Day 0: Monday 23rd Nov 2026		
Time	**Events**	**Venue**
17:00-19:30	Registration Welcome reception	RMIT Building 80 Level 7 Foyer 445 Swanston Street, Melbourne, VIC 3000

	Plenary talk (40 mins include Q&A)	Keynote (25 mins include Q&A)	Invited oral (15 mins include Q&A)					
Time	**Day 1: Tuesday 24th Nov 2026**							**Venue**
08:35-08:40	**Welcome Speech**: Dist. Prof. Baohua Jia, RMIT University							080.07.001
08:40-08:50	**Opening Remarks**: **Prof. Catherine Itsiopoulos**, Deputy Vice-Chancellor STEM College and Vice-President, RMIT University							
08:50-09:00	**Photo Session**							080.07.001
09:00-09:40	**Prof. Kourosh Kalantar-Zadeh**, *Controlling of Liquid Metals on Demand in Soft Devices and Systems,* The University of Sydney					Chair: Prof. Xiwang Zhang		080.07.001
09:40-10:20	**Prof. Hua Zhang**, *Phase Engineering of Nanomaterials (PEN),* City University of Hong Kong							
10:20-10:50	Morning Tea (30 min, Poster Set Up, Venue: Foyer of B080.07)							
Morning Session	**Optics, Photonics and Optoelectronics**	**Solar Energy Harvesting and Photo Detection**	**Advanced Characterisation and Simulation Techniques**	**Emerging Materials for Diagnostics and Therapeutics**	**Sustainable Energy Storage and Applications**	**Catalysis for Energy and Sustainability**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI**	**Critical Minerals, Resource Recovery and Circular Economy**
Venue	**080.08.005**	**080.08.007**	**080.08.009**	**080.08.010**	**080.08. 011**	**080.09.007**	**080.09.009**	**080.09.012**
Chair	**Prof. Heike Ebendorff-Heidepriem** (Adelaide University)	**Dr. Lifeng Wang** (RMIT University)	**Dr. Xiaoning Li** (RMIT University)	**Dr. Haitao Yu** (RMIT University)	**Dr. Junnan Hao** (Adelaide University)	**Dr. Joshua Butson** (Curtin University)	**Dr. Qiran Cai** (Deakin University)	**Dr. Doudou Zhang** (Macquarie University)
10:50-11:15	**Prof. Dongchen Qi** *When Diamond Meets 2D: Engineering Diamond Surfaces for Diamondtronics* (Queensland University of Technology)	**Dr. Munkhbayar Batmunkh** *Understanding Carbon Based Perovskite Solar Cells* (Griffith University)	**Prof. Cordelia Selomulya** *Engineering Plant-Based Proteins for Sustainable Food Systems* (The University of New South Wales)	**Dr. Zihao Wang** *Patient-Specific Carotid Artery-on-Chip "Physical Twins" Reveal Flow-Dependent Thrombosis and Personalised Antithrombotic Response* (The University of Sydney)	**Dr. Dong Jun (DJ) Kim** *Wiring Proton Gradients for Energy Conversion via Light-Responsive Molecular Switches* (The University of New South Wales)	**A/Prof. Amgad Rezk** *MHz acoustics for nanomaterials synthesis and enhanced electrocatalysis* (RMIT University)	**Dr. Md Ataur Rahman** *Functional Materials and Intelligent Electronics for a Connected and Sustainable Future* (RMIT University)	**A/Prof. Hamid Arandiyan** *Nitric Acid Decomposition in Nickel-Cobalt Leaching* (RMIT University)

11:15-11:40	**Prof. Yang Tan** *RE-Doped Thin-Film Gain Media for Microcavity Lasers and Optical Amplifiers* (Shandong University)	**Prof. Xiaotao Hao** *Exciton and Charge-Carrier Dynamics in Organic Solar Cells Revealed by Ultrafast Spectroscopy* (Shandong University)	**A/Prof. Su Ying Quek** *Discovery of 2D Materials for Piezoelectronics, Non-Linear Optics and Exciton Condensation* (National University of Singapore)	**Dr. Jingqu Chen** *Compositional Engineering of Bioactive Metal–Organic Nanoparticles for Immune Modulation* (The University of Melbourne)	**Dr. Dmitrii Rakov** *Battery Electrolytes: From Molecules to Devices* (Adelaide University)	**Dr. Mengran Li** *Unlocking catalyst potentials in zero-gap membrane-electrode assemblies* (The University of Melbourne)	**Prof. Kuniharu Takei** *Laser-Induced Graphene-Based Smart Sensor System* (Hokkaido University)	**Dr. Siqi Huo** *Molecular and Structural Engineering of High-Performance Sustainable Polymers* (University of Southern Queensland)
11:40-12:05	**Prof. Zhanghua Han** *Coherent thermal emission generation enabled by nonlocal metasufaces* (Shandong Normal University)	**Dr. Jincheol Kim** *Advanced Manufacturing Strategies for Scalable Perovskite Solar Cells* (Macquarie University)	**A/Prof. Mark Edmonds** *Geometry-Engineered Quantum Materials: Twist, Strain and Stacking in 2D and Vertical Superlattices* (Monash University)	**Prof. Hang Ta** *Surface Coatings for the Prevention of Thrombosis and Bacterial Infections* (Griffith University)	**Dr. Yibo Ma** *Overcoming redox barriers in black phosphorus negative electrodes through lattice P–N engineering for fast-charging Li-ion batteries* (RMIT University)	**Dr. Jinqiang Zhang** *Photothermal catalysis for solar fuels production* (The University of Western Australia)	**Dr. Omid Mazaheri** *Metal–Phenolic Networks for Next Generation AgriTech* (The University of Melbourne)	**Prof. Huacheng Zhang** *Artificial ion channel membranes for efficient ion separation* (Monash University)
12:05-12:30	**A/Prof. Sudha Mokkapati** *Scalable Ternary-Solvent Growth of Ultrathin 2D Perovskite Crystals for Custom Optoelectronic Functionalities* (Monash University)	**Mr Kanishk Arunraj** *Copper tungstate photoanodes with enhanced solar water splitting performance* (RMIT University) Invited oral · 15 min	**Dr. Jiří Pavelec** *From Instrument Development to Atomistic Understanding of Single-Atom Catalysts* (TU Wien)	**Dr. Rong Xu** *Glucose-Responsive Nano Sugar with Kidney Tropism Enable Multi-Day Therapy in Diabetic Mice* (Monash University)		**Dr. Min Liu** *Advanced Membrane Engineering for Efficient CO_2 Electrolysis* (The University of Queensland)	**Prof. Dong Ruan** *Internal Interlaminar shear behaviour of additively manufactured continuous fibre-reinforced composites using MWCNT-coated filaments* (Swinburne University of Technology)	**Prof. Stefano Freguia** *Magneli-phase titanium suboxide ceramic electrodes for resource recovery from urban wastewater* (The University of Melbourne)
