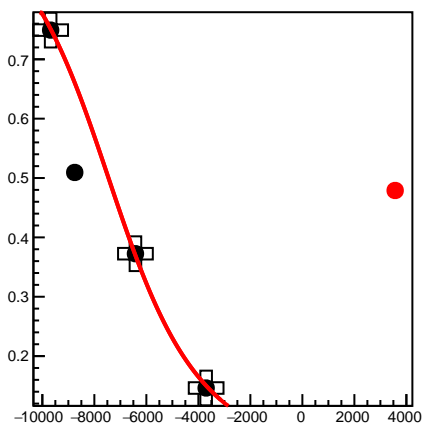
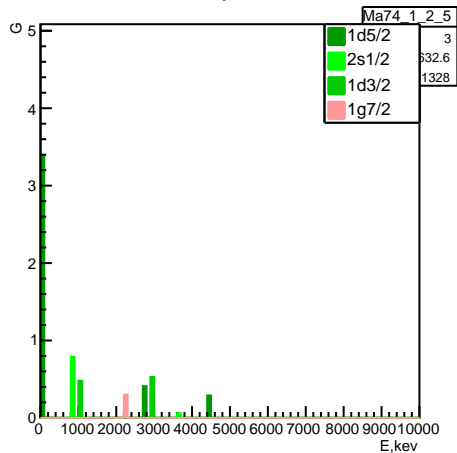
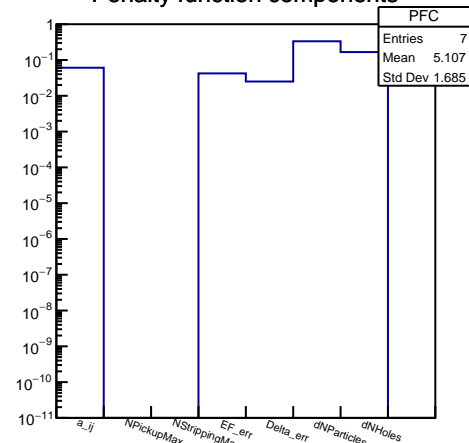


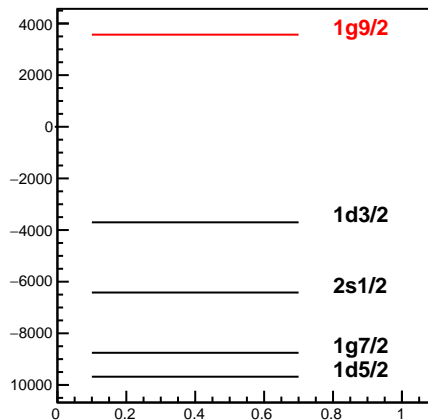
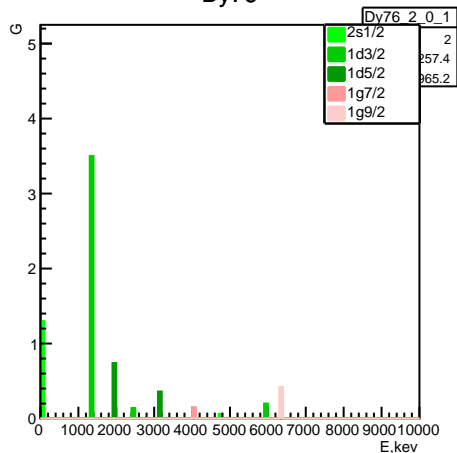
Ma74



Penalty function components



Dy76



Experiment: Ma74 (8) Dy76 (9)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7455.36 \pm 34.6689 \text{ keV}$ $\Delta: 3833.83 \pm 70.295 \text{ keV}$

penalty: 0.120791

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

-9680.65 1d5/2 0.749167 0.865

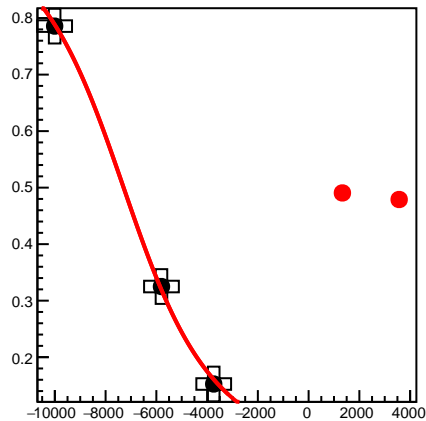
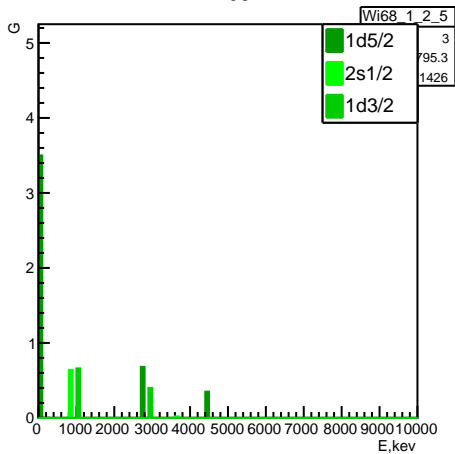
-6419.69 2s1/2 0.3725 1.105

-3700.75 1d3/2 0.14625 1.2125

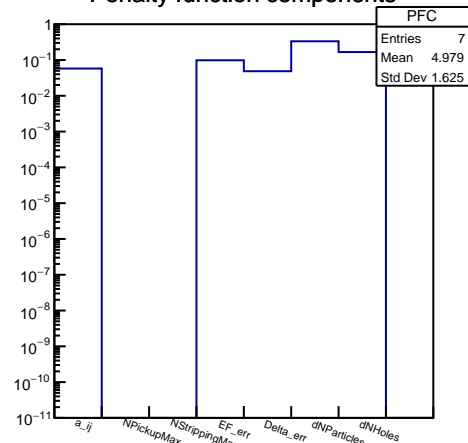
-8754.11 1g7/2 0.509375 1.29442e-312

3568.16 1g9/2 0.479 2.37152e-322

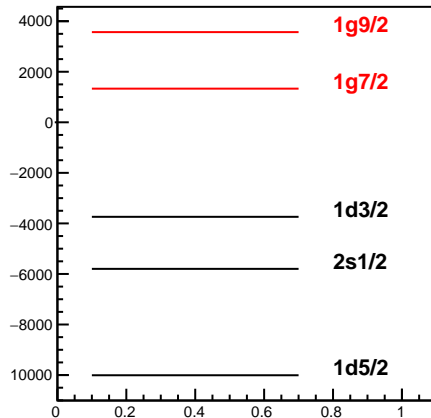
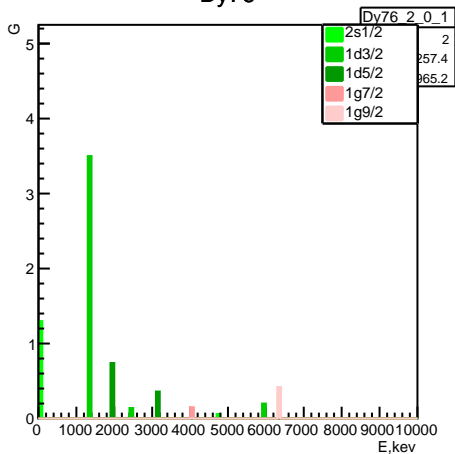
Wi68



Penalty function components



Dy76



Experiment: Wi68 (7) Dy76 (9)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7289.84 \pm 80.6406 keV

Δ : 3842.37 \pm 136.504 keV

penalty: 0.135509

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

-10007.6 1d5/2 0.785833 0.938333

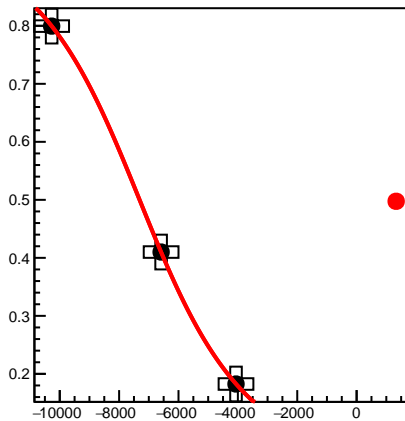
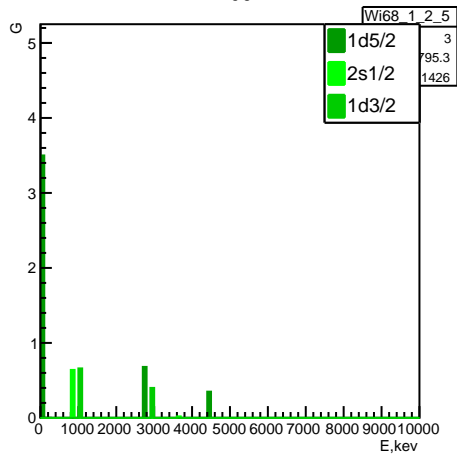
-5798.31 2s1/2 0.325 1.01

-3739.36 1d3/2 0.1525 1.225

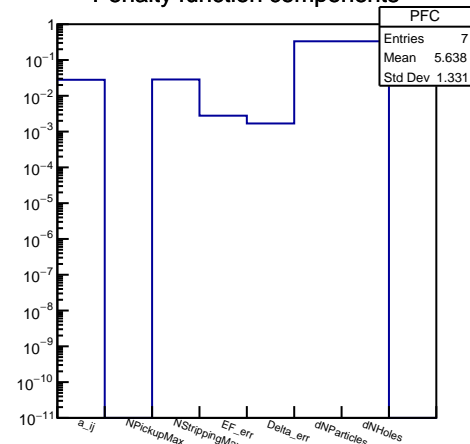
1331.66 1g7/2 0.490625 1.2732e-313

3568.16 1g9/2 0.479 2.37152e-322

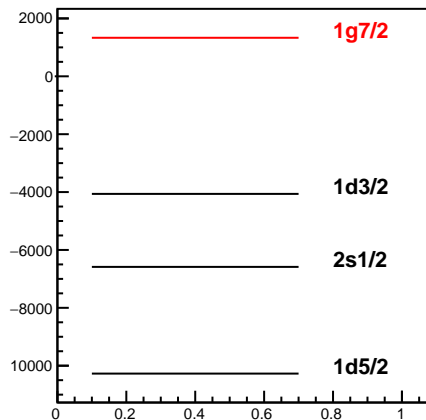
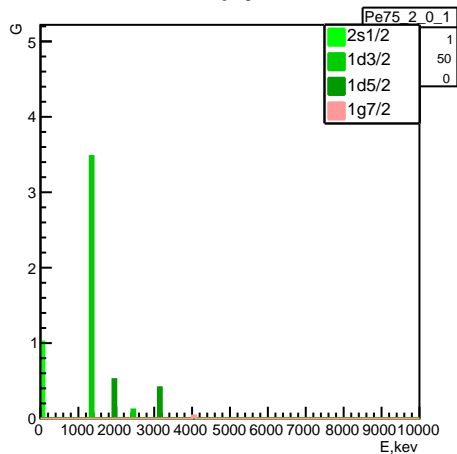
Wi68



Penalty function components



Pe75



Experiment: Wi68 (7) Pe75 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

 E_F : -7310.76 \pm 2.28362 keV Δ : 3956.35 \pm 4.73305 keV

penalty: 0.139944

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

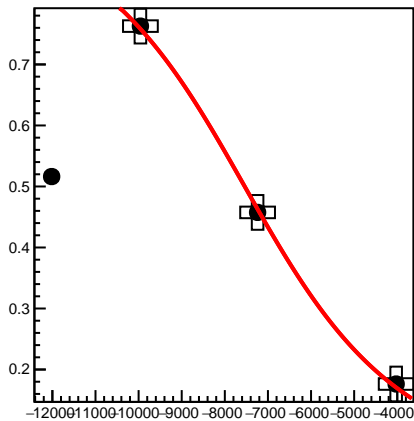
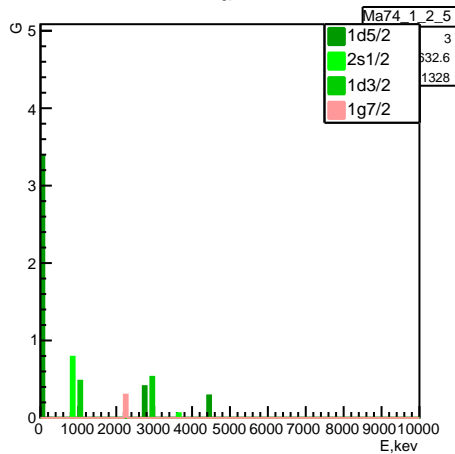
-10272.7 1d5/2 0.7995 0.911

-6585.43 2s1/2 0.41 0.84

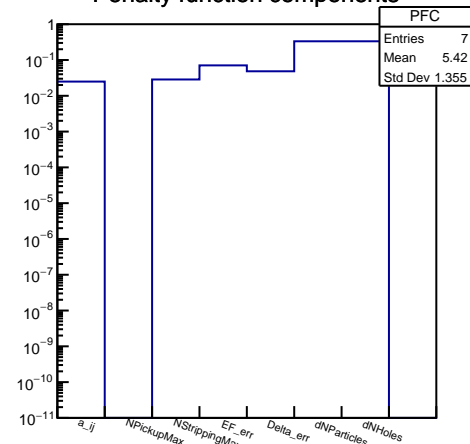
-4062.84 1d3/2 0.1825 1.165

1331.66 1g7/2 0.4975 5.58294e-322

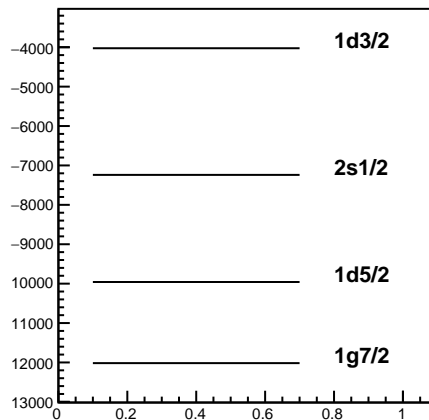
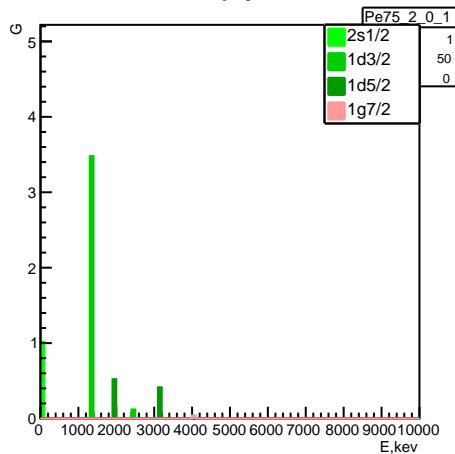
Ma74



Penalty function components



Pe75



Experiment: Ma74 (8) Pe75 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7538.75 \pm 58.0492 keV

Δ : 4010.77 \pm 135.845 keV

penalty: 0.161403

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

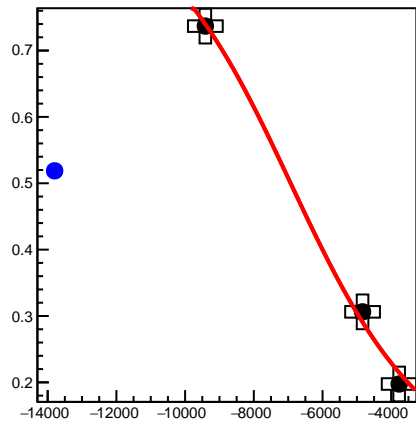
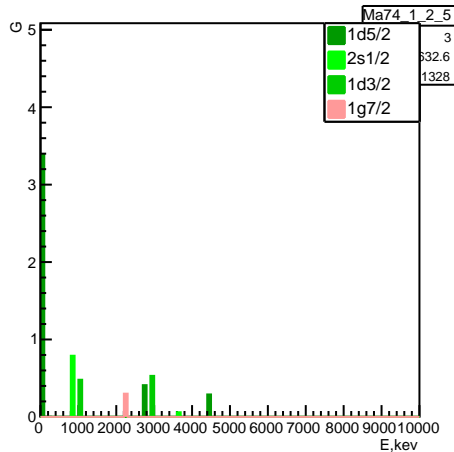
-9958.22 1d5/2 0.762833 0.837667

-7239.81 2s1/2 0.4575 0.935

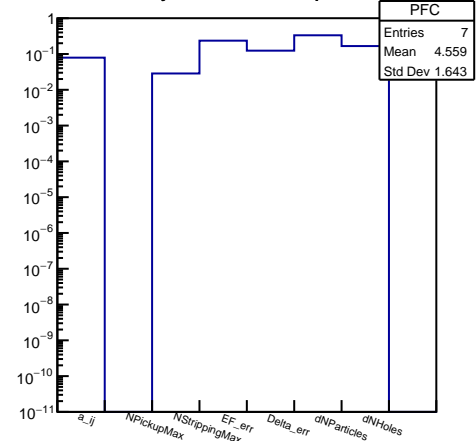
-4025.73 1d3/2 0.17625 1.1525

-12017.2 1g7/2 0.51625 5.58294e-322

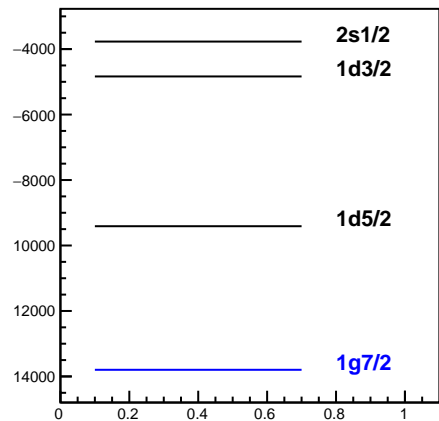
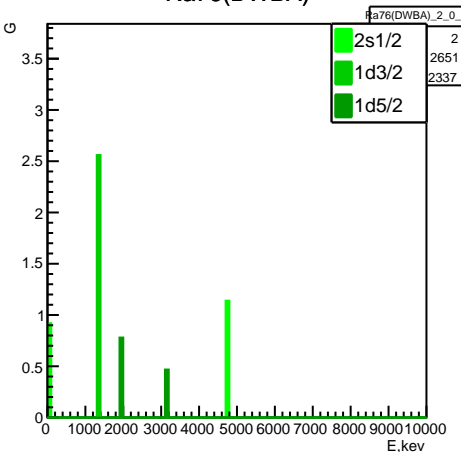
Ma74



Penalty function components



Ra76(DWBA)



Experiment: Ma74 (8) Ra76(DWBA) (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6928.33 \pm 193.657 keV

Δ : 4543.33 \pm 348.067 keV

penalty: 0.186067

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

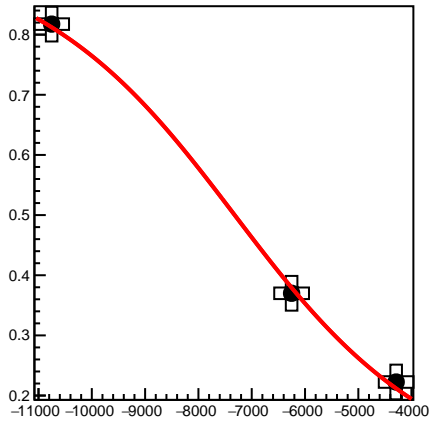
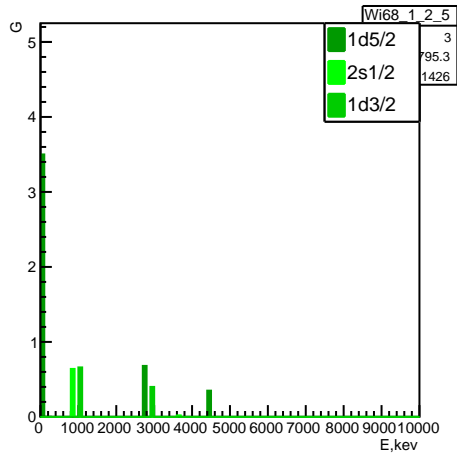
-9410.98 1d5/2 0.736833 0.889667

