



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: Graphene layers on Pt surfaces	Experiment number: SI- 1857
Beamline:	Date of experiment: from: 20 octobre 2009 to: / 27 octobre 2009	Date of report: 28-Feb-2010
Shifts:	Local contact(s): Javier García Barriocanal	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): G.Otero R. Caillard A. Pinnardi J.A. Martin-Gago		

Report:

We have faced many different technical problems during the beamtime that avoid us to record useful data.

We have a first, and more important problem, in the end-station. To prepare a good Pt surface we need high temperature annealing in UHV. We were not able to arrive to 700°C in 10⁻⁹ mbar. After this temperature, presure increases at about 10⁻⁶ mbar. Therefore was impossible to clean up the Pt surface.

However, we tried to get a clean surface, but unfortunately, during the preparation we had to open the experimental system to repair the annealing stage. After backing out again, we had just a day for experiments. The sample preparation was quite bad, and therefore, we made smoe scans on a graphene layer with very poor order as seen in the LEED pattern.

Nevertheless we made an hk scan to explore the viability of the project, and we realized that our sample was too small for a good alignment of the diffractometer.

This figure is the only usable data we could take. Some reflections on the searched reconstruction, the $(\sqrt{7} \times \sqrt{7})R19.1^\circ$ were visible, but not for the $(\sqrt{3} \times \sqrt{3})R30^\circ$, which had to appear in the shadowed area.

