

Welcome Prof. Lauri Niinistö on his 70th birthday with a special chapter of the *Journal of Thermal Analysis and Calorimetry*

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Let us celebrate the outstanding researcher and teacher of inorganic and analytical chemistry and the developer and user of the thermoanalytical methods and, last but not least, the member of the Editorial Board of *Journal of Thermal Analysis and Calorimetry* (JTAC).

Prof. Lauri Niinistö graduated in chemical engineering and received the doctor degree at the Helsinki University of Technology and after his PhD, he spent 1 year at the University of Stockholm. He became full professor and the Head of the Department of Inorganic and Analytical Chemistry in 1977, and held that position until 2007.

He was the Dean of the Technical University of Helsinki, Department of Process Engineering and Materials Science from 1987 until 1989. He worked at the University of Florida (1985–1986), at the Technical University of Vienna (1993) and at the Budapest University of Technology and Economics (2000) as well.

At the beginning, he dealt with the synthesis and the structure of inorganic compounds, first of all, with the measurements based on X-ray diffraction and thermoanalytical techniques. He obtained outstanding results on catalysts, supraconduction and precursors of rare earth compounds.

Beyond the topics mentioned before, he became interested in the chemistry and technology of thin solid films. In the latter field, Prof. Niinistö and his colleagues worked out new materials and processes for the preparation of

electronic devices and catalysts with atomic layer epitaxy (ALE) or atomic layer deposition (ALD) being a novel gas phase deposition technique at the time—which has become an industrial scale manufacturing process since. Binary and ternary oxides and other substances developed in Prof. Niinistö's laboratory—often in industrial and international research cooperation—are applied in electroluminescent displays, gas sensors, as well as optical, conducting and buffer layers and coatings.

In his research, Lauri Niinistö used an integrated approach, addressing the problems ranging from precursor synthesis, through preparation of films for the characterization of their structure, properties and applicability. A substantial part of his results consists of new solutions for the analysis and characterization of the prepared materials, based on modern methods (such as SIMS, XPS and ion beam techniques). The advanced materials synthesized and characterized include (among others) cerium activated strontium sulphide, yttrium stabilized zirconia, tin(IV) oxide coated porous silicon, perovskite type oxides and high temperature superconductors. Lauri Niinistö contributed substantially to the development of ALD into a widely accepted and applied procedure in the manufacture of microelectronic devices.

On the above mentioned territories Prof. Niinistö published hundreds of papers, many books, chapters as an author and co-author. In addition, he was an inventor of new technological processes. He has often read lectures on the history of chemistry.

His activity was outstanding in the organization of international scientific life. He has been the member of famous chemical journals and journals dealing with material sciences. He organized many conferences. He was the leader and member of many international scientific organizations such as the President of European Rare Earth

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Society. He was active in the Federation of European Chemical Societies, FECS and he was appointed to the President of FECS from 1995 until 1999 and he led the Division of Analytical Chemistry in 1987–1993 and 1997–1998.

He was awarded by many societies; to mention the most important ones: the Italian Chemical Society's Stanislo Cannizaro's golden award in 1996 and Chemists' Club Golden Award in 1991. He is the member of the Finnish Scientific and Literature Academy and the Finnish Technical Academy, he is the honorary doctor of the Technical University of Tallinn and the Budapest University of Technology and Economics and he is the honorary member of many chemical societies of some European countries. The Hungarian Chemical Society awarded him by the Rudolf Fabinyi medal in 2011.

Lauri Niinistö is Honorary Member of the Austrian, Estonian and Romanian Chemical Societies.

The guest editors have had good friendship with Prof. Niinistö for a long time. He visited Budapest for the first time in 1975, and looking for scientists known from the literature he met Prof. Liptay. This meeting was the basis of several scientific and personal contacts not only with Prof. Liptay but with other Hungarian scientists as well.

He helped the Hungarian and Eastern-European scientists to overcome the difficulties of that time. He invited many scientists from this area to the Helsinki University. They published valuable results based on the common research. He frequently came to Budapest and in 1982 he greeted the 75-year-old Hungarian Chemical Society partly in Hungarian on behalf of the Finnish Chemical Society.

Prof. Niinistö got in touch with Prof. Malissa (Austria), then Prof. Pungor (Hungary) who he made good friends with and later he was appointed President of FECS. In this position, he paid special attention to helping researchers from Central and Eastern European countries.

Due to these above mentioned efforts he was invited to be guest professor at the Technical University of Vienna, and lectured a special course at the Budapest University of Technology and Economics.

He devoted an extra activity as a board member of the *Journal of Thermal Analysis and Calorimetry* and he became the Regional Editor for Scandinavian countries. His work was always ambitious, strict but full of helpfulness. He did a lot for the researchers of the Baltic countries in order to join the JTAC. He was the Guest Editor of different special issues/chapters.

He built up a good relationship with the researchers of the Budapest Technical University and other scientific institutes. He invited one of the Guest Editors, Prof. György Pokol as guest professor in Otaniemi. In addition, he supported the young scientists starting their careers in Helsinki.

Professor Niinistö is a highly educated person and he has a colourful and attractive personality. He has a nice wife, Leena, three children and grandchildren. He is beloved by his colleagues all over the world and he has a lot of friends and we are very proud to be among them.

Let us celebrate him on the occasion of his 70th birthday wishing him good health and a successful life in his scientific and private life as well.



György Liptay



György Pokol