Samuel D Stranks

List of Publications by Year
in descending order

195 papers	51,319 citations	6233 80 h-index	3815 178 g-index
205 all docs	205 docs citations	205 times ranked	25869 citing authors

#	Article	IF	Citations
1	Electron-Hole Diffusion Lengths Exceeding 1 Micrometer in an Organometal Trihalide Perovskite Absorber. Science, 2013, 342, 341-344.	6.0	8,703
2	Formamidinium lead trihalide: a broadly tunable perovskite for efficient planar heterojunction solar cells. Energy and Environmental Science, 2014, 7, 982.	15.6	3,352
3	Metal-halide perovskites for photovoltaic and light-emitting devices. Nature Nanotechnology, 2015, 10, 391-402.	15.6	2,604
4	Anomalous Hysteresis in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 1511-1515.	2.1	2,190
5	Lead-free organicâ€“inorganic tin halide perovskites for photovoltaic applications. Energy and Environmental Science, 2014, 7, 3061-3068.	15.6	2,086
6	Impact of microstructure on local carrier lifetime in perovskite solar cells. Science, 2015, 348, 683-686.	6.0	1,833
7	Direct measurement of the exciton binding energy and effective masses for charge carriers in organicâ€“inorganic tri-halide perovskites. Nature Physics, 2015, 11, 582-587.	6.5	1,651
8	High Photoluminescence Efficiency and Optically Pumped Lasing in Solution-Processed Mixed Halide Perovskite Semiconductors. Journal of Physical Chemistry Letters, 2014, 5, 1421-1426.	2.1	1,490
9	Excitons versus free charges in organo-lead tri-halide perovskites. Nature Communications, 2014, 5, 3586.	5.8	1,443
10	Enhanced Photoluminescence and Solar Cell Performance <i>via</i> Lewis Base Passivation of Organicâ€“Inorganic Lead Halide Perovskites. ACS Nano, 2014, 8, 9815-9821.	7.3	1,439
11	Maximizing and stabilizing luminescence from halide perovskites with potassium passivation. Nature, 2018, 555, 497-501.	13.7	1,336
12	Carbon Nanotube/Polymer Composites as a Highly Stable Hole Collection Layer in Perovskite Solar Cells. Nano Letters, 2014, 14, 5561-5568.	4.5	1,073
13	Recombination Kinetics in Organic-Inorganic Perovskites: Excitons, Free Charge, and Subgap States. Physical Review Applied, 2014, 2, .	1.5	1,005
14	Consensus statement for stability assessment and reporting for perovskite photovoltaics based on ISOS procedures. Nature Energy, 2020, 5, 35-49.	19.8	797
15	Ultrasmooth organicâ€“inorganic perovskite thin-film formation and crystallization for efficient planar heterojunction solar cells. Nature Communications, 2015, 6, 6142.	5.8	784
16	Photo-induced halide redistribution in organicâ€“inorganic perovskite films. Nature Communications, 2016, 7, 11683.	5.8	778
17	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	7.3	705
18	Unreacted PbI₂ as a Double-Edged Sword for Enhancing the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 10331-10343.	6.6	696

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19	Supramolecular Halogen Bond Passivation of Organicâ€“Inorganic Halide Perovskite Solar Cells. Nano Letters, 2014, 14, 3247-3254.	4.5	651
20	Heterojunction Modification for Highly Efficient Organicâ€“Inorganic Perovskite Solar Cells. ACS Nano, 2014, 8, 12701-12709.	7.3	614
21	Determination of the exciton binding energy and effective masses for methylammonium and formamidinium lead tri-halide perovskite semiconductors. Energy and Environmental Science, 2016, 9, 962-970.	15.6	603
22	High-Performance Perovskite-Polymer Hybrid Solar Cells via Electronic Coupling with Fullerene Monolayers. Nano Letters, 2013, 13, 3124-3128.	4.5	602
23	Enhancement of Perovskite-Based Solar Cells Employing Coreâ€“Shell Metal Nanoparticles. Nano Letters, 2013, 13, 4505-4510.	4.5	505
