



## **ChemCatBio Webinar Series**

"Addressing Rigor and Reproducibility in Thermal, Heterogeneous Catalysis"









John West (Johnson Matthey; left) Neil Schweitzer (Northwestern University; center left) Rajamani Gounder (Purdue University; center right) Robert Rioux (Pennsylvania State University; right)

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Webinar Registration: https://nrel.webex.com/weblink/register/r4c53ded04824b45438f72d0b7e310fb9

Heterogeneous catalysis is a critical technology component underpinning bioenergy, the chemical industry, the energy sector, and pollution abatement. With its broad range of applications, this field exhibits significant complexity and variability, spanning catalyst material properties, synthesis methods, characterization techniques, and evaluation procedures. Additionally, the need to transition to cleaner energy technologies and reduce greenhouse gas emissions has incentivized interdisciplinary, convergent, and translational approaches to catalysis research. Researchers with expertise in materials science, chemical synthesis, interfacial science, spectroscopy, data science, and computational simulation all bring diverse and important perspectives. However, they may sometimes lack awareness of the complexity of catalytic systems, especially in their working environment. As a result, there has been growing recognition in the heterogeneous catalysis community that mechanisms are needed to improve the rigor and reproducibility (R&R) of experimental measurements and encourage alignment of the broader research community on best practices.

In 2022, researchers held a National Science Foundation-sponsored workshop on R&R in thermal, heterogeneous catalysis. The focus of this workshop was to discuss the state of these issues in the field, develop recommendations that can enhance the R&R of data reported in the literature, and compile collective knowledge about best practices and current knowledge about benchmark materials.

In this webinar, panelists will discuss the current state of the field, why the topic is important for industry and bioenergy applications, outcomes from the workshop, and planned future activities researchers are undertaking to help the catalysis community address R&R issues in the future.

For more information, please visit our website at <u>https://www.chemcatbio.org/home</u> or email us directly at <u>Contact@ChemCatBio.org</u>. ChemCatBio is funded by the U.S. Department of Energy Bioenergy Technologies

