

Ming Zhao

List of Publications by Year in descending order

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47
papers

2,453
citations

236612

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docs citations

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times ranked

2977
citing authors

#	ARTICLE	IF	CITATIONS
1	Noble-Metal Nanocrystals with Controlled Shapes for Catalytic and Electrocatalytic Applications. <i>Chemical Reviews</i> , 2021, 121, 649-735.	23.0	388
2	Synthesis and Characterization of Pt–Ag Alloy Nanocages with Enhanced Activity and Durability toward Oxygen Reduction. <i>Nano Letters</i> , 2016, 16, 6644-6649.	4.5	150
3	Synthesis of Colloidal Metal Nanocrystals: A Comprehensive Review on the Reductants. <i>Chemistry - A European Journal</i> , 2018, 24, 16944-16963.	1.7	143
4	Ru Octahedral Nanocrystals with a Face-Centered Cubic Structure, {111} Facets, Thermal Stability up to 400 Å°C, and Enhanced Catalytic Activity. <i>Journal of the American Chemical Society</i> , 2019, 141, 7028-7036.	6.6	122
5	Ruthenium–platinum core–shell nanocatalysts with substantially enhanced activity and durability towards methanol oxidation. <i>Nano Energy</i> , 2016, 21, 247-257.	8.2	121
6	Crystal-phase and surface-structure engineering of ruthenium nanocrystals. <i>Nature Reviews Materials</i> , 2020, 5, 440-459.	23.3	118
7	Shape–Controlled Synthesis of Colloidal Metal Nanocrystals by Replicating the Surface Atomic Structure on the Seed. <i>Advanced Materials</i> , 2018, 30, e1706312.	11.1	114
8	Synthesis and Characterization of Ru Cubic Nanocages with a Face-Centered Cubic Structure by Templating with Pd Nanocubes. <i>Nano Letters</i> , 2016, 16, 5310-5317.	4.5	110
9	The degradation study of Nafion/PTFE composite membrane in PEM fuel cell under accelerated stress tests. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 14381-14390.	3.8	103
10	Decahedral nanocrystals of noble metals: Synthesis, characterization, and applications. <i>Materials Today</i> , 2019, 22, 108-131.	8.3	92
11	Hollow Metal Nanocrystals with Ultrathin, Porous Walls and Well–Controlled Surface Structures. <i>Advanced Materials</i> , 2018, 30, e1801956.	11.1	83
12	Catalytic System Based on Sub-2 nm Pt Particles and Its Extraordinary Activity and Durability for Oxygen Reduction. <i>Nano Letters</i> , 2019, 19, 4997-5002.	4.5	68
13	Synthesis of Ru Icosahedral Nanocages with a Face-Centered-Cubic Structure and Evaluation of Their Catalytic Properties. <i>ACS Catalysis</i> , 2018, 8, 6948-6960.	5.5	66
14	Synthesis of Pt nanocrystals with different shapes using the same protocol to optimize their catalytic activity toward oxygen reduction. <i>Materials Today</i> , 2018, 21, 834-844.	8.3	58
15	Facile Synthesis of Ru-Based Octahedral Nanocages with Ultrathin Walls in a Face-Centered Cubic Structure. <i>Chemistry of Materials</i> , 2017, 29, 9227-9237.	3.2	55
16	Incorporation of gold nanocages into electrospun nanofibers for efficient water evaporation through photothermal heating. <i>Materials Today Energy</i> , 2019, 12, 129-135.	2.5	54
17	Enabling Complete Ligand Exchange on the Surface of Gold Nanocrystals through the Deposition and Then Etching of Silver. <i>Journal of the American Chemical Society</i> , 2018, 140, 11898-11901.	6.6	53
18	Ruthenium Nanoframes in the Face-Centered Cubic Phase: Facile Synthesis and Their Enhanced Catalytic Performance. <i>ACS Nano</i> , 2019, 13, 7241-7251.	7.3	47

