

**LITHIUM 2018**

[lithium.ausimm.com](http://lithium.ausimm.com)

**International Lithium Conference 2018**

# Registration Brochure



**PERTH**  
**27-28 JUNE**

**#lithium2018**

*Lithium is the metal of the decade*

**AusIMM**  
CONFERENCE



**Murdoch**  
UNIVERSITY  
Perth | Singapore | Dubai

## Committee

### CONFERENCE CHAIR:

#### Colin Roberts FAusIMM(CP)

Natural Resource Geo-strategy Pty Ltd

#### Gamini Senanayake MAusIMM

Murdoch University

### CONFERENCE ORGANISING COMMITTEE:

#### Farjad Ather GAusIMM

Northern Star Resources Pty Ltd

#### Chris Davis FAusIMM CP(Man)

Bogdan Dlugogorski  
Murdoch University

David McSweeney  
MSP engineers

Chris Reed MAusIMM  
Neometals Ltd

Ivor Roberts  
Department of Mines, Industry  
Regulation and Safety (DMIRS)

Phil Thick  
Tianqi Lithium Australia

Adrian Troy MAusIMM  
Terra Firma Australia

Chris Ward  
ANSTO Minerals

### EVENT MANAGEMENT

#### The AusIMM

#### Miriam Way MAusIMM

Chief Operations Officer;  
Director, Professional Development

#### Amelia Lundstrom

Coordinator, Events

#### Claire Stuart

Coordinator, Publishing

### WHY ATTEND INTERNATIONAL LITHIUM 2018

- Good practice development
- Connect with other professionals in your industry
- The chance to learn what others in the field are doing
- Addressing key issues, current and future trends
- Collaboration between industry experts
- Speaker program covering the most relevant topics
- Stimulating keynote speakers that will inspire

### BENEFITS OF ATTENDING

- The chance to reconnect with industry leaders, colleagues and peers during multiple networking opportunities
- Trade exhibition to network and come together
- A high level program with talks from industry experts, designed to highlight the specific issues which matter to you

### WHO SHOULD ATTEND

- Academics
- Business Development Managers
- CEO's
- Consultants
- Continuous Improvement Managers
- Directors
- Engineers
- Equipment Manufacturers
- General Managers
- Geotechnical Engineers
- Industry Stakeholders
- Mine Superintendents, Foremen and Supervisors
- Mining Engineers
- Mining Managers
- Operation Managers
- Production Engineers
- Product Managers
- Project Managers
- Researchers
- Sales Managers
- Service Providers
- Technical Services Managers

# Program

The Organising Committee is currently developing an exciting technical program that will feature a range of topics presented during various keynote and plenary sessions.

The following is a preliminary program outline to assist in your planning. Please note that the program is subject to change. A detailed program will be available shortly

## Preliminary Conference Program International Lithium Conference 2018

Wednesday 27 June	Thursday 28 June
DAY 1 8.30 am – 6.00 pm	DAY 2 9.00 am – 5.10 pm
Plenary 8.30 - 9.20am	Plenary 9.00 - 10.15am
Morning Tea 9.20 - 9.50am	Morning tea 10.15 - 10.45am
Plenary 9.50am - 12.10pm	Plenary 10.45am - 12.15pm
Lunch 12.10 - 1.10pm	Lunch 12.15 - 1.30pm
Concurrent Technical sessions 1.10 - 2.50pm	Concurrent Technical sessions 1.30 - 2.50pm
Afternoon tea 2.50 - 3.20pm	Afternoon tea 2.50 - 3.30pm
Concurrent Technical sessions 3.20 - 5.00pm	Concurrent Technical sessions 3.30 - 5.10pm
Networking Reception 5.00 - 6.00pm	



# Program

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## Welcome reception

This opening networking event sets the tone for the conference as the industry congregates at this function. The Welcome Reception is where you can catch up with old colleagues and form new contacts.

