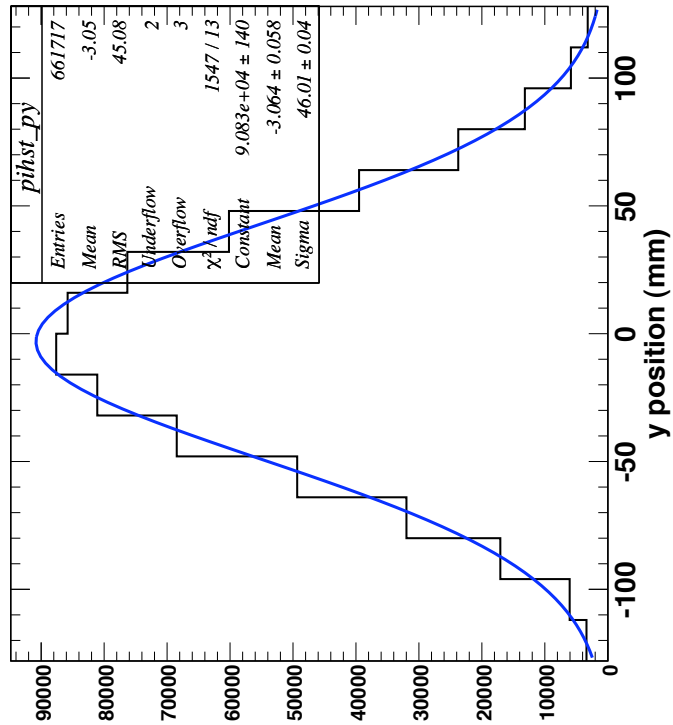
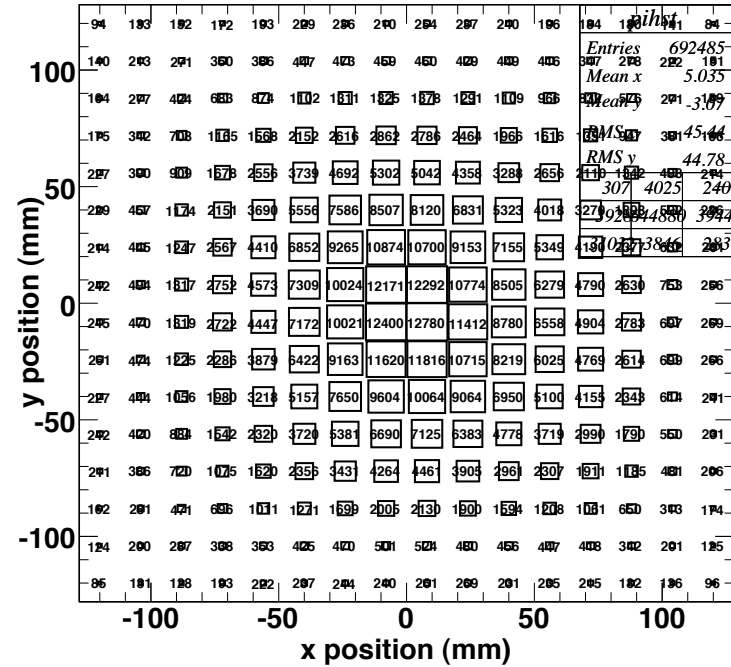


