Nripan Mathews

List of Publications by Year in Descending Order

302 papers	27,926 citations	74 h-index	163 g-index
340 ext. papers	31,459 ext. citations	10.9 avg, IF	7.3 L-index

#	Paper	IF	Citations
302	Reversible Photochromism in <110> Oriented Layered Halide Perovskite.. *ACS Nano*, **2022**,	16.7	2
301	Upcycling Silicon Photovoltaic Waste into Thermoelectrics.. *Advanced Materials*, **2022**, e2110518	24	5
300	Advances and Potentials of NiO x Surface Treatments for p-i-n Perovskite Solar Cells. *Solar Rrl*, **2022**, 6, 2270032	7.1	0
299	Inorganic electrochromic transistors as environmentally adaptable photodetectors. *Nano Energy*, **2022**, 97, 107142	17.1	1
298	Upcycling Silicon Photovoltaic Waste into Thermoelectrics (Adv. Mater. 19/2022). *Advanced Materials*, **2022**, 34, 2270144	24	
297	Halide Perovskite Solar Cells for Building Integrated Photovoltaics: Transforming Building Façades Into Power Generators. *Advanced Materials*, **2021**, e2104661	24	5
296	Molecular design of two-dimensional perovskite cations for efficient energy cascade in perovskite light-emitting diodes. *Applied Physics Letters*, **2021**, 119, 154101	3.4	1
295	Synthesis of bismuth sulphoiodide thin films from single precursor solution. *Solar Energy*, **2021**, 230, 714-720	6.8	1
294	Precise Control of CsPbBr3 Perovskite Nanocrystal Growth at Room Temperature: Size Tunability and Synthetic Insights. *Chemistry of Materials*, **2021**, 33, 2387-2397	9.6	14
293	Diffusive and Drift Halide Perovskite Memristive Barristors as Nociceptive and Synaptic Emulators for Neuromorphic Computing. *Advanced Materials*, **2021**, 33, 2007851	24	16
292	Suppressing the δ-Phase and Photoinstability through a Hypophosphorous Acid Additive in Carbon-Based Mixed-Cation Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2021**, 125, 6585-6592	3.8	3
291	Formation of Corrugated = 1 2D Tin Iodide Perovskites and Their Use as Lead-Free Solar Absorbers. *ACS Nano*, **2021**, 15, 6395-6409	16.7	6
290	Adaptive Latent Inhibition in Associatively Responsive Optoelectronic Synapse. *Advanced Functional Materials*, **2021**, 31, 2100807	15.6	7
289	Co-Evaporated MAPbI3: Excellent Intrinsic Long-Term Thermal Stability of Co-Evaporated MAPbI3 Solar Cells at 85 °C (Adv. Funct. Mater. 22/2021). *Advanced Functional Materials*, **2021**, 31, 2170155	15.6	
288	Deterministic Light Yield, Fast Scintillation, and Microcolumn Structures in Lead Halide Perovskite Nanocrystals. *Journal of Physical Chemistry C*, **2021**, 125, 14082-14088	3.8	10
287	Halide perovskite memristors as flexible and reconfigurable physical unclonable functions. *Nature Communications*, **2021**, 12, 3681	17.4	29
286	A Microfabricated Dual Slip-Pressure Sensor with Compliant Polymer-Liquid Metal Nanocomposite for Robotic Manipulation. *Soft Robotics*, **2021**,	9.2	1

285	Unveiling the role of carbon black in printable mesoscopic perovskite solar cells. *Journal of Power Sources*, **2021**, 501, 230019	8.9	5
284	The Physics of Interlayer Exciton Delocalization in Ruddlesden-Popper Lead Halide Perovskites. *Nano Letters*, **2021**, 21, 405-413	11.5	12
283	Room temperature synthesis of low-dimensional rubidium copper halide colloidal nanocrystals with near unity photoluminescence quantum yield. *Nanoscale*, **2021**, 13, 59-65	7.7	7
