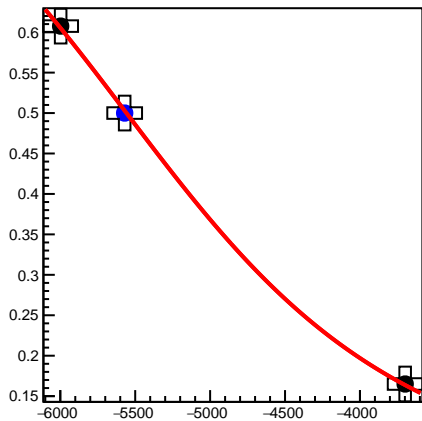
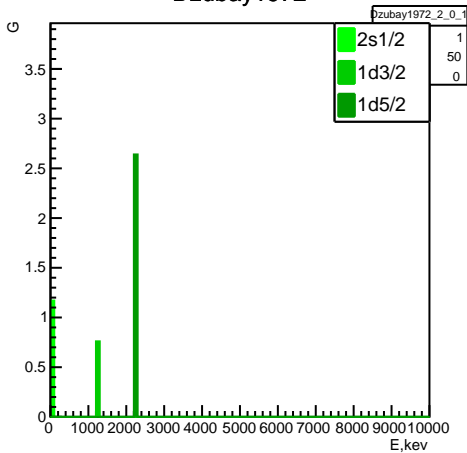
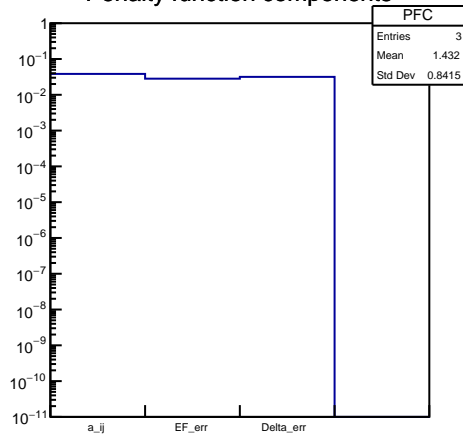


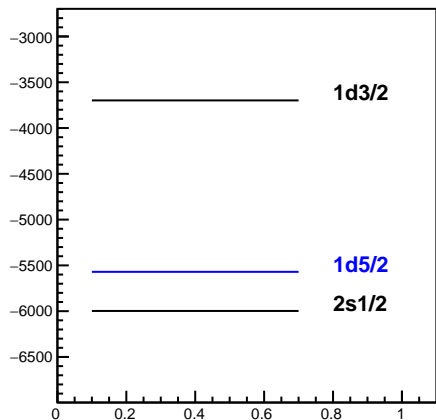
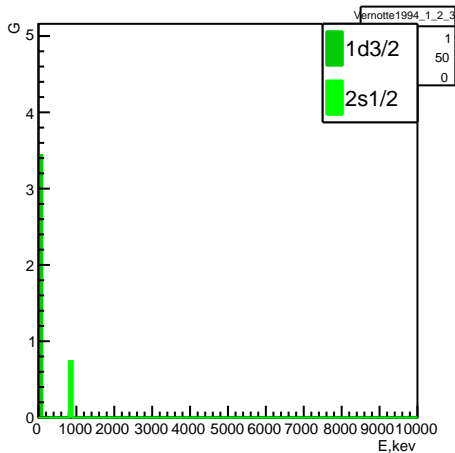
Dzubay1972



Penalty function components



Vernotte1994



Experiment: Dzubay1972 (3) Vernotte1994 (2)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5558.38 ± 11.8001 keV

Δ : -2046.3 ± 40.3119 keV

penalty: 0.0327366

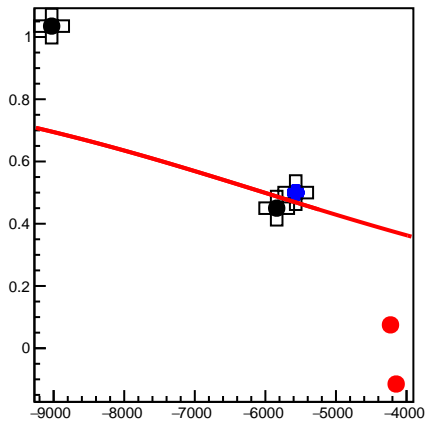
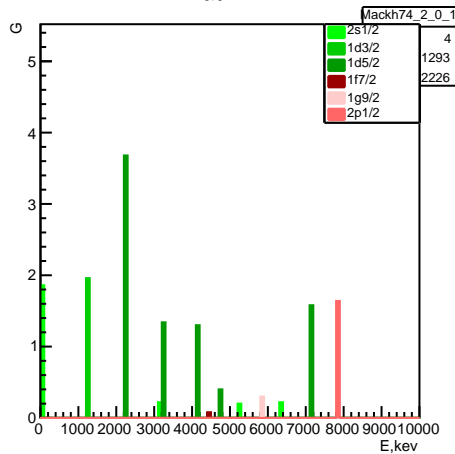
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-5997.62 2s1/2 0.6075 0.955

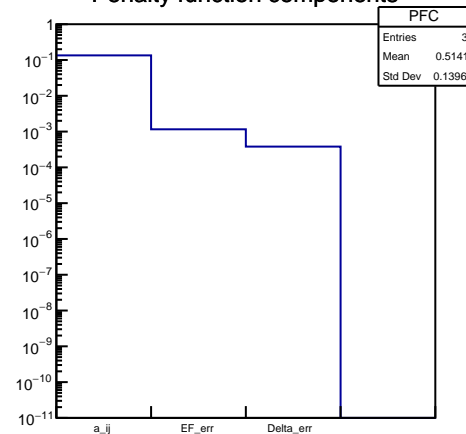
-3698.3 1d3/2 0.165 1.05

-5570.33 1d5/2 0.5 0.88

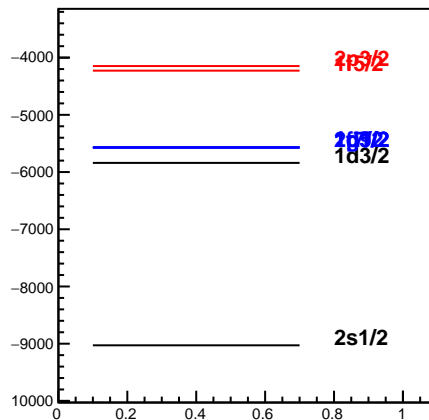
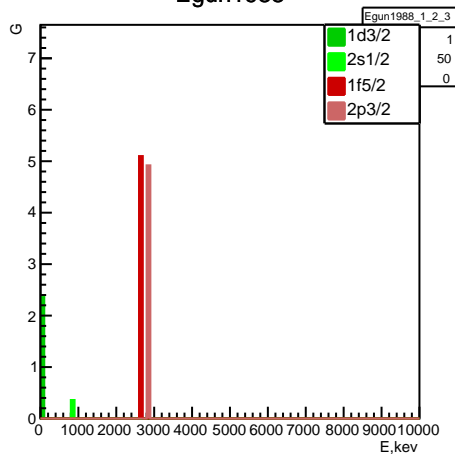
Mackh74



Penalty function components



Egun1988



Experiment: Mackh74 (13) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -6014.34 \pm 0.484296 keV Δ : 7070.17 \pm 0.484296 keV

penalty: 0.0453739

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

-9028.31 2s1/2 1.035 1.43

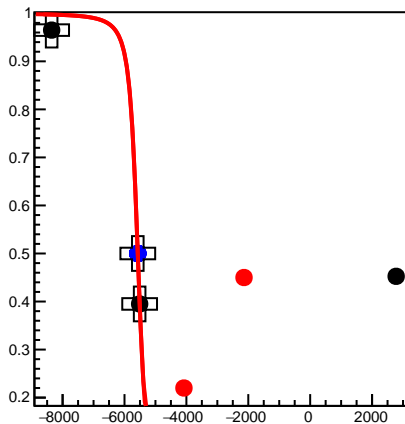
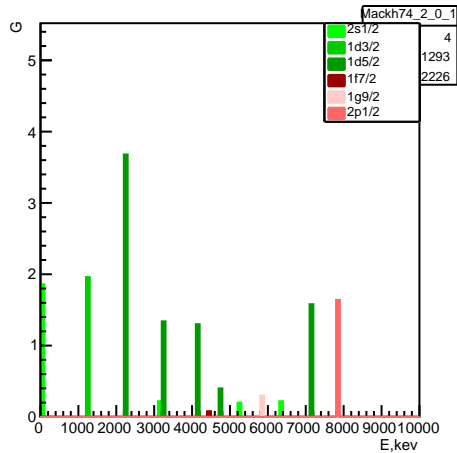
-5839.89 1d3/2 0.45 1.08

-5570.33 1d5/2 0.5 2.76667

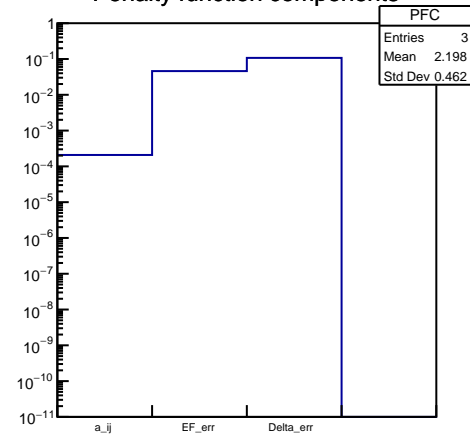
-5570.33 1f7/2 0.5 0.02

-5570.33 1g9/2 0.5 0.06

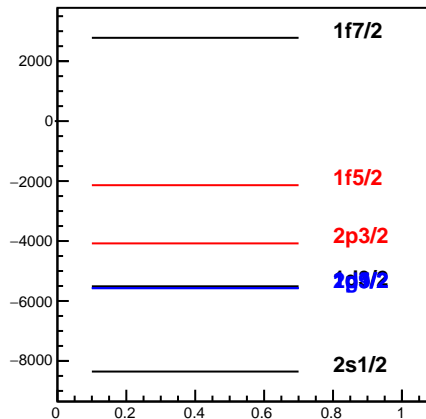
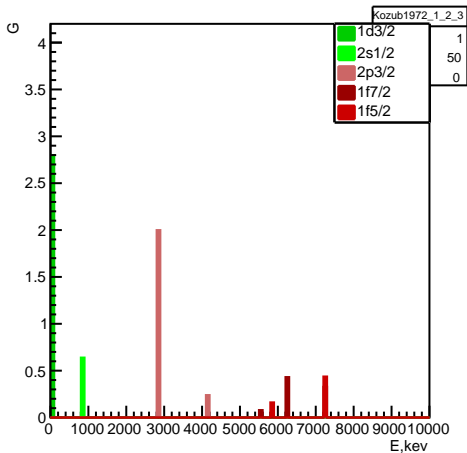
Mackh74



Penalty function components



Kozub1972



Experiment: Mackh74 (13) Kozub1972 (9)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5571.09 \pm 19.2141 keV Δ : 286.962 \pm 136.772 keV

penalty: 0.0511933

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

-8354.05 2s1/2 0.965 1.57

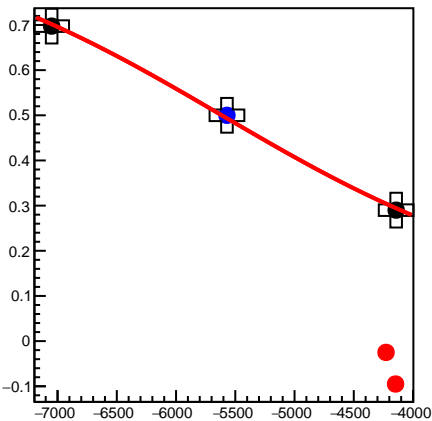
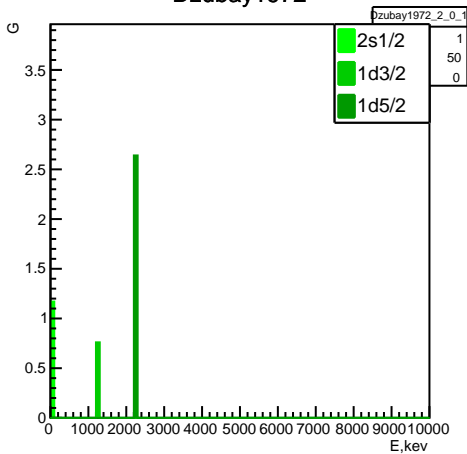
-5510.59 1d3/2 0.395 1.19

-5570.33 1d5/2 0.5 2.76667

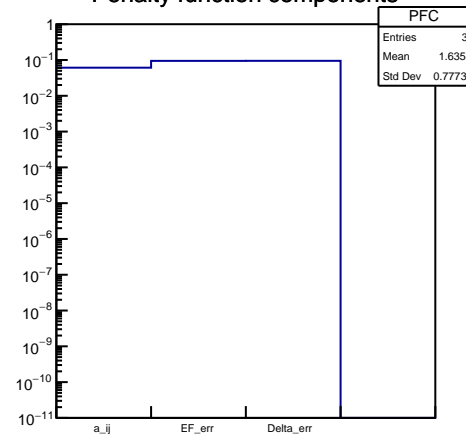
2778.42 1f7/2 0.4525 0.115

-5570.33 1g9/2 0.5 0.06

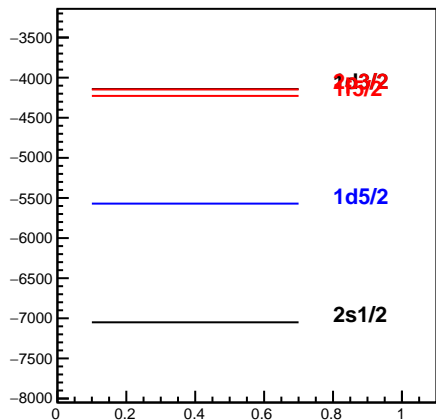
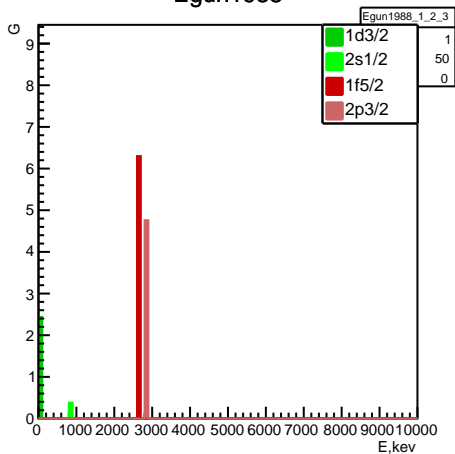
Dzubay1972



Penalty function components



Egun1988



Experiment: Dzubay1972 (3) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5613.74 \pm 39.5444$ keV $\Delta: 3257.68 \pm 120.754$ keV

penalty: 0.083465

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

-7049.9 2s1/2 0.6975 0.775

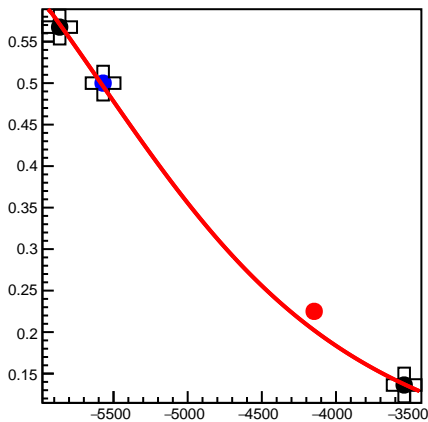
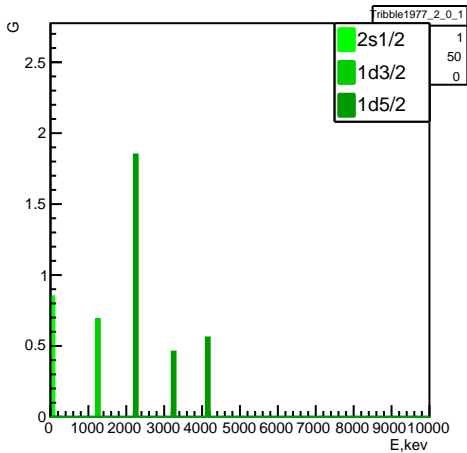
-4142.3 1d3/2 0.29 0.8

