6th International Conference on Emerging Advanced Nanomaterials (ICEAN-2026)

Detailed Program

Time	Date: 15th of November 2026
18:00-20:00	Registration (The Avenue at the NEX)
	Date: 16th of November 2026
	The Venue: The Arena at the NEX
From 7 am	Registration
8.45-9.15	Opening Ceremony (The Arena)
9.15-10.00	Plenary Lecture 1 Chair: Prof Craig Simmons Prof. Pulickel M. Ajayan, Rice University, U.S.A *Solid Phases of Carbon-Boron-Nitrogen Compositions*
10.00-10.20	Photo session & Coffee Break
10.20-11.00	Themed Lectures Chair: Prof PM Ajayan
	Themed Lecture 1 Prof. Dongyuan Zhao, Fudan University, China *Controllable Synthesis and Application of Mesoporous Crystalline Frameworks*
11.00-11.40	Themed Lecture 2 Prof. Debra Bernhardt, The University of Queensland, Australia *Ion Transport at Interfaces and in Nanostructured Materials*
11.40-12.20	Themed Lecture 3 Prof. Husam Niman Alshareef, King Abdullah University of Science and Technology, Saudi Arabia *MXenes for Energy Harvesting*
12.20-13.00	Themed Lecture 4 Prof. Dmitri Golberg, Queensland University of Technology, Australia *Nanomaterial Properties as Revealed by State-of-the-Art Methods of in situ TEM*
13.00-14.00	Lunch Break

	16th of November 2026					
	The Arena	**The Extra**	**The Vivid**	**The King St**	**The City View**	**The Game**
13.00-14.00	**Lunch**					
14.00-14.45	**Plenary Lecture 2** **Chair: Prof Debra Bernhardt** **Prof. Martina Stenzel, University of New South Wales, Australia** *Ultrasmall glycopolymer nanoparticles for drug delivery*					
Session	**2A** **Chair: Prof Neeraj Sharma**	**2B** **Chair: Prof Dmitri Golberg**	**2C** **Chair: Prof. Don Futaba**	**2D** **Chair: Prof Huai Yong Zhu**	**2E** **Chair: A/Prof Albert Fahrenbach**	**2F** **Chair: Prof Ji-Hyun Jang**
14.50 - 15.20	2A-KL-1: Caloric Effects in Charge-Spin-Lattice Coupled Transition-Metal Oxides. **Prof Yuichi Shimakawa**, Kyoto University, Japan	2B-KL-1: When Light Meets Sound: Photonic-Phononic Integration for the Next Generation of Signal Processing and Sensing **Prof Benjamin Eggleton,** The University of Sydney, Australia	2C-KL-1: Thermochemical Transformation of Graphene Oxide for Engineering the Future of Sustainable Technologies. **Prof Majumder Mainak**, Monash University, Australia	2D-KL-1: Nanostructure Engineering with Different Functionalities for Advanced Catalysis. **Prof Yanli Zhao,** Nanyang Technological University, Singapore	2E-KL-1: Surface-Engineered Liquid Metal Nanoparticles for Wearable Sensing and Wound Healing. **Prof. Guozhen Liu,** The Chinese University of Hong Kong, Shenzhen, China	2F-KL-1: Demystifying Mn-dopant Emission in Semiconductor QD Hosts. **Prof. D.D. Sarma,** Indian Institute of Science, India
15.20 - 15.45	2A-IL-1: Achieving Superior Stability in All-Solid-State Lithium Metal Batteries through Competitive Cation Coordination. **Prof. Peng Cao,** University of Auckland, New Zealand	2B-IL-1: Chiral Epitaxy: Enantioselective Growth of Chiral Nanowires on Low-Symmetry Two-Dimensional Materials. **Prof. Ernesto Joselevich,** Weizmann Institute of Science, Israel	2C-IL-1: Fabrication of Josephson junctions with topological materials. **Prof. Koji Ishibashi,** Pioneering Research Institute, Japan	2D-IL -1: Photocatalytic Conversion of CO_2 Using $ZnTa_2O_6$ photocatalyst. **Prof. Shoji Iguchi**, Kyoto University, Japan	2E-IL -1: Near-Infrared Hyperspectral Imaging and Machine Learning for Lipid Profiling and Early Prediction of Non-Alcoholic Liver Disease. **Prof. Kohei Soga,** Tokyo University of Science, Japan	2F-IL-1: Continuous tuning of the spin cycloid in multiferroic BiFeO3 thin films probed by neutron scattering. **Prof. Clemens Ulrich,** The University of New South Wales, Australia
15.45 – 16.10	2A-IL-2: Self-healing block copolymer electrolytes for stretchable Li-ion microbatteries. **Prof.**	2B-IL-2: Antiphase Boundary-controlled Domain Wall Motion and Electronic	2C-IL-2: Integration of III-V Nanowires on Si and Transistor Applications. **Prof. Katsuhiro**	2D-IL-2: Dynamic Restructuring in Cu–Ga Catalysts. **A/Prof Ken Chiang,** RMIT University, Australia	2E-IL-2: Multimodal immunofluorescence and elemental mass spectrometry imaging of biomolecules improved	2F-IL-2: Towards atomic resolution magnetic field mapping via four-dimensional scanning transmission electron

	Sebastien Maria, Aix-Marseille University, France	Transport. **A/Prof. Pankaj Sharma,** Flinders University, Australia	**Tomioka,** Hokkaido University, Japan		resolution from the micro- to the nanoscale. **A/Prof David Bishop,** University of Technology Sydney, Australia	microscopy. **Prof. Scott Findlay,** Monash University, Australia
16.10 – 16.35	2A-IL-3: Mechanisms of Structural Evolution in Lead-Free Halide Perovskites Uncovered by In Situ Multimodal Microscopy. **Dr Shery Chang,** University of New South Wales, Australia	2B-IL-3: LLMs and Cognitive AI for Nanomaterials Research. **Prof Yuan Miao,** Victoria University, Australia	2C-IL-3: Controlling Order and Dynamics in Solution-Processed Soft Functional Materials for flexible electronics. **Dr Kenjiro Fukuda,** The University of Osaka, Japan	2D-IL-3: Catalyst and Interface Engineering for Real Seawater Splitting: Activity, Selectivity, and Long-Term Stability. **A/Prof Ibrahim Khan,** University of Nottingham Ningbo, China	2E-IL-3: Single-Molecule Nanotechnologies: A Journey into Clinical Applications. **A/Prof Alain Wuethrich**, The University of Queensland, Australia	2F-IL-3: Soft Magnetic Materials for Inductive Power Transfer in Electrified Road Transport. **Dr. Shen Chong,** Victoria University of Wellington, New Zealand
16.35-16.50	**Coffee Break**					
	Chair: Prof Peng Cao	**Chair: Prof Yuan Miao**	**Chair: Prof Majumder Mainak**	**Chair: Prof Yanli Zhao**	**Chair: Prof. Guozhen Liu**	**Chair: Prof DD Sarma**
16.50- 17.15	2A-IL-4: Thermochemistry of Battery Materials and Devices. **Prof. Neeraj Sharma,** The University of New South Wales, Australia	2B-IL-4: Tuning the size and properties of Silver nanoparticles and its application as plasmonic back reflector in Thin film solar cells. **Prof. Pratima Agarwal,** Indian Institute of Technology Guwahati, India	2C-IL-4: Erbium in silicon and silicon carbide for integrated quantum photonics. **Prof. Sven Rogge**, University of New South Wales, Australia	2D-IL-4: Silver-nanoparticle Antenna-Reactor Photocatalysts for Ammonia Synthesis. **Prof. Huai Yong Zhu,** Queensland University of Technology, Australia	2E-IL-4: Self-assembling peptide hydrogels to avoiding tissue overgrowth within progenitor cell grafts. **Prof. David Nisbet,** The University of Melbourne, Australia	2F-IL-4: Impact of Heterojunction Interfaces on Carrier Dynamics in Organic and Perovskite Photovoltaics. **Prof. Hideo Ohkita,** Kyoto University, Japan
17.15-17.40	2A-IL-5: Surface reconstruction in carbonates with calcitic structure: when, why and how. **A/Prof Raffaella Demichelis,** Curtin University, Western Australia	2B-IL-5: Strategies to mitigate electrode fouling during electrochemical sensing **Dr. S. Alwarappan**, CSIR-Central Electrochemical Research Institute, India	2C-IL-5: Accelerating CNT Research Through Materials Insight and Experimental Ecosystems at AIST. **Dr. Don Futaba,** National Institute of Advance Industrial Science and Technology (AIST), Japan	2D-IL-5: Catalytic application of carbon-based nanomaterials with variation of chemical structures. **Prof. Sungjin Park,** Inha University, Republic of Korea	2E-IL -5: Prebiotic RNA Chemistry**. A/Prof. Albert Fahrenbach,** University of New South Wales, Australia	2F-IL-5: A Solar-Powered Evaporator based on Perovskite oxide. **Prof. Ji-Hyun Jang,** Ulsan National Institute of Science and Technology Republic of Korea

17.40-18.05	2A-IL-6: Engineering Sulfur Reaction Pathways for High-Energy Metal–Sulfur Batteries. **Dr Nana Wang,** University of Technology Sydney, Australia	2B-IL-6: Nanoscale Precipitation and Atomic-Scale Grain Boundary Chemistry in Direct-Aged Additively Manufactured 17-4 PH Stainless Steel. **Dr Vitor Rielli,** The University of New South Wales, Australia	2C-IL-6: Regulation of Biomolecular Liquid-Liquid Phase Separation with Butterfly-shaped Gold Nanomaterials. **Dr Nobeyama Tomohiro,** Kyoto University, Japan	2D-IL-6: Developing X-ray Based Strategies to Follow Redox Chemistry Across Space and Time. **Dr Rosalie Hocking,** University of Technology, Australia	2E-IL-6: Engineering Micro/Nanostructured Interfaces for Controlled Transport, Mechanobiology and Sensing. **Dr Navid Kashaninejad**, Griffith University, Australia	2F-IL-6: Revisiting Methylammonium-based Perovskite Solar Cells: from Scalable Methylamine Gas Treatment to Stability Improvement. **Prof. Tzu-Chien Wei,** National Tsing Hua University, China
18.05-18.30	2A-IL-7: Sustainable LFP Electrodes for Advanced Battery Systems. **Prof. Marzi Barghamadi,** Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	2B-IL-7: Silicon spin qubits with implanted single donor ions. **Dr Danni Holmes,** The University of New South Wales, Australia	2C-IL-7: Multi-Technique Surface Characterization of 2D Materials: Case Studies in Graphene and MAX Phases. **J.E. Mann,** Physical Electronics, United States of America	2D-IL-7: RF and Microwave Plasma for the Synthesis of Carbon Nanomaterials. **Prof Mohan Jacob,** James Cook University, Australia	2E-IL-7: Multifunctional Materials and Interfaces for Healthcare Applications**. Prof. Sandeep Kumar**, Punjab Engineering College, India	2F-IL-7: High Entropy Electrocatalyst Design for Battery Applications. **Dr Pramod Koshy,** The University of New South Wales, Australia
18.30-19.30	**Poster Session 1 (Posters should be placed before the lunch time)**					

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8.00-8.45	**Plenary Lecture 3** **Chair: Prof. Martina Stenzel** **Prof. George C. Schatz, Northwestern University, U.S.A** *The Exciting World of Plasmonic Nanoparticles*					
	3A **Chair: Prof Makoto Moriya**	**3B** **Chair: Prof Hideo Ohkita**	**3C** **Chair: Prof R. Jayavel**	**3D** **Chair: Prof Torben Daeneke**	**3E** **Prof Chia-Fu Chou**	**3F** **Chair: Prof John Kennedy**
8.50 - 9.20	3A-KL-1: Discovery of Solid Electrolytes with Distinct Structural Frameworks for All-Solid-State Batteries. **Prof. Seung-Tae Hong,** DGIST, Republic of Korea	3B-KL-1: Energy Challenges from a Materials Perspective. **Prof Rosei Federico,** University of Trieste, Italy	3C-IL-1 (Dr. Tomohisa Shimmachi - Clarivate)	3D-KL-1: Plasmonic Catalysis for Sustainable Energy Research. **Prof Jie Liu,** King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia	3E-KL-1: Architected and Translatable Biomaterial Platforms for Regenerative Medicine and Dynamic Biomedical Implants. **Prof Fariba Dehghani,** The University of Sydney, Australia	3F-TE-1: Magnon Drag: A New Route of Enhancing the Seebeck Coefficient. **Prof. Masao Ogata**, National Institute of Advanced Industrial Science and Technology (AIST), Japan
9.20 - 9.45	3A-IL-1: Interfacial Engineering for Metal-Based Rechargeable Batteries. **Prof Bin Luo**, The University of Queensland, Australia	3B-IL-1: Influence of encapsulating active ruthenium species for hydrogenation of carbon dioxide to formic acid in porous hollow spheres of silica. **Prof Tetsuo Umegaki,** Nihon University, Japan	3C-IL-2: From Single to Periodic Pulses: Fourier Expansion Analysis to Thermo-Reflectance Signal for Thermal Diffusivity Measurements. **Dr. Jiunn Jieh Lee,** NETZSCH-Gerätebau, Germany	3D-IL-1: Transformation of isosorbide to polyols over supported Rh catalysts. **Prof. Masazumi Tamura**, Kyoto University, Japan	3E-IL-1: Ancestral Single-Component Hymenopteran ProtoSilk with Enhanced Properties. **Prof Colin Jackson,** Australian National University, Australia	3F-TE-2: Structure-Property Relationships in Emerging Thermoelectric Chalcogenides and Phosphides. **Prof. David Berthebaud,** Nantes Université, CNRS, Institut des Matériaux de Nantes Jean Rouxel, France
9.45 - 10.10	3A-IL-2: Interfaces by Design: Unlocking Performance and Function in Advanced Composites Batteries. **James Randall**, Deakin University, Australia	3B-IL-2: From Colloidal Precision to Coherent Lattice Modes: Multiscale Engineering of Plasmonic Nanocubes. **Prof Jeong-Eun Park,** Gwangju Institute of Science and Technology (GIST), Republic of Korea	3C-IL-3: Advanced Characterisation for the Development and Adoption of Nanomaterials. **Dr Maxwell Moyle,** ATA Scientific Instruments, Australia	3D-IL-2: Reverse Water Gas Shift Reaction over Perovskite-type Oxide Catalysts. **Prof Hidenori Yahiro,** Ehime University, Japan	3E-IL-2: Biodegradable Zinc-Lithium-Copper Alloys for Orthopaedic Implants. **Dr Helen Xu,** University of Technology Sydney, Australia	3F-TE-3: Thermoelectric Materials and Devices Based on Carbon Nanotubes. **Prof Shohei Horike,** Kobe University, Japan
10.10 - 10.35	3A-IL-3: Advanced conversion-based	3B-IL-3: Engineering Energy-Transfer	3C-IL-4: The AI Revolution for PVD System Software	3D-IL-3: Molten salt synthesis of	3E-IL-3: Engineering Biocatalytic	3F-TE-4: Various thermoelectric device

