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## **Editorial**

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A new Inderscience publication - *The International Journal of Nanotechnology (IJNT)* welcomes you to its very first issue.

Within the last decade, nanotechnology has reached the status of a leading science with fundamental and applied research in all basic physical, life, and earth sciences as well as engineering and materials science. An important feature of nanoscience is that it bridges the crucial dimensional gap between the atomic and molecular scale of fundamental sciences and the microstructural scale of engineering and manufacturing. Accordingly, a vast amount of true multidisciplinary fundamental knowledge is to be explored and linked. It will lead to a tremendous amount of in-depth understanding as well as to the fabrication of novel high technological devices in many fields of applications from electronics to medicine. Therefore, it should improve tremendously the level of technological advance at a much greater rate than human history has ever experienced. As a result, the technological, educational, and societal implications of nanotechnology are of immense importance, which are attested by the tremendous interests, the major economic efforts, and the national initiatives of many countries around the world.

While nanotechnology is reaching its maturity, so shall be the coverage of its findings. Whereas most journals are featuring communications and articles, review articles on nanotechnology are scarcely represented. In our view, a new nano-journal consisting entirely of thorough reviews was indeed necessary to grant full access to multidisciplinary in-depth knowledge of such a dynamic and fascinating field.

*IJNT* provides such a unique source of information on any topics related to nanotechnology from academic and industrial standpoints. Consisting of invited contributions from worldwide experts, it aims to provide a major reference source of comprehensive fundamental and applied understanding of nanotechnology. It is dedicated to professionals, scientists, academics, engineers and researchers and represents an educational resource for students, teachers, and educators. We hope that *IJNT* will bridge the gap between fundamental research and technological development as nanoscience bridges the gap between atomic and microscopic scales.

The authors, the editorial members, and all the contributors are gratefully acknowledged for the time and dedication they provided to enable the delivery of this new journal and its inaugural double issue. It features 11 high-quality review articles

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covering the following topics: nanoelectronics, nanolasers, nanosuperconductors, nanomagnets, nanopolymers, semiconductor nanowires and core shell nanoparticles, as well as advanced nanomaterials by design, state-of-the-art synchrotron characterisation techniques of nanostructures, and nanotechnology for power sources and dental applications.