

Lukas Kegelmann

List of Publications by Year in descending order

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Version: 2024-02-01

16
papers

3,291
citations

623734

14
h-index

940533

16
g-index

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16
docs citations

16
times ranked

4136
citing authors

#	ARTICLE	IF	CITATIONS
1	Monolithic perovskite/silicon tandem solar cell with >29% efficiency by enhanced hole extraction. <i>Science</i> , 2020, 370, 1300-1309.	12.6	1,120
2	The impact of energy alignment and interfacial recombination on the internal and external open-circuit voltage of perovskite solar cells. <i>Energy and Environmental Science</i> , 2019, 12, 2778-2788.	30.8	570
3	Monolithic perovskite/silicon-heterojunction tandem solar cells processed at low temperature. <i>Energy and Environmental Science</i> , 2016, 9, 81-88.	30.8	536
4	Monolithic Perovskite Tandem Solar Cells: A Review of the Present Status and Advanced Characterization Methods Toward 30% Efficiency. <i>Advanced Energy Materials</i> , 2020, 10, 1904102.	19.5	321
5	Highly efficient monolithic perovskite silicon tandem solar cells: analyzing the influence of current mismatch on device performance. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1995-2005.	4.9	208
6	It Takes Two to Tango—Double-Layer Selective Contacts in Perovskite Solar Cells for Improved Device Performance and Reduced Hysteresis. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 17245-17255.	8.0	107
7	Efficient Light Management by Textured Nanoimprinted Layers for Perovskite Solar Cells. <i>ACS Photonics</i> , 2017, 4, 1232-1239.	6.6	103
8	Bi-functional interfaces by poly(ionic liquid) treatment in efficient pin and nip perovskite solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 4508-4522.	30.8	76
9	Compositional and Interfacial Engineering Yield High-Performance and Stable p-i-n Perovskite Solar Cells and Mini-Modules. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 13022-13033.	8.0	69
10	Three-Terminal Perovskite/Silicon Tandem Solar Cells with Top and Interdigitated Rear Contacts. <i>ACS Applied Energy Materials</i> , 2020, 3, 1381-1392.	5.1	63
11	Room-Temperature Atomic-Layer-Deposited Al ₂ O ₃ Improves the Efficiency of Perovskite Solar Cells over Time. <i>ChemSusChem</i> , 2018, 11, 3640-3648.	6.8	33
12	Mixtures of Dopant-Free Spiro-OMeTAD and Water-Free PEDOT as a Passivating Hole Contact in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 9172-9181.	8.0	28
13	Improved Quantum Efficiency by Advanced Light Management in Nanotextured Solution-Processed Perovskite Solar Cells. <i>ACS Photonics</i> , 2020, 7, 2589-2600.	6.6	27
14	In situ Near-Ambient Pressure X-ray Photoelectron Spectroscopy Reveals the Influence of Photon Flux and Water on the Stability of Halide Perovskite. <i>ChemSusChem</i> , 2020, 13, 5722-5730.	6.8	15
15	Al ₂ O ₃ Atomic Layer Deposited Films on CH ₃ NH ₃ PbI ₃ : Intrinsic Defects and Passivation Mechanisms. <i>Energy Technology</i> , 2019, 7, 1900975.	3.8	8
16	Point Defect-Mediated Interface Formation and Appearance of a Cooper Minimum for AlO _x Atomic-Layer-Deposited Films on CH ₃ NH ₃ PbI ₃ . <i>Journal of Physical Chemistry C</i> , 2019, 123, 23352-23360.	3.1	7