A Paul Alivisatos

List of Publications by Citations

460 papers	122,505 citations	158 h-index	348 g-index
497 ext. papers	130,287 ext. citations	12.8 avg, IF	8.66 L-index

#	Paper	IF	Citations
460	Semiconductor Clusters, Nanocrystals, and Quantum Dots. *Science*, **1996**, 271, 933-937	33.3	9679
459	Semiconductor nanocrystals as fluorescent biological labels. *Science*, **1998**, 281, 2013-6	33.3	7202
458	Hybrid nanorod-polymer solar cells. *Science*, **2002**, 295, 2425-7	33.3	4518
457	Shape control of CdSe nanocrystals. *Nature*, **2000**, 404, 59-61	50.4	3891
456	Light-emitting diodes made from cadmium selenide nanocrystals and a semiconducting polymer. *Nature*, **1994**, 370, 354-357	50.4	3509
455	Formation of hollow nanocrystals through the nanoscale Kirkendall effect. *Science*, **2004**, 304, 711-4	33.3	2984
454	Colloidal nanocrystal synthesis and the organic-inorganic interface. *Nature*, **2005**, 437, 664-70	50.4	2739
453	The use of nanocrystals in biological detection. *Nature Biotechnology*, **2004**, 22, 47-52	44.5	2626
452	Organization of 'nanocrystal molecules' using DNA. *Nature*, **1996**, 382, 609-11	50.4	2569
451	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	16.4	2116
450	Synthesis of Soluble and Processable Rod-, Arrow-, Teardrop-, and Tetrapod-Shaped CdSe Nanocrystals. *Journal of the American Chemical Society*, **2000**, 122, 12700-12706	16.4	1619
449	Kinetics of II-VI and III-V Colloidal Semiconductor Nanocrystal Growth: "Focusing" of Size Distributions. *Journal of the American Chemical Society*, **1998**, 120, 5343-5344	16.4	1606
448	Air-stable all-inorganic nanocrystal solar cells processed from solution. *Science*, **2005**, 310, 462-5	33.3	1531
447	Nanomechanical oscillations in a single-C60 transistor. *Nature*, **2000**, 407, 57-60	50.4	1530
446	Charge separation and transport in conjugated-polymer/semiconductor-nanocrystal composites studied by photoluminescence quenching and photoconductivity. *Physical Review B*, **1996**, 54, 17628-17637	3.3	1309
445	A molecular ruler based on plasmon coupling of single gold and silver nanoparticles. *Nature Biotechnology*, **2005**, 23, 741-5	44.5	1300
444	Controlled growth of tetrapod-branched inorganic nanocrystals. *Nature Materials*, **2003**, 2, 382-5	27	1290

443	Localized surface plasmon resonances arising from free carriers in doped quantum dots. *Nature Materials*, **2011**, 10, 361-6	27	1283
442	Quantum dots as cellular probes. *Annual Review of Biomedical Engineering*, **2005**, 7, 55-76	12	1170
441	Synthesis and Properties of Biocompatible Water-Soluble Silica-Coated CdSe/ZnS Semiconductor Quantum Dots *Journal of Physical Chemistry B*, **2001**, 105, 8861-8871	3.4	1128
440	A single-electron transistor made from a cadmium selenide nanocrystal. *Nature*, **1997**, 389, 699-701	50.4	1076
439	Colloidal nanocrystal heterostructures with linear and branched topology. *Nature*, **2004**, 430, 190-5	50.4	1064
438	Observation of single colloidal platinum nanocrystal growth trajectories. *Science*, **2009**, 324, 1309-12	33.3	1050
437	Linearly polarized emission from colloidal semiconductor quantum rods. *Science*, **2001**, 292, 2060-3	33.3	1026
436	Cation exchange reactions in ionic nanocrystals. *Science*, **2004**, 306, 1009-12	33.3	1016
435	Atomically thin two-dimensional organic-inorganic hybrid perovskites. *Science*, **2015**, 349, 1518-21	33.3	959
434	Materials availability expands the opportunity for large-scale photovoltaics deployment. *Environmental Science & Technology*, **2009**, 43, 2072-7	10.3	907
433	Melting in semiconductor nanocrystals. *Science*, **1992**, 256, 1425-7	33.3	856
432	High-resolution EM of colloidal nanocrystal growth using graphene liquid cells. *Science*, **2012**, 336, 61-4	33.3	829
431	Highly Luminescent Colloidal Nanoplates of Perovskite Cesium Lead Halide and Their Oriented Assemblies. *Journal of the American Chemical Society*, **2015**, 137, 16008-11	16.4	820
430	Nanoantenna-enhanced gas sensing in a single tailored nanofocus. *Nature Materials*, **2011**, 10, 631-6	27	753
429	Fabrication of metallic electrodes with nanometer separation by electromigration. *Applied Physics Letters*, **1999**, 75, 301-303	3.4	740
428	Seeded growth of highly luminescent CdSe/CdS nanoheterostructures with rod and tetrapod morphologies. *Nano Letters*, **2007**, 7, 2951-9	11.5	663
427	A New Nonhydrolytic Single-Precursor Approach to Surfactant-Capped Nanocrystals of Transition Metal Oxides. *Journal of the American Chemical Society*, **1999**, 121, 11595-11596	16.4	647
426	Spontaneous superlattice formation in nanorods through partial cation exchange. *Science*, **2007**, 317, 355-8	33.3	632

425	Biological applications of colloidal nanocrystals. *Nanotechnology*, **2003**, 14, R15-R27	3.4	626
424	Surface derivatization and isolation of semiconductor cluster molecules. *Journal of the American Chemical Society*, **1988**, 110, 3046-3050	16.4	621
423	Synthesis of hcp-Co Nanodisks. *Journal of the American Chemical Society*, **2002**, 124, 12874-80	16.4	595
422	DNA-Based Assembly of Gold Nanocrystals. *Angewandte Chemie - International Edition*, **1999**, 38, 1808-1812	16.4	592
421	Synthesis and photovoltaic application of copper(I) sulfide nanocrystals. *Nano Letters*, **2008**, 8, 2551-5	11.5	587
420	Tunable localized surface plasmon resonances in tungsten oxide nanocrystals. *Journal of the American Chemical Society*, **2012**, 134, 3995-8	16.4	549
419	Band Gap Variation of Size- and Shape-Controlled Colloidal CdSe Quantum Rods. *Nano Letters*, **2001**, 1, 349-351	11.5	542
418	Insight into the Ligand-Mediated Synthesis of Colloidal CsPbBr3 Perovskite Nanocrystals: The Role of Organic Acid, Base, and Cesium Precursors. *ACS Nano*, **2016**, 10, 7943-54	16.7	541
417	Semiconductor nanocrystals covalently bound to metal surfaces with self-assembled monolayers. *Journal of the American Chemical Society*, **1992**, 114, 5221-5230	16.4	532
416	Essentially Trap-Free CsPbBr Colloidal Nanocrystals by Postsynthetic Thiocyanate Surface Treatment. *Journal of the American Chemical Society*, **2017**, 139, 6566-6569	16.4	531
415	Photocatalytic Hydrogen Production with Tunable Nanorod Heterostructures. *Journal of Physical Chemistry Letters*, **2010**, 1, 1051-1054	6.4	523
414	Surfactant-assisted elimination of a high energy facet as a means of controlling the shapes of TiO2 nanocrystals. *Journal of the American Chemical Society*, **2003**, 125, 15981-5	16.4	514
413	Epitaxial growth and photochemical annealing of graded CdS/ZnS shells on colloidal CdSe nanorods. *Journal of the American Chemical Society*, **2002**, 124, 7136-45	16.4	513
412	Calibration of dynamic molecular rulers based on plasmon coupling between gold nanoparticles. *Nano Letters*, **2005**, 5, 2246-52	11.5	498
411	CdSe Nanocrystal Rods/Poly(3-hexylthiophene) Composite Photovoltaic Devices. *Advanced Materials*, **1999**, 11, 923-927	24	498
410	Size Dependence of Structural Metastability in Semiconductor Nanocrystals. *Science*, **1997**, 276, 398-401	33.3	492
409	Transition from isolated to collective modes in plasmonic oligomers. *Nano Letters*, **2010**, 10, 2721-6	11.5	483
408	Integration of Colloidal Nanocrystals into Lithographically Patterned Devices. *Nano Letters*, **2004**, 4, 1093-1098	11.5	473

