Richard D Schaller

List of Publications by Year
in descending order

206 papers	15,805 citations	20759 60 h-index	18075 120 g-index
208 all docs	208 docs citations	208 times ranked	16403 citing authors

#	Article	IF	Citations
1	High Efficiency Carrier Multiplication in PbSe Nanocrystals: Implications for Solar Energy Conversion. Physical Review Letters, 2004, 92, 186601.	2.9	1,643
2	Seeded growth of single-crystal two-dimensional covalent organic frameworks. Science, 2018, 361, 52-57.	6.0	474
3	Seven Excitons at a Cost of One:Â Redefining the Limits for Conversion Efficiency of Photons into Charge Carriers. Nano Letters, 2006, 6, 424-429.	4.5	464
4	Suppressed Auger Recombination in â€œGiantâ€•Nanocrystals Boosts Optical Gain Performance. Nano Letters, 2009, 9, 3482-3488.	4.5	456
5	Tuning the Excitonic and Plasmonic Properties of Copper Chalcogenide Nanocrystals. Journal of the American Chemical Society, 2012, 134, 1583-1590.	6.6	454
6	High-efficiency carrier multiplication through direct photogeneration of multi-excitons via virtual single-exciton states. Nature Physics, 2005, 1, 189-194.	6.5	446
7	Utilizing the Lability of Lead Selenide to Produce Heterostructured Nanocrystals with Bright, Stable Infrared Emission. Journal of the American Chemical Society, 2008, 130, 4879-4885.	6.6	438
8	Structural Diversity in White-Light-Emitting Hybrid Lead Bromide Perovskites. Journal of the American Chemical Society, 2018, 140, 13078-13088.	6.6	351
9	Low-Threshold Stimulated Emission Using Colloidal Quantum Wells. Nano Letters, 2014, 14, 2772-2777.	4.5	338
10	Disphenoidal Zero-Dimensional Lead, Tin, and Germanium Halides: Highly Emissive Singlet and Triplet Self-Trapped Excitons and X-ray Scintillation. Journal of the American Chemical Society, 2019, 141, 9764-9768.	6.6	336
11	Universal Size-Dependent Trend in Auger Recombination in Direct-Gap and Indirect-Gap Semiconductor Nanocrystals. Physical Review Letters, 2009, 102, 177404.	2.9	314
12	Tunable Near-Infrared Optical Gain and Amplified Spontaneous Emission Using PbSe Nanocrystals. Journal of Physical Chemistry B, 2003, 107, 13765-13768.	1.2	302
13	Carrier Multiplication in InAs Nanocrystal Quantum Dots with an Onset Defined by the Energy Conservation Limit. Nano Letters, 2007, 7, 3469-3476.	4.5	280
14	Simultaneous band-gap narrowing and carrier-lifetime prolongation of organicâ€“inorganic trihalide perovskites. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8910-8915.	3.3	269
15	Effect of electronic structure on carrier multiplication efficiency: Comparative study of PbSe and CdSe nanocrystals. Applied Physics Letters, 2005, 87, 253102.	1.5	257
16	Ultrafast switching of tunable infrared plasmons in indium tin oxide nanorod arrays with large absolute amplitude. Nature Photonics, 2016, 10, 267-273.	15.6	247
17	Breaking the Phonon Bottleneck in Semiconductor Nanocrystals via Multiphonon Emission Induced by Intrinsic Nonadiabatic Interactions. Physical Review Letters, 2005, 95, 196401.	2.9	245
18	Highâ€Temperature Photoluminescence of CsPbX₃ (X = Cl, Br, I) Nanocrystals. Advanced Functional Materials, 2017, 27, 1606750.	7.8	242

