Oleksandr Voznyy

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.

185 papers	26,202 citations	78 h-index	161 g-index
197 ext. papers	30,751 ext. citations	18.4 avg, IF	6.98 L-index

#	Paper	IF	Citations
185	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	13	2
184	Enhanced emission directivity from asymmetrically strained colloidal quantum dots.. *Science Advances*, **2022**, 8, eabl8219	14.3	2
183	Wide-Bandgap Perovskite Quantum Dots in Perovskite Matrix for Sky-Blue Light-Emitting Diodes.. *Journal of the American Chemical Society*, **2022**,	16.4	22
182	High-throughput exploration of halide perovskite compositionally-graded films and degradation mechanisms. *Communications Materials*, **2022**, 3,	6	2
181	In-situ inorganic ligand replenishment enables bandgap stability in mixed-halide perovskite quantum dot solids.. *Advanced Materials*, **2022**, e2200854	24	11
180	Stabilizing Highly Active Ru Sites by Suppressing Lattice Oxygen Participation in Acidic Water Oxidation. *Journal of the American Chemical Society*, **2021**, 143, 6482-6490	16.4	38
179	Solid Electrolyte Interphase Engineering for Aqueous Aluminum Metal Batteries: A Critical Evaluation. *Advanced Energy Materials*, **2021**, 11, 2100077	21.8	17
178	Electro-Optic Modulation Using Metal-Free Perovskites. *ACS Applied Materials & Interfaces*, **2021**, 13, 19042-19047	9.5	3
177	Water/acetonitrile hybrid electrolyte enables using smaller ions for achieving superior energy density in carbon-based supercapacitors. *Journal of Power Sources*, **2021**, 498, 229905	8.9	1
176	Reply to: Perovskite decomposition and missing crystal planes in HRTEM. *Nature*, **2021**, 594, E8-E9	50.4	
175	Linear Electro-Optic Modulation in Highly Polarizable Organic Perovskites. *Advanced Materials*, **2021**, 33, e2006368	24	8
174	Underappreciated Role of Low-Energy Facets in Nitrogen Electroreduction **2021**, 3, 327-330		3
173	Facet-Oriented Coupling Enables Fast and Sensitive Colloidal Quantum Dot Photodetectors. *Advanced Materials*, **2021**, 33, e2101056	24	13
172	Bright and Stable Light-Emitting Diodes Based on Perovskite Quantum Dots in Perovskite Matrix. *Journal of the American Chemical Society*, **2021**, 143, 15606-15615	16.4	22
171	Crystal Site Feature Embedding Enables Exploration of Large Chemical Spaces. *Matter*, **2020**, 3, 433-448	12.7	17
170	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	8.3	24
169	Accelerated discovery of CO electrocatalysts using active machine learning. *Nature*, **2020**, 581, 178-183	50.4	328

