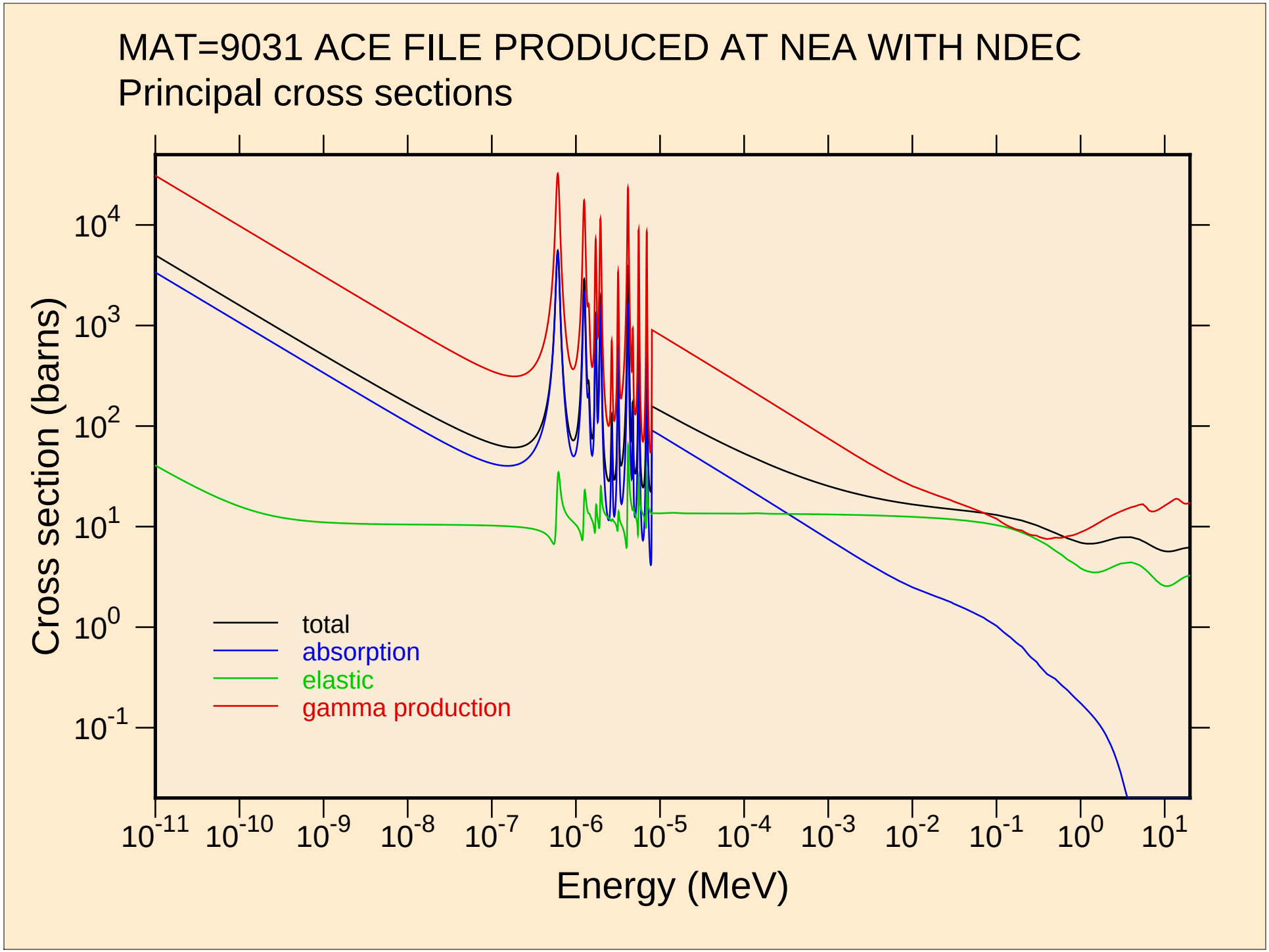
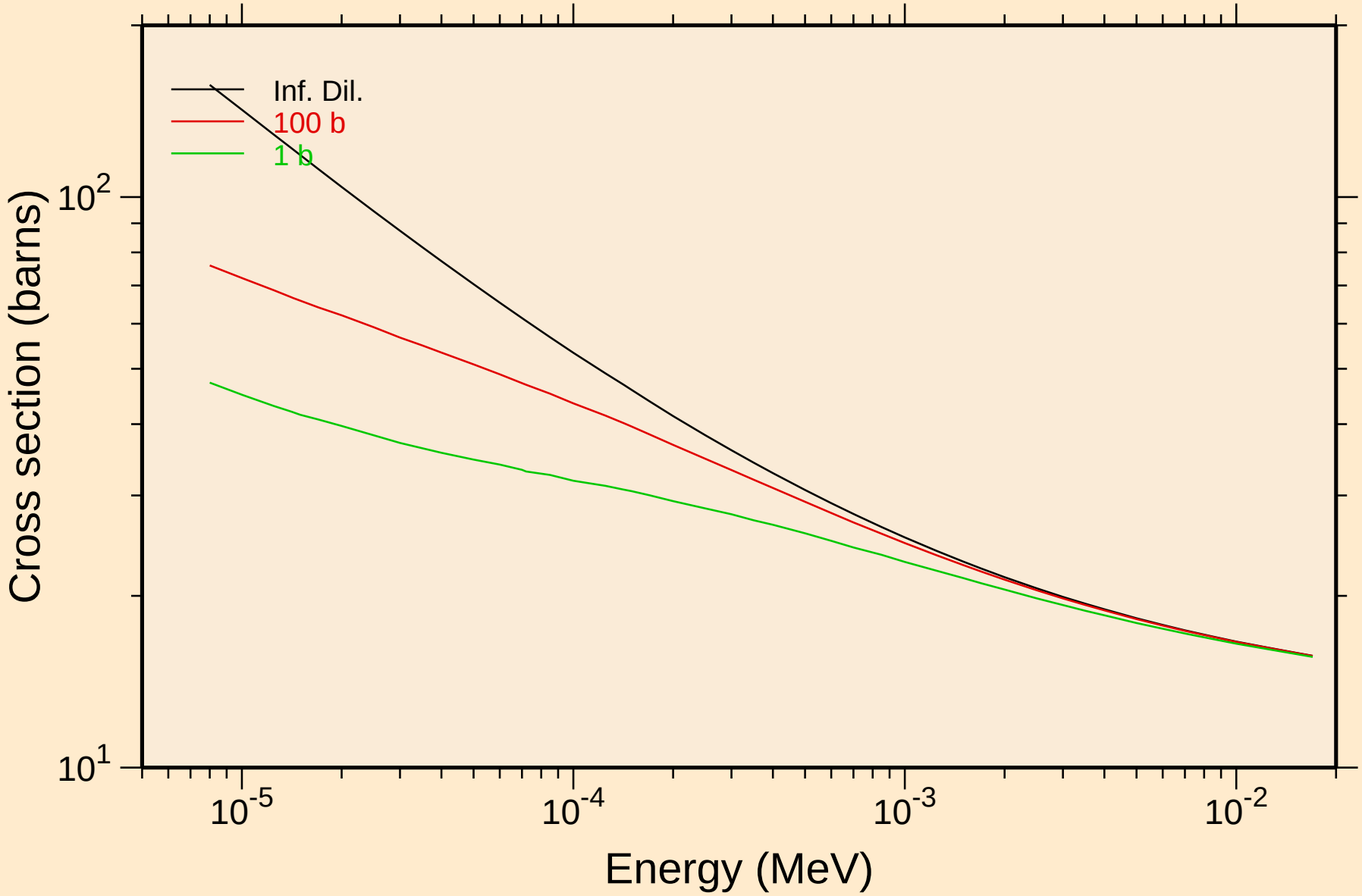
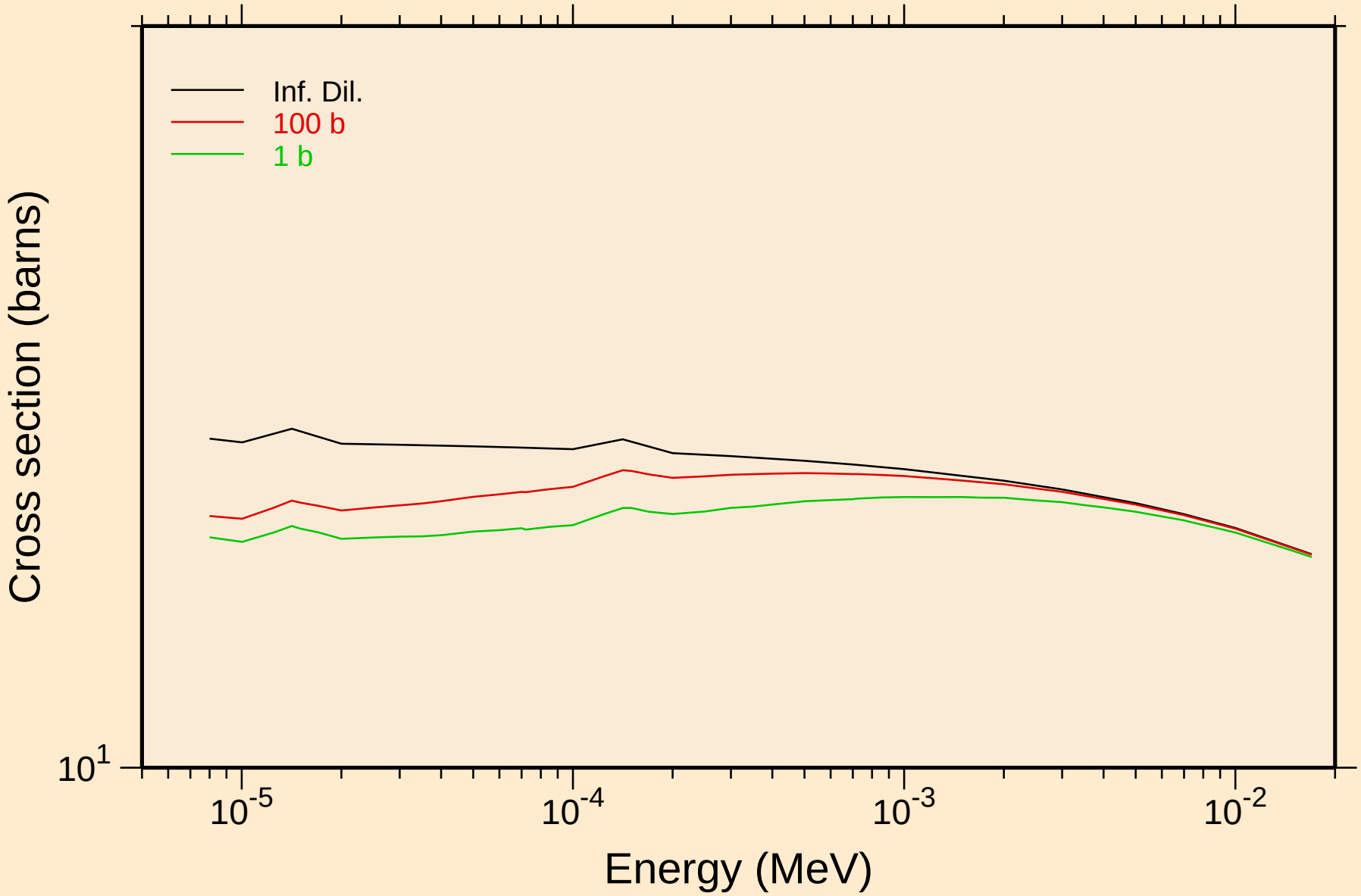
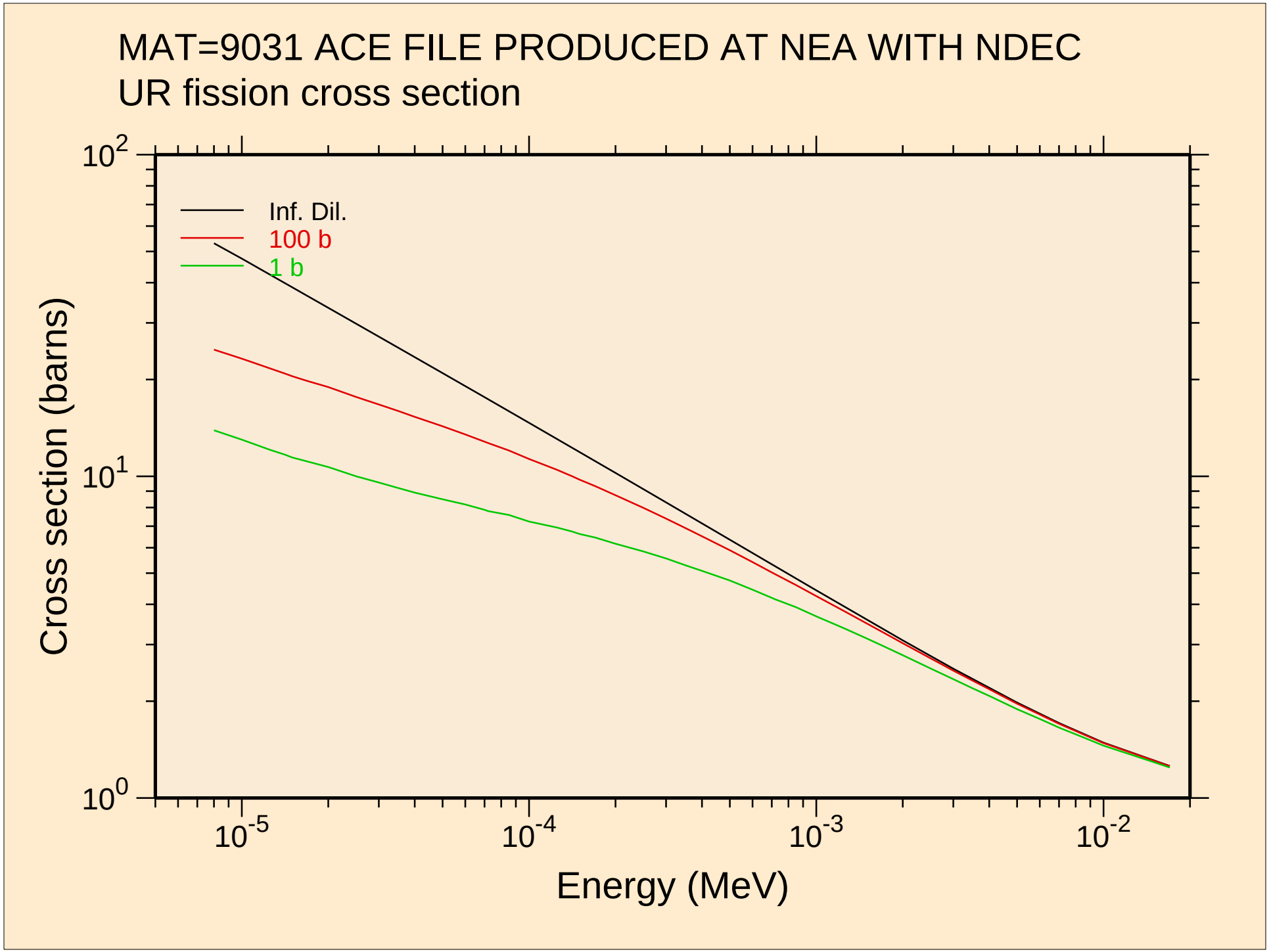

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Principal cross sections
Cross section (barns)
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
total
absorption
elastic
gamma production
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}
Energy (MeV)

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
UR total cross section

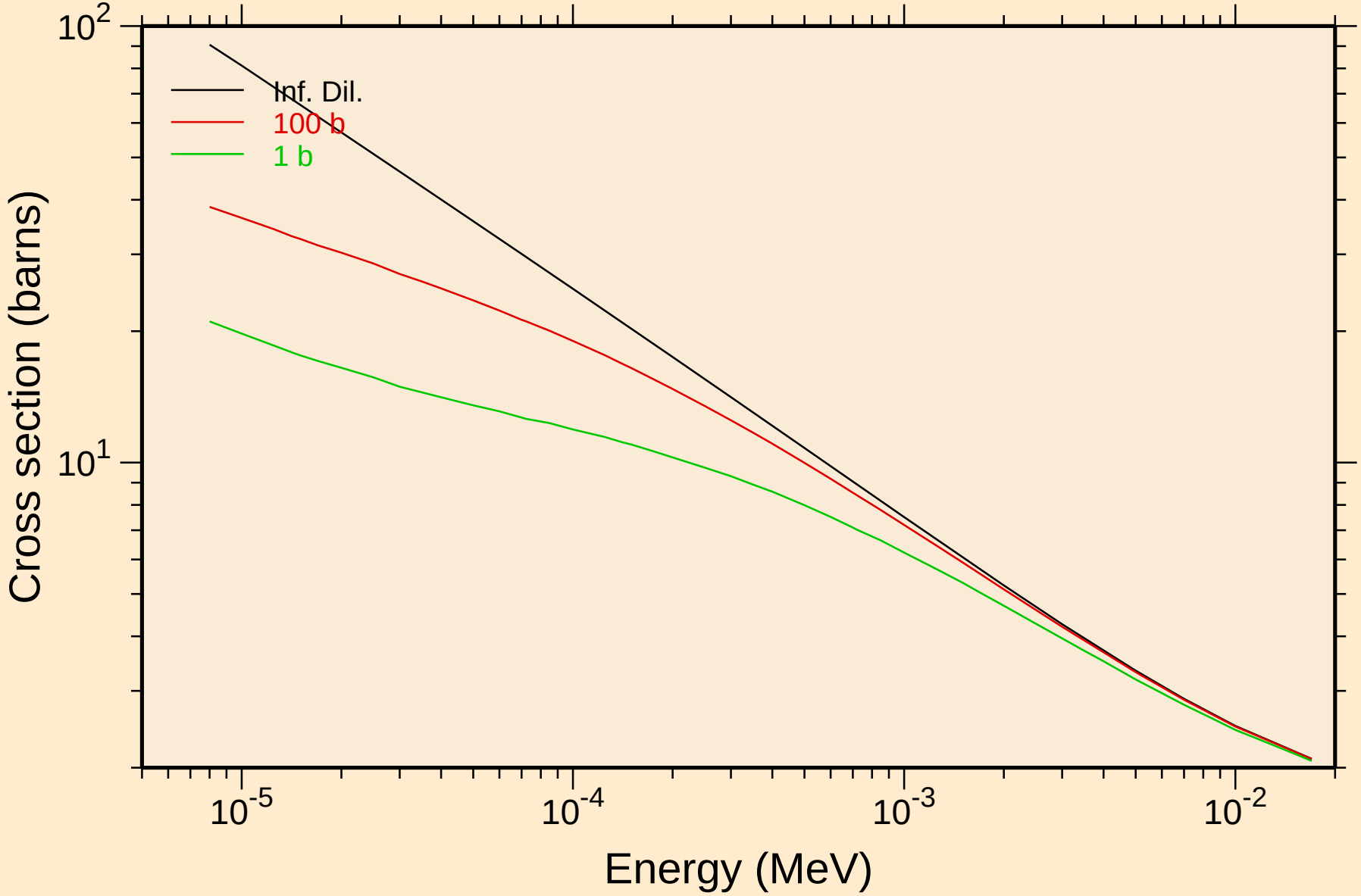


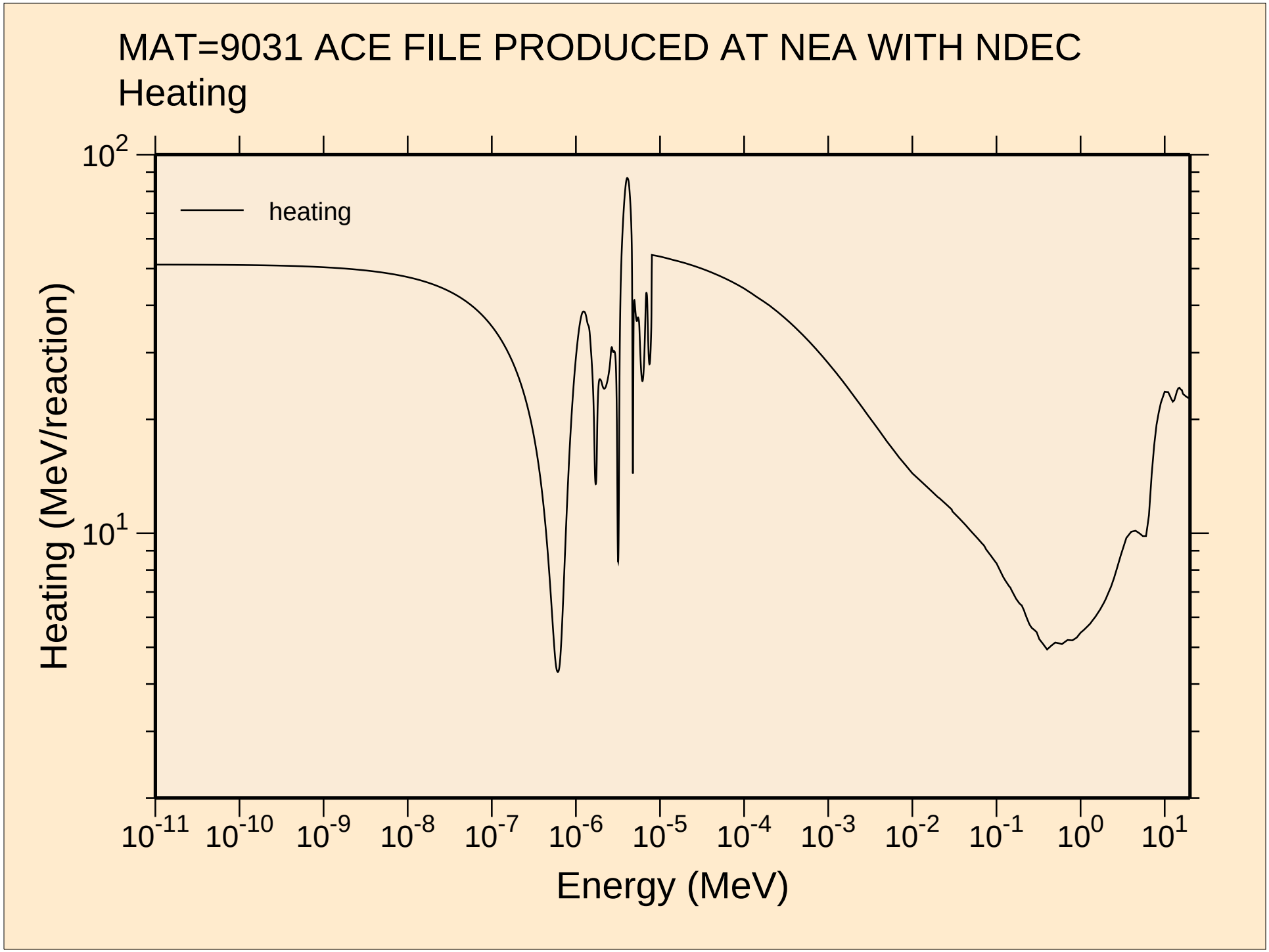
MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
UR elastic cross section

