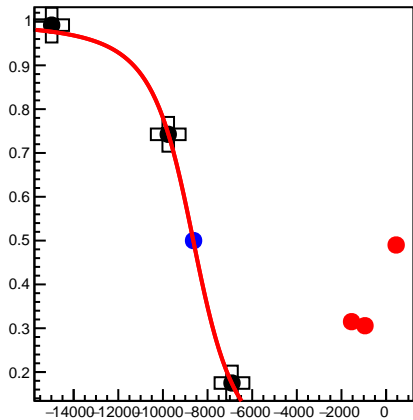
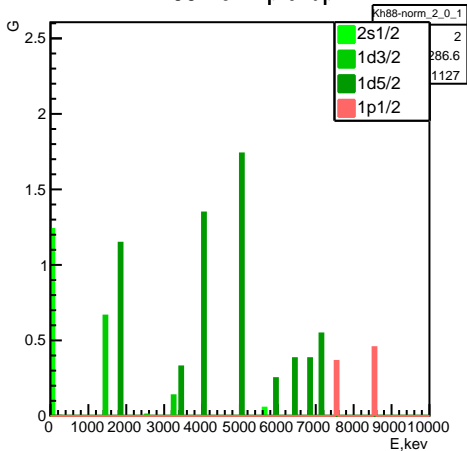
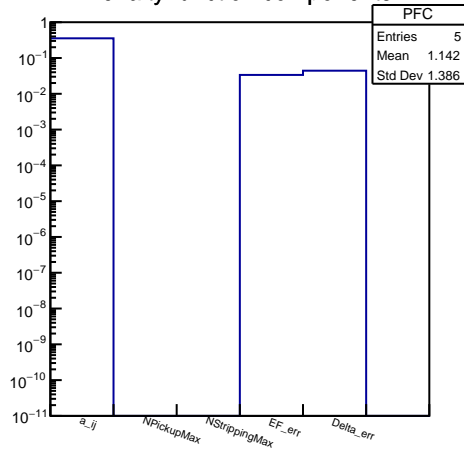


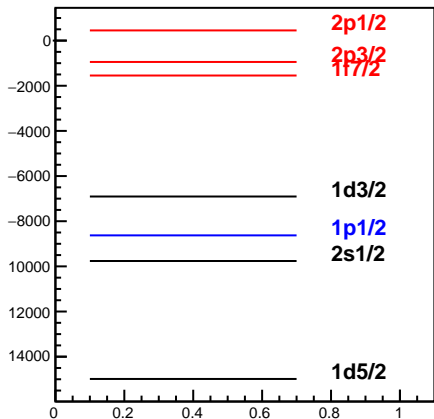
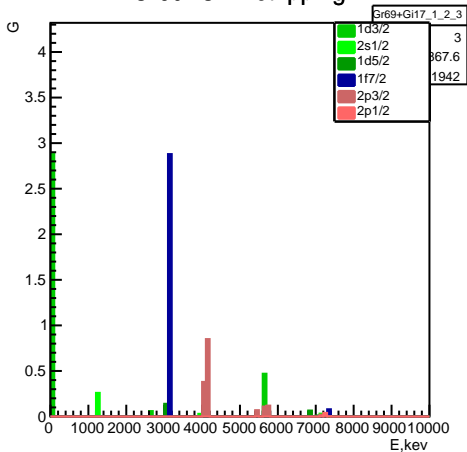
Kh88-norm pickup



Penalty function components



Gr69+Gi17 stripping



Experiment: Kh88-norm (15) Gr69+Gi17 (19)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 $E_F: -8639.06 \pm 79.0958 \text{ keV}$ $\Delta: 2008.91 \pm 116.32 \text{ keV}$

penalty: 0.0865467

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9762.23 2s1/2 0.74255 0.8071

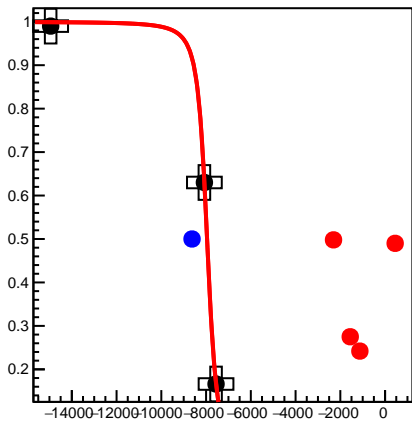
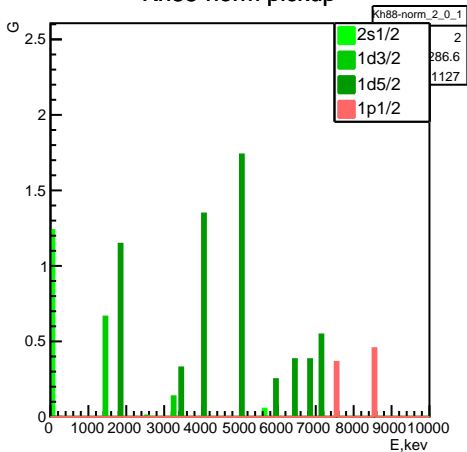
-6905.88 1d3/2 0.174987 1.05497

-14986.3 1d5/2 0.991792 1.05625

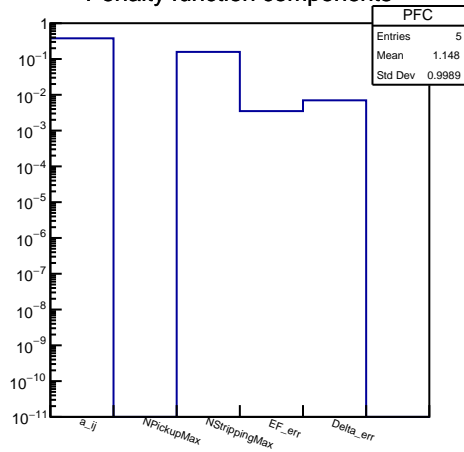
-8627.03 1p1/2 0.5 0.819

-1547.1 1f7/2 0.315 0.37

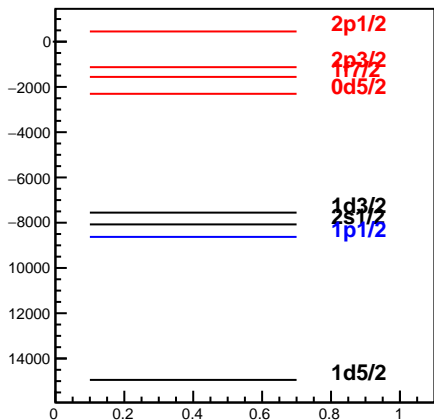
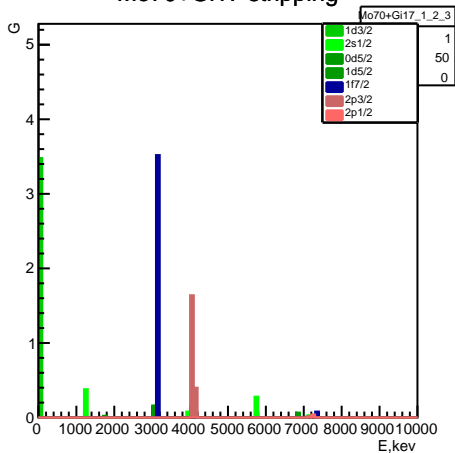
Kh88-norm pickup



