Omar F Mohammed

List of Publications by Year
in descending order

315 papers	33,121 citations	5261 83 h-index	4427 172 g-index
320 all docs	320 docs citations	320 times ranked	23998 citing authors

#	ARTICLE	IF	CITATIONS
1	Low trap-state density and long carrier diffusion in organolead trihalide perovskite single crystals. Science, 2015, 347, 519-522.	6.0	4,156
2	High-quality bulk hybrid perovskite single crystals within minutes by inverse temperature crystallization. Nature Communications, 2015, 6, 7586.	5.8	1,478
3	All-inorganic perovskite nanocrystal scintillators. Nature, 2018, 561, 88-93.	13.7	1,274
4	Highly Efficient Perovskiteâ€Quantumâ€Dot Lightâ€Emitting Diodes by Surface Engineering. Advanced Materials, 2016, 28, 8718-8725.	11.1	917
5	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. Nature Energy, 2020, 5, 131-140.	19.8	894
6	Formamidinium Lead Halide Perovskite Crystals with Unprecedented Long Carrier Dynamics and Diffusion Length. ACS Energy Letters, 2016, 1, 32-37.	8.8	752
7	Bidentate Ligand-Passivated CsPbI₃ Perovskite Nanocrystals for Stable Near-Unity Photoluminescence Quantum Yield and Efficient Red Light-Emitting Diodes. Journal of the American Chemical Society, 2018, 140, 562-565.	6.6	745
8	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	7.3	705
9	CH₃NH₃PbCl₃ Single Crystals: Inverse Temperature Crystallization and Visible-Blind UV-Photodetector. Journal of Physical Chemistry Letters, 2015, 6, 3781-3786.	2.1	636
10	Pure Cs₄PbBr₆: Highly Luminescent Zero-Dimensional Perovskite Solids. ACS Energy Letters, 2016, 1, 840-845.	8.8	481
11	Sequential Proton Transfer Through Water Bridges in Acid-Base Reactions. Science, 2005, 310, 83-86.	6.0	480
12	Air-Stable Surface-Passivated Perovskite Quantum Dots for Ultra-Robust, Single- and Two-Photon-Induced Amplified Spontaneous Emission. Journal of Physical Chemistry Letters, 2015, 6, 5027-5033.	2.1	466
13	Single-Crystal MAPbI₃ Perovskite Solar Cells Exceeding 21% Power Conversion Efficiency. ACS Energy Letters, 2019, 4, 1258-1259.	8.8	424
14	Engineering Interfacial Charge Transfer in CsPbBr₃ Perovskite Nanocrystals by Heterovalent Doping. Journal of the American Chemical Society, 2017, 139, 731-737.	6.6	406
15	Metal Halide Perovskites for X-ray Imaging Scintillators and Detectors. ACS Energy Letters, 2021, 6, 739-768.	8.8	403
16	Low-Dimensional-Networked Metal Halide Perovskites: The Next Big Thing. ACS Energy Letters, 2017, 2, 889-896.	8.8	367
17	Inorganic Lead Halide Perovskite Single Crystals: Phaseâ€Selective Lowâ€Temperature Growth, Carrier Transport Properties, and Selfâ€Powered Photodetection. Advanced Optical Materials, 2017, 5, 1600704.	3.6	362
18	Metal Halide Perovskite Nanosheet for X-ray High-Resolution Scintillation Imaging Screens. ACS Nano, 2019, 13, 2520-2525.	7.3	346

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19	Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals. Journal of Physical Chemistry Letters, 2016, 7, 295-301.	2.1	332
20	Templated Atomâ€Precise Galvanic Synthesis and Structure Elucidation of a [Ag₂₄Au(SR)₁₈]^{âˆ’} Nanocluster. Angewandte Chemie - International Edition, 2016, 55, 922-926.	7.2	306
21	Zero-Dimensional Cs₄PbBr₆ Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2017, 8, 961-965.	2.1	299
22	Solutionâ€Grown Monocrystalline Hybrid Perovskite Films for Holeâ€Transporterâ€Free Solar Cells. Advanced Materials, 2016, 28, 3383-3390.	11.1	298
23	Atomic-Level Doping of Metal Clusters. Accounts of Chemical Research, 2018, 51, 3094-3103.	7.6	294
