

## *Obituary*

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### **Leonas SIMANAVIČIUS**

**15th July 1929 – 28th January 2006**

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It is with profound regret that we record the sudden death after a severe short illness of Corresponding Member of the Lithuanian Academy of Sciences, Professor Leonas Simanavičius, at the age of 76. Professor L. Simanavičius had become an internationally respected scientist who specialized in fundamental electrochemistry and thermodynamics. Apart from being a widely known specialist in both fundamental and applied aspects of electrochemistry with an exceptional gift for a very deep understanding in the most important problems of physical chemistry, electrochemistry and chemical thermodynamics, and also in education, he was a man of many interests and of high intellect. His death constitutes a major loss to the community of electrochemists and a source of deep grief among his numerous friends and colleagues.

Two years ago, in 2004, when Professor L. Simanavičius celebrated his 75th birthday, his biography and scientific and teaching activities were reviewed in this journal. The bibliography of L. Simanavičius' publications was compiled by the Library of the Lithuanian Academy of Sciences and the Institute of Chemistry and published in 1999. However, in view of his significant contribution to these fields and the outstanding quality of his research, we consider it appropriate to recall them here by describing briefly his biography and emphasizing his main achievements in the electrochemical research and teaching. Both of us had known L. Simanavičius for over 40 years and had benefited from and valued our contacts and collaboration.

Born in Panevėžys, in 1949 he graduated from a gymnasium in Kaunas and began chemistry studies at the Vilnius University. After graduating from the Faculty of Chemistry in 1954, he was sent for post-graduate studies to the Leningrad (now St. Petersburg) University; there, under supervision of Professor A. Storonkin, the well-known specialist in chemical thermodynamics, he carried out research work on heterogeneous equilibria, wrote and in 1958 defended a dissertation entitled "Thermodynamic study of ternary equilibrium solid-solution-vapour in the system  $\text{CaCl}_2\text{-CH}_3\text{OH-H}_2\text{O}$ " for a candidate degree (now Ph. D.).



After returning to Vilnius, L. Simanavičius lectured at the Faculty of Chemistry of the Vilnius University. In 1960, he went to the USA for one-year postdoctoral term. At the Yale University he worked with Professor B. Owen, the well-known specialist in electrolyte solutions. In 1961–1964, L. Simanavičius served as a Dean of the Faculty of Chemistry at the Vilnius University.

In 1965, following Professor J. Matulis' advice, L. Simanavičius began to work at the Institute of Chemistry and Chemical Technology of the Lithuanian Academy of Sciences (now the Institute of Chemistry), entering the field of electrochemistry of metals in non-aqueous solutions, in particular investigation of electrodeposition of aluminium from aluminium bromide solutions in xylene. He remained here for the rest of his working life, becoming initially a senior research fellow (1965–1975), later Head of the Laboratory of Anodic Processes (1975–1993) and of the Laboratory of Organic

Electrochemistry (1993–1995), Head of the Department of Metal Electrochemistry (1995–1998), Deputy Director of the Institute (1990–1992) and finally a head research fellow (from 1999) until he retired in 2000.

During L. Simanavičius' working life, two predecessors – Professor A. Storonkin and Professor J. Matulis – strongly influenced him. He always spoke of A. Storonkin as a world-wide recognized specialist in chemical thermodynamics and also used to say that his scientific work in the Leningrad University made him to be proud to have been a co-worker of Professor. In its turn, Professor J. Matulis was the lecturer of physical chemistry during L. Simanavičius' studies at the Vilnius University and also the supervisor of his diploma research work. Although neither J. Matulis nor his co-workers had interests in the studies of electrodeposition of metals from non-aqueous solutions, this field of electrochemistry, in J. Matulis' opinion, was of significant fundamental and applied importance. Thus, L. Simanavičius was allowed to form an independent research field himself, and the studies of the electrodeposition of aluminium and later of its alloys from non-aqueous solutions were developed at the Institute of Chemistry for almost 40 years.

L. Simanavičius with his co-workers investigated in detail the electrochemical and chemical reactions taking place under electrolysis in aluminium salt solutions using xylene isomers as solvents. The main results of these studies were presented in the D. Sc. dissertation "The mechanism and main regularities of aluminium electrodeposition from alkylbenzene solutions" defended in 1989. Electrodeposition of aluminium alloys with cobalt, zinc, manganese and of titanium by electrochemical reduction from solutions was studied also. All these works, alongside their purely scientific importance, have also a practical value; L. Simanavičius was the author of several inventions.

