MIKHAIL DMITRIEVICH MILLIONSHCHIKOV

Soviet science has suffered a great loss. On May 27, 1973 a great Soviet scholar and Communist, Chairman of the Supreme Soviet of the Russian Soviet Federated Socialist Republic, Vice-President of the Academy of Sciences of the USSR, director of the I. V. Kurchatov Atomic Energy Institute, Hero of Socialist Labor, Lenin and State Prize laureate Mikhail Dmitrievich Millionshchikov passed away.

Millionshchikov was born January 16, 1913 in the city of Grosno. After graduating from the Moscow Aviation Institute, he served as a lecturer at the Institute until 1943. In 1944 he became associated with the Mechanics Institute of the Academy of Sciences of the USSR, going to the I. V. Kurchatov Atomic Energy Institute in 1949, where he initially was a department chairman, later becoming director of the Institute.

In 1953 Millionshchikov was chosen a corresponding member of the Academy of Sciences of the USSR, and in 1962 was elevated to Academician in the technical sciences division and Vice-President of the Academy.

Millionshchikov made a great contribution to the development of Soviet atomic science and technology, high temperature physics, and methods for direct transformation of nuclear energy to electrical energy. Under his leadership the theory of division of multicomponent isotopic mixtures in cascade multistep devices was developed.

Millionshchikov's many studies in various branches of the mechanics of continuous media brought him well deserved fame both within the Soviet Union and abroad. His investigations of the degeneration of isotropic turbulence serves as a base for contemporary study of turbulence. The famous "Millionshchikov hypothesis" on the equality to zero of four semiinvariants was announced in his article "On the theory of homogeneous isotropic turbulence," published in Doklady Akademii Nauk SSSR in 1941. It is the basis for the more general assumption of return to zero of velocity semiinvariants of successive orders, which permits construction of a series of increasingly complex closure methods leading to a more complete description of the evolution of a turbulent flow field. Experiment solidly confirmed the calculation of turbulent flows in circular pipes with both smooth and rough walls by a method developed by Millionshchikov. Quite recently he generalized this method to the case of flows with heat transfer. His report "On turbulent transfer," read at the IV All-Union Conference on Heat and Mass Transfer, evoked great interest.

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Many important results of Millionshchikov's later work on turbulence are contained in his book Turbulent Flows in a Boundary Layer and in Tubes.

Millionshchikov's work in the theory of naphtha and gas filtration and applied gas dynamics has become generally well known. In filtration theory, he studied questions related to oil well exploitation. In applied gas dynamics, he studied gas ejectors.

Millionshchikov was an excellent teacher and scientific leader. Many of his students have become renowned scientists.

Not only was he a remarkable scientist, but also was very active socially and politically.

The scientists of Belorussia and the workers at the Heat and Mass Transfer Institute of the Academy of Sciences of the Belorussian SSR find it especially difficult to accept the death of Millionshchikov. Very recently he visited our republic, participated in the IV All-Union Conference on Heat and Mass Transfer, and offered much valuable advice on the development of the Heat and Mass Transfer Institute. In the memory of all who met him he remains an unusually warm, highly principled man with a wide range of scientific knowledge and interests.

Together with his scientific, organizational, and teaching work, he also served in the government. Since 1967 he served as Chairman of the Supreme Soviet of the RSFSR, and since 1964, as the Chairman of the Soviet Paguoshskii Committee.

The Communist Party and the Soviet government highly valued M. D. Millionshchikov's scientific, pedagogical, and social contributions. In 1967, for outstanding achievement in the field of mechanics, nuclear physics, and energy research, and for his fruitful scientific-organizational work and great service in the preparation of highly qualified academic cadres, Millionshchikov was awarded the title of Hero of Socialist Labor. He has been honored by five Orders of Lenin, and the Order of the October Revolution. He also was awarded the Lenin Prize and two USSR State Prizes.

Millionshchikov's selection as an honorary member of the American Academy of Arts and Sciences, and a foreign member of the Academy of Sciences of the German Democratic Republic, and the awarding of the Gold Order of the Red Banner by the People's Republic of Hungary, and the Gold Medal of the Czechoslovakian Academy of Sciences testify to the international fame of his scientific attainments.

Millionshchikov's life is an example of selfless dedication to his country.

The scientific community of Belorussia greaves deeply at the passing of Mikhail Dmitrievich Millionshchikov. No longer do we have with us a remarkable person, an outstanding scientist, and educator of Soviet youth, and a true son of our Fatherland.