

# Gerard M Carroll

## List of Publications by Year in descending order

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27  
papers

1,206  
citations

516561

16  
h-index

552653

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27  
docs citations

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times ranked

2056  
citing authors

#	ARTICLE	IF	CITATIONS
1	Suppressing Auger Recombination in Multiply Excited Colloidal Silicon Nanocrystals with Ligand-Induced Hole Traps. <i>Journal of Physical Chemistry C</i> , 2021, 125, 2565-2574.	1.5	7
2	Hydrophobic versus Hydrophilic Interfacial Coatings on Silicon Nanoparticles Teach Us How to Design the Solid Electrolyte Interphase in Silicon-Based Li-Ion Battery Anodes. <i>ACS Applied Energy Materials</i> , 2021, 4, 1628-1636.	2.5	21
3	Insights into the Dynamic Interfacial and Bulk Composition of Copper-Modified, Hydrogen-Alloyed, Palladium Nanocubes under Electrocatalytic Conditions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15487-15495.	1.5	1
4	Calendar aging of silicon-containing batteries. <i>Nature Energy</i> , 2021, 6, 866-872.	19.8	137
5	Accelerating Hydrogen Absorption and Desorption Rates in Palladium Nanocubes with an Ultrathin Surface Modification. <i>Nano Letters</i> , 2021, 21, 9131-9137.	4.5	15
6	Modulating donor-acceptor transition energies in phosphorus-boron co-doped silicon nanocrystals via X- and L-type ligands. <i>Faraday Discussions</i> , 2020, 222, 201-216.	1.6	9
7	Slow charge transfer from pentacene triplet states at the Marcus optimum. <i>Nature Chemistry</i> , 2020, 12, 63-70.	6.6	36
8	SiO <sub>2</sub> Is Wasted Space in Single-Nanometer-Scale Silicon Nanoparticle-Based Composite Anodes for Li-Ion Electrochemical Energy Storage. <i>ACS Applied Energy Materials</i> , 2020, 3, 10993-11001.	2.5	11
9	Silicon Nanoparticles in Li-Ion Batteries: Understanding the Role of Particle Size, Surface Oxidation, and Processing Conditions on Composite Electrode Longevity. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 367-367.	0.0	1
10	Adatom Surface Modification of Metal Nanoparticle Electrodes Through Underpotential Deposition for CO <sub>2</sub> Electroreduction Catalysis. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 1412-1412.	0.0	0
11	Tailoring the Surface of Silicon Nanoparticles for Enhanced Chemical and Electrochemical Stability for Li-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2019, 2, 6176-6183.	2.5	17
12	Unique interfacial thermodynamics of few-layer 2D MoS <sub>2</sub> for (photo)electrochemical catalysis. <i>Energy and Environmental Science</i> , 2019, 12, 1648-1656.	15.6	25
13	Infrared Quantum Dots: Progress, Challenges, and Opportunities. <i>ACS Nano</i> , 2019, 13, 939-953.	7.3	153
14	Tuning Confinement in Colloidal Silicon Nanocrystals with Saturated Surface Ligands. <i>Nano Letters</i> , 2018, 18, 3118-3124.	4.5	59
15	Control of Energy Flow Dynamics between Tetracene Ligands and PbS Quantum Dots by Size Tuning and Ligand Coverage. <i>Nano Letters</i> , 2018, 18, 865-873.	4.5	62
16	n-Type PbSe Quantum Dots via Post-Synthetic Indium Doping. <i>Journal of the American Chemical Society</i> , 2018, 140, 13753-13763.	6.6	28
17	Extremely Slow Spontaneous Electron Trapping in Photodoped n-Type CdSe Nanocrystals. <i>Chemistry of Materials</i> , 2017, 29, 3754-3762.	3.2	27
18	Silicon Photoelectrode Thermodynamics and Hydrogen Evolution Kinetics Measured by Intensity-Modulated High-Frequency Resistivity Impedance Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5253-5258.	2.1	16

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19	Spectroelectrochemical Measurement of Surface Electrostatic Contributions to Colloidal CdSe Nanocrystal Redox Potentials. <i>Chemistry of Materials</i> , 2016, 28, 7912-7918.	3.2	38
20	Built-in Potential in Fe <sub>2</sub> O <sub>3</sub> ∕Cr <sub>2</sub> O <sub>3</sub> Superlattices for Improved Photoexcited Carrier Separation. <i>Advanced Materials</i> , 2016, 28, 1616-1622.	11.1	24
21	Potentiometric Measurements of Semiconductor Nanocrystal Redox Potentials. <i>Journal of the American Chemical Society</i> , 2016, 138, 4310-4313.	6.6	29
22	Kinetic analysis of photoelectrochemical water oxidation by mesostructured Co-Pi∕Fe <sub>2</sub> O <sub>3</sub> photoanodes. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2986-2994.	5.2	162
23	Electronic Doping and Redox-Potential Tuning in Colloidal Semiconductor Nanocrystals. <i>Accounts of Chemical Research</i> , 2015, 48, 1929-1937.	7.6	111
24	Redox Potentials of Colloidal n-Type ZnO Nanocrystals: Effects of Confinement, Electron Density, and Fermi-Level Pinning by Aldehyde Hydrogenation. <i>Journal of the American Chemical Society</i> , 2015, 137, 11163-11169.	6.6	47
25	Mechanistic insights into solar water oxidation by cobalt-phosphate-modified Fe <sub>2</sub> O <sub>3</sub> photoanodes. <i>Energy and Environmental Science</i> , 2015, 8, 577-584.	15.6	164
26	Photoconductive ZnO films with embedded quantum dot or ruthenium dye sensitizers. <i>APL Materials</i> , 2013, 1, .	2.2	4
27	Synthesis, characterization and crystal structure of (cis-P,∕diphenyl-1,4-diphospha-cyclohexane)molybdenum(0)tetracarbonyl. <i>Inorganic Chemistry Communication</i> , 2010, 13, 534-536.	1.8	2