Jennifer A Hollingsworth

List of Publications by Year
in descending order

71 papers	6,524 citations	147801 31 h-index	95266 68 g-index
73 all docs	73 docs citations	73 times ranked	6818 citing authors

#	Article	IF	Citations
1	â€œGiantâ€•Multishell CdSe Nanocrystal Quantum Dots with Suppressed Blinking. Journal of the American Chemical Society, 2008, 130, 5026-5027.	13.7	867
2	Two types of luminescence blinking revealed by spectroelectrochemistry of single quantum dots. Nature, 2011, 479, 203-207.	27.8	659
3	Synthesis and Characterization of Co/CdSe Core/Shell Nanocomposites:Â Bifunctional Magnetic-Optical Nanocrystals. Journal of the American Chemical Society, 2005, 127, 544-546.	13.7	459
4	Suppressed Auger Recombination in â€œGiantâ€•Nanocrystals Boosts Optical Gain Performance. Nano Letters, 2009, 9, 3482-3488.	9.1	456
5	Pushing the Band Gap Envelope:Â Mid-Infrared Emitting Colloidal PbSe Quantum Dots. Journal of the American Chemical Society, 2004, 126, 11752-11753.	13.7	444
6	Utilizing the Lability of Lead Selenide to Produce Heterostructured Nanocrystals with Bright, Stable Infrared Emission. Journal of the American Chemical Society, 2008, 130, 4879-4885.	13.7	438
7	â€˜Giantâ€™ CdSe/CdS Core/Shell Nanocrystal Quantum Dots As Efficient Electroluminescent Materials: Strong Influence of Shell Thickness on Light-Emitting Diode Performance. Nano Letters, 2012, 12, 331-336.	9.1	364
8	Breakdown of Volume Scaling in Auger Recombination in CdSe/CdS Heteronanocrystals: The Role of the Coreâ^'Shell Interface. Nano Letters, 2011, 11, 687-693.	9.1	282
9	Effect of the Thiolâ^'Thiolate Equilibrium on the Photophysical Properties of Aqueous CdSe/ZnS Nanocrystal Quantum Dots. Journal of the American Chemical Society, 2005, 127, 10126-10127.	13.7	224
10	Lifetime blinking in nonblinking nanocrystal quantum dots. Nature Communications, 2012, 3, 908.	12.8	204
11	New Insights into the Complexities of Shell Growth and the Strong Influence of Particle Volume in Nonblinking â€œGiantâ€•Core/Shell Nanocrystal Quantum Dots. Journal of the American Chemical Society, 2012, 134, 9634-9643.	13.7	201
12	Comprehensive Analysis of the Effects of CdSe Quantum Dot Size, Surface Charge, and Functionalization on Primary Human Lung Cells. ACS Nano, 2012, 6, 4748-4762.	14.6	135
13	Suppressed Blinking and Auger Recombination in Near-Infrared Type-II InP/CdS Nanocrystal Quantum Dots. Nano Letters, 2012, 12, 5545-5551.	9.1	131
14	The effect of Auger heating on intraband carrier relaxation in semiconductor quantum rods. Nature Physics, 2006, 2, 557-561.	16.7	105
15	Effect of shell thickness and composition on blinking suppression and the blinking mechanism in â€˜giantâ€™ CdSe/CdS nanocrystal quantum dots. Journal of Biophotonics, 2010, 3, 706-717.	2.3	99
16	Giant Nanocrystal Quantum Dots: Stable Down-Conversion Phosphors that Exploit a Large Stokes Shift and Efficient Shell-to-Core Energy Relaxation. Nano Letters, 2012, 12, 3031-3037.	9.1	90
17	Twist Angle-Dependent Interlayer Exciton Lifetimes in van der Waals Heterostructures. Physical Review Letters, 2021, 126, 047401.	7.8	88
18	Pump-Intensity- and Shell-Thickness-Dependent Evolution of Photoluminescence Blinking in Individual Core/Shell CdSe/CdS Nanocrystals. Nano Letters, 2011, 11, 5213-5218.	9.1	87

