Yudania SÃ¡nchez

List of Publications by Year
in descending order

93 papers	2,155 citations	236612 25 h-index	253896 43 g-index
94 all docs	94 docs citations	94 times ranked	1675 citing authors

#	ARTICLE	IF	CITATIONS
1	Properties of sputter-grown CuGaS2 absorber and CuGaS2/Cd1-xZnxS buffer heterointerface for solar cell application. Thin Solid Films, 2022, 743, 139063.	0.8	5
2	Does Sb₂Se₃ Admit Nonstoichiometric Conditions? How Modifying the Overall Se Content Affects the Structural, Optical, and Optoelectronic Properties of Sb₂Se₃ Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 11222-11234.	4.0	17
3	Effect of post annealing thermal heating on Cu2ZnSnS4 solar cells processed by sputtering technique. Solar Energy, 2022, 237, 196-202.	2.9	17
4	Defect depth-profiling in kesterite absorber by means of chemical etching and surface analysis. Applied Surface Science, 2021, 540, 148342.	3.1	6
5	Rear interface engineering of kesterite Cu₂ZnSnSe₄ solar cells by adding CuGaSe₂ thin layers. Progress in Photovoltaics: Research and Applications, 2021, 29, 334-343.	4.4	11
6	The effect of annealing temperature on Cu₂ZnGeSe₄ thin films and solar cells grown on transparent substrates. JPhys Materials, 2021, 4, 034009.	1.8	4
7	Bromine etching of kesterite thin films: perspectives in depth defect profiling and device performance improvement. , 2021, , .		1
8	Routes to develop a [S]/([S]+[Se]) gradient in wide band-gap Cu2ZnGe(S,Se)4 thin-film solar cells. Journal of Alloys and Compounds, 2021, 868, 159253.	2.8	10
9	Insights on the Thermal Stability of the Sb₂Se₃ Quasiâ€1D Photovoltaic Technology. Solar Rrl, 2021, 5, 2100517.	3.1	2
10	Insights on the limiting factors of Cu2ZnGeSe4 based solar cells. Solar Energy Materials and Solar Cells, 2021, 227, 111106.	3.0	6
11	Wide band gap Cu2ZnGe(S,Se)4 thin films and solar cells: Influence of Na content and incorporation method. Solar Energy, 2021, 226, 251-259.	2.9	5
12	High efficiency Cu₂ZnSnS₄ solar cells over FTO substrates and their CZTS/CdS interface passivation <i>via</i> thermal evaporation of Al₂O₃. Journal of Materials Chemistry C, 2021, 9, 5356-5361.	2.7	10
13	Rear Band gap Grading Strategies on Snâ€"Ge-Alloyed Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10362-10375.	2.5	29
14	Investigation on limiting factors affecting Cu2ZnGeSe4 efficiency: Effect of annealing conditions and surface treatment. Solar Energy Materials and Solar Cells, 2020, 216, 110701.	3.0	17
15	Partial substitution of the CdS buffer layer with interplay of fullerenes in kesterite solar cells. Journal of Materials Chemistry C, 2020, 8, 12533-12542.	2.7	13
16	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
17	CdS/ZnS Bilayer Thin Films Used As Buffer Layer in 10%-Efficient Cu₂ZnSnSe₄ Solar Cells. ACS Applied Energy Materials, 2020, 3, 6815-6823.	2.5	21
18	Effect of Na and the back contact on Cu2Zn(Sn,Ge)Se4 thin-film solar cells: Towards semi-transparent solar cells. Solar Energy, 2020, 206, 555-563.	2.9	11

