

# **SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA**

Uprzejmie zawiadamiamy, że w **środę**

**14 października 2020 r., o godz.10:00**

odbędzie się seminarium **on-line (link podany jest na stronie IFPAN)**,  
na którym

**mgr Artem Lynnyk**

*Instytut Fizyki PAN, Warszawa*

wyłosi referat na temat:

**“Thermodynamic properties of superconducting iron chalcogenides intercalated with organic molecules”**

Iron selenides form a wide family of unconventional second type superconductors. Pure non-stoichiometric FeSe<sub>1-x</sub> reveals the transition to the superconducting state at 8 K under the ambient pressure, while the varying of the external pressure increases the transition temperature T<sub>c</sub> to about 30 K. The intercalation of the alkali metals together with organic compounds results in augmentation of charge carriers and in change of intrinsic chemical pressure, which helps to achieve transition temperature of 43 K. Coexistence of magnetic order together with superconducting state in these compounds makes magnetic investigations highly important and helps to shed light on the impact of magnetic order. Thermodynamic properties of the compounds with general chemical composition (A-O)<sub>x</sub>(FeSe<sub>z</sub>Ch<sub>1-z</sub>)<sub>y</sub> (A – alkali metal, O – organic, Ch – chalcogen) have been investigated by means of SQUID magnetometer. The upper critical field H<sub>c2</sub> and coherence length  $\xi$  have been determined using ac susceptibility measurement technique. Magnetic measurements revealed the presence of irreversible properties being a consequence of high inhomogeneity and existence of magnetic phase in the studied system.

Serdecznie zapraszamy  
Roman Puźniak / Andrzej Szewczyk