-5570.33 1d5/2 0.5 0.88

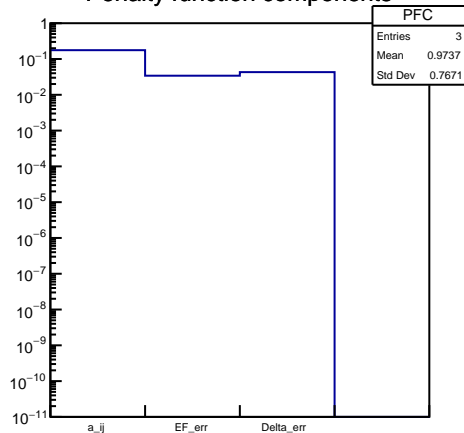
-4227.63 1f5/2 -0.025 1.05

-4147.18 2p3/2 -0.095 1.19

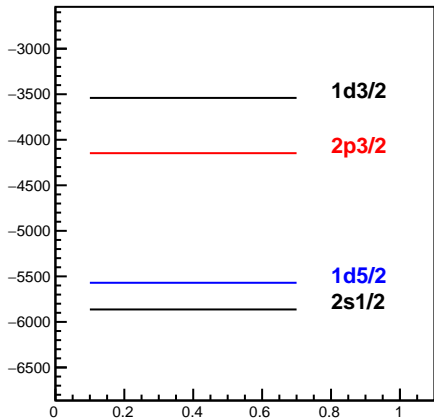
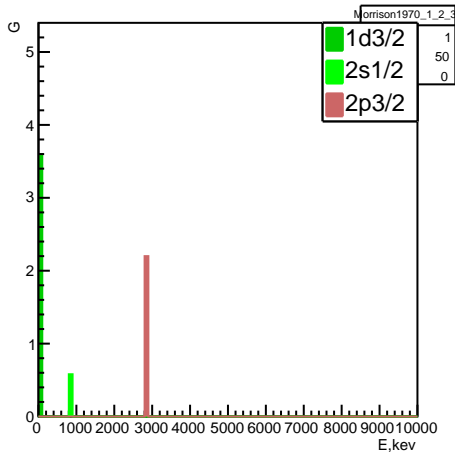
Tribble1977



Penalty function components



Morrison1970



Experiment: Tribble1977 (5) Morrison1970 (3)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5585.05 \pm 14.2824 keV

Δ : -1939.01 \pm 54.7339 keV

penalty: 0.0845327

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

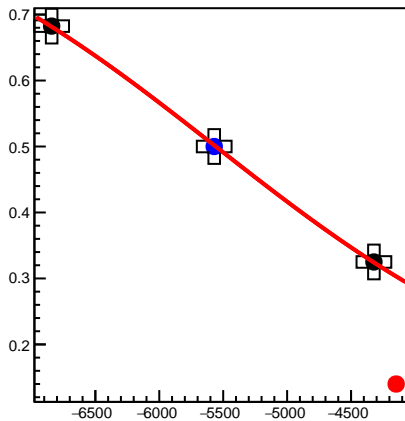
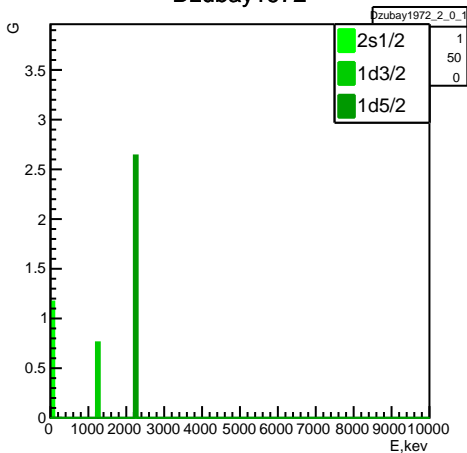
-5863.3 2s1/2 0.5675 0.715

-3540.38 1d3/2 0.13625 1.0725

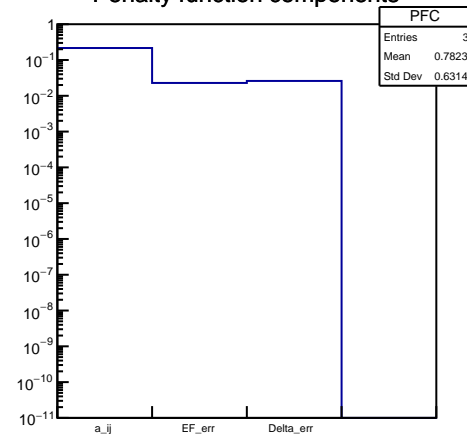
-5570.33 1d5/2 0.5 0.956667

-4147.18 2p3/2 0.225 0.55

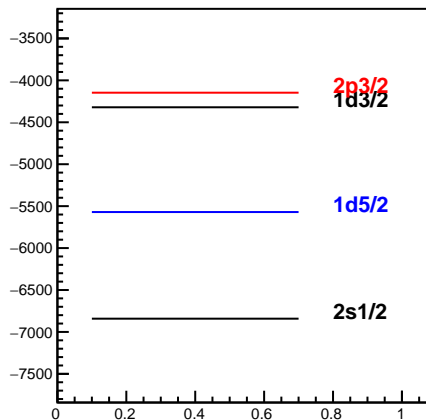
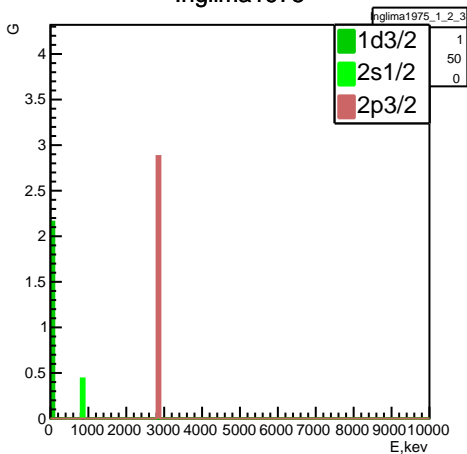
Dzubay1972



Penalty function components



Inglima1975



Experiment: Dzubay1972 (3) Inglima1975 (3)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5558.49 ± 9.55558 keV

Δ : 3294.3 ± 33.0894 keV

penalty: 0.0883624

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

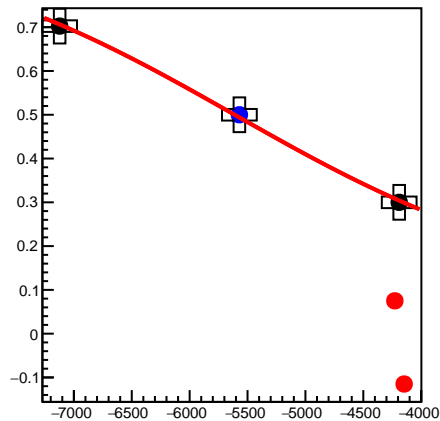
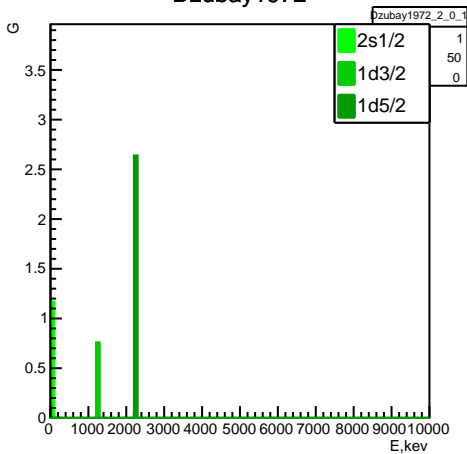
-6841.84 2s1/2 0.6825 0.805

-4321.12 1d3/2 0.325 0.73

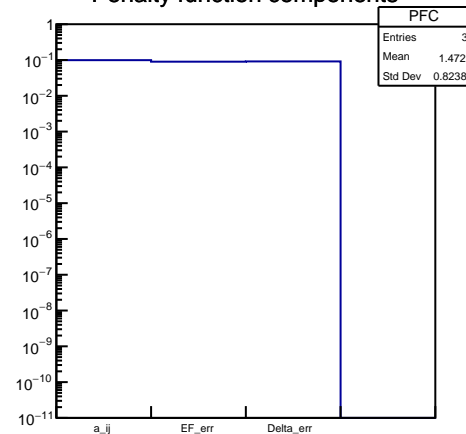
-5570.33 1d5/2 0.5 0.88

-4147.18 2p3/2 0.14 0.72

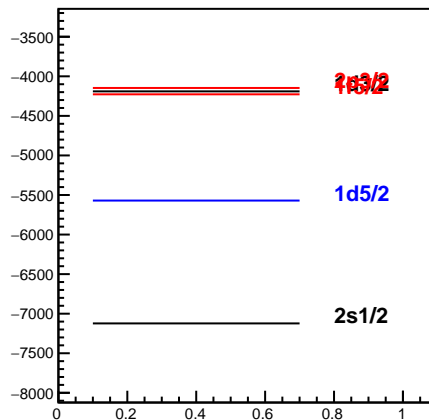
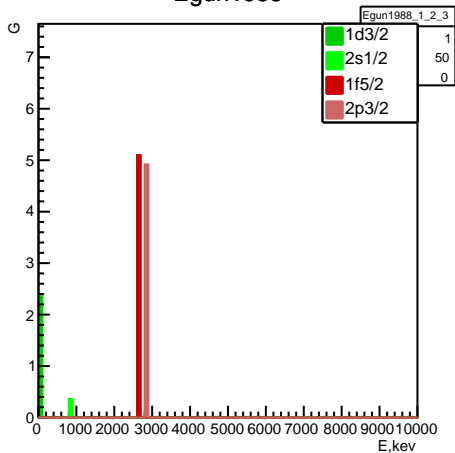
Dzubay1972



Penalty function components



Egun1988



Experiment: Dzubay1972 (3) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5611.15 \pm 37.5437 \text{ keV}$ $\Delta: 3336.8 \pm 116.164 \text{ keV}$

penalty: 0.0933352

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

-7122.88 2s1/2 0.7025 0.765

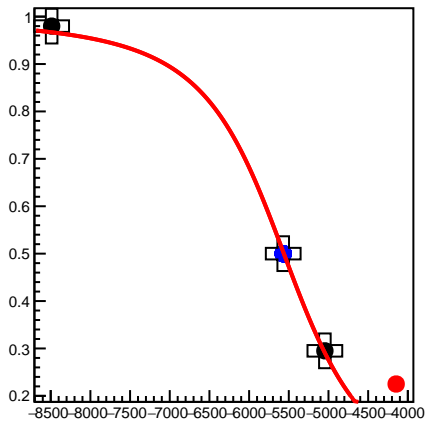
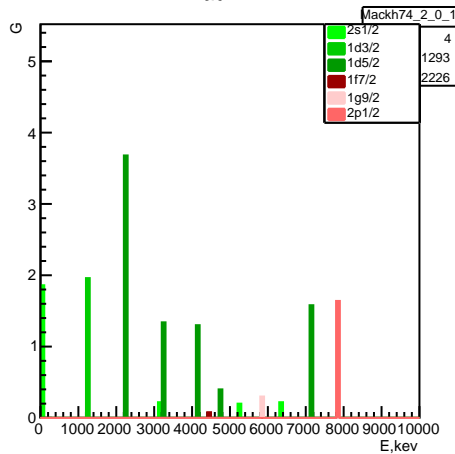
-4190.12 1d3/2 0.3 0.78

-5570.33 1d5/2 0.5 0.88

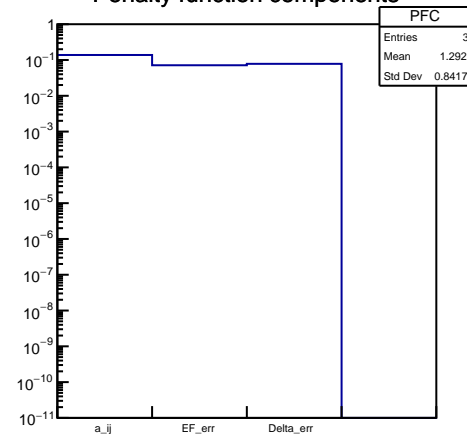
-4227.63 1f5/2 0.075 0.85

-4147.18 2p3/2 -0.115 1.23

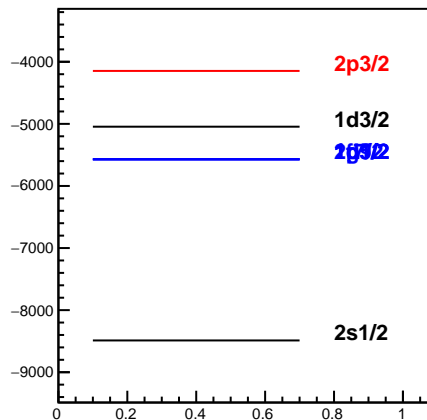
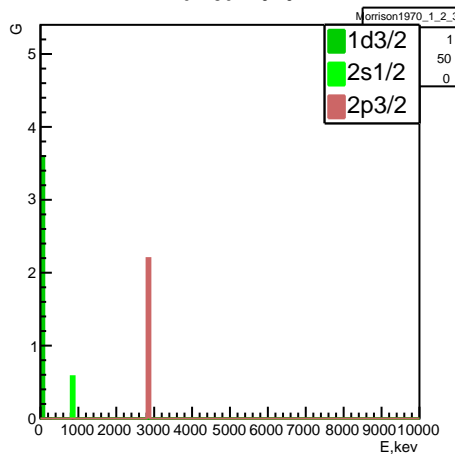
Mackh74



Penalty function components



Morrison1970



Experiment: Mackh74 (13) Morrison1970 (3)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5562.02 ± 29.8319 keV

Δ: 1120.76 ± 99.4897 keV

penalty: 0.0958554

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

-8488.22 2s1/2 0.98 1.54

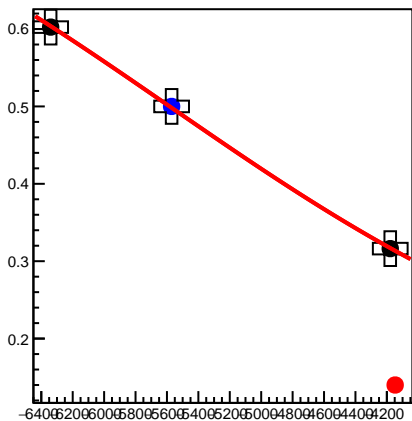
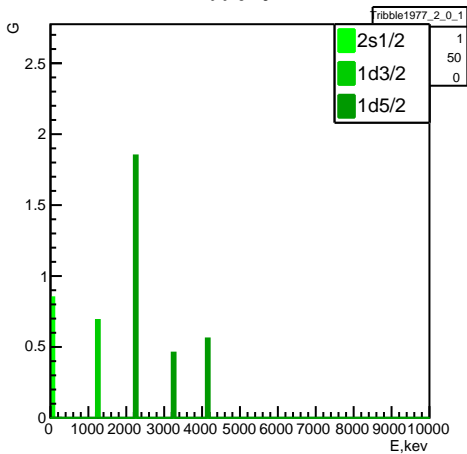
-5045.4 1d3/2 0.295 1.39

-5570.33 1d5/2 0.5 2.76667

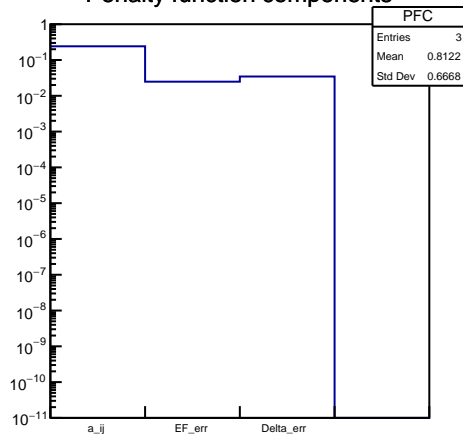
-5570.33 1f7/2 0.5 0.02

-5570.33 1g9/2 0.5 0.06

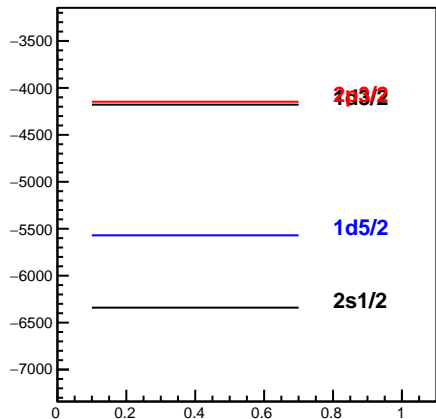
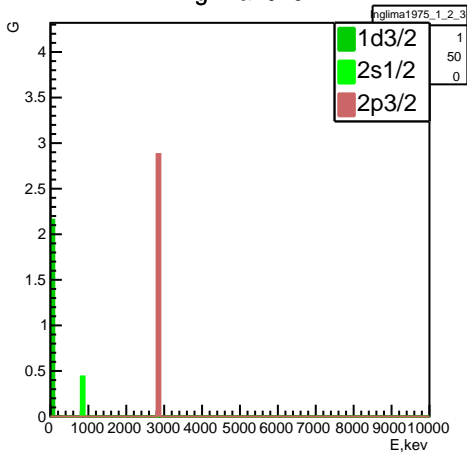
Tribble1977



Penalty function components



Inglima1975



Experiment: Tribble1977 (5) Inglima1975 (3)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5582.95 ± 10.3683 keV