24	Gold Doping of Silver Nanoclusters: A 26â€Fold Enhancement in the Luminescence Quantum Yield. Angewandte Chemie - International Edition, 2016, 55, 5749-5753.	7.2	278
25	Perovskite Oxide SrTiO₃ as an Efficient Electron Transporter for Hybrid Perovskite Solar Cells. Journal of Physical Chemistry C, 2014, 118, 28494-28501.	1.5	251
26	Ultralow Self-Doping in Two-dimensional Hybrid Perovskite Single Crystals. Nano Letters, 2017, 17, 4759-4767.	4.5	251
27	Giant Photoluminescence Enhancement in CsPbCl₃ Perovskite Nanocrystals by Simultaneous Dual-Surface Passivation. ACS Energy Letters, 2018, 3, 2301-2307.	8.8	244
28	High-speed colour-converting photodetector with all-inorganic CsPbBr3 perovskite nanocrystals for ultraviolet light communication. Light: Science and Applications, 2019, 8, 94.	7.7	225
29	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. Joule, 2019, 3, 1963-1976.	11.7	222
30	Perovskite Nanocrystals as a Color Converter for Visible Light Communication. ACS Photonics, 2016, 3, 1150-1156.	3.2	221
31	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. ACS Energy Letters, 2020, 5, 793-798.	8.8	208
32	Unprecedented Ultralow Detection Limit of Amines using a Thiadiazole-Functionalized Zr(IV)-Based Metalâ€“Organic Framework. Journal of the American Chemical Society, 2019, 141, 7245-7249.	6.6	203
33	Concentrated dual-cation electrolyte strategy for aqueous zinc-ion batteries. Energy and Environmental Science, 2021, 14, 4463-4473.	15.6	203
34	Inside Perovskites: Quantum Luminescence from Bulk Cs₄PbBr₆ Single Crystals. Chemistry of Materials, 2017, 29, 7108-7113.	3.2	200
35	Base-Induced Solvent Switches in Acidâ€“Base Reactions. Angewandte Chemie - International Edition, 2007, 46, 1458-1461.	7.2	197
36	Ultrathin Cu₂O as an efficient inorganic hole transporting material for perovskite solar cells. Nanoscale, 2016, 8, 6173-6179.	2.8	191

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37	Molecular behavior of zero-dimensional perovskites. Science Advances, 2017, 3, e1701793.	4.7	187
38	Tunable Multipolar Surface Plasmons in 2D Ti₃C₂<i>T</i>_{<i>x</i>} MXene Flakes. ACS Nano, 2018, 12, 8485-8493.	7.3	179
39	MXenes for Plasmonic Photodetection. Advanced Materials, 2019, 31, e1807658.	11.1	175
40	Room-Temperature Engineering of All-Inorganic Perovskite Nanocrsytals with Different Dimensionalities. Chemistry of Materials, 2017, 29, 8978-8982.	3.2	174
41	Direct-Indirect Nature of the Bandgap in Lead-Free Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2017, 8, 3173-3177.	2.1	172
42	Low-Temperature Crystallization Enables 21.9% Efficient Single-Crystal MAPbI₃ Inverted Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 657-662.	8.8	171
43	Pure crystal orientation and anisotropic charge transport in large-area hybrid perovskite films. Nature Communications, 2016, 7, 13407.	5.8	170
44	Reducing Defects in Halide Perovskite Nanocrystals for Light-Emitting Applications. Journal of Physical Chemistry Letters, 2019, 10, 2629-2640.	2.1	162
45	The Role of Surface Tension in the Crystallization of Metal Halide Perovskites. ACS Energy Letters, 2017, 2, 1782-1788.	8.8	155
46	Engineering of CH₃NH₃PbI₃ Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. Angewandte Chemie - International Edition, 2016, 55, 10686-10690.	7.2	152
47	Contribution of Metal Defects in the Assembly Induced Emission of Cu Nanoclusters. Journal of the American Chemical Society, 2017, 139, 4318-4321.	6.6	152
