

International Conference Papers List

2026-

1. Wei-Hao Chiu, Wei-Lun Yu, Ching-Yuan Liu, and Kun-Mu Lee*, "Rapid Preheating-Assisted Liquid-Medium Annealing for Efficient and Stable Perovskite Solar Cells", **2026 SDSE 4th International Conference on Smart Devices and Sustainable Energy (SDSE 2026)**, Oct. 14-16, New Taipei, Taiwan.
2. Harini Srikanth Rao, Seoungjun Ahn, Wei-Hao Chiu, Wei-Chen Chu, Yi-Wen Sung, and Kun-Mu Lee*, "Reliability Enhancement of PVDF-HFP Modified Perovskite Solar Cells under Synergistic Space-Relevant Stress Conditions", **2026 SDSE 4th International Conference on Smart Devices and Sustainable Energy (SDSE 2026)**, Oct. 14-16, New Taipei, Taiwan.
3. Iqra Shaheen, Yu-Xian Lee, Wei-Hao Chiu, Shih-Hsuan Chen, and Kun-Mu Lee*, "Nanostructured g-C₃N₄-Decorated Graphite Felt Electrodes for Enhanced Redox Kinetics in Vanadium Redox Flow Batteries", **2026 SDSE 4th International Conference on Smart Devices and Sustainable Energy (SDSE 2026)**, Oct. 14-16, New Taipei, Taiwan. (Honorable Mentions Award)
4. Seoungjun Ahn, Wei-Hao Chiu, and Kun-Mu Lee*, "PVDF-HFP Polymer Additive for Highly Stable Perovskite Solar Cells Under Vacuum and Gamma-Ray Conditions", **2026 PESI Polymer Engineering & Sciences International (PESI 2026)**, June. 28-July. 2, Kanazawa, Japan.
5. Kun-Mu Lee*, Seoungjun Ahn, and Wei-Hao Chiu, "Add PVDF-HFP in Perovskite for Improve Reliability of Perovskite Photovoltaic for Space Application", **2026 AEPA The 16th Asia-Pacific Symposium on Engineering Plasticity and Its Applications (AEPA 2026)**, Feb. 1-6, Auckland, New Zealand.
6. Kun-Mu Lee*, Seoungjun Ahn, and Wei-Hao Chiu, "Add PVDF-HFP in Perovskite for Improve Reliability of Perovskite Photovoltaic for Space Application", **2026 AEPA The 16th Asia-Pacific Symposium on Engineering Plasticity and Its Applications (AEPA 2026)**, Feb. 1-6, Auckland, New Zealand.

2025-

7. Wei-Hao Chiu, Wei-Hao Chiu, and Kun-Mu Lee*, "Blade Coating Strategies for Morphology-Controlled Perovskite Solar Cells with High Performance", **2025 SDSE 3rd International Conference on Smart Devices and Sustainable Energy (SDSE 2025)**, Oct. 15-17, New Taipei, Taiwan. (Excellent Poster Award)
8. Kun-Mu Lee*, Seoungjun Ahn, and Wei-Hao Chiu, "Advanced Additives for Space Missions: PVDF-HFP's Impact on Perovskite Solar Cell Reliability", **2025 EU PVSEC The 42nd European Photovoltaic Solar Energy Conference and Exhibition (EU PVSEC 2025)**, Sep. 22-26, Bilbao, Spain. (Oral Presentation)
9. Wei-Hao Chiu, Ying-Kai Huang, and Kun-Mu Lee*, "Enhancing Perovskite Solar Cell Performance through Chemical Bath Deposition of SnO₂ on Mesoporous TiO₂ Electrodes", **2025 MC The 17th International Conference on Materials Chemistry (MC 2025)**, Jul. 7-10, Edinburgh, United Kingdom.
10. Kun-Mu Lee*, Yan-Duo Lin, and Wei-Hao Chiu, "Molecular Design of 5H-Dithieno[3,2-b:2',3'-d]pyran-Based Hole-Transporting Materials for Highly Efficient and Stable Perovskite Solar Cells", **2025 ESOC The 11th European Stroke Organisation Conference (ESOC 2025)**, May 21-23, Helsinki, Finland.
11. 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)