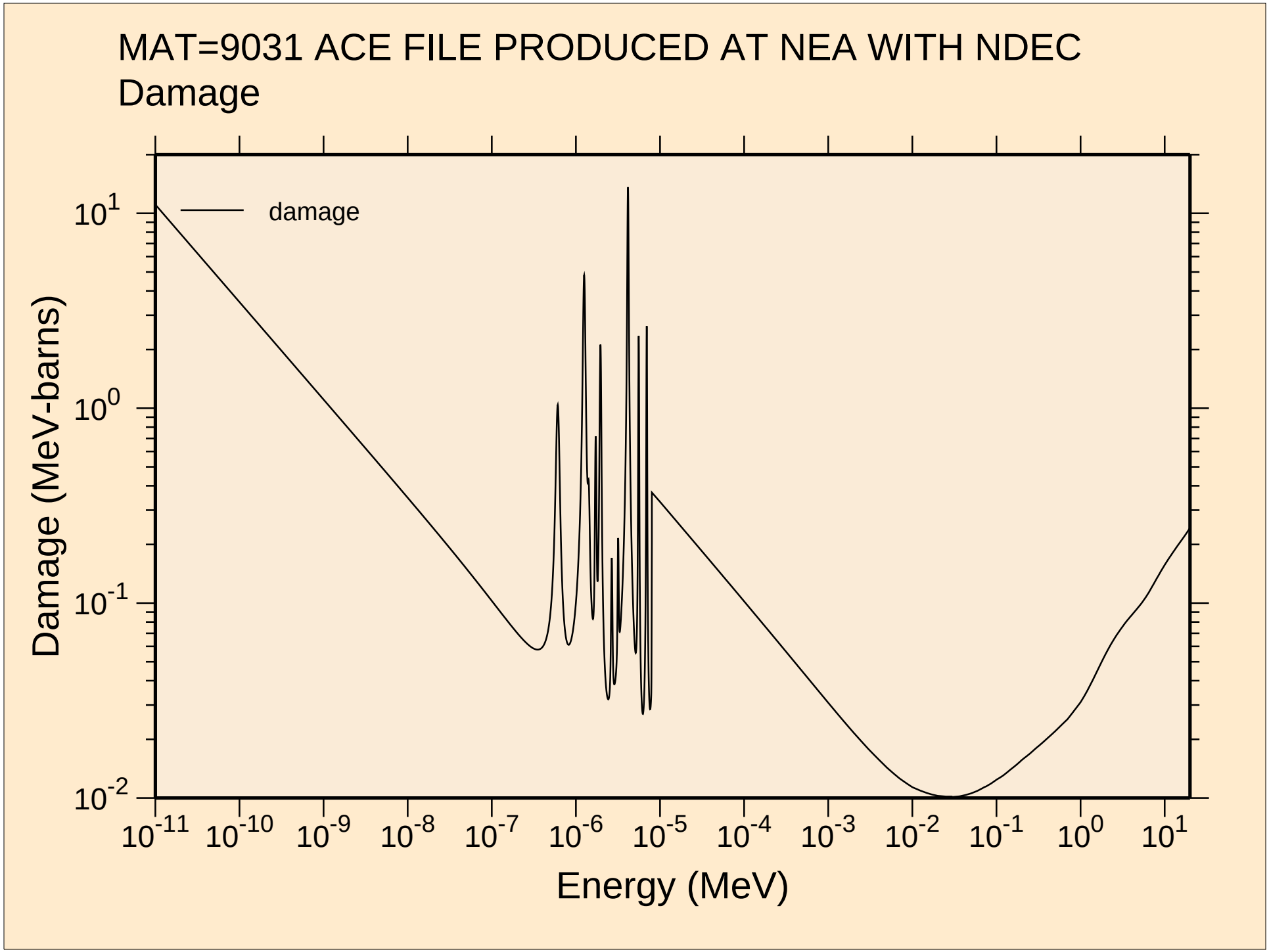


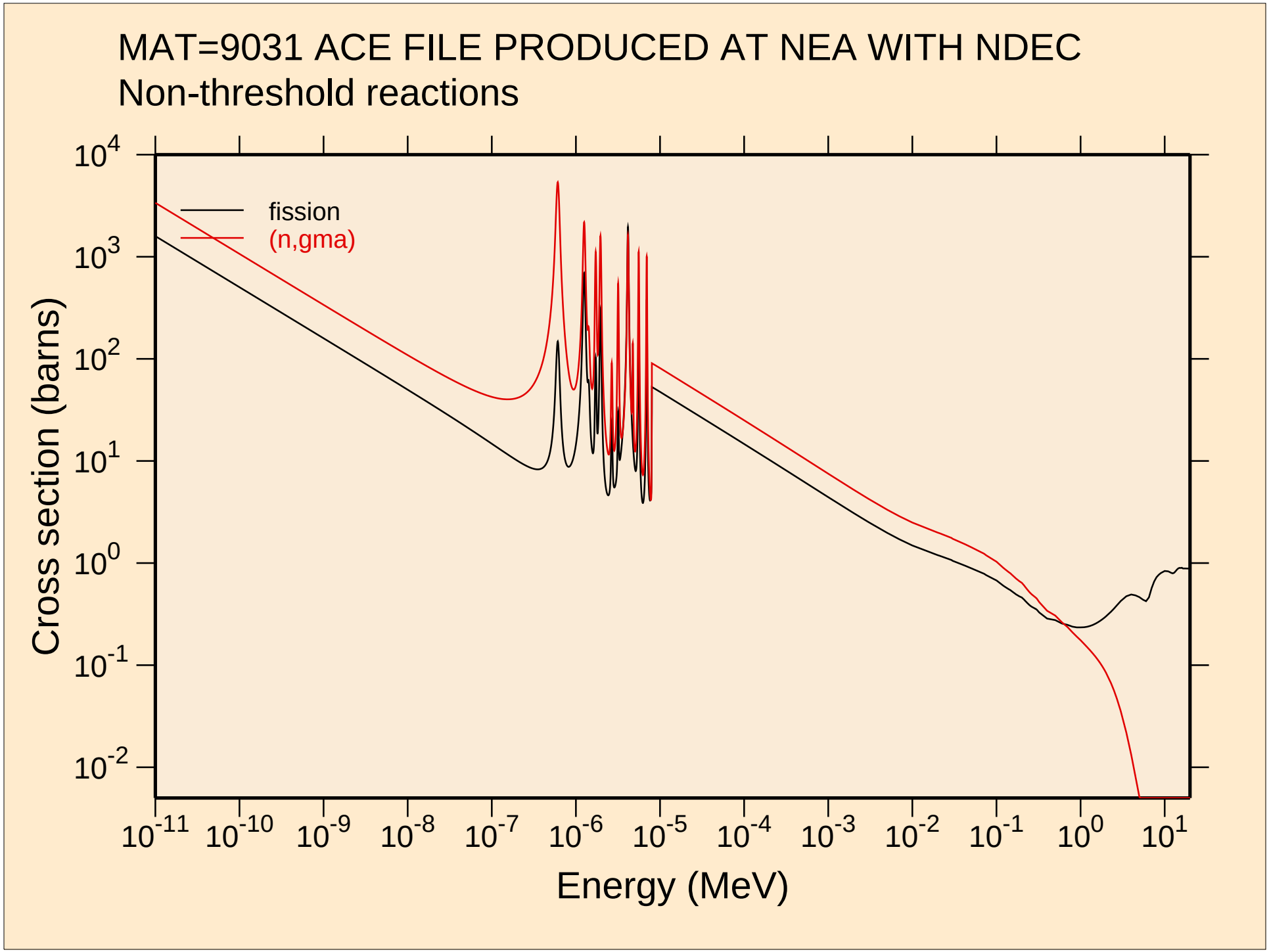

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
UR fission cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
Energy (MeV)
10^2
10^1
10^0
10^-5
10^-4
10^-3
10^-2

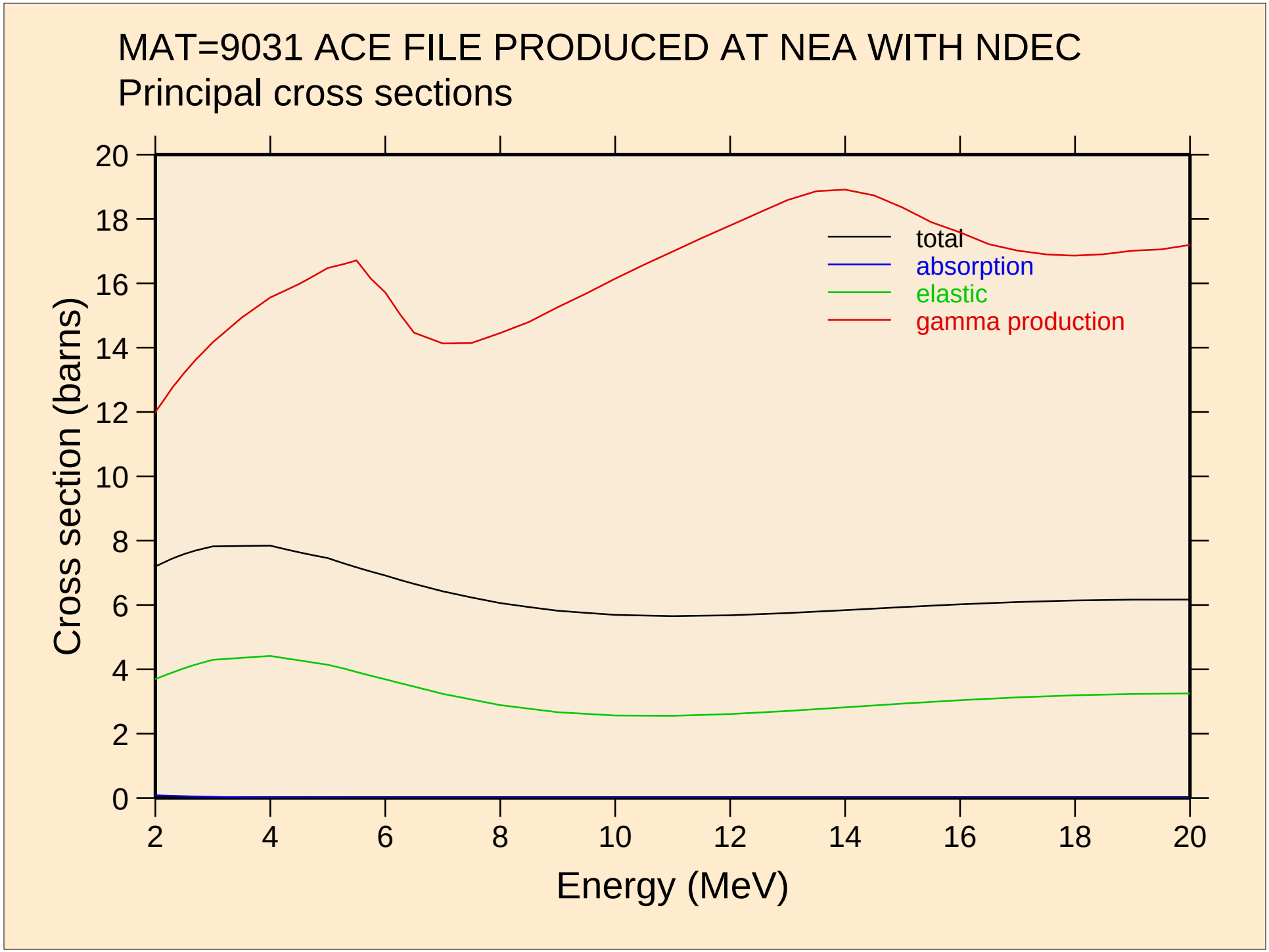
MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
UR capture cross section

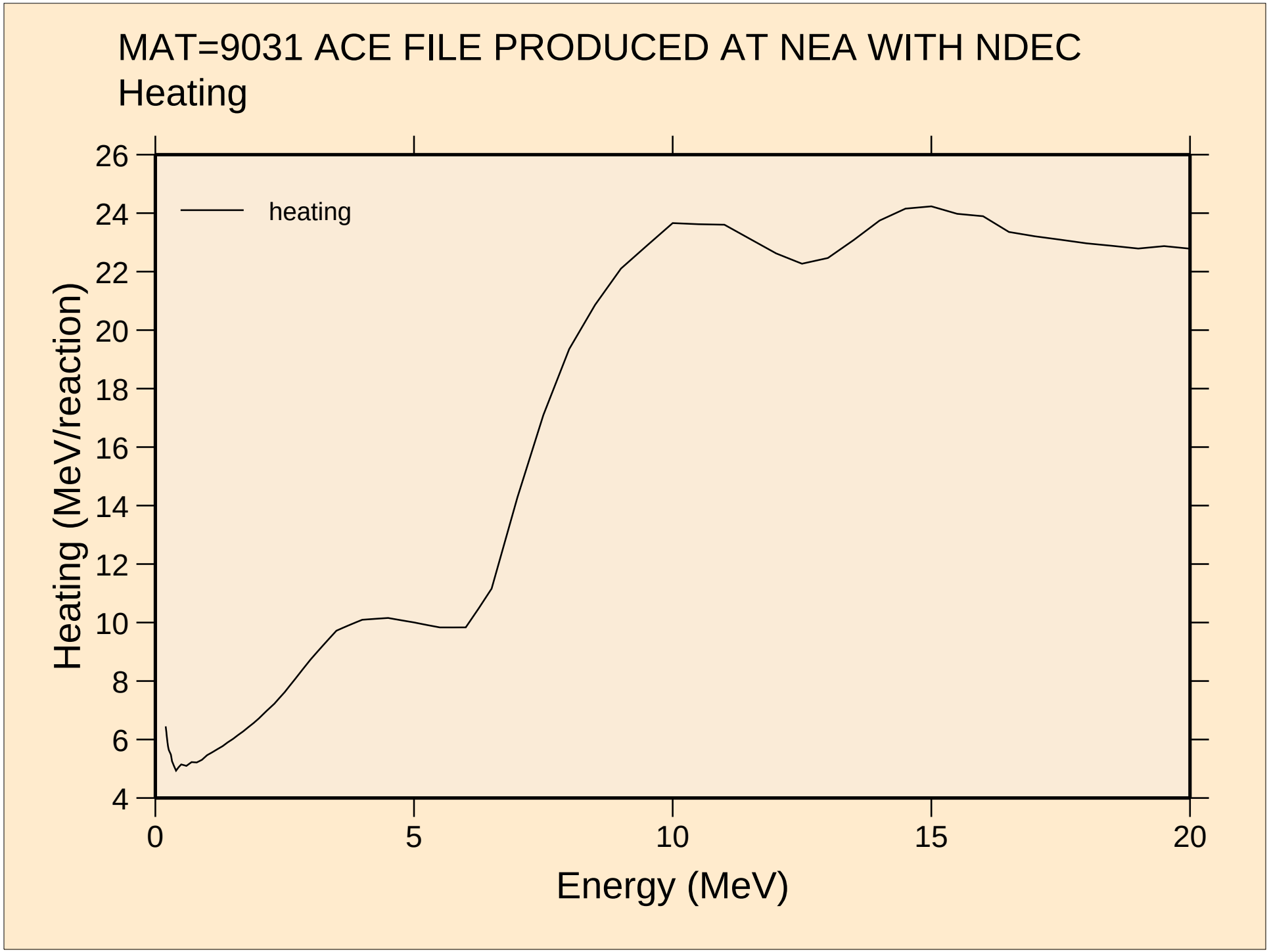


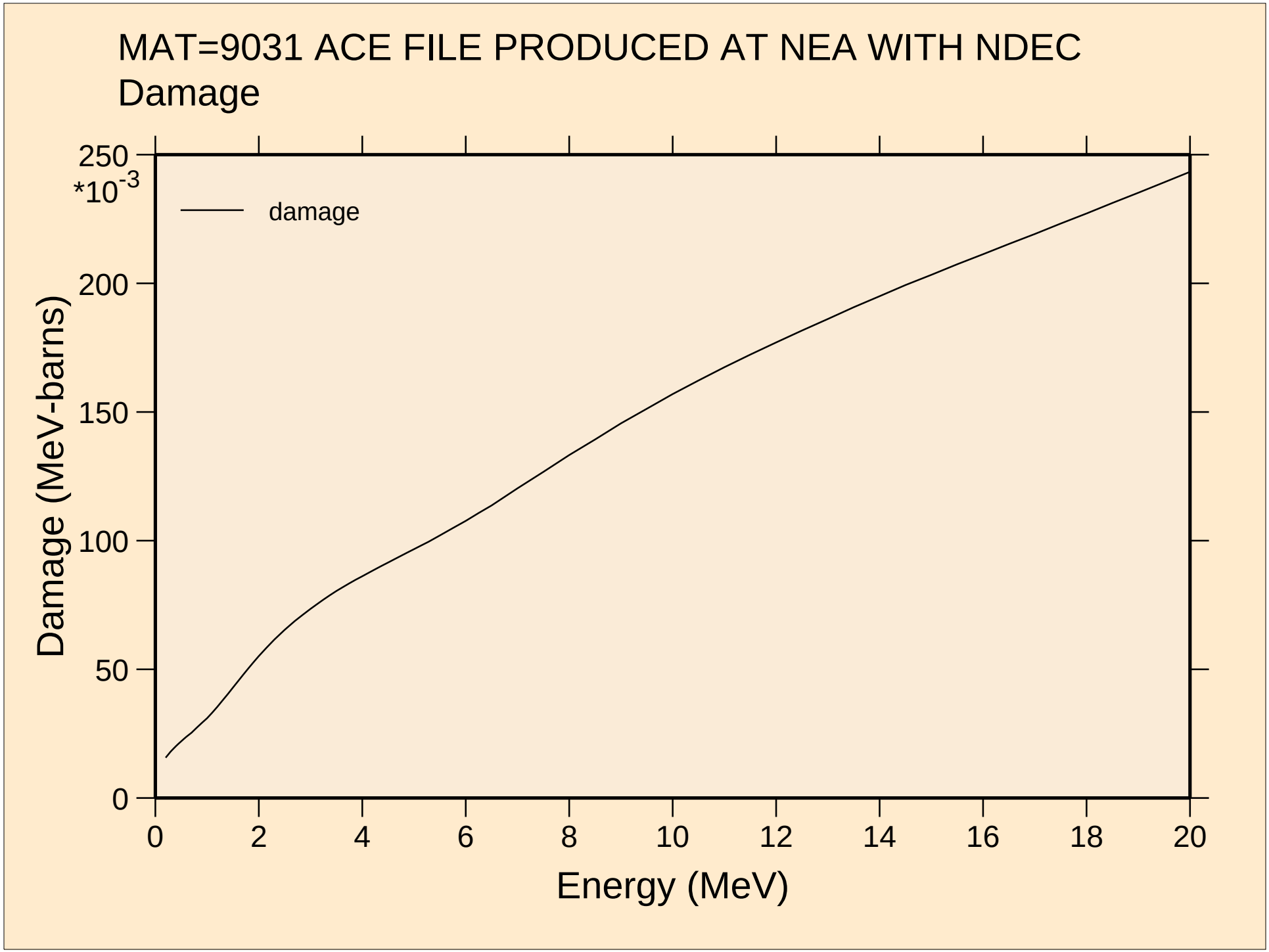

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Heating
heating
Heating (MeV/reaction)
10^2
10^1
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}
Energy (MeV)

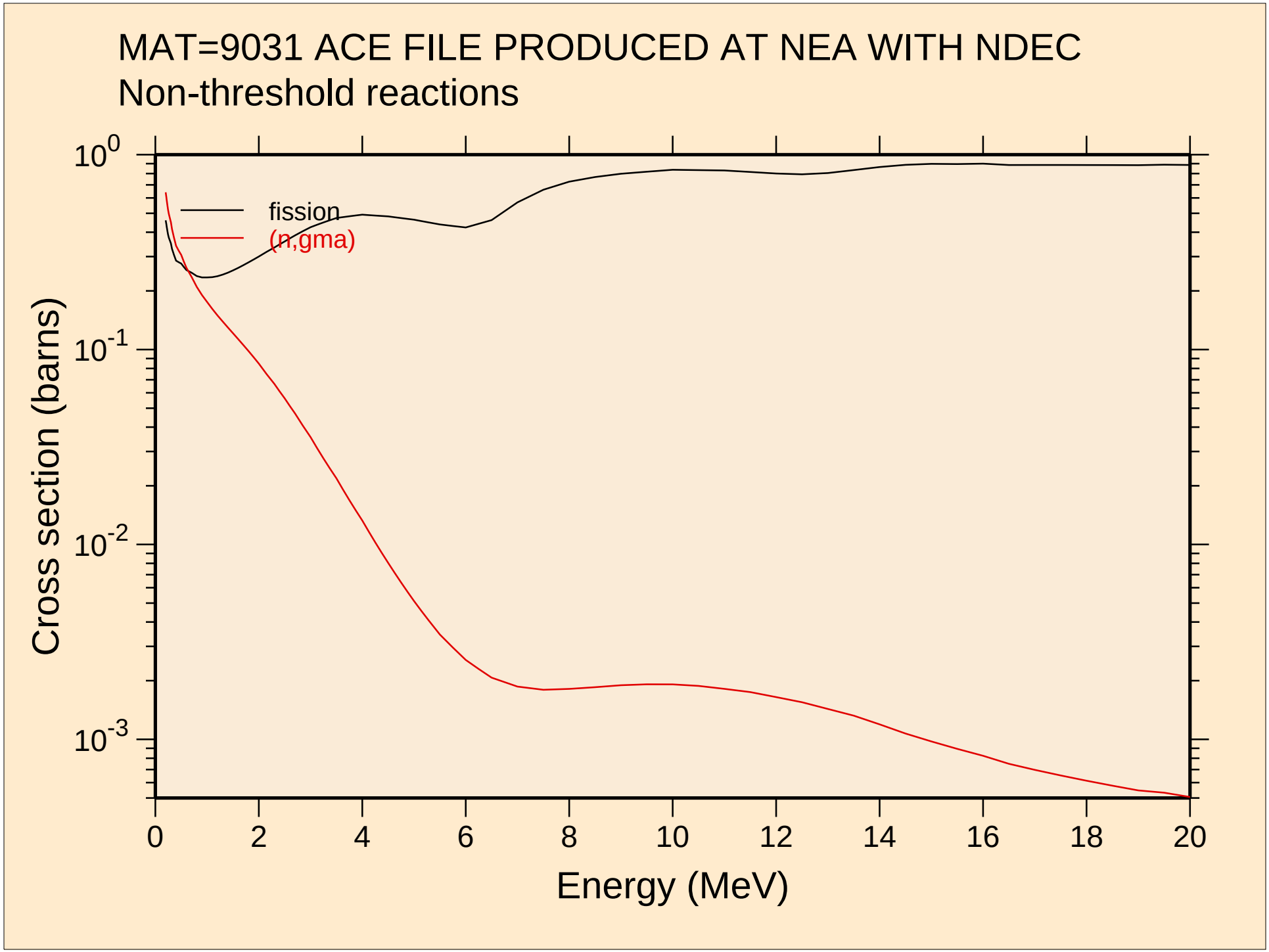

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Damage
damage
Damage (MeV-barns)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}
Energy (MeV)

