Example

May 13, 2020

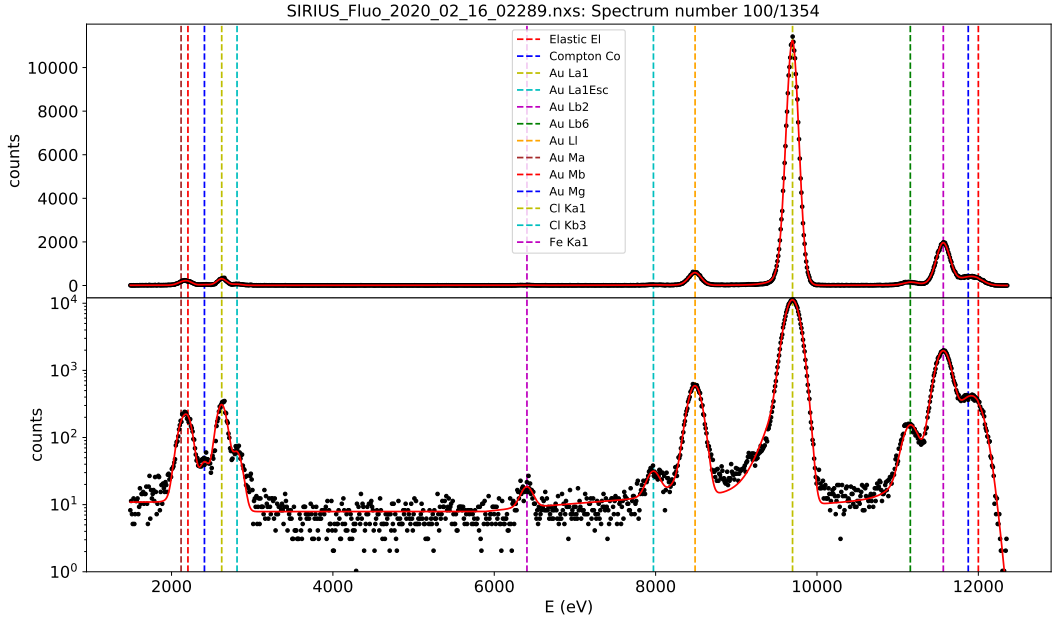
Contents

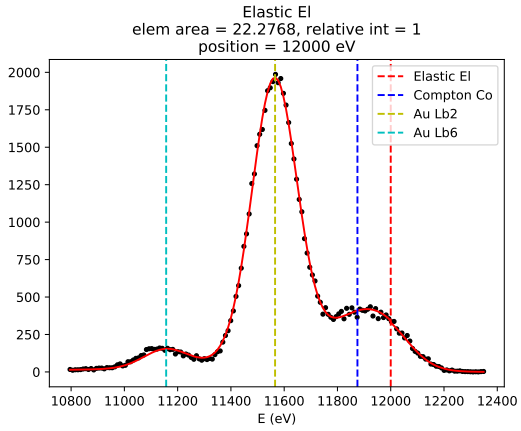

```
Versions of modules used:
AnalysisFunctions: 0.1
FrontendFunctions: 0.1
PyNexus: v4.1
Check that you are using the last versions of the modules and read the manual
on:
https://github.com/ArnaudHemmerle/JupyFluo
```

