

# Soo-won Heo

## List of Publications by Year in descending order

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Version: 2024-02-01

41  
papers

1,409  
citations

516215

16  
h-index

329751

37  
g-index

41  
all docs

41  
docs citations

41  
times ranked

2547  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-powered ultra-flexible electronics via nano-grating-patterned organic photovoltaics. <i>Nature</i> , 2018, 561, 516-521.	13.7	743
2	An organic-inorganic hybrid interlayer for improved electron extraction in inverted polymer solar cells. <i>Journal of Materials Chemistry C</i> , 2016, 4, 2463-2469.	2.7	59
3	Conjugated Polymer Consisting of Quinacridone and Benzothiadiazole as Donor Materials for Organic Photovoltaics: Coplanar Property of Polymer Backbone. <i>Macromolecules</i> , 2012, 45, 7815-7822.	2.2	58
4	Haptacyclic Carbazole-Based Ladder-Type Nonfullerene Acceptor with Side-Chain Optimization for Efficient Organic Photovoltaics. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42035-42042.	4.0	43
5	Patternable solution process for fabrication of flexible polymer solar cells using PDMS. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 3564-3572.	3.0	38
6	Synthesis and characterization of 2,1,3-benzothiadiazole-thieno[3,2-b]thiophene-based charge transferred-type polymers for photovoltaic application. <i>Solar Energy Materials and Solar Cells</i> , 2009, 93, 1932-1938.	3.0	35
7	Enhanced performance in inverted polymer solar cells via solution process: Morphology controlling of PEDOT:PSS as anode buffer layer by adding surfactants. <i>Organic Electronics</i> , 2013, 14, 1629-1635.	1.4	29
8	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. <i>Journal of Materials Chemistry C</i> , 2013, 1, 7009.	2.7	26
9	Enhanced stability in polymer solar cells by controlling the electrode work function via modification of indium tin oxide. <i>Solar Energy Materials and Solar Cells</i> , 2013, 115, 123-128.	3.0	26
10	Enhanced carrier mobility and photon-harvesting property by introducing Au nano-particles in bulk heterojunction photovoltaic cells. <i>Organic Electronics</i> , 2013, 14, 1931-1938.	1.4	25
11	Synthesis and photovoltaic characterization of D/A structure compound based on N-substituted phenothiazine and benzothiadiazole. <i>Journal of Industrial and Engineering Chemistry</i> , 2013, 19, 421-426.	2.9	25
12	Cumulative gain in organic solar cells by using multiple optical nanopatterns. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10347-10354.	5.2	24
13	An effect on the side chain position of A-type conjugated polymers with sp <sup>2</sup> -hybridized orbitals for organic photovoltaics. <i>Polymer Chemistry</i> , 2013, 4, 3225.	1.9	22
14	Effects of Inserting Thiophene as a Bridge on the Properties of Naphthalene Diimide-Fused Thiophene Copolymers. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 44070-44078.	4.0	20
15	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. <i>Synthetic Metals</i> , 2011, 161, 1-6.	2.1	18
16	Nanograting Structured Ultrathin Substrate for Ultraflexible Organic Photovoltaics. <i>Small Methods</i> , 2020, 4, 1900762.	4.6	18
17	Fabrication of OPVs by introducing a conductivity-enhanced hybrid buffer layer. <i>Solar Energy Materials and Solar Cells</i> , 2012, 101, 295-302.	3.0	17
18	Effect of replacing proton with alkoxy side chain for donor acceptor type organic photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , 2014, 120, 303-309.	3.0	17

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19	Enhanced photocurrent generation by high molecular weight random copolymer consisting of benzothiadiazole and quinoxaline as donor materials. <i>Solar Energy Materials and Solar Cells</i> , 2014, 120, 94-101.	3.0	16
20	Porphyrin-Containing Polymer as a Superior Blue Light-Absorbing Additive To Afford High-Performance Ternary Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 1156-1162.	4.0	16
21	Influence of alkanediol series as processing additives in photo-active layer on the power conversion efficiency of polymer solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2013, 114, 82-88.	3.0	15
22	Improved Performance of P3HT:PCBM-Based Solar Cells Using Nematic Liquid Crystals as a Processing Additive under Low Processing Temperature conditions. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 353-360.	1.7	12
23	Synthesis and Characterization of a Fluorene-Quinoxaline Copolymer for Light-Emitting Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 99-105.	0.9	9
24	Study on the ClO <sub>4</sub> doped PEDOT-PEG in organic solvent using a hole injection layer for PLEDs. <i>Journal of Industrial and Engineering Chemistry</i> , 2011, 17, 651-656.	2.9	9
25	Self-organization polymer consisting of quinacridone and quaterthiophene units: Coplanar structure between benzene and thiophene linkage. <i>Solar Energy Materials and Solar Cells</i> , 2013, 117, 285-292.	3.0	9
26	Enhanced performance in bulk heterojunction solar cells by introducing naphthalene derivatives as processing additives. <i>Solar Energy Materials and Solar Cells</i> , 2013, 111, 16-22.	3.0	9
27	Ultra-Flexible Organic Photovoltaics with Nanograting Patterns Based on CYTOP/Ag Nanowires Substrate. <i>Nanomaterials</i> , 2020, 10, 2185.	1.9	9
28	Ultra-Flexible Organic Solar Cell Based on Indium-Zinc-Tin Oxide Transparent Electrode for Power Source of Wearable Devices. <i>Nanomaterials</i> , 2021, 11, 2633.	1.9	9
29	Study on the wet processable antimony tin oxide (ATO) transparent electrode for PLEDs. <i>Journal of Industrial and Engineering Chemistry</i> , 2012, 18, 312-316.	2.9	8
30	A facile method for enhancing photovoltaic performance of low-band-gap conjugated polymer for OPVs by controlling the chemical structure. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 26, 173-181.	2.9	8
31	Study on the antimony tin oxide as a hole injection layer for polymer light emitting diodes. <i>Thin Solid Films</i> , 2012, 520, 4068-4073.	0.8	7
32	Enhanced performance in bulk heterojunction solar cells with alkylidene fluorene donor by introducing modified PFN-OH/Al bilayer cathode. <i>RSC Advances</i> , 2014, 4, 6776.	1.7	6
33	Improved performance of flexible polymer light emitting diodes with an indium-zinc-tin-oxide transparent anode by controlling the thermal treatment temperature. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 53, 68-76.	2.9	5
34	Vacuum-Free Fabrication Strategies for Nanostructure-Embedded Ultrathin Substrate in Flexible Polymer Solar Cells. <i>Energies</i> , 2020, 13, 5375.	1.6	5
35	A study on the real-time decomposition monitoring of a metal organic precursor for metal organic chemical vapor deposition processes. <i>Measurement Science and Technology</i> , 2009, 20, 025701.	1.4	4
36	Ultra-Flexible Organic Photovoltaics with Low-Temperature Deposited IZTO on a Cyclic Polymer Substrate Having Excellent Mechanical Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 51289-51296.	4.0	4

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37	Patternable brush painting process for fabrication of flexible polymer solar cells. Solar Energy Materials and Solar Cells, 2011, , .	3.0	2
38	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.	1.5	2
39	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.	2.5	2
40	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, 1306-1308.	0.1	0
41	Ultraflexible Organic Photovoltaics: Nanograting Structured Ultrathin Substrate for Ultraflexible Organic Photovoltaics (Small Methods 3/2020). Small Methods, 2020, 4, 2070013.	4.6	0