Oleksandr Voznyy

List of Publications by Year
in descending order

192 papers	35,594 citations	4136 87 h-index	3260 185 g-index
197 all docs	197 docs citations	197 times ranked	27884 citing authors

#	Article	IF	Citations
1	Conjugated polymers with controllable interfacial order and energetics enable tunable heterojunctions in organic and colloidal quantum dot photovoltaics. Journal of Materials Chemistry A, 2022, 10, 1788-1801.	5.2	6
2	Enhanced emission directivity from asymmetrically strained colloidal quantum dots. Science Advances, 2022, 8, eabl8219.	4.7	10
3	Wide-Bandgap Perovskite Quantum Dots in Perovskite Matrix for Sky-Blue Light-Emitting Diodes. Journal of the American Chemical Society, 2022, 144, 4009-4016.	6.6	92
4	High-throughput exploration of halide perovskite compositionally-graded films and degradation mechanisms. Communications Materials, 2022, 3, .	2.9	14
5	In Situ Inorganic Ligand Replenishment Enables Bandgap Stability in Mixedâ€Halide Perovskite Quantum Dot Solids. Advanced Materials, 2022, 34, e2200854.	11.1	82
6	Multiscale hierarchical structures from a nanocluster mesophase. Nature Materials, 2022, 21, 518-525.	13.3	27
7	Orthorhombic Nonâ€Perovskite CsPbI₃ Microwires for Stable Highâ€Resolution Xâ€Ray Detectors. Advanced Optical Materials, 2022, 10, .	3.6	14
8	High-Throughput Evaluation of Emission and Structure in Reduced-Dimensional Perovskites. ACS Central Science, 2022, 8, 571-580.	5.3	6
9	Buffer Components Incorporate into the Framework of Polyserotonin Nanoparticles and Films during Synthesis. Nanomaterials, 2022, 12, 2027.	1.9	1
10	Fast Nearâ€Infrared Photodetection Using IIIâ€"V Colloidal Quantum Dots. Advanced Materials, 2022, 34, .	11.1	34
11	Linear Electroâ€Optic Modulation in Highly Polarizable Organic Perovskites. Advanced Materials, 2021, 33, e2006368.	11.1	20
12	Underappreciated Role of Low-Energy Facets in Nitrogen Electroreduction. , 2021, 3, 327-330.		13
13	Stabilizing Highly Active Ru Sites by Suppressing Lattice Oxygen Participation in Acidic Water Oxidation. Journal of the American Chemical Society, 2021, 143, 6482-6490.	6.6	204
14	Solid Electrolyte Interphase Engineering for Aqueous Aluminum Metal Batteries: A Critical Evaluation. Advanced Energy Materials, 2021, 11, 2100077.	10.2	49
15	Electro-Optic Modulation Using Metal-Free Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 19042-19047.	4.0	12
16	Water/acetonitrile hybrid electrolyte enables using smaller ions for achieving superior energy density in carbon-based supercapacitors. Journal of Power Sources, 2021, 498, 229905.	4.0	8
17	Reply to: Perovskite decomposition and missing crystal planes in HRTEM. Nature, 2021, 594, E8-E9.	13.7	2
18	Facetâ€Oriented Coupling Enables Fast and Sensitive Colloidal Quantum Dot Photodetectors. Advanced Materials, 2021, 33, e2101056.	11.1	42