	cathodes for aqueous Zn batteries. **Dr Junnan Hao,** Adelaide University, Australia	Pathways in Perovskite Nanomaterials. **Dr Manoj Sharma,** Monash University, Australia	from Boson Engineering/Nano Vacuum. **Dr James Carter,** Nanovacuum, Australia	heterogeneous catalysts for solar energy conversion: old chemistry for advanced materials. **Mu Xiao,** The University of Queensland, Australia	Nanomaterials for Precision Therapy and Biosensing. **Dr Jieying Liang,** The University of New South Wales, Australia	architectures for different applications. **Prof Woochul Kim,** Yonsei University, Seoul, South Korea
10.35 - 10.50	**Coffee Break**					
	Chair: Dr Yong Zhao	**Chair: Dr Manoj Sharma**	**Chair: Prof Masazumi Tamura**	**Chair: Prof Jie Liu**	**Chair: Prof Fariba Dehghani**	**Chair: Prof Woochul Kim**
10.50 - 11.15	3A-IL-4: Molecular Crystalline Electrolytes with Highly Selective Mg-Ion Conduction. **Prof Makoto Moriya,** Shizuoka University, Japan	3B-IL-4: Next-generation lipid nanoparticles (ngLNPs) inspired by Extracellular Vesicles for targeted, PEG-free, RNA delivery for vaccines and gene therapies. **Prof. Nigel McMillan,** Griffith University, Australia	3C-KL-1: The Magical Role of Quantum Dots in Batteries. **Prof Satish Ogale,** TCG-CREST and IISER Pune, India **(10.50 – 11.20)**	3D-IL-4: Liquid Metal Catalysts for Sustainable Chemical Transformations. **Prof Torben Daeneke,** RMIT University, Australia	3E-IL-4: Single-Component Photo-Crosslinked Mucin Hydrogels: A Self-Healing Mucus Mimetic for Antiviral Protection. **Prof. Chia-Fu Chou,** Institute of Physics, Academia Sinica, Taiwan	3F-TE-5: Thermoelectrics for Ambient Energy Harvesting. **Prof. Ady Suwardi,** The Chinese University of Hong Kong, Hong Kong SAR, China
11.15 - 11.40	3A-IL-5: Rethinking EV Battery End-of-Life Management amid Rising LFP Uptake: Implications for Import-Dependent Markets. **Prof. Mahdokht Shaibani,** RMIT University, Australia	3B-IL-5: Control of Position and Self-Assembly of Colloidal Quantum Dots for Quantum Information Devices and High-Performance Solar Cells. **Prof. Kohki Mukai,** Yokohama National University, Japan	3C-KL-2: Design of MOF Photocatalysts for Efficient H_2O_2 Production **Prof. Hiromi Yamashita,** The University of Osaka, Japan **(11.20 – 11.50)**	3D-IL-5: High-Entropy Intermetallics: Multifunctional Catalysts for Challenging Molecular Conversions. **Prof Shinya Furukawa,** The University of Osaka, Japan	3E-IL-5: From Intercalation Chemistry to Functional Biomaterials: Inorganic Nanohybrids for Biomedical Applications. **Prof. Goeun Choi,** Dankook University, Republic of Korea	3F-TE-6: Defect Control in Mg2Sn1-xGex Epitaxial Thin Films for Advanced Thermoelectric Applications. **Prof. Sakurai Takeaki,** University of Tsukuba, Japan
11.40 - 12.05	3A-IL-6: High-Throughput Synchrotron XRD and XAFS Characterization for Data-Driven Exploration of Energy-Storage Materials. **A/Prof Kenjiro Fujimoto,** Tokyo University of Science, Japan	3B-IL-6: Development of Organic Energy Materials. **Dr Kouki Oka,** Tohoku University, Japan	3C-KL-3: Adaptive Soft Robots of Liquid Crystal Elastomers. **Prof Yanlei Yu,** Fudan University, China **(11.50 – 12.20)**	3D-IL-6: Key Synthetic and Post-Synthetic Factors for Enhancing the Catalytic Performance of Zeolites with Newer Framework Topologies. **Prof Yoshihiro Kubota,** Yokohama National University, Japan	3E-IL-6: Upcycle food waste into cellulose nanofibers and their applications. **Dr Noriko Kanai,** Yokohama National University, Japan	3F-TE-7: Defect Architectures and Pressure-Associated Polymorph for High-Performance Thermoelectric Materials. **Prof In Chung, Seoul** National University, Republic of Korea
12.05 - 12.30	3A-IL-7: Anisotropic Mesoporous Nanocomposites. **Prof Xiaomin Li,** Fudan University, China	3B-IL-7: Design and Synthesis of POSS- and DDSQ-Based Thermally Stable Organic-Inorganic Hybrid Materials for	3C-KL-4: Zero-Emission Thermoelectrics for Solid-State Heat Management. **Prof Zhi-Gang Chen**,	3D-IL-7: From Instrument Development to Atomistic Understanding of	3E-IL-7: Low Volume, High Throughput Polymer Syntheses for Accelerating Discovery of Novel Biomaterials. **Dr**	3F-TE-8: Composable Neural Emulators Accelerate Thermoelectric Generator Design. **Dr**

		Electronic and Nanomaterials. **Prof Dongsoo Shin,** Changwon National University Busan, Republic of Korea	Queensland University of Technology, Australia **(12.20 – 12.50)**	Single-Atom Catalysts. **Dr Jiri Pavelec,** TU Wien, Viennajieh, Austria	**Jonathan Yeow,** The University of New South Wales, Australia	**Airan Li**, National Institute for Materials Science (NIMS), Japan
12.30 - 12.55	3A-IL-8: Nanoporous Silicon for High-Capacity and Durable Lithium Storage. **Prof Liang Zhou**, Wuhan University of Technology, China	3B-IL-8: A General One-Pot Route to Three-Dimensional Nanocrystal Superlattices. **Dr.Masaki Saruyama,** Kyoto University, Japan	3C-IL-1: Multi-Technique Surface Characterization of 2D Materials: Case Studies in Graphene and MAX Phases. J.E. Mann, Physical Electronics, United States of America (18.05 - 18.15)	3D-IL-8: High Yield and Sustainable Conversion Of Lignocellulosic Biomass To Graphene Via Pyrolysis And High Shear Vortex Fluidics. **Dr Elsa Antunes,** James Cook University, Australia	3E-IL-8: Plasma Bio-engineering: From Bioactive Interfaces to Advanced Biofabrication. **A/Prof Behnam Akhavan**, The University of Sydney / University of Newcastle, Australia	3F-TE-9: Axis-dependent conduction polarity of $Mg_3(Bi,Sb)_2$ for transverse thermoelectrics. **Dr Yosuke Goto,** National Institute of Advanced Industrial Science and Technology (AIST), Japan
12.55 - 13.20	3A-IL-9: Computational Investigation of Opipramol Dihydrochloride. **B.P. Siddaraju,** CIT Mandya, India	3B-IL-9: Nanostructured materials and designed interfaces in advanced electrical energy storage systems/batteries. **Prof. Sudeshna Chattopadhyay,** Indian Institute of Technology Indore, India		3D-IL-9: Tuning Catalytic Sites in Au/Mesoporous Silica Catalyst for Highly Efficient Hydrogenation of 4-Nitrophenol. **Dr Sivakumar Krishnan,** Meritorious Autonomous University of Puebla, Mexico		
13.10-14.00	**Lunch**					
14.00-14.45	**Plenary Lecture 4** **Chair: Prof. George C. Schatz** **Prof. Takashi Taniguchi, National Institute for Materials Science, Japan** *Single crystals growth of Diamond and Boron Nitride under high pressure and their impurity control for quantum sensing applications*					
	4A **Chair: A/Prof Kenjiro Fujimoto**	**4B** **Chair: Prof Dongsoo Shin**	**4C** **Chair: Prof Satish Ogale**	**4D** **Chair: Prof Hidenori Yahiro**	**4E** **Chair: Prof. Kohki Mukai**	**4F** **Chair: Prof. Sakurai Takeaki**
14.50 - 15.20	4A-KL-1: Synergistic Heterojunction Electrocatalysts for Renewable Chemistry. **Prof. Antonio Tricoli,** The University of Sydney, Australia	4B-KL-1: Synthesis, Shaping and Recycling of Nanostructured Materials using Sub- and Supercritical Solvo-/Hydrothermal Chemistry. **Prof Cyril Aymonier,** CNRS,	4C-KL-1: Surface-Dependent Adsorption of MTPO Corrosion Inhibitors on Fe(100) and Fe(110): A DFT Study. **Prof Feng Wang**, Swinburne University of Technology, Australia	4D-KL-1: Advanced Functional Materials for Sustainable Energy Conversion and Carbon Neutrality. **Prof Jiabao Yi**, King Fahd University of Petroleum and Minerals, Saudi Arabia	4E-IL-1: Additive Manufacturing of HAp/Col Porous Bodies and Accuracy Evaluation of Pore Structure using X-ray μ-CT. **Prof. Masanori Kikuchi,** National	4F-TE-1: Bi_2Te3-Based Thermoelectrics Revisited: From Materials Development to Module Engineering. **Prof. Michihiro Ohta,** National Institute of Advanced

		University of Bordeaux, France			Institute for Materials Science, Japan	Industrial Science and Technology (AIST), Japan
15.20 - 15.45	4A-IL-1: A Sustainable Pathway to 2-Hydroxyadipic Acid via Electrocatalytic Ring-Opening of Biomass-Derived FDCA. **Prof Chia-Yu Lin,** National Cheng Kung University, Taiwan	4B-IL-1: Microwave heating of laser-graphitised diamond. **Prof. Saulius Juodkazis,** The Institute of Science Tokyo, Japan	4C-KL-2: Carbon Nitrides: Next Generation Emitters for Electrochemiluminescence. **Prof Yuanjiang Zhang,** Southeast University, China **(15.20 - 15.50)**	4D-IL-1: Mixed-potential catalysis: Interfacial reaction fields for controlling catalytic rate and selectivity. **A/Prof. Kotaro Takeyasu,** Institute for Catalysis, Hokkaido University, Japan	4E-IL -2: Lighting up detection: Next generation biosensing and bioimaging using plasmonic nanohole arrays. **Dr Ying Zhu,** University of Technology Sydney, Australia	4F-TE-2: Thinner Peltier Sheets: A Building Block for the Better World. **Dr Norifusa Satoh,** National Institute for Materials Science (NIMS), Japan
15.45 - 16.10	4A-IL-2: Challenges in the development of free radical scavengers for durability enhancement of PEMFC devices. **Prof Taehyun Kwon,** Incheon National University, Republic of Korea	4B-IL-2: SiC-Grown Epitaxial Graphene: A Platform for Floquet Engineering and Molecular Spintronics. **Prof Paola Barbara,** Georgetown University, United states of America	4C-KL-3: Nanoengineered Materials and Coatings for Medicine and Beyond. **Prof. Krasimir Vasilev,** Flinders University, Australia **(15.50 – 16.20)**	4D-IL-2: Mesoporous Supraparticles: Synthesis and Applications. **Prof Zaiwang Zhao,** Inner Mongolia University, China	4E-IL-3: Molecular editing of amine-containing bioactive molecules. Prof **Kei Murakami,** Kwansei Gakuin University, Japan	4F-TE-3: Nano-Structured SiGe Alloys for Potential Integration into an Advanced RTG. **Dr Thierry Caillat,** California Institute of Technology, United States of America
16.10 - 16.35	4A-IL-3: Crystal Vacancy Engineering for High-Performance Electrocatalysis.**Prof Xiaoyan Jin,** University of Seoul, Republic of Korea	4B-IL-3: Raman scattering and Photoluminescence Enhancement Mechanisms in Ga/GaN/Graphene Hybrid Nanostructures. **Dr Tomas Sikola,** Brno University of Technology, Czech Republic		4D-IL-3: Engineering Catalytic Function through Two-Dimensional Nanoconfinement. **Dr Nitee Kumari,** Pohang University of Science and Technology (POSTECH), Republic of Korea	4E-IL-4: Beyond Dissolution: Silica-Based Drug Delivery and Cannabidiol Skin Penetration. **Prof. Alf-Garcia-Bennett,** Macquarie University, Australia	4F-TE-4: Development and Applications of STEM-Based Nanoscale Thermal Transport Characterization. **Dr Naoyuki Kawamoto,** National Institute for Materials Science, Japan
16.35 - 16.50	**Coffee Break**					
	Chair: Prof Taehyun Kwon	**Chair: Prof Paola Barbara**	**Chair: Prof Yuanjiang Zhang**	**Chair: A/Prof. Kotaro Takeyasu**	**Chair: Dr Ying Zhu**	**Chair: Dr Thierry Caillat**
16.50 - 17.15	4A-IL-4: Hydride-ion-conducting solid electrolyte enabling electrochemical NH_3 production. **Prof Genki Kobayashi,** Institute of Pioneering Research, Japan	4B-IL-4: Thermally Reversible Interconversion between Two Isomeric Forms of Silver Sulfide Magic-Size Clusters. **Prof. Guohua Jia,** Curtin University, Australia	4C-KL-4: Metal Organophosphate Molecules and Nanomaterials for Energy Applications and Catalysis. **Prof. R Murugavel**, Indian Institute of Technology Bombay, India **(16.50 - 17.20)**	4D-IL-4: Fullerene Electronic Buffer for Precision Catalysis. **Dr Youzhu Yuan,** Xiamen University, China	4E-IL -5: Alloy Phase Stability upon Electric Current Stressing. **Prof Shih-Kang Lin,** National Cheng Kung University, Taiwan	4F-TE-5: Vaporionic Thermoelectrics. **Dr Jing Cao,** Institute of Materials Research and Engineering, Agency for Science, Technology and Research, Singapore

