# Jin-Wook Lee

## List of Publications by Citations



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|---|---|---|---|
| 89 papers | 13,629 citations | 45 h-index | 95 g-index |
| 95 ext. papers | 16,011 ext. citations | 15.7 avg, IF | 6.97 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 89 | 6.5% efficient perovskite quantum-dot-sensitized solar cell. *Nanoscale*, **2011**, 3, 4088-93 | 7.7 | 2465 |
| 88 | Formamidinium and Cesium Hybridization for Photo- and Moisture-Stable Perovskite Solar Cell. *Advanced Energy Materials*, **2015**, 5, 1501310 | 21.8 | 1085 |
| 87 | High efficiency solid-state sensitized solar cell-based on submicrometer rutile TiO2 nanorod and CH3NH3PbI3 perovskite sensitizer. *Nano Letters*, **2013**, 13, 2412-7 | 11.5 | 825 |
| 86 | Self-formed grain boundary healing layer for highly efficient CH3NH3PbI3 perovskite solar cells. *Nature Energy*, **2016**, 1, | 62.3 | 757 |
| 85 | High-efficiency perovskite solar cells based on the black polymorph of HC(NH2)2 PbI3. *Advanced Materials*, **2014**, 26, 4991-8 | 24 | 732 |
| 84 | Lewis Acid-Base Adduct Approach for High Efficiency Perovskite Solar Cells. *Accounts of Chemical Research*, **2016**, 49, 311-9 | 24.3 | 690 |
| 83 | High-Efficiency Perovskite Solar Cells. *Chemical Reviews*, **2020**, 120, 7867-7918 | 68.1 | 587 |
| 82 | Slow Dynamic Processes in Lead Halide Perovskite Solar Cells. Characteristic Times and Hysteresis. *Journal of Physical Chemistry Letters*, **2014**, 5, 2357-63 | 6.4 | 556 |
| 81 | 2D perovskite stabilized phase-pure formamidinium perovskite solar cells. *Nature Communications*, **2018**, 9, 3021 | 17.4 | 407 |
| 80 | 15.76% efficiency perovskite solar cells prepared under high relative humidity: importance of PbI2 morphology in two-step deposition of CH3NH3PbI3. *Journal of Materials Chemistry A*, **2015**, 3, 8808-8815 | 13 | 267 |
| 79 | Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. *Joule*, **2019**, 3, 1464-1477 | 39.8 | 266 |
| 78 | Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. *Nature Communications*, **2019**, 10, 520 | 17.4 | 262 |
| 77 | Tuning Molecular Interactions for Highly Reproducible and Efficient Formamidinium Perovskite Solar Cells via Adduct Approach. *Journal of the American Chemical Society*, **2018**, 140, 6317-6324 | 16.4 | 233 |
| 76 | A Bifunctional Lewis Base Additive for Microscopic Homogeneity in Perovskite Solar Cells. *CheM*, **2017**, 3, 290-302 | 16.2 | 232 |
| 75 | Quantum-dot-sensitized solar cell with unprecedentedly high photocurrent. *Scientific Reports*, **2013**, 3, 1050 | 4.9 | 220 |
| 74 | Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. *Advanced Materials*, **2019**, 31, e1803515 | 24 | 201 |
| 73 | The Interplay between Trap Density and Hysteresis in Planar Heterojunction Perovskite Solar Cells. *Nano Letters*, **2017**, 17, 4270-4276 | 11.5 | 175 |

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| 72 | Rutile TiO2-based perovskite solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 9251 | 13 | 166 |
| 71 | Tailored Phase Conversion under Conjugated Polymer Enables Thermally Stable Perovskite Solar Cells with Efficiency Exceeding 21. *Journal of the American Chemical Society*, **2018**, 140, 17255-17262 | 16.4 | 162 |
| 70 | Reduced Graphene Oxide/Mesoporous TiO2 Nanocomposite Based Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 23521-6 | 9.5 | 153 |
| 69 | The role of grain boundaries in perovskite solar cells. *Materials Today Energy*, **2018**, 7, 149-160 | 7 | 149 |