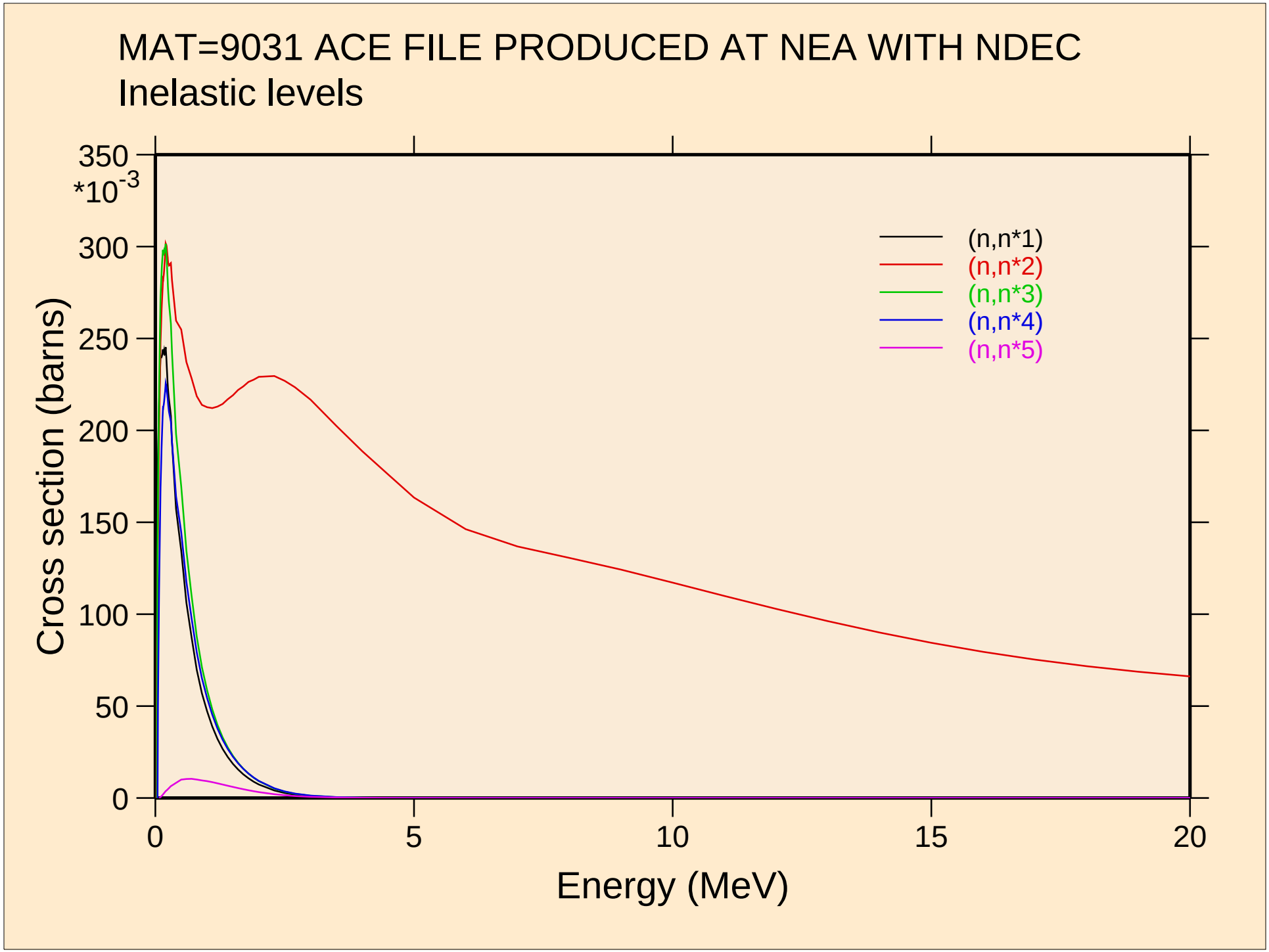

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Non-threshold reactions
fission
(n,gma)
Cross section (barns)
Energy (MeV)
10^4
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-11
10^-10
10^-9
10^-8
10^-7
10^-6
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1

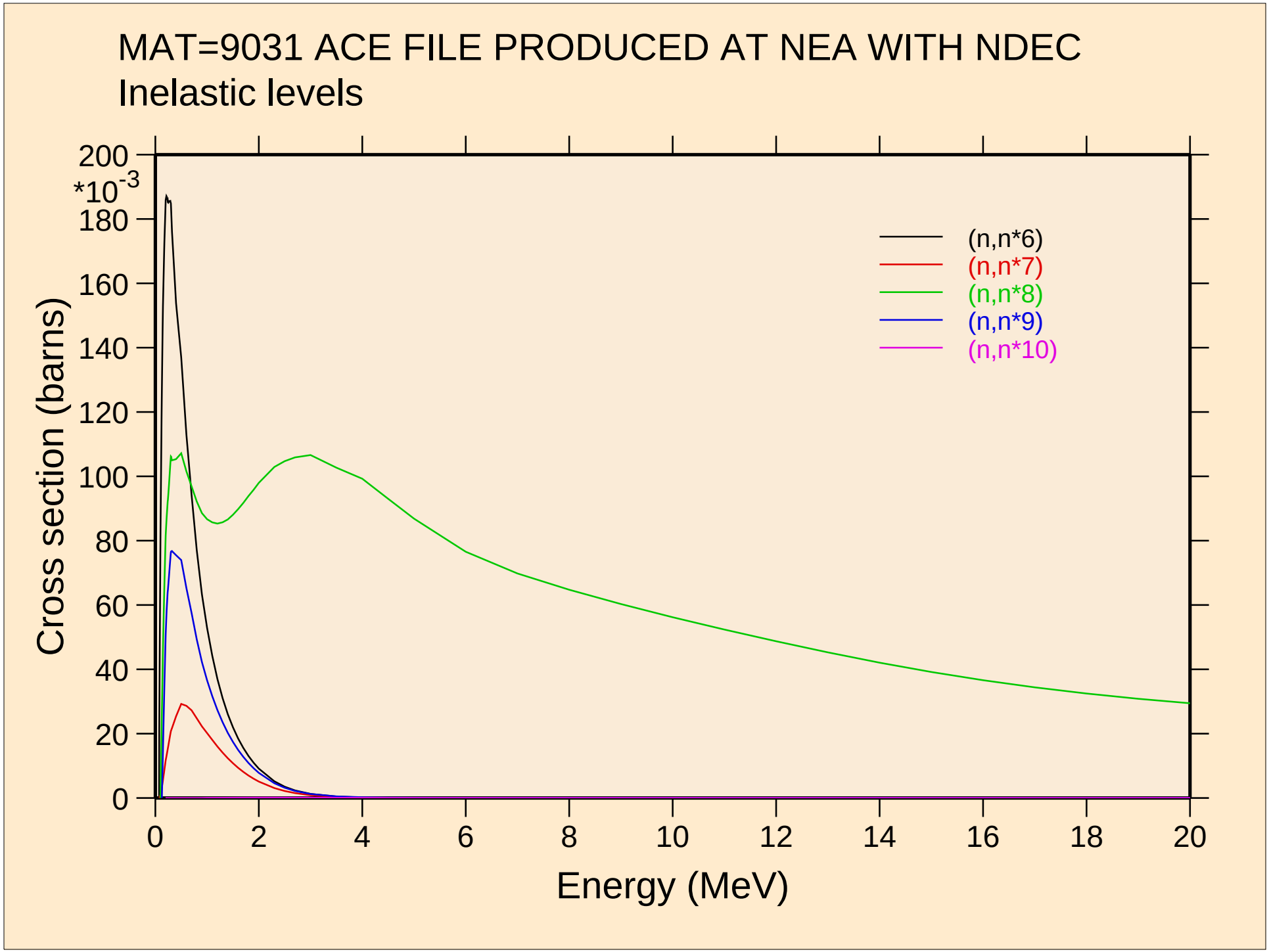

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production
0
2
4
6
8
10
12
14
16
18
20

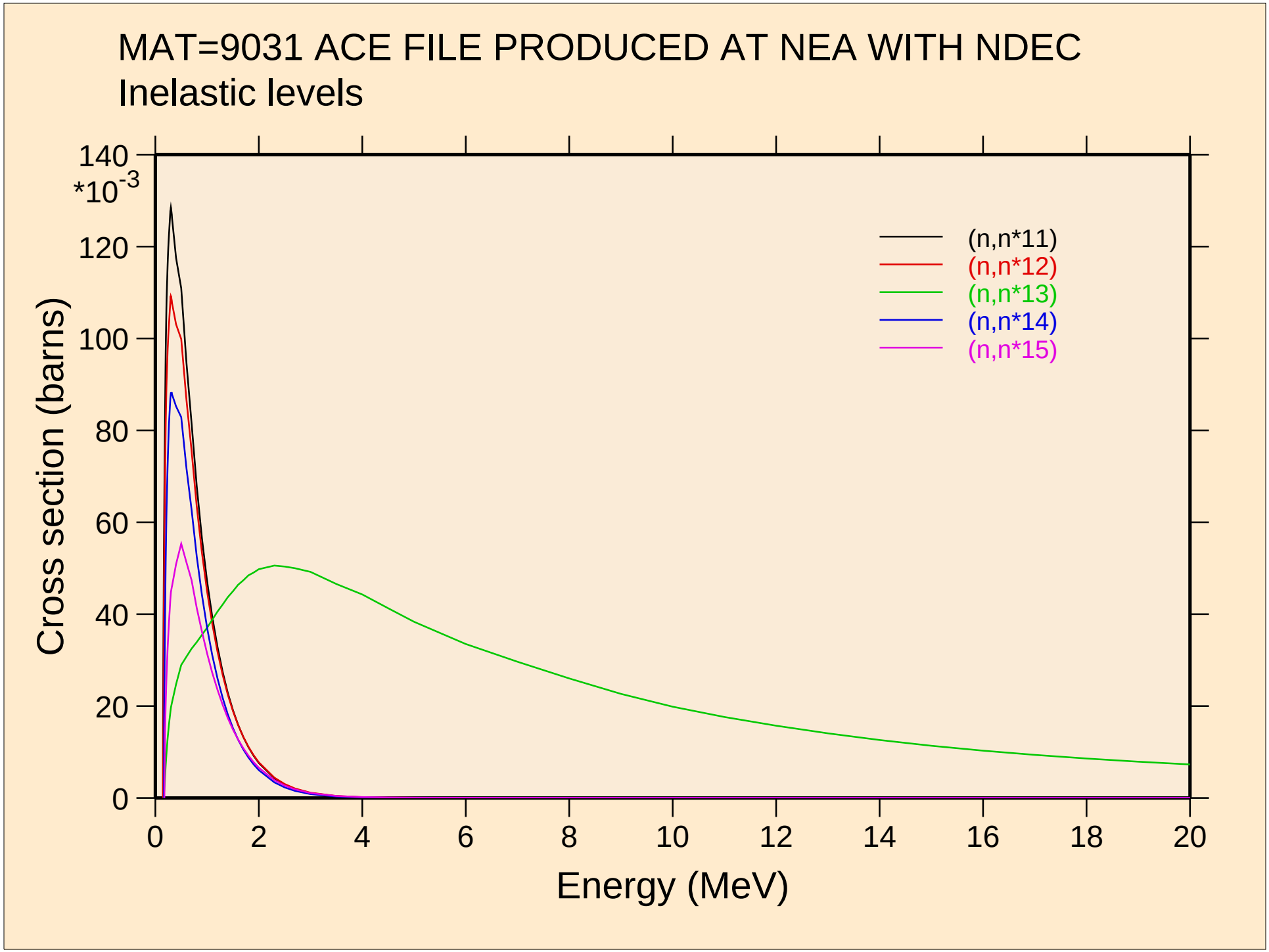

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
26
24
22
20
18
16
14
12
10
8
6
4
0
5
10
15
20

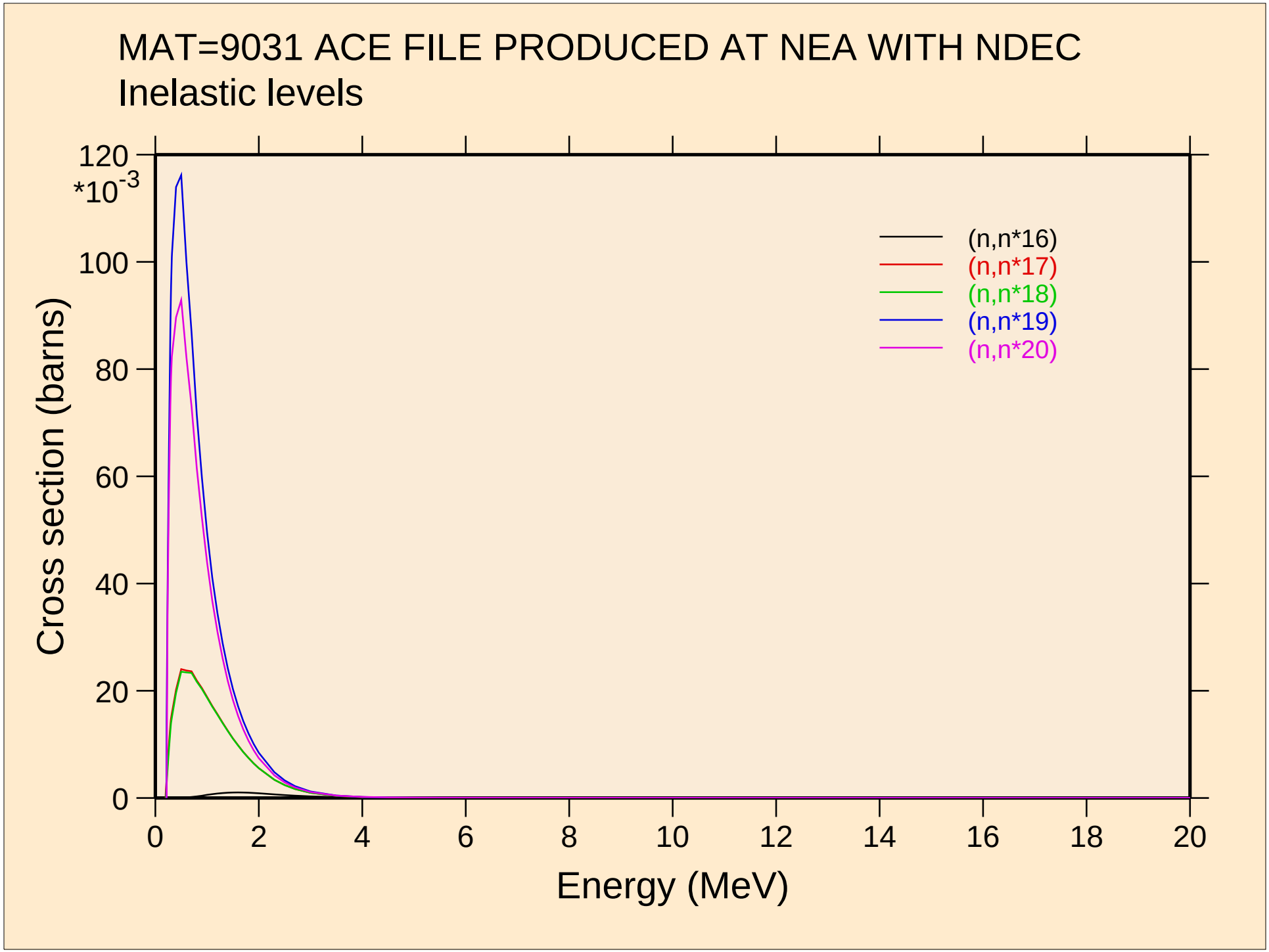

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Damage
250
*10-3
damage
200
150
100
50
0
Damage (MeV-barns)
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

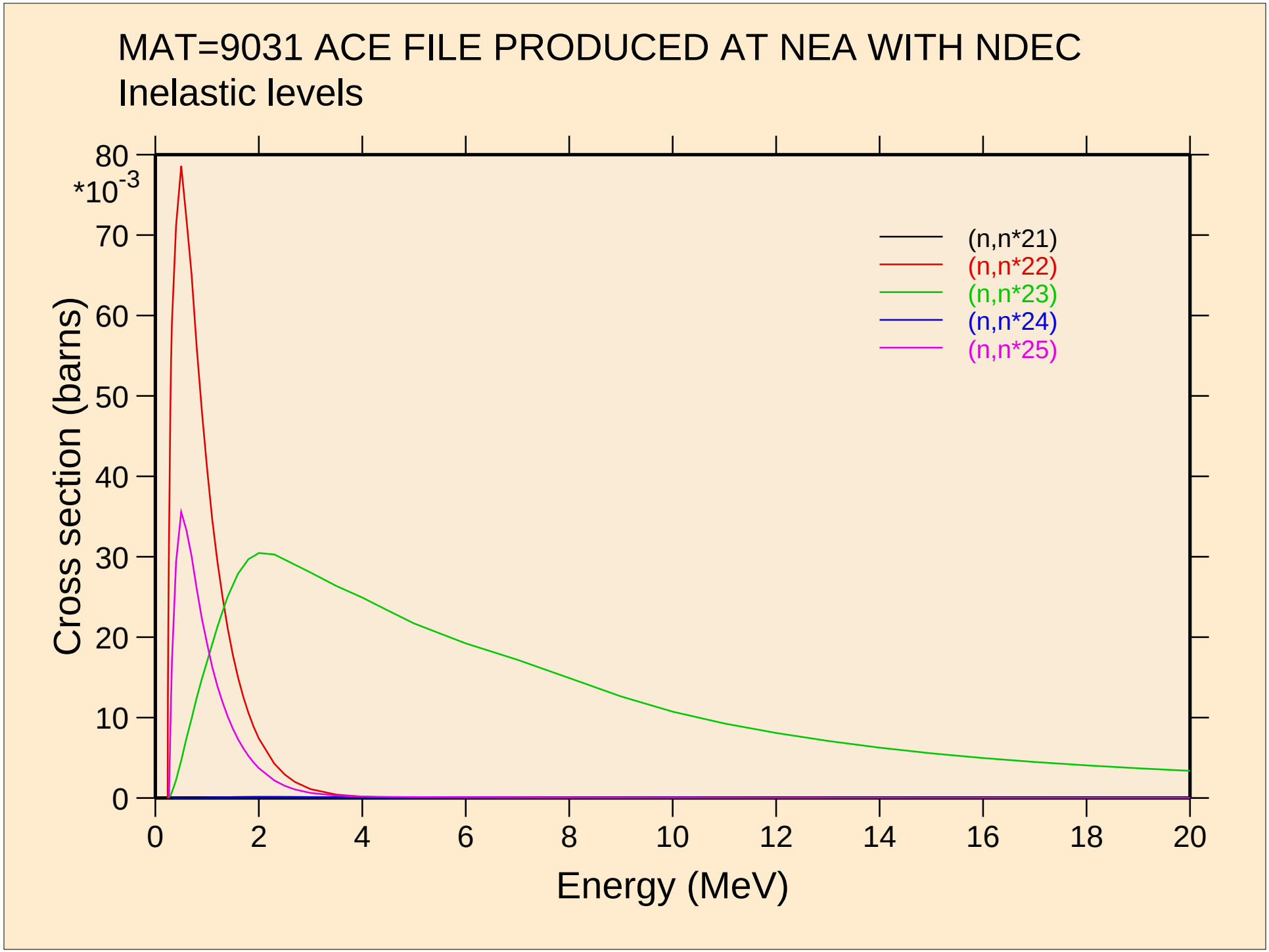

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Non-threshold reactions
fission
(n,gma)
Cross section (barns)
Energy (MeV)
10^0
10^-1
10^-2
10^-3
0
2
4
6
8
10
12
14
16
18
20

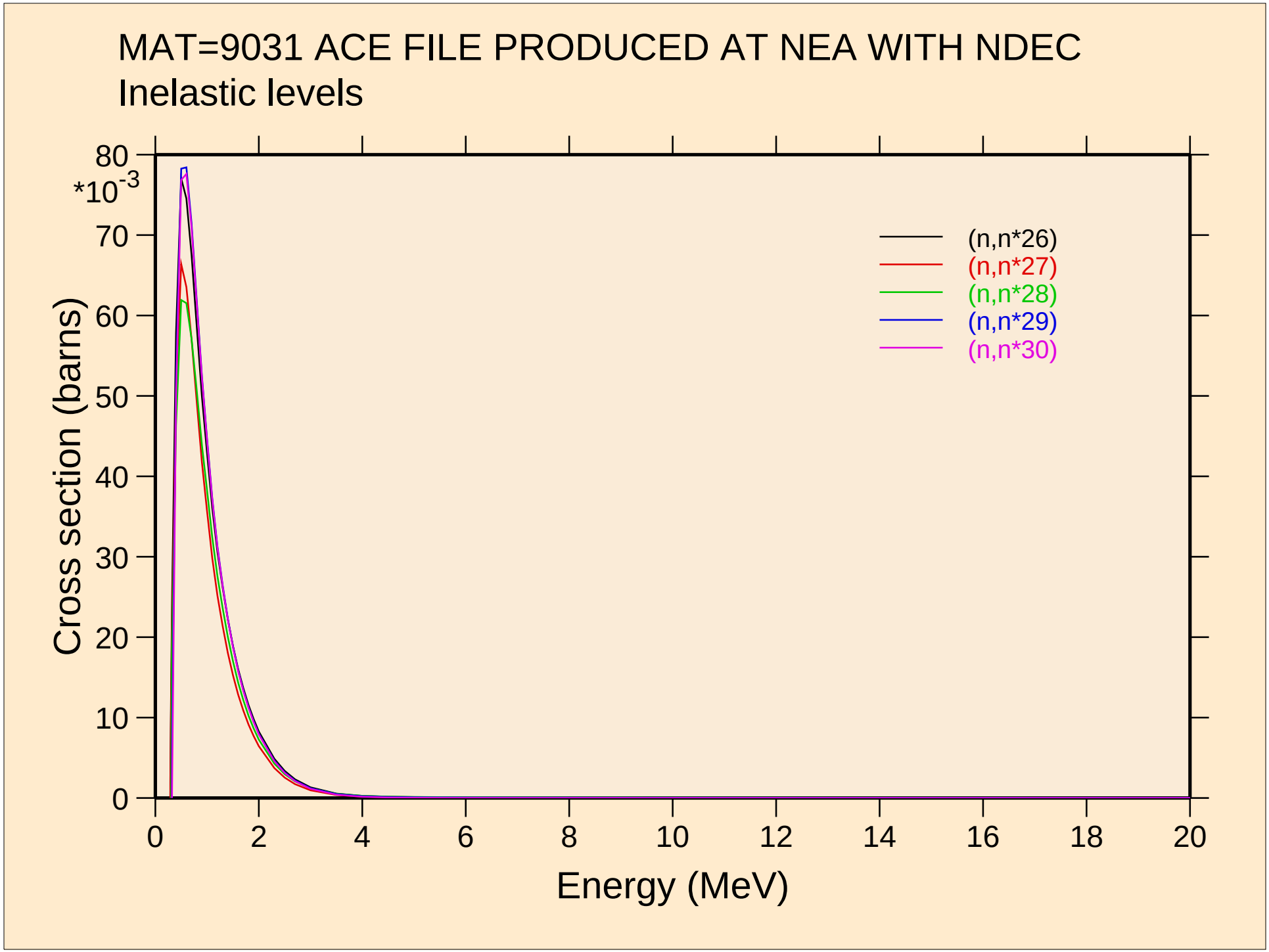

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
350
*10-3
300
250
200
150
100
50
0
Cross section (barns)
0
5
10
15
20
Energy (MeV)
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

