

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 Sess

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, Sr3Nb2P2O13 and Sr3Ta2P2O13

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

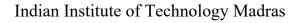
Mr. B. Ramesh (MJM)

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



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03-12-2020, Thursday

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(sp3)-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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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



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Day two

04-12-2020, Friday

11:00 AM- 12:15 PM Session V Chairperson: Prof. Sanjay Kumar

11:00 AM **-11:15** AM **SOP8** Ms. Tamil Selvi (KRR)

Title: Fuel and Energy Production Using Electrocatalyst from Spent Zinc/C Battery

11:15 AM– **11:45** AM IL4 Prof. K. Mangala Sunder

Title: Revisiting benzene-water and benzene-waterrare gas complexes microwave spectra with a Coriolis Coupling Model

11:45 AM **–12:00** PM **SOP9** Mr. Suman Dana (MB)

Title: Diversification of Arene Carboxylic Acid Feedstocks Through Ru(II)- Catalyzed C–H/C–H Coupling Reactions

12:00 PM – **12:15** PM SOP10 Mr. Abdul Sattar (AP)

Title: Controlling and Probing the Structured Interfaces of High-Performance Elastomers

12:30 – 1:00 PM CONCLUDING SESSION

Concluding remarks by Prof. S. Sankararaman

Address and Prize distribution by Prof. Ravindra Gettu,

Dean IC&SR

National Anthem