

A Paul Alivisatos

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	The role of organic ligand shell structures in colloidal nanocrystal synthesis 2022 , 1, 127-137		10
459	Multiscale Characterization of the Influence of the Organic-Inorganic Interface on the Dielectric Breakdown of Nanocomposites.. <i>ACS Nano</i> , 2022 ,	16.7	1
458	Research Group-Led Undergraduate Research Program: Analyzing and Improving a Versatile Springboard for First-Year Undergraduates. <i>Journal of Chemical Education</i> , 2022 , 99, 799-809	2.4	0
457	Colloidal Synthesis Path to 2D Crystalline Quantum Dot Superlattices. <i>ACS Nano</i> , 2021 , 15, 2251-2262	16.7	12
456	Anomalous nanoparticle surface diffusion in LCTEM is revealed by deep learning-assisted analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	13
455	Dynamic lattice distortions driven by surface trapping in semiconductor nanocrystals. <i>Nature Communications</i> , 2021 , 12, 1860	17.4	10
454	Characterization of Carrier Cooling Bottleneck in Silicon Nanoparticles by Extreme Ultraviolet (XUV) Transient Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 9319-9329	3.8	3
453	Single Particle Cathodoluminescence Spectroscopy with Sub-20 nm, Electron-Stable Phosphors. <i>ACS Photonics</i> , 2021 , 8, 1539-1547	6.3	1
452	Observation of ordered organic capping ligands on semiconducting quantum dots via powder X-ray diffraction. <i>Nature Communications</i> , 2021 , 12, 2663	17.4	6
451	Outdoor performance of a tandem InGaP/Si photovoltaic luminescent solar concentrator. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 223, 110945	6.4	5
450	The chain of chirality transfer in tellurium nanocrystals. <i>Science</i> , 2021 , 372, 729-733	33.3	24
449	Elucidating the Role of Halides and Iron during Radiolysis-Driven Oxidative Etching of Gold Nanocrystals Using Liquid Cell Transmission Electron Microscopy and Pulse Radiolysis. <i>Journal of the American Chemical Society</i> , 2021 , 143, 11703-11713	16.4	2
448	In Situ Quantification of Interactions between Charged Nanorods in a Predefined Potential Energy Landscape. <i>Nano Letters</i> , 2021 , 21, 628-633	11.5	0
447	Uncovering the Role of Hole Traps in Promoting Hole Transfer from Multiexcitonic Quantum Dots to Molecular Acceptors. <i>ACS Nano</i> , 2021 , 15, 2281-2291	16.7	11
446	Multilayer Diffraction Reveals That Colloidal Superlattices Approach the Structural Perfection of Single Crystals. <i>ACS Nano</i> , 2021 , 15, 6243-6256	16.7	15
445	Single-Particle Studies Reveal a Nanoscale Mechanism for Elastic, Bright, and Repeatable ZnS:Mn Mechanoluminescence in a Low-Pressure Regime. <i>ACS Nano</i> , 2021 , 15, 4115-4133	16.7	8
444	Application of Dislocation Theory to Minimize Defects in Artificial Solids Built with Nanocrystal Building Blocks. <i>Accounts of Chemical Research</i> , 2021 , 54, 1419-1429	24.3	2

