

Constantinos C Stoumpos

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.

183 papers	30,711 citations	78 h-index	175 g-index
198 ext. papers	35,584 ext. citations	12.1 avg, IF	7.69 L-index

#	Paper	IF	Citations
183	Expanding the Cage of 2D Bromide Perovskites by Large A-Site Cations. <i>Chemistry of Materials</i> , 2022 , 34, 1132-1142	9.6	5
182	Regulating off-centering distortion maximizes photoluminescence in halide perovskites. <i>National Science Review</i> , 2021 , 8, nwaa288	10.8	31
181	Transparent All-Oxide Hybrid NiO:N/TiO ₂ Heterostructure for Optoelectronic Applications. <i>Electronics (Switzerland)</i> , 2021 , 10, 988	2.6	0
180	Bismuth/Silver-Based Two-Dimensional Iodide Double and One-Dimensional Bi Perovskites: Interplay between Structural and Electronic Dimensions. <i>Chemistry of Materials</i> , 2021 , 33, 6206-6216	9.6	7
179	Demonstration of Energy-Resolved X-Ray Detection at Room Temperature by the CsPbCl Perovskite Semiconductor. <i>Journal of the American Chemical Society</i> , 2021 , 143, 2068-2077	16.4	18
178	Metal cation s lone-pairs increase octahedral tilting instabilities in halide perovskites. <i>Materials Advances</i> , 2021 , 2, 4610-4616	3.3	6
177	Inorganic Halide Perovskitoid TlPbI ₃ for Ionizing Radiation Detection. <i>Advanced Functional Materials</i> , 2021 , 31, 2006635	15.6	7
176	Hybrid Organic-Inorganic Halide Post-Perovskite 3-Cyanopyridinium Lead Tribromide for Optoelectronic Applications. <i>Advanced Functional Materials</i> , 2021 , 31, 2102338	15.6	3
175	Ultralow Thermal Conductivity, Multiband Electronic Structure and High Thermoelectric Figure of Merit in TlCuSe. <i>Advanced Materials</i> , 2021 , 33, e2104908	24	5
174	Di-2-pyridyl ketone-based ligands as evergreen trees in the forest of manganese chemistry: Mononuclear Mn(III) complexes from the use of MnF ₃ . <i>Polyhedron</i> , 2021 , 207, 115350	2.7	0
173	Negative Pressure Engineering with Large Cage Cations in 2D Halide Perovskites Causes Lattice Softening. <i>Journal of the American Chemical Society</i> , 2020 , 142, 11486-11496	16.4	41
172	Three-Dimensional Lead Iodide Perovskitoid Hybrids with High X-ray Photoresponse. <i>Journal of the American Chemical Society</i> , 2020 , 142, 6625-6637	16.4	42
171	Fundamental Insights from a Single-Crystal Sodium Iridate Battery. <i>Advanced Energy Materials</i> , 2020 , 10, 1903128	21.8	7
170	Direct Observation of Bandgap Oscillations Induced by Optical Phonons in Hybrid Lead Iodide Perovskites. <i>Advanced Functional Materials</i> , 2020 , 30, 1907982	15.6	8
169	From Bowls to Capsules: Assembly of Hexanuclear Ni Rings Tailored by Alkali Cations. <i>Chemistry - A European Journal</i> , 2020 , 26, 11158-11169	4.8	
168	Semiconductor physics of organic-inorganic 2D halide perovskites. <i>Nature Nanotechnology</i> , 2020 , 15, 969-985	28.7	110
167	Organic Cation Alloying on Intralayer A and Interlayer A' sites in 2D Hybrid Dion-Jacobson Lead Bromide Perovskites (A')(A)PbBr. <i>Journal of the American Chemical Society</i> , 2020 , 142, 8342-8351	16.4	28

166	Seven-Layered 2D Hybrid Lead Iodide Perovskites. <i>CheM</i> , 2019 , 5, 2593-2604	16.2	44
165	Compositional and Solvent Engineering in Dion-Jacobson 2D Perovskites Boosts Solar Cell Efficiency and Stability. <i>Advanced Energy Materials</i> , 2019 , 9, 1803384	21.8	149