48	22.8%-Efficient single-crystal mixed-cation inverted perovskite solar cells with a near-optimal bandgap. Energy and Environmental Science, 2021, 14, 2263-2268.	15.6	149
49	Amorphous Tin Oxide as a Low-Temperature-Processed Electron-Transport Layer for Organic and Hybrid Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 11828-11836.	4.0	145
50	Point Defects and Green Emission in Zero-Dimensional Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 5490-5495.	2.1	143
51	Dendritic Tip-on Polytriazine-Based Carbon Nitride Photocatalyst with High Hydrogen Evolution Activity. Chemistry of Materials, 2015, 27, 8237-8247.	3.2	140
52	Surface Restructuring of Hybrid Perovskite Crystals. ACS Energy Letters, 2016, 1, 1119-1126.	8.8	140
53	Extremely reduced dielectric confinement in two-dimensional hybrid perovskites with large polar organics. Communications Physics, 2018, 1, .	2.0	135
54	Intrinsic Lead Ion Emissions in Zero-Dimensional Cs₄PbBr₆ Nanocrystals. ACS Energy Letters, 2017, 2, 2805-2811.	8.8	133

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55	Assembly of Atomically Precise Silver Nanoclusters into Nanocluster-Based Frameworks. Journal of the American Chemical Society, 2019, 141, 9585-9592.	6.6	132
56	Thermochromic Perovskite Inks for Reversible Smart Window Applications. Chemistry of Materials, 2017, 29, 3367-3370.	3.2	130
57	CsPb₂Br₅ Single Crystals: Synthesis and Characterization. ChemSusChem, 2017, 10, 3746-3749.	3.6	130
58	Photoluminescence Origin of Zero-Dimensional Cs₄PbBr₆ Perovskite. ACS Energy Letters, 2020, 5, 87-99.	8.8	128
59	The recombination mechanisms leading to amplified spontaneous emission at the true-green wavelength in CH3NH3PbBr3 perovskites. Applied Physics Letters, 2015, 106, .	1.5	126
60	Elucidation of the Intersystem Crossing Mechanism in a Helical BODIPY for Lowâ€Dose Photodynamic Therapy. Angewandte Chemie - International Edition, 2020, 59, 16114-16121.	7.2	126
61	2D Organicâ€“Inorganic Hybrid Thin Films for Flexible UVâ€“Visible Photodetectors. Advanced Functional Materials, 2017, 27, 1605554.	7.8	125
62	Halogen Migration in Hybrid Perovskites: The Organic Cation Matters. Journal of Physical Chemistry Letters, 2018, 9, 5474-5480.	2.1	119
63	Light-Induced Self-Assembly of Cubic CsPbBr₃ Perovskite Nanocrystals into Nanowires. Chemistry of Materials, 2019, 31, 6642-6649.	3.2	119
64	The Benefit and Challenges of Zero-Dimensional Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 4131-4138.	2.1	118
65	Scanning ultrafast electron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14993-14998.	3.3	117
66	Highly Stable Phosphonateâ€Based MOFs with Engineered Bandgaps for Efficient Photocatalytic Hydrogen Production. Advanced Materials, 2020, 32, e1906368.	11.1	117
67	Unlocking the Effect of Trivalent Metal Doping in All-Inorganic CsPbBr₃ Perovskite. ACS Energy Letters, 2019, 4, 789-795.	8.8	116
68	Metal Halide Perovskites for Solarâ€toâ€Chemical Fuel Conversion. Advanced Energy Materials, 2020, 10, 1902433.	10.2	115
69	Structural Evolution of the Chromophore in the Primary Stages of Trans/Cis Isomerization in Photoactive Yellow Protein. Journal of the American Chemical Society, 2005, 127, 18100-18106.	6.6	110
70	Energy Transfer in Metalâ€“Organic Frameworks for Fluorescence Sensing. ACS Applied Materials & Interfaces, 2022, 14, 9970-9986.	4.0	109
71	Templated Atomâ€Precise Galvanic Synthesis and Structure Elucidation of a [Ag₂₄Au(SR)₁₈]^{âˆ’} Nanocluster. Angewandte Chemie, 2016, 128, 934-938.	1.6	106
