



**Experiment title:**  
Block Allocation Group: Portugal

**Experiment number:**  
LS-1523

**Beamline:**  
ID14-4

**Date of experiment:**  
from: 20/09/99 at 08:00 to: 21/09/99 at 07:00

**Date of report:**  
Feb. 28, 2000

**Shifts:**

**Local contact(s):**  
Takashi TOMIZAKI

*Received at ESRF:*

**Names and affiliations of applicants (\* indicates experimentalists):**

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**Report:**

A wavelength of 0.932 Å and a working temperature of 100 K were used throughout.

**About 4 hours of useful beam time were lost due to a technical problem with this beamline.**

**Human Nuclear Receptor (*E.coli* expressed) complexed with synthetic ligand:**

A frozen crystal of this protein with dimensions 100x40x40 µm was used to record diffraction images. An image was indexed in the orthorhombic crystal system with cell edges a=54.28 b=66.14 c=71.72 Å. Data processing with DENZO/SCALEPACK/ CCP4 produced a 99.8 % complete data set up to 2.4 Å with a 7.8 % overall merging R-factor. Space group was determined as P2<sub>1</sub>2<sub>1</sub>2<sub>1</sub> by inspection of the systematic extinctions. Structure was solved by the molecular replacement method and refined to R=21.0 % and R-free=29.7 %. A publication to be submitted to *EMBO J* is being finalised.

Other crystals of this protein were tested but none gave better resolution data.

**Bacterioferritin from *Desulfovibrio desulfuricans* ATCC 27774:**

Crystals of this protein were tested to try and obtain higher resolution data than currently available (2.4 Å). Although it could be seen that the crystals diffracted to better than 2.0 Å, a data collection protocol could not be devised that would avoid severe spot overlap problems at the higher resolution without slitting the beam size down. This could only be done (if at all possible) with the help of local support, which was unavailable during the night. Therefore, no data were collected.

**6-Fe protein from *Desulfovibrio desulfuricans* ATCC 27774:**

Several crystals of this protein were tested. No diffraction was observed.