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Журнал публикует рецензированные статьи по научным исследованиям, выполненным в различных отраслях химической науки: неорганическая химия, органическая химия, аналитическая химия, физическая химия и химия твёрдого тела. Приветствуется публикация статей по смежным отраслям. Редакционная коллегия поддерживает высокий уровень публикаций, строго придерживаясь политики независимой сторонней экспертизы, выполненной специалистами в соответствующей области, квалификация которых подтверждена общепризнанными наукометрическими показателями.

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## South Ural State University

The journal publishes peer-reviewed papers on scientific research in various branches of chemical science: inorganic chemistry, organic chemistry, analytical chemistry, physical chemistry and solid-state chemistry. The papers in related branches are welcome. The editorial board keeps the high quality of publications, strictly adhering to the policy of independent third-party expert opinion, expressed by specialists in the corresponding branches, whose qualification is confirmed by generally recognized scientometrical indicators.

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# 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 transformations 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 ceryl 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).