



*Institute for Solid State Physics and Optics
Wigner Research Centre for Physics*

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Budapest, 8th June, 2023

To: Prof. Smolanka V.I.,
Rector of Uzhhorod National University,
Narodna Sq. 3
88000 Uzhhorod,
Ukraine

Certificate

I hereby confirm that Dr. Mykhaylo Pop have successfully completed his online scientific training at the Department of Applied and Nonlinear Optics, Wigner Research Centre for Physics during May 3 – May 31, 2023 learning the general principles of Raman and IR spectroscopy and their applications for material characterization, especially to study the structure of superionic semiconductors.

The online training includes in particular improvement of sample preparation technology, Raman spectroscopy, data processing and spectra analysis as well as computer simulations and *ab initio*/DFT calculations (90 hours in total). As a result of this training, the special educational guide on peculiarities of structural study of superionic semiconductors by Raman spectroscopy was developed.

This training was coordinated by Dr. Miklos Veres.

Sincerely yours,



Dr. Miklos Veres, PhD, DSc

Head of the Department of Applied and Non-linear Optics
Wigner Research Centre for Physics