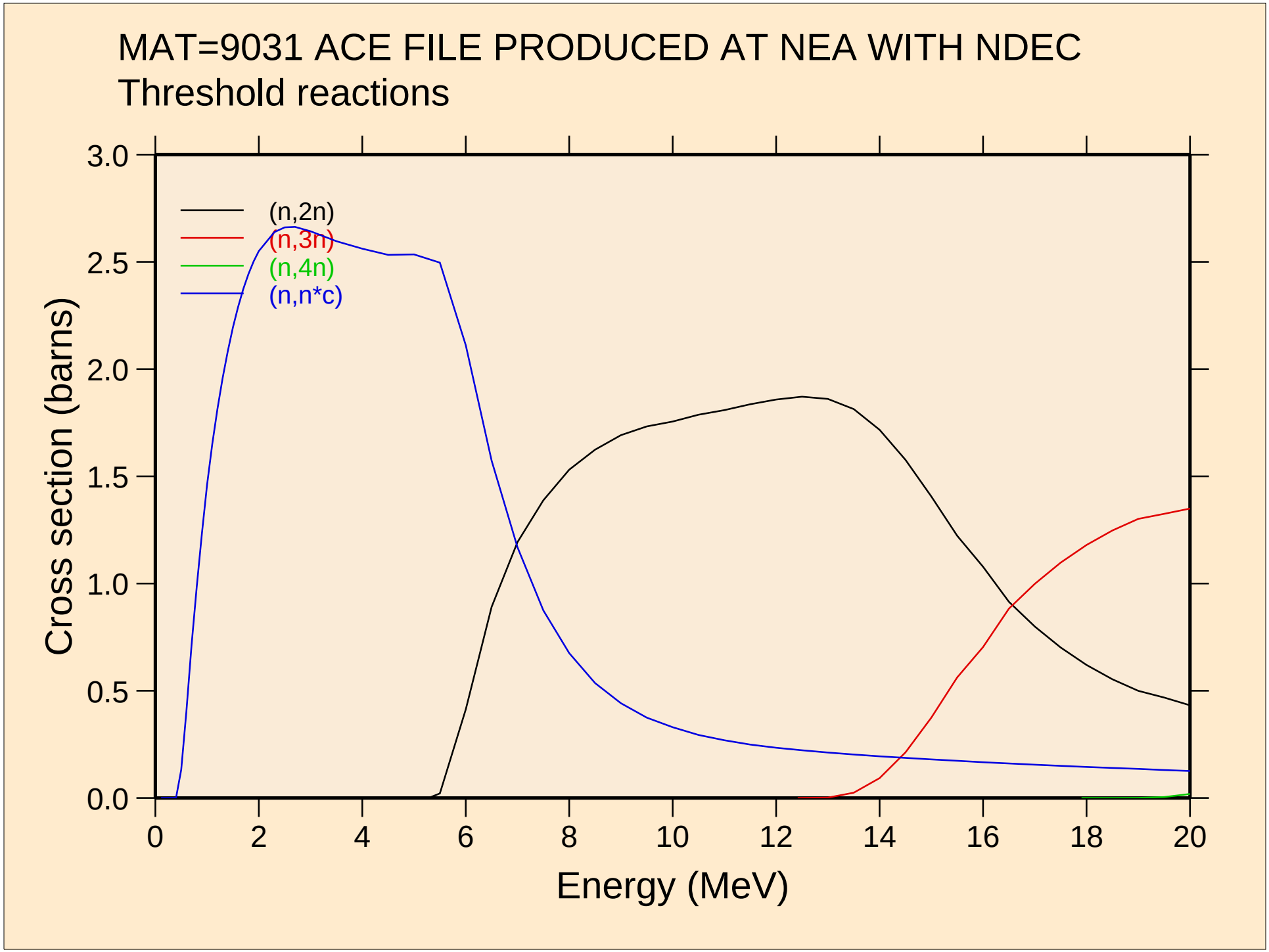

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
200
180
160
140
120
100
80
60
40
20
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)

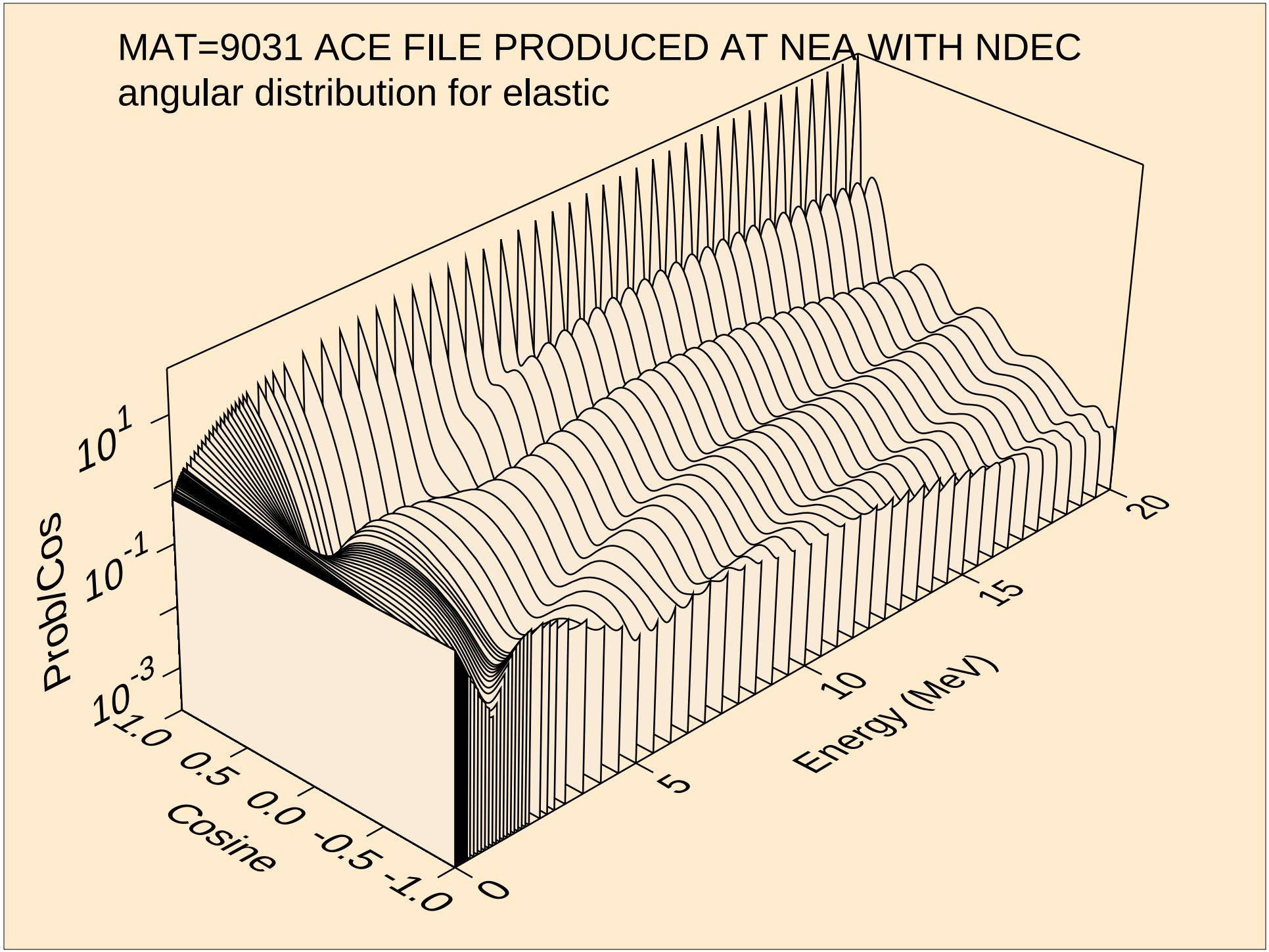

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
140
120
100
80
60
40
20
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*11)
(n,n*12)
(n,n*13)
(n,n*14)
(n,n*15)

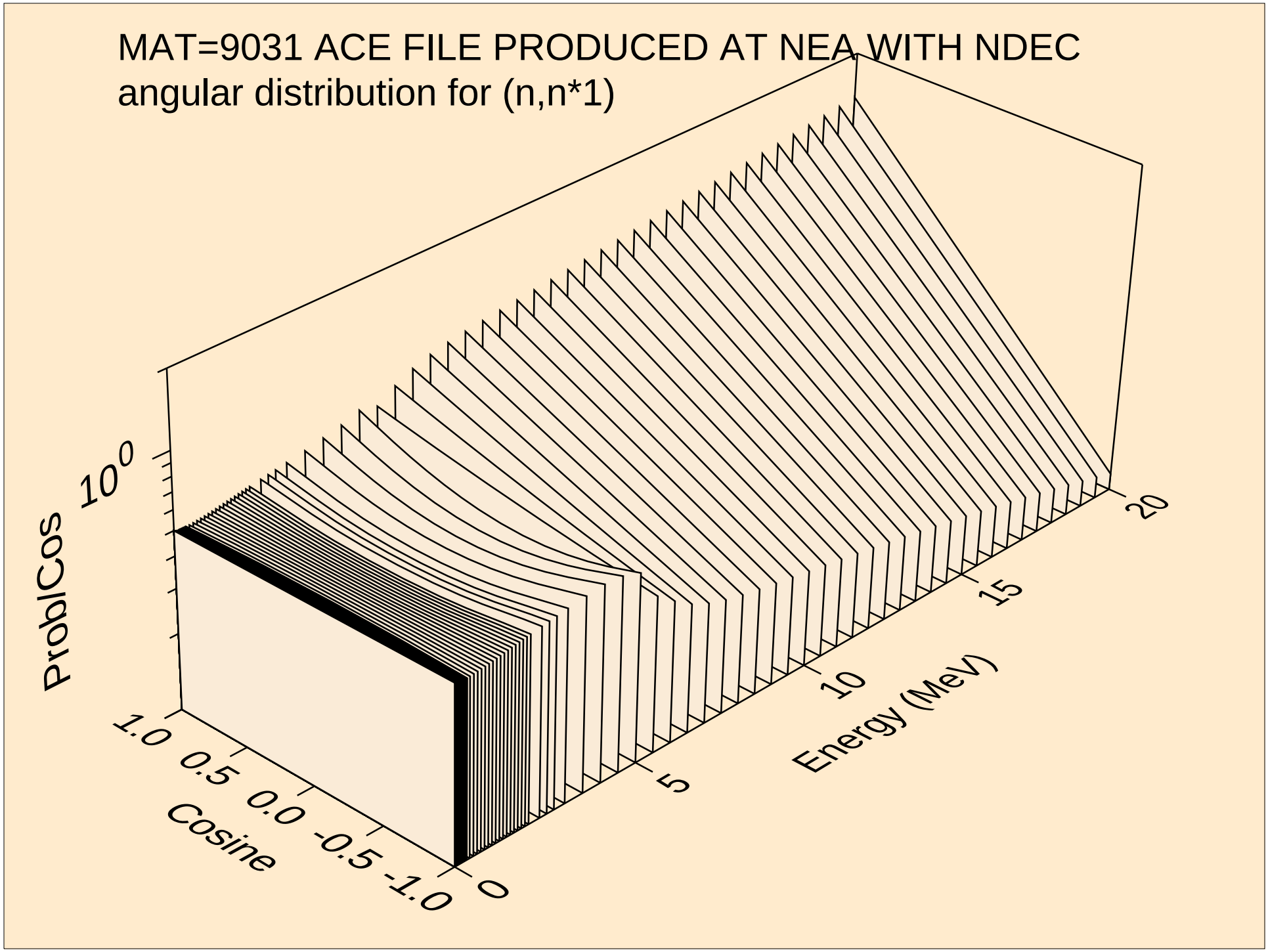

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
120
*10-3
100
80
60
40
20
0
Cross section (barns)
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*16)
(n,n*17)
(n,n*18)
(n,n*19)
(n,n*20)

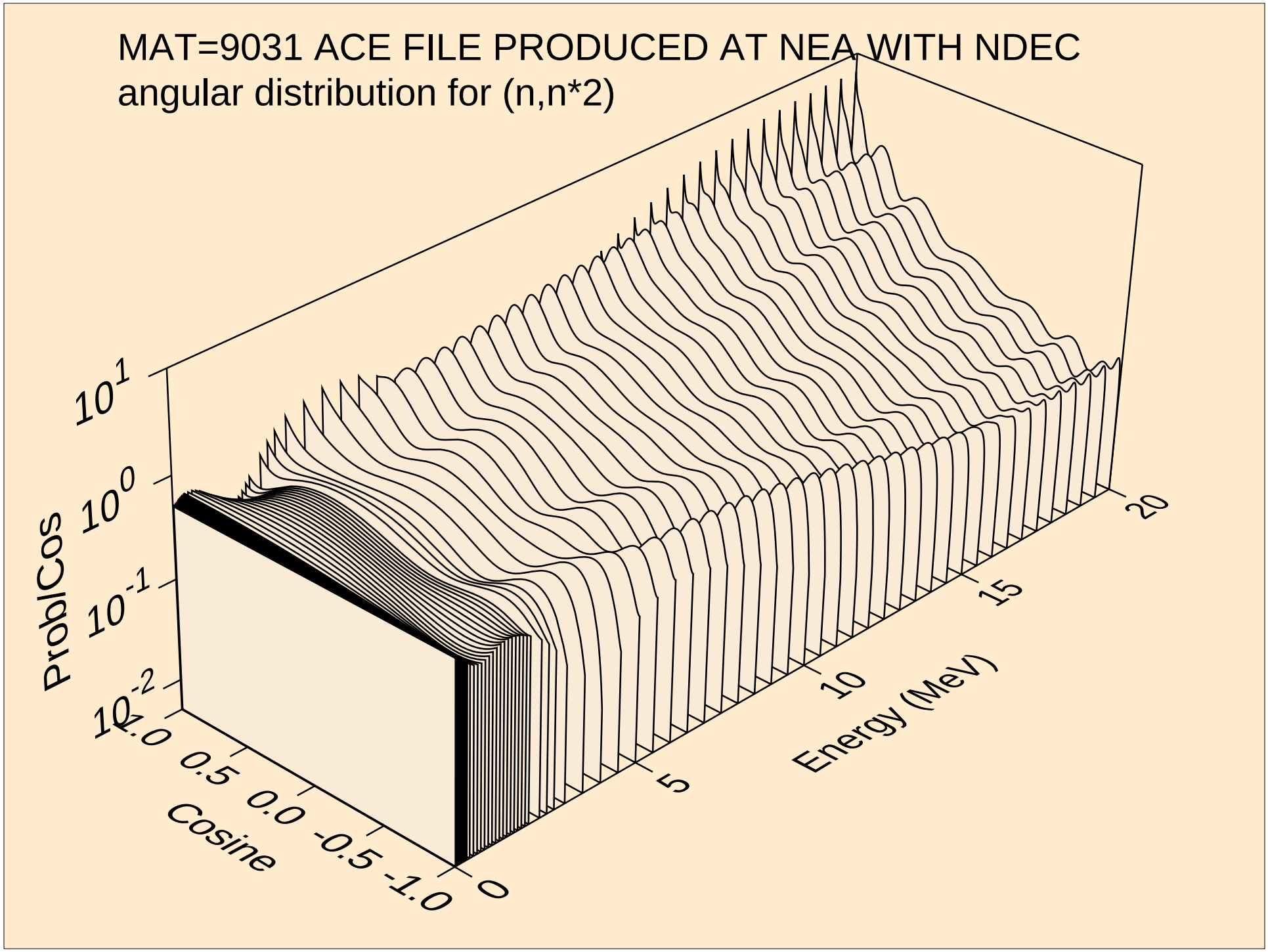

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
80
70
60
50
40
30
20
10
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*21)
(n,n*22)
(n,n*23)
(n,n*24)
(n,n*25)

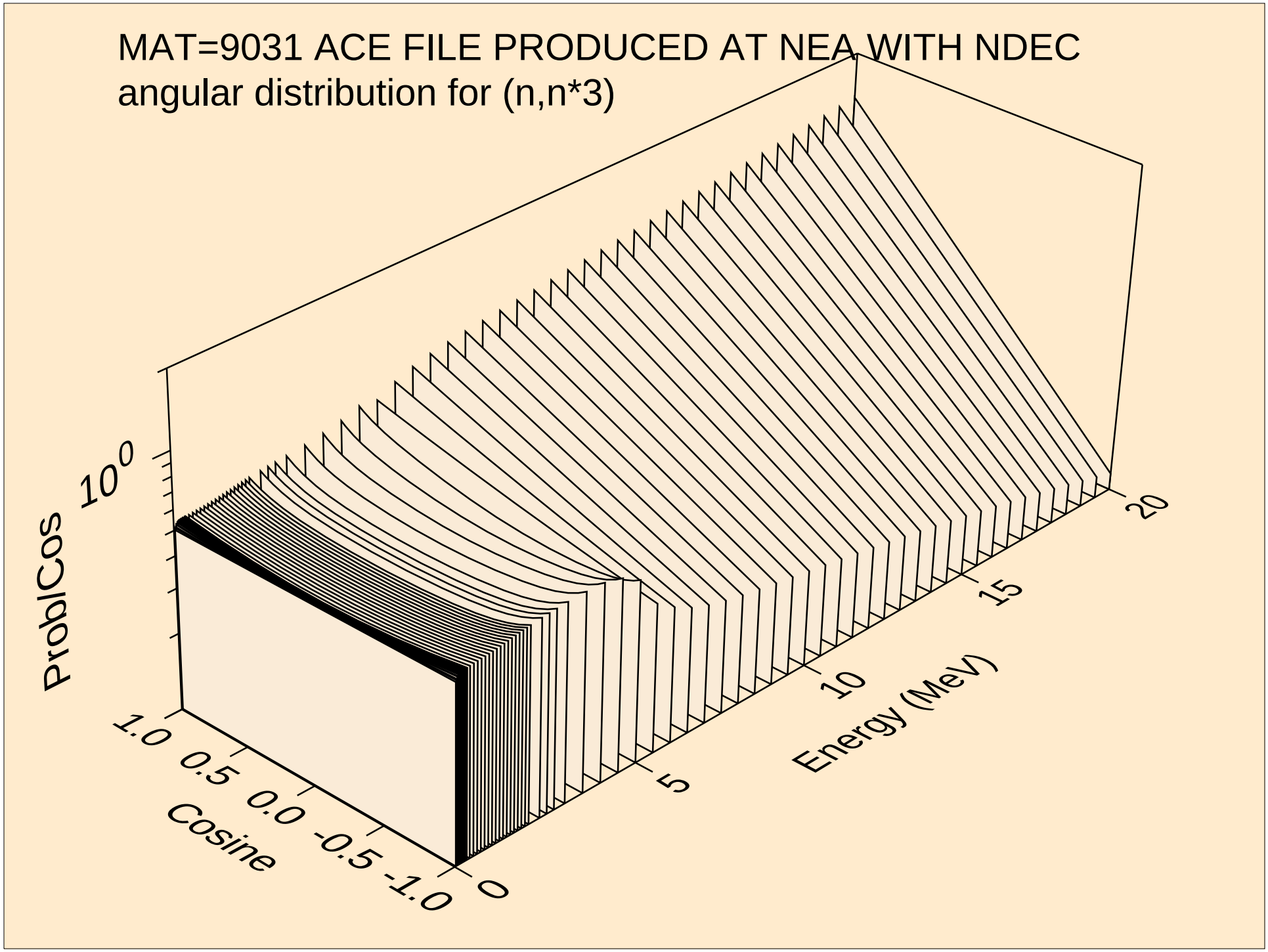

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
80
70
60
50
40
30
20
10
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*26)
(n,n*27)
(n,n*28)
(n,n*29)
(n,n*30)

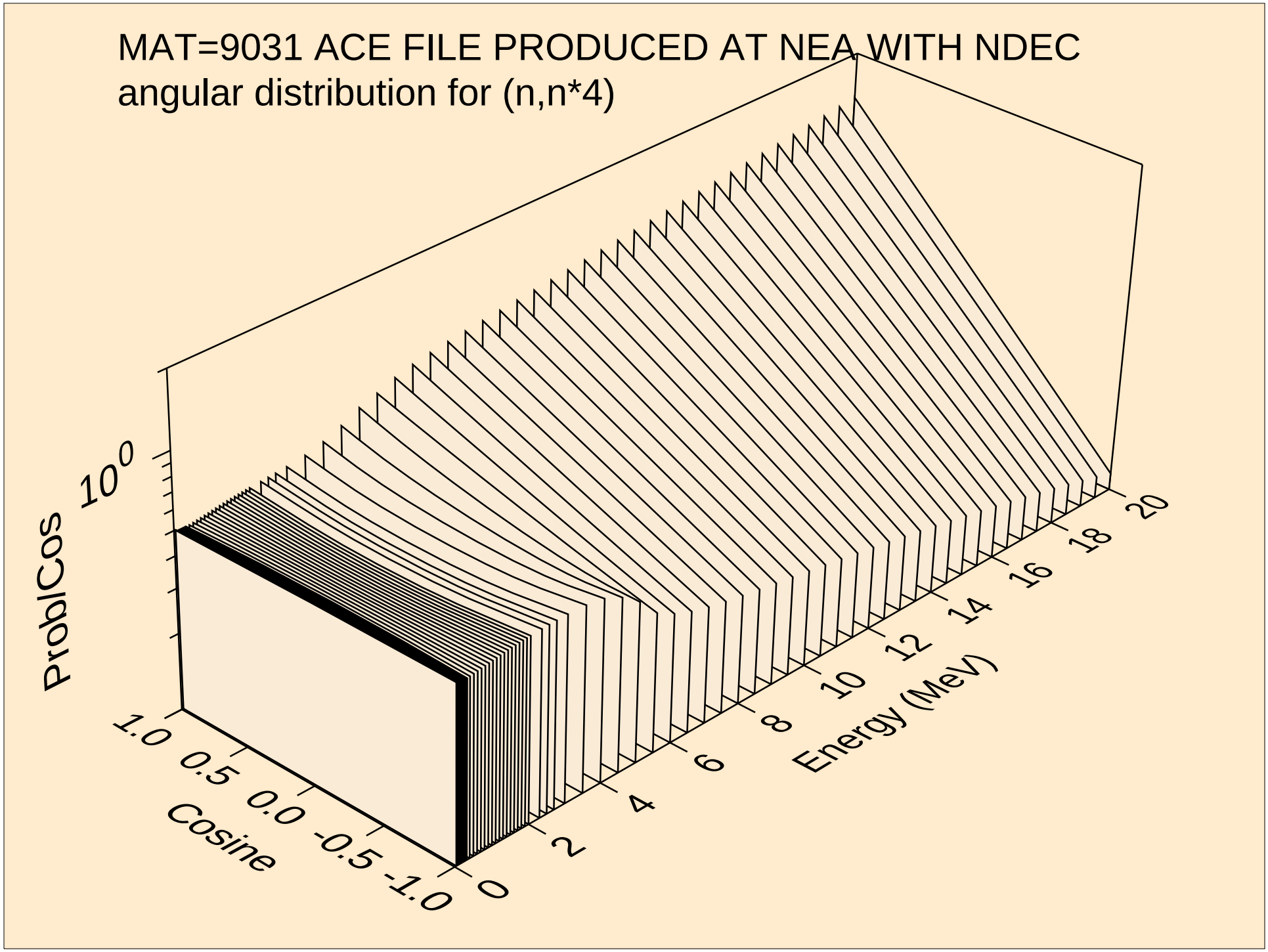

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Threshold reactions
(n,2n)
(n,3n)
(n,4n)
(n,n*c)
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0
2
4
6
8
10
12
14
16
18
20