164	Infrared-pump electronic-probe of methylammonium lead iodide reveals electronically decoupled organic and inorganic sublattices. <i>Nature Communications</i> , 2019 , 10, 482	17.4	13
163	Origin of Intrinsically Low Thermal Conductivity in Tl ₂ NbS ₂ Thermoelectric Material: Correlations between Lattice Dynamics and Thermal Transport. <i>Journal of the American Chemical Society</i> , 2019 , 141, 10905-10914	16.4	29
162	Transient Sub-Band-Gap States at Grain Boundaries of CH ₃ NH ₃ PbI ₃ Perovskite Act as Fast Temperature Relaxation Centers. <i>ACS Energy Letters</i> , 2019 , 4, 1741-1747	20.1	25
161	From 2D to 1D Electronic Dimensionality in Halide Perovskites with Stepped and Flat Layers Using Propylammonium as a Spacer. <i>Journal of the American Chemical Society</i> , 2019 , 141, 10661-10676	16.4	36
160	Purification and Improved Nuclear Radiation Detection of Tl ₂ Se Semiconductor. <i>Crystal Growth and Design</i> , 2019 , 19, 4738-4744	3.5	1
159	Small Cyclic Diammonium Cation Templated (110)-Oriented 2D Halide (X = I, Br, Cl) Perovskites with White-Light Emission. <i>Chemistry of Materials</i> , 2019 , 31, 3582-3590	9.6	60
158	Uniaxial Expansion of the 2D Ruddlesden-Popper Perovskite Family for Improved Environmental Stability. <i>Journal of the American Chemical Society</i> , 2019 , 141, 5518-5534	16.4	133
157	From 0D Cs ₃ Bi ₂ I ₉ to 2D Cs ₃ Bi ₂ I ₆ Cl ₃ : Dimensional Expansion Induces a Direct Band Gap but Enhances Electron-Phonon Coupling. <i>Chemistry of Materials</i> , 2019 , 31, 2644-2650	9.6	72
156	A Natural 2D Heterostructure [PbSbS] ₂ [AuTe] with Large Transverse Nonsaturating Negative Magnetoresistance and High Electron Mobility. <i>Journal of the American Chemical Society</i> , 2019 , 141, 7544-7553	16.4	6
155	Self-Passivation of 2D Ruddlesden-Popper Perovskite by Polytypic Surface PbI Encapsulation. <i>Nano Letters</i> , 2019 , 19, 6109-6117	11.5	24
154	Detection of Rashba spin splitting in 2D organic-inorganic perovskite via precessional carrier spin relaxation. <i>APL Materials</i> , 2019 , 7, 081116	5.7	28
153	Two-Dimensional Dion-Jacobson Hybrid Lead Iodide Perovskites with Aromatic Diammonium Cations. <i>Journal of the American Chemical Society</i> , 2019 , 141, 12880-12890	16.4	135
152	Perovskites with a Twist: Strong In ¹⁺ Off-Centering in the Mixed-Valent CsInX ₃ (X = Cl, Br). <i>Chemistry of Materials</i> , 2019 , 31, 9554-9566	9.6	18
151	Halide Perovskites: Low Dimensions for Devices. <i>ACS Energy Letters</i> , 2019 , 4, 2902-2904	20.1	
150	Chemical and Structural Diversity of Hybrid Layered Double Perovskite Halides. <i>Journal of the American Chemical Society</i> , 2019 , 141, 19099-19109	16.4	85
149	IrInS ₂ , a polar, metal-rich semiconducting subchalcogenide. <i>Chemical Science</i> , 2019 , 11, 870-878	9.4	6

148	Structural and thermodynamic limits of layer thickness in 2D halide perovskites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 58-66	11.5	152
147	Zero-Dimensional Cs ₂ TeI ₆ Perovskite: Solution-Processed Thick Films with High X-ray Sensitivity. <i>ACS Photonics</i> , 2019 , 6, 196-203	6.3	43
146	High Thermoelectric Performance in the Wide Band-Gap AgGa _{1-x} Te ₂ Compounds: Directional Negative Thermal Expansion and Intrinsically Low Thermal Conductivity. <i>Advanced Functional Materials</i> , 2019 , 29, 1806534	15.6	32
145	Two-Dimensional Hybrid Halide Perovskites: Principles and Promises. <i>Journal of the American Chemical Society</i> , 2019 , 141, 1171-1190	16.4	608
