Kevin A Bush

List of Publications by Year
in descending order

29 papers	6,506 citations	236925 25 h-index	580821 25 g-index
29 all docs	29 docs citations	29 times ranked	7110 citing authors

#	Article	IF	Citations
1	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.	19.5	34
2	Structural Origins of Light-Induced Phase Segregation in Organic-Inorganic Halide Perovskite Photovoltaic Materials. Matter, 2020, 2, 207-219.	10.0	128
3	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.	4.9	76
4	Series Resistance Measurements of Perovskite Solar Cells Using <i>J_{sc}</i>â€“<i>V_{oc}</i> Measurements. Solar Rrl, 2019, 3, 1800378.	5.8	61
5	Highly Efficient and Stable Perovskite-Silicon Tandem Solar Cells. , 2019, , .		0
6	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.	2.5	27
7	Compositional Engineering for Efficient Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation. ACS Energy Letters, 2018, 3, 428-435.	17.4	344
8	Controlling Thin-Film Stress and Wrinkling during Perovskite Film Formation. ACS Energy Letters, 2018, 3, 1225-1232.	17.4	148
9	Design and understanding of encapsulated perovskite solar cells to withstand temperature cycling. Energy and Environmental Science, 2018, 11, 144-150.	30.8	314
10	Current-matching in two-terminal perovskite/silicon tandems employing wide-bandgap perovskites and varying light-management schemes. , 2018, , .		4
11	Impact of Surfaces on Photoinduced Halide Segregation in Mixed-Halide Perovskites. ACS Energy Letters, 2018, 3, 2694-2700.	17.4	184
12	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 âˆ¼3 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.	13.7	47
13	Engineering Stress in Perovskite Solar Cells to Improve Stability. Advanced Energy Materials, 2018, 8, 1802139.	19.5	271
14	Barrier Design to Prevent Metal-Induced Degradation and Improve Thermal Stability in Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 1772-1778.	17.4	182
15	Interfacial Effects of Tin Oxide Atomic Layer Deposition in Metal Halide Perovskite Photovoltaics. Advanced Energy Materials, 2018, 8, 1800591.	19.5	62
16	Encapsulating perovskite solar cells to withstand damp heat and thermal cycling. Sustainable Energy and Fuels, 2018, 2, 2398-2406.	4.9	231
17	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.	4.9	167
18	Opportunities and challenges for tandem solar cells using metal halide perovskite semiconductors. Nature Energy, 2018, 3, 828-838.	39.5	716

#	Article	IF	Citations
19	Minimizing Current and Voltage Losses to Reach 25% Efficient Monolithic Two-Terminal Perovskiteâ€“Silicon Tandem Solar Cells. ACS Energy Letters, 2018, 3, 2173-2180.	17.4	194
20	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.	3.4	102
21	23.6%-efficient monolithic perovskite/silicon tandem solar cells with improved stability. Nature Energy, 2017, 2, .	39.5	1,204
22	Towards enabling stable lead halide perovskite solar cells; interplay between structural, environmental, and thermal stability. Journal of Materials Chemistry A, 2017, 5, 11483-11500.	10.3	319
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.	10.3	38
24	Improved light management in planar silicon and perovskite solar cells using PDMS scattering layer. Solar Energy Materials and Solar Cells, 2017, 173, 59-65.	6.2	82
25	Cross-linkable styrene-functionalized fullerenes as electron-selective contacts for robust and efficient perovskite solar cells. , 2016, , .		0
26	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased <i>J</i>_{SC} and <i>V</i>_{OC}. ACS Applied Materials & Interfaces, 2016, 8, 25896-25904.	8.0	45
27	Perovskite-perovskite tandem photovoltaics with optimized band gaps. Science, 2016, 354, 861-865.	12.6	1,107
28	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.	21.0	419
29	Designing Contact Layers and Surface Treatments to Overcome Performance Challenges for Perovskite Tandems. , 0, , .		0