Andrea Crovetto

List of Publications by Year
in descending order

41 papers	1,458 citations	361045 20 h-index	329751 37 g-index
43 all docs	43 docs citations	43 times ranked	1909 citing authors

#	ARTICLE	IF	CITATIONS
1	Reactive phosphine combinatorial co-sputtering of cation disordered ZnGeP₂ films. Journal of Materials Chemistry C, 2022, 10, 870-879.	2.7	8
2	Boron Phosphide Films by Reactive Sputtering: Searching for a Pâ€Type Transparent Conductor. Advanced Materials Interfaces, 2022, 9, .	1.9	8
3	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	19.8	136
4	Prediction and realisation of high mobility and degenerate p-type conductivity in CaCuP thin films. Chemical Science, 2022, 13, 5872-5883.	3.7	12
5	Crystallize It before It Diffuses: Kinetic Stabilization of Thin-Film Phosphorus-Rich Semiconductor CuP₂. Journal of the American Chemical Society, 2022, 144, 13334-13343.	6.6	5
6	Semitransparent Selenium Solar Cells as a Top Cell for Tandem Photovoltaics. Solar Rrl, 2021, 5, 2100111.	3.1	20
7	Selenium Thin-Film Solar Cells with Cadmium Sulfide as a Heterojunction Partner. ACS Applied Energy Materials, 2021, 4, 10697-10702.	2.5	15
8	TaS₂ Back Contact Improving Oxide-Converted Cu₂BaSnS₄ Solar Cells. ACS Applied Energy Materials, 2020, 3, 1190-1198.	2.5	13
9	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
10	Assessing the defect tolerance of kesterite-inspired solar absorbers. Energy and Environmental Science, 2020, 13, 3489-3503.	15.6	28
11	Experimental and First-Principles Spectroscopy of Cu₂SrSnS₄ and Cu₂BaSnS₄ Photoabsorbers. ACS Applied Materials & Interfaces, 2020, 12, 50446-50454.	4.0	13
12	Parallel Evaluation of the BiI₃, BiOI, and Ag₃BiI₆ Layered Photoabsorbers. Chemistry of Materials, 2020, 32, 3385-3395.	3.2	48
13	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
14	Water Adsorption Enhances Electrical Conductivity in Transparent P-Type CuI. ACS Applied Materials & Interfaces, 2020, 12, 48741-48747.	4.0	15
15	Resonant x-ray ptychographic nanotomography of kesterite solar cells. Physical Review Research, 2020, 2, .	1.3	7
16	A universal approach for the synthesis of two-dimensional binary compounds. Nature Communications, 2019, 10, 2957.	5.8	93
17	Wide Band Gap Cu₂SrSnS₄ Solar Cells from Oxide Precursors. ACS Applied Energy Materials, 2019, 2, 7340-7344.	2.5	23
18	Shining Light on Sulfide Perovskites: LaYS₃ Material Properties and Solar Cells. Chemistry of Materials, 2019, 31, 3359-3369.	3.2	32

#	Article	IF	Citations
19	Nondestructive Thickness Mapping of Wafer-Scale Hexagonal Boron Nitride Down to a Monolayer. ACS Applied Materials & Interfaces, 2018, 10, 25804-25810.	4.0	17
20	Large process-dependent variations in band alignment and interface band gaps of Cu2ZnSnS4/CdS solar cells. Solar Energy Materials and Solar Cells, 2018, 187, 233-240.	3.0	27
21	Estimating complete band diagrams of non-ideal heterointerfaces by combining ellipsometry and photoemission spectroscopy. Journal of Applied Physics, 2018, 124, 085302.	1.1	2
22	Interface band gap narrowing behind open circuit voltage losses in Cu2ZnSnS4 solar cells. Applied Physics Letters, 2017, 110, .	1.5	35
23	How the relative permittivity of solar cell materials influences solar cell performance. Solar Energy, 2017, 149, 145-150.	2.9	35
24	What is the band alignment of Cu 2 ZnSn(S,Se) 4 solar cells?. Solar Energy Materials and Solar Cells, 2017, 169, 177-194.	3.0	124
25	Ultra-thin Cu2ZnSnS4 solar cell by pulsed laser deposition. Solar Energy Materials and Solar Cells, 2017, 166, 91-99.	3.0	83
26	Investigation of Cu2ZnSnS4 nanoparticles for thin-film solar cellÂapplications. Thin Solid Films, 2017, 628, 163-169.	0.8	10
27	Surface passivation and carrier selectivity of the thermal-atomic-layer-deposited TiO₂ on crystalline silicon. Japanese Journal of Applied Physics, 2017, 56, 08MA11.	0.8	19
28	Sulfide perovskites for solar energy conversion applications: computational screening and synthesis of the selected compound LaYS₃. Energy and Environmental Science, 2017, 10, 2579-2593.	15.6	91
29	Temperature dependent photoreflectance study of Cu2SnS3 thin films produced by pulsed laser deposition. Applied Physics Letters, 2017, 110, .	1.5	35
30	Bi-resonant structure with piezoelectric PVDF films for energy harvesting from random vibration sources at low frequency. Sensors and Actuators A: Physical, 2016, 247, 547-554.	2.0	104
31	Lattice-matched Cu2ZnSnS4/CeO2 solar cell with open circuit voltage boost. Applied Physics Letters, 2016, 109, .	1.5	32
32	On performance limitations and property correlations of Al-doped ZnO deposited by radio-frequency sputtering. Journal Physics D: Applied Physics, 2016, 49, 295101.	1.3	20
33	Formation of copper tin sulfide films by pulsed laser deposition at 248 and 355Ânm. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	12
34	Dielectric function and double absorption onset of monoclinic Cu 2 SnS 3 : Origin of experimental features explained by first-principles calculations. Solar Energy Materials and Solar Cells, 2016, 154, 121-129.	3.0	62
35	Synthesis of ligand-free CZTS nanoparticles via a facile hot injection route. Nanotechnology, 2016, 27, 185603.	1.3	17
36	Semiconductor band alignment from first principles: A new nonequilibrium Green's function method applied to the CZTSe/CdS interface for photovoltaics. , 2016, , .		7

#	Article	IF	Citations
37	ZnS top layer for enhancement of the crystallinity of CZTS absorber during the annealing. , 2015, , .		2
38	Optical properties and surface characterization of pulsed laser-deposited Cu 2 ZnSnS 4 by spectroscopic ellipsometry. Thin Solid Films, 2015, 582, 203-207.	0.8	19
39	Modeling and Optimization of an Electrostatic Energy Harvesting Device. Journal of Microelectromechanical Systems, 2014, 23, 1141-1155.	1.7	92
40	An electret-based energy harvesting device with a wafer-level fabrication process. Journal of Micromechanics and Microengineering, 2013, 23, 114010.	1.5	70
41	A MEMS Energy Harvesting Device for Vibration with Low Acceleration. Procedia Engineering, 2012, 47, 770-773.	1.2	14