

Prakash Koirala

List of Publications by Year in descending order

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papers

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759233

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#	ARTICLE	IF	CITATIONS
1	Oxygenated CdS Buffer Layers Enabling High Open-Circuit Voltages in Earth-Abundant Cu ₂ BaSnS ₄ Thin-Film Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1601803.	19.5	102
2	Adsorption-controlled growth of BiVO ₄ by molecular-beam epitaxy. <i>APL Materials</i> , 2013, 1, .	5.1	65
3	Employing Overlayers To Improve the Performance of Cu ₂ BaSnS ₄ Thin Film based Photoelectrochemical Water Reduction Devices. <i>Chemistry of Materials</i> , 2017, 29, 916-920.	6.7	61
4	Through-the-glass spectroscopic ellipsometry for analysis of CdTe thin-film solar cells in the superstrate configuration. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 1055-1067.	8.1	54
5	Direct Observation of CdCl ₂ Treatment Induced Grain Boundary Carrier Depletion in CdTe Solar Cells Using Scanning Probe Microwave Reflectivity Based Capacitance Measurements. <i>Journal of Physical Chemistry C</i> , 2016, 120, 7020-7024.	3.1	45
6	Parameterized complex dielectric functions of CuIn _{1-x} Ga _x Se ₂ : applications in optical characterization of compositional non-uniformities and depth profiles in materials and solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 1200-1213.	8.1	34
7	Irradiance and temperature considerations in the design and deployment of high annual energy yield perovskite/CIGS tandems. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1841-1851.	4.9	30
8	Real time spectroscopic ellipsometry for analysis and control of thin film polycrystalline semiconductor deposition in photovoltaics. <i>Thin Solid Films</i> , 2014, 571, 442-446.	1.8	23
9	Direct observation of electrical properties of grain boundaries in sputter-deposited CdTe using scan-probe microwave reflectivity based capacitance measurements. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	19
10	Spectroscopic ellipsometry for analysis of polycrystalline thin-film photovoltaic devices and prediction of external quantum efficiency. <i>Applied Surface Science</i> , 2017, 421, 601-607.	6.1	19
11	Optical design of perovskite solar cells for applications in monolithic tandem configuration with CuInSe ₂ bottom cells. <i>MRS Advances</i> , 2018, 3, 3111-3119.	0.9	13
12	Optical Hall Effect of PV Device Materials. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1793-1799.	2.5	12
13	Reduced Recombination and Improved Performance of CdSe/CdTe Solar Cells due to Cu Migration Induced by Light Soaking. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 19644-19651.	8.0	12
14	Spectroscopic Ellipsometry Applied in the Full p-i-n a-Si:H Solar Cell Device Configuration. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 307-312.	2.5	11
15	Impact of lifetime on the levelized cost of electricity from perovskite single junction and tandem solar cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 2718-2726.	4.9	11
16	Optical simulation of external quantum efficiency spectra of CuIn _{1-x} Ga _x Se ₂ solar cells from spectroscopic ellipsometry inputs. <i>Journal of Energy Chemistry</i> , 2018, 27, 1151-1169.	12.9	10
17	Electron beam induced current in the high injection regime. <i>Nanotechnology</i> , 2015, 26, 295401.	2.6	7
18	Low temperature photoluminescence spectroscopy studies on sputter deposited CdS/CdTe junctions and solar cells. <i>Journal of Materials Research</i> , 2016, 31, 186-194.	2.6	6

#	ARTICLE	IF	CITATIONS
19	Glancing angle deposited CdTe: Nanostructured films and impact on solar cell performance. Surface and Coatings Technology, 2020, 381, 125127.	4.8	6
20	Identification of Defect Levels in Copper Indium Diselenide (CuInSe ₂) Thin Films via Photoluminescence Studies. MRS Advances, 2018, 3, 3135-3141.	0.9	5
21	Enhancing the efficiency of CdTe solar cells using a nanocrystalline iron pyrite film as an interface layer. , 2015, , .		4
22	Real Time Spectroscopic Ellipsometry Analysis of First Stage CuIn _{1-x} Ga _x Se ₂ Growth: Indium-Gallium Selenide Co-Evaporation. Materials, 2018, 11, 145.	2.9	3
23	The impact of processing on the optical absorption onset of CdTe thin-films and solar cells. Journal of Applied Physics, 2021, 129, .	2.5	3
24	Optical Properties of Magnesium-Zinc Oxide for Thin Film Photovoltaics. Materials, 2021, 14, 5649.	2.9	3
25	Transition metal nitride contacts for CdTe photovoltaics. , 2014, , .		2
26	Nitrogen doped chalcopyrites as contacts to CdTe photovoltaics. , 2013, , .		1
27	Models for low energy electron beam induced current experiments in polycrystalline thin film photovoltaics. , 2015, , .		1
28	A Versatile Optical Model Applied to CdTe and CdSe _{1-x} Te _x Alloys: Sensitivity to Film Composition and Relative Defect Density. , 2018, , .		1
29	Real Time and Mapping Spectroscopic Ellipsometry for CdTe Photovoltaics. Springer Series in Optical Sciences, 2018, , 357-413.	0.7	1
30	Optical Simulation of External Quantum Efficiency Spectra. Springer Series in Optical Sciences, 2018, , 83-138.	0.7	1
31	Glancing Angle Deposited CdTe: Optical Properties and Structure. , 2018, , .		1
32	Multichannel spectroscopic ellipsometry for CdTe Photovoltaics: From real-time monitoring to large-scale mapping. , 2013, , .		0
33	Nitrogen doped chalcopyrites as contacts to CdTe photovoltaics. , 2014, , .		0
34	Effect of molybdenum deposition temperature on the performance of CuIn _{1-x} Ga _x Se ₂ Solar Cells. , 2015, , .		0
35	Through-the-glass spectroscopic ellipsometry for simultaneous mapping of coating properties and stress in the glass. , 2015, , .		0
36	Measuring relative carrier concentrations at the nanoscale using scanning microwave impedance microscopy: The case of CdTe solar cells. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
37	Application of Mapping Spectroscopic Ellipsometry for CdSe/CdTe Solar Cells: Optimization of Low-Temperature Processed Devices with All-Sputtered Semiconductors. , 2017, , .		0