12:30-13:30	Lunch/Poster (60 min, Venue: Foyer of B080.07)							
After-noon Session 1	**Optics, Photonics and Optoelectronics**	**Solar Energy Harvesting and Photo Detection**	**Advanced Characterisation and Simulation Techniques**	**Emerging Materials for Diagnostics and Therapeutics**	**Sustainable Energy Storage and Applications**	**Catalysis for Energy and Sustainability**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI**	**Critical Minerals, Resource Recovery and Circular Economy**
Venue	**080.08.005**	**080.08.007**	**080.08.009**	**080.08.010**	**080.08.011**	**080.09.007**	**080.09.009**	**080.09.012**
Chair	**Prof. Yang Tan** (Shandong University)	**Dr. Munkhbayar Batmunkh** (Griffith University)	**Dr. Jiří Pavelec** (TU Wien)	**A/Prof. Lei Bao** (RMIT University)	**Dr. Dmitrii Rakov** (Adelaide University)	**Dr. Mengran Li** (The University of Melbourne)	**Prof. Dong Ruan** (Swinburne University of Technology)	**A/Prof. Hamid Arandiyan** (RMIT University)

13:30-13:55	**Dr. Guiyuan Cao** *Graphene Metalens for Multi-functional Flat Optics* (RMIT University)	**Dr. Lifeng Wang** *Two-Dimensional Materials: From Controlled Growth to Solar Energy Harvesting and Conversion* (RMIT University)	**Prof. Kapil Chousalkar** *Nanomaterials for Salmonella Detection and Control in the Poultry Food Chain: Bridging Food Safety and Materials Science* (Adelaide University) Keynote· 25 min	**Prof. Bo Peng** *Biochips for Mitochondrial Function Sensing and Therapeutic Regulation* (Northwestern Polytechnical University)	**Dr. Junnan Hao** *Advanced aqueous Zn battery design with conversion-based cathodes* (Adelaide University)	**Dr. Joshua Butson** *Room Temperature Hydrogen Permeability of Metals and Thin-Film Ceramics* (Curtin University)	**Dr. Sina Jamali** *Stochastic Electrochemistry and Emerging Transduction Strategies in Biosensors and Bioelectronics* (Griffith University)	**Dr. Helena Wang** *Accelerating the Circular Economy for Lithium-Ion Batteries: Microwave- Enhanced Deep Eutectic Solvents for Critical Metal Recovery* (The University of Melbourne)
13:55-14:20	**A/Prof. Shengxi Huang** *Improving single photon emission from van der Waals materials via atomic engineering* (Rice University)	**Prof. David Tissue** *Innovative glasshouse films to reduce energy use and increase resource use efficiency and productivity* (Western Sydney University	**Prof. James McCoy** *How Geometry Shapes Matter* (RMIT University)	**Dr. Christina Cortez-Jugo** *Carrier-free Nanoparticle Platforms for Therapeutic Applications* (The University of Melbourne)	**Prof. Min Hong** *Phonon Engineering for High-Performance Thermoelectric Materials* *(University of Southern Queensland)*	**Prof. Long Ren** *Liquid Metal-Based Responsive Micro/Nanorobots: Development and Applications* (Shanghai University)	**Dr. Debjit Ghoshal** *Light-Activated Doping and Dedoping for Precision Manufacturing of Wafer-Scale 2D TMDCs* (Indian Institute of Technology Guwahati)	**Prof. Damien Giurco** *Strategic Minerals in a Circular Economy: An Australian Perspective* (The University of Melbourne)
14:20-14:45	**Prof. Liang Li** *Multifunctional Perovskite Photodetectors* (Soochow University)	**Ms Xinyue Xu** *Spectral Signatures of Singlet Fission Intermediates of Solid-State TIPS-Pentacene* (University of Melbourne) Invited oral · 15 min	**Prof. Jie Yang** *Graphene Origami Reinforced Nanocomposites* (RMIT University)	**A/Prof. Vi Khanh Truong** *Engineering adaptive liquid-metal biointerfaces through Predict–Design–Restore for coordinated host defence and regeneration* (Flinders University)	**Dr. Minkyung Kang** *Observing Phase Transitions in Confined Volumes* (The University of Sydney)	**Prof. Zichun Wang** *Tailoring high-performance and stable Ni catalysts for CO2 reforming of CH4* (Beijing University of Chemical Technology)	**Dr. Qiran Cai** *Thermal properties and applications of boron nitride nanosheets* (Deakin University)	**Dr. Hong Peng** *A Sustainable Process for Critical Metals Recovery from Mine Waste* (The University of Queensland)
14:45-15:10	**Dr. Quancheng Liu** *Measurement-induced photonic topological insulators* (Shandong University) Invited oral · 15 min	**Ms Solongo Purevdorj** *Interfacial Passivation for Efficient Hole Transporting Materials Free Carbon-Based Perovskite Solar Cells* (Griffith University) Invited oral · 15 min	**Dr. Pei Lay Yap** *Advancing the Characterisation Toolbox for Graphene-Based Materials* (Adelaide University)	**Dr. Nhiem Tran** *Lipid Self-Assembly: From Nanostructure to Therapeutic Function* (RMIT University)	**Dr. Tong Yang** *Ultra-Thin Hybrid Ion Exchange Interlayer for High Performance Aqueous Zn Metal Batteries* (Queensland University of Technology) Invited oral · 15 min	**Ms Jianan He** *Engineering Active Sites and Heterointerfaces on MXene for Efficient Electrocatalytic Water Splitting* (The University of Melbourne) Invited oral · 15 min	**Ms Mengrui Li** *Application-Tailored Low-Loss MnZn Ferrites for High-Frequency Magnetic Components: Toward Additive Manufacturing* (RMIT University) Invited oral · 15 min	**Prof. Yan Zhuge** *Turning Water Treatment Sludge into Self-healing Concrete* (Adelaide University)