Penalty function components



Mo70+Gi17 stripping



Experiment: Kh88-norm (15) Mo70+Gi17 (16)
proton transfer

p separation energy A:10882.6, A+1: 6371.4

E_F: -7954.7 ± 8.23104 keV

Δ: 446.708 ± 18.4338 keV

penalty: 0.109343

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-8074.99 2s1/2 0.63005 1.0321

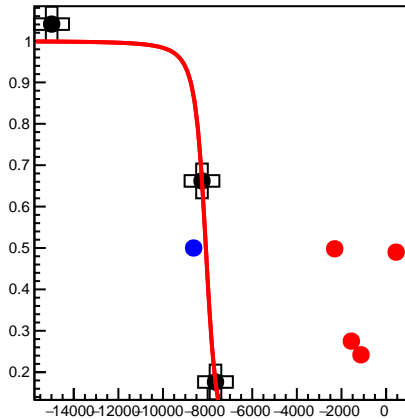
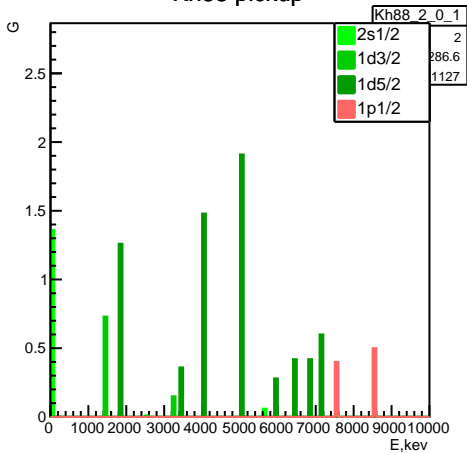
-7554.39 1d3/2 0.166238 1.07248

-14946.1 1d5/2 0.989958 1.05992

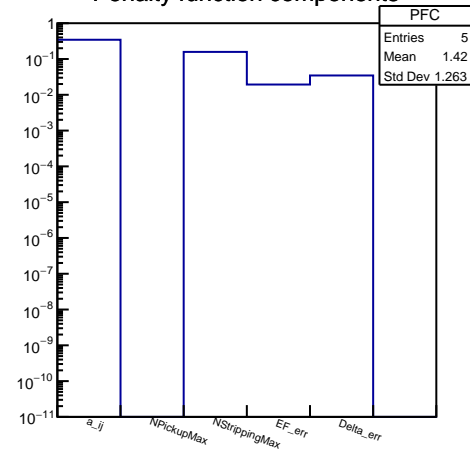
-8627.03 1p1/2 0.5 0.819

-2304.21 0d5/2 0.498 0.004

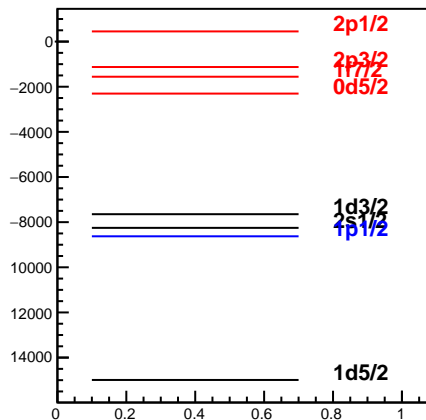
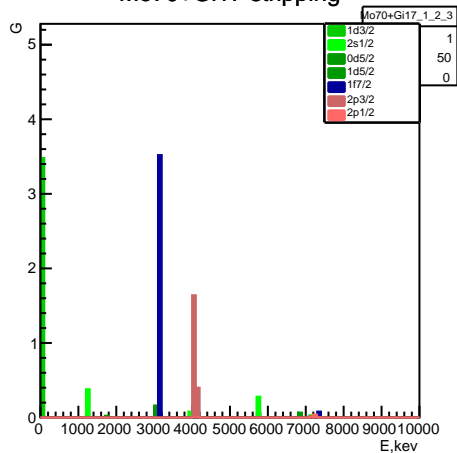
Kh88 pickup



Penalty function components



Mo70+Gi17 stripping



Experiment: Kh88 (15) Mo70+Gi17 (16)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 $E_F: -8078.84 \pm 45.4973$ keV $\Delta: 506.532 \pm 91.1839$ keV

penalty: 0.111376

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-8252.66 2s1/2 0.662 1.096

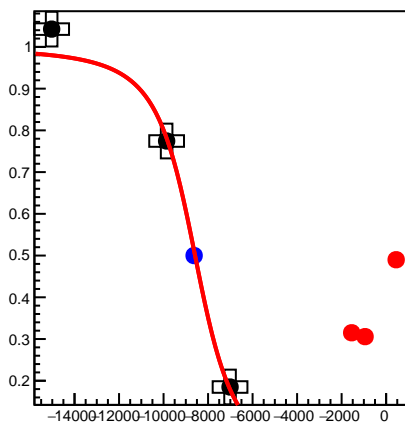
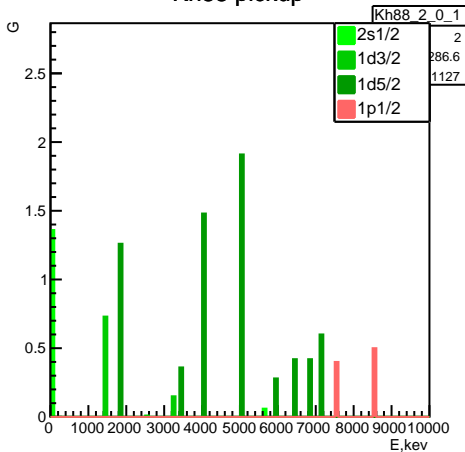
-7647.56 1d3/2 0.17625 1.0925

-14991.3 1d5/2 1.04083 1.16167

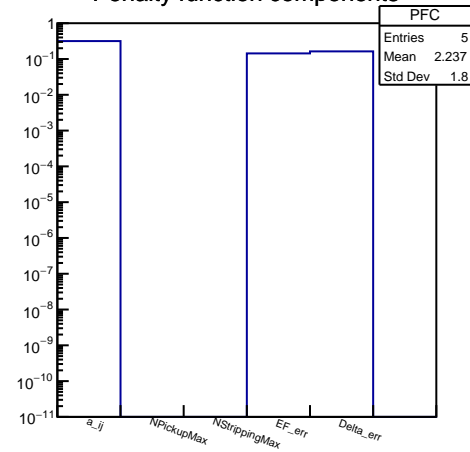
-8627.03 1p1/2 0.5 0.9

-2304.21 0d5/2 0.498 0.004

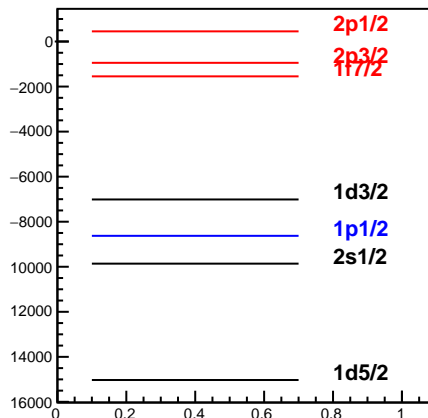
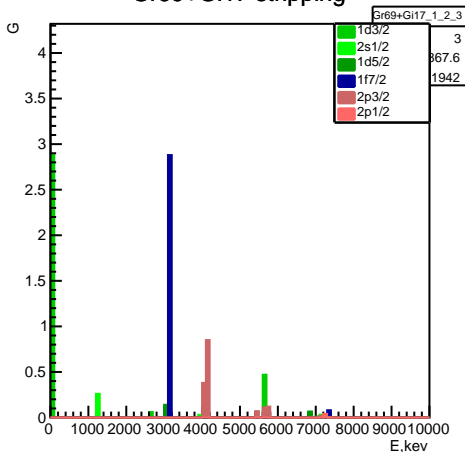
Kh88 pickup



