A Paul Alivisatos

List of Publications by Year
in descending order

470 papers	137,925 citations	97 166 h-index	83 366 g-index
497 all docs	497 docs citations	497 times ranked	78000 citing authors

#	Article	IF	Citations
1	Semiconductor Clusters, Nanocrystals, and Quantum Dots. Science, 1996, 271, 933-937.	12.6	10,633
2	Semiconductor Nanocrystals as Fluorescent Biological Labels. Science, 1998, 281, 2013-2016.	12.6	7,948
3	Hybrid Nanorod-Polymer Solar Cells. Science, 2002, 295, 2425-2427.	12.6	4,844
4	Shape control of CdSe nanocrystals. Nature, 2000, 404, 59-61.	27.8	4,216
5	Light-emitting diodes made from cadmium selenide nanocrystals and a semiconducting polymer. Nature, 1994, 370, 354-357.	27.8	3,933
6	Formation of Hollow Nanocrystals Through the Nanoscale Kirkendall Effect. Science, 2004, 304, 711-714.	12.6	3,255
7	Colloidal nanocrystal synthesis and the organicâ€“inorganic interface. Nature, 2005, 437, 664-670.	27.8	2,996
8	Organization of 'nanocrystal molecules' using DNA. Nature, 1996, 382, 609-611.	27.8	2,852
9	The use of nanocrystals in biological detection. Nature Biotechnology, 2004, 22, 47-52.	17.5	2,849
10	Epitaxial Growth of Highly Luminescent CdSe/CdS Core/Shell Nanocrystals with Photostability and Electronic Accessibility. Journal of the American Chemical Society, 1997, 119, 7019-7029.	13.7	2,305
11	Kinetics of II-VI and III-V Colloidal Semiconductor Nanocrystal Growth:Â â€œFocusingâ€•of Size Distributions. Journal of the American Chemical Society, 1998, 120, 5343-5344.	13.7	1,779
12	Synthesis of Soluble and Processable Rod-, Arrow-, Teardrop-, and Tetrapod-Shaped CdSe Nanocrystals. Journal of the American Chemical Society, 2000, 122, 12700-12706.	13.7	1,719
13	Nanomechanical oscillations in a single-C60 transistor. Nature, 2000, 407, 57-60.	27.8	1,676
14	Air-Stable All-Inorganic Nanocrystal Solar Cells Processed from Solution. Science, 2005, 310, 462-465.	12.6	1,630
15	Localized surface plasmon resonances arising from free carriers in doped quantum dots. Nature Materials, 2011, 10, 361-366.	27.5	1,520
16	A molecular ruler based on plasmon coupling of single gold and silver nanoparticles. Nature Biotechnology, 2005, 23, 741-745.	17.5	1,431
17	Charge separation and transport in conjugated-polymer/semiconductor-nanocrystal composites studied by photoluminescence quenching and photoconductivity. Physical Review B, 1996, 54, 17628-17637.	3.2	1,421
18	Controlled growth of tetrapod-branched inorganic nanocrystals. Nature Materials, 2003, 2, 382-385.	27.5	1,373

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19	Quantum Dots as Cellular Probes. Annual Review of Biomedical Engineering, 2005, 7, 55-76.	12.3	1,290
20	Synthesis and Properties of Biocompatible Water-Soluble Silica-Coated CdSe/ZnS Semiconductor Quantum Dots. Journal of Physical Chemistry B, 2001, 105, 8861-8871.	2.6	1,221
21	Observation of Single Colloidal Platinum Nanocrystal Growth Trajectories. Science, 2009, 324, 1309-1312.	12.6	1,200
22	A single-electron transistor made from a cadmium selenide nanocrystal. Nature, 1997, 389, 699-701.	27.8	1,183
23	Atomically thin two-dimensional organic-inorganic hybrid perovskites. Science, 2015, 349, 1518-1521.	12.6	1,159
24	Linearly Polarized Emission from Colloidal Semiconductor Quantum Rods. Science, 2001, 292, 2060-2063.	12.6	1,136
