



Experiment title: Cambridge MRC Block Allocation Group
Chloroplast F₁ ATPase

Experiment number:
LS1669

Beamline: ID14-2	Date of experiment: from: 5/3/00 to: 8/3/00	Date of report: 27/8/00
Shifts: 1	Local contact(s): Dr Julien Lescar	<i>Received at ESRF:</i>

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Report:

The diffraction quality of the crystals of F₁ ATPase from spinach chloroplasts could be greatly improved during this beamtime from previous 5.5 Å to about 3.5 Å resolution. The crystals belong to space group R32 with unit cell constants a = 147.64, b = 147.64, c = 384.49, $\alpha = 90^\circ$, $\beta = 90^\circ$, $\gamma = 120^\circ$. The R_{merge} is 10.0 %, the overall completeness is 85%.

The asymmetric unit contains one third of the molecular complex indicating that the F₁ multimer is build up by the crystallographic 3-fold axis. This implies that the resulting structure will be symmetric and the single γ and ϵ subunits will be disordered. The structure could be solved by MR using a bovine F₁ $\alpha\beta$ heterodimer as a search model.