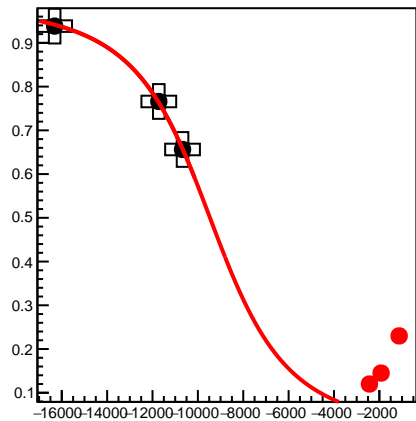
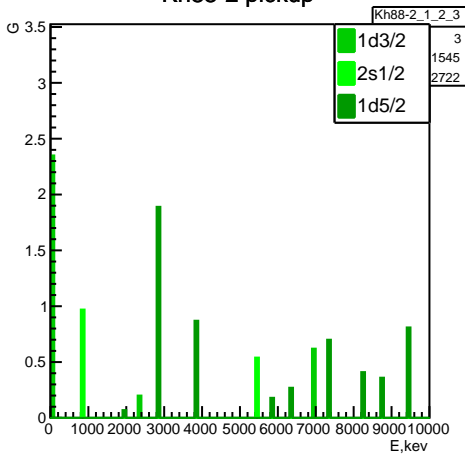
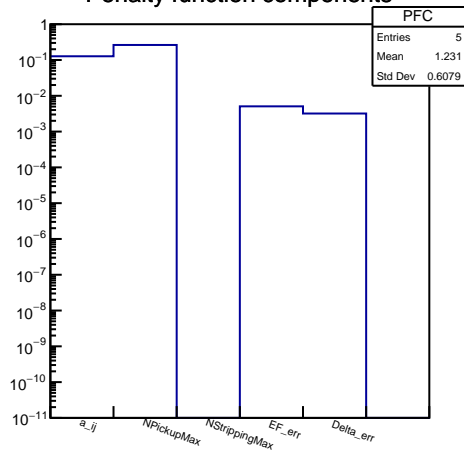


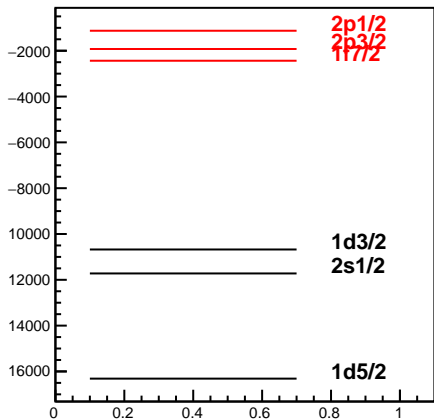
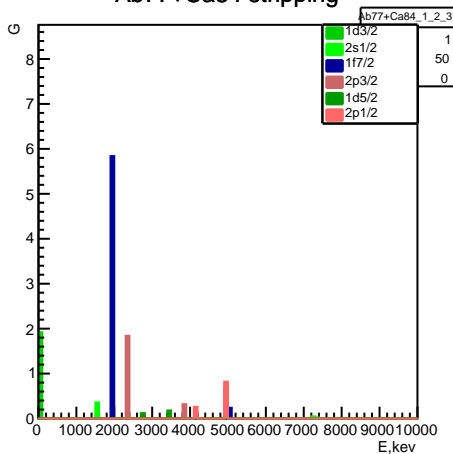
Kh88-2 pickup



Penalty function components



Ab77+Ca84 stripping



Experiment: Kh88-2 (14) Ab77+Ca84 (15)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9466.34 \pm 75.3927 \text{ keV}$ $\Delta: -3640.72 \pm 155.864 \text{ keV}$

penalty: 0.0797133

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

-10676.2 1d3/2 0.65625 1.2725

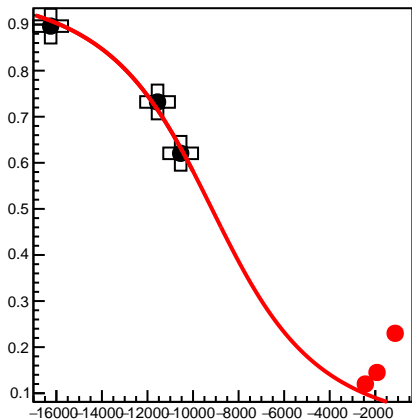
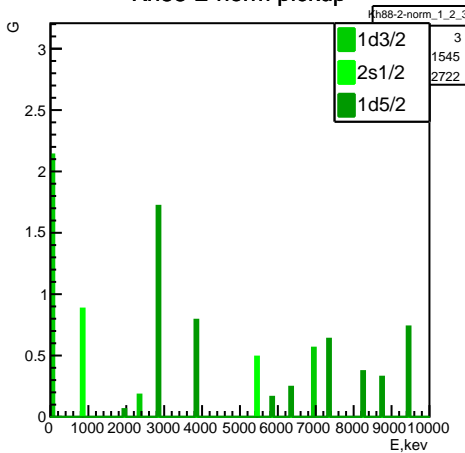
-11722.2 2s1/2 0.766 0.978

-16314 1d5/2 0.938333 0.976667

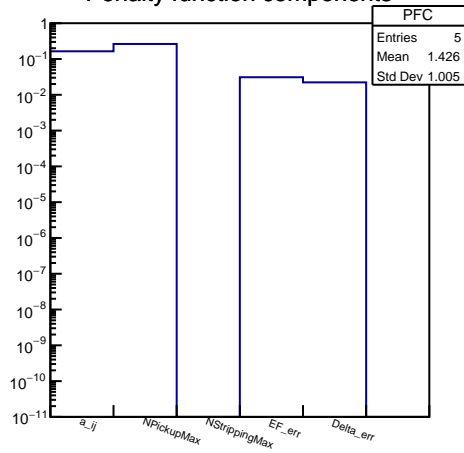
-2436.47 1f7/2 0.12 0.76

-1923.72 2p3/2 0.145 0.71

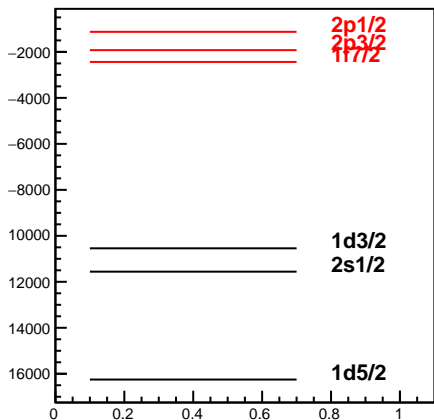
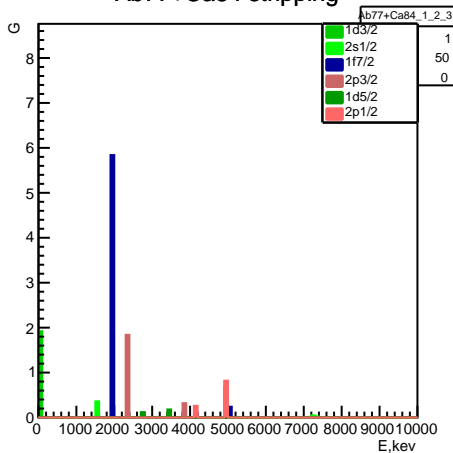
Kh88-2-norm pickup



Penalty function components



Ab77+Ca84 stripping



Experiment: Kh88-2-norm (14) Ab77+Ca84 ('
neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9171.91 ± 459.93 keV

Δ: 5008.73 ± 1083.96 keV

penalty: 0.096118

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

-10543.5 1d3/2 0.620588 1.20118

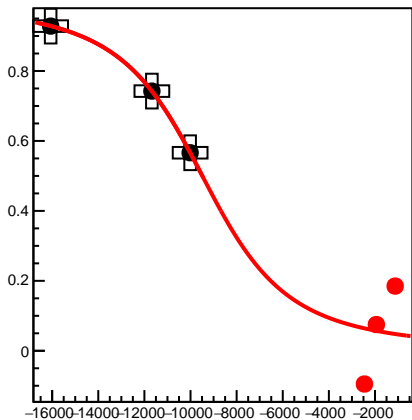
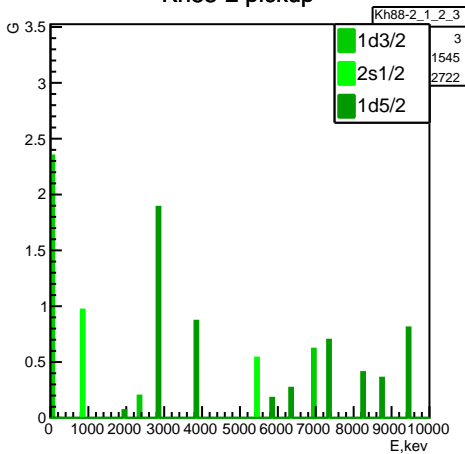
-11558.4 2s1/2 0.732025 0.91005

-16251.2 1d5/2 0.896633 0.893267

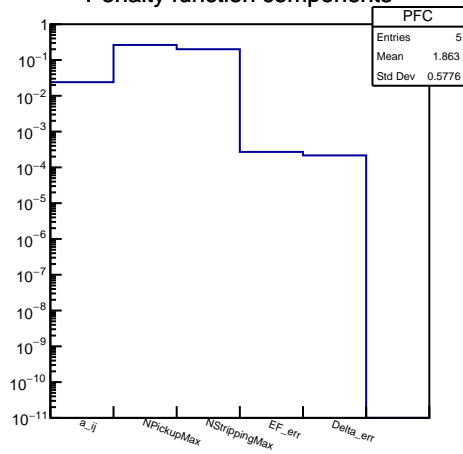
-2436.47 1f7/2 0.12 0.76

-1923.72 2p3/2 0.145 0.71

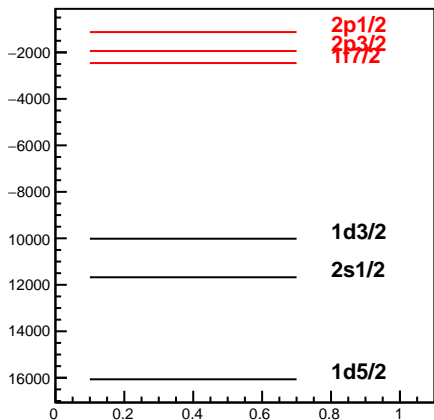
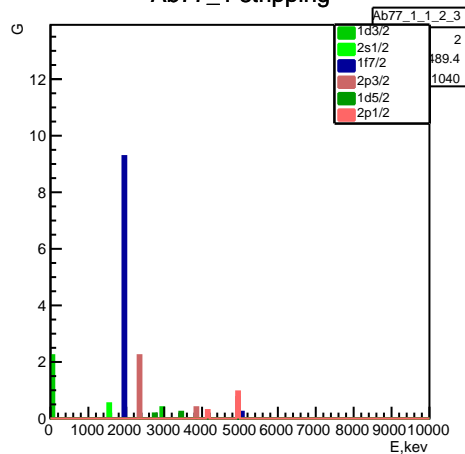
Kh88-2 pickup



Penalty function components



Ab77_1 stripping



Experiment: Kh88-2 (14) Ab77_1 (12)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9487.11 \pm 4.01844$ keV $\Delta: 3951.29 \pm 10.5323$ keV

penalty: 0.0975344

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

-10016.5 1d3/2 0.56625 1.4525

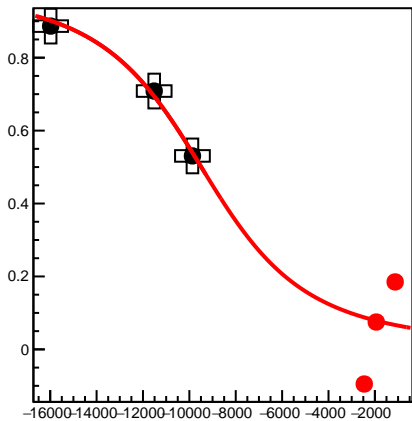
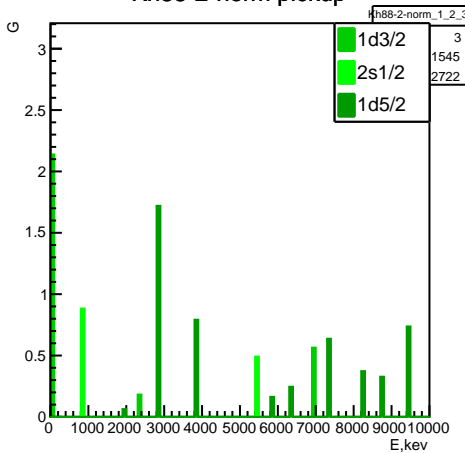
-11675.7 2s1/2 0.7425 1.025

