Henning Schulte-Huxel

List of Publications by Year
in descending order

49 papers	654 citations	516710 16 h-index	610901 24 g-index
49 all docs	49 docs citations	49 times ranked	711 citing authors

#	Article	IF	Citations
1	Partial shading of one solar cell in a photovoltaic module with 3-terminal cell interconnection. Solar Energy Materials and Solar Cells, 2021, 219, 110811.	6.2	9
2	Simulation-based roadmap for the integration of poly-silicon on oxide contacts into screen-printed crystalline silicon solar cells. Scientific Reports, 2021, 11, 996.	3.3	24
3	Homogenous Voltage-Matched Strings Using Three-Terminal Tandem Solar Cells: Fundamentals and End Losses. IEEE Journal of Photovoltaics, 2021, 11, 1078-1086.	2.5	12
4	For none, one, or two polaritiesâ€"How do POLO junctions fit best into industrial Si solar cells?. Progress in Photovoltaics: Research and Applications, 2020, 28, 503-516.	8.1	28
5	Three-terminal IIIâ€"V/Si tandem solar cells enabled by a transparent conductive adhesive. Sustainable Energy and Fuels, 2020, 4, 549-558.	4.9	46
6	Three Bypass Diodes Architecture at the Limit. IEEE Journal of Photovoltaics, 2020, 10, 1828-1838.	2.5	14
7	A 22.3% Efficient pâ€Type Back Junction Solar Cell with an Alâ€Printed Frontâ€Side Grid and a Passivating n⁺â€Type Polysilicon on Oxide Contact at the Rear Side. Solar Rrl, 2020, 4, 2000435.	5.8	13
8	Interconnect-shingling: Maximizing the active module area with conventional module processes. Solar Energy Materials and Solar Cells, 2019, 200, 109991.	6.2	17
9	Backâ€contacted bottom cells with three terminals: Maximizing power extraction from currentâ€mismatched tandem cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 410-423.	8.1	31
10	Ray Tracing of Complete Solar Cell Modules. , 2019, , .		1
11	III-V/Si Tandem Cells Utilizing Interdigitated Back Contact Si Cells and Varying Terminal Configurations. , 2019, , .		2
12	Spectra-Dependent Stability of the Passivation Quality of Al2O3/c-Si Interfaces. IEEE Journal of Photovoltaics, 2018, 8, 96-102.	2.5	6
13	HVPE-Grown GaAs//Si Tandem Device Performance. , 2018, , .		0
14	Present status and future perspectives of bifacial PERC+ solar cells and modules. Japanese Journal of Applied Physics, 2018, 57, 08RA01.	1.5	29
15	Measuring the light recovery factor of backsheets in photovoltaic modules. Solar Energy Materials and Solar Cells, 2018, 186, 175-183.	6.2	7
16	String-Level Modeling of Two, Three, and Four Terminal Si-Based Tandem Modules. IEEE Journal of Photovoltaics, 2018, 8, 1370-1375.	2.5	26
17	Energy Yield Analysis of Multiterminal Si-Based Tandem Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 1376-1383.	2.5	26
18	Yield analysis and comparison of GaInP/Si and GaInP/GaAs multi-terminal tandem solar cells. AIP Conference Proceedings, 2018, , .	0.4	2

