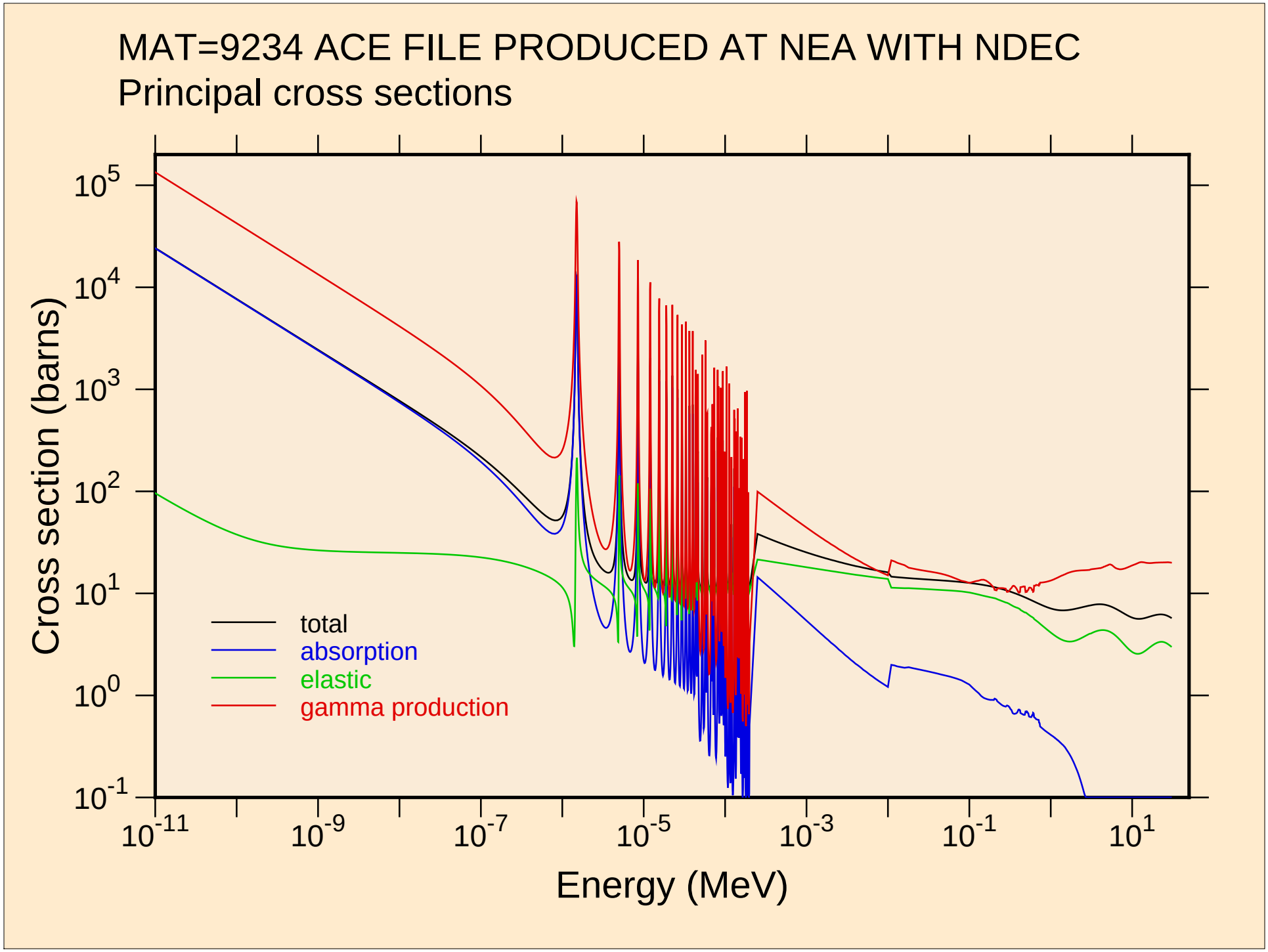
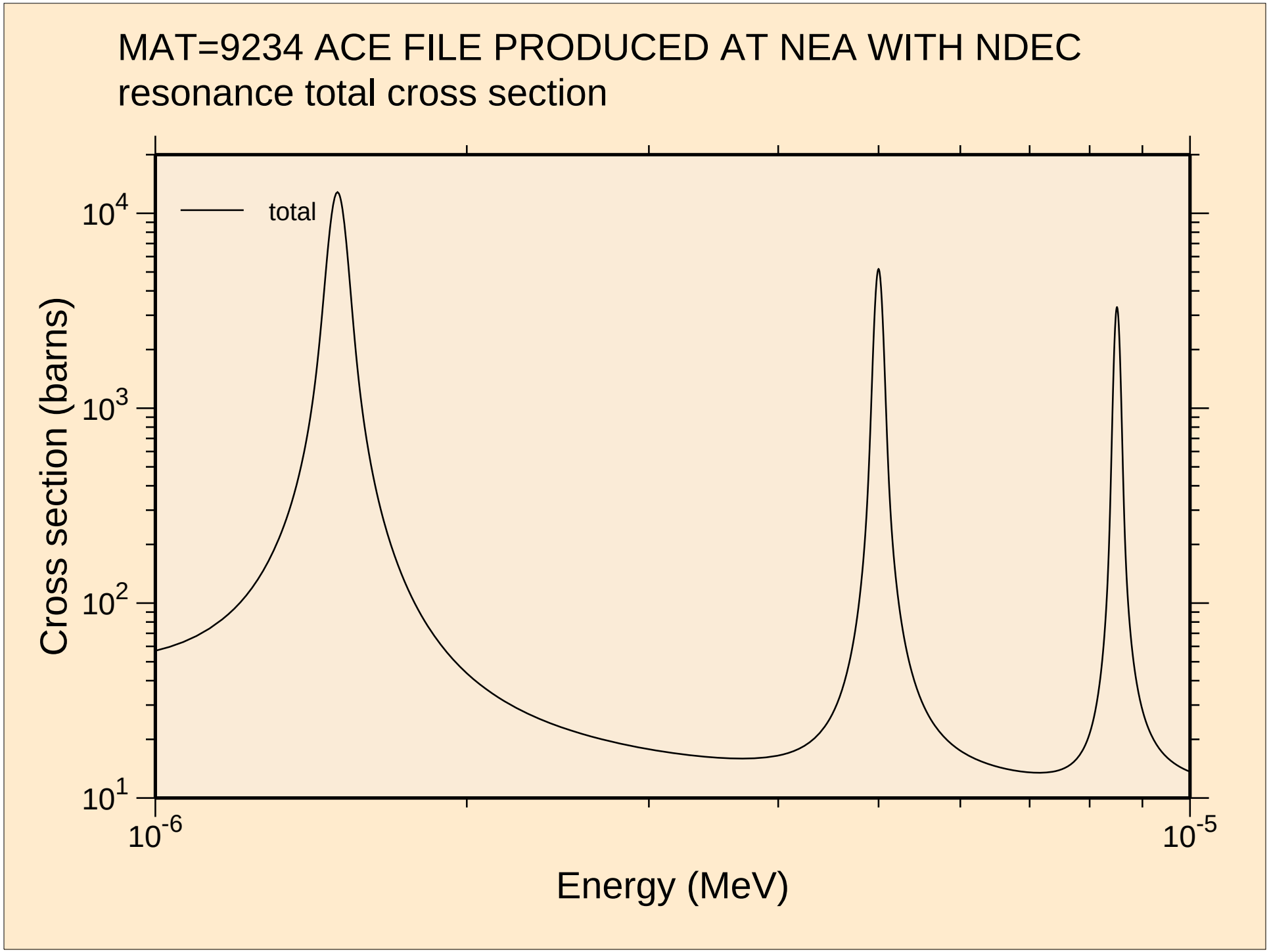
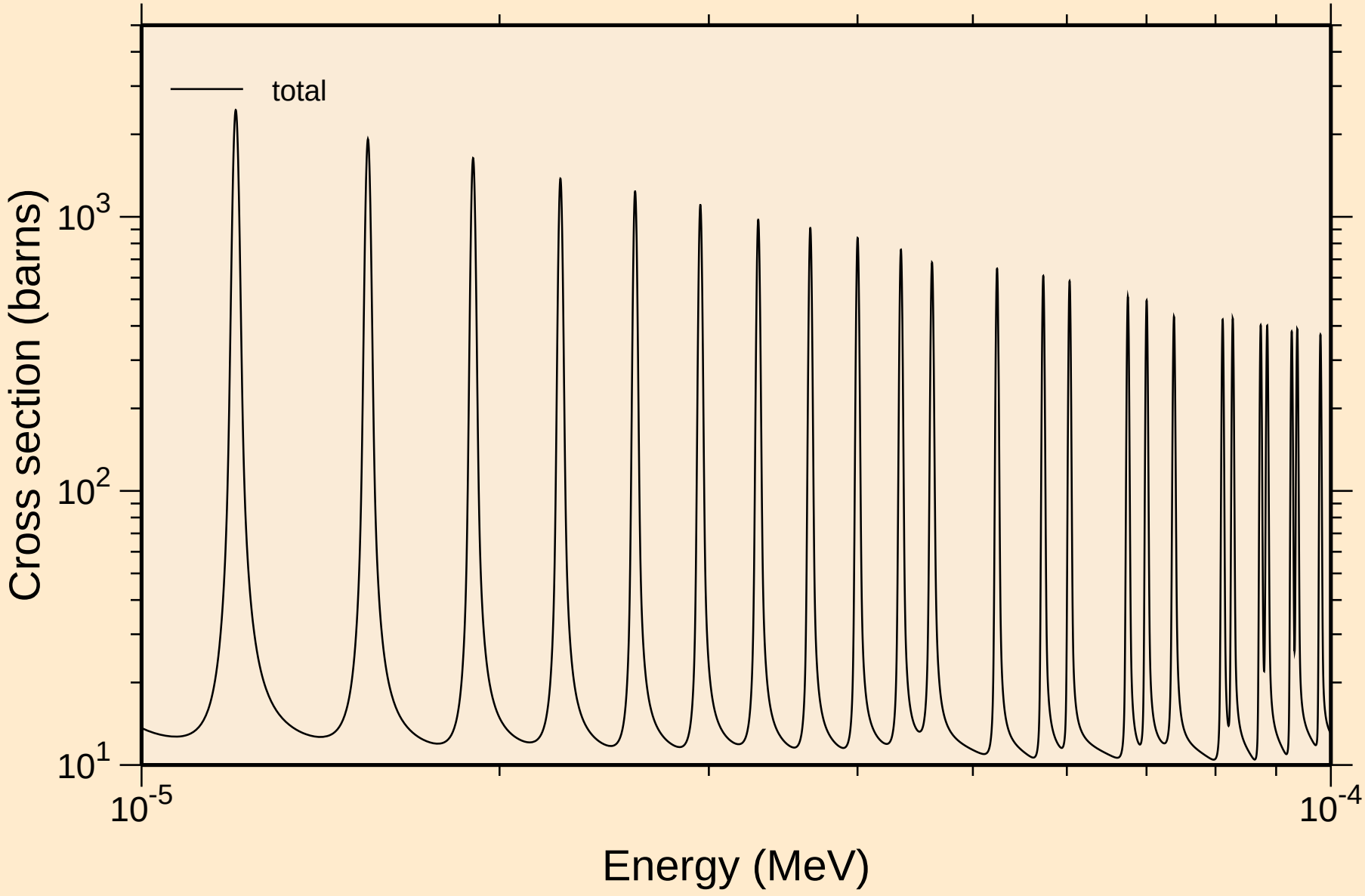
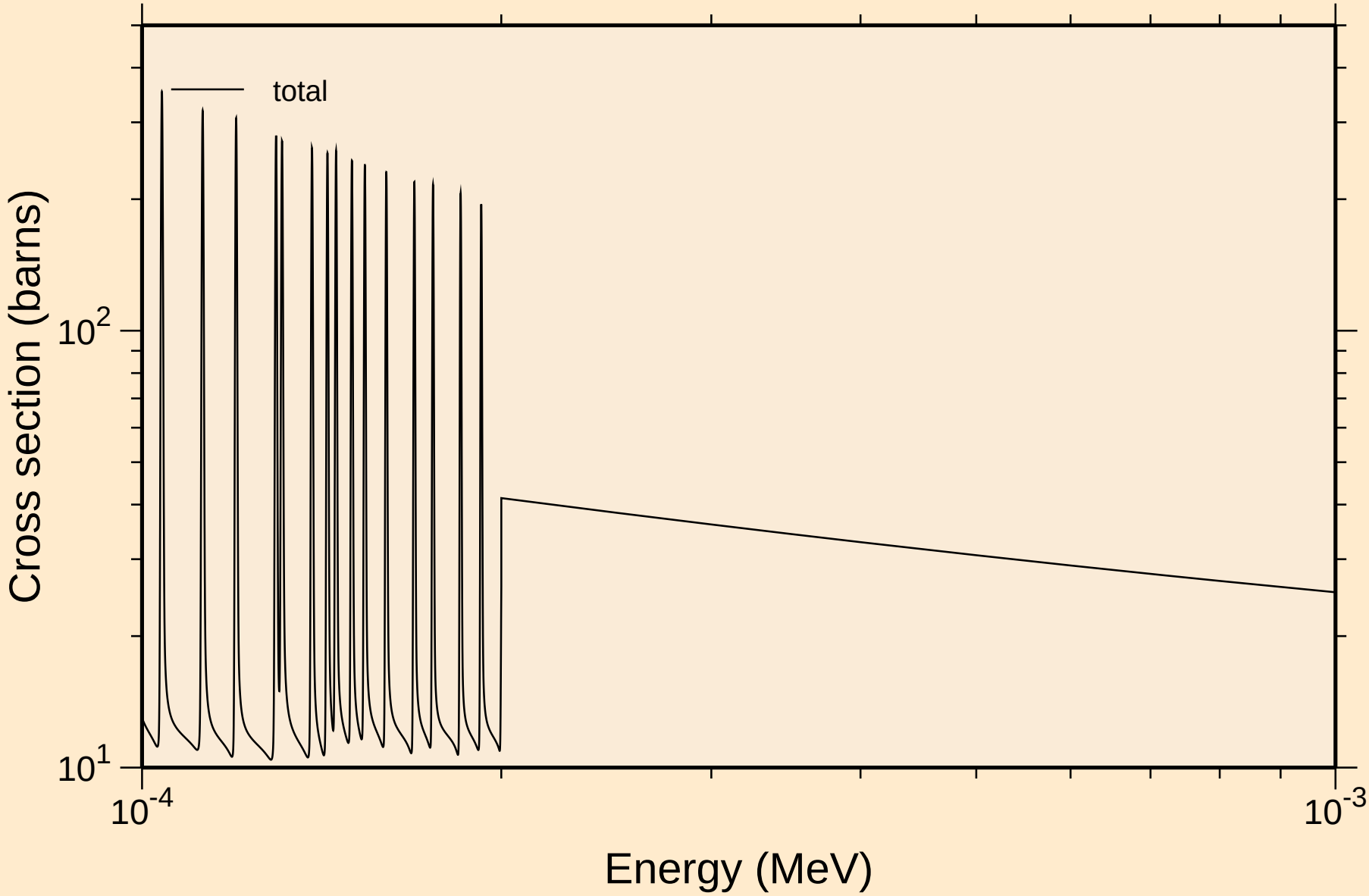

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Principal cross sections
Cross section (barns)
10^{5}
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
total
absorption
elastic
gamma production
10^{-11}
10^{-9}
10^{-7}
10^{-5}
10^{-3}
10^{-1}
10^{1}
Energy (MeV)

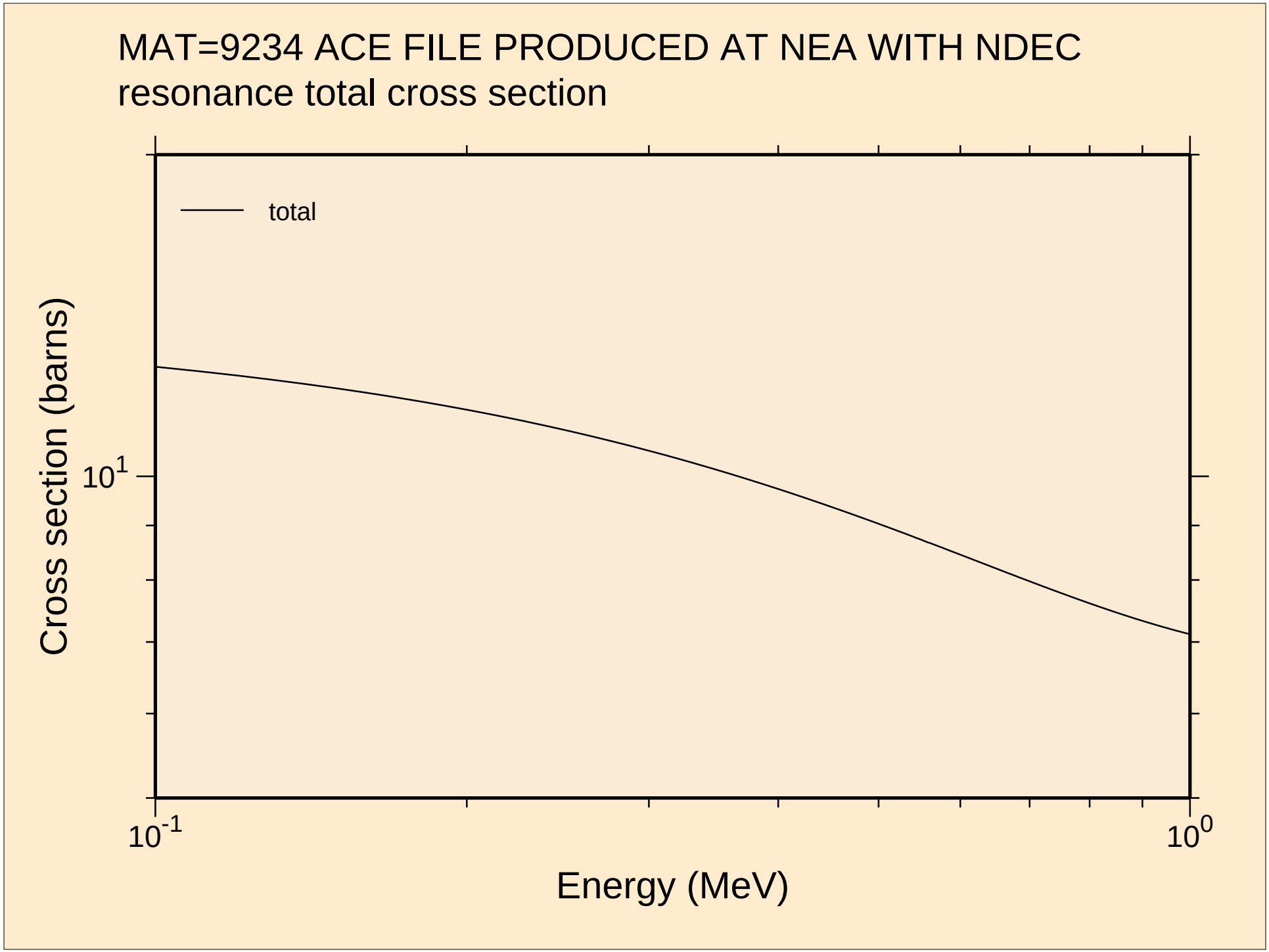

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section
total
Cross section (barns)
10^4
10^3
10^2
10^1
10^-6
10^-5
Energy (MeV)

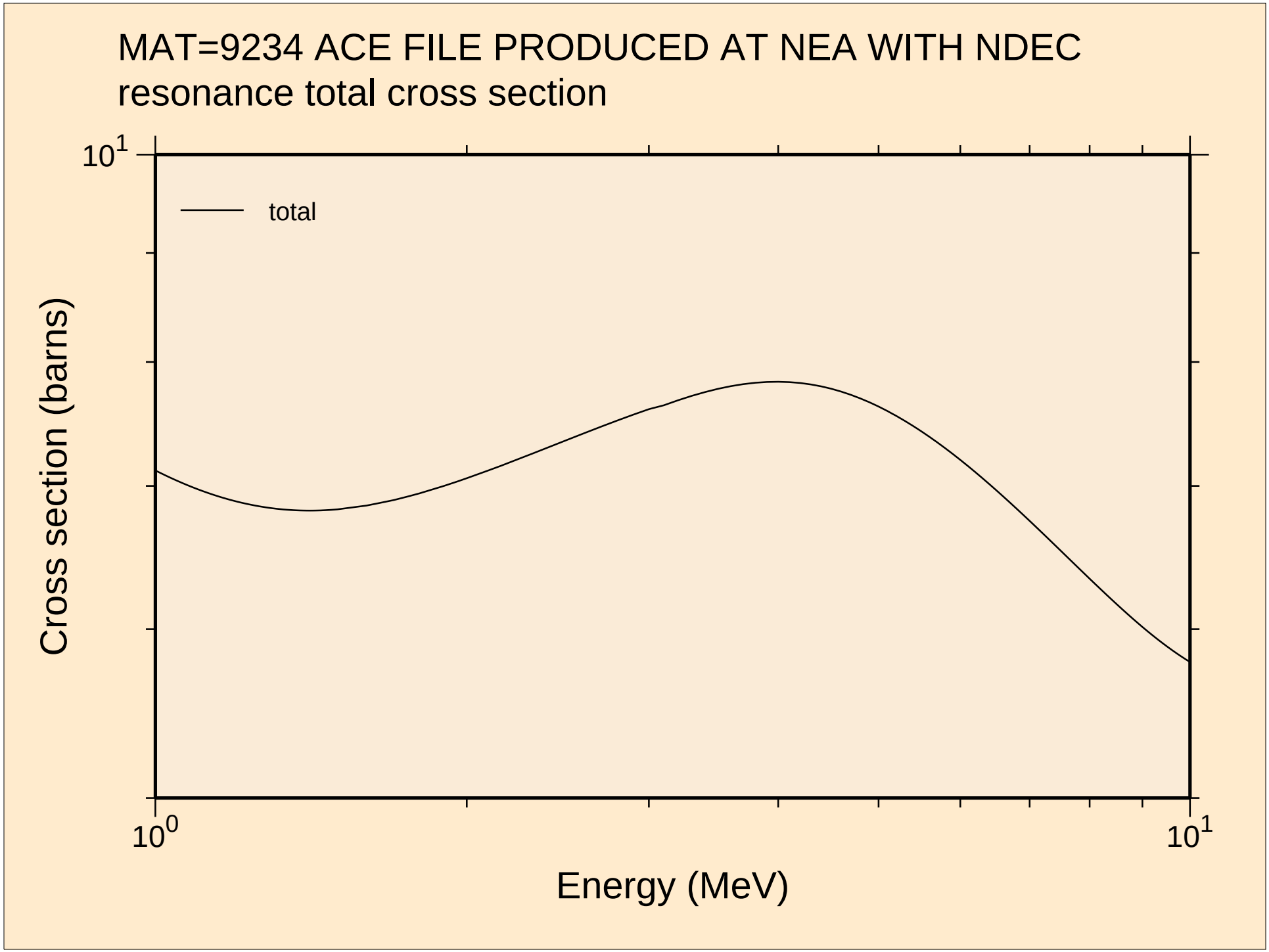
MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section

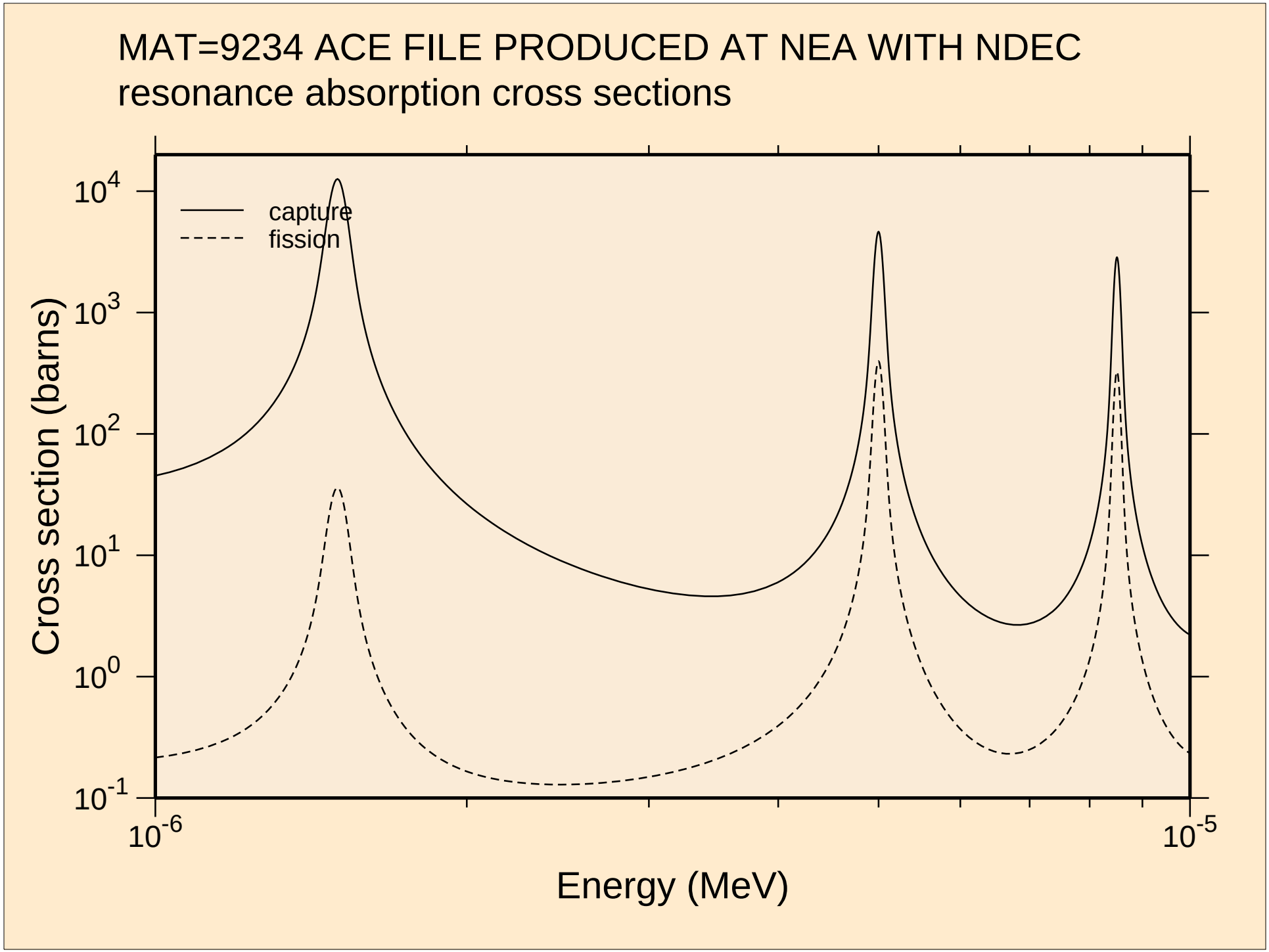


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section

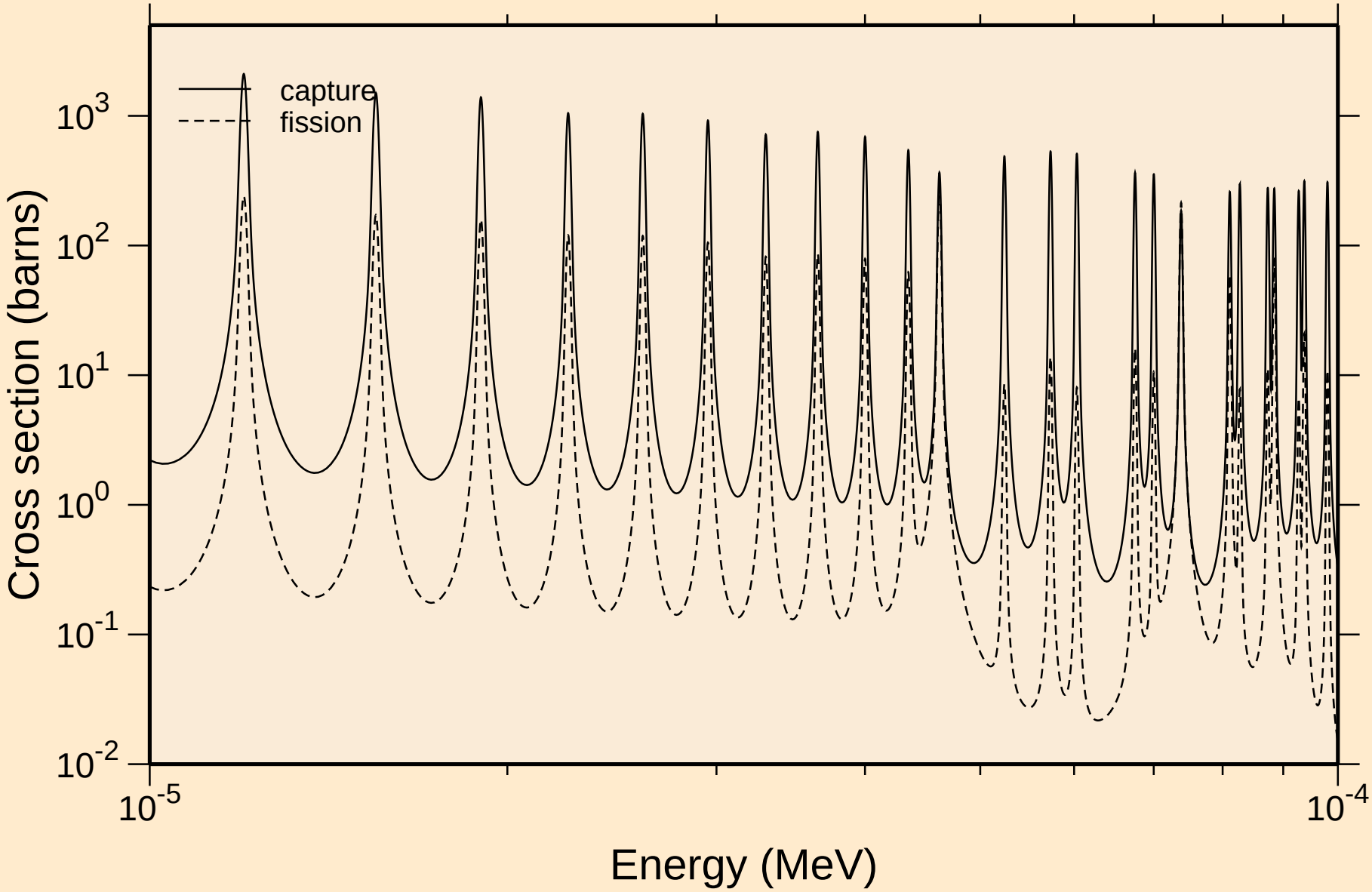


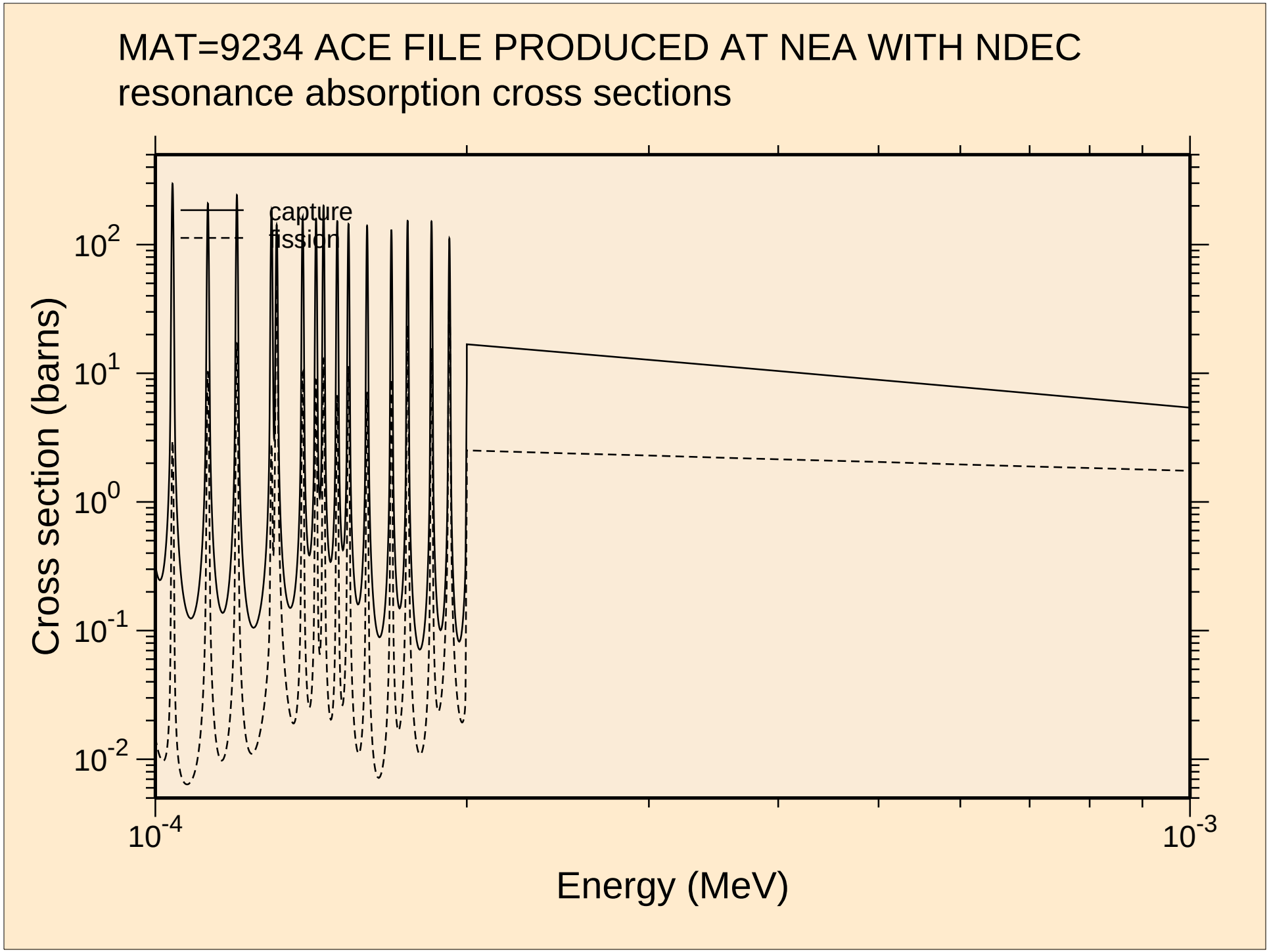

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section
total
Cross section (barns)
10^1
10^-1
10^0
Energy (MeV)

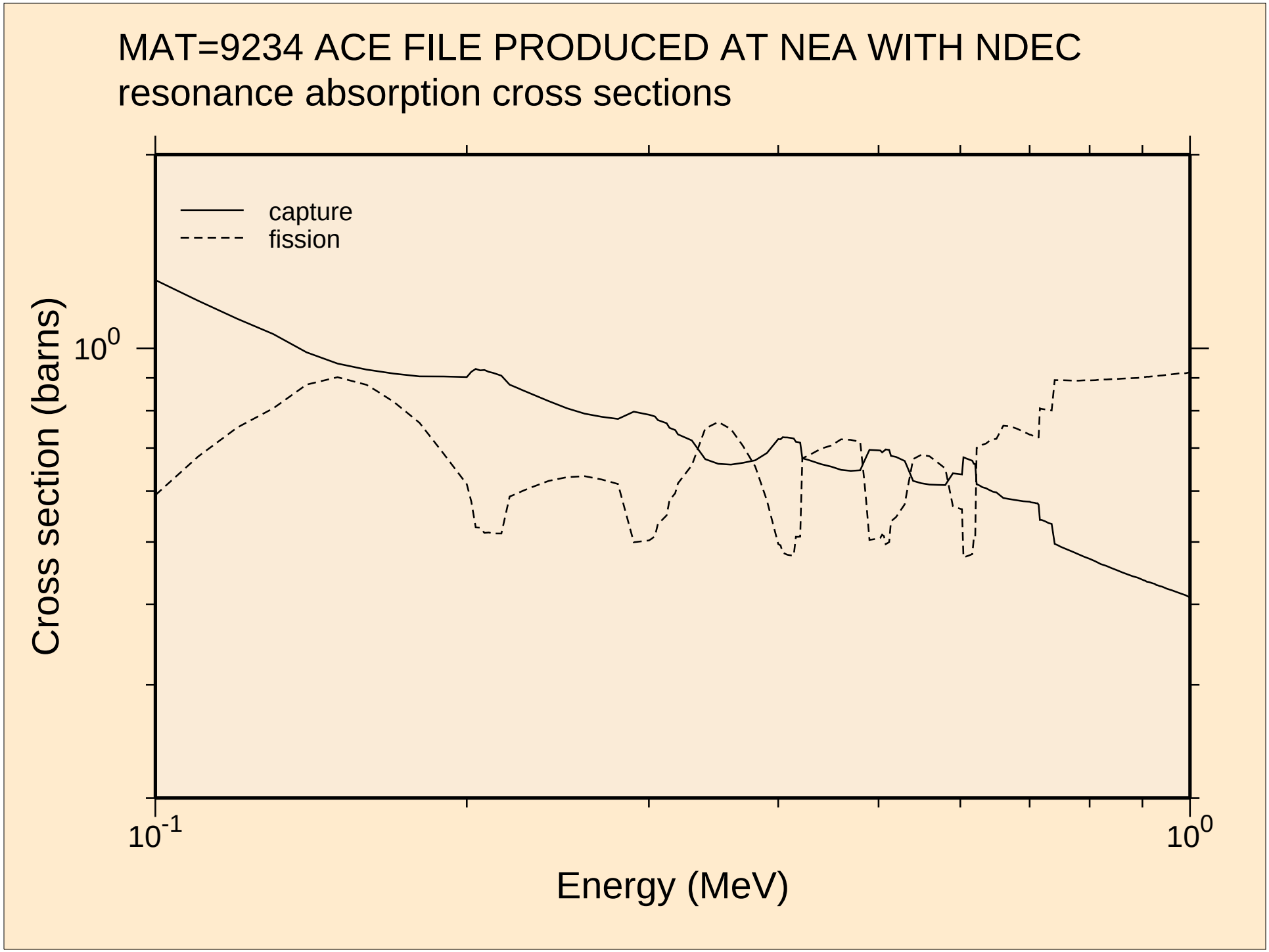

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section
10^1
total
Cross section (barns)
10^0
10^1
Energy (MeV)


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections
capture
fission
Cross section (barns)
10^4
10^3
10^2
10^1
10^0
10^-1
10^-6
10^-5
Energy (MeV)

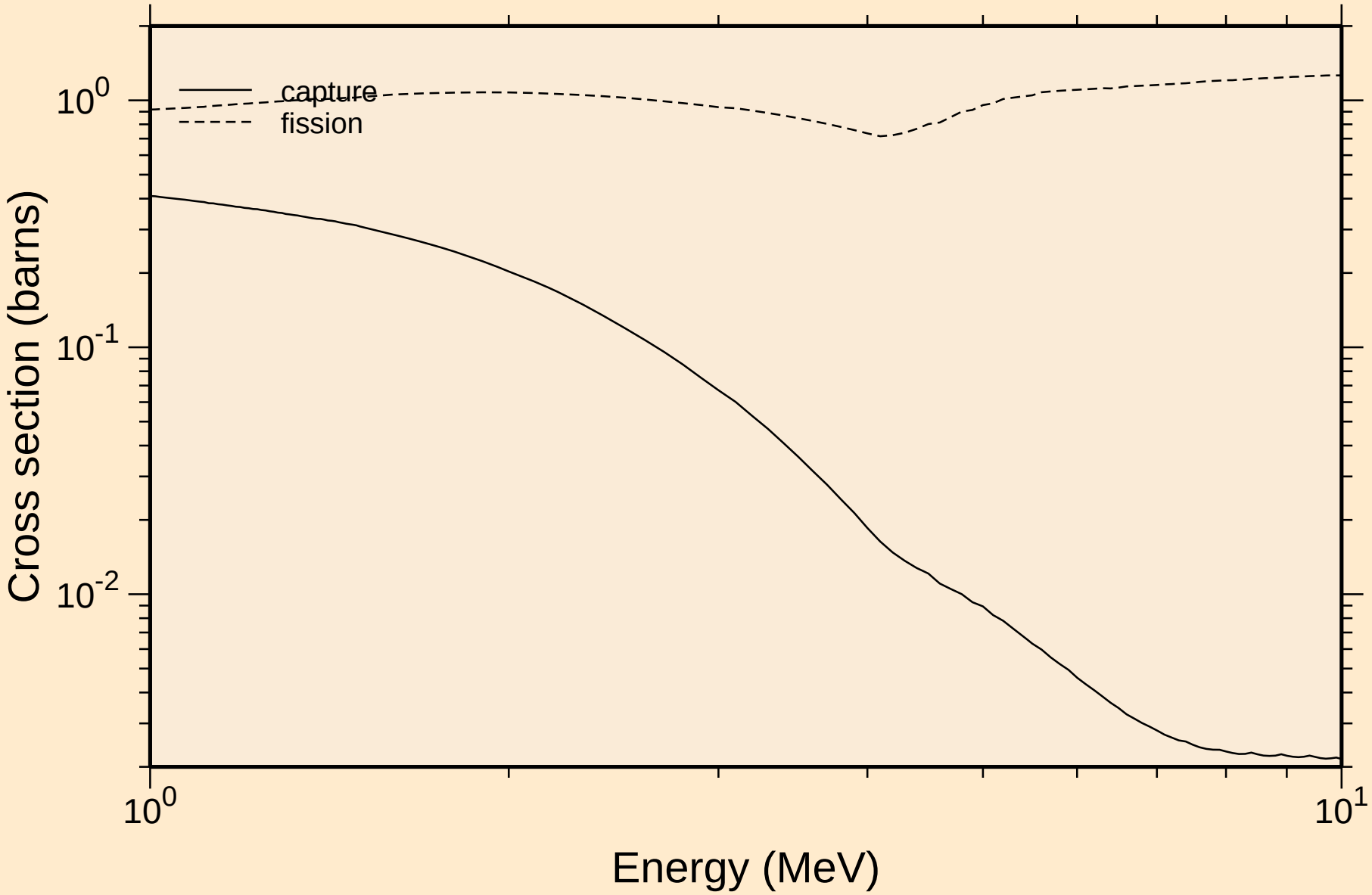
MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections



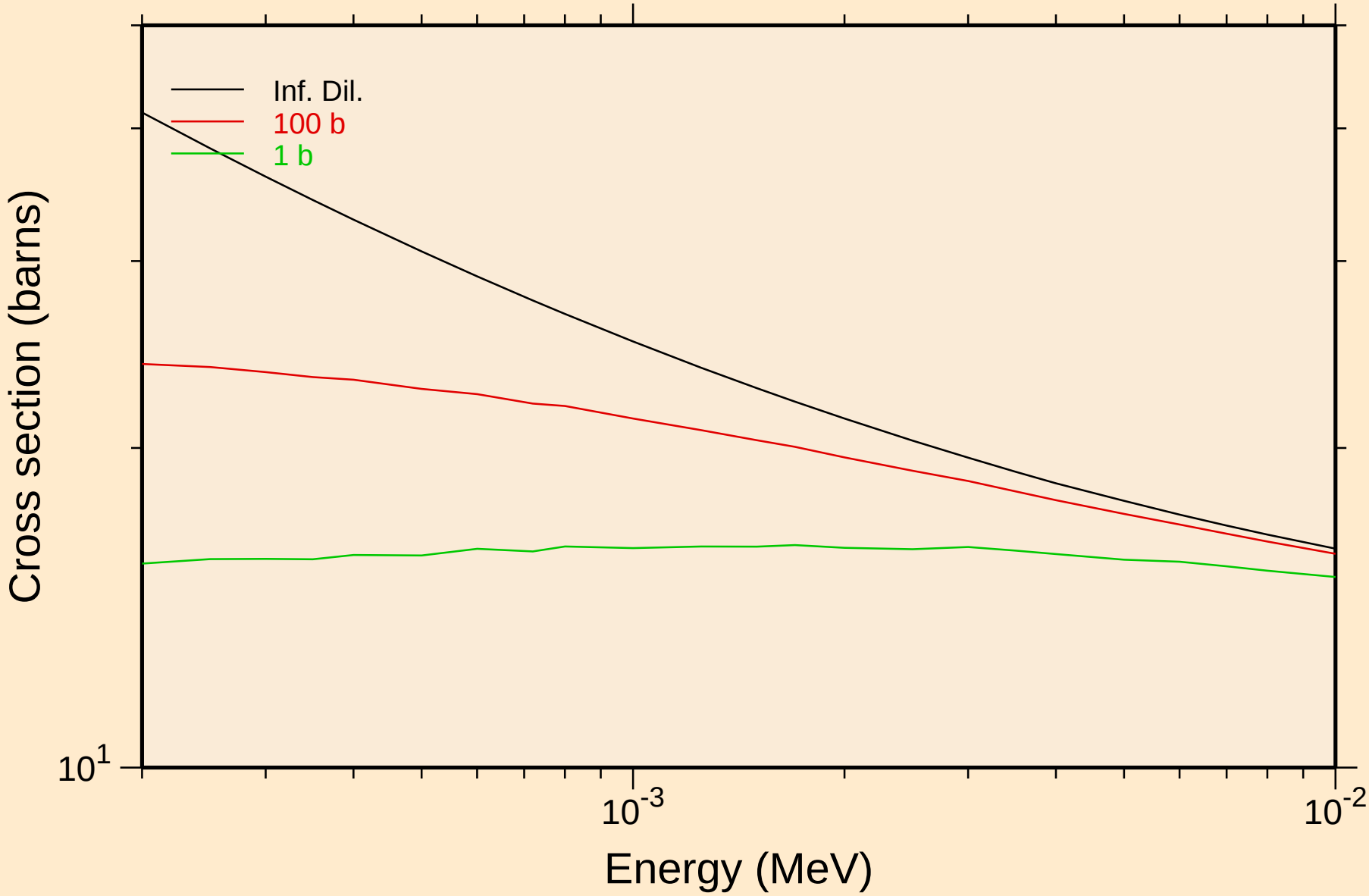

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections
capture
fission
Cross section (barns)
10^2
10^1
10^0
10^-1
10^-2
10^-4
10^-3
Energy (MeV)


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections
capture
fission
Cross section (barns)
10^0
10^-1
10^0
Energy (MeV)

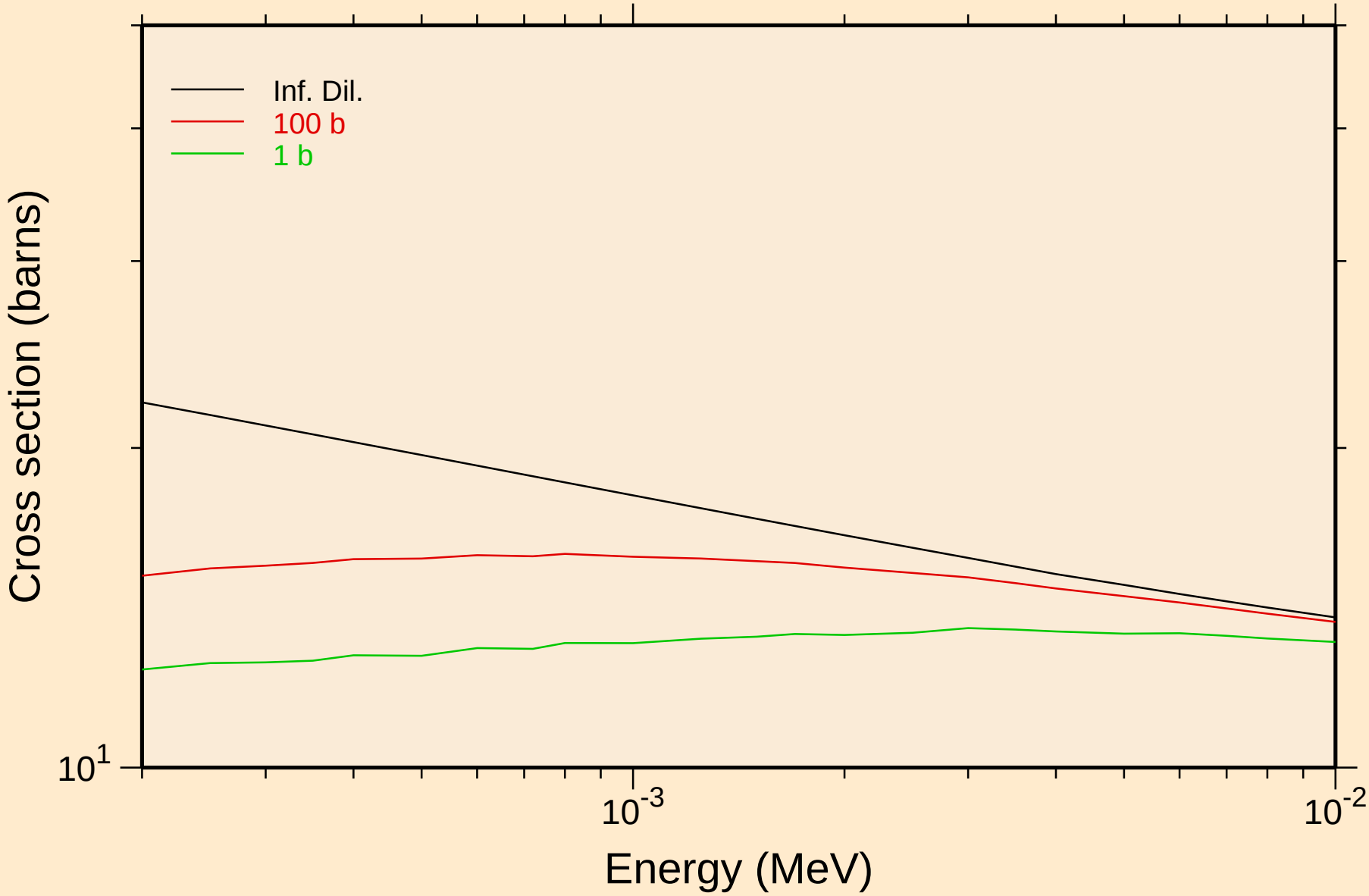
MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections



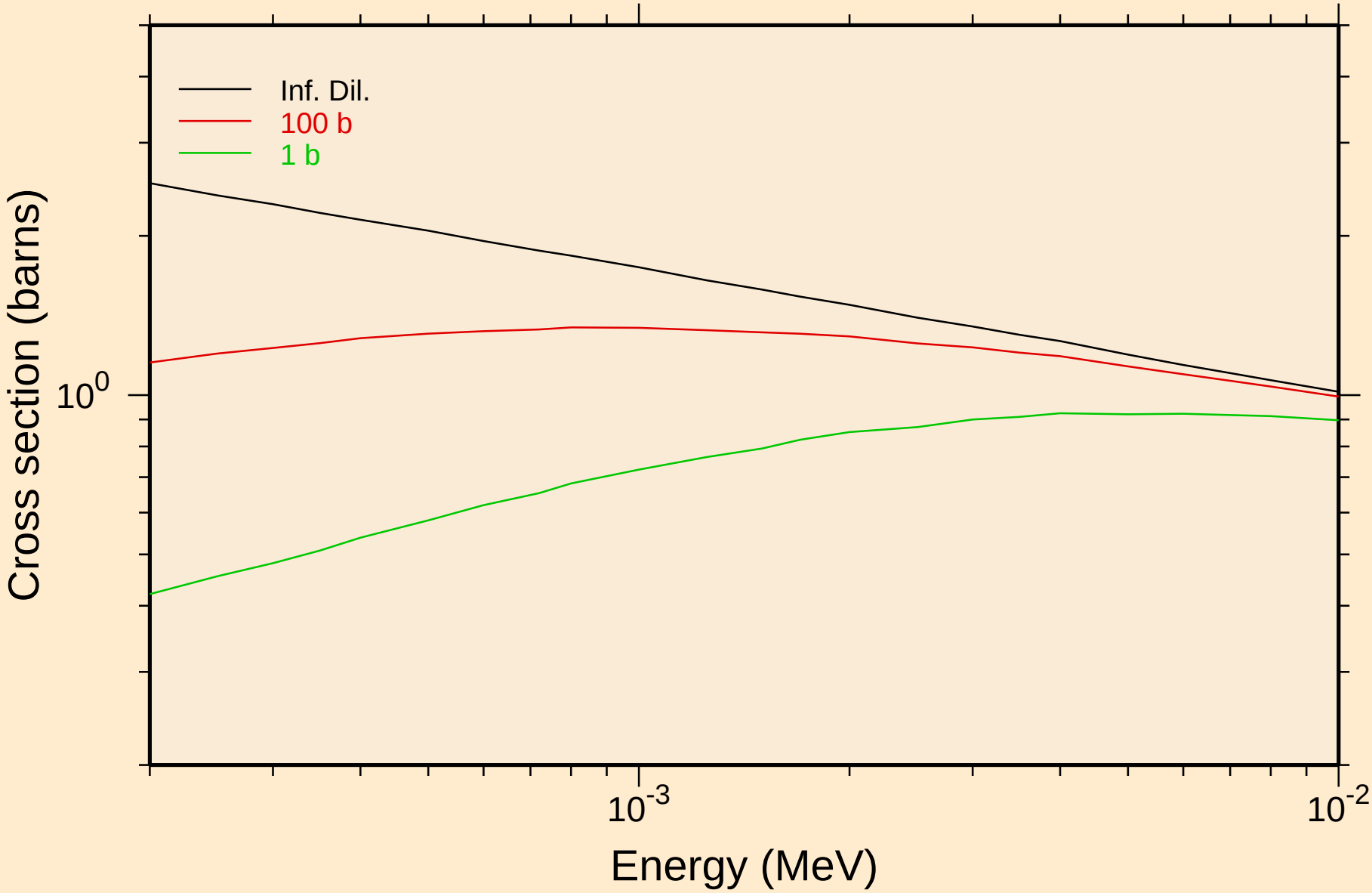
MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
UR total cross section