Beam Profile E570

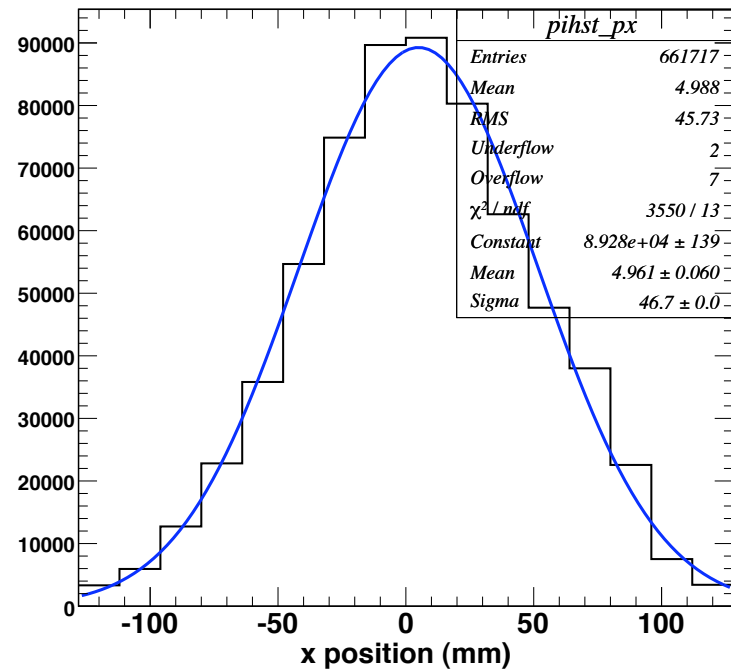
E570 run246 π profile $z = 150.00$



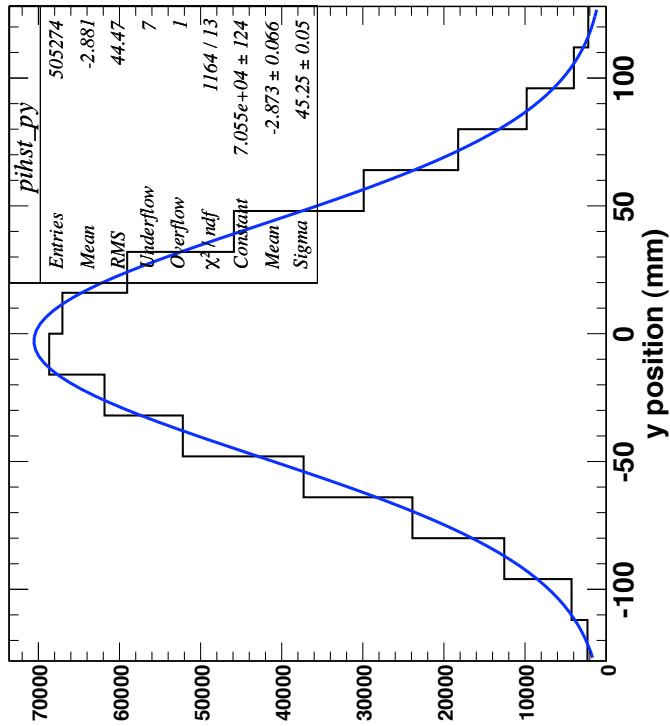
E570 run246 π profile $z = 150.00$



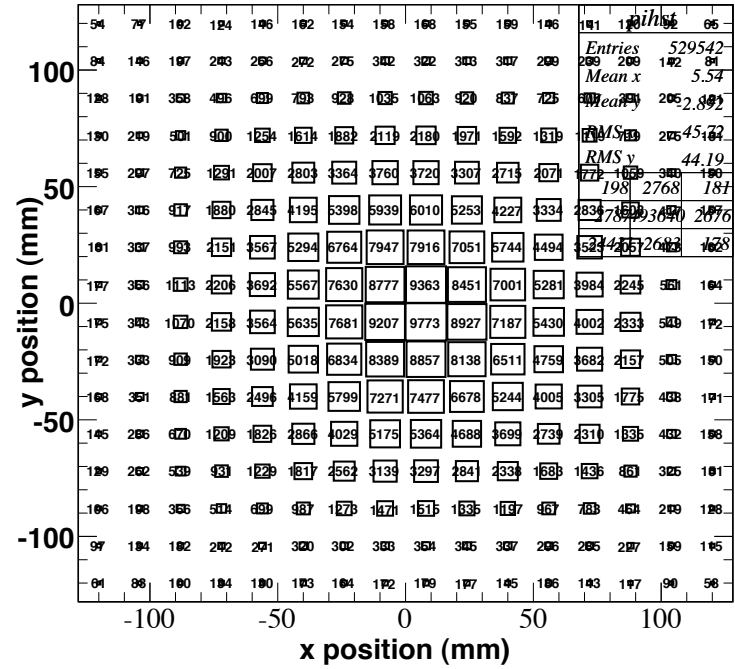
E570 run246 π profile $z = 150.00$



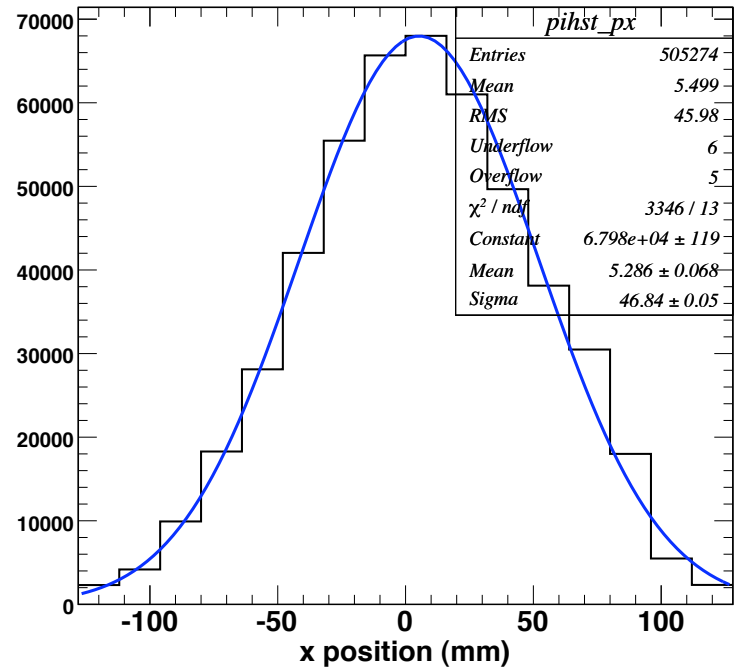
E570 run 515 π profile $z = 150.00$



E570 run 515 π profile $z = 150.00$



E570 run 515 π profile $z = 150.00$



Cycle I

Ti K α 1 compton-tail fit cycle 1

simulation

[Ti K-alpha1 (4510.84 eV)]

Number of Events

Total = 611603 +- 782.051

Normal = 603199

Compton = 1945 +- 44.1022

Rayleigh = 5847

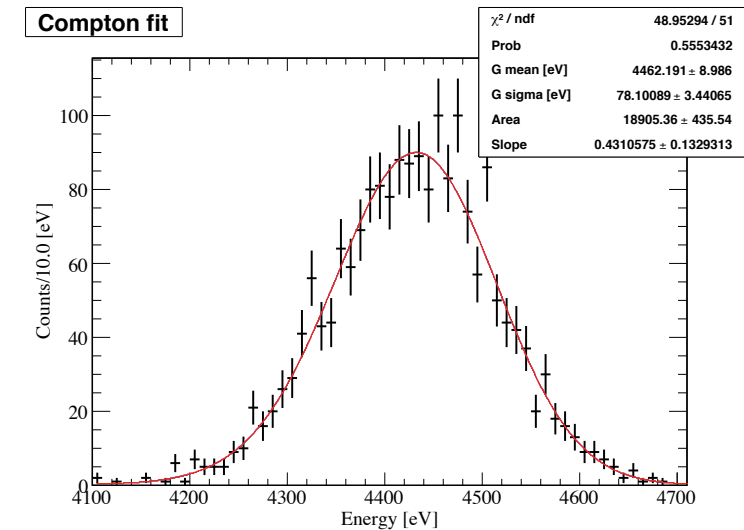
Compton other + escaped Rayleigh = 612

Ratios

Compton/Total = 0.00318017 +- 7.22237e-05

Compton/(Normal+Rayleigh) = 0.00319352 +- 7.25274e-05

0.3% Compton



Fit of simulation

FCN=48.9529 FROM MINOS STATUS=SUCCESSFUL 390 CALLS 485 TOTAL
EDM=1.12978e-12 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	4.46219e+03	8.27035e+00	-1.07983e+01	7.17300e+00
2	G sigma [eV]	7.81009e+01	3.36750e+00	-3.20100e+00	3.68030e+00
3	Area	1.89054e+04	4.35533e+02	-4.35537e+02	4.35541e+02
4	Slope	4.31057e-01	1.24379e-01	-1.53209e-01	1.12653e-01

Ti K α 1 total-tail fit cycle 1

simulation

[Ti K-alpha1 (4510.84 eV)]

Number of Events

Total = 611603 +- 782.051

Normal = 603199

Compton = 1945 +- 44.1022

Rayleigh = 5847

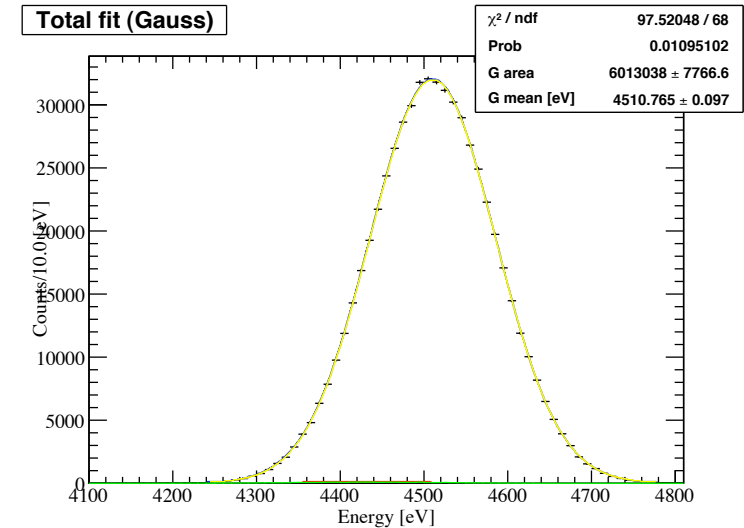
Compton other + escaped Rayleigh = 612

Ratios

Compton/Total = 0.00318017 +- 7.22237e-05

Compton/(Normal+Rayleigh) = 0.00319352 +- 7.25274e-05

0.3% Compton



Fit of simulation

FCN=97.5205 FROM MINOS STATUS=SUCCESSFUL 24 CALLS 62 TOTAL
 EDM=4.30593e-10 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	g mean [eV]	4.46219e+03	fixed		
2	g sigma [eV]	7.81009e+01	fixed		
3	t area	1.89054e+04	fixed		
4	t slope	4.31057e-01	fixed		
5	G area	6.01304e+06	7.76664e+03	-7.76664e+03	7.76664e+03
6	G mean [eV]	4.51076e+03	9.72336e-02	-9.72326e-02	9.72347e-02
7	G sigma [eV]	7.50889e+01	fixed		

Ti K α 2 compton-tail fit cycle 1

simulation

[Ti K-alpha2 (4504.86 eV)]

Number of Events

Total = 304225 +- 551.566

Normal = 299928

Compton = 1039 +- 32.2335

Rayleigh = 2956

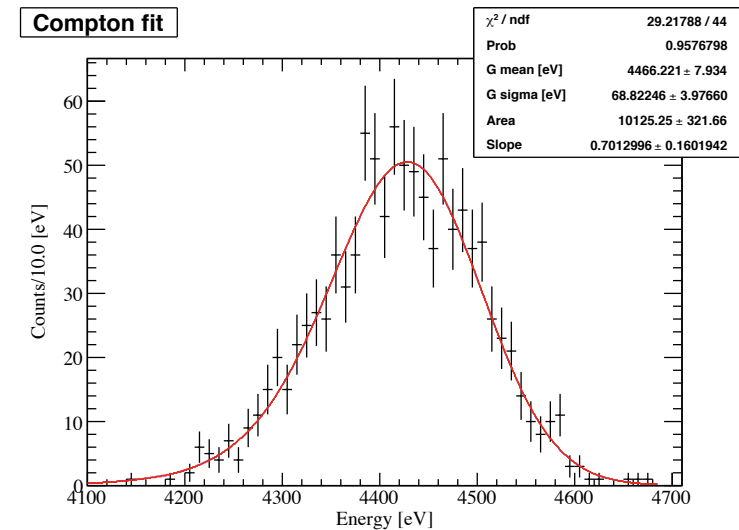
Compton other + escaped Rayleigh = 302

Ratios

Compton/Total = 0.00341524 +- 0.000106134

Compton/(Normal+Rayleigh) = 0.00343036 +- 0.000106604

0.3% Compton



Fit of simulation

FCN=29.2179 FROM MINOS STATUS=SUCCESSFUL 278 CALLS 375 TOTAL
EDM=2.20576e-12 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	4.46622e+03	7.77322e+00	-8.62185e+00	7.24665e+00
2	G sigma [eV]	6.88225e+01	3.95315e+00	-3.85616e+00	4.09705e+00
3	Area	1.01253e+04	3.21649e+02	-3.21623e+02	3.21693e+02
4	Slope	7.01300e-01	1.57875e-01	-1.63508e-01	1.56880e-01

