COURSE

Prof. Invité Svante Svensson

Introduction to Electron Spectroscopy

The course will be given in English and will take place on two occasions in the main *Amphitheatre of SOLEIL* at the following dates:

1. November 21 at 10h00
2. November 28 at 10h00

The course will make an introduction to modern electron spectroscopy and will give an overview of the applications in different fields of basic and applied science. A special focus will be made on synchrotron radiation based electron spectroscopy.

Preliminary plan:

November 21

General introduction to the photoelectric effect
Photon energies
Kinetic energies
Binding energies
The photoelectric law
Discrete and continuum states
Main lines and satellites
The chemical shift
Gas phase – solids
Surface sensitivity
Applications
Historical overview

November 28

Monochromatization
Auger electron spectroscopy
The combination of electron spectroscopy with synchrotron radiation
The importance of brilliance
Dynamical effects
Resonant electron spectroscopy
The core hole clock
High Kinetic energy Electron Spectroscopy
Future outlooks

The course will be of introductory character, oriented to undergraduate and PhD students as well as for young researchers not familiar with the field. The focus will not be on the theoretical concepts, but rather on experimental problems, and applications.
Welcome