Δ : 3570.44 ± 44.0071 keV

penalty: 0.100271

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

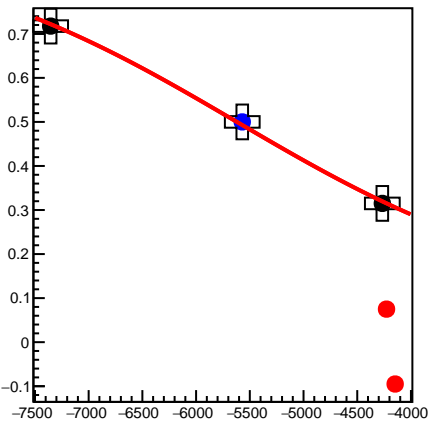
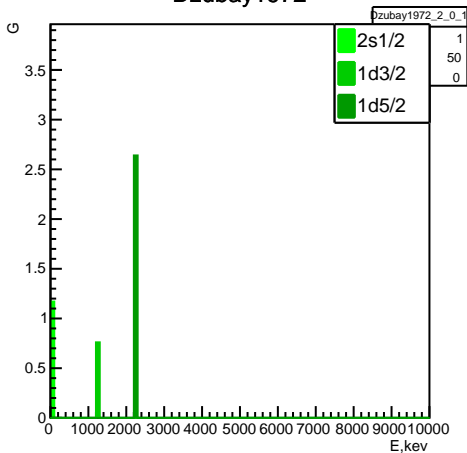
-6340.43 2s1/2 0.6025 0.645

-4178.46 1d3/2 0.31625 0.7125

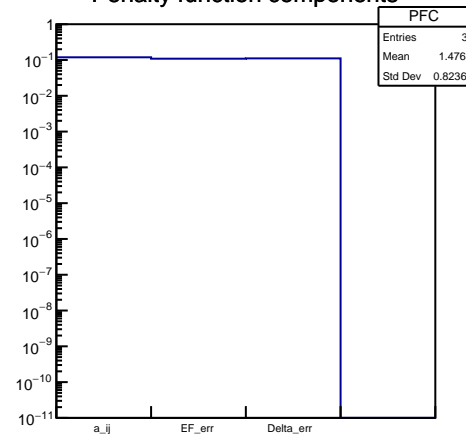
-5570.33 1d5/2 0.5 0.956667

-4147.18 2p3/2 0.14 0.72

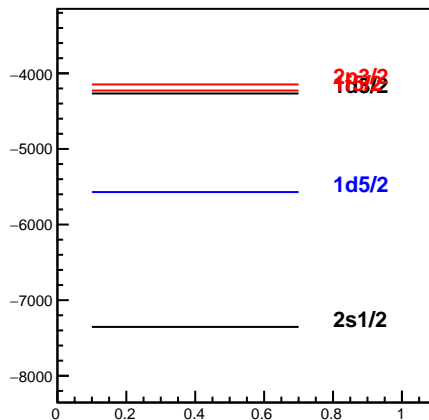
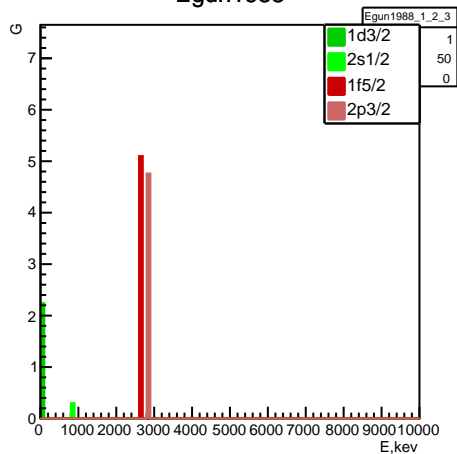
Dzubay1972



Penalty function components



Egun1988



Experiment: Dzubay1972 (3) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5620.23 \pm 45.509 \text{ keV}$ $\Delta: 3500.97 \pm 141.292 \text{ keV}$

penalty: 0.112929

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

-7353.74 2s1/2 0.7175 0.735

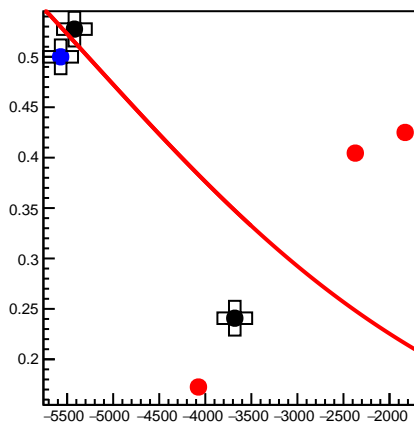
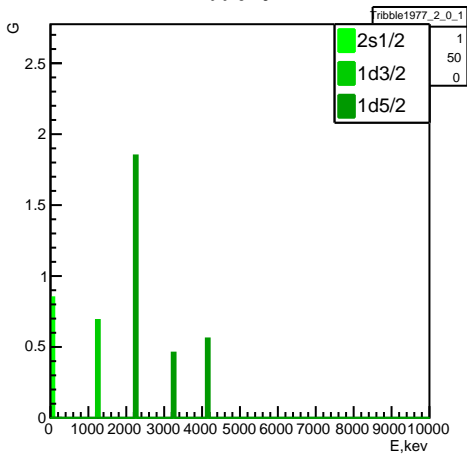
-4266.62 1d3/2 0.315 0.75

-5570.33 1d5/2 0.5 0.88

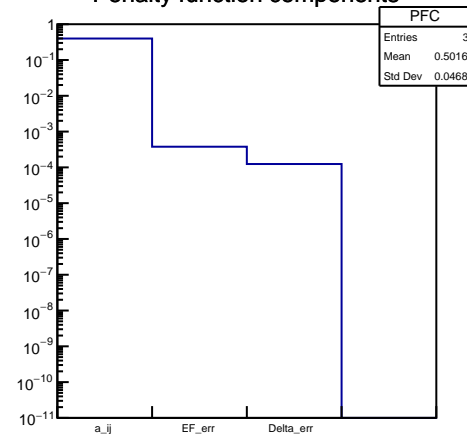
-4227.63 1f5/2 0.075 0.85

-4147.18 2p3/2 -0.095 1.19

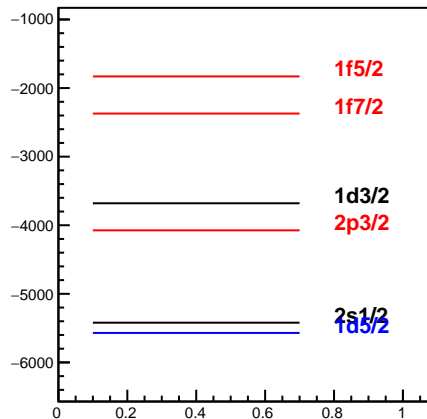
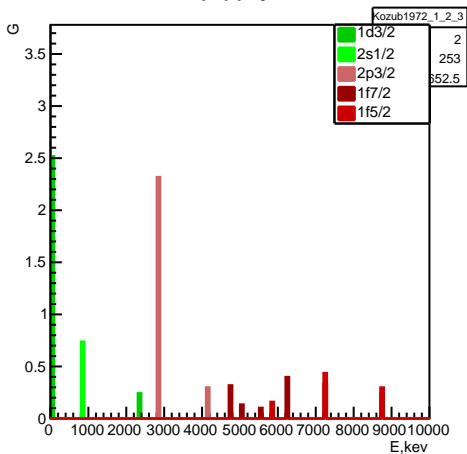
Tribble1977



Penalty function components



Kozub1972



Experiment: Tribble1977 (5) Kozub1972 (14)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5273.13 \pm 0.157976$ keV $\Delta: 4980.73 \pm 0.157976$ keV

penalty: 0.13288

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

-5420.9 2s1/2 0.5275 0.795

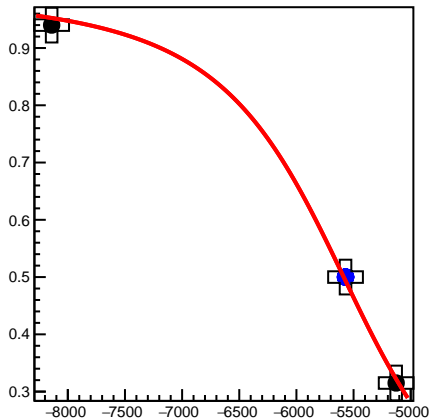
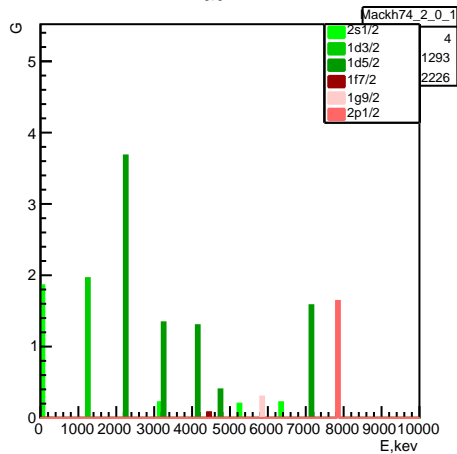
-3679.89 1d3/2 0.24075 0.8635

-5570.33 1d5/2 0.5 0.956667

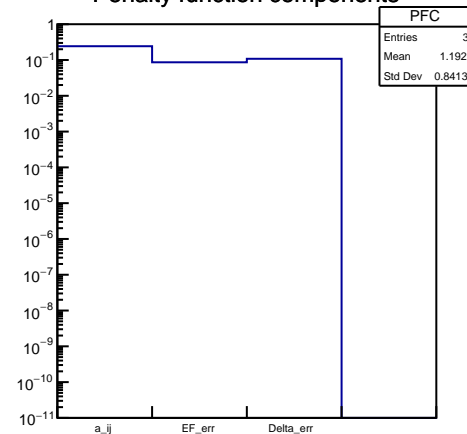
-4074.41 2p3/2 0.1725 0.655

-2371.54 1f7/2 0.4045 0.191

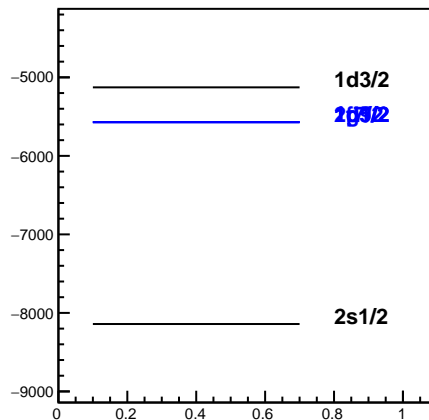
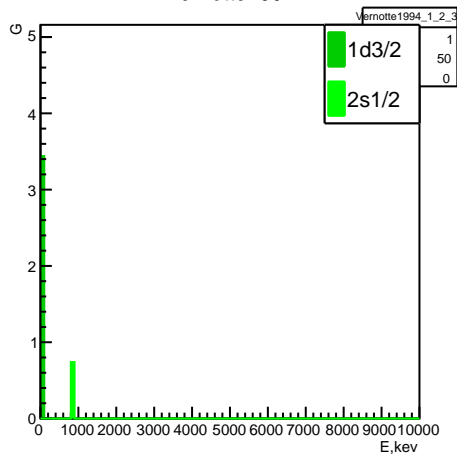
Mackh74



Penalty function components



Vernotte1994



Experiment: Mackh74 (13) Vernotte1994 (2)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 E_F : -5586.02 \pm 36.097 keV Δ : -1202.43 \pm 137.652 keV

penalty: 0.145735

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

-8141.49 2s1/2 0.94 1.62

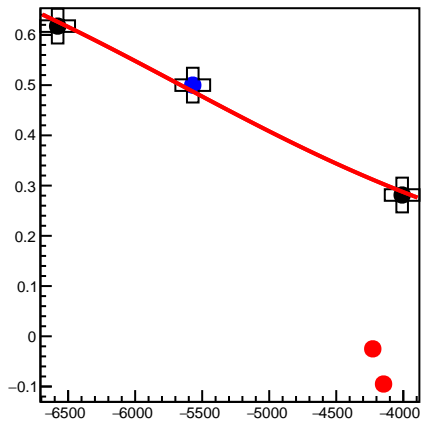
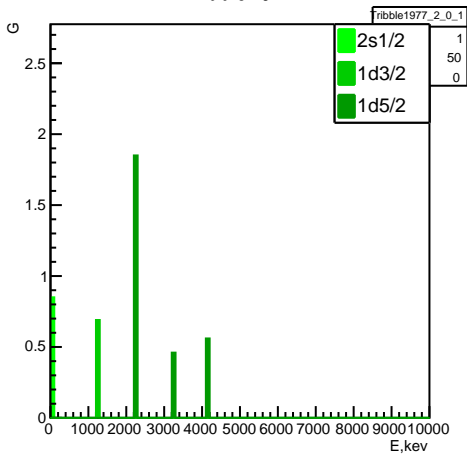
-5127.41 1d3/2 0.315 1.35

-5570.33 1d5/2 0.5 2.76667

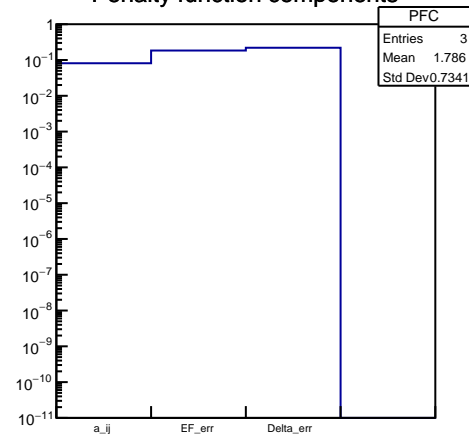
-5570.33 1f7/2 0.5 0.02

-5570.33 1g9/2 0.5 0.06

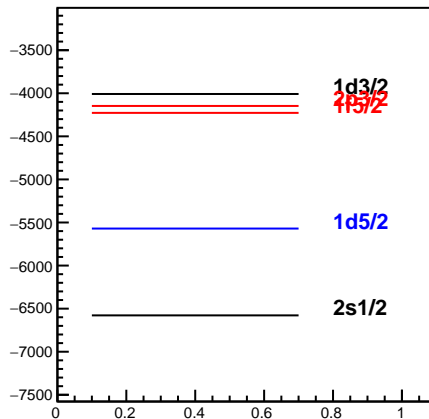
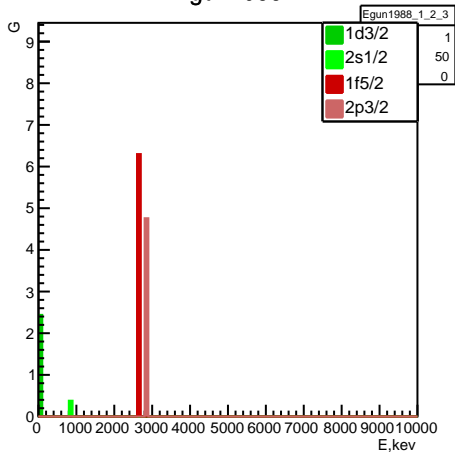
Tribble1977



Penalty function components



Egun1988



Experiment: Tribble1977 (5) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5659.47 \pm 76.958 \text{ keV}$ $\Delta: 3526.16 \pm 279.908 \text{ keV}$

penalty: 0.161675

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

-6578.16 2s1/2 0.6175 0.615

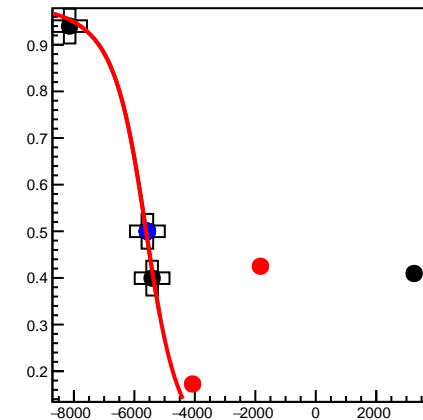
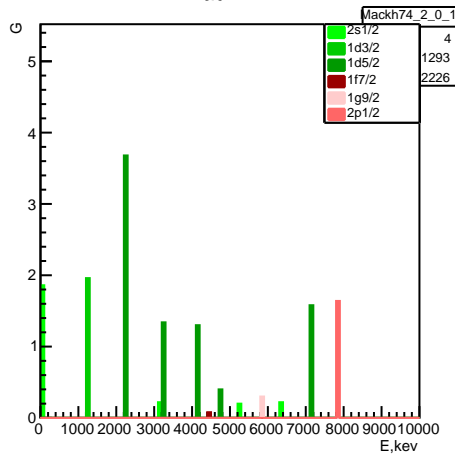
-4008.41 1d3/2 0.28125 0.7825

