

Hio Tong (Michael) Ngan

3563 Boelter Hall, UCLA, Los Angeles, CA 90095 | (626)782-1273 | michaelcskphc@gmail.com

EDUCATION

University of California, Los Angeles

Los Angeles, CA

Ph.D. in Chemical Engineering, GPA: 3.95/4.0

Sept. 2019 - Present

University of California, Berkeley

Berkeley, CA

Bachelor of Science in Chemical Engineering, GPA: 3.52/4.0

Graduation: August 2018

RESEARCH EXPERIENCE

GRADUATE STUDENT RESEARCHER

Advisor: Prof. Philippe Sautet – UCLA

Sept. 2019 - Present

- Currently study the selectivity and activity of single-atom alloy catalysts with a focus on hydrogenation reactions using the computational approach (Projects of Integrated Mesoscale Architectures for Sustainable Catalysis --- A DOE Energy Frontier Research Center)

RESEARCH ASSISTANT

Oct. 2018 – Apr. 2019

Advisor: Prof. Paulo Monteiro – UC Berkeley/Lawrence Berkeley National Laboratory

- Conducted various spectroscopic/microscopic experiments including X-ray absorption near-edge spectroscopy (XANES), scanning transmission X-ray microscopy (STXM) and high-pressure X-ray diffraction spectroscopy (HPXRD) etc.

PROJECT LEADER

Dimethyl Ether (DME) Synthesis Design Project – UC Berkeley *June 2018 – August 2018*

- Used Aspen Plus to feasibly design a chemical plant that is capable of producing DME of specific purity from methane that is found in Lake Kivu in Rwanda.

OTHER RELEVANT EXPERIENCE

CHEMICAL ENGINEERING LABORATORY CLASS (UPPER DIVISION)

UC Berkeley

January 2018 – May 2018

- Performed common chemical engineering processes including distillation, membrane separation, reaction in a packed bed reactor, and heat and mass transfer etc.
- Used computer software (COMSOL Multiphysics Software and Aspen Plus) to continuously simulate the experimental conditions for optimizing the productivity of the chemical processes.

SKILLS

- **Relevant Computer Skills:** Proficient in Matlab, COMSOL Multiphysics Software, Aspen Plus, and Python.
- **Language Skills:** Bilingual in English and Chinese (Mandarin, Cantonese and Taiwanese Hokkien).