Example

August 6, 2020

Contents

1 SIRIUS_Fluo_2020_07_07_0070

Spectrums with Cadmium and traces of Manganese.
The compton peak is quite large, but can be well modeled with a foot at low energy (gammaA=3.7, fA=0.1).
The escape peak (or noise) around 6 keV is a bit more difficult to capture.

An unknown peak is introduced at 3940 eV (named X, line X), it might be traces of Iodine?

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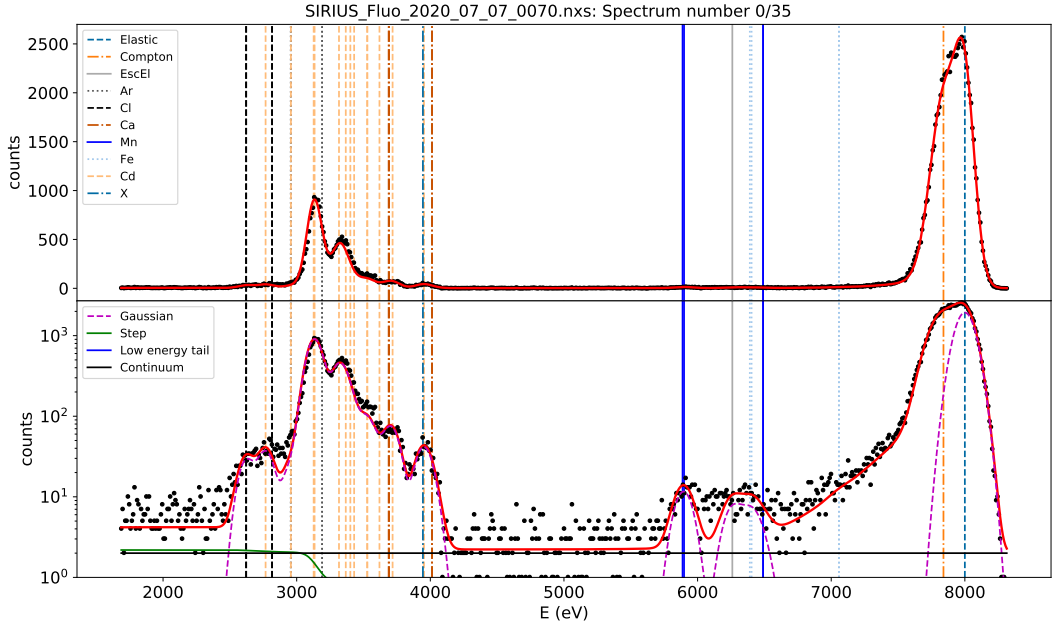
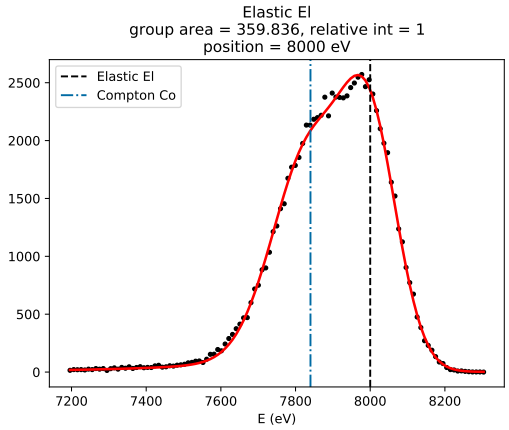
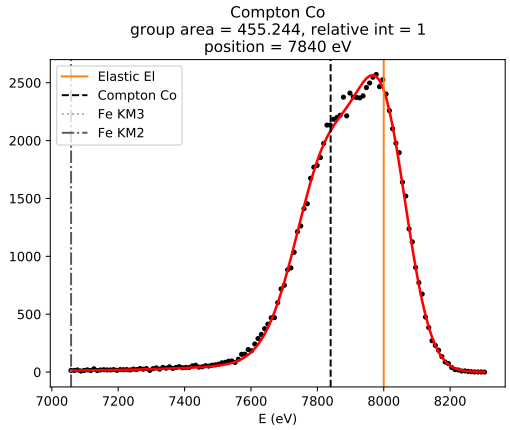
Fit results for SIRIUS_Fluo_2020_07_07_0070.nxs
Spectrum interval = [75,110]
Channel interval = [170,840]
List of chosen elements:  ['Element 4']

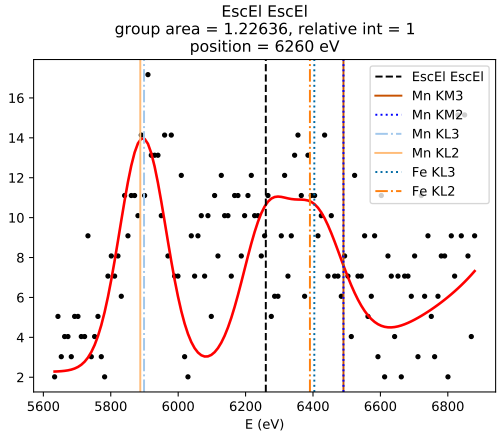
Parameters used:
gain = 9.89; eV0 = 6
beam energy = 8000
List of fitted parameters: ['sfa0']

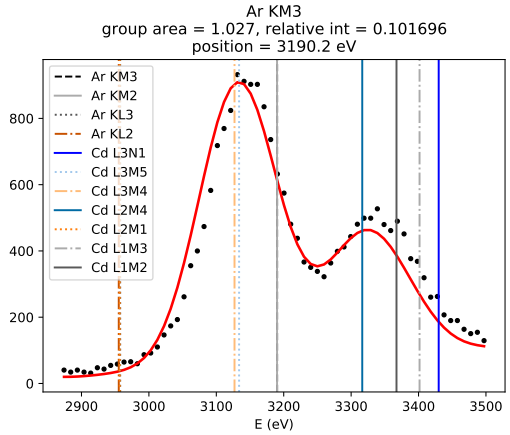
Initial fit parameters:
epsilon = 0.0036; fano = 0.115; noise = 0.110531
sl = 0; ct = 2
sfa0 = -1.67837e-06; sfa1 = 1e-05; tfb0 = 1e-05; tfb1 = 1e-05
twc0 = 1e-05; twc1 = 1e-05
fG = 1.34487
fA = 0.0968284; fB = 1e-10; gammaA = 3.72914; gammaB = 1e+10
```

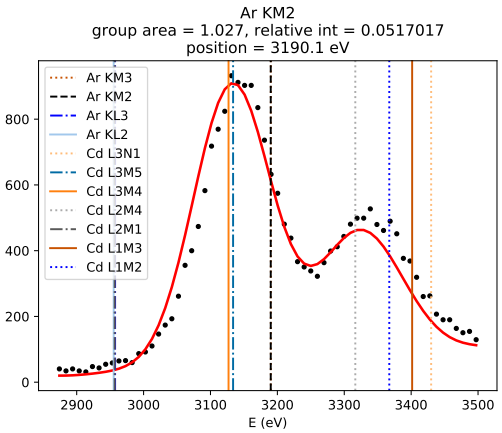

SIRIUS_Fluo_2020_07_07_0070.nxs: Spectrum number 0/35
Elastic
Compton
EscEl
Ar
Cl
Ca
Mn
Fe
Cd
X
Gaussian
Step
Low energy tail
Continuum
counts
E (eV)

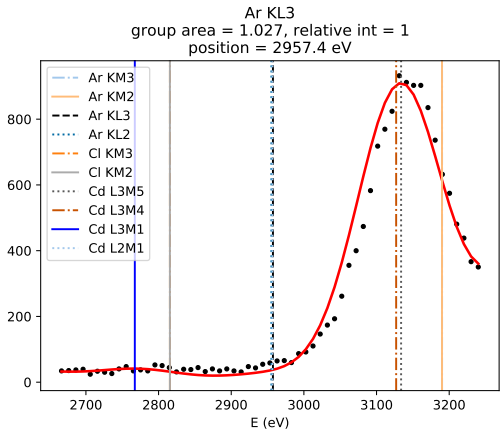

Elastic El
group area = 359.836, relative int = 1
position = 8000 eV
Elastic El
Compton Co
E (eV)

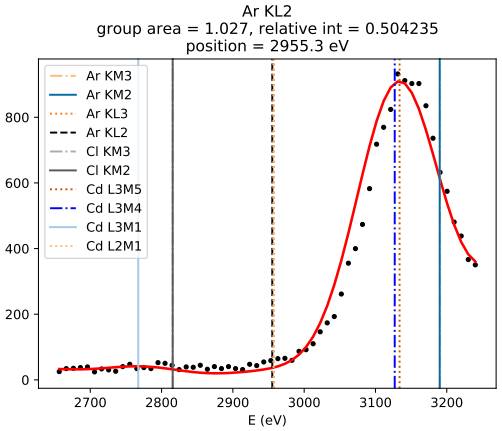

Compton Co
group area = 455.244, relative int = 1
position = 7840 eV
Elastic El
Compton Co
Fe KM3
Fe KM2
E (eV)

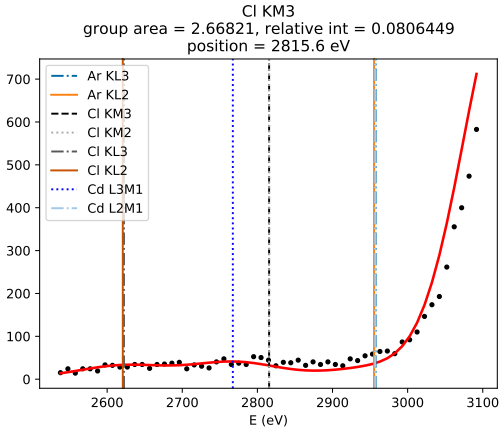

EscEl EscEl
group area = 1.22636, relative int = 1
position = 6260 eV
EscEl EscEl
Mn KM3
Mn KM2
Mn KL3
Mn KL2
Fe KL3
Fe KL2
E (eV)

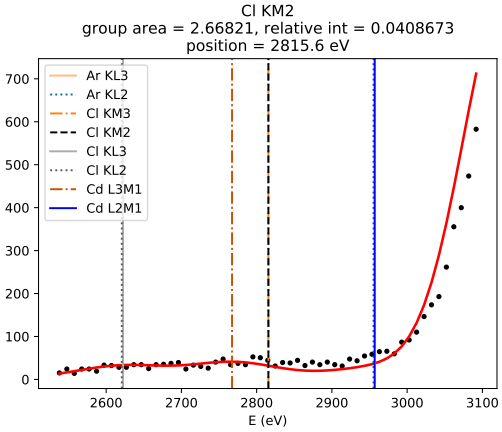

Ar KM3
group area = 1.027, relative int = 0.101696
position = 3190.2 eV
Ar KM3
Ar KM2
Ar KL3
Ar KL2
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2M4
Cd L2M1
Cd L1M3
Cd L1M2
E (eV)

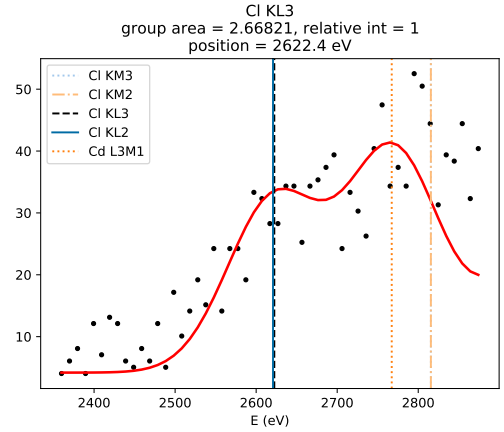

Ar KM2
group area = 1.027, relative int = 0.0517017
position = 3190.1 eV
Ar KM3
Ar KM2
Ar KL3
Ar KL2
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2M4
Cd L2M1
Cd L1M3
Cd L1M2
E (eV)

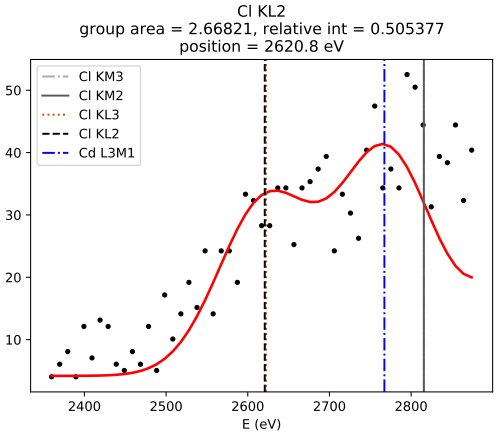

Ar KL3
group area = 1.027, relative int = 1
position = 2957.4 eV
Ar KM3
Ar KM2
Ar KL3
Ar KL2
Cl KM3
Cl KM2
Cd L3M5
Cd L3M4
Cd L3M1
Cd L2M1
E (eV)

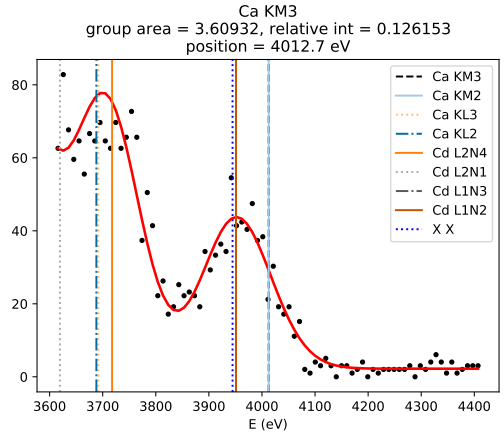

Ar KL2
group area = 1.027, relative int = 0.504235
position = 2955.3 eV
Ar KM3
Ar KM2
Ar KL3
Ar KL2
Cl KM3
Cl KM2
Cd L3M5
Cd L3M4
Cd L3M1
Cd L2M1
E (eV)

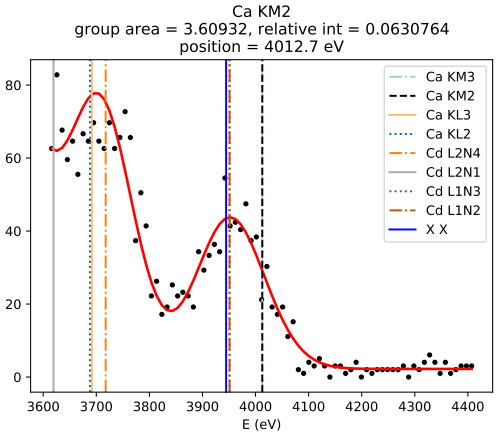

Cl KM3
group area = 2.66821, relative int = 0.0806449
position = 2815.6 eV
Ar KL3
Ar KL2
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Cd L3M1
Cd L2M1
E (eV)

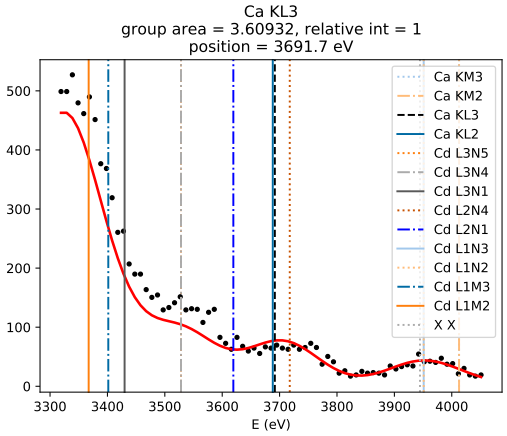

Cl KM2
group area = 2.66821, relative int = 0.0408673
position = 2815.6 eV
Ar KL3
Ar KL2
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Cd L3M1
Cd L2M1
E (eV)

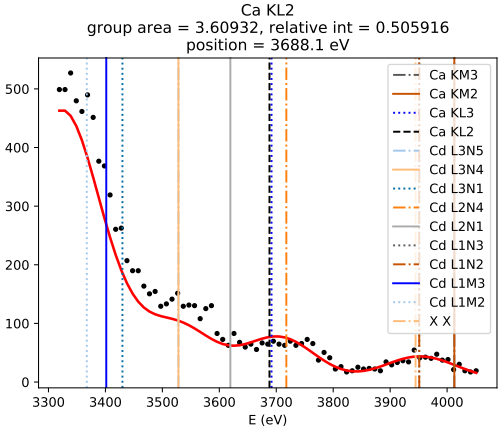

Cl KL3
group area = 2.66821, relative int = 1
position = 2622.4 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Cd L3M1
E (eV)

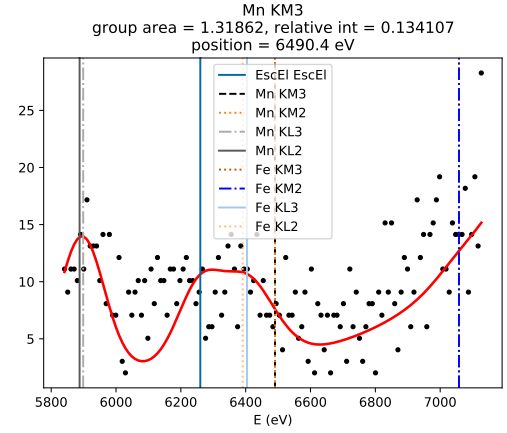

Cl KL2
group area = 2.66821, relative int = 0.505377
position = 2620.8 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Cd L3M1
E (eV)

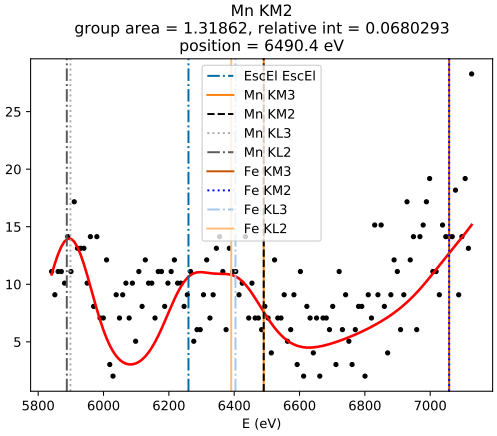

Ca KM3
group area = 3.60932, relative int = 0.126153
position = 4012.7 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
X X
E (eV)

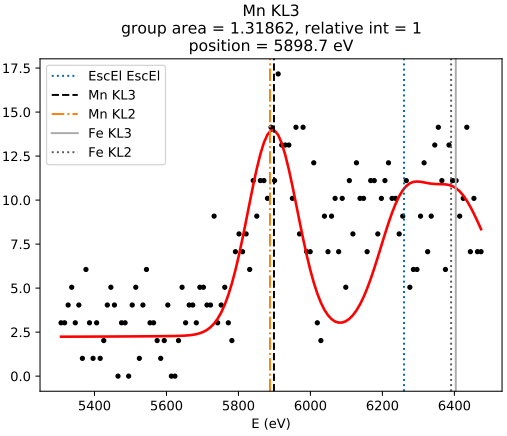

Ca KM2
group area = 3.60932, relative int = 0.0630764
position = 4012.7 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
X X
E (eV)

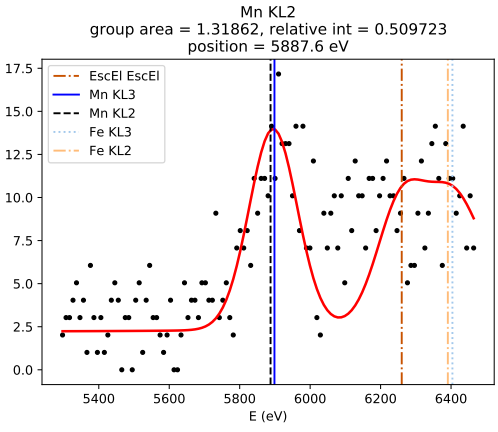

Ca KL3
group area = 3.60932, relative int = 1
position = 3691.7 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
Cd L1M3
Cd L1M2
X X
E (eV)

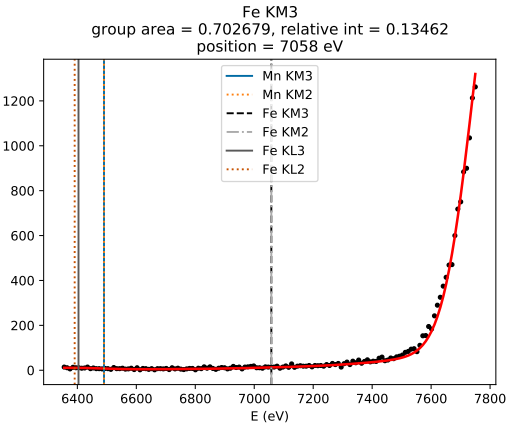

Ca KL2
group area = 3.60932, relative int = 0.505916
position = 3688.1 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
Cd L1M3
Cd L1M2
X X
E (eV)

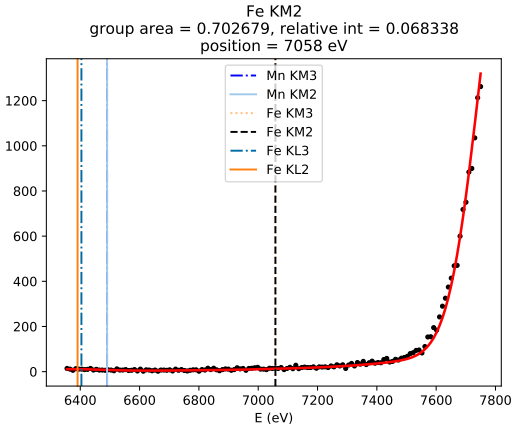

Mn KM3
group area = 1.31862, relative int = 0.134107
position = 6490.4 eV
EscEl EscEl
Mn KM3
Mn KM2
Mn KL3
Mn KL2
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

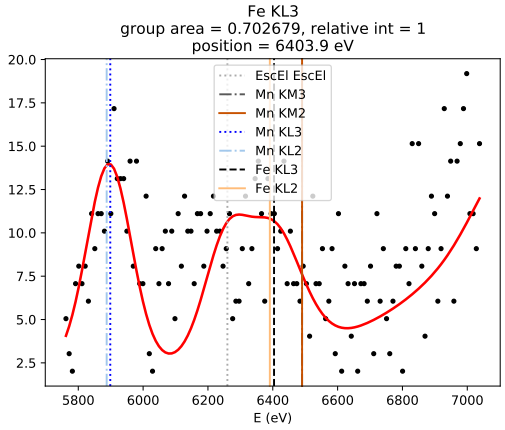

Mn KM2
group area = 1.31862, relative int = 0.0680293
position = 6490.4 eV
EscEl EscEl
Mn KM3
Mn KM2
Mn KL3
Mn KL2
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

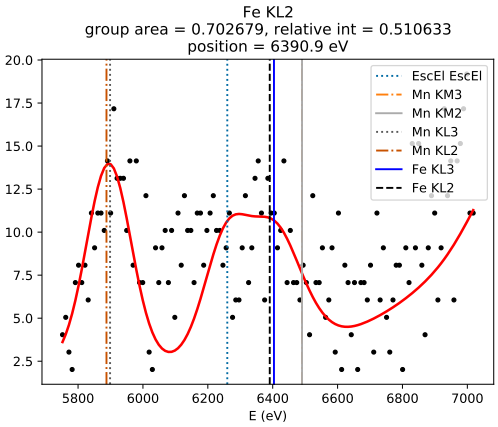

Mn KL3
group area = 1.31862, relative int = 1
position = 5898.7 eV
EscEl EscEl
Mn KL3
Mn KL2
Fe KL3
Fe KL2
E (eV)

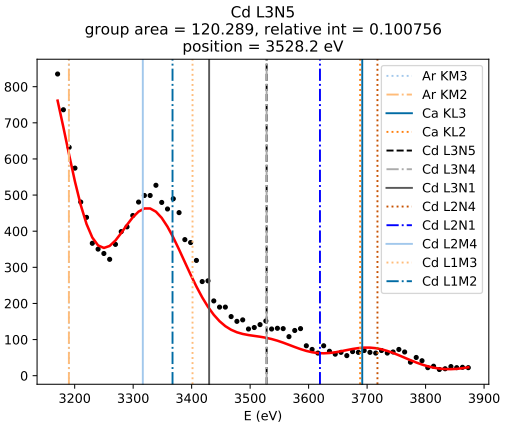

Mn KL2
group area = 1.31862, relative int = 0.509723
position = 5887.6 eV
EscEl EscEl
Mn KL3
Mn KL2
Fe KL3
Fe KL2
E (eV)

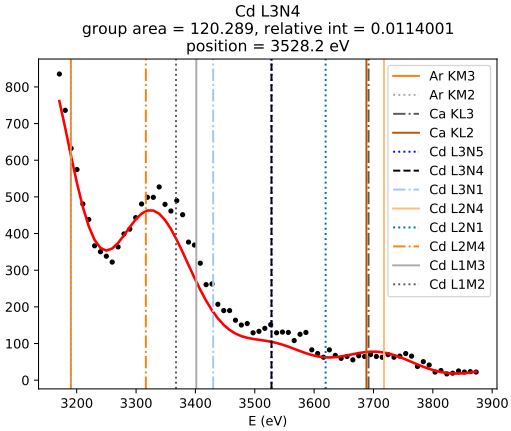

Fe KM3
group area = 0.702679, relative int = 0.13462
position = 7058 eV
Mn KM3
Mn KM2
