Wei-Bo Hua

List of Publications by Year
in descending order

76 papers	3,639 citations	136950 32 h-index	138484 58 g-index
79 all docs	79 docs citations	79 times ranked	3320 citing authors

#	Article	IF	Citations
1	NASICON-type air-stable and all-climate cathode for sodium-ion batteries with low cost and high-power density. Nature Communications, 2019, 10, 1480.	12.8	260
2	General Ï€â€Electronâ€Assisted Strategy for Ir, Pt, Ru, Pd, Fe, Ni Singleâ€Atom Electrocatalysts with Bifunctional Active Sites for Highly Efficient Water Splitting. Angewandte Chemie - International Edition, 2019, 58, 11868-11873.	13.8	229
3	Na-doped Ni-rich LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂cathode material with both high rate capability and high tap density for lithium ion batteries. Dalton Transactions, 2014, 43, 14824-14832.	3.3	180
4	Structural insights into the formation and voltage degradation of lithium- and manganese-rich layered oxides. Nature Communications, 2019, 10, 5365.	12.8	166
5	Design and Synthesis of Layered Na₂Ti₃O₇ and Tunnel Na₂Ti₆O₁₃ Hybrid Structures with Enhanced Electrochemical Behavior for Sodiumâ€ion Batteries. Advanced Science, 2018, 5, 1800519.	11.2	102
6	A Novel Graphene Oxide Wrapped Na₂Fe₂(SO₄)₃/C Cathode Composite for Long Life and High Energy Density Sodiumâ€ion Batteries. Advanced Energy Materials, 2018, 8, 1800944.	19.5	101
7	Development and Investigation of a NASICONâ€Type Highâ€Voltage Cathode Material for Highâ€Power Sodiumâ€ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 2449-2456.	13.8	101
8	Architecting Amorphous Vanadium Oxide/MXene Nanohybrid via Tunable Anodic Oxidation for Highâ€Performance Sodiumâ€ion Batteries. Advanced Energy Materials, 2021, 11, 2100757.	19.5	99
9	Activating a Multielectron Reaction of NASICON-Structured Cathodes toward High Energy Density for Sodium-Ion Batteries. Journal of the American Chemical Society, 2021, 143, 18091-18102.	13.7	96
10	Mitigating the Largeâ€Volume Phase Transition of P2â€Type Cathodes by Synergetic Effect of Multiple Ions for Improved Sodiumâ€ion Batteries. Advanced Energy Materials, 2022, 12, .	19.5	96
11	A Hydrostable Cathode Material Based on the Layered P2@P3 Composite that Shows Redox Behavior for Copper in Highâ€Rate and Longâ€Cycling Sodiumâ€ion Batteries. Angewandte Chemie - International Edition, 2019, 58, 1412-1416.	13.8	92
12	Uncovering a facile large-scale synthesis of LiNi1/3Co1/3Mn1/3O2 nanoflowers for high power lithium-ion batteries. Journal of Power Sources, 2015, 275, 200-206.	7.8	84
13	Manipulating Layered P2@P3 Integrated Spinel Structure Evolution for Highâ€Performance Sodiumâ€ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 9299-9304.	13.8	84
14	Multiregion Janus-Featured Cobalt Phosphide-Cobalt Composite for Highly Reversible Room-Temperature Sodium-Sulfur Batteries. ACS Nano, 2020, 14, 10284-10293.	14.6	81
15	Interfacial Regulation of Ni-Rich Cathode Materials with an Ion-Conductive and Pillaring Layer by Infusing Gradient Boron for Improved Cycle Stability. ACS Applied Materials & Interfaces, 2020, 12, 10240-10251.	8.0	80
16	K-doped layered LiNi 0.5 Co 0.2 Mn 0.3 O 2 cathode material: Towards the superior rate capability and cycling performance. Journal of Alloys and Compounds, 2017, 699, 358-365.	5.5	79
17	A Cation and Anion Dual Doping Strategy for the Elevation of Titanium Redox Potential for Highâ€Power Sodiumâ€ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 12076-12083.	13.8	78
18	Lithium/Oxygen Incorporation and Microstructural Evolution during Synthesis of Liâ€Rich Layered Li[Li_{0.2}Ni_{0.2}Mn_{0.6}]O₂ Oxides. Advanced Energy Materials, 2019, 9, 1803094.	19.5	78