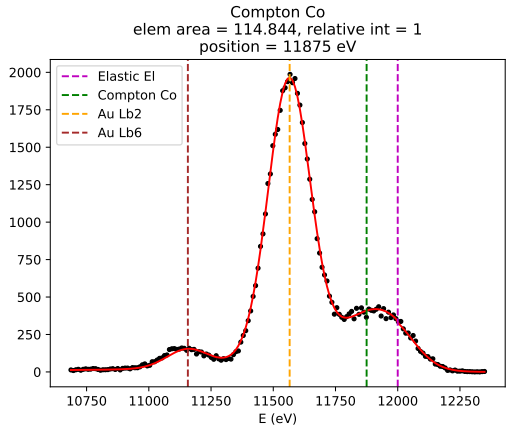
1 Sample Confined at home

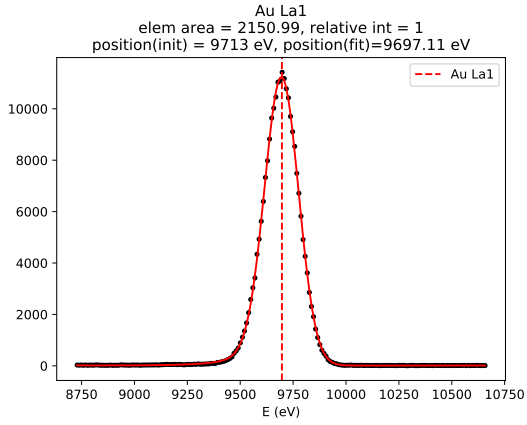
This is a nice sample.

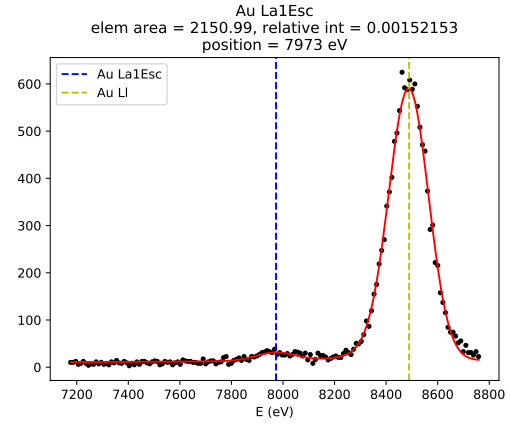
```
Saved: spectrum_100_fig.csv
Saved: spectrum_100_fit.png
Fit results for SIRIUS_Fluo_2020_02_16_02289.nxs
Spectrum interval = [50,1405]
Channel interval = [150,1250]
List of chosen elements:  ['Element 4']

Parameters used:
gain = 9.89; eV0 = 6
List of fitted parameters: ['sl', 'ct', 'noise', 'fG']

Initial fit parameters:
epsilon = 0.0036; fan = 0.115; noise = 0.113
sl = 0.002363; ct = -13.877
sfa0 = -0.0002114; sfa1 = 0.0001089; tfb0 = 0.080845; tfb1 = 1e-10
twc0 = 0.5164; twc1 = 0.1003
fG = 1.479
fA = 1e-10; fB = 1e-10; gammaA = 1e+10; gammaB = 1e+10
```

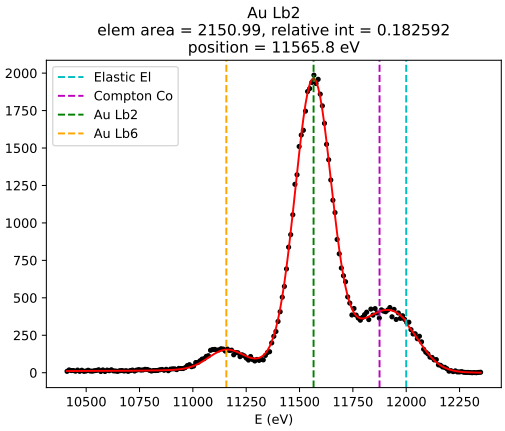

SIRIUS_Fluo_2020_02_16_02289.nxs: Spectrum number 100/1354
Elastic El
Compton Co
Au La1
Au La1Esc
Au Lb2
Au Lb6
Au Ll
Au Ma
Au Mb
Au Mg
Cl Ka1
Cl Kb3
Fe Ka1
counts
E (eV)

