

# Jakub Holovsk

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/4417550/jakub-holovsky-publications-by-year.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

54  
papers

3,152  
citations

17  
h-index

56  
g-index

57  
ext. papers

3,612  
ext. citations

4.8  
avg, IF

4.94  
L-index

#	Paper	IF	Citations
54	Unveiling the Effect of Potassium Treatment on the Mesoporous TiO <sub>2</sub> / Perovskite Interface in Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 11488-11495	6.1	5
53	FTIR Measurement of the Hydrogenated Si(100) Surface: The Structure-Vibrational Interpretation by Means of Periodic DFT Calculation. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 9219-9228	3.8	0
52	Pulsed laser deposition of high-transparency molybdenum oxide thin films. <i>Vacuum</i> , <b>2021</b> , 194, 110613	3.7	
51	Impact of Cation Multiplicity on Halide Perovskite Defect Densities and Solar Cell Voltages. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 27333-27339	3.8	7
50	Elucidating the role of TiCl <sub>4</sub> post-treatment on percolation of TiO <sub>2</sub> electron transport layer in perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 385501	3	3
49	Origins of infrared transparency in highly conductive perovskite stannate BaSnO <sub>3</sub> . <i>APL Materials</i> , <b>2020</b> , 8, 061108	5.7	4
48	Illumination-Dependent Requirements for Heterojunctions and Carrier-Selective Contacts on Silicon. <i>IEEE Journal of Photovoltaics</i> , <b>2020</b> , 10, 1214-1225	3.7	0
47	Optical characterization of low temperature amorphous MoO <sub>x</sub> , WO <sub>x</sub> , and VO <sub>x</sub> prepared by pulsed laser deposition. <i>Thin Solid Films</i> , <b>2020</b> , 693, 137690	2.2	8
46	Controlled Growth of Large Grains in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Films Mediated by an Intermediate Liquid Phase without an Antisolvent for Efficient Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 12484-12493	6.1	8
45	Towards Quantitative Interpretation of Fourier-Transform Photocurrent Spectroscopy on Thin-Film Solar Cells. <i>Coatings</i> , <b>2020</b> , 10, 820	2.9	2
44	Amorphous/Crystalline Silicon Interface Stability: Correlation between Infrared Spectroscopy and Electronic Passivation Properties. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 2000957	4.6	2
43	Temperature Dependence of the Urbach Energy in Lead Iodide Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 1368-1373	6.4	116
42	Concentration-Dependent Impact of Alkali Li Metal Doped Mesoporous TiO <sub>2</sub> Electron Transport Layer on the Performance of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 19376-19384	3.8	24
41	Lead Halide Residue as a Source of Light-Induced Reversible Defects in Hybrid Perovskite Layers and Solar Cells. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 3011-3017	20.1	29
40	Corrections to Highly Conductive and Broadband Transparent Zr-Doped In <sub>2</sub> O <sub>3</sub> as Front Electrode for Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2019</b> , 9, 1155-1155	3.7	
39	Highly Conductive and Broadband Transparent Zr-Doped In <sub>2</sub> O <sub>3</sub> as Front Electrode for Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2018</b> , 8, 1202-1207	3.7	30
38	Shunt Quenching and Concept of Independent Global Shunt in Multijunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2018</b> , 8, 1005-1010	3.7	4