-5570.33 1d5/2 0.5 0.956667

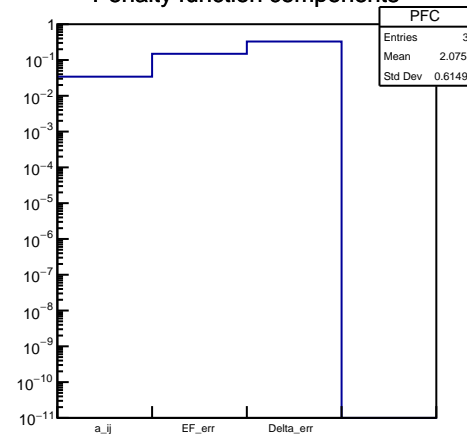
-4227.63 1f5/2 -0.025 1.05

-4147.18 2p3/2 -0.095 1.19

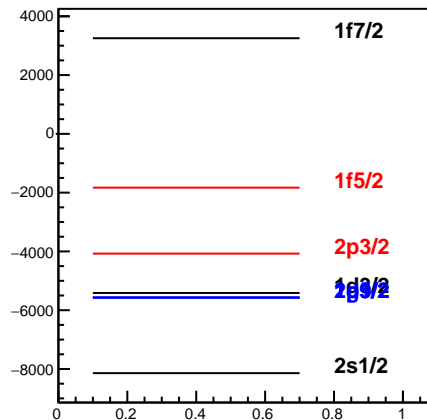
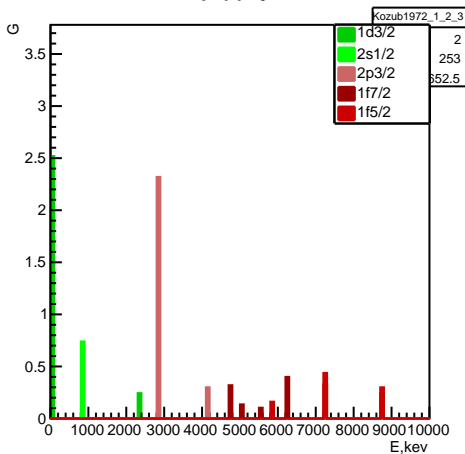
Mackh74



Penalty function components



Kozub1972



Experiment: Mackh74 (13) Kozub1972 (14)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5611.75 \pm 62.3354 keV Δ : -1173.65 \pm 418.192 keV

penalty: 0.170576

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

-8141.49 2s1/2 0.94 1.62

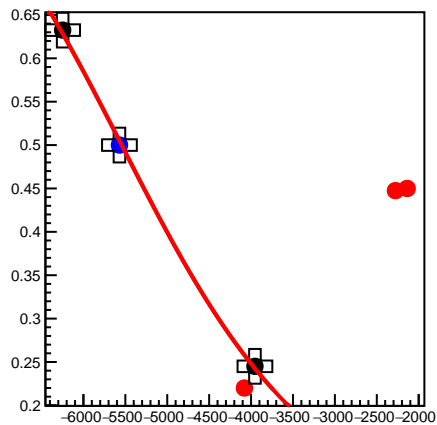
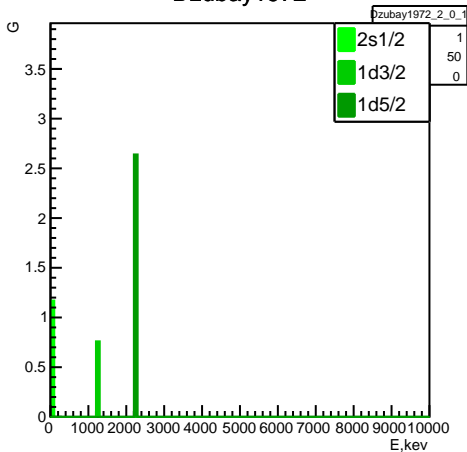
-5413.75 1d3/2 0.3995 1.181

-5570.33 1d5/2 0.5 2.76667

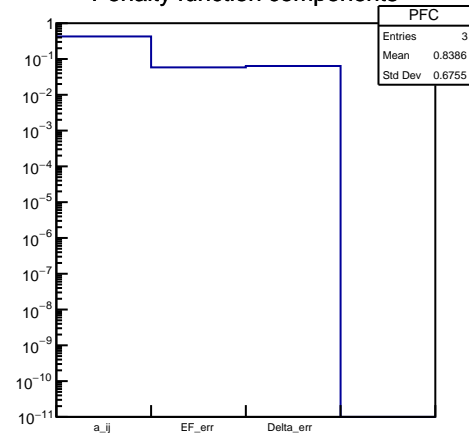
3253.7 1f7/2 0.4095 0.201

-5570.33 1g9/2 0.5 0.06

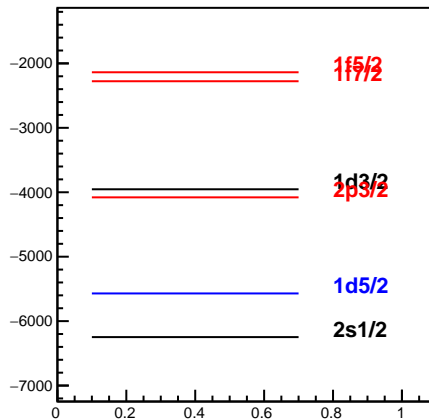
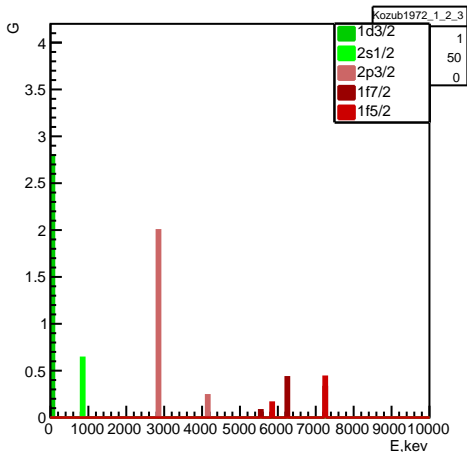
Dzubay1972



Penalty function components



Kozub1972



Experiment: Dzubay1972 (3) Kozub1972 (9)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5543.93 ± 24.3937 keV

Δ : 2647.54 ± 81.1627 keV

penalty: 0.182913

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

-6247.93 2s1/2 0.6325 0.905

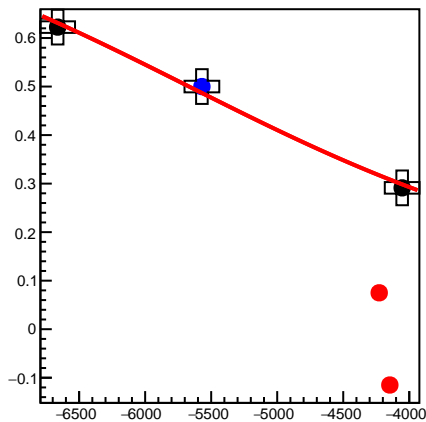
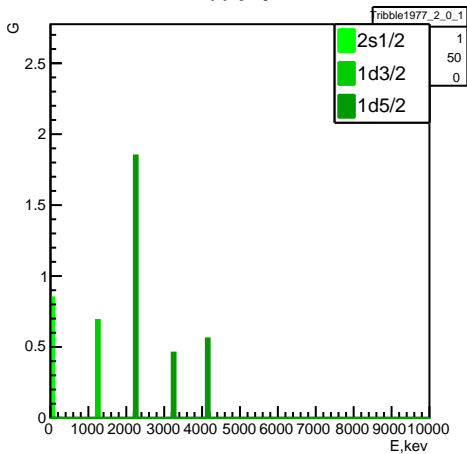
-3953.73 1d3/2 0.245 0.89

-5570.33 1d5/2 0.5 0.88

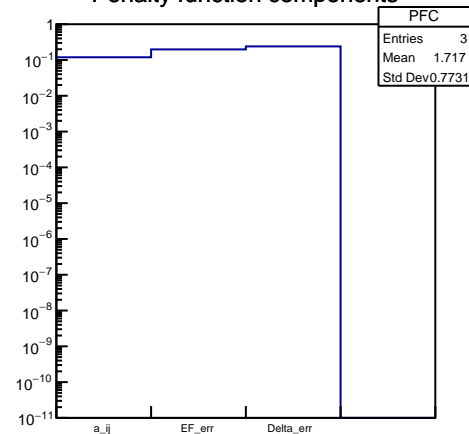
-4079.08 2p3/2 0.22 0.56

-2277 1f7/2 0.4475 0.105

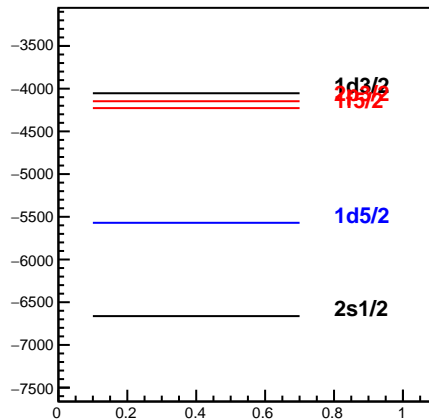
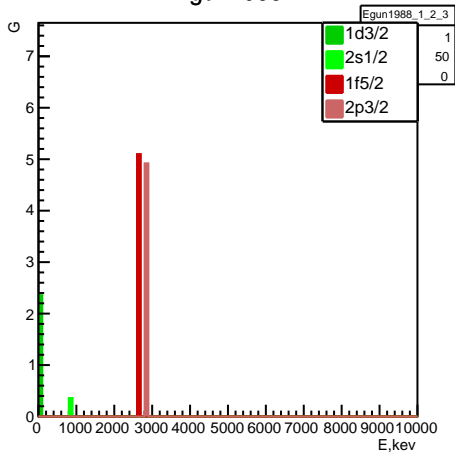
Tribble1977



Penalty function components



Egun1988



Experiment: Tribble1977 (5) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5667.44 ± 82.7504 keV

Δ : 3664.16 ± 305.272 keV

penalty: 0.185599

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

-6662.64 2s1/2 0.6225 0.605

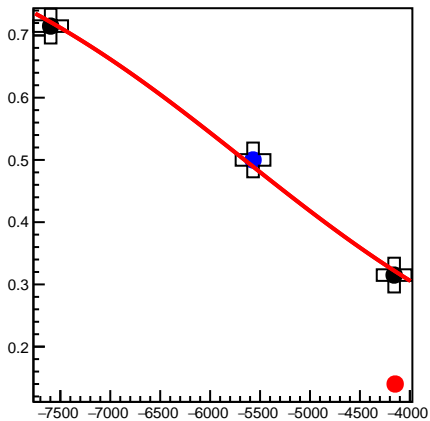
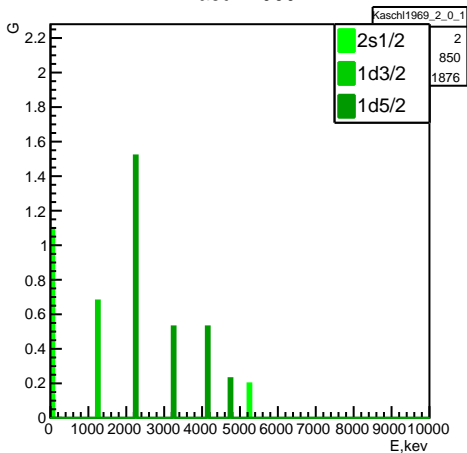
-4053.81 1d3/2 0.29125 0.7625

-5570.33 1d5/2 0.5 0.956667

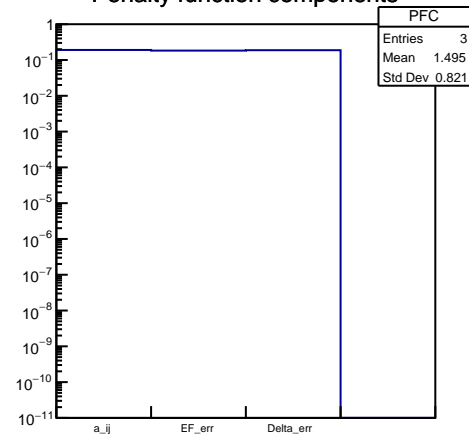
-4227.63 1f5/2 0.075 0.85

-4147.18 2p3/2 -0.115 1.23

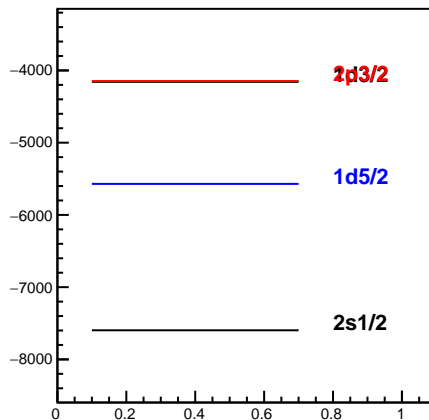
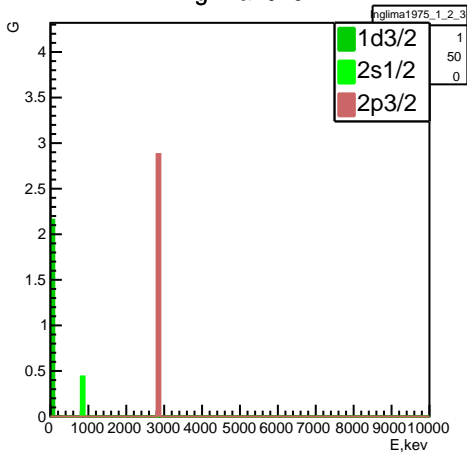
Kaschl1969



Penalty function components



Inglima1975



Experiment: Kaschl1969 (7) Inglima1975 (3)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5654.62 \pm 76.5817 \text{ keV}$ $\Delta: 3933.39 \pm 239.188 \text{ keV}$

penalty: 0.187269

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

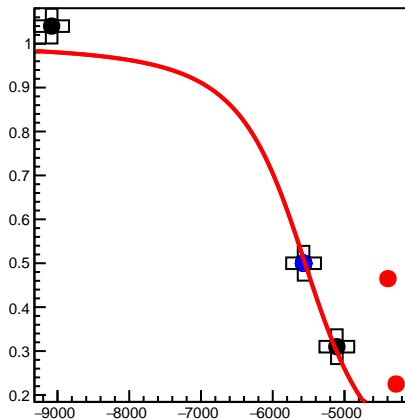
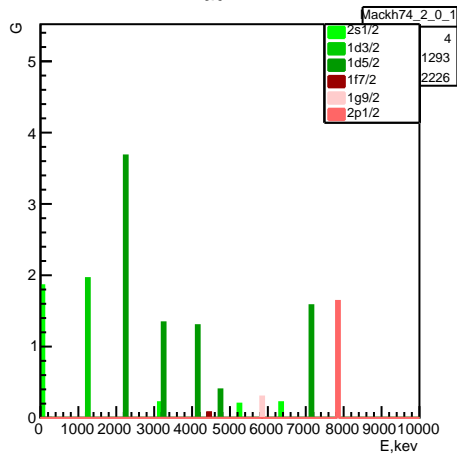
-7597.09 2s1/2 0.715 0.87

-4157.51 1d3/2 0.315 0.71

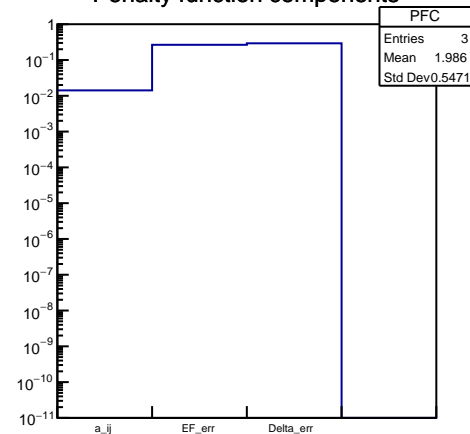
-5570.33 1d5/2 0.5 0.936667

-4147.18 2p3/2 0.14 0.72

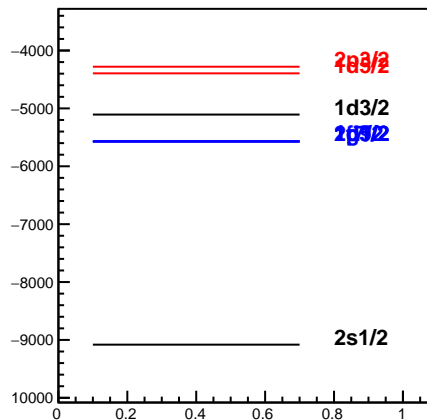
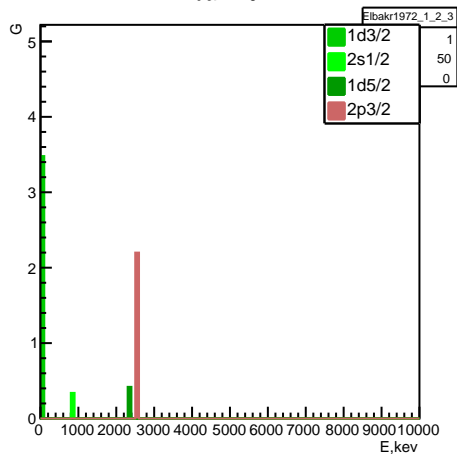
Mackh74



Penalty function components



Elbakr1972



Experiment: Mackh74 (13) Elbakr1972 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5549.45 ± 111.219 keV