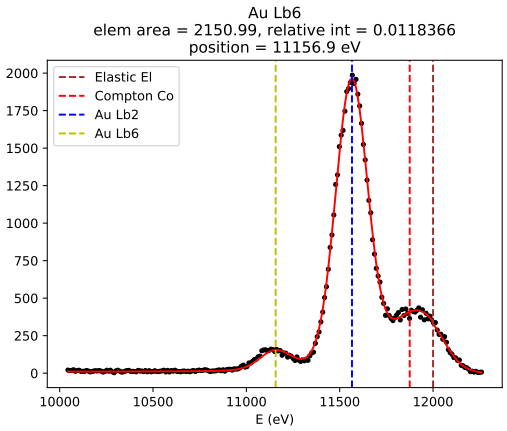

Elastic El
elem area = 22.2768, relative int = 1
position = 12000 eV
Elastic El
Compton Co
Au Lb2
Au Lb6
E (eV)

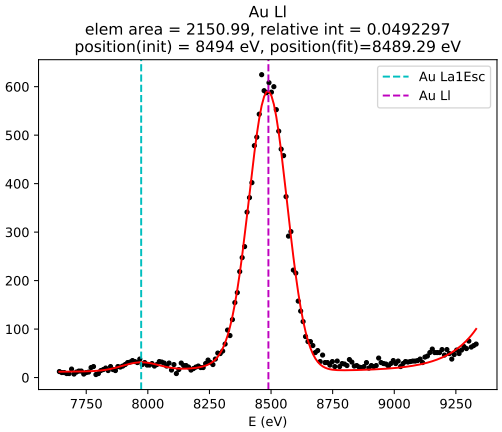

Compton Co
elem area = 114.844, relative int = 1
position = 11875 eV
Elastic El
Compton Co
Au Lb2
Au Lb6
E (eV)

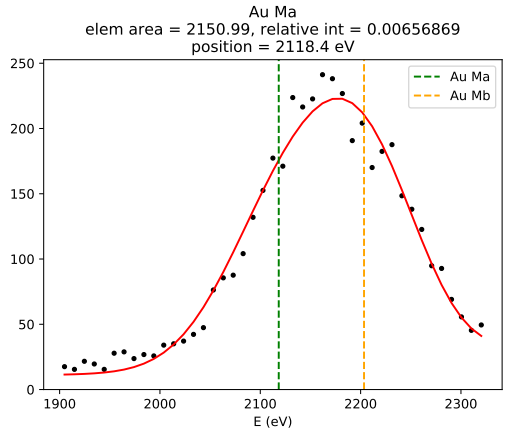

Au La1
elem area = 2150.99, relative int = 1
position(init) = 9713 eV, position(fit)=9697.11 eV
Au La1
E (eV)

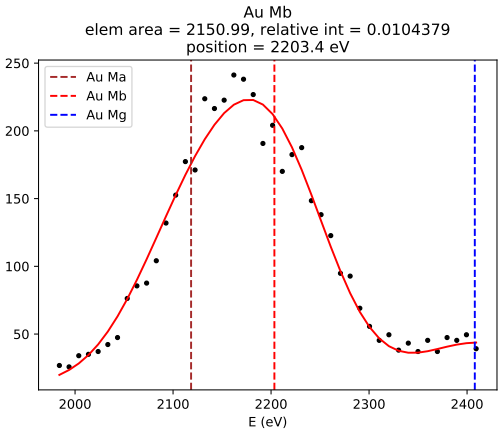

Au La1Esc
elem area = 2150.99, relative int = 0.00152153
position = 7973 eV
Au La1Esc
Au Ll
E (eV)

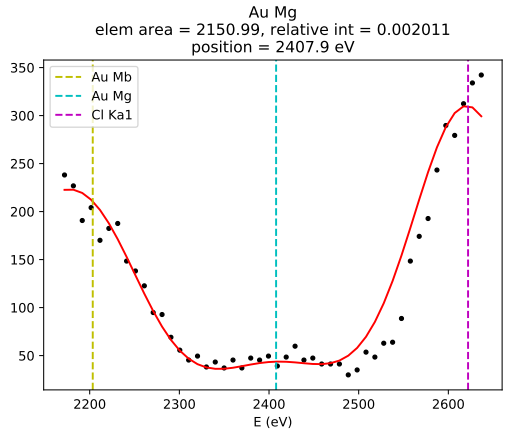

Au Lb2
elem area = 2150.99, relative int = 0.182592
position = 11565.8 eV
Elastic El
Compton Co
Au Lb2
Au Lb6
E (eV)

