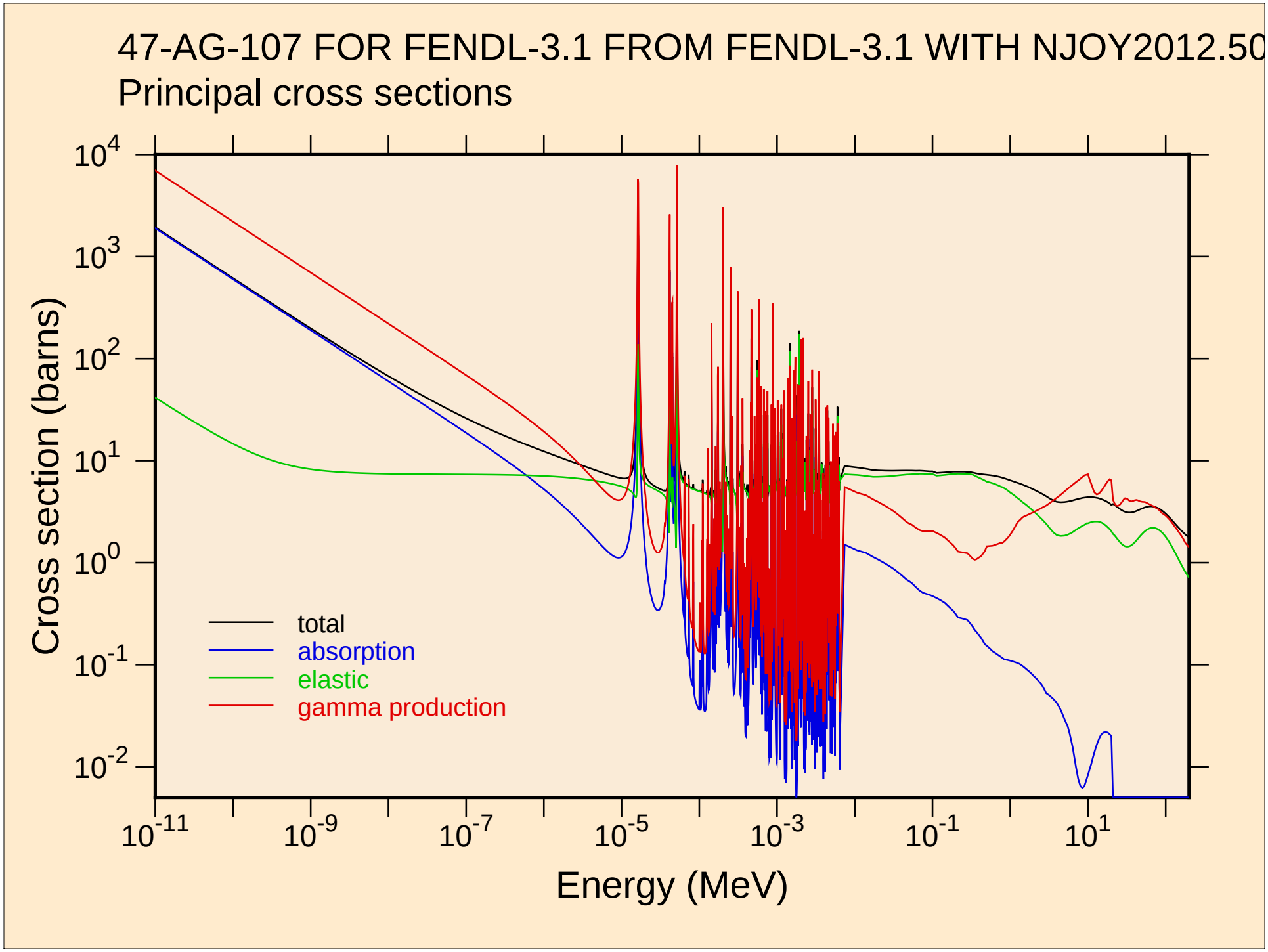
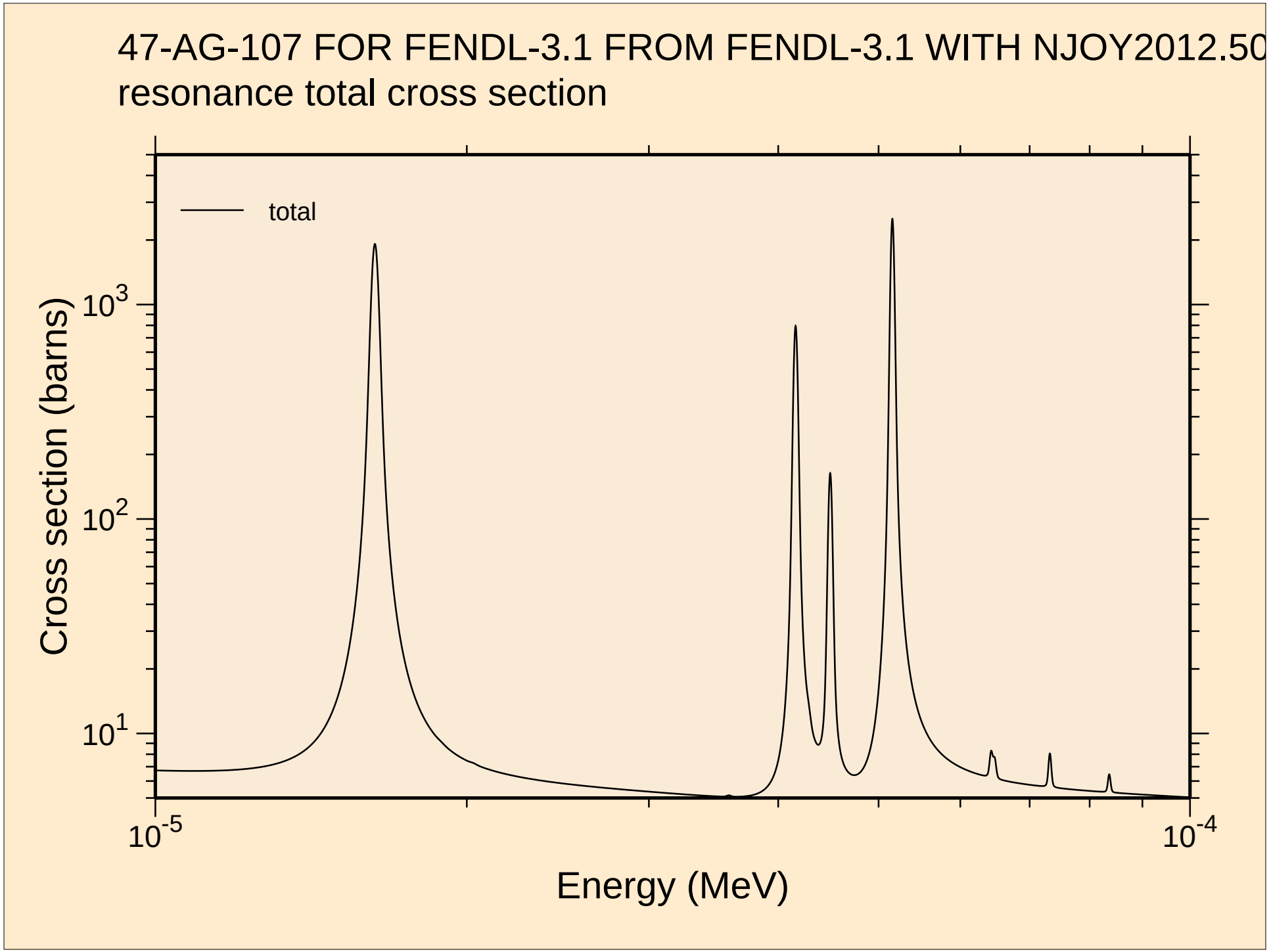
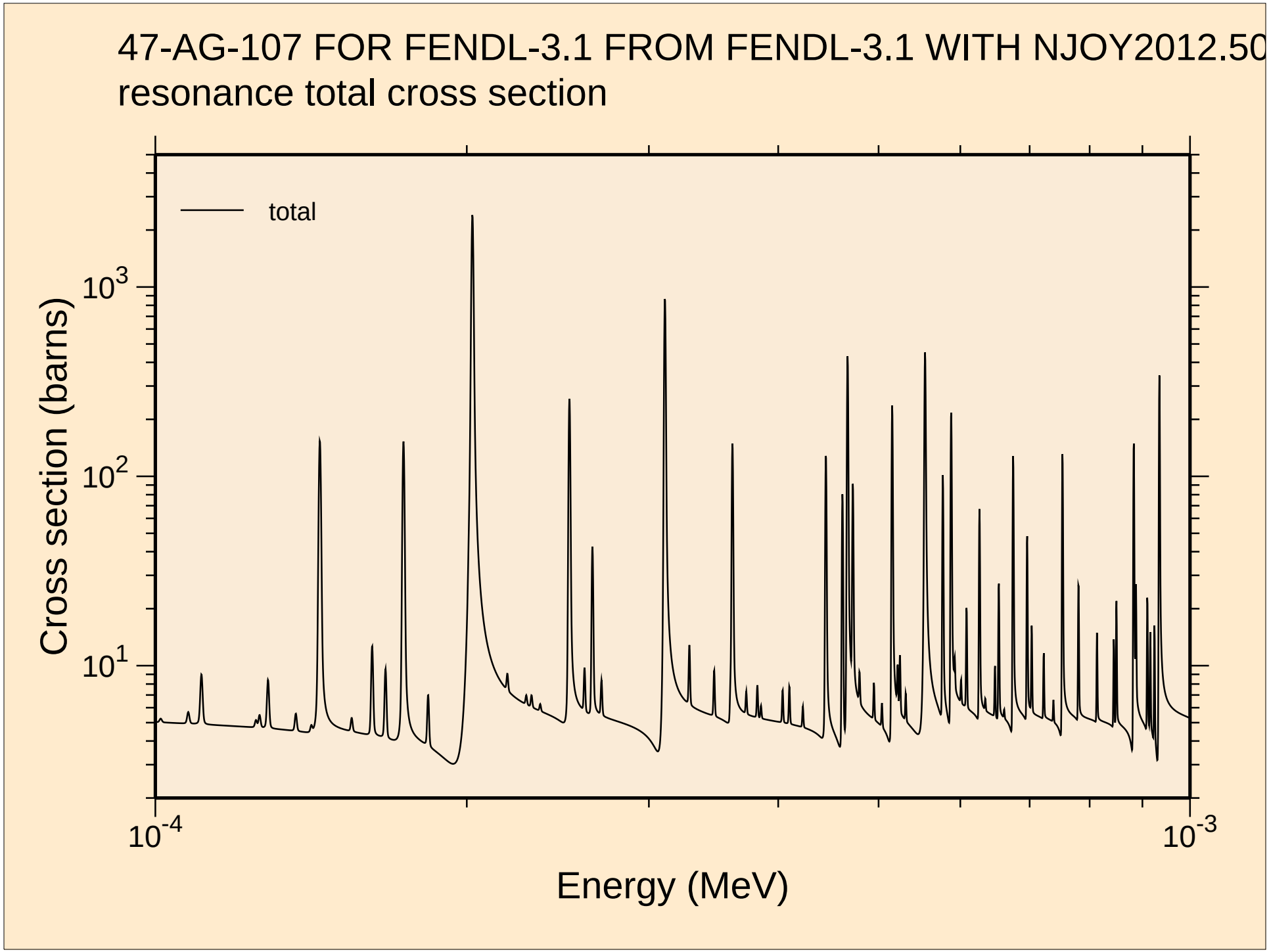
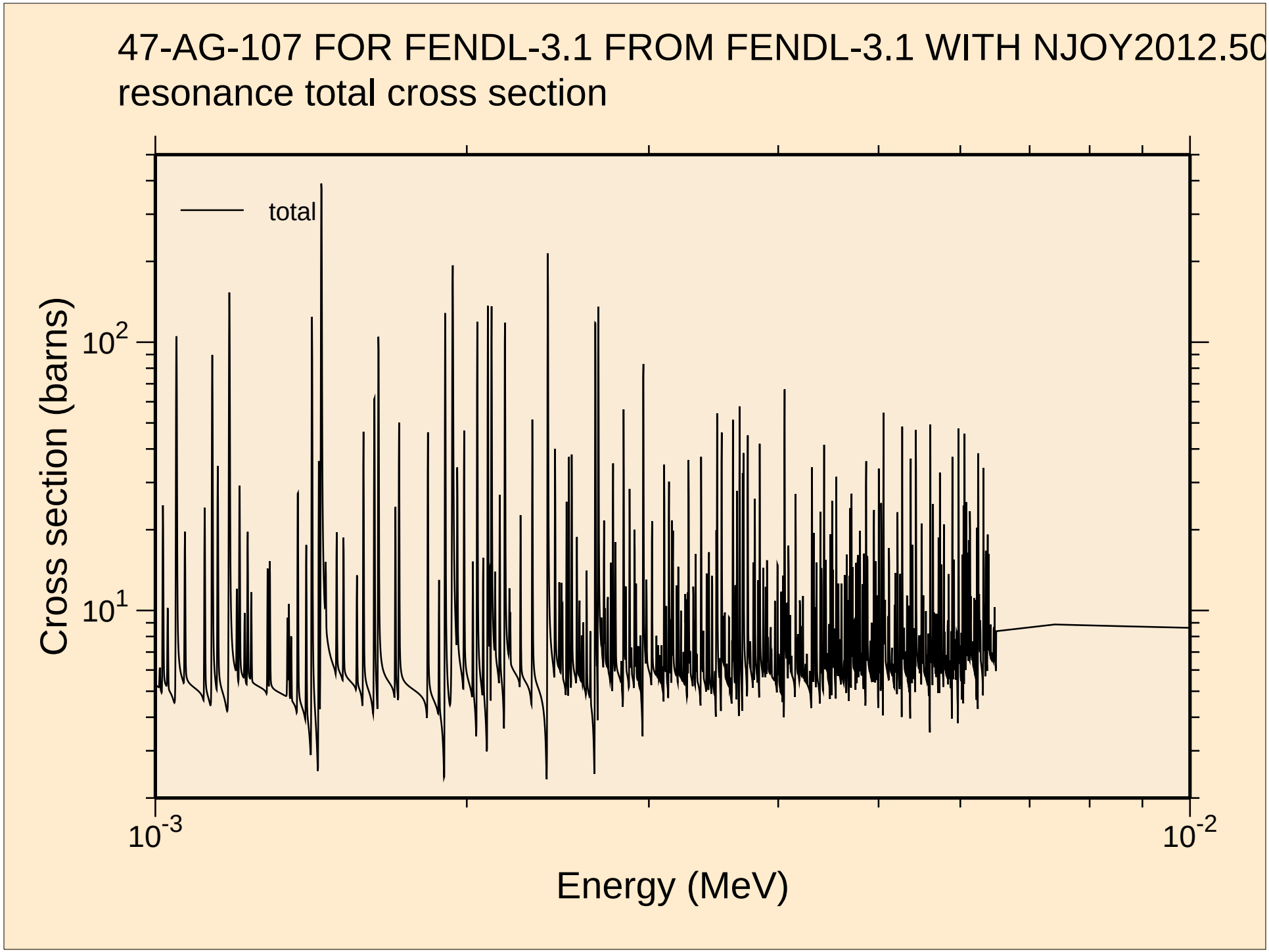
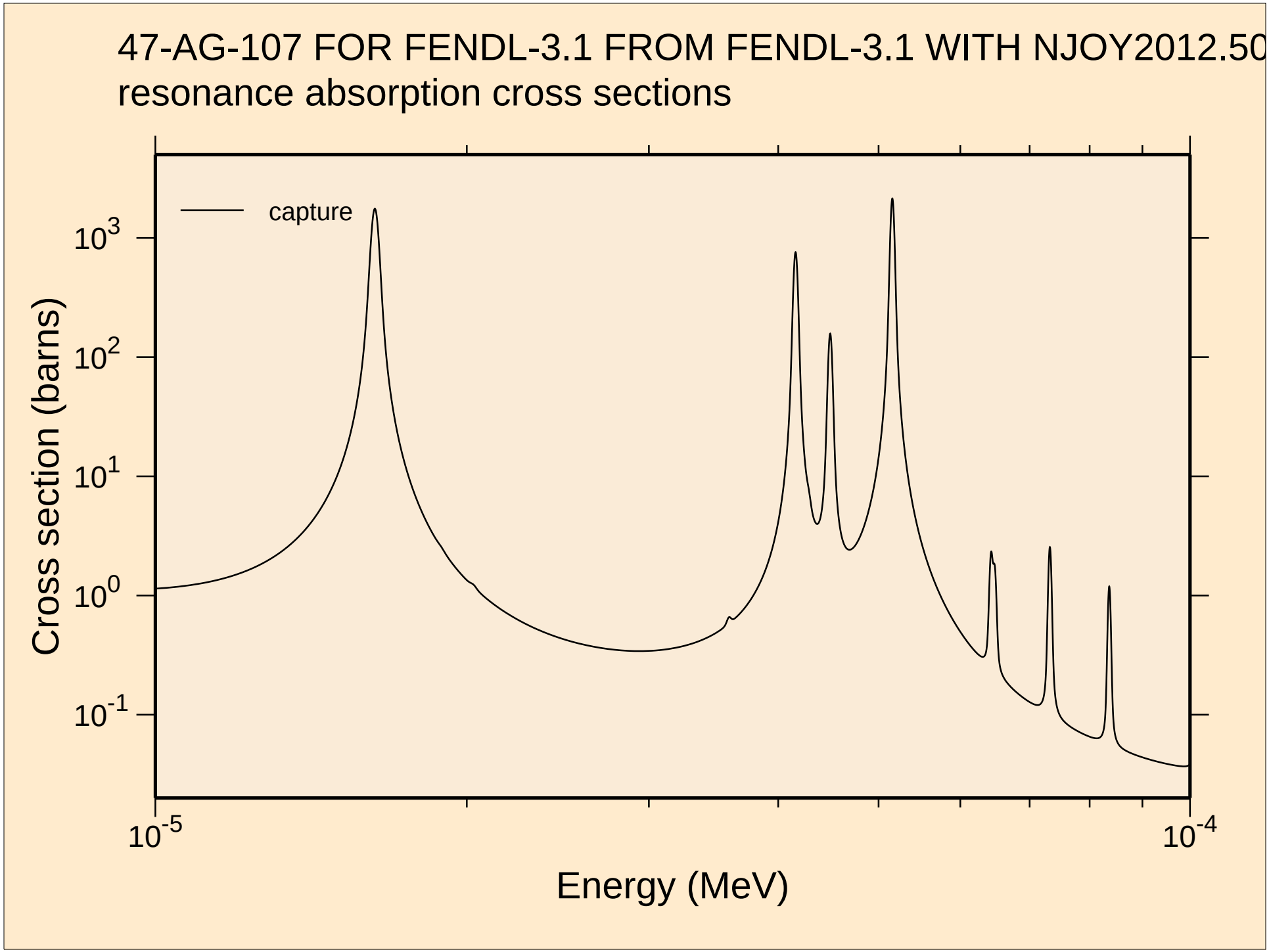
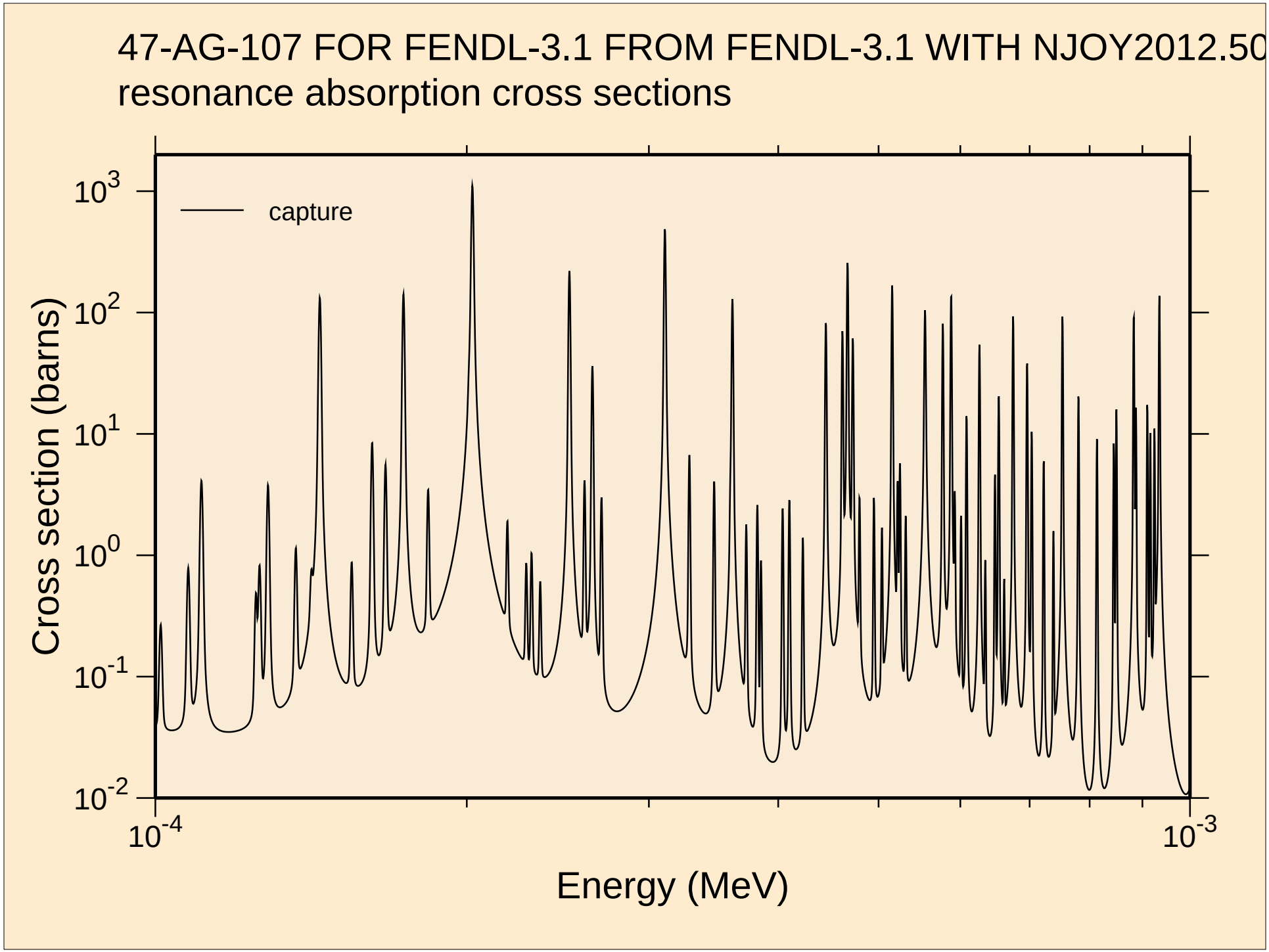

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production

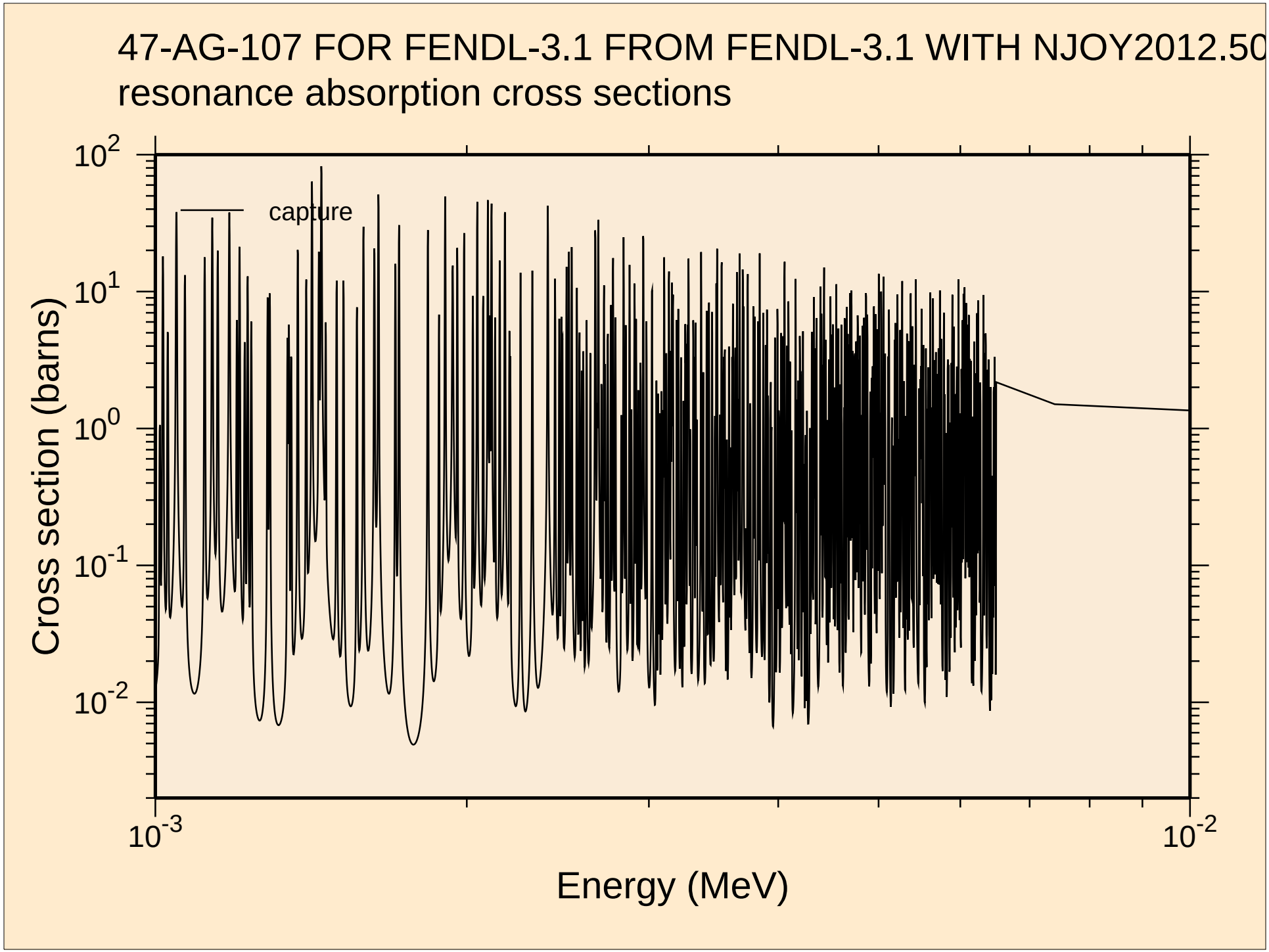

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
resonance total cross section
total
Cross section (barns)
10^3
10^2
10^1
10^-5
10^-4
Energy (MeV)

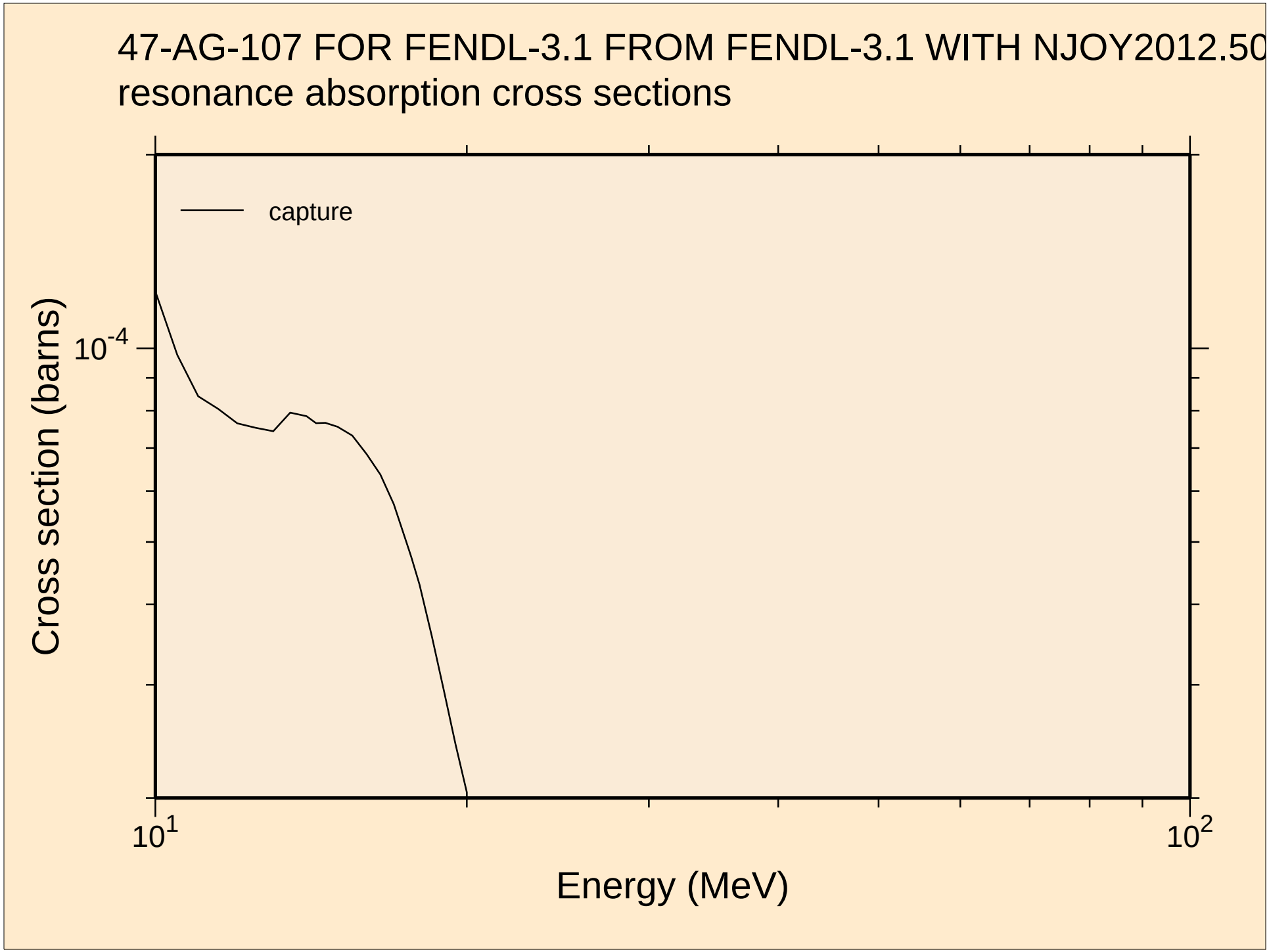

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
resonance total cross section
total
Cross section (barns)
10^3
10^2
10^1
10^-4
10^-3
Energy (MeV)

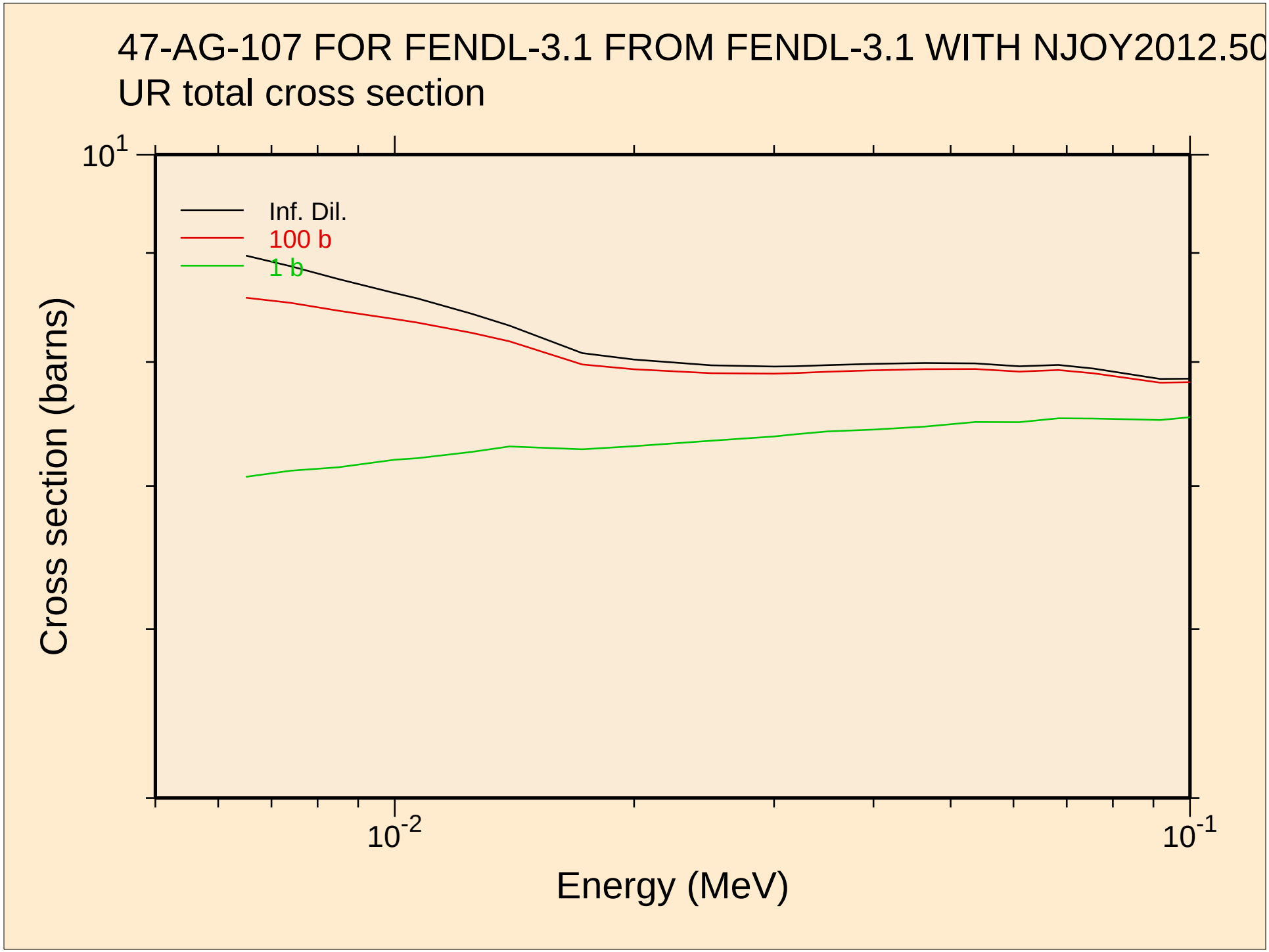

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
resonance total cross section
total
Cross section (barns)
10^2
10^1
10^-3
10^-2
Energy (MeV)