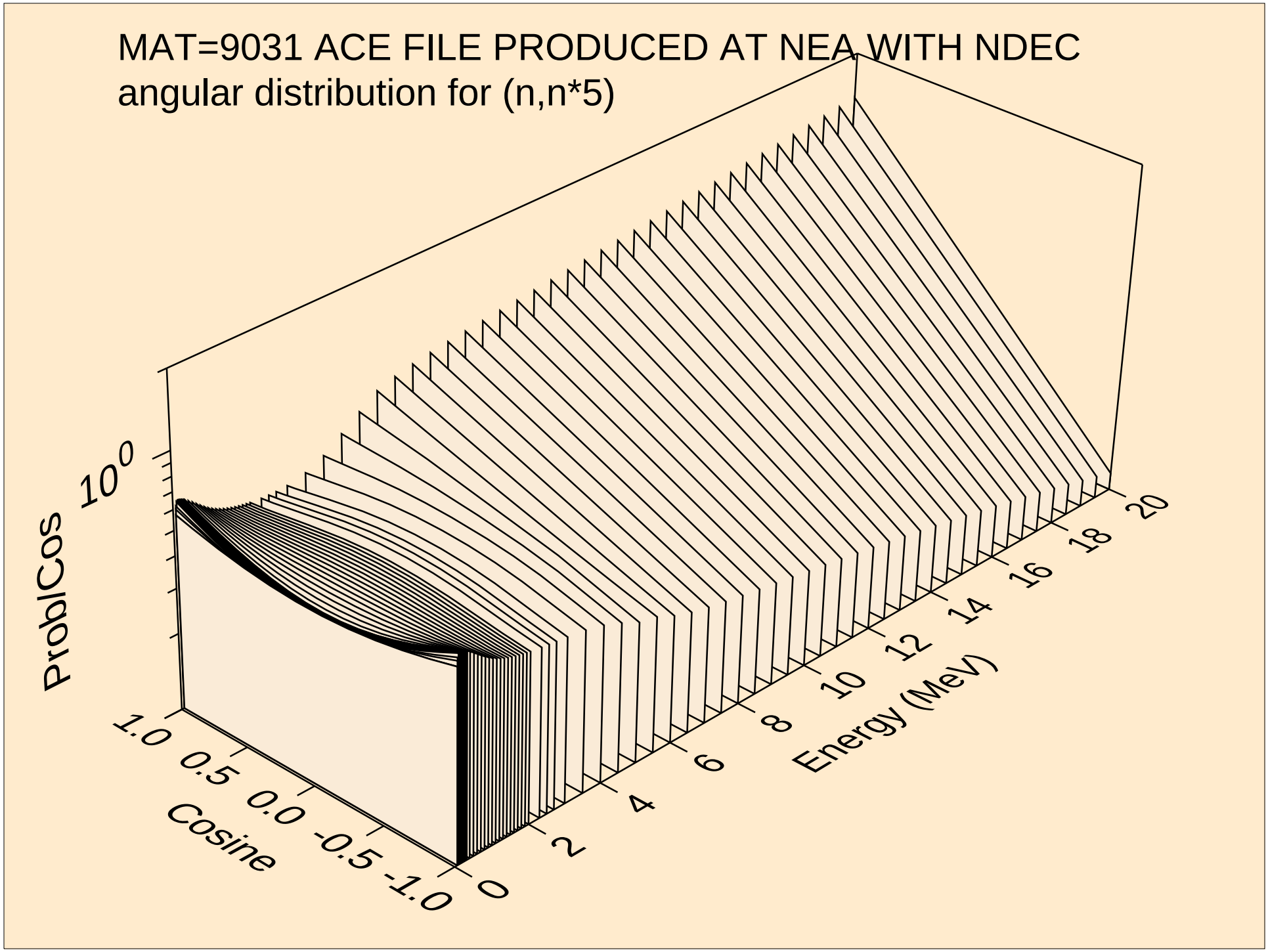

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for elastic
ProbICos
10^{1}
10^{-1}
10^{-3}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

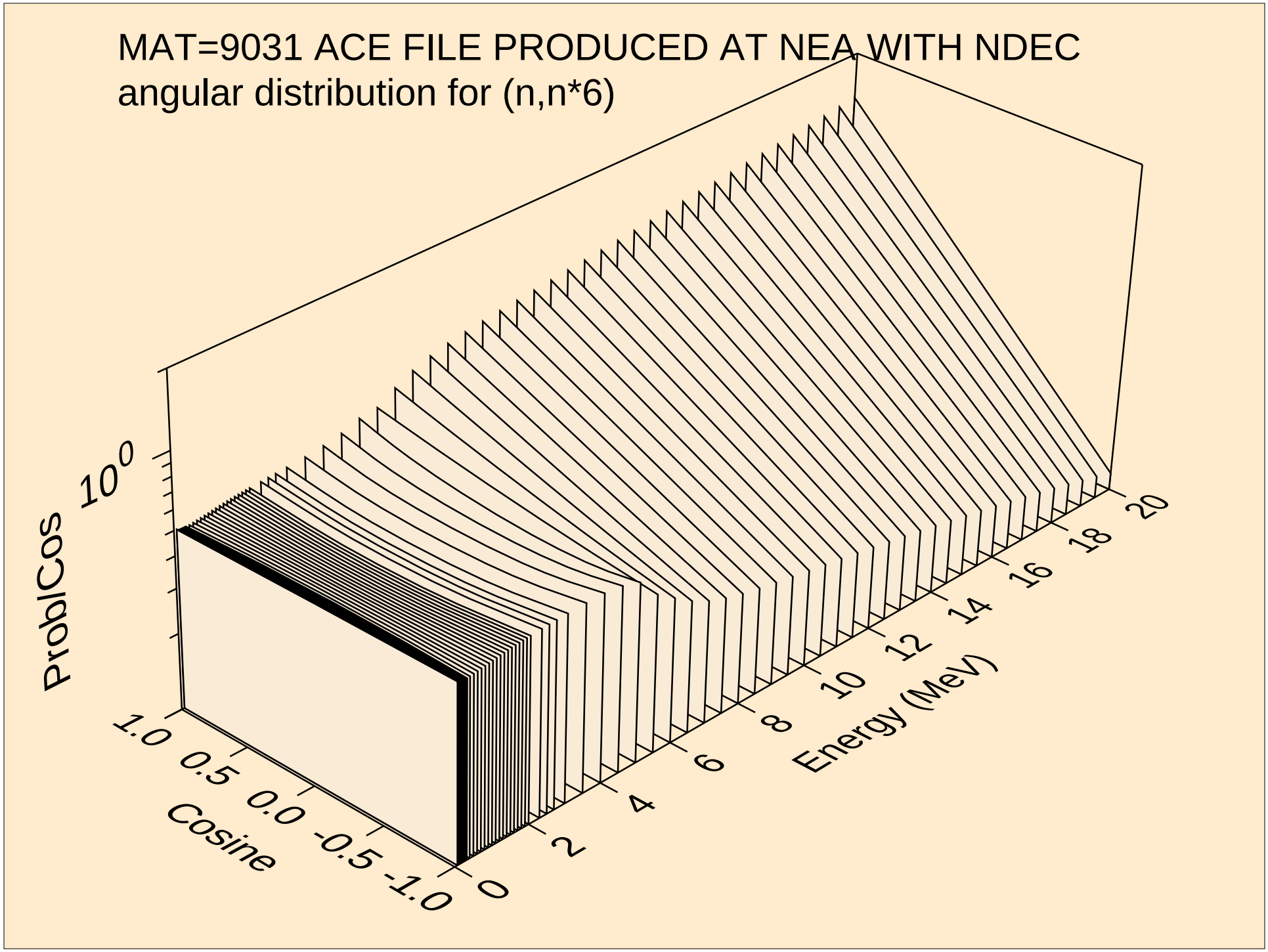

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*1)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

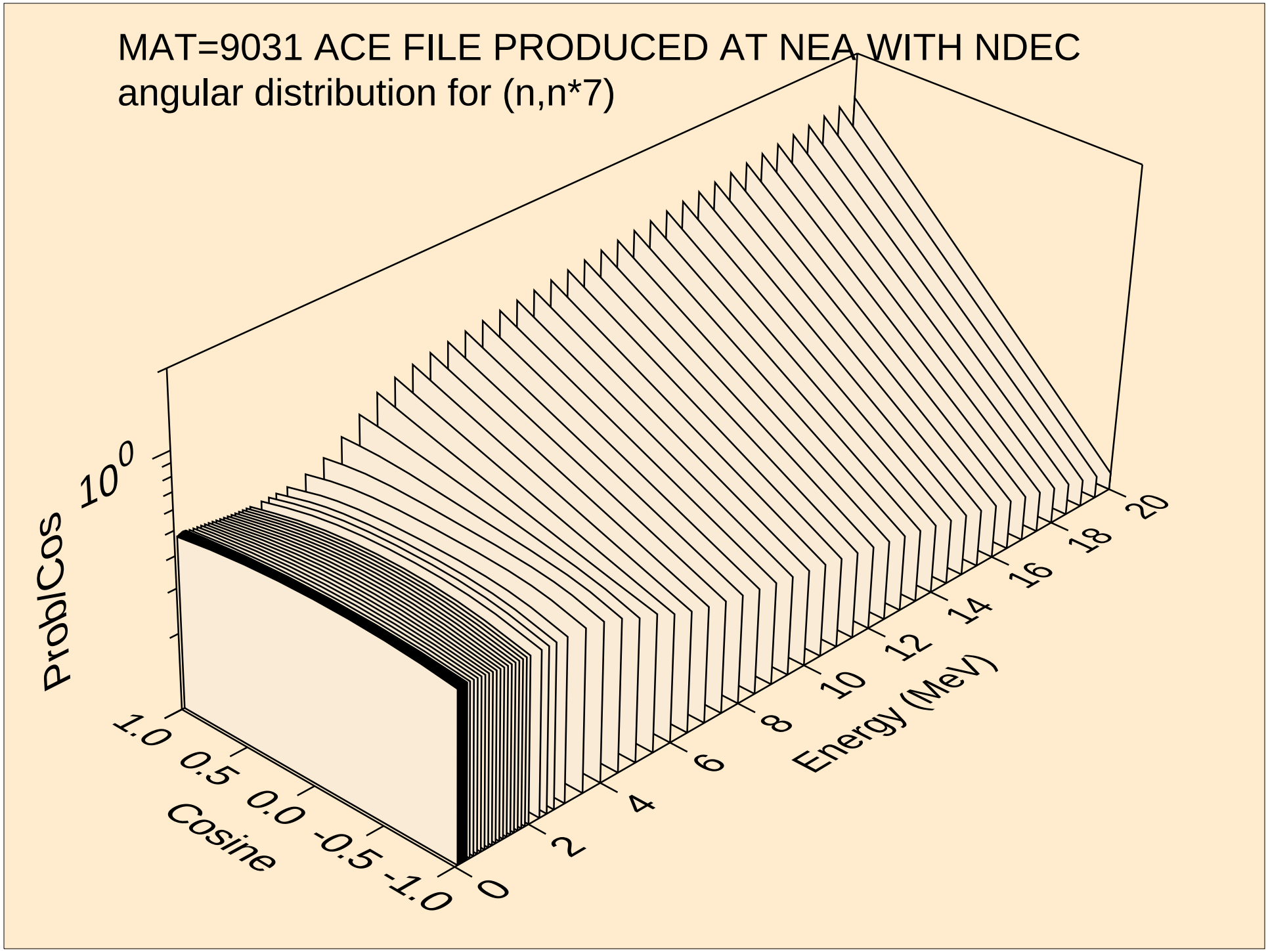

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*2)
Prob\Cos
10^{1}
10^{0}
10^{-1}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

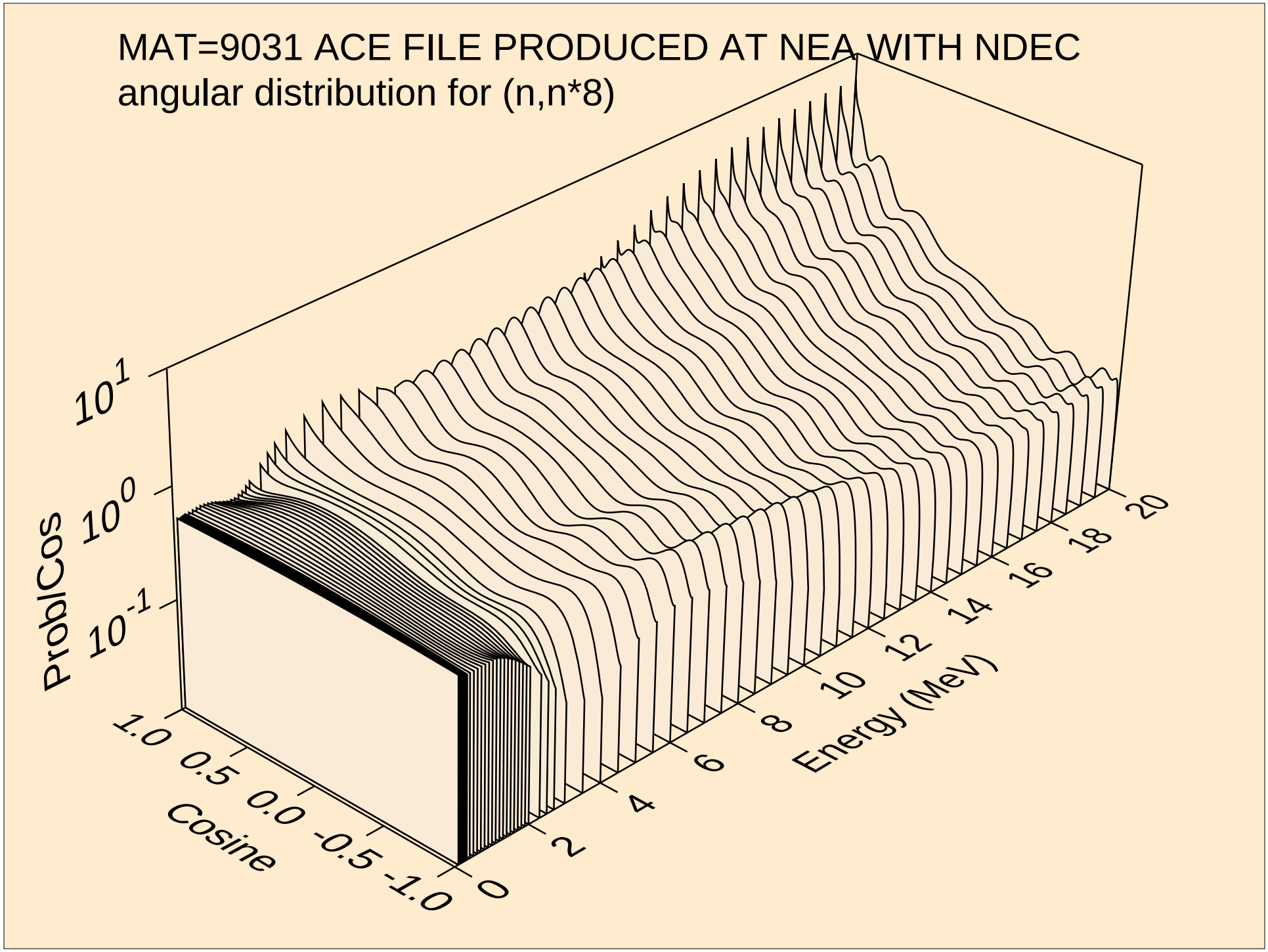

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*3)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

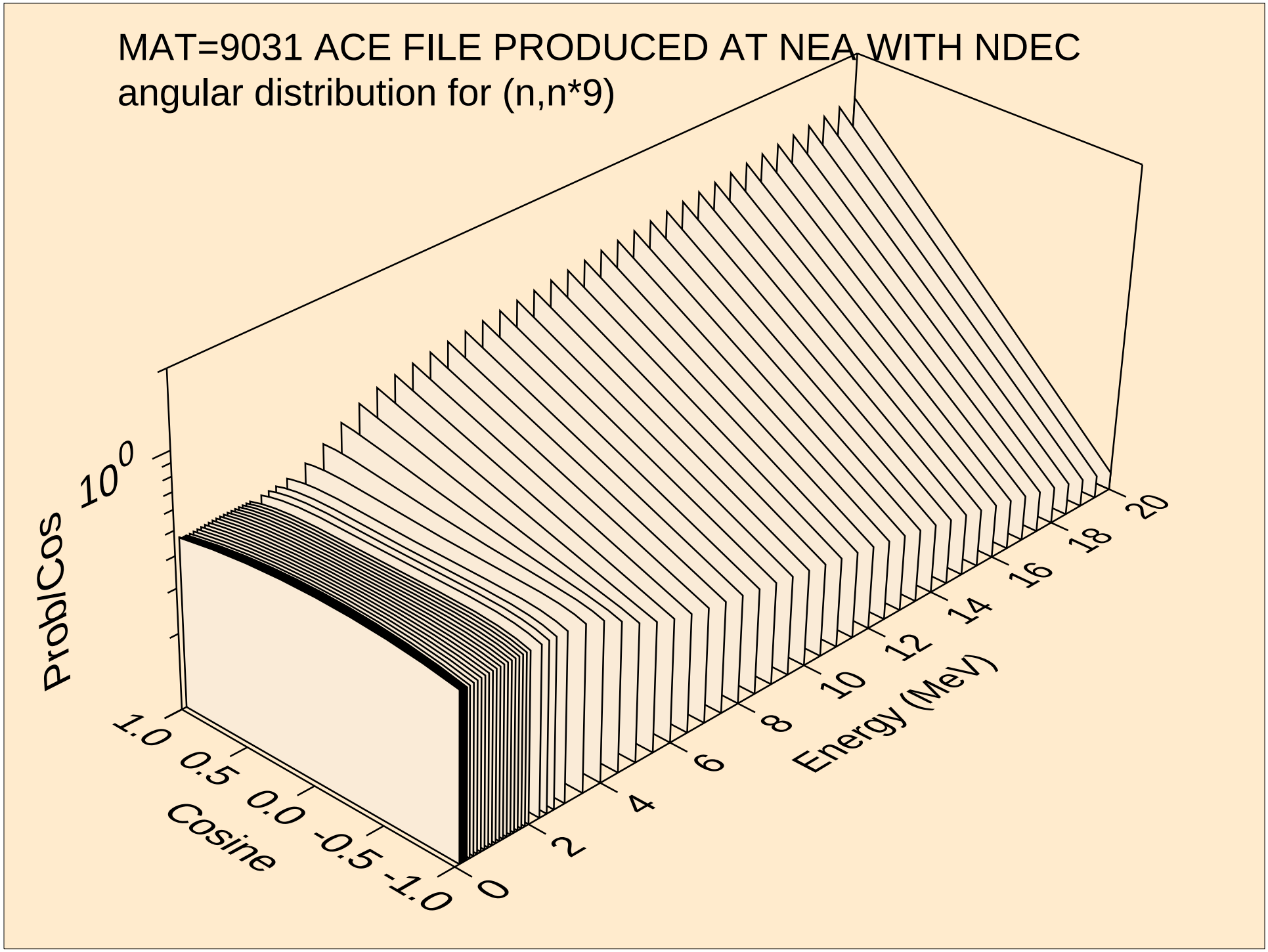

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*4)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

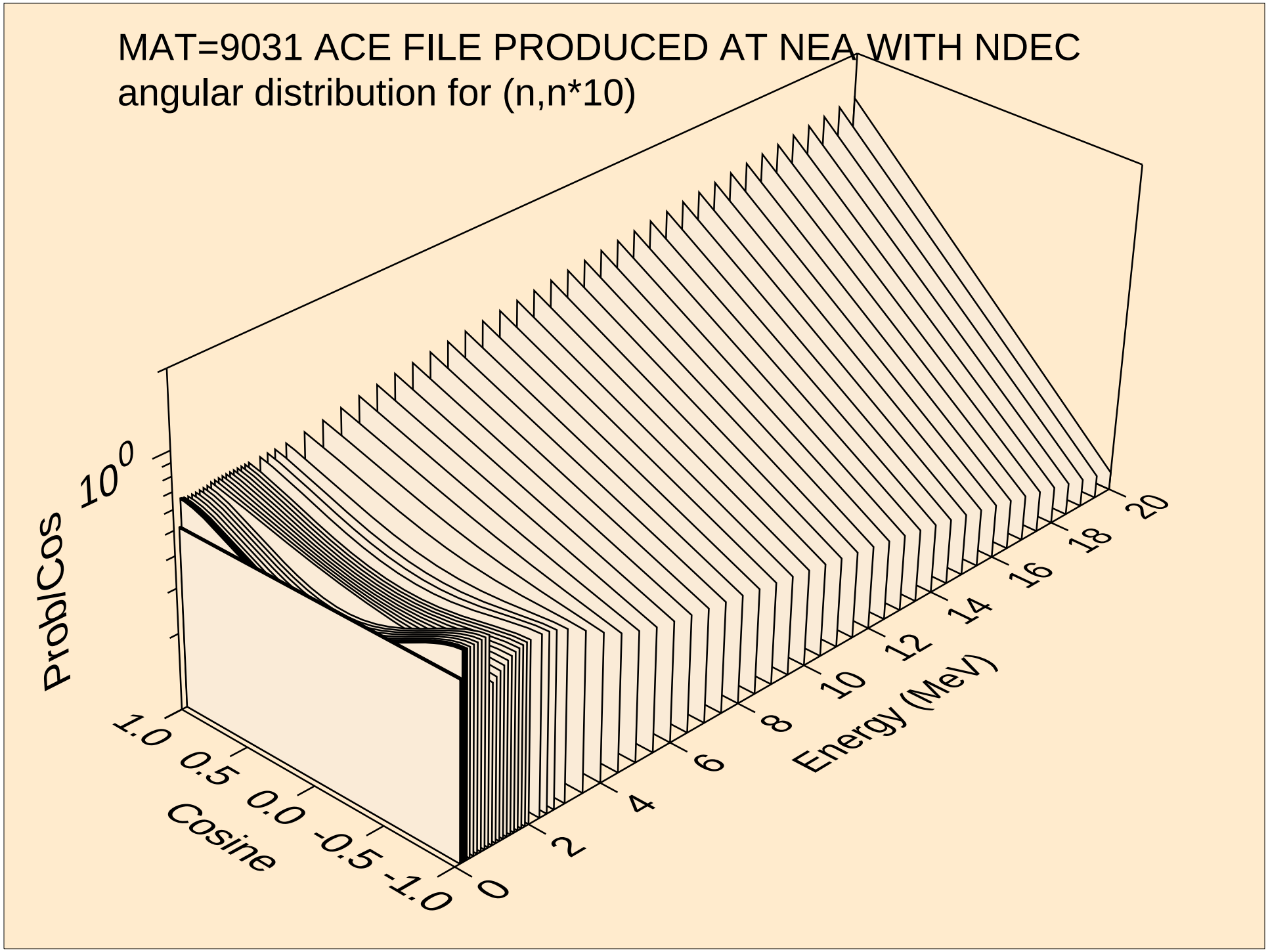

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*5)
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

