

## Prof. Kun-Mu Lee of Chang Gung University (Update 2025/03/03)

### International Conference Papers List

#### 2025-

1. Wei-Chen Chu, Seoungjun Ahn, Wei-Hao Chiu, and Kun-Mu Lee\*, "Enhancing Perovskite Solar Cell Efficiency by Controlling Active Layer Morphology with Blade Coating", **2025 International Conference on Advanced Green-Energy Materials**, Jan. 15-17, Tainan, Taiwan. **(Best Poster Presentation Award)**
2. Seoungjun Ahn, Wei-Chen Chu, Wei-Hao Chiu, and Kun-Mu Lee\*, "Exploring PVDF-HFP Additives in Perovskite Solar Cells: Advancements for Enhanced Space Mission Durability", **2025 International Conference on Advanced Green-Energy Materials**, Jan. 15-17, Tainan, Taiwan.

#### 2024-

3. Kun-Mu Lee\*, Wei-Hao Chiu, and Yan-Duo Lin, "Pentafulvalene-Fused Fluorinated Compound Boosts Perovskite Solar Cell Performance", **2024 PVSEC-35 The 35<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-35 2024)**, Nov. 10-15, Numazu, Japan. **(Invited Speaker)**
4. Wei-Hao Chiu\*, and Kun-Mu Lee, "Enhancing Perovskite Solar Cell Performance through Chemical Bath Deposition of SnO<sub>2</sub> on Mesoporous TiO<sub>2</sub> Electrodes ", **2024 PVSEC-35 The 35<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-35 2024)**, Nov. 10-15, Numazu, Japan.
5. Ming-Chung Wu\*, Ying-Hann Liao, Shun-Hsiang Chan, Shih-Hsuan Chen, Yuan-Yu Chiu, Yin-Hsuan Chang, Ting-Han Lin, and Kun-Mu Lee, "Predicting the Quality of Photovoltaic Materials in Lead-Reduced Perovskite Solar Cells Using Photo-Assisted Kelvin Probe Force System", **2024 PVSEC-35 The 35<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-35 2024)**, Nov. 10-15, Numazu, Japan.
6. Hong-Yi Lin, Kai-Chi Hsiao, Ting-Han Lin, Kun-Mu Lee, and Ming-Chung Wu\*, "Enhancing the Photovoltaic Conversion Efficiency of Perovskite Solar Cells through Interface Engineering Using Chelating Molecules", **2024 PVSEC-35 The 35<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-35 2024)**, Nov. 10-15, Numazu, Japan.
7. Shu-Chi Lu, Ting-Han Lin, Kun-Mu Lee, Tz-Feng Lin, and Ming-Chung Wu\*, "Enhancement of Power Conversion Efficiency and Stability in Perovskite Solar Cells Using Long Carbon Chain Carbazole Derivatives", **2024 PVSEC-35 The 35<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-35 2024)**, Nov. 10-15, Numazu, Japan.
8. Seoungjun Ahn, Wei-Chen Chu, Wei-Hao Chiu, and Kun-Mu Lee\*, "Exploring the Role of PVDF-HFP in Enhancing Perovskite Solar Cell Performance for Space Missions", **2024 SDSE 2<sup>nd</sup> International Conference on Smart Devices and Sustainable Energy (SDSE 2024)**, Oct. 16-18, New Taipei, Taiwan.
9. Wei-Hao Chiu, Si-Yu Chen, and Kun-Mu Lee\*, "Rapid Laser Annealing of Cu-Doped NiO<sub>x</sub> for Improved Efficiency in Perovskite Solar Cells", **2024 SDSE 2<sup>nd</sup> International Conference on Smart Devices and Sustainable Energy (SDSE 2024)**, Oct. 16-18, New Taipei, Taiwan.
10. Wei-Chen Chu, Seoungjun Ahn, Wei-Hao Chiu, and Kun-Mu Lee\*, "Controlling the Morphology of the Active Layer with Blade and Slot-Die Coating Results in Highly Efficient Perovskite Solar Cells", **2024 SDSE 2<sup>nd</sup> International Conference on Smart Devices and Sustainable Energy (SDSE 2024)**, Oct. 16-18, New Taipei, Taiwan.

11. Zhi-Hao Huang, Fu-Zong Liu, Kun-Mu Lee, and Yu-Ching Huang\*, "Enhancing Crystallinity and Absorption in Organic Photodetector Films for Improved Short-Wave Infrared Performance", **2024 SDSE 2<sup>nd</sup> International Conference on Smart Devices and Sustainable Energy (SDSE 2024)**, Oct. 16-18, New Taipei, Taiwan.
12. Seoungjun Ahn, Wei-Hao Chiu, and Kun-Mu Lee\*, "Optimizing Space Mission Reliability via Comprehensive Investigation of PVDF-HFP in Perovskite Solar Cells", **2024 IC ME&D The 34th International Conference on Molecular Electronics and Devices (IC ME&D 2024)**, May. 9-10, Pohang, Korea.
13. Ming-Chung Wu\*, Shih-Hsuan Chen, Shun-Hsiang Chan, Yuan-Yu Chiu, Ting-Han Lin, Yin-Hsuan Chang, Ying-Han Liao, and Kun-Mu Lee\*, "Lead-Reduced Halide Perovskite Solar Cells-Predicting the Quality of Photovoltaic Materials with Photo-Assisted Kelvin Probe Force System", **2024 IC ME&D The 34th International Conference on Molecular Electronics and Devices (IC ME&D 2024)**, May. 9-10, Pohang, Korea.