Ti K α 2 total-tail fit cycle 1

simulation

0.3% Compton

[Ti K-alpha2 (4504.86 eV)]

Number of Events

Total = 304225 +- 551.566

Normal = 299928

Compton = 1039 +- 32.2335

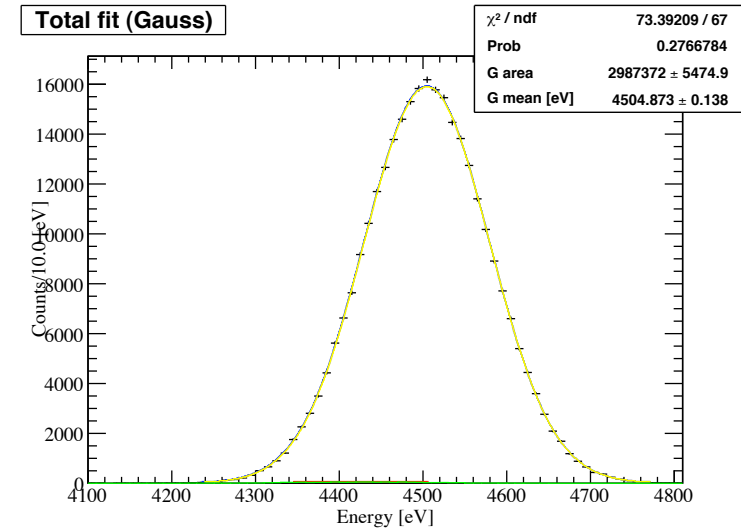
Rayleigh = 2956

Compton other + escaped Rayleigh = 302

Ratios

Compton/Total = 0.00341524 +- 0.000106134

Compton/(Normal+Rayleigh) = 0.00343036 +- 0.000106604



Fit of simulation

FCN=73.3921 FROM MINOS STATUS=SUCCESSFUL 24 CALLS 62 TOTAL
 EDM=9.63836e-11 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	g mean [eV]	4.46622e+03	fixed		
2	g sigma [eV]	6.88225e+01	fixed		
3	t area	1.01253e+04	fixed		
4	t slope	7.01300e-01	fixed		
5	G area	2.98737e+06	5.47491e+03	-5.47491e+03	5.47491e+03
6	G mean [eV]	4.50487e+03	1.38032e-01	-1.38031e-01	1.38033e-01
7	G sigma [eV]	7.50669e+01	fixed		

Ti K β compton-tail fit cycle 1

simulation

[Ti K-beta1 (4931.81 eV)]

Number of Events

Total = 103426 +- 321.599

Normal = 101654

Compton = 584 +- 24.1661

Rayleigh = 1061

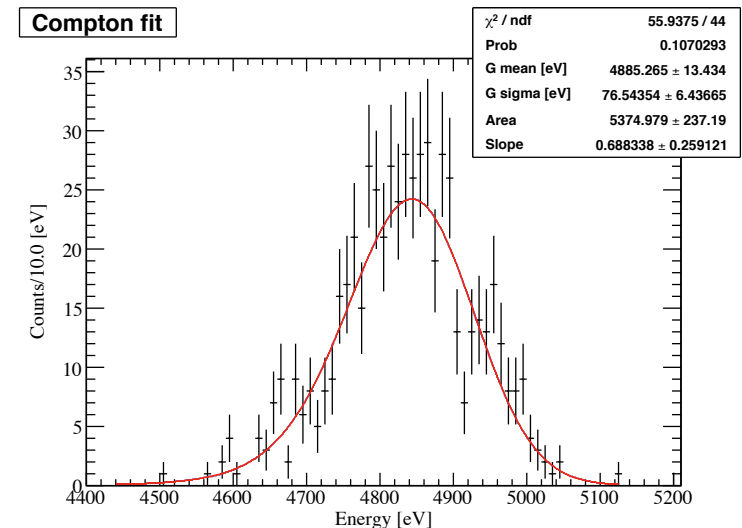
Compton other + escaped Rayleigh = 127

Ratios

Compton/Total = 0.00564655 +- 0.000234315

Compton/(Normal+Rayleigh) = 0.00568564 +- 0.000235941

0.6% Compton



Fit of simulation

FCN=55.9375 FROM MINOS STATUS=SUCCESSFUL 359 CALLS 456 TOTAL
 EDM=3.5668e-12 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	4.88526e+03	1.22891e+01	-1.58871e+01	1.09805e+01
2	G sigma [eV]	7.65435e+01	6.27583e+00	-5.94617e+00	6.92713e+00
3	Area	5.37498e+03	2.37178e+02	-2.37077e+02	2.37313e+02
4	Slope	6.88338e-01	2.44722e-01	-2.80697e-01	2.37545e-01

Ti K β total-tail fit cycle 1

simulation

[Ti K-beta1 (4931.81 eV)]

Number of Events

Total = 103426 +- 321.599

Normal = 101654

Compton = 584 +- 24.1661

Rayleigh = 1061

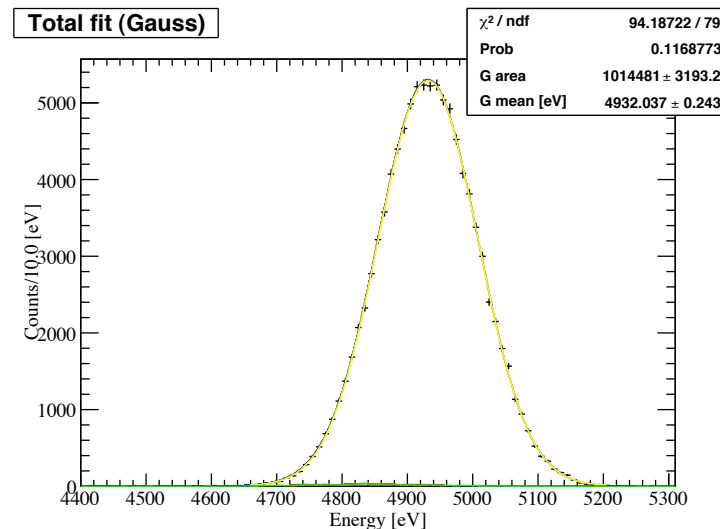
Compton other + escaped Rayleigh = 127

Ratios

Compton/Total = 0.00564655 +- 0.000234315

Compton/(Normal+Rayleigh) = 0.00568564 +- 0.000235941

0.6% Compton



Fit of simulation

FCN=94.1872 FROM MINOS STATUS=SUCCESSFUL 24 CALLS 64 TOTAL
EDM=3.32078e-10 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	g mean [eV]	4.88526e+03	fixed		
2	g sigma [eV]	7.65435e+01	fixed		
3	t area	5.37498e+03	fixed		
4	t slope	6.88338e-01	fixed		
5	G area	1.01448e+06	3.19322e+03	-3.19320e+03	3.19324e+03
6	G mean [eV]	4.93204e+03	2.42980e-01	-2.42984e-01	2.42978e-01
7	G sigma [eV]	7.66219e+01	fixed		

Ni K α 1 compton-tail fit cycle 1

simulation

[Ni K-alpha1 (7478.15 eV)]

Number of Events

Total = 423202 +- 650.54

Normal = 407156

Compton = 9973 +- 99.8649

Rayleigh = 5008

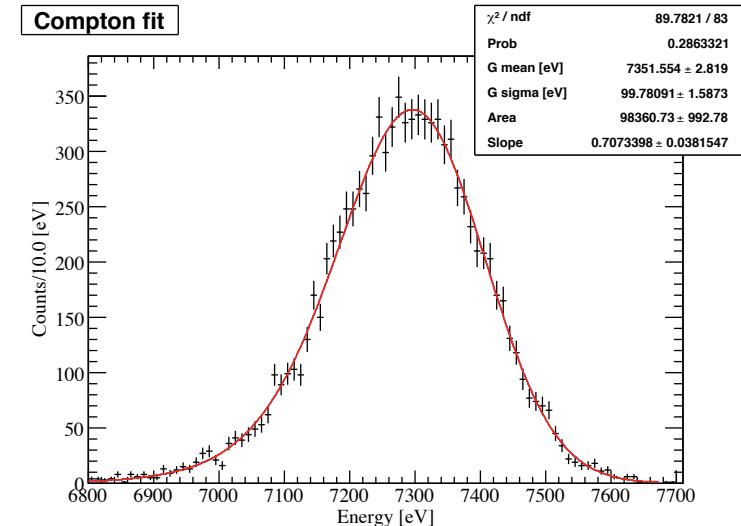
Compton other + escaped Rayleigh = 1065

Ratios

Compton/Total = 0.0235656 +- 0.000238739

Compton/(Normal+Rayleigh) = 0.0241967 +- 0.000245208

2.4% Compton



Fit of simulation

FCN=89.7821 FROM MINOS STATUS=SUCCESSFUL 171 CALLS 264 TOTAL
EDM=1.92927e-09 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS NEGATIVE	MINOS POSITIVE
1	G mean [eV]	7.35155e+03	2.81569e+00	-2.87077e+00	2.76656e+00
2	G sigma [eV]	9.97809e+01	1.58702e+00	-1.58077e+00	1.59377e+00
3	Area	9.83607e+04	9.92780e+02	-9.92781e+02	9.92782e+02
4	Slope	7.07340e-01	3.81219e-02	-3.83540e-02	3.79553e-02

