Moungi G Bawendi

List of Publications by Year
in descending order

207 papers	36,583 citations	5782 84 h-index	3508 188 g-index
218 all docs	218 docs citations	218 times ranked	37991 citing authors

#	Article	IF	Citations
1	Emergence of colloidal quantum-dot light-emitting technologies. Nature Photonics, 2013, 7, 13-23.	15.6	2,155
2	Near-infrared fluorescent type II quantum dots for sentinel lymph node mapping. Nature Biotechnology, 2004, 22, 93-97.	9.4	2,011
3	Efficient perovskite solar cells via improved carrier management. Nature, 2021, 590, 587-593.	13.7	1,972
4	Self-Assembly of CdSeâ^'ZnS Quantum Dot Bioconjugates Using an Engineered Recombinant Protein. Journal of the American Chemical Society, 2000, 122, 12142-12150.	6.6	1,675
5	Improved performance and stability in quantumÂdot solar cells through band alignmentÂengineering. Nature Materials, 2014, 13, 796-801.	13.3	1,511
6	Type-II Quantum Dots:Â CdTe/CdSe(Core/Shell) and CdSe/ZnTe(Core/Shell) Heterostructures. Journal of the American Chemical Society, 2003, 125, 11466-11467.	6.6	1,193
7	Compact high-quality CdSeâ€"CdS coreâ€"shell nanocrystals with narrow emission linewidthsÂandÂsuppressed blinking. Nature Materials, 2013, 12, 445-451.	13.3	1,168
8	High-efficiency quantum-dot light-emitting devices with enhanced charge injection. Nature Photonics, 2013, 7, 407-412.	15.6	1,025
9	Energy Level Modification in Lead Sulfide Quantum Dot Thin Films through Ligand Exchange. ACS Nano, 2014, 8, 5863-5872.	7.3	843
10	Quantum Dot Light-Emitting Devices with Electroluminescence Tunable over the Entire Visible Spectrum. Nano Letters, 2009, 9, 2532-2536.	4.5	796
11	Compact Biocompatible Quantum Dots Functionalized for Cellular Imaging. Journal of the American Chemical Society, 2008, 130, 1274-1284.	6.6	583
12	An interface stabilized perovskite solar cell with high stabilized efficiency and low voltage loss. Energy and Environmental Science, 2019, 12, 2192-2199.	15.6	542
13	Electroluminescence from heterostructures of poly(phenylene vinylene) and inorganic CdSe nanocrystals. Journal of Applied Physics, 1998, 83, 7965-7974.	1.1	518
14	Shortwave infrared fluorescence imaging with the clinically approved near-infrared dye indocyanine green. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4465-4470.	3.3	498
15	Selection of Quantum Dot Wavelengths for Biomedical Assays and Imaging. Molecular Imaging, 2003, 2, 50-64.	0.7	491
16	Next-generation in vivo optical imaging with short-wave infrared quantum dots. Nature Biomedical Engineering, 2017, 1, .	11.6	490
17	Emission Intensity Dependence and Single-Exponential Behavior In Single Colloidal Quantum Dot Fluorescence Lifetimes. Journal of Physical Chemistry B, 2004, 108, 143-148.	1.2	441
18	Ternary Iâ^'IIIâ^'VI Quantum Dots Luminescent in the Red to Near-Infrared. Journal of the American Chemical Society, 2008, 130, 9240-9241.	6.6	441

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19	A colloidal quantum dot spectrometer. Nature, 2015, 523, 67-70.	13.7	433
20	Quantum dots spectrally distinguish multiple species within the tumor milieu in vivo. Nature Medicine, 2005, 11, 678-682.	15.2	419
21	Solid-state infrared-to-visible upconversion sensitized by colloidal nanocrystals. Nature Photonics, 2016, 10, 31-34.	15.6	418
22	Colloidal PbS Quantum Dot Solar Cells with High Fill Factor. ACS Nano, 2010, 4, 3743-3752.	7.3	416
23	A transferable model for singlet-fission kinetics. Nature Chemistry, 2014, 6, 492-497.	6.6	402
24	Electroluminescence from a Mixed Redâˆ'Greenâˆ'Blue Colloidal Quantum Dot Monolayer. Nano Letters, 2007, 7, 2196-2200.	4.5	399
25	Monovalent, reduced-size quantum dots for imaging receptors on living cells. Nature Methods, 2008, 5, 397-399.	9.0	398
26	Size Series of Small Indium Arsenideâˆ'Zinc Selenide Coreâˆ'Shell Nanocrystals and Their Application to In Vivo Imaging. Journal of the American Chemical Society, 2006, 128, 2526-2527.	6.6	390