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19	Applied Machine Learning for Developing Nextâ€Generation Functional Materials. Advanced Functional Materials, 2021, 31, 2104195.	7.8	28
20	Anisotropic, Nonthermal Lattice Disordering Observed in Photoexcited PbS Quantum Dots. Journal of Physical Chemistry C, 2021, 125, 22120-22132.	1.5	5
21	Bright and Stable Light-Emitting Diodes Based on Perovskite Quantum Dots in Perovskite Matrix. Journal of the American Chemical Society, 2021, 143, 15606-15615.	6.6	94
22	Ligand Impact of Silicanes as Anode Materials for Lithium-Ion Batteries. Chemistry of Materials, 2021, 33, 9357-9365.	3.2	6
23	Stabilizing Surface Passivation Enables Stable Operation of Colloidal Quantum Dot Photovoltaic Devices at Maximum Power Point in an Air Ambient. Advanced Materials, 2020, 32, e1906497.	11.1	47
24	Edge stabilization in reduced-dimensional perovskites. Nature Communications, 2020, 11, 170.	5.8	147
25	Bright high-colour-purity deep-blue carbon dot light-emitting diodes via efficient edge amination. Nature Photonics, 2020, 14, 171-176.	15.6	303
26	Narrow Emission from Rb₃Sb₂I₉ Nanoparticles. Advanced Optical Materials, 2020, 8, 1901606.	3.6	18
27	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. Nature Communications, 2020, 11, 103.	5.8	181
28	High-valence metals improve oxygen evolution reaction performance by modulating 3d metal oxidation cycle energetics. Nature Catalysis, 2020, 3, 985-992.	16.1	390
29	Color-pure red light-emitting diodes based on two-dimensional lead-free perovskites. Science Advances, 2020, 6, .	4.7	135
30	Chelating-agent-assisted control of CsPbBr3 quantum well growth enables stable blue perovskite emitters. Nature Communications, 2020, 11, 3674.	5.8	112
31	Structural Distortion and Bandgap Increase of Two-Dimensional Perovskites Induced by Trifluoromethyl Substitution on Spacer Cations. Journal of Physical Chemistry Letters, 2020, 11, 10144-10149.	2.1	22
32	A Multi-functional Molecular Modifier Enabling Efficient Large-Area Perovskite Light-Emitting Diodes. Joule, 2020, 4, 1977-1987.	11.7	111
33	Tertiary Hierarchical Complexity in Assemblies of Sulfur-Bridged Metal Chiral Clusters. Journal of the American Chemical Society, 2020, 142, 14495-14503.	6.6	22
34	Epitaxial Metal Halide Perovskites by Inkjetâ€Printing on Various Substrates. Advanced Functional Materials, 2020, 30, 2004612.	7.8	21
35	Orthogonal colloidal quantum dot inks enable efficient multilayer optoelectronic devices. Nature Communications, 2020, 11, 4814.	5.8	48
36	Glycol ether additives control the size of PbS nanocrystals at reaction completion. Journal of Materials Chemistry C, 2020, 8, 12068-12074.	2.7	7

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37	Suppression of Auger Recombination by Gradient Alloying in InAs/CdSe/CdS QDs. Chemistry of Materials, 2020, 32, 7703-7709.	3.2	15
38	Crystal Site Feature Embedding Enables Exploration of Large Chemical Spaces. Matter, 2020, 3, 433-448.	5.0	33
39	Electrocatalytic Reduction of CO₂ to CH₄ and CO in Aqueous Solution Using Pyridine-Porphyrins Immobilized onto Carbon Nanotubes. ACS Sustainable Chemistry and Engineering, 2020, 8, 9549-9557.	3.2	39
40	Accelerated discovery of CO2 electrocatalysts using active machine learning. Nature, 2020, 581, 178-183.	13.7	807
41	Hydrophobic stabilizer-anchored fully inorganic perovskite quantum dots enhance moisture resistance and photovoltaic performance. Nano Energy, 2020, 75, 104985.	8.2	69
42	Manganese MOF Enables Efficient Oxygen Evolution in Acid. , 2020, 2, 798-800.		18
43	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. Joule, 2020, 4, 1542-1556.	11.7	143
44	Chloride Insertionâ€"Immobilization Enables Bright, Narrowband, and Stable Blue-Emitting Perovskite Diodes. Journal of the American Chemical Society, 2020, 142, 5126-5134.	6.6	116
45	Bipolar-shell resurfacing for blue LEDs based on strongly confined perovskite quantum dots. Nature Nanotechnology, 2020, 15, 668-674.	15.6	541
46	Combining Efficiency and Stability in Mixed Tinâ€"Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. Advanced Materials, 2020, 32, e1907058.	11.1	148
47	Quantum Dot-Plasmon Lasing with Controlled Polarization Patterns. ACS Nano, 2020, 14, 3426-3433.	7.3	66
48	Engineering Directionality in Quantum Dot Shell Lasing Using Plasmonic Lattices. Nano Letters, 2020, 20, 1468-1474.	4.5	48
49	Efficient near-infrared light-emitting diodes based on quantum dots in layered perovskite. Nature Photonics, 2020, 14, 227-233.	15.6	136
50	Ligand-Assisted Reconstruction of Colloidal Quantum Dots Decreases Trap State Density. Nano Letters, 2020, 20, 3694-3702.	4.5	46
51	Realizing ultra-pure red emission with Sn-based lead-free perovskites. Rare Metals, 2020, 39, 330-331.	3.6	5
52	Itâ€™s a Trap! Fused Quantum Dots Are Undesired Defects in Thin-Film Solar Cells. CheM, 2019, 5, 1692-1694.	5.8	6
53	Temperature-Induced Self-Compensating Defect Traps and Gain Thresholds in Colloidal Quantum Dots. ACS Nano, 2019, 13, 8970-8976.	7.3	8
54	Accelerated solution-phase exchanges minimize defects in colloidal quantum dot solids. Nano Energy, 2019, 63, 103876.	8.2	12

