Moises Espindola-Rodriguez

List of Publications by Year
in descending order

43 papers	1,875 citations	257101 24 h-index	360668 35 g-index
43 all docs	43 docs citations	43 times ranked	1739 citing authors

#	Article	IF	Citations
1	On the formation mechanisms of Zn-rich Cu2ZnSnS4 films prepared by sulfurization of metallic stacks. Solar Energy Materials and Solar Cells, 2013, 112, 97-105.	3.0	200
2	Inhibiting the absorber/Mo-back contact decomposition reaction in Cu2ZnSnSe4 solar cells: the role of a ZnO intermediate nanolayer. Journal of Materials Chemistry A, 2013, 1, 8338.	5.2	151
3	Impact of Sn(S,Se) Secondary Phases in Cu₂ZnSn(S,Se)₄ Solar Cells: a Chemical Route for Their Selective Removal and Absorber Surface Passivation. ACS Applied Materials & Interfaces, 2014, 6, 12744-12751.	4.0	132
4	ZnSe Etching of Znâ€Rich Cu₂ZnSnSe₄: An Oxidation Route for Improved Solarâ€Cell Efficiency. Chemistry - A European Journal, 2013, 19, 14814-14822.	1.7	118
5	Secondary phases dependence on composition ratio in sprayed Cu2ZnSnS4 thin films and its impact on the high power conversion efficiency. Solar Energy Materials and Solar Cells, 2013, 117, 246-250.	3.0	116
6	Complex Surface Chemistry of Kesterites: Cu/Zn Reordering after Low Temperature Postdeposition Annealing and Its Role in High Performance Devices. Chemistry of Materials, 2015, 27, 5279-5287.	3.2	99
7	Secondary phase formation in Znâ€rich Cu₂ZnSnSe₄â€based solar cells annealed in low pressure and temperature conditions. Progress in Photovoltaics: Research and Applications, 2014, 22, 479-487.	4.4	97
8	Multiwavelength excitation Raman scattering analysis of bulk and two-dimensional MoS ₂ : vibrational properties of atomically thin MoS ₂ layers. 2D Materials, 2015, 2, 035006.	2.0	97
9	Alkali doping strategies for flexible and light-weight Cu₂ZnSnSe₄ solar cells. Journal of Materials Chemistry A, 2016, 4, 1895-1907.	5.2	88
10	The importance of back contact modification in Cu2ZnSnSe4 solar cells: The role of a thin MoO2 layer. Nano Energy, 2016, 26, 708-721.	8.2	77
11	Compositional optimization of photovoltaic grade Cu2ZnSnS4 films grown by pneumatic spray pyrolysis. Thin Solid Films, 2013, 535, 67-72.	0.8	66
12	Electrical properties of sprayed Cu2ZnSnS4 thin films and its relation with secondary phase formation and solar cell performance. Solar Energy Materials and Solar Cells, 2015, 132, 557-562.	3.0	61
13	Singleâ€Step Sulfoâ€Selenization Method to Synthesize Cu₂ZnSn(S_{<i>y</i>}Se_{1âˆ’<i>y</i>})₄ Absorbers from Metallic Stack Precursors. ChemPhysChem, 2013, 14, 1836-1843.	1.0	54
14	Revealing the beneficial effects of Ge doping on Cu₂ZnSnSe₄ thin film solar cells. Journal of Materials Chemistry A, 2018, 6, 11759-11772.	5.2	46
15	Bifacial Kesterite Solar Cells on FTO Substrates. ACS Sustainable Chemistry and Engineering, 2017, 5, 11516-11524.	3.2	45
16	Towards high performance Cd-free CZTSe solar cells with a ZnS(O,OH) buffer layer: the influence of thiourea concentration on chemical bath deposition. Journal Physics D: Applied Physics, 2016, 49, 125602.	1.3	39
17	Route towards low cost-high efficiency second generation solar cells: current status and perspectives. Journal of Materials Science: Materials in Electronics, 2015, 26, 5562-5573.	1.1	38
18	Persistent Double-Layer Formation in Kesterite Solar Cells: A Critical Review. ACS Applied Materials & Interfaces, 2020, 12, 39405-39424.	4.0	35

