Edgardo Saucedo

List of Publications by Year
in descending order

240 papers	8,112 citations	43973 48 h-index	62479 80 g-index
243 all docs	243 docs citations	243 times ranked	4742 citing authors

#	Article	IF	Citations
1	Atomic layer deposition of vanadium oxide films for crystalline silicon solar cells. Materials Advances, 2022, 3, 337-345.	2.6	20
2	Substrate temperature optimization of pulsed-laser-deposited and in-situ Zn-supplemented-CZTS films and their integration into photovoltaic devices. Journal of Alloys and Compounds, 2022, 893, 162292.	2.8	5
3	Numerical Investigation of Interface Passivation Strategies for Sb₂Se₃/CdS Solar Cells. Solar Rrl, 2022, 6, 2100911.	3.1	2
4	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
5	Life cycle assessment of different chalcogenide thin-film solar cells. Applied Energy, 2022, 313, 118888.	5.1	13
6	Effect of post annealing thermal heating on Cu2ZnSnS4 solar cells processed by sputtering technique. Solar Energy, 2022, 237, 196-202.	2.9	17
7	Towards Low Cost and Sustainable Thin Film Thermoelectric Devices Based on Quaternary Chalcogenides. Advanced Functional Materials, 2022, 32, .	7.8	26
8	Kinetics and phase analysis of kesterite compounds: Influence of chalcogen availability in the reaction pathway. Materialia, 2022, 24, 101509.	1.3	2
9	Defect depth-profiling in kesterite absorber by means of chemical etching and surface analysis. Applied Surface Science, 2021, 540, 148342.	3.1	6
10	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
11	Combinatorial and machine learning approaches for the analysis of Cu₂ZnGeSe₄: influence of the off-stoichiometry on defect formation and solar cell performance. Journal of Materials Chemistry A, 2021, 9, 10466-10476.	5.2	13
12	Emerging inorganic solar cell efficiency tables (version 2). JPhys Energy, 2021, 3, 032003.	2.3	40
13	Feasibility of a Full Chalcopyrite Tandem Solar Cell: A Quantitative Numerical Approach. Solar Rrl, 2021, 5, 2100202.	3.1	4
14	Evaluation of hetero and back contact junctions of CZTSe: Ge bilayers solar cells with Modulus Spectroscopy. , 2021, , .		0
15	Estimation of front and back junctions of CZTSe:Ge solar cells by combined modulus and impedance spectroscopy. Journal Physics D: Applied Physics, 2021, 54, 335501.	1.3	5
16	Bromine etching of kesterite thin films: perspectives in depth defect profiling and device performance improvement. , 2021, , .		1
17	Insights on the Thermal Stability of the Sb₂Se₃ Quasiâ€1D Photovoltaic Technology. Solar Rrl, 2021, 5, 2100517.	3.1	2
18	Insights on the limiting factors of Cu2ZnGeSe4 based solar cells. Solar Energy Materials and Solar Cells, 2021, 227, 111106.	3.0	6

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19	Hole Transport Layer based on atomic layer deposited V2Ox films: Paving the road to semi-transparent CZTSe solar cells. Solar Energy, 2021, 226, 64-71.	2.9	3
20	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
21	Insights into interface and bulk defects in a high efficiency kesterite-based device. Energy and Environmental Science, 2021, 14, 507-523.	15.6	48
22	Structural and vibrational properties of Î±- and Ï€-SnS polymorphs for photovoltaic applications. Acta Materialia, 2020, 183, 1-10.	3.8	43
23	In-situ tuning of the zinc content of pulsed-laser-deposited CZTS films and its effect on the photoconversion efficiency of p-CZTS/n-Si heterojunction photovoltaic devices. Applied Surface Science, 2020, 507, 145003.	3.1	31
24	Continuous-wave laser annealing of metallic layers for CuInSe2 solar cell applications: effect of preheating treatment on grain growth. RSC Advances, 2020, 10, 584-594.	1.7	2
25	On the Germanium Incorporation in Cu₂ZnSnSe₄ Kesterite Solar Cells Boosting Their Efficiency. ACS Applied Energy Materials, 2020, 3, 558-564.	2.5	11
26	UVâ€Selective Optically Transparent Zn(O,S)â€Based Solar Cells. Solar Rrl, 2020, 4, 2070112.	3.1	0
27	Rear Band gap Grading Strategies on Snâ€"Ge-Alloyed Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10362-10375.	2.5	29
28	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
29	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
30	UVâ€Selective Optically Transparent Zn(O,S)â€Based Solar Cells. Solar Rrl, 2020, 4, 2000470.	3.1	12
31	Cu-Sn-S system: Vibrational properties and coexistence of the Cu2SnS3, Cu3SnS4 and Cu4SnS4 compounds. Scripta Materialia, 2020, 186, 180-184.	2.6	15
32	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
33	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
34	Uncovering details behind the formation mechanisms of Cu2ZnGeSe4 photovoltaic absorbers. Journal of Materials Chemistry C, 2020, 8, 4003-4011.	2.7	13
35	Transition-Metal Oxides for Kesterite Solar Cells Developed on Transparent Substrates. ACS Applied Materials & Interfaces, 2020, 12, 33656-33669.	4.0	29
36	Efficient Seâ€Rich Sb₂Se₃/CdS Planar Heterojunction Solar Cells by Sequential Processing: Control and Influence of Se Content. Solar Rrl, 2020, 4, 2070075.	3.1	5

