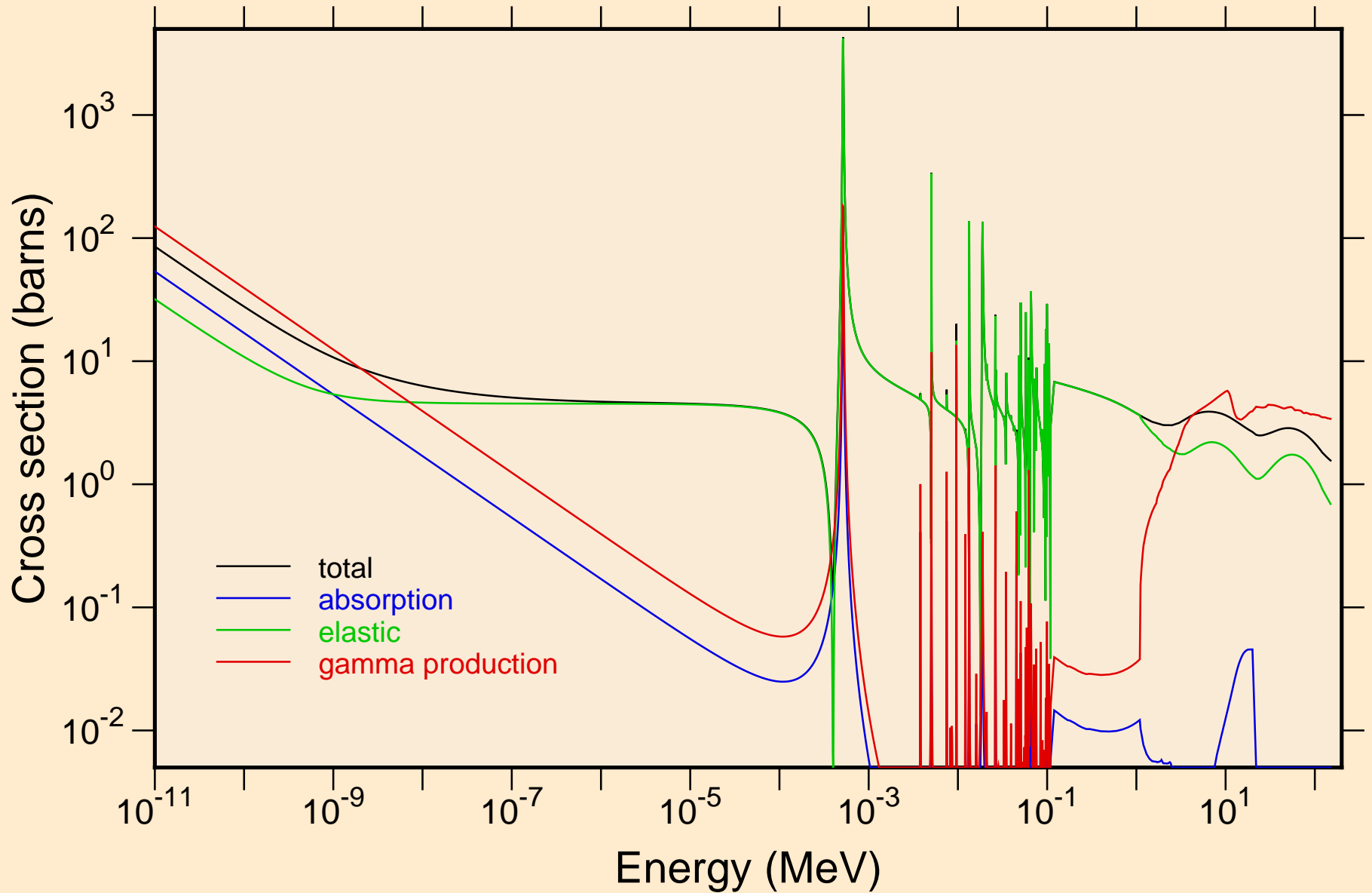30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Principal cross sections

Cross section (barns) vs Energy (MeV)

- total (black)
- absorption (blue)
- elastic (green)
- gamma production (red)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
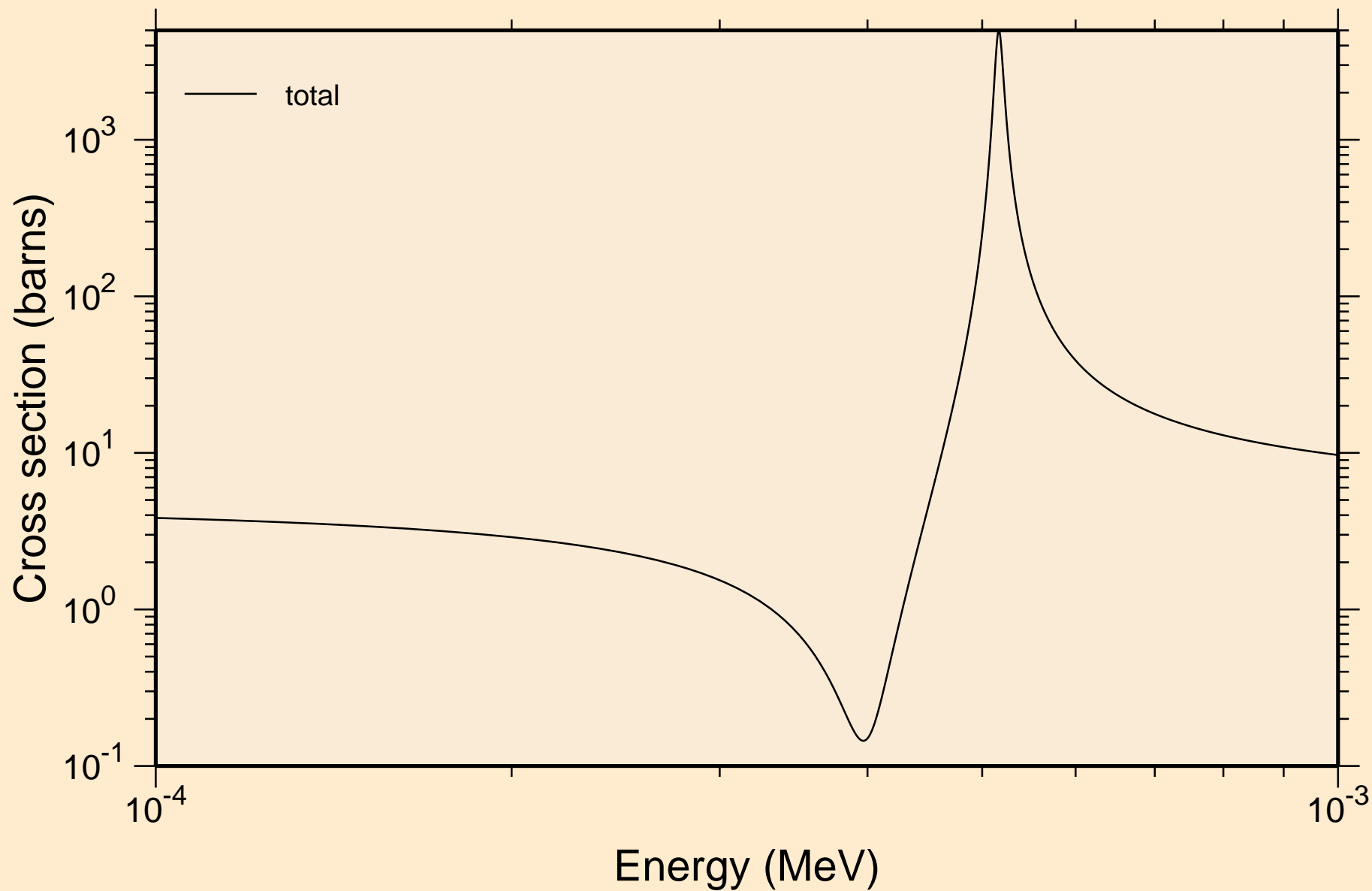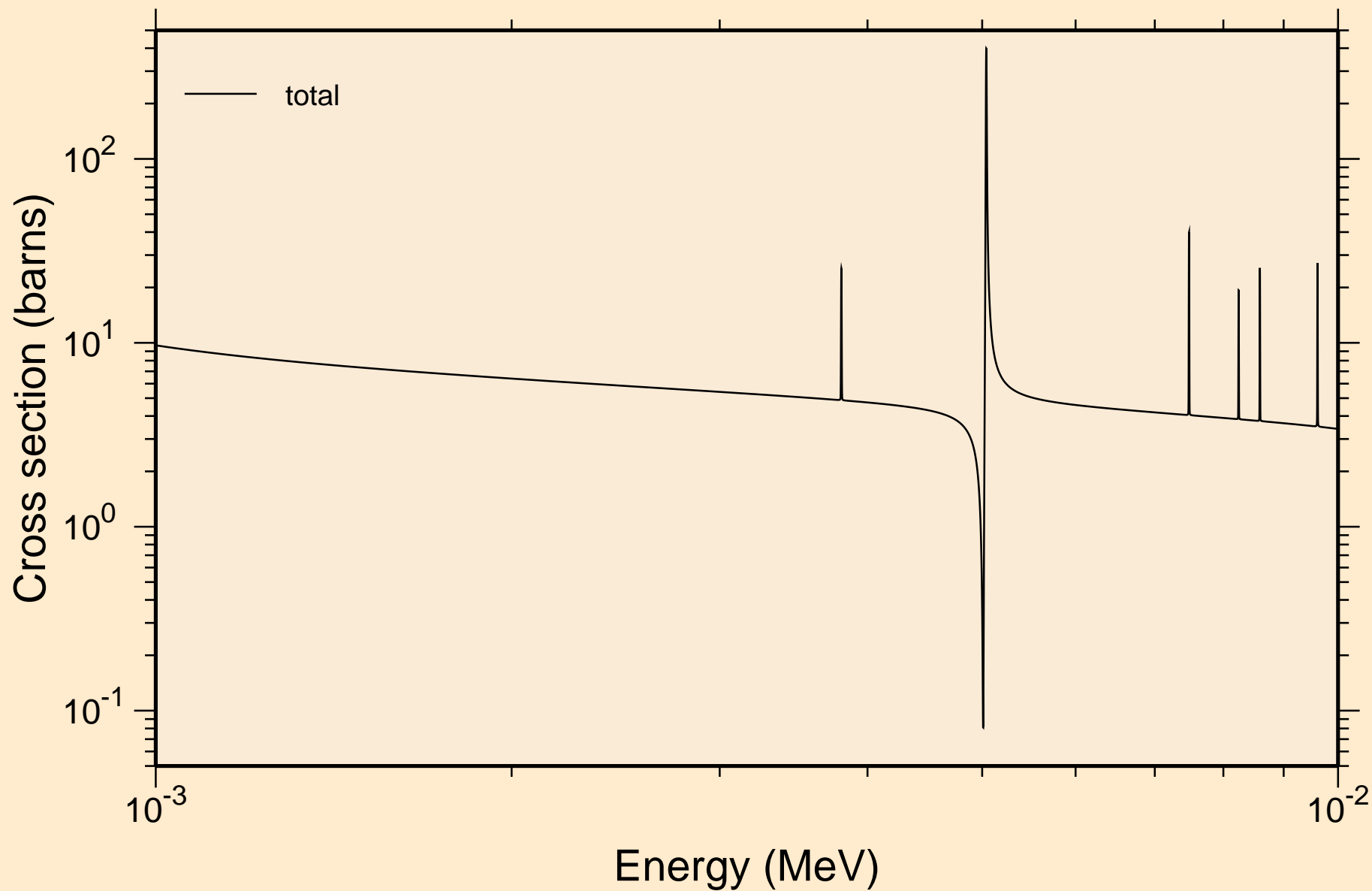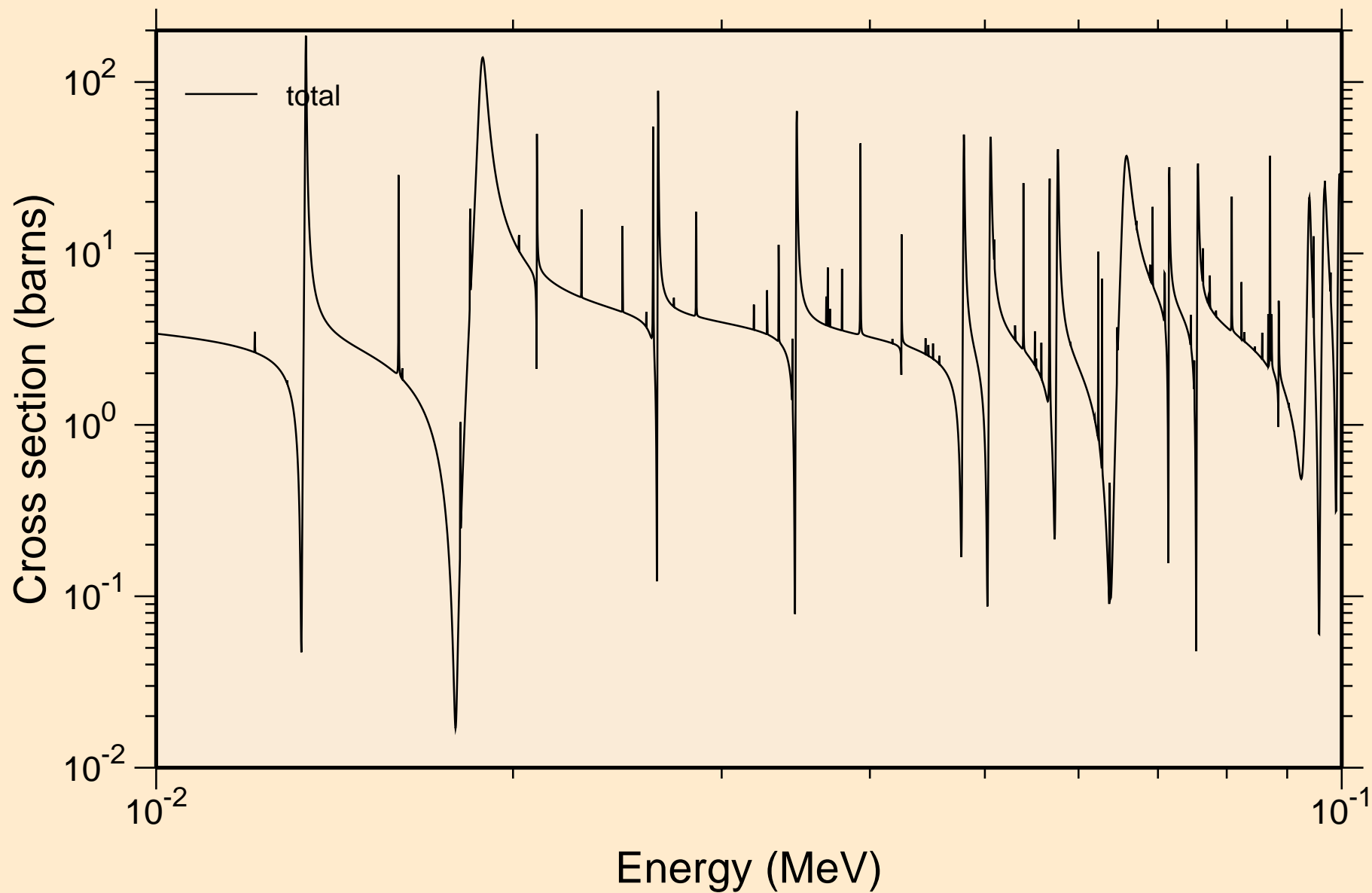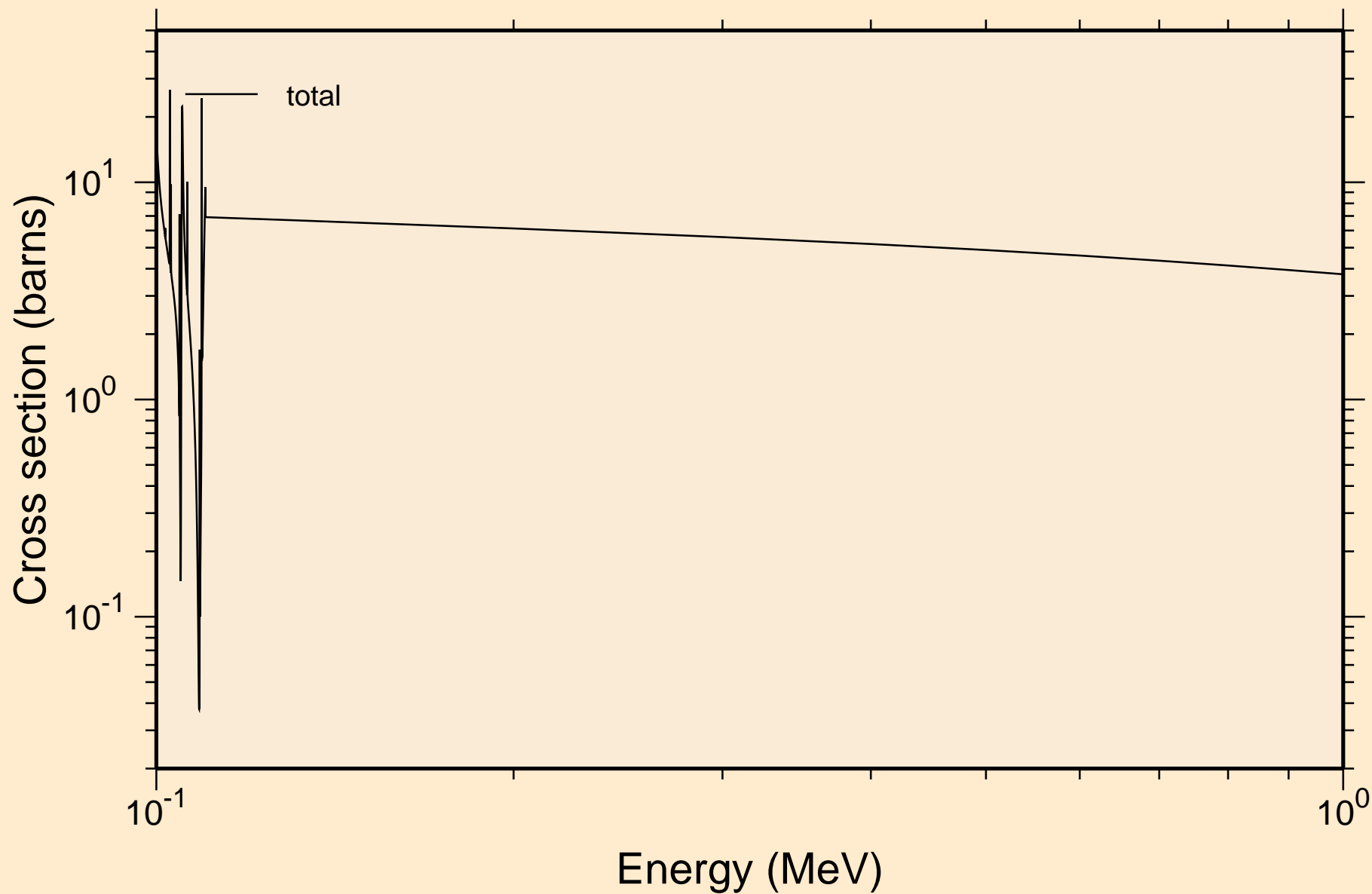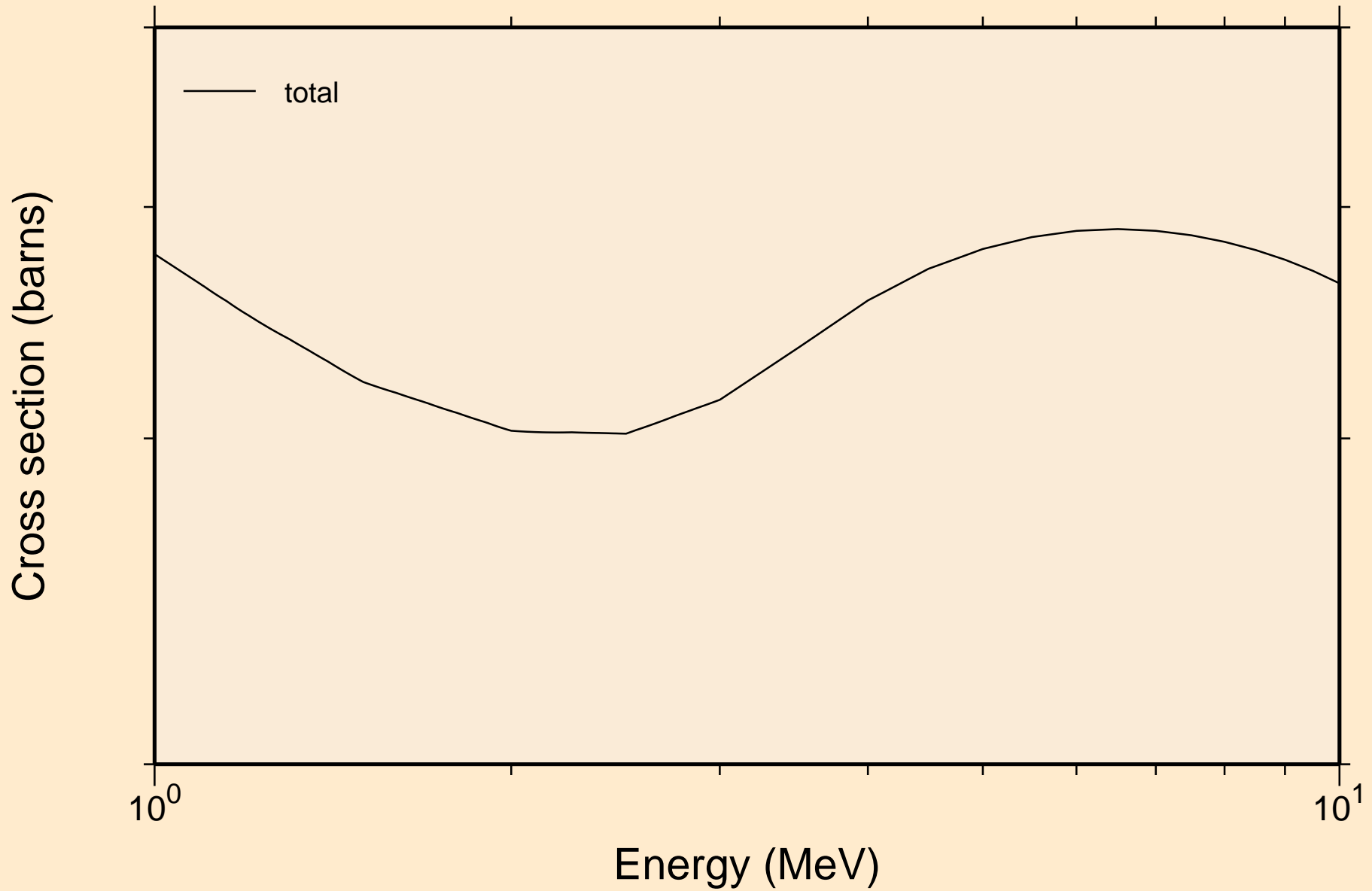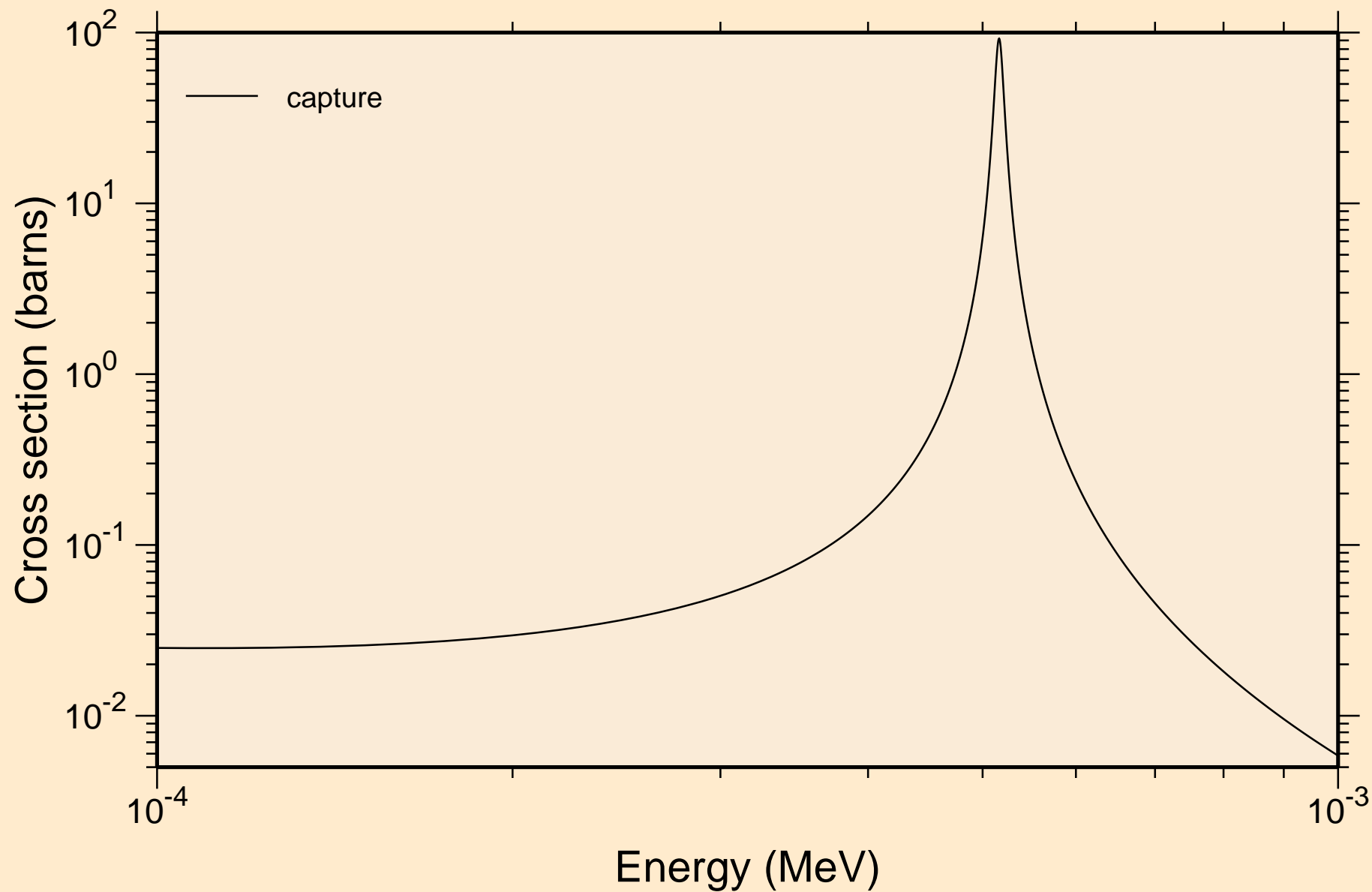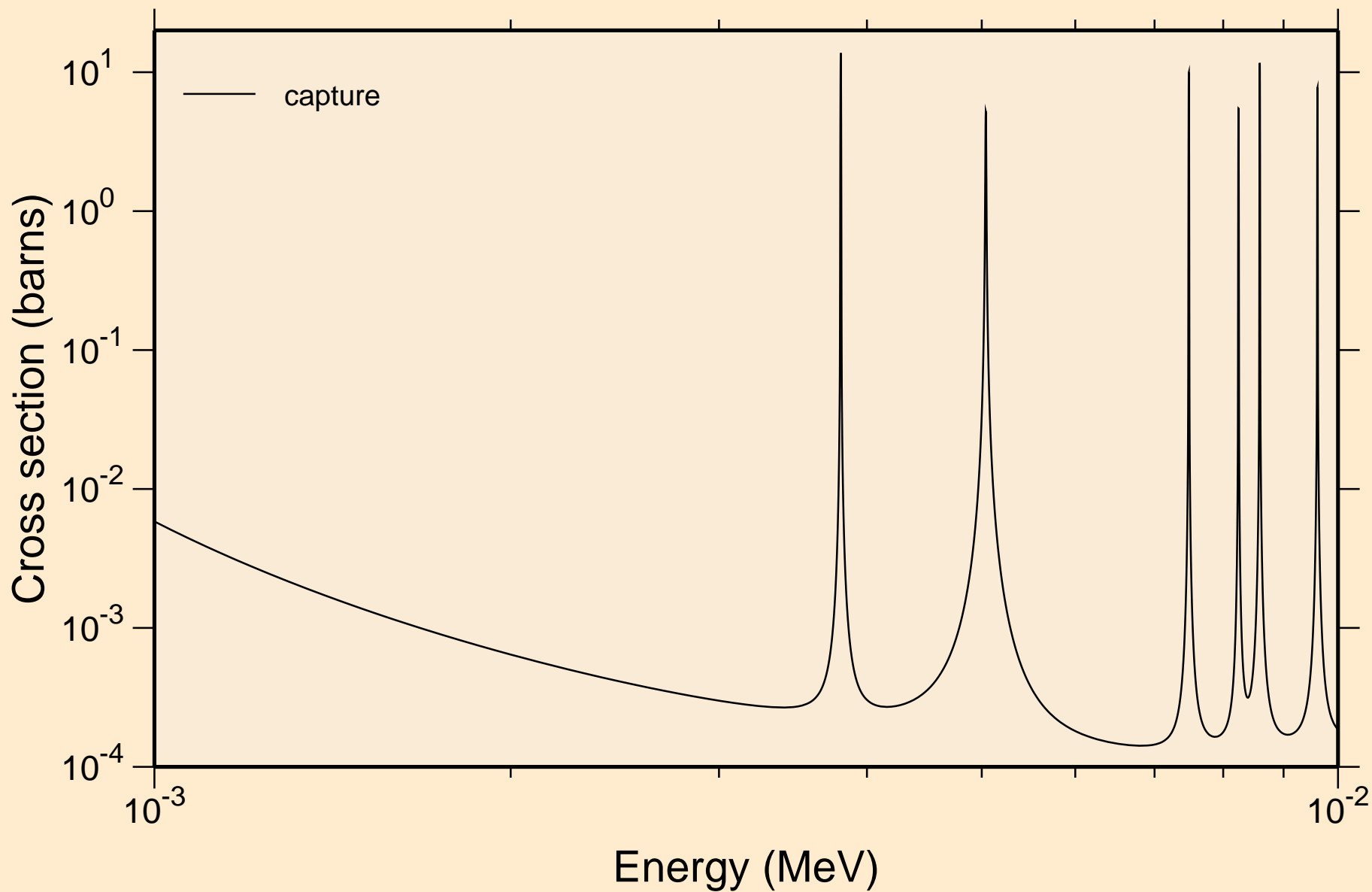resonance total cross section

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance total cross section

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance total cross section

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance total cross section

total

Cross section (barns)

Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance total cross section

total
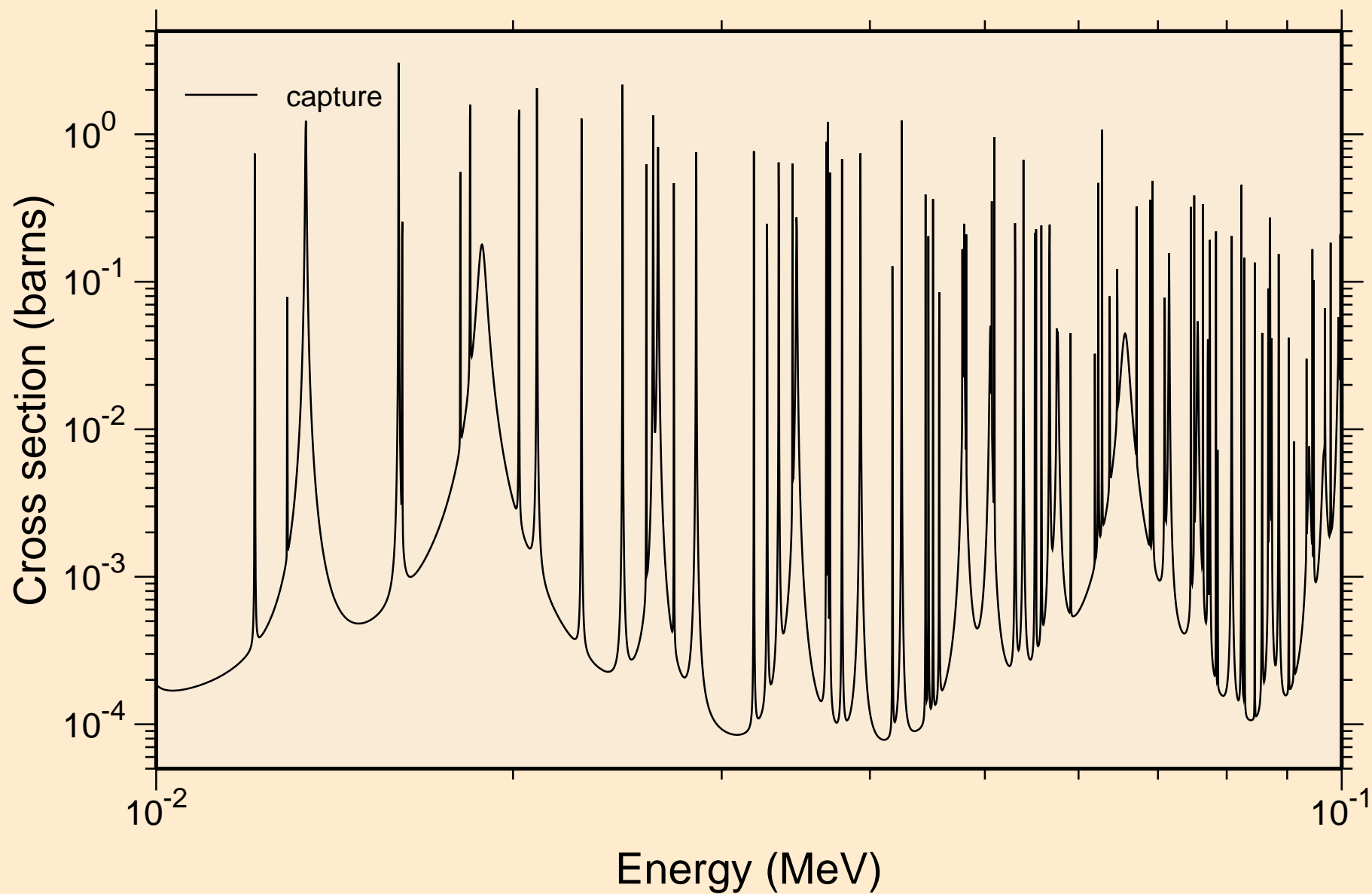
Cross section (barns)

Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance absorption cross sections

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance absorption cross sections
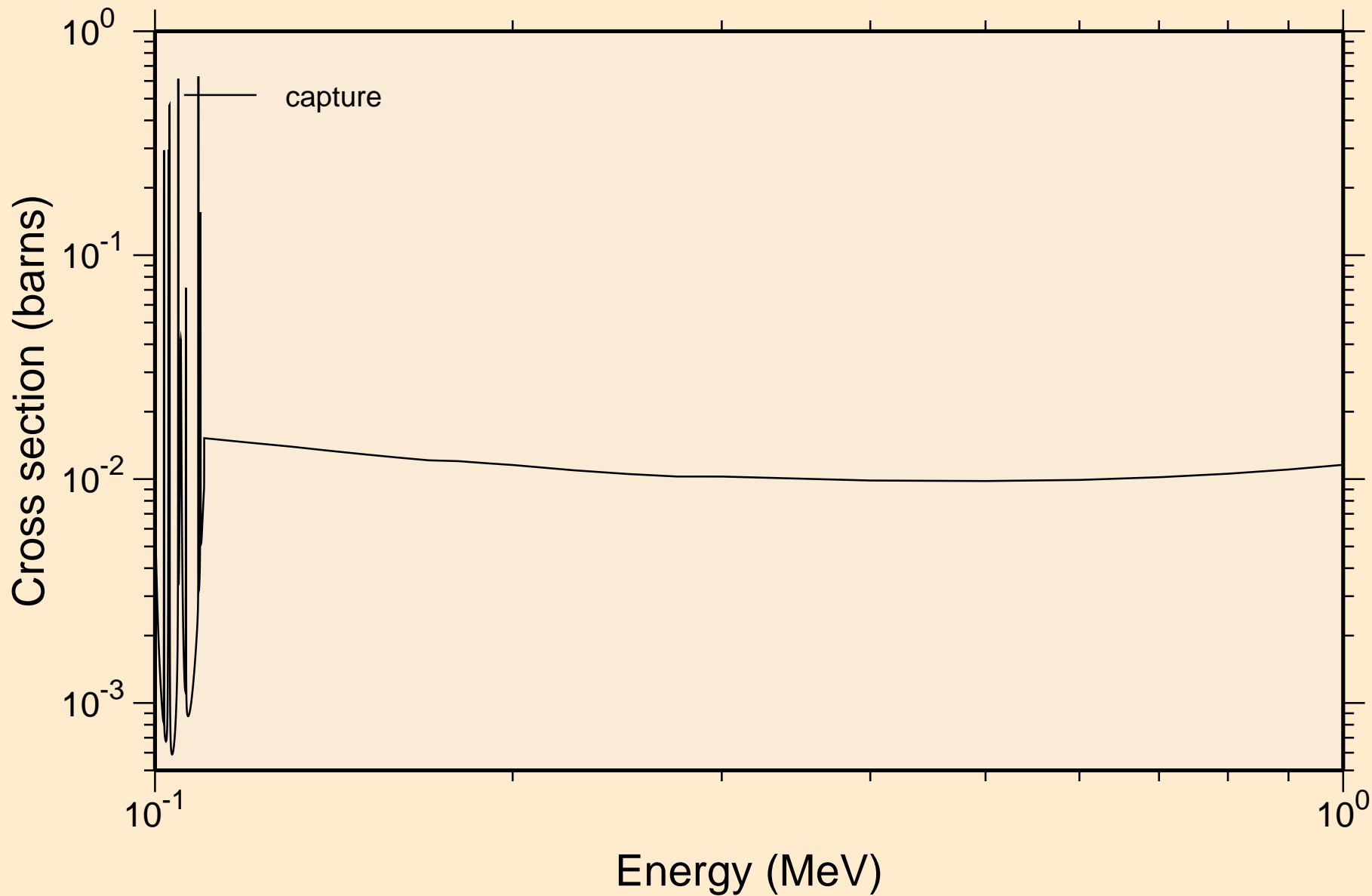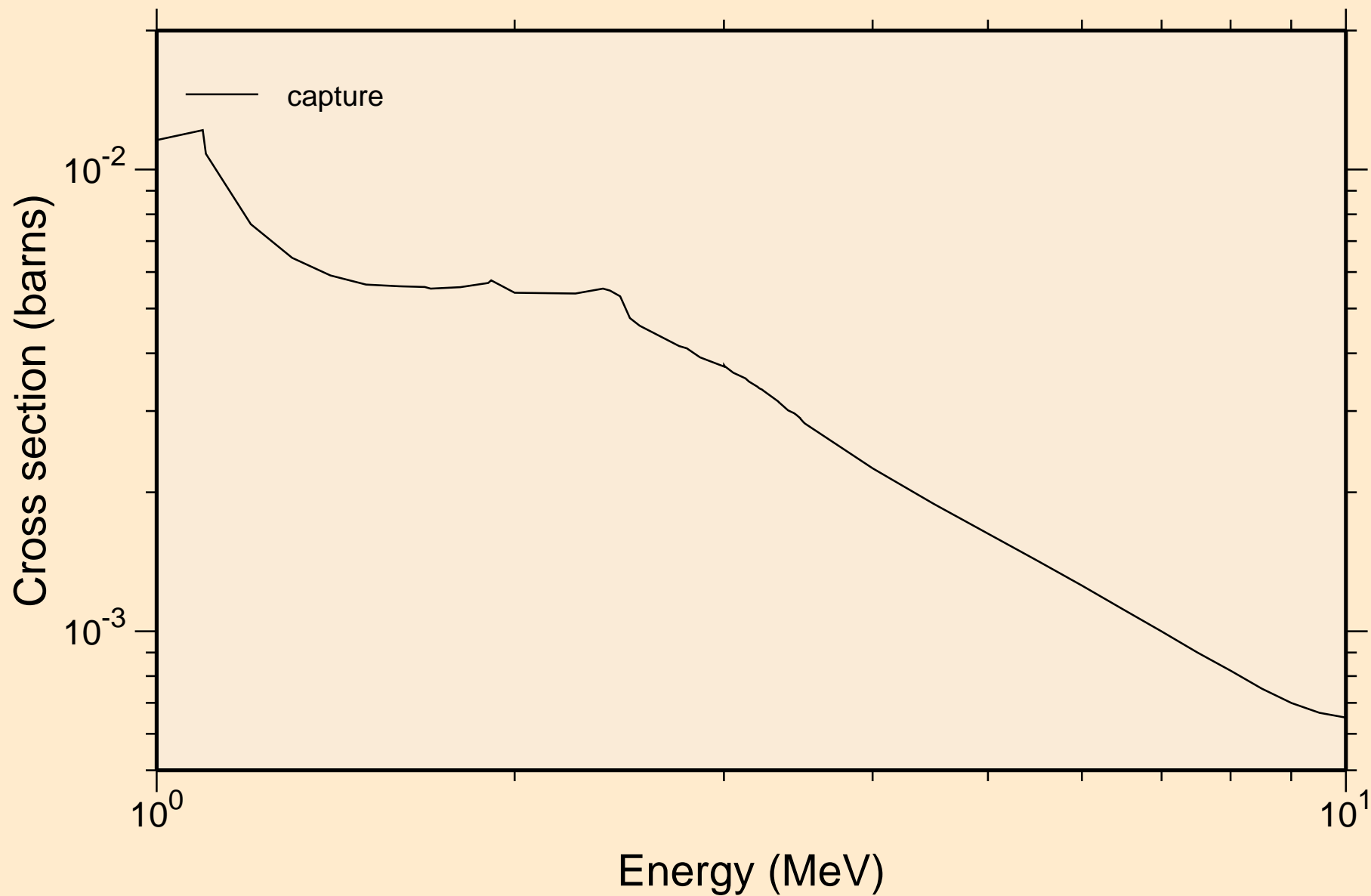
30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance absorption cross sections

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance absorption cross sections
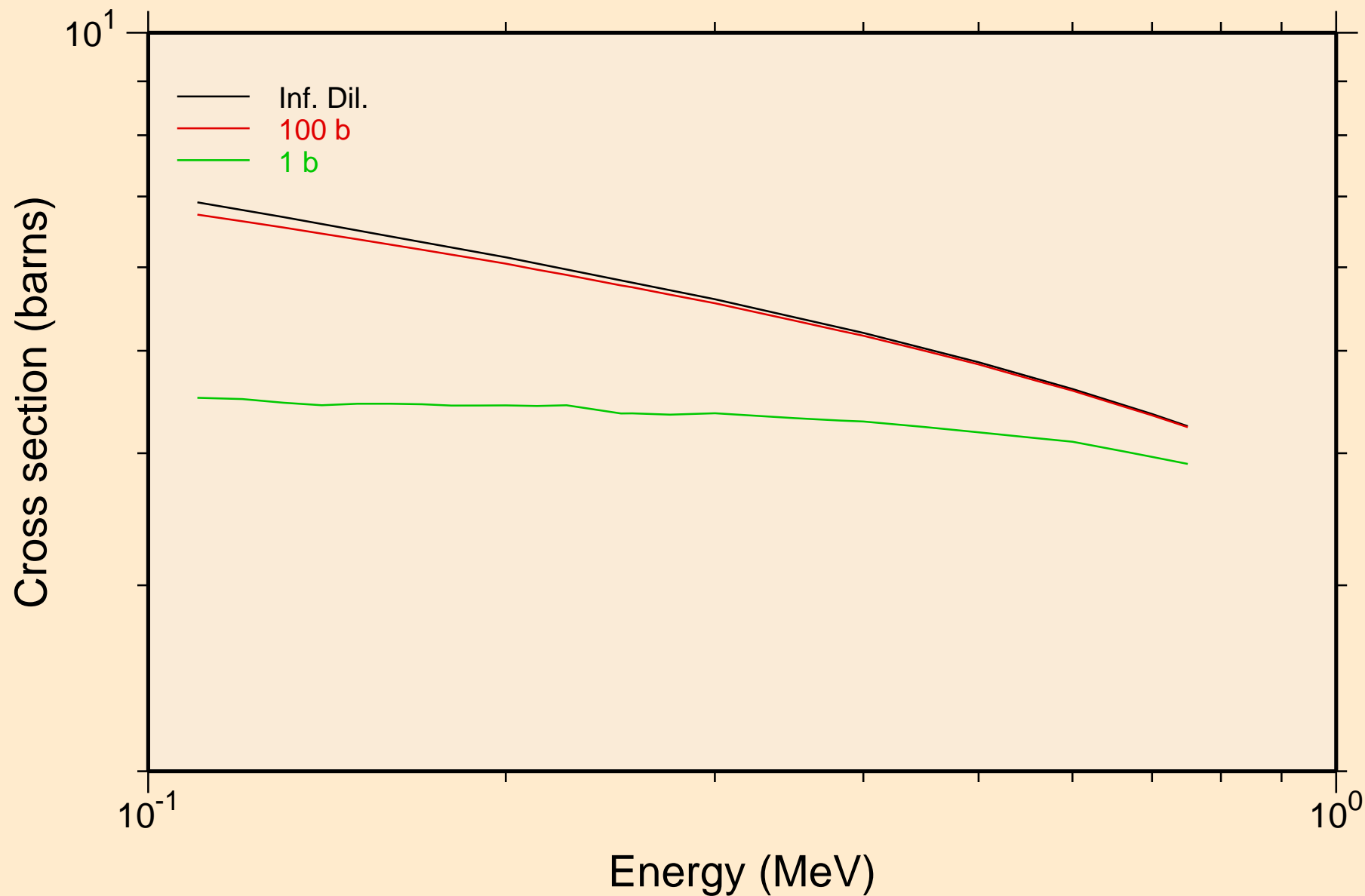
capture
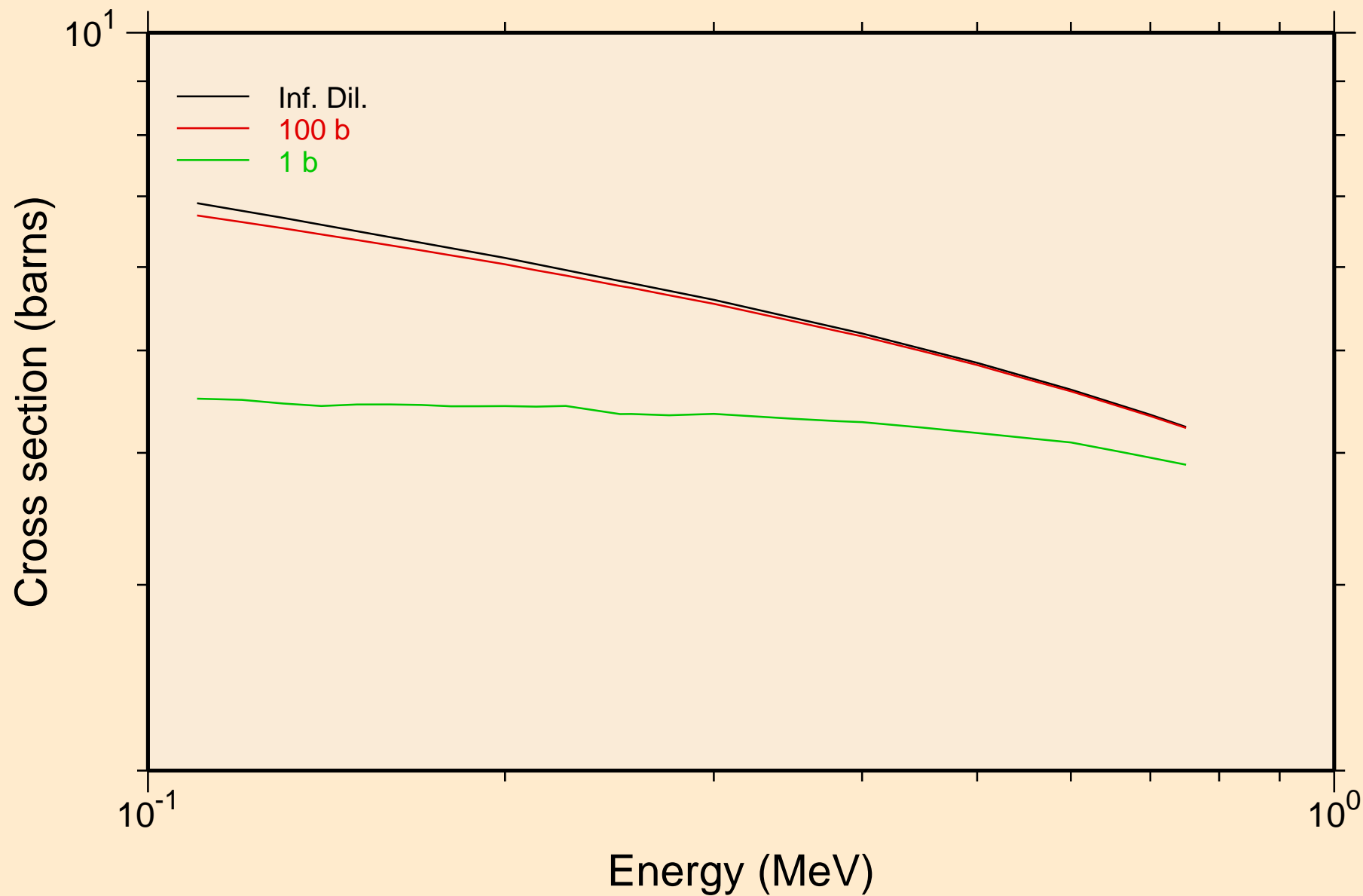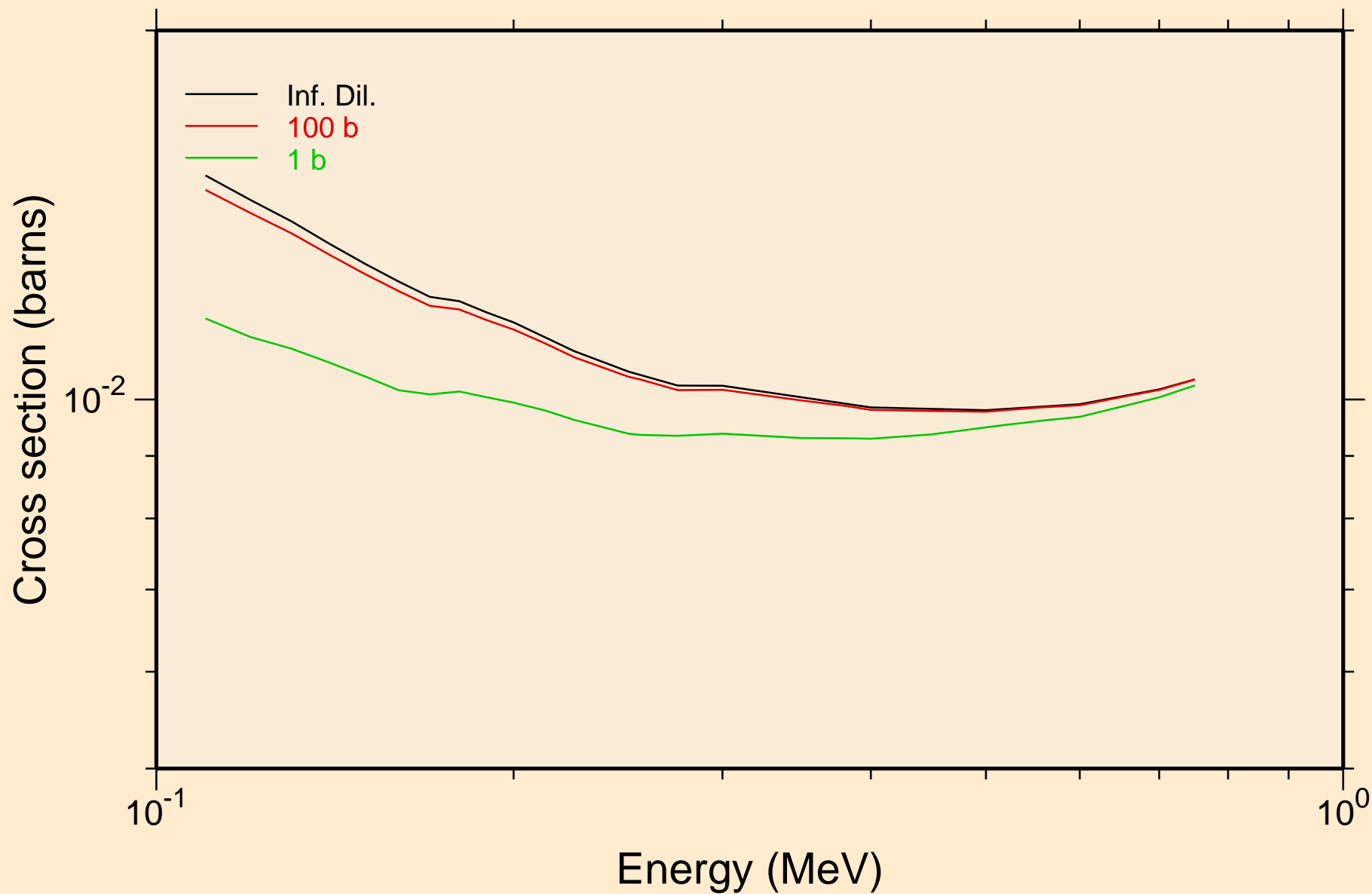
Cross section (barns)

Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
resonance absorption cross sections