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19	Host Structural Stabilization of Li1.232Mn0.615Ni0.154O2 through K-Doping Attempt: toward Superior Electrochemical Performances. Electrochimica Acta, 2016, 188, 336-343.	5.2	75
20	Uniform Ni-rich LiNi0.6Co0.2Mn0.2O2 Porous Microspheres: Facile Designed Synthesis and Their Improved Electrochemical Performance. Electrochimica Acta, 2016, 191, 401-410.	5.2	75
21	Shape-controlled synthesis of hierarchically layered lithium transition-metal oxide cathode materials by shear exfoliation in continuous stirred-tank reactors. Journal of Materials Chemistry A, 2017, 5, 25391-25400.	10.3	67
22	Reversible Activation of V⁴⁺/V⁵⁺ Redox Couples in NASICON Phosphate Cathodes. Advanced Energy Materials, 2022, 12, .	19.5	65
23	A comparative study of crystalline and amorphous Li0.5La0.5TiO3 as surface coating layers to enhance the electrochemical performance of LiNi0.815Co0.15Al0.035O2 cathode. Journal of Alloys and Compounds, 2018, 740, 428-435.	5.5	61
24	Unravelling the growth mechanism of hierarchically structured Ni1/3Co1/3Mn1/3(OH)2 and their application as precursors for high-power cathode materials. Electrochimica Acta, 2017, 232, 123-131.	5.2	60
25	Chemical and Structural Evolution during the Synthesis of Layered Li(Ni,Co,Mn)O₂ Oxides. Chemistry of Materials, 2020, 32, 4984-4997.	6.7	58
26	Hydrangeaâ€Like CuS with Irreversible Amorphization Transition for Highâ€Performance Sodiumâ€Ion Storage. Advanced Science, 2020, 7, 1903279.	11.2	57
27	Dual Elements Coupling Effect Induced Modification from the Surface into the Bulk Lattice for Ni-Rich Cathodes with Suppressed Capacity and Voltage Decay. ACS Applied Materials & Interfaces, 2020, 12, 8146-8156.	8.0	56
28	Lithium-ion (de)intercalation mechanism in core-shell layered Li(Ni,Co,Mn)O2 cathode materials. Nano Energy, 2020, 78, 105231.	16.0	50
29	Comprehensive Investigation of a Slight Overcharge on Degradation and Thermal Runaway Behavior of Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 35054-35068.	8.0	50
30	Probing thermally-induced structural evolution during the synthesis of layered Li-, Na-, or K-containing 3d transition-metal oxides. EScience, 2022, 2, 183-191.	41.6	49
31	Kinetic Control of Longâ€Range Cationic Ordering in the Synthesis of Layered Niâ€Rich Oxides. Advanced Functional Materials, 2021, 31, 2009949.	14.9	46
32	A Rational Biphasic Tailoring Strategy Enabling Highâ€Performance Layered Cathodes for Sodiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2022, 61, .	13.8	41
33	Structural elucidation of the degradation mechanism of nickel-rich layered cathodes during high-voltage cycling. Chemical Communications, 2020, 56, 4886-4889.	4.1	34
34	Activating Inert Surface Pt Single Atoms via Subsurface Doping for Oxygen Reduction Reaction. Nano Letters, 2021, 21, 7970-7978.	9.1	33
35	General Ï€â€Electronâ€Assisted Strategy for Ir, Pt, Ru, Pd, Fe, Ni Singleâ€Atom Electrocatalysts with Bifunctional Active Sites for Highly Efficient Water Splitting. Angewandte Chemie, 2019, 131, 11994-11999.	2.0	28
36	In situ synchrotron radiation diffraction study of the Li+ de/intercalation behavior in spinel LiNi0.5Mn1.5O4-Î´. Chemical Engineering Journal, 2020, 400, 125998.	12.7	28