25	Cation Exchange Reactions in Ionic Nanocrystals. Science, 2004, 306, 1009-1012.	12.6	1,135
26	Colloidal nanocrystal heterostructures with linear and branched topology. Nature, 2004, 430, 190-195.	27.8	1,127
27	Materials Availability Expands the Opportunity for Large-Scale Photovoltaics Deployment. Environmental Science & Technology, 2009, 43, 2072-2077.	10.0	1,042
28	Highly Luminescent Colloidal Nanoplates of Perovskite Cesium Lead Halide and Their Oriented Assemblies. Journal of the American Chemical Society, 2015, 137, 16008-16011.	13.7	1,004
29	High-Resolution EM of Colloidal Nanocrystal Growth Using Graphene Liquid Cells. Science, 2012, 336, 61-64.	12.6	989
30	Melting in Semiconductor Nanocrystals. Science, 1992, 256, 1425-1427.	12.6	969
31	Nanoantenna-enhanced gas sensing in a single tailored nanofocus. Nature Materials, 2011, 10, 631-636.	27.5	863
32	Fabrication of metallic electrodes with nanometer separation by electromigration. Applied Physics Letters, 1999, 75, 301-303.	3.3	817
33	Seeded Growth of Highly Luminescent CdSe/CdS Nanoheterostructures with Rod and Tetrapod Morphologies. Nano Letters, 2007, 7, 2951-2959.	9.1	717
34	Surface derivatization and isolation of semiconductor cluster molecules. Journal of the American Chemical Society, 1988, 110, 3046-3050.	13.7	714
35	Insight into the Ligand-Mediated Synthesis of Colloidal CsPbBr₃ Perovskite Nanocrystals: The Role of Organic Acid, Base, and Cesium Precursors. ACS Nano, 2016, 10, 7943-7954.	14.6	713
36	Essentially Trap-Free CsPbBr₃ Colloidal Nanocrystals by Postsynthetic Thiocyanate Surface Treatment. Journal of the American Chemical Society, 2017, 139, 6566-6569.	13.7	711

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37	A New Nonhydrolytic Single-Precursor Approach to Surfactant-Capped Nanocrystals of Transition Metal Oxides. Journal of the American Chemical Society, 1999, 121, 11595-11596.	13.7	706
38	Biological applications of colloidal nanocrystals. Nanotechnology, 2003, 14, R15-R27.	2.6	698
39	Spontaneous Superlattice Formation in Nanorods Through Partial Cation Exchange. Science, 2007, 317, 355-358.	12.6	675
40	Synthesis of hcp-Co Nanodisks. Journal of the American Chemical Society, 2002, 124, 12874-12880.	13.7	651
41	Tunable Localized Surface Plasmon Resonances in Tungsten Oxide Nanocrystals. Journal of the American Chemical Society, 2012, 134, 3995-3998.	13.7	646
42	DNA-Based Assembly of Gold Nanocrystals. Angewandte Chemie - International Edition, 1999, 38, 1808-1812.	13.8	639
43	Synthesis and Photovoltaic Application of Copper(I) Sulfide Nanocrystals. Nano Letters, 2008, 8, 2551-2555.	9.1	633
44	Thermochromic halide perovskite solar cells. Nature Materials, 2018, 17, 261-267.	27.5	630
45	Band Gap Variation of Size- and Shape-Controlled Colloidal CdSe Quantum Rods. Nano Letters, 2001, 1, 349-351.	9.1	593
46	Semiconductor nanocrystals covalently bound to metal surfaces with self-assembled monolayers. Journal of the American Chemical Society, 1992, 114, 5221-5230.	13.7	589
47	Photocatalytic Hydrogen Production with Tunable Nanorod Heterostructures. Journal of Physical Chemistry Letters, 2010, 1, 1051-1054.	4.6	573