15:10-15:35		**Dr. Weifei Fu** *Scalable Fabrication of Organic and Perovskite Solar Modules* (Zhejiang University) Invited oral · 15 min		**A/Prof. Behnam Akhavan** *Plasma Bio-engineering: From bioactive interfaces to advanced biofabrication* (University of Sydney)		**Dr. Feiyue Gao** *Designing Active Sites and Microenvironments for Durable Hydrogen Electrocatalysis* (Adelaide University) Invited oral · 15 min	**Ms Maryam Jamshidi** *ZnS-Mediated Multi-cation Exchange toward Compositionally Complex Metal Sulphide Nanomaterials* (The University of New South Wales) Invited oral · 15 min	**A/Prof. Hans Oskierski** *Refining of spodumene into lithium chemicals* (Murdoch University)	
15:35-16:00	Afternoon Tea (25 min, Venue: Foyer of B080.07)								
After-noon Session 2	**Optics, Photonics and Optoelectronics 1**	**Optics, Photonics and Optoelectronics 2**	**Solar Energy Harvesting and Photo Detection**	**Emerging Materials for Diagnostics and Therapeutics**	**Sustainable Energy Storage and Applications**	**Catalysis for Energy and Sustainability**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI**	**Critical Minerals, Resource Recovery and Circular Economy**	**ANMFC Challenge Presentations and Live Judging**
Venue	**080.08.005**	**080.08.009**	**080.08.007**	**080.08.010**	**080.08.011**	**080.09.007**	**080.09.009**	**080.09.012**	**080.06.005**
Chair	**Prof. Dongchen Qi** (Queensland University of Technology)	**A/Prof. Shengxi Huang** (Rice University)	**Dr. Jegadesan Subbiah** (The University of Melbourne)	**Dr. Rong Xu** (Monash University)	**Dr. Junnan Hao** (Adelaide University)	**Dr. Jinqiang Zhang** (The University of Western Australia)	**Dr. Md Ataur Rahman** (RMIT University)	**Dr. Helena Wang** (The University of Melbourne)	**Australian Nano-Manufacturing Future Challenge (ANMFC)** Shortlisted young researchers and student teams (5 mins each) • Live judging • Selection of 3 winning teams
16:00-16:25	**Prof. Xiaodong Huang** *Topology Optimization of Phononic and Photonic Crystal Structures* (Swinburne University of Technology)	**Prof. Heike Ebendorff-Heidepriem** *Controlling crystal particles in glass through microgravity, surface activation and dissolution kinetics to create new and advanced optical functionalities* (Adelaide University)	**A/Prof. James Hutchison** *Fluorescence brightening up to 150°C and seconds-long delayed fluorescence in dye-doped zeotypes* (The University of Melbourne)	**Prof. Kang Liang** *Engineering Nanozyme Selectivity through Materials Design and Mechanistic Control* (The University of New South Wales)	**Dr. Nana Wang** *Engineering Sulfur Reaction Pathways for High-Energy Metal Sulfur Batteries* (University of Technology Sydney)	**Prof. Jun-Jie Zhu** *Electrochemiluminescence Imaging for Analytical Application* (Nanjing University)	**A/Prof. Shiyang Tang** *Universal shrink-programmed droplet-to-bead fabrication of multimodal functional microbeads* (The University of New South Wales)	**Dr. Doudou Zhang** *Accelerating green hydrogen production through low-cost electrode development and scalable manufacturing* (Macquarie University)	

16:25-16:50	**A/Prof. Han Lin** *Polymer Metasurface Radiative Cooling Film from Lab to Fab* (RMIT University)	**Prof. Jiangang Feng** *Self-Assembly Nanophotonic Sources* (University of Science and Technology of China)	**Dr. Jialiang Huang** *Cryogenic Cathodoluminescence Reveals Defect-State Regulation in Wide-Bandgap Kesterite Solar Cells* (The University of New South Wales)	**Dr. Helen (Xiaoxue) Xu** *Quantitative Evaluation of Surface-Modified Upconversion Nanoparticles for Targeted Cancer Imaging and Fluorescence-Guided Surgery* (University of Technology Sydney)	**Prof. Porun Liu** *Design of Sub-Nanoscale Active Sites for Energy Conversion Applications* (Griffith University)	**Prof. Michael Stockenhuber** *Guiding the Chaos: Tuning Catalyst Acid-Redox Synergy for Product Selectivity* (University of Technology Sydney)	**Prof. Son Lam Phung** Image Processing for Sensing and Assistive Navigation (University of Wollongong)	**Prof. Mohammad Zaki Mubarok** *From Metallurgical Residues to Critical-Metal Resources: Integrated Valorization of Bauxite Residue and Nickel HPAL Tailings* (Institut Teknologi Bandung)	**16:00-18:00**
16:50-17:15	**Dr. Yuge Chen** *Topological phase transitions in cut-and-project binary chains: an arithmetic criterion from polarization* (Shanghai University) Invited oral · 15 min	**Ms Nahiya Mushtaq** *Liquid-Metal-Engineered Ultrathin 2D Ce–Ga Oxides for Broadband UV–NIR Negative Photodetection* (RMIT University) Invited oral · 15 min	**Prof. Dewei Chu** *Water-Driven Energy and Information Flow for Nano-Bio Intelligence* (The University of New South Wales)	**Dr. Hao Wang** *From shared receptors to nanomedicine: targeting pathogenic macrophages across chronic lung diseases* (RMIT University)	**A/Prof. Bin Luo** *Interfacial Engineering for Metal-Based Rechargeable Batteries* (The University of Queensland)	**Dr. Caiden J. Parker** *Electroacoustic Copper Restructuring for Highly Selective CO_2 Reduction to Methane* (RMIT University) Invited oral · 15 min	**A/Prof. Ylias Sabri** (RMIT University)	**Dr. Hanwei Yu** *Circular Resource Engineering: Electrochemical and Membrane Technologies for Critical Mineral and Nutrient Recovery* (University of Technology Sydney)	
17:15-17:30	**Dr. Mansi Goyal** *High-Performance Cellulose Photonic Films with Multifunctional Properties* (Queensland University of Technology)	**Ms Junbo Yang** *Three-dimensional asymmetric plasmonic metasurfaces supporting quasi-BIC resonances with tunable Q factors* (RMIT University)	**Dr. Junlin Lu** *Rethinking Exciton Dissociation in Two-Dimensional Perovskites: Beyond Edge State Mechanism* (RMIT University)		**Dr. Jhonatan Soto Puelles** *Molecular Insight into the Structure of Poly(Ionic Liquids) for Sodium Metal Battery Applications* (Deakin University)	**Dr. Yitong Li** *Zwitterionic carbamate interfaces unlock efficient "liquid" CO2 upgrading* (RMIT University) Invited oral · 15 min	**Prof. Jianxin Zhong** *Ultrafast Quantum Oscillations Beyond the Bloch Oscillation in Coupled Low-Dimensional Atomic Crystals* (Shanghai University) Keynote· 25 min	**Dr. Chen Zhao** *Bioinspired Metal–Organic Framework Channel Membranes for Selective and Gated Ion Transport* (RMIT University)	