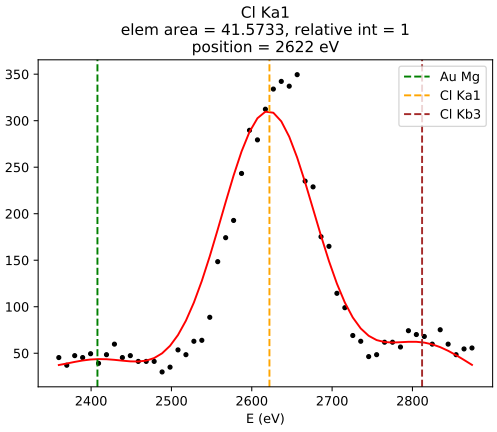

Au Lb6
elem area = 2150.99, relative int = 0.0118366
position = 11156.9 eV
Elastic El
Compton Co
Au Lb2
Au Lb6
E (eV)

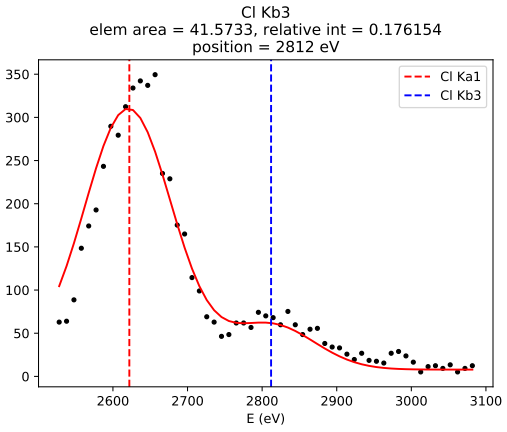

Au Ll
elem area = 2150.99, relative int = 0.0492297
position(init) = 8494 eV, position(fit)=8489.29 eV
Au La1Esc
Au Ll
E (eV)

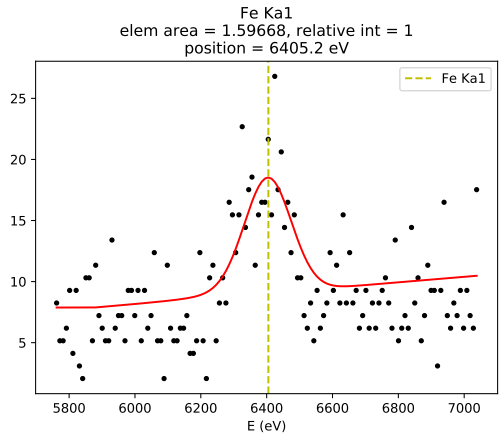

Au Ma
elem area = 2150.99, relative int = 0.00656869
position = 2118.4 eV
Au Ma
Au Mb
E (eV)


Au Mb
elem area = 2150.99, relative int = 0.0104379
position = 2203.4 eV
Au Ma
Au Mb
Au Mg
E (eV)

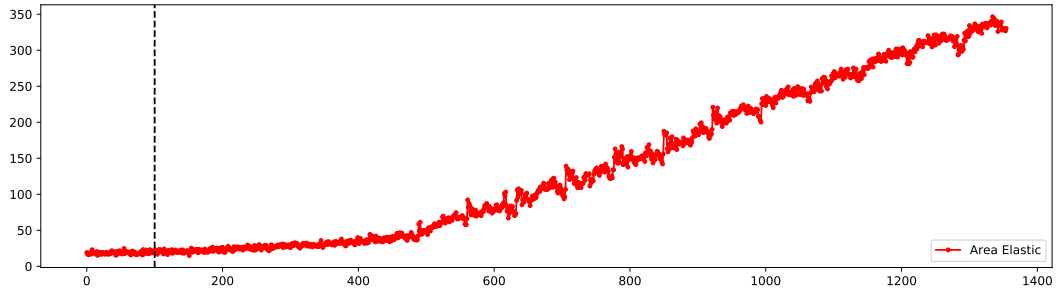

Au Mg
elem area = 2150.99, relative int = 0.002011
position = 2407.9 eV
Au Mb
Au Mg
Cl Ka1
E (eV)