Penalty function components



Gr69+Gi17 stripping



Experiment: Kh88 (15) Gr69+Gi17 (19)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

E_F: -8584.26 ± 336.944 keV

Δ: 1878.36 ± 429.654 keV

penalty: 0.12468

SPE, keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9862.02 2s1/2 0.7745 0.871

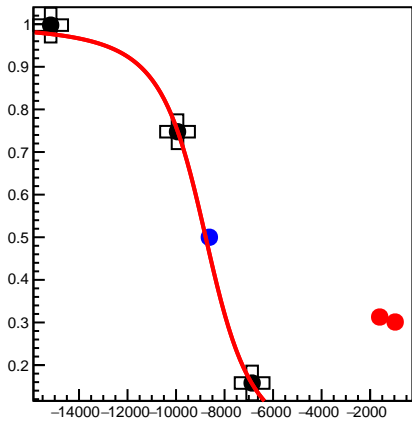
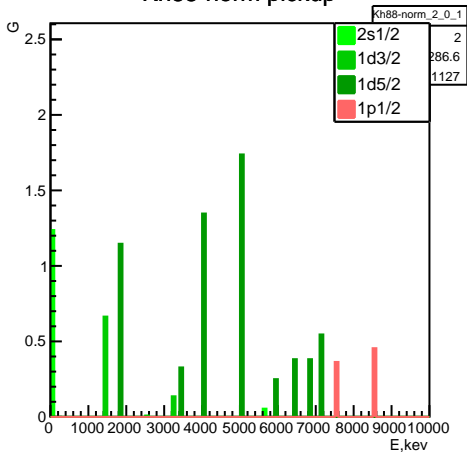
-7012.64 1d3/2 0.185 1.075

-15028.1 1d5/2 1.04267 1.158

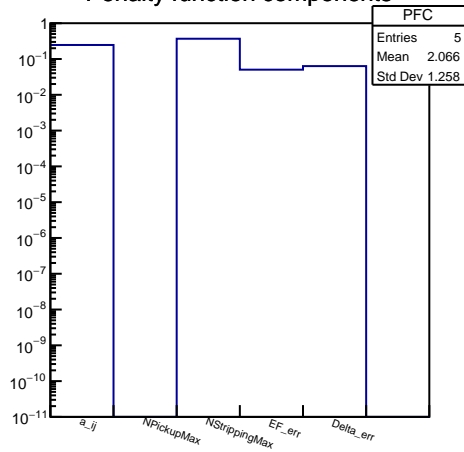
-8627.03 1p1/2 0.5 0.9

-1547.1 1f7/2 0.315 0.37

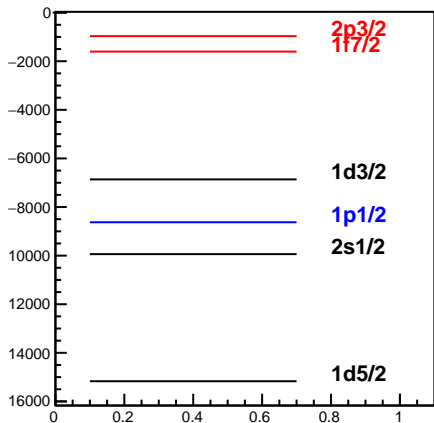
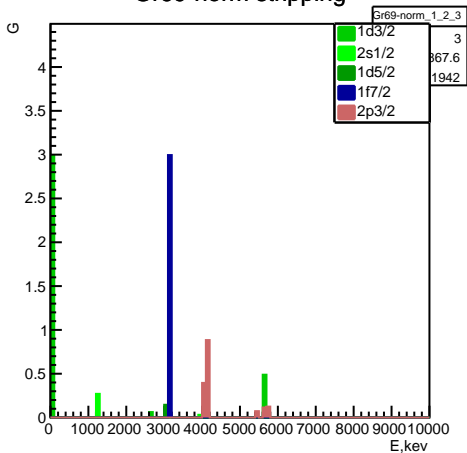
Kh88-norm pickup



Penalty function components



Gr69-norm stripping



Experiment: Kh88-norm (15) Gr69-norm (12)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 E_F : -8777.37 \pm 118.375 keV Δ : -2015.42 \pm 166.694 keV

penalty: 0.145713

SPE, keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9938.82 2s1/2 0.74765 0.7969

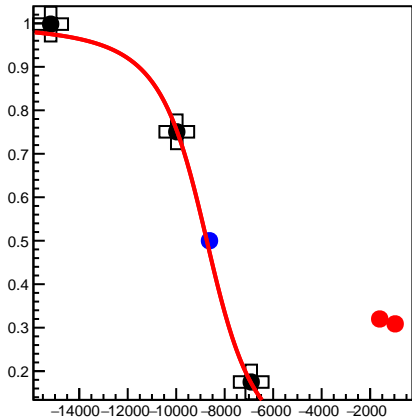
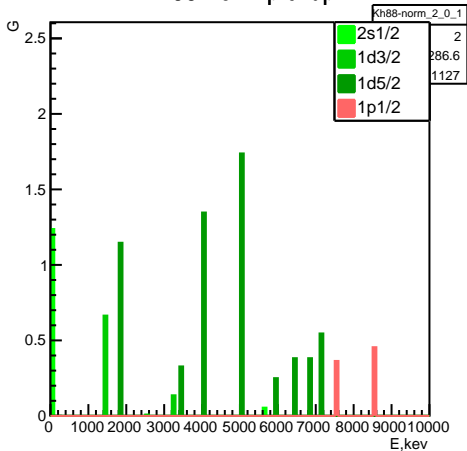
-6863.25 1d3/2 0.157938 1.08908

-15169 1d5/2 0.997825 1.04418

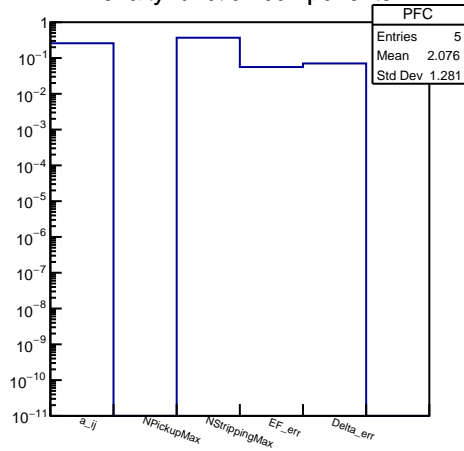
-8627.03 1p1/2 0.5 0.819

-1604.31 1f7/2 0.3128 0.3744

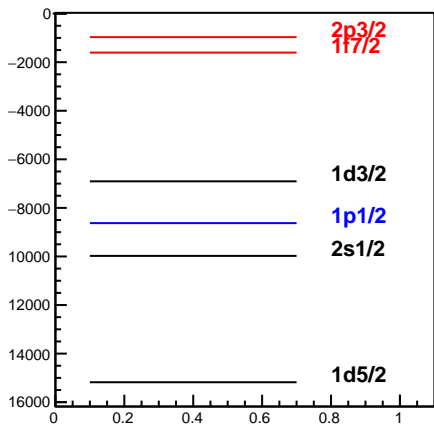
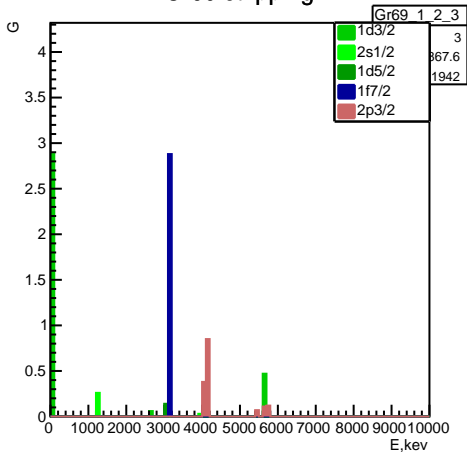
Kh88-norm pickup



