ALTA

Short Courses
course outline

Treatment of Nickel-Cobalt Laterites

This practically oriented course has been crafted over many years by Alan Taylor, Metallurgical Consultant and Managing Director, ALTA Metallurgical Services. This course is presented as both a valuable introduction for newcomers and a useful refresher for old hands. ALTA courses are updated annually.

Participation Options

- Classroom style at ALTA conferences
- Video On-Demand, includes email interaction with course presenter
- Dedicated interactive online sessions for your team

Course Overview

- Ore characterization and process implications
- Commercial treatment processes
- Processes under development
- Other commercial treatment processes
- Previously proposed processes
- Laterite project development
- Case histories

Duration

The course is presented over 7.5 hours, including breaks. For CPD recording purposes, please refer to your own regulator's requirements as recognition of CPD hours may vary.

Course Materials

In-person attendees receive the hardcopy manual at registration and an electronic copy after the course. Online participants receive the electronic course manual prior to the course. The manual is valued at A$300.

Fees (Australian dollars including GST)

Classroom style at ALTA Conferences	
Delegate	$850
Discount Delegate early bird, 3+ delegates, exhibitor, sponsor	$800
Young Professional and Academic	$600
Self-Funded Delegate	$500
Student	$250

Video On-Demand	
Attendee	$595
Discount Attendee Self-funded, young professional, academic	$450
Student	$150

Course Presenter

Alan Taylor
Metallurgical Consultant and Managing Director

Detailed experience

ALTA was established by metallurgical consultant Alan Taylor in 1985 to serve the worldwide mining, minerals and metallurgical industries. Alan has 40+ years' experience in the metallurgical, mineral and chemical processing industries in Australasia, New Zealand, North and South America, Africa, Asia and Europe.

Alan draws from his extensive first-hand experience with major engineering firms and as an independent consultant. He has worked on a wide variety of projects from the late 1960s through to the present time - a period which has seen the introduction of many new technical developments.

Course Schedule	
Introduction	
Ore characterization and process implications	Idealized orebody profile Real orebodies Metallurgical implications
Commercial treatment processes	Pressure acid leaching (1 and 2)
Break	
Commercial treatment processes (Cont.)	Pressure acid leaching (3) Product recovery Design criteria Autoclaves
Break	
Processes under development	Heap leaching Atmospheric agitated tank leaching – Sulphuric acid leaching – Chloride leaching – Nitric acid leaching – Segregation roasting
Break	
Other commercial treatment processes	Reduction roast-ammonia leach (caron) process Smelting processes Ferronickel and matte smelting Nickel pig iron smelting
Previously proposed processes	Sulphation roast Republic steel process Aqueous chlorination process
Laterite project development	Project development program
Case histories	Moa Bay PAL Coral Bay (Rio Tuba) PAL Yabulu reduction roast-ammonia leach Cero Motoso ferronickel smelting PT Inco matte smelting