

12TH ASIAN NETWORK FOR NATURAL AND UNNATURAL MATERIALS (ANNUM XII)



Organized by
Department of Chemistry, IIT Bombay
 B Nag Auditorium (Ground Floor)
 Victor Menezes Convention Centre (VMCC)



SATURDAY, 20/07/2024, DAY 1

0830-0900		Registration
0900-0930	Opening	Chair: Ruchi Anand, Head, Department of Chemistry, IIT Bombay
	Session	Welcome: Irishi N N Namboothiri, IIT Bombay
		Opening remarks: Ruchi Anand
		Inaugural address: Sachin Patwardhan, Dean R&D, IIT Bombay
		Comments/messages: Har Mohindra Chawla, IIT Delhi David Black, UNSW, Australia (recorded)
		Vote of thanks: Kamendra P Sharma, IIT Bombay
0930-1100	Session 1	Chair: Krishna P Kaliappan, IIT Bombay
0930-1000	IL 1	Chemically modified peptides via N-chloropeptides Yoshiji Takemoto, Kyoto University, Japan
1000-1030	IL 2	Novel routes to heterocycles via transition-metal free, electron catalyzed intramolecular C-heteroatom bond formation Hiriyakkanavar Ila, JNCASR Bangalore, India
1030-1100	IL 3	Metal phosphate materials for applications in energy and catalysis Ramaswamy Murugavel, IIT Bombay, India
1100-1110		Photo Session
1110-1130		Tea/Coffee Break
1130-1310	Session 2	Chair: Debabrata Maiti, IIT Bombay
1130-1200	IL 4	Thieme Lecture: Total synthesis of complex polycyclic alkaloids Takaaki Sato, Keio University, Japan
1200-1230	IL 5	Blending tradition with science: uncovering the hidden potentials of India's biodiversity K V Radhakrishnan, CSIR-NIIST Thiruvananthapuram, India
1230-1250	SIL 1	Transition-metal-catalyzed dehydrogenative annulation reactions: an easy access to polyheterocyclic systems Anil Kumar, BITS Pilani, India
1250-1310	SIL 2	Exploring carbazole's reactivity in oxidative coupling: insights and implications Venkatakrishnan Parthasarathy, IIT Madras, India
1310-1400		Lunch
1400-1530	Session 3	Chair: Prasenjit Ghosh, IIT Bombay
1400-1430	IL 6	Total synthesis of pseudoindoxyl class of natural products Chepuri V Ramana, CSIR-NCL Pune, India
1430-1500	IL 7	Synthesis and study of supramolecular interactions of chiral thiourea derivatives with optically pure analytes Ashutosh Bedekar, M S University of Baroda, India
1500-1520	SIL 3	Small molecule inhibitors/ligands for targeting cancer and infectious diseases Chelvam Venkatesh, IIT Indore, India
1520-1530	OP 1	Visible light mediated photoredox catalysis in organic transformations Ritu Kapoor, University of Allahabad, India
1530-1600		Tea/Coffee Break
1600-1730	Session 4	Chair: Har Mohindra Chawla, IIT Delhi
1600-1630	IL 8	Targeting antimicrobial resistance with quorum sensing inhibitors and antimicrobial peptide mimics Naresh Kumar, University of New South Wales, Australia

