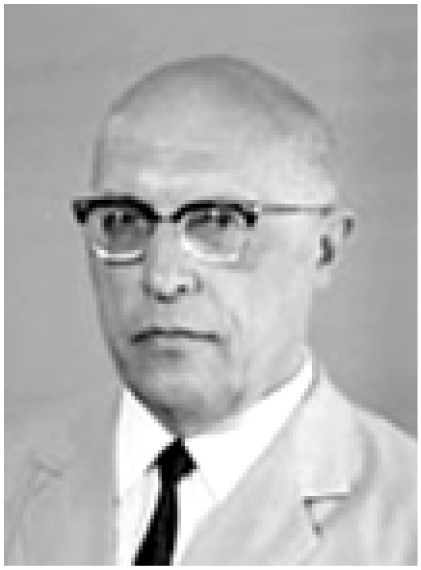
Organometallic Chemistry

The issue is composed of papers dedicated to the memory of the outstanding chemist academician G.A. Razuvaev in relation to 120th anniversary of his birthday

Grigory Alekseyevich Razuvaev

(1895–1989)



On August 23, 2015, is the 120th anniversary from the birthday of academician Grigory Alekseyevich Razuvaev, who was an outstanding scientist, one of the founders of the modern organometallic chemistry.

Grigory Alekseyevich Razuvaev was born on August 23, 1895, in Moscow. He graduated from Leningrad University (1925). From 1927 he worked in the laboratory of research in high pressures (State Institute of High Pressures from 1929) and Leningrad Technological Institute.

Since 1946 he was a professor of Gorky State University and simultaneously the director of Scientific Research Institute of the university in 1956–1962. In 1963 he was made the head of the laboratory of polymer stabilization of the USSR Academy of Sciences. In 1969–1988 he was the director of Chemistry Institute of the USSR Academy of Sciences in Gorky. Since 1988 he was the honorary director of Institute of Organometallic Chemistry of the USSR Academy of Sciences.

His fundamental research was in chemistry of organometallic compounds, organic peroxides and in the study of free radicals in solutions. He determined the relative rate of their formation during thermal decomposition of organomercury compounds and compiled the activity series for radicals. Together with M.M. Koton he discovered the method of generation of free aliphatic radicals (1931–1935). He established the mechanism (1940s) of free radical formation in photolysis reactions of organometallic compounds in liquid medium, as well as the character of their interaction with each other and the solvents. He developed a new accessible synthesis method of mercury organic compounds (1954) by the action of free radicals formed from peroxides upon mercury salts. He discovered fundamentally new ways of transfromations in the series of arsenic organic derivatives. He suggested synthesis methods (1963–1969) of organometallic compounds with a chain containing from two to four heteroatoms of the $R_3SiHgGeR_3$ type. Together with his collaborators (1963–1970) he originated various ways to obtain filamentary single crystals and layered films of germanium and other metals for semiconductor technology and electronics. He obtained organometallic compounds, used as polymerization initiators and catalysts and as monomer stabilizers. In 1967–1974 he developed synthesis methods of cenyl aryl compounds of tetravalent titanium, zirconium, vanadium and trivalent titanium.

G.A. Razuvaev was awarded the title of Hero of Socialist Labour (1969), Lenin Prize (1958), State Prizes of the USSR (1971, 1985).