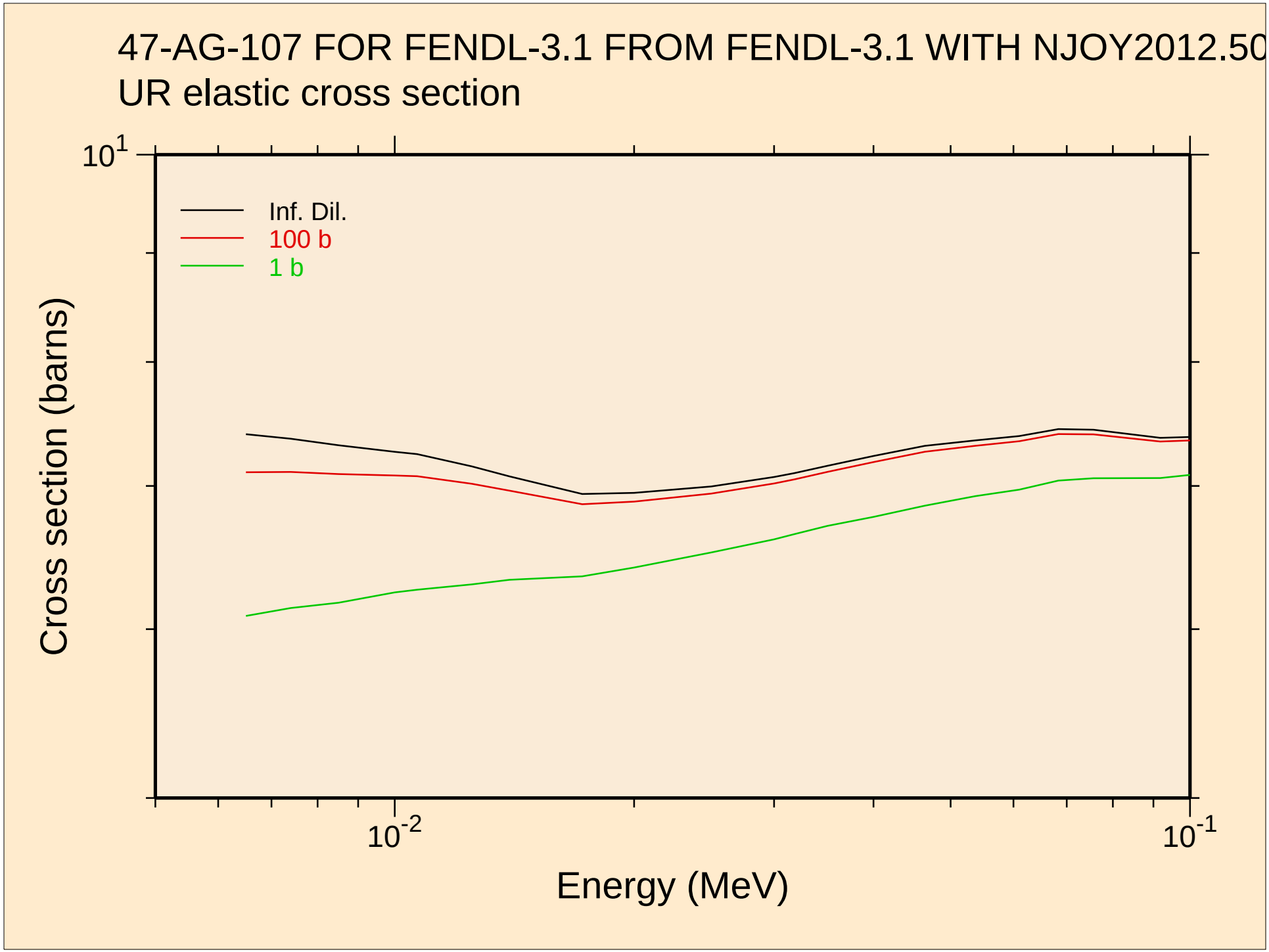

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
resonance absorption cross sections
capture
Cross section (barns)
10^3
10^2
10^1
10^0
10^-1
10^-5
10^-4
Energy (MeV)

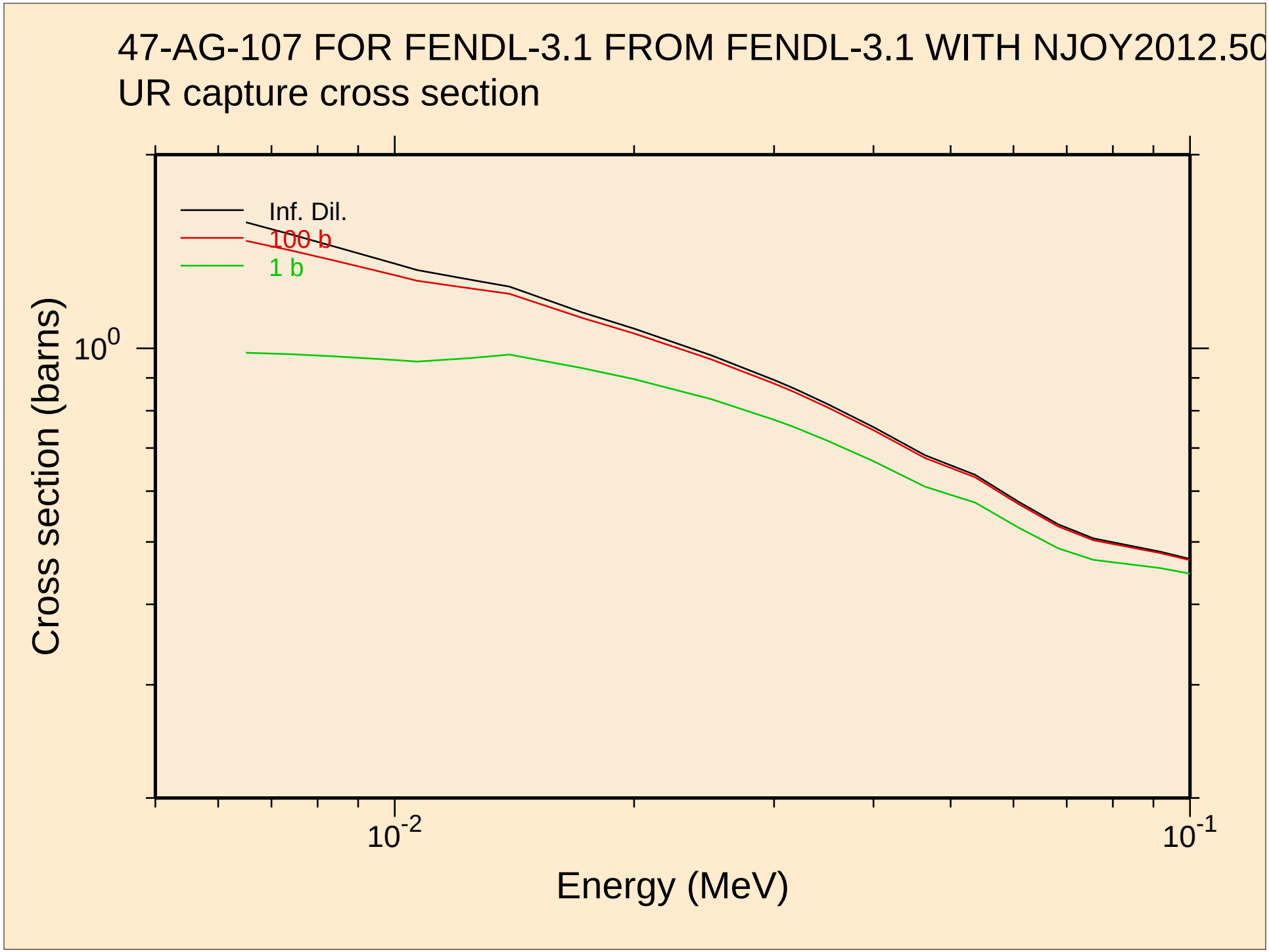

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
resonance absorption cross sections
capture
Cross section (barns)
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-4
10^-3
Energy (MeV)

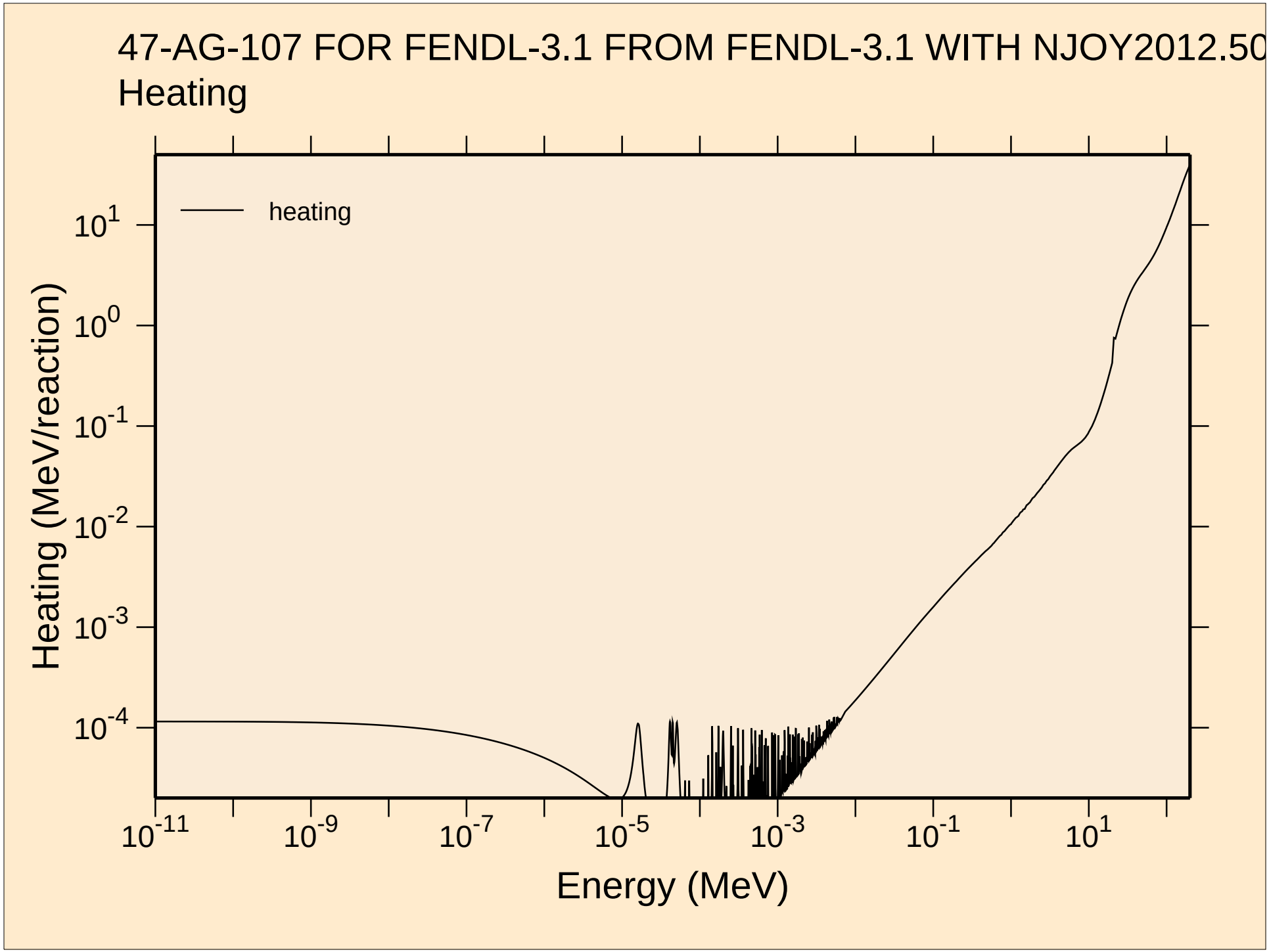

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
resonance absorption cross sections
capture
Cross section (barns)
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-2
Energy (MeV)

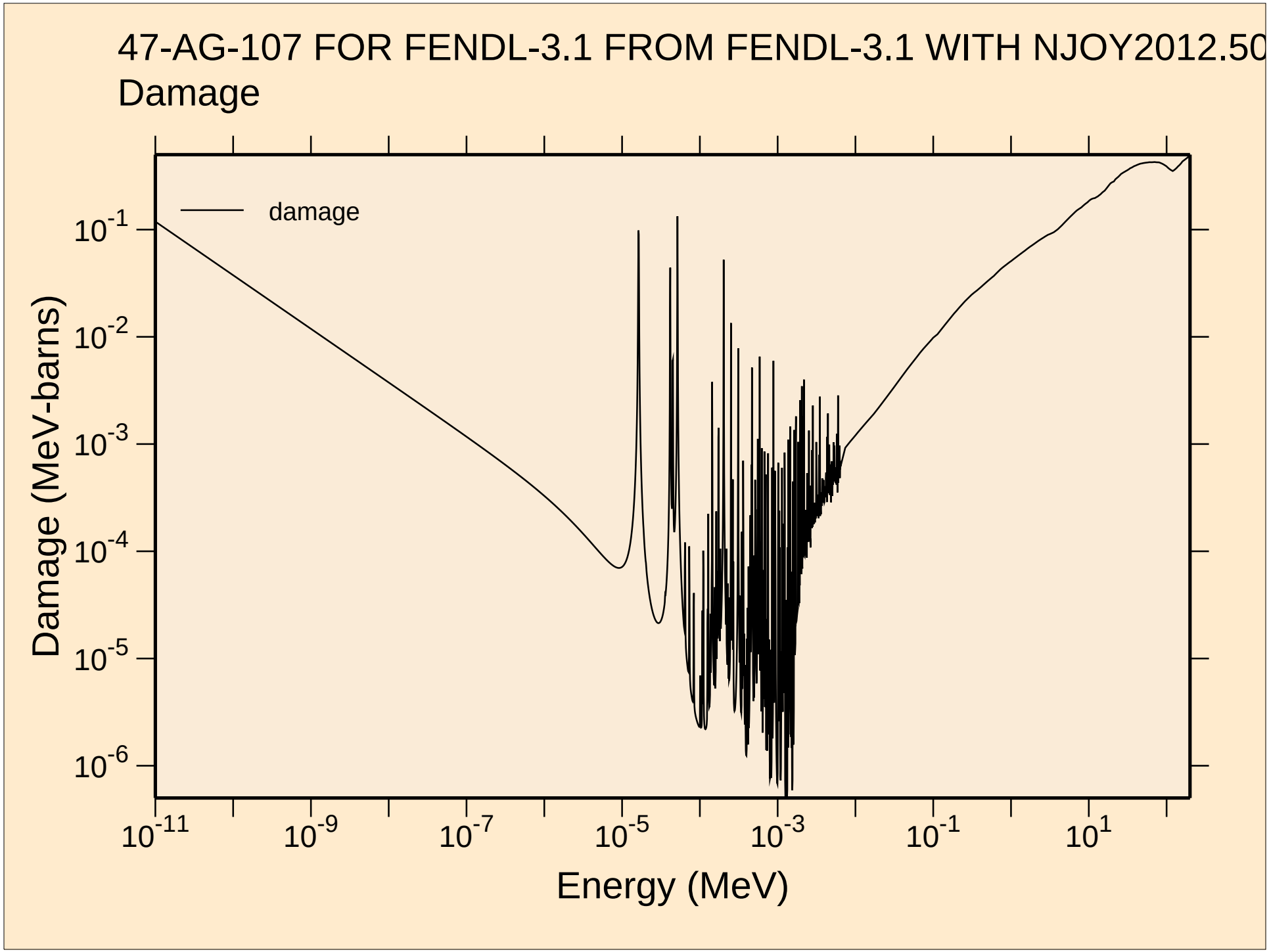

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
resonance absorption cross sections
capture
Cross section (barns)
10-4
101
102
Energy (MeV)

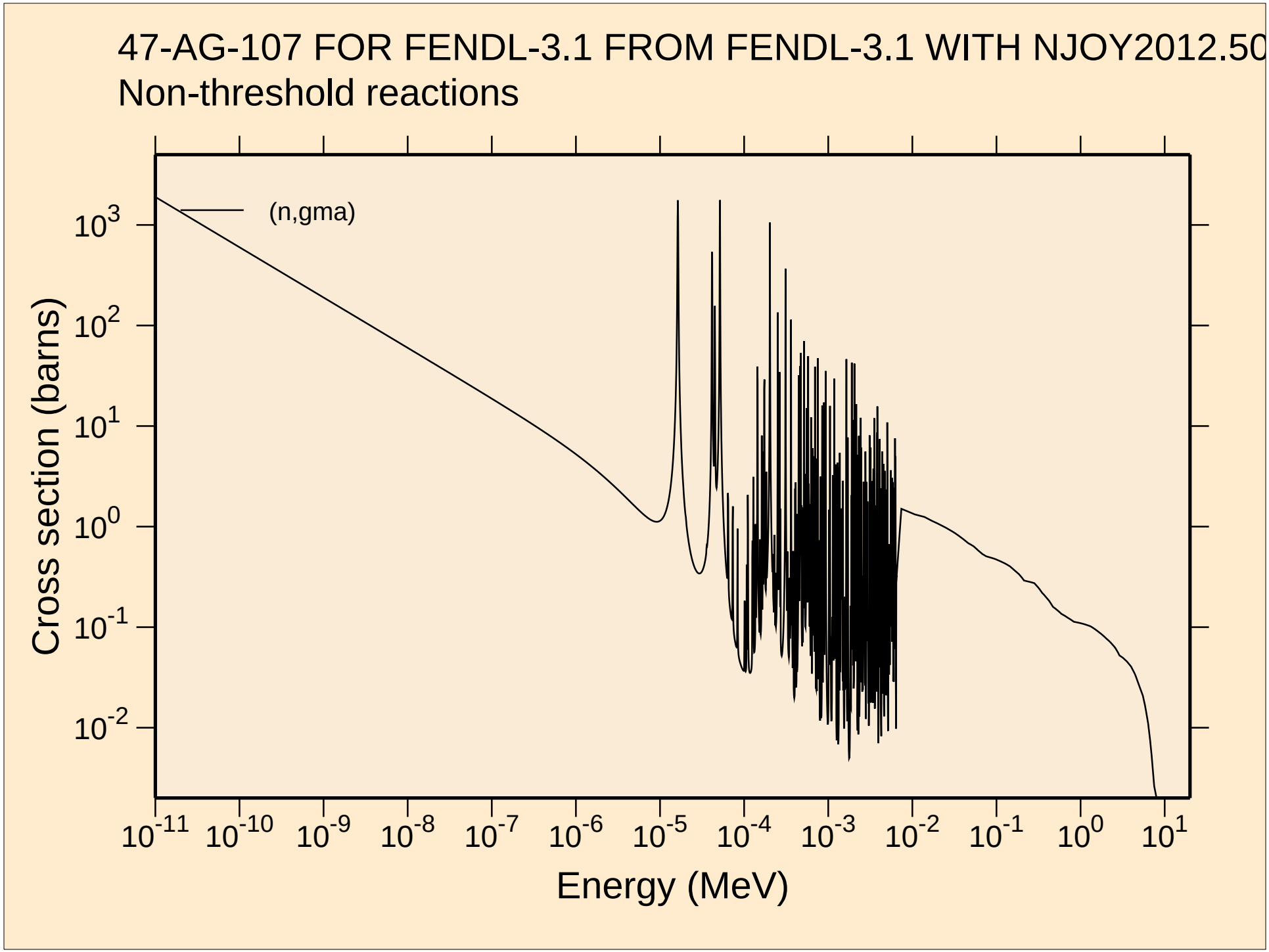

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
UR total cross section
10^1
Inf. Dil.
100 b
1 b
Cross section (barns)
10^{-2}
10^{-1}
Energy (MeV)

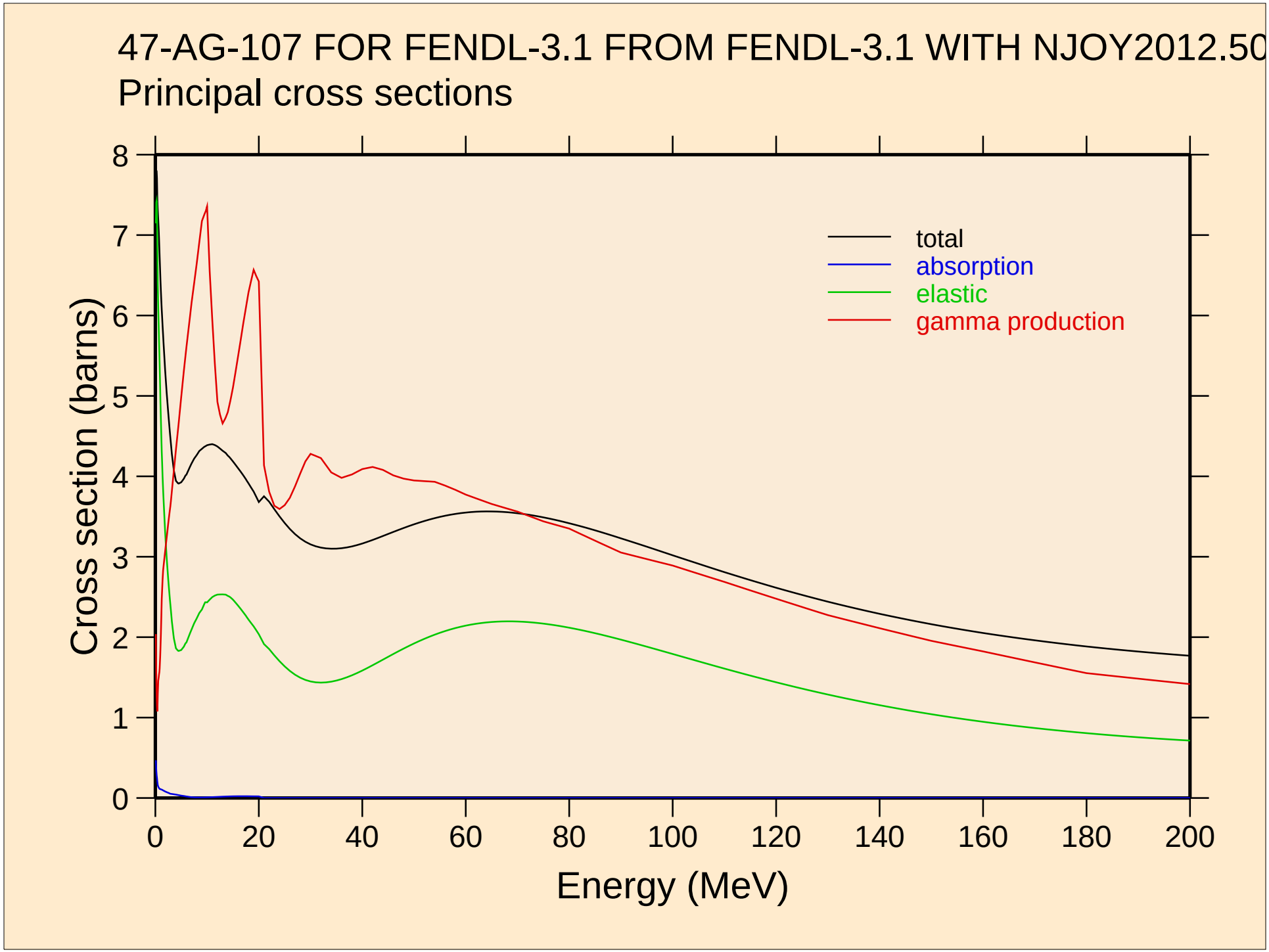

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
UR elastic cross section
10^1
Inf. Dil.
100 b
1 b
Cross section (barns)
10^{-2}
10^{-1}
Energy (MeV)

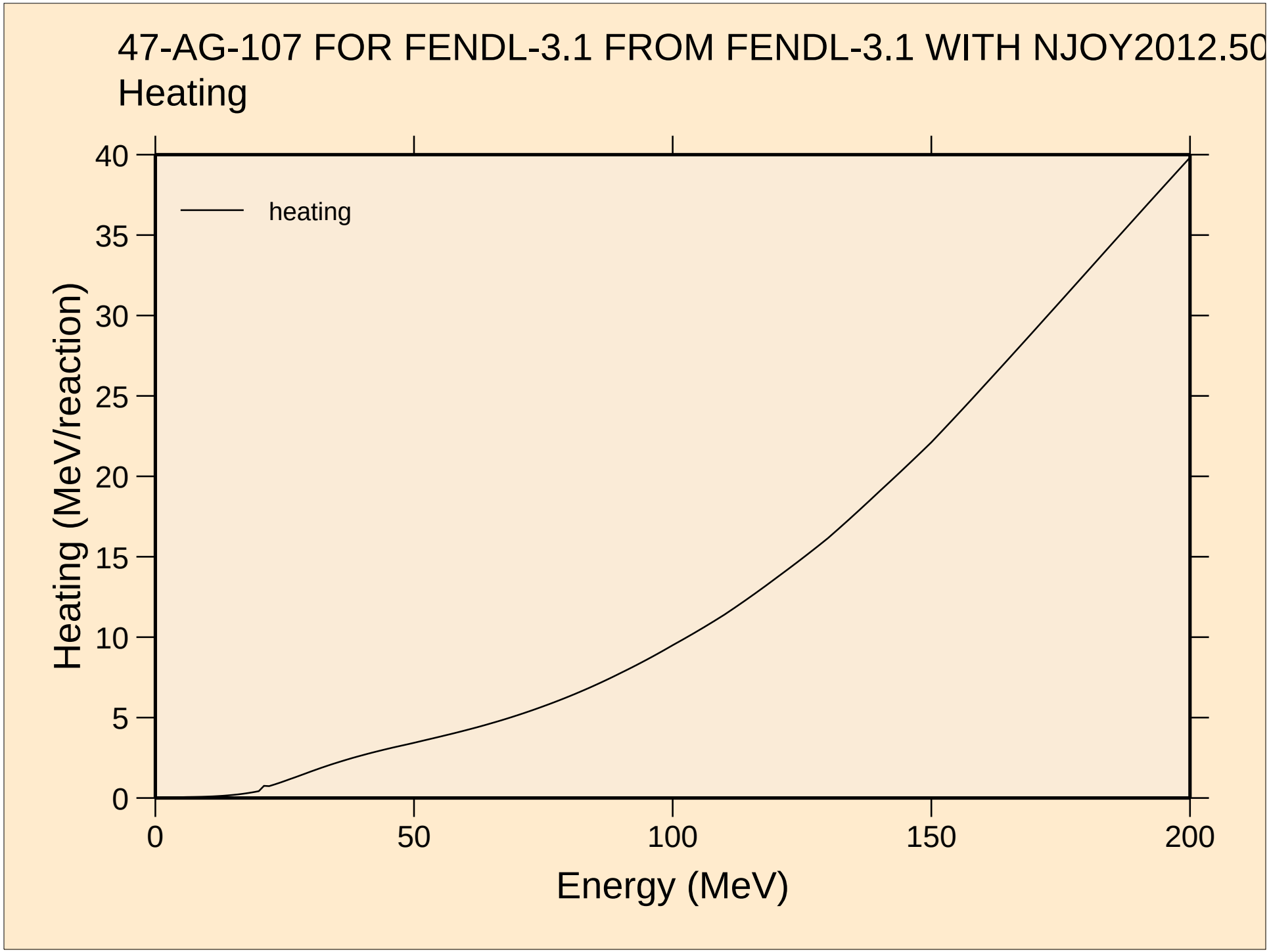

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
UR capture cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
10^0
10^-2
10^-1
Energy (MeV)

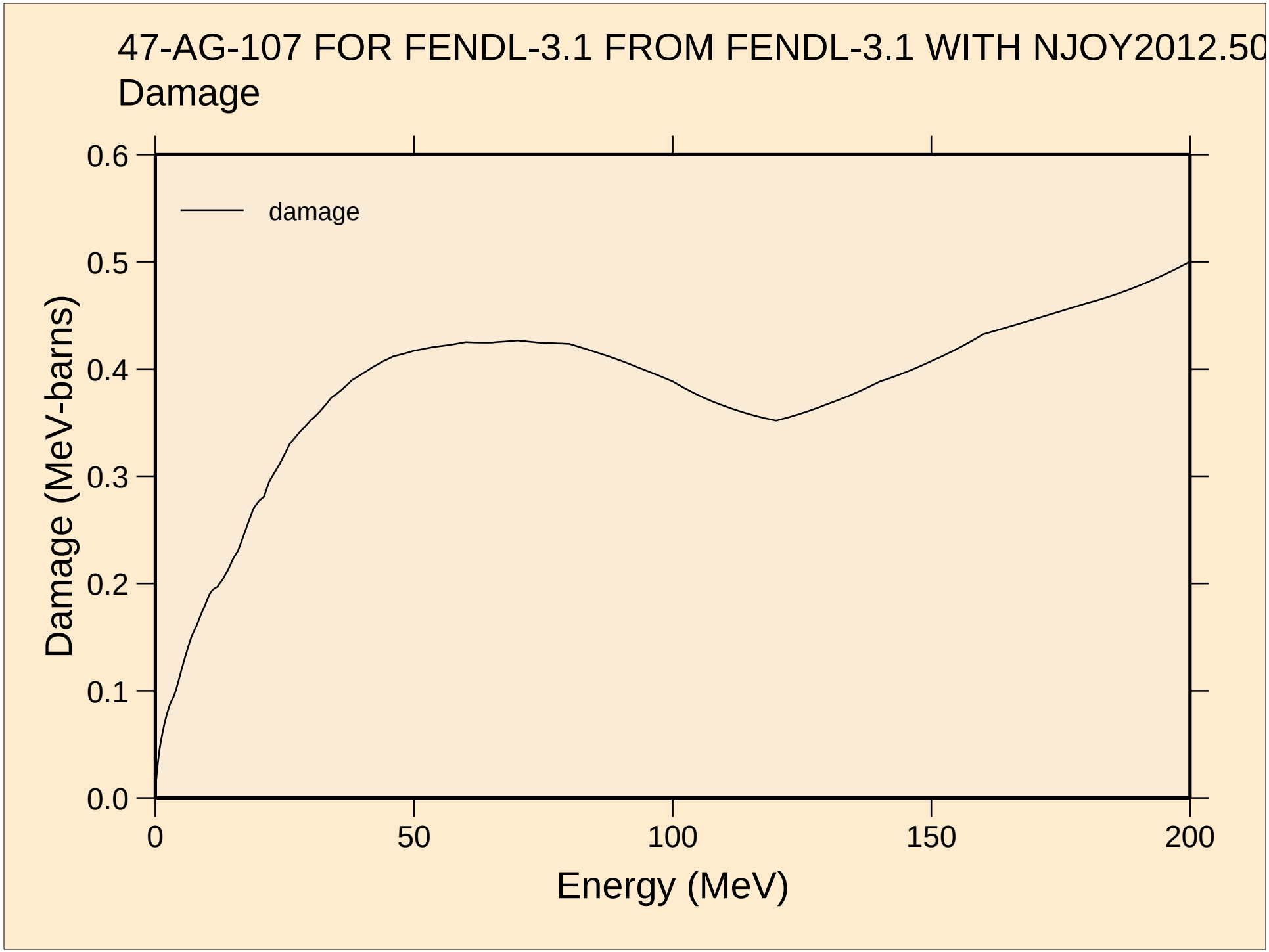

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Heating
heating
Heating (MeV/reaction)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-11
10^-9
10^-7
10^-5
10^-3
10^-1
10^1
Energy (MeV)