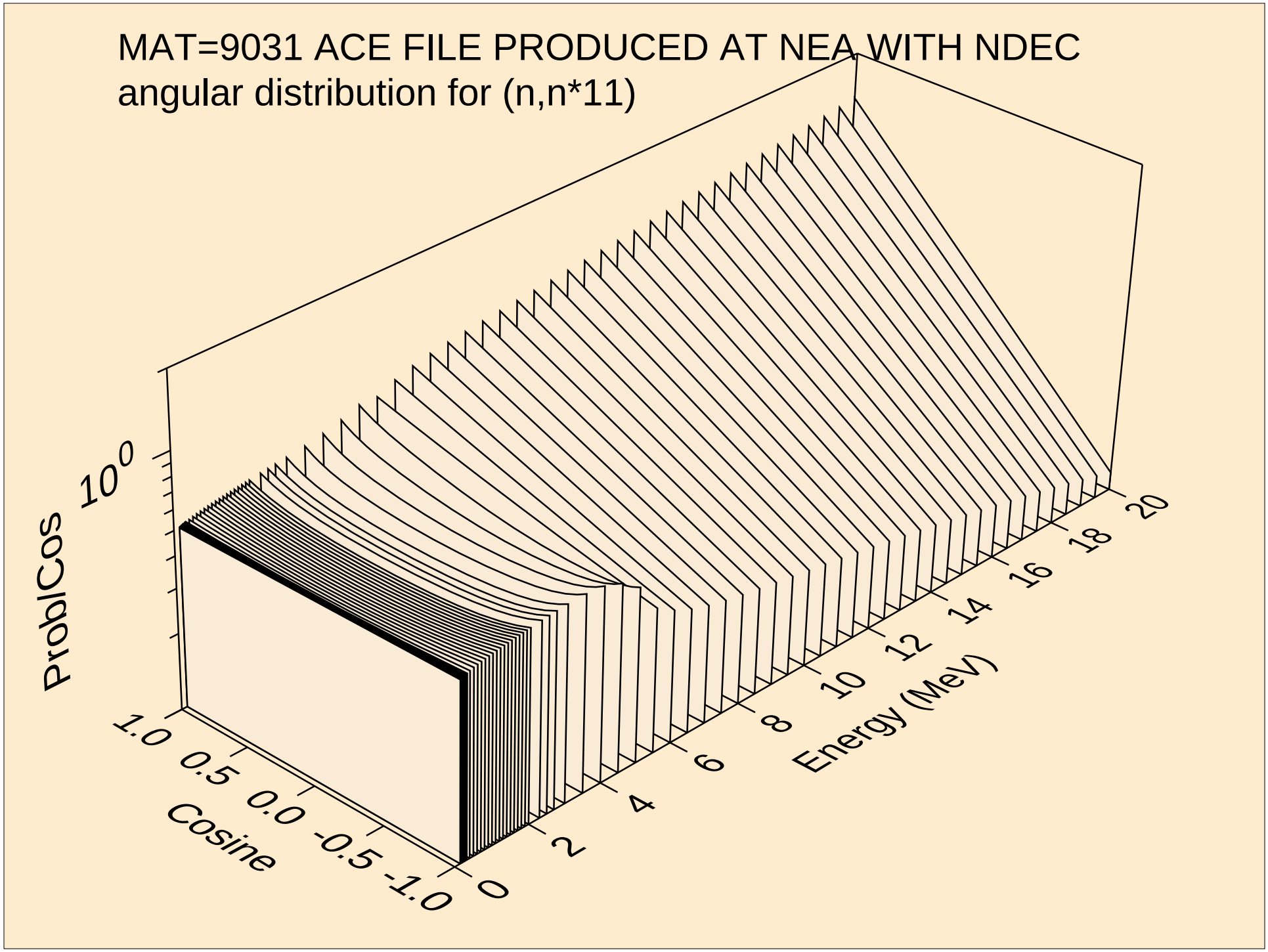

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*6)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

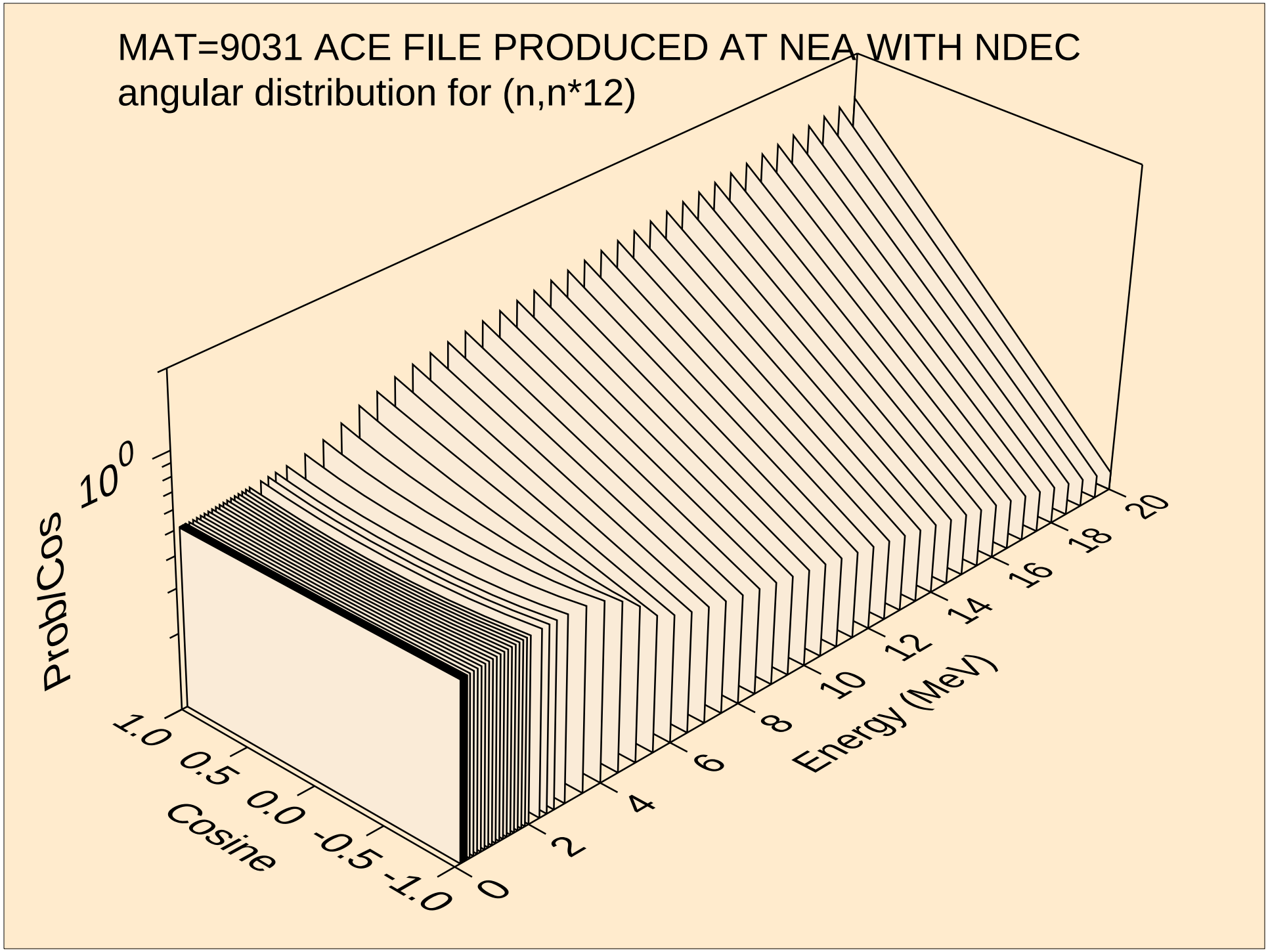

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*7)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

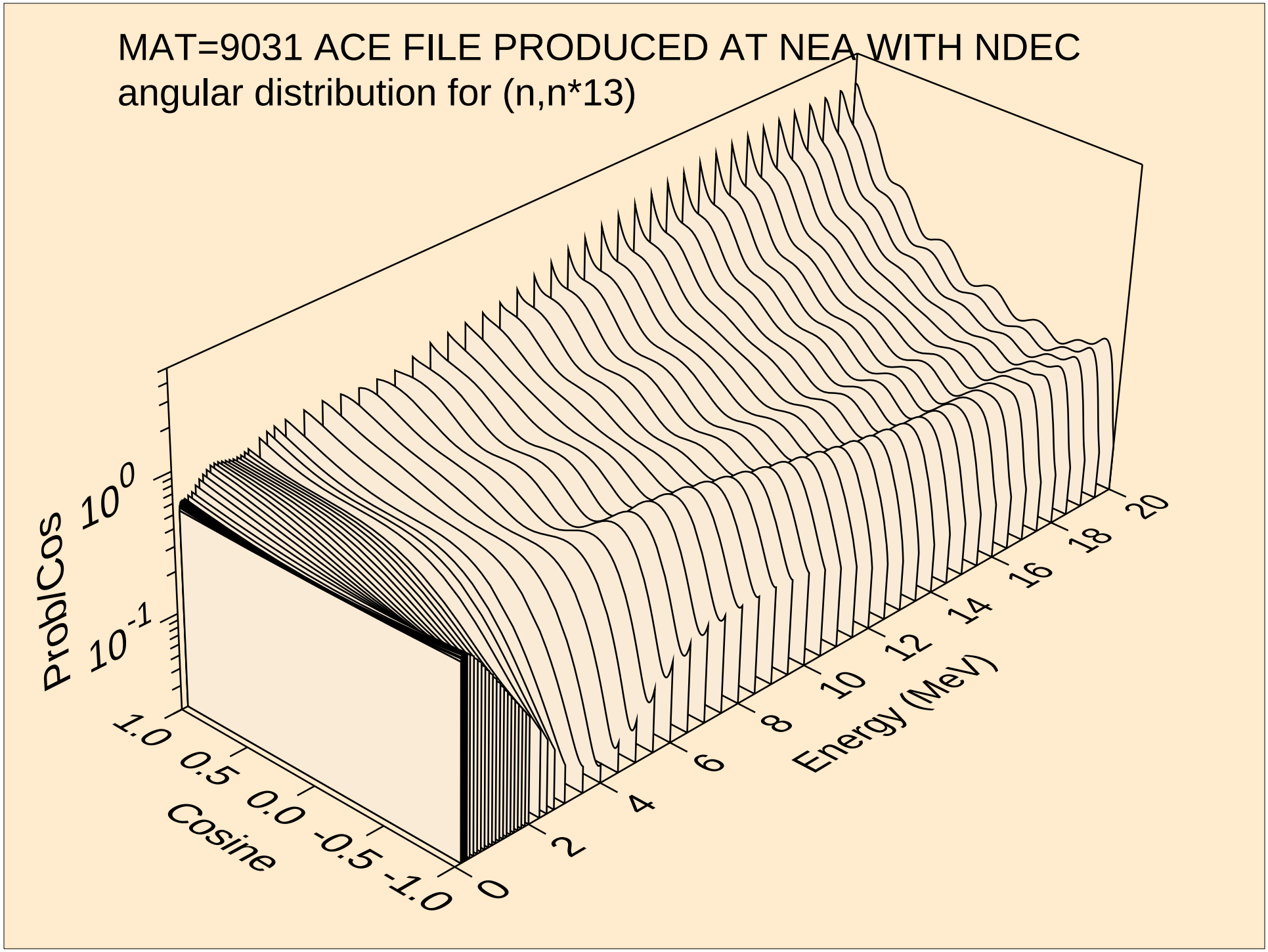

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*8)
Prob|Cos
10^1
10^0
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

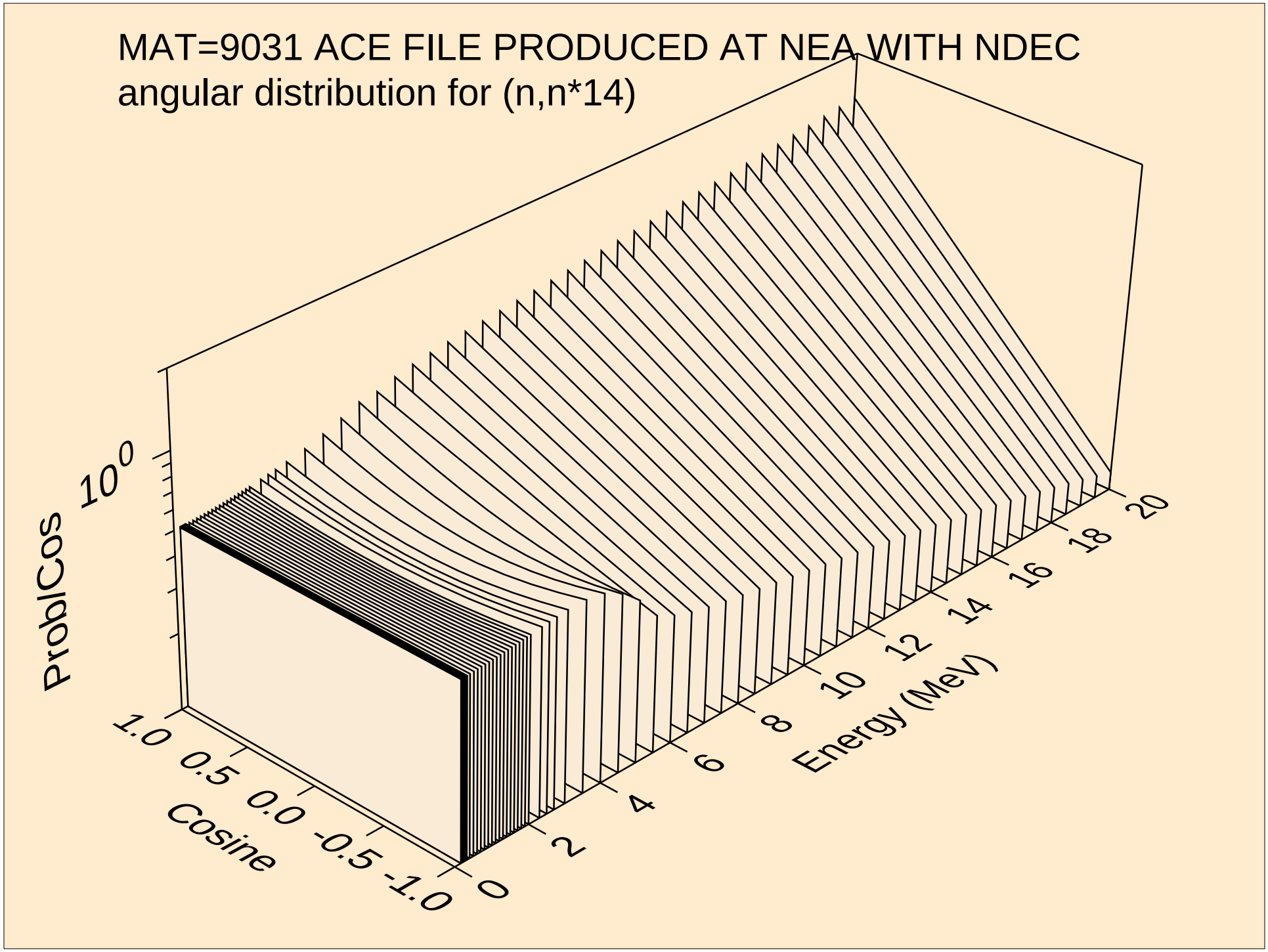

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*9)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

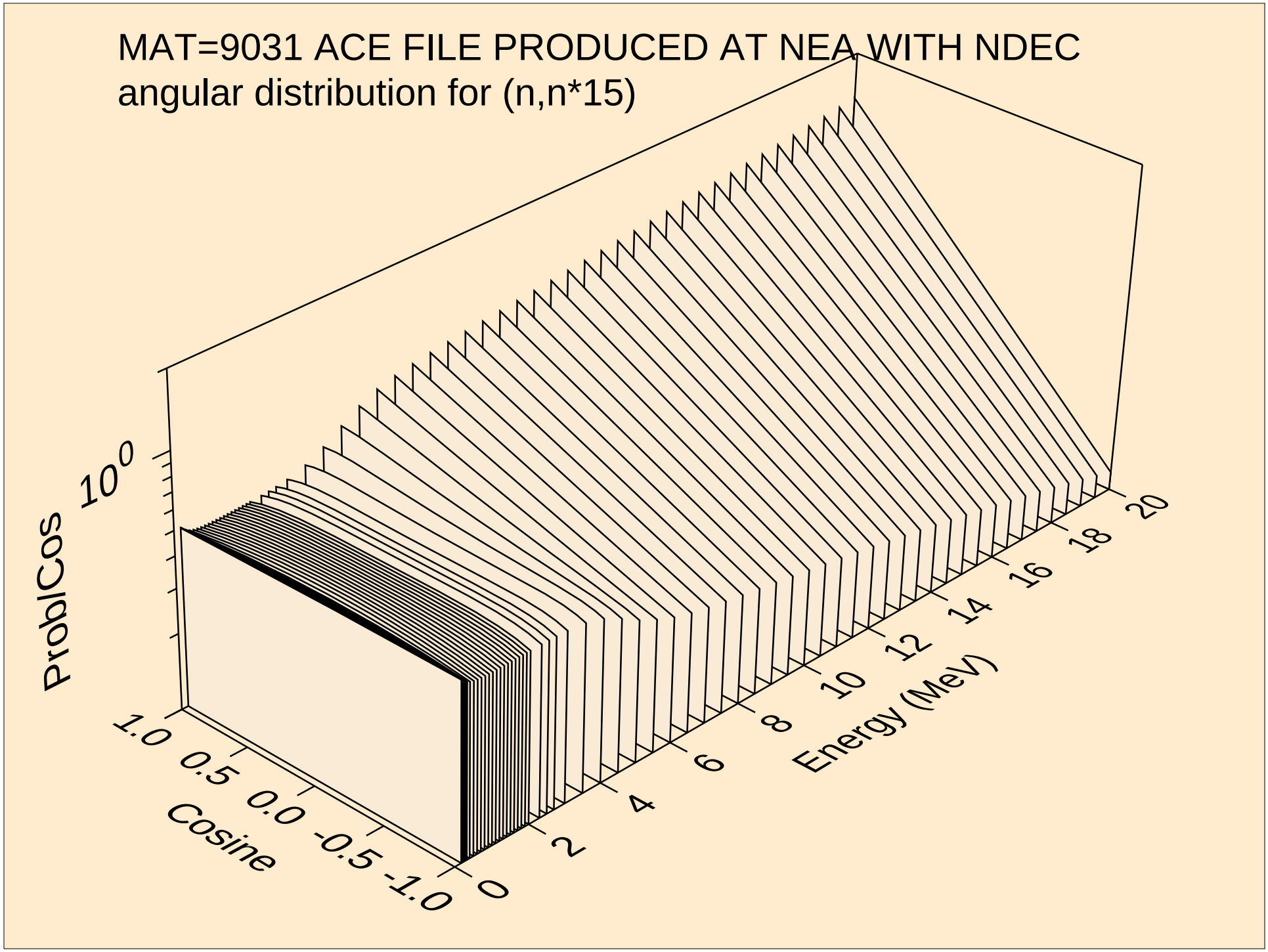

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*10)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

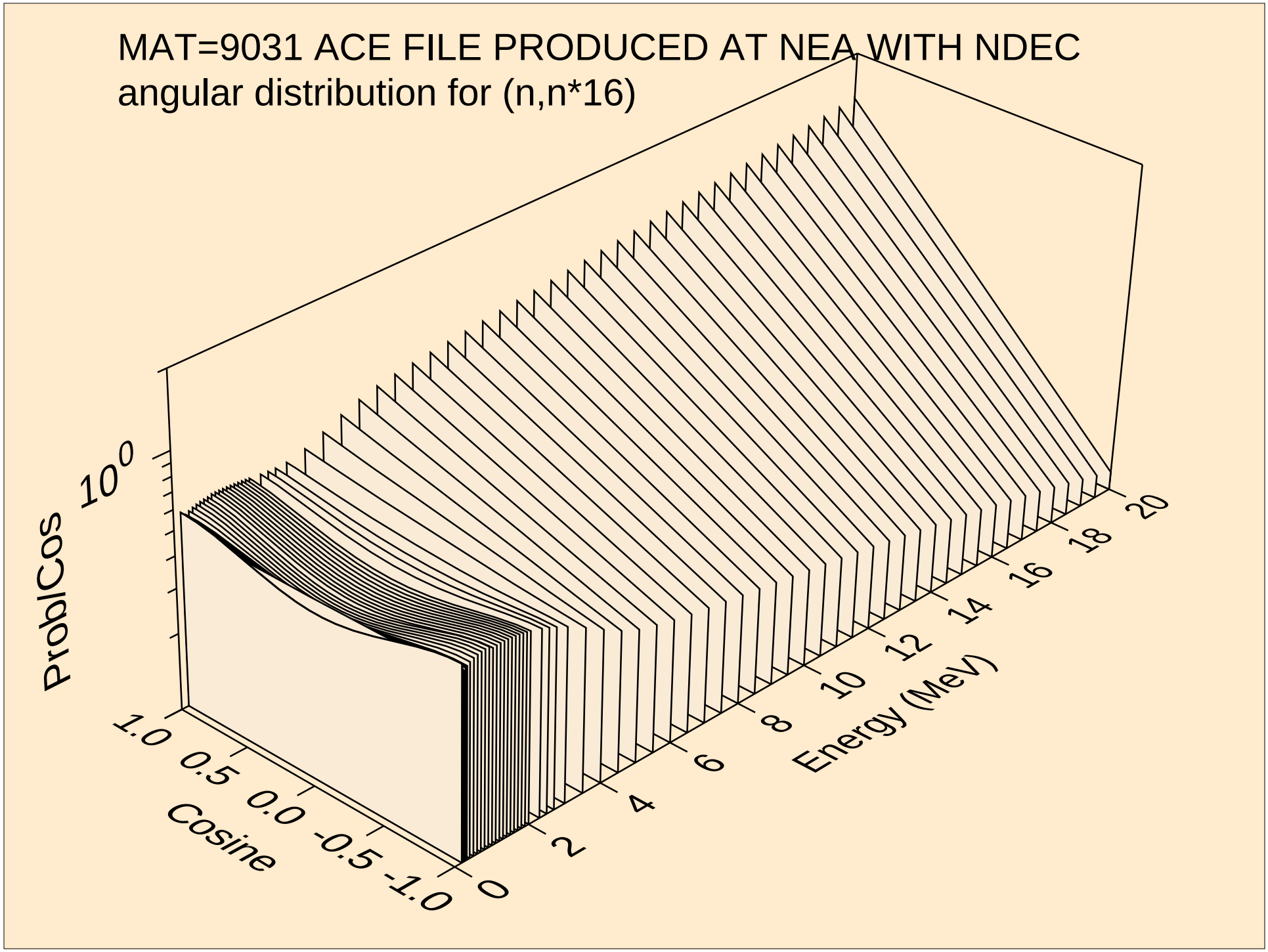

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*11)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

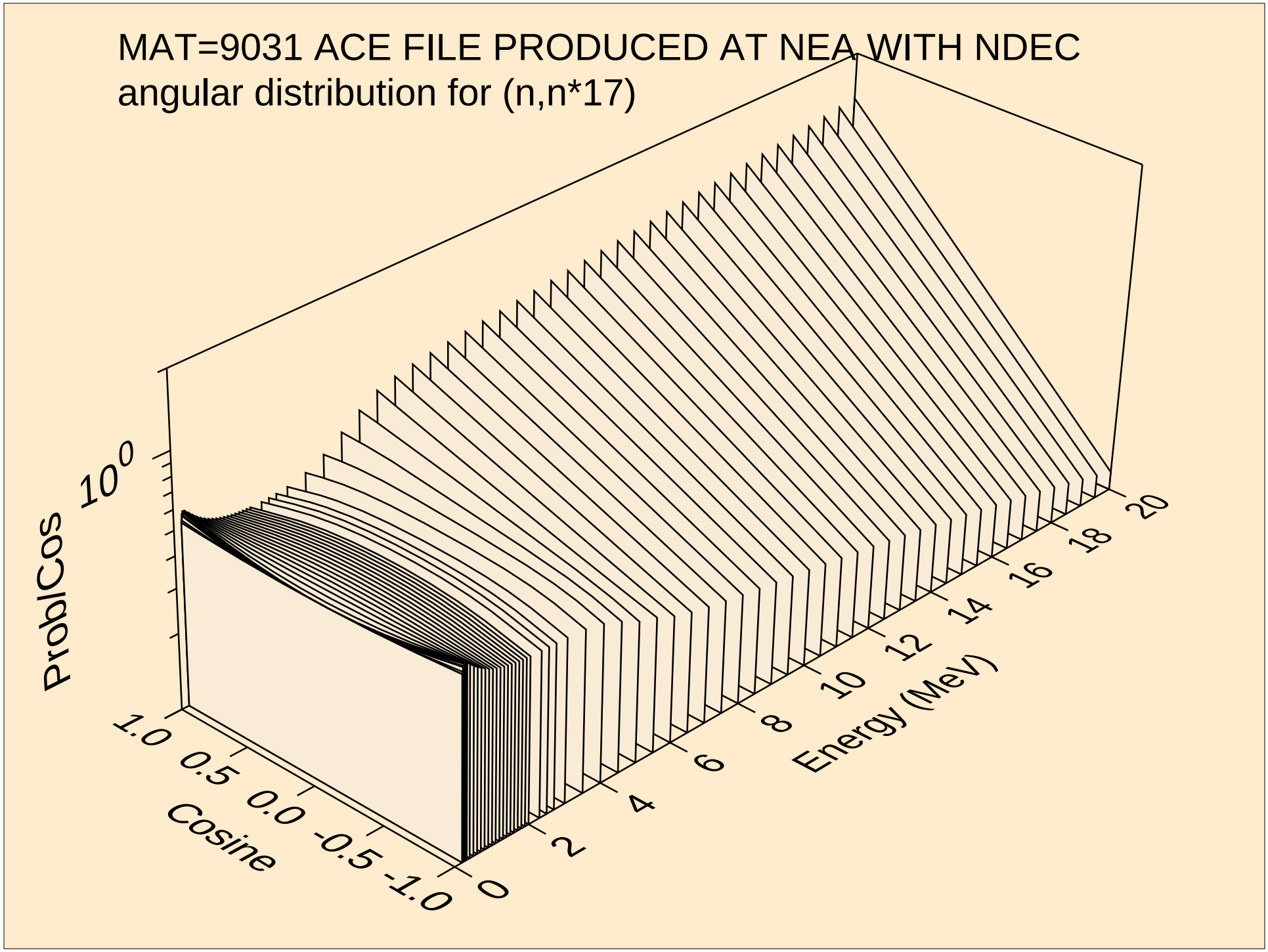

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*12)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

