

Laurie J Phillips

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

1,829
citations

257450

24
h-index

395702

33
g-index

38
all docs

38
docs citations

38
times ranked

2522
citing authors

#	ARTICLE	IF	CITATIONS
1	A low-cost non-toxic post-growth activation step for CdTe solar cells. <i>Nature</i> , 2014, 511, 334-337.	27.8	247
2	Benchmark performance of low-cost Sb ₂ Se ₃ photocathodes for unassisted solar overall water splitting. <i>Nature Communications</i> , 2020, 11, 861.	12.8	135
3	Stability and Performance of CsPbI ₂ Br Thin Films and Solar Cell Devices. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 3750-3760.	8.0	123
4	Growth, disorder, and physical properties of ZnSnN ₂ . <i>Applied Physics Letters</i> , 2013, 103, .	3.3	111
5	6.6% efficient antimony selenide solar cells using grain structure control and an organic contact layer. <i>Solar Energy Materials and Solar Cells</i> , 2018, 188, 177-181.	6.2	101
6	Improved electrical mobility in highly epitaxial La:BaSnO ₃ films on SmScO ₃ (110) substrates. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	87
7	Isotype Heterojunction Solar Cells Using n-Type Sb ₂ Se ₃ Thin Films. <i>Chemistry of Materials</i> , 2020, 32, 2621-2630.	6.7	83
8	In-depth analysis of chloride treatments for thin-film CdTe solar cells. <i>Nature Communications</i> , 2016, 7, 13231.	12.8	74
9	Dispersion relation data for methylammonium lead triiodide perovskite deposited on a (100) silicon wafer using a two-step vapour-phase reaction process. <i>Data in Brief</i> , 2015, 5, 926-928.	1.0	72
10	Band gap temperature-dependence of close-space sublimation grown Sb ₂ Se ₃ by photo-reflectance. <i>APL Materials</i> , 2018, 6, 084901.	5.1	70
11	Maximizing the optical performance of planar CH ₃ NH ₃ PbI ₃ hybrid perovskite heterojunction stacks. <i>Solar Energy Materials and Solar Cells</i> , 2016, 147, 327-333.	6.2	67
12	Current Enhancement via a TiO ₂ Window Layer for CSS Sb ₂ Se ₃ Solar Cells: Performance Limits and High V_{oc} . <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 544-551.	2.5	65
13	Evidence for Self-healing Benign Grain Boundaries and a Highly Defective Sb ₂ Se ₃ –CdS Interfacial Layer in Sb ₂ Se ₃ Thin-Film Photovoltaics. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 21730-21738.	8.0	57
14	Identification of lead vacancy defects in lead halide perovskites. <i>Nature Communications</i> , 2021, 12, 5566.	12.8	51
15	Solar water splitting exceeding 10% efficiency via low-cost Sb ₂ Se ₃ photocathodes coupled with semitransparent perovskite photovoltaics. <i>Energy and Environmental Science</i> , 2020, 13, 4362-4370.	30.8	47
16	Vacancy-Ordered Double Perovskite Cs ₂ Tel ₆ Thin Films for Optoelectronics. <i>Chemistry of Materials</i> , 2020, 32, 6676-6684.	6.7	41
17	Natural Band Alignments and Band Offsets of Sb ₂ Se ₃ Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 11617-11626.	5.1	40
18	Molecular Bridging of Silicon Nanogaps. <i>ACS Nano</i> , 2010, 4, 7401-7406.	14.6	37

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19	Self-Assembly of Amino Thiols via Gold-Nitrogen Links and Consequence for in situ Elongation of Molecular Wires on Surface-Modified Electrodes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 4200-4208.	3.1	33
20	Progression of metalorganic chemical vapour-deposited CdTe thin film PV devices towards modules. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 283-291.	8.1	31
21	Surface restoration of polycrystalline Sb ₂ Se ₃ thin films by conjugated molecules enabling high-performance photocathodes for photoelectrochemical water splitting. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119890.	20.2	31
22	How Oxygen Exposure Improves the Back Contact and Performance of Antimony Selenide Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 52595-52602.	8.0	29
23	Defect properties of Sb ₂ Se ₃ thin film solar cells and bulk crystals. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	29
24	In Situ Stepwise Synthesis of Functional Multijunction Molecular Wires on Gold Electrodes and Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 3508-3512.	13.8	27
25	Functional molecular wires. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 1859.	2.8	23
26	Alternative to the CdCl ₂ Treatment Step for CdTe Thin-Film Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 386-389.	2.5	21
27	Chemical etching of Sb ₂ Se ₃ solar cells: surface chemistry and back contact behaviour. <i>JPhys Energy</i> , 2019, 1, 045001.	5.3	17
28	Synthesis of Covalently Linked Molecular Bridges between Silicon Electrodes in CMOS-Based Arrays of Vertical Si/SiO ₂ /Si Nanogaps. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 8722-8726.	13.8	15
29	Band alignment of Sb ₂ O ₃ and Sb ₂ Se ₃ . <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	15
30	Modification of electron states in CdTe absorber due to a buffer layer in CdTe/CdS solar cells. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	10
31	CSS Antimony Selenide Film Morphology and High Efficiency PV Devices. , 2018, , .		10
32	Non-parabolicity and band gap re-normalisation in Si doped ZnO. <i>Journal of Applied Physics</i> , 2014, 115, 063505.	2.5	8
33	Schottky Diodes on ZnO Thin Films Grown by Plasma-Enhanced Atomic Layer Deposition. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 1225-1230.	3.0	8
34	GeSe photovoltaics: doping, interfacial layer and devices. <i>Faraday Discussions</i> , 0, 239, 250-262.	3.2	6
35	Close-Spaced Sublimation for Sb ₂ Se ₃ Solar Cells. , 2017, , .		5
36	A combinatorial approach to the optimisation of CdIn ₂ S ₄ /ZnIn ₂ S ₄ /S layers for CdTe solar cells. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
37	A comparison of organic back contact materials for CdTe solar cells. , 2018, , .		1