-3770.44 2s1/2 0.1975 1.455

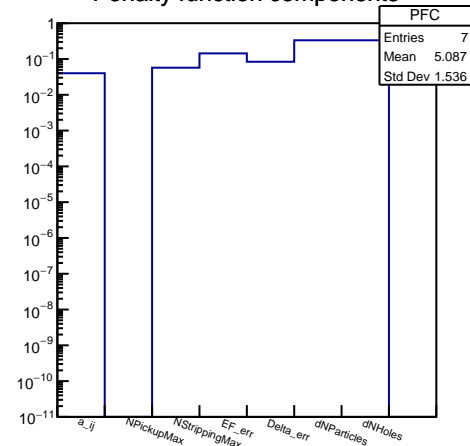
-4835.69 1d3/2 0.30625 0.8925

-13797 1g7/2 0.51875 5.58294e-322

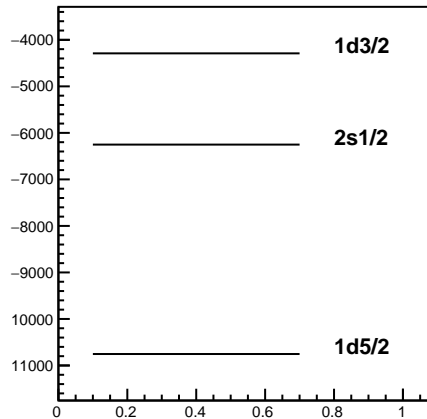
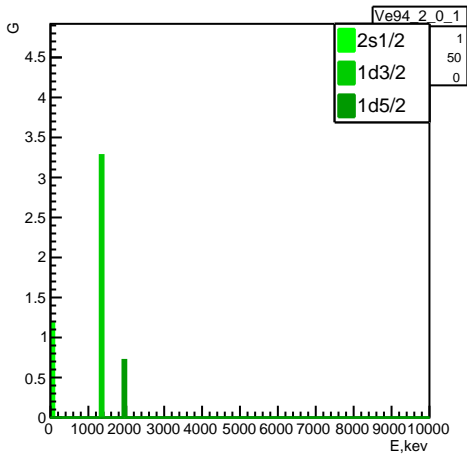
Wi68



Penalty function components



Ve94



Experiment: Wi68 (7) Ve94 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7319.53 \pm 117.798 \text{ keV}$ $\Delta: 4294.58 \pm 235.138 \text{ keV}$

penalty: 0.190593

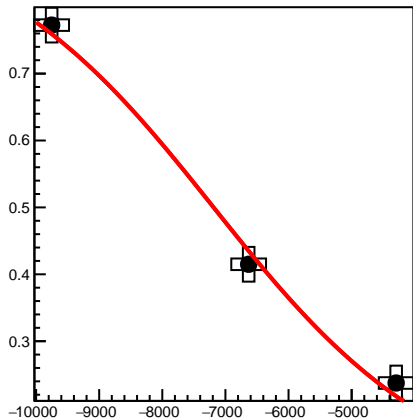
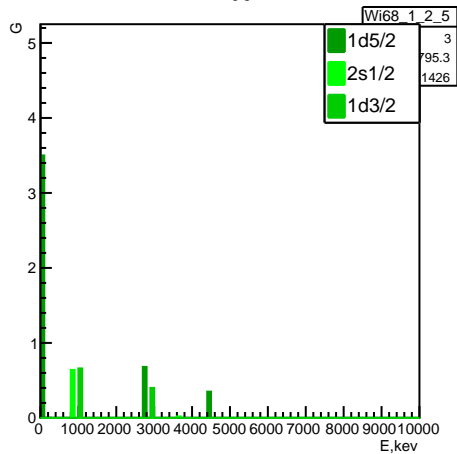
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10753.5 1d5/2 0.8175 0.875

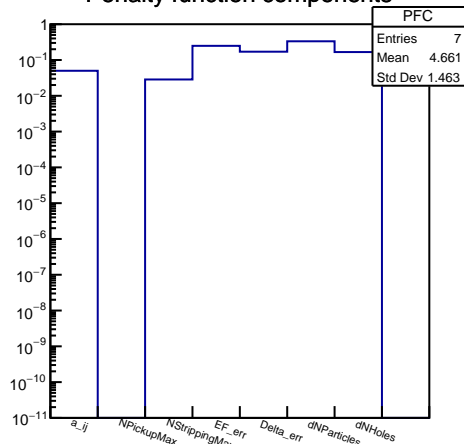
-6251.82 2s1/2 0.37 0.92

-4290.47 1d3/2 0.2225 1.085

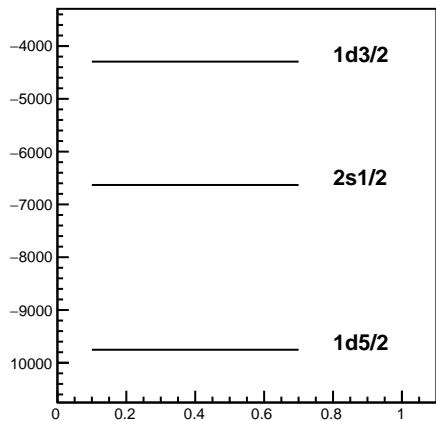
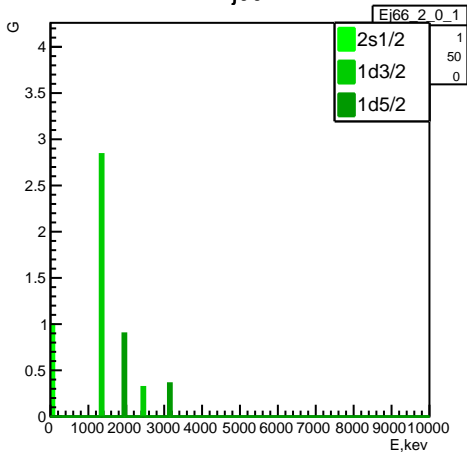
Wi68



Penalty function components



Ej66



Experiment: Wi68 (7) Ej66 (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7187.27 \pm 204.107 \text{ keV}$ $\Delta: 4230.91 \pm 479.07 \text{ keV}$

penalty: 0.191901

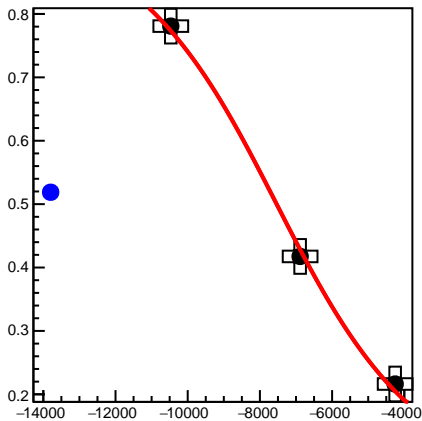
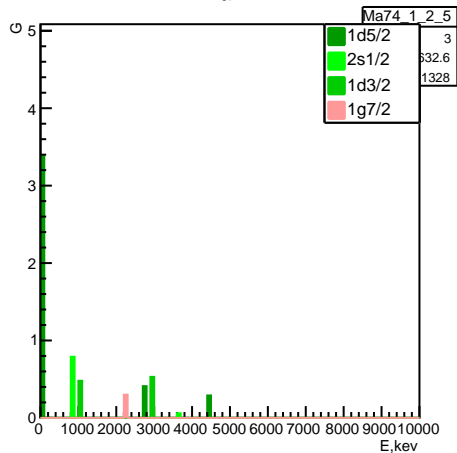
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9753.06 1d5/2 0.7725 0.965

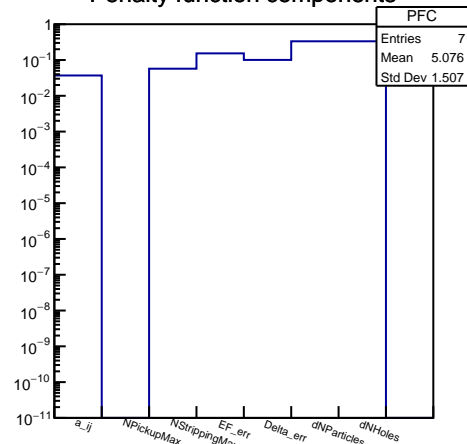
-6631.66 2s1/2 0.415 0.83

-4294.98 1d3/2 0.2375 1.055

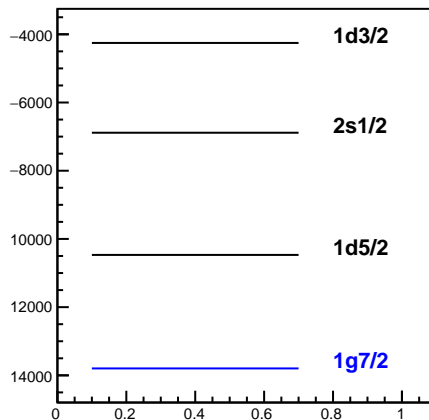
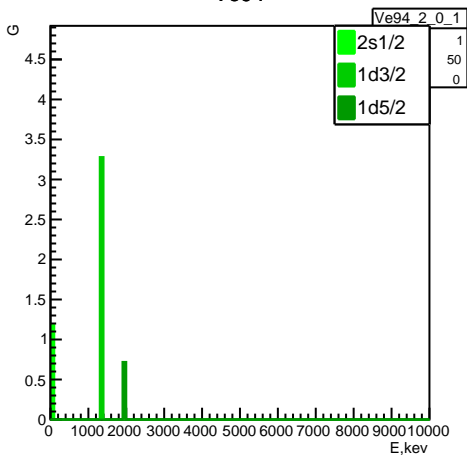
Ma74



Penalty function components



Ve94



Experiment: Ma74 (8) Ve94 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7536.39 \pm 125.763 \text{ keV}$ $\Delta: 4490.28 \pm 282.195 \text{ keV}$

penalty: 0.195095

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

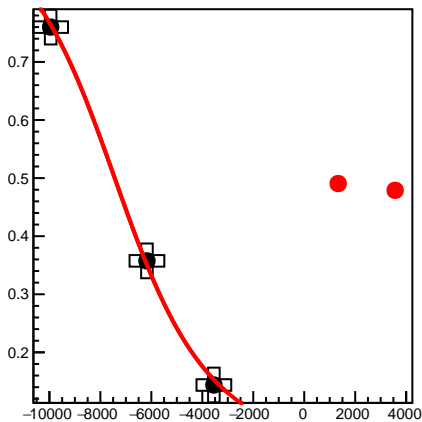
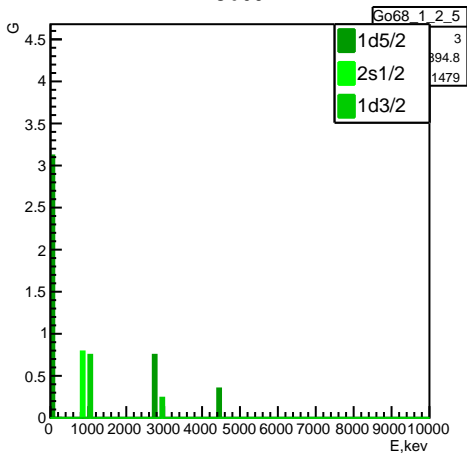
-10468.9 1d5/2 0.780833 0.801667

-6885.85 2s1/2 0.4175 1.015

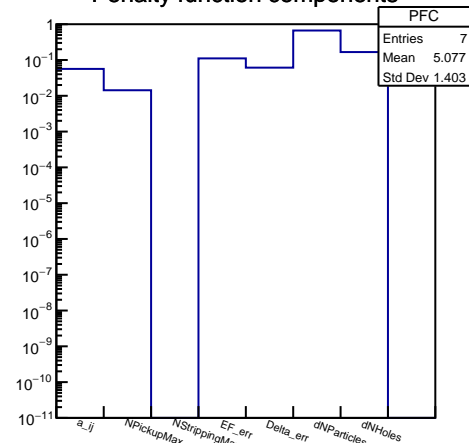
-4253.25 1d3/2 0.21625 1.0725

-13797 1g7/2 0.51875 3.21143e-322

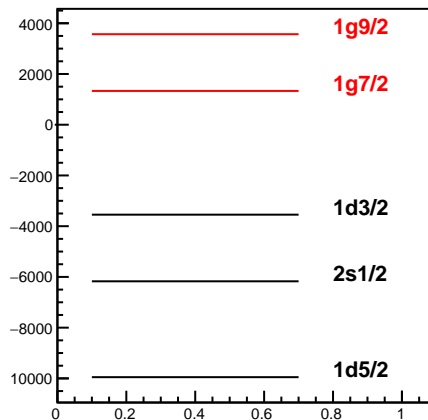
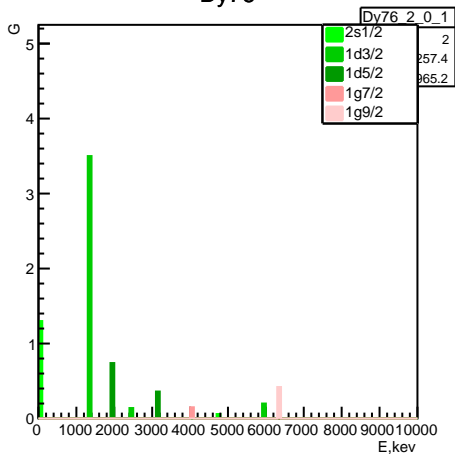
Go68



Penalty function components



Dy76



Experiment: Go68 (6) Dy76 (9)

proton transfer

p separation energy A:11585, A+1: 2748.84

 E_F : -7437.51 \pm 91.049 keV Δ : -4040.1 \pm 171.734 keV

penalty: 0.206944

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

-9951.71 1d5/2 0.76 0.886667

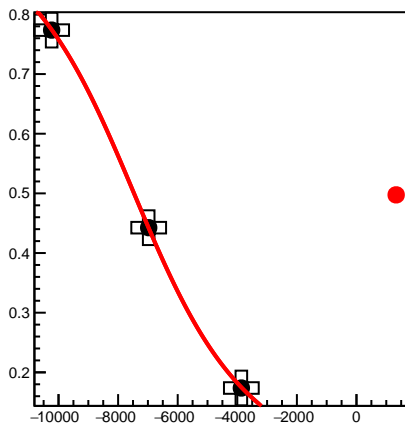
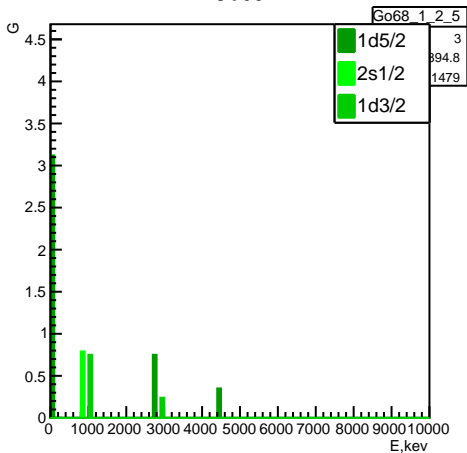
-6172.83 2s1/2 0.3575 1.075

-3545.77 1d3/2 0.14375 1.2075

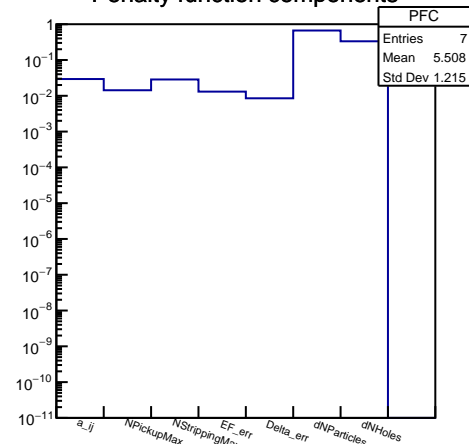
1331.66 1g7/2 0.490625 5.58294e-322

3568.16 1g9/2 0.479 6.95014e-310

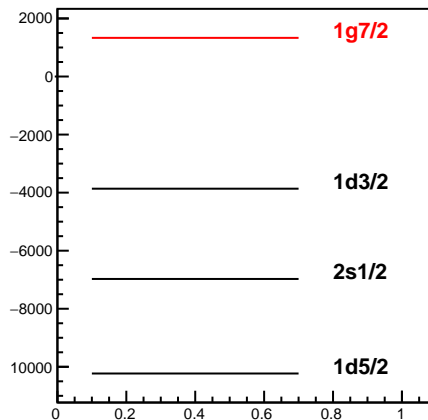
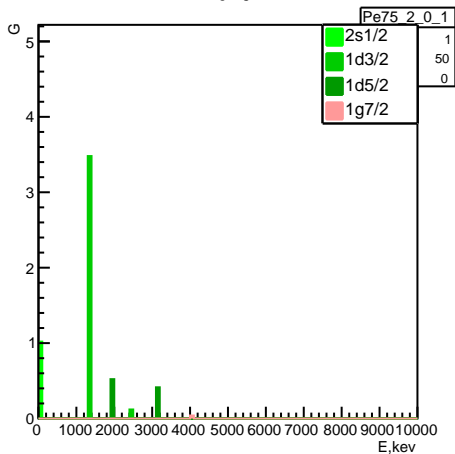
Go68



Penalty function components



Pe75



Experiment: Go68 (6) Pe75 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7466.29 \pm 10.7362 \text{ keV}$ $\Delta: 4211.36 \pm 23.9071 \text{ keV}$

penalty: 0.210354

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

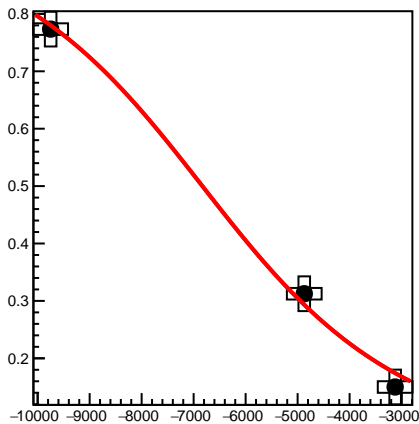
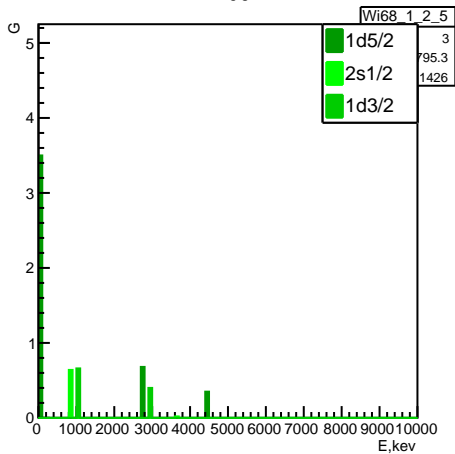
-10230.9 1d5/2 0.773667 0.859333

