

11th International Conference on Lithium, Industrial Minerals and Energy IWLIME 2024, November 27-29, Antofagasta, Chile

Day 1			
Welcome	8:30 – 9:00	Registration	
	9:00 – 9:10	Governmental authorities	
	9:10 – 9:30	Opening remarks	Dra. Catherine Jara Reyes - Rectora a.i., UA Dr. Rodrigo Sfeir Yazigi - Vicerrector de investigación y desarrollo tecnológico, UCN Dr. Gabriel Meruane – Lithium Research and Production Process Manager en SQM Litio
Morning		Hydrogeology, Water and Salts Flats	
Chairman: Dr Svetlana Ushak			
Plenary talk	9:30 – 10:20	'A Scientific Journey through Time and its Ecosystems: The Challenge of Salt Flat Science and the Lithium Industry'	Dra Ingrid Garcés Universidad de Antofagasta, Chile
Oral sessions	10:20 – 10:40	An integration model from exploration to resource estimation	Juan Becerra SQM Litio
	10:40 – 11:00	Sustainable trends in the lithium industry	Marco Rebolledo Product Specialist Merck S.A Merck
	11:00 – 11:30 Coffee Break, stands and posters		
Chairman: Dr Paula Marin			
Oral sessions	11:30 – 12:10	ILiA's vision on the challenges and opportunities in the international lithium value chain	Jorge Mora International Lithium Association
	12:10 – 12:30	In Situ Brine Resource Estimation of the Core, Salar de Atacama.	Yerko Simicic SQM Litio
	12:30 – 12:50	Salar Futuro project. Challenges and Oportunities for the Lithium Industry	Dr Gabriel Meruane SQM Litio
	12:50 – 14:30 Lunch Break and Tea Time		
Afternoon		Materials for Energy Storage	
Chairman: Dr Mario Grágeda			
Oral sessions	14:30 – 15:00	Innovative lithium Sulfate production process from the brines of the Salar de Atacama	Osvaldo Yañez SQM Litio
	15:00 – 15:20	Synthesis of MIL-53-Doped Nanostructured SiO ₂ for Evaluation as a Solid Electrolyte in Lithium-Ion Batteries	Dr. Jonathan Cisterna Universidad Católica del Norte
	15:20 – 15:40	Innovative Fabrication of Sustainable Dual Electrodes for Lithium-Ion Batteries Using P-Waste-Assisted Nanostructured Organic-Iron Oxide	Dr. Kumaresan Lakshmanan CELiMIN-Universidad de Antofagasta, Chile
	15:40 – 16:00	Evaluation of the Green Hydrogen Generation Potential in the Antofagasta Region	Dr. Lindley Maxwell CICITEM
	16:00 – 16:20 Coffee Break, stands and posters		
Chairman: Dr Lindley Maxwell			
Oral sessions	16:20 – 16:40	Transition metal oxides for electronic and energy storage applications	Dr. Marcos Flores Universidad de Chile
	16:40 – 17:00	Modeling and simulation of battery materials using first-principles methods	Dr. Sergio Conejeros Universidad Católica del Norte
	17:00 – 17:20	Modeling of the coprecipitation synthesis process of the cathode precursor material of the LNMO-type lithium-ion battery in a semi-batch reactor	Milton Arratia CELiMIN-Universidad de Antofagasta, Chile

