

PEOPLE OF SOVIET SCIENCE

GENNADII NIKOLAEVICH DUL'NEV (IN HONOR OF HIS FIFTIETH BIRTHDAY)



May 3, 1977 marked the fiftieth birthday and completion of 27 years of scholarly and educational activity for Doctor of Technical Sciences Gennadii Nikolaevich Dul'nev.

Dul'nev's entire scientific career has been associated with the Leningrad Institute of Precision Mechanics and Optics (LITMO), where he progressed from student to professor, head of the department of thermophysics, and rector of the institute.

After completing the courses of the engineering physics faculty in 1950, Dul'nev became a graduate student in the thermophysics department of the institute, where under the guidance of G. M. Kondrat'ev he successfully defended his candidate's dissertation, dedicated to thermal regimes in semiconductor components, in 1953.

From that time onward Dul'nev's scientific work developed a new direction in research, combining the fields of thermophysics and electronic device design. In 1958 at the G. M. Krzhizhanovskii Power Engineering Institute (ENIN) he defended his doctoral dissertation "Heat Exchange in Systems with Energy Sources," in which he derived approximate methods for analysis of the thermal regimes of complex objects in general, and electronic devices in particular.

In 1958 he became chairman of the thermal physics department and problem laboratory of LITMO. In 1961 he was awarded the academic rank of professor.

At the present time the areas of scientific research at the LITMO problem laboratory have been greatly expanded. At the center of interest are problems connected with analysis of thermal regimes, not only in electronic devices, but also in optical and optoelectronic components, and temperature stabilization and cooling systems.

A large complex of achievements in the field of complex device simulation and mathematical methods for approximate analytical description of temperature fields has formed a basis for computer design and thermal regime calculation of components.

His major accomplishments in this field were the basis for Dul'nev's books "Heat Exchange in Radioelectronic Devices" (1963), "Heat Exchange in Radioelectronic Apparatus" (1968), "Thermal Regimes of Electronic Apparatus" (1972), and others, published in the USSR and a number of foreign countries.

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Since 1964 Dul'nev has guided the development of a new scientific discipline — the study of physical and mechanical properties of multicomponent macro- and microheterogeneous systems. The combination of a phenomenological theory of generalized conductivity with a deep analysis of physical processes permitted development of methods for predicting the properties of mixtures and composition materials, and also made a contribution to solution of the more general problem of creating materials with prespecified properties. The results of these studies were published in the monograph "Thermal Conductivity of Mixtures and Composition Materials" (Energiya, 1974).

Under Dul'nev's guidance the LITMO problem laboratory has created new methods and devices for study of thermophysical properties of materials, measurements of temperatures and thermal fluxes, and automation of thermophysical experiments.

As rector of the Leningrad Institute, he has given much attention to the task of educating highly qualified scientific workers and engineers.

Dul'nev is deeply involved in organizational scientific work, heading the Thermal Physics and Mass-Exchange Properties of Materials section of the Scientific Soviet on Problems of Mass and Heat Transfer in Industrial Processes within the State Committee of the USSR for Science and Technology, and he is a member of the National Committee on Heat and Mass Exchange. He is a member of the Thermophysical Properties of Materials section of the Academy of Sciences of the USSR, and a member of the editorial boards of the journals *Inzhenerno-Fizicheskii Zhurnal* and *Izvestiya Vysshikh Uchebnykh Zavedenii (Priborostroenie)*.

He has published about 200 scientific articles and 4 books. Under his guidance more than 25 students have received their candidate's degree, with some already having defended their doctoral dissertations.

Gennadii Nikolaevich Dul'nev greets his fiftieth birthday in the full bloom of his creative abilities. On this occasion we wish him good health and further scientific successes for the benefit of our country.

Editorial Board