| 68 | In-Situ Formed Type I Nanocrystalline Perovskite Film for Highly Efficient Light-Emitting Diode. *ACS Nano*, **2017**, 11, 3311-3319 | 16.7 | 134 |
| 67 | Verification and mitigation of ion migration in perovskite solar cells. *APL Materials*, **2019**, 7, 041111 | 5.7 | 125 |
| 66 | Niobium Doping Effects on TiO2 Mesoscopic Electron Transport Layer-Based Perovskite Solar Cells. *ChemSusChem*, **2015**, 8, 2392-8 | 8.3 | 123 |
| 65 | Detrimental Effect of Unreacted PbI on the Long-Term Stability of Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e1905035 | 24 | 123 |
| 64 | Moth-Eye TiO2 Layer for Improving Light Harvesting Efficiency in Perovskite Solar Cells. *Small*, **2016**, 12, 2443-9 | 11 | 115 |
| 63 | Surface Ligand Management for Stable FAPbI3 Perovskite Quantum Dot Solar Cells. *Joule*, **2018**, 2, 1866-1878 | 21.8 | 114 |
| 62 | The Emergence of the Mixed Perovskites and Their Applications as Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700491 | 21.8 | 103 |
| 61 | Cooperative kinetics of depolarization in CH3NH3PbI3 perovskite solar cells. *Energy and Environmental Science*, **2015**, 8, 910-915 | 35.4 | 102 |
| 60 | Crystalline Liquid-like Behavior: Surface-Induced Secondary Grain Growth of Photovoltaic Perovskite Thin Film. *Journal of the American Chemical Society*, **2019**, 141, 13948-13953 | 16.4 | 96 |
| 59 | Chemical Approaches for Stabilizing Perovskite Solar Cells. *Advanced Energy Materials*, **2020**, 10, 1903249 | 21.8 | 88 |
| 58 | A Polymerization-Assisted Grain Growth Strategy for Efficient and Stable Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e1907769 | 24 | 87 |
| 57 | Thermodynamic regulation of CH3NH3PbI3 crystal growth and its effect on photovoltaic performance of perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 19901-19906 | 13 | 78 |
| 56 | Zn2SnO4-Based Photoelectrodes for Organolead Halide Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 22991-22994 | 3.8 | 76 |
| 55 | Steric Impediment of Ion Migration Contributes to Improved Operational Stability of Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e1906995 | 24 | 76 |

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| 54 | Control of Crystal Growth toward Scalable Fabrication of Perovskite Solar Cells. *Advanced Functional Materials*, **2019**, 29, 1807047 | 15.6 | 74 |
| 53 | Shallow Iodine Defects Accelerate the Degradation of α-Phase Formamidinium Perovskite. *Joule*, **2020**, 4, 2426-2442 | 27.8 | 72 |
| 52 | Molecular Interaction Regulates the Performance and Longevity of Defect Passivation for Metal Halide Perovskite Solar Cells. *Journal of the American Chemical Society*, **2020**, 142, 20071-20079 | 16.4 | 72 |
| 51 | Opto-electronic properties of TiO2 nanohelices with embedded HC(NH2)2PbI3 perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 9179-9186 | 13 | 60 |
| 50 | Evaluation of external quantum efficiency of a 12.35% tandem solar cell comprising dye-sensitized and CIGS solar cells. *Solar Energy Materials and Solar Cells*, **2011**, 95, 3419-3423 | 6.4 | 60 |
| 49 | A Small-Molecule "Charge Driver" enables Perovskite Quantum Dot Solar Cells with Efficiency Approaching 13. *Advanced Materials*, **2019**, 31, e1900111 | 24 | 58 |
| 48 | Hysteresis-less and stable perovskite solar cells with a self-assembled monolayer. *Communications Materials*, **2020**, 1, | 6 | 57 |
| 47 | On the Role of Interfaces in Planar-Structured HC(NH2 )2 PbI3 Perovskite Solar Cells. *ChemSusChem* , **2015**, 8, 2414-9 | 8.3 | 56 |
| 46 | Hermetic seal for perovskite solar cells: An improved plasma enhanced atomic layer deposition encapsulation. *Nano Energy*, **2020**, 69, 104375 | 17.1 | 56 |