#### 2023-

14. Kun-Mu Lee\*, "Augmenting the Performance and Stability of Perovskite Solar Cells by Introducing Cesium Iodide Doping into the Pbi<sub>2</sub> Film via A Two-Step Deposition Method", **2023 IPEROP-24 Asia-Pacific International Conference on Perovskite, Organic Photovoltaics and Optoelectronics (IPEROP-24 2023)**, Jan. 22-23, Tokyo, Japan.

#### 2022-

15. Kun-Mu Lee\*, Seoungjun Ahn, and Ming-Chung Wu, "Enhanced Efficiency and Stability of Quasi-2D/3D Perovskite Solar Cells by Blade Coating Method", **2022 PVSEC-33 The 33<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-33 2022)**, Nov. 13-17, Nagoya, Japan.
16. Seoungjun Ahn, Kun-Mu Lee\*, and Wei-Hao Chiu, "Toward High Efficiency Perovskite Solar Cells by Doping Cesium Iodide into Pbl<sub>2</sub> Film via Two-Step Deposition Method", **2022 PVSEC-33 The 33<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-33 2022)**, Nov. 13-17, Nagoya, Japan.
17. Seoungjun Ahn, Kun-Mu Lee\*, and Wei-Hao Chiu, "High Efficiency Perovskite Solar Cells by Incorporating Cesium into Pbl<sub>2</sub> Solution via Two-Step Deposition Method", **2022 IEDMS International Electron Devices & Materials Symposium (IEDMS 2022)**, Oct. 27-28, Nantou, Taiwan. **(Oral Presentation)**

#### 2021-

18. Kun-Mu Lee\*, Wei-Hao Chiu, Bo-Yang Chen, and Yan-Duo Lin, "Achieving >21% Perovskite Solar Cells with Dopant-Free HTM by Thermal-Assisted Blade-Coating Method", **2021 IEDMS International Electron Devices & Materials Symposium (IEDMS 2021)**, Nov. 18-19, Kaohsiung, Taiwan.
19. Seoungjun Ahn, Kun-Mu Lee\*, and Wei-Hao Chiu, "Effect of Cesium Iodide Dopant for High-Efficiency Perovskite Solar Cells via Two-Step Deposition Method", **2021 IEDMS International Electron Devices & Materials Symposium (IEDMS 2021)**, Nov. 18-19, Kaohsiung, Taiwan.
20. Yu-Ching Huang\*, Yu-Hsiang Cheng, Zih-Ting Chen, Zhi-Hao Huang, Kun-Mu Lee, and Ming-Chung Wu\*, "Study of the Conducting Polymer as the Interfacial Buffer Layer of Screen-Printed Electrodes for Perovskite Solar Cells", **2021 TACT International Thin Films Conference (TACT 2021)**, Nov. 15-18, Virtual Conference.

21. Yu-Ching Huang\*, Tai-Yung Wang, Zhi-Hao Huang, Zih-Ting Chen, and Kun-Mu Lee, "Lower Dark Current and High External Quantum Efficiency for Near-Infrared Organic Photodetectors Using a New Fullerene Acceptor", **2021 PESI Polymer Engineering & Science International (PESI 2021)**, May. 30-June. 3, Virtual Conference.

## 2020-

22. Yu-Zhe Liu, Kun-Mu Lee\*, and Ming-Chung Wu\*, "Sequential Preparation of Fluorine-Doped Tin Oxide Films for High-Efficiency Perovskite Solar Cells", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
23. Yung-Hsiang Lin, Kun-Mu Lee\*, and Seoungjun Ahn, "Efficient and Stable Semi-Transparent Perovskite Solar Modules with a Trilayer Anode Electrode", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
24. Yi-Chen Liao, and Kun-Mu Lee\*, "Efficient and Stable Semi-Transparent Perovskite Solar Modules", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
25. Seoungjun Ahn, Kun-Mu Lee\*, and Yu-Zhe Liu, "Bi-Functional FTO Films for Efficient Perovskite Solar Cells", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan. (Oral Presentation)
26. Ching-Yuan Liu, and Kun-Mu Lee\*, "Bridge the Gap from Synthetic Methodologies to Organic Photovoltaic Materials", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.

