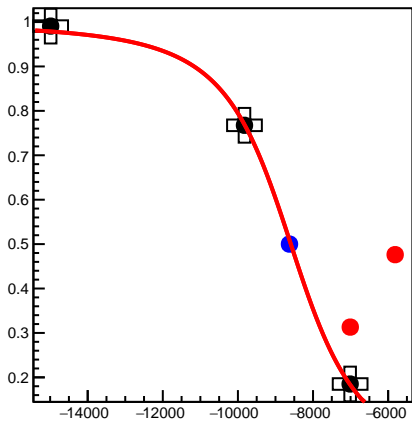
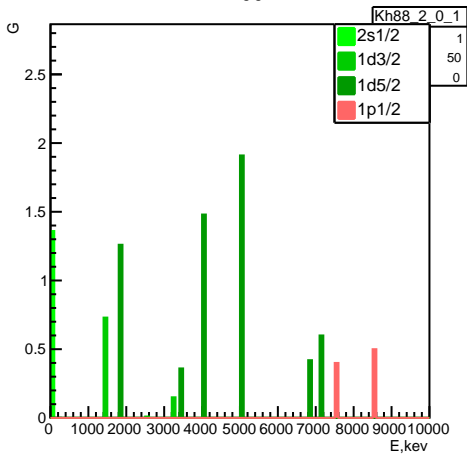
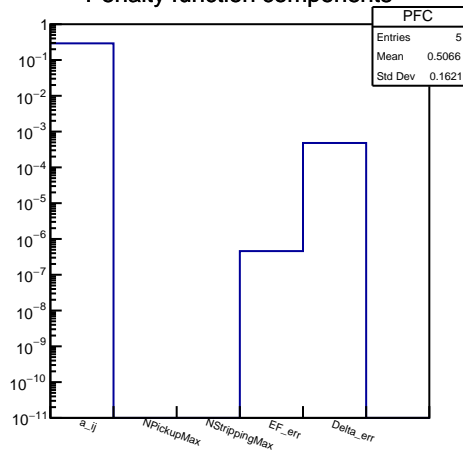


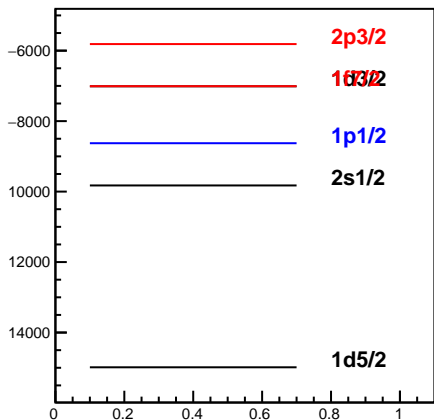
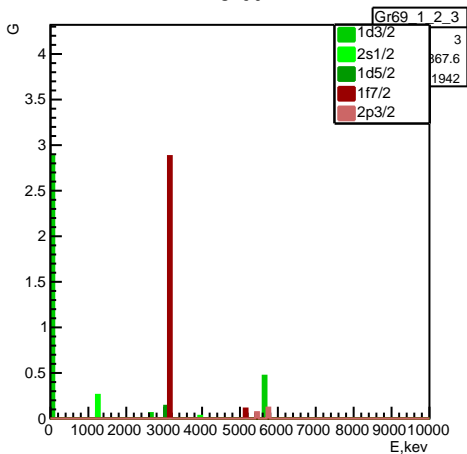
Kh88



Penalty function components



Gr69



Experiment: Kh88 (12) Gr69 (10)

proton transfer

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

 E_F : -8591.47 \pm 64.05 keV Δ : -1931.68 \pm 88.2224 keV

penalty: 0.0584434

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

-9825.5 2s1/2 0.7675 0.825

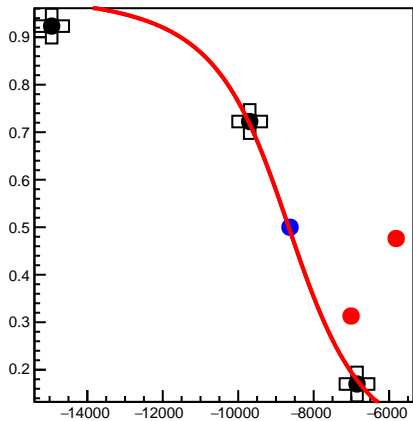
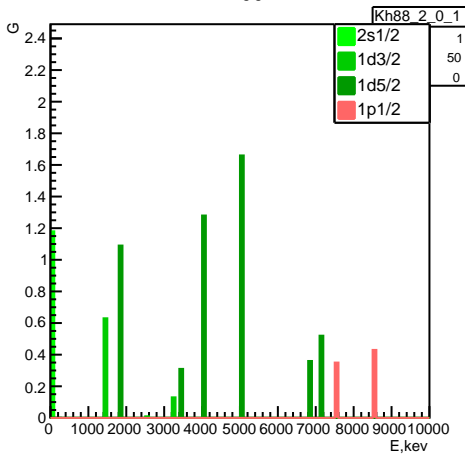
-7012.1 1d3/2 0.185 1.075