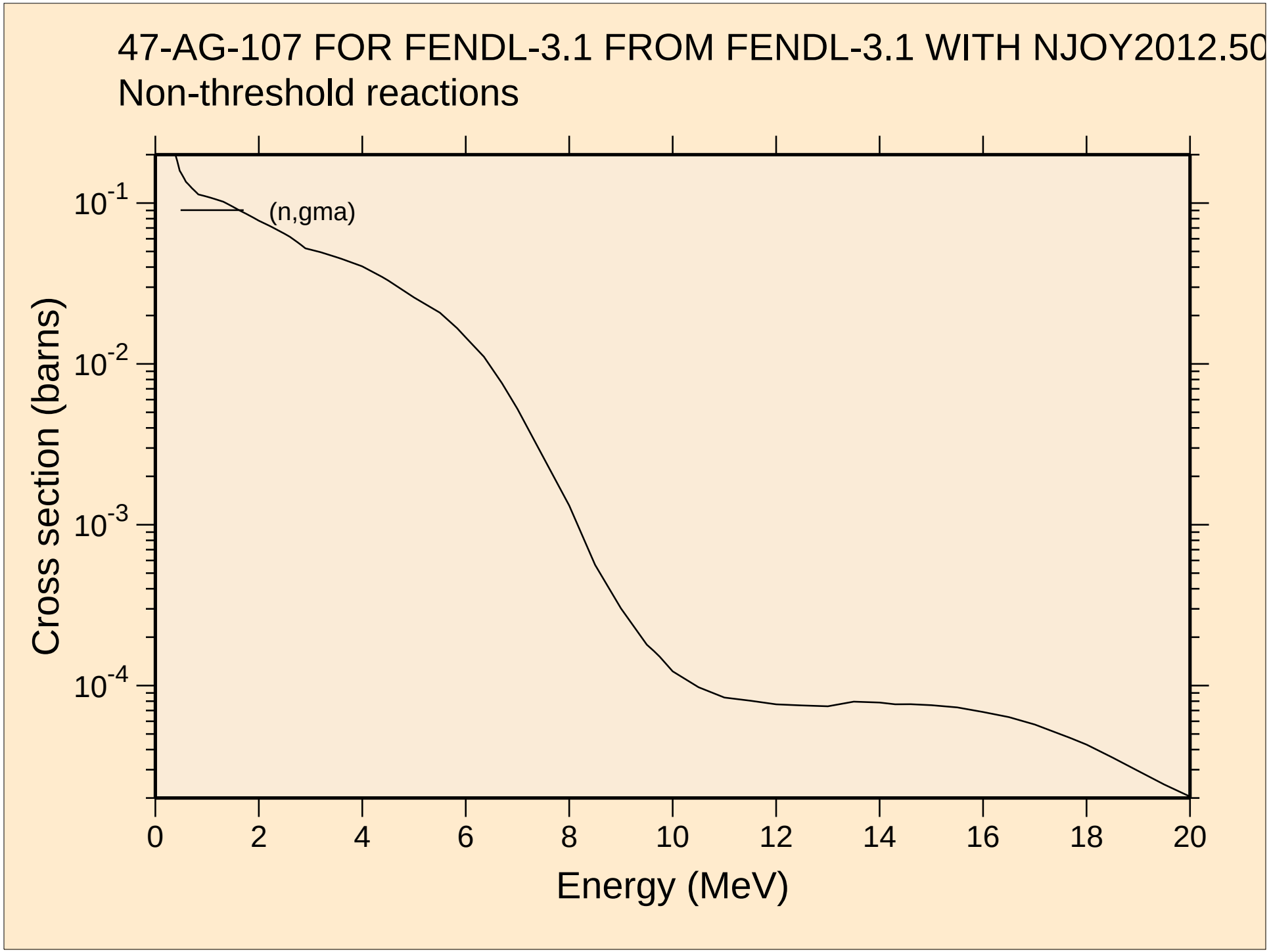

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Damage
damage
Damage (MeV-barns)
10-1
10-2
10-3
10-4
10-5
10-6
10-11
10-9
10-7
10-5
10-3
10-1
101
Energy (MeV)

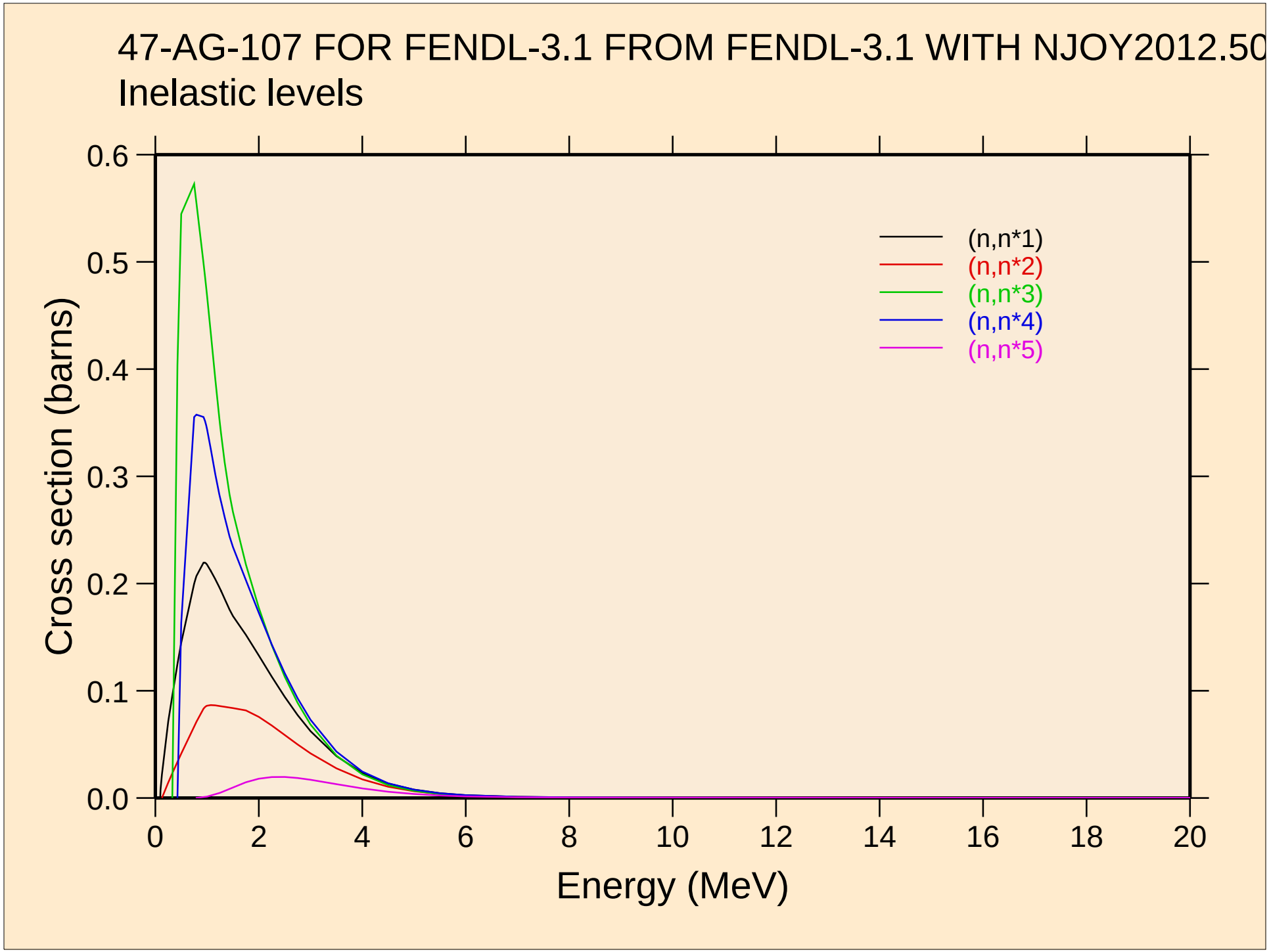

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Non-threshold reactions
(n,gma)
Cross section (barns)
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-11 10^-10 10^-9 10^-8 10^-7 10^-6 10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1
Energy (MeV)

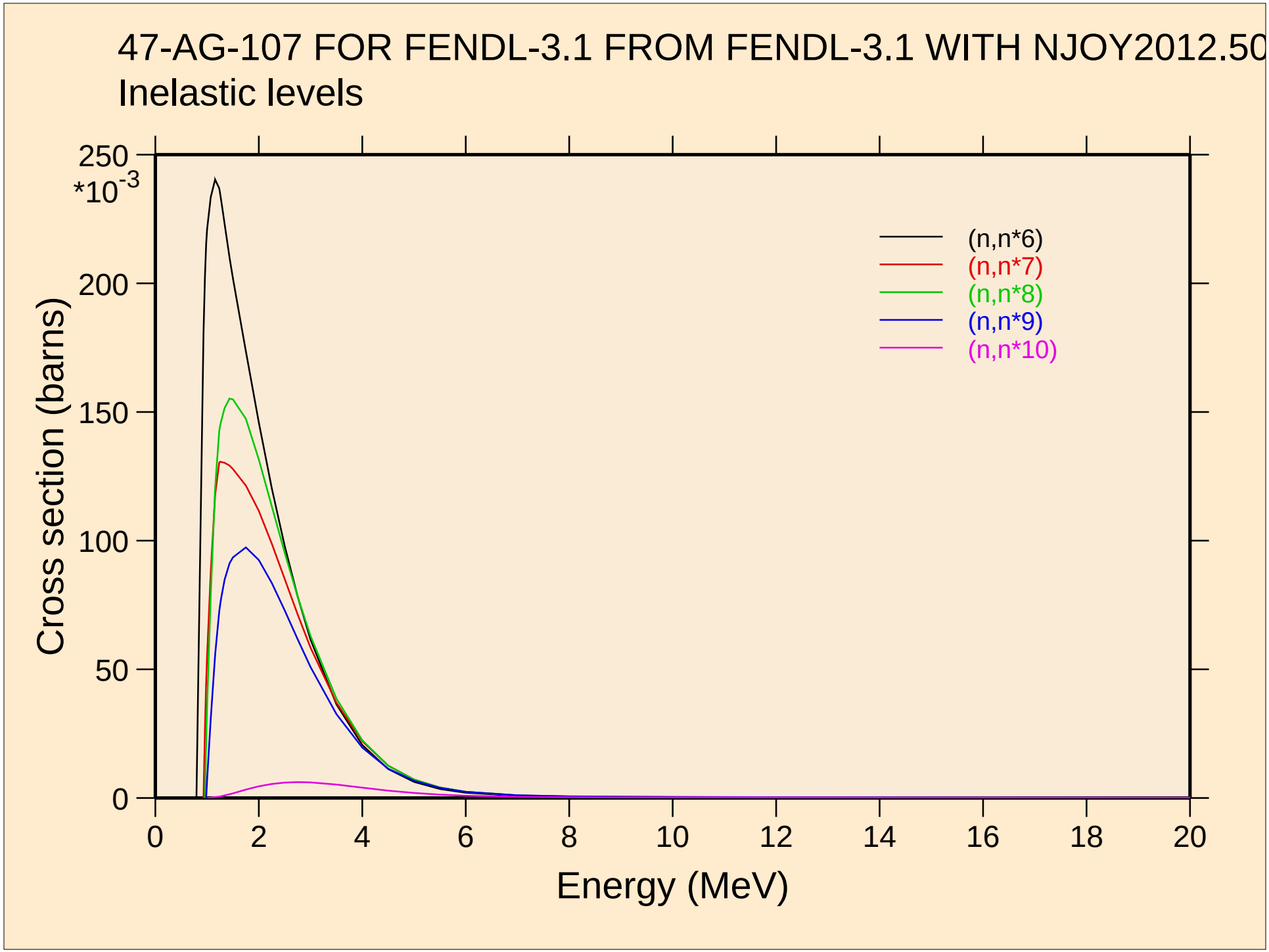

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production
0
1
2
3
4
5
6
7
8
0
20
40
60
80
100
120
140
160
180
200

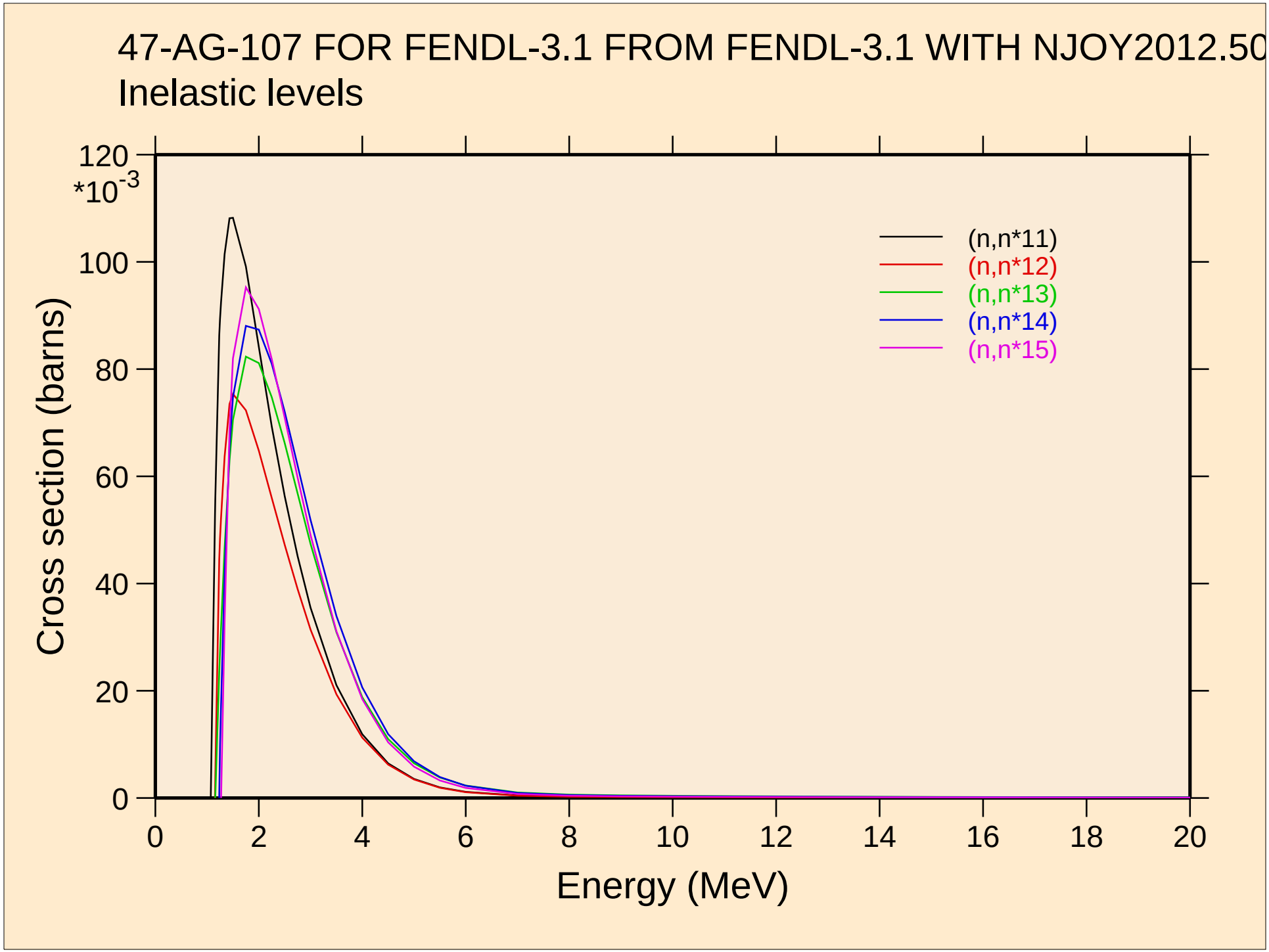

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
5
10
15
20
25
30
35
40
0
50
100
150
200

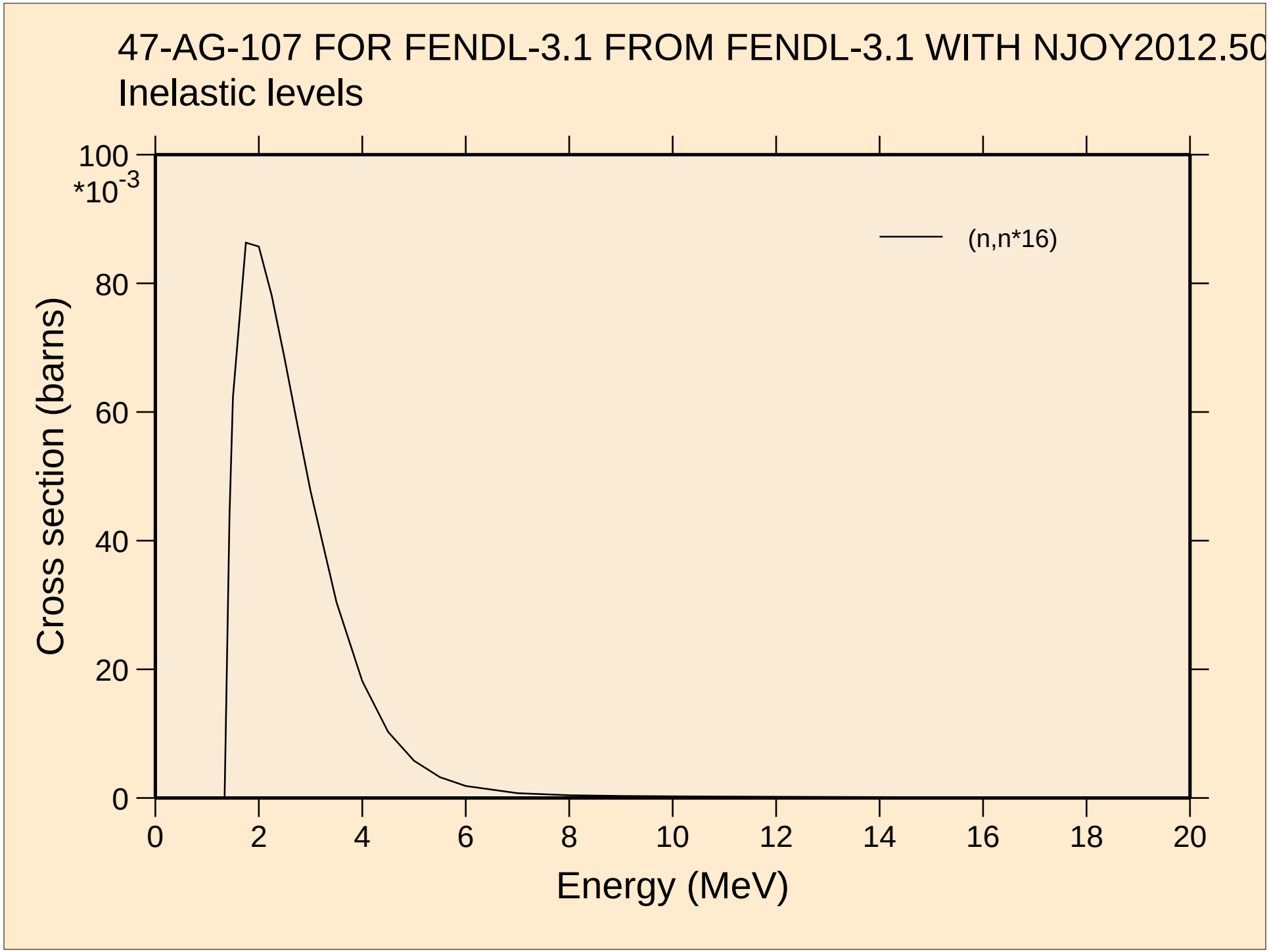

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Damage
damage
Damage (MeV-barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
50
100
150
200
Energy (MeV)

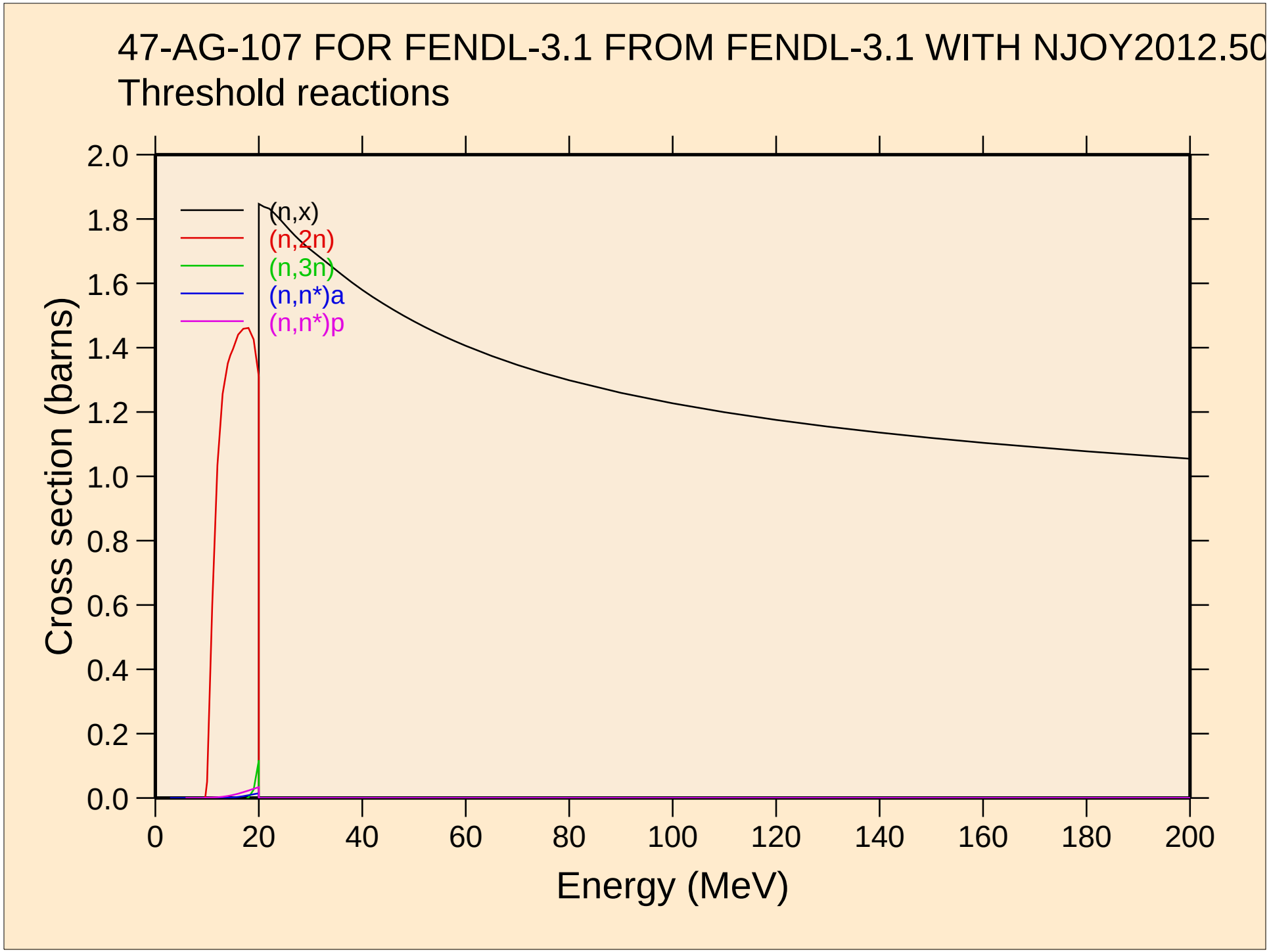

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Non-threshold reactions
(n,gma)
Cross section (barns)
10-1
10-2
10-3
10-4
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

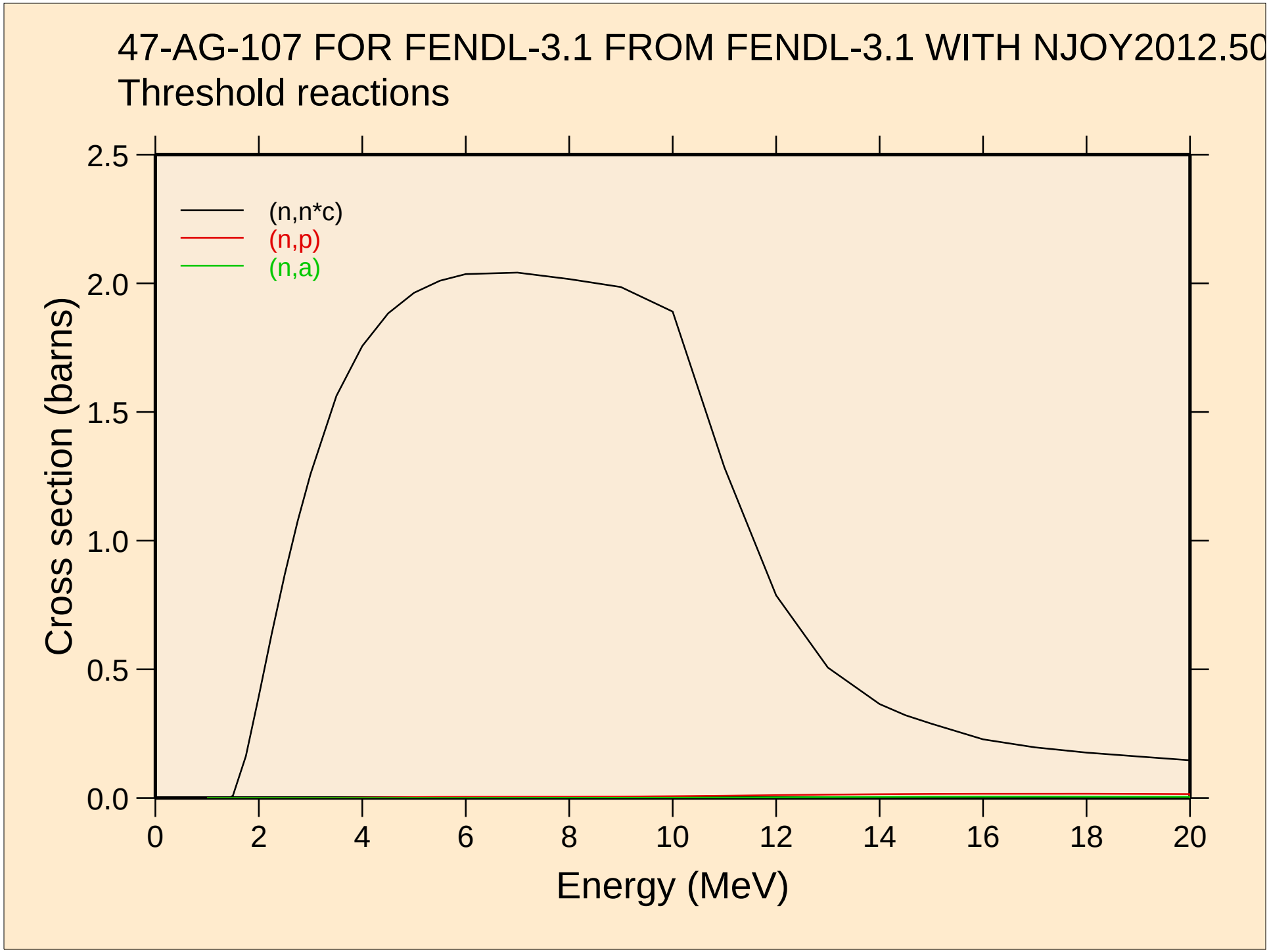

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Inelastic levels
Cross section (barns)
Energy (MeV)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
2
4
6
8
10
12
14
16
18
20
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

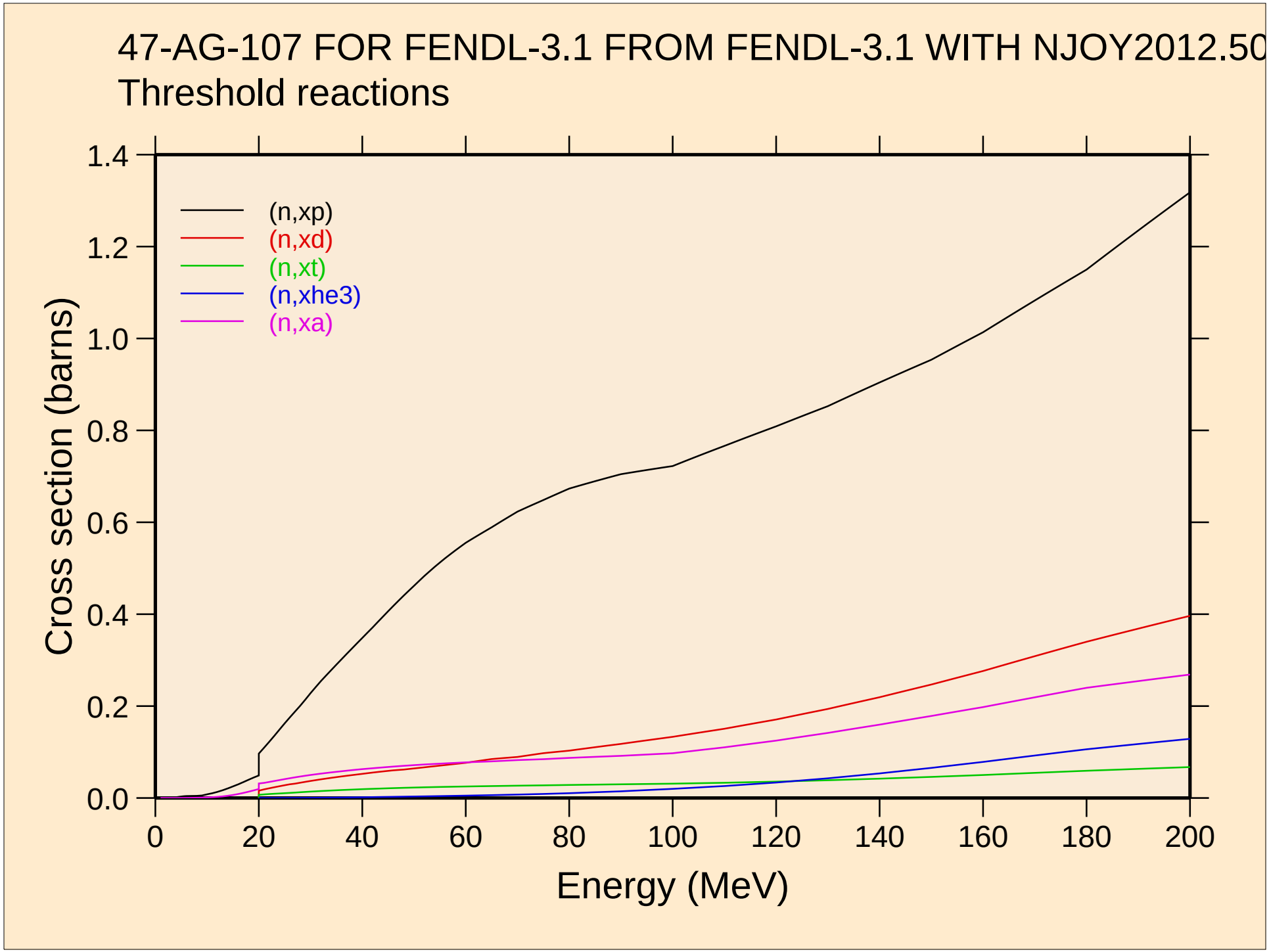

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Inelastic levels
Cross section (barns)
*10-3
250
200
150
100
50
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)

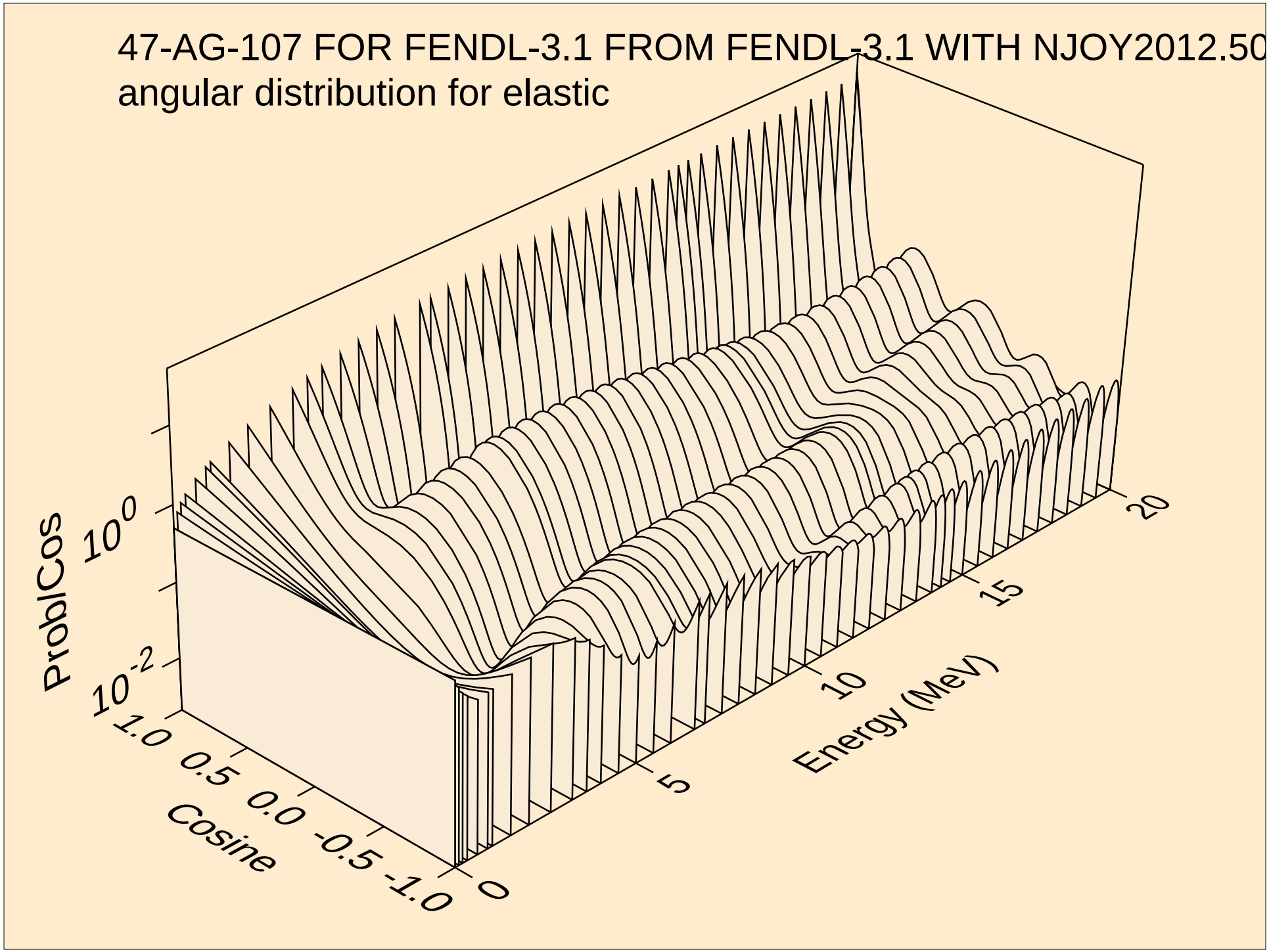

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Inelastic levels
120
*10-3
100
80
60
40
20
0
Cross section (barns)
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*11)
(n,n*12)
(n,n*13)
(n,n*14)
(n,n*15)

