

## Preface

The International Symposium on Metastable, Mechanically Alloyed and Nanocrystalline Materials (ISMANAM 2004) was held in Sendai from August 22<sup>nd</sup> to 26<sup>th</sup>, 2004 at the premises of the Sendai International Center which is located at the central part of Sendai city. This is 11<sup>th</sup> in the series of Symposia held in Foz do Iguaçu (2003), Seoul (2002), Ann Arbor (2001), Oxford (2000), Dresden (1999), Wollongong (1998), Sitges (1997), Rome (1996), Quebec (1995) and Grenoble (1994).

The Symposium was concerned with many aspects of the synthesis, characterization and fundamental investigations of various metastable, nanostructured, amorphous and glassy materials as well as quasicrystals and bulk glassy alloys. The Symposium program included invited and contributed oral presentations as well as poster presentations on the following topics related to metastable and nanostructured materials: Synthesis and processing: physical, chemical, mechanical and biological methods; Structure and characterization; Properties: general physical, chemical, mechanical, electrical, magnetic, optical, thermal etc.; Phase transformations; Theoretical modeling and computer simulation; Performance and applications. This proceedings volume represents a significant step in the understanding the nature of the metastable materials and promoting their applications. All papers accepted for publication have been reviewed according to the standards of the present Symposium and submitted in the revised form if necessary.

The Symposium was highly successful and attracted 212 participants from 21 countries from all inhabited continents: Africa, Asia, Australia, Europe, North America, South America. The Symposium program included 9 keynote lectures as well as 28 invited oral, 84 oral and 136 poster presentations combined in 35 sessions (5 single, 28 parallel and 2 poster sessions). Each parallel session contained 1 invited and 3 oral presentations. Topic of parallel sessions were chosen to be as different as possible. At present the Symposium covers broad area of topics and fields.

At this Symposium ISMANAM Steering Committee decided to rename the Symposium to "International Symposium on Metastable and Nanomaterials" and nominated year 2004 prize winners: Prof. J. H. Perepezko from University of Wisconsin-Madison, USA (Senior scientist award) and Dr. A. Gebert from Leibniz-Institute for Solid State and Materials Research, Germany (Young scientist award). The forthcoming 12<sup>th</sup> International Symposium on Metastable and Nano Materials (ISMANAM) will be held in Paris at the Maison de la Chimie on July 3-7, 2005. The Chairman and organizer is Prof. A. R. Yavari. ISMANAM was first held in Grenoble in 1994, and thus, is coming back to France in 2005 after eleven years.

The Conference Chairman wishes to express his gratitude to Local Organizing Committee Members (especially to Dr. A. Takeuchi, Dr. D. V. Louzguine, Dr. M. Hasegawa, Dr. H. M. Kimura, Dr. H. Kato, Dr. S. Yamaura, Dr. T. Yamamoto and the others) for their active

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