

# The emergence of perovskite solar cells

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Citation Report

#	ARTICLE	IF	CITATIONS
6	band gap of the hybrid organic-inorganic perovskite Effect of spin-orbit interaction, semicore electrons, an. Physical Review B, 2014, 90, .	1.1	126
7	Steric engineering of metal-halide perovskites with tunable optical band gaps. Nature Communications, 2014, 5, 5757.	5.8	787
8	Lasing behaviors upon phase transition in solution-processed perovskite thin films. Applied Physics Letters, 2014, 105, .	1.5	59
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25	Intensity-Modulated Scanning Kelvin Probe Microscopy for Probing Recombination in Organic Photovoltaics. ACS Nano, 2014, 8, 10799-10807.	7.3	58
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1617	Halide Perovskites for Applications beyond Photovoltaics. <i>Small Methods</i> , 2018, 2, 1700310.	4.6	94
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1619	Manipulation of cation combinations and configurations of halide double perovskites for solar cell absorbers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 1809-1815.	5.2	85
1620	Enhanced Two-Photon-Pumped Emission from In Situ Synthesized Nonblinking CsPbBr <sub>3</sub> /SiO <sub>2</sub> Nanocrystals with Excellent Stability. <i>Advanced Optical Materials</i> , 2018, 6, 1700997.	3.6	116
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1644	Fabrication and characterization of CH <sub>3</sub> NH <sub>3</sub> (Cs)Pb(Sn)I <sub>3</sub> (Cl) perovskite solar cells with TiO <sub>2</sub> nanoparticle layers. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 02CE03.	0.8	11

