

Hui Yang

List of Publications by Year in descending order

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46
papers

2,771
citations

257450
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254184
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46
all docs

46
docs citations

46
times ranked

3518
citing authors

#	ARTICLE	IF	CITATIONS
1	Stressâ€Regulation Design of Lithium Alloy Electrode toward Stable Battery Cycling. Energy and Environmental Materials, 2023, 6, .	12.8	11
2	Cobalt doping boosted electrocatalytic activity of CaMn3O6 for hydrogen evolution reaction. Nano Research, 2022, 15, 2870-2876.	10.4	5
3	Ten micrometer thick polyethylene separator modified by $\text{LiAlO}_2/\text{Al}_2\text{O}_3$ nanosheets for simultaneous suppression of Li dendrite growth and polysulfide shuttling in Li-S batteries. Materials Today Energy, 2022, 26, 100990.	4.7	9
4	A Pressure Responsive Artificial Interphase Layer of BaTiO_3 against Dendrite Growth for Stable Lithium Metal Anodes. Batteries and Supercaps, 2022, 5, .	4.7	3
5	Enhanced processability and electrochemical cyclability of metallic sodium at elevated temperature using sodium alloy composite. Energy Storage Materials, 2021, 35, 310-316.	18.0	26
6	Hybrid electrolytes with an ultrahigh Li-ion transference number for lithium-metal batteries with fast and stable charge/discharge capability. Journal of Materials Chemistry A, 2021, 9, 18239-18246.	10.3	25
7	Synergistic Lithium Storage in Silicaâ€Tin Composites Enables a Cycle-Stable and High-Capacity Anode for Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 2741-2750.	5.1	18
8	Scalable Manufacture of Highâ€Performance Battery Electrodes Enabled by a Templateâ€Free Method. Small Methods, 2021, 5, e2100280.	8.6	24
9	In Situ Measurements of the Mechanical Properties of Electrochemically Deposited Li_2CO_3 and Li_2O Nanorods. ACS Applied Materials & Interfaces, 2021, 13, 44479-44487.	8.0	10
10	Porous N, B co-doped carbon nanotubes as efficient metal-free electrocatalysts for ORR and Zn-air batteries. Chemical Engineering Journal, 2021, 422, 130134.	12.7	98
11	Circumventing chemo-mechanical failure of Sn foil battery anode by grain refinement and elaborate porosity design. Journal of Energy Chemistry, 2021, 62, 477-484.	12.9	19
12	Electron density modulation of MoP by rare earth metal as highly efficient electrocatalysts for pH-universal hydrogen evolution reaction. Applied Catalysis B: Environmental, 2021, 299, 120657.	20.2	57
13	Construction of an N-Decorated Carbon-Encapsulated $\text{W}_2\text{C}/\text{WP}$ Heterostructure as an Efficient Electrocatalyst for Hydrogen Evolution in Both Alkaline and Acidic Media. ACS Applied Materials & Interfaces, 2021, 13, 53955-53964.	8.0	20
14	Numerical and experimental comparison of two nano-structuring processing techniques on making stronger stainless steels. Materials Today Communications, 2020, 24, 100419.	1.9	0
15	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
16	Enhanced Oxygen Evolution Reaction Activity by Encapsulating NiFe Alloy Nanoparticles in Nitrogen-Doped Carbon Nanofibers. ACS Applied Materials & Interfaces, 2020, 12, 31503-31513.	8.0	78
17	A Solvent Molecule Driven Pure PEDOT:PSS Actuator. Macromolecular Materials and Engineering, 2020, 305, 2000327.	3.6	17
18	Revealing the Chemical and Structural Evolution of V_2O_5 Nanoribbons in Lithium-Ion Batteries Using In Situ Transmission Electron Microscopy. Analytical Chemistry, 2019, 91, 11055-11062.	6.5	18

