Ajay Kumar Baranwal

List of Publications by Year
in descending order

38	1,035	430874 18	414414 32
papers	citations	h-index	g-index

40	40	40	1476
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Tinâ€“Lead Perovskite Solar Cells Fabricated on Hole Selective Monolayers. ACS Energy Letters, 2022, 7, 966-974.	17.4	111
2	Tinâ€Lead Perovskite Fabricated via Ethylenediamine Interlayer Guides to the Solar Cell Efficiency of 21.74%. Advanced Energy Materials, 2021, 11, 2101069.	19.5	110
3	100â€‰Â°C Thermal Stability of Printable Perovskite Solar Cells Using Porous Carbon Counter Electrodes. ChemSusChem, 2016, 9, 2604-2608.	6.8	103
4	Lead-free perovskite solar cells using Sb and Bi-based A3B2X9 and A3BX6 crystals with normal and inverse cell structures. Nano Convergence, 2017, 4, 26.	12.1	67
5	Analysis of Sputtering Damage on Iâ€“V Curves for Perovskite Solar Cells and Simulation with Reversed Diode Model. Journal of Physical Chemistry C, 2016, 120, 28441-28447.	3.1	61
6	Xanthate-induced sulfur doped all-inorganic perovskite with superior phase stability and enhanced performance. Nano Energy, 2019, 59, 258-267.	16.0	61
7	Delocalized molecule surface electronic modification for enhanced performance and high environmental stability of CsPbI2Br perovskite solar cells. Nano Energy, 2019, 66, 104180.	16.0	40
8	Enhancement of the hole conducting effect of NiO by a N₂blow drying method in printable perovskite solar cells with low-temperature carbon as the counter electrode. Nanoscale, 2017, 9, 5475-5482.	5.6	33
9	High performance wide bandgap Lead-free perovskite solar cells by monolayer engineering. Chemical Engineering Journal, 2022, 436, 135196.	12.7	33
10	Dependence of ITOâ€Coated Flexible Substrates in the Performance and Bending Durability of Perovskite Solar Cells. Advanced Engineering Materials, 2019, 21, 1900288.	3.5	32
11	Thermal Degradation Analysis of Sealed Perovskite Solar Cell with Porous Carbon Electrode at 100â€‰Â°C for 7000â€…h. Energy Technology, 2019, 7, 245-252.	3.8	29
12	Fabrication of fully non-vacuum processed perovskite solar cells using an inorganic CuSCN hole-transporting material and carbon-back contact. Sustainable Energy and Fuels, 2018, 2, 2778-2787.	4.9	27
13	Growth of halide perovskites thin films for thermoelectric applications. MRS Advances, 2019, 4, 1719-1725.	0.9	27
14	Interface engineering using Y2O3 scaffold to enhance the thermoelectric performance of CsSnI3 thin film. Organic Electronics, 2020, 76, 105488.	2.6	27
15	Structured crystallization for efficient all-inorganic perovskite solar cells with high phase stability. Journal of Materials Chemistry A, 2019, 7, 20390-20397.	10.3	25
16	Tandem dye-sensitized solar cells with a back-contact bottom electrode without a transparent conductive oxide layer. RSC Advances, 2014, 4, 47735-47742.	3.6	24
17	Inverted CsPbI2Br perovskite solar cells with enhanced efficiency and stability in ambient atmosphere via formamidinium incorporation. Solar Energy Materials and Solar Cells, 2020, 218, 110741.	6.2	21
18	High-Efficiency Lead-Free Wide Band Gap Perovskite Solar Cells via Guanidinium Bromide Incorporation. ACS Applied Energy Materials, 2021, 4, 5615-5624.	5.1	19

