Kevin A Bush

List of Publications by Year
in descending order

29 papers	6,506 citations	236833 25 h-index	580701 25 g-index
29 all docs	29 docs citations	29 times ranked	7110 citing authors

#	Article	IF	Citations
1	23.6%-efficient monolithic perovskite/silicon tandem solar cells with improved stability. Nature Energy, 2017, 2, .	19.8	1,204
2	Perovskite-perovskite tandem photovoltaics with optimized band gaps. Science, 2016, 354, 861-865.	6.0	1,107
3	Opportunities and challenges for tandem solar cells using metal halide perovskite semiconductors. Nature Energy, 2018, 3, 828-838.	19.8	716
4	Thermal and Environmental Stability of Semiâ€Transparent Perovskite Solar Cells for Tandems Enabled by a Solutionâ€Processed Nanoparticle Buffer Layer and Sputtered ITO Electrode. Advanced Materials, 2016, 28, 3937-3943.	11.1	419
5	Compositional Engineering for Efficient Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation. ACS Energy Letters, 2018, 3, 428-435.	8.8	344
6	Towards enabling stable lead halide perovskite solar cells; interplay between structural, environmental, and thermal stability. Journal of Materials Chemistry A, 2017, 5, 11483-11500.	5.2	319
7	Design and understanding of encapsulated perovskite solar cells to withstand temperature cycling. Energy and Environmental Science, 2018, 11, 144-150.	15.6	314
8	Engineering Stress in Perovskite Solar Cells to Improve Stability. Advanced Energy Materials, 2018, 8, 1802139.	10.2	271
9	Encapsulating perovskite solar cells to withstand damp heat and thermal cycling. Sustainable Energy and Fuels, 2018, 2, 2398-2406.	2.5	231
10	Minimizing Current and Voltage Losses to Reach 25% Efficient Monolithic Two-Terminal Perovskiteâ€“Silicon Tandem Solar Cells. ACS Energy Letters, 2018, 3, 2173-2180.	8.8	194
11	Impact of Surfaces on Photoinduced Halide Segregation in Mixed-Halide Perovskites. ACS Energy Letters, 2018, 3, 2694-2700.	8.8	184
12	Barrier Design to Prevent Metal-Induced Degradation and Improve Thermal Stability in Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 1772-1778.	8.8	182
13	Tinâ€“lead halide perovskites with improved thermal and air stability for efficient all-perovskite tandem solar cells. Sustainable Energy and Fuels, 2018, 2, 2450-2459.	2.5	167
14	Controlling Thin-Film Stress and Wrinkling during Perovskite Film Formation. ACS Energy Letters, 2018, 3, 1225-1232.	8.8	148
15	Structural Origins of Light-Induced Phase Segregation in Organic-Inorganic Halide Perovskite Photovoltaic Materials. Matter, 2020, 2, 207-219.	5.0	128
16	Optical modeling of wide-bandgap perovskite and perovskite/silicon tandem solar cells using complex refractive indices for arbitrary-bandgap perovskite absorbers. Optics Express, 2018, 26, 27441.	1.7	102
17	Improved light management in planar silicon and perovskite solar cells using PDMS scattering layer. Solar Energy Materials and Solar Cells, 2017, 173, 59-65.	3.0	82
18	Atomic layer deposition of vanadium oxide to reduce parasitic absorption and improve stability in nâ€“iâ€“p perovskite solar cells for tandems. Sustainable Energy and Fuels, 2019, 3, 1517-1525.	2.5	76

#	Article	IF	Citations
19	Interfacial Effects of Tin Oxide Atomic Layer Deposition in Metal Halide Perovskite Photovoltaics. Advanced Energy Materials, 2018, 8, 1800591.	10.2	62
20	Series Resistance Measurements of Perovskite Solar Cells Using J_{sc}â€“V_{oc} Measurements. Solar Rrl, 2019, 3, 1800378.	3.1	61
21	In Situ Measurement of Electric-Field Screening in Hysteresis-Free PTAA/FA_{0.83}Cs_{0.17}Pb(I_{0.83}Br_{0.17})₃/C60 Perovskite Solar Cells Gives an Ion Mobility of â^¼3 Ã— 10^{â€“7} cm²/(V s), 2 Orders of Magnitude Faster than Reported for Metal-Oxide-Contacted Perovskite Cells with Hysteresis. Journal of the American Chemical Society, 2018, 140, 12775-12784.	6.6	47
22	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased J_{SC} and V_{OC}. ACS Applied Materials & Interfaces, 2016, 8, 25896-25904.	4.0	45
23	Synthesis and use of a hyper-connecting cross-linking agent in the hole-transporting layer of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 19267-19279.	5.2	38
24	Incorporating Electrochemical Halide Oxidation into Driftâ€Diffusion Models to Explain Performance Losses in Perovskite Solar Cells under Prolonged Reverse Bias. Advanced Energy Materials, 2021, 11, 2002614.	10.2	34
25	Developing a Robust Recombination Contact to Realize Monolithic Perovskite Tandems With Industrially Common p-Type Silicon Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 1023-1028.	1.5	27
26	Current-matching in two-terminal perovskite/silicon tandems employing wide-bandgap perovskites and varying light-management schemes. , 2018, , .		4
27	Cross-linkable styrene-functionalized fullerenes as electron-selective contacts for robust and efficient perovskite solar cells. , 2016, , .		0
28	Highly Efficient and Stable Perovskite-Silicon Tandem Solar Cells. , 2019, , .		0
29	Designing Contact Layers and Surface Treatments to Overcome Performance Challenges for Perovskite Tandems. , 0, , .		0