72	Ultrahigh Carrier Mobility Achieved in Photoresponsive Hybrid Perovskite Films via Coupling with Singleâ€Walled Carbon Nanotubes. Advanced Materials, 2017, 29, 1602432.	11.1	106

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73	Fast Crystallization and Improved Stability of Perovskite Solar Cells with Zn₂SnO₄ Electron Transporting Layer: Interface Matters. ACS Applied Materials & Interfaces, 2015, 7, 28404-28411.	4.0	103
74	Pyridine-Induced Dimensionality Change in Hybrid Perovskite Nanocrystals. Chemistry of Materials, 2017, 29, 4393-4400.	3.2	100
75	Successes and Challenges of Core/Shell Lead Halide Perovskite Nanocrystals. ACS Energy Letters, 2021, 6, 1340-1357.	8.8	100
76	Facile Synthesis and High Performance of a New Carbazole-Based Hole-Transporting Material for Hybrid Perovskite Solar Cells. ACS Photonics, 2015, 2, 849-855.	3.2	99
77	28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. Joule, 2021, 5, 3169-3186.	11.7	99
78	Doping-Induced Anisotropic Self-Assembly of Silver Icosahedra in [Pt₂Ag₂₃Cl₇(PPh₃)₁₀] Nanoclusters. Journal of the American Chemical Society, 2017, 139, 1053-1056.	6.6	98
79	Quantum Confinement-Tunable Ultrafast Charge Transfer at the PbS Quantum Dot and Phenyl-C₆₁-butyric Acid Methyl Ester Interface. Journal of the American Chemical Society, 2014, 136, 6952-6959.	6.6	97
80	Tuning Hot Carrier Cooling Dynamics by Dielectric Confinement in Two-Dimensional Hybrid Perovskite Crystals. ACS Nano, 2019, 13, 12621-12629.	7.3	96
81	Solvent-Dependent Photoacidity State of Pyranine Monitored by Transient Mid-Infrared Spectroscopy. ChemPhysChem, 2005, 6, 625-636.	1.0	94
82	Layer-Dependent Rashba Band Splitting in 2D Hybrid Perovskites. Chemistry of Materials, 2018, 30, 8538-8545.	3.2	92
83	The Surface of Hybrid Perovskite Crystals: A Boon or Bane. ACS Energy Letters, 2017, 2, 846-856.	8.8	91
84	Single Crystals: The Next Big Wave of Perovskite Optoelectronics. , 2020, 2, 184-214.		89
85	Defect Passivation in Perovskite Solar Cells by Cyanoâ€Based Ï€â€Conjugated Molecules for Improved Performance and Stability. Advanced Functional Materials, 2020, 30, 2002861.	7.8	87
86	CsMnBr₃: Lead-Free Nanocrystals with High Photoluminescence Quantum Yield and Picosecond Radiative Lifetime. , 2021, 3, 290-297.		86
87	Large-Area Perovskite-Related Copper Halide Film for High-Resolution Flexible X-ray Imaging Scintillation Screens. ACS Energy Letters, 2022, 7, 844-846.	8.8	86
88	Carrier dynamics of a visible-light-responsive Ta₃N₅photoanode for water oxidation. Physical Chemistry Chemical Physics, 2015, 17, 2670-2677.	1.3	85
89	4D Scanning Ultrafast Electron Microscopy: Visualization of Materials Surface Dynamics. Journal of the American Chemical Society, 2011, 133, 7708-7711.	6.6	84
90	A Titanium Metalâ€"Organic Framework with Visibleâ€Lightâ€Responsive Photocatalytic Activity. Angewandte Chemie - International Edition, 2020, 59, 13468-13472.	7.2	84

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91	Ultralong Radiative States in Hybrid Perovskite Crystals: Compositions for Submillimeter Diffusion Lengths. Journal of Physical Chemistry Letters, 2017, 8, 4386-4390.	2.1	83
92	Compositional, Processing, and Interfacial Engineering of Nanocrystal- and Quantum-Dot-Based Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6387-6411.	3.2	82
93	Generation of Multiple Excitons in Ag₂S Quantum Dots: Single High-Energy versus Multiple-Photon Excitation. Journal of Physical Chemistry Letters, 2014, 5, 659-665.	2.1	81