443	AutoDetect-mNP: An Unsupervised Machine Learning Algorithm for Automated Analysis of Transmission Electron Microscope Images of Metal Nanoparticles. <i>Jacs Au</i> , 2021 , 1, 316-327		16
442	Redox Mediated Control of Electrochemical Potential in Liquid Cell Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2021 , 143, 12082-12089	16.4	1
441	Thermodynamics of Composition Dependent Ligand Exchange on the Surfaces of Colloidal Indium Phosphide Quantum Dots. <i>ACS Nano</i> , 2021 , 15, 1407-1420	16.7	11
440	Self-Limiting Shell Formation in Cu@Ag Core-Shell Nanocrystals during Galvanic Replacement. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 5318-5323	6.4	8
439	Elucidating the Weakly Reversible Cs-Pb-Br Perovskite Nanocrystal Reaction Network with High-Throughput Maps and Transformations. <i>Journal of the American Chemical Society</i> , 2020 , 142, 11915-11926	16.4	24
438	Lead halide perovskite nanowires stabilized by block copolymers for Langmuir-Blodgett assembly. <i>Nano Research</i> , 2020 , 13, 1453-1458	10	16
437	Critical differences in 3D atomic structure of individual ligand-protected nanocrystals in solution. <i>Science</i> , 2020 , 368, 60-67	33.3	56
436	Sub-Bandgap Photoinduced Transient Absorption Features in CdSe Nanostructures: The Role of Trapped Holes. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 17372-17378	3.8	9
435	Design and synthesis of multigrain nanocrystals via geometric misfit strain. <i>Nature</i> , 2020 , 577, 359-363	50.4	36
434	Perovskite-Carbon Nanotube Light-Emitting Fibers. <i>Nano Letters</i> , 2020 , 20, 3178-3184	11.5	8
433	Scaling Laws of Exciton Recombination Kinetics in Low Dimensional Halide Perovskite Nanostructures. <i>Journal of the American Chemical Society</i> , 2020 , 142, 8871-8879	16.4	12
432	Thermodynamic Investigation of Increased Luminescence in Indium Phosphide Quantum Dots by Treatment with Metal Halide Salts. <i>Journal of the American Chemical Society</i> , 2020 , 142, 18897-18906	16.4	26
431	Real-time observation of dynamic structure of liquid-vapor interface at nanometer resolution in electron irradiated sodium chloride crystals. <i>Scientific Reports</i> , 2020 , 10, 8596	4.9	2
430	Precise Colloidal Plasmonic Photocatalysts Constructed by Multistep Photodepositions. <i>Nano Letters</i> , 2020 , 20, 8661-8667	11.5	9
429	Tracking the Effects of Ligands on Oxidative Etching of Gold Nanorods in Graphene Liquid Cell Electron Microscopy. <i>ACS Nano</i> , 2020 , 14, 10239-10250	16.7	18
428	Bright Infrared-to-Ultraviolet/Visible Upconversion in Small Alkaline Earth-Based Nanoparticles with Biocompatible CaF ₂ Shells. <i>Angewandte Chemie</i> , 2020 , 132, 21787-21796	3.6	3
427	Bright Infrared-to-Ultraviolet/Visible Upconversion in Small Alkaline Earth-Based Nanoparticles with Biocompatible CaF Shells. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 21603-21612	16.4	15
426	Nucleation, growth, and superlattice formation of nanocrystals observed in liquid cell transmission electron microscopy. <i>MRS Bulletin</i> , 2020 , 45, 713-726	3.2	8

