

Yu, Wen-Yueh (游文岳)

Associate Professor

B.S. in Chemical Engineering
National Taiwan University, 2002
M.S. in Chemical Engineering
National Taiwan University, 2004
Ph.D. in Chemical Engineering
University of Texas at Austin, 2015
Research Associate
Academia Sinica, 2005-2009
Postdoctoral Researcher
ETH Zurich, 2015-2017
Assistant Professor
National Taiwan University, 2017-2021

Research and Professional Interests

Catalyst Chemistry
Surface Science
Functional Nanomaterials
Sustainable Technologies

Journal Papers

1. Y. Y. Tai, J. C.S. Wu, **W. Y. Yu**, M. M. Kržmanc, E. Kotomin, “Photocatalytic water splitting of improved strontium titanate for simultaneous separation of H₂ in a twin photoreactor” *Applied Catalysis B: Environmental*, 2023, 324,122183. (SCI), (IF: 19.503). <https://doi.org/10.1016/j.apcatb.2022.122183>.
2. L. L. Rusevich, E. A. Kotomin, G. Zvejnieks, M. M. Kržmanc, S. Gupta, N. Daneu, J. C.S. Wu, Y. G. Lee, and **W. Y. Yu**, “Effects of Al Doping on Hydrogen Production Efficiency upon Photostimulated Water Splitting on SrTiO₃ Nanoparticles” *The Journal of Physical Chemistry C* 2022, 126 (50), 21223-21233. (SCI), (IF: 4.126). <https://doi.org/10.1021/acs.jpcc.2c05993>
3. Z. J. Gong, C. C. Chien, S. Mudhulu, Jeffrey C.S. Wu, N. Daneu, M. M. Kržmanc*, **W. Y. Yu***, “SrTiO₃ catalysts prepared from topochemical conversion of Bi₄Ti₃O₁₂ nanoplatelets: Surface characterizations and interactions with isopropanol” *Journal of Catalysis* 2022, 416, 222-232. (SCI), (IF: 7.92). <https://doi.org/10.1016/j.jcat.2022.11.001>
4. M. M. Mburu, A. N. Au-Duong, W. T. Li, **W. Y. Yu**, Y. W. Lan, W. H. C, and Y. C. Chiu, “Highly Stable Single-Walled Carbon Nanotube Sorting by Low Molecular Weight Conjugated Polymer with Hydrogen-Bonded Polyisoprene” *Adv. Electron. Mater.* 2022 8 (12), 2200698. (SCI), (IF: 7.633) <https://doi.org/10.1002/aelm.202200698>
5. 李昱碩、古浩銓 and **游文岳**, “迎接能源新挑戰！以永續能源邁向淨零碳排”，科學月刊, 631 (7), 33-35, 2022.
6. S. Mudhulu, Z. J. Gong, H. C. Ku, Y. H. Lu, **W. Y. Yu***, “Recent advances in heterogeneous catalytic hydrodeoxygenation of biomass-derived oxygenated furanics mediated by formic acid” *Materials Today Sustainability* 2022, 19,100199. (SCI), (IF: 4.524). <https://doi.org/10.1016/j.mtsust.2022.100199>
7. Z. J. Gong, Y. S.L.V. Narayana, Y. C. Lin, W. H. Huang, W. N. Su, Y. P. Li, M. Higuchi*, **W. Y. Yu***, “Rational synthesis of ruthenium-based metallo-supramolecular

