DAY I, AUGUST 6, 2025	INESS-2025 CONFERENCE PROGRAM							
Venue - NAZARBAYEV UNIVERSITY, Block C3 (entrance from Turan ave.)								
8^{00}–9^{00}	REGISTRATION	Location: Block C3, M floor						
9^{00}–9^{20}	OPENING CEREMONY	Location: Block C3, M floor, Red hall Prof. Zhumabay Bakenov (Nazarbayev University (NU), National Laboratory Astana (NLA), Institute of Batteries (IoB)) Prof. Waqar Ahmad (The President of Nazarbayev University)						
9^{20}–9^{30}	GROUP PHOTO	Location: Block C3, M floor, Red hall						
	KEYNOTE SESSION	Location: Block C3, M floor, Red hall; Chairman: Prof. Zhumabay Bakenov						
K1 9^{30}–10^{00}	Prof. Kiyoshi Kanamura Tokyo Metropolitan University, Japan	New trend of lithium ion & metal batteries by using separator having inverse opal structure						
K2 10^{00}–10^{30}	Prof. Sung-Soo Kim Chungnam National University, Republic of Korea	Grain size engineering of porous Si-alloy anodes for enhanced electrochemical stability						
10^{30}–11^{00} COFFEE BREAK (Block C3, 1st floor)								
Red hall (Block C3, First floor)	PARALLEL SESSIONS		C3.1009 (Block C3, First floor)	PARALLEL SESSIONS		C3.1010 (Block C3, First floor)		
AI. ADVANCED ENERGY STORAGE AND BATTERIES (Li^+) Chairman: Prof. Xin-Bing Cheng; Co-Chairman: Prof. Almagul Mentbayeva			BI. ADVANCED FUNCTIONAL MATERIALS Chairman: Prof. Maksym Myronov; Co-Chairman: Prof. Sung-Woo Moon			CI. ELECTROCHEMICAL ENGINEERING AND ADVANCED ENERGY CONVERSION SYSTEMS Chairman: Dr. Kairat Ismailov; Co-Chairman: Dr. Fail Sultanov		
11^{00}–11^{25} INVITED	Prof. Ismael Saadoune Mohammed VI Polytechnic University, Benguerir, Morocco	Toward safer and cheaper batteries: phosphate-based cathodes for Li^+ and Na^+ ion technologies	11^{00}–11^{25} INVITED	Prof. Maksym Myronov The University of Warwick, UK	Ultraclean 2D hole system on silicon with mobility beyond the state of the art	11^{00}–11^{20}	Dr. Baglan Baqbolat Nazarbayev University, Kazakhstan	Biomass-derived porous carbon for high-performance hydrogen storage at ambient and cryogenic temperatures
11^{25}–11^{50} INVITED	Dr.Oleg Drozhzhin Lomonosov Moscow State University, Russia	Phosphate cathode materials for lithium-ion batteries and methods for their improvement	11^{25}–11^{50} INVITED	Prof. Zulkhair Mansurov Institute of Combustion Problems, Kazakhstan	Development of advanced nanocomposite materials for environmental protection and industrial applications	11^{20}–11^{40}	Dr. Dana Kanzhigitova National Laboratory Astana, Kazakhstan	Advancing energy devices through molecular engineering of conducting polymers and polyelectrolytes
11^{50}–12^{15} INVITED	Prof. Xin-Bing Cheng Southeast University, China	Working mechanism and materials design of thermoresponsive electrolytes	11^{50}–12^{10}	Prof. Sung-Woo Moon Nazarbayev University, Kazakhstan	Low-permeability behavior of chromium tailings: A barrier material perspective	11^{40}–12^{00}	Xeniya Leontyeva D.V.Sokolsky Institute of Fuel, Catalys, Kazakhstan	Influence of electrolyte composition on the photoelectrochemical performance of electrodeposited Bi2S3 thin films
12^{15}–12^{40} INVITED	Prof. Lianqi Zhang Tianjin University of Technology,People's Republic of China	Study on the construction of high safety and rapid ion conduction gel polymer lithium battery	12^{10}–12^{30}	Sumera Karim Nazarbayev University, Kazakhstan	Investigation of intense pulsed high-current ion beam interaction with ITO and FTO coatings	12^{00}–12^{20}	Abylay Abilkhan National Laboratory Astana, Kazakhstan	Thermoelectric and electronic properties of Bi2S3 synthesized via green mechanochemical and conventional routes
12^{40}–13^{00}	Alina Toktamyssova Institute of Batteries, Kazakhstan	Development of the new 1d nickel-rich NCM cathode for lithium-ion battery	12^{30}–12^{50}	Saniya R. Rakisheva Institute of Nuclear Physics, Kazakhstan	Application of track-etched membrane decorated by Fe3O4-Cr(azide)MIL101 MOF in the sorption of U(VI) ions from aqueous media.	12^{20}–12^{45} INVITED (ONLINE)	Prof. Desmond Adair Institute of Batteries, Kazakhstan	A review of challenges associated with on-board hydrogen energy storage for use with fuel-cells in electric aircraft