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Day 2			
Morning		Sustainable Lithium Processes and Hydrogen	
Chairman: Dr. Jaime Chacana			
Oral sessions	9:00 – 9:20	Spodumene process	Mackarena Jara SQM Litio
	9:20 – 9:40	Use of the Li ₂ SO ₄ from the Salar de Atacama to produce a LiFePO ₄ (LFP) type cathode	Prof Mario Grágeda CELiMIN-Universidad de Antofagasta, Chile
	9:40 – 10:00	Thermal management of lithium-ion batteries using inorganic salt from Salar de Atacama	Prof Svetlana Ushak CELiMIN-Universidad de Antofagasta, Chile
	10:00 – 10:20	Direct Lithium Extraction: Innovation and Challenges for Sustainable and Efficient Production	Marcelo Bravo Gerente Tecnico, Ad Infinitum
	10:20 – 10:40	Production of high-quality lithium carbonate by carbonation of lithium hydroxide waste solutions with high impurity levels.	Dra. Paola Aguilar SQM Litio
	10:40 – 11:00	Kinetic anodic study for of the LiOH production system from Li ₂ SO ₄ through reactive electro dialysis	Dr. Adrian Quispe CELiMIN-Universidad de Antofagasta, Chile
11:00 – 11:30		Coffee Break, stands and posters	
Chairman: Robinson Constanzo			
Oral sessions	11:30 – 11:50	DLE Management, Development and Integration at SQM Litio	Dr. Mauricio Salamanca SQM Litio
	11:50 – 12:10	Alkaline Electrolysis for the Production of Green DLE Management, Development and Integration at SQM Litio	Dr. Alonso Gonzalez CELiMIN-Universidad de Antofagasta, Chile
	12:10 – 12:30	Deepening the public-private partnership for community development	Germana González SQM Litio
	12:30 – 12:50	Recovery and Reuse of Electrode Materials from Spent Lithium-Ion Batteries	Dra. Erika Meza Universidad Arturo Prat
	12:50 – 14:30		Lunch Break and Tea Time
Afternoon		Sustainability, Waste Materials and Thermal Energy Storage	
Chairman: Dr. Marcos Flores			
<i>Plenary talk</i>	14:30 – 15:20	New Thermochemical Energy Storage System for Heating	Prof Mohammed Farid University of Auckland, New Zealand
Oral sessions	15:20 – 15:40	Urban Biomining: Recovery of critical elements through recycling of lithium-ion batteries (LIBs)	Dr. Francisco Remonsellez Universidad Católica del Norte
	15:40 – 16:00	Carbonate mixtures as PCMs in thermal energy storage for high-temperature applications	Franklin R. Martinez Alcocer CELiMIN/GREiA Research Group, Chile/Spain
16:00 – 16:20		Coffee Break, stands and posters	
Chairman: Dr. Alonso González			
Oral sessions	16:20 – 16:40	Application of Fe ₃ O ₄ @SiO ₂ nanostructured materials for selective concentration of Co ²⁺ and Cu ²⁺ from LIB and industrial liquid waste	Dra. María Pía Arancibia Universidad Católica del Norte
	16:40 – 17:10	Panel Discussion	

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Day 3			
Morning		Lithium Batteries Manufacturing	
Welcome	8:50 – 9:00	Recap and Highlights	
Chairman: Dr. Sergio Conejeros			
Plenary talk	9:00 – 9:50	Solid-state battery technology – a path forward to environmental sustainability	Prof. Alla White Smirnova, South Dakota Mines Director, NSF IUCRC CEPS
Oral sessions	9:50 – 10:10	Synthesis and Electrochemical of $\text{LiNixMn}_{2-x}\text{O}_4$ via Solid State Reaction for Li-Ion Battery	Dr Marcelo Gonzales CELiMIN-Universidad de Antofagasta, Chile
	10:10 – 10:30	High-performance cathode materials based on $\text{Li}_x\text{Mn}_x+0.6(\text{MoO}_4)_{1.4+x}$ for next-generation lithium batteries	Dr Alifhers Mestra Acosta Universidad Católica del Norte
	10:30 – 10:50	Dual-Mode LED Public Lighting Electronics for Efficient Energy Usage with Lithium Storage	Dr Christian Velarde CELiMIN-WinayTEC, Bolivia
	10:50 – 11:20		Coffee Break, stands and posters
Chairman: Dr. Christian Velarde			
Oral sessions	11:20 – 11:40	Effects of Metal-Ion Substitution on the Structural, Morphological, and Electrochemical Properties of $\text{LiFexZnyMn}_{2-x-y}\text{O}_4$ ($x,y=0.25$ or 0.75)	Dra. Daniela Alburquenque Universidad Mayor
	11:40 – 12:00	Influence of cathodic materials synthesis conditions on the performance of lithium-ion batteries	Dr. Victor Rojas Universidad Católica del Norte
	12:00 – 12:20	LMNO and LMO thin films for lithium-ion batteries	Dra Francisca Luco Universidad de Chile
	12:20 – 12:40	LiMn_2O_4 nanoparticles doped with Li and Mg as potential cathode material for Li-ion batteries using $\text{Mg}(\text{OH})_2$ from industrial waste	Dr Jorge Lovera CELiMIN-Universidad de Antofagasta, Chile
	12:40 – 13:00	Metallic lithium obtaining by unconventional process	Dr. Robinson Constanzo SQM Litio
13:00 - 14:30		Lunch Break and Tea Time	
Afternoon		Life Cycle Assessment and Sustainability	
Chairman: Osvaldo Yañez			
Oral sessions	14:30 – 15:00	Selective Recovery of Lithium Chloride from “Waste Solids” Generated in Li_2CO_3 Production from Brines Using Crown Ether-Based Technologies	Dr. René Rojas G Pontificia Universidad Católica de Chile
	15:00 – 15:20	Turning waste into resources: Relitia's role in lithium-ion battery recycling	Dra. Nicole Briones Universidad Católica del Norte
	15:20 – 15:40	Life Cycle Assessment in the Direct Recycling of Lithium-Ion Battery Cathodes: Opportunities in Circular Economy	Dr. Jaime Chacana Universidad Católica del Norte
	15:40 – 16:10	Posters session	
Closure	16:10	Posters award and cocktail	