

The Institute's employees, within the framework of the joint project Marie Skłodowska-Curie Action: Research and Innovation Staff Exchange (Call: HORIZON-MSCA-2022-SE-01) Grant Agreement 101129879 DETMED “Novel Detector Concept for Medical Gamma Probe” from 13.01.2025 to 11.02.2025, had a secondment to the Institute of Radiation Problems and SETM Limited Liability Company, The Republic of Azerbaijan, Baku. The visit was carried out to conduct joint research and implement WP1 – Innovative SiPM samples Preparation and Testing and WP2 - Investigation of parameters of scintillation materials and calculation in accordance with the Grant Agreement.



A working meeting was held with colleagues from Azerbaijan, at which a research plan was developed.

During the internship within the project an oral report is provided by Oleksandra Berezhnytska («Structure and properties of monomeric and polymeric coordination compounds of lanthanides») and "The influence of morphology and dispersion on the luminescent properties of lanthanide (III) complexes".





As part of the friendly visit, Azerbaijan Republic Ministry of Science and Education Institute of Radiation Problems was visited.

A study of new polymer scintillators based on yttrium-aluminum garnet was conducted. The study aimed to create films of various thicknesses (from 100 μm to 2 mm) and characterize their efficiency as scintillators.

The performance of the photodiode was studied using three key analyses: current-voltage (VA) characteristics under different lighting and bias conditions, spectral sensitivity in the range of 300–1100 nm using monochromatic light sources, and stability after irradiation.



The institute's employees, within the framework of the joint project Marie Skłodowska-Curie Actions Staff Exchange (SE) Call: HORIZON-MSCA-2022-SE-01 “DETMED - 101129879” Novel detector concept for medical gamma probe” Yuriy Bacherikov and Oleksandra Berezhnytska, participated in the Midterm Meeting, which took place on February 20, 2025 at Universidade Lusófona – Centro Universitário de Lisboa Campo Grande 376, 1749-024, Lisboa. The employees presented a brief report on the project implementation, main achievements and problems.