



	Experiment title: Xray Diffraction Studies of the cbb3-type oxidase	Experiment number: MX-362
Beamline:	Date of experiment: from: 22/07/2004 8:30 to: 22/07/2004 16:00	Date of report: 13/02/2005
Shifts:	Local contact(s): Dr. David Richard HALL	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): Michael Merckel Helsinki Bioenergetics Group Structural Biology and Biophysics Biotechnology Institute Helsinki University		

Report:

Project objectives

Objectives of this project were to test and obtain diffraction data from the cbb3-type cytochrome oxidase. Furthermore it was hoped to obtain anomalous dispersion data at the Fe edge in order to identify the positions of Fe containing heme ligands.

Main achievements and difficulties encountered

Crystals which have been too small to characterize on a home source consistently showed diffraction to 10-7 Å. Setting the monochromator to the Fe edge and optimization of the ID-29 beamline consumed half the allotted test slot of 8 hours. It was only possible to test half of the samples shipped, 20 of 40. From one crystal, 180 degrees of oscillation data were collected and could be tentatively indexed in P2/P2₁ with cell dimensions 278.8 155.2 368.3 90.0 111.5 90.0.

Optimization of crystallization and freezing protocols have yielded more samples for testing and more beam time is being applied for.

List of publications for this experiment:

No publications resulted from this experiment.