

10th International Conference on Lithium, Industrial Minerals and Energy IWLIME 2023, October 23-25, Antofagasta, Chile

Day 1			
Welcome	8:00 – 9:00	Registration	
	9:00 – 9:10	Governmental authorities	
	9:10 – 9:15	Marcos Cikutovic Rector – University of Antofagasta, Chile	
	9:15 – 9:20	Prof Mario Grágeda Chairman IWLIME 2023 – CELiMIN, University of Antofagasta, Chile	
	9:20 – 9:30	Pablo Pisani Communications, Sustainability and Public Affairs Manager– SQM, Chile	
Morning	Advanced Materials and Lithium Ion Batteries		
Chairman: Dr David Amurrio			
Plenary talk	9.30 – 10:10	The very latest in solid-state batteries: the condensed matter or quantum battery	Prof Maria H. Braga University of Porto, Portugal
Oral sessions	10:10 – 10:30	The race for lithium and chilean challenges	Dra Ingrid Garcés University of Antofagasta, Chile
	10:30 – 11:00	Coffee Break, stands and poster setup session	
	11:00 – 11:20	Study of the growth mode of nanostructured cathodic metallic oxide thin films	Dr Marcos Flores University of Chile, Chile
	11:20 – 11:40	Advances, challenges and projections in the architecture of the cathode compartment for lithium and oxygen batteries	Dra Paulina Márquez Central University of Chile
	11:40 – 12:00	Surface modification of Nafion 117 membrane through co-deposition of polyelectrolytes for its application in LiOH production	PhD student Adrian Quispe CELiMIN-University of Antofagasta, Chile
	12:00 – 12:20	Electrochemical studies and future prospects of lithium-ion batteries and supercapacitors	Dr Alifhers Mestra Catholic University of the North, Chile
	12:20 – 12:40	Advances in data-driven over IoT modelling and control of Lithium Cells for deeply embedded BMS and integration into state-of-the-art ERNC systems	Dr Romeo C. Velarde CELiMIN-WinayTEC, Bolivia
	12:40 – 13:00	Promising materials for lithium-ion batteries	Dr Jonathan Cisterna Catholic University of the North, Chile
	13:00 – 14:30	Lunch Break and Tea Time	
Afternoon	Materials Synthesis for Electric Energy Storage		
Chairman: Dr Romeo C. Velarde			
Plenary talk	14:30 – 15:10	The UK Battery Ecosystem: Powders to Pouch Cells	Prof Louis Piper University of Warwick, United Kingdom
Oral sessions	15:10 – 15:40	Enhancing Energy Materials Engineering using Metal Nanowires	Prof Andrew Watt University of Oxford, United Kingdom
	15:40 – 16:00	Lithium inventory loss mechanisms in high energy density NMC cells	Dr Israel Temprano University of Cambridge, United Kingdom
	16:00 – 16:30	Coffee Break, stands and posters	
	16:30 – 16:50	Surface Modified High-density Cathode Material for Lithium Storage Applications	Dr Kumaresan Lakshmanan CELiMIN-University of Antofagasta, Chile
	16:50 – 17:10	Evaluation of the effect of lithium source on the electrochemical performance of a high-voltage spinel cathode material	PhD student Luis Rojas CELiMIN-University of Antofagasta, Chile