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

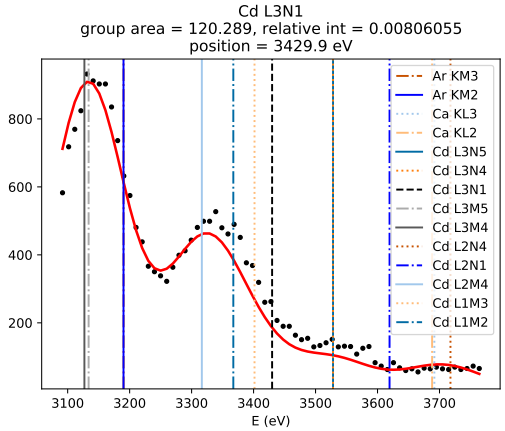

Fe KM2
group area = 0.702679, relative int = 0.068338
position = 7058 eV
Mn KM3
Mn KM2
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

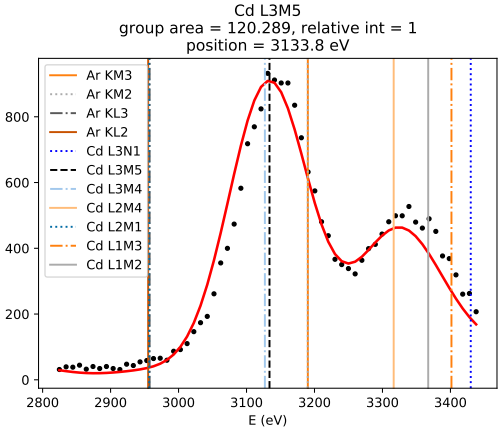

Fe KL3
group area = 0.702679, relative int = 1
position = 6403.9 eV
EscEl EscEl
Mn KM3
Mn KM2
Mn KL3
Mn KL2
Fe KL3
Fe KL2
E (eV)

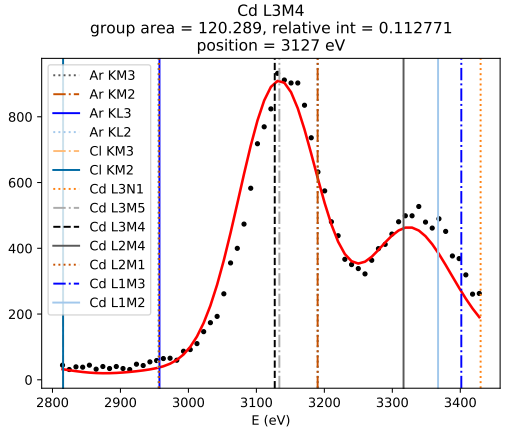

Fe KL2
group area = 0.702679, relative int = 0.510633
position = 6390.9 eV
EscEl EscEl
Mn KM3
Mn KM2
Mn KL3
Mn KL2
Fe KL3
Fe KL2
E (eV)

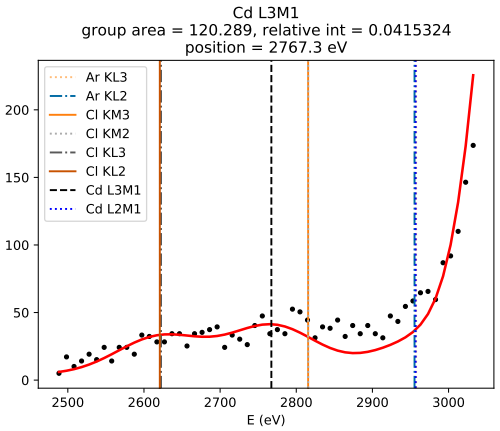

Cd L3N5
group area = 120.289, relative int = 0.100756
position = 3528.2 eV
Ar KM3
Ar KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L2N4
Cd L2N1
Cd L2M4
Cd L1M3
Cd L1M2
E (eV)

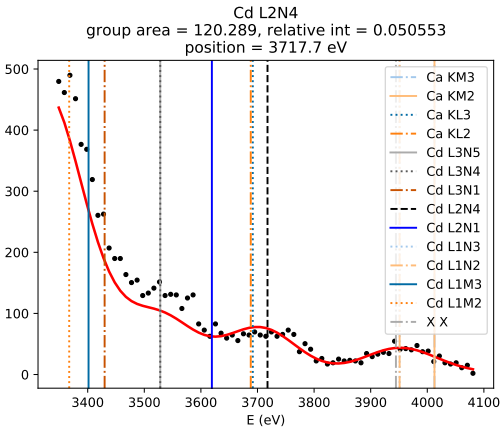

Cd L3N4
group area = 120.289, relative int = 0.0114001
position = 3528.2 eV
Ar KM3
Ar KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L2N4
Cd L2N1
Cd L2M4
Cd L1M3
Cd L1M2
E (eV)

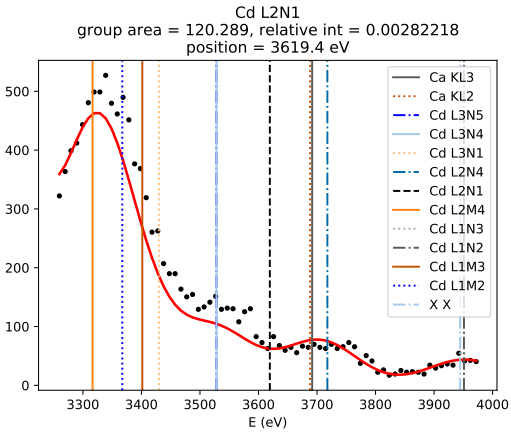

Cd L3N1
group area = 120.289, relative int = 0.00806055
position = 3429.9 eV
Ar KM3
Ar KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2N4
Cd L2N1
Cd L2M4
Cd L1M3
Cd L1M2
E (eV)

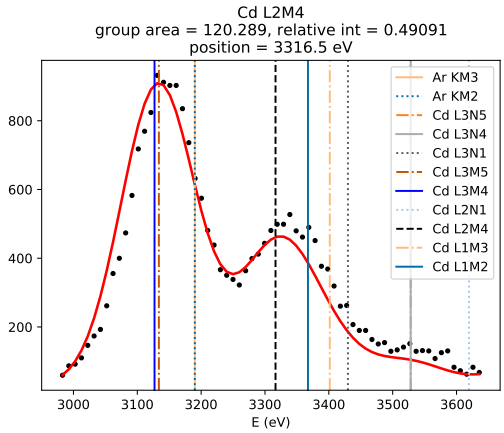

Cd L3M5
group area = 120.289, relative int = 1
position = 3133.8 eV
Ar KM3
Ar KM2
Ar KL3
Ar KL2
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2M4
Cd L2M1
Cd L1M3
Cd L1M2
E (eV)

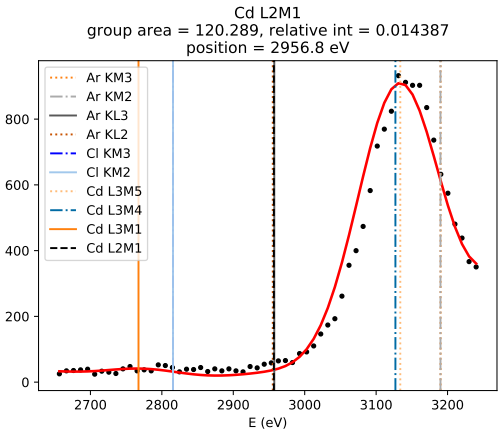

Cd L3M4
group area = 120.289, relative int = 0.112771
position = 3127 eV
Ar KM3
Ar KM2
Ar KL3
Ar KL2
Cl KM3
Cl KM2
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2M4
Cd L2M1
Cd L1M3
Cd L1M2
E (eV)

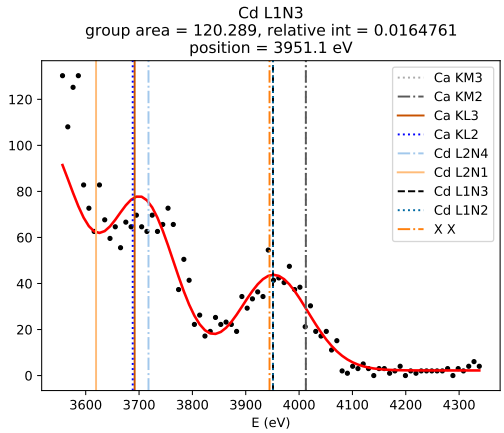

Cd L3M1
group area = 120.289, relative int = 0.0415324
position = 2767.3 eV
Ar KL3
Ar KL2
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Cd L3M1
Cd L2M1
E (eV)

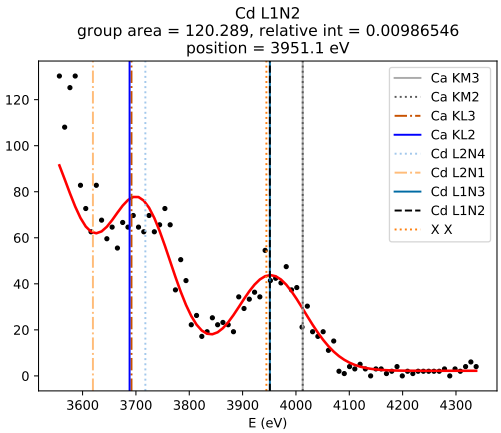

Cd L2N4
group area = 120.289, relative int = 0.050553
position = 3717.7 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
Cd L1M3
Cd L1M2
X X
E (eV)

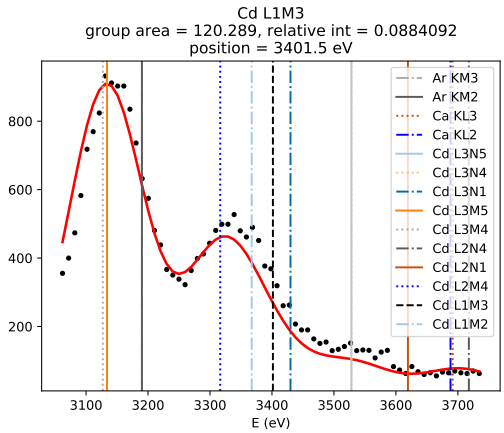

Cd L2N1
group area = 120.289, relative int = 0.00282218
position = 3619.4 eV
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L2N4
Cd L2N1
Cd L2M4
Cd L1N3
Cd L1N2
Cd L1M3
Cd L1M2
X X
E (eV)

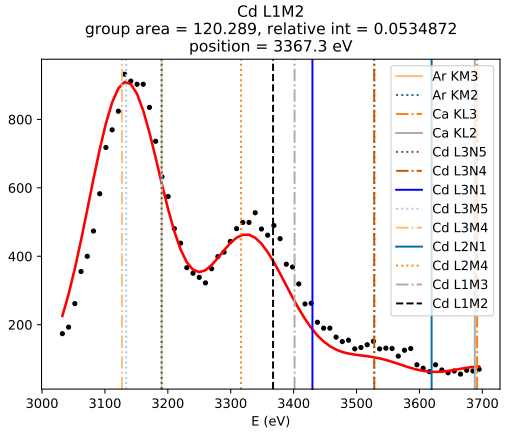

Cd L2M4
group area = 120.289, relative int = 0.49091
position = 3316.5 eV
Ar KM3
Ar KM2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2N1
Cd L2M4
Cd L1M3
Cd L1M2
E (eV)

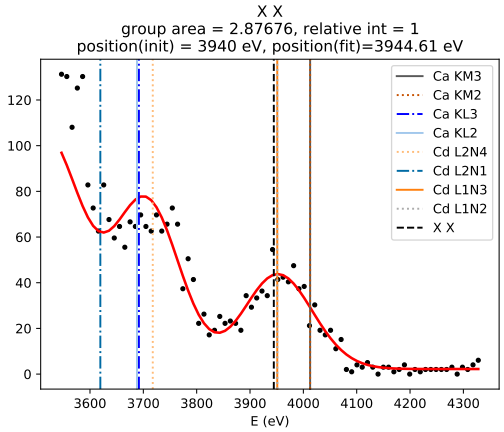

Cd L2M1
group area = 120.289, relative int = 0.014387
position = 2956.8 eV
Ar KM3
Ar KM2
Ar KL3
Ar KL2
Cl KM3
Cl KM2
Cd L3M5
Cd L3M4
Cd L3M1
Cd L2M1
E (eV)


Cd L1N3
group area = 120.289, relative int = 0.0164761
position = 3951.1 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
X X
E (eV)

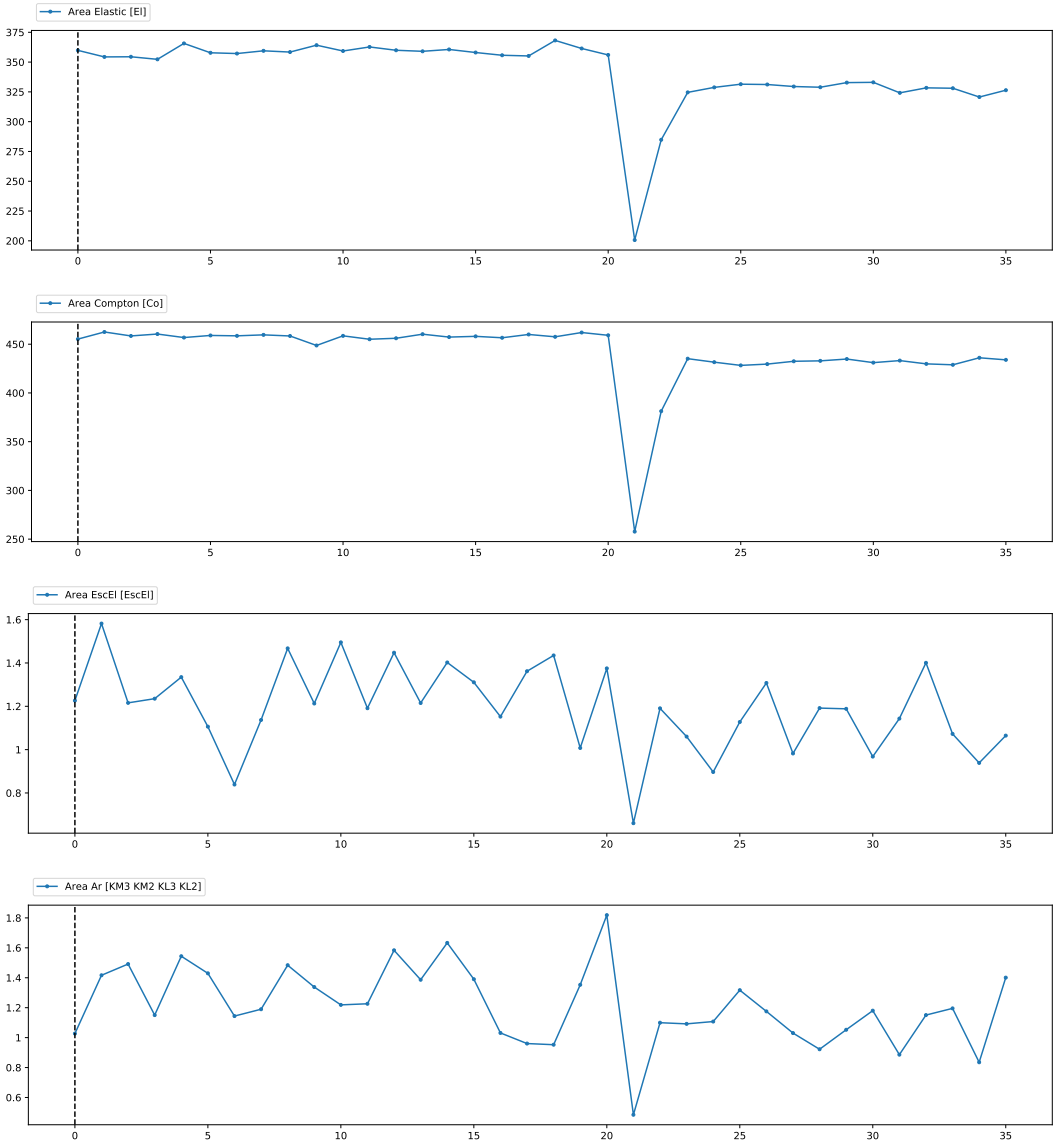

Cd L1N2
group area = 120.289, relative int = 0.00986546
position = 3951.1 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
X X
E (eV)

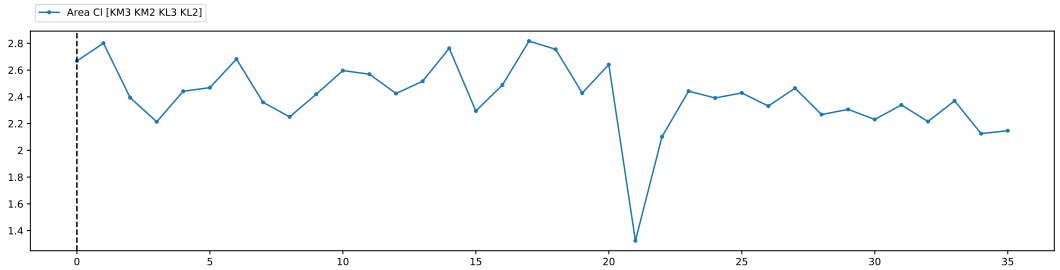

Cd L1M3
group area = 120.289, relative int = 0.0884092
position = 3401.5 eV
Ar KM3
Ar KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2N4
Cd L2N1
Cd L2M4
Cd L1M3
Cd L1M2
E (eV)

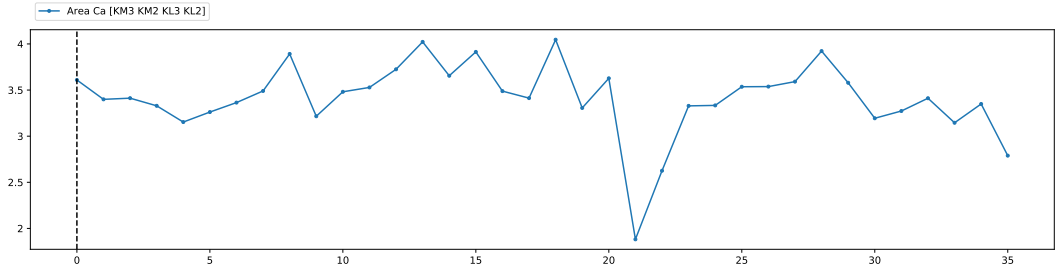

Cd L1M2
group area = 120.289, relative int = 0.0534872
position = 3367.3 eV
Ar KM3
Ar KM2
Ca KL3
Ca KL2
Cd L3N5
Cd L3N4
Cd L3N1
Cd L3M5
Cd L3M4
Cd L2N1
Cd L2M4
Cd L1M3
Cd L1M2
E (eV)

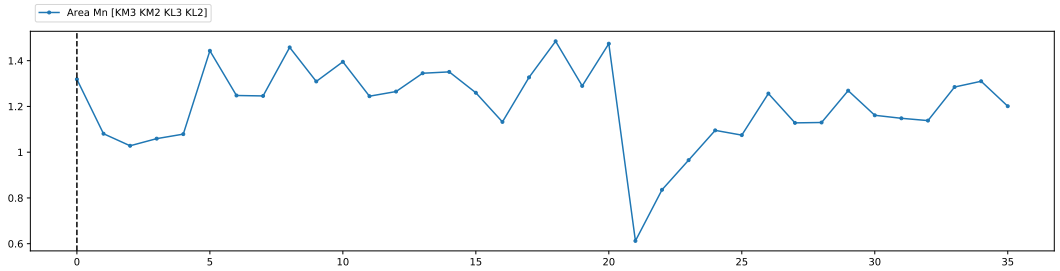

X X
group area = 2.87676, relative int = 1
position(init) = 3940 eV, position(fit)=3944.61 eV
Ca KM3
Ca KM2
Ca KL3
Ca KL2
Cd L2N4
Cd L2N1
Cd L1N3
Cd L1N2
X X
E (eV)

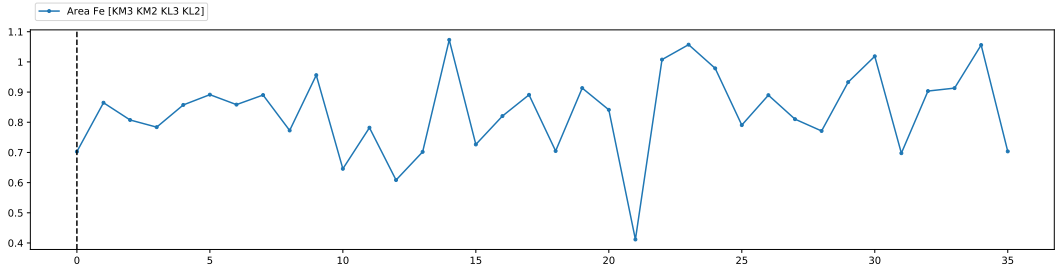
AREAS

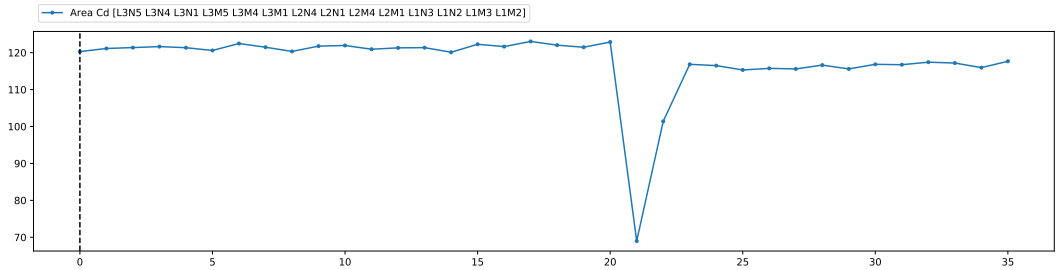

Area Elastic [El]
Area Compton [Co]
Area EscEl [EscEl]
Area Ar [KM3 KM2 KL3 KL2]

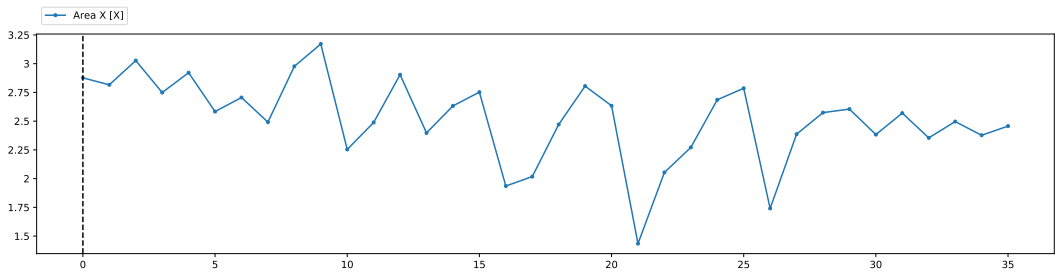

Area Cl [KM3 KM2 KL3 KL2]

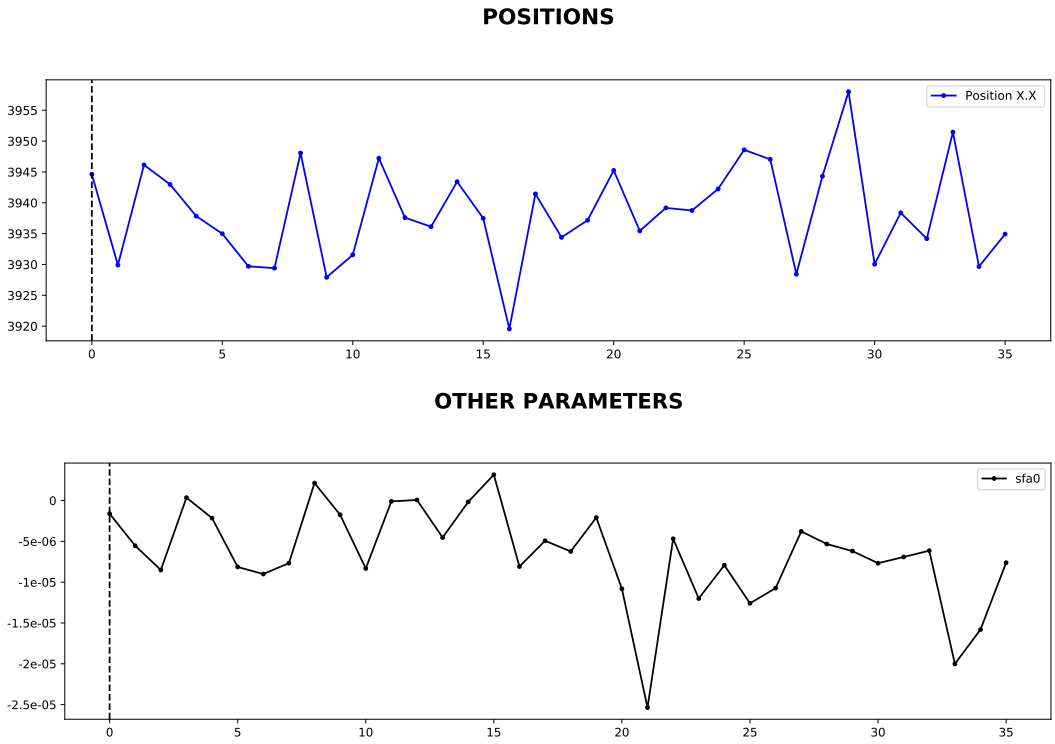

Area Ca [KM3 KM2 KL3 KL2]


Area Mn [KM3 KM2 KL3 KL2]


Area Fe [KM3 KM2 KL3 KL2]


Area Cd [L3N5 L3N4 L3N1 L3M5 L3M4 L3M1 L2N4 L2N1 L2M4 L2M1 L1N3 L1N2 L1M3 L1M2]


Area X [X]



2 SIRIUS_Fluo_2020_02_16_02289

A series of spectrums which is a bit more difficult to fit, due to the many different lines of gold and their high intensities.
It is required to add a Compton peak for the Au La1 line. Do not forget to name it “Compton” as well.

We also add an escape peak for this Au La1 line. Do not name it ‘Au’! Here we name it ‘EscAuLa1’.

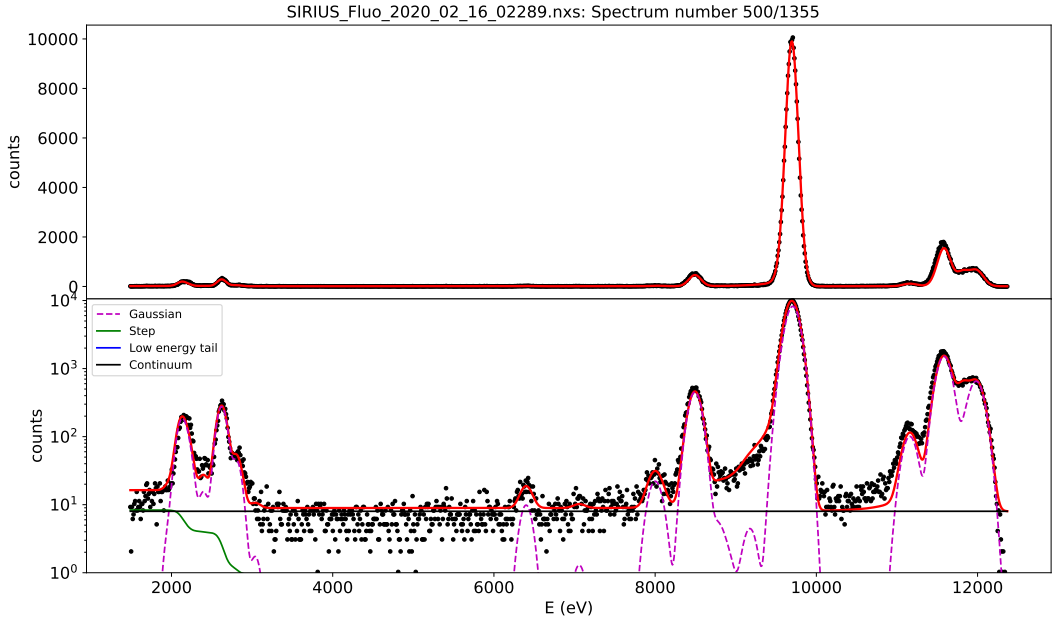
Another difficulty is the strong change of the nature of the interface, with an associated rise of the Compton scattering. All in all the fits are quite good even without any fitting parameters.

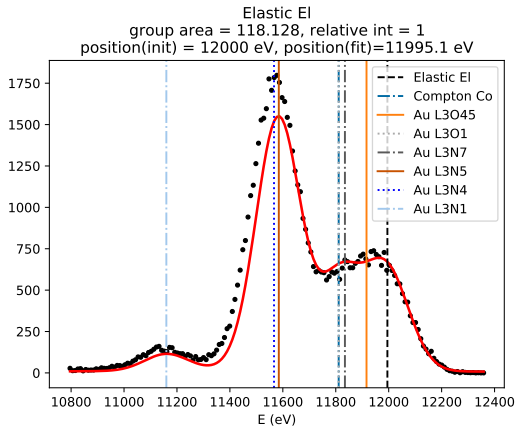
```
Fit results for SIRIUS_Fluo_2020_02_16_02289.nxs
Spectrum interval = [50,1405]
Channel interval = [150,1250]
List of chosen elements:  ['Element 4']