-6973.77 2s1/2 0.4425 0.905

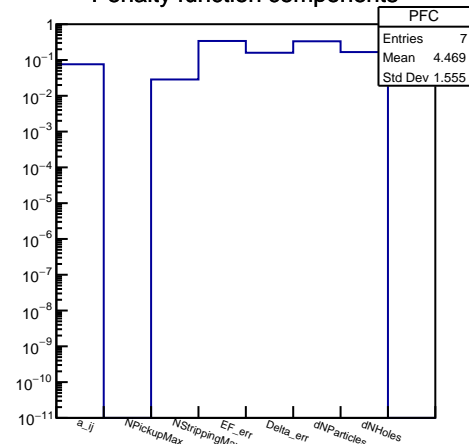
-3864.07 1d3/2 0.17375 1.1475

1331.66 1g7/2 0.4975 5.58294e-322

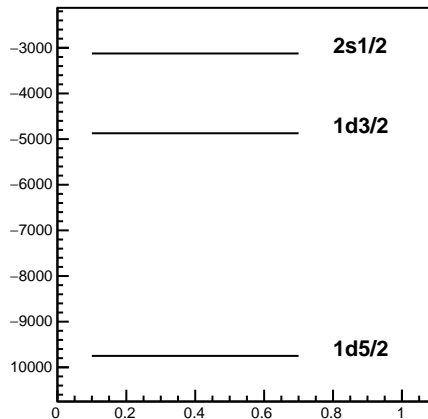
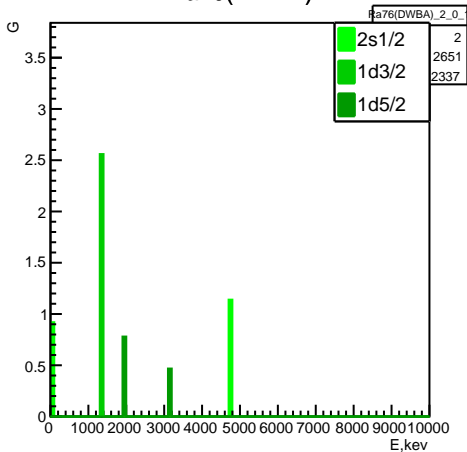
Wi68



Penalty function components



Ra76(DWBA)



Experiment: Wi68 (7) Ra76(DWBA) (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6831.52 \pm 279.185 keV

Δ : 4316.55 \pm 447.41 keV

penalty: 0.212324

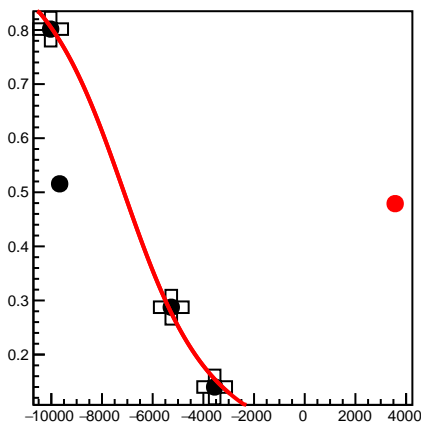
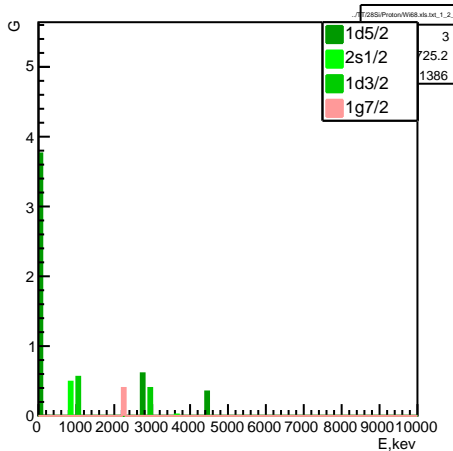
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9750.13 1d5/2 0.7735 0.963

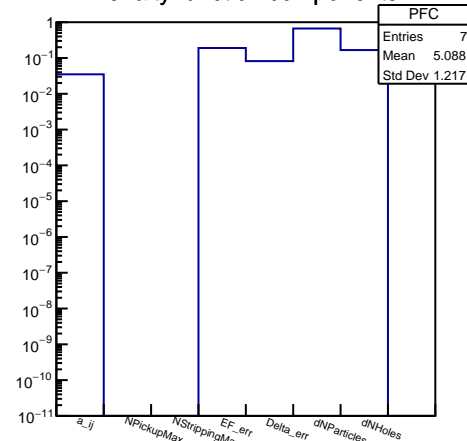
-3123.92 2s1/2 0.15 1.36

-4872.28 1d3/2 0.3125 0.905

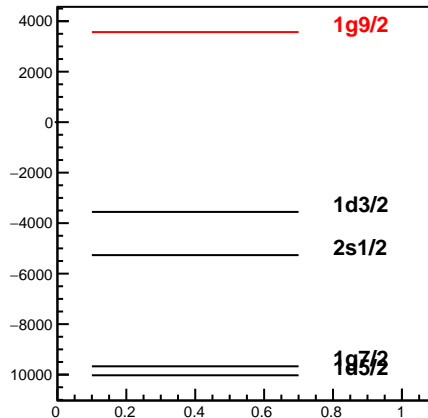
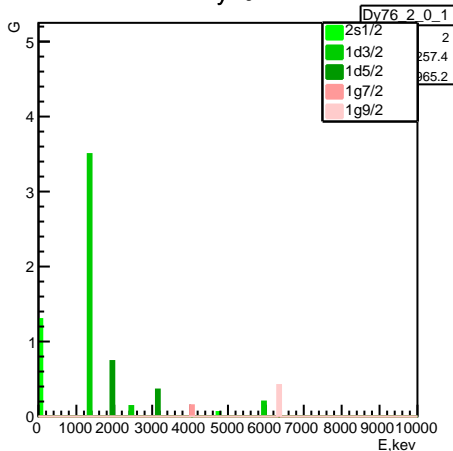
../TT/28Si/Proton/Wi68.xls.txt



Penalty function components



Dy76



Experiment: ../TT/28Si/Proton/Wi68.xls.txt (8

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7132.81 ± 155.989 keV

Δ: 3745.6 ± 230.011 keV

penalty: 0.219291

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

-10026.2 1d5/2 0.801667 0.97

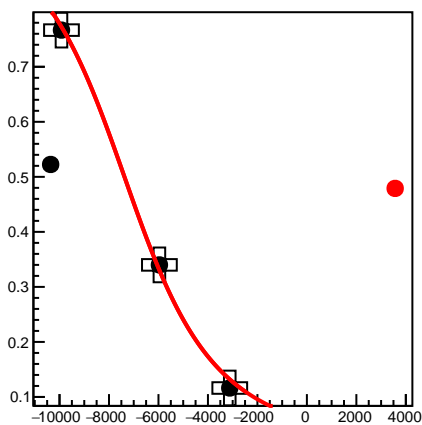
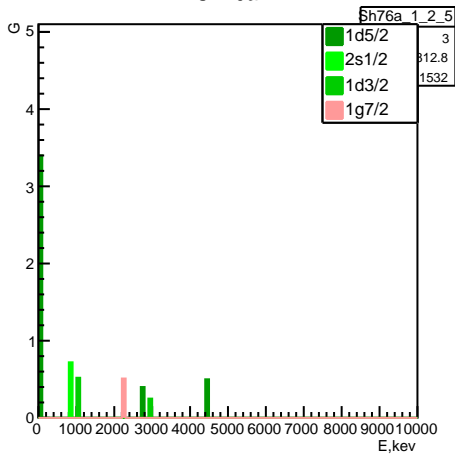
-5266.46 2s1/2 0.2875 0.935

-3554.77 1d3/2 0.14 1.2

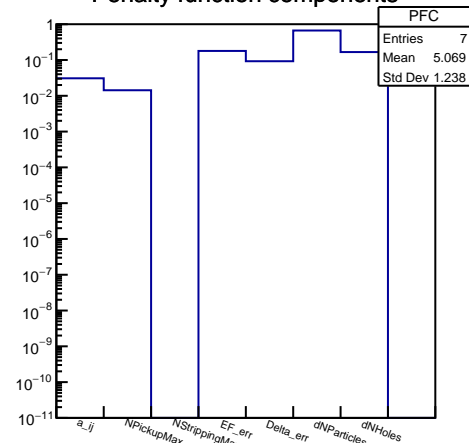
-9671 1g7/2 0.515625 -13797

3568.16 1g9/2 0.479 2.37152e-322

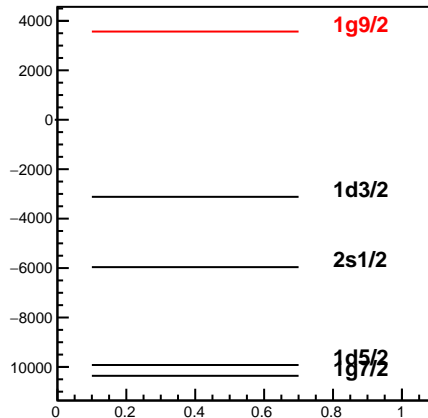
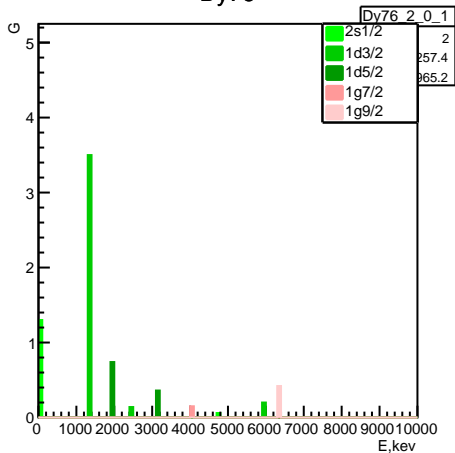
Sh76a



Penalty function components



Dy76



Experiment: Sh76a (7) Dy76 (9)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7375.07 \pm 147.077$ keV $\Delta: 3914.45 \pm 259.467$ keV

penalty: 0.221166

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

-9921.15 1d5/2 0.766667 0.9

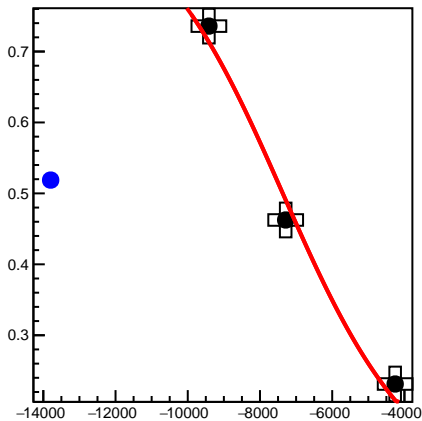
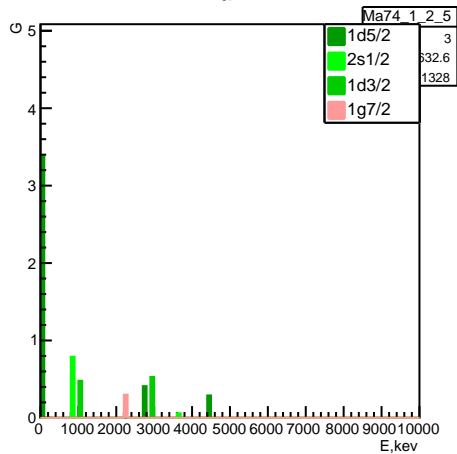
-5962.3 2s1/2 0.34 1.04

-3117.97 1d3/2 0.11625 1.1525

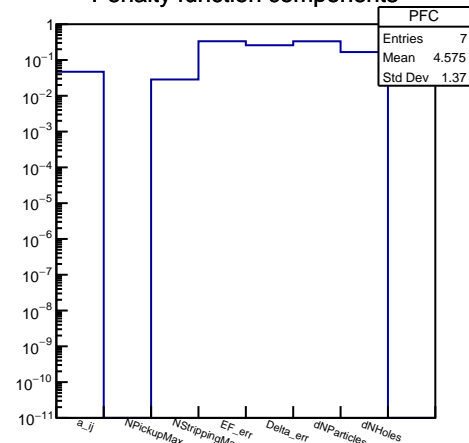
-10358.7 1g7/2 0.5225 2.92981e-321

3568.16 1g9/2 0.479 2.37152e-322

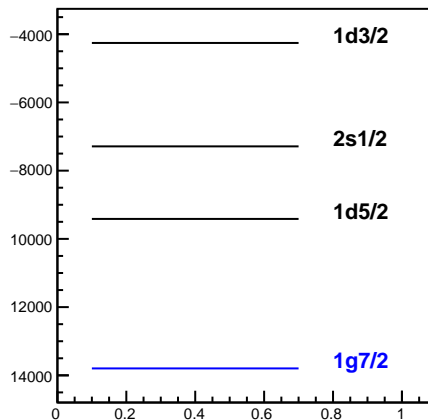
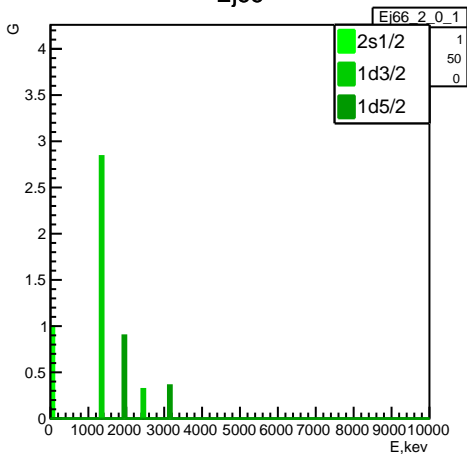
Ma74



Penalty function components



Ej66



Experiment: Ma74 (8) Ej66 (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7369.15 \pm 274.302$ keV $\Delta: -4333.29 \pm 725.687$ keV

penalty: 0.224652

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

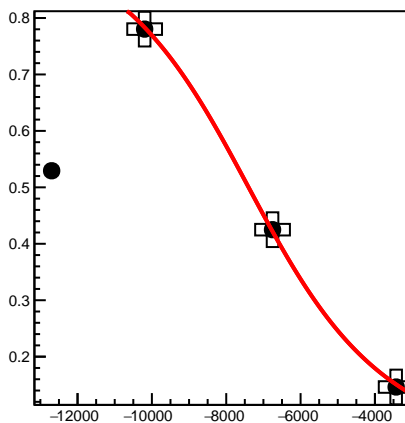
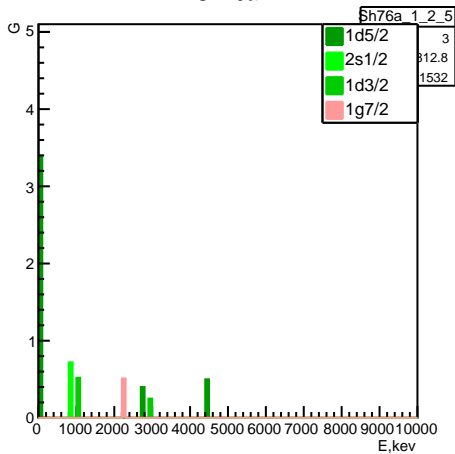
-9414.91 1d5/2 0.735833 0.891667

-7288.37 2s1/2 0.4625 0.925

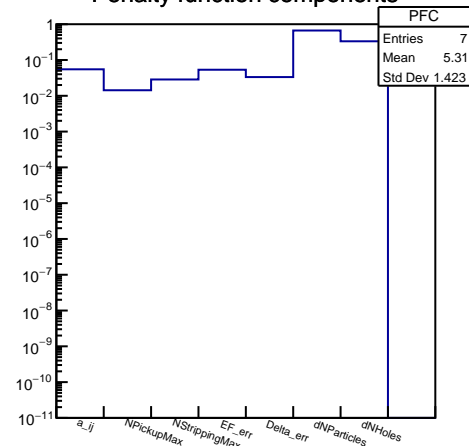
-4256.74 1d3/2 0.23125 1.0425

-13797 1g7/2 0.51875 5.58294e-322

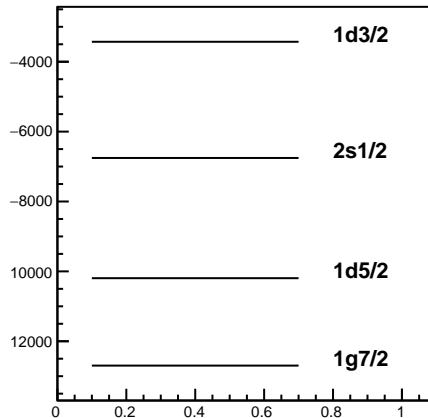
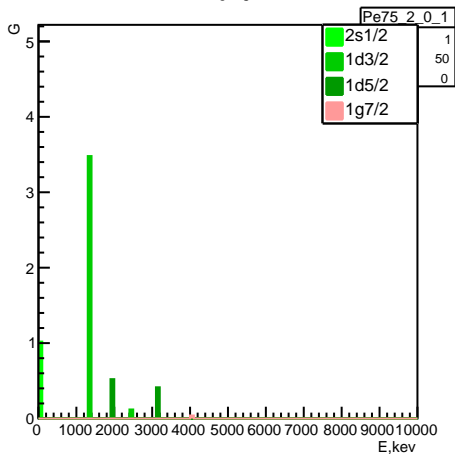
Sh76a



Penalty function components



Pe75



Experiment: Sh76a (7) Pe75 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

 E_F : -7398.35 \pm 43.8799 keV Δ : 4068.59 \pm 93.6368 keV

penalty: 0.227811

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

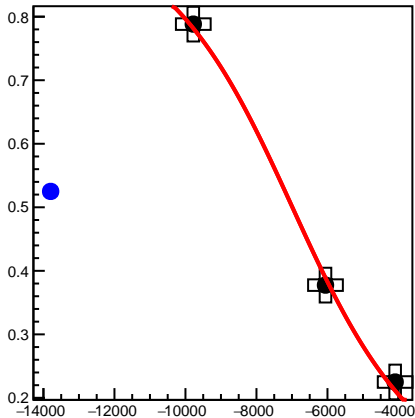
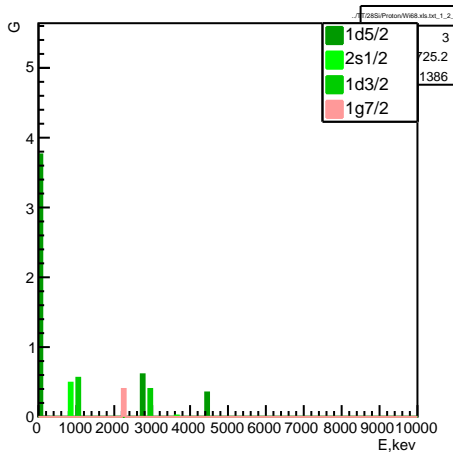
-10195.1 1d5/2 0.780333 0.872667

-6754.32 2s1/2 0.425 0.87

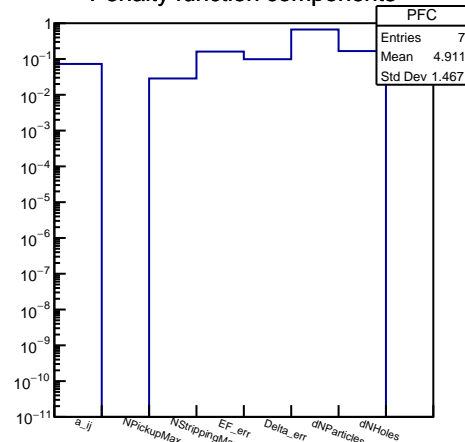
-3428.8 1d3/2 0.14625 1.0925

-12696.7 1g7/2 0.529375 5.58294e-322

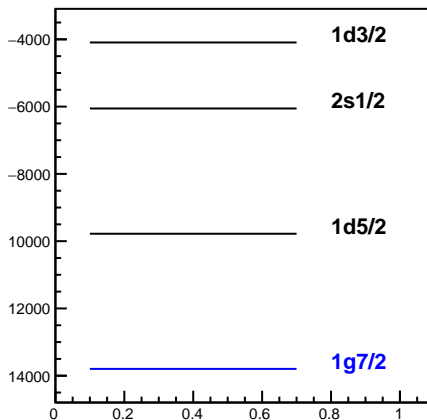
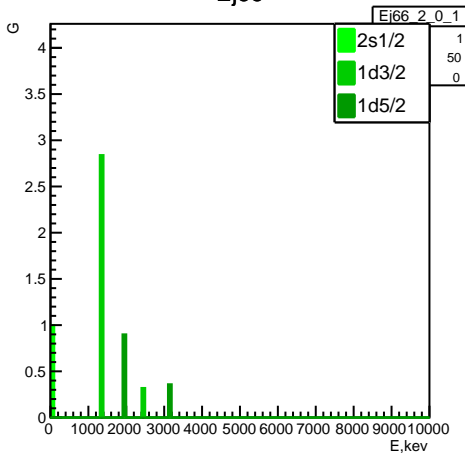
../TT/28Si/Proton/Wi68.xls.txt