18:00-20:30 Complementary dinner, all welcome but pre-registration required for catering purpose									

	Plenary talk (40 mins include Q&A)	Keynote (25 mins include Q&A)	Invited oral (15 mins include Q&A)						
Time	**Day 2: Wednesday 25th Nov 2026**								**GTALL – ICNASA 2026 Industry Forum** 8:30 am –5:30 pm Venue: 080.04.011 Connecting breakthrough science with industry, investment and global markets **Separate registration required**
09:00-09:40	**Dist. Prof. Sujeeva Setunge,** *Nanotechnology-Enabled Circular Construction: Enhancing Waste-Derived Materials for Sustainable Infrastructure*, RMIT University, (Venue: 080.07.001)						Chair: Dist. Prof. Tianyi Ma		
09:40-10:20	**Prof. Lei Jiang,** *Bioinspired Superwettability and Beyond: Ultralow Energy Consumption in High-Efficiency Bio-Synthesis, Energy Conversion, and Information Transmission,* University of Science and Technology of China (Venue: 080.07.001)								
10:20-10:50	**Youth STEM Showcase and Awards Ceremony** (Venue: 080.07.001) 5 teams: 3 ANMFC winners + Trinity Grammer STEM Racing Car + Biotech Future PPE team								
10:50-11:20	Morning Tea (30 min, Poster Set Up, Venue:080.07 foyer)								
Morning Session	**Optics, Photonics & Optoelectronics**	**Solar Energy Harvesting and Photo Detection**	**Advanced Characterisation and Simulation Techniques**	**Emerging Materials for Diagnostics and Therapeutics**	**Sustainable Energy Storage and Applications**	**Catalysis for Energy and Sustainability**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI**	**Critical Minerals, Resource Recovery and Circular Economy**	
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Chair	**A/Prof. Han Lin** (RMIT University)	**Dr. Meng Zhang** (The University of New South Wales)	**Dr. Xue Yan** (The University of Melbourne)	**Dr. Jieying Liang** (The University of New South Wales)	**A/Prof. Dipan Kundu** (The University of New South Wales)	**Dr. Ali Zavabeti** (RMIT University)	**Dr. Morgan Zhang** (RMIT University)	**Dr. Zhouzun Xie** (The University of New South Wales)	
11:20-11:45	**Prof. Feng Chen** *Femtosecond Laser Inscribed 3D Optical Chirality in YAG Crystal* (Shandong University)	**Dr. Wenxin Mao** *Photo-modulation of Ion Distribution in Metal Halide Perovskites* (Monash University)	**Dr. David Broadway** *Persistence and emergence of atomic optical defects at high pressure* (RMIT University)	**Dr. Chang Lei** *Nanotechnology-Enabled Advanced Omics: Unlocking Molecular Insights for Biomedical Research* (The University of Sydney)	**Dr. Xiaomin Xu** *Perovskite Oxide Electrocatalysts for Anion Exchange Membrane Water Electrolysis: From Materials Design to Device Performance* (Curtin University)	**A/Prof. Muxina Konarova** *Fewer Experiments, Better Predictions: Hybrid Kinetic-Machine Learning Models for Catalytic Conversion of Mixed Feedstocks* (The University of Queensland)	**Dr. Mohammad Ghasemian** *Liquid Metals Enabling the Fabrication and Doping of Advanced Transparent Conductive Materials* (The University of Sydney)	**Prof. Luke Henderson** *Engineering Interfaces, Creating Function: New Opportunities in Advanced Materials* (Deakin University)	
11:45-12:10	**Dr. Zhuo Wang** *Ultrafast laser-enabled big data storge* (Zhejiang University)	**Dr. Xiaoming Wen** *A Novel Photovoltaic Concept: The Lattice Battery Solar Cells* (RMIT University)	**Prof. Yalin Lu** *Precision Quantum Measurement: Challenges on New Light Sources* (University of Science and Technology of China)	**Dr. Wenyi Li** *Understanding Antimicrobial Peptides as Next-Generation Antibiotics* (La Trobe University)	**Ms Joyee Wong** *Graphene Oxide–Silica Microcapsules Containing Phase Change Materials for Thermal Energy Storage* (Monash University)	**Dr. Hangjuan Ren** *From Active Sites to an Active-Site Ecosystem: Making Operando Truly Operando* (Monash University)	**Prof. Mingzhu Li** *A Bioinspired Micro-nano Photonic Materials* (Technical Institute of Physics and Chemistry, CAS)	**Dr. Jingxiu Wang** *Selective Lithium Recovery from Spent Lithium-Ion Batteries via Stepwise Transition Metal Crystallization* (Adelaide University)	

12:10-12:35	**Dr. Linnan Jia** *2D materials for enhanced nonlinear optics in integrated waveguides* (RMIT University) Invited oral · 15 min	**Dr. Jegadesan Subbiah** *Molecular design and additive engineering for efficient organic solar cells* (The University of Melbourne)	**Dr. Henry Li** *AI4Science: From Accelerated Discovery to Agentic Discovery* (Adelaide University)	**Prof. Feng Wang** *Engineering Nano-Bio Interfaces: From Biomedical Nanotechnology to Plant Nanobiotechnology* (Hefei University of Technology)	**A/Prof. Nolene Byrne** *Hard Carbon Anodes for High-Performance Sodium-Ion Batteries: From Processing to Electrochemical Performance* (Deakin University)	**Dr. Jingrun Ran** *Atomic-Level Regulation on Photocatalyst for Energy-Related Reaction* (Adelaide University)	**Prof. Qunfeng Cheng** *Bioinspired MXene Nanocomposites* (University of Science and Technology of China)	**Prof. Ying (Ian) Chen** *Solid-state lithium-metal batteries need new materials innovation* (Deakin University)	**GTALL – ICNASA 2026 Industry Forum** 8:30 am –5:30 pm Venue: 080.04.011 Connecting breakthrough science with industry, investment and global markets **Separate registration required**
