
OBITUARY

Valentin Borisovich Aleskovskii (1912–2006)

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On January 29, 2006, passed away, at the age of 93 after short illness, Valentin Borisovich Aleskovskii, a known scientist-chemist, one of the patriarchs of domestic solid-state chemistry, Honored scientist of the Russian Federation, participant of the Great Patriotic War, corresponding member of the Russian Academy of Sciences, doctor of chemical science, and professor of the chair of chemistry at the chemical faculty of St. Petersburg State University.

V.B. Aleskovskii was born on July 3, 1912, in the town of Mary in Turkmenia.

Having graduated from Leningrad Technological Institute in 1937, Aleskovskii became a post-graduate student at the chair of sorption technology and defended his candidate dissertation in 1940.

In June 1941, Valentin Borisovich volunteered to the frontline. He was wounded in action near Pulkovo at the end of 1943.

After returning from the front to the Institute, Aleskovskii defended his doctoral dissertation in 1952. He was appointed rector of Leningrad Technological Institute in 1965. In 1967, he founded the first chair of solid-state chemistry in the country and headed this chair. In 1972, Aleskovskii was elected a corresponding member of the Academy of Sciences of the USSR.

Aleskovskii's pedagogical, scientific, and organizational activities had been associated with Leningrad State University since 1975, when he was appointed rector of the University. Occupying this position, Aleskovskii modernized the structure of the University and transformed it into an educational-scientific center comprising two complexes, on the Vasil'evskii Island in St. Petersburg and at Petrodvorets at the outskirts of the city, which include faculties of the University and the corresponding scientific institutes.

Aleskovskii was among those who gave birth to solid-state chemistry in our country. In 1977, he organized at the chemical faculty of Leningrad University the chair of solid-state chemistry, headed by him till 1986, and later held the position of a professor of



this chair. The main area of Aleskovskii's scientific interests was study of the nature and chemical transformations of solids and development of a technology of new inorganic materials. He was the author of more than 450 scientific publications, including 12 monographs and textbooks, and made more than 150 inventions.

Most widely known are Aleskovskii's works of the 1960s, in which he created (by a certain analogy with DNA replication) methods for chemical assembly and, in particular, for synthesis of solid compounds of reproducible composition by the molecular layering technique. Abroad, this technique (known as atomic layer epitaxy) was developed 20 years later. At present, molecular layering is one of the most promising methods for synthesis of nanomaterials for electronics and other areas of solid-phase materials science.

Aleskovskii developed the concept of chemistry of supramolecular compounds (early 1990s) and later reconsidered it with account of the results of his own theoretical and experimental studies and published data in the field of supramolecular chemistry (J.-M. Lehn, 1989). This allowed him to suggest

the concept of chemistry of highly organized substances (1993).

Numerous results of studies and inventions by Aleskovskii and his pupils have been implemented in practice, a new effective and economically efficient material Anod for electrochemical power cells has been put into production, an electrochemical generator autonomously working in seawater has been developed on the basis of a novel material Mikrovors, and the new sorbing materials created in the 1980s by the molecular layering technique have been successfully used in instrument engineering for more than 20 years, with the quality and reliability of aircraft improved.

Aleskovskii was a talented pedagogue. He trained a pleiad of specialists in solid-state chemistry, who are working in our country and abroad, and created a highly productive scientific school "Chemistry of highly organized substances." There are several tens of doctors of science and more than 100 candidates of science among his pupils.

He was a member of the Supreme Soviet of the Russian SFSR (Soviet Federative Socialist Republic) and made an important contribution to the development of higher school in Russia by heading not only the leading higher-school institutions of the country, but also the Commission for education of the Supreme Soviet of the Russian SFSR.

During a number of years, Aleskovskii was a member of the Editorial board of *Zhurnal Prikladnoi*

Khimii (Russian Journal of Applied Chemistry) published by the Russian Academy of Sciences.

The following conferences are regularly held in the framework of activities of the scientific school: International Conference "Chemistry of Highly Organized Substances and Scientific Foundations of Nanotechnology" (at St. Petersburg State University: 1st in 1996, 2nd in 1998, 3rd in 2001, and 4th in 2004); All-Russia Conference with foreign participation "Surface Chemistry and Nanotechnology" (at St. Petersburg State Technological Institute: 1st in 1999, 2nd in 2002, and 3rd to be held on September 2006).

For his scientific and educational-pedagogic activities, Aleskovskii was decorated with honorary titles and government awards.

The illness untimely terminated the vigorous scientific activities of the scientist, who remained faithful to his scientific interests till the end of his days and was agitated by problems associated with the development of highly organized substances, of the chair he organized, and of the chemical faculty of St. Petersburg University. To proceed with his deeds is the duty of his pupils and the best way to preserve his memory.

St. Petersburg State University

St. Petersburg State Technological Institute

*Pupils and colleagues, and the Editorial Board
and editorial staff of Zhurnal Prikladnoi Khimii*