Penalty function components



Ej66



Experiment: ../TT/28Si/Proton/Wi68.xls.txt (8
proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6987.75 \pm 132.272 keV

Δ : -4093.32 \pm 276.989 keV

penalty: 0.229711

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

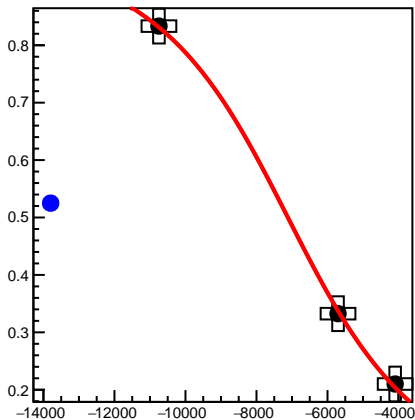
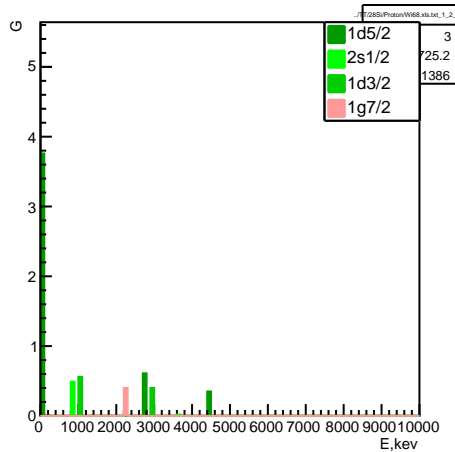
-9779.25 1d5/2 0.788333 0.996667

-6055.79 2s1/2 0.3775 0.755

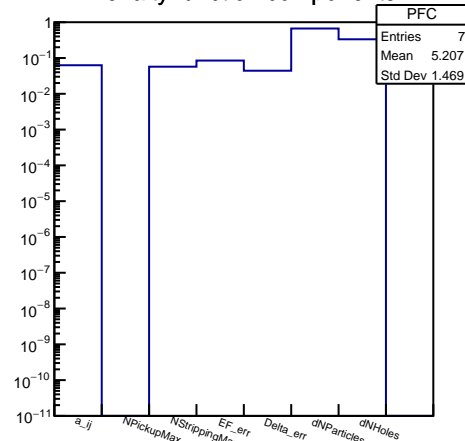
-4093.42 1d3/2 0.225 1.03

-13797 1g7/2 0.525 1.2732e-313

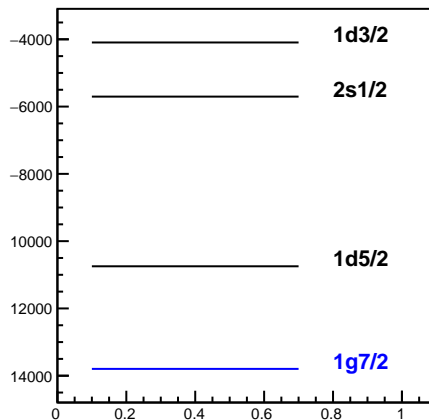
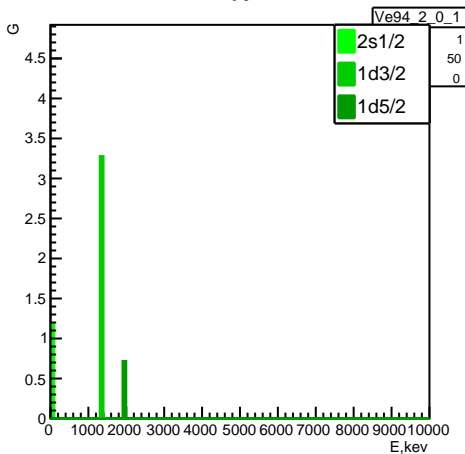
../TT/28Si/Proton/Wi68.xls.txt



Penalty function components



Ve94



Experiment: ../TT/28Si/Proton/Wi68.xls.txt (8

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7115.02 ± 69.6364 keV

Δ: 4108.48 ± 123.857 keV

penalty: 0.240169

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

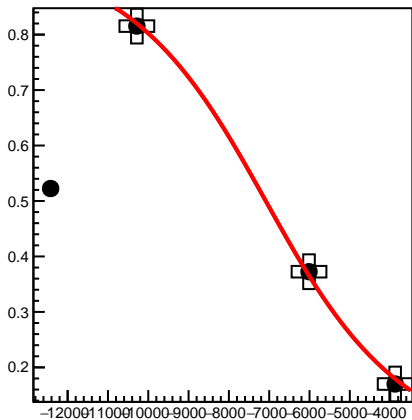
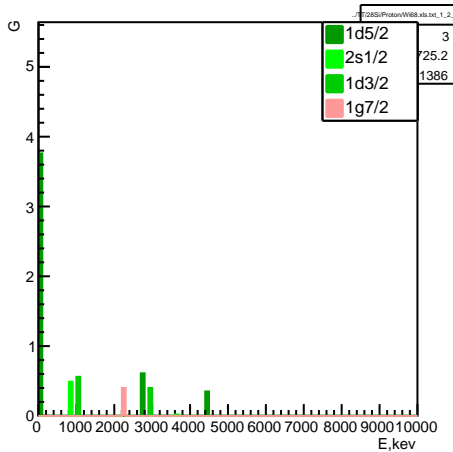
-10747.3 1d5/2 0.833333 0.906667

-5703.57 2s1/2 0.3325 0.845

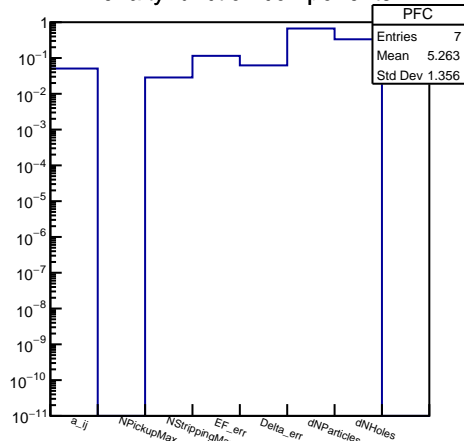
-4094.5 1d3/2 0.21 1.06

-13797 1g7/2 0.525 5.58294e-322

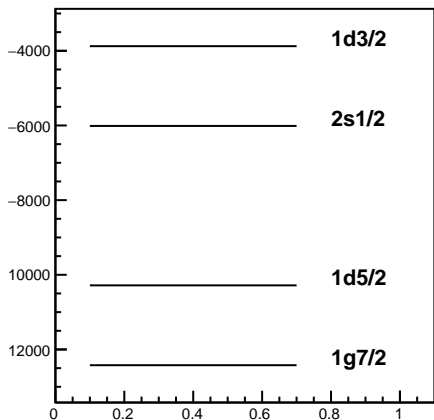
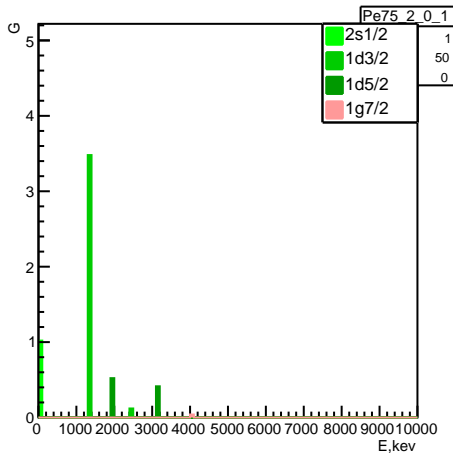
../TT/28Si/Proton/Wi68.xls.txt



Penalty function components



Pe75



Experiment: ../TT/28Si/Proton/Wi68.xls.txt (8

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7085.4 \pm 94.3012 keV

Δ : -3839.68 \pm 174.629 keV

penalty: 0.241624

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

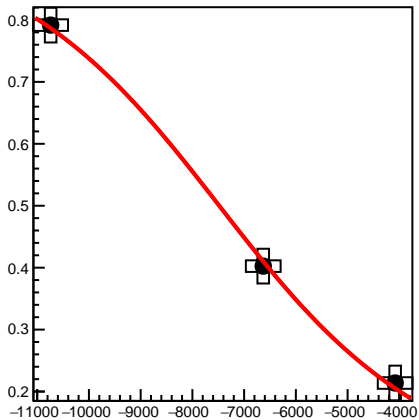
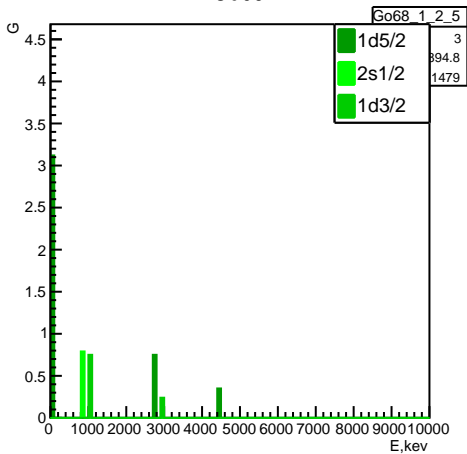
-10282.9 1d5/2 0.815333 0.942667

-6012.56 2s1/2 0.3725 0.765

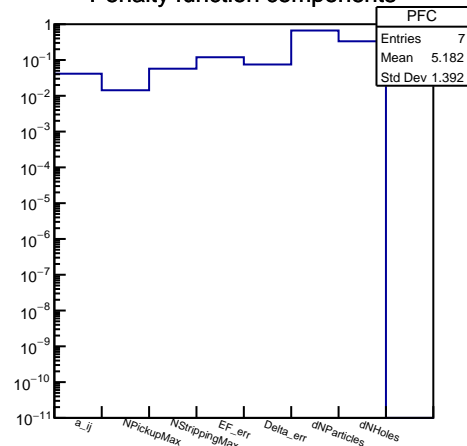
-3875.63 1d3/2 0.17 1.14

-12421.7 1g7/2 0.5225 5.58294e-322

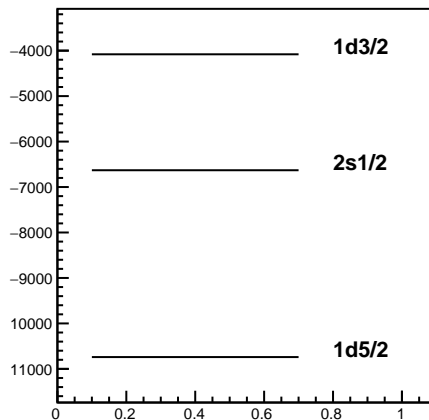
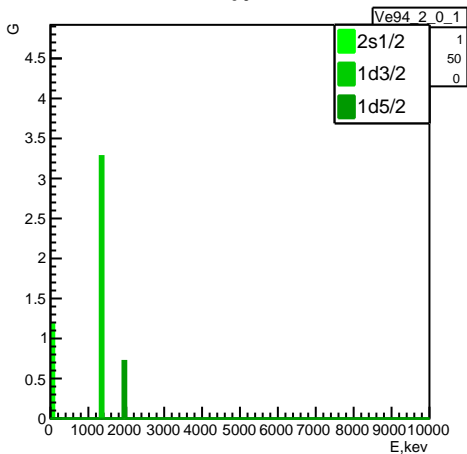
Go68



Penalty function components



Ve94



Experiment: Go68 (6) Ve94 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7480.86 \pm 98.0386 keV Δ : -4657.91 \pm 210.329 keV

penalty: 0.251381

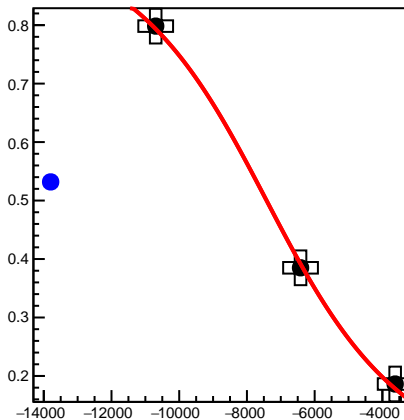
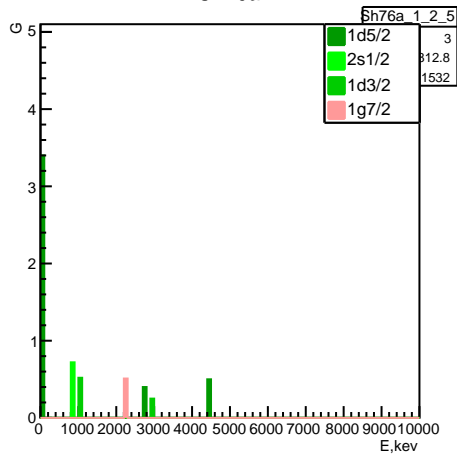
SPE, keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10740 1d5/2 0.791667 0.823333

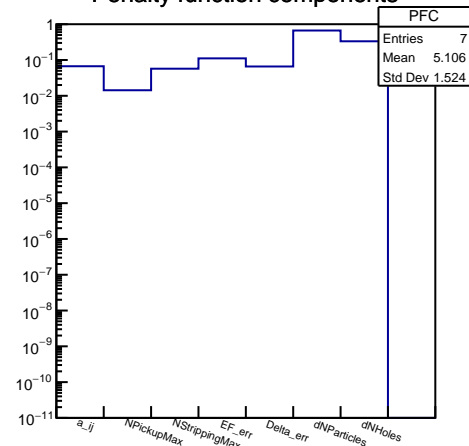
-6630.63 2s1/2 0.4025 0.985

-4080.54 1d3/2 0.21375 1.0675

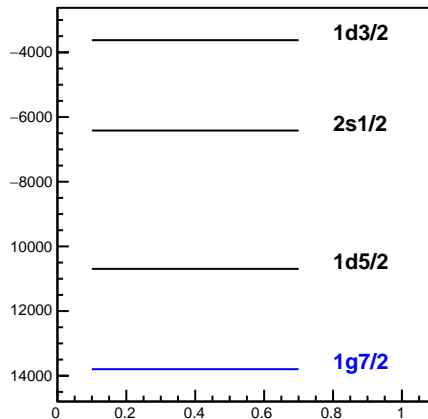
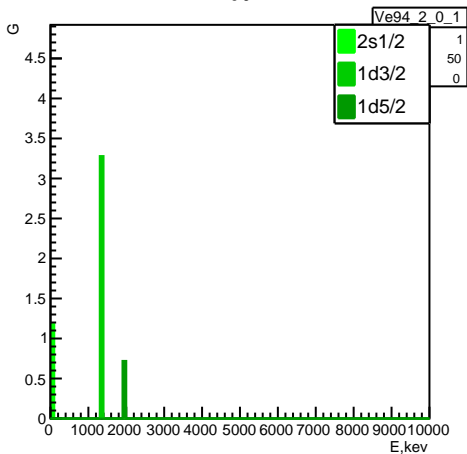
Sh76a



Penalty function components



Ve94



Experiment: Sh76a (7) Ve94 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7419.92 \pm 91.1894 \text{ keV}$ $\Delta: 4516.68 \pm 184.985 \text{ keV}$

penalty: 0.252955

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

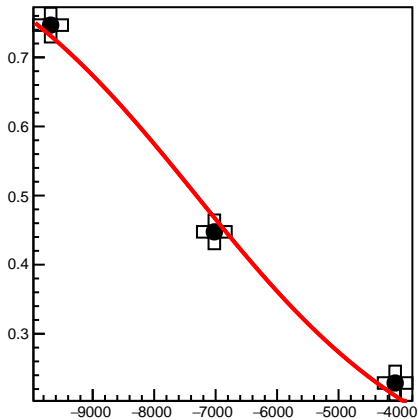
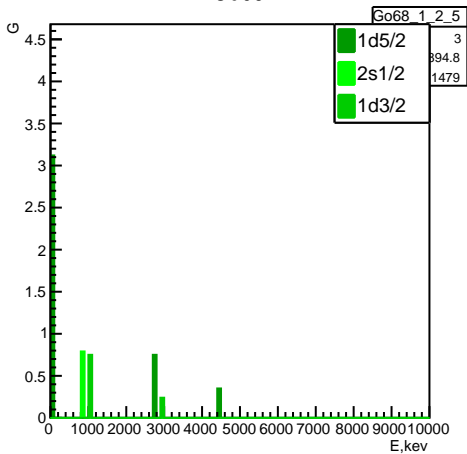
-10694.6 1d5/2 0.798333 0.836667

-6417.02 2s1/2 0.385 0.95

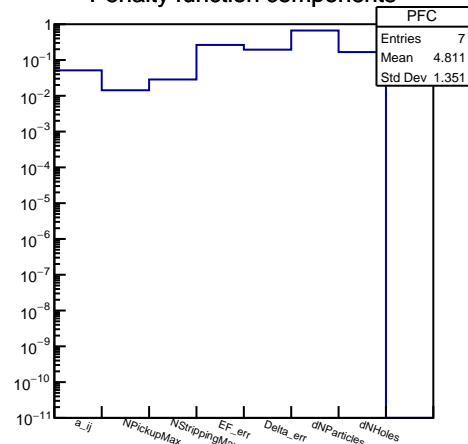
-3622.63 1d3/2 0.18625 1.0125

-13797 1g7/2 0.531875 5.58294e-322

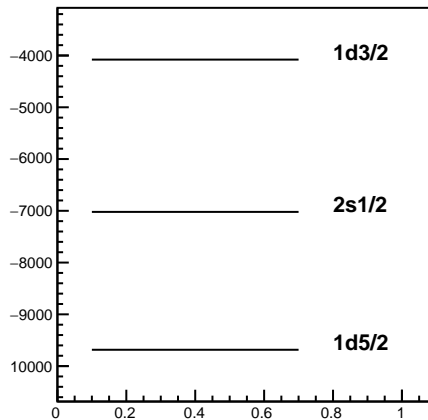
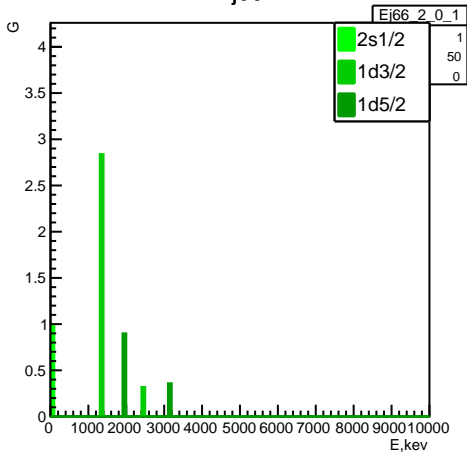
Go68