Penalty function components



Gr69 stripping



Experiment: Kh88-norm (15) Gr69 (12)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

E_F: -8736.22 ± 131.546 keV

Δ: -2108.58 ± 185.284 keV

penalty: 0.150598

SPE, keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9976 2s1/2 0.75055 0.7911

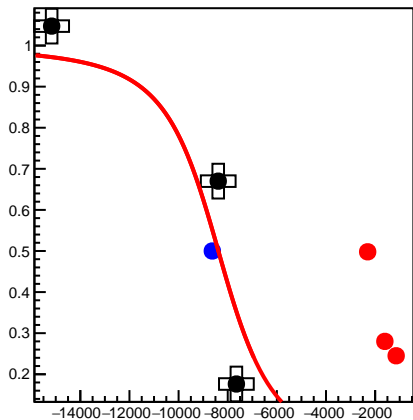
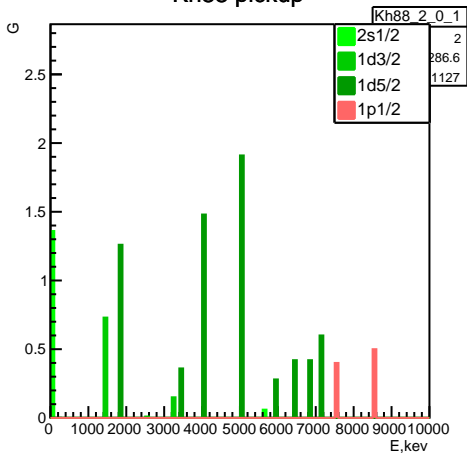
-6905.88 1d3/2 0.174987 1.05497

-15179.6 1d5/2 0.998292 1.04325

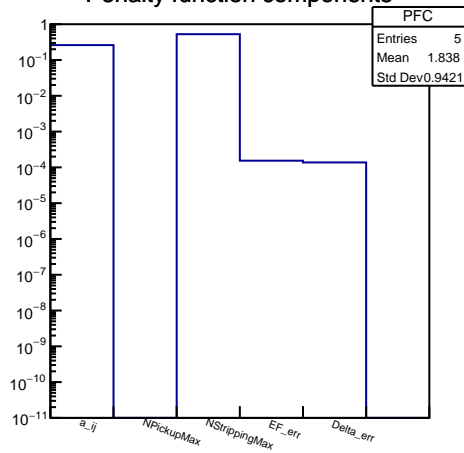
-8627.03 1p1/2 0.5 0.819

-1604.31 1f7/2 0.32 0.36

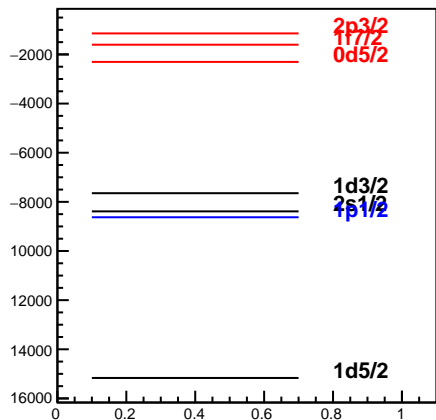
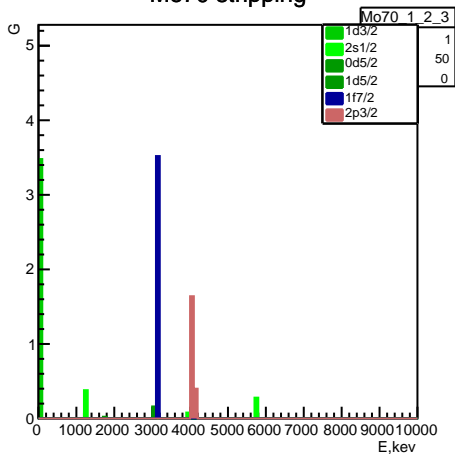
Kh88 pickup



Penalty function components



Mo70 stripping



Experiment: Kh88 (15) Mo70 (9)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 E_F : -8381.08 \pm 0.361477 keV Δ : 2379.87 \pm 0.361477 keV

penalty: 0.157459

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-8386.89 2s1/2 0.67 1.08

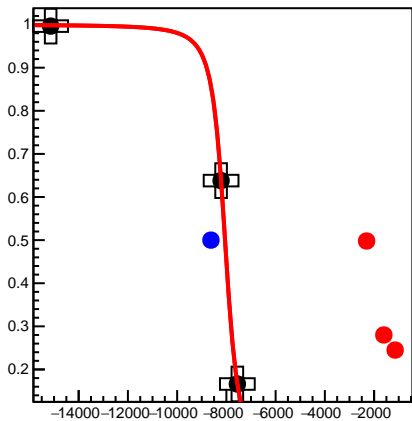
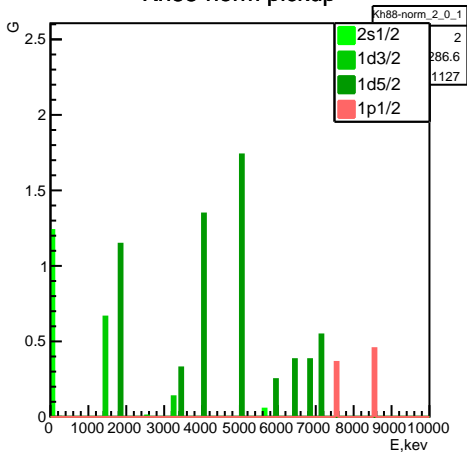
-7647.56 1d3/2 0.17625 1.0925