282	Toward Efficient and Stable Perovskite Photovoltaics with Fluorinated Phosphonate Salt Surface Passivation. *ACS Applied Energy Materials*, **2021**, 4, 2716-2723	6.1	0
281	Effects of All-Organic Interlayer Surface Modifiers on the Efficiency and Stability of Perovskite Solar Cells. *ChemSusChem*, **2021**, 14, 1524-1533	8.3	2
280	Excellent Intrinsic Long-Term Thermal Stability of Co-Evaporated MAPbI3 Solar Cells at 85 °C. *Advanced Functional Materials*, **2021**, 31, 2100557	15.6	18
279	Tunable Electroluminescence for Pure White Emission From a Perovskite-Based LED. *Advanced Electronic Materials*, **2021**, 7, 2001227	6.4	1
278	One-Pot Synthesis and Structural Evolution of Colloidal Cesium Lead Halide-Lead Sulfide Heterostructure Nanocrystals for Optoelectronic Applications. *Journal of Physical Chemistry Letters*, **2021**, 12, 9569-9578	6.4	2
277	MXene incorporated polymeric hybrids for stiffness modulation in printed adaptive surfaces. *Nano Energy*, **2021**, 90, 106548	17.1	0
276	Inducing thermoreversible optical transitions in urethane-acrylate systems via ionic liquid incorporation for stretchable smart devices. *Journal of Materials Chemistry A*, **2021**, 9, 13615-13624	13	3
275	Colorful Perovskite Solar Cells: Progress, Strategies, and Potentials. *Journal of Physical Chemistry Letters*, **2021**, 12, 1321-1329	6.4	23
274	Stabilizing the Electroluminescence of Halide Perovskites with Potassium Passivation. *ACS Energy Letters*, **2020**, 5, 1804-1813	20.1	29
273	Direct Band Gap Mixed-Valence Organic–Inorganic Gold Perovskite as Visible Light Absorbers. *Chemistry of Materials*, **2020**, 32, 6318-6325	9.6	11
272	Hybrid 2D [Pb(CH3NH2)I2]n Coordination Polymer Precursor for Scalable Perovskite Deposition. *ACS Energy Letters*, **2020**, 5, 2305-2312	20.1	10
271	Directed Assembly of Liquid Metal-Elastomer Conductors for Stretchable and Self-Healing Electronics. *Advanced Materials*, **2020**, 32, e2001642	24	43
270	Enabling high performance n-type metal oxide semiconductors at low temperatures for thin film transistors. *Inorganic Chemistry Frontiers*, **2020**, 7, 1822-1844	6.8	22
269	Hot Carriers in Halide Perovskites: How Hot Truly?. *Journal of Physical Chemistry Letters*, **2020**, 11, 2743-2750	6.4	16
268	Energy band and optical modeling of charge transport mechanism and photo-distribution of MoO3/Al-doped MoO3 in organic tandem cells. *Functional Materials Letters*, **2020**, 13, 2051003	1.2	2

267	Bilayer BaSnO3 thin film transistors on silicon substrates. *Journal of Materials Chemistry C*, **2020**, 8, 5231-5238	7.1	1
266	Optogenetics inspired transition metal dichalcogenide neuristors for in-memory deep recurrent neural networks. *Nature Communications*, **2020**, 11, 3211	17.4	20
265	Efficient and stable planar perovskite solar cells using co-doped tin oxide as the electron transport layer. *Journal of Power Sources*, **2020**, 471, 228443	8.9	8
264	Forming-Less Compliance-Free Multistate Memristors as Synaptic Connections for Brain-Inspired Computing. *ACS Applied Electronic Materials*, **2020**, 2, 817-826	4	3
263	Molecular Engineering of Pure 2D Lead-Iodide Perovskite Solar Absorbers Displaying Reduced Band Gaps and Dielectric Confinement. *ChemSusChem*, **2020**, 13, 2693-2701	8.3	6
