The seventh week

sfresco

```
cal.in
NAMELIST
&FRESCO
        hcm=0.01 rmatch=60.0 jtmax=60 absend=0.0010
        thmin=2.0 thmax=180.0 thinc=2.00
        smats=2 xstabl=1
        elab=130.00 /

&PARTITION  namep='p'   massp= 16.00  zp=  8.00
            namet='Ni60'   masst=208.00  zt= 82.00 qval=-0.000   nex=1 /
&STATES
        jp=0.0 bandp=1 ep=0.0000 cpot=1 jt=0.0
        bandt=1 et=0.0000 fexch=F/
&partition /

&POT kp=1 type=0 p1= 16.00 p2=208.00 p3= 1.200 /
&POT kp=1 type=1 shape=9 p1=1 p2=1 p3=1 /
&pot /
 &overlap /
 &coupling /
```

```
'cal.in' 'cal.out' 2 1
&variable
 kind=1 name='V' kp=1 pline=2 col=1 valmin=0.5 valmax=1.0 step=0.01/
&variable
 kind=1 name='W' kp=1 pline=2 col=2 valmin=0.01 valmax=1.0 step=0.01/

&data
 type=0 iscale=2 idir=1 lab=F abserr=T/
    32.299999999999997        1.0329999999999999        0.25824999999999998
    35.600000000000001        1.0489999999999999        0.26224999999999998
    38.799999999999997        0.98450000000000004       0.24612500000000001
    41.000000000000000        1.0529999999999999        0.26324999999999998
    43.299999999999997        1.1250000000000000        0.28125000000000000
    45.200000000000003        1.2669999999999999        0.31674999999999998
    47.399999999999999        1.2529999999999999        0.31324999999999997
    49.500000000000000        0.95330000000000004       0.23832500000000001
    50.500000000000000        0.91720000000000002       0.22930000000000000
    51.600000000000001        0.73499999999999999       0.18375000000000000
    52.799999999999997        0.61260000000000003       0.15315000000000001
    53.500000000000000        0.49070000000000003       0.12267500000000001
    54.399999999999999        0.40360000000000001       0.10090000000000000
    55.700000000000003        0.34530000000000000        8.6324999999999999E-002
    56.799999999999997        0.25580000000000003        6.3950000000000007E-002
```

```
search.in <---- file with search parameters
min
fix
migrad
end
q
show
plot


~
~
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```

```
potential
  2001    0.010    0.000
-849.22254295678420            -6.4129172610330691
-849.22246714941275            -6.4129410621885476
-849.22223971638005            -6.4130124692539123
-849.22186062493051            -6.4131314930254462
-849.22132982043286            -6.4132981515057743
-849.22064722638584            -6.4135124699038641
-849.21981274441009            -6.4137744806373620
-849.21882625427702            -6.4140842233282784
-849.21768761395833            -6.4144417447939626
-849.21639665946145            -6.4148470990846480
-849.21495320480403            -6.4153003474913826
-849.21335704201090            -6.4158015585501147
-849.21160794109028            -6.4163508080487874
-849.20970565001244            -6.4169481790364289
-849.20764989467727            -6.4175937618336247
-849.20544037888135            -6.4182876540436631
-849.20307678441623            -6.4190299605359744
-849.20055877104755            -6.4198207934556066
-849.19788597625461            -6.4206602722839339
-849.19505801518415            -6.4215485238545780
-849.19207448061172            -6.4224856823675189
```

拟合结果

^{6}Li+^{208}Pb

E=25.0MeV

E=31.0MeV

E=35.0MeV

E=43.0MeV

E=46.0MeV

E=73.0MeV

DDME2
DDME2
modified

$d\sigma/d\sigma_R$

$\theta_{c.m.}$ (deg)

^{7}Li+^{208}Pb

E=21.2MeV

E=24.3MeV

E=25.67MeV

E=28.55MeV

E=32.55MeV

E=37.55MeV

E=42.55MeV

modified
DDME2

$d\sigma/d\sigma_R$

$\theta_{c.m.}$ (deg)