L. Simanavičius himself considered one of his most important achievements to be teaching: he was a supervisor of 5 Ph.D., a member of more than 10 doctorate and habilitation committees and an opponent for more than 30 dissertations.

The scientific competence, the pedagogical and scientific management activities of L. Simanavičius were highly valued by Lithuanian scientific community. In 1990 he became Professor and in 1994 he was elected to the Lithuanian Academy of Sciences as a corresponding member. In 1992–1994 he served as President of the Association of the Lithuanian institutions of chemical research and studies, which contributed much to the collaboration between chemists at universities and research institutes after restoring the country's independence. In 1999 he was awarded the J. Matulis Prize of the Lithuanian Academy of Sciences for his work in non-aqueous solutions electrochemistry. Professor L. Simanavičius was a member of the American Chemical Society (since 1992) and of the International Society of Electrochemistry (since 1997).

A very important area of L. Simanavičius' activities was the editing of scientific literature. Since 1991 he was the leading member of the Editorial Board of the journal "Chemija" and in 1994–2001 was its Editor-in-Chief; thanks to his efforts "Chemija" is presently published in English and has become a modern scientific product. L. Simanavičius was also a member of the Editorial Board of the Russian journal "Protection of Metals" ("Zashchita Metallov") since 1996.

In addition to all his goals in research and teaching, he also found time to pursue various hobbies: he was fascinated by the history of ancient civilizations and culture, antique philosophy, art, geography and literature and especially by travelling. His travels by different means of transportation were of different length and to various countries, including the former Soviet Union, Poland, Bulgaria, the Netherlands, France, Italy, etc. In particular, he with his friends travelled all-over Lithuania far and wide; in his 50s he became interested in mountain travels and made more than 10 journeys through various mountain ridges in the former Soviet Union.

Our long-term acquaintance and collaboration at the Institute encouraged us to try to describe Professors' person. To begin with, we would like to say that L. Simanavičius was extremely well-mannered, delicate, modest, tolerant, orderly and very punctual man. He always sought to discover the truth, both scientific and social, as the ultimate purpose. To our mind and without any doubt in opinion of his numerous friends and all who knew him closely, L. Simanavičius was a true gentleman. Professor always behaved with dignity and remained calm and correct, even in unpleasant events which, unfortunately, occurred more than once in the Institute's community; he was not the one to talk about people behind their back. He was full of advice for his students and co-workers, but did not hold them to his views. If there was a need to argue his own view or to criticize somebody, he used to say: "You may be right, but ..."

It seems interesting to say some words on L. Simanavičius' standpoint on drinking. Under his 27 years, he was a total abstinent. He for the first time tasted vodka in Leningrad. Later, he allowed himself to drink a little, never too much – no more than two wineglasses. He greatly enjoyed red wine of high quality. As to the brand of wine, he gradually changed his liking: earlier he liked red wines produced in France and Italy, but in the recent years, maybe following an advice of his friends, he entertained more with Spanish red wine, especially with that produced in the Rioja or Penedés regions from the Tempranillo and Grenache sorts of grape or their mixtures.

After his retirement, L. Simanavičius returned to chemical thermodynamics, his favourite topic from the beginning of his scientific career, in which he was the highest authority in Lithuania. He wrote an advanced course of chemical thermodynamics (in Lithuanian), which will be published soon.

It is clearly impossible to summarize a person's lifetime and the body of his work stretching back over 50 years. However, his really remarkable contribution to the fundamental aspects of metal electrochemistry in non-aqueous solutions and his teaching activities, his passion to and honesty in all kinds of duties done in the Vilnius University and Institute of Chemistry, his warm human qualities made him a man of high respect exerting a positive influence upon the whole academic life of the Lithuanian chemists' community.

Our thoughts go to his charming and gentle wife Aldona and to his daughter Jolanta. We share their distress at the great loss. Professor Leonas Simanavičius' activities and human good-willing mood will be missed greatly by all of us.

*Prof. Algirdas Vaškelis  
Dr. Antanas Steponavičius*