144	"Unleaded" Perovskites: Status Quo and Future Prospects of Tin-Based Perovskite Solar Cells. <i>Advanced Materials</i> , 2019 , 31, e1803230	24	217
143	Hybrid Dion-Jacobson 2D Lead Iodide Perovskites. <i>Journal of the American Chemical Society</i> , 2018 , 140, 3775-3783	16.4	426
142	Composite Nature of Layered Hybrid Perovskites: Assessment on Quantum and Dielectric Confinements and Band Alignment. <i>ACS Nano</i> , 2018 , 12, 3321-3332	16.7	94
141	High spectral resolution of gamma-rays at room temperature by perovskite CsPbBr single crystals. <i>Nature Communications</i> , 2018 , 9, 1609	17.4	246
140	An Effective Purification Process for the Nuclear Radiation Detector Tl ₆ SeI ₄ . <i>Crystal Growth and Design</i> , 2018 , 18, 3484-3493	3.5	7
139	Unraveling the Chemical Nature of the 3D "Hollow" Hybrid Halide Perovskites. <i>Journal of the American Chemical Society</i> , 2018 , 140, 5728-5742	16.4	98
138	Light-induced lattice expansion leads to high-efficiency perovskite solar cells. <i>Science</i> , 2018 , 360, 67-70	33.3	413
137	Transient Sub-bandgap States in Halide Perovskite Thin Films. <i>Nano Letters</i> , 2018 , 18, 827-831	11.5	20
136	Quaternary Pavanites ASnBiS (A = Li, Na): Site Occupancy Disorder Defines Electronic Structure. <i>Inorganic Chemistry</i> , 2018 , 57, 2260-2268	5.1	7
135	Rhombohedral to Cubic Conversion of GeTe via MnTe Alloying Leads to Ultralow Thermal Conductivity, Electronic Band Convergence, and High Thermoelectric Performance. <i>Journal of the American Chemical Society</i> , 2018 , 140, 2673-2686	16.4	206
134	Crystal Structure Evolution and Notable Thermal Expansion in Hybrid Perovskites Formamidinium Tin Iodide and Formamidinium Lead Bromide. <i>Inorganic Chemistry</i> , 2018 , 57, 695-701	5.1	92
133	CuISe: A Metal-Inorganic Framework Wide-Bandgap Semiconductor for Photon Detection at Room Temperature. <i>Journal of the American Chemical Society</i> , 2018 , 140, 1894-1899	16.4	11
132	Ultrafast Imaging of Carrier Cooling in Metal Halide Perovskite Thin Films. <i>Nano Letters</i> , 2018 , 18, 1044-1048	10.48	26
131	Stable Light-Emitting Diodes Using Phase-Pure Ruddlesden-Popper Layered Perovskites. <i>Advanced Materials</i> , 2018 , 30, 1704217	24	210

130	Anharmonicity and Disorder in the Black Phases of Cesium Lead Iodide Used for Stable Inorganic Perovskite Solar Cells. <i>ACS Nano</i> , 2018 , 12, 3477-3486	16.7	359
129	Understanding Film Formation Morphology and Orientation in High Member 2D Ruddlesden-Popper Perovskites for High-Efficiency Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1700979	21.8	231
128	CsPbI ₃ , All-Inorganic Two-Dimensional Ruddlesden-Popper Mixed Halide Perovskite with Optoelectronic Response. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11085-11090	16.4	110
127	Concept of Lattice Mismatch and Emergence of Surface States in Two-dimensional Hybrid Perovskite Quantum Wells. <i>Nano Letters</i> , 2018 , 18, 5603-5609	11.5	67
126	Isothermal pressure-derived metastable states in 2D hybrid perovskites showing enduring bandgap narrowing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 8076-8081	11.5	92
125	Slow thermal equilibration in methylammonium lead iodide revealed by transient mid-infrared spectroscopy. <i>Nature Communications</i> , 2018 , 9, 2792	17.4	21