94	[Cu₈₁(PhS)₄₆(^{<i>t</i>}BuNH₂)₁₀(H)₃₂]³⁺ Reveals the Coexistence of Large Planar Cores and Hemispherical Shells in High-Nuclearity Copper Nanoclusters. Journal of the American Chemical Society, 2020, 142, 8696-8705.	6.6	81
95	Water-Induced Dimensionality Reduction in Metal-Halide Perovskites. Journal of Physical Chemistry C, 2018, 122, 14128-14134.	1.5	78
96	Linked Nickel Oxide/Perovskite Interface Passivation for Highâ€Performance Textured Monolithic Tandem Solar Cells. Advanced Energy Materials, 2021, 11, 2101662.	10.2	77
97	Tailoring the Crystal Structure of Nanoclusters Unveiled High Photoluminescence via Ion Pairing. Chemistry of Materials, 2018, 30, 2719-2725.	3.2	76
98	[Cu₆₁(S^tBu)₂₆S₆Cl₆H₁₄]⁺: A Coreâ€“Shell Superatom Nanocluster with a Quasi-<i>J</i>₃₆ Cu₁₉ Core and an â€œ18-Crown-6â€•Metal-Sulfide-like Stabilizing Belt. , 2019, 1, 297-302.		76
99	Modulation of Broadband Emissions in Two-Dimensional âŸ¨100âŸ©-Oriented Ruddlesdenâ€“Popper Hybrid Perovskites. ACS Energy Letters, 2020, 5, 2149-2155.	8.8	75
100	Excited-State Dynamics of Nitroperylene in Solution:â€‰ Solvent and Excitation Wavelength Dependence. Journal of Physical Chemistry A, 2008, 112, 3823-3830.	1.1	74
101	Longâ€Lived Chargeâ€Transfer State Induced by Spinâ€Orbit Charge Transfer Intersystem Crossing (SOCTâ€ISC) in a Compact Spiro Electron Donor/Acceptor Dyad. Angewandte Chemie - International Edition, 2020, 59, 11591-11599.	7.2	74
102	Perovskite-Nanosheet Sensitizer for Highly Efficient Organic X-ray Imaging Scintillator. ACS Energy Letters, 2022, 7, 10-16.	8.8	72
103	Four-Dimensional Ultrafast Electron Microscopy: Insights into an Emerging Technique. ACS Applied Materials & Interfaces, 2017, 9, 3-16.	4.0	71
104	Ultrafast Branching of Reaction Pathways in 2-(2â€²-Hydroxyphenyl)benzothiazole in Polar Acetonitrile Solution. Journal of Physical Chemistry A, 2011, 115, 7550-7558.	1.1	70
105	Zeolite-like Metalâ€“Organic Framework (MOF) Encaged Pt(II)-Porphyrin for Anion-Selective Sensing. ACS Applied Materials & Interfaces, 2018, 10, 11399-11405.	4.0	70
106	Efficient Photon Recycling and Radiation Trapping in Cesium Lead Halide Perovskite Waveguides. ACS Energy Letters, 2018, 3, 1492-1498.	8.8	70
107	Oriented Halide Perovskite Nanostructures and Thin Films for Optoelectronics. Chemical Reviews, 2021, 121, 12112-12180.	23.0	70
108	Excited-State Structure Determination of the Green Fluorescent Protein Chromophore. Journal of the American Chemical Society, 2005, 127, 11214-11215.	6.6	69

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109	Aqueous bimolecular proton transfer in acidâ€“base neutralization. Chemical Physics, 2007, 341, 240-257.	0.9	69
110	Ultrafast electron injection at the cationic porphyrinâ€“graphene interface assisted by molecular flattening. Chemical Communications, 2014, 50, 10452.	2.2	68
111	Study of the Bulk Charge Carrier Dynamics in Anatase and Rutile TiO₂ Single Crystals by Femtosecond Time-Resolved Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 8925-8932.	1.5	68
112	Nano surface engineering of Mn₂O₃for potential light-harvesting application. Journal of Materials Chemistry C, 2015, 3, 8200-8211.	2.7	65
113	Direct Femtosecond Observation of Tight and Loose Ion Pairs upon Photoinduced Bimolecular Electron Transfer. Angewandte Chemie - International Edition, 2008, 47, 9044-9048.	7.2	63
114	Ligand-Free Nanocrystals of Highly Emissive Cs₄PbBr₆ Perovskite. Journal of Physical Chemistry C, 2018, 122, 6493-6498.	1.5	63
115	Layer-edge device of two-dimensional hybrid perovskites. Nature Communications, 2018, 9, 5196.	5.8	63