27	Exceedingly small iron oxide nanoparticles as positive MRI contrast agents. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2325-2330.	3.3	374
28	Quantum-dot optical temperature probes. Applied Physics Letters, 2003, 83, 3555-3557.	1.5	369
29	Coherent single-photon emission from colloidal lead halide perovskite quantum dots. Science, 2019, 363, 1068-1072.	6.0	345
30	Color-selective semiconductor nanocrystal laser. Applied Physics Letters, 2002, 80, 4614-4616.	1.5	325
31	Methylammonium Bismuth Iodide as a Leadâ€Free, Stable Hybrid Organicâ€"Inorganic Solar Absorber. Chemistry - A European Journal, 2016, 22, 2605-2610.	1.7	312
32	Flavylium Polymethine Fluorophores for Nearâ€•and Shortwave Infrared Imaging. Angewandte Chemie - International Edition, 2017, 56, 13126-13129.	7.2	301
33	Core/Shell Quantum Dot Based Luminescent Solar Concentrators with Reduced Reabsorption and Enhanced Efficiency. Nano Letters, 2014, 14, 4097-4101.	4.5	292
34	A Nanoparticle Size Series for Inâ€…Vivo Fluorescence Imaging. Angewandte Chemie - International Edition, 2010, 49, 8649-8652.	7.2	289
35	Searching for â€œDefect-Tolerantâ€•Photovoltaic Materials: Combined Theoretical and Experimental Screening. Chemistry of Materials, 2017, 29, 4667-4674.	3.2	275
36	Compact Biocompatible Quantum Dots via RAFT-Mediated Synthesis of Imidazole-Based Random Copolymer Ligand. Journal of the American Chemical Society, 2010, 132, 472-483.	6.6	271

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37	Improved Current Extraction from ZnO/PbS Quantum Dot Heterojunction Photovoltaics Using a MoO₃ Interfacial Layer. Nano Letters, 2011, 11, 2955-2961.	4.5	265
38	Homogenized halides and alkali cation segregation in alloyed organic-inorganic perovskites. Science, 2019, 363, 627-631.	6.0	258
39	ZnO Nanowire Arrays for Enhanced Photocurrent in PbS Quantum Dot Solar Cells. Advanced Materials, 2013, 25, 2790-2796.	11.1	251
40	Enhanced charge carrier mobility and lifetime suppress hysteresis and improve efficiency in planar perovskite solar cells. Energy and Environmental Science, 2018, 11, 78-86.	15.6	246
41	Intraoperative Sentinel Lymph Node Mapping of the Lung Using Near-Infrared Fluorescent Quantum Dots. Annals of Thoracic Surgery, 2005, 79, 269-277.	0.7	241
42	Energy harvesting of non-emissive triplet excitons in tetracene by emissive PbS nanocrystals. Nature Materials, 2014, 13, 1039-1043.	13.3	235
43	Quantum Dot-Based Multiplexed Fluorescence Resonance Energy Transfer. Journal of the American Chemical Society, 2005, 127, 18212-18221.	6.6	232
44	A mouse-human phase 1 co-clinical trial of a protease-activated fluorescent probe for imaging cancer. Science Translational Medicine, 2016, 8, 320ra4.	5.8	224
45	Magneto-fluorescent core-shell supernanoparticles. Nature Communications, 2014, 5, 5093.	5.8	223
46	Open-Circuit Voltage Deficit, Radiative Sub-Bandgap States, and Prospects in Quantum Dot Solar Cells. Nano Letters, 2015, 15, 3286-3294.	4.5	223
47	Biexciton Quantum Yield of Single Semiconductor Nanocrystals from Photon Statistics. Nano Letters, 2011, 11, 1136-1140.	4.5	216
48	Continuous injection synthesis of indium arsenide quantum dots emissive in the short-wavelength infrared. Nature Communications, 2016, 7, 12749.	5.8	209
49	Alternating layer addition approach to CdSe/CdS core/shell quantum dots with near-unity quantum yield and high on-time fractions. Chemical Science, 2012, 3, 2028.	3.7	207
50	Development of a Bioorthogonal and Highly Efficient Conjugation Method for Quantum Dots Using Tetrazineâ^'Norbornene Cycloaddition. Journal of the American Chemical Society, 2010, 132, 7838-7839.	6.6	202
51	Alternating Current Driven Electroluminescence from ZnSe/ZnS:Mn/ZnS Nanocrystals. Nano Letters, 2009, 9, 2367-2371.	4.5	194
52	Graphene Cathode-Based ZnO Nanowire Hybrid Solar Cells. Nano Letters, 2013, 13, 233-239.	4.5	193
