

Editorial

This issue contains a selection of papers presented at the Sixth Latin American Conference on Metastable and Nanostructured Materials (NANOMAT 2015) which was held in Cancún, Quintana Roo, México, during August 19 and 20, 2015, organized by the Department of Engineering in Metallurgy and Materials, Instituto Politécnico Nacional, México, and by the Department of Materials Engineering, Federal University of São Carlos, Brazil. NANOMAT was a parallel event to the XXIV International Materials Research Congress, IMRC 2015. The triennial series of NANOMAT conferences started in São Pedro - São Paulo - Brazil (2001) and then was followed by Foz do Iguaçu - Paraná - Brazil (2003), Rio de Janeiro - Rio de Janeiro - Brazil (2006), Mexico City - Federal District - México (2009), and São Carlos - São Paulo - Brazil (2012).

The NANOMAT series are directed to researchers working with all classes of metastable and nanostructured materials (ceramics and glasses, metals and alloys, polymers and composites). Research in these areas has been strongly stimulated in recent years by the developments of new materials with unique mechanical, chemical and physical properties. In this context, NANOMAT 2015 provided a comprehensive overview of the fundamental aspects, synthesis, materials, properties and applications in this evolving field of materials science. The sessions of NANOMAT 2015 covered several different aspects:

1. Materials: Bulk metallic glasses; Polymers and nanocomposites; New oxide/ceramic glasses; Rapidly quenched materials; Quasicrystals; Complex metallic alloys; Thin films and coatings; Nanostructured materials.
2. Properties and Applications: Magnetic properties; Electronic properties; Mechanical properties; Chemical properties; Catalytic properties; Hydrogen in metastable alloys; Physical properties; Health issues.
3. Synthesis & Processing: Phase transformations; Structural characterization; Rapid solidification; Theoretical modeling; Computer simulation; Spray forming; Mechanical alloying.

During NANOMAT 2015, a total of 77 abstracts were scheduled for presentation. From those, 31 contributions were presented in oral sessions, including 18 invited talks, and 46 were presented as posters.

The 21 papers that appear in this special issue were reviewed as regular journal papers following the standards of MatRes, with at least two referee's report before final decision. We expect that this special issue can provide the readers a synthesis of the recent developments associated with the field of metastable and nanostructured materials.

We acknowledge the support from Instituto Politécnico Nacional and Federal University of Sao Carlos, and the financing agencies CONACYT (México), FAPESP and CAPES (Brazil). We wish the organizers of NANOMAT 2017 great success and look forward to meeting you in the next conference.

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Guest Editors