13^{00}–14^{00} LUNCH BREAK (Block C2, 3rd floor, Ballroom right)								
KEYNOTE SESSION Location: Block C3, M floor, Red hall; Chairman: Prof. Zhumabay Bakenov								
K3 14^{00}–14^{30}	Prof. Naoaki Yabuuchi Yokohama National University, Japan	Nanostructured high-performance lithium insertion materials for practical battery applications						
Red hall (Block C3, First floor)	PARALLEL SESSIONS		C3.1009 (Block C3, First floor)	PARALLEL SESSIONS		C3.1010 (Block C3, First floor)		
AI. ADVANCED ENERGY STORAGE AND BATTERIES (Li-S) Chairman: Prof. Naoaki Yabuuchi Co-Chairman: Prof. Long Kong			BI. ADVANCED FUNCTIONAL MATERIALS Chairman: Dr. Valery Petrykin; Co-Chairman: Dr. Zakaria Ziadi			CII. CATALYSIS Chairman: Prof. Bolat Uralbekov; Co-Chairman: Dr. Reza Zamani		
14^{30}–14^{55} INVITED	Prof. Long Kong Northwestern Polytechnical University, China	Electrolytes and interphases in low temperature lithium batteries	14^{30}–14^{55} INVITED	Dr. Zakaria Ziadi Okinawa Institute of Science and Technology, Japan	Nanomaterials and nanofabrication for sensing applications	14^{30}–14^{55} INVITED	Prof. Bolat Uralbekov Al-Farabi Kazakh National University, Kazakhstan	Health risk implications of photocatalytic indoor air purification: challenges and mitigation strategies
14^{55}–15^{15}	Dr.Ayaulym Belgibayeva National Laboratory Astana, Kazakhstan	Carbon nanofibers embedded with nickel phosphide for enhanced sulfur Immobilization in Li–S Batteries	14^{55}–15^{15}	Tolagay Duisebayev Nazarbayev University, Kazakhstan	In-situ optical monitoring and morphological evolution of silicon nanowires grown on faceted Al2O3(0001) substrates via the ATLAS deposition technique	14^{55}–15^{15}	Hafiz Abid Nazarbayev University, Kazakhstan	Zif-derived co/NC as an efficient catalyst for biomimetic CO2 mineral carbonation under ambient conditions
15^{15}–15^{35}	Temirlan Kerimkul National Laboratory Astana, Kazakhstan	Investigation of a dual photo-thermally crosslinked PVA-based gel polymer electrolyte for robust lithium-sulfur battery applications	15^{15}–15^{40} INVITED	Dr. Valery Petrykin Faraday Factory Japan LLC, Japan	Large-Scale Production of High-Temperature Superconducting Wires for Fusion, Energy, and Transportation Applications	15^{15}–15^{35}	Prof. Sholpan Itkulova D.V.Sokolsky Institute of Fuel, Catalysis, and Electrochemistry, Kazakhstan	Syngas production by carbon dioxide conversion of methane over the CO-based nanocomposite catalysts with high stable activity
15^{35}–15^{55}	Yessimzhan Raiymbekov National Laboratory Astana, Kazakhstan	Li-coated poly(ethylene oxide)-poly(vinylidene fluoride-co-hexafluoropropylene)-based membrane as gel polymer electrolyte for lithium-ion batteries	15^{40}–16^{00}	Dr.Guldana Zhigerbayeva National Laboratory Astana, Kazakhstan	Multifunctional hybrid conducting polymers and their nanocomposites for highly stable and flexible micro-supercapacitors	15^{35}–15^{55}	Dr. Natalya Khan Institute of batteries, Kazakhstan	Key factors influencing photocatalytic degradation of microplastics
15^{55}–16^{15}	Aizhan Kazymbetova National Laboratory Astana, Kazakhstan	Optimizing hybrid carbon matrices: synthesis and electrochemical characterization of buckwheat-derived HC and SWCNT composites for Li-S batteries	16^{00}–16^{20}	Alina Samyratova Institute of Batteries, Kazakhstan	Underground hydrogen storage sites selection using fuzzy logic	15^{55}–16^{15}	Dr. Reza Zamani Thermo Fisher Scientific, The Netherlands	Real-time observation of molecular dynamics and chemical reactions in STEM
16^{30}–17^{00} COFFEE BREAK (Block C3, 1st floor)								
17^{00}–18^{30} POSTER SESSION and LAB-TOUR Location: Atrium on the 1st floor between blocks C3 and C4 Chairman: Dr. Ayaulym Belgibayeva; Co-chairman: Dr. Gani Yergaliuly; Dr. Zhandos Shalabayev; Lab-tour: Ms. Yerkem Kanatbekkyzy; Dr. Zhandos Shalabayev								

