Kyle D Gilroy

List of Publications by Year
in descending order

58 papers	4,620 citations	159585 30 h-index	138484 58 g-index
60 all docs	60 docs citations	60 times ranked	6520 citing authors

#	Article	IF	Citations
1	Decomposition Kinetics of H₂O₂ on Pd Nanocrystals with Different Shapes and Surface Strains. ChemCatChem, 2022, 14, .	3.7	5
2	Colloidal Nanospheres of Amorphous Selenium: Facile Synthesis, Size Control, and Optical Properties. ChemNanoMat, 2021, 7, 620-625.	2.8	5
3	General Approach to the Synthesis of Heterodimers of Metal Nanoparticles through Site-Selected Protection and Growth. Nano Letters, 2019, 19, 6703-6708.	9.1	51
4	Photothermal transformation of Auâ€“Ag nanocages under pulsed laser irradiation. Nanoscale, 2019, 11, 3013-3020.	5.6	29
5	Ruthenium Nanoframes in the Face-Centered Cubic Phase: Facile Synthesis and Their Enhanced Catalytic Performance. ACS Nano, 2019, 13, 7241-7251.	14.6	47
6	Synthesis and Properties of Au Hydride. ChemistrySelect, 2019, 4, 4287-4292.	1.5	4
7	A facile, robust and scalable method for the synthesis of Pd nanoplates with hydroxylamine as a reducing agent and mechanistic insights from kinetic analysis. Journal of Materials Chemistry C, 2018, 6, 4677-4682.	5.5	22
8	Synthesis of Palladium Nanoscale Octahedra through a Oneâ€Pot, Dualâ€Reductant Route and Kinetic Analysis. Chemistry - A European Journal, 2018, 24, 6133-6139.	3.3	18
9	Rhodium Decahedral Nanocrystals: Facile Synthesis, Mechanistic Insights, and Experimental Controls. ChemNanoMat, 2018, 4, 66-70.	2.8	15
10	Frontispiece: Synthesis of Colloidal Metal Nanocrystals: A Comprehensive Review on the Reductants. Chemistry - A European Journal, 2018, 24, .	3.3	0
11	Electrospun metal and metal alloy decorated TiO2 nanofiber photocatalysts for hydrogen generation. RSC Advances, 2018, 8, 32865-32876.	3.6	15
12	A Rationally Designed Route to the One-Pot Synthesis of Right Bipyramidal Nanocrystals of Copper. Chemistry of Materials, 2018, 30, 6469-6477.	6.7	28
13	Synthesis of Pt nanocrystals with different shapes using the same protocol to optimize their catalytic activity toward oxygen reduction. Materials Today, 2018, 21, 834-844.	14.2	58
14	Enabling Complete Ligand Exchange on the Surface of Gold Nanocrystals through the Deposition and Then Etching of Silver. Journal of the American Chemical Society, 2018, 140, 11898-11901.	13.7	53
15	Synthesis of Ru Icosahedral Nanocages with a Face-Centered-Cubic Structure and Evaluation of Their Catalytic Properties. ACS Catalysis, 2018, 8, 6948-6960.	11.2	66
16	Shapeâ€Controlled Synthesis of Colloidal Metal Nanocrystals by Replicating the Surface Atomic Structure on the Seed. Advanced Materials, 2018, 30, e1706312.	21.0	114
17	Fabrication of Subâ€Micrometerâ€Thick Solid Electrolyte Membranes of Î²â€Li₃PS₄ via Tiled Assembly of Nanoscale, Plateâ€Like Building Blocks. Advanced Energy Materials, 2018, 8, 1800014.	19.5	47
18	Hollow Metal Nanocrystals with Ultrathin, Porous Walls and Wellâ€Controlled Surface Structures. Advanced Materials, 2018, 30, e1801956.	21.0	83

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19	Synthesis of Colloidal Metal Nanocrystals: A Comprehensive Review on the Reductants. Chemistry - A European Journal, 2018, 24, 16944-16963.	3.3	143
20	Pentatwinned Cu Nanowires with Ultrathin Diameters below 20â€…nm and Their Use as Templates for the Synthesis of Auâ€Based Nanotubes. ChemNanoMat, 2017, 3, 190-195.	2.8	25
21	Intermetallic Nanocrystals: Syntheses and Catalytic Applications. Advanced Materials, 2017, 29, 1605997.	21.0	375
22	Gold icosahedral nanocages: Facile synthesis, optical properties, and fragmentation under ultrasonication. Chemical Physics Letters, 2017, 683, 613-618.	2.6	13
23	Thermal Stability of Metal Nanocrystals: An Investigation of the Surface and Bulk Reconstructions of Pd Concave Icosahedra. Nano Letters, 2017, 17, 3655-3661.	9.1	43
24	On the Thermodynamics and Experimental Control of Twinning in Metal Nanocrystals. Angewandte Chemie, 2017, 129, 8773-8777.	2.0	6
25	On the Thermodynamics and Experimental Control of Twinning in Metal Nanocrystals. Angewandte Chemie - International Edition, 2017, 56, 8647-8651.	13.8	21
26	Symmetry breaking during nanocrystal growth. Chemical Communications, 2017, 53, 4530-4541.	4.1	84
27	Keimvermitteltes Wachstum kolloidaler Metallnanokristalle. Angewandte Chemie, 2017, 129, 60-98.	2.0	64
28	Seedâ€Mediated Growth of Colloidal Metal Nanocrystals. Angewandte Chemie - International Edition, 2017, 56, 60-95.	13.8	581
29	Facile Synthesis of Ru-Based Octahedral Nanocages with Ultrathin Walls in a Face-Centered Cubic Structure. Chemistry of Materials, 2017, 29, 9227-9237.	6.7	55
30	Waterâ€Based Synthesis of Subâ€10 nm Pt Octahedra and Their Performance towards the Oxygen Reduction Reaction. ChemNanoMat, 2017, 3, 879-884.	2.8	22
31	Icosahedral nanocrystals of noble metals: Synthesis and applications. Nano Today, 2017, 15, 121-144.	11.9	83
32	Controlling the Deposition of Pd on Au Nanocages: Outer Surface Only versus Both Outer and Inner Surfaces. Nano Letters, 2017, 17, 5682-5687.	9.1	12
33	Reduction rate as a quantitative knob for achieving deterministic synthesis of colloidal metal nanocrystals. Chemical Science, 2017, 8, 6730-6749.	7.4	75
34	Autocatalytic surface reduction and its role in controlling seed-mediated growth of colloidal metal nanocrystals. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13619-13624.	7.1	64
35	Facile Synthesis of ⁶⁴Cuâ€Doped Au Nanocages for Positron Emission Tomography Imaging. ChemNanoMat, 2017, 3, 44-50.	2.8	16
36	A General Approach to the Synthesis of M@Au/Ag (M = Au, Pd, and Pt) Nanorattles with Ultrathin Shells Less Than 2.5 nm Thick. Particle and Particle Systems Characterization, 2017, 34, 1600279.	2.3	9

