

Science Academies Lecture Workshop

On

Magnetic and Optical Properties of Molecular Materials: Principles and Applications

October 19 - 21, 2016



Organized by:



Department of Chemical Sciences
Tezpur University
Napaam-784028, Assam

Sponsored by



IASc



INSA



NASI

How to apply

University/college teachers and students at post graduate and research level are invited to apply for participation.

Please write to the coordinator giving your educational qualifications, address for communication, mobile number & e-mail address to the workshop coordinator by post/ e-mail on or before **10th October, 2016**.

No TA/DA will be provided to the participants.

Speakers

Professor K. L. Narasimhan,
IIT Bombay, Mumbai

Professor P. K. Das,
IISc, Bengaluru

Dr. Sheela K. Ramasesha,
IISc, Bengaluru

Professor Satish Patil,
IISc, Bengaluru

Dr. V. R. Supradeepa,
IISc, Bengaluru

Professor S. Ramasesha,
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Coordinator

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Indian Academy of Sciences

The *Indian Academy of Sciences* (IASc), Bangalore was founded in 1934 by C. V. Raman. Its objectives include promoting the progress of science in pure and applied branches. Major activities include organizing meetings for discussions on important topics, publication of scientific journals, recognizing scientific talent, improvement of science education and taking up other issues of concern to the scientific community.

Indian National Science Academy

The *Indian National Science Academy* (INSA), New Delhi founded in 1935 is a premier science academy in the country, INSA plays crucial role in promoting, recognizing and rewarding excellence.

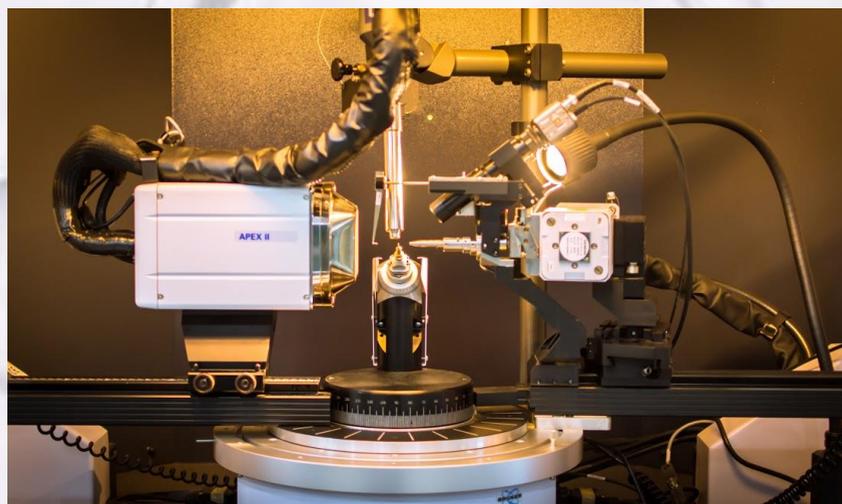
National Academy of Sciences

The *National Academy of Sciences* (NASI), Allahabad was founded in 1930. The main objective of the academy is to provide a national forum for the publication of research work carried out by Indian scientists.

Tezpur University

Tezpur University (TU) was established by an Act of Parliament in 1994. The main objective of this Central University is to offer courses and promote research in areas which are of special and direct relevance to the region and in emerging areas in Science and Technology.

TU was conferred Visitors Best University 2016 award and was accredited with "A" Grade by **NAAC**.



Objectives of the Workshop

The aim of the proposed workshop is to introduce the basic concepts in magnetism such as exchange mechanisms, cooperative magnetic phenomena, single molecule and molecular magnets. In the realm of optical properties topics such as light-matter interaction, electron states in molecules and polymers, linear and nonlinear optical phenomena, electronic processes in devices will be covered. There will also be talks on molecular electronic devices, synthesizing polymers for niche applications and harnessing solar energy through photovoltaics.

Topics to be covered

1. Light-matter interactions. Introduction to Light sources and time resolved spectroscopies.
2. Origin of magnetic forces. Classification of Magnetic Materials. Magnetic Exchange and Molecular Magnetism.
3. Nonlinear Optic Phenomena in molecular materials.
4. Molecular Optical Devices.
5. Synthetic strategies for device molecules.
6. Harvesting solar energy.