

Xin He

List of Publications by Year in descending order

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Version: 2024-02-01

28
papers

2,965
citations

361413

20
h-index

526287

27
g-index

28
all docs

28
docs citations

28
times ranked

3787
citing authors

#	ARTICLE	IF	CITATIONS
1	Polymerâ€“inorganic solidâ€“electrolyte interphase for stable lithium metal batteries under lean electrolyte conditions. <i>Nature Materials</i> , 2019, 18, 384-389.	27.5	587
2	A disordered rock salt anode for fast-charging lithium-ion batteries. <i>Nature</i> , 2020, 585, 63-67.	27.8	326
3	Achieving Fast and Durable Lithium Storage through Amorphous FeP Nanoparticles Encapsulated in Ultrathin 3D P-Doped Porous Carbon Nanosheets. <i>ACS Nano</i> , 2020, 14, 9545-9561.	14.6	250
4	Organosulfide-plasticized solid-electrolyte interphase layer enables stable lithium metal anodes for long-cycle lithium-sulfur batteries. <i>Nature Communications</i> , 2017, 8, 850.	12.8	240
5	The passivity of lithium electrodes in liquid electrolytes for secondary batteries. <i>Nature Reviews Materials</i> , 2021, 6, 1036-1052.	48.7	201
6	Antifouling, High-Flux Nanofiltration Membranes Enabled by Dual Functional Polydopamine. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 5548-5557.	8.0	189
7	Strategies towards enabling lithium metal in batteries: interphases and electrodes. <i>Energy and Environmental Science</i> , 2021, 14, 5289-5314.	30.8	156
8	Self-Formed Hybrid Interphase Layer on Lithium Metal for High-Performance Lithiumâ€“Sulfur Batteries. <i>ACS Nano</i> , 2018, 12, 1500-1507.	14.6	149
9	Designing and Understanding the Superior Potassium Storage Performance of Nitrogen/Phosphorus Coâ€“Doped Hollow Porous Bowlâ€“Like Carbon Anodes. <i>Advanced Functional Materials</i> , 2021, 31, .	14.9	142
10	Water Adsorption on Hydrophilic and Hydrophobic Surfaces of Silicon. <i>Journal of Physical Chemistry C</i> , 2018, 122, 11385-11391.	3.1	118
11	Mechanochemistry at Solid Surfaces: Polymerization of Adsorbed Molecules by Mechanical Shear at Tribological Interfaces. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 3142-3148.	8.0	99
12	Electrokinetic Phenomena Enhanced Lithiumâ€“Ion Transport in Leaky Film for Stable Lithium Metal Anodes. <i>Advanced Energy Materials</i> , 2019, 9, 1900704.	19.5	76
13	Fluorine-free water-in-ionomer electrolytes for sustainable lithium-ion batteries. <i>Nature Communications</i> , 2018, 9, 5320.	12.8	71
14	Reversible Crosslinked Polymer Binder for Recyclable Lithium Sulfur Batteries with High Performance. <i>Advanced Functional Materials</i> , 2020, 30, 2003605.	14.9	63
15	Mechanochemical Association Reaction of Interfacial Molecules Driven by Shear. <i>Langmuir</i> , 2018, 34, 5971-5977.	3.5	46
16	Elucidating the Limit of Li Insertion into the Spinel $\text{Li}_4\text{Ti}_5\text{O}_{12}$. , 2019, 1, 96-102.		45
17	Mechanochemistry of Physisorbed Molecules at Tribological Interfaces: Molecular Structure Dependence of Tribochemical Polymerization. <i>Langmuir</i> , 2017, 33, 2717-2724.	3.5	32
18	Surface Chemistry Dependence of Mechanochemical Reaction of Adsorbed Moleculesâ€“An Experimental Study on Tribopolymerization of \pm -Pinene on Metal, Metal Oxide, and Carbon Surfaces. <i>Langmuir</i> , 2018, 34, 2432-2440.	3.5	32

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19	Friction and Tribochemical Wear Behaviors of Native Oxide Layer on Silicon at Nanoscale. <i>Tribology Letters</i> , 2017, 65, 1.	2.6	30
20	Surface Structure Dependence of Mechanochemical Etching: Scanning Probe-Based Nanolithography Study on Si(100), Si(110), and Si(111). <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20583-20588.	8.0	30
21	In situ infrared nanospectroscopy of the local processes at the Li/polymer electrolyte interface. <i>Nature Communications</i> , 2022, 13, 1398.	12.8	28
22	Mechanochemical Reactions of Adsorbates at Tribological Interfaces: Tribopolymerizations of Allyl Alcohol Coadsorbed with Water on Silicon Oxide. <i>Langmuir</i> , 2019, 35, 15451-15458.	3.5	13
23	TiO ₂ @LiTi ₂ (PO ₄) ₃ enabling fast and stable lithium storage for high voltage aqueous lithium-ion batteries. <i>Journal of Power Sources</i> , 2021, 484, 229255.	7.8	13
24	Effect of Gas Environment on Mechanochemical Reaction: A Model Study with Tribo-Polymerization of α -Pinene in Inert, Oxidative, and Reductive Gases. <i>Tribology Letters</i> , 2019, 67, 1.	2.6	8
25	Competitive Adsorption of Ionic Liquids Versus Friction Modifier and Anti-Wear Additive at Solid/Lubricant Interface—Speciation with Vibrational Sum Frequency Generation Spectroscopy. <i>Lubricants</i> , 2020, 8, 98.	2.9	8
26	Revealing the working mechanism of a multi-functional block copolymer binder for lithium-sulfur batteries. <i>Journal of Energy Chemistry</i> , 2021, 59, 1-8.	12.9	8
27	Stable SEI Formation on Al-Si-Mn Metallic Glass Li-Ion Anode. <i>Journal of the Electrochemical Society</i> , 2021, 168, 100521.	2.9	3
28	Calcium fluoride as a dominating matrix for quantitative analysis by laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS): A feasibility study. <i>Analytica Chimica Acta</i> , 2020, 1129, 24-30.	5.4	2