

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Uprzejmie zawiadamiamy, że w **ŚRODĘ**

15 grudnia 2010 r., o godz. 10:00

w sali 203 (bud. 1) odbędzie się seminarium, na którym

Prof. E. Aksimentyeva

Ivan Franko National University of Lviv, Ukraine,

wyłosi referat na temat:

„Conducting polymers and polymer-magnet nanosystems”

Conducting polymers are the most interesting class of low-dimension materials. These polymers exhibit semiconductor properties as a result of existence the conjugated π -electron bonds in polymer chain. Organic magnets may be both the pure organic compounds and the polymer ferromagnets containing the Fe, Mn, Co and Ni dopants considered as molecular magnets. Nanoparticle polymer-magnet composites have unique properties which causes an application of these materials in molecular electronics, in biology and medicine.

In this lecture the main methods of obtaining of the hybrid composites based on conducting polymers or magnetic nanoparticles will be considered. Structure of the obtained polymer-magnet composites were studied by X-ray diffraction, Raman spectroscopy and electron microscopy. Conducting polymer-magnetite composites are found to exhibit both electrical and magnet functions. Investigation of mechanical, thermal and thermo-mechanical properties of hybrid composites have been carried out. We have determined the optimal interval of magnetite content provided a compacting of composites and increasing of their mechanical hardness, glass transition and flow temperature.

Serdecznie zapraszamy

Roman Puźniak
Henryk Szymczak
Andrzej Wiśniewski