24	Highly Tunable Colloidal Perovskite Nanoplatelets through Variable Cation, Metal, and Halide Composition. ACS Nano, 2016, 10, 7830-7839.	7.3	466
25	Optical properties and limiting photocurrent of thin-film perovskite solar cells. Energy and Environmental Science, 2015, 8, 602-609.	15.6	417
26	Boosting Tunable Blue Luminescence of Halide Perovskite Nanoplatelets through Postsynthetic Surface Trap Repair. Nano Letters, 2018, 18, 5231-5238.	4.5	382
27	Electronic Properties of Meso-Superstructured and Planar Organometal Halide Perovskite Films: Charge Trapping, Photodoping, and Carrier Mobility. ACS Nano, 2014, 8, 7147-7155.	7.3	370
28	Directâ€“indirect character of the bandgap in methylammonium lead iodide perovskite. Nature Materials, 2017, 16, 115-120.	13.3	369
29	Perovskite Crystals for Tunable White Light Emission. Chemistry of Materials, 2015, 27, 8066-8075.	3.2	362
30	Lattice strain causes non-radiative losses in halide perovskites. Energy and Environmental Science, 2019, 12, 596-606.	15.6	343
31	Solution Depositionâ€Conversion for Planar Heterojunction Mixed Halide Perovskite Solar Cells. Advanced Energy Materials, 2014, 4, 1400355.	10.2	325
32	Methylammonium Bismuth Iodide as a Leadâ€Free, Stable Hybrid Organicâ€“Inorganic Solar Absorber. Chemistry - A European Journal, 2016, 22, 2605-2610.	1.7	312
33	Light-induced annihilation of Frenkel defects in organo-lead halide perovskites. Energy and Environmental Science, 2016, 9, 3180-3187.	15.6	302
34	Nonradiative Losses in Metal Halide Perovskites. ACS Energy Letters, 2017, 2, 1515-1525.	8.8	290
35	Metal Halide Perovskite Polycrystalline Films Exhibiting Properties of Single Crystals. Joule, 2017, 1, 155-167.	11.7	264
36	Stable Lightâ€Emitting Diodes Using Phaseâ€Pure Ruddlesdenâ€“Popper Layered Perovskites. Advanced Materials, 2018, 30, 1704217.	11.1	258

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37	Charge Carriers in Planar and Meso-Structured Organicâ€“Inorganic Perovskites: Mobilities, Lifetimes, and Concentrations of Trap States. Journal of Physical Chemistry Letters, 2015, 6, 3082-3090.	2.1	257
38	Structured Organicâ€“Inorganic Perovskite toward a Distributed Feedback Laser. Advanced Materials, 2016, 28, 923-929.	11.1	257
39	Performance-limiting nanoscale trap clusters at grain junctions in halide perovskites. Nature, 2020, 580, 360-366.	13.7	255
40	Formation of Thin Films of Organicâ€“Inorganic Perovskites for Highâ€Efficiency Solar Cells. Angewandte Chemie - International Edition, 2015, 54, 3240-3248.	7.2	245
41	Tailoring metal halide perovskites through metal substitution: influence on photovoltaic and material properties. Energy and Environmental Science, 2017, 10, 236-246.	15.6	230
42	The Importance of Perovskite Pore Filling in Organometal Mixed Halide Sensitized TiO₂-Based Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 1096-1102.	2.1	221
43	Strain analysis and engineering in halide perovskite photovoltaics. Nature Materials, 2021, 20, 1337-1346.	13.3	220
44	Buried Interfaces in Halide Perovskite Photovoltaics. Advanced Materials, 2021, 33, e2006435.	11.1	214
45	Heterogeneity at multiple length scales in halide perovskite semiconductors. Nature Reviews Materials, 2019, 4, 573-587.	23.3	200
46	Plasmonicâ€Induced Photon Recycling in Metal Halide Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 5038-5046.	7.8	198
47	Charge-Carrier Recombination in Halide Perovskites. Chemical Reviews, 2019, 119, 11007-11019.	23.0	197
48	The Physics of Light Emission in Halide Perovskite Devices. Advanced Materials, 2019, 31, e1803336.	11.1	189
49	Atmospheric Influence upon Crystallization and Electronic Disorder and Its Impact on the Photophysical Properties of Organicâ€“Inorganic Perovskite Solar Cells. ACS Nano, 2015, 9, 2311-2320.	7.3	173