407	Three-dimensional plasmon rulers. *Science*, **2011**, 332, 1407-10	33.3	466
406	Size Dependence of a First Order Solid-Solid Phase Transition: The Wurtzite to Rock Salt Transformation in CdSe Nanocrystals. *Science*, **1994**, 265, 373-6	33.3	440
405	Thermochromic halide perovskite solar cells. *Nature Materials*, **2018**, 17, 261-267	27	436
404	Hybrid solar cells with prescribed nanoscale morphologies based on hyperbranched semiconductor nanocrystals. *Nano Letters*, **2007**, 7, 409-14	11.5	430
403	Employing end-functional polythiophene to control the morphology of nanocrystal-polymer composites in hybrid solar cells. *Journal of the American Chemical Society*, **2004**, 126, 6550-1	16.4	423
402	Pyramidal and chiral groupings of gold nanocrystals assembled using DNA scaffolds. *Journal of the American Chemical Society*, **2009**, 131, 8455-9	16.4	420
401	Electrophoretic Isolation of Discrete Au Nanocrystal/DNA Conjugates. *Nano Letters*, **2001**, 1, 32-35	11.5	419
400	Gold nanorods as novel nonbleaching plasmon-based orientation sensors for polarized single-particle microscopy. *Nano Letters*, **2005**, 5, 301-4	11.5	418
399	Controlling the Morphology of Nanocrystal–Polymer Composites for Solar Cells. *Advanced Functional Materials*, **2003**, 13, 73-79	15.6	405
398	Photovoltaic devices employing ternary PbSxSe1-x nanocrystals. *Nano Letters*, **2009**, 9, 1699-703	11.5	401
397	Colloidal chemical synthesis and characterization of InAs nanocrystal quantum dots. *Applied Physics Letters*, **1996**, 69, 1432-1434	3.4	399
396	Biomineralization. Naturally aligned nanocrystals. *Science*, **2000**, 289, 736-7	33.3	393
395	Colloidal Nanocrystal Shape and Size Control: The Case of Cobalt. *Science*, **2001**, 291, 2115-2117	33.3	393
394	Small-molecule-directed nanoparticle assembly towards stimuli-responsive nanocomposites. *Nature Materials*, **2009**, 8, 979-85	27	392
393	From Molecules to Materials: Current Trends and Future Directions. *Advanced Materials*, **1998**, 10, 1297-1336	17	390
392	Two-dimensional nanoparticle arrays show the organizational power of robust DNA motifs. *Nano Letters*, **2006**, 6, 1502-4	11.5	385
391	The brain activity map project and the challenge of functional connectomics. *Neuron*, **2012**, 74, 970-4	13.9	383
390	Enhanced electrochemical methanation of carbon dioxide with a dispersible nanoscale copper catalyst. *Journal of the American Chemical Society*, **2014**, 136, 13319-25	16.4	371

389	Optical properties of ZnO/ZnS and ZnO/ZnTe heterostructures for photovoltaic applications. *Nano Letters*, **2007**, 7, 2377-82	11.5	371
388	Mechanistic study of precursor evolution in colloidal group II-VI semiconductor nanocrystal synthesis. *Journal of the American Chemical Society*, **2007**, 129, 305-12	16.4	346
387	Cation Exchange: A Versatile Tool for Nanomaterials Synthesis. *Journal of Physical Chemistry C*, **2013**, 117, 19759-19770	3.8	343
386	Colloidal Synthesis of Hollow Cobalt Sulfide Nanocrystals. *Advanced Functional Materials*, **2006**, 16, 1389-1399	15.6	337
385	Selective facet reactivity during cation exchange in cadmium sulfide nanorods. *Journal of the American Chemical Society*, **2009**, 131, 5285-93	16.4	336
384	Properties of Fluorescent Semiconductor Nanocrystals and their Application to Biological Labeling. *Single Molecules*, **2001**, 2, 261-276		335
383	Hydroxylation of the surface of PbS nanocrystals passivated with oleic acid. *Science*, **2014**, 344, 1380-4	33.3	333
382	Electric-field-assisted assembly of perpendicularly oriented nanorod superlattices. *Nano Letters*, **2006**, 6, 1479-82	11.5	333
381	Cell Motility and Metastatic Potential Studies Based on Quantum Dot Imaging of Phagokinetic Tracks. *Advanced Materials*, **2002**, 14, 882	24	332
380	Synthesis of Composition Tunable and Highly Luminescent Cesium Lead Halide Nanowires through Anion-Exchange Reactions. *Journal of the American Chemical Society*, **2016**, 138, 7236-9	16.4	327
379	The wurtzite to rock salt structural transformation in CdSe nanocrystals under high pressure. *Journal of Chemical Physics*, **1995**, 102, 4642-4656	3.9	325
378	Electronic states of semiconductor clusters: Homogeneous and inhomogeneous broadening of the optical spectrum. *Journal of Chemical Physics*, **1988**, 89, 4001-4011	3.9	322
377	Reaction chemistry and ligand exchange at cadmium-selenide nanocrystal surfaces. *Journal of the American Chemical Society*, **2008**, 130, 12279-81	16.4	316
376	High-temperature microfluidic synthesis of CdSe nanocrystals in nanoliter droplets. *Journal of the American Chemical Society*, **2005**, 127, 13854-61	16.4	316
375	Synthesis of PbS nanorods and other ionic nanocrystals of complex morphology by sequential cation exchange reactions. *Journal of the American Chemical Society*, **2009**, 131, 16851-7	16.4	309
374	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, 800-8	11.5	307
373	Coupling of optical resonances in a compositionally asymmetric plasmonic nanoparticle dimer. *Nano Letters*, **2010**, 10, 2655-60	11.5	305
372	Ligand Mediated Transformation of Cesium Lead Bromide Perovskite Nanocrystals to Lead Depleted CsPbBr Nanocrystals. *Journal of the American Chemical Society*, **2017**, 139, 5309-5312	16.4	301

371	Crystal splitting in the growth of Bi2S3. *Nano Letters*, **2006**, 6, 2701-6	11.5	299
370	An approach to electrical studies of single nanocrystals. *Applied Physics Letters*, **1996**, 68, 2574-2576	3.4	299
369	Size-Controlled Growth of CdSe Nanocrystals in Microfluidic Reactors. *Nano Letters*, **2003**, 3, 199-201	11.5	296
368	Conformation of Oligonucleotides Attached to Gold Nanocrystals Probed by Gel Electrophoresis. *Nano Letters*, **2003**, 3, 33-36	11.5	292
367	Design Principles for Trap-Free CsPbX Nanocrystals: Enumerating and Eliminating Surface Halide Vacancies with Softer Lewis Bases. *Journal of the American Chemical Society*, **2018**, 140, 17760-17772	16.4	291
366	Encapsulation of Perovskite Nanocrystals into Macroscale Polymer Matrices: Enhanced Stability and Polarization. *ACS Applied Materials & Interfaces*, **2016**, 8, 35523-35533	9.5	288
365	Time-gated biological imaging by use of colloidal quantum dots. *Optics Letters*, **2001**, 26, 825-7	3	286
364	The Effect of Organic Ligand Binding on the Growth of CdSe Nanoparticles Probed by Ab Initio Calculations. *Nano Letters*, **2004**, 4, 2361-2365	11.5	285
363	Gold/Iron Oxide Core/Hollow-Shell Nanoparticles. *Advanced Materials*, **2008**, 20, 4323-4329	24	284
362	Synthesis, self-assembly, and magnetic behavior of a two-dimensional superlattice of single-crystal Co nanoparticles. *Applied Physics Letters*, **2001**, 78, 2187-2189	3.4	282
361	Ultrahigh-resolution multicolor colocalization of single fluorescent probes. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 9461-6	11.5	281
360	Room-temperature single-nucleotide polymorphism and multiallele DNA detection using fluorescent nanocrystals and microarrays. *Analytical Chemistry*, **2003**, 75, 4766-72	7.8	274
359	Conjugation of DNA to Silanized Colloidal Semiconductor Nanocrystalline Quantum Dots. *Chemistry of Materials*, **2002**, 14, 2113-2119	9.6	274
358	Semiconductor Nanorod Liquid Crystals. *Nano Letters*, **2002**, 2, 557-560	11.5	274
357	Vacancy coalescence during oxidation of iron nanoparticles. *Journal of the American Chemical Society*, **2007**, 129, 10358-60	16.4	270
356	Collective behaviour in two-dimensional cobalt nanoparticle assemblies observed by magnetic force microscopy. *Nature Materials*, **2004**, 3, 263-8	27	270
355	Sorting fluorescent nanocrystals with DNA. *Journal of the American Chemical Society*, **2002**, 124, 7070-4	16.4	263
354	Quantification of thin film crystallographic orientation using X-ray diffraction with an area detector. *Langmuir*, **2010**, 26, 9146-51	4	262

353	First-principles modeling of unpassivated and surfactant-passivated bulk facets of wurtzite CdSe: a model system for studying the anisotropic growth of CdSe nanocrystals. *Journal of Physical Chemistry B*, **2005**, 109, 6183-92	3.4	260
352	Electron□ibration coupling in semiconductor clusters studied by resonance Raman spectroscopy. *Journal of Chemical Physics*, **1989**, 90, 3463-3468	3.9	260
351	Quantum size dependence of femtosecond electronic dephasing and vibrational dynamics in CdSe nanocrystals. *Physical Review B*, **1994**, 49, 14435-14447	3.3	257
350	Photon antibunching in single CdSe/ZnS quantum dot fluorescence. *Chemical Physics Letters*, **2000**, 329, 399-404	2.5	255
349	Nanotools for neuroscience and brain activity mapping. *ACS Nano*, **2013**, 7, 1850-66	16.7	248
348	Ferroelectric order in individual nanometre-scale crystals. *Nature Materials*, **2012**, 11, 700-9	27	247
347	A nanoplasmonic molecular ruler for measuring nuclease activity and DNA footprinting. *Nature Nanotechnology*, **2006**, 1, 47-52	28.7	247
346	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, 2667-72	11.5	246
345	Faceting of nanocrystals during chemical transformation: from solid silver spheres to hollow gold octahedra. *Journal of the American Chemical Society*, **2006**, 128, 12671-3	16.4	241
344	Nanocrystal diffusion in a liquid thin film observed by in situ transmission electron microscopy. *Nano Letters*, **2009**, 9, 2460-5	11.5	238
343	Charge transport in hybrid nanorod-polymer composite photovoltaic cells. *Physical Review B*, **2003**, 67,	3.3	237
342	Nanoheterostructure cation exchange: anionic framework conservation. *Journal of the American Chemical Society*, **2010**, 132, 9997-9	16.4	236
341	Structural and spectroscopic investigations of CdS/HgS/CdS quantum-dot quantum wells. *Physical Review B*, **1996**, 53, R13242-R13245	3.3	232
340	Discrete nanostructures of quantum dots/Au with DNA. *Journal of the American Chemical Society*, **2004**, 126, 10832-3	16.4	227
339	Hybrid Organic-Nanocrystal Solar Cells. *MRS Bulletin*, **2005**, 30, 41-44	3.2	225
338	Device-scale perpendicular alignment of colloidal nanorods. *Nano Letters*, **2010**, 10, 195-201	11.5	223
337	The concept of delayed nucleation in nanocrystal growth demonstrated for the case of iron oxide nanodisks. *Journal of the American Chemical Society*, **2006**, 128, 1675-82	16.4	221
336	Resonance Raman studies of the ground and lowest electronic excited state in CdS nanocrystals. *Journal of Chemical Physics*, **1993**, 98, 8432-8442	3.9	220