Ni K α 1 total-tail fit cycle 1

simulation

[Ni K-alpha1 (7478.15 eV)]

Number of Events

Total = 423202 +- 650.54

Normal = 407156

Compton = 9973 +- 99.8649

Rayleigh = 5008

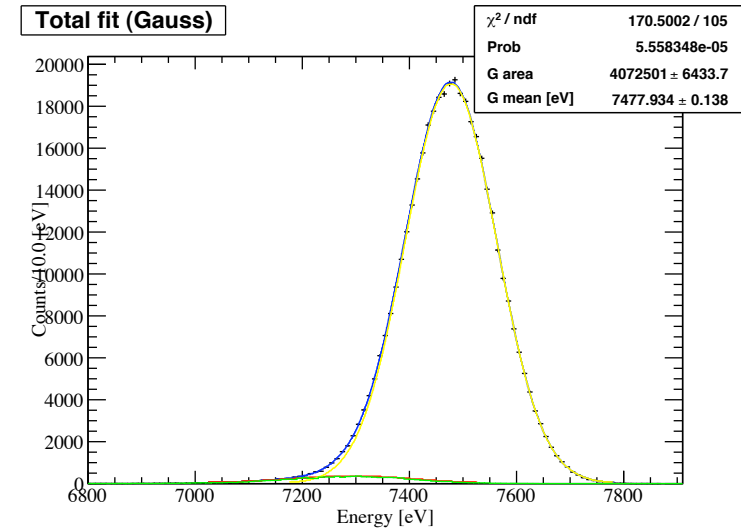
Compton other + escaped Rayleigh = 1065

Ratios

Compton/Total = 0.0235656 +- 0.000238739

Compton/(Normal+Rayleigh) = 0.0241967 +- 0.000245208

2.4% Compton



Fit of simulation

FCN=170.5 FROM MINOS STATUS=SUCCESSFUL 24 CALLS 66 TOTAL
 EDM=9.34707e-08 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS NEGATIVE	MINOS POSITIVE
1	g mean [eV]	7.35155e+03	fixed		
2	g sigma [eV]	9.97809e+01	fixed		
3	t area	9.83607e+04	fixed		
4	t slope	7.07340e-01	fixed		
5	G area	4.07250e+06	6.43374e+03	-6.43329e+03	6.43419e+03
6	G mean [eV]	7.47793e+03	1.38179e-01	-1.38159e-01	1.38199e-01
7	G sigma [eV]	8.53091e+01	fixed		

Ni K α 2 compton-tail fit cycle 1

simulation

[Ni K-alpha2 (7460.89 eV)]

Number of Events

Total = 215436 +- 464.151

Normal = 207254

Compton = 5025 +- 70.8872

Rayleigh = 2629

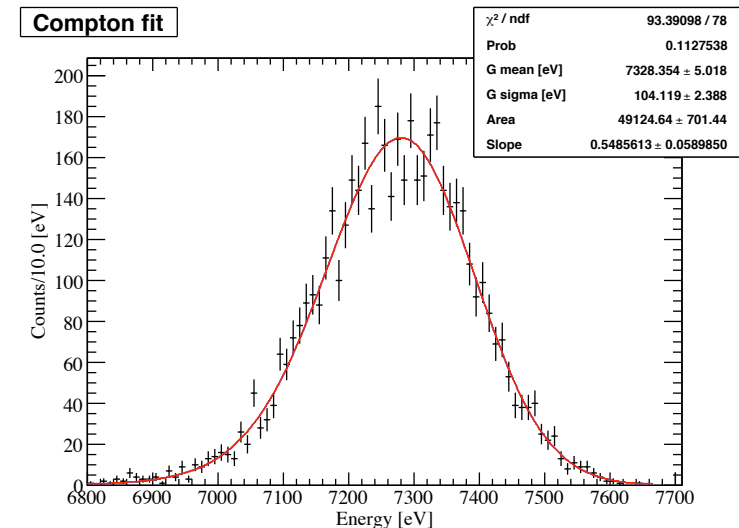
Compton other + escaped Rayleigh = 528

Ratios

Compton/Total = 0.0233248 +- 0.000332856

Compton/(Normal+Rayleigh) = 0.0239419 +- 0.000341766

2.4% Compton



Fit of simulation

FCN=93.391 FROM MINOS STATUS=SUCCESSFUL 256 CALLS 343 TOTAL
 EDM=1.12744e-07 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	7.32835e+03	5.02378e+00	-5.27787e+00	4.75806e+00
2	G sigma [eV]	1.04119e+02	2.40125e+00	-2.35207e+00	2.42468e+00
3	Area	4.91246e+04	7.01445e+02	-7.01433e+02	7.01457e+02
4	Slope	5.48561e-01	5.91994e-02	-6.08659e-02	5.71042e-02

Ni K α 2 total-tail fit cycle 1

simulation

[Ni K-alpha2 (7460.89 eV)]

Number of Events

Total = 215436 +- 464.151

Normal = 207254

Compton = 5025 +- 70.8872

Rayleigh = 2629

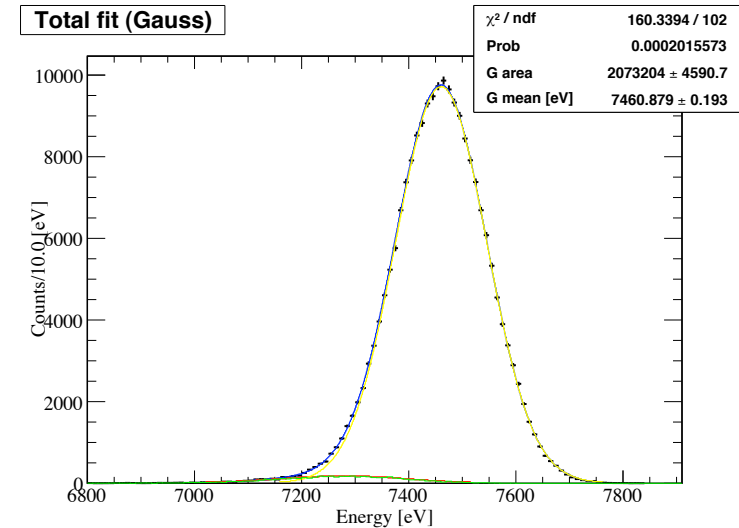
Compton other + escaped Rayleigh = 528

Ratios

Compton/Total = 0.0233248 +- 0.000332856

Compton/(Normal+Rayleigh) = 0.0239419 +- 0.000341766

2.4% Compton



Fit of simulation

FCN=160.339 FROM MINOS

STATUS=SUCCESSFUL

24 CALLS

65 TOTAL

EDM=5.67284e-08

STRATEGY= 1

ERROR MATRIX ACCURATE

EXT PARAMETER

PARABOLIC

MINOS ERRORS

NO.