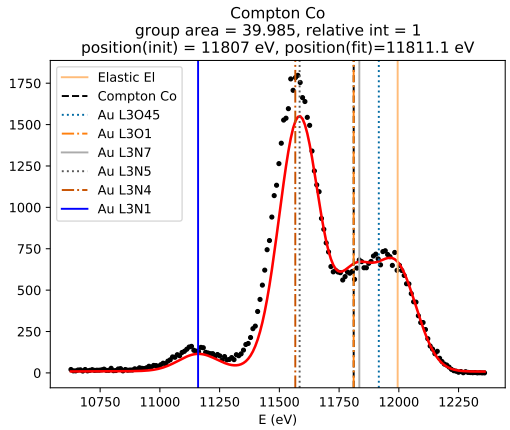
Parameters used:
gain = 9.89; eV0 = 6
beam energy = 12000
List of fitted parameters: []

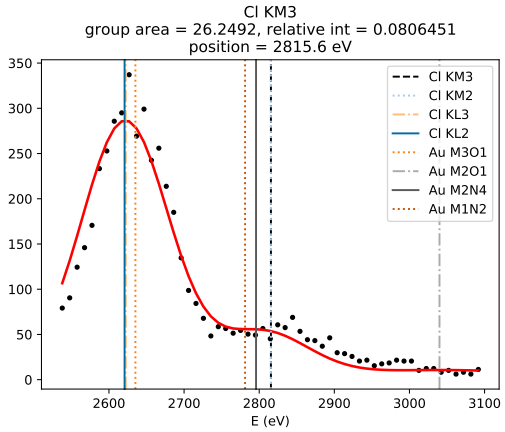
Initial fit parameters:
epsilon = 0.0036; fano = 0.115; noise = 0.110531
sl = 0; ct = 8
sfa0 = 0.000122772; sfa1 = 1e-07; tfb0 = 1e-05; tfb1 = 1e-05
twc0 = 1e-05; twc1 = 1e-05
fG = 0.849218
```

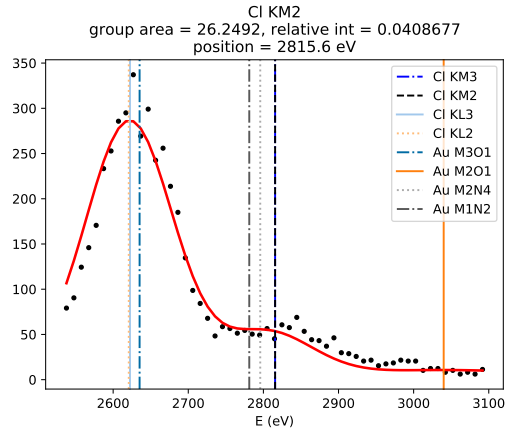
```
fA = 0.238138; fB = 1e-10; gammaA = 3; gammaB = 1e+10
```

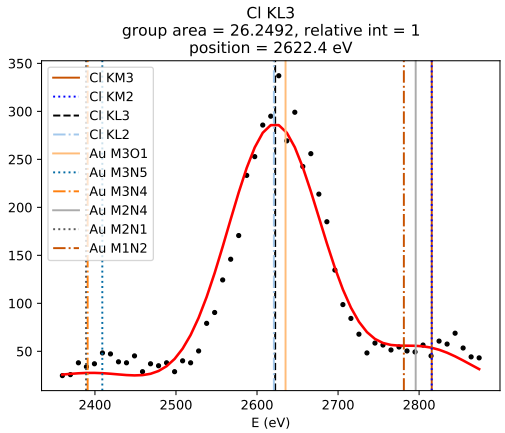


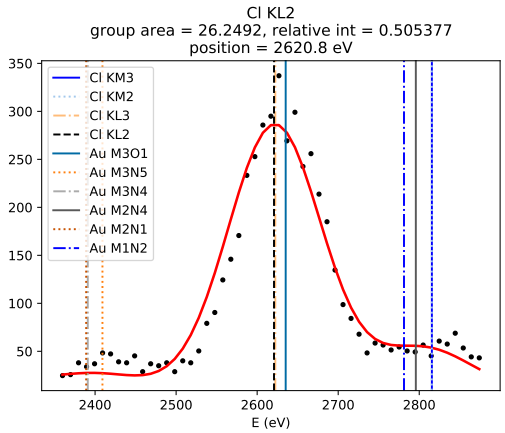


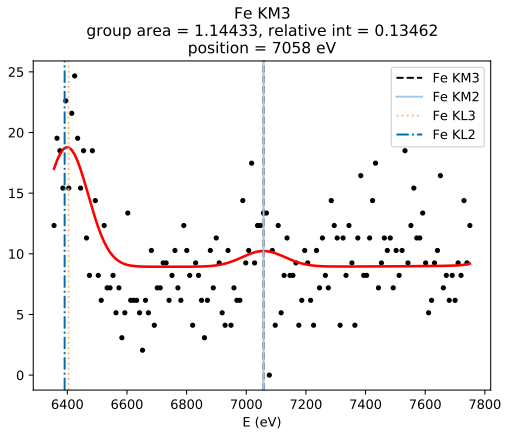


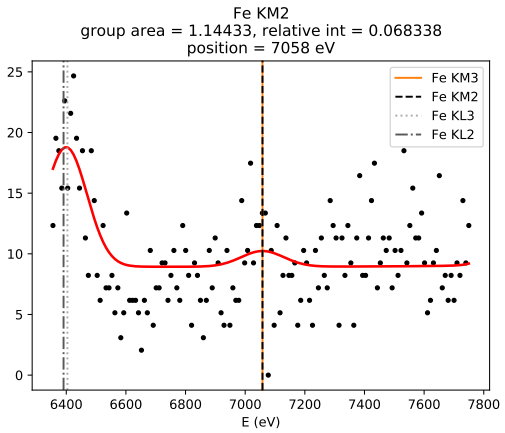


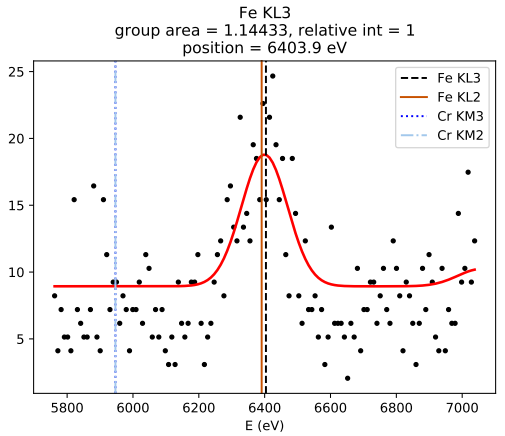


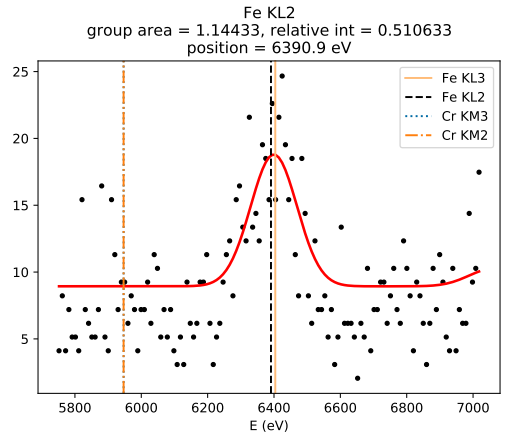

Cl KL3
group area = 26.2492, relative int = 1
position = 2622.4 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N4
Au M2N1
Au M1N2
E (eV)

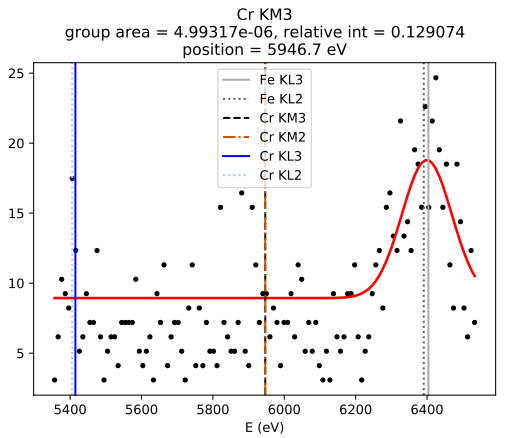

Cl KL2
group area = 26.2492, relative int = 0.505377
position = 2620.8 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N4
Au M2N1
Au M1N2
E (eV)

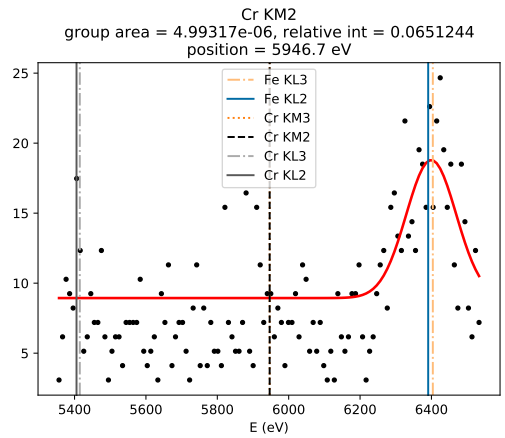

Fe KM3
group area = 1.14433, relative int = 0.13462
position = 7058 eV
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

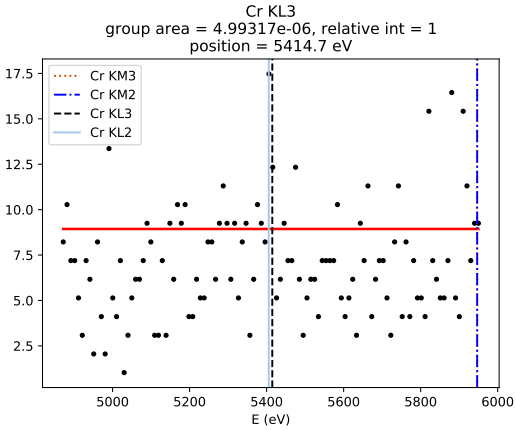

Fe KM2
group area = 1.14433, relative int = 0.068338
position = 7058 eV
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

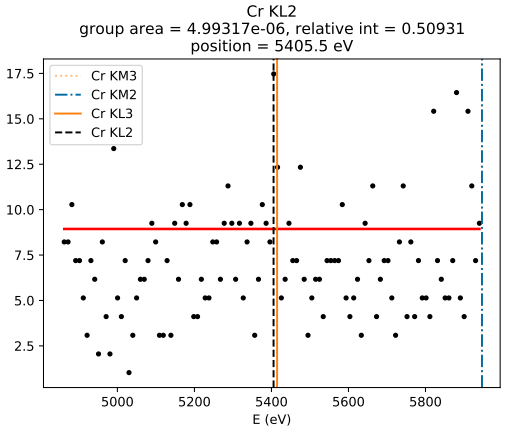

Fe KL3
group area = 1.14433, relative int = 1
position = 6403.9 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
E (eV)

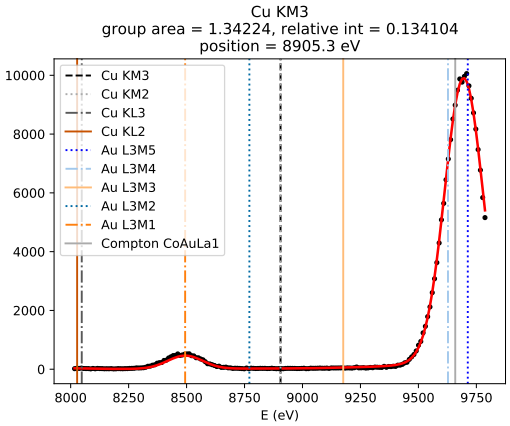

Fe KL2
group area = 1.14433, relative int = 0.510633
position = 6390.9 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
E (eV)

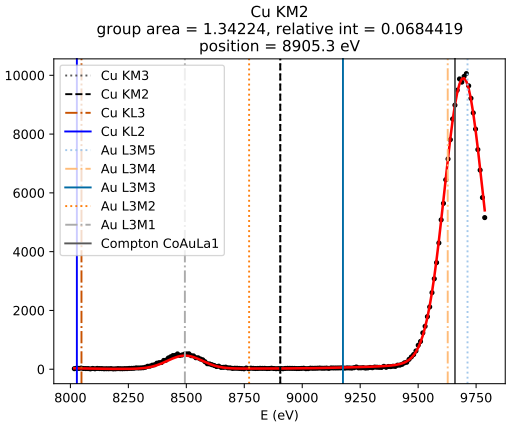

Cr KM3
group area = 4.99317e-06, relative int = 0.129074
position = 5946.7 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

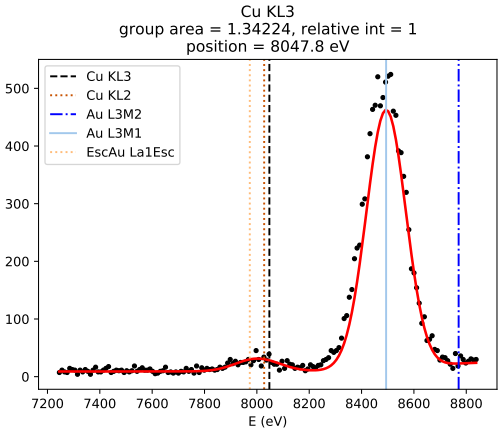

Cr KM2
group area = 4.99317e-06, relative int = 0.0651244
position = 5946.7 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

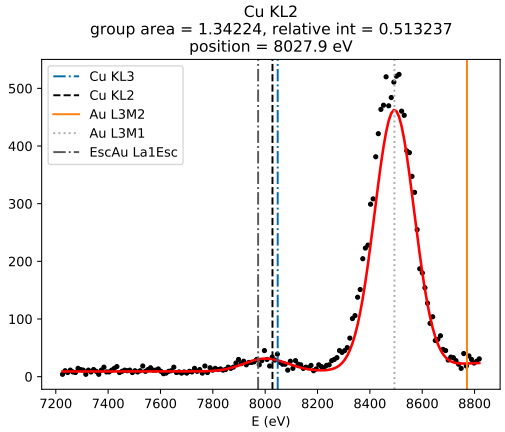

Cr KL3
group area = 4.99317e-06, relative int = 1
position = 5414.7 eV
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

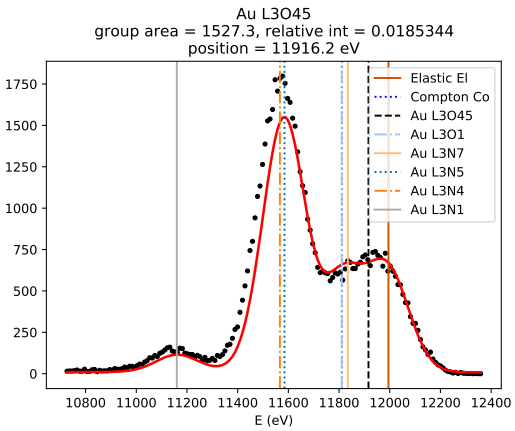

Cr KL2
group area = 4.99317e-06, relative int = 0.50931
position = 5405.5 eV
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

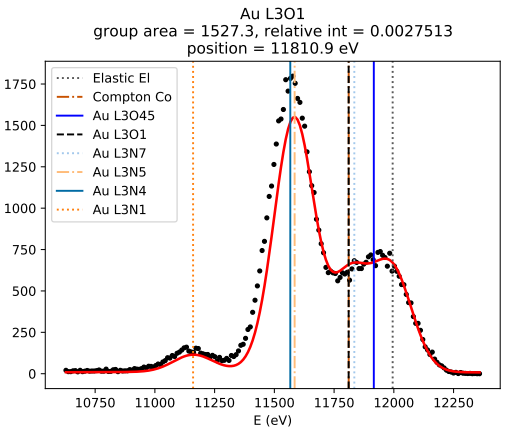

Cu KM3
group area = 1.34224, relative int = 0.134104
position = 8905.3 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Au L3M1
Compton CoAuLa1
E (eV)

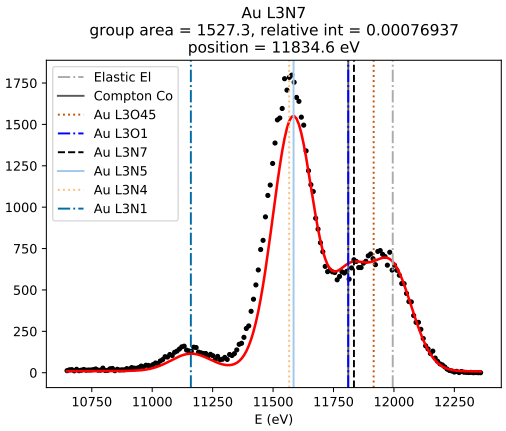

Cu KM2
group area = 1.34224, relative int = 0.0684419
position = 8905.3 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Au L3M1
Compton CoAuLa1
E (eV)

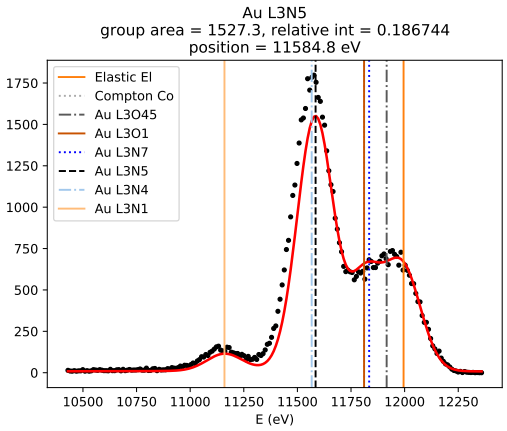

Cu KL3
group area = 1.34224, relative int = 1
position = 8047.8 eV
Cu KL3
Cu KL2
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

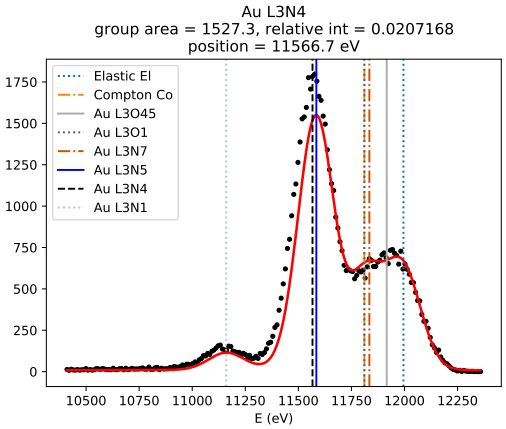

Cu KL2
group area = 1.34224, relative int = 0.513237
position = 8027.9 eV
Cu KL3
Cu KL2
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

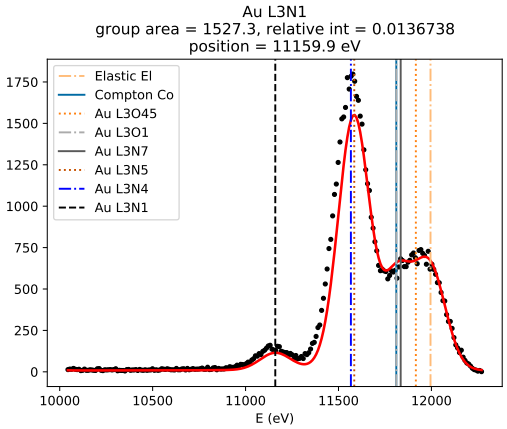

Au L3O45
group area = 1527.3, relative int = 0.0185344
position = 11916.2 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

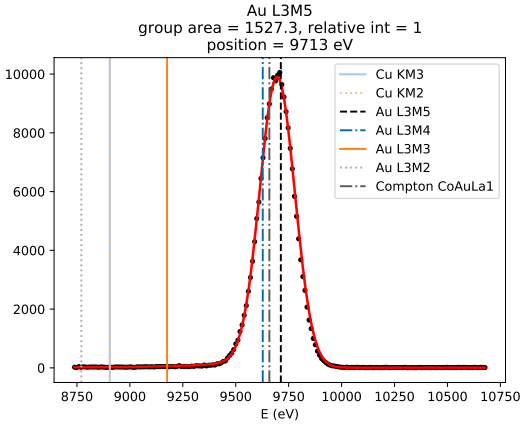

Au L3O1
group area = 1527.3, relative int = 0.0027513
position = 11810.9 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

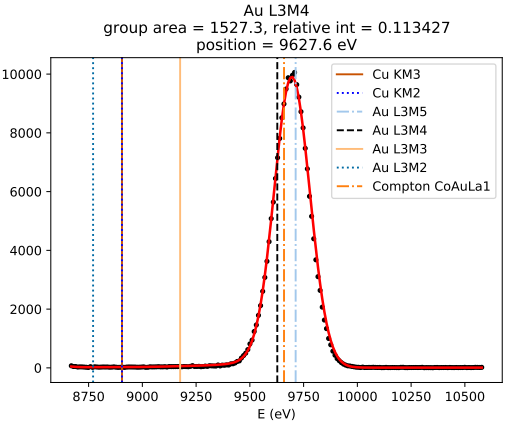

Au L3N7
group area = 1527.3, relative int = 0.00076937
position = 11834.6 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

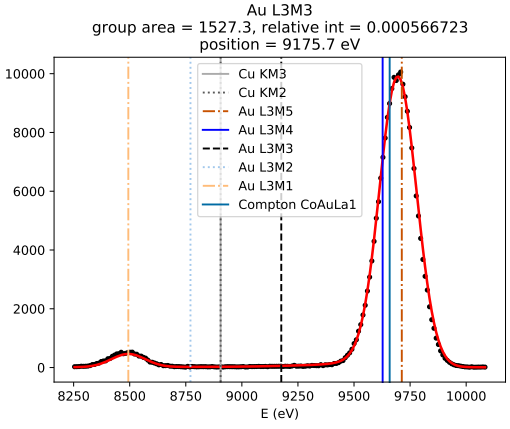

Au L3N5
group area = 1527.3, relative int = 0.186744
position = 11584.8 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

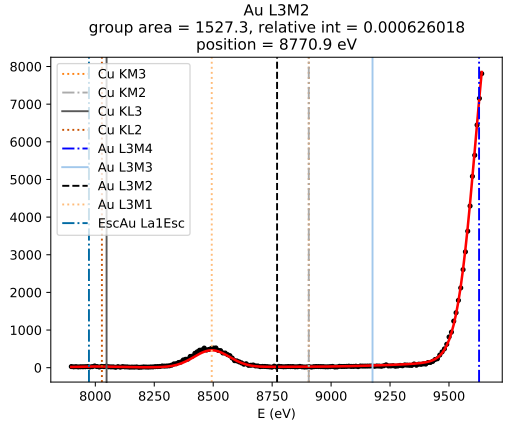

Au L3N4
group area = 1527.3, relative int = 0.0207168
position = 11566.7 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

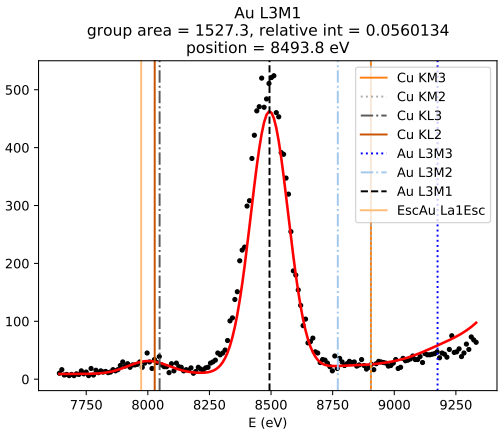

Au L3N1
group area = 1527.3, relative int = 0.0136738
position = 11159.9 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

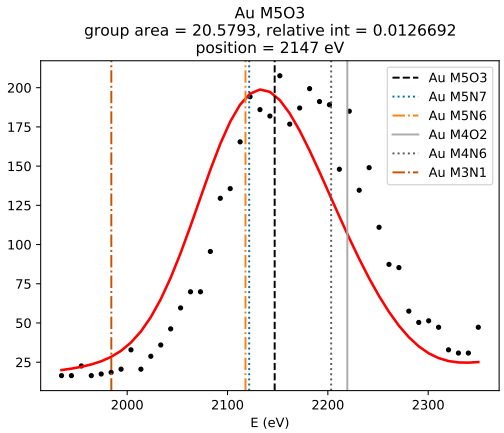

Au L3M5
group area = 1527.3, relative int = 1
position = 9713 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Compton CoAuLa1
E (eV)

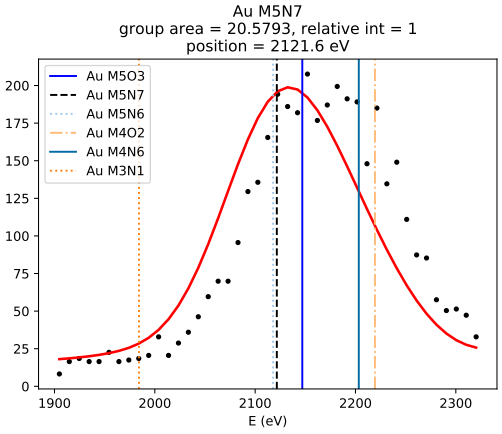

Au L3M4
group area = 1527.3, relative int = 0.113427
position = 9627.6 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Compton CoAuLa1
E (eV)

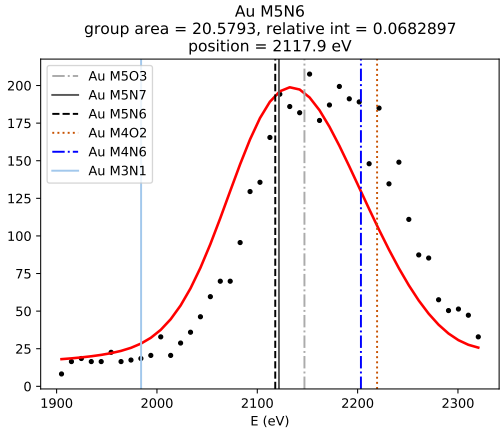

Au L3M3
group area = 1527.3, relative int = 0.000566723
position = 9175.7 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Au L3M1
Compton CoAuLa1
E (eV)

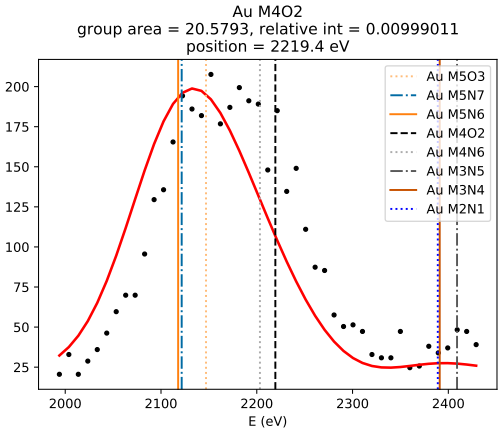

Au L3M2
group area = 1527.3, relative int = 0.000626018
position = 8770.9 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M4
Au L3M3
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

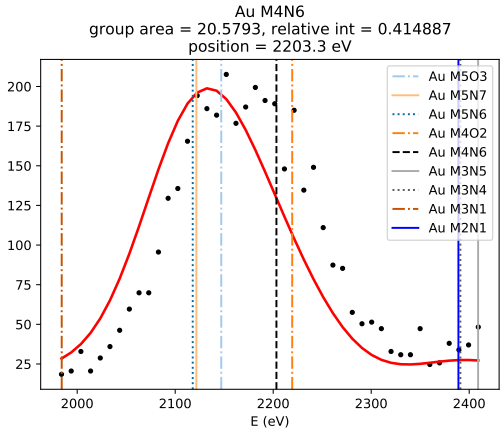

Au L3M1
group area = 1527.3, relative int = 0.0560134
position = 8493.8 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M3
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

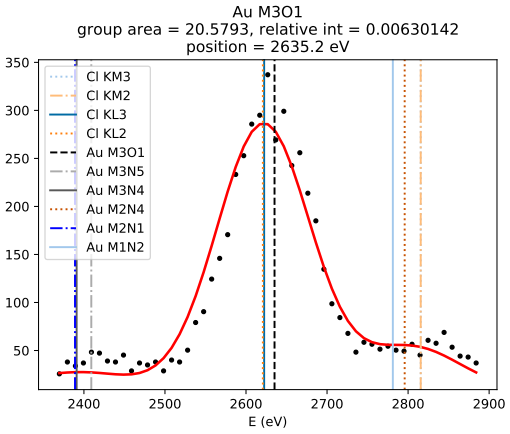

Au M5O3
group area = 20.5793, relative int = 0.0126692
position = 2147 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N1
E (eV)

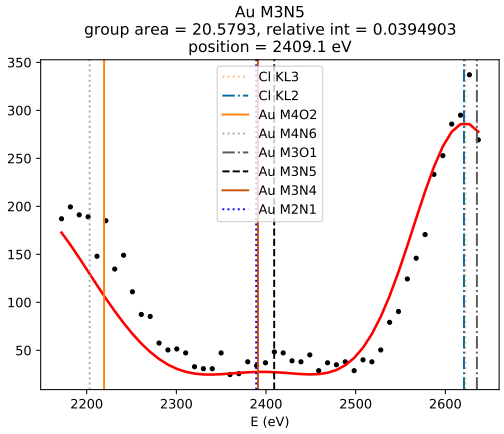

Au M5N7
group area = 20.5793, relative int = 1
position = 2121.6 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N1
E (eV)

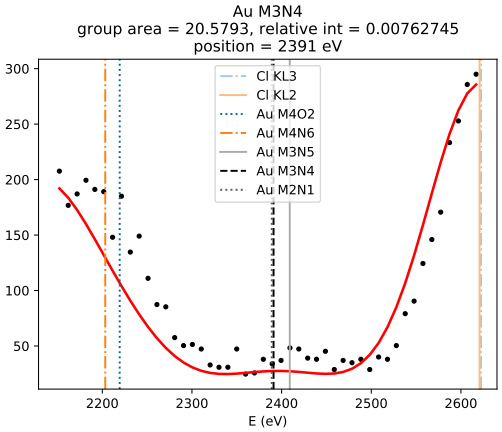

Au M5N6
group area = 20.5793, relative int = 0.0682897
position = 2117.9 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N1
E (eV)

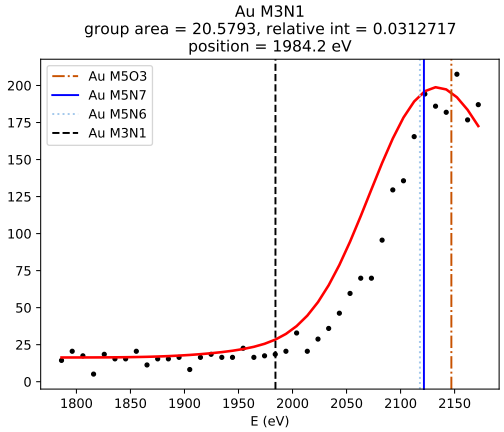

Au M4O2
group area = 20.5793, relative int = 0.00999011
position = 2219.4 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
E (eV)

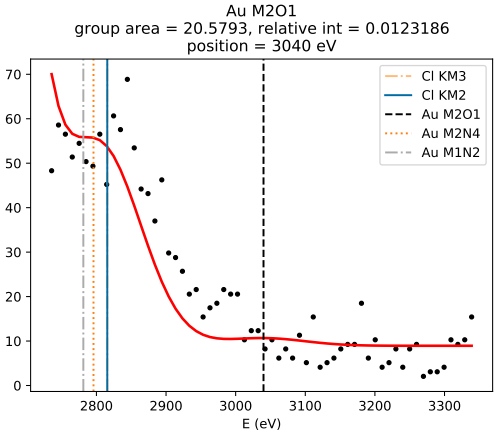

Au M4N6
group area = 20.5793, relative int = 0.414887
position = 2203.3 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M3N1
Au M2N1
E (eV)

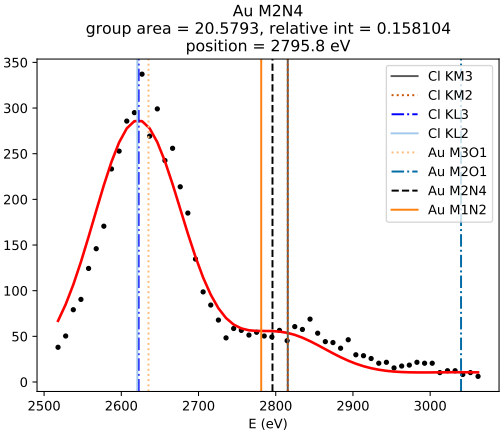

Au M3O1
group area = 20.5793, relative int = 0.00630142
position = 2635.2 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N4
Au M2N1
Au M1N2
E (eV)

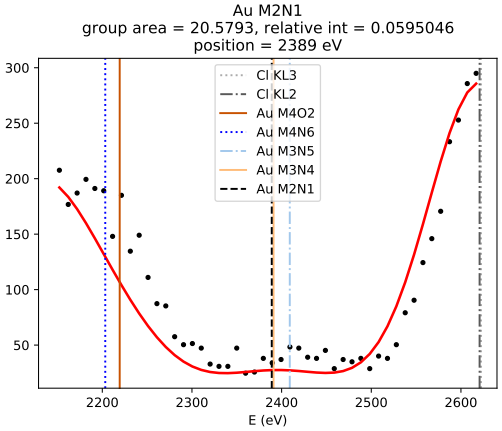

Au M3N5
group area = 20.5793, relative int = 0.0394903
position = 2409.1 eV
Cl KL3
Cl KL2
Au M4O2
Au M4N6
Au M3O1
Au M3N5
Au M3N4
Au M2N1
E (eV)

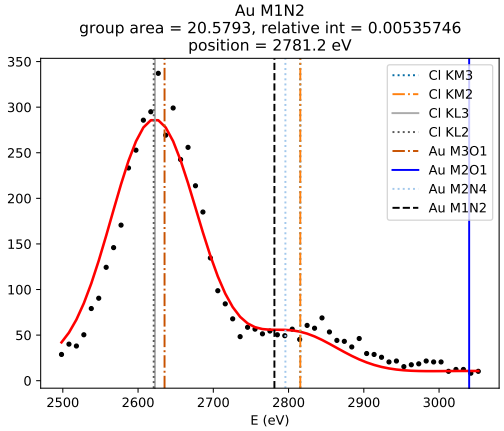

Au M3N4
group area = 20.5793, relative int = 0.00762745
position = 2391 eV
Cl KL3
Cl KL2
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
E (eV)

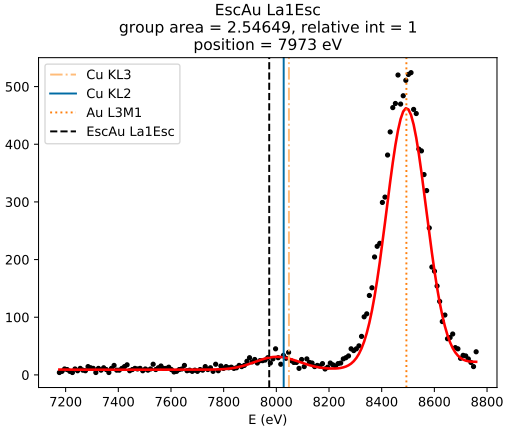

Au M3N1
group area = 20.5793, relative int = 0.0312717
position = 1984.2 eV
Au M5O3
Au M5N7
Au M5N6
Au M3N1
E (eV)

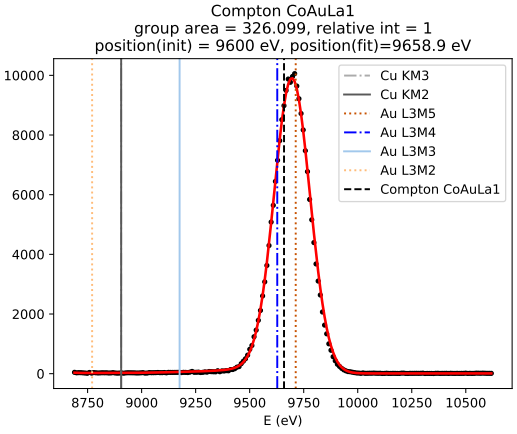

Au M2O1
group area = 20.5793, relative int = 0.0123186
position = 3040 eV
Cl KM3
Cl KM2
Au M2O1
Au M2N4
Au M1N2
E (eV)


Au M2N4
group area = 20.5793, relative int = 0.158104
position = 2795.8 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M2O1
Au M2N4
Au M1N2
E (eV)

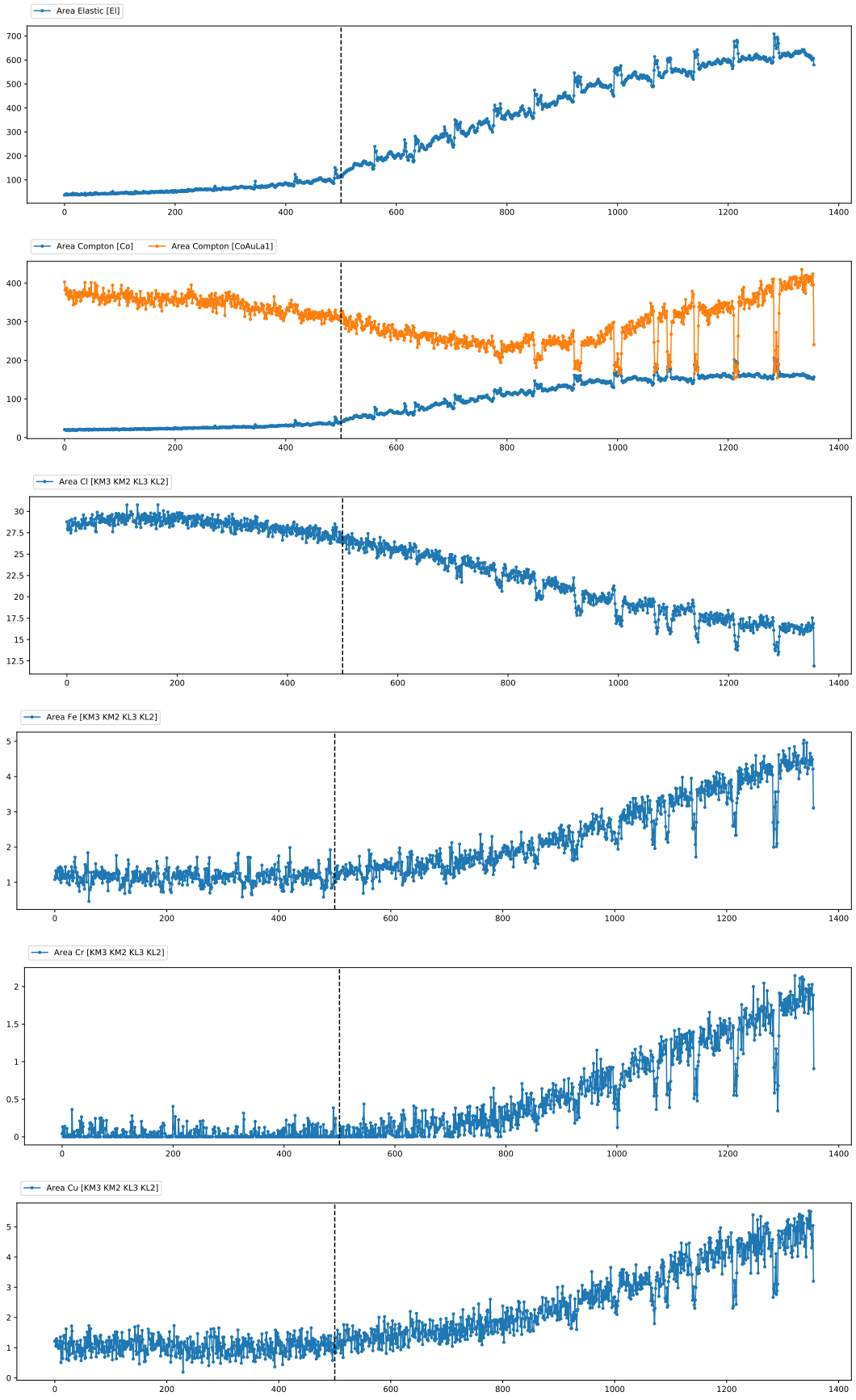

Au M2N1
group area = 20.5793, relative int = 0.0595046
position = 2389 eV
Cl KL3
Cl KL2
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
E (eV)

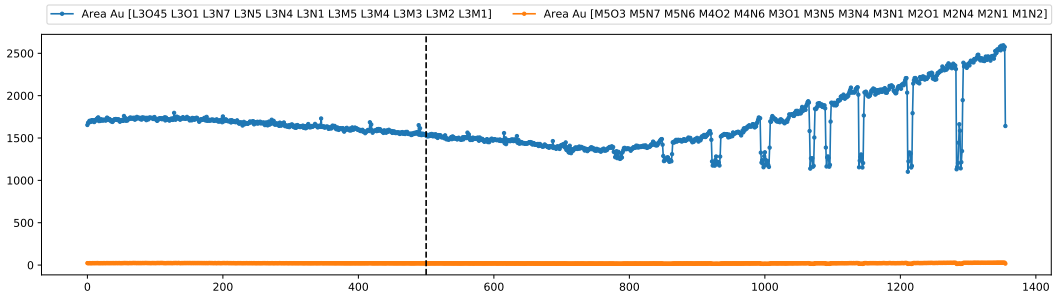

Au M1N2
group area = 20.5793, relative int = 0.00535746
position = 2781.2 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M2O1
Au M2N4
Au M1N2
E (eV)

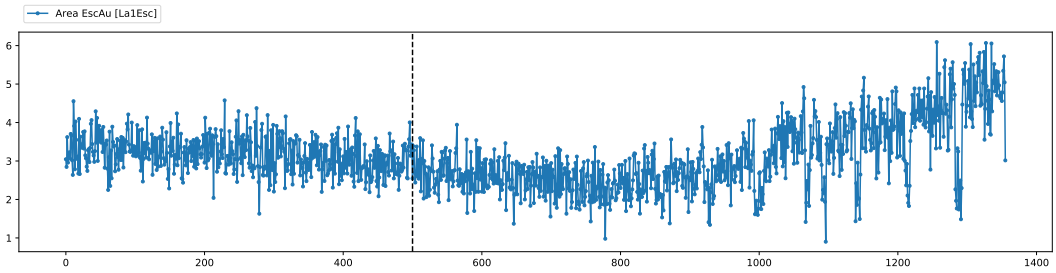

EscAu La1Esc
group area = 2.54649, relative int = 1
position = 7973 eV
Cu KL3
Cu KL2
Au L3M1
EscAu La1Esc
E (eV)


Compton CoAuLa1
group area = 326.099, relative int = 1
position(init) = 9600 eV, position(fit)=9658.9 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Compton CoAuLa1
E (eV)

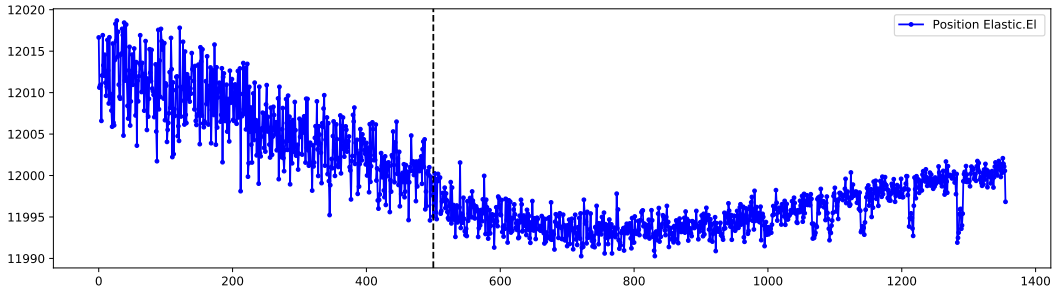
AREAS

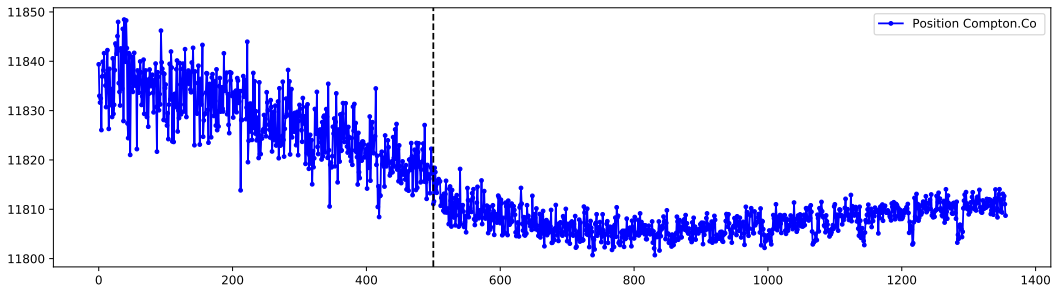

Area Elastic [El]
Area Compton [Co]
Area Compton [CoAuLa1]
Area Cl [KM3 KM2 KL3 KL2]
Area Fe [KM3 KM2 KL3 KL2]
Area Cr [KM3 KM2 KL3 KL2]
Area Cu [KM3 KM2 KL3 KL2]

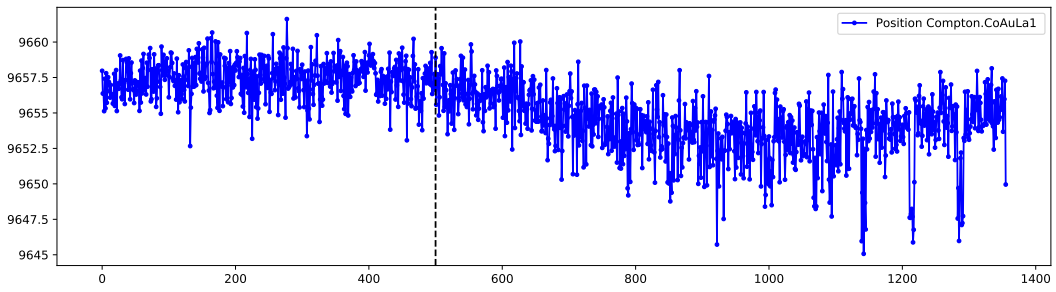

Area Au [L3O45 L3O1 L3N7 L3N5 L3N4 L3N1 L3M5 L3M4 L3M3 L3M2 L3M1]
Area Au [M5O3 M5N7 M5N6 M4O2 M4N6 M3O1 M3N5 M3N4 M3N1 M2O1 M2N4 M2N1 M1N2]


Area EscAu [La1Esc]

POSITIONS


Position Elastic.El


Position Compton.Co


Position Compton.CoAuLa1

3 SIRIUS_Fluo_2020_02_16_02288

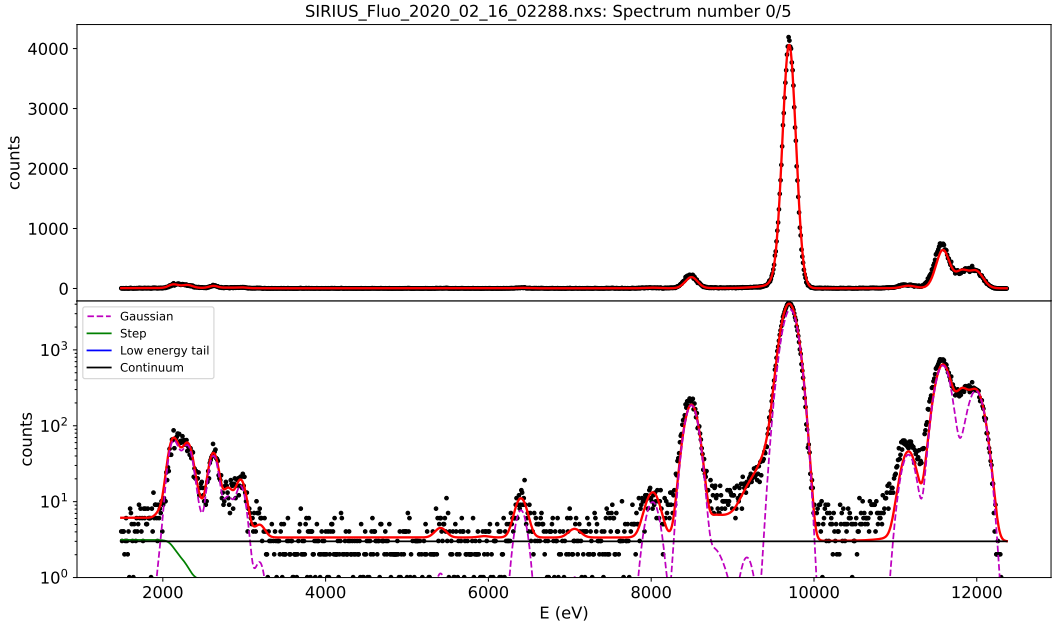
Spectrums from the same series as SIRIUS_Fluo_2020_02_16_02289.
Here to show that we can fit the curve with the same parameters as the previous one (only with a small adjustement of the noise via ct, and of the low energy step via sfa0).
Fitting all the time series may require a bit more work, with a noise continuously increasing (may be by fitting via sl and ct).

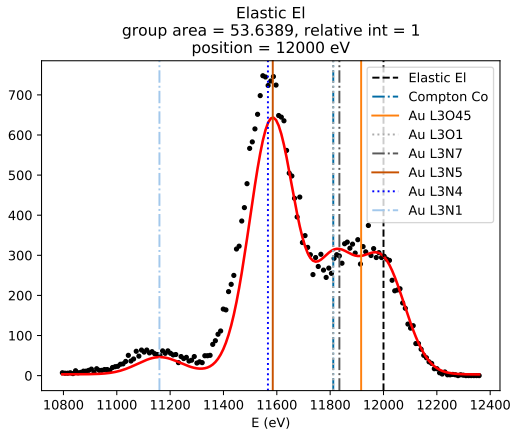
Here, the quantitative fitting allows one to show an increase of the Argon contribution as compared to the previous scan, and the potential contamination with Sulfur.

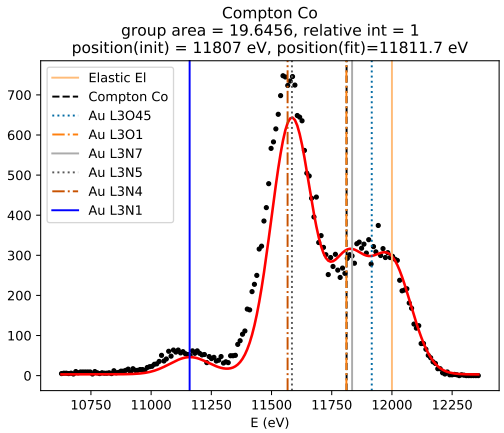
```
Fit results for SIRIUS_Fluo_2020_02_16_02288.nxs
Spectrum interval = [50,55]
Channel interval = [150,1250]
List of chosen elements:  ['Element 4']