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19	Two-Dimensional Dionâ€“Jacobson Hybrid Lead Iodide Perovskites with Aromatic Diammonium Cations. Journal of the American Chemical Society, 2019, 141, 12880-12890.	6.6	241
20	Red, Yellow, Green, and Blue Amplified Spontaneous Emission and Lasing Using Colloidal CdSe Nanoplatelets. ACS Nano, 2015, 9, 9475-9485.	7.3	240
21	Delocalization and dielectric screening of charge transfer states in organic photovoltaic cells. Nature Communications, 2014, 5, 3245.	5.8	212
22	Picosecond energy transfer and multiexciton transfer outpaces Auger recombination in binaryÂCdSe nanoplatelet solids. Nature Materials, 2015, 14, 484-489.	13.3	211
23	Scaling of multiexciton lifetimes in semiconductor nanocrystals. Physical Review B, 2008, 77, .	1.1	209
24	Colloidal quantum dot lasers. Nature Reviews Materials, 2021, 6, 382-401.	23.3	196
25	Lowâ€Temperature Absorption, Photoluminescence, and Lifetime of CsPbX₃ (X = Cl, Br, I) Nanocrystals. Advanced Functional Materials, 2018, 28, 1800945.	7.8	186
26	High-Efficiency Carrier Multiplication and Ultrafast Charge Separation in Semiconductor Nanocrystals Studied via Time-Resolved Photoluminescenceâ€. Journal of Physical Chemistry B, 2006, 110, 25332-25338.	1.2	184
27	Pressureâ€Induced Bandgap Optimization in Leadâ€Based Perovskites with Prolonged Carrier Lifetime and Ambient Retainability. Advanced Functional Materials, 2017, 27, 1604208.	7.8	167
28	Band-edge engineering for controlled multi-modal nanolasing in plasmonic superlattices. Nature Nanotechnology, 2017, 12, 889-894.	15.6	167
29	Observation of the fastest chemical processes in the radiolysis of water. Science, 2020, 367, 179-182.	6.0	149
30	Inorganically Functionalized PbSâ€“CdS Colloidal Nanocrystals: Integration into Amorphous Chalcogenide Glass and Luminescent Properties. Journal of the American Chemical Society, 2012, 134, 2457-2460.	6.6	142
31	Isothermal pressure-derived metastable states in 2D hybrid perovskites showing enduring bandgap narrowing. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8076-8081.	3.3	137
32	Origin of Broad Emission Spectra in InP Quantum Dots: Contributions from Structural and Electronic Disorder. Journal of the American Chemical Society, 2018, 140, 15791-15803.	6.6	123
33	Photoinduced, reversible phase transitions in all-inorganic perovskite nanocrystals. Nature Communications, 2019, 10, 504.	5.8	121
34	Control of Terahertz Emission by Ultrafast Spin-Charge Current Conversion at Rashba Interfaces. Physical Review Letters, 2018, 120, 207207.	2.9	114
35	Carrier Cooling in Colloidal Quantum Wells. Nano Letters, 2012, 12, 6158-6163.	4.5	105
36	PbSe nanocrystal/conducting polymer solar cells with an infrared response to 2 micron. Journal of Materials Research, 2007, 22, 2204-2210.	1.2	102

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37	Small Cyclic Diammonium Cation Templated (110)-Oriented 2D Halide (X = I, Br, Cl) Perovskites with White-Light Emission. Chemistry of Materials, 2019, 31, 3582-3590.	3.2	101
38	Inter-phase charge and energy transfer in Ruddlesdenâ€“Popper 2D perovskites: critical role of the spacing cations. Journal of Materials Chemistry A, 2018, 6, 6244-6250.	5.2	94
39	Sub-1.4eV bandgap inorganic perovskite solar cells with long-term stability. Nature Communications, 2020, 11, 151.	5.8	92
