



MATERIALS
CHARACTERISATION
VI

Computational Methods
and Experiments

 WIT PRESS

Editors
C.A. Brebbia
& A. Klemm

Materials Characterisation VI

Computational Methods and Experiments

WIT Transactions on Engineering Sciences, Volume 77

This book contains papers presented at the Sixth International Conference on the topic. Materials modelling and characterisation have become ever more closely intertwined. Characterisation, in essence, connects the abstract material model with the real-world behaviour of the material in question. Characterisation of complex materials often requires a combination of experimental and computational techniques. The conference is convened biennially to facilitate the sharing of recent work between researchers who use computational methods, those who perform experiments, and those who do both, in all areas of materials characterisation.

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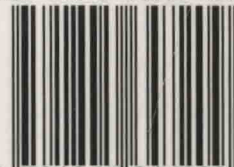


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Preface

This volume contains most of the papers presented at the sixth international conference on Computational Methods and Experiments in Materials Characterisation held in La Certosa of Pontignano of the University of Siena in 2013. It follows the success of five previous meetings in this series which started in Santa Fe, New Mexico in 2003; followed by conferences in Portland, Maine (2005); Bologna (2007); the New Forest Campus of the Wessex Institute of Technology (2009), and Kos, Greece (2011).

The aim of the Conference is to facilitate interactions within the research community and discuss the latest developments in this rapidly advancing field.

The meeting responds to the demand for high quality products for both industry and consumers, which has led to rapid developments in materials science and engineering. This requires the characterisation of the physical and chemical properties of the materials. Consideration of different experimental techniques as well as computer simulation methods is essential to achieve a proper analysis. A very wide range of materials, starting with metals through polymers and semiconductors to composites, necessitates a whole spectrum of material characterisation experimental techniques and numerical methods.

All papers published in this volume as well as those from previous conferences are permanently archived at <http://library.witpress.com/> where they are available to the international community.

The books are published in paper and digital format and widely distributed throughout the world. As other papers presented at the Wessex Institute conferences they are referenced and regularly appear in notable reviews, publications and databases.

The Editors are grateful to all authors for the presentations and particularly to the members of the Scientific Advisory Committee who have reviewed the contributions, hence ensuring the quality of this volume.

Carlos A. Brebbia
Agnieszka Klemm
Siena, 2013

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