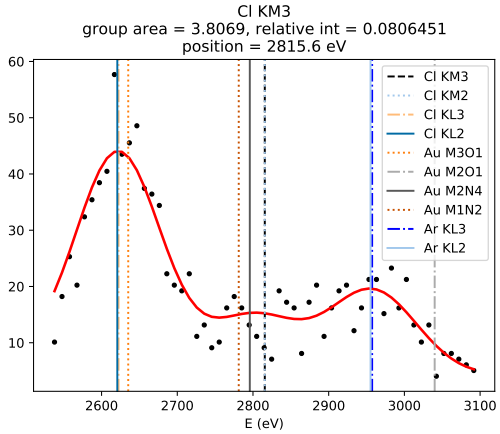
Parameters used:
gain = 9.89; eV0 = 6
beam energy = 12000
List of fitted parameters: ['sfa0']

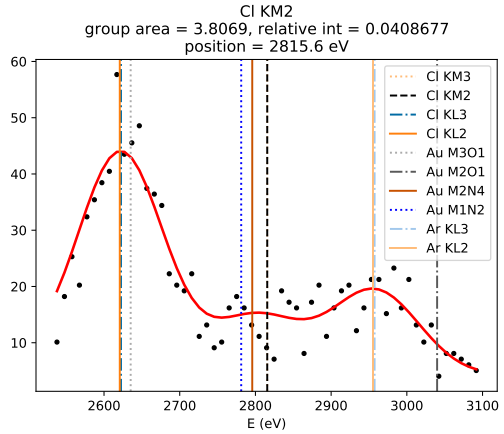
Initial fit parameters:
epsilon = 0.0036; fano = 0.115; noise = 0.110531
sl = 0; ct = 3
sfa0 = 0.000239727; sfa1 = 1e-07; tfb0 = 1e-05; tfb1 = 1e-05
twc0 = 1e-05; twc1 = 1e-05
fG = 0.849218
fA = 0.238138; fB = 1e-10; gammaA = 2.0428; gammaB = 1e+10
```

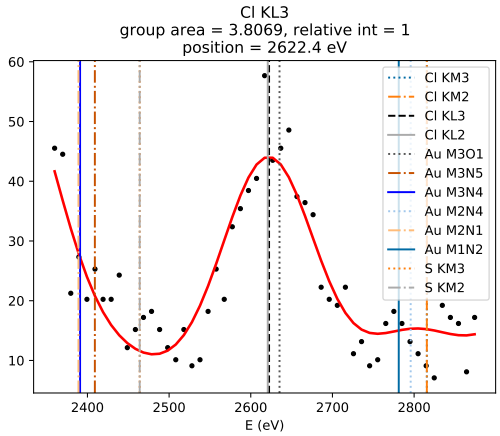


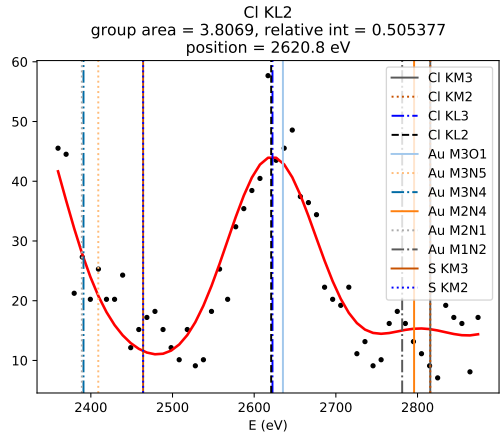

Elastic El
group area = 53.6389, relative int = 1
position = 12000 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

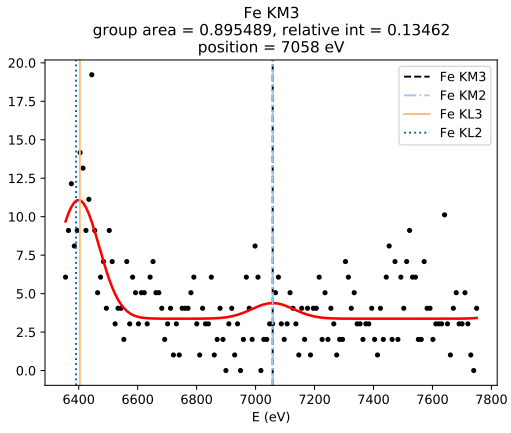

Compton Co
group area = 19.6456, relative int = 1
position(init) = 11807 eV, position(fit)=11811.7 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

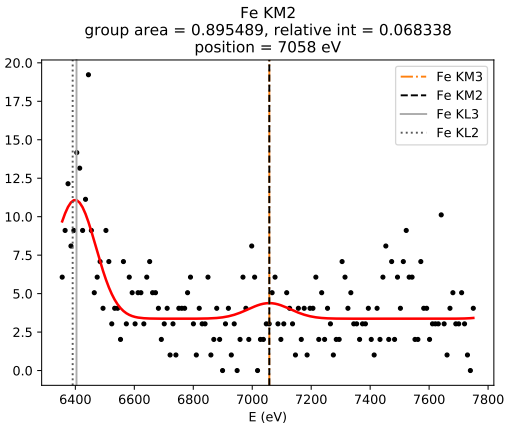

Cl KM3
group area = 3.8069, relative int = 0.0806451
position = 2815.6 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M2O1
Au M2N4
Au M1N2
Ar KL3
Ar KL2
E (eV)

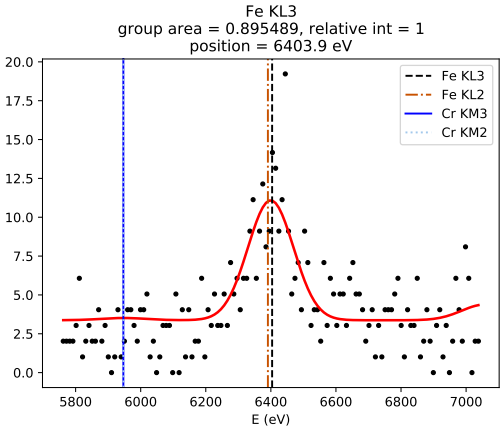

Cl KM2
group area = 3.8069, relative int = 0.0408677
position = 2815.6 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M2O1
Au M2N4
Au M1N2
Ar KL3
Ar KL2
E (eV)

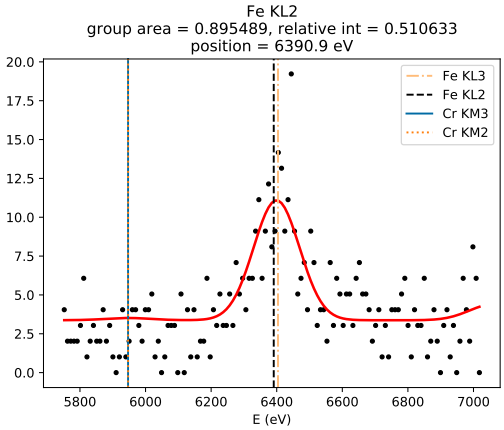

Cl KL3
group area = 3.8069, relative int = 1
position = 2622.4 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N4
Au M2N1
Au M1N2
S KM3
S KM2
E (eV)

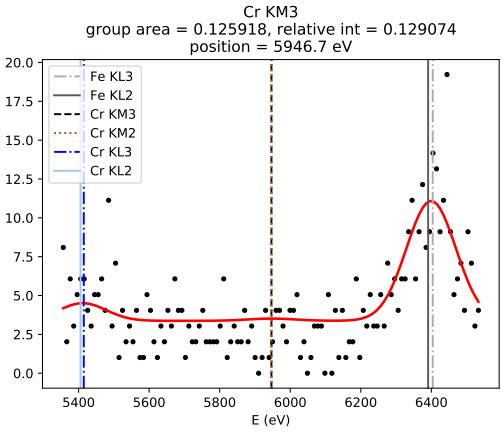

Cl KL2
group area = 3.8069, relative int = 0.505377
position = 2620.8 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N4
Au M2N1
Au M1N2
S KM3
S KM2
E (eV)

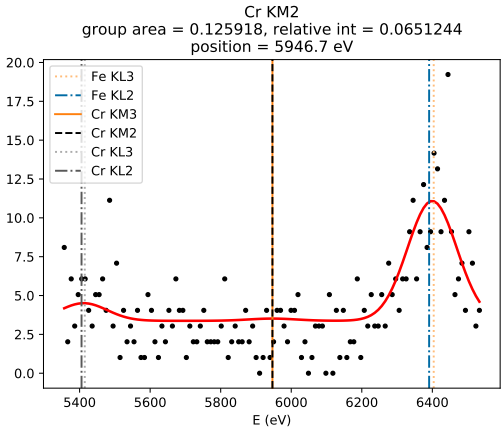

Fe KM3
group area = 0.895489, relative int = 0.13462
position = 7058 eV
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

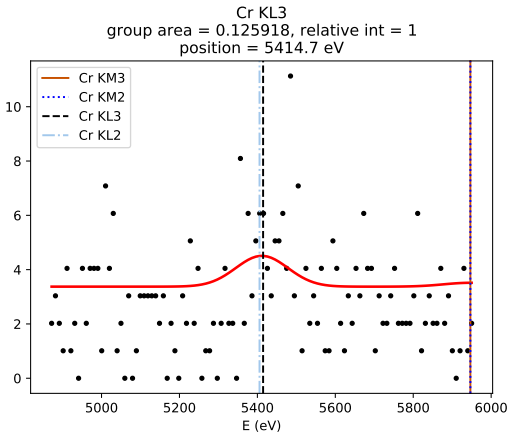

Fe KM2
group area = 0.895489, relative int = 0.068338
position = 7058 eV
Fe KM3
Fe KM2
Fe KL3
Fe KL2
E (eV)

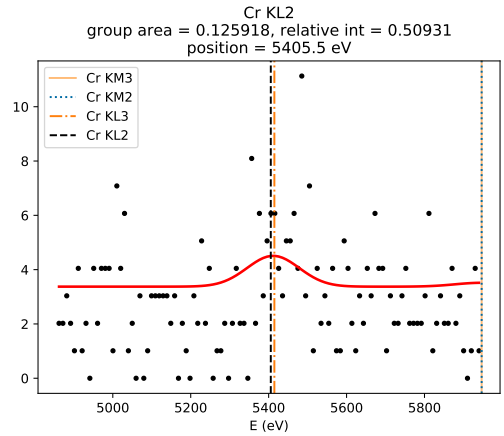

Fe KL3
group area = 0.895489, relative int = 1
position = 6403.9 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
E (eV)

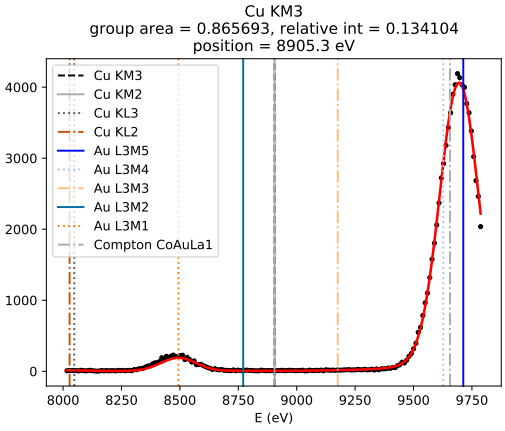

Fe KL2
group area = 0.895489, relative int = 0.510633
position = 6390.9 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
E (eV)

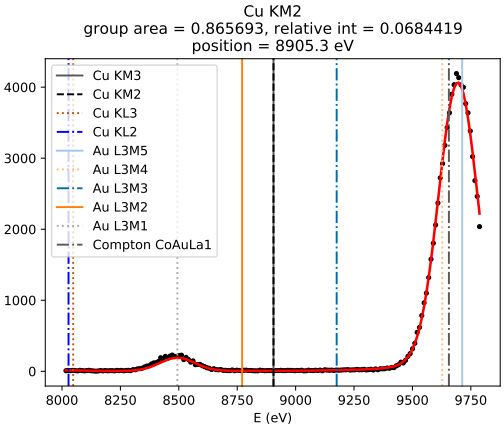

Cr KM3
group area = 0.125918, relative int = 0.129074
position = 5946.7 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

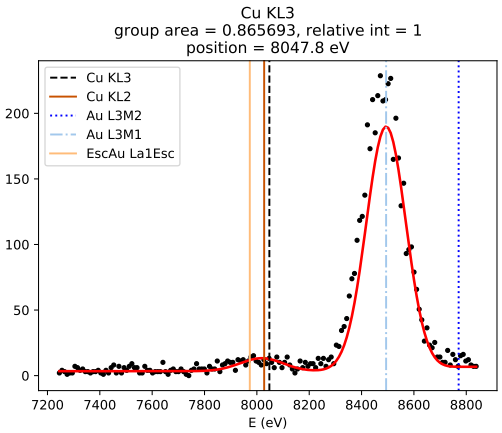

Cr KM2
group area = 0.125918, relative int = 0.0651244
position = 5946.7 eV
Fe KL3
Fe KL2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

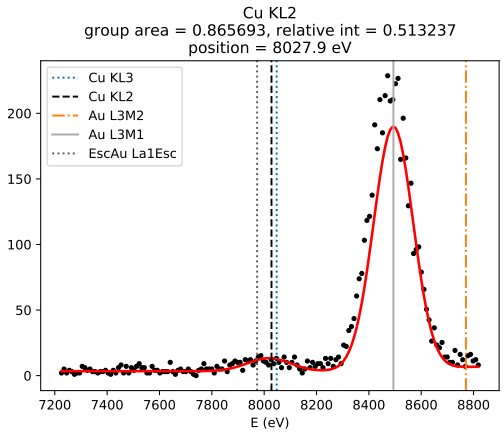

Cr KL3
group area = 0.125918, relative int = 1
position = 5414.7 eV
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

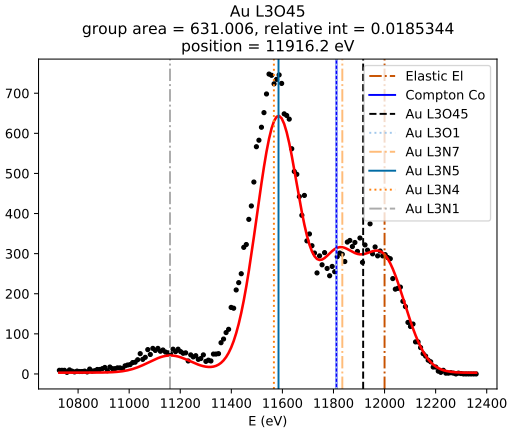

Cr KL2
group area = 0.125918, relative int = 0.50931
position = 5405.5 eV
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

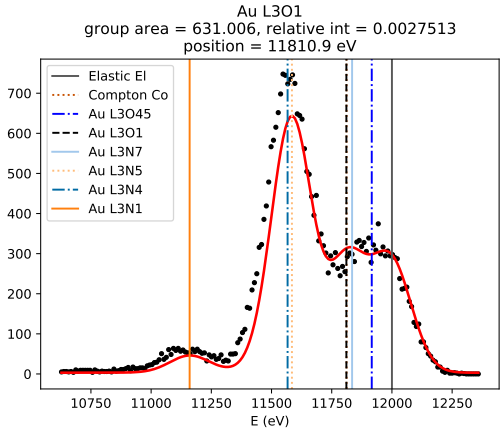

Cu KM3
group area = 0.865693, relative int = 0.134104
position = 8905.3 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Au L3M1
Compton CoAuLa1
E (eV)

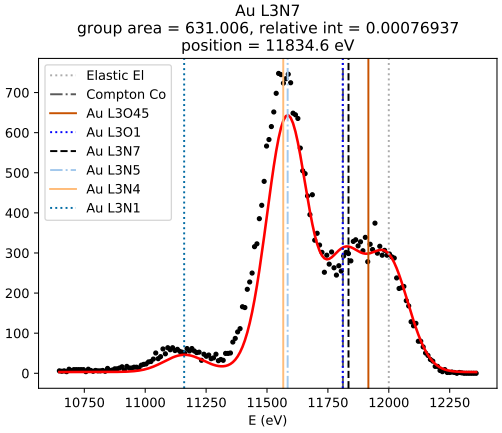

Cu KM2
group area = 0.865693, relative int = 0.0684419
position = 8905.3 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Au L3M1
Compton CoAuLa1
E (eV)

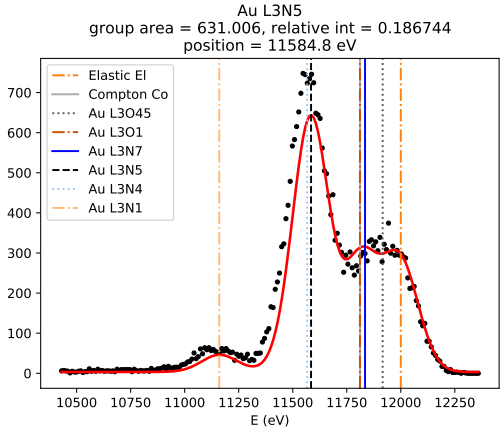

Cu KL3
group area = 0.865693, relative int = 1
position = 8047.8 eV
Cu KL3
Cu KL2
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

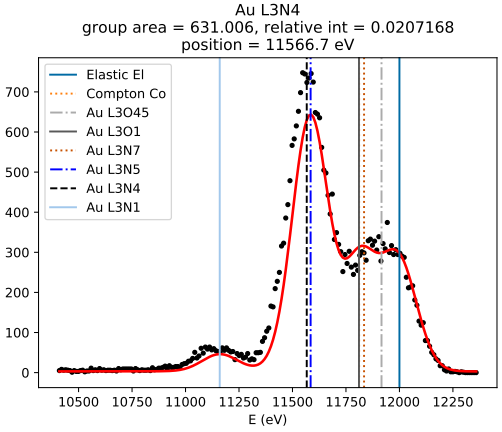

Cu KL2
group area = 0.865693, relative int = 0.513237
position = 8027.9 eV
Cu KL3
Cu KL2
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

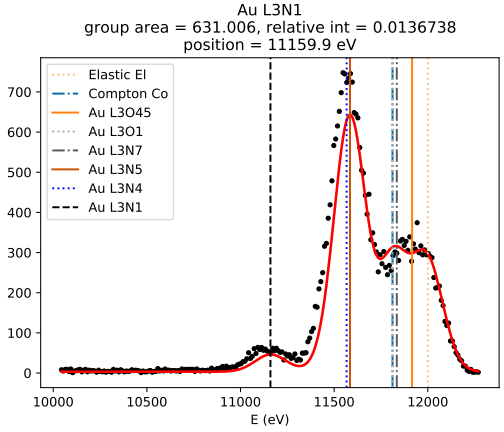

Au L3O45
group area = 631.006, relative int = 0.0185344
position = 11916.2 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

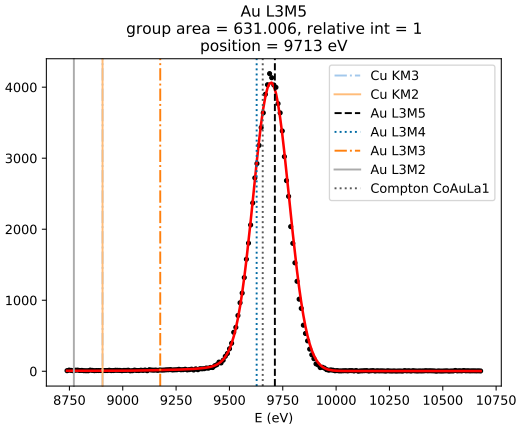

Au L3O1
group area = 631.006, relative int = 0.0027513
position = 11810.9 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

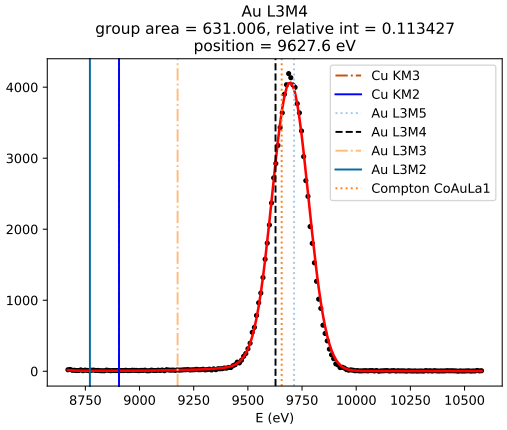

Au L3N7
group area = 631.006, relative int = 0.00076937
position = 11834.6 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

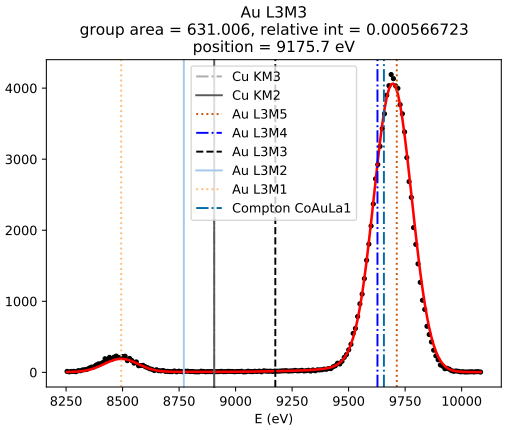

Au L3N5
group area = 631.006, relative int = 0.186744
position = 11584.8 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

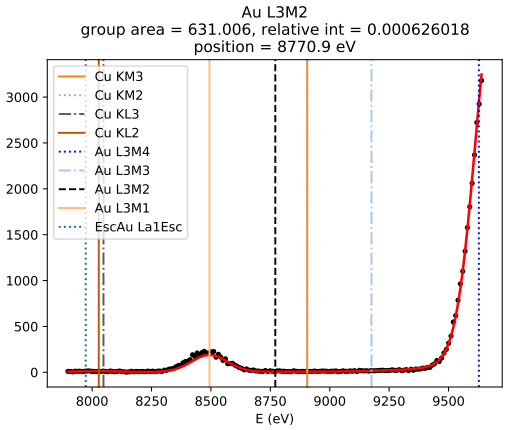

Au L3N4
group area = 631.006, relative int = 0.0207168
position = 11566.7 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

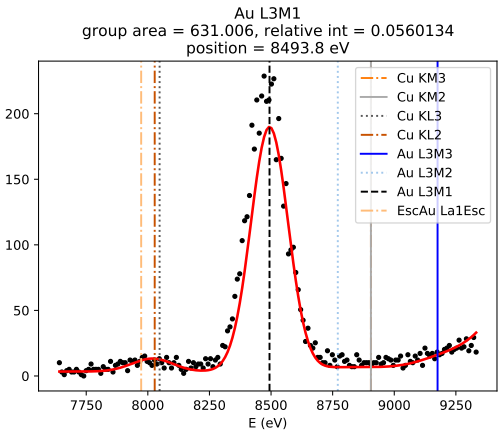

Au L3N1
group area = 631.006, relative int = 0.0136738
position = 11159.9 eV
Elastic El
Compton Co
Au L3O45
Au L3O1
Au L3N7
Au L3N5
Au L3N4
Au L3N1
E (eV)

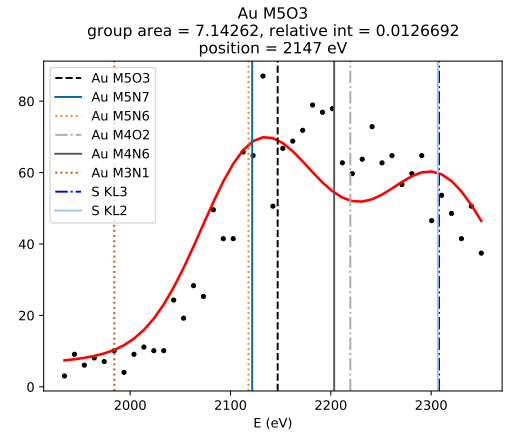

Au L3M5
group area = 631.006, relative int = 1
position = 9713 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Compton CoAuLa1
E (eV)

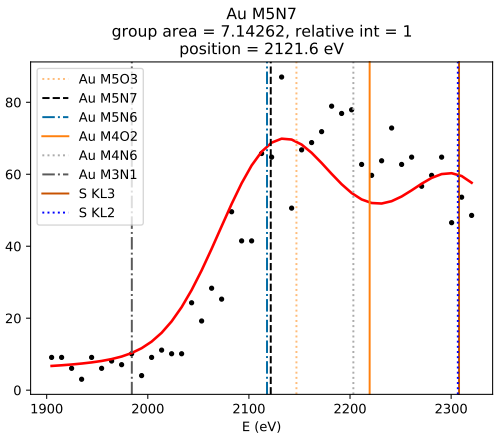

Au L3M4
group area = 631.006, relative int = 0.113427
position = 9627.6 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Compton CoAuLa1
E (eV)

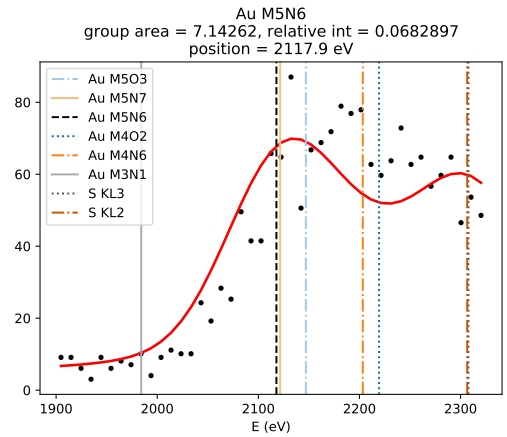

Au L3M3
group area = 631.006, relative int = 0.000566723
position = 9175.7 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Au L3M1
Compton CoAuLa1
E (eV)

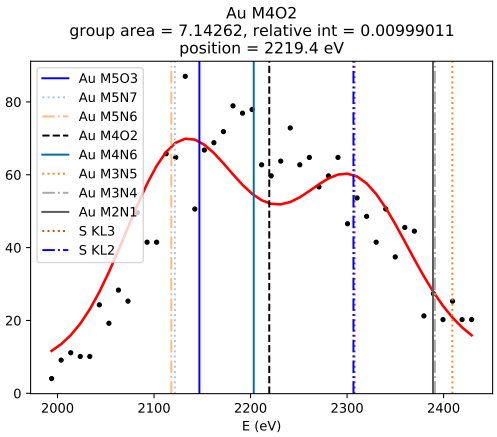

Au L3M2
group area = 631.006, relative int = 0.000626018
position = 8770.9 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M4
Au L3M3
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

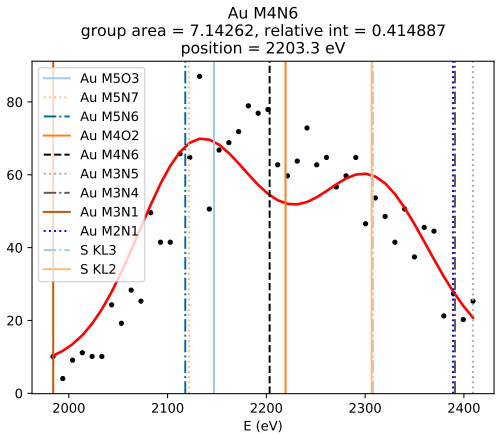

Au L3M1
group area = 631.006, relative int = 0.0560134
position = 8493.8 eV
Cu KM3
Cu KM2
Cu KL3
Cu KL2
Au L3M3
Au L3M2
Au L3M1
EscAu La1Esc
E (eV)

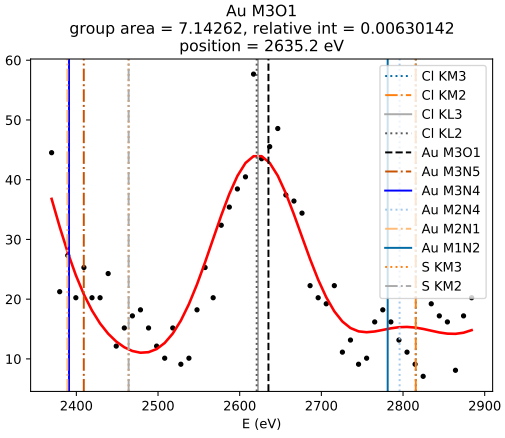

Au M5O3
group area = 7.14262, relative int = 0.0126692