40	Two Regimes of Bandgap Red Shift and Partial Ambient Retention in Pressure-Treated Two-Dimensional Perovskites. ACS Energy Letters, 2017, 2, 2518-2524.	8.8	89
41	Large optical nonlinearity of ITO nanorods for sub-picosecond all-optical modulation of the full-visible spectrum. Nature Communications, 2016, 7, 12892.	5.8	88
42	In Situ Grazingâ€Incidence Wideâ€Angle Scattering Reveals Mechanisms for Phase Distribution and Disorientation in 2D Halide Perovskite Films. Advanced Materials, 2020, 32, e2002812.	11.1	86
43	Singlet Exciton Fission in Thin Films of tert-Butyl-Substituted Terrylenes. Journal of Physical Chemistry A, 2015, 119, 4151-4161.	1.1	85
44	Negative Pressure Engineering with Large Cage Cations in 2D Halide Perovskites Causes Lattice Softening. Journal of the American Chemical Society, 2020, 142, 11486-11496.	6.6	84
45	Multiexciton Solar Cells of CuInSe₂ Nanocrystals. Journal of Physical Chemistry Letters, 2014, 5, 304-309.	2.1	83
46	Three-Dimensional Lead Iodide Perovskitoid Hybrids with High X-ray Photoresponse. Journal of the American Chemical Society, 2020, 142, 6625-6637.	6.6	82
47	Electronâ€“Rotor Interaction in Organicâ€“Inorganic Lead Iodide Perovskites Discovered by Isotope Effects. Journal of Physical Chemistry Letters, 2016, 7, 2879-2887.	2.1	79
48	Emissive Single-Crystalline Boroxine-Linked Colloidal Covalent Organic Frameworks. Journal of the American Chemical Society, 2019, 141, 19728-19735.	6.6	79
49	Direct Synthesis of Six-Monolayer (1.9 nm) Thick Zinc-Blende CdSe Nanoplatelets Emitting at 585 nm. Chemistry of Materials, 2018, 30, 6957-6960.	3.2	77
50	High-Pressure Structural Stability and Elasticity of Supercrystals Self-Assembled from Nanocrystals. Nano Letters, 2011, 11, 579-588.	4.5	76
51	Violet-to-Blue Gain and Lasing from Colloidal CdS Nanoplatelets: Low-Threshold Stimulated Emission Despite Low Photoluminescence Quantum Yield. ACS Photonics, 2017, 4, 576-583.	3.2	74
52	Quintet-triplet mixing determines the fate of the multiexciton state produced by singlet fission in a terrylenediimide dimer at room temperature. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8178-8183.	3.3	73
53	High-Performance Bioassisted Nanophotocatalyst for Hydrogen Production. Nano Letters, 2013, 13, 3365-3371.	4.5	72
54	Cross-plane coherent acoustic phonons in two-dimensional organic-inorganic hybrid perovskites. Nature Communications, 2018, 9, 2019.	5.8	71

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55	Non-Poissonian Exciton Populations in Semiconductor Nanocrystals via Carrier Multiplication. Physical Review Letters, 2006, 96, 097402.	2.9	69
56	Photo-accelerated fast charging of lithium-ion batteries. Nature Communications, 2019, 10, 4946.	5.8	68
57	Large Exciton Diffusion Coefficients in Two-Dimensional Covalent Organic Frameworks with Different Domain Sizes Revealed by Ultrafast Exciton Dynamics. Journal of the American Chemical Society, 2020, 142, 14957-14965.	6.6	68
58	Radiative lifetime-encoded unicolour security tags using perovskite nanocrystals. Nature Communications, 2021, 12, 981.	5.8	67
59	Size-Dependent Biexciton Quantum Yields and Carrier Dynamics of Quasi-Two-Dimensional Core/Shell Nanoplatelets. ACS Nano, 2017, 11, 9119-9127.	7.3	66