53	InAs(ZnCdS) Quantum Dots Optimized for Biological Imaging in the Near-Infrared. Journal of the American Chemical Society, 2010, 132, 470-471.	6.6	177
54	Highâ€Performance Shortwaveâ€Infrared Lightâ€Emitting Devices Using Coreâ€"Shell (PbSâ€"CdS) Colloidal Quantum Dots. Advanced Materials, 2015, 27, 1437-1442.	11.1	167

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55	Room-Temperature Ordered Photon Emission from Multiexciton States in Single CdSe Core-Shell Nanocrystals. Physical Review Letters, 2005, 94, 087403.	2.9	157
56	Mechanistic Insights into the Formation of InP Quantum Dots. Angewandte Chemie - International Edition, 2010, 49, 760-762.	7.2	155
57	Brown adipose tissue thermogenic adaptation requires Nrf1-mediated proteasomal activity. Nature Medicine, 2018, 24, 292-303.	15.2	154
58	Air-Stable Operation of Transparent, Colloidal Quantum Dot Based LEDs with a Unipolar Device Architecture. Nano Letters, 2010, 10, 24-29.	4.5	149
59	Shortwave Infrared in Vivo Imaging with Gold Nanoclusters. Nano Letters, 2017, 17, 6330-6334.	4.5	149
60	Supercritical Continuousâ€Microflow Synthesis of Narrow Size Distribution Quantum Dots. Advanced Materials, 2008, 20, 4830-4834.	11.1	145
61	Electronic transport in films of colloidal CdSe nanocrystals. Physical Review B, 2002, 66, .	1.1	143
62	<i>A</i>-Site Cation in Inorganic <i>A</i>₃Sb₂I₉ Perovskite Influences Structural Dimensionality, Exciton Binding Energy, and Solar Cell Performance. Chemistry of Materials, 2018, 30, 3734-3742.	3.2	134
63	Evolution of the Single-Nanocrystal Photoluminescence Linewidth with Size and Shell: Implications for Excitonâ€"Phonon Coupling and the Optimization of Spectral Linewidths. Nano Letters, 2016, 16, 289-296.	4.5	133
64	Direct probe of spectral inhomogeneity reveals synthetic tunability of single-nanocrystal spectral linewidths. Nature Chemistry, 2013, 5, 602-606.	6.6	130
65	Speed Limit for Triplet-Exciton Transfer in Solid-State PbS Nanocrystal-Sensitized Photon Upconversion. ACS Nano, 2017, 11, 7848-7857.	7.3	130
66	Low-Temperature Solution-Processed Solar Cells Based on PbS Colloidal Quantum Dot/CdS Heterojunctions. Nano Letters, 2013, 13, 994-999.	4.5	129
67	Investigation of Indium Phosphide Nanocrystal Synthesis Using a Highâ€Temperature and Highâ€Pressure Continuous Flow Microreactor. Angewandte Chemie - International Edition, 2011, 50, 627-630.	7.2	128
68	Improved Precursor Chemistry for the Synthesis of IIIâ€"V Quantum Dots. Journal of the American Chemical Society, 2012, 134, 20211-20213.	6.6	124
69	Triplet-Sensitization by Lead Halide Perovskite Thin Films for Near-Infrared-to-Visible Upconversion. ACS Energy Letters, 2019, 4, 888-895.	8.8	117
70	Transient photoluminescence and simultaneous amplified spontaneous emission from multiexciton states inCdSequantum dots. Physical Review B, 2004, 70, .	1.1	114
71	Quantum dot/antibody conjugates for in vivo cytometric imaging in mice. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1350-1355.	3.3	109
72	Optical Trapping and Two-Photon Excitation of Colloidal Quantum Dots Using Bowtie Apertures. ACS Photonics, 2016, 3, 423-427.	3.2	107

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73	Synthesis cost dictates the commercial viability of lead sulfide and perovskite quantum dot photovoltaics. Energy and Environmental Science, 2018, 11, 2295-2305.	15.6	106
74	Micelle-Encapsulated Quantum Dot-Porphyrin Assemblies as <i>in Vivo</i> Two-Photon Oxygen Sensors. Journal of the American Chemical Society, 2015, 137, 9832-9842.	6.6	104
75	Bias-Stress Effect in 1,2-Ethanedithiol-Treated PbS Quantum Dot Field-Effect Transistors. ACS Nano, 2012, 6, 3121-3127.	7.3	102
76	Characterization of Indium Phosphide Quantum Dot Growth Intermediates Using MALDI-TOF Mass Spectrometry. Journal of the American Chemical Society, 2016, 138, 13469-13472.	6.6	101