Date: Wednesday 27 June  
Venue: Murdoch University  
Time: 5.30 pm – 6.30 pm  
Cost: Complimentary for all delegates  
Guests: A\$58

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## Keynote speakers

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### **Mark Calderwood**

Managing Director, Tawana Resources

Mr Calderwood is Managing Director of near-term lithium producer Tawana Resources. Tawana has a 50% interest in the Bald Hill Lithium and Tantalum mine in the Eastern Goldfields. Mr Calderwood has headed Tawana Resources since mid-2016 and has led its transition from junior West African iron ore explorer to soon-to-be West Australian lithium producer from the Bald Hill Lithium & Tantalum mine in the Eastern Goldfields of Western Australia. Mark has 30 years mineral exploration and mine development experience, including over 7 years in pegmatite minerals. He is also co-author of the publication "A Guidebook to the Pegmatites of Western Australia." Mr Calderwood was previously Managing Director of ASX-100 listed gold producer Perseus Mining Limited, a West African Gold producer and explorer, from its inception in 2004 until January 2013. Mr Calderwood steered Perseus from an exploration company to a +200,000oz per year producing gold company.

**Prof. Bogdan Dlugogorski**

Murdoch University

Professor Dlugogorski is a chemical engineer and an environmental chemist, with interest in extractive metallurgy of lithium and mineralisation of CO<sub>2</sub>. He develops industrial processes that are safe to people and the environment, focusing on energy savings, process safety and emission CO<sub>2</sub>, NO<sub>x</sub> and trace pollutants, such as brominated, chlorinated and mixed-halogenated dioxins. He also has interest in development of emulsion explosives. He is the Dean of Engineering and Information Technology at Murdoch University and holds undergraduate degrees in chemical engineering and geophysics from the University of Calgary in Canada, and postgraduate degrees from McGill, Montreal and Newcastle. He is a Chartered Chemist and Chartered Professional Engineer, and Fellow of Australian Academy of Engineering and Technology, Engineers Australia, Royal Australian Chemical Institute and Society of Fire Protection Engineers.

**Phil Thick**

Tianqi Lithium Australia

Phil commenced as the head of Tianqi Lithium Australia in August 2016 extending a diverse career in alumina, oil and gas and chemical processing. Phil had a 20 year career with Shell in Australia and abroad and was a Director of Shell Australia from 2004-2006. He has also had extensive experience working in Kwinana, most recently as CEO of Coogee Chemicals. He is well connected with local and state governments and businesses which made him ideally suited to build Tianqi's Australian business. Phil is responsible for the construction and operation of the world's largest lithium processing plant, a \$700 million investment which commenced construction in Kwinana in October 2016. Stage 1 is due for completion in late 2018. Stage 2 is well underway and will double the size of the plant with completion in late 2019. In addition to his "day job" Phil has been on the Board of Avivo, one of WA's largest Not-for-Profits, for 10 years and Chairperson for the past 7 years.

**Ivor Roberts**Executive Director Regulatory Support, Department of Mines,  
Industry Regulation and Safety

Ivor Roberts is a geologists with wide experience as a researcher, lecturer and regulator in the exploration and mining industry. He holds a BSc (Hons) from the University of New South Wales, a PhD from the University of Wollongong and an MBA from Deakin University. From January of this year, Ivor was appointed as an Executive Director in the Safety Regulation Group of Western Australia's Department of Mines, Industry Regulation and Safety. Previously, from 2010, he was the Executive Director of Mineral Titles; the division responsible for the approval and compliance of all prospecting, exploration and mining titles in Western Australia. Prior to this, he was the Manager of Mineral Resources in Perth and Regional Manager (Geological Survey Division) in Kalgoorlie. Preceding his employment with the state government, he held senior academic and research positions at several universities, including the University of New South Wales, Sydney and the Western Australian School of Mines, Kalgoorlie. His research publications have focused on clay mineralogy.