- polymers as heterogeneous catalysts for catalytic transfer hydrogenation of carbonyl compounds" *Applied Catalysis B: Environmental* 2022, 312, 121383. (SCI), (IF: 19.503). <https://doi.org/10.1016/j.apcatb.2022.121383>
8. W. F. Kuan, **W. Y. Yu***, F. Y. Tu, C. H. Chung, Y. C. Chang, Monica M. Lin, T. H. Yu, and L. J. Chen*, "Facile reflux preparation of defective mesoporous ceria nanorod with superior catalytic activity for direct carbon dioxide conversion into dimethyl carbonate" *Chemical Engineering Journal* 2022, 430, 132941. (SCI), (IF: 13.273)
 9. C. H. Chung, F. Y. Tu, T. A. Chiu, T. T. Wu, and **W. Y. Yu***, "Critical roles of surface oxygen vacancy in heterogeneous catalysis over ceria-based materials: a selected review" *Chemistry Letters* 2021, 50, 856-865. (SCI), (IF: 1.389) (invited review)
 10. Y. C. Yu, T. Y. Wang, L. H. Chang, P. J. Wu, B. Y. Yu*, and **W. Y. Yu***, "Conceptual design, environmental, and economic evaluation of direct copolymerization process of carbon dioxide and 1,4-butanediol" *Journal of the Taiwan Institute of Chemical Engineers* 2020, 116, 36-42. (SCI), (IF: 5.876)
 11. Y. J. Chou, H. C. Ku, C. C. Chien, C. Hu*, and **W. Y. Yu***, "Palladium nanoparticles supported on nanosheet-like graphitic carbon nitride for catalytic transfer hydrogenation reaction" *Catalysis Science & Technology* 2020, 10, 7883-7893. (SCI), (IF: 6.119)
 12. Y. H. Wang, C. H. Chuang, T. A. Chiu, C. W. Kung*, and **W. Y. Yu***, "Size-tunable synthesis of palladium nanoparticles confined within topologically distinct metal-organic frameworks for catalytic dehydrogenation of methanol" *Journal of Physical Chemistry C* 2020, 124, 12521-12530. (SCI), (IF: 4.126)
 13. T. C. Chou, C. C. Chang, H. L. Yu, **W. Y. Yu***, C. L. Dong, J. Velasco-Velez, C. H. Chuang, L. C. Chen, J. F. Lee, J. M. Chen and H. L. Wu*, "Controlling the oxidation state of the Cu electrode and reaction intermediates for electrochemical CO₂ reduction to ethylene", *Journal of the American Chemical Society* 2020, 142, 2857-2867. (SCI), (IF: 15.419)
 14. Z. J. Gong, Y. R. Li, H. L. Wu, S. D. Lin and **W. Y. Yu***, "Direct copolymerization of carbon dioxide and 1,4-butanediol enhanced by ceria nanorod catalyst", *Applied Catalysis B: Environmental*, 2020, 265, 118524. (SCI), (IF: 19.503)
 15. C. W. Chang, Z. J. Gong, N. C. Huang, C. Y. Wang and **W. Y. Yu***, "MgO nanoparticles confined in ZIF-8 as acid-base bifunctional catalysts for enhanced glycerol carbonate production from transesterification of glycerol and dimethyl carbonate", *Catalysis Today* 2020, 351, 21-29. (SCI), (IF: 6.766)
 16. 尤躍誠, 杜芳毅, 龔子傑, 李祐任 and 游文岳, "二氧化碳與甲醇直接合成碳酸二甲酯：異相觸媒、除水系統與催化機制", *化工會刊*, 66(4), 59-82, 2019.
 17. J. Jagielski, S. Kumar, **W. Y. Yu** and C. J. Shih, "Layer-controlled two-dimensional perovskites: synthesis and optoelectronics", *Journal of Materials Chemistry C*, 5(23), 5610-5627, 2017, (SCI), (IF: 7.393)
 18. E. J. Evans, H. Li, **W. Y. Yu**, G. M. Mullen, G. Henkelman and C. B. Mullins, "Mechanistic insights on ethanol dehydrogenation on Pd-Au model catalysts: a combined experimental and DFT study", *Physical Chemistry Chemical Physics*, 19(45), 30578-30589, 2017, (SCI), (IF: 3.676)

