

**Experiment title:**

X-ray single crystal diffraction study of the light-induced metastable high-spin state of the  $[\text{Fe}(\text{mepy})_3\text{tren}](\text{PF}_6)_2$  compound

**Experiment number:**

01-02 971

**Beamline:****Date of experiment:**

from: 23/02/2011 to 26/02/2011

**Date of report:****Shifts:**

**Local contact(s):**Phil Pattison

*Received at ESRF:*

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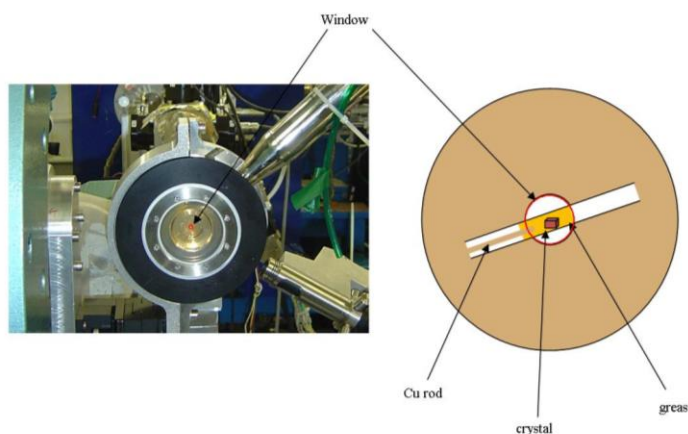
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**Report:**

During this experiment, we used the modified version of a Cryovac KONTI - cryostat (Figure 1). The crystal is mounted inside a capillary which is opened on both sides and contacted to the copper plates of the cryostat. To improve the thermal contacts, the crystal was embedded in Apiezon N grease and a copper rod was put inside the capillary with one end inside the grease, close to the crystal, and the other contacted to the copper



*Figure 1 : the cryostat*

plate of the cryostat. Although the cryostat was nominally cooled to 9 K, due to the low efficiency of the heat conduction between the crystal and the cryostat plate, the estimated temperature at the crystal was about 70K, based on comparison with the spectroscopic measurements. We therefore were not able to perform the experiment on the the  $[\text{Fe}(\text{mepy})_2\text{tren}](\text{PF}_6)_2$  compound which requires a much lower temperature.