77	Robust excitons inhabit soft supramolecular nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3367-75.	3.3	100
78	Biocompatible near-infrared quantum dots delivered to the skin by microneedle patches record vaccination. Science Translational Medicine, 2019, 11, .	5.8	95
79	Room-Temperature Micron-Scale Exciton Migration in a Stabilized Emissive Molecular Aggregate. Nano Letters, 2016, 16, 6808-6815.	4.5	94
80	Slow-Injection Growth of Seeded CdSe/CdS Nanorods with Unity Fluorescence Quantum Yield and Complete Shell to Core Energy Transfer. ACS Nano, 2016, 10, 3295-3301.	7.3	92
81	Radiative Efficiency Limit with Band Tailing Exceeds 30% for Quantum Dot Solar Cells. ACS Energy Letters, 2017, 2, 2616-2624.	8.8	92
82	High Tolerance to Iron Contamination in Lead Halide Perovskite Solar Cells. ACS Nano, 2017, 11, 7101-7109.	7.3	90
83	Absorption by water increases fluorescence image contrast of biological tissue in the shortwave infrared. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9080-9085.	3.3	89
84	Solvent-Engineering Method to Deposit Compact Bismuth-Based Thin Films: Mechanism and Application to Photovoltaics. Chemistry of Materials, 2018, 30, 336-343.	3.2	87
85	Biexciton Quantum Yield Heterogeneities in Single CdSe (CdS) Core (Shell) Nanocrystals and Its Correlation to Exciton Blinking. Nano Letters, 2012, 12, 4477-4483.	4.5	81
86	Spatial Charge Configuration Regulates Nanoparticle Transport and Binding Behavior Inâ€...Vivo. Angewandte Chemie - International Edition, 2013, 52, 1414-1419.	7.2	81
87	Nonendocytic Delivery of Functional Engineered Nanoparticles into the Cytoplasm of Live Cells Using a Novel, High-Throughput Microfluidic Device. Nano Letters, 2012, 12, 6322-6327.	4.5	80
88	Multiexciton fluorescence from semiconductor nanocrystals. Chemical Physics, 2005, 318, 71-81.	0.9	78
89	Identifying and Eliminating Emissive Subâ€bandgap States in Thin Films of PbS Nanocrystals. Advanced Materials, 2015, 27, 4481-4486.	11.1	77
90	Electrostatic Formation of Quantum Dot/J-aggregate FRET Pairs in Solution. Journal of Physical Chemistry C, 2009, 113, 9986-9992.	1.5	76

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91	Photovoltaic Performance of PbS Quantum Dots Treated with Metal Salts. ACS Nano, 2016, 10, 3382-3388.	7.3	75
92	How machine learning can help select capping layers to suppress perovskite degradation. Nature Communications, 2020, 11, 4172.	5.8	75
93	A data fusion approach to optimize compositional stability of halide perovskites. Matter, 2021, 4, 1305-1322.	5.0	75
94	Oscillatory Microprocessor for Growth and in Situ Characterization of Semiconductor Nanocrystals. Chemistry of Materials, 2015, 27, 6131-6138.	3.2	74
95	Deconstructing the photon stream from single nanocrystals: from binning to correlation. Chemical Society Reviews, 2014, 43, 1287-1310.	18.7	73
96	The Unexpected Influence of Precursor Conversion Rate in the Synthesis of IIIâ€"V Quantum Dots. Angewandte Chemie - International Edition, 2015, 54, 14299-14303.	7.2	71
97	PbS Nanocrystal Emission Is Governed by Multiple Emissive States. Nano Letters, 2016, 16, 6070-6077.	4.5	71
98	Quantum Dot/J-Aggregate Blended Films for Light Harvesting and Energy Transfer. Nano Letters, 2010, 10, 3995-3999.	4.5	69
99	A Low Reabsorbing Luminescent Solar Concentrator Employing Ï€â€Conjugated Polymers. Advanced Materials, 2016, 28, 497-501.	11.1	69
100	Multistage Microfluidic Platform for the Continuous Synthesis of IIIâ€"V Core/Shell Quantum Dots. Angewandte Chemie - International Edition, 2018, 57, 10915-10918.	7.2	68
101	Wide-field three-photon excitation in biological samples. Light: Science and Applications, 2017, 6, e16255-e16255.	7.7	67
102	20.2: Ultraâ€Bright, Highly Efficient, Low Rollâ€Off Inverted Quantumâ€Dot Light Emitting Devices (QLEDs). Digest of Technical Papers SID International Symposium, 2015, 46, 270-273.	0.1	66
