

Corresponding Member of the Lithuanian Academy of Sciences Leonas Simanavičius – 75

On 15 July 2004 Professor Leonas Simanavičius, one of the most eminent Lithuanian electrochemists, celebrated his 75th birthday.

Born in Panevėžys, in 1949 he graduated with a gold medal 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 Leningrad (now St. Petersburg) University; there, at the Chair of Solution Theory, under the supervision of Prof. A. Storonkin, the well-known specialist in chemical thermodynamics he carried out a research work on heterogeneous equilibria and wrote a dissertation for the candidate (equivalent to PhD) degree “Thermodynamic study of ternary equilibrium solid-solution-vapor in the system $\text{CaCl}_2\text{-CH}_3\text{OH-H}_2\text{O}$ ”, which he defended in 1958.

After returning to Vilnius, L. Simanavičius lectured at the Faculty of Chemistry of the Vilnius University. In 1961–1964 he was Dean of the Faculty. In 1960, he went to the USA for one-year post-doctoral term (it was a rare occasion for Lithuanian scientists in those times). At the Yale University he worked with Prof. R. Owen, the well-known specialist in electrolyte solutions, attended lectures of the Nobel Prize winners Lars Onsager and Melvin Calvin.

In 1965, L. Simanavičius began to working at the Institute of Chemistry and Chemical Technology of the Lithuanian Academy of Sciences (now the Institute of Chemistry) as a senior research fellow, and remained at the Institute until his retirement in 2000. Here he concentrated on research work; its main results were summarized in a Dr. Sc. dissertation (1988). His administrative career includes important positions: Head of the Laboratory of Anodic Processes (1975–1993), Head of the Department of Metal Electrochemistry (1995–1998), Deputy Director of the Institute (1990–1993); in 1990 he became Professor.

The published scientific works of Leonas Simanavičius fall into two groups:

- a) heterogeneous equilibria,
- b) electrochemistry of nonaqueous solutions.

The studies of the first group were carried out at the initial period of the scientific career and are

devoted to the description of salts solubility in ternary systems by differential equations of solubility isotherms and isobars.

At the beginning of the 60s L. Simanavičius began to study aluminum electrodeposition from aluminum bromide solutions in xylene. He was encouraged to enter this area of electrochemistry by Prof. Juozas Matulis, the lecturer of physical chemistry during L. Simanavičius' studies at Vilnius University and the supervisor of his diploma research work. The basic and applied investigations of metal electrodeposition, initiated by J. Matulis a decade before, was developing very successfully in those years, creating the most dynamic field of chemical research in Lithuania and influencing the other chemists. On the other hand, neither J. Matulis nor his co-workers took interest in nonaqueous electrolytes directly in sixties and later, and L. Simanavičius formed an independent research field himself and was developing it consistently for almost 40 years. In parallel, another group investigating aluminum electrodeposition from nonaqueous electrolytes of other types was formed at the Vilnius University at the same time under the guidance of Algimantas Levinskas (1931–2000); thus Vilnius became an important and widely known center of nonaqueous solution electrochemistry.

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

The scientific competence, the pedagogical and scientific management activities of L. Simanavičius are highly valued by Lithuanian scientific community. In 1994 he was elected to the Lithuanian Aca-

demy 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 nonaqueous solution electrochemistry.

A very important area of L. Simanavičius' activities was editing of scientific literature. Since 1991 he is a 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 is also a

member of the Editorial Board of the Russian journal "Protection of Metals" ("Zashchita Metallov") since 1996.

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

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.

Congratulating Professor Leonas Simanavičius on his 75th birthday, we wish him further success in all his activities.

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