60	Quantum Dot-Plasmon Lasing with Controlled Polarization Patterns. ACS Nano, 2020, 14, 3426-3433.	7.3	66
61	Subâ€Picosecond Singlet Exciton Fission in Cyanoâ€Substituted Diaryltetracenes. Angewandte Chemie - International Edition, 2015, 54, 8679-8683.	7.2	65
62	Organic Cation Alloying on Intralayer A and Interlayer Aâ€™ sites in 2D Hybrid Dionâ€“Jacobson Lead Bromide Perovskites (Aâ€™)(A)Pb₂Br₇. Journal of the American Chemical Society, 2020, 142, 8342-8351.	6.6	64
63	Transition metal-substituted lead halide perovskite absorbers. Journal of Materials Chemistry A, 2017, 5, 3578-3588.	5.2	62
64	Mechanism of Ferric Oxalate Photolysis. ACS Earth and Space Chemistry, 2017, 1, 270-276.	1.2	59
65	Thermal Stability of Colloidal InP Nanocrystals: Small Inorganic Ligands Boost High-Temperature Photoluminescence. ACS Nano, 2014, 8, 977-985.	7.3	57
66	Water-Stable 1D Hybrid Tin(II) Iodide Emits Broad Light with 36% Photoluminescence Quantum Efficiency. Journal of the American Chemical Society, 2020, 142, 9028-9038.	6.6	57
67	Photoinduced Electron Transfer Pathways in Hydrogen-Evolving Reduced Graphene Oxide-Boosted Hybrid Nano-Bio Catalyst. ACS Nano, 2014, 8, 7995-8002.	7.3	55
68	Conformal Coating of a Phase Change Material on Ordered Plasmonic Nanorod Arrays for Broadband All-Optical Switching. ACS Nano, 2017, 11, 693-701.	7.3	55
69	Distance Dependence of FÃ¶rster Resonance Energy Transfer Rates in 2D Perovskite Quantum Wells via Control of Organic Spacer Length. Journal of the American Chemical Society, 2021, 143, 4244-4252.	6.6	54
70	Synthesis and Ligand Exchange of Thiol-Capped Silicon Nanocrystals. Langmuir, 2015, 31, 6886-6893.	1.6	53
71	Hyperbolic Dispersion Arising from Anisotropic Excitons in Two-Dimensional Perovskites. Physical Review Letters, 2018, 121, 127401.	2.9	51
72	Material Dimensionality Effects on Electron Transfer Rates Between CsPbBr₃ and CdSe Nanoparticles. Nano Letters, 2018, 18, 4771-4776.	4.5	49

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73	Engineering Directionality in Quantum Dot Shell Lasing Using Plasmonic Lattices. Nano Letters, 2020, 20, 1468-1474.	4.5	48
74	Polar Fluctuations in Metal Halide Perovskites Uncovered by Acoustic Phonon Anomalies. ACS Energy Letters, 2017, 2, 2463-2469.	8.8	47
75	Hierarchical Hybridization in Plasmonic Honeycomb Lattices. Nano Letters, 2019, 19, 6435-6441.	4.5	47
76	Semiconductor Nanoplatelet Excimers. Nano Letters, 2018, 18, 6948-6953.	4.5	46
77	Nickel(II) Metal Complexes as Optically Addressable Qubit Candidates. Journal of the American Chemical Society, 2020, 142, 14826-14830.	6.6	46
78	Polarization-Dependent Lasing Behavior from Low-Symmetry Nanocavity Arrays. ACS Nano, 2019, 13, 7435-7441.	7.3	45
79	Broadband Ultrafast Dynamics of Refractory Metals: TiN and ZrN. Advanced Optical Materials, 2020, 8, 2000652.	3.6	45
80	Large Transient Optical Modulation of Epsilon-Near-Zero Colloidal Nanocrystals. ACS Nano, 2016, 10, 10099-10105.	7.3	44
81	Multiexciton Dynamics in Infrared-Emitting Colloidal Nanostructures Probed by a Superconducting Nanowire Single-Photon Detector. ACS Nano, 2012, 6, 9532-9540.	7.3	43
