

## **MAHER BOULOS**

Professor Boulos has been at the Université de Sherbrooke since 1973. Since January 2007, he retired from his regular faculty position and was awarded by the University of Sherrbooke the title of 'Professeur Émérite' in September 2008. Professor Boulos presently holds the position of founding president and CEO of Tekna Plasma Systems Inc., a spin-off the University of Sherbrooke, recognized as a world leader in induction plasma technology.

Over his 35 years carrere at the University of Sherbrooke, Professor's Boulos principal research activity has been in the area of thermal plasmas, mathematical modeling and diagnostics of inductively coupled plasma (ICP) discharges. He supervised / co-supervised 55 MSc and PhD students, published more than 150 papers in refereed sictific literature, has 25 patent applications to his merit, and co-authored a text book on thenrml plasma fundamentals and applications. He is member of the Canadia Engineering Acadamy and has been the reciepiant of the Jules Stachiewicz Medal in 1996. He was inducted to the ASM TSS Hall of Fame in May 2003. Professor Boulos has also been the recipient of the J.-Armand Bombardier prize of the ACFAS in September 2003, and the ADRIQ Inovator prize in Nov 2003. He also received NSERC Synergie RDC prize in October 2006, and the 'Lionel Boulet' Prix du Québec in November 2007

### **Plasma synthesis of metallic and ceramic nanomaterials Tools for technology development**

*Maher Boulos, Tekna Plasma Systèmes, Canada*

An overview is presented on the use of induction plasma technology for the synthesis of a wide range of metallic and ceramic nanopowders. Emphasis will be placed on the fundamental phenomena involved and the need for close control of the particle size distribution and the surface reactivity of these powders. The successful industrial development of the technology will depend on scalability of plasma processes, and overall process economics. Close attention need to be placed on the safety aspects associated with the manufacturing and handling of these materials. Tekna has developed over the years a vast experience in this field working in close partnership with potential industrial users of nanopowders for a wide range of applications in the electronic, energetic, cosmetics, and biomedical fields.