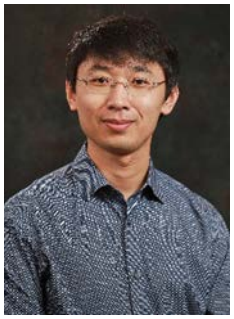
ChemCatBio Webinar Series

"Single-Step Catalytic Conversion of Ethanol to *n*-Butene-Rich Olefins and 1,3-Butadiene Chemical Coproduct"



Robert Dagle (Pacific Northwest National Laboratory) and
Zhenglong Li (Oak Ridge National Laboratory) for the
Chemical Catalysis for Bioenergy Consortium

Wednesday, July 31, 2019
12–12:45 p.m. MDT
Registration: https://attendee.gotowebinar.com/register/153575785129344770

Ethanol is an attractive feedstock for the production of fuels and chemicals as it is already produced at commercial scale and can be produced from a variety of renewable biomass and waste sources. In addition, the ethanol "blend wall" coupled with advances in production efficiency and feedstock diversification is expected to lead to excess ethanol at competitive prices. Within ChemCatBio's Upgrading of Indirect Liquefaction Intermediates Project, research teams from multiple national labs have been collaborating on the development of catalytic upgrading routes for this key intermediate. These routes include a flexible catalytic process for the single-step conversion of ethanol to either *n*-butene-rich olefins, as fuel precursors, or to 1,3-butadiene as a chemical product precursor over mixed oxide or zeolite-based catalysts. Production of *n*-butene-rich olefins directly from ethanol represents a more economic route to jet- and diesel-range hydrocarbon fuels relative to the state-of-the-art technology. In this presentation, collaborative efforts to develop this economically viable ethanol catalytic upgrading technology in a robust manner using commercially relevant process streams will be discussed by two national laboratory investigators.

For more information, please visit our website at ChemCatBio.org or email us directly at Contact@ChemCatBio.org. ChemCatBio is funded by the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Bioenergy Technologies Office.