



OBITUARY

ALEKSANDR SAVVICH PREDVODITELEV 1891–1973

THE DEATH on December 27, 1973 of Aleksandr Savvich Predvoditelev, prominent Soviet physicist, Doctor of Physical and Mathematical Sciences, Professor of Moscow University, State Prize Winner, Corresponding Member of the USSR Academy of Sciences, Member of Honorary Editorial Advisory Board of the *International Journal of Heat and Mass Transfer* deprived the heat- and mass-transfer community an outstanding teacher and researcher.

Professor A. S. Predvoditelev was born on 11 September 1891 in the village of Burkino, the former Ryazan Province. After his graduation from the Ryazan Secondary School he entered the Physical and Mathematical Faculty of Moscow University.

In 1919 Professor Predvoditelev successfully passed Master's examinations and, on delivering two test lectures, got the right to teach at the Physical and Mathematical Faculty of Moscow University. This connection he maintained until the time of his passing.

Between 1919 and 1930 he worked at the Research Institute of Physics and Biophysics headed by the outstanding Russian physicist P. P. Lazarev.

From 1920 to 1923 he was a teacher at the Bauman Higher Engineering School. In 1930 he was nominated Professor and Head of the Chair of Thermal Physics at Moscow State University. From 1929 to 1937 Professor Predvoditelev was a consultant and then to 1952, a scientific director of the Physical and Engineering Laboratory of the Dzerzhinsky All-Union Institute of Thermal Engineering where extensive theoretical and experimental works were carried out concerned with solid fuel, hydrodynamics of two-phase systems, thermodynamic and transport properties of water and viscous vapour and of many other thermophysical problems.

From 1937 to 1946 Professor Predvoditelev was Dean of the Physical Faculty of Moscow University where he devoted himself to research and teaching. In

1938 at the Power Engineering Institute of the USSR Academy of Sciences Professor A. S. Predvoditelev organized Problem Laboratory on Combustion Physics and was Head of the laboratory to 1967. The experimental results on heterogeneous combustion obtained at this laboratory were summarized in the monograph "Coal Combustion" awarded with the State Prize in 1950.

Professor Predvoditelev contributed much to the preparation of launching the first space vehicles. One of the main results of his works in this field are the detailed tables of gas dynamic and thermodynamic values of air up to 20 000°K and of pressures between 0.001 and 1600 atm published from 1957 to 1962. In 1962 the Krzhizhanovsky Power Engineering Institute was awarded with a special medal in honour of the launch of the first man-made satellite of the Earth for the works carried out by Professor Predvoditelev and his group.

Professor Predvoditelev obtained fundamental re-

sults in the field of substance state, hydrodynamics, physics of combustion and explosion, physics of solids, physical acoustics of small and finite amplitudes, physical chemistry, and physics of discontinuous processes. He wrote more than 200 scientific works.

Professor Predvoditelev was a talented teacher of research workers. The wide scope of his knowledge and erudition, high demands and principles, profound perception of physical processes, unquestionable natural gifts, and high morals contributed much to the development and success of the organizations headed by him. His scientific, teaching, administrative and public activity was widely recognized and rewarded with numerous Government awards.

His modesty, simplicity, tactfulness and kindness to people won merited love and respect of all who knew him. He was fond of sports and painting.

The decease of the famous Soviet scientist Aleksandr Savvich Predvoditelev causes deep regret among the scientific community.