

Zhennan Huang

List of Publications by Year in descending order

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47
papers

4,388
citations

172457

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214800

47
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all docs

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docs citations

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times ranked

4672
citing authors

#	ARTICLE	IF	CITATIONS
1	Interface Engineering Between Multi-Elemental Alloy Nanoparticles and a Carbon Support Toward Stable Catalysts. <i>Advanced Materials</i> , 2022, 34, e2106436.	21.0	30
2	Oxo dicopper anchored on carbon nitride for selective oxidation of methane. <i>Nature Communications</i> , 2022, 13, 1375.	12.8	98
3	Ultrasound-mediated synthesis of nanoporous fluorite-structured high-entropy oxides toward noble metal stabilization. <i>IScience</i> , 2022, 25, 104214.	4.1	6
4	Measuring and directing charge transfer in heterogenous catalysts. <i>Nature Communications</i> , 2022, 13, .	12.8	19
5	Denary oxide nanoparticles as highly stable catalysts for methane combustion. <i>Nature Catalysis</i> , 2021, 4, 62-70.	34.4	153
6	<i>In Situ</i> Strong Metal-Support Interaction (SMSI) Affects Catalytic Alcohol Conversion. <i>ACS Catalysis</i> , 2021, 11, 1938-1945.	11.2	50
7	Carbon-Supported High-Entropy Oxide Nanoparticles as Stable Electrocatalysts for Oxygen Reduction Reactions. <i>Advanced Functional Materials</i> , 2021, 31, 2010561.	14.9	86
8	Extreme mixing in nanoscale transition metal alloys. <i>Matter</i> , 2021, 4, 2340-2353.	10.0	102
9	Scalable Synthesis of High Entropy Alloy Nanoparticles by Microwave Heating. <i>ACS Nano</i> , 2021, 15, 14928-14937.	14.6	85
10	Composition-dependent structure and properties of 5- and 15-element high-entropy alloy nanoparticles. <i>Cell Reports Physical Science</i> , 2021, 2, 100641.	5.6	8
11	A Theory-Guided X-ray Absorption Spectroscopy Approach for Identifying Active Sites in Atomically Dispersed Transition-Metal Catalysts. <i>Journal of the American Chemical Society</i> , 2021, 143, 20144-20156.	13.7	28
12	Continuous 2000-K droplet-to-particle synthesis. <i>Materials Today</i> , 2020, 35, 106-114.	14.2	43
13	Novel PMMA bone cement nanocomposites containing magnesium phosphate nanosheets and hydroxyapatite nanofibers. <i>Materials Science and Engineering C</i> , 2020, 109, 110497.	7.3	47
14	Continuous Synthesis of Hollow High-Entropy Nanoparticles for Energy and Catalysis Applications. <i>Advanced Materials</i> , 2020, 32, e2002853.	21.0	93
15	Alcohol-Induced Low-Temperature Blockage of Supported-Metal Catalysts for Enhanced Catalysis. <i>ACS Catalysis</i> , 2020, 10, 8515-8523.	11.2	18
16	Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports. <i>Nature Communications</i> , 2020, 11, 6373.	12.8	65
17	<i>In Situ</i> TEM Investigation on the Thermal Stability of Hydroxyapatite Nanobelts. <i>Microscopy and Microanalysis</i> , 2020, 26, 1426-1426.	0.4	0
18	<i>In Situ</i> TEM Visualization on the Super Flexibility of Multi-layered Hydroxyapatite Nanobelts with Antibacterial Property. <i>Microscopy and Microanalysis</i> , 2020, 26, 1428-1429.	0.4	0

