Andrew M Smith

List of Publications by Year
in descending order

72 papers	10,961 citations	109137 35 h-index	85405 71 g-index
75 all docs	75 docs citations	75 times ranked	16370 citing authors

#	Article	IF	Citations
1	Second window for in vivo imaging. Nature Nanotechnology, 2009, 4, 710-711.	15.6	2,257
2	Semiconductor Nanocrystals: Structure, Properties, and Band Gap Engineering. Accounts of Chemical Research, 2010, 43, 190-200.	7.6	1,517
3	Bioconjugated quantum dots for in vivo molecular and cellular imagingâ˜†. Advanced Drug Delivery Reviews, 2008, 60, 1226-1240.	6.6	1,067
4	Tuning the optical and electronic properties of colloidal nanocrystals by lattice strain. Nature Nanotechnology, 2009, 4, 56-63.	15.6	695
5	Semiconductor Quantum Dots for Bioimaging and Biodiagnostic Applications. Annual Review of Analytical Chemistry, 2013, 6, 143-162.	2.8	559
6	A systematic examination of surface coatings on the optical and chemical properties of semiconductor quantum dots. Physical Chemistry Chemical Physics, 2006, 8, 3895.	1.3	413
7	Quantum dots in biology and medicine. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 25, 1-12.	1.3	337
8	Multicolor quantum dots for molecular diagnostics of cancer. Expert Review of Molecular Diagnostics, 2006, 6, 231-244.	1.5	322
9	Nanoparticles for Combination Drug Therapy. ACS Nano, 2013, 7, 9518-9525.	7.3	306
10	Oxidative Quenching and Degradation of Polymer-Encapsulated Quantum Dots: New Insights into the Long-Term Fate and Toxicity of Nanocrystals in Vivo. Journal of the American Chemical Society, 2008, 130, 10836-10837.	6.6	261
11	Chemical analysis and cellular imaging with quantum dots. Analyst, The, 2004, 129, 672.	1.7	216
12	Quantum dots and multifunctional nanoparticles: new contrast agents for tumor imaging. Nanomedicine, 2006, 1, 209-217.	1.7	201
13	Minimizing the Hydrodynamic Size of Quantum Dots with Multifunctional Multidentate Polymer Ligands. Journal of the American Chemical Society, 2008, 130, 11278-11279.	6.6	193
14	Engineering Luminescent Quantum Dots for In Vivo Molecular and Cellular Imaging. Annals of Biomedical Engineering, 2006, 34, 3-14.	1.3	175
15	Next-generation quantum dots. Nature Biotechnology, 2009, 27, 732-733.	9.4	159
16	Bright and Compact Alloyed Quantum Dots with Broadly Tunable Near-Infrared Absorption and Fluorescence Spectra through Mercury Cation Exchange. Journal of the American Chemical Society, 2011, 133, 24-26.	6.6	155
17	Quantum Dot Nanocrystals for In Vivo Molecular and Cellular ImagingÂ¶. Photochemistry and Photobiology, 2004, 80, 377.	1.3	148
18	Physical Chemistry of Nanomedicine: Understanding the Complex Behaviors of Nanoparticles in Vivo. Annual Review of Physical Chemistry, 2015, 66, 521-547.	4.8	146

