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In Celebration

80th Birthday of Academician Vladimir E. Nakoryakov



Vladimir Nakoryakov, distinguished Russian scientist in the field of thermal physics, Academician of the Russian Academy of Sciences, celebrates his 80th birthday on July 26.

Vladimir Nakoryakov was born in Odessa in 1935, though his whole life and work have been closely linked with Siberia. He spent his childhood and youth in mountainous and sunny Transbaikalia, in the city of Petrovsk-Zabaikalsky, known for high concentration of heavy industry and its intellectual spirit, seeded already by the Decembrists. During his school years he read a lot and chose the profession of engineer. In 1958, Vladimir graduated from Tomsk Polytechnic Institute and began his scientific activities at the Siberian Branch of the USSR Academy of Sciences: Transportation and Energy Institute, Institute of Chemical Technology, and Institute of Thermophysics (since 1965). From 1982 to 1985 Nakoryakov was Vice Rector and then Rector of Novosibirsk State University. In 1985–1990 he served as Deputy Chairman of the Presidium of the Siberian Branch of the USSR Academy of Sciences.

At the Institute of Thermophysics Vladimir Nakoryakov became one of the closest disciples and companions of Academician Samson Kutateladze, after whom the Institute was named. In 1964 Nakoryakov defended his candidate's thesis, and in 1971 his doctoral thesis. In 1976 he was awarded the academic title of Professor. In 1981 he was elected a Corresponding Member of the USSR Academy of Sciences, and in 1987 he became a Full Member. During the years 1986–1997, Nakoryakov was Director of the Institute of Thermophysics. In 1992 he became a Member of the International Engineering Academy. Over the years, he served as an expert of the Nobel Committee for Physics.

Academician Nakoryakov has made a great contribution to the hydrodynamics of gas–liquid flows and the development of electrodiffusion diagnostic method, study of wave dynamics in two-phase media, non-stationary processes in multiphase systems, convective heat and mass transfer in porous media, the two-phase filtration, boiling and condensation in porous media, combustion, heat and mass transfer in the acoustic field, as well as originating the theory of high-temperature alkali and low-temperature proton-exchange fuel cells.

He and his colleagues were the first to experimentally discover the existence of rarified shock waves in a homogeneous medium in proximity of the thermodynamic critical point (registered as a discovery), laid the foundations of the theory of absorption heat pumps, contributed to a number of areas related to ecologically-friendly power industry and energy-saving technologies, and initiated research in the field of hydrogen energy. Today, Academician Nakoryakov heads a new research avenue approaching heat and mass transfer in processes in modern thermal power equipment, hydrogen energy and space power engineering, and supervises the development and production of heat pumps.

The name of Academician Nakoryakov is not associated only with establishing the largest scientific school in the field of thermal physics and physical hydrodynamics. The scope of his creative interests covers science, education and culture. His brilliant ideas and strong intuition lead to the formulation of fundamentally new problems and research areas, resulting in pioneering research outcomes in various fields of science and technology. He is a man with a broad outlook, immense erudition and a proactive approach to life. These character traits deserve a lot of respect and appreciation of his colleagues and friends. He can rightly be called a man, creatively responding to challenges of the time. Still today Vladimir Nakoryakov has many new ideas and creative concepts.

Academician Nakoryakov has had many disciples. He has been patiently working with youth throughout his life. For a long time he was in charge of the departments of the Novosibirsk State University and Novosibirsk State Technical University, and was instrumental in establishing the youth laboratories at the

Institute of Thermophysics. He made a lot of effort to solve housing problems of young people and to develop the social base of the Institute of Thermophysics. He guided and promoted three Corresponding Members of the Russian Academy of Sciences, 45 Doctors and over 200 Candidates of sciences.

Vladimir Nakoryakov authored over 600 scientific papers, including 12 monographs, such as “Heat transfer in an acoustic field”, “Wave dynamics in the gas and vapor–liquid medium”, “Wave flow of liquid films”, “Heat and mass transfer in two-phase systems”, published both in Russia and the United States. He has published numerous articles in the Russian and regional press on the problems of contemporary science, the economy, culture and education. His works are widely cited in national and international scientific literature.

Academician Nakoryakov is the laureate of the USSR and Russia State Prizes, and the Prize of the USSR Council of Ministers. He was awarded the Orders of “Friendship”, “Red Banner of Labor”, “Badge of Honor”, the order “For Service to the Fatherland” 4th Class (1999), and many medals. In 2007 he was awarded the “Global

Energy Prize”, which is informally called “Nobel Prize in energy”. Nakoryakov is a member of the editorial boards of 12 Russian and international journals and for over 24 years has been editor of the international “Journal of Engineering Thermophysics” (1991), a member of five international committees, and chairman of two doctoral councils.

Academician Nakoryakov celebrates his birthday with his friends, colleagues and disciples. We sincerely congratulate him and wish him continued creative success and good health.

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