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55	Machine Learning Accelerates Discovery of Optimal Colloidal Quantum Dot Synthesis. ACS Nano, 2019, 13, 11122-11128.	7.3	108
56	CO₂ Electroreduction from Carbonate Electrolyte. ACS Energy Letters, 2019, 4, 1427-1431.	8.8	141
57	Lattice anchoring stabilizes solution-processed semiconductors. Nature, 2019, 570, 96-101.	13.7	208
58	Binding Site Diversity Promotes CO₂ Electroreduction to Ethanol. Journal of the American Chemical Society, 2019, 141, 8584-8591.	6.6	338
59	Controlled Steric Hindrance Enables Efficient Ligand Exchange for Stable, Infrared-Bandgap Quantum Dot Inks. ACS Energy Letters, 2019, 4, 1225-1230.	8.8	54
60	Anchored Ligands Facilitate Efficient B-Site Doping in Metal Halide Perovskites. Journal of the American Chemical Society, 2019, 141, 8296-8305.	6.6	53
61	A Facetâ€Specific Quantum Dot Passivation Strategy for Colloid Management and Efficient Infrared Photovoltaics. Advanced Materials, 2019, 31, e1805580.	11.1	87
62	Contactless measurements of photocarrier transport properties in perovskite single crystals. Nature Communications, 2019, 10, 1591.	5.8	55
63	In Situ Backâ€Contact Passivation Improves Photovoltage and Fill Factor in Perovskite Solar Cells. Advanced Materials, 2019, 31, e1807435.	11.1	143
64	Solution-processed perovskite-colloidal quantum dot tandem solar cells for photon collection beyond 1000 nm. Journal of Materials Chemistry A, 2019, 7, 26020-26028.	5.2	44
65	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. Nature Energy, 2019, 4, 969-976.	19.8	120
66	Spectrally Resolved Ultrafast Exciton Transfer in Mixed Perovskite Quantum Wells. Journal of Physical Chemistry Letters, 2019, 10, 419-426.	2.1	74
67	Multi-site electrocatalysts for hydrogen evolution in neutral media by destabilization of water molecules. Nature Energy, 2019, 4, 107-114.	19.8	470
68	Bright colloidal quantum dot light-emitting diodes enabled by efficient chlorination. Nature Photonics, 2018, 12, 159-164.	15.6	303
69	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. Nature Communications, 2018, 9, 1607.	5.8	309
70	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. Nature Nanotechnology, 2018, 13, 456-462.	15.6	252
71	Synthetic Control over Quantum Well Width Distribution and Carrier Migration in Low-Dimensional Perovskite Photovoltaics. Journal of the American Chemical Society, 2018, 140, 2890-2896.	6.6	288
72	Amideâ€Catalyzed Phaseâ€Selective Crystallization Reduces Defect Density in Wideâ€Bandgap Perovskites. Advanced Materials, 2018, 30, e1706275.	11.1	80