Conference Papers

a. 國外會議論文

1. Ming-Pei Lin, Hsin-Yu Yu, Te-An Chiu, Soofin Cheng, Yi-Pei Li, and **Wen-Yueh Yu**. "Spectroscopy Characterization of Active Cu Species in Cu-Exchanged Ce-Modified Y-Zeolite for Selective Catalytic Reduction of NO with NH₃", The International Symposium on Porous Materials 2022 (ISPM2022), October 12-14, 2022, hybrid meeting. (invited speaker)
2. Ming-Pei Lin, Te-An Chiu, Soofin Cheng, and **Wen-Yueh Yu**. "Spectroscopy Characterizations of Active Copper Species in Cu-Exchanged Ce-Modified Y-Zeolite for Selective Catalytic Reduction of Nitric Oxide with Ammonia", 12th International Conference on Environmental Catalysis (ICEC2022), July 30-August 2, 2022, hybrid meeting. (invited speaker)
3. **Wen-Yueh Yu**, Zi-Jie Gong, and You-Ren Li. "In-Situ Infrared Spectroscopy Characterizations of Non-Reductive Conversion of CO₂ Mediated by Surface Oxygen Vacancy of Ceria", The 9th Tokyo Conference on Advanced Catalytic Science and Technology (TOCAT9), July 24-29, 2022, hybrid meeting. (invited speaker)
4. Sudeep Mudhulu, Zi-Jie Gong, Cheng-Chi Chien, Jeffrey C. S. Wu, and **Wen-Yueh Yu**. "Surface Chemistry of Isopropanol on SrTiO₃ Nanoplatelet Prepared from Hydrothermal Topochemical Conversion of Bi₄Ti₃O₁₂ Nanoplatelet", Taipei International Conference on Catalysis 2022 (TICC 2022), Taipei, July 20-22, 2022. (oral)
5. Zi-Jie Gong, Yemini S. L. V. Narayana, Yen-Chun Lin, Wei-Hsiang Huang, Wei-Nien Su, Yi-Pei Li, Masayoshi Higuchi, and **Wen-Yueh Yu**. "Synthesis of Ruthenium-Based Metallo-Supramolecular Polymers as Heterogeneous Catalysts for Transfer Hydrogenation of Carbonyl Compounds", Taipei International Conference on Catalysis 2022 (TICC 2022), Taipei, July 20-22, 2022. (oral)
6. Hao-Chuan Ku, Shih-Cheng Li, Sudeep Mudhulu, Yi-Pei Li, and **Wen-Yueh Yu**. "Mechanistic Investigation of Isopropanol-Mediated Transfer Hydrodeoxygenation of 5-Hydroxymethylfurfural on Cu-Pd/ZrO₂ catalyst", Taipei International Conference on Catalysis 2022 (TICC 2022), Taipei, July 20-22, 2022. (oral)
7. Te-An Chiu, Ming-Pei Lin, Guan-Bo Syu, and **Wen-Yueh Yu**. "Selective Catalytic Oxidation of Ammonia over Ag/MnO₂ Catalysts", Taipei International Conference on Catalysis 2022 (TICC 2022), Taipei, July 20-22, 2022. (poster)
8. Yu-Shuo Lee, I-Chung Cheng, and **Wen-Yueh Yu**. "Electrochemical Hydrogenation of Furfural to 2-Methylfuran under Mild pH Environment over Silver/Nanoporous Copper Catalyst", Taipei International Conference on Catalysis 2022 (TICC 2022), Taipei, July 20-22, 2022. (poster)
9. **Wen-Yueh Yu**, Yu-Hsiang Wang, Cheng-Hsun Chuang, Te-An Chiu and Chung-Wei Kung. "In-Situ Infrared Spectroscopy Study of Methanol

Dehydrogenation over Palladium Nanoparticles Confined within Metal–Organic Frameworks" The International Symposium on Porous Materials 2020 (ISPM2020), November 6-7, 2020, on-line meeting. (invited speaker)

10. **Wen-Yueh Yu.** "Production of Glycerol Carbonate from Transesterification of Glycerol and Dimethyl Carbonate over MgO@ZIF-8" 18th Asian Pacific Confederation of Chemical Engineering Congress (APCChe 2019), September 23-27, 2019, Sapporo, Japan. (invited speaker)
11. Yan-Jhu Chou, Yo-Hsiang Chen, Zi-Jie Gong, You-Ren Lee, Wei-Hung Chiang and **Wen-Yueh Yu.** "Copolymerization of Carbon Dioxide and 1,4-Butanediol: Effect of Ball Milling and Calcination on Ceria Catalysts" 8th Asia-Pacific Congress in Catalysis (8th APCAT), August 4-7, 2019, Bangkok, Thailand. (poster)
12. Zi-Jie Gong, Cheng-Wei Chang, Nai-Chieh Huang, Cheng-Yu Wang and **Wen-Yueh Yu.** "Transesterification of Glycerol and Dimethyl Carbonate over Magnesium Oxide-Loaded Metal-Organic Frameworks" 8th Asia-Pacific Congress in Catalysis (8th APCAT), August 4-7, 2019, Bangkok, Thailand. (oral)
13. **Wen-Yueh Yu.** "To and Fro between Heterogeneous Catalysis and Surface Science" 2018 Osaka-Kansai International Symposium on Catalysis (2018 OKCAT), October 26-27, Osaka, Japan. (invited speaker)
14. Cheng-Wei Chang, Zi-Jie Gong, Nai-Chieh Huang, Cheng-Yu Wang and **Wen-Yueh Yu.** "Production of Glycerol Carbonate from Transesterification of Glycerol and Dimethyl Carbonate using MgO Supported on ZIF-8 as Acid-Base Catalysts" 2018 Osaka-Kansai International Symposium on Catalysis (2018 OKCAT), October 26-27, Osaka, Japan. (poster)
15. **Wen-Yueh Yu,** Gregory M. Mullen, David W. Flaherty and C. Buddie Mullins. "Selective Decomposition of Formic Acid on Pd-Au Bimetallic Surfaces" The 8th Tokyo Conference on Advanced Catalytic Science and Technology (TOCAT8), August 5-8, 2018, Yokohama, Japan. (poster)
16. **Wen-Yueh Yu.** "Activation of Hydrogen and Oxygen at Palladium-Gold Bimetallic Model Catalyst Surfaces" 2018 International Symposium on Advancement and Prospect of Catalysis Science & Technology (2018 ISAPCST), July 25-27, 2018, Sydney, Australia (invited speaker).