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37	Bimetallic Nanocrystals: Syntheses, Properties, and Applications. Chemical Reviews, 2016, 116, 10414-10472.	47.7	1,339
38	Micropatterned Polymer Nanorod Forests and Their Use for Dual Drug Loading and Regulation of Cell Adhesion. ACS Applied Materials & Interfaces, 2016, 8, 34194-34197.	8.0	6
39	A Wulff in a Cage: The Confinement of Substrate-Based Structures in Plasmonic Nanoshells, Nanocages, and Nanoframes Using Galvanic Replacement. ACS Nano, 2016, 10, 6354-6362.	14.6	50
40	Plastically deformed Cu-based alloys as high-performance catalysts for the reduction of 4-nitrophenol. Catalysis Science and Technology, 2016, 6, 5737-5745.	4.1	15
41	Palladium@Platinum Concave Nanocubes with Enhanced Catalytic Activity toward Oxygen Reduction. ChemCatChem, 2016, 8, 3082-3088.	3.7	19
42	Dimerization of Colloidal Particles through Controlled Aggregation for Enhanced Properties and Applications. Chemistry - an Asian Journal, 2016, 11, 2341-2351.	3.3	15
43	Toward a Quantitative Understanding of the Sulfate-Mediated Synthesis of Pd Decahedral Nanocrystals with High Conversion and Morphology Yields. Chemistry of Materials, 2016, 28, 8800-8806.	6.7	20
44	Facile Synthesis of Silver Nanocubes with Sharp Corners and Edges in an Aqueous Solution. ACS Nano, 2016, 10, 9861-9870.	14.6	149
45	Noble Metal Nanostructure Synthesis at the Liquidâ€“Substrate Interface: New Structures, New Insights, and New Possibilities. Accounts of Chemical Research, 2016, 49, 2243-2250.	15.6	46
46	Gold-Based Cubic Nanoboxes with Well-Defined Openings at the Corners and Ultrathin Walls Less Than Two Nanometers Thick. ACS Nano, 2016, 10, 8019-8025.	14.6	65
47	Citrateâ€Induced Nanocubes: A Reâ€Examination of the Role of Citrate as a Shapeâ€Directing Capping Agent for Agâ€Based Nanostructures. Small, 2016, 12, 3444-3452.	10.0	27
48	Photocatalytic Enhancements to the Reduction of 4-Nitrophenol by Resonantly Excited Triangular Goldâ€“Copper Nanostructures. Journal of Physical Chemistry C, 2015, 119, 17308-17315.	3.1	71
49	Eutectic Combinations as a Pathway to the Formation of Substrateâ€Based Auâ€Ge Heterodimers and Hollowed Au Nanocrescents with Tunable Optical Properties. Small, 2014, 10, 3379-3388.	10.0	13
50	Mechanistic study of substrate-based galvanic replacement reactions. Nano Research, 2014, 7, 365-379.	10.4	32
51	Kinetically Controlled Nucleation of Silver on Surfactant-Free Gold Seeds. Journal of the American Chemical Society, 2014, 136, 15337-15345.	13.7	62
52	Textile-templated electrospun anisotropic scaffolds for regenerative cardiac tissue engineering. Biomaterials, 2014, 35, 8540-8552.	11.4	85
53	Seeing Is Believing: Hot Electron Based Gold Nanoplasmonic Optical Hydrogen Sensor. ACS Nano, 2014, 8, 7755-7762.	14.6	80
54	Sacrificial Templates for Galvanic Replacement Reactions: Design Criteria for the Synthesis of Pure Pt Nanoshells with a Smooth Surface Morphology. Chemistry of Materials, 2014, 26, 3340-3347.	6.7	72

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55	Behavior of gold nanoparticles in an experimental algalâ€“zooplankton food chain. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	18
56	Substrate-based galvanic replacement reactions carried out on heteroepitaxially formed silver templates. Nano Research, 2013, 6, 418-428.	10.4	26
57	Organized Surfaces of Highly Faceted Single-Crystal Palladium Structures Seeded by Sacrificial Templates. Crystal Growth and Design, 2013, 13, 3847-3851.	3.0	11
58	Dynamic templating: a large area processing route for the assembly of periodic arrays of sub-micrometer and nanoscale structures. Nanoscale, 2013, 5, 1929.	5.6	45