

 MLF Experimental Report	提出日 Date of Report 2011/08/04
課題番号 Project No. 2010A0069 実験課題名 Title of experiment Magnetism and Superconductivity of geometrically Frustrated Ir-oxides and sulfides 実験責任者名 Name of principal investigator Kenji M. Kojima 所属 Affiliation KEK/J-PARC	装置責任者 Name of responsible person Yasuhiro Miyake 装置名 Name of Instrument/(BL No.) D1 実施日 Date of Experiment May 11-14, 2010

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.
CuIr ₂ S ₄ (Cu _{1-x} Zn _x)Ir ₂ S ₄ ; x=0.002, 0.005, 0.01

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.
We have investigated the magnetic ground state of the titled compound. Muon spin relaxation under zero-magnetic field, we were able to confirm non-magnetic ground state for x>0.002. Together with the knowledge from other composition, the magnetic order observed in x=0 was found to be very fragile with carrier doping.

2. 実験方法及び結果(つづき) Experimental method and results (continued)