

- GUI two main parts:
 - Part-1: “Simulate!” is pressed,
 - read values from GUI and execute “fluo_det.sim_spectra(...)
 - The above function will automatically generate 3 files.
 - Part-2: “Plot!” is pressed,
 - Read “simSpectrum_plot.txt (x,y)” to make a graph
 - Read “simSpectrum_table.txt (name, x, y)” to make a table

Elemental_sensitivity.txt
 simSpectrum_plot.txt
 simSpectrum_table.txt

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	density (g/cc)	thickness (cm)
CaCO3	2.71	0.001

bottom substrate material	density (g/cc)	thickness (cm)
Al2O3	3.97	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)

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# -----
textOut=fluo_det.sim_spectra(eV0, Atoms, xHe, xAl, xKap, WD, xsw, sample=matrix)
printout='output: simSpectrum_table.txt, simSpectrum_plot.txt, Elemental_Sensitivity.txt'
printout1='saved in 'path0'
```