Zhennan Huang

List of Publications by Year in descending order

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		172457	214800
47	4,388	29	47
papers	citations	h-index	g-index

50	50	50	4672
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Carbothermal shock synthesis of high-entropy-alloy nanoparticles. Science, 2018, 359, 1489-1494.	12.6	1,065
2	Highly efficient decomposition of ammonia using high-entropy alloy catalysts. Nature Communications, 2019, 10, 4011.	12.8	376
3	High temperature shockwave stabilized single atoms. Nature Nanotechnology, 2019, 14, 851-857.	31.5	278
4	Synthesis of high-entropy alloy nanoparticles on supports by the fast moving bed pyrolysis. Nature Communications, 2020, 11, 2016.	12.8	195
5	Elevatedâ€Temperature 3D Printing of Hybrid Solidâ€State Electrolyte for Liâ€Ion Batteries. Advanced Materials, 2018, 30, e1800615.	21.0	159
6	Computationally aided, entropy-driven synthesis of highly efficient and durable multi-elemental alloy catalysts. Science Advances, 2020, 6, eaaz0510.	10.3	158
7	Denary oxide nanoparticles as highly stable catalysts for methane combustion. Nature Catalysis, 2021, 4, 62-70.	34.4	153
8	Lithium metal protected by atomic layer deposition metal oxide for high performance anodes. Journal of Materials Chemistry A, 2017, 5, 12297-12309.	10.3	150
9	Ordering Heterogeneity of [MnO6] Octahedra in Tunnel-Structured MnO2 and Its Influence on Ion Storage. Joule, 2019, 3, 471-484.	24.0	123
10	High-throughput, combinatorial synthesis of multimetallic nanoclusters. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6316-6322.	7.1	119
11	Extreme mixing in nanoscale transition metal alloys. Matter, 2021, 4, 2340-2353.	10.0	102
12	Novel ALD Chemistry Enabled Low-Temperature Synthesis of Lithium Fluoride Coatings for Durable Lithium Anodes. ACS Applied Materials & Interfaces, 2018, 10, 26972-26981.	8.0	99
13	Oxo dicopper anchored on carbon nitride for selective oxidation of methane. Nature Communications, 2022, 13, 1375.	12.8	98
14	Stable Multimetallic Nanoparticles for Oxygen Electrocatalysis. Nano Letters, 2019, 19, 5149-5158.	9.1	94
15	Continuous Synthesis of Hollow Highâ€Entropy Nanoparticles for Energy and Catalysis Applications. Advanced Materials, 2020, 32, e2002853.	21.0	93
16	Synergistic Effect of Graphene Oxide for Impeding the Dendritic Plating of Li. Advanced Functional Materials, 2018, 28, 1705917.	14.9	92
17	Carbonâ€Supported Highâ€Entropy Oxide Nanoparticles as Stable Electrocatalysts for Oxygen Reduction Reactions. Advanced Functional Materials, 2021, 31, 2010561.	14.9	86
18	Scalable Synthesis of High Entropy Alloy Nanoparticles by Microwave Heating. ACS Nano, 2021, 15, 14928-14937.	14.6	85