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19	Uncovering details behind the formation mechanisms of Cu2ZnGeSe4 photovoltaic absorbers. Journal of Materials Chemistry C, 2020, 8, 4003-4011.	2.7	13
20	Influence of Zn excess on compositional, structural and vibrational properties of Cu2ZnSn0.5Ge0.5Se4 thin films and their effect on solar cell efficiency. Solar Energy, 2020, 199, 864-871.	2.9	12
21	Transition-Metal Oxides for Kesterite Solar Cells Developed on Transparent Substrates. ACS Applied Materials & Interfaces, 2020, 12, 33656-33669.	4.0	29
22	CZTS solar cells and the possibility of increasing VOC using evaporated Al2O3 at the CZTS/CdS interface. Solar Energy, 2020, 198, 696-703.	2.9	28
23	Sputtered ZnSnO Buffer Layers for Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 1883-1891.	2.5	23
24	Efficient Seâ€Rich Sb₂Se₃/CdS Planar Heterojunction Solar Cells by Sequential Processing: Control and Influence of Se Content. Solar Rrl, 2020, 4, 2000141.	3.1	23
25	Over 10% Efficient Wide Bandgap CIGSe Solar Cells on Transparent Substrate with Na Predeposition Treatment. Solar Rrl, 2020, 4, 2000284.	3.1	8
26	Influence of co-electrodeposition parameters in the synthesis of kesterite thin films for photovoltaic. Journal of Alloys and Compounds, 2020, 839, 155679.	2.8	10
27	Back and front contacts in kesterite solar cells: state-of-the-art and open questions. JPhys Energy, 2019, 1, 044005.	2.3	57
28	Is It Possible To Develop Complex Sâ€"Se Graded Band Gap Profiles in Kesterite-Based Solar Cells?. ACS Applied Materials & Interfaces, 2019, 11, 32945-32956.	4.0	42
29	Evaluation of AA-CVD deposited phase pure polymorphs of SnS for thin films solar cells. RSC Advances, 2019, 9, 14899-14909.	1.7	42
30	Ge doped Cu2ZnSnS4: An investigation on absorber recrystallization and opto-electronic properties of solar cell. Solar Energy Materials and Solar Cells, 2019, 198, 44-52.	3.0	20
31	Numerical modeling and experimental realization of wide bandgap ZnTe-based solar cells for semi-transparent PV application. , 2019, , .		0
32	An Insight into Pure Ge Based Kesterite Synthesis. , 2019, , .		1
33	Insights into the Formation Pathways of Cu₂ZnSnSe₄ Using Rapid Thermal Processes. ACS Applied Energy Materials, 2018, 1, 1981-1989.	2.5	16
34	Cu content dependence of Cu2Zn(SnGe)Se4 solar cells prepared by using sequential thermal evaporation technique of Cu/Sn/Cu/Zn/Ge stacked layers. Journal of Materials Science: Materials in Electronics, 2018, 29, 15363-15368.	1.1	6
35	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
36	Optimization of ink-jet printed precursors for Cu2ZnSn(S,Se)4 solar cells. Journal of Alloys and Compounds, 2018, 735, 2462-2470.	2.8	16

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37	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
38	Tailoring doping of efficient Sb2Se3 solar cells in substrate configuration by low temperature post deposition selenization process. , 2018, , .		2
39	An innovative alkali doping strategy for Cu<inf>2</inf>ZnSnSe<inf>4</inf> through the CdS buffer layer. , 2018, , .		1
40	Sulfurization of co-evaporated Cu2ZnSnSe4 thin film solar cells: The role of Na. Solar Energy Materials and Solar Cells, 2018, 186, 115-123.	3.0	17
41	Pre-annealing of metal stack precursors and its beneficial effect on kesterite absorber properties and device performance. Solar Energy Materials and Solar Cells, 2018, 185, 226-232.	3.0	11
42	Thin film photovoltaic devices prepared with Cu3BiS3 ternary compound. Materials Science in Semiconductor Processing, 2018, 87, 37-43.	1.9	9
43	Cu2ZnSnSe4 based solar cells combining co-electrodeposition and rapid thermal processing. Solar Energy, 2018, 173, 955-963.	2.9	13
44	Cationic compositional optimization of CuIn(S 1-y Se y) 2 ultra-thin layers obtained by chemical bath deposition. Applied Surface Science, 2017, 404, 57-62.	3.1	4
45	Processing pathways of Cu2Zn(SnGe)Se4 based solar cells: The role of CdS buffer layer. Materials Science in Semiconductor Processing, 2017, 67, 14-19.	1.9	9
46	Bifacial Kesterite Solar Cells on FTO Substrates. ACS Sustainable Chemistry and Engineering, 2017, 5, 11516-11524.	3.2	45
47	Characterization of Cu₂SnS₃polymorphism and its impact on optoelectronic properties. Journal of Materials Chemistry A, 2017, 5, 23863-23871.	5.2	56
48	Study of CBD-CdS/CZTGSe solar cells using different Cd sources: behavior of devices as a MIS structure. Journal of Materials Science: Materials in Electronics, 2017, 28, 18706-18714.	1.1	4
49	Towards In-reduced photovoltaic absorbers: Evaluation of zinc-blende CuInSe2-ZnSe solid solution. Solar Energy Materials and Solar Cells, 2017, 160, 26-33.	3.0	15
50	Solar Probe Plus Array Reliability. , 2017, , .		1
51	Large-Area Junction Damage in Potential-Induced Degradation of c-Si Solar Modules. , 2017, , .		0
52	Reference: Proceedings Of the IEEE PVSC Conf., 2017 The Development of a DC Breakdown Voltage Test for Photovoltaic Insulating Materials. , 2017, , .		1
53	Characterization of Modules and Arrays with Suns Voc. , 2017, , .		6
54	Detrimental effect of Sn-rich secondary phases on Cu2ZnSnSe4 based solar cells. Journal of Renewable and Sustainable Energy, 2016, 8, 033502.	0.8	6

