## **Grand Challenges in Electron Chemistry and Catalysis at Interfaces** August 10-15, 2008: Provisional Schedule

Sunday, August 10, 2008 Session Chair: Susannah Scott

	Time	Location	Event		
	12:00PM	Santa Ynez	Apartments Check-In		
	3:00PM	Best Western SCI	Hotel Check-In		
	4:00PM	Lagoon Plaza	Workshop Check-In/Welcome reception		
	5:00PM	Corwin Pavilion	Workshop Initiation Matthias Scheffler, Fritz-Haber Institute The Steady State of Catalysis.		
	6:30PM	Lagoon Plaza	Dinner		
Monday, August 11, 2008 Session Chair: Stefan Vajda					
	8:45-10:00	ESB 1001	Flemming Besenbacher, Aarhus University Catalytic Model Systems and Surface Reactivity Studied at the Atomic Scale by High-Resolution, Fastscanning STM.		
	10:00-10:45	ESB 1001	Alec Wodtke, UC Santa Barbara Molecule-Surface Interactions: Where is the Limit to Theoretical Simulations of Catalytic Model?		
	10:45-11:15	ESB Patio	break		
	11:15-12:00	ESB 1001	Baron Peters, UC Santa Barbara From Reaction Network to pH-dependent Rate Law with DFT: Acid-Base Catalysis in Protein Deamidation.		
	12:00-12:45	ESB 1001	Chris Harding, Technical University of Munich Nanocatalysis: Supporting Cluster Science.		
	12:45-2:00	ESB Patio	lunch		
Session Chair: Stefan Vajda					
	2:00-2:45	MSB 1302	<b>Peter Stair, Northwestern University</b> Resonance Raman Spectroscopy Techniques for Detection, Quantification, and Characterization of Supported Vanadium Oxide Catalytic Species.		
	2:45-3:30	MSB 1302	<b>Perla Balbuena, Texas A&amp;M</b> Challenges in the Design of Active and Durable Nano-Catalysts.		
	3:30-4:15	MSB 1302	John Regalbuto, University of Illinois, Chicago/NSF Program Officer. Catalysis Needs for Next Generation Hydrocarbon Biofuels.		

	4:15p	MRL Patio	Poster Session - even numbered posters should be presented for the first hour, odd for the second. Posters will stay up for most of week.		
	6:30p	ESB Patio	dinner		
Tuesday, August 12, 2008 Session Chair: Susannah Scott					
	8:45-10:00	ESB 1001	<b>Uzi Landman, Georgia Institute for Technology</b> Materials by Numbers: Structure and Catalytic Activity of Nanostructure.		
	10:00-10:45	ESB 1001	Jonathan Hanson, Brookhaven National Laboratory In Situ XRD and XAFS Studies of Water Gas Shift Catalysts.		
	10:45-11:15	ESB Patio	break		
	11:15-12:00	ESB 1001	Jeroen Van Bokhoven, ETH Zurich Using X-ray Absorption Spectroscopy to Determine the Structure of Catalytically Active Sites.		
	12:00-12:45	ESB 1001	Hans Niemantsverdriet, Eindhoven University of Technology Surface Science of Olefin Polymerization Catalysts.		
	12:45-2:00	ESB Patio	lunch		
Sess	ion Chair: Ma	atthias Scheffler			
	2:00-3:15	ESB 1001	Jeff Miller, Argonne National Laboratory WTEC Study: International Assessment of Catalysis.		
	3:15-4:00	ESB 1001	Johannes Lercher, Technical University of Munich Activation of Alkanes through Multifunctional Catalysts.		
	4:00-4:30	ESB Patio	break		
	4:30-5:15	ESB 1001	Marc Koper, Leiden University Electrocatalysis at Well-Defined Surfaces.		
	5:15-6:00	ESB 1001	Wei-Xue Li, Dalian Institute of Chemical Physics Talk Title: TBA		
	6:00PM	ESB Patio	Dinner		
Wed Sess	<b>nesday, Aug</b> iion Chair: Ho	<b>ust 13, 2008</b> ria Metiu			
	8:45-10:00	ESB 1001	Lanny Schmidt, University of Minnesota Biofuels and Chemicals from Biomass by Catalytic Reforming.		
	10:00-10:45	ESB 1001	Andreas Heyden, University of South Carolina Novel Multilevel and Mixed Resolution Techniques for the Efficient Simulation of Environmental Effects in Catalytic Systems.		
	10:45-11:15	ESB Patio	break		

