

# Dimitrios Hariskos

## List of Publications by Year in descending order

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Version: 2024-02-01

66  
papers

6,126  
citations

279487

23  
h-index

174990

52  
g-index

69  
all docs

69  
docs citations

69  
times ranked

4355  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of defect formation in chalcopyrite compounds under Cu-poor conditions by advanced structural and vibrational analyses. <i>Acta Materialia</i> , 2022, 223, 117507.	3.8	5
2	Effects of material properties of band-gap-graded Cu(In,Ga)Se <sub>2</sub> thin films on the onset of the quantum efficiency spectra of corresponding solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2022, 30, 1238-1246.	4.4	5
3	Influence of sputtered gallium oxide as buffer or high-resistive layer on performance of Cu(In,Ga)Se <sub>2</sub> -based solar cells. <i>Journal of Materials Research</i> , 2022, 37, 1825-1834.	1.2	5
4	Effects of Sputtered In <sub>x</sub> S <sub>y</sub> Buffer on CIGS with RbF Post-Deposition Treatment. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 055006.	0.9	8
5	The Application of Sputtered Gallium Oxide as Buffer for Cu(In,Ga)Se <sub>2</sub> Solar Cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2100180.	1.2	4
6	Using the inelastic background in hard x-ray photoelectron spectroscopy for a depth-resolved analysis of the CdS/Cu(In,Ga)Se <sub>2</sub> interface. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	4
7	UV-Selective Optically Transparent Zn(O,S)-Based Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000470.	3.1	12
8	Microscopic origins of performance losses in highly efficient Cu(In,Ga)Se <sub>2</sub> thin-film solar cells. <i>Nature Communications</i> , 2020, 11, 4189.	5.8	51
9	Impact of RbF-PDT on Cu(In,Ga)Se <sub>2</sub> solar cells with CdS and Zn(O,S) buffer layers. <i>EPI Photovoltaics</i> , 2020, 11, 8.	0.8	17
10	Characterization of solution-grown and sputtered In <sub>x</sub> (O,S) <sub>y</sub> buffer layers in Cu(In,Ga)Se <sub>2</sub> solar cells by analytical TEM. <i>Semiconductor Science and Technology</i> , 2020, 35, 034001.	1.0	4
11	Electrostatic potential fluctuations and light-soaking effects in Cu(In,Ga)Se <sub>2</sub> solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020, 28, 919-934.	4.4	11
12	Heavy Alkali Treatment of Cu(In,Ga)Se <sub>2</sub> Solar Cells: Surface versus Bulk Effects. <i>Advanced Energy Materials</i> , 2020, 10, 1903752.	10.2	107
13	Influence of Substrate Temperature during In <sub>x</sub> S <sub>y</sub> Sputtering on Cu(In,Ga)Se <sub>2</sub> /Buffer Interface Properties and Solar Cell Performance. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1052.	1.3	12
14	Correlative APT/EBIC investigations of sputtered In-based and Zn(O,S) buffers for CIGS solar cells. , 2020, , .		0
15	Direct evidence for grain boundary passivation in Cu(In,Ga)Se <sub>2</sub> solar cells through alkali-fluoride post-deposition treatments. <i>Nature Communications</i> , 2019, 10, 3980.	5.8	95
16	Near-Surface [Ga]/([In]+[Ga]) Composition in Cu(In,Ga)Se <sub>2</sub> Thin-Film Solar Cell Absorbers: An Overlooked Material Feature. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800856.	0.8	6
17	Giant Voc Boost of Low-Temperature Annealed Cu(In,Ga)Se <sub>2</sub> with Sputtered Zn(O,S) Buffers. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1900145.	1.2	6
18	Influence of RbF post deposition treatment on heterojunction and grain boundaries in high efficient (21.1%) Cu(In,Ga)Se <sub>2</sub> solar cells. <i>Nano Energy</i> , 2019, 60, 103-110.	8.2	46

