

Options to remove?

SimFluo: fluorescence spectrum simulation

Simulate!

Plot!

incident x-ray energy (eV)
7500

incident x-ray angle (Deg.)
45.

elements and concentrations (ppm of top substrate material)
in atomic fraction or weight fraction
atomic fraction

La 10 Ce 10 Nd 10

top substrate material
CaCO3

density (g/cc)
2.71

thickness (cm)
0.001

bottom substrate material
Al2O3

density (g/cc)
3.97

thickness (cm)
0.001

location of fluorescence elements
all

He-path used?
No

of Al film (1.5mil)
0

of Kapton film (0.3mil)
0

Vortex detector distance (cm)
6.0

detector collimator
WD60mm(XRM)

Linking buttons on GUI to calculation functions

As in “fluo_panel.py”,

When “simulate” is pressed,

Execute “onSimulate”

- read input values,

- run functions (lines 188, 191)

- `self.input=fluo_det.input_param(eV0, Atoms, xHe, xAl, xKap, WD, xsw)`

- `matrix=fluo_det.SampleMatrix2(substrate1, density1, thickness1,substrate2, density2, thickness2, angle0, loc)`

- `textOut=fluo_det.sim_spectra(eV0, Atoms, xHe, xAl, xKap, WD, xsw, sample=matrix)`

When “plot” is pressed,

Execute “onPlot”

- Read 'simSpectrum_plot.txt' for plot

- Read “simSpectrum_table.txt” for table