#	ARTICLE	IF	CITATIONS
19	Monolithic thin-film chalcogenideâ€“silicon tandem solar cells enabled by a diffusion barrier. Solar Energy Materials and Solar Cells, 2020, 207, 110334.	3.0	34
20	Earth-abundant absorber based solar cells onto low weight stainless steel substrate. Solar Energy Materials and Solar Cells, 2014, 130, 347-353.	3.0	33
21	Toward a high Cu2ZnSnS4 solar cell efficiency processed by spray pyrolysis method. Journal of Renewable and Sustainable Energy, 2013, 5, .	0.8	32
22	Transition-Metal Oxides for Kesterite Solar Cells Developed on Transparent Substrates. ACS Applied Materials & Interfaces, 2020, 12, 33656-33669.	4.0	29
23	Efficient Sb2Se3/CdS planar heterojunction solar cells in substrate configuration with (hk0) oriented Sb2Se3 thin films. Solar Energy Materials and Solar Cells, 2020, 215, 110603.	3.0	28
24	Trap and recombination centers study in sprayed Cu2ZnSnS4 thin films. Journal of Applied Physics, 2014, 116, 134503.	1.1	25
25	C<scp>ZTS</scp>e solar cells developed on polymer substrates: Effects of lowâ€temperature processing. Progress in Photovoltaics: Research and Applications, 2018, 26, 55-68.	4.4	23
26	Nitride-Based Interfacial Layers for Monolithic Tandem Integration of New Solar Energy Materials on Si: The Case of CZTS. ACS Applied Energy Materials, 2020, 3, 4600-4609.	2.5	19
27	Flexible ITO-Free Roll-Processed Large-Area Nonfullerene Organic Solar Cells Based on P3HT:O-IDTBR. Physical Review Applied, 2020, 14, .	1.5	17
28	Effect of rapid thermal annealing on the Mo back contact properties for Cu2ZnSnSe4 solar cells. Journal of Alloys and Compounds, 2016, 675, 158-162.	2.8	14
29	Selective detection of secondary phases in Cu<inf>2</inf>ZnSn(S, Se)<inf>4</inf> based absorbers by pre-resonant Raman spectroscopy. , 2013, , .		12
30	Selenization of Cu2ZnSnS4 thin films obtained by pneumatic spray pyrolysis. Journal of Analytical and Applied Pyrolysis, 2016, 120, 45-51.	2.6	11
31	Synthesis of CuIn(S,Se)2 quaternary alloys by screen printing and selenization-sulfurization sequential steps: Development of composition graded absorbers for low cost photovoltaic devices. Materials Chemistry and Physics, 2015, 160, 237-243.	2.0	9
32	High V<inf>OC</inf> Cu<inf>2</inf>ZnSnSe<inf>4</inf>/CdS:Cu based solar cell: Evidences of a metal-insulator-semiconductor (MIS) type hetero-junction. , 2014, , .		8
33	Cu₂ZnSnS₄absorber layers deposited by spray pyrolysis for advanced photovoltaic technology. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 126-134.	0.8	7
34	Enhanced Heteroâ€Junction Quality and Performance of Kesterite Solar Cells by Aluminum Hydroxide Nanolayers and Efficiency Limitation Revealed by Atomicâ€resolution Scanning Transmission Electron Microscopy. Solar Rrl, 2018, 3, 1800279.	3.1	6
35	Cu2ZnSnS4 from oxide precursors grown by pulsed laser deposition for monolithic CZTS/Si tandem solar cells. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	3
36	Preparation of 4.8% efficiency Cu<inf>2</inf>ZnSnSe<inf>4</inf> based solar cell by a two step process. , 2012, , .		2

#	Article	IF	Citations
37	Tailoring doping of efficient Sb2Se3 solar cells in substrate configuration by low temperature post deposition selenization process. , 2018, , .		2
38	Enabling Roll-Processed and Flexible Organic Solar Cells Based On PffBT4T Through Temperature-Controlled Slot-Die Coating. IEEE Journal of Photovoltaics, 2022, , 1-9.	1.5	1
39	Environmentally Friendly and Roll-Processed Flexible Organic Solar Cells Based on PM6:Y6. Frontiers in Nanotechnology, 2022, 4, .	2.4	1
40	Cu2ZnSnSe4 based solar cells prepared at high temperatures on Si/SiO2 sodium-free substrate. , 2015, , .		0
41	CdS bi-layers for optimized CdS/Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells. , 2016, , .		0
42	Transition Metal Oxides Nano-Layers as Efficient Back Electron Reflectors For Cu2ZnSnSe4 Solar Cells. , 2017, , .		0
43	CU2ZnSnSe4 Solar Cells onto Polyimide Substrates Fabricated at Low Temperature. , 2017, , .		0