17.15-17.40	4A-IL-5: Porous Metal-Organic Materials for Electrochemical CO2 Reduction. **Dr. Haolin Zhu, ,** Sun Yat-Sen University, China	4B-IL-5: Fabrication of Hybrid Electrode Systems Using Unique Inorganic Materials for Electrochemical Applications and Nanoenergy Technology. **Prof. Hyojong Yoo**, Hanyang University, Republic of South Korea	4C-KL-5: Copper-Based Materials for Low- to Medium-Temperature Thermoelectric Applications: Advances, Challenges, and Emerging Trends. **Prof John Kennedy,** GNS Science, New Zealand **(17.20 – 17.50)**	4D-IL-5: Conversion of rice bran-derived myo-inositol into phenolic compounds. **Dr Kiyoyuki Yamazaki**, National Institute of Advanced Industrial Science and Technology (AIST), Japan	4E-IL-6: Reconfigurable 2D Materials for Low-Energy Electronics. **Prof. Nikhil Medhekar,** Monash University, Australia	4F-TE-6: Plastic Inorganic Thermoelectric Materials: Linking Crystal Structure, Defects, and Deformation. **Dr Zhengyang Zhou,** Shanghai Institute of Ceramics, Chinese Academy of Sciences, China
17.40 - 18.05	4A-IL-6: Oxygen Evolution Reaction on Mn-Zr Binary Oxide-based Thin Film in Alkaline Medium. **A/Prof Matsuzawa Koichi,** Yokohama National University, Japan	4B-IL-6: New Generation Electron Microscopes Based on Ultrahigh Brightness Nanowire-emitter. **Dr Han Zhang,** National Institute for Materials Science, Japan	4C-KL-6: Advanced Nanostructured ceramic membrane electrochemical technologies for power-TO-X, carbon utilisation and sustainable fuel production. **Dr Gurpreet Kaur**, CSIRO, Australia **(17.50 – 18.20)**	4D-IL-6: Nanoparticle Design for Magnetically Induced Catalysis. **Dr Lucy Gloag,** The Australian National University, Australia	4E-IL-7: Coacervate-based Platforms for Intracellular Delivery of Biomacromolecules. **Dr Yoshimasa** Kawaguchi, Kyoto University, Japan	4F-OP-1: Phase-Pure Flexible MgAgSb Thermoelectrics with Exceptional Performance. **H. Zhao,** National Institute for Materials Science (NIMS), Japan **(17.40 - 17.50)** 4F-OP-2: Strain-mediated grain-boundary reconstruction unlocks high near-room-temperature thermoelectric performance in Mg3Sb2-based alloy. **G. Wu,** National Institute for Materials Science (NIMS), Japan **(17.50 - 18.00)** 4F-OP-3: ZnSb for cost-effective and sustainable thermoelectric generation. **X. Wu,** National Institute for Materials Science (NIMS), Japan **(18.00 - 18.10)**
18.05 - 18.30	4A-IL-7: Low voltage operating solid-state organic transistor sensors/biosensors. **Prof Soniya Yambem,** Queensland University of Technology, Australia	4B-IL-7: Bulk Nanobubbles in Water: Interfacial, Stability and Rheological Properties. **Prof Ahmad Jabbarzadeh,** The University of Sydney, Australia		4D-IL-7: Liquid Crystal-Passivated Gold Nanoparticles: Strategies for Widening the Layered Phase and Realizing a Technologically Relevant Nematic State. **Dr C.V. Yelamaggad**, Centre for Nano and Soft Matter Sciences (CeNS), India	4E-IL-8: Host-Guest and Association Interactions of Cucurbit[n]uril and Tiara[n]uril and Their Derivatives. **Dr Anthony Day**, University of New South Wales, Australia	
18.30-19.30	**Nobel Laureate Lecture I: Prof Danny Shechtman**					

	18th of November 2026					
	The Arena	**The Extra**	**The Vivid**	**The King St**	**The City View**	**The Game**
8.00-8.45	**Plenary Lecture 5** **Chair: Prof. Hui-Ming Cheng** **Prof Frank Caruso, University of Melbourne, Australia** *Leveraging Materials Chemistry to Direct Nanoparticles to Specific Organs*					
	5A **Chair: Prof. Yutaka Amao**	**5B** **Chair: Prof. Andrey Sukhorukov**	**5C** **Chair: Prof Yi-Hsuan Lai**	**5D** **Chair: Prof Sanjog Nagarkar**	**5E** **Chair: Prof. Yan Pang**	**5F** **Chair: Prof In Young Kim**
8.50-9.20	5A-KL-1: Next Aqueous Battery: A View of Redox Couples. **Prof. Dongliang Chao,** Fudan University, China	5B-KL-1: Carbon Dots for Photonic Conversion in Solar Cells. **Prof Conchi Ania,** Université d'Orléans, France	5C-KL-1: Multifunctional Photocatalysts for Sustainable Solar Fuels. **Prof Adam Lee,** Institute for Materials Research and Engineering, A*STAR, Singapore	5D-IITB-UON-1: Seeing the Invisible: Scanning Helium Atom Microscopy for Next Generation Materials. **Prof. Paul Dastoor,** University of Newcastle, Australia	5E-KL-1: From Nano-Bio Discovery to Diagnostic Translation: Lessons from an Evolving Academic Translation Ecosystem. **Prof Vipul Bansal,** RMIT University, Australia	5F-KL-1: Elastic Protein as a Driver of 3D Complex Architectures and Cell Performance. **Prof Anthony S. Weiss,** The University of Sydney, Australia
9.20-9.45	5A-IL-1: Non-Precious-Metal Oxygen Reduction Catalysts from Polyimides and Fourteen-Membered Macrocyclic Complexes. **Prof. Yuta Nabae,** The Institute of Science, Tokyo, Japan	5B-IL-1: Nucleation and growth of piezoelectric lead-free oxide thin films and nanostructured materials. **Prof. Mari-Ann Einarsrud,** Norwegian University of Science and Technology, Norway	5C-IL-1: Electric bias-free solar-to-hydrogen peroxide conversion in a photoelectrochemical cell using a covalent triazine framework photocathode in situ-deposited on a mesoporous ITO film. **Prof. Masayuki Yagi,** Niigata University, Japan	5D- IITB-UON-2: Optical Instabilities of Perovskite Crystals: Blink-in-Sync or Not To? **Prof. Arindam Chowdhury**, Indian Institute of Technology Bombay, India	5E-IL-1: Novel Designed Drug Delivery System by Using Nano-Prodrugs. **Prof Hitoshi Kasai,** Tohoku University, Japan	5F-IL-1: Spontaneous Resolution of Enantiomers in Gelation Is Opposite in Mechanism to Living Polymerization. **Prof. Kentaro Tashiro,** National Institute for Materials Science (NIMS), Japan
9.45-10.10	5A-IL-2: Ultra-thin materials for next-generation electronics and optoelectronics Technologies. **Prof. Sumeet Walia**, RMIT University, Australia	5B-IL-2: Synergistic Functionalities Arising from Dynamic Interfaces of Organic-Inorganic Hybrid Dendrimers. **Prof Kiyoshi Kanie,** Tohoku University, Japan	5C-IL-2: Hierarchical Architecture of Anisotropic Alkynyl-Protected Au22 Nanoclusters Enables Multifunctional Catalysis toward Photocatalytic Cross-Dehydrogenative Coupling. **A/Prof. Katsuhiro Isozaki,** Kyoto University, Japan	5D- IITB-UON-3: Anomalous Polarization Driven Quantum Confined Stark Effect in Halide Perovskite Polymer Quantum Structures for Single-Layer Electroluminescence. **Prof Aswani Yella,** Indian Institute of Technology Bombay, India	5E-IL-2: First Contact: Lipid Nanoparticles Orient and Restructure at Interfaces. **A/Prof Jiali Zhai**, RMIT University, Australia	5F-IL-2: Multi-material 3D printing: Additive manufacturing of electronics. **Prof Luke Connal,** Australian National University, Australia

10.10-10.35	5A-IL-3: Materials for Functional Liquid Wettability. **Prof Uttam Manna**, Indian Institute of Technology Guwahati, India	5B-IL-3: Microfluidic Methods for Controlled Mixing and In-Situ Monitoring of Nanomaterial Synthesis. **Prof Alan Tuncay,** Monash University, Australia	5C-IL-3: Geometrical Control and Functionalization of Anodically Formed Porous Gallium Oxide. **Dr. Toshiaki Kondo,** Aichi University of Technology , Japan	5D- IITB-UON-4: Supramolecularly Directed Confined Crystallization of Lamellar Carbon Nitride for Efficient Photocatalytic Hydrogen Generation. **Dr. Nithinraj P Dharmarajan,** University of Newcastle, Newcastle, Australia	5E-IL-3: Pretargeting for precise delivery of polymeric radiotherapeutics. **Dr Nicholas Fletcher,** University of Queensland Australia	5F-IL-3: **Prof. Nirmala Grace,** Vellore Institute of Technology, India
10.35-10.50	**Coffee Break**					
10.50 - 11.15	5A-IL-4: Visible light-driven fumarate production from gaseous CO_2 using $FeOOH/BiVO_4/CuInS_2$ tandem electrochemical system with biocatalyst. **Prof. Yutaka Amao,** Osaka Metropolitan University, Japan	5B-IL-4: Photon-Pair Generation and Quantum Measurements with Metasurfaces. **Prof. Andrey Sukhorukov**, Australian National University, Australia	5C-IL-4: Solar-Driven Organic Waste Valorisation using Earth-Abundant Photoactive Materials for Hydrogen and Value-Added Chemical Production. **Prof Yi-Hsuan Lai,** National Cheng Kung University, Taiwan	5D- IITB-UON-5: Designer Porous Liquids for Sustainable Chemical Conversions. **Prof Sanjog Nagarkar,** Indian Institute of Technology (IIT) Bombay, India	5E-IL-4: The Construction, Functionization and Application of Long-term Drug Delivery Systems for Ocular Diseases. **Prof. Yan Pang,** Shanghai Jiao Tong University, China	5F-IL-4: Phosphorus-Free Sb2S3GeS2 Sulfide Glass Electrolytes with an Exceptionally High Critical Current Density for All-Solid-State Batteries**. Prof In Young Kim,** Ewha Womans University, Republic of Korea
11.15 - 11.40	5A-IL-5: Rational Design of Three-Phase Interfaces for CO2 Electroreduction to Multi-Carbon Products. **Prof. Kazuhide Kamiya,** The University of Osaka, Japan	5B-IL-5: Metallosupramolecular Frameworks: A New Class of Hierarchical Materials. **Prof Adam Mechler,** La Trobe University, Australia	5C-IL-5: Green Hydrogen and Ammonia: Enabling the Decarbonization of Future Energy Systems. **Dr. Dattatray Dhawale**, CSIRO Energy, Australia	5D- IITB-UON-6: **A/Prof Sam Chen**, The University of Newcastle, Australia	5E-IL-5: Understanding the interactions of polymer nanomedicines with lipid membranes. **Dr Nathan Boase,** Queensland University of Technology, Australia	5F-IL-5: Novel Nanoporous (Supramolecular) Polymers for Molecular Separation. **Prof Yoshimitsu Itoh,** The University of Tokyo, Japan
11.40 - 12.05	5A-IL-6: Capillary-Fed Alkaline Water Electrolysis for Green Hydrogen Production. **Dr. Chong Yong Lee**, University of Wollongong, Australia	5B-IL-6: Engineering Nanostructured Antibody Systems: From Gold Conjugates to Complex Nanoarchitectures. **A/Prof Veysel Kayser,** The University of Sydney, Australia	5C-IL-6: Heterostructured two-dimensional nanocomposites for sustainable energy storage applications. **Prof R. Jayavel,** Anna University, India	5D- IITB-UON-7: Manufacturing of Next-Generation MOF/COF/Polymers/2D Materials via Continuous Mechanochemistry. **Prof Anil Kumar**, Indian Institute of Technology Bombay, India	5E-IL-6: Visualising Nanoparticle Extravasation across the Blood–Brain Barrier in Live Zebrafish. **Dr. Yiqing Lu,** Macquarie University, Australia	5F-IL-6: Bioinspired hydrogels based on high aspect ratio hectorite clays. **Prof Olli Ikkala,** Aalto University, Finland
12.05 - 12.30	5A-IL-7: Carbon Edge selective decoration of Pt for HOPG through substrate-enhanced electroless deposition.	5B-IL-7: Atom Probe Tomography of Nanostructured Alloys. **Dr. Andrew Breen**,	5C-IL-7: Green Ammonia Combustion: Technology Development and Demonstration Strategy in Korea. **Dr Byoung-Hwa**	5D- IITB-UON-8: Allenes in Metal catalyzed C-H activation Reactions**. Prof Chandra M.R. Volla,**	5E-IL-7: Smart Microneedle for Targeted Eradication of Deep Biofilm Infections and Wound Repair. **Dr. Hanif**	5F-IL-7: Collagen on Its Transition: A Nanoscale Hierarchy of Timescales. **Prof. Cameron Brown**,

