

1. Name: Dr. Dilip Kumar Maiti

2. Designation and Present Institution: Reader in Chemistry, Department of Chemistry, University of Calcutta

3. Postal Address for Communication: Department of Chemistry, University College of Science, University of Calcutta, 92, A. P. C. Road, Kolkata-700009

4. Phone Number: (033) 2350-9937/-1014/-1857 (Extn. 439), 9433379965 (Cell)

5. Fax Number: (033) 2351-9755

6. E-mail address: maitidk@yahoo.com

7. Brief account of your research interests with special focus on Nano Science and Technology (strictly within 300 words):

- ▶ **Design and Preparation of Metal-Ligand Complex Catalysts and Nanoreactors (Aqueous Micelles and Inverted Micelles) for Asymmetric Catalysis, Synthesis of Chiral Heterocycles and Transformations of Carbohydrates**
- ▶ **Generation of APTES-Modified Mesoporous Silica –Anchored Metal-Ligand Complexes as Heterogeneous Catalysts for Organic Transformation Reactions with Special Reference to Asymmetric Catalysis**
- ▶ **Synthesis of Sugar-Based Heterocycles and Studies of Their Organogel, Liquid Crystal and Fluorescent Sensing Properties**
- ▶ **Design and Synthesis of Low Molecular Mass Organo Nanomaterials, Their Characterization and Applications as Optical and Optoelectronic Nanodevices (Light Emitting Diodes, Fluorescent Sensors, Charge Transportation etc)**
- ▶ **Generation of Micelle Stabilized Metallic Nanomaterials (Cu, Ag, Au, Ni etc.) by Designed Surfactants and Their Application in Cycloisomerization and Tandem Oxidative Cyclization Reaction towards Stereoselective Synthesis of Heterocycles**

8. Keywords related to your research interests: **Aqueous Micelles as Nanoreactors (Homogeneous Catalyst), Mesoporous Materials as Nanoreactors (Heterogeneous Catalyst), Low Molecular Mass Organo Nanomaterials (LMON), Organogel, Organo Nanodevices, Florescent Sensor, Light Emitting Diodes, Enantioselective and Diastereoselective Catalysis Reactions.**