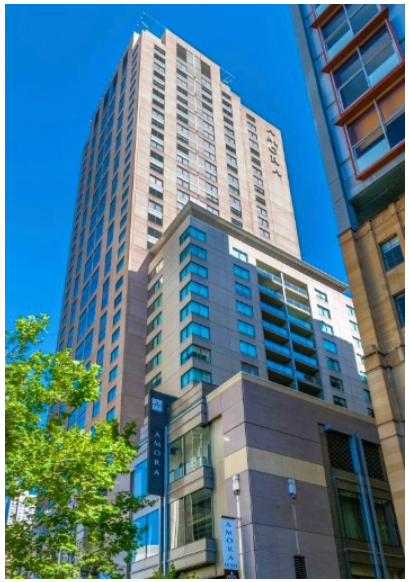
Program (06–10 October 2025)



***Location**:* Amora Hotel Jamison Sydney, 11 Jamison Street, Sydney NSW 2000

Conference room: Whiteley Ballroom, Level 2

***Registration** starts on 6 October 2025 (Day 0)*

	Day 0 – 06 October 2025
14:00–18:00	**Registration (Pre Function Area, Level 2)**
18:00–20:00	**Reception (Pre Function Area, Level 2)**

	Day 1 – 07 October 2025 (Level 2)
8:30–8:45	Opening Remarks (Guoxiu Wang, Maria Forsyth)
	Chairs: Guoxiu Wang, Maria Forsyth
8:45–9:10	Matt Kean, Chair of the Climate Change Authority, Australia
9:10–9:20	Professor James Wallman, Dean, Faculty of Science, University of Technology Sydney, Australia
9:20–9:30	Teófilo Rojo, University of the Basque Country, Spain
9:30–10:05	Jenny Pringle, Deakin University, Australia Ionic electrolytes for sodium batteries: The impact of ion structure on properties and performance
10:05–10:50	Group photo & morning tea
	Session Chairs: Atsuo Yamada and Xin Guo
10:50–11:15	Yuping Wu, Southeast University, China Tailoring transport of charge carriers in electrochemical energy storage systems
11:15–11:30	Kazuhiko Matsumoto, Kyoto University, Japan Functional electrolytes for sodium secondary batteries
11:30–11:45	Pieremanuele Canepa, University of Houston, United States Design of high-performance sodium-ion polyanion systems for electrode and solid electrolyte materials from theory and computation
11:45–12:00	Zhanying Zhang, Queensland University of Technology, Australia Agricultural biomass-derived materials for sodium-ion and lithium-ion battery anode applications

12:00–12:15	**Weihong Lai, Fudan University, China** **In situ transmission electron microscopy observation of the electrochemical reaction process in battery materials**
12:15–13:30	**Lunch (Level 1)**
	Session Chairs: Jenny Pringle and Wesley Dose
13:30–14:05	**Shinichi Komaba, Tokyo University of Science, Japan** **Precursor tuning towards high performance hard carbon for sodium-ion batteries**
14:05–14:30	**Robert House, University of Oxford, United Kingdom** **Stretching the limits of Na-ion cathodes**
14:30–14:45	**Xin Li, Harvard University, United States** **Sodium ion solid state batteries for fast and long cycling**
14:45–15:00	**Bin Luo, University of Queensland, Australia** **Atomic engineering and structural confinement for high-performance sodium storage**
15:00–15:15	**Fangfang Chen, Deakin University, Australia** **Opportunities and Challenges in the Computational Design of Poly(ionic liquids) for Solid-State Sodium Batteries**
15:15–15:30	**Ruth Knibbe, University of Queensland, Australia** **Enhancing sodium battery design through nanoscale characterisation**
15:30–15:50	**Afternoon tea**
	Session Chairs: Ruth Knibbe and Yanan Sun
15:50–16:15	**Atsuo Yamada, The University of Tokyo, Japan**