	Dr. Qingfeng Zhai, University of New South Wales, Australia	University of New South Wales, Australia	**Lee,** Pusan National University, Republic of Korea	Indian Institute of Technology Bombay, India	Haidari, Flinders University, Australia	Queensland University of Technology, Australia
12.30 - 12.55	5A-IL-8: Dynamic Electrocatalysis Through High-Frequency Electromechanical Excitation. **A/Prof Amgad Rezk,** RMIT University, Australia	5B-IL-8: Understanding Catalysts and Ionomer Degradation in Hydrogen related Technologies. **Dr. Paulo Ferreira**, University of Lisbon, Portugal	5C-IL-8: Integrating Advanced Nanomaterials in Large-Scale Afforestation by Using Tech-Driven Planting to Cut Pakistan's Carbon Emissions. **Prof Bibi Saira Nouman,** Minhaj University, Pakistan	5D- IITB-UON-9: Optimization of interfaces by Selective Charge transport Layers for Stable and Scalable Wide Bandgap Perovskite Solar Cells. **Prof Dinesh Kabra,** Indian Institute of Technology Bombay, India	5E-IL-8: Mesoporous Silica to Stabilize/Destabilize Overloaded Amorphous Pharmaceuticals. **Dr Kohsaku Kawakami,** National Institute for Materials Science, Japan	5F-IL-8: Rapid, Sustained Copper-Mediated Deoxygenation for Open-Air Aqueous Controlled Radical Polymerization. **Dr Valentin Bobrin,** The University of Queensland, Australia
12.55 – 13.05	5A-OP-1: Post-Synthetic Sodium Insertion for Modulating the Near-Infrared Plasmonic Response of Tungsten Oxide Nanocrystals. **Merve N.G. Bicer,** RMIT University, Australia	5B-OP-1: Unlocking Photodetection Mode Switching from a Simple Lateral Design**. J. Yong**, University of Melbourne, Australia	5C-OP-1: Monodisperse and Size-modulable Optical Resonators from Synthetic Polymers by Inkjet Printing. **K. Dewi,** Tsukuba University, Japan		5E-OP-1: Effect of Catalyst Surface Hydrophilicity on Oxygen Evolution Reaction. **K.Oiwa,** University of Tsukuba, Japan	5F-OP-1: Ni-MOF as a Precursor for Highly Dispersed Ni in Mg-Based Hydrogen Storage Composites. **K. Tabata,** University of Tsukuba, Japan
13.10-14.00	**Lunch**					
14.00-14.45	**Plenary Lecture 6** **Chair: Prof Mauricio Terrones** **Prof. Hui-Ming Cheng, Shenzhen Institutes of Advanced Technology, China** *Exploration of new 2D materials*					
	6A **Chair: Prof. Kazuhide Kamiya**	**6B** **Chair: Prof Adam Mechler**	**6C** **Chair: Prof Masayuki Yagi**	**6D** **Chair: Prof Dinesh Kabra**	**6E** **Chair: A/Prof Jiali Zhai**	**6F** **Chair: Prof Yoshimitsu Itoh**
14.50 - 15.20	6A-KL-1: Rational Design of Energy-Functional 2D Nanohybrids. **Prof. Seong-Ju Hwang,** Yonsei University, Republic of Korea	6B-KL-1: Advancing MOF Simulations with Machine-Learned Potentials. **Prof Guillaume Maurin,** ICGM, University of Montpellier, CNRS, ENSCM, France	6C-KL-1: Water Tolerant Catalysts for Biomass Transformations. **Prof Karen Wilson,** Griffith University, Australia	6D- IITB-UON-1: Agonies and Ecstasies in Total Synthesis. **Prof K.P. Kaliappan,** Indian Institute of Technology Bombay, India	6E-KL-1: Nanocoating of Living Bacterial Therapeutics. **Prof Jinyao Liu,** Shanghai Jiao Tong University, China	6F-KL-1: From Nanomaterials to Molecular Intelligence: Transforming Diagnostics for Early, Rapid and On-the-Go Detection. **Prof Muhammad Shiddiky,** Charles Sturt University, Australia
15.20 - 15.45	6A-IL-1: Upcycling Biosolids into Hybrid Electrocatalysts for Electrolysers. **A/Prof.**	6B-IL-1: Three-Dimensional Mesoporous Graphene as a Confinement Framework	6C-IL-1: Surface Modification of Photocatalysts with Bimetallic Nanoparticles	6D-IITB-UON-2: Proton-Tuned Surface Chemistry Promotes Multicarbon Formation in Acidic CO2	6E-IL -1: Nanozymes and Polymers for Nitric Oxide Delivery. **Dr Rona**	6F-IL-1: Amorphous Conjugated Polymer Networks for

	Surbhi Sharma, Federation University, Australia	for Highly Dispersed Transition Metal Carbide Nanoparticles toward Efficient Hydrogen Evolution. **Prof. Hyun Jung,** Dongguk University, Republic of Korea	for Hydrogen Generation. **Prof. Hynd Remita,** Université Paris-Saclay, France	Electroreduction. **Dr Yong Zhao**, University of Newcastle, Australia	**Chandrawati,** University of New South Wales, Australia	Energy-Related Applications. **Prof Yuya Oaki,** Keio University, Japan
15.45 - 16.10	6A-IL-2: Minimizing Energy Loss in Electrocatalysts for Water Splitting. **Dr Wenxian Li,** University of New South Wales, Australia	6B-IL-2: Multi-Component Mesoporous Materials: Synthesis, Assembly and Applications. **Prof Zhen-An Qiao,** Jilin University, Changchun, China	6C-IL-2: Photocatalytic Energy Conversion using Nanostructured Semiconductors. **Prof Kei Noda,** Keio University, Yokohama, Japan	6D- IITB-UON-3: advancing mhat radical chemistry for carbo- and heterocycle synthesis. **Prof Santosh J. Gharpure**, Indian Institute of Technology (IIT) Bombay, India	6E-IL-2: Quantitative Surface Chemistry of Carbon Nanomaterials for Controlled Nanobiointeraction and Targeted Drug Delivery. **Dr. Yajuan Zou,** Okayama University, Japan	6F-IL-2: When Molecular Shape Governs Phase Separation: Bottlebrush Polymers for Ordered Structures and Soft Materials. **Dr Yoshihiro Yamauchi,** National Institute for Materials Science, Japan
16.10 - 16.35	6A-IL-3: Atomically precise metal clusters: from fundamentals to applications in catalysis and energy. **Dr Vladimir Golovko**, University of Canterbury, New Zealand	6B-IL-3: Electrospun Functional Materials for Advanced Biological Applications: From eDNA Capture to Biomineralization and Carotenoid Recovery. **Dr Yen Truong,** CSIRO Technology Research Unit, Victoria, Australia	6C-IL-3: Growing Synthetic Nacre: Simultaneous Printing and Assembly of Interlocking Building Blocks. **Dr Mohammad Mirkhalaf,** Queensland University of Technology Australia	6D- IITB-UON-4: 5,6-Diaryl Dipyrroethenes as Precursors for the Synthesis of Porphyrinoids and Coordination Chemistry of Acyclic Oligopyrrolic Ligands. **Prof Ravikanth Mangalampalli,** Indian Institute of Technology, Bombay	6E-IL-3: Molecular Precision: Targeting RNA–Protein Interfaces and Reprogramming Genomes with seekRNA. **Dr Sandro Ataide,** The University of Sydney, Australia	6F-IL-3: Development of Thermoplastic Protein Materials Using Discarded Feathers. **Dr Takashi Morinaga,** National Institute of Technology, Japan
16.35 - 16.50	**Coffee Break**					
16.50 - 17.15	6A-IL-4: Engineering Biomimetic Nanomaterials for Targeted Drug Delivery in TripleNegative Breast Cancer **A/Prof Pegah Varamini,** The University of Sydney, Australia	6B-IL-4: Selective Recovery of Uranyl Ions from Sea Water Using Covalent Organic Framework Membranes. **Prof Prabal Kumar Maiti,** Indian Institute of Science, India	6C-IL-4: Defect Evolution in Wide-Bandgap Kesterite Solar Cells Revealed by Advanced Multi-Scale Characterization. **Dr. Jialiang Huang,** University of New South Wales, Australia.	6D- IITB-UON-5: Mitigating First Cycle Sodium Loss in Hard Carbon Anodes through Additive Induced Presodiation. **Prof Srinivasan Ramakrishnan,** Indian Institute of Technology, Bombay	6E-IL-4: Sugar-Coating mRNA: Molecular Insights into Maltoheptaose-Based Encapsulation. **Dr Nevena Todorova,** RMIT University, Australia	6F-IL-4: High-Efficiency Actuation and Bionic Applications of Artificial Muscle Fibers. **Prof Jiangtao Di,** Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences, China
17.15 - 17.40	6A-IL-5: Polarization Engineering of Functional Materials for Next Generation Energy Conversion. **Dr Simrjit**	6B-IL-5: Artificial Nanostructure Design in Oxide Nanocomposites through Supersaturation Control. **Prof Yoshida Yutaka,** Nagoya University, Japan	6C-IL-5: Optically Coupled Advanced Photovoltaic Concepts for Efficiency Enhancement. **Dr Santosh Shrestha,** The University of New South Wales, Australia	6D- IITB-UON-6: Machine-Learning-Accelerated Design of Vanadium-Phosphate Glass Cathodes. **Prof. Elena Levchenko**, University of Newcastle, Australia	6E-IL-5: Digital Droplet Microfluidic Platforms for Nucleic Acid Diagnostics. **Dr Ming Li,** The University of New South Wales, Sydney, Australia	6F-IL-5: Self-Oscillation of Liquid Droplets with Excitable Dynamics Driven by Surfactant Self-Assembly and Chemical Control. **Dr Ai Kohata,**

	Singh, University of Ostrava, Czech Republic					Institute of Science Tokyo, Japan
17.40 - 18.05	6A-IL-6: Inorganic Nanosheet Membranes as Proton-Conducting Electrolytes for Fuel Cells. **Dr. Shintaro Ida, ,** Kumamoto University, Japan	6B-IL-6: Co-assembling Mesoporous ZIFs for Enhanced H2 Storage. **Dr Min Liu,** The University of Queensland, Australia	6C-IL-6: Direct fabrication of micron-scale structures using Super Inkjet **Dr Kazuhiro Murata,** SITechnology, Inc., Japan	6D- IITB-UON-7: Surface-Engineered Carbon Nitrides for Enhanced Photocatalytic Hydrogen Production. **Dr. Jae-Hun Yang,** The University of Newcastle, Australia	6E-IL -6: Advanced Bio-Inspired Nanomaterials for Cancer Theranostics: Integrating Targeted Delivery, 3D Models, and AI. **A/Prof Nanasaheb Thorat,** University of Limerick, Ireland	6F-IL-6: Enhancement of Electro-optic Response in AlScN Films. **Prof. Tomoaki Yamada,** Nagoya University, Japan
18.05-18.50	**Plenary Lecture 7** **Chair: Prof Rose Amal** **Prof Meifang Zhu**					
18.50-19.30	**Poster Session II**					

