

Ren-Heng Wang

List of Publications by Year in descending order

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50
papers

2,878
citations

218381

26
h-index

223531

46
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50
all docs

50
docs citations

50
times ranked

3468
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent developments in emerging two-dimensional materials and their applications. Journal of Materials Chemistry C, 2020, 8, 387-440.	2.7	501
2	Lithium metal anodes: Present and future. Journal of Energy Chemistry, 2020, 48, 145-159.	7.1	311
3	Electrochemical analysis graphite/electrolyte interface in lithium-ion batteries: p-Toluenesulfonyl isocyanate as electrolyte additive. Nano Energy, 2017, 34, 131-140.	8.2	208
4	The Rise of 2D Photothermal Materials beyond Graphene for Clean Water Production. Advanced Science, 2020, 7, 1902236.	5.6	206
5	Honeycomb-Inspired 3D Stretchable Supercapacitors with Enhanced Specific Areal Capacitance. Advanced Materials, 2018, 30, e1805468.	11.1	152
6	Fluoroethylene Carbonate Enabling a Robust LiF-Rich Solid Electrolyte Interphase to Enhance the Stability of the MoS ₂ Anode for Lithium-Ion Storage. Angewandte Chemie - International Edition, 2018, 57, 3656-3660.	7.2	149
7	Electrochemical performance of zirconium doped lithium rich layered Li _{1.2} Mn _{0.54} Ni _{0.13} Co _{0.13} O ₂ oxide with porous hollow structure. Journal of Power Sources, 2015, 299, 334-341.	4.0	142
8	Aqueous Electrolytes with Hydrophobic Organic Cosolvents for Stabilizing Zinc Metal Anodes. ACS Nano, 2022, 16, 9667-9678.	7.3	126
9	Flexible electronics based on 2D transition metal dichalcogenides. Journal of Materials Chemistry A, 2021, 10, 89-121.	5.2	66
10	Electrochemical Analysis for Enhancing Interface Layer of Spinel Li ₄ Ti ₅ O ₁₂ : p-Toluenesulfonyl Isocyanate as Electrolyte Additive. ACS Applied Materials & Interfaces, 2015, 7, 23605-23614.	4.0	54
11	New Insights on the Good Compatibility of Ether-Based Localized High-Concentration Electrolyte with Lithium Metal. , 2021, 3, 838-844.		50
12	Three-functional ether-based co-solvents for suppressing water-induced parasitic reactions in aqueous Zn-ion batteries. Energy Storage Materials, 2022, 49, 445-453.	9.5	49
13	Boosting Lithium Storage in Free-Standing Black Phosphorus Anode via Multifunction of Nanocellulose. ACS Applied Materials & Interfaces, 2020, 12, 31628-31636.	4.0	48
14	Recent Developments of Two-Dimensional Anode Materials and Their Composites in Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 7440-7461.	2.5	48
15	Emerging two-dimensional noncarbon nanomaterials for flexible lithium-ion batteries: opportunities and challenges. Journal of Materials Chemistry A, 2019, 7, 25227-25246.	5.2	44
16	In Situ Surface Protection for Enhancing Stability and Performance of Li _{0.5} Mn _{0.3} Co _{0.2} O ₂ at 4.8 V: The Working Mechanisms. , 2020, 2, 280-290.		44
17	InVO ₄ -based photocatalysts for energy and environmental applications. Chemical Engineering Journal, 2022, 428, 131145.	6.6	44
18	One-time sintering process to modify xLi ₂ MnO ₃ (-x)LiMO ₂ hollow architecture and studying their enhanced electrochemical performances. Journal of Energy Chemistry, 2020, 50, 271-279.	7.1	43