Δ: -1003.59 ± 372.709 keV

penalty: 0.190944

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

-9081.56 2s1/2 1.04 1.42

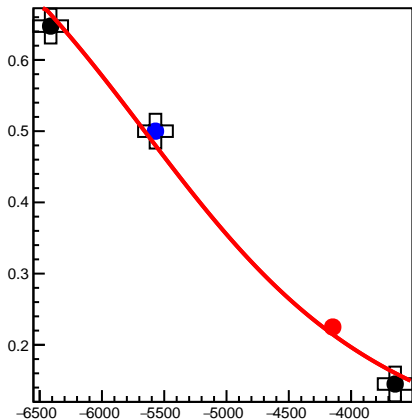
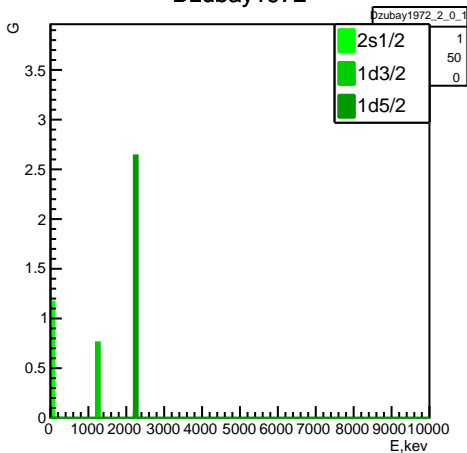
-5106.46 1d3/2 0.31 1.36

-5570.33 1d5/2 0.5 2.76667

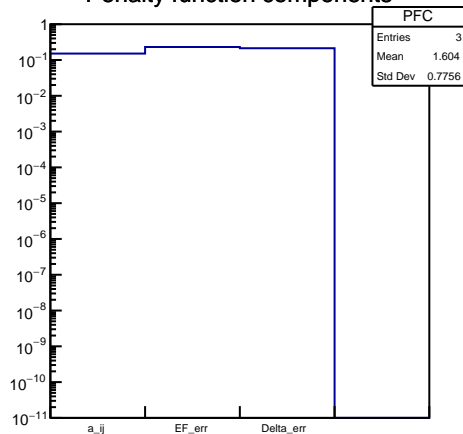
-5570.33 1f7/2 0.5 0.02

-5570.33 1g9/2 0.5 0.06

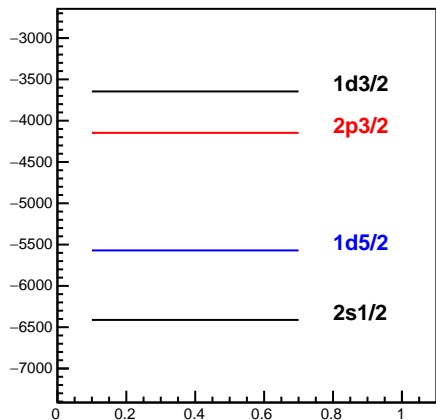
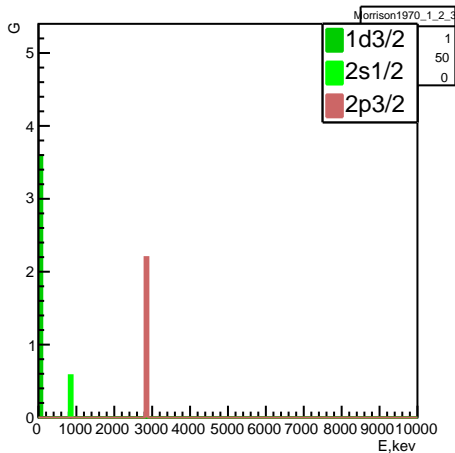
Dzubay1972



Penalty function components



Morrison1970



Experiment: Dzubay1972 (3) Morrison1970 (3)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5657.44 \pm 96.4852 keV

Δ : -2172.8 \pm 271.497 keV

penalty: 0.198395

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

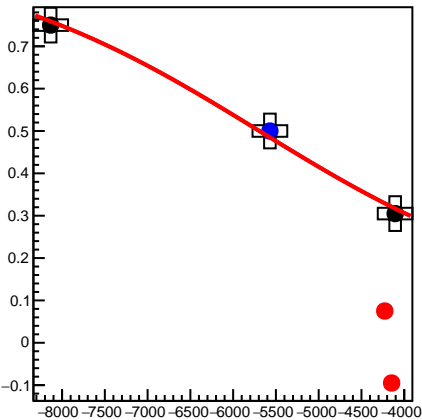
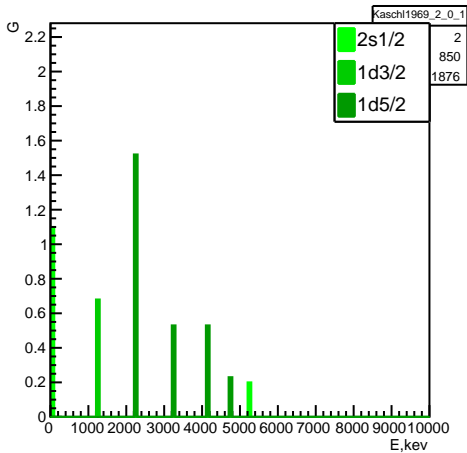
-6411.85 2s1/2 0.6475 0.875

-3646.16 1d3/2 0.145 1.09

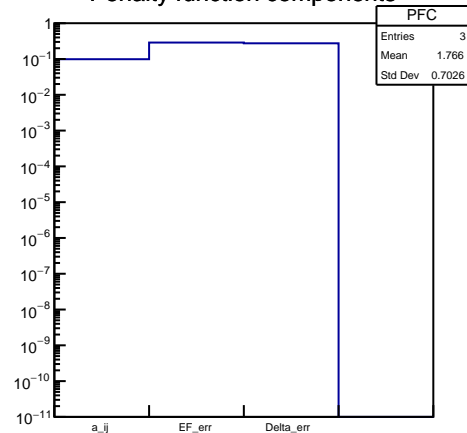
-5570.33 1d5/2 0.5 0.88

-4147.18 2p3/2 0.225 0.55

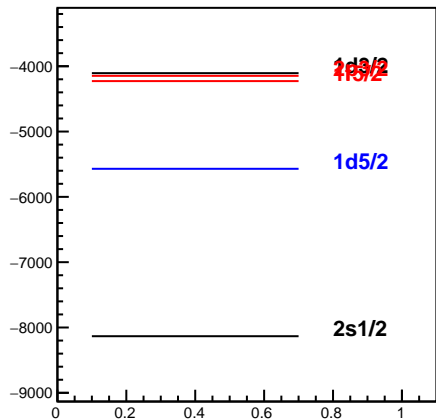
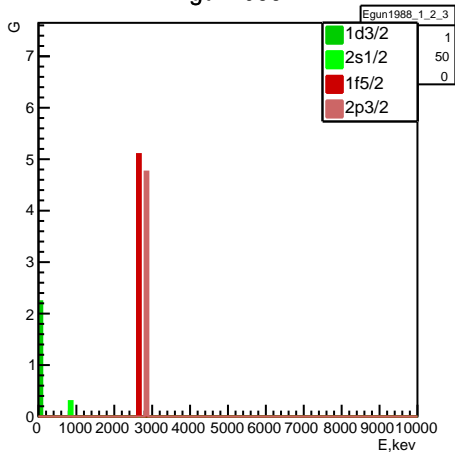
Kaschl1969



Penalty function components



Egun1988



Experiment: Kaschl1969 (7) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5692.94 \pm 120.505$ keV $\Delta: 4034.37 \pm 349.496$ keV

penalty: 0.220432

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

-8133.48 2s1/2 0.75 0.8

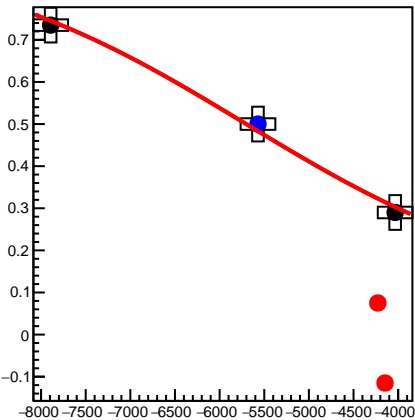
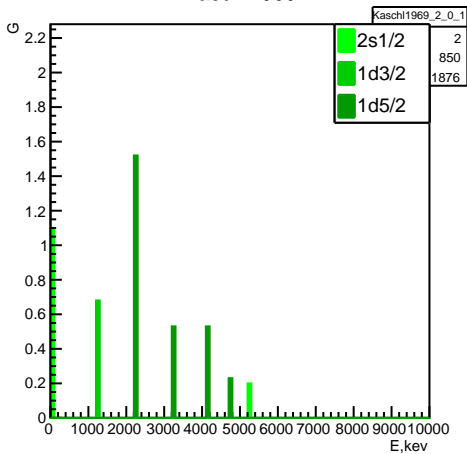
-4106 1d3/2 0.305 0.73

-5570.33 1d5/2 0.5 0.936667

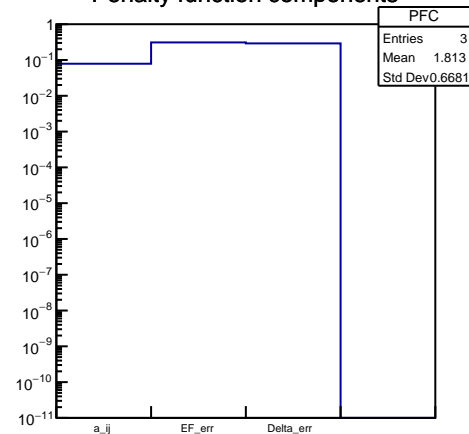
-4227.63 1f5/2 0.075 0.85

-4147.18 2p3/2 -0.095 1.19

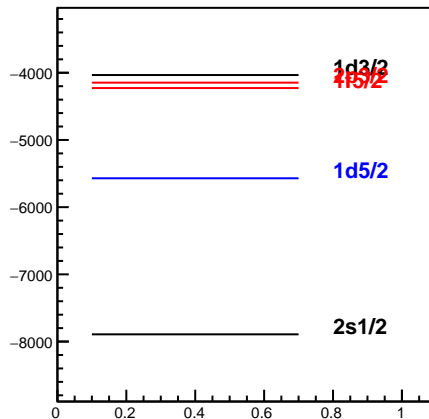
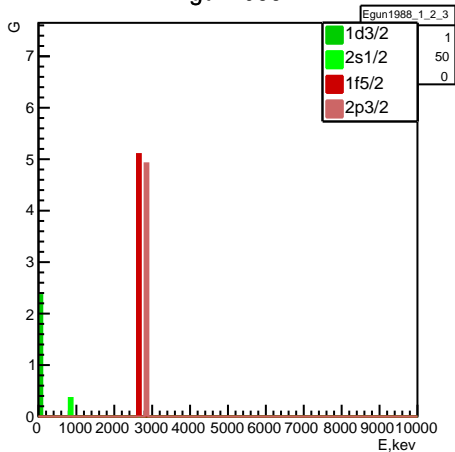
Kaschl1969



Penalty function components



Egun1988



Experiment: Kaschl1969 (7) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5702.05 \pm 129.581 \text{ keV}$ $\Delta: 3892.85 \pm 370.616 \text{ keV}$

penalty: 0.226529

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

-7892.52 2s1/2 0.735 0.83

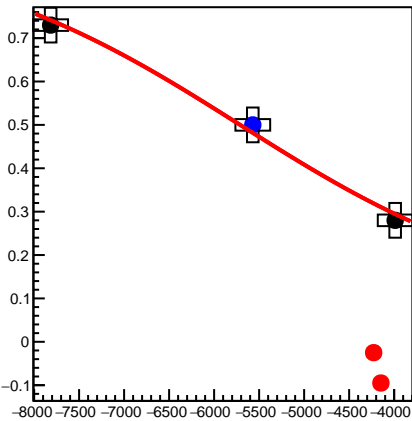
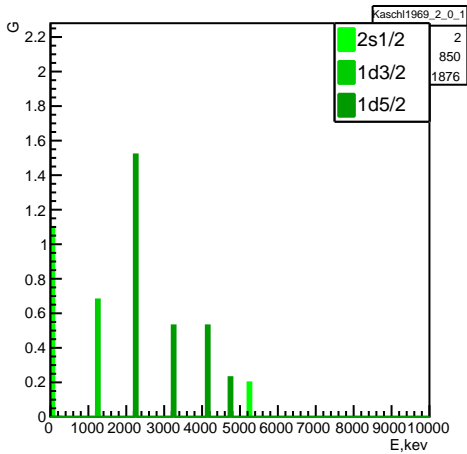
-4033.83 1d3/2 0.29 0.76

-5570.33 1d5/2 0.5 0.936667

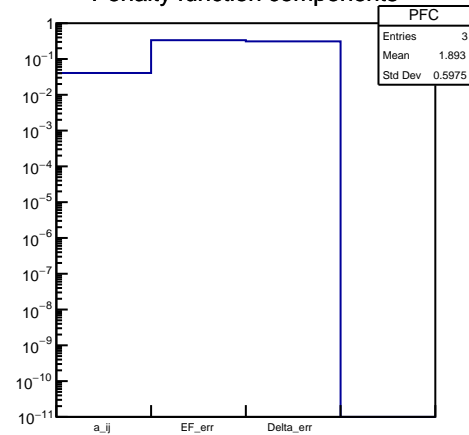
-4227.63 1f5/2 0.075 0.85

-4147.18 2p3/2 -0.115 1.23

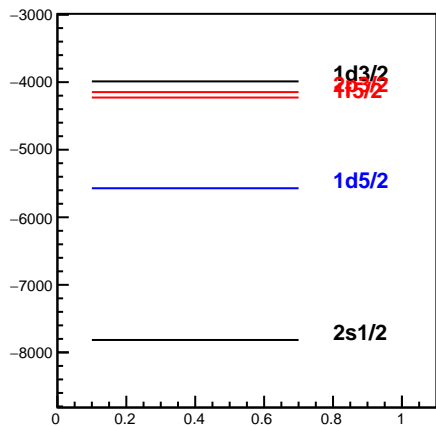
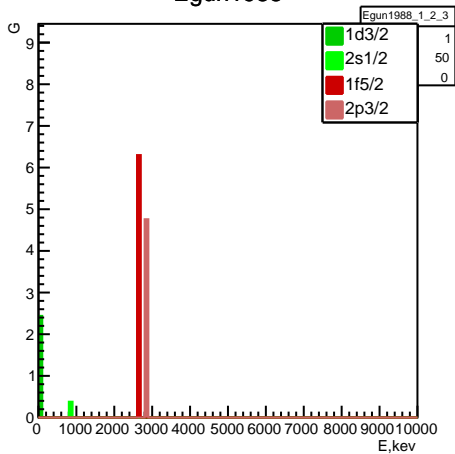
Kaschl1969



Penalty function components



Egun1988



Experiment: Kaschl1969 (7) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5710.67 \pm 140.328 \text{ keV}$ $\Delta: 3817.77 \pm 395.761 \text{ keV}$

penalty: 0.229011

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

-7816.02 2s1/2 0.73 0.84

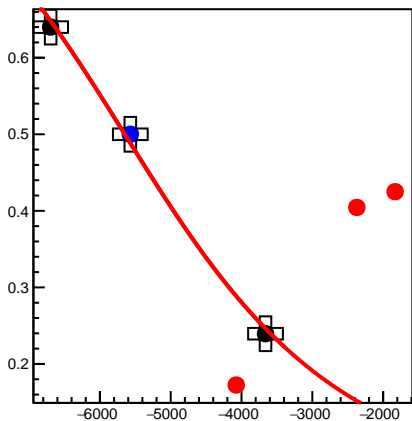
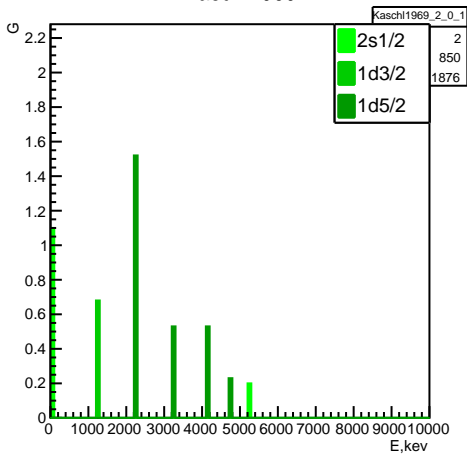
-3988.79 1d3/2 0.28 0.78

