Tobias F Wietler

List of Publications by Year
in descending order

35	1,029	567281 15	526287 27
papers	citations	h-index	g-index

36	36	36	967
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Ion Implantation for Poly-Si Passivated Back-Junction Back-Contacted Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 507-514.	2.5	131
3	2D/3D Heterostructure for Semitransparent Perovskite Solar Cells with Engineered Bandgap Enables Efficiencies Exceeding 25% in Fourâ€Terminal Tandems with Silicon and CIGS. Advanced Functional Materials, 2018, , 1803753.	14.9	123
4	A Simple Model Describing the Symmetric <formula formulatype="inline"><tex Notation="TeX">$\hbox{--}V$</tex></formula> Characteristics of <formula formulatype="inline"><tex Notation="TeX">$\hbox{p}$</tex></formula> Polycrystalline Si/ <formula formulatype="inline"><tex Notation="TeX">$\hbox{n}$</tex></formula> Monocrystalline Si, and <formula formulatype="inline"> <tex Notation="TeX">$\hbox{n}$</tex></formula> P. IEEE Jour	2.5	91
5	Parasitic Absorption in Polycrystalline Si-layers for Carrier-selective Front Junctions. Energy Procedia, 2016, 92, 199-204.	1.8	77
6	Pinhole density and contact resistivity of carrier selective junctions with polycrystalline silicon on oxide. Applied Physics Letters, 2017, 110, .	3.3	61
7	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
8	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
9	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
10	Surfactant-mediated epitaxy of high-quality low-doped relaxed germanium films on silicon (001). Thin Solid Films, 2006, 508, 6-9.	1.8	23
11	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
12	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
13	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
14	Evolution of oxide disruptions: The (W)hole story about poly-Si/c-Si passivating contacts. , 2016, , .		18
15	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
16	Monolithic Perovskite/Silicon Tandem Solar Cells Fabricated Using Industrial pâ€Type Polycrystalline Silicon on Oxide/Passivated Emitter and Rear Cell Silicon Bottom Cell Technology. Solar Rrl, 2022, 6, .	5.8	17
17	Carbon-mediated growth of thin, fully relaxed germanium films on silicon. Applied Physics Letters, 2012, 100, .	3.3	14
18	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

#	Article	IF	Citations
19	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
20	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
21	Relaxed germanium films on silicon (110). Thin Solid Films, 2008, 517, 272-274.	1.8	8
22	ZnO:Al/a-SiOx front contact for polycrystalline-silicon-on-oxide (POLO) solar cells. AIP Conference Proceedings, 2018, , .	0.4	7
23	Formation and properties of high-dose nitrogen implanted epitaxially grown Gd2O3 on silicon. Journal of Applied Physics, 2016, 120, .	2.5	6
24	Dopant diffusion from p⁺-poly-Si into c-Si during thermal annealing. , 2016, , .		6
25	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
26	Strain-induced phase variation and dielectric constant enhancement of epitaxial Gd2O3. Journal of Applied Physics, 2016, 120, .	2.5	5
27	Room temperature direct band gap emission characteristics of surfactant mediated grown compressively strained Ge films. Nanotechnology, 2016, 27, 435204.	2.6	5
28	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
29	Relaxed Germanium on Porous Silicon Substrates. , 2012, , .		3
30	Ion-Implanted Epitaxially Grown Gd2O3 on Silicon with Improved Electrical Properties. Journal of Electronic Materials, 2020, 49, 6270-6275.	2.2	2
31	Influence Of Sb Induced Surface Faceting On Structural Properties Of Relaxed Ge Films On Si(001). , 2010, , .		1
32	Electrical Deactivation of Boron in p+-Polycrystalline Silicon/SiOx/Crystalline Silicon Passivating Contacts for Silicon Solar Cells. , 2016, , .		1
33	Surfactant-Mediated Epitaxy of Germanium on Structured Silicon Substrates: Towards Embedded Germanium. AIP Conference Proceedings, 2007, , .	0.4	0
34	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
35	Optical Emission Characteristics of Compressively Strained Ge Films. , 2014, , .		0