

## PREFACE

From 27<sup>th</sup> till 31<sup>st</sup> August 2006, the International Symposium on Metastable and Nano Materials, previously named the International Symposium on Metastable, Mechanically Alloyed and Nanocrystalline Materials, was held in Warsaw, Poland. The 13<sup>th</sup> edition of ISMANAM was hosted by the Faculty of Materials Science and Engineering, Warsaw University of Technology. The event is the continuation of the tradition of meeting in spots all over the world – the first ISMANAM was organised in Grenoble in 1994, then followed by the meetings in Quebec, Rome, Sitges, Wollongong, Dresden, Oxford, Ann Arbor, Seoul, Foz do Iguacu, Sendai and Paris. In 2006, it was the first time when the participants of the event gathered in the country of the former Eastern Europe. During 13<sup>th</sup> ISMANAM, 223 participants from 33 countries from all the inhabited continents, presented the work of 707 authors, in the form of 3 plenary talks, 25 invited talks, 74 oral contributions and 134 posters. For these Proceedings, 154 reviewed manuscripts prepared by 479 authors were accepted and submitted for publication.

During over ten years of ISMANAM history, the scope has been significantly widened, the modification of the title of the Symposium to the present one being the evidence of these changes. The materials covered in the Symposium included, but were not limited to, amorphous, nanocrystalline, quasicrystalline and metastable crystalline ones. The scope of the Symposium encompassed metals, ceramics, intermetallics, polymers and composites. Also the form of the investigated items spanned from nanosized particles, through thin films, powders to bulk elements, including composites and nanocomposites. Various aspects of the materials science were discussed: modelling, manufacturing, characterisation of structure and properties, performance and applications. The participants presented the phenomena, relationships and observations, and shared their ideas and doubts, opening space to fruitful discussions. Theoretical and empirical approaches to the raised issues were presented, as well as the practical applications of the metastable and nanostructured materials.

The subjects of the reported works were divided into separate groups, presented in sessions covering: metallic glasses, bulk metallic glasses, crystallisation, mechanical alloying, powders consolidation, magnetic materials, hydrogen storage, electrochemical properties, structure characterisation and others.

Traditionally, the ISMANAM Steering Committee acknowledged the outstanding achievements of a senior and a junior scientist by granting the awards. The Senior Researcher Award was handed to Prof. Takeshi Egami of the University of Tennessee, and the Junior Researcher Award went to Dr. Howard W. Sheng of the Johns Hopkins University.

The ISMANAM Steering Committee accepted the proposal of Prof. Georgios A. Evangelakis to organise the next Symposium in Corfu, Greece. For the Symposium in 2008, the Committee provisionally accepted the proposals of Prof. Fernando Audebert (Argentina) and Prof. Jiangzhong Jiang (China).

We wish to express our sincere thanks to all these who contributed to the success of 13<sup>th</sup> ISMANAM: the members of the Scientific Committee, the members of the National Advisory Committee, the session chairpersons, invited speakers and all the contributing participants. The efforts of the colleagues of the Local Organising Committee are gratefully acknowledged. The Organisers would like to thank Polish Ministry of Science and Higher Education and the Rector of Warsaw University of Technology for their financial support of the Symposium.

Warsaw, October 2007

Tadeusz Kulik, Chairman

Dariusz Oleszak

Jarosław Ferenc