



S. S. KUTATELADZE ON THE OCCASION OF HIS SIXTY-FIFTH ANNIVERSARY

ON 18 July 1979 was the sixty-fifth anniversary of the full Member of the U.S.S.R. Academy of Sciences Professor Samson Semenovich Kutateladze. His first monograph "Fundamentals of Heat Transfer Theory During a Change of Aggregation States" was published 40 years ago, and this work of a young author immediately attracted the attention of scientists by its originality, its audacious approach to the solution of complicated problems and by the depth of physical intuition.

Since then, the works of S. S. Kutateladze have gained much world recognition. In 1969, for his eminent contributions to the science and art of heat transfer, he was presented with the Max Jakob Memorial Award by the American Society of Mechanical Engineers and the American Institute of Chemical Engineers.

S. S. Kutateladze is one of the organizers and a member of the Assembly of International Conferences on Heat Transfer, also a member of the Honorary Editorial Advisory Board of the International Journal of Heat and Mass Transfer. He is the author of 14 books, some of them being translated and published in the United States, Great Britain and Czechoslovakia.

One of the most important contributions of S. S. Kutateladze is the discovery of similarity conditions in thermohydrodynamic processes during a change of aggregation states and the development of the hydrodynamic theory of heat transfer crises in boiling liquids. Later on, the principle of flow analysis in terms of the hydrodynamic stability was used to define the conditions for various gas-liquid flow regimes. S. S. Kutateladze actively participated in the studies to develop Soviet atomic energetics. Under his leader-

ship, a series of theoretical and experimental studies on heat transfer in liquid metals were performed.

Starting in the fifties, S. S. Kutateladze has given much attention in his studies to the hydrodynamics of single-phase liquids, primarily to the theory of wall turbulent flows. In 1959, he discovered the existence of the finite value of relative friction factor with infinitely increasing Reynolds number. In cooperation with A. I. Leontiev, he developed the theory of a turbulent wall boundary layer with vanishing viscosity. In particular, in terms of this theory several fairly simple calculation formulae were obtained taking into account the influence of pressure gradient, diffusion, non-isothermality and compressibility of flow on the friction and heat transfer.

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S. S. Kutateladze has always combined his scientific activity with teaching. He heads the Department of Thermophysics at the Novosibirsk University. More than 80 of his pupils have been awarded doctors' and candidates' degrees.

S. S. Kutateladze has celebrated his sixty-fifth anniversary in the prime of his creative power. At present, he is the Director of the Institute of Thermophysics (Siberian Branch of the U.S.S.R. Academy of Sciences, Novosibirsk). His keen sense of the new and the rejection of traditional ways to solve problems create an atmosphere of continuous scientific search in the Institute which he heads.

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