103	Enhanced Photocurrent in PbS Quantum Dot Photovoltaics via ZnO Nanowires and Band Alignment Engineering. Advanced Energy Materials, 2016, 6, 1600848.	10.2	66
104	Using lead chalcogenide nanocrystals as spin mixers: a perspective on near-infrared-to-visible upconversion. Dalton Transactions, 2018, 47, 8509-8516.	1.6	65
105	Precursor Concentration Affects Grain Size, Crystal Orientation, and Local Performance in Mixed-Ion Lead Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 6801-6808.	2.5	65
106	Probing Linewidths and Biexciton Quantum Yields of Single Cesium Lead Halide Nanocrystals in Solution. Nano Letters, 2017, 17, 6838-6846.	4.5	62
107	Narrow-Band Absorption-Enhanced Quantum Dot/J-Aggregate Conjugates. Journal of the American Chemical Society, 2009, 131, 9624-9625.	6.6	61
108	A nanocrystal-based ratiometric pH sensor for natural pH ranges. Chemical Science, 2012, 3, 2980.	3.7	60

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109	Effect of Trace Water on the Growth of Indium Phosphide Quantum Dots. Chemistry of Materials, 2015, 27, 5058-5063.	3.2	57
110	Terahertz-Driven Luminescence and Colossal Stark Effect in CdSeâ€“CdS Colloidal Quantum Dots. Nano Letters, 2017, 17, 5375-5380.	4.5	53
111	Size-Dependent Biexciton Spectrum in CsPbBr₃ Perovskite Nanocrystals. ACS Energy Letters, 2019, 4, 2639-2645.	8.8	53
112	Electroluminescence from Nanoscale Materials via Field-Driven Ionization. Nano Letters, 2011, 11, 2927-2932.	4.5	51
113	Efficient Semitransparent CsPbI₃ Quantum Dots Photovoltaics Using a Graphene Electrode. Small Methods, 2019, 3, 1900449.	4.6	49
114	Single quantum dot (QD) imaging of fluid flow near surfaces. Experiments in Fluids, 2005, 39, 784-786.	1.1	48
115	Photon-correlation Fourier spectroscopy. Optics Express, 2006, 14, 6333.	1.7	48
116	Single Photon Counting from Individual Nanocrystals in the Infrared. Nano Letters, 2012, 12, 2953-2958.	4.5	48
117	Charge transport in mixed CdSe and CdTe colloidal nanocrystal films. Physical Review B, 2010, 82, .	1.1	47
118	Flavylium Polymethine Fluorophores for Nearâ€•and Shortwave Infrared Imaging. Angewandte Chemie, 2017, 129, 13306-13309.	1.6	47
119	Direct Observation of Rapid Discrete Spectral Dynamics in Single Colloidal CdSe-CdS Core-Shell Quantum Dots. Physical Review Letters, 2013, 111, 177401.	2.9	46
120	Coherent Exciton Dynamics in Supramolecular Light-Harvesting Nanotubes Revealed by Ultrafast Quantum Process Tomography. ACS Nano, 2014, 8, 5527-5534.	7.3	46
121	Multi-island single-electron devices from self-assembled colloidal nanocrystal chains. Applied Physics Letters, 2006, 88, 143507.	1.5	44
122	Using the shortwave infrared to image middle ear pathologies. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9989-9994.	3.3	44
123	Near-Infrared Quantum Dot Emission Enhanced by Stabilized Self-Assembled J-Aggregate Antennas. Nano Letters, 2017, 17, 7665-7674.	4.5	42
124	Scalable Synthesis of InAs Quantum Dots Mediated through Indium Redox Chemistry. Journal of the American Chemical Society, 2020, 142, 4088-4092.	6.6	42
125	The Dominant Role of Exciton Quenching in PbS Quantum-Dot-Based Photovoltaic Devices. Nano Letters, 2013, 13, 5907-5912.	4.5	41
126	The effect of structural dimensionality on carrier mobility in lead-halide perovskites. Journal of Materials Chemistry A, 2019, 7, 23949-23957.	5.2	38

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127	Multistage extraction platform for highly efficient and fully continuous purification of nanoparticles. Nanoscale, 2017, 9, 7703-7707.	2.8	37
128	A path to practical Solar Pumped Lasers via Radiative Energy Transfer. Scientific Reports, 2015, 5, 14758.	1.6	35
129	Inâ€Situ Microfluidic Study of Biphasic Nanocrystal Ligandâ€Exchange Reactions Using an Oscillatory Flow Reactor. Angewandte Chemie - International Edition, 2017, 56, 16333-16337.	7.2	34
130	Photochemical Control of Exciton Superradiance in Light-Harvesting Nanotubes. ACS Nano, 2018, 12, 4556-4564.	7.3	34
