

The Theory and Practice of Catalysis

Organizers: Horia Metiu, Eric McFarland

July 25 – 28, 2022

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

Location: Telluride Intermediate School, 725 West Columbia Avenue, Telluride

Monday July 25

8:30 am	Breakfast at TSRC meeting location	
9:00 am	welcome and announcements	
<i>morning session chair: Eric W. McFarland</i>		
9:15 am	Aditya Bhan	Kinetics with site ensembles, branched networks, and multiple kinetically relevant steps
10:15 am	break	
10:30 am	Charles T. Campbell	Particle size and support effects on the energetics of metal nanoparticles, and correlations between these energetics and catalyst performance
11:30 am	discussion, then lunch on your own	
<i>afternoon session chair: Aditya Bhan</i>		
1:30 pm	Vanda Glezakou	Global optimizers, large scale simulations and enhanced sampling for catalysis problems
2:30 pm	break	
2:45 pm	Yong Wang	Earth abundant Fe-based catalysts for hydrodeoxygenation
3:45 pm	discussion, then adjourn	

Tuesday July 26

8:30 am	Breakfast at TSRC meeting location	
<i>morning session chair: Charles T. Campbell</i>		
9:00 am	Horia Metiu	Hydrogen production without CO ₂
10:00 am	break	
10:15 am	Rajamani Gounder	Altering Zeolite Properties to Influence Rates and Selectivities of Alkene and Aromatics Reactions
11:15 am	discussion, then adjourn	
6:30 pm	Town Talk, The Telluride Depot, 300 S Townsend Street <i>Viewpoints Matter: How diverse perspectives bring about scientific progress</i> Korana Burke, University of California Davis; Peter Salamon, San Diego State University; Dontarie Stallings, University of California San Diego	

Wednesday July 27

8:30 am	Breakfast at TSRC meeting location	
<i>morning session chair: Phillip Christopher</i>		
9:00 am	Eric W. McFarland	Affordable Green "ish" Production of Hydrogen From Fossil Resources
10:00 am	break	
10:15 am	Simon Bare	Identifying The Active Site in Catalysis: What is the future for synchrotron methods?
11:15 am	discussion, followed by lunch on your own and traditional joint hike	
5:30pm	Picnic at The Depot, 300 S. Townsend St.	

Thursday July 28

8:30 am	Breakfast at TSRC meeting location	
<i>morning session chair: Rajmani Gounder</i>		
9:00 am	Phillip Christopher	Tuning the reactivity of atomically dispersed metal catalysts: Bifunctional pair sites and UV photolysis
10:00 am	break	
10:15 am	Matteo Cargnello	Understanding and Engineering Catalytic Materials Using Nanocrystal Precursors
11:15 am	discussion, then adjourn	