	19th of November 2026					
	The Arena	**The Extra**	**The Vivid**	**The King St**	**The City View**	**The Game**
8.00-8.45	**Plenary Lecture 8** **Chair: Prof. Taeghwan Hyeon** **Prof. Rose Amal, University of New South Wales, Australia** *Sunlight to X: Advanced Nanomaterials and Cooperative Catalytic Ensembles*					
	7A **Chair: Prof. Yun Liu**	**7B** **Chair: Prof Nunzio Motta**	**7C** **Chair: Prof Shaobin Wang**	**7D** **Chair: Prof. Anup Kumar Keshri**	**7E** **Chair: Prof. Amir Karton**	**7F** **Chair: Prof Yohei Yamamoto**
8.50 - 9.20	7A-AL-1: Liquid Metal Interfaces in Bio-applications. **Prof. Kourosh Kalantar-Zadeh,** The University of Sydney, Australia	7B-KL-1: Integrated CO2 Capture-Upgrading. **Prof Tianyi Ma,** RMIT University, Australia	7C-KL-1: Rapid Multiplexed Diagnostics: Scaling Silicon-Based Biosensor Technology. **Prof Madhu Bhaskaran,** RMIT University, Australia	7D-KL-1: Nanowire Array Materials and Devices for Optoelectronic Applications. **Prof Lan Fu**, Australian National University, Australia	7E-KL-1: Optimizing Data Extraction from Materials Science Literature: A Study of Tools Using Large Language Models **Prof Jeffrey Reimers,** University of Technology Sydney, Australia	7F-SACSEM-1: Recent Progress of Hydrogen Boride Nanosheets. **Prof Takahiro Kondo,** University of Tsukuba, Japan
9.20 - 9.45	7A-AL-2 (**Prof. Huanting Wang**) **(9.20 - 9.50)**	7B-IL-1: Momentum Microscopy for Characterisation of 2D Materials. **Prof. Sarah Harmer,** Flinders University, Australia	7C-IL-1: High entropy alloys for plasmonic application. **Prof. Yoshiaki Nishijima**, Yokohama National University, Japan	7D-IL-1: Conjugated organic materials for high-performance photodetectors: from molecular design to device applications. **Prof In Hwan Jung,** Hanyang University, Republic of Korea	7E-IL-1: Orbmol-v2: Learnable long-range electrostatics for universal molecular Simulation. **Prof Timothy Duignan,** Orbital Industries,	7F-SACSEM-2: Room-Temperature Hydrogen Adsorption in Porous Materials. **Prof Osamu Oki,** University of Tsukuba, Japan
9.45 - 10.10	7A-AL-3: Earth-Abundant Electrocatalysts for Hydrogen Energy Conversion. **Prof Chuan Zhao,** University of New South Wales, Australia **(9.50 - 10.20)**	7B-IL-2: 2D Covalent Thin Films for Light-Induced Energy Conversion. **Dr Paolo Giusto,** Max Planck Institute of Colloids and Interfaces, Germany	7C-IL-2: Ionic Nanoarchitectonics for Various Functional Devices, Including Neuromorphic Computing. **Prof Kazuya Terabe,** National Institute for Materials Science (NIMS), Japan	7D-IL-2: Vapour-Phase Synthesis of Two-Dimensional Transition Metal Dichalcogenides for Energy and Sensing Applications. **Prof. Anjana Devi,** Leibniz Institute for Solid State and Materials Research, TU Dresden, Germany	7E-IL-2: How Ligand Structure Affects the Colloidal Stability of Apolar Nanoparticles. **Dr. Asaph Widmer-Cooper**, The University of Sydney, Australia	7F-SACSEM-3: Hierarchically Porous Carbon Materials from Fullerene Crystals for Energy Storage Applications. **Dr Lok Kumar Shrestha,** National Institute for Materials Science (NIMS), Japan
10.10 - 10.35		7B-IL-3: Alloys and heterostructures of 2D TMDs. **Prof Ranjan Datta,** Jawaharlal Nehru Centre	7C-IL-3: Cryogenic Surface Engineering for Improved Superconducting Qubit Coherence. **Dr Maja**	7D-IL-3: Synthesis of Yolk@Shell Nanocrystals for Solar Hydrogen Production. **Prof Yung-**	7E-IL-3: Graphene Dimples. **Prof Natalie Thamwattana,** University of Newcastle, Australia	7F-SACSEM-4: The Slow Electronics Revolution: Long-Timescale Neuromorphic Devices

		for Advanced Scientific Research, India	**Cassidy,** University of New South Wales, Australia	**Jung Hsu,** National Yang Ming Chiao Tung University, Taiwan		and Reservoir Computing for Low-Power Edge AI**. Dr Isao Inoue**, National Institute of Advanced Industrial Science and Technology (AIST), Japan
10.35-10.50	**Coffee Break**					
	Chair: Prof Chuan Zhao	**Chair: Prof. Sarah Harmer**	**Chair: Prof. Yoshiaki Nishijima**	**Chair: Prof Madhu Bhaskaran**	**Chair: Prof Natalie Thamwattana**	**Chair: Prof Takahiro Kondo**
10.50 - 11.15	7A-AL-4: Plasma technologies providing new capabilities in biomedicine. **Prof Marcela Bilek,** University of Sydney, Australia **(10.50 - 11.20)**	7B-IL-4: Conversion of Epitaxial Graphene to 2D diamane on Silicon Carbide. **Prof Nunzio Motta,** Queensland University of Technology, Australia	7C-IL-4: Future directions for silicon solar cells. **Prof Daniel Macdonald,** The Australian National University, Australia	7D-IL-4: Recent Advances in Organic Narrow-Band Near-Infrared Photodetectors. **Prof Frank Nuesch,** Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland	7E-IL-4: Reactive Molecular Simulations of Catalytic Surfaces and Solid-Liquid Interfaces Using Neural Network Potentials. **Prof. Akira Nakayama**, The University of Tokyo, Japan	7F-SACSEM-5: Organic Electrochemical Transistors using π-ion gels: PIGT. **Prof Soh Kushida,** Tsukuba University, Japan
11.15 - 11.40	7A-AL-5 (**Prof Sean Li**) **(11.20 - 11.50)**	7B-IL-5: Gram-Scale Production of High-Quality 2D Materials**. Prof. Anup Kumar Keshri**, Indian Institute of Technology Patna, India	7C-IL-5 (**Dr James Blyth**)	7D-IL-5: Optical manipulation of diamond surfaces from mesoscopic pattern formation to sub-monolayer modification. **Prof. Rich Mildren,** Macquarie University, Australia	7E-IL-5: Theoretical examination of ionic liquids capable of maintaining long-lived electric fields. **Dr Peter Halat,** Monash University, Australia	7F-SACSEM-6: High-Performance Thermoelectric Materials & Devices for Power Generation and Cooling. **Dr Takao Mori**, National Institute for Materials Science (NIMS), Japan
11.40 - 12.05	7A-AL-6: Beyond the Flat Model: Structural Complexity and Functional Design in 2D Materials. **Prof. Yun Liu,** Australian National University, Australia **(11.50 - 12.20)**	7B-IL-6: Functionalised graphene oxide for high-purity ZBLAN precursor materials. **Dr Kwang Jun Lee,** Adelaide University, Australia	7C-IL-6: Towards Sustainable Plastic Additives. **Dr. George Vamvounis,** James Cook University, Australia	7D-IL-6: The search for stable and scalable high-performance semiconductors for silicon tandem solar cells. **Dr Robert Patterson**, University of New South Wales, Australia	7E-IL-6: Using Big Data to Stress-Test DFT and MLIP Methods Across the Chemical Space. **Dr. Amir Karton,** University of New England, Armidale, Australia	7F-SACSEM-7: Observation of novel hydrogen-rich hydride of TiFe based compounds. **Dr Kouji Sakaki,** National Institute of Advanced Industrial Science and Technology (AIST), Japan
12.05 - 12.30	7A-AL-7: Plastic waste transformation and degradation to value-added materials. **Prof. Shaobin Wang,** Adelaide University, Australia **(12.20 - 12.50)**	7B-IL-7: Reducing Critical Threshold for Electron-Hole Plasma in 2D Transition Metal Dichalcogenide Crystals. **Dr Masanobu Iwanaga,** National	7C-IL-7: Optoelectronic devices based on low dimensional nanomaterials. **Prof Dongming Sun**, Institute of Metal Research, China	7D-IL-7: Laser Ablation: A Versatile Tool for the Synthesis of Nanostructured Materials for Photonics Applications. **Prof Alika Khare**, Indian Institute of	7E-IL-7: Mechanistic Insights into π-Conjugation-Enhanced Excited-State Proton Transfer in Aromatic Urea Derivatives. **Dr. Yoshinobu**	7F-SACSEM-8: Heterogeneous hydrogenation of CO_2 to methanol catalyzed by a dinuclear iridium complex under gas-solid phase conditions. **Dr Yuichiro**

		Institute for Materials Science (NIMS), Japan		Technology Guwahati, India	**Nishimura,** University of Tsukuba, Japan	**Himeda,** National Institute of Advanced Industrial Science and Technology, Japan
12.30 - 12.55		7B-IL-8: Designing catalysts for photo-thermal conversions. **Dr. Emma Lovell,** University of New South Wales, Australia	7C-IL-8: Unique Structural Interaction Designs for High-Performance Organic and Perovskite Photovoltaic Devices. **Prof Wallace C.H. Choy,** The University of Hong Kong, Hong Kong	7D-IL-8: From Discovery to Dissemination: AI, Ethics, and Open Access in Scientific Publishing. **Dr Esther Levy,** Wiley	7E-IL-8: Computational Design of High-performance Materials for Energy Conversion and Storage. **Dr Jodie Yuwono,** University of New South Wales, Australia	7F-SACSEM-9: Boron-Doped Diamond as a Functional Electrode Material for Nanomaterial-Based Non-Enzymatic Biomarker Sensing. **Dr. Hiroshi Aoki,** National Institute of Advanced Industrial Science and Technology (AIST), Japan
12.55 - 13.20		7B-OP-1: Combined Surface Modification-Hybridization Approach for Stabilizing Silicon Nanoparticle Electrodes. **J.Y.Lee**, Yonsei University, Republic of Korea **(12.55 - 13.05)**	7C-OP-2: Selective Control of Crystal Defect Ionicity to Boost Electrocatalytic Nitrate Reduction. **K.E.Sung**, Yonsei University, Republic of Korea **(12.55 - 13.05)**	7D-OP-1: Lewis-Acidic Non-Metal-Doping-Assisted Optimization of Urea Oxidation Mechanism in Amorphous Metal Hydroxide. **S. Kim**, Yonsei University, Republic of Korea **(12.55 - 13.05)**		7F-SACSEM-10: Multi-Stimuli-Responsive Dynamic Crystals Based on Azobenzene Derivatives. **Dr Yasuo Norikane,** National Institute of Advanced Industrial Science and Technology (AIST), Japan
13.10 - 14.00	**Lunch**					
14.00-14.45	**Plenary Lecture 9** **Chair: Prof. Nam Trung** **Prof. Taeghwan Hyeon, Seoul National University, Republic of Korea** *Designing Single-atom Catalysts and Nanocatalysts for Hydrogen Production and Utilization*					
	8A **Chair: Prof Yung-Jung Hsu**	**8B** **Chair: Prof. Anup Kumar Keshri**	**8C** **Chair: Prof Masaki Mizuguchi**	**8D** **Chair: Dr. George Vamvounis**	**8E** **Chair: Prof. Akira Nakayama**	**8F** **Chair: Dr Takao Mori**
14.50 - 15.20	8A-AL-8: Flexible microfluidics and electronics for wearable preventive-care and wellness applications. **Prof. Nam Trung,** Queensland Quantum and Advanced Technologies Research	8B-KL-1: Approaches Toward High Power Density Redox Flow Battery. **Prof. Walid Daoud, University of Hong Kong**, Hong Kong	8C-KL-1: Electrochemical Prevention of Macrofouling Organisms on Marine Surfaces. **Prof Mats R Andersson,** Flinders University, Australia	8D-KL-1: Nanoscale Stochastic Physical Cues: Their Role in Mechanobiology and Pathologies in the Brain. **Prof Prasad Shastri**, Institute for Macromolecular	8E-KL-1: Numerical Modelling of Transport and Reaction Phenomena for Controlled Graphene Growth by Chemical Vapour Deposition. **Prof Yiannis Ventikos,** Monash University, Australia	8F-SACSEM-1: Recent breakthroughs across both solid-state and liquid-state thermal energy harvesting systems. **Prof. Wei Qingshuo,** National Institute of

	Institute, Griffith University, Australia			Chemistry, University of Freiburg, Germany		Advanced Industrial Science and Technology (AIST), Japan
15.20 - 15.45	8A-KL-1: Atomically precise synthesis of metal nanoparticle catalysis. **Prof. Richard Tilley,** University of New South Wales, Sydney, Australia **(15.20 - 15.50)**	8B-IL-1: Induced Transmission based Linear Variable Filter for hyperspectral imager. **Prof. Colin Hall**, Future Industries Institute, Adelaide University, Australia	8C-IL-1: Autonomous Discovery of Photovoltaic Materials and Photoinduced Halide Dynamics in Lead Halide Perovskites. **Prof Udo Bach,** Monash University, Australia	8D-IL-1: Structure Properties of a Crystalline Molecular Dipolar Rotor. **Prof Setaka Wataru,** Metropolitan University, Japan	8E-IL -1: QM/MM/MD Modelling of Raman Optical Activity Spectra as a Probe of Carbohydrate Conformation. **Prof. Ewan Blanch,** RMIT University, Australia	8F-SACSEM-2: Approach toward Optochemistry from Organic Materials Science View. **Prof Yohei Yamamoto,** University of Tsukuba,Japan
15.45 - 16.10	Meeting and Discussion with Editors from Wiley, Elsevier and RSC	8B-IL-2: Materials and Nanostructrue Designs for Surface-Enhanced Infrared Absorption Spectroscopy. **Dr. Nagao Tadaaki**, National Institute for Materials Science (NIMS), Japan	8C-IL-2: Double-cable Polymers for High Efficiency Single-Component Organic Solar Cells with Controlled Nanostructure. **Prof Christopher McNeill,** Monash University, Australia	8D-IL-2: Molecular Engineering of Diketopyrrolopyrrole Semiconductors for Multifunctional Electronics. **Dr Qian Liu,** Queensland University of Technology, Australia	8E-IL-2: Data-driven Screening of Multi-element Materials. **Prof Michihisa Koyama,** Shinshu University, Japan	8F-SACSEM-3: Proximal Cu-Co Sites Anchored on Mesoporous C3N5 for Selective Electrochemical Nitrate Reduction to Ammonia. **Dr Muhammad Ibrar,** The University of Newcastle, Australia
16.10 - 16.35		8B-IL-3: Physicochemical Properties of 2D Materials Revealed by In Situ Transmission Electron Microscopy. **Dr. Konstanstin Faershteyn,** Queensland University of Technology, Australia	8C-IL-3: Highly Sensitive Time-Resolved Absorption and Luminescence Spectroscopy for Photoenergy Conversion Materials. **Prof Ryuzi Katoh,** Nihon University, College of Engineering, Japan	8D-IL-3: Thermophysical Properties of Polygonally Engineered PEGs. **Dr Kazushi Kinbara,** Institute of Science Tokyo, Japan	8E-IL-3: Automated Reaction Path Exploration, Robotic Synthesis Platform, and Machine Learning for Yield Prediction and Mechanistic Insight. **Dr Doba Takahiro,** Kyoto University, Japan	8F-SACSEM-4: Thermorechargeable Battery for Thermal Energy Harvesting. **Dr. Yutaka Moritomo,** University of Tsukuba, Japan
16.35 - 16.50	**Coffee Break**					
		Chair: Prof. Colin Hall	**Chair: Prof Udo Bach**	**Chair: Prof Prasad Shastri**	**Chair: Prof. Ewan Blanch,**	**Chair: Dr Yasuo Norikane**
16.50 - 17.15		8B-IL-4: Supercritical Fluid Engineering of 2D/3D Advanced Nanostructures for Energy Generation and Conversion: A Paradigm Shift. **Prof Dinesh Rangappa,** Visvesvaraya	8C-IL-4: Thermomagnetic Effect in Nano-porous Materials. **Prof Masaki Mizuguchi,** Nagoya University, Japan	8D-IL-4: Superacid-Resistant BODIPYs Inspired by Calix[3]pyrrole Chemistry. **Prof. Yasuhide Inokuma,** Hokkaido University, Japan	8E-IL-4: Coarse-grained molecular dynamics simulation study on condensate formation of intrinsically disordered proteins. **Prof Zhongyuan Lu,** Jilin University, China	8F-OP-1: Beyond Nominal Space Velocity: Geometric Constraints and the Geometric Design Window for Fixed-Bed Catalysis. **M. Asif,** University of Tsukuba, Japan **(16.50 – 17.00)**