## 2019-

27. Shih-Han Huang, Chia-Feng Li, Wei-Cheng Chu, Kun-Mu Lee\*, Yu-Ching Huang\*, and Wei-Fang Su\*, "Perovskite Layer of High-Efficiency Solar Cell Fabricated Using Blade Coating in Ambient Environment", **2019 A-COE The 11<sup>th</sup> Asian Conference on Organic Electronics (A-COE 2019)**, Nov. 6-9, New Taipei, Taiwan.
28. Min-Yao Hou, and Kun-Mu Lee\*, "Blade Coating 2D/3D Perovskite Films for High Efficiency and Stable Perovskite Solar Cells", **2019 JSAP The 12<sup>th</sup> International Summit on Organic and Hybrid Photovoltaics Stability (ISOS-12 2019)**, Oct. 7-9, Karlsruhe, Germany.
29. Wei-Jih Lin, and Kun-Mu Lee\*, "Preparation of High Transmittance and Activity Platinum Counter Electrode for Flexible Dye-Sensitized Solar Cells and Modules", **2019 CGEEE The 2<sup>nd</sup> International Conference on Green Energy and Environment Engineering (CGEEE 2019)**, July 2-5, Okinawa, Japan.
30. Min-Yao Hou, and Kun-Mu Lee\*, "Blade Coating 2D/3D Perovskites Films for High Efficiency and Stable Perovskite Solar Cells", **2019 JSAP The 66<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2019)**, Mar. 9-12, Tokyo, Japan.
31. Chang-Chieh Ting, and Kun-Mu Lee\*, "Low Defect Density of Perovskites Films for High Efficiency Perovskite Solar Cells", **2019 JSAP The 66<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2019)**, Mar. 9-12, Tokyo, Japan.
32. Chang-Chieh Ting, Kun-Mu Lee\*, Kuan-Ming Lu, and Ching-Yuan Liu, "One-Pot Synthesis of D-p-D-p-D Type Holetransporting Materials for Perovskite Solar Cells by Sequential C-H(Hetero) Arylations", **2019 JSAP The 66<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2019)**, Mar. 9-12, Tokyo, Japan.

## 2018-

33. Wei-Jih Lin, and Kun-Mu Lee\*, "Control Electron Collection and Transportation of TiO<sub>2</sub> Electrode for High Efficiency Perovskite Solar Cells", **2018 ISOS-11 The 11<sup>th</sup> International Summit on Organic and Hybrid Photovoltaics Stability (ISOS-11 2018)**, Oct. 21-25, Suzhou, China.
34. Hsin Lo, and Kun-Mu Lee\*, "Thermal Treatment on The Photoelectric Properties and Stability of Mixed-Cation Perovskite Solar Cells", **2018 ISOS-11 The 11<sup>th</sup> International Summit on Organic and Hybrid Photovoltaics Stability (ISOS-11 2018)**, Oct. 21-25, Suzhou, China.
35. Kun-Mu Lee\*, "Effect of Anti-Solvent Treatment on Fabrication of Large Area Perovskite Solar Cells", **2018 JSAP The 65<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2018)**, Mar. 17-20, Tokyo, Japan.
36. Kun-Mu Lee\*, "Influence of The Titanium Dioxide Nano-Particles Size on the Performance of Mesoscopic Perovskite Solar Cell", **2018 JSAP The 65<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2018)**, Mar. 17-20, Tokyo, Japan.

## 2017-

37. Bo-Yi Liou, and Kun-Mu Lee\*, "Influence of the Anti-Solvents on The Performance of The Methylammonium Lead Triiodide Perovskite Solar Cells", **2017 IWGCP2 2<sup>nd</sup> International Workshop on Graphene and C3N4-based Photocatalysts (IWGCP2)**, Mar. 24-27, Wuhan, China.

## 2016-

38. Hao-Chien Cheng, and Kun-Mu Lee\*, "The Effect of Electrodeposition Current of PbO<sub>2</sub> Film on The Performance of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Perovskite Solar Cells", **PSCO-2016: 2<sup>nd</sup> International Conference on Perovskite Solar Cells and Optoelectronics (PSCO-2016)**, Sep. 26-28, Palazzo Ducale, Genova, Italy.
39. Bo-Yi Liou, Hao-Chien Cheng, and Kun-Mu Lee\*, "Investigation The Influence of The Anti-Solvents on The Performance of The Large Area Perovskite Solar Cells", **PSCO-2016: 2<sup>nd</sup> International Conference on Perovskite Solar Cells and Optoelectronics (PSCO-2016)**, Sep. 26-28, Palazzo Ducale, Genova, Italy.
40. Kun-Mu Lee\*, "Co-Sensitization Promoted Light Harvesting for Plastic Dye-Sensitized Solar Cells", **The 4th International Symposium on Fundamental and Applied Sciences (ISFAS 2016)**, Mar. 29-31, Kyoto, Japan
41. Kun-Mu Lee\*, "Investigation The Influence of The Antisolvents on The Performance of The Perovskite Solar Cells", **2016 Materials Research Society (2016 MRS Fall Meeting)**, Nov. 27-Dec. 2, Boston, Massachusetts.