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ANATOLY VASILEVICH NIKOLAEV

After a brief serious illness, at the age of 75, the outstanding chemist Anatoly Vasilevich Nikolaev, member of the Academy of Sciences of the U. S. S. R., director of the Institute of Inorganic Chemistry, Sibirian Department of the Academy of Sciences of the U. S. S. R. deceased.

The development of chemical science in the U. S. S. R. and particularly in Siberia is closely connected with the name of A. V. Nikolaev. He was one of the first to organize and create the scientific centre in Novosibirsk. For 20 years past, A. V. Nikolaev headed one of the largest institutes of inorganic chemistry in the U. S. S. R., the Institute of Inorganic Chemistry of the Sibirian Department of the Academy of Sciences.

In addition to many sections of inorganic chemistry, A. V. Nikolaev's work in the area of thermal analysis was exceptionally creative.

Already in the 'forties he became interested in the application of thermal analysis to the study of coordination compounds, and studied *cis-trans*-transformations in the solid state when heating various coordination compounds of platinum, palladium and rhodium.

In recent years, under A. V. Nikolaev's guidance, work in the Institute of Inorganic Chemistry was largely extended in this direction, covering studies on thermal solid-state transformations of coordination compounds by thermal analysis, in particular on the application of non-isothermal kinetics for investigating ligand substitution processes when volatile ligands are split off during heating. The rich

experimental material on the thermolysis of ammoniates, aquo-acido complexes and clathrates and on heterogeneous oxidation-reduction reactions allowed to formulate a novel concept of "thermal stability" of coordination compounds, strictly delimiting the thermodynamic and kinetic aspects of stability.

Transformations of fluorine compounds have extensively been studied by thermoanalytical methods. A special flow-type apparatus was designed to carry out DTA and TG in aggressive fluorine-containing gaseous media.

A. V. Nikolaev was a pioneer in the creation of fully automated systems for thermal analysis. He directed the development of a thermoanalytical apparatus for studying fast reactions (lasting some milliseconds), utilizing an on-line minicomputer, dynamic correction of temperature transmitters, and calculating energetic and kinetic parameters of the individual stages of the fast processes. Using this apparatus, essentially new data concerning the non-steady-state character of the investigated processes were obtained.

A. V. Nikolaev ardently developed international cooperation in the field of thermal analysis, particularly with the well-known schools of Hungary (prof. E. Pungor, dr. F. Paulik) and Czechoslovakia (prof. V. Šatava, dr. J. Šestak).

A. V. Nikolaev was, for many years, president of the Scientific Council on Thermal analysis of the Academy of Sciences of the U. S. S. R., member of the International Confederation of Thermal Analysis and member of the Editorial Advisory Board of the international review Journal of Thermal Analysis.

Everybody who knew him and worked with him will keep Anatoly Vasilevich Nikolaev's radiant memory alive forever.

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