

ALCORE Commissions Three Laboratory Reactors

Three laboratory reactors commissioned by ABx subsidiary Alcore with results to aid pilot plant design finalisation.

Alcore has designed, constructed, and commissioned two reactors that can produce oleum (highly concentrated sulfuric acid).

Alcore has purchased, modified, and commissioned a third specialised laboratory reactor that can react oleum with bath to extract the fluorine used to produce aluminium fluoride.

Tests are being conducted to determine the optimum process conditions to recover fluorine from bath.

ABx Group (ASX: ABX) (**ABx** or **Company**) is pleased to confirm that its 83%-owned subsidiary ALCORE Limited (**Alcore**) has completed commissioning of three new reactors at its technology centre on the NSW Central Coast.

Alcore is developing a process, which recovers fluorine from 'excess bath', an aluminium smelter waste product, to produce aluminium fluoride which is a high-value additive essential for aluminium smelting.

The commissioning of these reactors signifies an important milestone for the Company, with the improved capability permitting advanced test work, with results to aid the finalisation of design for a larger capacity pilot plant.

Commenting on the increased capabilities of the new facility, ABx Group CEO Dr Mark Cooksey said:

"Successful commissioning of these three reactors is a significant step forward in bringing the Alcore process into commercial production.

"The test results combined with the expertise of our team and our partners will allow Alcore to efficiently construct the pilot plant to best capture this emerging opportunity.

"I am very proud of the Alcore team and all we have accomplished so far, and look forward to further updating the market as we conduct tests to determine the optimum process conditions to recover fluorine from bath, which will allow us to finalise the design of the pilot plant bath reactor."

Reactor Technology

The first stage of the Alcore process is to produce oleum, which is highly concentrated sulfuric acid.

Working closely with one of its engineering partners, BFluor Chemicals, Alcore has designed, constructed, and commissioned two reactors that can produce sufficient oleum for tests with bath in the specialised laboratory reactor (Figure 1).



Figure 1: Alcore reactors for production of oleum

In parallel, Alcore has purchased, modified, and commissioned a third specialised laboratory reactor to react oleum with bath to recover fluorine (Figure 2). This enables Alcore to rapidly investigate a larger range of process conditions with improved process control compared to previous experiments in the original Alcore laboratory. This is a significant step forward in Alcore capability.

Alcore is well advanced in its design of the pilot plant bath reactor, which is intended to process 20 kg per hour of bath. The design will be finalised using data from tests on the specialised laboratory reactor.



Figure 2: Alcore specialised laboratory reactor to react oleum with bath to recover fluorine

This announcement is approved for release by the board of directors.

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