262	Controlling the film structure by regulating 2D Ruddlesden–Popper perovskite formation enthalpy for efficient and stable tri-cation perovskite solar cells. *Journal of Materials Chemistry A*, **2020**, 8, 5874-5881	13	16
261	Mixed-Dimensional Naphthylmethylammoinium-Methylammonium Lead Iodide Perovskites with Improved Thermal Stability. *Scientific Reports*, **2020**, 10, 429	4.9	29
260	Cesium Lead Halide Perovskite Nanocrystals Prepared by Anion Exchange for Light-Emitting Diodes. *ACS Applied Nano Materials*, **2020**, 3, 1766-1774	5.6	15
259	Targeted Synthesis of Trimeric Organic–Bromoplumbate Hybrids That Display Intrinsic, Highly Stokes-Shifted, Broadband Emission. *Chemistry of Materials*, **2020**, 32, 4431-4441	9.6	14
258	Metal Coordination Sphere Deformation Induced Highly Stokes-Shifted, Ultra Broadband Emission in 2D Hybrid Lead-Bromide Perovskites and Investigation of Its Origin. *Angewandte Chemie*, **2020**, 132, 10883-10888	3.6	1
257	Metal Coordination Sphere Deformation Induced Highly Stokes-Shifted, Ultra Broadband Emission in 2D Hybrid Lead-Bromide Perovskites and Investigation of Its Origin. *Angewandte Chemie - International Edition*, **2020**, 59, 10791-10796	16.4	15
256	Highly Efficient Thermally Co-evaporated Perovskite Solar Cells and Mini-modules. *Joule*, **2020**, 4, 1035-1053	39.8	145
255	Cubic NaSbS as an Ionic-Electronic Coupled Semiconductor for Switchable Photovoltaic and Neuromorphic Device Applications. *Advanced Materials*, **2020**, 32, e1906976	24	15
254	Perovskite nanostructures: Leveraging quantum effects to challenge optoelectronic limits. *Materials Today*, **2020**, 33, 122-140	21.8	16
253	Highly stable and efficient planar perovskite solar cells using ternary metal oxide electron transport layers. *Journal of Power Sources*, **2020**, 448, 227362	8.9	14
252	Inducing formation of a corrugated, white-light emitting 2D lead-bromide perovskite via subtle changes in templating cation. *Journal of Materials Chemistry C*, **2020**, 8, 889-893	7.1	26
251	Four-Terminal Perovskite on Silicon Tandem Solar Cells Optimal Measurement Schemes. *Energy Technology*, **2020**, 8, 1901267	3.5	11
250	Bifacial, Color-Tunable Semitransparent Perovskite Solar Cells for Building-Integrated Photovoltaics. *ACS Applied Materials & Interfaces*, **2020**, 12, 484-493	9.5	44

249	Interlayer Engineering for Flexible Large-Area Planar Perovskite Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 777-784	6.1	5
248	Interfacial 2-hydrozybenzophenone passivation for highly efficient and stable perovskite solar cells. *Journal of Power Sources*, **2020**, 475, 228665	8.9	1
247	Design of Perovskite Thermally Co-Evaporated Highly Efficient Mini-Modules with High Geometrical Fill Factors. *Solar Rrl*, **2020**, 4, 2000473	7.1	19
246	Potassium Acetate-Based Treatment for Thermally Co-Evaporated Perovskite Solar Cells. *Coatings*, **2020**, 10, 1163	2.9	5
245	Investigating the structure–function relationship in triple cation perovskite nanocrystals for light-emitting diode applications. *Journal of Materials Chemistry C*, **2020**, 8, 11805-11821	7.1	17
244	Hybrid organic–inorganic halide perovskites for scaled-in neuromorphic devices. *MRS Bulletin*, **2020**, 45, 641-648	3.2	12
243	High-, Ultrastretchable Self-Enclosed Ionic Liquid-Elastomer Composites for Soft Robotics and Flexible Electronics. *ACS Applied Materials & Interfaces*, **2020**, 12, 37561-37570	9.5	18