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19	Local Lattice Distortion Activate Metastable Metal Sulfide as Catalyst with Stable Full Dischargeâ€“Charge Capability for Liâ€“O₂ Batteries. Nano Letters, 2017, 17, 3518-3526.	9.1	68
20	Directly Formed Alucone on Lithium Metal for High-Performance Li Batteries and Liâ€“S Batteries with High Sulfur Mass Loading. ACS Applied Materials & Interfaces, 2018, 10, 7043-7051.	8.0	66
21	Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports. Nature Communications, 2020, 11, 6373.	12.8	65
22	Uniform, Scalable, High-Temperature Microwave Shock for Nanoparticle Synthesis through Defect Engineering. Matter, 2019, 1, 759-769.	10.0	58
23	Cations controlled growth of Î²-MnO2 crystals with tunable facets for electrochemical energy storage. Nano Energy, 2018, 48, 301-311.	16.0	56
24	In Situ Strong Metalâ€“Support Interaction (SMSI) Affects Catalytic Alcohol Conversion. ACS Catalysis, 2021, 11, 1938-1945.	11.2	50
25	High-rate, long cycle-life Li-ion battery anodes enabled by ultrasmall tin-based nanoparticles encapsulation. Energy Storage Materials, 2018, 14, 169-178.	18.0	47
26	Novel PMMA bone cement nanocomposites containing magnesium phosphate nanosheets and hydroxyapatite nanofibers. Materials Science and Engineering C, 2020, 109, 110497.	7.3	47
27	Highâ€Temperature Atomic Mixing toward Wellâ€Dispersed Bimetallic Electrocatalysts. Advanced Energy Materials, 2018, 8, 1800466.	19.5	43
28	Continuous 2000â€¯K droplet-to-particle synthesis. Materials Today, 2020, 35, 106-114.	14.2	43
29	In Situ High Temperature Synthesis of Single-Component Metallic Nanoparticles. ACS Central Science, 2017, 3, 294-301.	11.3	34
30	Interface Engineering Between Multiâ€Elemental Alloy Nanoparticles and a Carbon Support Toward Stable Catalysts. Advanced Materials, 2022, 34, e2106436.	21.0	30
31	Ultrafast, Controllable Synthesis of Sub-Nano Metallic Clusters through Defect Engineering. ACS Applied Materials & Interfaces, 2019, 11, 29773-29779.	8.0	28
32	A Theory-Guided X-ray Absorption Spectroscopy Approach for Identifying Active Sites in Atomically Dispersed Transition-Metal Catalysts. Journal of the American Chemical Society, 2021, 143, 20144-20156.	13.7	28
33	Purifying the Phase of NaTi₂(PO₄)₃ for Enhanced Na⁺ Storage Properties. ACS Applied Materials & Interfaces, 2019, 11, 10663-10671.	8.0	27
34	Metalâ€“organic framework derived 3D graphene decorated NaTi₂(PO₄)₃ for fast Na-ion storage. Nanoscale, 2019, 11, 7347-7357.	5.6	23
35	Measuring and directing charge transfer in heterogenous catalysts. Nature Communications, 2022, 13, .	12.8	19
36	Alcohol-Induced Low-Temperature Blockage of Supported-Metal Catalysts for Enhanced Catalysis. ACS Catalysis, 2020, 10, 8515-8523.	11.2	18

#	Article	IF	Citations
37	Facile hydrothermal synthesis of antibacterial multi-layered hydroxyapatite nanostructures with superior flexibility. CrystEngComm, 2018, 20, 1304-1312.	2.6	15
38	Energy-driven surface evolution in beta-MnO2 structures. Nano Research, 2018, 11, 206-215.	10.4	15
39	Solution Blowing Synthesis of Li-Conductive Ceramic Nanofibers. ACS Applied Materials & Interfaces, 2020, 12, 16200-16208.	8.0	15
40	Mechanistic study of selective catalytic reduction of NO with NH3 over highly dispersed Fe2O3 loaded on Fe-ZSM-5. RSC Advances, 2016, 6, 6300-6307.	3.6	12
41	Engineering of highly ordered TiO 2 nanopore arrays by anodization. Applied Surface Science, 2016, 377, 335-339.	6.1	10
42	Composition-dependent structure and properties of 5- and 15-element high-entropy alloy nanoparticles. Cell Reports Physical Science, 2021, 2, 100641.	5.6	8
43	In situ visualization of the superior nanomechanical flexibility of individual hydroxyapatite nanobelts. CrystEngComm, 2018, 20, 1031-1036.	2.6	7
44	Ultrasound-mediated synthesis of nanoporous fluorite-structured high-entropy oxides toward noble metal stabilization. IScience, 2022, 25, 104214.	4.1	6
45	In situ TEM Observation of Nanoparticles Formation during Carbothermal Shock. Microscopy and Microanalysis, 2019, 25, 1534-1535.	0.4	0
46	In Situ TEM Investigation on the Thermal Stability of Hydroxyapatite Nanobelts. Microscopy and Microanalysis, 2020, 26, 1426-1426.	0.4	0
47	In Situ TEM Visualization on the Super Flexibility of Multi-layered Hydroxyapatite Nanobelts with Antibacterial Property. Microscopy and Microanalysis, 2020, 26, 1428-1429.	0.4	0