NAME

VALUE

ERROR

NEGATIVE

POSITIVE

1	g mean [eV]	7.32835e+03	fixed		
2	g sigma [eV]	1.04119e+02	fixed		
3	t area	4.91246e+04	fixed		
4	t slope	5.48561e-01	fixed		
5	G area	2.07320e+06	4.59072e+03	-4.59071e+03	4.59073e+03
6	G mean [eV]	7.46088e+03	1.92843e-01	-1.92828e-01	1.92859e-01
7	G sigma [eV]	8.52532e+01	fixed		

Ni K β compton-tail fit cycle 1

simulation

[Ni K-beta1 (8264.66 eV)]

Number of Events

Total = 76711 +- 276.968

Normal = 73259

Compton = 2143 +- 46.2925

Rayleigh = 1053

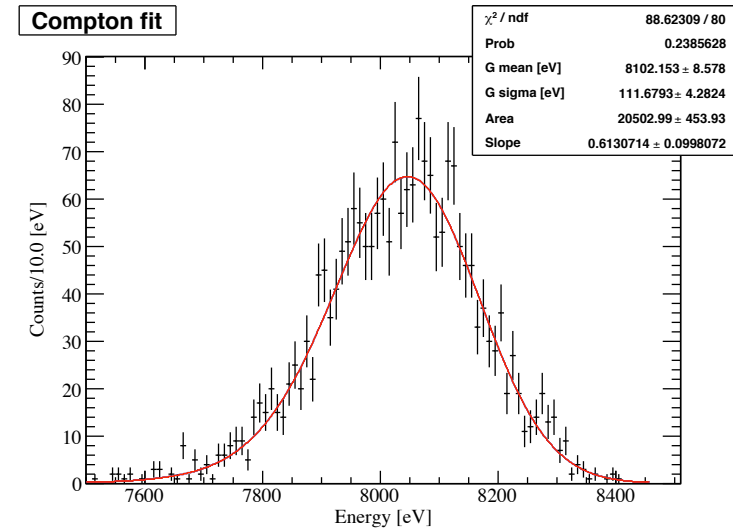
Compton other + escaped Rayleigh = 256

Ratios

Compton/Total = 0.027936 +- 0.000611838

Compton/(Normal+Rayleigh) = 0.0288379 +- 0.000631867

2.9% Compton



Fit of simulation

FCN=88.6231 FROM MINOS STATUS=SUCCESSFUL 266 CALLS 362 TOTAL
 EDM=1.27028e-12 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	8.10215e+03	8.47187e+00	-9.19217e+00	7.96300e+00
2	G sigma [eV]	1.11679e+02	4.27025e+00	-4.18317e+00	4.38170e+00
3	Area	2.05030e+04	4.53920e+02	-4.53924e+02	4.53927e+02
4	Slope	6.13071e-01	9.89200e-02	-1.03110e-01	9.65042e-02

Ni K β total-tail fit cycle 1

simulation

[Ni K-beta1 (8264.66 eV)]

Number of Events

Total = 76711 +- 276.968

Normal = 73259

Compton = 2143 +- 46.2925

Rayleigh = 1053

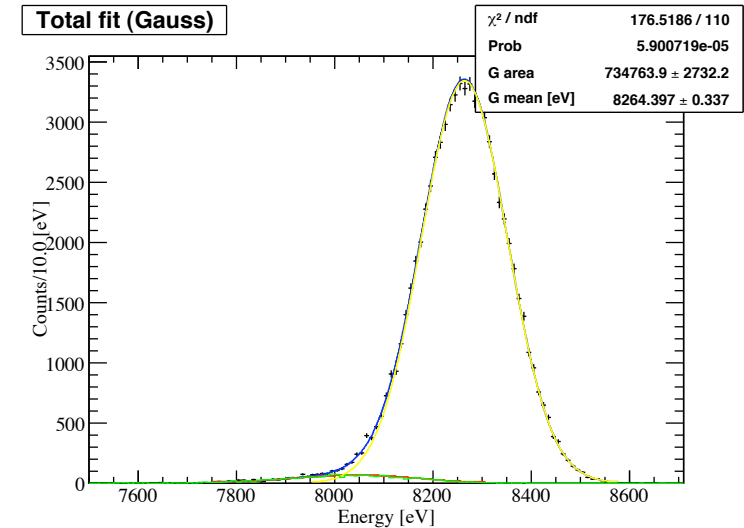
Compton other + escaped Rayleigh = 256

Ratios

Compton/Total = 0.027936 +- 0.000611838

Compton/(Normal+Rayleigh) = 0.0288379 +- 0.000631867

2.9% Compton



Fit of simulation

FCN=176.519 FROM MINOS STATUS=SUCCESSFUL 26 CALLS 68 TOTAL
EDM=2.93332e-08 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS NEGATIVE	MINOS POSITIVE
1	g mean [eV]	8.10215e+03	fixed		
2	g sigma [eV]	1.11679e+02	fixed		
3	t area	2.05030e+04	fixed		
4	t slope	6.13071e-01	fixed		
5	G area	7.34764e+05	2.73222e+03	-2.73210e+03	2.73233e+03
6	G mean [eV]	8.26440e+03	3.37233e-01	-3.37254e-01	3.37214e-01
7	G sigma [eV]	8.78188e+01	fixed		

Cycle 2

Ti K α 1 compton-tail fit cycle 2

simulation

[Ti K-alpha1 (4510.84 eV)]

Number of Events

Total = 612430 +- 782.579

Normal = 603975

Compton = 1939 +- 44.0341

Rayleigh = 5896

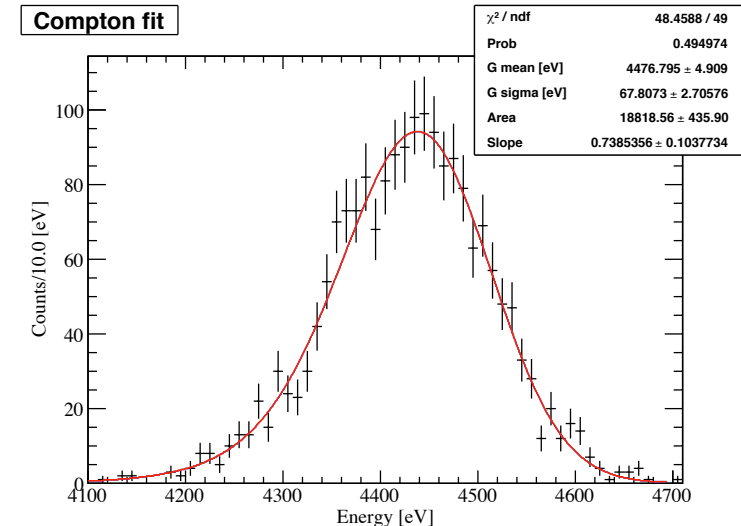
Compton other + escaped Rayleigh = 620

Ratios

Compton/Total = 0.00316608 +- 7.20143e-05

Compton/(Normal+Rayleigh) = 0.00317936 +- 7.2317e-05

0.3% Compton



Fit of simulation

FCN=48.4588 FROM MINOS STATUS=SUCCESSFUL 251 CALLS 346 TOTAL
EDM=1.2055e-12 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	4.47680e+03	4.87744e+00	-5.15326e+00	4.66535e+00
2	G sigma [eV]	6.78073e+01	2.70255e+00	-2.66913e+00	2.74238e+00
3	Area	1.88186e+04	4.35897e+02	-4.35894e+02	4.35910e+02
4	Slope	7.38536e-01	1.03308e-01	-1.04686e-01	1.02861e-01

Ti K α 1 total-tail fit cycle 1

simulation

[Ti K-alpha1 (4510.84 eV)]

Number of Events

Total = 611603 +- 782.051

Normal = 603199

Compton = 1945 +- 44.1022

Rayleigh = 5847

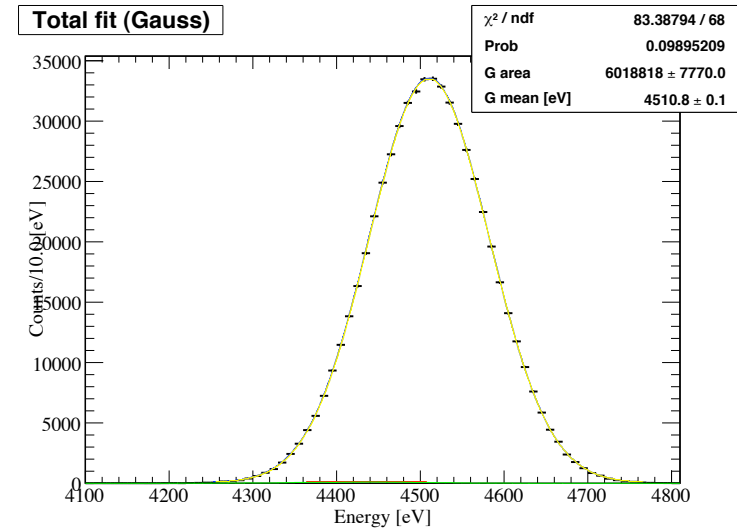
Compton other + escaped Rayleigh = 612

Ratios

Compton/Total = 0.00318017 +- 7.22237e-05

Compton/(Normal+Rayleigh) = 0.00319352 +- 7.25274e-05

0.3% Compton



Fit of simulation

FCN=83.3879 FROM MINOS

STATUS=SUCCESSFUL

24 CALLS

62 TOTAL

EDM=7.64106e-10

STRATEGY= 1

ERROR MATRIX ACCURATE

EXT PARAMETER

PARABOLIC

MINOS ERRORS

NO.

