

## **Operating Instructions for the Bruker EDS system**

These are very rudimentary instructions. There should be an icon on the Bruker computer system desktop that is the Esprit user's manual. Consult it for detailed explanations or contact a CMRF staff member.

### **Start up:**

Turn on the Bruker electronics box, giving the peltier cooler time to reach temperature.

While the detector is cooling, load the sample into the SEM, and identify a region of interest for EDS analysis. Remember that you will want an accelerating voltage of about 2.5 times the energy of the X-ray line you hope to excite. Also, the ideal working distance for EDS is 10 mm.

Turn on Bruker computer and log in with the name: administrator and the password: test.

Double click on the executable desktop icon named Esprit to launch the software. Click Enter to use the default username and password. If someone has changed the defaults, they are "EDX" for both the username and password.

Once the software is loaded, click on the Object icon/button.

Click the Object button of the newly opened window.

Clear the "project pane" of old data.

Acquire an image.

Select the type of X-ray data you hope to acquire (point, line scan, area, etc).

Wait for the spectra acquisition to elapse, then click Quantify (to the right of the icon, pull down and select PB/ZAF.mtd as the method to be used).

Decide whether you want to save the data as a project (data is archive in Bruker's format) or export the data to a Microsoft Report or Excel spread sheet.

### **To End:**

Shut down the computer and switch off the electronics box.

Sign out in the record book.