

Book Review

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Nanostructured materials

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This is a collection of selected papers of the 2001 mid-term meeting of the European Co-operation in Science and Technology (COST) action on 'Nanostructured Materials' in Limerick, Ireland, focusing on material fundamentals and applications of nanostructures from a number of European countries.

The book starts with a broad review of magnetic nanoparticles and biosciences. This review is quite informative and

current, citing 163 relevant papers on the synthesis of these particles and their applications in various areas of biosciences and biotechnologies. The following contributions are quite focused on the specific research topic as it is encountered in the leading journals of the field. These papers address mostly inorganic materials and the nanostructure appears in the form of films or particles. A broad array of techniques is used for the synthesis of these nanostructures, such as the solution and sol-gel techniques that are particularly attractive for the low-temperature ceramic phases that are encountered for biomaterials in orthopedics and dentistry. Furthermore, aerosol and high-temperature processes, such as plasmas, are also discussed, providing a wide coverage of the preparation

methods. A broad spectrum of characterization techniques is also included, as a number of properties are explored.

High-quality diagrams and figures elucidate the essential features of the physical models and measurements that greatly facilitate comprehension. This book will be a useful reference for a scientist or engineer. Overall, this is a nice book showing the rich activities of this evolving field in a number of European countries, especially in Eastern Europe, and is recommended for scientists in both academic and industrial settings.

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