NAME

VALUE

ERROR

NEGATIVE

POSITIVE

1	g mean [eV]	4.47680e+03	fixed		
2	g sigma [eV]	6.78073e+01	fixed		
3	t area	1.88186e+04	fixed		
4	t slope	7.38536e-01	fixed		
5	G area	6.01882e+06	7.77005e+03	-7.77005e+03	7.77005e+03
6	G mean [eV]	4.51080e+03	9.32613e-02	-9.32600e-02	9.32626e-02
7	G sigma [eV]	7.17842e+01	fixed		

Ti K α 2 compton-tail fit cycle 2

simulation

[Ti K-alpha2 (4504.86 eV)]

Number of Events

Total = 304780 +- 552.069

Normal = 300513

Compton = 1031 +- 32.1092

Rayleigh = 2913

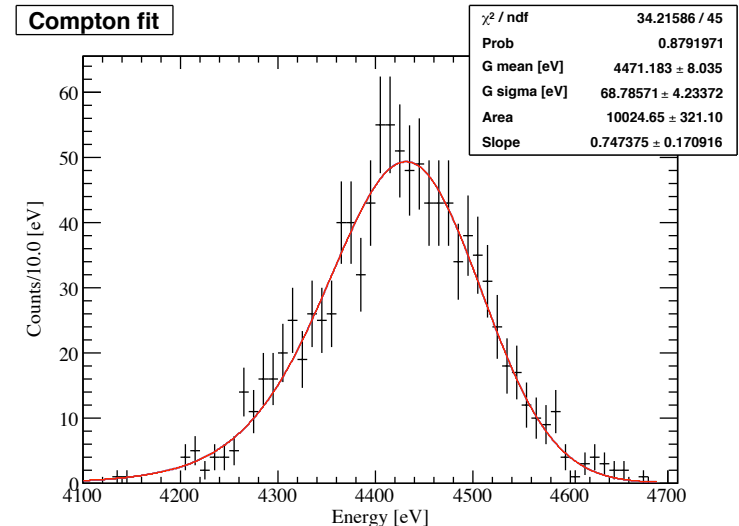
Compton other + escaped Rayleigh = 323

Ratios

Compton/Total = 0.00338277 +- 0.00010553

Compton/(Normal+Rayleigh) = 0.00339786 +- 0.000106002

0.3% Compton



Fit of simulation

FCN=34.2159 FROM MINOS STATUS=SUCCESSFUL 274 CALLS 369 TOTAL
 EDM=2.72552e-12 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	4.47118e+03	7.86821e+00	-8.76308e+00	7.30736e+00
2	G sigma [eV]	6.87857e+01	4.20778e+00	-4.08401e+00	4.38343e+00
3	Area	1.00247e+04	3.21089e+02	-3.21041e+02	3.21150e+02
4	Slope	7.47375e-01	1.68605e-01	-1.74012e-01	1.67820e-01

Ti K α 2 total-tail fit cycle 1

simulation

[Ti K-alpha2 (4504.86 eV)]

Number of Events

Total = 304225 +- 551.566

Normal = 299928

Compton = 1039 +- 32.2335

Rayleigh = 2956

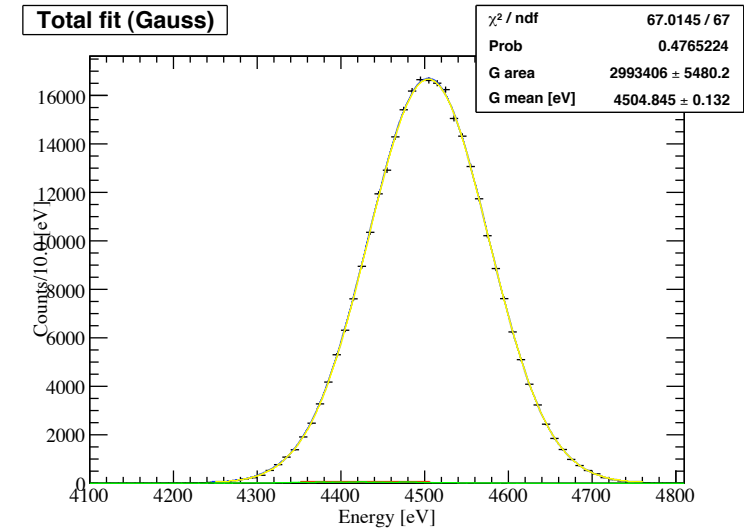
Compton other + escaped Rayleigh = 302

Ratios

Compton/Total = 0.00341524 +- 0.000106134

Compton/(Normal+Rayleigh) = 0.00343036 +- 0.000106604

0.3% Compton



Fit of simulation

FCN=67.0145 FROM MINOS

STATUS=SUCCESSFUL

24 CALLS

62 TOTAL

EDM=3.21898e-10

STRATEGY= 1

ERROR MATRIX ACCURATE

EXT PARAMETER

PARABOLIC

MINOS ERRORS

NO.

NAME

VALUE

ERROR

NEGATIVE

POSITIVE

1	g mean [eV]	4.47118e+03	fixed		
2	g sigma [eV]	6.87857e+01	fixed		
3	t area	1.00247e+04	fixed		
4	t slope	7.47375e-01	fixed		
5	G area	2.99341e+06	5.48020e+03	-5.48020e+03	5.48020e+03
6	G mean [eV]	4.50485e+03	1.31525e-01	-1.31524e-01	1.31526e-01
7	G sigma [eV]	7.17639e+01	fixed		

Ti K β compton-tail fit cycle 2

simulation

[Ti K-beta1 (4931.81 eV)]

Number of Events

Total = 103221 +- 321.28

Normal = 101425

Compton = 620 +- 24.8998

Rayleigh = 1056

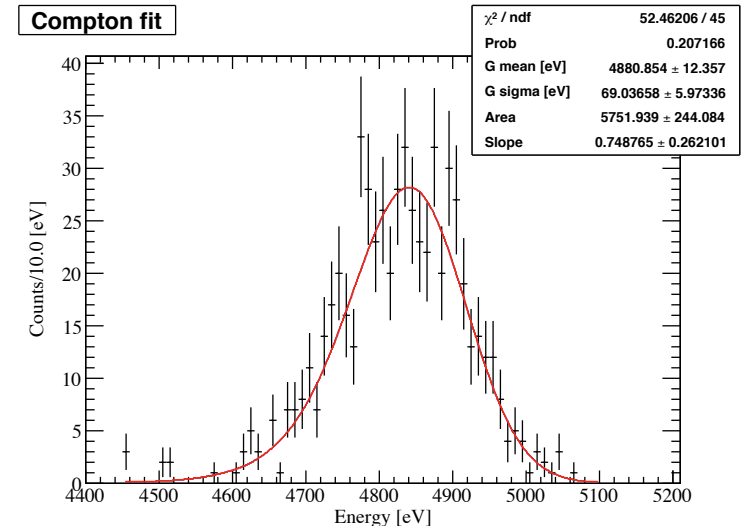
Compton other + escaped Rayleigh = 120

Ratios

Compton/Total = 0.00600653 +- 0.000241951

Compton/(Normal+Rayleigh) = 0.0060499 +- 0.000243704

0.6% Compton



Fit of simulation

FCN=52.4621 FROM MINOS STATUS=SUCCESSFUL 337 CALLS 432 TOTAL
EDM=4.96411e-12 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	4.88085e+03	1.16957e+01	-1.41487e+01	1.05651e+01
2	G sigma [eV]	6.90366e+01	5.86091e+00	-5.64528e+00	6.30145e+00
3	Area	5.75194e+03	2.44072e+02	-2.44005e+02	2.44163e+02
4	Slope	7.48765e-01	2.52652e-01	-2.71320e-01	2.52881e-01

Ti K β total-tail fit cycle 1

simulation

[Ti K-beta1 (4931.81 eV)]