168	Hydrophobic stabilizer-anchored fully inorganic perovskite quantum dots enhance moisture resistance and photovoltaic performance. *Nano Energy*, **2020**, 75, 104985	17.1	36
167	Manganese MOF Enables Efficient Oxygen Evolution in Acid **2020**, 2, 798-800		5
166	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. *Joule*, **2020**, 4, 1542-1556	27.8	85
165	Chloride Insertion-Immobilization Enables Bright, Narrowband, and Stable Blue-Emitting Perovskite Diodes. *Journal of the American Chemical Society*, **2020**, 142, 5126-5134	16.4	61
164	Bipolar-shell resurfacing for blue LEDs based on strongly confined perovskite quantum dots. *Nature Nanotechnology*, **2020**, 15, 668-674	28.7	281
163	Combining Efficiency and Stability in Mixed Tin-Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. *Advanced Materials*, **2020**, 32, e1907058	24	92
162	Quantum Dot-Plasmon Lasing with Controlled Polarization Patterns. *ACS Nano*, **2020**, 14, 3426-3433	16.7	26
161	Engineering Directionality in Quantum Dot Shell Lasing Using Plasmonic Lattices. *Nano Letters*, **2020**, 20, 1468-1474	11.5	21
160	Efficient near-infrared light-emitting diodes based on quantum dots in layered perovskite. *Nature Photonics*, **2020**, 14, 227-233	33.9	91
159	Ligand-Assisted Reconstruction of Colloidal Quantum Dots Decreases Trap State Density. *Nano Letters*, **2020**, 20, 3694-3702	11.5	27
158	Realizing ultra-pure red emission with Sn-based lead-free perovskites. *Rare Metals*, **2020**, 39, 330-331	5.5	4
157	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	24	23
156	Edge stabilization in reduced-dimensional perovskites. *Nature Communications*, **2020**, 11, 170	17.4	79
155	Bright high-colour-purity deep-blue carbon dot light-emitting diodes via efficient edge amination. *Nature Photonics*, **2020**, 14, 171-176	33.9	144
154	Narrow Emission from Rb3Sb2I9 Nanoparticles. *Advanced Optical Materials*, **2020**, 8, 1901606	8.1	16
153	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. *Nature Communications*, **2020**, 11, 103	17.4	110
152	High-valence metals improve oxygen evolution reaction performance by modulating 3d metal oxidation cycle energetics. *Nature Catalysis*, **2020**, 3, 985-992	36.5	149
151	Color-pure red light-emitting diodes based on two-dimensional lead-free perovskites. *Science Advances*, **2020**, 6,	14.3	52

150	Chelating-agent-assisted control of CsPbBr quantum well growth enables stable blue perovskite emitters. *Nature Communications*, **2020**, 11, 3674	17.4	45
149	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	6.4	7
148	A Multi-functional Molecular Modifier Enabling Efficient Large-Area Perovskite Light-Emitting Diodes. *Joule*, **2020**, 4, 1977-1987	27.8	70
147	Tertiary Hierarchical Complexity in Assemblies of Sulfur-Bridged Metal Chiral Clusters. *Journal of the American Chemical Society*, **2020**, 142, 14495-14503	16.4	10
146	Epitaxial Metal Halide Perovskites by Inkjet-Printing on Various Substrates. *Advanced Functional Materials*, **2020**, 30, 2004612	15.6	10
145	Orthogonal colloidal quantum dot inks enable efficient multilayer optoelectronic devices. *Nature Communications*, **2020**, 11, 4814	17.4	19
144	Glycol ether additives control the size of PbS nanocrystals at reaction completion. *Journal of Materials Chemistry C*, **2020**, 8, 12068-12074	7.1	2
143	Suppression of Auger Recombination by Gradient Alloying in InAs/CdSe/CdS QDs. *Chemistry of Materials*, **2020**, 32, 7703-7709	9.6	4
142	Machine Learning Accelerates Discovery of Optimal Colloidal Quantum Dot Synthesis. *ACS Nano*, **2019**, 13, 11122-11128	16.7	52
141	CO2 Electroreduction from Carbonate Electrolyte. *ACS Energy Letters*, **2019**, 4, 1427-1431	20.1	66
140	Lattice anchoring stabilizes solution-processed semiconductors. *Nature*, **2019**, 570, 96-101	50.4	149
139	Binding Site Diversity Promotes CO Electroreduction to Ethanol. *Journal of the American Chemical Society*, **2019**, 141, 8584-8591	16.4	178
138	Controlled Steric Hindrance Enables Efficient Ligand Exchange for Stable, Infrared-Bandgap Quantum Dot Inks. *ACS Energy Letters*, **2019**, 4, 1225-1230	20.1	30
137	Anchored Ligands Facilitate Efficient B-Site Doping in Metal Halide Perovskites. *Journal of the American Chemical Society*, **2019**, 141, 8296-8305	16.4	32
136	A Facet-Specific Quantum Dot Passivation Strategy for Colloid Management and Efficient Infrared Photovoltaics. *Advanced Materials*, **2019**, 31, e1805580	24	55
135	Contactless measurements of photocarrier transport properties in perovskite single crystals. *Nature Communications*, **2019**, 10, 1591	17.4	35
134	In Situ Back-Contact Passivation Improves Photovoltage and Fill Factor in Perovskite Solar Cells. *Advanced Materials*, **2019**, 31, e1807435	24	112
133	It's a Trap! Fused Quantum Dots Are Undesired Defects in Thin-Film Solar Cells. *CheM*, **2019**, 5, 1692-1694	16.2	4

