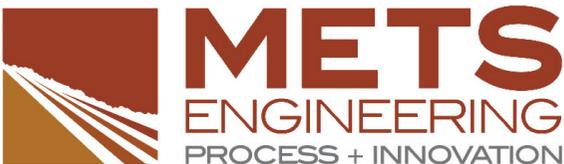




# LITHIUM PROCESSING COURSE



## METS Engineering Group Pty Ltd

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## LITHIUM COURSE - REGISTRATION FORM

Surname \_\_\_\_\_ First Name \_\_\_\_\_  
Company \_\_\_\_\_ Position \_\_\_\_\_  
Operations \_\_\_\_\_  
Postal Address \_\_\_\_\_  
Telephone \_\_\_\_\_  
Email Address \_\_\_\_\_  
Registration Fee: AU \$1320 per person (incl. GST) includes lunch, comprehensive course notes and USB  
Total for cheque enclosed : AU \$ \_\_\_\_\_ for \_\_\_\_\_ person/s

Please make cheques payable to : METS Engineering Group Pty Ltd.  
Credit Card payment facilities are also available. Please call Accounts on 08 9421 9000 for credit card payments.  
To register, complete this form and either email, fax or post back to METS.  
Booking confirmation will be sent by email upon receipt of payment.

Booking confirmation will be sent via email upon receipt of payment. No refunds for cancellations made within 1 week of the course or for no-shows. Cancellation fees may apply. Course presenter is subject to change depending on the availability. METS reserves the right to postpone a course should minimum numbers not be met. Payments must be received prior to course commencement. Substitution of one delegate for another is not considered a cancellation (applies only to non-package booking). All courses of a package must be ordered at the same time for package price to apply. Cancellation of individual package courses will result in fee being adjusted to the applicable rate for the actual number of days attended.

# Course Details

## Introduction

The mining, processing and production of lithium concentrates and battery grade lithium has seen incredible growth and profitability.

Australia is forecast to become the biggest producer of lithium globally, strongly driven by Talison's expansion of Greenbushes. Greenbushes currently produces around 35% per cent of world output, and has recently announced it will more than double production from 2019 to supply a proposed \$400 million Lithium Carbonate production plant in Kwinina, near Perth.

It comes as other players also ramp up production, including Australian-owned Orocobre, which owns a brine operation in Argentina, the re-commissioning of Galaxy Resources' Mt Cattlin operation and production starting at Neometals Mt Marion site in Western Australia. Additionally both pilgangoora projects - Altura and Pilbara Minerals - are forecast to come into production within the next few years.

Some analysts are warning this increased supply could be a problem for the dozens of new junior producers who have piled in to take advantage of strong lithium prices. In addition, the massive ramp up seen across the world could possibly lead to an oversupply for lithium; however many companies have announced expansions for processing concentrates and the production of batteries.

The lithium carbonate spot price has more than tripled in the past two years, from \$6,000 a tonne to \$20,000 a tonne for battery grade material.

We could be on the cusp of a massive new industry. At current prices there are enormous profits to be had in the mining and production of lithium concentrates for chemicals or batteries.

## Key Learning Outcomes

There are many benefits of attending this course. Throughout the course, participants will improve their knowledge in the following areas:

- > Lithium Uses, Supply and Demand
- > Hardrock Processing
- > Brine Processing
- > Production of Lithium Carbonate and Lithium Hydroxide

## Who Should Attend?

The 1 day course is designed to provide key knowledge of lithium processing to mining personnel, project managers, geologists, senior mine and processing plant operating staff, engineers and researchers. The course can also benefit training providers, suppliers to the resource industry, technologists, brokers and investors. It assumes no prior knowledge and participants will receive comprehensive notes on USB and a certificate upon completion of the course.

## Course Content

- > Introduction
- > Lithium: Markets, Uses & Sources
- > Mineralogy
- > Crushing
- > Milling & Classification
- > Gravity & DMS
- > Flotation
- > Processing Hardrock Lithium Concentrates
- > Brines and Hydrometallurgy
- > Metallurgical Testwork
- > Project Examples

# Presenters

## Leading Presenters

### **Damian Connelly** Director/Principal Consulting Engineer

Damian is a highly regarded mining professional with over 40 years of industry expertise. His extensive experience on a range of commodities includes the gold, copper, lead, zinc, uranium and iron ore industries with particular emphasis on gold. Experience has been gained in plant operations, feasibility studies, detailed design, construction and commissioning. He has been involved in many projects including engineering, audits, due diligence, tenders and expert witness work. Damian is also the author of over 45 technical papers.



### **Denis Yan** Consulting Metallurgist

Denis has over 40 years experience in mining, and during this time has had vast experience in most mineral processing environments. Most of Denis' background is in senior university roles where he led substantial cutting edge research programmes and taught at the WA School of Mines as Program Chair (Metallurgy). Denis is the author of 32 papers and the popular resource text in mineral processing, "Mineral Processing Design and Operations," Elsevier Amsterdam, 2006.

