
Editorial

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Biographical notes: Jadranka Travas-Sejdic is an Associate Professor at the School of Chemical Sciences, University of Auckland. She is also Director of the Polymer Electronics Research Center at the University of Auckland and a Principal Investigator at the MacDiarmid Institute for Advanced Materials and Nanotechnology. She received her BSc and MSc from Zagreb, Croatia and her PhD from the University of Auckland in 1999. Her current research interests are in the fields of advanced polymeric materials for biosensing and bioelectronics, electrically and environmentally responsive polymers and surfaces, actuators, advanced materials for tissue engineering, nanostructured conducting polymers, as well as development of novel fabrication and characterisation tools for micro- and nano-scale polymeric structures. She was a recipient of the Easterfield Medal from the New Zealand Institute of Chemistry (NZIC), and is a Fellow of the IUPAC, of the NZIC, and a Councillor of the Pacific Polymer Federation. She has published more than 150 articles in international scientific journals and seven book chapters.

Richard Tilley is an Associate Professor in the School of Chemical and Physical Sciences at Victoria University of Wellington and has been since 2003. He is also a Principle Investigator and manager of the electron microscopes of The MacDiarmid Institute for Advanced Materials and Nanotechnology. He received his MChem from the University of Oxford and PhD in chemistry from the University of Cambridge. After which he was awarded a Toshiba Post-doctoral Fellowship and spent two years working in the nanotechnology group of the Toshiba. Throughout his career he has worked on the liquid phase synthesis of nanocrystals with the aim of controlling properties, shape and structure. Current interests include catalytic metals, magnetic nanoparticles and quantum dots made from silicon and their biomedical applications. He was a recipient of the Easterfield Medal, Mauric Wilkins Center Award from the New Zealand Institute of Chemistry (NZIC) and RSC, and is a Fellow of the NZIC. He has published more than 80 articles in international scientific journals.

Greetings and Kia Ora!

This special issue of the journal comprises 39 papers on various topics on advanced materials and nanotechnology that are based on presentations at the *Sixth International Conference on Advanced Materials and Nanotechnology (AMN-6)* held at the University of Auckland, New Zealand in February 2013. AMN series of conferences are biannual conferences hosted by the MacDiarmid Institute for Advanced Materials and Nanotechnology, a New Zealand Centre of Research Excellence that is the major hub of nanoscale research in New Zealand. The Institute consists of researchers from across New Zealand and the Institute's six research and academic partner institutions and has a strong culture of collaboration across disciplines.

The venue for the AMN-6 was a magnificent new building of the University of Auckland's Business School and the weather during the conference was perfect for our international visitors to explore Auckland city, its vibrant, multi-cultural heritage and natural wonders of its sparkling harbour.

The AMN-6 attracted over 500 attendees from about 30 countries and it was the largest AMN conference to date. At the conference we welcomed Professor Roald Hoffman, 1981 recipient of the Nobel Prize in Chemistry, Professor Joanna Aizenberg of Harvard University, Professor Krzysztof Matyjaszewski of Carnegie Mellon University, Professor Don Eigler, the Kavli Prize Laureate for Nanoscience in 2010 and Professor Daniel Nocera from the Massachusetts Institute of Technology as keynote speakers, alongside 26 distinguished plenary speakers. The programme was divided broadly by theme: Physical Phenomena, Biological Interface, Nanoscale Structures, Molecular Materials, Engineered Nanosystems, and various Cross-Theme unifying topics.

Collection of the papers in this special issue of the journal is a testimony to the true interdisciplinarity of the conference. The papers cover topics ranging from Professor Michael J. Kelly from University of Cambridge discussing manufacturability, or rather 'Intrinsic Unmanufacturability' of nanoscale microelectronic components, to Professor Sumio Hosaka et al. on 'Challenge to form the 10-nm-order pitch of self-assembled nanodots using PS-PDMS block copolymer', Tsunehisa Miki et al. discussing 'Superplastic deformation of solid wood by slipping cells at sub-micrometer intercellular layers' and MacDiarmid Institute's own Gaedtke et al. presenting their 'Thermoluminescence studies of nanoparticle and bulk NaMgF₃:Mn'.

The editors wish to thank Dr. David Herman for helping with the proceedings. The conference committee and MacDiarmid Institute are extremely grateful to the *International Journal of Nanotechnology* and the Journal's Editor-in-Chief, Professor Lionel Vayssieres, for agreeing to publish this special issue of the journal. Special thanks go to the organising committee of the AMN-6 on their enthusiastic and unselfish work that led to such a great success of the conference and this special issue of the journal.