

Advances in Organic Synthesis & Continuous Flow Technologies

12th February 2024



Aryabhatta Auditorium

Dr. Reddy's Institute of Life Sciences

University of Hyderabad Campus, Gachibowli, Hyderabad, INDIA.



Advances in Organic Synthesis & Continuous Flow Technologies

AGENDA

Time	Session
09:00 - 09:30	Registration
09:30 - 09:40	Welcome address by Dr. Srinivas Oruganti (Director, DRILS)
09:40 – 09:45	Session Chair Address – Prof. Manojit Pal (DRILS, Hyderabad)
09:45 – 10:30	Prof. Jérôme Lacour (Professor, Univ. of Geneva, Switzerland)
10:30 – 11:15	Mr. Vijay Kirpalani (Ex – President, FCS, India)
11:15 – 11:35	TEA BREAK
11:35 – 11:40	Session Chair Address – Dr. Rakeshwar Bandichhor (Dr. Reddy's, Hyderabad)
11:40 – 12:20	Dr. N. Lingaiah (Chief Scientist, Dept. of Catalysis, IICT, India)
12:20 – 13:00	Prof. Anil Kumar (Professor, Dept of Chemistry, IIT Bombay, India)
13:00 – 13:50	LUNCH BREAK
13:55 – 14:00	Session Chair Address – Dr. Satyanarayana Thirunahari (Laurus Labs, Hyderabad)
14:00 – 14:40	Prof. Ashwini Nangia (Dean, School of Chemistry, UoH, India)
14:40 – 15:20	Dr. Srividya Ramakrishnan (lobal Head – CDMO (DS), Aurigene Pharmaceutical Services Ltd., India)
15:20 – 16:00	Dr. Rajender Kumar (Sr. Director, Synthetics USP, India)
16:00 – 16:15	Closing remarks & Vote of thanks
16:15 Onwards	High Tea & Networking



DR. REDDY'S INSTITUTE OF LIFE SCIENCES

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Prof. JÉRÔME LACOUR PROFESSOR, UNIV. OF GENEVA, SWITZERLAND



Professor Jérôme Lacour is a distinguished scholar in Chemistry, whose academic voyage began at the École Normale Supérieure (Ulm, Paris), leading to a Ph.D. from the University of Texas at Austin under Prof. Philip D. Magnus. Following a prestigious post-doctoral stint at Harvard University with Prof. David A. Evans, he joined the University of Geneva's Organic Chemistry Department in 1995, where he currently holds a revered full professorship, specializing in asymmetric synthesis and catalysis. Professor Lacour's influence transcends academia; he's chaired international symposiums and served as President of the "Société Chimique de Genève," With over 240 publications and 340 lectures, his impact is profound and far-reaching. His exceptional contributions have earned him numerous accolades, including the prestigious Werner Prize and Medal from the Swiss Chemical Society, the Grammaticakis-Neuman Prize from the French Academy of Sciences, and the 2006 Holger Erdtman Lecturer honor at KTH, Sweden. Furthermore, he has held notable positions such as President of the Geneva Chemical Society and Chair of "Chirality 2008," the 20th International Symposium on Chirality.

TITLE: Stereoselective Synthesis & Catalysis With Reactive Metal Carbenes





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Mr. VIJAY KIRPALANI EX - PRESIDENT, FCS, INDIA



Mr. Vijay Kirpalani holds a B.E. in Chemical Engineering from Maharaja Sayajirao University, Baroda. He is renowned as the Founding President of the Flow Chemistry Society - India Chapter and is an expert in various domains including Process Intensification, Flow Chemistry, Bio-catalysis, and Process Design & Execution within cGMP HAPI/API/Pharma Formulation, Chemical, Fine-Chemical, Biotech & Nanotech Facilities. With experience spanning over 100 grassroots plants across 14 countries, he has successfully developed and commercialized over 200 processes.

In 2012, Mr. Kirpalani conceptualized and led a team as Director & Head, securing a Grant of Rs. 6.90 Cr from DSIR for pioneering work in Enzymes and Chemo-enzymatic methods for Chiral APIs & Intermediates, including the establishment of a cutting-edge biotech laboratory. He has also contributed significantly to organizations such as BARC, Bharat Petroleum, IPCL, United Phosphorous Ltd., and Baroda Productivity Council.

TITLE:





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Dr. N. LINGAIAH CHIEF SCIENTIST, DEPT. OF CATALYSIS, IICT, INDIA



Dr. N. Lingaiah obtained. B.Sc (1987) M.Sc, Chemistry (1989) from Osmania University, Hyderabad. He did Ph. D work at Indian Institute of Chemical Technology, Hyderabad and obtained Ph.D degree from Osmania University in 1995 in the area of catalysis. He worked as post doc at Korea Research Institute of Chemical Technology (KRICT), Taejon, South Korea (one year), Okayama University, Okayama, Japan (two and half years) and The Queens University of Belfast, UK (one year) before joining as scientist position at IICT, Hyderabad in the year 2001. Presently he is working as Principal Scientist at ICT, Hyderabad.