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73	Theory-driven design of high-valence metal sites for water oxidation confirmed using in situ soft X-ray absorption. Nature Chemistry, 2018, 10, 149-154.	6.6	476
74	Pulsed axial epitaxy of colloidal quantum dots in nanowires enables facet-selective passivation. Nature Communications, 2018, 9, 4947.	5.8	22
75	Multibandgap quantum dot ensembles for solar-matched infrared energy harvesting. Nature Communications, 2018, 9, 4003.	5.8	56
76	Butylamineâ€Catalyzed Synthesis of Nanocrystal Inks Enables Efficient Infrared CQD Solar Cells. Advanced Materials, 2018, 30, e1803830.	11.1	67
77	The quantum-confined Stark effect in layered hybrid perovskites mediated by orientational polarizability of confined dipoles. Nature Communications, 2018, 9, 4214.	5.8	61
78	Picosecond Charge Transfer and Long Carrier Diffusion Lengths in Colloidal Quantum Dot Solids. Nano Letters, 2018, 18, 7052-7059.	4.5	51
79	Solar Cells: Overcoming the Ambient Manufacturabilityâ€Scalabilityâ€Performance Bottleneck in Colloidal Quantum Dot Photovoltaics (Adv. Mater. 35/2018). Advanced Materials, 2018, 30, 1870260.	11.1	3
80	Color-stable highly luminescent sky-blue perovskite light-emitting diodes. Nature Communications, 2018, 9, 3541.	5.8	536
81	Activated Electronâ€Transport Layers for Infrared Quantum Dot Optoelectronics. Advanced Materials, 2018, 30, e1801720.	11.1	57
82	Electronâ€“phonon interaction in efficient perovskite blue emitters. Nature Materials, 2018, 17, 550-556.	13.3	472
83	Overcoming the Ambient Manufacturabilityâ€Scalabilityâ€Performance Bottleneck in Colloidal Quantum Dot Photovoltaics. Advanced Materials, 2018, 30, e1801661.	11.1	79
84	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. Nature Communications, 2018, 9, 3100.	5.8	237
85	Black and Stable: A Path to All-Inorganic Halide Perovskite Solar Cells. Joule, 2018, 2, 1215-1216.	11.7	8
86	Suppression of atomic vacancies via incorporation of isovalent small ions to increase the stability of halide perovskite solar cells in ambient air. Nature Energy, 2018, 3, 648-654.	19.8	552
87	Spin control in reduced-dimensional chiral perovskites. Nature Photonics, 2018, 12, 528-533.	15.6	371
88	Acid-Assisted Ligand Exchange Enhances Coupling in Colloidal Quantum Dot Solids. Nano Letters, 2018, 18, 4417-4423.	4.5	57
89	Efficient and stable solution-processed planar perovskite solar cells via contact passivation. Science, 2017, 355, 722-726.	6.0	2,019
90	Pseudohalideâ€Exchanged Quantum Dot Solids Achieve Record Quantum Efficiency in Infrared Photovoltaics. Advanced Materials, 2017, 29, 1700749.	11.1	79

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91	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. Nano Letters, 2017, 17, 3701-3709.	4.5	409
92	Ultrafast Carrier Trapping in Thick-Shell Colloidal Quantum Dots. Journal of Physical Chemistry Letters, 2017, 8, 3179-3184.	2.1	16
93	Engineering charge transport by heterostructuring solution-processed semiconductors. Nature Reviews Materials, 2017, 2, .	23.3	105
94	Quantum Dot Color-Converting Solids Operating Efficiently in the kW/cm² Regime. Chemistry of Materials, 2017, 29, 5104-5112.	3.2	17
95	Field-emission from quantum-dot-in-perovskite solids. Nature Communications, 2017, 8, 14757.	5.8	83
96	Highly Emissive Green Perovskite Nanocrystals in a Solid State Crystalline Matrix. Advanced Materials, 2017, 29, 1605945.	11.1	309
97	Quantum Dots in Two-Dimensional Perovskite Matrices for Efficient Near-Infrared Light Emission. ACS Photonics, 2017, 4, 830-836.	3.2	30
98	High-Throughput Screening of Lead-Free Perovskite-like Materials for Optoelectronic Applications. Journal of Physical Chemistry C, 2017, 121, 7183-7187.	1.5	128
99	Continuous-wave lasing in colloidal quantum dot solids enabled by facet-selective epitaxy. Nature, 2017, 544, 75-79.	13.7	319
100	Origins of Stokes Shift in PbS Nanocrystals. Nano Letters, 2017, 17, 7191-7195.	4.5	72
101	Enhanced Openâ€Circuit Voltage in Colloidal Quantum Dot Photovoltaics via Reactivityâ€Controlled Solutionâ€Phase Ligand Exchange. Advanced Materials, 2017, 29, 1703627.	11.1	49
102	Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO2 to Formate. Joule, 2017, 1, 794-805.	11.7	390
103	Halide Re-Shelled Quantum Dot Inks for Infrared Photovoltaics. ACS Applied Materials & Interfaces, 2017, 9, 37536-37541.	4.0	35
104	Effect of disorder on transport properties in a tight-binding model for lead halide perovskites. Scientific Reports, 2017, 7, 8902.	1.6	25
105	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. Advanced Materials, 2017, 29, 1702350.	11.1	126
106	Biexciton Resonances Reveal Exciton Localization in Stacked Perovskite Quantum Wells. Journal of Physical Chemistry Letters, 2017, 8, 3895-3901.	2.1	41
107	Small-Band-Offset Perovskite Shells Increase Auger Lifetime in Quantum Dot Solids. ACS Nano, 2017, 11, 12378-12384.	7.3	23
108	Mixed-quantum-dot solar cells. Nature Communications, 2017, 8, 1325.	5.8	148