#	Article	IF	Citations
19	Disentangling the effects of clustering and multi-exciton emission in second-order photon correlation experiments. Optics Express, 2013, 21, 7419.	3.4	75
20	Flow-based solutionâ€“liquidâ€“solid nanowire synthesis. Nature Nanotechnology, 2013, 8, 660-666.	31.5	67
21	Super-Poissonian Statistics of Photon Emission from Single CdSe-CdS Core-Shell Nanocrystals Coupled to Metal Nanostructures. Physical Review Letters, 2013, 110, 117401.	7.8	66
22	Heterostructuring Nanocrystal Quantum Dots Toward Intentional Suppression of Blinking and Auger Recombination. Chemistry of Materials, 2013, 25, 1318-1331.	6.7	55
23	Strong plasmonic enhancement of biexciton emission: controlled coupling of a single quantum dot to a gold nanocone antenna. Scientific Reports, 2017, 7, 42307.	3.3	53
24	Unraveling Internal Structures of Highly Luminescent PbSe Nanocrystallites Using Variable-Energy Synchrotron Radiation Photoelectron Spectroscopy. Journal of Physical Chemistry B, 2006, 110, 15244-15250.	2.6	52
25	Quantum Yield Heterogeneity among Single Nonblinking Quantum Dots Revealed by Atomic Structure-Quantum Optics Correlation. ACS Nano, 2016, 10, 1960-1968.	14.6	50
26	Giant PbSe/CdSe/CdSe Quantum Dots: Crystal-Structure-Defined Ultrastable Near-Infrared Photoluminescence from Single Nanocrystals. Journal of the American Chemical Society, 2017, 139, 11081-11088.	13.7	48
27	Sensitization and Protection of Lanthanide Ion Emission in In₂O₃:Eu Nanocrystal Quantum Dots. Journal of Physical Chemistry C, 2008, 112, 20246-20250.	3.1	46
28	Bandgap Engineering of Indium Phosphide-Based Core/Shell Heterostructures Through Shell Composition and Thickness. Frontiers in Chemistry, 2018, 6, 567.	3.6	42
29	Influence of the core size on biexciton quantum yield of giant CdSe/CdS nanocrystals. Nanoscale, 2014, 6, 3712.	5.6	38
30	Using shape to turn off blinking for two-colour multiexciton emission in CdSe/CdS tetrapods. Nature Communications, 2017, 8, 15083.	12.8	37
31	Efficient Quantum Dotâˆ'Quantum Dot and Quantum Dotâˆ'Dye Energy Transfer in Biotemplated Assemblies. ACS Nano, 2011, 5, 1761-1768.	14.6	33
32	Photophysics of Thermally-Assisted Photobleaching in â€œGiantâ€•Quantum Dots Revealed in Single Nanocrystals. ACS Nano, 2018, 12, 4206-4217.	14.6	31
33	3â€Dimensional Tracking of Nonâ€blinking â€˜Giantâ€™ Quantum Dots in Live Cells. Advanced Functional Materials, 2014, 24, 4796-4803.	14.9	29
34	Multistate Blinking and Scaling of Recombination Rates in Individual Silica-Coated CdSe/CdS Nanocrystals. ACS Photonics, 2015, 2, 1505-1512.	6.6	27
35	Plasmonic giant quantum dots: hybrid nanostructures for truly simultaneous optical imaging, photothermal effect and thermometry. Chemical Science, 2015, 6, 2224-2236.	7.4	26
36	Competition between Auger Recombination and Hotâ€Carrier Trapping in PL Intensity Fluctuations of Type II Nanocrystals. Small, 2014, 10, 2892-2901.	10.0	25

#	Article	IF	Citations
37	Single photon sources with near unity collection efficiencies by deterministic placement of quantum dots in nanoantennas. APL Photonics, 2021, 6, .	5.7	25
38	Single-Nanocrystal Photoluminescence Spectroscopy Studies of Plasmonâ€“Multiexciton Interactions at Low Temperature. Journal of Physical Chemistry Letters, 2013, 4, 1465-1470.	4.6	23
39	PbS/CdS Quantum Dot Room-Temperature Single-Emitter Spectroscopy Reaches the Telecom O and S Bands via an Engineered Stability. ACS Nano, 2021, 15, 575-587.	14.6	22
40	Polymer-assisted chemical solution approach to YVO4:Eu nanoparticle networks. Journal of Materials Chemistry, 2012, 22, 5835.	6.7	21
41	Quantum Optical Signature of Plasmonically Coupled Nanocrystal Quantum Dots. Small, 2015, 11, 5028-5034.	10.0	21
42	Hybrid Grapheneâ€“Giant Nanocrystal Quantum Dot Assemblies with Highly Efficient Biexciton Emission. Advanced Optical Materials, 2015, 3, 39-43.	7.3	21
43	Correlated structural-optical study of single nanocrystals in a gap-bar antenna: effects of plasmonics on excitonic recombination pathways. Nanoscale, 2015, 7, 9387-9393.	5.6	21
44	The Role of Liquid Ink Transport in the Direct Placement of Quantum Dot Emitters onto Subâ€Micrometer Antennas by Dipâ€Pen Nanolithography. Small, 2018, 14, e1801503.	10.0	21
45	Role of shell composition and morphology in achieving single-emitter photostability for green-emitting â€œgiantâ€• quantum dots. Journal of Chemical Physics, 2020, 152, 124713.	3.0	20
46	Quantifying engineered nanomaterial toxicity: comparison of common cytotoxicity and gene expression measurements. Journal of Nanobiotechnology, 2017, 15, 79.	9.1	19
47	Photoluminescence Enhancement of CuInS 2 Quantum Dots in Solution Coupled to Plasmonic Gold Nanocup Array. Small, 2017, 13, 1700660.	10.0	17
48	Kinetics and Thermodynamics of Killing a Quantum Dot. ACS Applied Materials & Interfaces, 2020, 12, 30695-30701.	8.0	15
49	When excitons and plasmons meet: Emerging function through synthesis and assembly. MRS Bulletin, 2015, 40, 768-776.	3.5	14
50	Semiconductor Quantum Dot Lifetime Near an Atomically Smooth Ag Film Exhibits a Narrow Distribution. ACS Photonics, 2016, 3, 1085-1089.	6.6	13
51	Purification of Single Photons by Temporal Heralding of Quantum Dot Sources. ACS Photonics, 2019, 6, 446-452.	6.6	13
52	Role of Interface Chemistry in Opening New Radiative Pathways in InP/CdSe Giant Quantum Dots with Blinkingâ€Suppressed Twoâ€Color Emission. Advanced Functional Materials, 2019, 29, 1809111.	14.9	13
53	Intrinsic Exciton Photophysics of PbS Quantum Dots Revealed by Low-Temperature Single Nanocrystal Spectroscopy. Nano Letters, 2019, 19, 8519-8525.	9.1	12
54	Giant multishell CdSe nanocrystal quantum dots with suppressed blinking: novel fluorescent probes for real-time detection of single-molecule events. , 2009, 7189, 718904.		11