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19	Electroreflectance studies of Zn(O,S) buffer layers in Cu(In,Ga)Se <sub>2</sub> solar cells: Bandgap energies and secondary phases. , 2019, , .		0
20	Numerical simulation of CIGS solar cells with Zn(O,S) or (Cd,Zn)S buffers and (Zn,Mg)O as high-resistive layer. , 2019, , .		1
21	Averaged angle-resolved electroreflectance spectroscopy on Cu(In,Ga)Se <sub>2</sub> solar cells: Determination of buffer bandgap energy and identification of secondary phase. Applied Physics Letters, 2019, 115, .	1.5	2
22	Structural and microchemical characterization of Cu(In,Ga)Se <sub>2</sub> solar cells with solution-grown CdS, Zn(O,S), and In <sub>x</sub> (O,S) <sub>y</sub> buffers. Thin Solid Films, 2019, 671, 133-138.	0.8	6
23	Rubidium distribution at atomic scale in high efficient Cu(In,Ga)Se <sub>2</sub> thin-film solar cells. Applied Physics Letters, 2018, 112, .	1.5	57
24	Microscopic materials properties of a high-efficiency Cu(In,Ga)Se <sub>2</sub> solar cell - a case study. , 2018, , .		0
25	Fluctuations in net doping and lifetime in Cu(In,Ga)Se <sub>2</sub> solar cells. , 2018, , .		1
26	Electroreflectance spectroscopy on CdS and Zn(O,S) buffer layers in Cu(In,Ga)Se <sub>2</sub> solar cells: Suppression of interference effects. , 2018, , .		0
27	Modification of electronic grain boundary properties of Cu(In, Ga)Se <sub>2</sub> by alkali-fluoride post deposition treatments. , 2018, , .		0
28	Rubidium Fluoride Post-Deposition Treatment: Impact on the Chemical Structure of the Cu(In,Ga)Se <sub>2</sub> Surface and CdS/Cu(In,Ga)Se <sub>2</sub> Interface in Thin-Film Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 37602-37608.	4.0	19
29	Advances in Cost-Efficient Thin-Film Photovoltaics Based on Cu(In,Ga)Se <sub>2</sub> . Engineering, 2017, 3, 445-451.	3.2	79
30	Thermodynamic limitations for alkali metals in Cu(In,Ga)Se <sub>2</sub> . Journal of Materials Research, 2017, 32, 3789-3800.	1.2	10
31	Evidence for Chemical and Electronic Nonuniformities in the Formation of the Interface of RbF-Treated Cu(In,Ga)Se <sub>2</sub> with CdS. ACS Applied Materials & Interfaces, 2017, 9, 44173-44180.	4.0	25
32	IZO or IOH Window Layers Combined with Zn(O,S) and CdS Buffers for Cu(In,Ga)Se <sub>2</sub> Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700688.	0.8	3
33	Resonant Raman scattering based approaches for the quantitative assessment of nanometric ZnMgO layers in high efficiency chalcogenide solar cells. Scientific Reports, 2017, 7, 1144.	1.6	9
34	High-efficiency Cu(In,Ga)Se <sub>2</sub> solar cells. Thin Solid Films, 2017, 633, 13-17.	0.8	58
35	Deuterium Markers in CdS and Zn(O,S) Buffer Layers Deposited by Solution Growth for Cu(In,Ga)Se <sub>2</sub> Thin-Film Solar Cells. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700288.	1.2	0
36	Increased and FF in ZnO <sub>1-x</sub> S <sub>x</sub> -buffered CuIn <sub>1-x</sub> Ga <sub>x</sub> Se <sub>2</sub> Solar Cells by Cadmium Partial Electrolyte Treatment. , 2017, , .		0

