

PREFACE

The International Light Metals Technology (LMT) conference is held every two years by a member of the Global Light Metals Alliance. Previous LMT conferences have been held in Australia (2003), Austria (2005) and Canada (2007). The conference provides the opportunity for companies, academic institutions and government research agencies to learn about new research and development undertaken on light metals in a collaborative manner.

The global light metals alliance consists of the following organisations: ARC Light Metal Competence Center Ranshofen Ltd (LKR), Austria; CANMET Materials Technology Laboratory, Minerals and Metals Sector, Natural Resources Canada (CANMET), Canada; Metal Processing Institute, Worcester Polytechnic Institute (MPI), United States of America; CSIR Materials Science and Manufacturing (CSIR), South Africa; Institute of Materials Research, GKSS Research Centre (GKSS), Germany; and the CAST Cooperative Research Centre, Australia.

This conference, the fourth in the series, has undergone significant user-driven transformation, indicating the establishment of the LMT conferences as a valuable event focused on light metals and their applications. One change is that the conference has had to move from a single session to two parallel sessions due to the unexpectedly large number of abstracts submitted. The other change is the significant increase in the number of papers related to titanium research due to the increased range of applications for titanium components and the growth in end-user demands for affordable manufacturing. As a result the LMT conference is truly representative of the three light alloys aluminium, magnesium and titanium, with a similar number of papers on each metal.

The conference organising committee would like to recognise the support of the primary sponsor for LMT2009, the Australian Partnership in Light Metals, consisting of the CAST CRC, the CSIRO Light Metals flagship and the Australian Research Council's Centre of Excellence for Design in Light Metals. The support of this partnership has enabled the publication of a hardbound version of the refereed conference proceedings published as part of the Materials Science Forum series. The organising committee is also very grateful to the other major sponsors of the conference Rio Tinto Alcan and JSF Team Australia. The conference organising committee would like to acknowledge the strong industry presence and support of the conference and would also like to thank all authors for their contribution of high quality papers, which are contained in these proceedings. All papers in these proceedings have been peer reviewed.

Thanks are also due to all members of the conference organising committee along with the technical and industry committees. The organising committee hope that you find the conference proceedings both informative and well presented.

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