335	Activation volumes for solid-solid transformations in nanocrystals. *Science*, **2001**, 293, 1803-6	33.3	218
334	Organometallic synthesis of gallium-arsenide crystallites, exhibiting quantum confinement. *Journal of the American Chemical Society*, **1990**, 112, 9438-9439	16.4	215
333	Continuous distribution of emission states from single CdSe/ZnS quantum dots. *Nano Letters*, **2006**, 6, 843-7	11.5	214
332	Evidence for a thermal contribution to emission intermittency in single CdSe/CdS core/shell nanocrystals. *Journal of Chemical Physics*, **1999**, 110, 1195-1201	3.9	208
331	Pressure-induced structural transformations in Si nanocrystals: Surface and shape effects. *Physical Review Letters*, **1996**, 76, 4384-4387	7.4	208
330	Precise Tuning of Surface Quenching for Luminescence Enhancement in Core-Shell Lanthanide-Doped Nanocrystals. *Nano Letters*, **2016**, 16, 7241-7247	11.5	208
329	Semiconductor Nanorod Liquid Crystals and Their Assembly on a Substrate. *Advanced Materials*, **2003**, 15, 408-411	24	203
328	Observation of transient structural-transformation dynamics in a Cu2S nanorod. *Science*, **2011**, 333, 206-9	33.3	202
327	Hetero-epitaxial anion exchange yields single-crystalline hollow nanoparticles. *Journal of the American Chemical Society*, **2009**, 131, 13943-5	16.4	201
326	Spin coherence in semiconductor quantum dots. *Physical Review B*, **1999**, 59, R10421-R10424	3.3	197
325	Controlled synthesis of hyperbranched inorganic nanocrystals with rich three-dimensional structures. *Nano Letters*, **2005**, 5, 2164-7	11.5	195
324	Precursor conversion kinetics and the nucleation of cadmium selenide nanocrystals. *Journal of the American Chemical Society*, **2010**, 132, 18206-13	16.4	194
323	Ultrathin Colloidal Cesium Lead Halide Perovskite Nanowires. *Journal of the American Chemical Society*, **2016**, 138, 13155-13158	16.4	193
322	Electrophoretic and Structural Studies of DNA-Directed Au Nanoparticle Groupings. *Journal of Physical Chemistry B*, **2002**, 106, 11758-11763	3.4	190
321	Design of nanostructured solar cells using coupled optical and electrical modeling. *Nano Letters*, **2012**, 12, 2894-900	11.5	189
320	Electroactive Surfactant Designed to Mediate Electron Transfer Between CdSe Nanocrystals and Organic Semiconductors. *Advanced Materials*, **2003**, 15, 58-61	24	188
319	Photovoltaic performance of ultrasmall PbSe quantum dots. *ACS Nano*, **2011**, 5, 8140-7	16.7	185
318	The Making and Breaking of Lead-Free Double Perovskite Nanocrystals of Cesium Silver-Bismuth Halide Compositions. *Nano Letters*, **2018**, 18, 3502-3508	11.5	184

317	Nanoparticle imaging. 3D structure of individual nanocrystals in solution by electron microscopy. *Science*, **2015**, 349, 290-5	33.3	183
316	Self-assembled binary superlattices of CdSe and Au nanocrystals and their fluorescence properties. *Journal of the American Chemical Society*, **2008**, 130, 3274-5	16.4	183
315	Surfactant-Assisted Hydrothermal Synthesis of Single phase Pyrite FeS2 Nanocrystals. *Chemistry of Materials*, **2009**, 21, 2568-2570	9.6	181
314	Ultrahigh stress and strain in hierarchically structured hollow nanoparticles. *Nature Materials*, **2008**, 7, 947-52	27	177
313	Photodeposition of Pt on Colloidal CdS and CdSe/CdS Semiconductor Nanostructures. *Advanced Materials*, **2008**, 20, 4306-4311	24	177
312	Origin and scaling of the permanent dipole moment in CdSe nanorods. *Physical Review Letters*, **2003**, 90, 097402	7.4	177
311	Size-dependent dissociation of carbon monoxide on cobalt nanoparticles. *Journal of the American Chemical Society*, **2013**, 135, 2273-8	16.4	176
310	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, 17735-40	11.5	173
309	Shape control and applications of nanocrystals. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2003**, 361, 241-55; discussion 56-7	3	172
308	Germanium quantum dots: Optical properties and synthesis. *Journal of Chemical Physics*, **1994**, 101, 1607-1615	3.9	172
307	Semiconductor quantum rods as single molecule fluorescent biological labels. *Nano Letters*, **2007**, 7, 179-82	11.5	170
306	Shape change as an indicator of mechanism in the high-pressure structural transformations of CdSe nanocrystals. *Physical Review Letters*, **2000**, 84, 923-6	7.4	167
305	Single-particle mapping of nonequilibrium nanocrystal transformations. *Science*, **2016**, 354, 874-877	33.3	165
304	Structural diversity in binary superlattices self-assembled from polymer-grafted nanocrystals. *Nature Communications*, **2015**, 6, 10052	17.4	162
303	Investigation of femtosecond electronic dephasing in CdSe nanocrystals using quantum-beat-suppressed photon echoes. *Physical Review Letters*, **1993**, 70, 1014-1017	7.4	159
302	Synthetic Insertion of Gold Nanoparticles into Mesoporous Silica. *Chemistry of Materials*, **2003**, 15, 1242-1248	9.4	157
301	Metallic adhesion layer induced plasmon damping and molecular linker as a nondamping alternative. *ACS Nano*, **2012**, 6, 5702-9	16.7	156
300	From artificial atoms to nanocrystal molecules: preparation and properties of more complex nanostructures. *Annual Review of Physical Chemistry*, **2010**, 61, 369-89	15.7	156

299	3D motion of DNA-Au nanoconjugates in graphene liquid cell electron microscopy. *Nano Letters*, **2013**, 13, 4556-61	11.5	154
298	Encapsulation of Metal (Au, Ag, Pt) Nanoparticles into the Mesoporous SBA-15 Structure. *Langmuir*, **2003**, 19, 4396-4401	4	154
297	Semiconductor nanocrystals for biological imaging. *Current Opinion in Neurobiology*, **2005**, 15, 568-75	7.6	153
296	Valence-band photoemission from a quantum-dot system. *Physical Review Letters*, **1991**, 66, 2786-2789	7.4	153
295	Size-controlled model Co nanoparticle catalysts for CO hydrogenation: synthesis, characterization, and catalytic reactions. *Nano Letters*, **2012**, 12, 3091-6	11.5	148
294	Neuroscience. The brain activity map. *Science*, **2013**, 339, 1284-5	33.3	147
293	Structural and electronic study of an amorphous MoS3 hydrogen-generation catalyst on a quantum-controlled photosensitizer. *Angewandte Chemie - International Edition*, **2011**, 50, 10203-7	16.4	147
292	Isolation of discrete nanoparticle-DNA conjugates for plasmonic applications. *Nano Letters*, **2008**, 8, 1202-6	11.5	147
291	SnTe nanocrystals: a new example of narrow-gap semiconductor quantum dots. *Journal of the American Chemical Society*, **2007**, 129, 11354-5	16.4	146
290	Size-dependent electronic level structure of InAs nanocrystal quantum dots: Test of multiband effective mass theory. *Journal of Chemical Physics*, **1998**, 109, 2306-2309	3.9	142
289	Threshold for quasicontinuum absorption and reduced luminescence efficiency in CdSe nanocrystals. *Journal of Chemical Physics*, **1994**, 101, 8455-8460	3.9	141
288	Revealing bismuth oxide hollow nanoparticle formation by the Kirkendall effect. *Nano Letters*, **2013** , 13, 5715-9	11.5	137
287	Direct observation of nanoparticle superlattice formation by using liquid cell transmission electron microscopy. *ACS Nano*, **2012**, 6, 2078-85	16.7	134
286	Directed Assembly of Discrete Gold Nanoparticle Groupings Using Branched DNA Scaffolds. *Chemistry of Materials*, **2005**, 17, 1628-1635	9.6	134
285	Femtosecond spectroscopy of carrier relaxation dynamics in type II CdSe/CdTe tetrapod heteronanostructures. *Nano Letters*, **2005**, 5, 1809-13	11.5	134
284	Quantum Yields, Surface Quenching, and Passivation Efficiency for Ultrasmall Core/Shell Upconverting Nanoparticles. *Journal of the American Chemical Society*, **2018**, 140, 4922-4928	16.4	132
283	Nonradiative damping of molecular electronic excited states by metal surfaces. *Surface Science*, **1985**, 158, 103-125	1.8	132
282	Luminescent solar concentration with semiconductor nanorods and transfer-printed micro-silicon solar cells. *ACS Nano*, **2014**, 8, 44-53	16.7	128