	Multifaceted reconsideration of alluaudite cathodes
16:15–16:30	**Yoshitaka Tateyama, Institute of Science Tokyo, Japan** **Na-ion states and dynamics in NIB electrodes revealed by DFT and MD simulations**
16:30–16:45	**Jian Yang, Shandong University, China** **High-capacity and long-life microsized Sn-based anodes for sodium-ion batteries**
16:45–18:00	**Editorial discussion:** **Moderator: Guoxiu Wang and Maria Forsyth** **Esther Levy (Advanced Materials, Wiley)** **Marco Amores (Nature Communications, Springer Nature)** **Qiang Zhang (EES Batteries, RSC)** **Yuping Wu (Energy Materials, OAE Publishing)**
18:30–20:30	**Australian Battery Society networking (Optional)** **By registration only (https://forms.office.com/r/5pXWFLQYer)** **Location: Albion Place H99otel (531 George St, Sydney New South Wales 2000)**

	Day 2 – 08 October 2025 (Level 2)
	Session Chairs: Shinichi Komaba and Fangfang Chen
8:30–9:05	Karena Chapman, Stony Brook University, United States Transport, Kinetics & the Path to New Materials Discovery
9:05–9:30	Zhongshuai Wu, Dalian Institute of Chemical Physics, China Flexible and High-Performance Sodium Ion Micro-Batteries
9:30–9:45	Payam Kaghazchi, University of Twente, Netherlands, and FZ Jülich, Germany Prediction of stability and voltage of layered oxide materials for sodium-ion batteries
9:45–10:00	Guosheng Li, Pacific Northwest National Laboratory, United States Molten Na battery chemistries for energy storage system applications
10:00–10:15	Valerie Pralong, Université de Caen, France Design of new material used as cathode for Na-ion batteries
10:15–10:35	Morning tea
	Session Chairs: Xin Li and Yunxiao Wang
10:35–11:00	Yan Yu, University of Science and Technology of China, China Interface regulation strategies of Na metal anodes
11:00–11:15	Ivana Hasa, University of Warwick, United Kingdom Improving Energy Density of Sodium-Ion Cells: From Hard Carbon to Tin Anodes
11:15–11:30	Hui Xia, Nanjing University of Science and Technology, China

	Manganese-based cathode design and interface modulation in sodium-ion batteries
11:30–11:45	**Nuria Tapia-Ruiz, Imperial College London, United Kingdom** **Electron Paramagnetic Resonance as a Tool to Determine the Sodium Charge Storage Mechanism of Hard Carbon in Na-Ion Batteries**
11:45–12:00	**Emma Kendrick, University of Birmingham, United Kingdom** **From resources to reuse – Optimisation of a sustainable sodium-ion battery**
12:00–12:15	**Jean-Noël Chotard, Université de Picardie Jules Verne, France** **NASICON-based materials: a wonderful "crystal-chemistry" playground**
12:15–13:30	**Lunch (Level 1)**
	Session Chairs: Yan Yu and Fredrick Marlton
13:30–13:55	**Qiang Zhang, Tsinghua University, China** **Emerging electrolyte for sodium batteries**
13:55–14:10	**Nolene Byrne, Deakin University, Australia** **Hard Carbon anodes and ionic liquid electrolytes**
14:10–14:25	**William Brant, Uppsala University, Sweden** **Deconstructing the role of water on phase transitions in Prussian blue analogue cathodes**
14:25–14:40	**Loïc Simonin, Université Grenoble Alpes, France** **Insight on bio-based hard carbon anodes for Na-ion Batteries**
14:40–14:55	**Raphaël Janot, Université de Picardie Jules Verne, France** **Tuning the microporosity and surface chemistry of hard carbons for high electrochemical performance**
14:55–15:25	**Afternoon tea**

