
VOLODYMYR OLEKSIYOVYCH SEMENYUK

(Dedicated to the 75-th anniversary)



On February 3 this year Volodymyr Oleksiyovych Semenyuk, a well-known scientist in thermoelectricity, academician of International Thermoelectric Academy, celebrated his 75th birthday.

In 1960 he graduated from Odessa State Academy of Refrigeration. For many years the scientific and pedagogical activity of Volodymyr Oleksiyovych has been related to this academic and research institution.

The research interests of V.O. Semenyuk were formed immediately under the influence of the founder of scientific school in the field of power engineering and refrigeration technology, professor V.S. Martynovsky, the scientists in thermoelectricity A.F. Ioffe, L.S. Stilbance, E.K. Iordanishvili and others.

Volodymyr Oleksiyovych made a major contribution to study of nonequilibrium thermodynamics and physics of thermoelectric effects. He was the first to solve a variety of variational problems as applied to thermoelectricity which made the basis for creation of modern computer methods for design of thermoelectric instruments and devices.

The scientist has solved a series of important engineering problems of thermoelectricity, in particular, the problems of heat exchange in thermoelectric devices, efficiency increase of multi-stage coolers, the problems of using the bulk thermoelectric cooling elements with programmed inhomogeneous legs. He studied and successfully solved contact problems in thermoelectric coolers, which allowed creating efficient microminiaturization technologies of thermoelectric devices. The theory and practice of thermoelectric instrument making was developed, the parametric series of thermoelectric micromodules were created which defy competition on global markets. In the development of some thermoelectric projects V.O. Semenyuk successfully cooperated with many scientific centers in the USA and Western Europe.

V.O. Semenyuk is the author of over 100 scientific works, certificates of authorship and patents, notably a monograph (in co-authorship with academician L.I. Anatyshuk) “Optimal Control over the Properties of Thermoelectric Materials and Devices”. In 2006 and 2012 the results of his research in the theory and practice of thermoelectric instrument making were included as chapters into international handbooks “Thermoelectrics Handbook: Macro to Nano” and “Thermoelectrics and its Energy Harvesting”

Volodymyr Oleksiyovych gives special attention to training high-skilled scientific brainpower. He is an outstanding lector whose reports to scientific conferences and international forums arouse much interest and admiration among the attendees.

In recognition of the international level of his scientific achievements, V.O. Semenyuk was elected in 1995 full member of the International Thermoelectric Academy. V.O. Semenyuk is a member of the International and European Thermoelectric Societies, a member of American Institute of Aeronautics and Astronautics, a member of the Board of Directors of the European Thermoelectric Society.

International Thermoelectric Academy, Institute of Thermoelectricity of the National Academy of Sciences and Ministry of Education and Science, Youth and Sports of Ukraine, “Journal of Thermoelectricity” Publishers sincerely congratulate the esteemed Volodymyr Oleksiyovych on his glorious 75th jubilee, wishing him good health and happy longevity!