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1648	Structure of deposits formed from electrosprayed aggregates of nanoparticles. <i>Journal of Aerosol Science</i> , 2018, 118, 45-58.	1.8	8
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1651	Influence of metal substitution on hybrid halide perovskites: towards lead-free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3793-3823.	5.2	154
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1987	A Review on Halide Perovskites as Color Conversion Layers in White Light Emitting Diode Applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800120.	0.8	73
1988	Lead-free, air-stable ultrathin Cs <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> perovskite nanosheets for solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 184, 15-21.	3.0	179
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2161	Flexible and Stretchable Perovskite Solar Cells: Device Design and Development Methods. <i>Small Methods</i> , 2018, 2, 1800031.	4.6	71
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2316	Inorganic Cage Motion Dominates Excited-State Dynamics in 2D-Layered Perovskites (C <sub>x</sub> H <sub>2x</sub> NH <sub>3</sub> ) <sub>2</sub> PbI <sub>4</sub> (C <sub>x</sub> = 4-9). <i>Journal of Physical Chemistry C</i> , 2019, 123, 27904-27916.		
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2453	Incorporation of two electron acceptors to improve the electron mobility and stability of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8344-8349.	2.7	14
2454	Surface-Plasmon-Assisted Metal Halide Perovskite Small Lasers. <i>Advanced Optical Materials</i> , 2019, 7, 1900279.	3.6	35
2455	Lead Halide Perovskite-Based Dynamic Metasurfaces. <i>Laser and Photonics Reviews</i> , 2019, 13, 1900079.	4.4	42
2456	Improving the Performance of Planar Perovskite Solar Cells through a Preheated, Delayed Annealing Process To Control Nucleation and Phase Transition of Perovskite Films. <i>Crystal Growth and Design</i> , 2019, 19, 4314-4323.	1.4	7
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2458	Optimizing optoelectronic performances by controlling halide compositions of MAPb(Cl <sub>x</sub> I <sub>3-x</sub> ) <sub>3</sub> single crystals. <i>CrystEngComm</i> , 2019, 21, 4169-4174.	1.3	9
2459	Anisotropy of Thermal Diffusivity in Lead Halide Perovskite Layers Revealed by Thermal Grating Technique. <i>Journal of Physical Chemistry C</i> , 2019, 123, 14914-14920.	1.5	7
2460	Origin of Extended UV Stability of 2D Atomic Layer Titania-Based Perovskite Solar Cells Unveiled by Ultrafast Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 21473-21480.	4.0	11
2461	Bright and fast scintillation of organolead perovskite MAPbBr <sub>3</sub> at low temperatures. <i>Materials Horizons</i> , 2019, 6, 1740-1747.	6.4	105
2462	Enhancement of luminescence properties and stability in perovskite hybrid structure with CdSe/ZnS quantum dots. <i>APL Materials</i> , 2019, 7, 051112.	2.2	3
2463	Fabrication and evaluation of K-doped MA <sub>0.8</sub> FA <sub>0.1</sub> K <sub>0.1</sub> PbI <sub>3</sub> (Cl) perovskite solar cells. <i>Chemical Physics Letters</i> , 2019, 730, 117-123.	1.2	29
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2507	Enhancement in power conversion efficiency of edge-functionalized graphene quantum dot through adatoms for solar cell applications. <i>Solar Energy Materials and Solar Cells</i> , 2019, 200, 109908.	3.0	51
2508	Strong thickness-dependent quantum confinement in all-inorganic perovskite Cs <sub>2</sub> Pb <sub>4</sub> with a Ruddlesden-Popper structure. <i>Journal of Materials Chemistry C</i> , 2019, 7, 7433-7441.	2.7	62
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2510	Charge Trap Formation and Passivation in Methylammonium Lead Tribromide. <i>Journal of Physical Chemistry C</i> , 2019, 123, 13812-13817.	1.5	9
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2512	Giant Nonlinear Optical Response in 2D Perovskite Heterostructures. <i>Advanced Optical Materials</i> , 2019, 7, 1900398.	3.6	58
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2517	Tailoring the Functionality of Organic Spacer Cations for Efficient and Stable Quasi-2D Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1900221.	7.8	144
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2581	Chemical stability and instability of inorganic halide perovskites. <i>Energy and Environmental Science</i> , 2019, 12, 1495-1511.	15.6	510
2582	Electronic and optical properties of perovskite compounds $MA_{1-x}FA_xPbI_{3-x}X_2$ ( $X = Cl, Br$ ) explored for photovoltaic applications. <i>RSC Advances</i> , 2019, 9, 7015-7024.	1.7	20
2583	Passivating Crystal Boundaries with Potassium-Rich Phase in Organic Halide Perovskite. <i>Solar Rrl</i> , 2019, 3, 1900053.	3.1	64
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2586	High-efficiency perovskite solar cell based on $TiO_2$ nanorod arrays under natural ambient conditions: Solvent effect. <i>Ceramics International</i> , 2019, 45, 12353-12359.	2.3	7
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2598	Significant THz-wave absorption property in mixed $\text{CH}_3\text{NH}_3\text{PbI}_3$ - and $\text{CH}_3\text{NH}_3\text{FAPbI}_3$ hybrid perovskite flexible thin film formed by sequential vacuum evaporation. <i>Applied Physics Express</i> , 2019, 12, 051003.	1.1	17
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2630	Ammonia-treated graphene oxide and PEDOT:PSS as hole transport layer for high-performance perovskite solar cells with enhanced stability. <i>Organic Electronics</i> , 2019, 70, 63-70.	1.4	40
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2704	Helicity-dependent terahertz photocurrent and phonon dynamics in hybrid metal halide perovskites. <i>Journal of Chemical Physics</i> , 2019, 151, 244706.	1.2	16
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2707	The synergistic effect of cooperating solvent vapor annealing for high-efficiency planar inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 27267-27277.	5.2	24
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2732	Single-Walled Carbon Nanotubes in Emerging Solar Cells: Synthesis and Electrode Applications. <i>Advanced Energy Materials</i> , 2019, 9, 1801312.	10.2	86
2733	Rational chemical doping of metal halide perovskites. <i>Chemical Society Reviews</i> , 2019, 48, 517-539.	18.7	196
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3009	Impact of Processing on Structural and Compositional Evolution in Mixed Metal Halide Perovskites during Film Formation. <i>Advanced Functional Materials</i> , 2020, 30, 2001752.	7.8	39
3010	Perovskite-Based Tandem Solar Cells: Get the Most Out of the Sun. <i>Advanced Functional Materials</i> , 2020, 30, 2001904.	7.8	78
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3019	An air-stable two-dimensional perovskite artificial synapse. <i>Semiconductor Science and Technology</i> , 2020, 35, 104001.	1.0	6
3020	Low-Dimensional Hybrid Perovskites for Field-Effect Transistors with Improved Stability: Progress and Challenges. <i>Advanced Electronic Materials</i> , 2020, 6, 2000137.	2.6	45
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4493	Encapsulation of commercial and emerging solar cells with focus on perovskite solar cells. <i>Solar Energy</i> , 2022, 237, 264-283.	2.9	35
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4631	Solution-processed perovskite crystals for electronics: Moving forward. <i>Matter</i> , 2022, 5, 1700-1733.	5.0	3
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