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109	Hybrid organicâ€“inorganic inks flatten the energy landscape in colloidal quantum dotÂsolids. Nature Materials, 2017, 16, 258-263.	13.3	563
110	Single-step colloidal quantum dot films for infrared solar harvesting. Applied Physics Letters, 2016, 109, .	1.5	52
111	Computational Study of Magic-Size CdSe Clusters with Complementary Passivation by Carboxylic and Amine Ligands. Journal of Physical Chemistry C, 2016, 120, 10015-10019.	1.5	32
112	Gradient-Doped Colloidal Quantum Dot Solids Enable Thermophotovoltaic Harvesting of Waste Heat. ACS Energy Letters, 2016, 1, 740-746.	8.8	8
113	Atomistic Design of CdSe/CdS Coreâ€“Shell Quantum Dots with Suppressed Auger Recombination. Nano Letters, 2016, 16, 6491-6496.	4.5	51
114	Controlling C₆₀ Organization through Dipole-Induced Band Alignment at Self-Assembled Monolayer Interfaces. Chemistry of Materials, 2016, 28, 8322-8329.	3.2	8
115	Remote Molecular Doping of Colloidal Quantum Dot Photovoltaics. ACS Energy Letters, 2016, 1, 922-930.	8.8	40
116	Enhanced electrocatalytic CO2 reduction via field-induced reagent concentration. Nature, 2016, 537, 382-386.	13.7	1,429
117	Efficient Biexciton Interaction in Perovskite Quantum Dots Under Weak and Strong Confinement. ACS Nano, 2016, 10, 8603-8609.	7.3	190
118	Highly Efficient Perovskiteâ€Quantumâ€Dot Lightâ€Emitting Diodes by Surface Engineering. Advanced Materials, 2016, 28, 8718-8725.	11.1	917
119	Pure Cubicâ€Phase Hybrid Iodobismuthates AgBi₂I₇ for Thinâ€Film Photovoltaics. Angewandte Chemie - International Edition, 2016, 55, 9586-9590.	7.2	201
120	Pure Cubicâ€Phase Hybrid Iodobismuthates AgBi₂I₇ for Thinâ€Film Photovoltaics. Angewandte Chemie, 2016, 128, 9738-9742.	1.6	42
121	Rational Design of Efficient Palladium Catalysts for Electroreduction of Carbon Dioxide to Formate. ACS Catalysis, 2016, 6, 8115-8120.	5.5	277
122	Amineâ€Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Lightâ€Emitting Diodes. Advanced Functional Materials, 2016, 26, 8757-8763.	7.8	344
123	Crosslinked Remoteâ€Doped Holeâ€Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. Advanced Materials, 2016, 28, 2807-2815.	11.1	108
124	Perovskite energy funnels for efficient light-emitting diodes. Nature Nanotechnology, 2016, 11, 872-877.	15.6	1,868
125	Crystal symmetry breaking and vacancies in colloidal lead chalcogenide quantum dots. Nature Materials, 2016, 15, 987-994.	13.3	101
126	ZnFe₂O₄ Leaves Grown on TiO₂ Trees Enhance Photoelectrochemical Water Splitting. Small, 2016, 12, 3181-3188.	5.2	56

