Dr. Wei-Hao Chiu of Chang Gung University (Update 2026/10/19)

■ SCI Journal Paper

2026-

1. Kun-Mu Lee*, Xiu-Ping Lin, Ya-Ho Chang*, Cheng-Ting Tsai, Pei-Chen Chu, Yu-Hsun Chen, Wei-Hao Chiu, Yu-Che Lin, Sie-Rong Li, Hsiao-Chi Hsieh*, Kang-Ling Liau, Shih-I. Lu*, Chih-Min Wang*, and Yan-Duo Lin*, "Asymmetric Fluorinated Spiro Hole-Transport Materials Enabled by a Rapid Core-Forming Strategy for Blade-Coated Perovskite Solar Cells", **2026**, ***Advanced Science***, e77623. (▲**:0**; SCI; **IF:14.1** at 2025; Ranking:24/250=9.6% in Chemistry, Multidisciplinary)

2. Iqra Shaheen, Shih-Hsuan Chen, Yu-Xian Lee, Wei-Hao Chiu, Ting-Han Lin, Kumar GokulKumar, P. Varatharajan, Jen-Fu Hsu, Gao Chen, and Kun-Mu Lee*, "Coupled Morphology and Phase Regulation of In-Situ Grown TiO_2 Nanostructures on Graphite Felt for Enhanced Redox Kinetics in Vanadium Redox Flow Batteries", **2026**, ***Chemical Engineering Journal***, 549, 183177. (▲**:0**; SCI; **IF:12.5** at 2025; Ranking:4/88=4.5% in Engineering, Environmental)

3. Harini Srikanth Rao, Seoungjun Ahn, Wei-Hao Chiu, Wei-Chen Chu, Yi-Wen Sung, Gao Chen, and Kun-Mu Lee*, "Reliability Enhancement of PVDF-HFP Modified Perovskite Solar Cells Under Synergistic Space-Relevant Stress Conditions", **2026**, ***Chemical Engineering Journal***, 540, 177494. (▲**:0**; SCI; **IF:12.5** at 2025; Ranking:4/88=4.5% in Engineering, Environmental)

4. Iqra Shaheen†, Wei-Hao Chiu†, Yu-Xian Lee†, Shih-Hsuan Chen, Jen-Fu Hsu, and Kun-Mu Lee*, "Heterogeneous Graphite Felt Electrodes Decorated with Nanostructured Graphitic Carbon Nitride for Enhanced Redox Kinetics in Vanadium Redox Flow Batteries", **2026**, ***Journal of Power Sources***, 667, 239216. (▲**:0**; SCI; **IF:8.4** at 2025, Ranking:7/44=15.9% in Electrochemistry)

5. Harini Srikanth Rao, Wei-Hao Chiu, Shih-Hsuan Chen, Ming-Chung Wu, and Kun-Mu Lee*, "2T Perovskite Tandem Solar Cells in Space: Failure Mechanisms and Design Strategies", **2026**, ***Materials Today Energy***, 60, 102359. (▲**:0**; SCI; **IF:8.1** at 2025, Ranking:99/472=21.0% in Materials Science, Multidisciplinary)

6. Wei-Hao Chiu, Wei-Lun Yu, Ming-Chung Wu, Jen-Fu Hsu, Gao Chen, Ching-Yuan Liu*, and Kun-Mu Lee*, "Synergistic Preheating and Moderate Temperature Liquid Medium Annealing for High Performance Perovskite Solar Cells", **2026,** ***Solar Energy***, 309, 114430. (▲ **:0**; SCI; **IF:7.9** at 2025; Ranking:50/191=26.2% in Energy & Fuels)

7. Harini Srikanth Rao, Wei-Hao Chiu, Shih-Hsuan Chen, Ming-Chung Wu, and Kun-Mu Lee*, "Impact of Proton Radiation on the Performance of Single-Junction Perovskite Solar Cells for Space Applications", **2026,** ***Solar Energy Materials and Solar Cells***, 295, 114015. (▲**:7**; SCI; **IF:6.6** at 2025; Ranking:37/191=19.4% in Physics, Applied)