		Institute of Advanced Technology (VIAT), India				8F-OP-2: Catalytic formic acid dehydration via lattice hydrogen and hydrogen vacancies in hydrogen boride. **Z. Kang,** University of Tsukuba, Japan **(17.00 - 17.10)** 8F-OP-3: Thermal Dehydrogenation-triggered Dispersion and Stabilization of Magnesium on Hydrogen Boride Nanosheets. **N. Noguchi,** University of Tsukuba, Japan **(17.10 - 17.20)** 8F-OP-4: Nanopore Engineering of Hierarchical Porous Carbon from Biomass for Advanced Hybrid Supercapacitors. **A. Puri**, National Institute for Materials Science (NIMS), Japan **(17.20 - 17.30)** 8F-OP-5: Topochemical Synthesis of Oxynitride Photocatalysts Assisted by Hydrides. **I. Yamamoto,** Institute of Science Tokyo, Japan **(17.30 - 17.40)** 8F-OP-6: Asymmetric Brownian Motion of Chiral Molecules Probed by Pump Polarization-Angle-Dependent Optical Kerr Effect Spectroscopy. **K. Murakami,** University of Tsukuba, Japan **(17.40 – 17.50)**
17.15 - 17.40		8B-IL-5: Control of Graphene Dirac Fermions via 2D Molecular Self-Assembly. **Dr Agustin Schiffrin,** Monash University, Australia	8C-IL-5: Co/BiFeO3 interfacial multiferroics. **Prof. Naganuma Hiroshi**, University of Toyama, Japan	8D-IL-5: Direct Measurement of the Magnetoelectric Effect in Liquids for Wireless Biomedical Devices. **Prof Michael Higgins**, University of Wollongong, Australia	8E-IL-5: Engineering Excited-State Coupling for Efficient Copper Iodide X-Ray Scintillators. **Dr Simil Thomas,** King Abdullah University of Science and Technology, Saudi Arabia	
17.40 - 18.05		8B-IL-6: TPC-Coated Nanoparticles as Dispersing Units for MXene-Based Photothermal Polymer Composites.**Dr Shuta Hara,** Kanagawa University, Japan	8C-IL-6: Opto-Magnetically Guided Monocytes for Enhanced Nanotherapy in 3D Bioprinted Tumor Models. **Dr Josep Nogues,** Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain	8D-IL-6: Wiring Proton Gradients via Light-Responsive Molecular Switches. **Dr Dong Jun Kim**, University of New South Wales, Sydney, Australia	8E-IL-6: Graph Neural Network for High-Throughput Screening of Nanocluster Electrocatalysts. **Prof. Biswarup Pathak,** IIT Indore, India	
18.05 - 18.30		8B-IL-7: Scalable Synthesis of Mesoporous Ni-Phyllosilicate Tubes: Analysis of Durability and CO_2 Methanation. **Prof Eun-Bum Cho**, Seoul National University of Science and Technology, Australia	8C-IL-7: A pH-responsive Sludge-magnesium-alginate Composite for Self-healing Concrete **Prof Yan Zhuge,** Adelaide University, Australia	8D-OP-1: Liquid phase exfoliation of rhombohedral boron monosulfide (r-BS) to two-dimensional BS nanosheets. **J.Li,** Tsukuba University, Japan **(18.05 - 18.15)**	8E-OP-1: Staging-Dependent Thermoelectric Behavior of LixC6 Electrodes for Thermorechargeable Batteries. **Q. Gao,** University of Tsukuba, Japan **(18.05 - 18.15)**	
					8E-OP-2: Anisotropy and multi-colour of circularly polarized luminescence from microspheres of chiral conjugated polymer. **S. Nakayama,** University of Tsukuba, Japan **(18.15 – 18.25)**	

						8F-OP-7: Effect of Heteroatom Doping on the Structure of Rhombohedral Boron Monosulfide **K. Mori,** Tsukuba University, Japan 8F-OP-8: Ion-Exchange-Like Nickel Introduction into Hydrogen Boride. (**Y. Tamegai,** University of Tsukuba, Japan **(17.50 - 18.00)** 8F-OP-9: Mechanistic insights into urea-controlled morphological evolution of $NiCo_2O_4$ nanostructures on stainless steel mesh (SSM). **N. Alam,** University of Tsukuba, Japan **(18.00 - 18.10)** 8F-OP-10: Evaluation of Room Temperature H2 Storage Properties of Alkali Metal Decorated Organic Porous Materials. **K. Nakayama**, University of Tsukuba, Japan **(18.10 - 18.20)**
19.00 - 21.30	**Banquet**					

	20th of November 2026					
	The Arena	**The Extra**	**The Vivid**	**The King St**	**The City View**	**The Game**
8.00-8.40	**Themed Lecture 5** **Chair: Prof Hirotomo Nishihara** **Prof Mauricio Terrones, Pennsylvania State University, U.S.A** *Ultra-thin Metal Carbide Phases and Carbide-Dichalcogenide Heterostructures: Synthesis, Superconductivity, Electrocatalysis and more*					
	9A **Chair: Prof. Brian Abbey**	**9B** **Chair: Prof L. Kantam**	**9C** **Chair: Prof Ehsan Tavakkoli**	**9D** **Chair: Prof. Qingwen Li**	**9E** **Chair: Prof R. Jayavel**	**9F** **Chair: Prof Ibrahim Khan**
8.50 - 9.20	9A-KL-1: Strain Generated Actuation and Sensing for Soft Robotics. **Prof. Pooi Sei Lee,** Nanyang Technological University, Singapore	9B-KL-1: Circular and Smart Carbon Management: From Carbon Emissions to Carbon Valorization for the Energy Transition. **Prof G.D. Yadav,** Institute of Chemical Technology, India	9C-ICPN-1: Single-Cell Genome Engineering Through Plant In Vitro Fertilization and Anionic Polymer Delivery. **Prof. Markita Landry,** University of California, USA	9D-C-1: Carbon Nanotubes as Conductive Additives in Lithium-Ion Batteries for Electric Vehicles. **Prof. Yoon Ahm Kim**, Chonnam National University, Republic of Korea	9E-OP-1: Affordable Green Hydrogen Production via Electrochemical Upcycling of Biomass-Derived 1'3-Propanediol to 3-Hydroxypropionic Acid. **Yuwei Liu,** The University of Sydney, Australia **(8.50 - 9.00)** 9E-OP-2: Adaptive Non-Covalent Molecular Architecture Enabling Cooling-Reinforced Adhesion and Electrical Release. **P.M.M. Ihara,** University of Tsukuba, Japan **(9.00 - 9.10)** 9E-OP-3: Experimental and Numerical Study of Combustion Characteristics and NO Formation in Oxygen-Enriched COG/NH3 Jet Flame **Eungyeong**	9F-OP-1: Emerging Cellulose Nanocrystal Hydrogels for Potential Chronic Wound Healing. **D. Seneviratne,** University of Southern Queensland, Australia **(8.50 - 9.00)** 9F-OP-2: Fabrication of a Polymeric Scaffold Infused with Silver Nanoparticles and Curcumin for Wound Care. **P. Diyora,** Indrashil University, Gujarat, India **(9.00 - 9.10)** 9F-OP-3: Nanocellulose Hydrogels with Tunable Rheology for Filament Fidelity in 3D Bioprinting. **Z. A. Ara,** Monash University, Australia **(9.10 - 9.20)** 9F-OP-4: Plasma engineering of hydrogel-elastomer interfaces for soft robotics and wound dressing applications. **M. Zhianmanesh,** The
9.20 - 9.45	9A-IL-1: Solid state nanopores: from single molecule sensing to osmotic power generation: **Prof. Patrick Kluth,** Australian National University, Australia	9B-IL-1: Black Phosphorus Infrared Photodiodes. **A/Prof. James Bullock,** University of Melbourne, Australia	9C-ICPN-2 **Prof. Thava Palanisami**	9D-C-2: Catalytic Conversion of Lignocellulosic Biomass into Valuable Chemicals. **Prof Aritomo Yamaguchi**, National Institute of Advanced Industrial Science and Technology (AIST), Japan		
9.45 - 10.10	9A-IL-2: Engineering Porosity and Interfaces in Nanomaterials for Next-Generation Sensing. **Prof Noushin Nasiri,** Monash University, Australia	9B-IL-2: Rational synthesis of 2-dimensional III-V semiconductors. **Prof Jong-Young Kim**, Korea Institute of Ceramic Engineering, Republic of Korea	9C-ICPN-3: Nano-Enabled Micronutrient Delivery in Plants: From Leaf Interactions to Molecular Responses and Environmental Transformations. **Prof Izabela Josko,** Institute of Plant Genetics, Breeding and Biotechnology, University of Life Sciences, Poland	9D-C-3: Colloidal Synthesis of Photocatalytic Quantum Dots Heterostructure. **Dr. Dechao Chen,** University of Southern Queensland, Australia		
10.10 - 10.35	9A-IL-3: Fluorescence-based detection of illicit	9B-IL-3: **Prof. Sharad Gupta**	9C-ICPN-4: Nanotechnology-Based	9D-C-4: Toluene Disproportionation and		

	drugs with perylene diimides. **Dr. Paul Shaw,** The University of Queensland, Australia		Seed Priming Strategies for Improved Plant Resilience. **Prof Zsuzsanna Kolbert,** University of Szeged, Hungary	Alkylation using 3D interconnected MCM-22. **Dr. Michael Stöcker,** SINTEF Industry, Norway	**Kang,** Pusan National University, Republic of Korea **(9.10 - 9.20)** 9E-OP-4: Coordination-Engineered Mesoporous Ni/N-Doped Graphitic Carbon Nanocomposites for Efficient Alkaline Hydrogen Evolution. **H.X. Dao**, Niigata University, Japan. **(9.20 - 9.30)** 9E-OP-5: Theoretical prediction of heterostrain at nanobubbles in moiré graphene. **L. Fu,** The Australian National University, Australia **(9.30 - 9.40)** 9E-OP-6: Engineering Lignin-Derived Carbon Dots for Microwave-Responsive PAN Fibre Processing. **H.S. Ahmed,** University of Limerick, Ireland **(9.40 – 9.50)** 9E-OP-7: Facet-Dependent Plasmonic Photocatalytic Activity of M(=Ag, Au)-Cu2O Metal-Semiconductor Nanostructures. **D. Samarasinghe,** University of New South Wales, Australia	University of Newcastle, Callaghan, Australia **(9.20 - 9.30)** 9F-OP-5: Development and Application of Ti/Zr based MOF nanocomposites for gas adsorption. **H. Muhammad,** University of Engineering and Technology, Pakistan **(9.30 - 9.40)** 9F-OP-6: Hierarchically Porous Confined Nanochannels for Enhanced Molecular and Ion Separation. **Y. Huang,** The University of Sydney, Australia **(9.40 – 9.50)** 9F-OP-7: Preparation of Metal Phosphates and Transition Metal Cation Hybrids and Application to NH3 Adsorption Materials. **T. Takei,** University of Yamanashi, Japan **(9.50- 10.00)** 9F-OP-8: Accelerating valorization of biomass-derived 5-hydroxymethylfurfural towards aldehydes via photoactive nickel-cobalt borate-derived oxyhydroxide electrocatalyst. **F.N.I. Sari,** National Cheng Kung University, Taiwan **(10.00 – 10.10)**

