

Florian N Ruske

List of Publications by Year in Descending Order

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

64
papers

1,469
citations

22
h-index

37
g-index

66
ext. papers

1,570
ext. citations

3.2
avg, IF

4.06
L-index

#	Paper	IF	Citations
64	Optoelectrical analysis of TCO+Silicon oxide double layers at the front and rear side of silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 236, 111493	6.4	5
63	Elucidating the Effect of the Different Buffer Layers on the Thermal Stability of CIGSe Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2021 , 11, 648-657	3.7	0
62	Energy-Level Alignment Tuning at Tetracene/c-Si Interfaces. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 27867-27881	3.8	6
61	Influence of Silicon Layers on the Growth of ITO and AZO in Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2020 , 10, 703-709	3.7	14
60	Advantageous light management in Cu(In,Ga)Se ₂ superstrate solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 150, 76-81	6.4	18
59	Water-assisted nitrogen mediated crystallisation of ZnO films. <i>Thin Solid Films</i> , 2015 , 590, 177-183	2.2	3
58	High mobility In ₂ O ₃ :H as contact layer for a-Si:H/c-Si heterojunction and μ -Si:H thin film solar cells. <i>Thin Solid Films</i> , 2015 , 594, 316-322	2.2	23
57	Combination of nitrogen mediated crystallisation with post-deposition annealing towards ultra-thin ZnO:Al contacts. <i>Thin Solid Films</i> , 2015 , 589, 750-754	2.2	3
56	Light trapping for a-Si:H/ μ -c-Si:H tandem solar cells using direct pulsed laser interference texturing. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015 , 9, 36-40	2.5	9
55	Conversion efficiency and process stability improvement of electron beam crystallized thin film silicon solar cells on glass. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 123, 13-16	6.4	43
54	Solution-Processed Crystalline Silicon Thin-Film Solar Cells. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1300046	4.6	17
53	Advanced microhole arrays for light trapping in thin film silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 125, 298-304	6.4	6
52	Annealing related changes in near-edge absorption and structural properties of Al-doped ZnO thin films. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014 , 11, 1468-1471		
51	The complex interface chemistry of thin-film silicon/zinc oxide solar cell structures. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 26266-72	3.6	7
50	Damp heat stable doped zinc oxide films. <i>Thin Solid Films</i> , 2014 , 555, 48-52	2.2	38
49	Towards wafer quality crystalline silicon thin-film solar cells on glass. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 128, 190-197	6.4	100
48	Improved conversion efficiency of a-Si:H/ μ -c-Si:H thin-film solar cells by using annealed Al-doped zinc oxide as front electrode material. <i>Progress in Photovoltaics: Research and Applications</i> , 2014 , 22, 1285-1291	6.8	22

47	Very thin, highly-conductive ZnO:Al front electrode on textured glass as substrate for thin-film silicon solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 44-47	2.5	8
46	Crack formation and Zn diffusion in high-temperature processed poly-Si/ZnO:Al stacks. <i>Thin Solid Films</i> , 2014 , 566, 83-87	2.2	2
45	Material properties of high-mobility TCOs and application to solar cells 2014 ,		1
44	Potential of high-mobility sputtered zinc oxide as front contact for high efficiency thin film silicon solar cells. <i>Thin Solid Films</i> , 2014 , 555, 138-142	2.2	7
43	Chemical interaction at the buried silicon/zinc oxide thin-film solar cell interface as revealed by hard X-ray photoelectron spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013 , 190, 309-313	1.7	4
42	Optical properties and Limits of a Large-Area Periodic Nanophotonic Light Trapping Design for Polycrystalline Silicon Thin Film Solar Cells. <i>Materials Research Society Symposia Proceedings</i> , 2013 , 1493, 59-64		2
41	Identification of intra-grain and grain boundary defects in polycrystalline Si thin films by electron paramagnetic resonance. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 959-962	2.5	15
40	Light trapping in polycrystalline silicon thin-film solar cells based on liquid phase crystallization on textured substrates 2013 ,		3
39	Analysis of Urbach-like absorption tails in thermally treated ZnO:Al thin films. <i>Applied Physics Letters</i> , 2013 , 103, 192108	3.4	12
38	ZnO:Al with tuned properties for photovoltaic applications: thin layers and high mobility material 2013 ,		2
37	Structural properties of Si/SiO ₂ nanostructures grown by decomposition of substoichiometric SiO _x N _y layers for photovoltaic applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013 , 210, 676-681	1.6	
36	As-grown textured zinc oxide films by ion beam treatment and magnetron sputtering. <i>Thin Solid Films</i> , 2012 , 520, 4208-4213	2.2	13
35	Improving the electrical and optical properties of DC-sputtered ZnO:Al by thermal post deposition treatments. <i>Thin Solid Films</i> , 2012 , 520, 4203-4207	2.2	37
34	Structural investigations of silicon nanostructures grown by self-organized island formation for photovoltaic applications. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 108, 719-726	2.6	5
33	On the influence of sub-wavelength Al/Si interface roughness on the efficiency of crystalline Si-solar cells. <i>Thin Solid Films</i> , 2012 , 525, 158-161	2.2	1
32	Optical characterization of high mobility polycrystalline ZnO:Al films 2012 ,		7
31	High mobility annealing of Transparent Conductive Oxides. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 34, 012004	0.4	8
30	Deposition and Properties of TCOs. <i>Engineering Materials</i> , 2012 , 301-330	0.4	2

