

Duy Thai NGUYEN

PhD Student (3rd Year)

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RESEARCH INTERESTS

- Electrocatalysis and Photocatalysis
- Surface modification
- CO and CO₂ conversion
- Chemical Engineering
- Spectroelectrochemistry

SUMMARY

My fascination with energy conversion and storage research ignited when I was an internship student in the Laboratory of Chemistry for Energy Conversion and Storage at the University of Science and Technology of Hanoi, Vietnam. During this period, I delved into research with a focus on Electrocatalyst for Water Splitting Reaction. Subsequently, I conducted two master's internships at the Paris-Saclay University, where I gained experiences in spectroelectrochemistry and photoelectrochemistry for CO₂ conversion systems. Currently, I am working on the project of modification of copper surface catalyst for CO electroreduction to multiple-carbon products at the Collège de France and Sorbonne University.

EDUCATION

2023 – Current PhD in Chemistry at the Collège de France and Sorbonne University, France.

2021 – 2023 Master's degree in Chemistry - International Track at the Paris-Saclay University, France.

2017 – 2020 Bachelor's degree in Advanced Materials Science and Nanotechnology at the University of Science and Technology of Hanoi, Vietnam.

PUBLICATIONS

- **Duy Thai Nguyen**, Ngoc Huan Tran, Hai Nam Ha, Sandrine Zanna, Minh Huong Ha Thi, Amal Lakhal, Cyril Ollivier, Louis Fensterbank, and Marc Fontecave. "Molecular Modification of Cu-Based Electrodes via Electrografting: Effects of Modifier Structure on CO₂ Electroreduction Selectivity." *ACS Applied Materials & Interfaces* **17**, no. 43 (2025): 59301–59310.
- **Thai D. Nguyen**, Huong TL Phung, Duc N. Nguyen, Anh D. Nguyen, and Phong D. Tran. "Fabrication of inverse opal molybdenum sulfide and its use as a catalyst for H₂ evolution." *RSC advances* 13, no. 40 (2023): 27923-27933.

- Cruz Neto, Daniel H., Juan Soto, Nishith Maity, Christophe Lefumeux, **Thai Nguyen**, Pascal Pernot, Karine Steenkeste, Daniel Peláez, Minh-Huong Ha-Thi, and Thomas Pino. "A Novel Pump–Pump–Probe Resonance Raman Approach Featuring Light-Induced Charge Accumulation on a Model Photosystem." *The Journal of Physical Chemistry Letters* 14 (2023): 4789-4795.
- Nguyen, Chuc T., Tuyen Anh Luu, **Thai D. Nguyen**, An T. Dam, Ly T. Le, Hyuksu Han, Son T. Lo, Phuc T. Phan, Hue T. Pham, Hue N.T. Nguyen, La Ly Nguyen, Hung Q. Nguyen*, and Phong D. Tran*. "Exploring the Sub-nanoscale Structure of Cobalt Molybdenum Sulfide and the Role of a Cobalt Promoter in Catalytic Hydrogen Evolution." *ACS Applied Materials & Interfaces* 15, no. 11 (2023): 14215-14227.