b. 國內會議論文

17. Ming-Pei Lin, Hsin-Yu Yu, Te-An Chiu, Soofin Cheng, Yi-Pei Li, and **Wen-Yueh Yu.** "Selective Catalytic Reduction of NO with NH₃ over Cu@CeY Catalysts", 69th TwICHe Annual Meeting, New Taipei City, December 2-3, 2022. (invited speaker)
18. Sudeep Mudhulu, Zi-Jie Gong, and **Wen-Yueh Yu.** "Catalytic Transfer Hydrogenation of Furfural to γ -Valerolactone over Zirconium Phosphate Catalyst with Adjustable Lewis and Brønsted Acid Sites", 69th TwICHe Annual Meeting, New Taipei City, December 2-3, 2022. (oral)

19. Yu-Shuo Lee, Ting-Wei Huang, Chun-Ting Yueh, I-Chung Cheng, and **Wen-Yueh Yu**. "Electrochemical Hydrogenation of Furfural over Silver/Nanoporous Copper Catalyst in Mild pH Environment", 69th TwIChE Annual Meeting, New Taipei City, December 2-3, 2022. (poster)
20. Monica Mengdie Lin, and **Wen-Yueh Yu**. "Alcohol-Assisted CO₂ Hydrogenation for Methanolysis of Polyester over PdZn/CeO₂ Catalysts", 69th TwIChE Annual Meeting, New Taipei City, December 2-3, 2022. (poster)
21. Chih-Hao Chen, Akash S. Rasal, and **Wen-Yueh Yu**. "Transition Metal Tungsten Carbide Encapsulated in Carbon Nanoballs for Efficient Oxygen Reduction Reaction", 69th TwIChE Annual Meeting, New Taipei City, December 2-3, 2022. (poster)
22. Zi-Jie Gong, Yemineni S. L. V. Narayana, Yen-Chun Lin, Wei-Hsiang Huang, Wei-Nien Su, Yi-Pei Li, Masayoshi Higuchi, and **Wen-Yueh Yu**. "Catalytic Transfer Hydrogenation of Furfural with Formate over Ruthenium-Based Metallo-Supramolecular Polymers" 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (invited speaker)
23. Zi-Jie Gong, Yemineni S. L. V. Narayana, Yen-Chun Lin, Wei-Hsiang Huang, Wei-Nien Su, Yi-Pei Li, Masayoshi Higuchi, and **Wen-Yueh Yu**. "Catalytic Transfer Hydrogenation over Heterogeneous Ruthenium-based Metallo-Supramolecular Polymers" 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (oral)
24. Monica Meng-die Lin, and **Wen-Yueh Yu**. "Deep Eutectic Solvent Assisted Synthesis of Ceria Catalyst: An Investigation on Solvent Recycle and Reuse" 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (oral)
25. Hao-Chuan Ku, Sudeep Mudhulu, Zi-Jie Gong, and **Wen-Yueh Yu**. "Transfer Hydrogenation of 5-Hydroxymethylfurfural to 2,5-Dimethylfuran with Isopropanol over Cu-Pd/ZrO₂ Catalyst" 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (poster)
26. Te-An Chiu, Guan-Bo Syu, Ming-Pei Lin, Soofin Cheng, and **Wen-Yueh Yu**. "Selective Catalytic Oxidation of Ammonia over Ag/MnO₂: Effects of Support Structure on Catalytic Activity" 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (poster)
27. Yi-Hsuan Lu, Yu-Hsiang Cheng, Cheng-Chi Chien, Shih-Cheng Li, Yi-Pei Li, and **Wen-Yueh Yu**. "Surface Chemistry of Isopropanol over ZrO₂ and Cu/ZrO₂" 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (poster)
28. Ming-Pei Lin, Te-An Chiu, Soofin Cheng, and **Wen-Yueh Yu**. "Copper-Exchanged Cerium-Modified Y-zeolite for Selective Catalytic Reduction of NO with NH₃" 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (poster)
29. Yu-Shuo Lee, **Wen-Yueh Yu**, and I-Chung Cheng. "Electrocatalytic Hydrogenation of Furfural to Furfuryl Alcohol and 2-Methylfuran over Ni-Based

