# *Preface*

The International Conference on Materials Science and Manufacturing (ICMSM2012) provided a forum for academic scientists, leading engineers, industry researchers and scholar students to exchange and share their experiences and research results. ICMSM2012 aims to cover the recent advancement and trends in the area of new materials, advanced materials, advanced manufacturing technologies, and manufacturing systems and automation to facilitate knowledge sharing and networking interactions on emerging trends and new challenges.

This book tends to collect the latest research results and applications on material science and manufacturing system and technology. It includes a selection of 77 papers from 212 papers submitted to the conference from universities and industries all over the world. All of accepted papers were subjected to strict peer-reviewing by 2-4 expert referees. The papers have been selected for this volume because of quality and the relevance to the conference.

The editor hopes this book will provide readers a broad overview of the latest advances on material science and manufacturing technologies. The editor also believes this book would be a good reference for academic researchers and industrial professionals in the fields of material science and manufacturing technologies.

ICMSM2012 would like to express our sincere appreciations to all authors for their contributions to this book. We would like to extend our thanks to all the referees for their constructive comments on all papers; especially, we would like to thank to organizing committee for their hard working. Finally, we would like to thank the Trans Tech Publications for producing this volume.

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# 2012 International Conference on Materials Science and Manufacturing (ICMSM2012)

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