electromagnetic fields. Some of these studies formed the basis of "Heat and Mass Transfer in Electromagnetic Fields" (1967).

In 1967, he was appointed Director of the Institute of Physics, Academy of Sciences of the Latvian SSR; in 1968, he was elected to the Academy of Sciences of the Latvian SSR, and immediately afterwards he was appointed Academic Secretary of the Division of Physicotechnical Sciences, Academy of Sciences of the Latvian SSR.

He has performed much organizational and teaching work, especially for highly qualified engineers; over a dozen Candidates' Dissertations have been presented under his direction, and he has also built up the Latvian School of Heat Physicists. His instructional work has always been combined with research. For many years he also took a direct part in the production of the Physicotechnical series "Izvestiya Akademii Nauk Latvisskoi SSR" and at present he is the principal editor of the All-Union journal "Magnitnaya Gidrodinamika," as well as a member of the Editorial Board of the International Journal of Heat and Mass Transfer and various All-Union scientific councils. In addition, he is a member of the Latvian Branch of the Committee of the Partisans of Peace.

The Communist Party and the Soviet Government attach considerable importance to his scientific and instructional activities; he has been awarded the Order of the Red Banner of Labor. In 1976 he was also awarded the honor of Outstanding Scientist and Engineer of the Latvian SSR. In addition, he has received the Friedrich Zander Prize of the Academy of Sciences of the Latvian SSR. In 1976, he was awarded the State Prize of the Latvian SSR for his researches on heat and mass transfer in heterogeneous systems.

His fiftieth birthday finds him at the height of his scientific achievements; we send him cordial greetings on this anniversary, and wish him health and further successes in his labors for the good of Soviet motherland.

Editorial Board

IN MEMORY OF PANTELEIMON DMITRIEVICH LEBEDEV (1906-1975)

Professor Panteleimon Dmitrievich Lebedev was a major specialist in industrial power engineering; he was born on September 17, 1906, in Arkhangel'sk. His working life began at the age of 18. After graduating from technical college, he was concerned with the operation and improvement of various types of thermal-power machinery.

Translated from Inzhenerno-Fizicheskii Zhurnal, Vol. 32, No. 3, pp. 550-551, March, 1977.

After graduating from Moscow Power Institute in 1934, he was accepted as a graduate student, and graduated in 1938; in the same year he presented his Candidate's Dissertation. From 1935 onwards, he worked in that institute as an assistant and subsequently as an instructor. In 1952 he presented his Doctoral Dissertation on theory and methods of drying at Moscow Power Institute.

From 1953 onwards, he was head of the Department of Drying and Heat-Transfer Equipment at the Moscow Power Institute. Professor Lebedev's instructional activity was closely related to the many facets of his scientific research on industrial thermal power and heat- and mass-transfer processes.

From 1954 onwards, he took an active part in organizing the Faculty of Industrial Power Engineering at the Moscow Power Institute, which was the first of such faculties in the Soviet Union. In 1955 he was appointed Dean of this faculty.

He published over 100 scientific papers, most of which presented results of considerable economic value; in addition, he wrote 15 textbooks of various grades, which include "Heat-Transfer Equipment, Drying Systems, and Refrigerator Plant," "Infrared Drying," and "Calculation and Design of Drying Systems." Many of his books have been republished in the German Democratic Republic, Poland, Bulgaria, Czechoslovakia, Hungary, Rumania, and other countries.

His scientific discoveries include two major results that represent a valuable contribution to the theory of drying. He found that water transport in a moist capillary or porous material is influenced not only by the water-content and temperature gradients, but also by the overall pressure gradient, an effect that he observed during infrared drying, as well as drying in high-frequency electric fields and freeze drying. He was able to relate the heat flux to the ratio of the temperature of the emitting surface to the temperature of the surrounding medium. The parametric criterion T_e/T_m serves to explain the evaporation of a dispersed liquid at the surface of a body. He also found that the Nusselt number falls continuously during the period of falling drying rate, so an additional parametric criterion W/W_c is required to characterize the effect, where W is the water content and W_c is the critical water content.

He also performed many studies on the scientific principles of instruction; his activities as instructor and researcher have been combined particularly closely, especially as regards the introduction of programmed learning and student-knowledge monitoring. The method has recently found wide use in technical colleges throughout the country.

He was also deputy to the President of the State Committee on Science and Technology, Council of Ministers of the USSR on Programmed Instruction, as well as Scientific Director of the laboratory at the Moscow Power Institute concerned with improvement of methods and equipment in instruction.

From 1956 to 1964 he worked in the Ministry of Higher and Specialized Intermediate Education of the USSR, first as Director of the Principal Board for Polytechnical and Engineering Colleges, and then as President of the Council and Member of the Ministerial staff.

Until the end of his life, he remained actively associated with research and instruction at the Moscow Power Institute, while also performing the numerous duties outlined above.

His scientific and other activities have been recognized in Government medals, Minister's awards, and awards from other organizations; in 1956, an order from the Praesidium of the Supreme Soviet of the Russian Federation awarded him the title of Honored Scientist and Engineer of the Russian Federation.

In recent years, he devoted much attention to developing and improving methods for thermophysical research, particularly in heat and mass transfer.

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