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37	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
38	Sputtered ZnSnO Buffer Layers for Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 1883-1891.	2.5	23
39	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
40	Over 10% Efficient Wide Bandgap CIGSe Solar Cells on Transparent Substrate with Na Predeposition Treatment. Solar Rrl, 2020, 4, 2000284.	3.1	8
41	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
42	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
43	Multiwavelength excitation Raman scattering study of Sb ₂ Se ₃ compound: fundamental vibrational properties and secondary phases detection. 2D Materials, 2019, 6, 045054.	2.0	69
44	Engineering of effective back-contact barrier of CZTSe: Nanoscale Ge solar cells â€“ MoSe2 defects implication. Solar Energy, 2019, 194, 114-120.	2.9	18
45	Study and optimization of alternative MBEâ€deposited metallic precursors for highly efficient kesterite CZTSe:Ge solar cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 779-788.	4.4	12
46	Kesterite: New Progress Toward Earth-Abundant Thin-Film Photovoltaic. , 2019, , 93-120.		3
47	CuZnInSe₃â€based solar cells: Impact of copper concentration on vibrational and structural properties and device performance. Progress in Photovoltaics: Research and Applications, 2019, 27, 716-723.	4.4	7
48	Physical routes for the synthesis of kesterite. JPhys Energy, 2019, 1, 042003.	2.3	34
49	Emerging inorganic solar cell efficiency tables (Version 1). JPhys Energy, 2019, 1, 032001.	2.3	54
50	Defect characterisation in Cu₂ZnSnSe₄kesterites<i>via</i>resonance Raman spectroscopy and the impact on optoelectronic solar cell properties. Journal of Materials Chemistry A, 2019, 7, 13293-13304.	5.2	63
51	Evaluation of AA-CVD deposited phase pure polymorphs of SnS for thin films solar cells. RSC Advances, 2019, 9, 14899-14909.	1.7	42
52	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
53	Progress and Perspectives of Thin Film Kesterite Photovoltaic Technology: A Critical Review. Advanced Materials, 2019, 31, e1806692.	11.1	333
54	Impact of Thin CuGa Layers Added at the Rear Interface of Cu2ZnSnSe4 Solar Cells. , 2019, , .		0