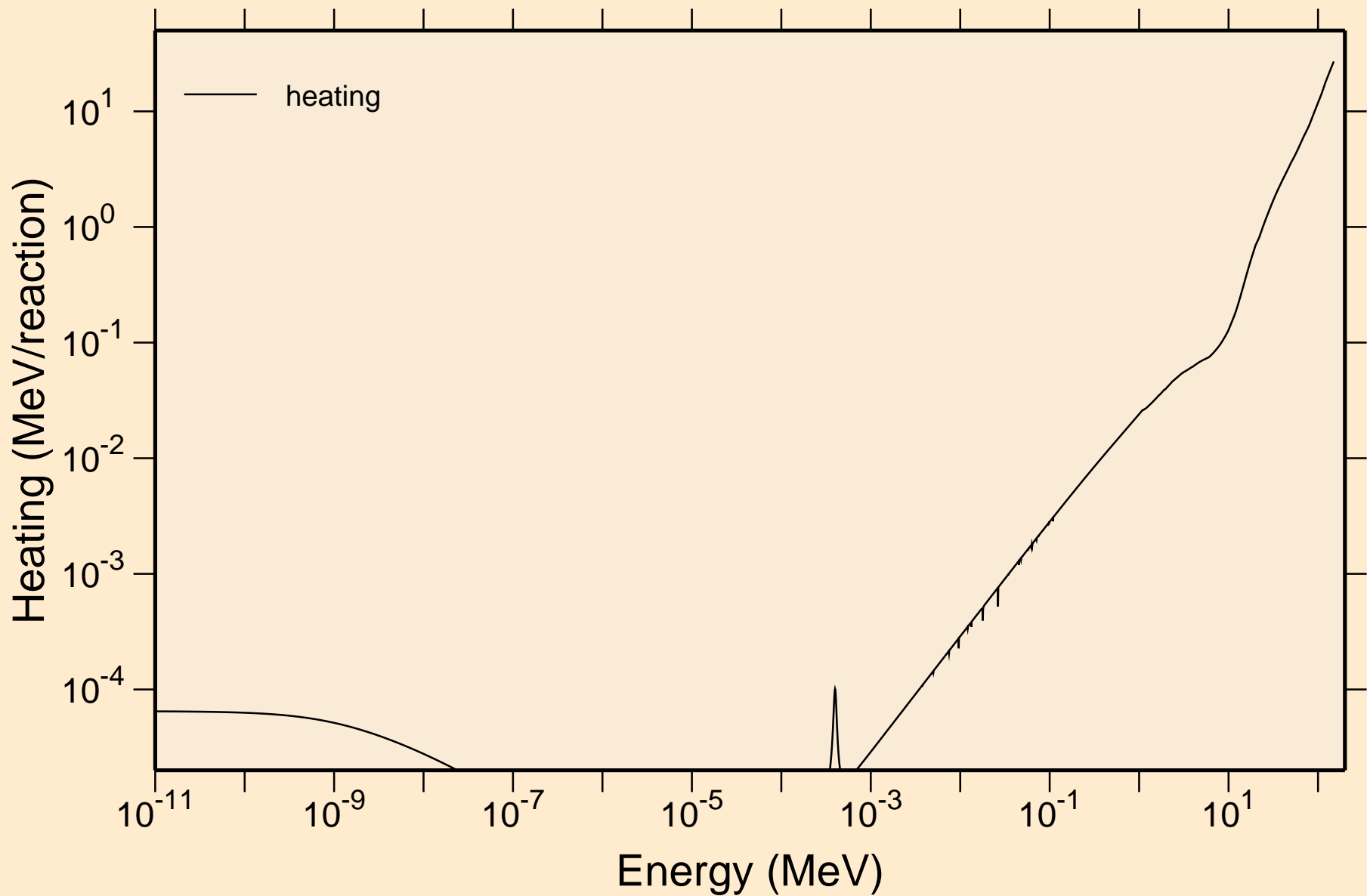30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
UR total cross section

Inf. Dil.
100 b
1 b

Cross section (barns)

Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
UR elastic cross section

- Inf. Dil.
- 100 b
- 1 b

Cross section (barns)

Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
UR capture cross section

Inf. Dil.
100 b
1 b

Cross section (barns)

Energy (MeV)
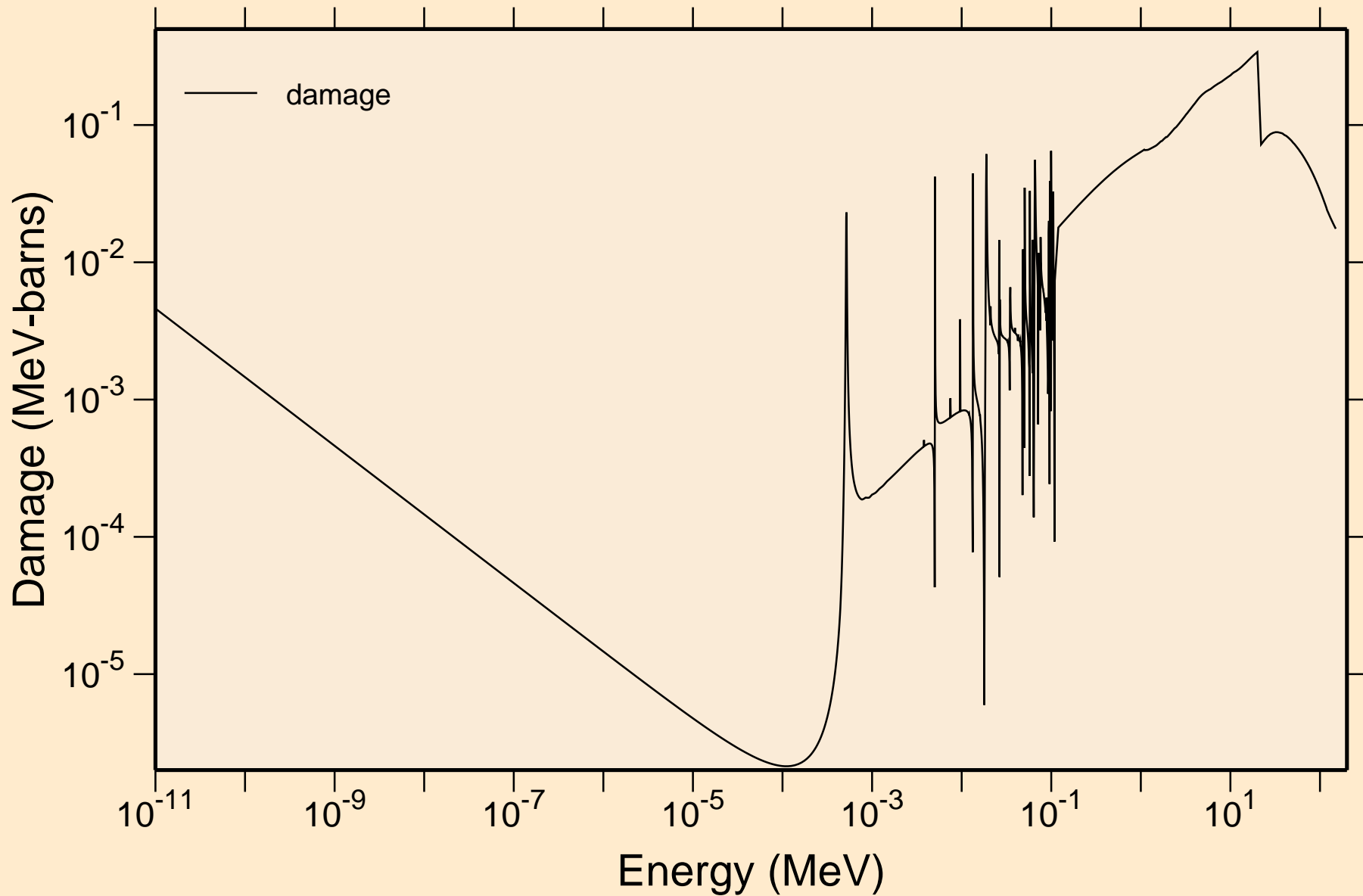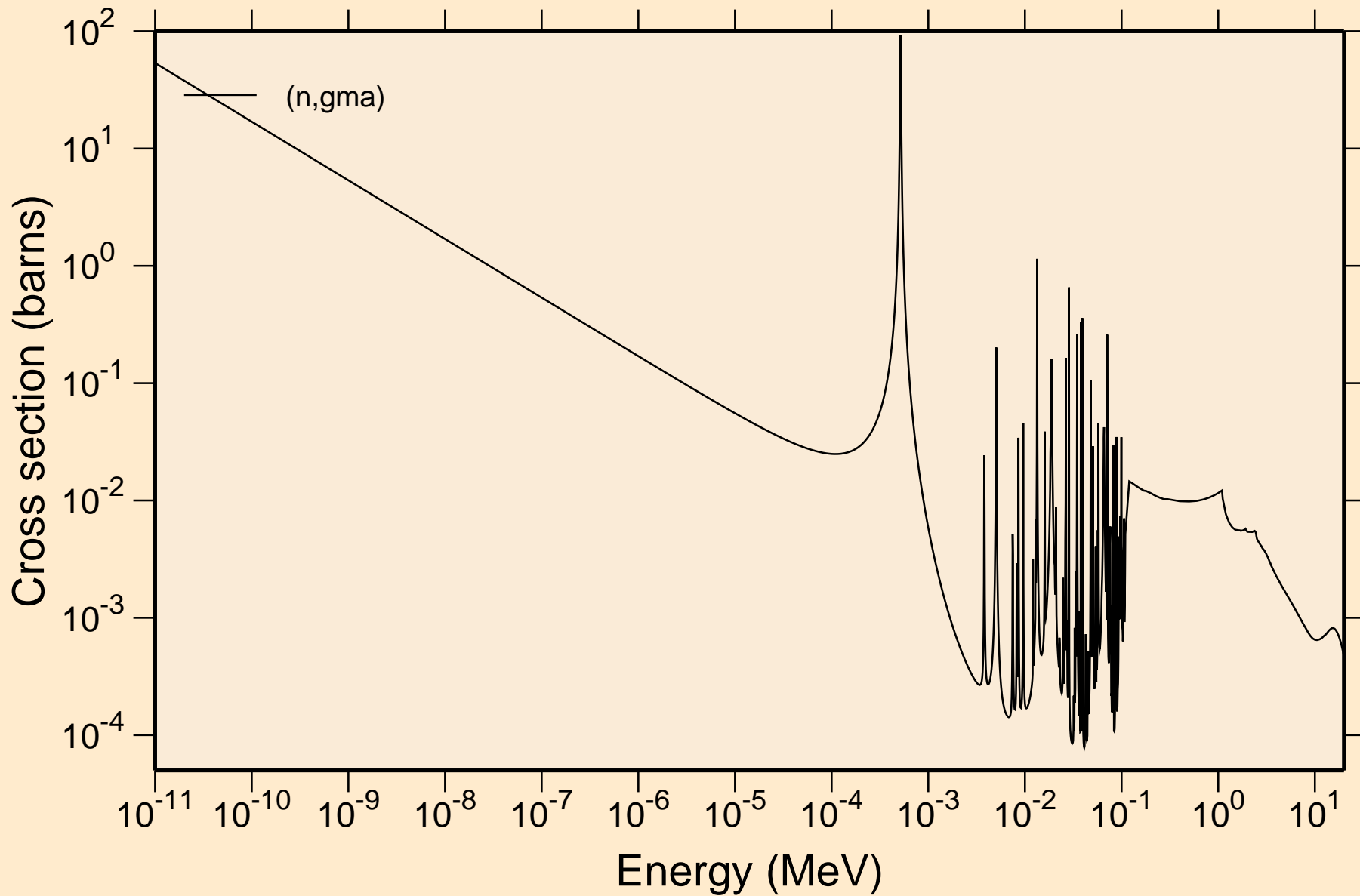
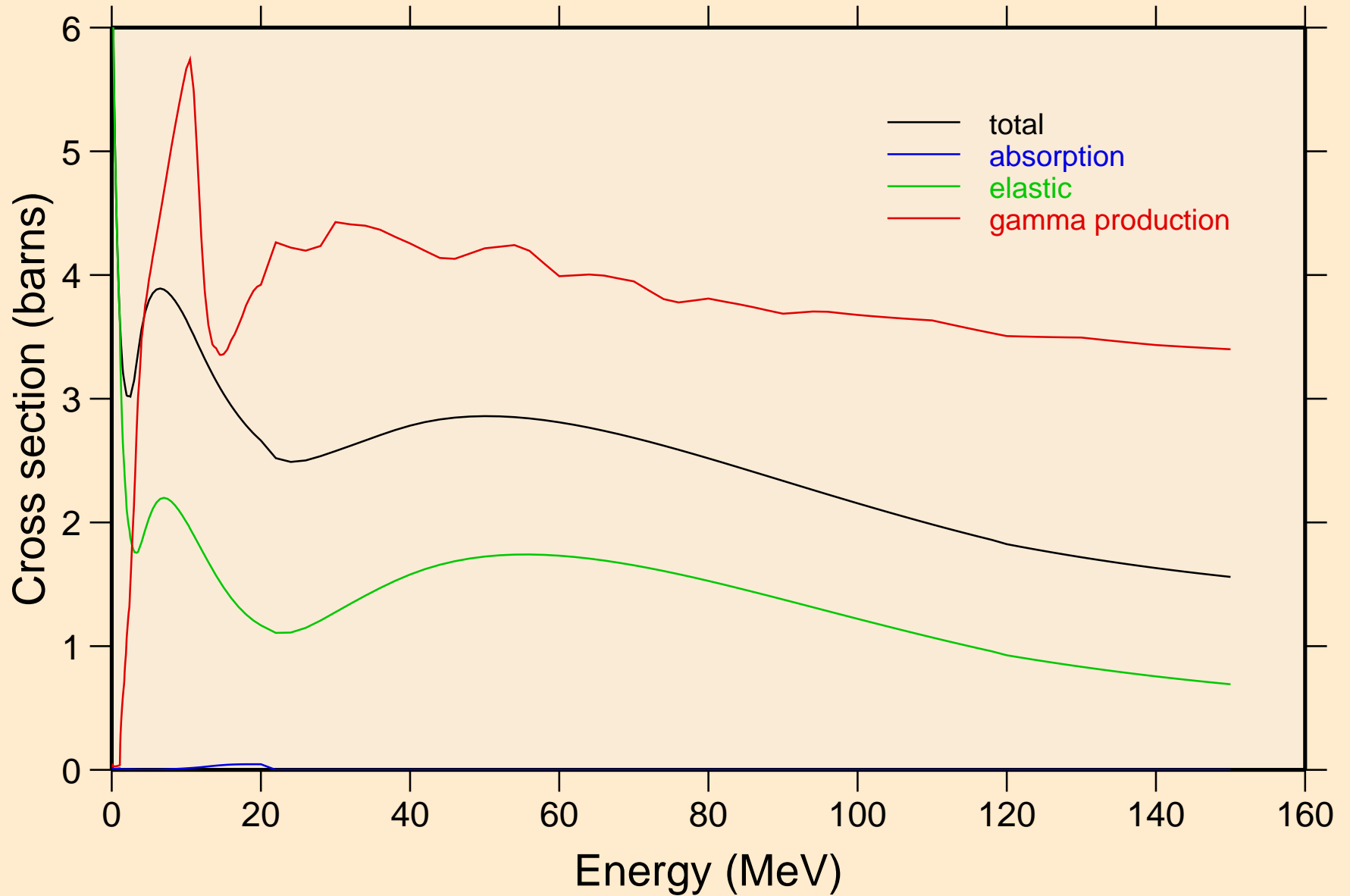30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Heating

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+ Damage

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Non-threshold reactions

(n,gma)

Cross section (barns)

Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Principal cross sections

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Heating

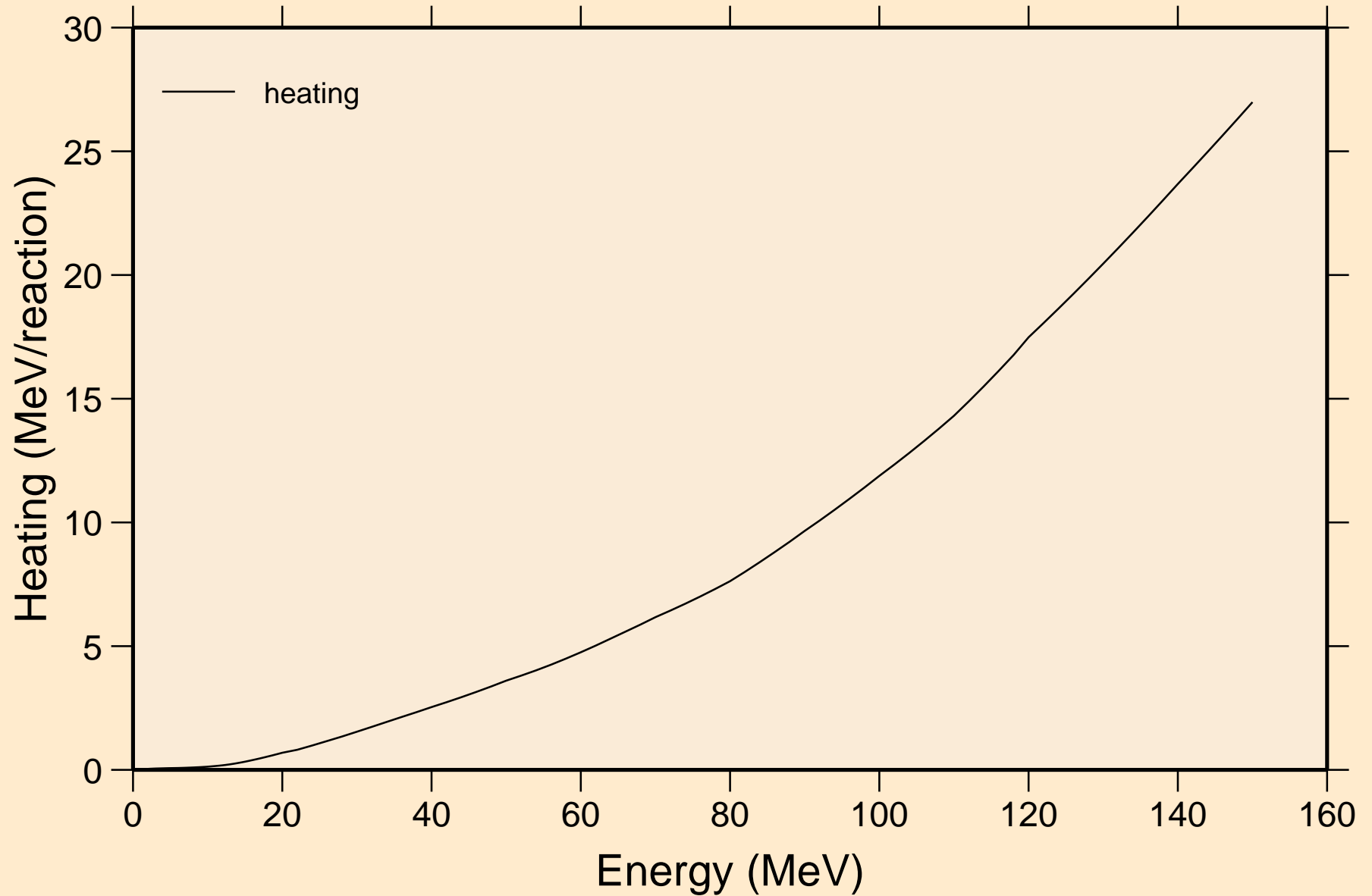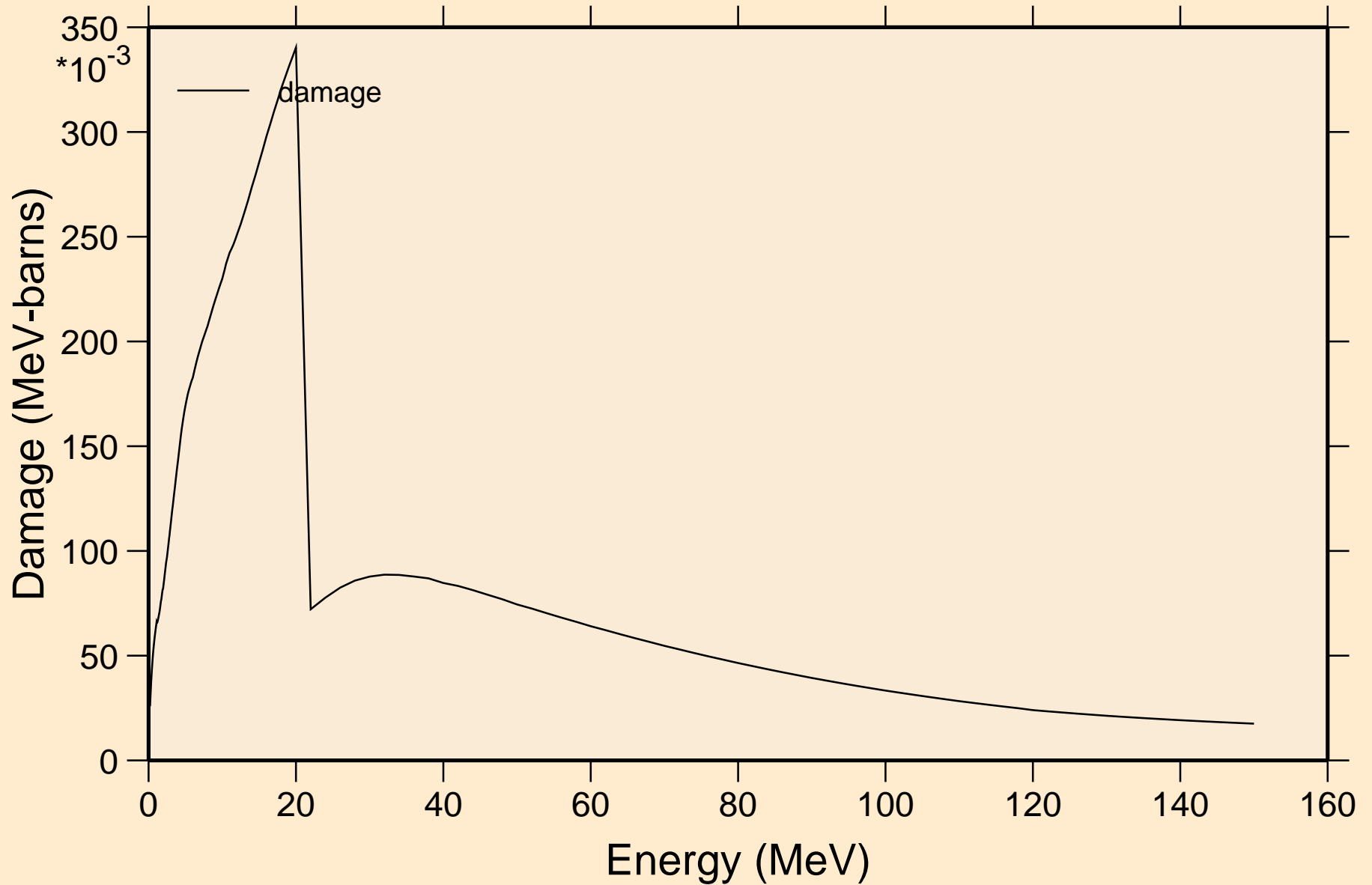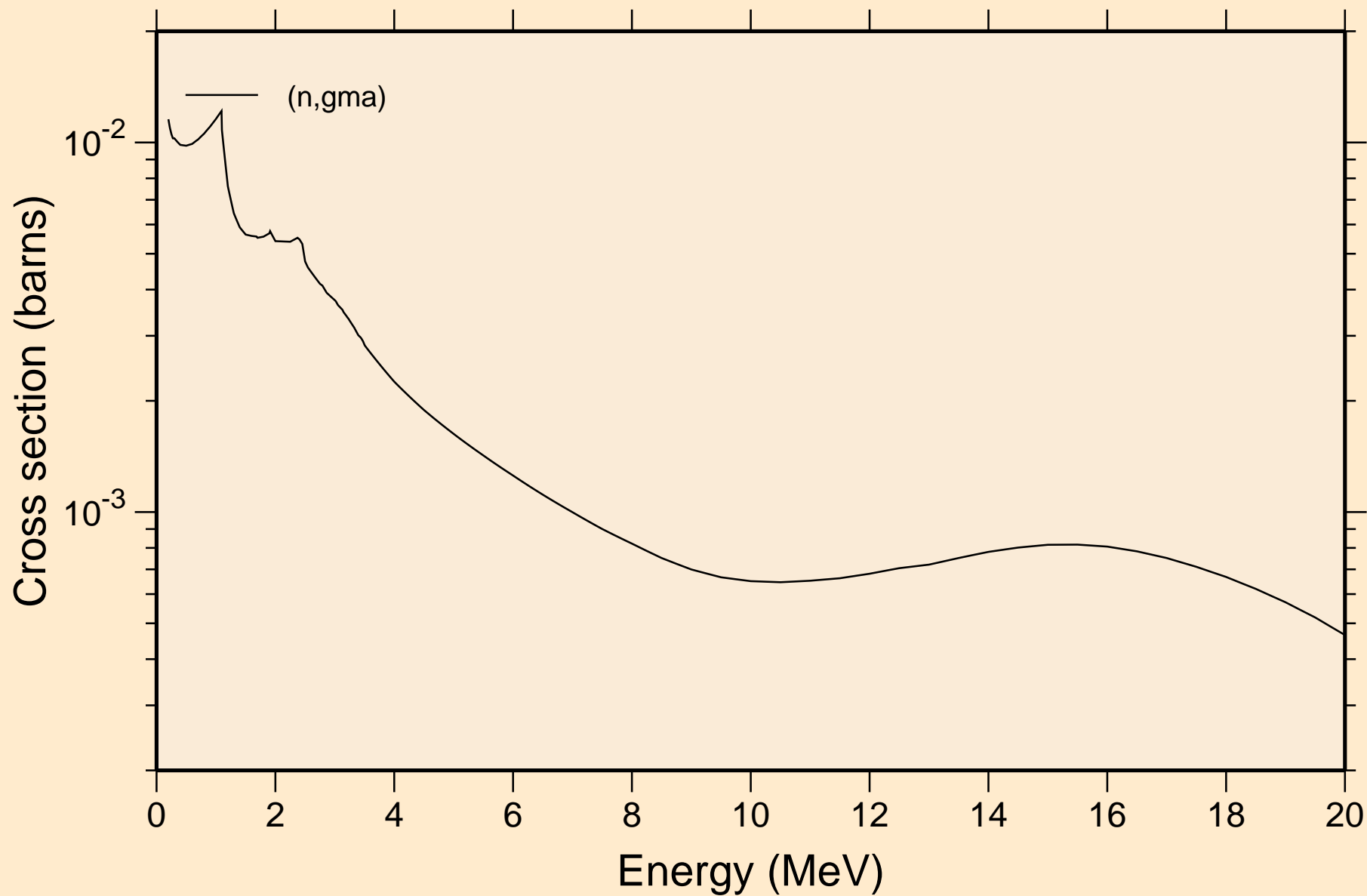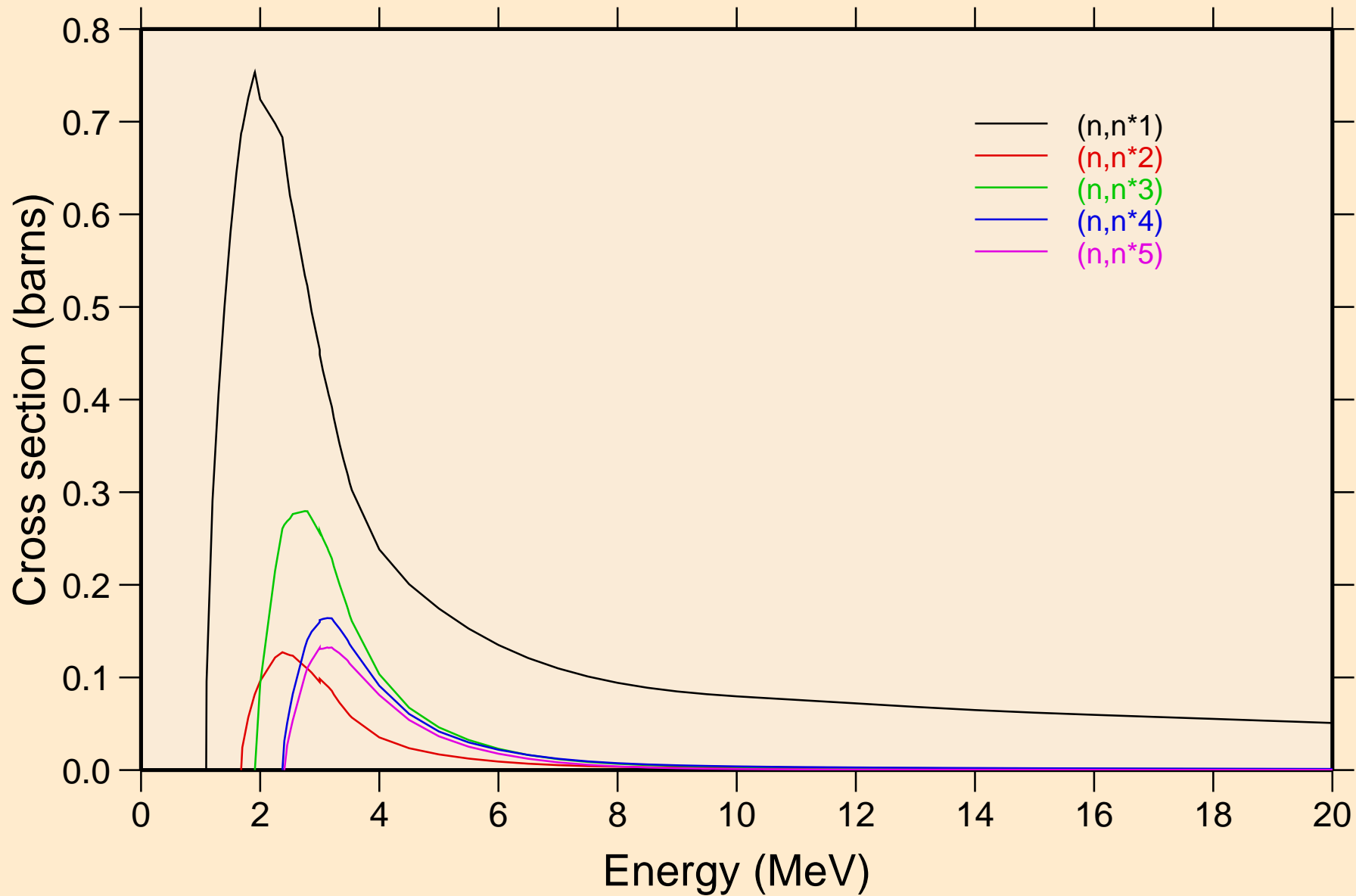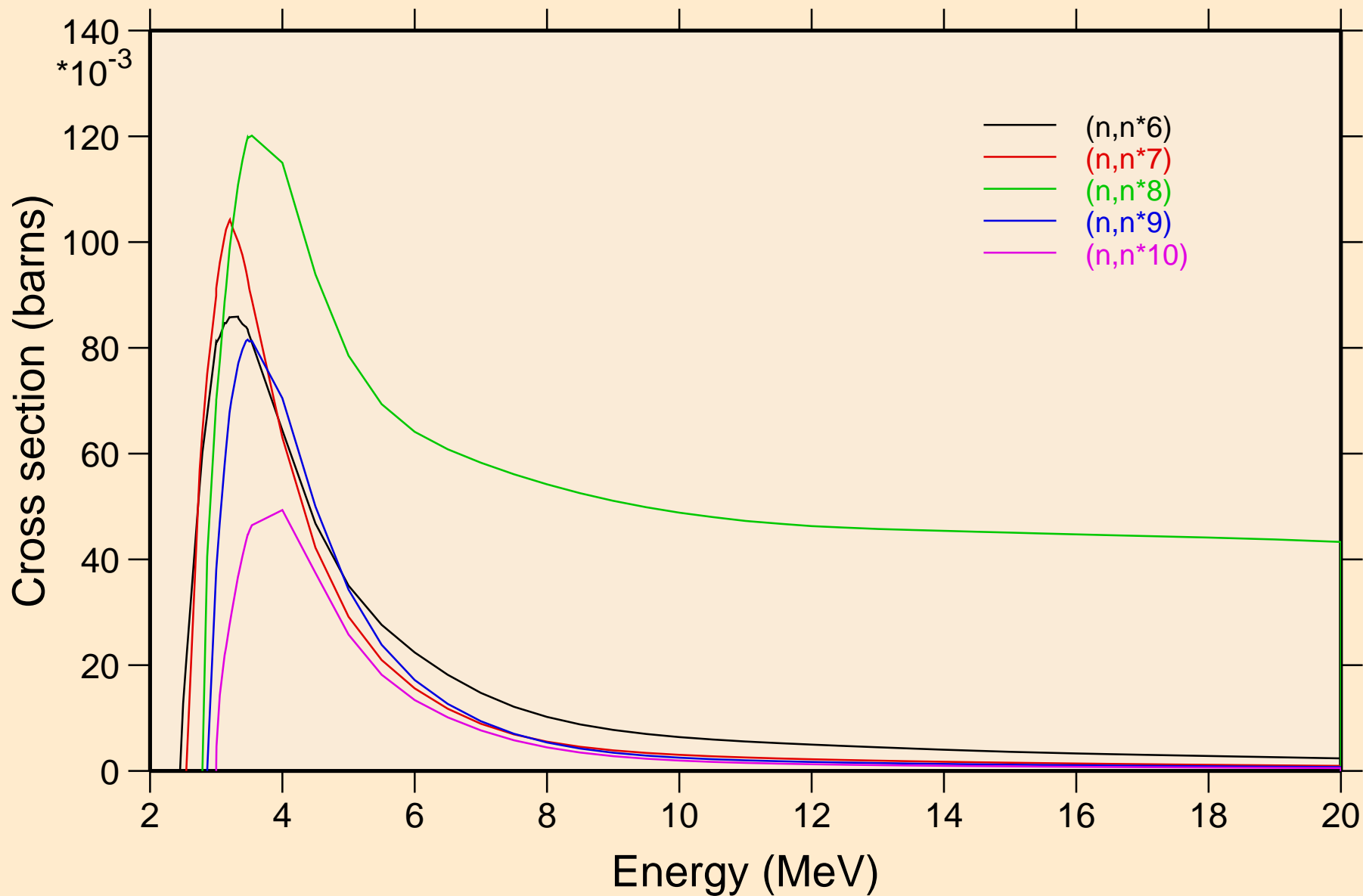30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Damage

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Non-threshold reactions

(n,gma)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Inelastic levels

Legend:
- (n,n*1)
- (n,n*2)
- (n,n*3)
- (n,n*4)
- (n,n*5)

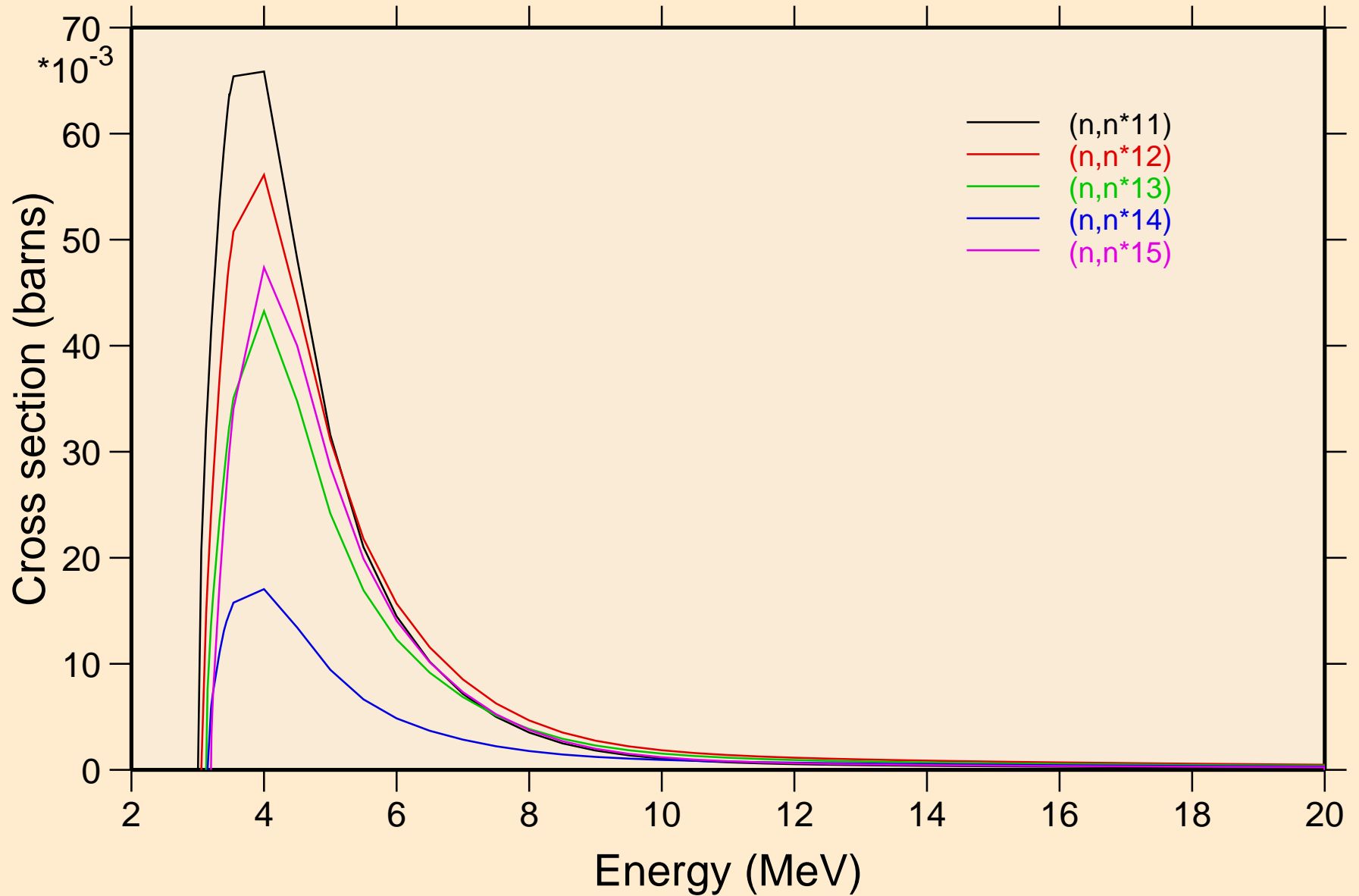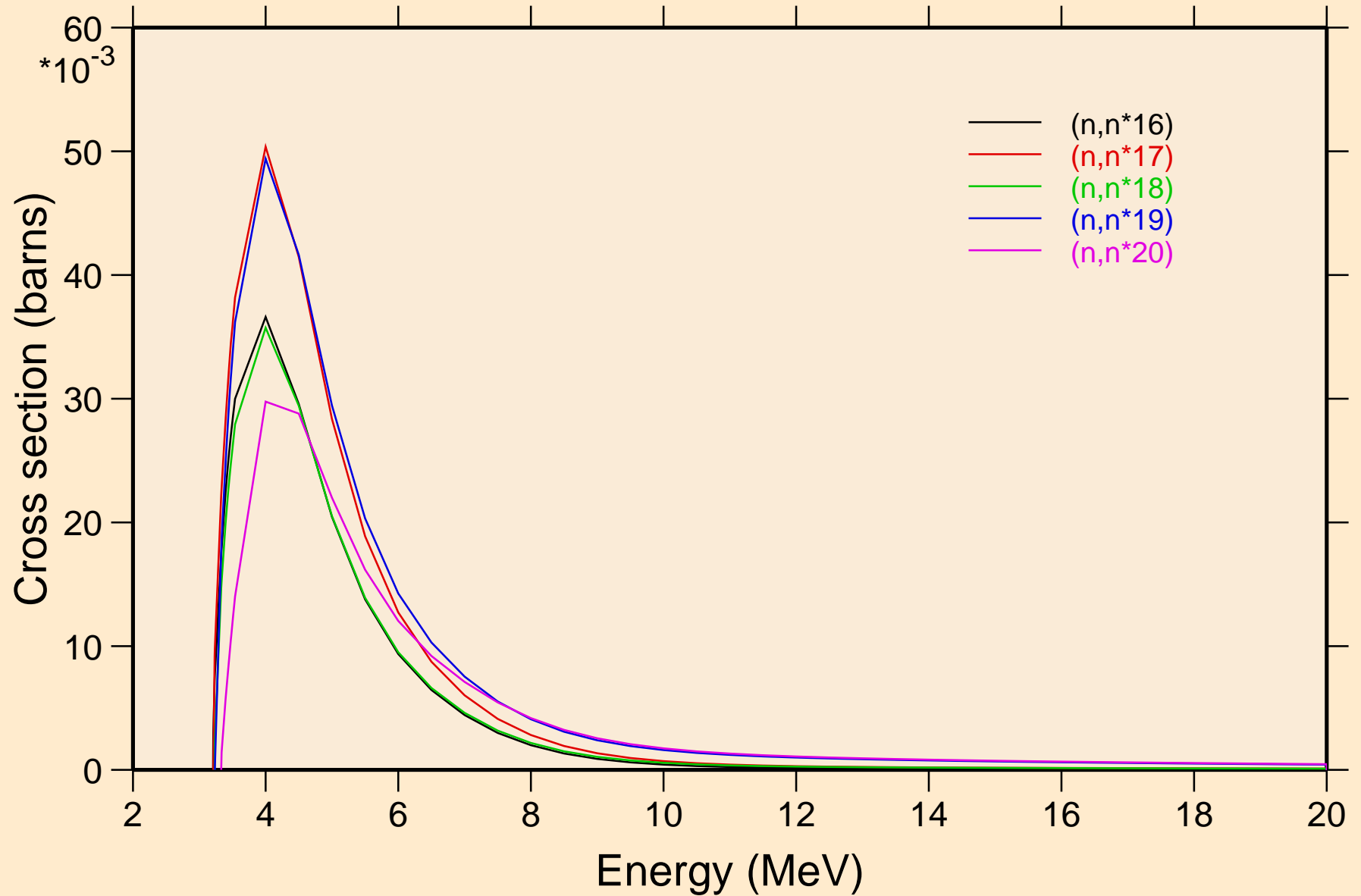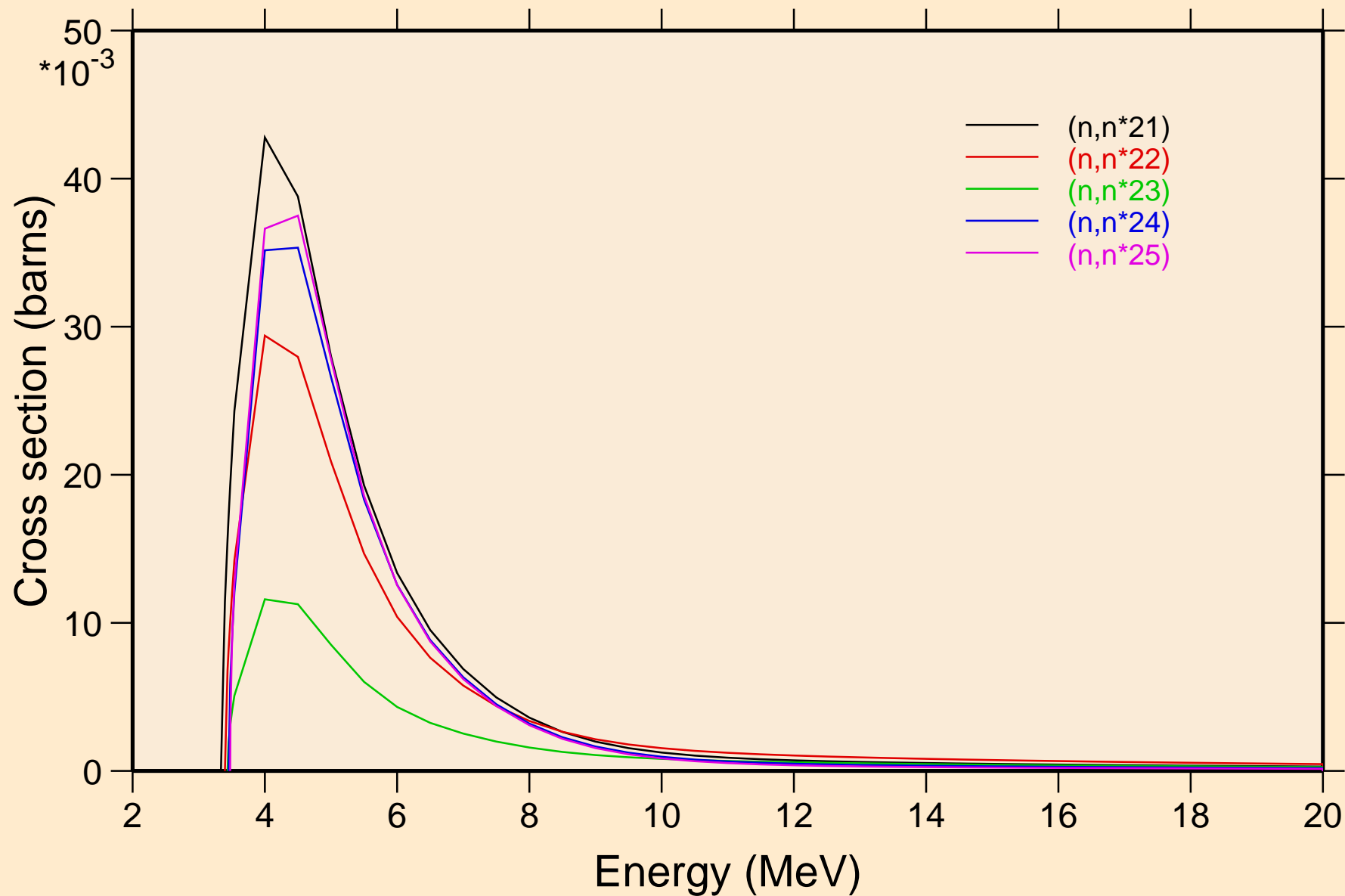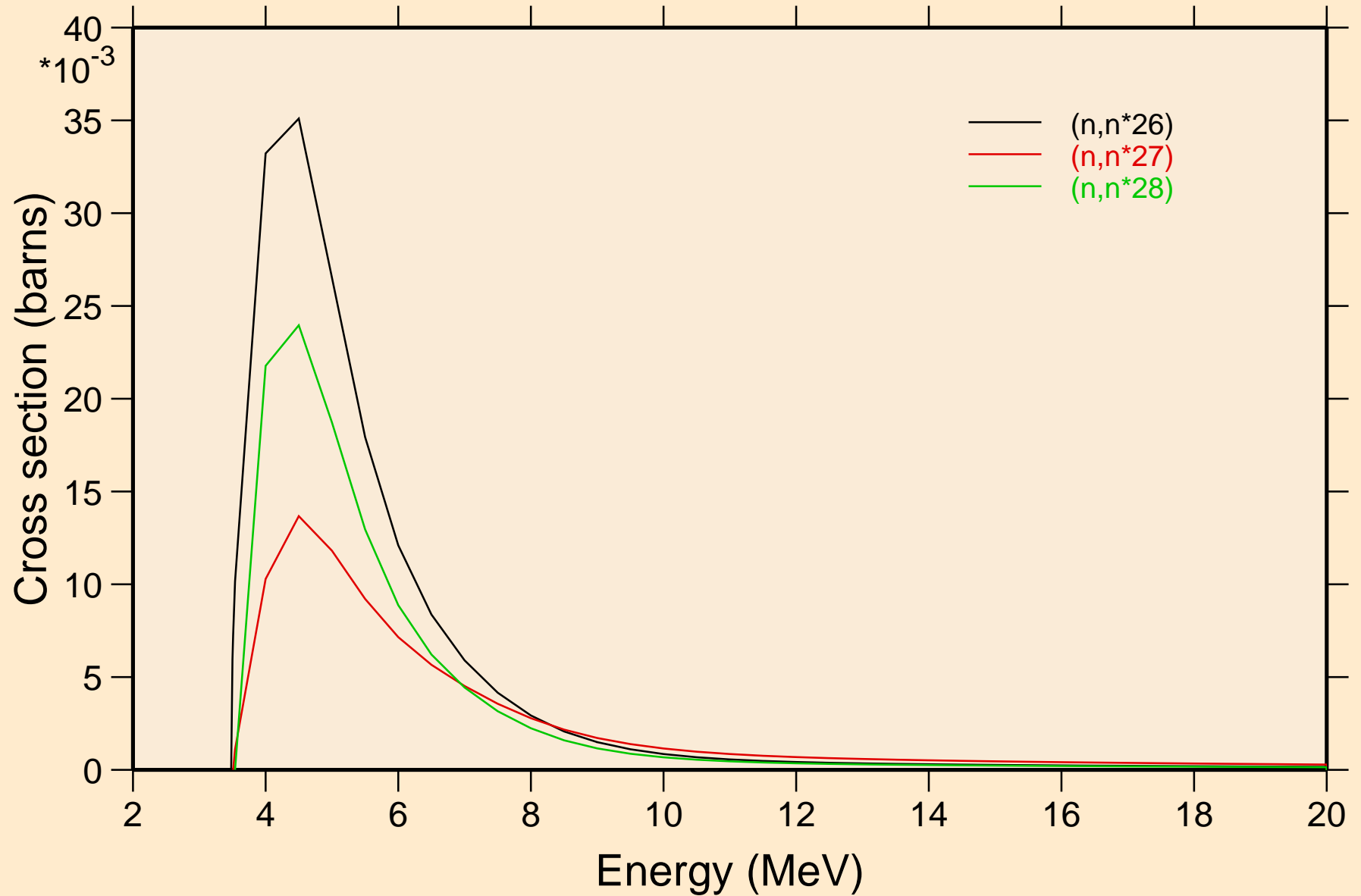Cross section (barns) vs Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Inelastic levels