Penalty function components



Ej66



Experiment: Go68 (6) Ej66 (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

 E_F : -7311.9 ± 216.249 keV Δ : -4550.26 ± 546.389 keV

penalty: 0.266474

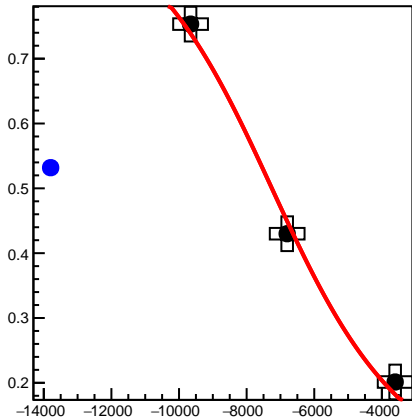
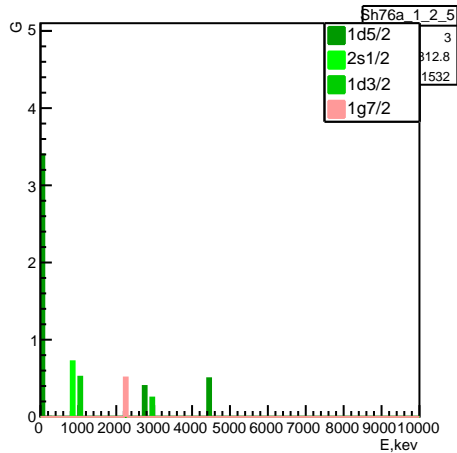
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9684.36 1d5/2 0.746667 0.913333

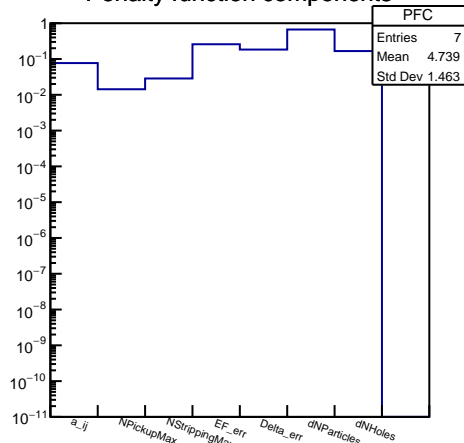
-7020.98 2s1/2 0.4475 0.895

-4079.05 1d3/2 0.22875 1.0375

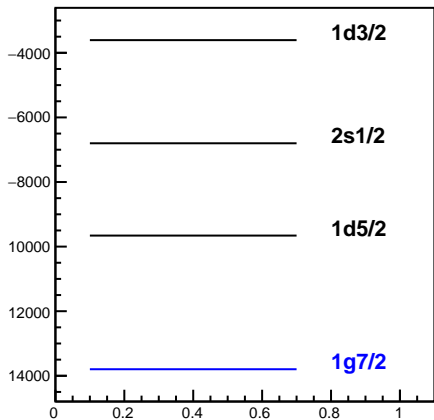
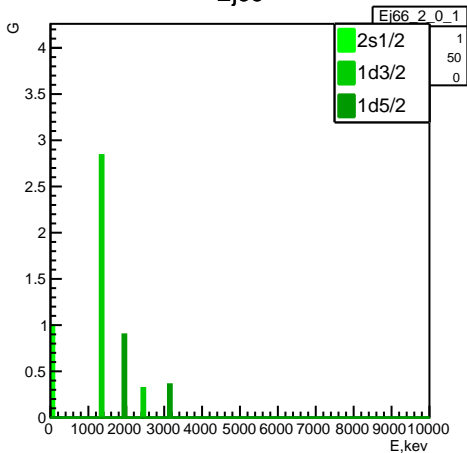
Sh76a



Penalty function components



Ej66



Experiment: Sh76a (7) Ej66 (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7253.32 \pm 212.018 \text{ keV}$ $\Delta: -4423.98 \pm 515.38 \text{ keV}$

penalty: 0.268273

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

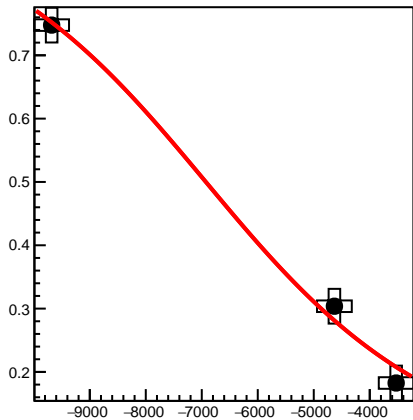
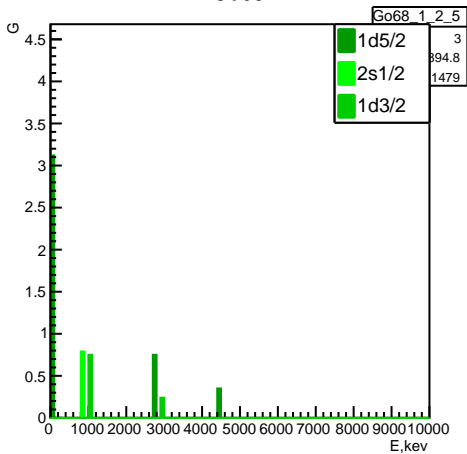
-9658.53 1d5/2 0.753333 0.926667

-6800.9 2s1/2 0.43 0.86

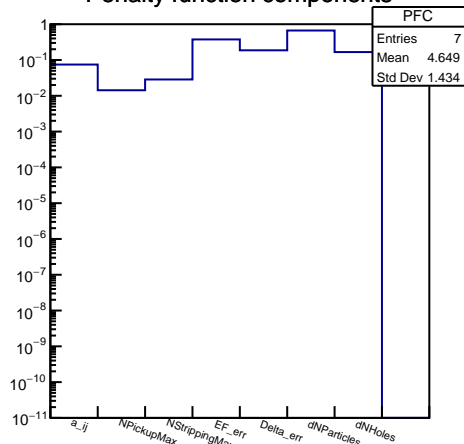
-3607.09 1d3/2 0.20125 0.9825

-13797 1g7/2 0.531875 5.58294e-322

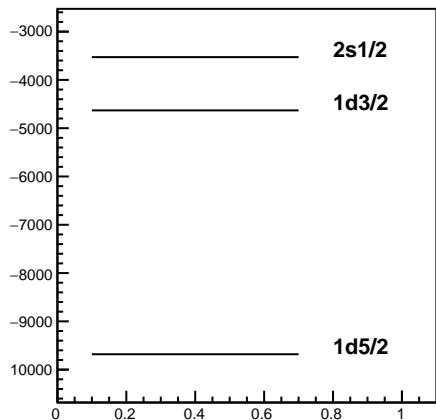
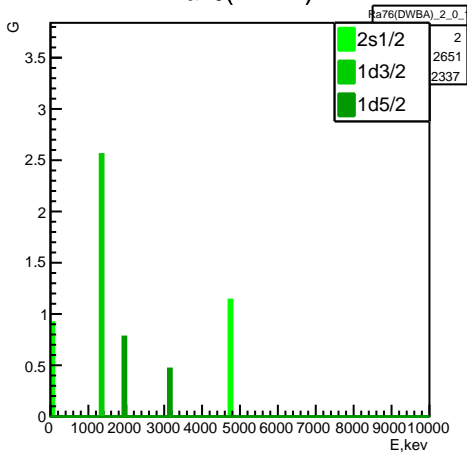
Go68



Penalty function components



Ra76(DWBA)



Experiment: Go68 (6) Ra76(DWBA) (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6927.1 ± 308.189 keV

Δ: 4717.48 ± 523.847 keV

penalty: 0.290938

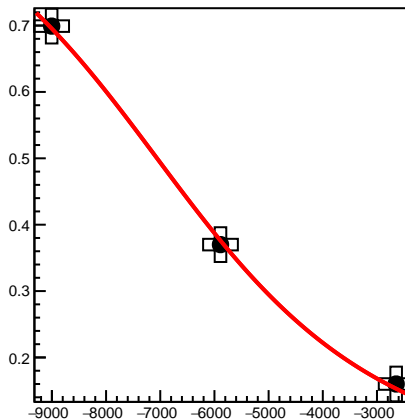
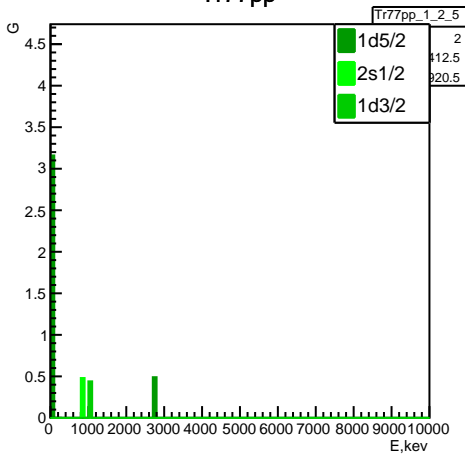
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9681.12 1d5/2 0.747667 0.911333

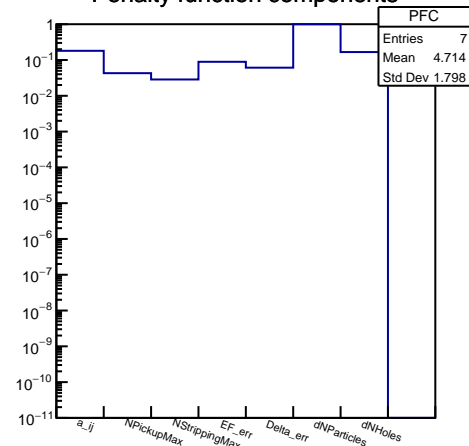
-3528.44 2s1/2 0.1825 1.425

-4631.23 1d3/2 0.30375 0.8875

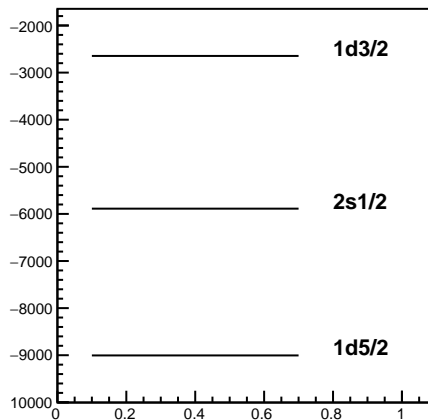
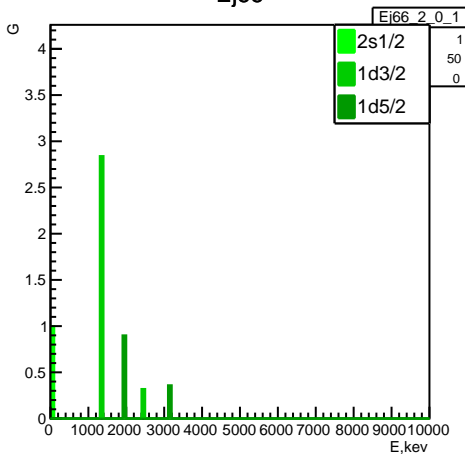
Tr77pp



Penalty function components



Ej66



Experiment: Tr77pp (4) Ej66 (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7059.25 ± 73.1329 keV

Δ: 4575.99 ± 171.445 keV

penalty: 0.301696

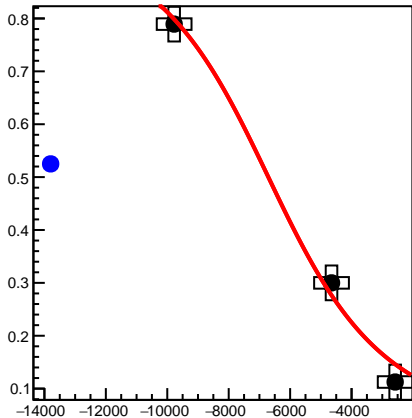
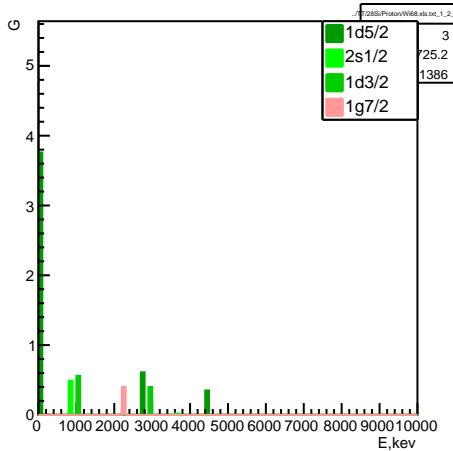
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-9004.53 1d5/2 0.699167 0.818333

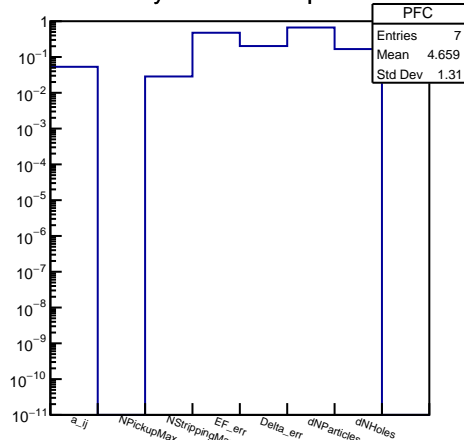
-5888.27 2s1/2 0.37 0.74

-2646.15 1d3/2 0.16 0.9

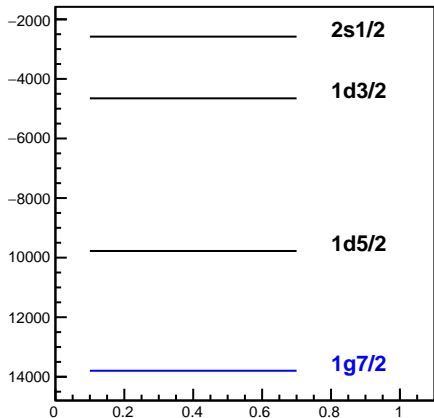
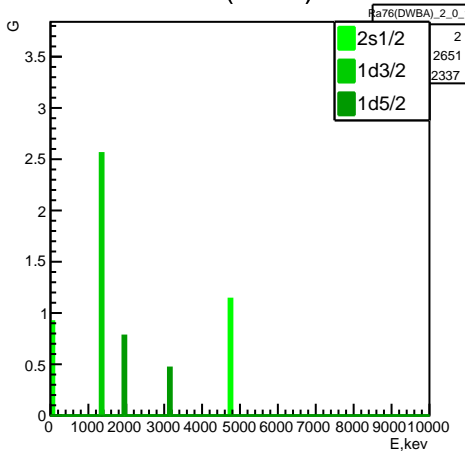
../TT/28Si/Proton/Wi68.xls.txt



Penalty function components



Ra76(DWBA)



Experiment: ../TT/28Si/Proton/Wi68.xls.txt (8
proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6709.48 ± 390.602 keV

Δ: -4120.36 ± 568.288 keV

penalty: 0.306431

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

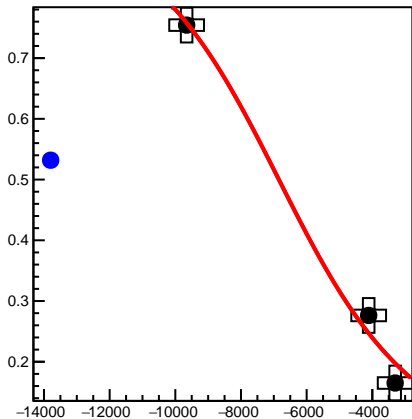
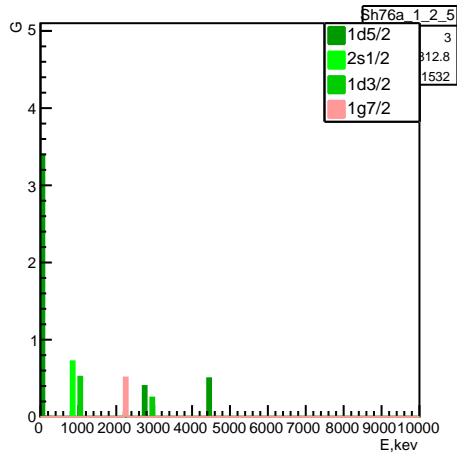
-9776.47 1d5/2 0.789333 0.994667

-2580.83 2s1/2 0.1125 1.285

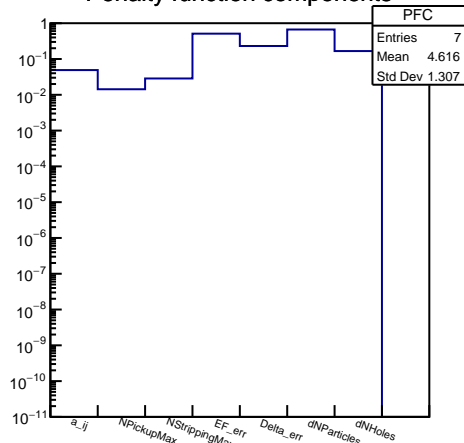
-4652.75 1d3/2 0.3 0.88

-13797 1g7/2 0.525 5.58294e-322

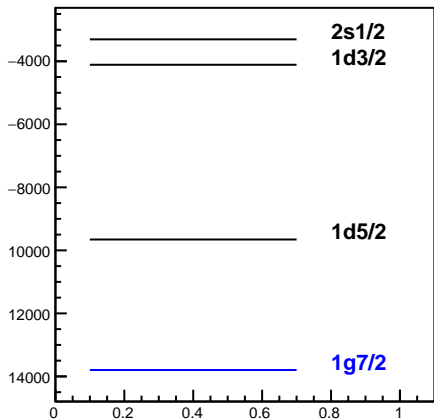
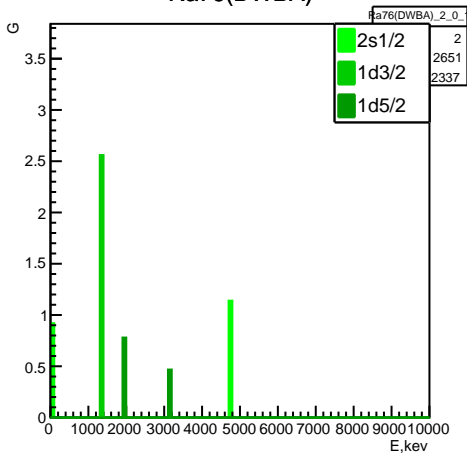
Sh76a



Penalty function components



Ra76(DWBA)



Experiment: Sh76a (7) Ra76(DWBA) (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6846.22 ± 419.142 keV

Δ: 4661.49 ± 648.232 keV

penalty: 0.32054

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

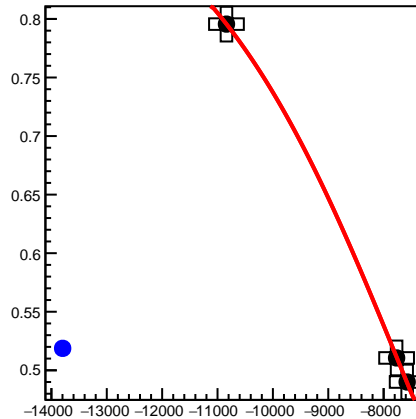
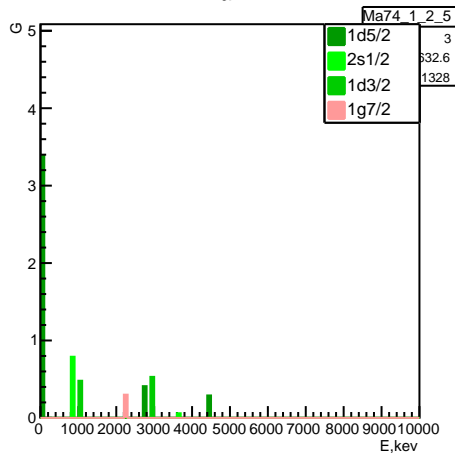
-9655.27 1d5/2 0.754333 0.924667

