

# Science of Advanced Materials

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A Special Issue on

## Advanced Materials for Technological and Biomedical Applications

### CALL FOR PAPERS

Advanced materials are those which involve knowledge and manipulation of matter at the molecular and/or atomic scale for the purpose of advancing technology and improving human resources and benefits. Since its beginning in the nineteenth century, the revolution in advanced materials research has proven to be the most promising and far reaching technological movement in terms of economic, social and cultural impact. The relevant activities involve discoveries of fundamental principles of chemistry, physics, mathematics, engineering, biosciences, and others, which can be applied to control molecular-level properties of new materials, hence finding themselves embedded within the very heart of the emerging world of nanotechnology and then fashioning for real-life applications. During last decades these materials have attracted great attention of many researchers since they demonstrated great potentials for a wide range of applications in sensors, microelectronics optoelectronics, magnetism, catalysis, energy storage and photovoltaics. In addition to this, tremendous applications of advanced nanostructured materials are anticipated in medicine and life sciences including detection, diagnosis and treatment. This special issue, “**Advanced Materials for Technological and Biomedical Applications**” aims to focus on the coverage of new advanced materials with technological and biomedical applications. It includes a survey of technological and biomedical applications of advanced materials and will also cover the theoretical, analytical and computational studies of advanced Materials.

We invite submission of original research articles/communications and/or comprehensive review papers to this special issue on the following related topics:

- **Nanomaterials for technological and biomedical applications**
- **Thin Films based applications of advanced materials**
- **Quantum Dots, Quantum Wires for technological and biomedical applications**
- **Applications of magnetic materials**
- **Carbon-based nanomaterials for technological and biomedical applications**

- **Carriers for drug delivery (e.g. vesicles, liposomes, polymeric nanoparticles)**
- **Biodegradable polymers**
- **Nanocomposites for dental and orthopedic applications**
- **Nanostructured scaffolds for tissue engineering applications**
- **Nanostructured bio-ceramics**

### **GUEST EDITORS**

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### **Manuscript Submission**

Manuscripts must be prepared according to Journal's guidelines, available at <http://www.aspbs.com/sam>. Submit your manuscripts **in MS word or PDF format** directly to

**Dr. N. Bouropoulos** at E-mail: [nbouro@upatras.gr](mailto:nbouro@upatras.gr)

All papers submitted to this issue will be subject to a strict peer review process to ensure high quality articles. Please make sure in the cover letter that the submitted paper has not been published previously and is not currently submitted for review to any other journal and will not be submitted elsewhere before a decision is made by this journal.

Please notify well in advance for your intension to submit a research paper.

### **Key timetable dates**

Manuscript due: **January 31, 2010**

Authors' notification: **March 1, 2010**

Publication date: **June, 2010**