THE EUROPEAN MATERIALS RESEARCH SOCIETY

The European Materials Research Society (E-MRS) is a non-profit making scientific society founded in 1983 with its Headquarters in Strasbourg, France. The Society focuses its activities on creating synergy from the interaction between interdisciplinary, innovative fields of materials research. Great attention is given to spreading and exchanging information and promoting technology transfer from public institution to industry.

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Since 2002, in parallel with the Spring Meeting held in Strasbourg which attracts over 1500 participants, Fall Meetings have been held in Warsaw. The 2005 Fall Meeting consisted of 10 symposia running concurrently, Plenary Sessions, a joint session with other symposia and included an exhibition of relevant products and services as well as training activities for young researchers and scientists.

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Introduction

The production of nanopowders and their application in industrial and technological innovation is an important and growing area of interest in the world of nanotechnology. It is recognised and well known that the basic properties of nanopowders are strongly influenced by the shape, size and distribution and surface chemistry of the particles.

This symposium was designed to focus on the question of doping of nanopowders. It was the intention of the organisers of the symposium to bring together scientists to share their experiences in synthesis, characterisation and application of nanopowders doped with ions of rare earth elements, transition elements, or other metals. The questions of doping levels, solubility levels, dopant distribution and location, and aspects of scaling up production were some of the areas of interest.

The symposium attracted scientists from most European countries, the Middle East, Asia, the United States, Australia, as well as the Russian Federation and the Ukraine.

The multi-disciplinary nature of the E-MRS Fall Meeting lends itself to holding a number of Joint Sessions with Symposium B entitled: “Nanomaterials in Catalysis” and Symposium D entitled: “Polymer Materials Modified by Nanoparticles” where topics overlap. This volume includes several papers presented in the Joint Sessions.

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