-14986.3 1d5/2 0.990833 1.02833

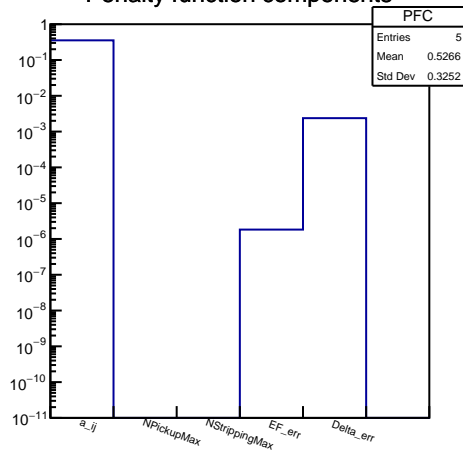
-8627.03 1p1/2 0.5 0.9

-7008.84 1f7/2 0.313125 0.37375

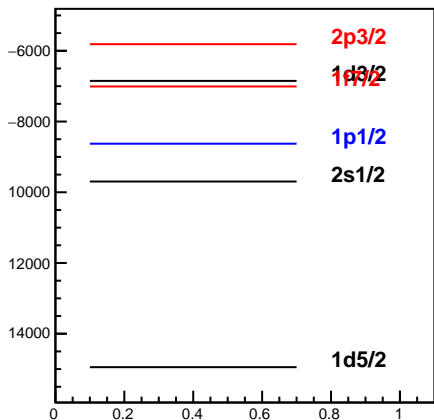
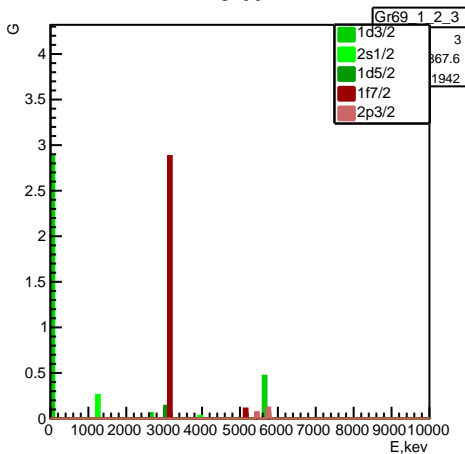
Kh88



Penalty function components



Gr69



Experiment: Kh88 (12) Gr69 (10)

proton transfer

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

 $E_F: -8660 \pm 255.485$ keV $\Delta: 2150.69 \pm 435.835$ keV

penalty: 0.0713221

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

-9696.05 2s1/2 0.7225 0.735

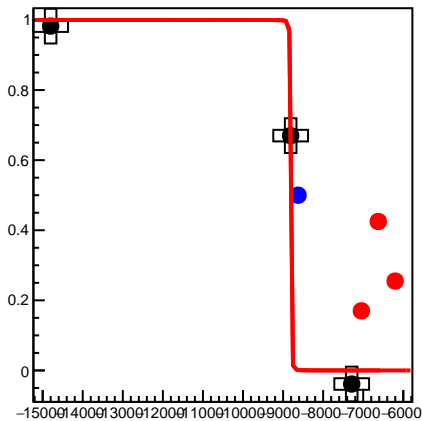
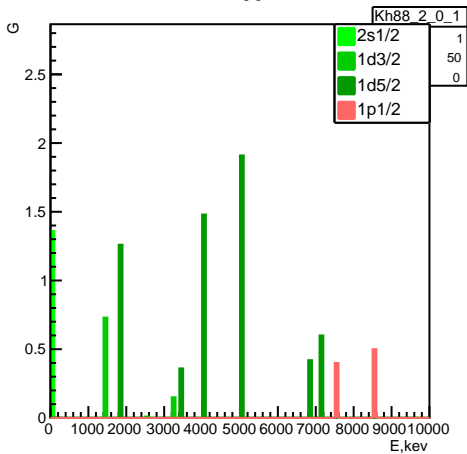
-6851.06 1d3/2 0.17 1.045

-14945.7 1d5/2 0.923333 0.893333

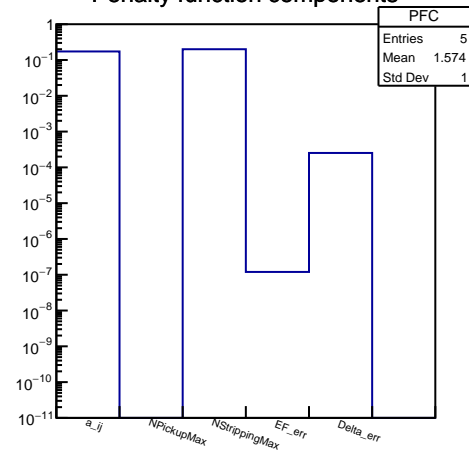
-8627.03 1p1/2 0.5 0.78

-7008.84 1f7/2 0.313125 0.37375

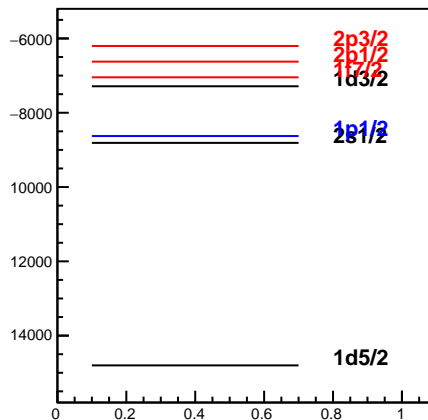
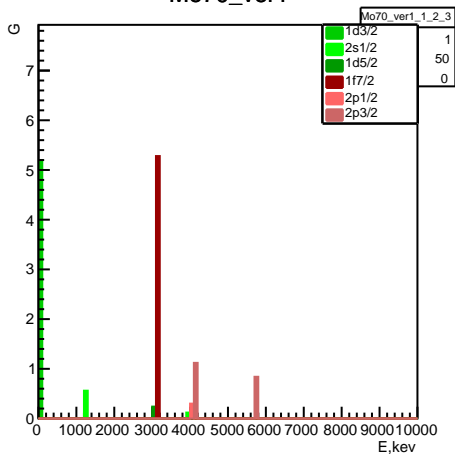
Kh88