| 45 | Water-repellent perovskite solar cell. *Journal of Materials Chemistry A*, **2014**, 2, 20017-20021 | 13 | 55 |
| 44 | Achieving High Efficiency in Solution-Processed Perovskite Solar Cells Using C/C Mixed Fullerenes. *ACS Applied Materials & Interfaces*, **2018**, 10, 39590-39598 | 9.5 | 45 |
| 43 | Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 12987-12992 | 13 | 44 |
| 42 | Epitaxial 1D electron transport layers for high-performance perovskite solar cells. *Nanoscale*, **2015**, 7, 15284-90 | 7.7 | 44 |
| 41 | Vapor-Assisted Ex-Situ Doping of Carbon Nanotube toward Efficient and Stable Perovskite Solar Cells. *Nano Letters*, **2019**, 19, 2223-2230 | 11.5 | 43 |
| 40 | Stable and Reproducible 2D/3D Formamidinium-Lead-Iodide Perovskite Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 2486-2493 | 6.1 | 42 |
| 39 | Enhancement of the photovoltaic performance of $CH_3NH_3PbI_3$ perovskite solar cells through a dichlorobenzene-functionalized hole-transporting material. *ChemPhysChem*, **2014**, 15, 2595-603 | 3.2 | 42 |
| 38 | Impact of Excess CH3NH3I on Free Carrier Dynamics in High-Performance Nonstoichiometric Perovskites. *Journal of Physical Chemistry C*, **2017**, 121, 3143-3148 | 3.8 | 41 |
| 37 | Halide Perovskites for Tandem Solar Cells. *Journal of Physical Chemistry Letters*, **2017**, 8, 1999-2011 | 6.4 | 41 |

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| 36 | Surface Reconstruction of Halide Perovskites During Post-treatment. *Journal of the American Chemical Society*, **2021**, 143, 6781-6786 | 16.4 | 39 |
| 35 | A Cryogenic Process for Antisolvent-Free High-Performance Perovskite Solar Cells. *Advanced Materials*, **2018**, 30, e1804402 | 24 | 39 |
| 34 | Two-step deposition method for high-efficiency perovskite solar cells. *MRS Bulletin*, **2015**, 40, 654-659 | 3.2 | 38 |
| 33 | Solid-phase hetero epitaxial growth of □-phase formamidinium perovskite. *Nature Communications*, **2020**, 11, 5514 | 17.4 | 38 |
| 32 | Surface-2D/Bulk-3D Heterophased Perovskite Nanograins for Long-Term-Stable Light-Emitting Diodes. *Advanced Materials*, **2020**, 32, e1905674 | 24 | 36 |
| 31 | Controlled Redox of Lithium-Ion Endohedral Fullerene for Efficient and Stable Metal Electrode-Free Perovskite Solar Cells. *Journal of the American Chemical Society*, **2019**, 141, 16553-16558 | 16.4 | 35 |
| 30 | Electro-spray deposition of a mesoporous TiO2 charge collection layer: toward large scale and continuous production of high efficiency perovskite solar cells. *Nanoscale*, **2015**, 7, 20725-33 | 7.7 | 33 |
| 29 | 17% efficient perovskite solar mini-module via hexamethylphosphoramide (HMPA)-adduct-based large-area D-bar coating. *Journal of Materials Chemistry A*, **2020**, 8, 9345-9354 | 13 | 31 |
| 28 | Stability-limiting heterointerfaces of perovskite photovoltaics.. *Nature*, **2022**, | 50.4 | 31 |
| 27 | Rethinking the A cation in halide perovskites.. *Science*, **2022**, 375, eabj1186 | 33.3 | 29 |
| 26 | Scalable perovskite coating via anti-solvent-free Lewis acid□base adduct engineering for efficient perovskite solar modules. *Journal of Materials Chemistry A*, **2021**, 9, 3018-3028 | 13 | 27 |
| 25 | Efficient surface passivation of perovskite films by a post-treatment method with a minimal dose. *Journal of Materials Chemistry A*, **2021**, 9, 3441-3450 | 13 | 25 |
| 24 | Mesoscopic perovskite solar cells with an admixture of nanocrystalline TiO□and Al□O□: role of interconnectivity of TiO□in charge collection. *Nanoscale*, **2016**, 8, 6341-51 | 7.7 | 24 |
