

## ChemCatBio Webinar Series

“Advancing Catalytic Fast Pyrolysis through Integrated Experimentation and Multiscale Computational Modeling”



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and Bruce Adkins (Oak Ridge National Laboratory)

Chemical Catalysis for Bioenergy Consortium

Wednesday, January 13, 2021

12–12:45 p.m. MDT

Webinar Link and Registration:

<https://nrel.webex.com/nrel/onstage/g.php?MTID=ec99a8a7eb0e841c3e20c1cd86565c52b>

This webinar will highlight recent results from a multidisciplinary research effort in which integrated reaction testing was coupled with particle- and reactor-scale computational modeling to advance catalytic fast pyrolysis (CFP) for the production of renewable hydrocarbon fuels. Data will be presented from a series of *ex situ* CFP experiments in which a fixed bed of Pt/TiO<sub>2</sub> was utilized with co-fed hydrogen to upgrade woody biomass pyrolysis vapors. Further discussion will include the application of these data toward the development of (1) a multiscale simulation framework to de-couple apparent kinetics from both intraparticle and reactor-scale transport phenomena and (2) a finite element computational model to understand and predict thermal excursions during catalyst regeneration. Throughout the presentation, the speakers will emphasize synergistic outcomes derived from the collaborative approach and highlight ongoing research efforts to accelerate technology maturation.

For more information, please visit our website at [ChemCatBio.org](http://ChemCatBio.org) or email us directly at [Contact@ChemCatBio.org](mailto: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.