



ESRF

	Experiment title:	Experiment number: LS 954
Beamline: BM14	Date of experiment: from: March 28, 1998 to: March 30, 1998	Date of report: Sept. 2, 1998
Shifts: 6	Local contact(s): Andy Thompson	<i>Received at ESRF:</i> 4 SEP, 1998

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Report:

QH-ADH-Pb MAD 3 wavelengths

lambda 1: resolution 2.4 Å, R_{sym} 0.045 completeness 93.4%

lambda 2: resolution 2.6 Å, R_{sym} 0.045 completeness 92.0%

lambda 3: resolution 2.6 Å, R_{sym} 0.048 completeness 92.5%

QH-ADH-Fe MAD 3 wavelengths

lambda 1: resolution 2.4 Å, R_{sym} 0.035 completeness 95.8%

lambda 2: resolution 2.4 Å, R_{sym} 0.050 completeness 98.2%

lambda 3: resolution 3.0 Å, R_{sym} 0.047 completeness 92.5%

Several anomalous, dispersive and normal difference Patterson maps as well as Fourier maps showed clear peaks, identifying the presence of one Pb and one Fe ion. We are still working on the phasing of these data, which is, however, not trivial. QH-ADH is a quino-haemo-alcoholdehydrogenase, which contains PQQ (pyrroloquinoline quinone) and a Fe-containing haem group as co-factors

In addition data were collected for GP39, a protein with lectin properties, probably involved in cell differentiation.

GP39-Hg31 MAD 2 wavelengths

lambda 1: resolution 2.7 Å, R_{sym} 0.064 completeness 91%

lambda 2: resolution 2.7 Å, R_{sym} 0.069 completeness 85%

Together with data collected at ID14, the structure of GP39 has been solved.