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55	Multi-layered photocathodes based on Cu2ZnSnSe4 absorber and MoS2 catalyst for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 24320-24327.	5.2	8
56	Insights into the Formation Pathways of Cu₂ZnSnSe₄ Using Rapid Thermal Processes. ACS Applied Energy Materials, 2018, 1, 1981-1989.	2.5	16
57	Improved quantum efficiency models of CZTSe: GE nanolayer solar cells with a linear electric field. Nanoscale, 2018, 10, 2990-2997.	2.8	14
58	Turning Earth Abundant Kesterite-Based Solar Cells Into Efficient Protected Water-Splitting Photocathodes. ACS Applied Materials & Interfaces, 2018, 10, 13425-13433.	4.0	31
59	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
60	How small amounts of Ge modify the formation pathways and crystallization of kesterites. Energy and Environmental Science, 2018, 11, 582-593.	15.6	169
61	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
62	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
63	Double band gap gradients in sequentially processed photovoltaic absorbers from the Cu(In,Ga)Se₂â€ZnSe pseudobinary system. Progress in Photovoltaics: Research and Applications, 2018, 26, 135-144.	4.4	7
64	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
65	Improved Back Contact Barrier of CZTSe solar cells by incorporating nanoscale Ge bi-layers. , 2018, , .		0
66	Improved Device Models of CZTSe: nanolayer Ge solar cells with Quantum Efficiency. , 2018, , .		2
67	Tailoring doping of efficient Sb2Se3 solar cells in substrate configuration by low temperature post deposition selenization process. , 2018, , .		2
68	Doping Effects on Kesterites Other than Alkalis. , 2018, , .		2
69	An innovative alkali doping strategy for Cu<inf>2</inf>ZnSnSe<inf>4</inf> through the CdS buffer layer. , 2018, , .		1
70	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
71	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
72	Thin film photovoltaic devices prepared with Cu3BiS3 ternary compound. Materials Science in Semiconductor Processing, 2018, 87, 37-43.	1.9	9

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73	Cu2ZnSnSe4 based solar cells combining co-electrodeposition and rapid thermal processing. Solar Energy, 2018, 173, 955-963.	2.9	13
74	Discrepancy between integral and local composition in off-stoichiometric Cu2ZnSnSe4 kesterites: A pitfall for classification. Applied Physics Letters, 2017, 110, .	1.5	19
75	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
76	Chemically and morphologically distinct grain boundaries in Ge-doped Cu2ZnSnSe4 solar cells revealed with STEM-EELS. Materials and Design, 2017, 122, 102-109.	3.3	16
77	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
78	Cu2ZnSnS4 thin film solar cells grown by fast thermal evaporation and thermal treatment. Solar Energy, 2017, 141, 236-241.	2.9	32
79	Chemistry and Dynamics of Ge in Kesterite: Toward Band-Gap-Graded Absorbers. Chemistry of Materials, 2017, 29, 9399-9406.	3.2	59
80	Bifacial Kesterite Solar Cells on FTO Substrates. ACS Sustainable Chemistry and Engineering, 2017, 5, 11516-11524.	3.2	45
81	Characterization of Cu₂SnS₃polymorphism and its impact on optoelectronic properties. Journal of Materials Chemistry A, 2017, 5, 23863-23871.	5.2	56
82	Valence and conduction band edges of selenide and sulfide-based kesteritesâ€"a study by x-ray based spectroscopy andab initiotheory. Semiconductor Science and Technology, 2017, 32, 104010.	1.0	1
83	Enhanced photoelectrochemical water splitting of hematite multilayer nanowire photoanodes by tuning the surface state via bottom-up interfacial engineering. Energy and Environmental Science, 2017, 10, 2124-2136.	15.6	185
84	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
85	Towards understanding poor performances in spray-deposited Cu2ZnSnS4 thin film solar cells. Solar Energy Materials and Solar Cells, 2017, 159, 151-158.	3.0	54
86	Raman scattering assessment of point defects in kesterite semiconductors: UV resonant Raman characterization for advanced photovoltaics. , 2017, , .		3
87	Optical modeling and optimizations of Cu_2ZnSnSe_4 solar cells using the modified transfer matrix method. Optics Express, 2016, 24, A1201.	1.7	20
88	Special issue â€œNanotechnology for next generation high efficiency photovoltaics: NEXTGEN NANOPV Spring International School & Workshopâ€• Solar Energy Materials and Solar Cells, 2016, 158, 123-125.	3.0	0
89	Detrimental effect of Sn-rich secondary phases on Cu2ZnSnSe4 based solar cells. Journal of Renewable and Sustainable Energy, 2016, 8, 033502.	0.8	6
90	Overcoming the Voc limitation of CZTSe solar cells. , 2016, , .		2