Penalty function components



Mo70_ver1



Experiment: Kh88 (12) Mo70_ver1 (8)

proton transfer

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

 $E_F: -8806.02 \pm 16.7548$ keV $\Delta: 13.2813 \pm 46.4446$ keV

penalty: 0.0746934

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

-8810.81 2s1/2 0.67 1.02

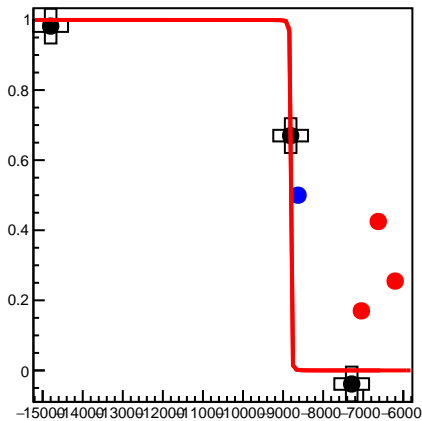
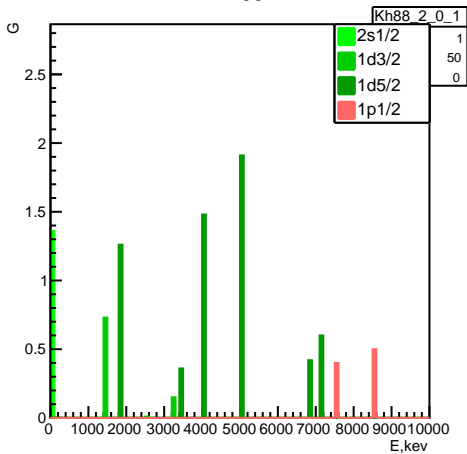
-7287.14 1d3/2 -0.03875 1.5225

-14801 1d5/2 0.9825 1.045

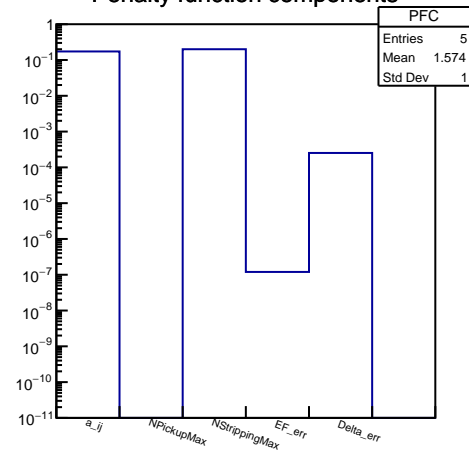
-8627.03 1p1/2 0.5 0.9

-7045.63 1f7/2 0.17 0.66

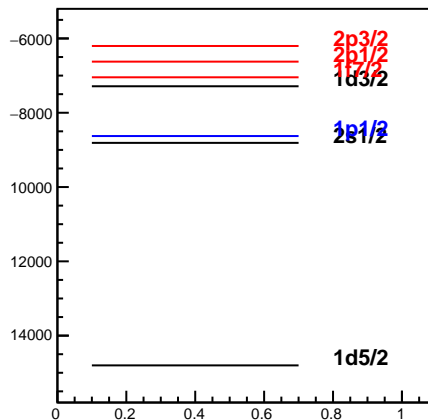
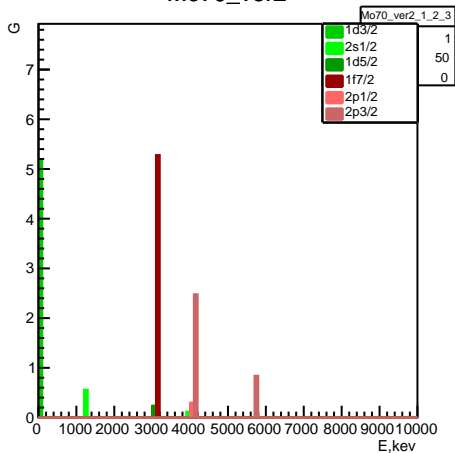
Kh88



Penalty function components



Mo70_ver2



Experiment: Kh88 (12) Mo70_ver2 (8)

proton transfer

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

 $E_F: -8806.02 \pm 16.7548$ keV $\Delta: 13.2813 \pm 46.4446$ keV

penalty: 0.0746934

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

-8810.81 2s1/2 0.67 1.02

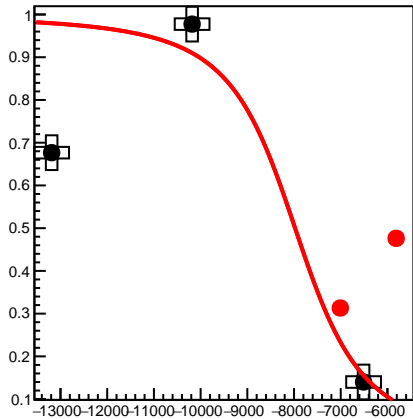
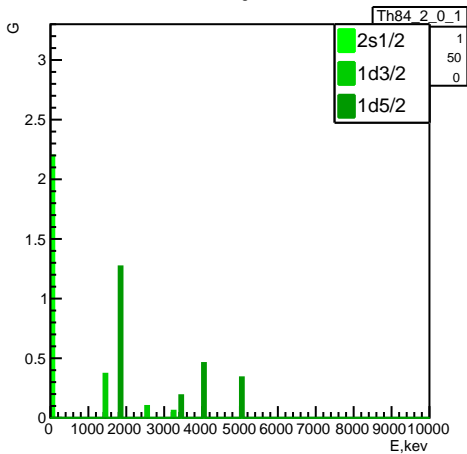
-7287.14 1d3/2 -0.03875 1.5225

