

Book Review

**Nanoscience: The Science of the Small in Physics, Engineering, Chemistry,
Biology and Medicine**

**Hans-Eckhardt Schaefer, xxiii+772 pages, ISBN 978-3-642-10558-6,
Springer, Heidelberg, Dordrecht, London, New York (2010)**

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This book provides a dynamic overview of multidisciplinary research in science of nanoparticles, quantum dots, nanowires, carbon nanostructures, nanoporous materials, nanofibers, nanocomposites, nanofluids, nanostructured bulk materials, films and coatings. In twelve chapters, *Nanoscience* covers a wide range of topics in this rapidly growing field, with the primary focus placed on fundamental relationships between the structural features of various nanomaterials and their remarkable properties. Also, a special attention is paid to nanomaterials fabrication methods and experimental techniques for characterization of nanostructures and examination of their properties.

Along with the fundamental science of nanostructures, nanotechnologies are broadly considered in the book. In particular, the community will benefit greatly from the hard work of Professor Schaefer in presenting recent developments in nanoengineering, nanochemistry, nanobiotechnology and nanomedicine.

The twelve chapters are organized together well to create a logical natural structure. Each chapter contains an extensive list of references and is profusely illustrated with figures.

The book will be of interest to researchers and graduate students in the broad field of nanoscience and nanotechnologies. It can be also useful for engineers who are involved in production and processing of nanomaterials for structural, functional and biomedical applications. I expect this book to have a significant impact on research in both fundamental nanoscience and practice concerning nanotechnologies.