FOREWORD

Our goal is to continue the tradition established in 1998 at La Rábida (Huelva) by the Professor Arturo Domínguez Rodríguez pioneering in this conference and with the aim of bringing together the most prestigious Spanish scientist devoted to the mechanical properties of solids, and giving an opportunity to invite prestigious international scientist. Since 1988 this biannual Congress has travelled almost all Spanish regions, Andalucía, Valencia, Cataluña, Extremadura, Madrid, País Vasco y Galicia. Moreover, when there is an opportunity to join several friends connected by a specific subject, it is always a great moment in life.

As it could not have been otherwise, this XIth edition of the Spanish Mechanical Properties of Solids has represented one of these excellent moments. In this occasion the Congress was celebrated in the south corner of Spain in a little town in the San Cristobal’s mountains in the Sierra of Grazalema of Cádiz called El Bosque, from 9th to 12th of September, at the end of the summer of 2008. There are two important things to notice about it, the first one is the good local weather since it is close to the mountains peaks of 1600 m high provoked by the plastic deformation of the Iberian plate tectonics. The marine limestone sediment type and the high level of rainfall is the origin of this folding. In this scenario of dislocations, synclines, faults and fractures of the ground we met last in September 2008. The second reason that motivated us the choice of this site is calm due to the passage of water from the river Majaceite and a peaceful 2000 inhabitants. Then we have passed three days in the Las Truchas Hotel talking, presenting, discussing, earing, eating and drinking, sometimes hiking and most importantly among friends.

The topics have been presented as classical shape: Ceramics, Composites and models, Metals and Polymers. The six invited talks have attempted to cover the most important areas of actuality such as superplasticity and superelasticity, nanostructured materials, shape memory alloys, viscoelasticity in polymers, microcrystalline metals, mechanical behaviour of bioactive materials, etc. The new experimental techniques have also taken place. In this way we have assisted to 31 oral presentations and 36 panel exhibition. As a general convention in this conference and a rule set, panels have had the possibility of being exposed in 5 minutes as oral presentations by the young researchers presenting the work, thus giving opportunity to discuss the panels all people together before the traditional poster sessions in the hall. Enhancing, in this way, the participation of the younger scientist.

This special issue of the Key Engineering Materials (KEM) as “XI Congress on Mechanical Properties of Solids” collects a selection of 23 extended manuscripts which correspond to those presented in the conference, 3 invited talks, 6 in ceramics, 3 in composites and models, 8 in metals and 3 in polymers. Giving an accurate picture of the distribution of research in Spain from the viewpoint of the mechanical properties of solids.

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The organizing committee would like to warmly thank all participants for their attendance to this congress, in which there were many moments of high scientific communication and discussion, others moments of after-dinner speech and others of walking around. We are also grateful to institutional support received from the Universidad de Cádiz, from the Consejería de Innovación Ciencia y Empresa de la Junta de Andalucía and from the Ministerio de Educación y Ciencia de España. And also from private companies Obra Social de CajaSol, Afora, Izasa, BioMeta y Zwick/Roell.

Finally inform all concerned that the next edition for the XII edition in 2010 of the National Congress on Mechanical Properties of Solids will take place somewhere in Guipuzcoa yet unspecified and Dr. D. Félix Peñalba from the Fundación INASMET (País Vasco technological center) will act as chairman.

El Bosque (Cádiz), June 2009
Nicolás de la Rosa-Fox
(Editor)
The Seniors

Prof. Arturo Domínguez with the chairman

Prof. Ladislas Kubin and his talk

Prof. Thierry Woignier teaching us

Profs. San Juan and Riande during the discussion
The juniors

Dr. Víctor Morales Flórez talking about bioaerogels  
Dra. Marta González Corominas explaining her work

Young scientists from Sevilla and Badajoz  
Young scientists from different places during the banquet

More pictures and information:  
http://www.uca.es/grupos-inv/TEP115/pms2008/