



**Experiment title: Cambridge MRC Block Allocation Group  
Structure of the 30S ribosomal subunit**

**Experiment  
number:  
LS-1525**

<b>Beamline:</b> ID14-4	<b>Date of experiment:</b> from: 5 Feb 00                      to: 7 Feb 00	<b>Date of report:</b> 23 Feb 00  <i>Received at ESRF:</i>
<b>Shifts:</b> 2	<b>Local contact(s):</b> Sean McSweeney	

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**Report:**

This was a trip to assess data quality and data collection strategy on the 30S ribosome at ID14-EH4 at ESRF.

Using several crystals, we were able to collect a 3.5 Å resolution data set, which is about 0.5 – 1 Å better resolution than we have been able to obtain before on low brilliance beam lines. This is promising for future work on this project.

However, because of the small size of the crystal, we are still limited by signal to background, especially at the water ring. Thus the planned modifications that enable a precise alignment of the beam with the rotation axis to allow the use of a 50 micron beam with a 50 micron thick crystal will be crucial for us. This will also allow us to get multiple shots off each crystal, reducing scaling problems.