132	Temperature-Induced Self-Compensating Defect Traps and Gain Thresholds in Colloidal Quantum Dots. *ACS Nano*, **2019**, 13, 8970-8976	16.7	7
131	Accelerated solution-phase exchanges minimize defects in colloidal quantum dot solids. *Nano Energy*, **2019**, 63, 103876	17.1	6
130	Solution-processed perovskite-colloidal quantum dot tandem solar cells for photon collection beyond 1000 nm. *Journal of Materials Chemistry A*, **2019**, 7, 26020-26028	13	30
129	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. *Nature Energy*, **2019**, 4, 969-976	62.3	78
128	Spectrally Resolved Ultrafast Exciton Transfer in Mixed Perovskite Quantum Wells. *Journal of Physical Chemistry Letters*, **2019**, 10, 419-426	6.4	53
127	Multi-site electrocatalysts for hydrogen evolution in neutral media by destabilization of water molecules. *Nature Energy*, **2019**, 4, 107-114	62.3	264
126	Bright colloidal quantum dot light-emitting diodes enabled by efficient chlorination. *Nature Photonics*, **2018**, 12, 159-164	33.9	206
125	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. *Nature Communications*, **2018**, 9, 1607	17.4	218
124	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. *Nature Nanotechnology*, **2018**, 13, 456-462	28.7	196
123	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	16.4	211
122	Amide-Catalyzed Phase-Selective Crystallization Reduces Defect Density in Wide-Bandgap Perovskites. *Advanced Materials*, **2018**, 30, e1706275	24	62
121	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. *Nature Communications*, **2018**, 9, 3100	17.4	171
120	Black and Stable: A Path to All-Inorganic Halide Perovskite Solar Cells. *Joule*, **2018**, 2, 1215-1216	27.8	6
119	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	62.3	355
118	Spin control in reduced-dimensional chiral perovskites. *Nature Photonics*, **2018**, 12, 528-533	33.9	205
117	Acid-Assisted Ligand Exchange Enhances Coupling in Colloidal Quantum Dot Solids. *Nano Letters*, **2018**, 18, 4417-4423	11.5	37
116	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	17.6	328
115	Pulsed axial epitaxy of colloidal quantum dots in nanowires enables facet-selective passivation. *Nature Communications*, **2018**, 9, 4947	17.4	15