425	Translatable Research Group-Based Undergraduate Research Program for Lower-Division Students. <i>Journal of Chemical Education</i> , 2019 , 96, 1881-1890	2.4	5
424	The Underlying Chemical Mechanism of Selective Chemical Etching in CsPbBr Nanocrystals for Reliably Accessing Near-Unity Emitters. <i>ACS Nano</i> , 2019 , 13, 11825-11833	16.7	10
423	Ultrahigh Hot Carrier Transient Photocurrent in Nanocrystal Arrays by Auger Recombination. <i>Nano Letters</i> , 2019 , 19, 4804-4810	11.5	12
422	Perovskite nanowire-block copolymer composites with digitally programmable polarization anisotropy. <i>Science Advances</i> , 2019 , 5, eaav8141	14.3	64
421	Probing the Stability and Band Gaps of Cs ₂ AgInCl ₆ and Cs ₂ AgSbCl ₆ Lead-Free Double Perovskite Nanocrystals. <i>Chemistry of Materials</i> , 2019 , 31, 3134-3143	9.6	84
420	Small Alkaline-Earth-based Core/Shell Nanoparticles for Efficient Upconversion. <i>Nano Letters</i> , 2019 , 19, 3878-3885	11.5	42
419	Manipulating the Transition Dipole Moment of CsPbBr Perovskite Nanocrystals for Superior Optical Properties. <i>Nano Letters</i> , 2019 , 19, 2489-2496	11.5	39
418	Bright sub-20-nm cathodoluminescent nanoprobe for electron microscopy. <i>Nature Nanotechnology</i> , 2019 , 14, 420-425	28.7	21
417	Redefining near-unity luminescence in quantum dots with photothermal threshold quantum yield. <i>Science</i> , 2019 , 363, 1199-1202	33.3	120
416	Gold Nanocrystal Etching as a Means of Probing the Dynamic Chemical Environment in Graphene Liquid Cell Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2019 , 141, 4428-4437	16.4	46
415	In Situ TEM Etching of Gold Nanocrystals: Elucidating the Shape Transformation Mechanisms and Chemistry of the Graphene Liquid Cell. <i>Microscopy and Microanalysis</i> , 2019 , 25, 1412-1413	0.5	0
414	Resilient Pathways to Atomic Attachment of Quantum Dot Dimers and Artificial Solids from Faceted CdSe Quantum Dot Building Blocks. <i>ACS Nano</i> , 2019 , 13, 12322-12344	16.7	20
413	Sub-20 nm Core-Shell-Shell Nanoparticles for Bright Upconversion and Enhanced Förster Resonant Energy Transfer. <i>Journal of the American Chemical Society</i> , 2019 , 141, 16997-17005	16.4	48
412	Factors and Dynamics of Cu Nanocrystal Reconstruction under CO ₂ Reduction. <i>ACS Applied Energy Materials</i> , 2019 , 2, 7744-7749	6.1	35
411	Real time imaging of two-dimensional iron oxide spherulite nanostructure formation. <i>Nano Research</i> , 2019 , 12, 2889-2893	10	4
410	Nanoscience [Potential and Threats 2019 , 9-46		
409	Unsaturated Ligands Seed an Order to Disorder Transition in Mixed Ligand Shells of CdSe/CdS Quantum Dots. <i>ACS Nano</i> , 2019 , 13, 13784-13796	16.7	21
408	Dynamics and Removal Pathway of Edge Dislocations in Imperfectly Attached PbTe Nanocrystal Pairs: Toward Design Rules for Oriented Attachment. <i>ACS Nano</i> , 2018 , 12, 3178-3189	16.7	34