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19	Minimizing Nonspecific Cellular Binding of Quantum Dots with Hydroxyl-Derivatized Surface Coatings. Analytical Chemistry, 2008, 80, 3029-3034.	3.2	129
20	Quantum Dot Nanocrystals for In Vivo Molecular and Cellular ImagingÂ¶. Photochemistry and Photobiology, 2004, 80, 377.	1.3	128
21	Rapid 3D Extrusion of Synthetic Tumor Microenvironments. Advanced Materials, 2015, 27, 5512-5517.	11.1	124
22	Brightness-equalized quantum dots. Nature Communications, 2015, 6, 8210.	5.8	105
23	Efficient Targeting of Adipose Tissue Macrophages in Obesity with Polysaccharide Nanocarriers. ACS Nano, 2016, 10, 6952-6962.	7.3	82
24	One-Pot Synthesis, Encapsulation, and Solubilization of Size-Tuned Quantum Dots with Amphiphilic Multidentate Ligands. Journal of the American Chemical Society, 2008, 130, 12866-12867.	6.6	81
25	Quantum dot surface engineering: Toward inert fluorophores with compact size and bright, stable emission. Coordination Chemistry Reviews, 2016, 320-321, 216-237.	9.5	74
26	Multidentate Polymer Coatings for Compact and Homogeneous Quantum Dots with Efficient Bioconjugation. Journal of the American Chemical Society, 2016, 138, 3382-3394.	6.6	70
27	Compact and Blinking-Suppressed Quantum Dots for Single-Particle Tracking in Live Cells. Journal of Physical Chemistry B, 2014, 118, 14140-14147.	1.2	61
28	Stable Small Quantum Dots for Synaptic Receptor Tracking on Live Neurons. Angewandte Chemie - International Edition, 2014, 53, 12484-12488.	7.2	60
29	Mapping the spatial distribution of charge carriers in quantum-confined heterostructures. Nature Communications, 2014, 5, 4506.	5.8	57
30	Activatable and Cell-Penetrable Multiplex FRET Nanosensor for Profiling MT1-MMP Activity in Single Cancer Cells. Nano Letters, 2015, 15, 5025-5032.	4.5	50
31	Digital-resolution detection of microRNA with single-base selectivity by photonic resonator absorption microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19362-19367.	3.3	48
32	Proton-resistant quantum dots: Stability in gastrointestinal fluids and implications for oral delivery of nanoparticle agents. Nano Research, 2009, 2, 500-508.	5.8	44
33	Molecular profiling of single cancer cells and clinical tissue specimens with semiconductor quantum dots. International Journal of Nanomedicine, 2006, 1, 473-481.	3.3	41
34	Measuring and Predicting the Internal Structure of Semiconductor Nanocrystals through Raman Spectroscopy. Journal of the American Chemical Society, 2016, 138, 10887-10896.	6.6	38
35	Single quantum dot tracking reveals the impact of nanoparticle surface on intracellular state. Nature Communications, 2018, 9, 1830.	5.8	38
36	Nanocrystal Synthesis in an Amphibious Bath: Spontaneous Generation of Hydrophilic and Hydrophobic Surface Coatings. Angewandte Chemie - International Edition, 2008, 47, 9916-9921.	7.2	37

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37	Epigenetic regulation of the PGE2 pathway modulates macrophage phenotype in normal and pathologic wound repair. JCI Insight, 2020, 5, .	2.3	37
38	Enhanced mRNA FISH with compact quantum dots. Nature Communications, 2018, 9, 4461.	5.8	35
39	Three-dimensional microscale hanging drop arrays with geometric control for drug screening and live tissue imaging. Science Advances, 2021, 7, .	4.7	34
40	3D microscopy and deep learning reveal the heterogeneity of crown-like structure microenvironments in intact adipose tissue. Science Advances, 2021, 7, .	4.7	31
41	Short-Wave Infrared Quantum Dots with Compact Sizes as Molecular Probes for Fluorescence Microscopy. Journal of the American Chemical Society, 2020, 142, 3449-3462.	6.6	30
42	Small Quantum Dots Conjugated to Nanobodies as Immunofluorescence Probes for Nanometric Microscopy. Bioconjugate Chemistry, 2014, 25, 2205-2211.	1.8	29
43	Optical determination of crystal phase in semiconductor nanocrystals. Nature Communications, 2017, 8, 14849.	5.8	29
44	Expanding the Dynamic Range of Fluorescence Assays through Single-Molecule Counting and Intensity Calibration. Journal of the American Chemical Society, 2018, 140, 13904-13912.	6.6	29
45	Pixelated spatial gene expression analysis from tissue. Nature Communications, 2018, 9, 202.	5.8	24
46	Multimodal Nanocarrier Probes Reveal Superior Biodistribution Quantification by Isotopic Analysis over Fluorescence. ACS Nano, 2020, 14, 509-523.	7.3	23
47	High-Fidelity Single Molecule Quantification in a Flow Cytometer Using Multiparametric Optical Analysis. ACS Nano, 2020, 14, 2324-2335.	7.3	22
48	Compact characterization of liquid absorption and emission spectra using linear variable filters integrated with a CMOS imaging camera. Scientific Reports, 2016, 6, 29117.	1.6	20
49	Zwitterion and Oligo(ethylene glycol) Synergy Minimizes Nonspecific Binding of Compact Quantum Dots. ACS Nano, 2020, 14, 3227-3241.	7.3	20
50	The more exotic shapes of semiconductor nanocrystals: emerging applications in bioimaging. Current Opinion in Chemical Engineering, 2014, 4, 137-143.	3.8	18
51	Lipoprotein Nanoplatelets: Brightly Fluorescent, Zwitterionic Probes with Rapid Cellular Entry. Journal of the American Chemical Society, 2016, 138, 64-67.	6.6	17
52	Counting growth factors in single cells with infrared quantum dots to measure discrete stimulation distributions. Nature Communications, 2019, 10, 909.	5.8	17
53	The bright future: Imaging dynamic cellular events with quantum dots. Biochemist, 2010, 32, 12-17.	0.2	17
54	Dextran-Mimetic Quantum Dots for Multimodal Macrophage Imaging <i>In Vivo, Ex Vivo</i>, and <i>In Situ</i>. ACS Nano, 2022, 16, 1999-2012.	7.3	17