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Inelastic levels

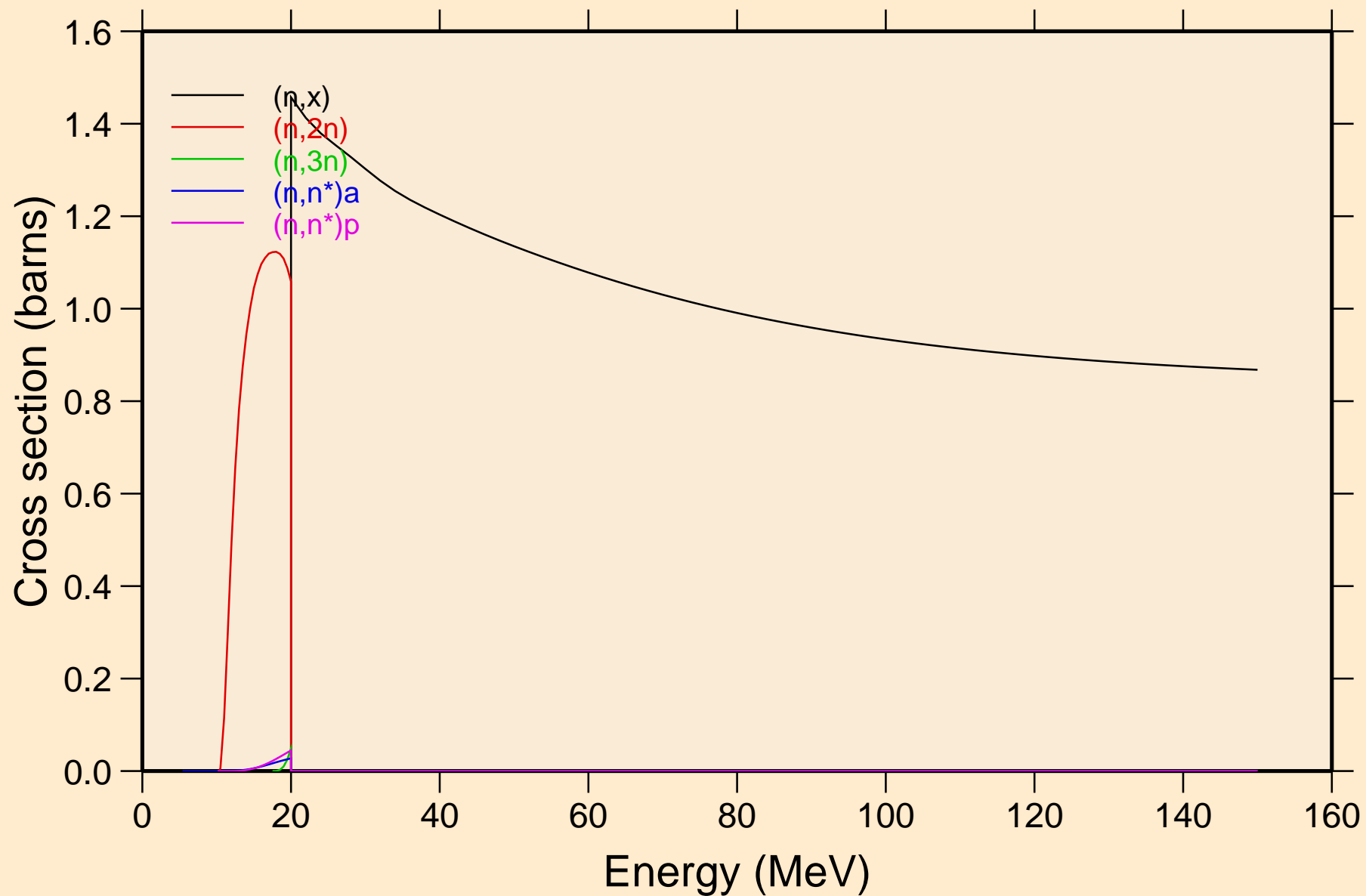30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
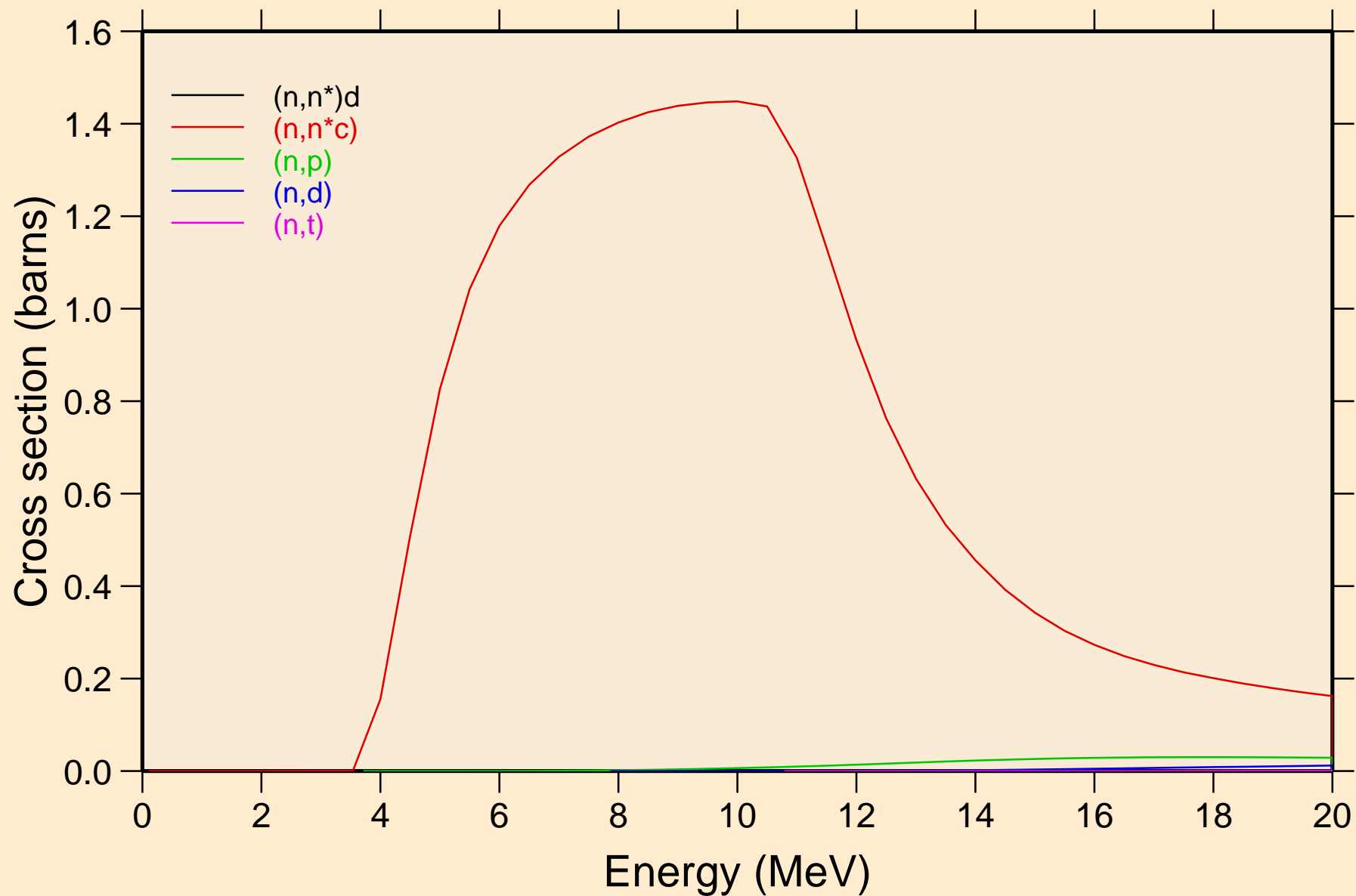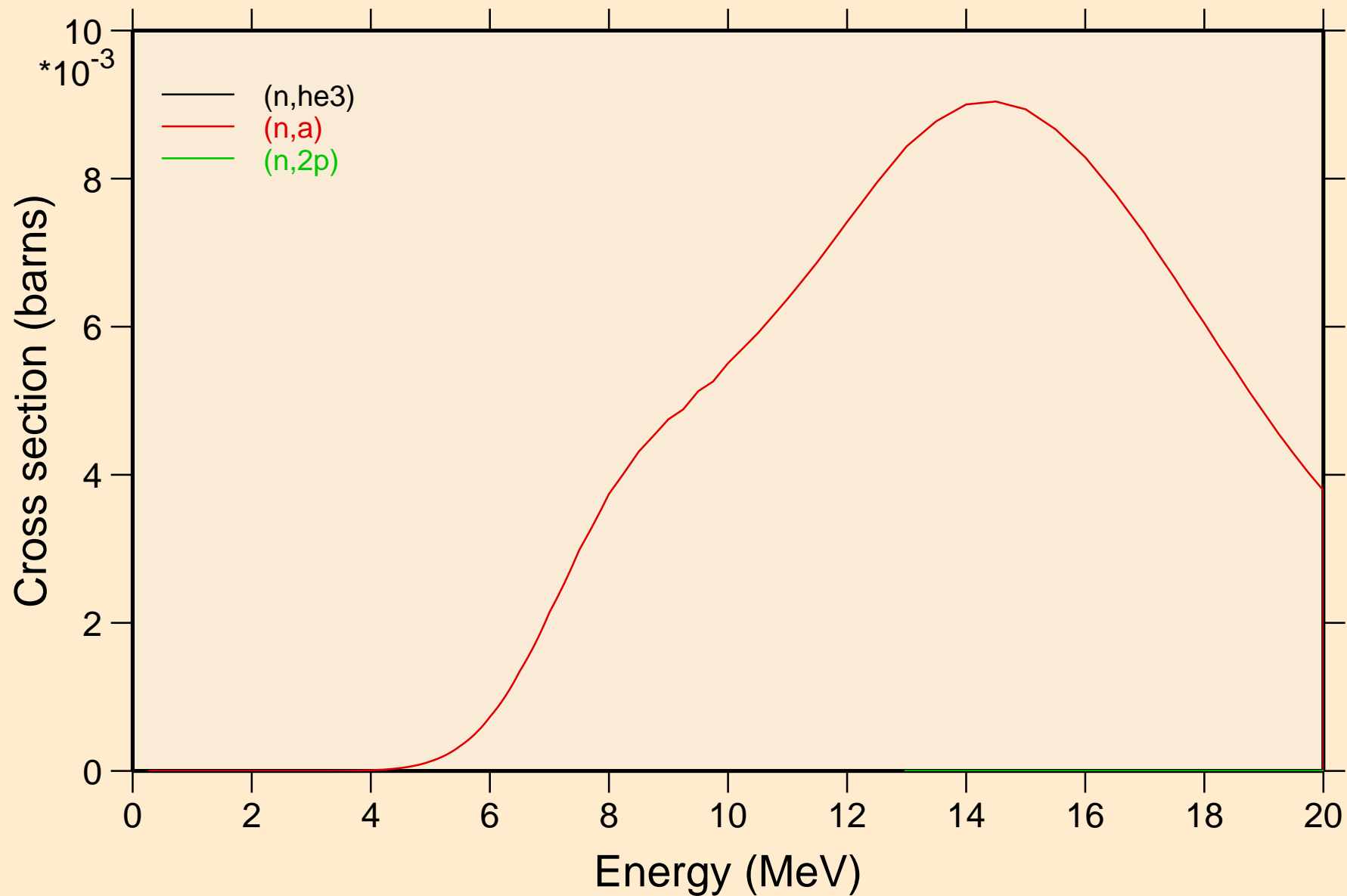Inelastic levels

Cross section (barns)

Energy (MeV)

- (n,n*16)
- (n,n*17)
- (n,n*18)
- (n,n*19)
- (n,n*20)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Inelastic levels

Legend:
- (n,n*21)
- (n,n*22)
- (n,n*23)
- (n,n*24)
- (n,n*25)

Y-axis: Cross section (barns) $\times 10^{-3}$

X-axis: Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Inelastic levels

Legend:
- (n,n*26)
- (n,n*27)
- (n,n*28)

Y-axis: Cross section (barns) *10^-3
X-axis: Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Threshold reactions

Legend:
- (n,x) — black
- (n,2n) — red
- (n,3n) — green
- (n,n*)a — blue
- (n,n*)p — magenta

Cross section (barns) vs Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Threshold reactions

Legend:
- (n,n*)d — black
- (n,n*c) — red
- (n,p) — green
- (n,d) — blue
- (n,t) — magenta

Cross section (barns) vs Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Threshold reactions

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
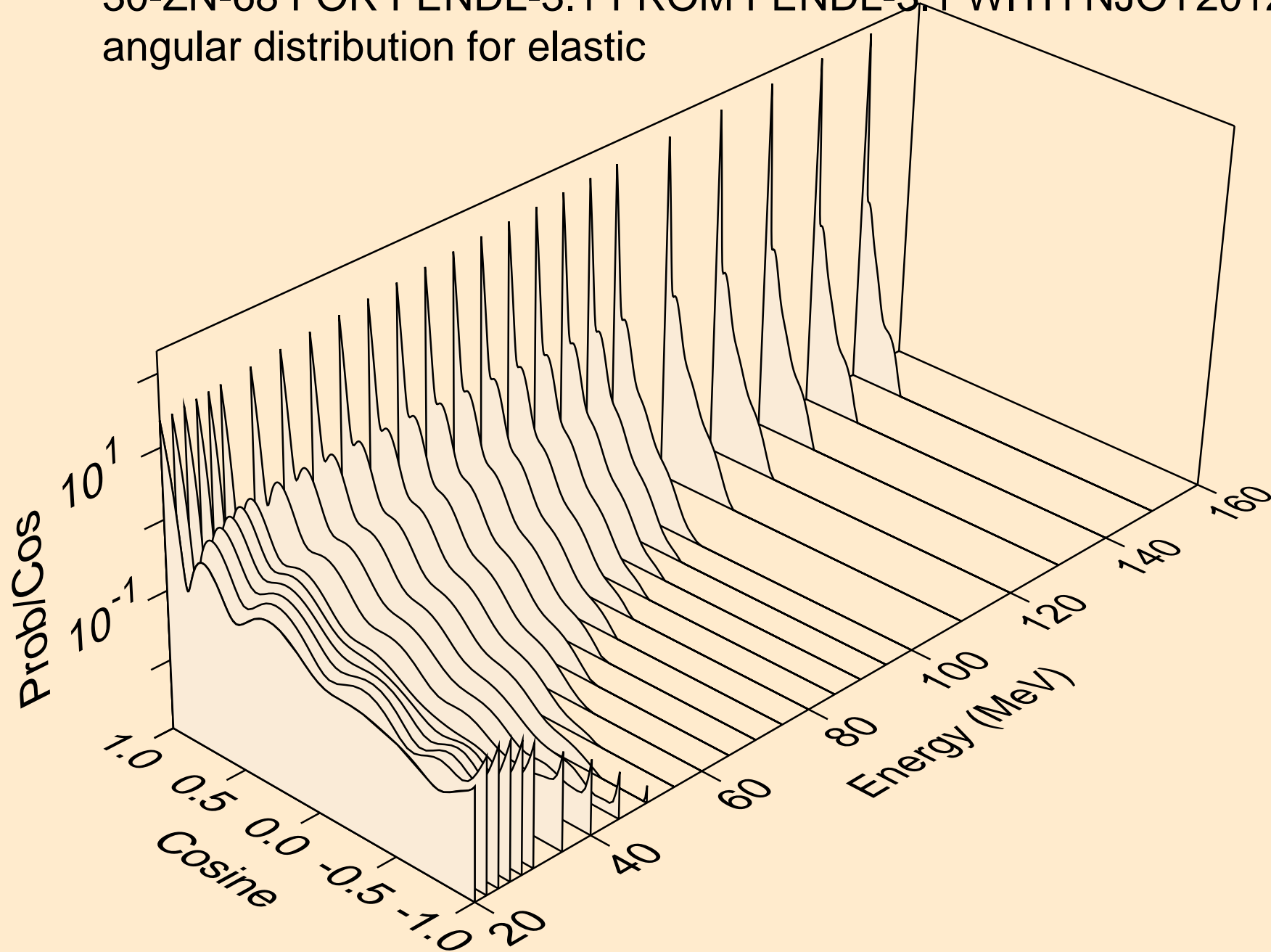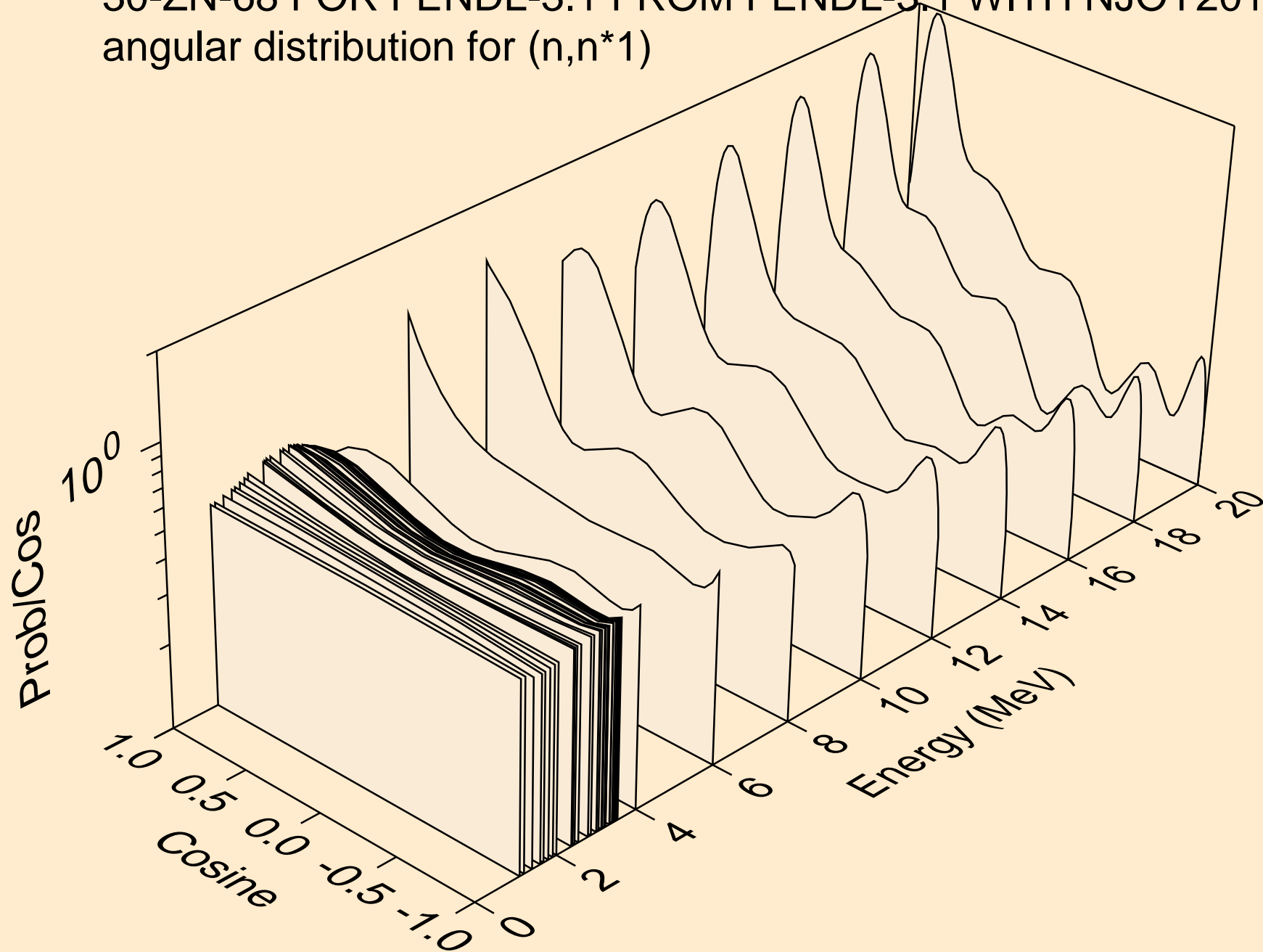Threshold reactions

Legend:
- (n,xp) — black
- (n,xd) — red
- (n,xt) — green
- (n,xhe3) — blue
- (n,xa) — magenta
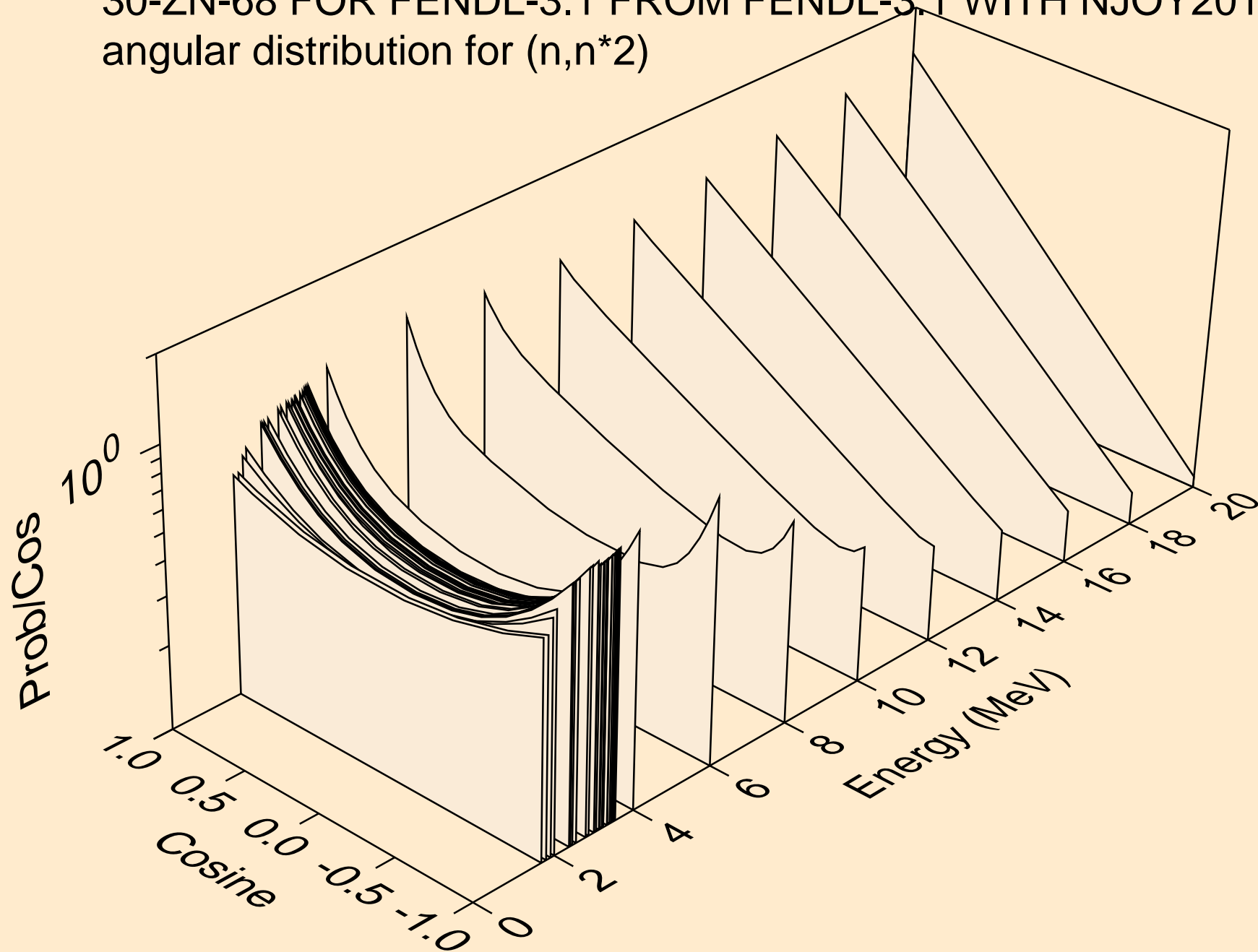
Y-axis: Cross section (barns)
X-axis: Energy (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for elastic

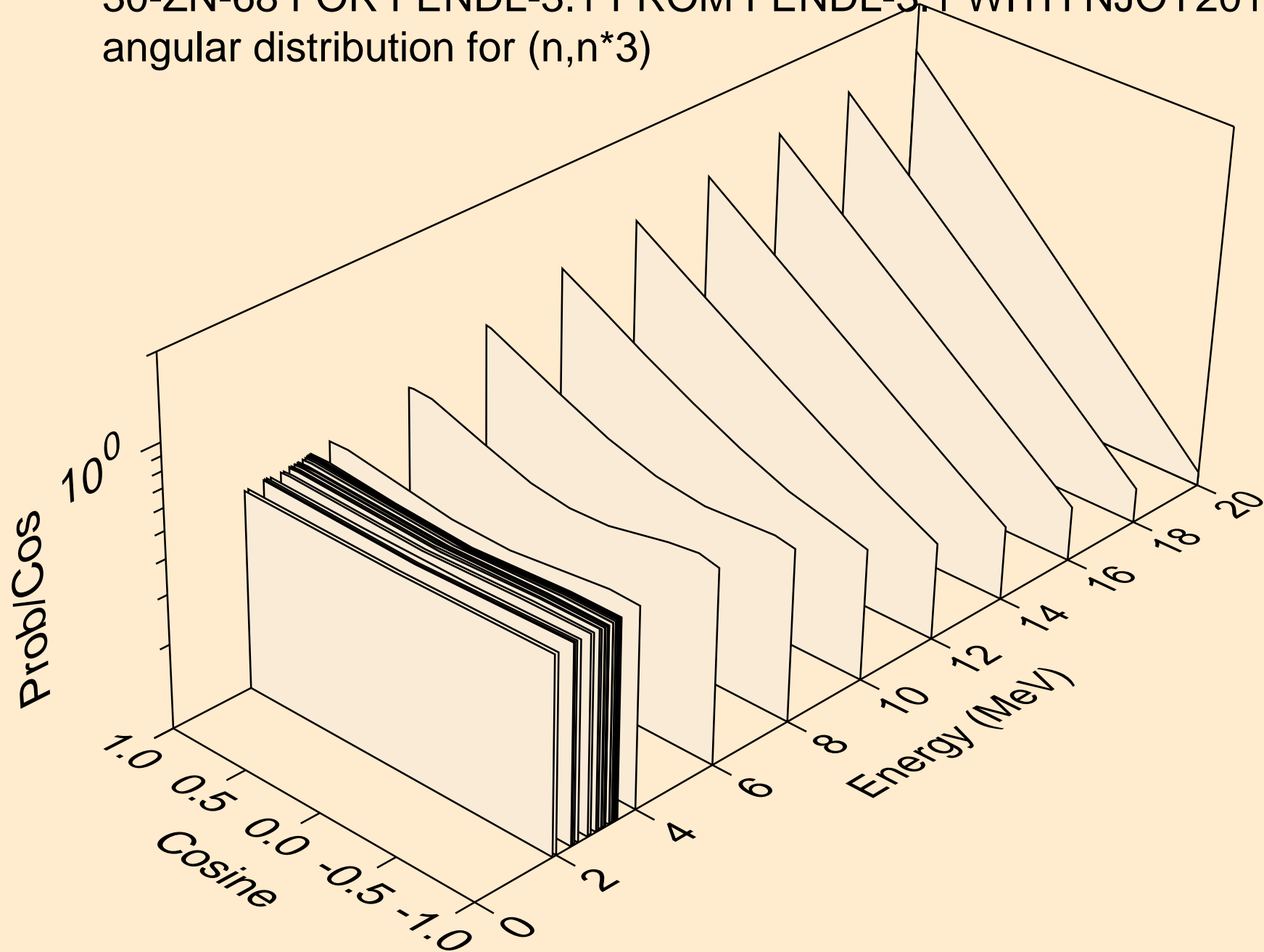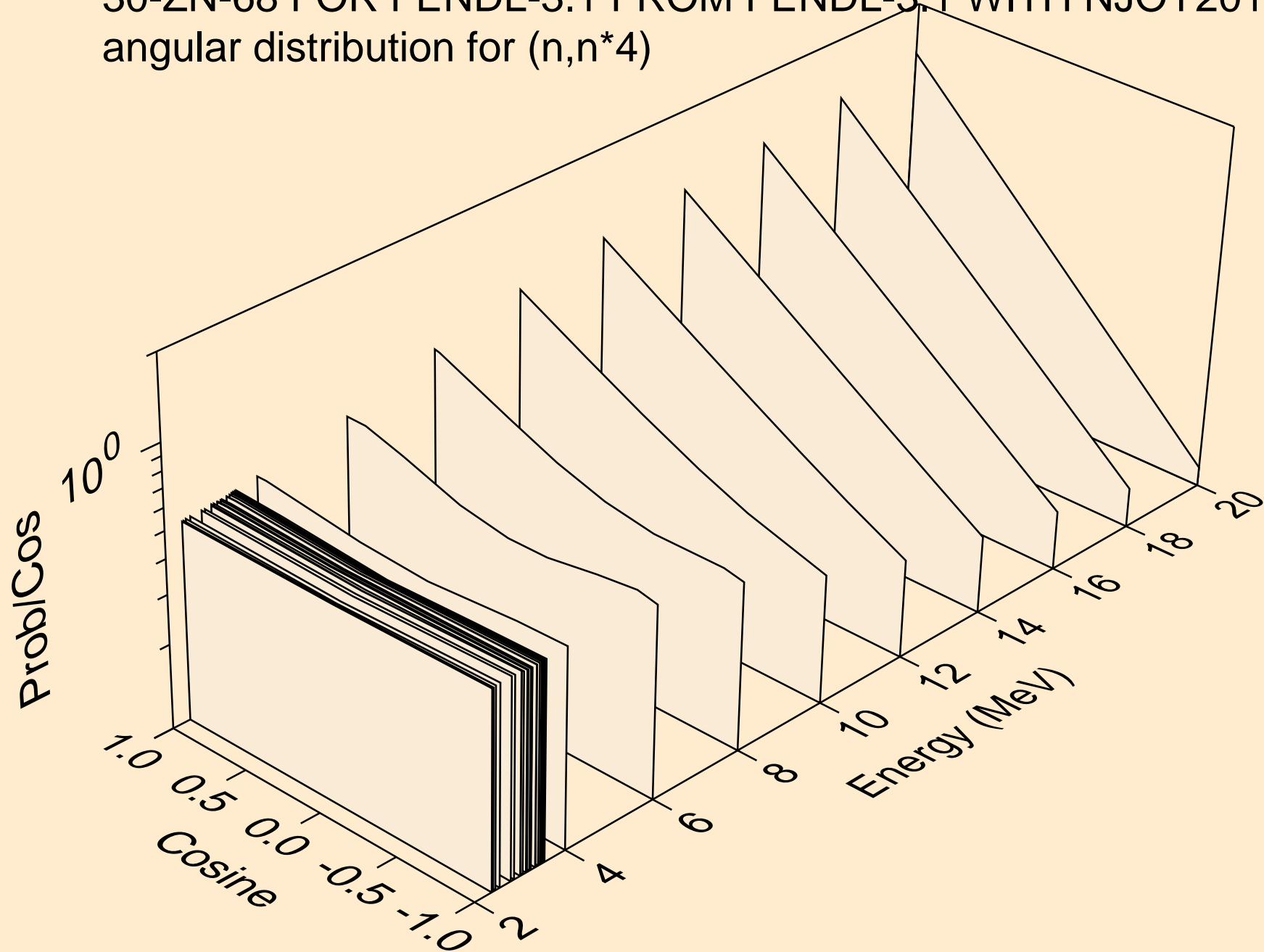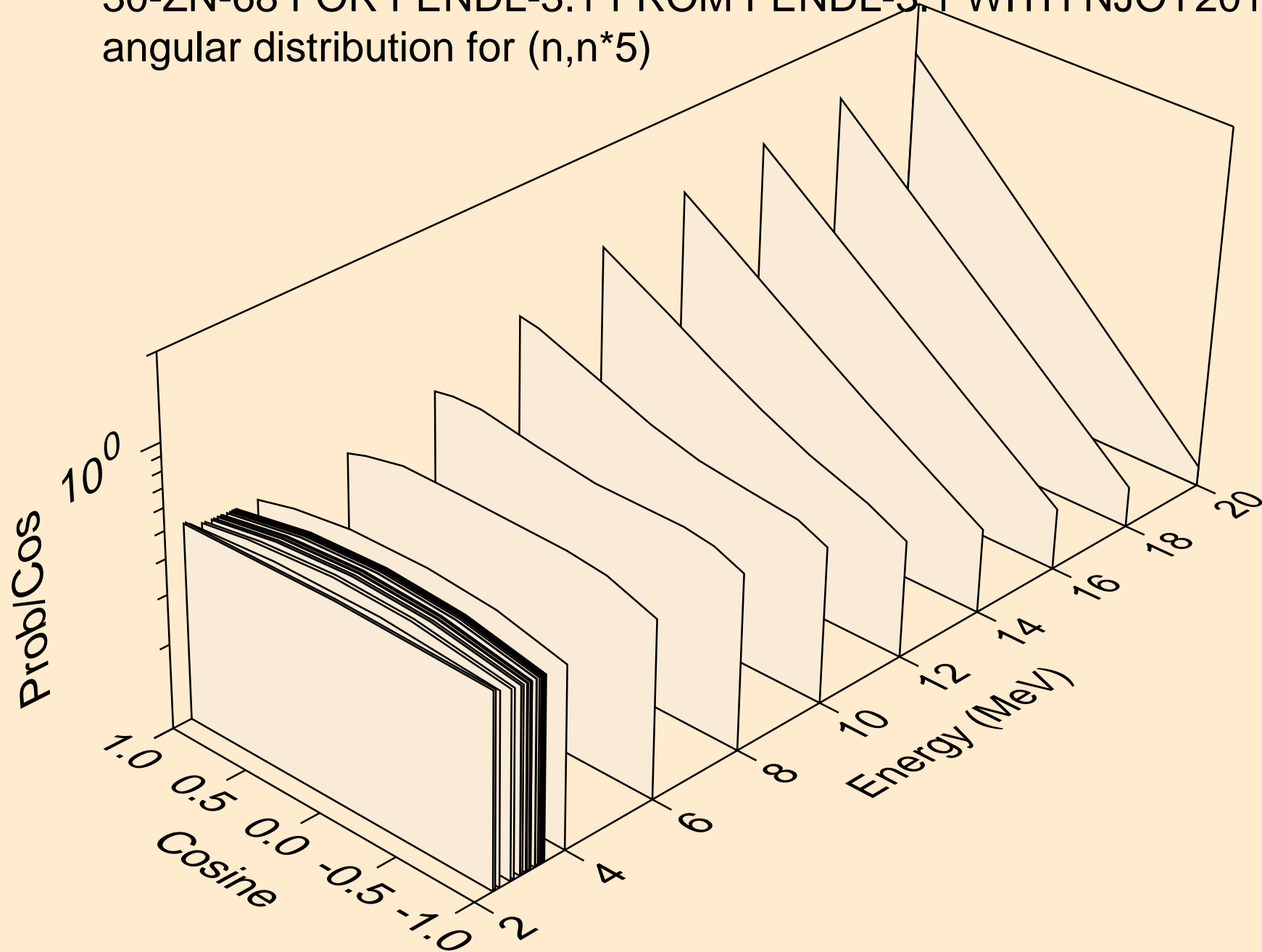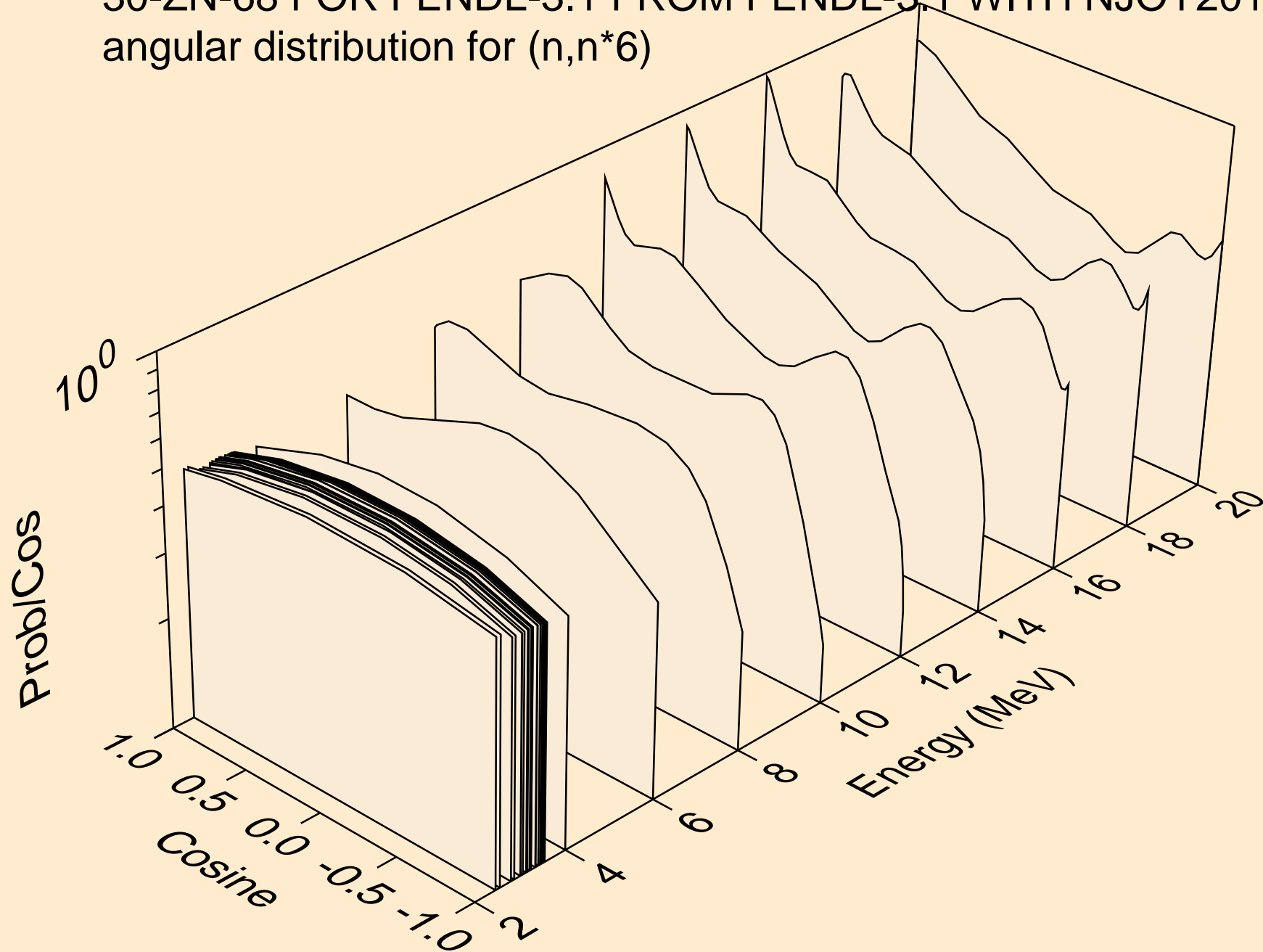30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for elastic

ProbICos

10^1

10^{-1}

Cosine

1.0 0.5 0.0 -0.5 -1.0

Energy (MeV)