48	Surfactant-Assisted Elimination of a High Energy Facet as a Means of Controlling the Shapes of TiO2Nanocrystals. Journal of the American Chemical Society, 2003, 125, 15981-15985.	13.7	556
49	CdSe Nanocrystal Rods/Poly(3-hexylthiophene) Composite Photovoltaic Devices. Advanced Materials, 1999, 11, 923-927.	21.0	546
50	Size Dependence of Structural Metastability in Semiconductor Nanocrystals. Science, 1997, 276, 398-401.	12.6	545
51	Transition from Isolated to Collective Modes in Plasmonic Oligomers. Nano Letters, 2010, 10, 2721-2726.	9.1	544
52	Epitaxial Growth and Photochemical Annealing of Graded CdS/ZnS Shells on Colloidal CdSe Nanorods. Journal of the American Chemical Society, 2002, 124, 7136-7145.	13.7	539
53	Calibration of Dynamic Molecular Rulers Based on Plasmon Coupling between Gold Nanoparticles. Nano Letters, 2005, 5, 2246-2252.	9.1	539
54	Colloidal Nanocrystal Shape and Size Control: The Case of Cobalt. Science, 2001, 291, 2115-2117.	12.6	523

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55	Three-Dimensional Plasmon Rulers. Science, 2011, 332, 1407-1410.	12.6	522
56	The Brain Activity Map Project and the Challenge of Functional Connectomics. Neuron, 2012, 74, 970-974.	8.1	512
57	Integration of Colloidal Nanocrystals into Lithographically Patterned Devices. Nano Letters, 2004, 4, 1093-1098.	9.1	507
58	Size Dependence of a First Order Solid-Solid Phase Transition: The Wurtzite to Rock Salt Transformation in CdSe Nanocrystals. Science, 1994, 265, 373-376.	12.6	499
59	Pyramidal and Chiral Groupings of Gold Nanocrystals Assembled Using DNA Scaffolds. Journal of the American Chemical Society, 2009, 131, 8455-8459.	13.7	473
60	Enhanced Electrochemical Methanation of Carbon Dioxide with a Dispersible Nanoscale Copper Catalyst. Journal of the American Chemical Society, 2014, 136, 13319-13325.	13.7	465
61	Gold Nanorods as Novel Nonbleaching Plasmon-Based Orientation Sensors for Polarized Single-Particle Microscopy. Nano Letters, 2005, 5, 301-304.	9.1	461
62	Electrophoretic Isolation of Discrete Au Nanocrystal/DNA Conjugates. Nano Letters, 2001, 1, 32-35.	9.1	457
63	Colloidal chemical synthesis and characterization of InAs nanocrystal quantum dots. Applied Physics Letters, 1996, 69, 1432-1434.	3.3	447
64	Design Principles for Trap-Free CsPbX₃ Nanocrystals: Enumerating and Eliminating Surface Halide Vacancies with Softer Lewis Bases. Journal of the American Chemical Society, 2018, 140, 17760-17772.	13.7	446
65	Hybrid Solar Cells with Prescribed Nanoscale Morphologies Based on Hyperbranched Semiconductor Nanocrystals. Nano Letters, 2007, 7, 409-414.	9.1	445
66	Employing End-Functional Polythiophene To Control the Morphology of Nanocrystalâ”Polymer Composites in Hybrid Solar Cells. Journal of the American Chemical Society, 2004, 126, 6550-6551.	13.7	440
67	Photovoltaic Devices Employing Ternary PbS_xSe_{1-x} Nanocrystals. Nano Letters, 2009, 9, 1699-1703.	9.1	433
68	Controlling the Morphology of Nanocrystalâ€“Polymer Composites for Solar Cells. Advanced Functional Materials, 2003, 13, 73-79.	14.9	432
69	Small-molecule-directed nanoparticle assembly towards stimuli-responsive nanocomposites. Nature Materials, 2009, 8, 979-985.	27.5	431
70	From Molecules to Materials: Current Trends and Future Directions. Advanced Materials, 1998, 10, 1297-1336.	21.0	429
