

Programme Schedule

ISMC-2022

December 7-10, 2022

Venue: DAE Convention Centre, Anushaktinagar, Mumbai-400 094

DAY 1

December 7, 2022 (Wednesday)

08:30 - 09:30	Registration	
09:30 - 10:00	Inaugural Function	
	Session Chair : Prof. P. D. Naik , <i>Dean, HBNI, Mumbai</i>	
10:00 - 10:40	Keynote Lecture	Prof. U. Kamachi Mudali , <i>Vice Chancellor, VIT Bhopal University</i> Materials Chemistry Towards Sustainability of Metals
10:40 - 11:15	Tea	
	Session Chair : Prof. Archana Sharma , <i>Director, BTG Group, BARC</i>	
11:15 - 11:50	Invited Talk IT-1	Prof. Sandeep Verma , <i>IIT-Kanpur</i> Bioactive Materials for Bone Tissue Engineering
11:50 - 12:25	Invited Talk IT-2(Online)	Prof. K. Ariga , <i>National Institute for Materials Science, Japan</i> From Molecular Machines to Stem Cells, All Controlled at Liquid Interfaces
12:25 - 13:00	Invited Talk IT-3	Prof. Suddhasatwa Basu , <i>CSIR-IMMT, Bhubaneswar</i> Low-cost microporous organic-inorganic hybrid metal phosphonates, Vanadates and Ferrites feasible for electrochemical water splitting
13:00 - 14:00	Lunch	
14:00 - 15:45	Poster Session PS-1	D-121 to 225, E-121 to 134 (113 posters) Coordinator: Prof. C. Majumder , <i>ChD, BARC</i>
15:45 - 16:15	Tea	
	Session Chair : Prof. Awadhesh Kumar , <i>Head, RPCD, BARC</i>	
16:15 - 16:50	Invited Talk IT-4	Prof. C. S. Gopinath , <i>NCL, Pune</i> Key Issues in Solar Water Splitting and Possible Approaches to Tackle Them
16:50 - 17:25	Short Lecture SL-1 (20 min)	Prof. S. N. Achary , <i>BARC, Mumbai</i> Development of materials based on structure-property correlation
	Short Lecture SL-2 (15 min)	Prof. Sebastian Peter , <i>JNCASR, Bengaluru</i> Carbon and Water Recycling for Sustainable Energy: From Fundamental Chemistry to Green Technologies
17:25 - 18:00	Invited Talk IT-5	Prof. N. Pradhan , <i>IACS, Kolkata</i> Photophysical Properties of Polyhedral Light Emitting Lead Halide Perovskite Nanocrystals
	Session Chair : Prof. A. K. Tyagi , <i>Director, Chemistry Group, BARC</i>	
18:30 - 19:30	Evening Lecture EL-1	Prof. R. Chidambaram <i>Chairman (Honorary), School for Advanced Studies in Nuclear Science and Technology, BARC</i> and <i>Former Principal Scientific Adviser (PSA) to the GoI & Chairman of the Scientific Advisory Committee to the Cabinet (SAC-C)</i>
20:00 - 21:00	Dinner	

DAY 2

December 8, 2022 (Thursday)

08:30 - 09:30	Registration	
	Session Chair : Prof. S. Kannan , <i>Director, RC&I Group, BARC</i>	
9:30 - 10:05	Invited Talk IT-6	Prof. Sulabha K. Kulkarni , <i>CMET, Pune</i> Materials through the Intersection of Physics, Chemistry and Biology
10:05 - 10:40	Short Lecture SL-3 (20 min)	Prof. Prafulla K. Jha , <i>MS University, Baroda</i> Non-trivial Topological Quantum Phases of Matter
	Short Lecture SL-4 (15 min)	Dr. Lalita Ledwani , <i>Manipal University, Jaipur</i> Dielectric Barrier Discharge (DBD) Non-thermal Air Plasma Treatment for Surface Modification of Textile Polymers
10:40 - 11:15	Tea	
	Session Chair : Prof. T. Mukherjee , <i>Former Director, Chemistry Group, BARC</i>	
11:15 - 11:50	Invited Talk IT-7	Prof. M. M. Shaijumon , <i>IISER, Thiruvananthapuram</i> Atomically Thin 2-Dimensional Materials for Electrocatalysis

11:50 - 12:25	Invited Talk IT-8	Prof. M. Jayakannan, IISER, Pune Synthetic Macromolecules Based Antimicrobial Agents
12:25 - 13:00	Invited Talk IT-9(Online)	Prof. M. Tanemura, Nagoya Institute of Technology, Japan Green synthesis of ion-induced metal-carbon nanocomposites for energy- and bio-related applications
13:00- 14:00	Lunch	
14 :00 - 15:45	Poster Session PS-2	C-121 to 140, F-121 to 149, H-121 to 133, K-121 to -137, N-121 to 146, O-129 to 139 (113 posters) Coordinator: Prof. R. Mishra, ChD, BARC
15:45 - 16:15	Tea	
Session Chair : Prof. T. K. Ghanty, Director, Bio-Science Group, BARC		
16:15 - 16:50	Invited Talk IT-10 (Online)	Prof. Wolfgang Weigand, Friedrich Schiller University Jena, Germany Photocatalytic Hydrogen Evolution Using [FeFe] Hydrogenase Mimics
16:50 - 17:25	Invited Talk IT-11	Prof. Amlan J. Pal, Director,UGC-DAE CSR, Indore Energy Landscape of Alloyed Semiconductors through a Combination of Scanning Tunneling Spectroscopy and Kelvin Probe Force Microscopy
17:25 - 18:00	Invited Talk IT-12 (Online)	Prof. Cora Lind-Kovacs, The Univ. of Toledo, Toledo, USA Tuning Expansion and Phase Transition Behavior in the Scandium Tungstate Family
Session Chair : Prof. J. P. Mittal <i>Distinguished Professor & Chair, Academic Board, UM-DAE CEBS, Kalina</i>		
18:30 - 19:30	Evening Lecture EL-2	Prof. A. K. Tyagi <i>Director, Chemistry Group, BARC</i>
20:00 - 21:00	Dinner	