20 40 60 80 100 120 140 160

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*1)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
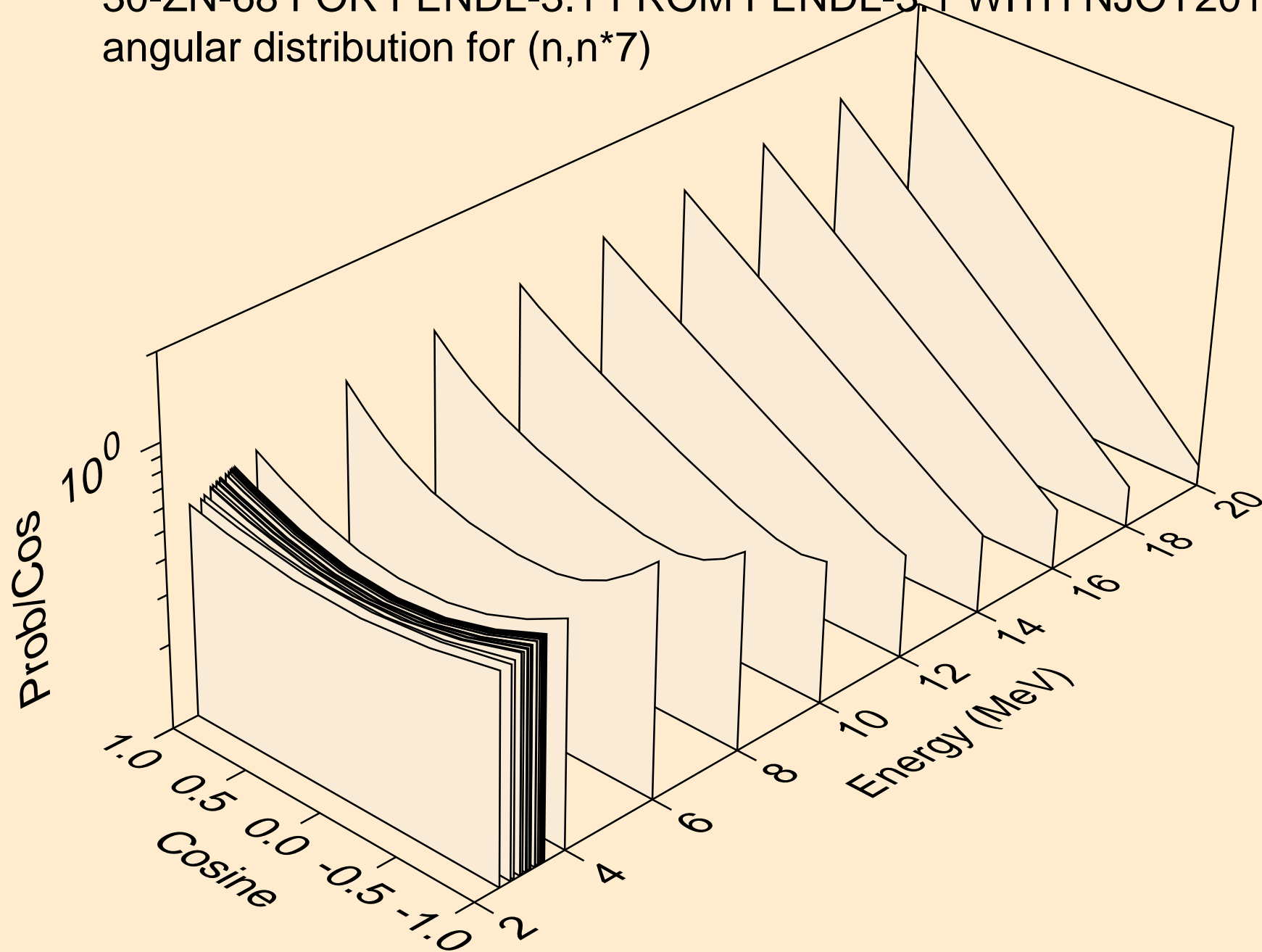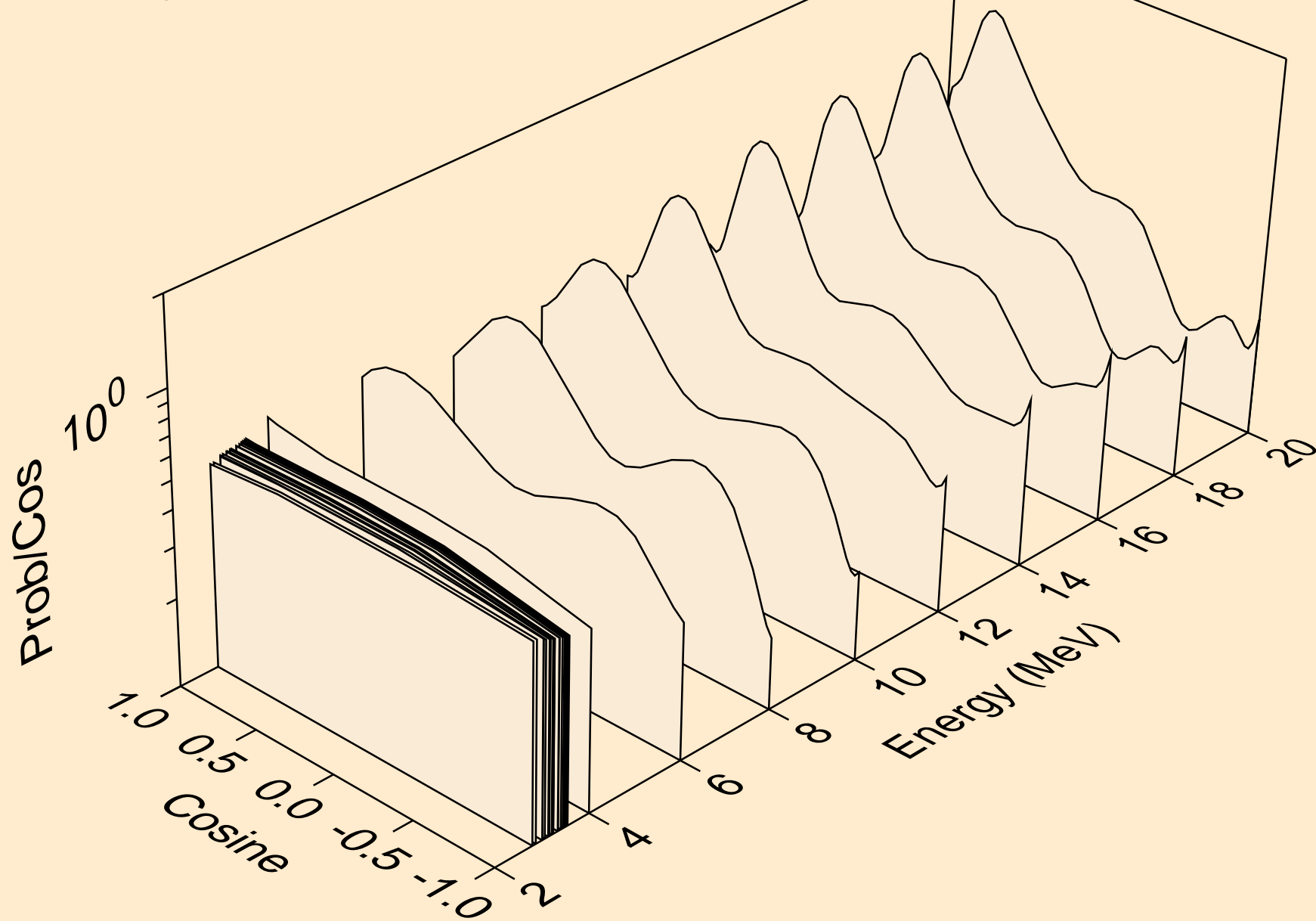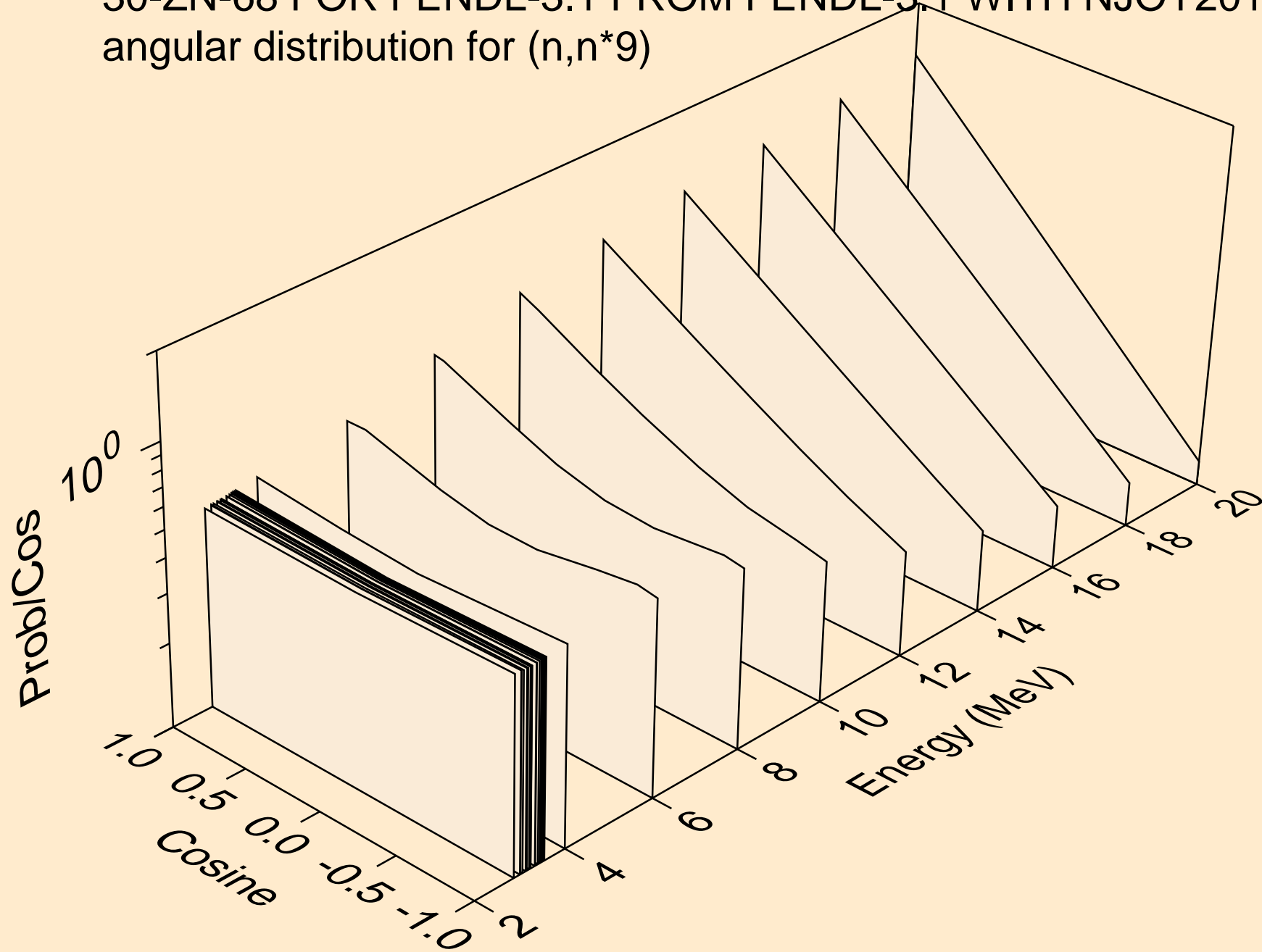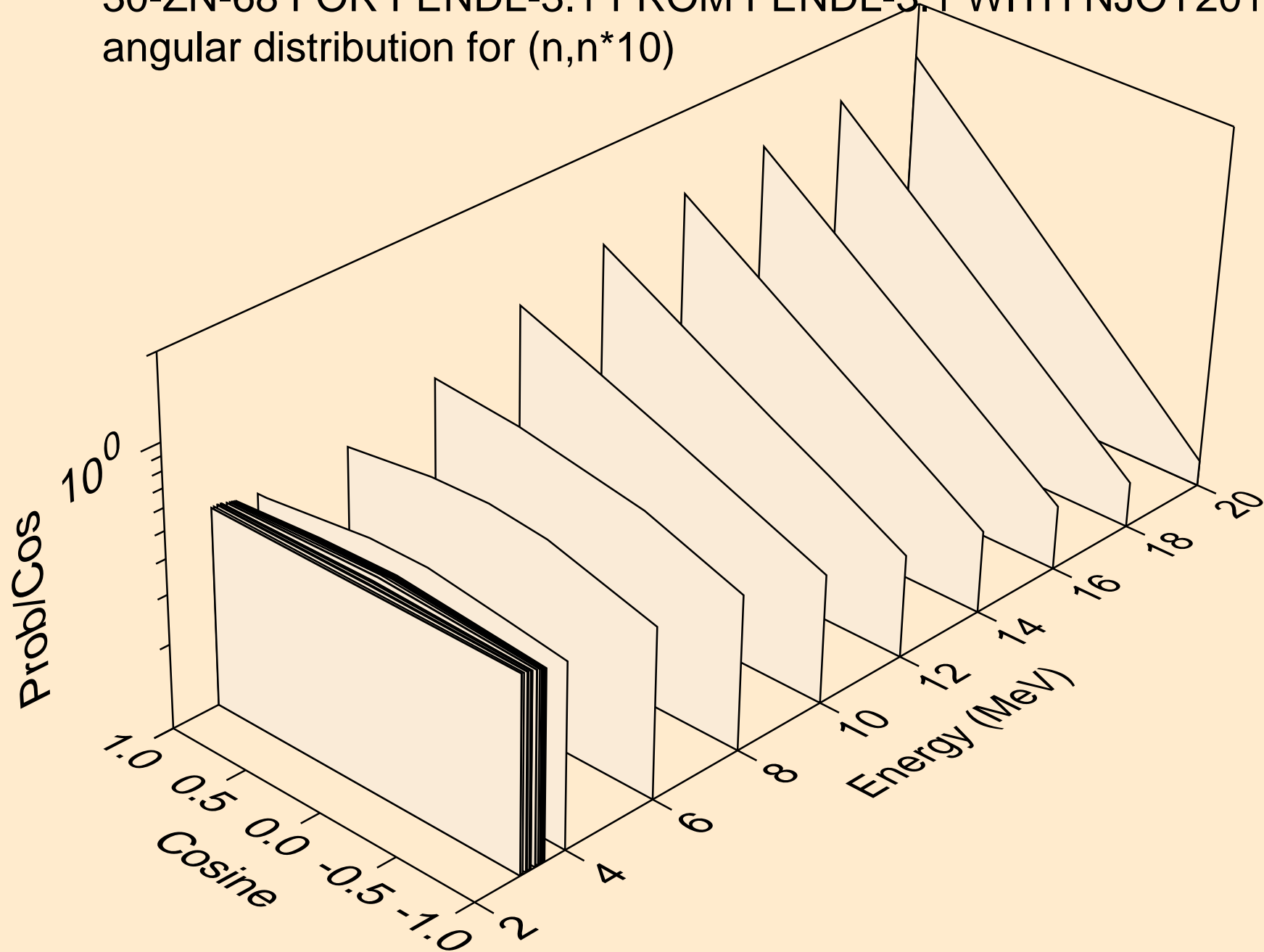angular distribution for (n,n*2)
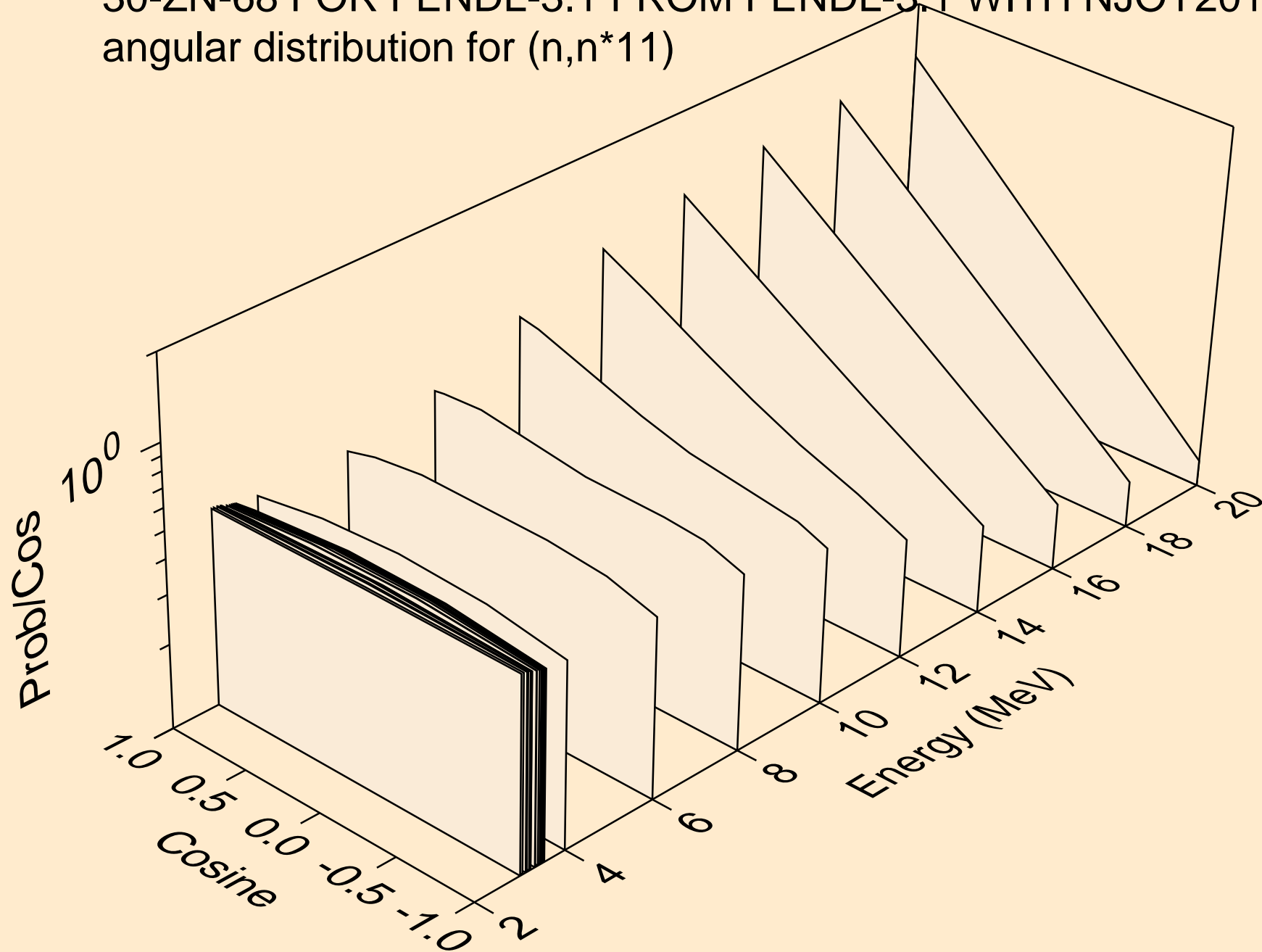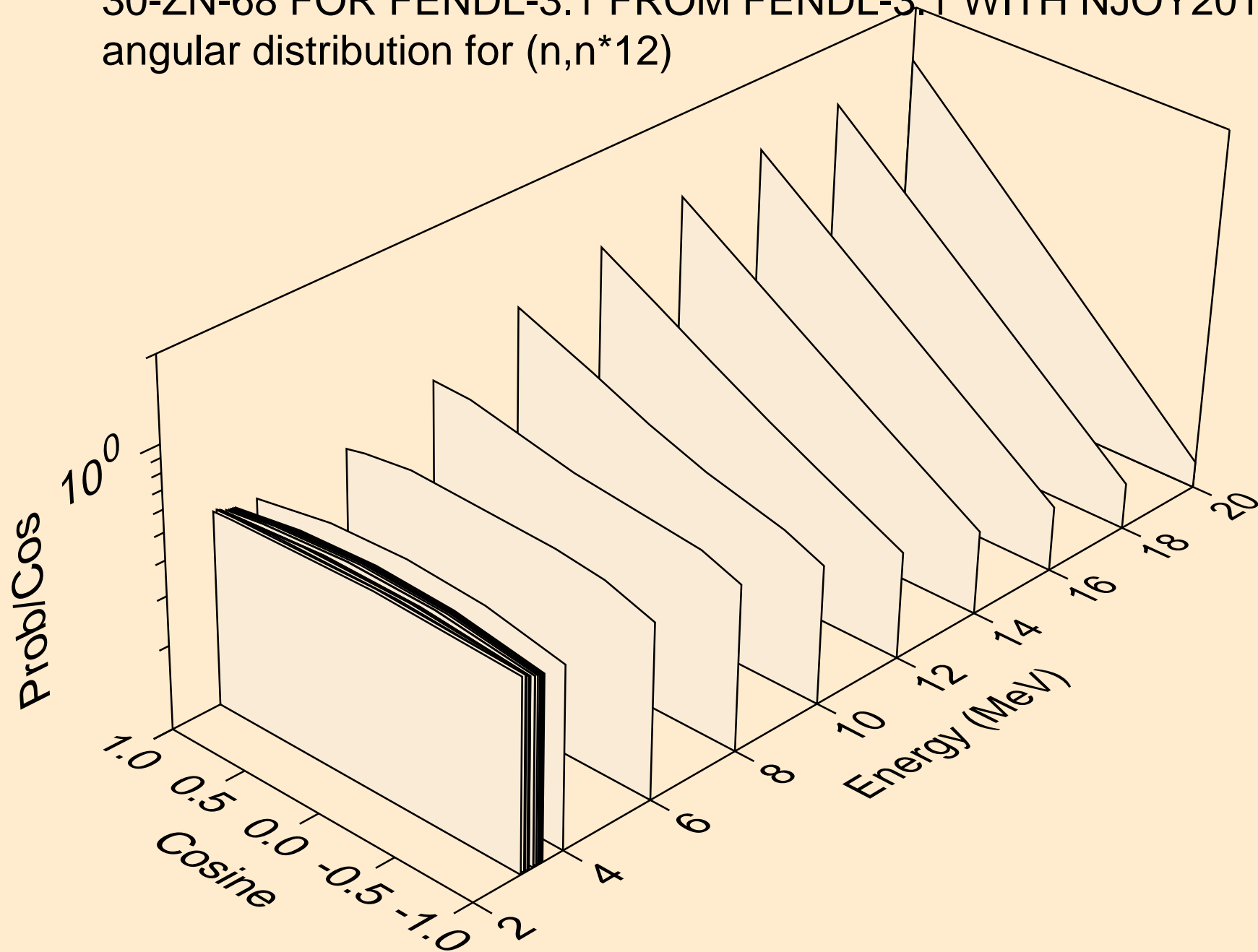
30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*3)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*4)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
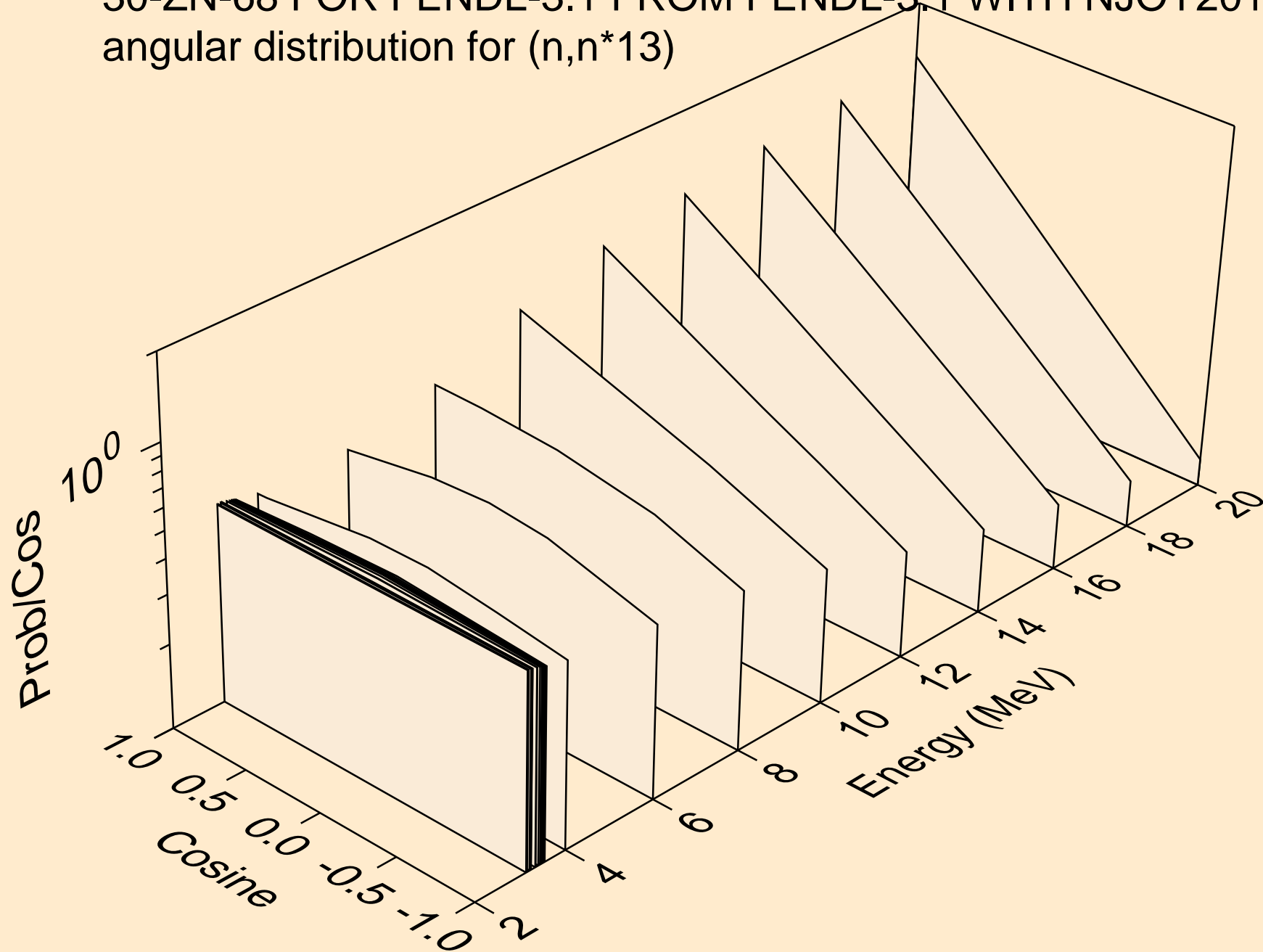angular distribution for (n,n*5)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
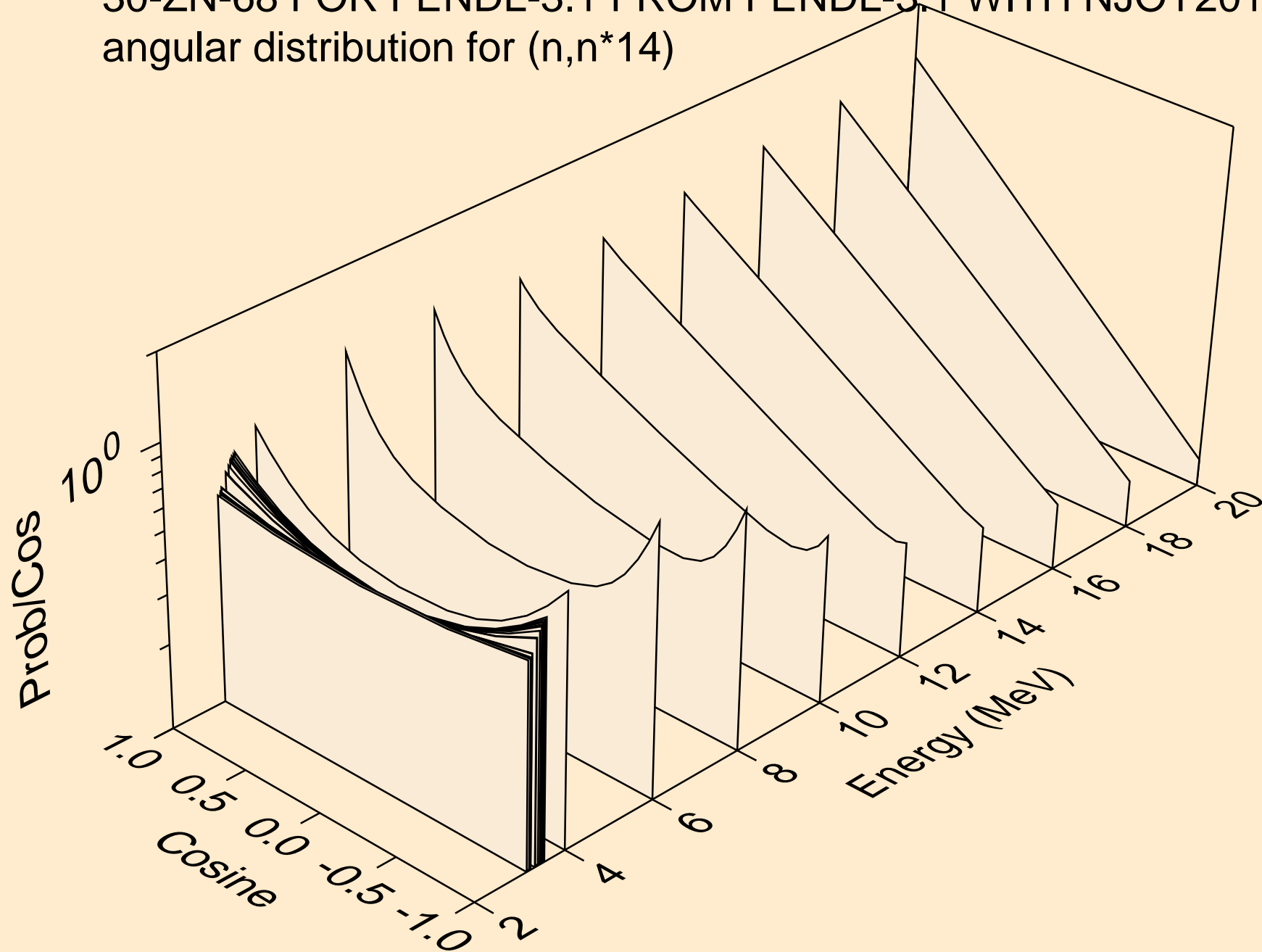angular distribution for (n,n*6)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*7)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*8)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
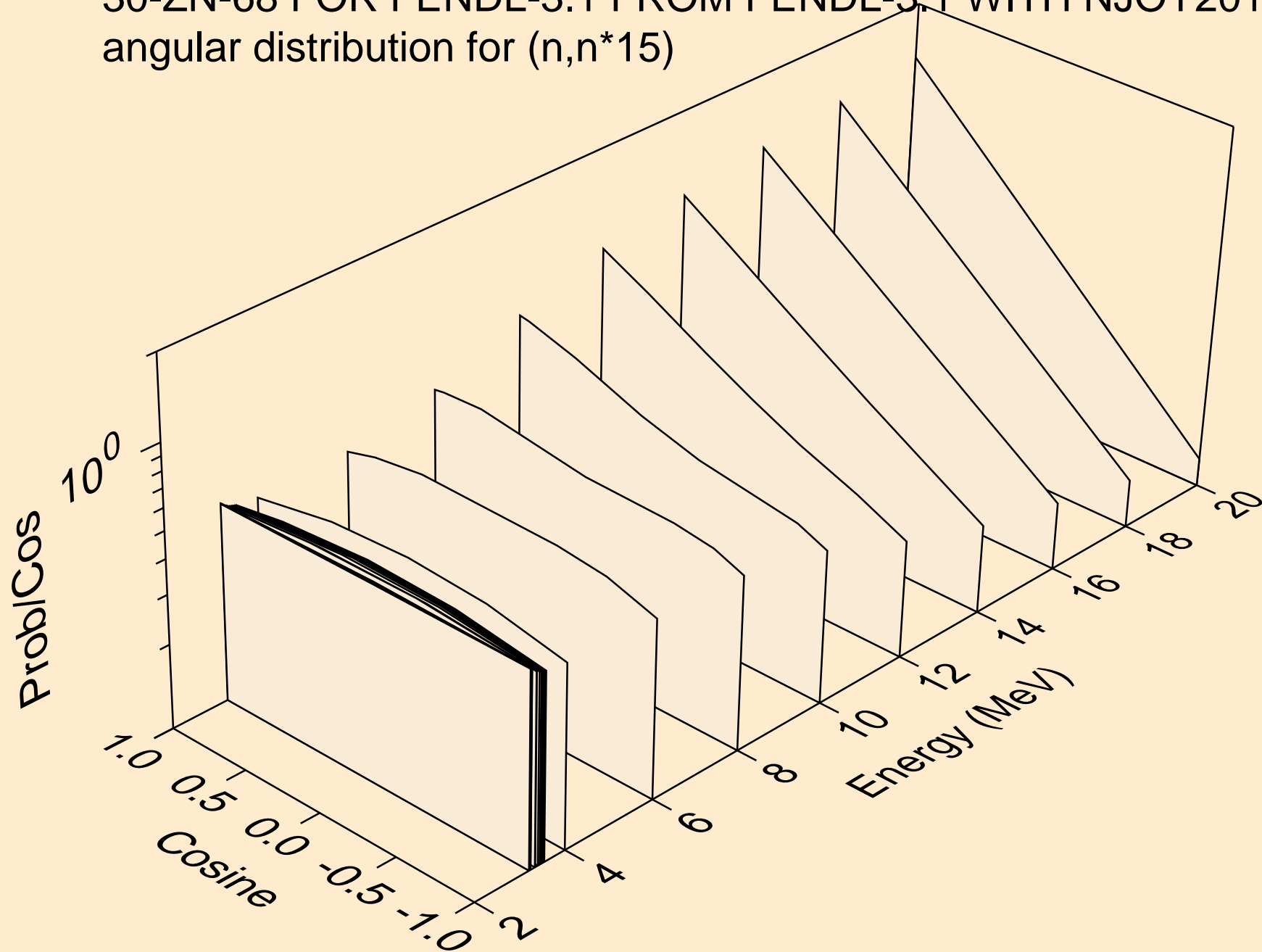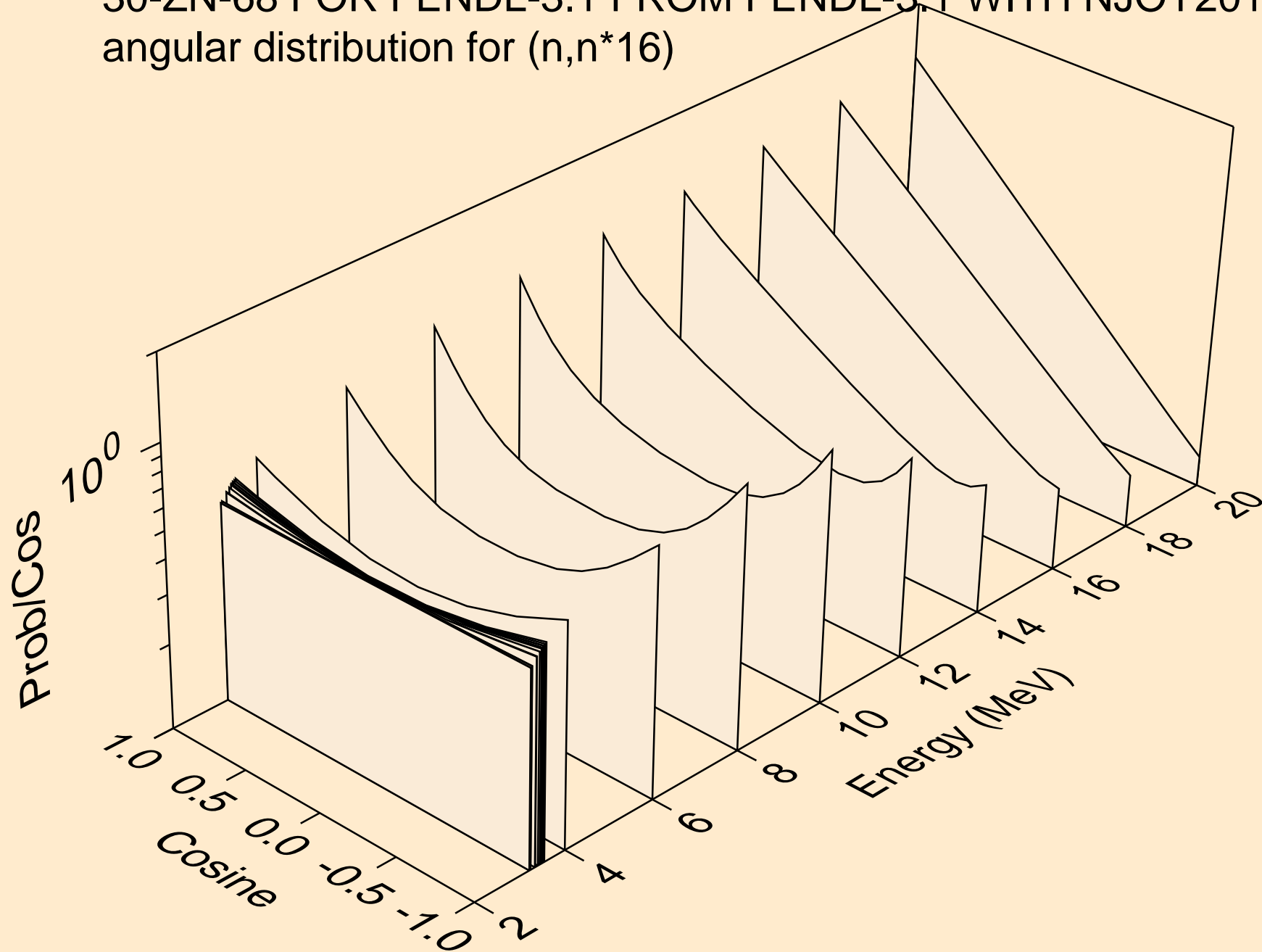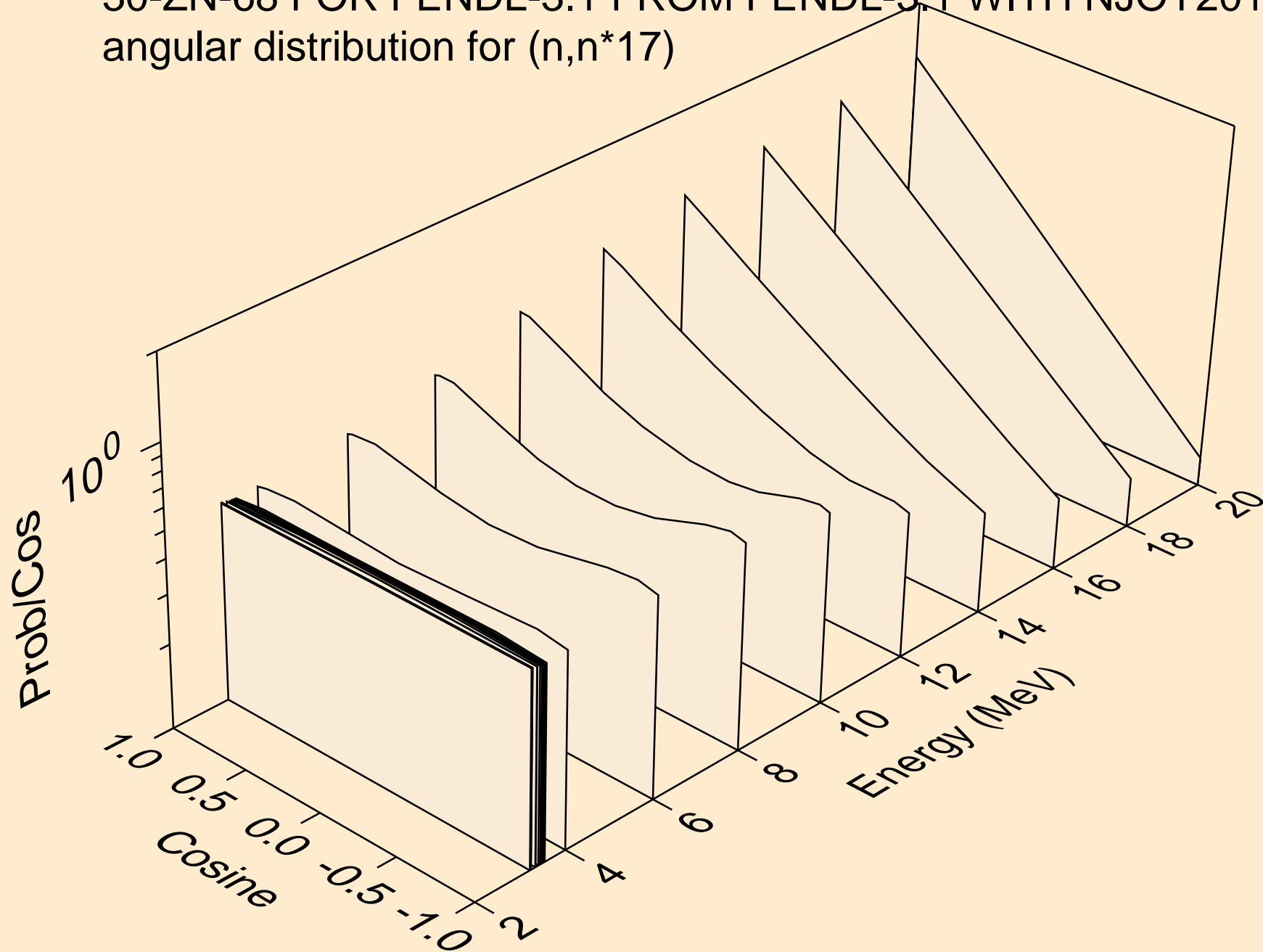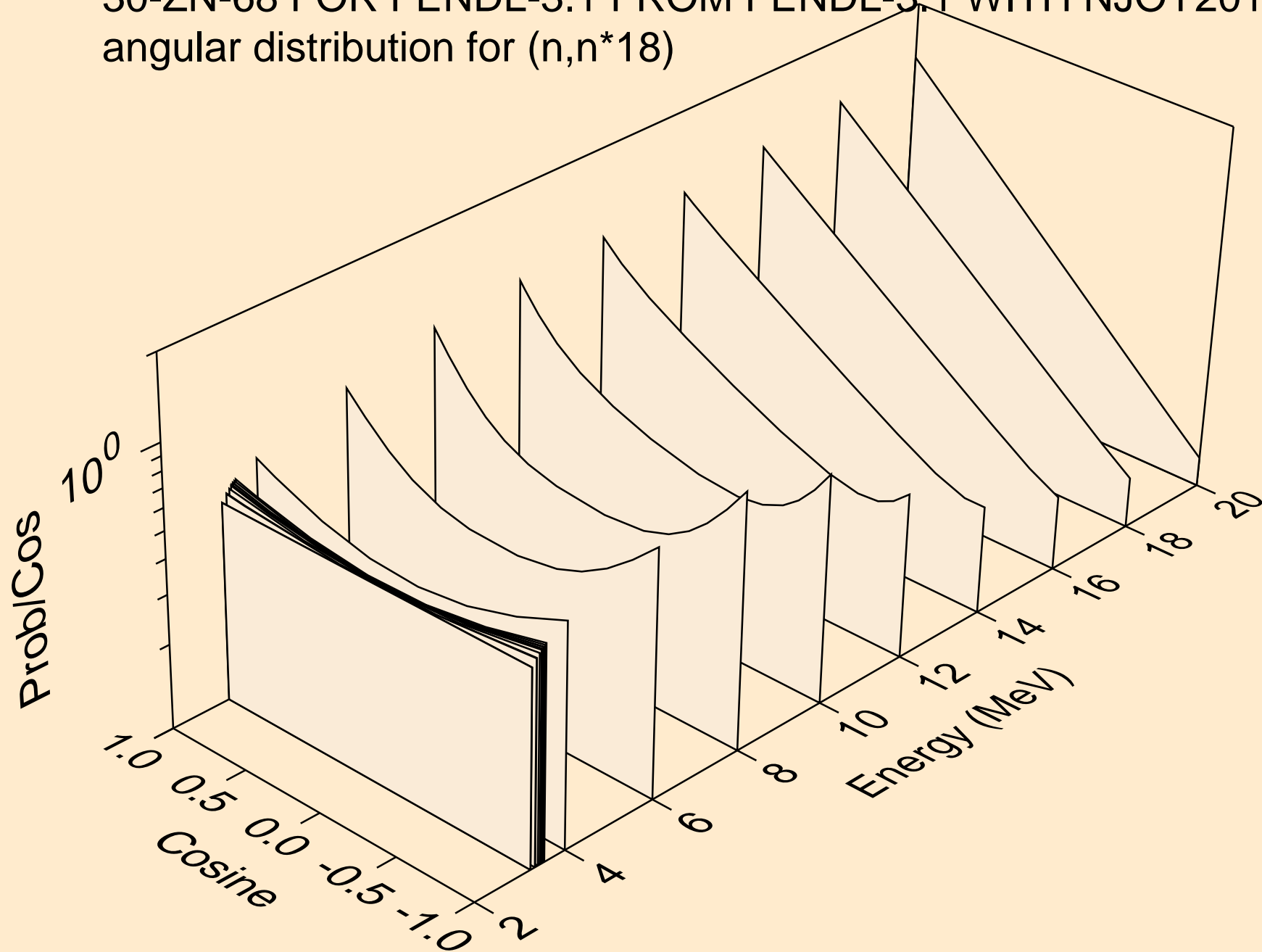angular distribution for (n,n*9)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*10)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*11)
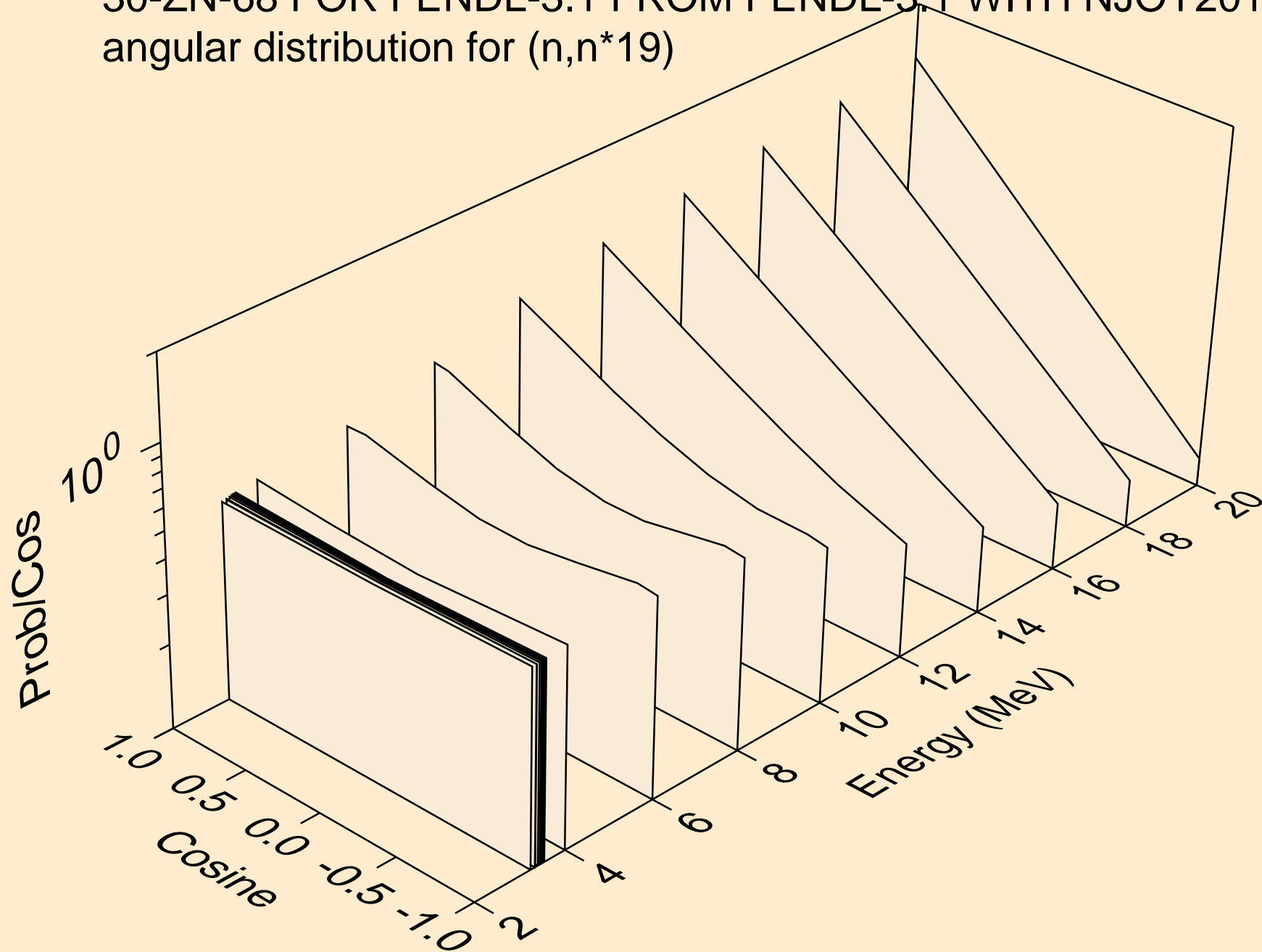
30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
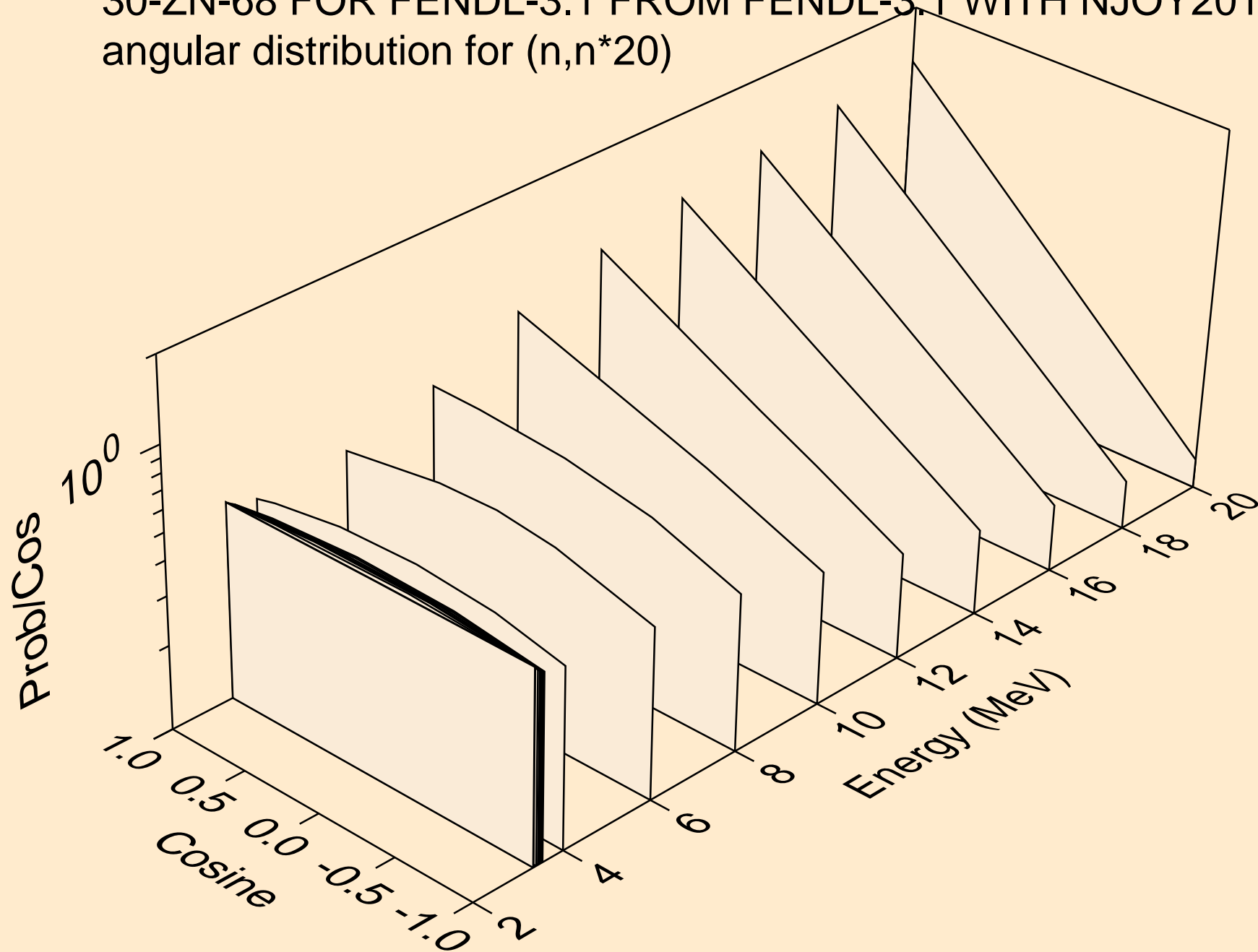angular distribution for (n,n*12)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*13)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
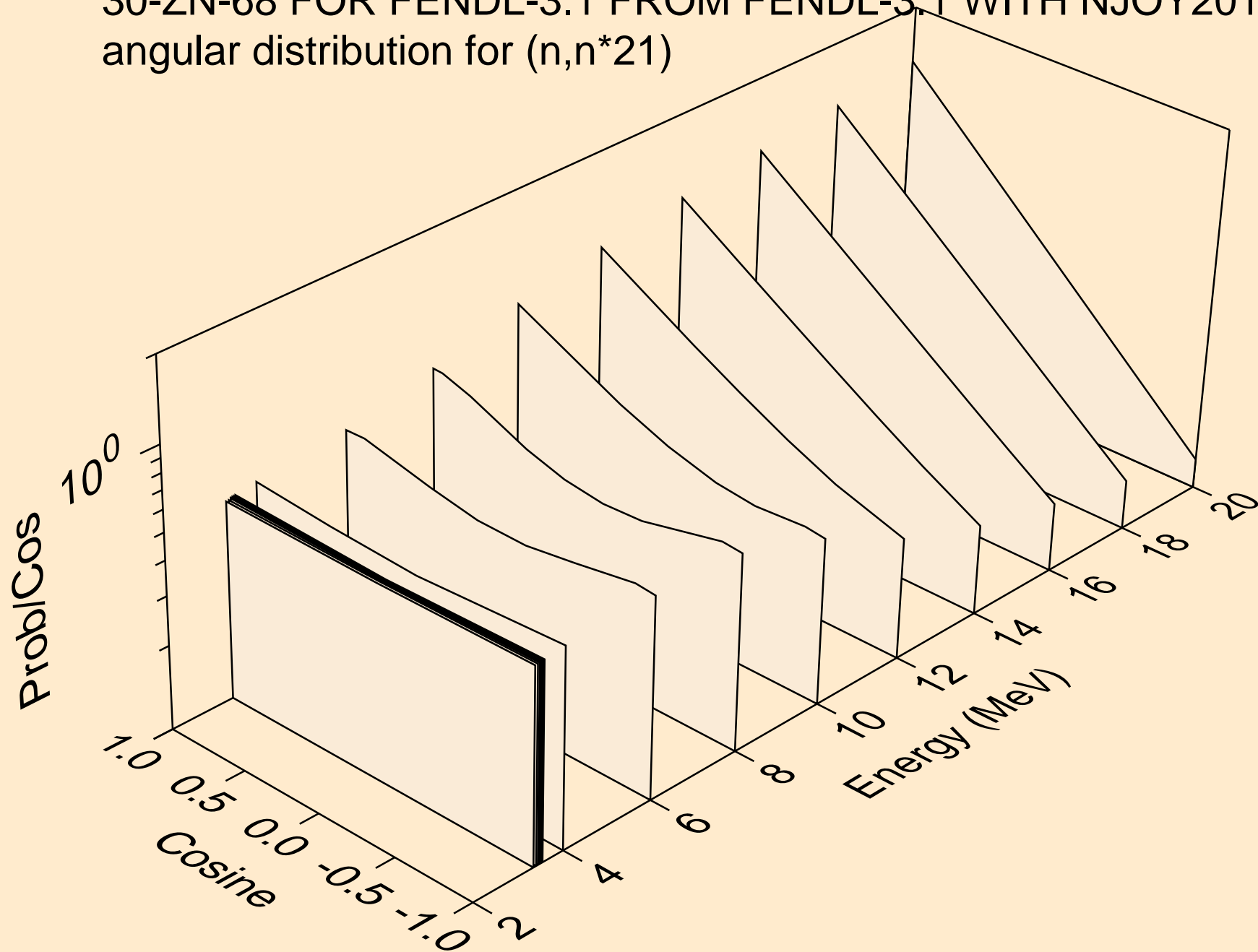angular distribution for (n,n*14)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*15)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
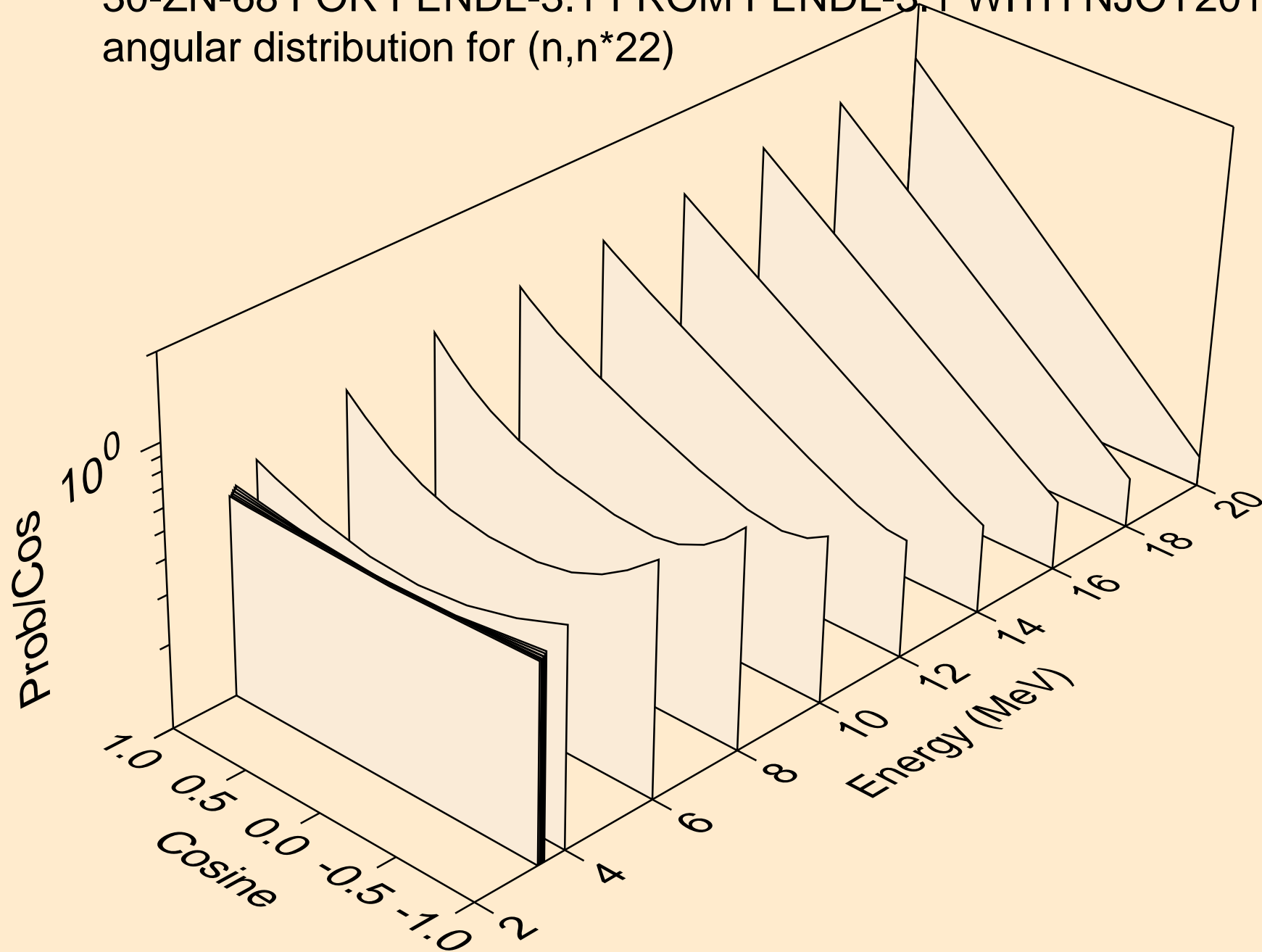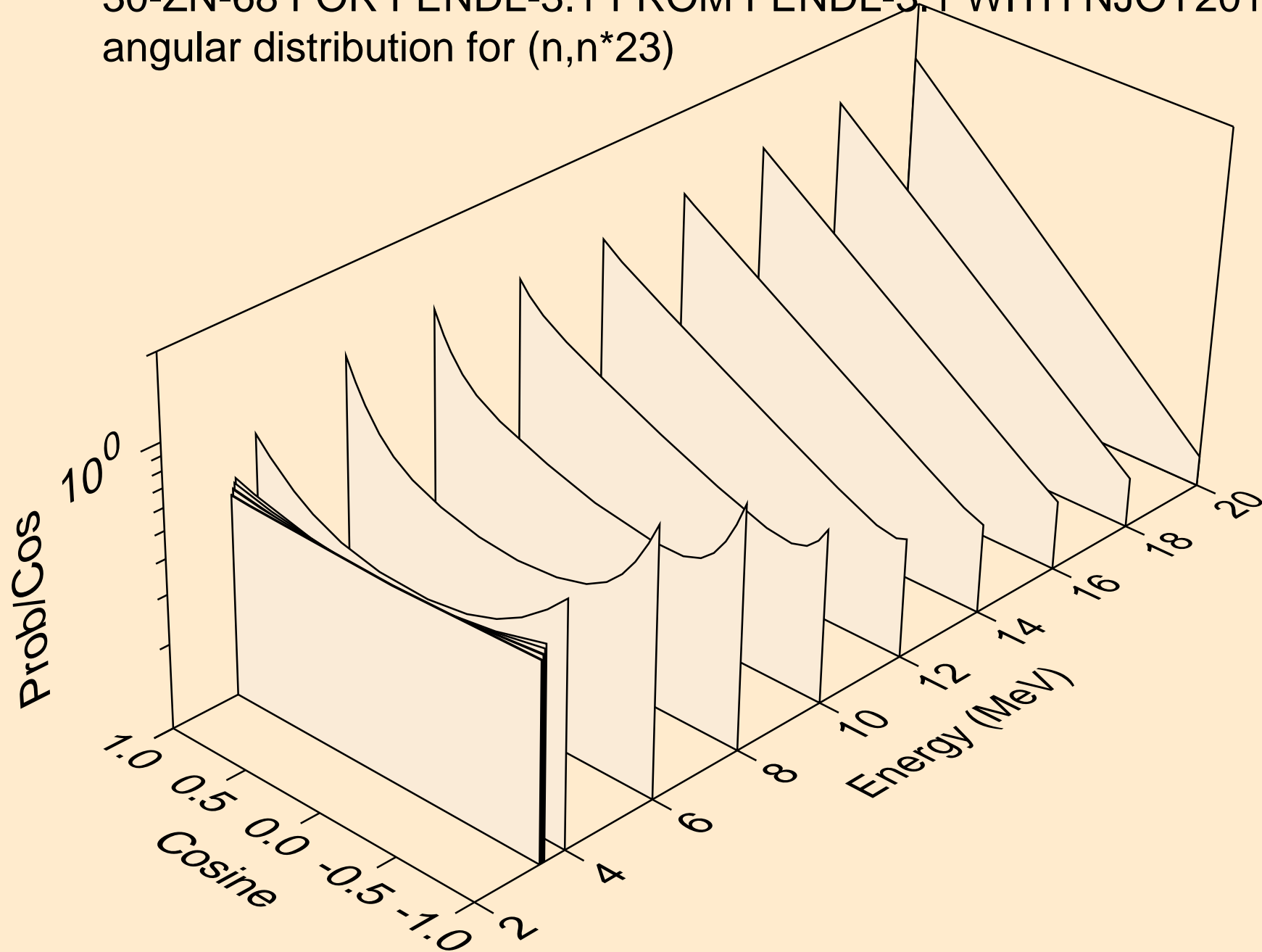angular distribution for (n,n*16)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*17)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*18)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*19)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*20)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
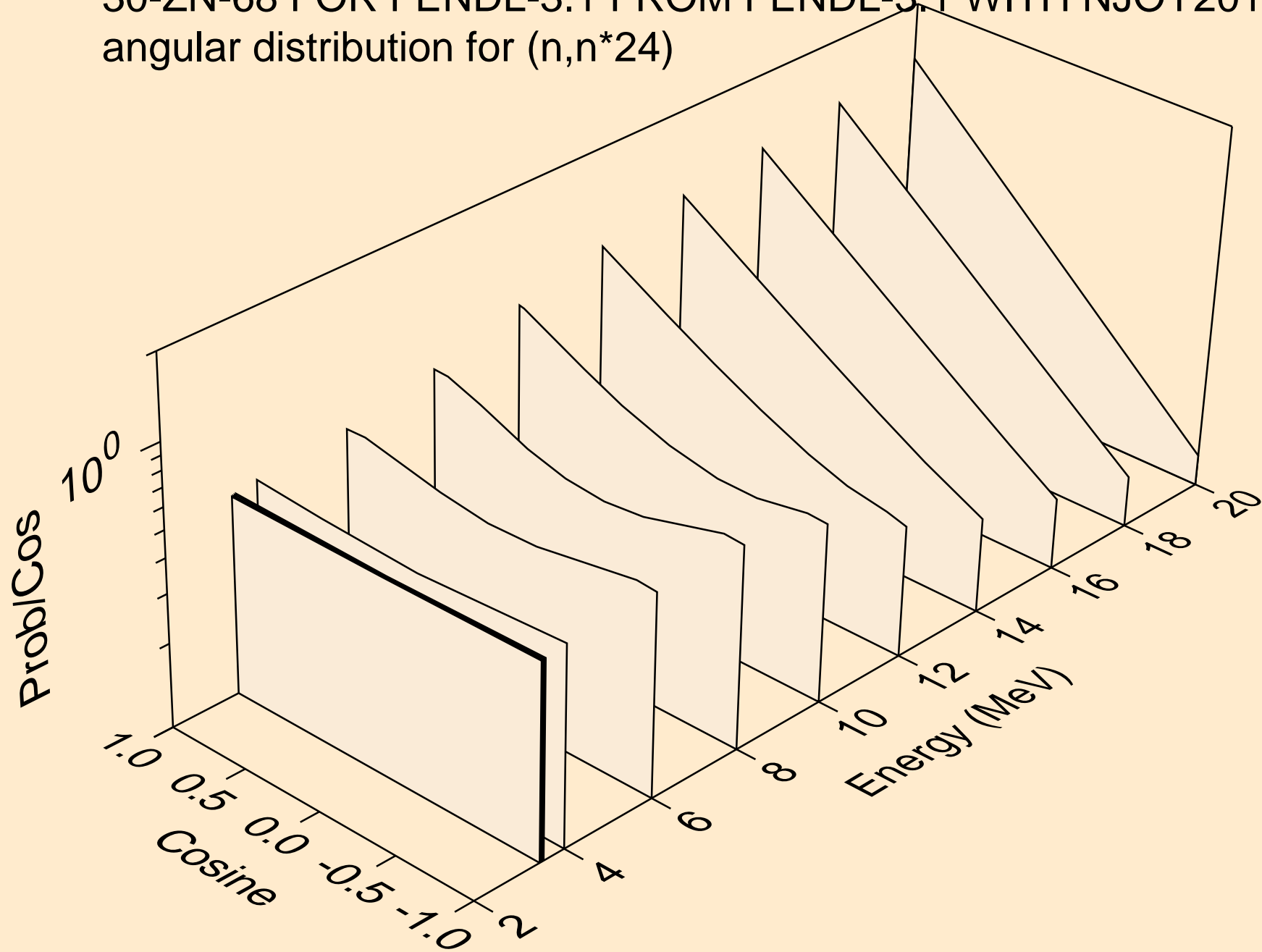angular distribution for (n,n*21)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
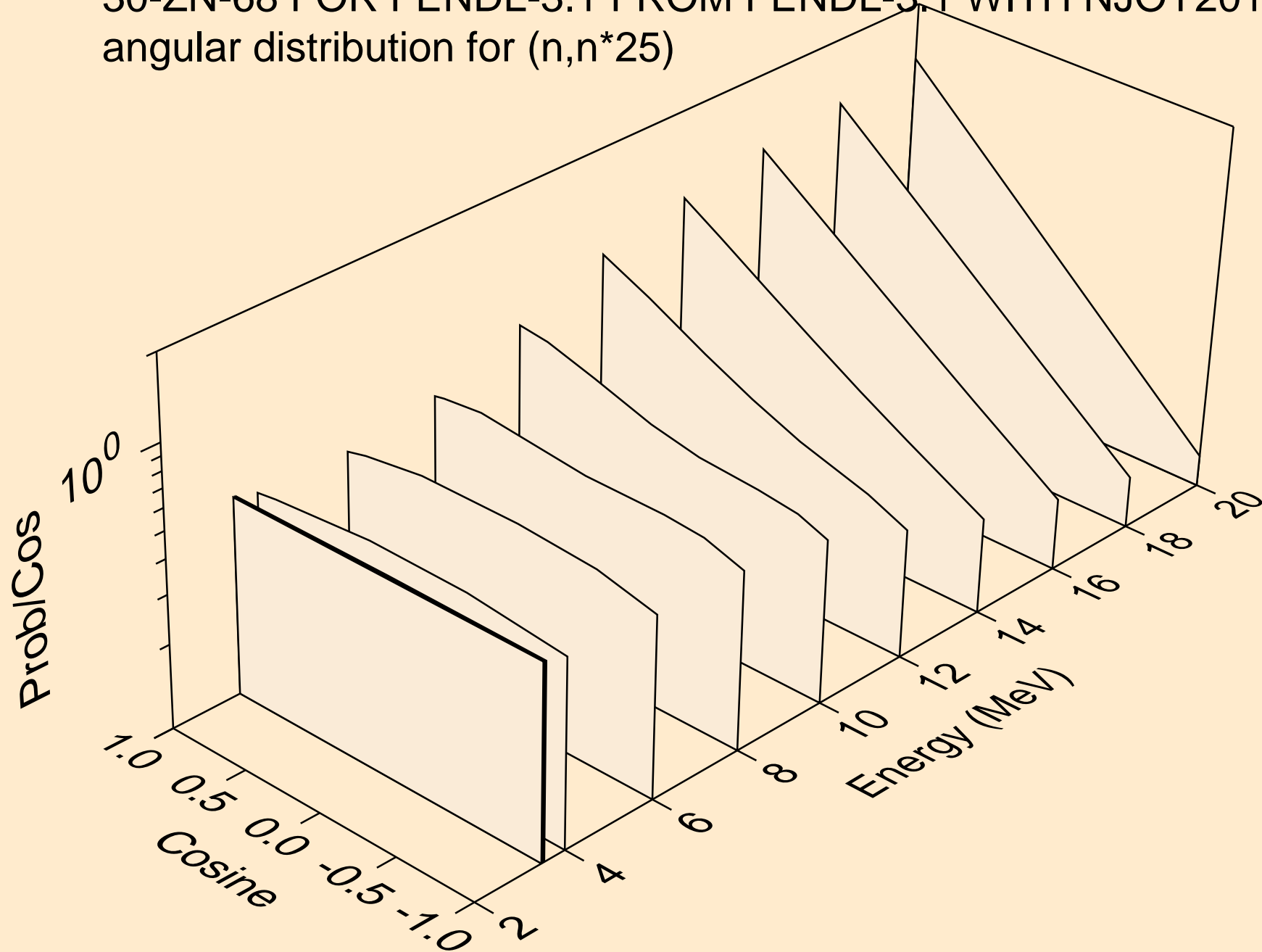angular distribution for (n,n*22)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
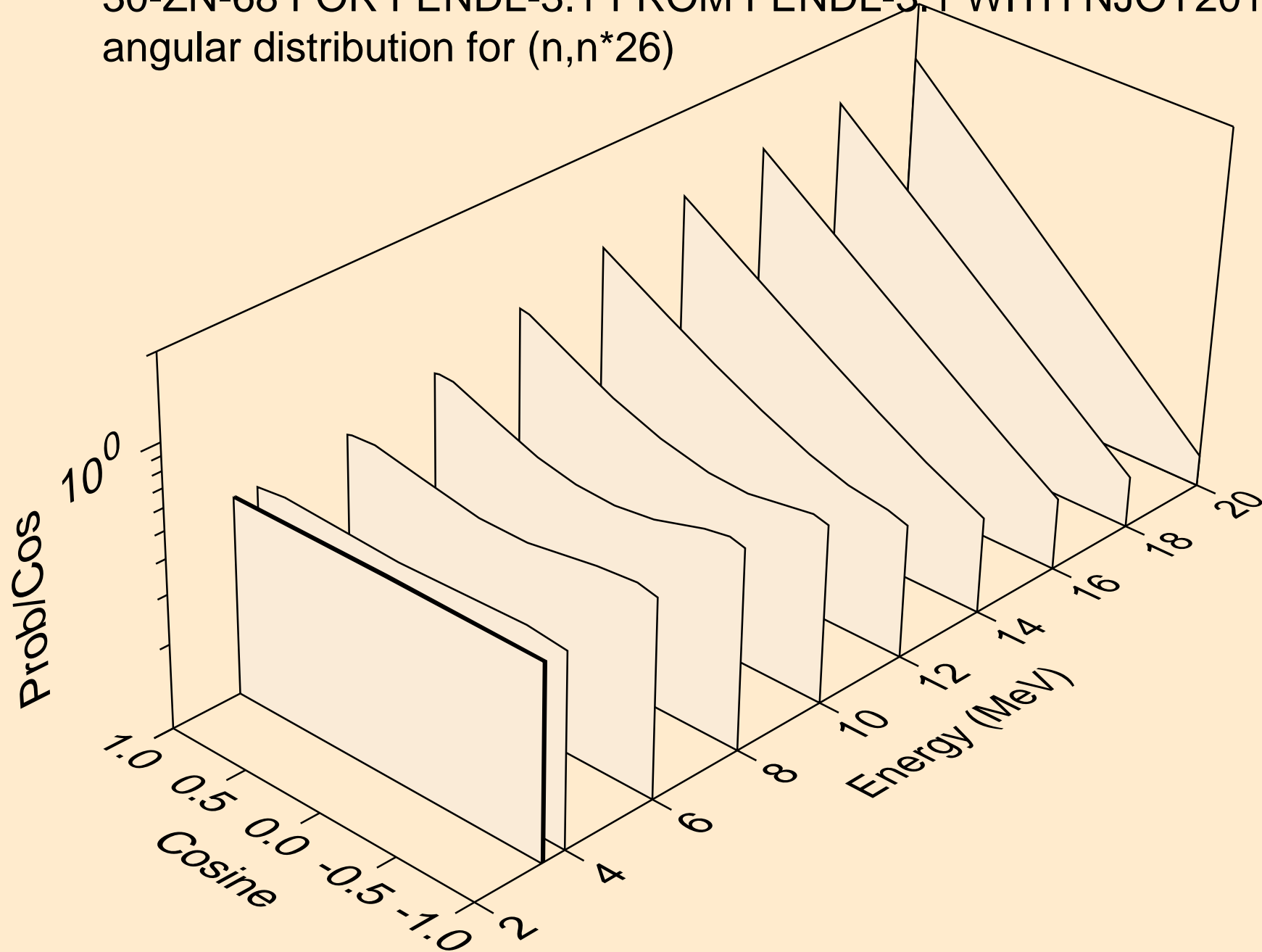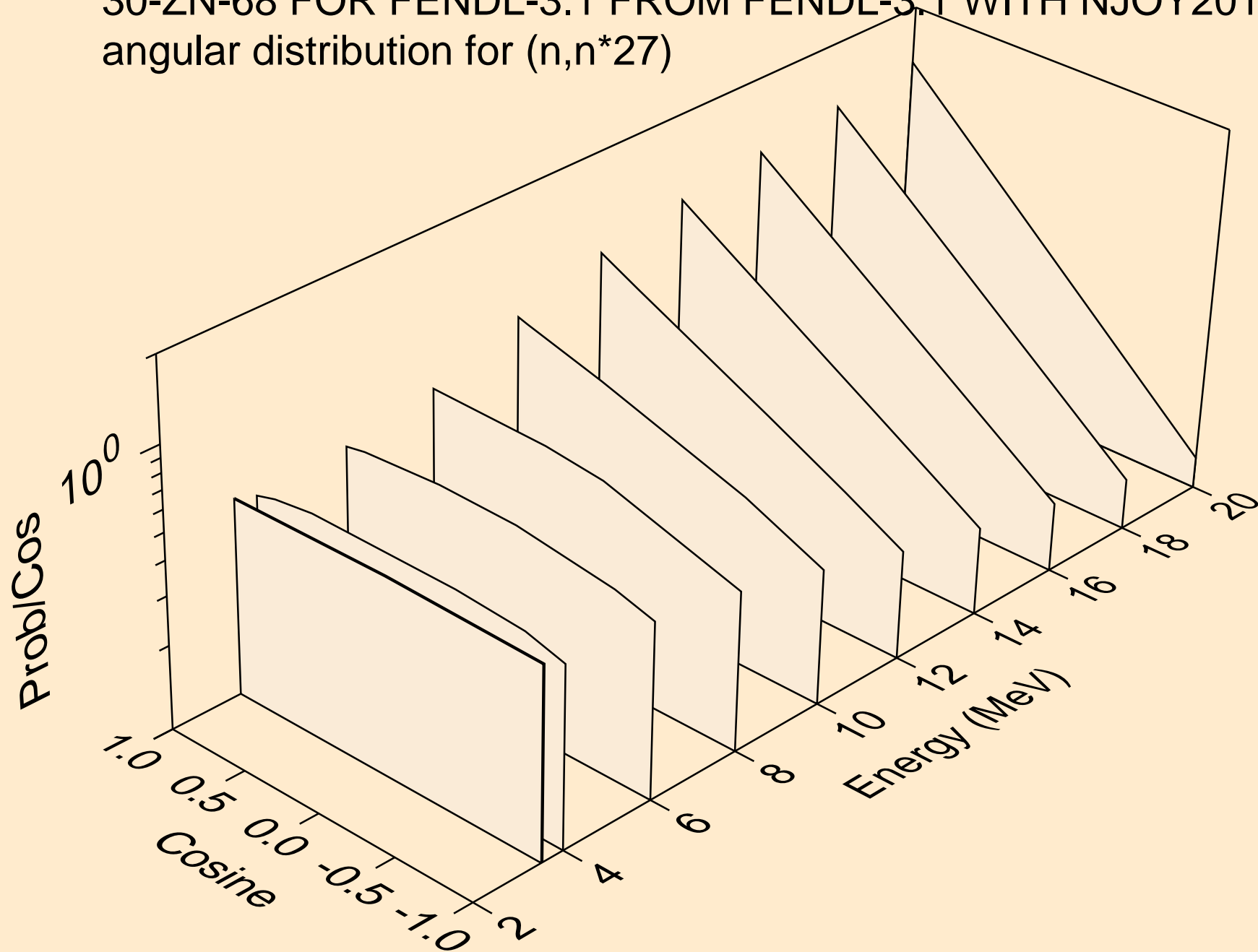angular distribution for (n,n*23)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*24)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
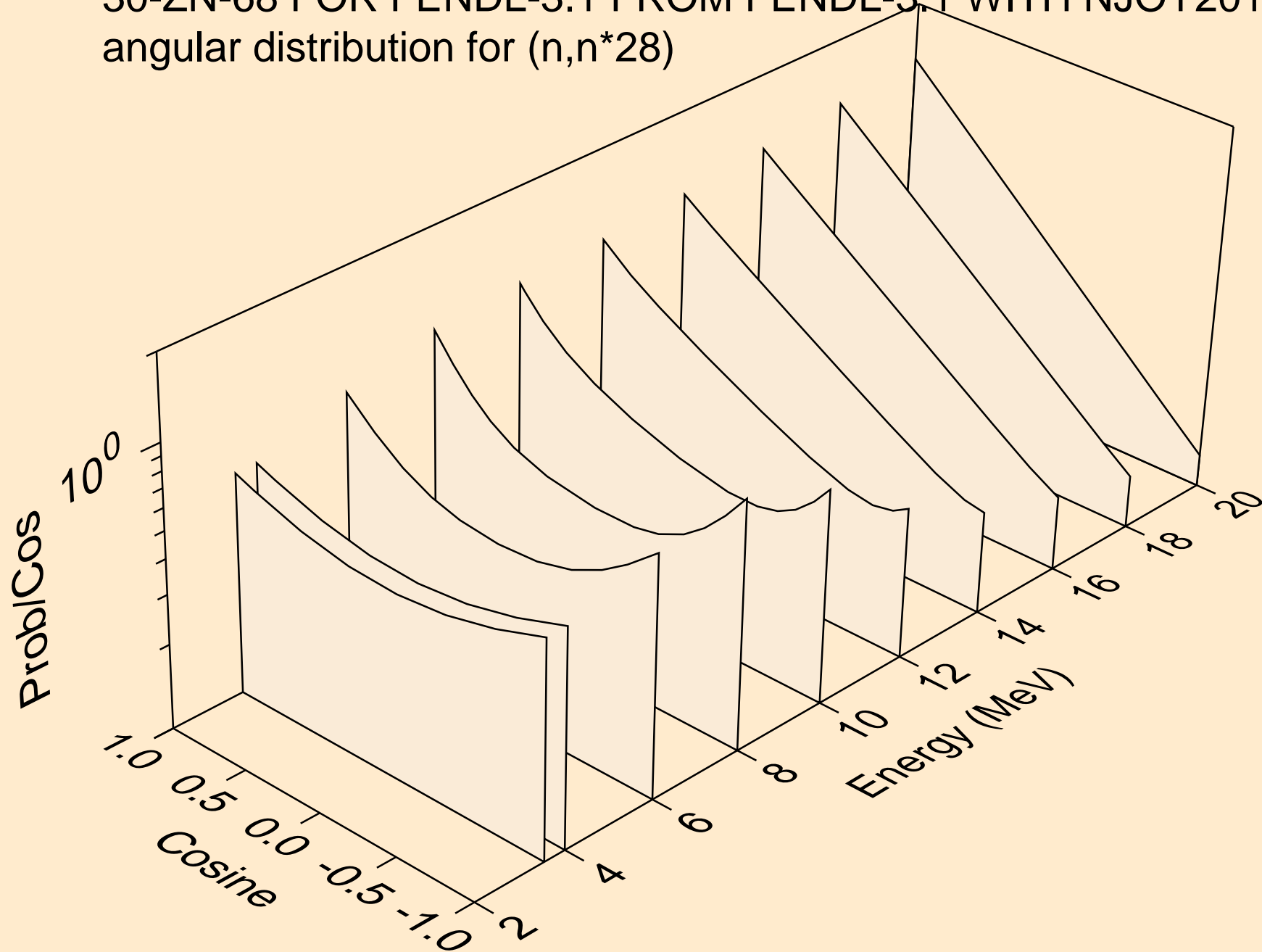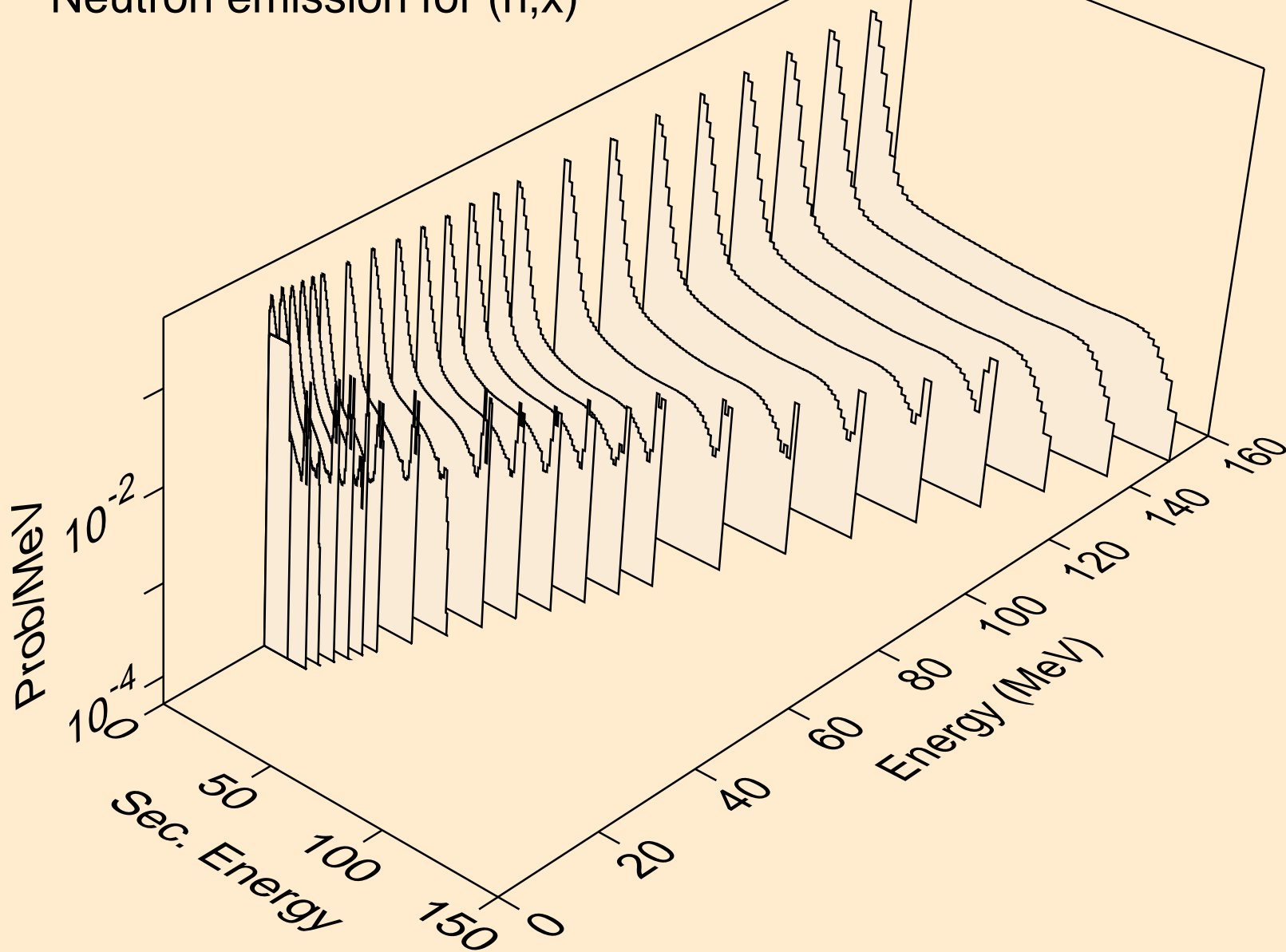angular distribution for (n,n*25)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
angular distribution for (n,n*26)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
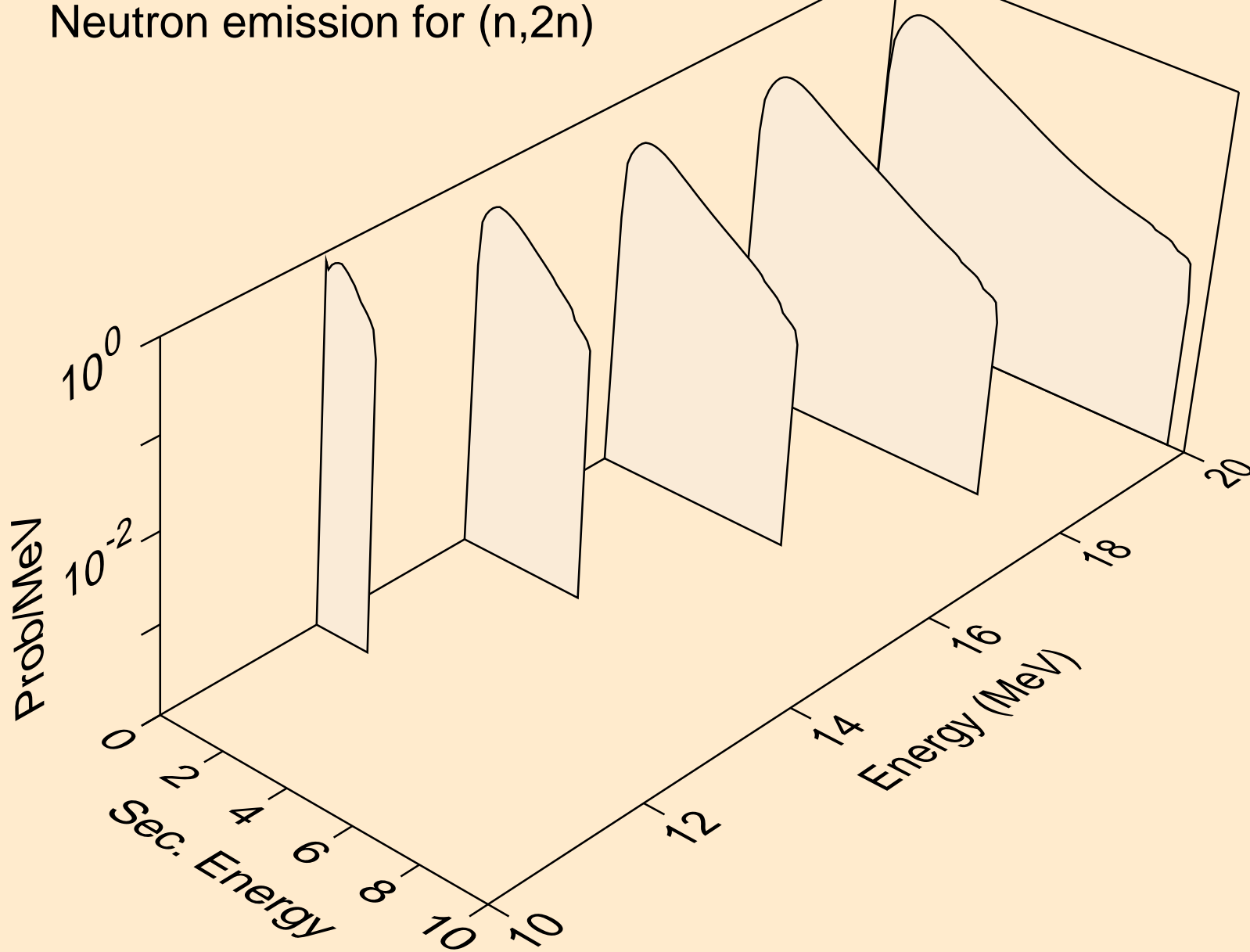angular distribution for (n,n*27)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
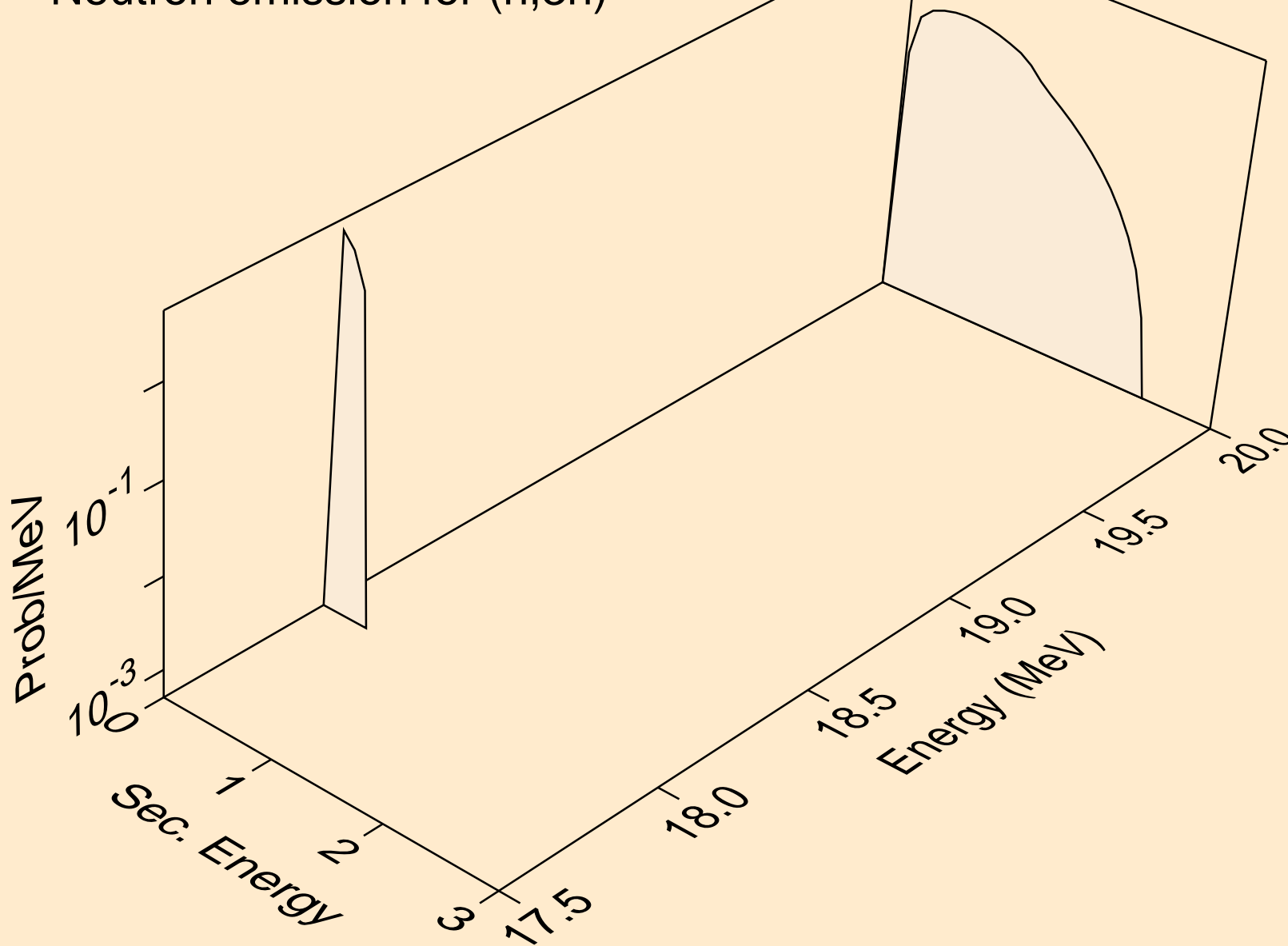angular distribution for (n,n*28)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
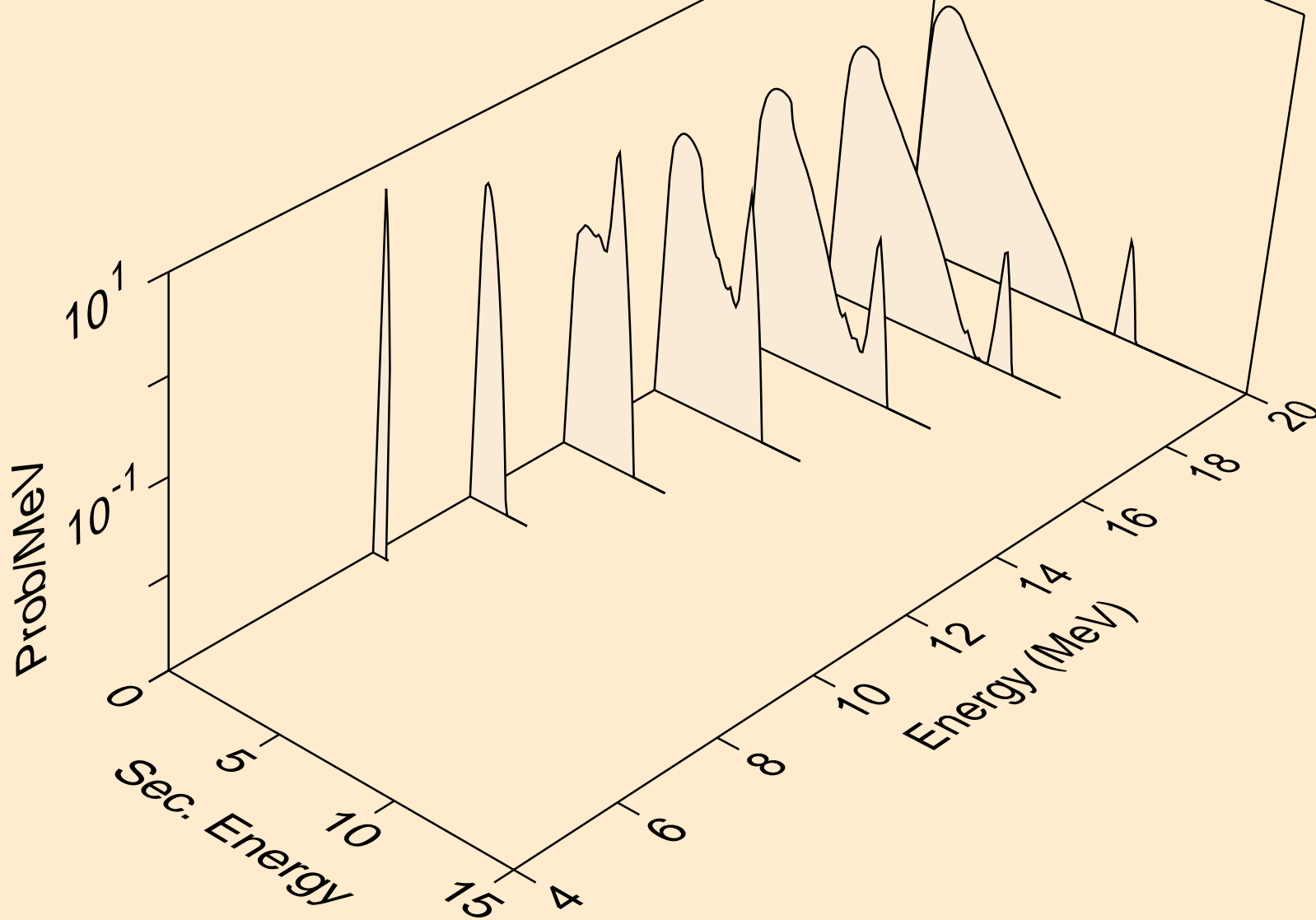Neutron emission for (n,x)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
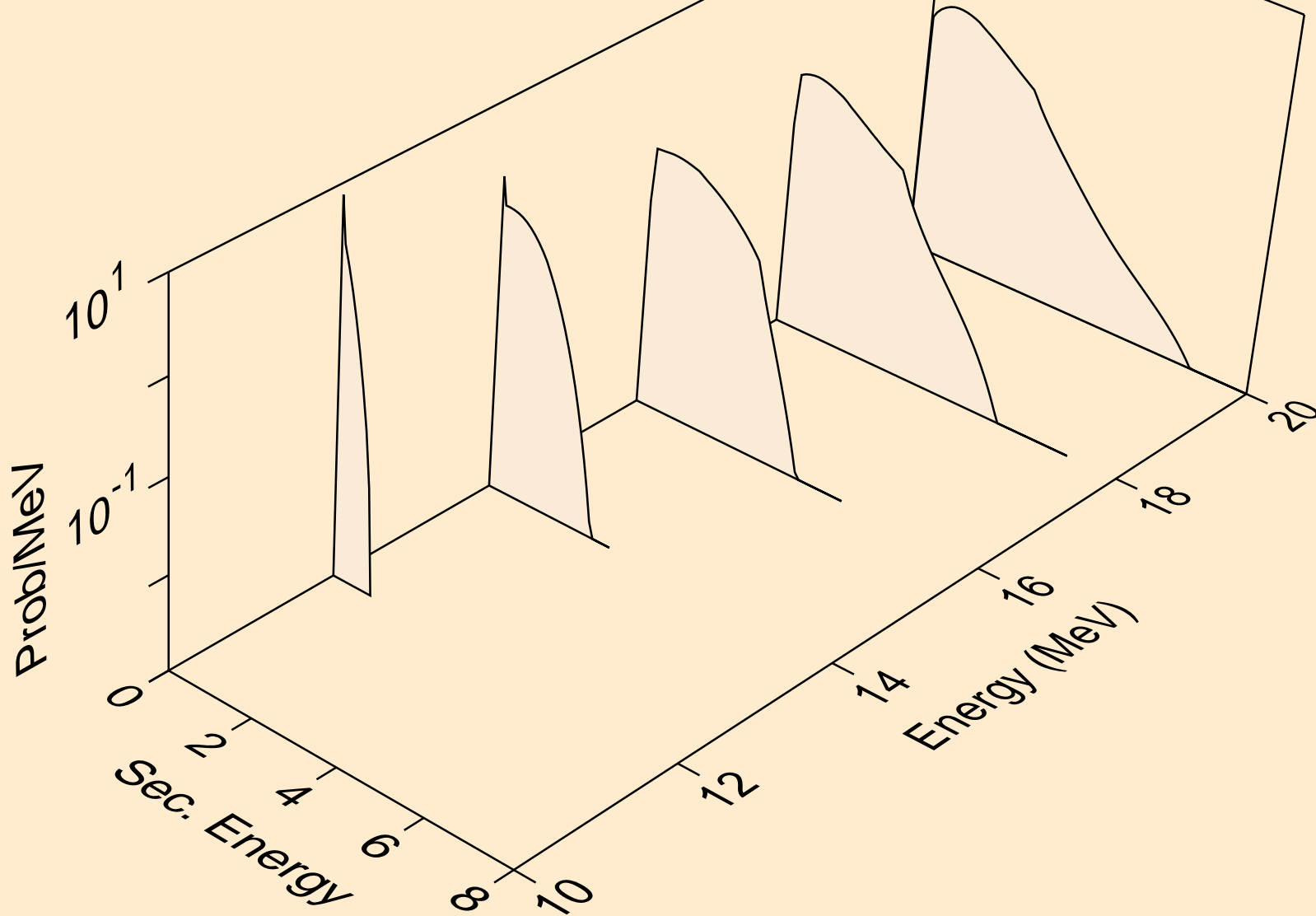Neutron emission for (n,2n)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
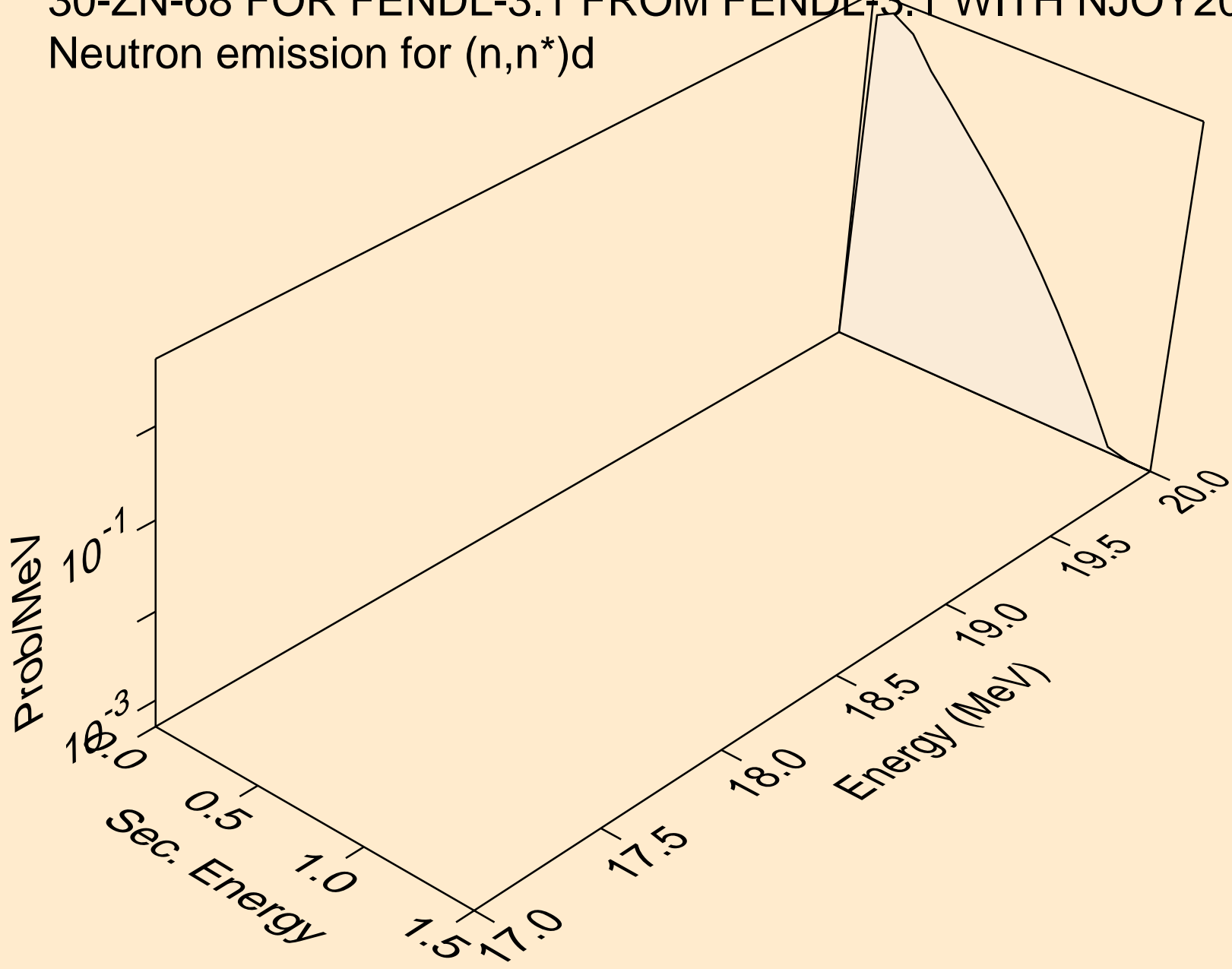Neutron emission for (n,3n)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
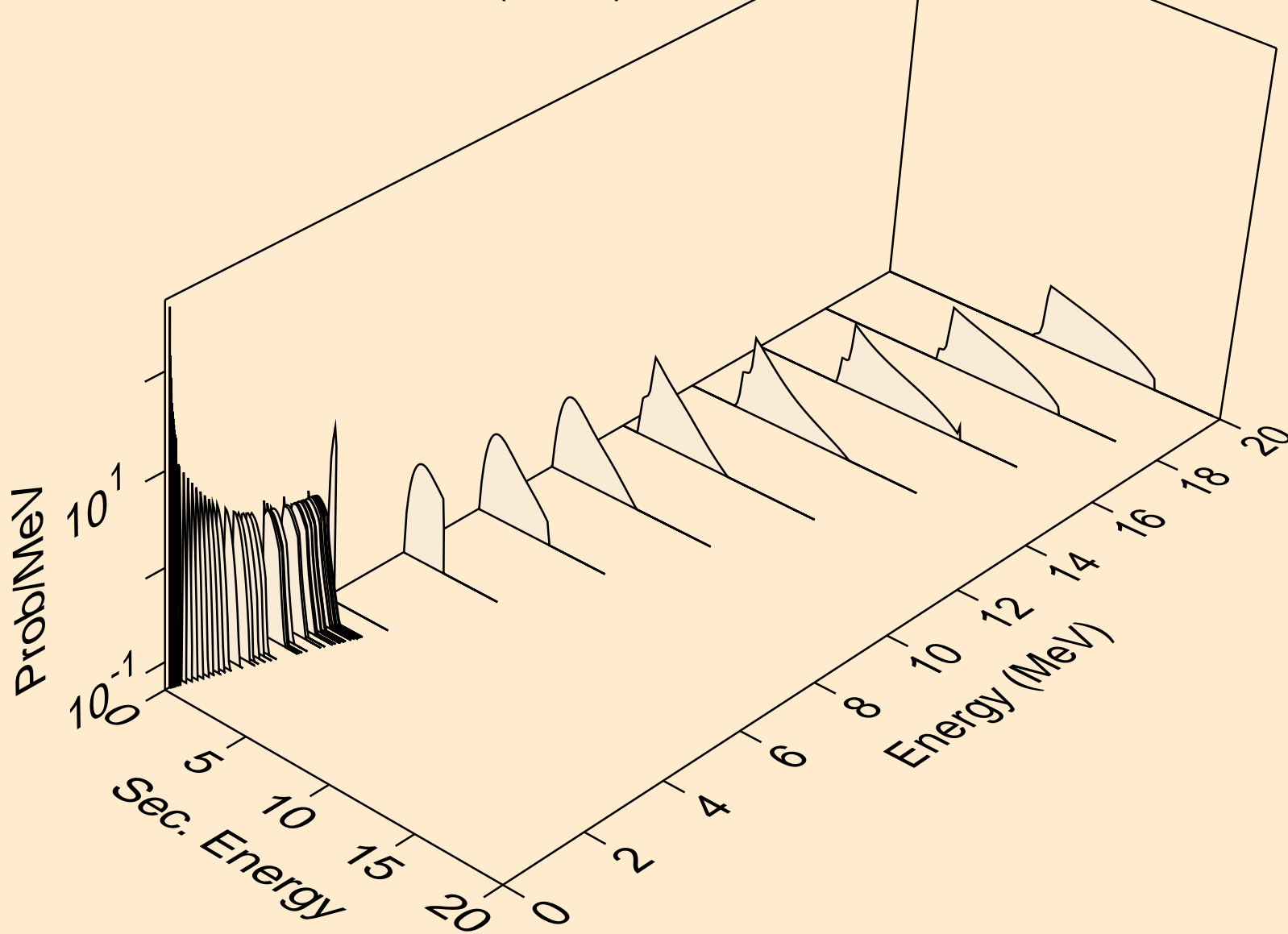Neutron emission for (n,n*)a

