Prof. Ming-Chung Wu of Chang Gung University (Update 2026/10/19)

Award List

2026-

1. Hong-Yi Lin, Kai-Chi Hsiao, Shu-Chi Lu, Ting-Han Lin, Jia-Mao Chang, Kun-Mu Lee, and Ming-Chung Wu*, "Synthesis of Dual-Function Carbazole Modifiers for Accelerating Hole Transport and Passivating Defects in Perovskite Solar Cells", ***2026 SDSE 4nd International Conference on Smart Devices and Sustainable Energy (SDSE 2026)***, Oct. 14-16, New Taipei, Taiwan. **(Excellent Poster Award)**

2. Yi-Ming Yu, Yen-Chang Chen, Hong-Yi Lin, Kai-Chi Hsiao, Ting-Han Lin, and Ming-Chung Wu*, " Molecular Passivation of Interfacial Defects via Nicotinic Acid Derivatives for Efficient Perovskite Solar Cells", ***2026 SDSE 4nd International Conference on Smart Devices and Sustainable Energy (SDSE 2026)***, Oct. 14-16, New Taipei, Taiwan. **(Honorable Mentions Award)**

3. Kuan-Ying Wu, Jia-Mao Chang, Ting-Han Lin, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Near-Unity Solar CO_2-to-CH_4 Conversion Driven by a Floatable Topological Photothermal Plate", ***2026 SDSE 4nd International Conference on Smart Devices and Sustainable Energy (SDSE 2026)***, Oct. 14-16, New Taipei, Taiwan. **(Excellent Poster Award)**

4. 吳明忠*, 林廷翰, 張家茂, 張胤萱, "以光輔助壓電觸媒裂解有機汙染物的方法", **2026 台灣創新技術博覽會**, Sep. 19, 台北世貿 1 館. **(發明競賽銅獎)**

5. Jia-Mao Chang, Ting-Han Lin, Yu-Chi Peng, Yin-Hsuan Chang, and Ming-Chung Wu*, "Photo-Induced Self-Polarization in Heterostructures Prolongs Charge Carrier Utilization for Efficient Reforming to Hydrogen", **2026 第三十二屆用戶年會暨研討會台灣光子啟用十週年**, Aug. 25-27, 新竹-國家同步輻射研究中心. **(壁報佳作)**

6. 張家茂, 林廷翰, 蕭凱起, 張胤萱, 吳明忠*, "漂浮式光熱-光觸媒平板應用於太陽光驅動二氧化碳高選擇性還原為甲烷", **第 21 屆台塑關係企業應用技術研討會**, Jun. 5, 桃園-長庚大學. **(研發論文暨海報競賽特優)**

7. 陳銘儀, 謝定宏, 張胤萱, 林廷翰, 吳明忠*, "應用於智慧密封材料之 AgNWs/TPU 壓阻型奈米複合材料製備與性質探討", **第 21 屆台塑關係企業應用技術研討會**, Jun. 5, 桃園-長庚大學. **(研發論文暨海報競賽優勝)**

8. Hong-Yi Lin, Kai-Chi Hsiao, Ting-Han Lin, Jia-Mao Chang, Yu-Wei Chen, Kun-Mu Lee, and Ming-Chung Wu*, "Multidentate Bifunctional Molecules for Regulating Interfacial Dipoles and Relieving Lattice Stress toward High-Efficiency Perovskite Solar Cells", **2026 台灣過濾與分離學會年會暨台灣膜技術暨過濾分離國際研討會**, May. 29, 桃園-長庚大學. **(Honorable Mention)**

9. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, Kuan-Ying Wu, and Ming-Chung Wu*, "Floatable Photothermal-Photocatalyst Sheet for Highly Selective Solar-Driven Carbon Dioxide to Methane Conversion", **2026 中華民國高分子年會**, Jan. 8-9, 新竹-國立清華大學. **(海報發表及競賽特優)**

10. Ming-Yi Chen, Ting-Hung Hsieh, Yin-Hsuan Chang, Ting-Han Lin, and Ming-Chung Wu*, "Development and Self-Monitoring Application of Green Polymer Nanocomposites for Smart Sealing Gaskets", **2026 中華民國高分子年會**, Jan. 8-9, 新竹-國立清華大學. **(海報發表及競賽佳作)**

2025-

11. 陳彥璋, 吳明忠*, "藉由壓電-光協同催化效應對奈米金屬氧化物異質結構於二氧化碳還原的機制探討", **中國機械工程學會 114 年度年會**, Dec. 5-6, 新竹-國立陽明交通大學. **(114 年度能源學門-大專生研究計畫創作獎)**

12. 張胤萱, 李昱憲, 林廷翰, 李坤穆, 吳明忠*, "裂縫中綻放的花朵", **2025 台灣材料科學微結構影像美學競賽**, Nov. 14-15, 新竹-國立陽明交通大學. **(銀質獎)**