12:35-13:00		**Dr. Mehri Ghasemi** *Illumination-Conditioned States in Soft Metal Halide Perovskites: Beyond Static Recombination Physics* (RMIT University) Invited oral · 15 min		**Dr. Haiyan Li** *Engineering Small Extracellular Vesicles for Tissue Regeneration* (RMIT University)	**Prof. Zhanying Zhang** *Lignocellulose-Derived Hard Carbon for Sodium-Ion Battery Anodes* (Queensland University of Technology)	**Ms Anran Song** *Database-guided thermodynamic-kinetic regulation for PtNi-based intermetallic electrocatalysts* (Shanghai Jiao Tong University) Invited oral · 15 min	**Prof. Longqiu Li** *High-Precision 3D Printing of Micro/Nano Functional Devices: Materials, Processes, Equipment and Applications* (Harbin Institute of Technology)	**Dr. Tim Werner** *Sustainable critical mineral supply futures for Australia: Reconciling resource abundance with supply risks and transparency* (The University of Melbourne)	
13:00-14:00	Lunch/Poster Assessment (60 min, Venue：080.07 foyer)								
14:00-14:40	**Plenary Talk**：**Prof. Ying Tan,** *From Functional Materials to Intelligent Wearable Sensors: Design, Fabrication and Applications,* The University of Melbourne (Venue: 080.07.001)						Chair: Prof. Jie Yang		
After-noon Session 1	**Optics, Photonics and Optoelectronics**	**Solar Energy Harvesting and Photo Detection**	**Emerging Materials for Diagnostics and Therapeutics 1**	**Emerging Materials for Diagnostics and Therapeutics 2**	**Sustainable Energy Storage and Applications**	**Catalysis for Energy and Sustainability**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI**	**Critical Minerals, Resource Recovery and Circular Economy**	
Venue	**080.08.005**	**080.08.007**	**080.08.009**	**080.08.010**	**080.08.011**	**080.09.007**	**080.09.009**	**080.09.012**	
Chair	**Prof. Feng Chen** (Shandong University)	**Dr. Xiaoming Wen** (RMIT University)	**Dr. Chang Lei** (The University of Sydney)	**Dr. Haiyan Li** (RMIT University)	**Dr. Xiaomin Xu** (Curtin University)	**Dr. Jingrun Ran** (Adelaide University)	**A/Prof. Nic Bao** (RMIT University)	**Prof. Ying (Ian) Chen** (Deakin University)	
14:40-15:05	**Prof. Jinglai Duan** *Ion Track Technology-Based Optical Nanostructures* (Institute of Modern Physics, CAS)	**A/Prof. James Bullock** *Black Phosphorus Infrared Photodiodes* (The University of Melbourne)	**Dr. Qi (Hank) Han** *Decoding protein solution behaviours using synchrotron small-angle X-ray scattering and machine learning* (RMIT University)	**Prof. Fariba Dehghani** *Architected and Translatable Biomaterials for Regenerative Medicine and Medical Implants* (The University of Sydney)	**Dr. Qingbing Xia** *Interfacial Engineering and Mechanistic Characterisation for Next-Generation Sodium-Ion Batteries* (The University of Queensland)	**A/Prof. Jingwei Hou** *Conformal Glazing of Covalent Organic Frameworks: Hydrogen Sieving When Dry, Proton Conduction When Wet* (The University of Queensland)	**Prof. Yang Yang** *Advanced Manufacturing of Radio Frequency Electronics* (The University of Sydney)	**Dr. George Chen** *Ion Partitioning and Transport in Advanced Membrane Materials* (The University of Melbourne)	

15:05-15:30	**Prof. Xingyuan Xu** *Programmable Photonic Computing and Signal Processing* (Beijing University of Posts and Telecommunications)	**Dr. Meng Zhang** *Crystallization Engineering of Perovskite Thin Films for Photovoltaic Applications* (The University of New South Wales)	**Prof. Sophia Gu** *Redox by design: engineering nanomaterials for precision therapeutics* (The University of New South Wales)	**Dr. Jieying Liang** *Engineering Biocatalytic Nanomaterials for Precision Therapy and Biosensing* (The University of New South Wales)	**A/Prof. Dipan Kundu** *Balancing Transport and Interfacial Stability in Solid-State Battery Cathodes* (The University of New South Wales)	**Dr. Dechao Chen** *Colloidal Synthesis of Photocatalytic Quantum Dots Heterostructure* (University of Southern Queensland)	**Dr. Olga Zinovieva** *Can Individual Struts Serve as Surrogate Specimens for Additively Manufactured Titanium Microlattices?* (The University of New South Wales)	**Dr. Zhouzun Xie** *From Particles to Processes: Understanding Complex Particle–Fluid Systems Across Scales* (The University of New South Wales)	**GTALL – ICNASA 2026 Industry Forum** 8:30 am –5:30 pm Venue: 080.04.011 Connecting breakthrough science with industry, investment and global markets **Separate registration required**
15:30-15:55	**Prof. Xiaoke Yi** *Integrated Microwave Photonic Circuits for Signal Processing and Sensing* (The University of Sydney)	**Dr. Miaoqiang Lyu** *Lead-free Halide Perovskites for Optoelectronic Applications* (The University of Queensland)	**A/Prof. Keying Guo** *Molecular Bioelectronics for Precision Medicine: From Single-Molecule Sensing to Intelligent Diagnostics* (Guangdong Technion-Israel Institute of Technology)	**Dr. Changkui Fu** *Sulfoxide Polymers for Diagnostic and Therapeutic Applications* (The University of Queensland)	**Prof. Hongqi Sun** *Catalyst materials for photothermal catalysis* (The University of Western Australia)	**Dr. Mu Xiao** *Molten salt synthesis of heterogeneous catalysts for solar energy conversion: old chemistry for advanced materials* (The University of Queensland)	**Prof. Bilu Liu** *2D materials based homologous metal heteromaterials with chemically bonded metallic interface for stable high-current-density electrocatalysis* (Tsinghua University)	**Dr. Rumana Hossain** *Transforming Complex Wastes into High-Performance Nano- and Advanced Materials* (The University of New South Wales)	
