

Preface

This is a follow on symposium of the 2004, 2007 and 2010 TMS Annual meeting symposia on the subject matter of "Cost-Affordable Titanium". The main purpose is to bring together the scientists, researchers and technologists to review the status of process technologies, materials development efforts, emerging applications and economics/affordability issues. The scope is broad. Potential participants who are involved in titanium production technology, vapor, solid and liquid titanium processing/post-processing, alloy development, microstructure-property enhancement, modeling and simulation, and application and market development areas were invited to participate in this symposium. The diverse mix of papers presented in these proceedings reflects the breadth of activities in the cost affordable use of titanium and emerging applications. The opening overview paper, by the editors, attempts to present a broad view of present and projected titanium cost reduction, both in titanium production and in subsequent processing. What is particularly clear is that the impetus for broadening markets for titanium is very much dependent on cost reduction methods, particularly cost sensitive industrial applications such as the auto industry. The proceedings the symposium was organized into four chapters and these are: Overview and Low Cost Processing, Powder Consolidation and Characterization, Creative Processing and Low Cost Materials and Properties.

The symposium organizer, who are also editors of this volume, would like to thank every one who helped to make the event a success, particularly the session chairs: Sami M El-Soudani, The Boeing Company; James C Withers, MER Corporation; Laurentiu Nastac, The University of Alabama; Deepak Kapoor, US Army, ARDEC; Deliang Zhang, The University of Waikato; Zhigang Zak Fang, University of Utah; Kartik Rao, Metalysis; Peter Collins, University of North Texas; Kamal Akhtar, Cristal Metals, K. S. Ravi Chandran, University of Utah; Rohit Bhagat, Warwick University. The organizers would like to thank the presenters, the authors of the papers contained in the proceedings, and to the TMS Titanium Committee for sponsoring the symposium. Special thanks to Thomas Wohlbier for agreeing to publish the "Cost-Affordable Titanium IV" symposium proceedings in a special issue of reviewed papers in key Engineering Material Series, Trans Tech Publication Ltd.

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