	Session Chairs: Nuria Tapia-Ruiz and Vadim M. Kovrugin
15:25–15:40	**Bernd Schulz, Carl Zeiss Pty Ltd** **Diverse Connected and Air-Free Analysis Workflows for Battery Research**
15:40–15:55	**Gaaseng Liang, CSIRO, Australia** **Temperature-dependent degradation of fast-charging commercial sodium-ion batteries**
15:55–16:10	**Jon Ajuria, CIC energiGUNE, Spain** **From 1 mAh to 1 Ah: Bridging fundamental research and practical Na-ion cells through innovation**
16:10–16:25	**Chloe Pablos, TIAMAT** **Sodium-ion batteries for high-power application**
16:25–18:00	**Industry Forum: Challenges in the Commercialisation of Sodium Battery Technologies** **Moderator: Asif Mahmood** **Kun Huang (Solar Ethos Ltd); Sajjad S. Mofarah (Vecor Technologies); Patrick Howlett (DyNati Energie/Deakin); Chloe Pablos (TIAMAT); Charles Jones (ABT), Ivana Hasa (University of Warwick)**
18:45–19:15	**Pre-drinks** **Pre Function Area (Level 2)**
19:15–22:00	**Conference Banquet (Whiteley Ballroom, Level 2)** **Dinner Address** **Professor Chennupati Jagadish AC PresAA FRS FREng FTSE** **President, Australian Academy of Science** **Professor Andrew Parfitt** **Vice-Chancellor and President, University of Technology Sydney**

	Day 3 – 09 October 2025 (Level 2)
	Session Chairs: Emma Kendrick and Jean-Noël Chotard
8:30–9:05	**Laurence Croguennec, ICMCB-CNRS, Université de Bordeaux, France** **Promising phosphate and sulfate-based electrode materials for Na-ion batteries**
9:05–9:30	**Seung-Taek Myung, Sejong University, South Korea** **Revisiting Fe-based layered cathode material: stable cycling stability achieved by integrated surface engineering**
9:30–9:45	**Masashi Ohkubo, Waseda University, Japan** **Thermal stability index of sodium layered oxide cathodes**
9:45–10:00	**Stefan Adams, National University of Singapore, Singapore** **Fast-ion conducting catholytes $A_xNbO_xCl_{5-x}$ (A = Na, Li) for dual electrolyte solid-state batteries**
10:00–10:15	**Jongsoon Kim, Sungkyunkwan University, South Korea** **Enhancing oxygen redox kinetics in Na-layered cathodes toward high-power and high-energy sodium-ion batteries**
10:15–10:30	**Akitoshi Hayashi, Osaka Metropolitan University, Japan** **Glassy solid electrolytes for all-solid-state Na batteries**
10:30–10:50	**Morning tea**
	Session Chairs: William Brant and Chloe Pablos
10:50–11:15	**Charles Sorrel, The University of New South Wales, Australia** **Pourbaix-Diagram-Enabled Design of Advanced Cathode Materials for Sodium-Ion Batteries**

11:15–11:30	**Hyung-Seok Kim, Energy Storage Research Center, South Korea** **Li and F co-doping enhances oxygen redox stability in P2-type layered oxide cathodes for high-performance sodium-ion batteries**
11:30–11:45	**Kei Kubota, National Institute for Materials Science, Japan** **Operando XAS analysis during synthesis of $ANiO_2$ (A = Li, Na) cathode materials**
11:45–12:00	**Frederick Marlton, University of Technology Sydney, Australia** **An Investigation of Local-Scale Distortions in Perovskite Solid Electrolytes via Neutron Total Scattering**
12:00–12:15	**Amartya Mukhopadhyay, Indian Institute of Technology Bombay, India** **“Layered” transition metal oxides as electrode materials for Na-ion batteries: Composition – Structure – Environmental stability – Electrochemical behaviour/performance**
12:15–13:30	**Lunch (Level 1)**
	Session Chairs: Valerie Pralong and Payam Kaghazchi
13:30–13:55	**Michael Metzger, Dalhousie University, Canada** **Advanced alloy anodes for high energy density sodium–ion cells**
13:55–14:10	**Safir Ahmad Hashmi, University of Delhi, India** **Sodium-Magnesium Dual-Ion Flexible Gel Polymer Electrolyte with Diglyme as Solvent for Hybrid Battery Application**
14:10–14:25	**Naoaki Yabuuchi, Yokohama National University, Japan** **Durable layered oxides for high-power Na-ion batteries**
14:25–14:40	**Dong Zhou, Tsinghua University, China** **High Safety Electrolyte Design and Interfacial Chemistry for Sodium Metal Batteries**
14:40–14:55	**Hiroaki Kobayashi, Hokkaido University, Japan**

