

ACRC Attends Light Metal Technology Conference



ACRC was invited to present at the [Light Materials Technology](#) conference July 10 – 12, 2023. The UCI and OSU team jointly presented “Towards a “Green Aluminum” Paradigm – Processing Pathways for a Closed Loop Circular Economy Model”. The talk presents ACRC’s strategy towards “green aluminum” for the casting industry, as re-melting aluminum scrap only uses ~5% of the energy (and reduced emission) required to produce primary aluminum from ores.

The amount of aluminum available for recycling is estimated to double by 2050, providing a huge opportunity to have a near closed-loop cycle for aluminum, following circular economy principles.

ACRC addresses the challenges in its research from two different pathways: 1) remove the “bad actors” through metallurgical processing methods using external forces - mechanical, gravitational, or electrical (at UCI); 2) mitigate the effect of the “bad actors” influencing the effects of microalloying (such as Mn, Cr and Sr) and cooling rate on the formation of Fe-containing intermetallic phases in secondary Al-Si-Mg based alloys (at OSU).

The LMT series is made possible by the organisational efforts of the members of the Global Light Metals Alliance, of which ACRC was one of the founding members. The alliance includes 11 centres that specialise in light metals research. (Please note European/Canadian spelling is intentional.)

Previous conferences have been held in Australia (2003), Austria (2005), Canada (2007), Australia (2009), Germany (2011), UK (2013), South Africa (2015), USA (2017), and China (2019). LMT is a significant industry event that was created in order to provide an opportunity for industry professionals and researchers to come together, share knowledge and engage in networking that enables the industry to continue to flourish and innovate. The conference focuses on recent developments in the sciences and technologies associated with the development and manufacture of aluminum, magnesium and titanium alloys, and their translation into commercial products.