Dr. Lingaiah's specialization includes Synthesis, characterization and evaluation of various supported and unsupported heterapoly acids; Bi and tri reforming of methane and carbondioxide to hydrogen rich syngas; Catalytic Valorization of biomoss to value added chemicals; Ketonization reactions for the synthesis alkyl phenones; and vapour phase ammoxidation of alkyl aromatics to corresponding aromatic nitriles.

TITLE: Continuous Catalytic Processes For The Synthesis Of Fine Chemicals.





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Prof. ANIL KUMAR PROFESSOR, DEPT OF CHEMISTRY, IIT BOMBAY, INDIA



Anil Kumar is currently a Professor at IIT Bombay, in the Department of Chemistry. He also serves as President of the Society for Polymer Science, India. His group's research interests are in the area of Process Intensification, Optoelectronic Devices and Materials, Nanomaterials, Flavors & Fragrance, polymers, and Continuous Crystallization. His group has also developed many technologies including transfer of technology in the domain of handheld explosive sensors and continuous flow processes. For his contribution in this field, he has been awarded with the 2017 NASI-RIL Platinum Jubilee National Award for application-oriented innovations.

Apart from research, his other hobbies are teaching, sports, technical financial analysis, magic and music. He has developed an outreach program based on "Science & Magic" to promote teaching and practice of science among scientists, students, and research scholars. He has conducted more than 100 such workshops around the country.

TITLE: Continuous Flow Process: A New Paradigm In Process Intensification For Functional Materials





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Prof. ASHWINI NANGIA DEAN, SCHOOL OF CHEMISTRY, UNIV. OF HYDERABAD, INDIA



Prof. Ashwini Nangia, has commenced his academic journey with an MSc in Chemistry from IIT Kanpur in 1983. Following this, he pursued his Ph.D. at Yale University under the esteemed mentorship of Frederick E Ziegler, focusing on the intricate synthesis of sesquiterpene natural products. Dr. Nangia's academic endeavors have been marked by groundbreaking research contributions, particularly in the realms of crystal engineering and supramolecular chemistry. His pioneering work encompasses the synthesis of iridoid lactones, enzyme inhibitors, and steroid analogues, as well as the exploration of host-guest inclusion compounds and cocrystals, with profound implications for the pharmaceutical industry. His scholarly achievements have garnered widespread recognition, earning him esteemed fellowship memberships in institutions such as the Royal Society of Chemistry, Indian Academy of Sciences, and Indian National Science Academy. Additionally, he has been honored with prestigious awards including the Raja Ramanna Fellowship and JC Bose National Fellowship, underscoring his exceptional contributions to the field of chemistry and academia at large. Currently, he is working as the Dean of School of Chemistry at University of Hyderabad.

TITLE: Flow Chemistry: Selects from the Recent Literature





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Dr. SRIVIDYA RAMAKRISHNAN

GLOBAL HEAD - CDMO (DS), AURIGENE PHARMACEUTICAL SERVICES LTD., INDIA



Dr. Srividya Ramakrishnan holds a B.Tech in Chemical Engineering from the Indian Institute of Technology, Madras, and a Ph.D. from Princeton University. She began her career at Unilever Research in New Jersey and later joined Bristol-Myers Squibb's Process Research and Development group. In 2008, she moved to Dr. Reddy's Laboratories Ltd., where she excelled in API Process Engineering, specializing in flow chemistry, polymorph screening, and process analytical technologies. Currently serving as the Global Head of CDMO Drug Substance at Aurigene Pharmaceutical Services Ltd., Dr. Ramakrishnan is renowned for her expertise in advanced manufacturing technologies. She holds several publications and patents, alongside being an ASQ-certified Six Sigma Black Belt. Notably, as Chief Diversity Officer at Dr. Reddy's, she champions diversity, earning recognition for Leadership Commitment at UN Women India 2020 WEPs awards. Dr. Ramakrishnan is also featured in "WiSTEM 2021", an e-book by the Confederation of Indian Industry, highlighting women in STEM.

TITLE: Beyond reactions: Integrating downstream operations for continuous API manufacturing





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Dr. RAJENDER KUMAR Sr. DIRECTOR, SYNTHETICS USP



Dr. Rajender Kumar P, has thirty years of experience in Pharmaceutical Industry at different capacities. Currently, he is working as Sr. Director, Synthetic Laboratory at USP India Pvt. Ltd. Dr. Rajender Kumar started his career as a Process Development scientist of New Chemical Entities (NCEs) at Dr. Reddy's Research Foundation (DRF). After working for thirteen years at DRF, he moved to various organizations such as Sigma Aldrich, AstraZeneca India, PI Industries etc. Before joining USP he was the Vice President, Head of Chemistry at PI Industries. He is proficient with Process Research & Development and Process safety. He has expertise in design and execution of containment facilities for high potent drug substances, drug products, large scale chromatography and GMP facilities. He is a certified Project Manager. Established PMO set ups at different organizations and trained many project managers during his career.

TITLE: Pharmaceutical Continuous Manufacturing (PCM)- Flow Chemistry@usp-india





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Thank you

