

Preliminary Program Agenda
JSPS-DST Asian Academic Seminar 2010

Recent advances in the study of clusters, nanomaterials and surfaces with new properties and functions

Monday, November 29 – Saturday, December 4, 2010

Saha Institute of Nuclear Physics, Kolkata, India

Agenda

Monday, November 29	
9:00 - 9:30 Registration	
9:30-10:00 Opening Ceremony	
Welcome address: Prof. C.N.R.Rao, Prof.M.K.Sanyal, Prof.Y.Iwasawa, Dr. Naveen Vasishta, Representative of DST, Representative of JSPS(not yet determined) , Dr. Thirumalachari Ramasami	
10:00-10:45 Lecture 1	Inaugural Lecture by Prof.C.N.R.Rao, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore "Novel Aspects of Graphene and Nanotubes"
10:45-11:15 Break	
Session 1: Surface and Catalyst	
11:15-11:55 Lecture 2	Prof. Milan K. Sanyal, Saha Institute of Nuclear Physics, Kolkata "Novel physical properties of Langmuir monolayer covered silicon surface"
11:55-12:35 Lecture 3	Prof. Yasuhiro Iwasawa, The University of Electro-Communications "Design and in situ characterization of catalysts and surfaces including PEM Fuel cells"
12:35-13:50 Lunch	
13:50-14:30 Lecture 4	Dr. Mannepalli Lakshmi Kantam, Indian Institute of Chemical Technology, Hyderabad "Shape Dependent Nanocatalysis"
14:30-15:10 Lecture 5	Dr. Satoshi Muratsugu, Institute for Molecular Science "Design of Surface Molecularly Imprinted Ru Catalysts for Regioselective Epoxidation of Limonene"
15:10-15:40 Break	
15:40-16:20 Lecture 6	Prof. Pushan Ayyub, Tata Institute for Fundamental Research, Mumbai "Applications based on emergent properties of metal nanorod arrays"
16:20-17:00 Lecture 7	Prof. Ajay K. Sood, Indian Institute of Science, Bangalore "In-situ Raman and Transport studies on Graphene devices: New Results"

17:00-17:40 Lecture 8	Dr. G. Sundararajan, International Advanced Research Centre for Powder Metallurgy & New Materials "Nanostructured Coatings: An Overview"
18:15-20:15 Reception	
Tuesday, November 30	
Session 2: Nanostructure, Function	
9:30-10:10 Lecture 9	Prof. Ashutosh Sharma, Indian Institute of Technology, Kanpur "Nanostructures and Interfaces of Carbon and Polymer-metal Nanoparticles"
10:10-10:50 Lecture 10	Prof. Dipankar Das Sarma, Indian Institute of Science, Bangalore "Tuning photoluminescence in semiconductor nanocrystals"
10:50-11:20 Break	
11:20-12:00 Lecture 11	Dr. S M Yusuf, Bhabha Atomic Research Centre, Mumbai "Exploiting Magnetic Properties of Nanoparticles for their Possible Applications"
12:00-12:40 Lecture 12	Prof. Michio Niwano, Tohoku University "Applications of porous nanostructures to electronic devices"
12:40-13:40 Lunch	
13:40-14:20 Lecture 13	Dr. Taejoo Shin, PAL, POSTECH "Nanostructured materials for the Cathode Electrode of Rechargeable Lithium-ion Battery"
14:20-15:00 Lecture 14	Prof. R. Ranganathan, Saha Institute of Nuclear Physics, Kolkata "Magnetism of small particles- role of core-shell model"
15:00-15:40 lecture 15	Prof. Dhananjai Pandey, Banaras Hindu University "Isostructural Phase Transitions in Multiferroics"
15:40-16:10 Break	
16:10-18:10 Poster Presentation	
18:30-20:30 Banquet	
Wednesday, December 1	
Session 3: Analytical methods	
9:30-10:10 Lecture 15	Prof. E. Ingolf Lindau, Stanford University "X-Ray Free Electron Lasers as an Emerging Tool for Studies of Nanoclusters"
10:10-10:50 Lecture 16	Prof. Ian Robinson, University of College London "Surface Strains in Gold Nanocrystals Induced by Monolayer Formation"
10:50-11:20 Break	
11:20-11:50 Lecture 17	Dr. Osamu Shimomura, KEK-IMSS "High pressure study using synchrotron radiation and neutron"
11:50-12:30 Lecture 18	Dr. Junichiro Mizuki, Japan Atomic Energy Agency "Inelastic x-ray scattering applied to materials science"
12:30-13:40 Lunch	