Material " 68th TwIChE Annual Meeting, January 6-7, 2022, Kaohsiung. (poster)

30. **Wen-Yueh Yu.** "Direct copolymerization of carbon dioxide and 1,4-butanediol enhanced by ceria nanorod catalyst" 37th Taiwan Symposium on Catalysis and Reaction Engineering, September 2021, Taipei. (oral)
31. Fang-Yi Tu, Hou-Jen Lai, Te-An Chiu, Jyh-Chiang Jiang* and **Wen-Yueh Yu***. "Mechanistic Investigations on Thermal Decomposition of Dimethyl Carbonate on CeO₂ Surface" Interface Science 2021, August 13, 2021, Taipei. (poster)
32. Zi-Jie Gong, Yemini S. L. V. Narayana², Yen-Chun Lin, Wei-Hsiang Huang, Hao-Chuan Ku, Wei-Nien Su, Yi-Pei Li, Masayoshi Higuchi^{2*} and **Wen-Yueh Yu***. "Self-assembled Ruthenium-Based Metallo-Supramolecular Polymers as Heterogeneous Catalysts for Transfer Hydrogenation of Carbonyl Compounds" Interface Science 2021, August 13, 2021, Taipei. (poster)
33. Cheng-Chi Chien, Hao-Chuan Ku, Yu-Hsiang Cheng and **Wen-Yueh Yu***. "Catalytic Transfer Hydrogenation of Furfural with Isopropanol over Copper Nanoparticles Supported on Zirconium Dioxide" Interface Science 2021, August 13, 2021, Taipei. (poster)
34. Yu-Hsiang Cheng, Dhayanatha Prabu Jaihindh, Jeffrey Chi Yu -Sheng Wu* and **Wen-Yueh Yu***. "Deep Eutectic Solvents Assisted One-Pot Preparation of Cu-loaded BiVO₄-BiOCl Photocatalysts for Oxygen Evolution Reaction" Interface Science 2021, August 13, 2021, Taipei. (poster)
35. **Wen-Yueh Yu.** "Palladium Nanoparticles Supported on Graphitic Carbon Nitride for Catalytic Transfer Hydrogenation" 4th Taiwan Carbon Materials Conference, November 2, 2020, Taoyuan. (invited speaker)
36. Yan-Jhu Chou, Hao-Chuan Ku, Cheng-Chi Chien, Chechia Hu and **Wen-Yueh Yu.** "Pd Nanoparticles Supported on Graphitic Carbon Nitride for Catalytic Transfer Hydrogenation" 67th TwIChE Annual Meeting, October 23-24, 2020, Hsinchu. (invited speaker)
37. Fang-Yi Tu, Te-An Chiu and **Wen-Yueh Yu.** "Surface Chemistry of Dimethyl Carbonate on CeO₂ Nanocrystals" 67th TwIChE Annual Meeting, October 23-24, 2020, Hsinchu. (poster)
38. Ching-Hsiu Chung, Fang-Yi Tu, Yo-Hsiang Chen, Cheng-Chi Chien and **Wen-Yueh Yu.** "Effect of Calcination Temperature on Surface Properties of Cerium Oxide Nanorod Catalyst for Non-Reductive Conversion of Carbon Dioxide" 67th TwIChE Annual Meeting, October 23-24, 2020, Hsinchu. (poster)
39. Zi-Jie Gong, Yemini S. L. V. Narayana, Hao-Chuan Ku, Masayoshi Higuchi and **Wen-Yueh Yu.** "Ruthenium (II)-Based Metallo-Supramolecular Polymers as Heterogeneous Catalysts for Catalytic Transfer Hydrogenation of Benzaldehyde to Benzyl alcohol" 67th TwIChE Annual Meeting, October 23-24, 2020, Hsinchu. (poster)
40. Yu-Hsiang Wang, Cheng-Hsun Chuang, Te-An Chiu, Chung-Wei Kung and **Wen-Yueh Yu.** "Palladium Nanoparticles in Zirconium-Based Metal-Organic