124	Dynamic Surface Reconstruction of 2D Ruddlesden-Popper Halide Perovskite under e-Beam Irradiation. <i>Microscopy and Microanalysis</i> , 2018 , 24, 1490-1491	0.5	
123	Particle Detection and Charge Transport Characteristics in the A ₃ M ₂ I ₉ Defect Perovskites (A = Cs, Rb; M = Bi, Sb). <i>ACS Photonics</i> , 2018 , 5, 3748-3762	6.3	61
122	Scaling law for excitons in 2D perovskite quantum wells. <i>Nature Communications</i> , 2018 , 9, 2254	17.4	372
121	Superconductivity and Structural Conversion with Na and K Doping of the Narrow-Gap Semiconductor CsBi ₄ Te ₆ . <i>Chemistry of Materials</i> , 2018 , 30, 5293-5304	9.6	7
120	Air-Stable Direct Bandgap Perovskite Semiconductors: All-Inorganic Tin-Based Heteroleptic Halides AxSnClyz (A = Cs, Rb). <i>Chemistry of Materials</i> , 2018 , 30, 4847-4856	9.6	45
119	Controlled vapor crystal growth of Na ₄ Ir ₃ O ₈ : A three-dimensional quantum spin liquid candidate. <i>Physical Review Materials</i> , 2018 , 2,	3.2	2
118	Critical Role of Interface and Crystallinity on the Performance and Photostability of Perovskite Solar Cell on Nickel Oxide. <i>Advanced Materials</i> , 2018 , 30, 1703879	24	163
117	Dopant-Free Tetrakis-Triphenylamine Hole Transporting Material for Efficient Tin-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2018 , 140, 388-393	16.4	118
116	Dynamic Disorder, Band Gap Widening, and Persistent Near-IR Photoluminescence up to At Least 523 K in ASnI ₃ Perovskites (A = Cs ⁺ , CH ₃ NH ₃ ⁺ and NH ₂ CH ₂ NH ₂ ⁺). <i>Journal of Physical Chemistry C</i> , 2018 , 122, 26353-26361	3.8	17
115	Thiazole-Induced Surface Passivation and Recrystallization of CH ₃ NH ₃ PbI ₃ Films for Perovskite Solar Cells with Ultrahigh Fill Factors. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 42436-42443	9.5	36
114	Myths and reality of HPbI ₃ in halide perovskite solar cells. <i>Nature Communications</i> , 2018 , 9, 4785	17.4	159
113	Tin Perovskite Solar Cells Are Back in the Game. <i>Joule</i> , 2018 , 2, 2517-2518	27.8	5

112	Anharmonicity and Disorder in the Black Phases of CsPbI ₃ used for Stable Inorganic Perovskite Solar Cells 2018 ,		1
111	Defect Perovskites under Pressure: Structural Evolution of Cs ₂ SnX ₆ (X = Cl, Br, I). <i>Journal of Physical Chemistry C</i> , 2018 , 122, 24004-24013	3.8	26
110	Stretching and Breaking of Ultrathin 2D Hybrid Organic-Inorganic Perovskites. <i>ACS Nano</i> , 2018 , 12, 10347-10354	16.1	41
109	Resolving the Energy of E-Ray Photons with MAPbI ₃ Single Crystals. <i>ACS Photonics</i> , 2018 , 5, 4132-4138	6.3	67
108	Hyperbolic Dispersion Arising from Anisotropic Excitons in Two-Dimensional Perovskites. <i>Physical Review Letters</i> , 2018 , 121, 127401	7.4	35
107	Structural Diversity in White-Light-Emitting Hybrid Lead Bromide Perovskites. <i>Journal of the American Chemical Society</i> , 2018 , 140, 13078-13088	16.4	214
106	Two-Dimensional Halide Perovskites Incorporating Straight Chain Symmetric Diammonium Ions, (NHC HNH)(CHNH) Pb I (m = 4-9; n = 1-4). <i>Journal of the American Chemical Society</i> , 2018 , 140, 12226-12238	16.4	139
105	Directional Negative Thermal Expansion and Large Poisson Ratio in CHNHPbI Perovskite Revealed by Strong Coherent Shear Phonon Generation. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 3161-3166	6.4	11
104	Cross-plane coherent acoustic phonons in two-dimensional organic-inorganic hybrid perovskites. <i>Nature Communications</i> , 2018 , 9, 2019	17.4	53
