

## The Theory and Practice of Catalysis, June 10 – 13, 2017

**Organizers:** Horia Metiu and Fabio Ribeiro

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

**Location:** Telluride Firehouse Meeting Room, 131 W Columbia Ave, Telluride

### Saturday June 10

8:30 am	Breakfast at TSRC meeting site	
9:00 am	Horia Metiu and Fabio Ribeiro, welcome and announcements	
<i>morning session chair: Peter Stair</i>		
9:45 am	Robert Schlögl	The evolution of the concepts of active sites in heterogeneous catalysis
10:45	break	
11:00 am	Horia Metiu	The use of melts as catalysts
noon	lunch on your own	
<i>afternoon session chair: William F. Schneider</i>		
1:30 pm	Robert J. Davis	Promoters, poisons and propensities of metal catalysts for selective alcohol oxidation
2:30 pm	break	
2:45 pm	Jeffrey Greeley	Computational investigations of catalysis at metal/oxide boundaries: perspectives from heterogeneous catalysis and electrocatalysis
3:45 pm	break	
4:00 pm	Bert M. Weckhuysen	Multi-scale chemical imaging of catalytic solids under operating conditions
5:00 pm	discussion, then adjourn	

### Sunday June 11

8:30 am	Breakfast at TSRC meeting site	
<i>morning session chair: Philippe Sautet</i>		
9:00 am	Mahdi Abu-Omar	Functional catalysis inspired by mechanistic understanding
10:00 am	break	
10:15 am	Eric McFarland	Methane pyrolysis on molten metal catalyst
11:15 pm	adjourn	

**Monday June 12**

8:30 am	Breakfast at TSRC meeting site	
<i>morning session chair: Jeffrey Greeley</i>		
9:00 am	Fabio Ribeiro	An overview of the water-gas shift catalysis on metal
10:00 am	break	
10:15 am	William F. Schneider	Plasma-enabled catalysis
11:15 am	break	
11:30 am	Joachim Sauer	Different C-H bond activation mechanisms on solid oxide catalysts
12:30 pm	lunch on your own	
<i>afternoon session chair: Eric W. McFarland</i>		
2:00 pm	Carl Mesters	C1 chemistry & catalysis for the energy supply
3:00 pm	break	
3:15 pm	Peter C. Stair	Alternative routes to single-site catalytic materials
4:15 pm	discussion, then adjourn	

**Tuesday June 13**

8:30 am	Breakfast at TSRC meeting site	
<i>morning session chair: Gavin Jones</i>		
9:00 am	Christophe Coperét	Single-sites: to be or not to be: a spectroscopic point of view
10:00 am	break	
10:15 am	Abhaya K. Datye	Thermally stable, and regenerable, single-atom catalysts
11:15 am	break	
11:30 am	Enrique Iglesia	Towards more accurate descriptors of reactivity in acid and oxidation catalysis on metal oxides
12:30 pm	lunch on your own	
<i>afternoon session chair: Mahdi Abu-Omar</i>		
2:00 pm	Rajamani Gounder	Synthetic control of the arrangement and spatial density of "single" sites and consequences for acid and redox catalysis
3:00 pm	break	
3:15 pm	Hans-Joachim Freund	The surface science of catalysis and more: using ultrathin oxide films as templates
4:15 pm	break	
4:30 pm	Philippe Sautet	Structure sensitivity in heterogeneous catalysis - a theoretical approach
5:30 pm	discussion, then adjourn	
6:45 pm	group dinner, La Marmotte, 150 West San Juan Avenue	