-15166.9 1d5/2 1.04733 1.14867

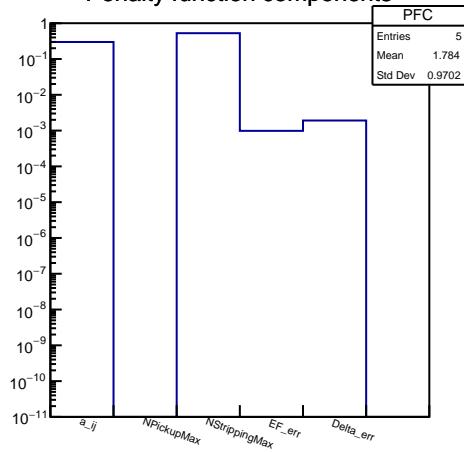
-8627.03 1p1/2 0.5 0.9

-2304.21 0d5/2 0.498 0.004

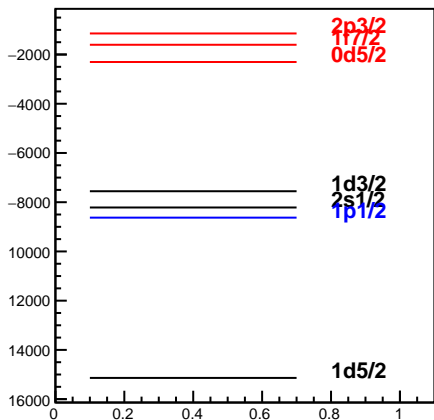
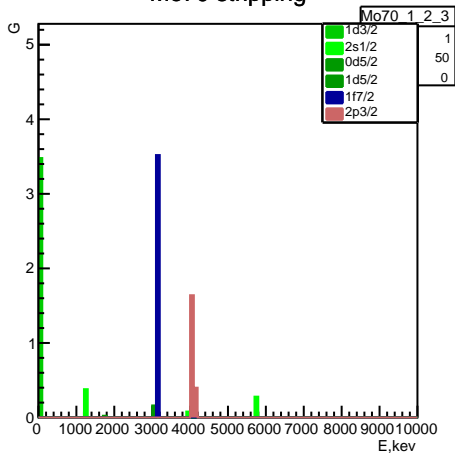
Kh88-norm pickup



Penalty function components



Mo70 stripping



Experiment: Kh88-norm (15) Mo70 (9)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 E_F : -8054.58 \pm 2.30938 keV Δ : -558.004 \pm 5.03141 keV

penalty: 0.165599

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-8214.86 2s1/2 0.63805 1.0161

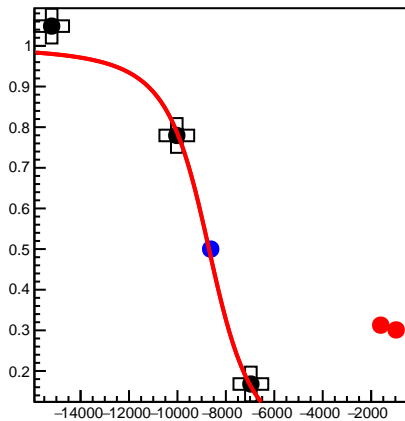
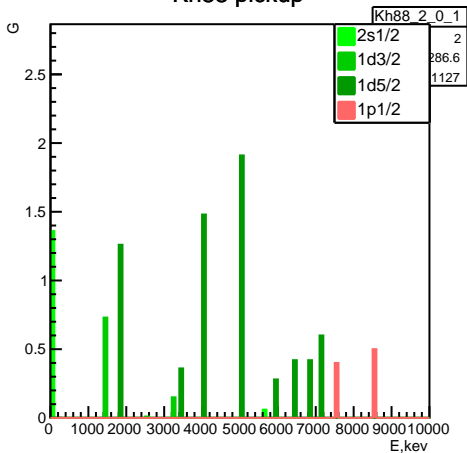
-7554.39 1d3/2 0.166238 1.07248

-15138.2 1d5/2 0.996458 1.04692

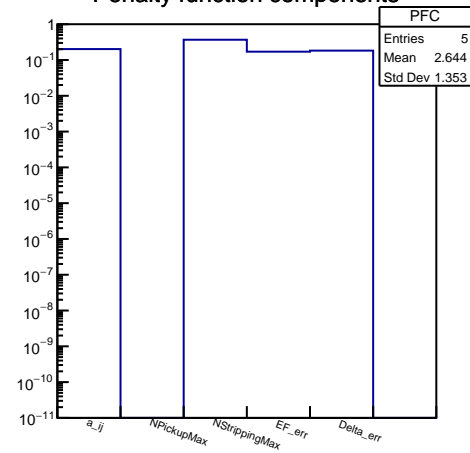
-8627.03 1p1/2 0.5 0.819

-2304.21 0d5/2 0.498 0.004

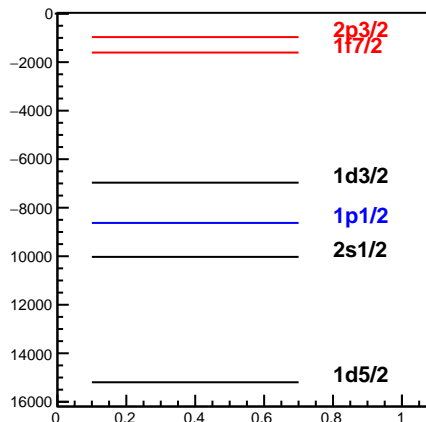
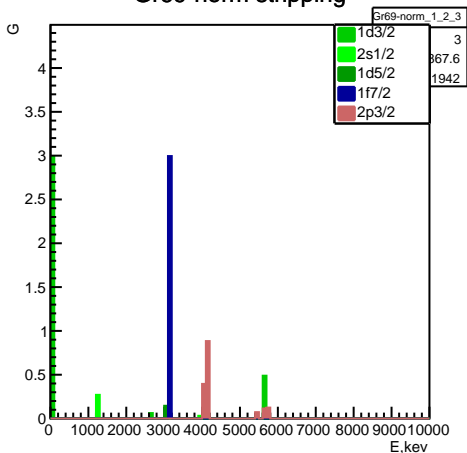
Kh88 pickup



Penalty function components



Gr69-norm stripping



Experiment: Kh88 (15) Gr69-norm (12)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

E_F: -8696.43 ± 401.746 keV

Δ: 1883.48 ± 481.229 keV

penalty: 0.18484

SPE, keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10026.7 2s1/2 0.7796 0.8608

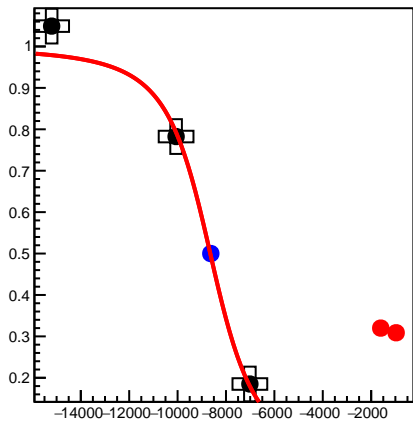
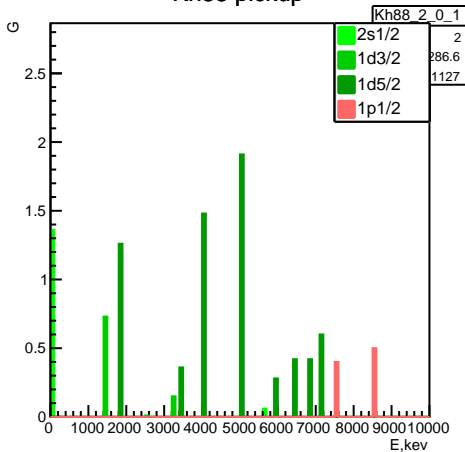
-6967.51 1d3/2 0.16795 1.1091