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Day 2			
Morning	Circular Economy and Environment Considerations in non-metallic Mining		
	8:40 – 9:00	Recap and Highlights	
Chairman: Prof Svetlana Ushak			
Plenary talk	9:00 – 9:40	An overview of sustainability and society aspects in thermal energy storage	Prof Luisa F. Cabeza University of Lleida, Spain
Oral session	9:40 – 10:00	Bio-assisted Closed Loop Recycling for E-mobility Metals from Li-Ion Batteries (BaCLEM)	Prof Eric D. van Hullebusch Paris Cité University, France
	10:00 – 10:20	Life Cycle Assessment for Measuring and Mitigating Environmental Impacts of Lithium Products	Dr Davey Cavell Minviro, United Kingdom
	10:20 – 10:40	The SimpLicity and VersatiLity of Direct Lithium Extraction	Dr Jim Scotson Evove, United Kingdom
	10:40 – 11:00	The geology and mineralogy of sedimentary deposits with elevated lithium-Iodine-Nitrate mineralization in the coastal plain of northern Atacama	Dr Anthony Harwood Zander Invest, United Kingdom
	11:00 – 11:30	Coffee Break, stands and posters	
Chairman: Dra Paula Marín			
Plenary talk	11.30 – 12.10	Ion separation using ion-exchange and track-etched membranes: application for lithium recovery	Prof Victor Nikonenko Kuban State University, Russia
Oral sessions	12:10 – 12:30	Electromembrane recovery of phosphates from wastewater	Prof Natalia Pismenskaya Kuban State University, Russia
	12:30 – 12:50	Use of Inorganic Hydrated Salts in Solar Water Heating Plant: Results of Experimental Performance	Prof Svetlana Ushak CELiMIN-University of Antofagasta, Chile
	12:50 – 14:30	Lunch Break and Tea Time	
Afternoon	Sustainability, Environmental factors, and Social Considerations in Salt Flat		
Chairman: Osvaldo Yañez			
Oral sessions	14:30 – 15:00	From Salt Flats to Batteries: the YPF Project	Dr Roberto Salvarezza YPF-CONICET, Argentina
	15:00 – 15:20	Synthetic Biology in thermophiles and Bioeconomy	Dr Pedro Zamorano University of Antofagasta, Chile
	15:20 – 15:40	Natural laboratories: microbial diversity and their technological prospects	Dr Pablo Aguilar University of Antofagasta, Chile
	15:40 – 16:00	SQM and Sustainability in lithium production in Salar de Atacama	Javier Silva SQM, Chile
	16:00 – 16:30	Coffee Break, stands and posters	
	16:30 – 16:50	Solar evaporation catalysts	Dr David Amurrio Bolivian Catholic University, Bolivia
	16:50 – 17:10	Emergent technologies for LIBs recycling. An environmentally friendly perspective	Dr Yanio Milián Catholic University of the North, Chile
	17:10 – 17:30	Supply chain and its strategic supply	German Pérez SQM, Chile

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Day 3			
Morning	Sustainable Processes of Lithium and Other Minerals		
	8:40 – 9:00	Recap and Highlights	
Chairman: Dr Marcos Lujan			
Plenary talk	9:00 – 9:40	Lithium Extraction from the Dead Sea	Prof Simon Litsyn Xtralit, Israel
Oral sessions	9:40 – 10:00	Theoretical prediction, experimental determination of phase diagrams and its application to phase change materials based on nitrate salts	Dr Jorge Lovera CELiMIN-University of Antofagasta, Chile
	10:00 – 10:20	Approach of Argentine research towards materials for Lithium ion cells	Dra Mariela Ortiz National University of La Plata, Argentina
	10:20 – 10:40	Production of LiOH via electrochemistry from Li ₂ SO ₄	Dr Gerardo Cifuentes University of Santiago, Chile
	10:40 – 11:00	Development of a lithium separation process for Uyuni brine using selective absorption	Eng Carolina Torrico Bolivian Catholic University, Bolivia
	11:00 – 11:30	Coffee Break, stands and posters	
Chairman: Dr Alonso González			
Oral sessions	11:30 – 12:00	Lithium extraction from spodumene by sulphation with ferrous sulphate	Prof Igor Wilkomirsky University of Concepción, Chile
	12:00 – 12:20	Nanotechnology for mining and Lithium	Prof Dora Altbir University of Santiago, Chile
	12:20 – 12:40	Igneous electrolysis for metallic Li production	Dra Eugenia Araneda University of Concepción, Chile
	12:40 – 13:00	Optimization of the froth flotation process of lithium sulfate in the SQM MOP H-2 flotation plant	Dr Leopoldo Gutierrez University of Concepción, Chile
	13:00 – 14:30	Lunch Break and Tea Time	
Afternoon	Hydrogeology, salt flats and Environmental Considerations in the Lithium Industry		
Chairman: Dra Ingrid Garcés			
Plenary talk	14:30 – 15:10	Water cycle in wetlands in the Salar de Atacama	Prof Ramón Aravena University of Waterloo, Canada
Oral sessions	15:10 – 15:30	Best Practices and Quality Control Protocols for Lithium Brine Samples in Salar de Atacama	Msc Levy Fuentes SQM, Chile
	15:30 – 15:50	Detection of Lagoon Surfaces in Shallow Bodies located in Arid Environments with High Sediment Content	Gustavo Muñoz SQM, Chile
	15:50 – 16:10	Estimation of In-situ Resources in the Salar de Atacama Nucleus	Dr Juan Becerra SQM, Chile
	16:10 – 16.30	Integration of lithium production processes to move towards circularity	PhD student Catalina Vargas Research Management, SQM, Chile
	Closure	Posters award and cocktail	