1630-1700	IL 9	Expanding discovery chemistry toolbox: from concept to practice Parthasarathi Das, IIT (ISM) Dhanbad, India
1700-1720	SIL 4	Liberation of high-value sialic acid from edible bird's nest processing by-products using novel neuraminidase Lim Seng Joe, Universiti Kebangsaan Malaysia, Malaysia
1720-1730	SOP 1-2	1) Highly scalable photoinduced synthesis of silanols: application in materials and pharmaceuticals Argha Saha, IIT Bombay, India 2) Access to polysubstituted furan derivatives via cascade oxy-palladation and hydrocarbofunctionalization of unactivated alkenes Shivam Pandey, IIT Bombay, India
1830-2100		Dinner (Guests and IITB Faculty)-Co-sponsor: TRESPA-BROEN-LAB
SUNDAY, 21/07/2024, DAY 2		
0900-1030	Session 1	Chair: Rakesh Kumar Parashar, Delhi University
0900-0930	IL 10	Digestibility and prebiotic potential of fucoidan from Malaysian brown seaweed (<i>Sargassum spp.</i>) Wan Aida Wan Mustapha, Universiti Kebangsaan Malaysia, Malaysia
0930-1000	IL 11	Recent advances in natural products as antiviral therapeutics against medically important positive-sense RNA viruses Justin Jang Hann Chu, National University of Singapore
1000-1020	SIL 5	What is hot about solar? Materials for solar-thermal energy conversion towards CO ₂ -free, sustainable 'green-heat' Chandramouli Subramaniam, IIT Bombay, India
1020-1030	OP 2	Development of a new class of potent and highly selective G protein-coupled receptor kinase 5 inhibitors Amol D Sonawane, Glenmark Life Sciences, Navi Mumbai, India
1030-1100		Tea/Coffee Break
1100-1250	Session 2	Chair: Sunil K Ghosh, BARC, Mumbai
1100-1130	IL 12	Identification of molecular signature in clonal spheroids in OSCC patients followed by therapeutic intervention by small molecule: a success story Vibha Tandon, CSIR-IICB, Kolkata, India
1130-1200	IL 13	Biological molecular motors in engineered systems Takahiro Nitta, Gifu University, Japan
1200-1230	IL 14	New approaches towards N-heterocycle synthesis Anil K Saikia, IIT Guwahati, India
1230-1250	SIL 6	Design and synthesis of imidazo[4,5-c]quinoline derivatives to modulate toll like receptor-7 agonistic activity and adjuvanticity Deepak Salunke, Panjab University, Chandigarh
1250-1350		Lunch
1350-1530	Session 3	Chair: Nand Kishore, IIT Bombay
1350-1420	IL 15	Understanding implications of alloying on the optical properties of bimetallic Ag-Pt plasmonic nanoparticles Murali Sastry, Monash University, Australia
1420-1450	IL 16	Metastable materials: defying the limits of conventional understanding A K Tyagi, Homi Bhabha National Institute, Mumbai, India
1450-1520	IL 17	Recent trends in carbonylation and multi-carbonylation reactions Bhalchandra M Bhanage, Institute of Chemical Technology Mumbai, India
1520-1530	SOP 3-4	3) Room temperature giant magnetoelectric coupling for magnetic energy harvesting in single phase {Co III 3 Dy III} molecular nanogenerator Deepanshu Chouhan, IIT Bombay, India 4) Total syntheses of discoipyrrole A, B and C Gaurav Dake, IIT Bombay, India
1530-1630		Tea/Coffee Break + Poster Session (Chair: Nagaraju Barsu, CSIR-NCL Pune)