-16065.2 1d5/2 0.928333 0.996667

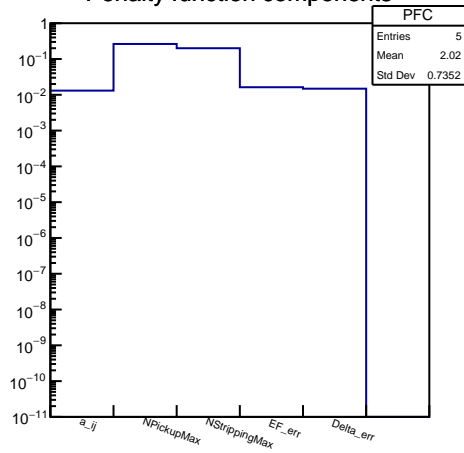
-2458.34 1f7/2 -0.095 1.19

-1940.9 2p3/2 0.075 0.85

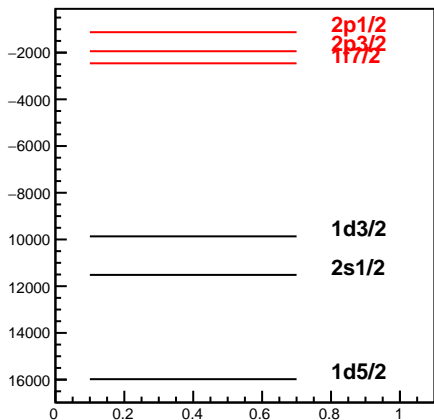
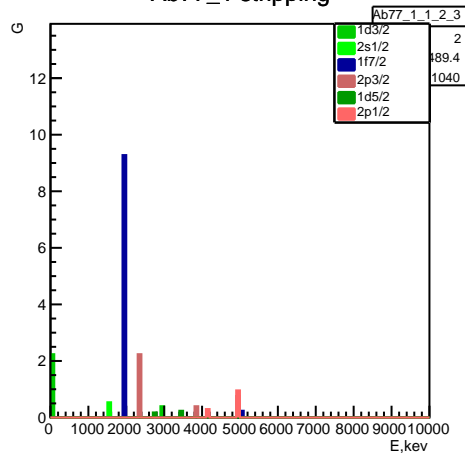
Kh88-2-norm pickup



Penalty function components



Ab77_1 stripping



Experiment: Kh88-2-norm (14) Ab77_1 (12)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9485.98 \pm 241.707 keV

Δ : 4820.04 \pm 722.248 keV

penalty: 0.101464

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

-9866.98 1d3/2 0.530587 1.38118

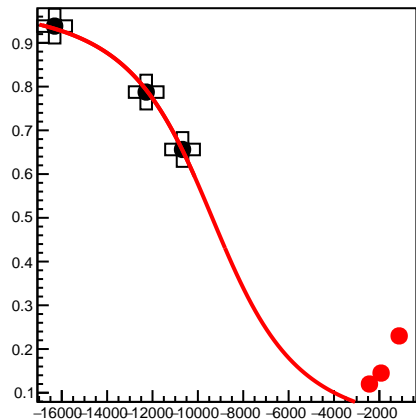
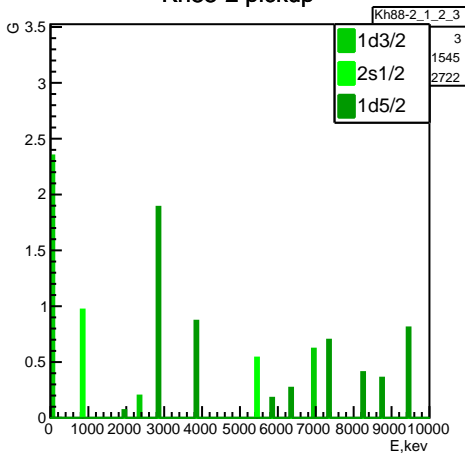
-11516.7 2s1/2 0.708525 0.95705

-15981.1 1d5/2 0.886633 0.913267

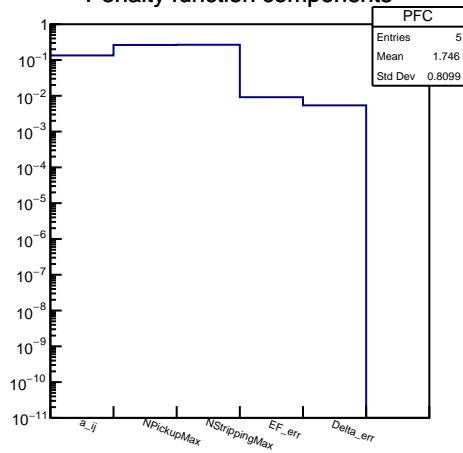
-2458.34 1f7/2 -0.095 1.19

-1940.9 2p3/2 0.075 0.85

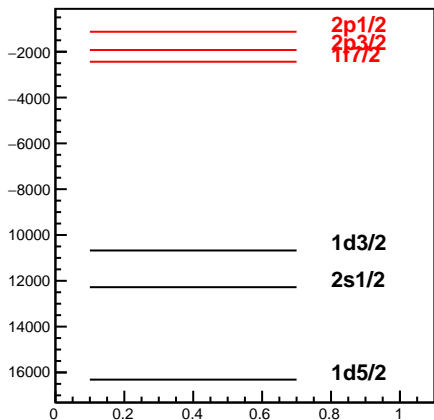
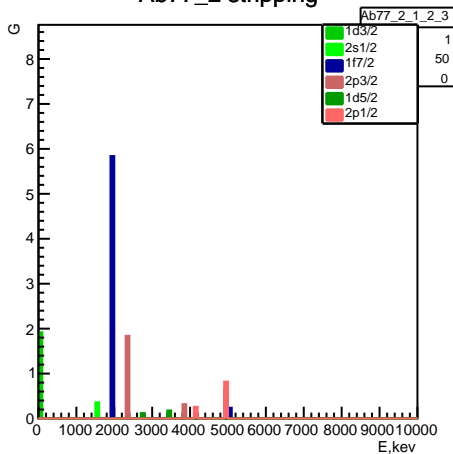
Kh88-2 pickup



Penalty function components



Ab77_2 stripping



Experiment: Kh88-2 (14) Ab77_2 (11)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9367.6 \pm 135.739$ keV $\Delta: -4036.5 \pm 263.421$ keV

penalty: 0.135733

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

-10676.2 1d3/2 0.65625 1.2725

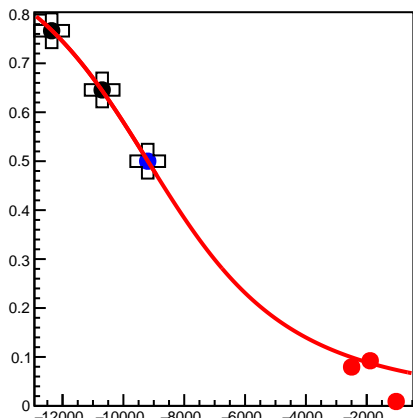
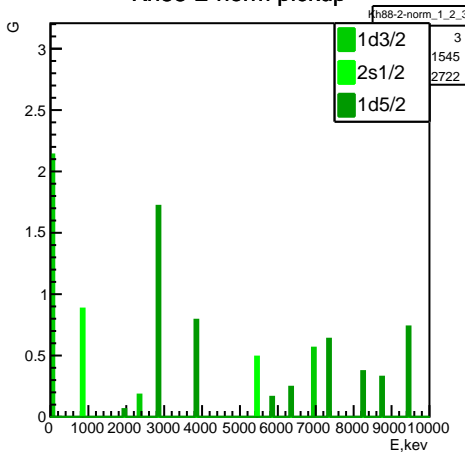
-12278.5 2s1/2 0.7875 0.935

-16314 1d5/2 0.938333 0.976667

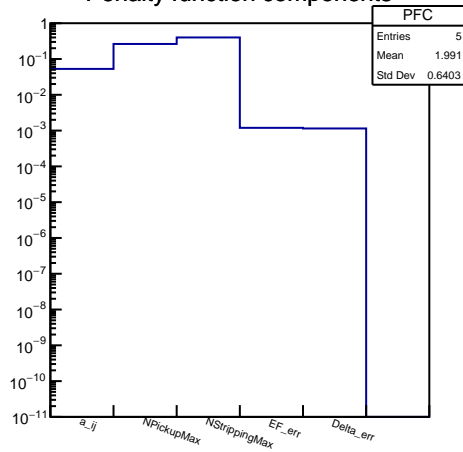
-2436.47 1f7/2 0.12 0.76

-1923.72 2p3/2 0.145 0.71

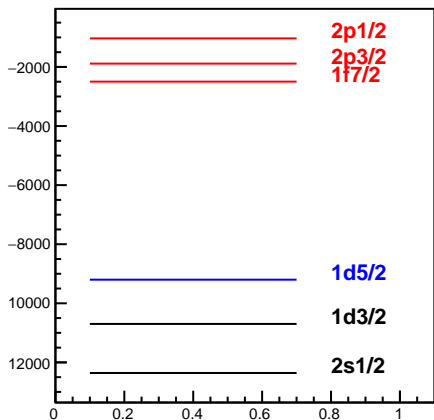
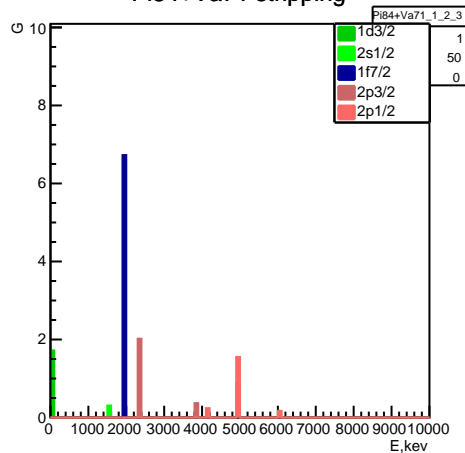
Kh88-2-norm pickup



Penalty function components



Pi84+Va71 stripping



Experiment: Kh88-2-norm (14) Pi84+Va71 (9) neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F : -9193.42 ± 17.7326 keV

Δ : 4998.98 ± 55.8686 keV

penalty: 0.143675

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

-10698 1d3/2 0.645587 1.15118

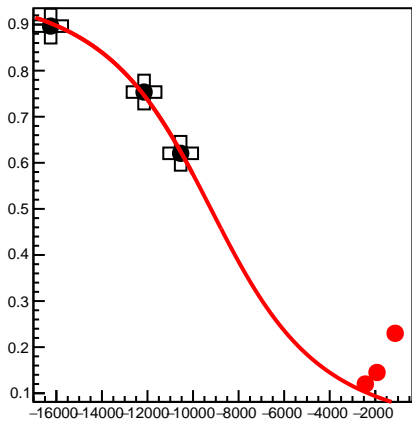
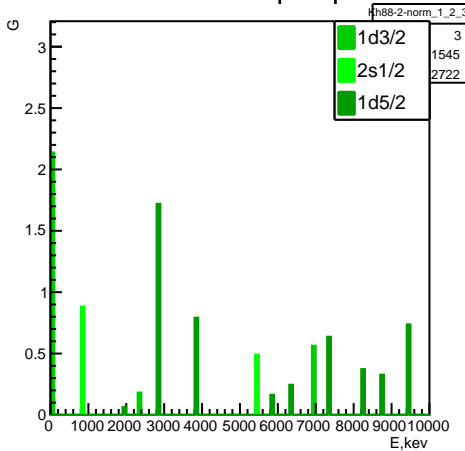
-12358.5 2s1/2 0.766525 0.84105

-9200.37 1d5/2 0.5 1.68653

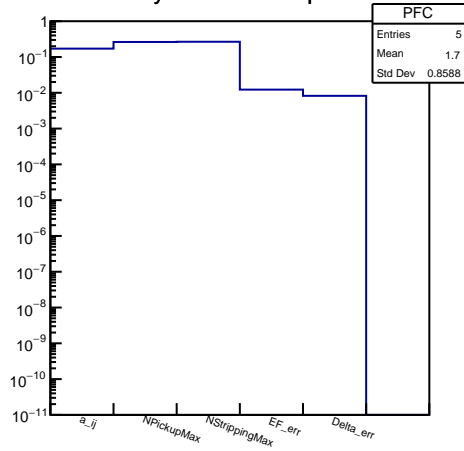
-2497 1f7/2 0.0795 0.841

-1886.71 2p3/2 0.09225 0.8155

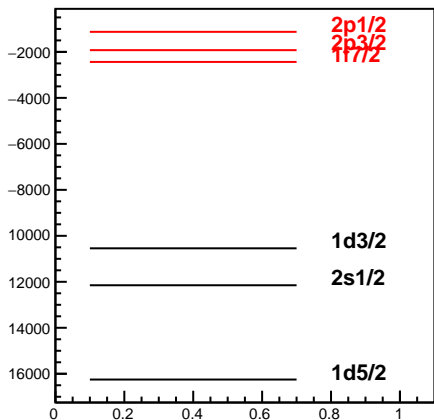
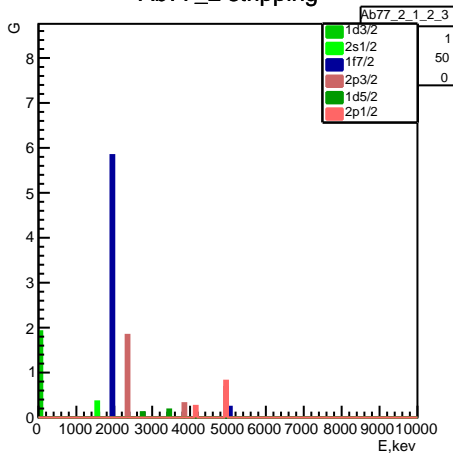
Kh88-2-norm pickup