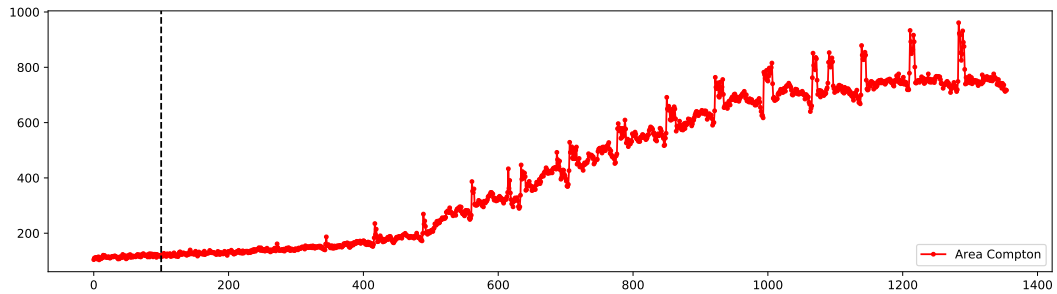

Cl Ka1
elem area = 41.5733, relative int = 1
position = 2622 eV
Au Mg
Cl Ka1
Cl Kb3
E (eV)

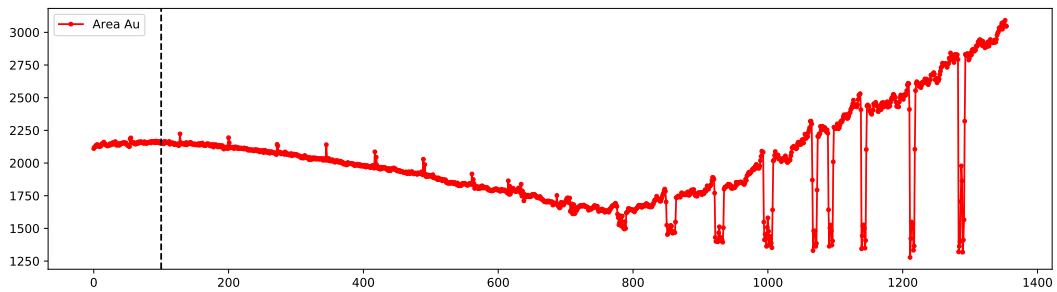

Cl Kb3
elem area = 41.5733, relative int = 0.176154
position = 2812 eV
Cl Ka1
Cl Kb3
E (eV)

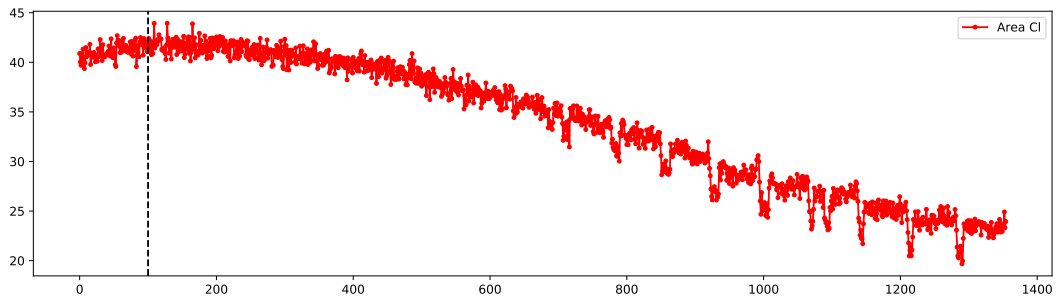

Fe Ka1
elem area = 1.59668, relative int = 1
position = 6405.2 eV
Fe Ka1
E (eV)

