Indo-US Workshop on Nanomaterials for Energy
Discovery Park, Purdue University
September 17-18, 2014
TENTATIVE

September 17, 2014 (Wednesday) Location Burton D. Morgan Center Atrium and Room 121

Opening session		**Chair: Jurgen Honig**
08:00 – 08:45	Arrival and light breakfast	
08:45 – 09:00	Welcome and introductory comments	
09:00 – 09:45	Prof. C.N.R. Rao	Inaugural Address: Artificial Photosynthesis and the Generation of Hydrogen by Water Splitting
9:45 – 10:15	Tea & Coffee and Group Photo	

Timings	Speaker	Talk Title
Session I: Scalable Synthesis and Characterization of Nanomaterials - I **Chair: A. Shakouri**		
10:15 – 10:45	Graham Cooks	Nanomaterials Preparation using the Mass Spectrometer
10:45 – 11:15	S. Sampath	Novel Electrocatalysts Based on Nanostructured Transition Metal Chalcogenides and Nitrides
11:15 – 11:45	Alex Wei	Scalable Production of CTAB-free Gold Nanorods
11:45 – 12:15	G.U. Kulkarni	A Low Cost Method For Rapid Synthesis Of Graphene on Ni
12:15 – 13:30	Lunch	
Session II: Advanced Methods **Chair: P. Bermel**		
13:30 – 14:00	N.S.Vidhyadhiraja	Layered Rare-earth Intermetallics for Thermoelectric and Other Device Applications
14:00 – 14:30	Erica Carlson	Cluster Techniques Applied to the Mott Metal-Insulator Transition in Vanadium Dioxide
14:30 – 15:00	Steve Wereley	Innovative Methods for Capturing, Concentrating, Manipulating and Sorting Populations of Micro- and Nanometer-Scaled Particles
15:00 – 15:30	Tea & Coffee	
Session III: Unique Energy Transport, Conversion, and Storage in Nanomaterials - I		

Chair: U. Waghmare		
15:30 – 16:00	A. Sundaresan	Magnetoelectric Properties in A-Site Ordered Chromite Spinel Oxides, LiMCr4O8 (M = Ga, Fe)
16:00 – 16:30	Amy Marconnet	Infrared Thermal Microscopy for Understanding Transport in Heterogeneous Materials
16:30 – 17:00	U.V. Waghmare	Electron-Phonon Coupling in 2D Materials

Dinner: 18:30 – 21:00 hrs, (at Purdue Aviation Simulation Building)

September 18, 2014 (Thursday) Location: Birck Nanotechnology Center Atrium and Room 1001

Timings	Speaker	Talk Title
08:00 – 08:30	Arrival and light breakfast	
Session IV: Unique Energy Transport, Conversion, and Storage in Nanomaterials – II **Chair: A. Marconnet**		
08:30 – 09:00	Chandrabhas Narayana	Microscopic Understanding of Gas Adsorption in Metal Organic Frameworks through Raman
09:00– 09:30	Kanishka Biswas	Efficient Thermoelectric "Waste Heat To Electrical Energy" Conversion In Te-Free Chalcogenides
09:30 - 10:00	Ali Shakouri	Superdiffusive Heat Transport In Alloys With Embedded Nanoparticles
10:00 - 10:30	Peter Bermel	Quality-Factor Matched Selective Thermal Emitters For High-Perfomance Thermophotovoltaic Conversion Of Heat To Electricity
10:30 – 11:00	Tea & Coffee	
Session V: Heterogeneous Nanomaterials Integration for Energy **Chair: G.U. Kulkarni**		
11:00 – 11:30	Prashant Kamat	Emergence of Quantum Dot and Organic Metal Halide Photovoltaics
11:30 – 12:00	Kyle Smith	Integration of Nanoscale Suspensions to Enable Energy-Dense Flow Batteries
12:00 – 12:30	Tim Fisher	Graphitic Petals for Electrochemical and Thermal Energy Storage
12:30 – 13:30	Lunch	
13:30 – 14:00	Group Discussion and Conclusion	
14:00 – 16:00	Poster Session in BNC Atrium and time for informal collaborative research meetings	
16:00	Disembark to Prof. CNR Rao's Chemistry Colloquium (beginning at 16:30 in Wetherill Hall room 104)	