407	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. <i>Journal of the American Chemical Society</i> , 2018 , 140, 4363-4371	16.4	58
406	Strongly Quantum Confined Colloidal Cesium Tin Iodide Perovskite Nanoplates: Lessons for Reducing Defect Density and Improving Stability. <i>Nano Letters</i> , 2018 , 18, 2060-2066	11.5	96
405	Thermochromic halide perovskite solar cells. <i>Nature Materials</i> , 2018 , 17, 261-267	27	436
404	Hybrid Lithographic and DNA-Directed Assembly of a Configurable Plasmonic Metamaterial That Exhibits Electromagnetically Induced Transparency. <i>Nano Letters</i> , 2018 , 18, 859-864	11.5	16
403	The Making and Breaking of Lead-Free Double Perovskite Nanocrystals of Cesium Silver-Bismuth Halide Compositions. <i>Nano Letters</i> , 2018 , 18, 3502-3508	11.5	184
402	Improving Quantum Yield of Upconverting Nanoparticles in Aqueous Media via Emission Sensitization. <i>Nano Letters</i> , 2018 , 18, 2689-2695	11.5	53
401	Quantum Yields, Surface Quenching, and Passivation Efficiency for Ultrasmall Core/Shell Upconverting Nanoparticles. <i>Journal of the American Chemical Society</i> , 2018 , 140, 4922-4928	16.4	132
400	Bright, Mechanosensitive Upconversion with Cubic-Phase Heteroepitaxial Core-Shell Nanoparticles. <i>Nano Letters</i> , 2018 , 18, 4454-4459	11.5	38
399	Pseudoelasticity at Large Strains in Au Nanocrystals. <i>Physical Review Letters</i> , 2018 , 121, 056102	7.4	12
398	Photoexcited Small Polaron Formation in Goethite (FeOOH) Nanorods Probed by Transient Extreme Ultraviolet Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 4120-4124	6.4	13
397	Unraveling Kinetically-Driven Mechanisms of Gold Nanocrystal Shape Transformations Using Graphene Liquid Cell Electron Microscopy. <i>Nano Letters</i> , 2018 , 18, 5731-5737	11.5	47
396	Design Criteria for Micro-Optical Tandem Luminescent Solar Concentrators. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 1560-1567	3.7	23
395	Tailoring Morphology of Cu-Ag Nanocrescents and Core-Shell Nanocrystals Guided by a Thermodynamic Model. <i>Journal of the American Chemical Society</i> , 2018 , 140, 8569-8577	16.4	41
394	Broadband Sensitization of Lanthanide Emission with Indium Phosphide Quantum Dots for Visible to Near-Infrared Downshifting. <i>Journal of the American Chemical Society</i> , 2018 , 140, 9120-9126	16.4	33
393	Dynamics and Removal Pathway of Edge Dislocations in Imperfectly Attached Nanocrystal Pairs; Towards Design Rules for Oriented Attachment. <i>Microscopy and Microanalysis</i> , 2018 , 24, 1656-1657	0.5	
392	Using Graphene Liquid Cell Electron Microscopy to Elucidate Nanocrystal Etching Mechanisms. <i>Microscopy and Microanalysis</i> , 2018 , 24, 246-247	0.5	
391	Design Principles for Trap-Free CsPbX Nanocrystals: Enumerating and Eliminating Surface Halide Vacancies with Softer Lewis Bases. <i>Journal of the American Chemical Society</i> , 2018 , 140, 17760-17772	16.4	291
390	Dynamics of Nanoscale Dendrite Formation in Solution Growth Revealed Through in Situ Liquid Cell Electron Microscopy. <i>Nano Letters</i> , 2018 , 18, 6427-6433	11.5	28

389 Introductory Perspectives. *Advances in Electrochemical Science and Engineering*, **2018**, 1-6

388 Trap Passivation in Indium-Based Quantum Dots through Surface Fluorination: Mechanism and Applications. *ACS Nano*, **2018**, 12, 11529-11540 16.7 60

387 Using Graphene Liquid Cell Transmission Electron Microscopy to Study in Situ Nanocrystal Etching. *Journal of Visualized Experiments*, **2018**, 1.6 26

386 Excitation Intensity Dependence of Photoluminescence Blinking in CsPbBr₃ Perovskite Nanocrystals. *Journal of Physical Chemistry C*, **2018**, 122, 12106-12113 3.8 45

385 Characterizing Photon Reabsorption in Quantum Dot-Polymer Composites for Use as Displacement Sensors. *ACS Nano*, **2017**, 11, 2075-2084 16.7 24

384 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

383 Effect of Thermal Fluctuations on the Radiative Rate in Core/Shell Quantum Dots. *Nano Letters*, **2017**, 17, 1629-1636 11.5 21

382 Activation of Tungsten Oxide for Propane Dehydrogenation and Its High Catalytic Activity and Selectivity. *Catalysis Letters*, **2017**, 147, 622-632 2.8 29

381 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

380 Dopant Mediated Assembly of CuZnSnS Nanorods into Atomically Coupled 2D Sheets in Solution. *Nano Letters*, **2017**, 17, 3421-3428 11.5 16

379 Essentially Trap-Free CsPbBr₃ Colloidal Nanocrystals by Postsynthetic Thiocyanate Surface Treatment. *Journal of the American Chemical Society*, **2017**, 139, 6566-6569 16.4 531

378 Tunable Anisotropic Photon Emission from Self-Organized CsPbBr₃ Perovskite Nanocrystals. *Nano Letters*, **2017**, 17, 4534-4540 11.5 49