-3304.33 2s1/2 0.165 1.39

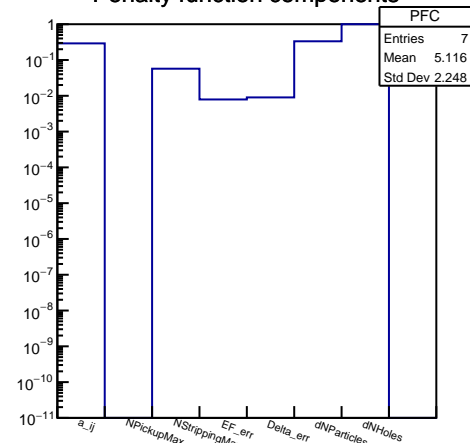
-4110.71 1d3/2 0.27625 0.8325

-13797 1g7/2 0.531875 5.58294e-322

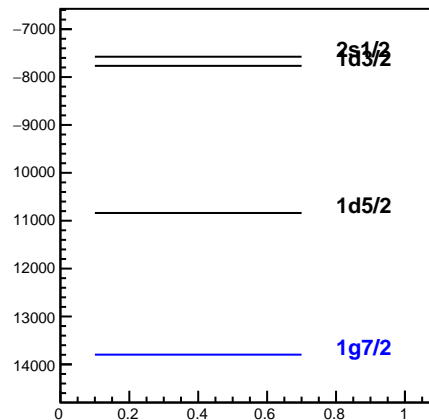
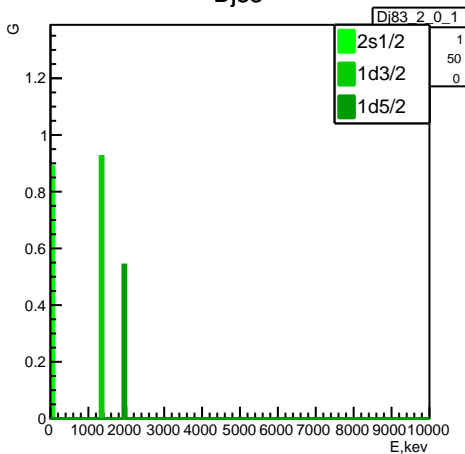
Ma74



Penalty function components



Dj83



Experiment: Ma74 (8) Dj83 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7668.38 \pm 6.48053 \text{ keV}$ $\Delta: 4324.42 \pm 25.3046 \text{ keV}$

penalty: 0.326673

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

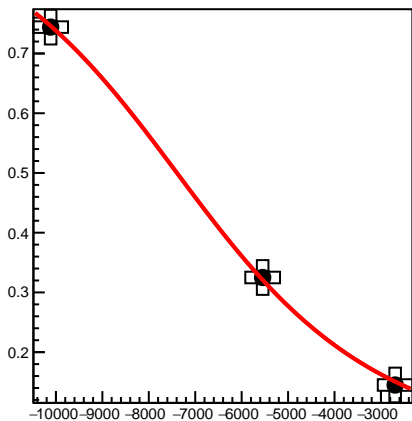
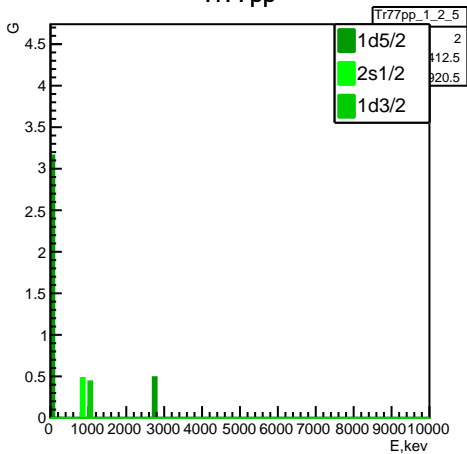
-10838.7 1d5/2 0.795592 0.77215

-7575.35 2s1/2 0.49 0.87

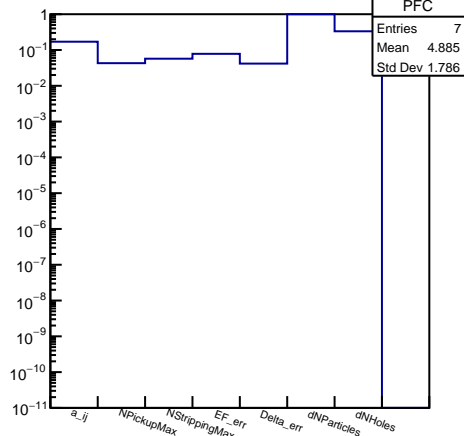
-7766.07 1d3/2 0.51055 0.4839

-13797 1g7/2 0.51875 5.58294e-322

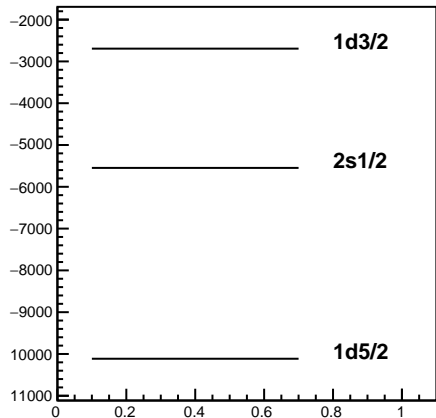
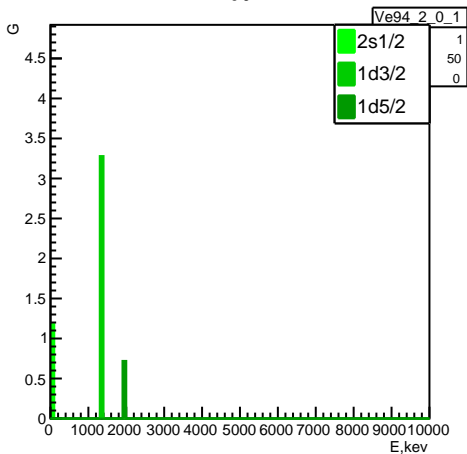
Tr77pp



Penalty function components



Ve94



Experiment: Tr77pp (4) Ve94 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7393.53 \pm 64.1459 \text{ keV}$ $\Delta: 4810.73 \pm 117.108 \text{ keV}$

penalty: 0.331491

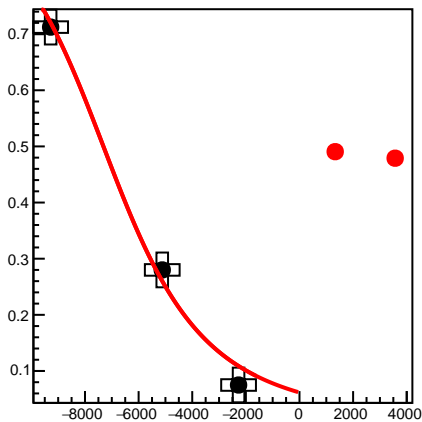
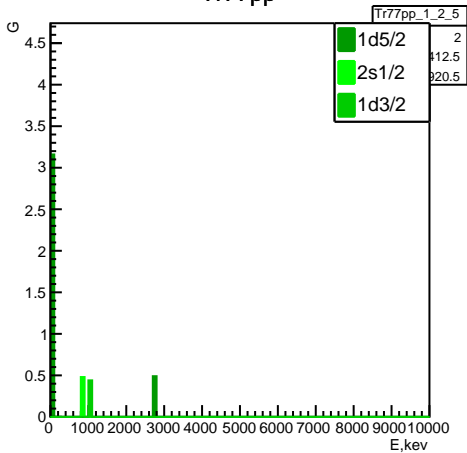
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10113.9 1d5/2 0.744167 0.728333

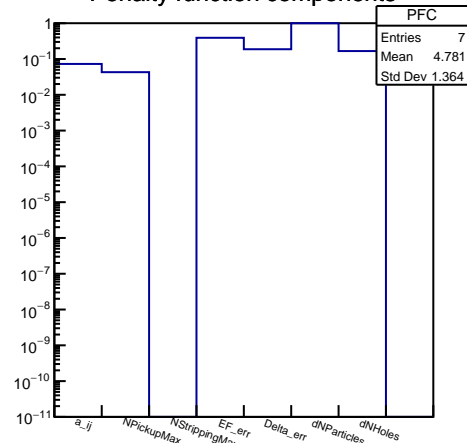
-5547.85 2s1/2 0.325 0.83

-2694.07 1d3/2 0.145 0.93

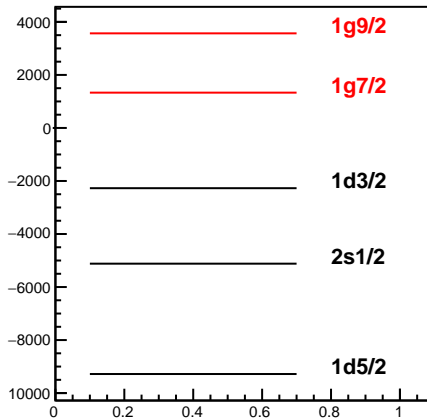
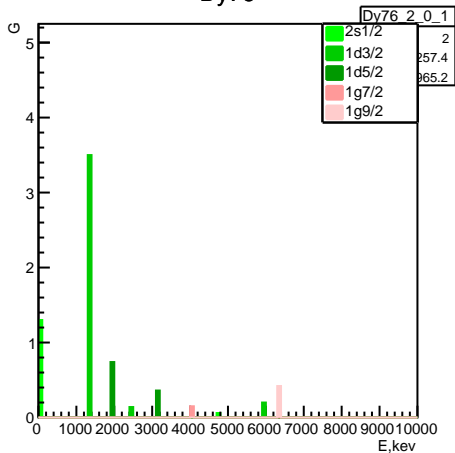
Tr77pp



Penalty function components



Dy76



Experiment: Tr77pp (4) Dy76 (9)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7312.84 \pm 321.221 keV Δ : 4012.4 \pm 526.274 keV

penalty: 0.357908

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

-9281.06 1d5/2 0.7125 0.791667

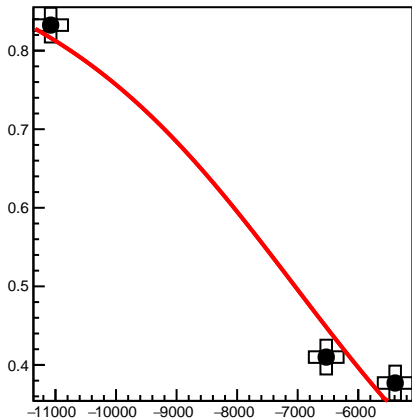
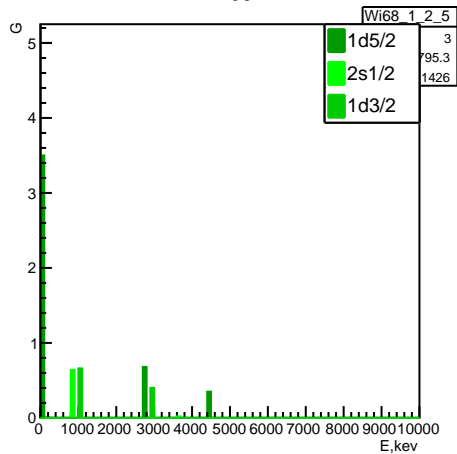
-5118.85 2s1/2 0.28 0.92

-2272 1d3/2 0.075 1.07

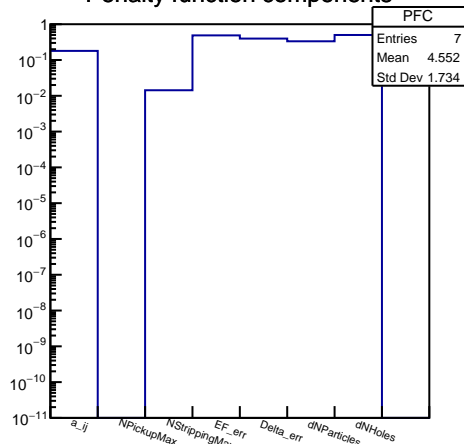
1331.66 1g7/2 0.490625 1.2732e-313

3568.16 1g9/2 0.479 2.37152e-322

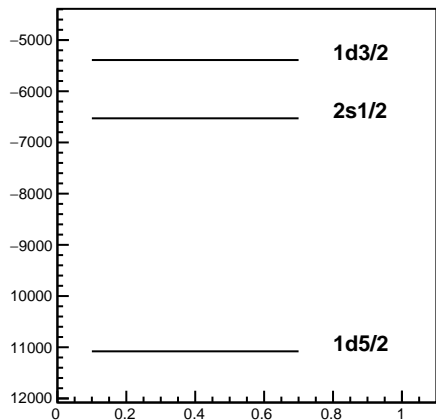
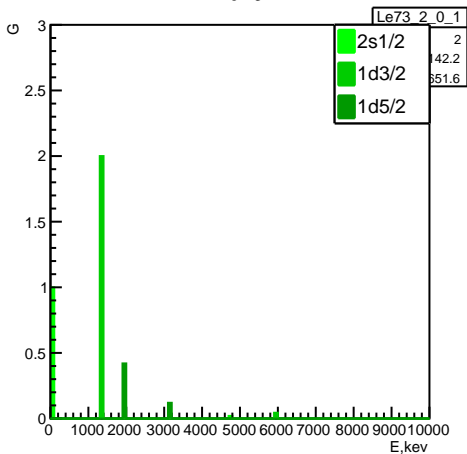
Wi68



Penalty function components



Le73



Experiment: Wi68 (7) Le73 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7043.5 ± 399.871 keV

Δ: 4944.04 ± 1114.32 keV

penalty: 0.367572

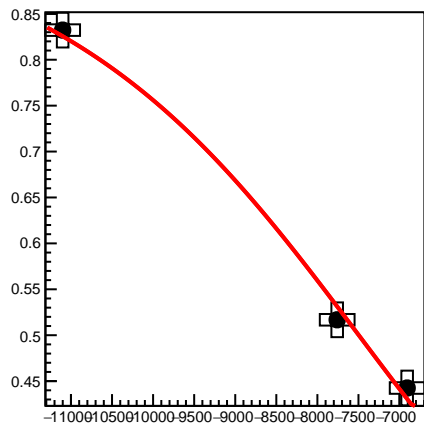
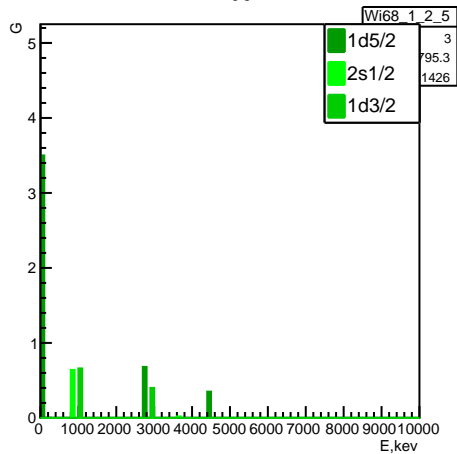
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-11079.8 1d5/2 0.8325 0.845

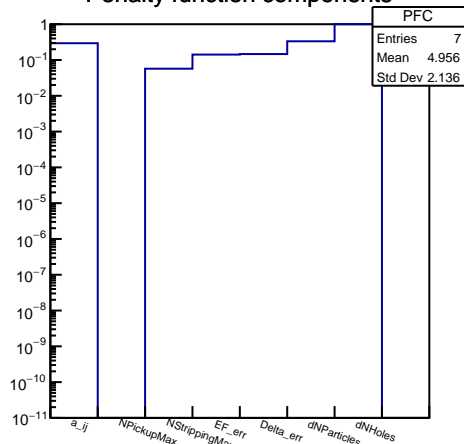
-6528.78 2s1/2 0.41 0.84

-5390.28 1d3/2 0.377 0.776

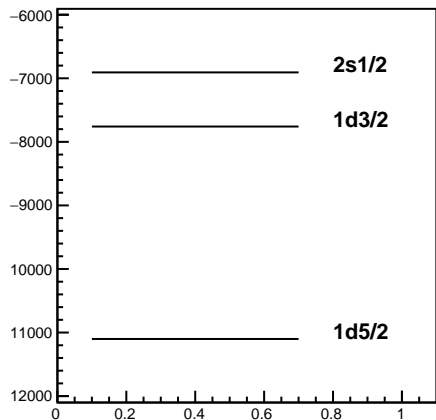
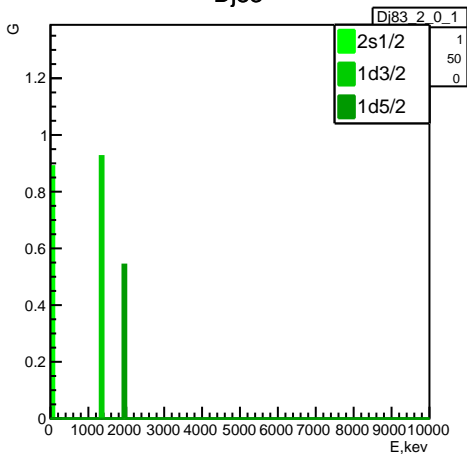
Wi68



Penalty function components



Dj83



Experiment: Wi68 (7) Dj83 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7495.89 \pm 116.376 \text{ keV}$ $\Delta: 4201.69 \pm 411.51 \text{ keV}$

penalty: 0.379463

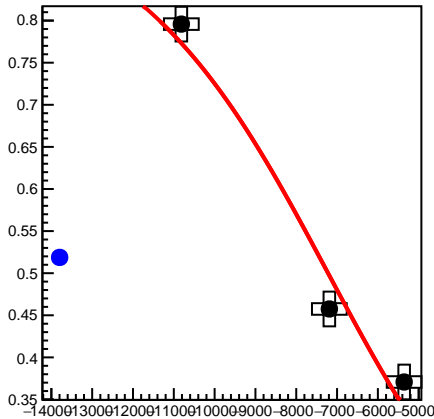
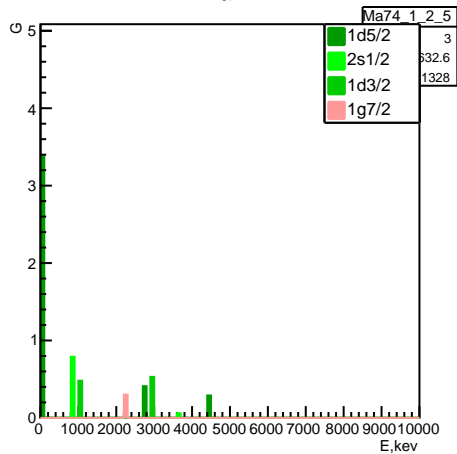
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-11101.1 1d5/2 0.832258 0.845483