DAY II, AUGUST 7, 2025

KEYNOTE SESSION

Location: Block C3, M floor, Red hall; Chairman: Prof. Aishuak Konarov Co-chairman: Dr. Dauren Batyrbekuly

K4 9^{00}–9^{30}	Prof. Yongcheng Jin, Ocean University of China, China	Poly(ionic liquid)-based solid-state electrolyte for high performance lithium metal batteries
K5 9^{30}–10^{00}	Prof. Nae Lih Wu, National Taiwan University, Taiwan	All-solid-state lithium metal batteries integrating Ni-rich NCM cathodes and halide-based solid electrolytes
K6 10^{00}–10^{30}	Prof. Shinichi Komaba, Tokyo University of Science, Japan	From materials science to market: recent progress in Na-ion batteries

10^{30}–11^{00} COFFEE BREAK (Block C3, 1st floor)

Red hall (Block C3, First floor) — PARALLEL SESSIONS

AI. ADVANCED ENERGY STORAGE AND BATTERIES (Na-ion batteries)
Chairman: Prof. Rizwan Uddin;
Co-Chairman: Prof. Natalia Voronina

11^{00}–11^{25} INVITED	Prof. Natalia Voronina, Sejong University, South Korea	Investigation of anionic and cationic redox chemistry in p3-type Na0.67[Zn0.3Mn0.7]O2 layered sodium cathode
11^{25}–11^{50} INVITED	Prof. Rizwan Uddin, University of Illinois, USA	Molten salt intermediate energy storage in a hybrid energy system with multiple nuclear power plants and multiple energy use
11^{50}–12^{10}	Vitalii Shevchenko, Moscow State University, Kazakhstan	Effect of Ni and Fe redox transformations on electrochemical properties of O3-NaFe1-x-yNixMnyO2 materials as cathodes for Na-ion batteries
12^{10}–12^{30}	Orazaly Sultan-Akhmetov, National Laboratory Astana, Kazakhstan	Development and fabrication of lithium-ion battery pouch cells using A pilot production line
12^{30}–12^{50}	Farizat Aidyn, National Laboratory Astana, Kazakhstan	Development of A Zn/LiFePO4 aqueous battery system with ZnCl2/LiCl binary electrolyte for commercial applications
12^{50}–13^{00} SPONSOR	Nikolay Gerasimenko, E-Globaledge Corporation	Standardless FP analysis of lithium-ion battery cathode material LiFePO4 by WDXRF spectrometer

C3.1009 (Block C3, First floor) — PARALLEL SESSIONS

BI. ADVANCED FUNCTIONAL MATERIALS AND SENSORS
Chairman: Prof. Salimgerey Adilov;
Co-Chairman: Dr. Baktiyar Soltabayev

11^{00}–11^{20}	Prof. Salimgerey Adilov, Nazarbayev University, Kazakhstan	1 ppm-detectable hydrogen gas sensor based on nanostructured polyaniline
11^{20}–11^{40}	Dr. Aitkazy Kaisha, Nazarbayev University, Kazakhstan	Tailoring Carrier Suppression in a-IGZO/SiOx/a-IGZO Ultrathin Laminates
11^{40}–12^{00}	Anum Afroz, Nazarbayev University, Kazakhstan	Design of an internet of things (IoT) based intelligent system for remote patient health monitoring
12^{00}–12^{20}	Dr. Gani Yergaliuly, National Laboratory Astana, Kazakhstan	Enhancement of NO gas sensing properties of titanium-doped ZnO nanostructures via intense pulsed ion beam irradiation
12^{20}–12^{30} SPONSOR	Dr.Reza Zamani, MN-Labtech	Thermo Scientific Apreo ChemiSEM - the new frontier in integrated and simultaneous HR SEM and EDX chemical characterisation
12^{30}–12^{40} SPONSOR	Ozhiken Assylbek, Prolabsupport	ProLabSupport: Equipment for Electrochemistry and Batteries

C3.1010 (Block C3, First floor) — PARALLEL SESSIONS

CIII. COMPUTATIONAL MODELLING AND THEORETICAL SIMULATION
Chairman: Prof. Lefteri Tsoukalas;
Co-Chairman: Prof. Yanwei Wang