-15195 1d5/2 1.0487 1.14593

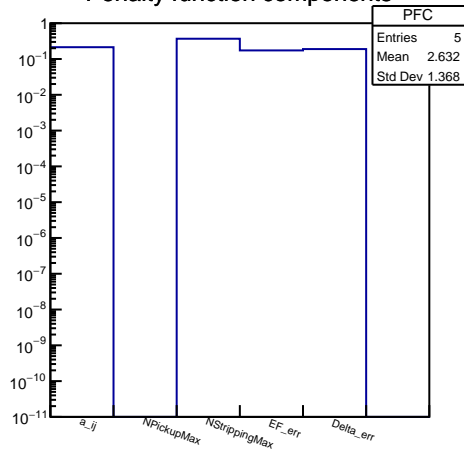
-8627.03 1p1/2 0.5 0.9

-1604.31 1f7/2 0.3128 0.3744

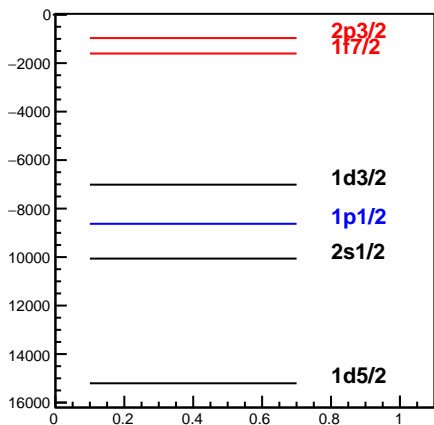
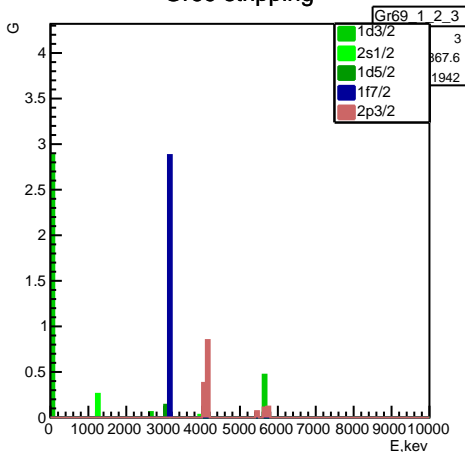
Kh88 pickup



Penalty function components



Gr69 stripping



Experiment: Kh88 (15) Gr69 (12)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

E_F: -8648.86 ± 408.303 keV

Δ: 1959.92 ± 498.469 keV

penalty: 0.189059

SPE, keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10061.7 2s1/2 0.7825 0.855

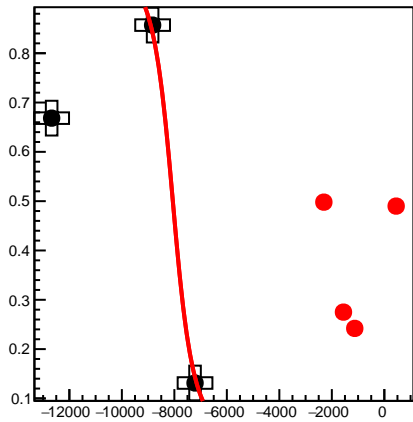
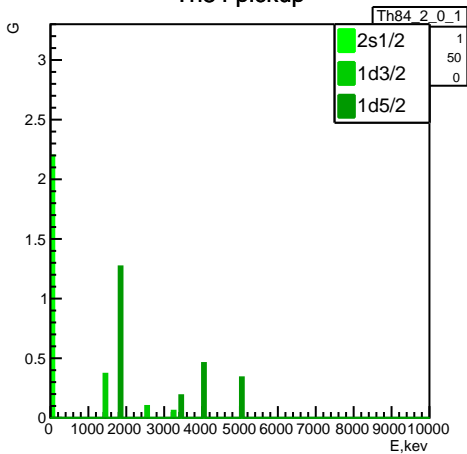
-7012.64 1d3/2 0.185 1.075

-15204.7 1d5/2 1.04917 1.145

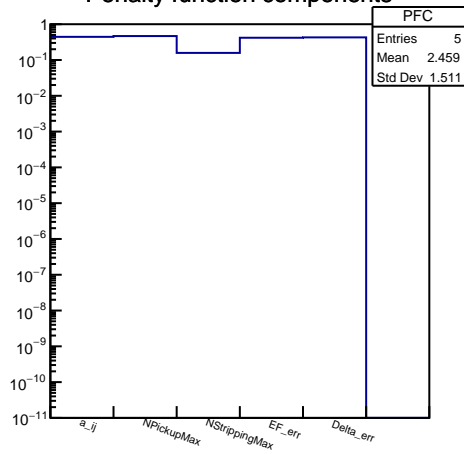
-8627.03 1p1/2 0.5 0.9

-1604.31 1f7/2 0.32 0.36

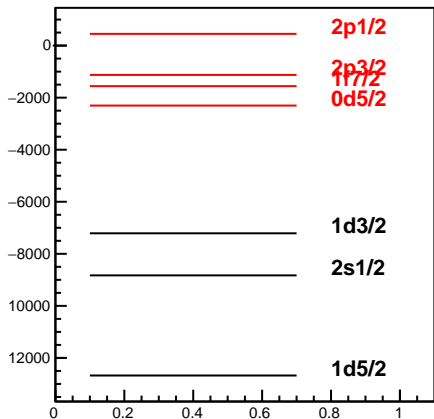
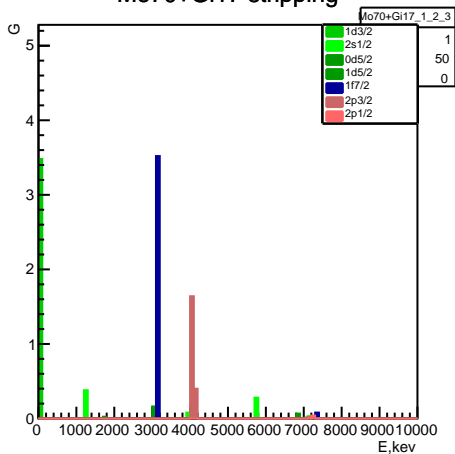
Th84 pickup



Penalty function components



Mo70+Gi17 stripping



Experiment: Th84 (8) Mo70+Gi17 (16)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 $E_F: -8058.03 \pm 983.863 \text{ keV}$ $\Delta: 826.916 \pm 1127.61 \text{ keV}$

penalty: 0.383034

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-8828.35 2s1/2 0.857 1.486

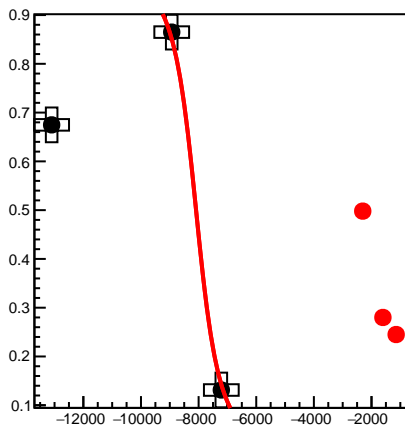
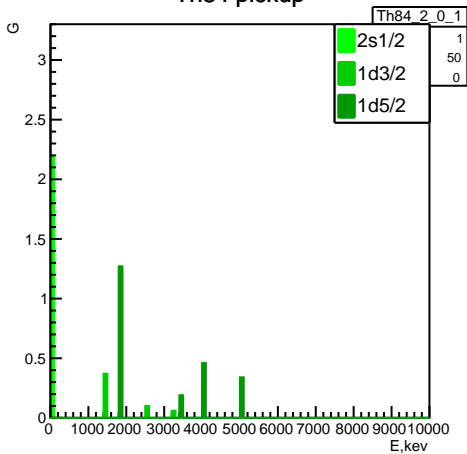
-7212.07 1d3/2 0.13125 1.0025