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
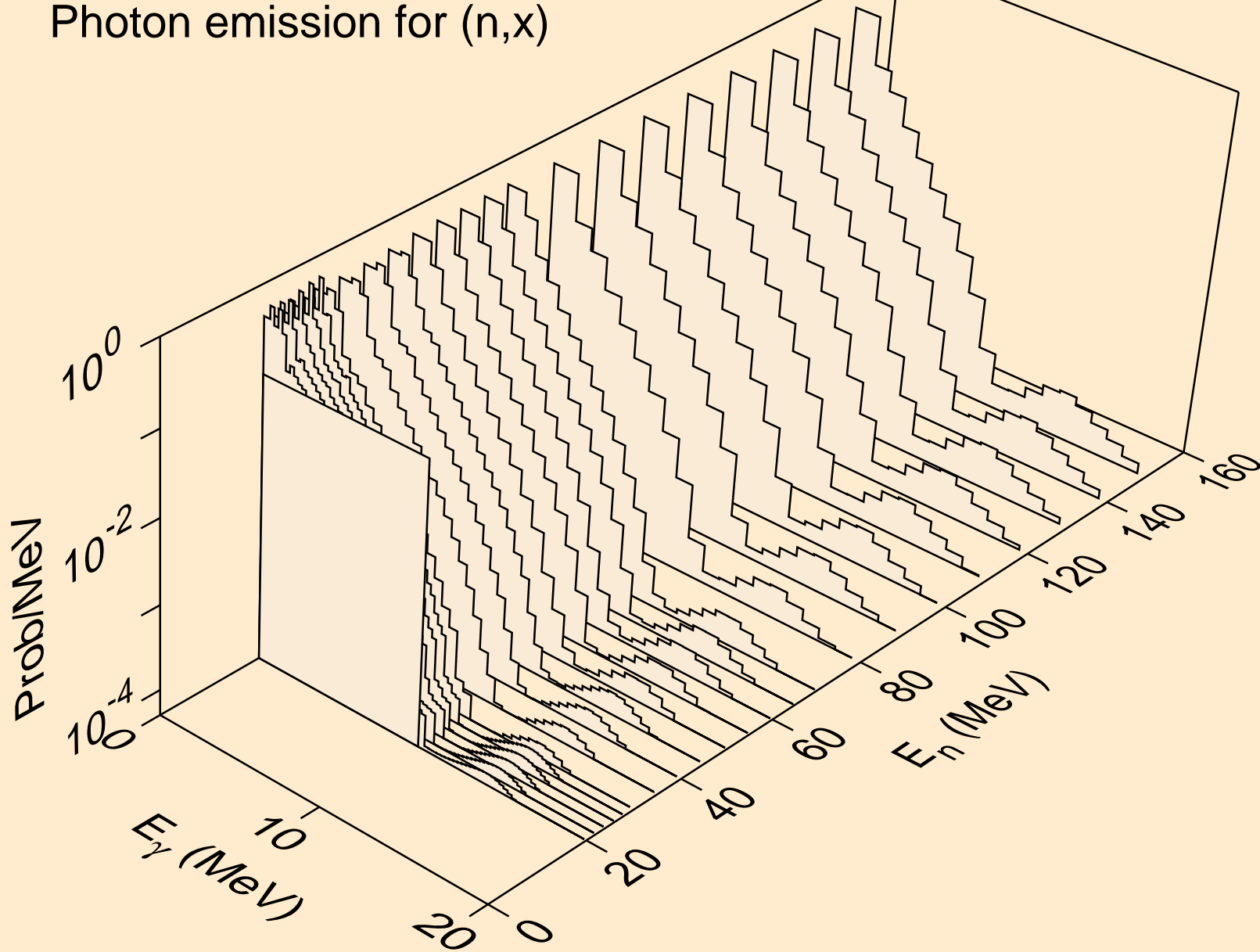Neutron emission for (n,n*)p

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
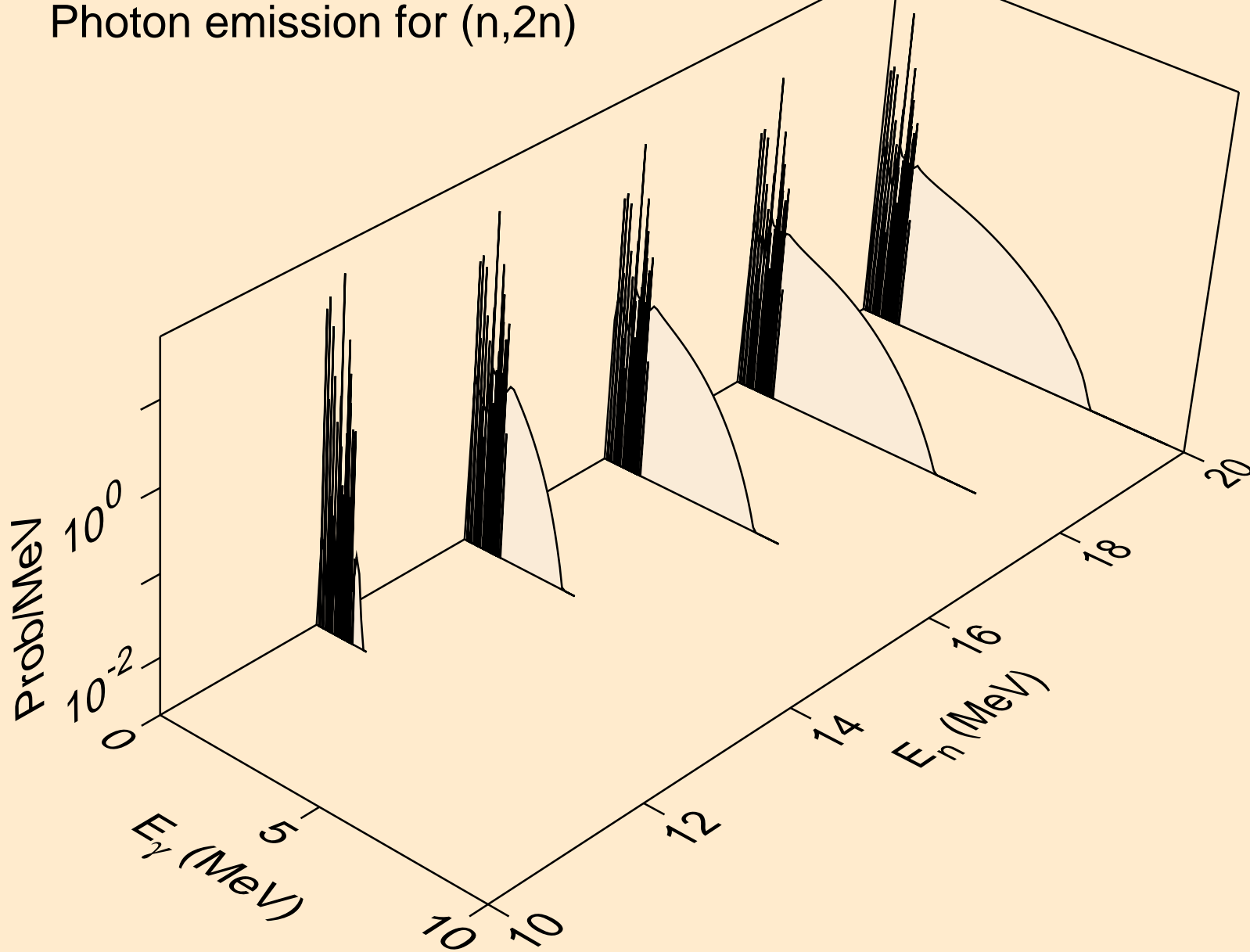Neutron emission for (n,n*)d

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
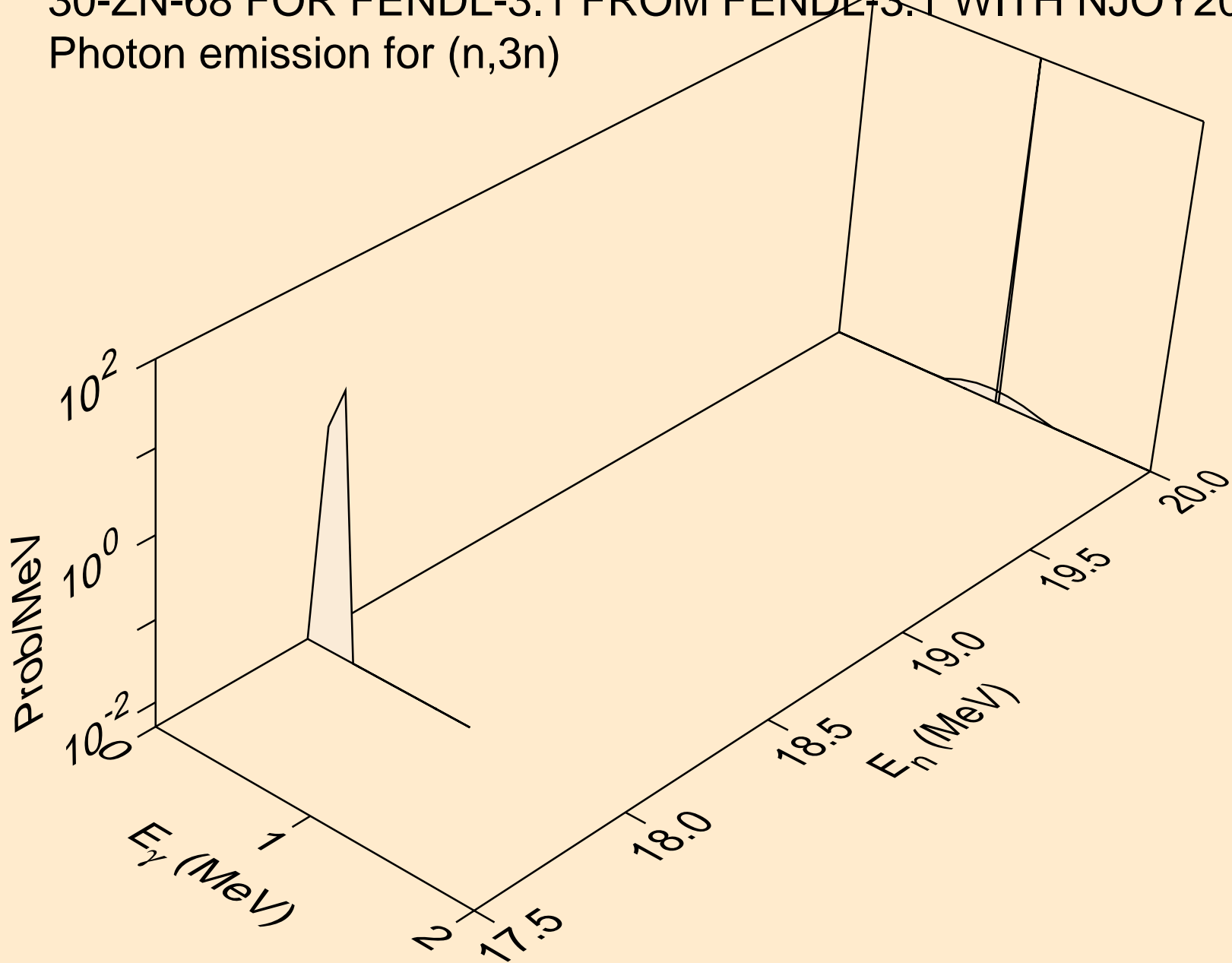Neutron emission for (n,n*c)

ProblMeV

10^1

10^{-1}

10^0

Sec. Energy

5   10   15   20

Energy (MeV)

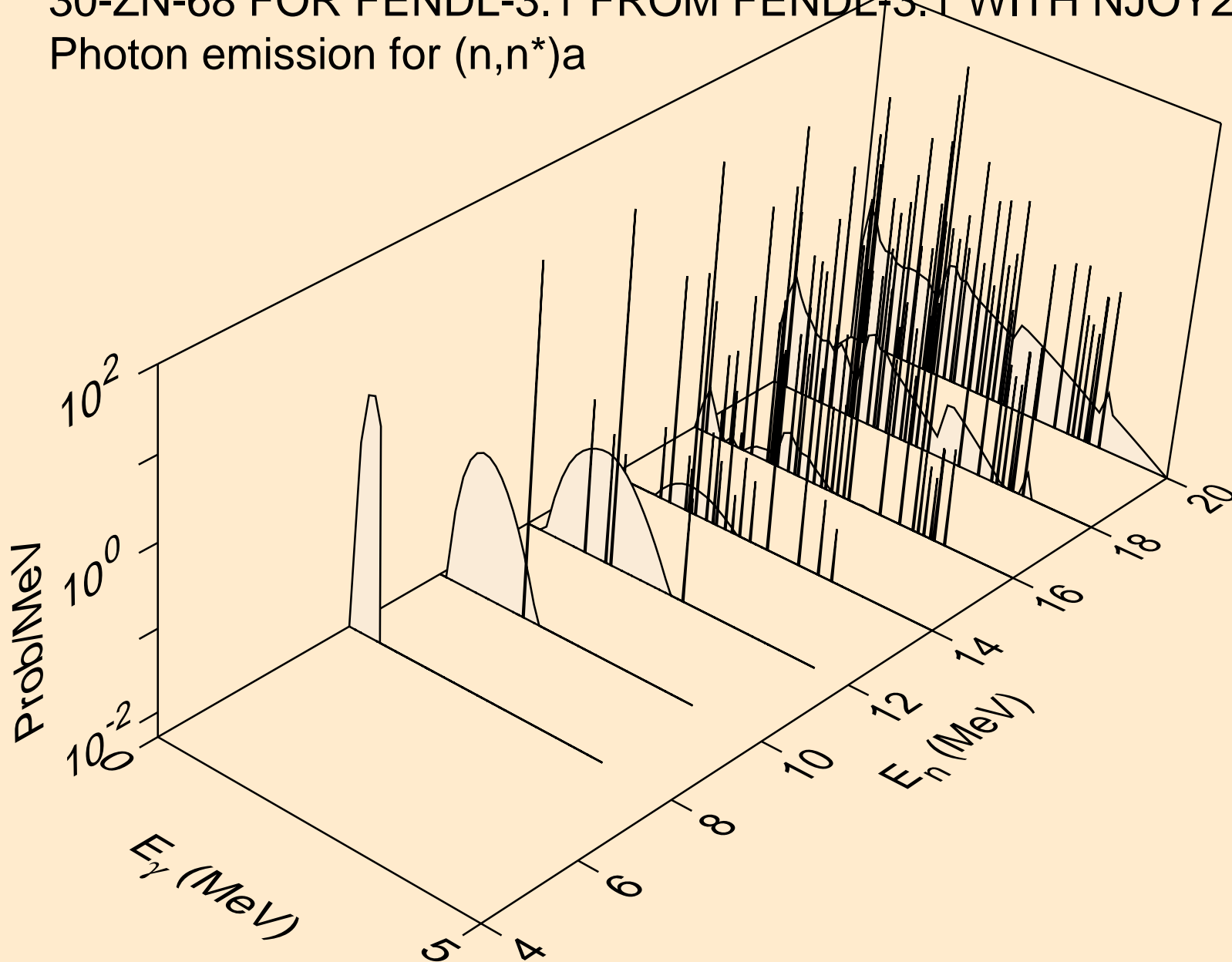0   2   4   6   8   10   12   14   16   18   20

