

**OLEG GRIGORIEVICH MARTYNIENKO**  
(On his 60th birthday)



On the 12th of March 1996 prominent scientist in the field of thermal physics, power engineering, and mechanics, Director of the Academic-Scientific Complex "A. V. Luikov Heat and Mass Transfer Institute" of the Academy of Sciences of Belarus, Editor-in-Chief of the *Journal of Engineering Physics*, Academician O. G. Martynenko celebrated his 60th birthday.

O. G. Martynenko graduated from the Czech Higher Technical College in Prague in 1959 and, starting in 1963, began his creative life as a scientist at the Institute of Heat and Mass Transfer, within whose precincts he worked his way up from engineer to leader of a large academic collective body. Being a pupil of A. V. Luikov, O. G. Martynenko, from his first years at the Institute, became fully absorbed in scientific investigations, taking an active part in molding a new aspect of the Institute. (Called earlier the Institute of Energetics, in 1963 it was renamed the Institute of Heat and Mass

Transfer, thus reflecting substantial changes in research goals.) A high creative intellectual potential, energy, a rare capacity for work, and enthusiasm allowed him constantly, successfully, and on a large scale to combine scientific, scientific-organizational, pedagogical, and social activity.

Academician O. G. Martynenko made basic contributions to the development of such scientific trends as convective heat transfer, aerothermooptics, and combined radiative-conductive-convective heat and mass transfer in interaction of a powerful radiation with a substance (capillary-porous materials, homogeneous media). Investigations carried out by O. G. Martynenko and his pupils in the field of free-convective heat transfer have become generally recognized. The outcomes of his studies were generalized by him in fundamental scientific works and reference books that provide bases for the design of new technology. O. G. Martynenko pioneered in the investigation and development of effective methods and equipment for controlling laser radiation propagation in the atmosphere. This resulted in the formation of the dynamically developing trend of aerothermooptics, which investigates the interaction of electromagnetic fields with media with allowance for heat and mass transfer.

At the Laboratory of Energy Transfer created by O. G. Martynenko investigations into the hydrodynamics and heat transfer of a wide class of fluid shear flows under various thermal and hydrodynamic boundary conditions in channels with a complicated shape, in jets, etc. have been carried out. With the advance of the laser communication technique that employs laser lightguides as channels for communication, studies of correcting elements on the basis of convective gas lenses assumed particular urgency. Different types of controlled gas lenses were investigated for creating optimal focusing elements. As a result of investigations of the interaction between powerful radiation fluxes and capillary-porous materials physicomathematical models and procedures were suggested for calculating thermoelastic stresses in complex multilayer targets.

The works carried out by O. G. Martynenko with co-workers on the problems of the thermophysics of the process of drawing an optical fiber, heat transfer, and gas dynamics in vortical atmospheric formations have acquired of great scientific and practical importance.

O. G. Martynenko initiated new conceptual approaches to the solution of the problem of the production and consumption of energy. He made a great contribution to the development of scientifically justified energy-saving policy and practice, took an active part in the formation of the Republican Scientific-Technical Program "Energy Saving" and in the Energy Program of the Republic of Belarus, and participated in the development of a new state policy in the field of power engineering and energy saving.

Academician O. G. Martynenko authored and co-authored more than 260 scientific works, including 11 monographs and more than 100 inventions. He has been advisor for five completed Doctor of Sciences theses and 32 completed Candidate of Sciences theses. He carries out an extensive and fruitful scientific-organizational and scientific-pedagogical work as chairman and member of a number of scientific and specialized councils, editor of scientific journals, professor at the Belarussian State University, member of the American Society of Mechanical Engineers, etc.

O. G. Martynenko is a skillful organizer of science. Under his leadership the collective of the Academic-Scientific Complex "A. V. Luikov Heat and Mass Transfer Institute" of the Academy of Sciences of Belarus have made great achievements in science, training of personnel, introduction of scientific results into practice. In recent years reorganizations were made at the Institute for the good of the science and scientific-technical progress (the creation of the academic-scientific complex as an experiment, development of promising new scientific trends, and the formation of scientific subdivisions for the development of the latter). Academician O. G. Martynenko is supervisor and coordinator of a number of large projects and programs that are of greatest importance for the Republic of Belarus; many times he has acted as a leading expert in adopting decisions and preparing documents at the governmental level in the field of power engineering, usage of fuel-power resources, and in energy saving.

Academician O. G. Martynenko enjoys high prestige among the widest circles of scientists and engineers, thermal physicists and power engineers of many countries of the world.

O. G. Martynenko meets his 60th birthday in the prime of his life. We wish him sound health, many happy returns of the day, new creative achievements for the benefit of science and scientific-technical progress, happiness, and all the best.

*S. A. Astapchik, M. S. Vysotskii,  
V. L. Dragun, N. V. Pavlyukevich,  
Z. P. Shulman*