103	Diammonium Cations in the FASnI ₃ Perovskite Structure Lead to Lower Dark Currents and More Efficient Solar Cells. <i>ACS Energy Letters</i> , 2018 , 3, 1470-1476	20.1	81
102	Design principles for electronic charge transport in solution-processed vertically stacked 2D perovskite quantum wells. <i>Nature Communications</i> , 2018 , 9, 2130	17.4	108
101	Extremely efficient internal exciton dissociation through edge states in layered 2D perovskites. <i>Science</i> , 2017 , 355, 1288-1292	33.3	648
100	Electron-acoustic phonon coupling in single crystal CHNHPbI perovskites revealed by coherent acoustic phonons. <i>Nature Communications</i> , 2017 , 8, 14398	17.4	80
99	Defect Antiperovskite Compounds HgQI (Q = S, Se, and Te) for Room-Temperature Hard Radiation Detection. <i>Journal of the American Chemical Society</i> , 2017 , 139, 7939-7951	16.4	38
98	Trimethylsulfonium Lead Triiodide: An Air-Stable Hybrid Halide Perovskite. <i>Inorganic Chemistry</i> , 2017 , 56, 6302-6309	5.1	35
97	The Two-Dimensional ACdBiQ (A = K, Rb, Cs; Q = S, Se): Direct Bandgap Semiconductors and Ion-Exchange Materials. <i>Journal of the American Chemical Society</i> , 2017 , 139, 6978-6987	16.4	14
96	Strong Electron-Phonon Coupling and Self-Trapped Excitons in the Defect Halide Perovskites A ₃ M ₂ I ₉ (A = Cs, Rb; M = Bi, Sb). <i>Chemistry of Materials</i> , 2017 , 29, 4129-4145	9.6	344
95	Structural Stability, Vibrational Properties, and Photoluminescence in CsSnI Perovskite upon the Addition of SnF. <i>Inorganic Chemistry</i> , 2017 , 56, 84-91	5.1	78

94	The Origin of Lower Hole Carrier Concentration in Methylammonium Tin Halide Films Grown by a Vapor-Assisted Solution Process. <i>ACS Energy Letters</i> , 2017 , 2, 22-28	20.1	82
93	Chemical tuning of dynamic cation off-centering in the cubic phases of hybrid tin and lead halide perovskites. <i>Chemical Science</i> , 2017 , 8, 5628-5635	9.4	69
92	Subtle Roles of Sb and S in Regulating the Thermoelectric Properties of N-Type PbTe to High Performance. <i>Advanced Energy Materials</i> , 2017 , 7, 1700099	21.8	88
91	TlSn ₂ I ₅ , a Robust Halide Antiperovskite Semiconductor for X-Ray Detection at Room Temperature. <i>ACS Photonics</i> , 2017 , 4, 1805-1813	6.3	30
90	Local Polar Fluctuations in Lead Halide Perovskite Crystals. <i>Physical Review Letters</i> , 2017 , 118, 136001	7.4	374
89	Spatially segregated free-carrier and exciton populations in individual lead halide perovskite grains. <i>Nature Photonics</i> , 2017 , 11, 285-288	33.9	63
88	Thin Films and Solar Cells Based on Semiconducting Two-Dimensional Ruddlesden-Popper (CH ₃ (CH ₂) ₃ NH ₃) ₂ (CH ₃ NH ₃) _n SnI _{3n+1} Perovskites. <i>ACS Energy Letters</i> , 2017 , 2, 982-990	20.1	274
87	High Members of the 2D Ruddlesden-Popper Halide Perovskites: Synthesis, Optical Properties, and Solar Cells of (CH ₃ (CH ₂) ₃ NH ₃) ₂ (CH ₃ NH ₃) ₄ Pb ₅ I ₁₆ . <i>Chem</i> , 2017 , 2, 427-440	16.2	285
86	White-Light Emission and Structural Distortion in New Corrugated Two-Dimensional Lead Bromide Perovskites. <i>Journal of the American Chemical Society</i> , 2017 , 139, 5210-5215	16.4	385
85	Structure-Band Gap Relationships in Hexagonal Polytypes and Low-Dimensional Structures of Hybrid Tin Iodide Perovskites. <i>Inorganic Chemistry</i> , 2017 , 56, 56-73	5.1	158
84	Importance of Reducing Vapor Atmosphere in the Fabrication of Tin-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2017 , 139, 836-842	16.4	340