#	Article	IF	Citations
19	Enhanced efficiency and stability in Sn-based perovskite solar cells by trimethylsilyl halide surface passivation. Journal of Energy Chemistry, 2022, 71, 604-611.	12.9	19
20	All-inorganic inverse perovskite solar cells using zinc oxide nanocolloids on spin coated perovskite layer. Nano Convergence, 2017, 4, 18.	12.1	17
21	Effect of Precursor Solution Aging on the Thermoelectric Performance of CsSnI3 Thin Film. Journal of Electronic Materials, 2020, 49, 2698-2703.	2.2	15
22	Large Grain Growth and Energy Alignment Optimization by Diethylammonium Iodide Substitution at A Site in Leadâ€Free Tin Halide Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100633.	5.8	14
23	Hybrid-Halide Perovskite Thin Film Growth for Thermoelectric Applications. Journal of Electronic Materials, 2020, 49, 2890-2894.	2.2	13
24	Large synergy effects of doping, a site substitution, and surface passivation in wide bandgap Pb-free ASnI2Br perovskite solar cells on efficiency and stability enhancement. Journal of Power Sources, 2022, 520, 230848.	7.8	13
25	Enhancing the Electronic Properties and Stability of High-Efficiency Tinâ€“Lead Mixed Halide Perovskite Solar Cells via Doping Engineering. Journal of Physical Chemistry Letters, 2022, 13, 3130-3137.	4.6	12
26	Mechanisms of charge accumulation in the dark operation of perovskite solar cells. Physical Chemistry Chemical Physics, 2016, 18, 14970-14975.	2.8	11
27	Effect of Electrochemically Deposited MgO Coating on Printable Perovskite Solar Cell Performance. Coatings, 2017, 7, 36.	2.6	11
28	Relationship between Carrier Density and Precursor Solution Stirring for Lead-Free Tin Halide Perovskite Solar Cells Performance. ACS Applied Energy Materials, 2022, 5, 4002-4007.	5.1	10
29	Enhancing the performance of transparent conductive oxide-less back contact dye-sensitized solar cells by facile diffusion of cobalt species through TiO₂ nanopores. RSC Advances, 2016, 6, 33353-33360.	3.6	9
30	Combining novel device architecture and NIR dye towards the fabrication of transparent conductive oxide-less tandem dye sensitized solar cells. Applied Physics Express, 2015, 8, 102301.	2.4	8
31	Transparent Conductive Oxide-Less Dye-Sensitized Solar Cells Consisting of Dye-Cocktail and Cobalt Based Redox Electrolyte. Journal of Nanoscience and Nanotechnology, 2017, 17, 4748-4754.	0.9	7
32	Parametric optimization of back-contact T-C-O-free dye-sensitized solar cells employing indoline and porphyrin sensitizer based on cobalt redox electrolyte. Solar Energy, 2020, 208, 411-418.	6.1	7
33	Unileg Thermoelectric Module Comprised by Coated Halide-Perovskite Thin Film. Journal of Heat Transfer, 2020, 142, .	2.1	5
34	Tandem Dye-Sensitized Solar Cells Based on TCO-less Back Contact Bottom Electrodes. Journal of Physics: Conference Series, 2016, 704, 012003.	0.4	4
35	Boosting the Efficiency of Low-Cost T-C-O-Less Dye-Sensitized Solar Cells Employing Nanoparticle Spacers and Cobalt Complex Redox Shuttle. ACS Applied Electronic Materials, 2020, 2, 2721-2729.	4.3	4
36	Transparent conductive oxide-less back contact dye-sensitized solar cells using flat titanium sheet with microholes for photoanode fabrication. Journal of Photonics for Energy, 2017, 7, 015501.	1.3	2

#	Article	IF	Citations
37	Use of anti-solvent to enhance thermoelectric response of hybrid halide perovskite thin films. Japanese Journal of Applied Physics, 2022, 61, SE1019.	1.5	2
38	Effect of electrolyte for back contact transparent conducting oxide-less dye-sensitized solar cells: iodine versus cobalt. Journal of Photonics for Energy, 2020, 10, .	1.3	0