

MIMOŘÁDNÝ ÚSTAVNÍ SEMINÁŘ

2. část vystoupení navrhovatelů v rámci konkurzu AV ČR pro nákup nákladných přístrojů pro rok 2018 - přístroje s cenou nad 5 mil. Kč bez DPH

**proběhne ve středu 10. 5. 2017 od 13:30
v přednáškovém sále Fyzikálního ústavu AV ČR
na Slovance**

Program:

1.) Ing. Markéta Jarošová, Ph.D. (oddělení 19, sekce 3):

Electron probe microanalyzer for X-ray microanalysis (EPMA)

The object of this application is the replacement of electron probe microanalyzer by a new one due to the ending of the lifetime period of present microanalyzer. EPMA is used for non-destructive elemental analysis and imaging of surfaces of solid materials. The combination of five wavelength dispersive X-ray spectrometers (WDS) and one energy dispersive X-ray spectrometer (EDS) enables quantitative and qualitative analysis of elements from B to U. It is possible to analyse the trace elements, thin layers or light elements, because of high spectral resolution of WDS.

2.) RNDr. Jiří Kroll, Ph.D. (oddělení 33, sekce 1):

Semi-automatic Probe Station for testing of silicon sensors

Semi-automatic Probe Station with the integrated system of temperature and relative humidity control is an essential equipment of all modern laboratories dedicated to the research and development of semiconductor technologies. The requested device represents present state-of-the-art of semiconductor testing technology. Its main goal is to measure complete electrical properties of 4500 silicon sensors of the EndCap type which will be used to build new tracker of ATLAS experiment installed on High-Luminosity LHC accelerator. At the same time, operational temperature between -40 and +200 C makes possible to test silicon sensors irradiated by the intensive beams of protons, neutrons and gamma particles. This research will result in the development of new radiation hard particle detectors as well as other semiconductor components resistant to damage caused by different types of radiation.

3.) Ing. Marián Varga, Ph.D. (odd. 27, sekce 3):

Deep Reactive Ion Etching vacuum system

In this presentation, the current state of Reactive Ion Etching systems will be summarized. Basic technological principles and advantages of the Deep Reactive Ion Etching (DRIE) vacuum system for the fabrication of high aspect ratio perpendicular deep etchings will be presented. Benefits of the DRIE system in terms of wide range cross-departmental research activities carried out at the Institute of Physics will be emphasized.

Vystoupení navrhovatelů budou mít délku 20 minut, po každém bude následovat diskuse v délce max. 10 minut.

RNDr. Michael Prouza
ředitel Fyzikálního ústavu AV ČR