Direct Lithium Extraction Conference and Exhibition 2025

October 08-09, 2025 | Montreal, Quebec

Sponsors and Media Partners :

Day 1 | October 8, 2025

08:00 - 08:45
Registration & Networking Breakfast

08:45 - 09:00
Opening Remarks

15:00 – 15:30
Reserved Presentation Slot

- Reserved for Sponsors

09:30 - 10:30
IBAT MDLE: Proven and Sustainable Lithium Extraction at Scale

- First commercial-scale DLE facility in North America, delivering high-purity lithium chloride using a modular, scalable design.
- Proprietary chemical-free technology achieves up to 95% lithium recovery and 99.9% purity with 99% water recycling.
- Faster, lower-cost, and more sustainable than pilot-stage alternatives—IBAT is leading the shift to full-scale DLE deployment.

Joe Mills
IBAT

10:00 – 10:30
Can high-throughput testing accelerate the development of DLE processes?

- Adapting high throughput testing from pharma to DLE for faster, scalable development of lithium extraction processes.
- Enables parallel testing of solid materials like ion exchange resins and adsorbents under varied conditions.
- Accelerates selection and optimization of the most effective and efficient DLE technologies.

Rudolf Wessels
Avantium R&D Solutions

10:30 – 11:00
Networking Coffee Break

11:00 – 11:30
From Pilot to Production: Scaling DLE for Canada's Lithium Boom

- Exploring key challenges in transitioning from pilot projects to full-scale lithium production.
- Infrastructure, capital, and technology requirements for commercial deployment in Canada.
- Case studies and lessons learned from early-stage projects across North America.

11:30 – 12:00
Regulations, Water, and ESG: Can DLE Stay Ahead?

- Understanding Canada's evolving regulatory framework for lithium extraction and water use.
- Balancing ESG goals with operational demands in Direct Lithium Extraction.
- How DLE technologies can adapt to meet stricter environmental and social standards.

12:00 – 13:30
Networking and Lunch Break

13:30 – 14:00
Data Driven Digital Transformation - Powering Upstream Lithium Extraction Operations Use Cases

- Harnessing MQTT and UNS protocols to drive real-time data flow in lithium extraction operations.
- Boosting efficiency, adaptability, and sustainability through data-driven digital transformation.
- Enabling smarter, scalable operations to meet the rising demand for lithium-ion battery materials.

Ravishankar Subramanyan
HiveMQ

14:00 – 14:30
Next-Gen DLE: Materials and AI for Smarter Lithium Recovery

- Advancements in novel sorbents, membranes, and adsorbents enabling more efficient extraction.
- Integrating AI and data analytics to optimize recovery rates and reduce energy consumption.
- Outlook on the future of intelligent, adaptive DLE systems.

14:30 – 15:00
Networking Coffee Break

15:00 – 15:30
Reserved Presentation Slot

- Reserved for Sponsors

15:30 – 16:00
Use of Satellite Data to Map Chemical Leaching into the Local Environment

- Present a case study of a project that used multispectral earth observation data to identify chemicals from tailings found in the wider environment including local water sources
- How this data was digitally mapped onto the landscape so you can 'fly' virtually around the local environment to understand the mining infrastructure and waste sites, plus any instances of failure and presence of chemicals
- Adding on additional mapping capabilities related to health of vegetation and crops, plus historical analysis of how mining has affected the local area over time
- How this is applicable to mining operators, investors and regulators as a single version of the truth in remote locations

Tim Hall
Satellite Applications Catapult

16:00 – 16:15
Closing Remarks for Day 1

16:15 – 17:15
Networking and Drinks Reception

End of Day 1

Day 2 | October 9, 2025

08:00 – 08:45

Breakfast and Refreshments

08:45 – 09:00

Keynote Address

09:00 - 09:30

The Matrix Matters: The Impact of Water Composition on DLE Efficiency

- Water Matrix Impact: Ions like calcium and magnesium affect lithium extraction efficiency.
- Real-Time Monitoring: Essential for managing matrix-related challenges in DLE.
- Field Trials: Show improved efficiency and sustainability with continuous monitoring.
- Sensor Tech: Drives advancements in sustainable lithium extraction.

Anthea Sargeaunt
2S Water

09:30 – 10:30

Reserved Presentation Slot

- Reserved for Sponsors

10:30 – 11:00

Networking Coffee Break

11:00 – 11:30

Applying 50 years of Petrochemistry technology & adsorbent know-how to Direct Lithium Extraction

- Leveraging 50+ years of petrochemical expertise in adsorbents and separation technologies for DLE applications.
- Applying Simulated Moving Bed (SMB) technology to enhance lithium recovery and reduce operating costs.
- Adapting proven solutions to diverse brine sources—including salar, geothermal, and oil & gas—to improve DLE project economics.

Tom Frising
Axens

11:30 – 12:00

Navigating the Future of Sustainable Lithium Production: Balancing Innovation with Environmental Stewardship

- Exploring how DLE technologies are reshaping lithium production with a focus on sustainability.
- Balancing efficiency and environmental impact to meet growing global lithium demand.
- Highlighting strategies for water conservation and energy optimization in modern extraction methods.

Didier Rault
World Mining Investment

12:00 – 13:00

Lunch Break & Exhibition Tour

13:00 – 13:30

Reserved Presentation Slot

- Reserved for Sponsors

13:30 - 14:00

Lithium prices, supply & demand in North America

- Analyzing lithium supply and demand trends in the rapidly evolving North American market.
- Examining how market dynamics and policy shifts are influencing lithium pricing.
- Insights from Fastmarkets' localized pricing data, including new U.S. and Canada benchmarks launched in 2023

Yasemin Esmen
Fastmarkets

14:00 - 14:30

Networking Coffee Break

14:30 – 15:00

Lithium-Selective Membranes: A Low-Cost, Chemical-Free Solution for Lithium Purification

- Utilizes lithium-selective membranes for electrodialytic concentration and purification from dilute aqueous solutions.
- Low CAPEX and OPEX design, with a compact, skid-mounted system for easy deployment.
- Chemical-free process, offering a cleaner and more sustainable alternative for lithium recovery.

Yong Gao
Southern Illinois University

15:00 – 15:15

Closing Remarks & Farewell

15:15 – 16: 15

Networking and Drinks Reception

End of Day 2