Soohyun Bae

List of Publications by Year in Descending Order

30 papers	591 citations	9 h-index	24 g-index
34 ext. papers	724 ext. citations	3.9 avg, IF	3.47 L-index

#	Paper	IF	Citations
30	Lowering firing temperature of a p-type passivated emitter rear contact Si solar cell via current injection. *Solar Energy Materials and Solar Cells*, **2022**, 239, 111587	6.4	1
29	Effective Recycling Method for Silicon Photovoltaic Modules With Electrical Sacrificial Layer. *IEEE Journal of Photovoltaics*, **2022**, 1-6	3.7	
28	Characterization of Potential-Induced Degradation and Recovery in CIGS Solar Cells. *Energies*, **2021**, 14, 4628	3.1	2
27	19.2%-Efficient Multicrystalline Silicon Solar Cells via Additive-Free Mechanical Grinding Surface Pretreatment for Diamond-Wire-Sawn Wafers. *IEEE Journal of Photovoltaics*, **2021**, 11, 36-42	3.7	3
26	Effective Surface Texturing of Diamond-Wire-Sawn Multicrystalline Silicon Wafers Via Crystallization of the Native Surface Amorphous Layer. *IEEE Journal of Photovoltaics*, **2021**, 11, 43-49	3.7	2
25	Perovskites fabricated on textured silicon surfaces for tandem solar cells. *Communications Chemistry*, **2020**, 3,	6.3	17
24	Properties of Thermally Evaporated Titanium Dioxide as an Electron-Selective Contact for Silicon Solar Cells. *Energies*, **2020**, 13, 678	3.1	7
23	Layer-by-Layer Self-Assembly of Hollow Nitrogen-Doped Carbon Quantum Dots on Cationized Textured Crystalline Silicon Solar Cells for an Efficient Energy Down-Shift. *ACS Applied Materials & Interfaces*, **2020**, 12, 10369-10381	9.5	15
22	Effective Additive-Free Acidic-Solution Texturing for Surface-Damage-Free Kerfless Silicon Wafers. *IEEE Journal of Photovoltaics*, **2020**, 10, 431-437	3.7	4
21	Variations in Minority Carrier-Trapping Effects Caused by Hydrogen Passivation in Multicrystalline Silicon Wafer. *Energies*, **2020**, 13, 5783	3.1	1
20	. *IEEE Journal of Photovoltaics*, **2020**, 10, 1545-1551	3.7	5
19	Pre-Texturing Thermal Treatment for Saw-Damage-Removal-Free Wet Texturing of Monocrystalline Silicon Wafers. *Energies*, **2020**, 13, 6610	3.1	
18	Effective Contact Formation Method on High-Sheet-Resistance Boron-Doped Emitter With Current Injection. *IEEE Journal of Photovoltaics*, **2019**, 9, 615-620	3.7	3
17	Impact of Buffer Layer Process and Na on Shunt Paths of Monolithic Series-connected CIGSSe Thin Film Solar Cells. *Scientific Reports*, **2019**, 9, 3666	4.9	8
16	Pinhole-free TiO/Ag/ZnO configuration for flexible perovskite solar cells with ultralow optoelectrical loss.. *RSC Advances*, **2019**, 9, 9160-9170	3.7	18
15	Sputtering of TiO2 for High-Efficiency Perovskite and 23.1% Perovskite/Silicon 4-Terminal Tandem Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 6263-6268	6.1	11
14	Surface Passivation of Boron Emitters on n-Type Silicon Solar Cells. *Sustainability*, **2019**, 11, 3784	3.6	2

List of Publications

13	Role of polysilicon in poly-Si/SiO passivating contacts for high-efficiency silicon solar cells.. *RSC Advances*, **2019**, 9, 23261-23266	3.7	19
12	Tunnel oxide passivating electron contacts for high-efficiency n-type silicon solar cells with amorphous silicon passivating hole contacts. *Progress in Photovoltaics: Research and Applications*, **2019**, 27, 1104-1114	6.8	9
11	Potential induced degradation of n-type crystalline silicon solar cells with p+ front junction. *Energy Science and Engineering*, **2017**, 5, 30-37	3.4	30
10	Effects of Plasma Enhanced Chemical Vapor Deposition Radio Frequency on the Properties of SiNx:H Films. *Journal of Nanoscience and Nanotechnology*, **2017**, 17, 4687-4693	1.3	
9	Characterization of Methylammonium Lead Iodide Perovskite Solar Cells by Surface Morphology Changes. *Journal of Nanoscience and Nanotechnology*, **2017**, 17, 4817-4821	1.3	1
8	Relationship between ion migration and interfacial degradation of CHNHPbI perovskite solar cells under thermal conditions. *Scientific Reports*, **2017**, 7, 1200	4.9	93
7	Effects of Annealing on Firing Stability of a Al2O3/SiNx Stack Passivation Layer for Crystalline Silicon Solar Cells. *Journal of Nanoscience and Nanotechnology*, **2017**, 17, 5050-5054	1.3	3
6	UV Degradation and Recovery of Perovskite Solar Cells. *Scientific Reports*, **2016**, 6, 38150	4.9	195
5	Electric-Field-Induced Degradation of Methylammonium Lead Iodide Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2016**, 7, 3091-6	6.4	123
4	Effects of Pre-annealing on Firing Stability of Atomic Layer-Deposited Al2O3. *Israel Journal of Chemistry*, **2015**, 55, 1075-1080	3.4	1
3	Migration of Sn and Pb from Solder Ribbon onto Ag Fingers in Field-Aged Silicon Photovoltaic Modules. *International Journal of Photoenergy*, **2015**, 2015, 1-7	2.1	6
2	Improvement of electrical properties in screen-printed crystalline silicon solar cells by contact treatment of the grid edge. *Metals and Materials International*, **2013**, 19, 1333-1338	2.4	8
1	Effects of rapid thermal process on the junction properties of aluminum rear emitter solar cells. *Metals and Materials International*, **2012**, 18, 731-734	2.4	4