| 23 | Modulation of photovoltage in mesoscopic perovskite solar cell by controlled interfacial electron injection. *RSC Advances*, **2015**, 5, 47334-47340 | 3.7 | 23 |
| 22 | Sixfold enhancement of photocurrent by surface charge controlled high density quantum dot coating. *Chemical Communications*, **2013**, 49, 6448-50 | 5.8 | 19 |
| 21 | Stable and Efficient Methylammonium-, Cesium-, and Bromide-Free Perovskite Solar Cells by In-Situ Interlayer Formation. *Advanced Functional Materials*, **2021**, 31, 2007520 | 15.6 | 19 |
| 20 | Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced J□V Hysteresis. *Advanced Energy Materials*, **2018**, 8, 1800568 | 21.8 | 19 |
| 19 | Effect of double blocking layers at TiO2/Sb2S3 and Sb2S3/spiro-MeOTAD interfaces on photovoltaic performance. *Faraday Discussions*, **2014**, 176, 287-99 | 3.6 | 14 |

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| 18 | Quantum confinement effect of CdSe induced by nanoscale solvothermal reaction. *Nanoscale*, **2012**, 4, 6642-8 | 7.7 | 13 |
| 17 | Dynamic structural property of organic-inorganic metal halide perovskite. *IScience*, **2021**, 24, 101959 | 6.1 | 12 |
| 16 | Panchromatic light harvesting by dye- and quantum dot-sensitized solar cells. *Solar Energy*, **2014**, 109, 183-188 | 6.8 | 10 |
| 15 | Nanocrystalline Polymorphic Energy Funnels for Efficient and Stable Perovskite Light-Emitting Diodes. *ACS Energy Letters*, **2021**, 6, 1821-1830 | 20.1 | 10 |
| 14 | Enhancing Performance and Stability of Tin Halide Perovskite Light Emitting Diodes via Coordination Engineering of Lewis AcidBase Adducts. *Advanced Functional Materials*,2106974 | 15.6 | 9 |
| 13 | Hybrid Integrated Photomedical Devices for Wearable Vital Sign Tracking. *ACS Sensors*, **2020**, 5, 1582-1588 | 9.2 | 8 |
| 12 | Surface Defect Engineering of Metal Halide Perovskites for Photovoltaic Applications. *ACS Energy Letters*, **2022**, 7, 1230-1239 | 20.1 | 8 |
| 11 | Effect of Fluorine Substitution in a Hole Dopant on the Photovoltaic Performance of Perovskite Solar Cells. *ACS Energy Letters*, **2022**, 7, 741-748 | 20.1 | 4 |
| 10 | A Sharp Focus on Perovskite Solar Cells at Sungkyun International Solar Forum (SISF). *ACS Energy Letters*, **2016**, 1, 500-502 | 20.1 | 4 |
| 9 | APbI3 (A = CH3NH3 and HC(NH2)2) Perovskite Solar Cells: From Sensitization to Planar Heterojunction **2016**, 223-253 | | 3 |
| 8 | Semiconducting Metal Oxides for High Performance Perovskite Solar Cells **2018**, 241-265 | | 3 |
| 7 | Perovskite solar cell. *Vacuum Magazine*, **2014**, 1, 10-13 | | 2 |
| 6 | Perovskite Light-Emitting Diodes: Surface-2D/Bulk-3D Heterophased Perovskite Nanograins for Long-Term-Stable Light-Emitting Diodes (Adv. Mater. 1/2020). *Advanced Materials*, **2020**, 32, 2070007 | 24 | 2 |
| 5 | In-Situ Nano-Auger Probe of Chloride-Ions during CHNHPbICl Perovskite Formation. *Materials*, **2021**, 14, | 3.5 | 2 |
| 4 | Mixed-Dimensional Formamidinium Bismuth Iodides Featuring In-Situ Formed Type-I Band Structure for Convolution Neural Networks.. *Advanced Science*, **2022**, e2200168 | 13.6 | 2 |
| 3 | Homogeneously Miscible Fullerene inducing Vertical Gradient in Perovskite Thin-Film toward Highly Efficient Solar Cells. *Advanced Energy Materials*,2200877 | 21.8 | 2 |
| 2 | Perovskite Solar Cells: Moth-Eye TiO2 Layer for Improving Light Harvesting Efficiency in Perovskite Solar Cells (Small 18/2016). *Small*, **2016**, 12, 2530-2530 | 11 | 1 |
| 1 | Recent Advances on Tin Oxide Electron Transport Layer for High-Performance Perovskite Solar Cells. *Ceramist*, **2022**, 25, 31-51 | 0.3 | |