Penalty function components



Ab77_2 stripping



Experiment: Kh88-2-norm (14) Ab77_2 (11)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9216.82 \pm 182.349$ keV $\Delta: 5173.72 \pm 400.846$ keV

penalty: 0.144347

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

-10543.5 1d3/2 0.620588 1.20118

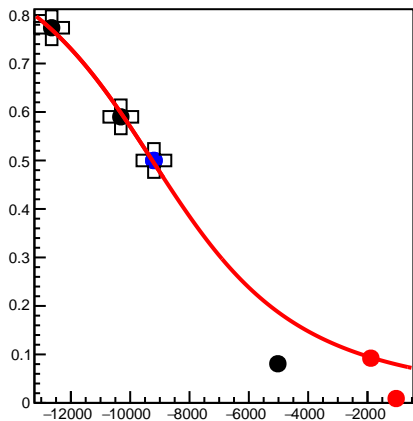
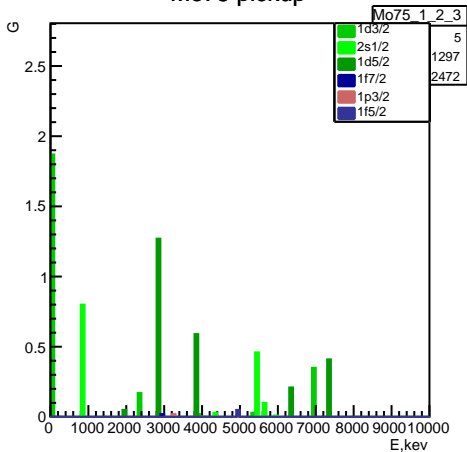
-12150.2 2s1/2 0.753525 0.86705

-16251.2 1d5/2 0.896633 0.893267

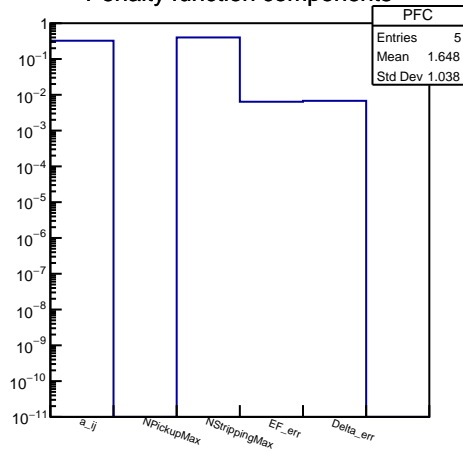
-2436.47 1f7/2 0.12 0.76

-1923.72 2p3/2 0.145 0.71

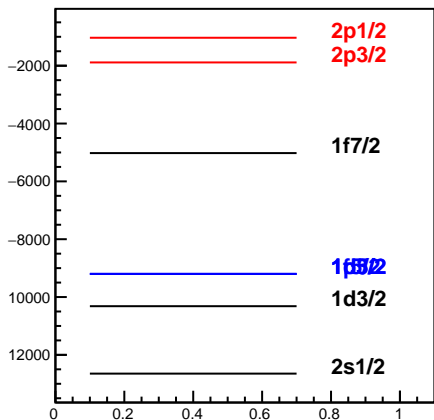
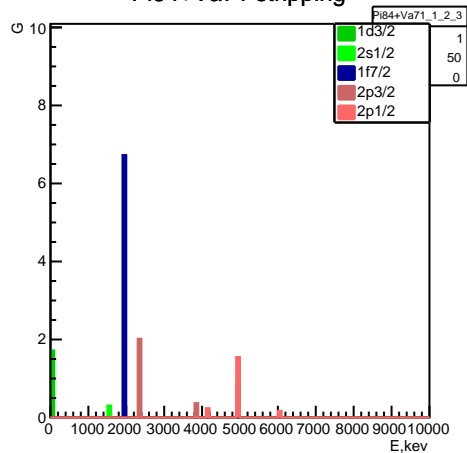
Mo75 pickup



Penalty function components



Pi84+Va71 stripping



Experiment: Mo75 (19) Pi84+Va71 (9)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9254.69 \pm 95.04$ keV $\Delta: 5291.09 \pm 330.636$ keV

penalty: 0.147473

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

-10316.6 1d3/2 0.59 1.04

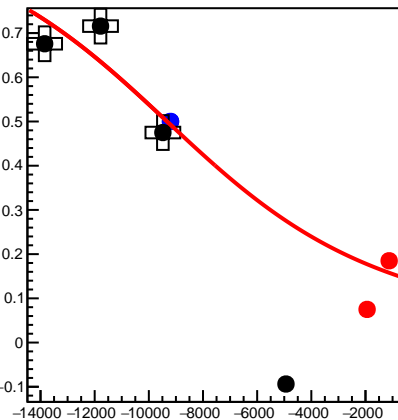
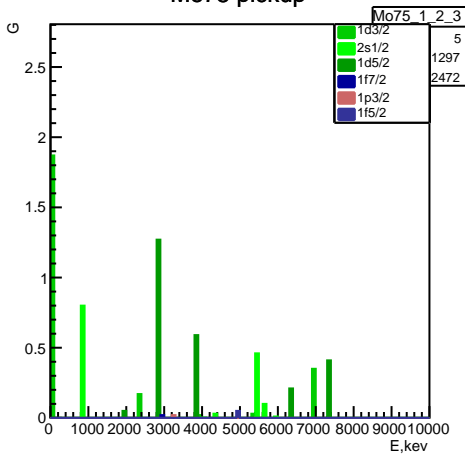
-12648.3 2s1/2 0.77375 0.8555

-9200.37 1d5/2 0.5 0.843333

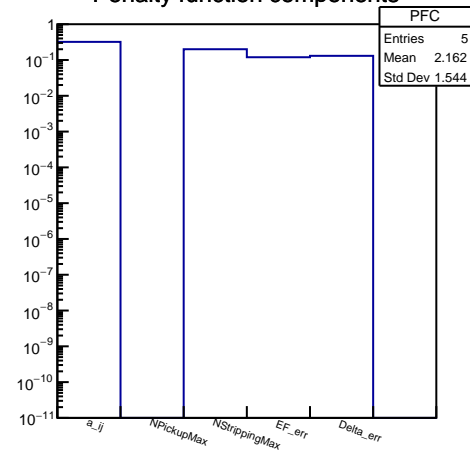
-5021.72 1f7/2 0.08075 0.8435

-9200.37 1p3/2 0.5 0.01

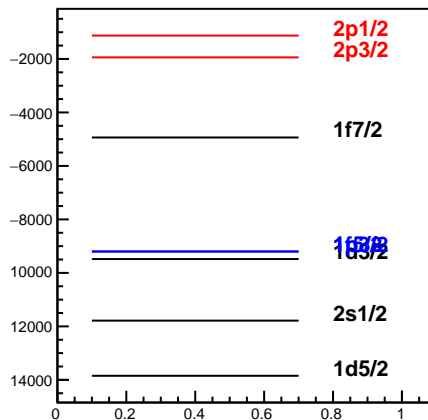
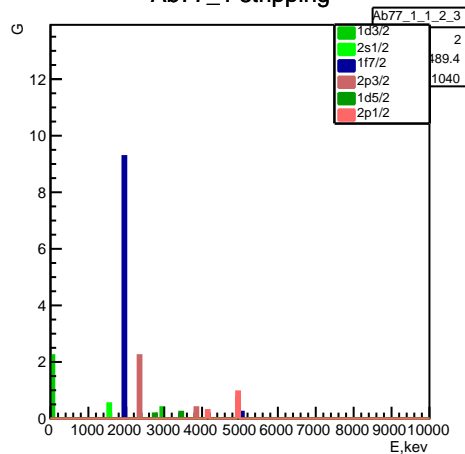
Mo75 pickup



Penalty function components



Ab77_1 stripping



Experiment: Mo75 (19) Ab77_1 (12)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9326.64 ± 1776.18 keV

Δ: 8736.37 ± 6372.53 keV

penalty: 0.154238

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

-9481.9 1d3/2 0.475 1.27

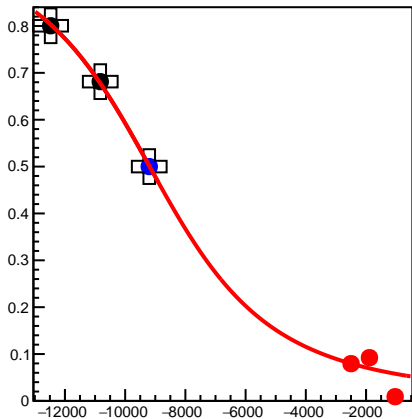
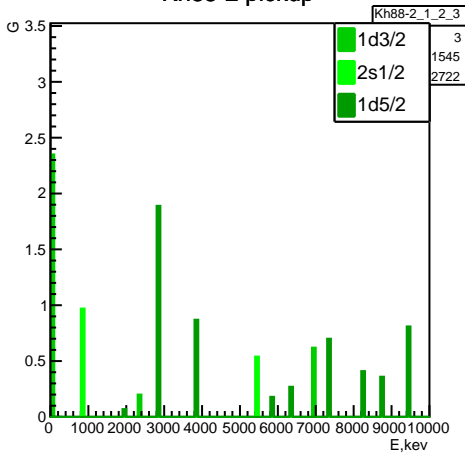
-11784.4 2s1/2 0.71575 0.9715

-13847.6 1d5/2 0.675833 0.491667

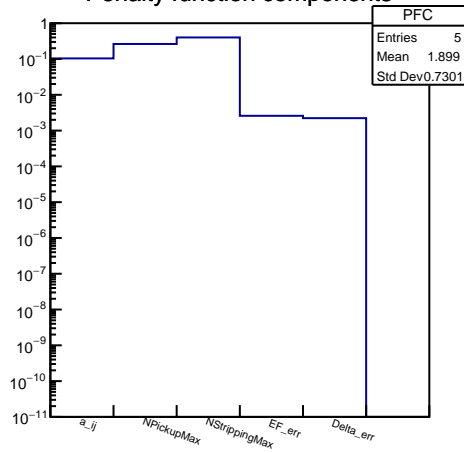
-4936.46 1f7/2 -0.09375 1.1925

-9200.37 1p3/2 0.5 0.01

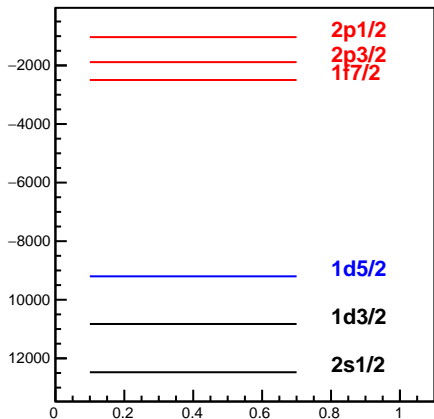
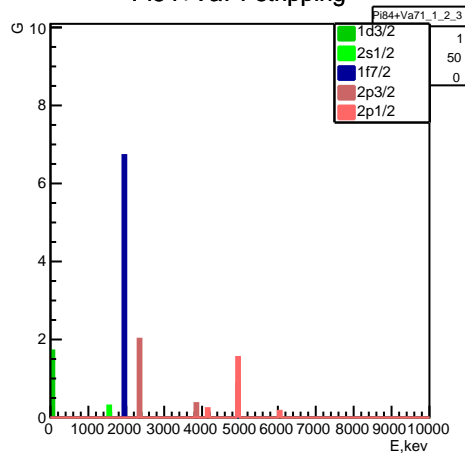
Kh88-2 pickup



Penalty function components



Pi84+Va71 stripping



Experiment: Kh88-2 (14) Pi84+Va71 (9)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9187.61 \pm 38.4693 \text{ keV}$ $\Delta: 4310.54 \pm 108.429 \text{ keV}$

penalty: 0.154372

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

-10827.2 1d3/2 0.68125 1.2225

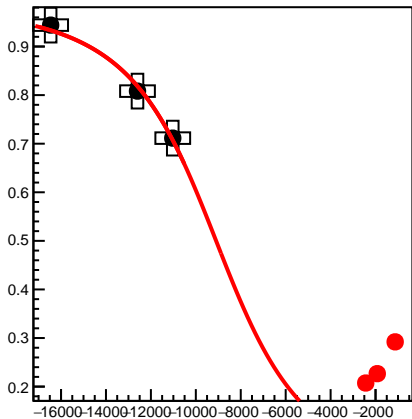
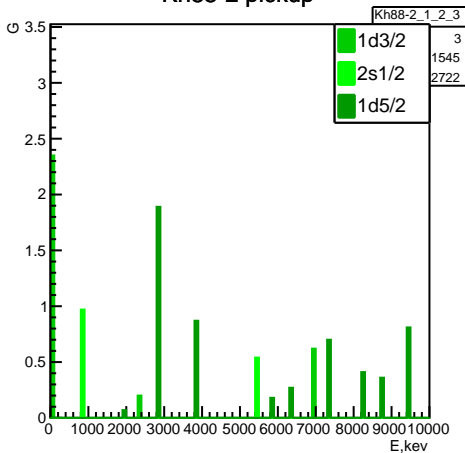
-12474.9 2s1/2 0.8005 0.909