-5570.33 1d5/2 0.5 0.936667

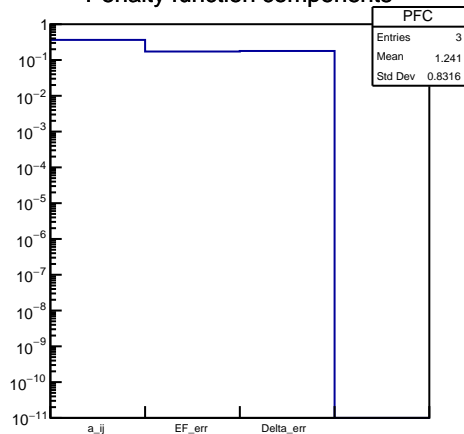
-4227.63 1f5/2 -0.025 1.05

-4147.18 2p3/2 -0.095 1.19

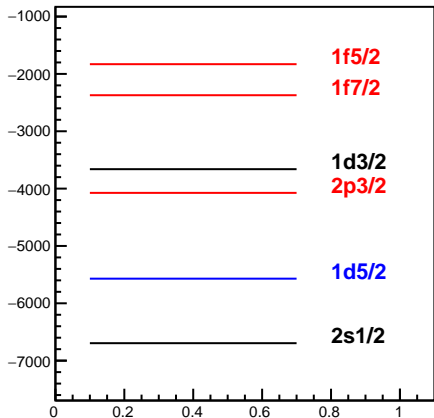
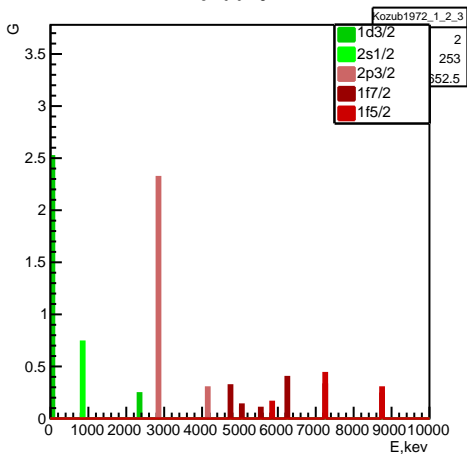
Kaschl1969



Penalty function components



Kozub1972



Experiment: Kaschl1969 (7) Kozub1972 (14)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5648.96 \pm 72.1965 \text{ keV}$ $\Delta: 3374.95 \pm 227.509 \text{ keV}$

penalty: 0.238568

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

-6695.6 2s1/2 0.64 1.02

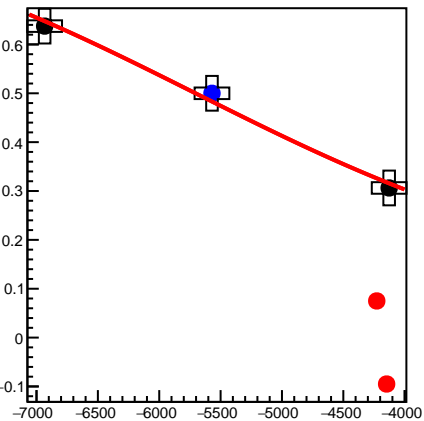
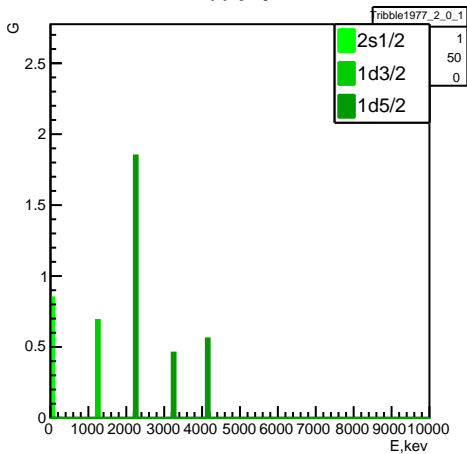
-3661.16 1d3/2 0.2395 0.861

-5570.33 1d5/2 0.5 0.936667

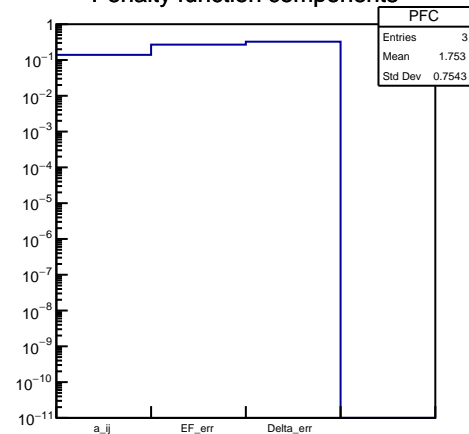
-4074.41 2p3/2 0.1725 0.655

-2371.54 1f7/2 0.4045 0.191

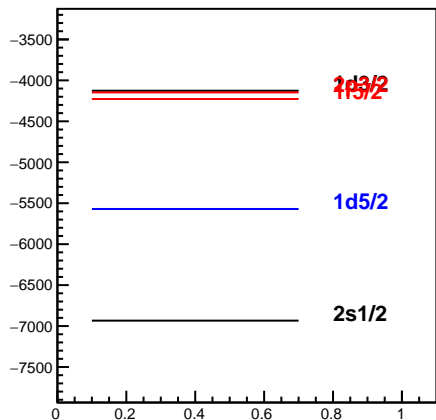
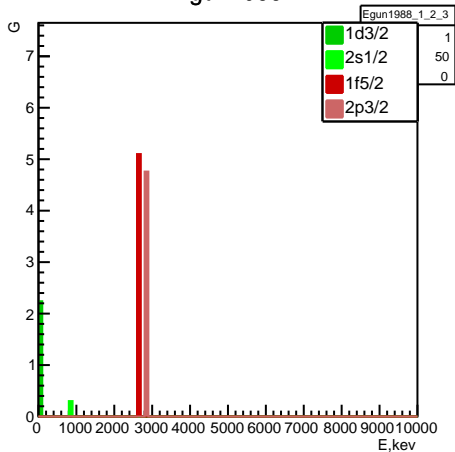
Tribble1977



Penalty function components



Egun1988



Experiment: Tribble1977 (5) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5704.25 ± 112.446 keV

Δ : -3978.18 ± 413.501 keV

penalty: 0.244269

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

-6933.72 2s1/2 0.6375 0.575

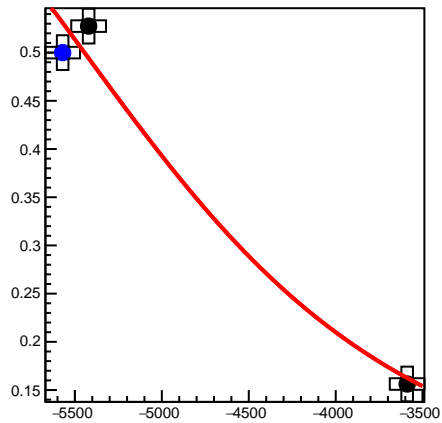
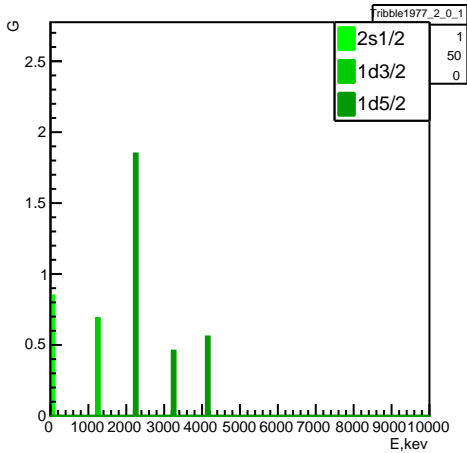
-4126.56 1d3/2 0.30625 0.7325

-5570.33 1d5/2 0.5 0.956667

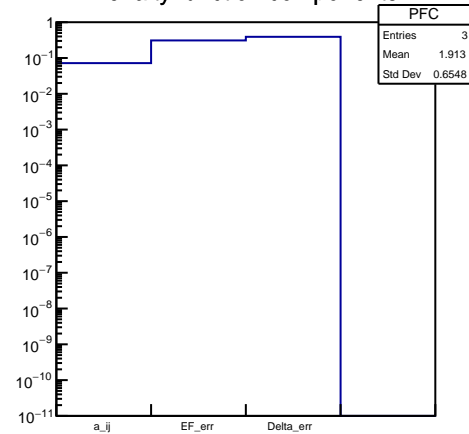
-4227.63 1f5/2 0.075 0.85

-4147.18 2p3/2 -0.095 1.19

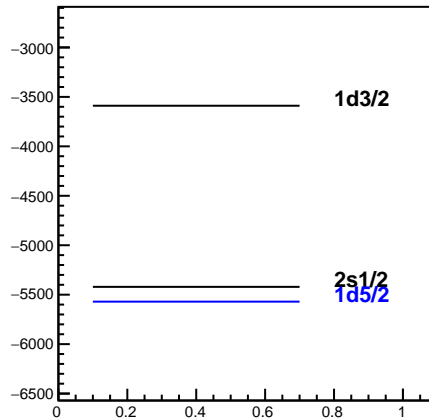
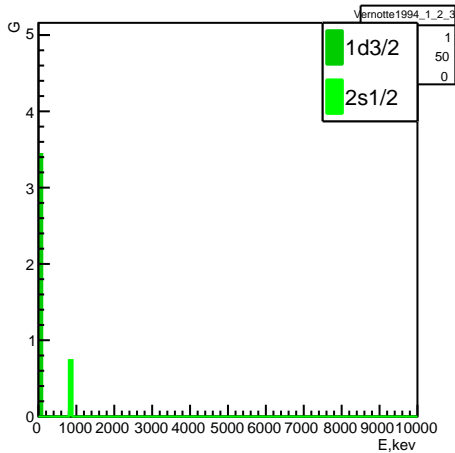
Tribble1977



Penalty function components



Vernotte1994



Experiment: Tribble1977 (5) Vernotte1994 (2)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5444.52 ± 129.496 keV

Δ: -2028.1 ± 497.525 keV

penalty: 0.25745

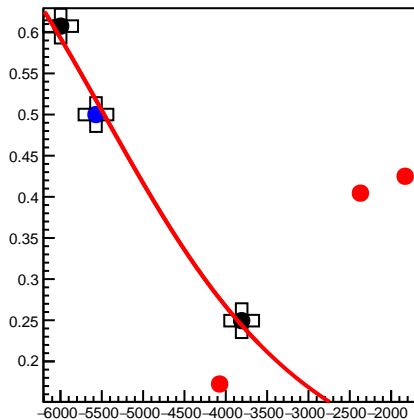
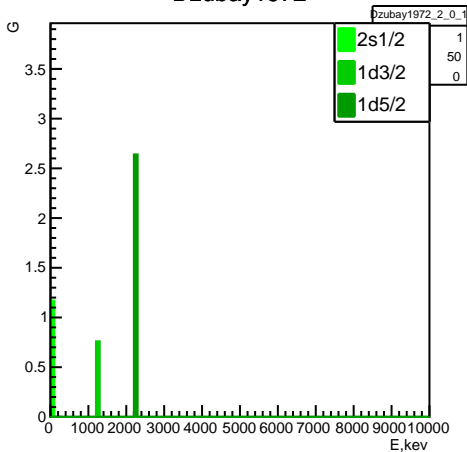
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-5420.9 2s1/2 0.5275 0.795

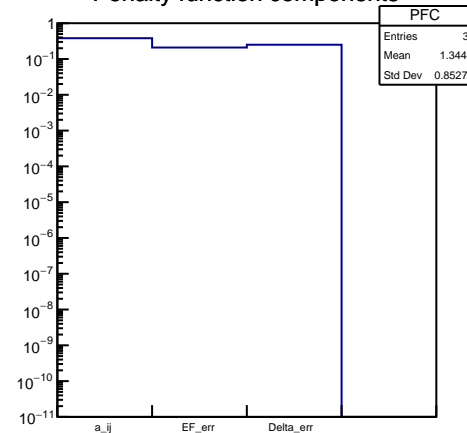
-3589.3 1d3/2 0.15625 1.0325

-5570.33 1d5/2 0.5 0.956667

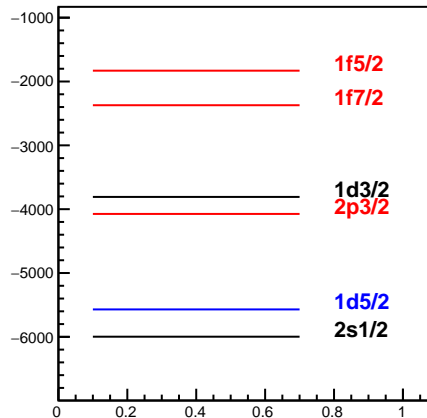
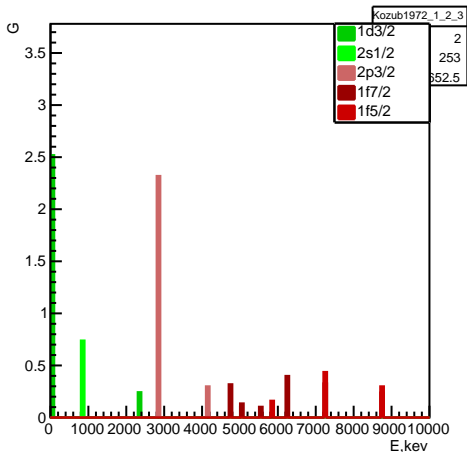
Dzubay1972



Penalty function components



Kozub1972



Experiment: Dzubay1972 (3) Kozub1972 (14)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5471.61 ± 87.5253 keV

Δ : 2791.47 ± 318.923 keV

penalty: 0.280367

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

-5997.62 2s1/2 0.6075 0.955

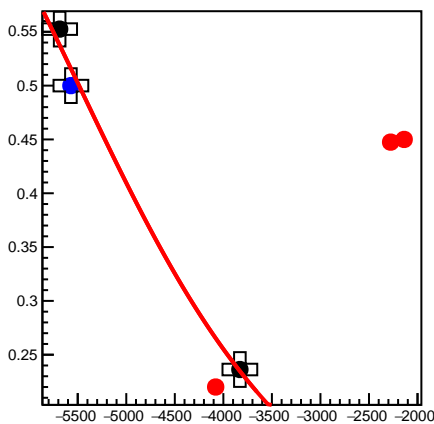
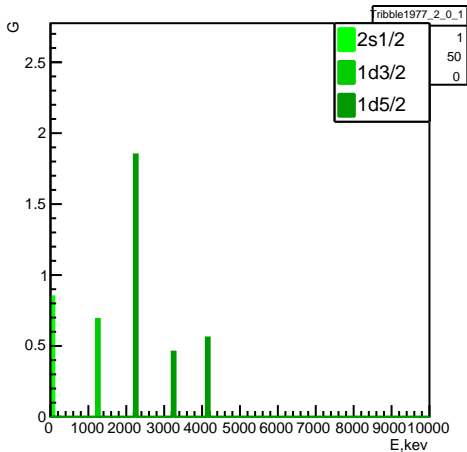
-3808 1d3/2 0.2495 0.881

-5570.33 1d5/2 0.5 0.88

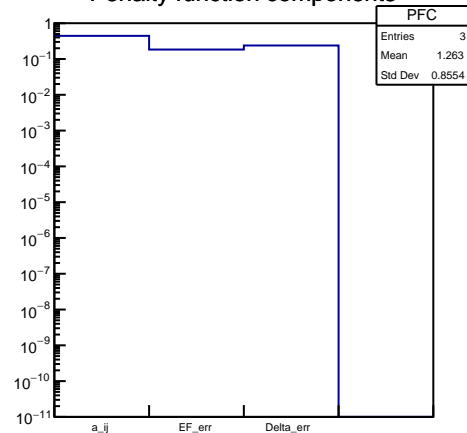
-4074.41 2p3/2 0.1725 0.655

-2371.54 1f7/2 0.4045 0.191

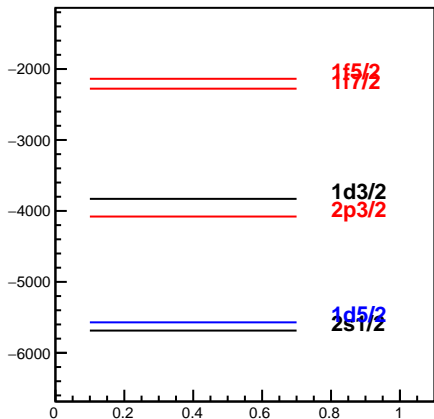
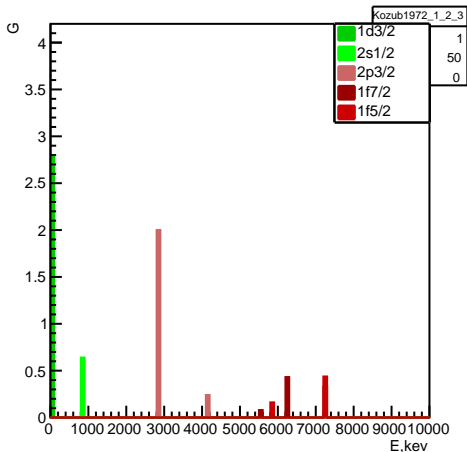
Tribble1977



Penalty function components



Kozub1972



Experiment: Tribble1977 (5) Kozub1972 (9)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5486.49 \pm 76.8576 keV

