



## Experiment Report Form

	<b>Experiment title:</b> Study of quadrupolar magnetic ordering in copper fluoro-perovskites	<b>Experiment number:</b> HE2292
<b>Beamline:</b> ID20	<b>Date of experiment:</b> from: 29/11/2006 to: 05/12/2006	<b>Date of report:</b> 01/02/2007
<b>Shifts:</b> 18	<b>Local contact(s):</b> Blanka Detlefs	<i>Received at ESRF:</i>
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### Report:

Unfortunately, the rapid degeneration of a EH2 diffractometer movement has prevented the scattering to be performed on the sample sitting inside the magnet and thus the data collection in the magnetic field.

Although a lot of effort has been placed by the beamline staff (in particular by the local contact) to circumvent the problem, the use of the magnet was impossible.

The very last days of the experiment where spent in the first hutch, where we had time to perform one azimuth dependence on a magnetic peak. New data have confirmed the past results (see fig. 1), clearly indicating the presence of a quadrupolar contribution in the magnetic signal [1,2].

However, the lack of an external magnetic field still forces modelling to deal with magnetic multidomain samples, limiting the effectiveness of predictions due to the number of parameters.

## References:

- [1] Phys B 378-380 (2006), 563;
- [2] Jour. Magn. Magn. Mat.: accepted

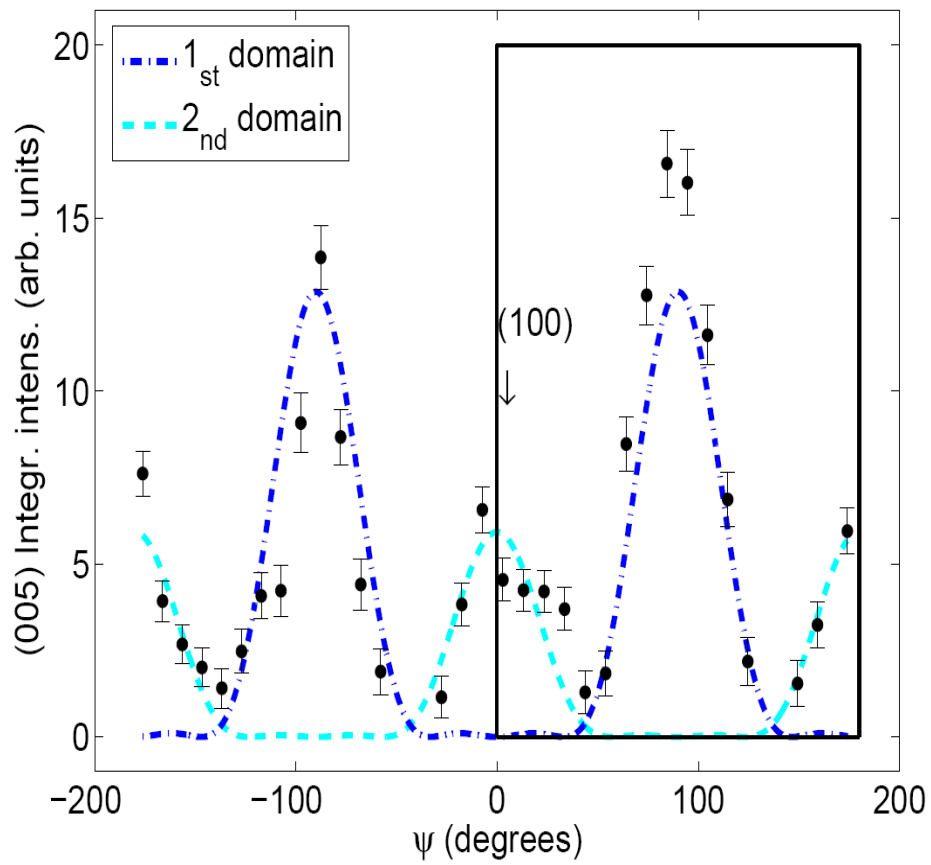


Figure 1: azimuth dependence of the (005) magnetic reflection; the dashed and dot-dashed lines are the result of a fit based on a two magnetic domain quadrupolar model.