114	Multibandgap quantum dot ensembles for solar-matched infrared energy harvesting. *Nature Communications*, **2018**, 9, 4003	17.4	39
113	Butylamine-Catalyzed Synthesis of Nanocrystal Inks Enables Efficient Infrared CQD Solar Cells. *Advanced Materials*, **2018**, 30, e1803830	24	48
112	The quantum-confined Stark effect in layered hybrid perovskites mediated by orientational polarizability of confined dipoles. *Nature Communications*, **2018**, 9, 4214	17.4	35
111	Picosecond Charge Transfer and Long Carrier Diffusion Lengths in Colloidal Quantum Dot Solids. *Nano Letters*, **2018**, 18, 7052-7059	11.5	42
110	Solar Cells: Overcoming the Ambient Manufacturability-Scalability-Performance Bottleneck in Colloidal Quantum Dot Photovoltaics (Adv. Mater. 35/2018). *Advanced Materials*, **2018**, 30, 1870260	24	3
109	Color-stable highly luminescent sky-blue perovskite light-emitting diodes. *Nature Communications*, **2018**, 9, 3541	17.4	370
108	Activated Electron-Transport Layers for Infrared Quantum Dot Optoelectronics. *Advanced Materials* , **2018**, 30, e1801720	24	34
107	Electron-phonon interaction in efficient perovskite blue emitters. *Nature Materials*, **2018**, 17, 550-556	27	310
106	Overcoming the Ambient Manufacturability-Scalability-Performance Bottleneck in Colloidal Quantum Dot Photovoltaics. *Advanced Materials*, **2018**, 30, e1801661	24	58
105	Efficient and stable solution-processed planar perovskite solar cells via contact passivation. *Science*, **2017**, 355, 722-726	33.3	1667
104	Pseudohalide-Exchanged Quantum Dot Solids Achieve Record Quantum Efficiency in Infrared Photovoltaics. *Advanced Materials*, **2017**, 29, 1700749	24	61
103	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. *Nano Letters*, **2017**, 17, 3701-3709	11.5	309
102	Ultrafast Carrier Trapping in Thick-Shell Colloidal Quantum Dots. *Journal of Physical Chemistry Letters*, **2017**, 8, 3179-3184	6.4	15
101	Engineering charge transport by heterostructuring solution-processed semiconductors. *Nature Reviews Materials*, **2017**, 2,	73.3	84
100	Quantum Dot Color-Converting Solids Operating Efficiently in the kW/cm2 Regime. *Chemistry of Materials*, **2017**, 29, 5104-5112	9.6	15
99	Field-emission from quantum-dot-in-perovskite solids. *Nature Communications*, **2017**, 8, 14757	17.4	68
98	Highly Emissive Green Perovskite Nanocrystals in a Solid State Crystalline Matrix. *Advanced Materials*, **2017**, 29, 1605945	24	252
97	Quantum Dots in Two-Dimensional Perovskite Matrices for Efficient Near-Infrared Light Emission. *ACS Photonics*, **2017**, 4, 830-836	6.3	28

96	High-Throughput Screening of Lead-Free Perovskite-like Materials for Optoelectronic Applications. *Journal of Physical Chemistry C*, **2017**, 121, 7183-7187	3.8	87
95	Continuous-wave lasing in colloidal quantum dot solids enabled by facet-selective epitaxy. *Nature*, **2017**, 544, 75-79	50.4	225
94	Origins of Stokes Shift in PbS Nanocrystals. *Nano Letters*, **2017**, 17, 7191-7195	11.5	45
93	Enhanced Open-Circuit Voltage in Colloidal Quantum Dot Photovoltaics via Reactivity-Controlled Solution-Phase Ligand Exchange. *Advanced Materials*, **2017**, 29, 1703627	24	42
92	Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO2 to Formate. *Joule*, **2017**, 1, 794-805	27.8	263
91	Halide Re-Shelled Quantum Dot Inks for Infrared Photovoltaics. *ACS Applied Materials & Interfaces*, **2017**, 9, 37536-37541	9.5	26
90	Effect of disorder on transport properties in a tight-binding model for lead halide perovskites. *Scientific Reports*, **2017**, 7, 8902	4.9	18
89	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. *Advanced Materials*, **2017**, 29, 1702350	24	97
88	Biexciton Resonances Reveal Exciton Localization in Stacked Perovskite Quantum Wells. *Journal of Physical Chemistry Letters*, **2017**, 8, 3895-3901	6.4	30
87	Small-Band-Offset Perovskite Shells Increase Auger Lifetime in Quantum Dot Solids. *ACS Nano*, **2017**, 11, 12378-12384	16.7	20
86	Mixed-quantum-dot solar cells. *Nature Communications*, **2017**, 8, 1325	17.4	113
85	Hybrid organic-inorganic inks flatten the energy landscape in colloidal quantum dot solids. *Nature Materials*, **2017**, 16, 258-263	27	432
84	Efficient Biexciton Interaction in Perovskite Quantum Dots Under Weak and Strong Confinement. *ACS Nano*, **2016**, 10, 8603-9	16.7	142
83	Highly Efficient Perovskite-Quantum-Dot Light-Emitting Diodes by Surface Engineering. *Advanced Materials*, **2016**, 28, 8718-8725	24	700
82	Pure Cubic-Phase Hybrid Iodobismuthates AgBi2 I7 for Thin-Film Photovoltaics. *Angewandte Chemie - International Edition*, **2016**, 55, 9586-90	16.4	156
81	Pure Cubic-Phase Hybrid Iodobismuthates AgBi2I7 for Thin-Film Photovoltaics. *Angewandte Chemie* , **2016**, 128, 9738-9742	3.6	35
80	Rational Design of Efficient Palladium Catalysts for Electroreduction of Carbon Dioxide to Formate. *ACS Catalysis*, **2016**, 6, 8115-8120	13.1	212
79	Amine-Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Light-Emitting Diodes. *Advanced Functional Materials*, **2016**, 26, 8757-8763	15.6	265

