

MARGARITA N. RODNIKOVA*(to 90th anniversary of birth)*

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October 01, 2022 marks the 90th birthday of Margarita Nikolaevna Rodnikova, Doctor of Chemical Sciences, Professor, Honored Scientist of the Russian Federation, Chief Researcher of the Institute of General and Inorganic Chemistry. N.S. Kurnakov of the Russian Academy of Sciences, a well-known specialist in the field of fundamental and applied physical chemistry of liquids and solutions.

M.N. Rodnikova was born on October 01, 1932 in Moscow into the family of Nikolai Nikolaevich Rodnikov, an employee of the Ministry of Forestry, and Elizaveta Dmitrievna (Ostapova) Rodnikova, a chemistry teacher at a Moscow secondary school. After graduating from secondary school No. 328 in Moscow in 1950, she entered the Chemistry Faculty of Lomonosov Moscow State University.

In 1955 M.N. Rodnikova graduated from the Chemistry Faculty of Moscow State University and went to work at the Kurnakov Institute of General and Inorganic Chemistry of the Academy of Sciences, to the laboratory of solutions.

Under the leadership of O.Ya. Samoilov in 1964 defended his Ph.D. thesis "Temperature dependence of the coordination numbers of alkali metal cations and halide anions in dilute aqueous solutions." In 1998 M.N. Rodnikova defends her doctoral thesis "Features of solvents with a spatial network of hydrogen bonds." In 2007, by the decision of the State Committee of the Russian Federation for Higher Education M.N. Rodnikova was awarded the academic title of professor.

In a marriage with Yuri Alexandrovich Buslaev, Margarita Nikolaevna raised two beautiful daughters – Elena and Olga.

From 1955 to the present, M.N. Rodnikova went through all the positions at her Institute from senior laboratory assistant to the head of the "Solvents with a spatial network of hydrogen bonds" group.

Margarita Nikolaevna pays great attention to the education of scientific personnel. Under her leadership, five candidates of chemical sciences and one candidate of physical and mathematical sciences were defended. She works a lot and with pleasure with students and graduate students.

From 1999 to 2003, Margarita Nikolaevna taught the course "Physical and chemical foundations of bioinorganic chemistry" at the DI. Mendeleev Russian Chemical Technical University. She developed special courses "Solutions, water, hydration" and "Features of water and hydration", which were read at Moscow State University, at the Lomonosov Institute of Fine Chemical Technology RTU-MIREA, at the Mendeleev Chemical-Technological Institute, at the University of Dortmund (Germany) and at the University of Regensburg (Germany).

Margarita Nikolaevna lectured at the conferences of young scientists on inorganic chemistry "The structure of water and hydration of ions" in Vysu (Estonia), on the theory and practice of solutions "The specifics of water

and the molecular-kinetic theory of hydration" in Ivanovo.

For 20 years M.N. Rodnikova was a member of the board of the All-Union Society "Knowledge" of the department "Chemistry". She organized the series of lectures "New in Inorganic Chemistry" at the Polytechnic Museum, "New in the Science of Solutions" at the Kurnakov Institute of General and Inorganic Chemistry of RAS.

Rodnikova Margarita Nikolaevna is a well-known and talented scientist in the field of the structure of liquids and liquid solutions. M.N. Rodnikova discovered a new class of solvents – solvents with a spatial network of hydrogen bonds. These include such vital and widely used substances in technology as water, amino alcohols, diamines, diols, glycerin, sulfuric, phosphoric acids, etc. Rodnikova M.N. the features of the physicochemical properties of these solvents and the phenomena occurring in these solutions were investigated and explained for the first time.

In recent years, Margarita Nikolaevna has proposed topological methods for describing the structure of a liquid – a condensed but mobile phase, investigated the properties of a spatial network of hydrogen bonds in liquids and solutions, studied mixed networks of hydrogen bonds in aqueous systems of diols, amino alcohols and diamines, and revealed their role in biosystems and cryobiology.

Total M.N. Rodnikova published more than 300 publications. Among her publications are about 200 articles in reputable scientific journals (the number of citations of articles in journals according to Web of Science and Scopus is more than 2000) and 5 scientific reviews.

Of particular note is the long-term leadership since 1980, and since 1986 as the Chairman, approved by the Presidium of the USSR Academy of Sciences of the All-Union, and then the All-Russian Seminar of the Academy of Sciences on the study of liquids and solutions structure, working at the Kurnakov IGIC of

RAS to the present. This seminar, one of the unique phenomena in the life of Russian science, was founded in 1962 by Margarita Nikolaevna's teacher Oleg Yakovlevich Samoilov, the author of the molecular-kinetic theory of solvation and the discovery of the phenomenon of negative hydration of ions in electrolyte solutions, who managed to make the seminar a center of attraction and consolidation of research on the theory and experiment of liquids and solutions not only in the Soviet Union, but also in many countries of the world.

During the 60 years of its existence, the seminar has seen dozens of outstanding specialists not only from Russia, but also world-class specialists in the field of physical chemistry of liquids and solutions.

With her scientific activity, Margarita Nikolaevna made a significant contribution to the development of fundamental and applied physical chemistry of liquids and solutions. One of the assessments of this contribution is the honorary title "Honored Scientist of the Russian Federation", awarded to her in 2004.

High scientific erudition, efficiency, adherence to principles and responsibility brought M.N. Rodnikova deserved authority and wide popularity among the scientific community.

Friends, colleagues and students sincerely congratulate Margarita Nikolaevna Rodnikova on her glorious jubilee and wish her good health, good luck and success in her scientific and organizational activities.

The editors of the journal RENSIT of the Branch of the Russian Academy of Natural Sciences heartily join these wishes.

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