

The Theory and Practice of Catalysis

Organizers: Horia Metiu, Eric McFarland, Fabio Ribeiro

July 20-23, 2019

TSRC Host: Mark Kozak 970-708-4426, mark@telluridescience.org

Location: Telluride Intermediate School, 725 W Colorado Avenue, Telluride
<https://www.telluridescience.org/meetings/workshop-details?wid=771>

Saturday July 20

<i>morning session chair: Horia Metiu</i>		
9:30 am	Breakfast at TSRC meeting site Welcome and announcements	
10:00 am	Beatriz Roldan Cuenya	In situ and Operando Insight into Electrocatalytic and Thermal Conversion of CO ₂ to Valuable Chemicals and Fuels
11:00 am	Charles T. Campbell	Latest results on several topics central to catalysis: microkinetic modelling, kinetic isotope effects, particle size and support effects, and the quantitative connection between gas-phase and aqueous-phase adsorption energies
noon	<i>lunch on your own</i>	
<i>afternoon session chair: Simon Bare</i>		
2:00 pm	Yuri Roman	Hijacking active site generation cycles to promote heterogeneous olefin metathesis catalysts
3:00 pm	Fabio Ribeiro	Reaction mechanism and the nature of the active site for standard selective catalytic reduction of NO _x on Cu/SSZ-13 zeolites
4:00 pm	<i>break</i>	
4:15 pm	Bruce C. Gates	Atomically Dispersed Supported Metal Catalysts: from Discovery toward Fundamental Science
5:15 pm	adjourn	

Sunday July 21

9:30 am	Breakfast at TSRC meeting site	
<i>morning session chair: Beatriz Roldan Cuenya</i>		
10:00 am	Simon R. Bare	X-ray Absorption Spectroscopy and Catalysis: Past, Present & Future
11:00 am	Peter C. Stair	The transition of modifier to support for vanadia catalysts
noon	<i>lunch on your own</i>	
<i>afternoon session chair: Matt Neurock</i>		
2:00 pm	Jeroen A. van Bokhoven	Stable palladium catalysts for total methane oxidation
3:00 pm	Johannes A. Lercher	Catalysis and reactivity in constrained crowded environments
4:00 pm	adjourn	

Monday July 22

8:00 am	Breakfast at TSRC meeting site	
<i>morning session chair: Fabio Ribeiro</i>		
8:30 am	Eric McFarland	Methane catalysis in high-temperature liquid environments
9:30 am	<i>break</i>	
9:45 am	Matthew Neurock	Elucidating and Controlling Active Sites and their Environments to Drive Electrocatalytic Reduction Paths in the Production of Fuels and Chemicals
10:45 am	Beata A. Kilos-Réaume	Ethylene Carbonylation Revisited: New Paradigms
11:45 pm	<i>lunch on your own</i>	
<i>afternoon session chair: Yuriy Roman</i>		
2:00 pm	Aditya Bhan	Catalysis of an Ancient Age: Ethylene Epoxidation on Ag/Al ₂ O ₃ Catalysts
3:00 pm	Christophe Coperét	SOMC: from single site to modifying interfaces and generating alloy
4:00 pm	adjourn	

Tuesday July 23

8:00 am	Breakfast at TSRC meeting site	
<i>morning session chair: Eric McFarland</i>		
8:30 am	Horia Metiu	Hydrogen production without CO ₂
9:30 am	<i>break</i>	
9:45 am	Bert M. Weckhuysen	Catalyst Images, Imaging and Imagination
10:45 am	Carl Mesters	Catalysis and the Energy Transitions of small molecules & big challenges
11:45 am	<i>lunch on your own, following by traditional group hike</i>	
6:30 pm	Town Talk, Conference Center in Mountain Village	