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19	Computationally aided, entropy-driven synthesis of highly efficient and durable multi-elemental alloy catalysts. <i>Science Advances</i> , 2020, 6, eaaz0510.	10.3	158
20	Solution Blowing Synthesis of Li-Conductive Ceramic Nanofibers. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 16200-16208.	8.0	15
21	Synthesis of high-entropy alloy nanoparticles on supports by the fast moving bed pyrolysis. <i>Nature Communications</i> , 2020, 11, 2016.	12.8	195
22	High-throughput, combinatorial synthesis of multimetallic nanoclusters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 6316-6322.	7.1	119
23	High temperature shockwave stabilized single atoms. <i>Nature Nanotechnology</i> , 2019, 14, 851-857.	31.5	278
24	Stable Multimetallic Nanoparticles for Oxygen Electrocatalysis. <i>Nano Letters</i> , 2019, 19, 5149-5158.	9.1	94
25	Ultrafast, Controllable Synthesis of Sub-Nano Metallic Clusters through Defect Engineering. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 29773-29779.	8.0	28
26	Uniform, Scalable, High-Temperature Microwave Shock for Nanoparticle Synthesis through Defect Engineering. <i>Matter</i> , 2019, 1, 759-769.	10.0	58
27	Highly efficient decomposition of ammonia using high-entropy alloy catalysts. <i>Nature Communications</i> , 2019, 10, 4011.	12.8	376
28	In situ TEM Observation of Nanoparticles Formation during Carbothermal Shock. <i>Microscopy and Microanalysis</i> , 2019, 25, 1534-1535.	0.4	0
29	Metal-organic framework derived 3D graphene decorated $\text{NaTi}_2(\text{PO}_4)_3$ for fast Na-ion storage. <i>Nanoscale</i> , 2019, 11, 7347-7357.	5.6	23
30	Purifying the Phase of $\text{NaTi}_2(\text{PO}_4)_3$ for Enhanced Na^+ Storage Properties. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10663-10671.	8.0	27
31	Ordering Heterogeneity of $[\text{MnO}_6]$ Octahedra in Tunnel-Structured MnO_2 and Its Influence on Ion Storage. <i>Joule</i> , 2019, 3, 471-484.	24.0	123
32	High-rate, long cycle-life Li-ion battery anodes enabled by ultrasmall tin-based nanoparticles encapsulation. <i>Energy Storage Materials</i> , 2018, 14, 169-178.	18.0	47
33	Synergistic Effect of Graphene Oxide for Impeding the Dendritic Plating of Li. <i>Advanced Functional Materials</i> , 2018, 28, 1705917.	14.9	92
34	<i>In situ</i> visualization of the superior nanomechanical flexibility of individual hydroxyapatite nanobelts. <i>CrystEngComm</i> , 2018, 20, 1031-1036.	2.6	7
35	Directly Formed Alucone on Lithium Metal for High-Performance Li Batteries and Li-S Batteries with High Sulfur Mass Loading. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 7043-7051.	8.0	66
36	Facile hydrothermal synthesis of antibacterial multi-layered hydroxyapatite nanostructures with superior flexibility. <i>CrystEngComm</i> , 2018, 20, 1304-1312.	2.6	15

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37	Carbothermal shock synthesis of high-entropy-alloy nanoparticles. <i>Science</i> , 2018, 359, 1489-1494.	12.6	1,065
38	Cations controlled growth of γ -MnO ₂ crystals with tunable facets for electrochemical energy storage. <i>Nano Energy</i> , 2018, 48, 301-311.	16.0	56
39	Energy-driven surface evolution in beta-MnO ₂ structures. <i>Nano Research</i> , 2018, 11, 206-215.	10.4	15
40	High-Temperature Atomic Mixing toward Well-Dispersed Bimetallic Electrocatalysts. <i>Advanced Energy Materials</i> , 2018, 8, 1800466.	19.5	43
41	Novel ALD Chemistry Enabled Low-Temperature Synthesis of Lithium Fluoride Coatings for Durable Lithium Anodes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 26972-26981.	8.0	99
42	Elevated-Temperature 3D Printing of Hybrid Solid-State Electrolyte for Li-Ion Batteries. <i>Advanced Materials</i> , 2018, 30, e1800615.	21.0	159
43	<i>In Situ</i> High Temperature Synthesis of Single-Component Metallic Nanoparticles. <i>ACS Central Science</i> , 2017, 3, 294-301.	11.3	34
44	Local Lattice Distortion Activate Metastable Metal Sulfide as Catalyst with Stable Full Discharge-Charge Capability for Li-O ₂ Batteries. <i>Nano Letters</i> , 2017, 17, 3518-3526.	9.1	68
45	Lithium metal protected by atomic layer deposition metal oxide for high performance anodes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12297-12309.	10.3	150
46	Engineering of highly ordered TiO ₂ nanopore arrays by anodization. <i>Applied Surface Science</i> , 2016, 377, 335-339.	6.1	10
47	Mechanistic study of selective catalytic reduction of NO with NH ₃ over highly dispersed Fe ₂ O ₃ loaded on Fe-ZSM-5. <i>RSC Advances</i> , 2016, 6, 6300-6307.	3.6	12