position = 2147 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N1
S KL3
S KL2
E (eV)

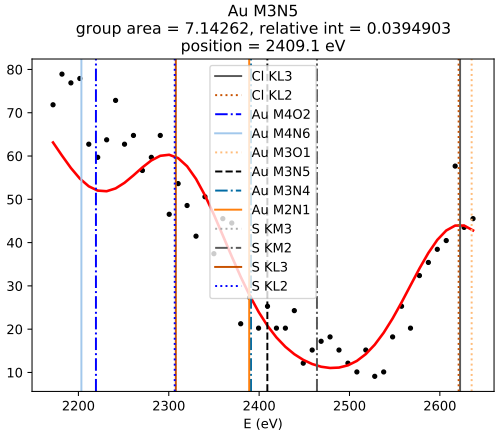

Au M5N7
group area = 7.14262, relative int = 1
position = 2121.6 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N1
S KL3
S KL2
E (eV)

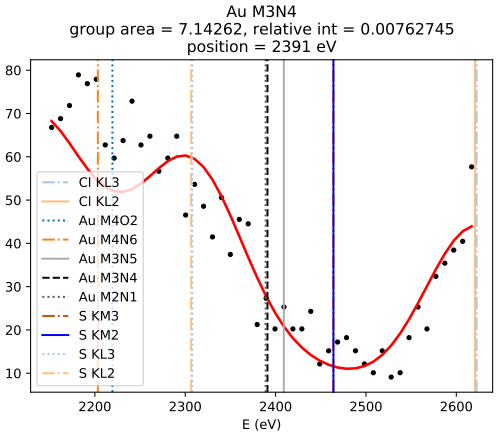

Au M5N6
group area = 7.14262, relative int = 0.0682897
position = 2117.9 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N1
S KL3
S KL2
E (eV)

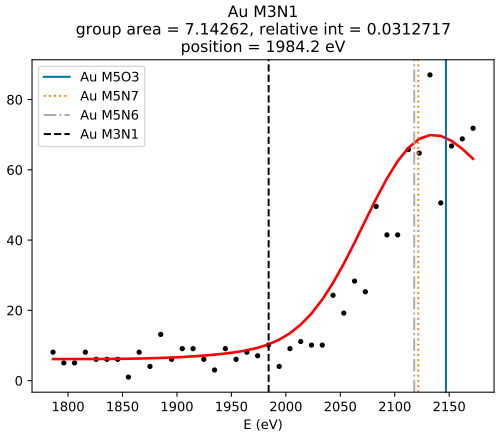

Au M4O2
group area = 7.14262, relative int = 0.00999011
position = 2219.4 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
S KL3
S KL2
E (eV)

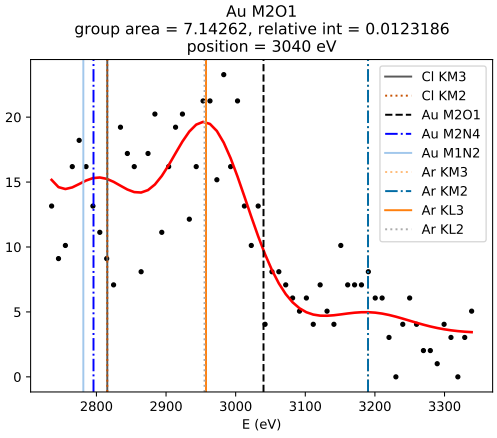

Au M4N6
group area = 7.14262, relative int = 0.414887
position = 2203.3 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M3N1
Au M2N1
S KL3
S KL2
E (eV)

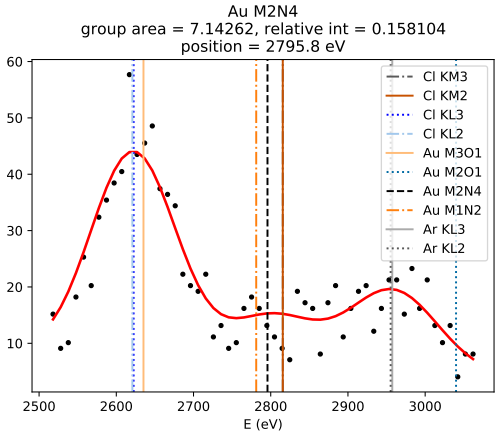

Au M3O1
group area = 7.14262, relative int = 0.00630142
position = 2635.2 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N4
Au M2N1
Au M1N2
S KM3
S KM2
E (eV)

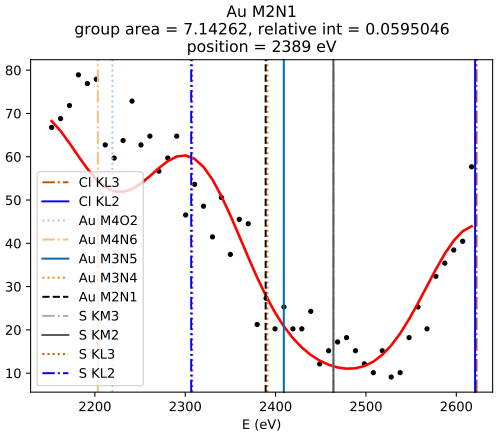

Au M3N5
group area = 7.14262, relative int = 0.0394903
position = 2409.1 eV
Cl KL3
Cl KL2
Au M4O2
Au M4N6
Au M3O1
Au M3N5
Au M3N4
Au M2N1
S KM3
S KM2
S KL3
S KL2
E (eV)

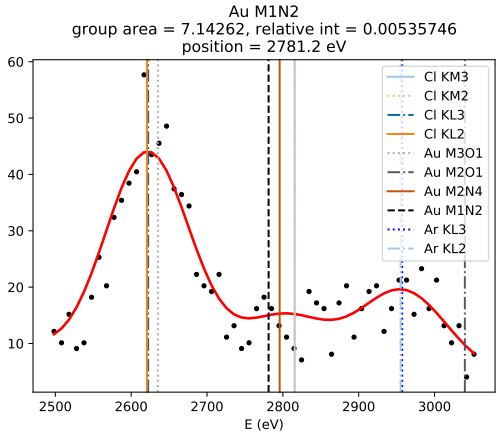

Au M3N4
group area = 7.14262, relative int = 0.00762745
position = 2391 eV
Cl KL3
Cl KL2
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
S KM3
S KM2
S KL3
S KL2
E (eV)

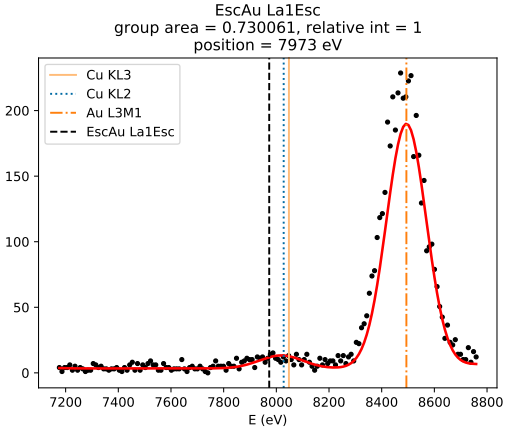

Au M3N1
group area = 7.14262, relative int = 0.0312717
position = 1984.2 eV
Au M5O3
Au M5N7
Au M5N6
Au M3N1
E (eV)

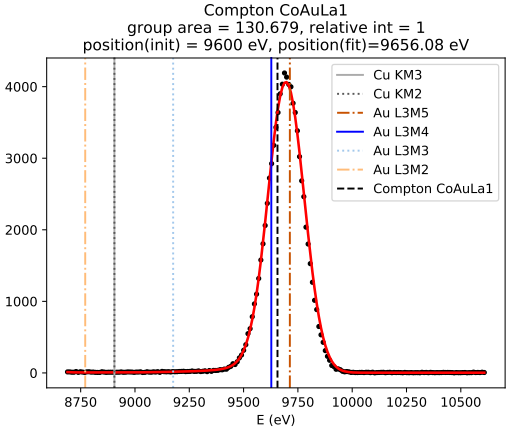

Au M2O1
group area = 7.14262, relative int = 0.0123186
position = 3040 eV
Cl KM3
Cl KM2
Au M2O1
Au M2N4
Au M1N2
Ar KM3
Ar KM2
Ar KL3
Ar KL2
E (eV)

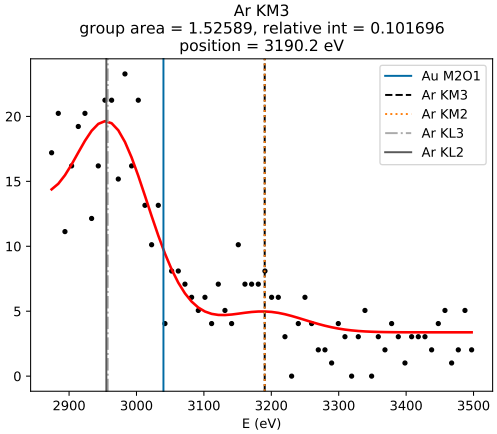

Au M2N4
group area = 7.14262, relative int = 0.158104
position = 2795.8 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M2O1
Au M2N4
Au M1N2
Ar KL3
Ar KL2
E (eV)

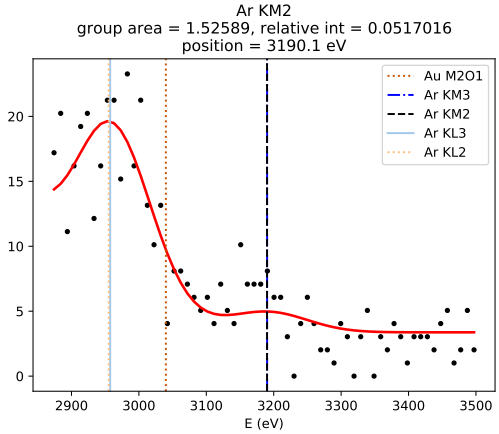

Au M2N1
group area = 7.14262, relative int = 0.0595046
position = 2389 eV
Cl KL3
Cl KL2
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
S KM3
S KM2
S KL3
S KL2
E (eV)

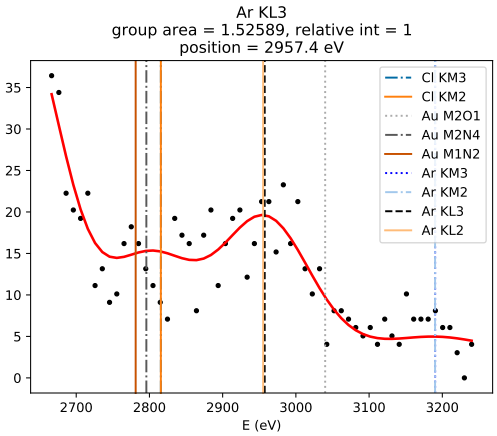

Au M1N2
group area = 7.14262, relative int = 0.00535746
position = 2781.2 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
Au M3O1
Au M2O1
Au M2N4
Au M1N2
Ar KL3
Ar KL2
E (eV)

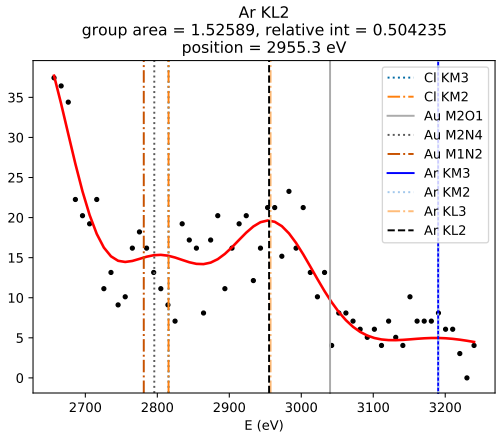

EscAu La1Esc
group area = 0.730061, relative int = 1
position = 7973 eV
Cu KL3
Cu KL2
Au L3M1
EscAu La1Esc
E (eV)

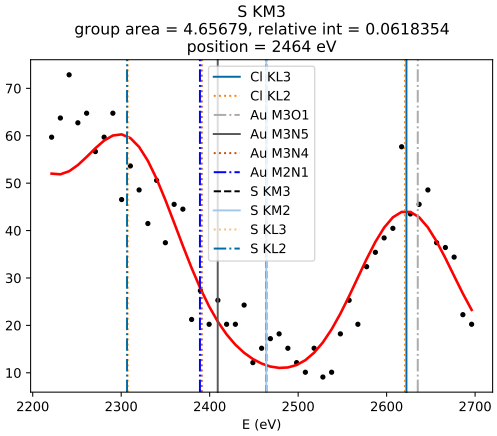

Compton CoAuLa1
group area = 130.679, relative int = 1
position(init) = 9600 eV, position(fit)=9656.08 eV
Cu KM3
Cu KM2
Au L3M5
Au L3M4
Au L3M3
Au L3M2
Compton CoAuLa1
E (eV)

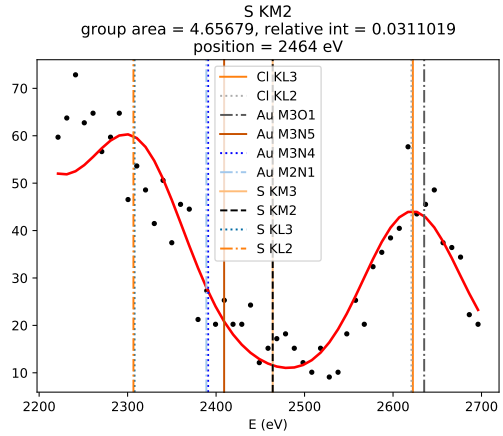

Ar KM3
group area = 1.52589, relative int = 0.101696
position = 3190.2 eV
Au M2O1
Ar KM3
Ar KM2
Ar KL3
Ar KL2
E (eV)

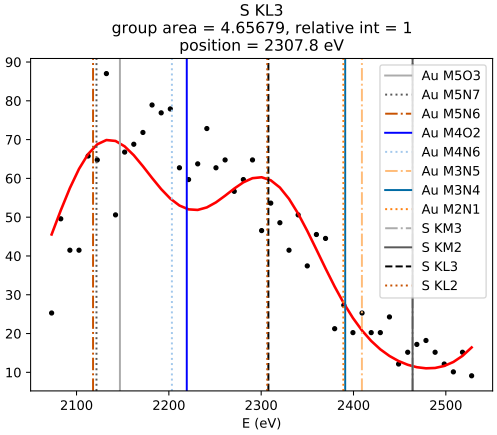

Ar KM2
group area = 1.52589, relative int = 0.0517016
position = 3190.1 eV
Au M2O1
Ar KM3
Ar KM2
Ar KL3
Ar KL2
E (eV)

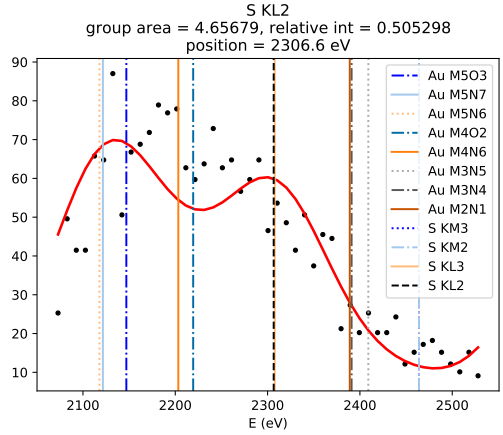

Ar KL3
group area = 1.52589, relative int = 1
position = 2957.4 eV
Cl KM3
Cl KM2
Au M2O1
Au M2N4
Au M1N2
Ar KM3
Ar KM2
Ar KL3
Ar KL2
E (eV)


Ar KL2
group area = 1.52589, relative int = 0.504235
position = 2955.3 eV
Cl KM3
Cl KM2
Au M2O1
Au M2N4
Au M1N2
Ar KM3
Ar KM2
Ar KL3
Ar KL2
E (eV)

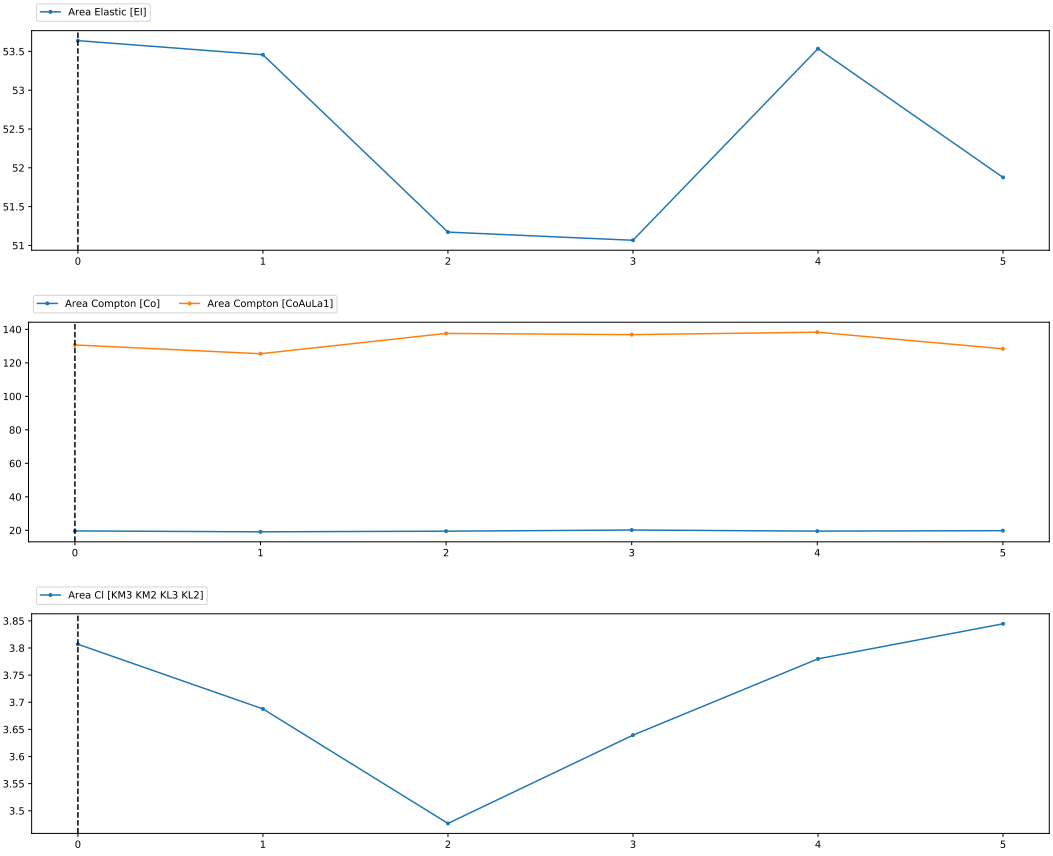

S KM3
group area = 4.65679, relative int = 0.0618354
position = 2464 eV
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N1
S KM3
S KM2
S KL3
S KL2
E (eV)

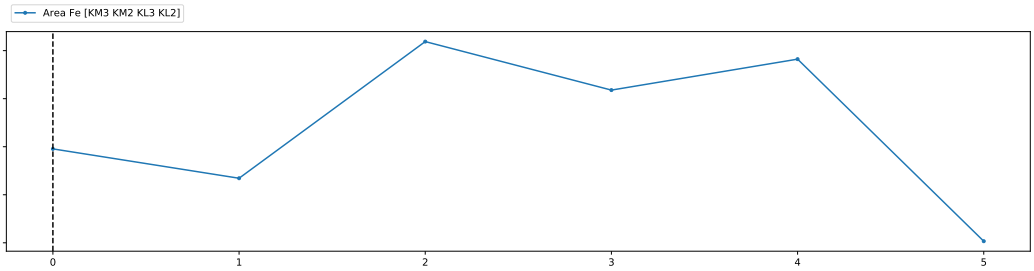

S KM2
group area = 4.65679, relative int = 0.0311019
position = 2464 eV
Cl KL3
Cl KL2
Au M3O1
Au M3N5
Au M3N4
Au M2N1
S KM3
S KM2
S KL3
S KL2
E (eV)

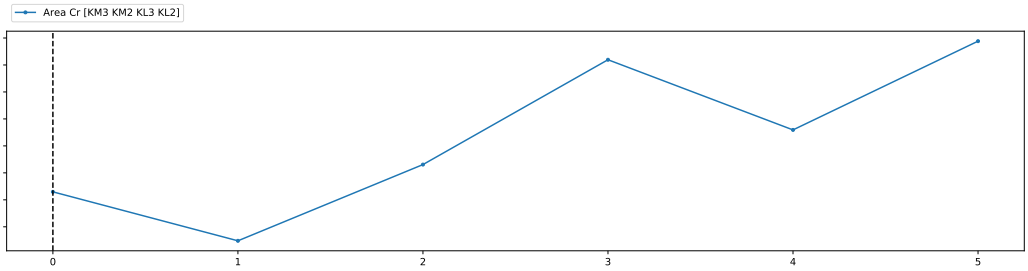

S KL3
group area = 4.65679, relative int = 1
position = 2307.8 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
S KM3
S KM2
S KL3
S KL2
E (eV)

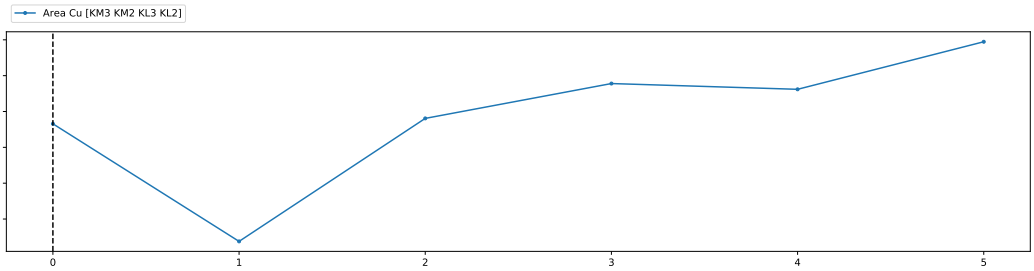

S KL2
group area = 4.65679, relative int = 0.505298
position = 2306.6 eV
Au M5O3
Au M5N7
Au M5N6
Au M4O2
Au M4N6
Au M3N5
Au M3N4
Au M2N1
S KM3
S KM2
S KL3
S KL2
E (eV)

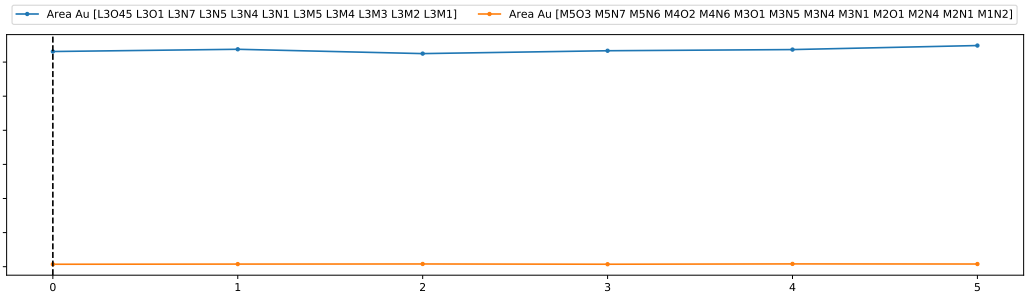
AREAS

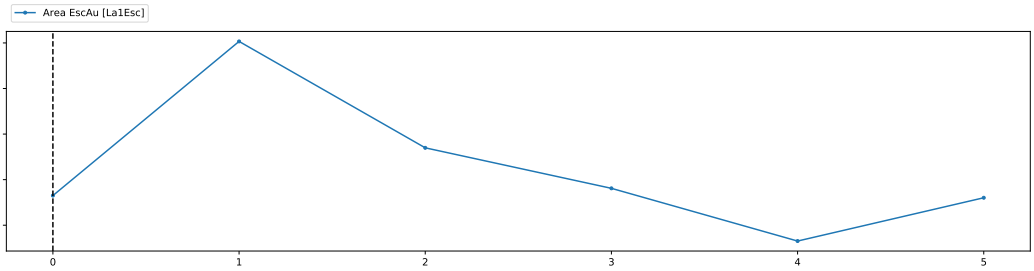

Area Elastic [El]
Area Compton [Co]
Area Compton [CoAuLa1]
Area Cl [KM3 KM2 KL3 KL2]

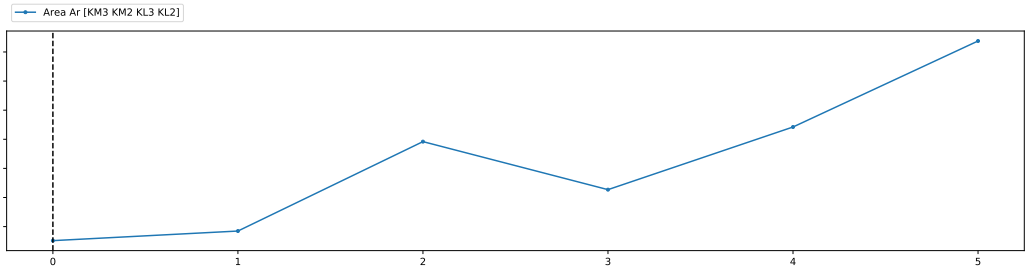

Area Fe [KM3 KM2 KL3 KL2]
1.1
1
0.9
0.8
0.7
0
1
2
3
4
5

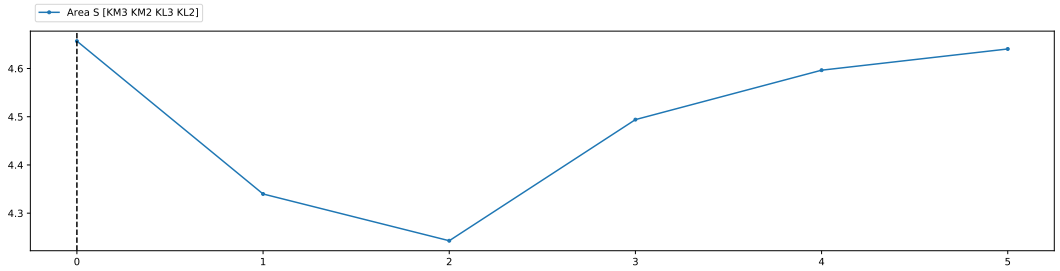

Area Cr [KM3 KM2 KL3 KL2]
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0
1
2
3
4
5


Area Cu [KM3 KM2 KL3 KL2]
1.1
1
0.9
0.8
0.7
0.6
0
1
2
3
4
5

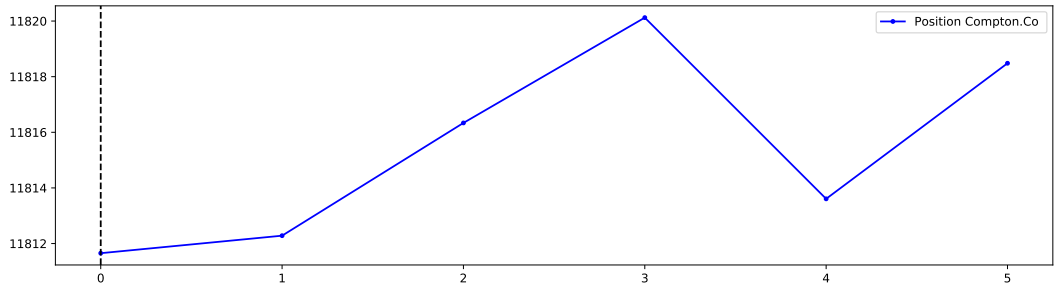

Area Au [L3O45 L3O1 L3N7 L3N5 L3N4 L3N1 L3M5 L3M4 L3M3 L3M2 L3M1]
Area Au [M5O3 M5N7 M5N6 M4O2 M4N6 M3O1 M3N5 M3N4 M3N1 M2O1 M2N4 M2N1 M1N2]
600
500
400
300
200
100
0
0
1
2
3
4
5

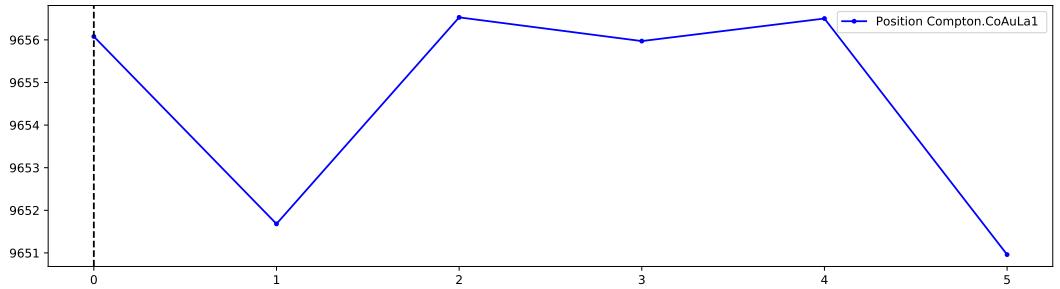

Area EscAu [La1Esc]
1.4
1.2
1
0.8
0.6
0
1
2
3
4
5


Area Ar [KM3 KM2 KL3 KL2]
1.85
1.8
1.75
1.7
1.65
1.6
1.55
0
1
2
3
4
5

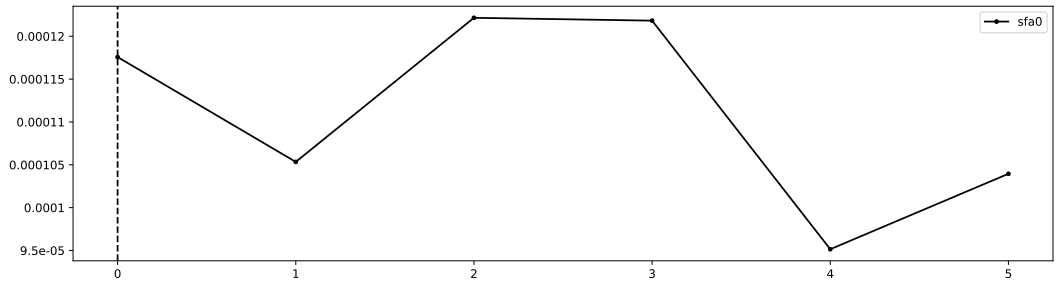


POSITIONS





OTHER PARAMETERS



4 SIRIUS_Fluo_2020_02_13_02277

An example of fits with a limited number of peaks (only one line of Au, Compton and Rayleigh). The parameters are taken from the previous analysis on the same system, and only ct (height of the background) is let free.
The fit is therefore very fast, and quite good considering the low couting time per point.

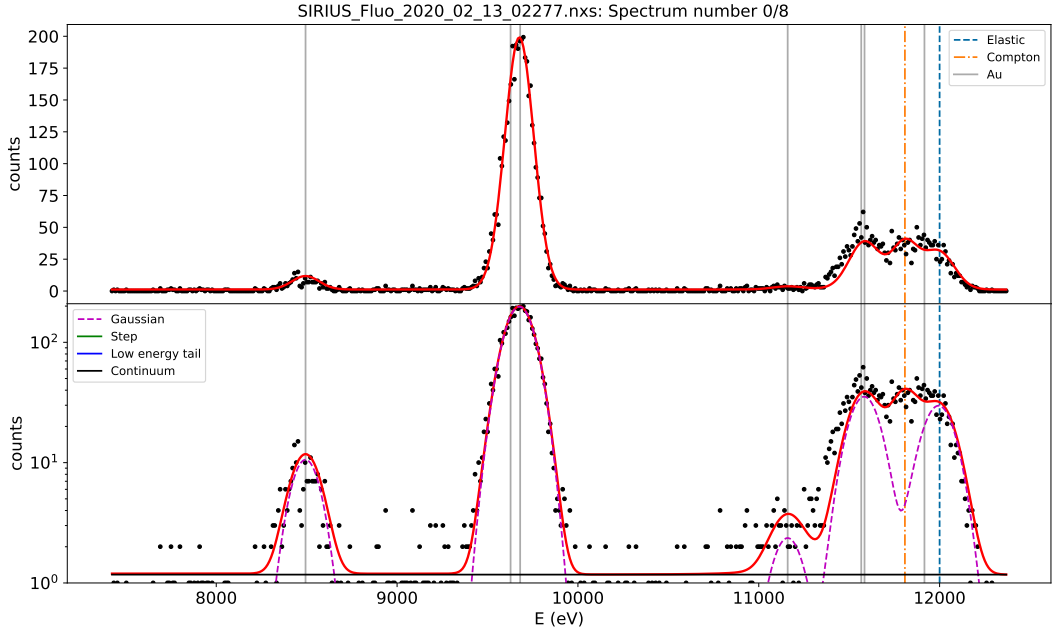
Conclusion: a quick and good analysis can be done by pointing only the most intense peaks.

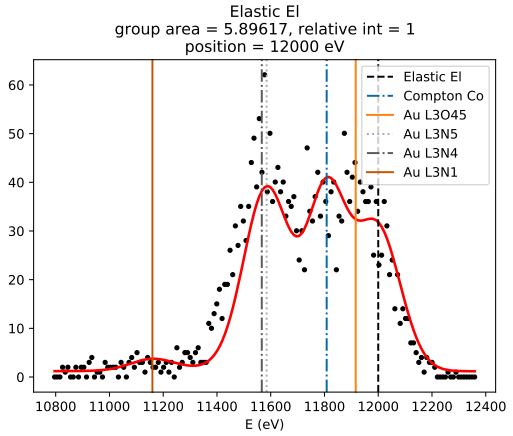
```
Fit results for SIRIUS_Fluo_2020_02_13_02277.nxs
Spectrum interval = [2,10]
```

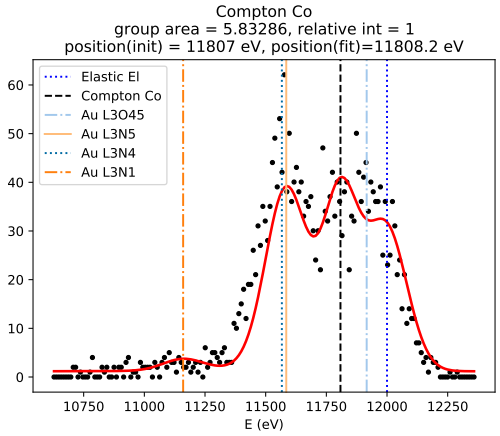
```
Channel interval = [750,1250]
List of chosen elements:  ['Element 4']

