

Supareak Prasertthdam



Associate Professor

Department of Chemical Engineering, Faculty of Engineering,
Chulalongkorn University

254 Phayathai Road, Pathumwan District, Bangkok 10330, Thailand

Office: 11th Floor, Engineering 4 Building, Faculty of Engineering,
Chulalongkorn University

Tel: +66861012244

Email: supareak.p@chula.ac.th

Webpage: <http://www.hcu.cecc.eng.chula.ac.th/>

<https://chem.eng.chula.ac.th/people/dr-supareak-prasertthdam/>

Education:

PhD (2014/8~2018/8) Chemical Engineering, Texas A&M University, Texas, USA

B.Eng. (2010/5~2014/5) Chemical Engineering (*Summa Cum Laude*), Chulalongkorn University, Bangkok, Thailand

Experience:

Director (2023 ~ now) Center of Excellence on Catalysis and Catalytic Reaction Engineering (CECC), Chulalongkorn University, Thailand

AUN-QA Assessors (2025~now) ASEAN University Network-Quality Assurance

Professor* (2024/4~now) Department of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

Associate Professor (2022/4~2024/4) Department of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

Assistant Professor (2020/4~2022/4) Department of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

Lecturer (2018/11~2020/4) Department of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

*(*Approved by the university council, the royal appointment is currently under royal consideration)*

Selective Honors & Awards:

1. Catalysis Development Excellence Award, The Asian-Pacific Association of Catalysis Societies (APACS) (2025)
2. Thailand Young Scientist Award 2023 (2023), Foundation for the Promotion of Science and Technology under the Patronage of H.M. the King
3. Richard J. Kokes award, The North American Catalysis Society (NACS), USA (2017)
4. Early Career Editorial Board, Molecular Catalysis (Elsevier) (2024 ~ now)

Research Areas:

Computational Catalysis, Materials Informatics, High-entropy Materials

Selective Publications:

1. “Machine-learning-accelerated density functional theory screening of Cu-based high-entropy alloys for carbon dioxide reduction to ethylene”, *Applied Surface Science*, 684 (2025).
2. “The development of configurational entropy formulation for high-entropy oxides: Review and outlook”, *J Alloy Compd*, 1037 (2025).
3. “First-Principles Density Functional Theory and Machine Learning Technique for the Prediction of Water Adsorption Site on PtPd-Based High-Entropy-Alloy Catalysts”, *Advanced Theory and Simulations*, 6 (2023).
4. “On the enhanced performance of Pt-based high-entropy alloys catalyst during water–gas shift reaction: A density functional theory study”, *Applied Surface Science*, 623 (2023).
5. “Evaluation of dry reforming reaction catalysts via computational screening”, *Catal Today*, 312 (2018) 23–34.