

FOREWORD

Nanoscience and nanotechnology have definitely become one of the fast progressing areas of the research activity in the world. Fundamental regularities in the nanoworld are receiving further understanding. Achievements in physics and chemistry of nanostructures extend the horizons for their practical applications. Recent developments in nanotechnology, nanoelectronics, spintronics, nanophotonics, nanosensorics, nanobiology and other related fields are good illustration for that. The most interesting results obtained are discussed at *NANOMEETING-2009* (26-29 May, 2009), which is the International Conference on Physics, Chemistry and Application of Nanostructures traditionally organized each two years in Minsk (Belarus) since 1995.

NANOMEETING-2009 is characterized by an extended presentation of the results related to fabrication, characterization and applications of various systems with nanodimensions. These nanosize systems present, as a main feature, new and unique structural, electronic, optical and magnetic properties. Monolithic, core-shell and hollow nanoparticles in liquids, solid and porous matrices are being studied in order to meet current challenges in electronic and optical processing of information, medicine, energetics, sensorics. Many examples can be found in this book which collects both invited reviews and short notes of the contributions to the Conference.

The papers are arranged within the traditional sections of the previous publications: Physics of Nanostructures, Chemistry of Nanostructures, Nanotechnology and Nanostructure Based Devices. Both basic and applied researches are presented. The author's style of the papers has been mainly preserved in its original form.

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