

PREFACE

This volume constitutes the proceedings of VI International Materials Symposium – ‘Materiais 2011’ held from the 18th to the 20th April, 2011, at the University of Minho, Guimarães, Portugal, under the co-sponsorship of the Portuguese Materials Society- SPM.

This Symposium is the last of a series of SPM biannual conferences started thirty years ago. These conferences are intended to bring together the researchers, engineers and technologists working in the multiple fields of Materials Science and Engineering.

The ‘Materiais 2011’ edition was attended by more than 320 participants, coming from 28 countries all over the World. We sincerely thank all these participants from academia, research centres and industry, for their commitment and work on writing their manuscripts that are the basis of the scientific soundness of the Materiais conferences.

The conference programme included 5 invited lectures, 166 oral presentations and 243 posters presentations. These Proceedings contain 171 papers that passed the reviewing process, and cover an extensive range of scientific and technical topics of Materials Science and Engineering, organized in 10 chapters: Biomaterials, Ceramic and Glass Materials, Coatings and Surface Functionalization, Composite and Hybrid Materials, Materials for Civil Engineering Applications, Materials and Process Modelling, Materials for Sustainable Development, Metals and Alloys, Nano and Microstructured Materials, and Polymers.

Much of the success of ‘Materiais 2011’ is due to the contributions of many dedicated colleagues. We wish to express our sincere grateful thanks to:

- the invited speakers who contributed to highlight some of the most present and exciting research topics in the Materials field;
- the International and National Scientific Committees, for their many invaluable suggestions, help in publicising the Symposium, prompt and timely help, and efficiency in the final review process of the manuscripts with their valuable comments well within the time ‘imposed’ by the editors;
- the Local Organizing Committee who contributed with their experience and expertise in promoting and co-ordinating the many activities for the organization and smooth running of the conference;
- our Master and Doctoral students, for their very professional involvement in the organisation of this event, as well as their work before, during and after the conference.

A final and very special thank is for the financial support of our sponsors, namely the the School of Engineering of the University of Minho, Portuguese Society for Materials, the Portuguese Foundation of Science and Technology - FCT, the Centre for Mechanical and Materials Technologies, the Institute for Polymers and Composites/I3N, 3B’s Research Group on Biomaterials, Biodegradables and Biomimetics, Centre of Physics of the Minho University, School of Sciences of UM, TecMinho, the Town Hall of Guimarães, and the companies Beneq, Celoplás, Filsat, Izasa, Leica, Mário da Costa Martins & Filho Lda, Panalytical, and ScienTec.

We do believe that the publication of these proceedings will make justice to all who contribute to the running of a well participated conference in the fields of Materials in Guimarães, the European Capital of Culture in 2012. The broad coverage of well established and emergent topics in the field of Materials was indeed a strong contribution to the promotion of international cooperation and establishment of synergy for the development of Materials Science and Engineering. This book may well be seen and used as a valuable tool for the establishment of all new researchers in the field of Materials.

We hope to see you soon in 2013 at the University of Coimbra for the 7th International edition of ‘Materiais 2013’.

Ana Maria Pinto

António Sérgio Pouzada

(editors)

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