

About the Conference

ALTA 2020 is a world premier annual metallurgical conference, **now in its 25th** year, and a leading platform for innovation. We are pleased to partner with **CSIRO Minerals** for the ISR sessions.

The emphasis of the program is practical rather than academic, and the themes running through the conference are the various aspects of technology and project development.

Held over eight days in Perth, it comprises five technical conferences, three short courses, and a trade exhibition. It features highly-focused programs, topical forums and key international speakers.

An outstanding platform for exposing the latest worldwide developments in plant operations, process technology, new projects, testwork and scale-up, process modelling and control systems, application of mineralogy and geometallurgy, R&D, equipment, reagents, materials, tailings disposal and environmental alleviation.

PROGRAM OVERVIEW

Saturday 23 May	Sunday 24 May	Monday 25 May	Tuesday 26 May	Wednesday 27 May	Thursday 28 May	Friday 29 May	Saturday 30 May
SHORT COURSE	SHORT COURSE	CONFERENCE SESSIONS					SHORT COURSE
A-Z of Copper Ore Leaching	SX and its Application to Copper, Uranium & Nickel-Cobalt	Nickel-Cobalt-Copper Including Hydromet Processing of Sulphides Forum & Panel			Uranium-REE Including Application of Membranes Forum & Panel <i>in parallel with</i> Gold-PM Including Fit-for-Purpose Leaching Systems Forum & Panel	In Situ Recovery Including Panel Discussion <i>in parallel with</i> Lithium Processing Including Panel Discussion	Uranium Ore Processing
		Welcome Reception	Conference Dinner		Happy Hour		
EXHIBITION							

Opportunities for Participation

Present

- 50% discount off registration fees (one per paper). 75% discount for sole consultant presenters.
- Participation in the Presenter Breakfast Briefing, unique to ALTA conferences.
- World-leading exposure through promotion of proceedings after the event, and later via the ALTA Free Library.

Sponsor

- Outstanding promotional opportunities including networking functions and conference merchandise.
- Includes one complimentary registration to the associated event/s and discount fees for additional staff.
- Promotion via conference website, materials and emails.

Exhibit

- Exhibition open to external visitors, with free entry during visitor hours.
- Includes one complimentary registration to the associated event/s and discount fees for additional staff.
- Promotion via conference website, materials and emails.

Attend

- Five international conferences with a flexible registration options.
- Three pre and post conference technical short courses.
- Three networking functions.

Thank you to our Partners and Co-Sponsors



Program Topics

Nickel-Cobalt-Copper

Including Hydromet Processing of Sulphides Forum & Panel

25-27 May

- Nickel, cobalt and copper extraction and refining
- Pressure leaching
- Heap, tank and vat leaching
- In-situ leaching
- PAL of laterites
- Processing of subsea ores and nodules
- Processing of sulphides - pressure-ox, bio-ox, chloride leach, etc
- Ore upgrading technology
- Plant design and operation reviews and issues
- New and developing projects
- Application of mineralogy and geometallurgy
- Testwork, scale-up, process development and modelling
- Purification, preparation and recovery by SX, IX, EW, precipitation etc
- SX plant fire protection
- Solid/liquid separation and clarification
- Application of membranes
- New technology developments, applications and experience
- Materials of construction and corrosion
- Equipment design and reagent developments
- Tailings disposal and environmental

Uranium-REE

Including Application of Membranes Forum & Panel

28 May

- Uranium ore treatment processes
- Recovery and refining of REE
- Recovery and refining of scandium
- Operational reviews and issues
- New technology developments, applications and experience
- Ore upgrading technology
- Recovery of other products - vanadium, base metals
- By-product uranium from phosphoric acid, copper leaching, etc
- Plant design
- Application of mineralogy and geometallurgy
- New and developing projects
- Heap, vat and tank leaching
- Testwork, scale-up, process development and modelling
- In-situ leaching
- Solid/liquid separation and clarification
- SX/IX/CIX/RIP/RIL and precipitation processes
- Application of membranes
- Equipment design and reagent developments
- Tailings, environmental and safety issues
- SX plant fire protection
- Materials of construction and corrosion