8. Kun-Mu Lee, Wei-Hao Chiu, Bo-Chin Lee, Yu-Hsin Kao, Jr-Si Hsu, and Yung-Sheng Yen*, "Fused Dithienoheterocycle-Based Hole-Transporting Materials for Efficient Perovskite Solar Cells", **2026,** ***Chemistry-An Asian Journal***, 21, e70245. (▲**:0**; SCI; **IF:3.2** at 2025; Ranking:121/250=48.4% in Chemistry, Multidisciplinary)

2025-

9. Kun-Mu Lee, Chia-Hui Lin, Chia-Chi Chang, Ting-Yu Yang, Wei-Hao Chiu, Wei-Chen Chu, Ya-Ho Chang, Sie-Rong Li, Shih-I Lu, Hsiao-Chi Hsieh, Kang-Ling Liau, Chia Hui Hu, Chih-Hung Chen, Yun-Shuo Liu, Wei-Chun Chou, Mandy M. Lee, Shih-Sheng Sun, Yu-Tai Tao, and Yan-Duo Lin*, "Judicious 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**, ***Advanced Science***, 12, 2410666. (▲**:14**; SCI; **IF:14.1** at 2025; Ranking:24/250=9.6% in Chemistry, Multidisciplinary)

10. Iqra Shaheen, Wei-Hao Chiu, Shih-Hsuan Chen, and Kun-Mu Lee*, "MOF- & COF-Integrated Composite Separators/Membranes: Innovations for Sustainable and High-Performance Redox Flow Batteries", **2025**, ***Separation and Purification Technology***, 376, 134157. (▲**:6**; SCI; **IF:9.1** at 2025; Ranking:22/183=12.0% in Engineering, Chemical)

11. Chia-Yuan Chen*, Yu-Fan Chang, Yen-Chen Shih, Ying-Chuan Liu, Chi-Feng Chiu, Rahma Rahayu Dinarlita, Tsung-Yu Tsai, Chieh-Ming Hung, Hou-Chin Cha, You-Ren Chen, Zhi-Hao Huang, Yu-Cheng Zhang, Hui-Chieh Lin, Wei-Chen Chu, Wei-Hao Chiu, Sie-Rong Li, Ting-Jui Chang, Yi-Hong Liao, Siti Utari Rahayu, Bo-Yu Han, Yun-Tou Lin, Pei-Ling Wang, Zi-Ting Liao, Jhao-Yun Tsai, Zhong-En Shi, Chia-Tse Hsu, Po-Shun Hsu, Po-Yuan Chen, Jia-Zhen Li, Anjali Thakran, Yu-Ting Chen, Yu-Sheng Li, Hao-Wei Yu, Chu-Chen Chueh*, Tzung-Fang Guo*, Chih-Wei Chu*, Leeyih Wang*, Kuo-Chuan Ho*, Fang-Chung Chen*, Chih-Ping Chen*, Yian Tai*, Chun-Ting Li*, Ming-Way Lee*, Chih-Liang Wang*, Shih-Sheng Sun*, Kun-Mu Lee*, Zong-Liang Tseng*, Yu-Ching Huang*, Pi-Tai Chou*, Chung-Wen Ko*, and Chun-Guey Wu*, "Round-Robin Interlaboratory Comparison of Large-Area Organic Thin-Film and Perovskite Solar Cells", **2025**, ***Solar RRL***, e202500538. (▲**:1**; SCI; **IF:4.8** at 2025; Ranking:182/472=38.6% in Materials Science, Multidisciplinary)

12. Kun-Mu Lee*, Jui-Ting Pan, Wen-Tzu Chen, Chia-Hui Lin, Zhe-Wei Wang, Wei-Hao Chiu, Wei-Chen Chu, Ya-Ho Chang, Jen-Fu Hsu, Sie-Rong Li, Shih-I Lu*, Hsiao-Chi Hsieh*, Chih-Wei Hu, Chih-Hung Chen, Jian-Ming Chiu, Kang-Ling Liau, Gao Chen, Yun-Shuo Liu, Shih-Sheng Sun*, and Yan-Duo Lin*, "Asymmetric Fluorinated Cyclopenta[2,1-b:3,4-b']Dithiophene-Based Hole-Transporting Materials for Perovskite Solar Cell", **2025, *Chemistry-An Asian Journal***, 20, e00719. (▲**:0**; SCI; **IF:3.2** at 2025; Ranking:121/250=48.4% in Chemistry, Multidisciplinary)

