

Scientific School B.T. Boyko in the Field of Thin Film Solar Cells

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One of the most perspective forms of renewable energy in Ukraine is solar energy.

This year would have been 85 years since the day of birth Doctor of Sciences, Professor Boyko Boris Timofeevich, alumnus of L.S. Palatnik scientific school in the area of thin films physics. In 1973 prof. Boyko B.T. during 6 years worked in Paris in the UNESCO department of science. During the energy crisis in Europe (1974-1975), he led the program of using solar energy in the world. After returning Ukraine in 1979, he continues to work as professor of "The Physics of Metals" department in National Technical University (NTU "KhPI"). All scientific potential accumulated over the years at UNESCO, international relations and numerous contacts he acquired it using to develop new subjects - the conversion of solar energy into electrical in Ukraine. According to the decision of the Ukrainian government for prof. Boyko B.T. laboratory in Kharkiv allocated the building on the Gamarnika street, 2, where in 1988 he organized the "Materials for electronics and solar cells" (MESC) department. It was the first in the USSR department that prepares specialists in the field of solar energy. In the 90 years Boyko B.T. puts a lot of effort to work with foreign partners, signed new contracts, projects, through which members of the MESC department could go for an internship in Germany and Switzerland. The MESC department becomes the sole representative of Ukraine - European party programs on the use of solar energy (INTAS), as well as an associate member of Solar Energy Center in Germany (Stuttgart). In the list of Boyko B.T. publications - 214 publications, including 52 published in foreign journals, 18 copyright certificates, 4 textbooks and teaching aids. In 1997 prof. Boyko B.T. was awarded the title "Honored Worker of Science and Technology". In NTU "KhPI", he created a scientific school for the development of physical principles and technology of efficient film solar cells for terrestrial applications.

After 2009 year MESC department participated in 10 international projects. Staff of department published more than 100 scientific articles, including 30 in journals included in SCOPUS database, 5 manuals, defended 8 PhD and 2 doctoral dissertations and received 10 patents, including one international. This year, three young researchers of the MESC department were awarded by the State Prize of Ukraine for young scientists.