CHRONICLE

Birthday of Tat'yana Anatol'evna Maryutina

DOI: 10.1134/S1061934811120112

December 19, 2011, is the birthday of Tat'yana Anatol'evna Maryutina, Doctor of Chemistry, senior researcher at the Vernadsky Institute of Geochemistry and Analytical Chemistry of the Russian Academy of Sciences, and titular member of the Analytical Chemistry Division of IUPAC.

Maryutina was born in Tula; in 1985 she graduated from the physicochemical department of the Lenin-grad Technological Institute. In 1986 she began to work at the Preconcentration Laboratory of the Vernadsky Institute of Geochemistry and Analytical Chemistry under the supervision of B.Ya. Spivakov. Maryutina's main area of research is the separation and preconcentration of inorganic compounds by countercurrent chromatography. It was the subject of her candidate's dissertation, defended in 1991, and doctoral dissertation, defended in 2003.

Maryutina is well known for her original studies on the application of countercurrent chromatography for sample pretreatment and analysis of different samples: from high-purity materials to geological samples and

oil. She investigated how the physicochemical parameters of two-phase liquid systems and experimental hydrodynamic conditions affect the retention of the stationary phase in rotating coil columns (RCCs) with no solid supports or adsorbents. She developed a model of the behavior of the stationary phase in RCCs and demonstrated the prospects of using RCCs to analyze solutions of high-purity compounds and additionally purify them. A number of procedures were proposed for the extraction and preconcentration of trace rare-earth and other elements for their mass spectral determination in high-purity salt solutions. It was shown that RCCs can be used under laboratory conditions as an alternative to multistep extraction devices for the preconcentration and separation of radionuclides. Maryutina proposed the use of RCCs to extract and preconcentrate traces of elements (including rare-earth ones) from oil, ensuring the determination of ultralow concentrations of elements without destruction of the sample. Together with the Institute for Analytical Instrument Making of the Russian Academy of Sciences, the first countercurrent liquid-liquid chromatograph with spectrophotometric detection was developed.

Maryutina is known for her broadmindedness, her ability to correctly choose the area of investigation and organize efficient collaboration of a large scientific group. She also is the Deputy Director of OOO Ob'edinennyy tsentr issledovaniy i razrabotok' (Joint Center for Investigation and Developments) and participates in studies on the ecological inspection of oil-refining and oil-producing plants and the evaluating their impact on the environment; improvement of methods for analyzing soils in terms of oil product concentrations; and maintenance of nature-regenerating operations in oil-contaminated areas. Maryutina is a member of the scientific council on Analytical Chemistry of the Russian Academy of Sciences, the scientific council of the Vernadsky Institute of Geochemistry and Analytical Chemistry, and the dissertation council of this institute. She has authored/coauthored over 60 papers and created/cocreated 3 inventions.

The editorial board of *Zhurnal Analiticheskoi Khimii* and all her friends and collaborators congratulate Tat'yana Anatol'evna on her birthday and wish her good health, happiness, and success in all her endeavors!