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19	Stress generation during anisotropic lithiation in silicon nanopillar electrodes: A reactive force field study. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 125955.	2.1	11
20	Fracture toughness of Li_xSi alloys in lithium ion battery. Extreme Mechanics Letters, 2019, 32, 100555.	4.1	9
21	In Situ TEM of Phosphorus-Dopant-Induced Nanopore Formation in Delithiated Silicon Nanowires. ACS Applied Materials & Interfaces, 2019, 11, 17313-17320.	8.0	11
22	Failure mechanism of Au@Co ₉ S ₈ yolk-shell anode in Li-ion batteries unveiled by <i>in-situ</i> transmission electron microscopy. Applied Physics Letters, 2019, 114, .	3.3	30
23	Minimized Volume Expansion in Hierarchical Porous Silicon upon Lithiation. ACS Applied Materials & Interfaces, 2019, 11, 13257-13263.	8.0	51
24	Ionic Conduction in Composite Polymer Electrolytes: Case of PEO:Ga-LLZO Composites. ACS Applied Materials & Interfaces, 2019, 11, 784-791.	8.0	250
25	Enhanced thermal shock response of Al_2O_3 -graphite composites through a layered architectural design. Journal of the American Ceramic Society, 2019, 102, 3673-3684.	3.8	6
26	An atomistic perspective on lithiation-induced stress in silicon nanopillars. Scripta Materialia, 2018, 152, 74-78.	5.2	19
27	Ultrahigh Malleability of the Lithiation-Induced Li_xSi Phase. ACS Applied Energy Materials, 2018, 1, 4211-4220.	5.1	16
28	A mechanistic model for depth-dependent hardness of ion irradiated metals. Journal of Nuclear Materials, 2017, 485, 80-89.	2.7	69
29	Mechanics of electrochemically driven mechanical energy harvesting. Extreme Mechanics Letters, 2017, 15, 78-82.	4.1	5
30	Electrochemically driven mechanical energy harvesting. Nature Communications, 2016, 7, 10146.	12.8	123
31	Inward lithium-ion breathing of hierarchically porous silicon anodes. Nature Communications, 2015, 6, 8844.	12.8	217
32	Strong kinetics-stress coupling in lithiation of Si and Ge anodes. Extreme Mechanics Letters, 2015, 2, 1-6.	4.1	66
33	Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery. ACS Nano, 2015, 9, 5559-5566.	14.6	118
34	Surface Coating Constraint Induced Self-Discharging of Silicon Nanoparticles as Anodes for Lithium Ion Batteries. Nano Letters, 2015, 15, 7016-7022.	9.1	113
35	A chemo-mechanical model of lithiation in silicon. Journal of the Mechanics and Physics of Solids, 2014, 70, 349-361.	4.8	181
36	Bending-Induced Symmetry Breaking of Lithiation in Germanium Nanowires. Nano Letters, 2014, 14, 4622-4627.	9.1	92

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37	In-situ TEM Study of Internal and External Stress on Lithiation behavior of High Capacity Anode Materials with a Large Volume Change. Microscopy and Microanalysis, 2014, 20, 1536-1537.	0.4	0
38	Self-weakening in lithiated graphene electrodes. Chemical Physics Letters, 2013, 563, 58-62.	2.6	33
39	Mechanical properties of amorphous Li_xSi alloys: a reactive force field study. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 074002.	2.0	103
40	Tough Germanium Nanoparticles under Electrochemical Cycling. ACS Nano, 2013, 7, 3427-3433.	14.6	184
41	Self-Limiting Lithiation in Silicon Nanowires. ACS Nano, 2013, 7, 1495-1503.	14.6	212
42	Nanovoid Formation and Annihilation in Gallium Nanodroplets under Lithiation–Delithiation Cycling. Nano Letters, 2013, 13, 5212-5217.	9.1	96
43	Lithiation induced corrosive fracture in defective carbon nanotubes. Applied Physics Letters, 2013, 103, .	3.3	27
44	Direct and Inverse Solutions for Thermal- and Stress-Transients and the Analytical Determination of Boundary Conditions Using Remote Temperature or Strain Data. Journal of Pressure Vessel Technology, Transactions of the ASME, 2012, 134, .	0.6	0
45	Orientation-Dependent Interfacial Mobility Governs the Anisotropic Swelling in Lithiated Silicon Nanowires. Nano Letters, 2012, 12, 1953-1958.	9.1	212
46	Chemomechanics control of tearing paths in graphene. Physical Review B, 2012, 85, .	3.2	33