281	Shape Control of Colloidal Semiconductor Nanocrystals. *Journal of Cluster Science*, **2002**, 13, 521-532	3	127
280	Excitation-wavelength-dependent small polaron trapping of photoexcited carriers in □FeO. *Nature Materials*, **2017**, 16, 819-825	27	125
279	Redefining near-unity luminescence in quantum dots with photothermal threshold quantum yield. *Science*, **2019**, 363, 1199-1202	33.3	120
278	Ion exchange synthesis of III-V nanocrystals. *Journal of the American Chemical Society*, **2012**, 134, 19977-80	16.4	120
277	Enhanced semiconductor nanocrystal conductance via solution grown contacts. *Nano Letters*, **2009**, 9, 3676-82	11.5	120
276	Electrical transport through a single nanoscale semiconductor branch point. *Nano Letters*, **2005**, 5, 1519-22	11.5	119
275	Less is more in medicine. *Scientific American*, **2001**, 285, 66-73	0.5	119
274	Molecular Weight, Osmotic Second Virial Coefficient, and Extinction Coefficient of Colloidal CdSe Nanocrystals. *Journal of Physical Chemistry B*, **2002**, 106, 5500-5505	3.4	117
273	Combinatorial approaches toward patterning nanocrystals. *Journal of Applied Physics*, **1998**, 84, 3664-3670	2.5	116
272	Comparison of quantum confinement effects on the electronic absorption spectra of direct and indirect gap semiconductor nanocrystals. *Physical Review Letters*, **1994**, 73, 3266-3269	7.4	116
271	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 295-306	3.8	113
270	A beamline for high-pressure studies at the Advanced Light Source with a superconducting bending magnet as the source. *Journal of Synchrotron Radiation*, **2005**, 12, 650-8	2.4	113
269	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	16.8	111
268	Strain-dependent photoluminescence behavior of CdSe/CdS nanocrystals with spherical, linear, and branched topologies. *Nano Letters*, **2009**, 9, 3544-9	11.5	111
267	CdSe nanocrystals with a dipole moment in the first excited state. *Journal of Chemical Physics*, **1992** , 97, 730-733	3.9	110
266	Direct work function measurement by gas phase photoelectron spectroscopy and its application on PbS nanoparticles. *Nano Letters*, **2013**, 13, 6176-82	11.5	108
265	Efficiency of hole transfer from photoexcited quantum dots to covalently linked molecular species. *Journal of the American Chemical Society*, **2015**, 137, 2021-9	16.4	107
264	Sulfidation of cadmium at the nanoscale. *ACS Nano*, **2008**, 2, 1452-8	16.7	106

263	Determination of the quantum dot band gap dependence on particle size from optical absorbance and transmission electron microscopy measurements. *ACS Nano*, **2012**, 6, 9021-32	16.7	105
262	Observations of shape-dependent hydrogen uptake trajectories from single nanocrystals. *Journal of the American Chemical Society*, **2011**, 133, 13220-3	16.4	105
261	Nanocrystals: Building blocks for modern materials design. *Endeavour*, **1997**, 21, 56-60	0.5	105
260	Doped nanocrystals as plasmonic probes of redox chemistry. *Angewandte Chemie - International Edition*, **2013**, 52, 13671-5	16.4	103
259	Interaction Potentials of Anisotropic Nanocrystals from the Trajectory Sampling of Particle Motion using in Situ Liquid Phase Transmission Electron Microscopy. *ACS Central Science*, **2015**, 1, 33-9	16.8	102
258	Size Dependence of a Temperature-Induced Solid–Solid Phase Transition in Copper(I) Sulfide. *Journal of Physical Chemistry Letters*, **2011**, 2, 2402-2406	6.4	102
257	Surface- vs Diffusion-Limited Mechanisms of Anion Exchange in CsPbBr3 Nanocrystal Cubes Revealed through Kinetic Studies. *Journal of the American Chemical Society*, **2016**, 138, 12065-8	16.4	102
256	Charge separation and transport in conjugated polymer/cadmium selenide nanocrystal composites studied by photoluminescence quenching and photoconductivity. *Synthetic Metals*, **1997**, 84, 545-546	3.6	101
255	Synthesis and Isolatin of a Homodimer of Cadmium Selenide Nanocrystals. *Angewandte Chemie International Edition in English*, **1997**, 36, 145-147		101
254	Magnetic domains and surface effects in hollow maghemite nanoparticles. *Physical Review B*, **2009**, 79,	3.3	100
253	Quantum Dot Luminescent Concentrator Cavity Exhibiting 30-fold Concentration. *ACS Photonics*, **2015**, 2, 1576-1583	6.3	99
252	Dielectric core-shell optical antennas for strong solar absorption enhancement. *Nano Letters*, **2012**, 12, 3674-81	11.5	99
251	Semiempirical Pseudopotential Calculation of Electronic States of CdSe Quantum Rods. *Journal of Physical Chemistry B*, **2002**, 106, 2447-2452	3.4	99
250	Assembled monolayer nanorod heterojunctions. *ACS Nano*, **2011**, 5, 3811-6	16.7	98
249	Colloidal quantum dots. From scaling laws to biological applications. *Pure and Applied Chemistry*, **2000**, 72, 3-9	2.1	98
248	A Mechanogenetic Toolkit for Interrogating Cell Signaling in Space and Time. *Cell*, **2016**, 165, 1507-1518	56.2	98
247	Atomic Resolution Imaging of Halide Perovskites. *Nano Letters*, **2016**, 16, 7530-7535	11.5	97
246	Strongly Quantum Confined Colloidal Cesium Tin Iodide Perovskite Nanoplates: Lessons for Reducing Defect Density and Improving Stability. *Nano Letters*, **2018**, 18, 2060-2066	11.5	96

245	Electric field modulation studies of optical absorption in CdSe nanocrystals: Dipolar character of the excited state. *Journal of Chemical Physics*, **1994**, 101, 7122-7138	3.9	96
244	NMR studies of the surface structure and dynamics of semiconductor nanocrystals. *Chemical Physics Letters*, **1992**, 198, 431-436	2.5	96
243	Reaction regimes on the synthesis of hollow particles by the Kirkendall effect. *Journal of the American Chemical Society*, **2009**, 131, 11326-8	16.4	94
242	Millisecond kinetics of nanocrystal cation exchange using microfluidic X-ray absorption spectroscopy. *Journal of Physical Chemistry A*, **2007**, 111, 12210-5	2.8	93
241	Semiconductor Nanocrystals. *MRS Bulletin*, **1995**, 20, 23-32	3.2	90
240	Study of Heat Transfer Dynamics from Gold Nanorods to the Environment via Time-Resolved Infrared Spectroscopy. *ACS Nano*, **2016**, 10, 2144-51	16.7	89
239	Femtosecond M2,3-Edge Spectroscopy of Transition-Metal Oxides: Photoinduced Oxidation State Change in □Fe2O3. *Journal of Physical Chemistry Letters*, **2013**, 4, 3667-3671	6.4	89
238	Hole Transfer from Photoexcited Quantum Dots: The Relationship between Driving Force and Rate. *Journal of the American Chemical Society*, **2015**, 137, 15567-75	16.4	88
237	Resonance Raman scattering and optical absorption studies of CdSe microclusters at high pressure. *Journal of Chemical Physics*, **1988**, 89, 5979-5982	3.9	87
236	The Use of Graphene and Its Derivatives for Liquid-Phase Transmission Electron Microscopy of Radiation-Sensitive Specimens. *Nano Letters*, **2017**, 17, 414-420	11.5	86
235	Silica-Supported Cationic Gold(I) Complexes as Heterogeneous Catalysts for Regio- and Enantioselective Lactonization Reactions. *Journal of the American Chemical Society*, **2015**, 137, 7083-6	16.4	86
234	Probing the Stability and Band Gaps of Cs2AgInCl6 and Cs2AgSbCl6 Lead-Free Double Perovskite Nanocrystals. *Chemistry of Materials*, **2019**, 31, 3134-3143	9.6	84
233	Lithographically directed self-assembly of nanostructures. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2004**, 22, 3409		84
232	Chemical Control of Plasmons in Metal Chalcogenide and Metal Oxide Nanostructures. *Advanced Materials*, **2015**, 27, 5830-7	24	82
231	Near-field manipulation of spectroscopic selection rules on the nanoscale. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 8016-9	11.5	82
230	Formation mechanism and properties of CdS-Ag2S nanorod superlattices. *ACS Nano*, **2008**, 2, 627-36	16.7	82
229	Dendritic assembly of gold nanoparticles during fuel-forming electrocatalysis. *Journal of the American Chemical Society*, **2014**, 136, 7237-40	16.4	81
228	Nanocrystal Templating of Silica Mesopores with Tunable Pore Sizes. *Nano Letters*, **2002**, 2, 907-910	11.5	81