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55	Overcoming the Voc limitation of CZTSe solar cells. , 2016, , .		2
56	Advanced hybrid buffer layers for Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells. , 2016, , .		1
57	Development of Cu<inf>2</inf>SnS<inf>3</inf> based solar cells by a sequential process. , 2016, , .		0
58	CdS bi-layers for optimized CdS/Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells. , 2016, , .		0
59	8.2% pure selenide kesterite thinâ€film solar cells from largeâ€area electrodeposited precursors. Progress in Photovoltaics: Research and Applications, 2016, 24, 38-51.	4.4	52
60	Selenization of Cu2ZnSnS4 thin films obtained by pneumatic spray pyrolysis. Journal of Analytical and Applied Pyrolysis, 2016, 120, 45-51.	2.6	11
61	Vitreous enamel as sodium source for efficient kesterite solar cells on commercial ceramic tiles. Solar Energy Materials and Solar Cells, 2016, 154, 11-17.	3.0	10
62	Influence of Amorphous Silicon Carbide Intermediate Layer in the Back-Contact Structure of Cu₂ZnSnSe₄Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 1327-1332.	1.5	8
63	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
64	Ultra-thin CdS for highly performing chalcogenides thin film based solar cells. Solar Energy Materials and Solar Cells, 2016, 158, 138-146.	3.0	31
65	Alkali doping strategies for flexible and light-weight Cu₂ZnSnSe₄ solar cells. Journal of Materials Chemistry A, 2016, 4, 1895-1907.	5.2	88
66	Optimization of CBD-CdS physical properties for solar cell applications considering a MIS structure. Materials and Design, 2016, 99, 254-261.	3.3	18
67	Optical and electrical properties of In-doped Cu2ZnSnSe4. Solar Energy Materials and Solar Cells, 2016, 151, 44-51.	3.0	19
68	Conformal chalcopyrite based photocathode for solar refinery applications. Solar Energy Materials and Solar Cells, 2016, 158, 184-188.	3.0	14
69	Impact of Na Dynamics at the Cu₂ZnSn(S,Se)₄/CdS Interface During Post Low Temperature Treatment of Absorbers. ACS Applied Materials & Interfaces, 2016, 8, 5017-5024.	4.0	72
70	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
71	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
72	Efficient bifacial Cu2ZnSnSe4 solar cells. , 2015, , .		3

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73	High efficiency Cu2ZnSnSe4:In doped based solar cells. , 2015, , .		1
74	Cu2ZnSnSe4 based solar cells prepared at high temperatures on Si/SiO2 sodium-free substrate. , 2015, , .		0
75	Large Efficiency Improvement in Cu₂ZnSnSe₄ Solar Cells by Introducing a Superficial Ge Nanolayer. Advanced Energy Materials, 2015, 5, 1501070.	10.2	188
76	Investigation of selenization process of electrodeposited Cuâ€“Znâ€“Sn precursor for Cu2ZnSnSe4 thin-film solar cells. Thin Solid Films, 2015, 589, 165-172.	0.8	5
77	Large performance improvement in Cu2ZnSnSe4 based solar cells by surface engineering with a nanometric Ge layer. , 2015, , .		4
78	Chemical bath deposition route for the synthesis of ultra-thin CuIn(S,Se) 2 based solar cells. Thin Solid Films, 2015, 582, 74-78.	0.8	6
79	Optimization of CdS buffer layer for highâ€performance Cu₂ZnSnSe₄ solar cells and the effects of light soaking: elimination of crossover and red kink. Progress in Photovoltaics: Research and Applications, 2015, 23, 1660-1667.	4.4	110
80	Non-destructive assessment of ZnO:Al window layers in advanced Cu(In,Ga)Se₂photovoltaic technologies. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 56-60.	0.8	12
81	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
82	Formation and impact of secondary phases in Cu-poor Zn-rich Cu2ZnSn(S1âˆ'Se)4 (0â‰¤yâ‰¤1) based solar cells. Solar Energy Materials and Solar Cells, 2015, 140, 289-298.	3.0	60
83	Compositional paradigms in multinary compound systems for photovoltaic applications: a case study of kesterites. Journal of Materials Chemistry A, 2015, 3, 9451-9455.	5.2	34
84	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
85	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
86	Characterization of Cu2ZnSnSe4 solar cells prepared from electrochemically co-deposited Cuâ€“Znâ€“Sn alloy. Solar Energy Materials and Solar Cells, 2015, 132, 21-28.	3.0	28
87	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
88	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
89	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
90	Pneumatically sprayed Cu₂ZnSnS₄films under Ar and Arâ€“H₂atmosphere. Journal Physics D: Applied Physics, 2014, 47, 245101.	1.3	17

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91	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
92	UV-Raman scattering assessment of ZnO:Al layers from Cu(In, Ga)Se<inf>2</inf> based solar cells: Application for fast on-line process monitoring. , 2013, , .		0
93	Influence of Sn concentration on the physical properties of CdO:Sn thin films deposited by spray pyrolysis. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3713-3719.	0.8	6