Contribution ID: **292** Type: **Talk**

A new tender X-ray spectrometer at ESRF ID26

Wednesday, 19 September 2018 14:00 (15 minutes)

The energy range between 1.5 and 5 keV (tender X-rays) covers absorption edges of important elements whose electronic and magnetic structure is challenging to study in the hard or soft X-ray range. X-ray emission spectrosocpy (XES) in combination with X-ray absorption spectroscopy (XAS) can provide sharper spectral features and allows studying the occupied and unoccupied density of electronic states thus providing a wealth of information. There is a rapidly growing interest in the X-ray spectroscopy community in XAS-XES.
Tender X-ray emission spectrometers have been realized in different geometries. We recently commissioned at the ESRF an instrument in non-dispersive, scanning geometry that employs eleven Johansson crystals in combination with a gas proportional counter. The 80 mm long Si crystal wafers, cut along the (111) direction, are cylindrically bent to 0.5m radius in the meridional plane. The sagittal dimension is 25mm requiring a large detector surface of 50 x 25 mm2. The angular range of the instrument is 35 to 85 degrees. The presentation discusses the concept of the instrument and recent results.

Primary authors: GLATZEL, Pieter (ESRF - The European Synchrotron); Dr ROVEZZI, Mauro (Univ. Grenoble Alpes, CNRS, IRD, Irstea, Météo France, OSUG, FAME, 38000 Grenoble, France); Dr DETLEFS, Blanka (ESRF - The European Synchrotron); Dr KOCSIS, Menhard (ESRF - The European Synchrotron); Mr VAN VAERENBERGH, Pierre (ESRF - The European Synchrotron); Dr MANCEAU, Alain (Univ. Grenoble Alpes, Univ. Savoie Mont Blanc, CNRS, IRD, ISTerre, 38000 Grenoble, France); Dr VERBENI, Roverto (ESRF - The European Synchrotron)

Presenter: GLATZEL, Pieter (ESRF - The European Synchrotron)

Session Classification: Parallel session 1

Track Classification: P1 Instrumentation and methods