

Tobias F Wietler

List of Publications by Year in descending order

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papers

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citations

567281

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967
citing authors

#	ARTICLE	IF	CITATIONS
1	Monolithic Perovskite/Silicon Tandem Solar Cells Fabricated Using Industrial p-type Polycrystalline Silicon on Oxide/Passivated Emitter and Rear Cell Silicon Bottom Cell Technology. Solar Rrl, 2022, 6, .	5.8	17
2	Ion-Implanted Epitaxially Grown Gd2O3 on Silicon with Improved Electrical Properties. Journal of Electronic Materials, 2020, 49, 6270-6275.	2.2	2
3	2D/3D Heterostructure for Semitransparent Perovskite Solar Cells with Engineered Bandgap Enables Efficiencies Exceeding 25% in Four-terminal Tandems with Silicon and CIGS. Advanced Functional Materials, 2020, 30, 1909919.	14.9	123
4	Detailed Analysis and Understanding of the Transport Mechanism of Poly-Si-Based Carrier Selective Junctions. IEEE Journal of Photovoltaics, 2019, 9, 1575-1582.	2.5	18
5	High Temperature Annealing of ZnO:Al on Passivating POLO Junctions: Impact on Transparency, Conductivity, Junction Passivation, and Interface Stability. IEEE Journal of Photovoltaics, 2019, 9, 89-96.	2.5	19
6	From PERC to Tandem: POLO- and p ⁺ /n ⁺ Poly-Si Tunneling Junction as Interface Between Bottom and Top Cell. IEEE Journal of Photovoltaics, 2019, 9, 49-54.	2.5	29
7	Building Blocks for Industrial, Screen-Printed Double-Side Contacted POLO Cells With Highly Transparent ZnO:Al Layers. IEEE Journal of Photovoltaics, 2018, , 1-7.	2.5	19
8	Increasing the photo-generated current in solar cells with passivating contacts by reducing the poly-Si deposition temperature. AIP Conference Proceedings, 2018, , .	0.4	6
9	ZnO:Al/a-SiOx front contact for polycrystalline-silicon-on-oxide (POLO) solar cells. AIP Conference Proceedings, 2018, , .	0.4	7
10	Pinhole density and contact resistivity of carrier selective junctions with polycrystalline silicon on oxide. Applied Physics Letters, 2017, 110, .	3.3	61
11	Introducing pinhole magnification by selective etching: application to poly-Si on ultra-thin silicon oxide films. Energy Procedia, 2017, 124, 435-440.	1.8	14
12	On the recombination behavior of p ⁺ -type polysilicon on oxide junctions deposited by different methods on textured and planar surfaces. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700058.	1.8	48
13	Characterization of thin SiGe layers on Si (001) by spectroscopic ellipsometry for Ge fractions from 0 to 100%. Applied Surface Science, 2017, 421, 772-777.	6.1	4
14	Strain-induced phase variation and dielectric constant enhancement of epitaxial Gd2O3. Journal of Applied Physics, 2016, 120, .	2.5	5
15	Electrical Deactivation of Boron in p+Polycrystalline Silicon/SiOx/Crystalline Silicon Passivating Contacts for Silicon Solar Cells. , 2016, , .		1
16	Room temperature direct band gap emission characteristics of surfactant mediated grown compressively strained Ge films. Nanotechnology, 2016, 27, 435204.	2.6	5
17	Formation and properties of high-dose nitrogen implanted epitaxially grown Gd2O3 on silicon. Journal of Applied Physics, 2016, 120, .	2.5	6
18	Evolution of oxide disruptions: The (W)hole story about poly-Si/c-Si passivating contacts. , 2016, , .		18

#	ARTICLE	IF	CITATIONS
19	Dopant diffusion from p ⁺ -poly-Si into c-Si during thermal annealing. , 2016, , .		6
20	Parasitic Absorption in Polycrystalline Si-layers for Carrier-selective Front Junctions. Energy Procedia, 2016, 92, 199-204.	1.8	77
21	In situ observation of low temperature growth of Ge on Si(1 1 1) by reflection high energy electron diffraction. Applied Surface Science, 2016, 370, 40-48.	6.1	9
22	Ion Implantation for Poly-Si Passivated Back-Junction Back-Contacted Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 507-514.	2.5	131
23	Polycrystalline Si/ Monocrystalline Si, and P. IEEE	2.5	91
24	Recombination behavior and contact resistance of n+ and p+ poly-crystalline Si/mono-crystalline Si junctions. Solar Energy Materials and Solar Cells, 2014, 131, 85-91.	6.2	195
25	Optical Emission Characteristics of Compressively Strained Ge Films. , 2014, , .		0
26	Carbon-mediated growth of thin, fully relaxed germanium films on silicon. Applied Physics Letters, 2012, 100, .	3.3	14
27	Relaxed Germanium on Porous Silicon Substrates. , 2012, , .		3
28	Influence Of Sb Induced Surface Faceting On Structural Properties Of Relaxed Ge Films On Si(001). , 2010, , .		1
29	The Role of Thermal and Electronic Pressure in the Picosecond Acoustic Response of Femtosecond Laser-excited Solids. Materials Research Society Symposia Proceedings, 2009, 1230, 1.	0.1	0
30	Relaxed germanium films on silicon (110). Thin Solid Films, 2008, 517, 272-274.	1.8	8
31	Surfactant-Mediated Epitaxy of Germanium on Structured Silicon Substrates: Towards Embedded Germanium. AIP Conference Proceedings, 2007, , .	0.4	0
32	Residual strain in Ge films grown by surfactant-mediated epitaxy on Si(111) and Si(001) substrates. Materials Science in Semiconductor Processing, 2006, 9, 659-663.	4.0	8
33	Surfactant-mediated epitaxy of high-quality low-doped relaxed germanium films on silicon (001). Thin Solid Films, 2006, 508, 6-9.	1.8	23
34	Advances in surfactant-mediated growth of germanium on silicon: high-quality p-type Ge films on Si. Materials Science in Semiconductor Processing, 2005, 8, 73-77.	4.0	20
35	Surfactant-mediated epitaxy of relaxed low-doped Ge films on Si(001) with low defect densities. Applied Physics Letters, 2005, 87, 182102.	3.3	41