-14801 1d5/2 0.9825 1.045

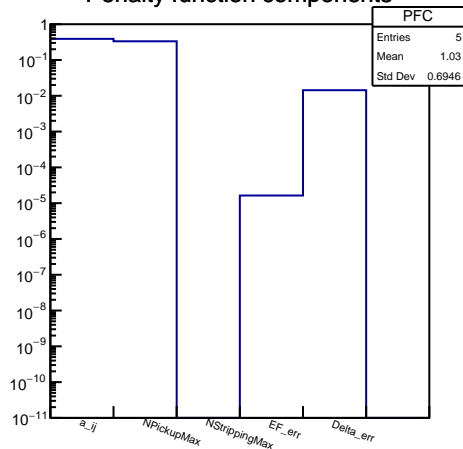
-8627.03 1p1/2 0.5 0.9

-7045.63 1f7/2 0.17 0.66

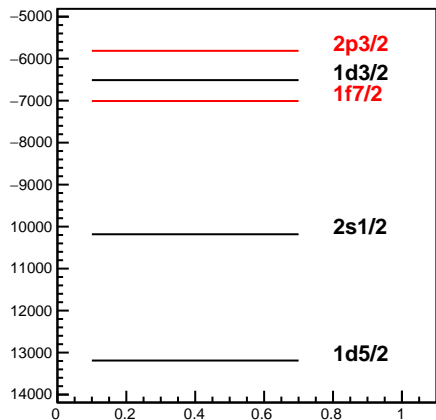
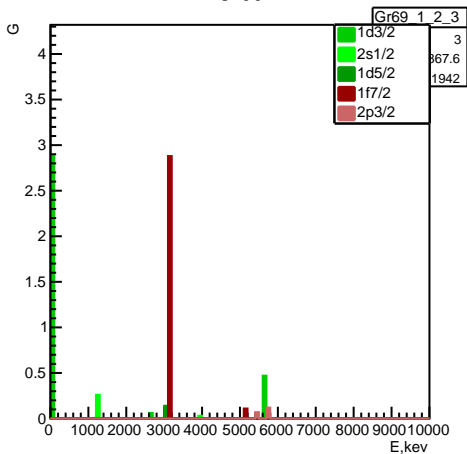
Th84



Penalty function components



Gr69



Experiment: Th84 (8) Gr69 (10)

proton transfer

p separation energy A:10882.6, A+1: 6371.42

 $E_F: -7976.69 \pm 2287.42$ keV $\Delta: 1540.52 \pm 2632.13$ keV

penalty: 0.147486

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

-10182.1 2s1/2 0.9775 1.245

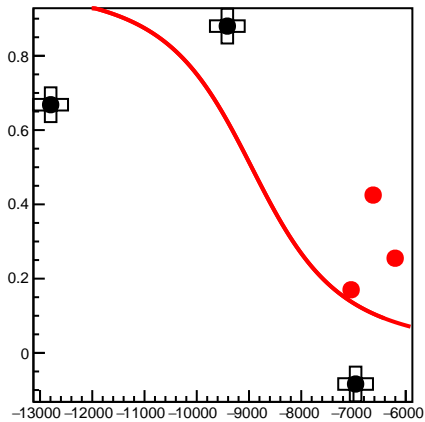
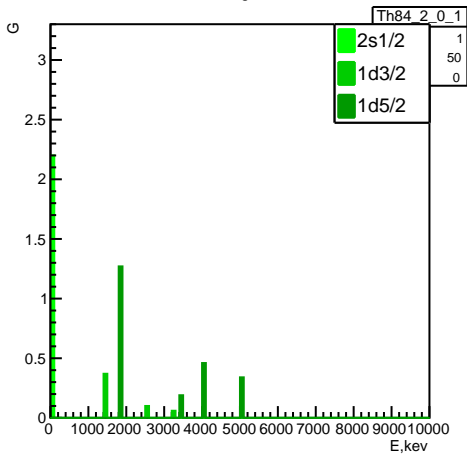
-6510.8 1d3/2 0.14 0.985

-13189.5 1d5/2 0.676667 0.4

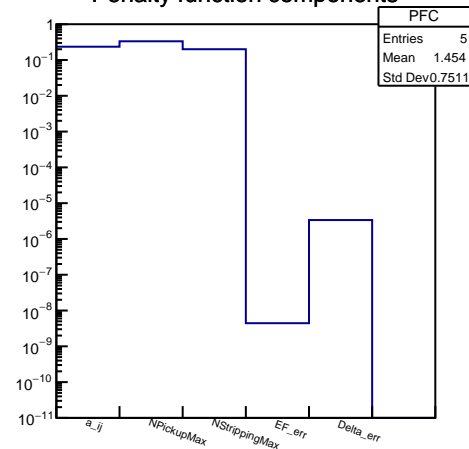
-7008.84 1f7/2 0.313125 0.37375

-5813.34 2p3/2 0.47625 0.0475

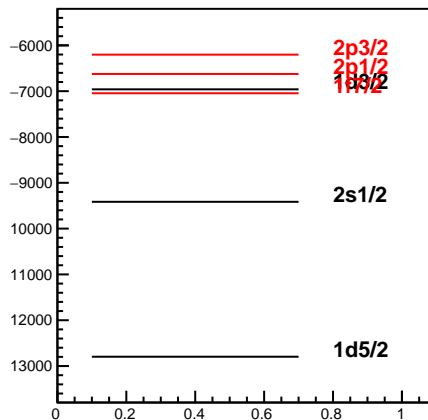
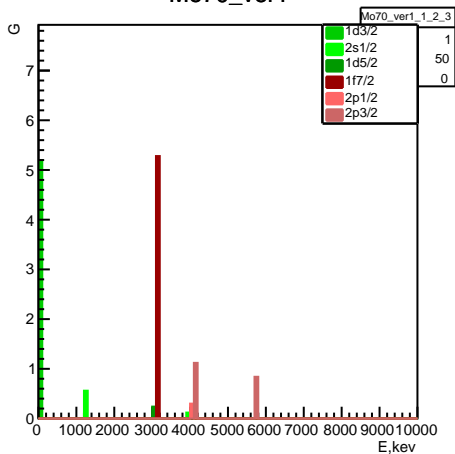
Th84