Frameworks: Solvothermal Deposition and Methanol Dehydrogenation" 38th Taiwan Symposium on Catalyst & Reaction Engineering, July 16-17, 2020, Taipei. (Poster)

41. Yan-Jhu Chou, Hao-Chuan Ku, Cheng-Chi Chien, Yi-Tan Lin, Che-Chia Hu and **Wen-Yueh Yu**. "Selective Hydrogenation of Furfuryl Alcohol over Palladium Nanoparticles Supported on Modified Graphitic Carbon Nitride" 38th Taiwan Symposium on Catalyst & Reaction Engineering, July 16-17, 2020, Taipei. (Poster)
42. Yo-Hsiang Chen, Yueh-Cheng Yu, Ching-Hsiu Chung, Yan-Jhu Chou, Jun -Xiang Chen, Wei-Hung Chiang and **Wen-Yueh Yu**. "Mechanochemically-reated Ceria: Surface Characterizations and Catalytic Production of Dimethyl Carbonate" 38th Taiwan Symposium on Catalyst & Reaction Engineering, July 16-17, 2020, Taipei. (Poster)
43. Ching-Hsiu Chung, Yo-Hsiang Chen, Fang-Yi Tu, Cheng-Chi Chien and **Wen-Yueh Yu**. "Effect of Calcination Temperature on Surface Properties of Cerium Oxide Nanorod Catalyst for Carbon Dioxide Activation" 38th Taiwan Symposium on Catalyst & Reaction Engineering, July 16-17, 2020, Taipei. (Poster)
44. Nai-Chieh Huang, Yo-Hsiang Chen, Shih-Huang Tung and **Wen-Yueh Yu**. "Melt Polycondensation of Polycarbonate Polyol Synthesized from Carbon Dioxide and Diol" 66th TwIChE Annual Meeting, November 8-9, 2019, Taichung. (poster)
45. Yan-Jhu Chou, Cheng-Chi Chien, Hao-Chuan Ku, Che-Chia Hu and **Wen-Yueh Yu**. "Selective Hydrogenation of Furfuryl Alcohol over Palladium Nanoparticles Supported on Modified Graphitic Carbon Nitride" 66th TwIChE Annual Meeting, November 8-9, 2019, Taichung. (poster)
46. Yu-Hsiang Wang, Cheng-Hsun Chuang, Te-An Chiu, Chung-Wei Kung and **Wen-Yueh Yu**. "Size-Tunable Synthesis of Palladium Nanoparticles Confined within Metal-Organic Frameworks" 66th TwIChE Annual Meeting, November 8-9, 2019, Taichung. (poster)
47. Yueh-Cheng Yu, Ching-Hsiu Chung, Yan-Jhu Chou, Yo-Hsiang Chen, Jun-Xiang Chen, Wei-Hung Chiang and **Wen-Yueh Yu**. "Enhanced Production of Dimethyl Carbonate from Carbon Dioxide and Methanol over Mechanochemically-Treated Ceria Catalysts" 66th TwIChE Annual Meeting, November 8-9, 2019, Taichung. (poster)
48. Zi-Jie Gong, You-Ren Li, Heng-Liang Wu, Shawn D. Lin and **Wen-Yueh Yu**. "Copolymerization of Carbon Dioxide and 1,4 Butanediol Mediated by Surface Oxygen Vacancies of CeO₂ Nanorod" 66th TwIChE Annual Meeting, November 8-9, 2019, Taichung. (oral & poster)
49. Zi-Jie Gong, Cheng-Wei Chang, Nai-Chieh Huang, Cheng-Yu Wang and **Wen-Yueh Yu**. "Catalytic Transesterification of Glycerol and Dimethyl Carbonate over MgO-loaded on ZIF-8 as Bifunctional Catalyst" 37th Taiwan Symposium on Catalysis and Reaction Engineering, June 26-27, 2019, Taipei. (oral & poster)

