Zhenming Cao

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6178839/publications.pdf

Version: 2024-02-01

34 papers	2,189 citations	257450 24 h-index	377865 34 g-index
34 all docs	34 docs citations	34 times ranked	3177 citing authors

#	Article	IF	Citations
1	Platinum-nickel alloy excavated nano-multipods with hexagonal close-packed structure and superior activity towards hydrogen evolution reaction. Nature Communications, 2017, 8, 15131.	12.8	364
2	The physical chemistry and materials science behind sinter-resistant catalysts. Chemical Society Reviews, 2018, 47, 4314-4331.	38.1	236
3	Inflating hollow nanocrystals through a repeated Kirkendall cavitation process. Nature Communications, 2017, 8, 1261.	12.8	135
4	Cyclic Penta-Twinned Rhodium Nanobranches as Superior Catalysts for Ethanol Electro-oxidation. Journal of the American Chemical Society, 2018, 140, 11232-11240.	13.7	133
5	Stable palladium hydride as a superior anode electrocatalyst for direct formic acid fuel cells. Nano Energy, 2018, 44, 127-134.	16.0	131
6	Excavated octahedral Pt-Co alloy nanocrystals built with ultrathin nanosheets as superior multifunctional electrocatalysts for energy conversion applications. Nano Energy, 2017, 39, 582-589.	16.0	130
7	Ptâ€“Co@Pt Octahedral Nanocrystals: Enhancing Their Activity and Durability toward Oxygen Reduction with an Intermetallic Core and an Ultrathin Shell. Journal of the American Chemical Society, 2021, 143, 8509-8518.	13.7	128
8	Excavated Cubic Platinumâ€“Tin Alloy Nanocrystals Constructed from Ultrathin Nanosheets with Enhanced Electrocatalytic Activity. Angewandte Chemie - International Edition, 2016, 55, 9021-9025.	13.8	111
9	Tuning Electrochemical Properties of Li-Rich Layered Oxide Cathodes by Adjusting Co/Ni Ratios and Mechanism Investigation Using in situ X-ray Diffraction and Online Continuous Flow Differential Electrochemical Mass Spectrometry. ACS Applied Materials & Interfaces, 2018, 10, 12666-12677.	8.0	72
10	Catalytic System Based on Sub-2 nm Pt Particles and Its Extraordinary Activity and Durability for Oxygen Reduction. Nano Letters, 2019, 19, 4997-5002.	9.1	68
11	Synthesis of u-channelled spherical Fe_x(Co_yNi_{1â^'y})_{100â^'x} Janus colloidal particles with excellent electromagnetic wave absorption performance. Nanoscale, 2018, 10, 1930-1938.	5.6	67
12	Controlled Encapsulation of Flower-like Rhâ€“Ni Alloys with MOFs via Tunable Template Dealloying for Enhanced Selective Hydrogenation of Alkyne. ACS Applied Materials & Interfaces, 2016, 8, 31059-31066.	8.0	52
13	Trimetallic PtNiCo branched nanocages as efficient and durable bifunctional electrocatalysts towards oxygen reduction and methanol oxidation reactions. Journal of Materials Chemistry A, 2021, 9, 23444-23450.	10.3	49
14	Size controllable redispersion of sintered Au nanoparticles by using iodohydrocarbon and its implications. Chemical Science, 2016, 7, 3181-3187.	7.4	46
15	Pdâ€Ru Alloy Nanocages with a Faceâ€Centered Cubic Structure and Their Enhanced Activity toward the Oxidation of Ethylene Glycol and Glycerol. Small Methods, 2020, 4, 1900843.	8.6	46
16	Seed-Mediated Growth of Au Nanospheres into Hexagonal Stars and the Emergence of a Hexagonal Close-Packed Phase. Nano Letters, 2019, 19, 3115-3121.	9.1	44
17	Monocrystalline platinumâ€“nickel branched nanocages with enhanced catalytic performance towards the hydrogen evolution reaction. Nanoscale, 2018, 10, 5072-5077.	5.6	39
18	Synthesis and enhanced electromagnetic wave absorption performance of amorphous CoxFe10-x alloys. Journal of Alloys and Compounds, 2017, 726, 1255-1261.	5.5	35