227	Spectroscopic elucidation of energy transfer in hybrid inorganic-biological organisms for solar-to-chemical production. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 11750-11755	11.5	81
226	Enzymatic ligation creates discrete multinanoparticle building blocks for self-assembly. *Journal of the American Chemical Society*, **2008**, 130, 9598-605	16.4	80
225	Reversible Aptamer-Au Plasmon Rulers for Secreted Single Molecules. *Nano Letters*, **2015**, 15, 4564-70	11.5	79
224	Size-dependent polar ordering in colloidal GeTe nanocrystals. *Nano Letters*, **2011**, 11, 1147-52	11.5	77
223	Hole transfer dynamics from a CdSe/CdS quantum rod to a tethered ferrocene derivative. *Journal of the American Chemical Society*, **2014**, 136, 5121-31	16.4	76
222	Synthesis of Colloidal Cobalt Nanoparticles with Controlled Size and Shapes. *Topics in Catalysis*, **2002**, 19, 145-148	2.3	76
221	Phase-selective cation-exchange chemistry in sulfide nanowire systems. *Journal of the American Chemical Society*, **2014**, 136, 17430-3	16.4	75
220	Probing the conformational distributions of subpersistence length DNA. *Biophysical Journal*, **2009**, 97, 1408-17	2.9	74
219	Electronic Structure of Cobalt Nanocrystals Suspended in Liquid. *Nano Letters*, **2007**, 7, 1919-1922	11.5	74
218	Self-assembly of magnetic nanoparticles in evaporating solution. *Journal of the American Chemical Society*, **2011**, 133, 838-48	16.4	73
217	Structural Disorder in Colloidal InAs and CdSe Nanocrystals Observed by X-Ray Absorption Near-Edge Spectroscopy. *Physical Review Letters*, **1999**, 83, 3474-3477	7.4	73
216	Controlled assembly of hybrid bulk-heterojunction solar cells by sequential deposition. *Journal of Physical Chemistry B*, **2006**, 110, 25543-6	3.4	72
215	DNA als Gerüst zur Bildung von Aggregaten aus Gold-Nanokristallen. *Angewandte Chemie*, **1999**, 111, 1925-1929	3.6	72
214	Preparation of Asymmetric Nanostructures through Site Selective Modification of Tetrapods. *Nano Letters*, **2004**, 4, 2397-2401	11.5	71
213	Dealloying of Cobalt from CuCo Nanoparticles under Syngas Exposure. *Journal of Physical Chemistry C*, **2013**, 117, 6259-6266	3.8	70
212	Novel Two-Step Synthesis of Controlled Size and Shape Platinum Nanoparticles Encapsulated in Mesoporous Silica. *Catalysis Letters*, **2002**, 81, 137-140	2.8	70
211	NMR study of InP quantum dots: Surface structure and size effects. *Journal of Chemical Physics*, **1999**, 110, 8861-8864	3.9	70
210	Roadmap on optical energy conversion. *Journal of Optics (United Kingdom)*, **2016**, 18, 073004	1.7	69

209	IR spectroscopic observation of molecular transport through Pt@CoO yolk-shell nanostructures. *Journal of the American Chemical Society*, **2007**, 129, 9510-3	16.4	69
208	Quantum dot-based cell motility assay. *Differentiation*, **2003**, 71, 542-8	3.5	68
207	Controlled Isotropic and Anisotropic Shell Growth in NaLnF Nanocrystals Induced by Precursor Injection Rate. *Journal of the American Chemical Society*, **2017**, 139, 12325-12332	16.4	67
206	Size-dependent assemblies of nanoparticle mixtures in thin films. *Journal of the American Chemical Society*, **2013**, 135, 1680-3	16.4	66
205	Threshold Size for Ambient Metastability of Rocksalt CdSe Nanocrystals. *Journal of Physical Chemistry B*, **2002**, 106, 3759-3762	3.4	66
204	Tracking Nanoparticle Diffusion and Interaction during Self-Assembly in a Liquid Cell. *Nano Letters*, **2017**, 17, 15-20	11.5	65
203	Quantum confinement and ultrafast dephasing dynamics in InP nanocrystals. *Physical Review B*, **1997**, 55, 7059-7067	3.3	65
202	Perovskite nanowire-block copolymer composites with digitally programmable polarization anisotropy. *Science Advances*, **2019**, 5, eaav8141	14.3	64
201	End-to-end alignment of nanorods in thin films. *Nano Letters*, **2013**, 13, 4908-13	11.5	64
200	Ligand-Controlled Colloidal Synthesis and Electronic Structure Characterization of Cubic Iron Pyrite (FeS2) Nanocrystals. *Chemistry of Materials*, **2013**, 25, 1615-1620	9.6	64
199	Solution-State NMR Studies of the Surface Structure and Dynamics of Semiconductor Nanocrystals. *Journal of Physical Chemistry B*, **1998**, 102, 10117-10128	3.4	62
198	Solution-Processed, High-Speed, and High-Quantum-Efficiency Quantum Dot Infrared Photodetectors. *ACS Photonics*, **2016**, 3, 1217-1222	6.3	61
197	Nanoscience in the era of global science and global change Cooperative, quantitative, and focused on benefit to humanity. *Nano Research*, **2016**, 9, 1-2	10	60
196	Characterization of Photo-Induced Charge Transfer and Hot Carrier Relaxation Pathways in Spinel Cobalt Oxide (Co3O4). *Journal of Physical Chemistry C*, **2014**, 118, 22774-22784	3.8	60
195	Highly luminescent nanocrystals from removal of impurity atoms residual from ion-exchange synthesis. *Angewandte Chemie - International Edition*, **2012**, 51, 2387-90	16.4	60
194	Trap Passivation in Indium-Based Quantum Dots through Surface Fluorination: Mechanism and Applications. *ACS Nano*, **2018**, 12, 11529-11540	16.7	60
193	Modular inorganic nanocomposites by conversion of nanocrystal superlattices. *Angewandte Chemie - International Edition*, **2010**, 49, 2878-82	16.4	59
192	Superresolution fluorescence mapping of single-nanoparticle catalysts reveals spatiotemporal variations in surface reactivity. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 8959-64	11.5	58

191	Carbon Dioxide Dimer Radical Anion as Surface Intermediate of Photoinduced CO Reduction at Aqueous Cu and CdSe Nanoparticle Catalysts by Rapid-Scan FT-IR Spectroscopy. *Journal of the American Chemical Society*, **2018**, 140, 4363-4371	16.4	58
190	Luminescence studies of individual quantum dot photocatalysts. *Journal of the American Chemical Society*, **2013**, 135, 13049-53	16.4	58
189	Exchange interaction in InAs nanocrystal quantum dots. *Superlattices and Microstructures*, **1997**, 22, 559-568	2.8	58
188	Mechanical and electrical properties of CdTe tetrapods studied by atomic force microscopy. *Journal of Chemical Physics*, **2007**, 127, 184704	3.9	58
187	Raman studies on C60 at high pressures and low temperatures. *Chemical Physics Letters*, **1992**, 188, 163-167	2.7	58
186	Enhancing Quantum Yield via Local Symmetry Distortion in Lanthanide-Based Upconverting Nanoparticles. *ACS Photonics*, **2016**, 3, 1523-1530	6.3	57
185	Critical differences in 3D atomic structure of individual ligand-protected nanocrystals in solution. *Science*, **2020**, 368, 60-67	33.3	56
184	Mechanism of ion adsorption to aqueous interfaces: Graphene/water vs. air/water. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 13369-13373	11.5	55
183	Probing redox photocatalysis of trapped electrons and holes on single Sb-doped titania nanorod surfaces. *Journal of the American Chemical Society*, **2012**, 134, 3946-9	16.4	55
182	Spatially indirect emission in a luminescent nanocrystal molecule. *Nano Letters*, **2011**, 11, 2358-62	11.5	55
181	Tetrapod nanocrystals as fluorescent stress probes of electrospun nanocomposites. *Nano Letters*, **2013**, 13, 3915-22	11.5	54
180	Lattice reorganization in electronically excited semiconductor clusters. *Journal of Chemical Physics*, **1990**, 92, 3232-3233	3.9	54
179	Improving Quantum Yield of Upconverting Nanoparticles in Aqueous Media via Emission Sensitization. *Nano Letters*, **2018**, 18, 2689-2695	11.5	53
178	Critical Size for Fracture during Solid–Solid Phase Transformations. *Nano Letters*, **2004**, 4, 943-946	11.5	51
177	Synthesis of PtY and Other Early-Late Intermetallic Nanoparticles by Way of a Molten Reducing Agent. *Journal of the American Chemical Society*, **2017**, 139, 5672-5675	16.4	50
176	Luminescent nanocrystal stress gauge. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 21306-10	11.5	50
175	Tunable Anisotropic Photon Emission from Self-Organized CsPbBr Perovskite Nanocrystals. *Nano Letters*, **2017**, 17, 4534-4540	11.5	49
174	Graphene veils and sandwiches. *Nano Letters*, **2011**, 11, 3290-4	11.5	49