50	Efficient, Semitransparent Neutral-Colored Solar Cells Based on Microstructured Formamidinium Lead Trihalide Perovskite. Journal of Physical Chemistry Letters, 2015, 6, 129-138.	2.1	173
51	Observation and Mediation of the Presence of Metallic Lead in Organicâ€“Inorganic Perovskite Films. ACS Applied Materials & Interfaces, 2015, 7, 13440-13444.	4.0	167
52	Taking Control of Ion Transport in Halide Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 1983-1990.	8.8	158
53	Enhanced Hole Extraction in Perovskite Solar Cells Through Carbon Nanotubes. Journal of Physical Chemistry Letters, 2014, 5, 4207-4212.	2.1	156
54	The Impact of Atmosphere on the Local Luminescence Properties of Metal Halide Perovskite Grains. Advanced Materials, 2018, 30, e1706208.	11.1	149

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55	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
56	Efficient light-emitting diodes from mixed-dimensional perovskites on a fluoride interface. Nature Electronics, 2020, 3, 704-710.	13.1	143
57	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	19.8	136
58	How To Quantify the Efficiency Potential of Neat Perovskite Films: Perovskite Semiconductors with an Implied Efficiency Exceeding 28%. Advanced Materials, 2020, 32, e2000080.	11.1	134
59	Influence of Shell Thickness and Surface Passivation on PbS/CdS Core/Shell Colloidal Quantum Dot Solar Cells. Chemistry of Materials, 2014, 26, 4004-4013.	3.2	129
60	Vapour-Deposited Cesium Lead Iodide Perovskites: Microsecond Charge Carrier Lifetimes and Enhanced Photovoltaic Performance. ACS Energy Letters, 2017, 2, 1901-1908.	8.8	128
61	Potassium- and Rubidium-Passivated Alloyed Perovskite Films: Optoelectronic Properties and Moisture Stability. ACS Energy Letters, 2018, 3, 2671-2678.	8.8	126
62	Enhanced Amplified Spontaneous Emission in Perovskites Using a Flexible Cholesteric Liquid Crystal Reflector. Nano Letters, 2015, 15, 4935-4941.	4.5	117
63	The influence of the Rashba effect. Nature Materials, 2018, 17, 381-382.	13.3	116
64	Critical Assessment of the Use of Excess Lead Iodide in Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 6505-6512.	2.1	116
65	Identifying and Reducing Interfacial Losses to Enhance Color-Pure Electroluminescence in Blue-Emitting Perovskite Nanoplatelet Light-Emitting Diodes. ACS Energy Letters, 2019, 4, 1181-1188.	8.8	115
66	Stabilized tilted-octahedra halide perovskites inhibit local formation of performance-limiting phases. Science, 2021, 374, 1598-1605.	6.0	115
67	Photo-rechargeable Zinc-Ion Capacitors using V₂O₅-Activated Carbon Electrodes. ACS Energy Letters, 2020, 5, 3132-3139.	8.8	106
68	Diacetylene bridged triphenylamines as hole transport materials for solid state dye sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 6949.	5.2	105
69	Proton Radiation Hardness of Perovskite Tandem Photovoltaics. Joule, 2020, 4, 1054-1069.	11.7	104
70	Degradation mechanisms of perovskite solar cells under vacuum and one atmosphere of nitrogen. Nature Energy, 2021, 6, 977-986.	19.8	103
71	Halide Perovskite Lightâ€Emitting Diode Technologies. Advanced Optical Materials, 2021, 9, 2002128.	3.6	100
72	Understanding Performance Limiting Interfacial Recombination in <i>pin</i> Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	95

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73	Photodoping through local charge carrier accumulation in alloyed hybrid perovskites for highly efficient luminescence. Nature Photonics, 2020, 14, 123-128.	15.6	93
74	Decoupling the effects of defects on efficiency and stability through phosphonates in stable halide perovskite solar cells. Joule, 2021, 5, 1246-1266.	11.7	91