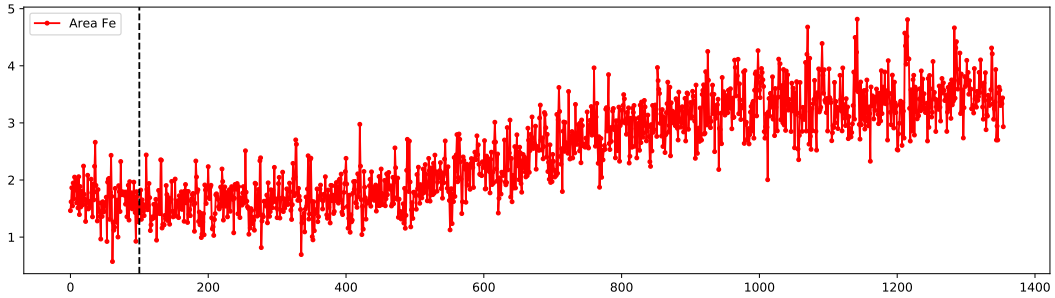
PEAK AREA


Area Elastic

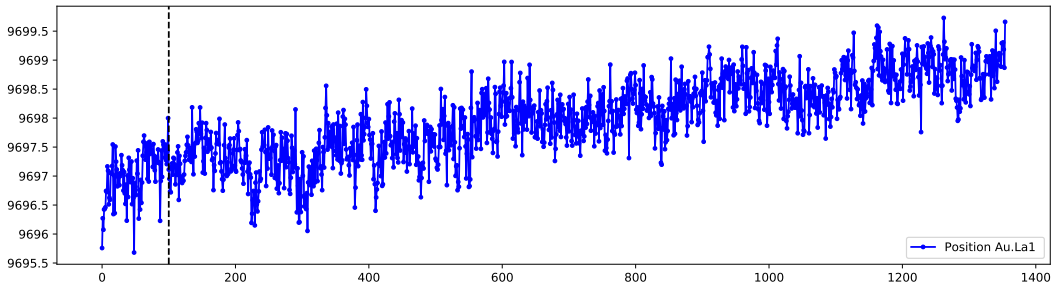

Area Compton

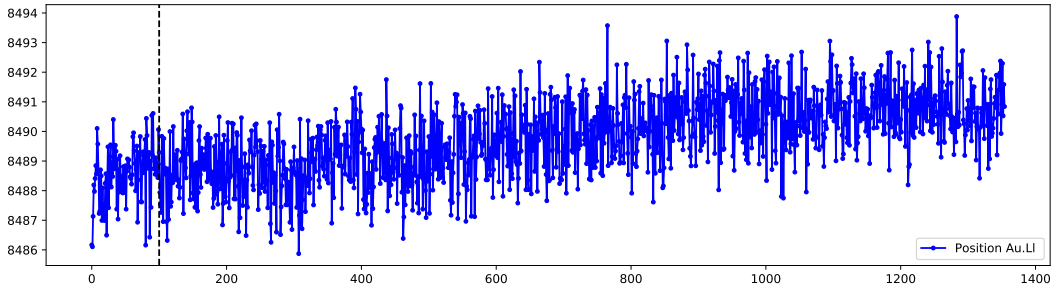

Area Au


Area Cl

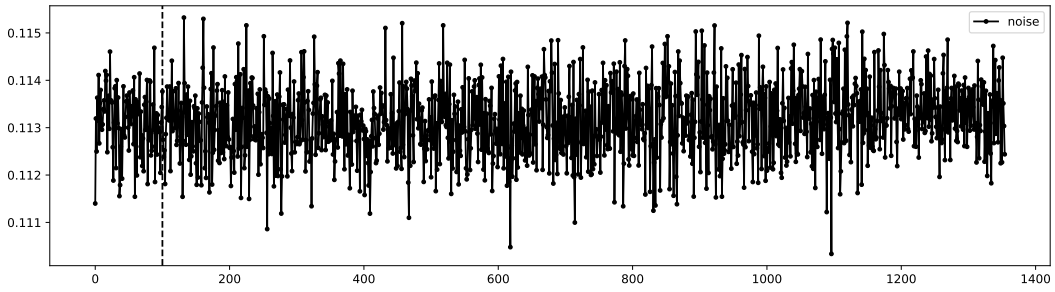


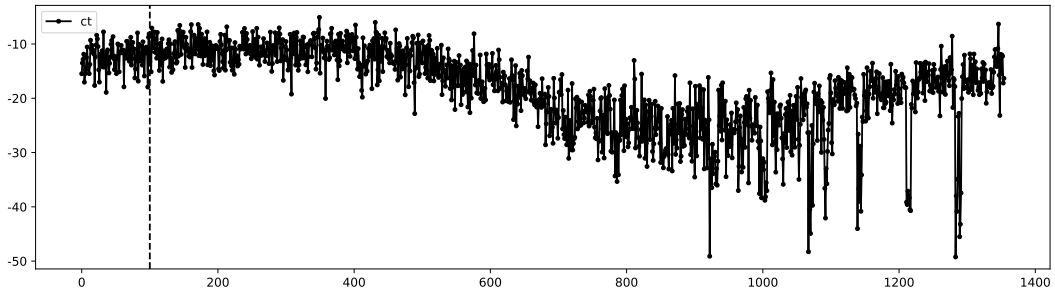
