Lawrence Lai

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Education

Massachusetts Institute of Technology   Cambridge, MA

PhD in Chemical Engineering   Expected June 2019

- Thesis Title: Alkylaromatic Reactions in Pyrolysis
- Relevant Coursework include Managerial Finance, machine learning, and Patent Law (Harvard Law School)
- Publications (partial list):
    o **L. Lai**, S. Gudiyella, M. Liu and W. H. Green, "Chemistry of Alkylaromatics Reconsidered," Energy & Fuels, **2018**, 32 (4), 5489-5500
    o **L. Lai**, S. Khanniche, W. H. Green, "Thermochemistry and Group Additivity Values for Fused Two Ring Aromatic Species and Radicals", **2018**, in preparation
    o **L. Lai**, W. H. Green, "Thermochemistry and Kinetics of Aromatic Intermolecular Addition Reactions", **2018**, in preparation
- Awards:
    o Jane and Howard M. TenBroeck Scholarship
    o James B. Angell Scholar
- Leadership:
    o Teaching Assistant, 10.26 – Chemical Engineering Lab; Managed team of 3 students
    o President of MIT Sport Taekwondo
    o President of Hong Kong Student Society of MIT

University of Michigan, Ann Arbor   Ann Arbor, MI

B.S.E in Chemical Engineering   December 2012

- Relevant Coursework include Environmental and Sustainable Engineering and Chemical Engineering Process Economics

Recent Industry and Research Experience

Massachusetts Institute of Technology,   Cambridge, MA

Department of Chemical Engineering, PI: William H Green Lab   Fall 2013 – Present

- Study on alkylaromatic reactions in supercritical water for crude oil upgrading
- Generation of chemical mechanisms for alkylaromatic pyrolysis

Corning Inc.   Corning, NY and Wilmington, NC

MIT Chemical Engineering School of Practice   Fall 2014

- Led troubleshooting of defective processes

General Mills   Minneapolis, MN

MIT Chemical Engineering School of Practice   Fall 2014

- Identified problems and developed methods to improve existing product lines

University of Michigan   Ann Arbor, MI

Undergraduate Research Assistant   Fall 2014

- Microbial engineering of E.coli for isobutanol tolerance.

Other Skills and Languages

- Experienced with statistics, solving differential equations, machine learning, and data visualization
- Experienced in Python, MATLAB, GitHub, Gaussian 03, C++, and Aspen Plus
- Spoken: Fluent in Cantonese Chinese; intermediate in Mandarin Chinese
- Written: Proficient in Chinese