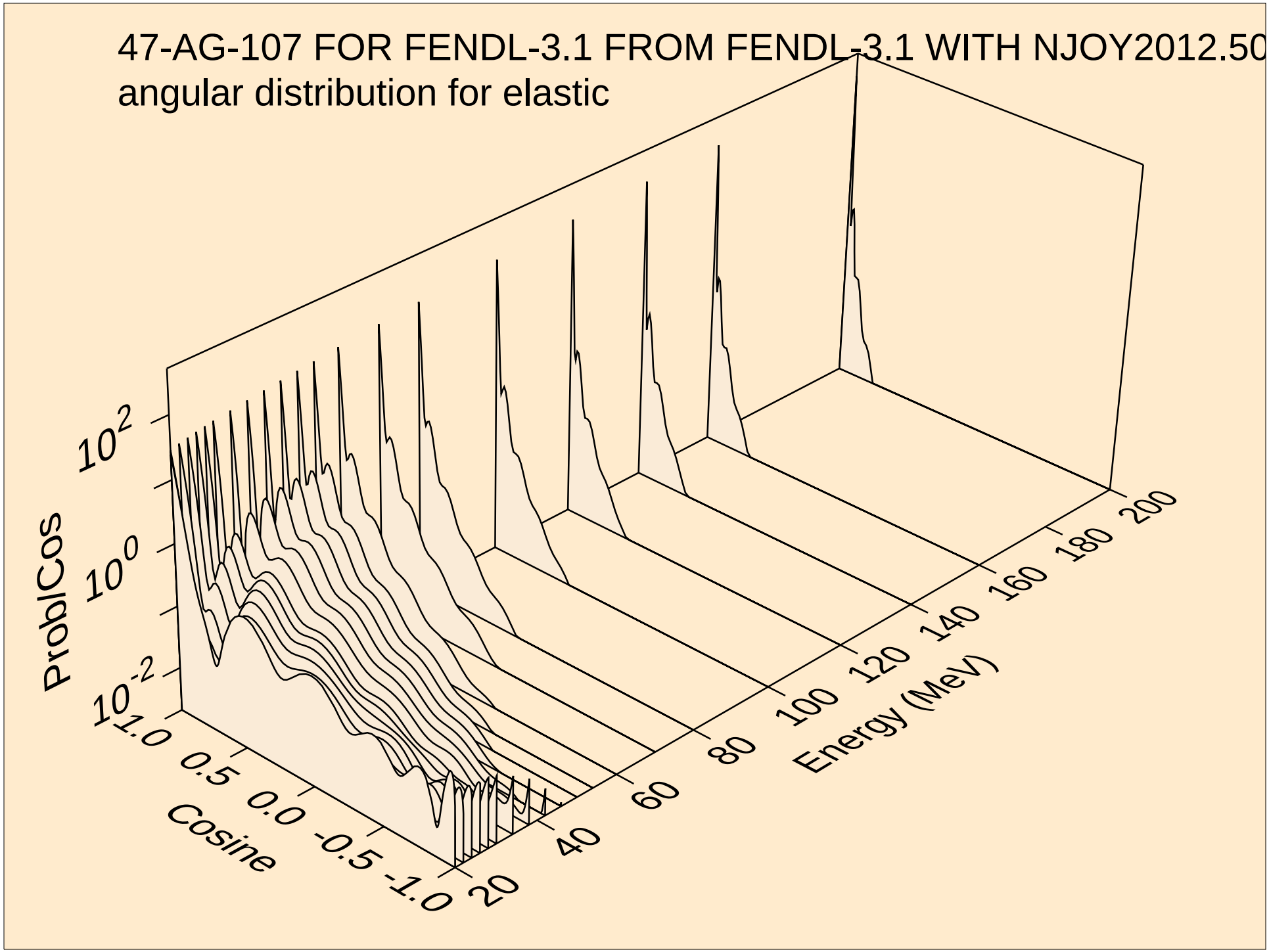

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Inelastic levels
100
*10-3
80
60
40
20
0
Cross section (barns)
(n,n*16)
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

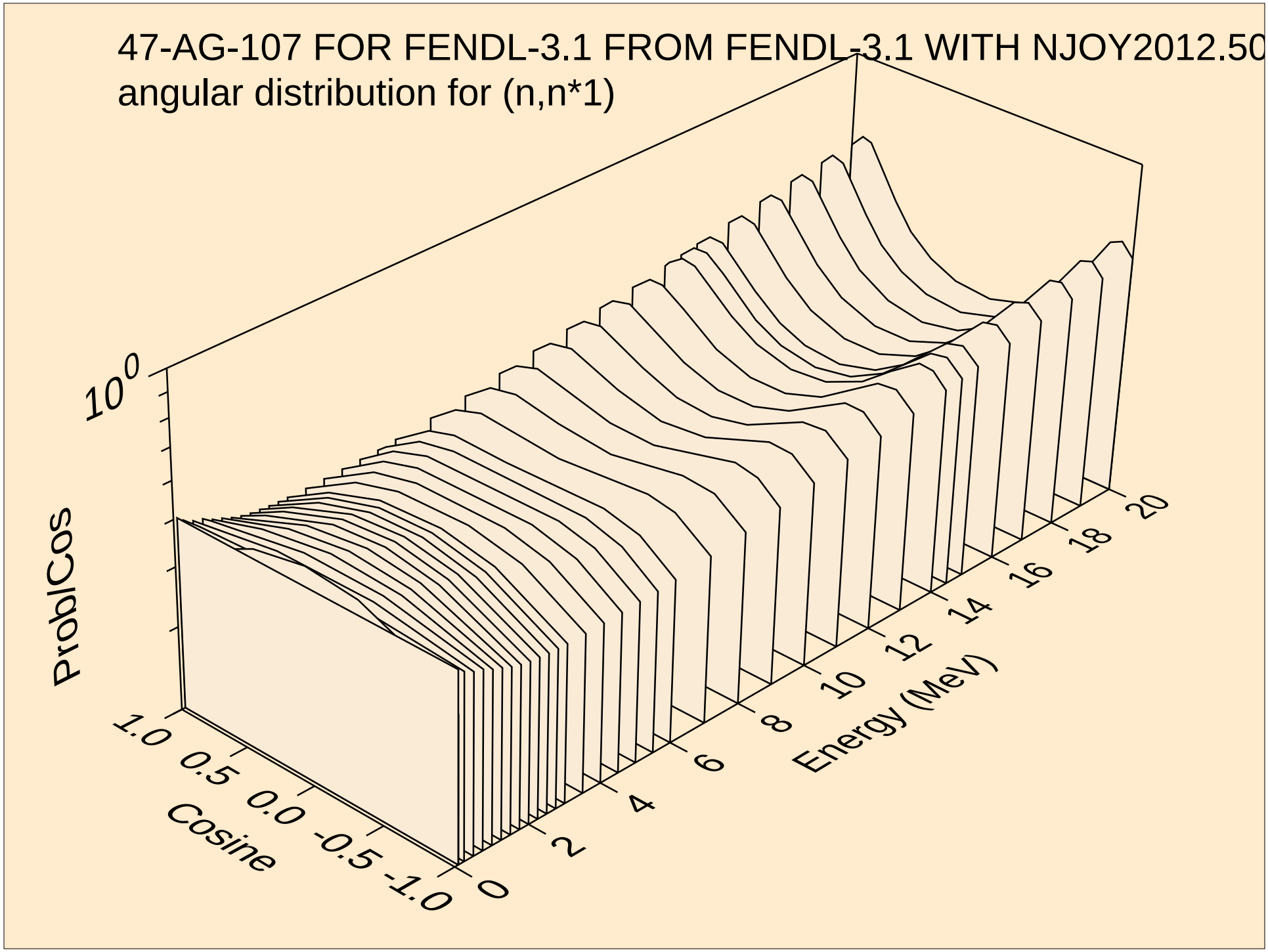

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Threshold reactions
Cross section (barns)
Energy (MeV)
(n,x)
(n,2n)
(n,3n)
(n,n*)a
(n,n*)p
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
0
20
40
60
80
100
120
140
160
180
200

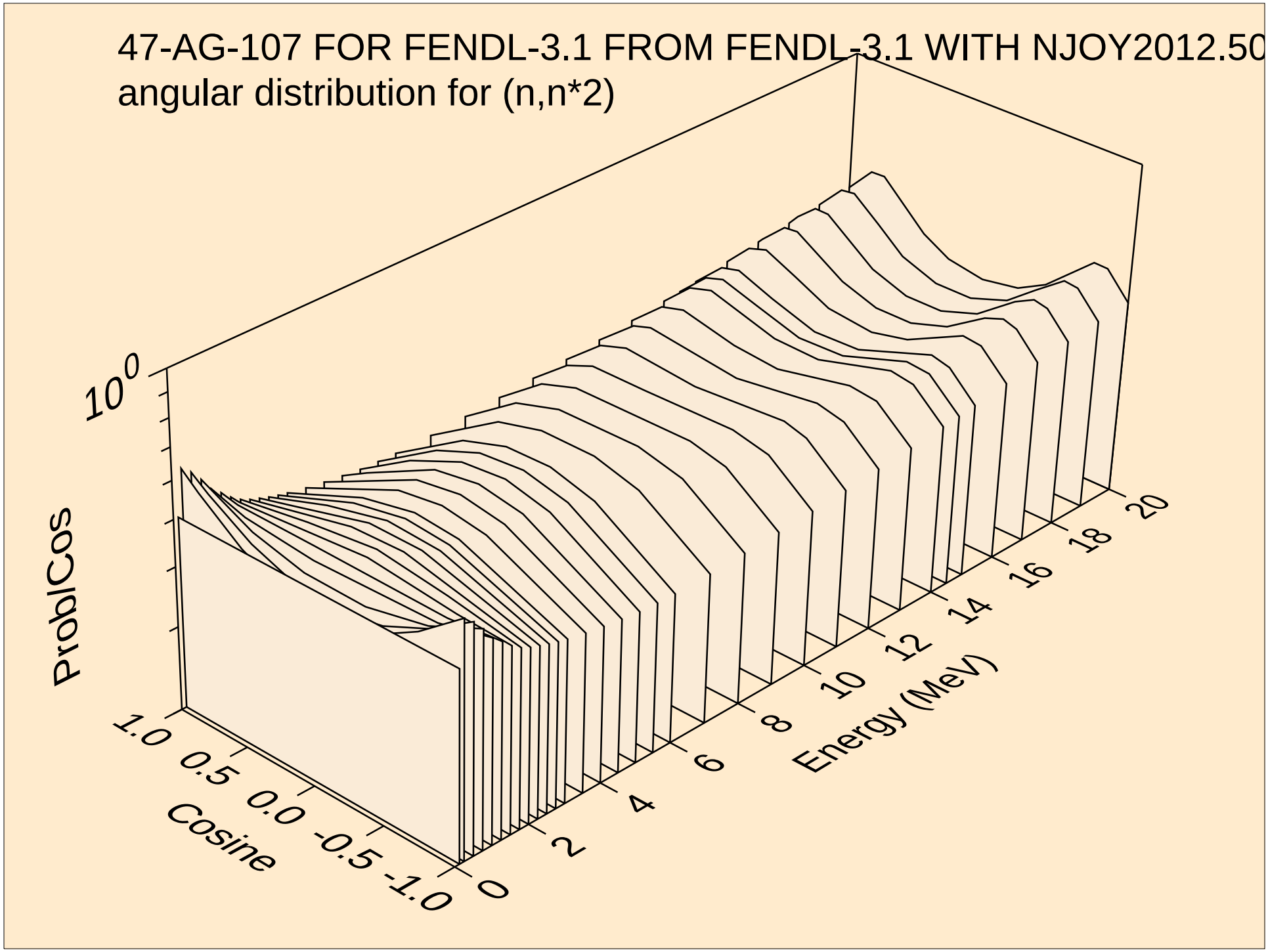

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Threshold reactions
(n,n*c)
(n,p)
(n,a)
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
0
2
4
6
8
10
12
14
16
18
20

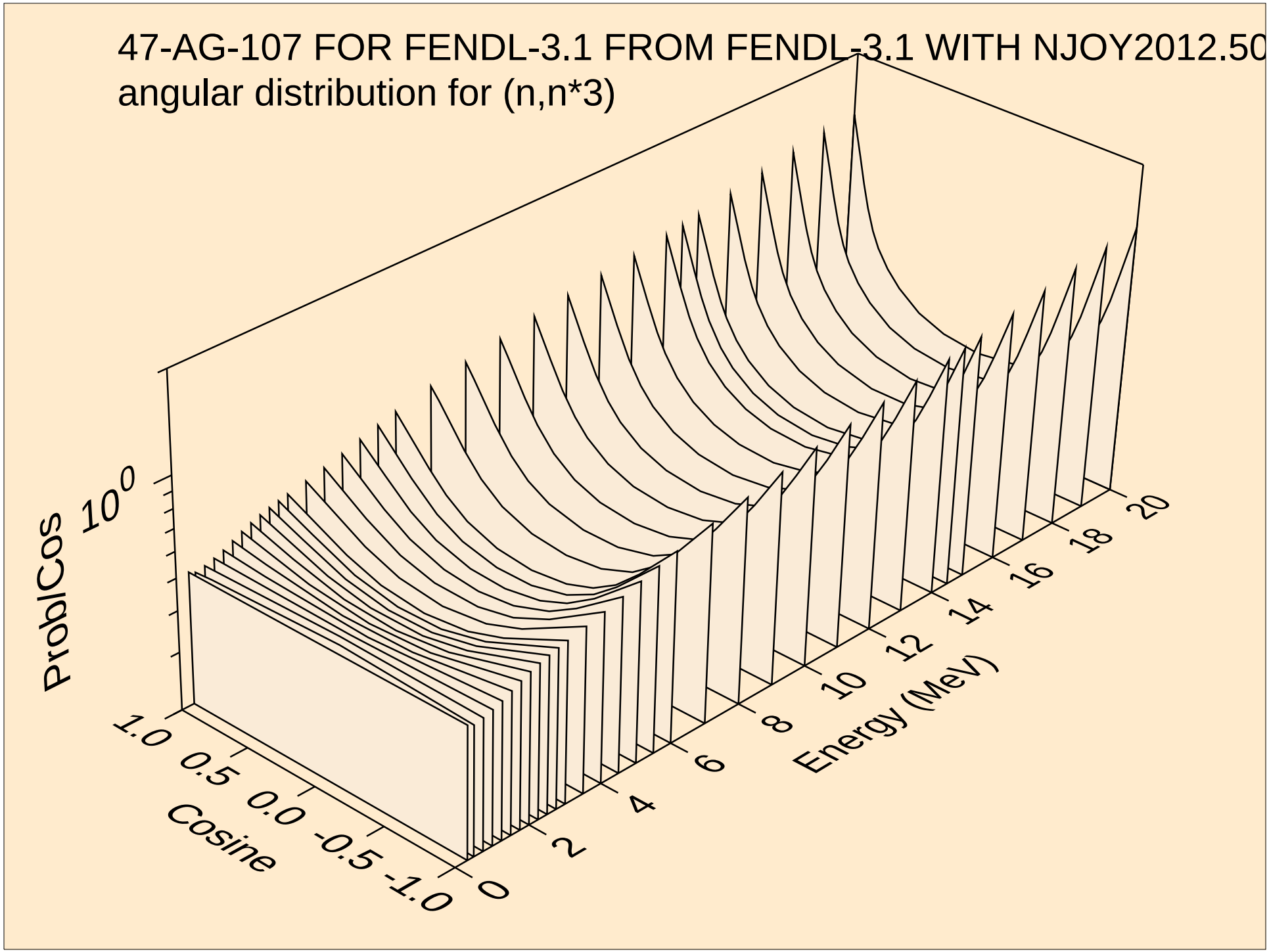

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Threshold reactions
(n,xp)
(n,xd)
(n,xt)
(n,xhe3)
(n,xa)
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0
20
40
60
80
100
120
140
160
180
200

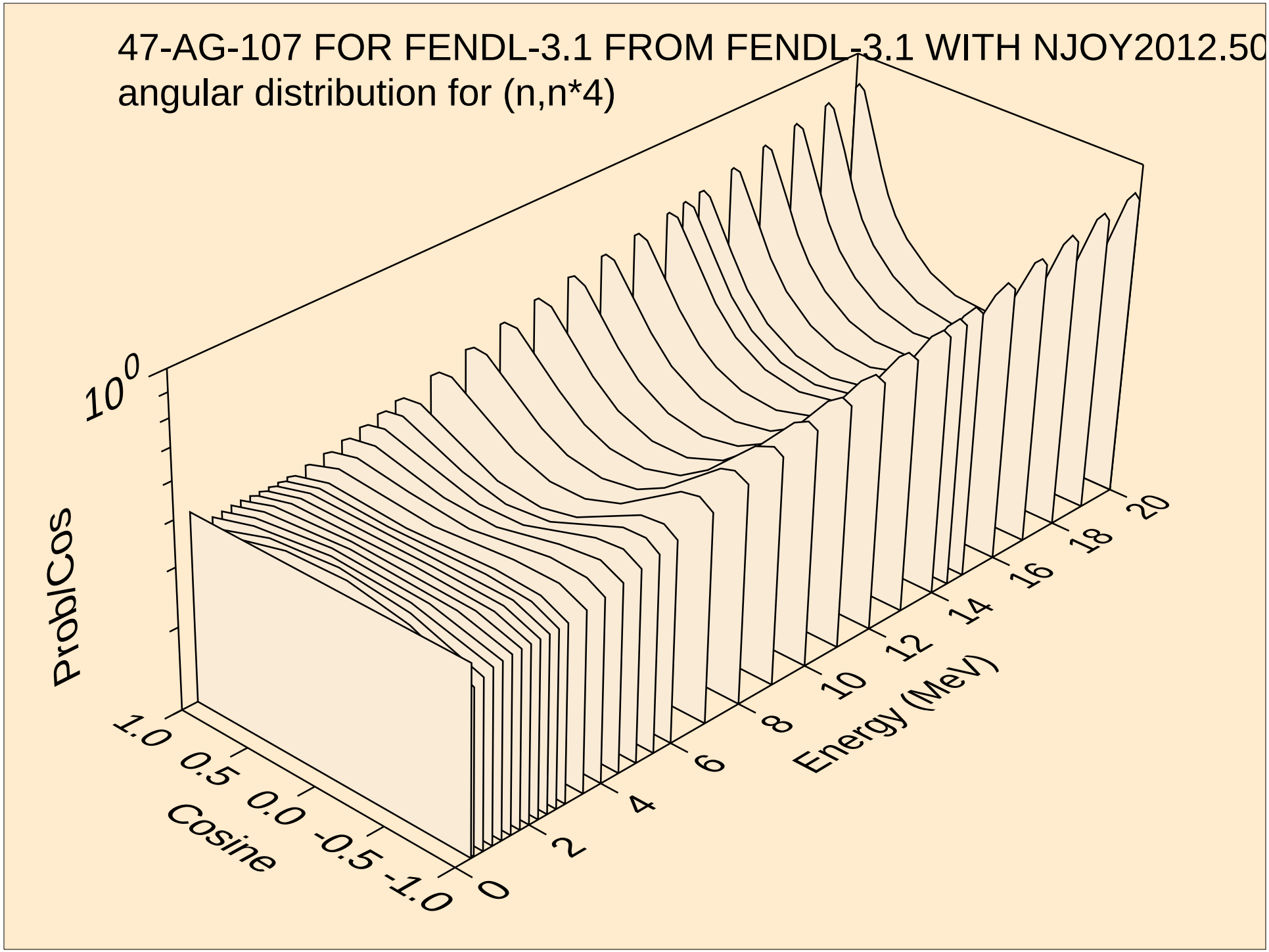

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for elastic
ProblCos
10^{0}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

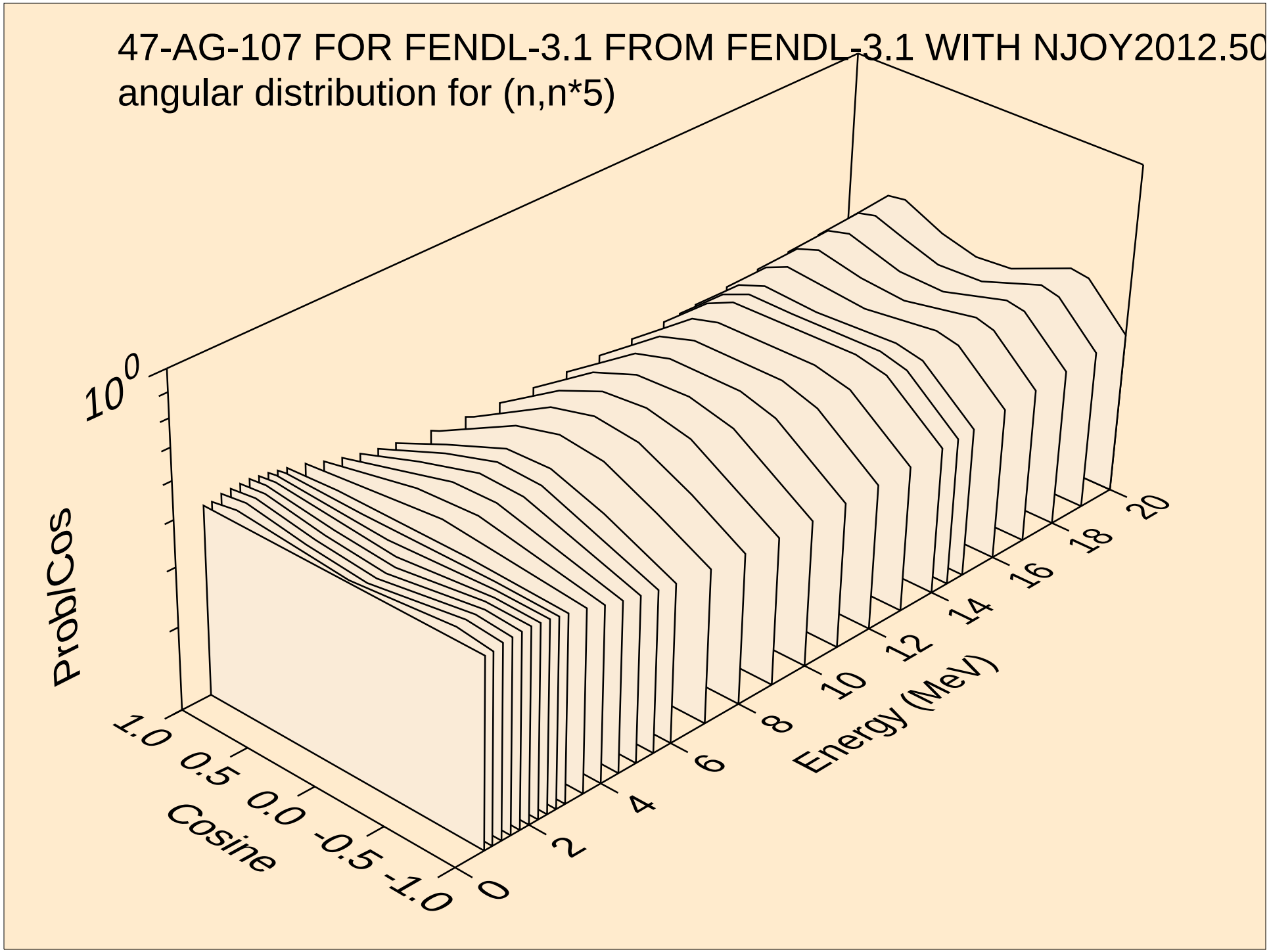

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for elastic
ProblCos
10^{2}
10^{0}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

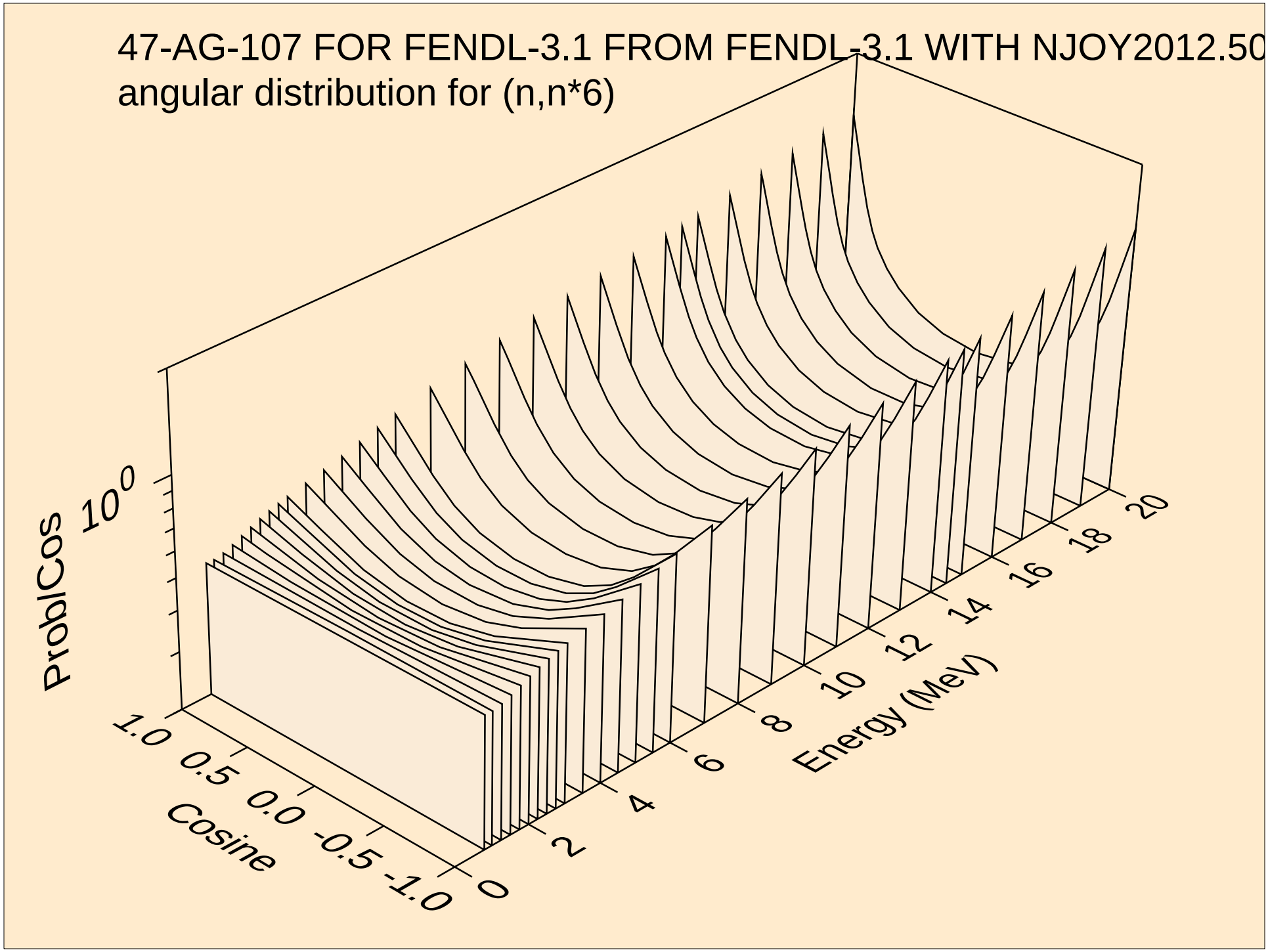

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*1)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

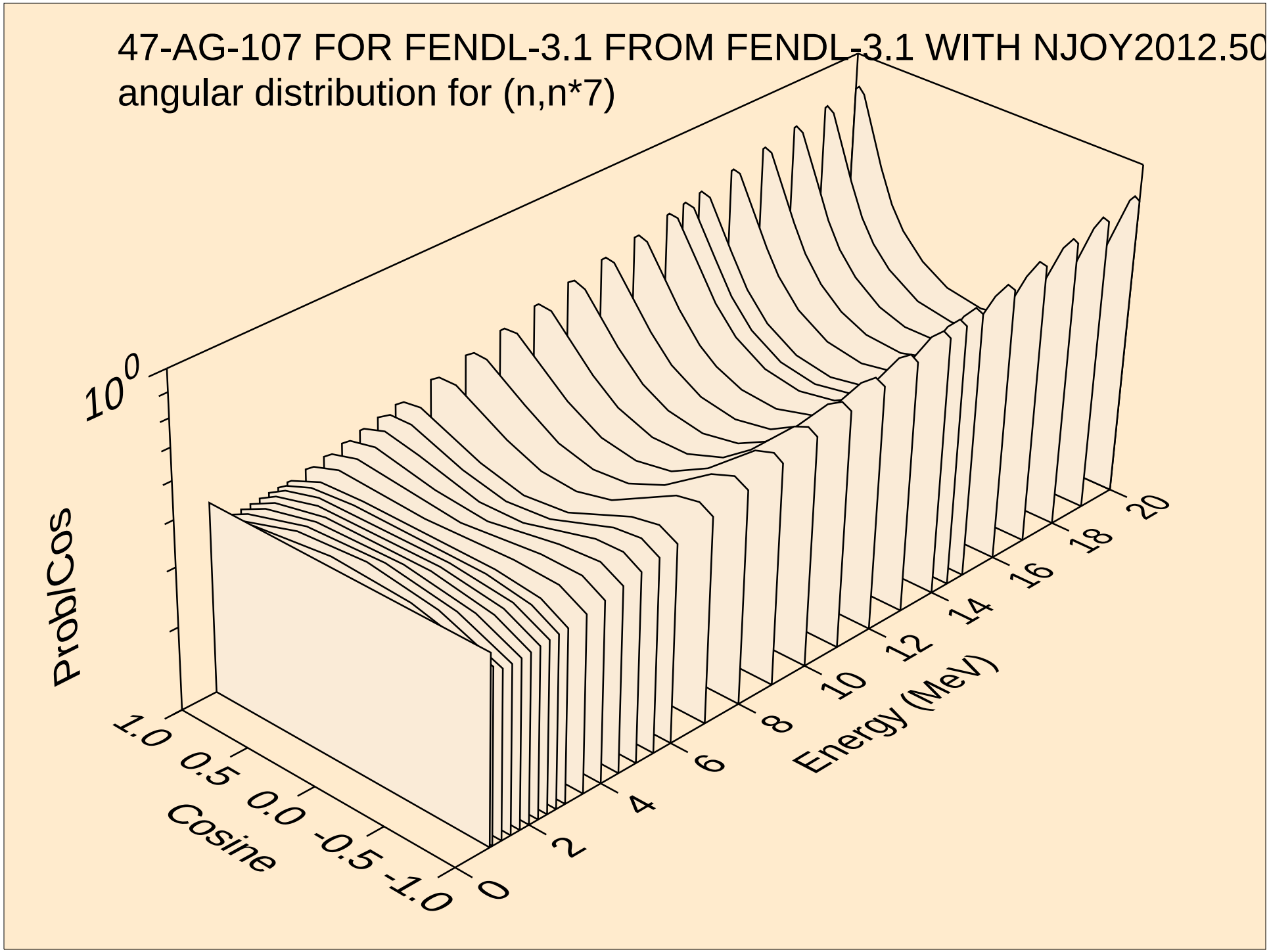

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*2)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