1630-1820	Session 4	Chair: Rodney A Fernandes, IIT Bombay
1630-1700	IL 18	Activity of peptide mimics against influenza virus Mark Willcox, University of New South Wales, Australia
1700-1730	IL 19	Chiral supramolecular assemblies derived from polyaromatic-carbohydrate conjugates N Jayaraman, IISc Bangalore, India
1730-1800	IL 20	Amyloids for tissue engineering applications Samir K Maji, IIT Bombay, India
1800-1820	EL 1	Introduction to TEAM WILEY and Wiley journals Subhabrata Mukhopadhyay and Sneha Rhode, Wiley India/UK
1820-1830		Break
1830-1920	PL 1	Chair: Anindya Dutta, IIT Bombay
		Magic and science: the art of "ACTIVE" learning and research Anil Kumar, IIT Bombay, India
1930-2200		Dinner: Gulmohar Banquet Hall and Terrace (All Participants)
MONDAY, 22/07/2024, DAY 3		
0900-1110	Session 1	Chair: Maravanji S Balakrishna, IIT Bombay
0900-0930	IL 21	Photovoltaic properties of organic thin-film solar cells based on semiconducting polymers Yasushi Nishihara, Okayama University, Japan
0930-1000	IL 22	Harnessing C(sp ³)-H bonds with bifunctional reagents Akhila K Sahoo, University of Hyderabad, India
1000-1030	IL 23	Process research in pharma industry-proof of concept to commercialisation Sivakumar Rallapalli, R L Fine Chem Pvt Ltd, Bangalore, India
1030-1050	SIL 7	An improved stereodivergent and practical synthesis of α - β -pseudouridines Barát Viktor, A* STAR Institute of Sustainability for Chemicals, Energy and Environment, Singapore
1100-1110	OP 3	Dyedauxiliary group approach for visible light mediated photocatalyst-free organic reactions-the case of arylazo sulfones Ruchi Chawla, Motilal Nehru National Institute of Technology, Allahabad, India
1110-1130		Tea/Coffee Break
1130-1310	Session 2	Chair: Anil V Karnik, University of Mumbai
1130-1200	IL 24	Porous organic polymers (POPs): design, synthesis and application as heterogeneous catalytic materials Jarugu Narasimha Moorthy, IISER Thiruvananthapuram, India
1200-1230	IL 25	Enhancing Li ⁺ ion transportation in array-structured ceramic electrolyte for solid-state Li-ion batteries Chia-Chen Li, National Tsing Hua University, Taiwan
1230-1300	IL 26	Impact of plastic particle exposure to living organisms Suresh Valiyaveetil, National University of Singapore, Singapore
1300-1310	SOP 5-6	5) Resolution of polycyclic cage compounds and applications as chiral catalysts in asymmetric reactions Gangavara L Thejashree, IIT Bombay, India 6) Silica functionalized cobalt catalyst for bidirectional electrocatalytic activity in alkaline zinc-air batteries Sukanta Saha, IIT Bombay, India
1310-1400		Lunch
1400-1550	Session 3	Chair: Sambhu N Datta, IIT Bombay
1400-1430	IL 27	Polymer brush applications in lithium-ion batteries Jyh-Tsung Lee, National Sun Yat-sen University, Taiwan
1430-1500	IL 28	Application of ring-rearrangement metathesis in organic synthesis Sambasivarao Kotha, NMIMS, Mumbai
1500-1520	SIL 8	Solid-phase organic mechanochemistry: how effective and sustainable?

		Mainak Banerjee, BITS Pilani-Goa, India
1520-1540	SIL 9	Applications of computational chemistry in energetic materials research Neeraj Kumbhakarna, IIT Bombay, India
1540-1550	OP 4	Synthesis of new fluorinated building blocks: C-F bond activation and mechanistic investigations Tarun Kumar, Mohanlal Sukhadia University, Udaipur, India
1550-1610		Tea/Coffee Break
1610-1745	Session 4	Chair: Mamoru Koketsu, Gifu University
1610-1640	IL 29	Pyrrolidinyl peptide nucleic acid as an unnatural mimic of nucleic acids: synthesis, properties and applications Tirayut Vilaivan, Chulalongkorn University, Thailand
1640-1710	IL 30	Development of a diagnostic for tobacco consumption screening Santosh Noronha, IIT Bombay, India
1710-1730	SIL 10	Cu(OTf) ₂ loaded TiO ₂ nanomaterials catalysed solvent free synthesis of 1,2,3-triazoles Dinesh R Garud, Sir Parashurambhau College, Pune, India
1730-1745	SOP 7-9	7) Total synthesis of a structurally complex zwitterionic hexasaccharide repeating unit of PS B from bacteroides fragilis via one-pot glycosylation Krishna Puri, IIT Bombay, India 8) Piezoelectric energy harvesting by employing biocompatible ferroelectric molecular Cu(II) complexes Rajashi Halder, IIT Bombay, India 9) Large-area 2-D supramolecular polymers via controlled assembly Akshay Thorat, IIT Bombay, India
1745-1800	Concluding	Chair: Hiriya Kanavar Ila, JNCASR, Bangalore
		Opening remarks: Hiriya Kanavar Ila
	Session	Oral/poster presentation prize distribution
		Concluding remarks: Naresh Kumar, University of New South Wales, Australia
		Feedback
		Vote of thanks: Irishi N N Namboothiri, IIT Bombay
1800		High Tea

IL: Invited Lecture (25+5 = 30 min); SIL: Short Invited Lecture (17+3 = 20 min); PL: Popular Lecture (40+10 = 50 min); EL: Editor's Lecture (15+5 = 20 min); OP: Oral Presentation (8+2 = 10 min); SOP: Student Oral Presentation (4+1 = 5 min)