75	Noncovalent Binding of Carbon Nanotubes by Porphyrin Oligomers. Angewandte Chemie - International Edition, 2011, 50, 2313-2316.	7.2	90
76	Multisource Vacuum Deposition of Methylammonium-Free Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2498-2504.	8.8	90
77	Role of the crystallization substrate on the photoluminescence properties of organo-lead mixed halides perovskites. APL Materials, 2014, 2, .	2.2	89
78	Local nanoscale phase impurities are degradation sites in halide perovskites. Nature, 2022, 607, 294-300.	13.7	89
79	Life cycle assessment of recycling strategies for perovskite photovoltaic modules. Nature Sustainability, 2021, 4, 821-829.	11.5	87
80	The mechanism of toluene-assisted crystallization of organicâ€“inorganic perovskites for highly efficient solar cells. Journal of Materials Chemistry A, 2016, 4, 4464-4471.	5.2	86
81	How Methylammonium Cations and Chlorine Dopants Heal Defects in Lead Iodide Perovskites. Advanced Energy Materials, 2018, 8, 1702754.	10.2	86
82	Stable Hexylphosphonate-Capped Blue-Emitting Quantum-Confined CsPbBr₃ Nanoplatelets. ACS Energy Letters, 2020, 5, 1900-1907.	8.8	82
83	Ultrafast Charge Separation at a Polymerâˆ’Single-Walled Carbon Nanotube Molecular Junction. Nano Letters, 2011, 11, 66-72.	4.5	81
84	Enhancing Photoluminescence and Mobilities in WS₂ Monolayers with Oleic Acid Ligands. Nano Letters, 2019, 19, 6299-6307.	4.5	80
85	<i>In situ</i> simultaneous photovoltaic and structural evolution of perovskite solar cells during film formation. Energy and Environmental Science, 2018, 11, 383-393.	15.6	77
86	Efficient and Spectrally Stable Blue Perovskite Lightâ€Emitting Diodes Employing a Cationic Ï€â€Conjugated Polymer. Advanced Materials, 2021, 33, e2103640.	11.1	77
87	Nanoscale chemical heterogeneity dominates the optoelectronic response of alloyed perovskite solar cells. Nature Nanotechnology, 2022, 17, 190-196.	15.6	75
88	NMR spectroscopy probes microstructure, dynamics and doping of metal halide perovskites. Nature Reviews Chemistry, 2021, 5, 624-645.	13.8	73
89	Impact of Excess Lead Iodide on the Recombination Kinetics in Metal Halide Perovskites. ACS Energy Letters, 2019, 4, 1370-1378.	8.8	71
90	Colloidal Synthesis and Optical Properties of Perovskite-Inspired Cesium Zirconium Halide Nanocrystals. , 2020, 2, 1644-1652.		69

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91	Local Structure and Dynamics in Methylammonium, Formamidinium, and Cesium Tin(II) Mixed-Halide Perovskites from ¹¹⁹Sn Solid-State NMR. Journal of the American Chemical Society, 2020, 142, 7813-7826.	6.6	66
92	The Impact of Phase Retention on the Structural and Optoelectronic Properties of Metal Halide Perovskites. Advanced Materials, 2016, 28, 10757-10763.	11.1	65
93	Layered Mixed Tinâ€"Lead Hybrid Perovskite Solar Cells with High Stability. ACS Energy Letters, 2018, 3, 2246-2251.	8.8	64
94	Modulating the Electronâ€"Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. Journal of the American Chemical Society, 2015, 137, 15451-15459.	6.6	61
95	Life cycle energy use and environmental implications of high-performance perovskite tandem solar cells. Science Advances, 2020, 6, eabb0055.	4.7	60
96	Best practices for measuring emerging light-emitting diode technologies. Nature Photonics, 2019, 13, 818-821.	15.6	59
97	A Highly Emissive Surface Layer in Mixedâ€Halide Multication Perovskites. Advanced Materials, 2019, 31, e1902374.	11.1	57
98	Conjugated Polyelectrolytes as Efficient Hole Transport Layers in Perovskite Light-Emitting Diodes. ACS Nano, 2018, 12, 5826-5833.	7.3	56
