

FOCUS - Setting SETTING v1.0

To find the correct setup for FOCUS one can use the program SETTING. According to the GNU public license there exists a

SIF (Setting is not FOCUS) public license policy. For that reason the source code of setting is free, check him out!!!

Just type 'setting' at the command prompt of the FOCUS workstation or from somewhere else.

The image shows two windows from the FOCUS setting software. The left window, titled 'FOCUS SETUP', is a 'CALCULATION WIZARD TO SETUP FOCUS' and allows the user to choose between 'mth', 'mtt', 'incident energy', and 'wavelength' for calculation. It features input fields for 'monochromator theta', 'Delta Energy [meV]', 'monochromator two-theta', 'HM Time Delay [mus]', 'incident energy [meV]', 'Fermi rpm', 'Wavelength [A]', and 'Channel Width [mus]'. Below these are radio buttons for 'PG Reflex' (002, 004), 'Focussing Mode' (time, mono), and 'Chopper ratio' (1-5). The right window, titled 'FOCUS SETUP WIZARD', contains a grid of input fields for various parameters: Bragg angle mth (35.0813), real time delay [mus] (3846), time window (DC) [mus] (3262), delta energy [meV] (0), chopper time delay [mus] (584), elastic tof [mus] (2924), init. wavelength [A] (3.85649), acceptance window [mus] (43), energy window [meV] (-2.56273 - 4.32597), init. energy [meV] (5.50000), freq. Fermi [Hz, rpm] (153 9196), time delay hist. [mus] (2500), curvature [m1ch] (1.32479), freq. Disc [Hz, rpm] (153 9196), channel width (5), curvature [m1cv] (3.08477), chopper phase [°] (32), and no. of channels (652). Both windows have 'setup', 'cancel', and 'help' buttons.

The graphical user interface GUI, distinguishes between *mth* (monochromator theta), *mtt* (monochromator two theta), *incident energy* or incident *wavelength*. Highlight the appropriate button and input the corresponding values into the text field below. Additionally one can set a *delta energy* to focus at (only suitable for time focussing mode), a histogram memory time delay and the speed of the Fermi chopper to shift the energy window. A zero value within the Fermi rpm field means, that the package calculates the best velocity itself. The lower part is handy to use the correct reflex of Phyrolytic Graphite, to set the focussing mode and the chopper ratio. The setup button starts the external routine which calculates all the necessary value to drive the instrument. A batch file will be stored in '*home/FOCUS/batch/setfocus.tcl*' if one decides like this. Only the choppers have to be driven manually furthermore.