#	Article	IF	Citations
19	Ligand-Assisted, One-Pot Synthesis of Rh-on-Cu Nanoscale Sea Urchins with High-Density Interfaces for Boosting CO Oxidation. Nano Letters, 2017, 17, 7613-7619.	9.1	32
20	Coordination effect assisted synthesis of ultrathin Pt layers on second metal nanocrystals as efficient oxygen reduction electrocatalysts. Journal of Materials Chemistry A, 2016, 4, 13033-13039.	10.3	31
21	Composition-tunable synthesis of Ptâ€“Cu octahedral alloy nanocrystals from PtCu to PtCu3via underpotential-deposition-like process and their electro-catalytic properties. RSC Advances, 2015, 5, 18153-18158.	3.6	30
22	Sierpinski gasket-like Ptâ€“Ag octahedral alloy nanocrystals with enhanced electrocatalytic activity and stability. Nano Energy, 2019, 61, 397-403.	16.0	29
23	Synthesis of composition-tunable octahedral Ptâ€“Cu alloy nanocrystals by controlling reduction kinetics of metal precursors. Science Bulletin, 2015, 60, 1002-1008.	9.0	26
24	Synchronous Manipulation of Ion and Electron Transfer in Wadsleyâ€“Roth Phase Tiâ€Nb Oxides for Fastâ€Charging Lithiumâ€Ion Batteries. Advanced Science, 2022, 9, e2104530.	11.2	26
25	One-pot synthesis of single-crystalline PtPb nanodendrites with enhanced activity for electrooxidation of formic acid. Chemical Communications, 2016, 52, 4493-4496.	4.1	25
26	How to Remove the Capping Agent from Pd Nanocubes without Destructing Their Surface Structure for the Maximization of Catalytic Activity?. Angewandte Chemie - International Edition, 2020, 59, 19129-19135.	13.8	24
27	Excavated Cubic Platinumâ€“Tin Alloy Nanocrystals Constructed from Ultrathin Nanosheets with Enhanced Electrocatalytic Activity. Angewandte Chemie, 2016, 128, 9167-9171.	2.0	20
28	Solvent-dependent evolution of cyclic penta-twinned rhodium icosahedral nanocrystals and their enhanced catalytic properties. Nano Research, 2018, 11, 656-664.	10.4	19
29	Facile Synthesis of Pt Icosahedral Nanocrystals with Controllable Sizes for the Evaluation of Sizeâ€Dependent Activity toward Oxygen Reduction. ChemCatChem, 2019, 11, 2458-2463.	3.7	11
30	PtCo-excavated rhombic dodecahedral nanocrystals for efficient electrocatalysis. Nanoscale Advances, 2020, 2, 4881-4886.	4.6	9
31	Continuous and Scalable Synthesis of Pt Multipods with Enhanced Electrocatalytic Activity toward the Oxygen Reduction Reaction. ChemNanoMat, 2019, 5, 599-605.	2.8	8
32	Facile Synthesis of Ag@Pd_{nL} Icosahedral Nanocrystals as a Class of Costâ€Effective Electrocatalysts toward Formic Acid Oxidation. ChemCatChem, 2020, 12, 5156-5163.	3.7	8
33	A New Catalytic System with Balanced Activity and Durability toward Oxygen Reduction. ChemCatChem, 2020, 12, 4817-4824.	3.7	3
34	How to Remove the Capping Agent from Pd Nanocubes without Destructing Their Surface Structure for the Maximization of Catalytic Activity?. Angewandte Chemie, 2020, 132, 19291-19297.	2.0	2