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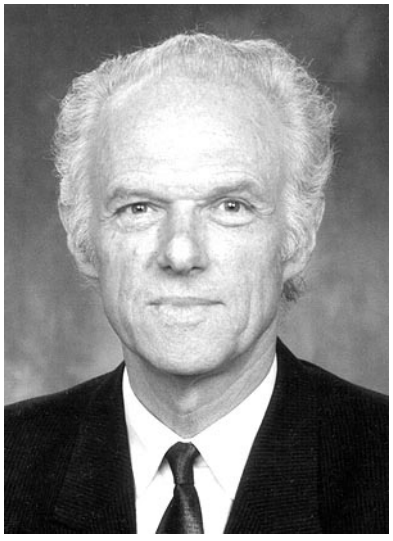
IN MEMORIAM



EDMUNDS LUKEVICS
(14.12.1936-21.11.2009)

Academician Edmunds Lukevics, Editor-in-Chief of our journal, has passed away. He died unexpectedly at the peak of his powers and creative ability. He left unfulfilled ideas and plans, unfinished papers and books, unprocessed texts already sent to the our journal that he had read and edited so attentively, applying himself with equal care both to his own publications and to papers from authors unknown to him from distant lands, achieving clarity of presentation, precision of wording, and realistic conclusions. Lukevics himself was distinguished by accuracy of expression, ability to write and edit succinctly and logically and to arrange data systematically.

For 25 years Prof. Lukevics was Editor-in-Chief of "Chemistry of Heterocyclic Compounds". During this time the journal had not only lost authors and readers in a complex time of changes but also consolidated its position, and increased in volume; the English version of the journal began publication in electronic form; the circle of authors increased substantially. The subject matter of the journal has changed to some extent. The results of investigations directed toward the search for novel biologically active substances and structure–activity relationships are published more and more frequently, and in practically every article the most modern physicochemical methods and instruments are used to determine the structure of the obtained compounds and to study the course of the reactions. The reviews published in each issue constantly attract the interest of readers.

A person of great erudition, distinguished by great versatility, indefatigability, adherence to his principles, obsessive love of chemistry, ability to find new directions and to use the advances of science in various fields, an enviable persistence in the attainment of his set goals, E. Lukevics became one of the leading

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representatives of the Latvian school of organic chemists, drawing his roots from P. Walden, G. Vanags, and S. Hiller. His works in the field of heteroorganic, heterocyclic, physical organic, and medicinal chemistry have received wide international recognition.

Edmunds Lukevics was born in Liepaja on December 14, 1936, and chemistry became the passion of his whole life even in his school years – the beginning of a long path to recognition of the secrets of chemical transformations.

In 1953 he entered the Latvian State University, and in 1956 he had already published his first scientific paper in the Russian "Journal of General Chemistry", and altogether in his student years he published four papers.

Still in his student years Edmunds Lukevics selected the region in which he began to work quite independently – the chemistry of organosilicon compounds – a region in which nobody in Riga had engaged in 1956. He continued to work in this field after finishing at university, when in August 1958 he was taken on for work in the newly created Institute of Organic Synthesis of the Academy of Sciences of the Latvian SSR. In 1966 he defended a candidate's thesis on "Organosilicon Derivatives of Furan" and in 1973 a doctoral thesis on "Investigations in the Region of Biologically Active Organosilicon Compounds."

The whole of Lukevics' destiny has been inseparably linked to the Institute created and headed by Prof. S. A. Hiller. Here he spent all stages of his scientific journey, from junior resarch worker to head of the laboratory of heteroorganic synthesis (1970), assistant director of scientific work (1980), and director of the institute (1982). Lukevics became a worthy successor of S. A. Hiller – head of one of the most progressive institutes of organic chemistry in the USSR, gaining wide renown in the creation of novel medicinal products. He was at the head of the institute for 22 years, and to his credit in no small way was the fact that the Institute of Organic Synthesis overcame with honor the difficulties of the transitional period and did not lose its scientific potential. Academician E. Lukevics performed great work with leading pharmaceutical companies of the world (Japan, Switzerland, Germany, France, Finland), organizing trials of the products created at the institute and concluding financially favorable collaboration agreements.

Among the main fields of research carried out and supervised by Edmunds Lukevics over the years it is necessary to include the development of methods for the synthesis of silicon- and germanium-containing derivatives of furan, thiophene, and nitrogen-containing heterocycles; study of the effect of organosilicon, organogermanium, and organotin substituents on substitution and addition reactions in furan and thiophene compounds; study of hydrosilylation and hydrogermanation; the use of alkenylsilanes and alkenylgermanes in the synthesis of nitrogen-containing heterocycles; the use of phase-transfer catalysis and ultrasound in organometallic synthesis. He proposed and realized the subsequently well known new approaches to the synthesis of compounds with five- and six-coordinated silicon and germanium atoms. There were systematic investigations on multinuclear NMR spectroscopy (at ^{13}C, ^{15}N, ^{17}O, ^{29}Si, ^{73}Ge, ^{119}Sn atoms) in order to identify the structural characteristics of various organoelement derivatives and the study of extensive series of derivatives in order to establish the specific relationships characteristic of this type of compound. Important structures were established, and new reactions were even discovered.