242	White Electroluminescence from Perovskite–Organic Heterojunction. *ACS Energy Letters*, **2020**, 5, 2690-2697	20.1	9
241	Disordered Polymer Antireflective Coating for Improved Perovskite Photovoltaics. *ACS Photonics*, **2020**, 7, 1971-1977	6.3	8
240	Lead Halide Perovskite Nanocrystals: Room Temperature Syntheses toward Commercial Viability. *Advanced Energy Materials*, **2020**, 10, 2001349	21.8	29
239	Organic neuromorphic devices: Past, present, and future challenges. *MRS Bulletin*, **2020**, 45, 619-630	3.2	30
238	Self healable neuromorphic memtransistor elements for decentralized sensory signal processing in robotics. *Nature Communications*, **2020**, 11, 4030	17.4	24
237	Design of 2D Templating Molecules for Mixed-Dimensional Perovskite Light-Emitting Diodes. *Chemistry of Materials*, **2020**, 32, 8097-8105	9.6	12
236	Realizing Reduced Imperfections via Quantum Dots Interdiffusion in High Efficiency Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e2003296	24	33
235	Halide Perovskite Quantum Dots Photosensitized-Amorphous Oxide Transistors for Multimodal Synapses. *Advanced Materials Technologies*, **2020**, 5, 2000514	6.8	15
234	Enhanced stability and photovoltaic performance of planar perovskite solar cells through anilinium thiobenzoate interfacial engineering. *Journal of Power Sources*, **2020**, 479, 228811	8.9	4
233	Designing the Perovskite Structural Landscape for Efficient Blue Emission. *ACS Energy Letters*, **2020** , 5, 1593-1600	20.1	36
232	Broadband emission from zero-dimensional CsPbI perovskite nanocrystals.. *RSC Advances*, **2020**, 10, 13431-13436	3.7	19

231	Indirect tail states formation by thermal-induced polar fluctuations in halide perovskites. *Nature Communications*, **2019**, 10, 484	17.4	58
230	Effects of energetics with {001} facet-dominant anatase TiO2 scaffold on electron transport in CH3NH3PbI3 perovskite solar cells. *Electrochimica Acta*, **2019**, 300, 445-454	6.7	11
229	Completely Solvent-free Protocols to Access Phase-Pure, Metastable Metal Halide Perovskites and Functional Photodetectors from the Precursor Salts. *IScience*, **2019**, 16, 312-325	6.1	46
228	Evolution of Perovskite Crystallization in Printed Mesoscopic Perovskite Solar Cells. *Energy Technology*, **2019**, 7, 1900343	3.5	12
227	Role of Water in Suppressing Recombination Pathways in CHNHPbI Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2019**, 11, 25474-25482	9.5	21
226	Self-assembly of a robust hydrogen-bonded octylphosphonate network on cesium lead bromide perovskite nanocrystals for light-emitting diodes. *Nanoscale*, **2019**, 11, 12370-12380	7.7	42
225	Field-Driven Athermal Activation of Amorphous Metal Oxide Semiconductors for Flexible Programmable Logic Circuits and Neuromorphic Electronics. *Small*, **2019**, 15, e1901457	11	6
224	Improved photovoltaic performance of triple-cation mixed-halide perovskite solar cells with binary trivalent metals incorporated into the titanium dioxide electron transport layer. *Journal of Materials Chemistry C*, **2019**, 7, 5028-5036	7.1	32
223	Stable Sn doped FAPbI nanocrystals for near-infrared LEDs. *Chemical Communications*, **2019**, 55, 5451-5454	5.8	13
222	Localized Traps Limited Recombination in Lead Bromide Perovskites. *Advanced Energy Materials*, **2019**, 9, 1803119	21.8	17