Penalty function components



Mo70_ver1



Experiment: Th84 (8) Mo70_ver1 (8)

proton transfer

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

 $E_F: -8949.76 \pm 0.619534$ keV $\Delta: 1813.98 \pm 0.619534$ keV

penalty: 0.153695

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

-9415.1 2s1/2 0.88 1.44

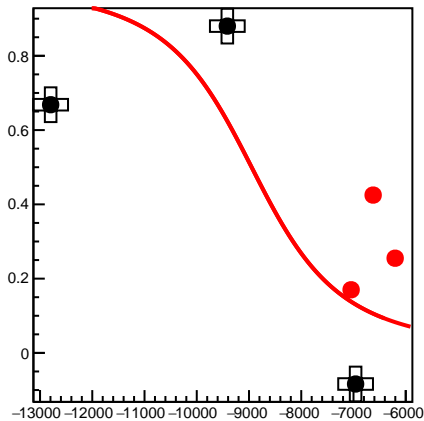
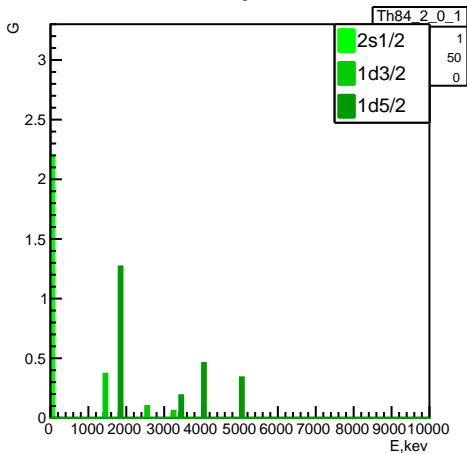
-6959.72 1d3/2 -0.08375 1.4325

-12796.7 1d5/2 0.668333 0.416667

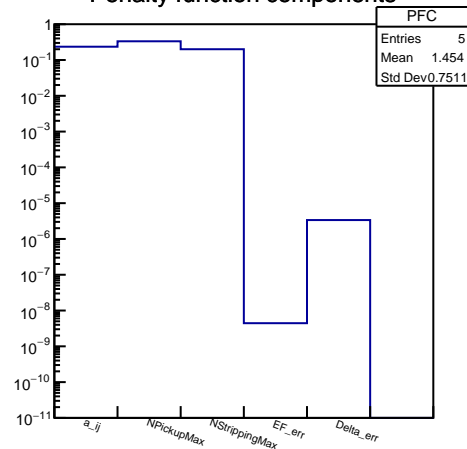
-7045.63 1f7/2 0.17 0.66

-6624.03 2p1/2 0.425 0.15

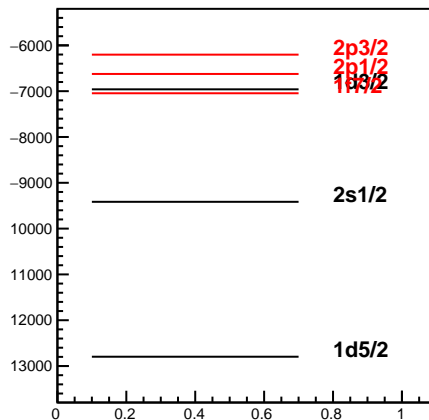
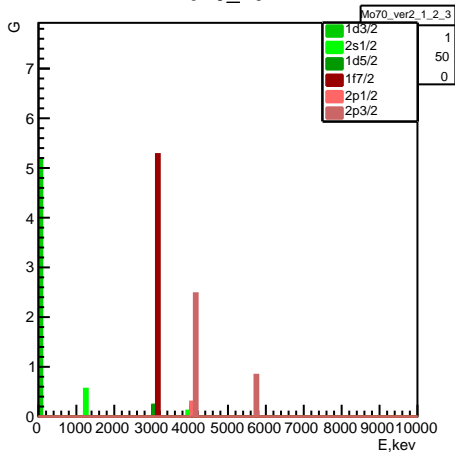
Th84



Penalty function components



Mo70_ver2



Experiment: Th84 (8) Mo70_ver2 (8)

proton transfer

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

 $E_F: -8949.76 \pm 0.619534$ keV $\Delta: 1813.98 \pm 0.619534$ keV

penalty: 0.153695

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

-9415.1 2s1/2 0.88 1.44

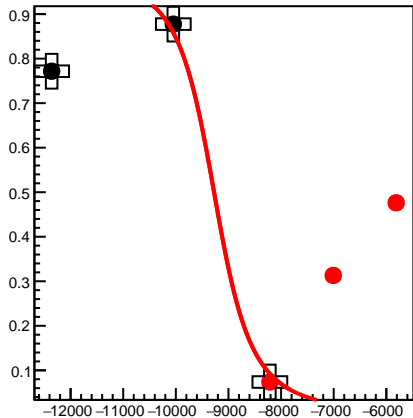
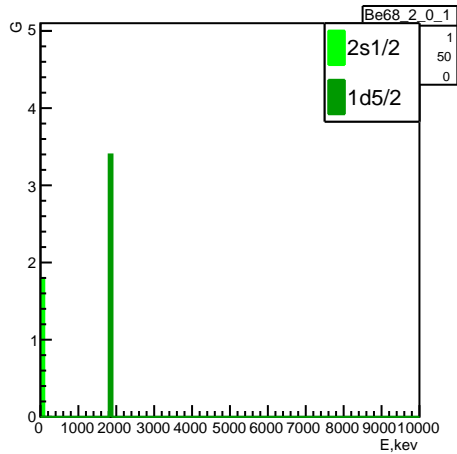
-6959.72 1d3/2 -0.08375 1.4325