15:55-16:20	**Dr. Xiangyang Guo** *Laser-nanoprinted broadband flat optics in liquid-metal-derived 2D tin oxide* (RMIT University) Invited oral · 15 min	**Mr Tai Wu** *Phosphonic Acid Functionalization of P3HT for Efficient and Stable Inverted Perovskite Solar Cells* (University of New South Wales) Invited oral · 15 min	**Dr. Linpeng Fan** *Programming Biomaterial Systems Across Scales for Regenerative Therapeutics and Biointegrated Sensing* (The University of Melbourne)	**Dr. David Ju** *From mRNA Vaccines to Cancer Immunotherapy: Translating Clinical Insights into mRNA Therapeutics* (La Trobe University)	**Ms Jingyi Luo** *Energy-Efficient Plasma Nitrogen Fixation via Ozone-Enhanced Electrodeless Bubble Discharge* (University of Sydney) Invited oral · 15 min		**Dr. Zhiyuan Huang** *Biomimetic Design and High-Precision Additive Manufacturing of Bioactive Dental Structures* (Harbin Institute of Technology) Invited oral · 15 min	**Prof. Akbar Rhamdhani** *Low-Carbon and Circular High-Temperature Recycling of End-of-Life Batteries* (Swinburne University of Technology)	
16:20-16:45	Afternoon Tea (25 min, Venue: 080.07 foyer)								
After-noon Session 2	**Optics, Photonics and Optoelectronics**	**Solar Energy Harvesting and Photo Detection**	**Advanced Characterisation and Simulation Techniques**	**Emerging Materials for Diagnostics and Therapeutics**	**Sustainable Energy Storage and Applications**	**Catalysis for Energy and Sustainability**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI**	**Critical Minerals, Resource Recovery and Circular Economy**	
Venue	**080.08.005**	**080.08.007**	**080.08.009**	**080.08.010**	**080.08.011**	**080.09.007**	**080.09.009**	**080.09.012**	
Chair	**Dr. Zhuo Wang** (Zhejiang University)	**Dr. Miaoqiang Lyu** (The University of Queensland)	**Dr. David Broadway** (RMIT University)	**A/Prof. Maggie Zhai** (RMIT University)	**Dr. Yameng Fan** (RMIT University)	**Dr. Hangjuan Ren** (Monash University)	**Dr. Olga Zinovieva** (The University of New South Wales)	**Dr. Jingxiu Wang** *Crystallization* (Adelaide University)	

16:45-17:10	**A/Prof. Bo Zhang** *Ultrafast Laser Micro-nanostructuring in Transparent Materials for On-chip Integrated Micro-spectrometers* (Zhejiang University)	**Dr. Dongxu He** *Towards Efficient and Stable Tin Halide Perovskite Photovoltaics* (The University of Queensland) Invited oral · 15 min	**Prof. Nikhil Medhekar** *Reconfigurable 2D Materials for Low-Energy Electronics* (Monash University)	**A/Prof. Ruirui Qiao** *3D Printing of Nanoparticle-Integrated Hydrogels* (The University of Queensland)	**Dr. Tianqi Zhang** *Electrifying Chemical Manufacturing for a Net-Zero Future: Plasma Reactive Systems from Molecules to Applications* (The University of Sydney)	**Dr. Ali Zavabeti** *Reactive Liquid-Metal Interfaces: From Atomaterials to Catalysis and Environmental Remediation* (RMIT University)	**Prof. Xiwang Zhang** *Confined Polymerisation: A New Strategy for High-performance Membranes* (The University of Queensland)	**Prof. George Franks** *Flocculation-flotation for improved recovery of fine critical minerals* (The University of Melbourne)	
17:10-17:35	**Mr Miao Liu** *Programmable radiative coupling in nanoelectromechanical quasi-BIC metasurfaces* (RMIT University) Invited oral · 15 min	**Ms Maduni M. Wijethilake** *Evaluation of a Light Diffusion Radiative Cooling Film for Energy-Efficient Protected Cropping* (RMIT University) Invited oral · 15 min	**Dr. Xue Yan** *Intertwined chirality and symmetry breaking in moiré domain-wall networks* (The University of Melbourne)	**A/Prof. Jiao Jiao Li** *Developing Regenerative Therapies for Bone and Joint Diseases* (University of Technology Sydney)	**Dr. Yufei Zhao** *Highly efficient electrocatalysts for energy conversion reactions* (University of Technology Sydney)	**Dr. Zhiliang Wang** (The University of Queensland)	**A/Prof. Nic Bao** *Topology Optimisation and Advanced Manufacturing for High-Performance Architectural Structures* (RMIT University)	**Prof. Qilin Wang** (University of Technology Sydney)	
17:35-18:00	**Dr. Yi-Hsun Chen** *Efficient light upconversion in few-layer transition metal dichalcogenides* (The University of Queensland) Invited oral · 15 min	**Ms Xihan Wu** *Artificial Chiral Microstructures for Manipulating Upconversion Emission* (RMIT University) Invited oral · 15 min		**Prof. Bingyang Shi** *Brain Targeted Drug Delivery and Therapy* (University of Technology Sydney)	**Mr Shengyong Gao** *Carbon-anchored functionalized single atoms for anode-free sodium batteries* (The University of Queensland) Invited oral · 15 min	**Dr. Yu Mao** *Theoretical Investigation of Integrated CO2 Capture and Electrochemical Reduction: Challenges and Opportunities* (The University of Auckland) Invited oral · 15 min	**Mr Chi-Chun Cheng** *Fab-Compatible Platform with 2D Integration and Monolithic 3D CMOS* (Nation Tsing Hua University)	**Dr. Chitra Sulkan** *Towards Sustainable NMC Recycling: Lower-Emission Reduction Pathways for Critical-Metal Recovery* (Swinburne University of Technology Invited oral · 15 min	
18:30-22:15 Conference Banquet and Awards for registered attendees **Dress code: Business Formal. Entry will be refused for non-compliance.** *(Venue: Athenaeum Club, Melbourne, 87 Collins St, Melbourne VIC 3000, Australia)*									

	Plenary talk (40 mins include Q&A)	Keynote (25 mins include Q&A)	Invited oral (15 mins include Q&A)					
Time	**Day 3: Thursday 26th Nov 2026**							**Venue**
09:00-09:40	**Prof. Hui-Ming Cheng,** Exploration of new 2D materials, Shenzhen Institutes of Advanced Technology, CAS					Chair: Dist. Prof. Baohua Jia		080.07.001
09:40-10:20	**Prof. Frank Caruso,** Engineering Nanoparticle Platforms for Precision Organ Targeting and Therapeutic Delivery, The University of Melbourne							
