

Editorial

It is with great pleasure and honor that we celebrate the occasion of our inaugural issue of Nanomaterials and Nanotechnology (NMNT), the new entirely open access journal in the field of “nano” scale materials and technology from InTech Open Access Publisher.

Research at the nanometer scale represents a rapidly growing sub-field of materials science and technology, addressing novel size-dependent phenomena and concepts in a broad spectrum of materials, structures and devices, covering both basic sciences, synthesis/fabrication methodologies, and applications. During the last decade, nanoscience and nanotechnology have generated an unprecedented ferment in the scientific community; almost in parallel, the last few years have seen a dramatic explosion in the number of international science journals and magazines in the field of “nano” research.

Why another journal on the topic then?

First of all NMNT, being a truly Open Access journal which applies a “free for all model” (free for both the readers and the authors), is unique among other journals in the field. With the Open Access publishing model, NMNT will allow readers worldwide to download free-of-charge full articles via the online platform InTechOpen, thus enhancing rapid access to the most up-to-date studies carried out by other researchers around the world. Novel advances in nanoscale phenomena and nano-materials will open exciting and revolutionary new roads. In this contest NMNT aims at fostering discussions in the field by providing a lively forum for scientific reports and most recent results on this startling “nano” research universe. As such, NMNT’s scope is to serve its readers with a varied and rich set of articles that will be of great interest to physicists, chemists, materials scientists, biologists, medicine and biomedical researchers and engineers.

The aim of NMNT is to publish research manuscripts that include cutting-edge research on nanoscale science and technology, bringing together the science and applications of nanoscale and nanostructured materials with an emphasis on the synthesis, processing, characterization, and applications of materials containing nanometric dimensions or nanostructures that enable novel/enhanced properties or functions. NMNT will publish articles that focus on, but are not limited to, the areas of synthesis, characterization and properties of nanosized materials, realization and application of novel nanostructures and nanodevices and nanosystems for electronic, biological, medical, chemical, energy and environmental applications.

Another characteristic of the journal is to be strongly interdisciplinary, covering both the experimental and theoretical aspects of the varied nano-scale science and technologies.

This journal intends to pursue high quality standards in terms of the published results through a rigorous reviewing process of submitted manuscripts. Furthermore NMNT employs a fast publication process. In fact accepted papers are immediately published online within the current issue, without any delay: once an article is ready for publication, if the current issue is already closed, the next issue will be open.

A salient feature of the journal is to publish a complete selection of original articles, identifiable as regular papers, review articles, short communications and feature articles. In particular, in each issue invited feature articles, commissioned by the Editor to well-known experts in their field, will represent a constant highlight of the journal, pointing the readers attention on subjects of utmost importance in the nanoscience and nanotechnology arena. These articles, presenting an in-depth analysis and the author's interpretation of a new and pivotal argument, will focus on the state of the art of the research in a particular field of "nano", almost like a headlight illuminating the way forward.

Starting with the first issue, the journal is aligned with fresh perspectives and authoritative scientific content. The first issue has the honour to host a relevant contribution in the section "Invited Feature Article" of one of the world's foremost solid state and materials chemists who has made immensely significant contributions to nanomaterials over the last two decades, the eminent scientist Prof. Dr. C.N.R. Rao. In this article Prof. Rao and co-workers focus on one of the most exciting, new and compelling research area, also subject of the most recently awarded Nobel Prize in Physics, the extremely fascinating two-dimensional material, which is graphene.

As Prof. Dr. C.N.R. Rao and co-workers point out in the article: "Graphene has generated great sensation owing to its fascinating properties with possible potential applications".

The next Invited Feature Article centres on another interesting argument concerning the droplet epitaxy: it is shown as the shape tuning of semiconductor nanostructures is the key to access subtle electronic design possibilities.

Among others, regular articles on different nano topics, such as carbon nanotubes, entanglement in quantum wires and other subjects are also included.

A special mention has to be reserved to the journal International Editorial Board, whose members are renowned scientists, whose expertise spans from nano-science and materials chemistry and physics, synthesis, characterization and processing of materials and device at the nanometer scale.

I would like to express my gratitude to the highly renowned and respected International Editorial Board of NMNT which constantly supports me with its invaluable contributions and fruitful discussions. I owe it to thank each of them for having the courage and the will, as leading scientists, to dedicate part of their precious time to serve this journal. Among the members to the Editorial Board, a very special thank you is sincerely reserved for Prof. Dr. C.N.R. Rao for trusting in the journal and dedicating his priceless time, participating actively to its high standard built up by his excellent contributions and valuable suggestions.

I also greatly appreciate the work of the reviewers, whose skill and rigor contributed to the high quality level of the papers selected for publication in the journal's first issue.

A particular thank you note is finally due to the editorial staff of InTech Open Access Publisher, for their competence and availability to listen and discuss with me the many details and problems involved with the launching of a new international journal, and for their will to take new paths, always with a friendly and collaborative attitude.

Also I would like to thank those many authors around the world who are trusting - and will hopefully keep doing so - this journal by sending their newsworthy scientific results for publication in NMNT.

Finally, moved by the awareness that - as the Greek philosopher Socrates said - "I know that I know nothing", fundamental motivation of the desire to know more, I encourage you to explore all of the journal's original content, keeping high the enthusiasm and aspiration to always learn, know and discover more.

I sincerely hope that the papers published in the first issue and those that will follow within the next issues will inspire and stimulate readers to find exciting new perspectives and achieve novel developments in the field of nanomaterials and nanotechnology.

Paola Prete
Editor-in-Chief
