

# **SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA**

Uprzejmie zawiadamiamy, że w **ŚRODĘ**

**28 marca 2012 r., o godz. 10:00**

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

**Prof. E. Aksimentyeva**

*Ivan Franko National University of Lviv, 6 Kirila-Mefodia, 79005, Lviv, Ukraine*

wyłosi referat na temat:

## **„Electronic and optical transitions in conjugated polymer systems”**

Polymer systems with conjugated double bonds show an electrical conductivity in doped states (*p*-doping or *n*-doping) and are insulators when they are undoped. As a result of electrochemical doping-dedoping processes, the electronic properties of the conjugated polymer can be essentially varied. This corresponds to modified optical properties and is related with color changes. It is believed that electrooptic phenomena are determined by energetic properties of organic molecules in the ground and excited states. Change of color is associated with the injection or extraction of charge, which accompanies the oxidation-reduction processes in the polymer chains. After the discovery of electrochromic effect, many inorganic and polymeric materials have been used for industrial applications. This report presents the new approaches to obtain the multicolor and hybrid films based on conducting polymers and composites as well as the interconnection of electronic transitions with electrochemical and optical response in conjugated systems. The electrochromic layers of conjugated polymers with electron and ionic conductivity were obtained on the transparent electrodes by the method of electrochemical polymerization.

Serdecznie zapraszamy

Roman Puźniak  
Henryk Szymczak  
Andrzej Wiśniewski