82	Enhanced Size Selection in Two-Photon Excitation for CsPbBr₃ Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2017, 8, 5119-5124.	2.1	43
83	Bright Silicon Nanocrystals from a Liquid Precursor: Quasi-Direct Recombination with High Quantum Yield. ACS Nano, 2020, 14, 3858-3867.	7.3	43
84	Revealing the Exciton Fine Structure of PbSe Nanocrystal Quantum Dots Using Optical Spectroscopy in High Magnetic Fields. Physical Review Letters, 2010, 105, 067403.	2.9	42
85	Intraband Cooling in Allâ€Inorganic and Hybrid Organicâ€“Inorganic Perovskite Nanocrystals. Advanced Functional Materials, 2019, 29, 1901725.	7.8	42
86	Fast, Ratiometric FRET from Quantum Dot Conjugated Stabilized Single Chain Variable Fragments for Quantitative Botulinum Neurotoxin Sensing. Nano Letters, 2015, 15, 7161-7167.	4.5	40
87	Facile, Economic and Size-Tunable Synthesis of Metal Arsenide Nanocrystals. Chemistry of Materials, 2016, 28, 6797-6802.	3.2	40
88	Observation of Size-Dependent Thermalization in CdSe Nanocrystals Using Time-Resolved Photoluminescence Spectroscopy. Physical Review Letters, 2011, 107, 177403.	2.9	39
89	Exciton Level Structure and Dynamics in Tubular Porphyrin Aggregates. Journal of Physical Chemistry C, 2014, 118, 24854-24865.	1.5	39
90	Exciton Fate in Semiconductor Nanocrystals at Elevated Temperatures: Hole Trapping Outcompetes Exciton Deactivation. Journal of Physical Chemistry C, 2013, 117, 17337-17343.	1.5	38

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91	Linking Group Influences Charge Separation and Recombination in Allâ€Conjugated Block Copolymer Photovoltaics. Advanced Functional Materials, 2015, 25, 5578-5585.	7.8	38
92	Unique Optical Properties of Methylammonium Lead Iodide Nanocrystals Below the Bulk Tetragonal-Orthorhombic Phase Transition. Nano Letters, 2018, 18, 846-852.	4.5	38
93	Anisotropic Photoluminescence from Isotropic Optical Transition Dipoles in Semiconductor Nanoplatelets. Nano Letters, 2018, 18, 4647-4652.	4.5	38
94	Reducing the Optical Gain Threshold in Two-Dimensional CdSe Nanoplatelets by the Giant Oscillator Strength Transition Effect. Journal of Physical Chemistry Letters, 2019, 10, 1624-1632.	2.1	38
95	Broadband, Highâ€Speed, and Largeâ€Amplitude Dynamic Optical Switching with Yttriumâ€Doped Cadmium Oxide. Advanced Functional Materials, 2020, 30, 1908377.	7.8	38
96	Efficient Carrier Multiplication in Colloidal CuInSe₂ Nanocrystals. Journal of Physical Chemistry Letters, 2014, 5, 3169-3174.	2.1	37
97	Tunable Broad Light Emission from 3D â€œHollowâ€•Bromide Perovskites through Defect Engineering. Journal of the American Chemical Society, 2021, 143, 7069-7080.	6.6	37
98	Surface-Area-Dependent Electron Transfer Between Isoenergetic 2D Quantum Wells and a Molecular Acceptor. Journal of the American Chemical Society, 2016, 138, 11109-11112.	6.6	35
99	Determination of the In-Plane Exciton Radius in 2D CdSe Nanoplatelets via Magneto-optical Spectroscopy. ACS Nano, 2019, 13, 8589-8596.	7.3	35
100	Expeditious, scalable solution growth of metal oxide films by combustion blade coating for flexible electronics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9230-9238.	3.3	35
101	Engineering Symmetryâ€Breaking Nanocrescent Arrays for Nanolasing. Advanced Functional Materials, 2019, 29, 1904157.	7.8	34