131	Morphology of Passivating Organic Ligands around a Nanocrystal. Journal of Physical Chemistry C, 2018, 122, 26267-26274.	1.5	34
132	Non-invasive monitoring of chronic liver disease via near-infrared and shortwave-infrared imaging of endogenous lipofuscin. Nature Biomedical Engineering, 2020, 4, 801-813.	11.6	34
133	Lateral heterojunction photodetector consisting of molecular organic and colloidal quantum dot thin films. Applied Physics Letters, 2009, 94, 043307.	1.5	33
134	Locating and classifying fluorescent tags behind turbid layers using time-resolved inversion. Nature Communications, 2015, 6, 6796.	5.8	33
135	Minority Carrier Transport in Lead Sulfide Quantum Dot Photovoltaics. Nano Letters, 2017, 17, 6221-6227.	4.5	33
136	Micronâ€Scale Patterning of High Quantum Yield Quantum Dot LEDs. Advanced Materials Technologies, 2019, 4, 1800727.	3.0	33
137	Luminescent surfaces with tailored angular emission for compact dark-field imaging devices. Nature Photonics, 2020, 14, 310-315.	15.6	33
138	Estimating Motion and size of moving non-line-of-sight objects in cluttered environments. , 2011, , .		32
139	Measurement of Emission Lifetime Dynamics and Biexciton Emission Quantum Yield of Individual InAs Colloidal Nanocrystals. Nano Letters, 2014, 14, 6787-6791.	4.5	32
140	Mechanistic Insights and Controlled Synthesis of Radioluminescent ZnSe Quantum Dots Using a Microfluidic Reactor. Chemistry of Materials, 2018, 30, 8562-8570.	3.2	32
141	Light Management in Organic Photovoltaics Processed in Ambient Conditions Using ZnO Nanowire and Antireflection Layer with Nanocone Array. Small, 2019, 15, e1900508.	5.2	31
142	Effect of Spectral Diffusion on the Coherence Properties of a Single Quantum Emitter in Hexagonal Boron Nitride. Journal of Physical Chemistry Letters, 2020, 11, 1330-1335.	2.1	31
143	Colloidal atomic layer deposition growth of PbS/CdS core/shell quantum dots. Chemical Communications, 2017, 53, 869-872.	2.2	30
144	Setting an Upper Bound to the Biexciton Binding Energy in CsPbBr3 Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 5680-5686.	2.1	29

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145	Extracting Spectral Dynamics from Single Chromophores in Solution. Physical Review Letters, 2010, 105, 053005.	2.9	28
146	A Ligand System for the Flexible Functionalization of Quantum Dots via Click Chemistry. Angewandte Chemie - International Edition, 2018, 57, 4652-4656.	7.2	28
147	Multiexciton Lifetimes Reveal Triexciton Emission Pathway in CdSe Nanocrystals. Nano Letters, 2018, 18, 5153-5158.	4.5	27
148	Sample-Averaged Biexciton Quantum Yield Measured by Solution-Phase Photon Correlation. Nano Letters, 2014, 14, 6792-6798.	4.5	26
149	Enhanced photovoltaic performance with co-sensitization of quantum dots and an organic dye in dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 18375-18382.	5.2	26
150	High-Speed Vapor Transport Deposition of Perovskite Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 32928-32936.	4.0	24
151	Discovery of blue singlet exciton fission molecules via a high-throughput virtual screening and experimental approach. Journal of Chemical Physics, 2019, 151, 121102.	1.2	24
152	Zinc Thiolate Enables Bright Cuâ€Deficient Cuâ€Inâ€S/ZnS Quantum Dots. Small, 2019, 15, e1901462.	5.2	24
153	A Heterogeneous Kinetics Model for Triplet Exciton Transfer in Solid-State Upconversion. Journal of Physical Chemistry Letters, 2019, 10, 3147-3152.	2.1	24
154	Efficient, Flexible, and Ultraâ€Lightweight Inverted PbS Quantum Dots Solar Cells on Allâ€CVDâ€Growth of Parylene/Graphene/oCVD PEDOT Substrate with High Powerâ€perâ€Weight. Advanced Materials Interfaces, 2020, 7, 2000498.	1.9	24
155	Phosphonic Acid Modification of the Electron Selective Contact: Interfacial Effects in Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 2402-2408.	2.5	23
