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CHRONICLE

Vladimir Aleksandrovich Likholobov Is 60

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A chemist from heaven—this is how they call Vladimir Aleksandrovich Likholobov, a prominent scientist, whose research is always at the forefront of catalysis science. On August 18, 2007, Likholobov celebrated his 60th birthday. He has spent 36 years working in the framework of the Russian Academy of Sciences, where he has made his way from Probationer to Corresponding Member. He started as a probationer at the Institute of Catalysis, Siberian Branch, Russian Academy of Sciences (SB RAS), and rose to Deputy Director for Science. After that, he took the post of Director of the Omsk Science Center (SB RAS). In 2003, he reorganized the Omsk Branch of the Institute of Catalysis (SB RAS) and the Research and Technology Institute of Technical Carbon (SB RAS) to merge them into the Institute of Hydrocarbon Processing (SB RAS). This new institution soon occupied a leading position in petroleum chemistry and processing and in the chemistry of functional carbon materials.

Likholobov began his scientific activity by delving deeply into homogeneous catalysis, the field in which he has discovered new reactions, new catalytic systems, and new fundamental laws governing the activation of reactants and the mechanisms of catalytic reactions on the molecular level.

Here is what Likholobov recalls about the beginning of his scientific life: "*I took an interest in catalysis as early as my third year of studies at the Faculty of Natural Sciences, Novosibirsk State University, impressed by G.K. Boreskov's lecture on catalysis as a chemical phenomenon. This interest led me to the Institute of Catalysis, the institution headed by Boreskov at that time. I remember Prof. K.I. Matveev, whose laboratory was the place where I did my graduate work and got interested in the amazing chemistry of palladium complexes; Prof. Yu.I. Ermakov, who developed the chemistry of "hybrid" catalytic systems of so-called immobilized metal complexes (systems obtained by combining the principles of homogeneous and heterogeneous catalysis), a new area of catalytic chemistry; and Academician K.I. Zamaraev, who put forward the idea of investigating the detailed ("intimate") mechanisms of catalytic reactions. It is very important for anyone to find themselves under a lucky star at the right time, by which I mean having a democratic-minded supervisor, absorbing research subjects, colleagues devoted to science, and so on.*"

Likholobov began his research with the monitoring of catalytic reactions in steps, including identification

of reactive intermediates. This area is pleasant in the sense that it allows direct evidence of inner- and outer-sphere transformations to be obtained by physicochemical methods. Nevertheless, Likholobov's scientific interest gradually shifted to systems based on immobilized metal complexes. Thus, the scientist gave up the beauty and unambiguity of homogeneous catalysis science to enhance the practical utility of his research.

Likholobov's scientific interest thus underwent inconspicuous "heterogenization," and its further evolution led the scientist to the chemical (molecular) design of classical supported heterogeneous catalysts, a poorly understood field of chemistry.

Likholobov has favorite supports, primarily carbon materials, of which he prefers turbostrate carbon structures. Following this interest, he has become one of the key designers of catalysts supported on the new carbon material Sibunit. His profound understanding of the structure of this support has made it possible to produce

catalysts with unique properties, which have attracted great practical interest.

Likholobov's favorite active components are based on palladium. The principles of homogeneous catalysis and the immobilization of metal complexes have been efficiently used as a systemic approach to the chemical design of palladium polyhydroxo complexes with various nuclearities and to the immobilization of these complexes on the support surface. This approach has demonstrated its fruitfulness by affording a new family of catalytic systems important for basic and fine organic and inorganic syntheses.

Possessing fundamental knowledge in various sciences and efficiently applying recent achievements to all the areas of his multifaceted activity, Likholobov has obtained results ranking among the accomplishments of the world's best catalysis schools.

Likholobov is the author or coauthor of 355 scientific works and more than 80 patents, including US, German, UK, French, Belgian, and Italian ones. Since 1986, he has been a member of the Advisory Council of Symposia on the Relation between Homogeneous and Heterogeneous Catalysis, a member of the SB RAS Integrated Council for Chemical Sciences, Deputy Chairman of a specialized dissertation council, and a member of the editorial board of a number of journals.

Over many years, Likholobov as an active pedagogue has generously shared his knowledge and experience with the next generation of researchers. For more than 15 years, he lectured at Novosibirsk State University and headed the Department of Catalysis and Adsorption. At present, he is Head of the Department of the Chemical Processing of Hydrocarbons of Omsk State Technical University and, simultaneously, Head of the Department of Chemical Engineering of Omsk State University. He has educated 7 doctors of sciences and 18 candidates of sciences.

Owing to the fruitfulness, systematic character, and high scientific level of his research, Likholobov has gained well-deserved worldwide fame and the reputation of being an excellent researcher and has joined the world's scientific elite. For his accomplishments, Likholobov was awarded a diploma of the USSR Academy of Sciences (1974), the Class II Order of Merit for the Country (1999), and the Order of Friendship (2007).

Prof. Likholobov's colleagues
and the editorial board of Kinetics and Catalysis