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## Editorial

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**Biographical notes:** Fabien Grasset received his PhD Degree in Solid State Chemistry from the University of Science and Technology of Bordeaux and the Institute of Condensed Matter Chemistry of Bordeaux (ICMCB) in the group of J. Darriet in 1998. After a post-doctoral stay at ICMCB on magnetic nanoparticles for biotechnology (Professor E. Duguet's group), he undertook a post-doctoral fellowship at the National Institute for Materials Science in Japan from 1999 to 2001 in collaboration with Professor H. Haneda on magnetic core@SiO<sub>2</sub> shell nanoparticles. He is currently an Associate Professor at the University of Rennes and his area of research interest at the solid state chemistry and materials group focuses on the synthesis of new colloids (M@ZnO, M@SiO<sub>2</sub>,  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>) and functional thin films. In 2007, he was invited as short-term fellow under ICYS program three months.

Philippe Goudeau is a Research Director at the French National Center for Scientific Research (CNRS) and group leader for thin film mechanical behaviour at the Laboratory of Physical Metallurgy, Poitiers (France). He received his PhD in 1986 followed by an HDR in 1994 from the University of Poitiers where he worked for ten years on the application of anomalous small angle X-ray scattering for the study of heterogeneities in metallic alloys and porous silicon. His current research interests include the study of size effects on thin film elastic properties using specific X-ray diffraction tools developed at the laboratory and at synchrotron sources. He has authored or co-authored more than 150 international peer review publications and around 200 communications.

This special issue of the *International Journal of Nanotechnology* is a compilation of selected contributions bound by the 'Centre de Compétences Nanosciences Nord Ouest' (C'Nano Nord Ouest: [http://www. CnanoNO.org](http://www.CnanoNO.org)). The 'C'Nano Nord Ouest' project, started by 2004, gathers laboratories from Basse-Normandie, Bretagne, Haute-Normandie, Nord-Pas de Calais, Pays de la Loire, Picardie and Poitou-Charentes regions. It strengthens synergy between scientists and engineers in order to allow new applications and solutions to merge in the 2015 perspective. These contributions cover a wide range of topics: Nano-Object and Nanomaterials, Nano-bio-sciences, Nanotechnology, Nanoelectronic, Modelling and simulation. Although they are independent works, they constitute an overall reference of very latest scientific and technological progress. This variety reflects the great potential and the ambition of the 'Nord-Ouest' arch in nanosciences research fields with more than 28 laboratories and 347 permanent and 237 non-permanent staff members. The choice of IJNT (<http://www.inderscience.com>) to publish these selected papers was evident for us. Indeed, IJNT is not only a journal dedicated to promote both fundamental and applied innovative research in nanotechnology by selecting and inviting experts all over the world and in all fields related to nanotechnology but the fundamental spirit of this journal to release special issues dedicated to the best of nanotechnology in various countries is an original and unique initiative. Such an initiative is already contributing to develop a better knowledge of nanoscience and nanotechnology and thus facilitate fruitful international and multidisciplinary collaborations between scientists and engineers. We hope it will encourage more scientists around the world to interact and collaborate with researchers in France's 'Nord-Ouest' region.

It has been our greatest pleasure to receive prefaces from Catherine Brechignac, President of CNRS, Member of the French Academy of Science, Alain Fontaine, Director of the interdisciplinary program C'nano Nanosciences, Research Director at CNRS and director of Néel institute at Grenoble, France, Jean-Louis Robert, Professor at the University of Montpellier II, responsible for European Nanosciences mission with the delegated Ministry of Research and New Technologies and Alain Menand, Professor University of Rouen, Head of the Physics Department at French Ministry of Research up to April 2007.