156	Tunable Infrared Emission From Printed Colloidal Quantum Dot/Polymer Composite Films on Flexible Substrates. Journal of Display Technology, 2010, 6, 90-93.	1.3	22
157	Improving the Carrier Lifetime of Tin Sulfide via Prediction and Mitigation of Harmful Point Defects. Journal of Physical Chemistry Letters, 2017, 8, 3661-3667.	2.1	22
158	Seedless Continuous Injection Synthesis of Indium Phosphide Quantum Dots as a Route to Large Size and Low Size Dispersity. Chemistry of Materials, 2020, 32, 6532-6539.	3.2	22
159	Dimension- and Surface-Tailored ZnO Nanowires Enhance Charge Collection in Quantum Dot Photovoltaic Devices. ACS Applied Energy Materials, 2018, 1, 1815-1822.	2.5	21
160	All-optical fluorescence blinking control in quantum dots with ultrafast mid-infrared pulses. Nature Nanotechnology, 2021, 16, 1355-1361.	15.6	21
161	Non-linear transduction strategies for chemo/biosensing on small length scales. Journal of Materials Chemistry, 2005, 15, 2697.	6.7	20
162	Stable, small, specific, low-valency quantum dots for single-molecule imaging. Nanoscale, 2018, 10, 4406-4414.	2.8	20

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163	Generalized Kashaâ€™s Model: T-Dependent Spectroscopy Reveals Short-Range Structures of 2D Excitonic Systems. CheM, 2019, 5, 3135-3150.	5.8	20
164	Blue Light Emitting Defective Nanocrystals Composed of Earthâ€Abundant Elements. Angewandte Chemie - International Edition, 2020, 59, 860-867.	7.2	20
165	Single-nanometer iron oxide nanoparticles as tissue-permeable MRI contrast agents. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	20
166	Multistage Microfluidic Platform for the Continuous Synthesis of IIIâ€"V Core/Shell Quantum Dots. Angewandte Chemie, 2018, 130, 11081-11084.	1.6	18
167	Interfacial Trapâ€Assisted Triplet Generation in Lead Halide Perovskite Sensitized Solidâ€State Upconversion. Advanced Materials, 2021, 33, e2100854.	11.1	18
168	Quantum Shells Boost the Optical Gain of Lasing Media. ACS Nano, 2022, 16, 3017-3026.	7.3	18
169	Single Nanocrystal Spectroscopy of Shortwave Infrared Emitters. ACS Nano, 2019, 13, 1042-1049.	7.3	16
170	Energy transfer of CdSe/ZnS nanocrystals encapsulated with rhodamine-dye functionalized poly(acrylic acid). Journal of Photochemistry and Photobiology A: Chemistry, 2012, 248, 24-29.	2.0	15
171	Terahertz-Driven Stark Spectroscopy of CdSe and CdSeâ€"CdS Coreâ€"Shell Quantum Dots. Nano Letters, 2019, 19, 8125-8131.	4.5	15
172	Experimental evidence of diffusion-induced bias in near-wall velocimetry using quantum dot measurements. Experiments in Fluids, 2008, 44, 1035-1038.	1.1	14
173	Decreased Synthesis Costs and Waste Product Toxicity for Lead Sulfide Quantum Dot Ink Photovoltaics. Advanced Sustainable Systems, 2019, 3, 1900061.	2.7	14
174	A high-temperature continuous stirred-tank reactor cascade for the multistep synthesis of InP/ZnS quantum dots. Reaction Chemistry and Engineering, 2021, 6, 459-464.	1.9	14
175	Resolving the Triexciton Recombination Pathway in CdSe/CdS Nanocrystals through State-Specific Correlation Measurements. Nano Letters, 2021, 21, 7457-7464.	4.5	13
176	Measuring Ligand-Dependent Transport in Nanopatterned PbS Colloidal Quantum Dot Arrays Using Charge Sensing. Nano Letters, 2015, 15, 4401-4405.	4.5	12
177	Blue Light Emitting Defective Nanocrystals Composed of Earthâ€Abundant Elements. Angewandte Chemie, 2020, 132, 870-877.	1.6	12
178	Multispectral imaging via luminescent down-shifting with colloidal quantum dots. Optical Materials Express, 2013, 3, 1167.	1.6	10
179	Increasing the penetration depth of temporal focusing multiphoton microscopy for neurobiological applications. Journal Physics D: Applied Physics, 2019, 52, 264001.	1.3	10
180	Objective, comparative assessment of the penetration depth of temporal-focusing microscopy for imaging various organs. Journal of Biomedical Optics, 2015, 20, 061107.	1.4	9