# List of papers

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- Lithium extraction from ores by roasting and leaching – Omesh Bharatiya
- Maximising utilization of the Separation Rapids Petalite/Lepidolite Ore Body, Ontario Canada – Dave Marsh
- Processing lepidolite into lithium chemicals - current technology and Desert Lion Energy's Namibian project development – Katherine Tattersall
- High Temperature Calorimetric Assessment of  $\alpha$ -Spodumene ( $\alpha$ -LiAlSi<sub>2</sub>O<sub>6</sub>): Phase Transition, Thermodynamics and Total Energy Requirements – Arif Abdullah
- Challenges of disposing lithium spent brine as part of direct extraction processes – Ignacio Ezama
- Expecting the unexpected: how lithium producers can set themselves up for success through effective risk management – Caron Sugars
- Challenges of Finding, Evaluating, and Reporting Mineral Resources of Lithium Brine Deposits – Erik Ronald
- West African Craton - New Lithium Frontier: Re-Discovery of Spodumene Rich Pegmatites in Ghana – Len Kolff
- A Metallurgical Checklist for Bank Finance Due Diligence of Hard Rock Lithium Projects – Damian Connelly
- Assessment of lithium pegmatite ore bodies to determine their amenability to processing for the extraction of lithium – Mark Aylmore
- Producing Battery Grade Lithium Chemicals from Complex Leach Liquors – Grant Harman
- A study on the recovery of lithium from end-of-life cathodic materials of lithium ion battery – Jei Pil Wang
- Development of SiLeach® Technology for the Extraction of Lithium from Silicate Minerals – Chris Griffith
- "Molecular dynamics simulations of sodium oleate adsorption on (110) spodumene surfaces in saltwater for a range of pH values: Adsorption bridges and their lifetimes – Pedro G. Toledo
- Li-ion and Li/S Combined Fabrication of Low Cost Energy Storage Devices using Ilmenite – Pradeep Jayaweera
- Natural Grade by Size Dependent in a Hard Rock Lithium Ore – Laurence Dyer
- Development of Direct Extraction Technology (DXP Technology) for the Salar Del Rincon Lithium Project – Chris Griffith

- Current Status of Thermodynamic Modelling Capabilities for Lithium Salts in Brines – Erich Königsberger
- Using Artificial Intelligence Techniques for Lithium Processing and Batteries – Kevin Wong
- Application of microwave energy in the heat treatment of spodumene – Aleksandar Nikoloski
- Investigations into a novel process for lithium chemicals production; pH adjustment and solution purification – Aleksandar Nikoloski
- Assessment of lithium geological potential in Europe – Blandine Gourcerol
- Lithium Exploration in Guyana, South America – John Watts
- Infinity Lithium Corporation – Competing with the Spodumene Project Developers – Peter Adamini
- Extraction of Lithium and Other Valuable Elements from Lepidolite – James Mulwanda
- Direct in field measurement of Lithium using Laser Induced Breakdown Spectroscopy – Andrew Somers
- Thermodynamic Stability of Spodumene’s Surfaces and their Interaction with CO<sub>2</sub>(g) – Mohammednoor Altarawneh
- Lithium-rich pegmatites of the Bynoe Field, Northern Territory – Dave Rawlings
- In-situ XRD observations of spodumene calcination – Hans Oskierski
- New promising lithium resources: Hydrocarbon-brines in mantle coupled domains – results from a worldwide screening – Frank Despinois
- Benefits of Using Sensor-Based Ore Sorting to Pre-Concentrate Lithium Ores – Bjorn Nielsen
- Re-visiting electrolytic manganese dioxide (EMD): A weird, but wonderful cathode material for lithium battery applications – Manickam Minakshi
- Applications of sensor based sorting on lithium ores – Anthony Sacca
- Exploring for, and assessing, potential of lithium-enriched pegmatites – Peter Spitalny
- The Sonora Lithium Project – Not getting stuck in the mud – Andrea McGlynn
- Heat Capacities and Densities of Lithium Salt Solutions to 300 oC – Glenn Hefter

# General information

## Conference venue

**Murdoch University**  
90 South Street  
Murdoch, WA, 6150

## Accommodation

The Esplanade Hotel Fremantle has offered conference delegates a discounted room rate of \$165.

Please book via this link:

<https://ep.ozaccom.com.au/public/ILC18/accommodation.aspx>

## Event management

### The AusIMM

#### Miriam Way MAusIMM

Chief Operations Officer;  
Director, Professional Development

#### Amelia Lundstrom

Coordinator, Events

#### Claire Stuart

Coordinator, Publishing

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and Metallurgy (The AusIMM)

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Email: [alundstrom@ausimm.com.au](mailto:alundstrom@ausimm.com.au)

Website: [www.ausimm.com](http://www.ausimm.com)

## Registration desk

The registration desk will be open during the following hours:

Wednesday 27 June 2018                      7.30am – 5.30 pm

Thursday 28 June 2018                        8.00am – 5.30pm

## Name badges



All participants at the conference will be issued with a name badge upon registration. Your name badge is the official pass to all sessions and must be worn at all times. Lost name tags can be replaced at the registration desk.