-12675.2 1d5/2 0.668333 0.416667

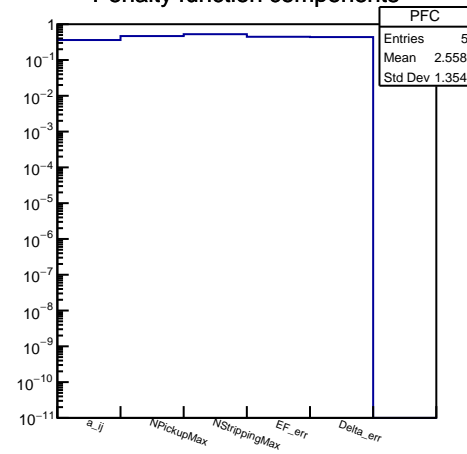
-2304.21 0d5/2 0.498 0.004

-1557.27 1f7/2 0.275 0.45

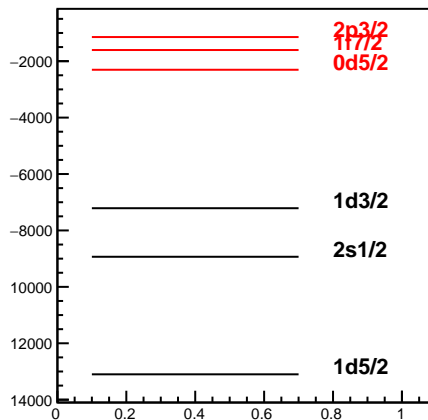
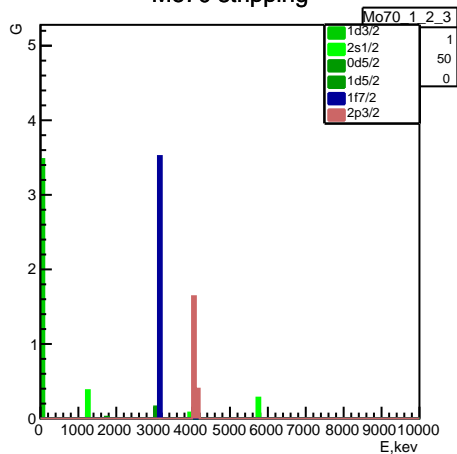
Th84 pickup



Penalty function components



Mo70 stripping



Experiment: Th84 (8) Mo70 (9)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 $E_F: -8088.46 \pm 1047.29$ keV $\Delta: 856.048 \pm 1151.2$ keV

penalty: 0.447527

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-8933.23 2s1/2 0.865 1.47

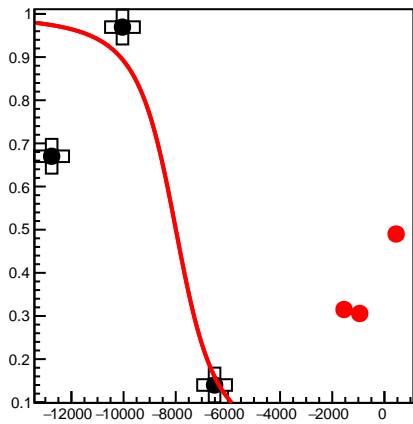
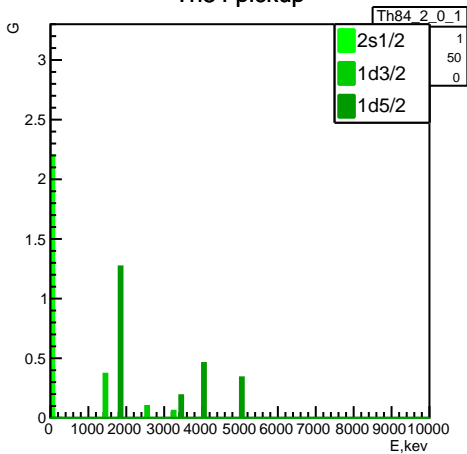
-7212.07 1d3/2 0.13125 1.0025

-13100.3 1d5/2 0.674833 0.403667

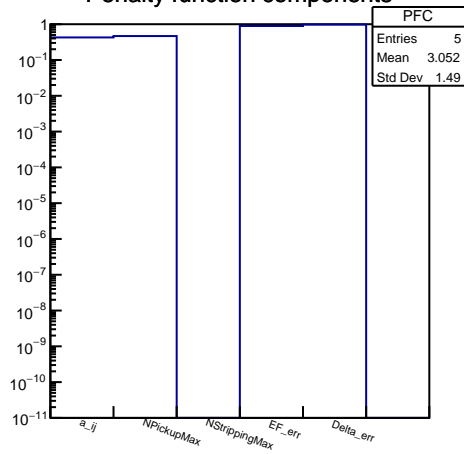
-2304.21 0d5/2 0.498 0.004

-1604.31 1f7/2 0.28 0.44

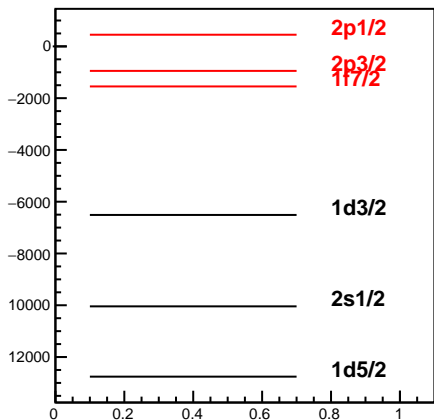
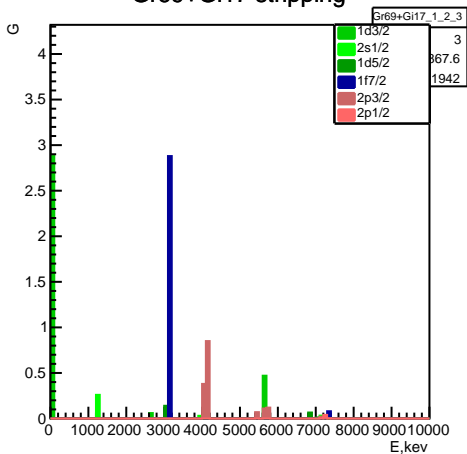
Th84 pickup



Penalty function components



Gr69+Gi17 stripping



Experiment: Th84 (8) Gr69+Gi17 (19)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

 $E_F: -7993.98 \pm 2096.54$ keV $\Delta: 1593.46 \pm 2568.75$ keV

penalty: 0.552363

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10042.7 2s1/2 0.9695 1.261

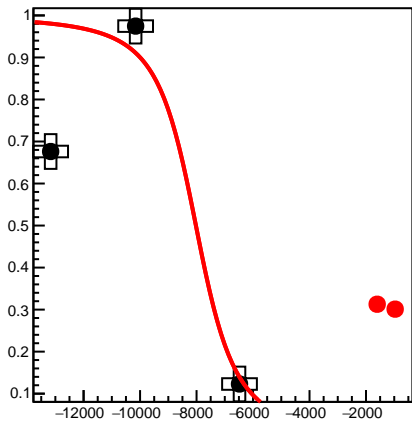
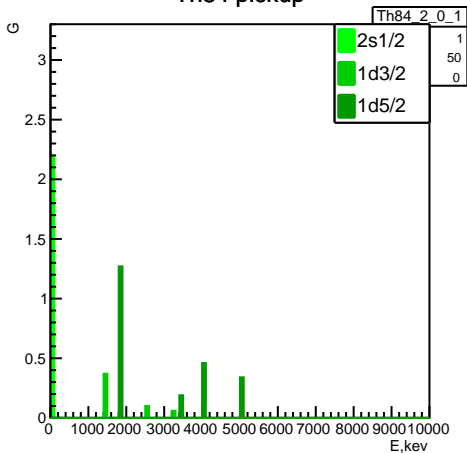
-6511.4 1d3/2 0.14 0.985