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91	Post-deposition annealing of Cu<inf>2</inf>ZnSnSe<inf>4</inf>/CdS based solar cells: Analysis of the absorber's surface defects. , 2016, , .		0
92	Advanced hybrid buffer layers for Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells. , 2016, , .		1
93	Enhancing grain growth and boosting Voc in CZTSe absorber layers â€" Is Ge doping the answer?. , 2016, , .		1
94	Development of Cu<inf>2</inf>SnS<inf>3</inf> based solar cells by a sequential process. , 2016, , .		0
95	The Cu(In, Ga)Se<inf>2</inf>-ZnSe system: Optimizing solid solutions for high V<inf>OC</inf> photovoltaic devices. , 2016, , .		0
96	CdS bi-layers for optimized CdS/Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells. , 2016, , .		0
97	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
98	Selenization of Cu2ZnSnS4 thin films obtained by pneumatic spray pyrolysis. Journal of Analytical and Applied Pyrolysis, 2016, 120, 45-51.	2.6	11
99	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
100	<i>V</i>_{oc} Boosting and Grain Growth Enhancing Ge-Doping Strategy for Cu₂ZnSnSe₄ Photovoltaic Absorbers. Journal of Physical Chemistry C, 2016, 120, 9661-9670.	1.5	69
101	Cu₂ZnSnSe₄-Based Solar Cells With Efficiency Exceeding 10% by Adding a Superficial Ge Nanolayer: The Interaction Between Ge and Na. IEEE Journal of Photovoltaics, 2016, 6, 754-759.	1.5	28
102	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
103	Raman scattering analysis of the surface chemistry of kesterites: Impact of post-deposition annealing and Cu/Zn reordering on solar cell performance. Solar Energy Materials and Solar Cells, 2016, 157, 462-467.	3.0	71
104	Cu₂ZnSnSe₄solar cells with 10.6% efficiency through innovative absorber engineering with Ge superficial nanolayer. Progress in Photovoltaics: Research and Applications, 2016, 24, 1359-1367.	4.4	77
105	Bi-directional crystallization of Cu<inf>2</inf>ZnSnSe<inf>4</inf> assisted with back/front Ge nanolayers. , 2016, , .		1
106	Compositional Dependence of Chemical and Electrical Properties in Cu₂ZnSnS₄Thin Films. IEEE Journal of Photovoltaics, 2016, 6, 990-996.	1.5	10
107	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
108	Temperature dependent electrical characterization of thin film Cu₂ZnSnSe₄solar cells. Journal Physics D: Applied Physics, 2016, 49, 085101.	1.3	21

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109	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
110	Alkali doping strategies for flexible and light-weight Cu₂ZnSnSe₄ solar cells. Journal of Materials Chemistry A, 2016, 4, 1895-1907.	5.2	88
111	Optical methodology for process monitoring of chalcopyrite photovoltaic technologies: Application to low cost Cu(In,Ga)(S,Se)2 electrodeposition based processes. Solar Energy Materials and Solar Cells, 2016, 158, 168-183.	3.0	51
112	Optimization of CBD-CdS physical properties for solar cell applications considering a MIS structure. Materials and Design, 2016, 99, 254-261.	3.3	18
113	Optical and electrical properties of In-doped Cu2ZnSnSe4. Solar Energy Materials and Solar Cells, 2016, 151, 44-51.	3.0	19
114	Secondary phase and Cu substitutional defect dynamics in kesterite solar cells: Impact on optoelectronic properties. Solar Energy Materials and Solar Cells, 2016, 149, 304-309.	3.0	82
115	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
116	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
117	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
118	Role of S and Se atoms on the microstructural properties of kesterite Cu₂ZnSn(S_xSe_{1âˆ’x})₄ thin film solar cells. Physical Chemistry Chemical Physics, 2016, 18, 8692-8700.	1.3	43
119	Resonant Raman scattering of ZnS_xSe_{1âˆ’x} solid solutions: the role of S and Se electronic states. Physical Chemistry Chemical Physics, 2016, 18, 7632-7640.	1.3	43
120	Efficient bifacial Cu2ZnSnSe4 solar cells. , 2015, , .		3
121	High efficiency Cu2ZnSnSe4:In doped based solar cells. , 2015, , .		1
122	Assessment of Chemical and Electronic Surface Properties of the Cu2ZnSn(SSe)4 After Different Etching Procedures by Synchrotron-based Spectroscopies. Energy Procedia, 2015, 84, 8-16.	1.8	6
123	Cu2ZnSnSe4 based solar cells prepared at high temperatures on Si/SiO2 sodium-free substrate. , 2015, , .		0
124	Large Efficiency Improvement in Cu₂ZnSnSe₄ Solar Cells by Introducing a Superficial Ge Nanolayer. Advanced Energy Materials, 2015, 5, 1501070.	10.2	188
125	Temperature dependent electroreflectance study of Cu2ZnSnSe4 solar cells. Materials Science in Semiconductor Processing, 2015, 39, 251-254.	1.9	13
126	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

