



Department of Chemistry
Chemistry inhouse symposium (CiHS-2020)
Indian Institute of Technology Madras



Day one

03-12-2020, Thursday

2:00 – 2:30 PM

Inauguration

Invocation

Address by the Convener, CiHS 2020

Address by the Head of the Department

Inaugural address by the Director, IIT Madras

Vote of thanks by the Co-Convener, CiHS 2020

2:30 – 3:45 PM **Session I** **Chairperson: Prof. Archita Patnaik**

2:30 – 2:45 PM **SIL1** Dr. Hema Chandra Kotamarthi

Title: Deciphering the chemo-mechanical coupling mechanisms of ATP-dependent enzymes using single-molecule force spectroscopy

2:45 – 3:00 PM **SOP1** Rintu Robert (KV)

Title: Syntheses and characterization of new quaternary phosphates, $\text{Sr}_3\text{Nb}_2\text{P}_2\text{O}_{13}$ and $\text{Sr}_3\text{Ta}_2\text{P}_2\text{O}_{13}$

3:00 – 3:30 PM **IL1** Prof. Debashis Chakraborty

Title: Subtle Features in Lactide Polymerization: Effect of Metal, Ligand(s) and Geometry of Catalyst in PLA Synthesis

3:30 – 3:45 PM **SOP2** Mr. B. Ramesh (MJM)

Title: Transition-Metal-Catalyzed Functionalization of Substituted Aromatics with Sulfonyl Chlorides or Alkenes



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4:00 – 5:15 PM Session II Chairperson: Prof. K. Vidyasagar

4:00 – 4:15 PM SOP3 Mr. Debayan Roy (BB)

Title: Functionalization of inactivated C(*sp*³)-H bond by Brønsted acid catalyzed alkynyl Prins annulation and further studies

4:15 – 4:30 PM SOP4 Mr. Rajeev Chand Nishad (AR)

Title: Poly(N-Heterocyclic Carbene) Ligands: Applications in the Construction of Self-Assembled Molecular Architectures and Heterobimetallic Catalysis

4:30 – 4:45 PM SOP5 Mr. V. Surya Kumar (PS)

Title: Emerging trends in degradation of pharmaceuticals in aqueous media and new challenges in development of ordered mesoporous titania photocatalyst

4:45 – 5:15 PM IL2 Prof. Edamana Prasad

Title: Study of Fast Reaction Kinetics in Quantum Dots Using Transient Absorption Spectroscopy

5:45 – 7:00PM Session III Chairperson: Prof. K. Mangala Sunder

Keynote Lecture by Prof. Krishnan Raghavachari

Title: G4 Accuracy at DFT Cost: Eliminating Systematic Errors in DFT to Derive Accurate Energies for Complex Chemical Processes



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Day two

04-12-2020, Friday

9:30 – 10:45 AM

Session IV Chairperson: Prof. G. Sekar

9:30 – 9:45 AM

SIL2 Dr. Chaitanya Sharma Yamijala

Title: Adiabatic and Nonadiabatic dynamics: Applications in Catalysis, Batteries, and Organic Photovoltaics

9:45 – 10:00 AM

SOP6 Ms. K. Jayasree (KCM)

Title: Small coordination clusters: oligomerization, catalysis and magnetism

10:00 – 10:30 AM

IL3 Dr. P. Venkatakrishnan

Title: Coumarin[4]arenes: A Family of Fluorescent Macrocycles

10:30 – 10:45 AM

SOP7 Mr. Subham Pal (AD)

Title: Modeling Single-Nanoparticle Catalysis