	Multielectron redox chemistry in alkali-superrich iron oxides
14:55–15:10	**Yunxiao Wang, University of Shanghai for Science and Technology, China** **Regulating redox kinetics for room-temperature sodium-sulfur batteries**
15:10–15:25	**Marie Guignard, University of Bordeaux, France** **Phase transitions occurring during sodium intercalation and deintercalation in sodium layered oxides**
15:25–15:45	**Afternoon tea**
	Session Chairs: Seung-Taek Myung and Mega Kar
15:45–16:00	**Alexandre Ponrouch, Institut de Ciència de Materials de Barcelona (CSIC), Spain** **Interphases stability and reliable electrochemical setup for Na-ion batteries**
16:00–16:15	**Yanan Sun, Humboldt University of Berlin, Germany** **Solvent Co-intercalation Chemistry in Sodium-Ion Batteries**
16:15–16:30	**Hanna Porter, University of California, United States** **Toward stable weberite-type sodium metal fluorides as high-performance sodium-ion cathodes**
16:30–16:45	**Weihua Chen, Zhengzhou University, China** **Interface regulation of sodium-ion batteries**
16:45–17:20	**Flash talks** **Yijun Zhong; Govardhan Sontam; Eugene Bakker; Md. Robiul Alam, Dr. Vaiyapuri Soundharrajan, Junnan Liu, Adrija Goswami, Saman Mostafapoor**
17:20–19:20	**Poster** **Poster Rooms: Boyd Room, Lindsay Room and Pre Function Area, Level 2**

	Day 4 – 10 October 2025 (Level 2)
	Session Chairs: Robert House and Zhong-Shuai Wu
8:30–8:55	**Maider Zarrabeitia, Helmholtz Institute Ulm (HIU), Germany** **Quasi-solid-state sodium batteries using novel single-ion polymer electrolytes**
8:55–9:10	**Prabeer Barpanda, Indian Institute of Science, India** **Structural Evolution Involving Anionic Redox in a Co-doped P2-type Layered Oxide Sodium Insertion Material**
9:10–9:25	**Xin Guo, Shenzhen University of Advanced Technology, China** **Cost-Driven Engineering of Electrode Materials for High-Performance Sodium-Ion Batteries**
9:25–9:40	**Charles Aram Hall, Uppsala University, Sweden** **Aging and SEI stability in the prussian white and hard carbon cell system**
9:40–9:55	**Cristina Pozo-Gonzalo, Instituto de Carboquímica ICB-CSIC, Spain** **Liquid and solid electrolytes for sodium-based batteries**
9:55–10:10	**Han-Yi Chen, National Tsing Hua University, Taiwan (R.O.C.)** **Exploring promising electrode materials for sodium-ion batteries: from advanced oxides to amorphous chalcogenides**
10:10–10:40	**Morning tea**
	Session Chair: Amartya Mukhopadhyay
10:40–10:55	**Yaojie Lei, University of Technology Sydney, Australia** **Understanding the charge transfer effects for Na-S batteries**

10:55–11:10	**Vadim M. Kovrugin, Université de Caen, France** **Crystal chemistry of sulfates for sodium-ion batteries: from mineral-inspired structures to functional electrode materials**
11:10–11:25	**Wesley Dose, University of New South Wales, Australia** **Utilising acoustic techniques to improve understanding of the formation process in sodium–ion batteries**
11:25–12:00	**Awards & Closing Events (Guoxiu Wang & Maria Forsyth)**
12:00–14:00	**Lunch (Level 1)**
14:30–15:30	**International Scientific Committee Members' Meeting**
14:00–15:30	**Networking and Afternoon tea**