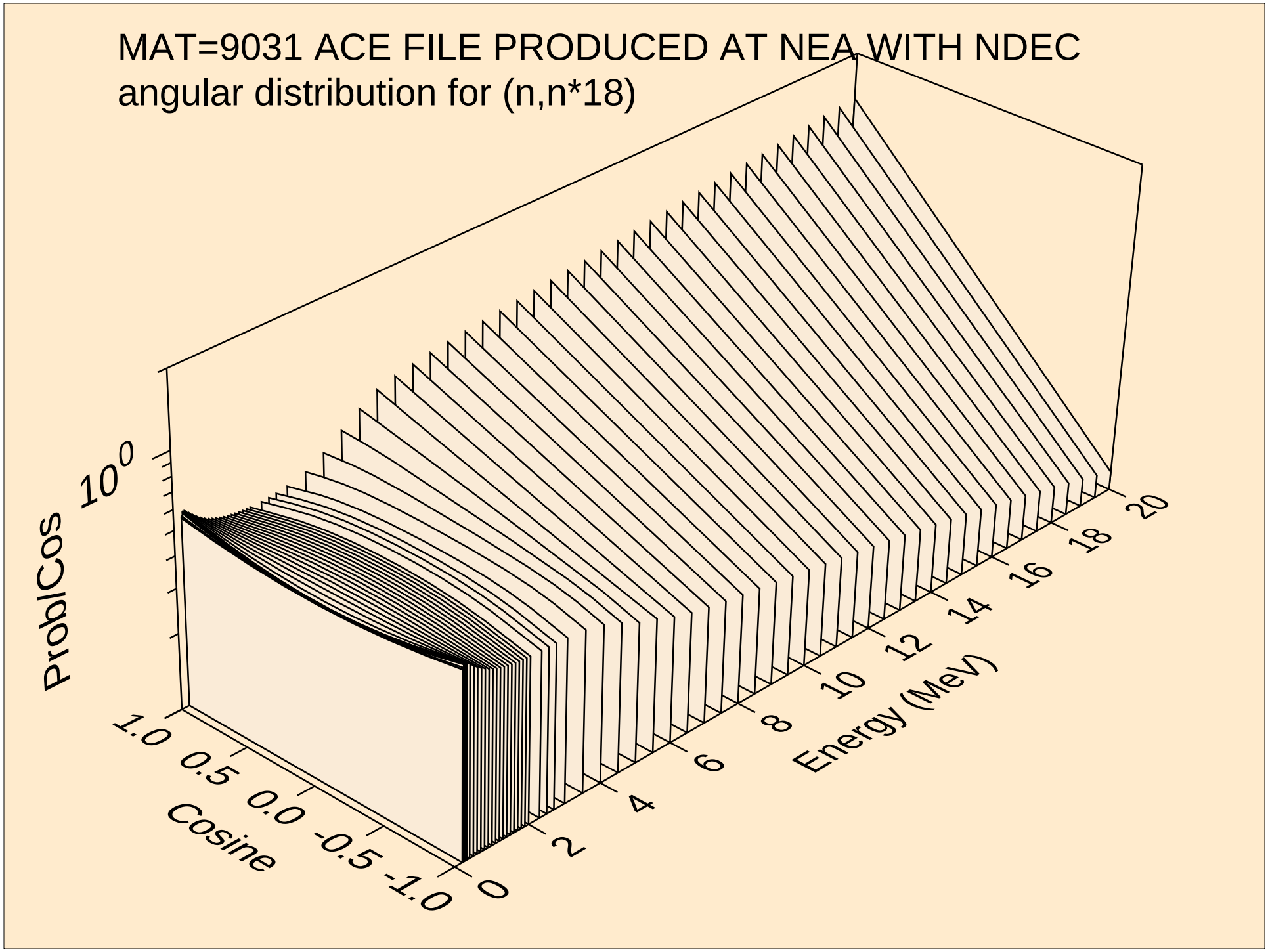

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*13)
ProbICos
10^0
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

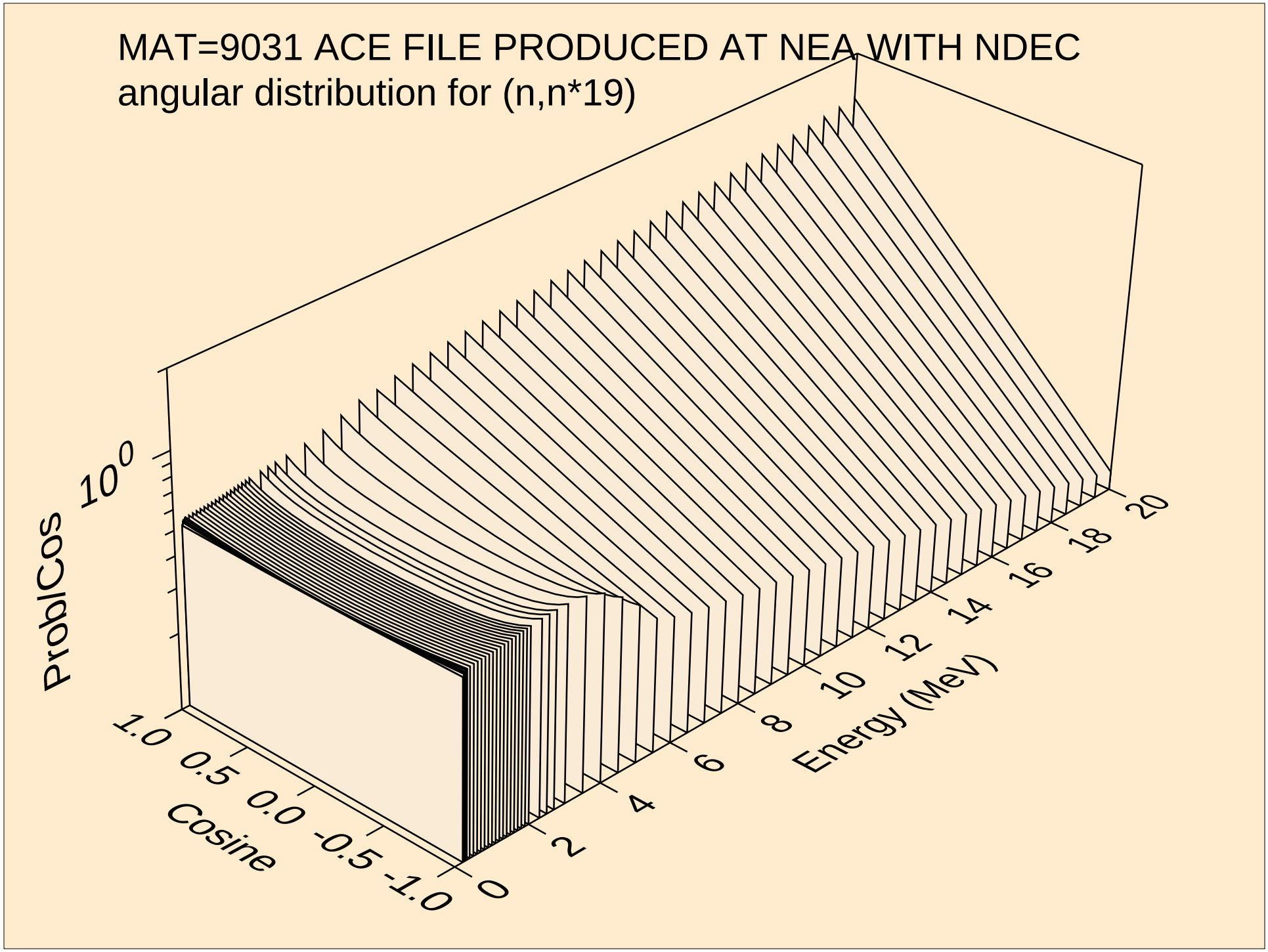

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*14)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

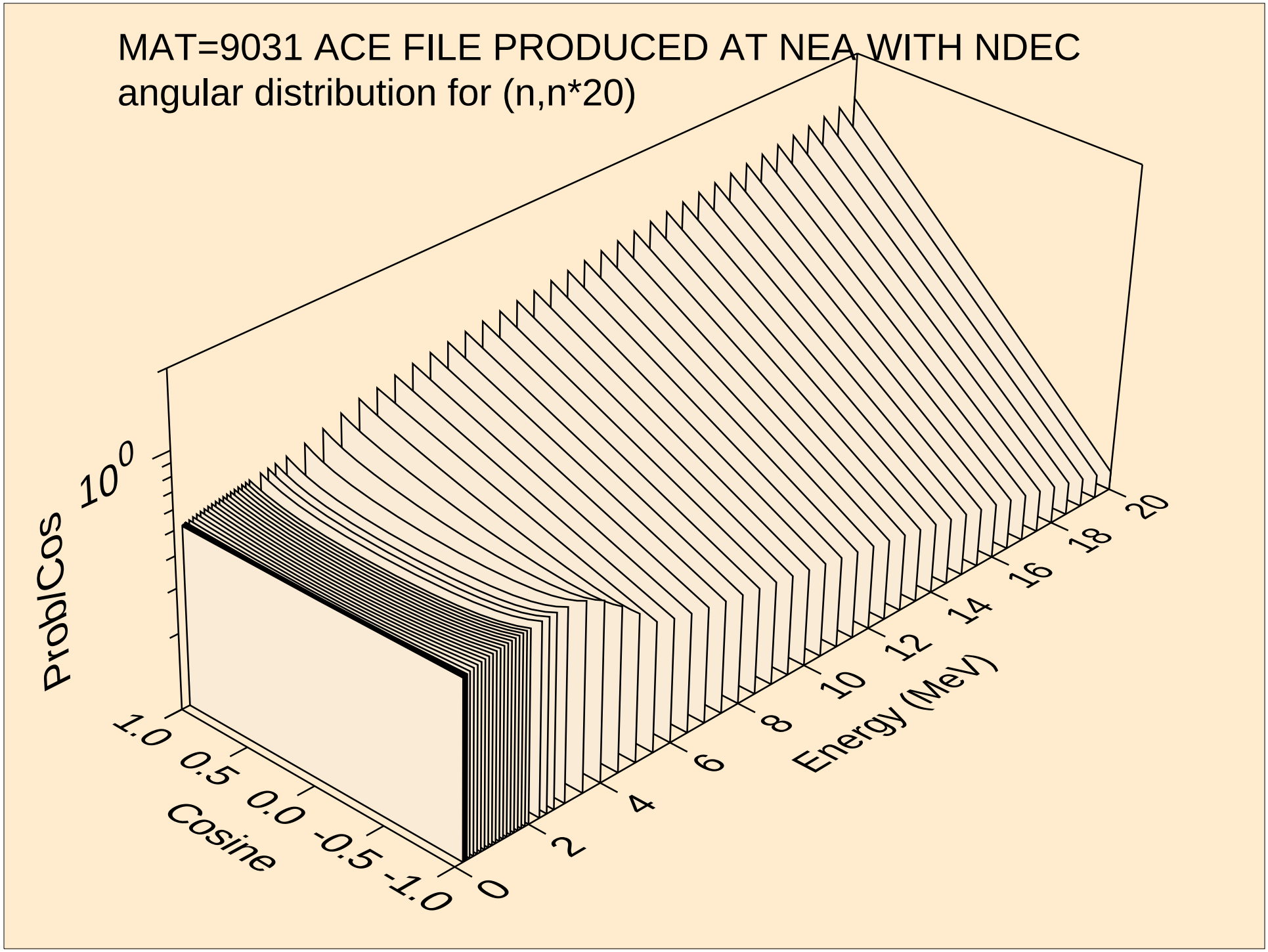

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*15)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

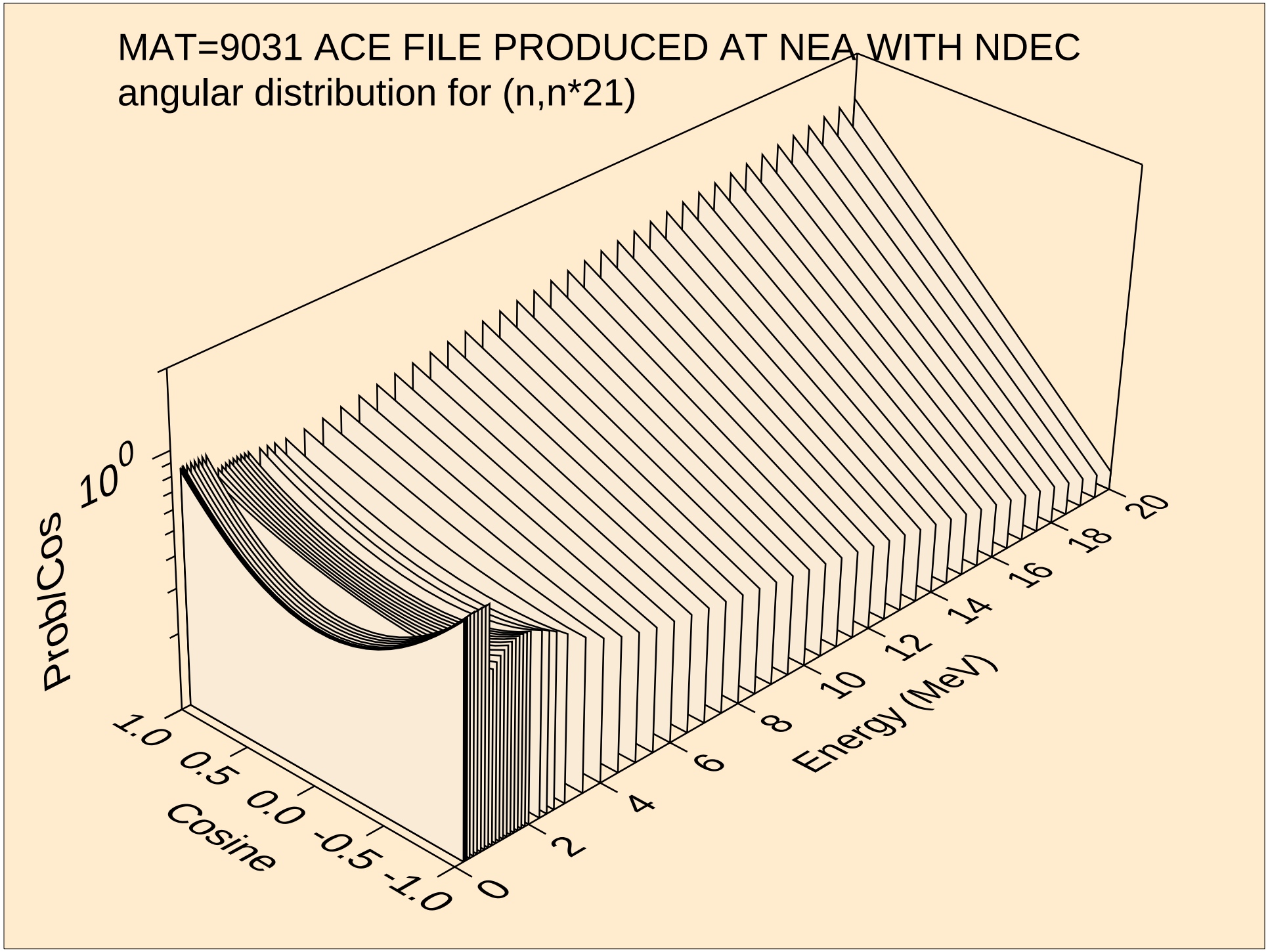

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*16)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

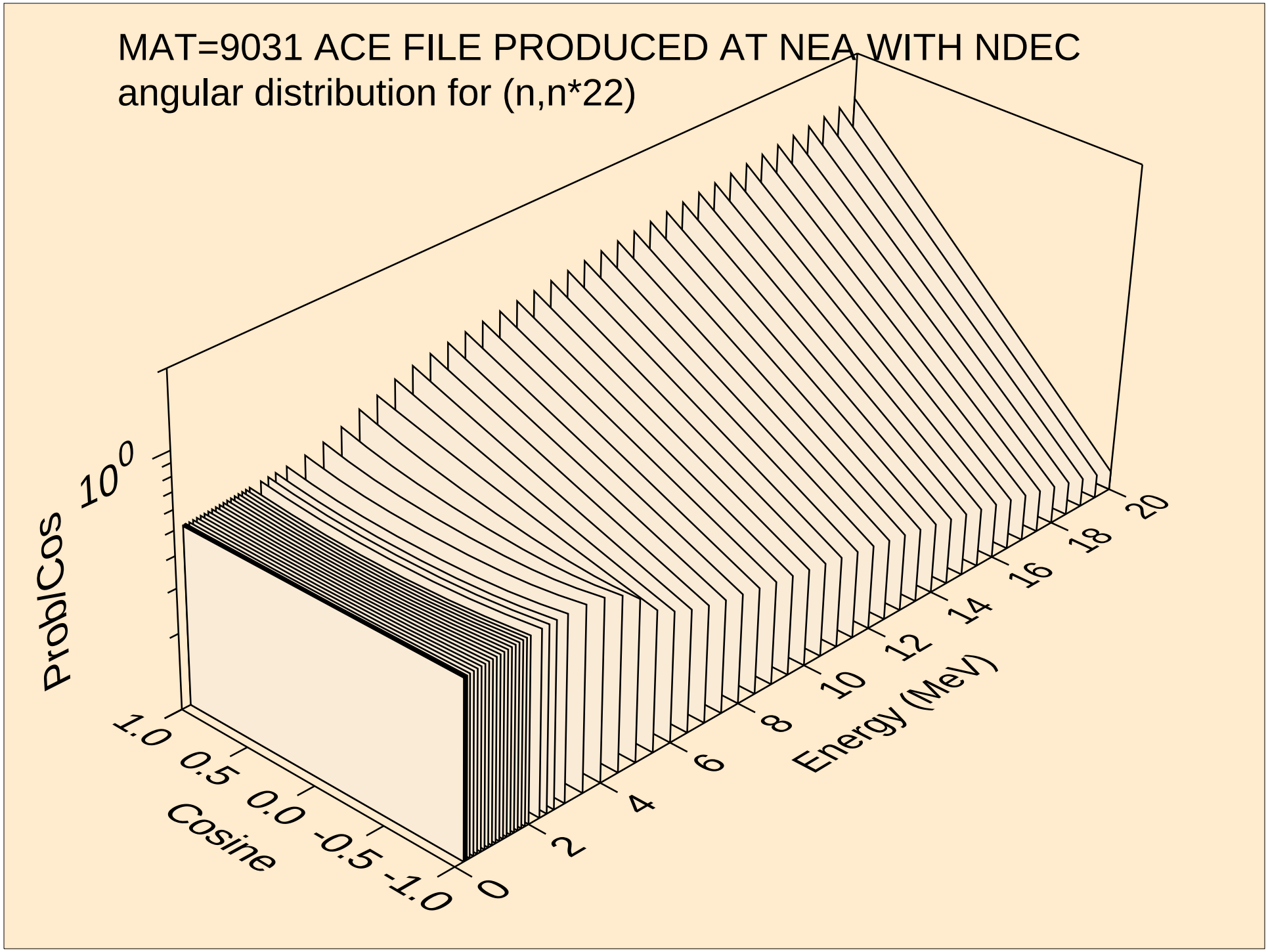

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*17)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

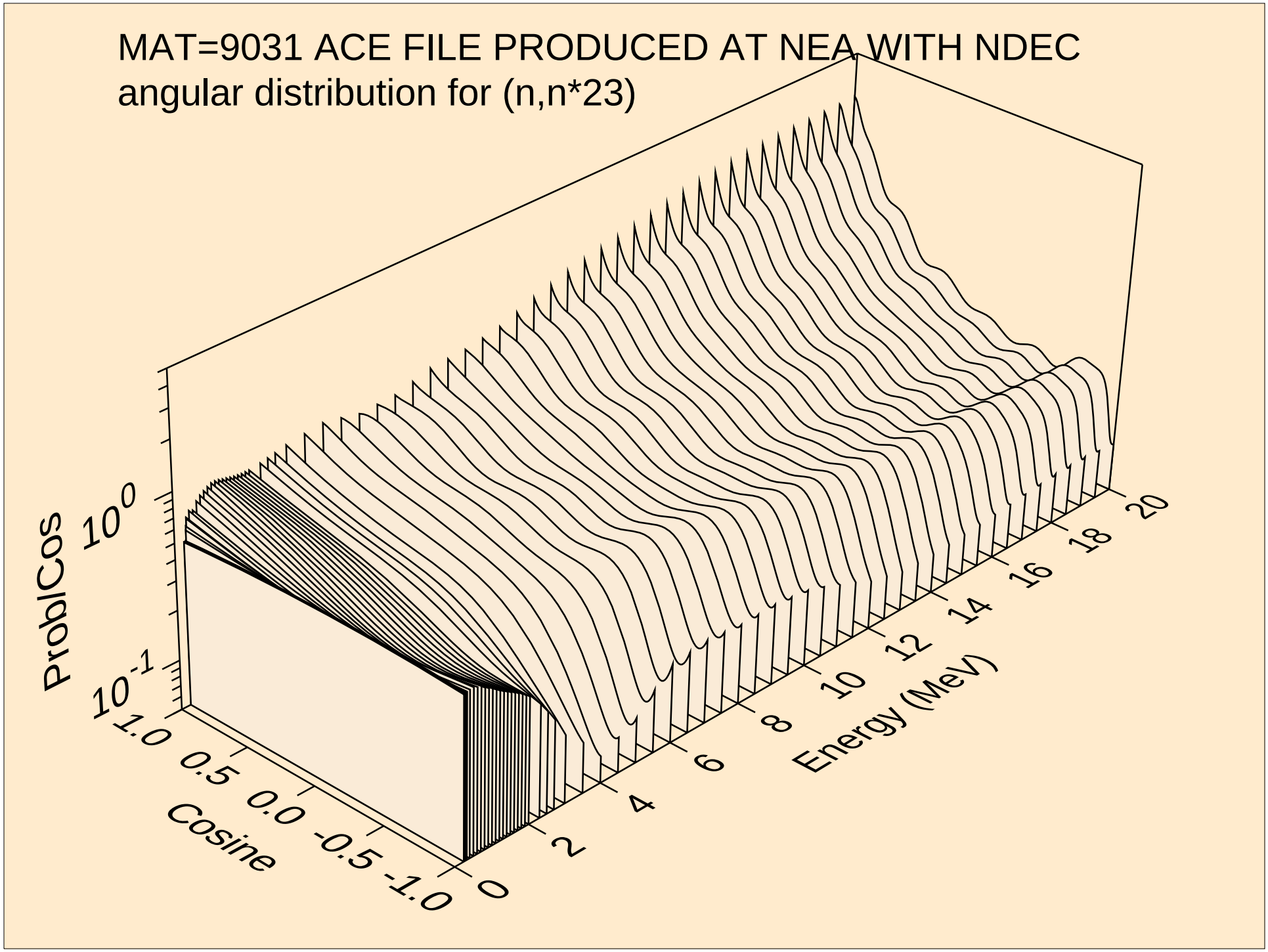

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*18)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