-9200.37 1d5/2 0.5 1.85333

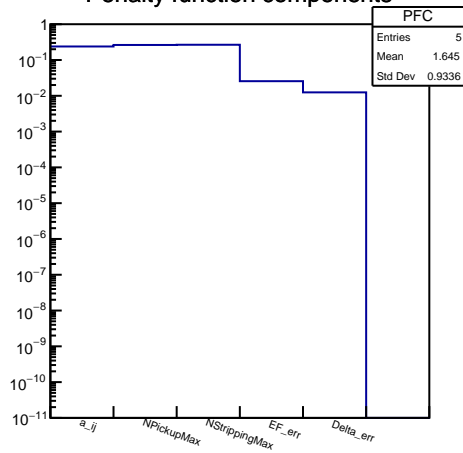
-2497 1f7/2 0.0795 0.841

-1886.71 2p3/2 0.09225 0.8155

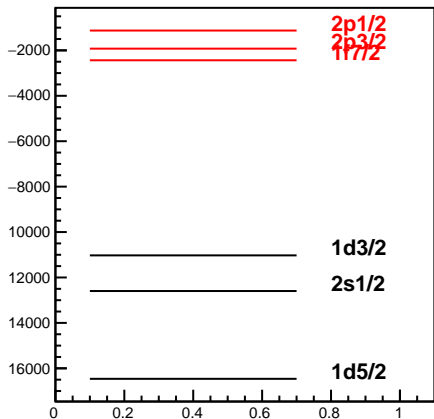
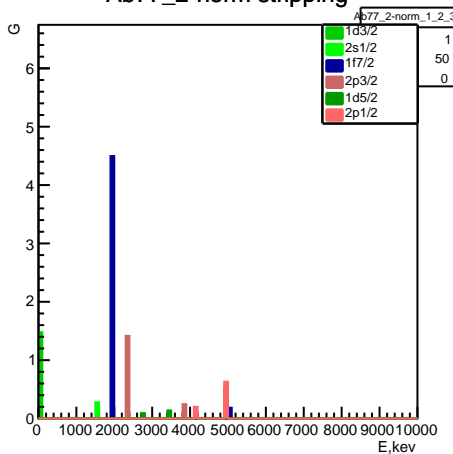
Kh88-2 pickup



Penalty function components

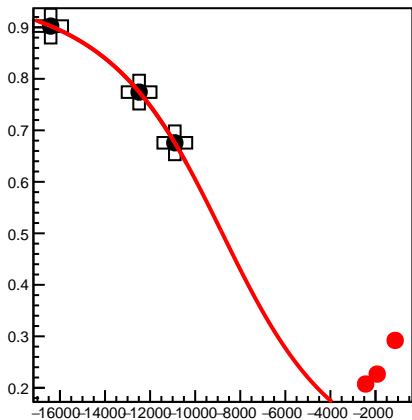
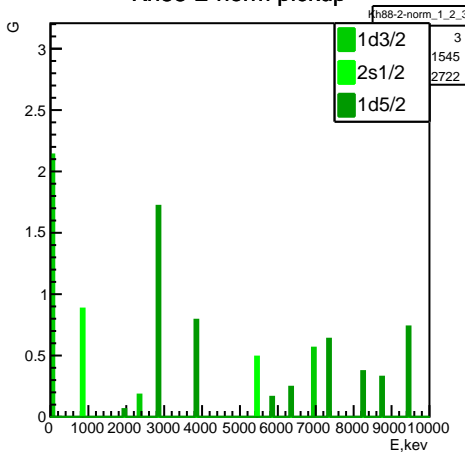


Ab77_2-norm stripping

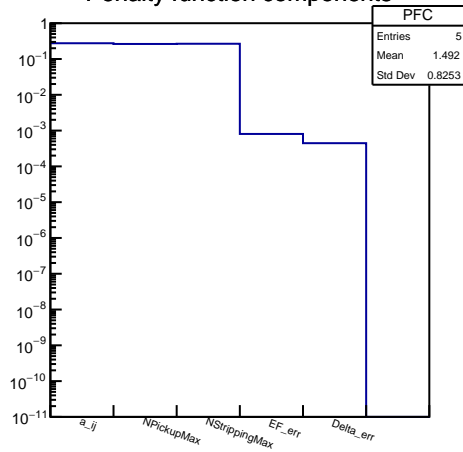


Experiment: Kh88-2 (14) Ab77_2-norm (11)
 neutron transfer
 n separation energy A:11415.5, A+1: 6985.2
 E_F : -9097.12 ± 380.544 keV
 Δ : -4239.44 ± 607.607 keV
 penalty: 0.161293
 SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$
 -11026.8 1d3/2 0.71145 1.1621
 -12596.6 2s1/2 0.8082 0.8936
 -16462.5 1d5/2 0.944083 0.965167
 -2436.47 1f7/2 0.2074 0.5852
 -1923.72 2p3/2 0.22665 0.5467

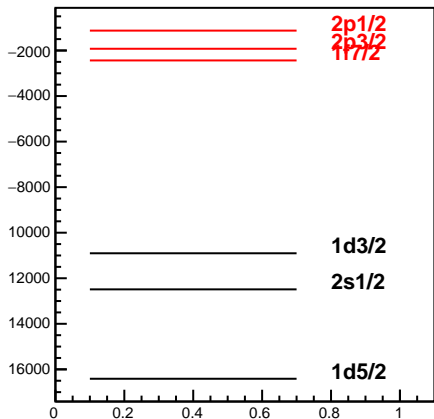
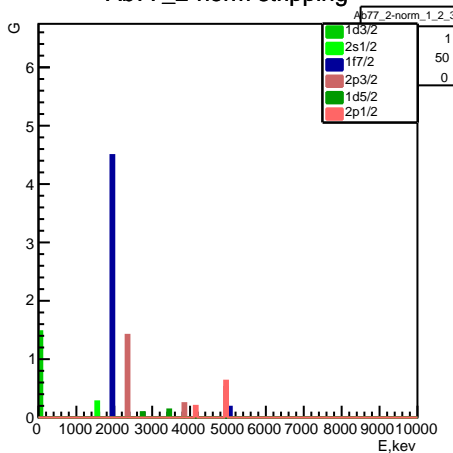
Kh88-2-norm pickup



Penalty function components



Ab77_2-norm stripping



Experiment: Kh88-2-norm (14) Ab77_2-norm
neutron transfer

n separation energy A:11415.5, A+1: 6985.2

E_F: -8796.55 \pm 11.9696 keV

Δ : 5616.32 \pm 21.675 keV

penalty: 0.161352

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

-10903.6 1d3/2 0.675787 1.09078

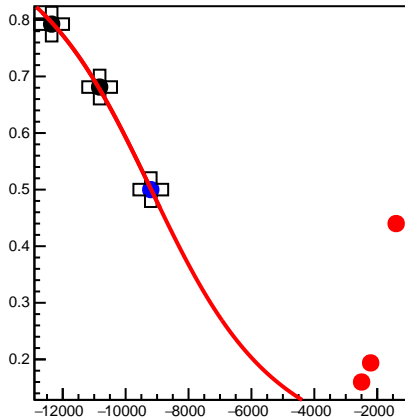
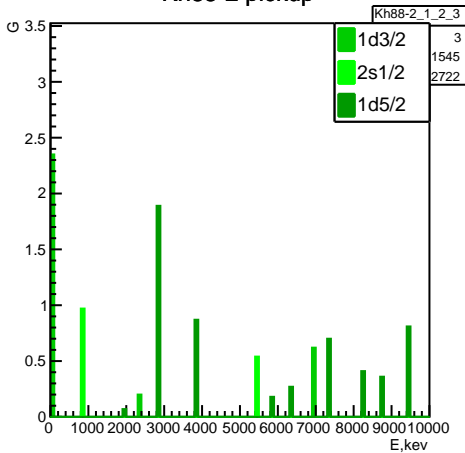
-12488.1 2s1/2 0.774225 0.82565

-16413 1d5/2 0.902383 0.881767

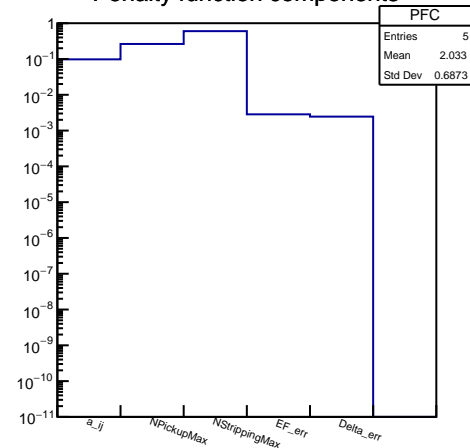
-2436.47 1f7/2 0.2074 0.5852

-1923.72 2p3/2 0.22665 0.5467

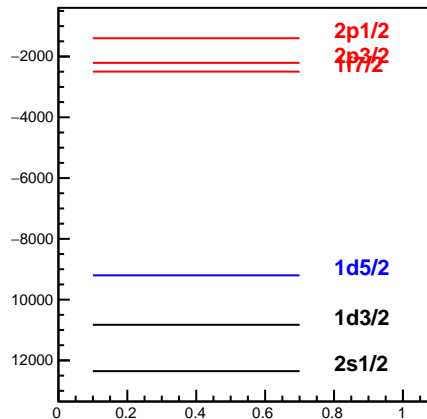
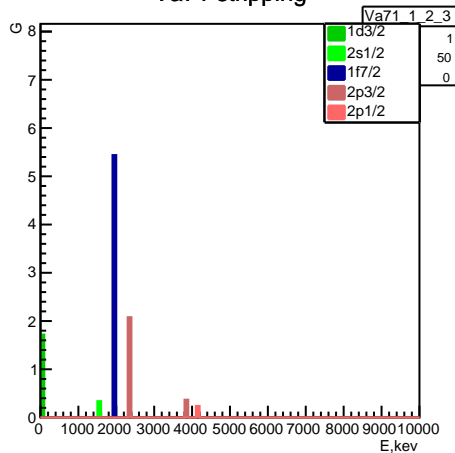
Kh88-2 pickup



Penalty function components



Va71 stripping



Experiment: Kh88-2 (14) Va71 (6)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9187.44 \pm 42.27$ keV $\Delta: 4319.26 \pm 119.683$ keV

penalty: 0.193247

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

-10827.2 1d3/2 0.68125 1.2225

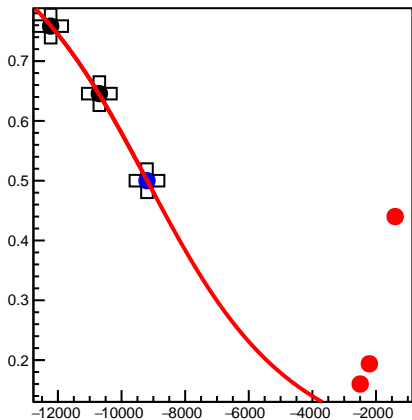
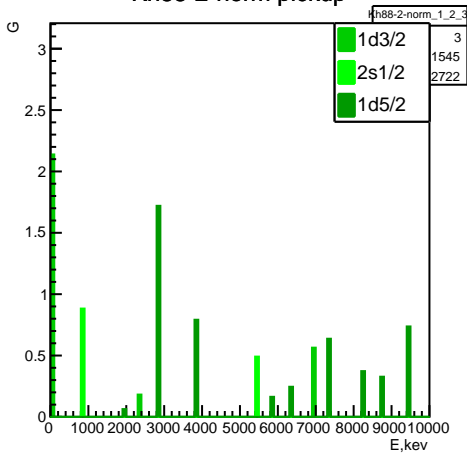
-12352.7 2s1/2 0.7925 0.925

-9200.37 1d5/2 0.5 1.85333

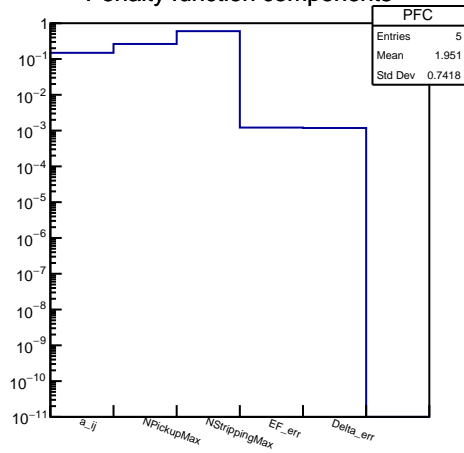
-2497 1f7/2 0.16 0.68

-2208.94 2p3/2 0.19375 0.6125

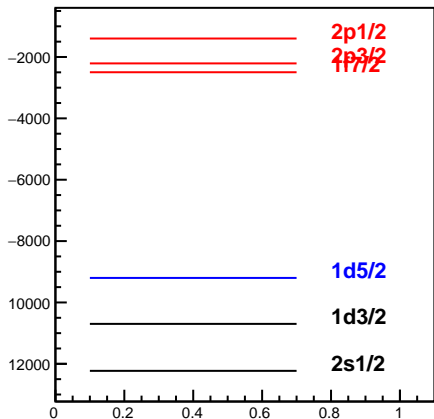
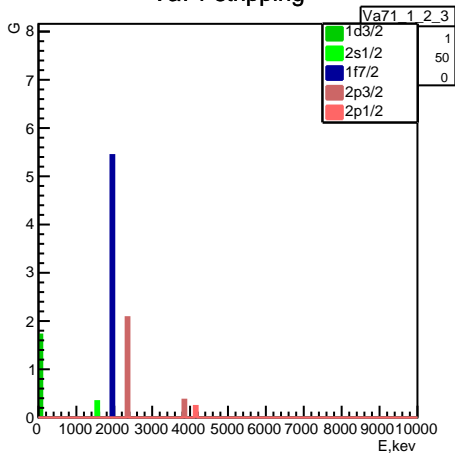
Kh88-2-norm pickup



Penalty function components



Va71 stripping



Experiment: Kh88-2-norm (14) Va71 (6)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9193.48 ± 18.0551 keV