377 Synthesis of Pt₂Y 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

376 Ligand Mediated Transformation of Cesium Lead Bromide Perovskite Nanocrystals to Lead Depleted CsPbBr₃ Nanocrystals. *Journal of the American Chemical Society*, **2017**, 139, 5309-5312 16.4 301

375 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

374 Micro-optical Tandem Luminescent Solar Concentrator **2017**, 3

373 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

372 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

371	Controlled Isotropic and Anisotropic Shell Growth in NaLnF Nanocrystals Induced by Precursor Injection Rate. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12325-12332	16.4	67
370	Excitation-wavelength-dependent small polaron trapping of photoexcited carriers in FeO . <i>Nature Materials</i> , 2017 , 16, 819-825	27	125
369	Nanoscience [Potential and Threats. <i>Molecular Frontiers Journal</i> , 2017 , 01, 50-65	0.9	1
368	Tracking Nanoparticle Diffusion and Interaction during Self-Assembly in a Liquid Cell. <i>Nano Letters</i> , 2017 , 17, 15-20	11.5	65
367	Determining atomic coordinates in 3D by atomic electron tomography 2016 , 1-2		0
366	Mechanisms of Local Stress Sensing in Multifunctional Polymer Films Using Fluorescent Tetrapod Nanocrystals. <i>Nano Letters</i> , 2016 , 16, 5060-7	11.5	20
365	Single-particle mapping of nonequilibrium nanocrystal transformations. <i>Science</i> , 2016 , 354, 874-877	33.3	165
364	Three-dimensional structural dynamics and fluctuations of DNA-nanogold conjugates by individual-particle electron tomography. <i>Nature Communications</i> , 2016 , 7, 11083	17.4	27
363	Ultrasensitive photodetectors exploiting electrostatic trapping and percolation transport. <i>Nature Communications</i> , 2016 , 7, 11924	17.4	47
362	Atomic Resolution Imaging of Halide Perovskites. <i>Nano Letters</i> , 2016 , 16, 7530-7535	11.5	97
361	Roadmap on optical energy conversion. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 073004	1.7	69
360	Solution-Processed, High-Speed, and High-Quantum-Efficiency Quantum Dot Infrared Photodetectors. <i>ACS Photonics</i> , 2016 , 3, 1217-1222	6.3	61
359	Hundreds-Fold Sensitivity Enhancement of Photothermal Microscopy in Near-Critical Xenon. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 2524-9	6.4	23
358	Real-Time Observation of Water-Soluble Mineral Precipitation in Aqueous Solution by In Situ High-Resolution Electron Microscopy. <i>ACS Nano</i> , 2016 , 10, 88-92	16.7	31
357	Cavitation-Induced Stiffness Reductions in Quantum Dot-Polymer Nanocomposites. <i>Chemistry of Materials</i> , 2016 , 28, 2540-2549	9.6	20
356	Study of Heat Transfer Dynamics from Gold Nanorods to the Environment via Time-Resolved Infrared Spectroscopy. <i>ACS Nano</i> , 2016 , 10, 2144-51	16.7	89
355	Nanoscience in the era of global science and global change [Cooperative, quantitative, and focused on benefit to humanity. <i>Nano Research</i> , 2016 , 9, 1-2	10	60
354	Enhanced Photon Collection in Luminescent Solar Concentrators with Distributed Bragg Reflectors. <i>ACS Photonics</i> , 2016 , 3, 278-285	6.3	46