71	Two-Dimensional Nanoparticle Arrays Show the Organizational Power of Robust DNA Motifs. Nano Letters, 2006, 6, 1502-1504.	9.1	421
72	BIOMINERALIZATION: Enhanced: Naturally Aligned Nanocrystals. Science, 2000, 289, 736-737.	12.6	415

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73	Optical Properties of ZnO/ZnS and ZnO/ZnTe Heterostructures for Photovoltaic Applications. Nano Letters, 2007, 7, 2377-2382.	9.1	408
74	Hydroxylation of the surface of PbS nanocrystals passivated with oleic acid. Science, 2014, 344, 1380-1384.	12.6	404
75	Cation Exchange: A Versatile Tool for Nanomaterials Synthesis. Journal of Physical Chemistry C, 2013, 117, 19759-19770.	3.1	402
76	Encapsulation of Perovskite Nanocrystals into Macroscale Polymer Matrices: Enhanced Stability and Polarization. ACS Applied Materials & Interfaces, 2016, 8, 35523-35533.	8.0	398
77	Synthesis of Composition Tunable and Highly Luminescent Cesium Lead Halide Nanowires through Anion-Exchange Reactions. Journal of the American Chemical Society, 2016, 138, 7236-7239.	13.7	397
78	Ligand Mediated Transformation of Cesium Lead Bromide Perovskite Nanocrystals to Lead Depleted Cs₄PbBr₆ Nanocrystals. Journal of the American Chemical Society, 2017, 139, 5309-5312.	13.7	389
79	Cell Motility and Metastatic Potential Studies Based on Quantum Dot Imaging of Phagokinetic Tracks. Advanced Materials, 2002, 14, 882.	21.0	386
80	Mechanistic Study of Precursor Evolution in Colloidal Group IIâ^'VI Semiconductor Nanocrystal Synthesis. Journal of the American Chemical Society, 2007, 129, 305-312.	13.7	375
81	Selective Facet Reactivity during Cation Exchange in Cadmium Sulfide Nanorods. Journal of the American Chemical Society, 2009, 131, 5285-5293.	13.7	372
82	Properties of Fluorescent Semiconductor Nanocrystals and their Application to Biological Labeling. Single Molecules, 2001, 2, 261-276.	0.9	365
83	Electronic states of semiconductor clusters: Homogeneous and inhomogeneous broadening of the optical spectrum. Journal of Chemical Physics, 1988, 89, 4001-4011.	3.0	357
84	The wurtzite to rock salt structural transformation in CdSe nanocrystals under high pressure. Journal of Chemical Physics, 1995, 102, 4642-4656.	3.0	356
85	Electric-Field-Assisted Assembly of Perpendicularly Oriented Nanorod Superlattices. Nano Letters, 2006, 6, 1479-1482.	9.1	353
86	Colloidal Synthesis of Hollow Cobalt Sulfide Nanocrystals. Advanced Functional Materials, 2006, 16, 1389-1399.	14.9	351
87	Reaction Chemistry and Ligand Exchange at Cadmiumâ^'Selenide Nanocrystal Surfaces. Journal of the American Chemical Society, 2008, 130, 12279-12281.	13.7	351
88	Coupling of Optical Resonances in a Compositionally Asymmetric Plasmonic Nanoparticle Dimer. Nano Letters, 2010, 10, 2655-2660.	9.1	351
89	High-Temperature Microfluidic Synthesis of CdSe Nanocrystals in Nanoliter Droplets. Journal of the American Chemical Society, 2005, 127, 13854-13861.	13.7	347
90	An approach to electrical studies of single nanocrystals. Applied Physics Letters, 1996, 68, 2574-2576.	3.3	337

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91	Time-gated biological imaging by use of colloidal quantum dots. Optics Letters, 2001, 26, 825.	3.3	332
92	Size-Controlled Growth of CdSe Nanocrystals in Microfluidic Reactors. Nano Letters, 2003, 3, 199-201.	9.1	330
