

I11 – High Resolution Powder Diffraction

I11 – High Resolution Powder Diffraction. Technical documentation migrated from Magnolia (/Instruments/Crystallography/I11.html).

- [Overview](#)
- [Measuring d-spacings](#)
- [Before your visit](#)

Overview

I11 provides high-resolution and time-resolved powder diffraction for materials science, chemistry and pharmaceutical research. Long-duration experiments can run on the dedicated LDE facility.



I11 diffractometer (demo image)

Documents

[I11 Beamline User Guide \(PDF\)](#)

Measuring d-spacings

Peak positions are converted to d-spacings using $(d = \frac{\lambda}{2\sin\theta})$. Multi-analyser crystal detectors give the very high angular resolution needed to separate overlapping peaks.

Before your visit

Safety induction for visiting users

All visiting users must complete the online safety induction before arriving at Diamond. The induction covers radiation safety, the experimental hall rules and what to do in an emergency.

- Complete the induction in the User Administration System (UAS) at least 48 hours before your visit.
- Bring photo ID; your site pass is issued at reception.
- Read the [experimental hall safety rules](#) and your beamline's local rules.