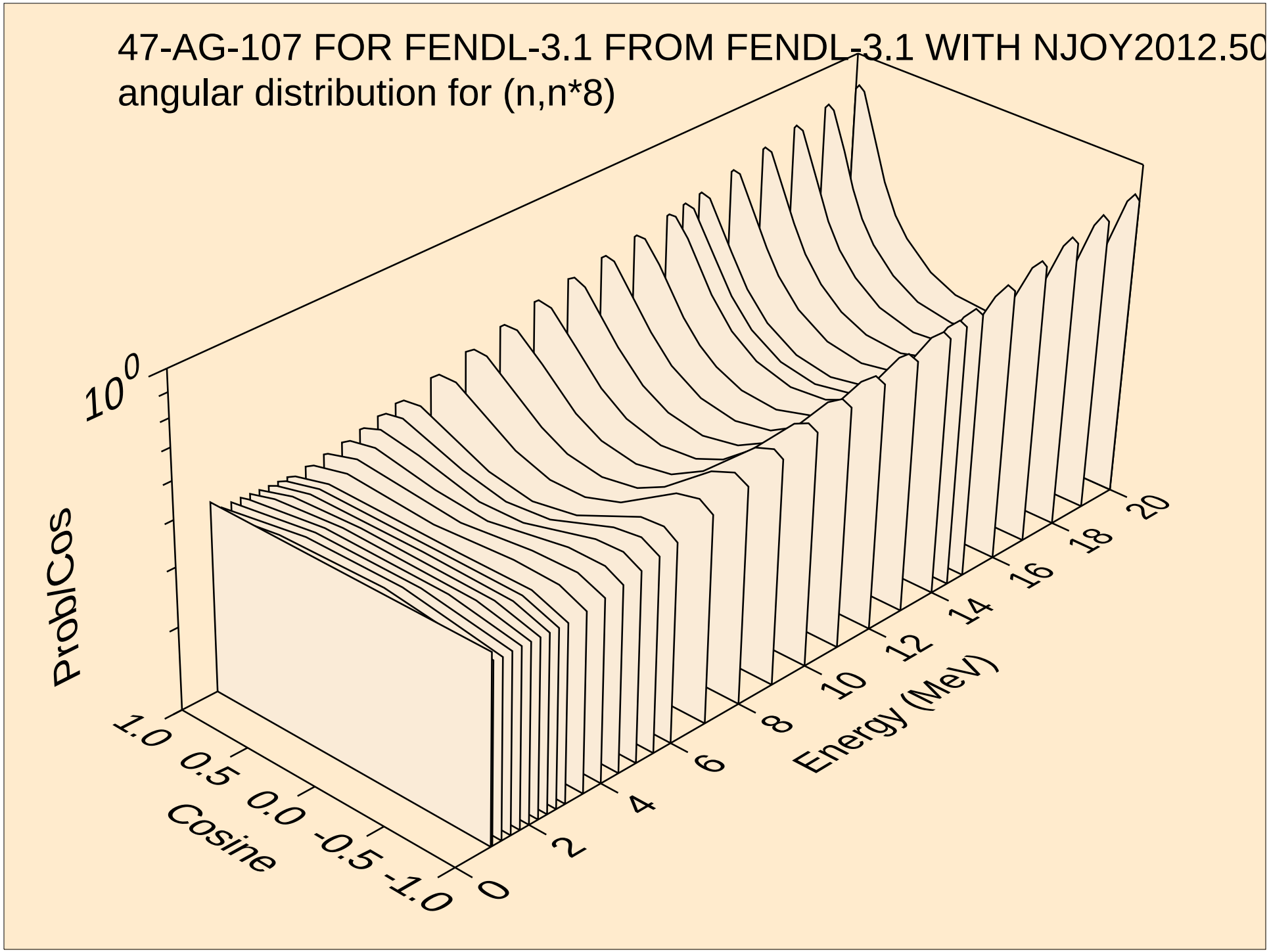

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*3)
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

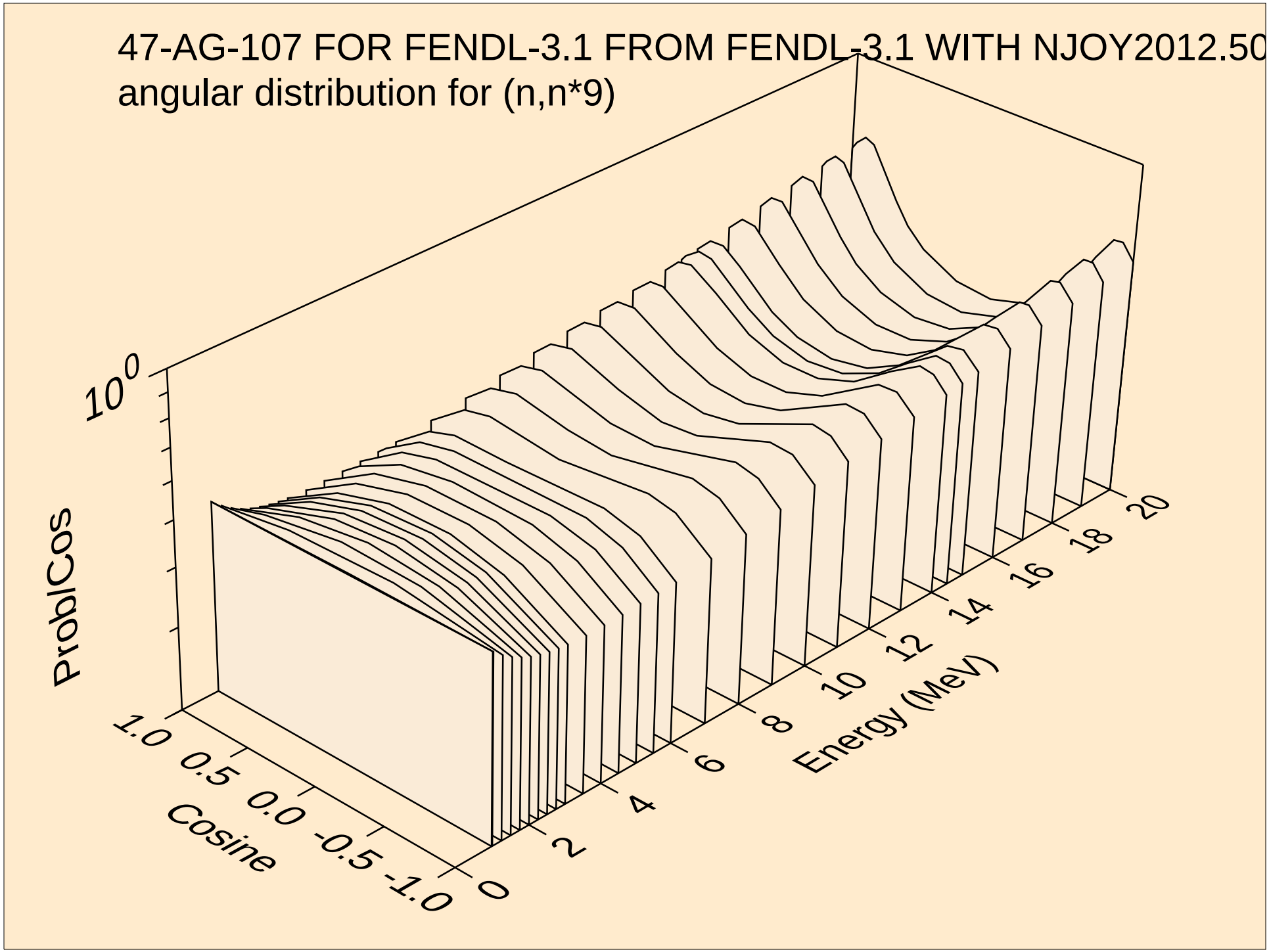

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*4)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

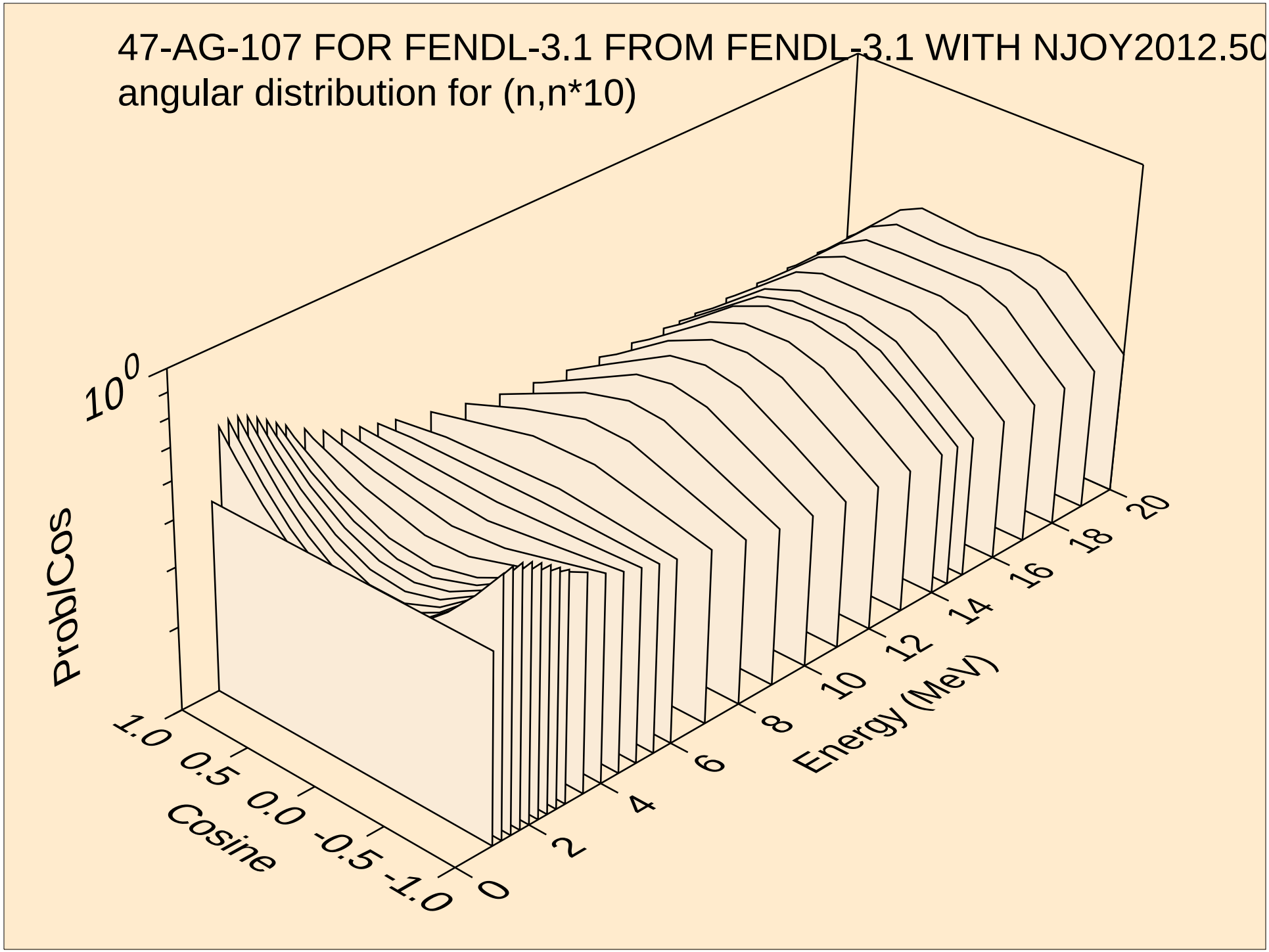

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*5)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

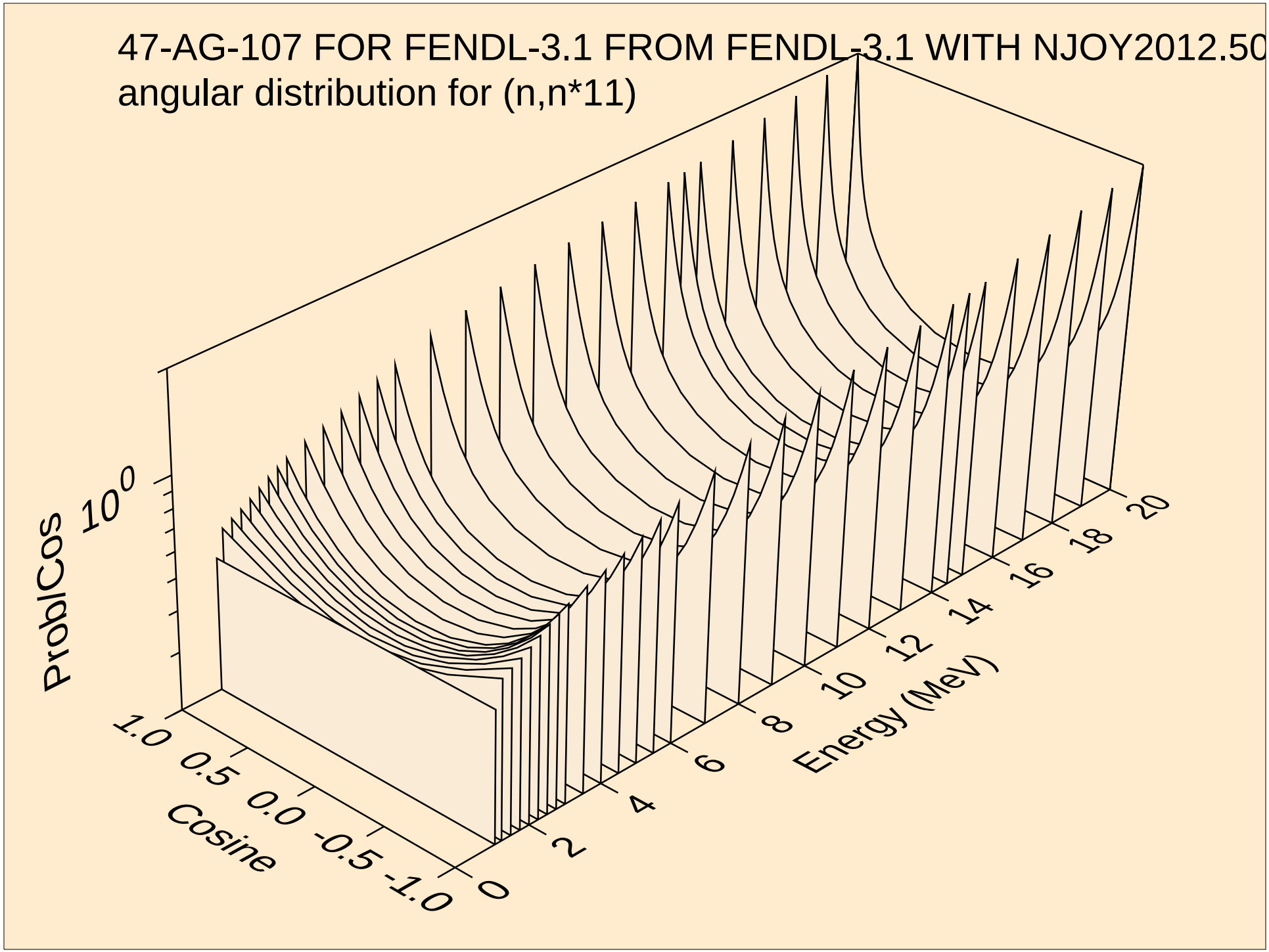

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*6)
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

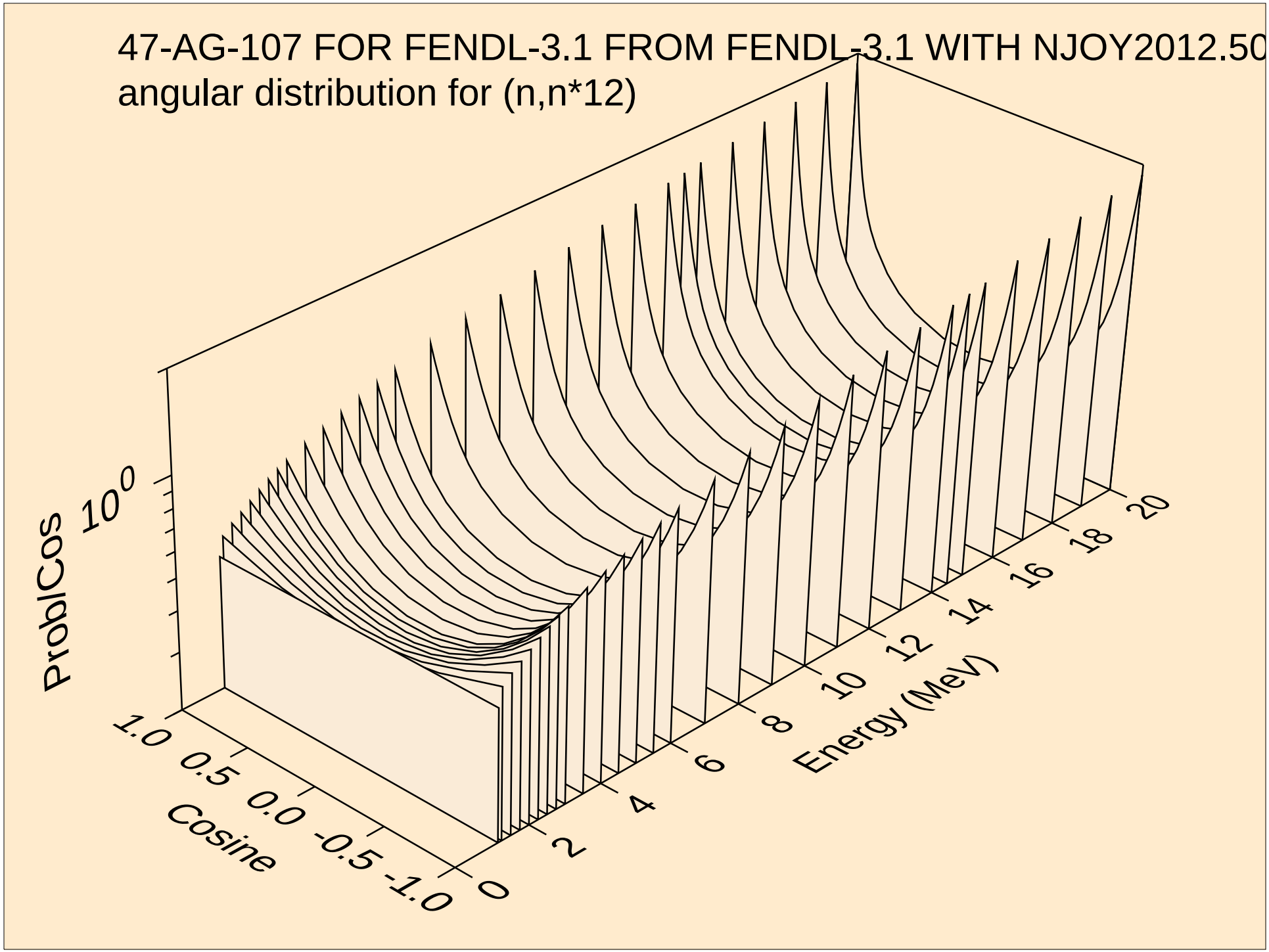

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*7)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

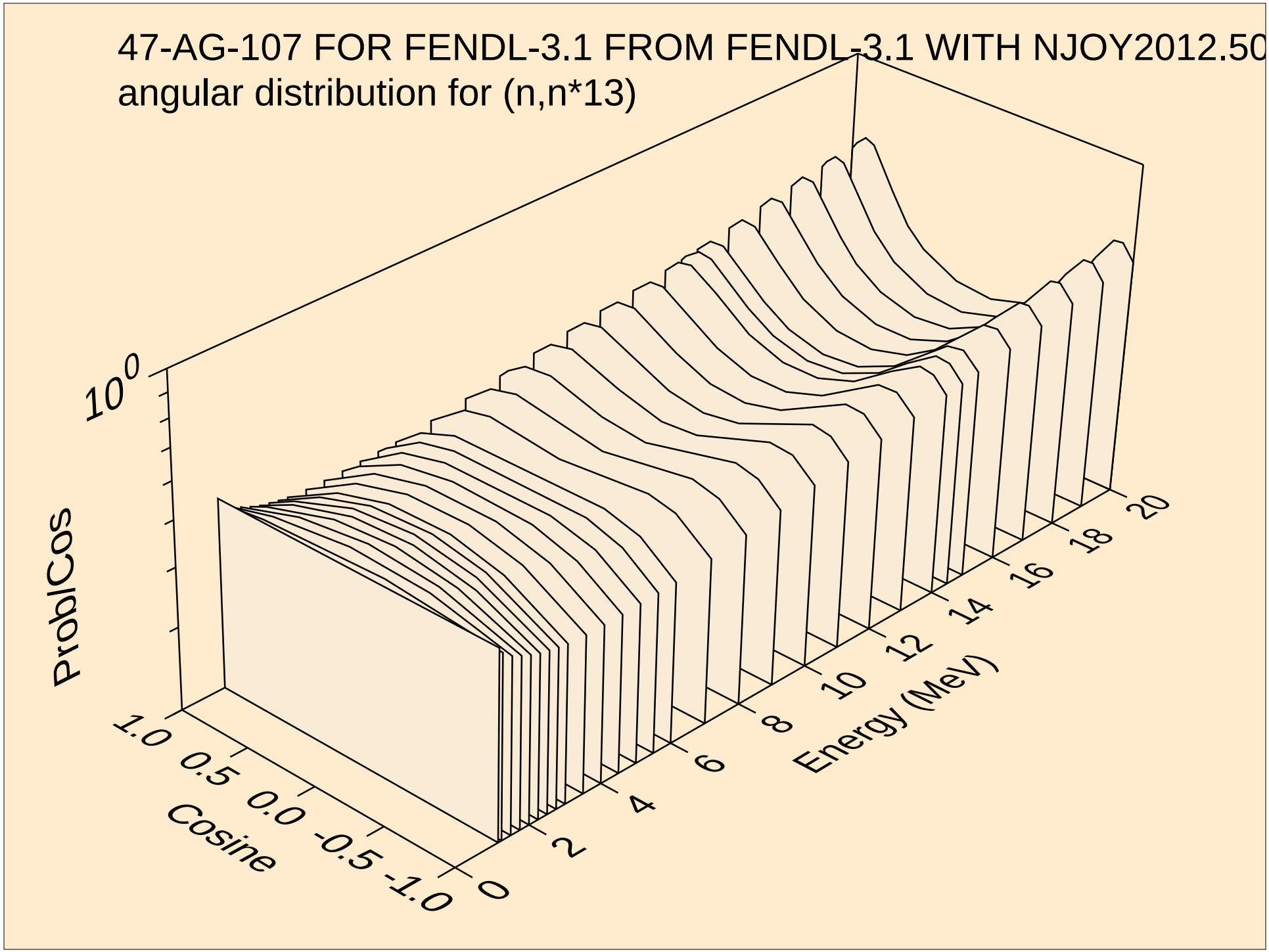

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*8)
ProbICos
10^0
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

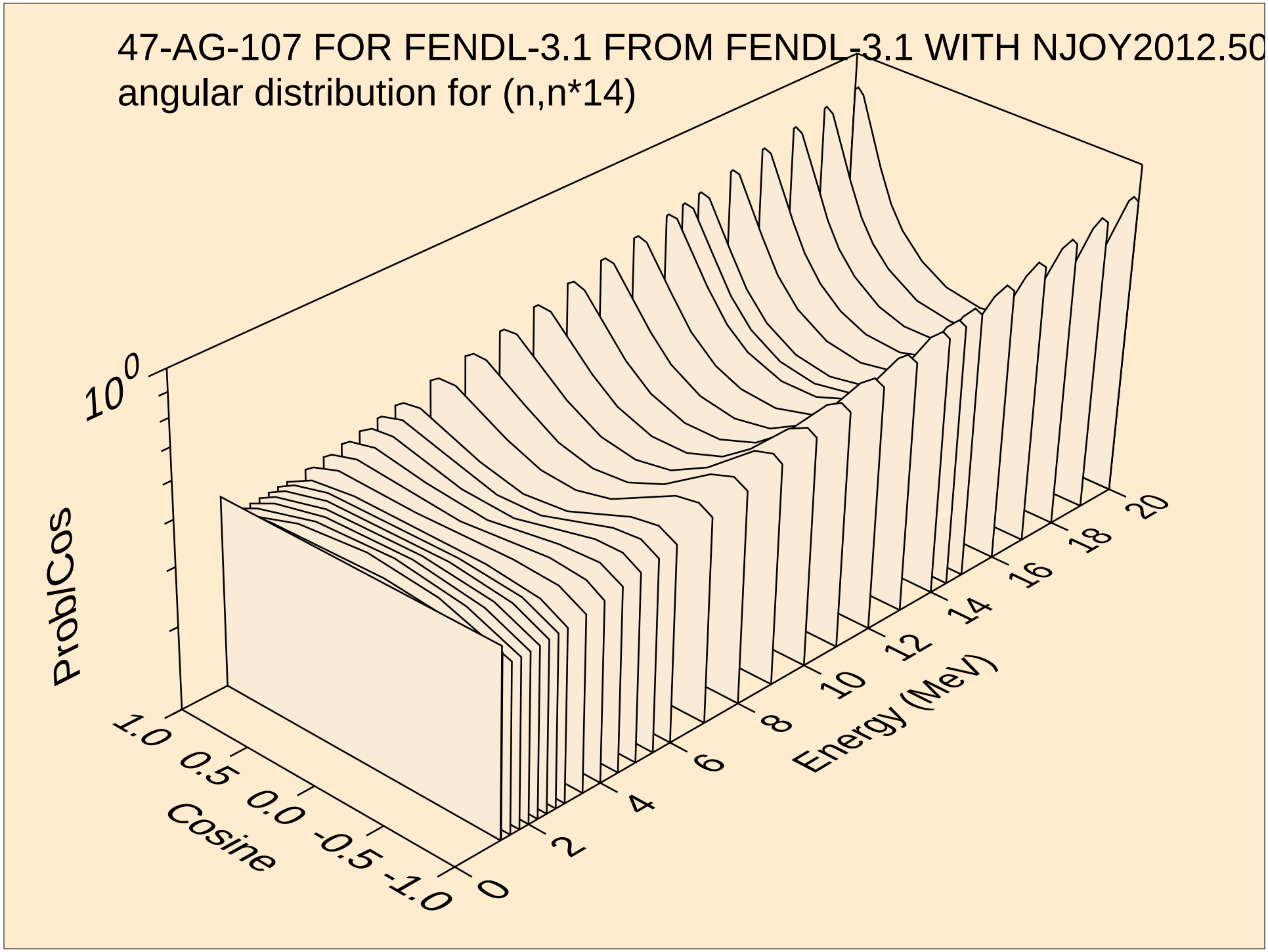

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*9)
ProbICos
10^0
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

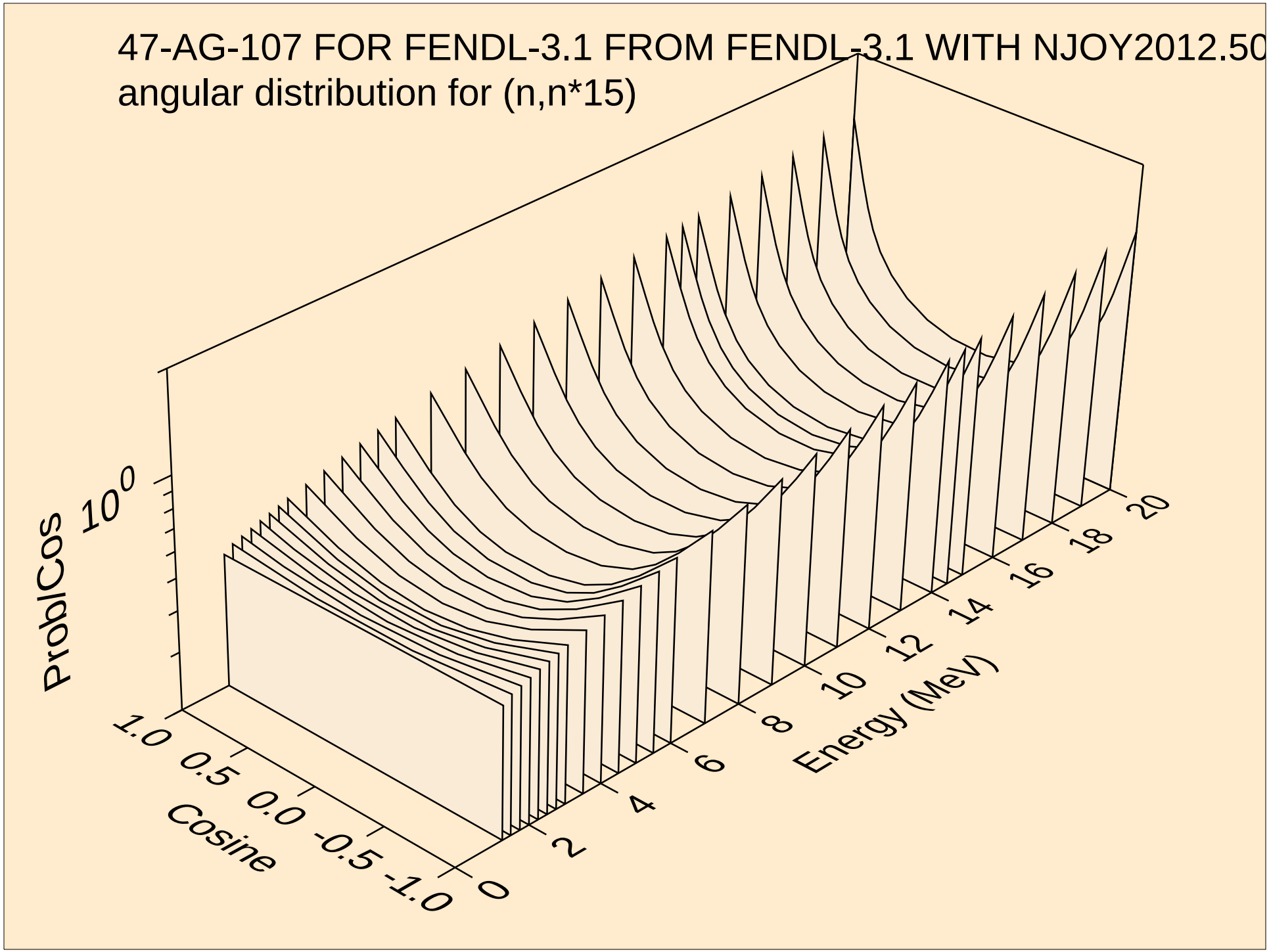

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*10)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

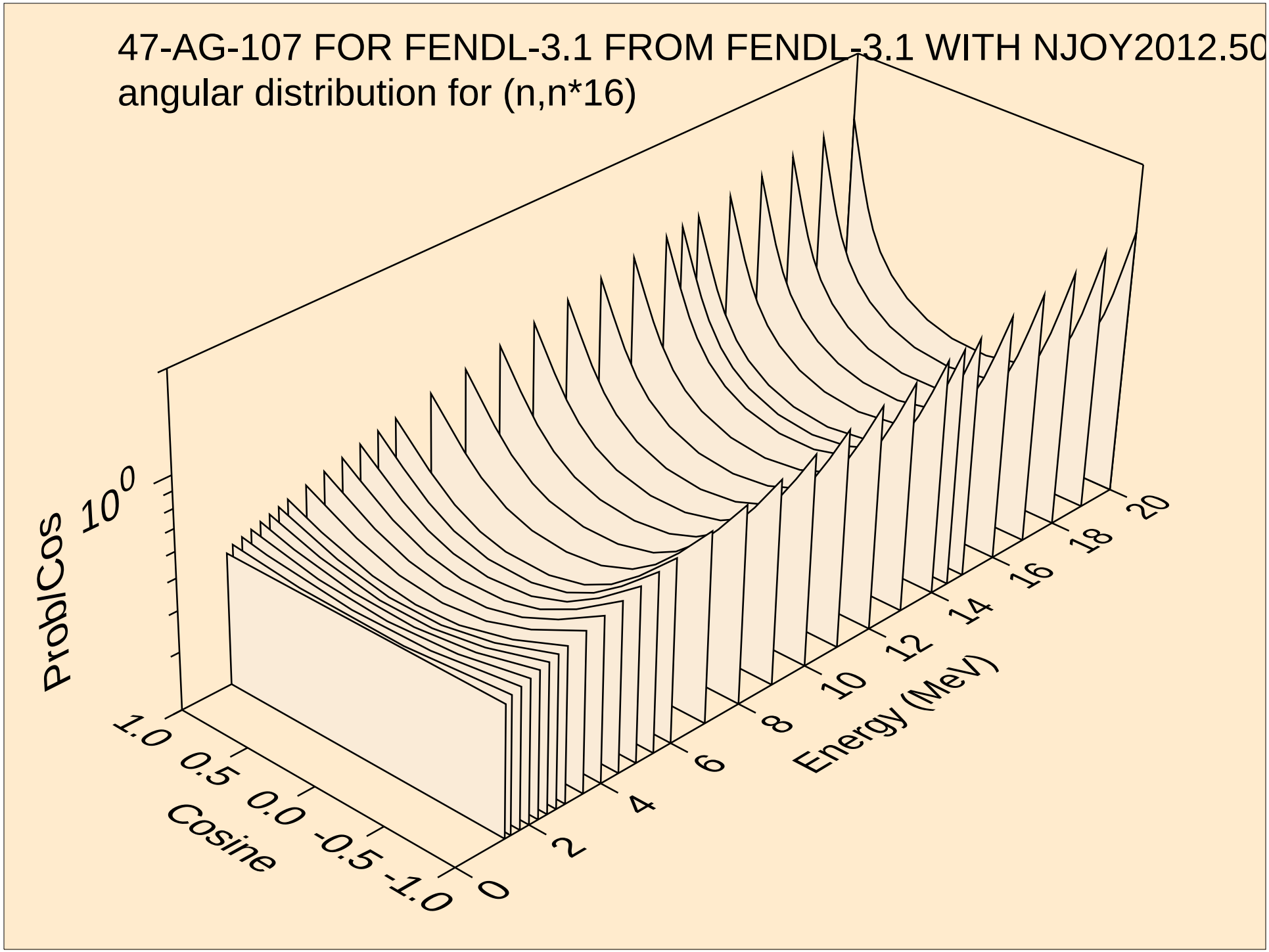

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*11)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

