

Michael Rienäcker

List of Publications by Year in descending order

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Version: 2024-02-01

25
papers

1,502
citations

471509

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610901

24
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docs citations

25
times ranked

1275
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards 28 %-efficient Si single-junction solar cells with better passivating POLO junctions and photonic crystals. <i>Solar Energy Materials and Solar Cells</i> , 2022, 238, 111560.	6.2	10
2	Optimization of four terminal rear heterojunction GaAs on Si interdigitated back contact tandem solar cells. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	13
3	Changes in hydrogen concentration and defect state density at the poly-Si/SiO _x /c-Si interface due to firing. <i>Solar Energy Materials and Solar Cells</i> , 2021, 231, 111297.	6.2	19
4	Photonic crystals for highly efficient silicon single junction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021, 233, 111337.	6.2	11
5	Rear side dielectrics on interdigitating p ⁺ -(i)-n ⁺ back-contact solar cells \hat{a} hydrogenation vs. charge effects. <i>EPJ Photovoltaics</i> , 2021, 12, 6.	1.6	2
6	Characterization of multiterminal tandem photovoltaic devices and their subcell coupling. <i>Cell Reports Physical Science</i> , 2021, 2, 100677.	5.6	8
7	Three-terminal III ^V /Si tandem solar cells enabled by a transparent conductive adhesive. <i>Sustainable Energy and Fuels</i> , 2020, 4, 549-558.	4.9	46
8	2D/3D Heterostructure for Semitransparent Perovskite Solar Cells with Engineered Bandgap Enables Efficiencies Exceeding 25% in Four ^{Terminal Tandems with Silicon and CIGS} . <i>Advanced Functional Materials</i> , 2020, 30, 1909919.	14.9	123
9	A Taxonomy for Three-Terminal Tandem Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 1233-1242.	17.4	51
10	Separating the two polarities of the POLO contacts of an 26.1%-efficient IBC solar cell. <i>Scientific Reports</i> , 2020, 10, 658.	3.3	66
11	Nanostructured front electrodes for perovskite/c-Si tandem photovoltaics. <i>Optics Express</i> , 2020, 28, 8878.	3.4	8
12	Toward Low-Cost 4-Terminal GaAs//Si Tandem Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 2375-2380.	5.1	17
13	Back ^{contacted bottom cells with three terminals: Maximizing power extraction from current^{mismatched tandem cells}} . <i>Progress in Photovoltaics: Research and Applications</i> , 2019, 27, 410-423.	8.1	31
14	From PERC to Tandem: POLO- and p ⁺ /n ⁺ Poly-Si Tunneling Junction as Interface Between Bottom and Top Cell. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 49-54.	2.5	29
15	Maximizing tandem solar cell power extraction using a three-terminal design. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1141-1147.	4.9	67
16	Equivalent Performance in Three-Terminal and Four-Terminal Tandem Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1584-1589.	2.5	31
17	Temperature-dependent contact resistance of carrier selective Poly-Si on oxide junctions. <i>Solar Energy Materials and Solar Cells</i> , 2018, 185, 425-430.	6.2	54
18	Laser contact openings for local poly-Si-metal contacts enabling 26.1%-efficient POLO-IBC solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 186, 184-193.	6.2	475

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19	Yield analysis and comparison of GaInP/Si and GaInP/GaAs multi-terminal tandem solar cells. AIP Conference Proceedings, 2018, , .	0.4	2
20	Pinhole density and contact resistivity of carrier selective junctions with polycrystalline silicon on oxide. Applied Physics Letters, 2017, 110, .	3.3	61
21	Junction Resistivity of Carrier-Selective Polysilicon on Oxide Junctions and Its Impact on Solar Cell Performance. IEEE Journal of Photovoltaics, 2017, 7, 11-18.	2.5	91
22	III- V/Si Tandem Cells Utilizing Interdigitated Back Contact Si Cells and Varying Terminal Configurations. , 2017, , .		3
23	Improvement of the SRH bulk lifetime upon formation of n-type POLO junctions for 25% efficient Si solar cells. Solar Energy Materials and Solar Cells, 2017, 173, 85-91.	6.2	65
24	Recombination Behavior of Photolithography-free Back Junction Back Contact Solar Cells with Carrier-selective Polysilicon on Oxide Junctions for Both Polarities. Energy Procedia, 2016, 92, 412-418.	1.8	42
25	Working principle of carrier selective poly-Si/c-Si junctions: Is tunnelling the whole story?. Solar Energy Materials and Solar Cells, 2016, 158, 60-67.	6.2	177