10:20-10:50	Morning Tea (30 min, Venue:080.07 foyer)							
Morning Session	**Optics, Photonics and Optoelectronics**	**Advanced Characterisation and Simulation Techniques**	**Emerging Materials for Diagnostics and Therapeutics**	**Sustainable Energy Storage and Applications**	**Catalysis for Energy and Sustainability**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI 1**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI 2**	**Critical Minerals, Resource Recovery and Circular Economy**
Venue	**080.08.005**	**080.08.007**	**080.08.009**	**080.08.010**	**080.08.011**	**080.09.007**	**080.09.009**	**080.09.012**
Chair	**Dr. Taimur Ahmed** (RMIT University)	**Dr. Henry Li** (Adelaide University)	**Dr. Haitao Yu** (RMIT University)	**Dr. Yufei Zhao** (University of Technology Sydney)	**Dr. Xin Mao** (Queensland University of Technology) & **Dr. Haimei Xu** (RMIT University)	**Dr. Ming Zhou** (Griffith University)	**Prof. Withawat Withayachumnankul** (Adelaide University)	**Dr. Chitra Sulkan** (Swinburne University of Technology
10:50-11:15	**Dr. Qingdong Ou** *2D Material Polaritonics and Optoelectronic Devices* (Macau University of Science and Technology)	**Dr. Anton Tadich** *The Soft X-ray Beamline at the Australian Synchrotron: Capabilities, research and future direction* (ANSTO)	**Prof. Jānis Ločs** *Synthesis and room/subzero temperature pressure-driven sintering of metastable calcium phosphates* (Riga Technical University)	**Prof. Huanyu Jin** *Electrocatalysis under Intermittent Conditions* (Shenzhen Institutes of Advanced Technology, CAS)	**Dr. Xiuwen Zhou** *Quantitative calculations of the photoluminescence quantum yield of organometallic emitters* (Queensland University of Technology)	**Prof. Chang Liu** *Highly conductive carbon nanotube fibers* (Institute of Metal Research, CAS)	**Prof. Bernard Rolfe** *Utilising Neural Networks and Neural Operators to Accelerate Forecasting of Precipitate Growth in Binary Alloys* (Deakin University	**Dr. Camille Jing Zhao** *The Role of Microbial Systems in Shaping the Future of Sustainable Mining* (The University of New South Wales)
11:15-11:40	**Prof. Zhong-Hua Chen** *Energy and resource sustainable technologies of greenhouse horticulture in Australia* (Adelaide University)	**Dr. Pria Ramkissoon** *Using Synchrotron X-ray Absorption Spectroscopy (XAS) to Study Any Material* (ANSTO)	**Dr. Brendan Dyett** *Dynamic Nanostructures in Lipid Nanoparticles: From Interfaces to mRNA Microneedle Delivery* (RMIT University)	**A/Prof. Bing Sun** *Developing High-Energy Electrode Materials for Metal–Air Batteries* (University of Technology Sydney)	**Dr. Haimei Xu** *Harnessing Solar Energy for Sustainable Catalysis: Photo-Driven Energy Production, Waste Valorisation and Environmental Remediation* (RMIT University)	**A/Prof. Hongwei Cheng** *Ion track technology for the design and fabrication of nanolattice mechanical metamaterials* (Institute of Modern Physics, CAS)	**Prof. Hua Wang** *Privacy in Data Publishing* (Victoria University)	**Dr. Sazzad Ahmad** *Hydrogen-Assisted Recovery of Critical Metals from NMC Black Mass: Thermodynamic Modelling and Experimental Validation* (Swinburne University of Technology)

11:40-12:05	**Prof. Liwei Chen** *Time-Resolved In Situ Imaging Reveals the Mechanism of Laser-Induced Nanoparticle Self-Deposition on Copper* (Xi'an Jiaotong University)	**Dr. Pablo Resendiz Vazquez** *Unveiling electronic Inhomogeneity in moiré-engineered two-dimensional semiconductors* (Monash University)	**Dr. Guochen Bao** *Lanthanide Luminescent Materials for sensing and therapeutic applications* (University of Technology Sydney)	**Dr. Yanqiu Lyu** *Solvent Coordination Engineering for Selective and Sustainable Battery Recycling* (Adelaide University)	**Dr. Xin Mao** *Molecular Design of MIL-53(Cu) for Selective Electrochemical CO_2 Reduction to C2 Products* (Queensland University of Technology)	**Prof. Yang Xiang** *AI Across the Lifecycle: Security, Safety, and Accountability* (Monash University)	**Dr. Naimeh Naseritaheri** *Interfacial Coupling in MoS2Hydrogen Evolution* (Monash University)	**Ms. Fatima Arshia** *Upcycling E-Waste-Derived Copper into Cu/Ni Foam Electrodes for High-Current-Density Glucose Electrooxidation to Formate* (The University of Hong Kong) Invited oral · 15 min
12:05-12:30		**Prof. Xiaodong Li** *Generalization, Ethics, and Governance in Using Large Language Models for Combinatorial Optimization* (RMIT University)	**Prof. Emma Kowal** *Indigenous knowledge and new materials: lessons from genomics for nano- and atomaterials science* (Deakin University)	**Dr. Jinqiang Zhang** *Refining structures of functional molecules for energy storage and conversion* (University of Technology Sydney)	**Ms. Zhirong Lang** *Promoting Ampere-Level Nitrate Reduction to Ammonia Through Designing Chiral Catalysts* (The University of Hong Kong) Invited oral · 15 min	**Mr Kang Liu** *Designing with Scent: Coffee-Ground Composite Filaments for 3D-Printed Multisensory Wall Skins* (RMIT University) Invited oral · 15 min	**Ms Lily Arrieta** *Hierarchical Ti–Ta Materials from Additive Manufacturing and Nanofabrication for Implant Applications* (RMIT University) Invited oral · 15 min	**Dr. Fei Li** *Carbon-based nanomaterials for selective gold extraction from e-waste* (The University of New South Wales) Invited oral · 15 min
12:30-14:20	Lunch (110 min, Venue: Foyer of B080.07)							
	13:10-14:20	Lunch with the Editors (Chair: Prof. Dongchen Qi; Venue: B080.07.001) 4 journal presentations (10 min each): **Wiley, npj Nanophotonics, Materials Reports: Energy, Scilight**. followed by a 30-min panel discussion.						