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55	Optimizing Quantum Dot Probe Size for Single-Receptor Imaging. ACS Nano, 2020, 14, 8343-8358.	7.3	16
56	Regulation of tubulin polypeptides and microtubule function: Rki1p interacts with the Î²-tubulin binding protein Rbl2p. Chromosoma, 1998, 107, 471-478.	1.0	15
57	Multiscale Imaging of Nanoparticle Drug Delivery. Current Drug Targets, 2015, 16, 560-570.	1.0	15
58	Nanocarriers targeting adipose macrophages increase glucocorticoid anti-inflammatory potency to ameliorate metabolic dysfunction. Biomaterials Science, 2021, 9, 506-518.	2.6	12
59	Compact Quantum Dots for Single-molecule Imaging. Journal of Visualized Experiments, 2012, , .	0.2	10
60	Structural Contributions to Hydrodynamic Diameter for Quantum Dots Optimized for Live-Cell Single-Molecule Tracking. Journal of Physical Chemistry C, 2018, 122, 17406-17412.	1.5	10
61	Quantum Dot Nanocrystals for <i>In Vivo</i> Molecular and Cellular Imaging^{Â¶}. Photochemistry and Photobiology, 2004, 80, 377-385.	1.3	9
62	Imaging dynamic cellular events with quantum dots The bright future. Biochemist, 2010, 32, 12.	0.2	8
63	Development of Stable Small Quantum Dots for AMPA Receptor Tracking at Neuronal Synapses. Biophysical Journal, 2014, 106, 605a-606a.	0.2	2
64	Antibody Self-Assembly Maximizes Cytoplasmic Immunostaining Accuracy of Compact Quantum Dots. Chemistry of Materials, 2021, 33, 4877-4889.	3.2	2
65	Structural Design of Multidentate Copolymers as Compact Quantum Dot Coatings for Live-Cell Single-Particle Imaging. Chemistry of Materials, 2022, 34, 4621-4632.	3.2	2
66	Construction, release and cellular imaging application of triethylamine-responsive fluorescent quantum dots based on supramolecular self-assembly. European Polymer Journal, 2021, 148, 110353.	2.6	1
67	Size-Minimized Quantum Dots for Molecular and Cellular Imaging. Springer Series in Chemical Physics, 2010, , 187-201.	0.2	1
68	Compact Quantum Dots for Quantitative Cytology. Methods in Molecular Biology, 2020, 2064, 147-158.	0.4	1
69	Rapid quantification of microRNA-375 through one-pot primer-generating rolling circle amplification. Analyst, The, 2022, 147, 2936-2941.	1.7	1
70	Brightness-equalized quantum dots: Engineering strategies derived from spectral trends. Proceedings of SPIE, 2015, , .	0.8	0
71	Fluorescence In Situ Hybridization with Quantum Dot Labels in E. coli Cells. Methods in Molecular Biology, 2021, 2246, 141-155.	0.4	0
72	Inorganic-Ligand Quantum Dots Meet Inorganic-Ligand Semiconductor Nanoplatelets: A Promising Fusion to Construct All-Inorganic Assembly. Inorganic Chemistry, 2021, 60, 6994-6998.	1.9	0