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37	Notice of Removal Method for a high-rate solution deposition of Zn(O,S) buffer layer for high efficiency Cu(In,Ga)Se <sub>2</sub> -based solar cells. , 2017, , .		0
38	Improved growth of solution-deposited thin films on polycrystalline Cu(In,Ga)Se <sub>2</sub> . Physica Status Solidi - Rapid Research Letters, 2016, 10, 300-304.	1.2	16
39	A closer look at initial CdS growth on high-efficiency Cu(In, Ga)Se <sub>2</sub> absorbers using surface-sensitive methods. , 2016, , .		14
40	Method for a High-Rate Solution Deposition of Zn(O,S) Buffer Layer for High-Efficiency Cu(In,Ga)Se <sub>2</sub> -Based Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 1321-1326.	1.5	33
41	Effects of heavy alkali elements in Cu(In,Ga)Se <sub>2</sub> solar cells with efficiencies up to 22.6%. Physica Status Solidi - Rapid Research Letters, 2016, 10, 583-586.	1.2	1,285
42	Photo-assisted electrodeposition of a ZnO front contact on a p/n junction. Electrochimica Acta, 2016, 220, 176-183.	2.6	6
43	Electrodeposition of ZnO-doped films as window layer for Cd-free CIGS-based solar cells. , 2016, , .		2
44	Photoluminescence studies of polycrystalline Cu(In,Ga)Se <sub>2</sub> : Lateral inhomogeneities beyond Abbe's diffraction limit. Journal of Applied Physics, 2015, 118, .	1.1	3
45	Improved photocurrent in Cu(In,Ga)Se <sub>2</sub> solar cells: From 20.8% to 21.7% efficiency. , 2015, , .		10
46	Improved Photocurrent in Cu(In,Ga)Se <sub>2</sub> Solar Cells: From 20.8% to 21.7% Efficiency with CdS Buffer and 21.0% Cd-Free. IEEE Journal of Photovoltaics, 2015, 5, 1487-1491.	1.5	178
47	Properties of Cu(In,Ga)Se <sub>2</sub> solar cells with new record efficiencies up to 21.7%. Physica Status Solidi - Rapid Research Letters, 2015, 9, 28-31.	1.2	813
48	Gallium gradients in Cu(In,Ga)Se <sub>2</sub> thin-film solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 717-733.	4.4	122
49	Verification of phototransistor model for Cu(In,Ga)Se <sub>2</sub> solar cells. Thin Solid Films, 2015, 582, 392-396.	0.8	23
50	Valence band offsets at Cu(In,Ga)Se <sub>2</sub> /Zn(O,S) interfaces. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1972-1980.	0.8	17
51	Compositional investigation of potassium doped Cu(In,Ga)Se <sub>2</sub> solar cells with efficiencies up to 20.8%. Physica Status Solidi - Rapid Research Letters, 2014, 8, 219-222.	1.2	483
52	CIGS Cells and Modules With High Efficiency on Glass and Flexible Substrates. IEEE Journal of Photovoltaics, 2014, 4, 440-446.	1.5	56
53	Substitution of the CdS buffer layer in CIGS thin-film solar cells. Vakuuum in Forschung Und Praxis, 2014, 26, 23-27.	0.0	55
54	Accelerated Aging and Contact Degradation of CIGS Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 514-519.	1.5	15

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55	High-efficiency Cu(In,Ga)Se <sub>2</sub> cells and modules. Solar Energy Materials and Solar Cells, 2013, 119, 51-58.	3.0	106
56	Impact of annealing on Cu(In,Ga)Se <sub>2</sub> solar cells with Zn(O,S)/(Zn,Mg)O buffers. Thin Solid Films, 2013, 535, 180-183.	0.8	30
57	Chemical bath deposition of Zn(O,S) and CdS buffers: Influence of Cu(In,Ga)Se <sub>2</sub> grain orientation. Applied Physics Letters, 2013, 102, .	1.5	40
58	Long term endurance test and contact degradation of CIGS solar cells. , 2013, , .		2
59	Depth profiling with SNMS and SIMS of Zn(O,S) buffer layers for Cu(In,Ga)Se <sub>2</sub> thin-film solar cells. Surface and Interface Analysis, 2013, 45, 1811-1820.	0.8	26
60	Influence of Cu(In,Ga)Se <sub>2</sub> grain orientation on solution growth of Zn(O,S) and CdS. , 2012, , .		1
61	Accelerated aging and contact degradation of CIGS solar cells. , 2012, , .		2
62	New reaction kinetics for a high-rate chemical bath deposition of the Zn(S,O) buffer layer for Cu(In,Ga)Se <sub>2</sub> -based solar cells. Progress in Photovoltaics: Research and Applications, 2012, 20, 534-542.	4.4	114
63	Comparison of charge distributions in CIGS thin-film solar cells with ZnS/(Zn,Mg)O and CdS/i-ZnO buffers. Thin Solid Films, 2011, 519, 7549-7552.	0.8	47
64	New world record efficiency for Cu(In,Ga)Se <sub>2</sub> thin-film solar cells beyond 20%. Progress in Photovoltaics: Research and Applications, 2011, 19, 894-897.	4.4	1,888
65	Quality and stability of compound indium sulphide as source material for buffer layers in Cu(In,Ga)Se <sub>2</sub> solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 148-152.	3.0	50
66	Short-circuit current improvement of CuGaSe <sub>2</sub> solar cells with a ZnS/(Zn,Mg)O buffer combination. Physica Status Solidi - Rapid Research Letters, 2008, 2, 80-82.	1.2	4