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,x)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
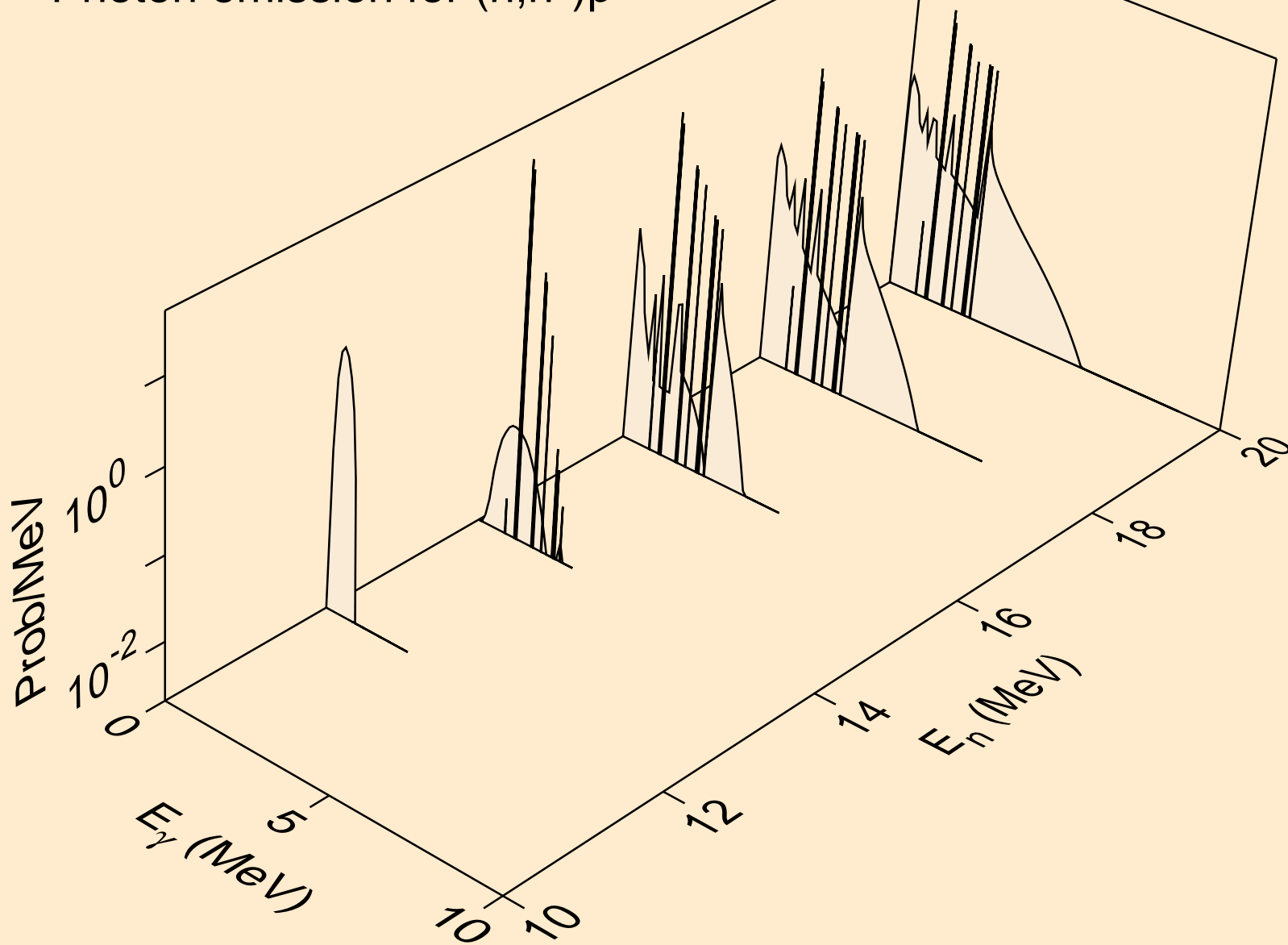Photon emission for (n,2n)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
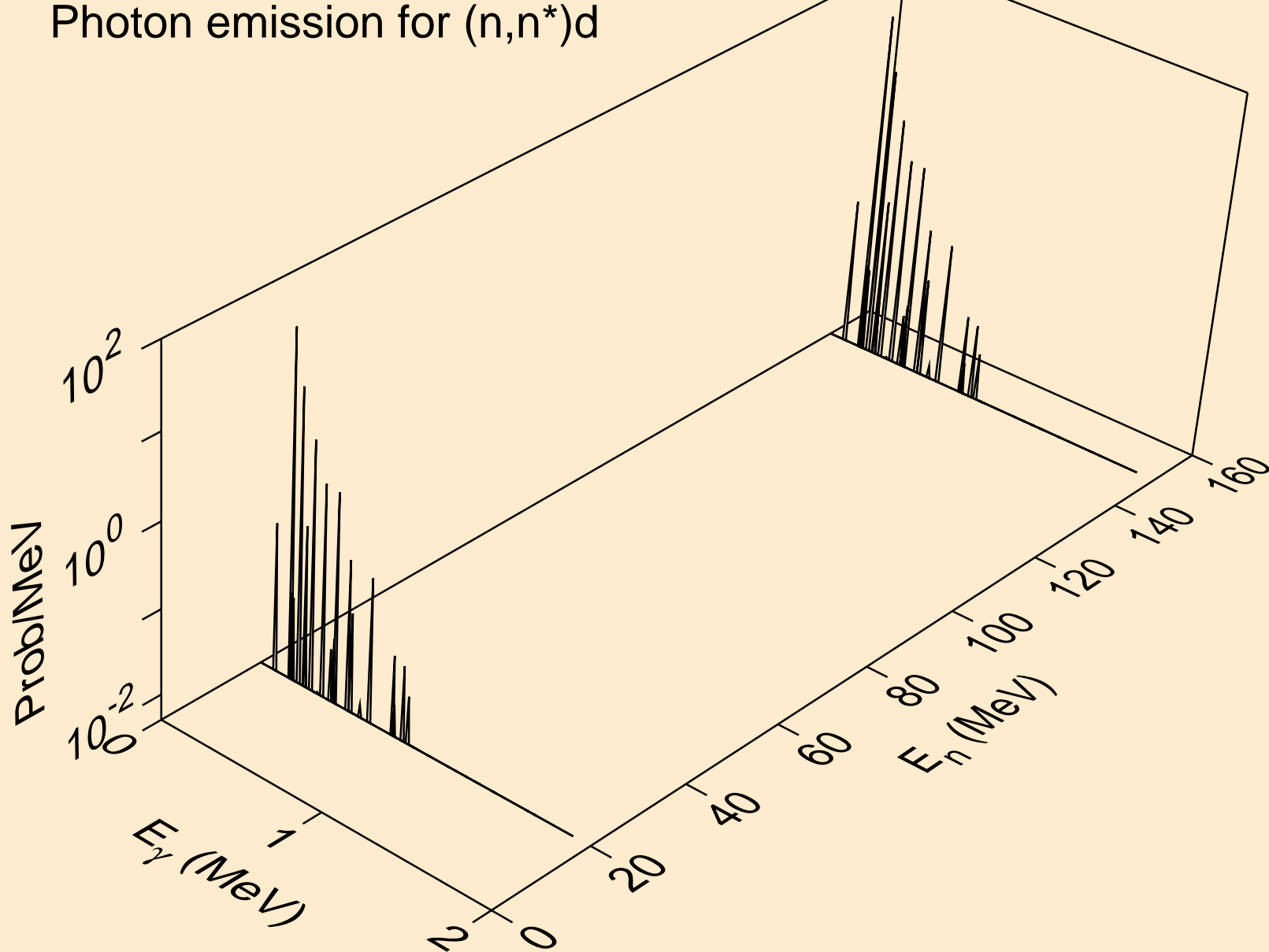Photon emission for (n,3n)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
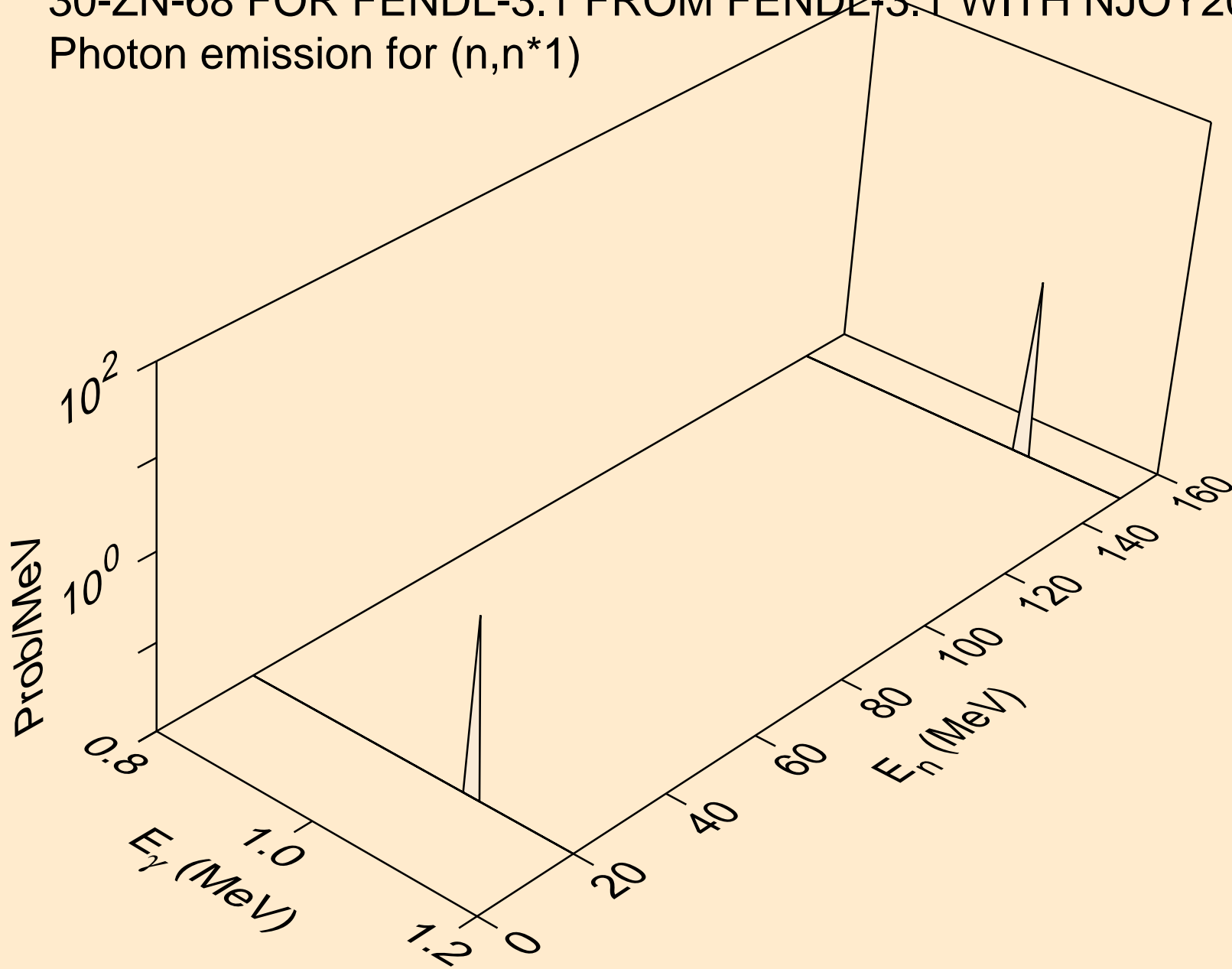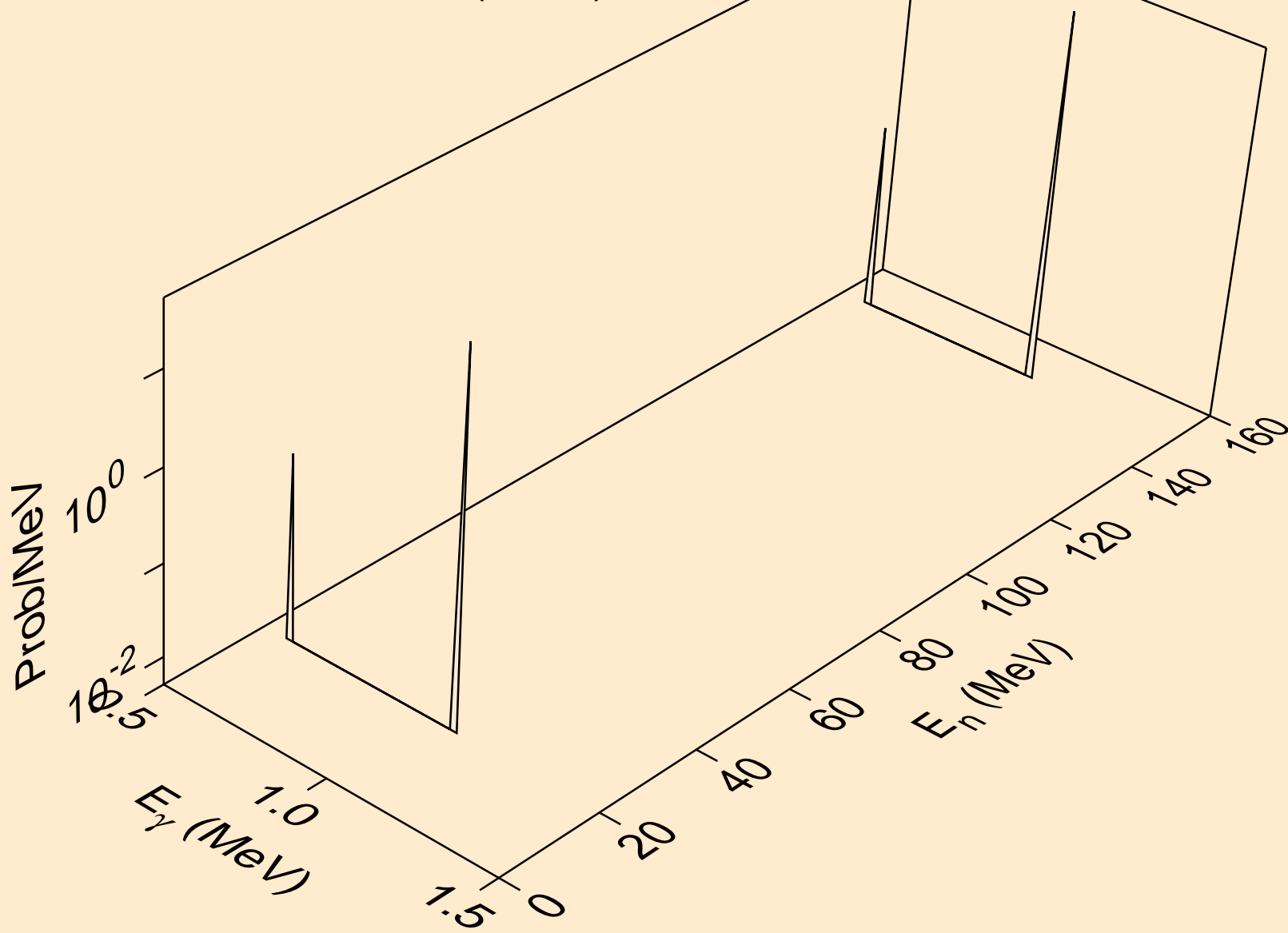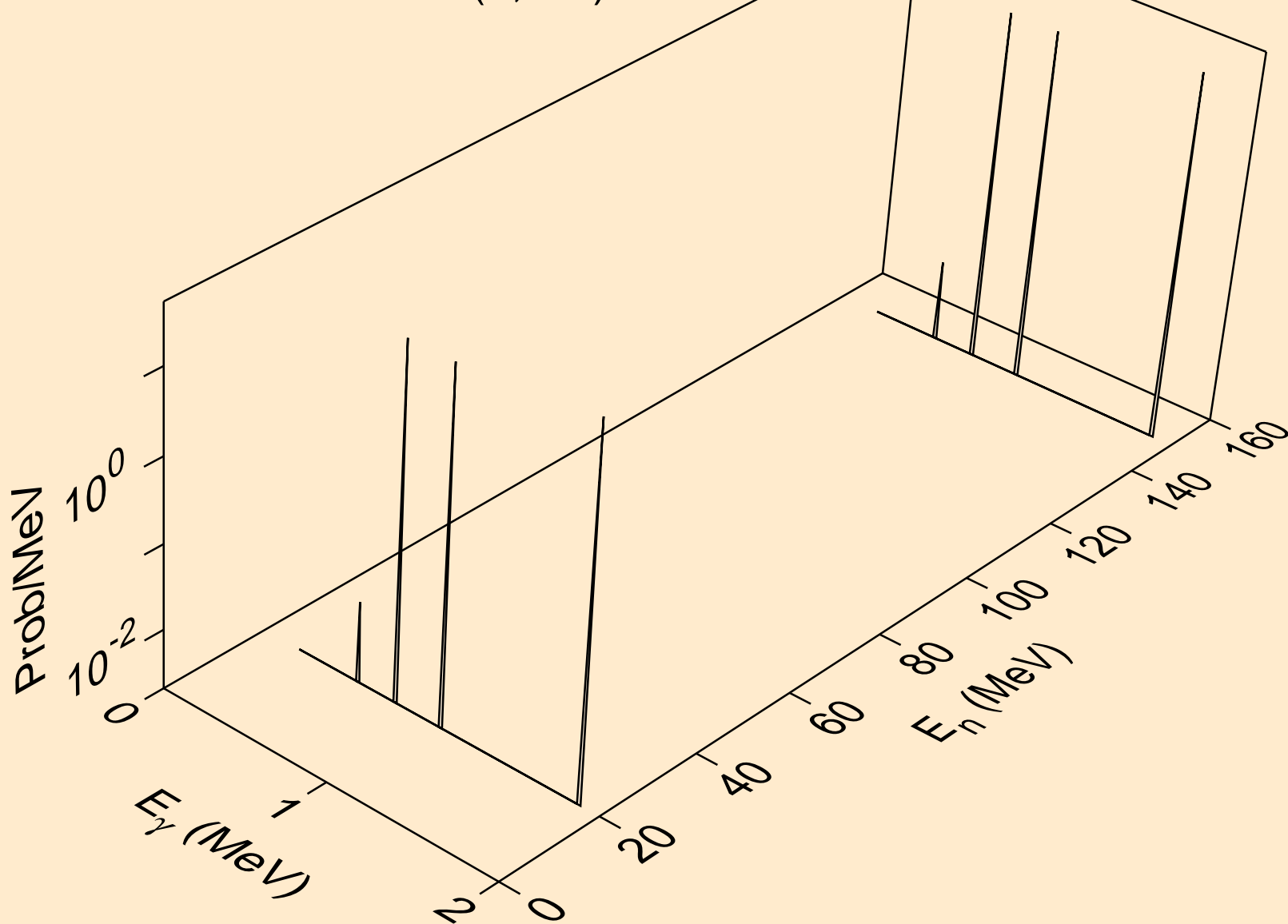Photon emission for (n,n*)a

E_γ (MeV)

E_n (MeV)

Prob/MeV

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+

Photon emission for (n,n*)p

E_γ (MeV)

E_n (MeV)

Prob/MeV

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+

Photon emission for (n,n*)d

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
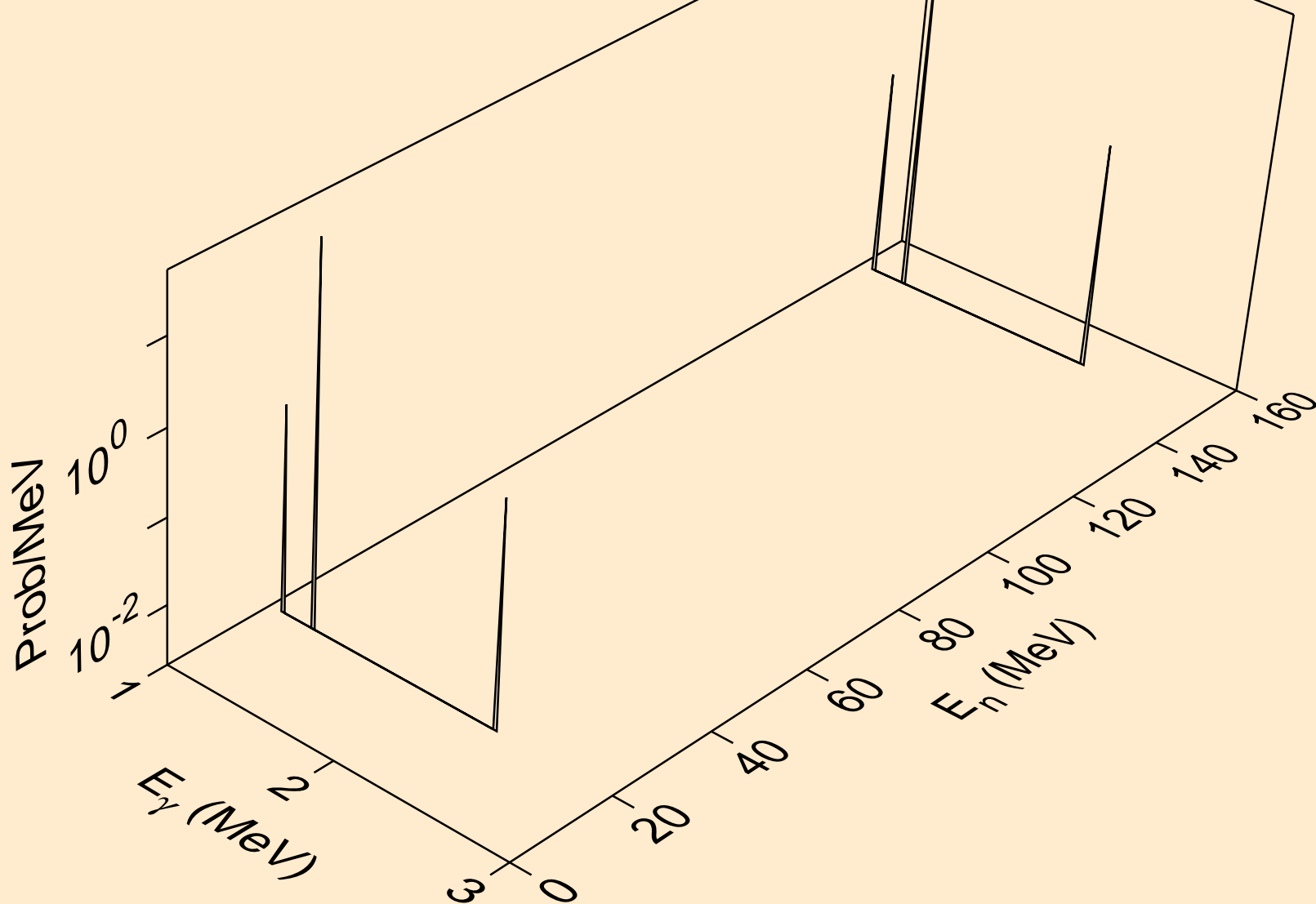Photon emission for (n,n*1)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
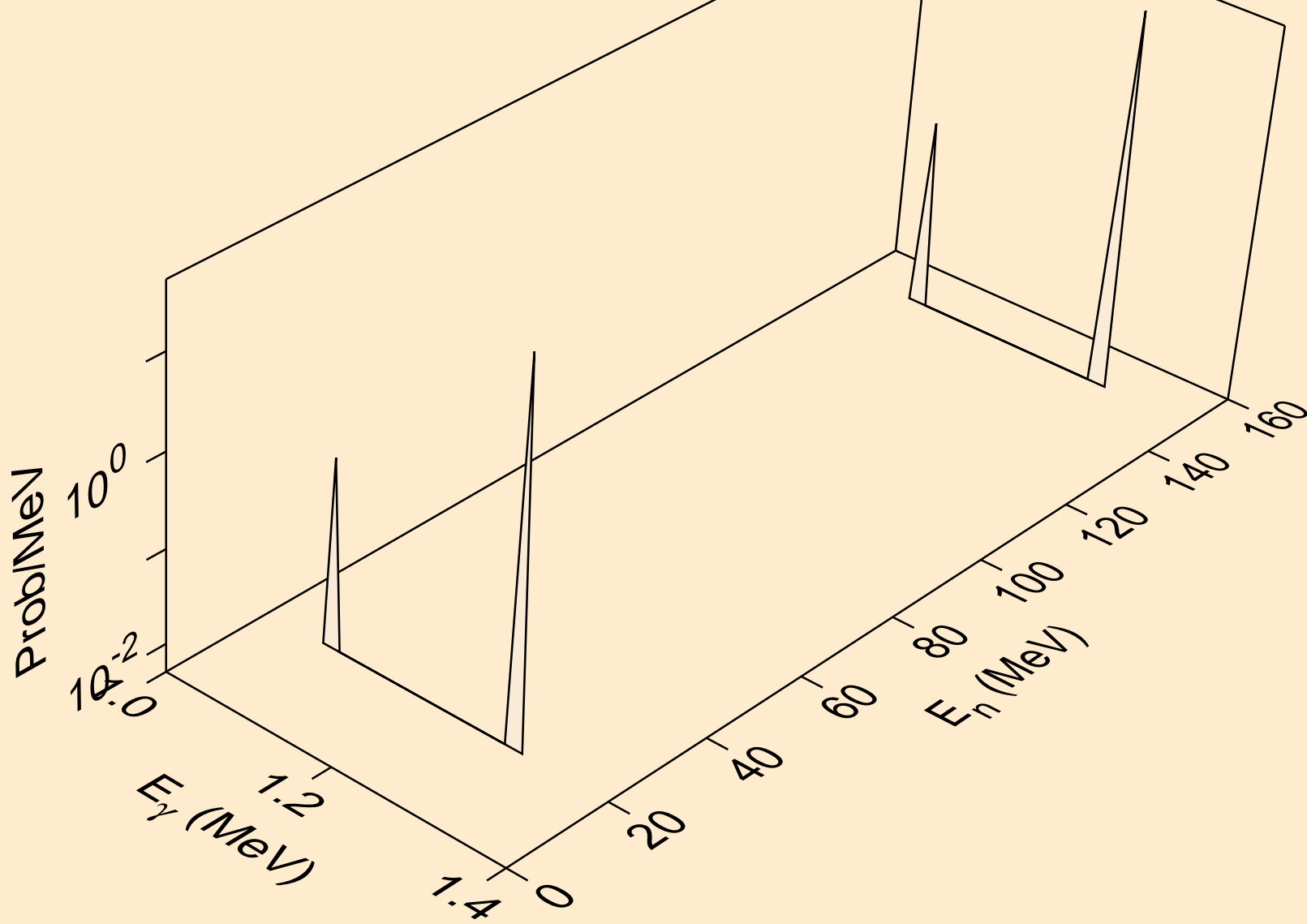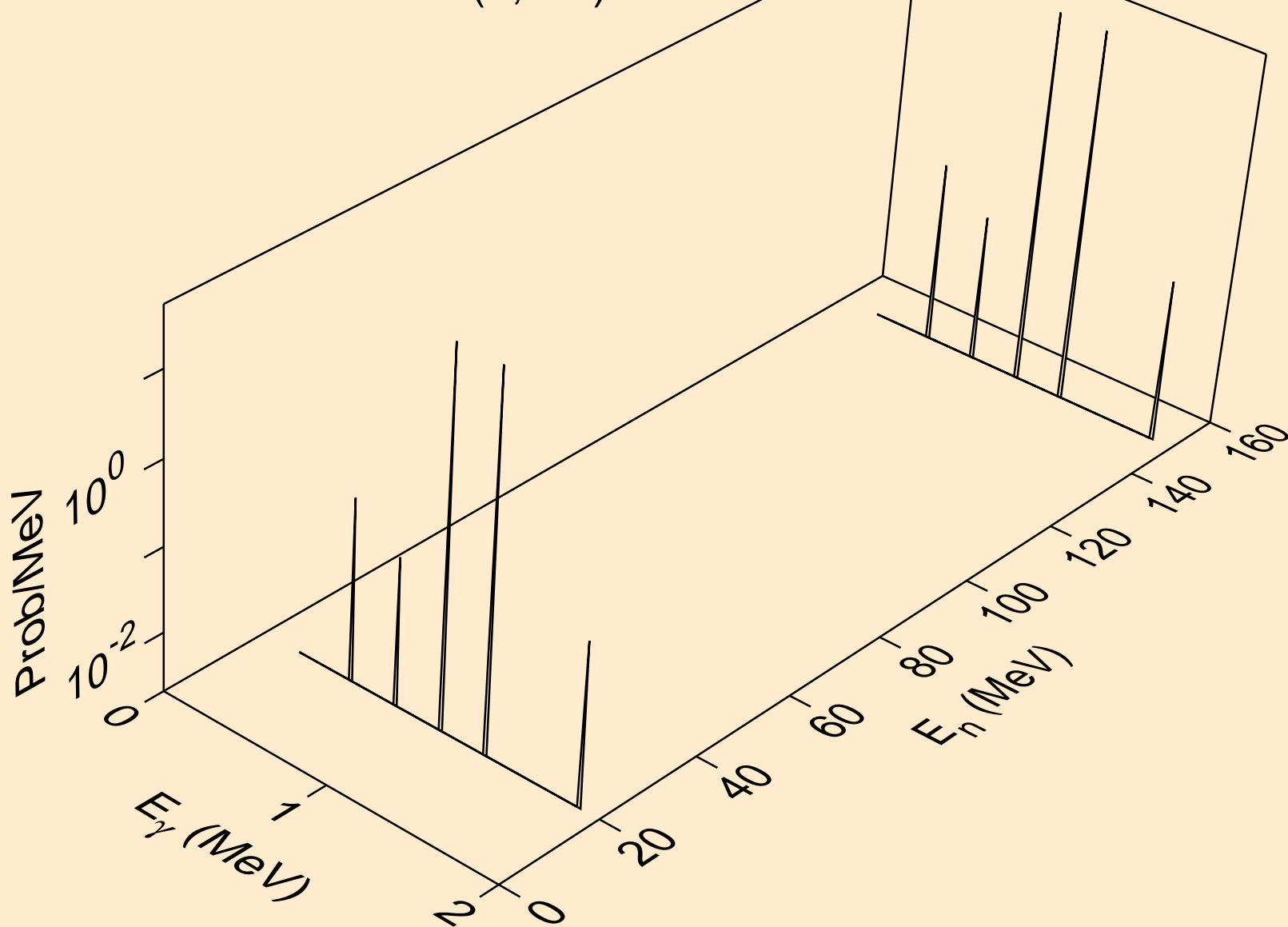Photon emission for (n,n*2)

ProblMeV

E_γ (MeV)

E_n (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,n*3)

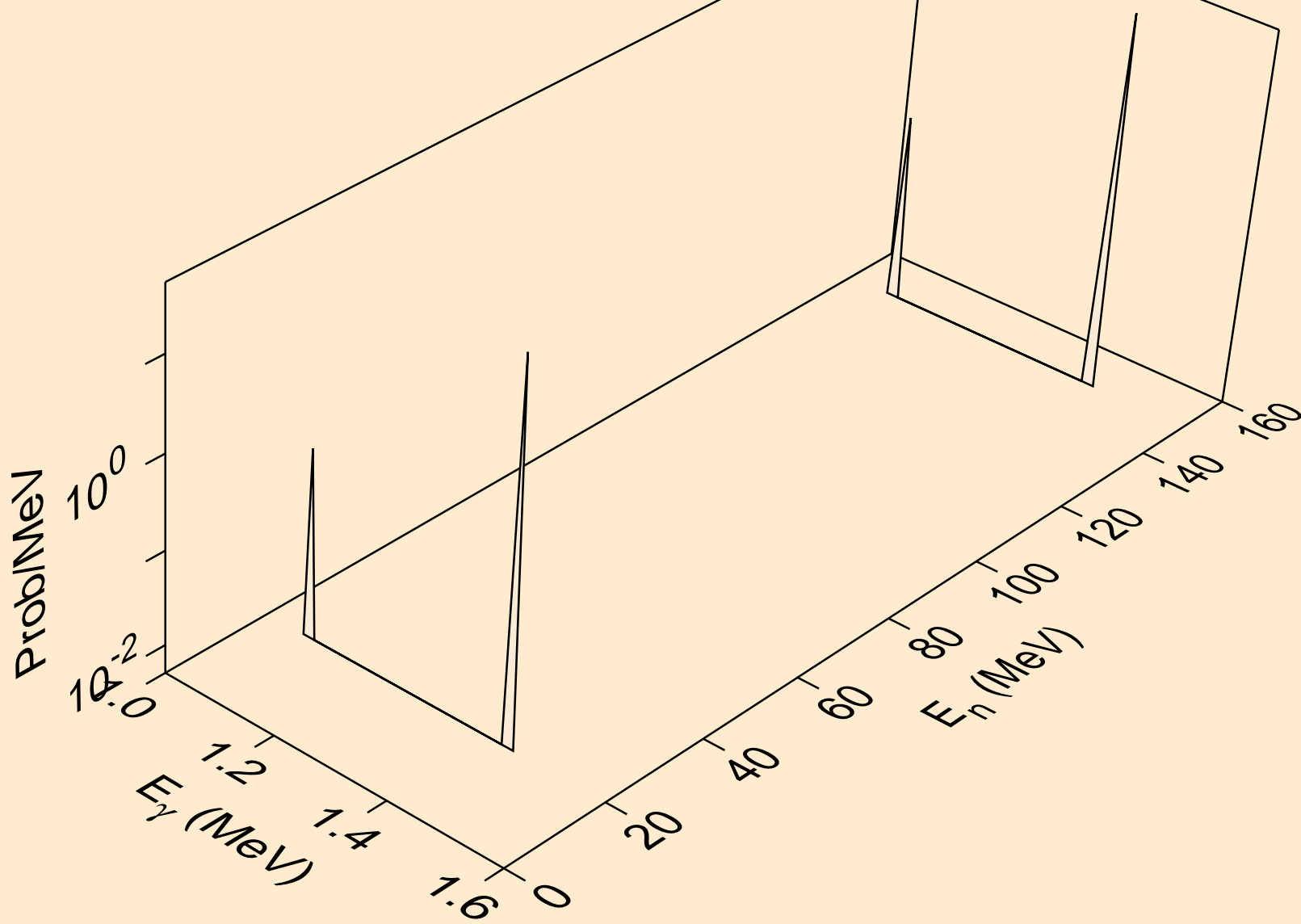30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,n*4)

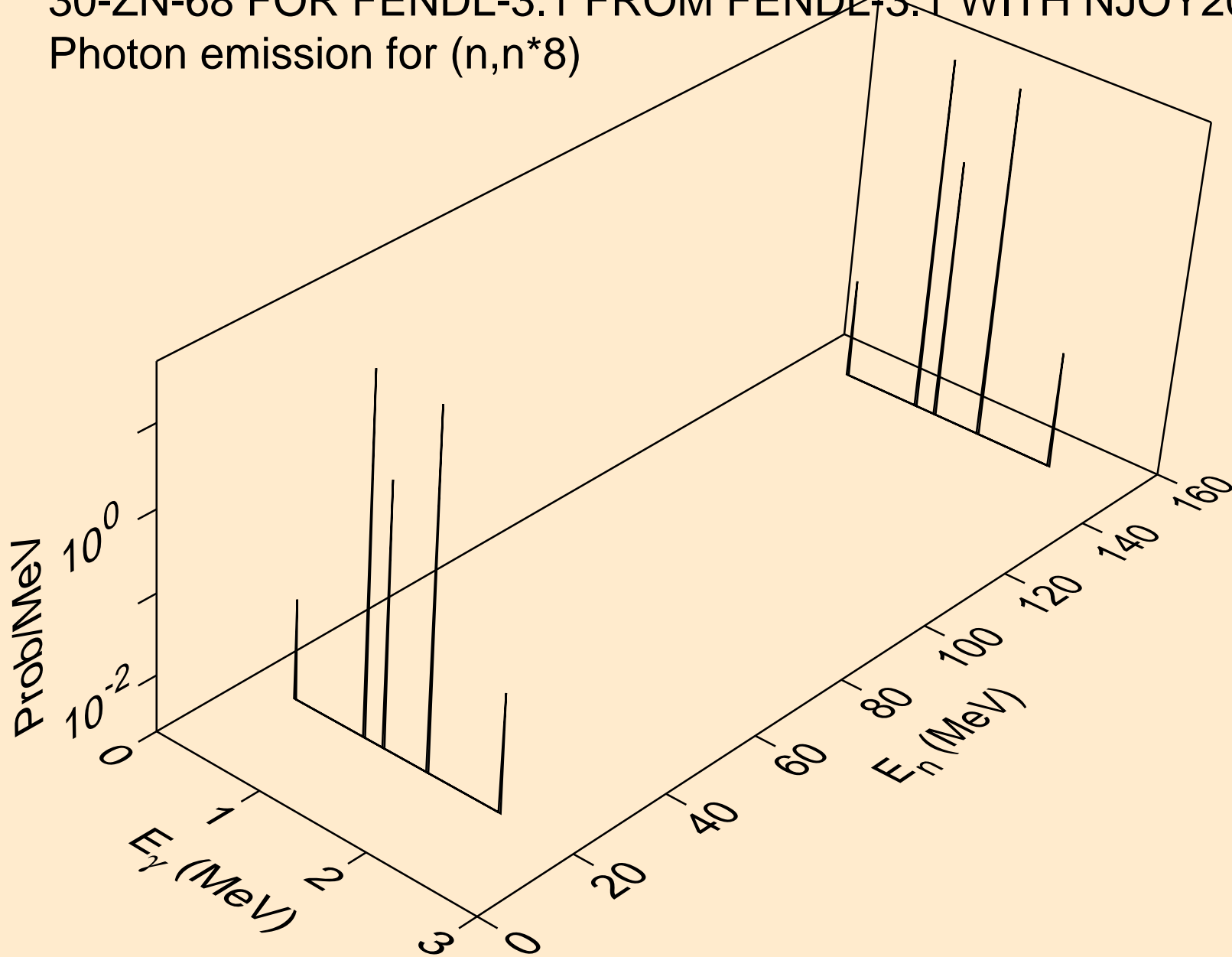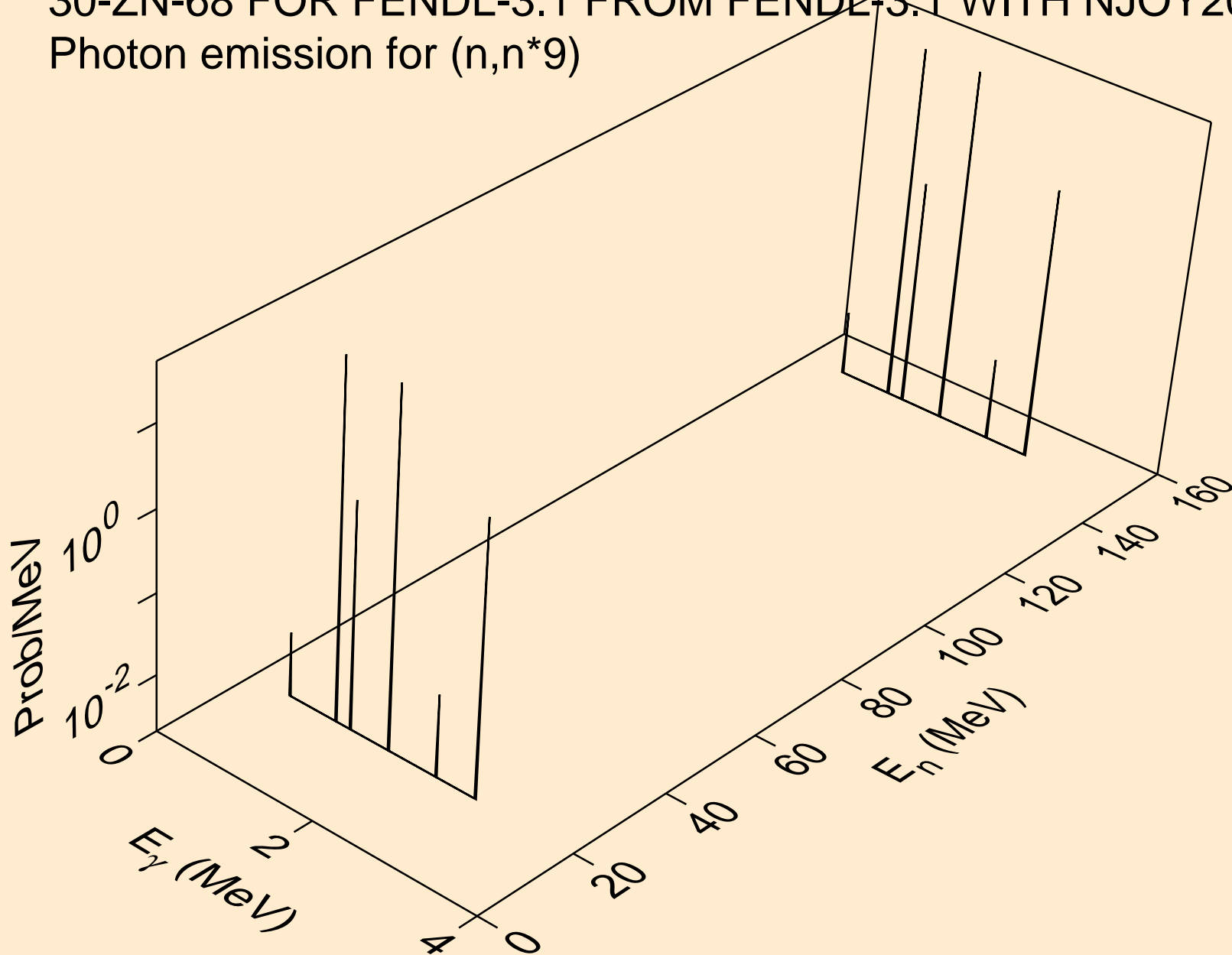30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,n*5)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,n*6)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
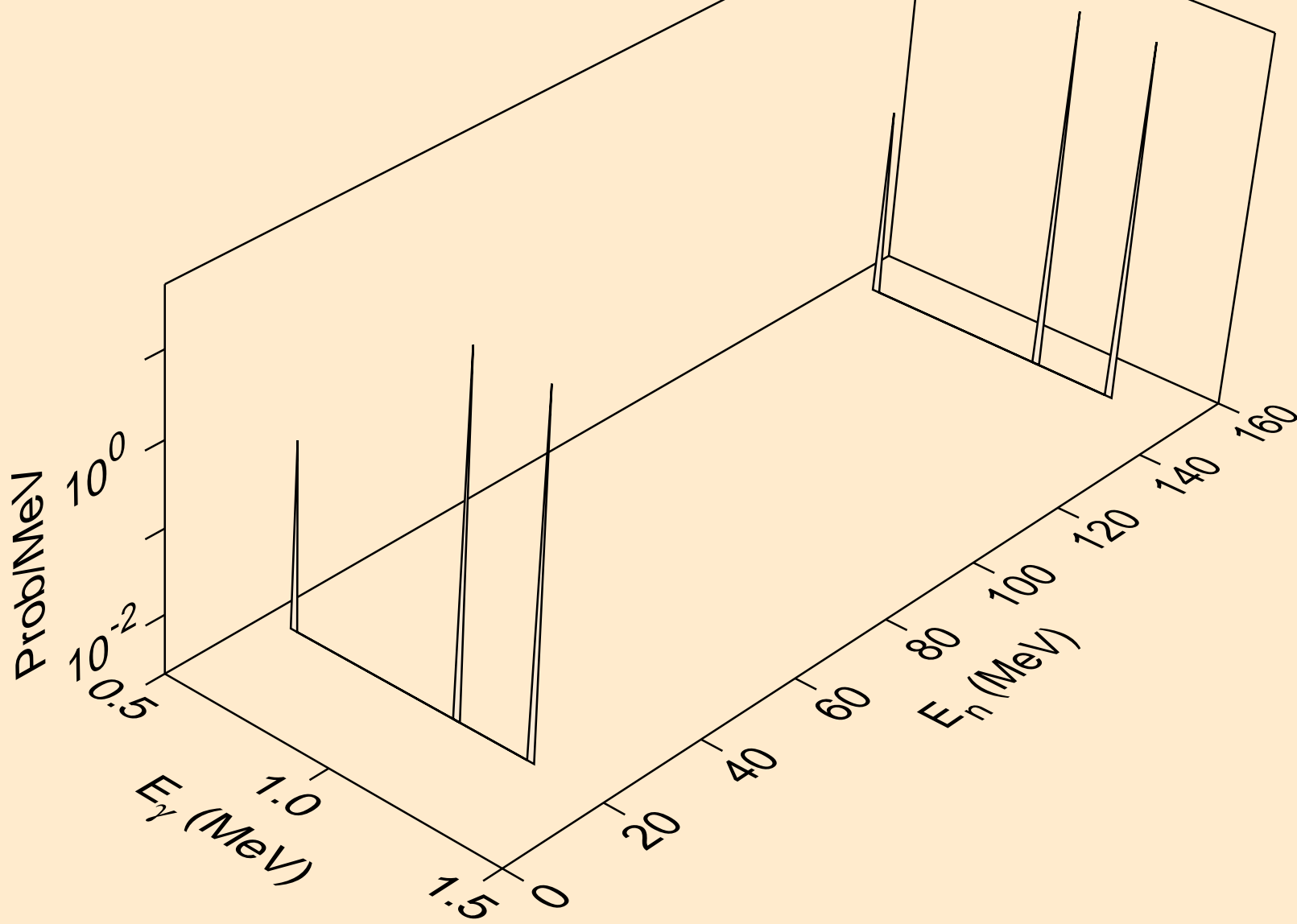Photon emission for (n,n*7)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
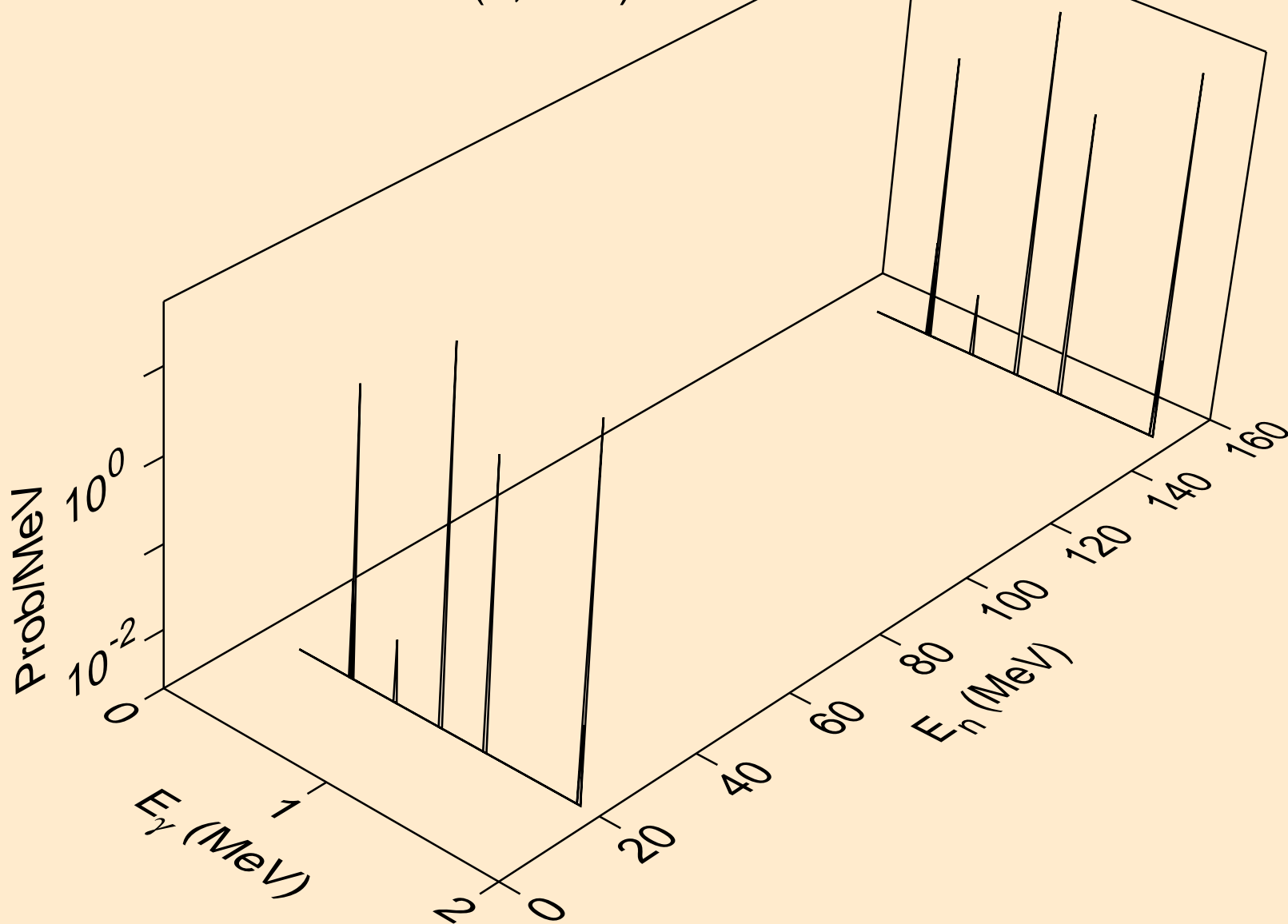Photon emission for (n,n*8)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
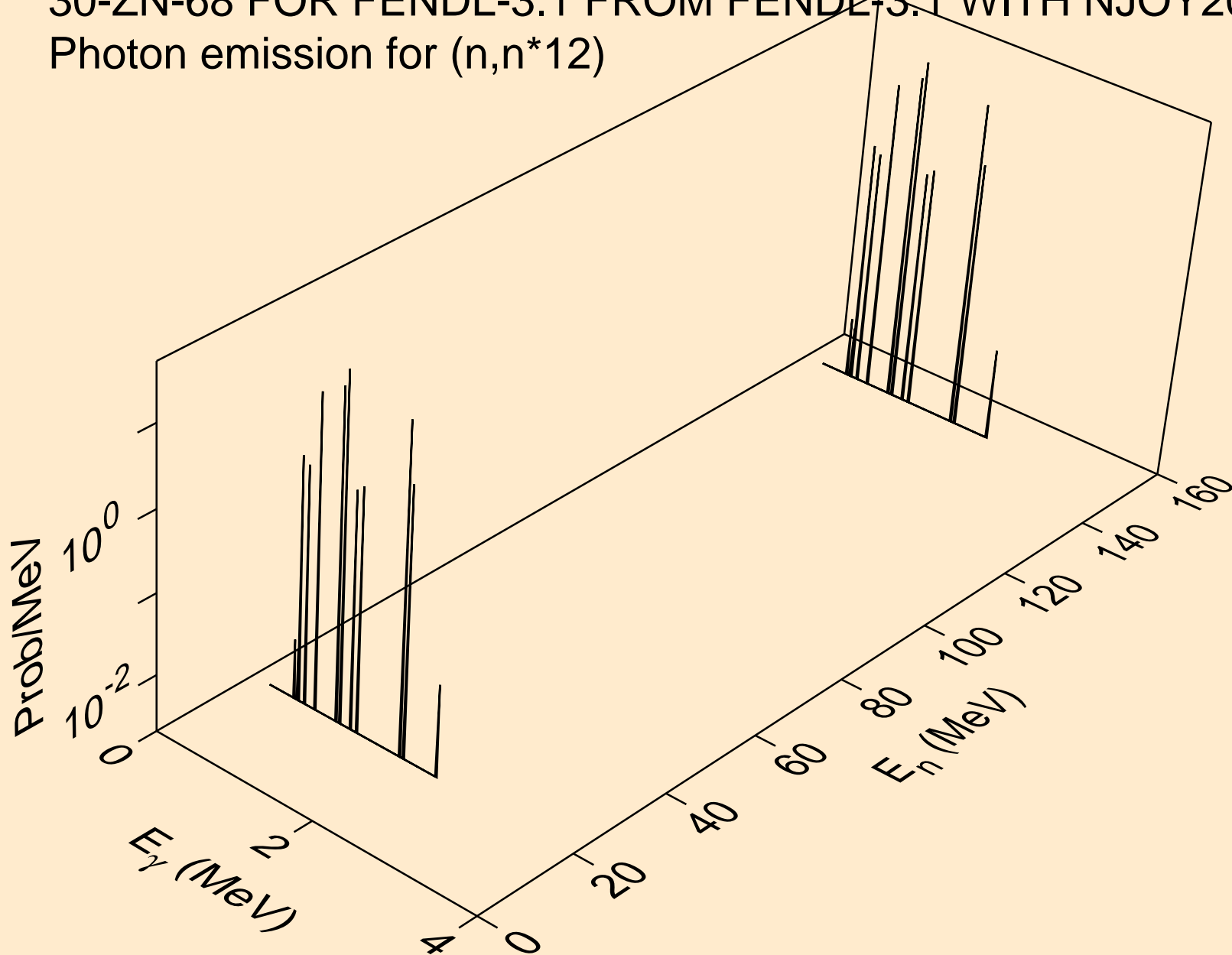Photon emission for (n,n*9)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
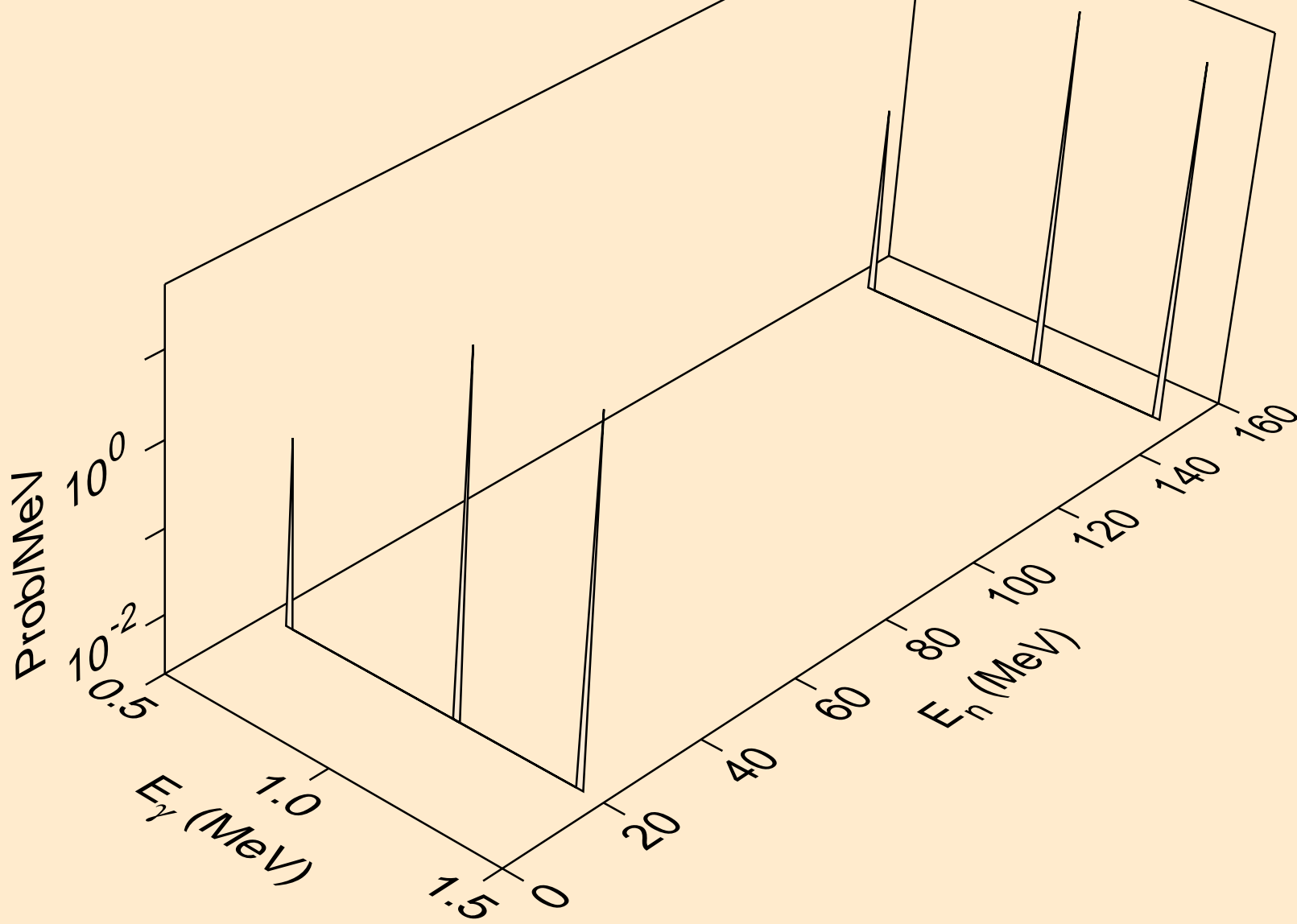
Photon emission for (n,n*10)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
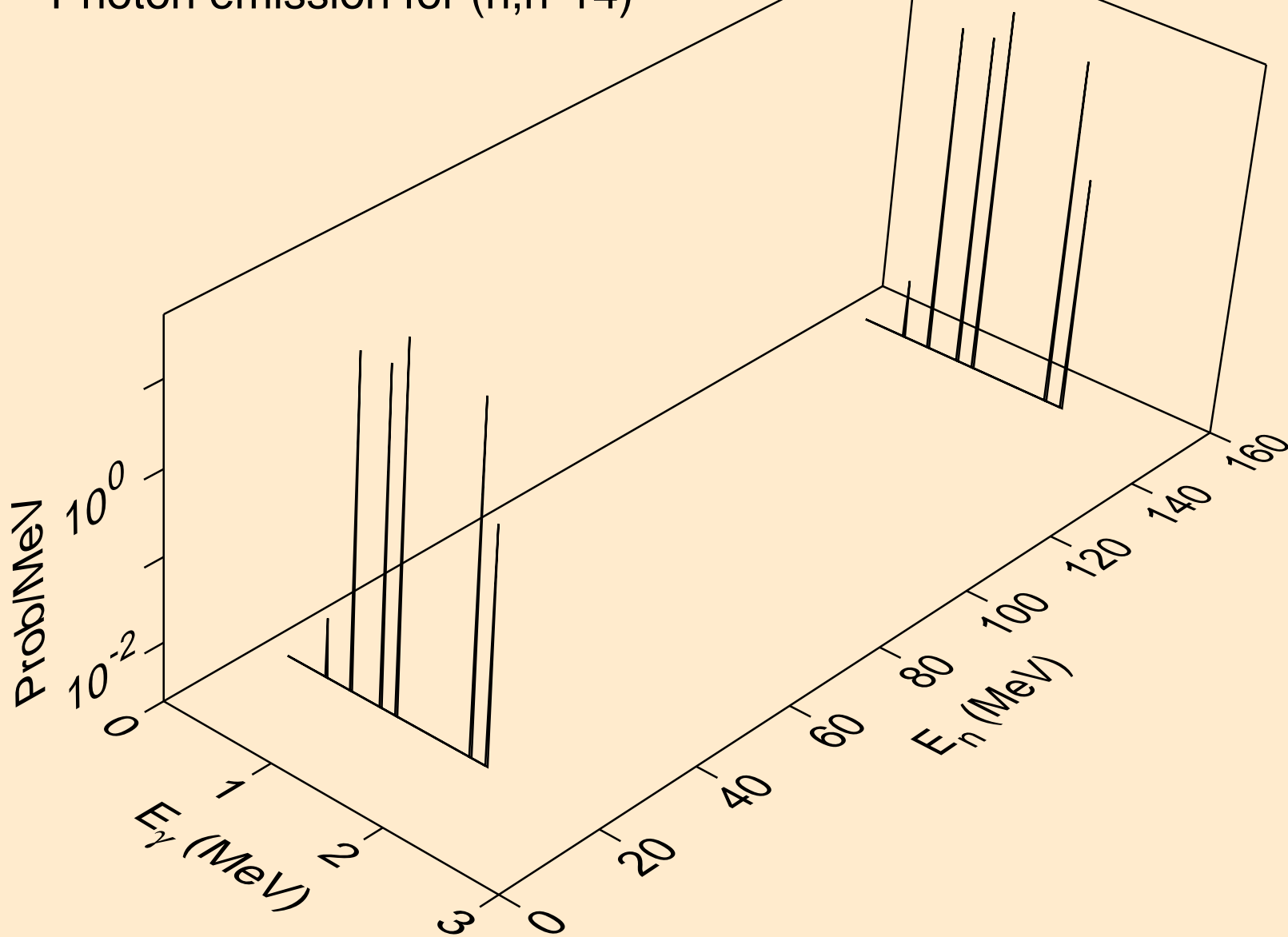Photon emission for (n,n*11)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
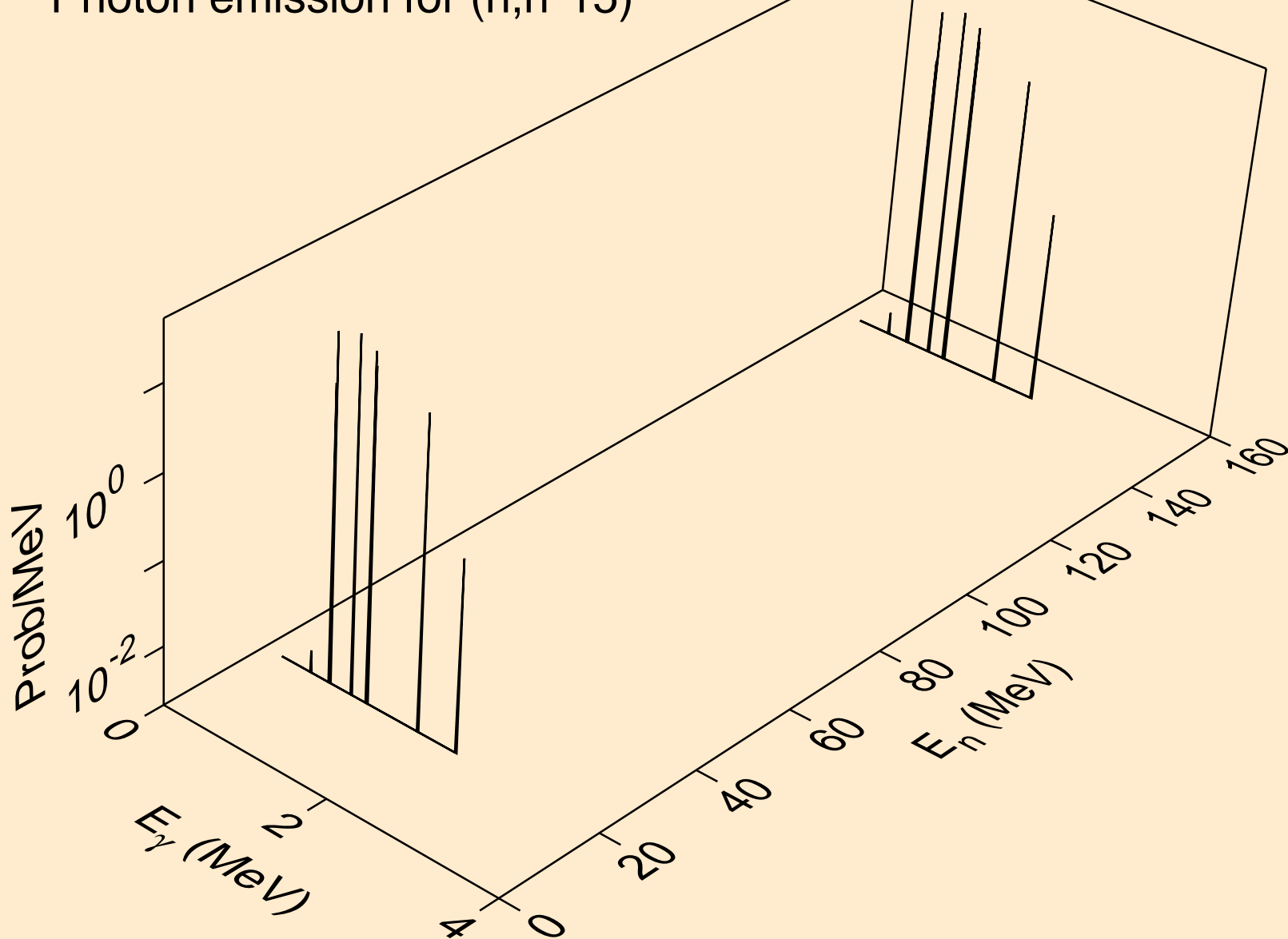Photon emission for (n,n*12)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,n*13)
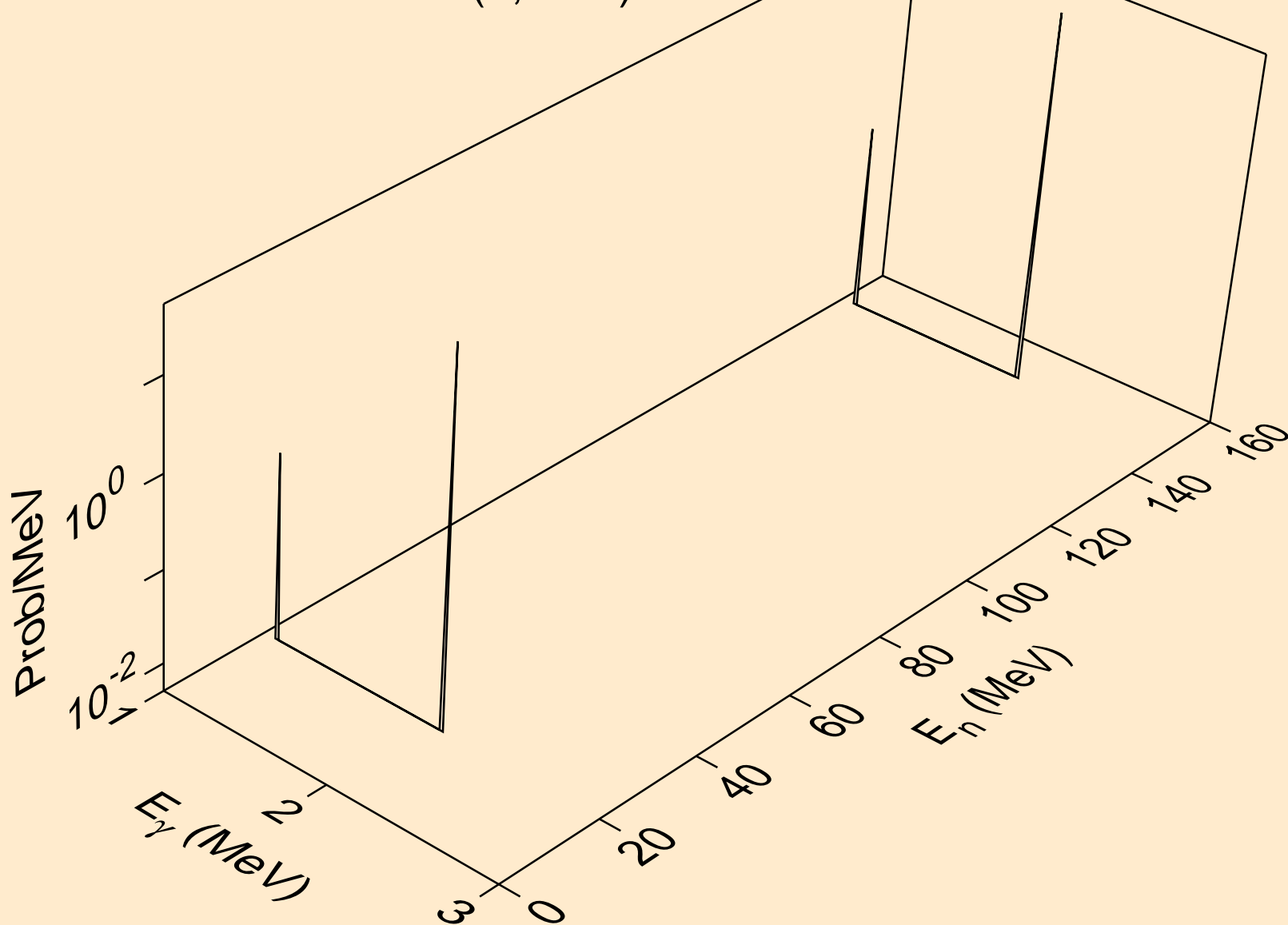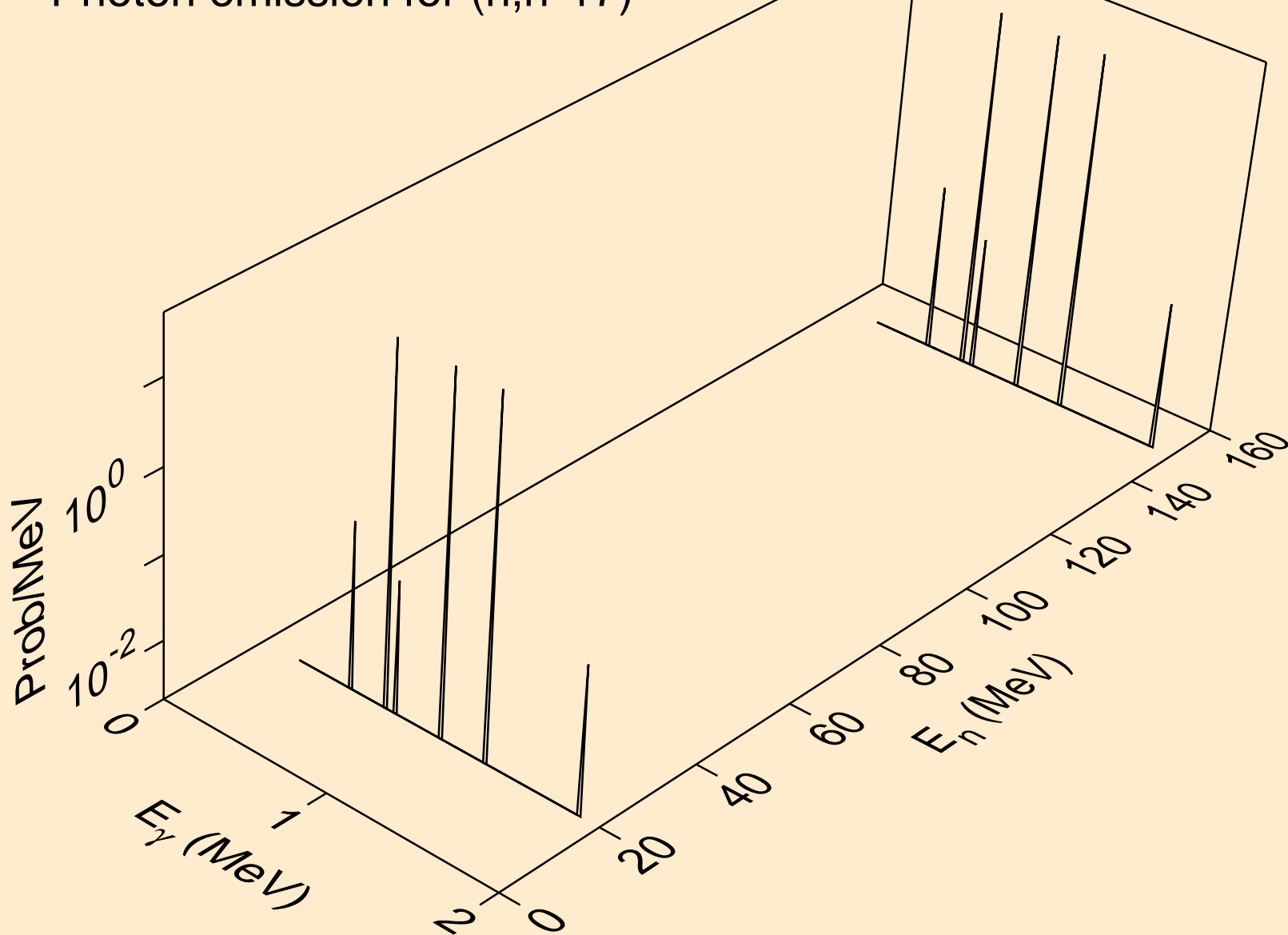
ProblMeV

