


実験報告書様式(一般利用課題・成果公開利用)

(※本報告書は英語で記述してください。ただし、産業利用課題として採択されている方は日本語で記述していただいても結構です。)

 MLF Experimental Report	提出日 Date of Report
課題番号 Project No. 2015A0236 実験課題名 Title of experiment A COMPARISON STUDY ON POLYMORPHOUS CLINOATACAMITE AND PARATACAMITE $\text{Cu}_2(\text{OD})_3\text{Cl}$ TO CLARIFY THE MYSTERIOUS INTERMEDIATE PHASE IN THE “DEVIL COMPOUND” CLINOATACAMITE 実験責任者名 Name of principal investigator Xu-Guang Zheng 所属 Affiliation Saga University	装置責任者 Name of responsible person T. Ishigaki 装置名 Name of Instrument/(BL No.) BL20 実施日 Date of Experiment 2016. 4.21-4.26

試料、実験方法、利用の結果得られた主なデータ、考察、結論等を、記述して下さい。(適宜、図表添付のこと)
 Please report your samples, experimental method and results, discussion and conclusions. Please add figures and tables for better explanation.

1. 試料 Name of sample(s) and chemical formula, or compositions including physical form. <p style="text-align: center;">Clinoatacamite $\text{Cu}_2(\text{OD})_3\text{Cl}$ in powder form</p>

2. 実験方法及び結果 (実験がうまくいかなかった場合、その理由を記述してください。) Experimental method and results. If you failed to conduct experiment as planned, please describe reasons. <p>We performed powder diffraction on clinoatacamite $\text{Cu}_2(\text{OD})_3\text{Cl}$ at low temperatures using the iMateria beam line.</p> <p>Our purpose was to obtain magnetic reflections in the magnetically ordered state below 18K. We have obtained the powder diffraction patterns. However, the observation of the magnetic reflection peaks was unsuccessful. A comparison with experiment at the SuperHRPD has suggested that the background of iMateria was too high for this experiment, because the magnetic reflections in clinoatacamite $\text{Cu}_2(\text{OD})_3\text{Cl}$ was extremely weak.</p>
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