13. 吳明忠*, 林廷翰, 張胤萱, "一種以光重整製造氫的方法", **2025 台灣創新技術博覽會**, Oct. 16-18, 台北世貿 1 館. **(發明競賽鴻海特別獎)**

14. 吳明忠*, 林廷翰, 張胤萱, "一種以光重整製造氫的方法", **2025 台灣創新技術博覽會**, Oct. 16-18, 台北世貿 1 館. **(發明競賽台達特別獎)**

15. Hong-Yi Lin, Yueh-Lin Lin, Kai-Chi Hsiao, Ting-Han Lin, and Ming-Chung Wu*, "Density Functional Theory Analysis of Chelating Molecule Passivation in Defective Perovskites: Implications for Efficiency Enhancement", ***2025 SDSE 3rd International Conference on Smart Devices and Sustainable Energy (SDSE 2025)***, Oct. 15-17, New Taipei, Taiwan. **(Excellent Poster Award)**

16. Ying-Han Liao, Ze-Han Wu, Jia-Mao Chang, Yin-Hsuan Chang, Ting-Han Lin, and Ming-Chung Wu*, "Bismuth Selenide/Silver Bismuth Iodide 2D/2D Heterostructure for Photocatalytic Carbon Dioxide Reduction", ***2025 WMC, WMS & IUMRS-ICA The 3rd World Materials Conference, The 9th World Materials Summit & International Union of Materials Research Societies International Conference in Asia (IUMRS-ICA 2025)***, Oct. 14-17, Guilin, China. **(High Level Poster Presentation)**

17. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Floatable Hybrid Photothermal-Photocatalyst Sheet for Highly Selective Solar-Driven CO_2 to CH_4 via the Integration of Topological Bi_2Se_3 and $ZnIn_2S_4$ Photocatalysts", **2025 第三十一屆用戶年會暨研討會**, Sep. 2-4, 新竹-國家同步輻射研究中心. **(壁報佳作)**

18. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Achieving High Selectivity for CO_2 Reduction to CH_4 through Photothermal-Photocatalysis with Topological Bi_2Se_3 and $ZnIn_2S_4$ Photocatalysts", ***2025 GCIM The 3rd Global Conference of Innovation Materials & MRS-K Spring Meeting (GCIM 2025)***, June. 16-19, Jeju, South Korea. **(Best Poster Award)**

19. 張家茂, 林廷翰, 蔣國斌, 張胤萱, 吳明忠*, "建構拓撲 $Bi_2Se_3/ZnIn_2S_4$ 偕同光熱與光催化實現二氧化碳高選擇性還原為甲烷", **第 20 屆台塑關係企業應用技術研討會**, Jun. 6, 新北市-明志科技大學. **(研發論文競賽優勝)**

20. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Designing High-Efficiency Photocatalysts-Insights from a Photo-Assisted Kelvin Probe Force Microscopy Study", **2025 中華民國高分子學會年會**, Jan. 15-16, 台中-朝陽科技大學. **(海報發表及競賽佳作)** **【MOST 113-2628-E-182-001-MY4】**

21. Ting-Hung Hsieh, Hao-Yun Yu, Yin-Hsuan Chang, Ting-Han Lin, and Ming-Chung Wu*, "Multifunctional Electrospun Nanocomposite Fibers for the Detection of Various Biomarkers in Exhaled Breath", **2025 中華民國高分子學會年會**, Jan. 15-16, 台中-朝陽科技大學. **(海報發表及競賽優等)** **【MOST 111-2628-E-182-001-MY2】**

2024-

22. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Synergistic Photothermal and Photocatalytic Reduction of Carbon Dioxide to Methane via the Integration of Topological Bismuth Selenide and Zinc Indium Sulfide Photocatalysts", ***2024 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2024)***, Dec. 1-6, Boston, Massachusetts, United States of America. (**Best Poster Award Nominee**)

23. 張家茂, 陳彥璋, 陳嘉佑, 林岑薰, 許子綸, 吳明忠*, "塑料裂解與製氫一新式單原子光觸媒原型反應器", **2024 華立創新材料大賽**, Nov. 15-16, 台中-國立中興大學. **(入選獎)**

24. 吳明忠*, 林廷翰, 張胤萱, "光重整廢塑料製氫裝置", **2024 台灣創新技術博覽會**, Oct. 17-19, 台北世貿 1 館. **(發明競賽銅牌獎)**

25. Hong-Yi Lin, Shu-Chi Lu, Kai-Chi Hsiao, Ting-Han Lin, and Ming-Chung Wu*, "Strategic Passivation of Perovskite Layer Interfaces Using Multiple Functional Groups to Enhance Photovoltaic Performance", ***2024 SDSE 2nd International Conference on Smart Devices and Sustainable Energy (SDSE 2024)***, Oct. 16-18, New Taipei, Taiwan. (**Honorable Mentions**)

26. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Synergistic CO_2-to-CH_4 Conversion via Photothermal and Photocatalytic Integration of Topological BizSes and ZnInS Photocatalysts", ***2024 SDSE 2nd International Conference on Smart Devices and Sustainable Energy (SDSE 2024)***, Oct. 16-18, New Taipei, Taiwan. (**Honorable Mentions**)