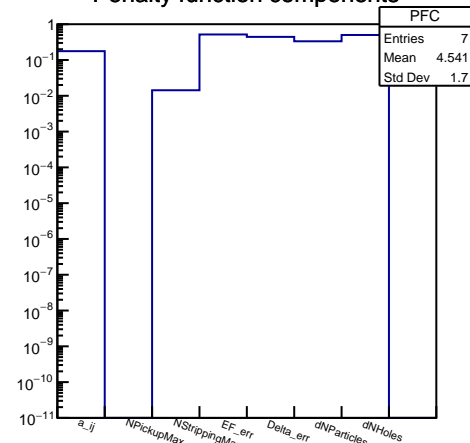
-6907.21 2s1/2 0.4425 0.775

-7758.97 1d3/2 0.5168 0.4964

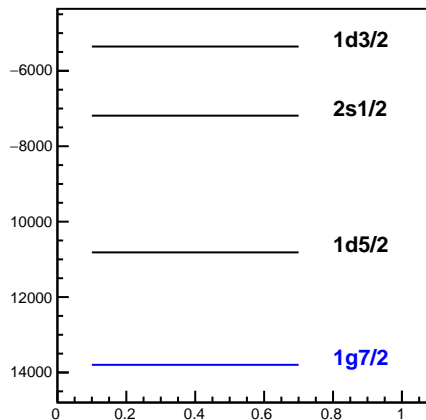
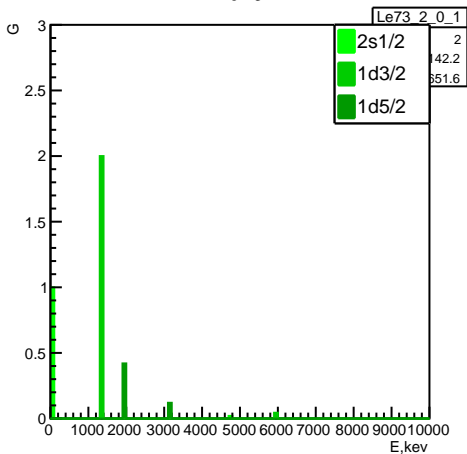
Ma74



Penalty function components



Le73



Experiment: Ma74 (8) Le73 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7220.08 \pm 424.122 \text{ keV}$ $\Delta: 5510.74 \pm 1242.7 \text{ keV}$

penalty: 0.381459

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

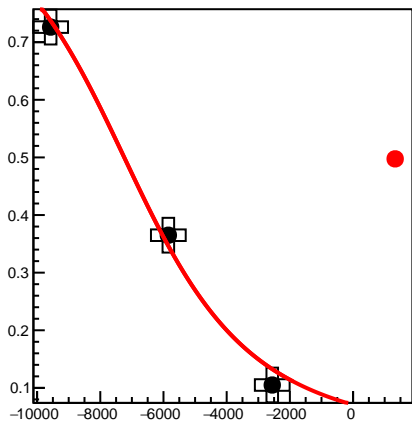
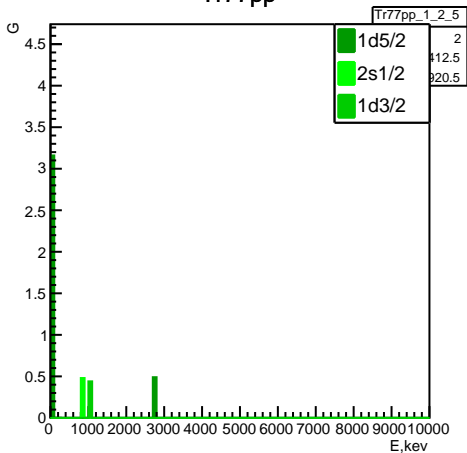
-10815.1 1d5/2 0.795833 0.771667

-7188.92 2s1/2 0.4575 0.935

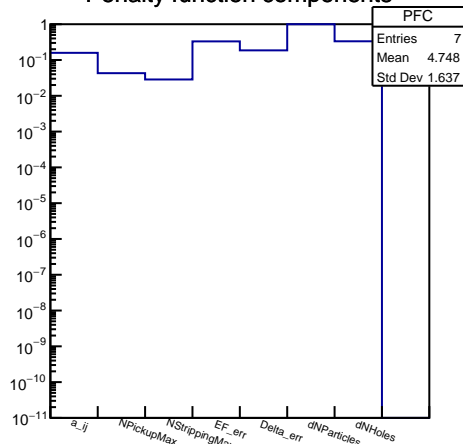
-5356 1d3/2 0.37075 0.7635

-13797 1g7/2 0.51875 5.58294e-322

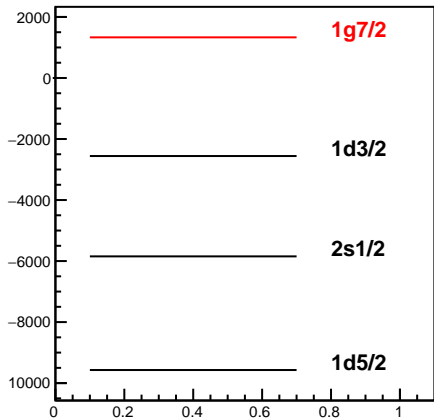
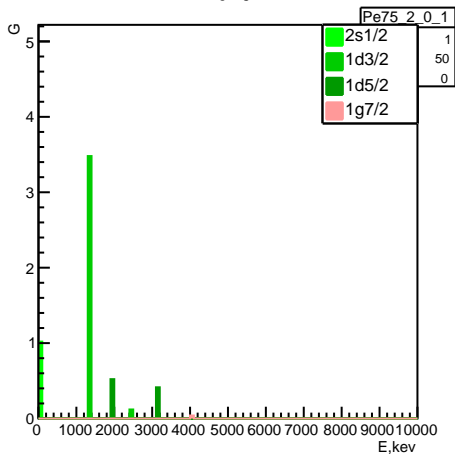
Tr77pp



Penalty function components



Pe75



Experiment: Tr77pp (4) Pe75 (9)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7242.04 \pm 271.858$ keV $\Delta: -4322.57 \pm 522.073$ keV

penalty: 0.400095

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

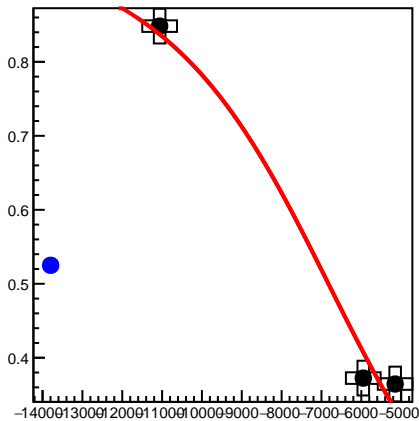
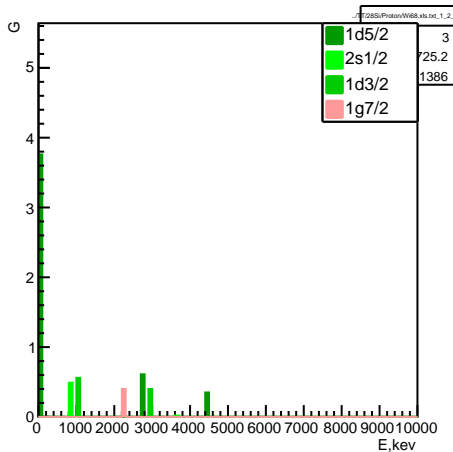
-9570.97 1d5/2 0.726167 0.764333

-5846.41 2s1/2 0.365 0.75

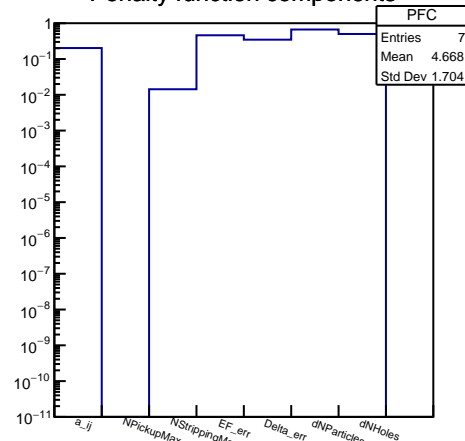
-2557.96 1d3/2 0.105 1.01

1331.66 1g7/2 0.4975 5.58294e-322

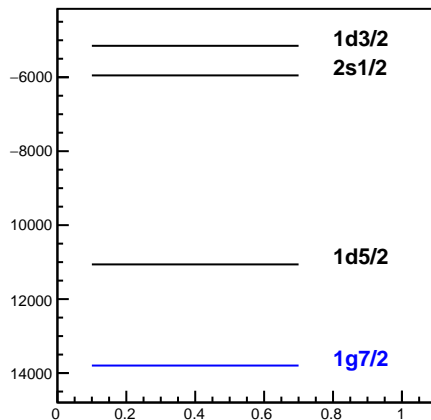
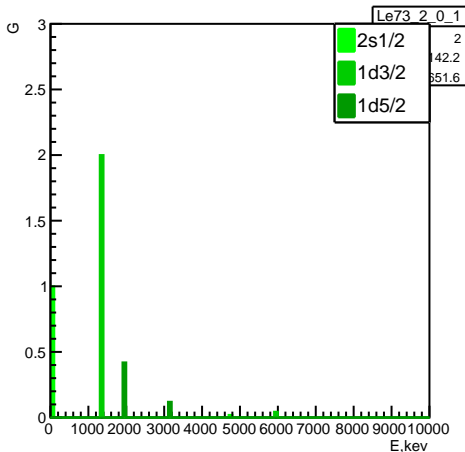
../TT/28Si/Proton/Wi68.xls.txt



Penalty function components



Le73



Experiment: ../TT/28Si/Proton/Wi68.xls.txt (8

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6825.04 ± 377.493 keV

Δ: 4637.48 ± 974.008 keV

penalty: 0.421201

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

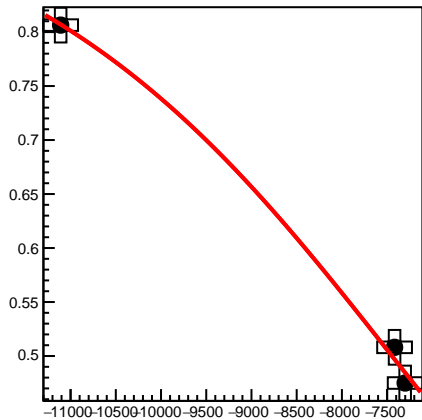
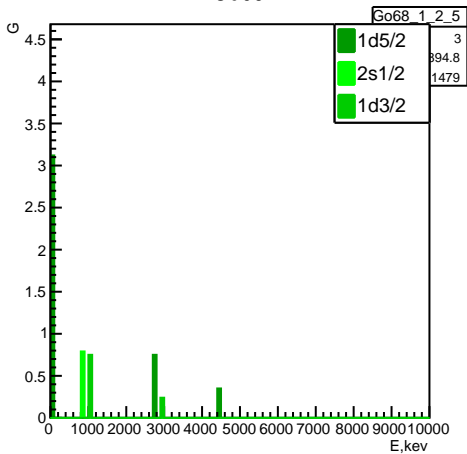
-11061.6 1d5/2 0.848333 0.876667

-5950.35 2s1/2 0.3725 0.765

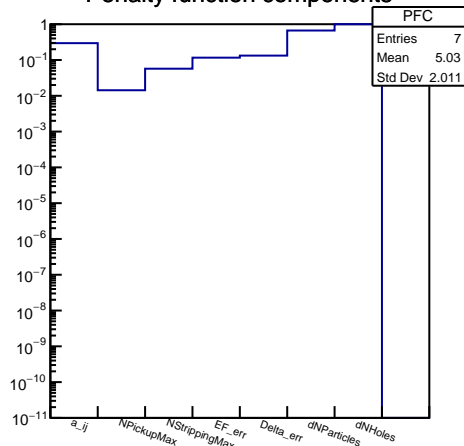
-5150.29 1d3/2 0.3645 0.751

-13797 1g7/2 0.525 5.58294e-322

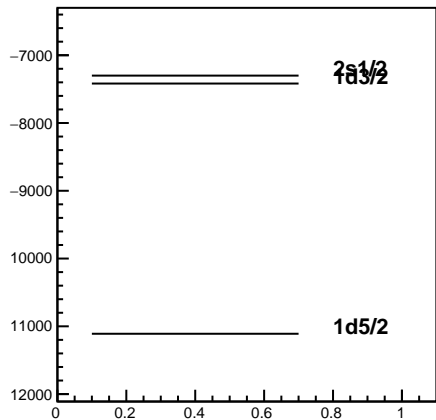
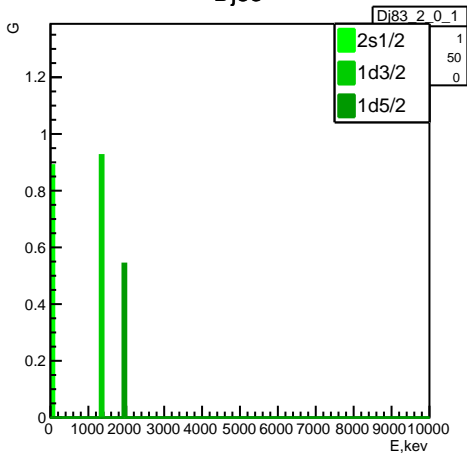
Go68



Penalty function components



Dj83



Experiment: Go68 (6) Dj83 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 E_F : -7446.45 \pm 95.4061 keV Δ : -4709.16 \pm 372.631 keV

penalty: 0.439003

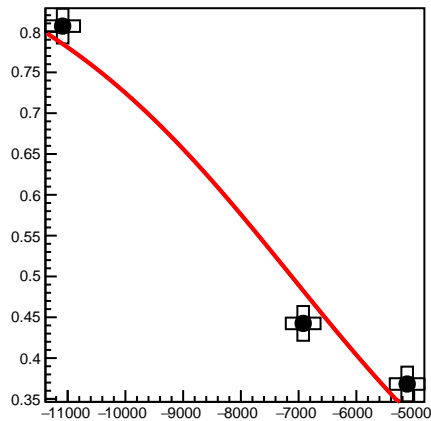
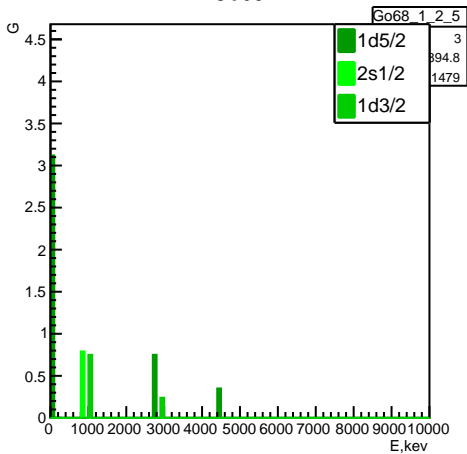
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-11109.8 1d5/2 0.806425 0.793817

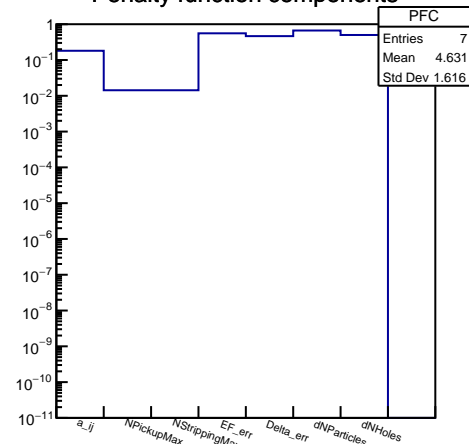
-7300.7 2s1/2 0.475 0.84

-7417.76 1d3/2 0.50805 0.4789

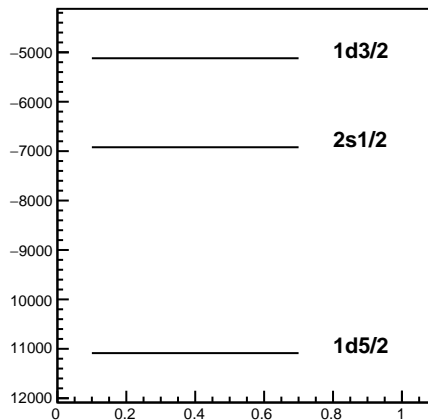
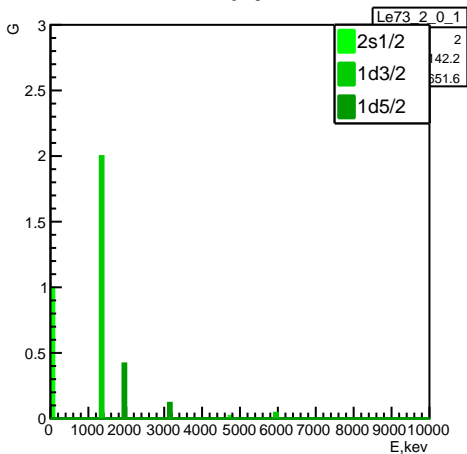
Go68



Penalty function components



Le73



Experiment: Go68 (6) Le73 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7120.29 \pm 457.01 keV Δ : 5721.44 \pm 1304.53 keV

penalty: 0.461105

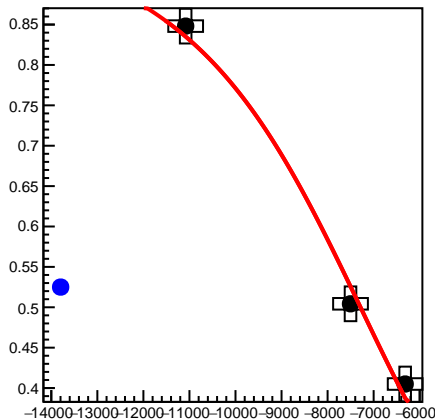
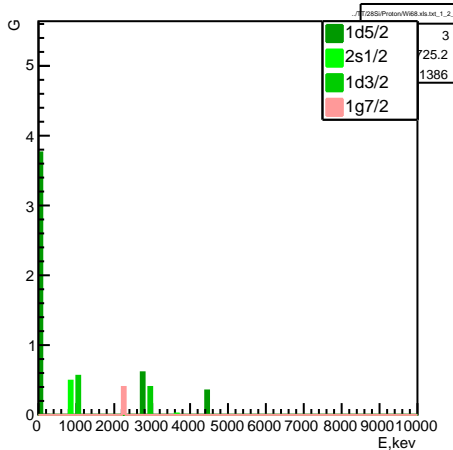
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-11087.1 1d5/2 0.806667 0.793333

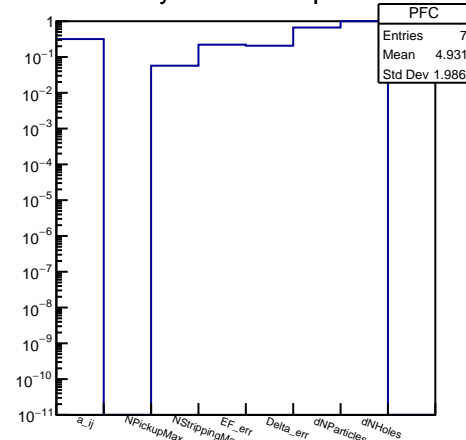
-6921.19 2s1/2 0.4425 0.905

-5120.2 1d3/2 0.36825 0.7585

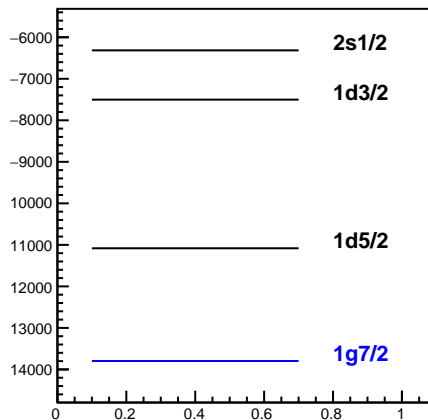
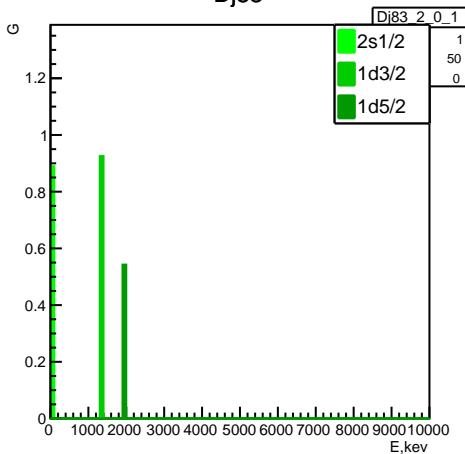
../TT/28Si/Proton/Wi68.xls.txt