2024-

13. Seoungjun Ahn, Wei-Hao Chiu, Wei-Chen Chu, Pei-Yu Chen, Ting-Han Lin, and Kun-Mu Lee*, "A Systematic Investigation of PVDF-HFP in Perovskite Solar Cells for Improved Space Mission Reliability", **2024**, ***Chemical Engineering Journal***, 496, 153974. (▲**:2**; SCI; **IF:12.5** at 2025; Ranking:4/88=4.5% in Engineering, Environmental)

14. Hsiao-Chien Chen*, Abdul Shabir, Kun-Hua Tu, Cher Ming Tan*, Wei-Hao Chiu, Ruei-Cheng Fan, Nilim Akash Baruah, "Additive-Free Electroless Deposition on Graphene/Copper Foil: Photo-Induced and Defect-Assisted Approach for Environmentally Friendly Plating", **2024**, ***Journal of Environmental Chemical Engineering***, 12, 111741. (▲**:0**; SCI; **IF:7.5** at 2025, Ranking:34/183=18.6% in Engineering, Chemical)

15. Wei-Hao Chiu, Ying-Kai Huang, Shih-Hsuan Chen, Ming-Chung Wu, Gao Chen, and Kun-Mu Lee*, "Exploring the Efficiency Enhancement of Perovskite Solar Cells by Chemical Bath Depositing SnO_2 on Mesoporous TiO_2 Electrode", **2024**, ***Materials Today Chemistry***, 41, 102329. (▲**:11**; SCI; **IF:7.4** at 2025; Ranking:57/250=22.8% in Chemistry, Multidisciplinary)

16. Gizachew Belay Adugna, Kun-Mu Lee*, Hsiao-Chi Hsieh*, Shih-I Lu*, Chia-Hui Lin, Yu-Chien Hsieh, Hune Hung Yang, Jian-Ming Chiu, Yun-Shuo Liu, Chih-Wei Hu, Wei-Hao Chiu, Sie-Rong Li, Kang-Ling Liau, Yu-Tai Tao, and Yan-Duo Lin*, "Fluorination of Star-Shaped Cyclopenta[2,1-b;3,4-b 0]dithiophene Derivatives and Its Application as Hole-Transporting Materials in Scalable Perovskite Solar Cell Fabrication by Bar Coating", **2024**, ***Solar RRL***, 8, 2300988. (▲**:1**; SCI; **IF:4.8** at 2025; Ranking:182/472=38.6% in Materials Science, Multidisciplinary)

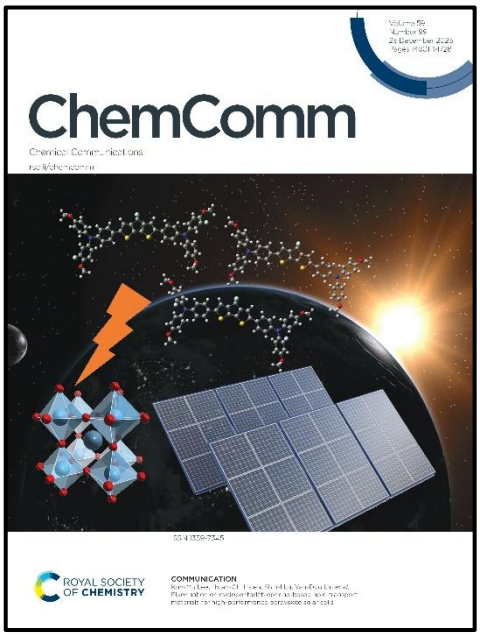
2023-

17. Kun-Mu Lee, Yao-Shen Huang, Wei-Hao Chiu, Ying-Kai Huang, Gao Chen, Gizachew Belay Adugna, Sie Rong Li, Fang Ju Lin, Shih-I Lu, Hsiao-Chi Hsieh, Kang-Ling Liau, Chun-Cheng Huang, Yian Tai, Yu-Tai Tao, and Yan-Duo Lin*, "Fluorinated Pentafulvalene-Fused Hole-Transporting Material Enhances the Performance of Perovskite Solar Cells with Efficiency Exceeding 23%", **2023**, ***Advanced Functional Materials***, 33, 230637. (▲ **:32**; SCI; **IF:19.9** at 2025; Ranking:11/250=4.4% in Chemistry, Multidisciplinary)

