



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

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Budapest, 10th January, 2022

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

Certificate

I hereby confirm that Prof. Volodimir Mitsa have successfully completed his advanced scientific and pedagogical training at the Department of Applied and Nonlinear Optics, Wigner Research Centre for Physics during Dec. 6 – Dec. 20, 2021 carrying out the scientific research in the field of photosensitive photonic media. The online training took 180 hours in total and includes in particular molecular modeling (60 hours), *ab initio* calculations (80 hours) and simulations of Raman spectra of As-S chalcogenide nanoclusters (40 hours). 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