221	Si photocathode with Ag-supported dendritic Cu catalyst for CO2 reduction. *Energy and Environmental Science*, **2019**, 12, 1068-1077	35.4	58
220	Ultrafast long-range spin-funneling in solution-processed Ruddlesden-Popper halide perovskites. *Nature Communications*, **2019**, 10, 3456	17.4	22
219	Highly Efficient Semitransparent Perovskite Solar Cells for Four Terminal Perovskite-Silicon Tandems. *ACS Applied Materials & Interfaces*, **2019**, 11, 34178-34187	9.5	43
218	High-throughput Computational Study of Halide Double Perovskite Inorganic Compounds. *Chemistry of Materials*, **2019**, 31, 5392-5401	9.6	46
217	Cesium Oleate Passivation for Stable Perovskite Photovoltaics. *ACS Applied Materials & Interfaces*, **2019**, 11, 27882-27889	9.5	8
216	Perturbation-Induced Seeding and Crystallization of Hybrid Perovskites over Surface-Modified Substrates for Optoelectronic Devices. *ACS Applied Materials & Interfaces*, **2019**, 11, 27727-27734	9.5	6
215	Heterogeneous electron transporting layer for reproducible, efficient and stable planar perovskite solar cells. *Journal of Power Sources*, **2019**, 437, 226907	8.9	7
214	Cesium Copper Iodide Tailored Nanoplates and Nanorods for Blue, Yellow, and White Emission. *Chemistry of Materials*, **2019**, 31, 9003-9011	9.6	65

213	Large-area, flexible, integrable and transparent DEAs for haptics **2019**,		1
212	Cu-doped nickel oxide interface layer with nanoscale thickness for efficient and highly stable printable carbon-based perovskite solar cell. *Solar Energy*, **2019**, 182, 225-236	6.8	32
211	Small-area Passivated Contact monoPolyTM Silicon Solar Cells for Tandem Device Integration **2019**,		1
210	Hot carrier extraction in CHNHPbI unveiled by pump-push-probe spectroscopy. *Science Advances*, **2019**, 5, eaax3620	14.3	37
209	Regulating Vertical Domain Distribution in Ruddlesden-Popper Perovskites for Electroluminescence Devices. *Journal of Physical Chemistry Letters*, **2019**, 10, 7949-7955	6.4	3
208	Perovskite Nanoparticles: Synthesis, Properties, and Novel Applications in Photovoltaics and LEDs. *Small Methods*, **2019**, 3, 1800231	12.8	51
207	Precursor non-stoichiometry to enable improved CHNHPbBr nanocrystal LED performance. *Physical Chemistry Chemical Physics*, **2018**, 20, 5918-5925	3.6	5
206	Crown Ethers Enable Room-Temperature Synthesis of CsPbBr3 Quantum Dots for Light-Emitting Diodes. *ACS Energy Letters*, **2018**, 3, 526-531	20.1	77
205	Perovskite templating via a bathophenanthroline additive for efficient light-emitting devices. *Journal of Materials Chemistry C*, **2018**, 6, 2295-2302	7.1	11
204	Limitations of CsBiI as Lead-Free Photovoltaic Absorber Materials. *ACS Applied Materials & Interfaces*, **2018**, 10, 35000-35007	9.5	85
203	One-Step Inkjet Printed Perovskite in Air for Efficient Light Harvesting. *Solar Rrl*, **2018**, 2, 1700217	7.1	68
202	Enhancing moisture tolerance in efficient hybrid 3D/2D perovskite photovoltaics. *Journal of Materials Chemistry A*, **2018**, 6, 2122-2128	13	123
201	Spinel CoO nanomaterials for efficient and stable large area carbon-based printed perovskite solar cells. *Nanoscale*, **2018**, 10, 2341-2350	7.7	70
200	Grain Size Modulation and Interfacial Engineering of CH NH PbBr Emitter Films through Incorporation of Tetraethylammonium Bromide. *ChemPhysChem*, **2018**, 19, 1075-1080	3.2	11