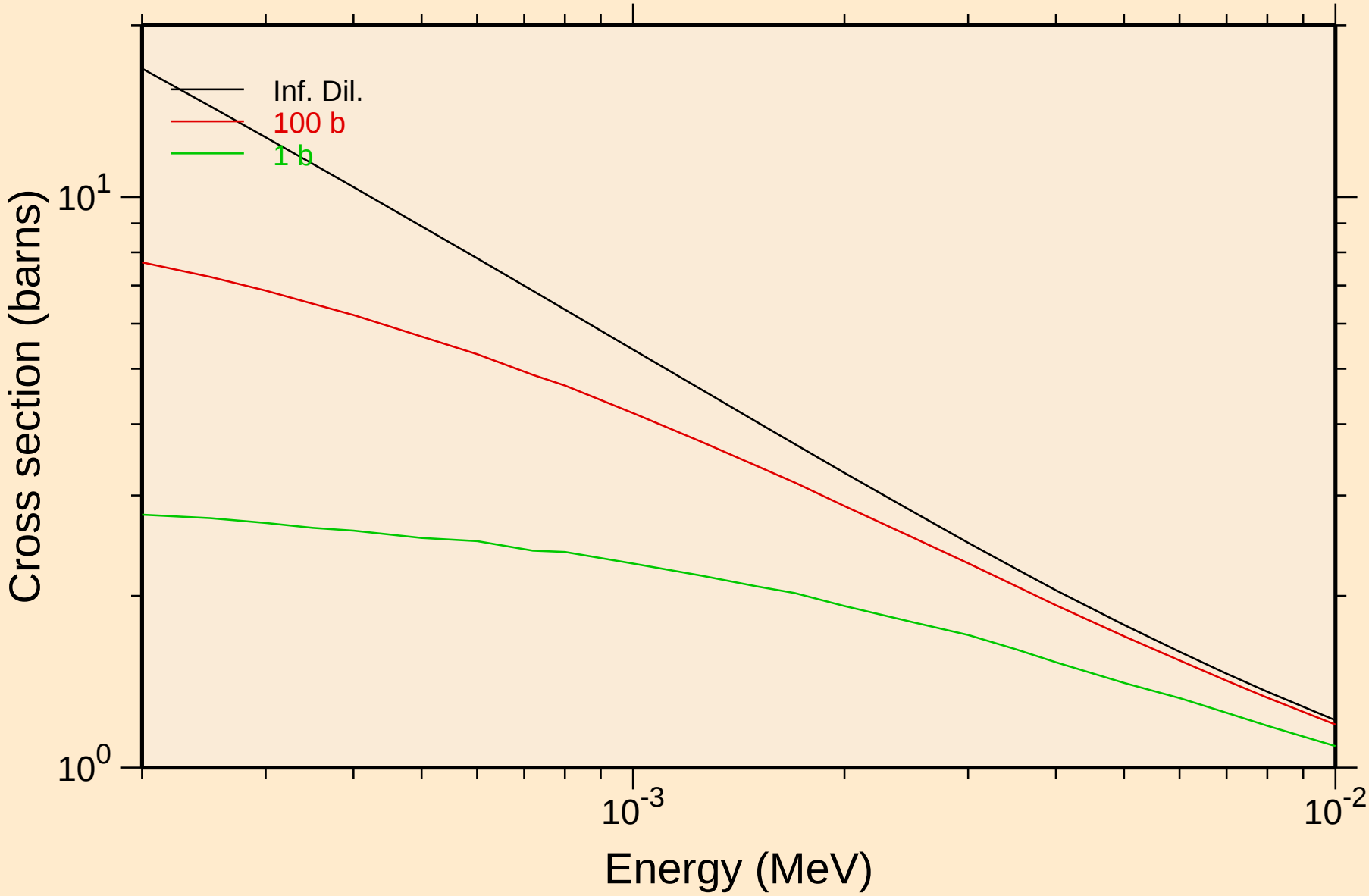
MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
UR elastic cross section

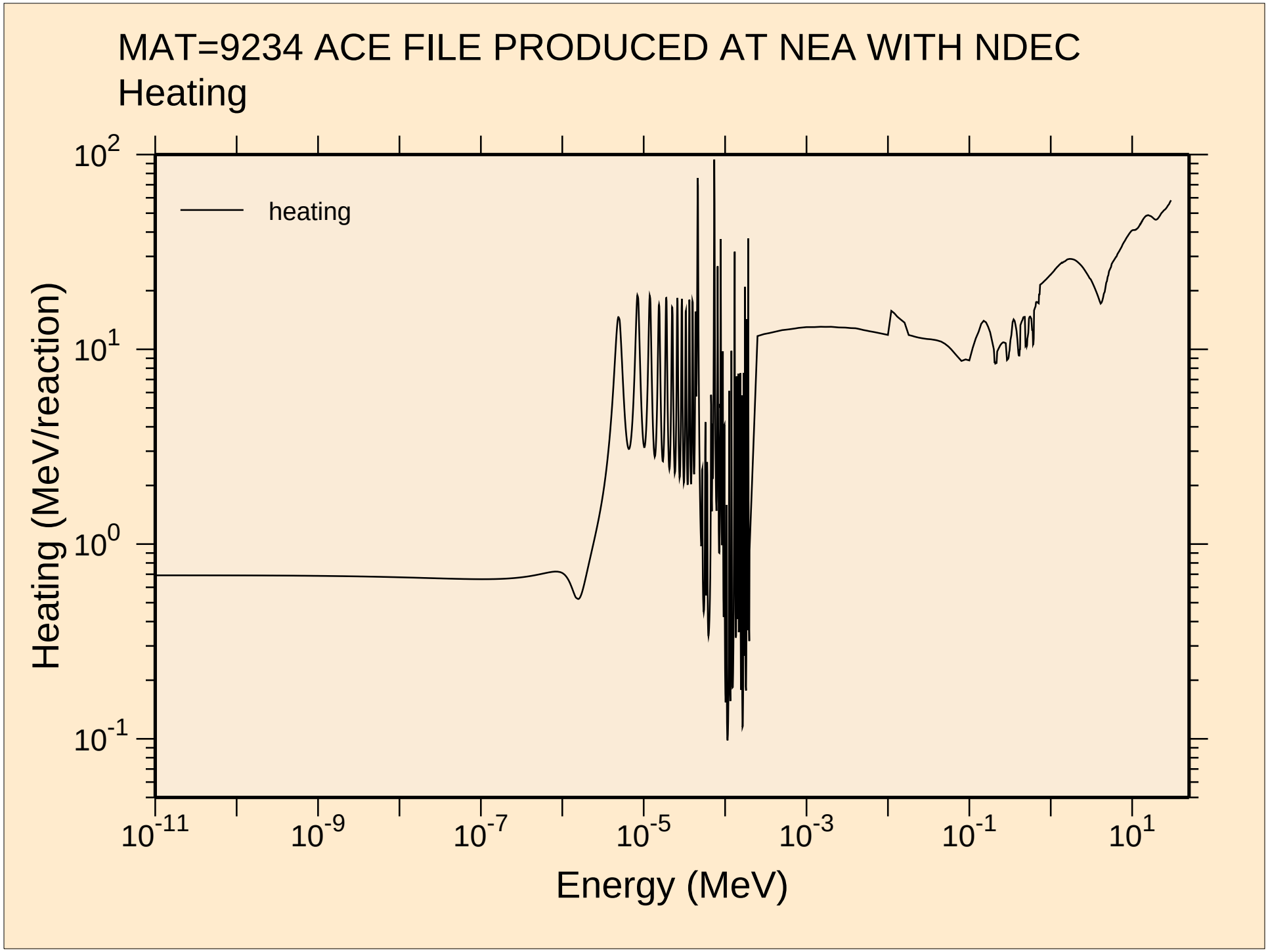


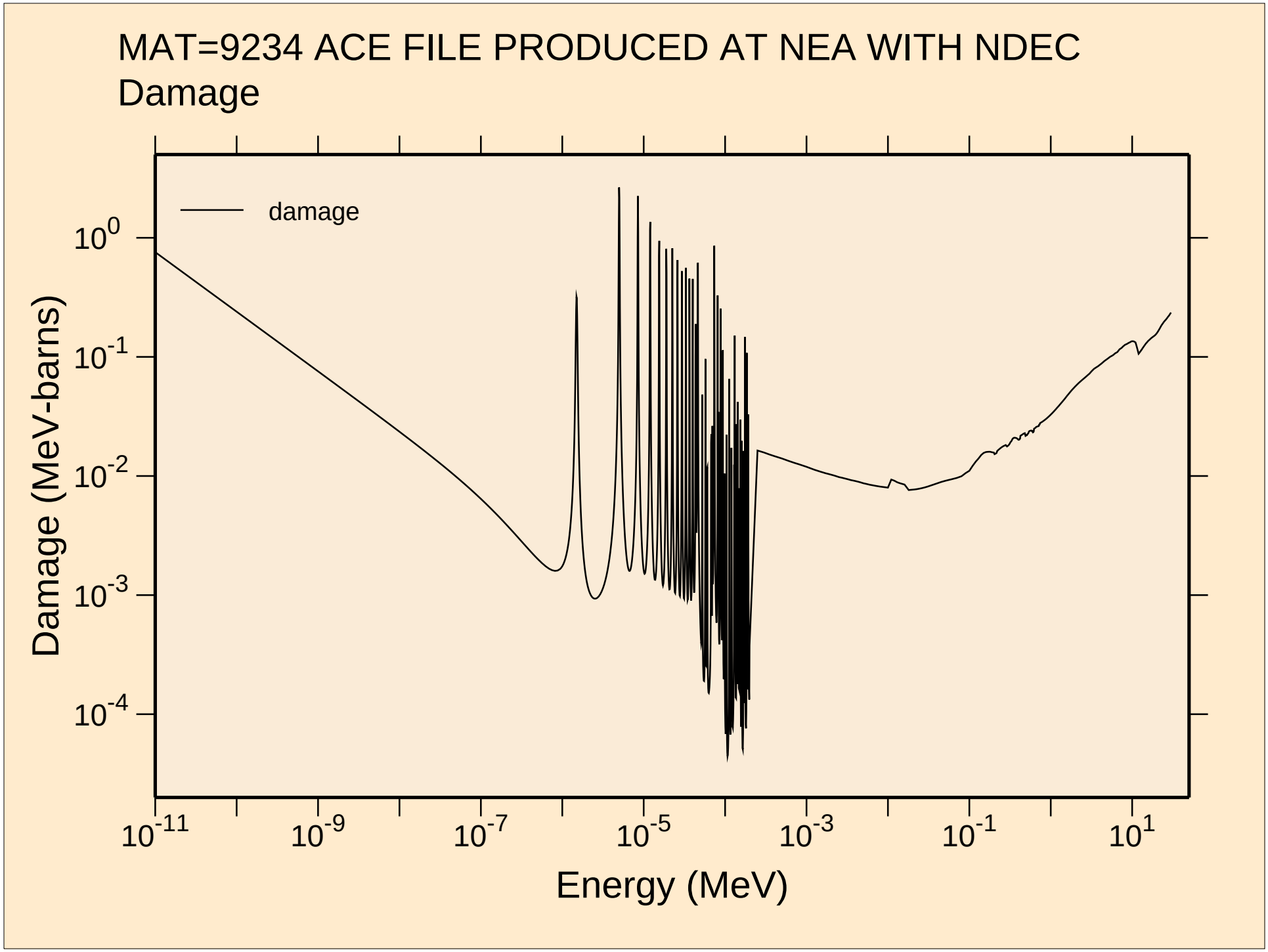
MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
UR fission cross section

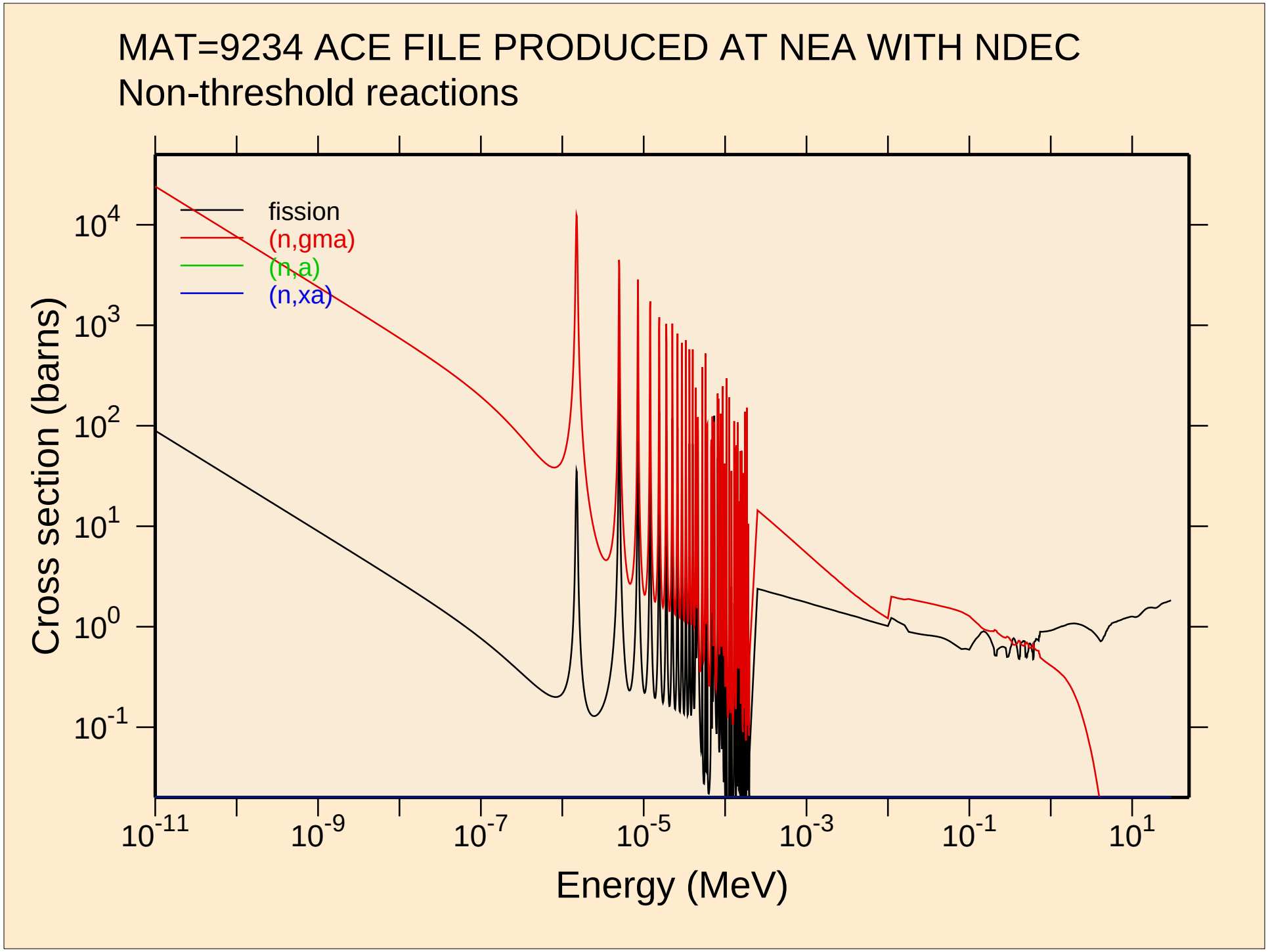


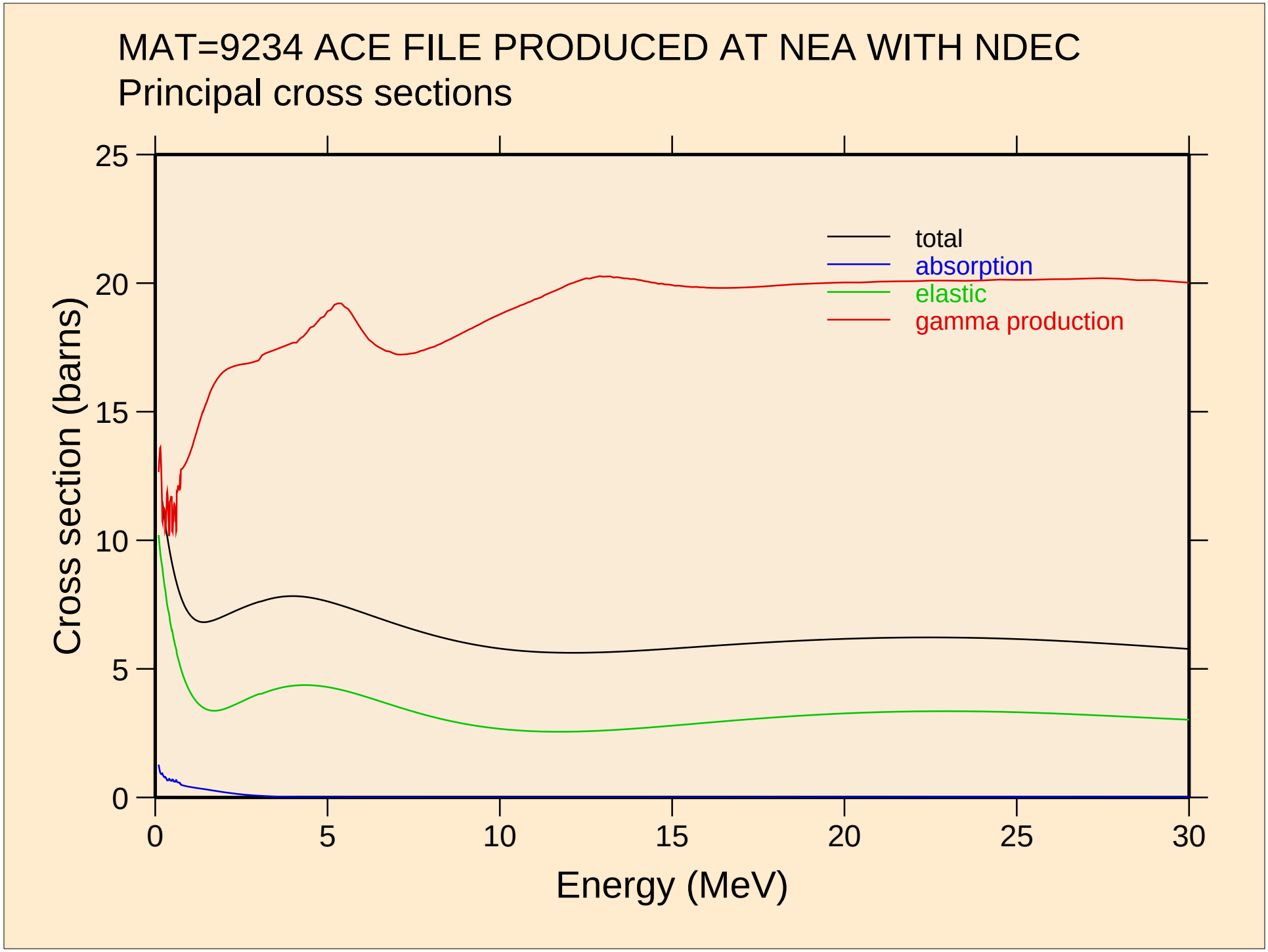
MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
UR capture cross section

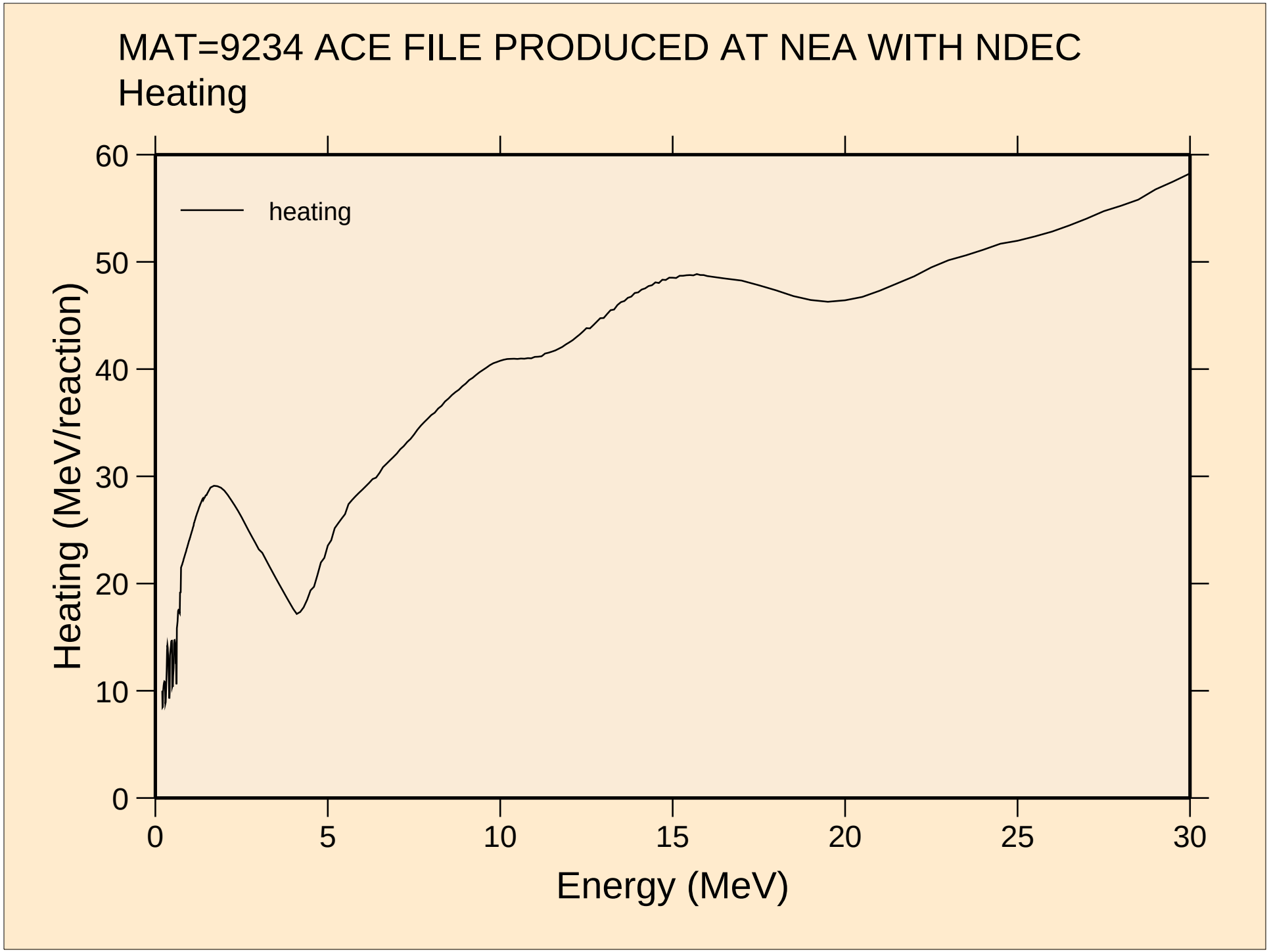


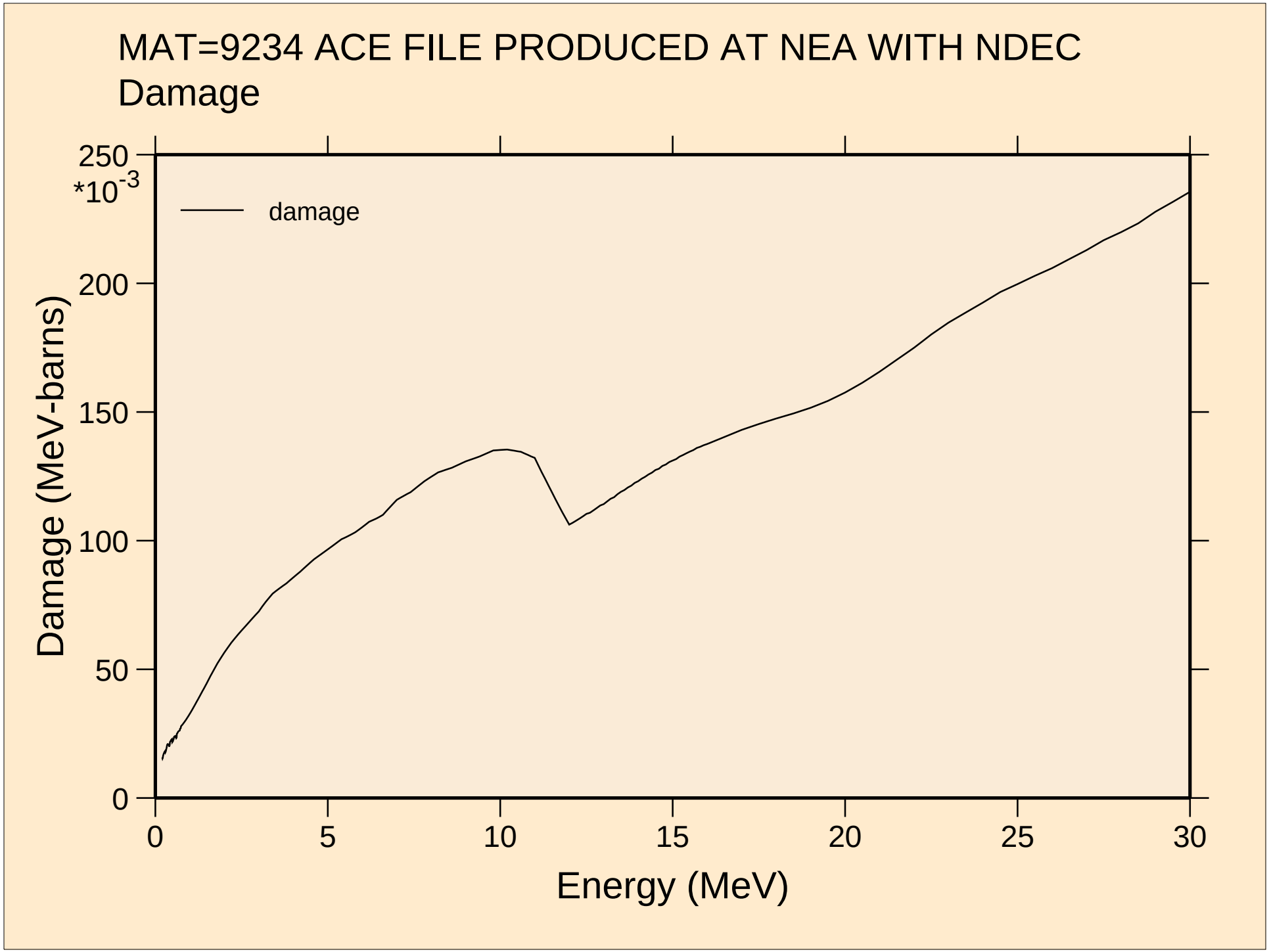

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
10^2
10^1
10^0
10^-1
10^-11
10^-9
10^-7
10^-5
10^-3
10^-1
10^1

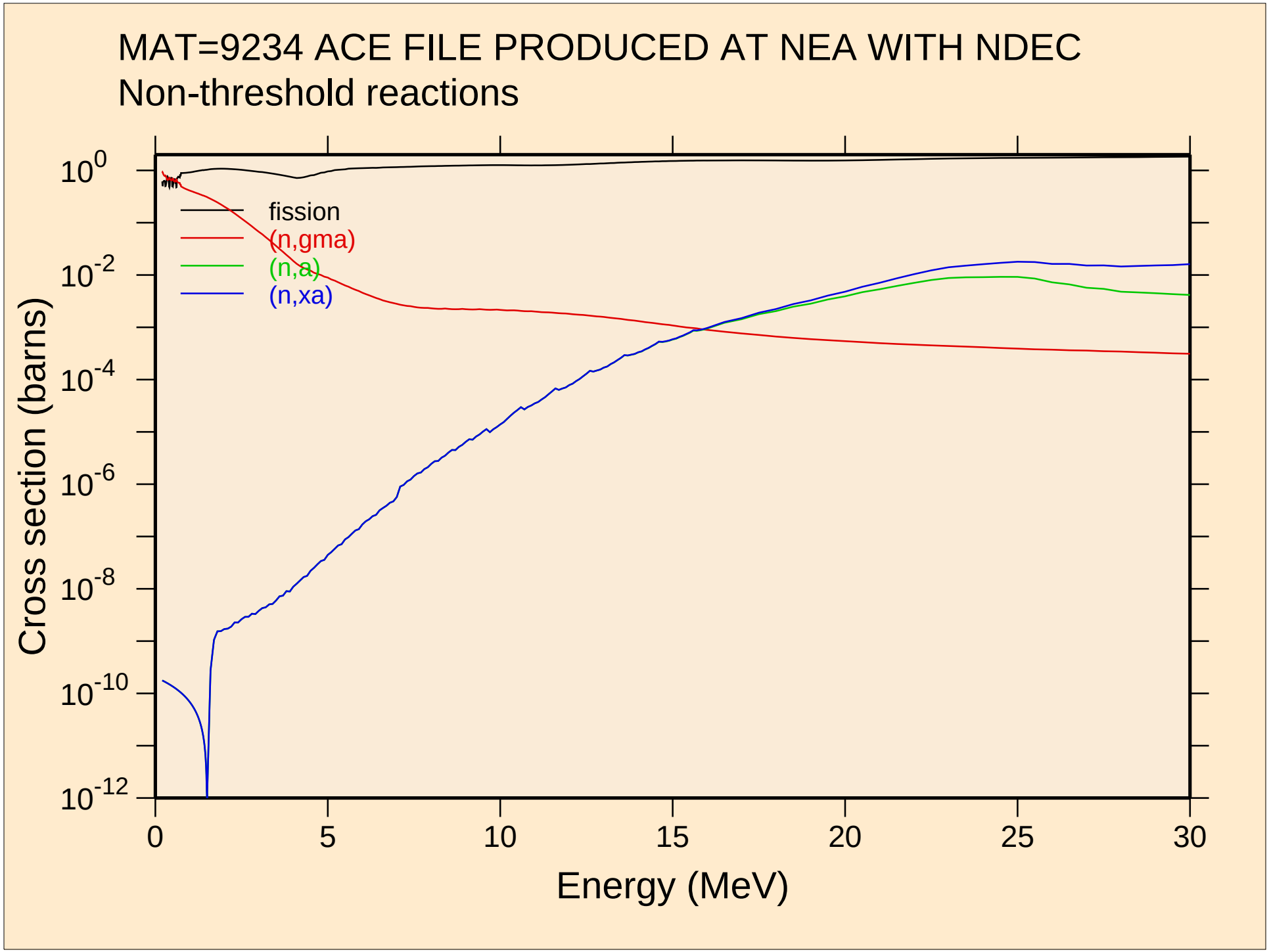

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Damage
damage
Damage (MeV-barns)
10^0
10^-1
10^-2
10^-3
10^-4
10^-11
10^-9
10^-7
10^-5
10^-3
10^-1
10^1
Energy (MeV)

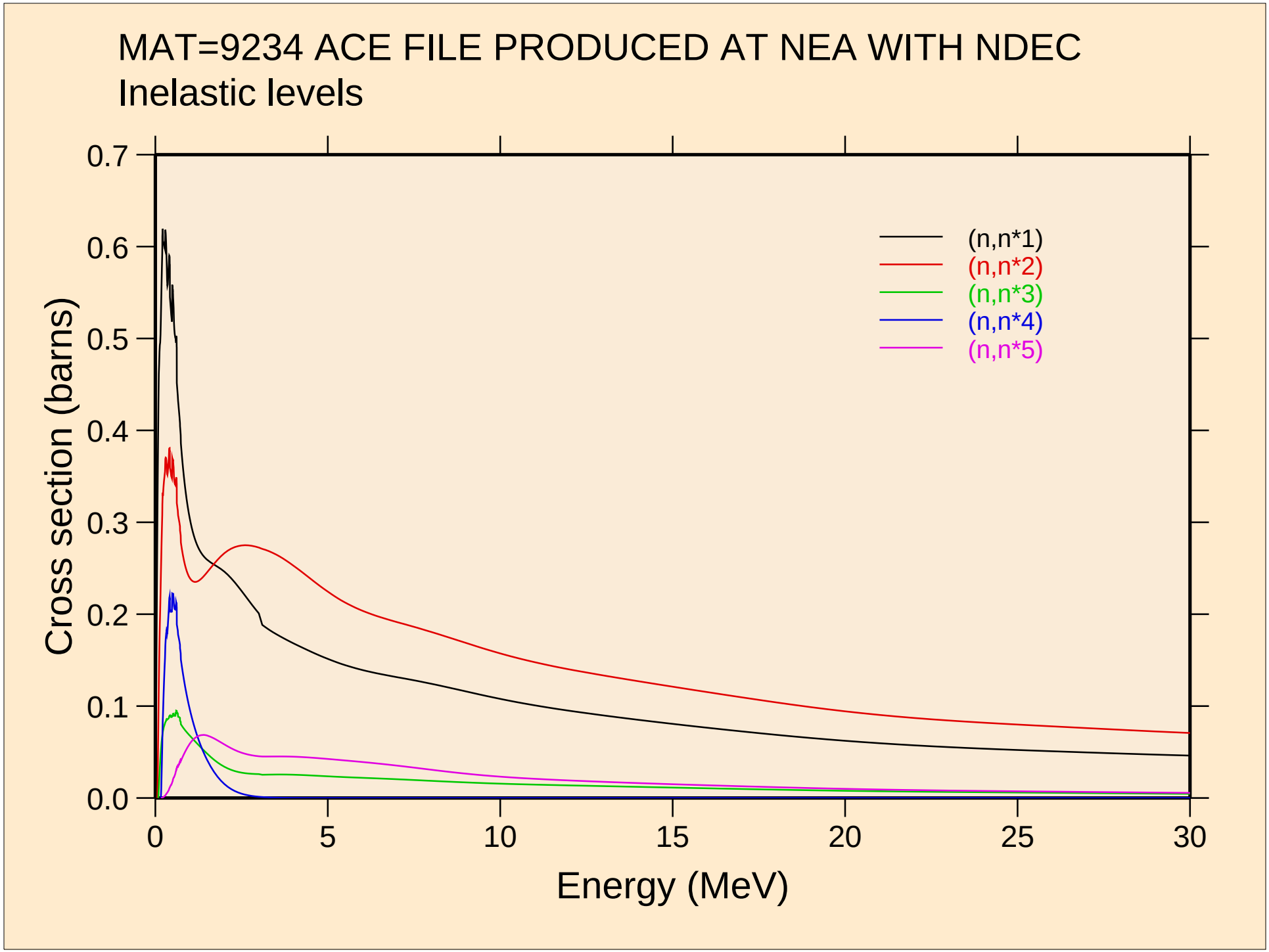

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Non-threshold reactions
fission
(n,gma)
(n,a)
(n,xa)
Cross section (barns)
10^4
10^3
10^2
10^1
10^0
10^-1
10^-11
10^-9
10^-7
10^-5
10^-3
10^-1
10^1
Energy (MeV)

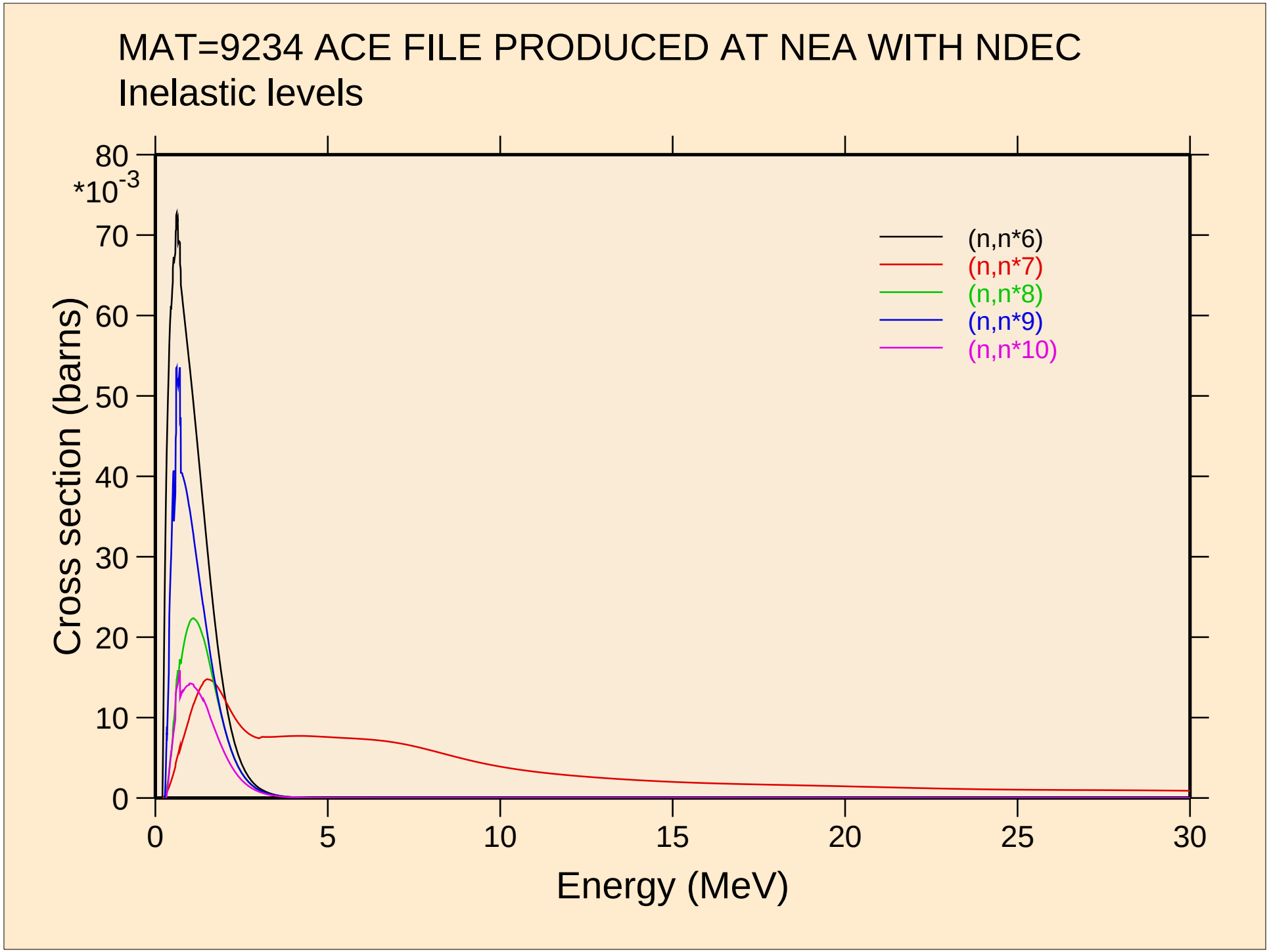

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Principal cross sections
Cross section (barns)
Energy (MeV)
0
5
10
15
20
25
30
total
absorption
elastic
gamma production

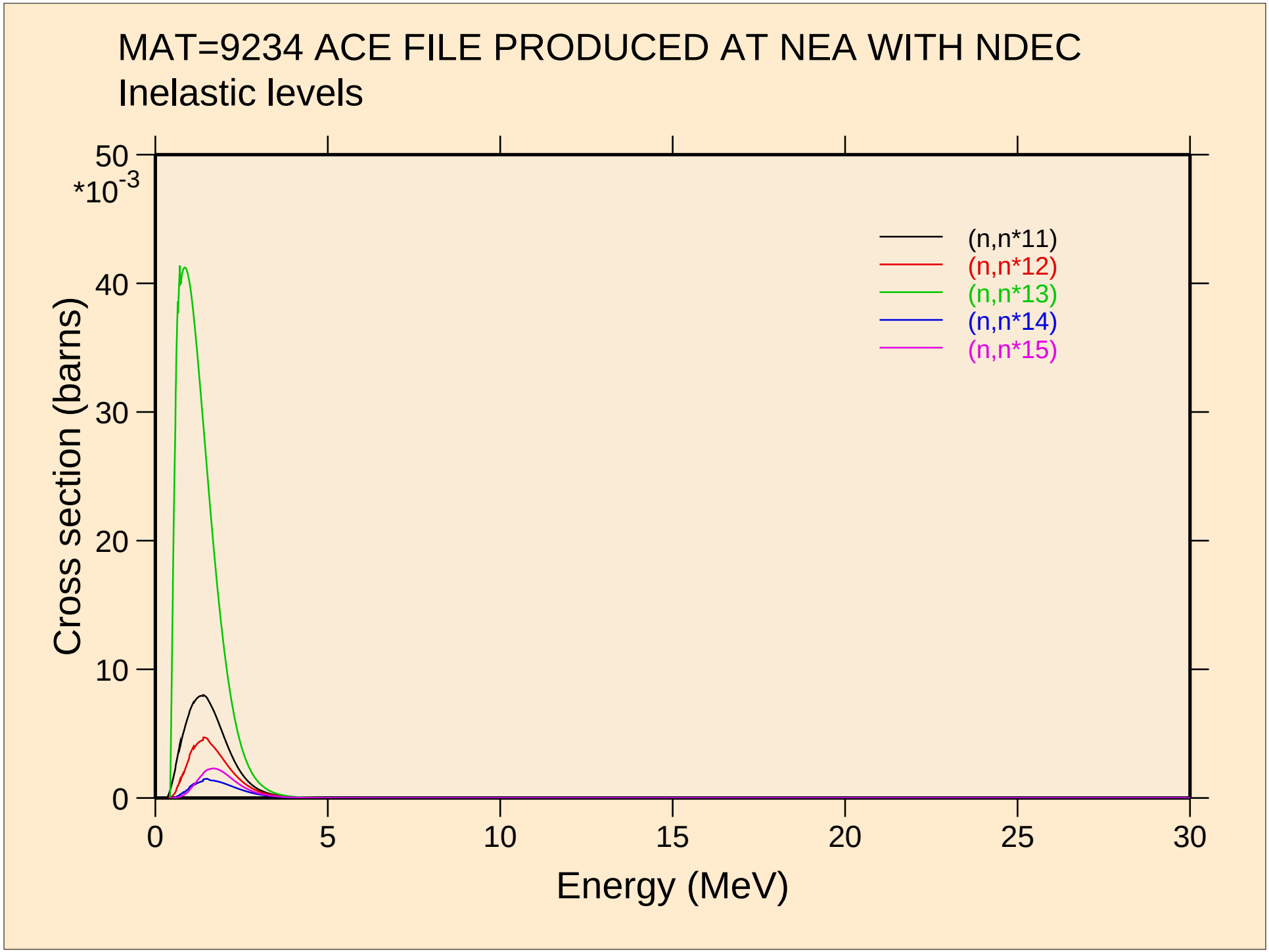

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
10
20
30
40
50
60
0
5
10
15
20
25
30

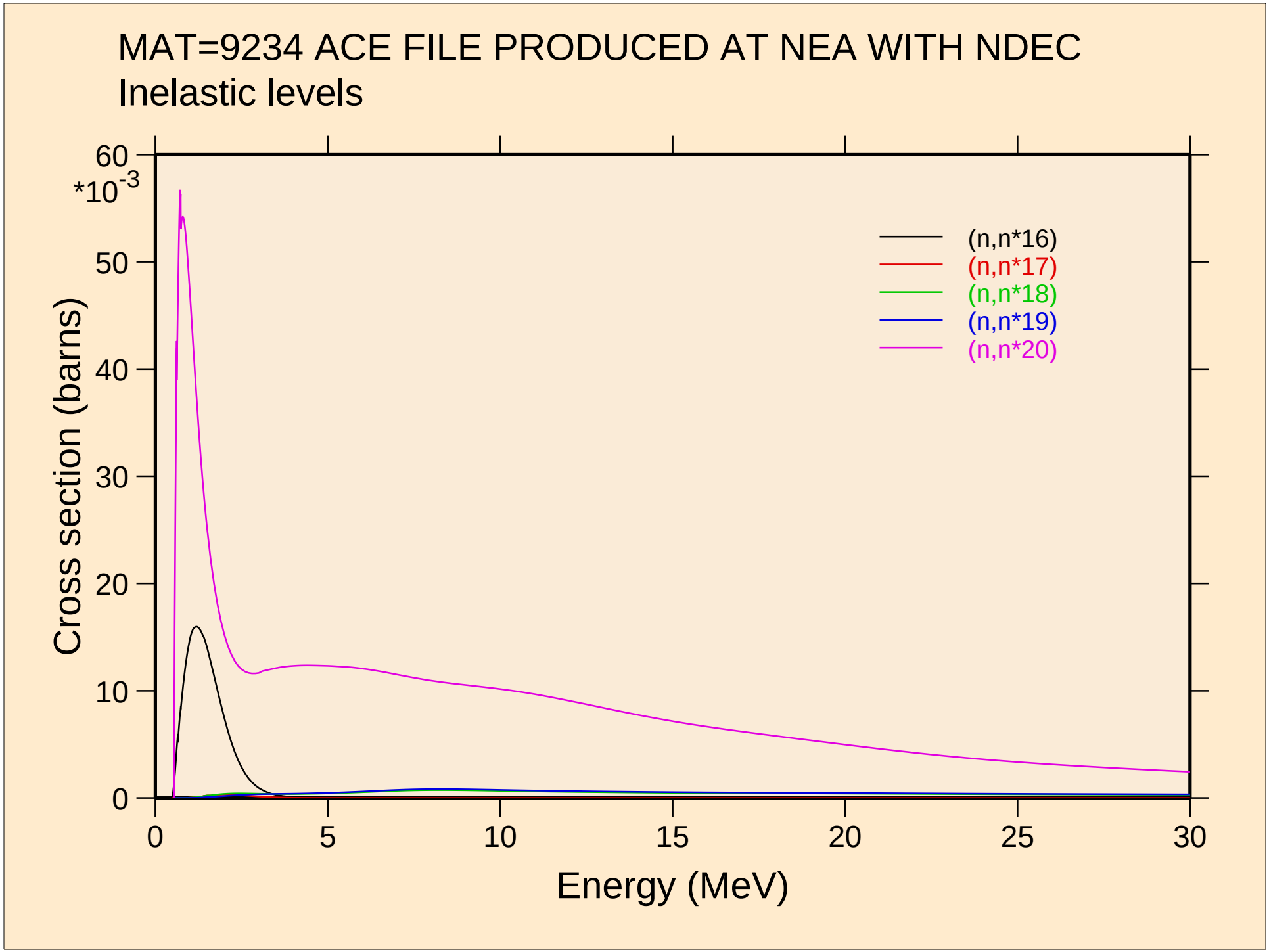

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Damage
250
*10-3
200
150
100
50
0
damage
Damage (MeV-barns)
0
5
10
15
20
25
30
Energy (MeV)

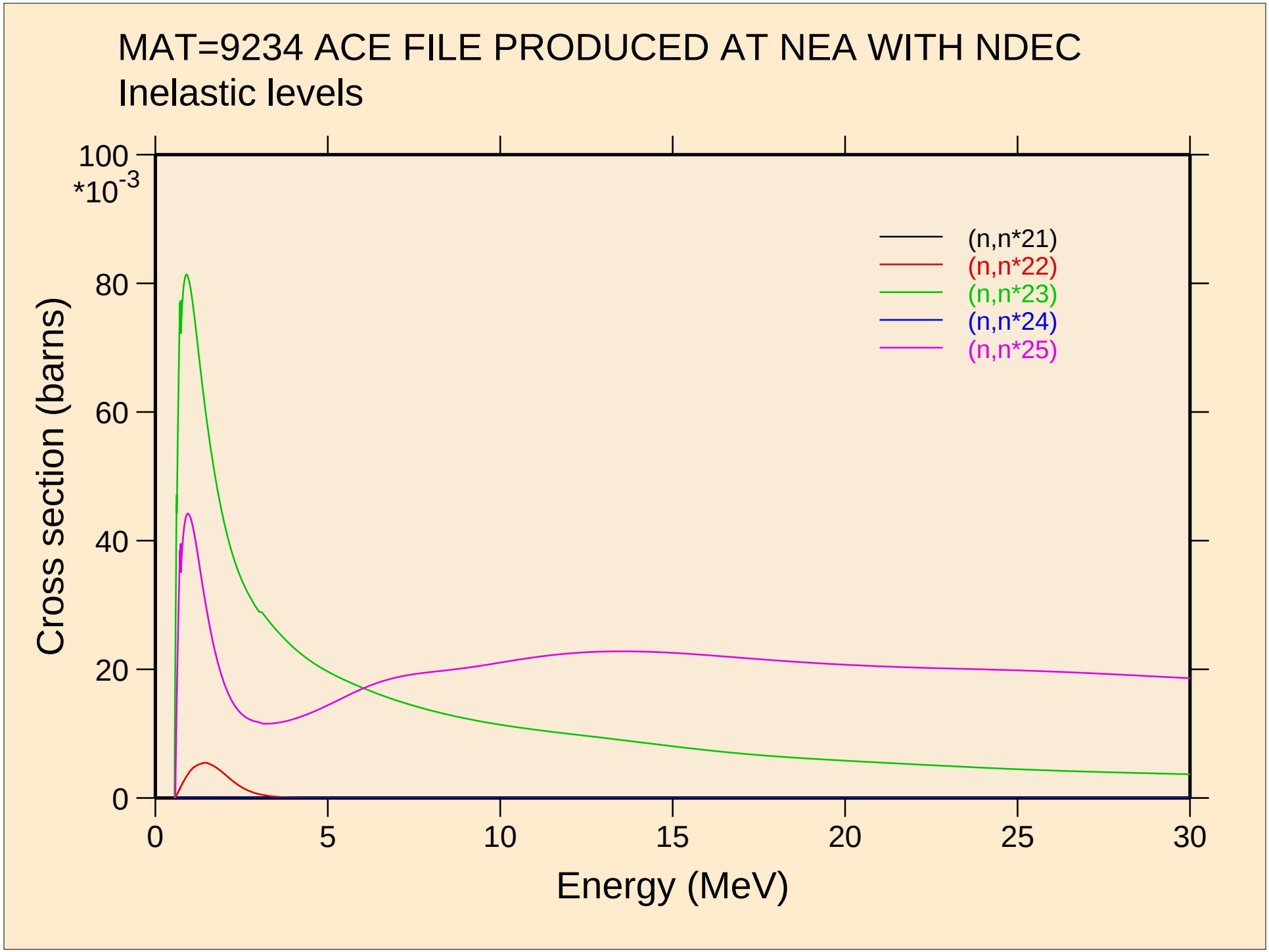

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Non-threshold reactions
fission
(n,gma)
(n,a)
(n,xa)
Cross section (barns)
10^0
10^-2
10^-4
10^-6
10^-8
10^-10
10^-12
0
5
10
15
20
25
30
Energy (MeV)

