

IN MEMORIAM — PROFESSOR GENRIKH ALEKSANDROVICH DREITSER

The 4th of November 2004 was one of the saddest day — we lost Professor Genrikh Aleksandrovich Dreitser, a person of great heart and wide scientific horizon, a well-known scientist in the field of thermal engineering and thermodynamics, author of a multitude of scientific works and discoveries, many text-books and monographs, a teacher and an educator, an organizer of large-scale research projects and of local, state, and international conferences.

The beginning of his scientific activity relates to the dynamic development of a new stage in the heat-transfer theory at the end of the 1950's in solving the problems associated with the budding nuclear power engineering.

Upon graduation from the Power Engineering Institute G. A. Dreitser was invited by Head of the Institute's Department of Engines, É. K. Kalinin, to join his department for conducting fundamental work on new problems of creating heat exchangers for closed-cycle helium-based gas-turbine plants. The vigorous activity of the creative scientific collective aimed at searching for the means of enhancing heat transfer, required deep insight into the physical fundamentals governing the microprocesses on the heat transfer surfaces. Advancement along this path promoted formation of new scientific trends in the theory and practice of thermal processes, when radically new results could be attained due to the understanding of the micro- and macrostructure of heat-transfer surfaces.

Precisely in this area, the collective of scientists managed to establish, justify theoretically, and defend an important scientific discovery about the determining role of microturbulent vortices in the structures of heat-transfer surfaces in thermal processes. This discovery has made it possible to implement a new approach in solving practical problems of heat-transfer enhancement, when heat transfer overcomes an increase in resistance, thereby ensuring the needed decrease in the overall dimensions of heat exchangers. This gave rise to the most important precedent that pointing not only to new possibilities on the path of development of the heat and mass transfer theory, but of the theory of heat as a whole.

Large-scale studies of enhancement of heat transfer carried out under the leadership of Genrikh Dreitser had been continued at the Moscow Aviation Institute. The pedagogical activity of Professor Dreitser was also associated with the Moscow Aviation Institute where he proved to be a brilliant leader of a large research and teaching group. Under his supervision the key chair in the field of aviation and space thermal engineering, even during difficult years, continued to develop, carry out promising studies and developments, created new specialities, supported colleagues from other

institutions of higher education and countries, and developed research contacts abroad. At the Department, just as in the Scientific Council headed by him, there was always a creative, business-like and friendly atmosphere.

A special place in the activity of Genrikh Dreitser was occupied by scientific-organizational activity. He took an active part in the work of scientific and organizational committees of all the important local, state, and international conferences on heat and mass transfer, heat exchangers, and thermodynamics, served as the chief representative of the Russian Federation in editorial boards of international publications in the field of thermal engineering.

We must mention not only the breadth of his scientific interests and striving for deep understanding of the physical essence of thermophysical processes, but also the high humanistic qualities of Genrikh Dreitser. Possessing a rare quality of scientific insight, deep intuition, and courage, he defended not only his own ideas and achievements, but was able to esteem true worth of the achievements of his colleagues. Professor G. A. Dreitser was always ready to support new trends and young specialists.

After many-years experience of creative cooperation with Genrikh Dreitser, we can assert without exaggeration that his death is a great loss for the science of heat transfer.

Together with many colleagues in the countries within and outside of the former Soviet Union who cooperated with Genrikh Dreitser and felt his scientific talent and the highest human qualities, we deeply mourn his untimely and tragic death and present sincere heartfelt condolences to his relatives and friends, the staff of his department, and of the scientific council who suffered this terrible bereavement.

The memory of this outstanding scientist with the highest human qualities, our colleague and friend Genrikh Aleksandrovich Dreitser, will live for ever.

E. K. Kalinin

I. Z. Kopp

B. V. Dzyubenko