#	Article	IF	Citations
55	Matching Solid-State to Solution-Phase Photoluminescence for Near-Unity Down-Conversion Efficiency Using Giant Quantum Dots. ACS Applied Materials & Interfaces, 2015, 7, 13125-13130.	8.0	11
56	Influence of morphology on the blinking mechanisms and the excitonic fine structure of single colloidal nanoplatelets. Nanoscale, 2018, 10, 22861-22870.	5.6	11
57	Nanoscale engineering facilitated by controlled synthesis: From structure to function. Coordination Chemistry Reviews, 2014, 263-264, 197-216.	18.8	8
58	Three dimensional time-gated tracking of non-blinking quantum dots in live cells. Proceedings of SPIE, 2015, 9338, .	0.8	7
59	Super-resolution photoluminescence lifetime and intensity mapping of interacting CdSe/CdS quantum dots. Applied Physics Letters, 2020, 116, .	3.3	6
60	Interplay of Bright Triplet and Dark Excitons Revealed by Magnetoâ€Photoluminescence of Individual PbS/CdS Quantum Dots. Small, 2021, 17, e2006977.	10.0	6
61	Coupling Single Giant Nanocrystal Quantum Dots to the Fundamental Mode of Patch Nanoantennas through Fringe Field. Scientific Reports, 2015, 5, 14313.	3.3	5
62	3D Volumetric Structural Hierarchy Induced by Colloidal Polymerization of a Quantum-Dot Ionic Liquid Monomer Conjugate. Macromolecules, 2020, 53, 2822-2833.	4.8	3
63	Nanocrystal Quantum Dots: Building Blocks for Tunable Optical Amplifiers and Lasers. Materials Research Society Symposia Proceedings, 2001, 667, 1.	0.1	2
64	A framework for quantitative analysis of spectral data in two channels. Applied Physics Letters, 2020, 117, 024101.	3.3	2
65	Strong Purcell enhancement at telecom wavelengths afforded by spinel Fe3O4 nanocrystals with size-tunable plasmonic properties. Nanoscale Horizons, 2021, , .	8.0	2
66	Super-resolution Imaging of Plasmonic Near-Fields: Overcoming Emitter Mislocalizations. Journal of Physical Chemistry Letters, 2022, 13, 4520-4529.	4.6	2
67	Layerâ€byâ€Layer Fabrication of Nanowire Sensitized Solar Cells: Geometryâ€Independent Integration. Advanced Functional Materials, 2014, 24, 6843-6852.	14.9	1
68	Quantum Dots: Quantum Optical Signature of Plasmonically Coupled Nanocrystal Quantum Dots (Small 38/2015). Small, 2015, 11, 5176-5176.	10.0	1
69	Excited state lifetime modulation in semiconductor nanocrystals for super-resolution imaging. Nanotechnology, 0, , .	2.6	1
70	Plasmonic Enhancement: Photoluminescence Enhancement of CuInS₂ Quantum Dots in Solution Coupled to Plasmonic Gold Nanocup Array (Small 33/2017). Small, 2017, 13, .	10.0	0
71	Precision Additive Nanofabrication: The Role of Liquid Ink Transport in the Direct Placement of Quantum Dot Emitters onto Sub-Micrometer Antennas by Dip-Pen Nanolithography (Small 31/2018). Small, 2018, 14, 1870144.	10.0	0