83	Selective enhancement of optical nonlinearity in two-dimensional organic-inorganic lead iodide perovskites. <i>Nature Communications</i> , 2017 , 8, 742	17.4	104
82	TlSbS ₂ : a Semiconductor for Hard Radiation Detection. <i>ACS Photonics</i> , 2017 , 4, 2891-2898	6.3	8
81	Two Regimes of Bandgap Red Shift and Partial Ambient Retention in Pressure-Treated Two-Dimensional Perovskites. <i>ACS Energy Letters</i> , 2017 , 2, 2518-2524	20.1	63
80	Universal Dynamics of Molecular Reorientation in Hybrid Lead Iodide Perovskites. <i>Journal of the American Chemical Society</i> , 2017 , 139, 16875-16884	16.4	103
79	Improved Crystal Growth of Tl ₆ SeI ₄ for X-Ray Detection Material by Oxide Impurity Removal. <i>Crystal Growth and Design</i> , 2017 , 17, 6096-6104	3.5	6
78	Multiphoton Absorption Order of CsPbBr ₃ As Determined by Wavelength-Dependent Nonlinear Optical Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 4912-4917	6.4	35
77	Efficient Lead-Free Solar Cells Based on Hollow {en}MASnI Perovskites. <i>Journal of the American Chemical Society</i> , 2017 , 139, 14800-14806	16.4	168

76	Polar Fluctuations in Metal Halide Perovskites Uncovered by Acoustic Phonon Anomalies. <i>ACS Energy Letters</i> , 2017 , 2, 2463-2469	20.1	30
75	Enhanced photovoltaic performance and stability with a new type of hollow 3D perovskite {en}FASnI. <i>Science Advances</i> , 2017 , 3, e1701293	14.3	258
74	Optical Properties and Modeling of 2D Perovskite Solar Cells. <i>Solar Rrl</i> , 2017 , 1, 1700062	7.1	41
73	Enhanced stability and thermoelectric figure-of-merit in copper selenide by lithium doping. <i>Materials Today Physics</i> , 2017 , 1, 7-13	8	75
72	Tunable White-Light Emission in Single-Cation-Templated Three-Layered 2D Perovskites (CHCHNH)PbBrCl. <i>Journal of the American Chemical Society</i> , 2017 , 139, 11956-11963	16.4	254
71	Homologous Series of 2D Chalcogenides Cs-Ag-Bi-Q (Q = S, Se) with Ion-Exchange Properties. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12601-12609	16.4	16
70	Semiconducting BaSnSb and Metallic BaSnSb (x = 0.4, y = 0.6) Zintl Phases. <i>Inorganic Chemistry</i> , 2017 , 56, 14251-14259	5.1	2
69	New Type of 2D Perovskites with Alternating Cations in the Interlayer Space, (C(NH))(CHNH)PbI: Structure, Properties, and Photovoltaic Performance. <i>Journal of the American Chemical Society</i> , 2017 , 139, 16297-16309	16.4	251
68	Interconversion between Free Charges and Bound Excitons in 2D Hybrid Lead Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 26566-26574	3.8	101
67	Panoramic Synthesis as an Effective Materials Discovery Tool: The System Cs/Sn/P/Se as a Test Case. <i>Journal of the American Chemical Society</i> , 2017 , 139, 10814-10821	16.4	20
66	Changes in charge density vs changes in formal oxidation states: The case of Sn halide perovskites and their ordered vacancy analogues. <i>Physical Review Materials</i> , 2017 , 1,	3.2	34
65	Dynamic Stereochemical Activity of the Sn(2+) Lone Pair in Perovskite CsSnBr3. <i>Journal of the American Chemical Society</i> , 2016 , 138, 11820-32	16.4	158
64	Room Temperature Phase Transition in Methylammonium Lead Iodide Perovskite Thin Films Induced by Hydrohalic Acid Additives. <i>ChemSusChem</i> , 2016 , 9, 2656-2665	8.3	43
63	Direct Gap Semiconductors Pb2BiS2I3, Sn2BiS2I3, and Sn2BiSI5. <i>Chemistry of Materials</i> , 2016 , 28, 7332-7343	16.4	16