After-noon Session	**Optics, Photonics and Optoelectronics 1**	**Optics, Photonics and Optoelectronics 2**	**Emerging Materials for Diagnostics and Therapeutics 1**	**Emerging Materials for Diagnostics and Therapeutics 2**	**Sustainable Energy Storage, Advanced Materials and Applications**	**Nano-/Atom-fabrication, Advanced Manufacturing and AI**	**4th Scilight Seminar** on High-Quality Journal Development Venue: 080.06.005 **From 1:00 pm** Separate registration required	
Venue	**080.08.005**	**080.08.007**	**080.09.012**	**080.08.009**	**080.08.010**	**080.09.009**		
Chair	**Prof. Zhong-Hua Chen** (Adelaide University)	**Dr. Qingdong Ou** (Macau University of Science and Technology)	**Dr. Hao Wang** (RMIT University)	**Dr. Brendan Dyett** (RMIT University)	**Dr. Yanqiu Lyu** (Adelaide University)	**Prof. Hua Wang** (Victoria University)		
14:30-14:55	**Prof. Dongming Sun** *Novel Two-Dimensional Material-Based Optoelectronic Transistors for Intelligent Vision* (Institute of Metal Research, CAS)	**Prof. Qiaoliang Bao** *Transformation of confined-space photonics into industrial-level applications* (University of Shanghai for Science and Technology)	**Dr. Haitao Yu** *Fusogenic Lipid Cubosomes as Nanocarriers for Next-Generation Nanomedicine* (RMIT University)	**Dr. Kevin M. Koo** *Decentralized cancer liquid biopsy profiling within a clinical biosensor validation framework* (The University of Queensland)	**Prof. Dan Liu** *Advanced Nanocomposite Materials for Zinc-ion batteries* (RMIT University)	**Prof. Withawat Withayachumnankul** *Optically Controlled InGaAs Thin-Film Terahertz-Wave Modulator* (Adelaide University)		

14:55-15:20	**Dr. Taimur Ahmed** *Defect-Engineering in Low-dimensional Materials for Bioinspired Neuromorphic Vision Sensors* (RMIT University)	**Prof. Wenxin Wang** *Lattice Plasmon Nanolasing* (Harbin Engineering University)	**Dr. Fengtao Jiang** *Engineering Dynamic Tumor–Vascular Interfaces: Microfluidic Platforms for Cancer Metastasis and Mechanobiology* (The University of Sydney)	**Dr. Eric Gao** *Structure-Guided Engineering of Ionisable Lipid Nanoparticles for Targeted mRNA Delivery* (RMIT University)	**Ms. Huan Xu** *Dual descriptor screening identifies a molecular mediator for low concentration ether electrolytes in lithium metal batteries* (The University of Hong Kong) Invited oral · 15 min	**Dr. Ming Zhou** *Molecularly Imprinted Polymer-Functionalised Lateral-Flow Membrane for Highly Sensitive and Selective Per- And Polyfluoroalkyl Substances Detection in Water* (Griffith University)	**4th Scilight Seminar** on High-Quality Journal Development Venue: 080.06.005 **From 1:00 pm** Separate registration required
15:20-15:45	**Ms. Ransini Dahanayake** *From Fire Protection to Fire Detection: Graphene Metamaterial-Coated Cotton for Smart Fire Safety* (RMIT University) Invited oral · 15 min	**Dr. Bo Wu** *Laser-induced Plasmonic Nanostructures for Optical Storage in Disordered Crystals* (Shandong University) Invited oral · 15 min	**Dr. Abdulah Bawazeer** *Novel Responsive Lipid Nanoparticles for Multidrug-Resistant Organism Therapeutics* (RMIT University)	**Dr. Guocheng Fang** *Microfluidic laser-emission aqueous droplets for biomedical applications* (University of Technology Sydney)	**Dr. James D. Randall** *Engineering Multifunctional Carbon Fibre Materials for Structural Energy Storage and Organic Electrochemical Systems* (Deakin University) Invited oral · 15 min	**Prof. Haiping Du** *Programmable Electromechanical Networks for Intelligent and Energy-Efficient Vehicle Suspension Systems* (University of Wollongong)	
15:45-16:00			**Prof. Zhaogang Teng** (Nanjing University of Posts and Telecommunications) Keynote· 25 min	**Dr. Marco Cassani** *Decoding Cancer Mechanobiology to Improve Nanotherapeutic Delivery* (International Clinical Research Center of Brno)	**Mr Madhav Kumar Jha** *Interplay between reinforcement-induced microstructural heterogeneity and corrosion kinetics in TiB2 reinforced Mg-12.5Al-2Zn-1.5Ca nanocomposite* (Dr B R Ambedkar National Institute of Technology Jalandhar) Invited oral · 15 min	**Ms Zhihong Zhang** *Predicting Solvent-Dependent Molecular Gelation through Self-Assembly-Informed Machine Learning* (Deakin University) Invited oral · 15 min	
16:00-16:30	Closing Ceremony and Awards (Chair: Dist. Prof. Baohua Jia) (Venue: B080.07.001)						