Number of Events

Total = 103426 +- 321.599

Normal = 101654

Compton = 584 +- 24.1661

Rayleigh = 1061

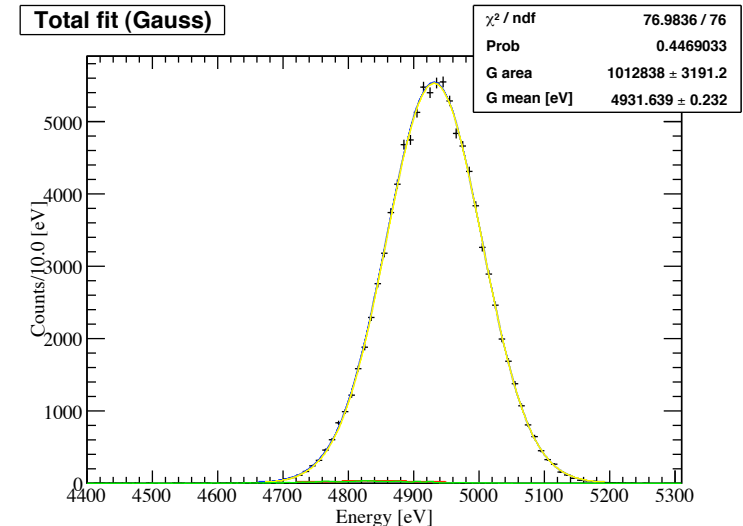
Compton other + escaped Rayleigh = 127

Ratios

Compton/Total = 0.00564655 +- 0.000234315

Compton/(Normal+Rayleigh) = 0.00568564 +- 0.000235941

0.6% Compton



Fit of simulation

FCN=76.9836 FROM MINOS

STATUS=SUCCESSFUL

24 CALLS

64 TOTAL

EDM=7.87924e-10

STRATEGY= 1

ERROR MATRIX ACCURATE

EXT PARAMETER

PARABOLIC

MINOS ERRORS

NO.	NAME	VALUE	ERROR	NEGATIVE	POSITIVE
1	g mean [eV]	4.88085e+03	fixed		
2	g sigma [eV]	6.90366e+01	fixed		
3	t area	5.75194e+03	fixed		
4	t slope	7.48765e-01	fixed		
5	G area	1.01284e+06	3.19119e+03	-3.19117e+03	3.19121e+03
6	G mean [eV]	4.93164e+03	2.32196e-01	-2.32200e-01	2.32194e-01
7	G sigma [eV]	7.32002e+01	fixed		

Ni K α 1 compton-tail fit cycle 2

simulation

[Ni K-alpha1 (7478.15 eV)]

Number of Events

Total = 424653 +- 651.654

Normal = 408767

Compton = 9874 +- 99.368

Rayleigh = 4867

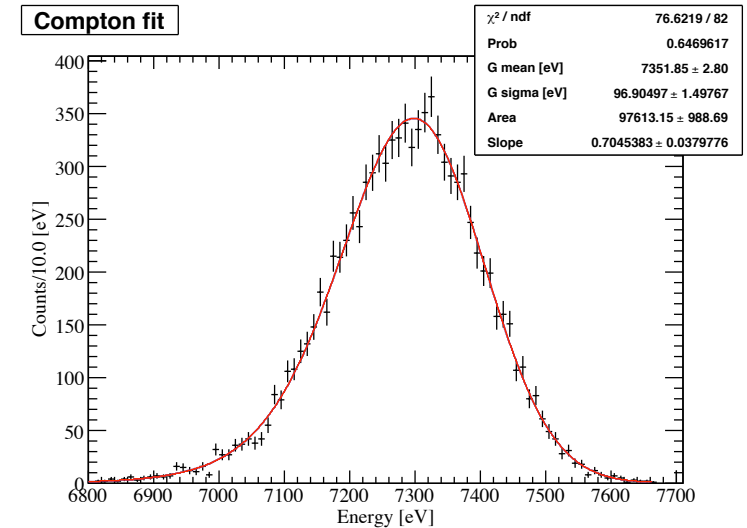
Compton other + escaped Rayleigh = 1145

Ratios

Compton/Total = 0.0232519 +- 0.000236703

Compton/(Normal+Rayleigh) = 0.0238713 +- 0.000243082

2.4% Compton



Fit of simulation

FCN=76.6219 FROM MINOS STATUS=SUCCESSFUL 171 CALLS 263 TOTAL
 EDM=3.21515e-09 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	7.35185e+03	2.79155e+00	-2.85090e+00	2.74751e+00
2	G sigma [eV]	9.69050e+01	1.49601e+00	-1.49234e+00	1.50300e+00
3	Area	9.76132e+04	9.88690e+02	-9.88691e+02	9.88692e+02
4	Slope	7.04538e-01	3.78921e-02	-3.81846e-02	3.77707e-02

Ni K α 1 total-tail fit cycle 1

simulation

[Ni K-alpha1 (7478.15 eV)]

Number of Events

Total = 423202 +- 650.54

Normal = 407156

Compton = 9973 +- 99.8649

Rayleigh = 5008

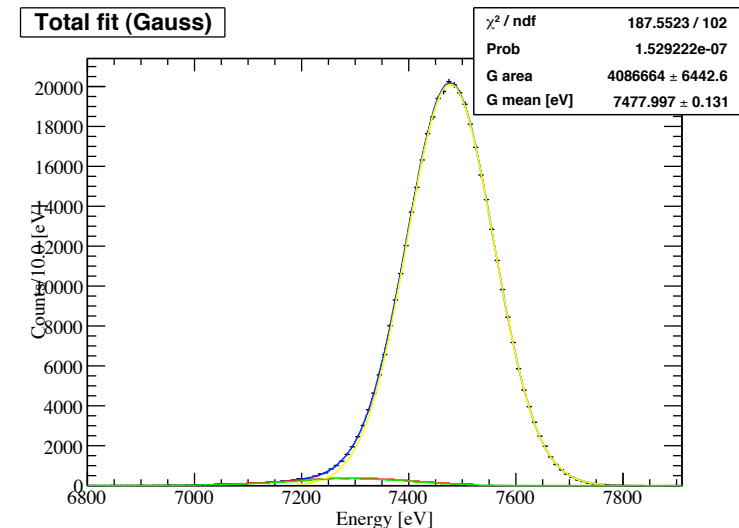
Compton other + escaped Rayleigh = 1065

Ratios

Compton/Total = 0.0235656 +- 0.000238739

Compton/(Normal+Rayleigh) = 0.0241967 +- 0.000245208

2.4% Compton



Fit of simulation

FCN=187.552 FROM MINOS STATUS=SUCCESSFUL 24 CALLS 66 TOTAL
 EDM=9.76857e-08 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS NEGATIVE	MINOS POSITIVE
1	g mean [eV]	7.35185e+03	fixed		
2	g sigma [eV]	9.69050e+01	fixed		
3	t area	9.76132e+04	fixed		
4	t slope	7.04538e-01	fixed		
5	G area	4.08666e+06	6.44263e+03	-6.44212e+03	6.44313e+03
6	G mean [eV]	7.47800e+03	1.31347e-01	-1.31327e-01	1.31367e-01
7	G sigma [eV]	8.12408e+01	fixed		

Ni K α 2 compton-tail fit cycle 2

simulation

[Ni K-alpha2 (7460.89 eV)]

Number of Events

Total = 215015 +- 463.697

Normal = 207019

Compton = 5018 +- 70.8378

Rayleigh = 2424

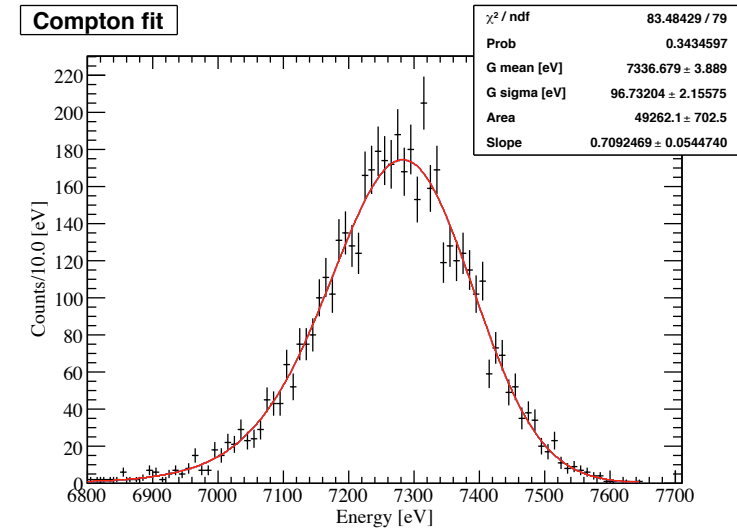
Compton other + escaped Rayleigh = 554

Ratios

Compton/Total = 0.0233379 +- 0.000333278

Compton/(Normal+Rayleigh) = 0.0239588 +- 0.000342248

2.4% Compton



Fit of simulation

FCN=83.4843 FROM MINOS STATUS=SUCCESSFUL 238 CALLS 338 TOTAL
 EDM=4.14673e-11 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	7.33668e+03	3.87787e+00	-3.99161e+00	3.78596e+00
2	G sigma [eV]	9.67320e+01	2.15380e+00	-2.14306e+00	2.16843e+00
3	Area	4.92621e+04	7.02531e+02	-7.02531e+02	7.02536e+02
4	Slope	7.09247e-01	5.43432e-02	-5.48814e-02	5.40665e-02