Gold-PM

Including Fit-for-Purpose Leaching Systems Forum & Panel

28 May

- Refractory and complex ore treatment - ultrafine grinding, pressure-ox, bio-ox, roasting
- Processes for ores with copper, arsenic, mercury, antimony
- Alternative leaching mediums - chloride, thiosulphate, bromide etc
- Fit for purpose leaching systems
- New and developing projects
- Heap and vat leaching
- Cyanidation, CIP and CIL
- In-situ leaching
- Elution and gold room technology
- Gravity treatment and intensive cyanidation
- Recovery of silver and precious metals
- Application of membranes
- Operation reviews and issues
- Application of mineralogy and geometallurgy
- Cyanide recovery, recycle, detox and alternative reagents
- Solid/liquid separation and clarification
- New technology developments, applications and experience
- Plant design and new project reviews
- Testwork, scale-up, process development and modelling
- Equipment design and reagent developments
- Tailings environmental and safety issues
- Sampling, instrumentation and control

Lithium Processing

Including Panel Discussion

29 May

- Lithium ore treatment processes
- Recovery of lithium from brines
- Ore preparation and leaching processes
- Purification of leach solutions
- Production of battery grade lithium product
- Solid/liquid separation and clarification
- Application of SX and IX
- Application of membranes
- Characterization of lithium ores
- Operational reviews and issues
- New technology developments, applications and experience
- Ore upgrading technology
- Recovery of other products
- Application of mineralogy and geometallurgy
- New and developing projects
- Testwork, pilot plant design operation and scale-up
- Plant design and construction
- Process development and modelling
- Equipment design and reagent developments
- Tailings, environmental and safety issues
- Materials of construction and corrosion
- SX plant fire protection

In Situ Recovery (ISR)

Including Panel Discussion

29 May

- Developments in uranium ISR
- Application to other metals
- Application to remnant low grade ores and mines
- Technology for enhancing orebody permeability
- Product recovery
- Applications and developments of IX, SX, and membranes
- Operational reviews
- Lessons learned from ISR operations
- Environmental protection and remediation
- Social, community and regulatory aspects
- Alternative lixiviants and leaching chemistry
- Orebody characterisation
- Geometallurgical implications
- Mineral and gangue chemistry
- Application of bio-leaching
- Process monitoring and control
- New and developing projects
- Testwork, design and operation
- Application of simulation and modelling
- Project development and feasibility studies



ALTA Metallurgical Services

Celebrating 32 Years of Service

ALTA Metallurgical Services (ALTA) was established by Metallurgical Consultant Alan Taylor in 1985 to serve the worldwide mining, minerals and metallurgical industries. ALTA offers a wide range of services and resources to the metallurgical industry.

Consulting

High-level metallurgical and project development consulting.

Short Courses

Practically-oriented short courses presented by Alan Taylor. Topics include treatment of nickel laterites, copper ore leaching, uranium ore processing, copper SX-EW, heap leaching and solvent extraction.

Conferences

The annual ALTA conference is a world premier metallurgical conference and a leading platform for innovation. **Next event:** [ALTA 2019](#), the 24th annual event, will be held 18-25 May in Perth, Australia. It comprises five international technical conferences, three short courses and an international trade exhibition. It features a highly-focused program, topical forums and presentations from key international speakers.

Publications

Proceedings and manuals from ALTA conferences, seminars and short courses.

MetBytes

Free technical articles offering metallurgical commentary and insights.

Free Library

Includes proceedings from 1995-2016 Nickel-Cobalt-Copper, Uranium-REE and Gold-PM conferences for free download (1340+ papers). The library is expanded regularly, providing a major ongoing free resource to the industry. A selection of papers from recent conferences is also available.



Alan has over 40 years' experience in the metallurgical, mineral and chemical processing industries in Australasia, New Zealand, North and South America, Africa, Asia and Europe. He has worked in metallurgical consulting, project development, engineering/construction, plant operations, plant start-up and technology development. Projects and studies have involved copper, gold/silver, nickel/cobalt, uranium and base metals.

Since 1985, as an independent metallurgical consultant, Alan has undertaken feasibility studies, project assessment, project development, supervision of testwork, flowsheet development, basic engineering, supervision of detailed engineering, plant commissioning and peer reviews and audits. Clients have included a variety of major and junior mining, exploration and engineering companies throughout Australia and overseas.

Extensive experience in:	...including
<ul style="list-style-type: none">• Gold/Silver• Copper• Nickel/Cobalt• Uranium• Base Metals	<ul style="list-style-type: none">• Leaching: atmospheric, heap, in-place, bio. and pressure• Cyanidation and CIP/CIL• Solid/liquid separation• Flotation• Electrowinning and electrorefining• Solvent extraction/ion exchange