18. Kun-Mu Lee*, Seid Yimer Abate, June Hung Yang, Wei-Hao Chiu, Seoungjun Ahn, Sie-Rong Li, Kang-Ling Liau, Yu-Tai Tao*, and Yan-Duo Lin*, "Facile Synthesis of Spiro-Core Based Hole Transporting High-Performance and Stable Perovskite Solar Cells", **2023**, ***Chemical Engineering Journal***, 454, 139926. (▲**:25**; SCI; **IF:12.5** at 2025; Ranking:4/88=4.5% in Engineering, Environmental)

19. Dharuman Chandrasekaran, Shih-Jyun Liou, Wei-Hao Chiu, Lee-Che Lee, Kun-Mu Lee*, Yi-Chen Wu, Hsien-Hsin Chou, Yuan-Jay Chang*, and Yung-Sheng Yen*, "Ladder-Type Dihydronaphtho[1, 2, 3, 4,-rst]pentaphene as Building Block to Construct Hole-Transporting Materials for Perovskite Solar Cells", **2023**, ***Journal of Power Sources***, 581, 233496. (▲**:3**; SCI; **IF:8.4** at 2025, Ranking:7/44=15.9% in Electrochemistry)

20. Gizachew Belay Adugna†, Kun-Mu Lee*†, Hsiao-Chi Hsieh*, Shih-I Lu*, Yu-Chien Hsieh, Hune Hung Yang, Wei-Hao Chiu, Kang-Ling Liau, Yu-Tai Tao, and Yan-Duo Lin*, "Fluorination on Cyclopentadithiophene-Based Hole-Transport Material for High-Performance Perovskite Solar Cells", **2023**, ***Chemical Communications***, 59, 14653-14656. (▲**:10**; SCI; **IF:4.3** at 2025; Ranking:98/250=39.2% in Chemistry, Multidisciplinary) **(Selected as an inside front cover of Chemical Communications!!)**



21. Li-Lin, Wei-Hao Chiu, Ming-Ling Cao, Kun-Mu Lee, Wei-Lun Yu, and Ching-Yuan Liu*, "New Molecular Design, Step-Saving Synthesis, and Applications of Indolocarbazole Core-Based Oligo(hetero)arenes", **2023,** ***Chemistry-An Asian Journal***, 18, e202300681. (▲**:0**; SCI; **IF:3.2** at 2025; Ranking:121/250=48.4% in Chemistry, Multidisciplinary)

22. Seoungjun Ahn, Wei-Hao Chiu, Hsin-Ming Cheng, Vembu Suryanarayanan, Gao Chen, Yu-Ching Huang*, Ming-Chung Wu*, and Kun-Mu Lee*, "Enhancing Efficiency and Stability of Perovskite Solar Cells Through Two-Step Deposition Method with the Addition of Cesium Halides to PbI_2 Precursor", **2023,** ***Organic Electronics***, 120, 106847. (▲**: 10**; SCI; **IF:2.9** at 2025; Ranking:96/196=49.0% in Physics, Applied)

2022-

23. Kun-Mu Lee, Wei-Hao Chiu, Yu-Hsiang Tsai, Chao-Shian Wang, Yu-Tai Tao, and Yan-Duo Lin*, "High-Performance Perovskite Solar Cells Based on Dopant-Free Hole-Transporting Material Fabricated by a Thermal-Assisted Blade-Coating Method with Efficiency Exceeding 21%", **2022**, ***Chemical Engineering Journal***, 427, 131609. (▲**:46**; SCI; **IF:12.5** at 2025; Ranking:4/88=4.5% in Engineering, Environmental)