Penalty function components



Dj83



Experiment: ../TT/28Si/Proton/Wi68.xls.txt (8 proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7285.26 \pm 181.42 keV

Δ : -4205.17 \pm 579.647 keV

penalty: 0.474702

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

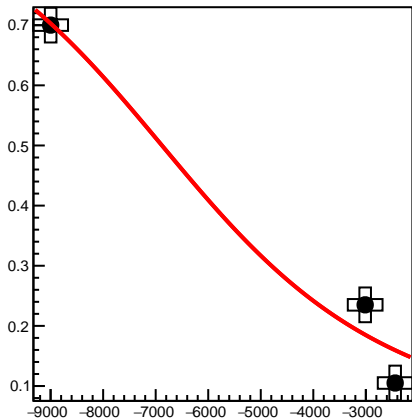
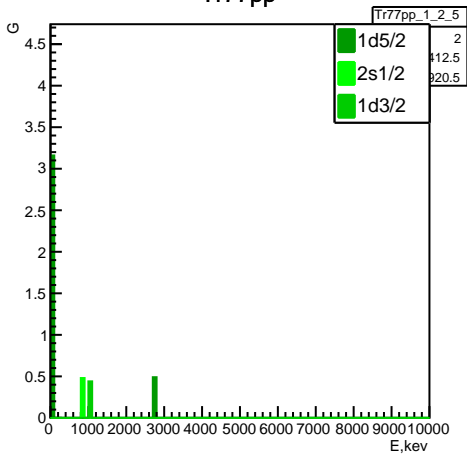
-11082.2 1d5/2 0.848092 0.87715

-6315.62 2s1/2 0.405 0.7

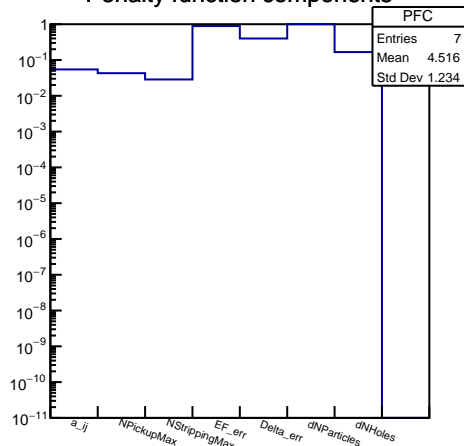
-7502.26 1d3/2 0.5043 0.4714

-13797 1g7/2 0.525 5.58294e-322

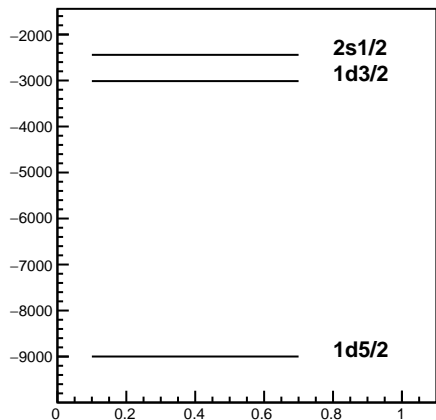
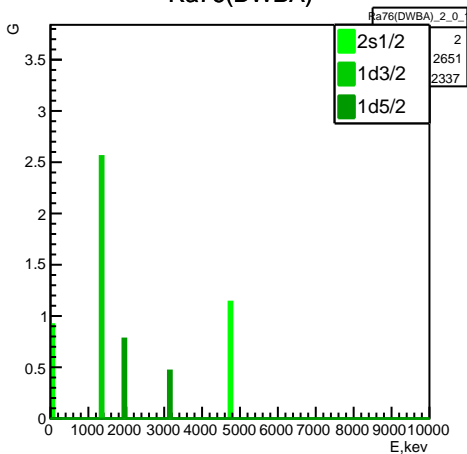
Tr77pp



Penalty function components



Ra76(DWBA)



Experiment: Tr77pp (4) Ra76(DWBA) (5)

proton transfer

p separation energy A:11585, A+1: 2748.84

 E_F : -6880.17 \pm 728.762 keV Δ : 4773.31 \pm 1119.46 keV

penalty: 0.496017

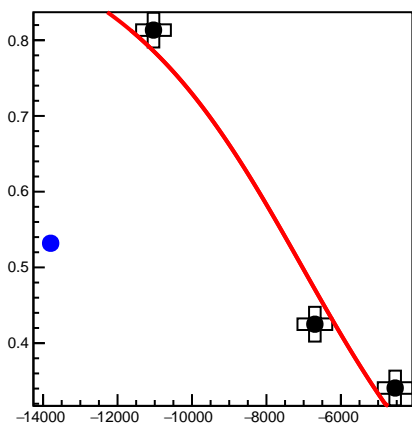
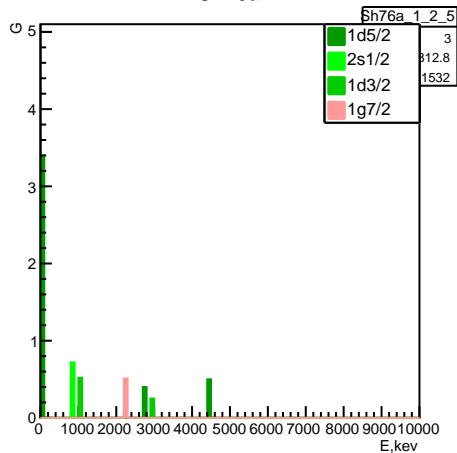
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-8999.24 1d5/2 0.700167 0.816333

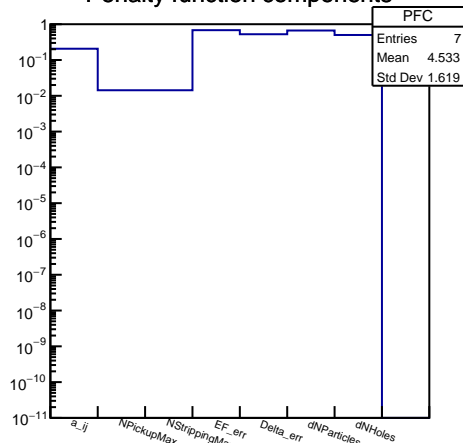
-2442.18 2s1/2 0.105 1.27

-3012.98 1d3/2 0.235 0.75

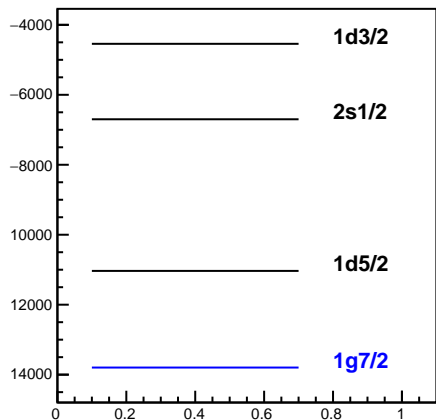
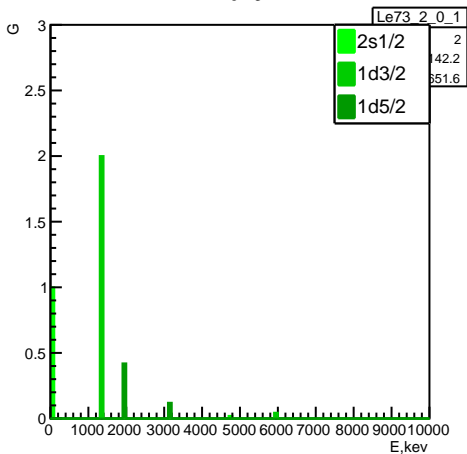
Sh76a



Penalty function components



Le73



Experiment: Sh76a (7) Le73 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -7032.39 ± 559.585 keV

Δ: 5745.47 ± 1473.46 keV

penalty: 0.501624

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

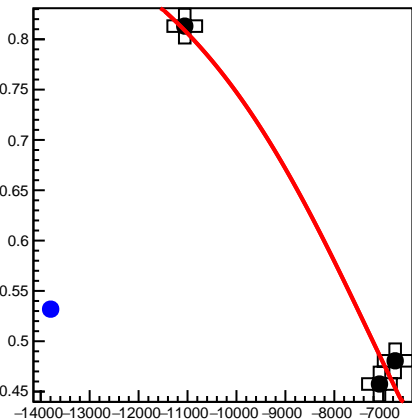
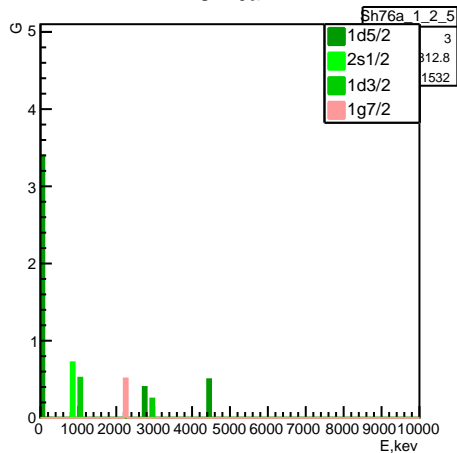
-11034.2 1d5/2 0.813333 0.806667

-6699.62 2s1/2 0.425 0.87

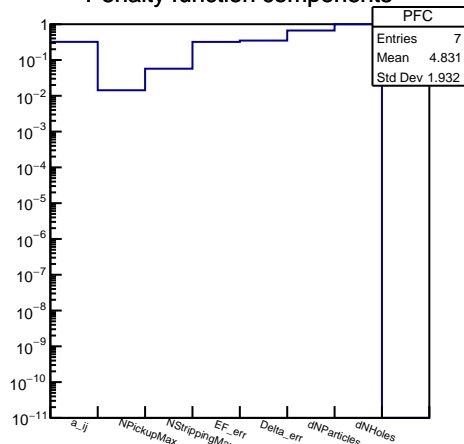
-4542.45 1d3/2 0.34075 0.7035

-13797 1g7/2 0.531875 5.58294e-322

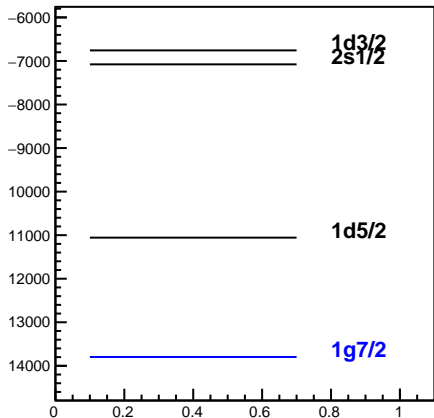
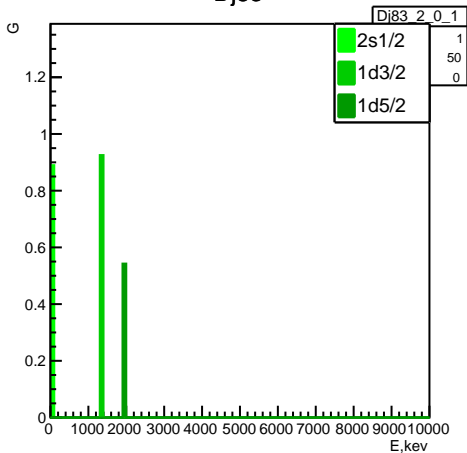
Sh76a



Penalty function components



Dj83



Experiment: Sh76a (7) Dj83 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

 $E_F: -7212.79 \pm 263.066 \text{ keV}$ $\Delta: 4896.39 \pm 979.973 \text{ keV}$

penalty: 0.524801

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

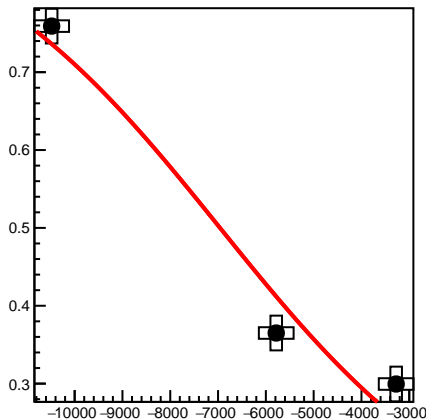
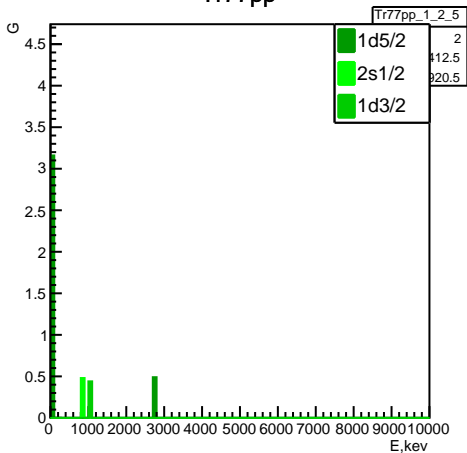
-11056.6 1d5/2 0.813092 0.80715

-7077.74 2s1/2 0.4575 0.805

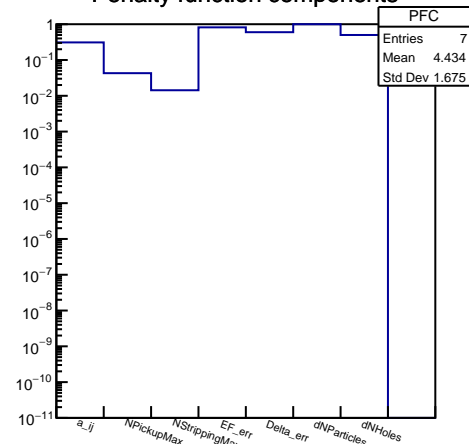
-6757.03 1d3/2 0.48055 0.4239

-13797 1g7/2 0.531875 5.58294e-322

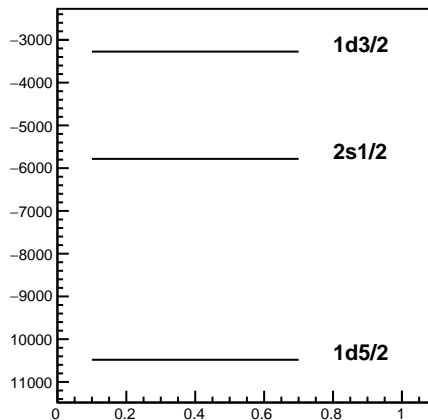
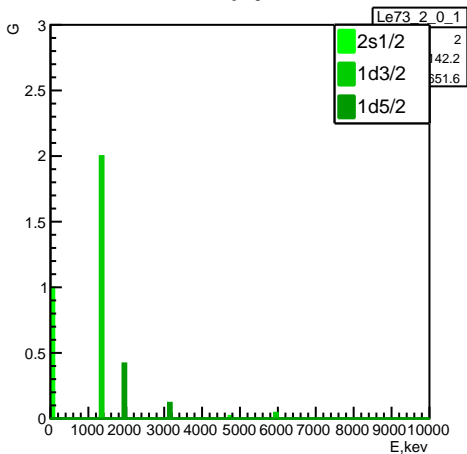
Tr77pp



Penalty function components



Le73



Experiment: Tr77pp (4) Le73 (6)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6958.57 \pm 670.647 keV

Δ : 6569.86 \pm 1680.21 keV

penalty: 0.631331

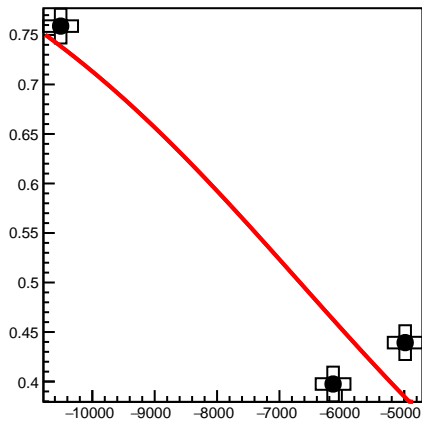
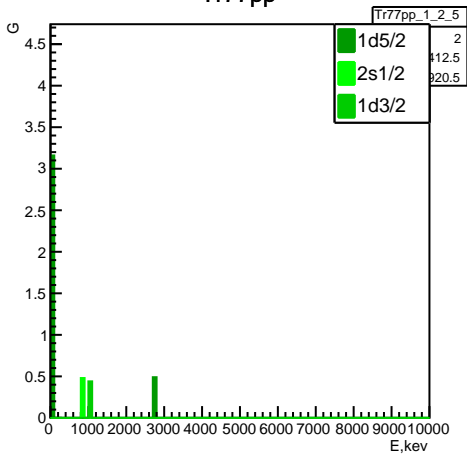
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-10481.2 1d5/2 0.759167 0.698333

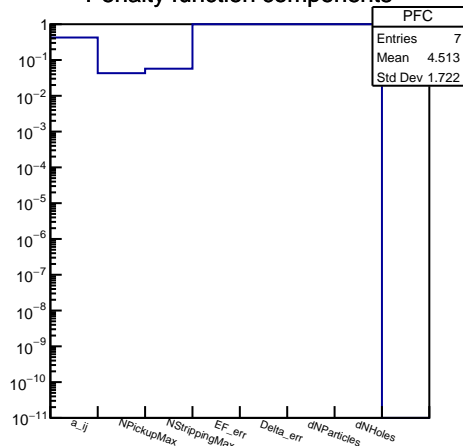
-5782.96 2s1/2 0.365 0.75

-3274.05 1d3/2 0.2995 0.621

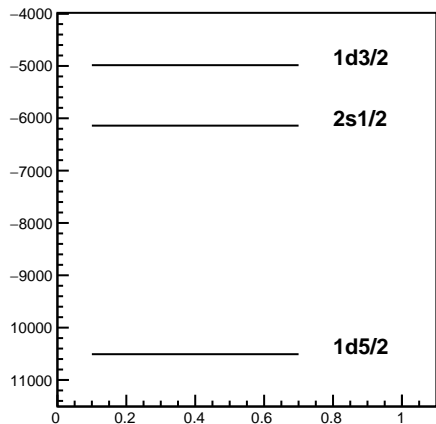
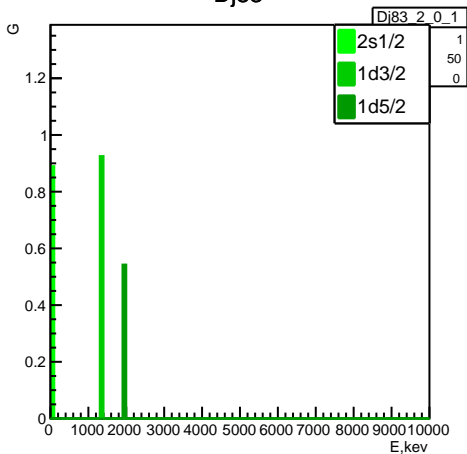
Tr77pp



Penalty function components



Dj83



Experiment: Tr77pp (4) Dj83 (3)

proton transfer

p separation energy A:11585, A+1: 2748.84

E_F: -6670.29 ± 820.748 keV

Δ: 7065.33 ± 2807.67 keV

penalty: 0.870178

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

-10507.5 1d5/2 0.758925 0.698817

-6140.34 2s1/2 0.3975 0.685

-4985 1d3/2 0.4393 0.3414