



May 2018

Submission of an EASY proposals to the ILL

Introduction

The Easy Access SYstem (EASY) grants beamtime to scientists from ILL member countries, who need a small amount of beamtime, to perform rapidly some measurements (not a full experiment). Access is open all year long, and it is not necessary to go through the ILL standard proposal round and consequent peer review system.

The EASY route has been used to grant limited beamtime on the diffractometer D2B, for short measurements at room temperature. In 2018, EASY access will be **extended to all instruments**, except those in the NPP group, with an increased range of sample environments.

EASY could, for example, be used for: testing samples, completing experiments and performing one-off measurements to contribute to publications.

The users will not be invited to the ILL, but will send their samples to a ILL scientist, who will be responsible for the measurements and sample radiological control. The ILL will ship back the sample once the measurement is finished.

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Some examples of possible EASY use:

- Powder diffraction – diffraction pattern at a particular temperature (one-off measurement & completing an experiment)
- Powder diffraction – measure two samples in a series to see if there is a significant change (testing samples & preparing experiments)
- Single crystal diffraction – test that a crystal diffracts well (Cyclops & OrientExpress - testing samples & preparing experiments)
- QENS – test that a QENS signal will be measurable: elastic scan on IN16b, rapid temperature scans on TOF to measure elastic intensity variation (testing samples & preparing experiments)
- QENS – spectrum at a particular temperature (one-off measurement & completing an experiment)
- SANS – establishing matching points for partially deuterated samples (testing samples & preparing experiments)
- TOF – density of states measurement (one-off measurement & completing an experiment)
- Lagrange – low temperature vibrational spectra (one-off measurement & completing an experiment)

The boundary conditions for EASY need to be clearly established. These concern, for example, the sample environment conditions (in particular temperature) and the number of measurements (or hours of beam time) per cycle or year for a particular user.

Implementation of EASY Access

EASY will be made available on all ILL instruments, including CRG's with ILL beam time, and some additional instruments, in particular Cyclops in the Diffraction group.

Users can apply for EASY beamtime on the [User Club web-site](#).

An important difference with respect to the current EASY system, in which the whole process is looked after by the instrument scientist (IS), concerns the role of the Local Contact (LC). The LC will be involved in order to preserve existing collaborations between ILL scientists and users and develop new collaborations. He/she will also manage the sample at the ILL. In principle users will not come for EA beam time and, if they do, they will not be reimbursed for any costs. If the user cannot choose a LC e.g. in case of no previous experience at ILL, the LC will automatically be the IS.

When submitting an EASY proposal, the user will choose an instrument and a LC. The role of the LC is to check the validity of the request e.g. is the measurement part of a proposal that has been rejected or accepted for another, competing group - this would typically be done with the appropriate college secretary. The LC determines whether an EASY can be accepted.

Both IS and LC are informed at the time of the EASY request. The IS anticipates the need for beam time and awaits the approval of the LC. In the current system, the EASY request should then be accepted, given a reference number, printed and signed by the necessary parties, including health physics. The IS and LC will then determine the earliest possible opportunity to perform the measurement.

The IS and LC should be as flexible as possible concerning the measurement conditions that are made available. When a cryostat or cryofurnace is in place on an instrument, the corresponding conditions can be proposed. It is clear however that dilution fridges, high pressure and high magnetic fields cannot be used for EA.

EASY will be monitored annually and, if necessary, its availability and use will be adapted.