

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, 1 st 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: Dr.Oleg Drozhzhin						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, 3 rd 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 The Netherlands		Real-time observation of molecular dynamics and chemical reactions in STEM						
16 ³⁰ –17 ⁰⁰ COFFEE BREAK (Block C3, 1 st floor)																						
17 ⁰⁰ –18 ³⁰ POSTER SESSION and LAB-TOUR																						
Location: Atrium on the 1 st 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																						

KEYNOTE SESSION

Location: Block C3, M floor, Red hall; **Chairman:** Prof. Aishuak Konarov

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, China	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

10³⁰–11⁰⁰ 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 (Na-ion batteries) Chairman: Prof. Rizwan Uddin; Co-Chairman: Prof. Natalia Voronina						BI. ADVANCED FUNCTIONAL MATERIALS AND SENSORS Chairman: Prof. Salimgerey Adilov; Co-Chairman: Dr. Bakhtiyar Soltabayev						CIII. COMPUTATIONAL MODELLING AND THEORETICAL SIMULATION Chairman: Prof. Lefteri Tsoukalas; Co-Chairman: Prof. Yanwei Wang					
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 ⁰⁰ –11 ²⁰	Prof. Salimgerey Adilov Nazarbayev University, Kazakhstan	1 ppm-detectable hydrogen gas sensor based on nanostructured polyaniline	11 ⁰⁰ –11 ²⁵ INVITED	Prof. Lefteri Tsoukalas Purdue University, USA	AI/ML for discovery in the nuclear domain									
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 ²⁰ –11 ⁴⁰	Dr. Aitkazy Kaisha Nazarbayev University, Kazakhstan	Tailoring Carrier Suppression in a-IGZO/SiOx/a-IGZO Ultrathin Laminates	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 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	11 ⁴⁰ –12 ⁰⁰	Anum Afroz Nazarbayev University, Kazakhstan	Design of an internet of things (IoT) based intelligent system for remote patient health monitoring	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	Orazaly Sultan-Akhmetov National Laboratory Astana, Kazakhstan	Development and fabrication of lithium-ion battery pouch cells using A pilot production line	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 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	Farizat Aidyn National Laboratory Astana, Kazakhstan	Development of A Zn/LiFePO4 aqueous battery system with ZnCl2/LiCl binary electrolyte for commercial applications	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 ⁵⁰	Mr. Sultan Abylkairov Nazarbayev University, Kazakhstan	Computational analysis of Bi2S3 crystal morphology and hydrogen adsorption behavior									
12 ⁵⁰ –13 ⁰⁰ SPONSOR	Nikolay Gerasimenko E-Globaledge Corporation	Standardless FP analysis of lithium-ion battery cathode material LiFePO4 by WDXRF spectrometer	12 ³⁰ –12 ⁴⁰ SPONSOR	Ozhiken Assylbek Prolabsupport	ProLabSupport: Equipment for Electrochemistry and Batteries	12 ⁵⁰ –13 ⁰⁰ SPONSOR	Serik Akhmetov IC Lab	Laboratory solutions for researching of nanomaterials and advanced energy storage systems									

13⁰⁰–14⁰⁰ LUNCH BREAK (Block C2, 3rd floor, Ballroom right)

KEYNOTE SESSION

Location: Block C3, M floor, Red hall; Chairman: Prof. Aishuak Konarov

K7 14⁰⁰–14³⁰	Prof. Seung-Taek Myung Sejong University, South Korea	Mn-rich layered cathode materials for lithium and sodium intercalation			
Red hall (Block C3, First floor)		<u>PARALLEL SESSIONS</u>		C3.1010 (Block C3, First floor)	
AI. ADVANCED ENERGY STORAGE AND BATTERIES (Na-ion batteries) Chairman: Prof. Aishuak Konarov; Co-Chairman: Prof. Rodion Panin			CIII. COMPUTATIONAL MODELLING AND THEORETICAL SIMULATION Chairman: Prof. Moulay Rachid Babaa; Co-Chairman: Dr.Sergey V. Levchenko		
14³⁰–14⁵⁵ INVITED	Prof. Rodion Panin Lomonosov Moscow State University, Russia	The new polyanionic NaMnNb(PO4)3 (M=Cr, V) multielectron anode Materials for Na-ion batteries based on the Nb5+/Nb4+/Nb3+ redox transfer	14³⁰–14⁵⁵ 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
14⁵⁵–15¹⁵	Anastasija D. Jablanovic Skolkovo Institute of Science and Technology, Russia	Sodium and iron mixed phosphate cathode materials: phase composition and electrochemical performance relations	14⁵⁵–15¹⁵	Ravil Ashirmametov Nazarbayev University, SEDS, Kazakhstan	Determining the structure of functionalized graphene for tailored thermomechanical properties using ML techniques
15¹⁵–15³⁵	Dr. Lunara Rakhymbay, Nazarbayev University, Kazakhstan	Tailoring Mn–Fe–Ni layered oxides for high-performance sodium-ion battery cathodes	15¹⁵–15³⁵	Meiirzhan Nurmyrza National Laboratory Astana, Kazakhstan	Acid rainwater-assisted mineral dissolution using Kazakhstan’s industrial waste for CO2 mineral carbonation
15³⁵–15⁵⁵	Mikhail Agapkin Skolkovo Institute of Science and Technology, Russia	Analysis of morphological features of binder-free metal electrodes for a sodium-ion battery	15³⁵–15⁴⁵ SPONSOR	Didar Nurbolatuly Distritech	Anton Paar solutions for Battery material characterization

16⁰⁰–17⁰⁰ 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

17⁰⁰–17⁵⁰ AWARDING

Location: Block C2, 2nd floor, Red hall

18⁰⁰–20³⁰ CLOSING CEREMONY and GALA DINNER

Location: Block C2, 3rd floor, Ball room right

DAY III, AUGUST 8, 2025 **CULTURAL PROGRAM** (get ticket on the registration desk)

DAY III, AUGUST 8, 2025 **CULTURAL PROGRAM** (get ticket on the registration desk)

09⁰⁰–18⁰⁰ trip to Kulager

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