116	Excited-State Intramolecular Hydrogen Transfer (ESIHT) of 1,8-Dihydroxy-9,10-anthraquinone (DHAQ) Characterized by Ultrafast Electronic and Vibrational Spectroscopy and Computational Modeling. Journal of Physical Chemistry A, 2014, 118, 3090-3099.	1.1	62
117	Gold Doping of Silver Nanoclusters: A 26â€Fold Enhancement in the Luminescence Quantum Yield. Angewandte Chemie, 2016, 128, 5843-5847.	1.6	62
118	Direct versus ligand-exchange synthesis of [PtAg₂₈(BDT)₁₂(TPP)₄]^{4âˆ'}nanoclusters: effect of a single-atom dopant on the optoelectronic and chemical properties. Nanoscale, 2017, 9, 9529-9536.	2.8	62
119	Access to Highly Efficient Energy Transfer in Metalâ€“Organic Frameworks via Mixed Linkers Approach. Journal of the American Chemical Society, 2020, 142, 8580-8584.	6.6	62
120	Double Charged Surface Layers in Lead Halide Perovskite Crystals. Nano Letters, 2017, 17, 2021-2027.	4.5	60
121	Solutionâ€Processed Visibleâ€Blind Ultraviolet Photodetectors with Nanosecond Response Time and High Detectivity. Advanced Optical Materials, 2019, 7, 1900506.	3.6	60
122	Efficient Visibleâ€Light Driven Photothermal Conversion of CO₂ to Methane by Nickel Nanoparticles Supported on Barium Titanate. Advanced Functional Materials, 2021, 31, 2008244.	7.8	60
123	Triplet excited state properties in variable gap Ï€-conjugated donorâ€“acceptorâ€“donor chromophores. Chemical Science, 2016, 7, 3621-3631.	3.7	59
124	Lecithin Capping Ligands Enable Ultrastable Perovskite-Phase CsPbI₃ Quantum Dots for Rec. 2020 Bright-Red Light-Emitting Diodes. Journal of the American Chemical Society, 2022, 144, 13302-13310.	6.6	59
125	Tellurium-Based Double Perovskites A₂TeX₆ with Tunable Band Gap and Long Carrier Diffusion Length for Optoelectronic Applications. ACS Energy Letters, 2019, 4, 228-234.	8.8	58
126	Charge Transfer Assisted by Collective Hydrogenâ€Bonding Dynamics. Angewandte Chemie - International Edition, 2009, 48, 6251-6256.	7.2	56

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127	Reversible Band Gap Narrowing of Snâ€Based Hybrid Perovskite Single Crystal with Excellent Phase Stability. Angewandte Chemie - International Edition, 2018, 57, 14868-14872.	7.2	56
128	Compositionally Screened Eutectic Catalytic Coatings on Halide Perovskite Photocathodes for Photoassisted Selective CO₂ Reduction. ACS Energy Letters, 2019, 4, 1279-1286.	8.8	56
129	Manipulating crystallization dynamics through chelating molecules for bright perovskite emitters. Nature Communications, 2021, 12, 4831.	5.8	56
130	Stimuli-responsive switchable halide perovskites: Taking advantage of instability. Joule, 2021, 5, 2027-2046.	11.7	56
131	Real-Time Observation of Ultrafast Intraband Relaxation and Exciton Multiplication in PbS Quantum Dots. ACS Photonics, 2014, 1, 285-292.	3.2	54
132	Why are Hot Holes Easier to Extract than Hot Electrons from Methylammonium Lead Iodide Perovskite?. Advanced Energy Materials, 2019, 9, 1900084.	10.2	54
133	Robust and air-stable sandwiched organo-lead halide perovskites for photodetector applications. Journal of Materials Chemistry C, 2016, 4, 2545-2552.	2.7	53
134	Structurally Tunable Two-Dimensional Layered Perovskites: From Confinement and Enhanced Charge Transport to Prolonged Hot Carrier Cooling Dynamics. Journal of Physical Chemistry Letters, 2020, 11, 5705-5718.	2.1	53
135	Designed growth and patterning of perovskite nanowires for lasing and wide color gamut phosphors with long-term stability. Nano Energy, 2020, 73, 104801.	8.2	53