199	Synergistic Gating of Electro-Iono-Photoactive 2D Chalcogenide Neuristors: Coexistence of Hebbian and Homeostatic Synaptic Metaplasticity. *Advanced Materials*, **2018**, 30, e1800220	24	188
198	Enhanced Exciton and Photon Confinement in Ruddlesden-Popper Perovskite Microplatelets for Highly Stable Low-Threshold Polarized Lasing. *Advanced Materials*, **2018**, 30, e1707235	24	73
197	Extended Absorption Window and Improved Stability of Cesium-Based Triple-Cation Perovskite Solar Cells Passivated with Perfluorinated Organics. *ACS Energy Letters*, **2018**, 3, 1068-1076	20.1	38
196	Additive Selection Strategy for High Performance Perovskite Photovoltaics. *Journal of Physical Chemistry C*, **2018**, 122, 13884-13893	3.8	46

195	Self-assembled hierarchical nanostructured perovskites enable highly efficient LEDs via an energy cascade. *Energy and Environmental Science*, **2018**, 11, 1770-1778	35.4	113
194	Influence of size and shape of sub-micrometer light scattering centers in ZnO-assisted TiO 2 photoanode for dye-sensitized solar cells. *Physica B: Condensed Matter*, **2018**, 532, 225-229	2.8	10
193	Coherent Spin and Quasiparticle Dynamics in Solution-Processed Layered 2D Lead Halide Perovskites. *Advanced Science*, **2018**, 5, 1800664	13.6	38
192	Indium Tungsten Oxide Thin Films for Flexible High-Performance Transistors and Neuromorphic Electronics. *ACS Applied Materials & Interfaces*, **2018**, 10, 30506-30513	9.5	29
191	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1702116	21.8	84
190	Highly Transparent and Integrable Surface Texture Change Device for Localized Tactile Feedback. *Small*, **2018**, 14, 1702312	11	22
189	A rapid low temperature self-healable polymeric composite for flexible electronic devices. *Journal of Materials Chemistry A*, **2018**, 6, 21428-21434	13	18
188	Structural, Optical, and Related Properties of Some Perovskites Based on Lead and Tin Halides: The Effects on Going from Bulk to Small Particles **2018**, 1-24		1
187	Ab Initio and First Principles Studies of Halide Perovskites **2018**, 25-53		
186	Excitonics in 2D Perovskites **2018**, 55-79		2
185	Working Principles of Perovskite Solar Cells **2018**, 81-99		1
184	The Photophysics of Halide Perovskite Solar Cells **2018**, 101-130		0
183	Charge-Selective Contact Materials for Perovskite Solar Cells (PSCs) **2018**, 131-153		
182	Beyond Methylammonium Lead Iodide Perovskite **2018**, 155-181		
181	Halide Perovskite Tandem Solar Cells **2018**, 183-197		
180	Perovskite Light-Emitting Devices Fundamentals and Working Principles **2018**, 199-221		
179	Toward Electrically Driven Perovskite Lasers Prospects and Obstacles **2018**, 223-247		
178	Novel Spin Physics in Organic Inorganic Perovskites **2018**, 249-271		1

177	Perovskite Solar Cells for Photoelectrochemical Water Splitting and CO2 Reduction **2018**, 273-292		1
176	Solution grown double heterostructure on a large hybrid halide perovskite crystal. *CrystEngComm*, **2018**, 20, 6653-6661	3.3	2
175	Highly Efficient Perovskite Solar Cells with Ba(OH)2 Interface Modification of Mesoporous TiO2 Electron Transport Layer. *ACS Applied Energy Materials*, **2018**, 1, 5847-5852	6.1	9
174	Carrier cascade: Enabling high performance perovskite light-emitting diodes (PeLEDs). *Current Opinion in Electrochemistry*, **2018**, 11, 91-97	7.2	6