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37	New Insights into Lithium Hopping and Ordering in LiNiO₂ Cathodes during Li (De)intercalation. Chemistry of Materials, 2021, 33, 9546-9559.	6.7	28
38	An Approach towards Synthesis of Nanoarchitectured LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ Cathode Material for Lithium Ion Batteries. Chinese Journal of Chemistry, 2015, 33, 261-267.	4.9	27
39	(De)Lithiation Mechanism of Hierarchically Layered LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ Cathodes during High-Voltage Cycling. Journal of the Electrochemical Society, 2019, 166, A5025-A5032.	2.9	27
40	Development and Investigation of a NASICONâ€Type Highâ€Voltage Cathode Material for Highâ€Power Sodiumâ€Ion Batteries. Angewandte Chemie, 2020, 132, 2470-2477.	2.0	26
41	Manipulating Layered P2@P3 Integrated Spinel Structure Evolution for Highâ€Performance Sodiumâ€Ion Batteries. Angewandte Chemie, 2020, 132, 9385-9390.	2.0	26
42	Phosphoric acid and thermal treatments reveal the peculiar role of surface oxygen anions in lithium and manganese-rich layered oxides. Journal of Materials Chemistry A, 2021, 9, 264-273.	10.3	26
43	Preparation of intergrown P/O-type biphasic layered oxides as high-performance cathodes for sodium ion batteries. Journal of Materials Chemistry A, 2021, 9, 13151-13160.	10.3	26
44	Atomic Cobalt Vacancyâ€Cluster Enabling Optimized Electronic Structure for Efficient Water Splitting. Advanced Functional Materials, 2021, 31, 2101797.	14.9	26
45	Insight into the Multirole of Graphene in Preparation of High Performance Na_{2+2x}Fe_{2â€“x}(SO₄)₃ Cathodes. ACS Sustainable Chemistry and Engineering, 2018, 6, 16105-16112.	6.7	24
46	The structural origin of enhanced stability of Na3.32Fe2.11Ca0.23(P2O7)2 cathode for Na-ion batteries. Nano Energy, 2021, 79, 105417.	16.0	23
47	A Hydrostable Cathode Material Based on the Layered P2@P3 Composite that Shows Redox Behavior for Copper in Highâ€Rate and Longâ€Cycling Sodiumâ€Ion Batteries. Angewandte Chemie, 2019, 131, 1426-1430.	2.0	21
48	A Cation and Anion Dual Doping Strategy for the Elevation of Titanium Redox Potential for Highâ€Power Sodiumâ€Ion Batteries. Angewandte Chemie, 2020, 132, 12174-12181.	2.0	20
49	Electrochemical release of catalysts in nanoreactors for solid sulfur redox reactions in room-temperature sodium-sulfur batteries. Cell Reports Physical Science, 2021, 2, 100539.	5.6	20
50	Facile synthesis of hierarchical porous Ni-rich LiNi0.6Co0.2Mn0.2O2 cathode material with superior high-rate capability. Ionics, 2016, 22, 1781-1790.	2.4	19
51	MnO₂ and Reduced Graphene Oxide as Bifunctional Electrocatalysts for Liâ€“O₂ Batteries. ACS Applied Energy Materials, 2019, 2, 7121-7131.	5.1	19
52	A further electrochemical investigation on solutions to high energetical power sources: isomerous compound 0.75Li_{1.2}Ni_{0.2}Mn_{0.6}O₂Â·0.25LiNi_{0.5}Mn_{1.5}O₄ RSC Advances, 2015, 5, 37330-37339.	3.6	18
53	Rational design and synthesis of advanced Na3Â·32Fe2Â·34(P2O7)2 cathode with multiple-dimensional N-doped carbon matrix. Journal of Power Sources, 2019, 412, 350-358.	7.8	18
54	Long-Range and Short-Range Transport Dynamics of Li Ions in LiMn₂O₄. Journal of Physical Chemistry C, 2020, 124, 25254-25261.	3.1	18