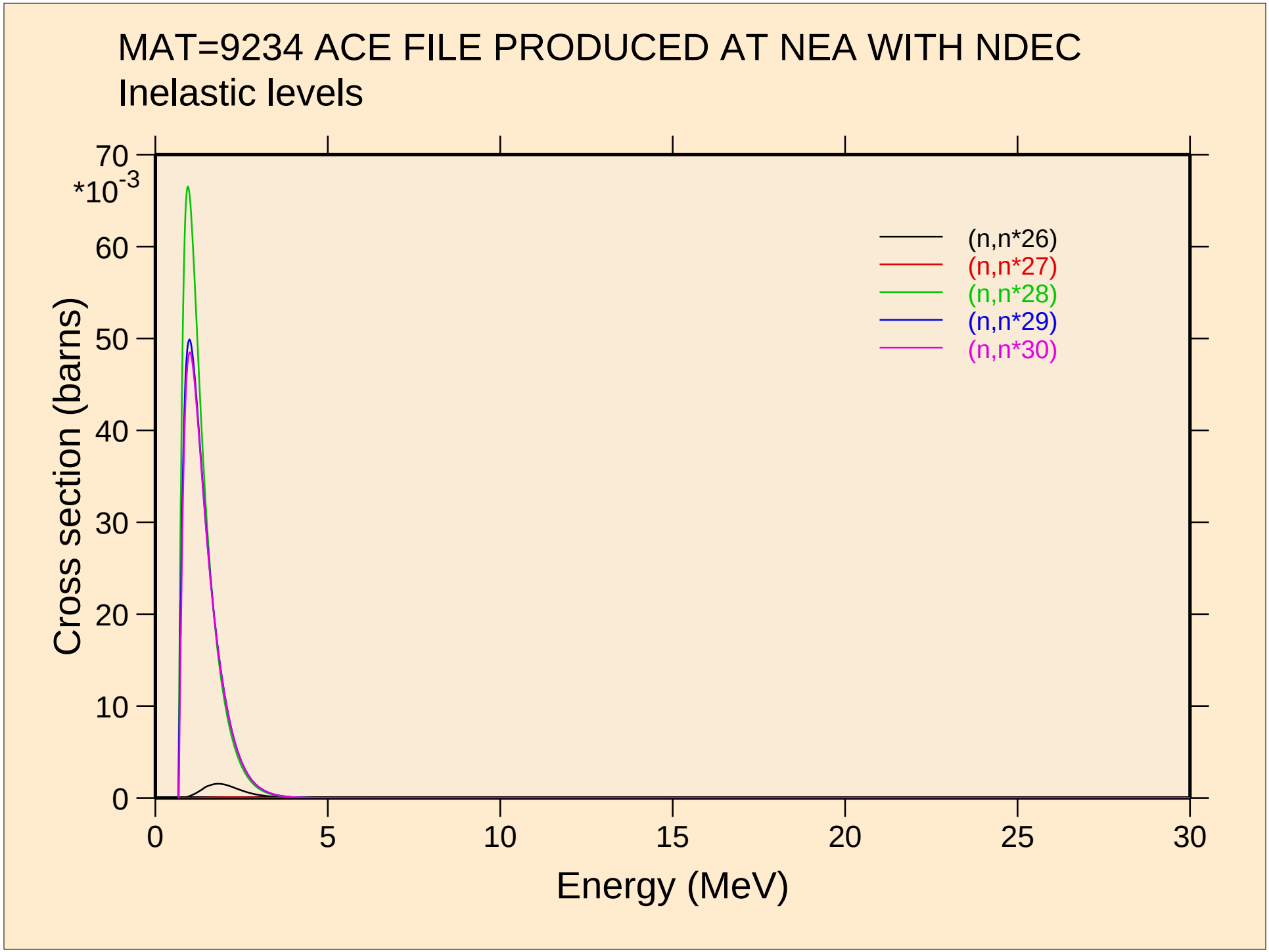

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
Energy (MeV)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
5
10
15
20
25
30
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

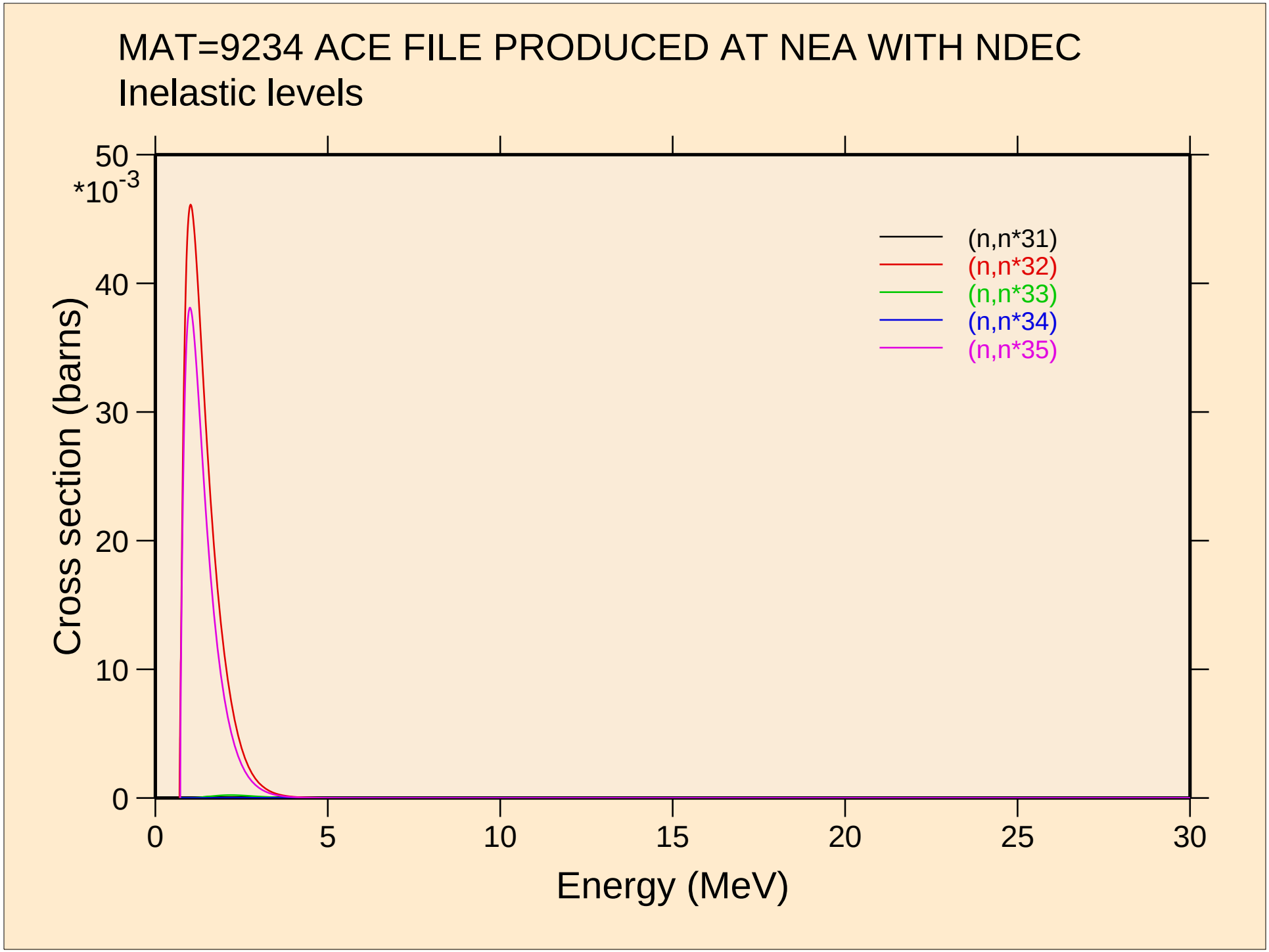

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
*10-3
80
70
60
50
40
30
20
10
0
Cross section (barns)
0
5
10
15
20
25
30
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)

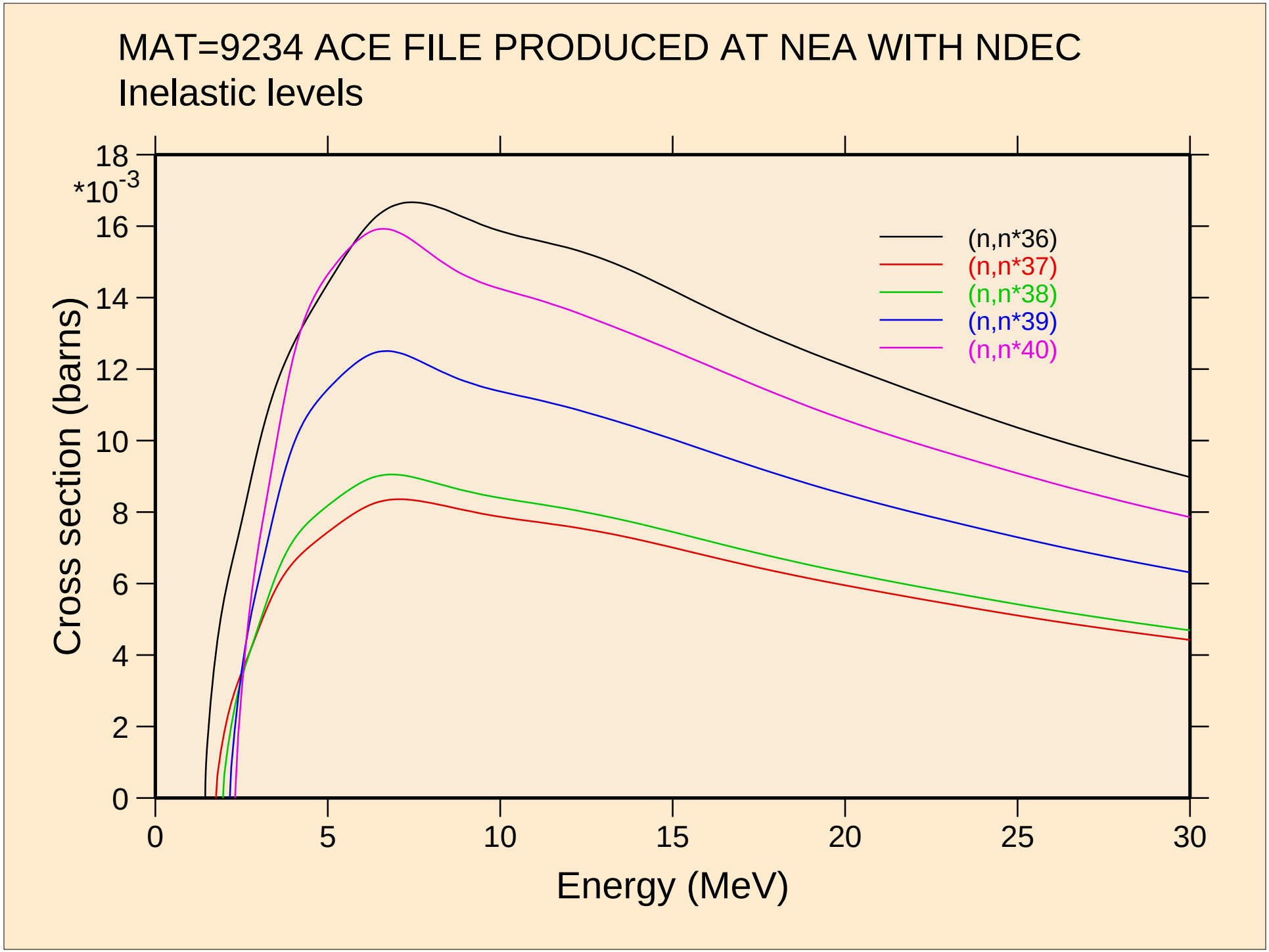

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
50
40
30
20
10
0
0
5
10
15
20
25
30
Energy (MeV)
(n,n*11)
(n,n*12)
(n,n*13)
(n,n*14)
(n,n*15)

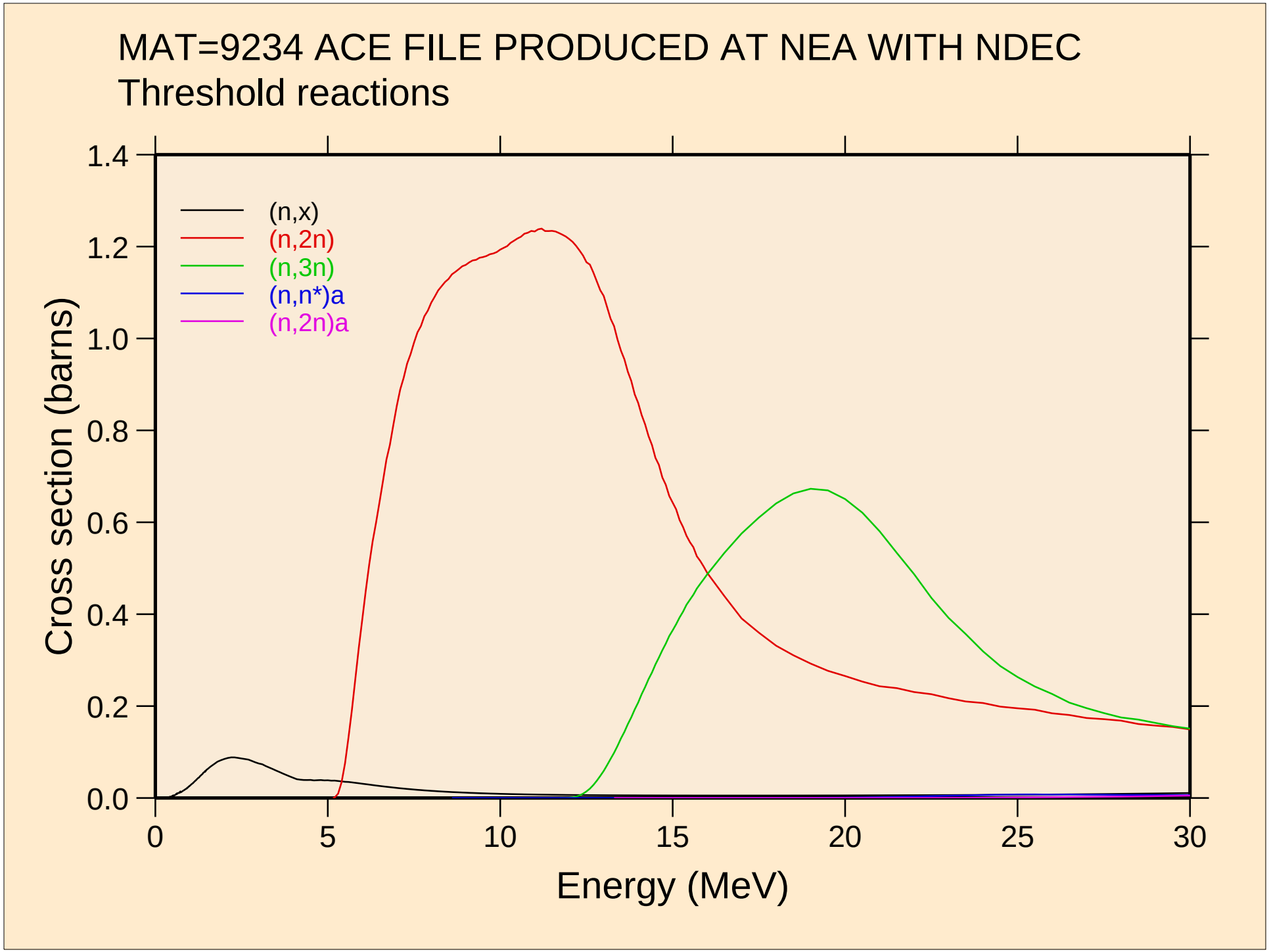

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
60
50
40
30
20
10
0
0
5
10
15
20
25
30
Energy (MeV)
(n,n*16)
(n,n*17)
(n,n*18)
(n,n*19)
(n,n*20)

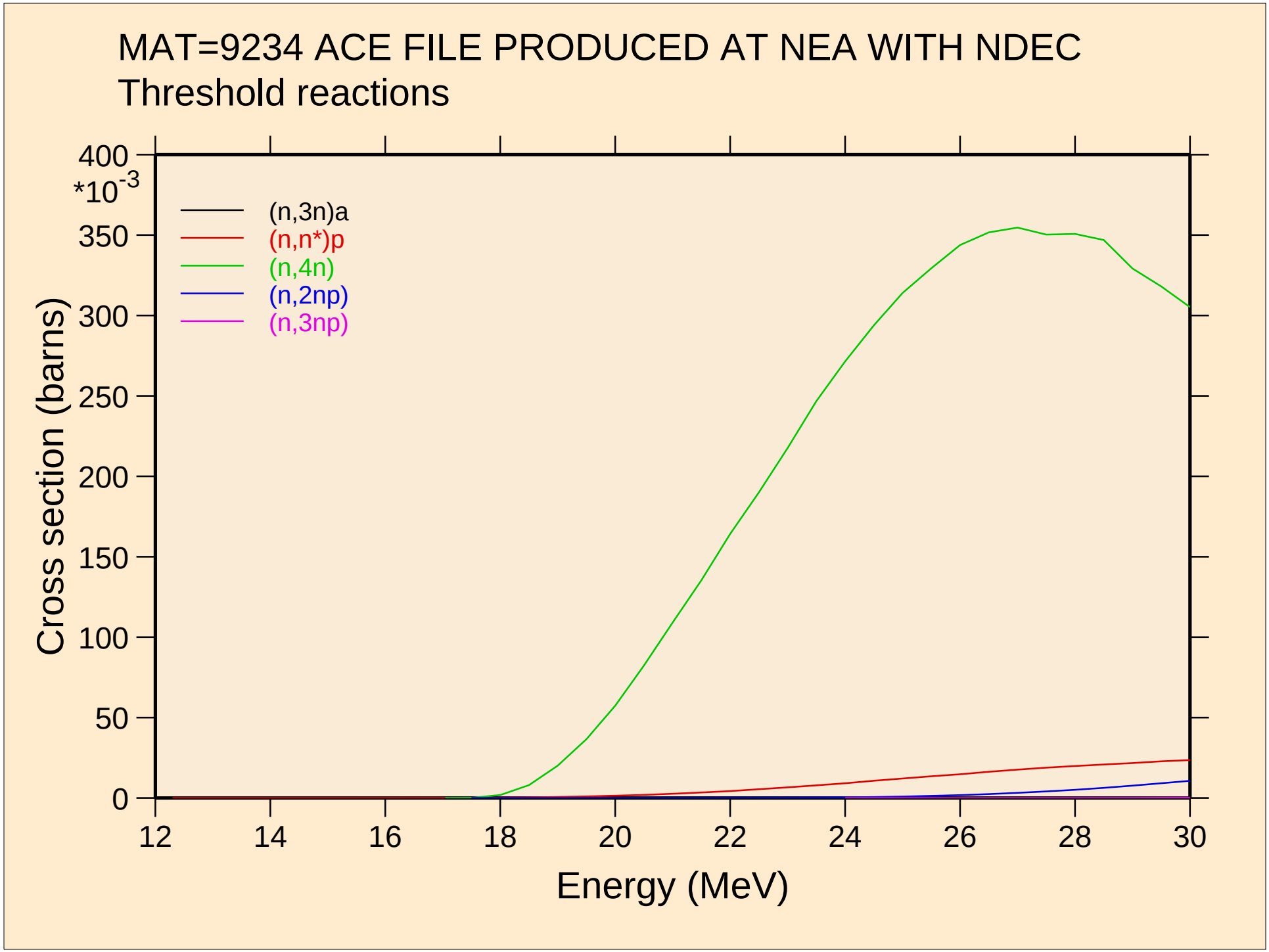

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
100
*10-3
80
60
40
20
0
Cross section (barns)
0
5
10
15
20
25
30
Energy (MeV)
(n,n*21)
(n,n*22)
(n,n*23)
(n,n*24)
(n,n*25)

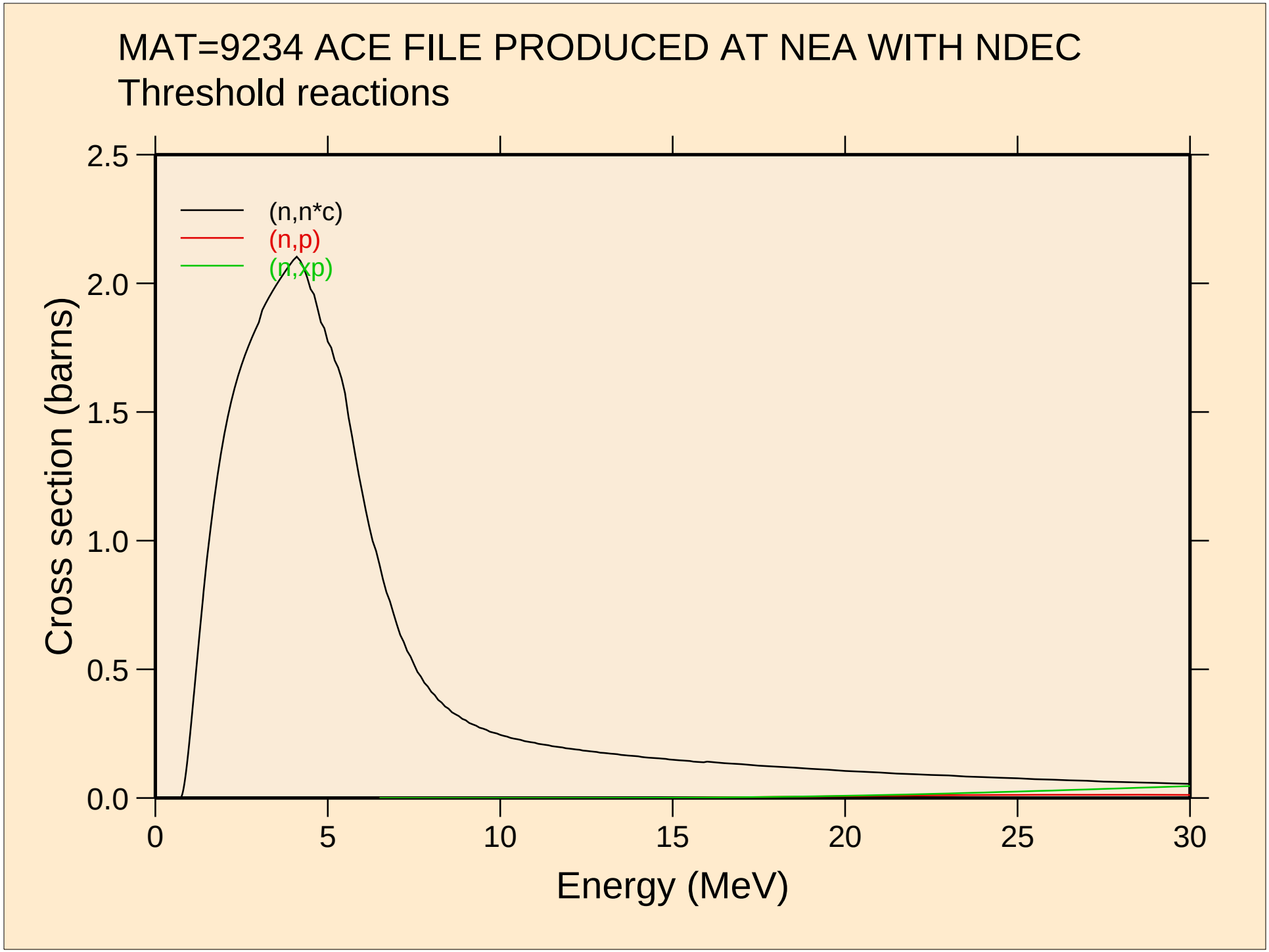

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
70
60
50
40
30
20
10
0
0
5
10
15
20
25
30
Energy (MeV)
(n,n*26)
(n,n*27)
(n,n*28)
(n,n*29)
(n,n*30)

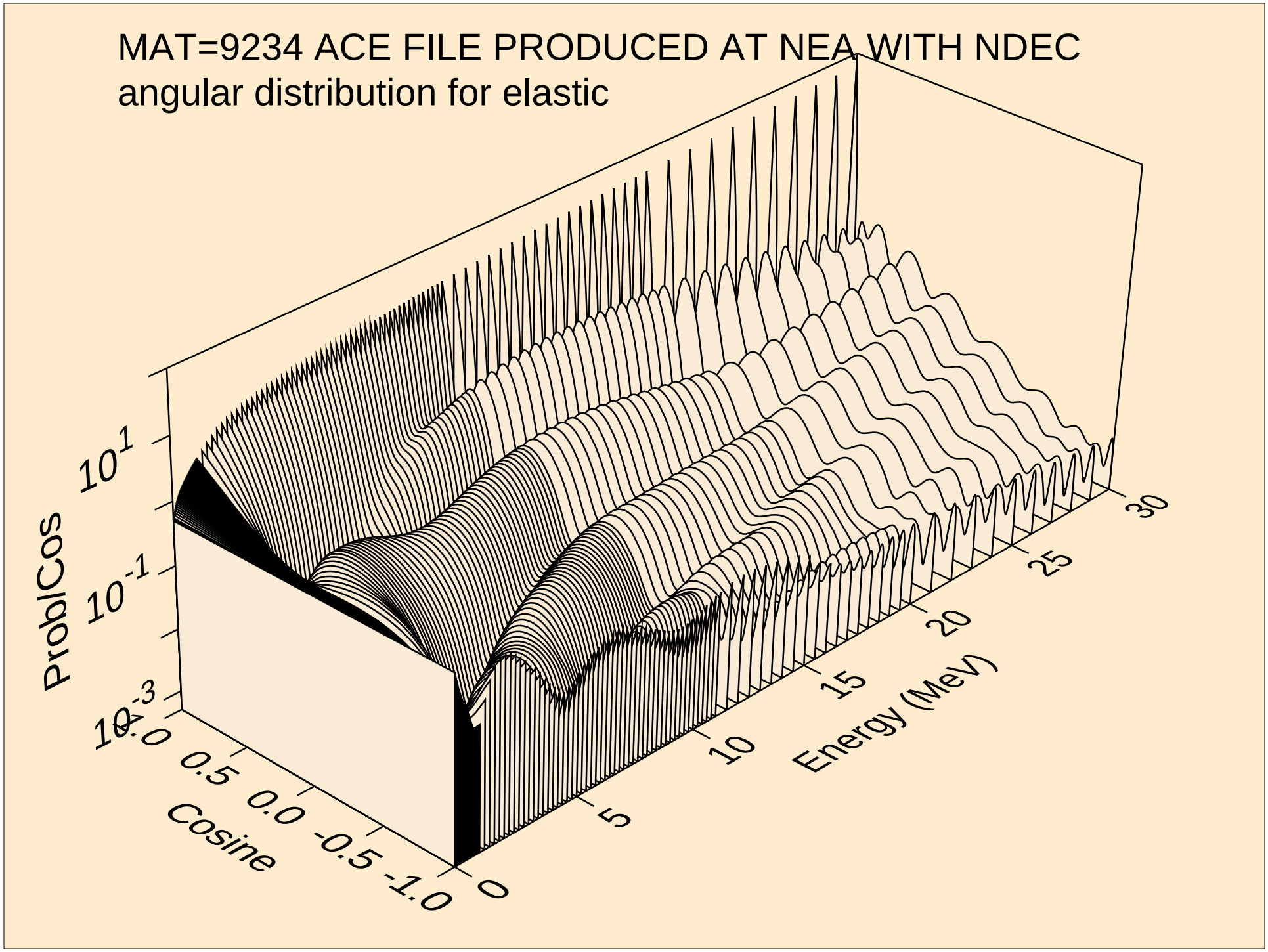

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
50
40
30
20
10
0
0
5
10
15
20
25
30
Energy (MeV)
(n,n*31)
(n,n*32)
(n,n*33)
(n,n*34)
(n,n*35)

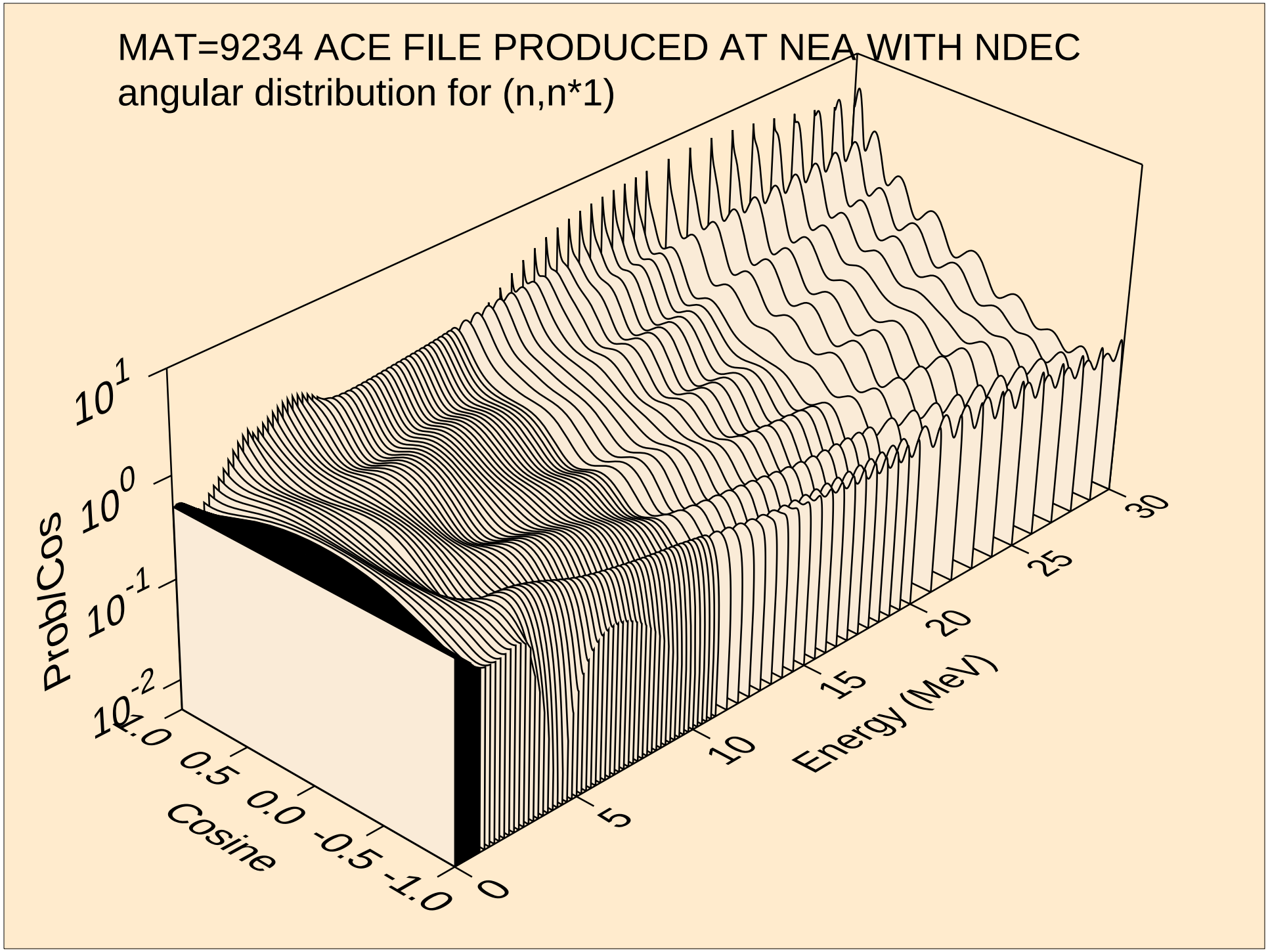

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
18
16
14
12
10
8
6
4
2
0
0
5
10
15
20
25
30
Energy (MeV)
(n,n*36)
(n,n*37)
(n,n*38)
(n,n*39)
(n,n*40)

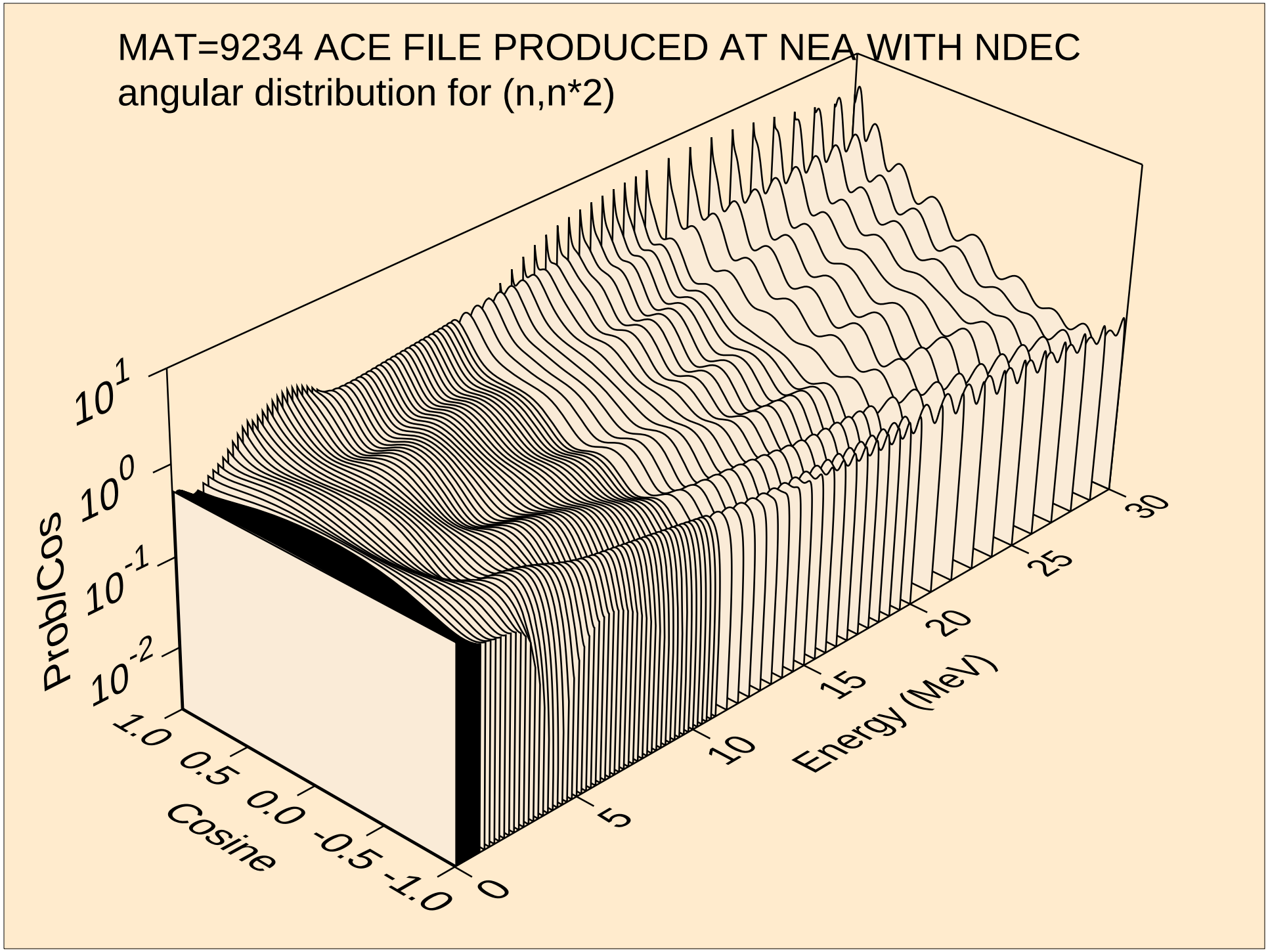

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Threshold reactions
(n,x)
(n,2n)
(n,3n)
(n,n*)a
(n,2n)a
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0
5
10
15
20
25
30

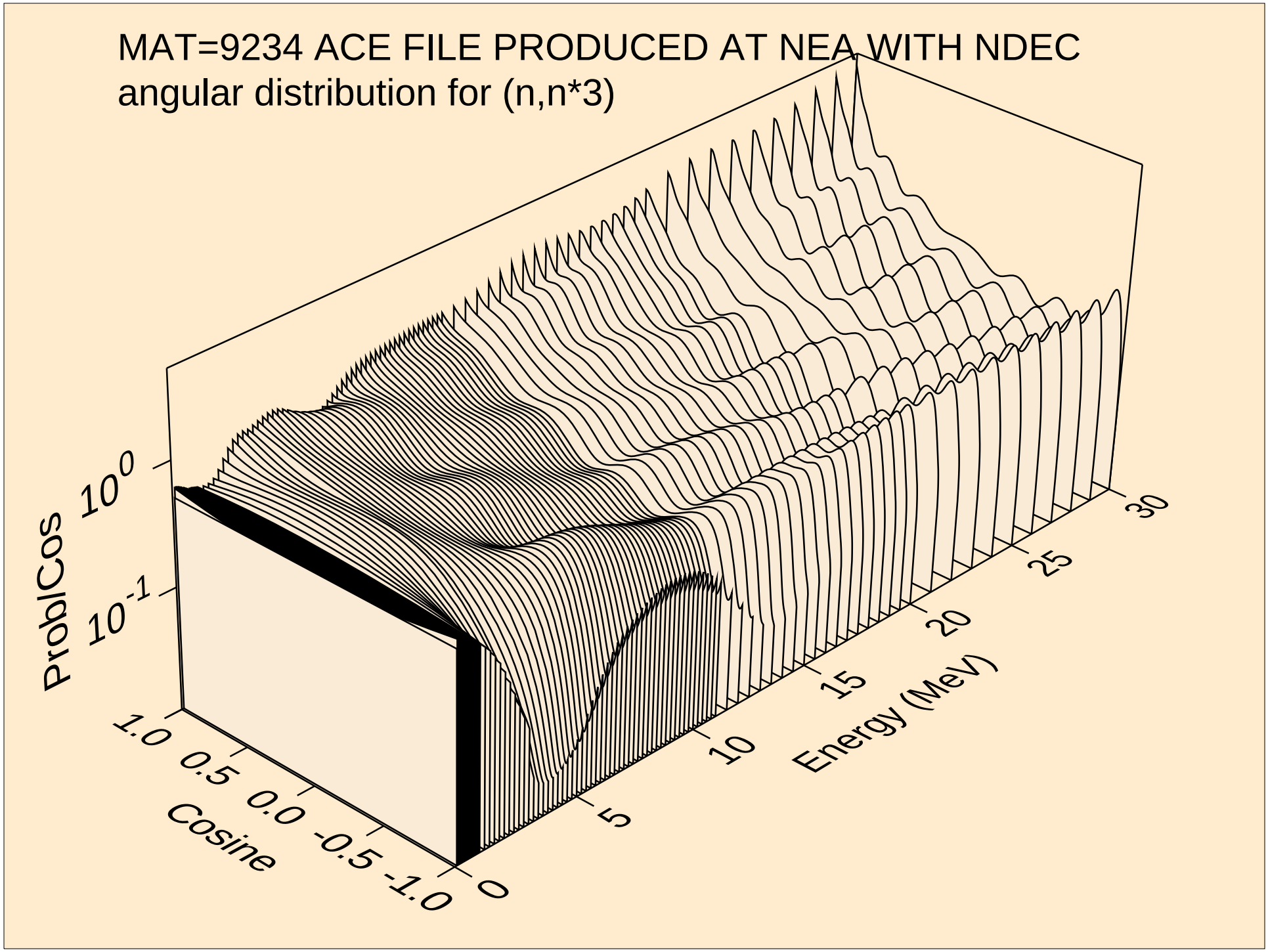

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Threshold reactions
400
*10-3
350
300
250
200
150
100
50
0
Cross section (barns)
(n,3n)a
(n,n*)p
(n,4n)
(n,2np)
(n,3np)
12
14
16
18
20
22
24
26
28
30
Energy (MeV)

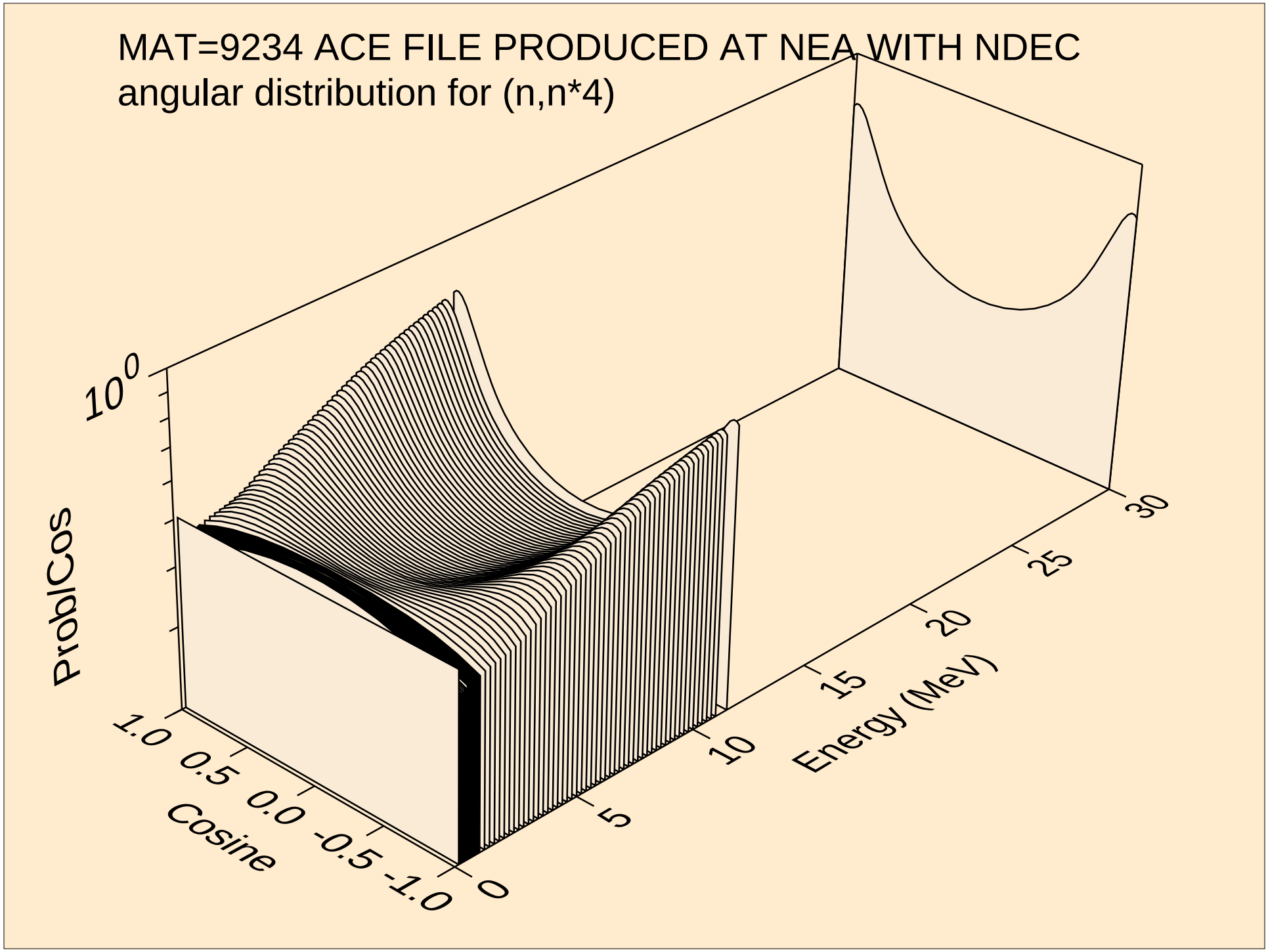

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Threshold reactions
(n,n*c)
(n,p)
(n,xp)
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
0
5
10
15
20
25
30

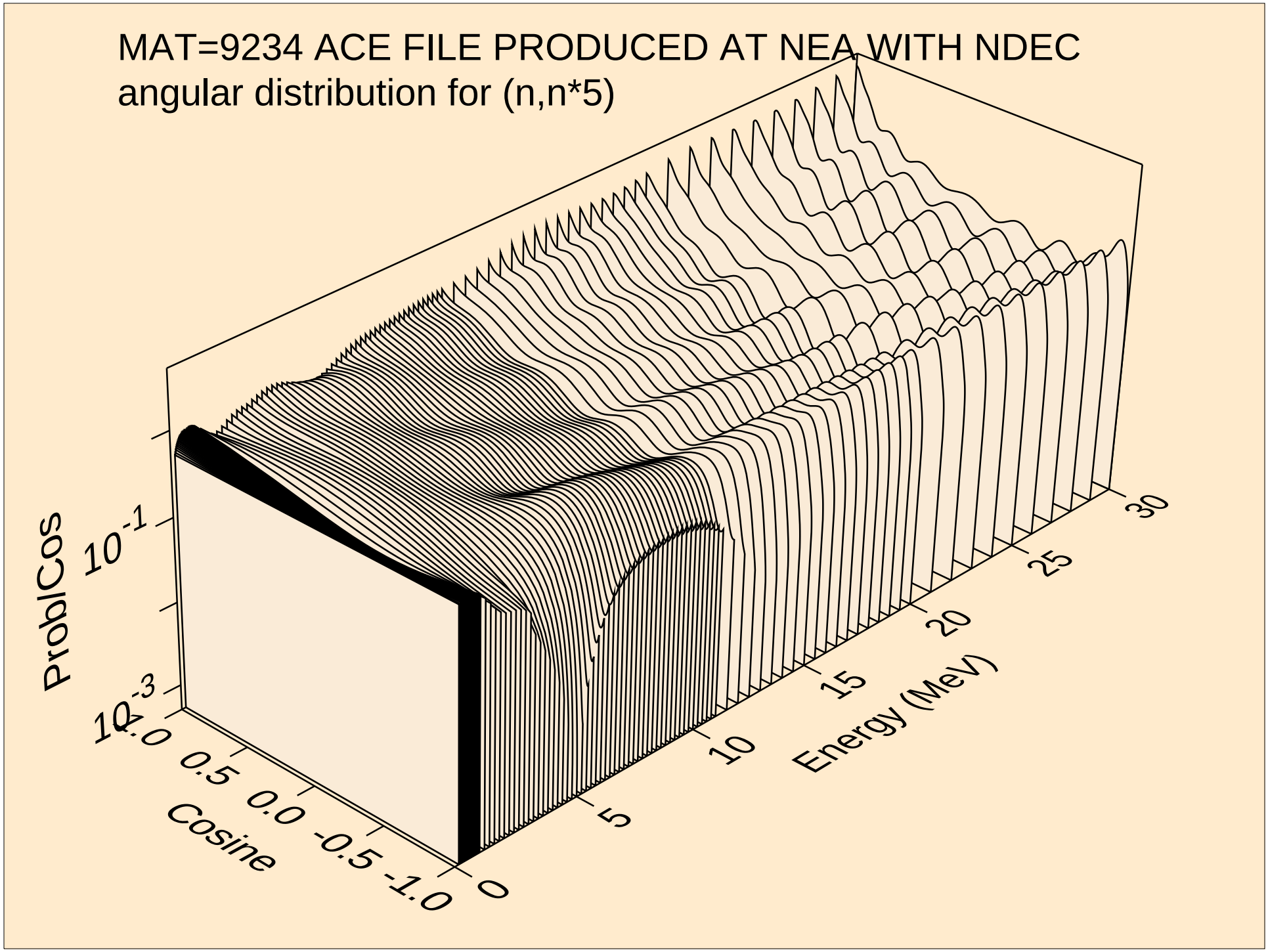

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for elastic
ProbICos
10^1
10^-1
10^-3
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

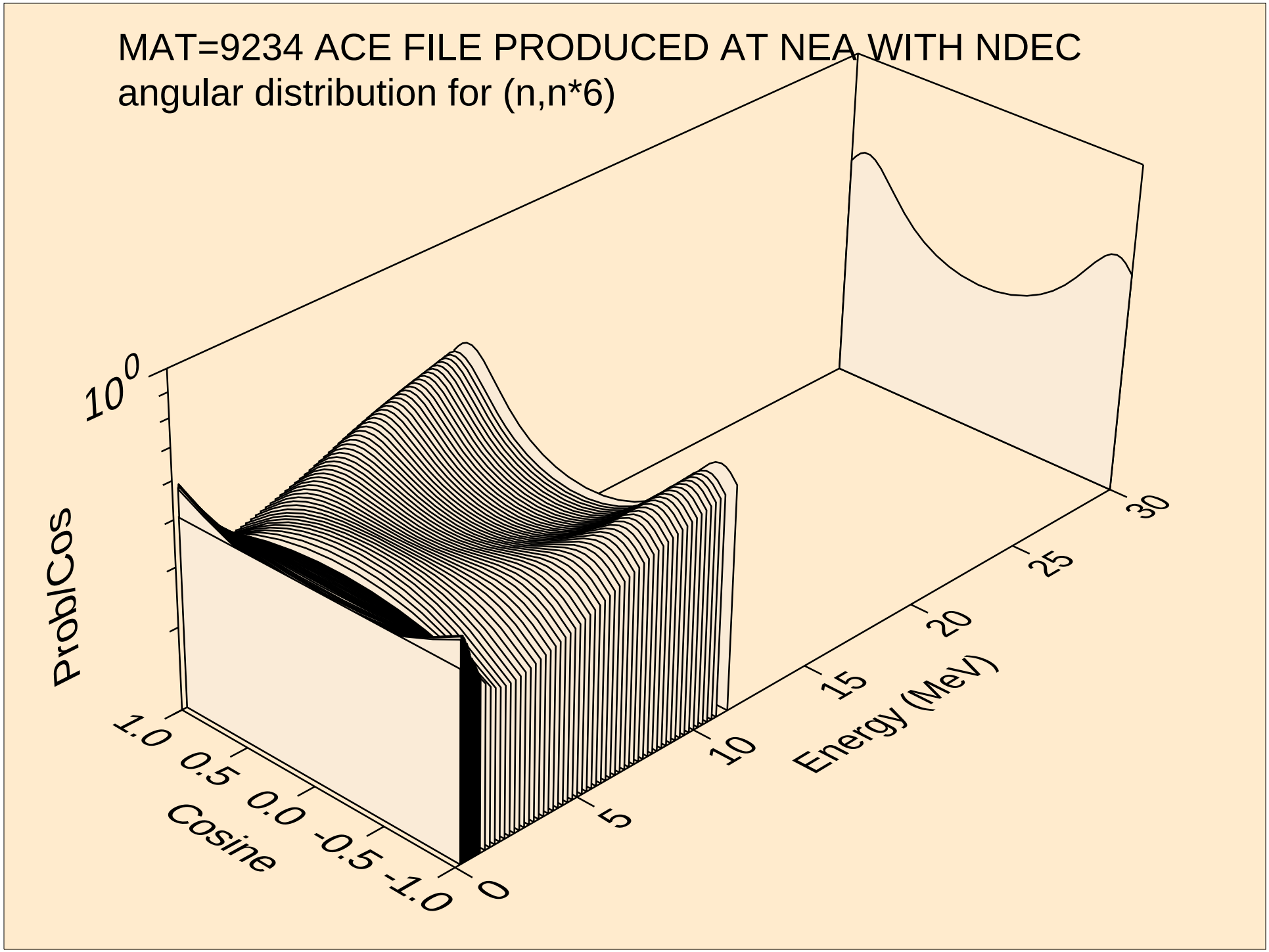

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*1)
Prob\Cos
10^1
10^0
10^-1
10^-2
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

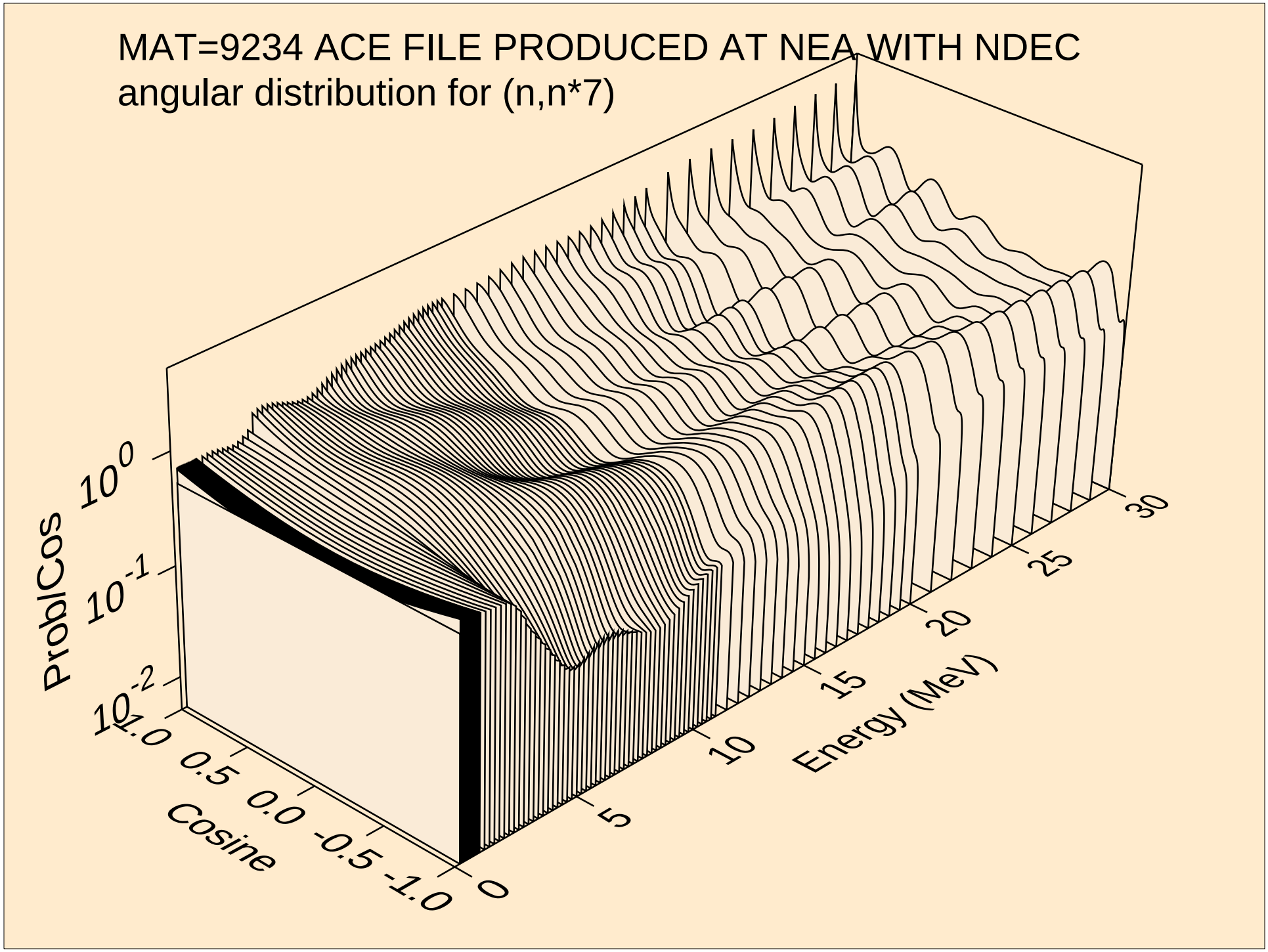

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*2)
Prob\Cos
10^{1}
10^{0}
10^{-1}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