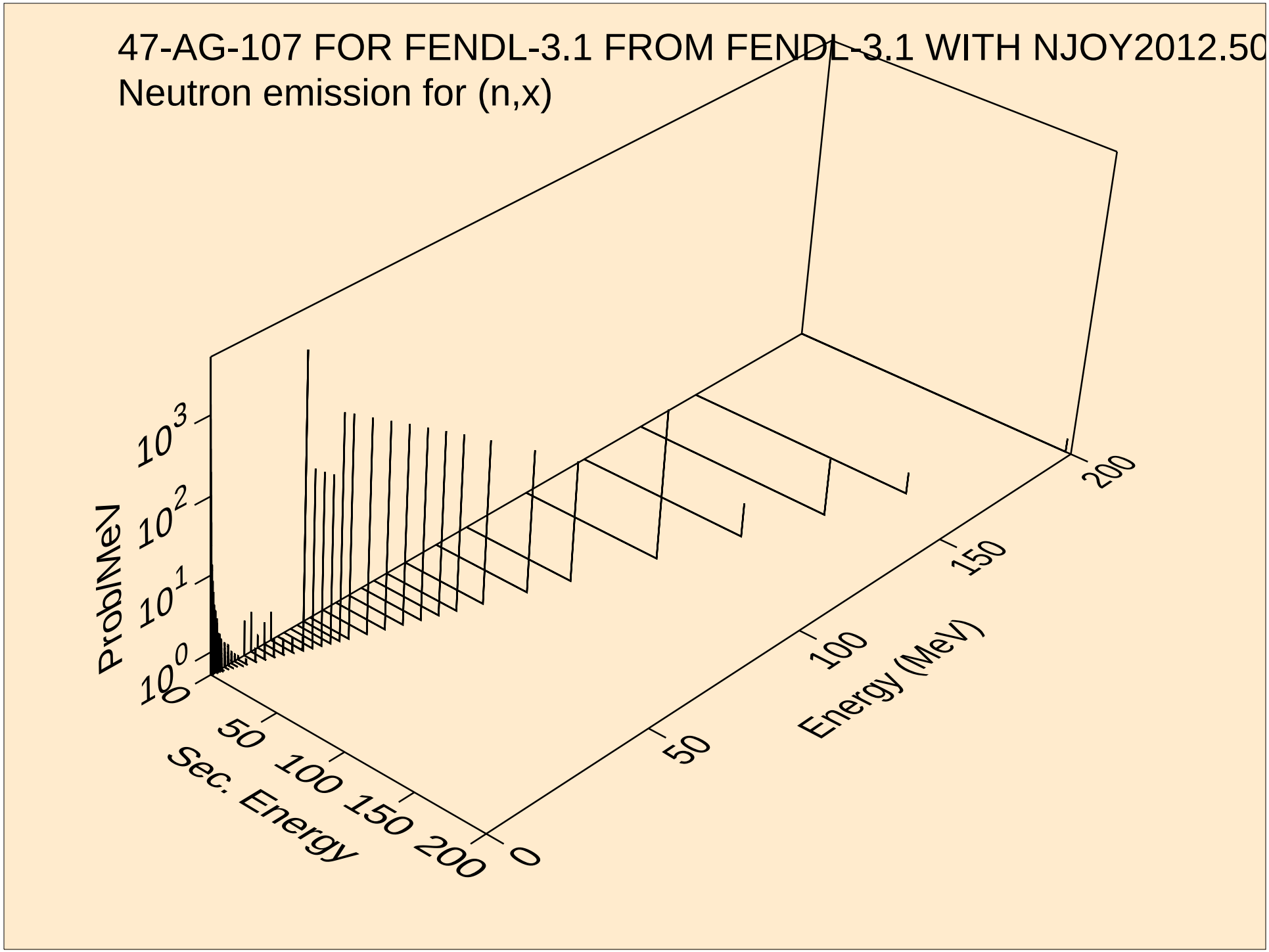

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*12)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

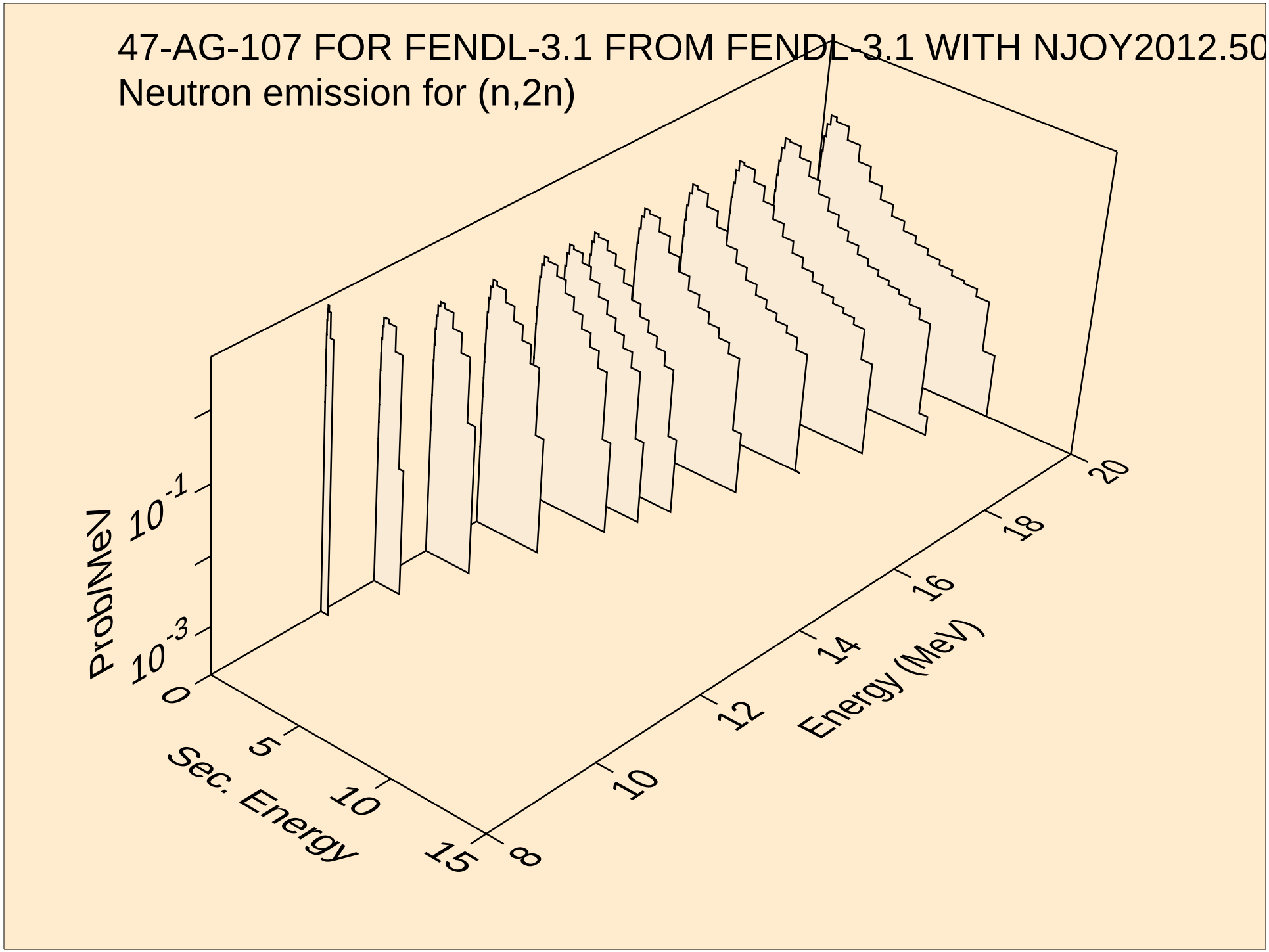

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*13)
ProbICos
10^0
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

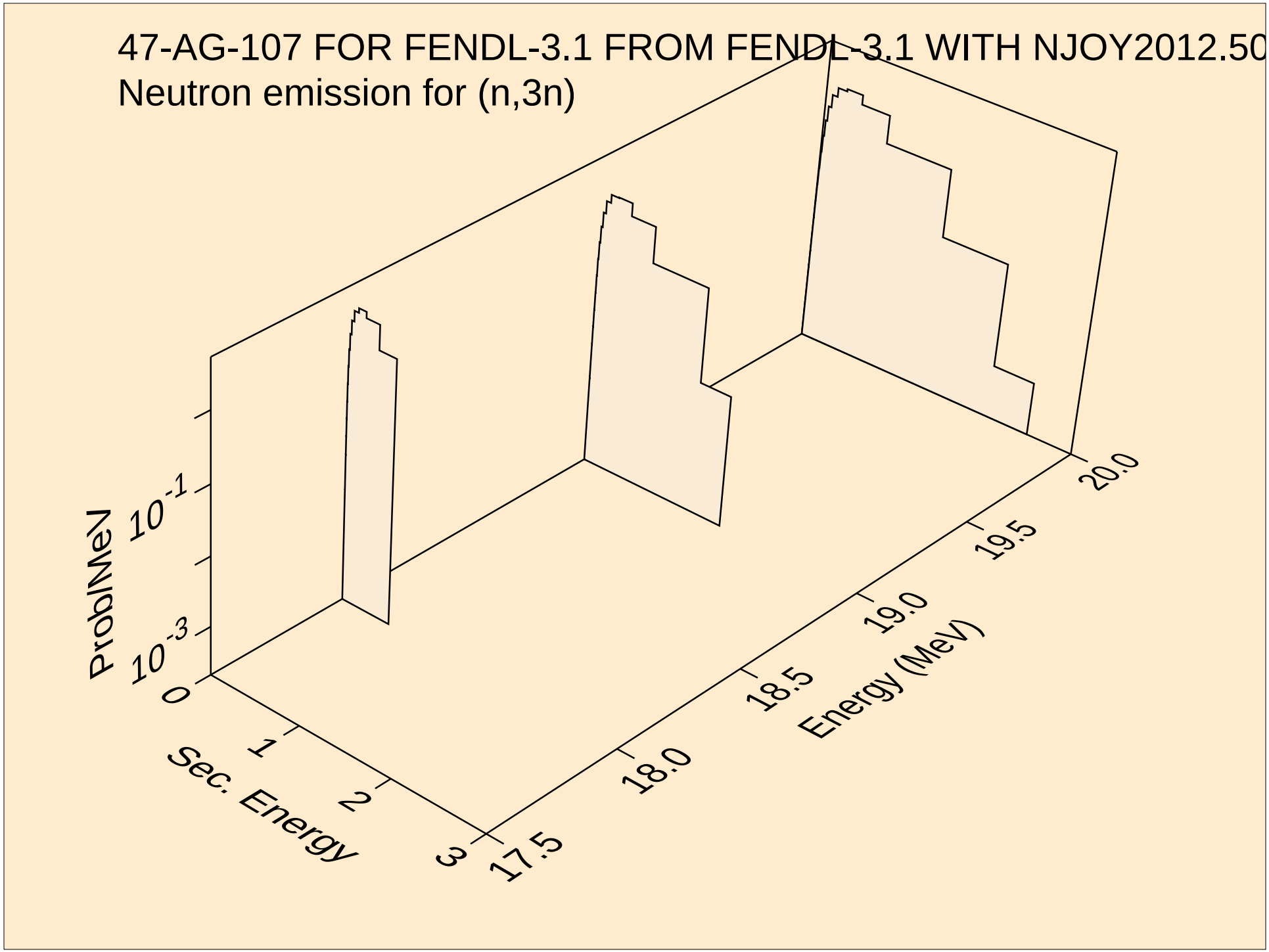

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*14)
ProbICos
10^0
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

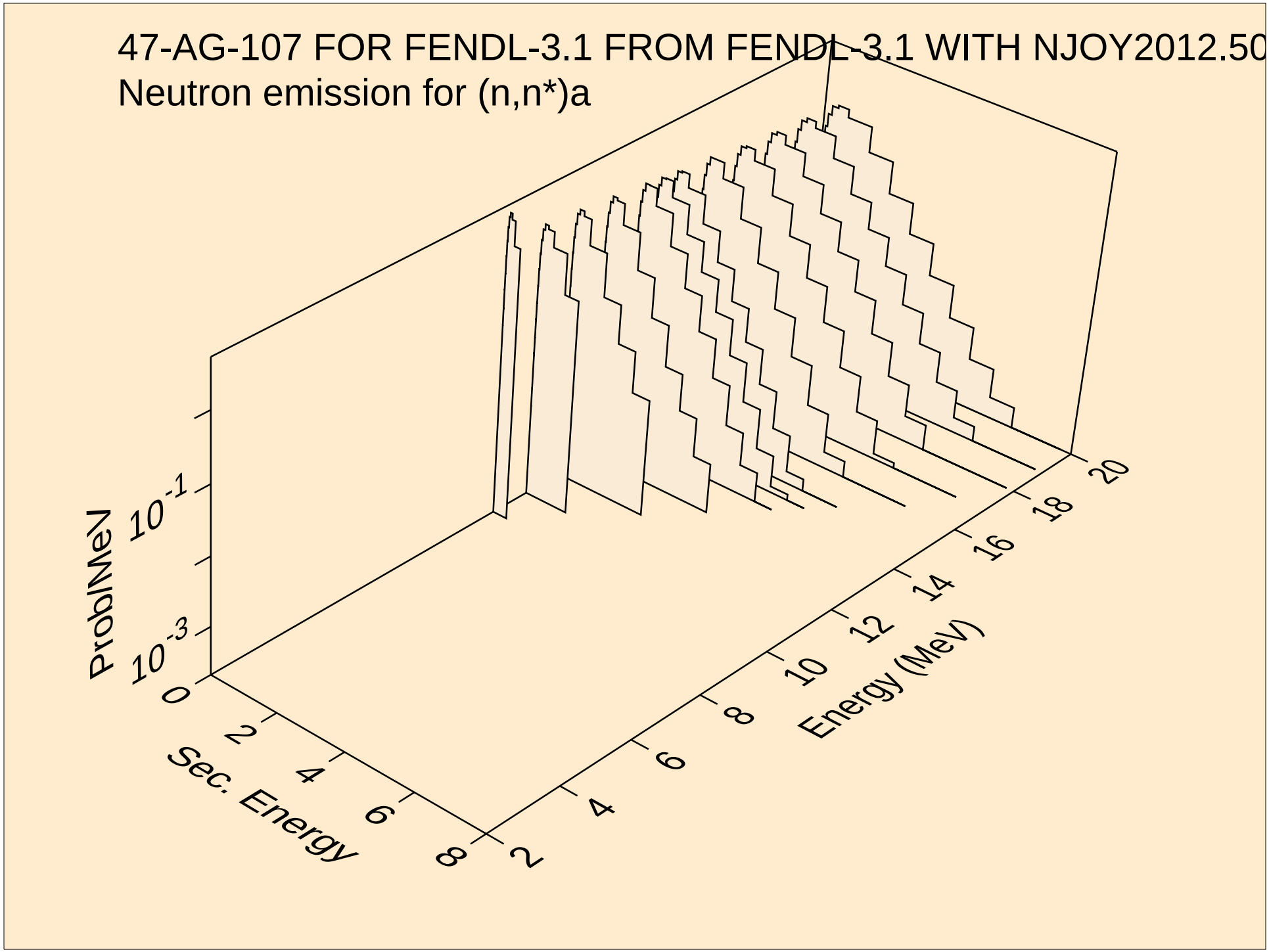

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*15)
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

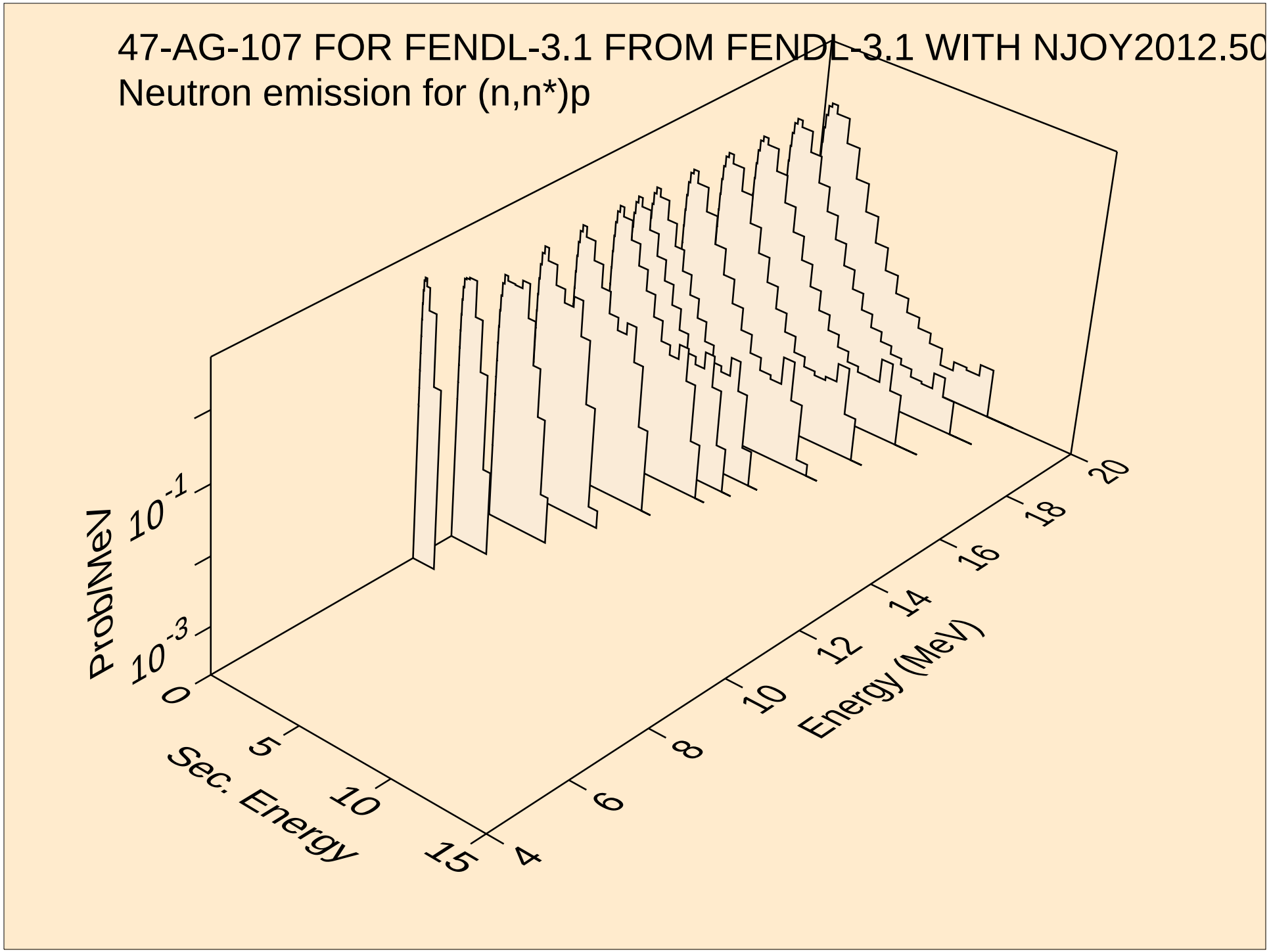

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
angular distribution for (n,n*16)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

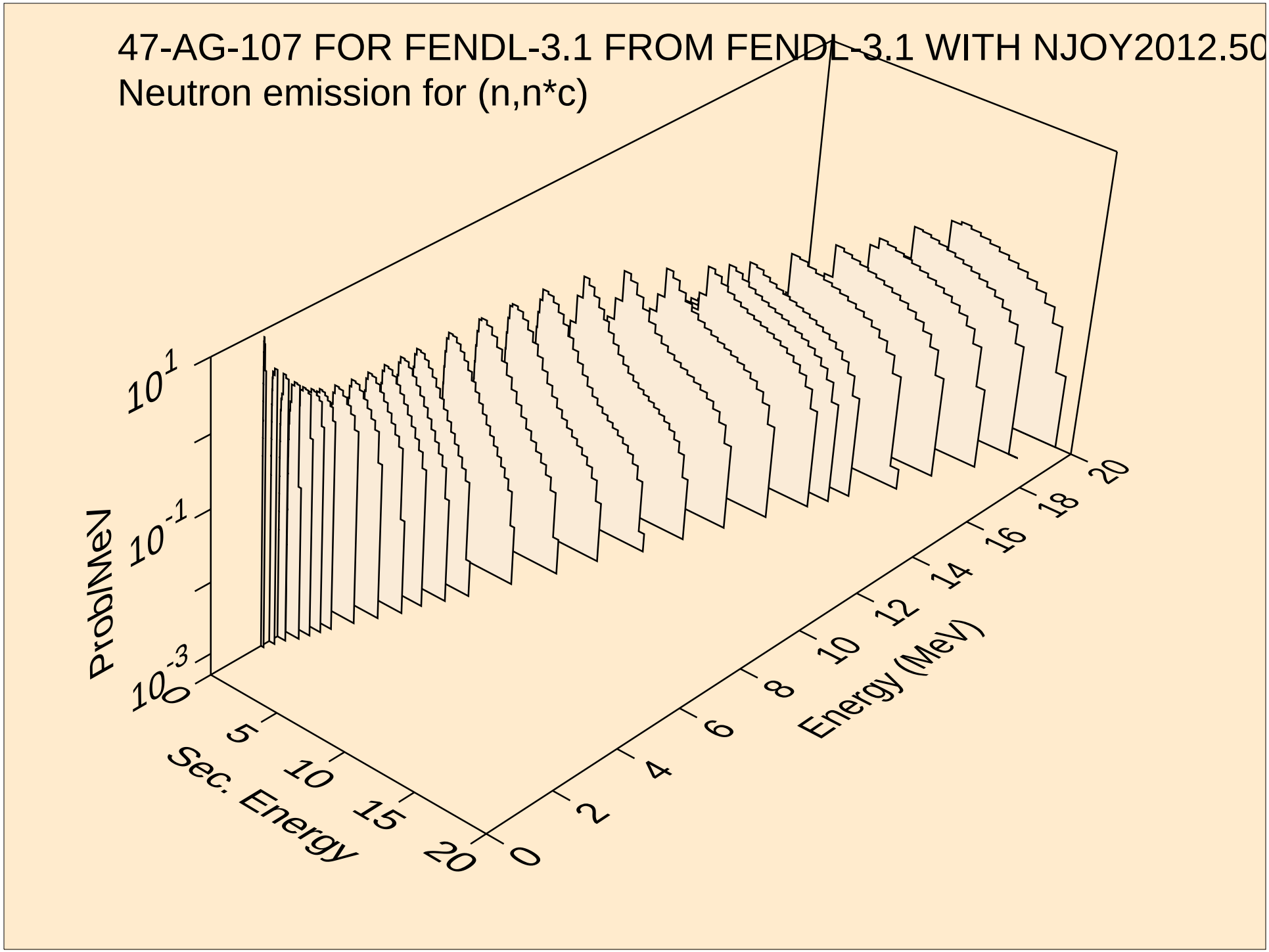

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Neutron emission for (n,x)
Prob/MeV
10^3
10^2
10^1
10^0
Sec. Energy
50
100
150
200
0
50
100
150
200
Energy (MeV)

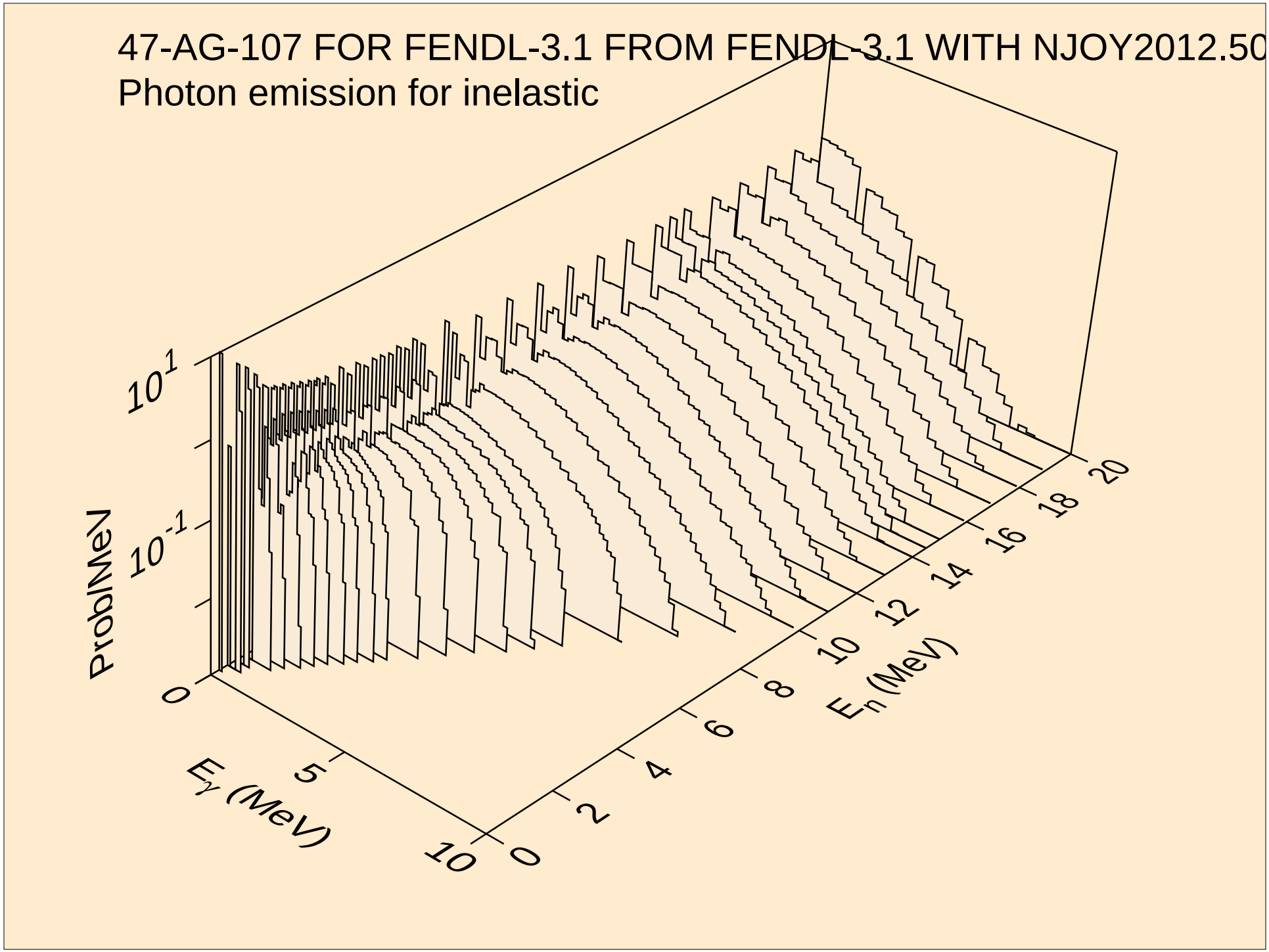

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Neutron emission for (n,2n)
Prob/MeV
10-1
10-3
0
Sec. Energy
5
10
15
8
10
12
14
16
18
20
Energy (MeV)

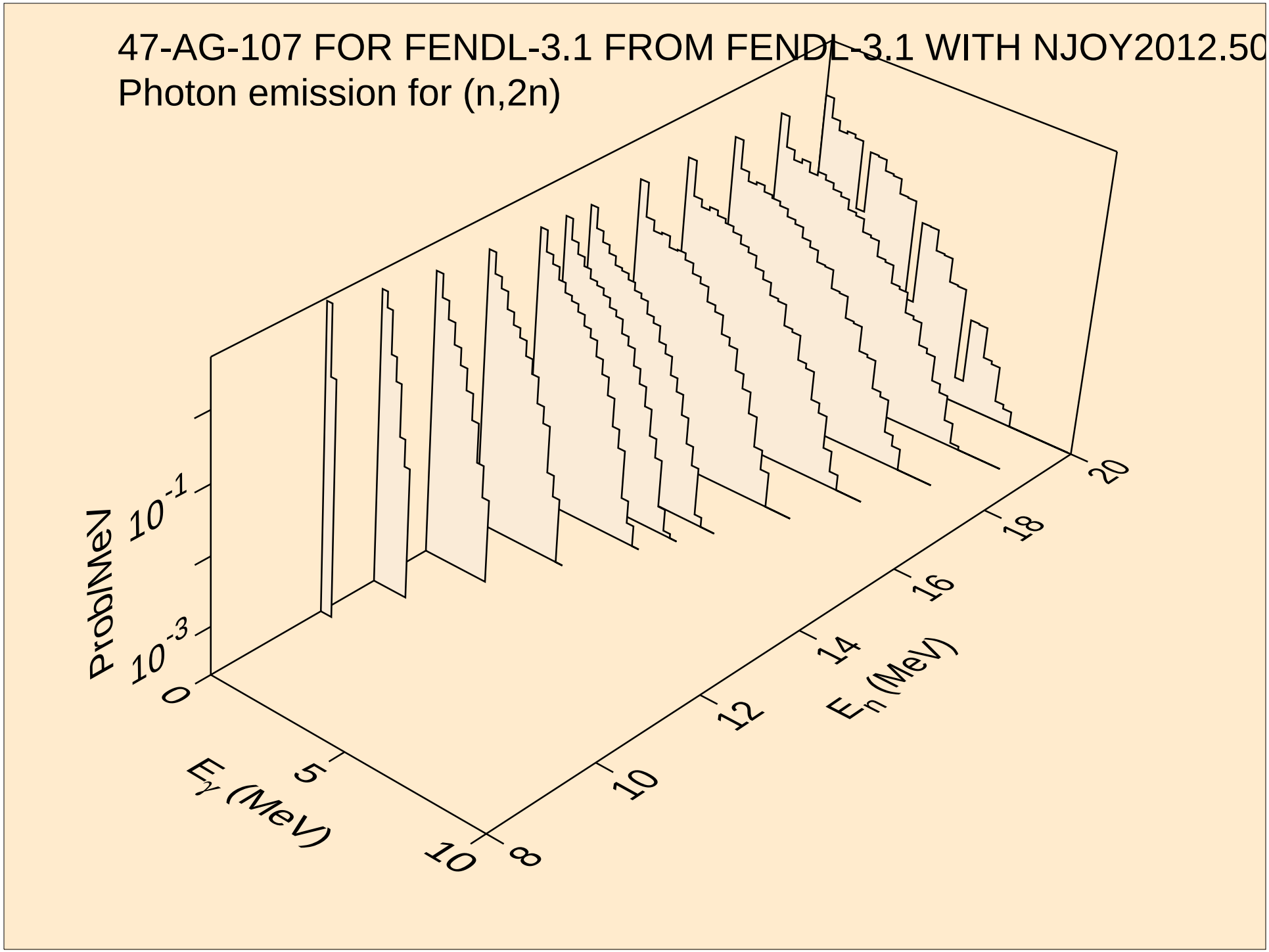

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Neutron emission for (n,3n)
Prob/MeV
10-1
10-3
0
1
2
3
Sec. Energy
17.5
18.0
18.5
19.0
19.5
20.0
Energy (MeV)