## Special requirements

Every effort is made to ensure people with special requirements are catered for. Should you require any specific assistance or have dietary requirements, please include a notation with your registration form to enable us to make your visit a pleasant and comfortable experience.

## Dress code

The dress code for the conference, social functions and workshops is smart business casual.

## Visa information

All travellers to Australia must have a valid visa before boarding their plane. Travellers to Australia cannot apply for a visa on arrival, with the exception of New Zealand and Norfolk Island passport holders, who will be issued a visa on arrival in Australia.

We strongly advise all participants to apply for a visa at least eight weeks in advance of their intended date of travel. Please see the Department of Immigration and Border Protection's website for further information: [www.border.gov.au](http://www.border.gov.au)

**AusIMM**

CELEBRATING  
**125**  
YEARS

### Special conference offer

We are pleased to offer non-members attending the conference **complimentary AusIMM membership** for 2018, a saving of more than \$500. Visit the AusIMM stand to complete your application form.



### Benefits of AusIMM membership

AusIMM members receive a significant discount on the conference and its related activities – usually greater than your annual membership fee.

Visit the AusIMM display at the conference to:

- Purchase event proceedings, books and technical journals at the special 25% discounted member rate.
- Find out more about our products, services and activities.
- Join or renew your membership.

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**AusIMM**  
PD HOURS

Maintaining your knowledge and skills through Professional Development (PD) activities ensures you continue to be a leader in the minerals industry.

AusIMM members can record PD hours in our free online PD logbook available at [www.ausimm.com](http://www.ausimm.com)

Leadership for resources professionals

# Lithium conference 2018 registration form

All participants are required to officially register to attend the 14th AusIMM Mill Operators' Conference 2018. Please complete the below registration form or visit the conference website to register online.

## 1 PERSONAL INFORMATION

Title - Prof / Dr / Mr / Mrs / Miss / Ms (Please circle) \_\_\_\_\_

Last Name\* \_\_\_\_\_

First Name\* \_\_\_\_\_

Preferred Name\* \_\_\_\_\_

AusIMM, CIM, SAIMM, SME Number (if applicable) \_\_\_\_\_

AusIMM Member Post-nominals (if applicable) \_\_\_\_\_

Organisation\* \_\_\_\_\_

Position\* \_\_\_\_\_

Address\* \_\_\_\_\_

City\* \_\_\_\_\_ State\* \_\_\_\_\_

Post Code\* \_\_\_\_\_ Country\* \_\_\_\_\_

Telephone\* \_\_\_\_\_ Mobile \_\_\_\_\_

Email\* \_\_\_\_\_

Please indicate (✓) if you do **NOT** wish to appear on the list of participants provided to all delegates at the event containing name, position, company and email address

Please indicate (✓) if you do **NOT** wish to receive future AusIMM event information, professional development opportunities and discount offers

### Special Requirements

Please advise any special requirements regarding diet and mobility below

## TERMS AND CONDITIONS

I hereby agree to be bound by the registration terms and conditions.

### ATTENDANCE

Only pre-registered, pre-paid registrants will be guaranteed access to the event. Upon receipt of your registration and payment, The AusIMM will send registration confirmation.

### REGISTERING ON-SITE

On-site registrants, with payment only, will be admitted on space availability.

### AusIMM MEMBER RATES

To qualify for the special rates of 'AusIMM Member' as quoted on the registration booking form, you must be a financial (paid) member. AusIMM 2018 Membership Fees were due by 1 January 2018. Non-member registration fees apply to all non-members and non-financial AusIMM members.

### METHOD OF PAYMENT - CREDIT CARD ONLY

Payment must accompany all registrations. We accept the following credit cards: Visa, AMEX, Diners and MasterCard. All enquiries regarding payments, please telephone +61 3 9658 6120

### STUDENT REGISTRATION

A student must be currently enrolled full-time at a tertiary institution. Proof of full-time status must be submitted with the registration form.

### REGISTRATION ENTITLEMENTS

#### Full registration:

- Access to all conference technical sessions
- Lunch, morning and afternoon teas daily
- Conference name badge and satchel
- eBook of the conference proceedings

\* Student registration excludes attendance at the Conference Dinner and additional tickets must be purchased to attend.

