

Preface

This is a collection of the edited papers presented at the 10th International Conference on the Mechanical Behavior of Materials (ICM10) held in Busan, Korea, May 27 - 31, 2007, co-organized by the Korean Institute of Metals and the Korean Society of Mechanical Engineers. The ICM holds international conferences every four years and the first one was held in Kyoto in 1971, followed by Boston (1975), Cambridge (1979), Stockholm (1983), Beijing (1987), Kyoto (1991), The Hague (1995), Victoria (1999) and Geneva (2003).

The objectives of the ICM are to foster research on the mechanical behavior of materials, to promote related international cooperation among scientists and engineers and to provide means for the public dissemination of the results from these efforts. These conferences are intended to cover progress on all aspects of the mechanical behavior of materials from both the macroscopic and microscopic viewpoints. The scope of the materials of interest includes both industrial materials, e.g., metals, alloys, polymers, ceramics, composites, and advanced materials under development.

Among 685 abstracts submitted from 31 countries for 17 symposia, 482 papers from 28 countries were selected by the symposium organizers after the strict peer-reviewing process. We sincerely hope that this Conference bring together users, producers and researchers, both engineers and scientists who have a common interest in various aspects of materials behavior. The objective is to facilitate and encourage the exchange of knowledge and experience among different communities involved in using, improving, developing and assessing materials and conducting basic research. The conferences aim to explore the scale integration (micro, meso and macroscopic) behavior as well as an integrated approach to aspects of design, manufacturing and mechanical reliability.

On behalf of the organizing committee, we would like to thank the following conference sponsors: Korea Research Foundation, KOSEF, POSCO, KNTD, Busan CVB, FRONTICS, MTS Korea Inc., R&B Inc. and INSTRON Korea. We also want to thank the members of the ICM Executive Committee, the International Advisory Committee for their strong support and especially the symposium organizing committee and session organizers for their tireless efforts and dedication. Without their enthusiastic support, this conference would not be possible.

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