					(9.50- 10.00) 9E-OP-8: Flow-assembly of phenolic nanocoatings for smoke toxicant scavenging. **T.A. Baigh,** University, Melbourne, Australia **(10.00 – 10.10)** 9E-OP-9: Fluorinated Oxide Shells Enable Sintering-Free Conductive Liquid Metal Composites for Flexible Electronics. **Yuqin Wang,** University of Sydney, Australia **(10.10 - 10.20)**	
10.35 - 10.50	**Coffee Break**					
	Chair: Prof. Pooi Sei Lee	**Chair: A/Prof. James Bullock**	**Chair: Franklin Gregory**	**Chair: Prof. Yoon Ahm Kim**	**Chair: Dr Sam Chen**	**Chair: Prof Michael Stöcker**
10.50 – 11.15	9A-IL-4: Plasmonic Nanoaperture Arrays as Active Optical Sensors for Biological and Chemical Imaging**. Prof. Brian Abbey,** La Trobe University, Australia	9B-IL-4: Two-Dimensional Hybrid Perovskite Monolayers for Optoelectronics. **Prof Sudha Mokkapati,** Monash University, Australia	9C-ICPN-5: Next-generation priming towards food security: when chemistry meets nanotechnology. **Prof. Vasileios Fotopoulos,** Cyprus University of Technology, Cyprus	9D-C-5: Defect-Engineered Graphene Growth on Oxide Ceramics: From Growth Mechanisms to Catalytic Applications. **Prof Hirotomo Nishihara,** Tohoku University, Japan	9E-OP-10: Hydrophobic Nanostructured Materials for Efficient Catalysis. **Yugen Zhang,** Agency for Science, Technology and Research (A*STAR), Singapore **(10.50 – 11.00)** 9E-OP-11: Ionomer Distribution and Its Effect on Oxygen Reduction Reaction Activity at Nitrogen-Doped Carbon Model Interfaces. **Homma Kaito,** Hokkaido University, Japan	9F-OP-10: Aqueous Conversion of Ga-Based Liquid Metal Alloys into High-Performance 2D Electrocatalysts for Nitrate Reduction. **Z. Zhang,** University of New South Wales, Sydney, Australia **(10.50 – 11.00)** 9F-OP-11: Plasmonic Nanodevices for Bioorthogonal Cellular Applications. **A. Kumar,** Pohang University of Science & Technology (POSTECH), Republic of Korea **(11.00 – 11.10)**
11.15 - 11.40	9A-IL-5: Mid-infrared upconversion detection with Si detector at room-temperature. **Dr. Chaohao Chen**, University of Technology Sydney, Australia	9B-IL-5: Coordination Polymers with Metal-Sulfur Bonding Motifs for CO2 Conversion. **Prof Kazuhiko Maeda,** Institute of Science Tokyo, Japan	9C-ICPN-6: Ionic Liquid-Engineered Nanomaterials for Controlled Nutrient Delivery to Enhanced Photosynthetic CO2 Sequestration. **A/Prof Dibyendu Mondal,** Institute of Plant Genetics of the Polish Academy of Sciences, Poland	9D-C-6: Kinetics of Proton Generation from Activated Carbon in Capacitive Deionization. **Dr. Peter Kovalsky,** The University of Waikato, New Zealand		
11.40 - 12.05	9A-IL-6: Low-Cost Biosensors for Rapid	9B-IL-6: Two-dimensional van deer Waals heterostructures	9C-ICPN-7: Engineering Plant Leaf Biomimetic	9D-C-7: Understanding Li-O2 Battery Chemistry in		

	Biomarker Detection: Pathways to Non Invasive Point-of-Care Diagnostics. **Dr Syamak Farajikhah,** The University of Sydney,Australia	for multi-functional electronic devices. **Dr Yukata Wakayama,** National Institute for Materials Science (NIMS), Japan	Platforms to Understand Fungal Disease Progression in Agricultural Crops. **Dr Bryan Coad,** Adelaide University, Australia	Carbon Nanospaces. **Dr. Wei Yu,** Tohoku University, Japan	**(11.00 – 11.10)** 9E-OP-12: NiFe-LDH Electrocatalyst for Hydrogen Production via Anion Exchange Membrane Water Electrolysis Using Synthetic Municipal Wastewater. **Bhawana Gehlot,** Victoria University, Australia **(11.10 – 11.20)** 9E-OP-13: Localised energy dissipation from 10-100nm spidroin II domains in the spider silk core. **Y.T. How,** Queensland University of Technology, Brisbane, Australia **(11.20 – 11.30)** 9E-OP-14: Low-Temperature Conversion of PTFE into Functional Materials Using Li–Ga Liquid Metal. **Sina Mehdifar,** RMIT University, Australia **(11.30 – 11.40)** 9E-OP-15: Mechanically Interlocked Dry Electrodes Enabled by Al Mesh Current Collectors. **Soojin Choi,** Pusan National University, Republic of Korea **(11.40 – 11.50)** 9E-OP-16: Flexoelectric Catalysis	9F-OP-12: Coordination-Directed Transparent Mesoporous FeNiOx Films for Efficient Electrocatalytic Water Oxidation. **X. Huang,** Niigata University, Japan **(11.10 – 11.20)** 9F-OP-13: Liquid Metal Reactors for Scalable Advanced Production of Nanophotocatalysts. **H. Al-Fayyad,** The University of Sydney, Australia **(11.20 – 11.30)** 9F-OP-14: Flame-grown CoNi Bimetallic Phosphide as Bifunctional Catalyst for Electro-Reforming of Plastic Derivatives. **P.N.M. Le,** University of Sydney, Australia **(11.30 – 11.40)** 9F-OP-15: Niobium-Modified MoS2 for Sulfide Oxidation-Assisted Hydrogen Production in Hybrid Seawater Electrolysis. **M. Pal,** Indian Institute of Technology Bombay, India **(11.40 – 11.50)** 9F-OP-16: Rational Design of Superaerophobic Catalysts for High-Current Density Alkaline Water Electrolysis. **J.Z. Soo,** Monash University, Malaysia **(11.50 – 12.00)**
12.05 - 12.30	9A-IL-7: Fluorescent nanodiamonds and hexagonal boron nitride for quantum sensing applications **Dr. Philipp Reineck,** RMIT University, Australia	9B-IL-7: Applications of Two-dimensional Materials in Energy, Water, and Healthcare. **Dr. David Estrada**, Boise State University, United States of America	9C-ICPN-9: Light-Matter Interactions in Carbon and Bio-Derived Nanomaterials: Optical Probing of Functional Interfaces in Agro-Environmental Systems. **Dr Jenaina Ribeiro Soares**, Federal University of Lavras, Brazil	9D-C-8: Multifunctional CNT films: Scalable synthesis and application perspective. **Prof. Qingwen Li**, Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences, China		
12.30 - 12.55	9A-IL-8 High Throughput Nanometrology Using Active Microelectromechanical Systems Cantilevers. **Dr. Michael Ruppert,** University of Technology Sydney, Australia	9B-IL-8: Nanoengineered Degradable Polymer Films via Aqueous Emulsion Polymerization. **Dr Yasemin Fadil,** The University of New South Wales, Australia	9C-ICPN-8 **Dr Logeshwaran Panneerselvan**	9D-C-9: Photo- vs. Thermal degradation of pigment nanoparticles in paints: Reactivity of As-based Pigments in Artworks of the 17th and 19th Century. **Prof. Koen Janssens,** University of Antwerp, Belgium		
12.55 - 13.05	9A-OP-1: Nanoporous MOF-Based Aptasensors for Ultrasensitive Detection of Veterinary Antibiotic Residues. **I.M. Khan,** University of Nottingham, China	9B-OP-1: Studying single atom layers using spatially resolved neutral atom diffraction. **M. Bergin,** University of Newcastle, Australia **(12.55-13.05)** 9B-OP-2: Nanoporosity induced dramatic changes in electron-phonon interactions, plasmonics and electronic behaviour of PLD grown MoO2 film, **M. Kumar**, Indian Institute of Technology (IIT) Indore, India (13.05-13.15)				

					for Mechanically Driven Hydrogen Generation and Environmental Remediation. **S. Mondal,** University of Wollongong, Australia **(11.50 – 12.00)** 9E-OP-17: Numerical study of coal–ammonia co-firing in a 550 MWe USC CFB boiler. **Joonwoo Kweon,** Pusan National University, Republic of Korea **(12.00 – 12.10)** 9E-OP-18: Development of Highly Luminescent AgInS2 Quantum Dots for Luminescent Solar Concentrator-based Solar Windows" for consideration **S. H. Dehigaspitiya,** Macquarie University, Australia **(12.10 – 12.20)** 9E-OP-19: Polyphenolic coatings on gallium nanodroplets: morphology study. **D. Lagos,** RMIT University, Australia **(12.20 – 12.30)** 9E-OP-20: Predicting the Onset of Nucleation of Ferrite and Composition Evolution in Ferritic Steel. **B.C. Ugwuanyi,**	9F-OP-17: Sub-Microgram Pt for Durable Ampere-Scale Hydrogen Evolution through Pt Restructuring. **A. Suresh,** Indian Institute of Technology Bombay, India/ Monash University, Australia **(12.00 – 12.10)** 9F-OP-18: Synergistic Oxide Heterostructures for High-Performance Anion Exchange Membrane Water Electrolysis. **T.T.K. Tran,** The University of Sydney, Australia **(12.10 – 12.20)** 9F-OP-19: Synthesis-Regulated Active-State Reconstruction in High-Entropy Oxides for Oxygen Evolution. **Q.Wang,** The University of Sydney, Australia **(12.20 – 12.30)** 9F-OP-20: Titanium Substitution–Induced Modulation of the Intrinsic Hydrogen Evolution Reaction Activity of $SrFe1\text{-}xTixO_{3}\text{-}\delta$. **Lavaneethan T,** National Institute of Technology, Tiruchirappalli India **(12.30 – 12.40)** 9F-OP-21: Closed-Loop Upcycling of Spent $LiCoO_2$ Cathodes via Zn-Co Redox Flow Batteries **D. Kim** Pusan National University, South Korea **(12.40 – 12.50)**

					The University of Sheffield, United Kingdom **(12.30 – 12.40)** 9E-OP-21: Rapid photothermal conversion of nitrates to ammonia by phase-engineered FeRu nanosystems. **G. Nayak,** Indian Institute of Technology Bombay, India **(12.40 – 12.50)**	9F-OP-22: Photocatalytic degradation and Mineralization of Pharmaceutical Pollutants Using TiO_2-SiO_2 Nanocomposites **Dr. Alok Garg**, National Institute of Technology, Hamirpur, India **(12.50 – 13.00)**
13.15-14.00	**Lunch**					
14.00-14.45	**Plenary Lecture 10** **Chair: Paul Dastoor** **Prof Michael Grätzel, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland** *Mesoscopic Photo-electrochemical and Perovskite Solar Cells*					
	10A **Chair: Prof Sudha Mokkapati**	**10B** **Chair: Prof. G.D. Yadav**	**10C** **Chair: Prof Zsuzsanna Kolbert**	**10D** **Chair: Dr. Wei Yu**	**10E** **Chair: Prof. Thava Palanisami**	**10F** **Chair: Dr Yong Zhao**
14.50 – 15.20	10A-KL-1: Nano-Inspired Metal-Organic Frameworks for Smart Electrochemical Sensing and Biosensing: From Molecular Recognition to Real World Monitoring. **Prof Samuel Adeloju,** Monash University, Australia	10B-KL-1: Design and Development of Heterogeneous Catalysts for Sustainable Chemical Industry. **Prof M. Lakshmi Kantam,** Institute of Chemical Technology, India	10C-ICPN-1: From nanostructure to soil function: engineering resilient, lower-carbon cropping systems. **Prof Ehsan Tavakkoli,** Institute for Future Farming Systems, CQUniversity, Australia	10D-C-1: Utilization of Carbon from Agricultural Waste for Sustainable Anti-Corrosion Coating: Lab to Industry. **Dr Chandrasekar Tiwary,** Indian Institute of Technology Kharagpur, India	10E-OP-1: Structure-Property Relationships in High-Entropy LaFeMnCoAlCr Perovskite Electrode: Charge-Storage Kinetics. **Manjesh DM,** Visvesvaraya Technological University, India **(14.50 – 15.00)**	10F-OP-1: Multifunctional $SnS_2/Ti_3C_2T_x$ MXene Heterostructures for Sustainable Hydrogen Production and Water Purification. **Sweta Sharma,** Academy of Scientific and Innovative Research (AcSIR), India **(14.50 – 15.00)**
15.20 – 15.45	10A-IL-1: Reading the Nanobiointerface: Aptamer-Functionalised InP/ZnS Quantum Dots for Bacterial and Outer Membrane Vesicle Recognition. **A/Prof**	10B-IL-1: Selective Adsorption and Separation Using Advanced Inorganic Materials: Insights from Hydration-Controlled Interfacial Chemistry.	10C-ICPN-2: Decoding Plant–Nano Interactions Across Scales: From Cellular Mechanisms to Field Performance. **Prof. Franklin Gregory,** Institute of Plant Genetics Polish Academy of Science, Poland	10D-C-2: Selective Thermal Microrecycling of Complex Wastes into Functional Nanomaterials for Energy Storage and Environmental Sensing.	10E-OP-2: Synergistic Effect of TiB_2 Nanoparticles and Intermetallic Phases on Mechanical Performance of TiB_2	10F-OP-2: Thermally Resilient MOF for Efficient CO2 Capture from Flue Gas. **S. Mitra,** BITS Pilani, India **(15.00 – 15.10)**

