

# BM08-LISA: the new Italian CRG XAS spectroscopy beamline at ESRF

*Wednesday, 17 October 2018 12:00 (30 minutes)*

LISA (Linea Italiana per la Spettroscopia di Assorbimento di raggi X) is the new Italian CRG beamline at the European Synchrotron Radiation Facility (ESRF) dedicated to X-ray Absorption Spectroscopy (XAS).

The optical layout consists in one collimating mirror, a double crystal monochromator (DCM) and a double toroid focusing mirror. Si and Pt coatings ensure an efficient rejection of harmonics. The DCM is equipped with two different pairs of thick crystals Si(311) and Si(111) to cover a wide energy range of 4-70 keV, which offers the possibility to probe the K and L edges of the most of Metals and Rare Earth elements. The design is compatible with the new EBS ring that will be operative after year 2020.

The beamline provides a high photon flux (1011 ph/s) with a focused beam size < 200  $\mu\text{m}$  and together with the fluorescence detectors available (a 12-channels HP-Ge and a 4-channels SDD) allows the analysis of small-sized or highly diluted samples.

A liquid He/N<sub>2</sub> cold finger cryostat and a compact furnace are available for measurements in a wide temperature range (10 - 1000 K), allowing in-situ chemical treatments and measurements under controlled atmosphere.

In this contribution we present the present status and the future perspectives of the beamline.

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**Session Classification:** X-ray beam facilities