102	Polarized near-infrared intersubband absorptions in CdSe colloidal quantum wells. Nature Communications, 2019, 10, 4511.	5.8	34
103	Giant optical enhancement of strain gradient in ferroelectric BiFeO3 thin films and its physical origin. Scientific Reports, 2015, 5, 16650.	1.6	33
104	Transport of Spin-Entangled Triplet Excitons Generated by Singlet Fission. Journal of Physical Chemistry Letters, 2018, 9, 6731-6738.	2.1	33
105	Slow Organicâ€toâ€Inorganic Subâ€Lattice Thermalization in Methylammonium Lead Halide Perovskites Observed by Ultrafast Photoluminescence. Advanced Energy Materials, 2016, 6, 1600422.	10.2	32
106	Efficient Carrier Multiplication in Colloidal Silicon Nanorods. Nano Letters, 2017, 17, 5580-5586.	4.5	32
107	Ultrafast Photoluminescence in Quantum-Confined Silicon Nanocrystals Arises from an Amorphous Surface Layer. ACS Photonics, 2014, 1, 960-967.	3.2	31
108	Shape-Selective Optical Transformations of CdSe Nanoplatelets Driven by Halide Ion Ligand Exchange. Chemistry of Materials, 2019, 31, 3556-3563.	3.2	31

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109	Resonant Inelastic X-Ray Scattering Reveals Hidden Local Transitions of the Aqueous OH Radical. Physical Review Letters, 2020, 124, 236001.	2.9	28
110	Long-lived charge separation in two-dimensional ligand-perovskite heterostructures. Journal of Chemical Physics, 2020, 152, 044711.	1.2	28
111	Plasmon nanolasing with aluminum nanoparticle arrays [Invited]. Journal of the Optical Society of America B: Optical Physics, 2019, 36, E104.	0.9	28
112	Charge Carrier Dynamics of Vapor-Deposited Small-Molecule/Fullerene Organic Solar Cells. Journal of the American Chemical Society, 2013, 135, 8790-8793.	6.6	27
113	Carrier Dynamics in Highly Quantum-Confined, Colloidal Indium Antimonide Nanocrystals. ACS Nano, 2014, 8, 8513-8519.	7.3	27
114	Elevated Temperature Photophysical Properties and Morphological Stability of CdSe and CdSe/CdS Nanoplatelets. Journal of Physical Chemistry Letters, 2018, 9, 286-293.	2.1	27
115	2,3-Diphenylthieno[3,4-b]pyrazines as Hole-Transporting Materials for Stable, High-Performance Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 2118-2127.	8.8	27
116	Direct Measurement of Lattice Dynamics and Optical Phonon Excitation in Semiconductor Nanocrystals Using Femtosecond Stimulated Raman Spectroscopy. Physical Review Letters, 2013, 111, 107401.	2.9	26
117	Slow thermal equilibration in methylammonium lead iodide revealed by transient mid-infrared spectroscopy. Nature Communications, 2018, 9, 2792.	5.8	25
118	Infrared-pump electronic-probe of methylammonium lead iodide reveals electronically decoupled organic and inorganic sublattices. Nature Communications, 2019, 10, 482.	5.8	25
119	Synthesis of Type I PbSe/CdSe Dot-on-Plate Heterostructures with Near-Infrared Emission. Journal of the American Chemical Society, 2019, 141, 5092-5096.	6.6	25
120	Area and thickness dependence of Auger recombination in nanoplatelets. Journal of Chemical Physics, 2020, 153, 054104.	1.2	25
121	Size-Dependent Coherent-Phonon Plasmon Modulation and Deformation Characterization in Gold Bipyramids and Nanojavelins. ACS Photonics, 2016, 3, 758-763.	3.2	24