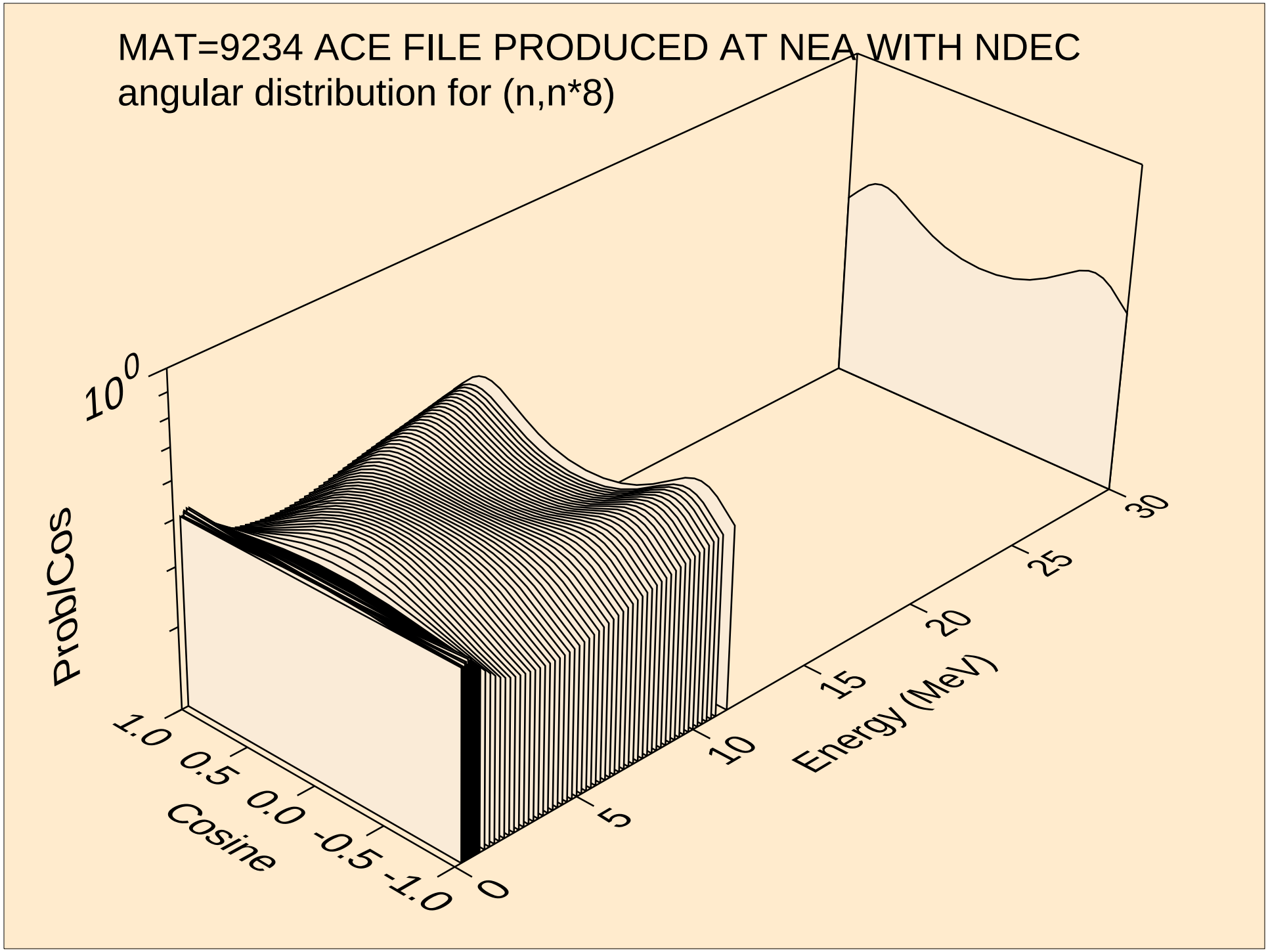

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*3)
ProbICos
10^0
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

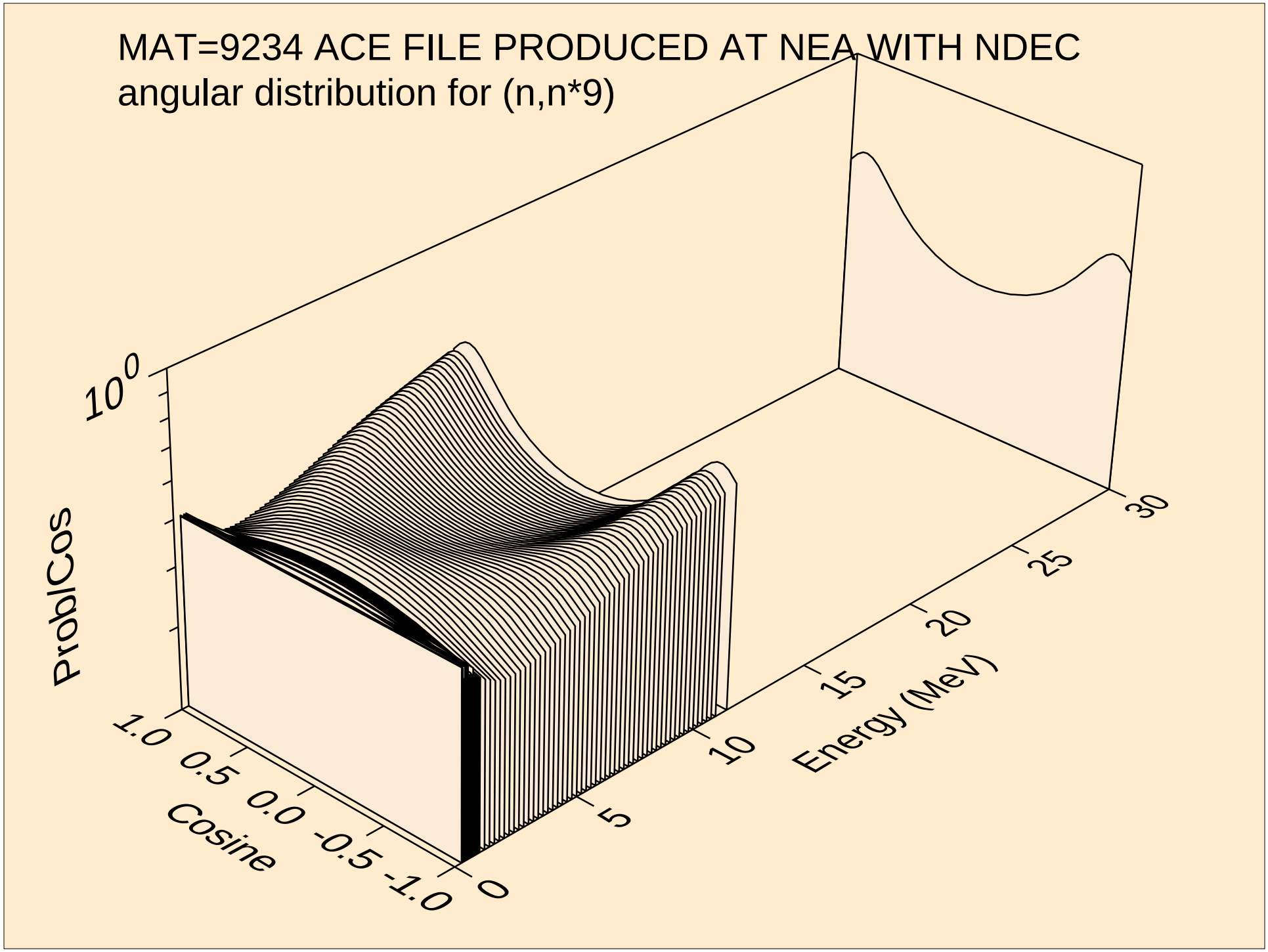

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*4)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

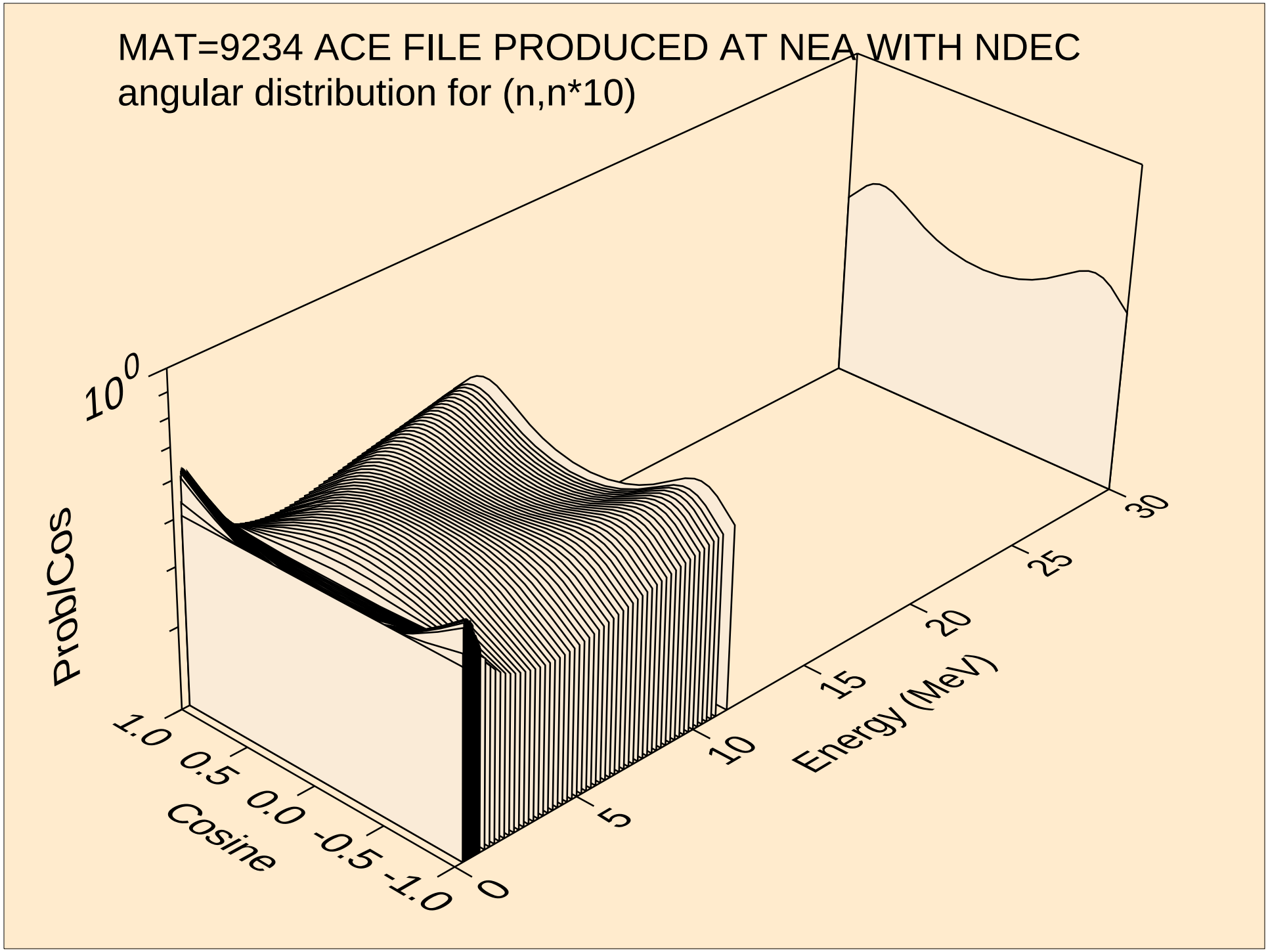

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*5)
ProbICos
10-1
10-3
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

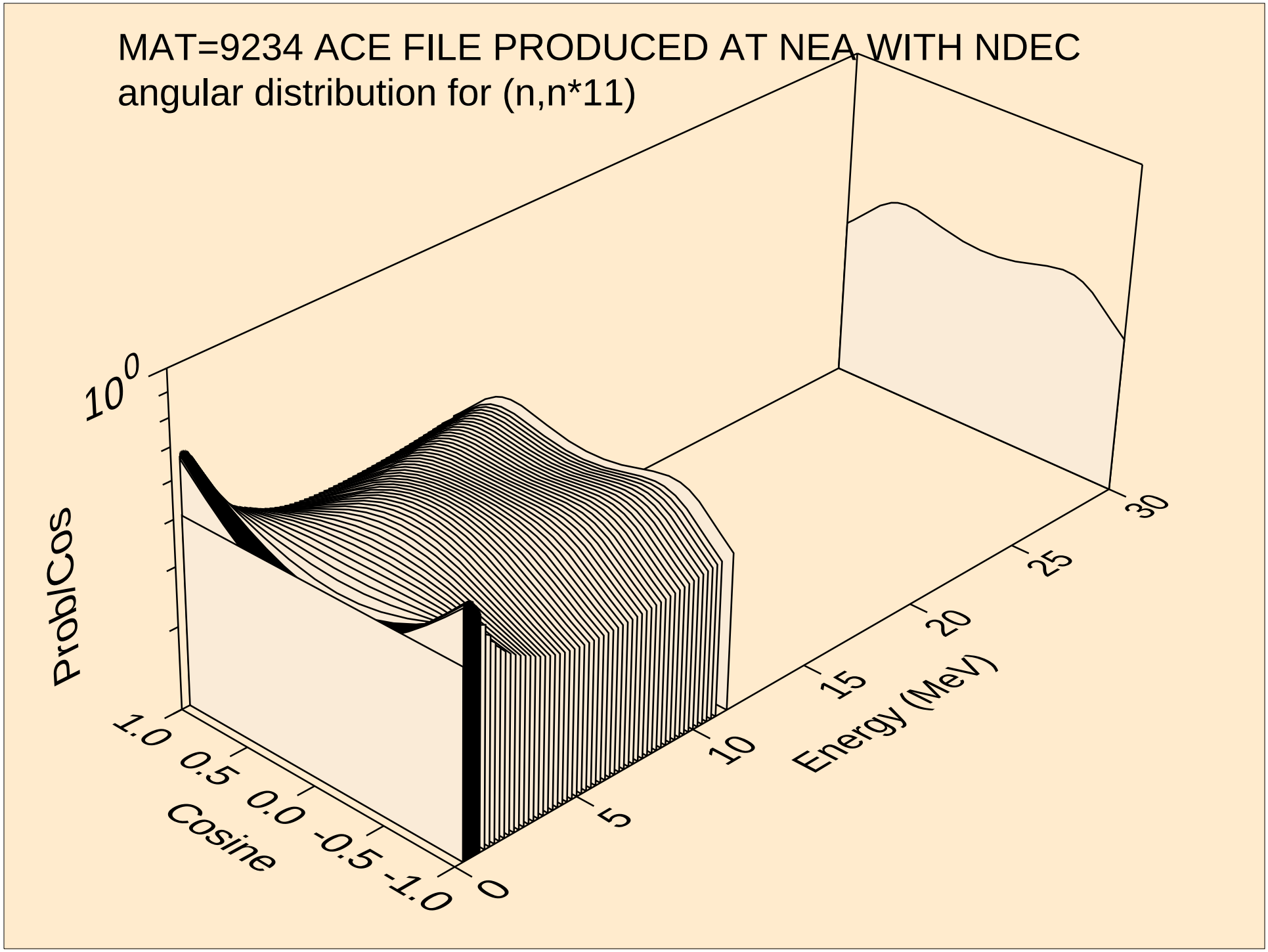

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*6)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

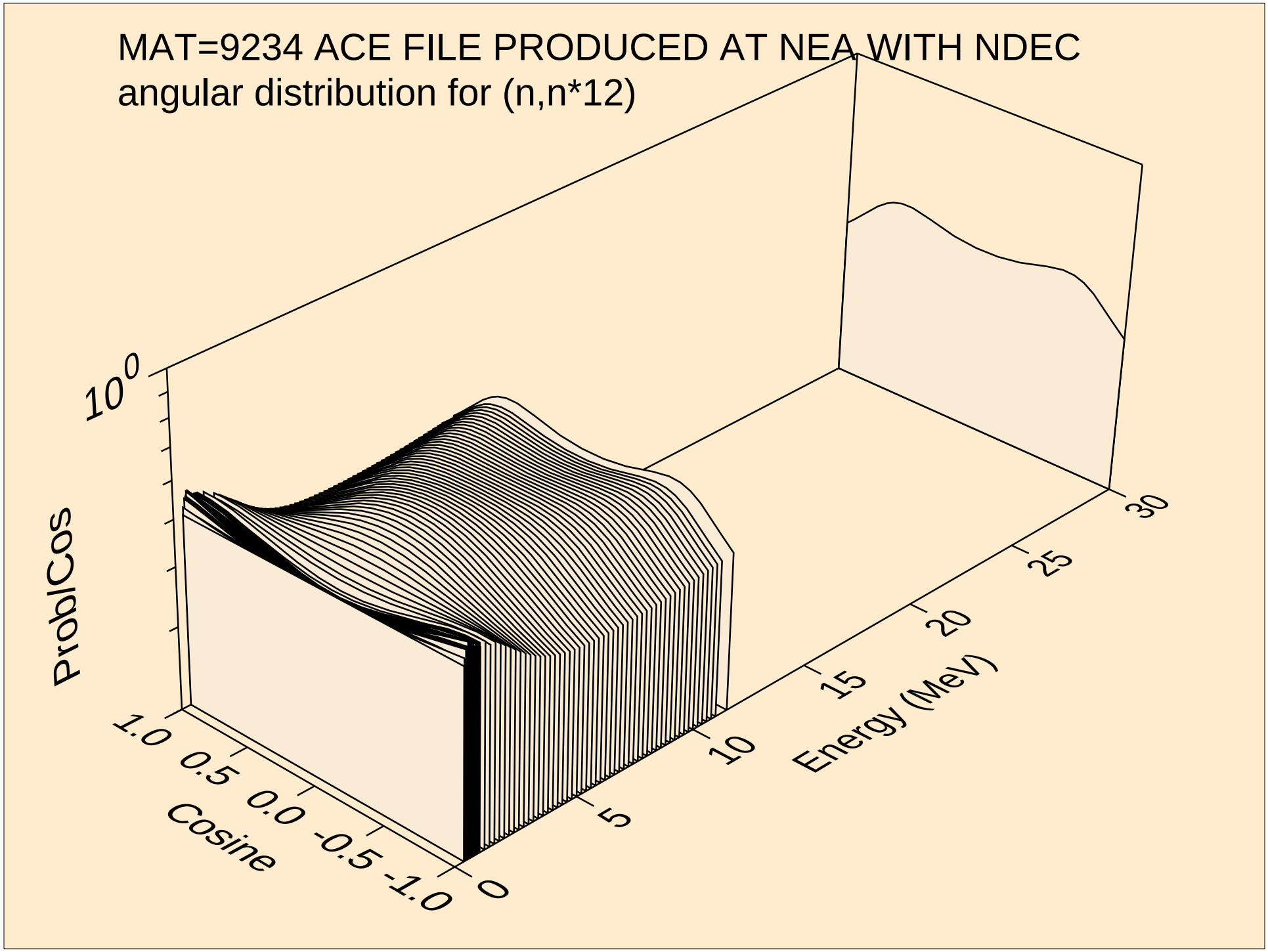

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*7)
ProbICos
10^0
10^-1
10^-2
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

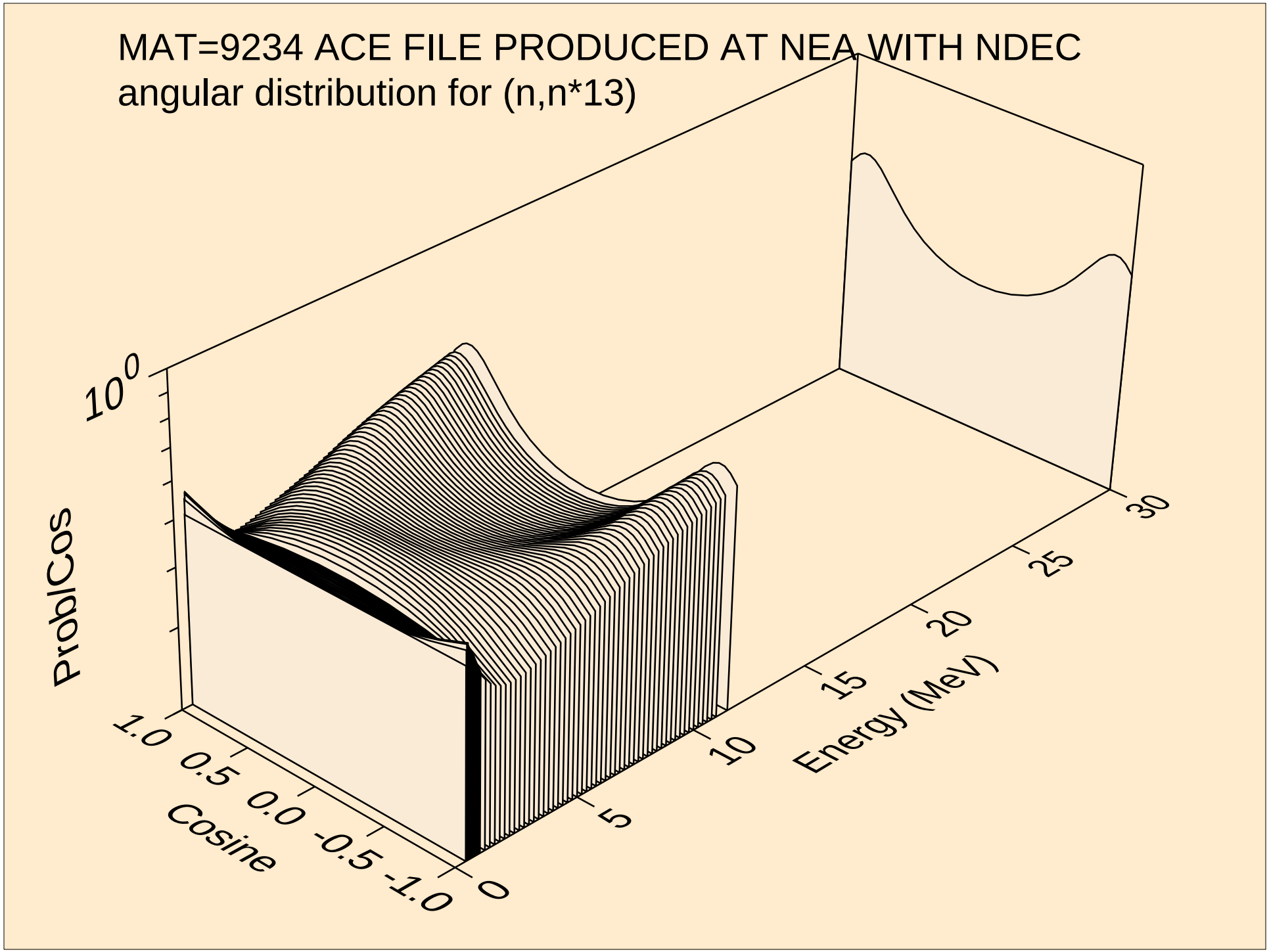

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*8)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

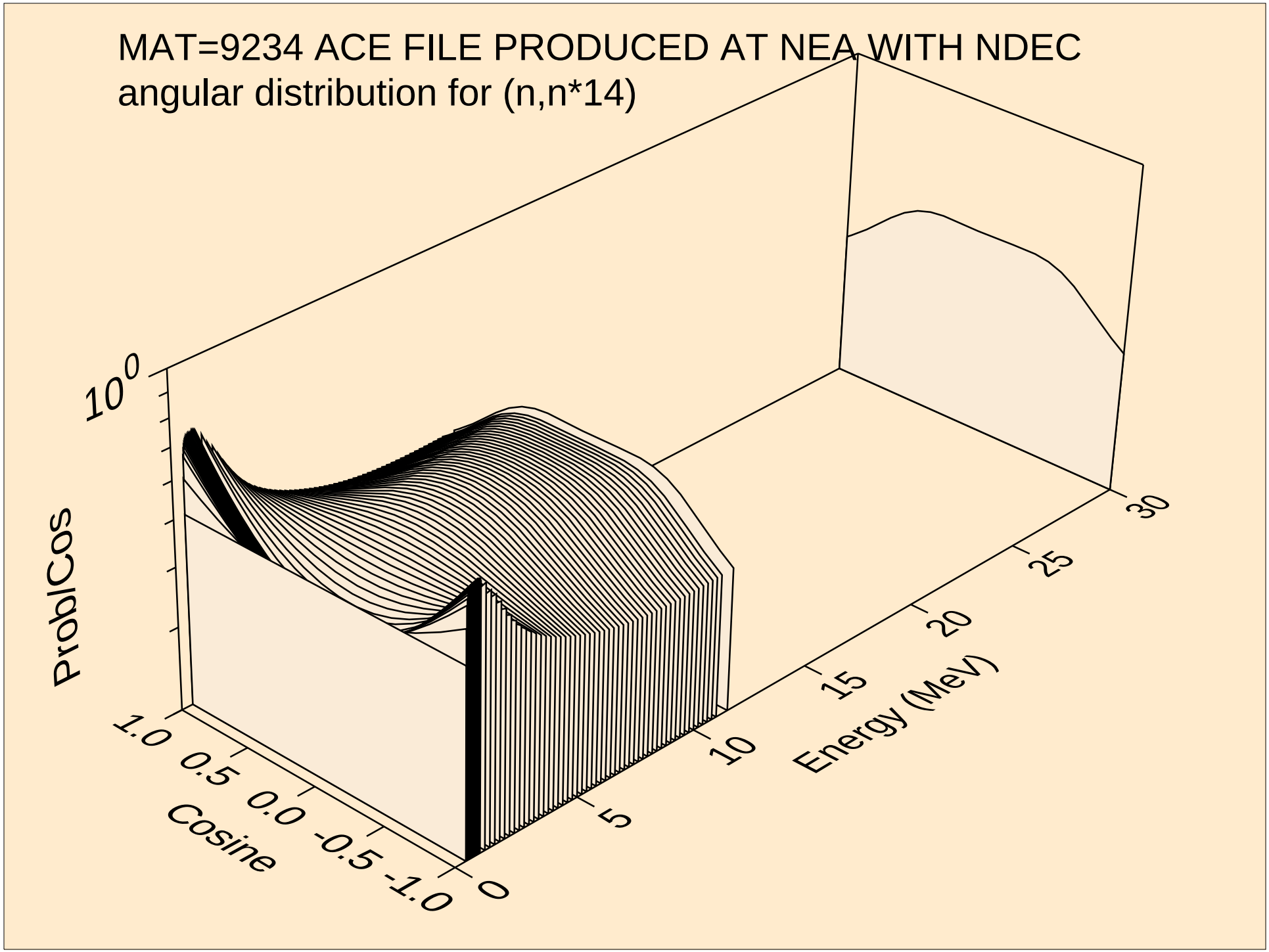

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*9)
10^0
Prob\Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

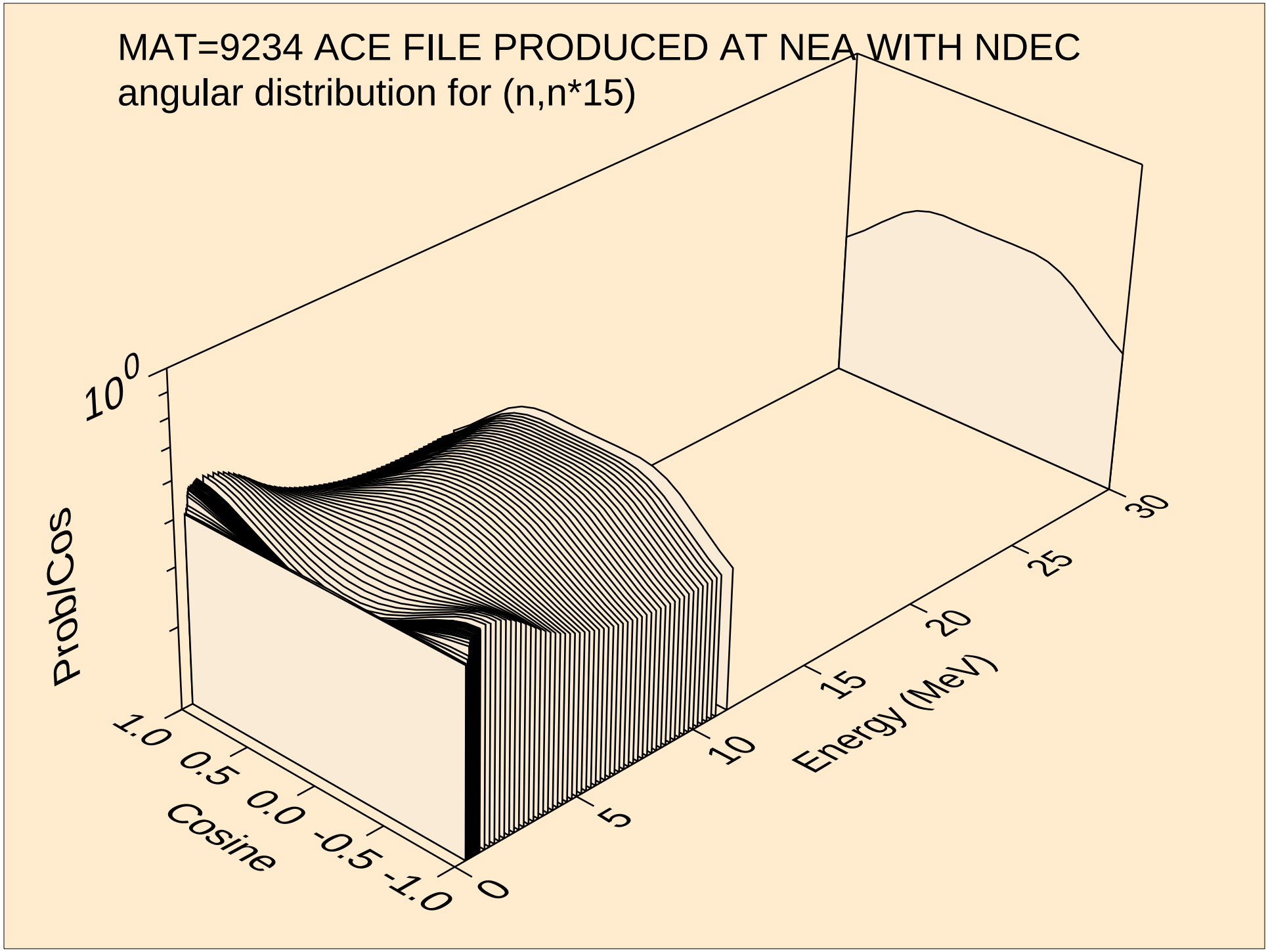

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*10)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

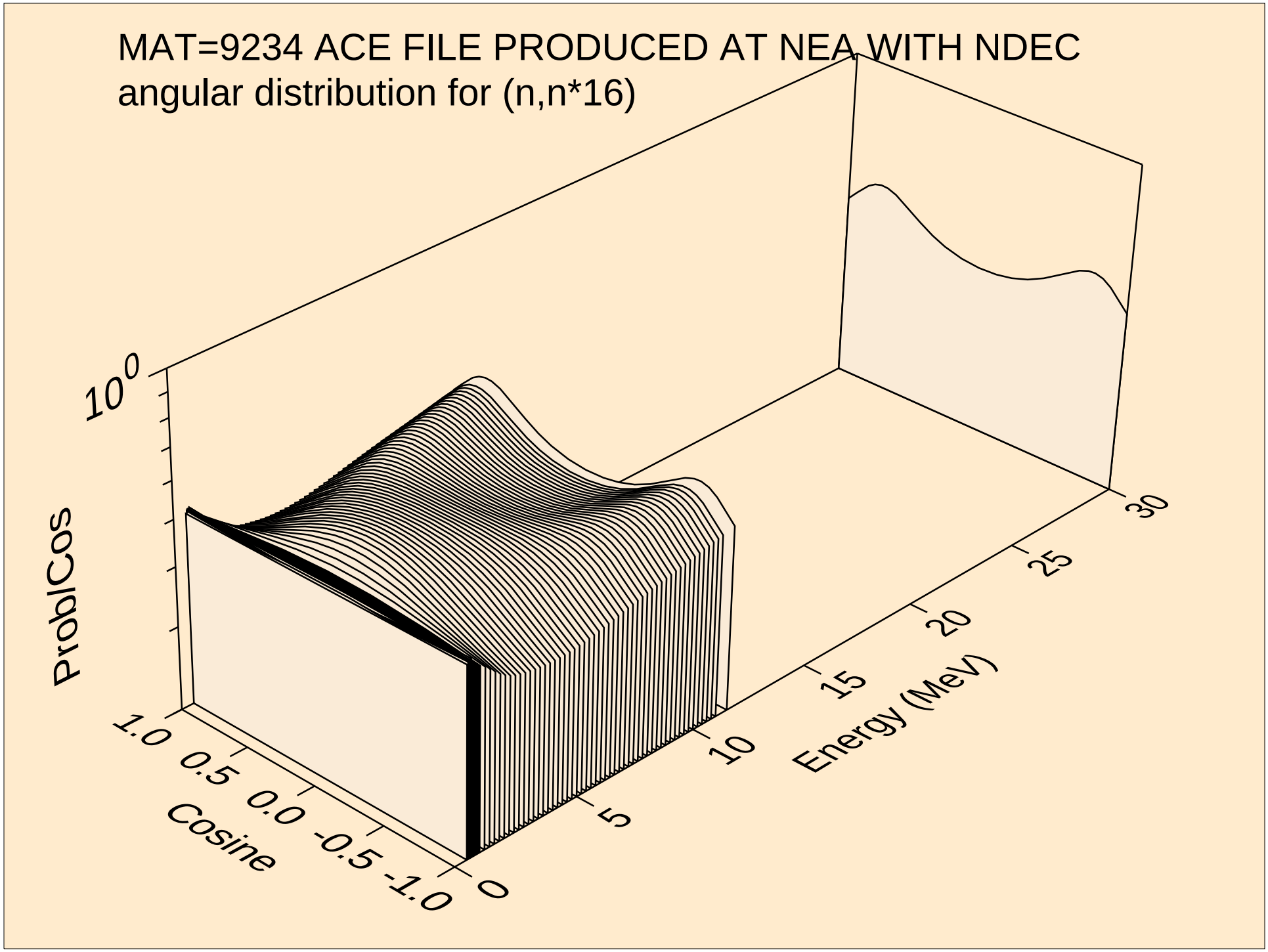

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*11)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

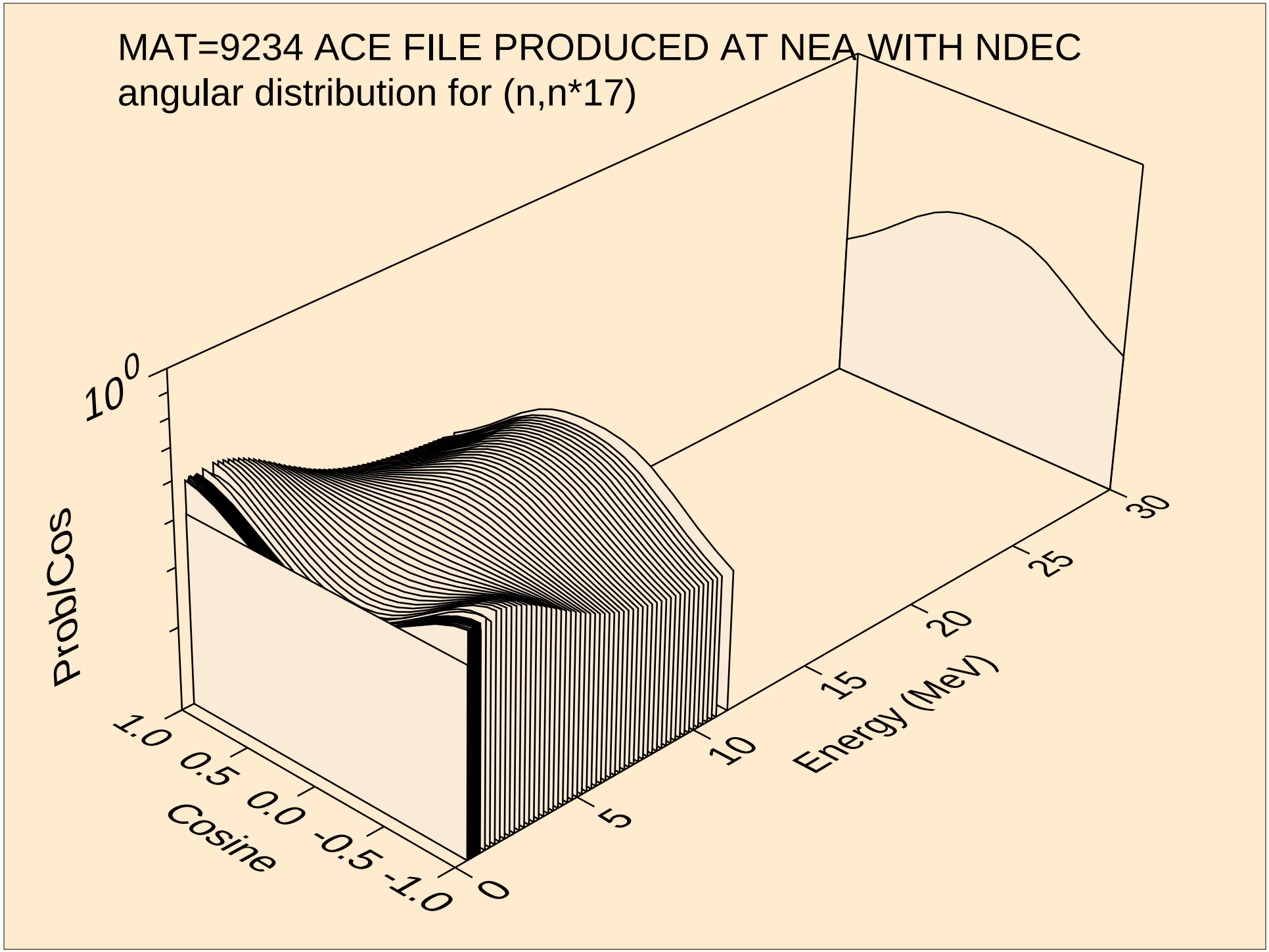

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*12)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

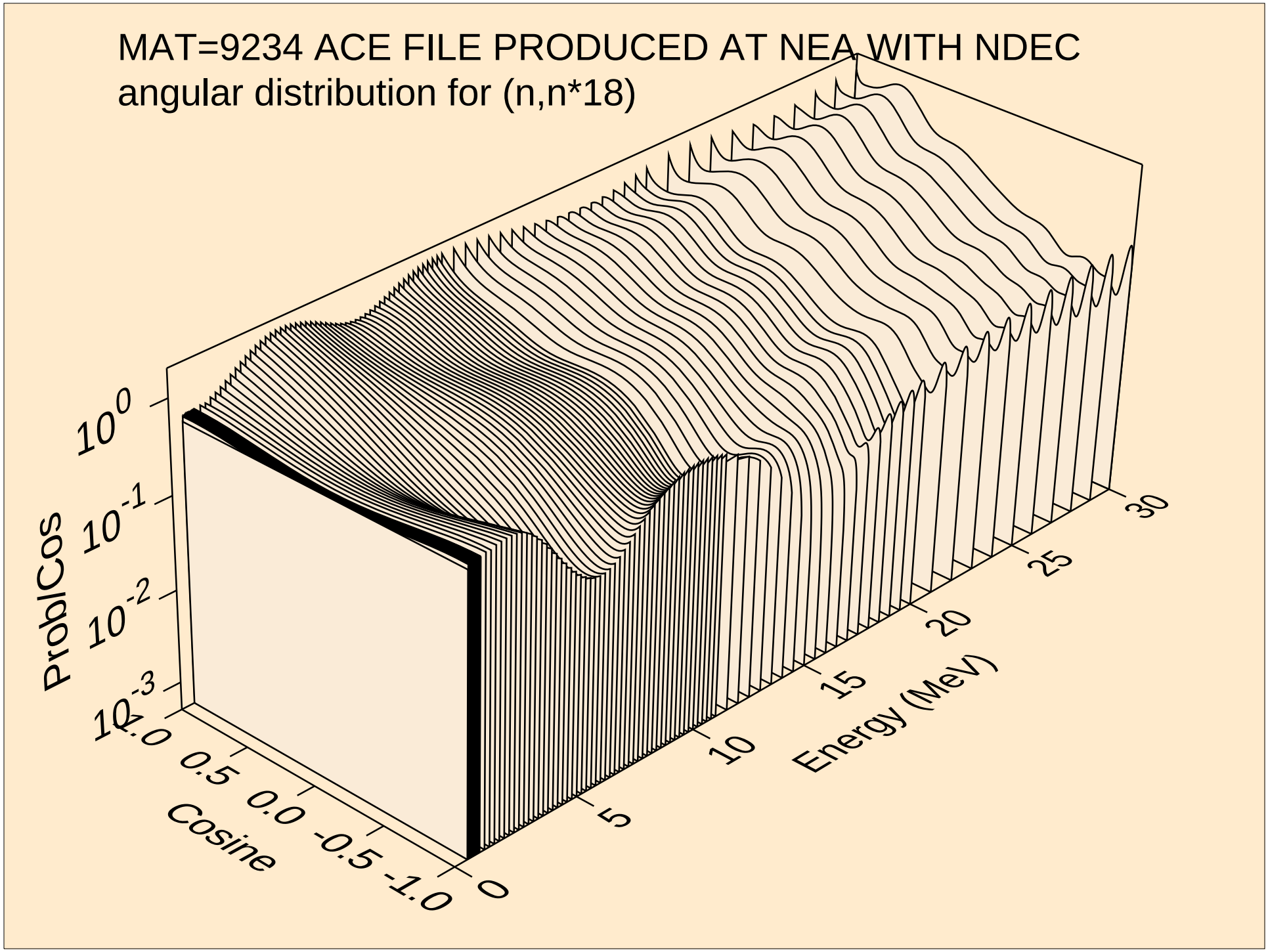

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*13)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

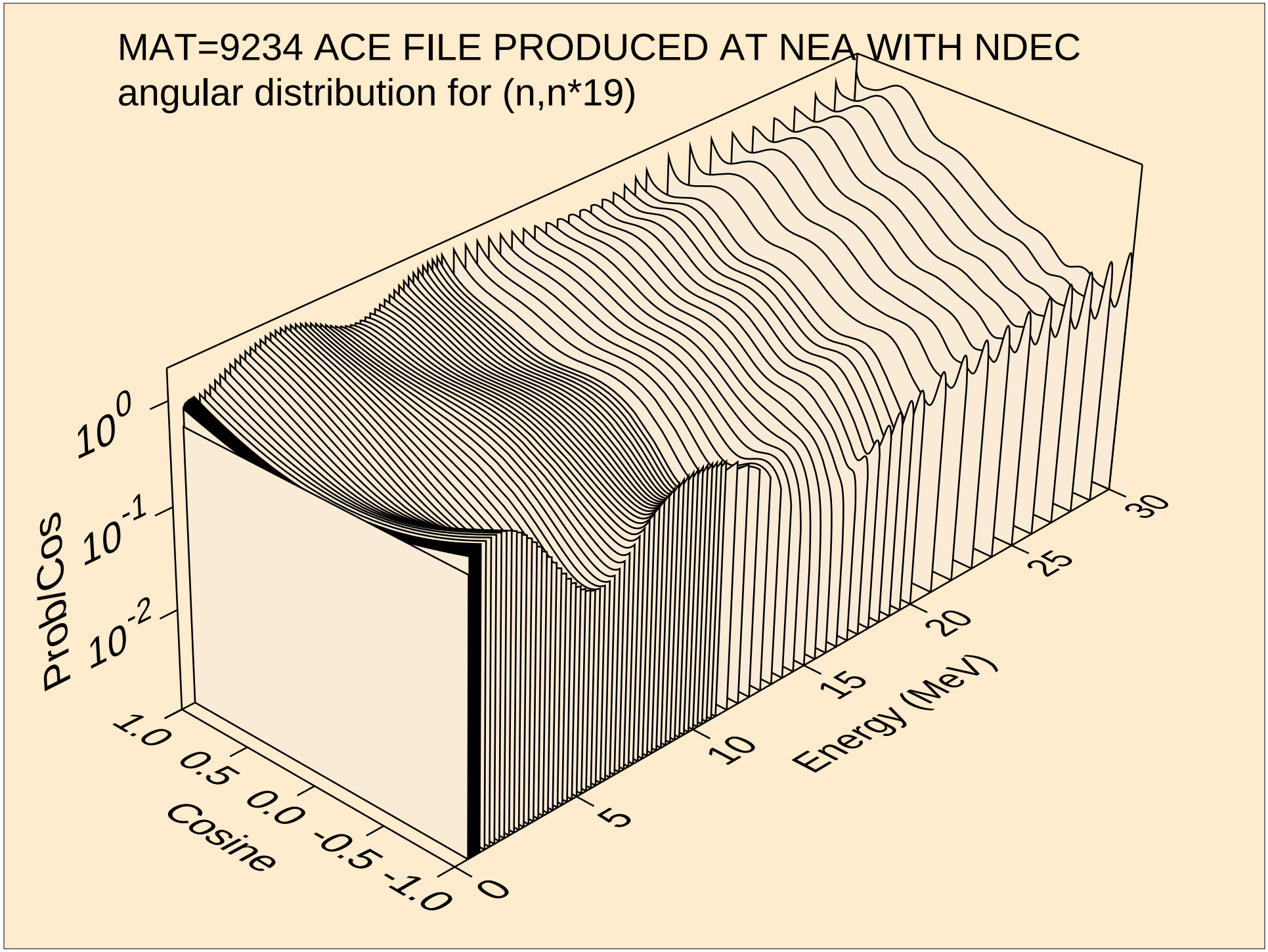

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*14)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

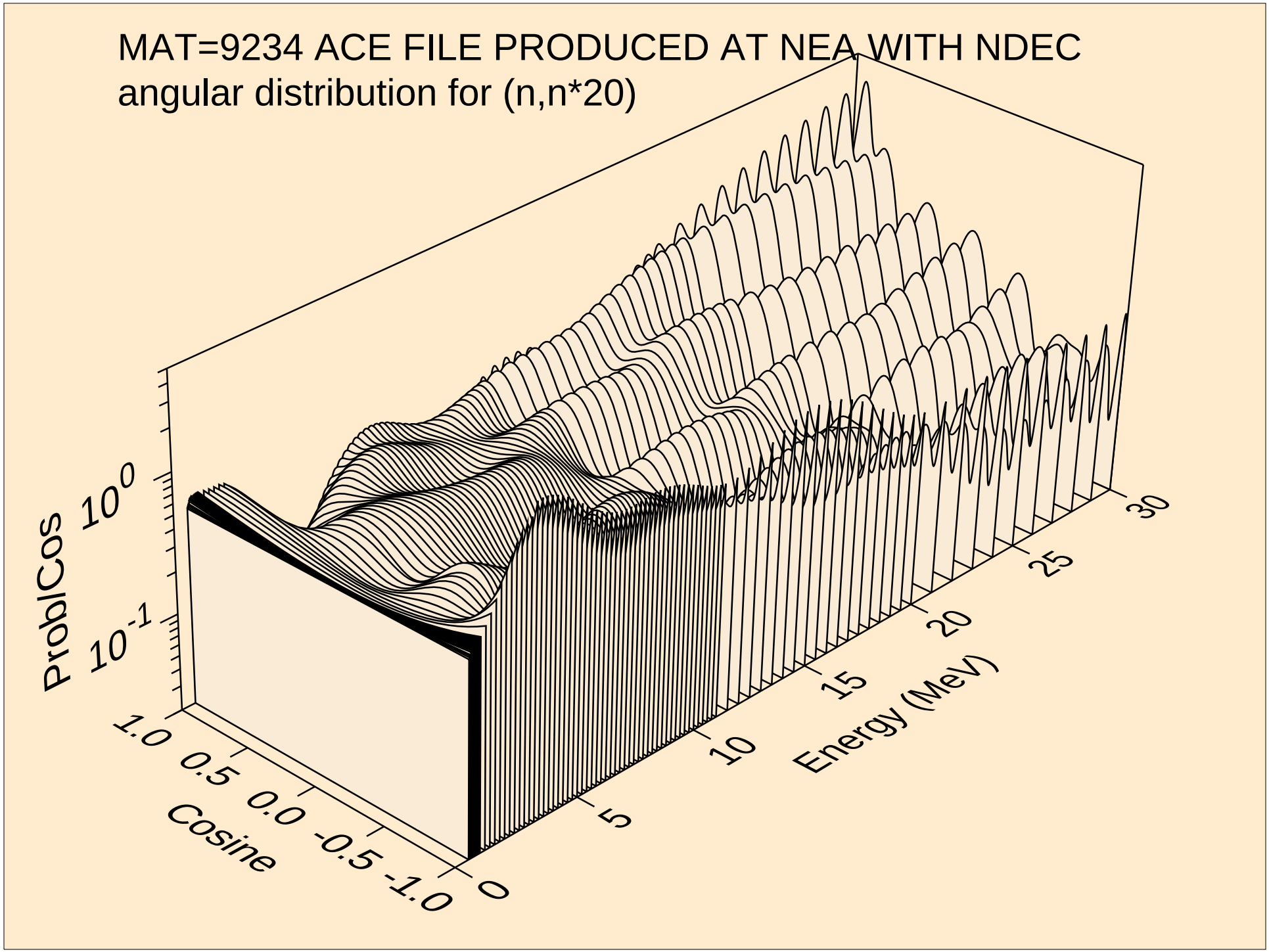

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*15)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

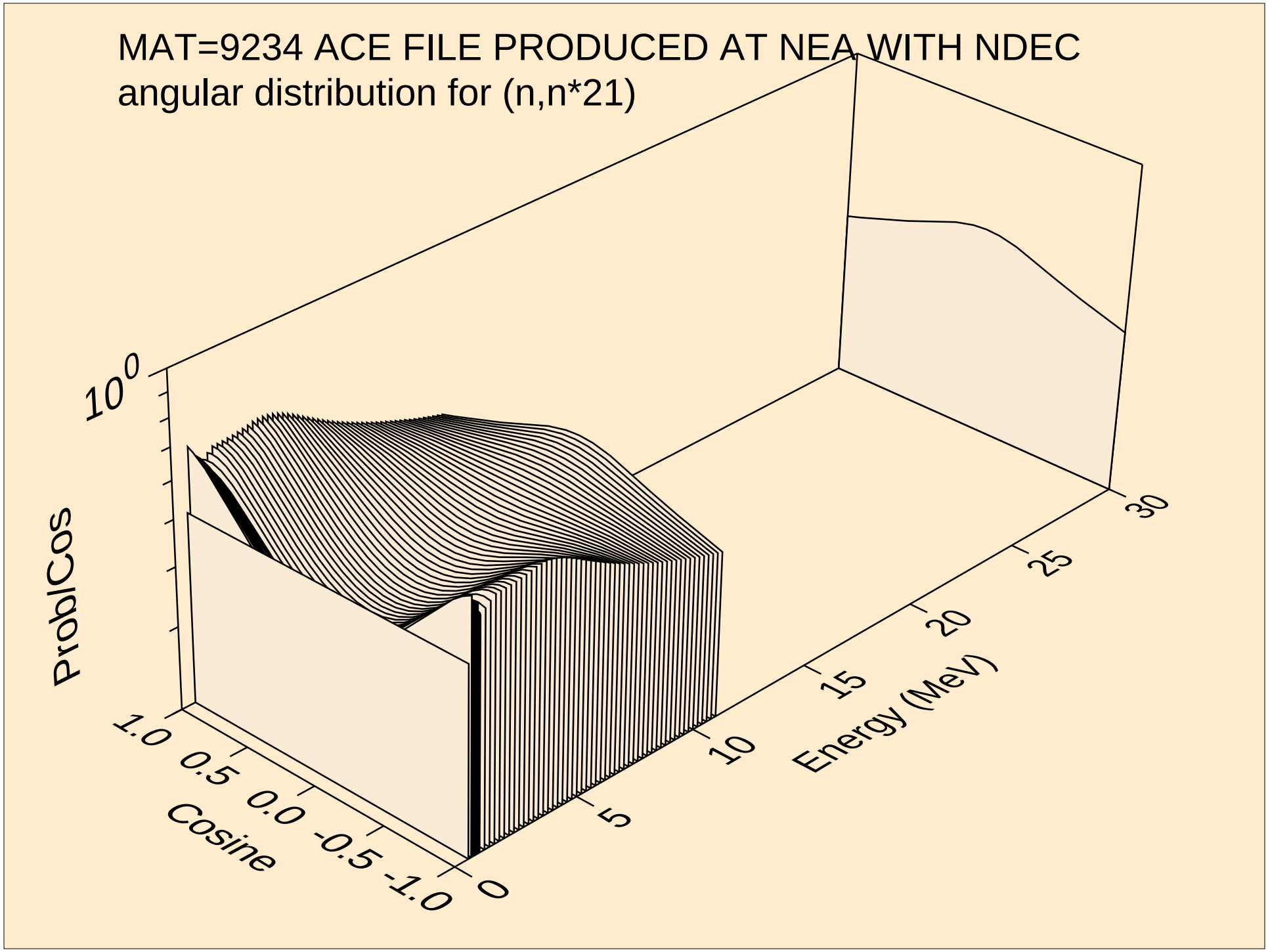

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*16)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