-12796.7 1d5/2 0.668333 0.416667

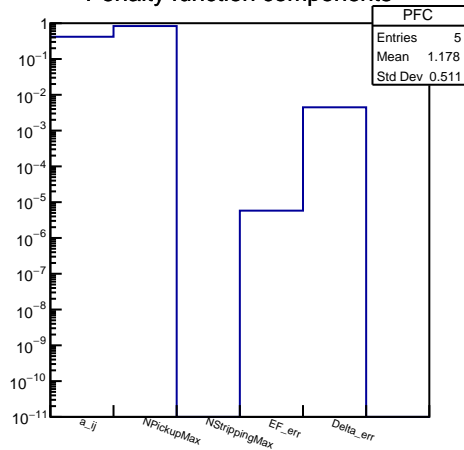
-7045.63 1f7/2 0.17 0.66

-6624.03 2p1/2 0.425 0.15

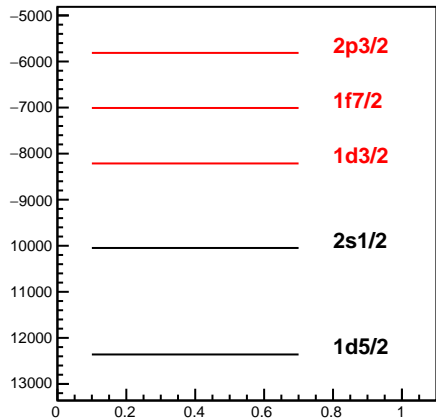
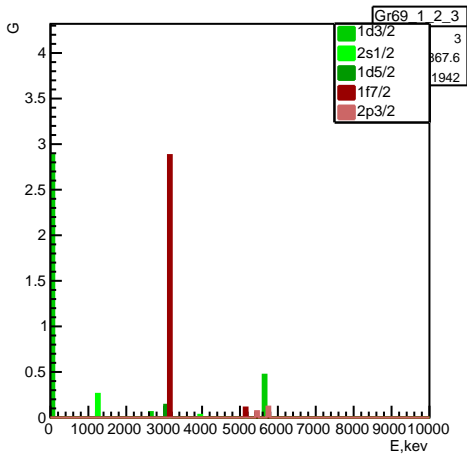
Be68



Penalty function components



Gr69



Experiment: Be68 (2) Gr69 (10)

proton transfer

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

E_F: -9273.72 \pm 810.23 keV Δ : -753.046 \pm 821.348 keV

penalty: 0.251212

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

-10048.1 2s1/2 0.8775 1.045

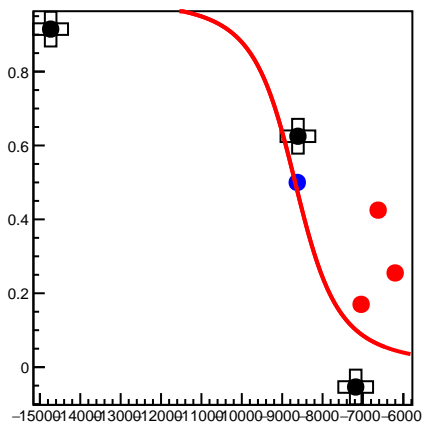
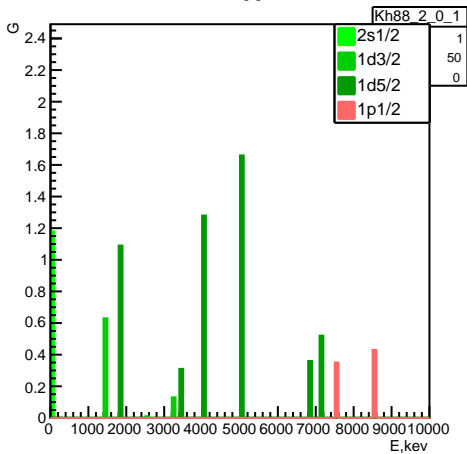
-12360 1d5/2 0.771667 0.59

-8213.28 1d3/2 0.07375 0.8525

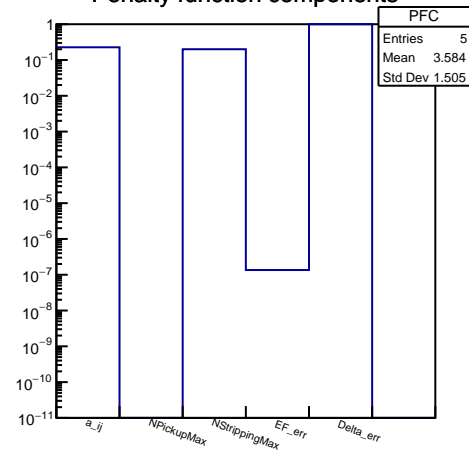
-7008.84 1f7/2 0.313125 0.37375

-5813.34 2p3/2 0.47625 0.0475

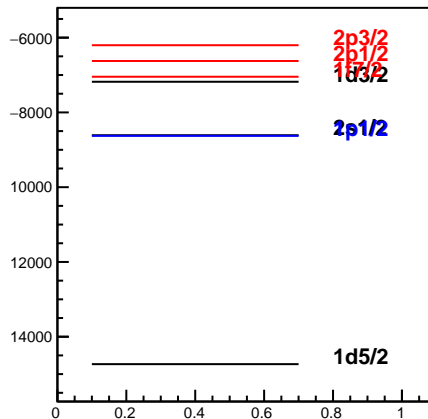
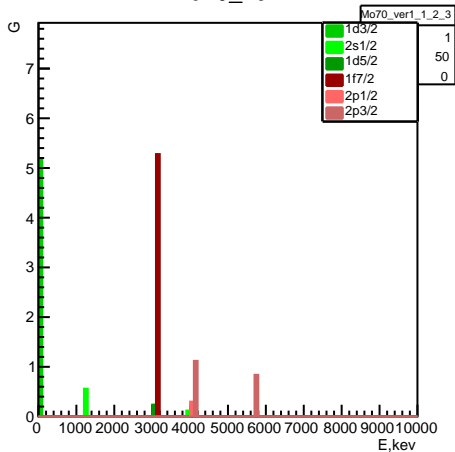
Kh88