173	Low threshold and efficient multiple exciton generation in halide perovskite nanocrystals. *Nature Communications*, **2018**, 9, 4197	17.4	74
172	Ultralow Power Dual-Gated Subthreshold Oxide Neuristors: An Enabler for Higher Order Neuronal Temporal Correlations. *ACS Nano*, **2018**, 12, 11263-11273	16.7	50
171	Superior Performance of Silver Bismuth Iodide Photovoltaics Fabricated via Dynamic Hot-Casting Method under Ambient Conditions. *Advanced Energy Materials*, **2018**, 8, 1802051	21.8	48
170	Ionotronic Halide Perovskite Drift-Diffusive Synapses for Low-Power Neuromorphic Computation. *Advanced Materials*, **2018**, 30, e1805454	24	91
169	Recovery of Shallow Charge-Trapping Defects in CsPbX3 Nanocrystals through Specific Binding and Encapsulation with Amino-Functionalized Silanes. *ACS Energy Letters*, **2018**, 3, 1409-1414	20.1	44
168	Nitrogen doped cuprous oxide as low cost hole-transporting material for perovskite solar cells. *Scripta Materialia*, **2018**, 153, 104-108	5.6	13
167	Novel Plasma-Assisted Low-Temperature-Processed SnO2 Thin Films for Efficient Flexible Perovskite Photovoltaics. *ACS Energy Letters*, **2018**, 3, 1482-1491	20.1	56
166	Inducing Isotropic Growth in Multidimensional Cesium Lead Halide Perovskite Nanocrystals. *ChemPlusChem*, **2018**, 83, 514-520	2.8	8
165	Doping and Switchable Photovoltaic Effect in Lead-Free Perovskites Enabled by Metal Cation Transmutation. *Advanced Materials*, **2018**, 30, e1802080	24	21
164	Bistable Amphoteric Native Defect Model of Perovskite Photovoltaics. *Journal of Physical Chemistry Letters*, **2018**, 9, 3878-3885	6.4	11
163	Designing Efficient Energy Funneling Kinetics in Ruddlesden-Popper Perovskites for High-Performance Light-Emitting Diodes. *Advanced Materials*, **2018**, 30, e1800818	24	57
162	Over 20% Efficient CIGSe/Perovskite Tandem Solar Cells. *ACS Energy Letters*, **2017**, 2, 807-812	20.1	109
161	Slow cooling and highly efficient extraction of hot carriers in colloidal perovskite nanocrystals. *Nature Communications*, **2017**, 8, 14350	17.4	196
160	Polaron self-localization in white-light emitting hybrid perovskites. *Journal of Materials Chemistry C*, **2017**, 5, 2771-2780	7.1	155

159	Rational Design: A High-Throughput Computational Screening and Experimental Validation Methodology for Lead-Free and Emergent Hybrid Perovskites. *ACS Energy Letters*, **2017**, 2, 837-845	20.1	142
158	Transparent Flexible Multifunctional Nanostructured Architectures for Non-optical Readout, Proximity, and Pressure Sensing. *ACS Applied Materials & Interfaces*, **2017**, 9, 15015-15021	9.5	43
157	Temperature and Electrical Poling Effects on Ionic Motion in MAPbI3 Photovoltaic Cells. *Advanced Energy Materials*, **2017**, 7, 1700265	21.8	19
156	Giant five-photon absorption from multidimensional core-shell halide perovskite colloidal nanocrystals. *Nature Communications*, **2017**, 8, 15198	17.4	124
155	Rapid Crystallization of All-Inorganic CsPbBr Perovskite for High-Brightness Light-Emitting Diodes. *ACS Omega*, **2017**, 2, 2757-2764	3.9	26
154	Facile Method to Reduce Surface Defects and Trap Densities in Perovskite Photovoltaics. *ACS Applied Materials & Interfaces*, **2017**, 9, 21292-21297	9.5	54
153	Atomically Altered Hematite for Highly Efficient Perovskite Tandem Water-Splitting Devices. *ChemSusChem*, **2017**, 10, 2449-2456	8.3	62
