



13 November 2007

## SHOWCASING SCIENCE FOR THE MINERALS INDUSTRY'S CURRENT & FUTURE NEEDS

The 2007 Parker Centre Science Day will tomorrow turn a spotlight on the research advances made through the Parker CRC for Integrated Hydrometallurgy Solutions' work for the Australian and international minerals industries. The 21 presentations will illustrate the Centre's current and emerging research capabilities.

The research presented tomorrow will include outputs from the Parker Centre's work on:

- ▼ **gibbsite (alumina trihydrate) precipitation and alumina quality**, which has the potential to deliver better quality alumina product with improved properties, such as greater strength, for the alumina industry
- ▼ **organics destruction**, which is exploring technologies for removing organic impurities from Bayer liquors to reduce the detrimental effects of organics on the Bayer process, leading to improved efficiency of alumina refineries
- ▼ **improved recovery of values from nickel laterites**, via research aimed at understanding nickel/cobalt losses in pressure acid leaching of laterite ores and the factors affecting the production of nickel metal powder
- ▼ **the electrowinning of base metals**, which aims to assist industry achieve increased throughput in tankhouses, reduced operating costs and improved product quality through innovations in the recovery of metals (such as nickel, cobalt and zinc) by electrowinning
- ▼ **recovery of values from spent batteries and catalysts**, targeted at successful recycling by developing, in collaboration with South Korean researchers, hydrometallurgy approaches to reclaiming metals from waste batteries and catalysts
- ▼ **complex ores – copper**, which focuses on developing options for treating high copper-containing gold ores to enable economic gold recovery from such ores
- ▼ ***in situ* thiosulfate leaching of gold**, which is assessing the feasibility of using thiosulfate for *in situ* leaching of paleochannel gold present in porous sandstones that abut impermeable beds: to access a resource that is uneconomic with present technology.

“This event will give our researchers and students the opportunity to showcase their research and provide industry with a better appreciation of the breadth and depth of the Centre's work and its potential value to industry,” says Mr Mark Woffenden, the Parker Centre's CEO.

Five Parker Centre PhD students will be amongst the presenters: the topics of their talks will range from understanding preg-robbing by carbonaceous gold ores to the development of a novel method for separating nickel and cobalt from laterite leach solutions.

Approximately 50 people are expected to attend the 2007 Parker Centre Science Day, including industry and government representatives, Directors of the Parker Centre's Board and Centre staff and students.

Media representatives are also welcome to attend.

Date: Wednesday 14 November 2007

Time: 8.45 am to 4.45 pm

Place: BankWest Theatre, Curtin University of Technology, Bentley, Perth

Media queries: Dr Ros Dilworth (Communications Officer) - 08 9360 6361  
Mr Mark Woffenden (CEO) – 08 9360 2552

**Notes for Editors/Journalists:**

The Parker Centre was established in 1992. The Centre successfully applied for further funding, as a 'new from existing' Cooperative Research Centre (CRC) in the 1998 and 2004 selection rounds for funding from the CRC Programme. The third incarnation of the Parker Centre, the Parker CRC for Integrated Hydrometallurgy Solutions, commenced in July 2005.

The research in the Parker Centre is being undertaken by researchers at the Centre's four Core Research Participants: CSIRO Minerals, Curtin University of Technology, Murdoch University and the University of Queensland.

The Centre's Core Industry Participants are Alcan International, Alcoa World Alumina, AngloGold Ashanti Australia, Aughinish Alumina, BHP Billiton, Billiton Aluminium Australia, Hatch Associates, Queensland Alumina and Rio Tinto.

The new Centre also had 12 Supporting Participants: Barrick Gold Australia, Central TAFE, Ciba Speciality Chemicals, Minara Resources, Minerals Council of Australia, Nalco Australia, Norsk Hydro, Outotec, Straits Resources, WA Department of Industry and Resources, WorleyParsons Services and Zinifex Australia.

The independently estimated value (delivered and expected) of the Parker Centre's research outputs to its industry clients since the Centre's establishment 15 years ago totals over half a billion dollars (net present value).

The Parker Centre's alumina research includes research projects covering the red-side and the white-side of an alumina refinery, solid-liquid separation, impurity issues, scale and environmental issues. The Centre's base metals research focuses on hydrometallurgical processes for treating nickel laterites and base metal sulfide ores and concentrates. The Centre's work for the gold industry includes projects covering optimisation of the cyanidation process currently used by the industry, alternatives to cyanide for gold leaching, processing of complex & refractory ores and environmental issues related to gold processing.

Cooperative Research Centres such as the Parker Centre are joint ventures between universities, other research organisations, government agencies and industry. They undertake research driven by the needs of industry and then transfer the resulting knowledge and technology to industry. The Parker Centre is one of seven CRCs working to keep the mining and energy sector at the cutting edge of technology.