

## Dr. Wei-Hao Chiu of Chang Gung University (Update 2025/02/03)

### SCI Journal Paper

#### 2025-

1. 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. (▲:0; SCI; **IF:14.3** at 2023; Ranking:32/438=7.3% in Materials Science, Multidisciplinary)

#### 2024-

2. 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. (▲:0; SCI; **IF:13.3** at 2023; Ranking:3/81=3.7% in Engineering, Environmental)
3. 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:7.4** at 2023; Ranking:30/171=17.5% in Engineering, Chemical)
4. [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<sub>2</sub> on Mesoporous TiO<sub>2</sub> Electrode", **2024, *Materials Today Chemistry***, 41, 102329. (▲:0; SCI; **IF:6.7** at 2023; Ranking:43/231=18.6% in Chemistry, Multidisciplinary)
5. 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. (▲:0; SCI; **IF:6.0** at 2023; Ranking:114/438=26.0% in Materials Science, Multidisciplinary)

#### 2023-

6. 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. (▲:0; SCI; **IF:18.5** at 2023; Ranking:9/231=3.9% in Chemistry, Multidisciplinary)
7. 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. (▲:13; SCI; **IF:13.3** at 2023; Ranking:3/81=3.7% in Engineering, Environmental)

8. 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. (▲:2; SCI; IF:8.1 at 2023, Ranking:6/45=13.3% in Electrochemistry)
9. Gizachew Belay Adugna†, Kun-Mu Lee\*†, Hsiao-Chi Hsieh\*, Shih-I Lu\*, Yu-Chien Hsieh, Hune Hung Yang, [Wei-Hao Chiu](#), Kang-Ling Liao, 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. (▲:1; SCI; IF:4.3 at 2023; Ranking:73/231=31.6% in Chemistry, Multidisciplinary) **Selected as an inside front cover of Chemical Communications!!**
10. 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:3.5 at 2023; Ranking:110/231=47.6% in Chemistry, Multidisciplinary)
11. 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<sub>2</sub> Precursor", **2023, *Organic Electronics***, 120, 106847. (▲:1; SCI; IF:2.7 at 2023; Ranking:77/179=43.0% in Physics, Applied)



## 2022-

12. 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. (▲:38; SCI; IF:13.3 at 2023; Ranking:3/81=3.7% in Engineering, Environmental)
13. 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:4.7 at 2023; Ranking:17/94=18.1% in Polymer Science)
14. 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. (▲:3; SCI; IF:4.4 at 2023; Ranking:60/179=33.5% in Physics, Applied)

## 2021-

15. 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. (▲:9; SCI; IF:4.7 at 2023; Ranking:17/94=18.1% in Polymer Science)
16. [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. (▲:5; SCI; IF:4.4 at 2023; Ranking:60/179=33.5% in Physics, Applied)

17. 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<sub>2</sub> for Efficient Perovskite Solar Cells", **2021**, *Nanomaterials*, 11, 1607. (▲:6; SCI; IF:4.4 at 2023; Ranking:60/179=33.5% in Physics, Applied)

#### 2013-

18. 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<sub>2</sub> Layer on TiO<sub>2</sub> Anode", **2013**, *Journal of Power Sources*, 232, 1-6. (▲:13; SCI; IF:8.1 at 2023, Ranking:6/45=13.3% in Electrochemistry)

#### 2012-

19. 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. (▲:15; SCI; IF:8.1 at 2023, Ranking:6/45=13.3% in Electrochemistry)

#### 2011-

20. 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. (▲:33; SCI; IF:8.1 at 2023, Ranking:6/45=13.3% in Electrochemistry)
21. [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:8.1 at 2023, Ranking:6/45=13.3% in Electrochemistry)
22. 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-

23. 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. (▲:36; SCI; IF:5.5 at 2023, Ranking:11/45=24.4% in Electrochemistry)
24. Kun-Mu Lee\*, [Wei-Hao Chiu](#), Hung-Yu Wei, Chih-Wei Hu, Vembu Suryanarayanan, Wen-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. (▲:74; SCI; IF:2.0 at 2023; Ranking:14/23 =60.9% in Materials Science, Coatings & Films)

#### 2009-

25. [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:32.4 at 2023 Ranking: Ranking:1/231=0.4% in Chemistry, Multidisciplinary)
26. 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<sub>2</sub> 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:6.3 at 2023; Ranking:27/179=15.1% in Physics, Applied)

## 2008-

27. Hsin-Ming Cheng<sup>†</sup>, [Wei-Hao Chiu<sup>†</sup>](#), 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:3.3 at 2023; Ranking:228/438=52.1% in Materials Science, Multidisciplinary)

## 2005-

28. 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:2.2 at 2023; Ranking:46/120=38.3% in Optics)