122	Spatially defined molecular emitters coupled to plasmonic nanoparticle arrays. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5925-5930.	3.3	24
123	Coherent control of asymmetric spintronic terahertz emission from two-dimensional hybrid metal halides. Nature Communications, 2021, 12, 5744.	5.8	24
124	Transient Melting and Recrystallization of Semiconductor Nanocrystals Under Multiple Electronâ€“Hole Pair Excitation. Nano Letters, 2017, 17, 5314-5320.	4.5	23
125	Bandâ€like Charge Photogeneration at a Crystalline Organic Donor/Acceptor Interface. Advanced Energy Materials, 2018, 8, 1701494.	10.2	23
126	Ligand Control of Structural Diversity in Luminescent Hybrid Copper(I) Iodides. Chemistry of Materials, 2022, 34, 3206-3216.	3.2	23

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127	High Internal Quantum Efficiency Ultraviolet Emission from Phase-Transition Cubic GaN Integrated on Nanopatterned Si(100). ACS Photonics, 2018, 5, 955-963.	3.2	22
128	Ultrafast Dynamics of Lattice Plasmon Lasers. Journal of Physical Chemistry Letters, 2019, 10, 3301-3306.	2.1	22
129	Expanding the Cage of 2D Bromide Perovskites by Large A-Site Cations. Chemistry of Materials, 2022, 34, 1132-1142.	3.2	22
130	Interlayer magnetophononic coupling in MnBi2Te4. Nature Communications, 2022, 13, 1929.	5.8	22
131	Reverse Non-Equilibrium Molecular Dynamics Demonstrate That Surface Passivation Controls Thermal Transport at Semiconductorâ€“Solvent Interfaces. ACS Nano, 2015, 9, 6278-6287.	7.3	21
132	Cell-Free Synthetic Biology Chassis for Nanocatalytic Photon-to-Hydrogen Conversion. ACS Nano, 2017, 11, 6739-6745.	7.3	21
133	Signatures of Coherent Phonon Transport in Ultralow Thermal Conductivity Two-Dimensional Ruddlesdenâ€“Popper Phase Perovskites. ACS Nano, 2021, 15, 4165-4172.	7.3	21
134	Strong Coupling Between Plasmons and Molecular Excitons in Metalâ€“Organic Frameworks. Nano Letters, 2021, 21, 7775-7780.	4.5	21
135	Silicon Nanocrystals at Elevated Temperatures: Retention of Photoluminescence and Diamond Silicon to Î²-Silicon Carbide Phase Transition. ACS Nano, 2014, 8, 9219-9223.	7.3	20
136	Tailorable Exciton Transport in Doped Peptideâ€“Amphiphile Assemblies. ACS Nano, 2017, 11, 9112-9118.	7.3	19
137	Using Photoexcited Core/Shell Quantum Dots To Spin Polarize Appended Radical Qubits. Journal of the American Chemical Society, 2020, 142, 13590-13597.	6.6	19
138	Dynamic lattice distortions driven by surface trapping in semiconductor nanocrystals. Nature Communications, 2021, 12, 1860.	5.8	19
139	Heat Transfer at Hybrid Interfaces: Interfacial Ligand-to-Nanocrystal Heating Monitored with Infrared Pump, Electronic Probe Spectroscopy. Nano Letters, 2018, 18, 7863-7869.	4.5	18
140	Visualization of Plasmonic Couplings Using Ultrafast Electron Microscopy. Nano Letters, 2021, 21, 5842-5849.	4.5	18
141	Quantum Shells Boost the Optical Gain of Lasing Media. ACS Nano, 2022, 16, 3017-3026.	7.3	18
142	Charge Carriers Modulate the Bonding of Semiconductor Nanoparticle Dopants As Revealed by Time-Resolved X-ray Spectroscopy. ACS Nano, 2017, 11, 10070-10076.	7.3	17
