

Preface

ISMANAM-2005 Proceedings

On behalf of my co-organisers, our International Steering Committee, all our Guest Editors, our National and Local Organising Committees, our staff and our private and public sector Sponsors, I am very pleased to present here the proceedings of the 12th International Symposium on Metastable and Nano-Materials (ISMANAM-2005) held in Paris 3–7 July 2005 published for the first time with the Journal of Alloys and Compounds, a collaboration we hope will be long-lasting and will bring you ISMANAM every year in the future.

After a successful gathering initiated by Prof. H. Shingu of Kyoto University in 1992, the ISMANAM annual conference series started in 1994 in Grenoble, France. It has since done an exciting and challenging “tour du monde”: Quebec City, Canada 1995; Rome, Italy 1996; Barcelona (Sitges), Spain 1997; Sydney (Wollongong), Australia 1998; Dresden, Germany 1999; Oxford, UK 2000; Ann Arbor, USA 2001; Seoul, Korea 2002; Foz de Iguacu, Brazil 2003; Sendai, Japan 2004; Paris, France 2005. ISMANAM-2006 will be held in Warsaw, Poland and ISMANAM-2007 in Corfu, Greece.

The meeting has the particularity of annually bringing together a core group of established scientists together with their young scientists. In addition and depending on the location and the organisation, many other scientists young and old, are attracted to ISMANAM every year and participation is generally around 200–400 persons as was the case in Paris this time.

This is huge when considering that the meeting is annual and that many participate on a regular basis. These particularities have made of ISMANAM a “hub” for exchanges of views and initiation of international collaborations concerning metallic glasses and other metastable materials, nanomaterials prepared by various methods including mechanical alloying and attrition, their structures, various properties and applications. ISMANAM has also become an excellent venue for young scientists to exchange with senior scientists and industry delegates.

Over the years, ISMANAM has responded to the needs of its participating communities by given the floor more often to those presenting new results on “hot” topics and for ISMANAM-2005 that topic was the understanding of the mechanical properties of glassy and nanostructured materials. Thus, although the order in which the manuscripts appear in this volume may appear random at first, there is some “thematic” order in the apparent disorder. The volume starts with reports dealing with mechanical properties of metallic (and other) glasses followed by the latest on new glassy compositions and their processing and thermodynamics. It then presents works on mechanical properties of nanomaterials and mechanical alloying. These are followed by interesting results from computational methods and experiments including molecular dynamics on nanomaterials, magnetic, hydrogenation and other chemical properties, catalytic and biological properties and surface layers and properties of nanomaterials. On the whole it constitutes a valuable updated collection (all-in-one-place) of the latest results in ISMANAM’s exciting multi-disciplinary field of research.

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