	Renee Goreham, University of Newcastle, Callaghan, Australia	**A/Prof Hayashi Fumitaka**), Shinshu University, Japan		**Dr Rumana Hossain,** University of New South Wales, Sydney, Australia	Reinforced Mg–12.5Al–2Zn–1.5Ca Nanocomposite. **M.K. Jha,** National Institute of Technology Jalandhar, India **(15.00 – 15.10)** 10E-OP-3: Ultrathin Functional Coatings Derived from Liquid-Metal Interfaces. **F. Nanzeeba,** Monash University, Australia **(15.10 – 15.20)** 10E-OP-4: Understanding the Role of Copper and Zinc Oxide in Electrochemical CO_2 and Nitrate to C-N Coupling. **T.D.T. Bao,** The University of New South Wales, Australia **(15.20 – 15.30)** 10E-OP-5: Biomimetic Coordination Engineering of MOF-Derived Fe–N–C Single Atom Nanozymes for Selective Methane Oxidation. **S. Priya Samudrala,** Monash University, Australia **(15.30 – 15.40)** 10E-OP-6: Cavity Mode Number Dependent Free Energy Landscape Reorganization and Photophysical Dynamics under Electronic Strong	10F-OP-3: Sporadically Synchronous Localized Electroluminescence Blinking in Halide Perovskite LEDs **Shruti Singh,** Indian Institute of Technology Bombay, India **(15.10 – 15.20)** 10F-OP-4: Geothermal Sludge-Derived Zeolite A for Methylene Blue Adsorption: Synthesis, Characterization, and Adsorption Performance. **Dr Wahyu Firmansyah,** Technology Innovation & Implementation, Indonesia **(15.20 – 15.30)** 10F-OP-5: Wet-deposition of plasmonic ITO / TIPS-pentacene hybrid layers as self modulating NIR absorbing nanostructures. **Brian Dusolle,** Univ. Bordeaux, France **(15.30 – 15.40)** 10F-OP-6: Sericin as an effective oxidation inhibitor for Niobium MXenes. **P. Varma Sagiraju,** Prayoga Institute of Education Research, India **(15.40 – 15.50)**
15.45 – 16.10	10A-IL-2: Engineering of semiconductor heterojunctions for sensors in challenging environments. **A/Prof Toan Dinh,** University of Southern Queensland, Australia	10B-IL-2: Ion-selective membrane for critical rare-earth mineral recovery. **Dr Gayathri Naidu,** University of Technology, Sydney	10C-ICPN-3: Effect of LIQUINA Nanofertilizer Treatment on Vegetative Growth and Fruit Yield of Okra (Abelmoschus esculentus) **Prof**. **Samuel Gnana Prakash Vincent**, MS University, India	10D-C-3: Carbon Nanotube Macrostructure-Based Hybrids. **Prof Chang Liu,** Institute of Metal Research, Chinese Academy of Sciences, China		
16.10 – 16.35	10A-IL-3: Engineering liquid metal-based catalysts in conversion systems. **Dr Dorna Esrafilzadeh,** University of New South Wales, Sydney, Australia	10B-IL-3: Surfactant-Empowered Propulsion of Surface Microrollers. **Dr Gungun Lin,** University of Technology Sydney, Australia	10C-ICPN-4: **Dr K. Ramadass,** The University of Newcastle	10D-C-4: **Dr Gurwinder Singh,** The University of Newcastle		

					Coupling. **N. Umar Draz,** Tsukuba University, Japan **(15.40 – 15.50)** 10E-OP-7: Optimised Functional Polyvinyl Alcohol-Based Hydrogel Bio-Carriers. **R. Arjmandi,** University of Auckland, New Zealand **(15.50 – 16.00)** 10E-OP-8: Nanoarchitectonics of Fullerene-derived Nanoporous Carbon: Cavity Engineering for Ammonium-ion Storage. **S. Shahi,** National Institute for Materials Science (NIMS), Japan **(16.00 – 16.10)** 10E-OP-9: Influence of thickness and silver incorporation on charge transport in copper iodide thin films for transparent flexible thermoelectric applications. **C. Kennedy,** The University of Auckland, New Zealand **(16.10 – 16.20)**	
16.35-16.50	**Coffee Break**					
	Chair: Dr. Gurwinder Singh	**Chair: A/Prof Toan Dinh**	**Chair: Dr Gungun Lin**	**Chair: Dr Gayathri Naidu**	**Chair: Samuel Gnana Prakash Vincent**	**Chair: Prof Michael Stöcker**
16.50 - 17.15	10A-IL-4: From Molecular Interactions to Molecular Fingerprints: Aptamer–	10B-IL-4: Direct CO_2 capture from the air by nanomembranes.	10C-OP-1: Agricultural Waste-Derived Green Carbon as a Sustainable Functional Pigment for Water-Based Ink. **R.**	10D-OP-1: B, N Co-doped Carbon Electrocatalyst for Synergistic CO_2 &	10E-OP-11: Enhancing the Stability and Efficiency of 1.67 eV Cs-Rich Perovskite Solar	10F-OP-11: Development of a Self-Maintenance Framework for

	Nanoparticle Sensing of α-Synuclein Conformers. **Prof Rajesh Ramanathan,** RMIT University, Australia	**Prof Shigenori Fujikawa,** Kyushu University, Japan	**Bandyopadhyay**, Indian Institute of Technology Kharagpur, India **(16.50 - 17.00)** 10C-OP-2: Contrasting Roles of Protein content of a Physiological Fluid in Electrochemical Degradation and the Fluid-assisted Fracture of an Extruded Zinc Alloy for Bioimplants. **S. Ansah,** Monash University, Australia **(17.00 - 17.10)** 10C-OP-3: Differences in the synthesis of primary metabolites across cold acclimation, de-acclimation, and re-acclimation affect frost tolerance capacity in forage grasses from Lolium-Festuca complex. **J. Gorna,** Institute of Plant Genetics, Poland **(17.10 - 17.20)** 10C-OP-4: Single-Atom embedded 2D ionic carbon nitride for Selective $^1O_2$-Mediated Degradation and Defluorination of Micropollutants in Real Waters. **M. Halanur,** University of Ostrava, Czech Republic **(17.20 - 17.40)** 10C-OP-5: Tribological behavior of Friction Stir Processed Nano-Hydroxyapatite Reinforced AZ91D Mg Matrix Surface Composites for Bio-Implants. **S. Kundu,** Himalayan Institute of Engineering and Technology, Himachal Pardesh, India **(17.40 - 17.50)** 10C-OP-6: Bio-Nanocomposite for Pb (II) adsorption from wastewater: Characterization and Optimization Study. **M. Ayyub,**	Nitrate Co Reduction reaction. **V. Verma,** University of New South Wales, Sydney, Australia **(16.50 - 17.00)** 10D-OP-2: Dimension-controlled Co-ZIFs: Linking Morphology to Activity in CO_2 Fixation to Cyclic Carbonates. **N. Nagarathinam,** Indian Institute of Technology, Madras, India **(17.00 - 17.10)** 10D-OP-3: Relaxor-Engineered BNT-Based Lead-Free Ceramics with Enhanced Energy Storage Performance at Low/Moderate Electric Fields. **A. Mandal,** Indian Institute of Technology Roorkee, India **(17.10 - 17.20)** 10D-OP-4: Scalable Light-Enabled Graphene Materials for Energy Storage, Smart Textiles and Solar Water Desalination. **M.H. Zhang,** RMIT University, Australia. **(17.20 - 17.40)** 10D-OP-5: Computational Fluid Dynamics-Based Optimization of CVD Process for High-Quality Graphene	Cells through Quasi-2D Intermediate. **J. Kim,** Korea Advanced Institute of Science and Technology, South Korea **(16.50 - 17.00)** 10E-OP-12: Interfacial Engineering by Metallic Ions and Organic Ammonium Ligand Passivation for Perovskite Solar Cells. **A. Adenle,** Griffith University, Australia **(17.00 - 17.10)** 10E-OP-13: Intrinsic Defects in Earth-Abundant Zn-Based Nitrides for Photovoltaics and Photoelectrochemical Water Splitting. **M. Al-Farsi,** University of New South Wales, Sydney, Australia **(17.10 - 17.20)** 10E-OP-14: Sustainability in Organic Photovoltaics. **Kristofer L,** The University of Newcastle, Australia **(17.20 - 17.40)** 10E-OP-15: Development of Temperature-Distribution Imaging Device by Guest-Intercalated Polydiacetylene and Matrix Polymers. **Kohei Saito,** Keio University, Japan	Conformal Anomaly Detection under Changing Industrial Operating Conditions. **I. Choi,** Chosun University, Republic of Korea **(16.50 - 17.00)** 10F-OP-12: Dopant Engineered Janus WSeTe for Pollutant Gas Sensing: A DFT Investigation. **B Paul, Birla** Institute of Technology and Science-Pilani, Telangana, India **(17.00 - 17.10)** 10F-OP-13: Flame Spray Pyrolysis-Functionalized MOX Sensor Array with Integrated Microheater Control for VOC Detection. **F.S. Garay-Rairan,** The University of Sydney, Australia **(17.10 - 17.20)** 10F-OP-14: Ion Track-Etched Silicon Dioxide Nanopores: A Swift Heavy Ion Route to Single-Molecule Biosensing. **S. Dutt,** Australian National University, Australia **(17.20 - 17.40)** 10F-OP-15: Label-Free Raman Spectroscopic Detection of Respiratory Coronavirus Infection Using Extracellular Vesicles. **H. Kaur,** The University of Newcastle, Australia
17.15 - 17.40	10A-IL-5: Multiplexed Nanozyme-Aptasensor Array for Predictive Detection of Antibiotic Resistant Staphylococcus aureus. **Dr Pabudi Weerathunge,** RMIT University, Australia	10B-IL-5: Tuning Porous Frameworks for CO2 Capture. **Dr. Checkers Marshall,** Svante Incorporation, Canada				
17.40 - 18.05	10A-IL-6: Europium metal-organic framework polymer composites with enhanced luminescence and selective ferric ion sensing. **Prof David Beattie,** Future Industries Institute, Adelaide University, Australia	10B-IL-6: **Dr CI Sathish,** The University of Newcastle, Australia				

			University of Engineering and Technology, Lahore, Pakistan 10C-OP-7: Curcumin quantum dots mediated detection of happy hormone. **D. Thiyagarajan,** Anna University, India **(17.50 – 18.00)** 10C-OP-8: Multimodal magneto–active hydrogel–liquid interfacial sensor for electrochemical detection of food pollutants. **V. Pereira**, Nanyang Technological University, Singapore **(18.00 – 18.10)**	Coatings on Metals. **T. Joshi,** Monash University, Australia **(17.40 - 17.50)** 10D-OP-6: Adsorption Depletion in Nanospaces Formed by Atomically Thin Graphene Walls. **A. Mori**, Tohoku University, Japan **(17.50 – 18.00)** 10D-OP-7: Mixed-Phase TiOx Nanotube Array Electrodes for PFOA Defluorination: Mechanistic Insights and Fluoride-induced Degradation of TiOx. **M. Wang,** Monash University, Australia **(18.00 – 18.10)**	**(17.40 - 17.50)** 10E-OP-16: Self-Assembled Chiral π-Conjugated Polymer Microspheres as Light-Driven, Chirality-Addressable Microrotors. **Makoto Okumura,** University of Tsukuba, Japan **(17.50 – 18.00)** 10E-OP-17: Interfacial Charge Dynamics in Polymer-FAPbI3 Perovskites for Self-Powered Broadband UV-NIR Photodetection. **Ashna K. Pramod,** Indian Institute of Technology Bombay, India **(18.00 – 18.10)**	**(17.40 - 17.50)** 10F-OP-16: Machine Learning-Assisted-Design and Optimization of Performance of a Surface Plasmon Resonance Based Fiber-Optic Sensor. **B. Kaur,** University of Ostrava, Czech Republic **(17.50 – 18.00)** 10F-OP-17: Molecularly Imprinted NiHeXF Core-Shell Nanointerface for Electrochemical Detection of Estradiol. **N. Pari,** SASTRA Deemed to be University, Tamil Nadu, India **(18.00 – 18.10)**
18.55 - 19.00	**Closing Ceremony**					

Sessions	Topics	Sessions	Topics
	16th of November 2026 - Plenary Lectures 1 and Themed Lecture 1-4		
1			
2A	Energy Storage and Conversion I	**Poster Session I**	
2B	Nanostructured Materials I		
2C	Nanodevices		
2D	Heterogeneous Catalysis I		
2E	Biomaterials I		
2F	Magnetic Materials/Photovoltaics		
	17th of November 2026 – Nobel Laureate Lecture 1		
3A	Energy Storage and Conversion II	**4A**	Electrocatalysis I
3B	Nanostructured Materials II	**4B**	Nanostructured Materials III
3C	Editor/Exhibitor/Keynote Presentation	**4C**	Keynote Lectures
3D	Heterogeneous Catalysis II	**4D**	Heterogeneous Catalysis III
3E	Biomedical Devices	**4E**	Biomaterials
3F	Symposium on Thermoelectric Materials	**4F**	Symposium on Thermoelectric Materials
	18th of November 2026 – Poster Session II and Plenary Lecture 7		
5A	Electrocatalysis II	**6A**	Electrocatalysis III
5B	Nanostructured Materials IV	**6B**	Nanoporous Materials
5C	Environmental and Energy Applications I	**6C**	Environmental and Energy Applications II
5D	IIT-Bombay-UON Symposium	**6D**	IIT-Bombay-UON Symposium
5E	Drug Delivery I	**6E**	Drug Delivery II
5F	Soft Materials I	**6F**	Soft Materials II
	19th of November 2026		
7A	ARC Laureate Symposium I	**8A**	ARC Laureate Symposium II
7B	Layered Materials I	**8B**	Layered Materials II
7C	Nanodevices I	**8C**	Photovoltaics/Magnetic Materials
7D	Optoelectronics and Photochromic Materials I	**8D**	Organic Materials
7E	Theoretical and Computational Chemistry I	**8E**	Theoretical and Computational Chemistry II
7F	SACSEM Symposium	**8F**	SACSEM Symposium
	20th of November 2026 and Themed Lecture 5		
9A	Sensors I	**10A**	Sensors II
9B	Layered Materials III	**10B**	Adsorption/Separation
9C	International Conference on Plant Nanotechnology	**10C**	International Conference on Plant Nanotechnology
9D	Symposium on Carbon with Carbon Journal Editors	**10D**	Symposium on Carbon with Carbon Journal Editors
9E	Oral Presentation I	**10E**	Oral Presentation III
9F	Oral Presentation II	**10F**	Oral Presentation IV

Note: All Nobel Laureate, Plenary and Themed Lectures and the Banquet will be held at the Arena Hall. Poster session I and II will be held on November 16th and 18th 2026, respectively.

PL- Plenary Talk (45 Minutes); TL- Themed Lecture (40 Minutes); **AL** – ARC Laureate Lecture (30 Minutes); **KL -** Keynote Lecture (30 minutes); **IL-** Invited Lecture (25 Minutes); **OP -** Oral Presentation (10 Minutes).

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