

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 via the User Portal:

<https://www.esrf.fr/misapps/SMISWebClient/protected/welcome.do>

Reports supporting requests for additional beam time

Reports can 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: Extra-large pore zeolite crystallization	Experiment number: 26-01-965
Beamline: BM01B	Date of experiment: from: 28 June 2013 to: 01 July 2013	Date of report: 19 August 2013
Shifts: 9	Local contact(s): Paula Abdala	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): Christine Kirschhock¹, Eric Breynaert^{1,*}, Elena Gobechiya¹, Leen Vantendeloo^{1,*}, Elke Verheyen^{1,*} ¹ Center for Surface Chemistry and Catalysis, KU Leuven, 3001 Heverlee, Belgium		

Report:

Zeolites are very useful materials in many applications such as adsorption, separation and catalysis. A better understanding of the formation mechanism and the structure directing function of heteroatoms could benefit zeolite synthesis. Trial and error approaches can then steadily be replaced by a more rational design of zeolites. A previous experiment at ESRF (experiment No 26-01-903) revealed germanium had a specific and important function in the formation of germanosilicate zeolites (Verheyen *et al.* Nat. Mater 11 (2012) 1059 – 1064).

A first aim in this experiment was to get a better understanding of the role of germanium in the early stages of germanosilicate UTL zeolite formation. The results have been analysed and we are now writing a paper. As soon as the paper is in press, we will supply an updated experimental report with more details on the findings, a copy of the abstract together with full reference details.

Additionally, the role of germanium in other known and unknown germanosilicate zeolites has been investigated. These results appear promising but require further ongoing analysis.

