

14:00 – 14:30 | Presentation

Max Planck Institute of Microstructure Physics: A Tour of Experimental Department II – Science and Technology of Functional Nanomaterials

Prof. Dr. Dietrich Hesse (Max Planck Institute of Microstructure Physics Halle)

14:30 – 15:30 | Display and Presentation of Posters by Young Researchers

Contributors:

Dr. Somabrata Acharya (Indian Association for the Cultivation of Science Kolkata)

Dr. Oliver Clemens (TU Darmstadt)

Dr. Tamal Das (Max Planck Institute for Intelligent Systems, Stuttgart)

Dr. Dr. Michael Hirtz (Karlsruhe Institute of Technology)

Dr. Christiane Höppener (University of Münster)

Sunil K Makineni (IISc Bangalore)

Gayatri Paul (IIT Kharagpur)

Dr. Thomas Reisinger (Karlsruhe Institute of Technology)

Dr. Sri Sivakumar (IIT Kanpur)

Dr. Aneesh Tazhe Veetil (National Centre for Biological Sciences Bangalore)

15:30 – 15:45 | Coffee Break

15:45 – 16:30 | Round Table Discussion

Moderators:

Prof. Dr. Harald Fuchs and Prof. Dr. Indranil Manna

16:30 – 16:45 | Concluding Remarks

Prof. Dr. Krishan Lal, President of INSA

Prof. Dr. Gunnar Berg, Vice-President of Leopoldina

17:00 – 19:00 | Guided Tour (*Invitees only*)

Max Planck Institute of Microstructure Physics, Halle

Prof. Dr. Dietrich Hesse

Wednesday, 27 November 2013

10:00 – 12:00 | Guided Tour (*Invitees only*)

Fraunhofer Institute for Mechanics of Materials, Halle

Prof. Dr. Matthias Petzold and Prof. Dr. Thomas Höche

German National Academy of Sciences Leopoldina

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Indian National Science Academy (INSA)

The Indian National Science Academy (INSA), established in 1935, is an apex body of Indian scientists representing all branches of science with the objectives of promoting science in India and harnessing scientific knowledge for the cause of humanity and national welfare, safeguarding interest of Indian scientists, establishing formal linkages with international bodies, promoting international collaboration and giving opinion on national issues after debate and discussions.

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Leopoldina
Nationale Akademie
der Wissenschaften

Leopoldina-INSA Symposium on Nanoscience

25. – 26. November 2013

Nationale Akademie der Wissenschaften Leopoldina
Jägerberg 1
06108 Halle (Saale)

Joint Academies' Symposium of the
German National Academy of Sciences Leopoldina
and the Indian National Science Academy (INSA)

Programme

Monday, 25 November 2013

8:30 – 9:00 | Registration

9:00 – 9:20 | Welcome Addresses

Prof. Dr. Gunnar Berg, Vice-President of Leopoldina
Prof. Dr. Krishan Lal, President of INSA

9:20 – 10:05 | German Keynote Speech

**Nanostructured Amorphous Solids (Nanoglasses) –
The Door to a New Generation of Technologies?**
Prof. Dr. Herbert Gleiter (Karlsruhe Institute of Technology)

10:05 – 10:20 | Coffee Break

Session 1: Chemical and Materials

10:20 – 10:50

**Nanometric Phase Dispersed Metal Matrix Composites for
Structural Applications**
Prof. Dr. Indranil Manna (Indian Institute of Technology Kanpur)

10:50 – 11:20

**Organic Photovoltaics: With Tailored Nanomaterials on the
Move to a Future Technology**
Prof. Dr. Peter Bäuerle (University of Ulm)

11:20 – 11:50

**Nanofabrication beyond Top-down and Bottom-up: Power of
Self-Organization on Small Scales**
Prof. Dr. Ashutosh Sharma (Indian Institute of Technology
Kanpur)

11:50 – 12:20

**Inorganic Cells/Nanocapsules: Reactions Inside and With
their Environment**
Prof. Dr. Achim Müller (University of Bielefeld)

12:20 – 13:20 | Lunch

(parallel: Posters by Young Researchers on Display)

13:20 – 14:00 | Tour of Leopoldina Main Building and Signing of Leopoldina Guest Book

Session 2: Electronic and Functional

14:00 – 14:30

**Nano-Scale Spintronic Devices for Logic and Memory
Applications**
Prof. Dr. Roland Wiesendanger (University of Hamburg)

14:30 – 15:00

**Nano-Electro-Mechanical-Sensor-Systems for Healthcare and
Homeland Security Applications**
Prof. Dr. V. Ramgopal Rao (Indian Institute of Technology Bombay)

15:00 – 15:30

Surface Assisted Generation of Functional Organic Nanosystems
Prof. Dr. Harald Fuchs (University of Münster)

15:30 – 16:00

**Silicon Hybrid Nanostructures for Electronic and Photonic
Devices**
Prof. Dr. Samit K. Ray (Indian Institute of Technology Kharagpur)

16:00 – 16:30 | Coffee Break

Session 3: Biomedical and Biotechnology

16:30 – 17:00

Biomicrofluidics
Prof. Dr. Suman Chakraborty (Indian Institute of Technology
Kharagpur)

17:00 – 17:30

**The Nanoscience Approach to Force and Function of Bio-
molecules**
Prof. Dr. Hermann Gaub (Ludwig-Maximilians University Munich)

17:30 – 18:00 | Wrap-up Day 1

Moderators: Prof. Dr. Harald Fuchs and Prof. Dr. Indranil Manna

18:30 | Conference Dinner *(Invitees only)*

MoritzKunstCafé | Friedemann-Bach-Platz 5 | 06108 Halle (Saale)

Tuesday, 26 November 2013

9:00 – 9:45 | Indian Keynote Speech

**Electronic and Opto-Electronic Measurements on Single
Nanowire Devices**
Prof. Dr. Arup K. Raychaudhuri (S.N. Bose National Centre
for Basic Sciences Kolkata)

Session 3: Biomedical and Biotechnology (continued)

9:45 – 10:15

Synthetic DNA Devices in Living Systems
Dr. Yamuna Krishnan (National Centre for Biological Sciences
Bangalore)

10:00 – 10:45

**Geometrical and Mechanical Cues Guide Collective Cell
Migration**
Prof. Dr. Joachim Spatz (Max Planck Institute for Intelligent
Systems, Stuttgart)

10:45 – 11:00 | Coffee Break

Session 4: Mechanical and Structural

11:00 – 11:30

Tunable Nanostructures
Prof. Dr. Horst Hahn (Karlsruhe Institute of Technology)

11:30 – 12:00

**Deformation and Fracture in Amorphous and Nano-
crystalline Alloys**
Prof. Dr. Upadrasta Ramamurty (Indian Institute of Science
Bangalore)

12:00 – 12:30

**Ultrafine Grained and Nanocrystalline Materials: a
Pathway towards Materials with High Strength and Large
Ductility?**
Prof. Dr. Gerhard Wilde (University of Münster)

12:30 – 13:00

**Development of Structural Materials through Newer
Approaches**
Prof. Dr. Kamanio Chattopadhyay (Indian Institute of
Science Bangalore)

13:00 – 14:00 | Lunch

(Posters by Young Researchers on Display – continued)

