

Hui Yang

List of Publications by Year in descending order

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46
papers

2,771
citations

257101

24
h-index

253896

43
g-index

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, .	7.3	11
2	Cobalt doping boosted electrocatalytic activity of CaMn3O6 for hydrogen evolution reaction. Nano Research, 2022, 15, 2870-2876.	5.8	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.	2.5	9
4	A Pressure Responsive Artificial Interphase Layer of BaTiO_3 against Dendrite Growth for Stable Lithium Metal Anodes. Batteries and Supercaps, 2022, 5, .	2.4	3
5	Enhanced processability and electrochemical cyclability of metallic sodium at elevated temperature using sodium alloy composite. Energy Storage Materials, 2021, 35, 310-316.	9.5	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.	5.2	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.	2.5	18
8	Scalable Manufacture of Highâ€Performance Battery Electrodes Enabled by a Templateâ€Free Method. Small Methods, 2021, 5, e2100280.	4.6	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.	4.0	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.	6.6	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.	7.1	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.	10.8	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.	4.0	20
14	Numerical and experimental comparison of two nano-structuring processing techniques on making stronger stainless steels. Materials Today Communications, 2020, 24, 100419.	0.9	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.	5.2	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.	4.0	78
17	A Solvent Molecule Driven Pure PEDOT:PSS Actuator. Macromolecular Materials and Engineering, 2020, 305, 2000327.	1.7	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.	3.2	18

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19	Stress generation during anisotropic lithiation in silicon nanopillar electrodes: A reactive force field study. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 125955.	0.9	11
20	Fracture toughness of Li_xSi alloys in lithium ion battery. <i>Extreme Mechanics Letters</i> , 2019, 32, 100555.	2.0	9
21	In Situ TEM of Phosphorus-Dopant-Induced Nanopore Formation in Delithiated Silicon Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 17313-17320.	4.0	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. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	30
23	Minimized Volume Expansion in Hierarchical Porous Silicon upon Lithiation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 13257-13263.	4.0	51
24	Ionic Conduction in Composite Polymer Electrolytes: Case of PEO:Ga-LLZO Composites. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 784-791.	4.0	250
25	Enhanced thermal shock response of Al ₂ O ₃ @graphite composites through a layered architectural design. <i>Journal of the American Ceramic Society</i> , 2019, 102, 3673-3684.	1.9	6
26	An atomistic perspective on lithiation-induced stress in silicon nanopillars. <i>Scripta Materialia</i> , 2018, 152, 74-78.	2.6	19
27	Ultrahigh Malleability of the Lithiation-Induced Li_xSi Phase. <i>ACS Applied Energy Materials</i> , 2018, 1, 4211-4220.	2.5	16
28	A mechanistic model for depth-dependent hardness of ion irradiated metals. <i>Journal of Nuclear Materials</i> , 2017, 485, 80-89.	1.3	69
29	Mechanics of electrochemically driven mechanical energy harvesting. <i>Extreme Mechanics Letters</i> , 2017, 15, 78-82.	2.0	5
30	Electrochemically driven mechanical energy harvesting. <i>Nature Communications</i> , 2016, 7, 10146.	5.8	123
31	Inward lithium-ion breathing of hierarchically porous silicon anodes. <i>Nature Communications</i> , 2015, 6, 8844.	5.8	217
32	Strong kinetics-stress coupling in lithiation of Si and Ge anodes. <i>Extreme Mechanics Letters</i> , 2015, 2, 1-6.	2.0	66
33	Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery. <i>ACS Nano</i> , 2015, 9, 5559-5566.	7.3	118
34	Surface Coating Constraint Induced Self-Discharging of Silicon Nanoparticles as Anodes for Lithium Ion Batteries. <i>Nano Letters</i> , 2015, 15, 7016-7022.	4.5	113
35	A chemo-mechanical model of lithiation in silicon. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 70, 349-361.	2.3	181
36	Bending-Induced Symmetry Breaking of Lithiation in Germanium Nanowires. <i>Nano Letters</i> , 2014, 14, 4622-4627.	4.5	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. <i>Microscopy and Microanalysis</i> , 2014, 20, 1536-1537.	0.2	0
38	Self-weakening in lithiated graphene electrodes. <i>Chemical Physics Letters</i> , 2013, 563, 58-62.	1.2	33
39	Mechanical properties of amorphous Li _x Si alloys: a reactive force field study. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013, 21, 074002.	0.8	103
40	Tough Germanium Nanoparticles under Electrochemical Cycling. <i>ACS Nano</i> , 2013, 7, 3427-3433.	7.3	184
41	Self-Limiting Lithiation in Silicon Nanowires. <i>ACS Nano</i> , 2013, 7, 1495-1503.	7.3	212
42	Nanovoid Formation and Annihilation in Gallium Nanodroplets under Lithiation–Delithiation Cycling. <i>Nano Letters</i> , 2013, 13, 5212-5217.	4.5	96
43	Lithiation induced corrosive fracture in defective carbon nanotubes. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	27
44	Direct and Inverse Solutions for Thermal- and Stress-Transients and the Analytical Determination of Boundary Conditions Using Remote Temperature or Strain Data. <i>Journal of Pressure Vessel Technology</i> , <i>Transactions of the ASME</i> , 2012, 134, .	0.4	0
45	Orientation-Dependent Interfacial Mobility Governs the Anisotropic Swelling in Lithiated Silicon Nanowires. <i>Nano Letters</i> , 2012, 12, 1953-1958.	4.5	212
46	Chemomechanics control of tearing paths in graphene. <i>Physical Review B</i> , 2012, 85, .	1.1	33