Gerard M Carroll

List of Publications by Year
in descending order

27 papers	1,206 citations	516561 16 h-index	552653 26 g-index
27 all docs	27 docs citations	27 times ranked	2056 citing authors

#	Article	IF	Citations
1	Mechanistic insights into solar water oxidation by cobalt-phosphate-modified Î±-Fe₂O₃ photoanodes. Energy and Environmental Science, 2015, 8, 577-584.	15.6	164
2	Kinetic analysis of photoelectrochemical water oxidation by mesostructured Co-Pi/Î±-Fe₂O₃ photoanodes. Journal of Materials Chemistry A, 2016, 4, 2986-2994.	5.2	162
3	Infrared Quantum Dots: Progress, Challenges, and Opportunities. ACS Nano, 2019, 13, 939-953.	7.3	153
4	Calendar aging of silicon-containing batteries. Nature Energy, 2021, 6, 866-872.	19.8	137
5	Electronic Doping and Redox-Potential Tuning in Colloidal Semiconductor Nanocrystals. Accounts of Chemical Research, 2015, 48, 1929-1937.	7.6	111
6	Control of Energy Flow Dynamics between Tetracene Ligands and PbS Quantum Dots by Size Tuning and Ligand Coverage. Nano Letters, 2018, 18, 865-873.	4.5	62
7	Tuning Confinement in Colloidal Silicon Nanocrystals with Saturated Surface Ligands. Nano Letters, 2018, 18, 3118-3124.	4.5	59
8	Redox Potentials of Colloidal n-Type ZnO Nanocrystals: Effects of Confinement, Electron Density, and Fermi-Level Pinning by Aldehyde Hydrogenation. Journal of the American Chemical Society, 2015, 137, 11163-11169.	6.6	47
9	Spectroelectrochemical Measurement of Surface Electrostatic Contributions to Colloidal CdSe Nanocrystal Redox Potentials. Chemistry of Materials, 2016, 28, 7912-7918.	3.2	38
10	Slow charge transfer from pentacene triplet states at the Marcus optimum. Nature Chemistry, 2020, 12, 63-70.	6.6	36
11	Potentiometric Measurements of Semiconductor Nanocrystal Redox Potentials. Journal of the American Chemical Society, 2016, 138, 4310-4313.	6.6	29
12	n-Type PbSe Quantum Dots via Post-Synthetic Indium Doping. Journal of the American Chemical Society, 2018, 140, 13753-13763.	6.6	28
13	Extremely Slow Spontaneous Electron Trapping in Photodoped n-Type CdSe Nanocrystals. Chemistry of Materials, 2017, 29, 3754-3762.	3.2	27
14	Unique interfacial thermodynamics of few-layer 2D MoS₂ for (photo)electrochemical catalysis. Energy and Environmental Science, 2019, 12, 1648-1656.	15.6	25
15	Builtâ€In Potential in Fe₂O₃â€Cr₂O₃ Superlattices for Improved Photoexcited Carrier Separation. Advanced Materials, 2016, 28, 1616-1622.	11.1	24
16	Hydrophobic versus Hydrophilic Interfacial Coatings on Silicon Nanoparticles Teach Us How to Design the Solid Electrolyte Interphase in Silicon-Based Li-Ion Battery Anodes. ACS Applied Energy Materials, 2021, 4, 1628-1636.	2.5	21
17	Tailoring the Surface of Silicon Nanoparticles for Enhanced Chemical and Electrochemical Stability for Li-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 6176-6183.	2.5	17
18	Silicon Photoelectrode Thermodynamics and Hydrogen Evolution Kinetics Measured by Intensity-Modulated High-Frequency Resistivity Impedance Spectroscopy. Journal of Physical Chemistry Letters, 2017, 8, 5253-5258.	2.1	16

#	Article	IF	Citations
19	Accelerating Hydrogen Absorption and Desorption Rates in Palladium Nanocubes with an Ultrathin Surface Modification. Nano Letters, 2021, 21, 9131-9137.	4.5	15
20	SiO₂ Is Wasted Space in Single-Nanometer-Scale Silicon Nanoparticle-Based Composite Anodes for Li-Ion Electrochemical Energy Storage. ACS Applied Energy Materials, 2020, 3, 10993-11001.	2.5	11
21	Modulating donorâ€“acceptor transition energies in phosphorusâ€“boron co-doped silicon nanocrystals via X- and L-type ligands. Faraday Discussions, 2020, 222, 201-216.	1.6	9
22	Suppressing Auger Recombination in Multiply Excited Colloidal Silicon Nanocrystals with Ligand-Induced Hole Traps. Journal of Physical Chemistry C, 2021, 125, 2565-2574.	1.5	7
23	Photoconductive ZnO films with embedded quantum dot or ruthenium dye sensitizers. APL Materials, 2013, 1, .	2.2	4
24	Synthesis, characterization and crystal structure of (cis-P,Pâ€²-diphenyl-1,4-diphospha-cyclohexane)molybdenum(0)tetracarbonyl. Inorganic Chemistry Communication, 2010, 13, 534-536.	1.8	2
25	Insights into the Dynamic Interfacial and Bulk Composition of Copper-Modified, Hydrogen-Alloyed, Palladium Nanocubes under Electrocatalytic Conditions. Journal of Physical Chemistry C, 2021, 125, 15487-15495.	1.5	1
26	Silicon Nanoparticles in Li-Ion Batteries: Understanding the Role or Particle Size, Surface Oxidation, and Processing Conditions on Composite Electrode Longevity. ECS Meeting Abstracts, 2020, MA2020-02, 367-367.	0.0	1
27	Adatom Surface Modification of Metal Nanoparticle Electrodes Though Underpotential Deposition for CO2 Electroreduction Catalysis. ECS Meeting Abstracts, 2020, MA2020-02, 1412-1412.	0.0	0