

Stephanie Essig

List of Publications by Citations

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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.

23
papers

1,139
citations

15
h-index

25
g-index

25
ext. papers

1,345
ext. citations

8
avg, IF

3.96
L-index

#	Paper	IF	Citations
23	Raising the one-sun conversion efficiency of III-V/Si solar cells to 32.8% for two junctions and 35.9% for three junctions. <i>Nature Energy</i> , 2017 , 2,	62.3	303
22	Stable Dopant-Free Asymmetric Heterocontact Silicon Solar Cells with Efficiencies above 20%. <i>ACS Energy Letters</i> , 2018 , 3, 508-513	20.1	115
21	Fabrication of GaInP/GaAs//Si Solar Cells by Surface Activated Direct Wafer Bonding. <i>IEEE Journal of Photovoltaics</i> , 2013 , 3, 1423-1428	3.7	99
20	. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 1012-1019	3.7	86
19	Comparison of Direct Growth and Wafer Bonding for the Fabrication of GaInP/GaAs Dual-Junction Solar Cells on Silicon. <i>IEEE Journal of Photovoltaics</i> , 2014 , 4, 620-625	3.7	84
18	Phonon-assisted electroluminescence from metallic carbon nanotubes and graphene. <i>Nano Letters</i> , 2010 , 10, 1589-94	11.5	71
17	Progress Towards a 30% Efficient GaInP/Si Tandem Solar Cell. <i>Energy Procedia</i> , 2015 , 77, 464-469	2.3	69
16	Wafer-Bonded GaInP/GaAs//Si Solar Cells With 30% Efficiency Under Concentrated Sunlight. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 977-981	3.7	67
15	. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 473-482	3.7	53
14	Fast Atom Beam Activated Wafer Bonds between n-Si and n-GaAs with Low Resistance. <i>ECS Journal of Solid State Science and Technology</i> , 2013 , 2, Q178-Q181	2	41
13	Toward Annealing-Stable Molybdenum-Oxide-Based Hole-Selective Contacts For Silicon Photovoltaics. <i>Solar Rrl</i> , 2018 , 2, 1700227	7.1	31
12	. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 41-47	3.7	29
11	Fast atom beam-activated n-Si/n-GaAs wafer bonding with high interfacial transparency and electrical conductivity. <i>Journal of Applied Physics</i> , 2013 , 113, 203512	2.5	29
10	III-V/Si wafer bonding using transparent, conductive oxide interlayers. <i>Applied Physics Letters</i> , 2015 , 106, 263904	3.4	18
9	Aberration-corrected transmission electron microscopy analyses of GaAs/Si interfaces in wafer-bonded multi-junction solar cells. <i>Ultramicroscopy</i> , 2013 , 134, 55-61	3.1	16
8	Microchannel contacting of crystalline silicon solar cells. <i>Scientific Reports</i> , 2017 , 7, 9085	4.9	6
7	Development of highly-efficient GaInP/Si Tandem Solar Cells 2015 ,		6

6	Indium zinc oxide mediated wafer bonding for III \bar{V} /Si tandem solar cells 2015 ,		6
5	Boosting the efficiency of III-V/Si tandem solar cells 2016 ,		4
4	Numerical simulation of temperature dependence of MoOx based SHJ solar cell 2018 ,		2
3	MoOx and WOx based hole-selective contacts for wafer-based Si solar cells 2017 ,		2
2	Analyses of Interfaces in Wafer-Bonded Tandem Solar Cells by Aberration-Corrected STEM and EELS. <i>Microscopy and Microanalysis</i> , 2014 , 20, 456-457	0.5	1
1	Challenges in the deposition of (Ag,Cu)(In,Ga)Se ₂ absorber layers for thin-film solar cells. <i>JPhys Materials</i> , 2021 , 4, 024003	4.2	0