Soo-won Heo

List of Publications by Citations

40 papers	1,033 citations	15 h-index	32 g-index
41 ext. papers	1,220 ext. citations	7 avg, IF	4.19 L-index

#	Paper	IF	Citations
40	Self-powered ultra-flexible electronics via nano-grating-patterned organic photovoltaics. *Nature*, **2018**, 561, 516-521	50.4	468
39	Conjugated Polymer Consisting of Quinacridone and Benzothiadiazole as Donor Materials for Organic Photovoltaics: Coplanar Property of Polymer Backbone. *Macromolecules*, **2012**, 45, 7815-7822	5.5	56
38	An organic□inorganic hybrid interlayer for improved electron extraction in inverted polymer solar cells. *Journal of Materials Chemistry C*, **2016**, 4, 2463-2469	7.1	53
37	Haptacyclic Carbazole-Based Ladder-Type Nonfullerene Acceptor with Side-Chain Optimization for Efficient Organic Photovoltaics. *ACS Applied Materials & Interfaces*, **2017**, 9, 42035-42042	9.5	37
36	Synthesis and characterization of 2,1,3-benzothiadiazole-thieno[3,2-b]thiophene-based charge transferred-type polymers for photovoltaic application. *Solar Energy Materials and Solar Cells*, **2009**, 93, 1932-1938	6.4	34
35	Patternable solution process for fabrication of flexible polymer solar cells using PDMS. *Solar Energy Materials and Solar Cells*, **2011**, 95, 3564-3572	6.4	33
34	Enhanced performance in inverted polymer solar cells via solution process: Morphology controlling of PEDOT:PSS as anode buffer layer by adding surfactants. *Organic Electronics*, **2013**, 14, 1629-1635	3.5	24
33	Enhanced carrier mobility and photon-harvesting property by introducing Au nano-particles in bulk heterojunction photovoltaic cells. *Organic Electronics*, **2013**, 14, 1931-1938	3.5	24
32	Enhanced stability in polymer solar cells by controlling the electrode work function via modification of indium tin oxide. *Solar Energy Materials and Solar Cells*, **2013**, 115, 123-128	6.4	23
31	Synthesis and photovoltaic characterization of D/A structure compound based on N-substituted phenothiazine and benzothiadiazole. *Journal of Industrial and Engineering Chemistry*, **2013**, 19, 421-426	6.3	23
30	An effect on the side chain position of D□A-type conjugated polymers with sp2-hybridized orbitals for organic photovoltaics. *Polymer Chemistry*, **2013**, 4, 3225	4.9	21
29	Enhanced performance in polymer light emitting diodes using an indium□zinc□tin oxide transparent anode by the controlling of oxygen partial pressure at room temperature. *Journal of Materials Chemistry C*, **2013**, 1, 7009	7.1	20
28	Cumulative gain in organic solar cells by using multiple optical nanopatterns. *Journal of Materials Chemistry A*, **2017**, 5, 10347-10354	13	17
27	Enhanced photocurrent generation by high molecular weight random copolymer consisting of benzothiadiazole and quinoxaline as donor materials. *Solar Energy Materials and Solar Cells*, **2014**, 120, 94-101	6.4	16
26	Synthesis of random copolymers based on 3-hexylthiophene and quinoxaline derivative: Influence between the intramolecular charge transfer (ICT) effect and □conjugation length for their photovoltaic properties. *Synthetic Metals*, **2011**, 161, 1-6	3.6	16
25	Effect of replacing proton with alkoxy side chain for donor acceptor type organic photovoltaics. *Solar Energy Materials and Solar Cells*, **2014**, 120, 303-309	6.4	15
24	Fabrication of OPVs by introducing a conductivity-enhanced hybrid buffer layer. *Solar Energy Materials and Solar Cells*, **2012**, 101, 295-302	6.4	15

