Readme for dconv_multiV4

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1 dconv_multiV4 operation manual

1.1 Intro

dconv_multiV4 is an application for LISA data reduction. It writes an ASCII file as output containing the calibrated energy and the principal counters needed for data analysis.

1.2 How to run the program

Place the dconv_configV4.txt configuration file in the same directory of the .exe file.
Double click the dconv_multiV4.exe file, and wait for the program to load, it may take a while.
Select the file(s) to convert and press Convert.
The output files are written in the same directory of the input files and have the same name of the datafile with a final _c.

1.3 Column meaning

eBraggEnergy: Calibrated energy in eV
I0_EH2: Incoming x-ray intensity on the sample in EH2
I1_EH2: Transmitted x-ray intensity after the sample in EH2
IX_EH2: Transmitted x-ray intensity after the reference in EH2
IR_EH2: Total Electron Yield counter
c8 and c9: free counters
fluo01, fluo02, . . ., fluo13: fluorescence counters
I0_EH1: Incoming x-ray intensity on the sample in EH1
I1_EH1: Transmitted x-ray intensity after the sample in EH1
IX_EH1: Photodiode counter

1.4 How to choose the right columns

For transmission meausure in EH1
absorption coefficient of the sample, $\mu = ln\left(\frac{I0\_EH1}{I1\_EH1}\right)$

For transmission meausure in EH2
absorption coefficient of the sample, $\mu = ln\left(\frac{I0\_EH2}{I1\_EH2}\right)$

For flourescence measure
normalized fluorescence, $fluo\_norm = \left(\frac{fluo01+fluo02+...}{I0\_EH2}\right)$

Absorption coefficient of the reference, $\mu\_ref = ln\left(\frac{I1\_EH2}{IX\_EH2}\right)$