

# Experimental report

21/12/2022

**Proposal:** CRG-2562

**Council:** 4/2018

**Title:** iNFLUENCE OF the lanthanides in LnBaCuFeO5 high-tc spiral multiferroics

**Research area:**

**This proposal is a new proposal**

**Main proposer:** Jose Luis GARCIA MUNOZ

**Experimental team:** Arnau ROMAGUERA CAMPS

**Local contacts:** Oscar Ramon FABELLO ROSA

**Samples:** LnBaCuFeO5

Ln=Pr, Nd, Sm, Tb, Ho, Er & Tm

Instrument	Requested days	Allocated days	From	To
D1B	3	1	28/09/2018	29/09/2018

**Abstract:**

Some 10 K D1B neutron patterns from this experiment were used to contribute to the following article:

*\* Tuning the tilting of the spiral plane by Mn doping in YBaCuFeO<sub>5</sub> multiferroic*

X. Zhang, A. Romaguera, O. Fabelo, F. Fauth, J. Herrero-Martín and J.L. García-Muñoz

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## Tuning the tilting of the spiral plane by Mn doping in YBaCuFeO<sub>5</sub> multiferroic



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\*Data analysis of most of the collected data are included in the Thesis of Xiaodong Zhang (2002), entitled: “*Enhancing the High-temperature Chiral Magnetic State in YBaCuFeO<sub>5</sub>*”. Universitat Autònoma de Barcelona (UAB).

A second paper is in preparation, which includes measurements collected here at 10 K on  $YBa(Cu,Co)FeO_5$  with  $2\% \leq x[Co] \leq 25\%$  .