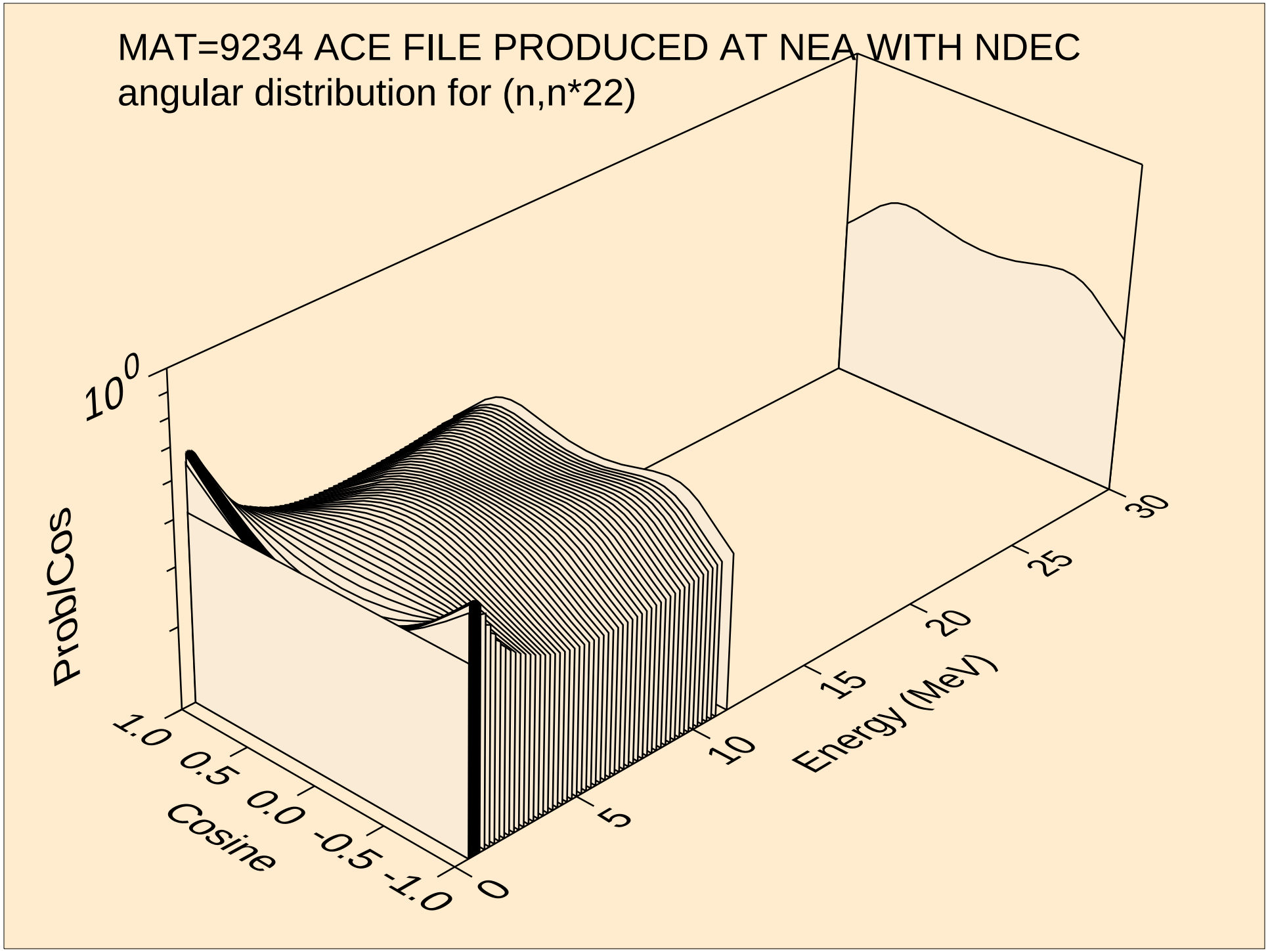

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*17)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

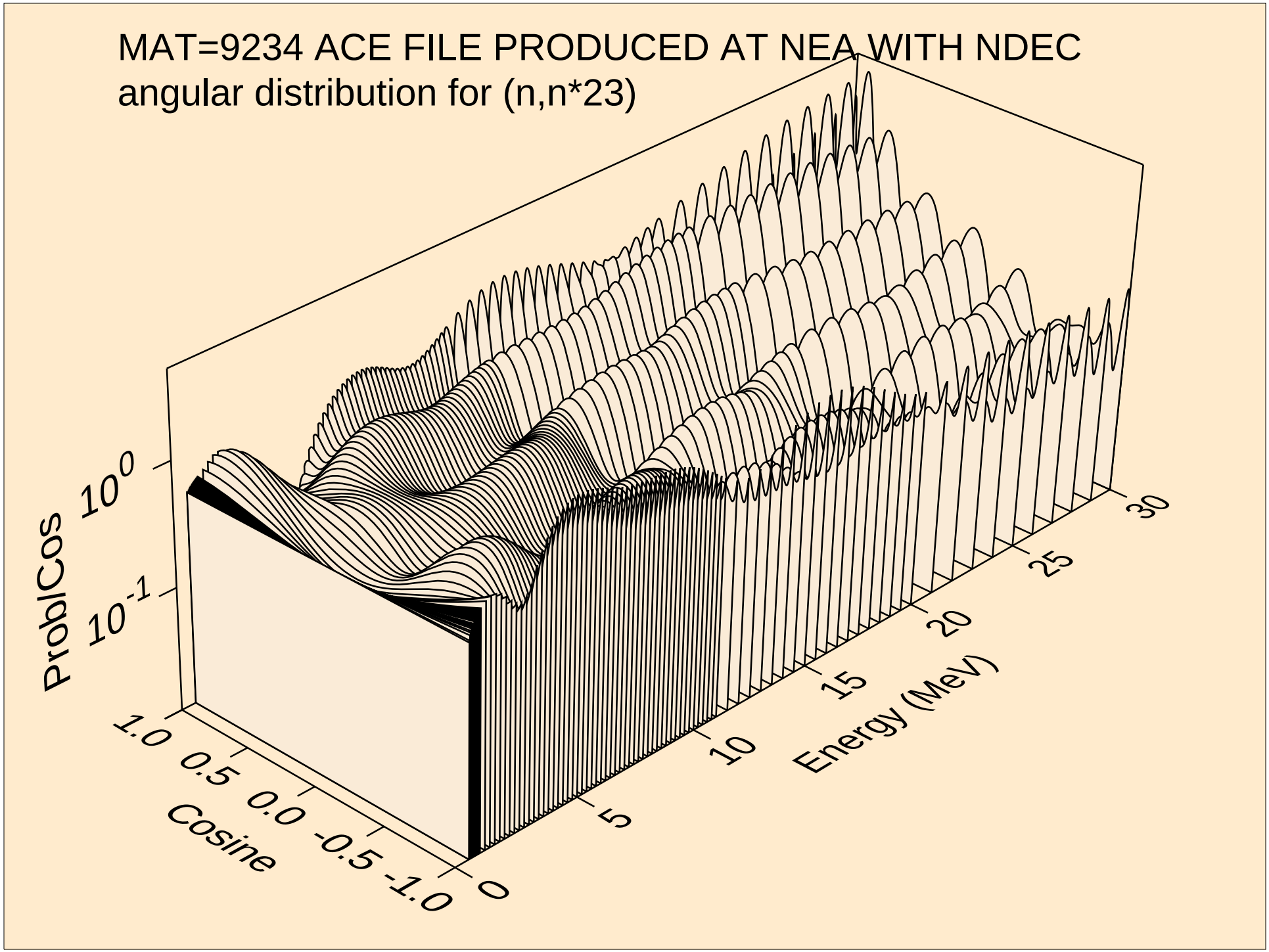

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*18)
ProbICos
10^{0}
10^{-1}
10^{-2}
10^{-3}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

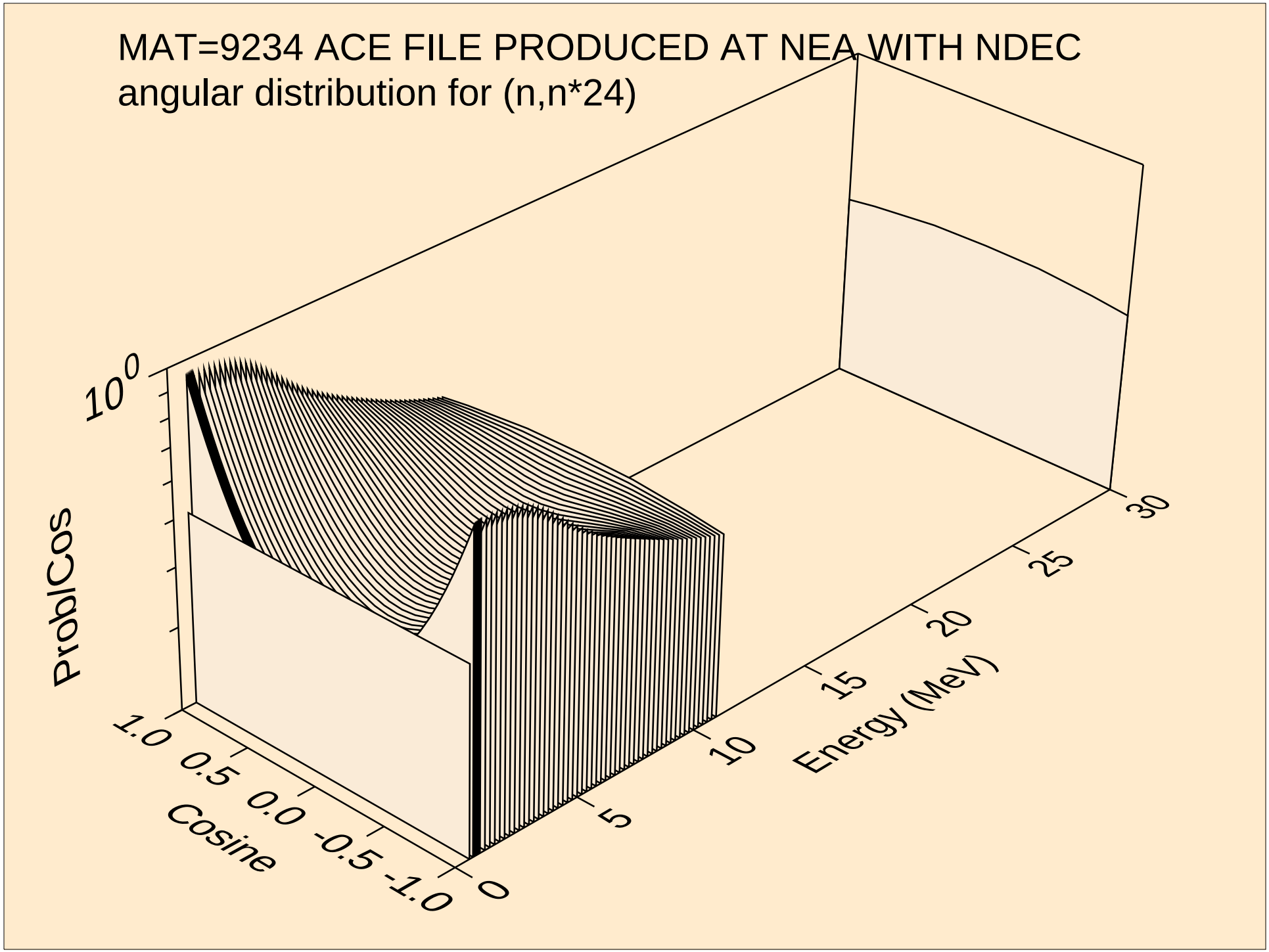

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*19)
ProbICos
10^0
10^-1
10^-2
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

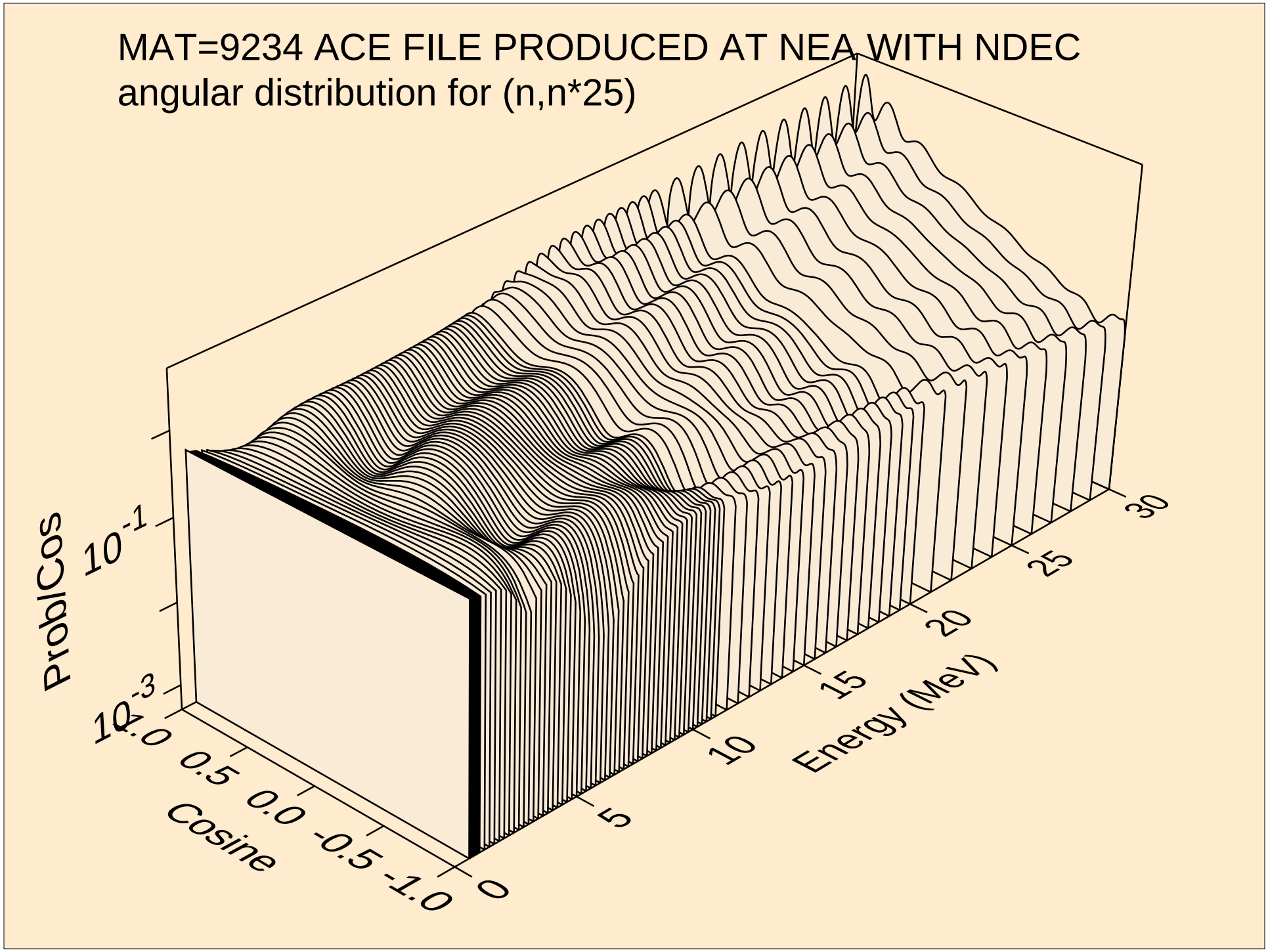

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*20)
ProbICos
10^0
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

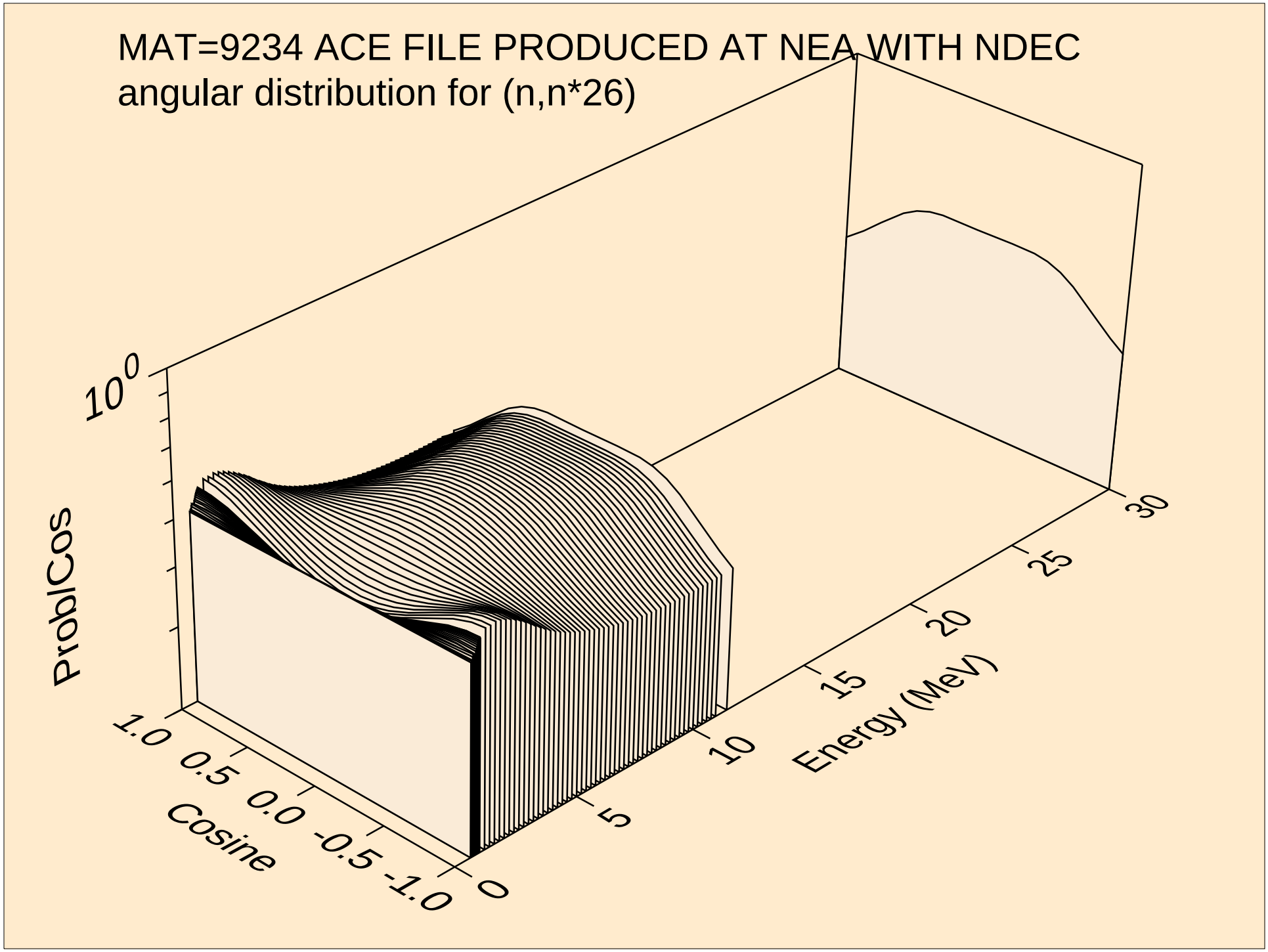

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*21)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

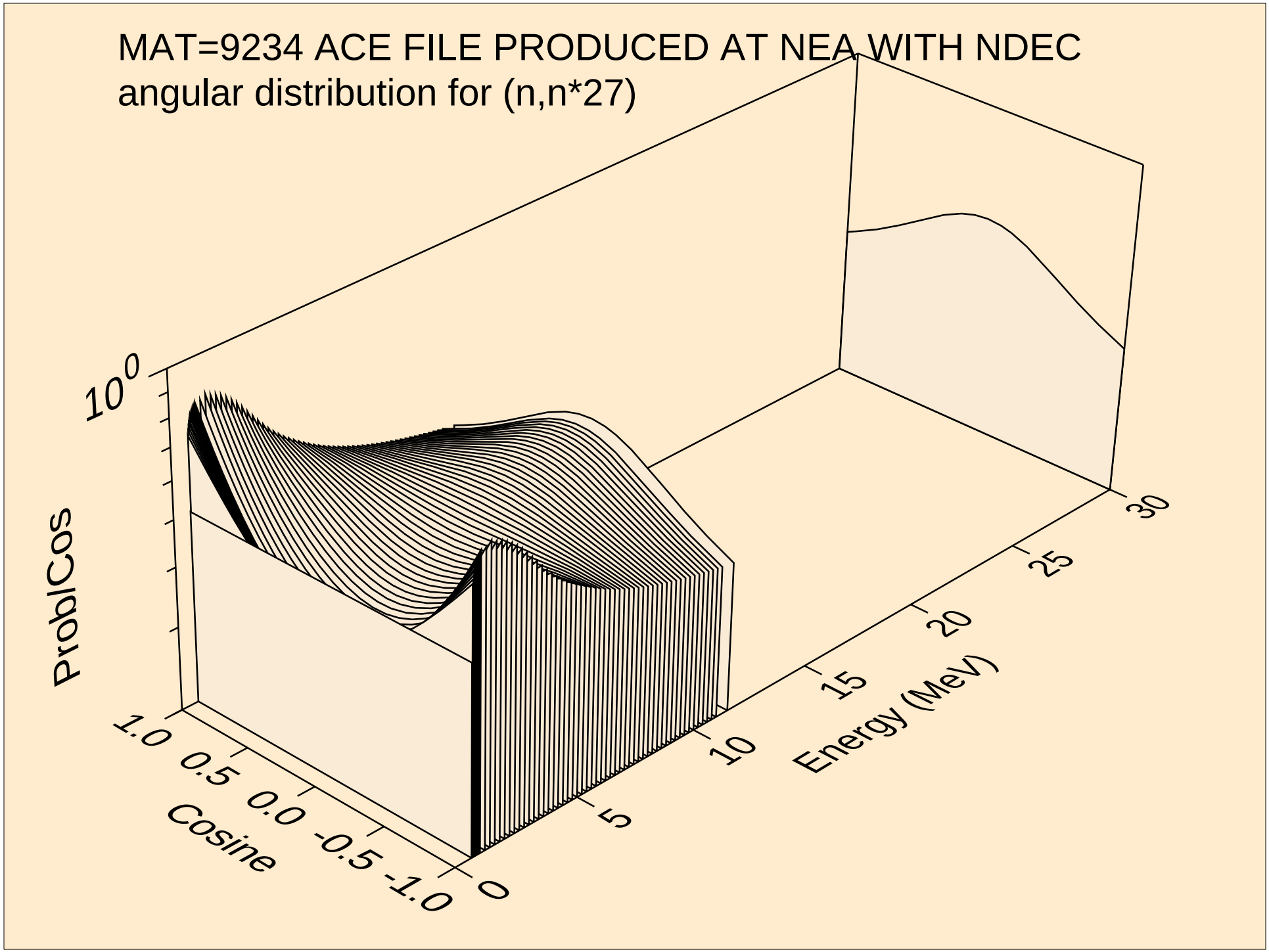

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*22)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

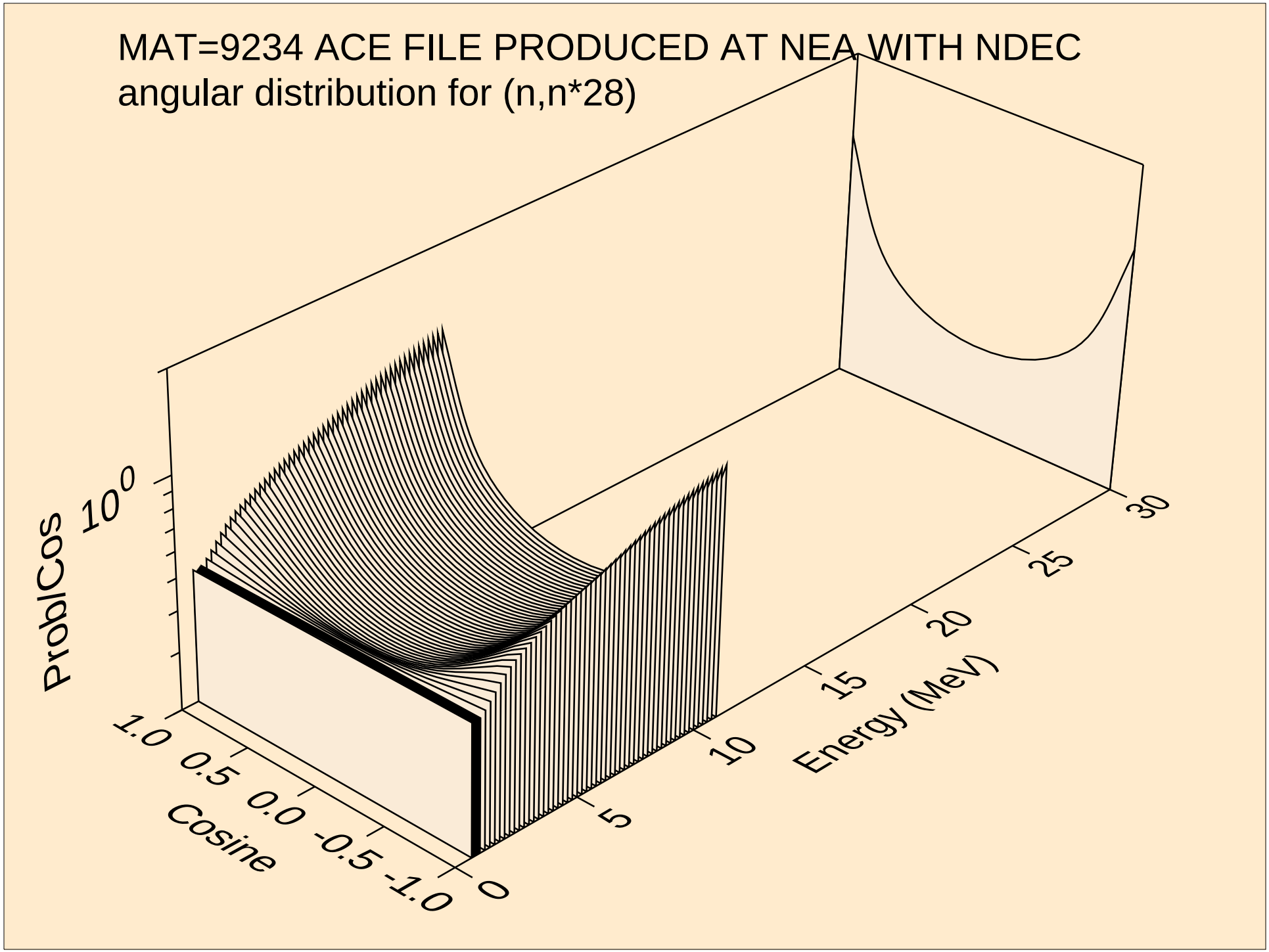

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*23)
ProbICos
10^0
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

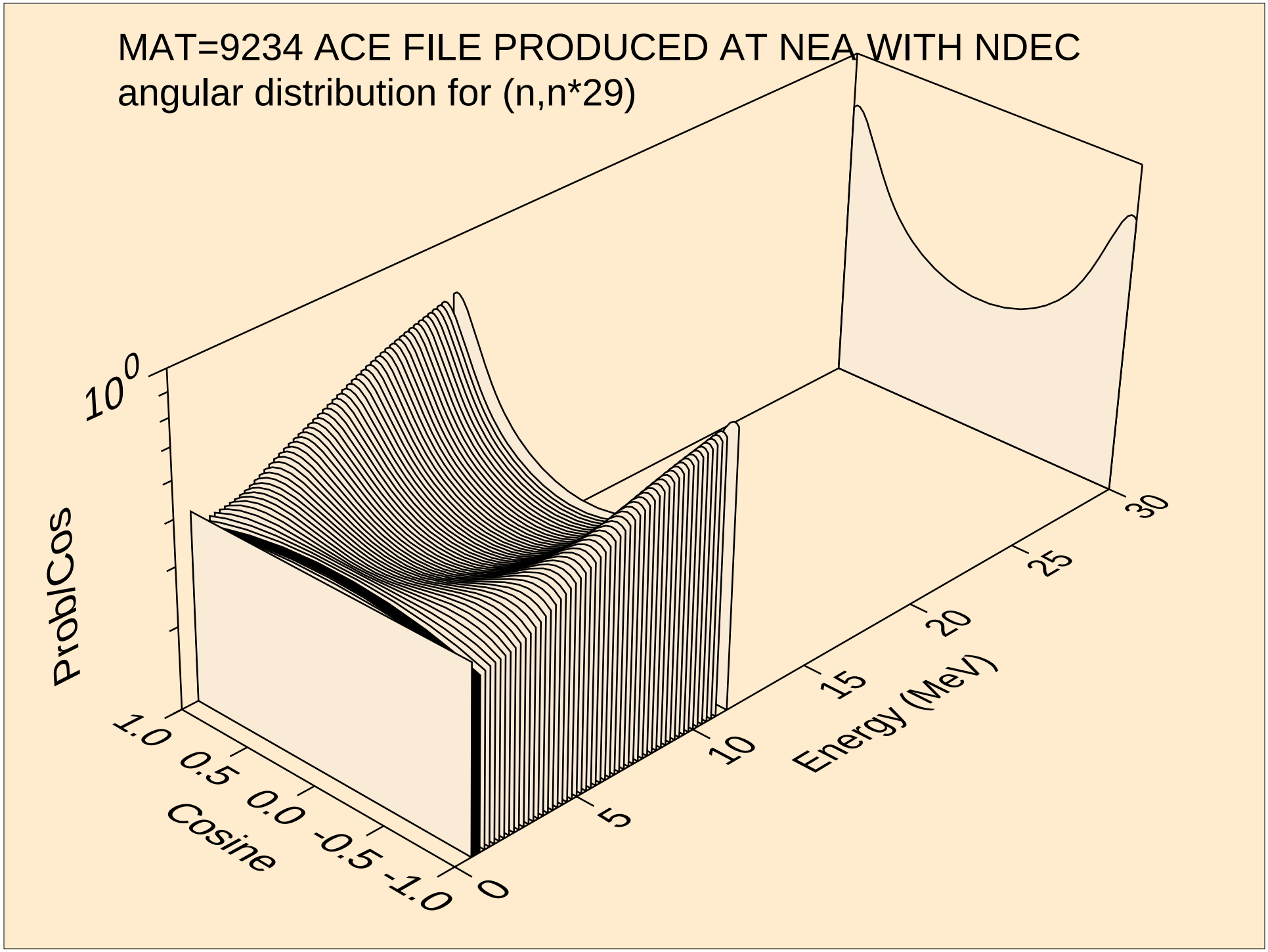

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*24)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

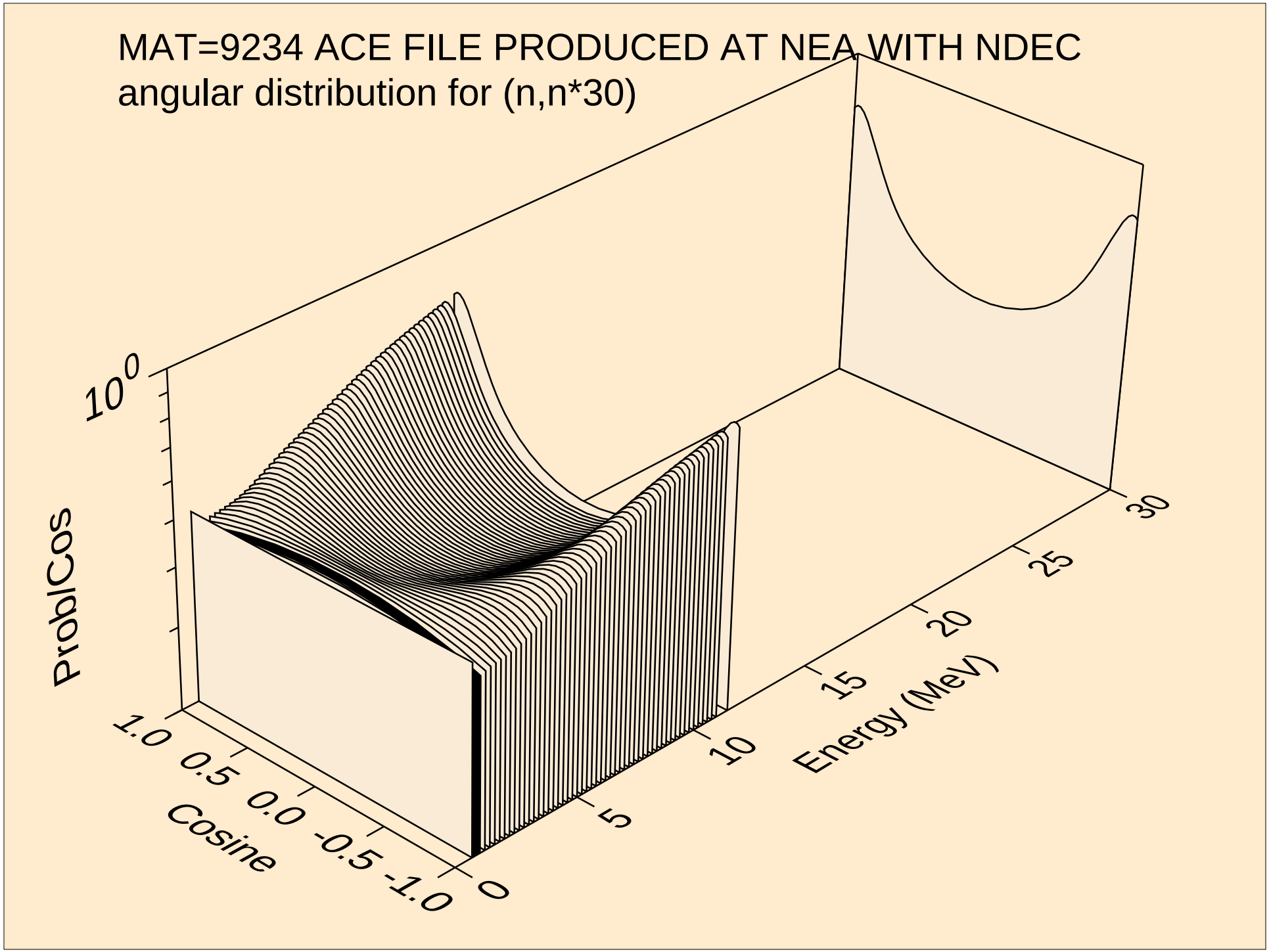

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*25)
ProbICos
10-1
10-3
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

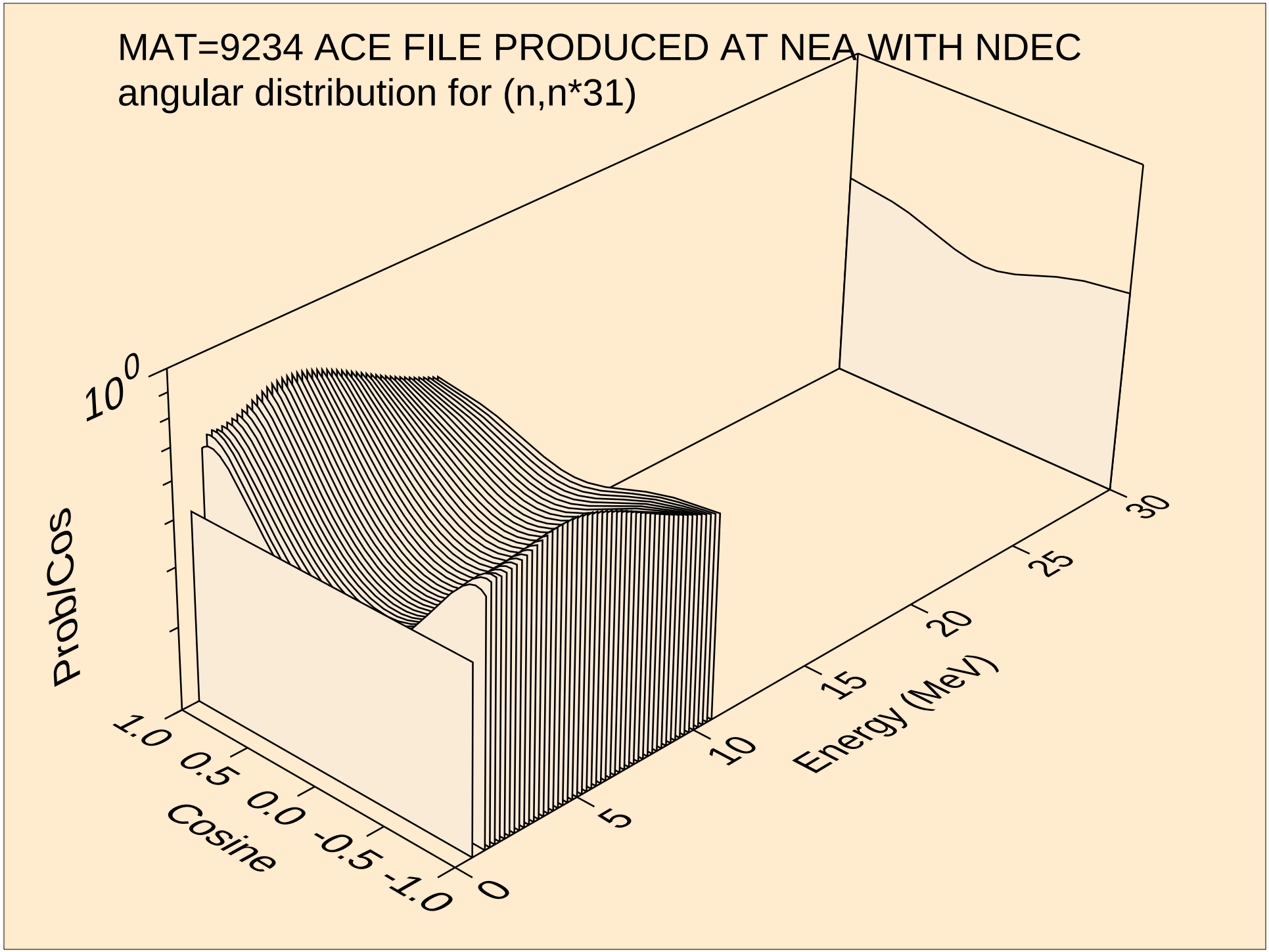

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*26)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

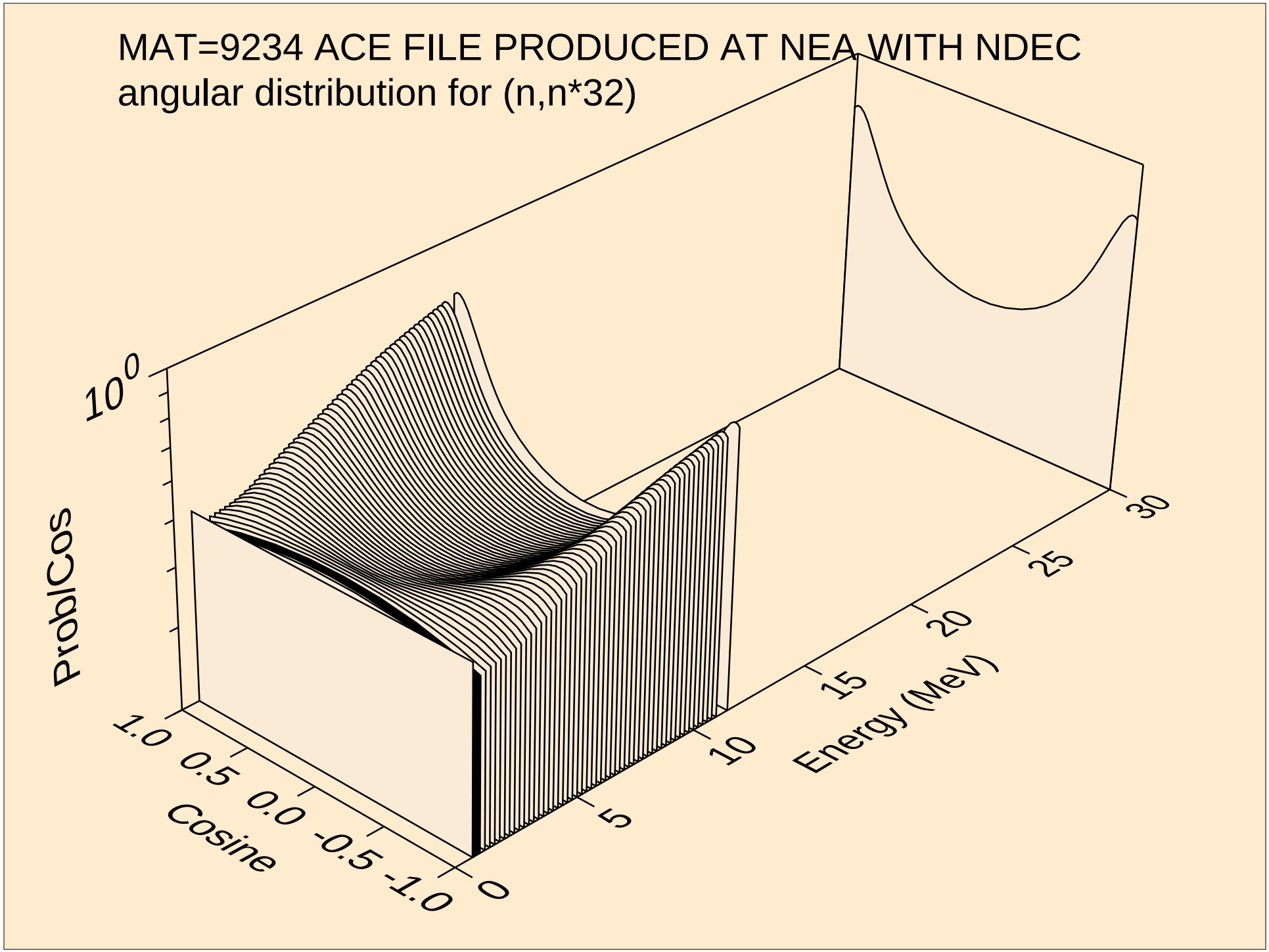

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*27)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

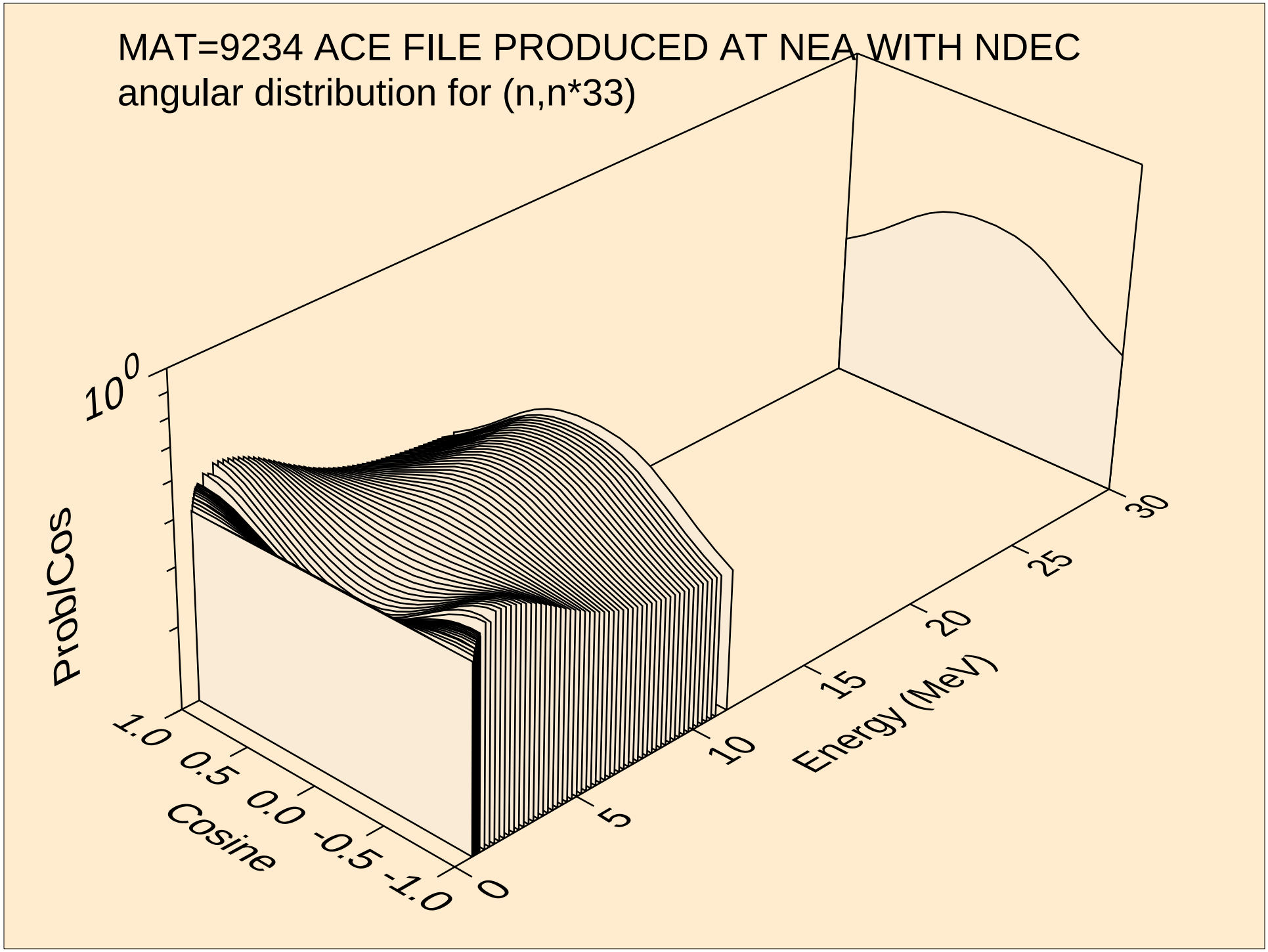

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*28)
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

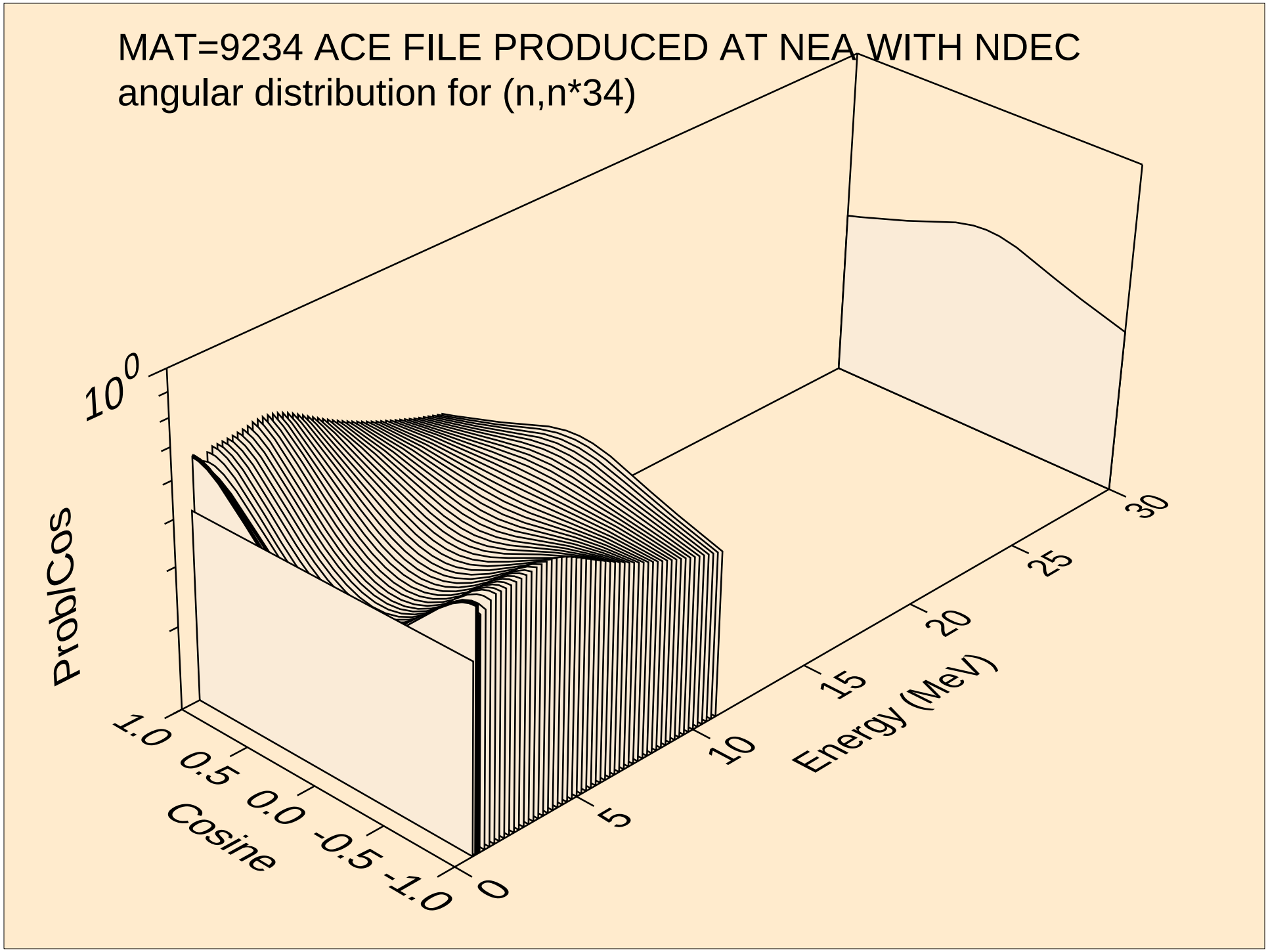

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*29)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

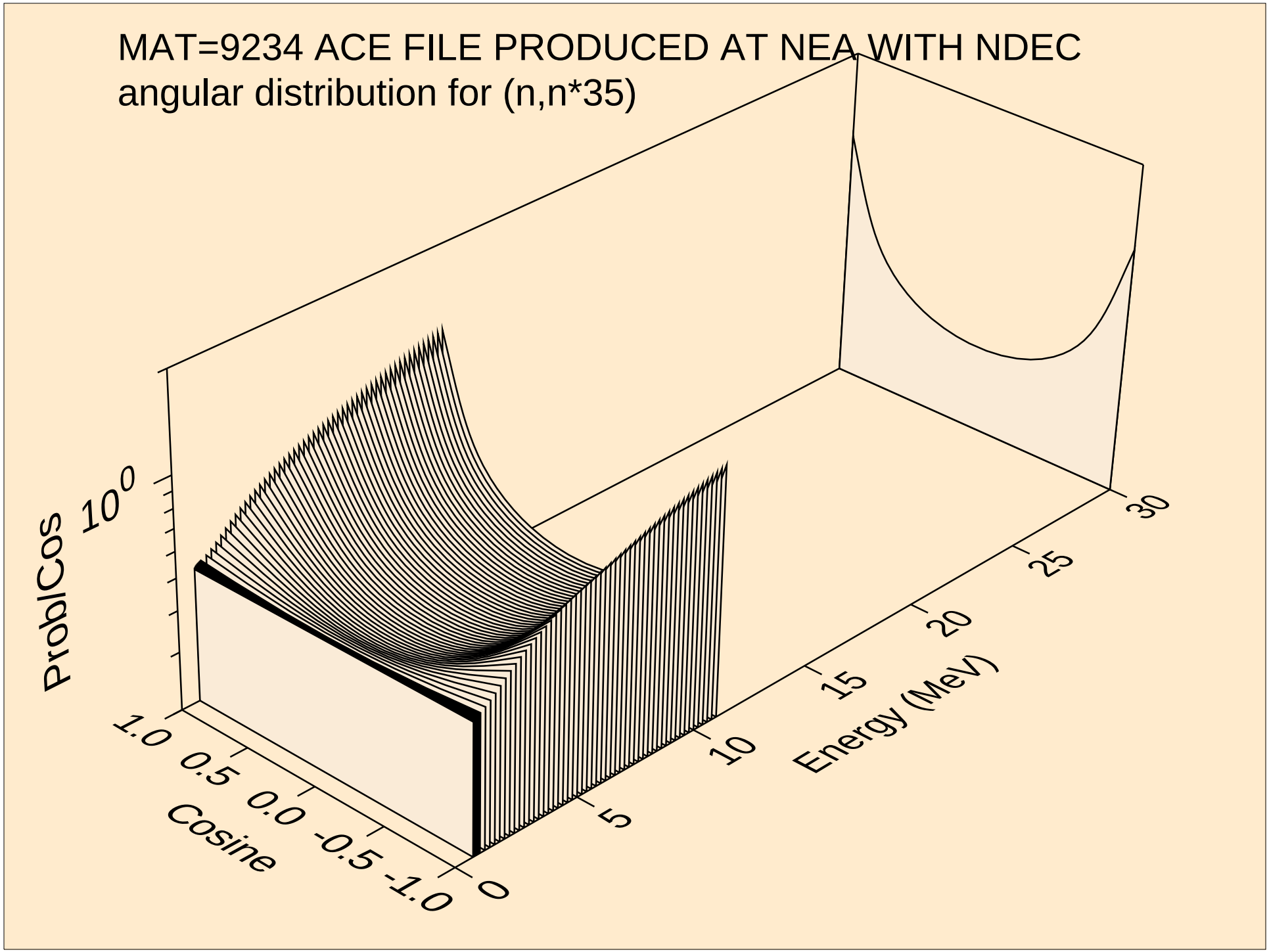

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*30)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