78	Crosslinked Remote-Doped Hole-Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. *Advanced Materials*, **2016**, 28, 2807-15	24	94
77	Perovskite energy funnels for efficient light-emitting diodes. *Nature Nanotechnology*, **2016**, 11, 872-877	28.7	1484
76	Crystal symmetry breaking and vacancies in colloidal lead chalcogenide quantum dots. *Nature Materials*, **2016**, 15, 987-94	27	80
75	ZnFe2 O4 Leaves Grown on TiO2 Trees Enhance Photoelectrochemical Water Splitting. *Small*, **2016**, 12, 3181-8	11	50
74	10.6% Certified Colloidal Quantum Dot Solar Cells via Solvent-Polarity-Engineered Halide Passivation. *Nano Letters*, **2016**, 16, 4630-4	11.5	275
73	Passivation Using Molecular Halides Increases Quantum Dot Solar Cell Performance. *Advanced Materials*, **2016**, 28, 299-304	24	279
72	Double-Sided Junctions Enable High-Performance Colloidal-Quantum-Dot Photovoltaics. *Advanced Materials*, **2016**, 28, 4142-8	24	100
71	Homogeneously dispersed multimetal oxygen-evolving catalysts. *Science*, **2016**, 352, 333-7	33.3	1459
70	Highly efficient quantum dot near-infrared light-emitting diodes. *Nature Photonics*, **2016**, 10, 253-257	33.9	295
69	Ligand-Stabilized Reduced-Dimensionality Perovskites. *Journal of the American Chemical Society*, **2016**, 138, 2649-55	16.4	889
68	Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals. *Journal of Physical Chemistry Letters*, **2016**, 7, 295-301	6.4	268
67	Single-step colloidal quantum dot films for infrared solar harvesting. *Applied Physics Letters*, **2016**, 109, 183105	3.4	42
66	Computational Study of Magic-Size CdSe Clusters with Complementary Passivation by Carboxylic and Amine Ligands. *Journal of Physical Chemistry C*, **2016**, 120, 10015-10019	3.8	28
65	Gradient-Doped Colloidal Quantum Dot Solids Enable Thermophotovoltaic Harvesting of Waste Heat. *ACS Energy Letters*, **2016**, 1, 740-746	20.1	7
64	Atomistic Design of CdSe/CdS Core-Shell Quantum Dots with Suppressed Auger Recombination. *Nano Letters*, **2016**, 16, 6491-6496	11.5	39
63	Controlling C60 Organization through Dipole-Induced Band Alignment at Self-Assembled Monolayer Interfaces. *Chemistry of Materials*, **2016**, 28, 8322-8329	9.6	6
62	Remote Molecular Doping of Colloidal Quantum Dot Photovoltaics. *ACS Energy Letters*, **2016**, 1, 922-930	20.1	34
61	Enhanced electrocatalytic CO reduction via field-induced reagent concentration. *Nature*, **2016**, 537, 382-386	38.1	997