93	Cellular Effect of High Doses of Silica-Coated Quantum Dot Profiled with High Throughput Gene Expression Analysis and High Content Cellomics Measurements. Nano Letters, 2006, 6, 800-808.	9.1	330
94	Synthesis of PbS Nanorods and Other Ionic Nanocrystals of Complex Morphology by Sequential Cation Exchange Reactions. Journal of the American Chemical Society, 2009, 131, 16851-16857.	13.7	329
95	Nanotools for Neuroscience and Brain Activity Mapping. ACS Nano, 2013, 7, 1850-1866.	14.6	323
96	Conformation of Oligonucleotides Attached to Gold Nanocrystals Probed by Gel Electrophoresis. Nano Letters, 2003, 3, 33-36.	9.1	318
97	Crystal Splitting in the Growth of Bi2S3. Nano Letters, 2006, 6, 2701-2706.	9.1	315
98	Quantification of Thin Film Crystallographic Orientation Using X-ray Diffraction with an Area Detector. Langmuir, 2010, 26, 9146-9151.	3.5	315
99	Conjugation of DNA to Silanized Colloidal Semiconductor Nanocrystalline Quantum Dots. Chemistry of Materials, 2002, 14, 2113-2119.	6.7	312
100	Gold/Iron Oxide Core/Hollowâ€Shell Nanoparticles. Advanced Materials, 2008, 20, 4323-4329.	21.0	308
101	Ultrahigh-resolution multicolor colocalization of single fluorescent probes. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 9461-9466.	7.1	304
102	Synthesis, self-assembly, and magnetic behavior of a two-dimensional superlattice of single-crystal Îµ-Co nanoparticles. Applied Physics Letters, 2001, 78, 2187-2189.	3.3	303
103	Room-Temperature Single-Nucleotide Polymorphism and Multiallele DNA Detection Using Fluorescent Nanocrystals and Microarrays. Analytical Chemistry, 2003, 75, 4766-4772.	6.5	302
104	Photon antibunching in single CdSe/ZnS quantum dot fluorescence. Chemical Physics Letters, 2000, 329, 399-404.	2.6	301
105	The Effect of Organic Ligand Binding on the Growth of CdSe Nanoparticles Probed by Ab Initio Calculations. Nano Letters, 2004, 4, 2361-2365.	9.1	301
106	Vacancy Coalescence during Oxidation of Iron Nanoparticles. Journal of the American Chemical Society, 2007, 129, 10358-10360.	13.7	298
107	Semiconductor Nanorod Liquid Crystals. Nano Letters, 2002, 2, 557-560.	9.1	297
108	Collective behaviour in two-dimensional cobalt nanoparticle assemblies observed by magnetic force microscopy. Nature Materials, 2004, 3, 263-268.	27.5	297

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109	Sorting Fluorescent Nanocrystals with DNA. Journal of the American Chemical Society, 2002, 124, 7070-7074.	13.7	293
110	Ferroelectric order in individual nanometre-scale crystals. Nature Materials, 2012, 11, 700-709.	27.5	292
111	Quantum size dependence of femtosecond electronic dephasing and vibrational dynamics in CdSe nanocrystals. Physical Review B, 1994, 49, 14435-14447.	3.2	288
112	Nanocrystal Diffusion in a Liquid Thin Film Observed by in Situ Transmission Electron Microscopy. Nano Letters, 2009, 9, 2460-2465.	9.1	282
113	First-Principles Modeling of Unpassivated and Surfactant-Passivated Bulk Facets of Wurtzite CdSe:â€‰ A Model System for Studying the Anisotropic Growth of CdSe Nanocrystals. Journal of Physical Chemistry B, 2005, 109, 6183-6192.	2.6	280
114	Precise Tuning of Surface Quenching for Luminescence Enhancement in Coreâ€“Shell Lanthanide-Doped Nanocrystals. Nano Letters, 2016, 16, 7241-7247.	9.1	279
