



81st International Scientific
Conference of the
University of Latvia 2023

Atomfizika, optiskās
tehnoloģijas un medicīnas
fizika

Atomic physics, optical
technologies and medical
physics

Friday, 17 February 2023, 10.00 AM, online MT

Programma/Programme

Vadītājs/Chair: Dr. Mindaugas Tamosiunas		
10.15–10.30	Kalvis Salmiņš <i>Institute of Astronomy, University of Latvia</i>	The First Satellite Photometry Results at the Satellite Laser Ranging Station 1884
10.30–10.45	Dr.Uldis Bērziņš <i>Institute of Atomic Physics and Spectroscopy, University of Latvia</i>	Development of Ion Sources on Ion beam Apparatus GRIBA
10.45–11.00	Dr. Roman Vīter <i>Institute of Atomic Physics and Spectroscopy, University of Latvia</i>	Structural, optical and photoelectrochemical properties of Fe₂O₃/ZnO core-shell nanofibers
11.00–11.15	Dr. Teodora Kirova <i>Institute of Atomic Physics and Spectroscopy, University of Latvia</i>	Structural, electronic and optical properties of wurzite ZnO from first principles
11.15- 11.30	Danute Stivriņa <i>Institute of Atomic Physics and Spectroscopy, University of Latvia</i>	Quality control of photoinitiators of UV-curable coatings using spectroscopy methods
11.30-12.30	Kafijas pause/ Coffee break,	
Vadītājs/Chair: Dr.Maksym Pogorielov		
12.30–12.45	Dr.Mindaugas Tamosiunas <i>Institute of Atomic Physics and Spectroscopy, University of Latvia</i>	Ultrasonic cavitation reveals Candida albicans pathogen growth on polycaprolactone microfibers containing selenium nanoparticles
12.45-13.00	Iryna Tepliakova <i>University of Latvia,</i>	ZnO tetrapods/modified salan type ligands nanocomposites for optical detection of Cu²⁺ ions

	<i>Institute of Atomic Physics and Spectroscopy; Odesa National I.I. Mechnikov University, Department of Experimental Physics</i>	
13.00–13.15	<i>Kateryna Diedkova</i> <i>Institute of Atomic Physics and Spectroscopy, University of Latvia, Sumy State University</i>	Polycaprolactone-MXene nanocomposites for cardiac tissue engineering
13.15–13.30	<i>Ilya YANKO</i> <i>Biomedical Research Center, Sumy State University</i>	Antibacterial effectiveness of PCL-MXene electrospun membrane after plasma treatment
13.30–13.45	<i>VARAVA, Yuliia</i> <i>Biomedical Research Center, Sumy State University; Silesian University of Technology</i>	Effect of silver nanoparticles on antibacterial properties of Ti13Nb13Zr alloy after plasma electrolytic oxidation
13.45-14.00	Noslēgums, diskusijas Conclusions, discussions	