50. Yo-Hsiang Chen, Yan-Jhu Chou, Yueh-Cheng Yu, Zi-Jie Gong, You-Ren Li, Wei-Hung Chiang and **Wen-Yueh Yu**. "Copolymerization of Carbon Dioxide and 1,4-Butanediol over Ceria Catalysts: Effect of Ball Mill and Calcination" 37th Taiwan Symposium on Catalysis and Reaction Engineering, June 26-27, 2019, Taipei. (oral & poster)
51. You-Ren Li, Zi-Jie Gong, Nai-Chieh Huang and **Wen-Yueh Yu**. "Direct Synthesis of Polycarbonate from Carbon Dioxide and 1,4-Butanediol over Cerium Oxide Nanorod Catalyst" 37th Taiwan Symposium on Catalysis and Reaction Engineering, June 26-27, 2019, Taipei. (oral & poster)
52. **Wen-Yueh Yu**. "Enhanced Glycerol Carbonate Production from Transesterification of Glycerol and Dimethyl Carbonate over MgO@ZIF-8 Catalysts" 65th TwICHE Annual Meeting, November 9-10, 2018, Yunlin. (invited speaker)
53. **Wen-Yueh Yu**, Cheng-Wei Chang, Zi-Jie Gong, Nai-Chieh Huang and Cheng-Yu Wang. "Enhanced Glycerol Carbonate Production from Transesterification of Glycerol and Dimethyl Carbonate over MgO@ZIF-8 Catalysts" 2018 International Workshop on Processes Intensification (2018 IWPI), November 7-8, 2018, Taipei. (invited speaker)
54. Guan-Hui Lee, You-Ren Lee, Nai-Chieh Huang, Si-Hao Chen, Zi-Jie Gong and **Wen-Yueh Yu**. "Application of Coal Fly Ash to Catalytic Transesterification of Glycerol and Dimethyl Carbonate to Form Glycerol Carbonate" 36th Taiwan Symposium on Catalysis and Reaction Engineering, June 28-29, 2018, Taichung. (poster)
55. **Wen-Yueh Yu**. "Surface Science Studies: An Approach to Enhance Fundamental Understanding to Heterogeneous Catalysis" 64th TwICHE Annual Meeting, November 17-18, 2017, Taipei. (invited speaker)

Honors and Others

1. 台灣大學教學優良獎, 台灣大學 (2021)
2. 傑出論文獎, 台灣觸媒學會 (2021)
3. Early Career Researcher Editorial Board of Materials Today Sustainability (2021)
4. 化工傑出獎, 台灣化工學會 (2020)
5. 指導學生古浩銓獲得科技部大專學生研究計畫研究創作獎 (2020)
6. Best Poster Presentation Award (Wen-Yueh Yu), 8th Asia-Pacific Congress in Catalysis (2019)
7. 指導學生陳致豪同學·獲得 2022 年台灣化學工程學會 69 週年年會壁報論文競賽觸媒及反應工程組優勝
8. 指導學生林夢蝶同學·獲得 2022 年台灣化學工程學會 69 週年年會壁報論文競賽觸媒及反應工程組優勝
9. 指導學生李昱碩同學·獲得 2022 年台灣化學工程學會 69 週年年會壁報論文競賽觸媒及反應工程組優勝