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19	Computational Auxiliary for the Progress of Sodium-Ion Solid-State Electrolytes. ACS Nano, 2021, 15, 17232-17246.	7.3	42
20	Potassium-sulfur batteries: Status and perspectives. EcoMat, 2020, 2, e12038.	6.8	41
21	Fluoroethylene Carbonate Enabling a Robust LiF-rich Solid Electrolyte Interphase to Enhance the Stability of the MoS ₂ Anode for Lithium-Ion Storage. Angewandte Chemie, 2018, 130, 3718-3722.	1.6	40
22	Structural and electrochemical performance of Na-doped Li ₃ V ₂ (PO ₄) ₃ /C cathode materials for lithium-ion batteries via rheological phase reaction. Journal of Alloys and Compounds, 2013, 575, 268-272.	2.8	36
23	Novel Two-Dimensional Carbon-Chromium Nitride-Based Composite as an Electrocatalyst for Oxygen Reduction Reaction. Frontiers in Chemistry, 2019, 7, 738.	1.8	34
24	Electrochemical analysis for cycle performance and capacity fading of lithium manganese oxide spinel cathode at elevated temperature using p-toluenesulfonyl isocyanate as electrolyte additive. Electrochimica Acta, 2015, 180, 815-823.	2.6	32
25	Surfactant-assisted hydrothermal synthesis of V ₂ O ₅ coated LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ with ideal electrochemical performance. Electrochimica Acta, 2019, 323, 134822.	2.6	32
26	Electrochemical Analysis the influence of Propargyl Methanesulfonate as Electrolyte Additive for Spinel LTO Interface Layer. Electrochimica Acta, 2017, 241, 208-219.	2.6	30
27	Facile Synthesis of Mayenite Electride Nanoparticles Encapsulated in Graphitic Shells Like Carbon Nano Onions: Non-noble-metal Electrocatalysts for Oxygen Reduction Reaction (ORR). Frontiers in Chemistry, 2019, 7, 934.	1.8	27
28	Enhanced electrochemical performance in LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ cathode material: Resulting from Mn-surface-modification using a facile oxidizing-coating method. Materials Letters, 2014, 115, 49-52.	1.3	26
29	Synergistic Modification of Magnesium Fluoride/Sodium for Improving the Electrochemical Performances of High-Nickel Ternary (NCM811) Cathode Materials. Journal of the Electrochemical Society, 2019, 166, A3480-A3486.	1.3	26
30	Lithium carbonate as an electrolyte additive for enhancing the high-temperature performance of lithium manganese oxide spinel cathode. Journal of Alloys and Compounds, 2015, 618, 349-356.	2.8	21
31	Manganese dissolution from LiMn ₂ O ₄ cathodes at elevated temperature: methylene methanedisulfonate as electrolyte additive. Journal of Solid State Electrochemistry, 2016, 20, 19-28.	1.2	21
32	Enhanced electrochemical performances of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ by synergistic modification of sodium ion doping and silica coating. Solid State Ionics, 2020, 346, 115214.	1.3	20
33	Effect of methylene methanedisulfonate as an additive on the cycling performance of spinel lithium titanate electrode. Journal of Alloys and Compounds, 2015, 648, 512-520.	2.8	18
34	Electrochemical Analysis for Enhancing Interface Layer of Spinel LiNi _{0.5} Mn _{1.5} O ₄ Using p-Toluenesulfonyl Isocyanate as Electrolyte Additive. Frontiers in Chemistry, 2019, 7, 591.	1.8	18
35	Comparative study of lithium bis(oxalato)borate and lithium bis(fluorosulfonyl)imide on lithium manganese oxide spinel lithium-ion batteries. Journal of Alloys and Compounds, 2015, 624, 74-84.	2.8	14
36	Impacts of vinyl ethylene carbonate and vinylene carbonate on lithium manganese oxide spinel cathode at elevated temperature. Journal of Alloys and Compounds, 2015, 632, 435-444.	2.8	12

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37	Flexible Li[Li _{0.2} Ni _{0.13} Co _{0.13} Mn _{0.54}]O ₂ /Carbon Nanotubes/Nanofibrillated Celluloses Composite Electrode for High-Performance Lithium-Ion Battery. <i>Frontiers in Chemistry</i> , 2019, 7, 555.	1.8	12
38	Microspherical LiFePO _{3.98} F _{0.02} /3DG/C as an advanced cathode material for high-energy lithium-ion battery with a superior rate capability and long-term cyclability. <i>Ionics</i> , 2021, 27, 1-11.	1.2	12
39	Metal-N ₄ @Graphene as Multifunctional Anchoring Materials for Na-S Batteries: First-Principles Study. <i>Nanomaterials</i> , 2021, 11, 1197.	1.9	12
40	LiMn ₂ O ₄ Cathode Materials with Excellent Performances by Synergistic Enhancement of Double-Cation (Na ⁺ , Mg ²⁺) Doping and 3DG Coating for Power Lithium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26106-26116.	1.5	11
41	Carrier and vacancy mediated ferrimagnetism in Cu doped rutile TiO ₂ . <i>Journal of Materials Chemistry C</i> , 2021, 9, 2858-2863.	2.7	11
42	Regulation of electronic structure of monolayer MoS ₂ by pressure. <i>Rare Metals</i> , 2022, 41, 1761-1770.	3.6	11
43	Optimal Quantity of Nano-Silicon for Electrospun Silicon/Carbon Fibers as High Capacity Anodes. <i>Frontiers in Chemistry</i> , 2019, 7, 867.	1.8	9
44	Defect-induced magnetism in $\sqrt{3}$ borophene. <i>Rare Metals</i> , 2022, 41, 3486-3494.	3.6	7
45	First-Principles Calculations on Magnetism Induced by Vacancies in $\sqrt{2}$ -Borophene Nanosheets: Implications for Property Modulation. <i>ACS Applied Nano Materials</i> , 2022, 5, 113-119.	2.4	6
46	Benchmark Investigation of Band-Gap Tunability of Monolayer Semiconductors under Hydrostatic Pressure with Focus-On Antimony. <i>Nanomaterials</i> , 2020, 10, 2154.	1.9	5
47	Prediction of the terahertz absorption features with a straightforward molecular dynamics method. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 236, 118330.	2.0	3
48	PEG-combined liquid phase synthesis and electrochemical properties of carbon-coated Li ₃ V ₂ (PO ₄) ₃ . <i>Transactions of Nonferrous Metals Society of China</i> , 2015, 25, 1241-1247.	1.7	2
49	Localizing epileptic focus and assessing electrical stimulus effects on epilepsy in rats using stretchable micro electrocorticogram electrodes. <i>Science China Materials</i> , 0, , .	3.5	2
50	Wearable Thermoelectric Generators Based on Liquid Metal. , 2021, , .		0