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55	Structural Origin of Suppressed Voltage Decay in Singleâ€Crystalline Liâ€Rich Layered Li[Li_{0.2}Ni_{0.2}Mn_{0.6}]O₂ Cathodes. Small, 2022, 18, .	10.0	18
56	High-performance porous spherical cathode materials based on CaCO3-template synthesis of LiNi1/3Co1/3Mn1/3O2 for lithium-ion batteries. Ionics, 2015, 21, 3151-3158.	2.4	16
57	Vacuum induced self-assembling nanoporous LiMn2O4 for lithium ion batteries with superior high rate capability. Electrochimica Acta, 2015, 186, 253-261.	5.2	16
58	Designed synthesis of Zr-based ceriaâ€“zirconiaâ€“neodymia composite with high thermal stability and its enhanced catalytic performance for Rh-only three-way catalyst. Catalysis Science and Technology, 2016, 6, 7437-7448.	4.1	16
59	Li⁺/Na⁺ Ion Exchange in Layered Na_{2/3}(Ni_{0.25}Mn_{0.75})O₂: A Simple and Fast Way to Synthesize O3/O2-Type Layered Oxides. Chemistry of Materials, 2021, 33, 5606-5617.	6.7	16
60	Multiscale investigation of discharge rate dependence of capacity fade for lithium-ion battery. Journal of Power Sources, 2022, 536, 231516.	7.8	16
61	SnCN₂: A Carbodiimide with an Innovative Approach for Energy Storage Systems and Phosphors in Modern LED Technology. ChemElectroChem, 2020, 7, 4550-4561.	3.4	13
62	A Rational Biphasic Tailoring Strategy Enabling Highâ€Performance Layered Cathodes for Sodiumâ€Ion Batteries. Angewandte Chemie, 2022, 134, .	2.0	13
63	Understanding Performance Differences from Various Synthesis Methods: A Case Study of Spinel LiCr_{0.2}Ni_{0.4}Mn_{1.4}O₄ Cathode Material. ACS Applied Materials & Interfaces, 2016, 8, 26051-26057.	8.0	12
64	Heterogeneous intergrowth xLi1.5Ni0.25Mn0.75O2.5Â·(1 â^' x)Li0.5Ni0.25Mn0.75O2 (0 â‰¤ x â‰¤ 1) composites: synergistic effect on electrochemical performance. Dalton Transactions, 2015, 44, 14255-14264.	3.3	10
65	Dielectric Relaxation and Magnetic Structure of A-Site-Ordered Perovskite Oxide Semiconductor CaCu₃Fe₂Ta₂O₁₂. Inorganic Chemistry, 2021, 60, 6999-7007.	4.0	10
66	Facile Combustion Synthesis and Electrochemical Performance of the Cathode Material Li_{1.231}Mn_{0.615}Ni_{0.154}O₂. European Journal of Inorganic Chemistry, 2013, 2013, 5436-5442.	2.0	7
67	Preparation and Electrochemical Performance of Li[Ni_{1/3}Co_{1/3}Mn_{1/3}]O₂ Synthesized Using Li₂CO₃ as Template. Chinese Journal of Chemistry, 2015, 33, 1303-1309.	4.9	7
68	Ceâ€“Zrâ€“La/Al2O3 prepared in a continuous stirred-tank reactor: a highly thermostable support for an efficient Rh-based three-way catalyst. Dalton Transactions, 2015, 44, 20484-20492.	3.3	7
69	New Insight into Desodiation/Sodiation Mechanism of MoS₂: Sodium Insertion in Amorphous Moâ€“S Clusters. ACS Applied Materials & Interfaces, 2021, 13, 40481-40488.	8.0	7
70	Self-Standing, Collector-Free Maricite NaFePO₄/Carbon Nanofiber Cathode Endowed with Increasing Electrochemical Activity. Energy & Fuels, 2021, 35, 18768-18777.	5.1	7
71	Superior sodium storage of Na₃V(PO₃)₃N nanofibers as a high voltage cathode for flexible sodium-ion battery devices. Nanotechnology, 2021, 32, 435404.	2.6	5
72	Effective enhancement of the electrochemical performance of layered cathode Li_{1.5}Mn_{0.75}Ni_{0.25}O_{2.5}via a novel facile molten salt method. RSC Advances, 2015, 5, 58528-58535.	3.6	4

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73	Enhanced Electrochemical Performance of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ Cathode Materials at Elevated Temperature by Zr Doping. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2016, 32, 1056-1061.	4.9	3
74	Synthesis of Nanostructured LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ by Ammonia-Evaporation-Induced Synthesis and Its Electrochemical Properties as a Cathode Material for a High-Power Li-Ion Battery. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2014, 30, 1481-1486.	4.9	2
75	Preparation and Electrochemical Performance of Li[Ni_{1/3}Co_{1/3}Mn_{1/3}]O₂ Cathode Material for High-Rate Lithium-Ion Batteries. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2015, 31, 905-912.	4.9	2
76	Niâ€Rich Oxide Cathodes: Kinetic Control of Longâ€Range Cationic Ordering in the Synthesis of Layered Niâ€Rich Oxides (Adv. Funct. Mater. 19/2021). Advanced Functional Materials, 2021, 31, 2170134.	14.9	1