



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: Amino acid:[carrier protein] ligases	Experiment number: 14-U-1052
Beamline: BM14U	Date of experiment: from: 23.09.2010. to: 25.09.2010.	Date of report: 23.02.2011.
Shifts: 6	Local contact(s): Silvia Russi	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): *Nives Ivic *Kresimir Molcanov Rudjer Boskovic Institute Department of Physical Chemistry Bijenicka cesta 54, 10000 Zagreb Croatia		

Report:

The main objective was to obtain a high resolution crystal structure of amino acid: [carrier protein] ligase complexed with the carrier protein. Since preliminary results showed high flexibility of the carrier protein inside the complex, dehydration experiment was performed to reduce flexibility and obtain better electron density maps. Crystals were exposed to controlled dehydration (97.5% - 83.5% humidity), with slight reduction of one of the crystal axes, but no significant change was noticed. One of the difficulties was that crystals didn't survive more than 10 second exposures to X-rays at room temperature. Around 60 crystals (2.5-3.5 Å resolution) were used for the dehydration experiment. Four data sets were collected at 100K after dehydration treatment (94.5% and 87.5% humidity, respectively), but unfortunately no reduction in flexibility of the carrier protein was noticed.