
Editorial

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Biographical notes: Chien Mau Dang received his MSc and PhD in Materials Science from the National Polytechnic Institute in Grenoble (Grenoble INP), France in 1991 and 1994. In 1996 and 2007, he received his Master in Management from the University Pierre Mendès France and the Diploma of Habilitation for Research Direction (DHDR) in Materials and Process Engineering from the Grenoble INP. From 1996 to 2004 he was Head of Department of Materials Science Fundamentals, Vice-Dean of Faculty of Material Technology, HCM City University of Technology. Since 2005 he has been Associate Professor. In 2004 he created the Laboratory for Nanotechnology (LNT), VNU-HCM, of which he has been Director since then. He is a member of several national level research bodies and councils. He has authored or co-authored more than 50 publications in peer-reviewed journals and five patents.

Eric Fribourg-Blanc received MSc Degree in Electrical Engineering from Ecole Centrale de Lille, France (1997), MSc and PhD in Electronics from University of Valenciennes, France (1997 and 2003). Since 2003 he is a researcher at CEA-LETI, Grenoble, France. His research interests include microtechnology and microfabrication on silicon and polymers. He spent two years at the Laboratory for Nanotechnology in Vietnam (2009–2010) where he provided expertise and built up RFID and inkjet research activities. He has (co)authored more than 20 publications in peer reviewed journals and conferences and holds two patents. He is a member of the Materials Research Society.

Dear reader of this issue,

It is our great pleasure to bring you here a set of 20 selected key papers from the 4th International Workshop on Nanotechnology and Applications (IWNA) held on 14 to 16th November 2013 in Vung Tau, Vietnam. This conference is co-organised by the Laboratory for Nanotechnology, Vietnam National University – Ho Chi Minh City, Vietnam and MINATEC, France, every two years in order to bring together all researchers in the field of nanotechnology from Vietnam and abroad.

The selected papers reflect the most prominent research done in Vietnam and through collaborations with international partners in the wide spectrum of nanotechnology. The papers cover several key fields of research in nanotechnology: biosensors, bactericidal materials, (photo)catalytic materials, metal and semiconductor nanostructures for applications ranging from improved stability and luminescence of quantum dots, biosensor to metal ink for inkjet.

Three papers are contributions of nanotechnology to biosensors in particular for the detection of relevant biological molecules for health applications. Two contributions present improvements of the antibacterial activity of silver nanoparticles under ultraviolet light or in combination with biomolecules. Four papers are directly applying nanostructures in the field of photocatalysis, completed by three papers on metal organic framework composites aiming at either storage host or catalytic supporting materials. The importance of versatile metal structures for sensing is demonstrated for surface acoustic wave (SAW) sensor as well as state-of-the-art conducting metal oxide film. The synthesis of metal nanoparticles is studied in three papers with interesting results in the area of noble metal alloys effectively exhibiting optical properties different from their individual constituents. Semiconductor nanoparticles also receive a specific focus through two contributions which target improved stability as well as optical conversion with potential applications to biosensing.

This selection reflects the quality of research performed in Vietnam in nanotechnology and highlights improved developments toward effective applications of nanomaterials to real societal and economic issues. Notably the results presented carry potential for applications related to health, including contamination control and biological diagnostics, and improved chemical processes especially through catalysis improvement of various reactions.

We would like to express our gratitude to the Editorial Board of the *International Journal of Nanotechnology* and especially to Dr. Lionel Vayssieres, the Editor-in-Chief of the IJNT, for his kind invitation to publish these contributions.

The guest editors would finally like to extend their thanks to all authors who contributed to this special issue.