EUROPEAN SYNCHROTRON RADIATION FACILITY

INSTALLATION EUROPEENNE DE RAYONNEMENT SYNCHROTRON

Experiment Report Form

The double page inside this form is to be filled in by all users or groups of users who have had access to beam time for measurements at the ESRF.

Once completed, the report should be submitted electronically to the User Office using the **Electronic Report Submission Application:**

http://193.49.43.2:8080/smis/servlet/UserUtils?start

Reports supporting requests for additional beam time

Reports can now be submitted independently of new proposals – it is necessary simply to indicate the number of the report(s) supporting a new proposal on the proposal form.

The Review Committees reserve the right to reject new proposals from groups who have not reported on the use of beam time allocated previously.

Reports on experiments relating to long term projects

Proposers awarded beam time for a long term project are required to submit an interim report at the end of each year, irrespective of the number of shifts of beam time they have used.

Published papers

All users must give proper credit to ESRF staff members and proper mention to ESRF facilities which were essential for the results described in any ensuing publication. Further, they are obliged to send to the Joint ESRF/ ILL library the complete reference and the abstract of all papers appearing in print, and resulting from the use of the ESRF.

Should you wish to make more general comments on the experiment, please note them on the User Evaluation Form, and send both the Report and the Evaluation Form to the User Office.

Deadlines for submission of Experimental Reports

- 1st March for experiments carried out up until June of the previous year;
- 1st September for experiments carried out up until January of the same year.

Instructions for preparing your Report

- fill in a separate form for each project or series of measurements.
- type your report, in English.
- include the reference number of the proposal to which the report refers.
- make sure that the text, tables and figures fit into the space available.
- if your work is published or is in press, you may prefer to paste in the abstract, and add full reference details. If the abstract is in a language other than English, please include an English translation.

	Experiment title: Glutathione transferase T1-1	**Experiment number**: MX 274
Beamline: ID14-EH1	**Date of experiment**: from: 19 June 2004 to: 21 June 2004	**Date of report**: 30-Aug-04
Shifts: 1	Local contact(s): Sofia Macedo	*Received at ESRF:*

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Report:

Glutathione is an abundant thiol that naturally serves in the protection of cells against reactive oxygen species and their secondary toxic products as well as other electrophilic chemical species occurring in the environment or produced in living organisms. Glutathione transferases (GSTs) are detoxication enzymes that catalyse the inactivation of a very broad range of such noxious chemical species. Many of the GST substrates are genotoxic and cause mutations and cancer. GSTs consequently have an anti-carcinogenic function and the lack of adequate GST activity in an organism may predispose the individual to development of cancer.

We collected a dataset of mutant human GST T1-1 crystals in complex with S-hexylglutathione, which diffracted to 2.0 Å resolution. The structure was solved by molecular replacement, using previously determined T1-1 apo structure as a model. At present, structure is refined and preparation of the article is in progress.