173	Distance Dependence of Electronic Energy Transfer to Semiconductor Surfaces: n3 Pyrazine/GaAs(110). *Physical Review Letters*, **1983**, 50, 1092-1094	7.4	49
172	Optical Rotation Reversal in the Optical Response of Chiral Plasmonic Nanosystems: The Role of Plasmon Hybridization. *ACS Photonics*, **2015**, 2, 1253-1259	6.3	48
171	Sub-20 nm Core-Shell-Shell Nanoparticles for Bright Upconversion and Enhanced F ster Resonant Energy Transfer. *Journal of the American Chemical Society*, **2019**, 141, 16997-17005	16.4	48
170	Tolerance to structural disorder and tunable mechanical behavior in self-assembled superlattices of polymer-grafted nanocrystals. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 2836-2841	11.5	47
169	Ultrasensitive photodetectors exploiting electrostatic trapping and percolation transport. *Nature Communications*, **2016**, 7, 11924	17.4	47
168	Unraveling Kinetically-Driven Mechanisms of Gold Nanocrystal Shape Transformations Using Graphene Liquid Cell Electron Microscopy. *Nano Letters*, **2018**, 18, 5731-5737	11.5	47
167	Structural and Electronic Study of an Amorphous MoS3 Hydrogen-Generation Catalyst on a Quantum-Controlled Photosensitizer. *Angewandte Chemie*, **2011**, 123, 10385-10389	3.6	47
166	Gold Nanocrystal Etching as a Means of Probing the Dynamic Chemical Environment in Graphene Liquid Cell Electron Microscopy. *Journal of the American Chemical Society*, **2019**, 141, 4428-4437	16.4	46
165	Enhanced Photon Collection in Luminescent Solar Concentrators with Distributed Bragg Reflectors. *ACS Photonics*, **2016**, 3, 278-285	6.3	46
164	Controlled synthesis and size-dependent polarization domain structure of colloidal germanium telluride nanocrystals. *Journal of the American Chemical Society*, **2011**, 133, 2044-7	16.4	46
163	Modular synthesis of a dual metal-dual semiconductor nano-heterostructure. *Angewandte Chemie - International Edition*, **2015**, 54, 7007-11	16.4	45
162	DNA conformations in mismatch repair probed in solution by X-ray scattering from gold nanocrystals. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 17308-13	11.5	45
161	Exciton Dynamics in CdS Ag2S Nanorods with Tunable Composition Probed by Ultrafast Transient Absorption Spectroscopy. *Journal of Physical Chemistry C*, **2010**, 114, 5879-5885	3.8	45
160	Isotropic-liquid crystalline phase diagram of a CdSe nanorod solution. *Journal of Chemical Physics*, **2004**, 120, 1149-52	3.9	45
159	Excitation Intensity Dependence of Photoluminescence Blinking in CsPbBr3 Perovskite Nanocrystals. *Journal of Physical Chemistry C*, **2018**, 122, 12106-12113	3.8	45
158	Size dependence of the pressure-induced to structural phase transition in iron oxide nanocrystals. *Nanotechnology*, **2005**, 16, 2813-2818	3.4	44
157	Molecular Oxygen Induced in-Gap States in PbS Quantum Dots. *ACS Nano*, **2015**, 9, 10445-52	16.7	43
156	Small Alkaline-Earth-based Core/Shell Nanoparticles for Efficient Upconversion. *Nano Letters*, **2019**, 19, 3878-3885	11.5	42

155	Inorganic micelles as efficient and recyclable micellar catalysts. *Nano Letters*, **2014**, 14, 379-83	11.5	42
154	Metastability in pressure-induced structural transformations of CdSe/ZnS core/shell nanocrystals. *Nano Letters*, **2013**, 13, 1367-72	11.5	42
153	Charge percolation pathways guided by defects in quantum dot solids. *Nano Letters*, **2015**, 15, 3249-53	11.5	41
152	Tailoring Morphology of Cu-Ag Nanocrescents and Core-Shell Nanocrystals Guided by a Thermodynamic Model. *Journal of the American Chemical Society*, **2018**, 140, 8569-8577	16.4	41
151	Triangular Elastomeric Stamps for Optical Applications: Near-Field Phase Shift Photolithography, 3D Proximity Field Patterning, Embossed Antireflective Coatings, and SERS Sensing. *Advanced Functional Materials*, **2012**, 22, 2927-2938	15.6	41
150	Controlling localized surface plasmon resonances in GeTe nanoparticles using an amorphous-to-crystalline phase transition. *Physical Review Letters*, **2013**, 111, 037401	7.4	41
149	Reactivity of Au nanoparticles supported over SiO2 and TiO2 studied by ambient pressure photoelectron spectroscopy. *Catalysis Today*, **2009**, 143, 158-166	5.3	41
148	Probing the interaction of single nanocrystals with inorganic capping ligands: time-resolved fluorescence from CdSe-CdS quantum dots capped with chalcogenidometalates. *Journal of the American Chemical Society*, **2012**, 134, 18366-73	16.4	40
147	Manipulating the Transition Dipole Moment of CsPbBr Perovskite Nanocrystals for Superior Optical Properties. *Nano Letters*, **2019**, 19, 2489-2496	11.5	39
146	Electrical contacts to individual colloidal semiconductor nanorods. *Nano Letters*, **2008**, 8, 1936-9	11.5	39
145	Bright, Mechanosensitive Upconversion with Cubic-Phase Heteroepitaxial Core-Shell Nanoparticles. *Nano Letters*, **2018**, 18, 4454-4459	11.5	38
144	Second harmonic generation and confined acoustic phonons in highly excited semiconductor nanocrystals. *Journal of Physical Chemistry B*, **2006**, 110, 19884-90	3.4	38
143	PbS nanoparticles capped with tetrathiafulvalenetetracarboxylate: utilizing energy level alignment for efficient carrier transport. *ACS Nano*, **2014**, 8, 2532-40	16.7	37
142	Anisotropic formation and distribution of stacking faults in II-VI semiconductor nanorods. *Nano Letters*, **2013**, 13, 106-10	11.5	37
141	Selective placement of faceted metal tips on semiconductor nanorods. *Angewandte Chemie - International Edition*, **2013**, 52, 980-2	16.4	37
140	Controlled chemical doping of semiconductor nanocrystals using redox buffers. *Journal of the American Chemical Society*, **2012**, 134, 13200-3	16.4	37
139	Design and synthesis of multigrain nanocrystals via geometric misfit strain. *Nature*, **2020**, 577, 359-363	50.4	36
138	Symmetry Breaking in Tetrahedral Chiral Plasmonic Nanoparticle Assemblies. *ACS Photonics*, **2014**, 1, 1189-1196	6.3	36

137	Birth of a nanoscience building block. *ACS Nano*, **2008**, 2, 1514-6	16.7	36
136	Circular Dichroism in Off-Resonantly Coupled Plasmonic Nanosystems. *Nano Letters*, **2015**, 15, 8336-41	11.5	35
135	Factors and Dynamics of Cu Nanocrystal Reconstruction under CO2 Reduction. *ACS Applied Energy Materials*, **2019**, 2, 7744-7749	6.1	35
134	Dynamics and Removal Pathway of Edge Dislocations in Imperfectly Attached PbTe Nanocrystal Pairs: Toward Design Rules for Oriented Attachment. *ACS Nano*, **2018**, 12, 3178-3189	16.7	34
133	Broadband Sensitization of Lanthanide Emission with Indium Phosphide Quantum Dots for Visible to Near-Infrared Downshifting. *Journal of the American Chemical Society*, **2018**, 140, 9120-9126	16.4	33
132	Temperature-Dependent Hole Transfer from Photoexcited Quantum Dots to Molecular Species: Evidence for Trap-Mediated Transfer. *ACS Nano*, **2017**, 11, 8346-8355	16.7	33
131	Postsynthetic Doping Control of Nanocrystal Thin Films: Balancing Space Charge to Improve Photovoltaic Efficiency. *Chemistry of Materials*, **2014**, 26, 153-162	9.6	33
130	Strain and deformation in ultra-hard nanocomposites nc-TiN/a-BN under hydrostatic pressure. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2006**, 437, 379-387	5.3	33
129	Concentrator photovoltaic module architectures with capabilities for capture and conversion of full global solar radiation. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E8210-E8218	11.5	33
128	Real-Time Observation of Water-Soluble Mineral Precipitation in Aqueous Solution by In Situ High-Resolution Electron Microscopy. *ACS Nano*, **2016**, 10, 88-92	16.7	31
127	Charge carrier dynamics of photoexcited Co3O4 in methanol: extending high harmonic transient absorption spectroscopy to liquid environments. *Nano Letters*, **2014**, 14, 5883-90	11.5	31
126	TiO2 nanoparticles as a soft X-ray molecular probe. *Chemical Communications*, **2008**, 2471-3	5.8	31
125	Dynamic Charge Carrier Trapping in Quantum Dot Field Effect Transistors. *Nano Letters*, **2015**, 15, 4657-63	11.5	30
124	Nonmonotonic size dependence in the hole mobility of methoxide-stabilized PbSe quantum dot solids. *ACS Nano*, **2013**, 7, 6774-81	16.7	30
123	Size dependence of the solid-solid phase transition in CdSe nanocrystals. *Zeitschrift F□ Physik D-Atoms Molecules and Clusters*, **1993**, 26, 56-58		30
122	Activation of Tungsten Oxide for Propane Dehydrogenation and Its High Catalytic Activity and Selectivity. *Catalysis Letters*, **2017**, 147, 622-632	2.8	29
121	Influence of three-dimensional nanoparticle branching on the Young's modulus of nanocomposites: Effect of interface orientation. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 6533-8	11.5	29
120	Dynamics of Nanoscale Dendrite Formation in Solution Growth Revealed Through in Situ Liquid Cell Electron Microscopy. *Nano Letters*, **2018**, 18, 6427-6433	11.5	28

