

1) Read TXM files from synchrotron Bessy, Berlin (1052 .spe) and create a stack

Read/Stack/Bessy/TXM

Normalize to ring current? Yes

I select all the “.spe” files corresponding to the 1052 images

Then Open, Bin factor 0, save stack as “test.ncb”

2) Align the images of the stack

Stack Analyze (Jacobsen/Stony Brook V2.6.1)

Read Stack “.ncb” file

File/ Align stack

In the new window “stack align” that appears, I select Sobel, Each preceding image, X-cor peak. I start with X-cor pixel shift limit of 30 and pixels for edgegauss 3.0.

Start aligning

At the end, I check the X and Y red and green lines to see the pixel shift. When happy, I save new alignment

Save aXis “test2.ncb” file

3) Extract Ti L-edge spectra from region of the images

Stack/Analyze/Stack process

I select the “test2.ncb” file

A window with “Read alignment file?” appears. I select “No”

Suggested zoom 1

Select a region for I

Select a region for IO

Then click on the different regions of the image to identify a spectrum

Alternative alignment

Stack/Analyze/Stack process

I select the “test2.ncb” file

A window with “Read alignment file?” appears. I select “yes”

Then click on cancel

Align with old Jacobsen stack align? Yes

In the new window “stack align” that appears, I select Sobel, Each preceding image, X-cor peak. Here I can only select the pixel shift limit

Start aligning

Complete, go to start analyse

(An .aln file is created)