353	Encapsulation of Perovskite Nanocrystals into Macroscale Polymer Matrices: Enhanced Stability and Polarization. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 35523-35533	9.5	288
352	Understanding the Bias Introduced in Quantum Dot Blinking Using Change Point Analysis. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 29484-29490	3.8	12
351	Concentrator photovoltaic module architectures with capabilities for capture and conversion of full global solar radiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E8210-E8218	11.5	33
350	Synthesis of Composition Tunable and Highly Luminescent Cesium Lead Halide Nanowires through Anion-Exchange Reactions. <i>Journal of the American Chemical Society</i> , 2016 , 138, 7236-9	16.4	327
349	A Mechanogenetic Toolkit for Interrogating Cell Signaling in Space and Time. <i>Cell</i> , 2016 , 165, 1507-1518	56.2	98
348	Surface- vs Diffusion-Limited Mechanisms of Anion Exchange in CsPbBr ₃ Nanocrystal Cubes Revealed through Kinetic Studies. <i>Journal of the American Chemical Society</i> , 2016 , 138, 12065-8	16.4	102
347	Ultrathin Colloidal Cesium Lead Halide Perovskite Nanowires. <i>Journal of the American Chemical Society</i> , 2016 , 138, 13155-13158	16.4	193
346	Spectroscopic elucidation of energy transfer in hybrid inorganic-biological organisms for solar-to-chemical production. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 11750-11755	11.5	81
345	Precise Tuning of Surface Quenching for Luminescence Enhancement in Core-Shell Lanthanide-Doped Nanocrystals. <i>Nano Letters</i> , 2016 , 16, 7241-7247	11.5	208
344	Insight into the Ligand-Mediated Synthesis of Colloidal CsPbBr ₃ Perovskite Nanocrystals: The Role of Organic Acid, Base, and Cesium Precursors. <i>ACS Nano</i> , 2016 , 10, 7943-54	16.7	541
343	Enhancing Quantum Yield via Local Symmetry Distortion in Lanthanide-Based Upconverting Nanoparticles. <i>ACS Photonics</i> , 2016 , 3, 1523-1530	6.3	57
342	Efficiency of hole transfer from photoexcited quantum dots to covalently linked molecular species. <i>Journal of the American Chemical Society</i> , 2015 , 137, 2021-9	16.4	107
341	Microfabricated liquid chamber utilizing solvent-drying for in-situ TEM imaging of nanoparticle self-assembly 2015 ,		1
340	Spiers Memorial Lecture. New tools for observing the growth and assembly of colloidal inorganic nanocrystals. <i>Faraday Discussions</i> , 2015 , 181, 15-8	3.6	2
339	Superresolution fluorescence mapping of single-nanoparticle catalysts reveals spatiotemporal variations in surface reactivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 8959-64	11.5	58
338	Nanoparticle imaging. 3D structure of individual nanocrystals in solution by electron microscopy. <i>Science</i> , 2015 , 349, 290-5	33.3	183
337	Dynamic Charge Carrier Trapping in Quantum Dot Field Effect Transistors. <i>Nano Letters</i> , 2015 , 15, 4657-63	5	30
336	Modular synthesis of a dual metal-dual semiconductor nano-heterostructure. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 7007-11	16.4	45