62	Polarization-selective three-photon absorption and subsequent photoluminescence in CsPbBr3 single crystal at room temperature. <i>Physical Review B</i> , 2016 , 93,	3.3	49
61	Broad Wavelength Tunable Robust Lasing from Single-Crystal Nanowires of Cesium Lead Halide Perovskites (CsPbX3, X = Cl, Br, I). <i>ACS Nano</i> , 2016 , 10, 7963-72	16.7	414
60	Effect of Cation Rotation on Charge Dynamics in Hybrid Lead Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 16577-16585	3.8	46
59	Reentrant Structural and Optical Properties and Large Positive Thermal Expansion in Perovskite Formamidinium Lead Iodide. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 15392-15396	16.4	101

58	TiO-ZnS Cascade Electron Transport Layer for Efficient Formamidinium Tin Iodide Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2016 , 138, 14998-15003	16.4	171
57	Carrier Diffusion Lengths of over 500 nm in Lead-Free Perovskite CH ₃ NH ₃ SnI ₃ Films. <i>Journal of the American Chemical Society</i> , 2016 , 138, 14750-14755	16.4	174
56	Reentrant Structural and Optical Properties and Large Positive Thermal Expansion in Perovskite Formamidinium Lead Iodide. <i>Angewandte Chemie</i> , 2016 , 128, 15618-15622	3.6	12
55	Synthesis, structure, and electronic structure calculation of a new centrosymmetric borate Pb ₂ O[BO ₂ (OH)] based on anion-centered OPb ₄ tetrahedra. <i>Journal of Solid State Chemistry</i> , 2016 , 240, 61-66	3.3	3
54	Halide Perovskites: Poor Man's High-Performance Semiconductors. <i>Advanced Materials</i> , 2016 , 28, 5778-934	24	263
53	Dielectric and Thermodynamic Signatures of Low-Temperature Glassy Dynamics in the Hybrid Perovskites CH ₃ NH ₃ PbI ₃ and HC(NH ₂) ₂ PbI ₃ . <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 376-81	6.4	81
52	An Unusual Crystal Growth Method of the Chalcogenide Semiconductor, $\text{Hg}_3\text{S}_2\text{Cl}_2$: A New Candidate for Hard Radiation Detection. <i>Crystal Growth and Design</i> , 2016 , 16, 2678-2684	3.5	13
51	Overcoming Short-Circuit in Lead-Free CH ₃ NH ₃ SnI ₃ Perovskite Solar Cells via Kinetically Controlled Gas-Solid Reaction Film Fabrication Process. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 776-82	6.4	242
50	High-efficiency two-dimensional Ruddlesden-Popper perovskite solar cells. <i>Nature</i> , 2016 , 536, 312-6	50.4	2161
49	Optical-Vibrational Properties of the Cs ₂ SnX ₆ (X = Cl, Br, I) Defect Perovskites and Hole-Transport Efficiency in Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 11777-11785	3.8	161
48	Ruddlesden-Popper Hybrid Lead Iodide Perovskite 2D Homologous Semiconductors. <i>Chemistry of Materials</i> , 2016 , 28, 2852-2867	9.6	1166
47	Role of Organic Counterion in Lead- and Tin-Based Two-Dimensional Semiconducting Iodide Perovskites and Application in Planar Solar Cells. <i>Chemistry of Materials</i> , 2016 , 28, 7781-7792	9.6	189
46	Enhanced Structural Stability and Photo Responsiveness of CH ₃ NH ₃ SnI ₃ Perovskite via Pressure-Induced Amorphization and Recrystallization. <i>Advanced Materials</i> , 2016 , 28, 8663-8668	24	134
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29	Controllable perovskite crystallization at a gas-solid interface for hole conductor-free solar cells with steady power conversion efficiency over 10%. <i>Journal of the American Chemical Society</i> , 2014 , 136, 16411-9	16.4	340
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