



David Tai-Wei Wu

Research Fellow and Director

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Education:

- B.S. (1985) Department of Chemistry, Harvard University, USA
PhD (1991) Department of Chemistry, University of California at Berkeley, USA
Postdoc (1993) Physics, University of Cambridge, UK
Postdoc (1996) Chemical Engineering, University of California at Santa Barbara, USA

Experience:

Research Fellow and Director (2021~) Institute of Chemistry, Academia Sinica, Taiwan
Joint Professor (2021~) Department of Chemical Engineering, National Taiwan University, Taiwan
Emeritus Professor (2024~), Assistant Professor, Associate Professor, Professor (1996-2024), Chemical and Biological Engineering & Chemistry and Geochemistry, Colorado School of Mines, USA
Head of Chemistry and Geochemistry Department (2012~2017) Colorado School of Mines, USA
Associate Director (2009~2014) Center for Hydrate Research, Colorado School of Mines, USA
Visiting Professor (2010-2011, 2017-2018, 5-8/2019) National Taiwan University, Taiwan
Visiting Professor (F 2003, Sp 2004, 2005) ESPCI, University of Paris, Institut Henri Poincaré, France
Board Director, American Chemical Society (2025-), Chemical Society of Taiwan (2025-)

Selective Honors & Awards:

Outstanding Scholar Award, Foundation for the Advancement of Outstanding Scholarship (2023)
CTCI Foundation Science and Technology Recruitment Fellowship (2021)
Research Corporation's Research Innovation Award (1997)
Junior Research Fellowship, Wolfson College, Cambridge University, UK (1992-1995)

Research Areas:

Theory and Modeling of Soft Materials and Interfaces, Molecular Simulations, Phase Transitions and Self-Assembly, Gas Hydrates

Selective Publications:

- Electrically Switchable Molecular Adhesion via Self-Assembled Monolayer-Mediated Hydration and Ion Structuring*
V. Wieser, Y. C.-T. Yu, A. Valencia Ramirez, D. T. Wu, F. U. Renner & H.-W. Cheng, *Journal of the American Chemical Society* **147**, 42416-42425 (2025).
- Microsecond Simulations of Spontaneous Methane Hydrate Nucleation and Growth*, M. R. Walsh, C. A. Koh, E. D. Sloan, A. K. Sum and D. T. Wu, *Science*, **326**, 1095-1098, (2009).