

# Stefan Paetel

## List of Publications by Year in descending order

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32  
papers

2,990  
citations

623188

14  
h-index

500791

28  
g-index

32  
all docs

32  
docs citations

32  
times ranked

3424  
citing authors

#	ARTICLE	IF	CITATIONS
1	Insights into the Effects of RbFâ€Postâ€Deposition Treatments on the Absorber Surface of High Efficiency Cu(In,Ga)Se <sub>2</sub> Solar Cells and Development of Analytical and Machine Learning Process Monitoring Methodologies Based on Combinatorial Analysis. Advanced Energy Materials, 2022, 12, .	10.2	6
2	DLTS investigations on CIGS solar cells from an inline co-evaporation system with RbF post-deposition treatment. EPJ Photovoltaics, 2022, 13, 7.	0.8	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. Journal of Materials Research, 2022, 37, 1825-1834.	1.2	5
4	Behavior of Na and RbFâ€Treated CdS/Cu(In,Ga)Se <sub>2</sub> Solar Cells with Stress Testing under Heat, Light, and Junction Bias. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000530.	1.2	3
5	Challenges in the deposition of (Ag,Cu)(In,Ga)Se <sub>2</sub> absorber layers for thin-film solar cells. JPhys Materials, 2021, 4, 024003.	1.8	10
6	Effects of Sputtered In <sub>x</sub> S <sub>y</sub> Buffer on CIGS with RbF Post-Deposition Treatment. ECS Journal of Solid State Science and Technology, 2021, 10, 055006.	0.9	8
7	The Application of Sputtered Gallium Oxide as Buffer for Cu(In,Ga)Se <sub>2</sub> Solar Cells. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100180.	1.2	4
8	Impact of RbF-PDT on Cu(In,Ga)Se <sub>2</sub> solar cells with CdS and Zn(O,S) buffer layers. EPJ Photovoltaics, 2020, 11, 8.	0.8	17
9	Effects of Alkali and Oxidation Treatments on Efficiency and Stability of CdS/CIGS Solar Cells. , 2020, , .		0
10	CIGS Device Models with Variations of Buffer Layer, Alkali Content, and Oxidation. , 2020, , .		1
11	Sputtered Transparent Electrodes (IO:H and IZO) with Low Parasitic Near-Infrared Absorption for Perovskiteâ€Cu(In,Ga)Se <sub>2</sub> Tandem Solar Cells. ACS Applied Energy Materials, 2019, 2, 7823-7831.	2.5	35
12	Nearâ€Surface [Ga]/([In]+[Ga]) Composition in Cu(In,Ga)Se <sub>2</sub> Thinâ€Film Solar Cell Absorbers: An Overlooked Material Feature. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800856.	0.8	6
13	Toward scalable perovskiteâ€based multijunction solar modules. Progress in Photovoltaics: Research and Applications, 2019, 27, 733-738.	4.4	17
14	Microâ€cone textures for improved light inâ€coupling and retroreflectionâ€inspired light trapping at the front surface of solar modules. Progress in Photovoltaics: Research and Applications, 2019, 27, 593-602.	4.4	16
15	Freeform surface invisibility cloaking of interconnection lines in thin-film photovoltaic modules. Solar Energy Materials and Solar Cells, 2018, 182, 294-301.	3.0	7
16	Efficient, large-area scalable Perovskite-Si and Perovskite-CIGS tandem solar modules. , 2018, , .		2
17	Thin-film solar cells exceeding 22% solar cell efficiency: An overview on CdTe-, Cu(In,Ga)Se <sub>2</sub> -, and perovskite-based materials. Applied Physics Reviews, 2018, 5, .	5.5	175
18	Indium zinc oxide window layer for high-efficiency Cu(In,Ga)Se <sub>2</sub> solar cells. Thin Solid Films, 2017, 634, 160-164.	0.8	12

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19	Scalable perovskite/CIGS thin-film solar module with power conversion efficiency of 17.8%. Journal of Materials Chemistry A, 2017, 5, 9897-9906.	5.2	47
20	Advances in Cost-Efficient Thin-Film Photovoltaics Based on Cu(In,Ga)Se <sub>2</sub> . Engineering, 2017, 3, 445-451.	3.2	79
21	Application of indium zinc oxide window layers in Cu(In,Ga)Se <sub>2</sub> solar cells. Thin Solid Films, 2017, 633, 239-242.	0.8	13
22	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
23	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
24	Copper variation in Cu(In,Ga)Se <sub>2</sub> solar cells with indium sulphide buffer layer. Thin Solid Films, 2015, 582, 328-331.	0.8	7
25	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
26	CIGS Cells and Modules With High Efficiency on Glass and Flexible Substrates. IEEE Journal of Photovoltaics, 2014, 4, 440-446.	1.5	56
27	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
28	Investigation of vertical compositional gradients in Cu(In,Ga)Se <sub>2</sub> by highly spatially and spectrally resolved cathodoluminescence microscopy. Thin Solid Films, 2013, 535, 270-274.	0.8	9
29	Writing Nanowires with Large Conductivity Ratios in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces. Journal of the Physical Society of Japan, 2012, 81, 064703.	0.7	2
30	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
31	Very Large Capacitance Enhancement in a Two-Dimensional Electron System. Science, 2011, 332, 825-828.	6.0	185
32	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