

Supplemental file of: ID31 - High-Energy Beamline at ESRF for Buried Interface Structure and Materials Processing

The beamline layout is shown in Figure 1. After the undulator the white beam goes to the first optical hutch (OH1) where the first transfocator condense the incident beam when very intense beams with medium range spot sizes is needed, then the beam enters the second optical hutch (OH2). Here monochromatic beam is obtained. A second transfocator is used to focus the beam with low divergence to the sample. Finally we have the ID31 experimental hutch (EH) (Figure 1 inset). Where there is the possibility to use different experimental techniques in the most efficient manner. First granite table (from left to right) is for high resolution diffraction and imaging studies. The following setup is the heavy-duty high energy micro-diffraction instrument. The dominant granite structure of the wide-angle x-ray scattering detector allows to measure diffraction patterns up to a very high momentum transfer at short distances and high-resolution patterns at very long distances from both instruments. The small angle x-ray scattering (SAXS) detector with smaller pixel size, at the very end of the experimental station. The SAXS detector table can also house an imaging detector.



Figure 1: Beamline infrastructure. Inset a 3D zoom view of the experimental hutch (EH).