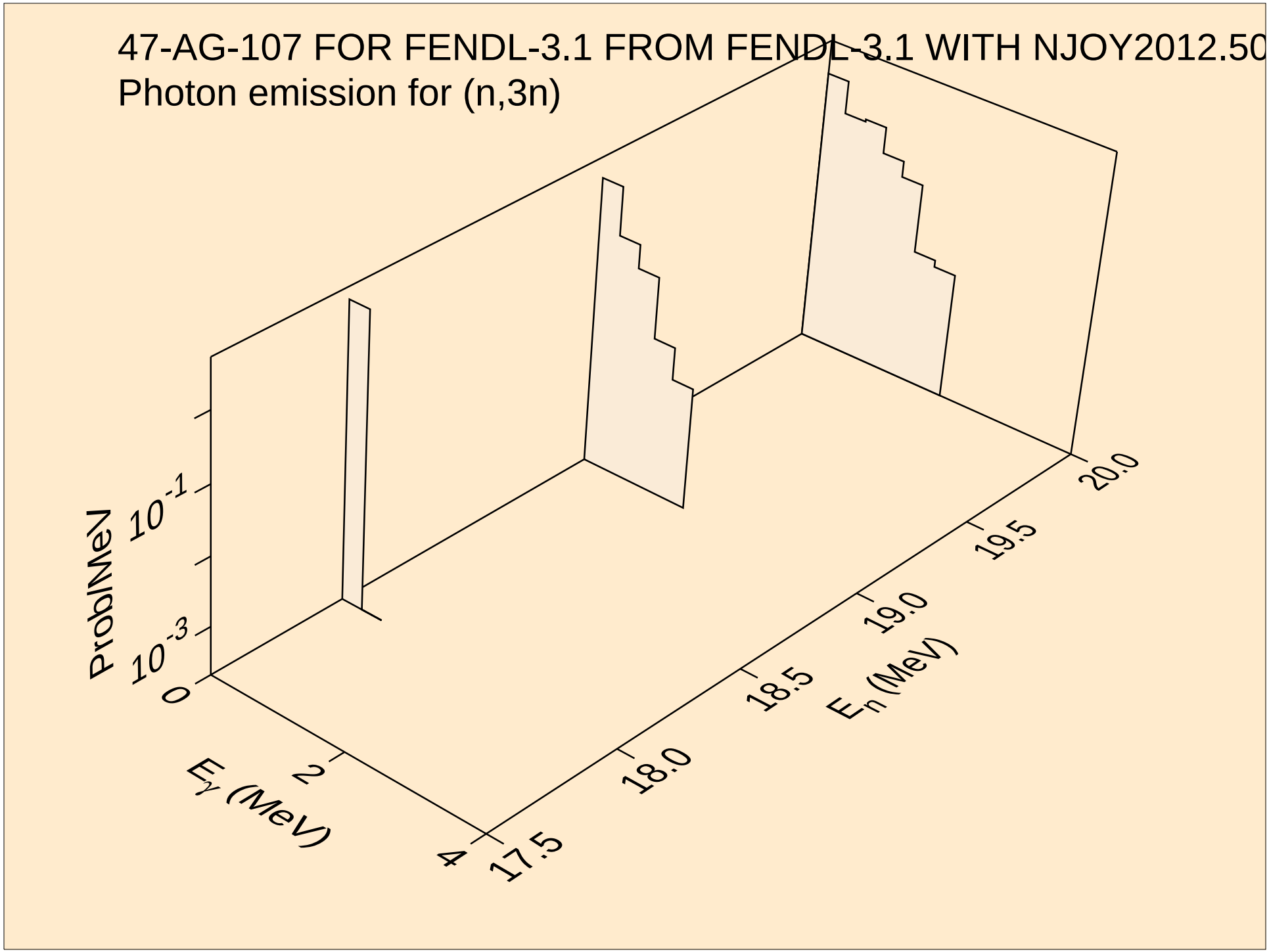

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Neutron emission for (n,n*)a
Prob/MeV
10-1
10-3
0
2
4
6
8
Sec. Energy
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

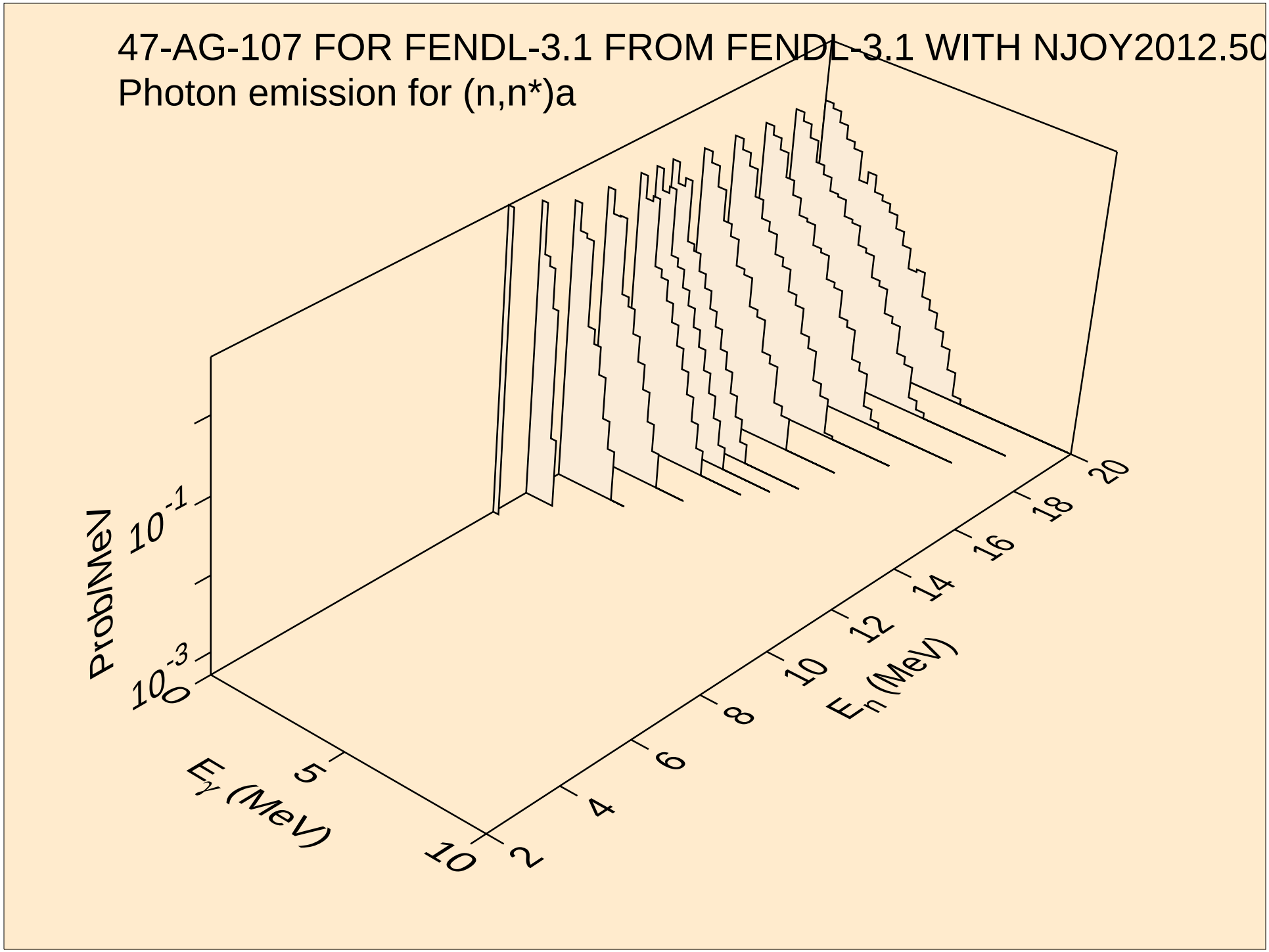

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Neutron emission for (n,n*)p
Prob/MeV
10-1
10-3
0
Sec. Energy
5
10
15
4
6
8
10
12
14
16
18
20
Energy (MeV)

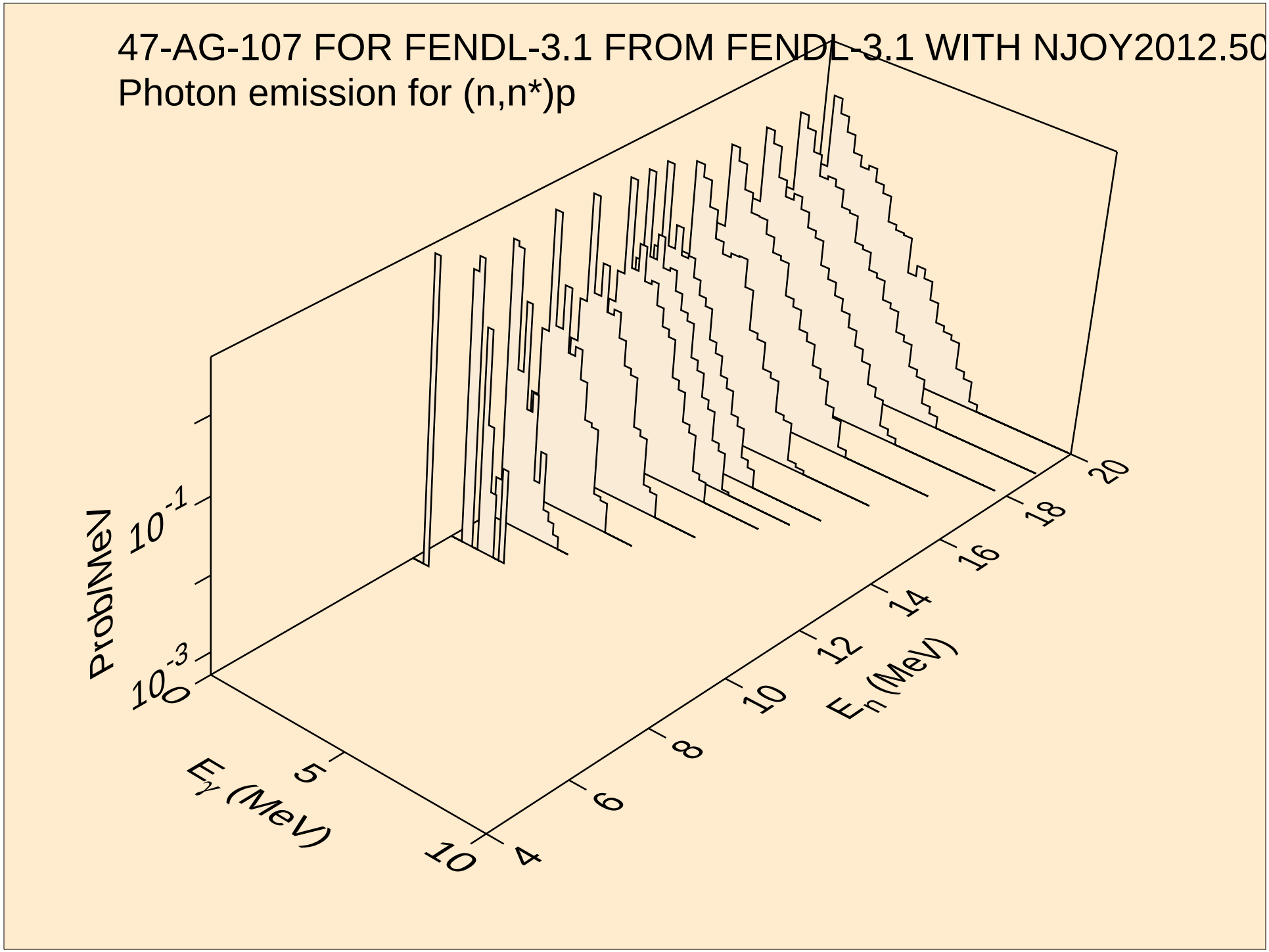

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Neutron emission for (n,n*c)
Prob/MeV
10^1
10^-1
10^-3
0
5
10
15
20
Sec. Energy
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

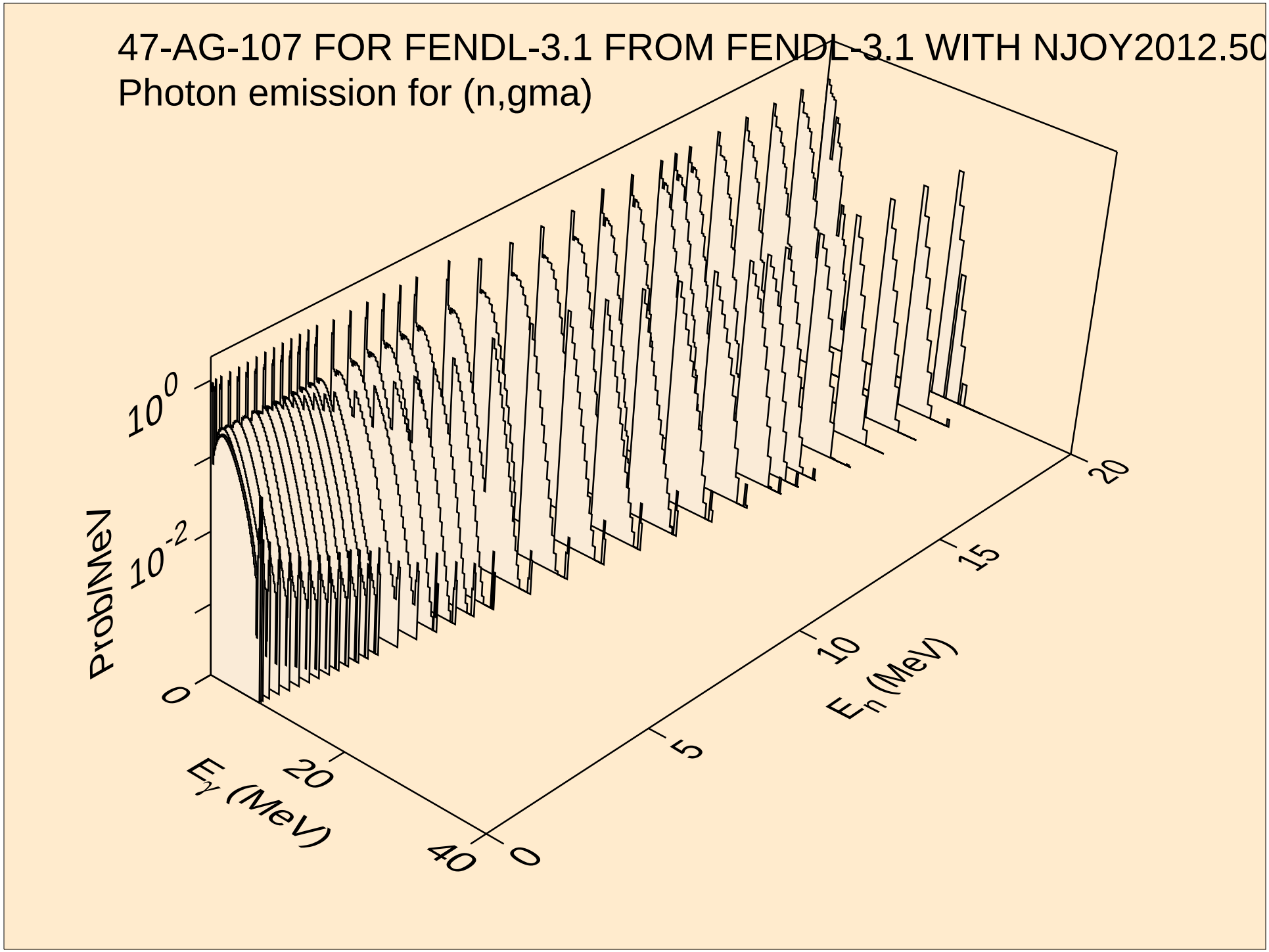

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for inelastic
Prob/MeV
10^{1}
10^{-1}
0
5
10
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

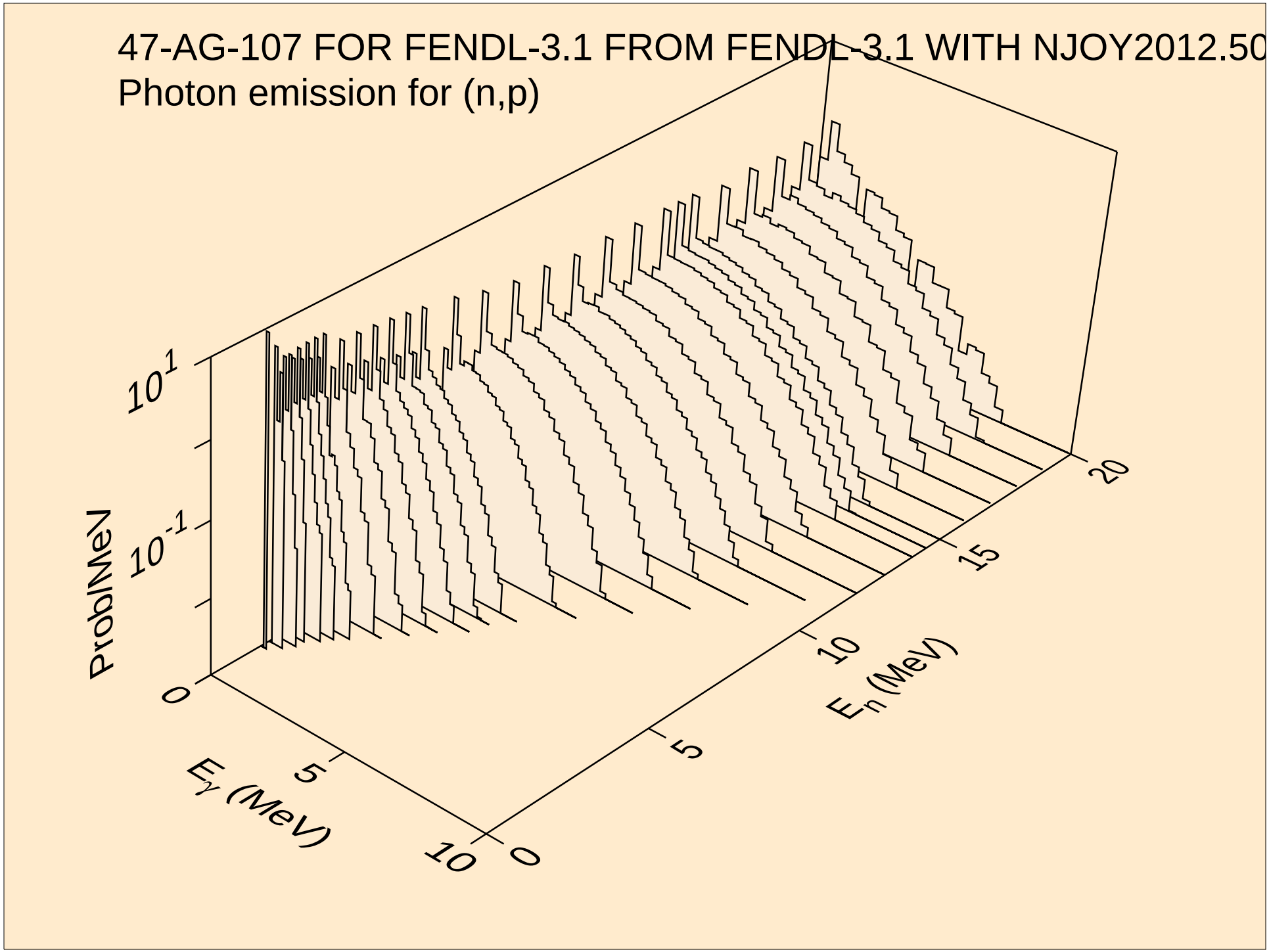

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,2n)
Prob/MeV
10-1
10-3
0
Eγ (MeV)
5
10
8
10
12
14
16
18
20
En (MeV)

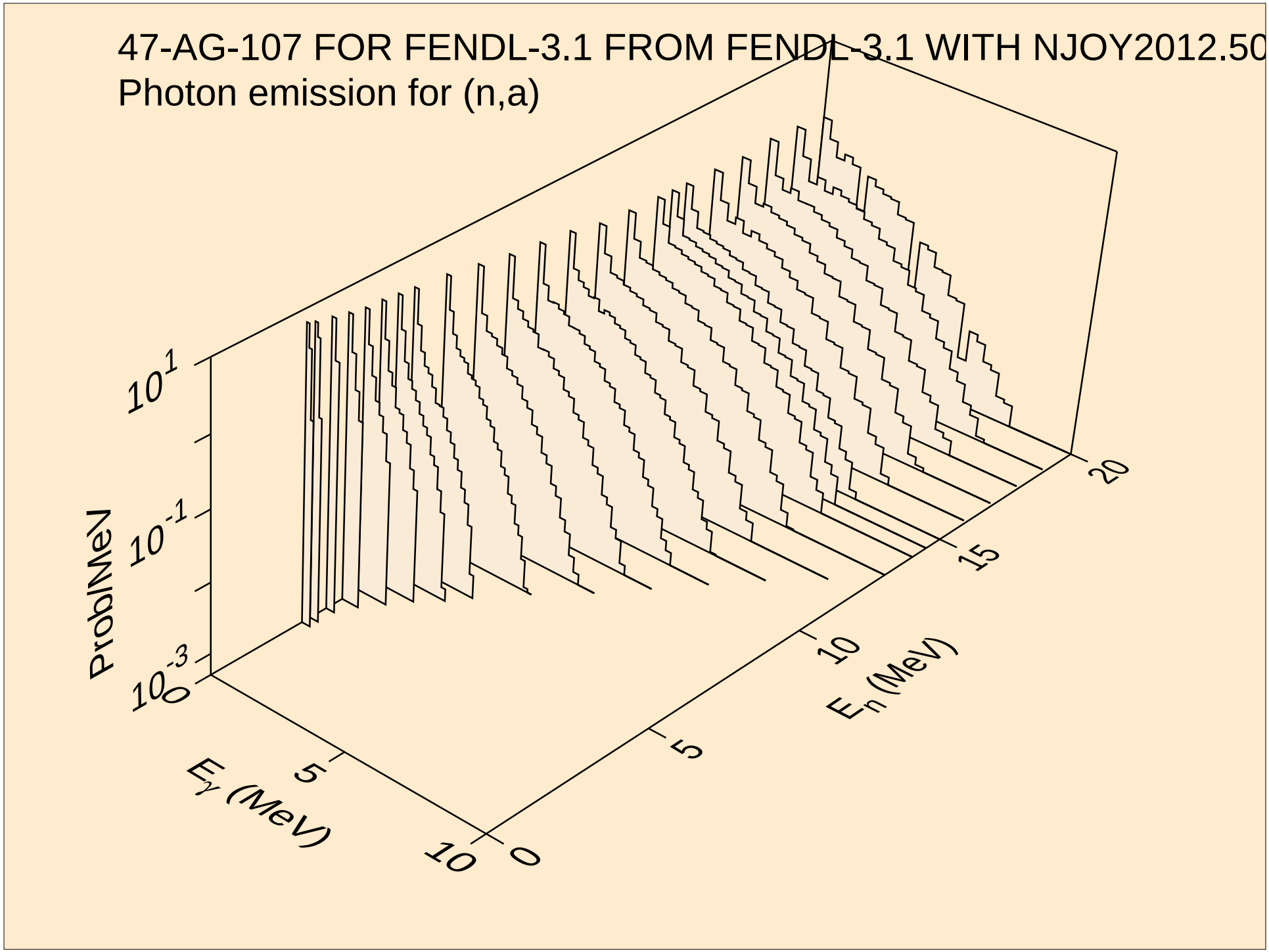

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,3n)
Prob/MeV
10-1
10-3
0
2
4
Eγ (MeV)
17.5
18.0
18.5
19.0
19.5
20.0
En (MeV)

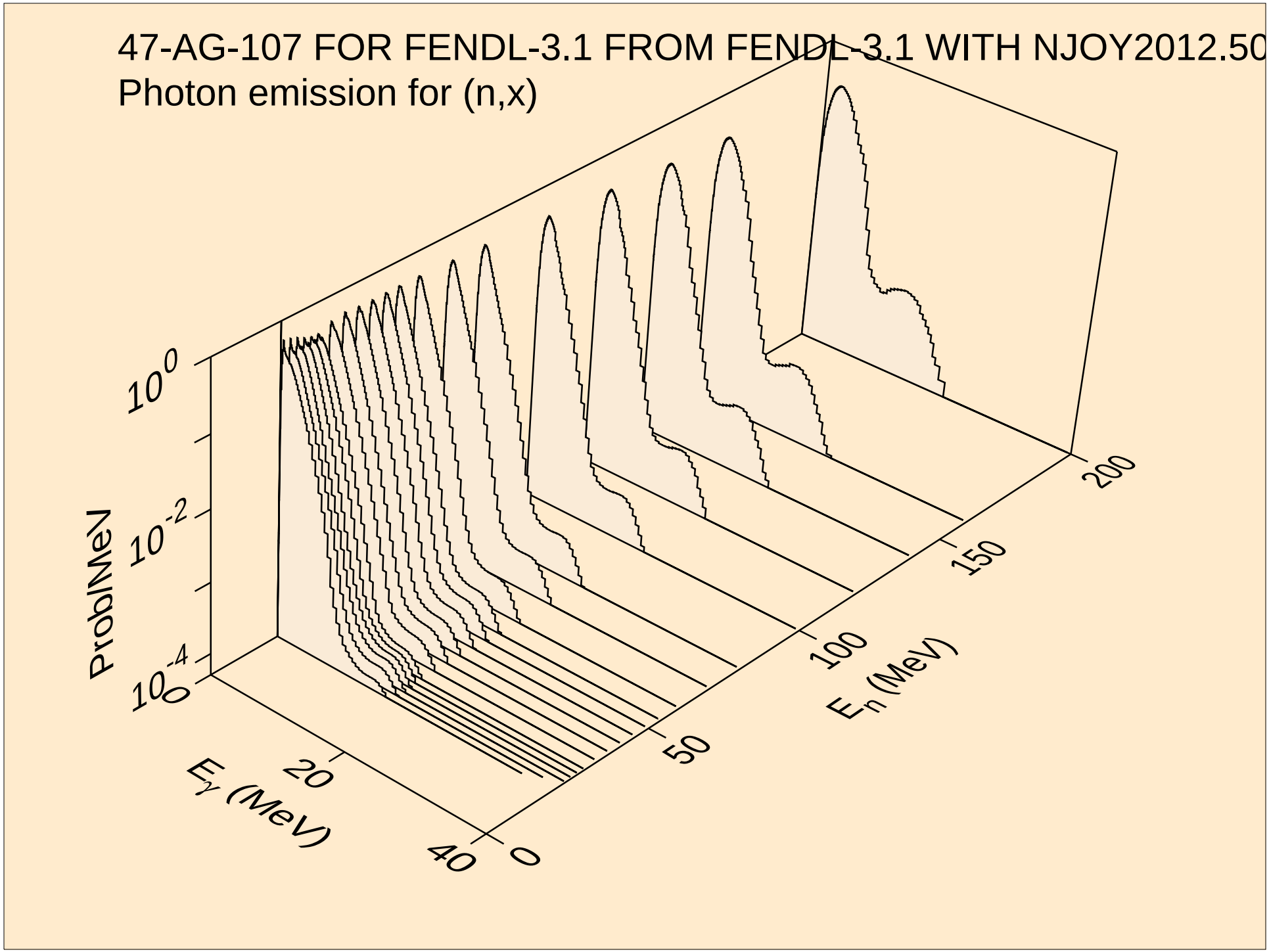

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,n*)a
Prob/MeV
10-1
10-3
0
5
10
Eγ (MeV)
2
4
6
8
10
12
14
16
18
20
En (MeV)

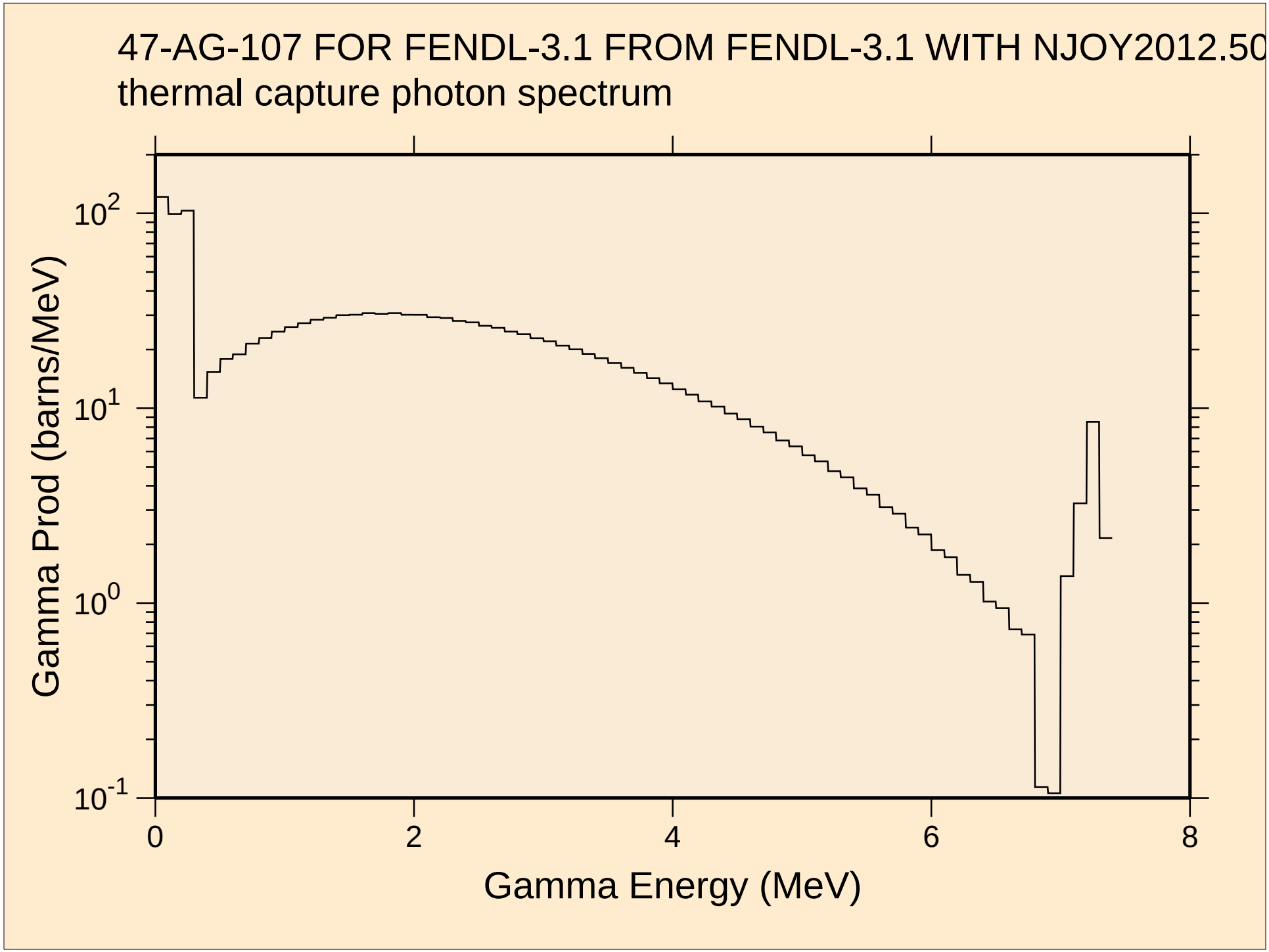

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,n*)p
Prob/MeV
10-1
10-3
0
5
Eγ (MeV)
10
4
6
8
10
12
14
16
18
20
En (MeV)

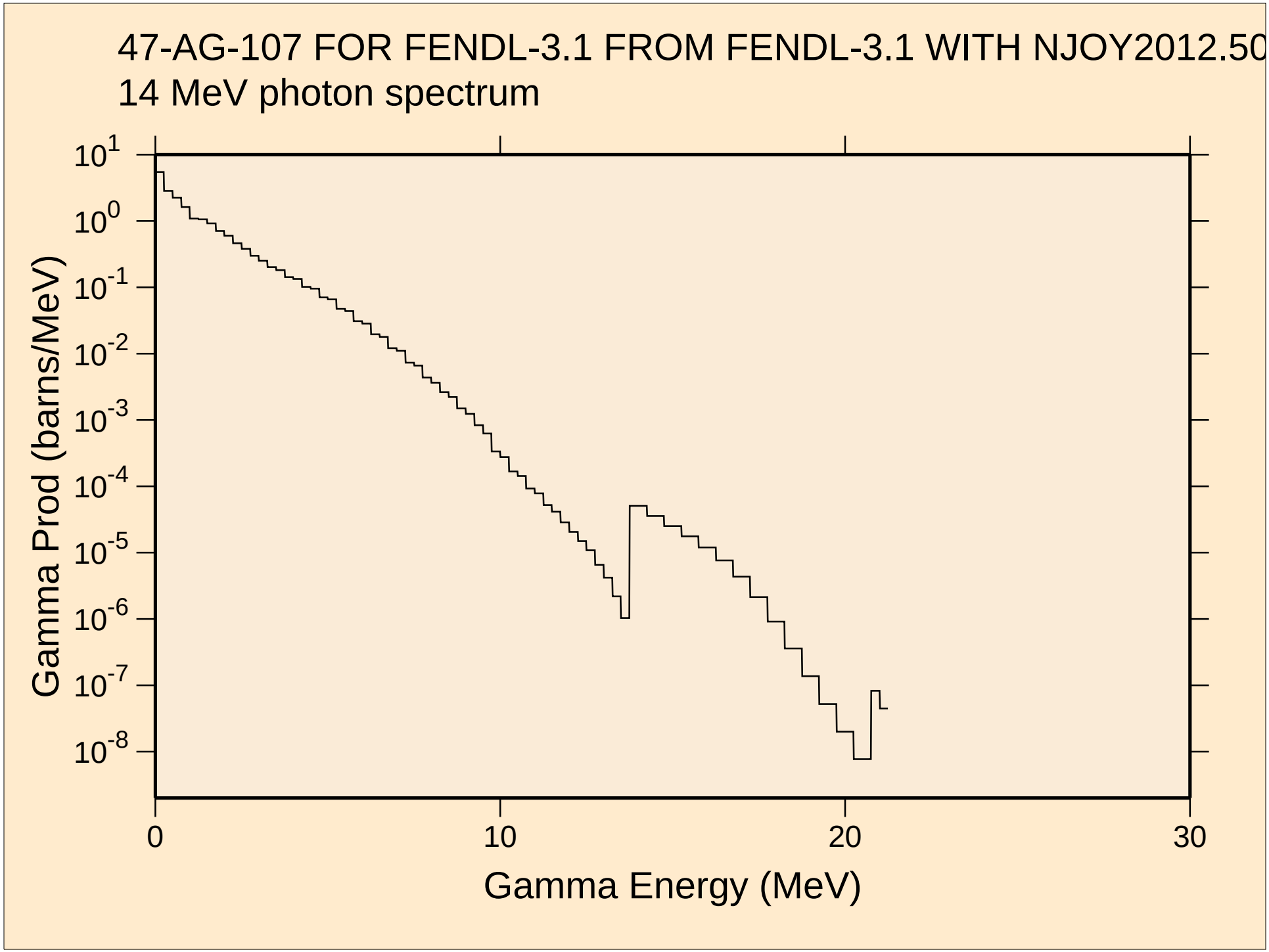

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,gma)
Prob/MeV
10^0
10^{-2}
0
E_γ (MeV)
20
40
0
5
10
15
20
E_n (MeV)

