

## Alignment of sample using drain current and XAS

The first is to move the fast shutter to **erio** mode:

```
>> erio ()
```

Normally the shutter will be by default open, but if for any reason is not, one can open it using the following command:

```
>> fastshutter ('Open')
```

Then the fast shutter light in epics will appear green.

To measure also XAS using the photodiode we need to move it where the `m5tth` is plus 1.5 degrees. For example, to 151.5 deg if the spectrometer arm is at 150 deg.

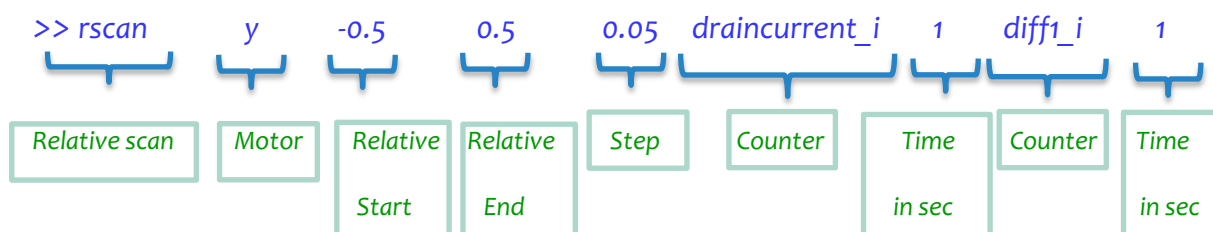
```
>> pos diffth 151.5
```

Then we need to place the sample manipulator at the angle that we would like to measure the XAS signal. For alignment of the sample the best would be to place the sample perpendicular to the incident beam, this is at  $\Theta = 90$ .

```
>> pos th 90
```

When the temperature is changed, the best is to check the drain current and/or the XAS both in **z** and **y**.

```
>> rscan z -0.5 0.5 0.05 draincurrent_i 1 diff1_i 1
```



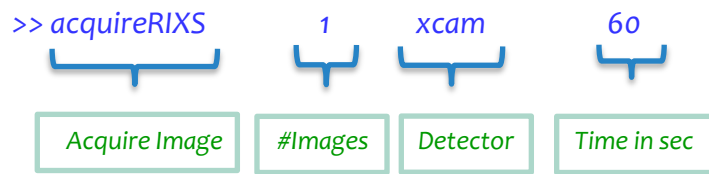
To go back to RIXS the fast shutter needs to go back to primary that links the fastshutter and the CCD

```
>> primary ()
```

And the photodiode needs to be taken away from blocking the beam to the spectrometer.

```
>> pos diffth 0
```

To acquire a RIXS image:



If the beam does not appear centred on the CCD it might be needed to tweak  $x$ . A small movement of about 50 microns would be enough to see an effect on the CCD.

