

**Session Program**

27–31 Oct 2025

**29th International Scientific Conference of Young  
Scientists and Specialists (AYSS-2025)**

***Condensed Matter Physics***

# Monday 27 October

12:00

## Condensed Matter Physics

Session | Location: MLIT, 3d floor, 310

12:00–12:15

**From Ion Tracks to Nanoscale Holes in Oxide Semiconductors: Swift Heavy Ion Engineering of BiVO<sub>4</sub> for Solar Water Splitting**

**Speaker**

Marko Jelić

12:15–12:30

**The alteration of Li<sub>2</sub>SrSiO<sub>4</sub> via Ga doping for application in LEDs**

**Speaker**

Rethabile Phokojoe

12:30–12:45

**ELECTROPHYSICAL PROPERTIES OF n-Si<Pd>, IRRADIATED WITH GAMMA-RAYS**

**Speaker**

Dilmurod Rakhmanov

12:45–13:00

**Insights on Structural and Morphological Properties of Titanium Doped Li-Rich Layered Cathodes**

**Speaker**

Moloko Emmanuel Kgoedi

13:00

14:00

## Condensed Matter Physics

Session | Location: MLIT, 3d floor, 310

14:00–14:15

**INTERACTION OF THE ANTI-CANCER DRUG SULFORAPHANE WITH DMPC MODEL LIPID MEMBRANES**

**Speaker**

Марина Науменко

14:15–14:30

**SIMULATION OF A NEUTRON REFLECTOMETRY EXPERIMENT FOR A HELICOID**

**Speaker**

Roman Sadradze

14:30–14:45

**NEUTRON DIFFRACTION STUDIES OF FUNCTIONAL ALLOYS Fe-Ga-RE**

**Speaker**

Bekarys Yerzhanov

14:45–15:00

**Supramolecular organization of copper-coordinated segmented polyurethanes according to SAXS data**

**Speaker**

Zheng Li

15:00–15:15

**Impact of He<sup>+</sup> ion irradiation on CuO nanostructures: defect formation and structural analysis**

**Speaker**

Silvia María Fortuné Fábregas

15:30

16:00

**Condensed Matter Physics**

Session | Location: MLIT, 3d floor, 310

**16:00–16:15** Concept of the Bragg monochromator for very cold neutrons**Speaker**

Ms Victoria Shpilevskaya

**16:15–16:30****Investigations of depth profile of native oxide layers covering GaAs implanted with noble gas by Rutherford Backscattering Spectroscopy with Nuclear Reaction****Speaker**

Hoa Bui

**16:30–16:45****Investigation of non-stoichiometric  $\text{Zn}_x\text{Fe}_2\text{O}_4$  ( $x = 0.95, 1.00, 1.05$ ) nanostructures for the detection of toxic and flammable gases****Speaker**

VUYOLWETHU Mhlebi

17:00

## Tuesday 28 October

12:00

### Condensed Matter Physics

Session | Location: MLIT, 3d floor, 310

12:00–12:15

**Bioengineering of Zinc orthotitanate nanomaterials using hibiscus sabdariffa: electrochemical, and photocatalytic applications**

Speaker

Adama FALL

12:15–12:30

**A unique radio-sensitive 1D photonic crystal detector based on utilizing polymer of polystyrene blue in visible region.**

Speaker

Mai El Sayed

12:30–12:45

**The Myth of the Resistive Transition: Decoupling Dissipation from Irreversibility Field in Coated Conductors**

Speaker

Valentin Guryev

12:45–13:00

**Influence of the Initial Chemical Composition of Fe–Ga–Ge Alloys on the Sequence of Phase Transformations**

Speaker

Ms Anna Zakharova

13:00

14:00

15:30

### Condensed Matter Physics

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16:00

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17:00

Wednesday 29 October

12:00  
13:00  
14:00  
15:30

**Condensed Matter Physics**  
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## Thursday 30 October

12:00

13:00

14:00

15:30

### Condensed Matter Physics

Session | Location: MLIT, 3d floor, 310

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