

Dr. Jin Young Kim

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Assistant Professor

Research field: Perovskite Solar Cells, CZTSSe Solar Cells, Perovskite-based Tandem Solar Cells, Electrocatalysts, Nanostructured Electrodes, Electron Dynamics in Solar Cells

Qualifications

2015- Assistant Professor, Seoul National University, Department of Materials Science and Engineering
2011-2015 Senior Scientist, Korea Institute of Science and Technology (KIST)
2010-2011 Scientist II, National Renewable Energy Laboratory (NREL)
2007-2010 Postdoctoral Fellow, National Renewable Energy Laboratory (NREL)
2002-2006 Ph.D., Seoul National University, Department of Materials Science and Engineering
2000-2002 MS, Seoul National University, Department of Materials Science and Engineering
1996-2000 BS, Seoul National University, Department of Materials Science and Engineering

Publications (selected from total 105 publications)

Ik Jae Park, Jae Hyun Park, Su Geun Ji, Min-Ah Park, Ju Hee Jang, Jin Young Kim, "A Three-Terminal Monolithic Perovskite/Si Tandem Solar Cell Characterization Platform" *JOULE*, doi:10.1016/j.joule.2018.11.017 (2018).

Dong Hoe Kim, Jaehong Park, Zhen Li, Mengjin Yang, Ji-Sang Park, Ik Jae Park, Jin Young Kim, Joseph J Berry, Garry Rumbles, Kai Zhu, "300% Enhancement of Carrier Mobility in Uniaxial-Oriented Perovskite Films Formed by Topotactic-Oriented Attachment" *Advanced Materials* 29, 23, 1606831 (2017)

Ik Jae Park, Gyeongho Kang, Min Ah Park, Ju Seong Kim, Se Won Seo, Dong Hoe Kim, Kai Zhu, Taiho Park, Jin Young Kim, "Highly Efficient and Uniform 1 cm² Perovskite Solar Cells with an Electrochemically Deposited NiOx Hole-Extraction Layer" *ChemSusChem* 10, 12, 2660-2667 (2017).

Ik Jae Park, Seongrok Seo, Min Ah Park, Sangwook Lee, Dong Hoe Kim, Kai Zhu, Hyunjung Shin, Jin Young Kim, "Effect of Rubidium Incorporation on the Structural, Electrical, and Photovoltaic Properties of Methylammonium Lead Iodide-Based Perovskite Solar Cell" *ACS Applied Materials & Interfaces* 9, 48, 41898-41905 (2017).

Se Won Seo, Jong-Ok Jeon, Jung Woo Seo, Yi Yin Yu, Jeung-hyun Jeong, Doh-Kwon

Lee, Honggon Kim, Min Jae Ko, Hae Jung Son, Ho Won Jang, Jin Young Kim, "Compositional and Interfacial Modification of $\text{Cu}_2\text{ZnSn}(\text{S},\text{Se})_4$ Thin Film Solar Cells Prepared by Electrochemical Deposition" ChemSusChem 9, 5, 439-444 (2016).

Seongrok Seo, Ik Jae Park, Myungjun Kim, Seonhee Lee, Changdeuck Bae, Hyun Suk Jung, Nam-Gyu Park, Jin Young Kim, Hyunjung Shin. "An ultra-thin, un-doped NiO hole transporting layer of highly efficient (16.4%) organic-inorganic hybrid perovskite solar cells" Nanoscale 8, 22, 11403-11412 (2016).

Ik Jae Park, Min Ah Park, Dong Hoe Kim, Gyeong Do Park, Byeong Jo Kim, Hae Jung Son, Min Jae Ko, Doh-Kwon Lee, Taiho Park, Hyunjung Shin, Nam-Gyu Park, Hyun Suk Jung, Jin Young Kim, "New hybrid hole extraction layer of perovskite solar cells with a planar p - i-n Geometry" The Journal of Physical Chemistry C 119, 49, 27285-27290 (2015).

Laboratory Website: <http://solarmat.snu.ac.kr>