10. 指導學生 Sudeep 同學，獲得 2022 年台灣化學工程學會 69 週年年會英文口頭發表競賽觸媒及反應工程組佳作
11. 指導學生古浩銓同學，獲得 2022 年第 1 屆台北國際催化會議英文口頭發表競賽優勝
12. 指導學生邱德安同學，獲得 2022 年第 1 屆默克年輕科學人獎優等
13. 指導學生古浩銓同學，獲得 2022 年第 1 屆默克年輕科學人獎新星獎
14. 指導學生龔子傑同學，獲得 2022 年第 1 屆華新麗華台大技術交流海報競賽優等
15. 指導學生龔子傑同學，獲得 2022 年台大化學工程學系碩博士畢業論文展優勝
16. 指導學生古浩銓同學，獲得 2022 年台大化學工程學系碩博士畢業論文展優勝
17. 指導學生林明霽同學，獲得 2022 年台大化學工程學系學士專題競賽銅牌
18. 指導陳致豪與林明霽同學及其團隊得到 2022 年聰賢芬英創新程序設計競賽最佳設計獎
19. 指導學生龔子傑同學，獲得 2022 年台灣化學工程學會 68 週年年會英文口頭發表競賽觸媒及反應工程組佳作
20. 指導學生古浩銓同學，獲得 2022 年台灣化學工程學會 68 週年年會壁報論文競賽觸媒及反應工程組優勝
21. 指導學生林明霽同學，獲得 2022 年台灣化學工程學會 68 週年年會壁報論文競賽觸媒及反應工程組優勝
22. 指導學生邱德安同學，獲得 2022 年台灣化學工程學會 68 週年年會壁報論文競賽觸媒及反應工程組佳作
23. 指導學生龔子傑同學，獲得 2021 年界面科學年會海報競賽薄膜/膠體與表面/分子組裝組佳作
24. 指導學生簡正奇同學，獲得 2021 年界面科學年會海報競賽薄膜/膠體與表面/分子組裝組優等
25. 指導學生鄭宇翔同學，獲得 2021 年界面科學年會海報競賽奈米材料組特優
26. 指導學生杜芳毅同學，獲得 2021 年界面科學年會海報競賽界面科學組特優
27. 指導學生杜芳毅同學，獲得 2021 年台大化工系碩博士生畢業論文展長興材料公司及台灣中油公司傑出論文獎
28. 指導學生陳柏瑋同學，獲得 2021 年台大化工系碩博士生畢業論文展中鼎工程公司傑出論文獎
29. 指導學生龔子傑及古浩銓同學，獲得 2020 年台灣化學工程學會 67 週年年會壁報論文競賽-觸媒及反應工程組優勝
30. 指導學生杜芳毅同學，獲得 2020 年台灣化學工程學會 67 週年年會壁報論文競賽-觸媒及反應工程組優勝
31. 指導學生陳祐祥同學，獲得 2020 年第 38 屆台灣觸媒與反應工程研討會暨科技部專題研究計畫成果發表會壁報論文競賽優勝

32. 指導學生周彥築同學，獲得2020年第38屆台灣觸媒與反應工程研討會暨科技部專題研究計畫成果發表會壁報論文競賽佳作
33. 指導學生鐘慶修同學，獲得2020年第38屆台灣觸媒與反應工程研討會暨科技部專題研究計畫成果發表會壁報論文競賽佳作
34. 指導學生龔子傑同學，獲得2019年台灣化學工程學會66週年年會英文口頭發表競賽-觸媒及反應工程組優勝
35. 指導學生龔子傑同學，獲得2019年台灣化學工程學會66週年年會壁報論文競賽-觸媒及反應工程組優勝
36. 指導學生周彥築同學，獲得2019年台灣化學工程學會66週年年會壁報論文競賽-觸媒及反應工程組優勝
37. 指導學生王鈺翔同學，獲得2019年台灣化學工程學會66週年年會壁報論文競賽-觸媒及反應工程組佳作
38. 指導學生尤躍誠同學，獲得2019年台灣化學工程學會66週年年會壁報論文競賽-觸媒及反應工程組佳作
39. 指導學生周彥築同學，獲得2019年第37屆台灣觸媒與反應工程研討會暨科技部專題研究計畫成果發表會壁報論文競賽優勝
40. 指導學生林夢蝶申請獲得科技部大專學生專題計畫(2020)
41. 指導學生古浩銓申請獲得科技部大專學生專題計畫(2019)
42. 指導學生尤躍誠申請獲得科技部大專學生專題計畫(2018)
43. Outstanding Research Award (Zi-Jie Gong), Osaka-Kansai International Symposium on Catalysis (2018)

International Cooperation Project

1. 設計合成金屬超分子聚合物應用於電催化選擇性氫化生物質衍生物
sponsored by 科技部 NT\$760,000, 2023/04/01 - 2025/03/31
2. 以金屬超分子聚合物作為觸媒用於催化轉移氫化反應
sponsored by 科技部 NT\$520,000, 2021/04/01 - 2023/03/31
3. 太陽光電化學合成系統
sponsored by 教育部 NT\$1,000,000, 2020/11/01 - 2022/10/31