27. Yen-Chang Chen, Ting-Han Lin, Jia-Mao Chang, Kuo-Ping Chiang, and Ming-Chung Wu*, "Construction of BaTiO/Ag-Doped TiO_2 Heterostructures to Enhance Carbon Dioxide Reduction Reaction via Synergistic Piezo-Photocatalysis", ***2024 SDSE 2nd International Conference on Smart Devices and Sustainable Energy (SDSE 2024)***, Oct. 16-18, New Taipei, Taiwan. (**Second Award**)

28. 林廷翰, 張胤萱, 張家茂, 蔣國斌, 廖盈涵, 吳明忠*, "塑料裂解與製氫一新式單原子光觸媒原型反應器", **第 19 屆台塑關係企業應用技術研討會**, Jun. 14, 桃園市-長庚大學. **(研發實物競賽第三名)**

29. 陳彥璋, 林廷翰, 蔣國斌, 張家茂, 吳明忠*, "藉由壓電-光協同催化效應增益銀摻雜 $BaTiO_3/TiO_2$ 奈米異質結構觸媒性能之應用與機制探討", **第 19 屆台塑關係企業應用技術研討會**, Jun. 14, 桃園市-長庚大學. **(研發論文暨海報競賽優勝)**

30. Yen-Chang Chen, Ting-Han Lin, Jia-Mao Chang, and Ming-Chung Wu*, "Enhanced Photo-Piezocatalytic Performance through Synergistic Effects for Silver-Modified $BaTiO_3/TiO_2$ Heterostructure", ***2024 JSAP The 71th Japan Society of Applied Physics Spring Meeting (JSAP 2024)***, Mar. 22-25, Tokyo, Japan. (**Poster Award**)

31. Yu-Chi Peng, Kuo-Ping Chiang, Jia-Mao Chang, Ting-Han Lin, and Ming-Chung Wu*, "Enhancing Solar-Driven Photocatalytic Hydrogen Production through Incorporation of $ZnIn_2S_4$ with $BaTiO_3$ Piezocatalyst to Decompose Polymeric Biomass", **2024 中華民國高分子學會年會**, Jan. 24-25, 台南-國立成功大學. **(海報論文競賽佳作)** **【MOST 112-2813-C-182-036-E】**

32. Mei-Yu Chen, Ting-Hung Hsieh, Yin-Hsuan Chang, Ting-Han Lin, and Ming-Chung Wu*, "Multifunctional Electrospun Nanocomposite Fibers for the Detection of Various Biomarkers in Exhaled Breath", **2024 中華民國高分子學會年會**, Jan. 24-25, 台南-國立成功大學. **(海報論文競賽優等)** **【MOST 111-2628-E-182-001-MY2】**

2023-

33. Shu-Chi Lu, Yuan-Yu Chiu, Hong-Yi Lin, and Ming-Chung Wu*, "Bifunctional Carbazole-Based Interlayer for Defect Passivation in High-Efficiency Perovskite Solar Cells", **2023 台灣化學工程學會 70 週年年會暨國科會化工學門成果發表會**, Dec. 9-10, 台北-國立臺灣大學. **(海報論文競賽佳作)**

34. 林廷翰, 吳明忠*, "The Beautiful Island: Formosa, Taiwan", **2023 台灣材料科學微結構影像美學競賽**, Nov. 17-20, 新竹-國立清華大學. **(佳作)**

35. 張胤萱, 林廷翰, 吳明忠*, "Floral Resilience: A Glimpse into the Layered Beauty of Bi_2Se_3 Topological Materials", **2023 台灣材料科學微結構影像美學競賽**, Nov. 17-20, 新竹-國立清華大學. **(銅質獎)**

36. 邱遠宇, 陳世軒, 李坤穆, 吳明忠*, "利用金屬摻雜 n 型半導體材料調控鈣鈦礦太陽能電池光電轉換效率與陷阱狀態之研究", **第 18 屆台塑關係企業應用技術研討會**, Jun. 9, 新北市-明志科技大學. **(研發論文暨海報競賽優勝)**

37. Yuan-Yu Chiu, Shih-Hsuan Chen, and Ming-Chung Wu*, "Interlayer of 2-Chloroethyl Vinyl Ether Chain-Grafted Carbazole Derivatives Confer Highly Efficient and Stable Perovskite Solar Cell", **2023 中華民國高分子學會年會**, Jan. 17-18, 桃園-長庚大學. **(海報論文競賽優等)【MOST 109-2221-E-182-059】**

38. Ting-Hung Hsieh, Yin-Hsuan Chang, Ting-Han Lin, Kai-Chi Hsiao, and Ming-Chung Wu*, "Breath Acetone Sensing Based on Polymer Nanocomposite Sensing Material for Application in Non-Invasive Diabetics Monitoring", **2023 中華民國高分子學會年會**, Jan. 17-18, 桃園-長庚大學. **(海報論文競賽優等)【MOST 110-2628-E-182-001】**