115	Electronâ€“vibration coupling in semiconductor clusters studied by resonance Raman spectroscopy. Journal of Chemical Physics, 1989, 90, 3463-3468.	3.0	277
116	Use of plasmon coupling to reveal the dynamics of DNA bending and cleavage by single EcoRV restriction enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2667-2672.	7.1	268
117	A nanoplasmonic molecular ruler for measuring nuclease activity and DNA footprinting. Nature Nanotechnology, 2006, 1, 47-52.	31.5	266
118	The Making and Breaking of Lead-Free Double Perovskite Nanocrystals of Cesium Silverâ€“Bismuth Halide Compositions. Nano Letters, 2018, 18, 3502-3508.	9.1	265
119	Charge transport in hybrid nanorod-polymer composite photovoltaic cells. Physical Review B, 2003, 67, .	3.2	254
120	Nanoheterostructure Cation Exchange: Anionic Framework Conservation. Journal of the American Chemical Society, 2010, 132, 9997-9999.	13.7	253
121	Organometallic synthesis of gallium-arsenide crystallites, exhibiting quantum confinement. Journal of the American Chemical Society, 1990, 112, 9438-9439.	13.7	250
122	Structural and spectroscopic investigations of CdS/HgS/CdS quantum-dot quantum wells. Physical Review B, 1996, 53, R13242-R13245.	3.2	246
123	Discrete Nanostructures of Quantum Dots/Au with DNA. Journal of the American Chemical Society, 2004, 126, 10832-10833.	13.7	246
124	Faceting of Nanocrystals during Chemical Transformation:Â From Solid Silver Spheres to Hollow Gold Octahedra. Journal of the American Chemical Society, 2006, 128, 12671-12673.	13.7	245
125	Hybrid Organicâ€“Nanocrystal Solar Cells. MRS Bulletin, 2005, 30, 41-44.	3.5	244
126	Device-Scale Perpendicular Alignment of Colloidal Nanorods. Nano Letters, 2010, 10, 195-201.	9.1	241

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127	The Concept of Delayed Nucleation in Nanocrystal Growth Demonstrated for the Case of Iron Oxide Nanodisks. Journal of the American Chemical Society, 2006, 128, 1675-1682.	13.7	240
128	Resonance Raman studies of the ground and lowest electronic excited state in CdS nanocrystals. Journal of Chemical Physics, 1993, 98, 8432-8442.	3.0	238
129	3D structure of individual nanocrystals in solution by electron microscopy. Science, 2015, 349, 290-295.	12.6	238
130	Activation Volumes for Solid-Solid Transformations in Nanocrystals. Science, 2001, 293, 1803-1806.	12.6	234
131	Ultrathin Colloidal Cesium Lead Halide Perovskite Nanowires. Journal of the American Chemical Society, 2016, 138, 13155-13158.	13.7	234
132	Precursor Conversion Kinetics and the Nucleation of Cadmium Selenide Nanocrystals. Journal of the American Chemical Society, 2010, 132, 18206-18213.	13.7	230
133	Continuous Distribution of Emission States from Single CdSe/ZnS Quantum Dots. Nano Letters, 2006, 6, 843-847.	9.1	228
134	Semiconductor Nanorod Liquid Crystals and Their Assembly on a Substrate. Advanced Materials, 2003, 15, 408-411.	21.0	226
135	Spin coherence in semiconductor quantum dots. Physical Review B, 1999, 59, R10421-R10424.	3.2	224
136	Design of Nanostructured Solar Cells Using Coupled Optical and Electrical Modeling. Nano Letters, 2012, 12, 2894-2900.	9.1	224
137	Pressure-Induced Structural Transformations in Si Nanocrystals: Surface and Shape Effects. Physical Review Letters, 1996, 76, 4384-4387.	7.8	221