Δ : 2647.93 \pm 303.623 keV

penalty: 0.288573

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

-5686.27 2s1/2 0.5525 0.745

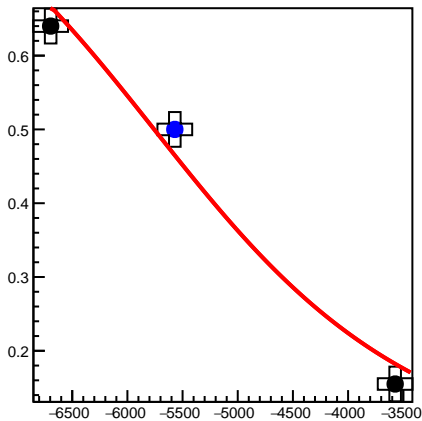
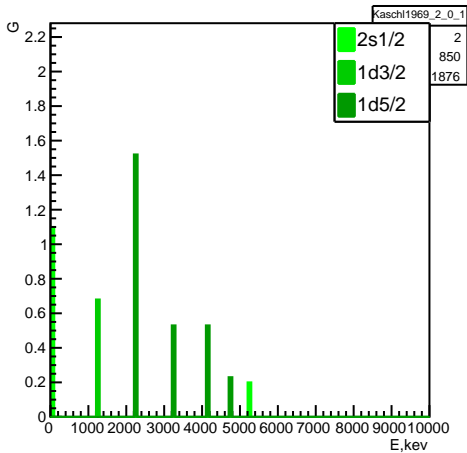
-3829.86 1d3/2 0.23625 0.8725

-5570.33 1d5/2 0.5 0.956667

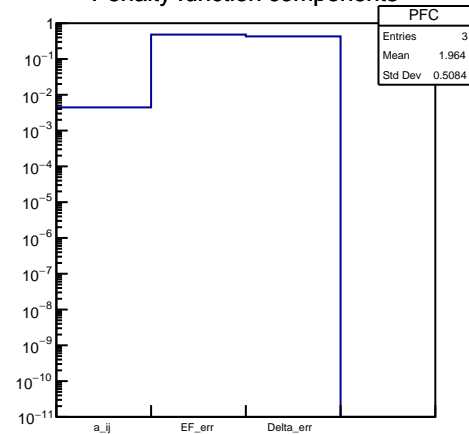
-4079.08 2p3/2 0.22 0.56

-2277 1f7/2 0.4475 0.105

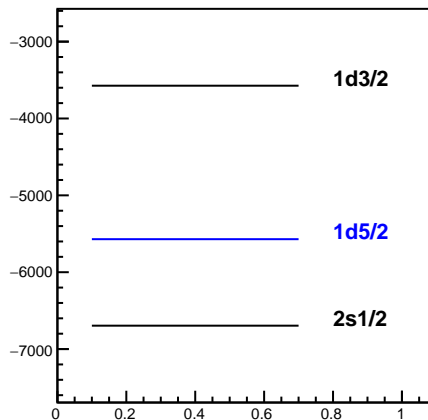
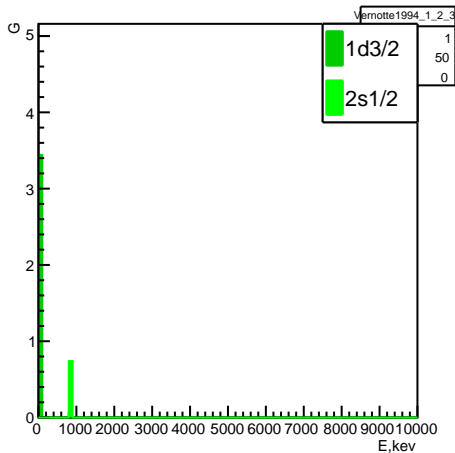
Kaschl1969



Penalty function components



Vernotte1994



Experiment: Kaschl1969 (7) Vernotte1994 (2)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5757.26 \pm 201.161 keV

Δ : 2654.27 \pm 545.179 keV

penalty: 0.304539

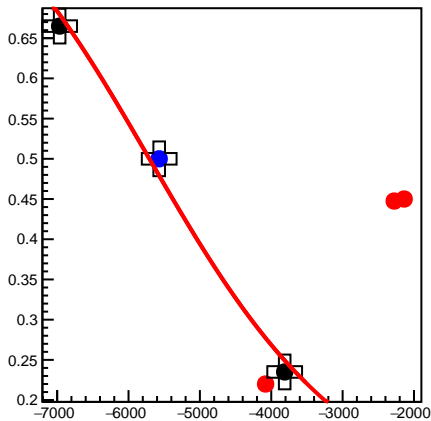
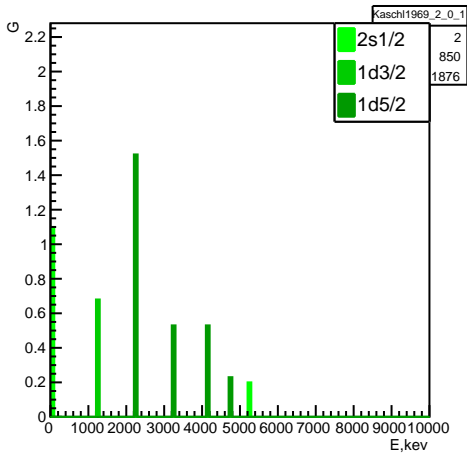
SPE,keV nlj OCC $\frac{G^+ + G^-}{2J+1}$

-6695.6 2s1/2 0.64 1.02

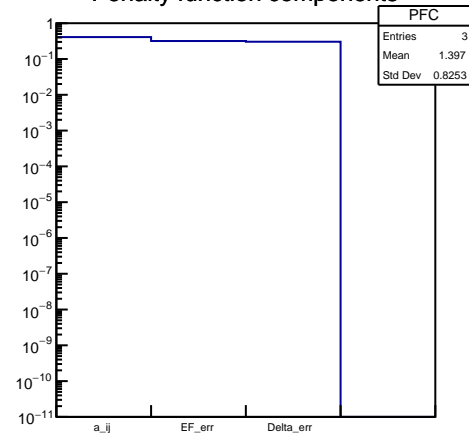
-3573.43 1d3/2 0.155 1.03

-5570.33 1d5/2 0.5 0.936667

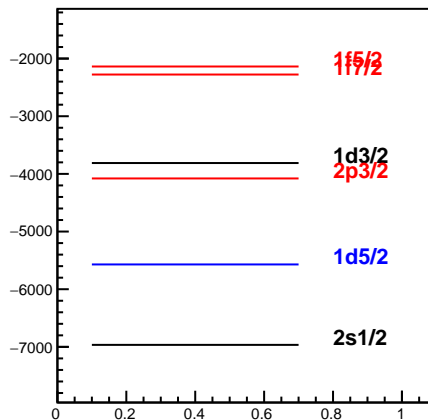
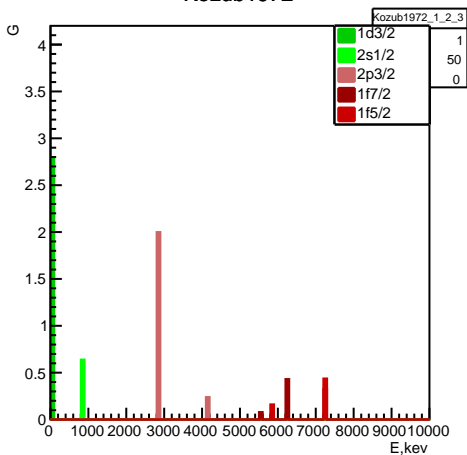
Kaschl1969



Penalty function components



Kozub1972



Experiment: Kaschl1969 (7) Kozub1972 (9)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5707.84 \pm 133.026 keV

Δ : 3271.8 \pm 386.812 keV

penalty: 0.343867

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

-6965.12 2s1/2 0.665 0.97

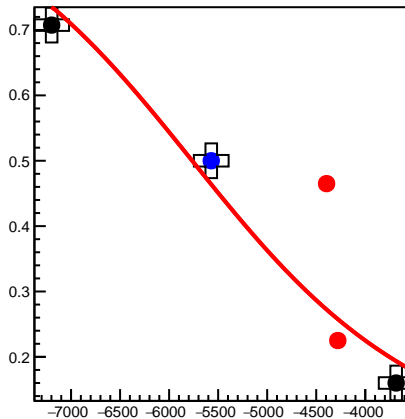
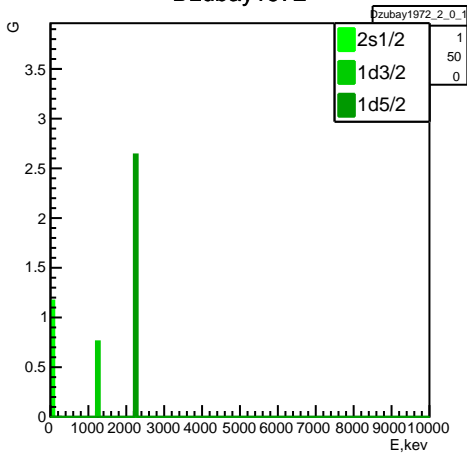
-3811.76 1d3/2 0.235 0.87

-5570.33 1d5/2 0.5 0.936667

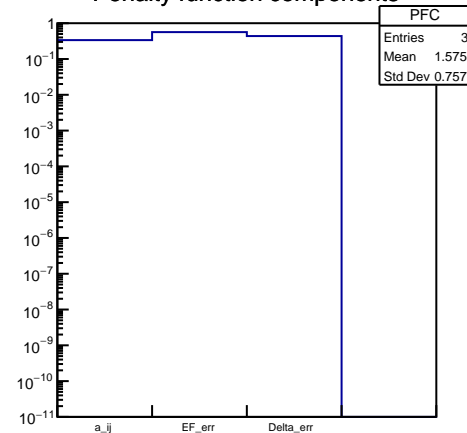
-4079.08 2p3/2 0.22 0.56

-2277 1f7/2 0.4475 0.105

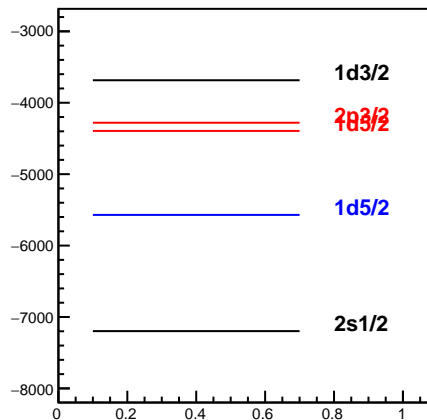
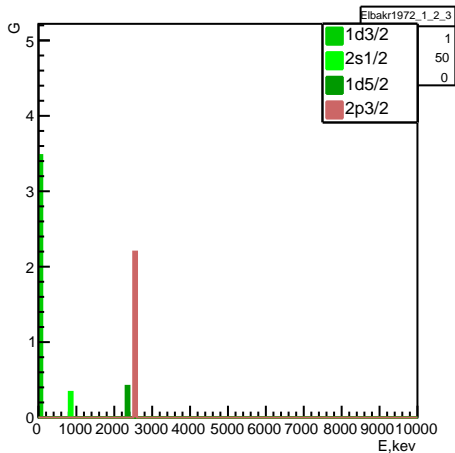
Dzubay1972



Penalty function components



Elbakr1972



Experiment: Dzubay1972 (3) Elbakr1972 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5764.47 \pm 235.954 \text{ keV}$ $\Delta: 2680.43 \pm 557.218 \text{ keV}$

penalty: 0.44627

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

-7197.79 2s1/2 0.7075 0.755

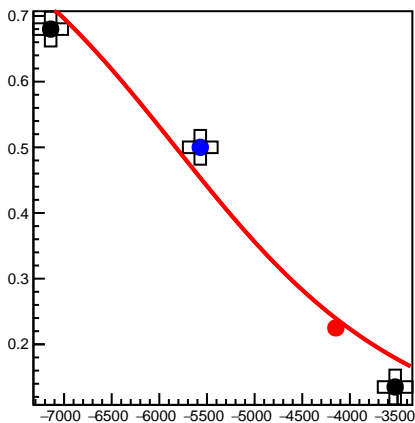
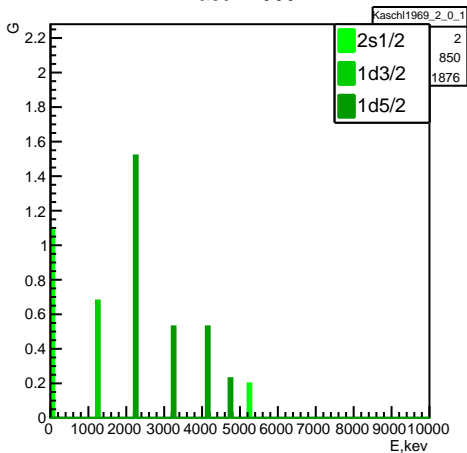
-3684.9 1d3/2 0.16 1.06

-5570.33 1d5/2 0.5 0.88

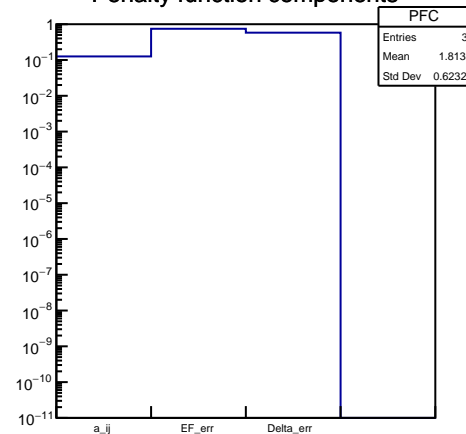
-4394.33 1d5/2 0.465 0.07

-4279.83 2p3/2 0.225 0.55

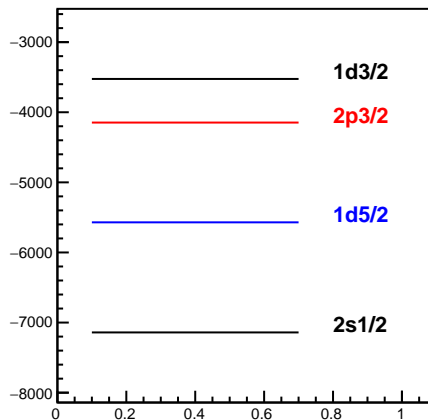
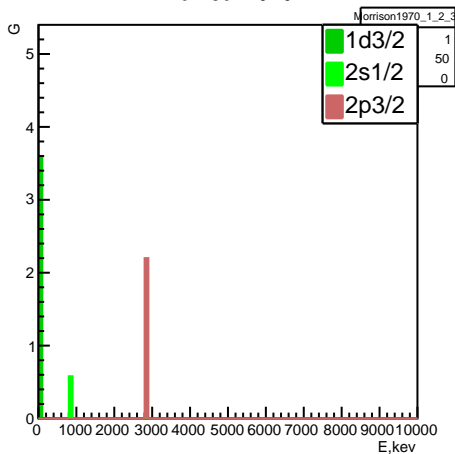
Kaschl1969



Penalty function components



Morrison1970



Experiment: Kaschl1969 (7) Morrison1970 (3)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F: -5827.15 ± 311.804 keV

Δ: 2751.8 ± 738.687 keV

penalty: 0.483843

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

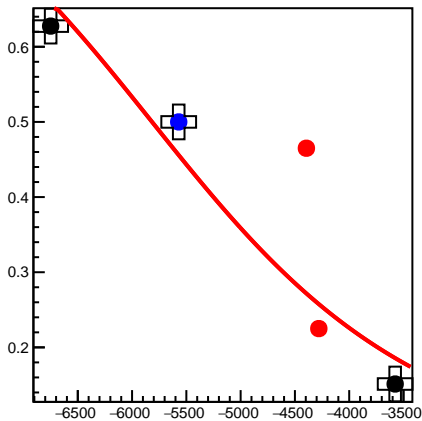
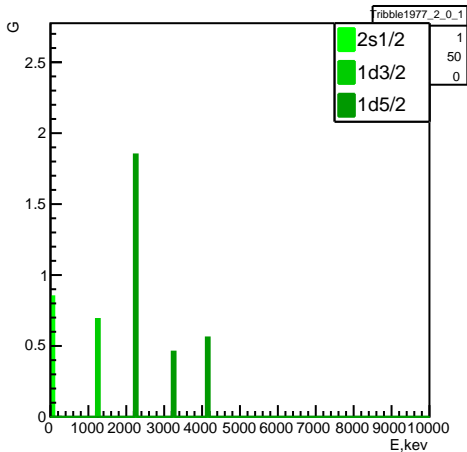
-7140.59 2s1/2 0.68 0.94