E_γ (MeV)

E_n (MeV)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,n*14)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
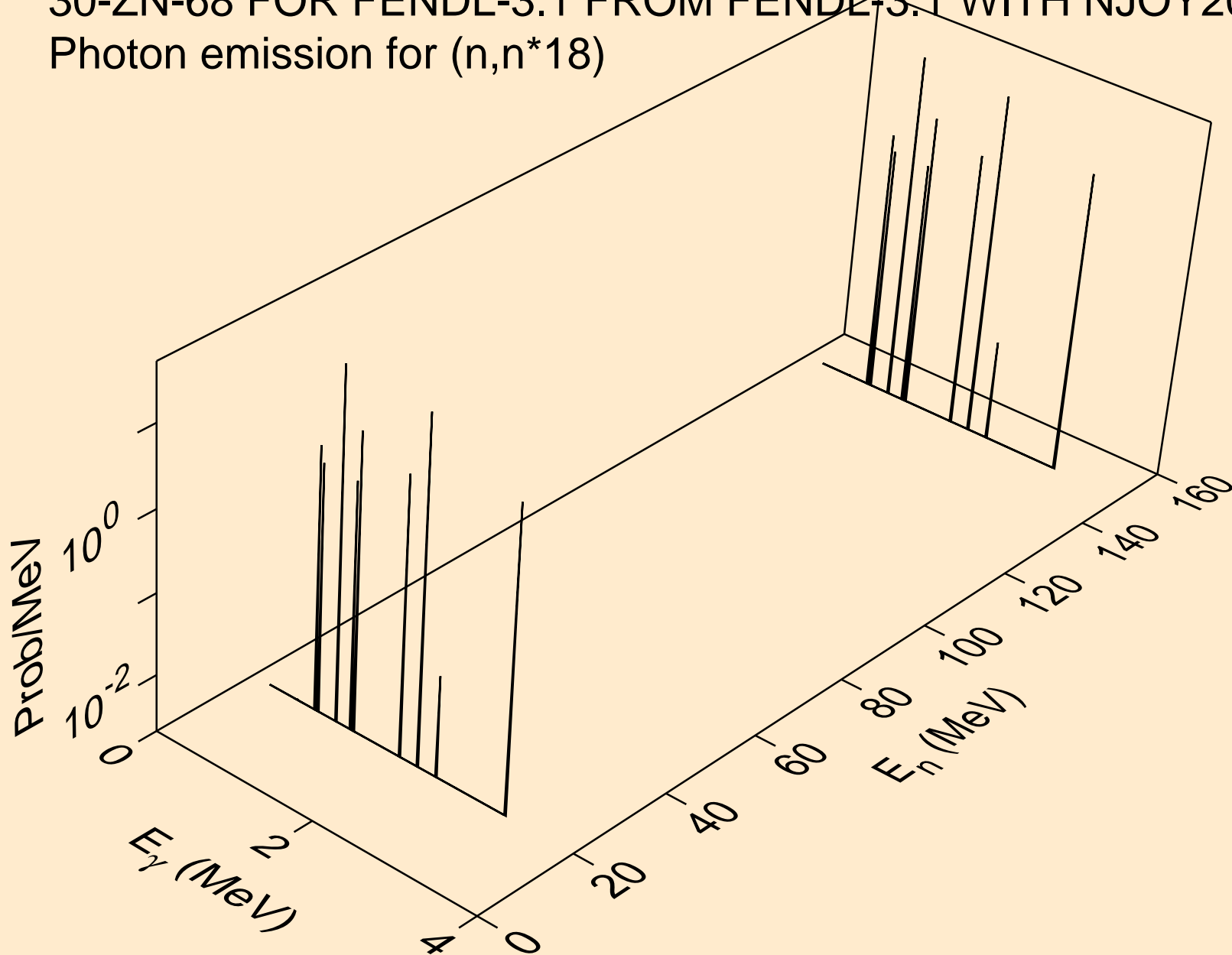Photon emission for (n,n*15)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
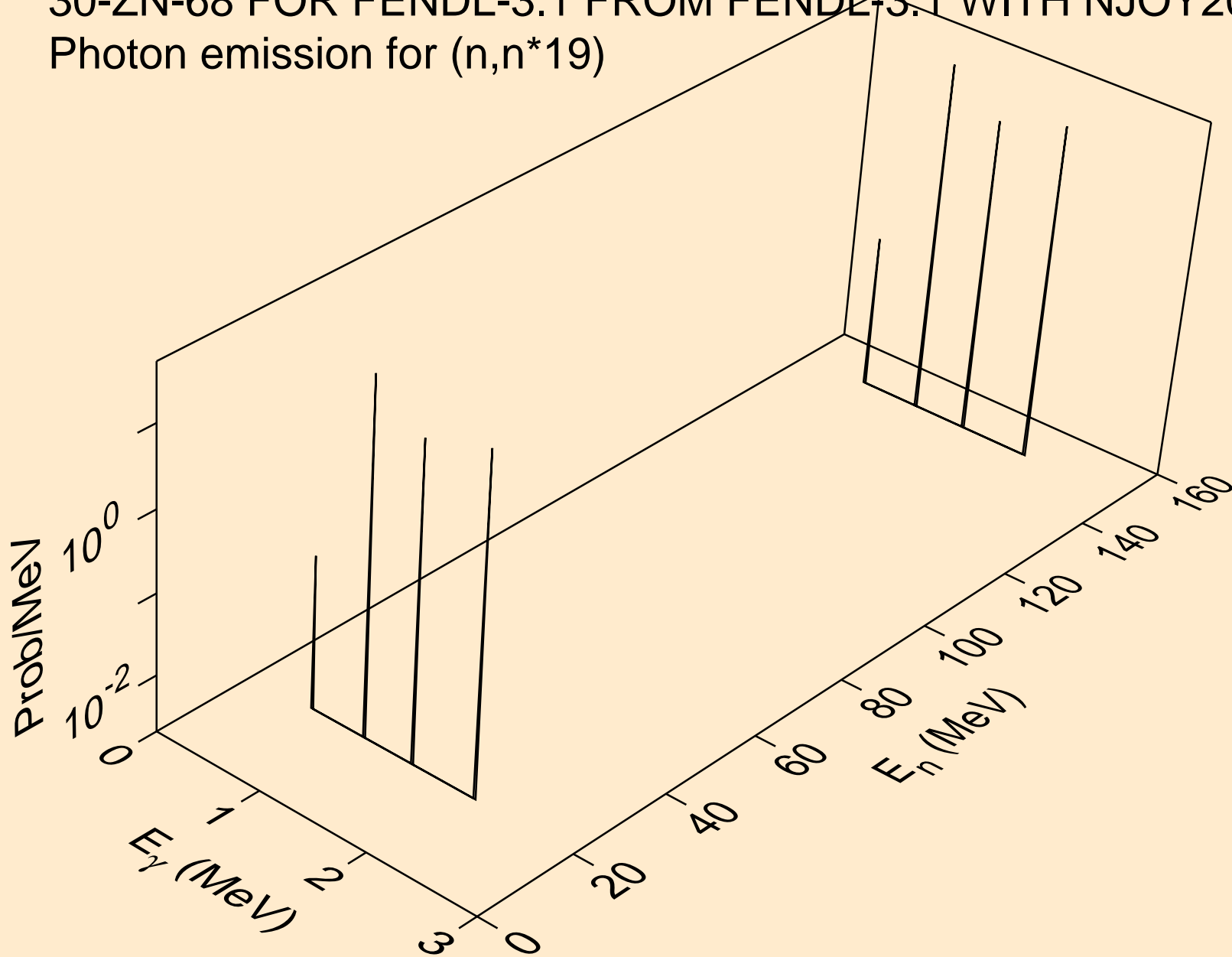Photon emission for (n,n*16)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
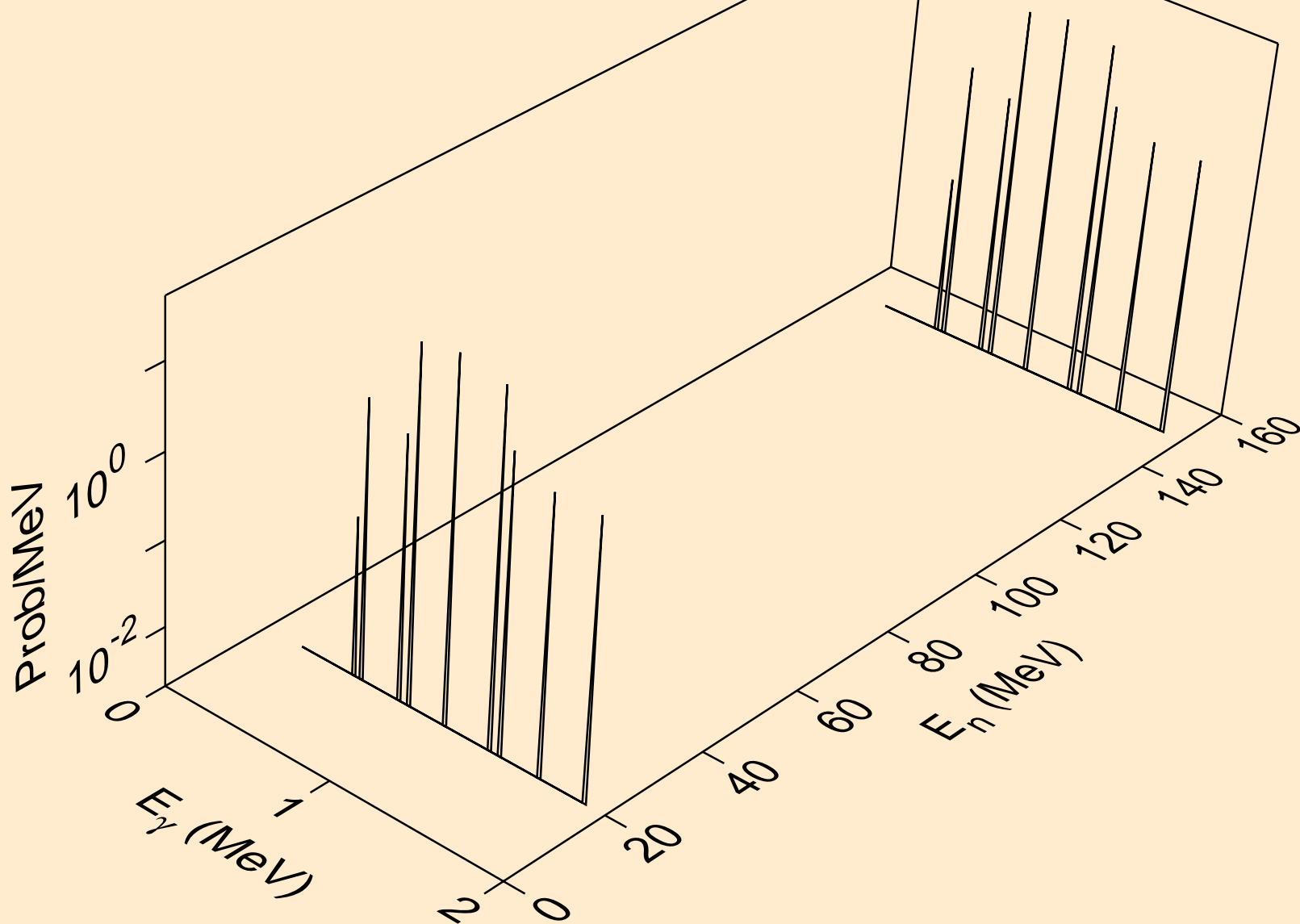Photon emission for (n,n*17)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
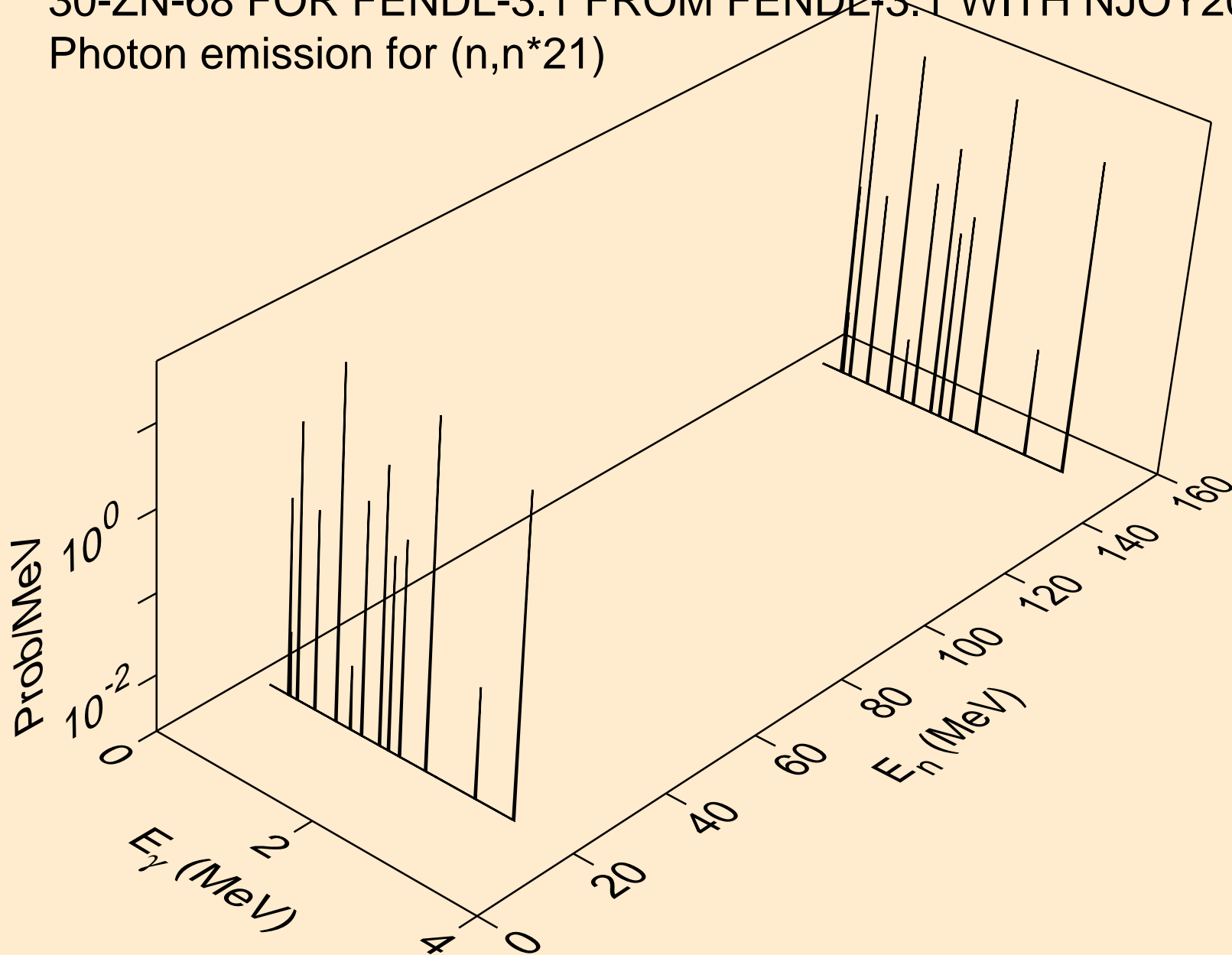Photon emission for (n,n*18)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
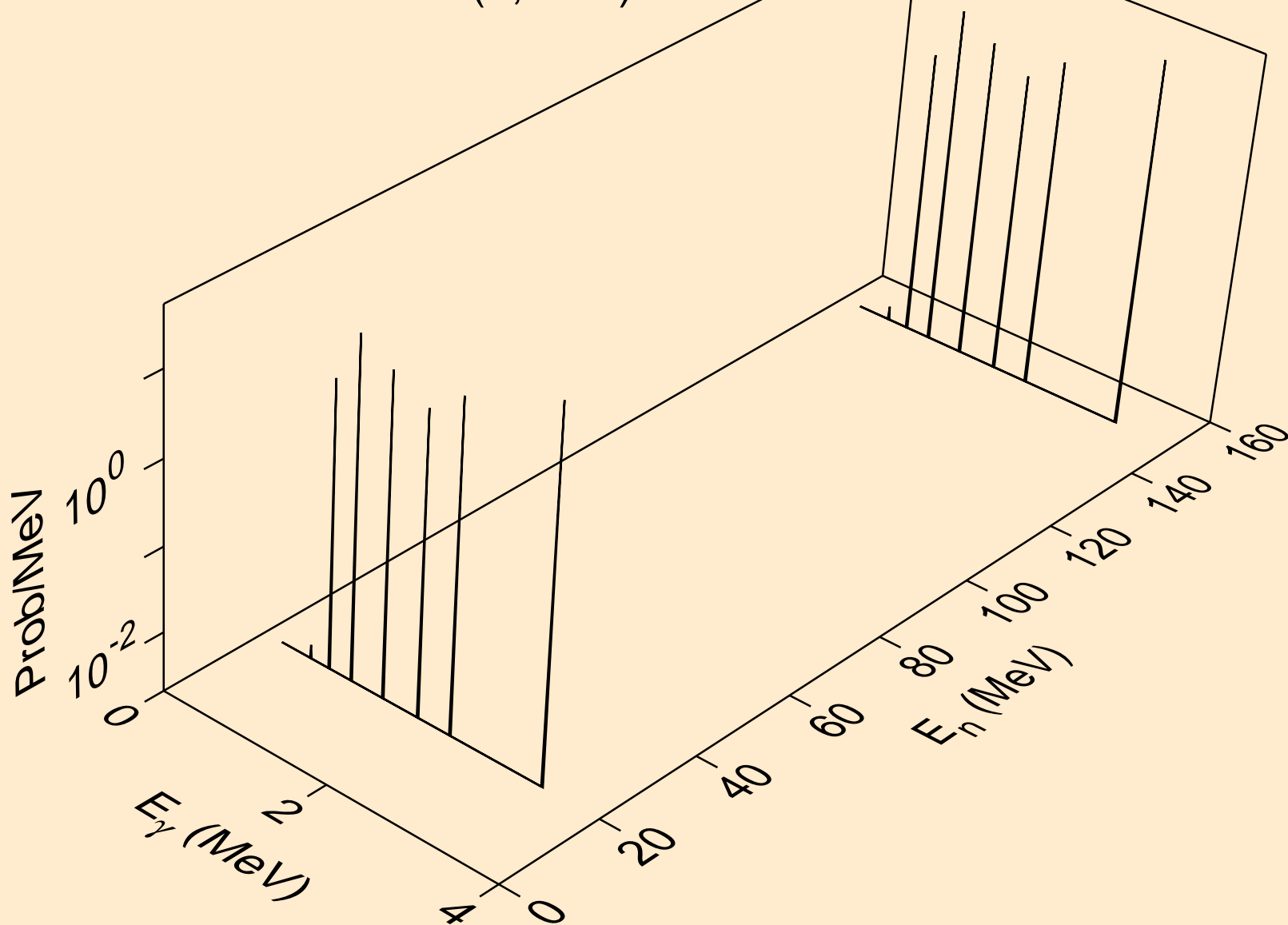Photon emission for (n,n*19)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
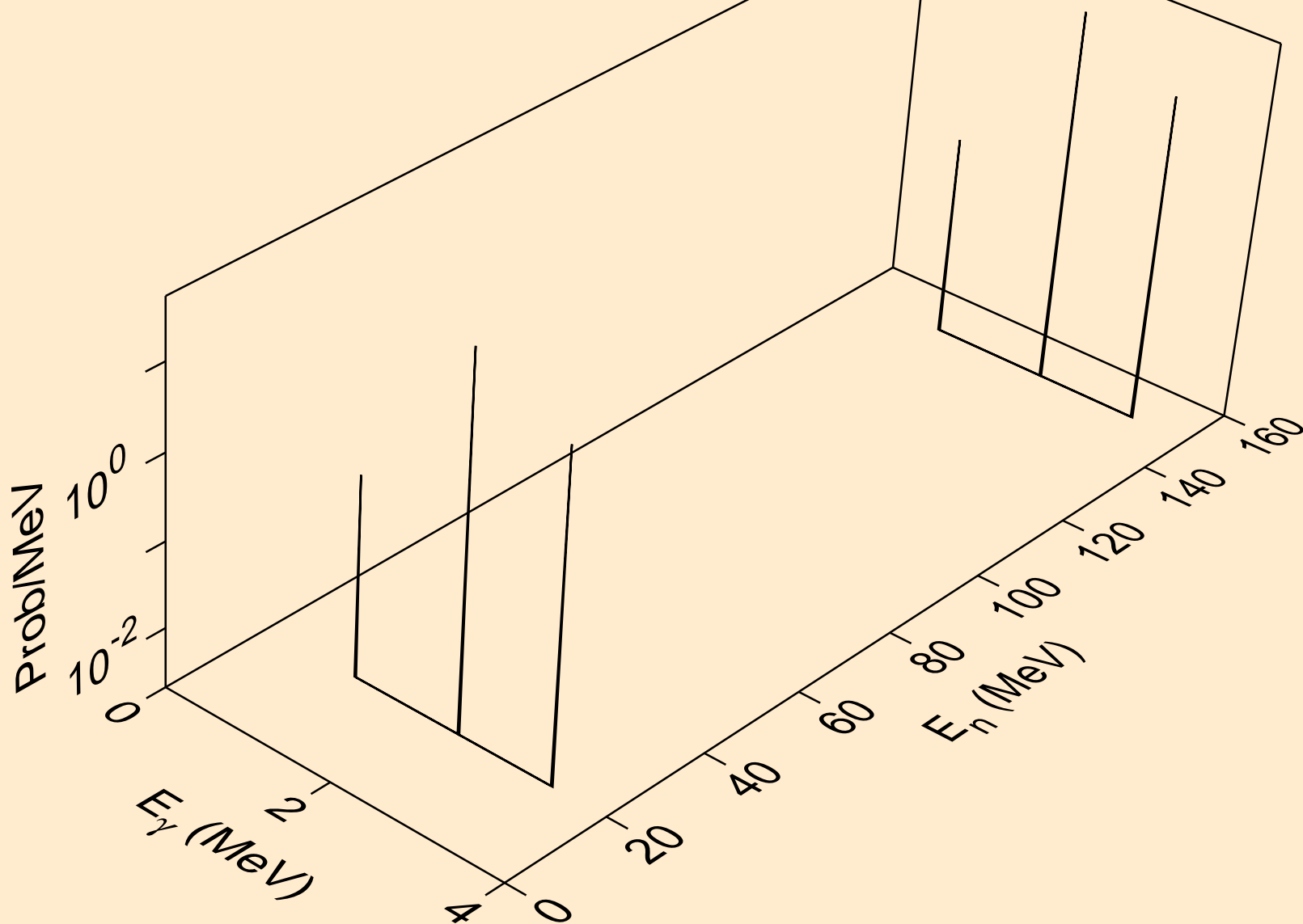Photon emission for (n,n*20)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
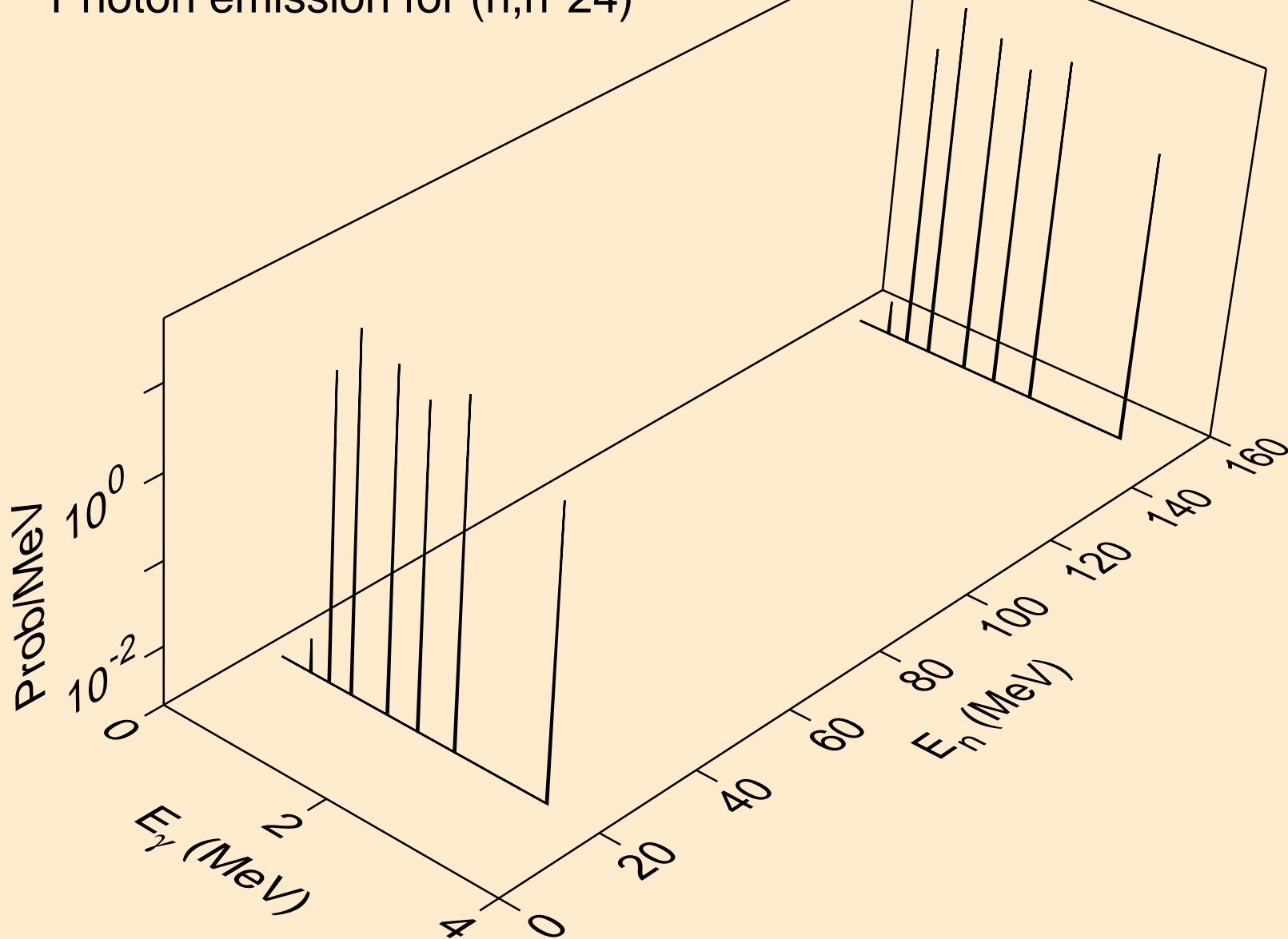Photon emission for (n,n*21)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
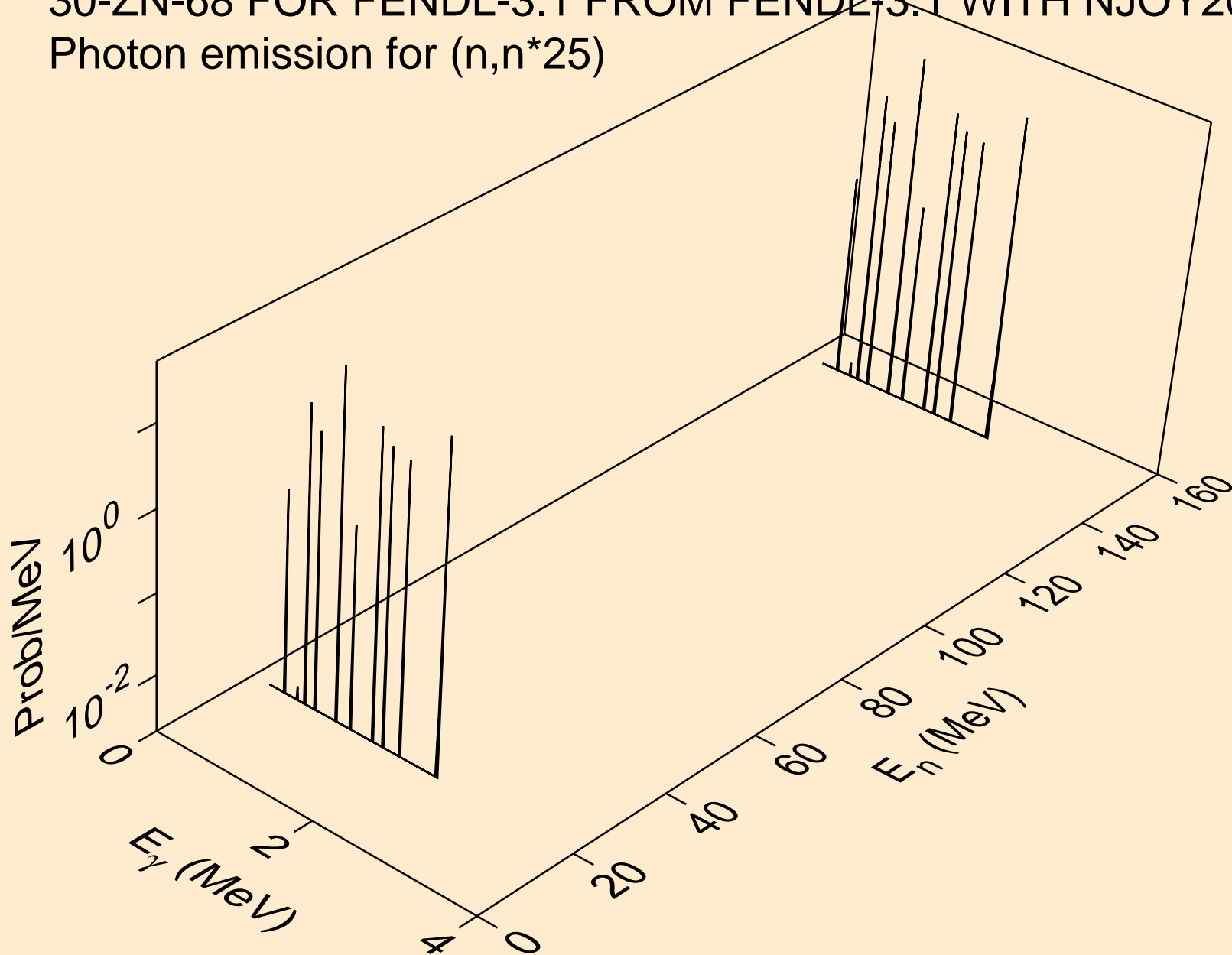Photon emission for (n,n*22)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
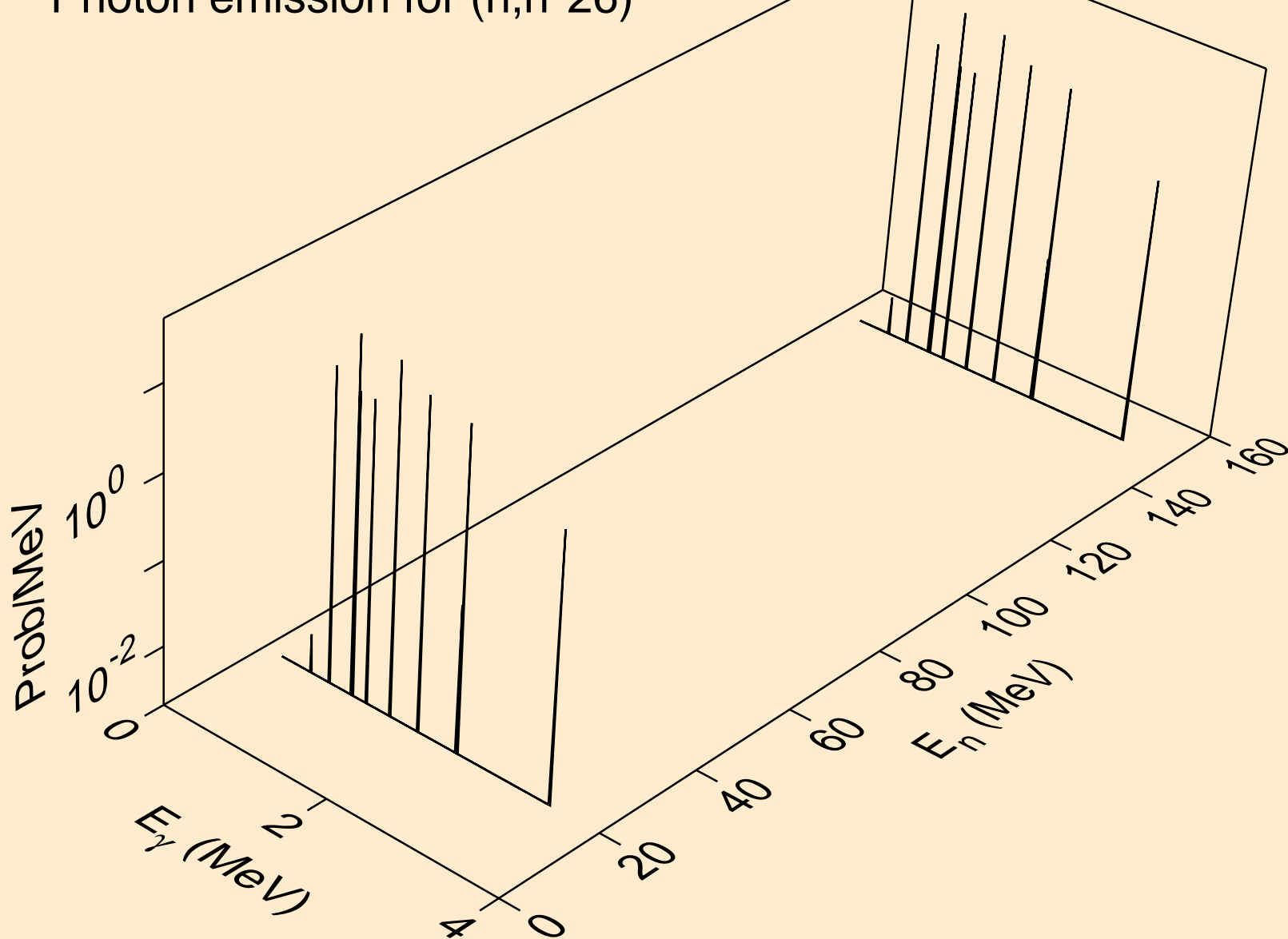Photon emission for (n,n*23)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
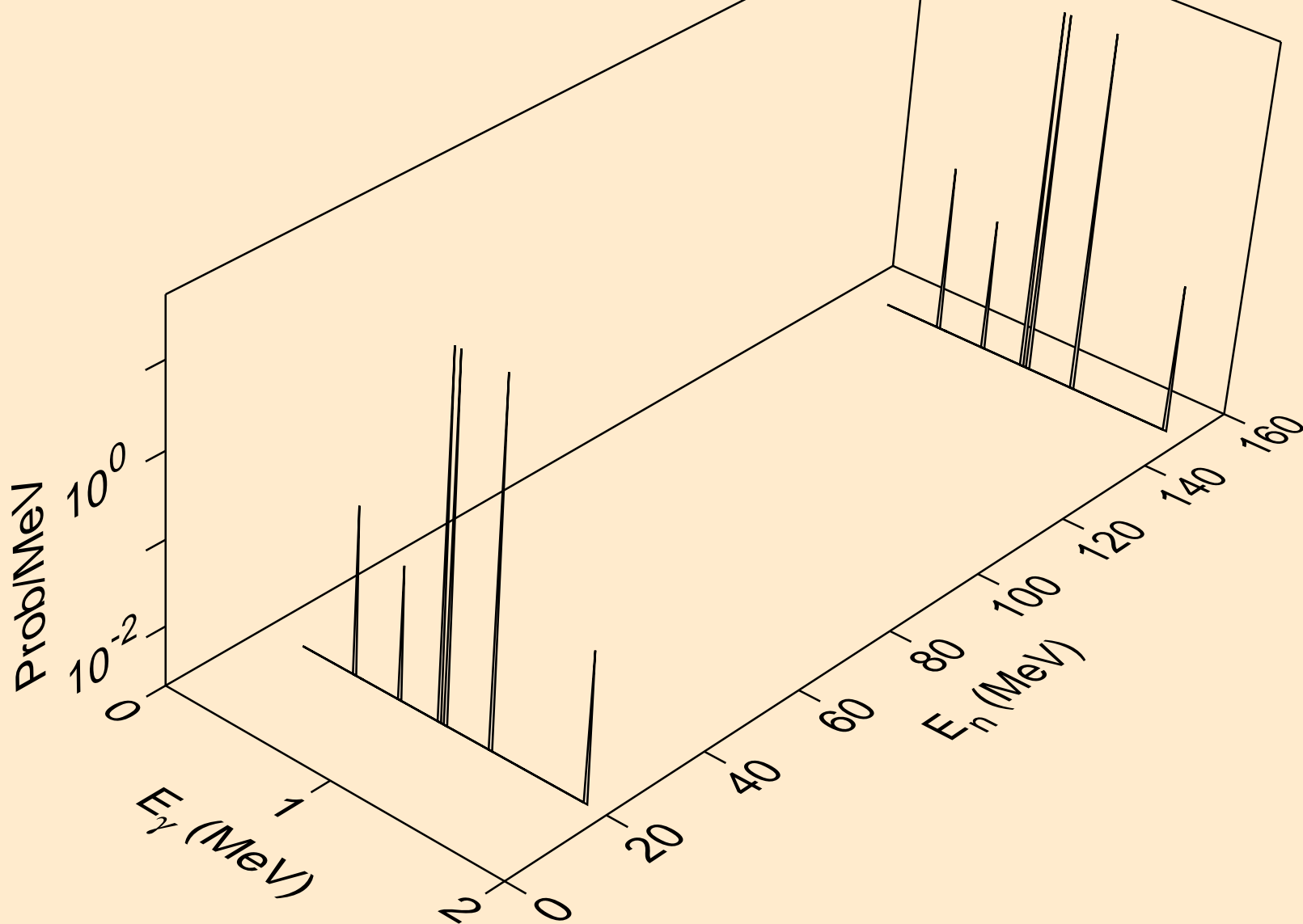Photon emission for (n,n*24)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
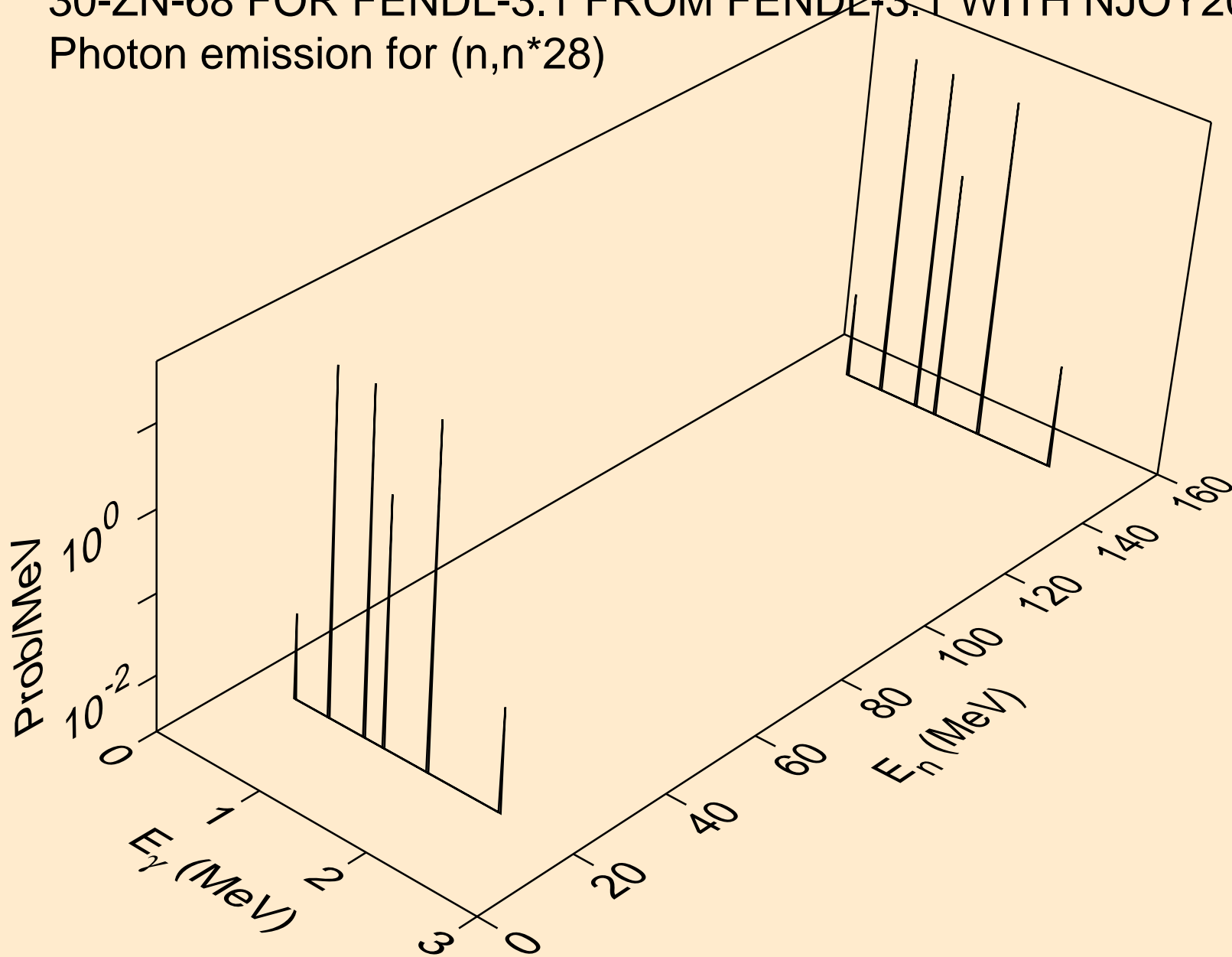Photon emission for (n,n*25)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
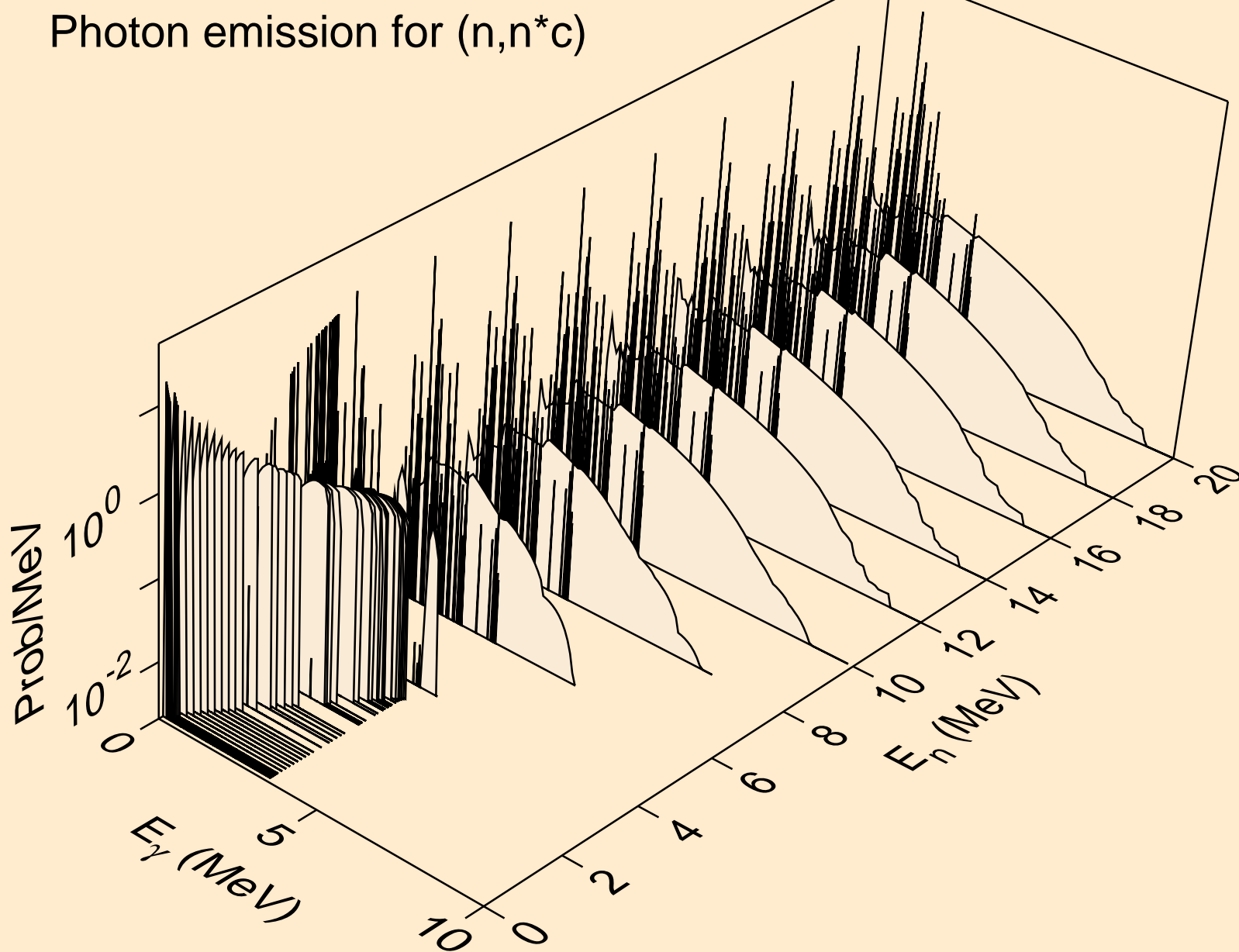Photon emission for (n,n*26)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
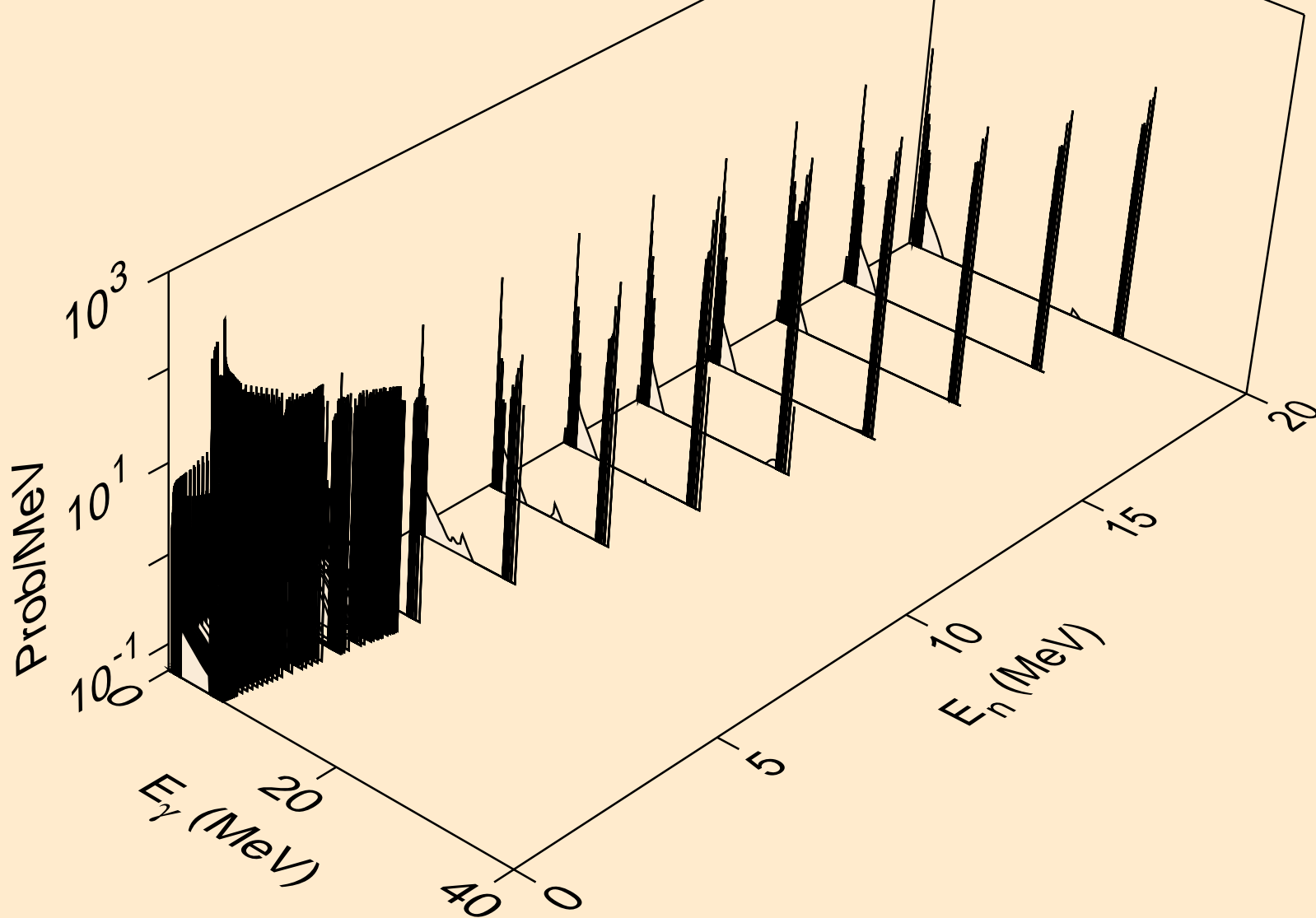Photon emission for (n,n*27)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
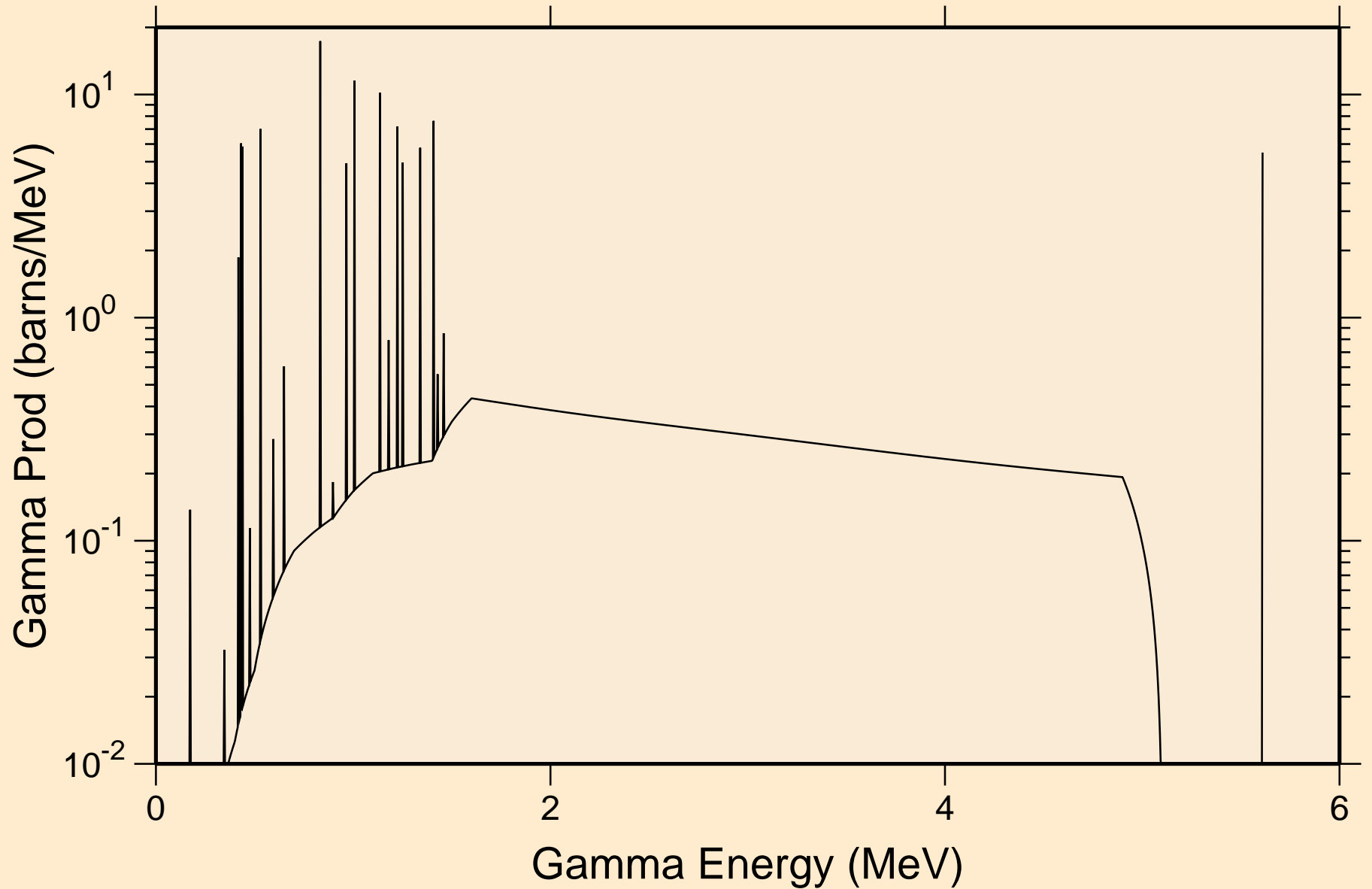Photon emission for (n,n*28)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
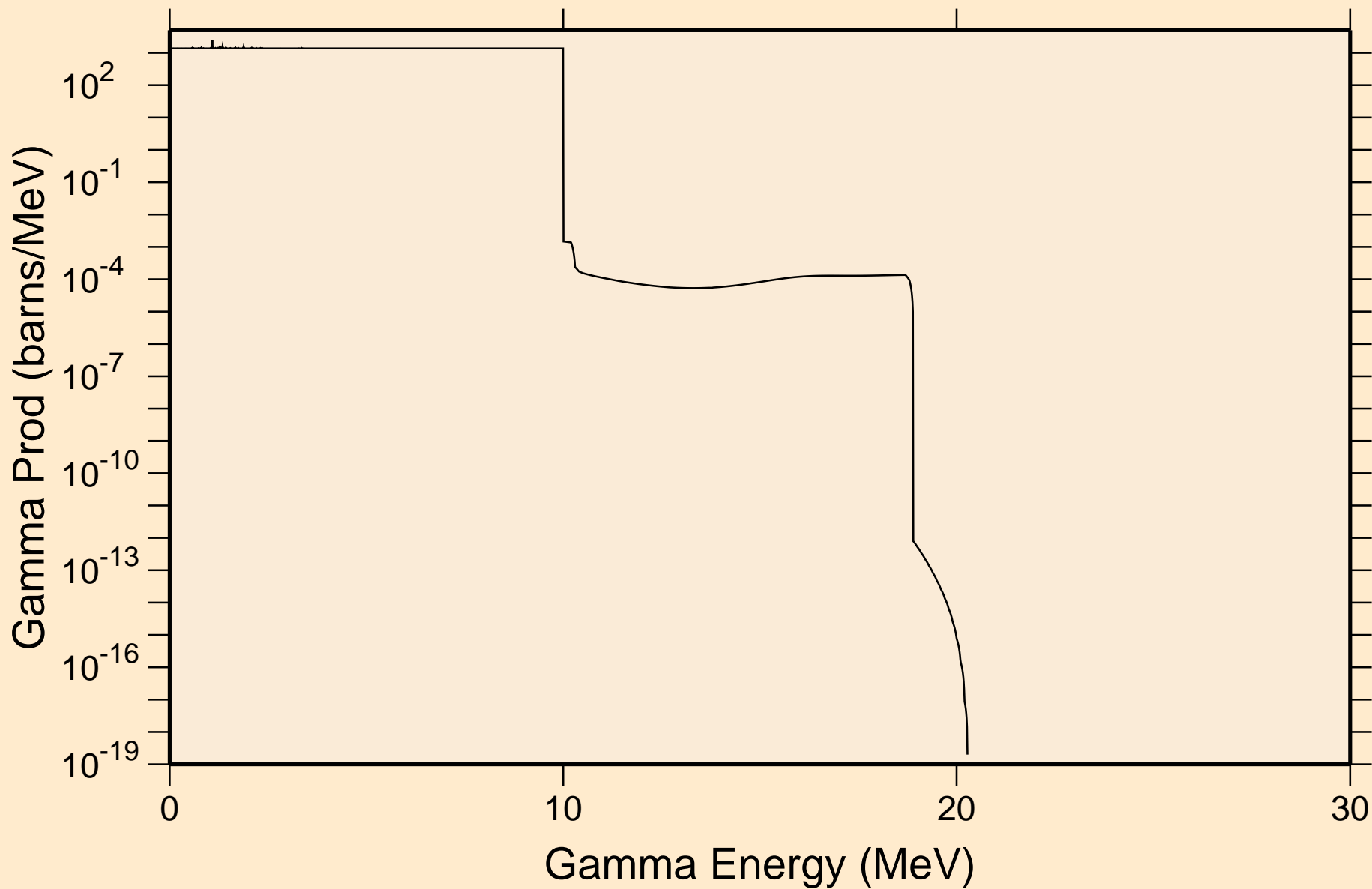Photon emission for (n,n*c)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
Photon emission for (n,gma)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
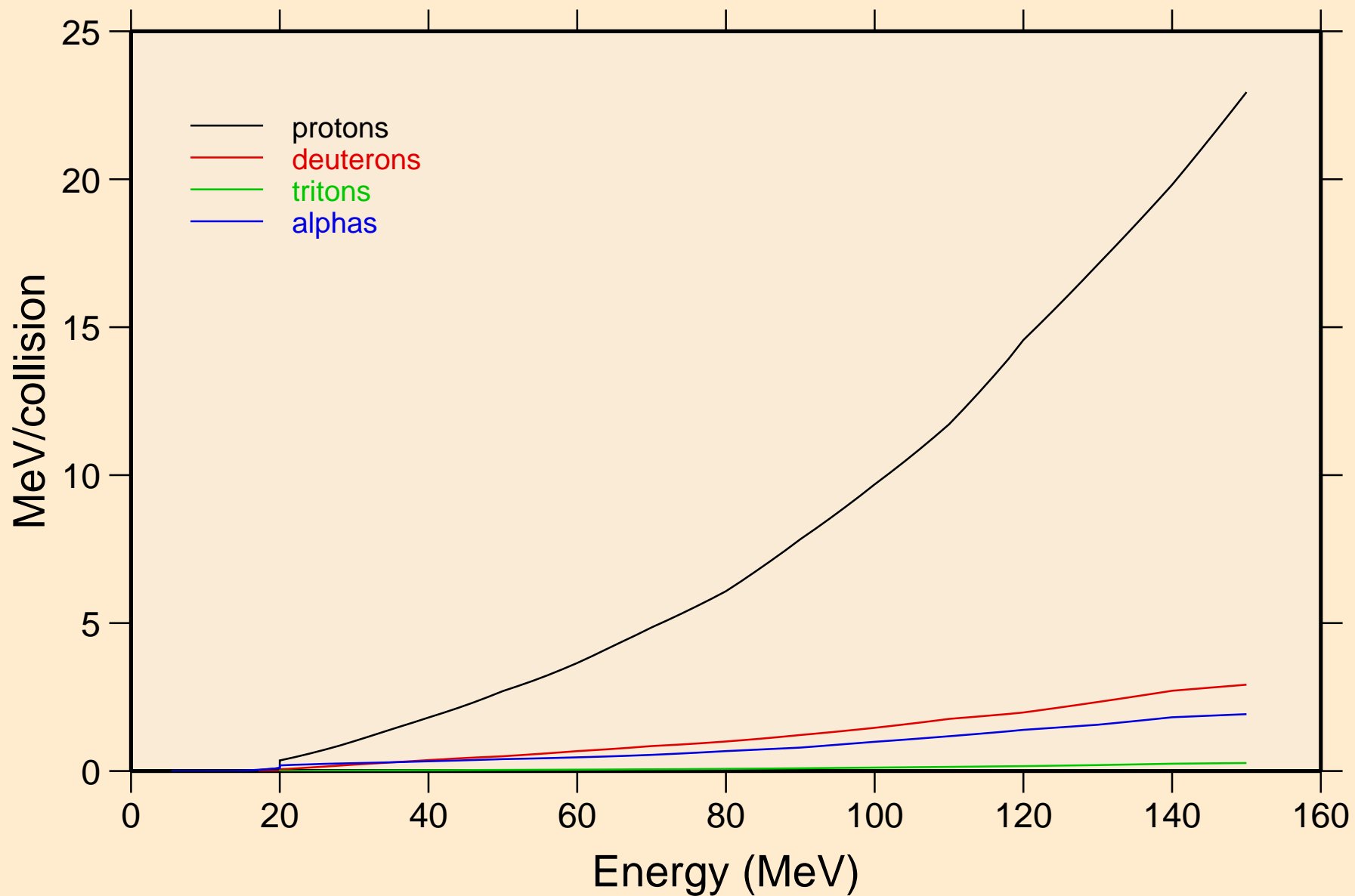thermal capture photon spectrum