138	Hetero-Epitaxial Anion Exchange Yields Single-Crystalline Hollow Nanoparticles. Journal of the American Chemical Society, 2009, 131, 13943-13945.	13.7	221
139	Observation of Transient Structural-Transformation Dynamics in a Cu ₂ S Nanorod. Science, 2011, 333, 206-209.	12.6	220
140	Evidence for a thermal contribution to emission intermittency in single CdSe/CdS core/shell nanocrystals. Journal of Chemical Physics, 1999, 110, 1195-1201.	3.0	214
141	Electrophoretic and Structural Studies of DNA-Directed Au Nanoparticle Groupings. Journal of Physical Chemistry B, 2002, 106, 11758-11763.	2.6	214
142	Photovoltaic Performance of Ultrasmall PbSe Quantum Dots. ACS Nano, 2011, 5, 8140-8147.	14.6	210
143	Controlled Synthesis of Hyperbranched Inorganic Nanocrystals with Rich Three-Dimensional Structures. Nano Letters, 2005, 5, 2164-2167.	9.1	207
144	Single-particle mapping of nonequilibrium nanocrystal transformations. Science, 2016, 354, 874-877.	12.6	204

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145	Structural diversity in binary superlattices self-assembled from polymer-grafted nanocrystals. Nature Communications, 2015, 6, 10052.	12.8	199
146	Electroactive Surfactant Designed to Mediate Electron Transfer Between CdSe Nanocrystals and Organic Semiconductors. Advanced Materials, 2003, 15, 58-61.	21.0	198
147	Self-Assembled Binary Superlattices of CdSe and Au Nanocrystals and Their Fluorescence Properties. Journal of the American Chemical Society, 2008, 130, 3274-3275.	13.7	197
148	Surfactant-Assisted Hydrothermal Synthesis of Single phase Pyrite FeS₂ Nanocrystals. Chemistry of Materials, 2009, 21, 2568-2570.	6.7	197
149	Size-Dependent Dissociation of Carbon Monoxide on Cobalt Nanoparticles. Journal of the American Chemical Society, 2013, 135, 2273-2278.	13.7	195
150	Germanium quantum dots: Optical properties and synthesis. Journal of Chemical Physics, 1994, 101, 1607-1615.	3.0	194
151	Ultrahigh stress and strain in hierarchically structured hollow nanoparticles. Nature Materials, 2008, 7, 947-952.	27.5	193
152	Origin and Scaling of the Permanent Dipole Moment in CdSe Nanorods. Physical Review Letters, 2003, 90, 097402.	7.8	191
153	Redefining near-unity luminescence in quantum dots with photothermal threshold quantum yield. Science, 2019, 363, 1199-1202.	12.6	190
154	Photodeposition of Pt on Colloidal CdS and CdSe/CdS Semiconductor Nanostructures. Advanced Materials, 2008, 20, 4306-4311.	21.0	188
155	Investigation of femtosecond electronic dephasing in CdSe nanocrystals using quantum-beat-suppressed photon echoes. Physical Review Letters, 1993, 70, 1014-1017.	7.8	186
156	Metallic Adhesion Layer Induced Plasmon Damping and Molecular Linker as a Nondamping Alternative. ACS Nano, 2012, 6, 5702-5709.	14.6	186
157	Quantum Yields, Surface Quenching, and Passivation Efficiency for Ultrasmall Core/Shell Upconverting Nanoparticles. Journal of the American Chemical Society, 2018, 140, 4922-4928.	13.7	185
158	Shape control and applications of nanocrystals. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 241-257.	3.4	184
159	3D Motion of DNA-Au Nanoconjugates in Graphene Liquid Cell Electron Microscopy. Nano Letters, 2013, 13, 4556-4561.	9.1	184
