

Theory and Practice of Catalysis (2013 TSRC #447)
07/29/2013 - 08/02/2013

Location: Telluride Intermediate School, 2nd floor
725 West Colorado Avenue
Telluride CO 81435

Organizer: Horia Metiu

TSRC Hosts: Executive Director, Nana Naisbitt 970-708-0004;
Assistant Director Rory Sullivan 970-708-0004

Sunday July 28

6:00 ó 9:00 pm: Welcome Reception for all scientists, New Sheridan Bar, 231 W Colorado Avenue

Monday July 29

8:00 am	Breakfast at TSRC	
9:00 am	<i>Horia Metiu, welcome and announcements</i>	
<i>morning session chair: Jeroen van Bockhoven</i>		
9:15 am	Bruce C. Gates	Design of molecular metal complex and metal cluster catalysts on supports
10:15	break	
10:45 am	Alexis T. Bell	Towards a molecular level understanding of how catalysts enable the reactions of hydrocarbons: Lessons learned from experiments and theory
11:45 am	discussion, then lunch on your own	
<i>afternoon session chair: Peter C. Stair</i>		
2:00 pm	Charles T. Campbell	Thermodynamics and kinetics of elementary reaction steps on late transition metal catalysts, and in their sintering
3:00 pm	break	
3:30 pm	Carl Mesters	On the length scale in catalysis
4:30 pm	discussion then adjourn	

Tuesday July 30

8:00 am	Breakfast at TSRC	
<i>morning session chair: Alexis T. Bell</i>		
9:00 am	Maria Flytzani-Stephanopoulos	Mononuclear Au and Pt catalytic sites on various supports
10:00 am	break	
10:30 am	Johannes Lercher	Catalytic alkane activation and transformation
11:30 am	discussion, then lunch on your own	
<i>afternoon session chair: Charles T. Campbell</i>		
2:00 pm	Hajo Freund	From oxide film supported nanoparticles to two-dimensional zeolite films
3:00 pm	break	
3:30 pm	Eric W. McFarland	Hydrocarbon conversion with solid cataloreactants and chemical looping
4:30 pm	discussion, then adjourn	
6:00ó7:15 pm	Town Talk, Sheridan Opera House, 110 North Oak Street	

Wednesday July 31

8:00 am	Breakfast at TSRC	
<i>morning session chair: Fabio H. Ribeiro</i>		
9:00 am	Horia Metiu	Surprises in catalysis by doped oxides
10:00 am	break	
10:30 am	Jeroen A. van Bokhoven	Catalysis on single sites and particles: Controlling and observing the surface chemistry of heterogeneous catalysts
11:30 am	Jens K. Nørksov <i>or discussion</i>	Theoretical methods and principles for the design of catalysts
12:30 pm	lunch on your own followed by traditional joint hike	
6:00-9:00 PM	Picnic, Ah Haa School for the Arts, 300 South Townsend	

Thursday August 1

8:00 am	Breakfast at TSRC	
<i>morning session chair: Carl Mesters</i>		
9:00 am	Fabio H. Ribeiro	Overview of the water-gas shift reaction
10:00 am	break	
10:30 am	Peter C. Stair	Atomic Layer Deposition of catalysts: What has and can be done
11:30 am	discussion, then lunch on your own	
<i>afternoon session chair: Maria Flytzani-Stephanopoulos</i>		
2:00 pm	Israel Wachs	An <i>operando</i> molecular spectroscopic and DFT calculation investigation of methane aromatization by supported Mo/ZSM-5 catalysts
3:00 pm	break	
3:30 pm	Xinhe Bao	Catalysis chemistry affected by confinement: from nano channel to interface
4:30 pm	adjourn	
5:30 pm	group dinner at Rustico Ristorante	

Friday August 2

8:00 am	Breakfast at TSRC	
<i>morning session chair: Israel Wachs</i>		
9:00 am	Robert Schlögl	Dynamics in heterogeneous catalysis
10:00 am	break	
10:30 am	Matteo Cargnello	Tailored nanoarchitectures based on transition metals for heterogeneous catalysis
11:30 am	wrap-up discussion	
noon	adjourn	