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19	UV-induced degradation of PERC solar modules with UV-transparent encapsulation materials. Progress in Photovoltaics: Research and Applications, 2017, 25, 409-416.	8.1	29
20	PV module current gains due to structured backsheets. Energy Procedia, 2017, 124, 495-503.	1.8	14
21	UV radiation hardness of photovoltaic modules featuring crystalline Si solar cells with AlO_x/p⁺â€type Si and SiN_y/n⁺â€type Si interfaces. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700178.	2.4	11
22	High-Efficiency Modules With Passivated Emitter and Rear Solar Cellsâ€"An Analysis of Electrical and Optical Losses. IEEE Journal of Photovoltaics, 2017, 7, 25-31.	2.5	12
23	Reduced Module Operating Temperature and Increased Yield of Modules With PERC Instead of Al-BSF Solar Cells. IEEE Journal of Photovoltaics, 2017, 7, 44-50.	2.5	30
24	III-V/Si tandem cell to module interconnection - comparison between different operation modes. , 2017, , .		1
25	III- V/Si Tandem Cells Utilizing Interdigitated Back Contact Si Cells and Varying Terminal Configurations. , 2017, , .		3
26	Notice of Removal 20.2% Module efficiency on large area with passivated emitter and rear solar cells. , 2017, , .		0
27	Reducing UV induced degradation losses of solar modules with c-Si solar cells featuring dielectric passivation layers. , 2017, , .		5
28	Effect of UV illumination on the passivation quality of AlO<inf>x</inf>/c-Si interfaces. , 2016, , .		3
29	Increased Light Harvesting by Structured Cell Interconnection Ribbons: An Optical Ray Tracing Study Using a Realistic Daylight Model. Energy Procedia, 2016, 92, 505-514.	1.8	16
30	Simultaneous Contacting and Interconnection of Passivated Emitter and Rear Solar Cells. Energy Procedia, 2016, 92, 515-522.	1.8	4
31	Optimizing the Solar Cell Front Side Metallization and the Cell Interconnection for High Module Power Output. Energy Procedia, 2016, 92, 531-539.	1.8	17
32	Impact of Ag Pads on the Series Resistance of PERC Solar Cells. Energy Procedia, 2016, 92, 743-749.	1.8	3
33	Optical Constants of UV Transparent EVA and the Impact on the PV Module Output Power under Realistic Irradiation. Energy Procedia, 2016, 92, 523-530.	1.8	60
34	Optimized Interconnection of Passivated Emitter and Rear Cells by Experimentally Verified Modeling. IEEE Journal of Photovoltaics, 2016, 6, 432-439.	2.5	23
35	Thermal processes driving laser-welding for module interconnection. , 2015, , .		1
36	Interconnection of busbarâ€free back contacted solar cells by laser welding. Progress in Photovoltaics: Research and Applications, 2015, 23, 1057-1065.	8.1	10

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37	Analysis of Thermal Processes Driving Laser Welding of Aluminum Deposited on Glass Substrates for Module Interconnection of Silicon Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 1606-1612.	2.5	3
38	Laser microwelding of thin Al layers for interconnection of crystalline Si solar cells: analysis of process limits for ns and Î¼s lasers. Journal of Photonics for Energy, 2014, 4, 041597.	1.3	1
39	Principle of Module-Level Processing Demonstrated at Single a-Si:H/c-Si Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 1018-1024.	2.5	5
40	Building blocks for back-junction back-contacted cells and modules with ion-implanted poly-Si junctions. , 2014, , .		18
41	Laser-welded Interconnection of Screen-printed Si Solar Cells. Energy Procedia, 2014, 55, 356-360.	1.8	4
42	Two-level Metallization and Module Integration of Point-contacted Solar Cells. Energy Procedia, 2014, 55, 361-368.	1.8	5
43	Thin Crystalline Macroporous Silicon Solar Cells with Ion Implanted Emitter. Energy Procedia, 2013, 38, 910-918.	1.8	4
44	Module interconnection of both sides-contacted silicon solar cells by screen-printing. , 2013, , .		3
45	From highâ€efficiency nâ€type solar cells to modules exceeding 20% efficiency with aluminumâ€based cell interconnection. Progress in Photovoltaics: Research and Applications, 2013, 21, 1354-1362.	8.1	3
46	Al-Foil on Encapsulant for the Interconnection of Al-Metalized Silicon Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 77-82.	2.5	12
47	Aging behaviour of laser welded Al-interconnections in crystalline silicon modules. Solar Energy Materials and Solar Cells, 2012, 106, 22-26.	6.2	18
48	Aluminum-Based Mechanical and Electrical Laser Interconnection Process for Module Integration of Silicon Solar Cells. IEEE Journal of Photovoltaics, 2012, 2, 16-21.	2.5	20
49	High-Efficiency Cells From Layer Transfer: A First Step Toward Thin-Film/Wafer Hybrid Silicon Technologies. IEEE Journal of Photovoltaics, 2011, 1, 9-15.	2.5	23