

# 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	<a href="#">webpage</a>
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	