24. Dharuman Chandrasekaran, Wei-Hao Chiu, Kun-Mu Lee*, Jian-Ming Liao, Hsien-Hsin Chou*, and Yung-Sheng Yen*, "Effect of Thiophene Insertion on X-Shaped Anthracene-Based Hole-Transporting Materials in Perovskite Solar Cells", **2022**, ***Polymers***, 14, 1580. (▲**:2**; SCI; **IF:5.8** at 2025; Ranking:18/96=18.8% in Polymer Science)

25. Kun-Mu Lee*†, Shun-Hsiang Chan*†, Chang-Chieh Ting, Shih-Hsuan Chen, Wei-Hao Chiu, Vembu Suryanarayanan, Jen-Fu Hsu, Ching-Yuan Liu*, and Ming-Chung Wu*, "Surfactant Tween 20 Controlled Perovskite Film Fabricated by Thermal Blade Coating for Efficient Perovskite Solar Cells", **2022**, ***Nanomaterials***, 12, 2651. (▲**:10**; SCI; **IF:4.8** at 2025; Ranking:52/192=27.1% in Physics, Applied)

2021-

26. Yi-Jen Huang, Chien-Lin Huang*, Ruo-Yu Lai, Cheng-Han Zhuang, Wei-Hao Chiu, and Kun-Mu Lee*, "Microstructure and Biological Properties of Electrospun In Situ Polymerization of Polycaprolactone-Graft-Polyacrylic Acid Nanofibers and Its Composite Nanofiber Dressings", **2021**, ***Polymers***, 13, 4246. (▲**:13**; SCI; **IF:5.8** at 2025; Ranking:18/96=18.8% in Polymer Science)

27. Wei-Hao Chiu, Kun-Mu Lee*, Vembu Suryanarayanan, Jen-Fu Hsu*, and Ming-Chung Wu*, "Controlled Photoanode Properties for Large-Area Efficient and Stable Dye-Sensitized Photovoltaic Modules", **2021**, ***Nanomaterials***, 11, 2125. (▲**:7**; SCI; **IF:4.8** at 2025; Ranking:52/192=27.1% in Physics, Applied)

28. Kun-Mu Lee*, Shun-Hsiang Chan, Wei-Hao Chiu, Seoungjun Ahn, Chang-Chieh Ting, Yin-Hsuan Chang, Vembu Suryanarayanan, Ming-Chung Wu*, and Ching-Yuan Liu*, "Reduced Defect in Organic-Lead Halide Perovskite Film by De-Layer Thermal Annealing Combined with KI/I_2 for Efficient Perovskite Solar Cells", **2021**, ***Nanomaterials***, 11, 1607. (▲**:6**; SCI; **IF:4.8** at 2025; Ranking:52/192=27.1% in Physics, Applied)

2013-

29. Kun-Mu Lee*, Wei-Hao Chiu, Vembu Suryanarayanan, and Chun-Guey Wu*, "Enhanced Efficiency of Bifacial and Back-Illuminated Ti Foil Based Flexible Dye-Sensitized Solar Cells by Decoration of Mesoporous SiO_2 Layer on TiO_2 Anode", **2013**, ***Journal of Power Sources***, 232, 1-6. (▲**:13**; SCI; **IF:8.4** at 2025, Ranking:7/44=15.9% in Electrochemistry)

2012-

30. Kun-Mu Lee*, Wei-Hao Chiu, Chih-Yu Hsu, Hsin-Ming Cheng, Chia-Hua Lee, and Chun-Guey Wu, "Ionic Liquid Diffusion Properties in Tetrapod-like ZnO Photoanode for Dye-Sensitized Solar Cells", **2012, *Journal of Power Sources***, 216, 330-336. (▲**:16**; SCI; **IF:8.4** at 2025, Ranking:7/44=15.9% in Electrochemistry)

2011-

31. Kun-Mu Lee*, Wei-Hao Chiu, Ming-De Lu, and Wen-Feng Hsieh, "Improvement on the Long-Term Stability of Flexible Plastic Dye-Sensitized Solar Cells", **2011, *Journal of Power Sources***, 196, 8897-8903. (▲**:35**; SCI; **IF:8.4** at 2025, Ranking:7/44=15.9% in Electrochemistry)