PEAK POSITION

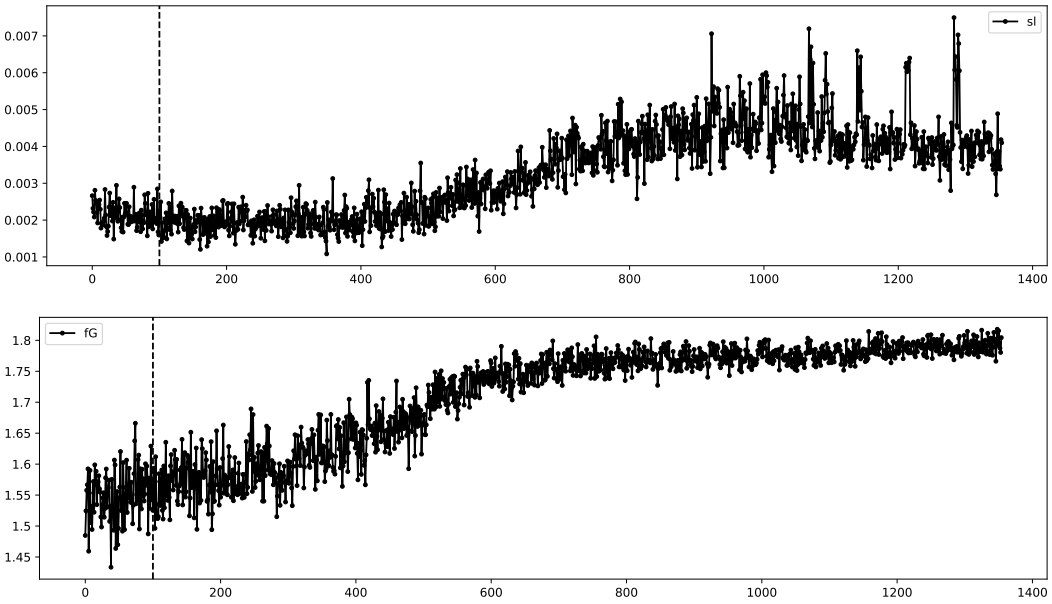




OTHER PARAMETERS






sI
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
200
400
600
800
1000
1200
1400

fG
1.8
1.75
1.7
1.65
1.6
1.55
1.5
1.45
0
200
400
600
800
1000
1200
1400