119	Three-dimensional structural dynamics and fluctuations of DNA-nanogold conjugates by individual-particle electron tomography. *Nature Communications*, **2016**, 7, 11083	17.4	27
118	Dynamics of exciton localization in CdS/HgS quantum-dot quantum wells. *Physical Review B*, **1999**, 59, 4973-4979	3.3	27
117	Synthesis and characterization of hyperbranched mesoporous silica SBA-15. *Chemical Communications*, **2003**, 314-5	5.8	26
116	Thermodynamic Investigation of Increased Luminescence in Indium Phosphide Quantum Dots by Treatment with Metal Halide Salts. *Journal of the American Chemical Society*, **2020**, 142, 18897-18906	16.4	26
115	Using Graphene Liquid Cell Transmission Electron Microscopy to Study in Situ Nanocrystal Etching. *Journal of Visualized Experiments*, **2018**,	1.6	26
114	Characterizing Photon Reabsorption in Quantum Dot-Polymer Composites for Use as Displacement Sensors. *ACS Nano*, **2017**, 11, 2075-2084	16.7	24
113	Elucidating the Weakly Reversible Cs-Pb-Br Perovskite Nanocrystal Reaction Network with High-Throughput Maps and Transformations. *Journal of the American Chemical Society*, **2020**, 142, 11915-11926	16.4	24
112	Multielectron ionization of CdSe quantum dots in intense femtosecond ultraviolet light. *Physical Review Letters*, **2004**, 92, 127406	7.4	24
111	The chain of chirality transfer in tellurium nanocrystals. *Science*, **2021**, 372, 729-733	33.3	24
110	Strain-dependent dynamic mechanical properties of Kevlar to failure: Structural correlations and comparisons to other polymers. *Materials Today Communications*, **2015**, 2, e33-e37	2.5	23
109	Hundreds-fold Sensitivity Enhancement of Photothermal Microscopy in Near-Critical Xenon. *Journal of Physical Chemistry Letters*, **2016**, 7, 2524-9	6.4	23
108	Design Criteria for Micro-Optical Tandem Luminescent Solar Concentrators. *IEEE Journal of Photovoltaics*, **2018**, 8, 1560-1567	3.7	23
107	Real-time visualization of nanocrystal solid-solid transformation pathways. *Nano Letters*, **2014**, 14, 1995-9	11.5	22
106	Semiconductor nanocrystal quantum dots on single crystal semiconductor substrates: high resolution transmission electron microscopy. *Nano Letters*, **2005**, 5, 969-73	11.5	22
105	Integrated semiconductor nanocrystal and epitaxical nanostructure systems: structural and optical behavior. *Nano Letters*, **2005**, 5, 479-82	11.5	22
104	Effect of Thermal Fluctuations on the Radiative Rate in Core/Shell Quantum Dots. *Nano Letters*, **2017**, 17, 1629-1636	11.5	21
103	Bright sub-20-nm cathodoluminescent nanoprobes for electron microscopy. *Nature Nanotechnology* , **2019**, 14, 420-425	28.7	21
102	Unsaturated Ligands Seed an Order to Disorder Transition in Mixed Ligand Shells of CdSe/CdS Quantum Dots. *ACS Nano*, **2019**, 13, 13784-13796	16.7	21

101	CdSe Nanocrystal Rods/Poly(3-hexylthiophene) Composite Photovoltaic Devices **1999**, 11, 923		21
100	Mechanisms of Local Stress Sensing in Multifunctional Polymer Films Using Fluorescent Tetrapod Nanocrystals. *Nano Letters*, **2016**, 16, 5060-7	11.5	20
99	Cavitation-Induced Stiffness Reductions in Quantum Dot Polymer Nanocomposites. *Chemistry of Materials*, **2016**, 28, 2540-2549	9.6	20
98	Resilient Pathways to Atomic Attachment of Quantum Dot Dimers and Artificial Solids from Faceted CdSe Quantum Dot Building Blocks. *ACS Nano*, **2019**, 13, 12322-12344	16.7	20
97	Surface Structure of CdSe Nanorods Revealed by Combined X-ray Absorption Fine Structure Measurements and ab Initio Calculations. *Journal of Physical Chemistry C*, **2007**, 111, 75-79	3.8	19
96	Soft x-ray imaging and spectroscopy of single nanocrystals. *Journal of Chemical Physics*, **2002**, 116, 6322-6328	3.9	19
95	Observation of pressure-induced direct-to-indirect band gap transition in InP nanocrystals. *Journal of Chemical Physics*, **2000**, 113, 2016-2020	3.9	19
94	29Si high resolution solid state nuclear magnetic resonance spectroscopy of porous silicon. *Journal of Non-Crystalline Solids*, **1996**, 202, 68-76	3.9	19
93	Tracking the Effects of Ligands on Oxidative Etching of Gold Nanorods in Graphene Liquid Cell Electron Microscopy. *ACS Nano*, **2020**, 14, 10239-10250	16.7	18
92	In Situ Transmission Electron Microscopy of Cadmium Selenide Nanorod Sublimation. *Journal of Physical Chemistry Letters*, **2015**, 6, 605-11	6.4	17
91	Dopant Mediated Assembly of CuZnSnS Nanorods into Atomically Coupled 2D Sheets in Solution. *Nano Letters*, **2017**, 17, 3421-3428	11.5	16
90	Lead halide perovskite nanowires stabilized by block copolymers for Langmuir-Blodgett assembly. *Nano Research*, **2020**, 13, 1453-1458	10	16
89	Hybrid Lithographic and DNA-Directed Assembly of a Configurable Plasmonic Metamaterial That Exhibits Electromagnetically Induced Transparency. *Nano Letters*, **2018**, 18, 859-864	11.5	16
88	Wurtzite to rocksalt phase transformation of cadmium selenide nanocrystals via laser-induced shock waves: transition from single to multiple nucleation. *Physical Review Letters*, **2009**, 103, 125701	7.4	16
87	AutoDetect-mNP: An Unsupervised Machine Learning Algorithm for Automated Analysis of Transmission Electron Microscope Images of Metal Nanoparticles. *Jacs Au*, **2021**, 1, 316-327		16
86	Accounting for Localized Defects in the Optoelectronic Design of Thin-Film Solar Cells. *IEEE Journal of Photovoltaics*, **2013**, 3, 599-604	3.7	15
85	Protein-nanocrystal conjugates support a single filament polymerization model in R1 plasmid segregation. *Journal of Biological Chemistry*, **2008**, 283, 28081-6	5.4	15
84	Bright Infrared-to-Ultraviolet/Visible Upconversion in Small Alkaline Earth-Based Nanoparticles with Biocompatible CaF Shells. *Angewandte Chemie - International Edition*, **2020**, 59, 21603-21612	16.4	15

83	Multilayer Diffraction Reveals That Colloidal Superlattices Approach the Structural Perfection of Single Crystals. *ACS Nano*, **2021**, 15, 6243-6256	16.7	15
82	Structural transformations and metastability in semiconductor nanocrystals. *Phase Transitions*, **1999**, 68, 1-25	1.3	14
81	Photoexcited Small Polaron Formation in Goethite (⊞FeOOH) Nanorods Probed by Transient Extreme Ultraviolet Spectroscopy. *Journal of Physical Chemistry Letters*, **2018**, 9, 4120-4124	6.4	13
80	Doped Nanocrystals as Plasmonic Probes of Redox Chemistry. *Angewandte Chemie*, **2013**, 125, 13916-13920	3.0	13
79	Metallic nanoparticles used to estimate the structural integrity of DNA motifs. *Biophysical Journal*, **2008**, 95, 3340-8	2.9	13
78	Structure of chemically synthesized nanophase GaAs studied by nuclear magnetic resonance and x-ray diffraction. *Journal of Chemical Physics*, **1995**, 103, 4834-4840	3.9	13
77	Anomalous nanoparticle surface diffusion in LCTEM is revealed by deep learning-assisted analysis. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	13
76	Ultrahigh Hot Carrier Transient Photocurrent in Nanocrystal Arrays by Auger Recombination. *Nano Letters*, **2019**, 19, 4804-4810	11.5	12
75	A National Network of Neurotechnology Centers for the BRAIN Initiative. *Neuron*, **2015**, 88, 445-8	13.9	12
74	Scaling Laws of Exciton Recombination Kinetics in Low Dimensional Halide Perovskite Nanostructures. *Journal of the American Chemical Society*, **2020**, 142, 8871-8879	16.4	12
73	Pseudoelasticity at Large Strains in Au Nanocrystals. *Physical Review Letters*, **2018**, 121, 056102	7.4	12
72	Measuring cell motility using quantum dot probes. *Methods in Molecular Biology*, **2007**, 374, 125-31	1.4	12
71	Electron (hole) paramagnetic resonance of spherical CdSe nanocrystals. *Journal of Chemical Physics*, **2002**, 117, 2909-2913	3.9	12
70	Colloidal Synthesis Path to 2D Crystalline Quantum Dot Superlattices. *ACS Nano*, **2021**, 15, 2251-2262	16.7	12
69	Understanding the Bias Introduced in Quantum Dot Blinking Using Change Point Analysis. *Journal of Physical Chemistry C*, **2016**, 120, 29484-29490	3.8	12
68	Controlling electron beam-induced structure modifications and cation exchange in cadmium sulfide-copper sulfide heterostructured nanorods. *Ultramicroscopy*, **2013**, 134, 207-13	3.1	11
67	Uncovering the Role of Hole Traps in Promoting Hole Transfer from Multiexcitonic Quantum Dots to Molecular Acceptors. *ACS Nano*, **2021**, 15, 2281-2291	16.7	11
66	Thermodynamics of Composition Dependent Ligand Exchange on the Surfaces of Colloidal Indium Phosphide Quantum Dots. *ACS Nano*, **2021**, 15, 1407-1420	16.7	11