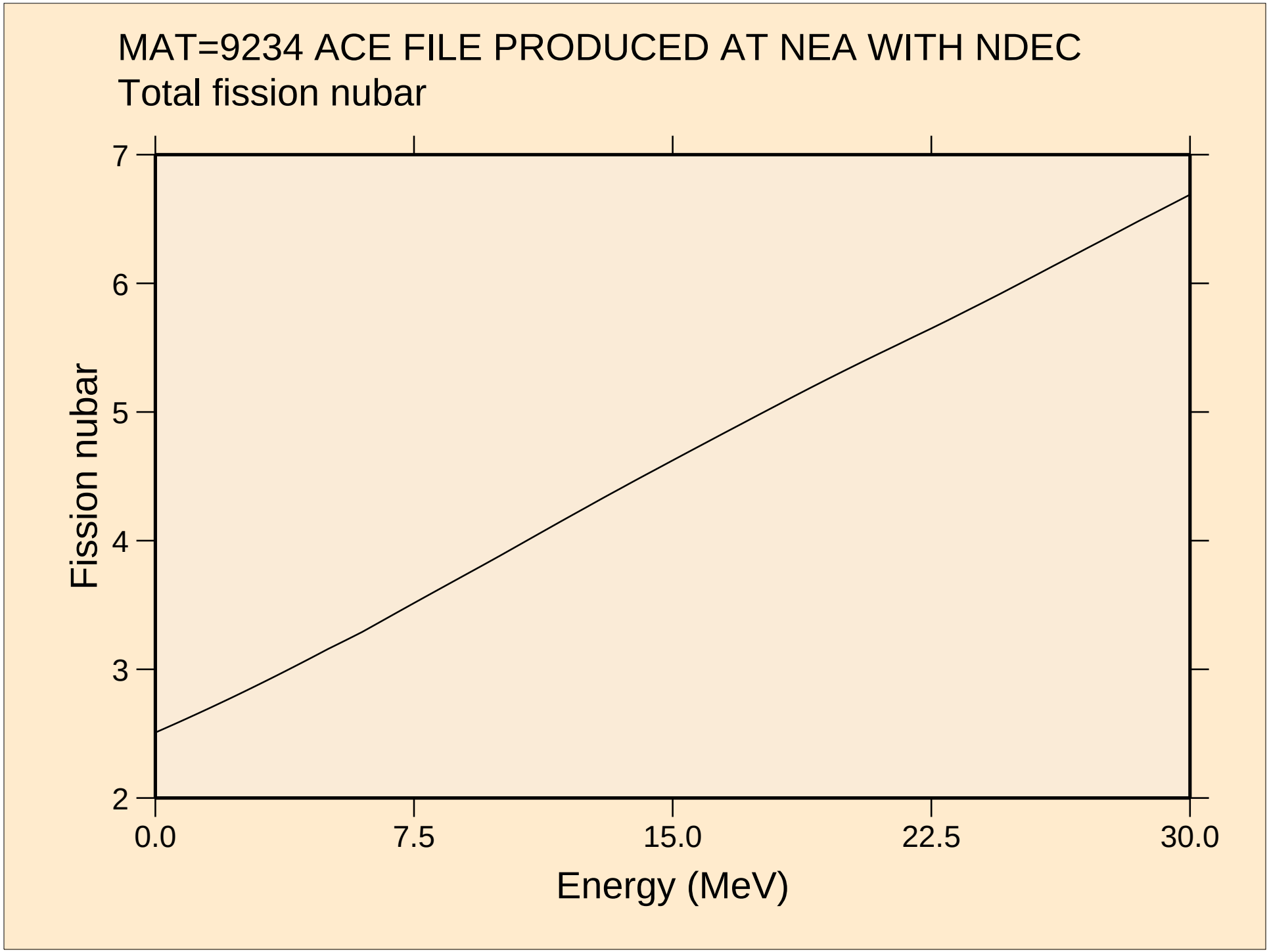

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*31)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

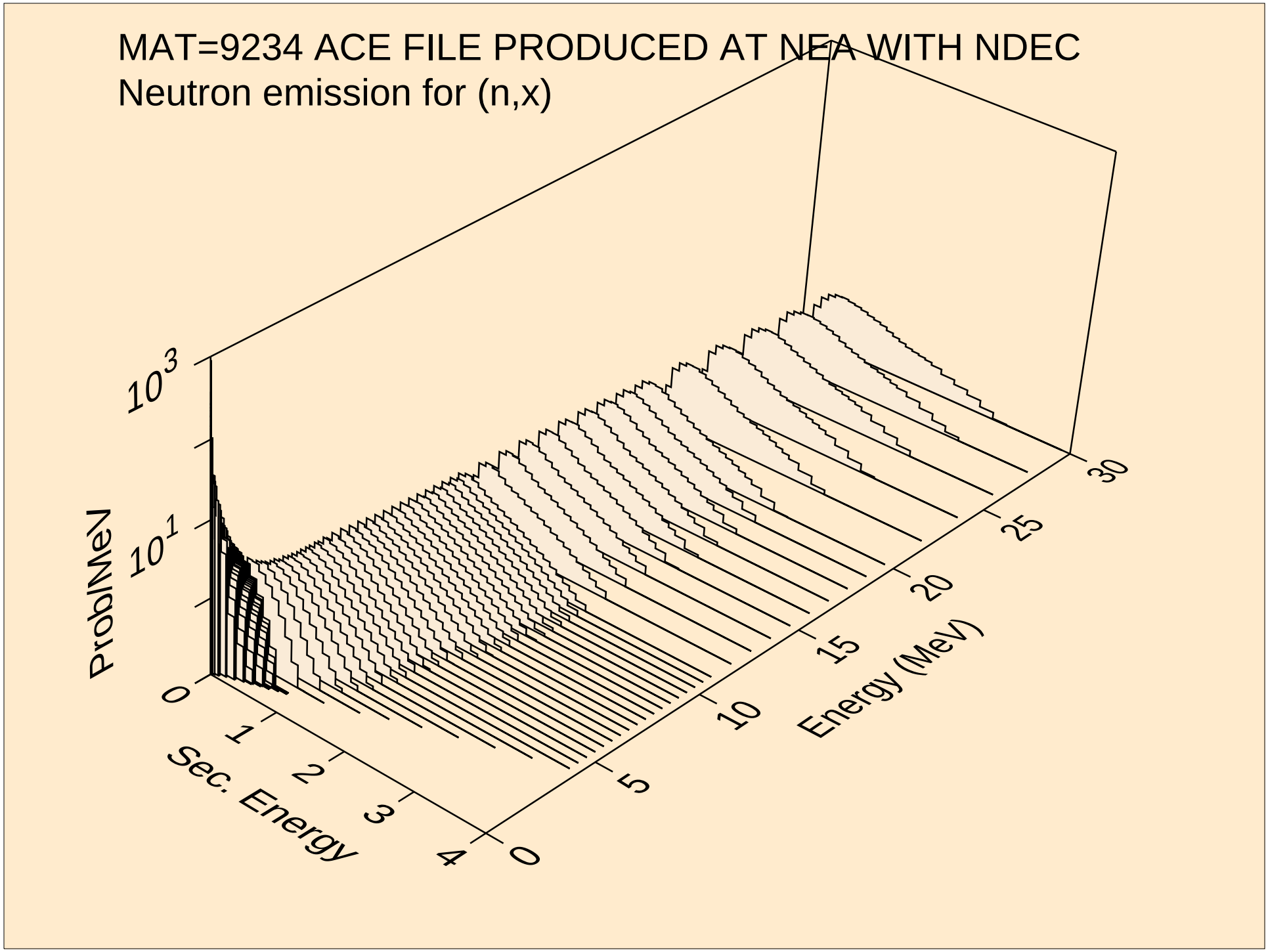

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*32)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

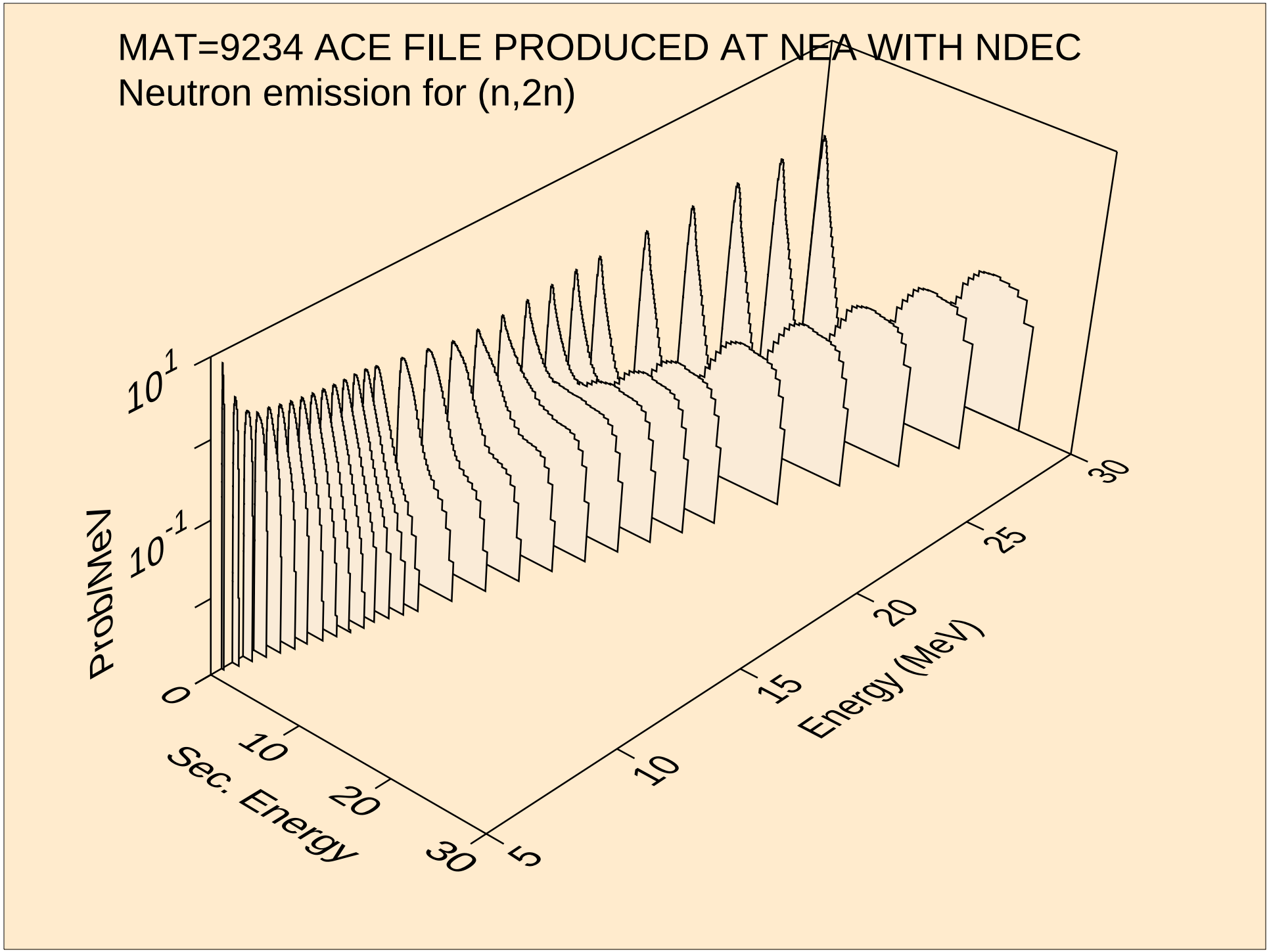

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*33)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

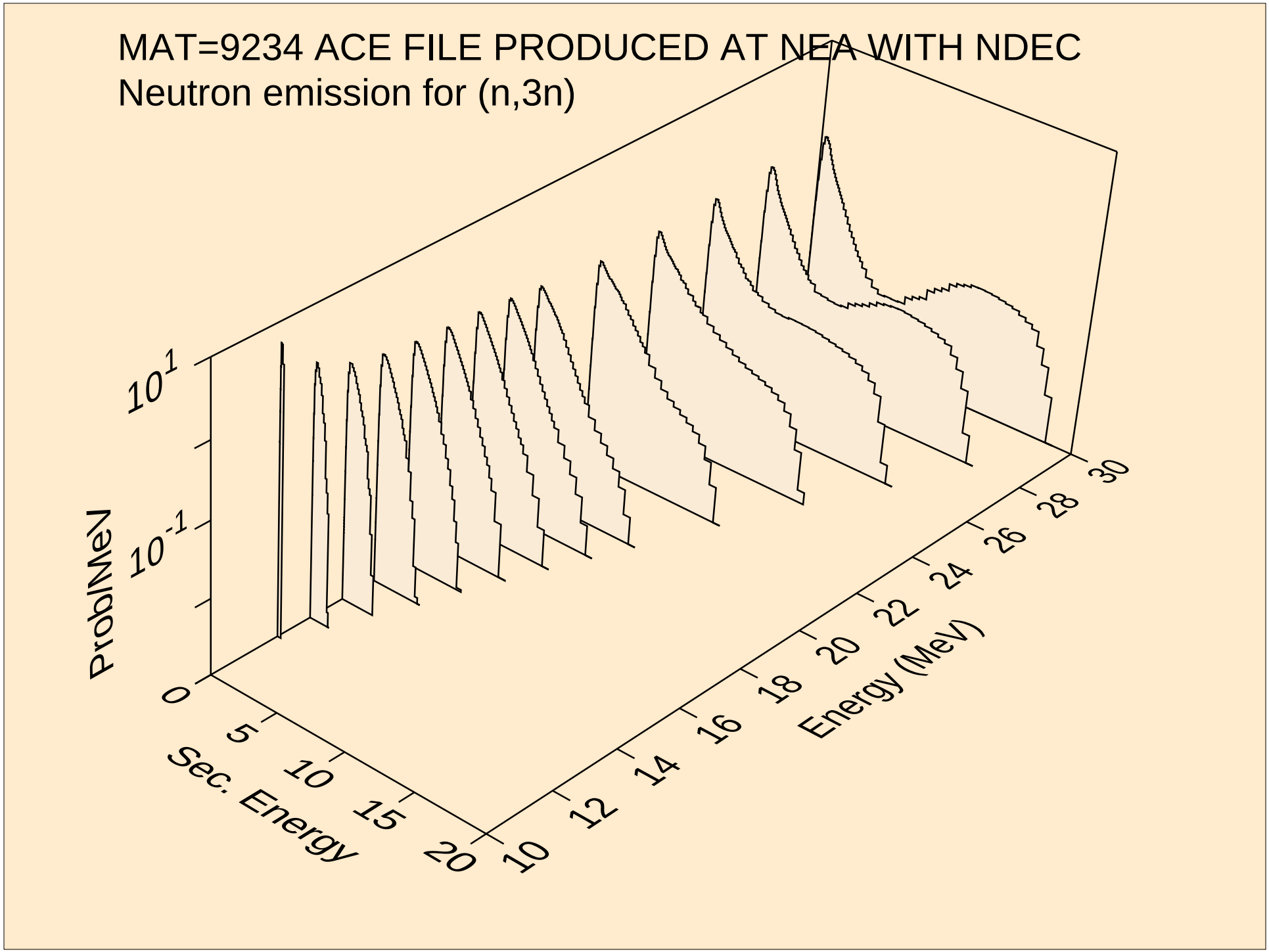

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*34)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

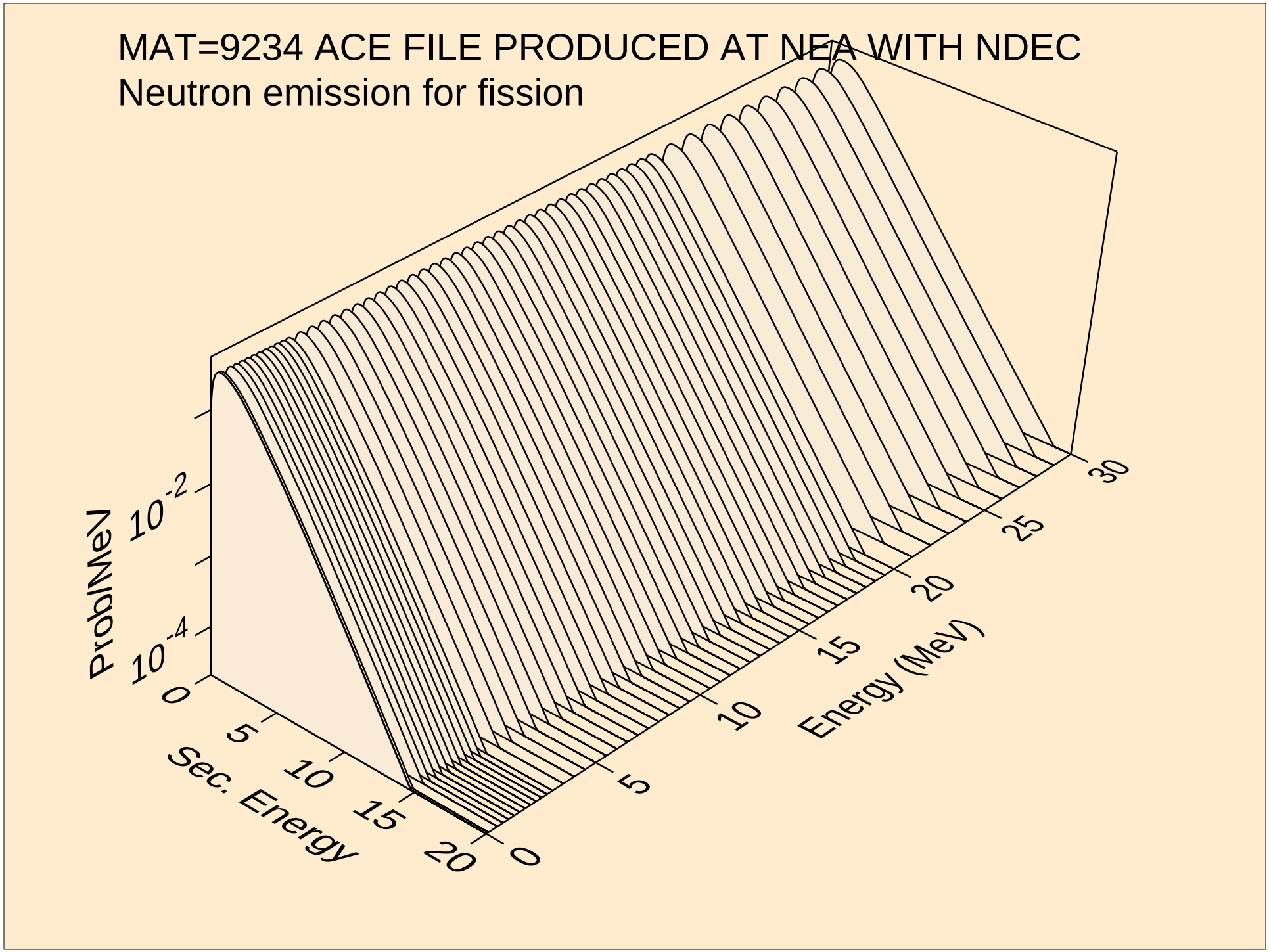

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*35)
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
25
30
Energy (MeV)

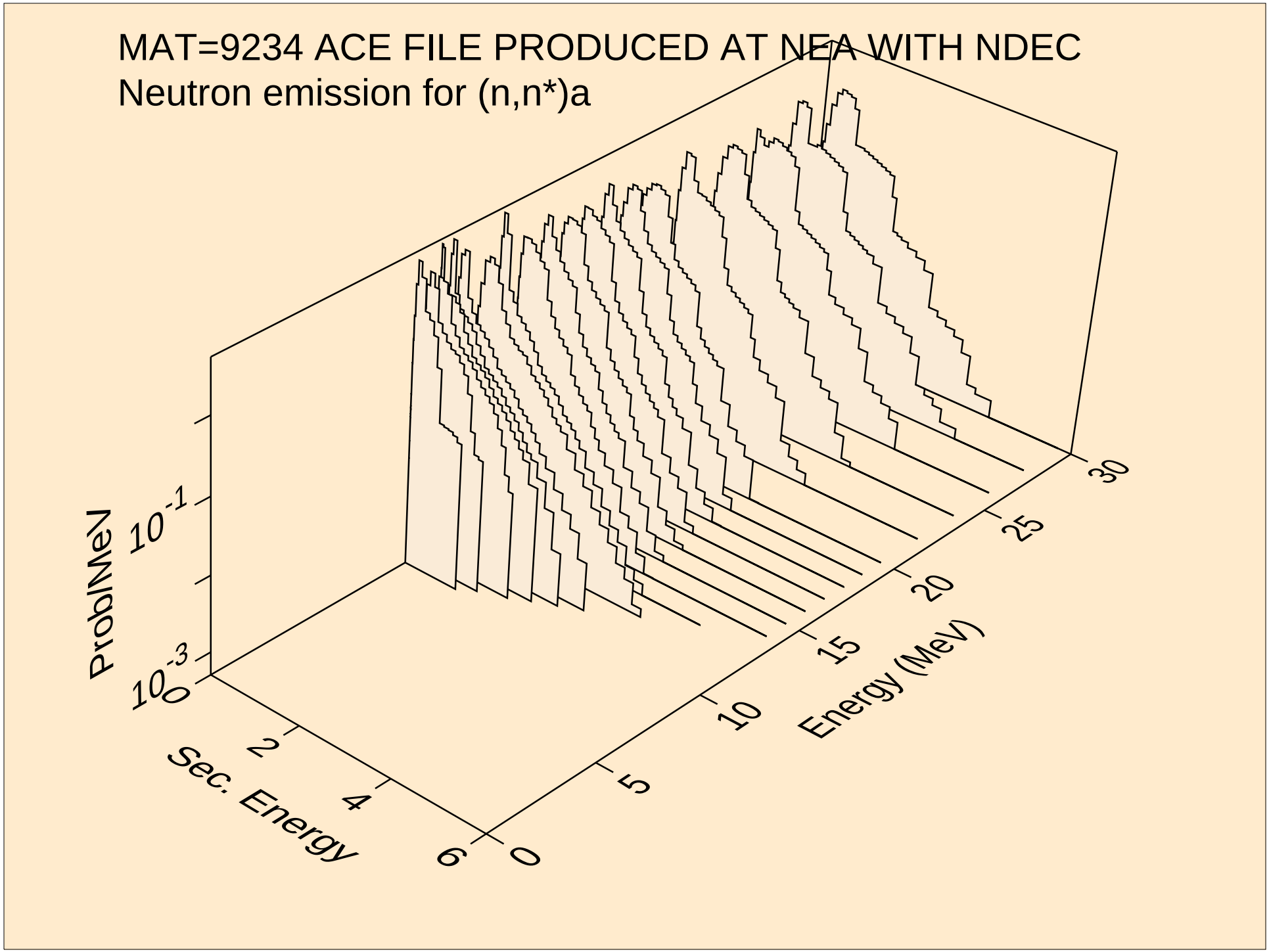

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Total fission nubar
Fission nubar
7
6
5
4
3
2
0.0
7.5
15.0
22.5
30.0
Energy (MeV)

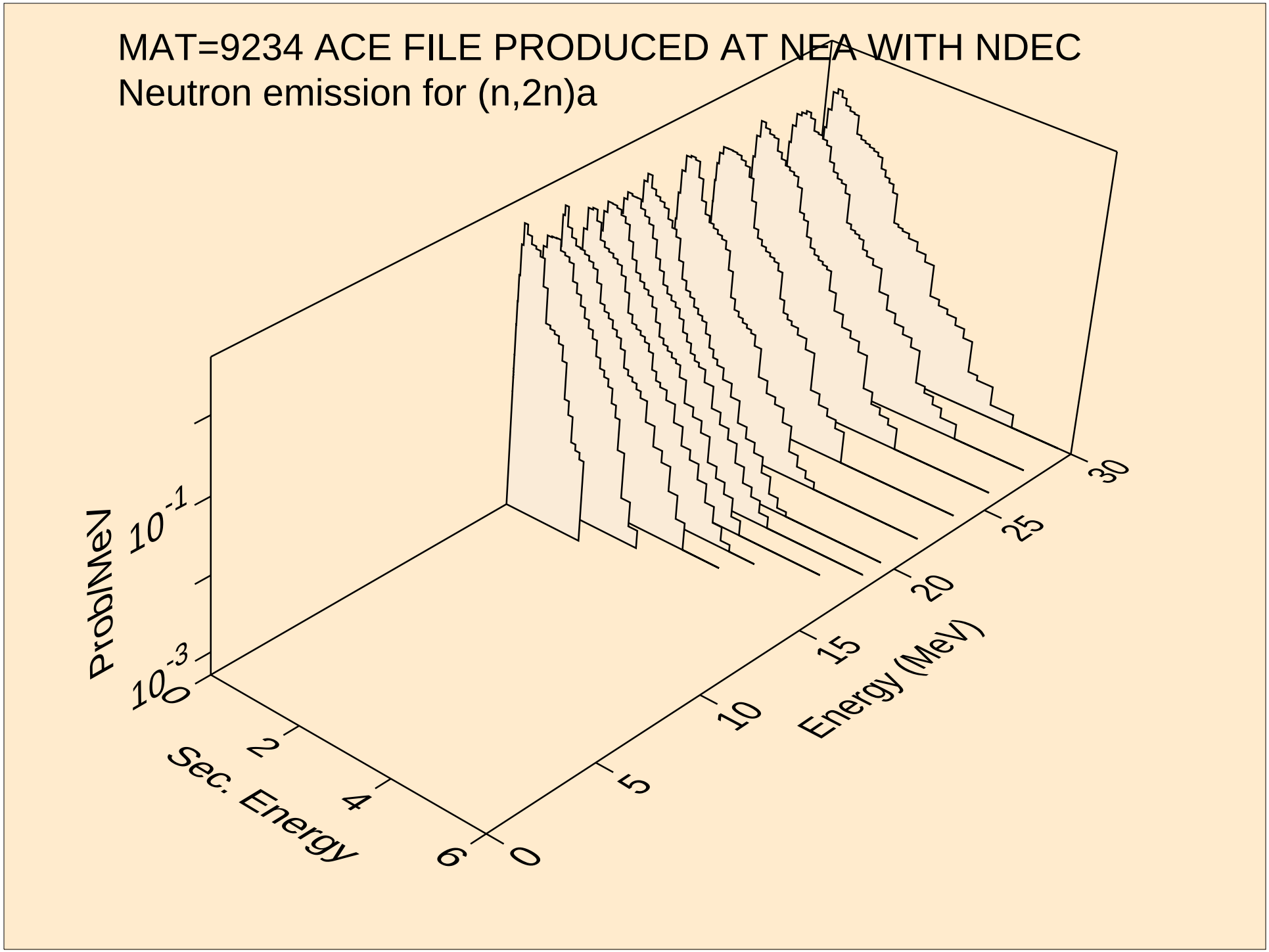

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,x)
Prob/MeV
10^3
10^1
0
1
2
3
4
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

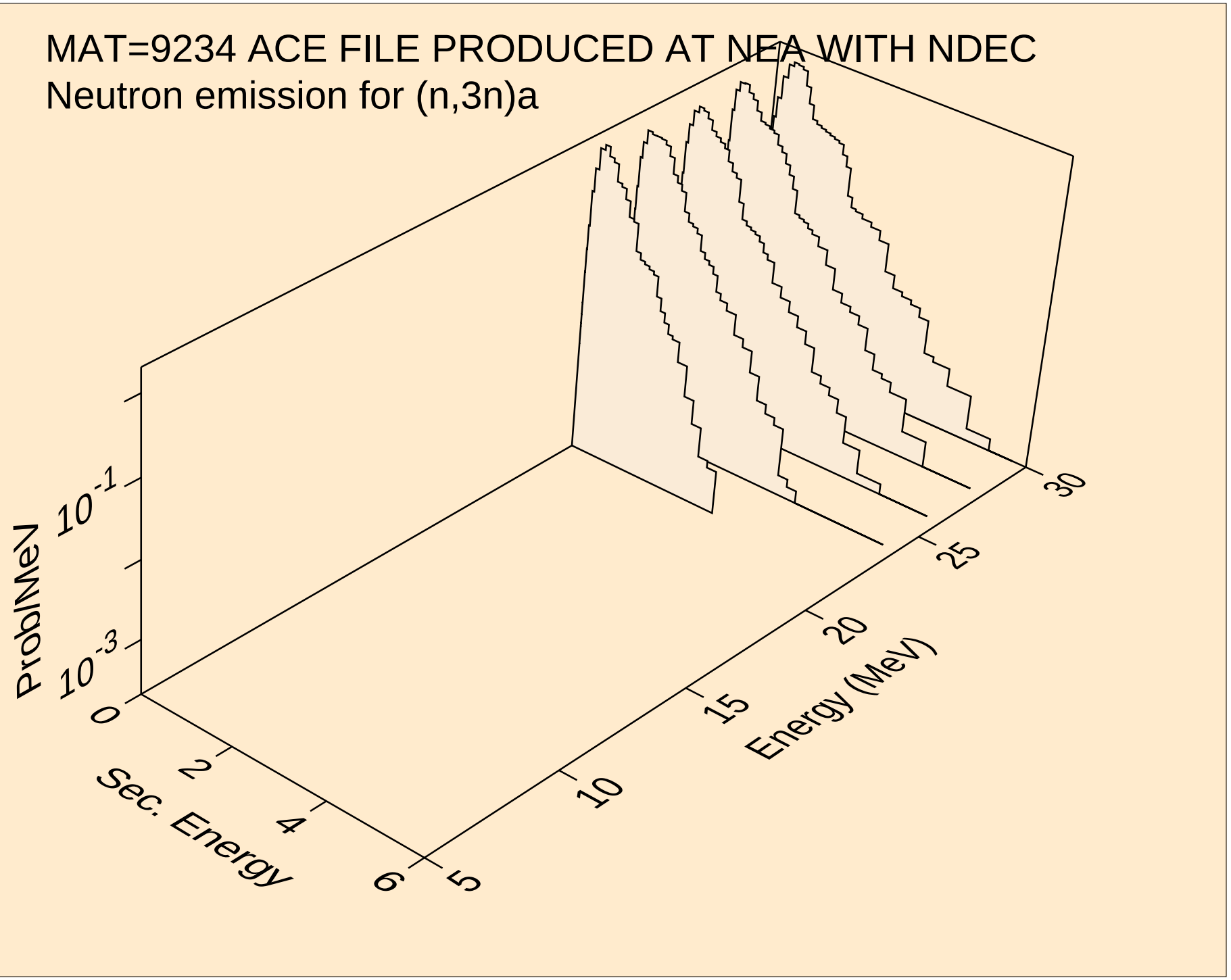

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,2n)
Prob/MeV
10^{1}
10^{-1}
0
10
20
30
Sec. Energy
5
10
15
20
25
30
Energy (MeV)

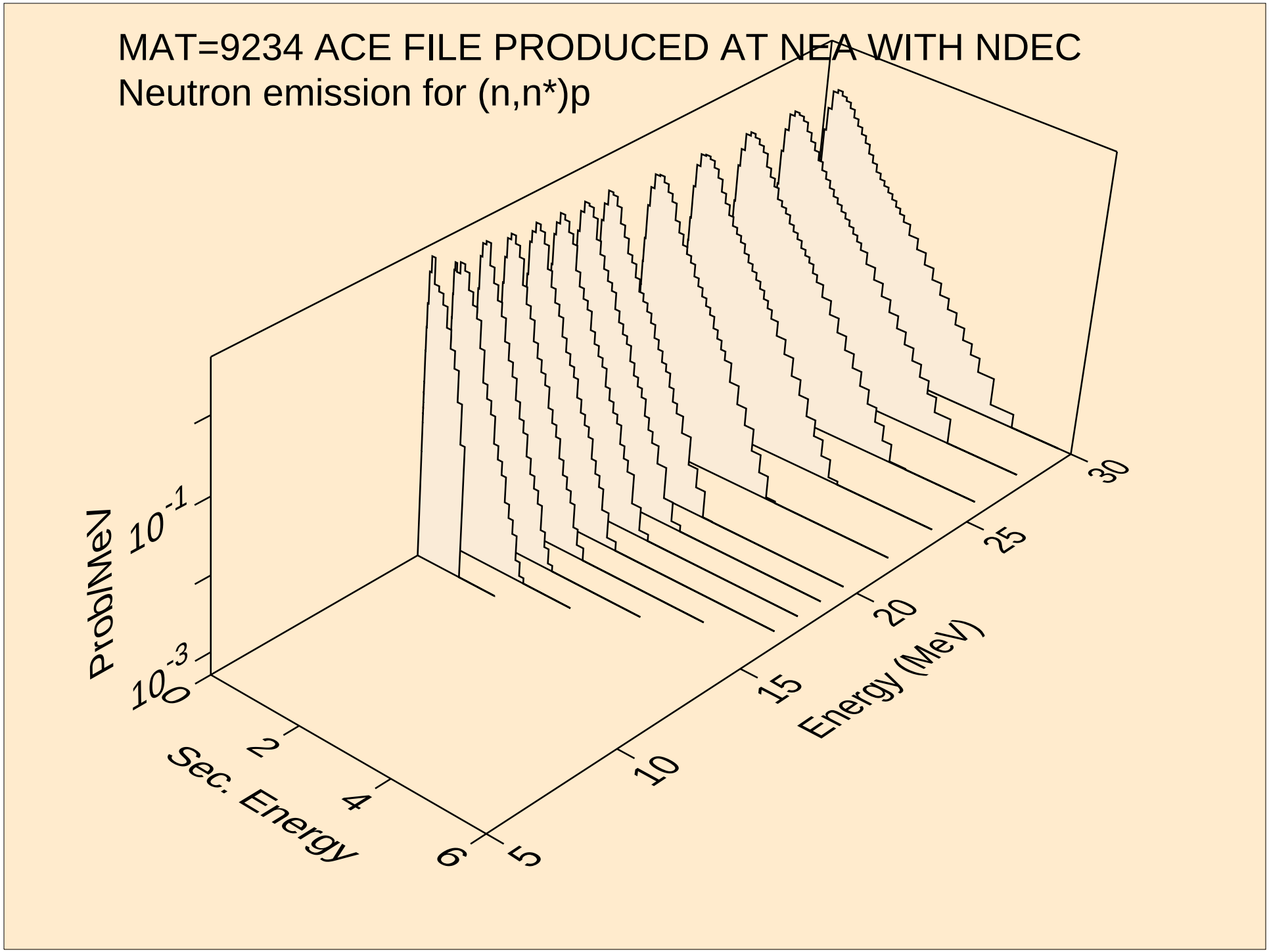

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,3n)
Prob/MeV
10^1
10^-1
0
5
10
15
20
Sec. Energy
10
12
14
16
18
20
22
24
26
28
30
Energy (MeV)

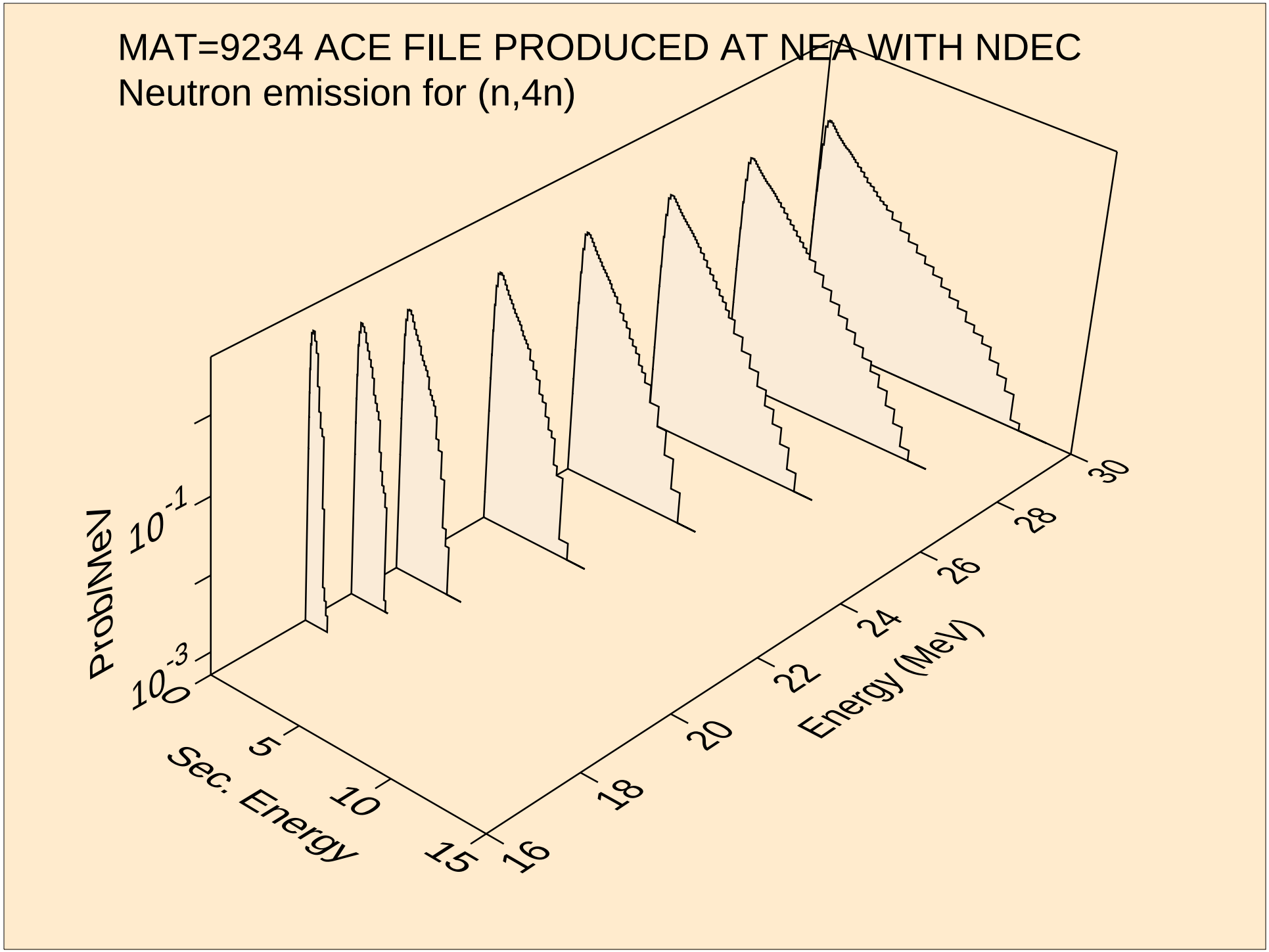

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for fission
Prob/MeV
10-2
10-4
0
5
10
15
20
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

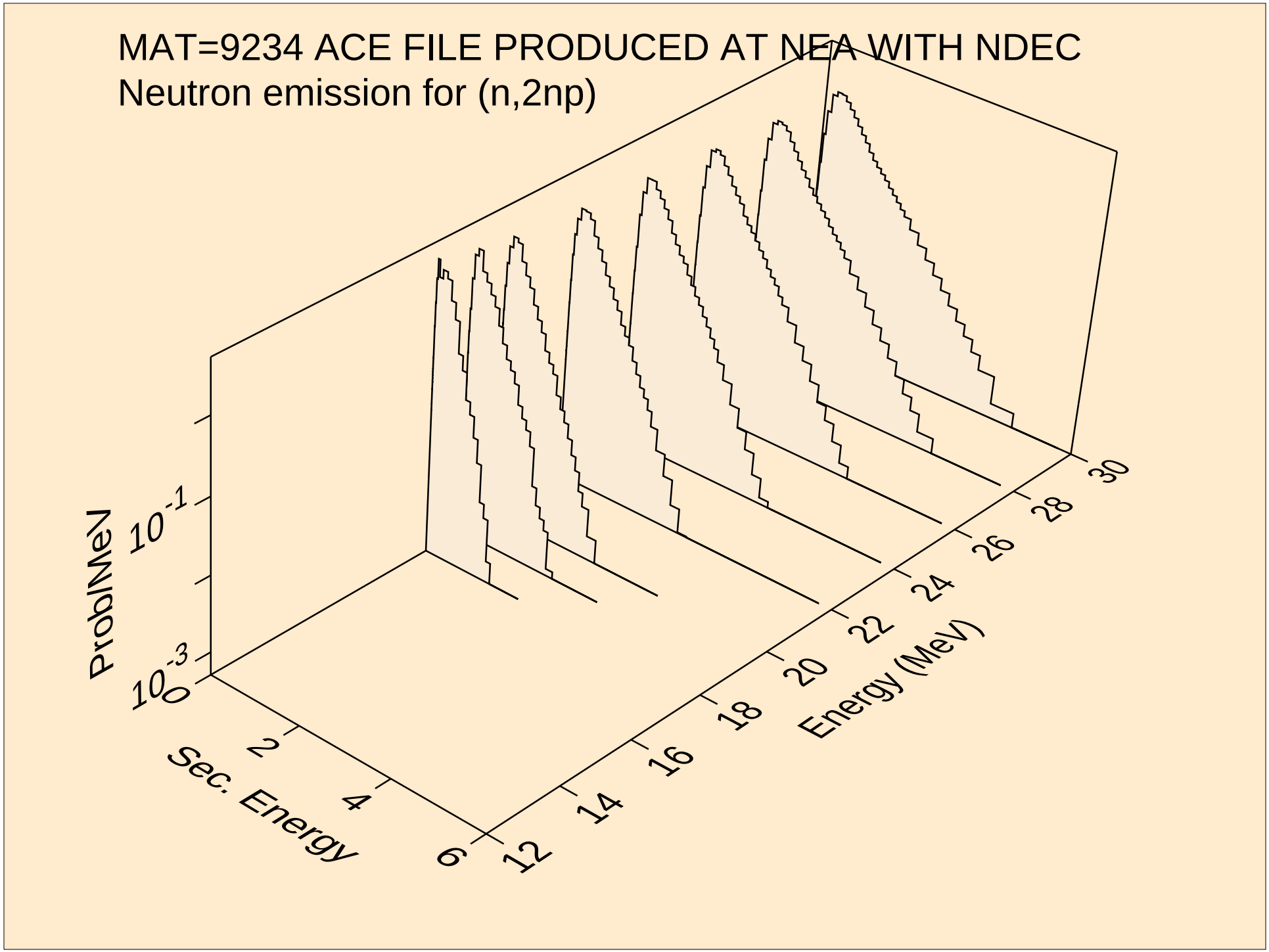

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,n*)a
Prob/MeV
10-1
10-3
0
2
4
6
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

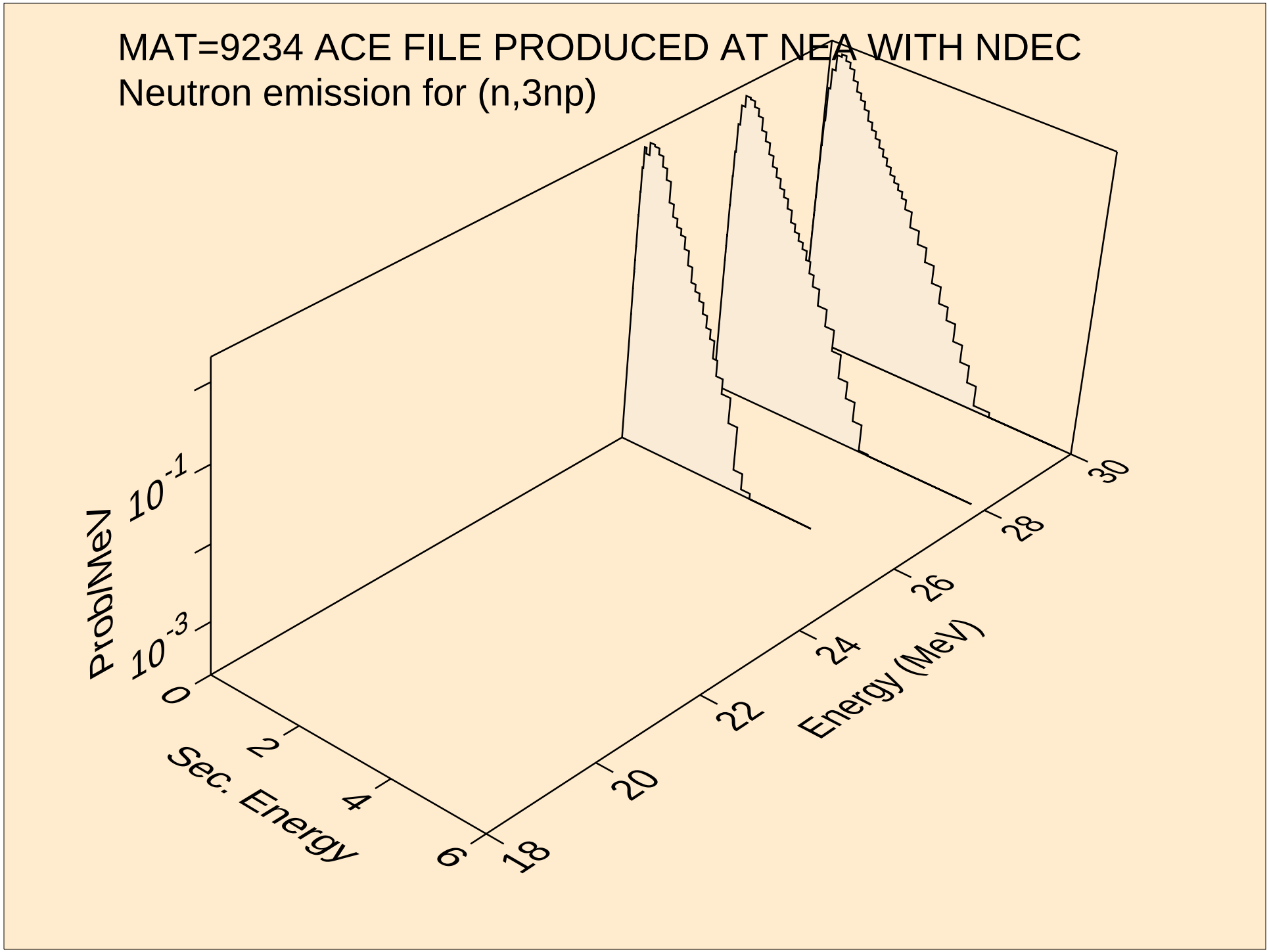

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,2n)a
Prob/MeV
10-1
10-3
0
2
4
6
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

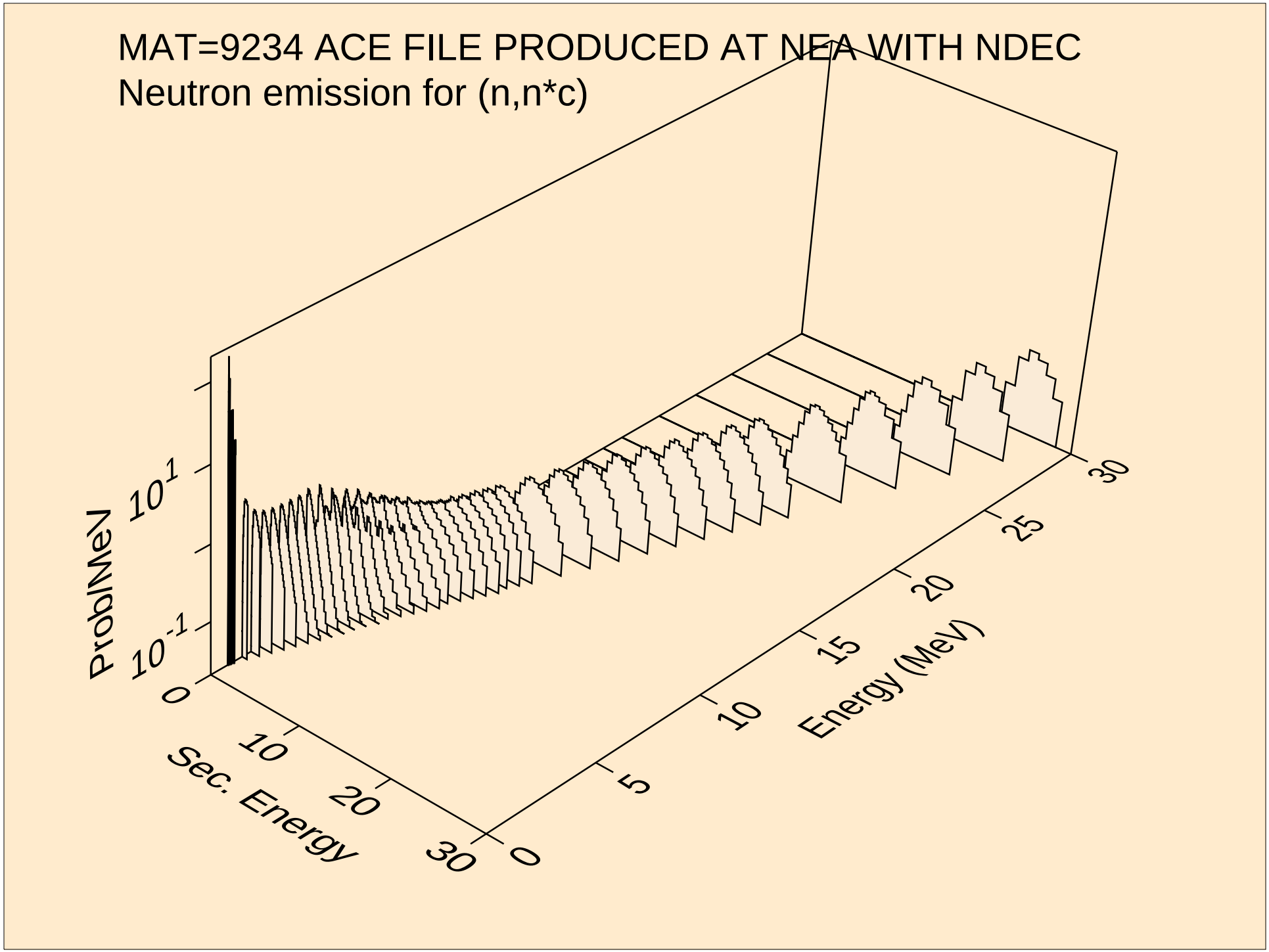

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,3n)a
Prob/MeV
10-1
10-3
0
Sec. Energy
2
4
6
5
10
15
20
25
30
Energy (MeV)

