

PREFACE

The present proceedings of the 7th International Conference on Processing and Manufacturing of Advanced Materials – THERMEC'2011 which was held during August 1-5, 2011 in Quebec City, Canada, under the co-sponsorship of The Minerals, Metals & Materials Society (TMS), USA. The Conference was also under the international auspices of professional organizations from Japan, Korea, France, Italy, The Netherlands, PR China, India, and Canada. The Conference was intended to bring together the researchers and engineers/technologists working in different aspects of processing, fabrication, structure/property evaluation and applications of both ferrous and non ferrous materials including biomaterials, and smart/intelligent materials. In addition to the contributed papers, the conference committee included in the final program the invited presentations by active researchers from various countries in several topic areas covered at THERMEC'2011.

Internationally known experts from several countries were invited to deliver Plenary/Keynote lectures at THERMEC'2011. Much of the credit of the success of the conference was due to topic coordinators who have devoted their time, expertise and experience in promoting and in general co-ordination of the activities for the organization and operation of the Conference. The coordinators of various session topics have devoted a considerable time and energy in soliciting papers from relevant researchers for presentation at the Conference. The Chairpersons of the different session played important role in conducting the proceedings of the session in a timely and efficient manner and the Committee expresses sincere appreciation for their involvement. The reviewers of the manuscripts, those who by tradition would remain anonymous, have been very helpful in efficiently reviewing the manuscripts, providing valuable comments well within the time allotted to them. The Editors express their sincere and grateful thanks to all reviewers.

Sincere thanks to over 50 students who received STUDENT GRANTS from Laval University and other Universities in USA, Canada, Germany, France, UK, Belgium, The Netherlands, Italy, Spain, Russia, Japan, Korea, PR China, Brazil and India and who assisted in monitoring various sessions during THERMEC and also helping the Committee in successfully staging the distinguished award ceremony at THERMEC2011.

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Finally, our sincere thanks Mr Bruno Begin and his staff at Hospitalite Quebec: Convention Management Company for designing the Conference web page and assisting organizers in the preparation of the final Conference program.

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Al/Ti Alloys/

Mg Alloys

Aerospace Structural Metallic Materials

Steels(HSLA/IF/TRIP/Stainless/Bainitic/HNS)

Thermomechanical Processing: Steels

(John Jonas Honorary Symposium)

New Methods in Steel Design

Superalloys/ High & Super High Temp.

Materials/Heat Resistant Steels

Advanced Materials in Biomedical

& Bioengineering Applications

Degradable Metals for Biomedical

Applications

Energy Materials

Surface Engineering/Coatings

Composites

Dynamic Behaviour of Materials

Fuel Cells & Hydrogen Storage & Battery

Intermetallics

Friction Stir Processing/Welding

Metallic Glasses/ Bulk Metallic Amorphous

Materials

Nanostructured Materials

Severe Plastic Deformation

Smart/Intelligent Materials

Neutron Scattering & X-Ray Studies of

Advanced Materials

Modelling & Simulation/Multiscale Modeling

Thin Films

Multiscale Modeling of Complex Materials

Texture

Welding & Joining

Fracture & Mechanical Behaviour

K. Marthinsen, G. Itoh, Mary Wells, S. B. Kang, X. Zhang

K. U. Kainer, E. Essadiqi, K.S. Shin, Xiaoquin Zeng

Y. Kawamura,

F. Montheillet, Chong .Soo Lee, Y. Waku, S. Yue

S. Takaki, E.Poliak, A.J. DeArdo, A. Howe, K. Tsuzaki,

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C. Sommitsch, T. Matsuo, A. Wusatowska-Sarnek

D. Mantovani, M. Niinomi, Thomas Webster, D. Letourneur

F. Witte, D. Mantovani, Yufeng Zheng, M.Steiger

F.Abe, R.Viswanathan, Xuejie Huang,O.Bouaziz,

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M. Mahoney, P. Prangnell, R.S. Mishra, Yutaka S. Sato

Hidemi Kato, E. Napolitano, Jun Shen, Do Hyang Kim

L. L. Shaw, E. Gaffet, K. Ameyama, Jai Sung Lee, Qing Jiang

T.G. Langdon, N. Tsuji, Maria T. Perez-Prado, K. Xia

Saiyi Li

K. Mizuuchi, P. Sittner , A.Imam,

H. Hosoda, R. Vaidyanathan

K.D. Liss, U. Lienert, T. Sasaki, V. Honkimaki, Kewei Xu,

P. Bocher, R. Loge, Jitai Niu, D. Ferguson

A.M. Hodge, Zoe Barber, Feng Pan

S. S. Babu, P. Trovalusci, M.Geers

D. Brown, Dong Nyung Lee, J. Szpunar, Hirofumi Inoue,

Liang Zuo

H. K. D. H Bhadeshia, Hidetoshi Fujii, W. S. Chang,

Shanben Chen

F. Minami, Dongil Kwon, Z. F. Zheng, T.Chandra

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