Edmunds Lukevics was one of the pioneers in the synthesis and study of the physiological activity of biologically active compounds of silicon and particularly of germanium, as a result of which new types of biologically active compounds with various types of activity (antifungal, antitumor, stimulants for the healing of wounds, etc.) were obtained, and regularities of the relationship between structure and biological activity were found. The silyl method for the synthesis of physiologically active compounds (in the series of β-lactam antibiotics, nucleosides, and their analogs) was widely developed. Academician E. Lukevics led numerous scientific projects and programs, including international projects such as "The Synthesis of Heterocyclic Organosilicon and Organogermanium Compounds", "Asymmetric Synthesis and Catalytic Synthesis of Heteroatomic Compounds", "Development of Modern Methods of Organic Chemistry Directed toward the Development of the Pharmaceutical Industry of Latvia", etc.

He published 1865 scientific papers and received 149 author's certificates and patents. New articles have been prepared for publication in the publishing houses of journals, and their proofs will be read by students and colleagues. Some books by E. Lukevics and coauthors were translated and published in the USA, Roumania, and GDR. In the nineties of last century he was the most often cited Latvian scientist.

Under his guidance 37 theses were defended. The professor's pupils are now working in many leading laboratories of the world and are teaching in universities.

E. Lukevics participated as invited lecturer in many prestigious scientific symposia and conferences and read lectures in the universities of various countries.

The services of E. Lukevics were highly esteemed. He was awarded the G. Vanags prize (1986), two State Prizes of the Latvian SSR (1974, 1989), the prize of the Cabinet of Ministers of the Latvian Republic (2004), the highest award of the Latvian Academy of Sciences – the Grand Medal of the Latvian Academy of Sciences (1996), the P. Walden Medal (2000), the Silver Medal of Milan University (1996); on more than one occasion he was awarded prizes of the Presidium of the Latvian Academy of Sciences, including a joint prize from the Latvian Academy of Sciences and the Grindex pharmaceutical company (1999).

Of the government awards we mention the Badge of Honour of the Order of Three Stars (1997). For service in the creation of ftorafur he was awarded the David Hieronymus Grindel medal (1995), and his services in the development of chemical science were marked by named medals bearing the names of his tutors – G. Vanag (1991), L. Liepina (1996), S. Hiller (1990). Here it is possible to add the Grindex Gold Badge of Honor (2001), a diploma in memory of Prof. A. N. Kost (the International "Science Partnership" Fund, M. V. Lomonosov Moscow State University, D. I. Mendeleev Russian Chemical Society, 2006), the Medal of Honor of the American Biographical Institute (2006), a Gold Medal for the Development of Chemical Sciences in Latvia (American Biographical Institute, 2006), the Plato award (Cambridge International Biographical Centre, Great Britain, 2006).

E. Lukevics was an academician of the Latvian Academy of Sciences (from 1987), member of the New York Academy of Sciences (from 1993), member of the Department of Organometallic Chemistry of the Federation of European Chemical Societies (1995), member of the American Chemical Society (1997), member of the editorial teams of a series of journals: "Bioorganic Chemistry" (in Russian), "Applied Organometallic Chemistry", "Main Group Metal Chemistry," "Metal-Based Drugs", "Silicon Chemistry", "Mendeleev Communications", "Advances in Heterocyclic Chemistry", "Latvijas Ķīmijas Žurnāls" ("Latvian Journal of Chemistry"). In 1982-1987 he headed the Science Council "Chemistry and Technology of Organic Compounds of Sulfur" of the State Committee of the USSR on Science and Technology and was also an active member of numerous commissions and scientific councils.

Such an impressive list of jobs, duties, and scientific titles speaks much of the range, scope, and significance of the paths he trod.

Edmunds Lukevics was always distinguished by his sporting spirit, both in his scientific investigations and in the most direct meaning of the word. He often engaged in mountaineering, conquering peaks, and to his last days he played basketball. His other passion was opera, particularly the work of Verdi. He was an interesting conversationist, generously shared knowledge in the most varied fields, loved to talk about a recently read book, to discuss yesterday's concert, did not refrain from explaining in detail to his editorial colleagues, even those not having a chemical education, why one or the other statement was incorrect.

A fascinating person has passed away.

Happy memories.

I. Kalvinsh, J. Stradins, A. Skorova