

## PREFACE

This meeting of the aluminum alloy community represents a significant milestone for the International Conference on Aluminum Alloys (ICAA) meetings as it is the 10<sup>th</sup> such gathering since the first conference was held in Charlottesville, USA, in 1986. It is also the first time that this meeting has been held in Canada, a significant player in the global aluminum industry. There have been remarkable advances in the technology and science that support this important global industry over this 20-year period. Taken as a whole, the proceedings of these meetings represent a seminal history on the state of knowledge in the aluminum industry related to processing and properties of aluminum alloys and we hope that these proceedings will further contribute to this knowledge base.

World production of primary and recycled aluminum continues to increase and over the past twenty years has risen from ~15 Mt/y in 1985 to ~32 Mt/y in 2005. Top markets for the industry include transportation, beverage cans and other packaging, and building construction. Global primary aluminum production has been growing at about 2-3% per year; however growth rates over the last decade have been much higher. In particular over the past five years China has played a critical role in aluminum production and has gone through a dramatic period of growth.

Canada has a long and rich history in the aluminum industry and it was in 1901 that Canada's first aluminum was cast. Since that time Canada has played an important role in the production and manufacturing of aluminum and currently is the third largest producer of primary aluminum behind China and Russia. The value of Canadian primary aluminum production is ~\$6 billion/year.

As with all previous meetings, the objective of the 10<sup>th</sup> International Conference on Aluminum Alloys is to provide a forum where representatives from industry (producers and users), public laboratories and universities can meet, discuss and present the most recent advances in aluminum alloy science and technology. The particular theme of this Conference is "*Innovation Through Research and Technology*." The technical sessions will integrate this theme and cover a wide range of activities from casting to end-use products. It is a particular privilege to hold a special session with 20 invited speakers to honour the outstanding career of Dr. David J. Lloyd. We are certain that this collection of papers will make a particularly memorable contribution to the aluminum alloy literature.

Finally, we would like to gratefully acknowledge all the individuals (too numerous to list!) who participated on our technical and organizing committees and helped to review the papers in these proceedings. We also received excellent support from all of our Conference sponsors and appreciate their assistance to this worthwhile meeting. We would also like to particularly thank Mr. Bill Hallam of Westpoint Conference Services Ltd whose patience, organization and guidance led us through the compilation of these proceedings.

Warren J. Poole  
Mary A. Wells  
David J. Lloyd  
Conference Organizers  
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