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
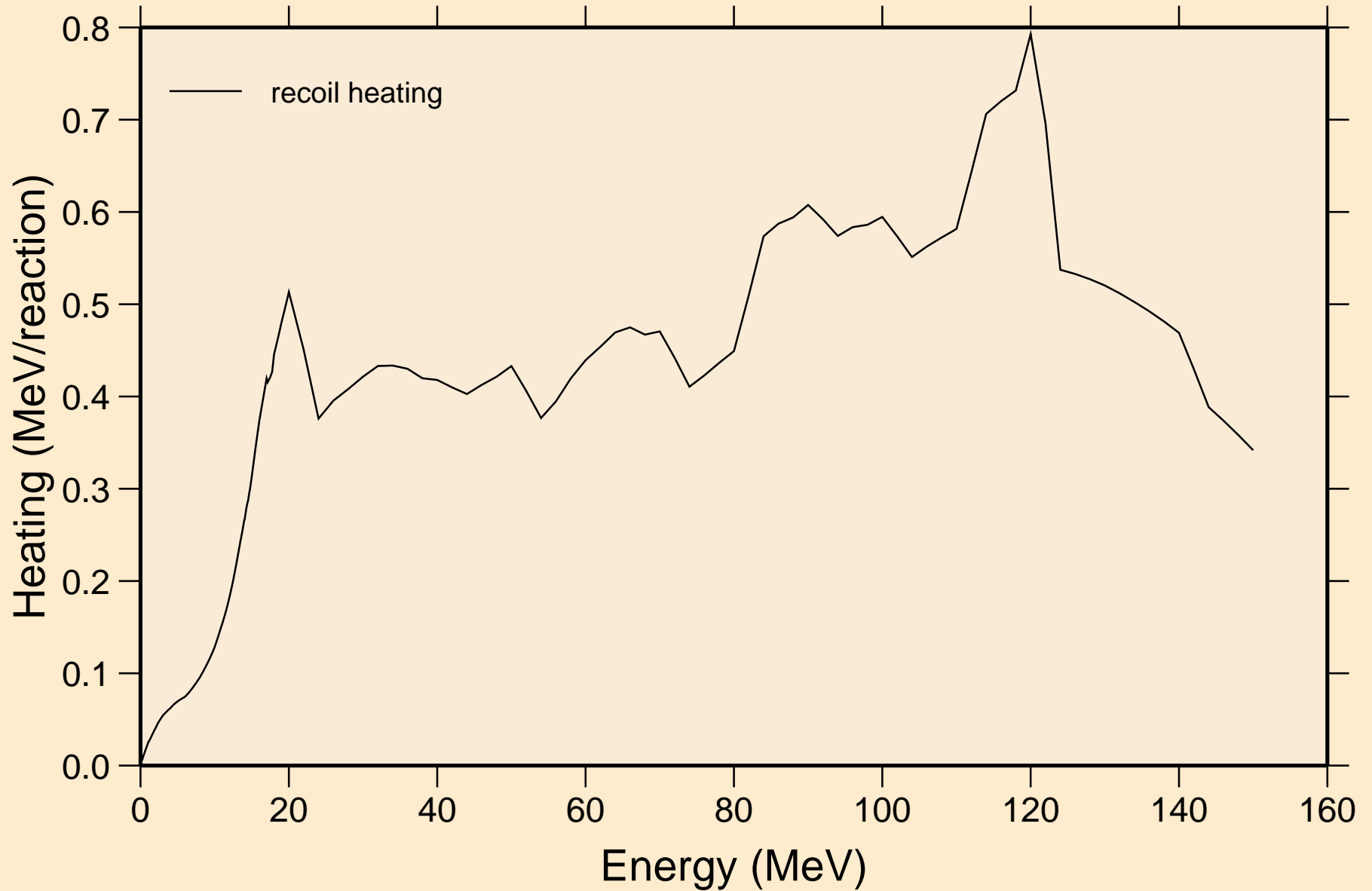14 MeV photon spectrum

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
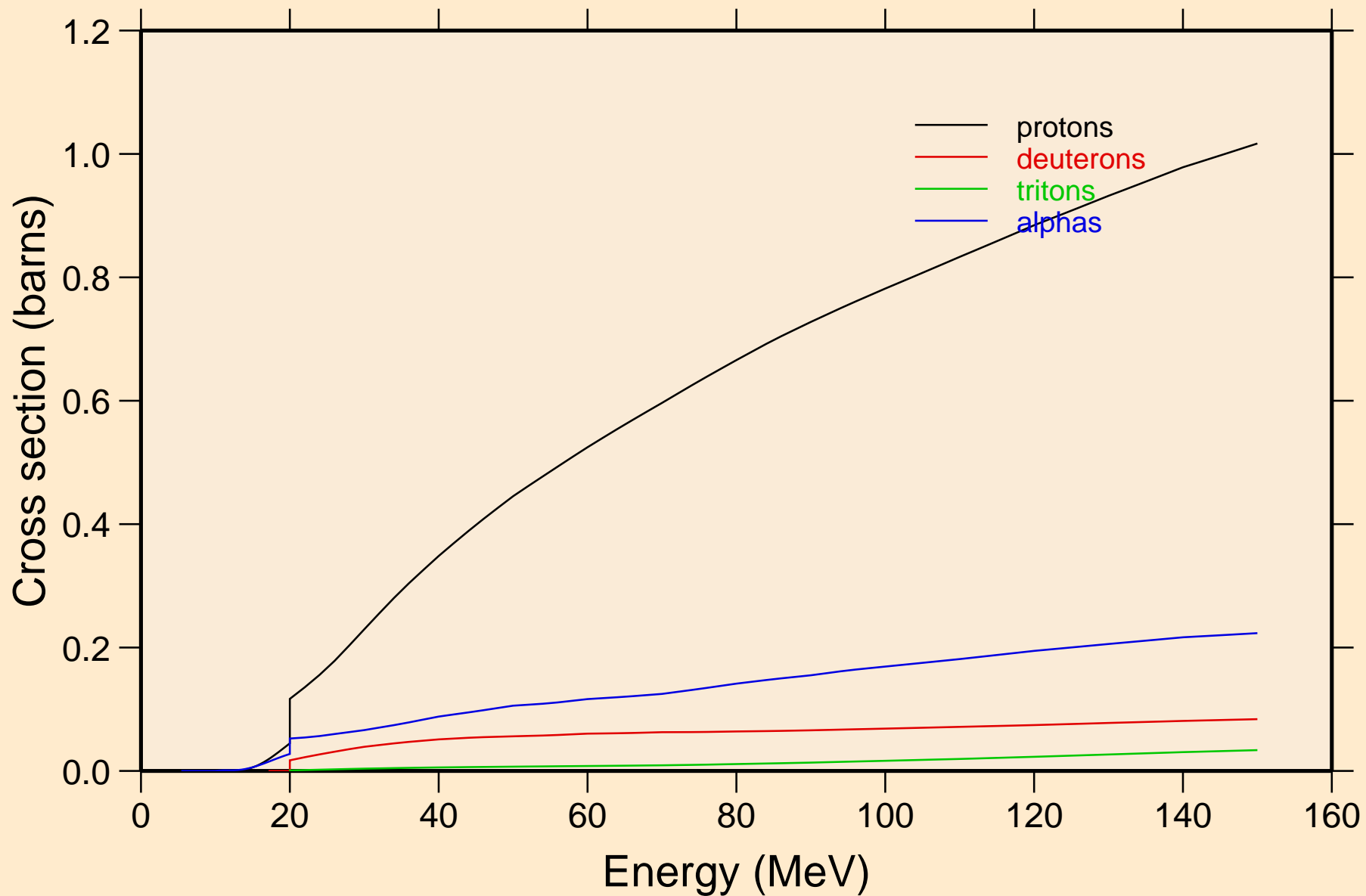Particle heating contributions

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
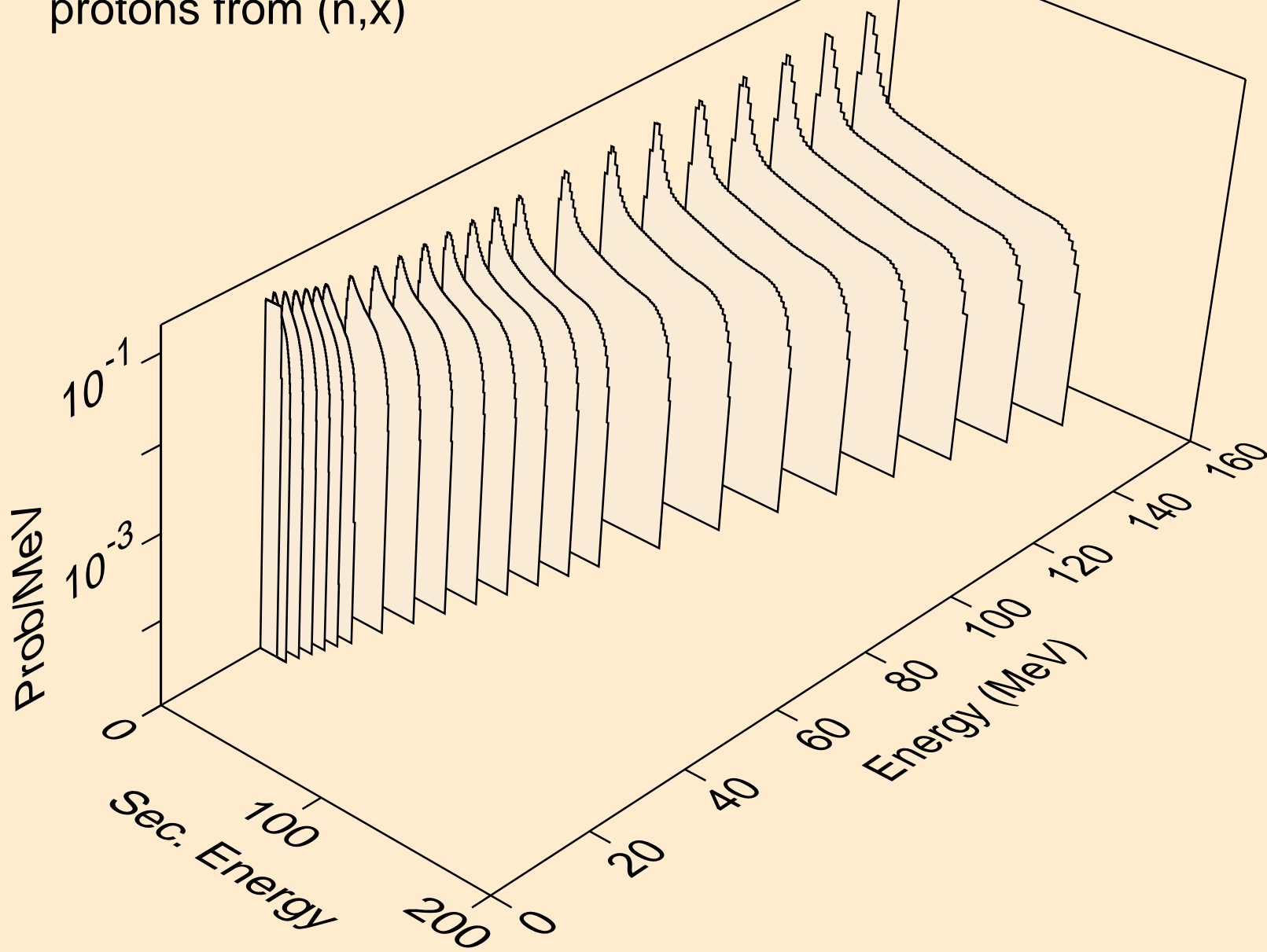Recoil Heating

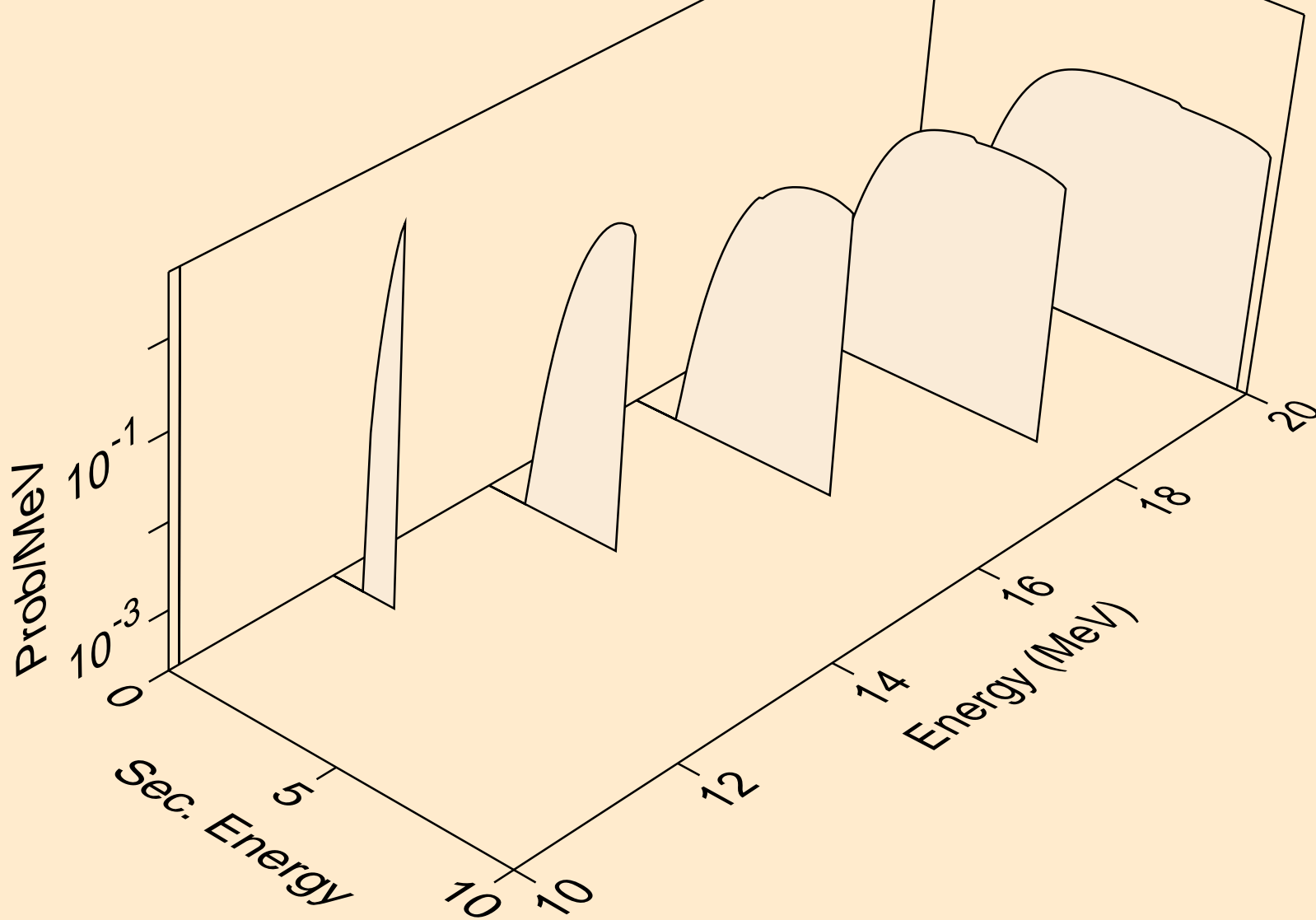30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
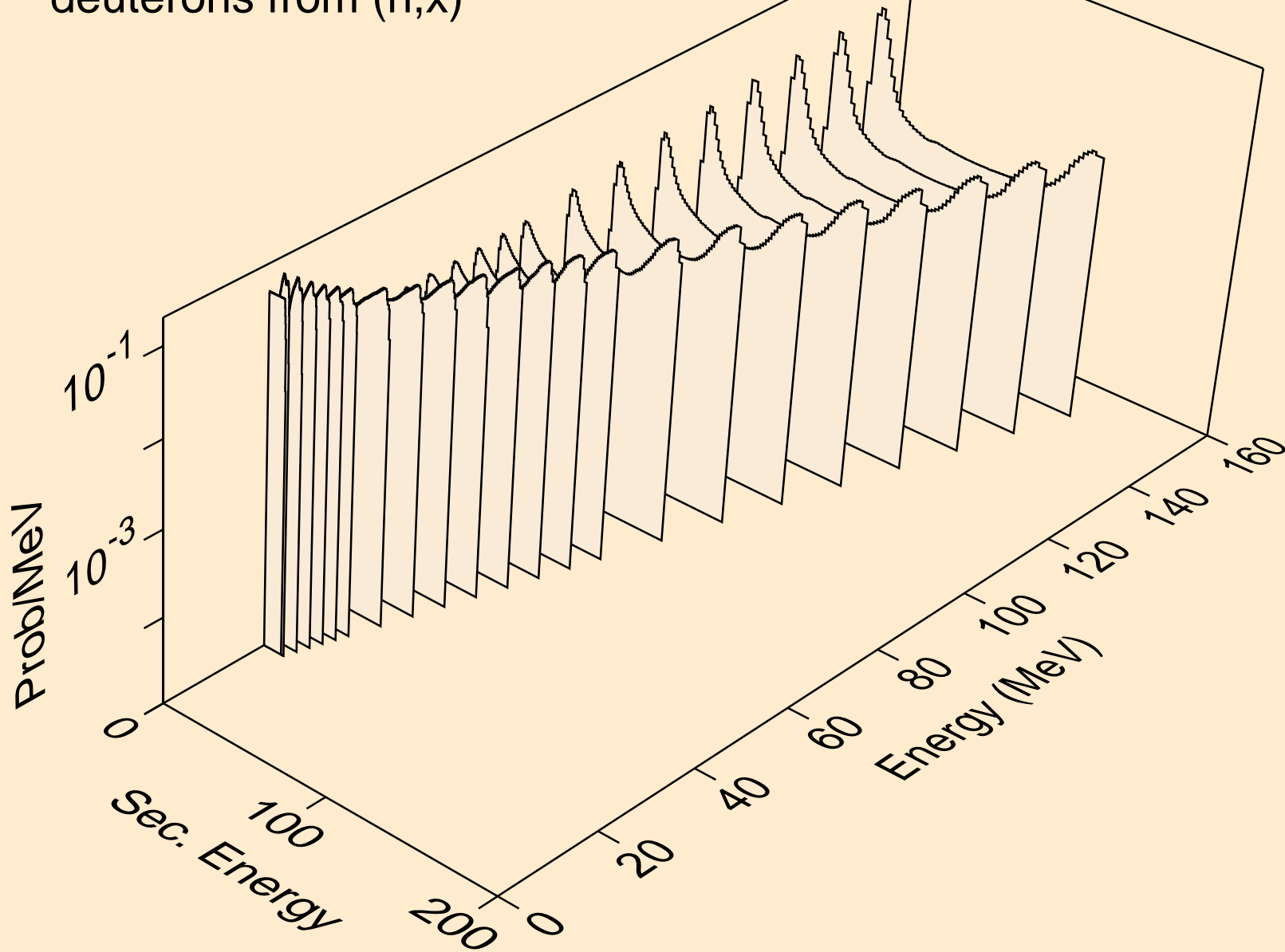Particle production cross sections

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
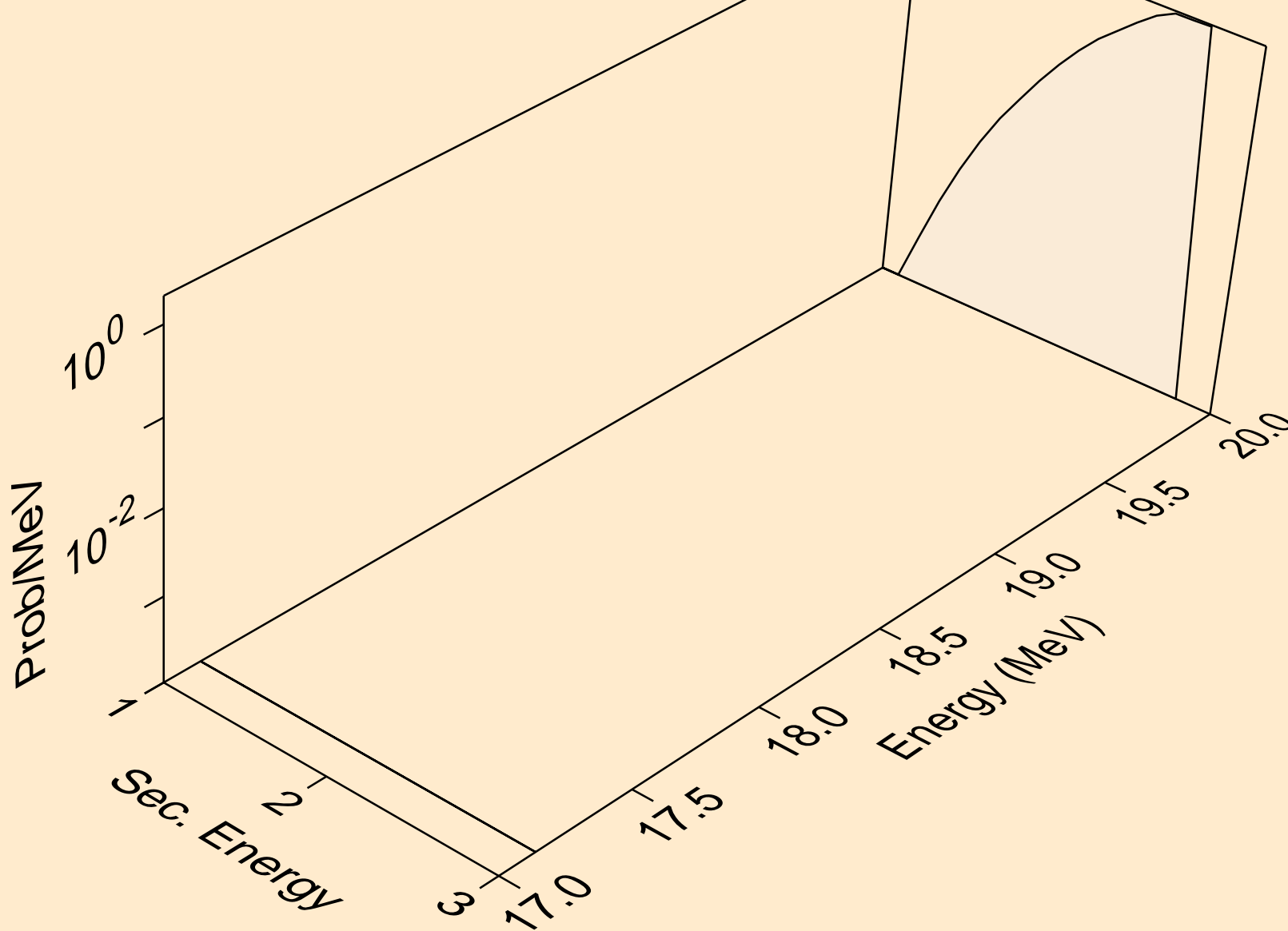protons from (n,x)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
protons from (n,n*)p

Prob/MeV

10^{-1}

10^{-3}

0

Sec. Energy
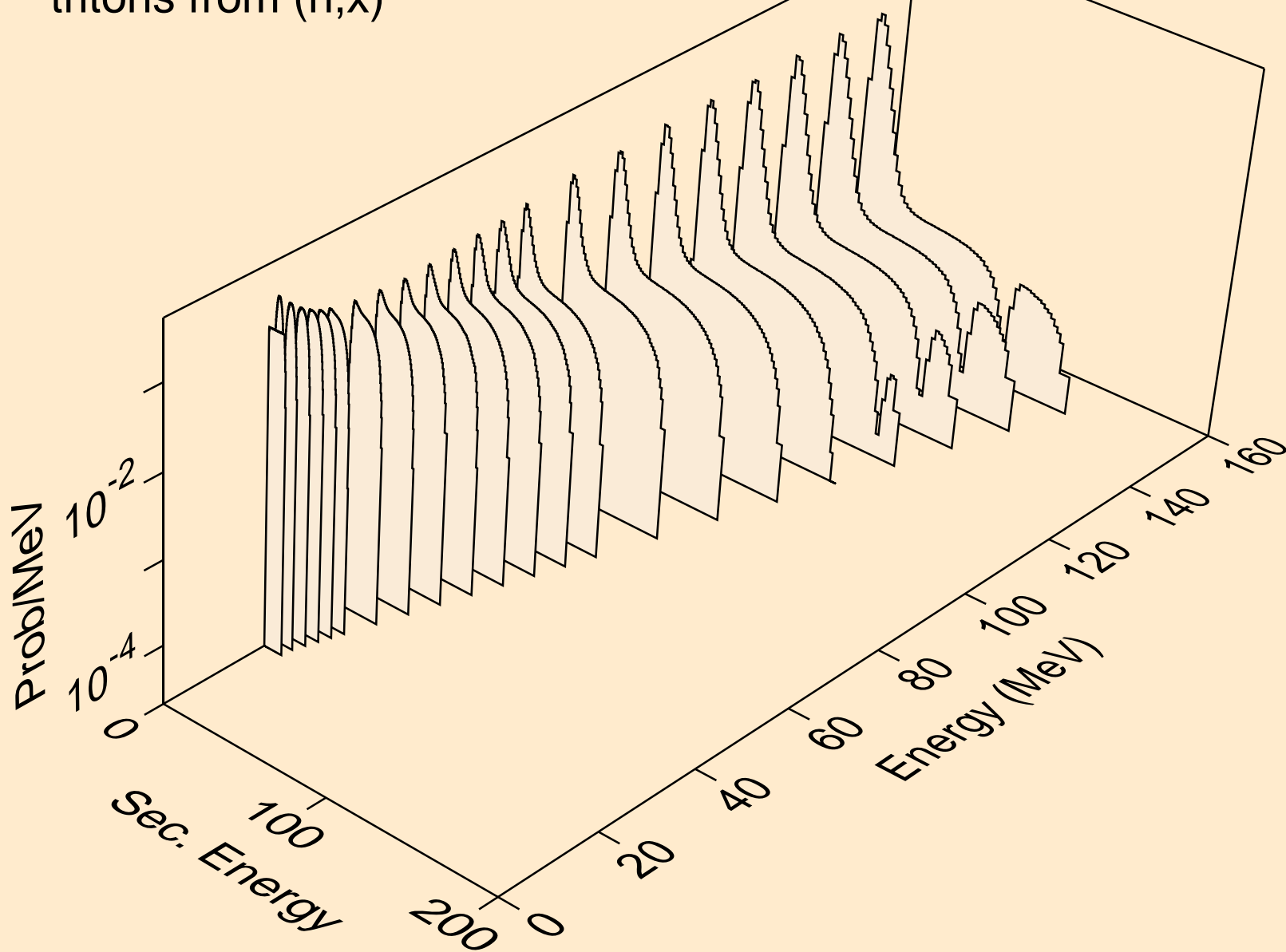
5

10

Energy (MeV)

10

12

14

16

18

20

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
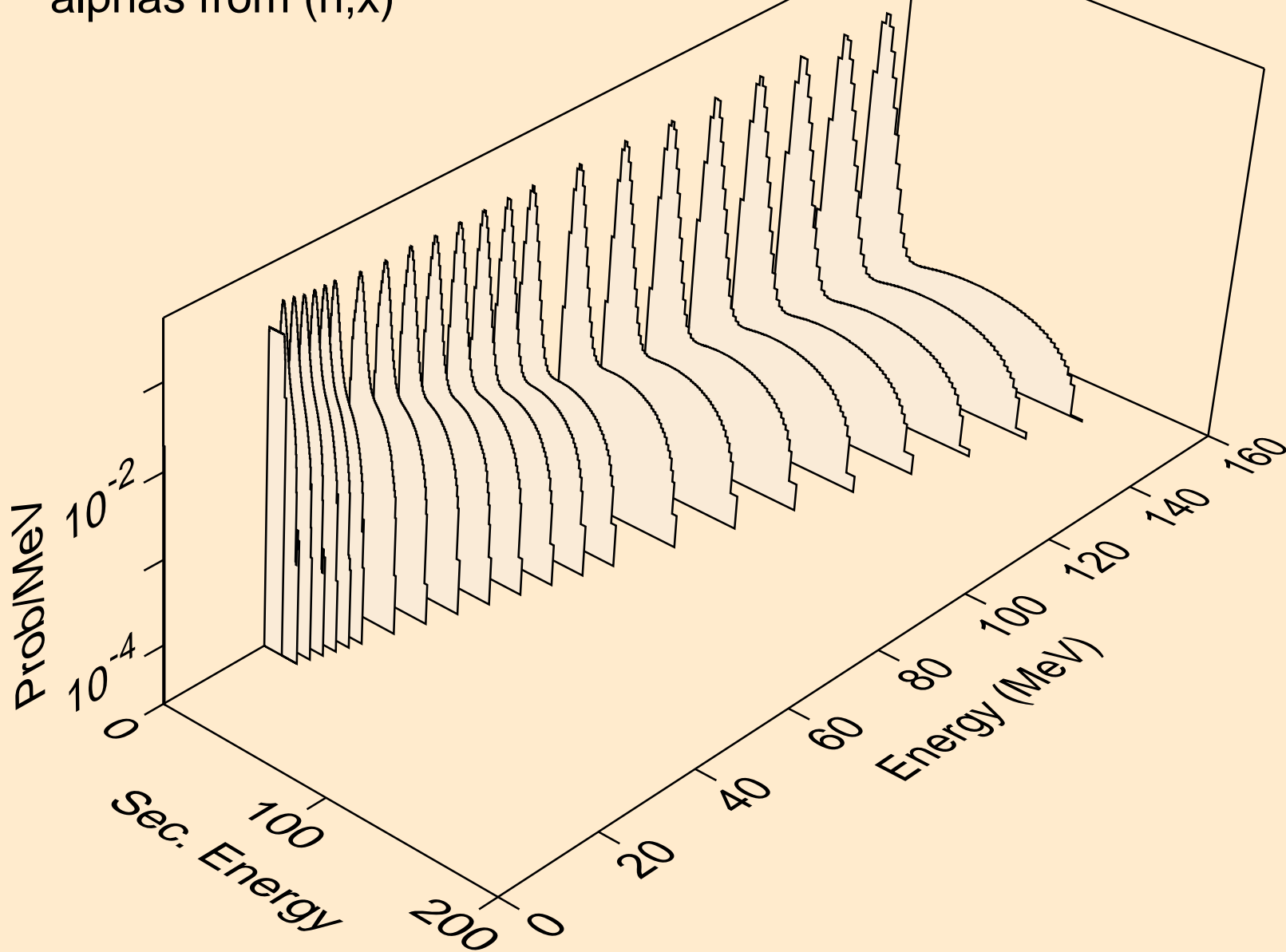deuterons from (n,x)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
deuterons from (n,n*)d

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
tritons from (n,x)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
alphas from (n,x)

30-ZN-68 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50+
alphas from (n,n*)a