12. 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-

13. Seoungjun Ahn, [Wei-Hao Chiu](#), Wei-Chen Chu, and Kun-Mu Lee*, "Optimizing PVDF-HFP Additives in Perovskite Solar Cells for Improving Space Mission Durability", **2024 SEG T International Conference on Sustainable Energy and Green Technology (SEG T 2024)**, Dec. 15-18, Bangkok, Thailand.
14. Kun-Mu Lee*, [Wei-Hao Chiu](#), and Yan-Duo Lin, "Pentafulvalene-Fused Fluorinated Compound Boosts Perovskite Solar Cell Performance", **2024 PVSEC-35 The 35rd International Photovoltaic Science and Engineering Conference (PVSEC-35 2024)**, Nov. 10-15, Numazu, Japan. (Invited Speaker)
15. [Wei-Hao Chiu](#)*, and Kun-Mu Lee, "Enhancing Perovskite Solar Cell Performance through Chemical Bath Deposition of SnO₂ on Mesoporous TiO₂ Electrodes ", **2024 PVSEC-35 The 35rd International Photovoltaic Science and Engineering Conference (PVSEC-35 2024)**, Nov. 10-15, Numazu, Japan.
16. Seoungjun Ahn, [Wei-Hao Chiu](#), Wei-Hao Chiu, and Kun-Mu Lee*, "Exploring the Role of PVDF-HFP in Enhancing Perovskite Solar Cell Performance for Space Missions", **2024 SDSE 2nd International Conference on Smart Devices and Sustainable Energy (SDSE 2024)**, Oct. 16-18, New Taipei, Taiwan.
17. [Wei-Hao Chiu](#), Si-Yu Chen, and Kun-Mu Lee*, "Rapid Laser Annealing of Cu-Doped NiO_x for Improved Efficiency in Perovskite Solar Cells", **2024 SDSE 2nd International Conference on Smart Devices and Sustainable Energy (SDSE 2024)**, Oct. 16-18, New Taipei, Taiwan.
18. [Wei-Hao Chiu](#), 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 2nd International Conference on Smart Devices and Sustainable Energy (SDSE 2024)**, Oct. 16-18, New Taipei, Taiwan.
19. Kun-Mu Lee*, Seoungjun Ahn, [Wei-Hao Chiu](#), and Wei-Hao Chiu, "Enhancing the Performance of Space-Ready Perovskite Solar Cells Using PVDF-HFP", **2024 ISOS 15 International Summit on Organic and Hybrid Photovoltaics Stability (ISOS-15 2024)**, Sep. 30-Oct. 2, Berlin, Germany.
20. Kun-Mu Lee*, Seoungjun Ahn, [Wei-Hao Chiu](#), and Wei-Hao Chiu, "Comprehensive Study of PVDF-HFP in Perovskite Solar Cells for Enhanced Space Mission Reliability", **2024 ISOS 15 International Summit on Organic and Hybrid Photovoltaics Stability (ISOS-15 2024)**, Sep. 30-Oct. 2, Berlin, Germany.
21. 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.

2022-

22. Seoungjun Ahn, Kun-Mu Lee*, and [Wei-Hao Chiu](#), "Toward High Efficiency Perovskite Solar Cells by Doping Cesium Iodide into PbI₂ Film via Two-Step Deposition Method", **2022 PVSEC-33 The 33rd International Photovoltaic Science and Engineering Conference (PVSEC-33 2022)**, Nov. 13-17, Nagoya, Japan.
23. Seoungjun Ahn, Kun-Mu Lee*, and [Wei-Hao Chiu](#), "High Efficiency Perovskite Solar Cells by Incorporating Cesium into PbI₂ Solution via Two-Step Deposition Method", **2022 IEDMS International Electron Devices & Materials Symposium (IEDMS 2022)**, Oct. 27-28, Nantou, Taiwan. (Oral Presentation)

2021-

24. 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.
25. 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.