23	Effects of Inserting Thiophene as a Bridge on the Properties of Naphthalene Diimide-alt-Fused Thiophene Copolymers. *ACS Applied Materials & Interfaces*, **2017**, 9, 44070-44078	9.5	15
22	Influence of alkanediol series as processing additives in photo-active layer on the power conversion efficiency of polymer solar cells. *Solar Energy Materials and Solar Cells*, **2013**, 114, 82-88	6.4	15
21	Improved Performance of P3HT:PCBM-Based Solar Cells Using Nematic Liquid Crystals as a Processing Additive under Low Processing Temperature conditions. *Macromolecular Materials and Engineering*, **2014**, 299, 353-360	3.9	12
20	Porphyrin-Containing Polymer as a Superior Blue Light-Absorbing Additive To Afford High- J Ternary Solar Cells. *ACS Applied Materials & Interfaces*, **2019**, 11, 1156-1162	9.5	12
19	Nanograting Structured Ultrathin Substrate for Ultraflexible Organic Photovoltaics. *Small Methods*, **2020**, 4, 1900762	12.8	9
18	Self-organization polymer consisting of quinacridone and quaterthiophene units: Coplanar structure between benzene and thiophene linkage. *Solar Energy Materials and Solar Cells*, **2013**, 117, 285-292	6.4	9
17	Study on the ClO4 doped PEDOT-PEG in organic solvent using a hole injection layer for PLEDs. *Journal of Industrial and Engineering Chemistry*, **2011**, 17, 651-656	6.3	9
16	Synthesis and characterization of a fluorene-quinoxaline copolymer for light-emitting applications. *Journal of Nanoscience and Nanotechnology*, **2010**, 10, 99-105	1.3	9
15	Study on the wet processable antimony tin oxide (ATO) transparent electrode for PLEDs. *Journal of Industrial and Engineering Chemistry*, **2012**, 18, 312-316	6.3	8
14	Enhanced performance in bulk heterojunction solar cells by introducing naphthalene derivatives as processing additives. *Solar Energy Materials and Solar Cells*, **2013**, 111, 16-22	6.4	8
13	A facile method for enhancing photovoltaic performance of low-band-gap DA conjugated polymer for OPVs by controlling the chemical structure. *Journal of Industrial and Engineering Chemistry*, **2015**, 26, 173-181	6.3	7
12	Study on the antimony tin oxide as a hole injection layer for polymer light emitting diodes. *Thin Solid Films*, **2012**, 520, 4068-4073	2.2	6
11	Enhanced performance in bulk heterojunction solar cells with alkylidene fluorene donor by introducing modified PFN-OH/Al bilayer cathode. *RSC Advances*, **2014**, 4, 6776	3.7	5
10	Improved performance of flexible polymer light emitting diodes with an indium-zinc-tin-oxide transparent anode by controlling the thermal treatment temperature. *Journal of Industrial and Engineering Chemistry*, **2017**, 53, 68-76	6.3	4
9	A study on the real-time decomposition monitoring of a metal organic precursor for metal organic chemical vapor deposition processes. *Measurement Science and Technology*, **2009**, 20, 025701	2	3
8	Vacuum-Free Fabrication Strategies for Nanostructure-Embedded Ultrathin Substrate in Flexible Polymer Solar Cells. *Energies*, **2020**, 13, 5375	3.1	2
7	Ultra-Flexible Organic Photovoltaics with Nanograting Patterns Based on CYTOP/Ag Nanowires Substrate. *Nanomaterials*, **2020**, 10,	5.4	2
6	Patternable brush painting process for fabrication of flexible polymer solar cells. *Solar Energy Materials and Solar Cells*, **2011**,	6.4	1

5	Size-Dependent Photovoltaic Performance of CdSe Supraquantum Dot/Polymer Hybrid Solar Cells: Goldilocks Problem Resolved by Tuning the Band Alignment Using Surface Ligands. *Journal of Physical Chemistry C*, **2020**, 124, 25775-25783	3.8	1
4	Ultra-Flexible Organic Photovoltaics with Low-Temperature Deposited IZTO on a Cyclic Polymer Substrate Having Excellent Mechanical Properties. *ACS Applied Materials & Interfaces*, **2021**, 13, 51289-51296	8.5	8
3	Introducing a Quasirandom Pattern in OPVs for Balancing the Transverse Magnetic and Electric Modes of Incident Light. *ACS Applied Energy Materials*, **2021**, 4, 14232-14239	6.1	0
2	Ultraflexible Organic Photovoltaics: Nanograting Structured Ultrathin Substrate for Ultraflexible Organic Photovoltaics (Small Methods 3/2020). *Small Methods*, **2020**, 4, 2070013	12.8	
1	P-57: Study on the Wet Processable Antimony Tin Oxide (Transparent Conducting Oxide, TCO) Using Anode for PLED Device Instead of ITO. *Digest of Technical Papers SID International Symposium* , **2009**, 40, 1306	0.5	