152	Morphology-Independent Stable White-Light Emission from Self-Assembled Two-Dimensional Perovskites Driven by Strong Exciton-Phonon Coupling to the Organic Framework. *Chemistry of Materials*, **2017**, 29, 3947-3953	9.6	146
151	Enhanced Efficiency of Dye-Sensitized Solar Cells with Mesoporous-Macroporous TiO2 Photoanode Obtained Using ZnO Template. *Journal of Electronic Materials*, **2017**, 46, 3801-3807	1.9	11
150	Ruddlesden-Popper Perovskite Solar Cells. *CheM*, **2017**, 2, 326-327	16.2	24
149	Al(2)O(3) Surface Complexation for Photocatalytic Organic Transformations. *Journal of the American Chemical Society*, **2017**, 139, 269-276	16.4	55
148	Evolution of hydrogen by few-layered black phosphorus under visible illumination. *Journal of Materials Chemistry A*, **2017**, 5, 24874-24879	13	37
147	2D black phosphorous nanosheets as a hole transporting material in perovskite solar cells. *Journal of Power Sources*, **2017**, 371, 156-161	8.9	37
146	Reversible Electrochemical Silver Deposition over Large Areas for Smart Windows and Information Display. *Electrochimica Acta*, **2017**, 255, 63-71	6.7	20
145	Highly efficient Cs-based perovskite light-emitting diodes enabled by energy funnelling. *Chemical Communications*, **2017**, 53, 12004-12007	5.8	71
144	Modulating Excitonic Recombination Effects through One-Step Synthesis of Perovskite Nanoparticles for Light-Emitting Diodes. *ChemSusChem*, **2017**, 10, 3818-3824	8.3	12
143	Enhanced Coverage of All-Inorganic Perovskite CsPbBr3 through Sequential Deposition for Green Light-Emitting Diodes. *Energy Technology*, **2017**, 5, 1859-1865	3.5	12
142	Computational Study of Halide Perovskite-Derived A2BX6 Inorganic Compounds: Chemical Trends in Electronic Structure and Structural Stability. *Chemistry of Materials*, **2017**, 29, 7740-7749	9.6	128

141	Simplified Architecture of a Fully Printable Perovskite Solar Cell Using a Thick Zirconia Layer. *Energy Technology*, **2017**, 5, 1866-1872	3.5	22
140	Photovoltaics: Temperature and Electrical Poling Effects on Ionic Motion in MAPbI3 Photovoltaic Cells (Adv. Energy Mater. 18/2017). *Advanced Energy Materials*, **2017**, 7,	21.8	1
139	Effect of Formamidinium/Cesium Substitution and PbI on the Long-Term Stability of Triple-Cation Perovskites. *ChemSusChem*, **2017**, 10, 3804-3809	8.3	22
138	Healable and flexible transparent heaters. *Nanoscale*, **2017**, 9, 14990-14997	7.7	32
137	Effect of Excess PbI2 in Fully Printable Carbon-based Perovskite Solar Cells. *Energy Technology*, **2017**, 5, 1880-1886	3.5	20
136	Investigating the feasibility of symmetric guanidinium based plumbate perovskites in prototype solar cell devices. *Japanese Journal of Applied Physics*, **2017**, 56, 08MC05	1.4	13
135	Broadband-Emitting 2 D Hybrid Organic-Inorganic Perovskite Based on Cyclohexane-bis(methylamonium) Cation. *ChemSusChem*, **2017**, 10, 3765-3772	8.3	59
134	High Stability Bilayered Perovskites through Crystallization Driven Self-Assembly. *ACS Applied Materials & Interfaces*, **2017**, 9, 28743-28749	9.5	18
133	Benzyl Alcohol-Treated CHNHPbBr Nanocrystals Exhibiting High Luminescence, Stability, and Ultralow Amplified Spontaneous Emission Thresholds. *Nano Letters*, **2017**, 17, 7424-7432	11.5	85
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