99	Photobrightening in Lead Halide Perovskites: Observations, Mechanisms, and Future Potential. Advanced Energy Materials, 2020, 10, 1903109.	10.2	53
100	Rational Passivation of Sulfur Vacancy Defects in Two-Dimensional Transition Metal Dichalcogenides. ACS Nano, 2021, 15, 8780-8789.	7.3	52
101	Excitonic Properties of Low-Band-Gap Leadâ€"Tin Halide Perovskites. ACS Energy Letters, 2019, 4, 615-621.	8.8	51
102	Electronic and Mechanical Modification of Single-Walled Carbon Nanotubes by Binding to Porphyrin Oligomers. ACS Nano, 2011, 5, 2307-2315.	7.3	50
103	Two-Step Purification of Pathogenesis-Related Proteins from Grape Juice and Crystallization of Thaumatin-like Proteins. Journal of Agricultural and Food Chemistry, 2009, 57, 11376-11382.	2.4	49
104	Microsecond Carrier Lifetimes, Controlled p-Doping, and Enhanced Air Stability in Low-Bandgap Metal Halide Perovskites. ACS Energy Letters, 2019, 4, 2301-2307.	8.8	46
105	Halide Mixing and Phase Segregation in Cs₂AgBiX₆ (X = Cl, Br, and I) Double Perovskites from Cesium-133 Solid-State NMR and Optical Spectroscopy. Chemistry of Materials, 2020, 32, 8129-8138.	3.2	44
106	Halide perovskites scintillators: unique promise and current limitations. Journal of Materials Chemistry C, 2021, 9, 11588-11604.	2.7	43
107	Charge carrier recombination dynamics in perovskite and polymer solar cells. Applied Physics Letters, 2016, 108, .	1.5	42
108	Probing buried recombination pathways in perovskite structures using 3D photoluminescence tomography. Energy and Environmental Science, 2018, 11, 2846-2852.	15.6	42

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109	Thiophene-based dyes for probing membranes. Organic and Biomolecular Chemistry, 2015, 13, 3792-3802.	1.5	41
110	Reversible Removal of Intermixed Shallow States by Light Soaking in Multication Mixed Halide Perovskite Films. ACS Energy Letters, 2019, 4, 2360-2367.	8.8	41
111	Sprayâ€Coated Leadâ€Free Cs₂AgBiBr₆ Double Perovskite Solar Cells with High Openâ€Circuit Voltage. Solar Rrl, 2021, 5, 2100422.	3.1	40
112	To nano or not to nano for bright halide perovskite emitters. Nature Nanotechnology, 2021, 16, 1164-1168.	15.6	40
113	Phase-Transition-Induced Carrier Mass Enhancement in 2D Ruddlesdenâ€"Popper Perovskites. ACS Energy Letters, 2019, 4, 2386-2392.	8.8	38
114	Relaxed Current Matching Requirements in Highly Luminescent Perovskite Tandem Solar Cells and Their Fundamental Efficiency Limits. ACS Energy Letters, 2021, 6, 612-620.	8.8	38
115	Visualizing Buried Local Carrier Diffusion in Halide Perovskite Crystals via Two-Photon Microscopy. ACS Energy Letters, 2020, 5, 117-123.	8.8	37
116	Nanoengineering Coaxial Carbon Nanotubeâ€"Dual-Polymer Heterostructures. ACS Nano, 2012, 6, 6058-6066.	7.3	36
117	An ultrafast carbon nanotube terahertz polarisation modulator. Journal of Applied Physics, 2014, 115, .	1.1	36
118	Impact of microstructure on the electronâ€"hole interaction in lead halide perovskites. Energy and Environmental Science, 2017, 10, 1358-1366.	15.6	36
119	Controlling the Growth Kinetics and Optoelectronic Properties of 2D/3D Leadâ€"Tin Perovskite Heterojunctions. Advanced Materials, 2019, 31, e1905247.	11.1	36
120	Understanding the Origin of Ultrasharp Sub-bandgap Luminescence from Zero-Dimensional Inorganic Perovskite Cs₄PbBr₆. ACS Applied Energy Materials, 2020, 3, 192-199.	2.5	36
121	Optoelectronic Properties of Lowâ€Bandgap Halide Perovskites for Solar Cell Applications. Advanced Materials, 2021, 33, e2102300.	11.1	36
122	An Organic â€œDonorâ€Freeâ€•Dye with Enhanced Openâ€Circuit Voltage in Solidâ€State Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1400166.	10.2	35
123	Novel Carbon Nanotubeâ€Conjugated Polymer Nanohybrids Produced By Multiple Polymer Processing. Advanced Materials, 2013, 25, 4365-4371.	11.1	34