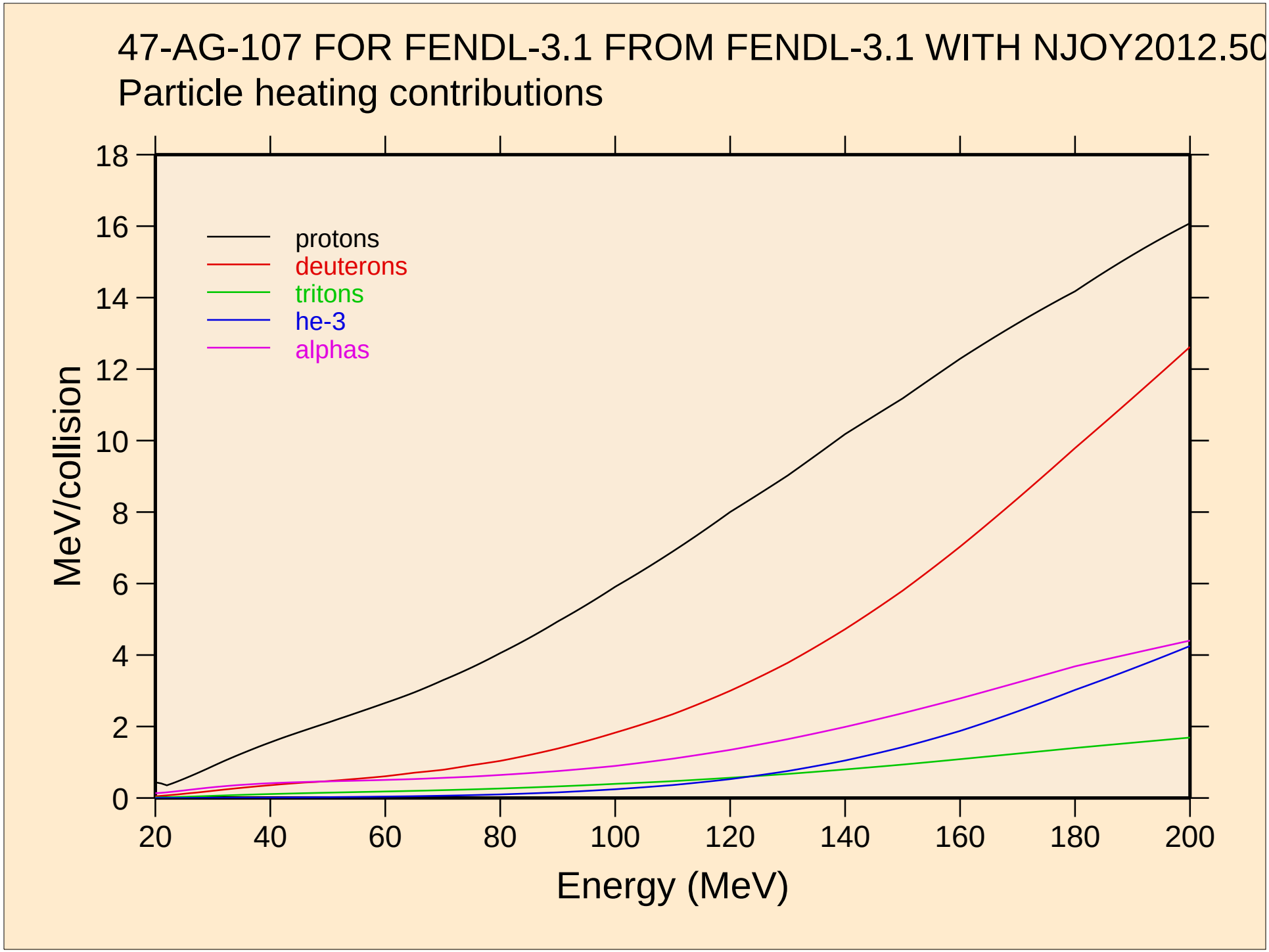

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,p)
Prob/MeV
10^{1}
10^{-1}
0
5
10
E_γ (MeV)
0
5
10
15
20
E_n (MeV)

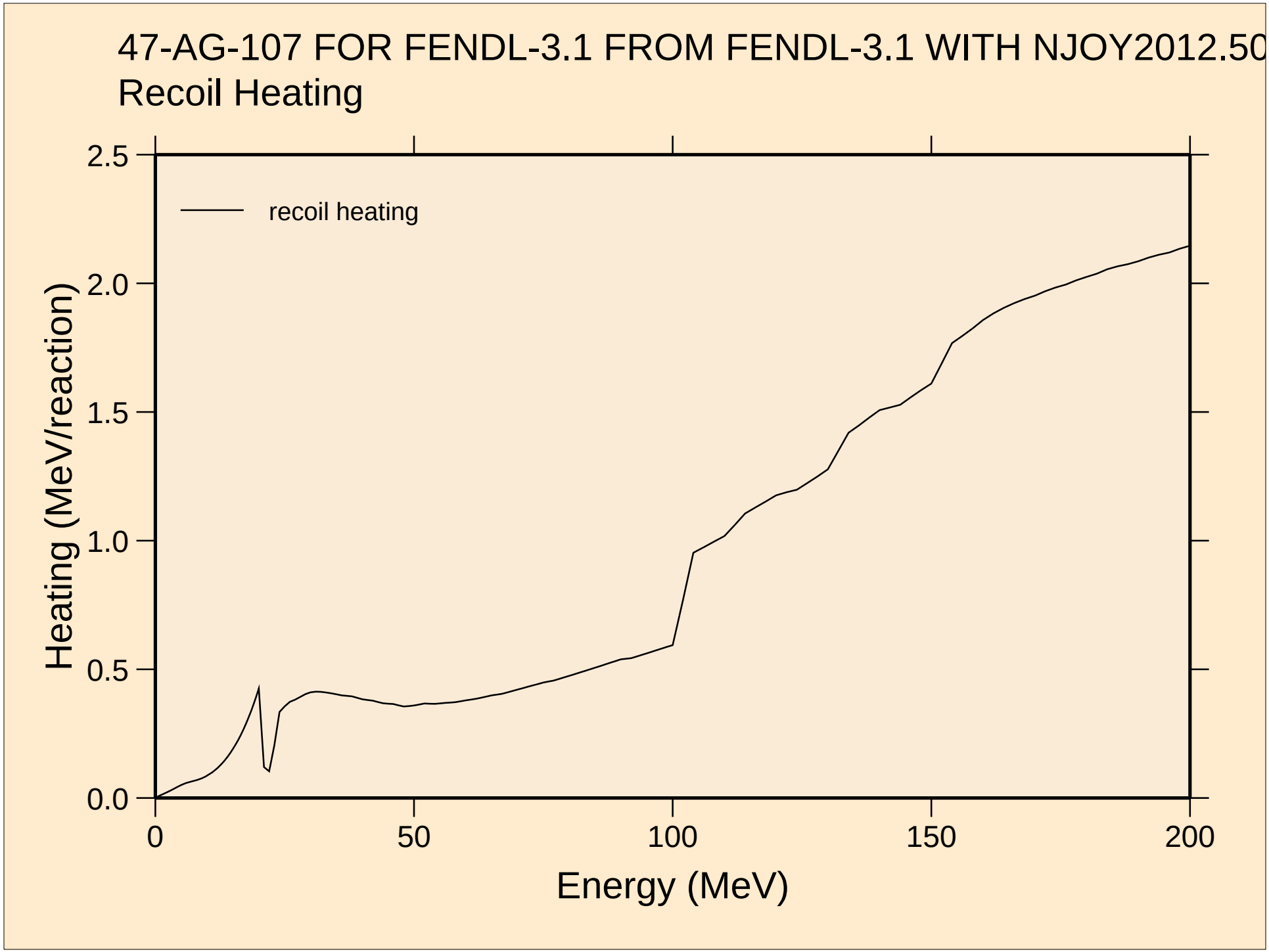

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,a)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
0
5
10
E_γ (MeV)
0
5
10
15
20
E_n (MeV)

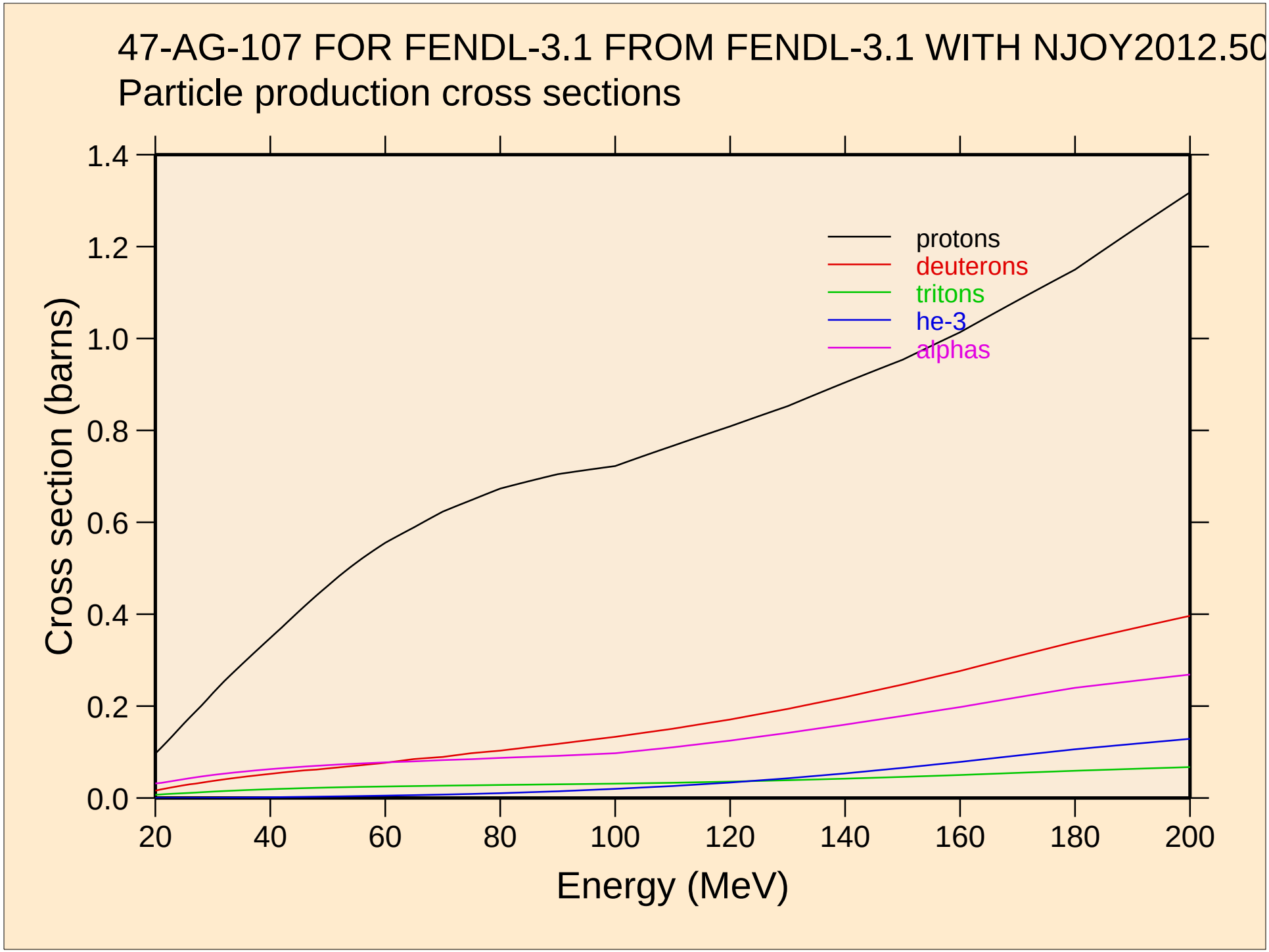

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Photon emission for (n,x)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
E_γ (MeV)
0
20
40
E_n (MeV)
0
50
100
150
200

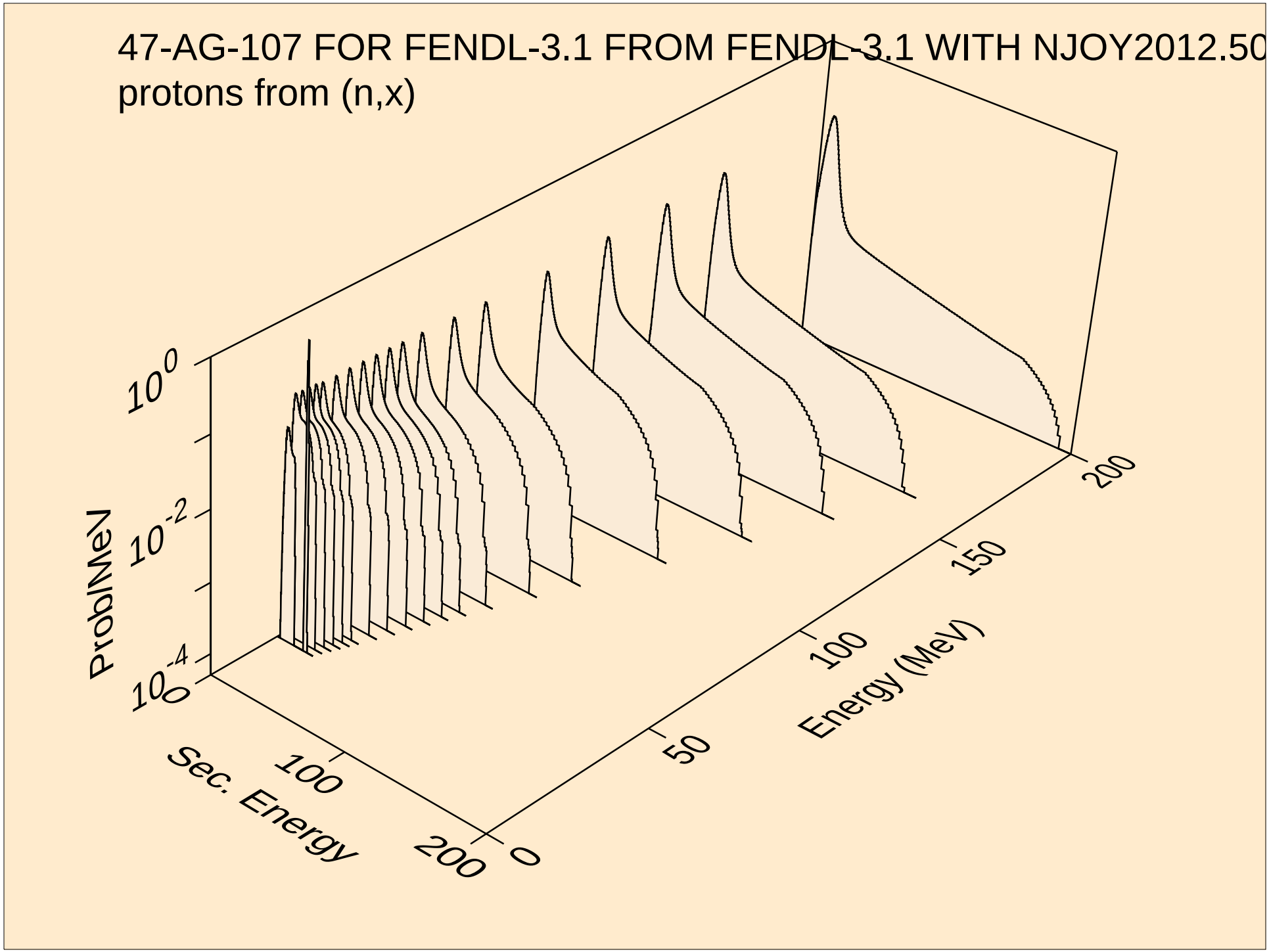

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^2
10^1
10^0
10^-1
0
2
4
6
8
Gamma Energy (MeV)

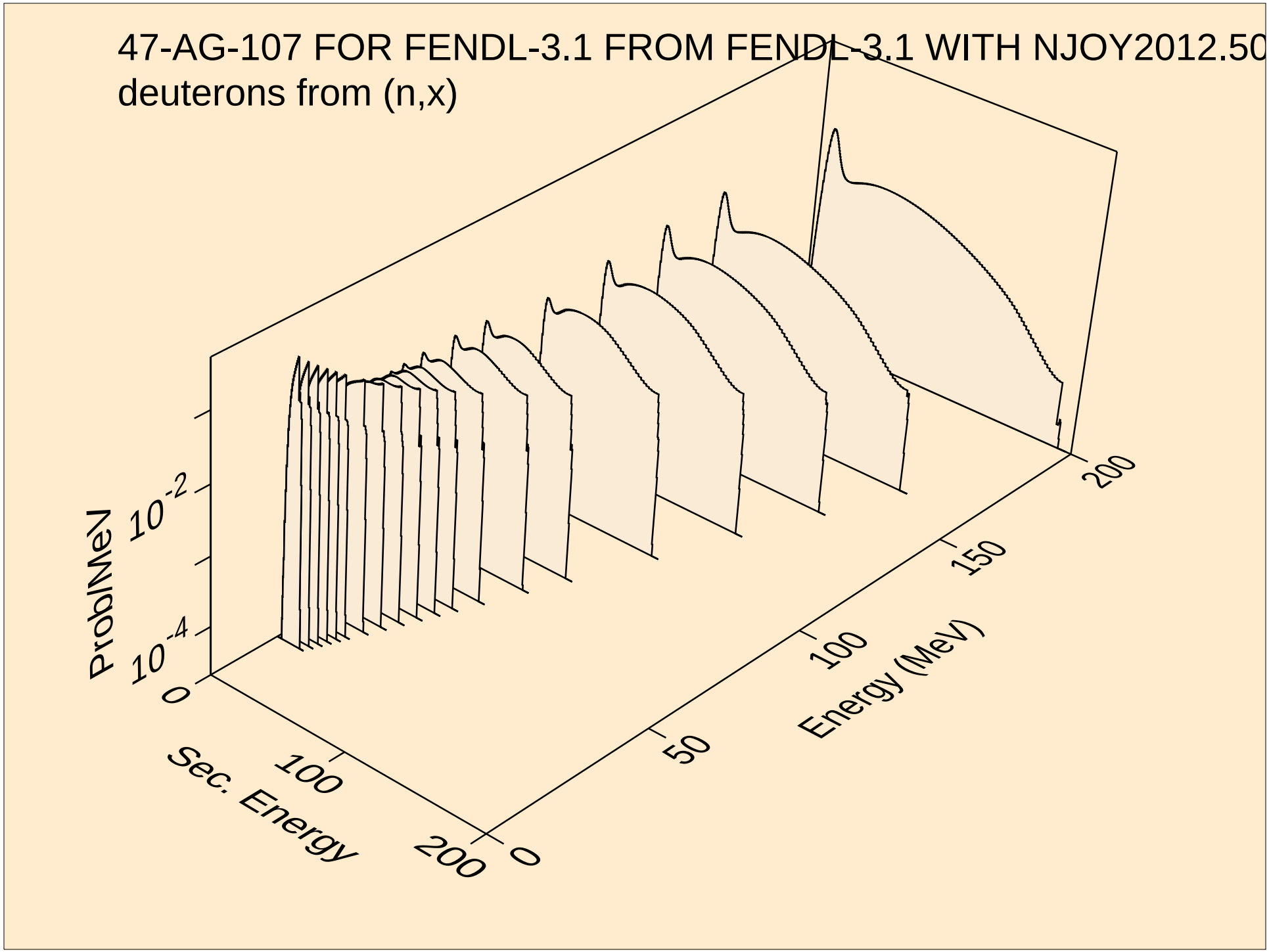

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-6
10^-7
10^-8
0
10
20
30
Gamma Energy (MeV)

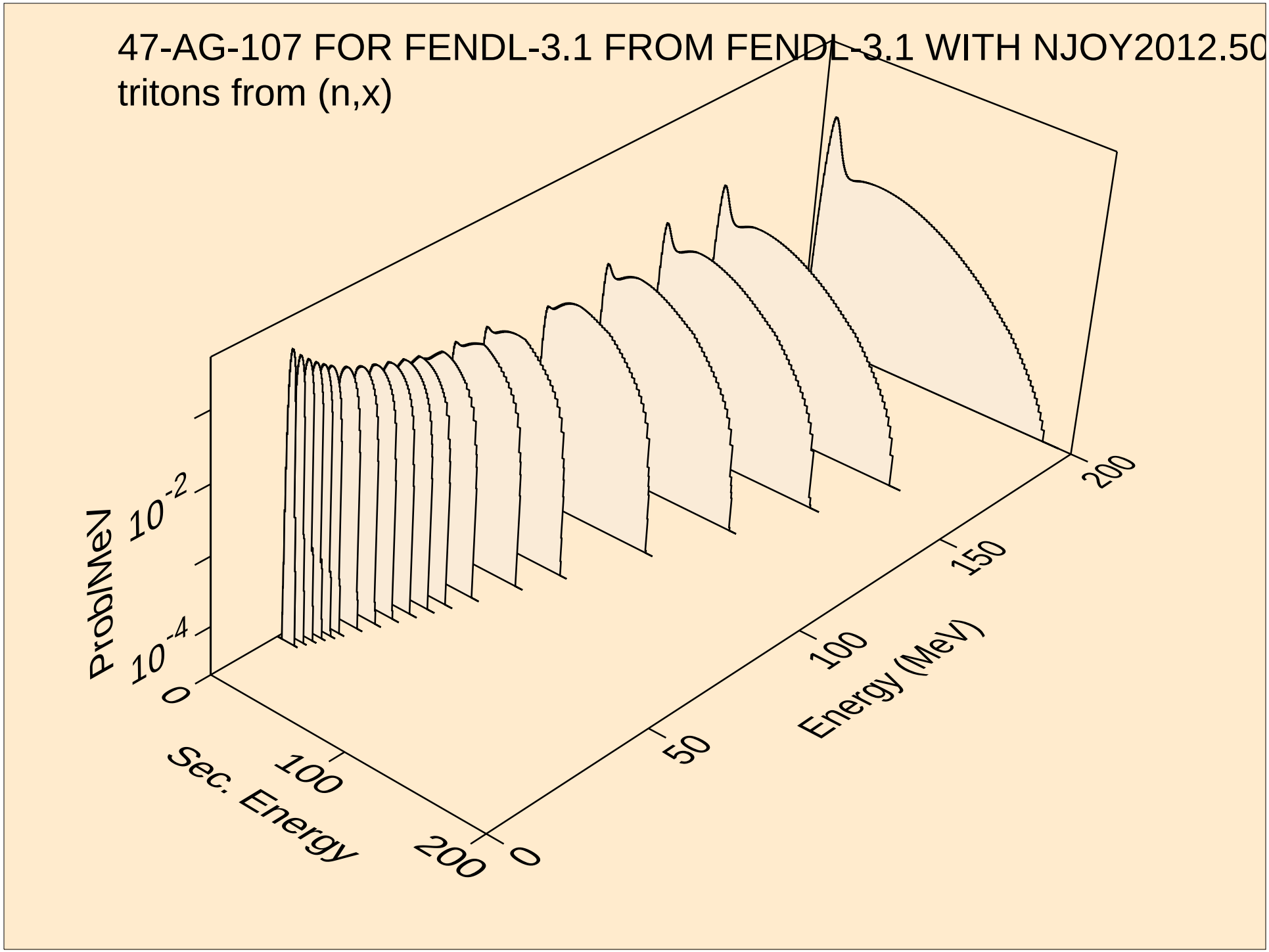

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Particle heating contributions
protons
deuterons
tritons
he-3
alphas
MeV/collision
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20
40
60
80
100
120
140
160
180
200

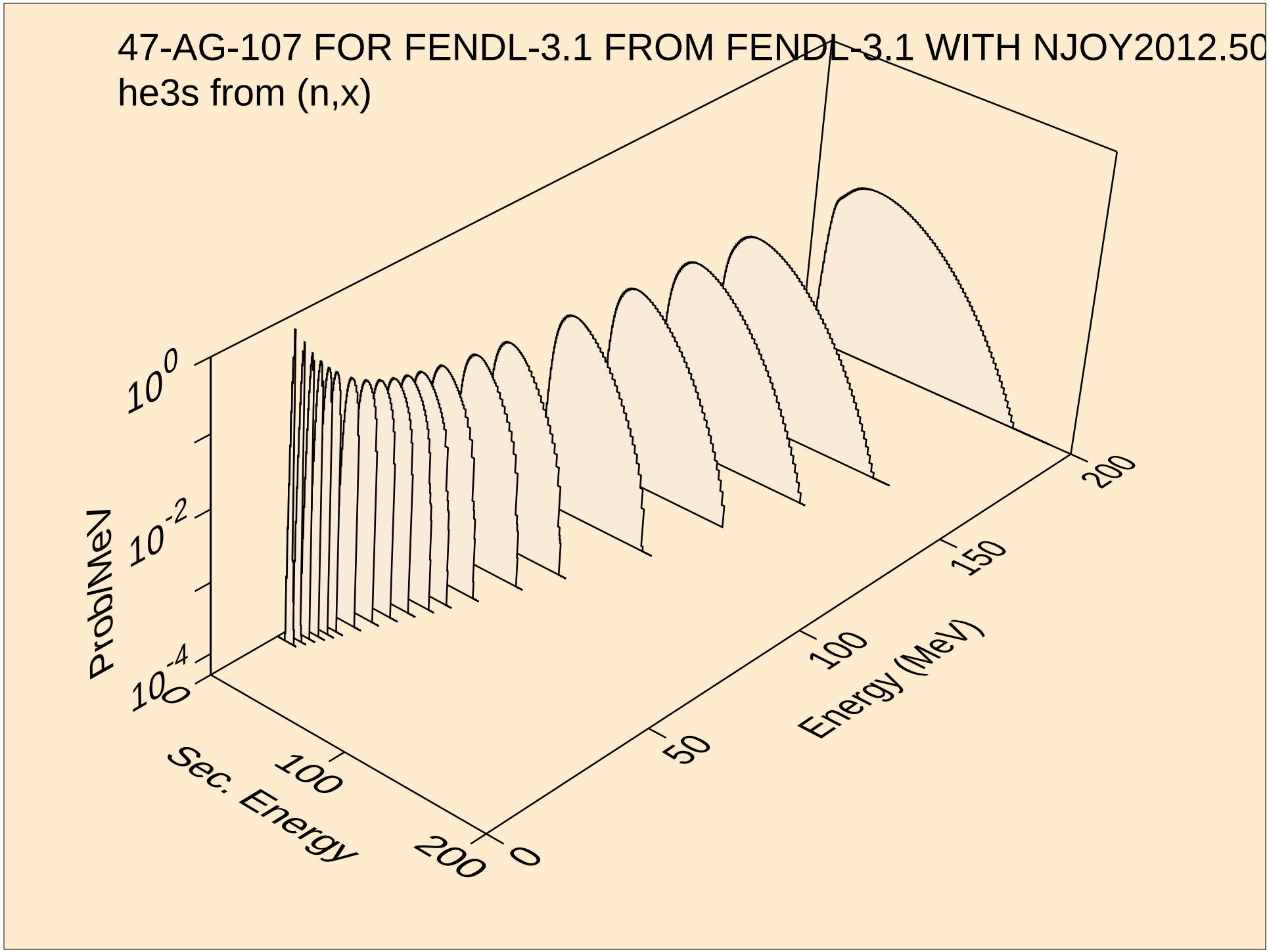

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Recoil Heating
recoil heating
Heating (MeV/reaction)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
0
50
100
150
200

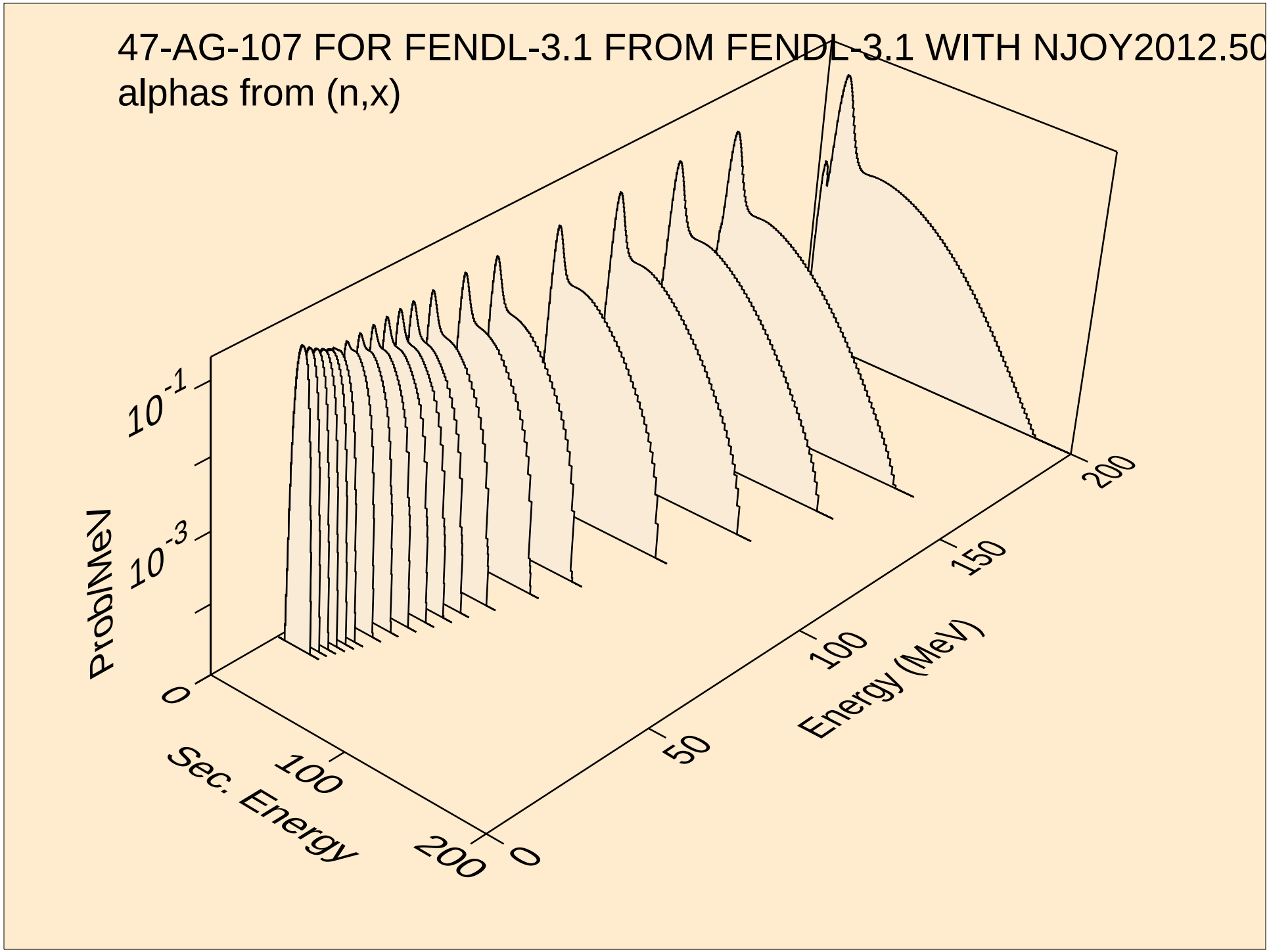

47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
Particle production cross sections
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
20
40
60
80
100
120
140
160
180
200
protons
deuterons
tritons
he-3
alphas


47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
protons from (n,x)
Prob/MeV
10^0
10^-2
10^-4
0
100
200
Sec. Energy
0
50
100
150
200
Energy (MeV)


47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
deuterons from (n,x)
Prob/MeV
10-2
10-4
0
100
200
Sec. Energy
0
50
100
150
200
Energy (MeV)


47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
tritons from (n,x)
Prob/MeV
10-2
10-4
0
100
200
Sec. Energy
0
50
100
150
200
Energy (MeV)


47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
he3s from (n,x)
Prob/MeV
10^0
10^-2
10^-4
Sec. Energy
0
100
200
Energy (MeV)
0
50
100
150
200


47-AG-107 FOR FENDL-3.1 FROM FENDL-3.1 WITH NJOY2012.50
alphas from (n,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
50
100
150
200
Energy (MeV)