

XRD data analysis and software

Getting the data

The data is accessible via the university network by choosing "map network drive" in the Windows file explorer, and connecting to "\\odin.nt.ntnu.no\xrd". Please email the [lab responsible](#) for the log-in details.

Analysing the data

Available software:

Name	Version	Publisher	Commonly used for	Useful links
DIFFRAC.EVA	4.2 (5.1.0.5 from 23rd Oct. 2019)	Bruker	Phase analysis	webpage
DIFFRAC.TOPAS	5	Bruker	Modelling and fitting	

How to install the software on own PC:

Open up an explorer window and go to the odin drive, as described above. Select the XRD_analysis_software folder. Double click on the relevant folder, and copy the relevant files to your computer, and start the installation (.exe) file.

Emission profiles:

For analysing XRD data in Topas, you will need to use a suitable emission profile (see for example [here](#) for explanation).

DaVinci1:

A while after the X-ray tube has been changed, some W contamination wavelengths will appear. Therefore we are regularly making new measurements from a LaB6 standard in order to have an up-to-date emission profile. This can be found on the odin-server, under "useful_documents\d8_davinci_1\Topas_Refinement_Details". Select the ".lam" file that has been made before your own measurements.

D8 Focus:

Here we are using a Ni-filter which removes the extra contamination wavelengths, such that we can use the pre-written emission profile "CuKa5.lam" that is included in the Topas installation directory ("C:\TOPAS5\Lam").

Plotting the data

Useful plotting software for XRD

Name	Further info
Excel	
Sigmaplot	
Matlab	