Jacob Antonio Andrade Arvizu

List of Publications by Year
in descending order

27 papers	902 citations	430442 18 h-index	525886 27 g-index
27 all docs	27 docs citations	27 times ranked	892 citing authors

#	Article	IF	Citations
1	SnS-based thin film solar cells: perspectives over the last 25Âyears. Journal of Materials Science: Materials in Electronics, 2015, 26, 4541-4556.	1.1	137
2	Loss mechanisms influence on Cu2ZnSnS4/CdS-based thin film solar cell performance. Solid-State Electronics, 2015, 111, 243-250.	0.8	64
3	Towards a CdS/Cu2ZnSnS4 solar cell efficiency improvement: A theoretical approach. Applied Physics Letters, 2014, 105, .	1.5	60
4	The role of buffer/kesterite interface recombination and minority carrier lifetime on kesterite thin film solar cells. Materials Research Express, 2016, 3, 095501.	0.8	57
5	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
6	Insights into interface and bulk defects in a high efficiency kesterite-based device. Energy and Environmental Science, 2021, 14, 507-523.	15.6	48
7	Open-circuit voltage enhancement in CdS/Cu2ZnSnSe4-based thin film solar cells: A metalâ€“insulatorâ€“semiconductor (MIS) performance. Solar Energy Materials and Solar Cells, 2016, 149, 204-212.	3.0	45
8	Structural and vibrational properties of Î±- and Ï€-SnS polymorphs for photovoltaic applications. Acta Materialia, 2020, 183, 1-10.	3.8	43
9	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
10	Optimization of physical properties of spray-deposited Cu2ZnSnS4 thin films for solar cell applications. Materials and Design, 2017, 114, 515-520.	3.3	41
11	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
12	Rear Band gap Grading Strategies on Snâ€“Ge-Alloyed Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10362-10375.	2.5	29
13	Transition-Metal Oxides for Kesterite Solar Cells Developed on Transparent Substrates. ACS Applied Materials & Interfaces, 2020, 12, 33656-33669.	4.0	29
14	Towards Low Cost and Sustainable Thin Film Thermoelectric Devices Based on Quaternary Chalcogenides. Advanced Functional Materials, 2022, 32, .	7.8	26
15	Suited growth parameters inducing type of conductivity conversions on chemical spray pyrolysis synthesized SnS thin films. Journal of Analytical and Applied Pyrolysis, 2016, 121, 347-359.	2.6	25
16	Sputtered ZnSnO Buffer Layers for Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 1883-1891.	2.5	23
17	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
18	Pressure induced directional transformations on close spaced vapor transport deposited SnS thin films. Materials and Design, 2016, 110, 878-887.	3.3	21

#	Article	IF	Citations
19	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
20	Controlling the Anionic Ratio and Gradient in Kesterite Technology. ACS Applied Materials & Interfaces, 2022, 14, 1177-1186.	4.0	16
21	Assisted laser ablation: silver/gold nanostructures coated with silica. Applied Nanoscience (Switzerland), 2017, 7, 597-605.	1.6	15
22	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
23	High efficiency Cu₂ZnSnS₄ solar cells over FTO substrates and their CZTS/CdS interface passivation via thermal evaporation of Al₂O₃. Journal of Materials Chemistry C, 2021, 9, 5356-5361.	2.7	10
24	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
25	Argon vs. air atmosphere in close spaced vapor transport deposited tin sulfide thin films. Solar Energy, 2020, 208, 227-235.	2.9	8
26	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
27	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