2022-

39. 陳天豪, 吳明忠*, "金屬摻雜硫化錫(IV)複合碳化奈米纖維素薄膜於二氧化碳還原產生再利用能源之研究", **中國機械工程學會 111 年度年會**, Dec. 2-3, 苗栗-國立聯合大學. **(111 年度能源學門-大專生優良創作獎)**

40. 王哲麒, Rajat Subhra Karmakar, 林廷翰, 吳明忠*, 張國軒, "藉由 PEDOT:PSS 與 ITO 電極間之抑制介面塗層提升壓阻式壓力感測器之可靠度", **台灣化學工程學會 69 週年年會暨國科會化學工程學門成果發表會&台、日、韓、捷化學工程國際研討會**, Dec. 2-3, 新北-淡江大學. **(石延平教授論文獎)**

41. Kou-Ping Chiang, Jia-Mao Chang, Kai-Chi Hsiao, and Ming-Chung Wu*, "Enhanced Photocatalytic CO_2 Reduction Activity of Silver-Bismuth-Iodide Decorated TiO_2 NF by Chemical Vapor Deposition", **台灣化學工程學會 69 週年年會暨國科會化學工程學門成果發表會&台、日、韓、捷化學工程國際研討會**, Dec. 2-3, 新北-淡江大學. **【MOST 111-2221-E-182-040-MY3】(海報競賽佳作)**

42. Ting-Hung Hsieh, Yin-Hsuan Chang, Ting-Han Lin, Kai-Chi Hsiao, and Ming-Chung Wu*, "Ultra-Sensitive Breath Acetone Detection by Polymer Nanocomposite Sensing Material", **台灣化學工程學會 69 週年年會暨國科會化學工程學門成果發表會&台、日、韓、捷化學工程國際研討會**, Dec. 2-3, 新北-淡江大學. **【MOST 111-2221-E-182-040-MY3】(海報競賽佳作)**

43. 廖盈涵, 吳明忠*, "The Ancient Sea Lamprey", **2022 台灣材料科學微結構影像美學競賽**, Nov. 18-19, 苗栗-國立聯合大學. **(金質獎)**

44. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Composition Engineering in Silver Bismuth Iodide for Efficient Photocatalytic CO_2 Reduction", **中國材料科學學會 111 年年會**, Nov. 18-19, 苗栗-國立聯合大學. **【MOST 111-2221-E-182-040-MY3】(海報競賽特優)**

45. Yin-Hsuan Chang, Ting-Hung Hsieh, Kai-Chi Hsiao, and Ming-Chung Wu*, "Development of Electrospun Nanofiber-Based Sensing Materials for Monitoring Biomarkers in Exhaled Breath", **中國材料科學學會 111 年年會**, Nov. 18-19, 苗栗-國立聯合大學. **【MOST 111-2221-E-182-040-MY3】(海報競賽優等)**

46. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and Ming-Chung Wu*, "Composition Engineering in Silver Bismuth Iodide for Efficient Photocatalytic CO_2 Reduction", **2022 第二十八屆用戶年會暨研討會**, Aug. 30-Sep. 1, 新竹-國家同步輻射研究中心. **(壁報人氣獎)**

47. Yin-Hsuan Chang, Yu-Han Liao, Ting-Han Lin, and Ming-Chung Wu*, "Organic Solvent Resistant Nanocomposite Films Made Self-Precipitated Ag/TiO_2 Nanofibers and Cellulose Nanofiber for Harmful Voltaic Organic Compounds Photodegradation", **2022 中華民國高分子學會年會**, Jan. 18-19, 台中-國立勤益科技大學. **(論文海報競賽銅牌)** **【MOST 110-2628-E-182-001】**

2021-

48. 吳明忠*, 張胤萱, 林廷翰, 盧怡靜, 張家茂, "奈米光觸媒纖維複合紙燈罩 360° 無死角淨化空氣", **110 年度複合材料設計競賽**, Dec. 17, 台中-逢甲大學. **(佳作)**

49. Yu-Hsiang Chang, Yen-Fu Yu, Kai-Chi Hsiao, Shih-Hsuan Chen, and Ming-Chung Wu*, "Enhance Power Conversion Efficiency of Non-Toxic Rudorfittes Solar Cells Through Modification of Carrier Transporting Layer", ***2021 IEDMS International Electron Devices & Materials Symposium (IEDMS 2021)***, Nov. 18-19, Kaohsiung, Taiwan. **(Excellent Poster Paper Award)**

50. Ting-Hun Hsieh, Yin-Hsuan Chang, Ting-Han Lin, and Ming-Chung Wu*, "Ultra-Sensitive Breath Acetone Detection by Polymer Nanocomposite Sensing Material for Non-Invasive Diabetics Health Monitoring", ***2021 MRSTIC Materials Research Society-Taiwan International Conference (MRSTIC 2021)***, Nov. 13-17, Virtual Conference. **(First Prize)**