Δ: 5000.76 ± 57.5253 keV

penalty: 0.202869

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

-10698 1d3/2 0.645587 1.15118

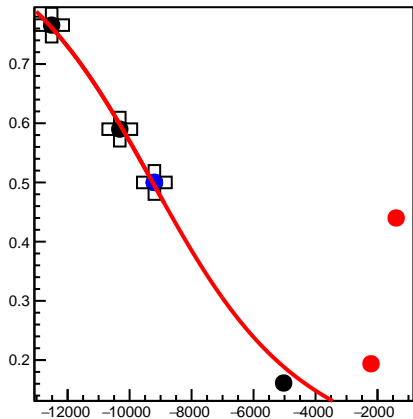
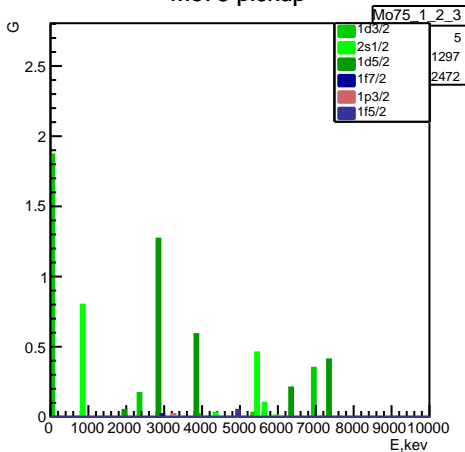
-12228.9 2s1/2 0.758525 0.85705

-9200.37 1d5/2 0.5 1.68653

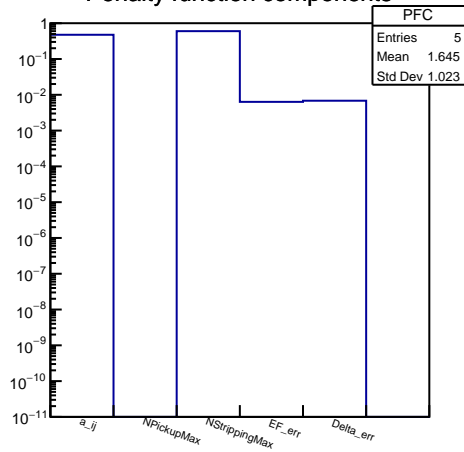
-2497 1f7/2 0.16 0.68

-2208.94 2p3/2 0.19375 0.6125

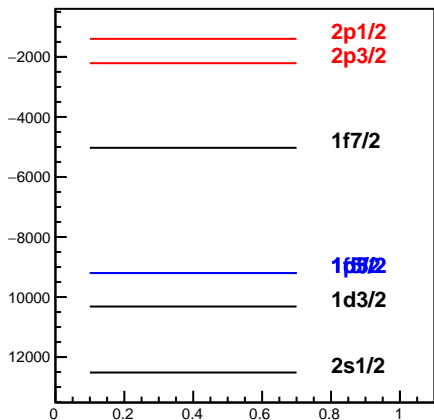
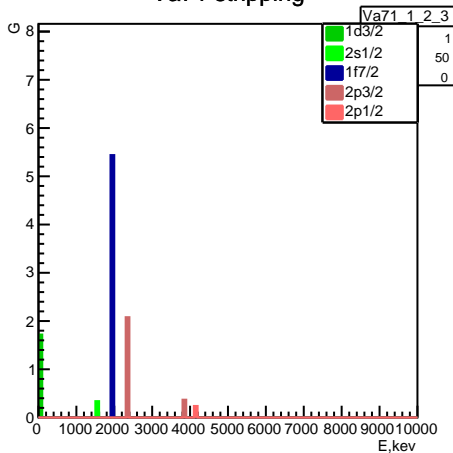
Mo75 pickup



Penalty function components



Va71 stripping



Experiment: Mo75 (19) Va71 (6)

neutron transfer

n separation energy A:11415.5, A+1: 6985.2

E_F: -9253.97 \pm 94.3253 keV Δ : 5312.07 \pm 332.804 keV

penalty: 0.217722

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

-10316.6 1d3/2 0.59 1.04

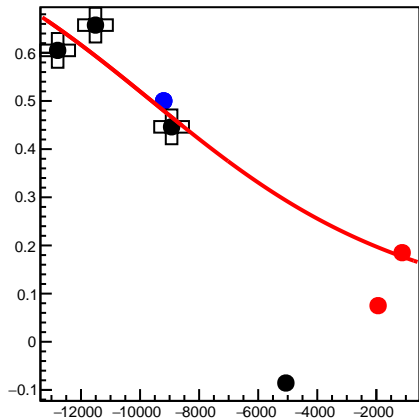
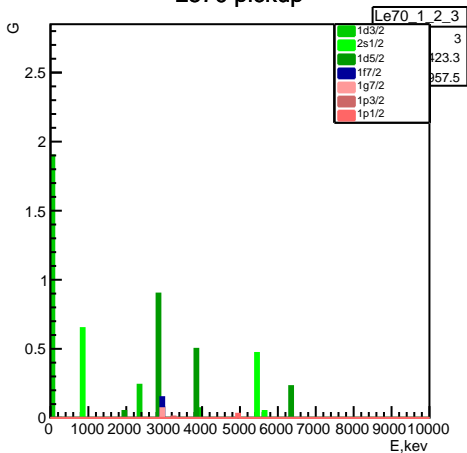
-12515.5 2s1/2 0.76575 0.8715

-9200.37 1d5/2 0.5 0.843333

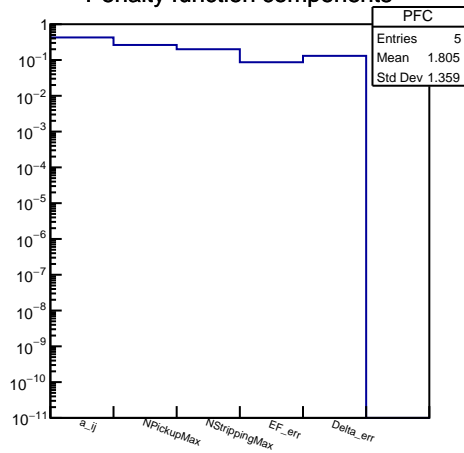
-5028.27 1f7/2 0.16125 0.6825

-9200.37 1p3/2 0.5 0.01

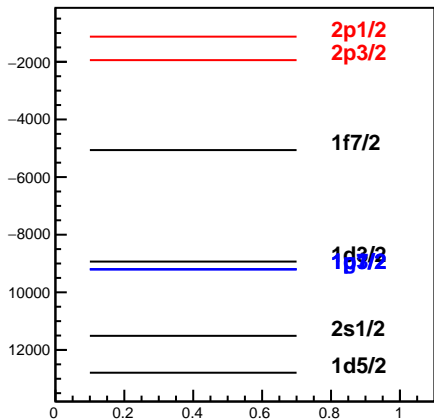
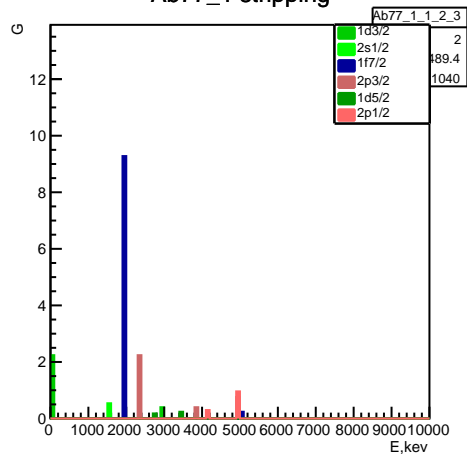
Le70 pickup



Penalty function components



Ab77_1 stripping



Experiment: Le70 (14) Ab77_1 (12)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 E_F : -9605.18 \pm 1287.67 keV Δ : 10007.8 \pm 6365.07 keV

penalty: 0.221435

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

-8932.88 1d3/2 0.44625 1.2125

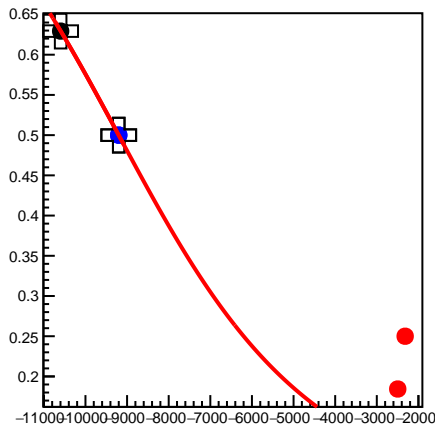
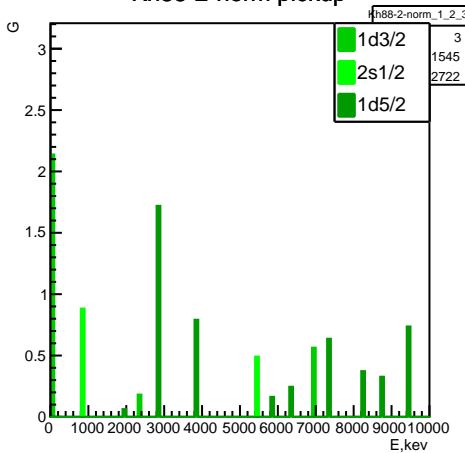
-11510.1 2s1/2 0.6575 0.855

-12790.5 1d5/2 0.605 0.35

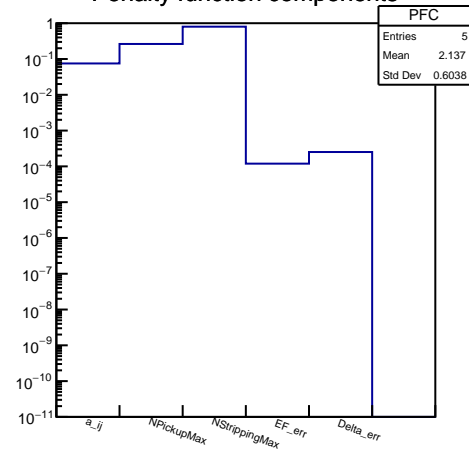
-5063.01 1f7/2 -0.085625 1.20875

-9200.37 1g7/2 0.5 0.0175

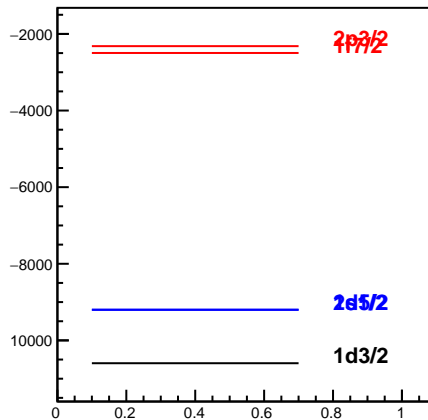
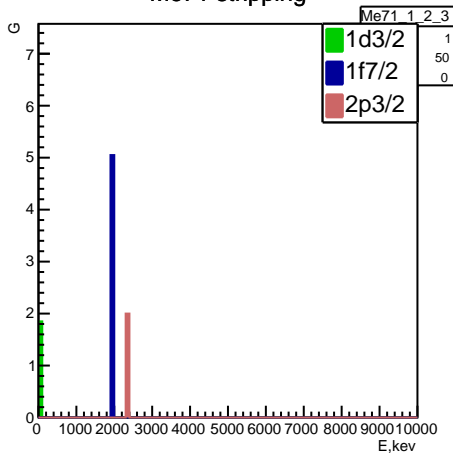
Kh88-2-norm pickup



Penalty function components

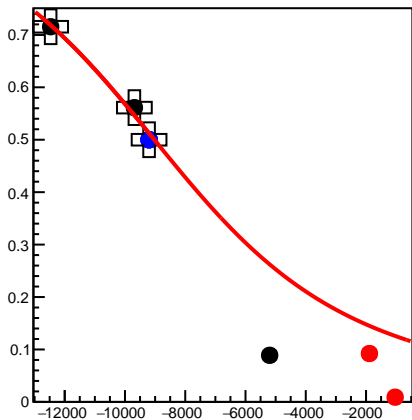
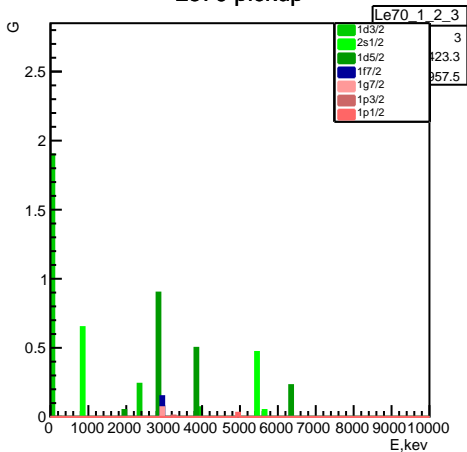


Me71 stripping

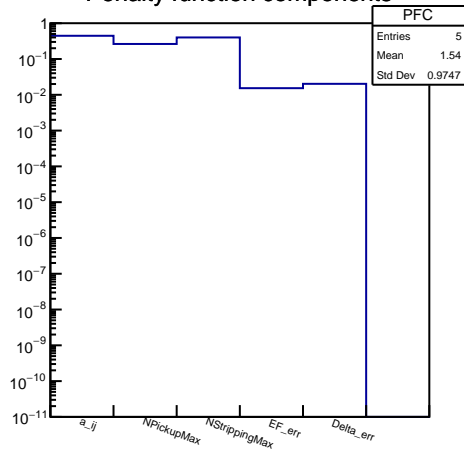


Experiment: Kh88-2-norm (14) Me71 (3)
neutron transfer
n separation energy A:11415.5, A+1: 6985.27
E_F: -9201.55 ± 1.77151 keV
Δ: 5199.77 ± 12.2758 keV
penalty: 0.227728
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$
-10596.1 1d3/2 0.629337 1.18368
-9200.37 2s1/2 0.5 1.3741
-9200.37 1d5/2 0.5 1.68653
-2497 1f7/2 0.184375 0.63125
-2318.74 2p3/2 0.25 0.5