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127	10.6% Certified Colloidal Quantum Dot Solar Cells via Solvent-Polarity-Engineered Halide Passivation. Nano Letters, 2016, 16, 4630-4634.	4.5	312
128	Passivation Using Molecular Halides Increases Quantum Dot Solar Cell Performance. Advanced Materials, 2016, 28, 299-304.	11.1	312
129	Doubleâ€Sided Junctions Enable Highâ€Performance Colloidalâ€Quantumâ€Dot Photovoltaics. Advanced Materials, 2016, 28, 4142-4148.	11.1	121
130	Homogeneously dispersed multimetal oxygen-evolving catalysts. Science, 2016, 352, 333-337.	6.0	1,948
131	Highly efficient quantum dot near-infrared light-emitting diodes. Nature Photonics, 2016, 10, 253-257.	15.6	361
132	Ligand-Stabilized Reduced-Dimensionality Perovskites. Journal of the American Chemical Society, 2016, 138, 2649-2655.	6.6	1,157
133	Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals. Journal of Physical Chemistry Letters, 2016, 7, 295-301.	2.1	332
134	The Silicon:Colloidal Quantum Dot Heterojunction. Advanced Materials, 2015, 27, 7445-7450.	11.1	55
135	Colloidal CdSe_{1â€“<i>x</i>}S_{<i>x</i>} Nanoplatelets with Narrow and Continuously-Tunable Electroluminescence. Nano Letters, 2015, 15, 4611-4615.	4.5	114
136	Self-Assembled PbSe Nanowire:Perovskite Hybrids. Journal of the American Chemical Society, 2015, 137, 14869-14872.	6.6	11
137	Atomistic Description of Thiostannate-Capped CdSe Nanocrystals: Retention of Four-Coordinate SnS4 Motif and Preservation of Cd-Rich Stoichiometry. Journal of the American Chemical Society, 2015, 137, 1862-1874.	6.6	48
138	Single-step fabrication of quantum funnels via centrifugal colloidal casting of nanoparticle films. Nature Communications, 2015, 6, 7772.	5.8	68
139	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. Journal of Materials Chemistry C, 2015, 3, 8839-8843.	2.7	161
140	Quantum-dot-in-perovskite solids. Nature, 2015, 523, 324-328.	13.7	468
141	Record Charge Carrier Diffusion Length in Colloidal Quantum Dot Solids via Mutual Dotâ€Toâ€Dot Surface Passivation. Advanced Materials, 2015, 27, 3325-3330.	11.1	118
142	Perovskiteâ€“fullerene hybrid materials suppress hysteresis in planar diodes. Nature Communications, 2015, 6, 7081.	5.8	948
143	Efficient Luminescence from Perovskite Quantum Dot Solids. ACS Applied Materials & Interfaces, 2015, 7, 25007-25013.	4.0	481
144	Microsecond-sustained lasing from colloidal quantum dot solids. Nature Communications, 2015, 6, 8694.	5.8	109

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145	High-Efficiency Colloidal Quantum Dot Photovoltaics via Robust Self-Assembled Monolayers. Nano Letters, 2015, 15, 7691-7696.	4.5	198
146	Cleavable Ligands Enable Uniform Close Packing in Colloidal Quantum Dot Solids. ACS Applied Materials & Interfaces, 2015, 7, 21995-22000.	4.0	9
147	Infrared Colloidal Quantum Dot Photovoltaics <i>via</i> Coupling Enhancement and Agglomeration Suppression. ACS Nano, 2015, 9, 8833-8842.	7.3	96
148	Colloidal Quantum Dot Photovoltaics Enhanced by Perovskite Shelling. Nano Letters, 2015, 15, 7539-7543.	4.5	173
149	All-Quantum-Dot Infrared Light-Emitting Diodes. ACS Nano, 2015, 9, 12327-12333.	7.3	61
150	Synergistic Doping of Fullerene Electron Transport Layer and Colloidal Quantum Dot Solids Enhances Solar Cell Performance. Advanced Materials, 2015, 27, 917-921.	11.1	75
151	Perovskite Thin Films via Atomic Layer Deposition. Advanced Materials, 2015, 27, 53-58.	11.1	204
152	Colloidal quantum dot surface engineering for high performance optoelectronic devices. , 2015, , .		0
153	Atomistic Model of Fluorescence Intermittency of Colloidal Quantum Dots. Physical Review Letters, 2014, 112, 157401.	2.9	73
154	The Complete Inâ€Gap Electronic Structure of Colloidal Quantum Dot Solids and Its Correlation with Electronic Transport and Photovoltaic Performance. Advanced Materials, 2014, 26, 937-942.	11.1	54
155	Electronically Active Impurities in Colloidal Quantum Dot Solids. ACS Nano, 2014, 8, 11763-11769.	7.3	32
156	Photovoltaics: The Complete Inâ€Gap Electronic Structure of Colloidal Quantum Dot Solids and Its Correlation with Electronic Transport and Photovoltaic Performance (Adv. Mater. 6/2014). Advanced Materials, 2014, 26, 822-822.	11.1	1
157	Solar Cells Based on Inks of n-Type Colloidal Quantum Dots. ACS Nano, 2014, 8, 10321-10327.	7.3	158
158	Materials Processing Routes to Trap-Free Halide Perovskites. Nano Letters, 2014, 14, 6281-6286.	4.5	671
159	Physically Flexible, Rapidâ€Response Gas Sensor Based on Colloidal Quantum Dot Solids. Advanced Materials, 2014, 26, 2718-2724.	11.1	313
160	Engineering colloidal quantum dot solids within and beyond the mobility-invariant regime. Nature Communications, 2014, 5, 3803.	5.8	214
161	Air-stable n-type colloidal quantum dot solids. Nature Materials, 2014, 13, 822-828.	13.3	529
162	Role of Bond Adaptability in the Passivation of Colloidal Quantum Dot Solids. ACS Nano, 2013, 7, 7680-7688.	7.3	69