29	Pretreatment of glass substrates by Ar/O ₂ ion beams for the as-sputtered rough Al doped zinc oxide thin films. <i>Surface and Coatings Technology</i> , 2011 , 205, S223-S228	4.4	4
28	Reactive sputtering of ZnO/ZnO:Al contacts for chalcopyrite solar modules. <i>Thin Solid Films</i> , 2011 , 520, 1295-1298	2.2	
27	Hard x-ray photoelectron spectroscopy study of the buried Si/ZnO thin-film solar cell interface: Direct evidence for the formation of SiO ₂ at the expense of Zn-O bonds. <i>Applied Physics Letters</i> , 2011 , 99, 152104	3.4	24
26	Band lineup in amorphous/crystalline silicon heterojunctions and the impact of hydrogen microstructure and topological disorder. <i>Physical Review B</i> , 2011 , 83,	3.3	80
25	Rigorous optical simulation of light management in crystalline silicon thin film solar cells with rough interface textures 2011 ,		5
24	Impact of solid-phase crystallization of amorphous silicon on the chemical structure of the buried Si/ZnO thin film solar cell interface. <i>Applied Physics Letters</i> , 2010 , 97, 072105	3.4	9
23	Improved electrical transport in Al-doped zinc oxide by thermal treatment. <i>Journal of Applied Physics</i> , 2010 , 107, 013708	2.5	163
22	Optical on-line monitoring for the long-term stabilization of a reactive mid-frequency sputtering process of Al-doped zinc oxide films. <i>Thin Solid Films</i> , 2010 , 518, 3115-3118	2.2	5
21	Microstructure and photovoltaic performance of polycrystalline silicon thin films on temperature-stable ZnO:Al layers. <i>Journal of Applied Physics</i> , 2009 , 106, 084506	2.5	44
20	Influence of Hydrogen Plasma on the Defect Passivation of Polycrystalline Si Thin Film Solar Cells. <i>Plasma Processes and Polymers</i> , 2009 , 6, S36-S40	3.4	33
19	Influence of damp heat on the optical and electrical properties of Al-doped zinc oxide. <i>Thin Solid Films</i> , 2009 , 517, 2291-2294	2.2	37
18	Optical modeling of free electron behavior in highly doped ZnO films. <i>Thin Solid Films</i> , 2009 , 518, 1289-1293		67
17	DC reactive sputtering of aluminium doped zinc oxide films for solar modules controlled by target voltage. <i>Thin Solid Films</i> , 2009 , 518, 1204-1207	2.2	18
16	Solid-phase crystallization of amorphous silicon on ZnO:Al for thin-film solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2009 , 93, 855-858	6.4	22
15	Polycrystalline silicon thin-film solar cells on glass. <i>Solar Energy Materials and Solar Cells</i> , 2009 , 93, 1004-1008		63
14	Polycrystalline Silicon Thin-film Solar Cells on ZnO:Al Coated Glass. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1066, 1		1
13	High power pulsed magnetron sputtering of transparent conducting oxides. <i>Thin Solid Films</i> , 2008 , 516, 5847-5859	2.2	93
12	Reactive deposition of aluminium-doped zinc oxide thin films using high power pulsed magnetron sputtering. <i>Thin Solid Films</i> , 2008 , 516, 4472-4477	2.2	38

11	Large area ZnO:Al films with tailored light scattering properties for photovoltaic applications. <i>Thin Solid Films</i> , 2007 , 515, 8695-8698	2.2	62
10	Flux of Positive Ions and Film Growth in Reactive Sputtering of Al-Doped ZnO Thin Films. <i>Plasma Processes and Polymers</i> , 2007 , 4, S336-S340	3-4	5
9	Determination of Plasma Parameters during Deposition of ZnO Films by Ceramic and Metallic Targets and Correlation with Film Properties. <i>Plasma Processes and Polymers</i> , 2007 , 4, S527-S530	3-4	3
8	Temperature stability of ZnO:Al film properties for poly-Si thin-film devices. <i>Applied Physics Letters</i> , 2007 , 91, 241911	3-4	36
7	ZnO:Al films deposited by in-line reactive AC magnetron sputtering for a-Si:H thin film solar cells. <i>Thin Solid Films</i> , 2006 , 496, 16-25	2.2	79
6	Process stabilisation for large area reactive MF-sputtering of Al-doped ZnO. <i>Thin Solid Films</i> , 2006 , 502, 44-49	2.2	14
5	Hydrogen doping of DC sputtered ZnO:Al films from novel target material. <i>Surface and Coatings Technology</i> , 2005 , 200, 236-240	4-4	36
4	Optical characterization of aluminum-doped zinc oxide films by advanced dispersion theories. <i>Thin Solid Films</i> , 2004 , 455-456, 201-206	2.2	54
3	Reversible changes in the lattice site structure for In implanted into GaN. <i>Applied Physics Letters</i> , 2002 , 80, 4531-4533	3-4	20
2	Annealing Behaviour of GaN after Implantation with Hafnium and Indium. <i>Physica Status Solidi (B): Basic Research</i> , 2001 , 228, 331-335	1-3	9
1	Hybrid Perovskite Degradation from an Optical Perspective: A Spectroscopic Ellipsometry Study from the Deep Ultraviolet to the Middle Infrared. <i>Advanced Optical Materials</i> , 2101553	8.1	2