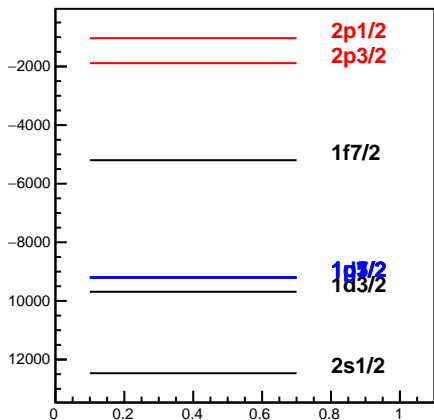
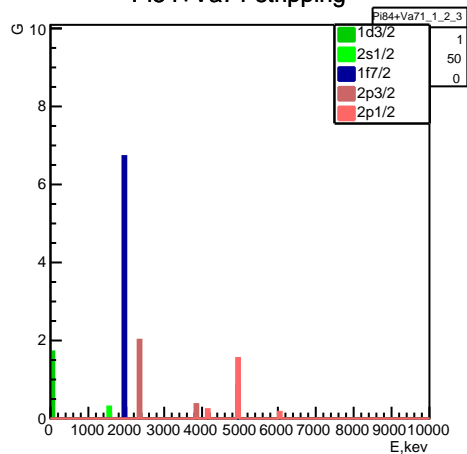
Le70 pickup



Penalty function components



Pi84+Va71 stripping



Experiment: Le70 (14) Pi84+Va71 (9)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9025.39 \pm 227.562 keV

Δ : -7082.2 \pm 986.783 keV

penalty: 0.228826

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

-9687.91 1d3/2 0.56125 0.9825

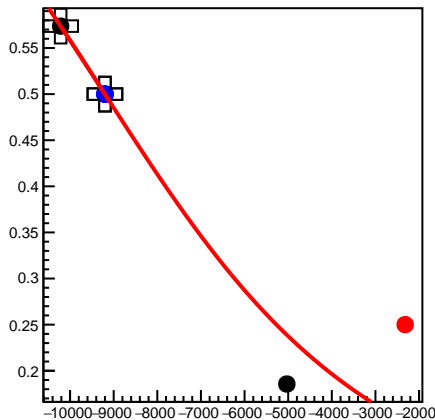
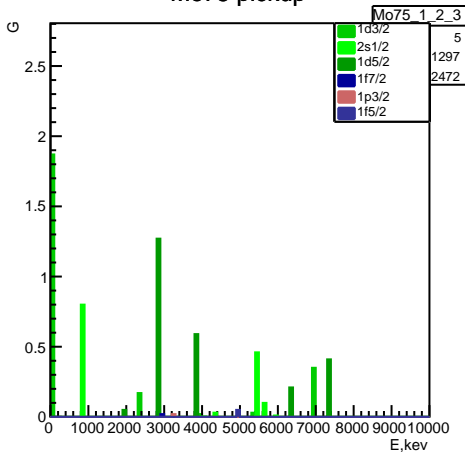
-12467.2 2s1/2 0.7155 0.739

-9200.37 1d5/2 0.5 0.56

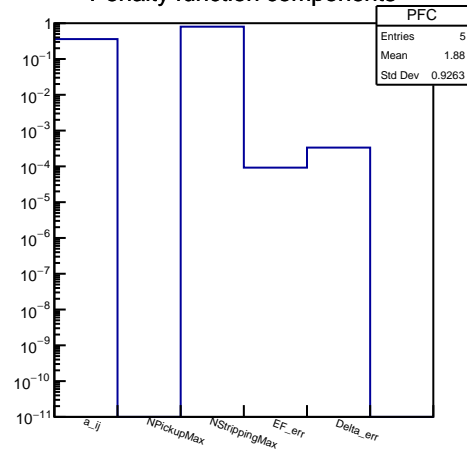
-5198.04 1f7/2 0.088875 0.85975

-9200.37 1g7/2 0.5 0.0175

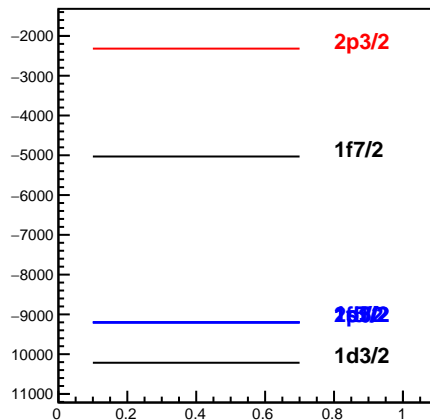
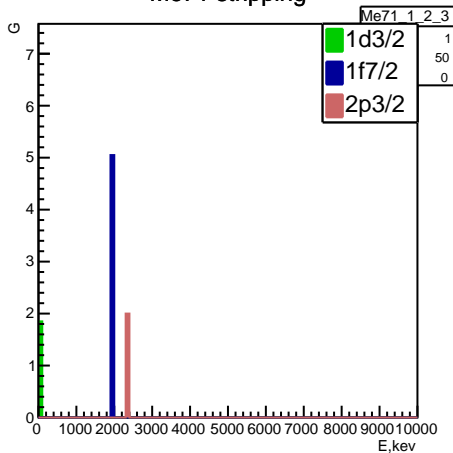
Mo75 pickup



Penalty function components



Me71 stripping



Experiment: Mo75 (19) Me71 (3)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9201.44 ± 1.37084 keV

Δ: 6809.2 ± 16.3182 keV

penalty: 0.232107

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

-10215.7 1d3/2 0.57375 1.0725

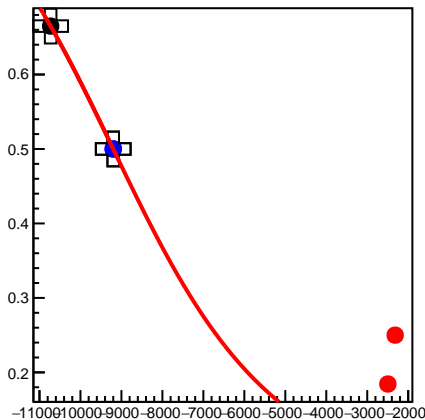
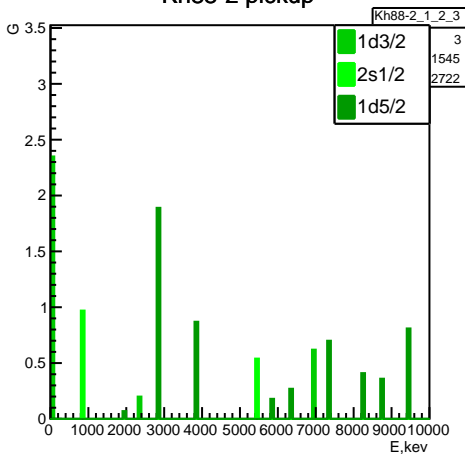
-9200.37 2s1/2 0.5 1.403

-9200.37 1d5/2 0.5 0.843333

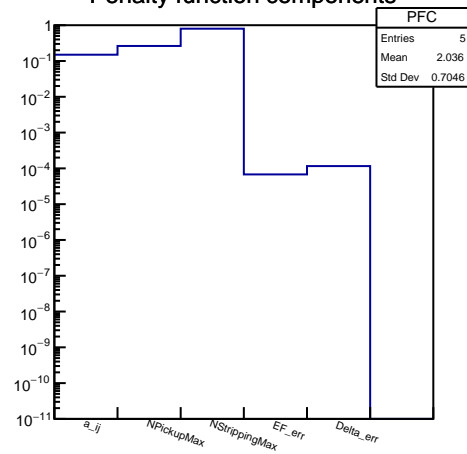
-5030.9 1f7/2 0.185625 0.63375

-9200.37 1p3/2 0.5 0.01

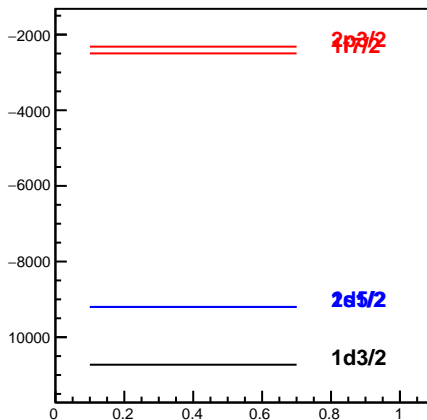
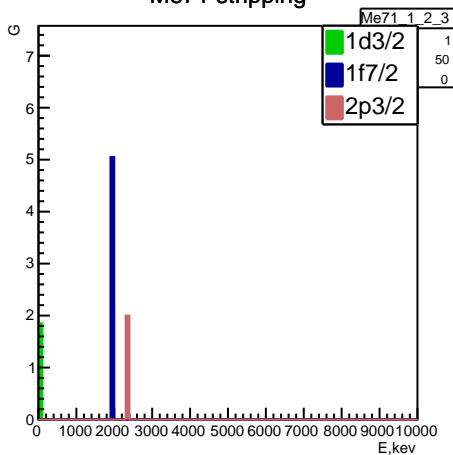
Kh88-2 pickup



Penalty function components



Me71 stripping



Experiment: Kh88-2 (14) Me71 (3)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -9200.51 \pm 1.00779$ keV $\Delta: -4373.32 \pm 5.64938$ keV

penalty: 0.242652

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

-10727.7 1d3/2 0.665 1.255

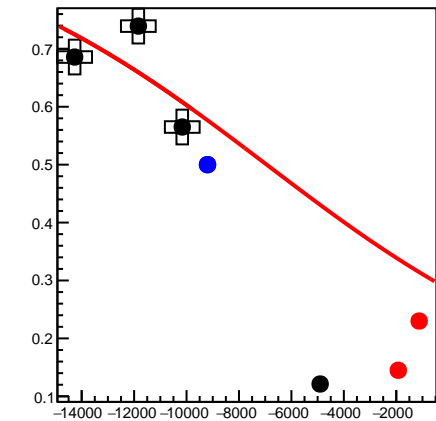
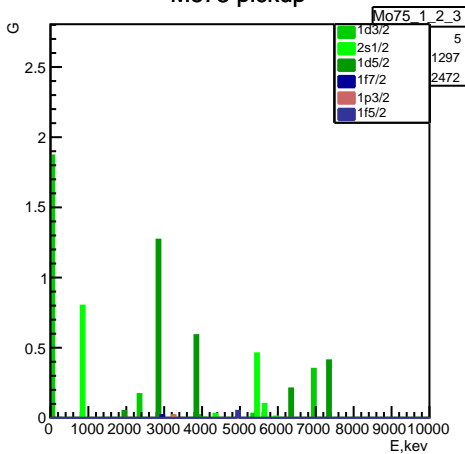
-9200.37 2s1/2 0.5 1.51

-9200.37 1d5/2 0.5 1.85333

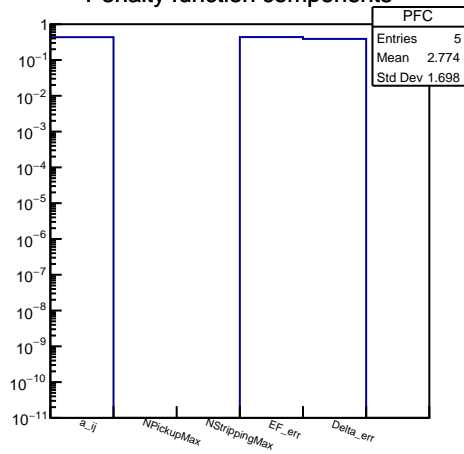
-2497 1f7/2 0.184375 0.63125

-2318.74 2p3/2 0.25 0.5

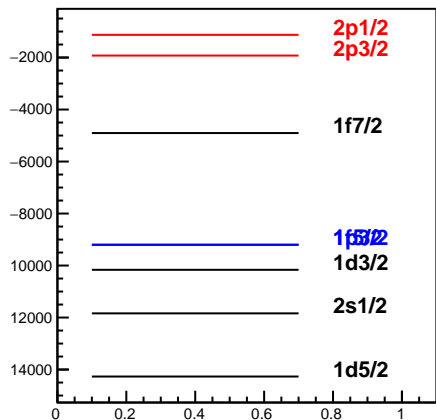
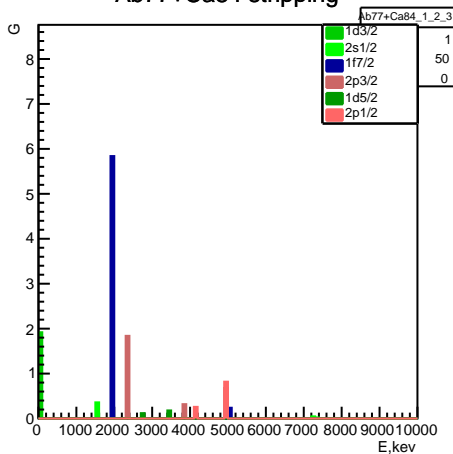
Mo75 pickup