60	Single-step fabrication of quantum funnels via centrifugal colloidal casting of nanoparticle films. *Nature Communications*, **2015**, 6, 7772	17.4	57
59	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. *Journal of Materials Chemistry C*, **2015**, 3, 8839-8843	7.1	129
58	Quantum-dot-in-perovskite solids. *Nature*, **2015**, 523, 324-8	50.4	382
57	Record Charge Carrier Diffusion Length in Colloidal Quantum Dot Solids via Mutual Dot-To-Dot Surface Passivation. *Advanced Materials*, **2015**, 27, 3325-30	24	103
56	Perovskite-fullerene hybrid materials suppress hysteresis in planar diodes. *Nature Communications*, **2015**, 6, 7081	17.4	815
55	Efficient Luminescence from Perovskite Quantum Dot Solids. *ACS Applied Materials & Interfaces*, **2015**, 7, 25007-13	9.5	401
54	Microsecond-sustained lasing from colloidal quantum dot solids. *Nature Communications*, **2015**, 6, 8694	17.4	91
53	High-Efficiency Colloidal Quantum Dot Photovoltaics via Robust Self-Assembled Monolayers. *Nano Letters*, **2015**, 15, 7691-6	11.5	175
52	Cleavable Ligands Enable Uniform Close Packing in Colloidal Quantum Dot Solids. *ACS Applied Materials & Interfaces*, **2015**, 7, 21995-2000	9.5	8
51	Infrared Colloidal Quantum Dot Photovoltaics via Coupling Enhancement and Agglomeration Suppression. *ACS Nano*, **2015**, 9, 8833-42	16.7	73
50	Colloidal Quantum Dot Photovoltaics Enhanced by Perovskite Shelling. *Nano Letters*, **2015**, 15, 7539-43	11.5	155
49	All-Quantum-Dot Infrared Light-Emitting Diodes. *ACS Nano*, **2015**, 9, 12327-33	16.7	48
48	Synergistic doping of fullerene electron transport layer and colloidal quantum dot solids enhances solar cell performance. *Advanced Materials*, **2015**, 27, 917-21	24	65
47	Perovskite thin films via atomic layer deposition. *Advanced Materials*, **2015**, 27, 53-8	24	171
46	The Silicon:Colloidal Quantum Dot Heterojunction. *Advanced Materials*, **2015**, 27, 7445-50	24	40
45	Colloidal CdSe(1-x)S(x) Nanoplatelets with Narrow and Continuously-Tunable Electroluminescence. *Nano Letters*, **2015**, 15, 4611-5	11.5	100
44	Self-Assembled PbSe Nanowire:Perovskite Hybrids. *Journal of the American Chemical Society*, **2015**, 137, 14869-72	16.4	10
43	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, 1862-74	16.4	40

42	Atomistic model of fluorescence intermittency of colloidal quantum dots. *Physical Review Letters*, **2014**, 112, 157401	7.4	65
41	The complete in-gap electronic structure of colloidal quantum dot solids and its correlation with electronic transport and photovoltaic performance. *Advanced Materials*, **2014**, 26, 937-42	24	51
40	Electronically active impurities in colloidal quantum dot solids. *ACS Nano*, **2014**, 8, 11763-9	16.7	30
39	Photovoltaics: The Complete In-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	24	1
38	Solar cells based on inks of n-type colloidal quantum dots. *ACS Nano*, **2014**, 8, 10321-7	16.7	141
37	Materials processing routes to trap-free halide perovskites. *Nano Letters*, **2014**, 14, 6281-6	11.5	567
36	Physically flexible, rapid-response gas sensor based on colloidal quantum dot solids. *Advanced Materials*, **2014**, 26, 2718-24, 2617	24	237
35	Engineering colloidal quantum dot solids within and beyond the mobility-invariant regime. *Nature Communications*, **2014**, 5, 3803	17.4	188
34	Air-stable n-type colloidal quantum dot solids. *Nature Materials*, **2014**, 13, 822-8	27	466
33	Role of bond adaptability in the passivation of colloidal quantum dot solids. *ACS Nano*, **2013**, 7, 7680-8	16.7	62
32	Directly deposited quantum dot solids using a colloidally stable nanoparticle ink. *Advanced Materials*, **2013**, 25, 5742-9	24	87
31	25th anniversary article: Colloidal quantum dot materials and devices: a quarter-century of advances. *Advanced Materials*, **2013**, 25, 4986-5010	24	369
30	Doping control via molecularly engineered surface ligand coordination. *Advanced Materials*, **2013**, 25, 5586-92	24	55
29	Automated synthesis of photovoltaic-quality colloidal quantum dots using separate nucleation and growth stages. *ACS Nano*, **2013**, 7, 10158-66	16.7	77
28	Graded doping for enhanced colloidal quantum dot photovoltaics. *Advanced Materials*, **2013**, 25, 1719-23	24	150
27	Dynamic Trap Formation and Elimination in Colloidal Quantum Dots. *Journal of Physical Chemistry Letters*, **2013**, 4, 987-92	6.4	95
26	The striped phases of ethylthiolate monolayers on the Au(111) surface: a scanning tunneling microscopy study. *Journal of Chemical Physics*, **2013**, 138, 194707	3.9	17
25	Measuring charge carrier diffusion in coupled colloidal quantum dot solids. *ACS Nano*, **2013**, 7, 5282-90	16.7	163