11^{00}–11^{25} INVITED	Prof. Lefteri Tsoukalas, Purdue University, USA	AI/ML for discovery in the nuclear domain
11^{25}–11^{45}	Dr.Sergey V. Levchenko, Skolkovo Institute of Science and Technology, Russia	Identifying hidden trends in complex data to design best metal-organic-framework catalysts for oxygen evolution reaction
11^{45}–12^{10}	Prof. Yanwei Wang, National Laboratory Astana, Kazakhstan	Integrating computational materials science into engineering education and energy innovation
12^{10}–12^{30}	Dana Sapobekova, National Laboratory Astana, Kazakhstan	Advanced polymer-based emulsion modeling for efficient hydrocarbon recovery in Kazakhstan's oil fields
12^{30}–12^{50}	Mr. Sultan Abylkairov, Nazarbayev University, Kazakhstan	Computational analysis of Bi2S3 crystal morphology and hydrogen adsorption behavior
12^{50}–13^{00} SPONSOR	Serik Akhmetov, IC Lab	Laboratory solutions for researching of nanomaterials and advanced energy storage systems

13^{00}–14^{00} LUNCH BREAK (Block C2, 3rd floor, Ballroom right)

KEYNOTE SESSION

Location: Block C3, M floor, Red hall; Chairman: Prof. Rodion Panin Co-Chairman: Dr. Nurzhan Umirov

K7 14^{00}–14^{30}	Prof. Seung-Taek Myung, Sejong University, South Korea	Mn-rich layered cathode materials for lithium and sodium intercalation

Red hall (Block C3, First floor) — PARALLEL SESSIONS

AI. ADVANCED ENERGY STORAGE AND BATTERIES (Na-ion batteries)
Chairman: Prof. Rodion Panin;
Co-Chairman: Dr. Nurzhan Umirov

14^{30}–14^{50}	Prof. Rodion Panin, Lomonosov Moscow State University, Russia	The new polyanionic NaMNb(PO4)3 (M=Cr, V) multielectron anode Materials for Na-ion batteries based on the Nb5+/Nb4+/Nb3+ redox transfer
14^{50}–15^{10}	Anastasija D. Jablanovic, Skolkovo Institute of Science and Technology, Russia	Sodium and iron mixed phosphate cathode materials: phase composition and elecrochemical performance relations
15^{10}–15^{30}	Dr. Lunara Rakhymbay, Nazarbayev University, Kazakhstan	Tailoring Mn–Fe–Ni layered oxides for high-performance sodium-ion battery cathodes
15^{30}–15^{50}	Mikhail Agapkin, Skolkovo Institute of Science and Technology, Russia	Analysis of morphological features of binder-free metal electrodes for a sodium-ion battery

C3.1010 (Block C3, First floor) — PARALLEL SESSIONS

CIII. COMPUTATIONAL MODELLING AND THEORETICAL SIMULATION
Chairman: Prof. Moulay Rachid Babaa;
Co-Chairman: Dr.Sergey V. Levchenko

14^{30}–14^{55} INVITED	Prof. Moulay Rachid Babaa, New Uzbekistan University, Uzbekistan	Machine learning (ML) approach utilizing FTIR spectroscopy data for accurate and efficient identification of organic components
14^{55}–15^{15}	Ravil Ashirmametov, Nazarbayev University, SEDS, Kazakhstan	Determining the structure of functionalized graphene for tailored thermomechanical properties using ML techniques
15^{15}–15^{35}	Meiirzhan Nurmyrza, National Laboratory Astana, Kazakhstan	Acid rainwater-assisted mineral dissolution using Kazakhstan's industrial waste for CO2 mineral carbonation
15^{35}–15^{45} SPONSOR	Didar Nurbolatuly, Distritech	Anton Paar solutions for Battery material characterization

16^{00}–17^{00} **POSTER SESSION**
Location: Atrium on the 1st floor between blocks C3 and C4
Chairman: Dr. Ayaulym Belgibayeva; Co-Chairman: Dr. Gani Yergaliuly; Dr. Zhandos Shalabayev

17^{00}–17^{50} **AWARDING**
Location: Block C2, 2nd floor, Red hall

18^{00}–20^{30} **CLOSING CEREMONY and GALA DINNER**
Location: Block C2, 3rd floor, Ball room right

DAY III, AUGUST 8, 2025

CONFERENCE ACTIVITY EVENT (get ticket on the registration desk)
09^{00}–18^{00} trip to Kulager

The conference program is subject to change and may be updated. Please check for the latest schedule and updates regularly.