65	The Underlying Chemical Mechanism of Selective Chemical Etching in CsPbBr Nanocrystals for Reliably Accessing Near-Unity Emitters. *ACS Nano*, **2019**, 13, 11825-11833	16.7	10
64	Studies of the dynamics of biological macromolecules using Au nanoparticle-DNA artificial molecules. *Faraday Discussions*, **2014**, 175, 203-14	3.6	10
63	Highly Luminescent Nanocrystals From Removal of Impurity Atoms Residual From Ion-Exchange Synthesis. *Angewandte Chemie*, **2012**, 124, 2437-2440	3.6	10
62	Scanned probe investigations of chemically derived nanostructures. *Nanotechnology*, **1996**, 7, 397-400	3.4	10
61	The role of organic ligand shell structures in colloidal nanocrystal synthesis **2022**, 1, 127-137		10
60	Dynamic lattice distortions driven by surface trapping in semiconductor nanocrystals. *Nature Communications*, **2021**, 12, 1860	17.4	10
59	DNA-Based Assembly of Gold Nanocrystals **1999**, 38, 1808		10
58	Synthesis, physics, and applications of ferroelectric nanomaterials. *MRS Communications*, **2015**, 5, 27-44	2.7	9
57	Sub-Bandgap Photoinduced Transient Absorption Features in CdSe Nanostructures: The Role of Trapped Holes. *Journal of Physical Chemistry C*, **2020**, 124, 17372-17378	3.8	9
56	Ligand dissociation mediated charge transfer observed at colloidal W18O49 nanoparticle interfaces. *Langmuir*, **2014**, 30, 2325-8	4	9
55	Hexameric Octahedral Clusters of PbSe Nanocrystals Grown from Amorphous Lead(II) Carboxylate Nanoparticles. *Chemistry of Materials*, **2013**, 25, 2544-2548	9.6	9
54	Nanocrystals as Model Systems for Pressure-Induced Structural Phase Transitions. *Reviews in Mineralogy and Geochemistry*, **2001**, 44, 59-72	7.1	9
53	Precise Colloidal Plasmonic Photocatalysts Constructed by Multistep Photodepositions. *Nano Letters*, **2020**, 20, 8661-8667	11.5	9
52	From Molecules to Materials: Current Trends and Future Directions **1998**, 10, 1297		9
51	Self-Limiting Shell Formation in Cu@Ag Core-Shell Nanocrystals during Galvanic Replacement. *Journal of Physical Chemistry Letters*, **2020**, 11, 5318-5323	6.4	8
50	Perovskite-Carbon Nanotube Light-Emitting Fibers. *Nano Letters*, **2020**, 20, 3178-3184	11.5	8
49	Nucleation, growth, and superlattice formation of nanocrystals observed in liquid cell transmission electron microscopy. *MRS Bulletin*, **2020**, 45, 713-726	3.2	8
48	Single-Particle Studies Reveal a Nanoscale Mechanism for Elastic, Bright, and Repeatable ZnS:Mn Mechanoluminescence in a Low-Pressure Regime. *ACS Nano*, **2021**, 15, 4115-4133	16.7	8

47	Direct measurement of the built-in potential in a nanoscale heterostructure. *Physical Review B*, **2010**, 82,	3.3	7
46	Toward plasmonics-enabled spatiotemporal activity patterns in three-dimensional culture models. *Systems Biomedicine (Austin, Tex)*, **2013**, 1,		6
45	Seeded synthesis of CdSe/CdS rod and tetrapod nanocrystals. *Journal of Visualized Experiments*, **2013**, e50731	1.6	6
44	Correlation analysis of TEM images of nanocrystal molecules. *Langmuir*, **2008**, 24, 10084-8	4	6
43	Quantum-dot-based cell motility assay. *Science Signaling*, **2005**, 2005, pl5	8.8	6
42	Observation of ordered organic capping ligands on semiconducting quantum dots via powder X-ray diffraction. *Nature Communications*, **2021**, 12, 2663	17.4	6
41	Translatable Research Group-Based Undergraduate Research Program for Lower-Division Students. *Journal of Chemical Education*, **2019**, 96, 1881-1890	2.4	5
40	Selective Placement of Faceted Metal Tips on Semiconductor Nanorods. *Angewandte Chemie*, **2013**, 125, 1014-1016	3.6	5
39	Modular Synthesis of a Dual Metal□Dual Semiconductor Nano-Heterostructure. *Angewandte Chemie* , **2015**, 127, 7113-7117	3.6	5
38	Cation Exchange Reactions in Ionic Nanocrystals.. *ChemInform*, **2005**, 36, no		5
37	Outdoor performance of a tandem InGaP/Si photovoltaic luminescent solar concentrator. *Solar Energy Materials and Solar Cells*, **2021**, 223, 110945	6.4	5
36	Real time imaging of two-dimensional iron oxide spherulite nanostructure formation. *Nano Research*, **2019**, 12, 2889-2893	10	4
35	Quantum Dots3-47		4
34	Micro-optical Tandem Luminescent Solar Concentrator **2017**,		3
33	Ultrahigh-resolution multicolor colocalization of single fluorescent nanocrystals. *Proceedings of SPIE*, **2001**, 4258,	1.7	3
32	Bright Infrared-to-Ultraviolet/Visible Upconversion in Small Alkaline Earth-Based Nanoparticles with Biocompatible CaF2 Shells. *Angewandte Chemie*, **2020**, 132, 21787-21796	3.6	3
31	Characterization of Carrier Cooling Bottleneck in Silicon Nanoparticles by Extreme Ultraviolet (XUV) Transient Absorption Spectroscopy. *Journal of Physical Chemistry C*, **2021**, 125, 9319-9329	3.8	3
30	Spiers Memorial Lecture.□New tools for observing the growth and assembly of colloidal inorganic nanocrystals. *Faraday Discussions*, **2015**, 181, 15-8	3.6	2

29	Quantum Dots4-49		2
28	Multilayer Diffraction Reveals That Colloidal Superlattices Approach the Structural Perfection of Single Crystals		2
27	Real-time observation of dynamic structure of liquid-vapor interface at nanometer resolution in electron irradiated sodium chloride crystals. *Scientific Reports*, **2020**, 10, 8596	4.9	2
26	Elucidating the Role of Halides and Iron during Radiolysis-Driven Oxidative Etching of Gold Nanocrystals Using Liquid Cell Transmission Electron Microscopy and Pulse Radiolysis. *Journal of the American Chemical Society*, **2021**, 143, 11703-11713	16.4	2
25	Application of Dislocation Theory to Minimize Defects in Artificial Solids Built with Nanocrystal Building Blocks. *Accounts of Chemical Research*, **2021**, 54, 1419-1429	24.3	2
24	Nanocrystals as Model Systems for Studying the Interplay Between Crystallization and Chirality. *Israel Journal of Chemistry*,	3.4	2
23	Properties of Fluorescent Semiconductor Nanocrystals and their Application to Biological Labeling **2001**, 2, 261		2
22	High Resolution Imaging in the Graphene Liquid Cell393-407		1
21	Microfabricated liquid chamber utilizing solvent-drying for in-situ TEM imaging of nanoparticle self-assembly **2015**,		1
20	Nanoscience Potential and Threats. *Molecular Frontiers Journal*, **2017**, 01, 50-65	0.9	1
19	Modular small-molecule directed nanoparticle assembly **2010**,		1
18	Quantum Dots: Inorganic Fluorescent Probes for Single-Molecule Tracking Experiments in Live Cells67-96		1
17	Single Particle Cathodoluminescence Spectroscopy with Sub-20 nm, Electron-Stable Phosphors. *ACS Photonics*, **2021**, 8, 1539-1547	6.3	1
16	Redox Mediated Control of Electrochemical Potential in Liquid Cell Electron Microscopy. *Journal of the American Chemical Society*, **2021**, 143, 12082-12089	16.4	1
15	Multiscale Characterization of the Influence of the Organic-Inorganic Interface on the Dielectric Breakdown of Nanocomposites.. *ACS Nano*, **2022**,	16.7	1
14	Determining atomic coordinates in 3D by atomic electron tomography **2016**, 1-2		0
13	In Situ TEM Etching of Gold Nanocrystals: Elucidating the Shape Transformation Mechanisms and Chemistry of the Graphene Liquid Cell. *Microscopy and Microanalysis*, **2019**, 25, 1412-1413	0.5	0
12	In Situ Quantification of Interactions between Charged Nanorods in a Predefined Potential Energy Landscape. *Nano Letters*, **2021**, 21, 628-633	11.5	0

11	Research Group-Led Undergraduate Research Program: Analyzing and Improving a Versatile Springboard for First-Year Undergraduates. *Journal of Chemical Education*, **2022**, 99, 799-809	2.4	0
10	Quantum Rods: Cadmium Selenide Anisotropy **2014**, 4116-4125		
9	Integration of nanocrystal quantum dots with crystalline semiconductor substrates: Structure, Stability, and Optical response. *Materials Research Society Symposia Proceedings*, **2004**, 854, U4.7.1		
8	Designed for Charge Transfer: Complexes of CdSe Nanocrystals and Oligothiophenes. *Materials Research Society Symposia Proceedings*, **2002**, 725, 1		
7	Mechanisms of Controlled Growth Of Metallic Nanocrystals. *Materials Research Society Symposia Proceedings*, **2002**, 721, 1		
6	Nanoscience Potential and Threats **2019**, 9-46		
5	Cadmium Selenide Quantum Rods **2008**, 487-497		
4	Dynamics and Removal Pathway of Edge Dislocations in Imperfectly Attached Nanocrystal Pairs; Towards Design Rules for Oriented Attachment. *Microscopy and Microanalysis*, **2018**, 24, 1656-1657	0.5	
3	Using Graphene Liquid Cell Electron Microscopy to Elucidate Nanocrystal Etching Mechanisms. *Microscopy and Microanalysis*, **2018**, 24, 246-247	0.5	
2	Introductory Perspectives. *Advances in Electrochemical Science and Engineering*, **2018**, 1-6		
1	How does solar power work?. *Scientific American*, **2009**, 300, 108	0.5	