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163	Directly Deposited Quantum Dot Solids Using a Colloidally Stable Nanoparticle Ink. Advanced Materials, 2013, 25, 5742-5749.	11.1	99
164	25th Anniversary Article: Colloidal Quantum Dot Materials and Devices: A Quarterâ€Century of Advances. Advanced Materials, 2013, 25, 4986-5010.	11.1	419
165	Doping Control Via Molecularly Engineered Surface Ligand Coordination. Advanced Materials, 2013, 25, 5586-5592.	11.1	62
166	Automated Synthesis of Photovoltaic-Quality Colloidal Quantum Dots Using Separate Nucleation and Growth Stages. ACS Nano, 2013, 7, 10158-10166.	7.3	97
167	Graded Doping for Enhanced Colloidal Quantum Dot Photovoltaics. Advanced Materials, 2013, 25, 1719-1723.	11.1	164
168	Dynamic Trap Formation and Elimination in Colloidal Quantum Dots. Journal of Physical Chemistry Letters, 2013, 4, 987-992.	2.1	115
169	The striped phases of ethylthiolate monolayers on the Au(111) surface: A scanning tunneling microscopy study. Journal of Chemical Physics, 2013, 138, 194707.	1.2	18
170	Measuring Charge Carrier Diffusion in Coupled Colloidal Quantum Dot Solids. ACS Nano, 2013, 7, 5282-5290.	7.3	178
171	Hybridization of Phenylthiolate- and Methylthiolate-Adatom Species at Low Coverage on the Au(111) Surface. Journal of the American Chemical Society, 2013, 135, 4922-4925.	6.6	20
172	Hybrid passivated colloidal quantum dot solids. Nature Nanotechnology, 2012, 7, 577-582.	15.6	1,100
173	Nâ€Type Colloidalâ€Quantumâ€Dot Solids for Photovoltaics. Advanced Materials, 2012, 24, 6181-6185.	11.1	181
174	Allâ€Inorganic Colloidal Quantum Dot Photovoltaics Employing Solutionâ€Phase Halide Passivation. Advanced Materials, 2012, 24, 6295-6299.	11.1	197
175	A Charge-Orbital Balance Picture of Doping in Colloidal Quantum Dot Solids. ACS Nano, 2012, 6, 8448-8455.	7.3	206
176	Electronic and optical properties of semiconductor and graphene quantum dots. Frontiers of Physics, 2012, 7, 328-352.	2.4	57
177	Theory of highly excited semiconductor nanostructures including Auger coupling: Exciton-biexciton mixing in CdSe nanocrystals. Physical Review B, 2011, 84, .	1.1	23
178	Effect of edge reconstruction and passivation on zero-energy states and magnetism in triangular graphene quantum dots with zigzag edges. Physical Review B, 2011, 83, .	1.1	69
179	Mobile Surface Traps in CdSe Nanocrystals with Carboxylic Acid Ligands. Journal of Physical Chemistry C, 2011, 115, 15927-15932.	1.5	125
180	Gold adatom as a key structural component in self-assembled monolayers of organosulfur molecules on Au(111). Progress in Surface Science, 2010, 85, 206-240.	3.8	249

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