Penalty function components



Ab77+Ca84 stripping



Experiment: Mo75 (19) Ab77+Ca84 (15)

neutron transfer

n separation energy A:11415.5, A+1: 6985.2

E_F: -6943.08 ± 6497.46 keV

Δ: 14551.8 ± 18940.5 keV

penalty: 0.252007

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

-10163.8 1d3/2 0.565 1.09

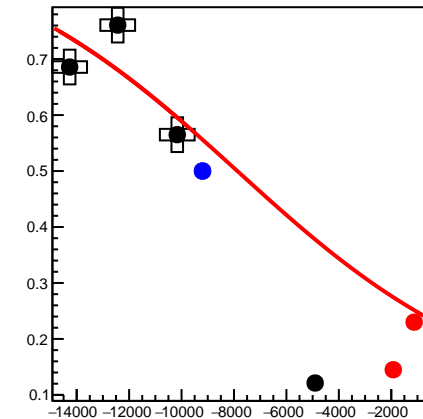
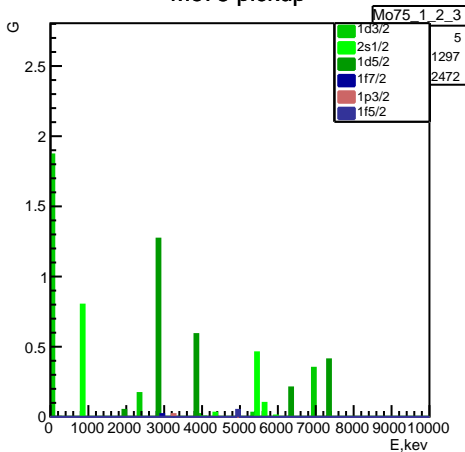
-11839.1 2s1/2 0.73925 0.9245

-14268.7 1d5/2 0.685833 0.471667

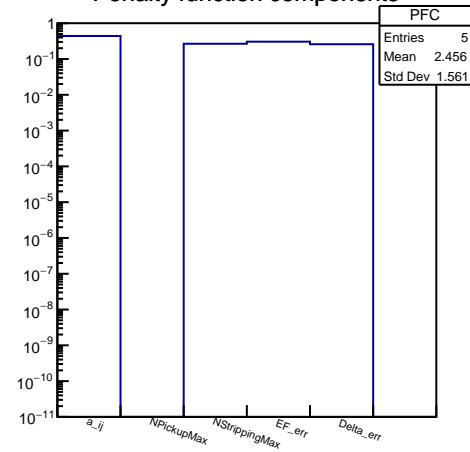
-4904.01 1f7/2 0.12125 0.7625

-9200.37 1p3/2 0.5 0.01

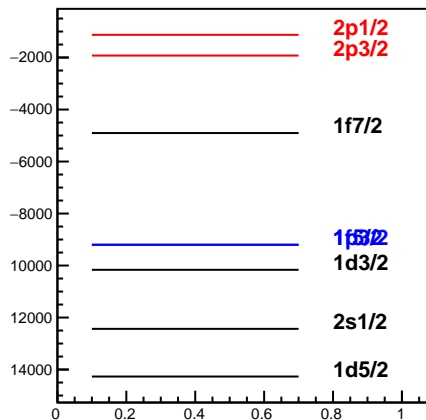
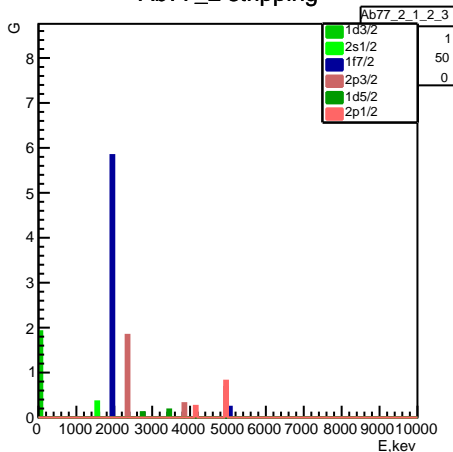
Mo75 pickup



Penalty function components



Ab77_2 stripping



Experiment: Mo75 (19) Ab77_2 (11)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

 $E_F: -7871.63 \pm 4532.65$ keV $\Delta: 11771.7 \pm 12627.2$ keV

penalty: 0.254074

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

-10163.8 1d3/2 0.565 1.09

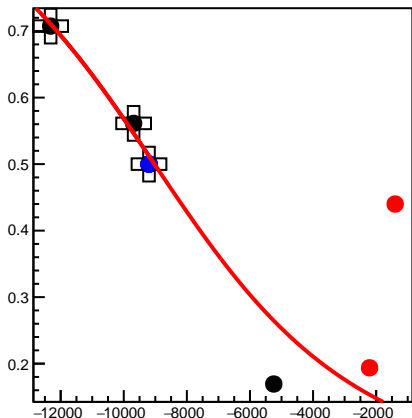
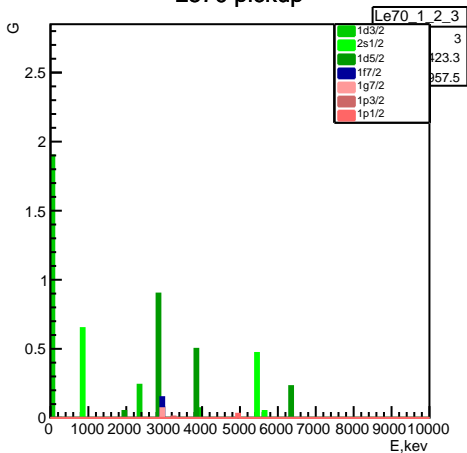
-12434.9 2s1/2 0.76075 0.8815

-14268.7 1d5/2 0.685833 0.471667

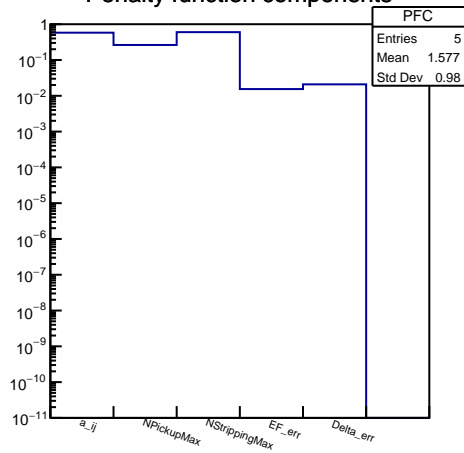
-4904.01 1f7/2 0.12125 0.7625

-9200.37 1p3/2 0.5 0.01

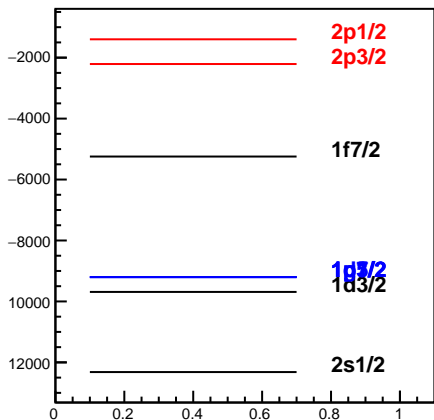
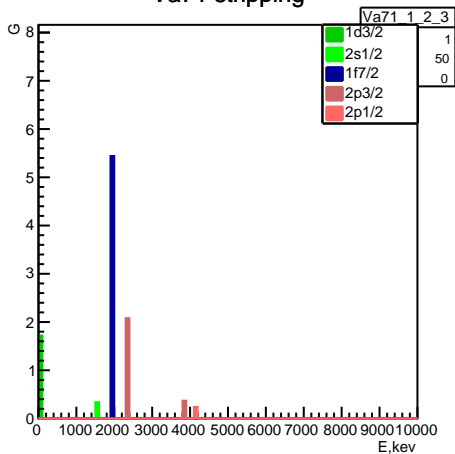
Le70 pickup



Penalty function components



Va71 stripping



Experiment: Le70 (14) Va71 (6)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9026.59 \pm 229.117 keV

Δ : -7085.27 \pm 1017.95 keV

penalty: 0.295863

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

-9687.91 1d3/2 0.56125 0.9825

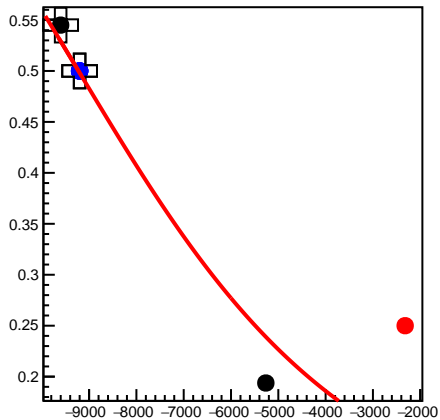
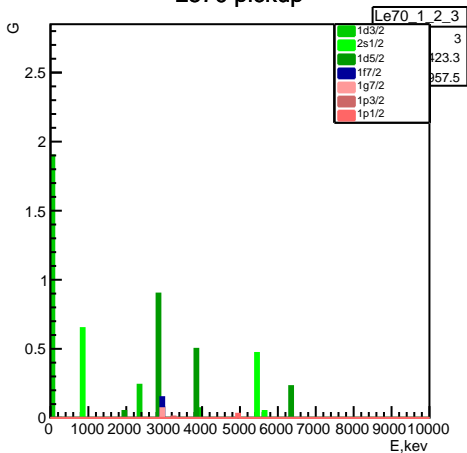
-12317.7 2s1/2 0.7075 0.755

-9200.37 1d5/2 0.5 0.56

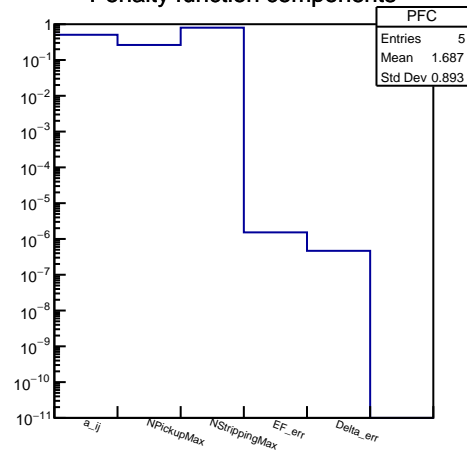
-5245.06 1f7/2 0.169375 0.69875

-9200.37 1g7/2 0.5 0.0175

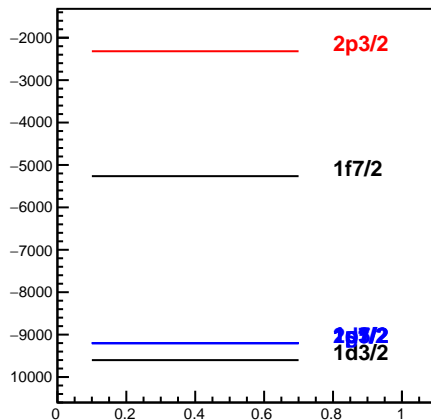
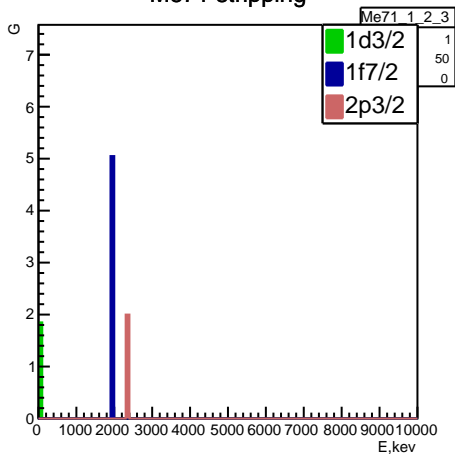
Le70 pickup



Penalty function components



Me71 stripping



Experiment: Le70 (14) Me71 (3)

neutron transfer

n separation energy A:11415.5, A+1: 6985.27

E_F: -9223.5 \pm 0.022699 keV Δ : 6470.66 \pm 0.022699 keV

penalty: 0.313944

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

-9601.37 1d3/2 0.545 1.015

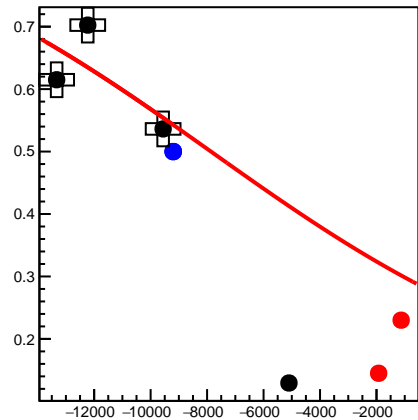
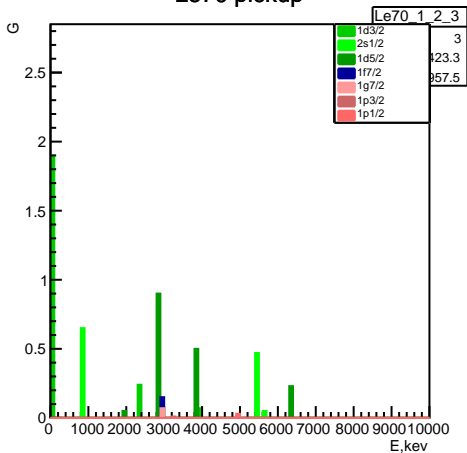
-9200.37 2s1/2 0.5 1.17

