AnYao Liu

List of Publications by Year
in descending order

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33	512	687335 13	713444 21
papers	citations	h-index	g-index

34	34	34	386
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Gettering of interstitial iron in silicon by plasma-enhanced chemical vapour deposited silicon nitride films. Journal of Applied Physics, 2016, 120, .	2.5	52
2	Effective impurity gettering by phosphorus- and boron-diffused polysilicon passivating contacts for silicon solar cells. Solar Energy Materials and Solar Cells, 2018, 179, 136-141.	6.2	46
3	Impact of dopant compensation on the deactivation of boron-oxygen recombination centers in crystalline silicon. Applied Physics Letters, 2009, 95, 232109.	3.3	39
4	Hydrogen passivation of interstitial iron in boron-doped multicrystalline silicon during annealing. Journal of Applied Physics, 2014, 116, 194902.	2.5	35
5	Gettering in silicon photovoltaics: A review. Solar Energy Materials and Solar Cells, 2022, 234, 111447.	6.2	35
6	Contrast enhancement of luminescence images via point-spread deconvolution. , 2012, , .		32
7	Investigating Internal Gettering of Iron at Grain Boundaries in Multicrystalline Silicon via Photoluminescence Imaging. IEEE Journal of Photovoltaics, 2012, 2, 479-484.	2.5	31
8	Precipitation of iron in multicrystalline silicon during annealing. Journal of Applied Physics, 2014, 115, .	2.5	25
9	Impurity gettering effect of atomic layer deposited aluminium oxide films on silicon wafers. Applied Physics Letters, 2017, 110, .	3.3	24
10	Direct Observation of the Impurity Gettering Layers in Polysilicon-Based Passivating Contacts for Silicon Solar Cells. ACS Applied Energy Materials, 2018, 1, 2275-2282.	5.1	22
11	Interstitial iron concentrations across multicrystalline silicon wafers via photoluminescence imaging. Progress in Photovoltaics: Research and Applications, 2011, 19, 649-657.	8.1	18
12	Sub-Bandgap Luminescence from Doped Polycrystalline and Amorphous Silicon Films and Its Application to Understanding Passivating-Contact Solar Cells. ACS Applied Energy Materials, 2018, 1, 6619-6625.	5.1	18
13	High-performance p-type multicrystalline silicon (mc-Si): Its characterization and projected performance in PERC solar cells. Solar Energy, 2018, 175, 68-74.	6.1	17
14	Understanding the impurity gettering effect of polysilicon/oxide passivating contact structures through experiment and simulation. Solar Energy Materials and Solar Cells, 2021, 230, 111254.	6.2	14
15	Hydrogen-Assisted Defect Engineering of Doped Poly-Si Films for Passivating Contact Solar Cells. ACS Applied Energy Materials, 2019, 2, 8783-8791.	5.1	12
16	Gettering of transition metals in high-performance multicrystalline silicon by silicon nitride films and phosphorus diffusion. Journal of Applied Physics, 2019, 125, .	2.5	10
17	Charge states of the reactants in the hydrogen passivation of interstitial iron in P-type crystalline silicon. Journal of Applied Physics, 2015, 118, .	2.5	9
18	Quantifying boron and phosphorous dopant concentrations in silicon from photoluminescence spectroscopy at 79â€‰K. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 3029-3032.	1.8	9

#	Article	IF	Citations
19	Impurity Gettering by Atomicâ€Layerâ€Deposited Aluminium Oxide Films on Silicon at Contact Firing Temperatures. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1700430.	2.4	9
20	Gettering Effects of Silicon Nitride Films From Various Plasma-Enhanced Chemical Vapor Deposition Conditions. IEEE Journal of Photovoltaics, 2019, 9, 78-81.	2.5	9
21	Transition Metals in a Castâ€Monocrystalline Silicon Ingot Studied by Silicon Nitride Gettering. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900456.	2.4	8
22	Impurity Gettering by Silicon Nitride Films: Kinetics, Mechanisms, and Simulation. ACS Applied Energy Materials, 2021, 4, 10849-10856.	5.1	7
23	Recombination activity of iron-boron pairs in compensated p-type silicon. Physica Status Solidi (B): Basic Research, 2010, 247, 2218-2221.	1.5	6
24	Photoluminescence Spectra of Moderately Doped, Compensated Silicon Si:P,B at 79â€“300 K. IEEE Journal of Photovoltaics, 2017, 7, 581-589.	2.5	6
25	Impurity Gettering in Polycrystallineâ€Silicon Based Passivating Contactsâ€”The Role of Oxide Stoichiometry and Pinholes. Advanced Energy Materials, 2022, 12, .	19.5	6
26	Reconstructing photoluminescence spectra at liquid nitrogen temperature from heavily boronâ€doped regions of crystalline silicon solar cells. Progress in Photovoltaics: Research and Applications, 2018, 26, 587-596.	8.1	4
27	Lifetime Spectroscopy and Hydrogenation of Chromium in n- and p-type Cz Silicon. Energy Procedia, 2015, 77, 646-650.	1.8	2
28	Impurity Gettering by Diffusion-doped Polysilicon Passivating Contacts for Silicon Solar Cells. , 2018, , .		2
29	A Correlative Study of Film Lifetime, Hydrogen Content, and Surface Passivation Quality of Amorphous Silicon Films on Silicon Wafers. IEEE Journal of Photovoltaics, 2020, 10, 1307-1312.	2.5	2
30	Imaging and modelling the internal gettering of interstitial iron by grain boundaries in multicrystalline silicon. , 2012, , .		1
31	Silicon Luminescence Spectra Modelling and the Impact of Dopants. Energy Procedia, 2016, 92, 852-856.	1.8	0
32	The gettering effect of dielectric films for silicon solar cells. , 2017, , .		0
33	Impurity gettering by silicon nitride films: kinetics, mechanisms and simulation. , 2021, , .		0