

Preface

This volume of Materials Science Forum contains selected papers that were presented at the seventh International Light Metals Technology Conference (LMT) held in Port Elizabeth (South Africa) on 26-29 July, 2015 (LMT 2015). The LMT conference is held every two years. It was initiated and is organised by the members of the global “light Metals Alliance”. The current global light metals alliance members include: AMPAM - Centre of Advanced Materials Processing and Manufacturing, University of Queensland, Australia; BCAST – Brunel University, UK; CANMET – Natural Resources Canada, Canada; HZG – Helmholtz-Zentrum Geesthacht, MagIC, Germany; LKR – Leichtmetall kompetenzzentrum Ranshofen, AIT Austria Institute of Technology, Austria; MPI – Metal Processing Institute, Worcester Polytechnic Institute, USA; NERC-LAF – Shanghai Jiaotong University, China and CSIR – Materials Science and Manufacturing, South Africa.

The Council for Scientific and Industrial Research (CSIR) is a leading research and development organisation in South Africa. Its Materials Science and Manufacturing operating unit has a Light Metals (LM) Competence Area that has a portfolio of research and development work on the fundamentals and process technologies for light metals. Advanced casting technologies and powder metallurgy technologies are some of the main focuses of LM.

LMT conference focuses on current advances in the science, engineering and technologies associated with light metals particularly, Aluminium, Magnesium and Titanium alloys. A variety of topics are covered, ranging from the development of new alloys through processing and mechanical properties to their applications. The conference offers opportunities for discussions and debates on cutting edge developments among researchers, academics and industry. It also presents opportunities for networking, strengthening existing collaborations and enabling formation of new ones.

The editors would like to express their sincere gratitude to the authors for their contributions to this volume and their cooperation during the editorial process. We are indebted to technical reviewers for their constructive comments and suggestions. We thank the editorial team at Trans Tech Publications for their support throughout the entire process.

It is our hope, as editors, that you find this volume interesting and that it covers the conference well.

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