65</inf>Co<inf>35</inf> alloy cluster-assembled films prepared by energetic cluster deposition. , 2010, , .		0
76	Influence of substrate temperature on mechanical, optical and electrical properties of ZnO:Al films. Journal of Alloys and Compounds, 2010, 508, 370-374.	5.5	72