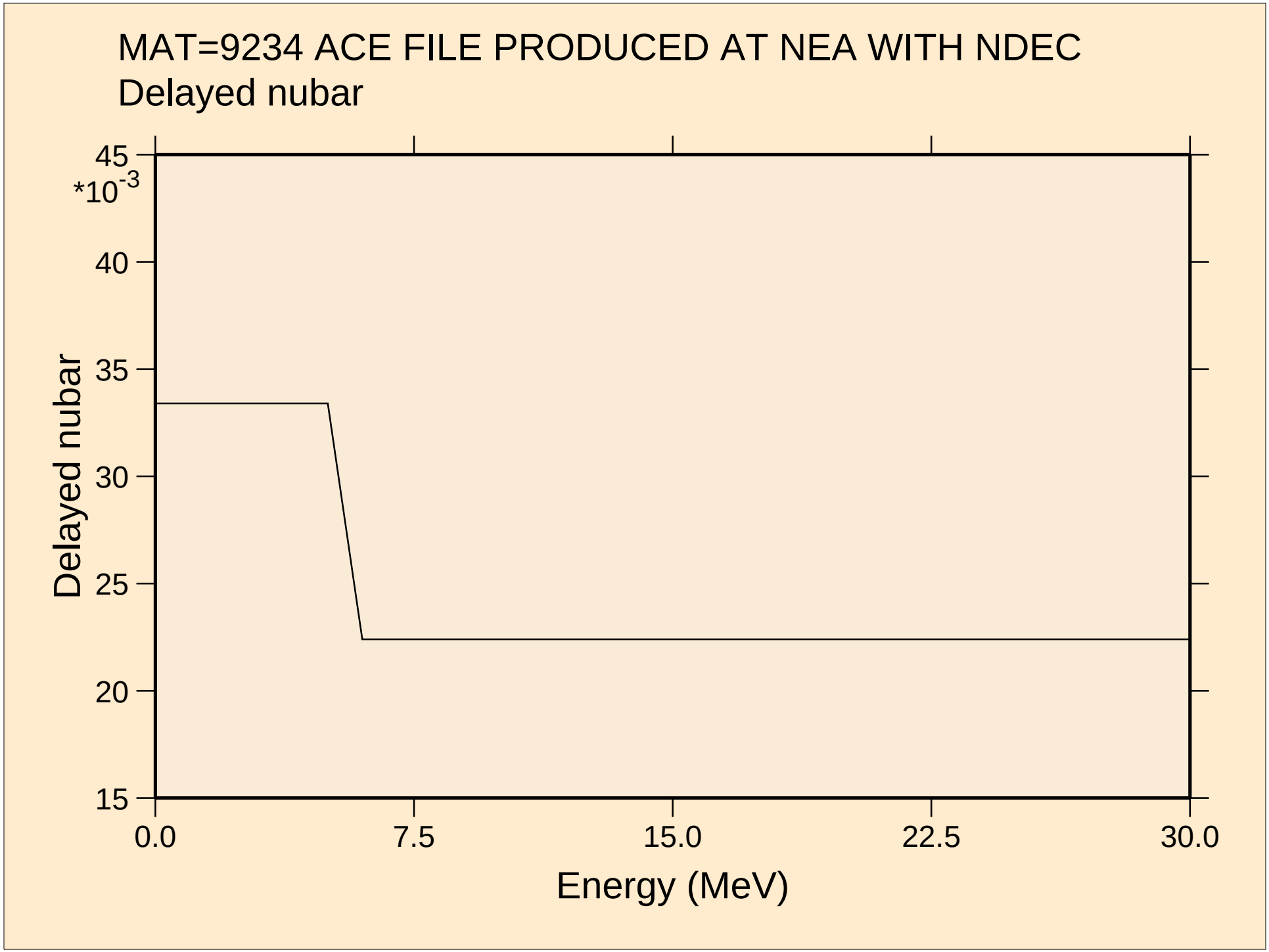

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,n*)p
Prob/MeV
10-1
10-3
0
2
4
6
Sec. Energy
5
10
15
20
25
30
Energy (MeV)

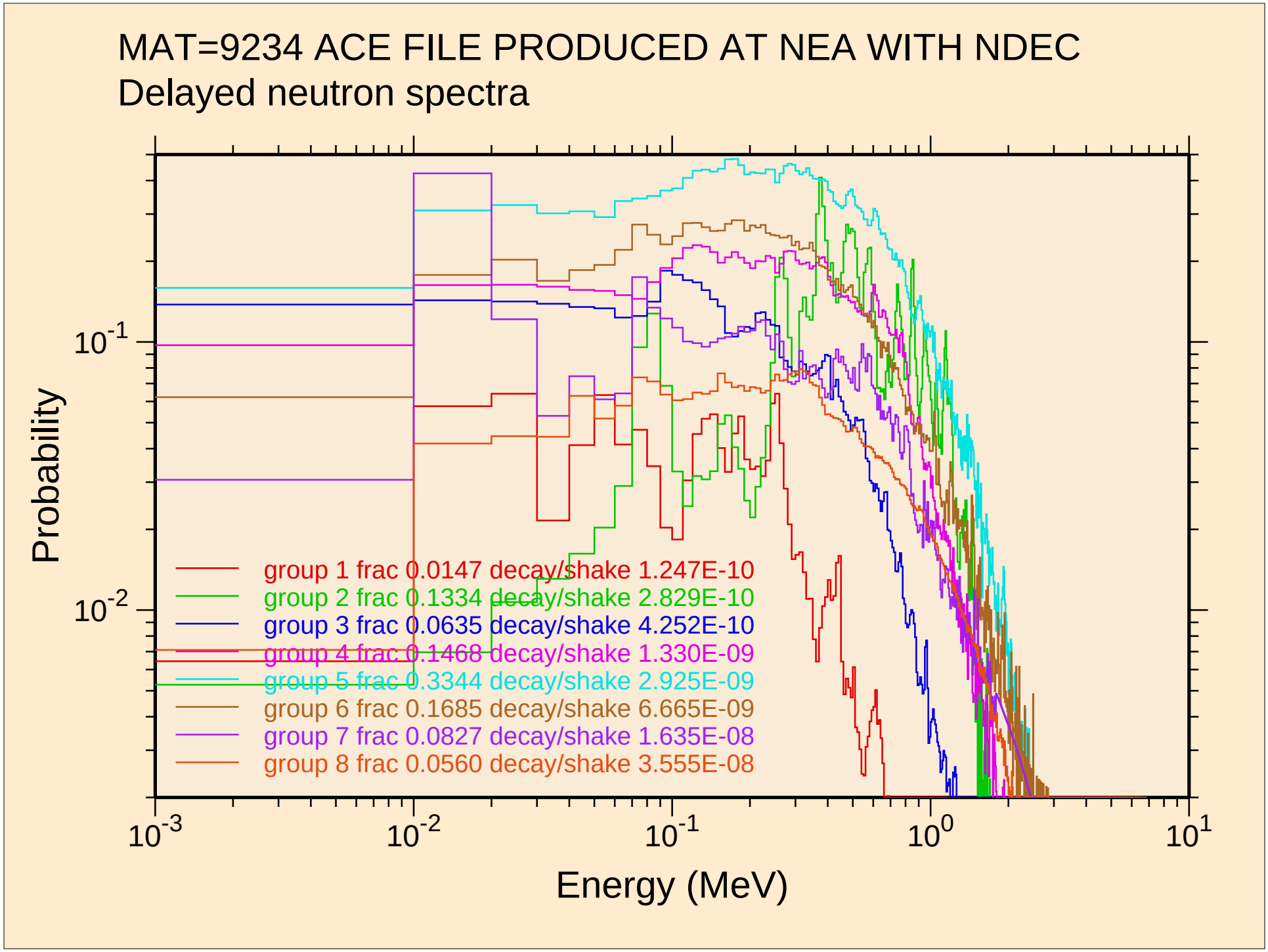

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,4n)
Prob/MeV
10-1
10-3
0
5
10
15
16
Sec. Energy
18
20
22
24
26
28
30
Energy (MeV)

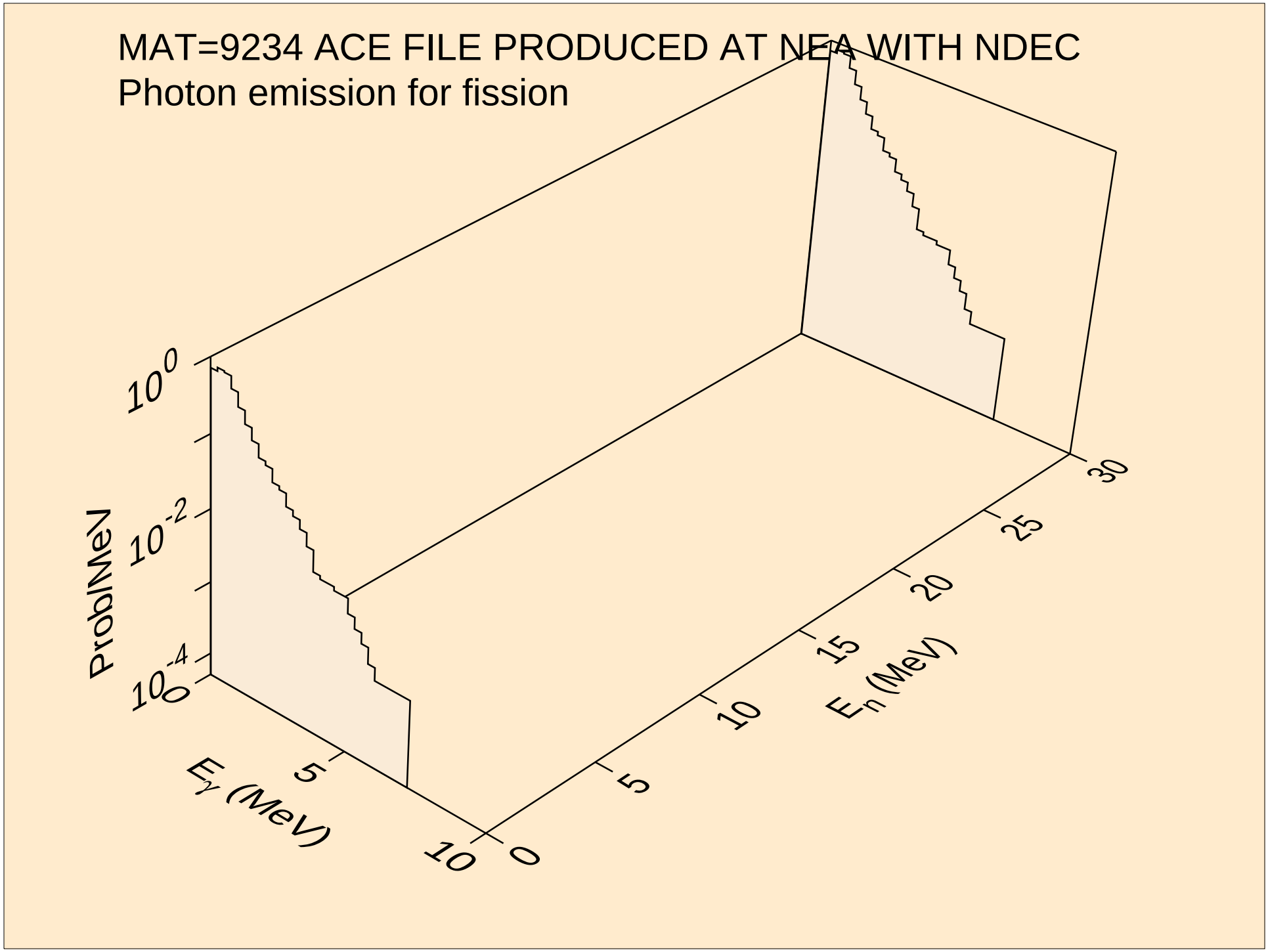

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,2np)
Prob/MeV
10-1
10-3
0
2
4
6
Sec. Energy
12
14
16
18
20
22
24
26
28
30
Energy (MeV)

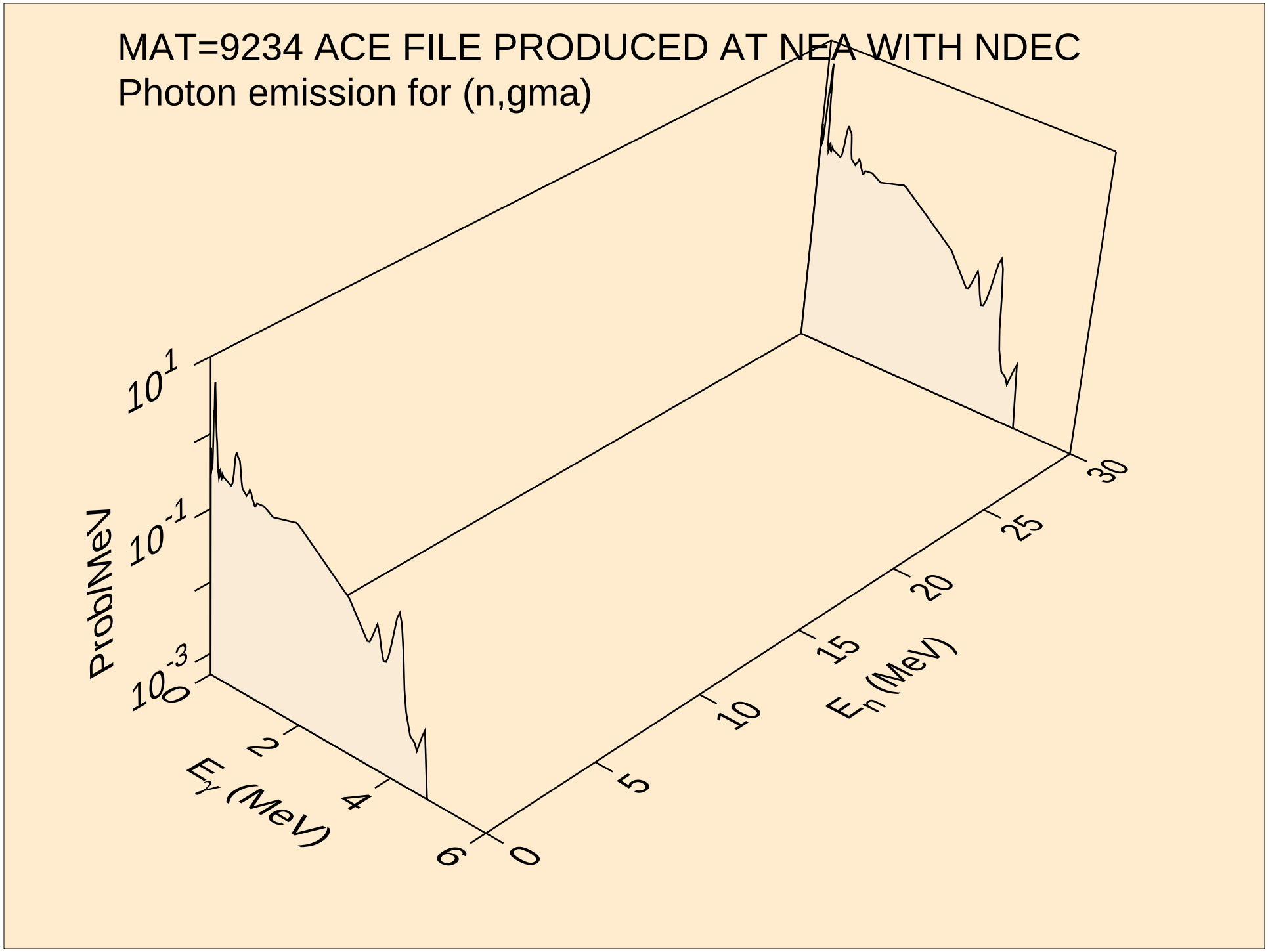

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,3np)
Prob/MeV
10-1
10-3
0
Sec. Energy
2
4
6
18
20
22
24
26
28
30
Energy (MeV)

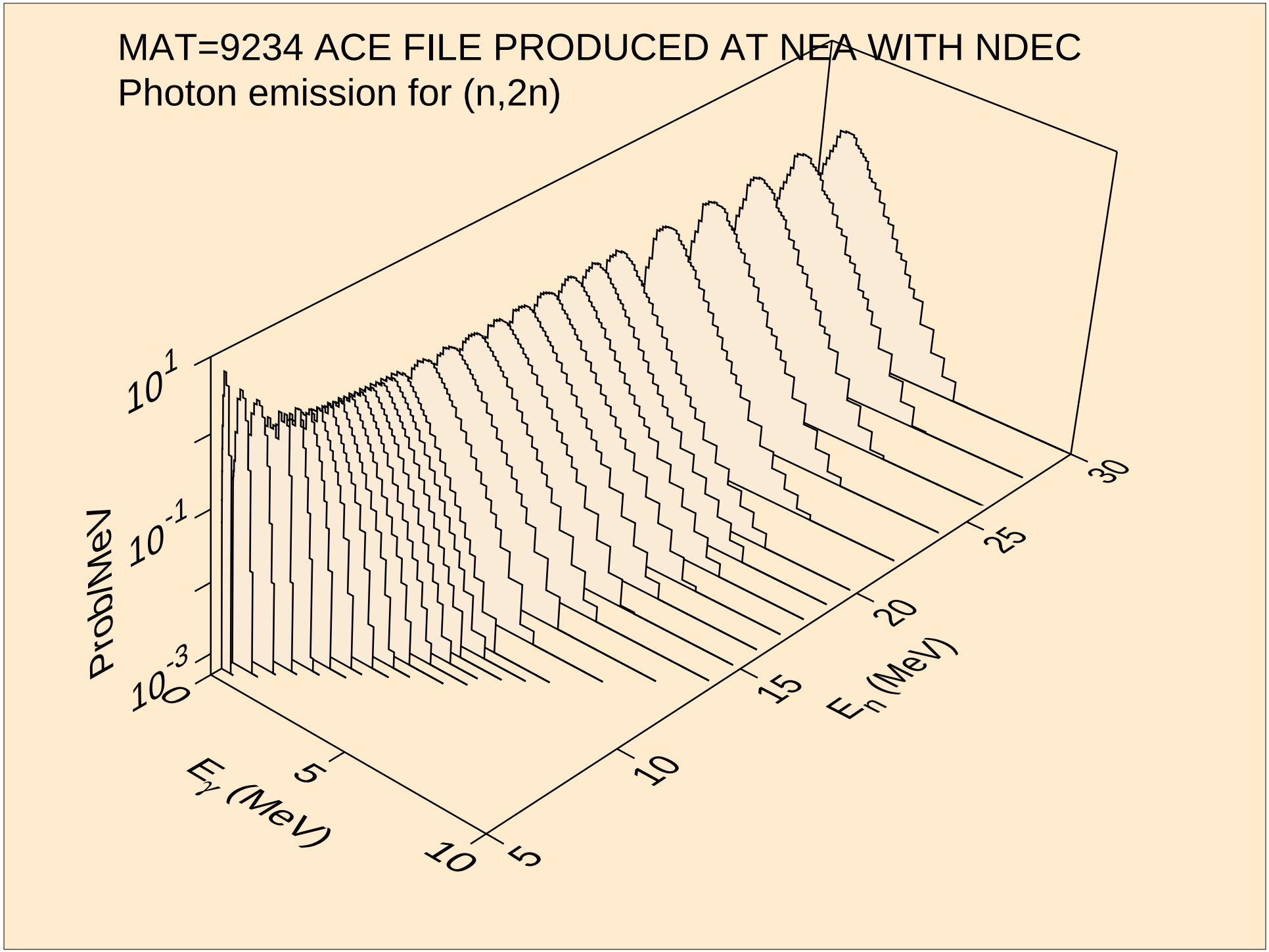

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,n*c)
Prob/MeV
10^1
10^-1
0
10
20
30
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

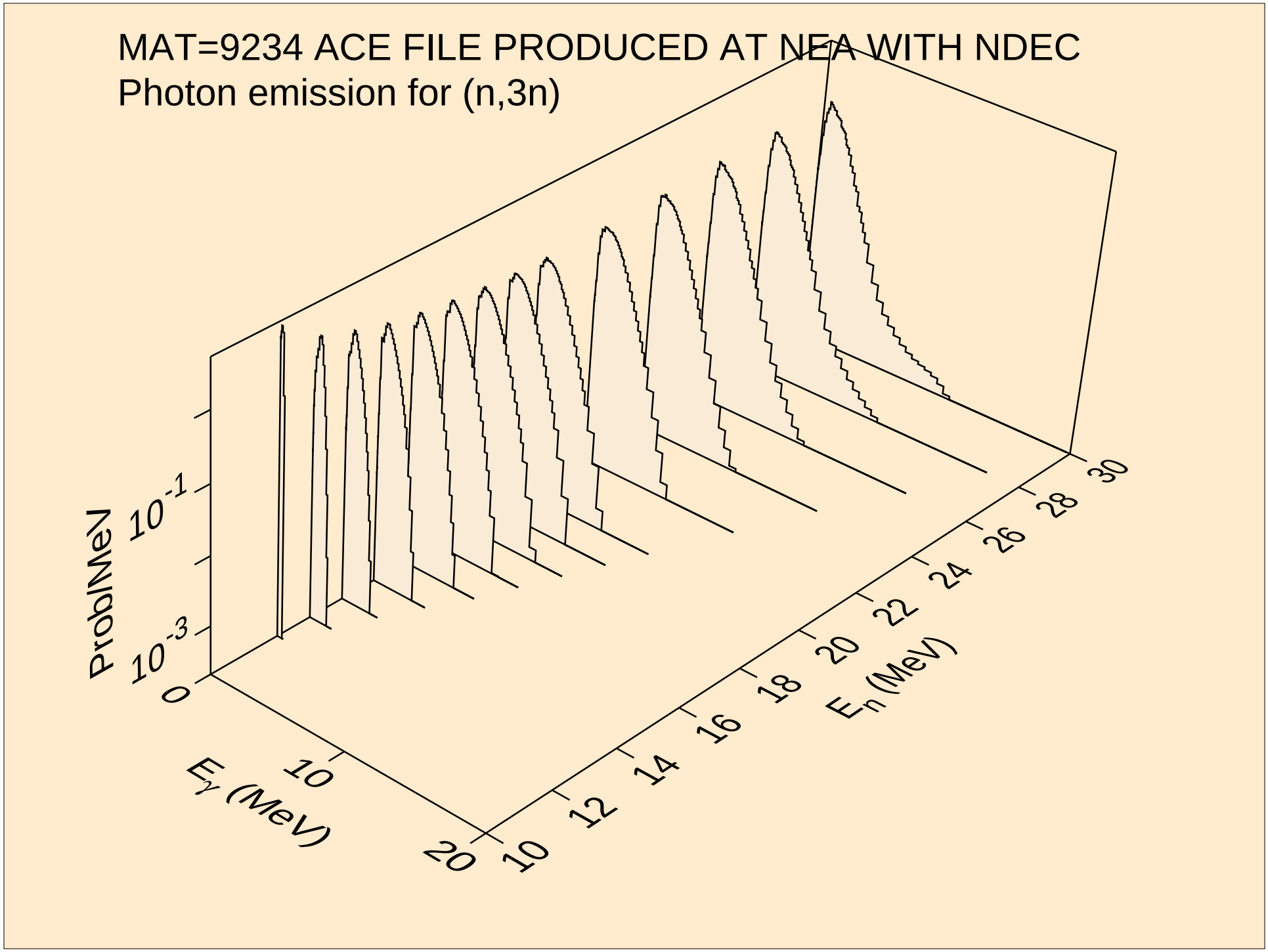

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Delayed nubar
45
*10-3
40
35
30
25
20
15
Delayed nubar
0.0
7.5
15.0
22.5
30.0
Energy (MeV)

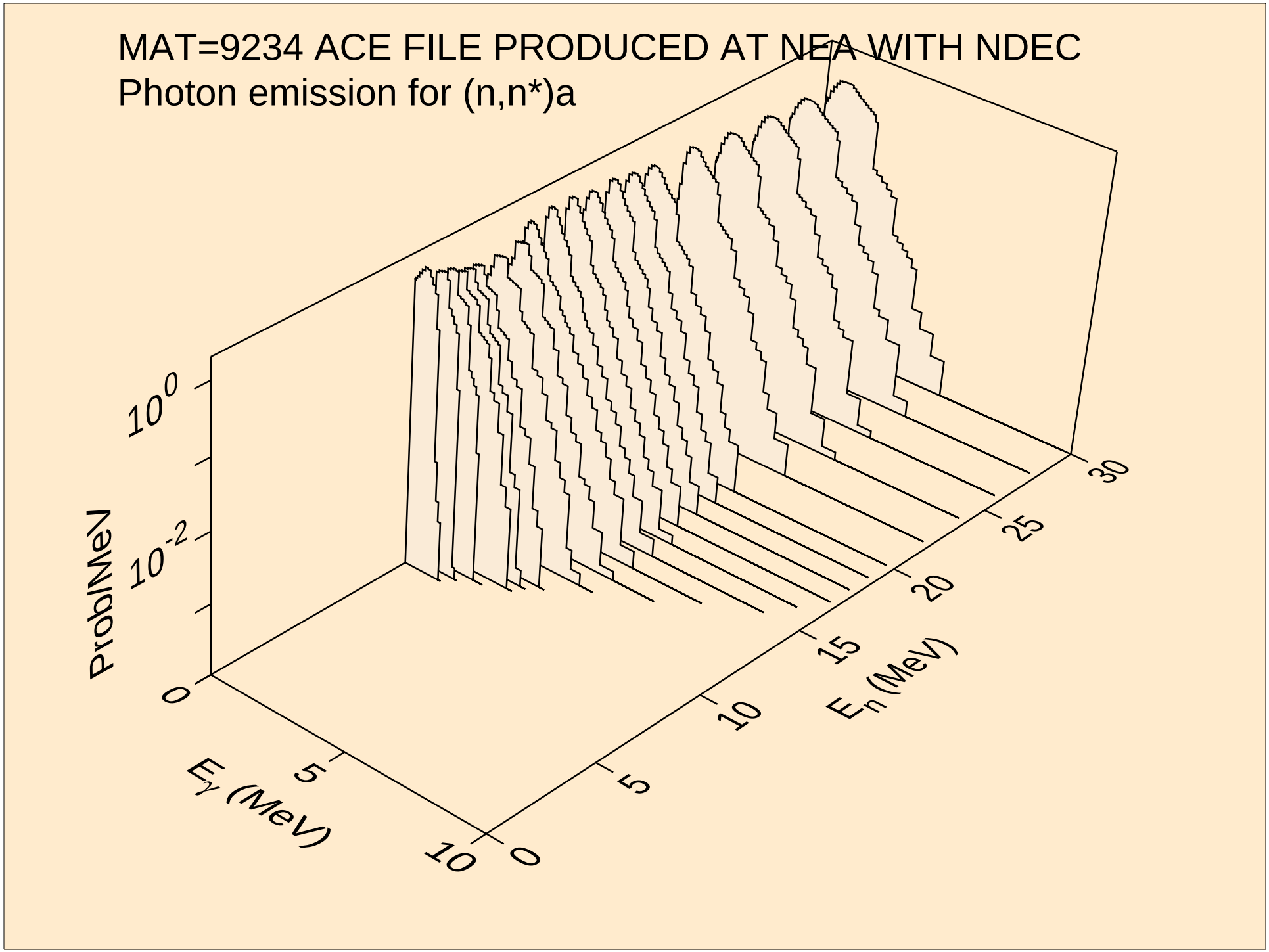

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Delayed neutron spectra
Probability
Energy (MeV)
10-1
10-2
10-3
10-2
10-1
100
101
group 1 frac 0.0147 decay/shake 1.247E-10
group 2 frac 0.1334 decay/shake 2.829E-10
group 3 frac 0.0635 decay/shake 4.252E-10
group 4 frac 0.1468 decay/shake 1.330E-09
group 5 frac 0.3344 decay/shake 2.925E-09
group 6 frac 0.1685 decay/shake 6.665E-09
group 7 frac 0.0827 decay/shake 1.635E-08
group 8 frac 0.0560 decay/shake 3.555E-08

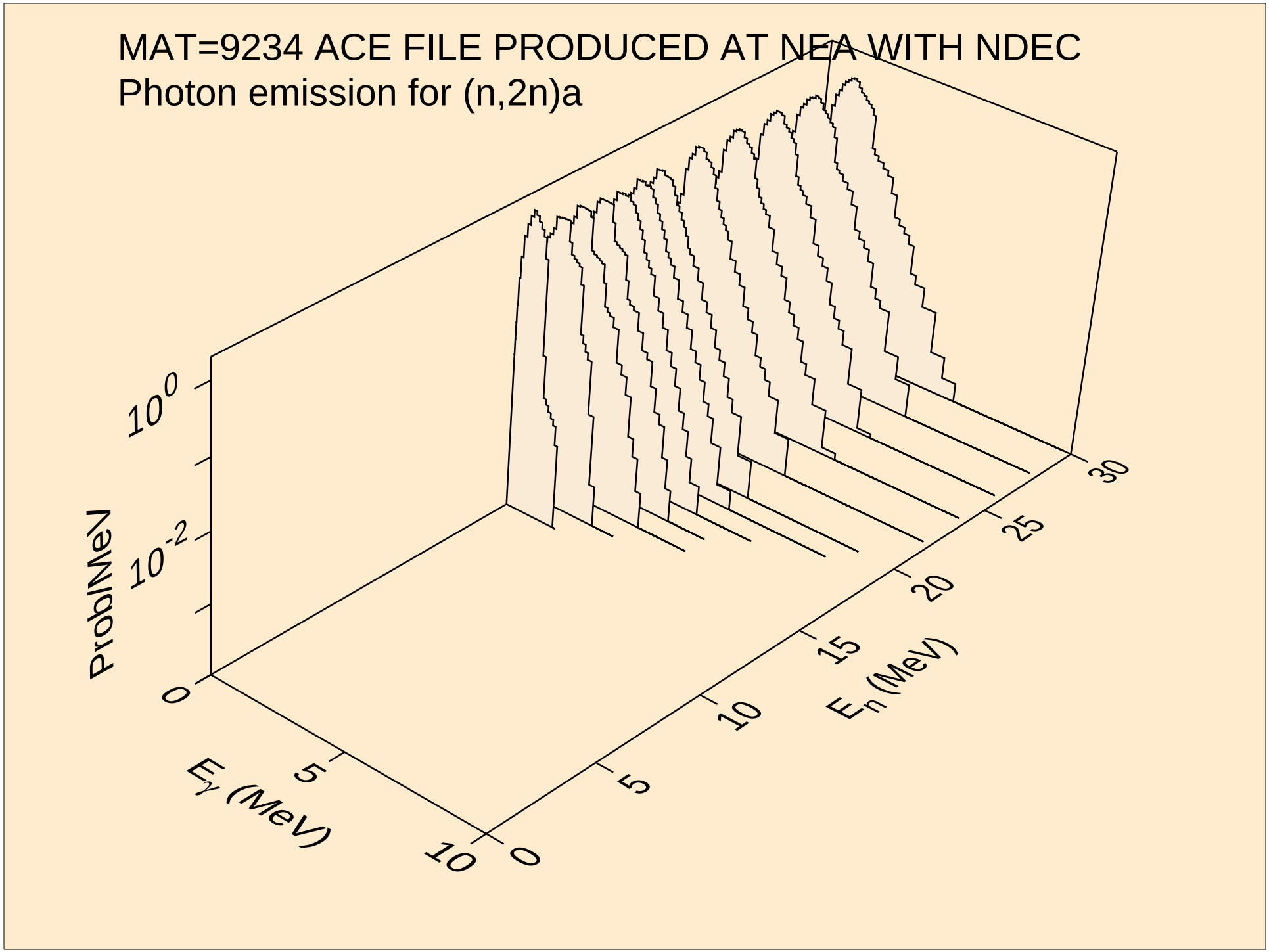

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for fission
Prob/MeV
10^{0}
10^{-2}
10^{-4}
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

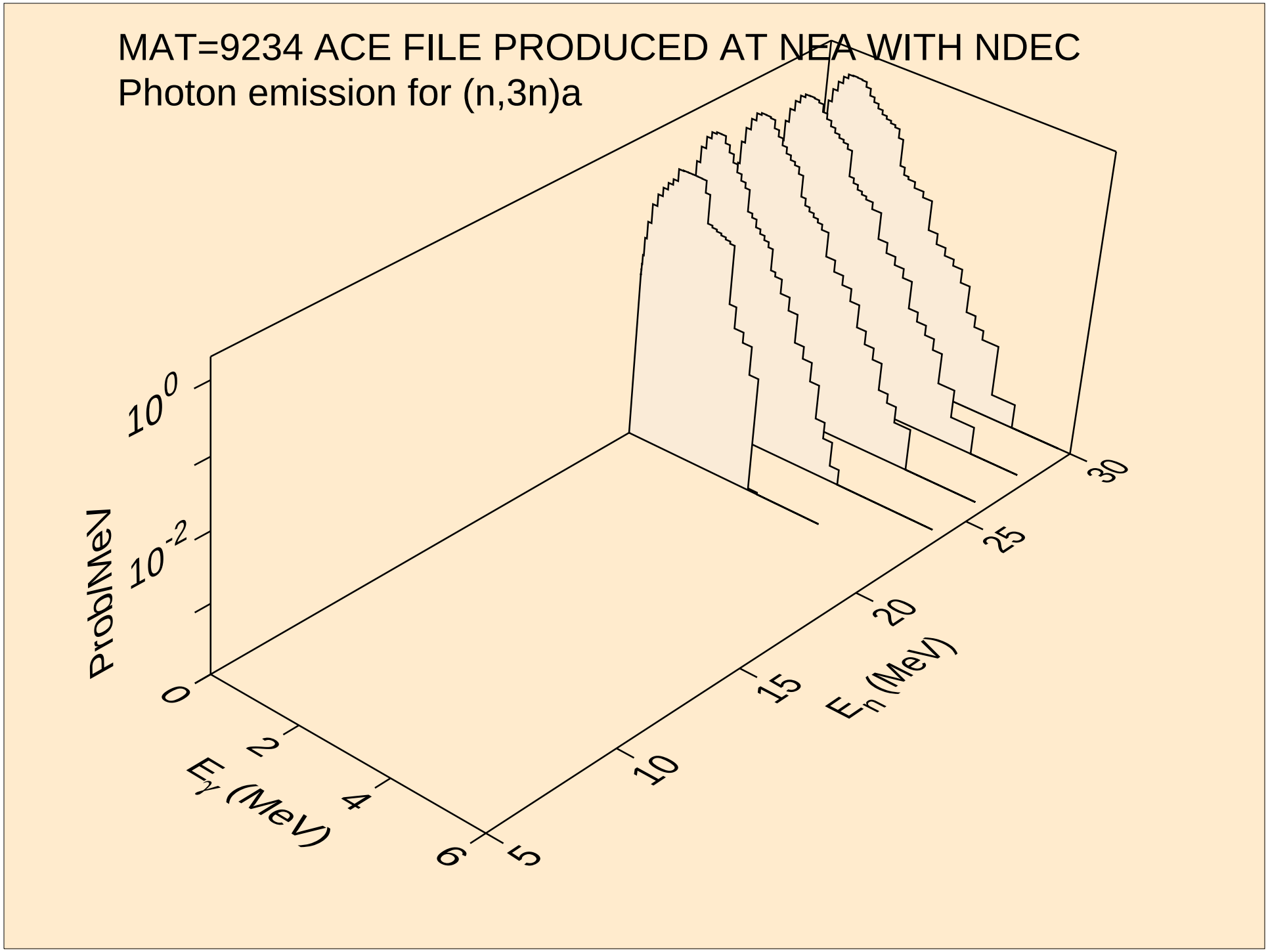

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,gma)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
0
2
4
6
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

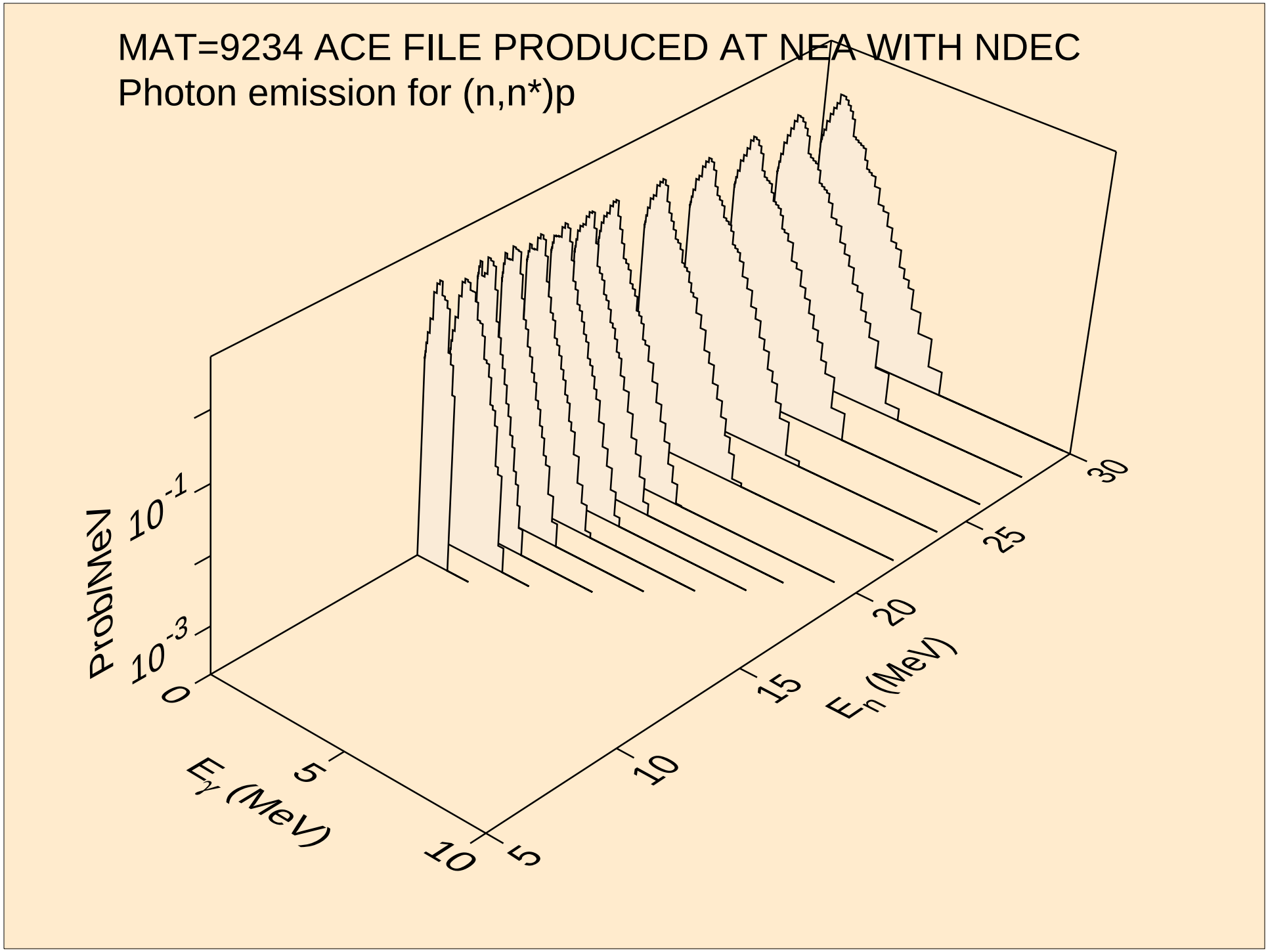

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,2n)
Prob/MeV
10^{-1}
10^{-1}
10^{-3}
0
5
10
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

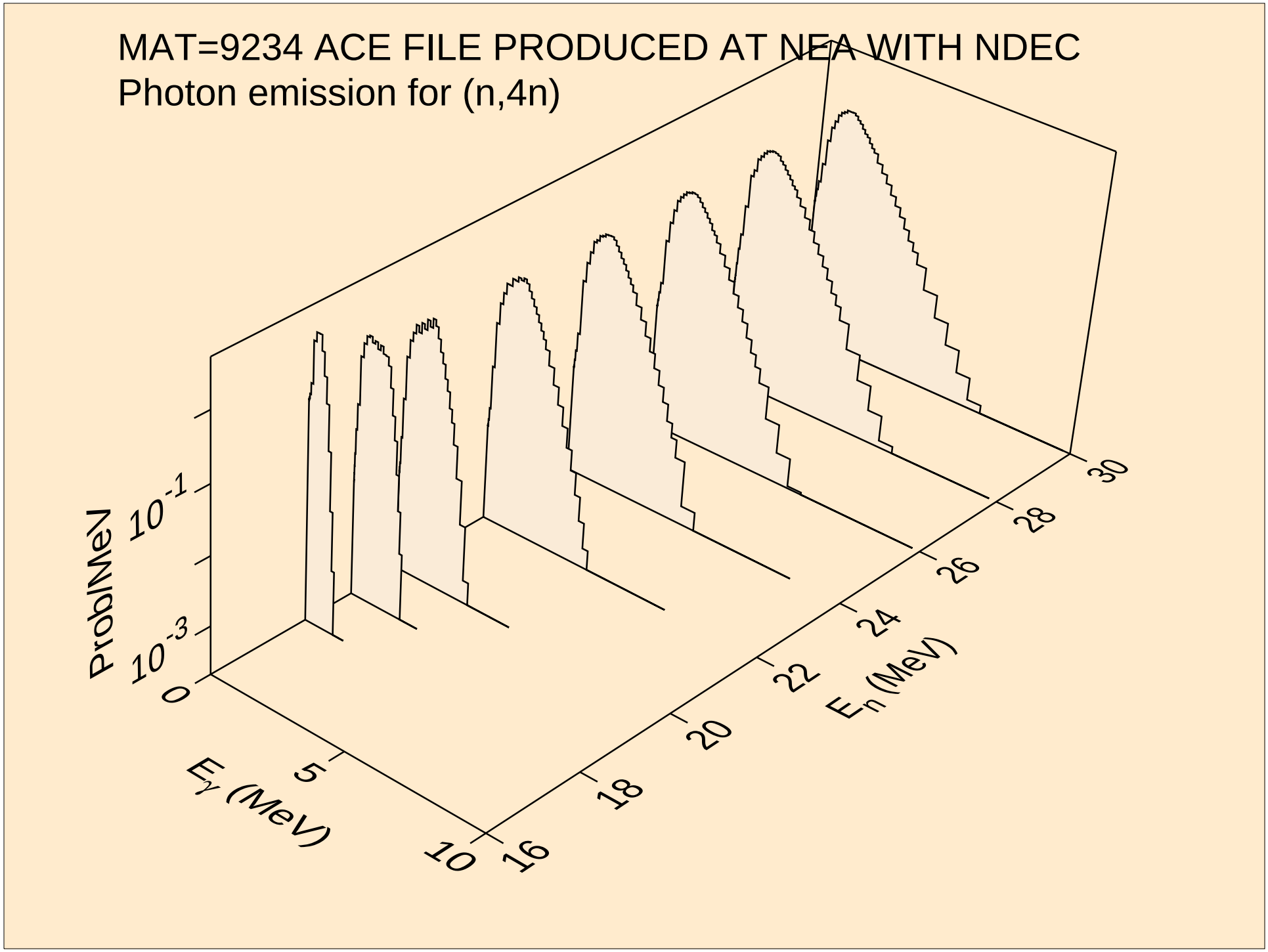

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,3n)
Prob/MeV
10^-1
10^-3
0
E_γ (MeV)
10
20
E_n (MeV)
10
12
14
16
18
20
22
24
26
28
30

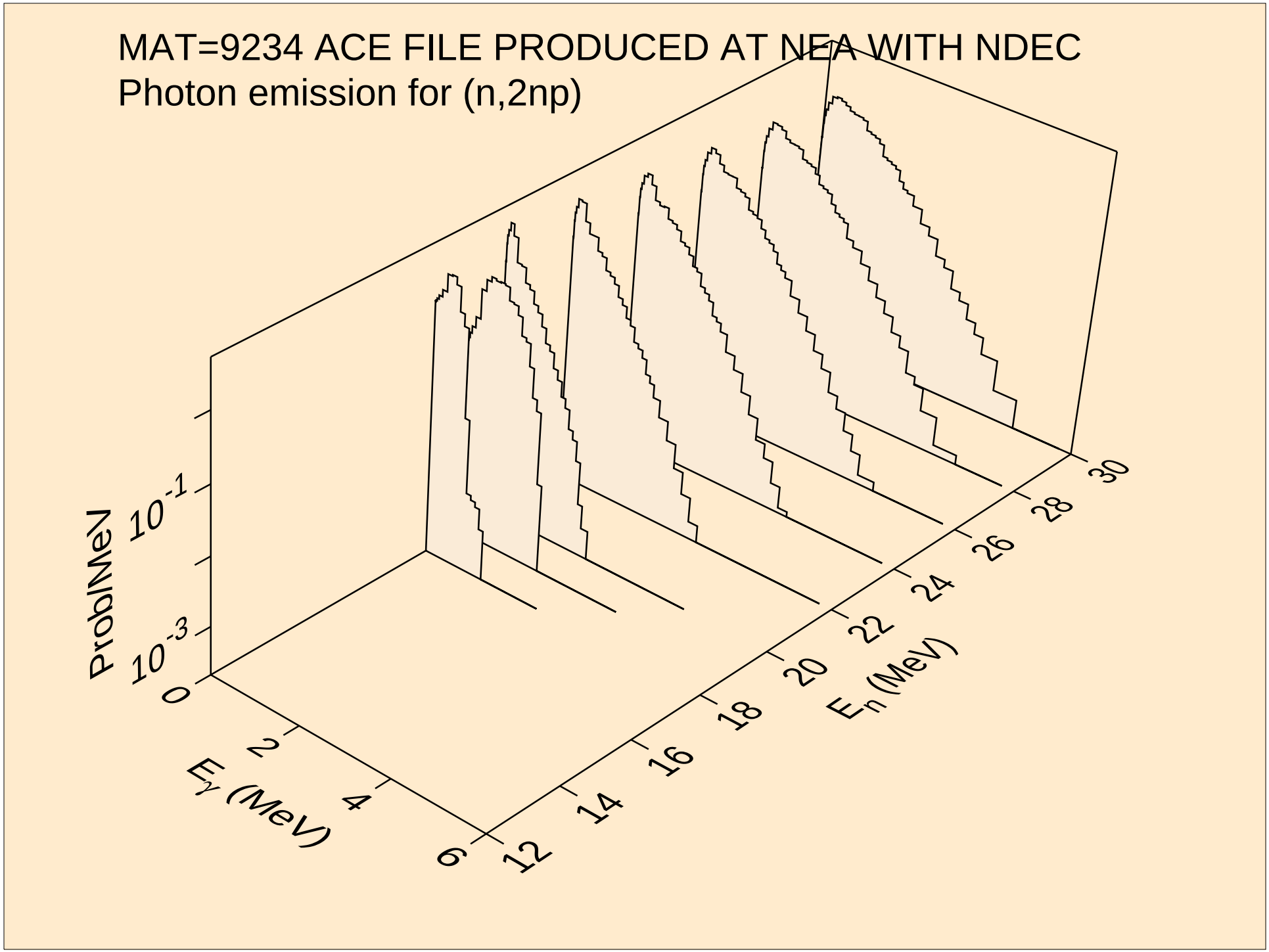

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*)a
Prob/MeV
10^0
10^-2
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

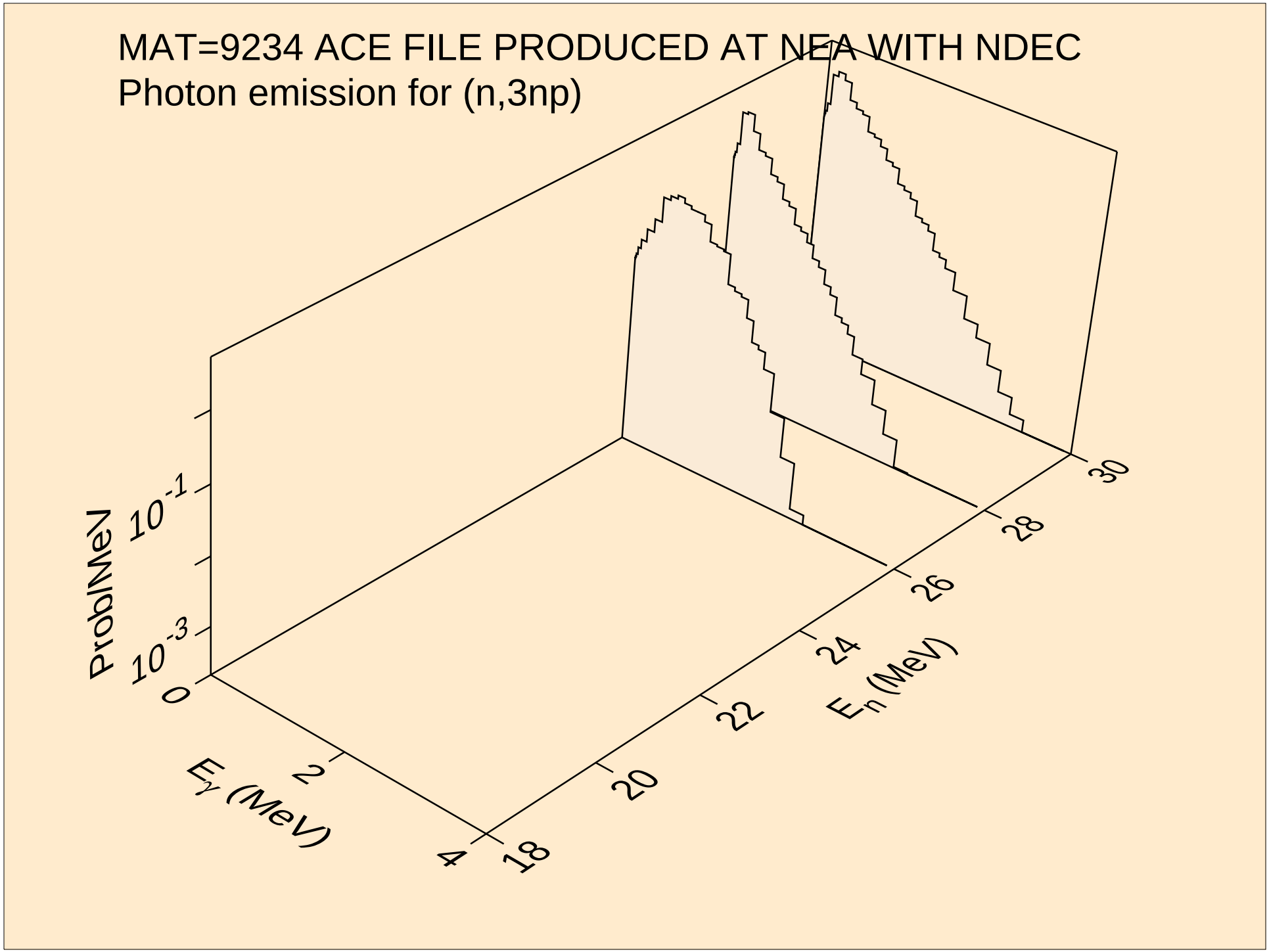

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,2n)a
Prob/MeV
10^0
10^-2
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

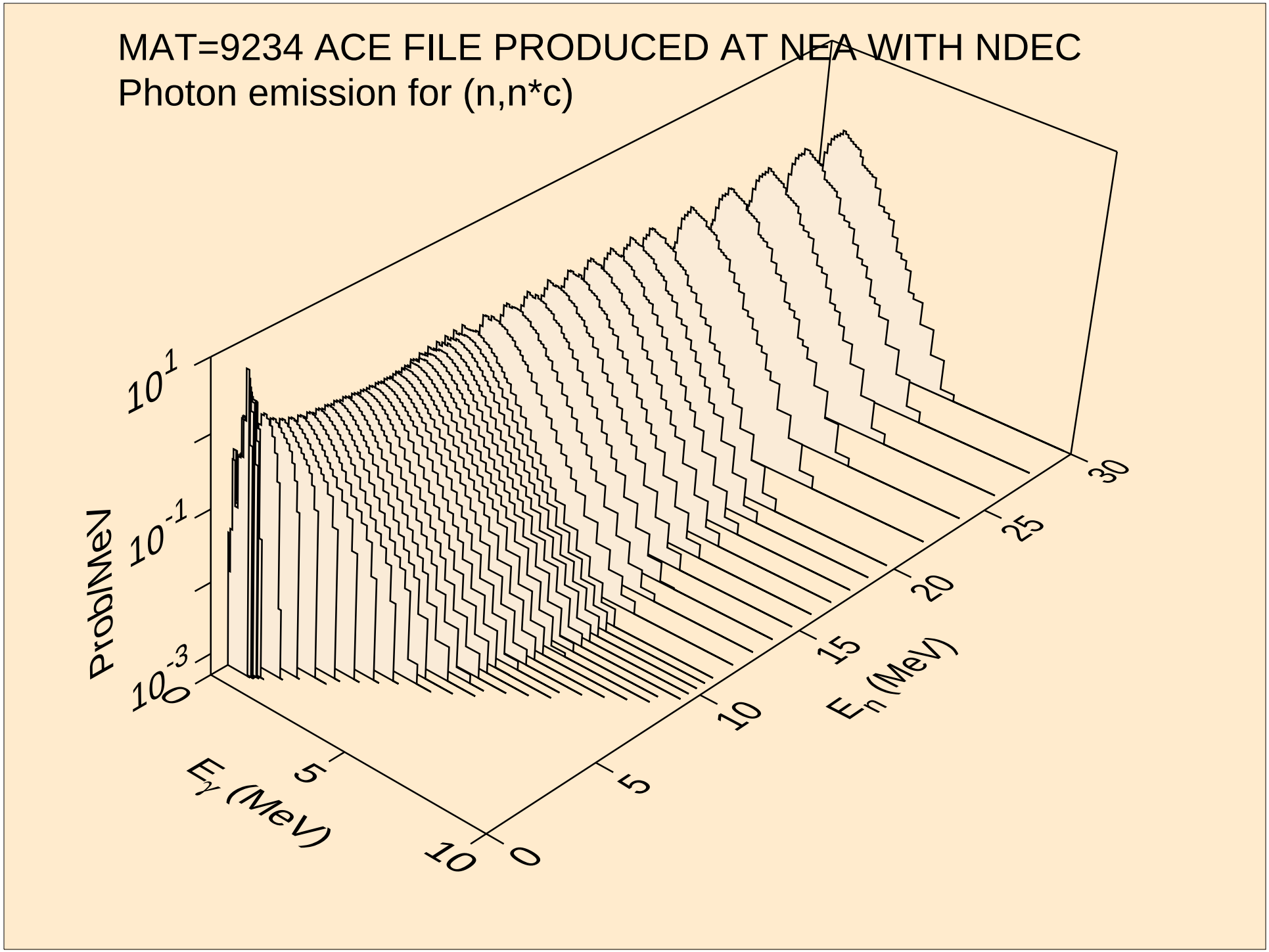

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,3n)a
Prob/MeV
10^0
10^-2
0
2
4
6
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