Ni K α 2 total-tail fit cycle 1

simulation

[Ni K-alpha2 (7460.89 eV)]

Number of Events

Total = 215436 +- 464.151

Normal = 207254

Compton = 5025 +- 70.8872

Rayleigh = 2629

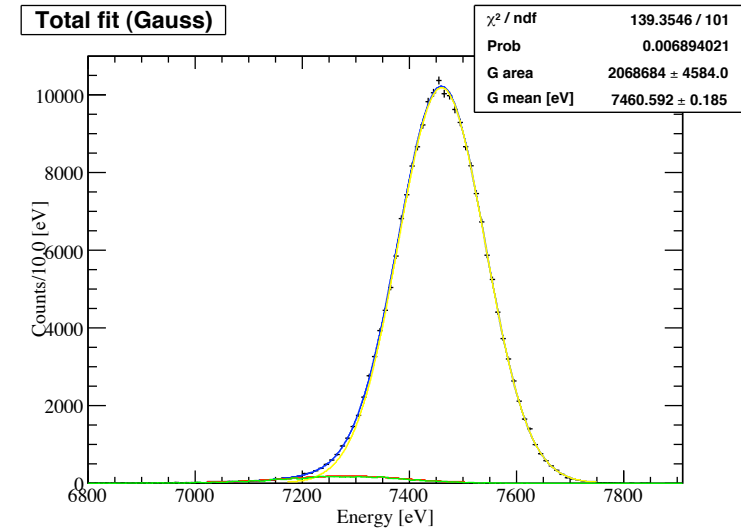
Compton other + escaped Rayleigh = 528

Ratios

Compton/Total = 0.0233248 +- 0.000332856

Compton/(Normal+Rayleigh) = 0.0239419 +- 0.000341766

2.4% Compton



Fit of simulation

FCN=139.355 FROM MINOS

STATUS=SUCCESSFUL

26 CALLS

68 TOTAL

EDM=4.49065e-08

STRATEGY= 1

ERROR MATRIX ACCURATE

EXT PARAMETER

PARABOLIC

MINOS ERRORS

NO.	NAME	VALUE	ERROR	NEGATIVE	POSITIVE
1	g mean [eV]	7.33668e+03	fixed		
2	g sigma [eV]	9.67320e+01	fixed		
3	t area	4.92621e+04	fixed		
4	t slope	7.09247e-01	fixed		
5	G area	2.06868e+06	4.58398e+03	-4.58371e+03	4.58425e+03
6	G mean [eV]	7.46059e+03	1.84928e-01	-1.84916e-01	1.84941e-01
7	G sigma [eV]	8.11890e+01	fixed		

Ni K β compton-tail fit cycle 2

simulation

2.9% Compton

[Ni K-beta1 (8264.66 eV)]

Number of Events

Total = 76154 +- 275.96

Normal = 72768

Compton = 2162 +- 46.4973

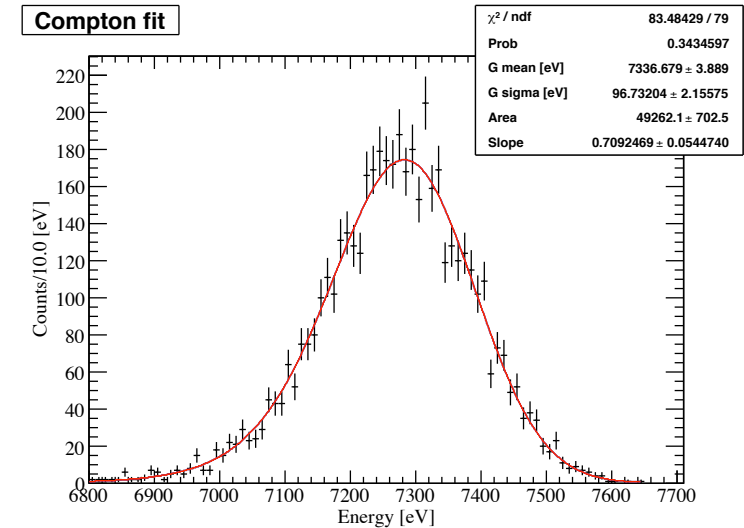
Rayleigh = 1006

Compton other + escaped Rayleigh = 218

Ratios

Compton/Total = 0.0283898 +- 0.000619176

Compton/(Normal+Rayleigh) = 0.0293057 +- 0.000639435



Fit of simulation

FCN=87.0403 FROM MINOS STATUS=SUCCESSFUL 241 CALLS 339 TOTAL
 EDM=1.72832e-10 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR	MINOS ERRORS	
				NEGATIVE	POSITIVE
1	G mean [eV]	8.10854e+03	6.56509e+00	-6.89717e+00	6.30537e+00
2	G sigma [eV]	9.98516e+01	3.77286e+00	-3.71825e+00	3.83257e+00
3	Area	2.06797e+04	4.55899e+02	-4.55901e+02	4.55907e+02
4	Slope	7.37399e-01	9.46763e-02	-9.59443e-02	9.41045e-02

Ni K β total-tail fit cycle 1

simulation

[Ni K-beta1 (8264.66 eV)]

Number of Events

Total = 76711 +- 276.968

Normal = 73259

Compton = 2143 +- 46.2925

Rayleigh = 1053

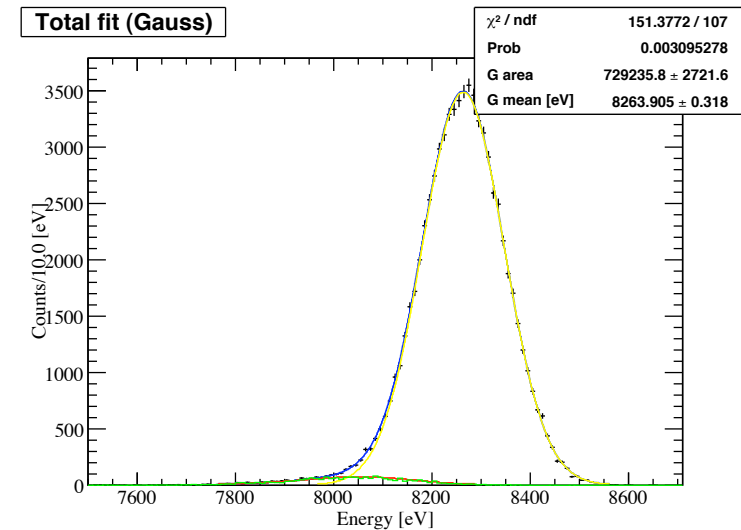
Compton other + escaped Rayleigh = 256

Ratios

Compton/Total = 0.027936 +- 0.000611838

Compton/(Normal+Rayleigh) = 0.0288379 +- 0.000631867

2.9% Compton



Fit of simulation

FCN=151.377 FROM MINOS

STATUS=SUCCESSFUL

26 CALLS

67 TOTAL

EDM=3.42094e-08

STRATEGY= 1

ERROR MATRIX ACCURATE

EXT PARAMETER

PARABOLIC

MINOS ERRORS

NO.

NAME

VALUE

ERROR

NEGATIVE

POSITIVE

1	g mean [eV]	8.10854e+03	fixed		
2	g sigma [eV]	9.98516e+01	fixed		
3	t area	2.06797e+04	fixed		
4	t slope	7.37399e-01	fixed		
5	G area	7.29236e+05	2.72158e+03	-2.72158e+03	2.72158e+03
6	G mean [eV]	8.26391e+03	3.18260e-01	-3.18265e-01	3.18256e-01
7	G sigma [eV]	8.35681e+01	fixed		