136	Nearly 100% energy transfer at the interface of metal-organic frameworks for X-ray imaging scintillators. Matter, 2022, 5, 253-265.	5.0	53
137	Single-step colloidal quantum dot films for infrared solar harvesting. Applied Physics Letters, 2016, 109, .	1.5	52
138	Pillar[5]areneâ€Stabilized Silver Nanoclusters: Extraordinary Stability and Luminescence Enhancement Induced by Hostâ€"Guest Interactions. Angewandte Chemie - International Edition, 2019, 58, 15665-15670.	7.2	52
139	Defect-Triggered Phase Transition in Cesium Lead Halide Perovskite Nanocrystals. , 2019, 1, 185-191.		51
140	[Cu₁₅(PPh₃)₆(PET)₁₃]²⁺: a Copper Nanocluster with Crystallization Enhanced Photoluminescence. Small, 2021, 17, e2006839.	5.2	50
141	Effect of Zincâ€Doping on the Reduction of the Hotâ€Carrier Cooling Rate in Halide Perovskites. Angewandte Chemie - International Edition, 2021, 60, 10957-10963.	7.2	50
142	Exciton Self-Trapping for White Emission in 100-Oriented Two-Dimensional Perovskites via Halogen Substitution. ACS Energy Letters, 2022, 7, 453-460.	8.8	50
143	Halogen Vacancies Enable Ligandâ€Assisted Selfâ€Assembly of Perovskite Quantum Dots into Nanowires. Angewandte Chemie - International Edition, 2019, 58, 16077-16081.	7.2	49
144	Theory-Guided Synthesis of Highly Luminescent Colloidal Cesium Tin Halide Perovskite Nanocrystals. Journal of the American Chemical Society, 2021, 143, 5470-5480.	6.6	49

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145	Self-Assembly and Regrowth of Metal Halide Perovskite Nanocrystals for Optoelectronic Applications. Accounts of Chemical Research, 2022, 55, 262-274.	7.6	49
146	Shape Control of Metal Halide Perovskite Single Crystals: From Bulk to Nanoscale. Chemistry of Materials, 2020, 32, 7602-7617.	3.2	46
147	[Cu₃₆H₁₀(PET)₂₄(PPh₃)₆Cl₂] Reveals Surface Vacancy Defects in Ligand-Stabilized Metal Nanoclusters. Journal of the American Chemical Society, 2021, 143, 11026-11035.	6.6	46
148	Boosting Self-Trapped Emissions in Zero-Dimensional Perovskite Heterostructures. Chemistry of Materials, 2020, 32, 5036-5043.	3.2	46
149	Sequential Merocyanine Product Isomerization Following Femtosecond UV Excitation of a Spiropyran. Journal of Physical Chemistry A, 2005, 109, 8962-8968.	1.1	45
150	Shape-Tunable Charge Carrier Dynamics at the Interfaces between Perovskite Nanocrystals and Molecular Acceptors. Journal of Physical Chemistry Letters, 2016, 7, 3913-3919.	2.1	43
151	Sunlight-Driven Biomass Photorefinery for Coproduction of Sustainable Hydrogen and Value-Added Biochemicals. ACS Sustainable Chemistry and Engineering, 2020, 8, 15772-15781.	3.2	43
152	Near-unity photoluminescence quantum yield in inorganic perovskite nanocrystals by metal-ion doping. Journal of Chemical Physics, 2020, 152, 020902.	1.2	42
153	Doping Induces Structural Phase Transitions in All-Inorganic Lead Halide Perovskite Nanocrystals. , 2020, 2, 367-375.		42
154	Emergence of multiple fluorophores in individual cesium lead bromide nanocrystals. Nature Communications, 2019, 10, 2930.	5.8	41
155	[Cu₂₃(PhSe)₁₆(Ph₃P)₈(H)₆]Â·BF₄: Atomic-Level Insights into Cuboidal Polyhydrido Copper Nanoclusters and Their Quasi-simple Cubic Self-Assembly. , 2021, 3, 90-99.		41
156	Manipulation of hot carrier cooling dynamics in two-dimensional Dionâ€“Jacobson hybrid perovskites via Rashba band splitting. Nature Communications, 2021, 12, 3995.	5.8	41
157	Primary Peptide Folding Dynamics Observed with Ultrafast Temperature Jump. Angewandte Chemie - International Edition, 2009, 48, 5628-5632.	7.2	40
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