DAY 3

December 9, 2022 (Friday)

Session Chair : Prof. C. N. Patra, Head, ACD, BARC		
09:30 - 10:05	Invited Talk IT-13	Prof. Sandeep Kumar, Old Dominion University, VA, USA Sustainable conversion of microalgae to biofuels and biomaterials
10:05 - 10:40	Invited Talk IT-14	Prof. A. K. Tripathi, BARC, Mumbai Thermochemical Hydrogen Generation: Challenges and Opportunities
10:40 -11:15	Tea	
Session Chair : Prof. B. N. Jagatap, IIT-Mumbai		
11:15 - 11:50	Invited Talk IT-15	Prof. Alex Evilevitch, Lund University, Sweden Revealing mechanical transformation in Herpesvirus infected host cell nuclei
11:50 - 12:25	Technical Presentations	M/s PG Tech Pvt. Ltd. & M/s Sinsil International
12:25 - 13:00	Short Lecture SL-5 (15min)	Dr. Tokeer Ahmad, Jamia Milia Islamia, Delhi Designing Hetero-structured Nanocatalysts for Hydrogen Generation using Overall Water Splitting
	Short Lecture SL-6 (15min)	Dr. Rohit S Chauhan, KJ Somaiya College, Mumbai Roadmap to access the chalcogen protected nickel clusters
13:00- 14:00	Lunch	
14 :00 - 15:45	Poster Session PS-3	G-121 to 145, I-121 to-139, J-121 to 168, L-121 to 135, O-121 to 128 (112 posters) Coordinator: Prof. T. Bandyopadhyay, Ch.D, BARC
15:45 - 16:15	Tea	
Session Chair : Prof. S. K. Sarkar, Former Director, Chemistry Group, BARC		
16:15 - 16:50	Invited Talk IT-16 (Online)	Prof. Amparo Fuertes, Institute of Material Science of Barcelona (CSIC), Spain Nitride Tuning of Transition Metal Oxides
16:50 - 17:25	Invited Talk IT-17 (Online)	Prof. Karen J. Adler, Lund University, Sweden Nanomaterials Synthesis in Deep Eutectic Solvents
17:25 - 18:00	Short Lecture SL-7 (20min)	Dr. Angshuman Nag, IISER, Pune Noncovalent Interactions in Hybrid Perovskites: Noncentrosymmetry, Chirality and Stability
	Short Lecture-8 SL-8 (15min)	Dr. Vinita G Gupta, BARC, Mumbai Understanding the radiation response in ceramics
18:30 - 19:30	AGBM of SMC and SMC Award Distribution	
20:00 - 21:00	Dinner	

DAY 4

December 10, 2022 (Saturday)

Session Chair : Prof. H. N. Ghosh , <i>RPCD, BARC</i>		
09:30 - 10:05	Short Lecture SL-9 (20min)	Dr. V. Sudarsan , <i>BARC, Mumbai</i> Inorganic compounds as electroluminescent materials
	Short Lecture SL-10 (15min)	Dr. Sriparna Chatterjee , <i>CSIR-IMMT-Bhubaneshwar</i> Tuning of wetting behaviour of nanostructured surfaces towards frontier applications
10:05 - 10:40	Short Lecture SL-11 (15min)	Dr. Jitendra Bahadur , <i>BARC, Mumbai</i> Self-assembly of Multi-component Colloids: Pathway for Designing Hybrid Materials
	Short Lecture SL-12 (15min)	Dr. B. P. Mandal , <i>BARC, Mumbai</i> Engineering of cathode material in Li-S battery
10:40 - 11:15 Tea		
Session Chair : Prof. S. Adhikari , <i>Head, SIRD, BARC</i>		
11:15 - 11:50	Invited Talk IT-18	Prof. A. K. Arya , <i>Head, GAMD, BARC</i> A computational study of high pressure polymorphic transformations in monazite-type LaPO ₄
11:50 - 12:25	Invited Talk IT-19	Dr. Sandeep Nigam , <i>BARC, Mumbai</i> Rationally Capitalizing the Peculiar Outcomes for Energy Applications
12:25 - 13:00	Short Lecture SL-13 (15min)	Dr. K. C. Barick , <i>BARC, Mumbai</i> Surface Functionalisation of Nanostructures for Cancer Theranostics
13:00 - 14:00 Lunch		
14:00 - 15:45	Poster Session PS-4	A-122 to 156, B-121 to 197, M-121 to 122 (109 posters) Coordinator: Prof. S. Nath , <i>RPCD, BARC</i>
15:45 - 16:15 Tea		
Session Chair : Prof. D. K. Aswal , <i>Director, HS&EGroup, BARC</i>		
16:15 - 16:50	Short Lecture SL-14 (20min)	Dr. Ranjan Mittal , <i>BARC, Mumbai</i> Alkali Ion Dynamics in Solid Ionic conductors
	Short Lecture SL-15 (15min)	Dr. Rubel Chakravarty , <i>BARC, Mumbai</i> Synthesis of intrinsically radiolabelled nanoplatfoms for potential use in cancer theranostics
16:50 - 17:25 Valedictory Function		