335	Interaction Potentials of Anisotropic Nanocrystals from the Trajectory Sampling of Particle Motion using in Situ Liquid Phase Transmission Electron Microscopy. <i>ACS Central Science</i> , 2015 , 1, 33-9	16.8	102
334	Synthesis, physics, and applications of ferroelectric nanomaterials. <i>MRS Communications</i> , 2015 , 5, 27-44	2.7	9
333	Charge percolation pathways guided by defects in quantum dot solids. <i>Nano Letters</i> , 2015 , 15, 3249-53	11.5	41
332	Molecular Oxygen Induced in-Gap States in PbS Quantum Dots. <i>ACS Nano</i> , 2015 , 9, 10445-52	16.7	43
331	Atomically thin two-dimensional organic-inorganic hybrid perovskites. <i>Science</i> , 2015 , 349, 1518-21	33.3	959
330	A National Network of Neurotechnology Centers for the BRAIN Initiative. <i>Neuron</i> , 2015 , 88, 445-8	13.9	12
329	Optical Rotation Reversal in the Optical Response of Chiral Plasmonic Nanosystems: The Role of Plasmon Hybridization. <i>ACS Photonics</i> , 2015 , 2, 1253-1259	6.3	48
328	Hole Transfer from Photoexcited Quantum Dots: The Relationship between Driving Force and Rate. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15567-75	16.4	88
327	Circular Dichroism in Off-Resonantly Coupled Plasmonic Nanosystems. <i>Nano Letters</i> , 2015 , 15, 8336-41	11.5	35
326	Strain-dependent dynamic mechanical properties of Kevlar to failure: Structural correlations and comparisons to other polymers. <i>Materials Today Communications</i> , 2015 , 2, e33-e37	2.5	23
325	Modular Synthesis of a Dual Metal/Dual Semiconductor Nano-Heterostructure. <i>Angewandte Chemie</i> , 2015 , 127, 7113-7117	3.6	5
324	Chemical Control of Plasmons in Metal Chalcogenide and Metal Oxide Nanostructures. <i>Advanced Materials</i> , 2015 , 27, 5830-7	24	82
323	Influence of three-dimensional nanoparticle branching on the Young's modulus of nanocomposites: Effect of interface orientation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 6533-8	11.5	29
322	Reversible Aptamer-Au Plasmon Rulers for Secreted Single Molecules. <i>Nano Letters</i> , 2015 , 15, 4564-70	11.5	79
321	Silica-Supported Cationic Gold(I) Complexes as Heterogeneous Catalysts for Regio- and Enantioselective Lactonization Reactions. <i>Journal of the American Chemical Society</i> , 2015 , 137, 7083-6	16.4	86
320	Highly Luminescent Colloidal Nanoplates of Perovskite Cesium Lead Halide and Their Oriented Assemblies. <i>Journal of the American Chemical Society</i> , 2015 , 137, 16008-11	16.4	820
319	Structural diversity in binary superlattices self-assembled from polymer-grafted nanocrystals. <i>Nature Communications</i> , 2015 , 6, 10052	17.4	162
318	Quantum Dot Luminescent Concentrator Cavity Exhibiting 30-fold Concentration. <i>ACS Photonics</i> , 2015 , 2, 1576-1583	6.3	99

317	In Situ Transmission Electron Microscopy of Cadmium Selenide Nanorod Sublimation. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 605-11	6.4	17
316	Inorganic micelles as efficient and recyclable micellar catalysts. <i>Nano Letters</i> , 2014 , 14, 379-83	11.5	42
315	Hydroxylation of the surface of PbS nanocrystals passivated with oleic acid. <i>Science</i> , 2014 , 344, 1380-4	33.3	333
314	Luminescent solar concentration with semiconductor nanorods and transfer-printed micro-silicon solar cells. <i>ACS Nano</i> , 2014 , 8, 44-53	16.7	128
313	Symmetry Breaking in Tetrahedral Chiral Plasmonic Nanoparticle Assemblies. <i>ACS Photonics</i> , 2014 , 1, 1189-1196	6.3	36
312	Enhanced electrochemical methanation of carbon dioxide with a dispersible nanoscale copper catalyst. <i>Journal of the American Chemical Society</i> , 2014 , 136, 13319-25	16.4	371
311	Ligand dissociation mediated charge transfer observed at colloidal W18O49 nanoparticle interfaces. <i>Langmuir</i> , 2014 , 30, 2325-8	4	9
310	Characterization of Photo-Induced Charge Transfer and Hot Carrier Relaxation Pathways in Spinel Cobalt Oxide (Co3O4). <i>Journal of Physical Chemistry C</i> , 2014 , 118, 22774-22784	3.8	60
309	Charge carrier dynamics of photoexcited Co3O4 in methanol: extending high harmonic transient absorption spectroscopy to liquid environments. <i>Nano Letters</i> , 2014 , 14, 5883-90	11.5	31
308	Dendritic assembly of gold nanoparticles during fuel-forming electrocatalysis. <i>Journal of the American Chemical Society</i> , 2014 , 136, 7237-40	16.4	81
307	Hole transfer dynamics from a CdSe/CdS quantum rod to a tethered ferrocene derivative. <i>Journal of the American Chemical Society</i> , 2014 , 136, 5121-31	16.4	76
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305	Real-time visualization of nanocrystal solid-solid transformation pathways. <i>Nano Letters</i> , 2014 , 14, 1995-9	11.5	22
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