Penalty function components



Mo70_ver1



Experiment: Kh88 (12) Mo70_ver1 (8)

proton transfer

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

 E_F : -8678.39 \pm 18.9562 keV Δ : 1132.65 \pm 183698 keV

penalty: 0.285357

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

-8610.31 2s1/2 0.625 0.93

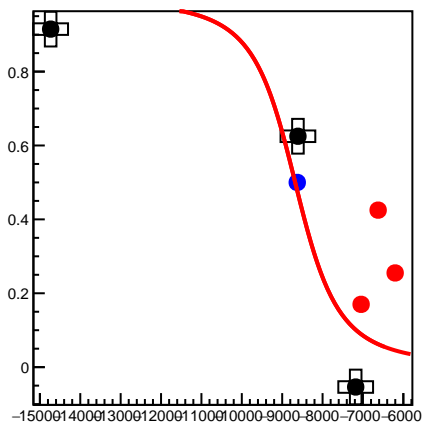
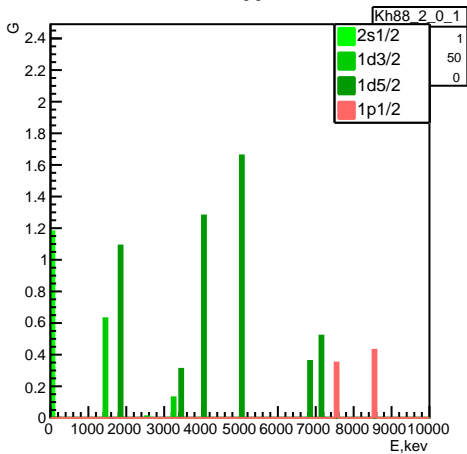
-7179.92 1d3/2 -0.05375 1.4925

-14733.7 1d5/2 0.915 0.91

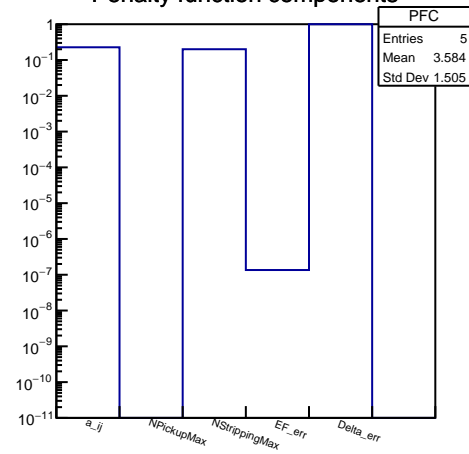
-8627.03 1p1/2 0.5 0.78

-7045.63 1f7/2 0.17 0.66

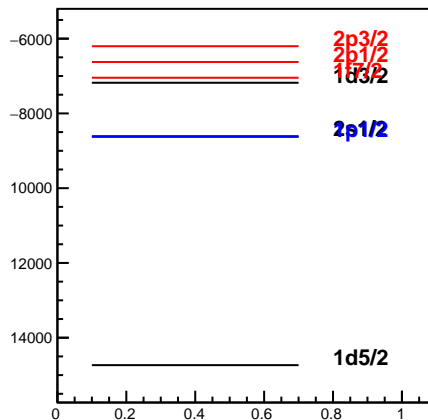
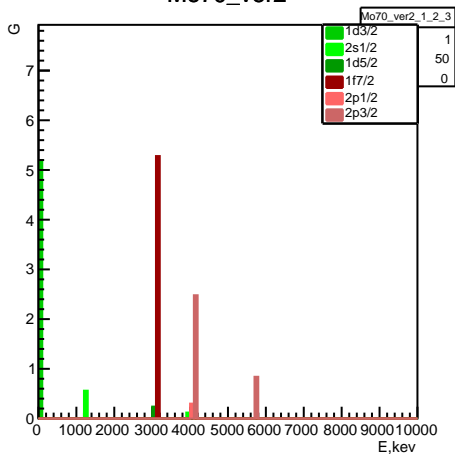
Kh88



Penalty function components



Mo70_ver2



Experiment: Kh88 (12) Mo70_ver2 (8)

proton transfer

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

E_F: -8678.39 ± 18.9562 keV

Δ: 1132.65 ± 183698 keV

penalty: 0.285357

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

-8610.31 2s1/2 0.625 0.93

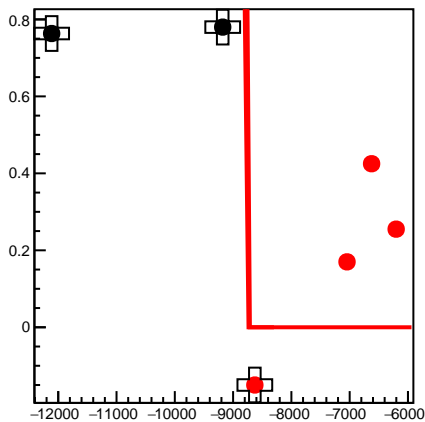
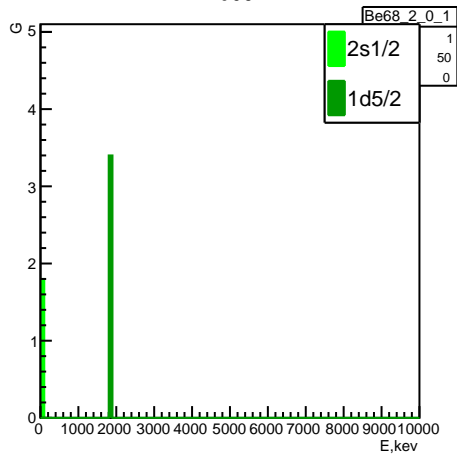
-7179.92 1d3/2 -0.05375 1.4925

