

ANNIVERSARIES

BORIS VENIAMINOVICH IOFFE

(ON HIS 50th BIRTHDAY)

On May 16, 1971, Boris Veniaminovich Ioffe, a member of the editorial staff of *Khimiya Geterotsiklicheskikh Soedinenii*, an outstanding specialist in the field of organic and physical-organic chemistry, and a professor of Leningrad State University, celebrated his 50th birthday.

In 1938 Ioffe joined the chemistry faculty of Leningrad State University LGU, and in 1942 he graduated from the Sverdlovsk State University in Ural. There, under the direction of Professors R. Ya. Levina and Yu. K. Yur'ev, of whom he was a student, he accomplished his work for his diploma, which was devoted to the dehydrogenation of hydroaromatic hydrocarbons with sulfur.

In 1942 Ioffe was called to war service and worked as an engineer in a fuel laboratory. Upon demobilization from the army in December 1945, he became a junior scientific co-worker in the Department of Organic Chemistry of LGU and is presently still working there. His first synthetic investigations at LGU were carried out under the direction of Professor A. S. Broun and subsequently under the direction of Corresponding Member of the Academy of Sciences of the USSR (AS USSR) S. N. Danilov.

As early as the war years, Ioffe's basic interests were focused on the use of refractometric methods for the analysis of liquid mixtures (mainly hydrocarbons) and the establishment of the structures of organic compounds.

Ioffe's first paper, "Application of relative dispersion in the analysis of hydrocarbon mixtures," was published in 1946 in *Doklady Akademii Nauk SSSR*. In 1947 he defended his Master's thesis, entitled "Relative dispersion of hydrocarbons and its application to the analysis of hydrocarbon mixtures."

Ioffe was the first to propose the use of the relative dispersion of light to determine aromatics in hydrocarbon mixtures and to identify individual hydrocarbons. He worked out methods for the precise measurement of the average dispersion and refractive indexes and perfected the construction of refractometers. His investigations for a refractometric method for physicochemical analysis are especially valuable. He made a detailed study of the shapes of refractive index-composition isotherms, established the reasons for positive and negative deviations from additivity, and demonstrated the erroneousness of the previously used methods for the construction of these isotherms. All of these investigations were correlated in his doctoral dissertation entitled "Refractometry as a method for the physicochemical analysis of organic systems" (1963) and gained a wide reputation, both in our country and abroad.

Starting in 1948, Ioffe began a series of interesting investigations in the field of organic hydrazine derivatives (study of methods for the preparation and properties of dialkyl- and trialkylhydrazines and hydrazones, the isomerization of hydrazones to azo compounds, aminonitrile cleavage and rearrangement of quaternary hydrazinium, hydrazonium, and pyrazolinium salts, the reaction of hydrazines with unsaturated compounds, resulting in the formation of pyrazolines, the isomerization of Δ^2 -pyrazolines, the propargyl rearrangement during the reaction of tertiary acetylenic chlorides with 1,1-dialkylhydrazines, the migration of the double bond in unsaturated hydrazines, hydrazones, and azo compounds, transhydrazination and transhydrazoneation, etc.). In the course of these studies he made extensive use of gas-liquid chromatographic methods.

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One should especially note Ioffe's investigations devoted to the alkylation of aromatic hydrocarbons and the concurrent isomerization and fragmentation of carbenes as well as their orientation.

Professor Ioffe is the author of about 150 papers and two monographs ("Handbook of Refractometry for Chemists" and "Refractometric Methods of Chemistry"). He wrote a chapter entitled "Refractometric Investigations" for "Theoretical and Practical Handbook for Laboratory Occupations in Physical Chemistry." He is the editor of "Modern Problems of Organic Chemistry" and "Organic Compounds with an N-N Bond." Ten Master's theses have been defended under his supervision.

Ioffe has a brilliant mastery of almost all of the modern physicochemical methods for the investigation of organic substances.

The Laboratory of Gas Chromatography of Scientific-Research Chemical Institute of LGU, founded and directed by Professor Ioffe, is one of the largest laboratories of this type in the country. In this laboratory he developed an original refractochromatographic method for the analysis of ternary systems, IR, UV, and PMR spectroscopy. He is a member of the Scientific Council on Gas Chromatography of the AS USSR.

Professor Ioffe is also renowned as an excellent lecturer. He possesses the distinguished gift of a teacher and educator of students and fellows.

Ioffe is exceptionally principled in both science and life. His investigations are distinguished by novelty and originality, clarity in exposition of the proposed task, and unusually scrupulous execution. A number of Professor Ioffe's profound scientific investigations are also of practical value, and their results have been assimilated in practice.

The editorial staff of Khimiya Geterotsiklicheskikh Soedinenii cordially wishes Boris Veniaminovich many years of fruitful scientific and pedagogical activity and new achievements in science.