-3524.98 1d3/2 0.135 1.07

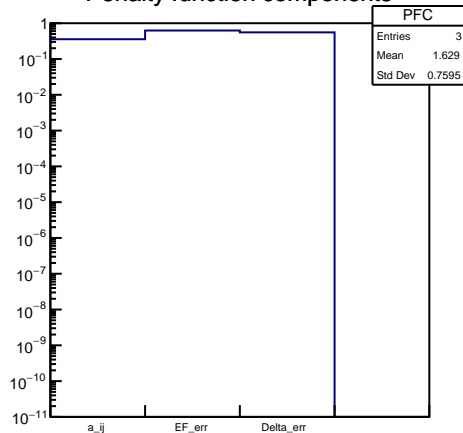
-5570.33 1d5/2 0.5 0.936667

-4147.18 2p3/2 0.225 0.55

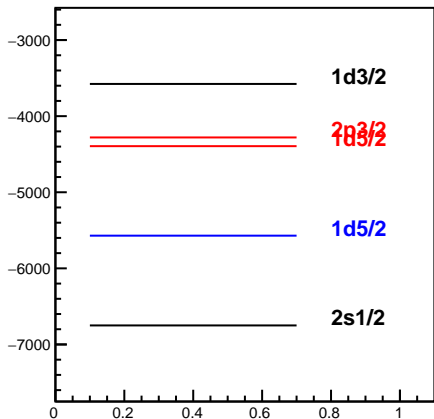
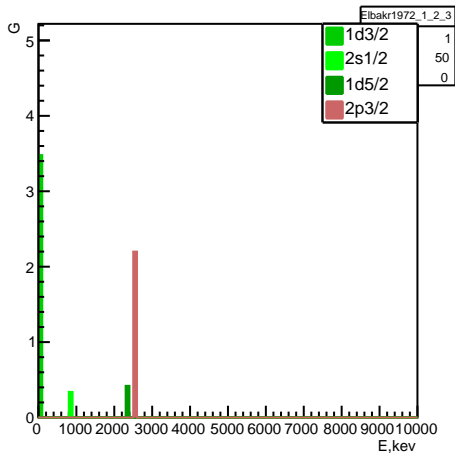
Tribble1977



Penalty function components



Elbahr1972



Experiment: Tribble1977 (5) Elbahr1972 (4)
proton transfer

p separation energy A:8863.17, A+1: 2277.5

E_F : -5815.95 ± 261.463 keV

Δ : -2770.82 ± 706.577 keV

penalty: 0.512429

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

-6749.96 2s1/2 0.6275 0.595

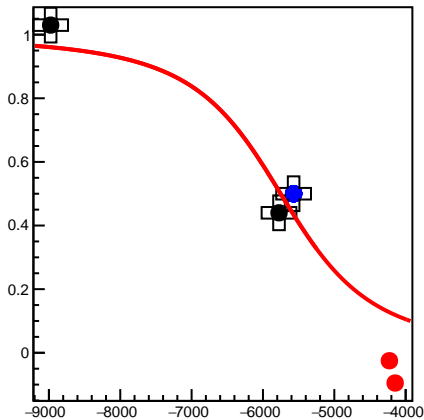
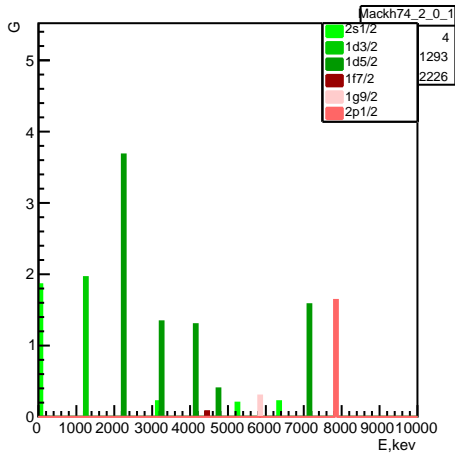
-3576.72 1d3/2 0.15125 1.0425

-5570.33 1d5/2 0.5 0.956667

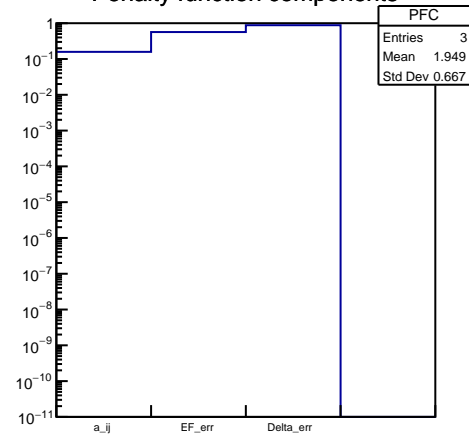
-4394.33 1d5/2 0.465 0.07

-4279.83 2p3/2 0.225 0.55

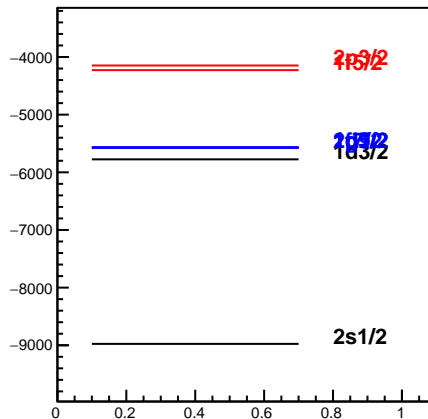
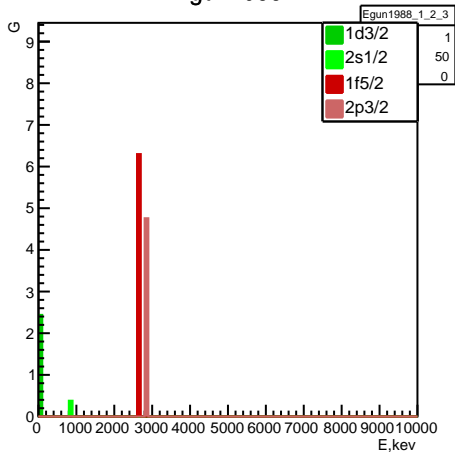
Mackh74



Penalty function components



Egun1988



Experiment: Mackh74 (13) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5752.13 \pm 236.906 \text{ keV}$ $\Delta: 1363.47 \pm 1118.84 \text{ keV}$

penalty: 0.534525

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

-8975.8 2s1/2 1.03 1.44

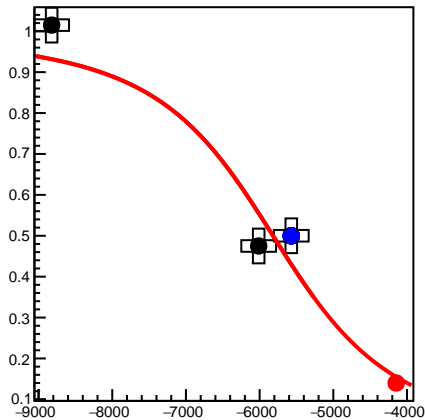
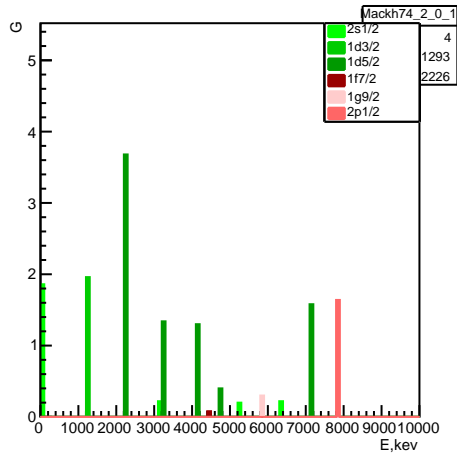
-5775.12 1d3/2 0.44 1.1

-5570.33 1d5/2 0.5 2.76667

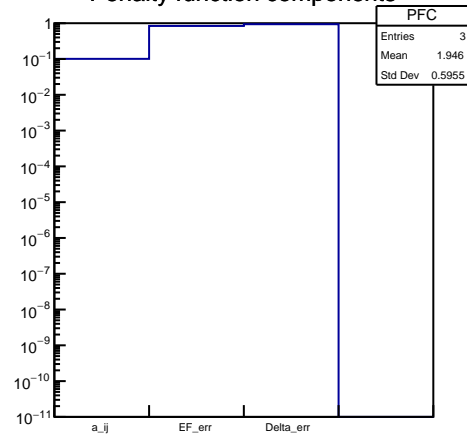
-5570.33 1f7/2 0.5 0.02

-5570.33 1g9/2 0.5 0.06

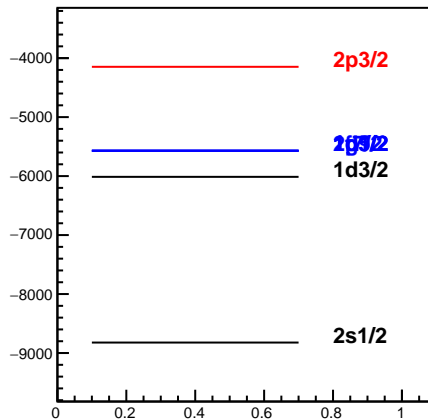
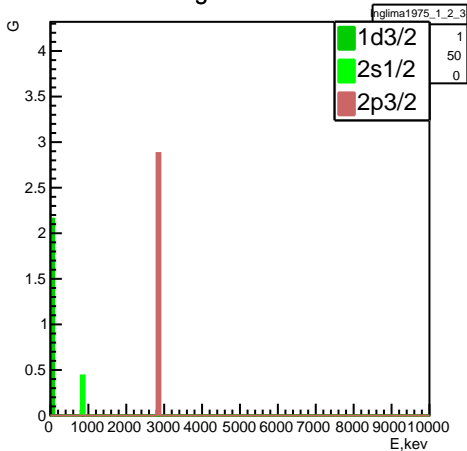
Mackh74



Penalty function components



Inglima1975



Experiment: Mackh74 (13) Inglima1975 (3)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5818.38 \pm 350.799$ keV $\Delta: 1754.8 \pm 1193.95$ keV

penalty: 0.625828

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

-8822.56 2s1/2 1.015 1.47

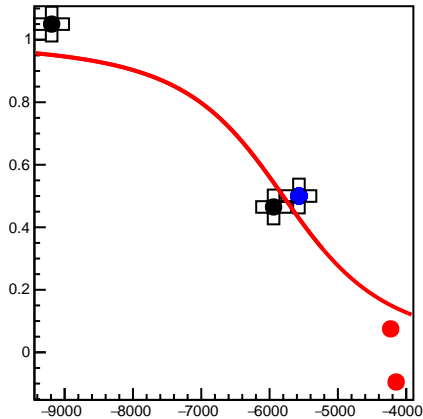
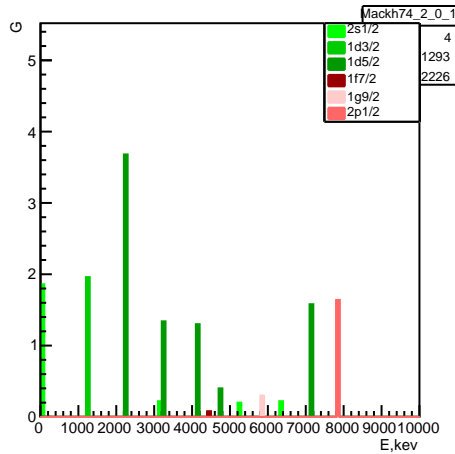
-6012.82 1d3/2 0.475 1.03

-5570.33 1d5/2 0.5 2.76667

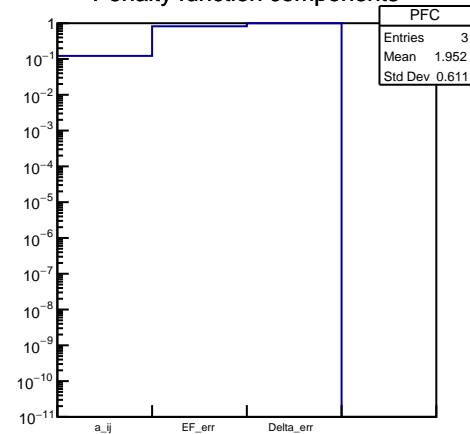
-5570.33 1f7/2 0.5 0.02

-5570.33 1g9/2 0.5 0.06

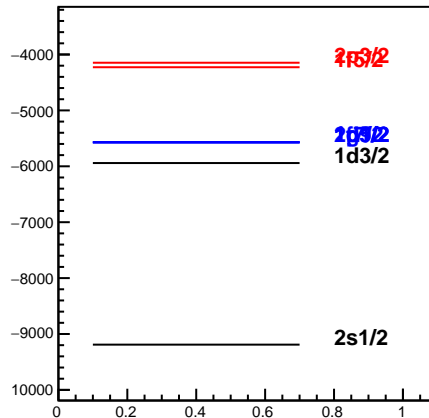
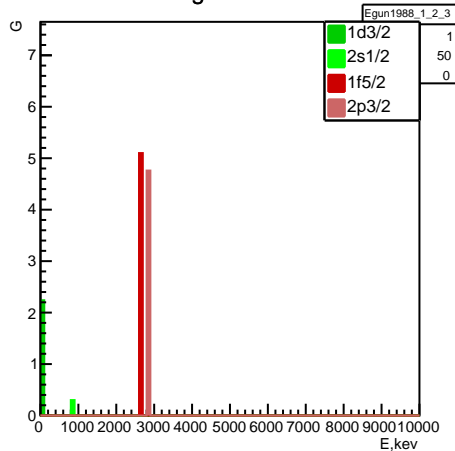
Mackh74



Penalty function components



Egun1988



Experiment: Mackh74 (13) Egun1988 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5802.74 \pm 343.261$ keV $\Delta: 1613.65 \pm 1273.08$ keV

penalty: 0.647583

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

-9190.34 2s1/2 1.05 1.4

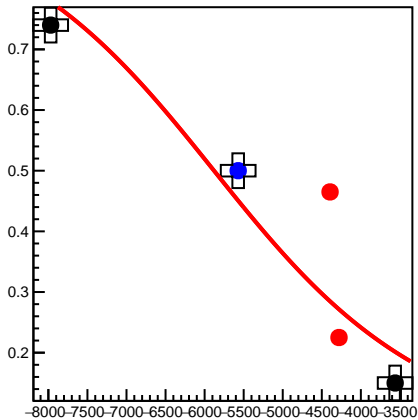
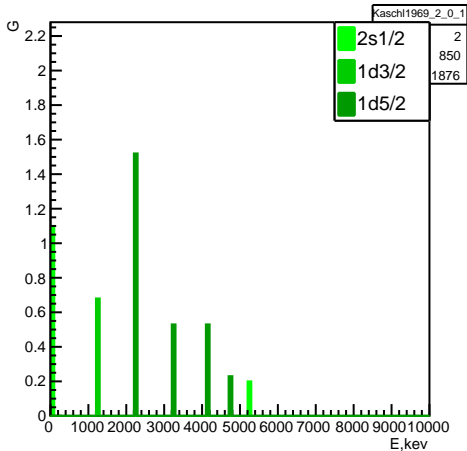
-5941.67 1d3/2 0.465 1.05

-5570.33 1d5/2 0.5 2.76667

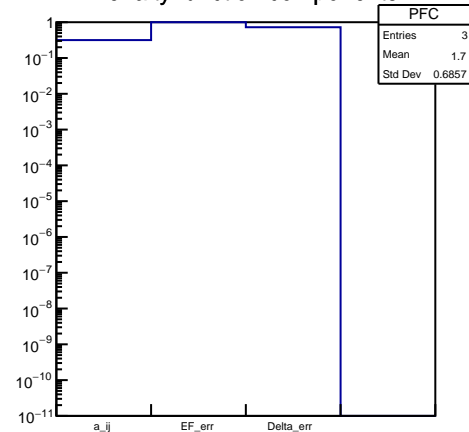
-5570.33 1f7/2 0.5 0.02

-5570.33 1g9/2 0.5 0.06

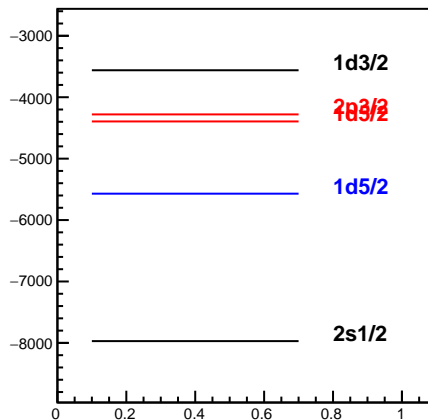
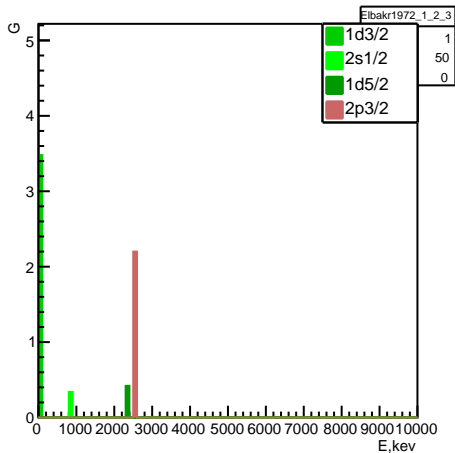
Kaschl1969



Penalty function components



Elbahr1972



Experiment: Kaschl1969 (7) Elbahr1972 (4)

proton transfer

p separation energy A:8863.17, A+1: 2277.5

 $E_F: -5879.56 \pm 418.271 \text{ keV}$ $\Delta: 3113.63 \pm 922.09 \text{ keV}$

penalty: 0.680323

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

-7970.88 2s1/2 0.74 0.82

-3560.97 1d3/2 0.15 1.04

-5570.33 1d5/2 0.5 0.936667

-4394.33 1d5/2 0.465 0.07

-4279.83 2p3/2 0.225 0.55