160	Continuous imaging of plasmon rulers in live cells reveals early-stage caspase-3 activation at the single-molecule level. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17735-17740.	7.1	183
161	The Brain Activity Map. Science, 2013, 339, 1284-1285.	12.6	181
162	Semiconductor Quantum Rods as Single Molecule Fluorescent Biological Labels. Nano Letters, 2007, 7, 179-182.	9.1	180

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163	Shape Change as an Indicator of Mechanism in the High-Pressure Structural Transformations of CdSe Nanocrystals. Physical Review Letters, 2000, 84, 923-926.	7.8	178
164	Excitation-wavelength-dependent small polaron trapping of photoexcited carriers in Î±-Fe2O3. Nature Materials, 2017, 16, 819-825.	27.5	178
165	Synthetic Insertion of Gold Nanoparticles into Mesoporous Silica. Chemistry of Materials, 2003, 15, 1242-1248.	6.7	175
166	Size-Controlled Model Co Nanoparticle Catalysts for CO₂ Hydrogenation: Synthesis, Characterization, and Catalytic Reactions. Nano Letters, 2012, 12, 3091-3096.	9.1	175
167	A Comparison of Photocatalytic Activities of Gold Nanoparticles Following Plasmonic and Interband Excitation and a Strategy for Harnessing Interband Hot Carriers for Solution Phase Photocatalysis. ACS Central Science, 2017, 3, 482-488.	11.3	174
168	From Artificial Atoms to Nanocrystal Molecules: Preparation and Properties of More Complex Nanostructures. Annual Review of Physical Chemistry, 2010, 61, 369-389.	10.8	166
169	Valence-band photoemission from a quantum-dot system. Physical Review Letters, 1991, 66, 2786-2789.	7.8	164
170	Encapsulation of Metal (Au, Ag, Pt) Nanoparticles into the Mesoporous SBA-15 Structure. Langmuir, 2003, 19, 4396-4401.	3.5	163
171	Semiconductor nanocrystals for biological imaging. Current Opinion in Neurobiology, 2005, 15, 568-575.	4.2	162
172	Isolation of Discrete Nanoparticleâ˜'DNA Conjugates for Plasmonic Applications. Nano Letters, 2008, 8, 1202-1206.	9.1	159
173	Structural and Electronic Study of an Amorphous MoS₃ Hydrogenâ€Generation Catalyst on a Quantumâ€Controlled Photosensitizer. Angewandte Chemie - International Edition, 2011, 50, 10203-10207.	13.8	158
174	Revealing Bismuth Oxide Hollow Nanoparticle Formation by the Kirkendall Effect. Nano Letters, 2013, 13, 5715-5719.	9.1	157
175	SnTe Nanocrystals:â€‰ A New Example of Narrow-Gap Semiconductor Quantum Dots. Journal of the American Chemical Society, 2007, 129, 11354-11355.	13.7	156
176	Threshold for quasicontinuum absorption and reduced luminescence efficiency in CdSe nanocrystals. Journal of Chemical Physics, 1994, 101, 8455-8460.	3.0	155
177	Size-dependent electronic level structure of InAs nanocrystal quantum dots: Test of multiband effective mass theory. Journal of Chemical Physics, 1998, 109, 2306-2309.	3.0	154
178	Luminescent Solar Concentration with Semiconductor Nanorods and Transfer-Printed Micro-Silicon Solar Cells. ACS Nano, 2014, 8, 44-53.	14.6	153
179	Direct Observation of Nanoparticle Superlattice Formation by Using Liquid Cell Transmission Electron Microscopy. ACS Nano, 2012, 6, 2078-2085.	14.6	152
180	Femtosecond Spectroscopy of Carrier Relaxation Dynamics in Type II CdSe/CdTe Tetrapod Heteronanostructures. Nano Letters, 2005, 5, 1809-1813.	9.1	148

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