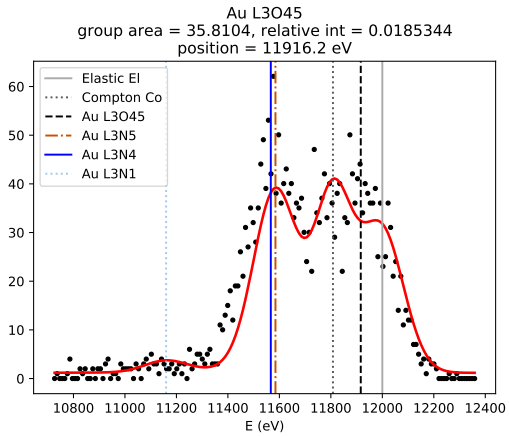
Parameters used:
gain = 9.89; eV0 = 6
beam energy = 12000
List of fitted parameters: ['ct']

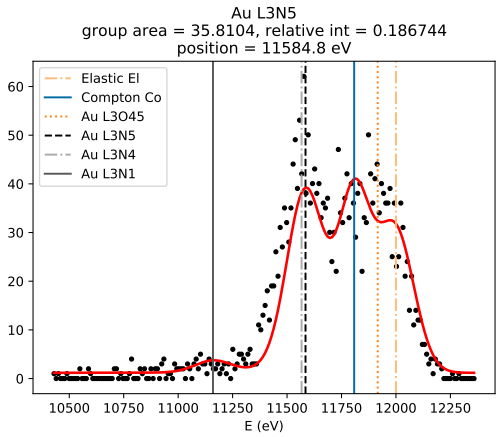
Initial fit parameters:
epsilon = 0.0036; fano = 0.115; noise = 0.110531
sl = 0; ct = 8
sfa0 = 0.000122772; sfa1 = 1e-07; tfb0 = 1e-05; tfb1 = 1e-05
twc0 = 1e-05; twc1 = 1e-05
fG = 0.849218
fA = 0.238138; fB = 1e-10; gammaA = 2.0428; gammaB = 1e+10
```

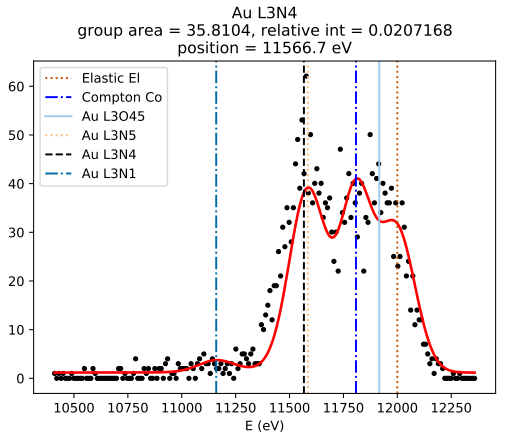


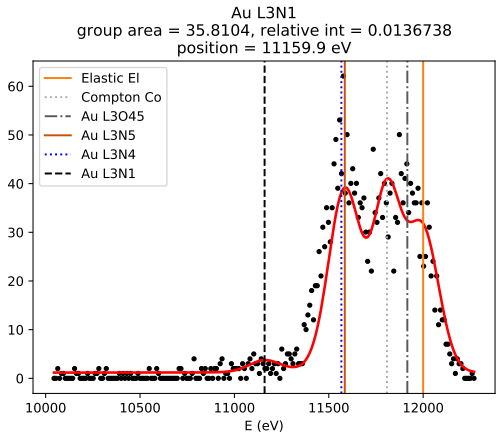


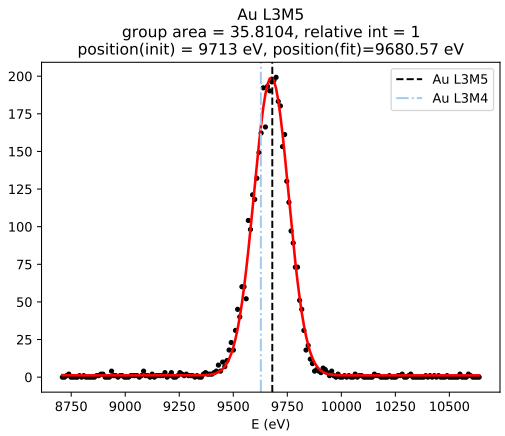


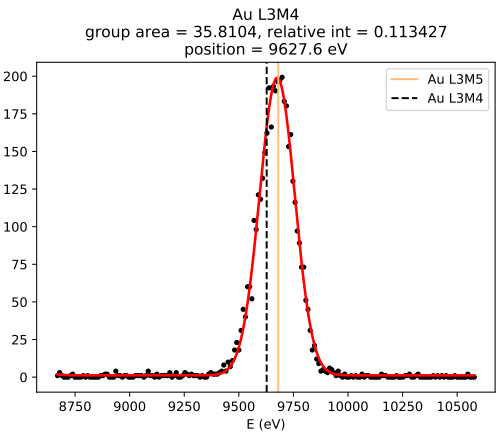

Au L3O45
group area = 35.8104, relative int = 0.0185344
position = 11916.2 eV
Elastic El
Compton Co
Au L3O45
Au L3N5
Au L3N4
Au L3N1
E (eV)

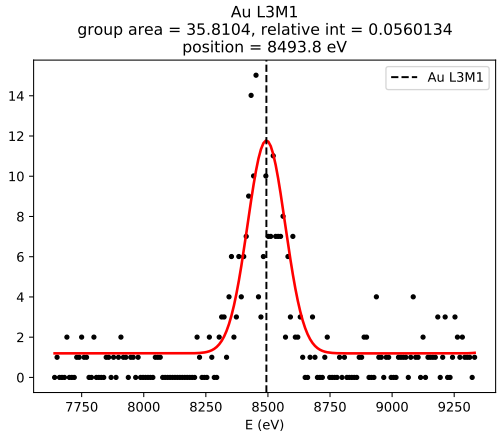

Au L3N5
group area = 35.8104, relative int = 0.186744
position = 11584.8 eV
Elastic El
Compton Co
Au L3O45
Au L3N5
Au L3N4
Au L3N1
E (eV)


Au L3N4
group area = 35.8104, relative int = 0.0207168
position = 11566.7 eV
Elastic El
Compton Co
Au L3O45
Au L3N5
Au L3N4
Au L3N1
E (eV)

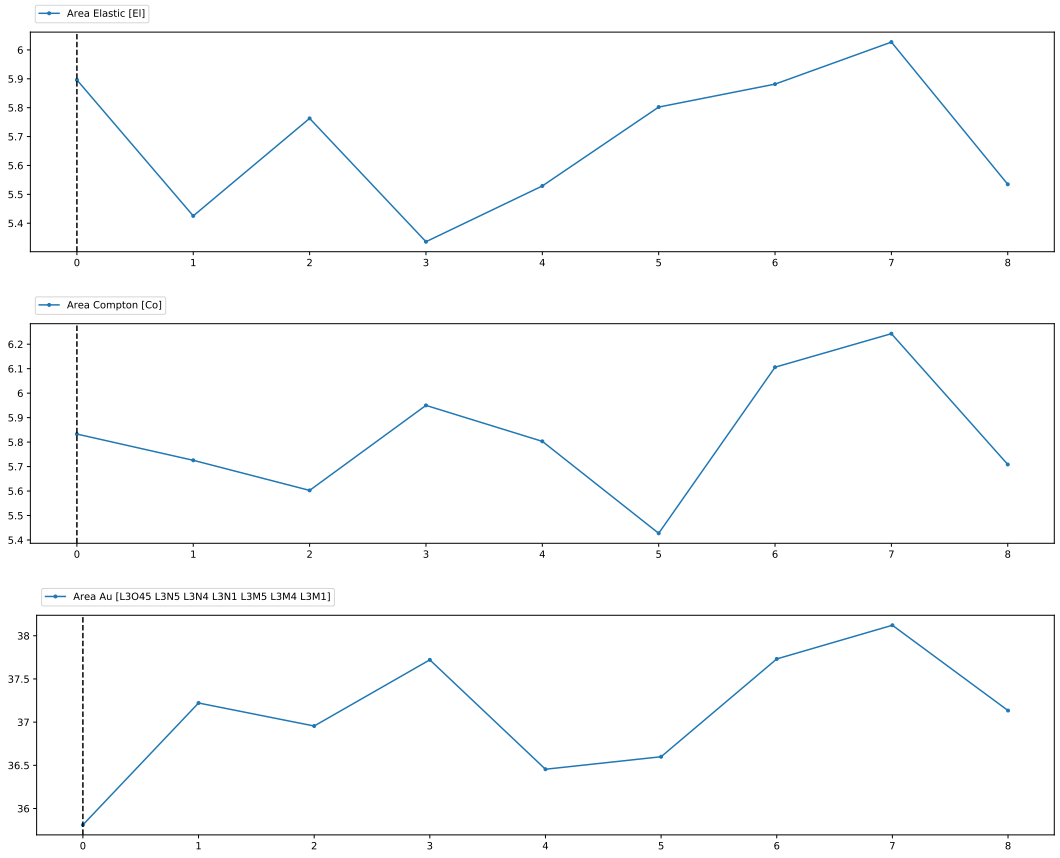

Au L3N1
group area = 35.8104, relative int = 0.0136738
position = 11159.9 eV
Elastic El
Compton Co
Au L3O45
Au L3N5
Au L3N4
Au L3N1
E (eV)


Au L3M5
group area = 35.8104, relative int = 1
position(init) = 9713 eV, position(fit)=9680.57 eV
Au L3M5
Au L3M4
E (eV)

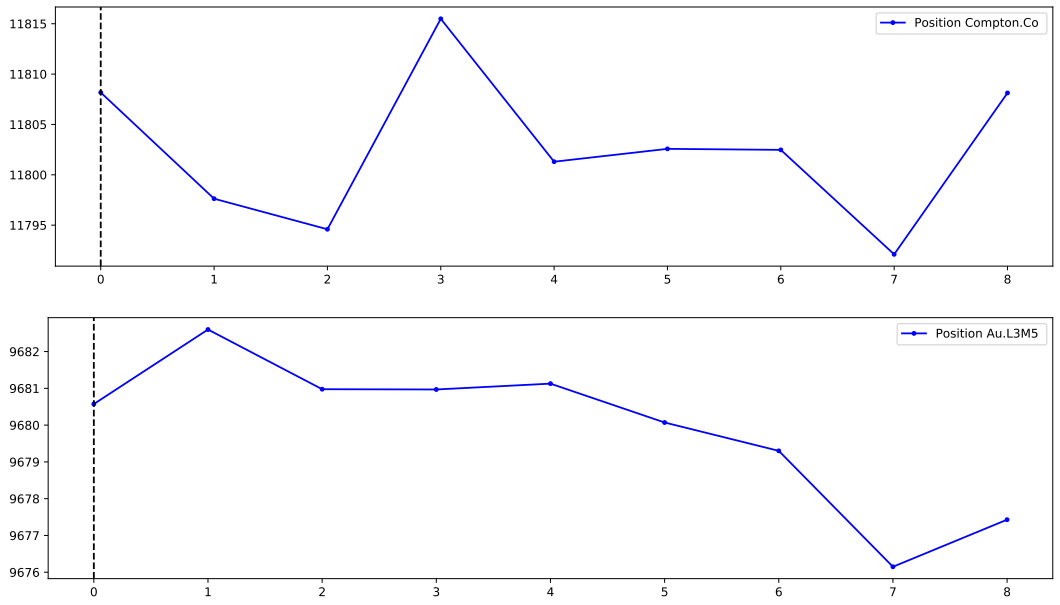

Au L3M4
group area = 35.8104, relative int = 0.113427
position = 9627.6 eV
Au L3M5
Au L3M4
E (eV)

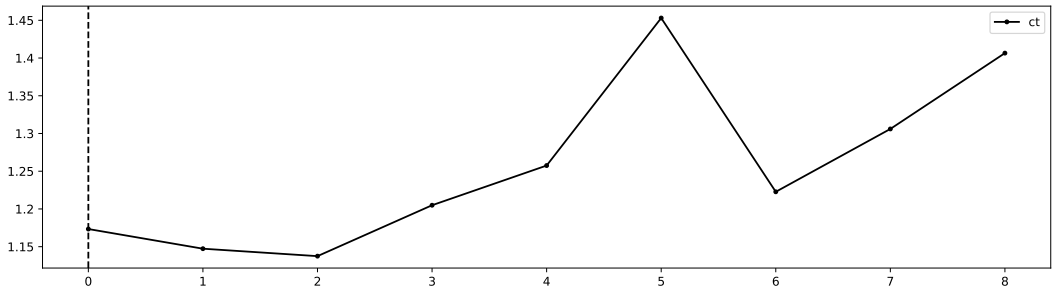

Au L3M1
group area = 35.8104, relative int = 0.0560134
position = 8493.8 eV
Au L3M1
E (eV)

AREAS



POSITIONS





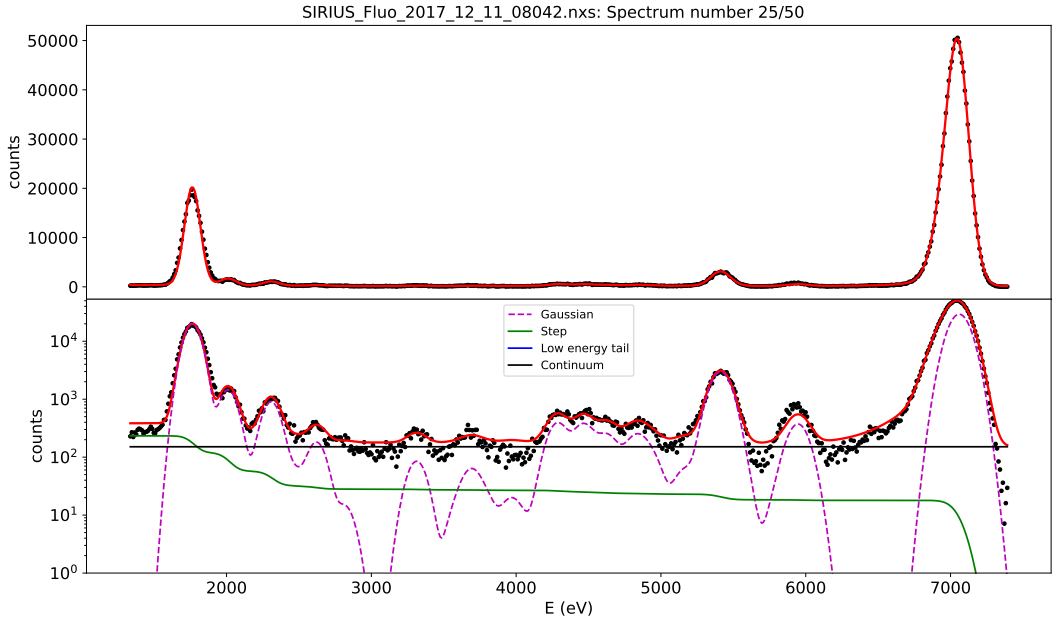
5 SIRIUS_Fluo_2017_12_11_08042

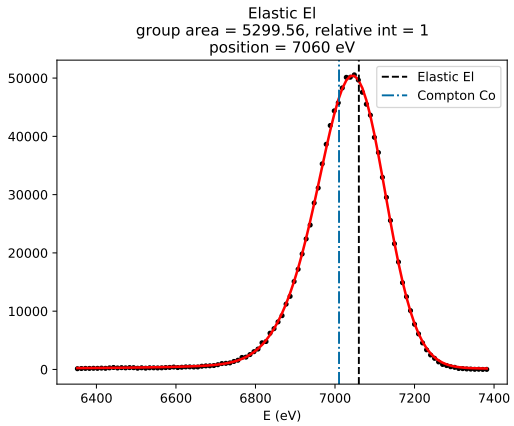
An example of an X-ray standing wave (XSW) experiment, fitted before subtraction with 55 peaks (8 atoms).
Here using a 4-elements detector.

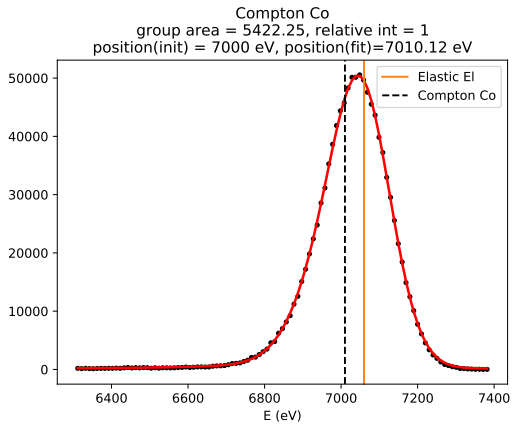
```
Fit results for SIRIUS_Fluo_2017_12_11_08042.nxs
Spectrum interval = [0,50]
Channel interval = [135,735]
List of chosen elements:  ['Element 0', 'Element 1', 'Element 2']

