

VALERII VLADIMIROVICH KRASNIKOV ON HIS  
FIFTIETH BIRTHDAY AND TWENTY FIVE YEARS OF  
SCIENTIFIC-PEDAGOGICAL ACTIVITY



On October 28, 1972 Professor Valerii Vladimirovich Krasnikov, Dr. Tech. Sci., the prominent Soviet scientist, engineer, and Director of the Physics Chair at the Moscow Technical Institute of the Food Industry celebrated his fiftieth birthday and completed twenty five years of scientific and pedagogical activity.

V. V. Krasnikov was born in Tambov. After graduation he joined the ranks of the Soviet Army in the Great Patriotic War and, serving on many fronts, moved all the way from the Caucasus to Berlin and Prague.

After completing, with distinction, his studies at the Moscow Technical Institute of the Food Industry in 1951, V. V. Krasnikov continued at the Physics Chair here on a fellowship under the guidance of Academician A. V. Lykov (member of the BSSR Academy of Sciences) and, having received a thorough theoretical background in thermophysics, completed and defended his Candidate's dissertation in 1955. From then on V. V. Krasnikov has been engaged in scientific and pedagogical work, as an assistant, then lecturer, and finally head of the Physics Chair. His theoretical and experimental studies have been recognized in academic circles and have found wide practical applications in several branches of industry. After having successfully defended his Doctor's dissertation in 1968, V. V. Krasnikov received the title of Professor.

V. V. Krasnikov is a great expert on transport phenomena in capillary-porous media and disperse systems, on experimental methods of determining the optical and thermoradiation properties of materials, also on desiccation technology.

Widely known are his studies concerning the desiccation process with conductive or compound modes of heating, and concerning various technological processes with high-intensity energization.

On the basis of original analytical research, experiments, and extending the work of other Soviet as well as foreign scientists, Valerii Vladimirovich developed a theory of heat and mass transfer in capillary-porous media during conductive or compound-heat desiccation and found an explanation for the extremum on temperature curves.

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The general kinetic laws established by V. V. Krasnikov became the basis on which he developed a method of universal curves and of generalizing the desiccation rate — a method very successfully used by many specialists in experimental research as well as in desiccation theory and practice.

V. V. Krasnikov is a pioneer in the application of combined problems of heat conduction with moving boundaries.

Of great value is that his studies produce engineering solutions to problems of streamlining and intensifying the process of conductive or compound desiccation, which have so far been used widely in the cellulose-paper, the food, and the light industry for the manufacture of roofing and waterproof materials. The work of Valerii Vladimirovich and his students represents a fundamental contribution to the further development of heat and mass transfer theory as applied to desiccation, while the methods they have developed for calculating the process kinetics fill the gap between theory and practice as far as the desiccation of moist materials is concerned, which amounts to a major achievement in desiccation theory and technology.

V. V. Krasnikov is also well known for his significant studies concerning the radiative transfer of infrared energy in capillary-porous colloids as well as the optical and the thermoradiation characteristics of various selectively absorptive and dispersive material.

Under V. V. Krasnikov's direction, at the spectrophotometric laboratory of the Physics Department there are taking place successful developments in the study of optical and thermoradiation characteristics, in the methodology and the instrumentation for determining these characteristics, and in the methodology of designing the processes of thermal and hydrothermal treatment of materials with due consideration of these characteristics.

V. V. Krasnikov has published over one hundred scientific articles and monographs known to a large scientific-engineering community in this country and abroad.

Valerii Vladimirovich is a highly qualified teacher and educator of young students and fellows, who are attracted to him on account of his erudition, kindness, and wide scope of interests.

V. V. Krasnikov actively participates in societal organization work, he is Vice-President of the Scientific-Methodology Council on Physics at the USSR Ministerium of Higher and Secondary Specialized Education, he is also a member of the Science-Engineering Commission at the Government Committee of the USSR Council of Ministers.

Valerii Vladimirovich is performing an important function as Vice-President of the Committee for organizing and conducting the All-Union Scientific-Technical Conference on Desiccation, in which he was most active, and in various other conferences on desiccation problems in various areas of the domestic industry.

Valerii Vladimirovich Krasnikov is the recipient of the Second-Degree Order of the Patriotic War, the Order of the Red Labor Banner, and of six medals.

His high qualities as scientist and administrator, his tact and attentiveness toward those around him, have earned V. V. Krasnikov a lot of authority and respect.

We warmly and cordially congratulate Valerii Vladimirovich on his fiftieth birthday, wishing him good health and further accomplishments in his scientific and pedagogical activity.