124	Unraveling the varied nature and roles of defects in hybrid halide perovskites with time-resolved photoemission electron microscopy. Energy and Environmental Science, 2021, 14, 6320-6328.	15.6	34
125	Rapid Vapor-Phase Deposition of High-Mobility <i>p</i>-Type Buffer Layers on Perovskite Photovoltaics for Efficient Semitransparent Devices. ACS Energy Letters, 2020, 5, 2456-2465.	8.8	32
126	Model for amorphous aggregation processes. Physical Review E, 2009, 80, 051907.	0.8	31

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127	Unveiling the Chemical Composition of Halide Perovskite Films Using Multivariate Statistical Analyses. ACS Applied Energy Materials, 2018, 1, 7174-7181.	2.5	31
128	Elucidating the Role of Antisolvents on the Surface Chemistry and Optoelectronic Properties of CsPbBr_{<i>x</i>}I_{3-x} Perovskite Nanocrystals. Journal of the American Chemical Society, 2022, 144, 12102-12115.	6.6	31
129	Influence of Grain Size on Phase Transitions in Halide Perovskite Films. Advanced Energy Materials, 2019, 9, 1901883.	10.2	30
130	Impact of Oxygen on the Electronic Structure of Triple-Cation Halide Perovskites. , 2019, 1, 506-510.		30
131	Quantifying Photon Recycling in Solar Cells and Light-Emitting Diodes: Absorption and Emission Are Always Key. Physical Review Letters, 2020, 125, 067401.	2.9	30
132	Highâ€Performance ITOâ€Free Perovskite Solar Cells Enabled by Singleâ€Walled Carbon Nanotube Films. Advanced Functional Materials, 2021, 31, 2104396.	7.8	30
133	Dependence of Dye Regeneration and Charge Collection on the Pore-Filling Fraction in Solid-State Dye-Sensitized Solar Cells. Advanced Functional Materials, 2014, 24, 668-677.	7.8	29
134	Perovskite Solar Cells with Carbonâ€Based Electrodes â€“ Quantification of Losses and Strategies to Overcome Them. Advanced Energy Materials, 2022, 12, .	10.2	29
135	Fast Aâ€Site Cation Crossâ€Exchange at Room Temperature: Singleâ€to Doubleâ€•and Tripleâ€Cation Halide Perovskite Nanocrystals. Angewandte Chemie - International Edition, 2022, 61, .	7.2	29
136	Directed Energy Transfer from Monolayer WS₂ to Near-Infrared Emitting PbSâ€“CdS Quantum Dots. ACS Nano, 2020, 14, 15374-15384.	7.3	28
137	Elucidating and Mitigating Degradation Processes in Perovskite Lightâ€Emitting Diodes. Advanced Energy Materials, 2020, 10, 2002676.	10.2	28
138	Multimodal Microscale Imaging of Textured Perovskiteâ€“Silicon Tandem Solar Cells. ACS Energy Letters, 2021, 6, 2293-2304.	8.8	25
139	Protonâ€Radiation Tolerant Allâ€Perovskite Multijunction Solar Cells. Advanced Energy Materials, 2021, 11, 2102246.	10.2	25
140	Production of Highâ€Purity Singleâ€Chirality Carbon Nanotube Hybrids by Selective Polymer Exchange. Small, 2013, 9, 2245-2249.	5.2	24
141	Tetrafluoroborateâ€Induced Reduction in Defect Density in Hybrid Perovskites through Halide Management. Advanced Materials, 2021, 33, e2102462.	11.1	24
142	Outshining Silicon. Scientific American, 2015, 313, 54-59.	1.0	23
143	Revealing Nanomechanical Domains and Their Transient Behavior in Mixedâ€Halide Perovskite Films. Advanced Functional Materials, 2021, 31, 2100293.	7.8	23
144	Pressing challenges in halide perovskite photovoltaicsâ€"from the atomic to module level. Joule, 2021, 5, 1024-1030.	11.7	23

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145	Functional Singleâ€Walled Carbon Nanotubes and Nanoengineered Networks for Organicâ€•and Perovskiteâ€Solarâ€Cell Applications. Advanced Materials, 2016, 28, 9668-9685.	11.1	22
146	Static and Dynamic Disorder in Triple-Cation Hybrid Perovskites. Journal of Physical Chemistry C, 2018, 122, 17473-17480.	1.5	21
