

Yang He

List of Publications by Year in descending order

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37
papers

2,712
citations

257450

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345221

36
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37
all docs

37
docs citations

37
times ranked

5185
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Performance Rh ₂ P Electrocatalyst for Efficient Water Splitting. Journal of the American Chemical Society, 2017, 139, 5494-5502.	13.7	343
2	Tailoring Pore Size of Nitrogen-Doped Hollow Carbon Nanospheres for Confining Sulfur in Lithium-Sulfur Batteries. Advanced Energy Materials, 2015, 5, 1401752.	19.5	273
3	Nanoscale silicon as anode for Li-ion batteries: The fundamentals, promises, and challenges. Nano Energy, 2015, 17, 366-383.	16.0	228
4	Origin of lithium whisker formation and growth under stress. Nature Nanotechnology, 2019, 14, 1042-1047.	31.5	211
5	Size-dependent dynamic structures of supported gold nanoparticles in CO oxidation reaction condition. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7700-7705.	7.1	183
6	Progressive growth of the solid-electrolyte interphase towards the Si anode interior causes capacity fading. Nature Nanotechnology, 2021, 16, 1113-1120.	31.5	147
7	Germanium as a Sodium Ion Battery Material: <i>In Situ</i> TEM Reveals Fast Sodiation Kinetics with High Capacity. Chemistry of Materials, 2016, 28, 1236-1242.	6.7	134
8	Direction-specific van der Waals attraction between rutile TiO ₂ nanocrystals. Science, 2017, 356, 434-437.	12.6	103
9	<i>In Situ</i> Transmission Electron Microscopy Probing of Native Oxide and Artificial Layers on Silicon Nanoparticles for Lithium Ion Batteries. ACS Nano, 2014, 8, 11816-11823.	14.6	99
10	Electronegative guests in CoSb ₃ . Energy and Environmental Science, 2016, 9, 2090-2098.	30.8	93
11	Atomistic Conversion Reaction Mechanism of WO ₃ in Secondary Ion Batteries of Li, Na, and Ca. Angewandte Chemie - International Edition, 2016, 55, 6244-6247.	13.8	86
12	Slip-activated surface creep with room-temperature super-elongation in metallic nanocrystals. Nature Materials, 2017, 16, 439-445.	27.5	82
13	In situ observation of shear-driven amorphization in silicon crystals. Nature Nanotechnology, 2016, 11, 866-871.	31.5	74
14	Three-dimensional PtNi hollow nanochains as an enhanced electrocatalyst for the oxygen reduction reaction. Journal of Materials Chemistry A, 2016, 4, 8755-8761.	10.3	63
15	Electrochemically Formed Ultrafine Metal Oxide Nanocatalysts for High-Performance Lithium-Oxygen Batteries. Nano Letters, 2016, 16, 4932-4939.	9.1	62
16	Direct observation of dual-step twinning nucleation in hexagonal close-packed crystals. Nature Communications, 2020, 11, 2483.	12.8	59
17	Rational Design of Hyperbranched Nanowire Systems for Tunable Superomniphobic Surfaces Enabled by Atomic Layer Deposition. ACS Nano, 2017, 11, 478-489.	14.6	54
18	Tuning the Outward to Inward Swelling in Lithiated Silicon Nanotubes via Surface Oxide Coating. Nano Letters, 2016, 16, 5815-5822.	9.1	45

#	ARTICLE	IF	CITATIONS
19	Unstable twin in body-centered cubic tungsten nanocrystals. <i>Nature Communications</i> , 2020, 11, 2497.	12.8	40
20	Interconnected Vertically Stacked 2D-MoS ₂ for Ultrastable Cycling of Rechargeable Li-Ion Battery. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20762-20769.	8.0	37
21	Dynamic Atom Clusters on AuCu Nanoparticle Surface during CO Oxidation. <i>Journal of the American Chemical Society</i> , 2020, 142, 4022-4027.	13.7	36
22	Direct Mapping of Charge Distribution during Lithiation of Ge Nanowires Using Off-Axis Electron Holography. <i>Nano Letters</i> , 2016, 16, 3748-3753.	9.1	34
23	Direct Visualization of Li Dendrite Effect on LiCoO ₂ Cathode by In Situ TEM. <i>Small</i> , 2018, 14, e1803108.	10.0	34
24	Atomistic processes of surface-diffusion-induced abnormal softening in nanoscale metallic crystals. <i>Nature Communications</i> , 2021, 12, 5237.	12.8	27
25	Electron Transfer Governed Crystal Transformation of Tungsten Trioxide upon Li Ions Intercalation. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 24567-24572.	8.0	26
26	Atomistic Conversion Reaction Mechanism of WO ₃ in Secondary Ion Batteries of Li, Na, and Ca. <i>Angewandte Chemie</i> , 2016, 128, 6352-6355.	2.0	21
27	Effect of hydrogen atom and hydrogen filled vacancies on stacking fault energy in $\hat{1}^3$ -Fe by first-principles calculations. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 17136-17145.	7.1	20
28	Deciphering atomistic mechanisms of the gas-solid interfacial reaction during alloy oxidation. <i>Science Advances</i> , 2020, 6, eaay8491.	10.3	20
29	Atomistic observation on diffusion-mediated friction between single-asperity contacts. <i>Nature Materials</i> , 2022, 21, 173-180.	27.5	16
30	In-situ transmission electron microscopy for probing the dynamic processes in materials. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 443002.	2.8	13
31	Accessing crystal-crystal interaction forces with oriented nanocrystal atomic force microscopy probes. <i>Nature Protocols</i> , 2018, 13, 2005-2030.	12.0	12
32	Particle-based hematite crystallization is invariant to initial particle morphology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2112679119.	7.1	9
33	Atomic-scale friction between single-asperity contacts unveiled through in situ transmission electron microscopy. <i>Nature Nanotechnology</i> , 2022, 17, 737-745.	31.5	9
34	Interface structure and strain controlled Pt nanocrystals grown at side facet of MoS ₂ with critical size. <i>Nano Research</i> , 2022, 15, 8493-8501.	10.4	7
35	Vacancy ordering during selective oxidation of $\hat{1}^2$ -NiAl. <i>Materialia</i> , 2020, 12, 100783.	2.7	6
36	Combined effects of irradiation and hydrogen ions on surface oxidation of 308 L austenite stainless steel. <i>Corrosion Science</i> , 2021, 191, 109734.	6.6	6

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37	In-situ TEM Coupled with AFM Cantilever for Direct Observation of Li Dendrite Nucleation and Growth Under Stress. <i>Microscopy and Microanalysis</i> , 2020, 26, 3038-3039.	0.4	0