### PRIVACY POLICY

The AusIMM is a professional institute that relies on the use of personal information to provide support and services to members and non-member stakeholders and customers of AusIMM services. We rely on comprehensive and accurate personal information about our members and non-members who engage with the AusIMM.

The main purposes for which we collect, hold, use and disclose personal information are to provide services and benefits for our members and to maintain and extend our membership.

We collect information from members and non-members so that we can provide services, manage our professional relationships, manage our business, comply with our legal obligations, communicate effectively and enhance the level of

service being offered. Please visit the conference website to view the policy.

At the time of registering for this event, you have the option to indicate whether or not you agree to the AusIMM contacting you for promotion of future events, professional development opportunities and discount offers.

### PARTICIPANT'S LIST

Please note that all registered delegates will have their name, position, company and email address printed in a participant list. Should you not wish to have your details distributed please notify Event Management as soon as possible.

### PHOTOGRAPHY

By attending this event, I consent to my image being taken and used at the discretion of the AusIMM.

### CONFIRMATION OF BOOKINGS

Conference registrations will be acknowledged as they are received with payment in full. Please check the confirmation letter and advise of any alterations immediately.

### CANCELLATION POLICY

Cancellations of registration must be in writing only. Refunds will apply as follows:

- More than 28 days before the conference - **Full refund**
- 28-7 days before the conference - **Refund (less A\$500 administration charge)**
- 7 days or less before the conference or non-attendance - **No refund (no exceptions)**

An organisation may send an alternative delegate if registration has been paid and the registered person is unable to attend due to unforeseen circumstances. In such cases, Event Management must be advised of the change prior to the conference.

### WAIVER OF LIABILITY

The AusIMM accepts no liability to any persons or body for any loss, injury or damage caused, organised, promoted or sponsored by the AusIMM.

### ADDITIONAL TICKETS

If you wish to bring a spouse, friend or colleague to the event's networking functions, you will need to purchase an additional ticket for your guest(s). Please note that guest(s) may participate in networking activities only and have no access to technical sessions.

- Networking Reception - \$58.00

## 2 CONFERENCE REGISTRATION Please indicate (✓)

Conference fees are quoted in Australian dollars and include 10% Goods and Service Tax (GST).

FULL REGISTRATIONS		Total
AUSIMM MEMBER	<input type="checkbox"/> \$1100	\$
AUSIMM MEMBER CP	<input type="checkbox"/> \$990	\$
AUTHOR	<input type="checkbox"/> \$990	\$
NON-MEMBER	<input type="checkbox"/> \$1540	\$
INTERNATIONAL DELEGATE	<input type="checkbox"/> \$1100	\$
NEW PROFESSIONAL MEMBER	<input type="checkbox"/> \$990	\$
STUDENT AUSIMM MEMBER*	<input type="checkbox"/> \$220	\$
STUDENT NON-MEMBER*	<input type="checkbox"/> \$330	\$

DAY REGISTRATIONS		Total
AUSIMM MEMBER	<input type="checkbox"/> \$660	\$
NON-MEMBER	<input type="checkbox"/> \$990	\$
Day attending	<input type="checkbox"/> Wed 29 Aug <input type="checkbox"/> Thur 30 Aug <input type="checkbox"/> Fri 31 Aug	
<b>TOTAL</b>		<b>\$</b>

## 3 NETWORKING FUNCTIONS

Please indicate your attendance at all functions and advise if additional tickets are required. **Boxes not ticked indicate you will not be attending.**

Function	Complimentary Attendance	Guest/Additional Tickets	Total
Welcome reception	<input type="checkbox"/> Yes	\$58 pp ( ) ticket/s	\$
<b>TOTAL</b>			<b>\$</b>

## 4 PAYMENT - TAX INVOICE (INC 10% GST) ABN 59 856 002 494

**CREDIT CARD ONLY** - Please (✓) debit my:

Visa  Mastercard  AMEX  Diners Card

Card No.

Expiry Date:  CSV Number:

Signature:

Please print name of cardholder:

## How to register

Telephone: +61 3 9658 6120

Facsimile: +61 3 9662 3662

Email: conference@ausimm.com.au

Online: www.ausimm.com.au