ESRF	**Experiment title: Membrane protein structural determination from *Aquifex aeolicus***	**Experiment number**: MX-336
Beamline: ID23	**Date of experiment**: from: 03 December 2004 to: 04 December 2004	**24-FEB-2005**
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Report:

Samples:

Aq1862 crystal from *Aquifex aeolicus*, which were soaking with Ta and Pb.

Background:

We got no definite phase informations from our Aq1862 derivative crystals of the last screening measurement with different heavy metal compunds. Aq1862 complex is about 400 KD, it is relatively big complex. We have in the meanwhile a Ta salt in our hands, which is well suited for such huge complexes. For this beamtime, we continue to screen heavy atom derivatives, with mainly focus on Ta derivatives.

Results:

datasets,	Resol(Å)	Rsym(%)	Compl (%)	I/sigma(I)	unit cell (space group R3)
Ta,	2.25,	12.1(35.3).	90.2(77.6),	7.89(3.76)	a=b=109.40, c =534.50,
PbAc,	2.04,	-(-),	-(-),	-(-)	a=b=107.45, c =1316.70

PbAc dateset could not be processed due to the much too close spacing of the reflections in the unit cell c-axis direction.

Problems:

The software was unstable when performing fluorecence scans and during evergy changes, the main server crashed several times. Fluorecence scan results showed no signal for the heavy atoms which were soaked, especially Ta and Pb.