X-Ray Spectroscopic Methods for structure and dynamics of the interfaces of (oxide) nanolayers study

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X-ray spectroscopy is one of the effective methods of the analysis of the electronic structure, atomic concentration and chemical phase composition of materials. Advantages offered by synchrotron radiation, have given a new push to the development of the x-ray spectroscopy and now the x-ray spectroscopy includes a whole complex of methods. The progress of spectroscopic methods for nondestructive in-depth profiling analysis of the atomic and electronic structure of thin films and buried interfaces will be reported in the talk. The basics of the main methods (near edge x-ray absorption fine structure (NEXAFS), photoelectron spectroscopy (PES), hard x-ray photoelectron spectroscopy (HAXPES) and soft and hard x-ray reflectometry (S/HXRR)), mathematical analysis of the data obtained by these techniques and their application to study of the surfaces and interfaces of technologically important assemblies will be discussed.

Lundi 30 Novembre 2015 à 15h30

Amphithéâtre Jean Perrin

Laboratoire de Chimie Physique – Matière et Rayonnement

ATTENTION : horaire inhabituel, 15h30