143	Aqueous Carbon Quantum Dot-Embedded PC60-PC₆₁BM Nanospheres for Ecological Fluorescent Printing: Contrasting Fluorescence Resonance Energy-Transfer Signals between Watermelon-like and Random Morphologies. Journal of Physical Chemistry Letters, 2019, 10, 6525-6535.	2.1	17
144	Ultrafast Spectroscopy of Plasmonic Titanium Nitride Nanoparticle Lattices. ACS Photonics, 2021, 8, 1556-1561.	3.2	17

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145	Oxidation State Discrimination in the Atomic Layer Deposition of Vanadium Oxides. Chemistry of Materials, 2017, 29, 6238-6244.	3.2	16
146	Simultaneous Ultrafast Transmission and Reflection of Nanometer-Thick Ti₃C₂T_x MXene Films in the Visible and Near-Infrared: Implications for Energy Storage, Electromagnetic Shielding, and Laser Systems. ACS Applied Nano Materials, 2020, 3, 9604-9609.	2.4	16
147	Direct Observation of Bandgap Oscillations Induced by Optical Phonons in Hybrid Lead Iodide Perovskites. Advanced Functional Materials, 2020, 30, 1907982.	7.8	15
148	Very Robust Spray-Synthesized CsPbI₃ Quantum Emitters with Ultrahigh Room-Temperature Cavity-Free Brightness and Self-Healing Ability. ACS Nano, 2021, 15, 11358-11368.	7.3	15
149	Identification of Brillouin Zones by In-Plane Lasing from Light-Cone Surface Lattice Resonances. ACS Nano, 2021, 15, 5567-5573.	7.3	15
150	Photothermal behaviour of titanium nitride nanoparticles evaluated by transient X-ray diffraction. Nanoscale, 2021, 13, 2658-2664.	2.8	15
151	Low-Loss Near-Infrared Hyperbolic Metamaterials with Epitaxial ITO-In₂O₃ Multilayers. ACS Photonics, 2018, 5, 2000-2007.	3.2	14
152	Phonon-Driven Oscillatory Plasmonic Excitonic Nanomaterials. Nano Letters, 2018, 18, 442-448.	4.5	14
153	Auger Heating and Thermal Dissipation in Zero-Dimensional CdSe Nanocrystals Examined Using Femtosecond Stimulated Raman Spectroscopy. Journal of Physical Chemistry Letters, 2018, 9, 4481-4487.	2.1	14
154	Charge Transfer Dynamics of Phase-Segregated Halide Perovskites: CH₃NH₃PbCl₃ and CH₃NH₃PbI₃ or (C₄H₉NH₃)₂(CH₃NH₃)_{nâ^'1}Pb<s Mixtures. ACS Applied Materials & Interfaces, 2019, 11, 9583-9593.	4.0	14
155	Optical and Physical Probing of Thermal Processes in Semiconductor and Plasmonic Nanocrystals. Annual Review of Physical Chemistry, 2019, 70, 353-377.	4.8	13
156	Brightly Luminescent CsPbBr₃ Nanocrystals through Ultracentrifugation. Journal of Physical Chemistry Letters, 2020, 11, 7133-7140.	2.1	13
157	Surface Normal Lasing from CdSe Nanoplatelets Coupled to Aluminum Plasmonic Nanoparticle Lattices. Journal of Physical Chemistry C, 2021, 125, 19874-19879.	1.5	12
158	M-Point Lasing in Hexagonal and Honeycomb Plasmonic Lattices. ACS Photonics, 2022, 9, 52-58.	3.2	12
159	Selfâ€Trapped and Free Exciton Dynamics in Vacuumâ€Deposited Cesium Copper Iodide Thin Films. Advanced Optical Materials, 2022, 10, .	3.6	12
160	Transient Negative Optical Nonlinearity of Indium Oxide Nanorod Arrays in the Full-Visible Range. ACS Photonics, 2017, 4, 1494-1500.	3.2	11
161	Systematic study of shockley-read-hall and radiative recombination in GaN on Al₂O₃, freestanding GaN, and GaN on Si. JPhys Photonics, 2020, 2, 035003.	2.2	11
162	Gigahertz Acoustic Vibrations of Elastically Anisotropic Indiumâ€“Tin-Oxide Nanorod Arrays. Nano Letters, 2016, 16, 5639-5646.	4.5	10

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