24	Hybridization of phenylthiolate- and methylthiolate-adatom species at low coverage on the Au(111) surface. *Journal of the American Chemical Society*, **2013**, 135, 4922-5	16.4	20
23	Hybrid passivated colloidal quantum dot solids. *Nature Nanotechnology*, **2012**, 7, 577-82	28.7	993
22	N-type colloidal-quantum-dot solids for photovoltaics. *Advanced Materials*, **2012**, 24, 6181-5	24	165
21	All-inorganic colloidal quantum dot photovoltaics employing solution-phase halide passivation. *Advanced Materials*, **2012**, 24, 6295-9	24	179
20	A charge-orbital balance picture of doping in colloidal quantum dot solids. *ACS Nano*, **2012**, 6, 8448-55	16.7	183
19	Electronic and optical properties of semiconductor and graphene quantum dots. *Frontiers of Physics* , **2012**, 7, 328-352	3.7	50
18	Mobile Surface Traps in CdSe Nanocrystals with Carboxylic Acid Ligands. *Journal of Physical Chemistry C*, **2011**, 115, 15927-15932	3.8	110
17	Theory of highly excited semiconductor nanostructures including Auger coupling: Exciton-biexciton mixing in CdSe nanocrystals. *Physical Review B*, **2011**, 84,	3.3	21
16	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,	3.3	59
15	Fine structure and size dependence of exciton and biexciton optical spectra in CdSe nanocrystals. *Physical Review B*, **2010**, 82,	3.3	78
14	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	6.6	232
13	Molecular self-assembly and passivation of GaAs (0 0 1) with alkanethiol monolayers: A view towards bio-functionalization. *Applied Surface Science*, **2010**, 256, 5714-5721	6.7	31
12	Magnetism and correlations in fractionally filled degenerate shells of graphene quantum dots. *Physical Review Letters*, **2009**, 103, 246805	7.4	110
11	c(4x2) structures of alkanethiol monolayers on Au (111) compatible with the constraint of dense packing. *Langmuir*, **2009**, 25, 7353-8	4	34
10	Magic-Sized Cd3P2 III Nanoparticles Exhibiting Bandgap Photoemission. *Journal of Physical Chemistry C*, **2009**, 113, 17979-17982	3.8	48
9	The role of gold adatoms and stereochemistry in self-assembly of methylthiolate on Au(111). *Journal of the American Chemical Society*, **2009**, 131, 12989-93	16.4	147
8	Structure of thiol self-assembled monolayers commensurate with the GaAs (001) surface. *Langmuir*, **2008**, 24, 13299-305	4	42
7	Adsorption Kinetics of Hydrogen Sulfide and Thiols on GaAs (001) Surfaces in a Vacuum. *Journal of Physical Chemistry C*, **2008**, 112, 3726-3733	3.8	32

6	First-principles Study of Adsorption Energetics of Alkanethiols on GaAs(001). *Materials Research Society Symposia Proceedings*, **2006**, 950, 1		
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4	Structure, bonding nature, and binding energy of alkanethiolate on As-rich GaAs (001) surface: a density functional theory study. *Journal of Physical Chemistry B*, **2006**, 110, 23619-22	3.4	30
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