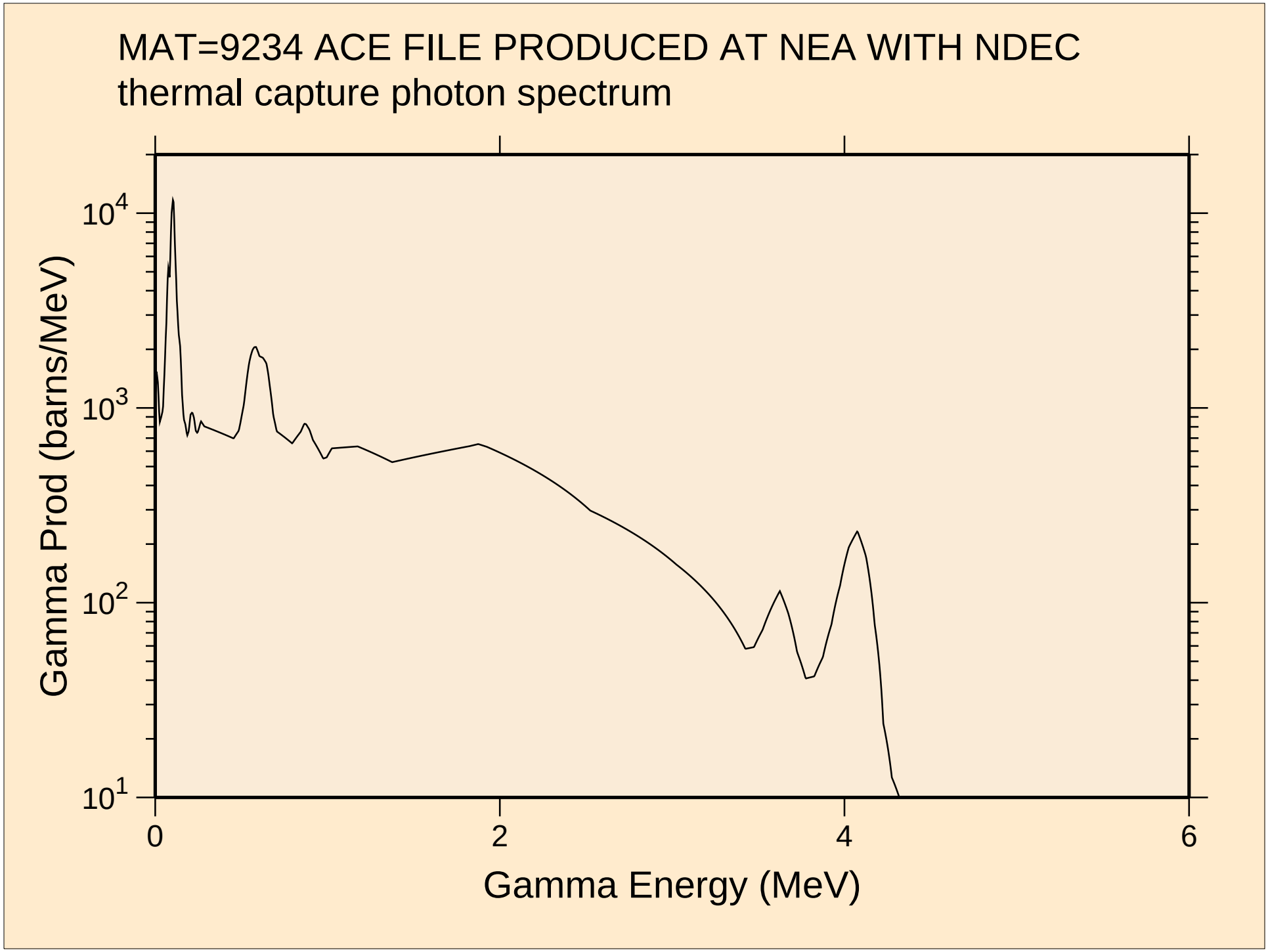

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*)p
Prob/MeV
10-1
10-3
0
Eγ (MeV)
5
10
En (MeV)
5
10
15
20
25
30

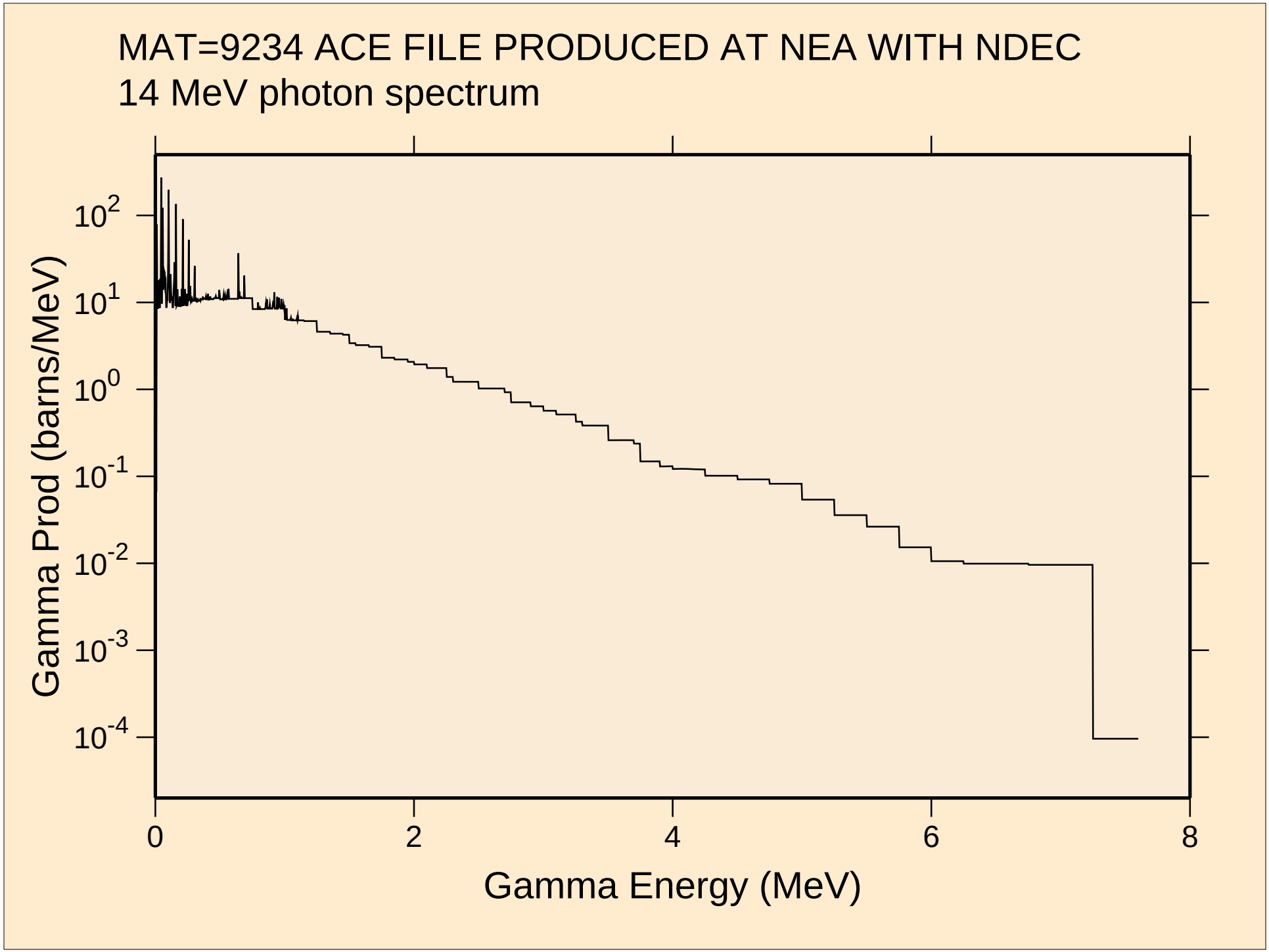

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,4n)
Prob/MeV
10-1
10-3
0
Eγ (MeV)
5
10
16
18
20
22
24
26
28
30
En (MeV)

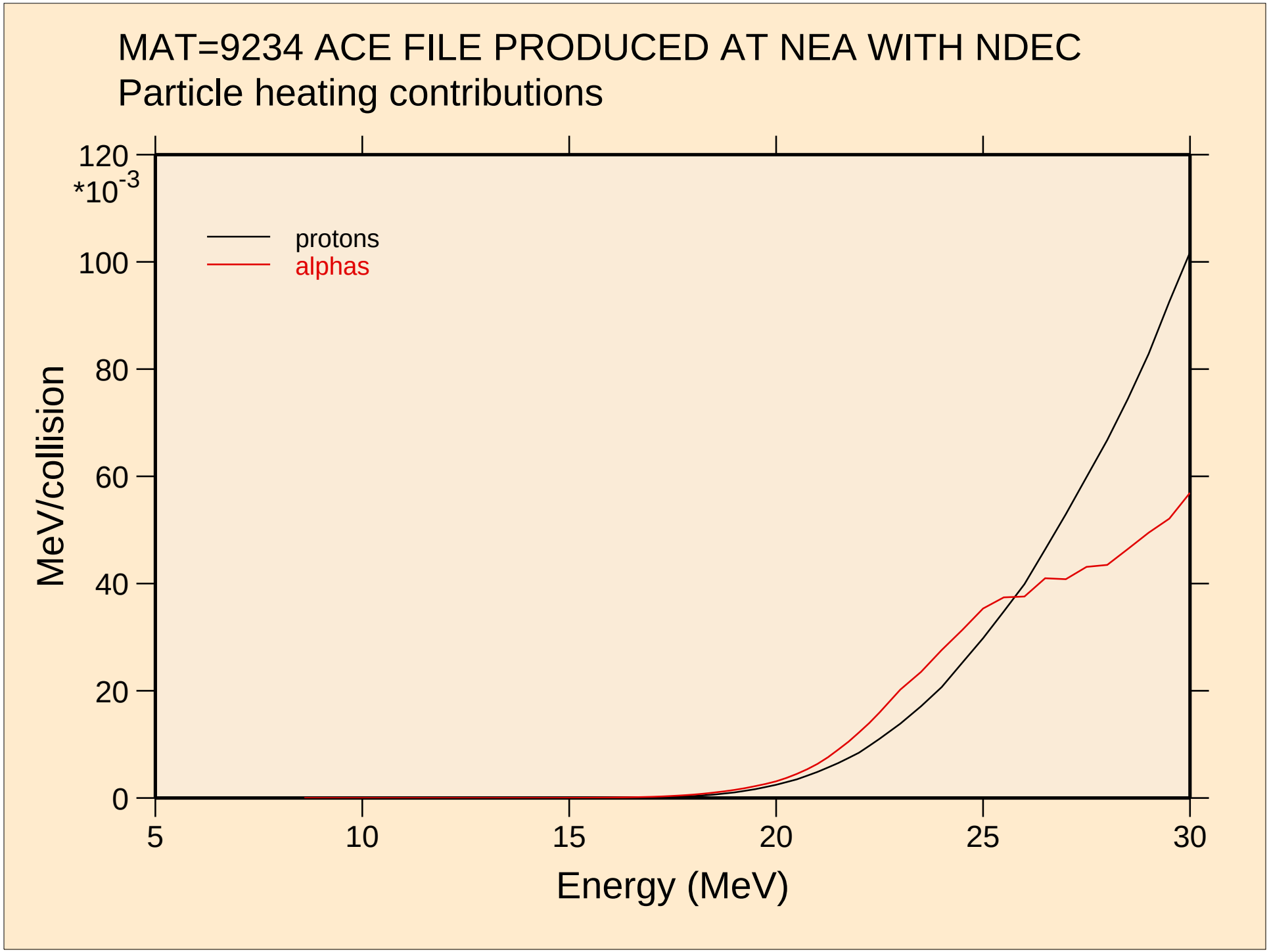

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,2np)
Prob/MeV
10-1
10-3
0
2
4
6
Eγ (MeV)
12
14
16
18
20
22
24
26
28
30
En (MeV)

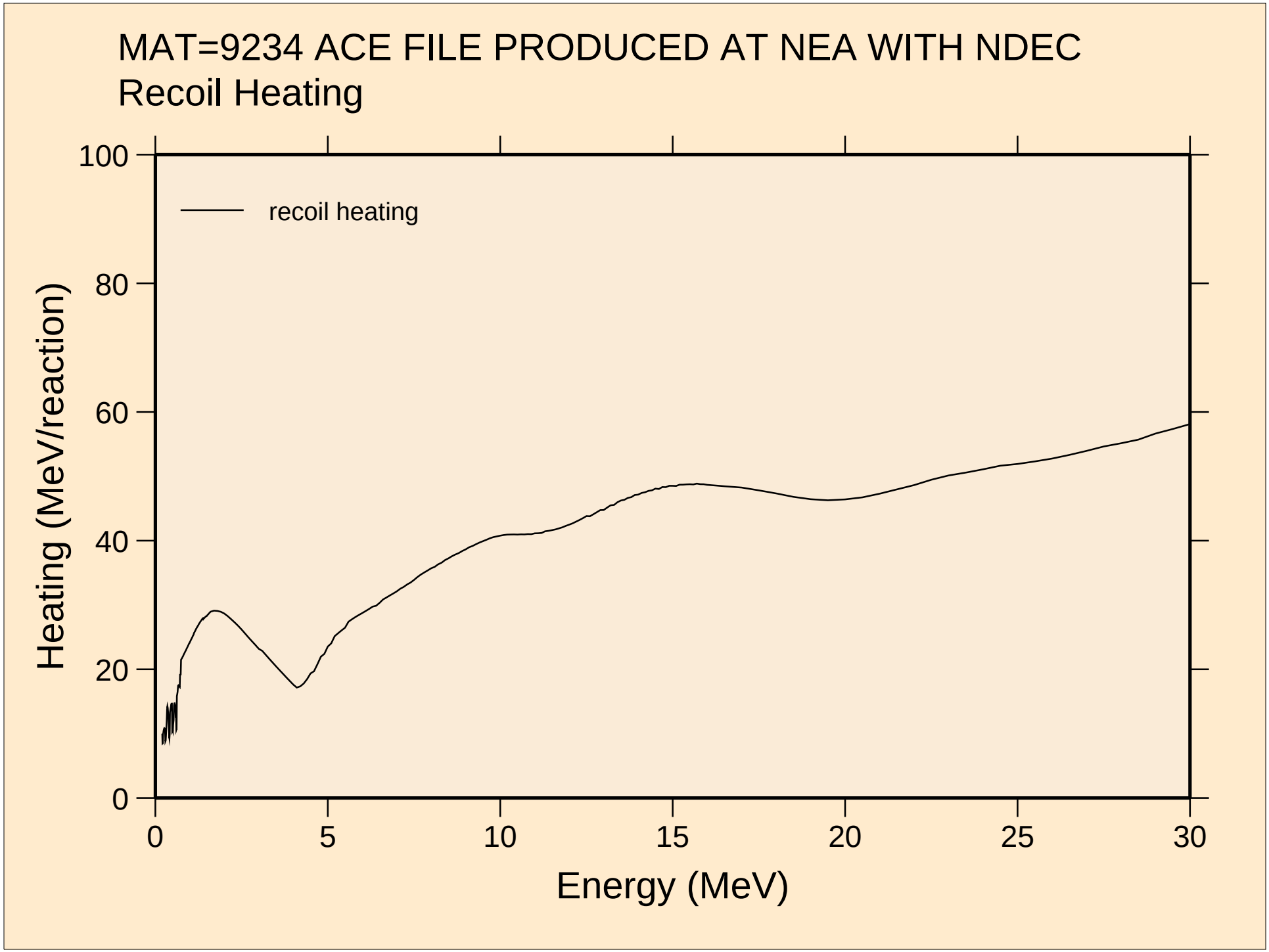

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,3np)
Prob/MeV
10-1
10-3
0
Eγ (MeV)
2
4
18
20
22
24
26
28
30
En (MeV)

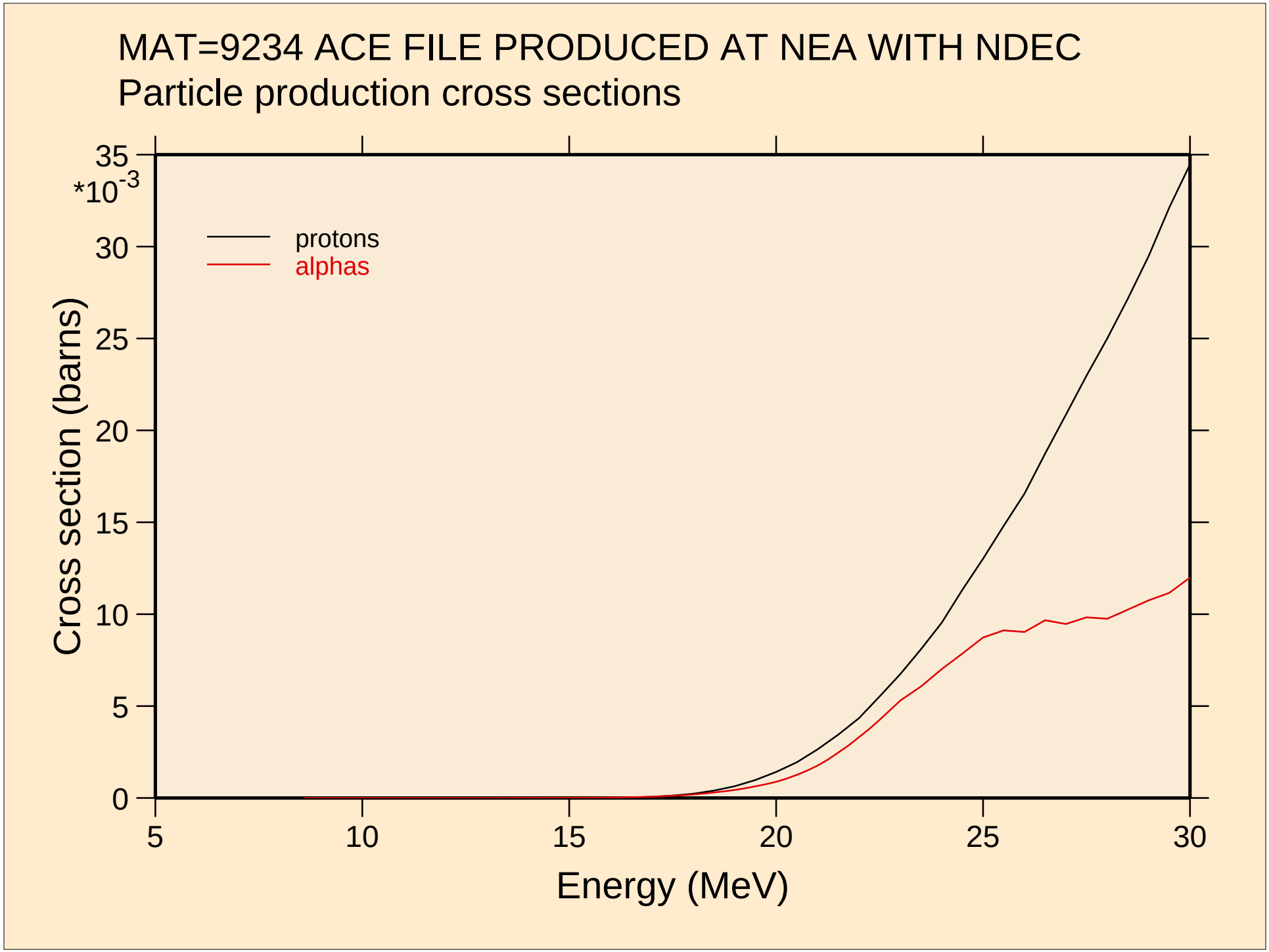

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*c)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
E_γ (MeV)
0
5
10
E_n (MeV)
5
10
15
20
25
30

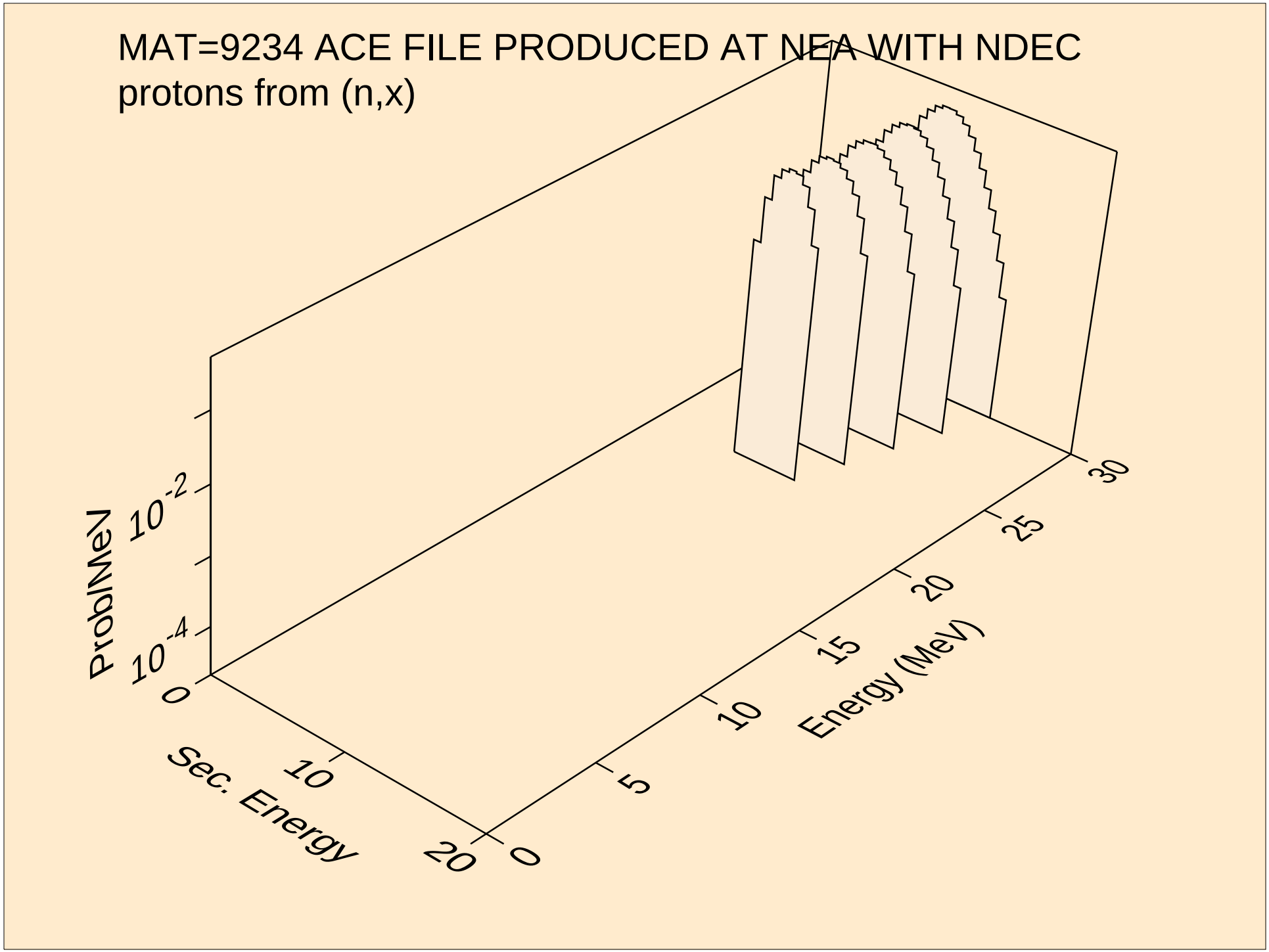

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^4
10^3
10^2
10^1
0
2
4
6
Gamma Energy (MeV)

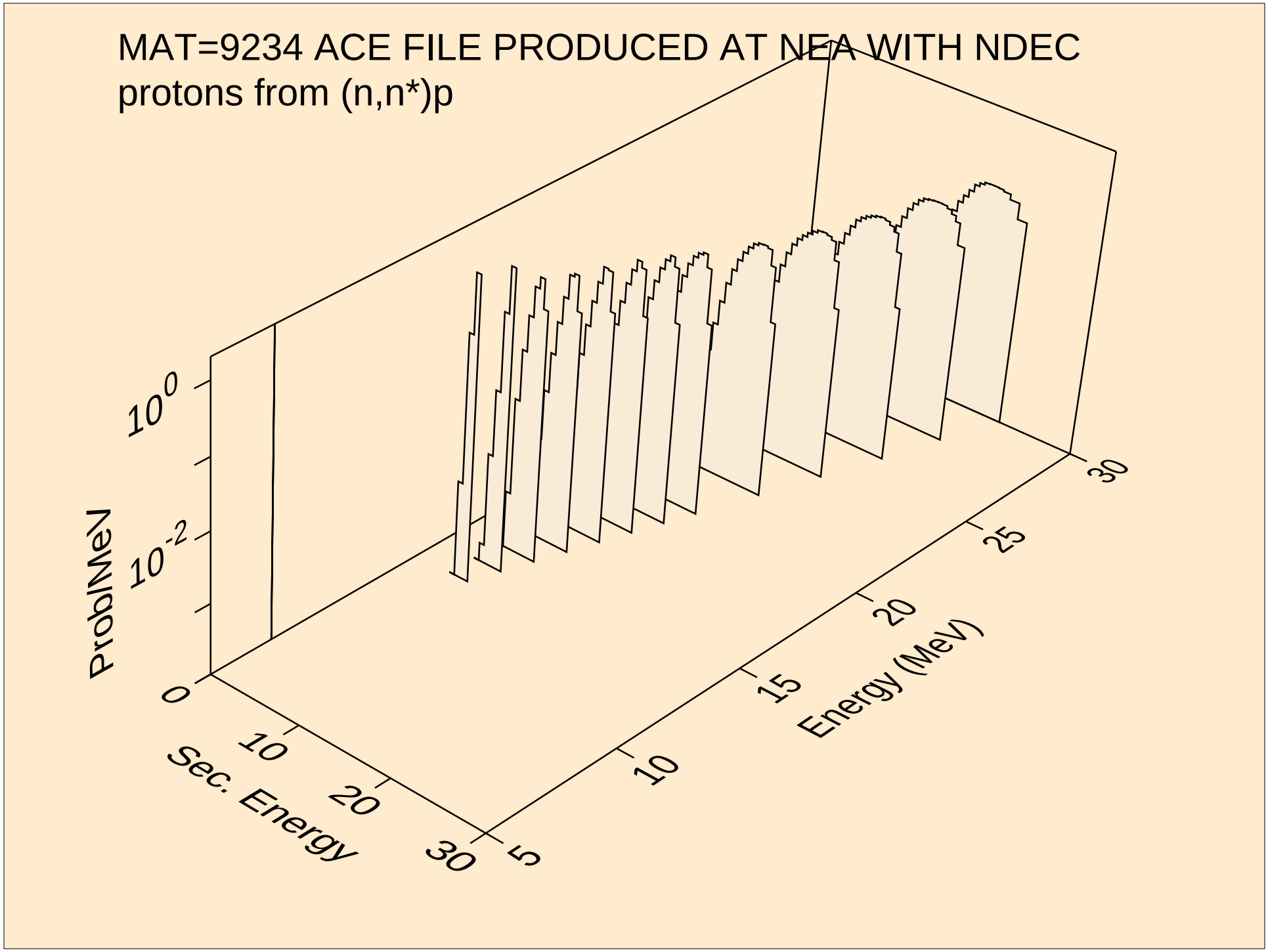

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-4
0
2
4
6
8
Gamma Energy (MeV)

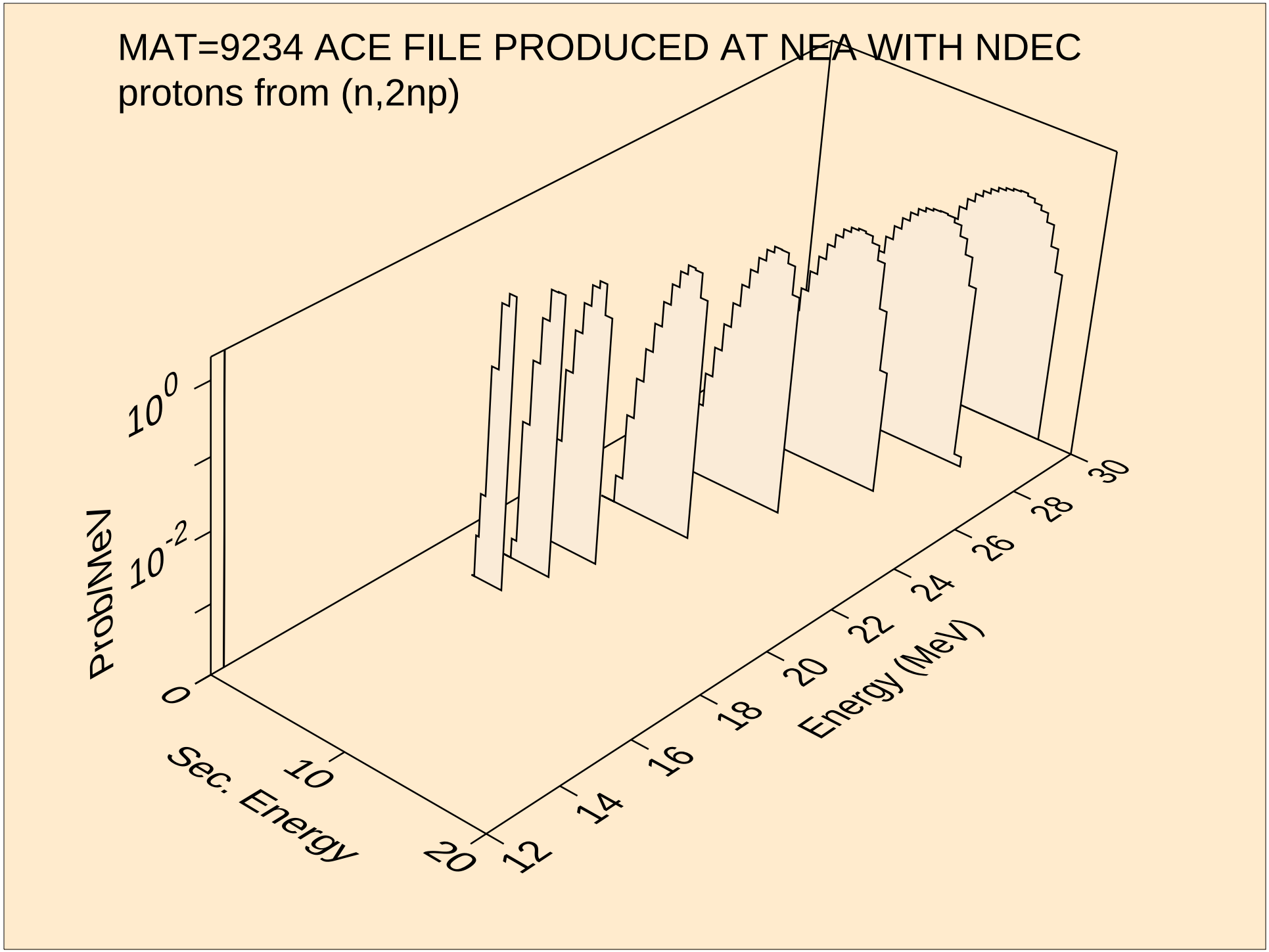

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Particle heating contributions
120
*10-3
100
80
60
40
20
0
MeV/collision
protons
alphas
5
10
15
20
25
30
Energy (MeV)

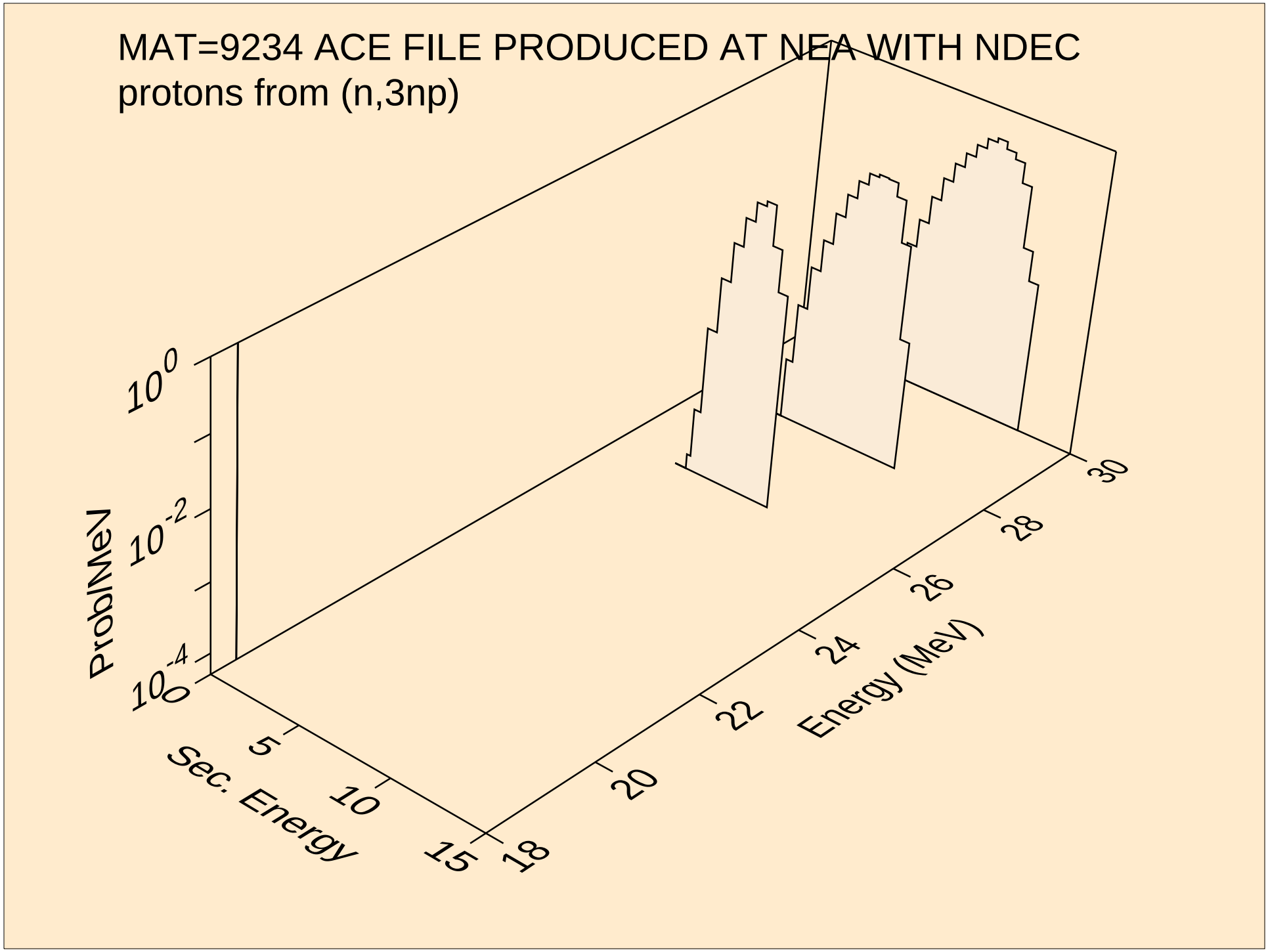

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Recoil Heating
recoil heating
Heating (MeV/reaction)
Energy (MeV)
0
20
40
60
80
100
0
5
10
15
20
25
30

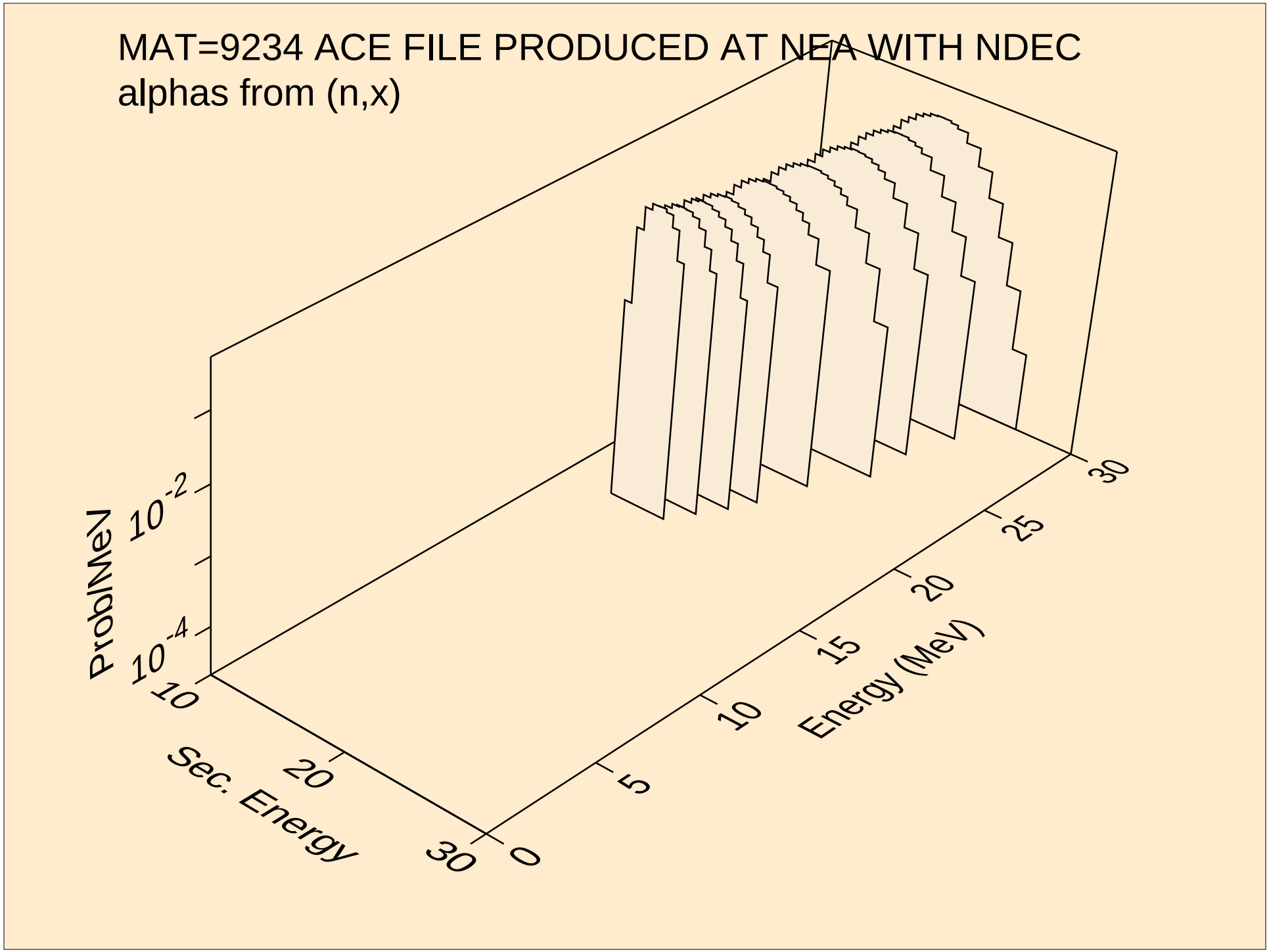

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
Particle production cross sections
protons
alphas
Cross section (barns)
*10-3
35
30
25
20
15
10
5
0
5
10
15
20
25
30
Energy (MeV)

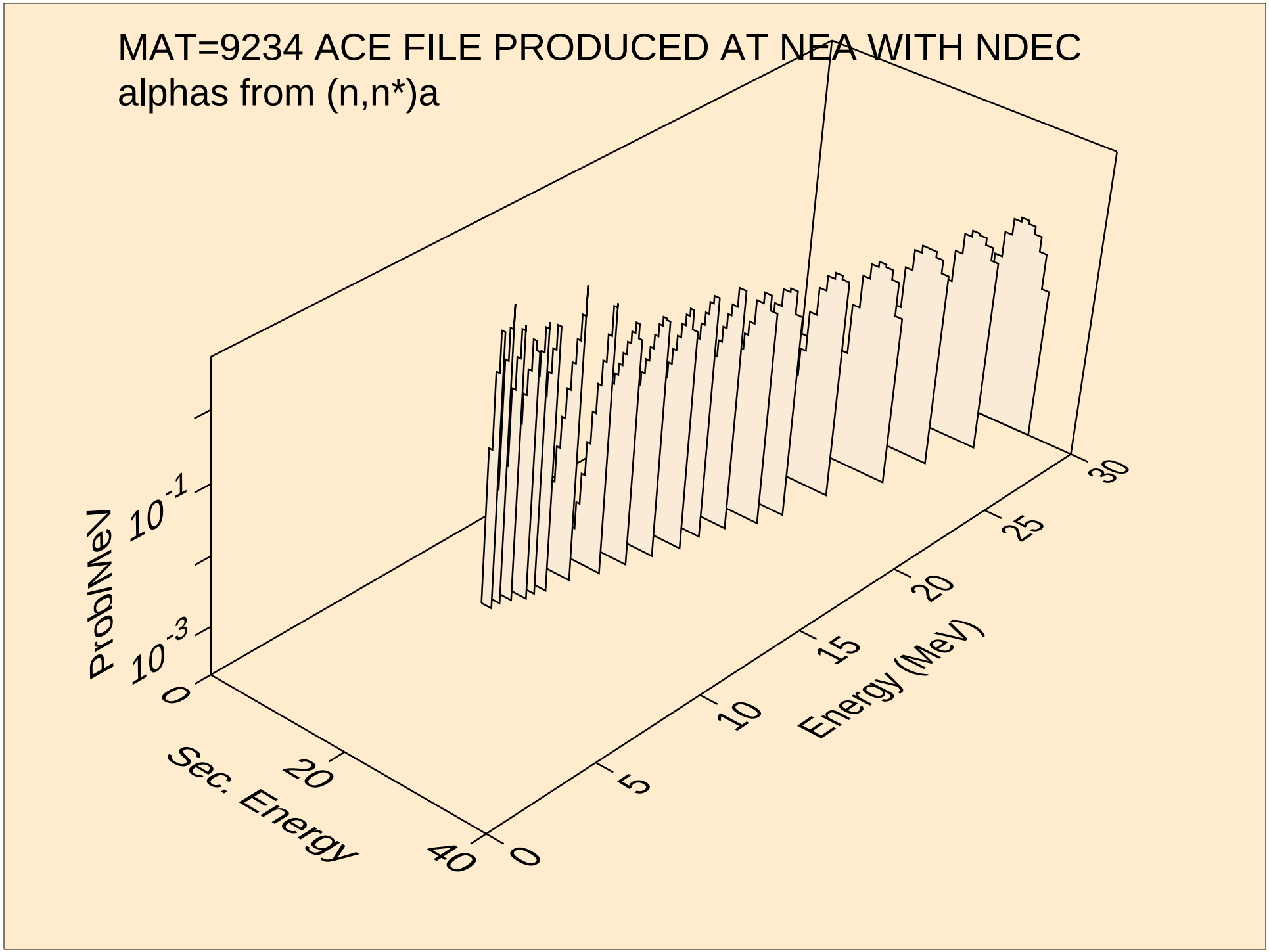

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
protons from (n,x)
Prob/MeV
10-2
10-4
0
Sec. Energy
10
20
0
5
10
15
20
25
30
Energy (MeV)

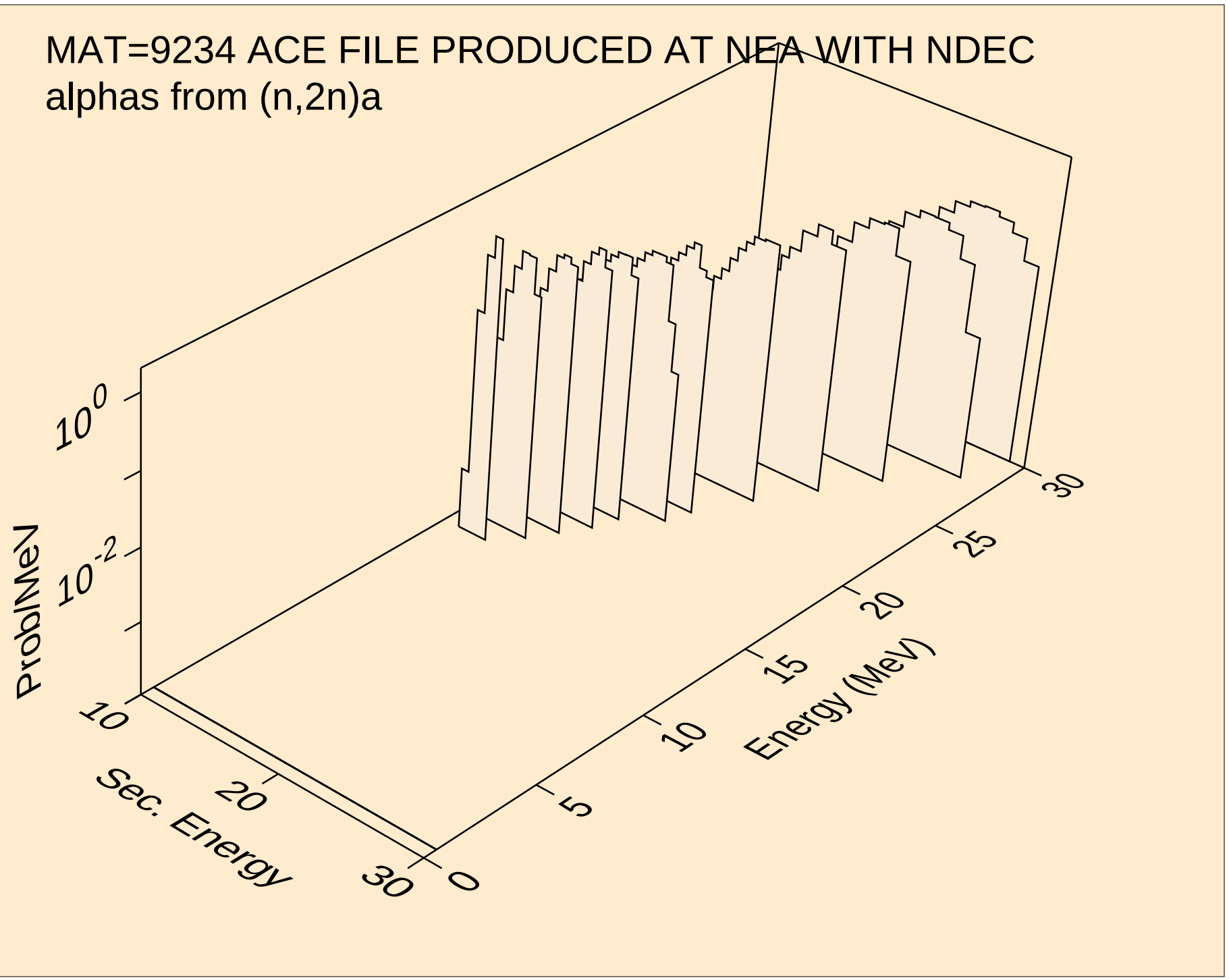

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
protons from (n,n*)p
Prob/MeV
10^0
10^-2
0
Sec. Energy
10
20
30
5
10
15
20
25
30
Energy (MeV)

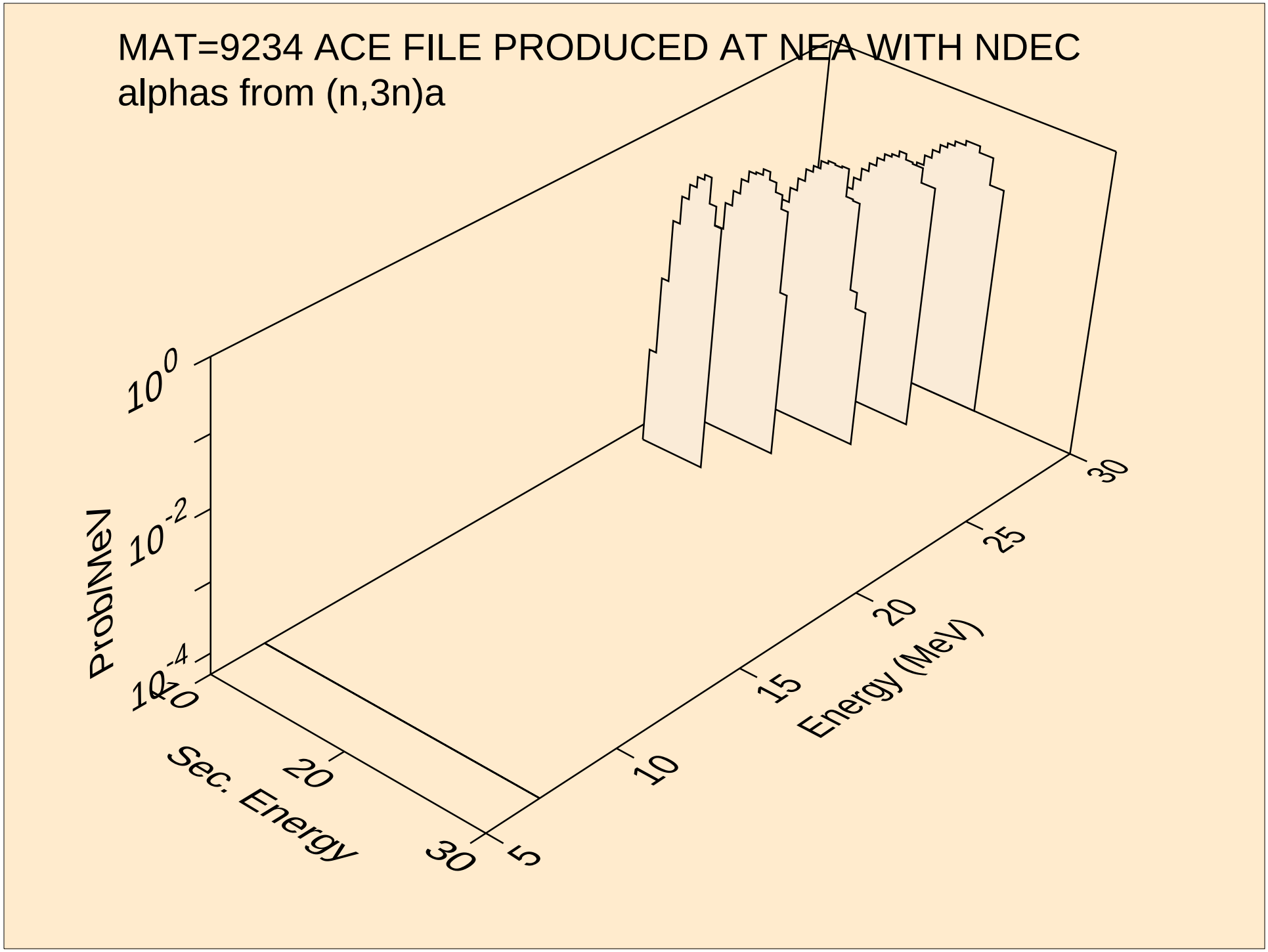

MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
protons from (n,2np)
Prob/MeV
10^{0}
10^{-2}
0
Sec. Energy
10
20
Energy (MeV)
12
14
16
18
20
22
24
26
28
30


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
protons from (n,3np)
Prob/MeV
10^0
10^-2
10^-4
0
5
10
15
18
Sec. Energy
20
22
24
26
28
30
Energy (MeV)


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
alphas from (n,x)
Prob/MeV
10-2
10-4
10
20
30
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
alphas from (n,n*)a
Prob/MeV
10-1
10-3
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
alphas from (n,2n)a
Prob/MeV
10^{0}
10^{-2}
10
20
30
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)


MAT=9234 ACE FILE PRODUCED AT NEA WITH NDEC
alphas from (n,3n)a
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
20
30
Energy (MeV)
5
10
15
20
25
30