51. 林廷翰, 張胤萱, 王前翰, 張家茂, 吳明忠*, "塑氫專案", **2021 長庚大學青年老闆築夢計畫校際盃創新創業競賽**, Mar. 6, 桃園-長庚大學. **(第三名及評審特別獎)**

2020-

52. Yin-Hsuan, Chang, Yen-Tung Lin, Shih-Hsuan Chen, Meng-Huan Jao, and Ming-Chung Wu*, "Morphology Engineering of Low-Temperature Processed Electron Transport Layer for Pursuing High Performance Perovskite Photovoltaic", **2020 第二十六屆用戶年會暨研討會**, Nov. 10-12, 新竹-國家同步輻射研究中心. **(論文海報人氣獎)**

53. Shih-Hsuan Chen, Yen-Tung Lin, and Ming-Chung Wu*, "Spray Deposition of Nanostructured Low-Temperature TiO_2 Electron Transport Layer for High-Performance Perovskite Solar Cells", **2020 中國材料科學學會年會**, Nov. 6-7, 新北-明志科技大學. **【MOST 109-2221-E-182-059】(論文海報競賽優等)**

54. Ying-Han Liao, and Ming-Chung Wu*, "Using Sn Doping to Modify TiO_2 Phase Junction of Electron Extraction Layer to Enhance Power Conversion Efficiency of Perovskite Solar Cells", **2020 中國材料科學學會年會**, Nov. 6-7, 新北-明志科技大學. **【MOST 109-2221-E-182-059】(論文海報競賽優等)**

55. Kai-Chi Hsiao, Meng-Huan Jao, Kuo-Yu Tian, Ting-Han Lin, Dinh-Phuc Tran, Hsueh-Chung Liao, Cheng-Hung Hou, Jing-Jong Shyue, Ming-Chung Wu, and Wei-Fang Su*, "Acetamidinium Cation to Confer Ion Immobilization and Structure Stabilization of Organometal Halide Perovskite Toward Long Life and High Efficiency p-i-n Planar Solar Cell via Air-Processable Method", **2020 中國材料科學學會年會**, Nov. 6-7, 新北-明志科技大學. **(論文海報競賽特優)**

56. Kuo-Ping Chiang, Ting-Han Lin, Yin-Hsuan Chang, Jia-Mao Chang, Jen-Fu Hsu, Kai-Hsiang Hsu, and Ming-Chung Wu*, "Highly Efficient Solar-Driven Photodegradation on Antibiotics by Self-Precipitated Ag NPs/TiO_2 Nanofibers Photocatalyst", **2020 台灣化學工程學會 67 週年年會暨科技部化學工程學門成果發表會&台日韓捷永續化學工程國際研討會**, Oct. 23-24, 新竹-國立清華大學.**【MOST 109-2221-E-182-059】(海報論文競賽佳作)**

57. Yen-Ting Lin, Chi-Hui Tsao, Ting-Han Lin, and Ming-Chung Wu*, "Solar-Triggered Silver Doped Titanium Oxide Nanofibers with High Efficient Photothermal Therapy for Tumor Ablation", **2020 台灣化學工程學會 67 週年年會暨科技部化學工程學門成果發表會&台日韓捷永續化學工程國際研討會**, Oct. 23-24, 新竹-國立清華大學.**【MOST 109-2221-E-182-059】(海報論文競賽優勝)**

58. Ting-Han Lin, Duy Linh Vu, Ming-Chung Wu*, and Chao-Sung Lai, "Using Electrospun PANI/P3TI/PMMA Fibers for Highly-Sensitive Detection of Volatile Organic Compounds Vapor", ***2020 ICSS International Conference on Smart Sensors, 25th Symposium of Association of Chemical Sensors in Taiwan, and 23rd Nano Engineering and Microsystem Technology Conference (ICSS 2020)***, Oct. 19-20, Kaohsiung, Taiwan. **(Oral Presentation) (Best Oral Paper Award)**

2019-

59. 謝定宏, 林騏宏, 張胤萱, 吳明忠*, "以靜電紡絲技術製備奈米級銀/聚甲基丙烯酸甲酯纖維應用於低濃度丙酮氣體感測", **2019 台灣化學工程學會 66 週年年會暨科技部化工學門成果發表會**, Nov. 8-9, 台中-東海大學. **(海報論文競賽佳作)**

60. Ting-Han Lin, Ching-Ting Chiu, and Ming-Chung Wu*, "Construction of 3D/1D Porous g-C_3N_4/TiO_2 with Z-Scheme Heterostructure for Efficient Water", **2019 台灣化學工程學會 66 週年年會暨科技部化工學門成果發表會**, Nov. 8-9, 台中-東海大學. **(海報論文競賽佳作)**

61. Yin-Hsuan Chang, Ting-Han Lin, Yu-Han Liao, Chiao-Yun Huang, and Ming-Chung Wu*, "Hierarchically Cellulose Nanofiber/TiO_2 Nanofiber Composite Film for Organic Pollutant Photodegradation", **2019 台灣化學工程學會 66 週年年會暨科技部化工學門成果發表會**, Nov. 8-9, 台中-東海大學. **(海報論文競賽優勝)**