-12757.8 1d5/2 0.670167 0.413

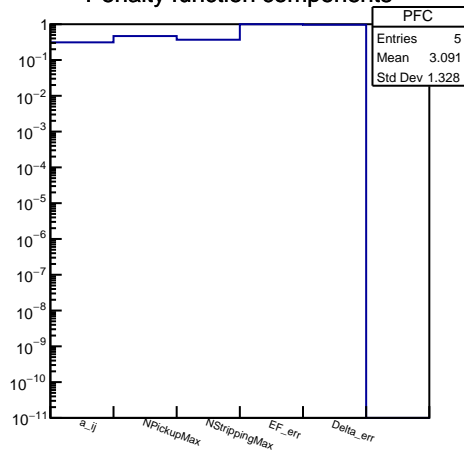
-1547.1 1f7/2 0.315 0.37

-946.466 2p3/2 0.30575 0.3885

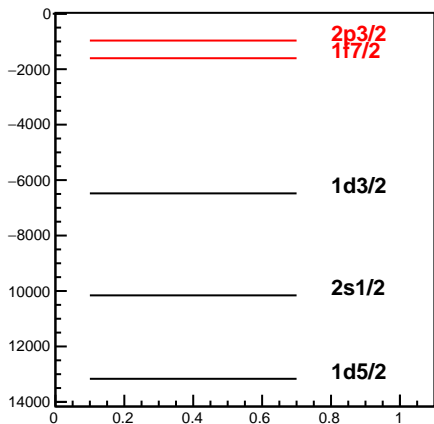
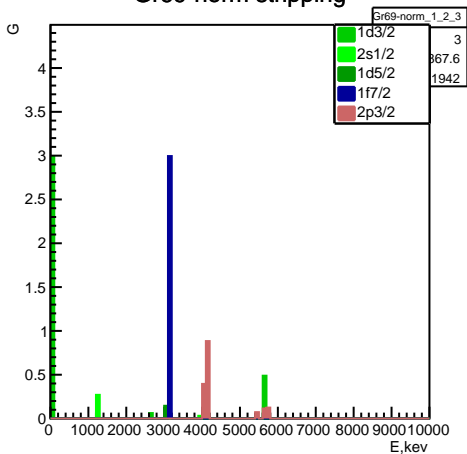
Th84 pickup



Penalty function components



Gr69-norm stripping



Experiment: Th84 (8) Gr69-norm (12)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

E_F: -8022.58 \pm 2350.39 keV Δ : 1480.85 \pm 2537.69 keV

penalty: 0.622149

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10157.5 2s1/2 0.9746 1.2508

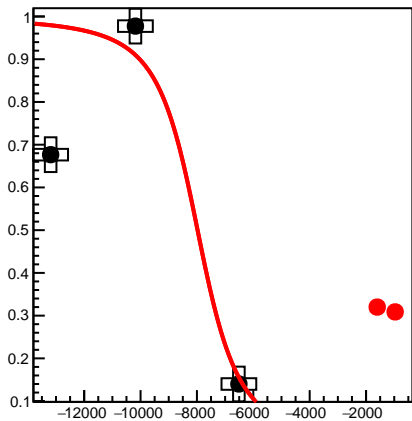
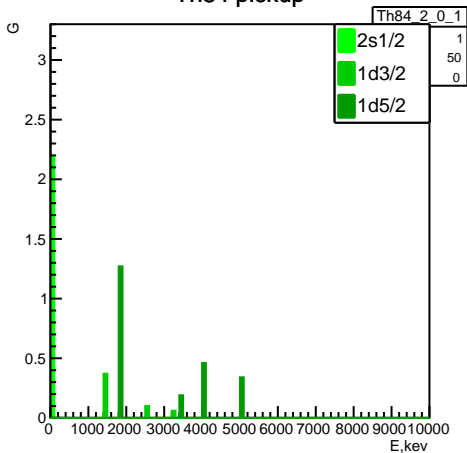
-6479.05 1d3/2 0.12295 1.0191

-13166.7 1d5/2 0.6762 0.400933

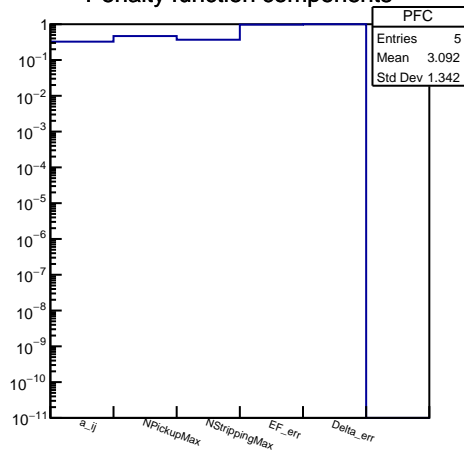
-1604.31 1f7/2 0.3128 0.3744

-967.391 2p3/2 0.3011 0.3978

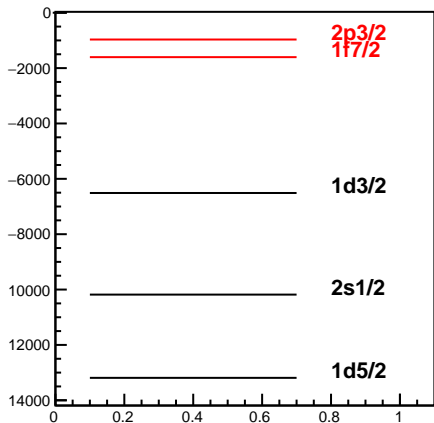
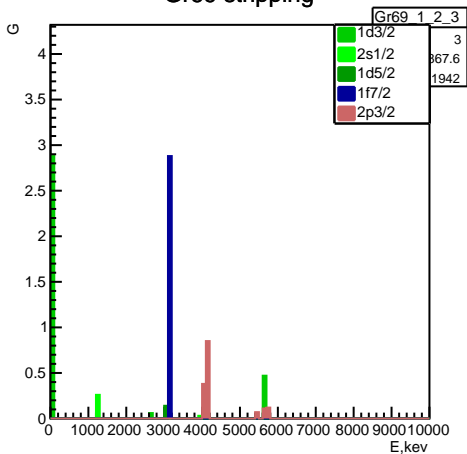
Th84 pickup



Penalty function components



Gr69 stripping



Experiment: Th84 (8) Gr69 (12)

proton transfer

p separation energy A:10882.6, A+1: 6371.4

E_F: -7976.99 \pm 2287.17 keV Δ : 1540.19 \pm 2631.74 keV

penalty: 0.626738

SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10182.1 2s1/2 0.9775 1.245

-6511.4 1d3/2 0.14 0.985

-13189.5 1d5/2 0.676667 0.4

-1604.31 1f7/2 0.32 0.36

-967.391 2p3/2 0.30875 0.3825