## ALEKSANDR NIKOLAEVICH NESMEYANOV (1899-1980). CENTENARY OF HIS BIRTH

Yu. N. Bubnov



This issue of "Khimiya Geterotsiklicheskikh Soedinenii" is devoted to the centenary of the birth of Academician Aleksandr Nikolaevich Nesmeyanov – an outstanding chemist, one of the leaders and organizers of Soviet and World science of the twentieth century, and President of the Academy of Sciences of the USSR.

The works of A. N. Nesmeyanov, his students, and his colleagues created a new branch of science, i.e., organoelement chemistry. Being a scientist of broad experience, he initiated yet another new trend, i.e., the creation of the artificial feed.

Aleksandr Nesmeyanov was born in Moscow on September 9, 1899. In 1917 he entered the natural science branch of the Physicomathematical Faculty of Moscow University, at the end of which he went to N. D. Zelinsky's department to prepare for professorship. In 1930 he received the title of Reader in the Chemical Faculty of Moscow State University, while in 1934 he was awarded, without presenting a thesis, the degree of Doctor of Chemical Sciences and became Professor. In the same year he created the Laboratory of Organic Chemistry at the Chemical Faculty and also the Laboratory of Organometallic Compounds in the newly formed Institute of Organic Chemistry of the Academy of Sciences. In 1939 A. N. Nesmeyanov was elected Corresponding Member of the Academy of Sciences of the USSR and was appointed Director of the Institute of Organic Chemistry, Academy of

Sciences of the USSR, which he led until 1954. In 1943 he was elected Full Member of the Academy of Sciences of the USSR. In 1954 A. N. Nesmeyanov created the Institute of Organoelement Compounds, Academy of Sciences of the USSR from several subsections of the Institute of Organic Chemistry and became its director. Under his leadership the Institute of Organoelement Compounds soon grew into a prominent center of organometalliic and polymer chemistry and gained worldwide recognition.

From 1948 to 1951 Academician A. N. Nesmeyanov was Rector of the M. V. Lomonosov Moscow State University. The splendid complex of Moscow State University on the Lenin hills was constructed on his initiative.

Aleksandr Nesmeyanov was always able to combine large-scale theoretical investigations with practical tasks and his public activities. His ability as a scientific organizer appeared most clearly in the post of President of the Academy of Sciences of the USSR (1951-1961). During his presidency large-scale scientific centers in Chernogolovka, Pushchino, Novosibirsk, and the Far East and also the All-Union Institute of Scientific and Technical Information were created. The State Information Service was organized, and publication of the serial journal "Referativnyi Zhurnal" began.

He was the chairperson of the State Award Committee at the Council of Ministers of the USSR (1947-1956), the chairperson of the Lenin Award Committee in the field of science and technology at the Council of Ministers of the USSR (1956-1961), vice-chairperson of the Supreme Soviet of the Russian Federation (1947-1950), the member of the World Peace Council (from 1950).

Being a statesman of enormous stature, Aleksandr Nesmeyanov was constantly and actively engaged in science. His greatest achievements in the 1950s and 1960s were the development of the problems of conjugation, tautomerism, and reactivity and the advancement of the chemistry of ferrocene and other sandwich compounds and  $\pi$  complexes of transition metals. He was greatly interested in many of the problems of chemistry and solved them successfully in conjunction with his students and colleagues. Nesmeyanov had a special sympathy with the chemistry of heterocyclic compounds, and he lectured his students on this subject with great pleasure. He developed several methods for the construction of various nitrogen and oxygen heterocycles, e.g., from  $\beta$ -chlorovinyl ketones and  $\beta$ -keto acetals. He was greatly occupied with the investigation of the organometallic derivatives of nitrogen heterocycles, their tautomerism, and metallotropic transitions.

On the basis of the fundamental work of Nesmeyanov's school a whole series of science-rich industrial processes were created, several medicinal products and technological materials were introduced into practice, an antidetonator was developed, and much else was achieved.

He was a member of different academies and an honorary doctor (honoris causa) of five leading universities throughout the world. His multifaceted activity was marked by the highest scientific and state awards. Nesmeyanov's name is perpetuated in the title of one of the largest chemical institutes of Russia (the Institute of Organoelement Compounds), a Moscow street, and a scientific-research vessel.

Aleksandr Nikolaevich was a brilliant lecturer, a witty narrator, a keen mushroom collector, and a hospitable host. He wrote verse and painted pictures... Talent, everywhere there was talent. He knew how to switch activities, which is also a great talent.