62. Shih-Hsuan Chen, Yen-Tung Lin, and Ming-Chung Wu*, "Control Perovskite Crystallization via Interface Engineering for Highly Efficient Low-Temperature Perovskite Solar Cells" ***2019 A-COE The 11th Asian Conference on Organic Electronics (A-COE 2019)***, Nov. 6-9, New Taipei, Taiwan. **(Excellent Poster Award)**

63. 林騏宏, 吳明忠*, 邱敬庭, 賴朝松, "雙面蝕刻增益偏極化纖維於揮發性氣體感測器之應用", **第 17 屆台塑關係企業應用技術研討會**, Jun. 14, 桃園市-長庚大學. **(海報論文競賽優勝)**

64. 李怡穎, 吳明忠*, "高分子添加物調控表面形貌之高效能低鉛混合型陽離子鈣鈦礦太陽能電池", **第 17 屆台塑關係企業應用技術研討會**, Jun. 14, 桃園市-長庚大學. **(海報論文競賽優勝)**

65. Chi-Hung Lin, Ting-Han Lin, Ching-Ting Chiu, and Ming-Chung Wu*, "Construction 0f 2D/1D g-C_3N_4/TiO_2 with Z-Scheme Heterostructure of Efficient Water Splitting" ***2019 3rd International Workshop on Graphene and C_3N_4-based Photocatalysts (IWGCP3 2019)***, Mar. 23-26, Wuhan, China. **(Excellent Poster Award)**

66. Chi-Hung Lin, Ching-Ting Chiu, Ting-Hung Hsieh, Tz-Feng Lin, Kai Wang, Chao-Sung Lai, and Ming-Chung Wu*, "Highly-Efficient Volatile Organic Compounds Detection of Freestanding Ag/CdSe-CdS/PMMA Sensors", **2019 中華民國高分子年會及前瞻高分子科學與技術國際研討會暨 107 年度科技部高分子學門成果發表會**, Jan. 18-19, 台南-南臺科技大學. **(海報論文競賽銅牌獎)**

2018-

67. Ying-Han Liao, Shun-Hsiang Chan, and Ming-Chung Wu*, "Interface Engineering for Controlling Photovoltaic Performance of Perovskite Solar Cell Based on Sn-Doped TiO_2 Compact Layer", **2018 中國材料科學學會 107 年會暨 50 週年慶**, Nov. 16-17, 台中-逢甲大學. **(海報論文競賽優等)**

68. Shun-Hsiang Chan, Ming-Chung Wu*, and Wei-Fang Su "Using Znic-Doped TiO_2 Electron Extraction Layer to Enhance the Photovoltaic Performance of Perovskite-Structured Solar Cells", **2018 台灣化學工程學會 65 週年年會暨科技部化工學門成果發表會**, Nov. 9-10, 雲林-國立雲林科技大學. **(海報論文競賽優勝)**

69. 黃任賢, 王前翰, 黃巧昀, 范景州, 吳明忠*, "阿布的小車車", **第17屆全國化工E車(Chem-E-Car)創意競賽**, Oct. 19, 桃園市-國防大學. **(性能獎佳作)**

70. 黃任賢, 王前翰, 劉杰穎, 賴瑄憶, 吳明忠*, "阿布的小車車", **第17屆全國化工E車(Chem-E-Car)創意競賽**, Oct. 19, 桃園市-國防大學. **(化工E車化學動力獎)**

71. Shun-Hsiang Chan, Ming-Chung Wu*, Kun-Mu Lee, Shih-Hsuan Chen, Meng-Huan Jao, Yang-Fang Chen, and Wei-Fang Su, "Enhancing Performance of Perovskite Solar Cells Using Mesoporous Znic-Doped TiO_2 as Electron Transport Layer", **2018 台灣鍍膜科技協會年會暨科技部專題計畫研究成果發表會**, Oct. 12-13, 新北市-明志科技大學. **(海報論文競賽特優)**

72. Shih-Hsuan Chen, Shun-Hsiang Chan, Yen-Tung Lin, and Ming-Chung Wu*, "Enhancing Power Conversion Efficiency of Perovskite Solar Cells Based on Mesoscopic Ag-Doped TiO_2 Electron Transport Layer", **2018 台灣鍍膜科技協會年會暨科技部專題計畫研究成果發表會**, Oct. 12-13, 新北市-明志科技大學. **(海報論文競賽佳作)**

73. Ting-Han Lin, Kuo-Ping Chiang, and Ming-Chung Wu*, "One-Pot Synthesis of Silver Oxide Nanoparticles Loaded TiO_2 Nanofibers and Its Synergistic Effect on Visible-Driven Photocatalytic Activity" ***2018 Chinese Symposium on Photocatalytic Materials (2018CSPM1)***, July 26-29, Wuhan, China. **(Excellent Poster Award)**