13:40-14:20 Lecture 19	Prof. Masaharu Nomura, KEK-IMSS-PF “Recent progress and future prospects of XAFS experiment”
14:20-15:00 Lecture 20	Prof. Ki-bong Lee, POSTECH “Resonant soft x-ray scattering studies for magnetic thin films”
15:00-15:30 Break	
15:30-16:10 Lecture 21	Dr. Satyaban Bhunia “Some Aspects of Epitaxial Growth of Semiconductor Nanostructures”
16:10-16:50 Lecture 22	Prof. G. U. Kulkarni, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore “Au microrice as SERS substrate”
17:00-17:30 Awarding Ceremony for Poster Presentation Seminar Closing	
18:00-20:00 Dinner	
Thursday, December 2 - Saturday, December 4	
<p>Schooling "Synchrotron X-ray Techniques for NanoStructured Materials"</p> <p>Thursday, December 2</p> <p>9:30-10:40 Lecture 1 (Prof. E. Ingolf Lindau) “The Evolution of Synchrotron Radiation as a Photon Probe of Matter”</p> <p>10:40-11:10 Break</p> <p>11:10-12:20 Lecture 2 (Prof. Pushan Ayyub) "Study of local structure of nano-nanocomposites by EXAFS, TEM and Atom Probe Microscopy"</p> <p>12:20-13:20 Lunch</p> <p>13:20-14:30 Lecture 3 (Prof. Milan K. Sanyal) “SR reflection technique”</p> <p>14:30-15:00 Break</p> <p>15:00-16:10 Lecture 4 (Dr. Junichiro Mizuki) “Inelastic x-ray scattering technique”</p> <p>16:10-17:20 Lecture 5 (Dr. Taejoo Shin) “Basics and Applications of Grazing-incidence X-ray Scattering”</p> <p>18:00-20:00 Dinner</p>	<p>Visiting research institutes in India</p> <p>Note: Those who wish to visit Indian Institutes in Bangalore, Kolkata, Mumbai, Kanpur, Hyderabad, should arrange the visits by themselves and send their visit plan to the Secretariat at Saha Institute of Nuclear Physics mentioned below by October 15, Friday, 2010. DST will support ONE round-trip air ticket between Kolkata and an airport for the purpose of the visits.</p> <p>Avijit Das(Mr.) Surface Physics Division Saha Institute of Nuclear Physics, 1/AF, Bidhannagar, Kolkata 700064, India Ph: 0091-33-2337-5345 extn 1117 FAX: 0091-33-2337-4637 Email: aas2010.sinp@saha.ac.in</p>

<p>Friday, December 3</p> <p>9:30-10:40 Lecture 6 (Prof. Ian Robinson) “Coherent X-ray Diffraction: theory and practice”</p> <p>10:40-11:50 Lecture 7 (Prof. Dhananjai Pandey) “Basics of Powder Diffraction”</p> <p>11:50-12:50 Lunch</p> <p>12:50-14:00 Lecture 8 (Prof. Masaharu Nomura) “Basics of XAFS beamline and experiment”</p> <p>14:00-15:10 Lecture 9 (Dr. Chandan Mazumdar) “Powder Diffraction Data Analysis”</p> <p>15:10-15:40 Break</p> <p>15:40-16:50 Lecture 10(Dr. Krishnakumar S. R.Menon) “XAFS data analysis”</p> <p>16:50-18:00 Lecture 11 (Dr. Mrinmay Mukhopadhyay) “Indian beamline at Photon Factory, Japan”</p>	
<p>Saturday, December 4</p> <p>Visiting research institutes in India</p> <p>Note: Those who wish to visit Indian Institutes in Bangalore, Kolkata, Mumbai, Kanpur, Hyderabad, etc. should arrange the visits by themselves and send their visit plan to the Secretariat at Saha Institute of Nuclear Physics mentioned below by October 15, Friday, 2010. DST will support ONE round-trip air ticket between Kolkata and an airport for the purpose of the visits.</p> <p>Avijit Das(Mr.) Surface Physics Division Saha Institute of Nuclear Physics, 1/AF, Bidhannagar, Kolkata 700064, India Ph: 0091-33-2337-5345 extn 1117 FAX: 0091-33-2337-4637 Email: aas2010.sinp@saha.ac.in</p>	
<p>In the evening of December 2 - 4 Dinner</p>	