#	Article	IF	Citations
181	Extracting the average single-molecule biexciton photoluminescence lifetime from a solution of chromophores. Optics Letters, 2016, 41, 4823.	1.7	8
182	Initial findings of shortwave infrared otoscopy in a pediatric population. International Journal of Pediatric Otorhinolaryngology, 2018, 114, 15-19.	0.4	8
183	A Ligand System for the Flexible Functionalization of Quantum Dots via Click Chemistry. Angewandte Chemie, 2018, 130, 4742-4746.	1.6	7
184	Predicting Low Toxicity and Scalable Solvent Systems for Highâ€Speed Rollâ€toâ€Roll Perovskite Manufacturing. Solar Rrl, 2022, 6, 2100567.	3.1	7
185	Magneticâ€Fieldâ€Switchable Laser via Optical Pumping of Rubrene. Advanced Materials, 2021, , 2103870.	11.1	6
186	Inâ€Situ Microfluidic Study of Biphasic Nanocrystal Ligandâ€Exchange Reactions Using an Oscillatory Flow Reactor. Angewandte Chemie, 2017, 129, 16551-16555.	1.6	5
187	Solid-state infrared-to-visible upconversion for sub-bandgap sensitization of photovoltaics. , 2018, , .		5
188	Monodisperse and Water-Soluble Quantum Dots for SWIR Imaging via Carboxylic Acid Copolymer Ligands. ACS Applied Materials & Interfaces, 2020, 12, 35845-35855.	4.0	5
189	Thermal Recovery of Colloidal Quantum Dot Ensembles Following Photoinduced Dimming. Journal of Physical Chemistry Letters, 2015, 6, 2933-2937.	2.1	4
190	Room-Temperature Phosphorescence and Low-Energy Induced Direct Triplet Excitation of Alq₃ Engineered Crystals. Journal of Physical Chemistry Letters, 2020, 11, 9364-9370.	2.1	4
191	A phase I study of the safety and activation of a cathepsin-activatable fluorescent cancer-specific probe LUM015.. Journal of Clinical Oncology, 2014, 32, TPS11135-TPS11135.	0.8	3
192	Designing Highly Luminescent Molecular Aggregates via Bottom-Up Nanoscale Engineering. Journal of Physical Chemistry C, 2022, 126, 754-763.	1.5	3
193	Supramolecular Lattice Deformation and Exciton Trapping in Nanotubular J-Aggregates. Journal of Physical Chemistry C, 2022, 126, 4095-4105.	1.5	3
194	Synthesis and Characterization of Strongly Fluorescent CdTe Nanocrystal Colloids. Materials Research Society Symposia Proceedings, 1999, 581, 139.	0.1	2
195	Nanocrystal Quantum Dots: Building Blocks for Tunable Optical Amplifiers and Lasers. Materials Research Society Symposia Proceedings, 2001, 667, 1.	0.1	2
196	ZnO Nanowire Arrays for Enhanced Photocurrent in PbS Quantum Dot Solar Cells (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 14	11.1	2
197	Organometallic Synthesis and Spectroscopic Characterization of Manganese Doped CdSe Nanocrystals. Materials Research Society Symposia Proceedings, 1999, 582, 56.	0.1	1
198	35.1: Invited Paper: Quantum Dot Light Emitting Devices for Pixelated Full Color Displays. Digest of Technical Papers SID International Symposium, 2006, 37, 1368.	0.1	1

#	Article	IF	Citations
199	Morphology of contact printed colloidal quantum dots in organic semiconductor films: Implications for QD-LEDs. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 120-123.	0.8	1
200	COUPLING BETWEEN J-AGGREGATES AND INORGANIC EXCITONS. , 2012, , 181-193.		1
201	Size Dependence of Phonon Scattering in CdSe/CdS/ZnS Nanocrystals. AIP Conference Proceedings, 2007, , .	0.3	0
202	Nanocrystals for thin film optoelectronic device applications. , 2008, , .		0
203	Nanocrystal synthesis, Î¼fluidic sample dilution and direct extraction of single emission linewidths in continuous flow. Lab on A Chip, 2020, 20, 1975-1980.	3.1	0
204	Quantum-confined Stark effect of lead halide perovskite quantum dots in a mixed dimensional van der Waals heterostructure. , 2019, , .		0
205	TBC. , 0, , .		0
206	Terahertz Field-Induced Reemergence of Quenched Photoluminescence in Quantum Dots. Nano Letters, 2022, , .	4.5	0
207	Predicting Low Toxicity and Scalable Solvent Systems for Highâ€Speed Rollâ€toâ€Roll Perovskite Manufacturing. Solar Rrl, 2022, 6, .	3.1	0