-14733.7 1d5/2 0.915 0.91

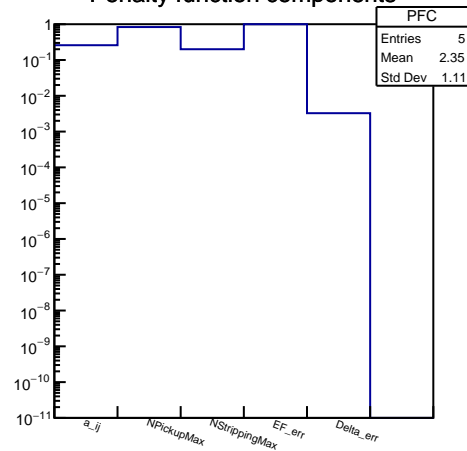
-8627.03 1p1/2 0.5 0.78

-7045.63 1f7/2 0.17 0.66

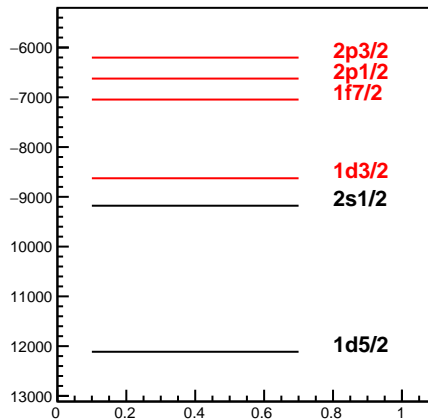
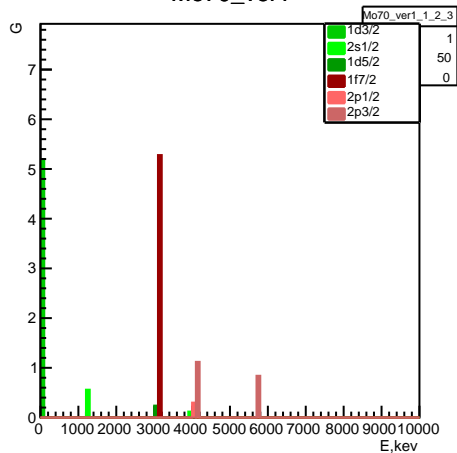
Be68



Penalty function components



Mo70_ver1



Experiment: Be68 (2) Mo70_ver1 (8)

proton transfer

p separation energy A:10882.6, A+1: 6371.42

 $E_F: -8751.88 \pm 1.39853e+08 \text{ keV}$ $\Delta: -0.000259122 \pm 599.948 \text{ keV}$

penalty: 0.459098

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

-9178.4 2s1/2 0.78 1.24

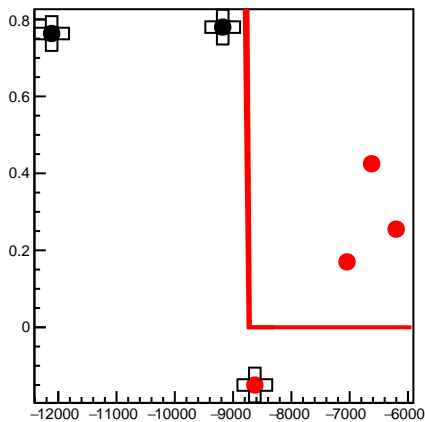
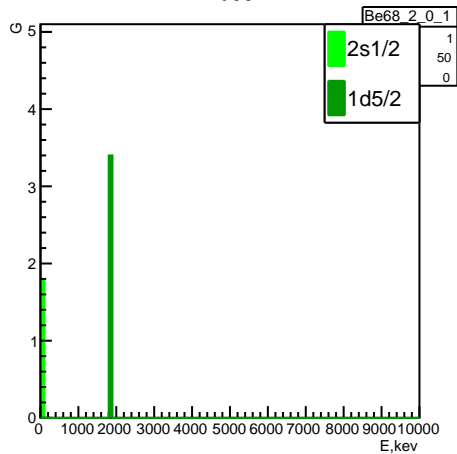
-12113 1d5/2 0.763333 0.606667

-8627.03 1d3/2 -0.15 1.3

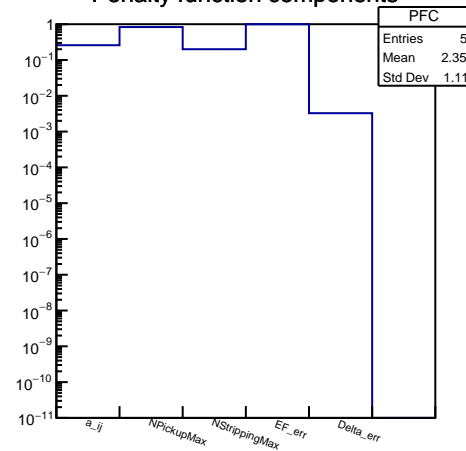
-7045.63 1f7/2 0.17 0.66

-6624.03 2p1/2 0.425 0.15

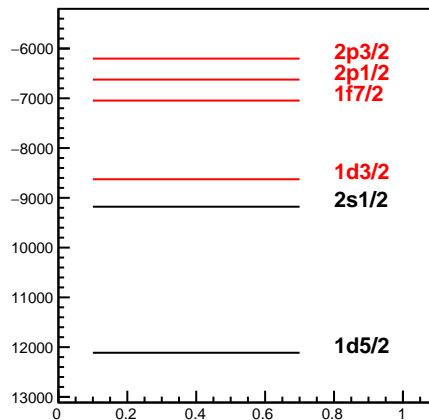
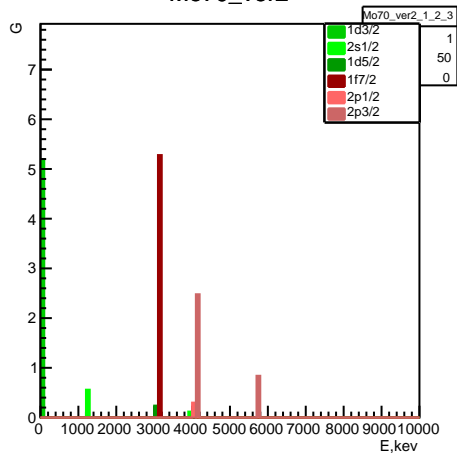
Be68



Penalty function components



Mo70_ver2



Experiment: Be68 (2) Mo70_ver2 (8)

proton transfer

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

 $E_F: -8751.88 \pm 1.39853e+08$ keV $\Delta: -0.000259122 \pm 599.948$ keV

penalty: 0.459098

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

-9178.4 2s1/2 0.78 1.24

-12113 1d5/2 0.763333 0.606667

-8627.03 1d3/2 -0.15 1.3

-7045.63 1f7/2 0.17 0.66

-6624.03 2p1/2 0.425 0.15