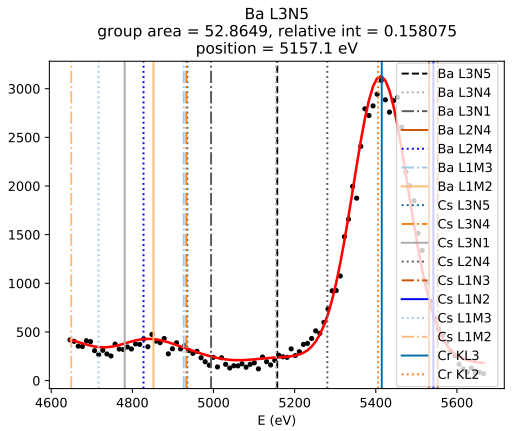
Parameters used:
gain = 10.0934; eV0 = -26.8675
beam energy = 7000
List of fitted parameters: ['ct']

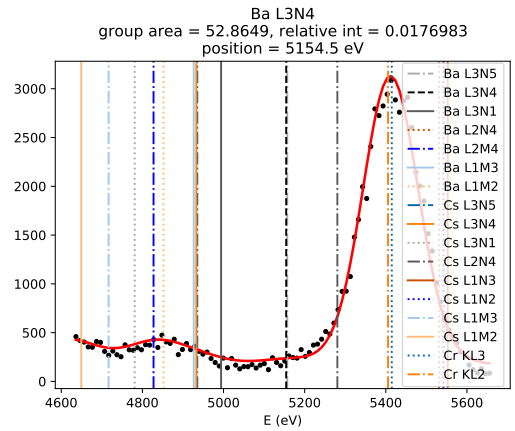
Initial fit parameters:
epsilon = 0.0036; fano = 0.115; noise = 0.11294
sl = 0; ct = 95.4974
sfa0 = 0.0002; sfa1 = 1e-05; tfb0 = 1e-05; tfb1 = 1e-05
twc0 = 1e-05; twc1 = 1e-05
fG = 1.33713
fA = 0.0870612; fB = 1e-10; gammaA = 2.43978; gammaB = 1e+10
```

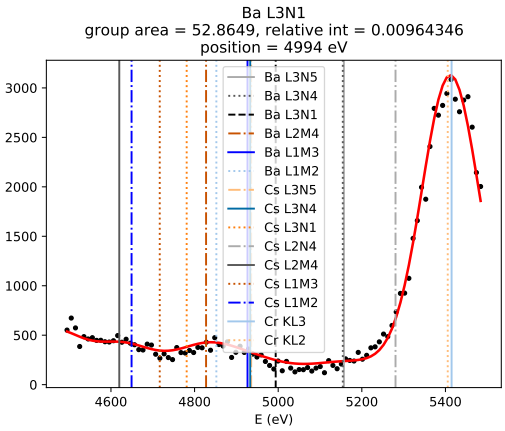

SIRIUS_Fluo_2017_12_11_08042.nxs: Spectrum number 25/50
counts
Gaussian
Step
Low energy tail
Continuum
E (eV)

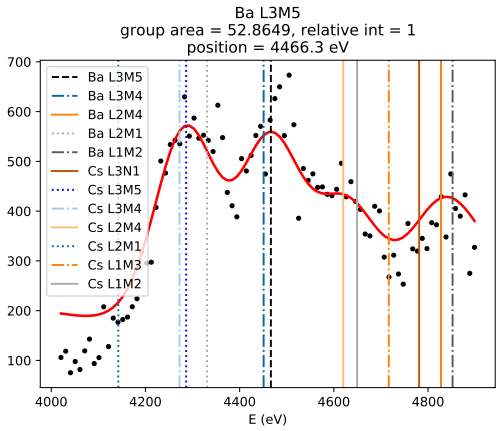

Elastic El
group area = 5299.56, relative int = 1
position = 7060 eV
Elastic El
Compton Co
E (eV)

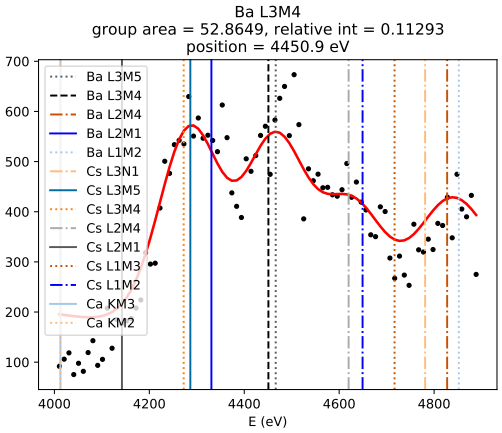

Compton Co
group area = 5422.25, relative int = 1
position(init) = 7000 eV, position(fit)=7010.12 eV
Elastic El
Compton Co
E (eV)

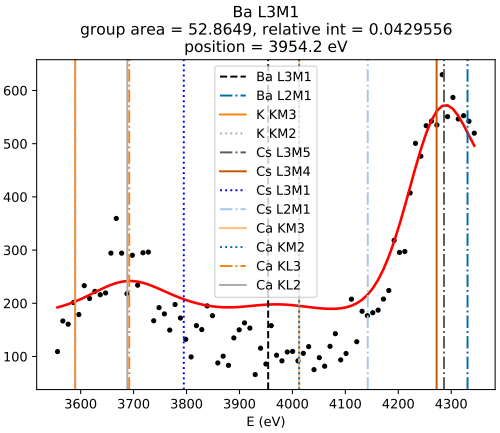

Ba L3N5
group area = 52.8649, relative int = 0.158075
position = 5157.1 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2N4
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L1N3
Cs L1N2
Cs L1M3
Cs L1M2
Cr KL3
Cr KL2
E (eV)

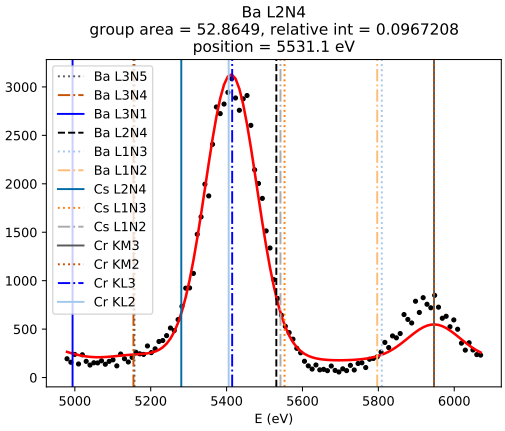

Ba L3N4
group area = 52.8649, relative int = 0.0176983
position = 5154.5 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2N4
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L1N3
Cs L1N2
Cs L1M3
Cs L1M2
Cr KL3
Cr KL2
E (eV)

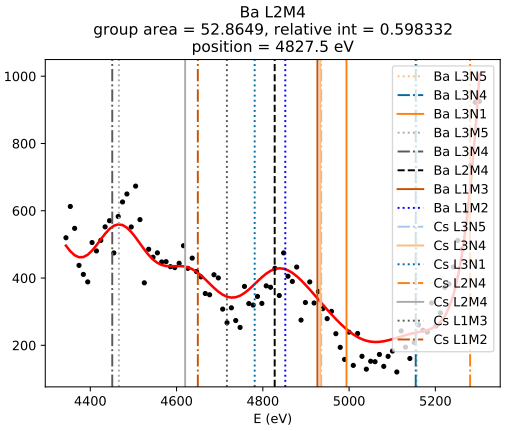

Ba L3N1
group area = 52.8649, relative int = 0.00964346
position = 4994 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L2M4
Cs L1M3
Cs L1M2
Cr KL3
Cr KL2
E (eV)

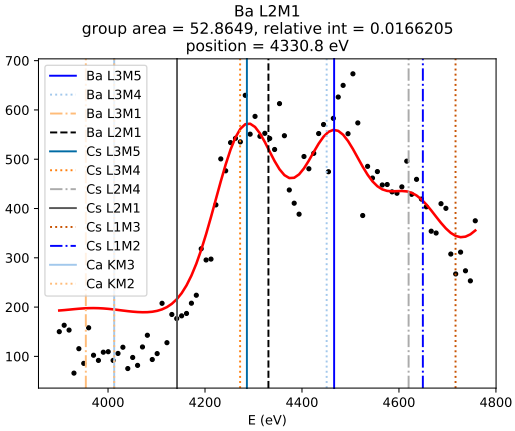

Ba L3M5
group area = 52.8649, relative int = 1
position = 4466.3 eV
Ba L3M5
Ba L3M4
Ba L2M4
Ba L2M1
Ba L1M2
Cs L3N1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L2M1
Cs L1M3
Cs L1M2
E (eV)

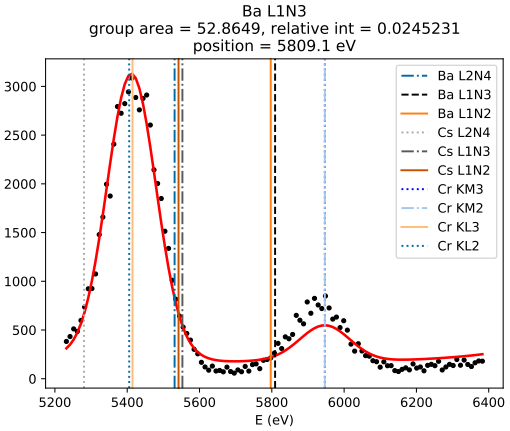

Ba L3M4
group area = 52.8649, relative int = 0.11293
position = 4450.9 eV
Ba L3M5
Ba L3M4
Ba L2M4
Ba L2M1
Ba L1M2
Cs L3N1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L2M1
Cs L1M3
Cs L1M2
Ca KM3
Ca KM2
E (eV)

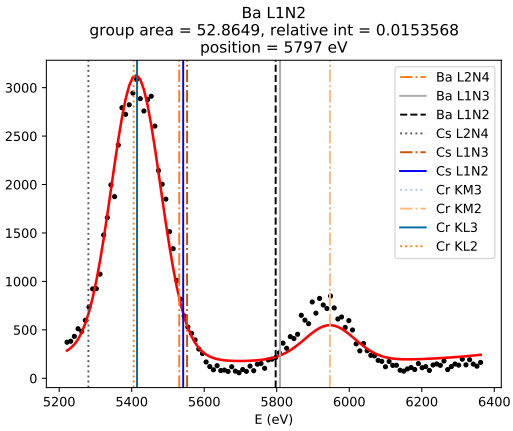

Ba L3M1
group area = 52.8649, relative int = 0.0429556
position = 3954.2 eV
Ba L3M1
Ba L2M1
K KM3
K KM2
Cs L3M5
Cs L3M4
Cs L3M1
Cs L2M1
Ca KM3
Ca KM2
Ca KL3
Ca KL2
E (eV)

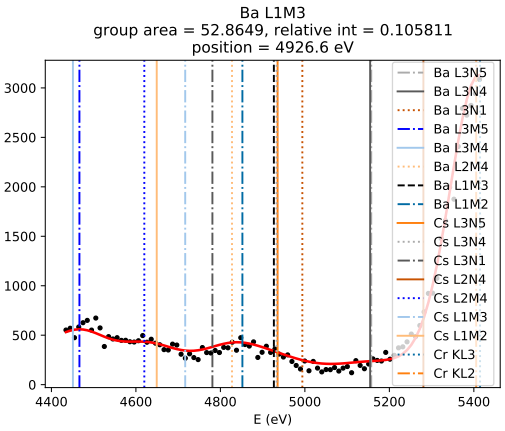

Ba L2N4
group area = 52.8649, relative int = 0.0967208
position = 5531.1 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2N4
Ba L1N3
Ba L1N2
Cs L2N4
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

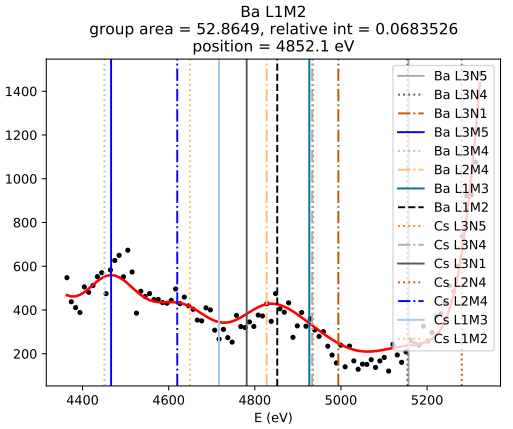

Ba L2M4
group area = 52.8649, relative int = 0.598332
position = 4827.5 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L2M4
Cs L1M3
Cs L1M2
E (eV)

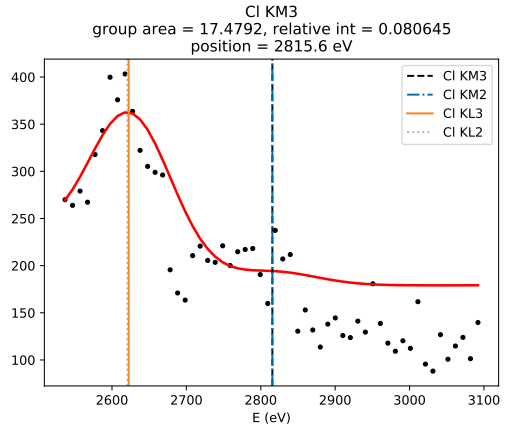

Ba L2M1
group area = 52.8649, relative int = 0.0166205
position = 4330.8 eV
Ba L3M5
Ba L3M4
Ba L3M1
Ba L2M1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L2M1
Cs L1M3
Cs L1M2
Ca KM3
Ca KM2
E (eV)

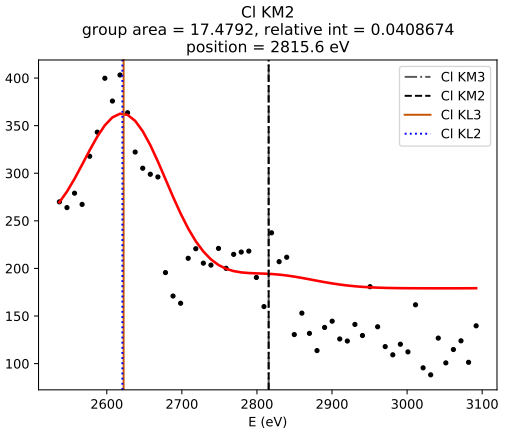

Ba L1N3
group area = 52.8649, relative int = 0.0245231
position = 5809.1 eV
Ba L2N4
Ba L1N3
Ba L1N2
Cs L2N4
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

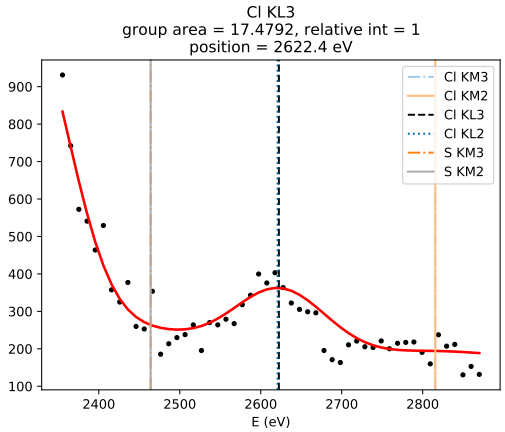

Ba L1N2
group area = 52.8649, relative int = 0.0153568
position = 5797 eV
Ba L2N4
Ba L1N3
Ba L1N2
Cs L2N4
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

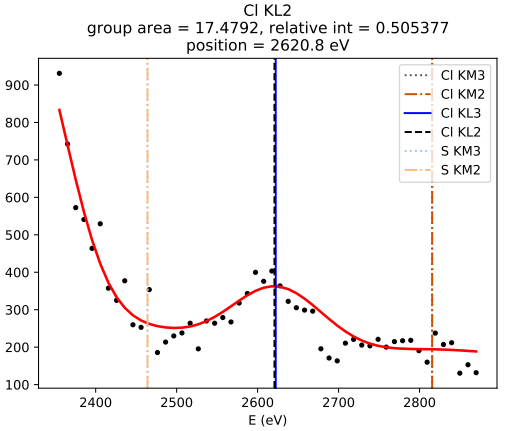

Ba L1M3
group area = 52.8649, relative int = 0.105811
position = 4926.6 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L2M4
Cs L1M3
Cs L1M2
Cr KL3
Cr KL2
E (eV)

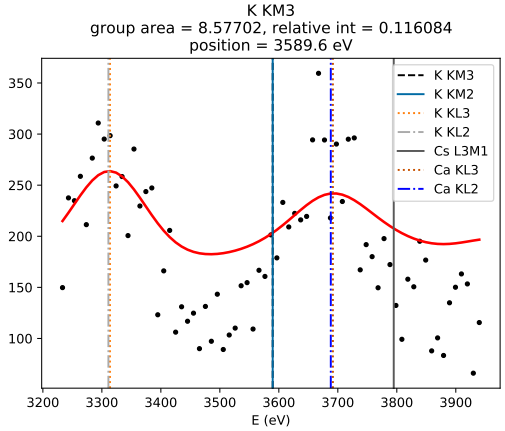

Ba L1M2
group area = 52.8649, relative int = 0.0683526
position = 4852.1 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L2M4
Cs L1M3
Cs L1M2
E (eV)

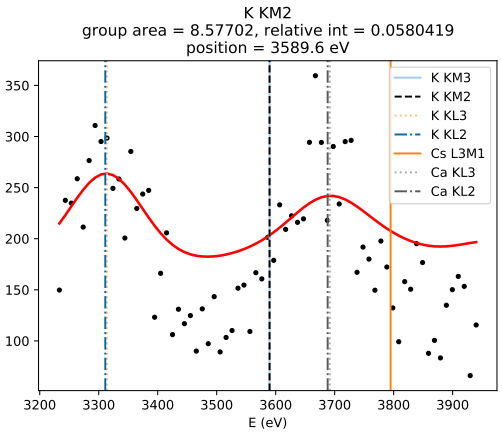

Cl KM3
group area = 17.4792, relative int = 0.080645
position = 2815.6 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
E (eV)

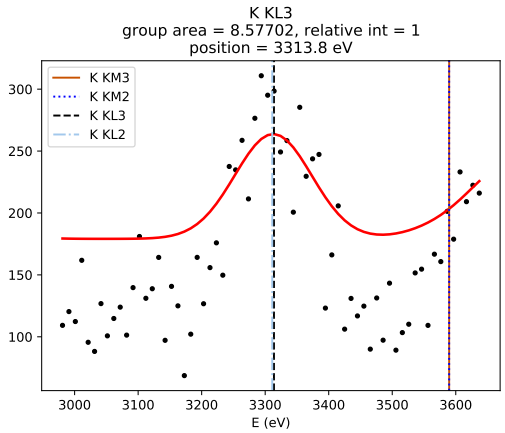

Cl KM2
group area = 17.4792, relative int = 0.0408674
position = 2815.6 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
E (eV)

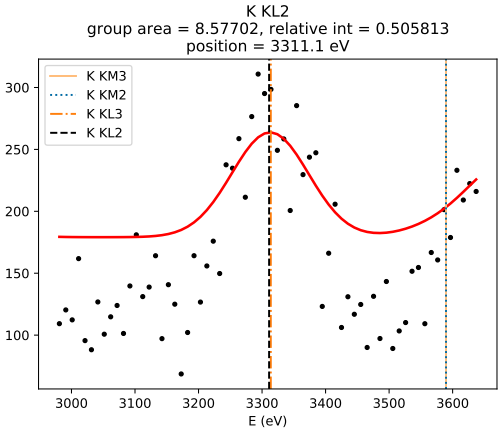

Cl KL3
group area = 17.4792, relative int = 1
position = 2622.4 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
S KM3
S KM2
E (eV)

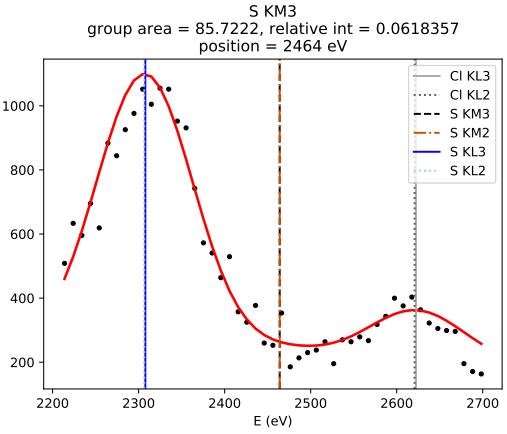

Cl KL2
group area = 17.4792, relative int = 0.505377
position = 2620.8 eV
Cl KM3
Cl KM2
Cl KL3
Cl KL2
S KM3
S KM2
E (eV)

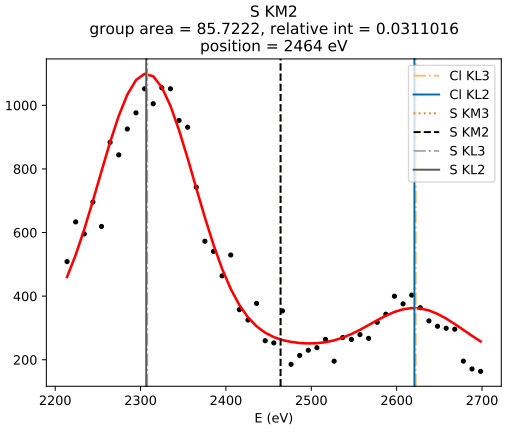

K KM3
group area = 8.57702, relative int = 0.116084
position = 3589.6 eV
K KM3
K KM2
K KL3
K KL2
Cs L3M1
Ca KL3
Ca KL2
E (eV)

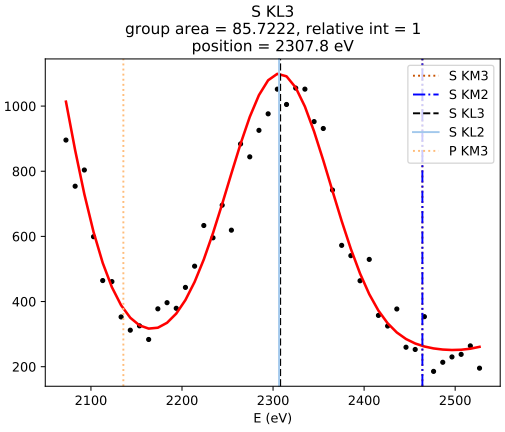

K KM2
group area = 8.57702, relative int = 0.0580419
position = 3589.6 eV
K KM3
K KM2
K KL3
K KL2
Cs L3M1
Ca KL3
Ca KL2
E (eV)

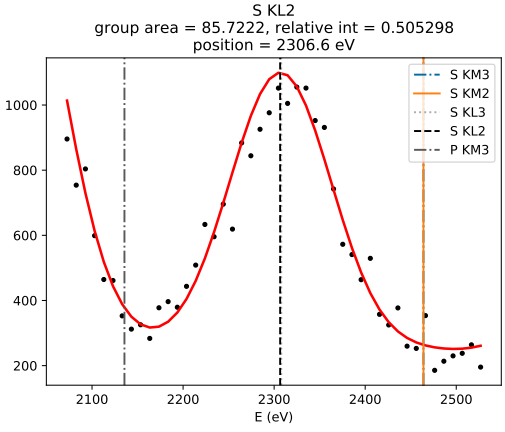

K KL3
group area = 8.57702, relative int = 1
position = 3313.8 eV
K KM3
K KM2
K KL3
K KL2
E (eV)

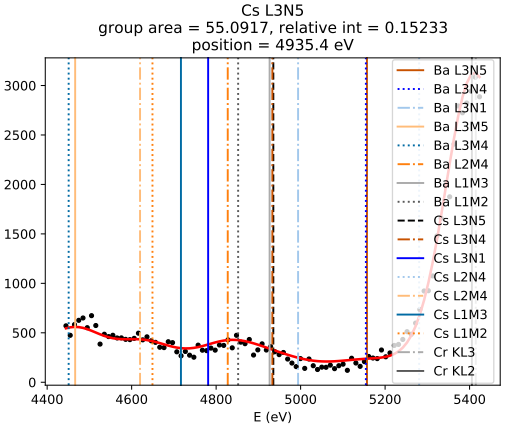

K KL2
group area = 8.57702, relative int = 0.505813
position = 3311.1 eV
K KM3
K KM2
K KL3
K KL2
E (eV)

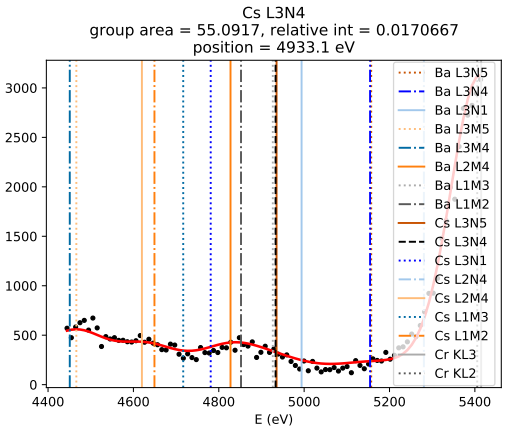

S KM3
group area = 85.7222, relative int = 0.0618357
position = 2464 eV
Cl KL3
Cl KL2
S KM3
S KM2
S KL3
S KL2
E (eV)

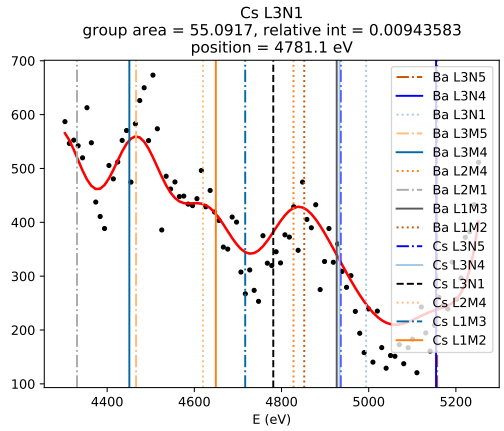

S KM2
group area = 85.7222, relative int = 0.0311016
position = 2464 eV
Cl KL3
Cl KL2
S KM3
S KM2
S KL3
S KL2
E (eV)

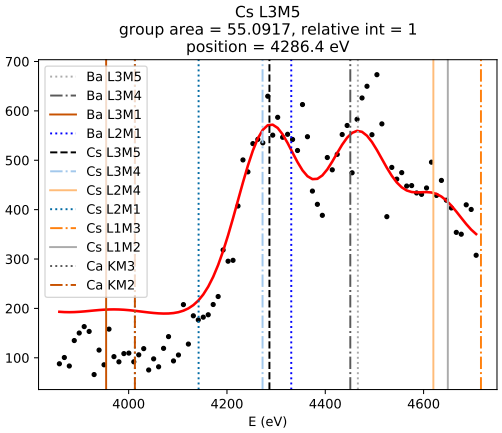

S KL3
group area = 85.7222, relative int = 1
position = 2307.8 eV
S KM3
S KM2
S KL3
S KL2
P KM3
E (eV)

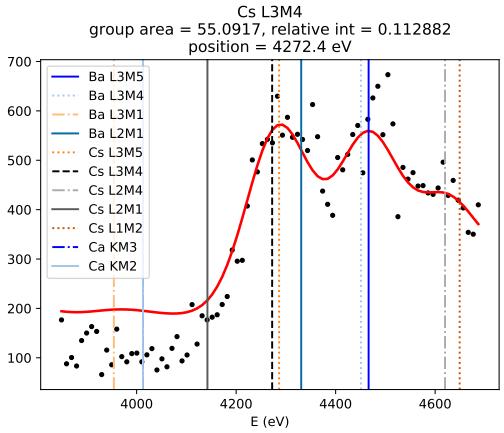

S KL2
group area = 85.7222, relative int = 0.505298
position = 2306.6 eV
S KM3
S KM2
S KL3
S KL2
P KM3
E (eV)

