



	Experiment title: Understanding disorder in copper ludwigites, Cu_2GaBO_5 and Cu_2AlBO_5	Experiment number: HC - 4945
Beamline: ID28	Date of experiment: from: 01 February 2022 to: 07 February 2022	Date of report: <i>Received at ESRF:</i>
Shifts: 18	Local contact(s): KORSHUNOV Artem, PAOLASINI Luigi	
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Report:

We measured the full reciprocal space map in $\text{GdCa}_3(\text{MnO})_3(\text{BO}_3)_4$, $\text{YMn}_3\text{Ca}_3\text{O}_3(\text{BO}_3)_4\text{Bi}$, Cu_2GaBO_5 , Cu_2AlBO_5 , Cu_2MnBO_5 , and $\text{Cu}_2\text{Ga}_{0.45}\text{Mn}_{0.55}\text{BO}_5$ at different temperatures with wavelength 0.6968 \AA on ID28. Cryostream was used for temperature regulation. Reciprocal space maps for Cu_2GaBO_5 , Cu_2AlBO_5 , Cu_2MnBO_5 , and $\text{Cu}_2\text{Ga}_{0.45}\text{Mn}_{0.55}\text{BO}_5$ was shown in Fig. 1. We can't show all maps because of space reasons. For the Al compound, there is a clear diffuse signal at $1/3\text{HK}0$ and $2/3\text{HK}0$. Ga compound shows a less intense diffuse signal at the same positions.

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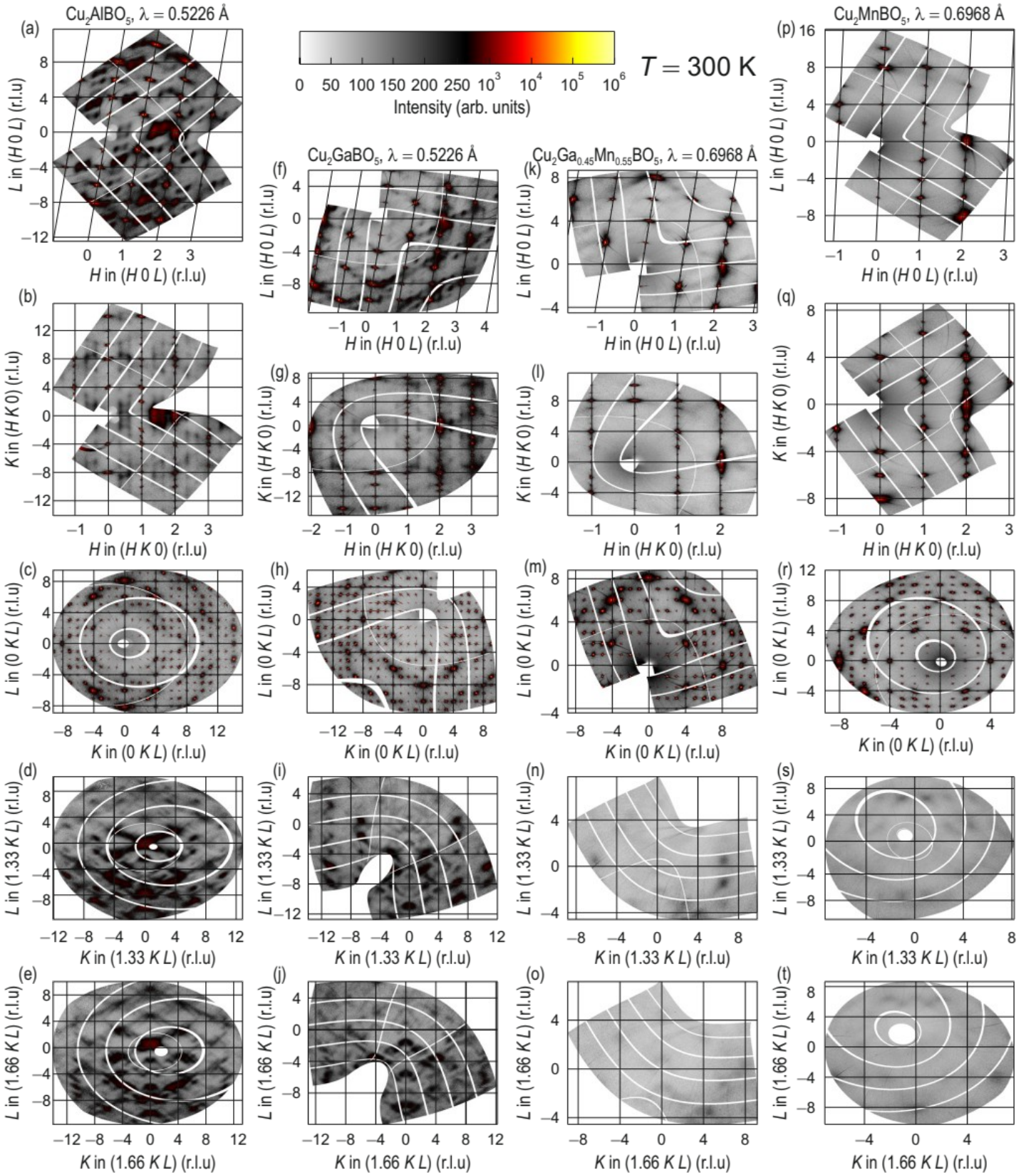


Fig. 1. Reciprocal space maps for Cu_2GaBO_5 , Cu_2AlBO_5 , Cu_2MnBO_5 , and $\text{Cu}_2\text{Ga}_{0.45}\text{Mn}_{0.55}\text{BO}_5$