

Events

Short course on thermal analysis October 15–17, 2012, Budapest, Hungary

J. Menczel · B. Androsits

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The Hungarian Chemical Society announces a three-day short course on thermal analysis. The course will be based in part on the recent book *Thermal Analysis of Polymers: Fundamentals and Applications* (J. D. Menczel and R. B. Prime, eds.), John Wiley & Sons, 2009 and will be taught by the two editors and leading Hungarian experts of Thermal Analysis. Techniques covered include

- differential scanning calorimetry (DSC)
- thermogravimetric analysis (TGA)
- thermomechanical analysis (TMA)
- dynamic mechanical analysis (DMA)
- local thermal analysis (micro- and nano-thermal analysis)
- coupled thermal analysis techniques

The basic principles of each technique will be presented, followed by descriptions of the instrumentation and instruction on calibration, how to run an experiment, and a broad range of applications including polymers, pharmaceuticals, life sciences and inorganic materials. The course will end with a demonstration of the most recent instrumentation. Those new to thermal analysis as well as experienced researchers and those that use the information provided by thermal analysis will benefit from this course.

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Speaker backgrounds of the primary presenters

Joseph D. Menczel, PhD, is a recognized expert in thermal analysis of polymers with some 30 years of industrial and academic experience. He has researched more than 120 polymeric systems in which he studied calibration of DSCs, glass transition, nucleation, crystallization, melting, stability, mechanical and micromechanical properties of polymers, and polymer-water interactions. Dr. Menczel holds six patents and is the author of 75 scholarly papers. He is the author of two chapters in the book *Thermal Characterization of Polymeric Materials* (E. A. Turi, editor, 1997). While conducting DSC experiments, Dr. Menczel found a crystal/amorphous interface in semicrystalline polymers, which later became known as the rigid amorphous phase. His experiments proved that the crystal-to-crystal transitions in semicrystalline polymers take place through melting. He is also credited with developing the temperature calibration of DSCs for cooling experiments. Dr. Menczel is a NATAS Fellow and was the recipient of the Mettler-Toledo Award in Thermal Analysis in 2010. Right now he is the president-elect of the North American Thermal Analysis Society.

R. Bruce Prime, PhD, is a consultant to industry and government and a recognized authority on the cure and properties of cross-linked polymer systems. In his 30-year IBM career he led teams responsible for developing and implementing polymer applications for printer and information storage technologies. He holds four patents and is the author of more than 50 technical papers and the chapter on Thermosets in *Thermal Characterization of Polymeric Materials* (E. A. Turi, editor, 1981, 1997). Dr. Prime is a fellow of SPE and NATAS and was the recipient of the Mettler-Toledo Award in Thermal Analysis in 1989. He is a founding member of the Golden Gate Polymer Forum

(GGPF), a San Francisco bay area group promoting polymer science and engineering for over 30 years. With Dr. Jeff Gotro he recently founded Thermosets University, a webinar-based training organization that covers all aspects of thermosetting materials and processes; go to www.polymerwebinars.com. He maintains the web site www.primethermosets.com to promote thermosets, including their thermal characterization.

János Kristóf, PhD, DSc, is the Head of the Department of Analytical Chemistry at the University of Pannonia, Veszprém. **Dénes M. Lőrinczy, PhD, DSc**, is the Head of the Department of Biophysics at the University of Pécs. **György Pokol, PhD, DSc**, is professor at the Department of Inorganic and Analytical Chemistry at the Budapest University of Technology and Economics. **Gábor**

Várhegyi, PhD, DSc, Doc. Habil. is the Head of the Group of Thermal Decomposition Processes in the Institute of Materials and Environmental Chemistry, Research Centre for Natural Sciences, Hungarian Academy of Sciences. The four Hungarian professors have been successfully using thermal analysis methods in different fields of chemistry, life sciences and materials science for more than thirty years.

Further information: www.thermanal.mke.org.hu

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