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127	Large performance improvement in Cu2ZnSnSe4 based solar cells by surface engineering with a nanometric Ge layer. , 2015, , .		4
128	1D and 2D numerical simulations of Cu2ZnSnSe4 solar cells. , 2015, , .		3
129	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
130	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
131	Raman scattering quantitative analysis of the anion chemical composition in kesterite Cu2ZnSn(SxSe1âˆ’x)4 solid solutions. Journal of Alloys and Compounds, 2015, 628, 464-470.	2.8	69
132	Influence of compositionally induced defects on the vibrational properties of device grade Cu2ZnSnSe4 absorbers for kesterite based solar cells. Applied Physics Letters, 2015, 106, .	1.5	135
133	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
134	Advanced characterization of electrodeposition-based high efficiency solar cells: Non-destructive Raman scattering quantitative assessment of the anion chemical composition in Cu(In,Ga)(S,Se)2 absorbers. Solar Energy Materials and Solar Cells, 2015, 143, 212-217.	3.0	26
135	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
136	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
137	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
138	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
139	Zn-poor Cu₂ ZnSnSe₄ thin films and solar cell devices. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 109-115.	0.8	13
140	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
141	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
142	CuIn1âˆ’Al Se2 thin film solar cells with depth gradient composition prepared by selenization of evaporated metallic precursors. Solar Energy Materials and Solar Cells, 2015, 132, 245-251.	3.0	22
143	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
144	Fabrication and characterization of kesterite Cu₂ZnSnS₄thin films deposited by electrostatic spray assisted vapour deposition method. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 135-139.	0.8	10

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145	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
146	Raman scattering analysis of electrodeposited Cu(In,Ga)Se2 solar cells: Impact of ordered vacancy compounds on cell efficiency. Applied Physics Letters, 2014, 105, .	1.5	49
147	Multiwavelength excitation Raman scattering of Cu2ZnSn(SxSe1â^'x)4 (0â€‰â‰¤â€‰<i>x</i>â€‰â‰¤â€‰1) polycrystalline thin films: Vibrational properties of sulfoselenide solid solutions. Applied Physics Letters, 2014, 105, .	1.5	64
148	Rapid thermal processing of Cu<inf>2</inf>ZnSnSe<inf>4</inf> thin films. , 2014, , .		1
149	Trap and recombination centers study in sprayed Cu2ZnSnS4 thin films. Journal of Applied Physics, 2014, 116, 134503.	1.1	25
150	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
151	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
152	Crystallographic and Optical Characteristics of Thin Films of Cu2ZnSn(S x Se1â€"x)4 Solid Solutions. Journal of Applied Spectroscopy, 2014, 81, 776-781.	0.3	9
153	ZnS grain size effects on near-resonant Raman scattering: optical non-destructive grain size estimation. CrystEngComm, 2014, 16, 4120.	1.3	105
154	Two ideal compositions for kesterite-based solar cell devices. , 2014, , .		3
155	Vibrational and structural properties of Cu<inf>2</inf>ZnSn(S<inf>x</inf>Se<inf>1−x</inf>)<inf>4</inf> (0 ≤ x ≤ 1) solid solutions. , 2014, , .		0
156	Precursor Stack Ordering Effects in Cu₂ZnSnSe₄ Thin Films Prepared by Rapid Thermal Processing. Journal of Physical Chemistry C, 2014, 118, 17291-17298.	1.5	53
157	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
158	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
159	Multiwavelength excitation Raman scattering study of polycrystalline kesterite Cu2ZnSnS4 thin films. Applied Physics Letters, 2014, 104, .	1.5	249
160	Combined Raman scattering/photoluminescence analysis of Cu(In,Ga)Se2 electrodeposited layers. Solar Energy, 2014, 103, 89-95.	2.9	16
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