-9200.37 1d5/2 0.5 0.56

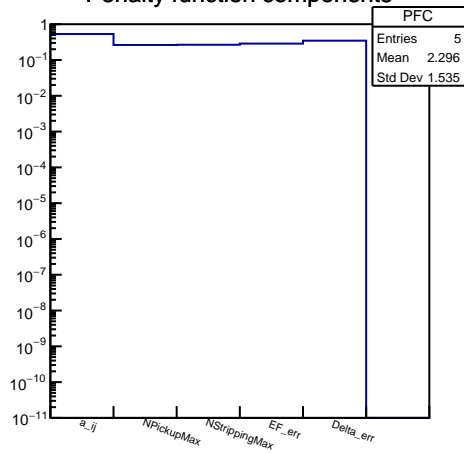
-5263.88 1f7/2 0.19375 0.65

-9200.37 1g7/2 0.5 0.0175

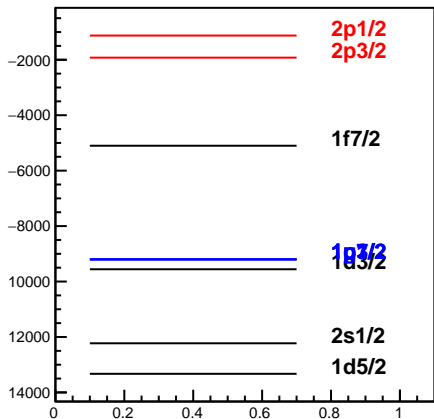
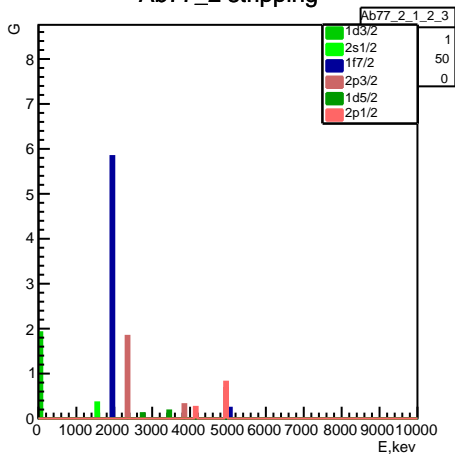
Le70 pickup



Penalty function components



Ab77_2 stripping



Experiment: Le70 (14) Ab77_2 (11)

neutron transfer

n separation energy A:11415.5, A+1: 6985.2

E_F: -7862.75 ± 4270.75 keV

Δ: 15583.8 ± 16908.6 keV

penalty: 0.339278

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

-9557.03 1d3/2 0.53625 1.0325

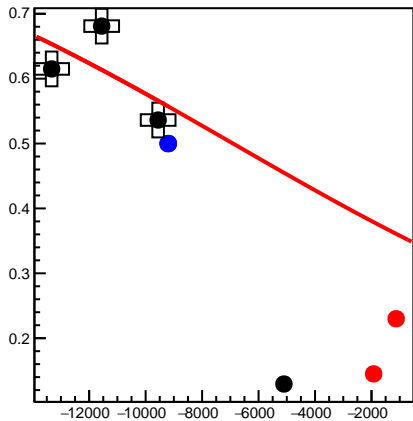
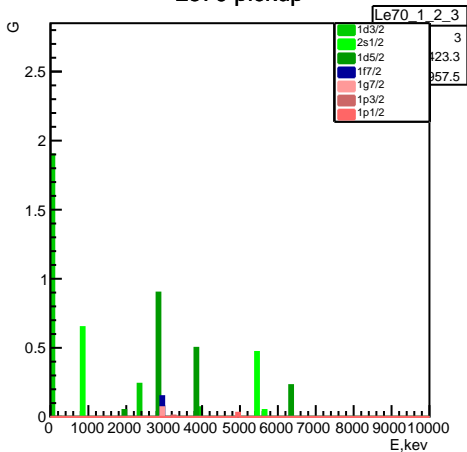
-12227.4 2s1/2 0.7025 0.765

-13328.3 1d5/2 0.615 0.33

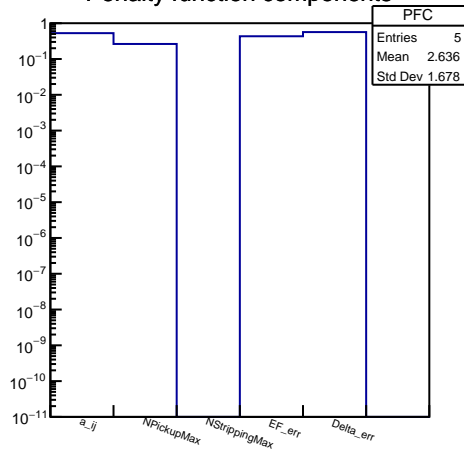
-5101.12 1f7/2 0.129375 0.77875

-9200.37 1g7/2 0.5 0.0175

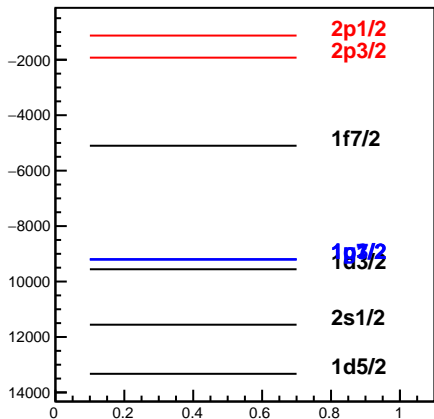
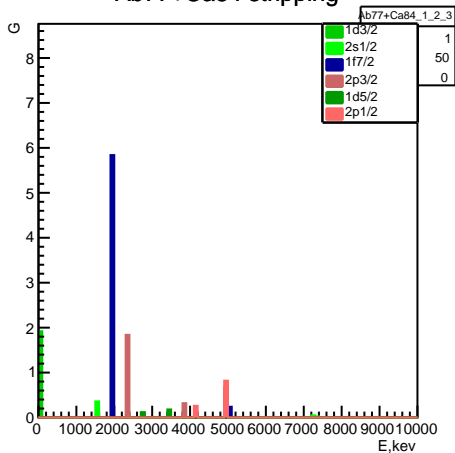
Le70 pickup



Penalty function components



Ab77+Ca84 stripping



Experiment: Le70 (14) Ab77+Ca84 (15)

neutron transfer

n separation energy A:11415.5, A+1: 6985.2

E_F: -6903.99 ± 6421.41 keV

Δ : 19940.6 ± 27549.3 keV

penalty: 0.357587

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

-9557.03 1d3/2 0.53625 1.0325

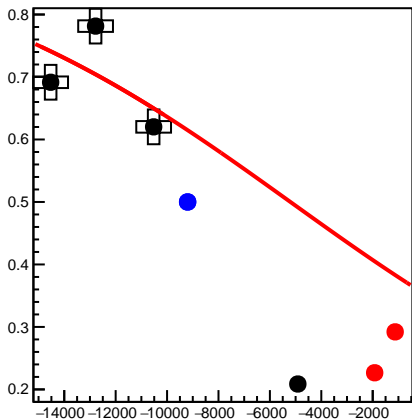
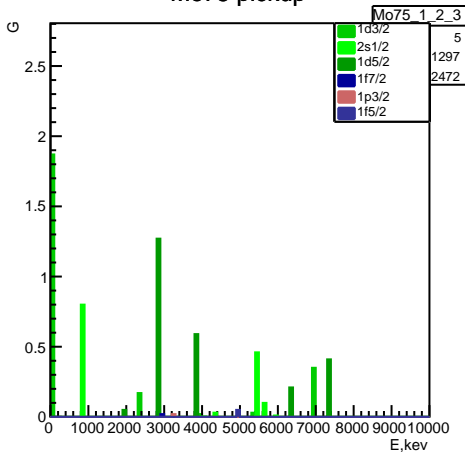
-11556.8 2s1/2 0.681 0.808

-13328.3 1d5/2 0.615 0.33

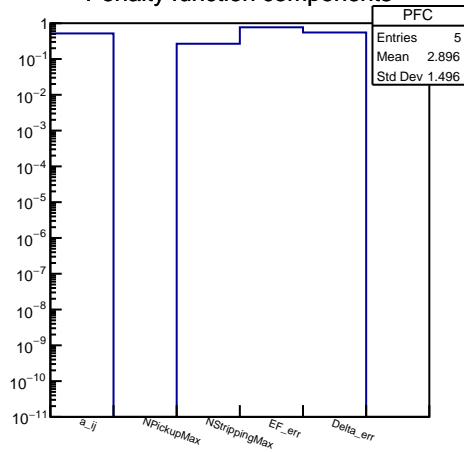
-5101.12 1f7/2 0.129375 0.77875

-9200.37 1g7/2 0.5 0.0175

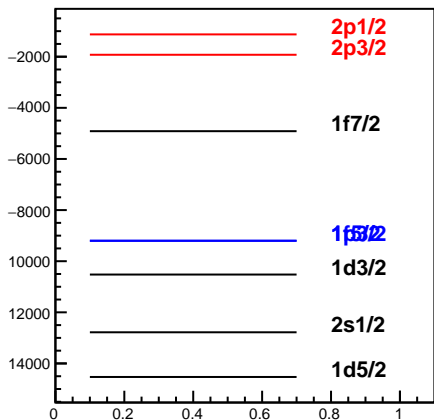
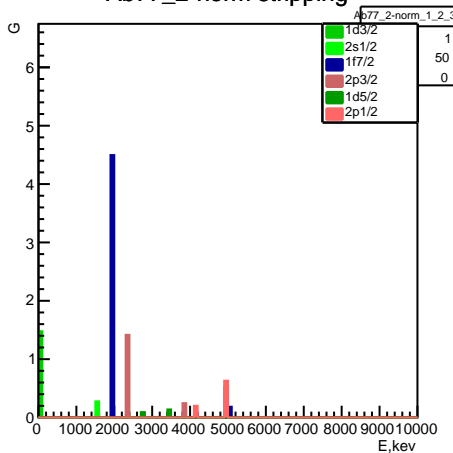
Mo75 pickup



Penalty function components



Ab77_2-norm stripping



Experiment: Mo75 (19) Ab77_2-norm (11)

neutron transfer

n separation energy A:11415.5, A+1: 6985.2

E_F: -5201.8 \pm 11429.3 keV

Δ : 16938.6 \pm 26836.7 keV

penalty: 0.420814

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

-10522 1d3/2 0.6202 0.9796

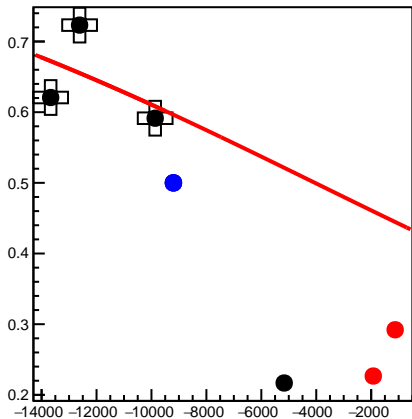
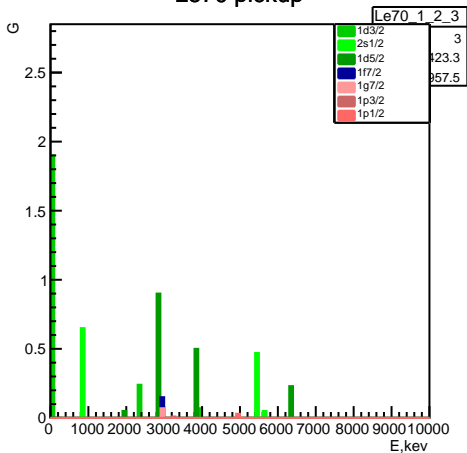
-12780.9 2s1/2 0.78145 0.8401

-14529.2 1d5/2 0.691583 0.460167

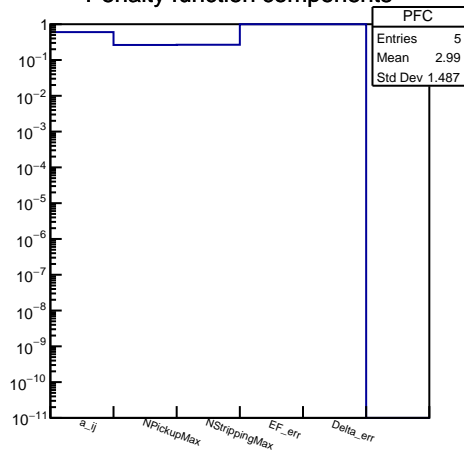
-4913.25 1f7/2 0.20865 0.5877

-9200.37 1p3/2 0.5 0.01

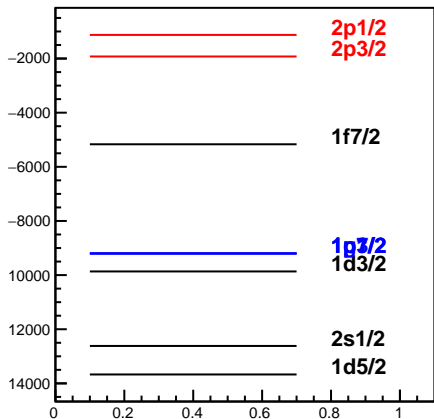
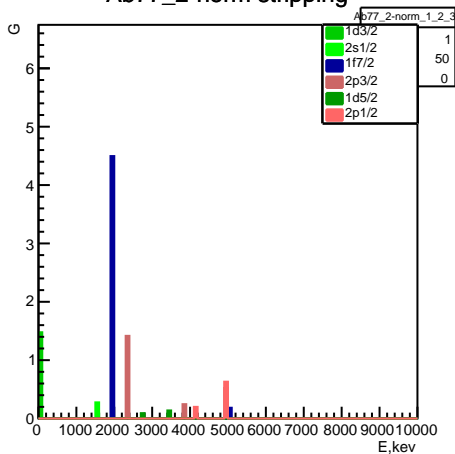
Le70 pickup



Penalty function components



Ab77_2-norm stripping



Experiment: Le70 (14) Ab77_2-norm (11)

neutron transfer

n separation energy A:11415.5, A+1: 6985.2

E_F: -4047.66 ± 14863.7 keV

Δ: 26220.4 ± 48744.9 keV

penalty: 0.626339

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

-9864.94 1d3/2 0.59145 0.9221

-12617.3 2s1/2 0.7232 0.7236

-13670.7 1d5/2 0.62075 0.3185

-5167.17 1f7/2 0.216775 0.60395

-9200.37 1g7/2 0.5 0.0175