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19	Pd-Ru Alloy Nanocages with a Face-Centered Cubic Structure and Their Enhanced Activity toward the Oxidation of Ethylene Glycol and Glycerol. <i>Small Methods</i> , 2020, 4, 1900843.	4.6	46
20	Vitamin E assisted polymer electrolyte fuel cells. <i>Energy and Environmental Science</i> , 2014, 7, 3362-3370.	15.6	35
21	Influence of Membrane Thickness on Membrane Degradation and Platinum Agglomeration under Long-term Open Circuit Voltage Conditions. <i>Electrochimica Acta</i> , 2015, 153, 254-262.	2.6	35
22	A Rationally Designed Route to the One-Pot Synthesis of Right Bipyramidal Nanocrystals of Copper. <i>Chemistry of Materials</i> , 2018, 30, 6469-6477.	3.2	28
23	Performance improvement of the open-cathode proton exchange membrane fuel cell by optimizing membrane electrode assemblies. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 7159-7167.	3.8	27
24	Site-selective growth of Ag nanocubes for sharpening their corners and edges, followed by elongation into nanobars through symmetry reduction. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1384-1392.	2.7	27
25	Kinetically Controlled Synthesis of Rhodium Nanocrystals with Different Shapes and a Comparison Study of Their Thermal and Catalytic Properties. <i>Journal of the American Chemical Society</i> , 2021, 143, 6293-6302.	6.6	26
26	Nanoscale cooperative adsorption for materials control. <i>Nature Communications</i> , 2021, 12, 4287.	5.8	26
27	The performance improvement of membrane and electrode assembly in open-cathode proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 10978-10984.	3.8	22
28	Au@Cu Core-Shell Nanocubes with Controllable Sizes in the Range of 20-30 nm for Applications in Catalysis and Plasmonics. <i>ACS Applied Nano Materials</i> , 2019, 2, 1533-1540.	2.4	22
29	Quantitative Analysis of the Multiple Roles Played by Halide Ions in Controlling the Growth Patterns of Palladium Nanocrystals. <i>ChemNanoMat</i> , 2020, 6, 576-588.	1.5	21
30	Toward a Quantitative Understanding of the Sulfate-Mediated Synthesis of Pd Decahedral Nanocrystals with High Conversion and Morphology Yields. <i>Chemistry of Materials</i> , 2016, 28, 8800-8806.	3.2	20
31	Enhancing the tactile and near-infrared sensing capabilities of electrospun PVDF nanofibers with the use of gold nanocages. <i>Journal of Materials Chemistry C</i> , 2018, 6, 10263-10269.	2.7	18
32	Analysis of carbon-supported platinum through potential cycling and potential-static holding. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 13725-13737.	3.8	17
33	Rhodium Decahedral Nanocrystals: Facile Synthesis, Mechanistic Insights, and Experimental Controls. <i>ChemNanoMat</i> , 2018, 4, 66-70.	1.5	15
34	Assessing the shear band velocity in metallic glasses using a coupled thermo-mechanical model. <i>Philosophical Magazine Letters</i> , 2011, 91, 705-712.	0.5	13
35	Gold icosahedral nanocages: Facile synthesis, optical properties, and fragmentation under ultrasonication. <i>Chemical Physics Letters</i> , 2017, 683, 613-618.	1.2	13
36	Pt-Co truncated octahedral nanocrystals: a class of highly active and durable catalysts toward oxygen reduction. <i>Nanoscale</i> , 2020, 12, 11718-11727.	2.8	13

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37	One-Pot Synthesis of Pd@Pt _n Core-Shell Icosahedral Nanocrystals in High Throughput through a Quantitative Analysis of the Reduction Kinetics. Chemistry - A European Journal, 2019, 25, 5322-5329.	1.7	12
38	Exploring Plasmonic Photocatalysis via Single-Molecule Reaction Imaging. Nano Letters, 2020, 20, 2939-2940.	4.5	12
39	Graphene coated La ³⁺ /Sc ³⁺ co-doped Li ₄ Ti ₅ O ₁₂ anodes for enhanced Li-ion battery performance. Materials Letters, 2017, 193, 179-182.	1.3	11
40	Quantitative analysis of the reduction kinetics of a Pt(II) precursor in the context of Pt nanocrystal synthesis. Chinese Journal of Chemical Physics, 2018, 31, 370-374.	0.6	11
41	Facile Synthesis of Pt Icosahedral Nanocrystals with Controllable Sizes for the Evaluation of Size-Dependent Activity toward Oxygen Reduction. ChemCatChem, 2019, 11, 2458-2463.	1.8	11
42	Toward affordable and sustainable use of precious metals in catalysis and nanomedicine. MRS Bulletin, 2018, 43, 860-869.	1.7	9
43	Pd-Au Asymmetric Nanopyramids: Lateral vs Vertical Growth of Au on Pd Decahedral Seeds. Chemistry of Materials, 2021, 33, 5391-5400.	3.2	9
44	A Simple Route to the Synthesis of Pt Nanobars and the Mechanistic Understanding of Symmetry Reduction. Chemistry - A European Journal, 2021, 27, 2760-2766.	1.7	5
45	Facile synthesis of Pt-Ag octahedral and tetrahedral nanocrystals with enhanced activity and durability toward methanol oxidation. Journal of Materials Research, 2018, 33, 3891-3897.	1.2	3
46	Synthesis and Characterization of Pt-Ag Icosahedral Nanocages with Enhanced Catalytic Activity toward Oxygen Reduction. ChemNanoMat, 0, , .	1.5	1
47	Frontispiece: Synthesis of Colloidal Metal Nanocrystals: A Comprehensive Review on the Reductants. Chemistry - A European Journal, 2018, 24, .	1.7	0