

# SEMINARIUM RENTGENOWSKIE

Dnia 12.01.2016r. o godz. 10.30, w sali D Instytutu Fizyki PAN, odbędzie się seminarium rtg., na którym **dr Maciej Jankowski** z ID03 Surface Diffraction Beamline, ESRF-The European Synchrotron, Grenoble, France, wygłosi referat na temat:

## "X-ray diffraction as a tool for surfaces characterization"

### Streszczenie:

Surface X-ray diffraction (SXRD) allows the exact structure determination of surfaces, interfaces and thin films. In comparison with other diffraction surface sensitive methods, like electron or helium atom diffraction, the main advantage of SXRD is the capability to penetrate deeply into matter allowing the investigation of different types of materials, including insulators, at conditions ranging from UHV to high pressure or in a liquid environment. SXRD is frequently used in the characterization of oxidized single crystal surfaces at near-ambient conditions, allowing to obtain information about crystallographic structure and morphology of thin oxide films and *in situ* monitoring of their growth.

The ID03 is the dedicated SXRD beamline at ESRF, which offers ideal conditions for the fast characterization of surfaces and interfaces in different environments, thanks to the high brilliance synchrotron X-ray beam, use of highly sensitive 2D detectors, and the recently developed software for the fast analysis of collected data. Its access is open to the European community.

The aim of this contribution is to present the ID03 beamline, its experimental opportunities, and provide some examples focused on the structural determination of single crystal surfaces under catalytic operando conditions and characterization of thin films grown in UHV.

Prof. dr hab. Krystyna Jabłońska  
Prof. dr hab. Wojciech Paszkowicz