74. Yin-Hsuan Chang, Ting-Han Lin, Kuo-Ping Chiang, and Ming-Chung Wu*, "Recyclable Magnetic Fe_3O_4/Ag/TiO_2 Photocatalyst for Removing Hexavalent Chromium" ***2018 Chinese Symposium on Photocatalytic Materials (2018CSPM1)***, July 26-29, Wuhan, China. **(Excellent Poster Award)**

75. Yu-Han Liao, Ting-Han Lin, Kou-Ping Chiang, Ming-Chung Wu*, Ya-Wen Cheng, Chien-Hui Wu, Yu-Chen Chen, Po-Min Chen, and Wan-Tun Hung, "Highly Transparent Flexible Substrate Prepared by TEMPO-Oxidized Cellulose Nanofibers", **2018 第 41 屆中華民國高分子學會年會及前瞻高分子科學與技術國際研討會暨 106 年度科技部高分子學門成果發表會**, Jan. 12-13, 台北市-國立臺北科技大學. **(海報論文競賽佳作)**

2017-

76. Tzu-Hao Lin, Ming-Chung Wu*, Shun-Hsiang Chan, Ying-Han Liao, and Wei-Fang Su*, "Fabrication and Characteristics of Reduced Lead Perovskite Solar Cell" ***2017 IUMRS-ICA International Union of Materials Research Societies International Conference in Asia (IUMRS 2017)***, Nov. 5-9, Taipei, Taiwan. **(Excellent Poster Award)**

77. 黃任賢, 王前翰, 劉杰穎, 賴瑄憶, 吳明忠*, "GARY的小車車", **第16屆全國化工E車(Chem-E-Car)創意競賽**, Oct. 20, 桃園市-國防大學. **(化學動力獎佳作)**

78. 黃任賢, 王前翰, 劉杰穎, 賴瑄憶, 吳明忠*, "GARY的小車車", **第16屆全國化工E車(Chem-E-Car)創意競賽**, Oct. 20, 桃園市-國防大學. **(海報競賽佳作)**

79. 廖于涵, 林廷翰, 蔣國斌, 吳明忠*, 鄭雅文, 吳建慧, 陳玉振, 陳博明, 洪萬墩, "高透明度纖維素奈米纖維紙的製備與其應用", **第15屆台塑關係企業應用技術研討會**, Jun. 16, 桃園市-長庚大學. **(研發論文獎優勝)**

80. Ting-Han Lin, Po-Yeh Wu, Yin-Hsuan Chang, and Ming-Chung Wu*, "High Photocatalytic Performance of Ag/TiO_2 Nanofibers:Photodegradation of Organic Dye and Photocatalytic H_2 Generation" ***2017 IWGCP2 2nd International Workshop on Graphene and C_3N_4-Based Photocatalysts (IWGCP2 2017)***, Mar. 24-27, Wuhan, China. **(Best Poster Award)**

81. Chih-Kuang Kao, Shun-Hsiang Chan, and Ming-Chung Wu*, "High Sensitivity Volatile Organic Compounds Sensor Made by Electrospinning Methyl Red/Poly (Methyl Methacrylate) Fibers" ***2017 MCARE Materials Challenges in Alternative and Renewable Energy (MCARE 2017)***, Feb. 20-24, Jeju Island, Korea **(Best Poster Award - Silver)**

2016-

82. 詹順翔, 吳明忠*, 饒孟桓, 林唯芳, "Enhanced Power Conversion Efficiency of Perovskite Solar Cell Based on Zinc-Doped TiO_2 Electron Transport Layer", **105 年中國材料科學會學會年會**, Nov. 19-20, 新竹縣-工業技術研究院. **(海報論文競賽優等)**

83. 林廷翰, 王威凱, 吳明忠*, 鄭雅文, 吳建慧, 陳玉振, 陳博明, 洪萬墩, "纖維素奈米纖維之合成、材料分析與其應用開發", **第14屆台塑關係企業應用技術研討會**, 2016 Jun. 22, 新北市-明志科技大學. **(研發論文獎優勝)**

84. 詹順翔, 吳明忠*, 盧俊甫, 林唯芳*, "High-Sensitivity Volatile Organic Compounds Sensor Chips Made by Electrospinning P3HT/PMMA Fibers", **第14屆台塑關係企業應用技術研討會**, 2016 Jun. 22, 新北市-明志科技大學. **(研發論文獎優勝)**

2015-

85. 林廷翰, 詹順翔, 黃瑋康, 吳明忠*, "以 P3HT/PCBM 複合薄膜製作低成本、高效能與即時偵測的揮發性有機化合物感測器", **2015 International Symposium on Smart-Sensing Technology (ISST 2015)**, Jun. 5, 桃園市-長庚大學. **(海報論文競賽佳作)**

86. 詹順翔, 吳明忠*, 林廷翰, 許喬惟, 林唯芳, "調控 P3HT/PMMA 感測纖維排列方式來提升感測器靈敏度之探討", **2015 International Symposium on Smart-Sensing Technology (ISST 2015)**, Jun. 5, 桃園市-長庚大學. **(海報論文競賽佳作)**