11:15-12:00	ESB 1001	Rutger van Santen, Eindhoven University of Technology Positron Emission Profiling in Catalysis Research.
12:00-12:45	ESB 1001	Wayne Goodman, Texas A&M CO oxidation over noble metals from UHV to atmospheric pressures.
12:45-2:00	ESB Patio	lunch
Session Chair: Je	roen van Bokhoven	
2:00-3:15	ESB 1001	Bert Weckhuysen, University of Utrecht In-Situ Spectroscopy and Heterogeneous Catalysis: Recent Strides Towards Rational Catalyst Design.
3:15-4:00	ESB 1001	<b>Brad Chmelka, UC Santa Barbara</b> Understanding and Controlling Surface Compositions, Structures, and Reaction Properties of Mesoporous Catalysts.
4:00-4:30	ESB Patio	break
4:30-5:15	ESB 1001	Feng-Shou Xiao, Jilin University Microporous and Mesoporous Materials and their Excellent Catalytic Properties.
5:15-6:00	ESB 1001	Simon Bare, UOP Honeywell Unraveling the Complexity of Industrial Catalysts Using In Situ XAFS.
6:30PM	Faculty Club	Banquet Dinner
Thursday, Augus Session Chair: Bra	<b>st 14, 2008</b> ad Chmelka	
8:45-10:00	ESB 1001	Jen Norskov, Technical University of Denmark From Descriptive to Predictive Models of Heterogeneous Catalysis.
10:00-10:45	ESB 1001	Anders Nilsson, Stanford Synchrotron Radiation Laboratory Surface Science Experiments of Fuel Cell Catalysis.
10:45-11:15	ESB Patio	break
11:15-12:00	ESB 1001	Mike Henderson, Pacific Northwest National Laboratory Photochemical Activities of N-doped Rutile and Anatase Surfaces.
12:00-12:45	ESB 1001	Horia Metiu, UC Santa Barbara Size-Selected Gold and Vanadium Oxide Nanoclusters on Rutile TiO2(110) Surfaces Probed by UHV-STM.
12:45-2:00	ESB Patio	lunch
Friday, August 1 Session Chair: Ale	<b>5, 2008</b> ec Wodtke	
8:45-10:00	ESB 1001	Hans-Joachim Freund, Fritz Haber Institute From Supported Atoms to Nanoclusters: Surface Chemistry at the Nanoscale.

10:00-10:45	ESB 1001	<b>Stefan Vajda, Argonne National Laboratory</b> Nanocatalysis on Size-Selected Clusters under Realistic Reaction Conditions: Towards the Understanding of the Size/Shape & Function Relationship in Catalysis.	
10:45-11:05	ESB Patio	break	
11:05-11:50	ESB 1001	John Kitchin, Carnegie Mellon University Similarity in Coverage and Configurational Dependent Atomic Adsorbate Behaviors on Late Transition Metal Surfaces.	
11:50-12:35	ESB 1001	William Schneider, University of Notre Dame Incorporating Environmental Effects in Computational Catalytic Models.	
12:35-1:50	ESB Patio	lunch	
Session Chair: Baron Peters			
1:50-3:05	ESB 1001	Manos Mavrikakis, University of Wisconsin-Madison Core-Shell Nanoparticles for Improved Heterogeneous Catalysis at Low Temperatures.	
3:05-3:50	ESB 1001	Sandeep Dhingra, Dow Chemical Company Catalysis as an Enabling Technology for Redefining Feedstocks for the Chemical Industry.	
3:50-4:10	ESB Patio	break	
4:10-4:55	ESB 1001	Nicholas Delgass, Purdue University The Design of Single Site Olefin Polymerization Catalysts.	
4:55-5:40	ESB 1001	Susannah Scott, UC Santa Barbara Probing Active (and Inactive) Sites in Supported Organometallic Catalysts.	
6:30PM	Goleta Beach Area "A"	Beach BBQ Dinner	