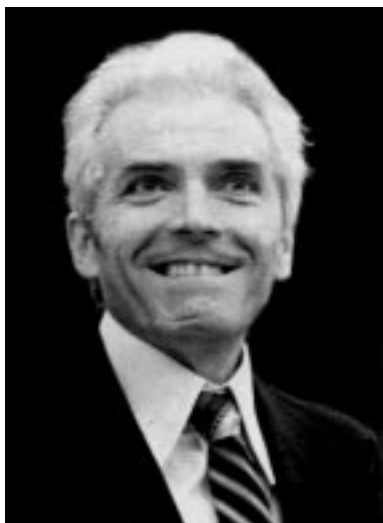

MYKOLA GRYGOROVYCH NAKHODKIN (on his 80th birthday)



On January 25, the scientific community of Ukraine congratulated Mykola Grygorovych Nakhodkin, the well-known scientist in the field of physical electronics and surface physics, two times the laureate of the State Prize of Ukraine, the Honored Worker in science and technique, Professor of Taras Shevchenko Kyiv National University, Academician of the Academy of Sciences of Ukraine, with his 80-th birthday.

Since 1950, the whole scientific and labor career of M.G. Nakhodkin has been connected with Taras Shevchenko Kyiv National University. For 26 years, M.G. Nakhodkin had been the head of the Chair of Cryogenic and Microelectronics that he had created in 1972. In 1972–1990, he was the dean of the Radiophysical Faculty of the University.

M.G. Nakhodkin's scientific activity began by studying the interactions of electrons and soft x-rays with solids. He has clarified the basic regularities of the inelastic scattering of intermediate-energy electrons in solids and has been proved the essential role of multiple scattering cascades. These studies have favored

the development of the physical fundamentals of the production technology of vacuum devices and played a significant role in the design of radiation protection systems for cosmonauts and space equipment.

In 1953, M.G. Nakhodkin started to study the emission phenomena, in particular, secondary electron emission. No later than in his first works, it has been established that the analysis of differential emission characteristics allows one to obtain the data concerning the behavior of excited electrons in solids. The subsequent years have demonstrated that the approach proposed by M.G. Nakhodkin is very fruitful in the physics of emission phenomena. Now, it serves as a basis of the modern electron spectroscopy in surface physics. In the field of surface diagnostics, ionization spectroscopy (IS) and its variants gained a substantial impetus. This direction keeps on developing successfully, in particular, the transition from qualitative to quantitative IS is realized. The achievements of IS are summarized in the world's first handbook "The Atlas of Ionization Spectra" (Kyiv, "Vyshcha Shkola", 1989; see English translation <http://www.is.univ.kiev.ua/Background/index.html>) and in the monograph "Ionization Spectroscopy" (Kyiv, "Lybid", 1992) written by M.G. Nakhodkin and his disciples.

The application of a two-channel laser mass-spectrometer developed by M.G. Nakhodkin made it possible to improve the methods of criminalistic expert examinations. Moreover, this device is used when diagnosing the state of the environment and studying the influence of the pollution by heavy metals on the human health. The genuineness of "Glagolitic Sheets", a written memorial of the Slavonic culture of the IXth century, has also been established by making use of this device.

M.G. Nakhodkin was one of the inventors, who developed the information registration on thermoplastics. He has developed the physical basis

of this direction, which made it possible to create domestic materials which are better than their foreign counterparts by a number of parameters. With his participation, the production of thermoplastic media for information recording has been commercialized and semi-analog computers with optical communication channels have been developed.

Pioneer are his results dealing with the determination of a structure of amorphous films. They became the basis for the mathematical simulation of a growth of amorphous condensates.

Several years ago, M.G. Nakhodkin initiated the development of the method of scanning tunnel microscopy and spectroscopy in Ukraine. He took part in the creation of an ultrahigh-vacuum scanning tunnel microscope, being the first in the CIS states, which allows one to investigate the processes occurring on the solid surface on the atomic scale.

In general, M.G. Nakhodkin has published more than 300 scientific works, three of them being monographs, 3 manuals, and 37 inventor's certificates.

M.G. Nakhodkin is a talented teacher. Among his disciples, there are 6 Doctors of Science, 26 Candidates of Science, and several laureates of the State Prize in the field of science and technique. He puts a lot of his forces and energy into the scientific and organizational activity. Mykola Grygorovych was one of the initiators of the establishment of the National Council on Science and Technology Issues and was its Head. He is one of the founders and the first President of the Ukrainian Committee of the Radio Union (the URSI branch), the

member of Academic councils on physical electronics and holography of the Academy of Sciences of the USSR and several Academic councils of the National Academy of Sciences of Ukraine, the founder and the Editor-in-chief (during 20 years) of the interdepartmental collection "Fundamentals of Optical Memory and Media", the member of editorial boards of the "Ukrainian Physical Journal" and the "Physical Encyclopaedia". M.G. Nakhodkin is the scientific supervisor of several interdepartmental scientific programs and the programs of the Ministry of Education and Science of Ukraine. Now, M.G. Nakhodkin is a member of the Bureau of the Division of Physics and Astronomy of the National Academy of Sciences of Ukraine, the member of the Higher Certifying Commission of Ukraine, and the co-director of the Ukrainian-Russian scientific program "Nanophysics and Nanoelectronics".

M.G. Nakhodkin's merits are awarded the "Sign of Honor" order, several medals, the Certificate of Honor of the Presidium of the Verkhovna Rada of the UkrSSR, and the Certificate of Honor of the Verkhovna Rada of Ukraine.

We sincerely wish the strong health, fruitful activity for the welfare of renovated Ukraine, new creative achievements, and all the best in life to dear Mykola Grygorovych.

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