2014-

87. Ming-Chung Wu*, Shun-Hsiang Chan, and Ting-Han Lin, "Fabrication and Photocatalytic Characteristics of Electrospun Polyvinyl Alcohol/Silk/Titania Composite Textiles", ***2014 The 6th International Symposium on Functional Materials (ISFM 2014)***, Aug. 4-7, Clarke Quay/Riverside, Singapore. **(Best Poster Award)**

2013-

88. 詹順翔, 林廷翰, 吳明忠*, "自清淨抗菌蠶絲光觸媒奈米纖維布", **第 11 屆台塑關係企業應用技術研討會**, 2013 Jun. 28, 桃園市-長庚大學. **(研發論文競賽學校組 優良獎)**

2010-

89. Ming-Chung Wu, and Wei-Fang Su*, "($Bi_{2-x}Fe_x$)($S_{3-y}O_y$) Materials for Energy Applications", ***2010 Bi_2O_3-based Materials for Energy Application (BMEA 2010)***, Nov. 21, Taipei, Taiwan. **(Third Poster Award)**

90. Ming-Chung Wu, and Wei-Fang Su*, "Development of Polymer Solar Cell System Based on Hybrid of Polymer/Low-Bandgap Nanocrystal Bismuth Sulfide", **2010 中國材料科學學會**, Nov. 19-20, Kaohsiung, Taiwan. **(海報論文競賽佳作)**

2009-

91. Ming-Chung Wu, and Wei-Fang Su*, "Nanoscaled Surface Potential Study on P3HT/TiO_2 Nanorods Hybrid Bulk Heterojunction Photovoltaic", **2009 中國材料科學學會**, Nov. 26-28, Hualien, Taiwan. **(海報論文競賽優勝)**

2008-

92. Ming-Chung Wu, and Wei-Fang Su*, "Fabrication of High Resolution Luminescent Nanostructure and Optical and Morphological Properties of P3HT/PMMA Thin Film", **2008 中國材料科學學會**, Nov. 21-22, Taipei, Taiwan. **(海報論文競賽優勝)**

93. Ming-Chung Wu, and Wei-Fang Su*, "Nanoscale Morphology and Performance of Molecular Weight Dependent Poly(3-hexylthiophene) / TiO_2 Nanorod Hybrid Solar Cells", **2008 中國材料科學學會**, Nov. 21-22, Taipei, Taiwan. **(海報論文競賽佳作)**

2007-

94. Ming-Chung Wu, and Wei-Fang Su*, "Tunable optical properties of periodical structures fabricated from water-developable $La_{0.7}Sr_{0.3}MnO_3$ resist", **2007 中國材料科學學會**, Nov. 16-17, Hsinchu, Taiwan. **(海報論文競賽優勝)**

2006-

95. Ming-Chung Wu, and Wei-Fang Su*, "Colossal Magnetoresistance and Photonic Crystal Behavior of Water Based Spin-Coatable $La_{0.7}Sr_{0.3}MnO_3$ Material", **2006 中國材料科學學會**, Nov. 24-25, Tainan, Taiwan. **(海報論文競賽優勝)**

96. Ming-Chung Wu, and Wei-Fang Su*, "Low Sintering $BaNd_2Ti_4O_{12}$ Microwave Ceramics Prepared by CuO Base Thin Layer Coated Powder", **2006 中國材料科學學會**, Nov. 24-25, Tainan, Taiwan. **(海報論文競賽優勝)**

97. Ming-Chung Wu, and Wei-Fang Su*, "Nanolithography Made from Water Based Spin-Coatable LSMO Resist", **2006 中國材料科學學會**, Nov. 24-25, Tainan, Taiwan. **(海報論文競賽佳作)**

98. Ming-Chung Wu, and Wei-Fang Su*, "Broadband DR Antenna Made of High Q Ceramics", **2006 中國材料科學學會**, Nov. 24-25, Tainan, Taiwan. **(海報論文競賽佳作)**

99. Ming-Chung Wu, and Wei-Fang Su*, "Sol-Gel Synthesis of $Ba_4Nd_{9.33}Ti_{18}O_{54}$ Fiber and Its Application to Low-Shrinkage Microwave Dielectric Ceramics", ***2006 The Fourth International Conference on Microwave Material and Their Applications (MMA 2006)***, Jun. 12-15, Oulu, Finland. **(Third Poster Award)**

2005-

100. Ming-Chung Wu, and Wei-Fang Su*, "Using *SILAR Method to Prepare* Low Sintering $BaNd_2Ti_4O_{12}$ Microwave Ceramics", **2005 中國材料科學學會**, Nov. 25-26, Tainan, Taiwan. **(海報論文競賽優勝)**

2002-

101. 2002 National Science Council of Taiwan (NSC) Research Creativity Award

91 年度行政院國家科學委員會大專學生專題研究創作獎, "非鹵素系環氧樹脂於印刷電路板基材之研究與開發".