

Yung-Tin (Frank) Pan

Associate Professor

Dept. of Chemical Engineering, National Tsing Hua University (NTHU)

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Education

05. 2017 PhD: Chemical Engineering, UIUC

06. 2009 BSc: Chemical Engineering, NTU

Experience

08. 2025 – 08. 2026 Vice Chairman, Interdisciplinary Program of Engineering, College of Engineering, NTHU

3. 2017 – 06. 2018 Postdoc, Fuel Cell Program, MPA-11, Los Alamos National Laboratory

Selective Honors & Awards

- Catalysis Society of Taiwan, Young Scholar Award (2026)
- NSTC, Ta-You Wu Memorial Award (2024)
- TwIChE, LCY Distinguished Young Professor Award (2024)
- NTHU, Hsin Hua Young Scholar (2023)
- Catalysis Society of Taiwan, Outstanding Paper Award (2023)
- Taiwan Association for Hydrogen Energy and Fuel Cell (THEFC), Young Scholar Award (2022)

Selected Publications (corresponding author)

1. T-W. Huang, T-H. Tsai, K-H. Kuo, J-A. Hsu, D-H. Tsai, W-T. Tu, C-A. Chen, H-L. Kuo, M-K. Tsai, Y-T. (Frank) Pan*, Sustainable and durable pure water-fed CO₂ electrolysis through cathode cation engineering, *Chem. Eng. J.*, 2026, 535, 175696.
2. H-C. Lin, Y. Chen, T-H. Hung, D-H. Tsai, L-Y. Chueh, K-H. Lin*, Y-T. (Frank) Pan*, FeO-enabled low temperature CO₂-splitting for chemical looping carbon utilization, *J. Mater. Chem. A*, 2026, 14, 12173-12182.
3. L-Y. Chueh, Y-C. Chien, Y-W. Hsu, Z-W. Wang, D-H. Tsai, C-M. Wu, S-C. Huang, H-J. Chen, H-Y. Chen, M-H. Tsai, C-H. Wang, C-C. Yang*, Y-T. (Frank) Pan*, Suppressing iridium over-oxidation via catalyst-support interactions on tungsten oxide nanowires revealed by *in-situ* XPS for durable, low-loaded PEM water electrolysis, *Appl. Catal. B*, 2026, 382, 125919.
4. L.-Y. Chueh, C-H. Kuo, R-H. Yang, D-H. Tsai, M-H. Tsai, C-C. Yang, H-Y. Chen, C-H. Wang, Y-T. Pan*, WO_x Nanowire Supported Ultra-Fine Ir-IrO_x Nanocatalyst with Compelling OER Activity and Durability, *Chem. Eng. J.*, 2023, 464, 142613.
5. L-C. Lin, C-H. Kuo, Y-H. Hsu, L-C. Hsu, H-Y. Chen, J-L. Chen, Y-T. Pan*, High-Performance Intermetallic PtCo Oxygen Reduction Catalyst Promoted by Molybdenum, *Appl. Catal. B*, 2022, 317, 121767.