
ANNIVERSARIES

To 75th Anniversary of R. A. Khmel'nitskii



On March 27, 2004 Professor Rurik Arkadievich Khmel'nitskii, one of the founders of the school of mass spectrometry application to organic chemistry in our country, reached his 75th birthday. Rurik Arkadievich Khmel'nitskii was born on March 27, 1929 in Tbilisi. On graduation from school in 1947 he entered the Chemical Department of the Lomonosov Moscow State University. After graduating in 1952 R.A. Khmel'nitskii started working in the All-Union Research Institute of Oil Refining (VNIIP) in the laboratory of spectral and mass-spectrometric analysis. Here he made first acquaintance with mass spectrometry and together with A.A. Polyakova developed a new scientific field, mass-spectrometric oil analysis by structural groups. In the VNIIP R.A. Khmel'nitskii in 1961 sustained a Candidate of Chemical Science Dissertation "Mass-Spectrometric Analysis of Gasoline," and in 1966 published in collaboration with A.A. Polyakova his first book "Introduction to Organic Mass Spectrometry." This was the first Russian book treating application of mass spectrometry to structural assessment of organic substances (primarily hydrocarbons). Here were formulated for the first time approaches to quantitative analysis of complex multicomponent hydrocarbon mixtures. In 1968 R.A. Khmel'nitskii left VNIIP and

entered the Chair of Organic Chemistry headed by Professor I.I. Grandberg at the Timiryazev Moscow Agricultural Academy. At that time R.A. Khmel'nitskii with his post-graduate students commenced search for correlation between fragmentation pattern of organic molecules and their structure. Here he founded a school of organic mass spectrometry and studied derivatives of sulfur- and nitrogen-containing heterocycles. In 1968–1973 defended their dissertations the first post-graduate students of R.A. Khmel'nitskii: A.P. Krasnoshcheka, V.I. Vsotskii, E.S. Brodskii, N.A. Klyuev, and others. He publishes the second monograph with A.A. Polyakova on "Mass Spectrometry in Organic Chemistry" (1972). This book for a long period became an indispensable treatise and handbook for researchers applying mass spectrometry to their studies. The mass spectrometer here for the first time was regarded as a tool for studying mechanisms of organic reactions (e.g., Fischer indole synthesis).

In 1971 R.A. Khmel'nitskii sustained a Doctor of the Chemical Science Thesis "Mass spectrometry of Organic Compounds Containing Sulfur and Nitrogen." Since 1973 R.A. Khmel'nitskii was the Head of the Chair of Physical and Colloid Chemistry at the

Timiryazev Academy. He continued studies together with his disciples in the field of organic mass spectrometry and simultaneously started investigation of humus in soils and polymers degradation. From the Chair of R.A. Khmel'nitskii graduated another team of researchers trained in application of mass spectrometry to agrochemical problems. R.A. Khmel'nitskii published in collaboration with his disciple E.S. Brodskii three monographs: "Pyrolytic Mass Spectrometry" (1980), "Chromatography–Mass Spectrometry" (1984), and "Mass Spectrometry of Environmental Pollution" (1990).

R.A. Khmel'nitskii was a brilliant lector and able teacher, and basing on his proper lectures he compiled

textbooks for students of agricultural educational institutions: "Physical and Colloid Chemistry" (1988), and "Modern Methods of Study of Agricultural Objects" (1981).

In 1994 R.A. Khmel'nitskii retired. By this time 27 Candidate of Science Dissertations were sustained by his disciples, and over 350 articles he published with coworkers.

The Editorial Board of the "Zhurnal Obshchei Khimii" together with disciples and colleagues of Rurik Arkadievich Khmel'nitskii heartily congratulate him on the 75th anniversary and wish him good health, many happy returns of the day, and great happiness.