147	Imaging Carrier Transport Properties in Halide Perovskites using Timeâ€Resolved Optical Microscopy. Advanced Energy Materials, 2020, 10, 1903814.	10.2	21
148	Enhanced visible light absorption in layered Cs₃Bi₂Br₉ through mixed-valence Sn(<scp>ii</scp>)/Sn(<scp>iv</scp>) doping. Chemical Science, 2021, 12, 14686-14699.	3.7	21
149	Optimizing the Energy Offset between Dye and Hole-Transporting Material in Solid-State Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 19850-19858.	1.5	19
150	Influence of the Vibrational Modes from the Organic Moieties in 2D Lead Halides on Excitonic Recombination and Phase Transition. Advanced Optical Materials, 2020, 8, 2001431.	3.6	19
151	Synthesis of Polycrystalline Ruddlesdenâ€“Popper Organic Lead Halides and Their Growth Dynamics. Chemistry of Materials, 2019, 31, 9472-9479.	3.2	18
152	Revisiting photocarrier lifetimes in photovoltaics. Nature Photonics, 2016, 10, 562-562.	15.6	17
153	Mechanistic insight into the chemical treatments of monolayer transition metal disulfides for photoluminescence enhancement. Nature Communications, 2021, 12, 6044.	5.8	17
154	Charge Carriers Are Not Affected by the Relatively Slow-Rotating Methylammonium Cations in Lead Halide Perovskite Thin Films. Journal of Physical Chemistry Letters, 2019, 10, 5128-5134.	2.1	16
155	Unraveling the antisolvent dripping delay effect on the Stranskiâ€“Krastanov growth of CH3NH3PbBr3 thin films: a facile route for preparing a textured morphology with improved optoelectronic properties. Physical Chemistry Chemical Physics, 2020, 22, 26592-26604.	1.3	16
156	Hyperspectral Imaging of Exciton Photoluminescence in Individual Carbon Nanotubes Controlled by High Magnetic Fields. Nano Letters, 2014, 14, 5194-5200.	4.5	15
157	Molecular aggregation method for perovskiteâ€“fullerene bulk heterostructure solar cells. Journal of Materials Chemistry A, 2020, 8, 1326-1334.	5.2	15
158	Multimodal microscopy characterization of halide perovskite semiconductors: Revealing a new world (dis)order. Matter, 2021, 4, 3852-3866.	5.0	15
159	Local Energy Landscape Drives Long-Range Exciton Diffusion in Two-Dimensional Halide Perovskite Semiconductors. Journal of Physical Chemistry Letters, 2021, 12, 4003-4011.	2.1	14
160	Hybrid perovskites for device applications. , 2019, , 211-256.		13
161	Unveiling the Interaction Mechanisms of Electron and Xâ€ray Radiation with Halide Perovskite Semiconductors using Scanning Nanoprobe Diffraction. Advanced Materials, 2022, 34, e2200383.	11.1	13
162	From Bulk to Surface Passivation: Double Role of Chlorineâ€Doping for Boosting Efficiency of FAPbI₃â€rich Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	12

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163	Engineering Nanostructures by Binding Single Molecules to Single-Walled Carbon Nanotubes. ACS Nano, 2014, 8, 12748-12754.	7.3	10
164	Using pulsed mode scanning electron microscopy for cathodoluminescence studies on hybrid perovskite films. Nano Express, 2021, 2, 024002.	1.2	10
165	Maximizing the external radiative efficiency of hybrid perovskite solar cells. Pure and Applied Chemistry, 2020, 92, 697-706.	0.9	9
166	Overcoming Nanoscale Inhomogeneities in Thin-Film Perovskites via Exceptional Post-annealing Grain Growth for Enhanced Photodetection. Nano Letters, 2022, 22, 979-988.	4.5	9
167	Influence of Halide Choice on Formation of Lowâ€Dimensional Perovskite Interlayer in Efficient Perovskite Solar Cells. Energy and Environmental Materials, 2022, 5, 670-682.	7.3	9
168	Optical and Electronic Properties of Colloidal CdSe Quantum Rings. ACS Nano, 2020, 14, 14740-14760.	7.3	8
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