37	Measurement of doping profiles by a contactless method of IR reflectance under grazing incidence. <i>Review of Scientific Instruments</i> , <b>2018</b> , 89, 063114	1.7	
36	Photocurrent Spectroscopy of Perovskite Layers and Solar Cells: A Sensitive Probe of Material Degradation. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 838-843	6.4	13
35	Combining ray tracing with device modeling to evaluate experiments for an optical analysis of crystalline Si solar cells and modules. <i>Energy Procedia</i> , <b>2017</b> , 124, 240-249	2.3	7
34	Radiative Efficiency Limit with Band Tailing Exceeds 30% for Quantum Dot Solar Cells. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 2616-2624	20.1	64
33	Enhancing the optoelectronic properties of amorphous zinc tin oxide by subgap defect passivation: A theoretical and experimental demonstration. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	23
32	Diamond/carbon nanotube composites: Raman, FTIR and XPS spectroscopic studies. <i>Carbon</i> , <b>2017</b> , 111, 54-61	10.4	170
31	Comparison of Silicon Nanocrystals Prepared by Two Fundamentally Different Methods. <i>Nanoscale Research Letters</i> , <b>2016</b> , 11, 445	5	1
30	Experimental quantification of useful and parasitic absorption of light in plasmon-enhanced thin silicon films for solar cells application. <i>Scientific Reports</i> , <b>2016</b> , 6, 22481	4.9	37
29	High efficiency high rate microcrystalline silicon thin-film solar cells deposited at plasma excitation frequencies larger than 100 MHz. <i>Solar Energy Materials and Solar Cells</i> , <b>2015</b> , 143, 347-353	6.4	12
28	Fabrication of double- and triple-junction solar cells with hydrogenated amorphous silicon oxide (a-SiOx:H) top cell. <i>Solar Energy Materials and Solar Cells</i> , <b>2015</b> , 141, 148-153	6.4	20
27	Low-Temperature High-Mobility Amorphous IZO for Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2015</b> , 5, 1340-1347	3.7	85
26	Light management in large area thin-film silicon solar modules. <i>Solar Energy Materials and Solar Cells</i> , <b>2015</b> , 143, 375-385	6.4	5
25	Effect of the thin-film limit on the measurable optical properties of graphene. <i>Scientific Reports</i> , <b>2015</b> , 5, 15684	4.9	10
24	Attenuated total reflectance Fourier-transform infrared spectroscopic investigation of silicon heterojunction solar cells. <i>Review of Scientific Instruments</i> , <b>2015</b> , 86, 073108	1.7	10
23	Raman Spectroscopy of Organic-Inorganic Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 401-6	6.4	182
22	Is light-induced degradation of a-Si:H/c-Si interfaces reversible?. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 252108	1.7	18
21	Organic-Inorganic Halide Perovskites: Perspectives for Silicon-Based Tandem Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2014</b> , 4, 1545-1551	3.7	100
20	Organometallic Halide Perovskites: Sharp Optical Absorption Edge and Its Relation to Photovoltaic Performance. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 1035-9	6.4	1699

19	Surface and Ultrathin-layer Absorptance Spectroscopy for Solar Cells. <i>Energy Procedia</i> , <b>2014</b> , 60, 57-62	2.3	3
18	Thin-film limit formalism applied to surface defect absorption. <i>Optics Express</i> , <b>2014</b> , 22, 31466-72	3.3	5
17	Si-related color centers in nanocrystalline diamond thin films. <i>Physica Status Solidi (B): Basic Research</i> , <b>2014</b> , 251, 2603-2606	1.3	5
16	Substrate and p-layer effects on polymorphous silicon solar cells. <i>EPJ Photovoltaics</i> , <b>2014</b> , 5, 55206	0.7	6
15	Arrays of ZnO nanocolumns for 3-dimensional very thin amorphous and microcrystalline silicon solar cells. <i>Thin Solid Films</i> , <b>2013</b> , 543, 110-113	2.2	12
14	Variable light biasing method to measure component $I_{V}$ characteristics of multi-junction solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2012</b> , 103, 128-133	6.4	12
13	. <i>IEEE Journal of Photovoltaics</i> , <b>2012</b> , 2, 164-168	3.7	4
12	Time evolution of surface defect states in hydrogenated amorphous silicon studied by photothermal and photocurrent spectroscopy and optical simulation. <i>Journal of Non-Crystalline Solids</i> , <b>2012</b> , 358, 2035-2038	3.9	15
11	A New View of Microcrystalline Silicon: The Role of Plasma Processing in Achieving a Dense and Stable Absorber Material for Photovoltaic Applications. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 3665-3671	15.6	69
10	Nanostructured three-dimensional thin film silicon solar cells with very high efficiency potential. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 163503	3.4	81
9	High rate deposition of microcrystalline silicon with silicon oxide doped layers: Highlighting the competing roles of both intrinsic and extrinsic defects on the cells performances <b>2011</b> ,		1
8	Improved amorphous/crystalline silicon interface passivation by hydrogen plasma treatment. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 123506	3.4	197
7	Ultrasharp Si nanowires produced by plasma-enhanced chemical vapor deposition. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2010</b> , 4, 37-39	2.5	13
6	Optical absorption losses in metal layers used in thin film solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2010</b> , 207, 2170-2173	1.6	1
5	Fourier transform photocurrent measurement of thin silicon films on rough, conductive and opaque substrates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2010</b> , 207, 578-581	1.6	7
4	Comparison of photocurrent spectra measured by FTCS and CPM for amorphous silicon layers and solar cells. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 2167-2170	3.9	15
3	Advanced optical characterization of disordered semiconductors by Fourier transform photocurrent spectroscopy. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 2421-2425	3.9	4
2	Experimental Limits of Light Capture in Thin Film Silicon Devices. <i>Materials Research Society Symposia Proceedings</i> , <b>2008</b> , 1101, 1		1

1      Fourier Transform Photocurrent Spectroscopy on Non-Crystalline Semiconductors

3