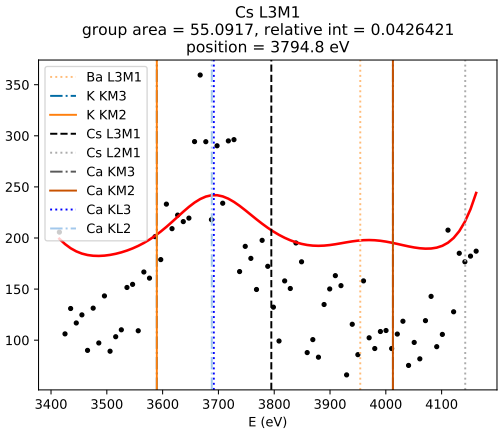

Cs L3N5
group area = 55.0917, relative int = 0.15233
position = 4935.4 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L2M4
Cs L1M3
Cs L1M2
Cr KL3
Cr KL2
E (eV)

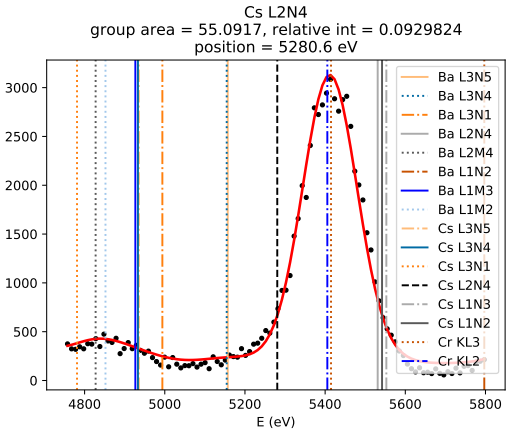

Cs L3N4
group area = 55.0917, relative int = 0.0170667
position = 4933.1 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L2M4
Cs L1M3
Cs L1M2
Cr KL3
Cr KL2
E (eV)

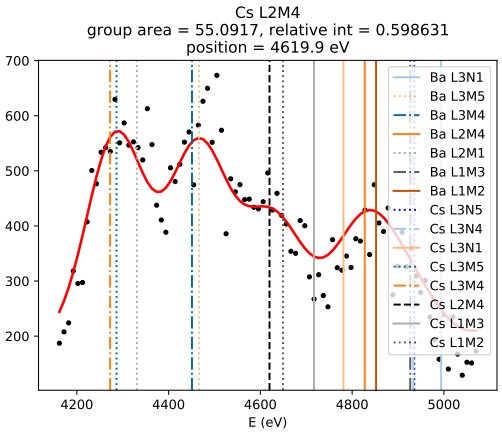

Cs L3N1
group area = 55.0917, relative int = 0.00943583
position = 4781.1 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L2M1
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2M4
Cs L1M3
Cs L1M2
E (eV)

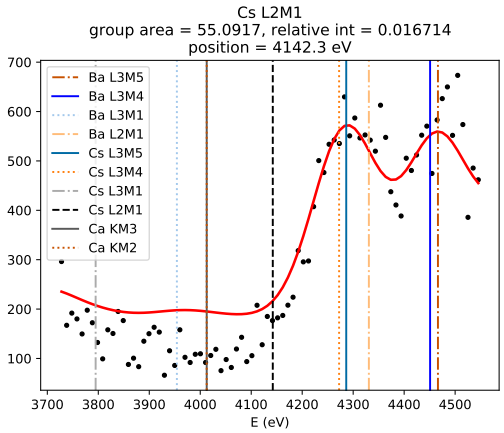

Cs L3M5
group area = 55.0917, relative int = 1
position = 4286.4 eV
Ba L3M5
Ba L3M4
Ba L3M1
Ba L2M1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L2M1
Cs L1M3
Cs L1M2
Ca KM3
Ca KM2
E (eV)

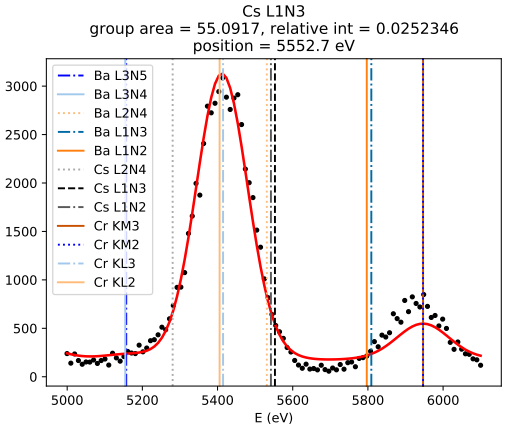

Cs L3M4
group area = 55.0917, relative int = 0.112882
position = 4272.4 eV
Ba L3M5
Ba L3M4
Ba L3M1
Ba L2M1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L2M1
Cs L1M2
Ca KM3
Ca KM2
E (eV)

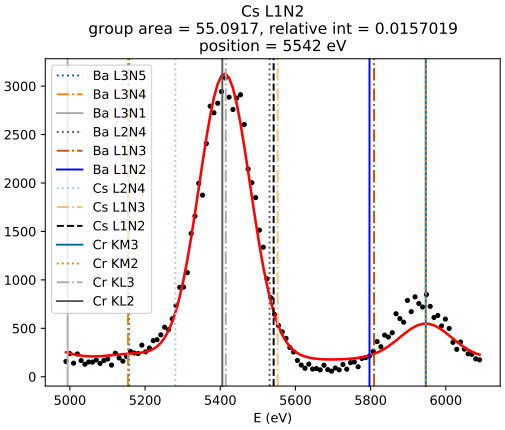

Cs L3M1
group area = 55.0917, relative int = 0.0426421
position = 3794.8 eV
Ba L3M1
K KM3
K KM2
Cs L3M1
Cs L2M1
Ca KM3
Ca KM2
Ca KL3
Ca KL2
E (eV)

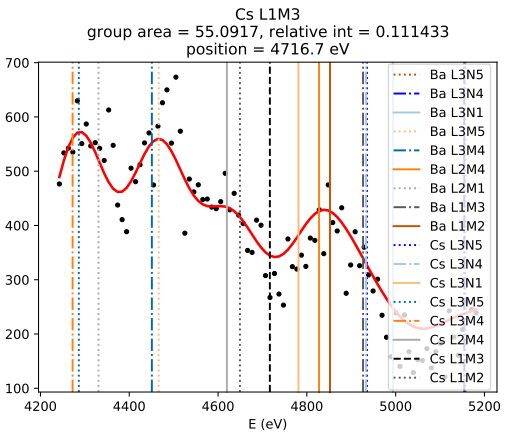

Cs L2N4
group area = 55.0917, relative int = 0.0929824
position = 5280.6 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2N4
Ba L2M4
Ba L1N2
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L2N4
Cs L1N3
Cs L1N2
Cr KL3
Cr KL2
E (eV)

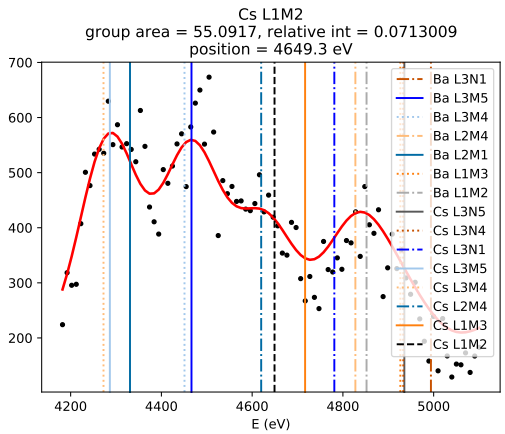

Cs L2M4
group area = 55.0917, relative int = 0.598631
position = 4619.9 eV
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L2M1
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L1M3
Cs L1M2
E (eV)

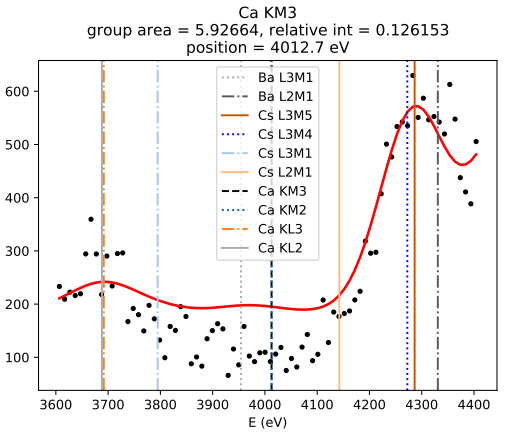

Cs L2M1
group area = 55.0917, relative int = 0.016714
position = 4142.3 eV
Ba L3M5
Ba L3M4
Ba L3M1
Ba L2M1
Cs L3M5
Cs L3M4
Cs L3M1
Cs L2M1
Ca KM3
Ca KM2
E (eV)

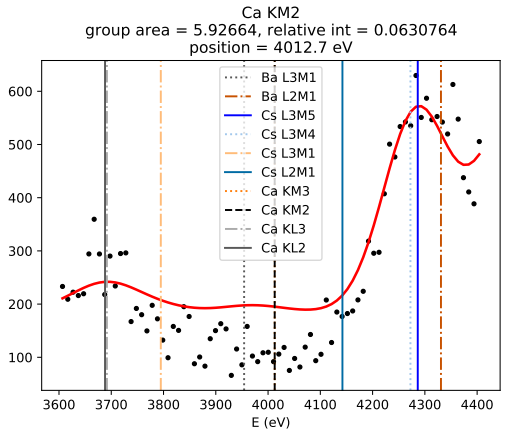

Cs L1N3
group area = 55.0917, relative int = 0.0252346
position = 5552.7 eV
Ba L3N5
Ba L3N4
Ba L2N4
Ba L1N3
Ba L1N2
Cs L2N4
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

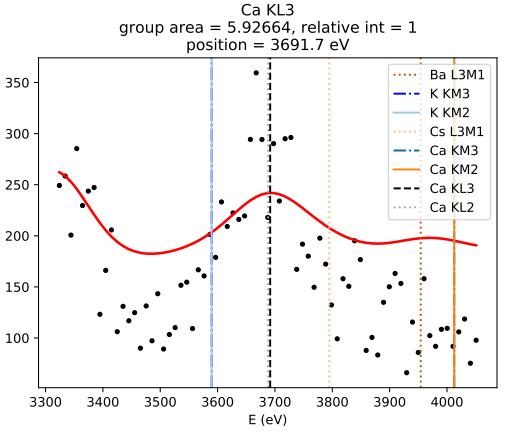

Cs L1N2
group area = 55.0917, relative int = 0.0157019
position = 5542 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2N4
Ba L1N3
Ba L1N2
Cs L2N4
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

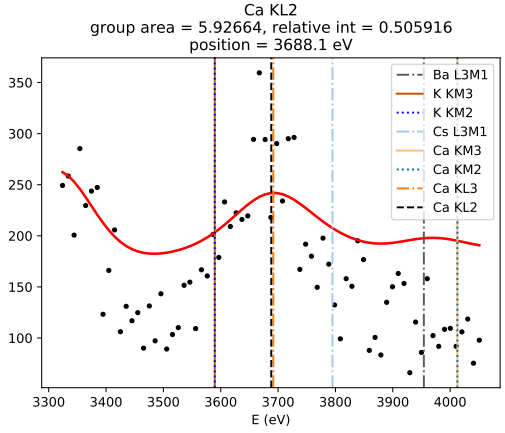

Cs L1M3
group area = 55.0917, relative int = 0.111433
position = 4716.7 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L2M1
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L1M3
Cs L1M2
E (eV)

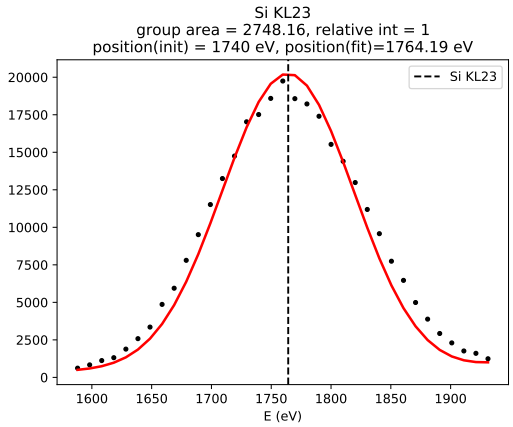

Cs L1M2
group area = 55.0917, relative int = 0.0713009
position = 4649.3 eV
Ba L3N1
Ba L3M5
Ba L3M4
Ba L2M4
Ba L2M1
Ba L1M3
Ba L1M2
Cs L3N5
Cs L3N4
Cs L3N1
Cs L3M5
Cs L3M4
Cs L2M4
Cs L1M3
Cs L1M2
E (eV)

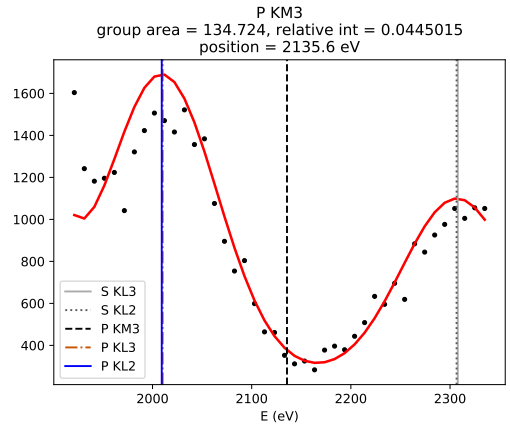

Ca KM3
group area = 5.92664, relative int = 0.126153
position = 4012.7 eV
Ba L3M1
Ba L2M1
Cs L3M5
Cs L3M4
Cs L3M1
Cs L2M1
Ca KM3
Ca KM2
Ca KL3
Ca KL2
E (eV)

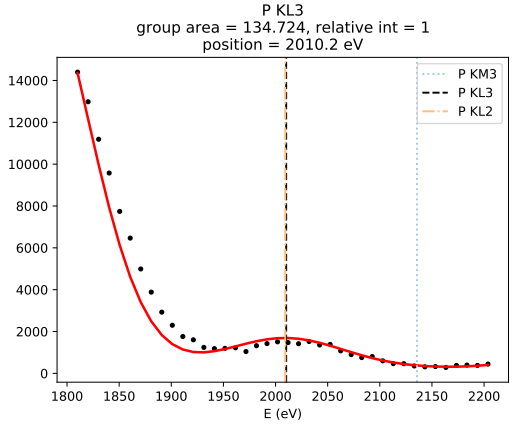

Ca KM2
group area = 5.92664, relative int = 0.0630764
position = 4012.7 eV
Ba L3M1
Ba L2M1
Cs L3M5
Cs L3M4
Cs L3M1
Cs L2M1
Ca KM3
Ca KM2
Ca KL3
Ca KL2
E (eV)

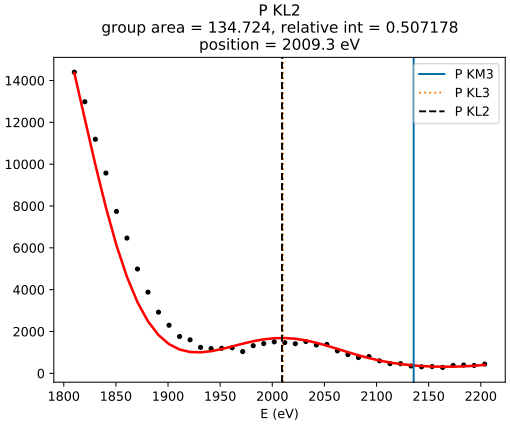

Ca KL3
group area = 5.92664, relative int = 1
position = 3691.7 eV
Ba L3M1
K KM3
K KM2
Cs L3M1
Ca KM3
Ca KM2
Ca KL3
Ca KL2
E (eV)

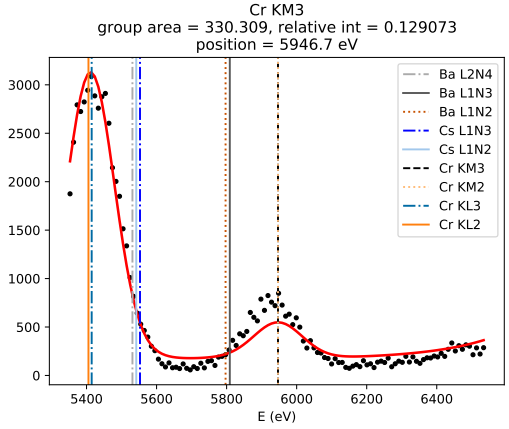

Ca KL2
group area = 5.92664, relative int = 0.505916
position = 3688.1 eV
Ba L3M1
K KM3
K KM2
Cs L3M1
Ca KM3
Ca KM2
Ca KL3
Ca KL2
E (eV)

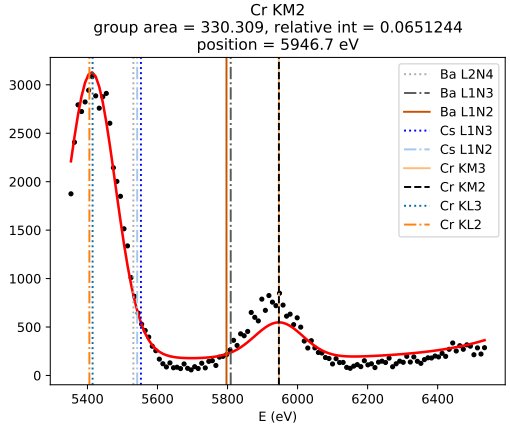

Si KL23
group area = 2748.16, relative int = 1
position(init) = 1740 eV, position(fit)=1764.19 eV
Si KL23
E (eV)

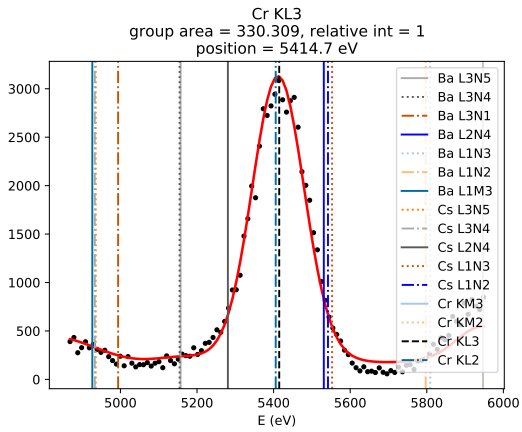

P KM3
group area = 134.724, relative int = 0.0445015
position = 2135.6 eV
S KL3
S KL2
P KM3
P KL3
P KL2
E (eV)

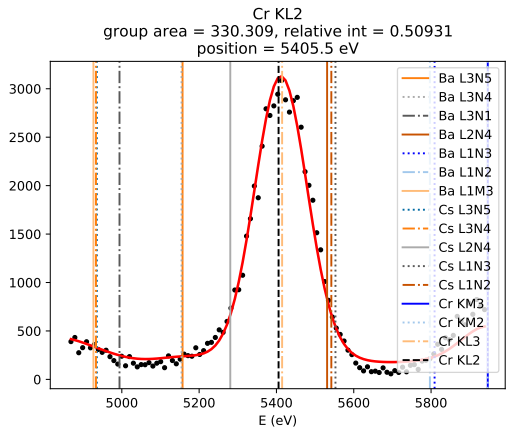

P KL3
group area = 134.724, relative int = 1
position = 2010.2 eV
P KM3
P KL3
P KL2
E (eV)


P KL2
group area = 134.724, relative int = 0.507178
position = 2009.3 eV
P KM3
P KL3
P KL2
E (eV)

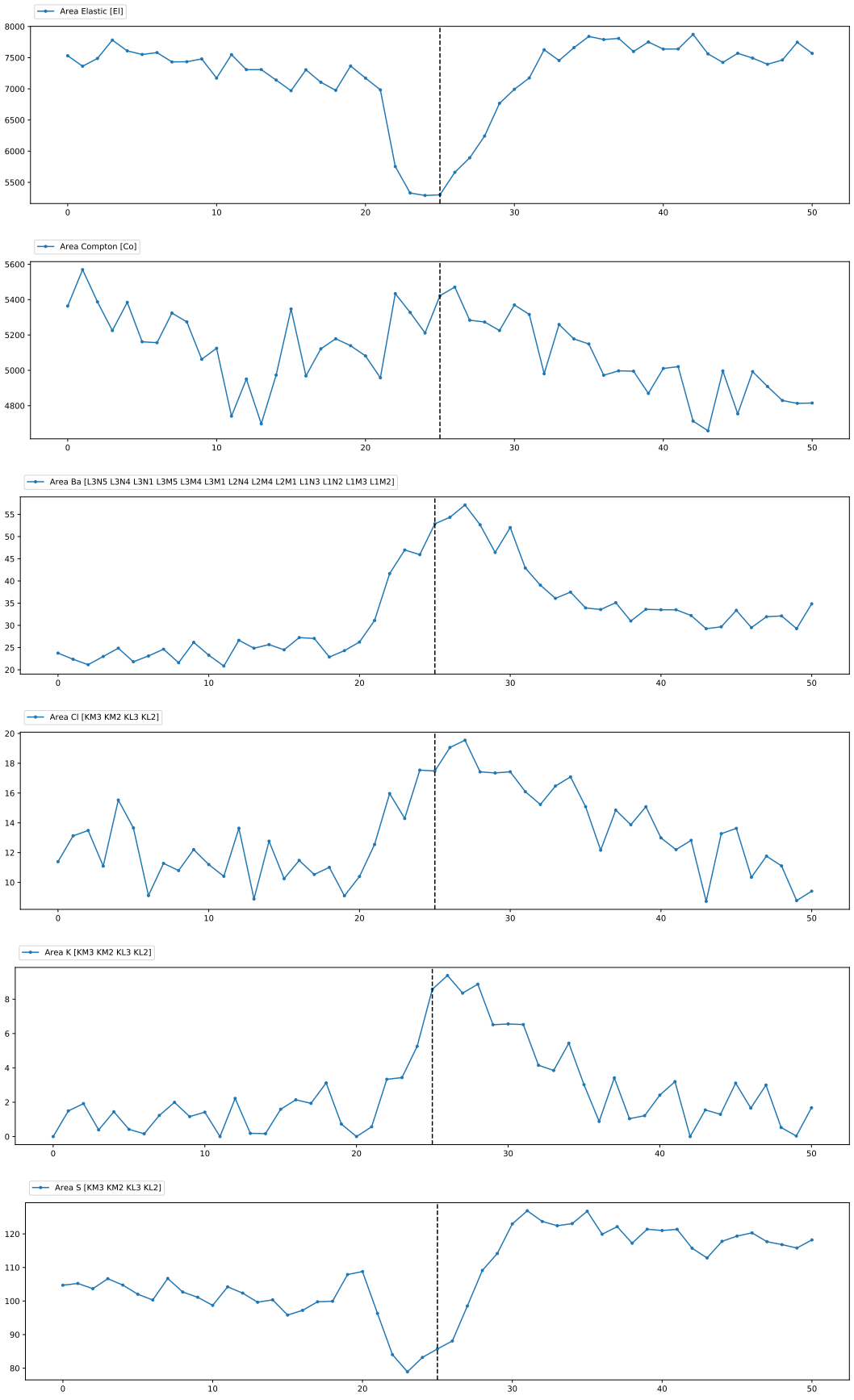

Cr KM3
group area = 330.309, relative int = 0.129073
position = 5946.7 eV
Ba L2N4
Ba L1N3
Ba L1N2
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

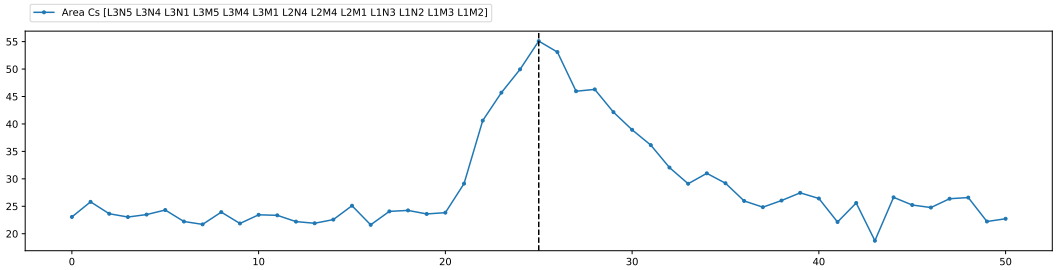

Cr KM2
group area = 330.309, relative int = 0.0651244
position = 5946.7 eV
Ba L2N4
Ba L1N3
Ba L1N2
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

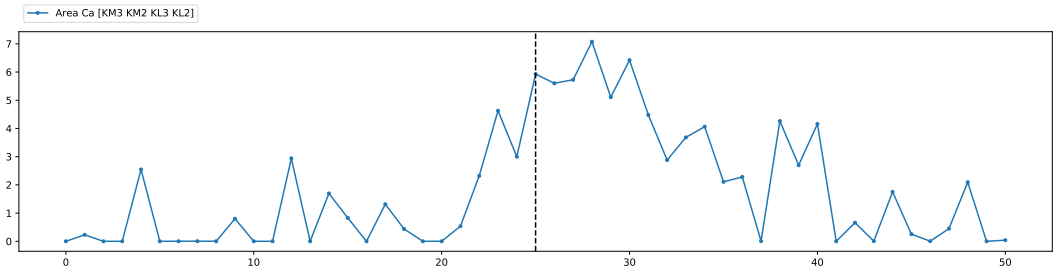

Cr KL3
group area = 330.309, relative int = 1
position = 5414.7 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2N4
Ba L1N3
Ba L1N2
Ba L1M3
Cs L3N5
Cs L3N4
Cs L2N4
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

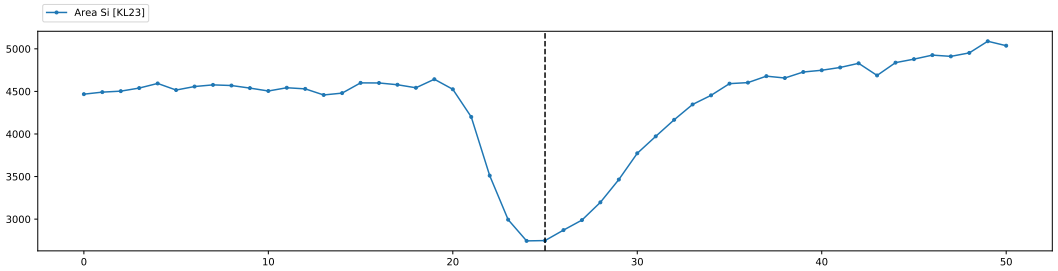

Cr KL2
group area = 330.309, relative int = 0.50931
position = 5405.5 eV
Ba L3N5
Ba L3N4
Ba L3N1
Ba L2N4
Ba L1N3
Ba L1N2
Ba L1M3
Cs L3N5
Cs L3N4
Cs L2N4
Cs L1N3
Cs L1N2
Cr KM3
Cr KM2
Cr KL3
Cr KL2
E (eV)

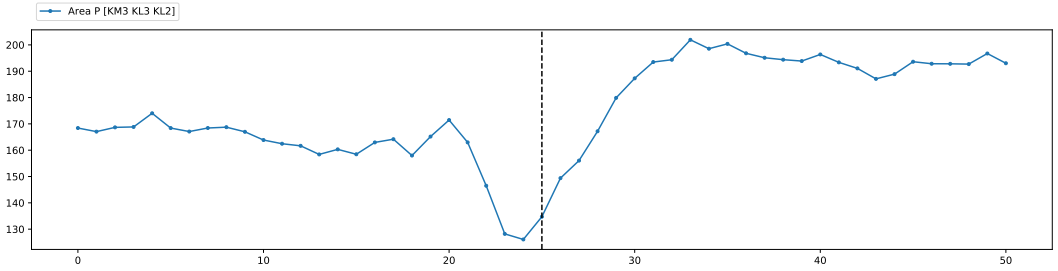
AREAS

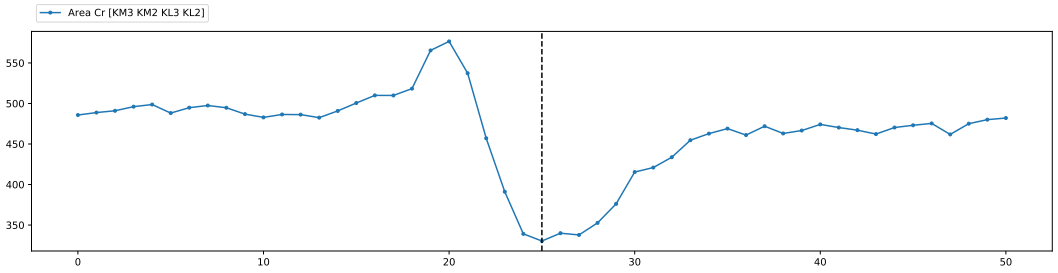

Area Elastic [El]
Area Compton [Co]
Area Ba [L3N5 L3N4 L3N1 L3M5 L3M4 L3M1 L2N4 L2M4 L2M1 L1N3 L1N2 L1M3 L1M2]
Area Cl [KM3 KM2 KL3 KL2]
Area K [KM3 KM2 KL3 KL2]
Area S [KM3 KM2 KL3 KL2]


Area Cs [L3N5 L3N4 L3N1 L3M5 L3M4 L3M1 L2N4 L2M4 L2M1 L1N3 L1N2 L1M3 L1M2]

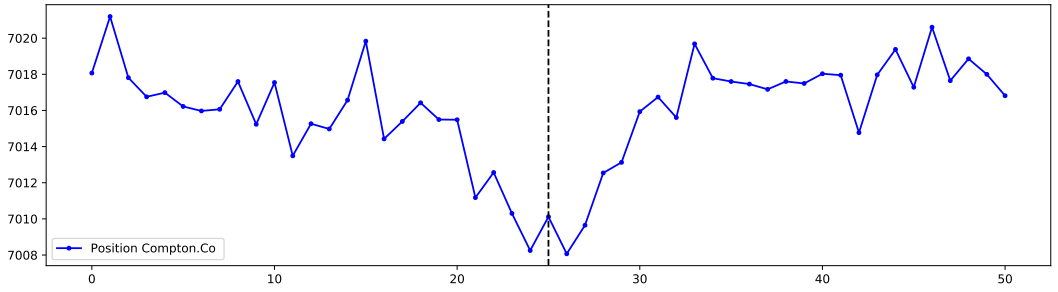

Area Ca [KM3 KM2 KL3 KL2]

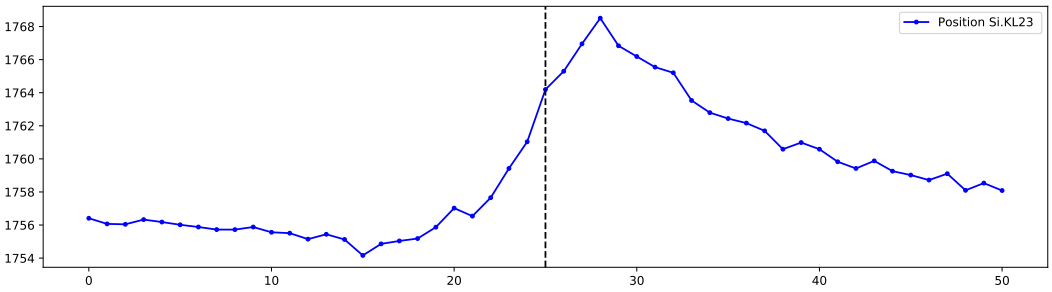

Area Si [KL23]


Area P [KM3 KL3 KL2]


Area Cr [KM3 KM2 KL3 KL2]

POSITIONS


Position Compton.Co



OTHER PARAMETERS