32. Wei-Hao Chiu, Kun-Mu Lee, and Wen-Feng Hsieh*, "High efficiency Flexible Dye-Sensitized Solar Cells by Multiple Electrophoretic Depositions", **2011, *Journal of Power Sources***, 196, 3683-3687. (▲**:71**; SCI; **IF:8.4** at 2025, Ranking:7/44=15.9% in Electrochemistry)

33. Chia-Hua Lee, Wei-Hao Chiu, Kun-Mu Lee, Wen-Feng Hsieh, and Jenn-Ming Wu, "Improved Performance of Flexible Dye-Sensitized Solar Cells by Introducing an Interfacial Layer on Ti Substrates", **2011**, ***Journal of Materials Chemistry***, 21, 5114. (▲**:58**; SCI; **IF:6.626** at 2013; Ranking:22/251=8.8% in Materials Science, Multidisciplinary)

2010-

34. Chia-Hua Lee, Wei-Hao Chiu, Kun-Mu Lee, Wen-Hsiang Yen, Hsiu-Fen Lin, Wen-Feng Hsieh, and Jenn-Ming Wu, "The Influence of Tetrapod-Like ZnO Morphology and Electrolytes on Energy Conversion Efficiency of Dye-Sensitized Solar Cells", **2010**, ***Electrochimica Acta***, 55, 8422-8429. (▲**:39**; SCI; **IF:5.8** at 2025, Ranking:12/44=27.3% in Electrochemistry)

35. Kun-Mu Lee*, Wei-Hao Chiu, Hung-Yu Wei, Chih-Wei Hu, Vembu Suryanarayanan, Weng-Feng Hsieh, and Kuo-Chuan Ho, "Effects of Mesoscopic Poly (3,4-ethylenedioxythiophene) Films as Counter Electrodes for Dye-Sensitized Solar Cells", **2010**, ***Thin Solid Films***, 518, 1716-1721. (▲**:78**; SCI; **IF:2.4** at 2025; Ranking:47/81 =58.0% in Physics, Condensed Matter)

2009-

36. Wei-Hao Chiu, Chia-Hua Lee, Hsin-Ming Cheng, Hsiu-Fen Lin, Shih-Chieh Liao, Jenn-Ming Wu, and Wen-Feng Hsieh*, "Efficient Electron Transport in Tetrapod-Like ZnO Metal-Free Dye-Sensitized Solar Cells", **2009**, ***Energy & Environmental Science***, 2, 694-698. (▲ **:96**; SCI; **IF:30.5** at 2025 Ranking: Ranking:2/183=1.1% in Engineering, Chemical)

37. Kun-Mu Lee, Chih-Yu Hsu, Wei-Hao Chiu, Meng-Chin Tsui, Yung-Liang Tung, Song-Yeu Tsai, and Kuo-Chuan Ho*, "Dye-Sensitized Solar Cells with A Micro-Porous TiO_2 Electrode and Gel Polymer Electrolytes Prepared by in Situ Cross-Link Reaction", **2009**, ***Solar Energy Materials and Solar Cells***, 93, 2003-2007. (▲**:40**; SCI; **IF:6.6** at 2025; Ranking:37/191=19.4% in Physics, Applied)

2008-

38. Hsin-Ming Cheng†, Wei-Hao Chiu†, Chia-Hua Lee, Song-Yeu Tsai, and Wen-Feng Hsieh*, "Formation of Branched ZnO Nanowires from Solvothermal Method and Dye-Sensitized Solar Cells Applications", **2008**, ***Journal of Physical Chemistry C***, 112, 16359-16364. (▲ **:247**; SCI; **IF:3.4** at 2025; Ranking:256/472=54.2% in Materials Science, Multidisciplinary)

2005-

39. Ching-Hsu Chen*, Po-Tse Tai, Wei-Hao Chiu, and Wen-Feng Hsieh*, "Transverse Excess Noise Factor and Transverse Mode Locking in A Gain-Guided Laser", **2005**, ***Optics Communications***, 245, 301-308. (▲**:12**; SCI; **IF:2.7** at 2025; Ranking:59/129=45.7% in Optics)