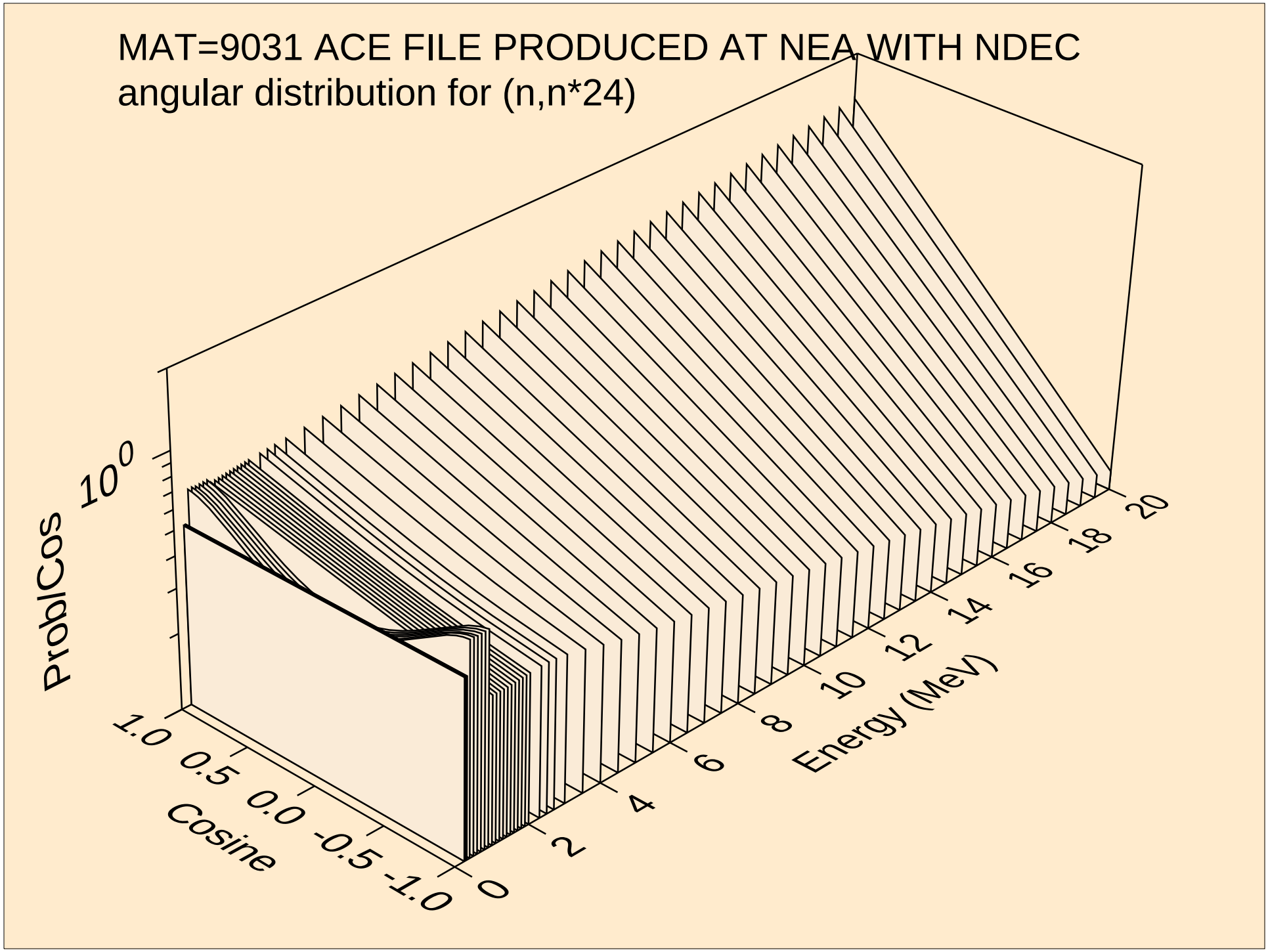

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*19)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

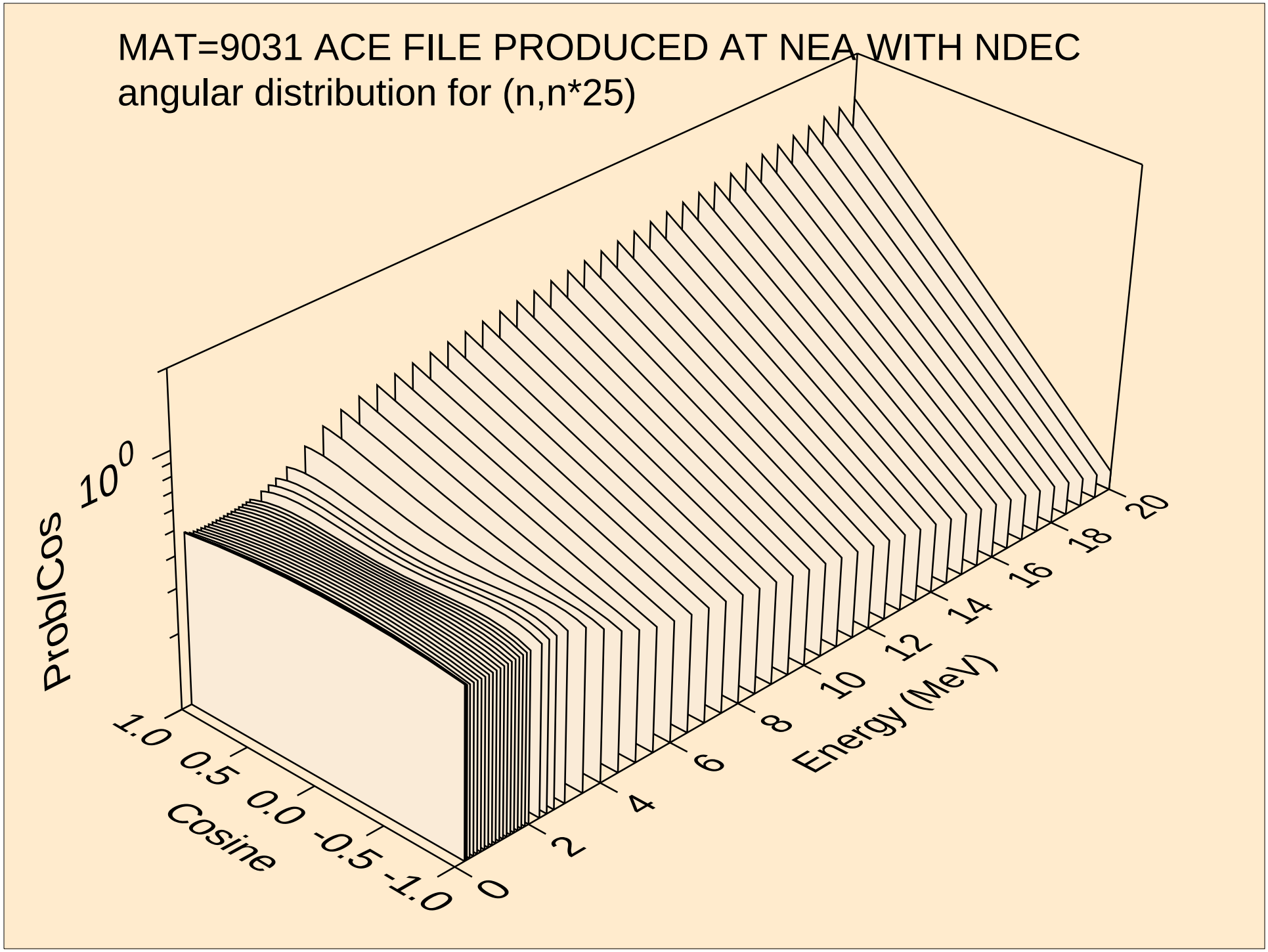

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*20)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

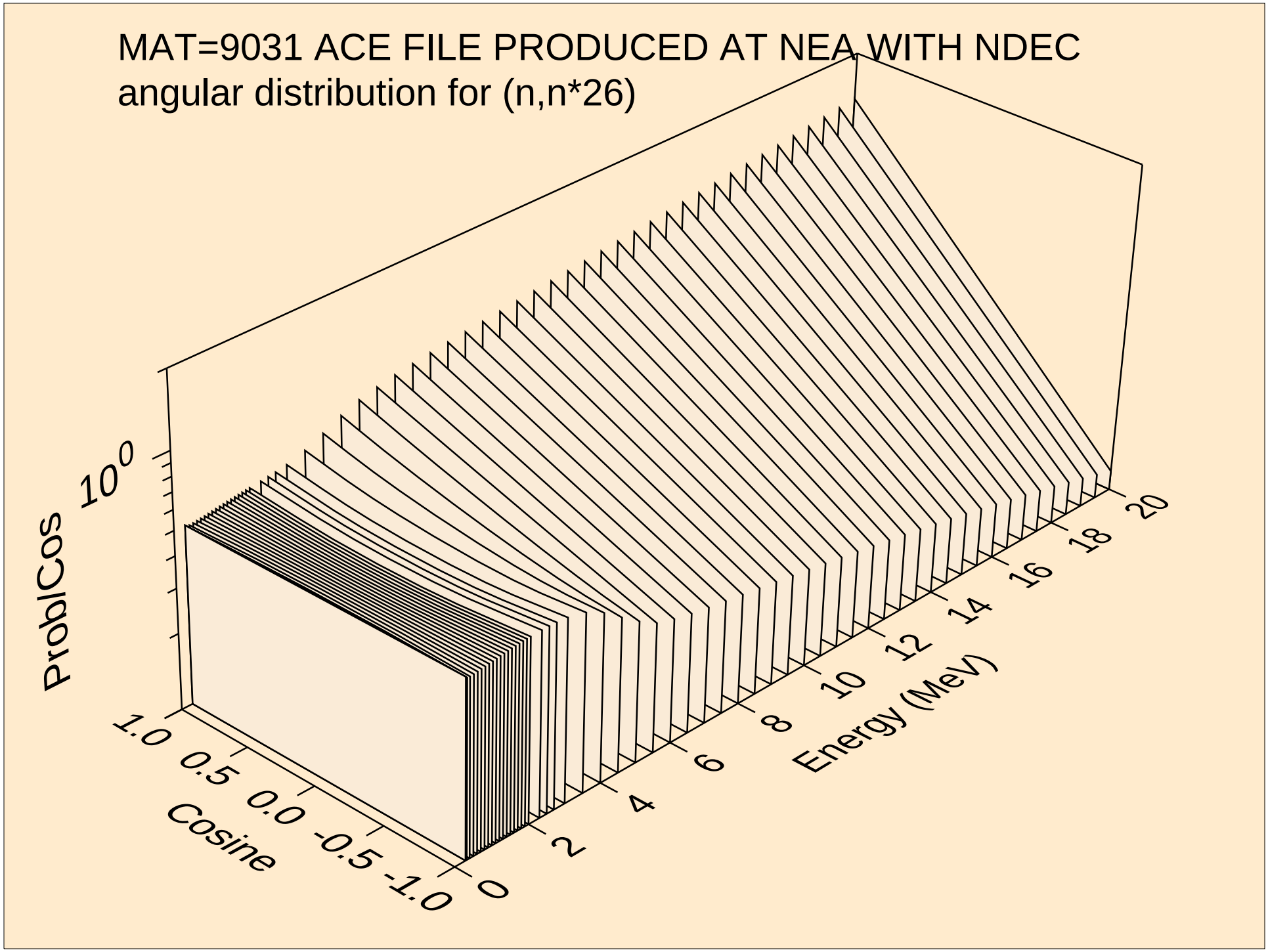

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*21)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

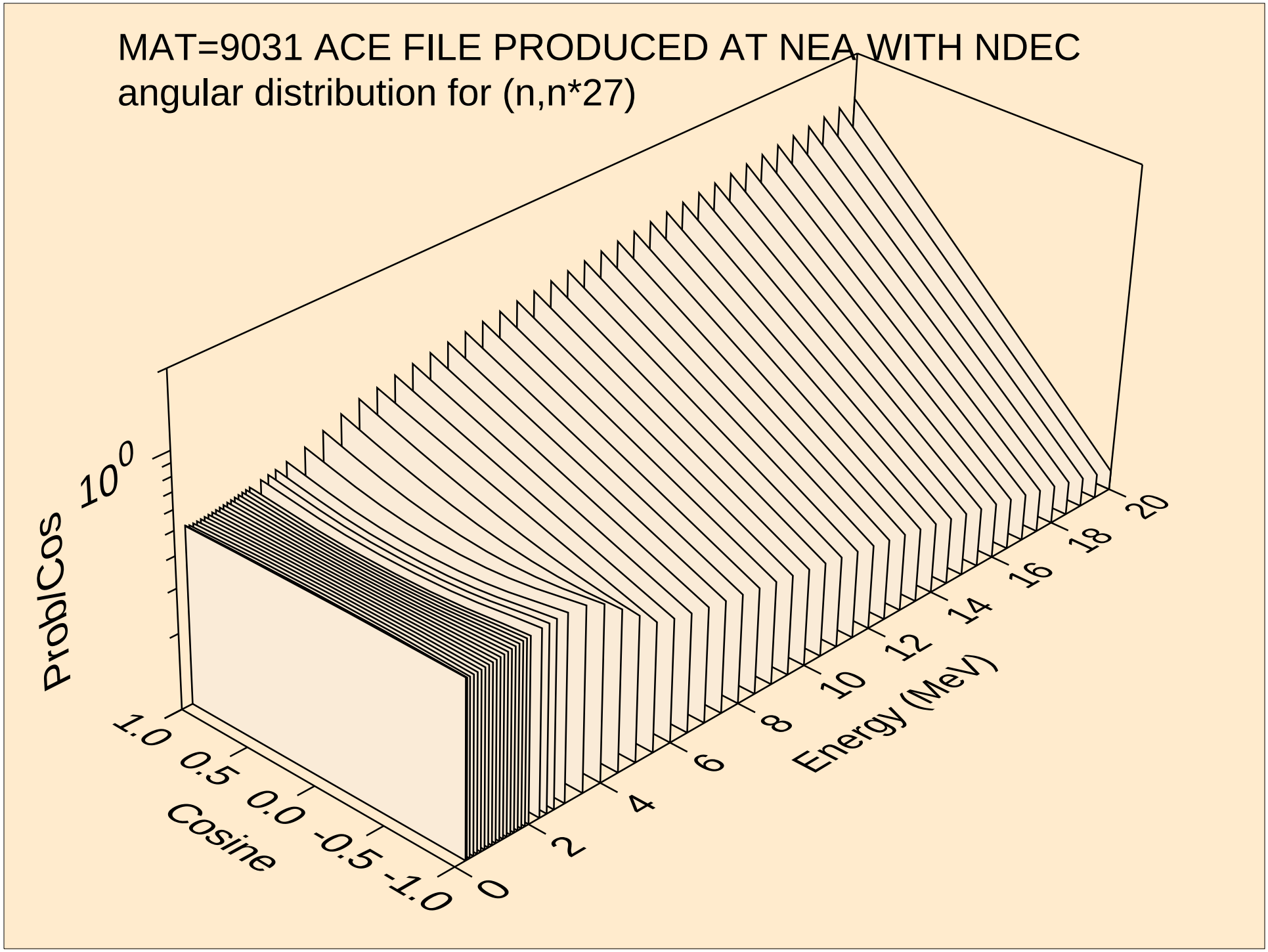

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*22)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

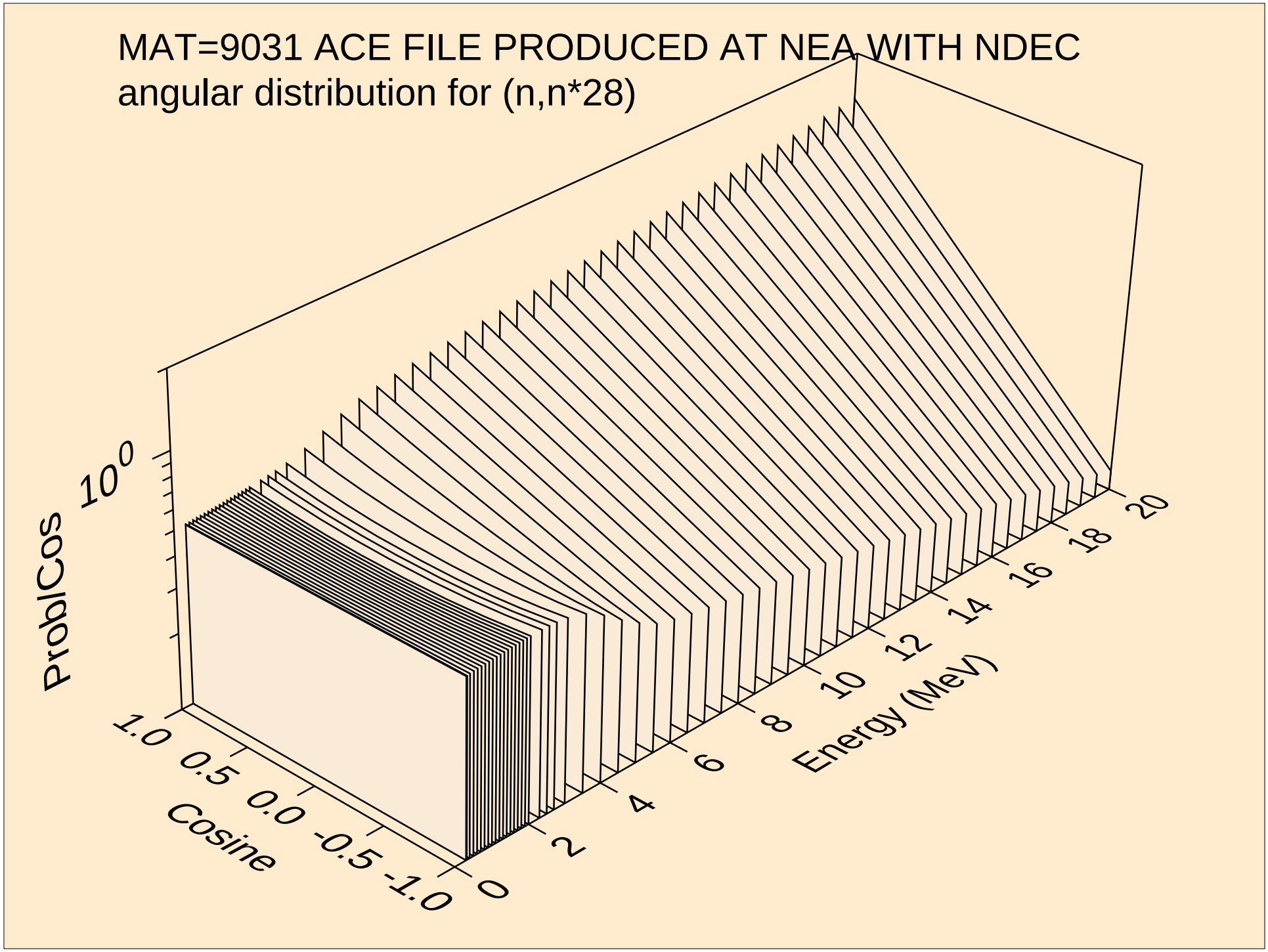

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*23)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

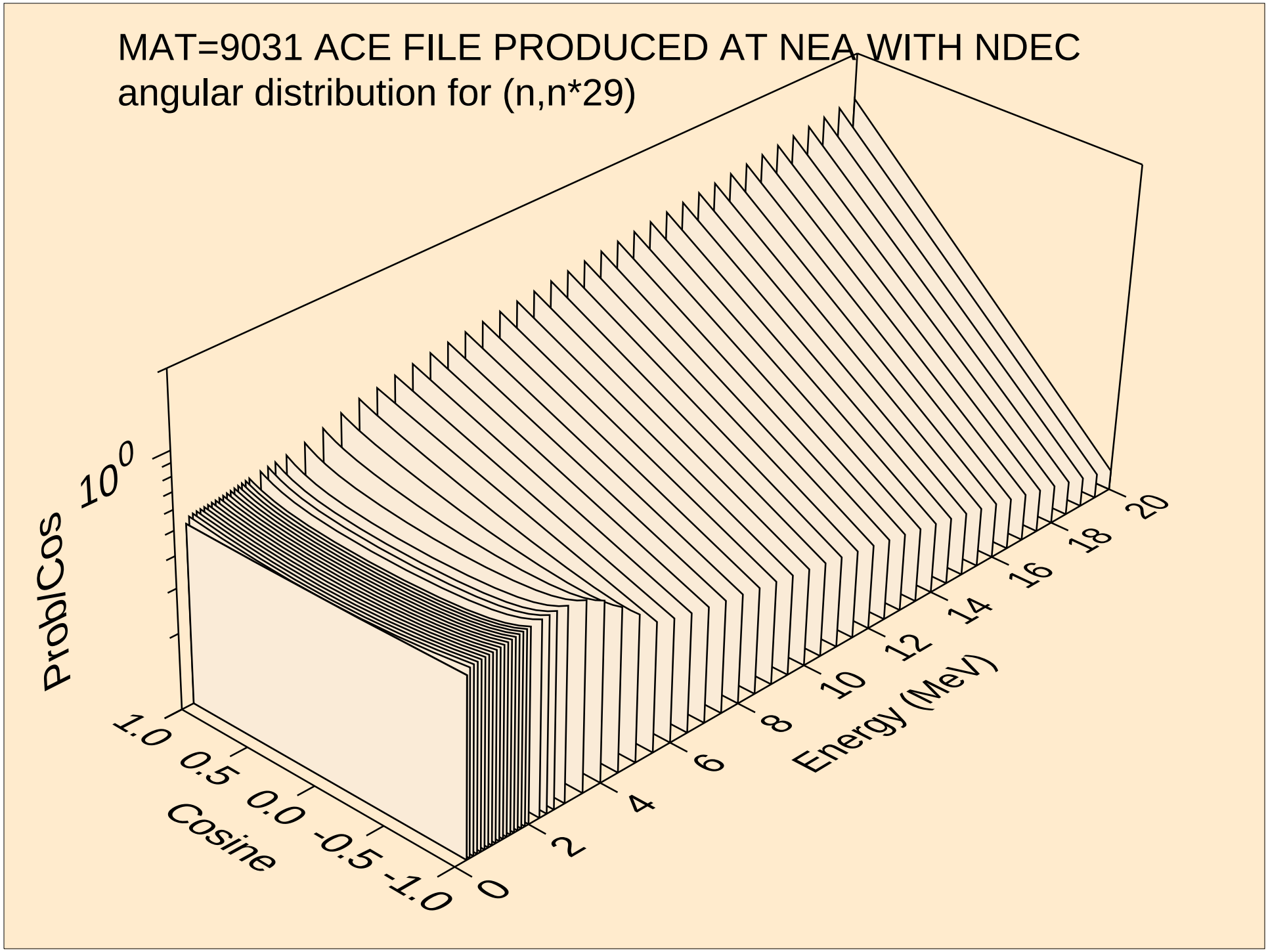

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*24)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

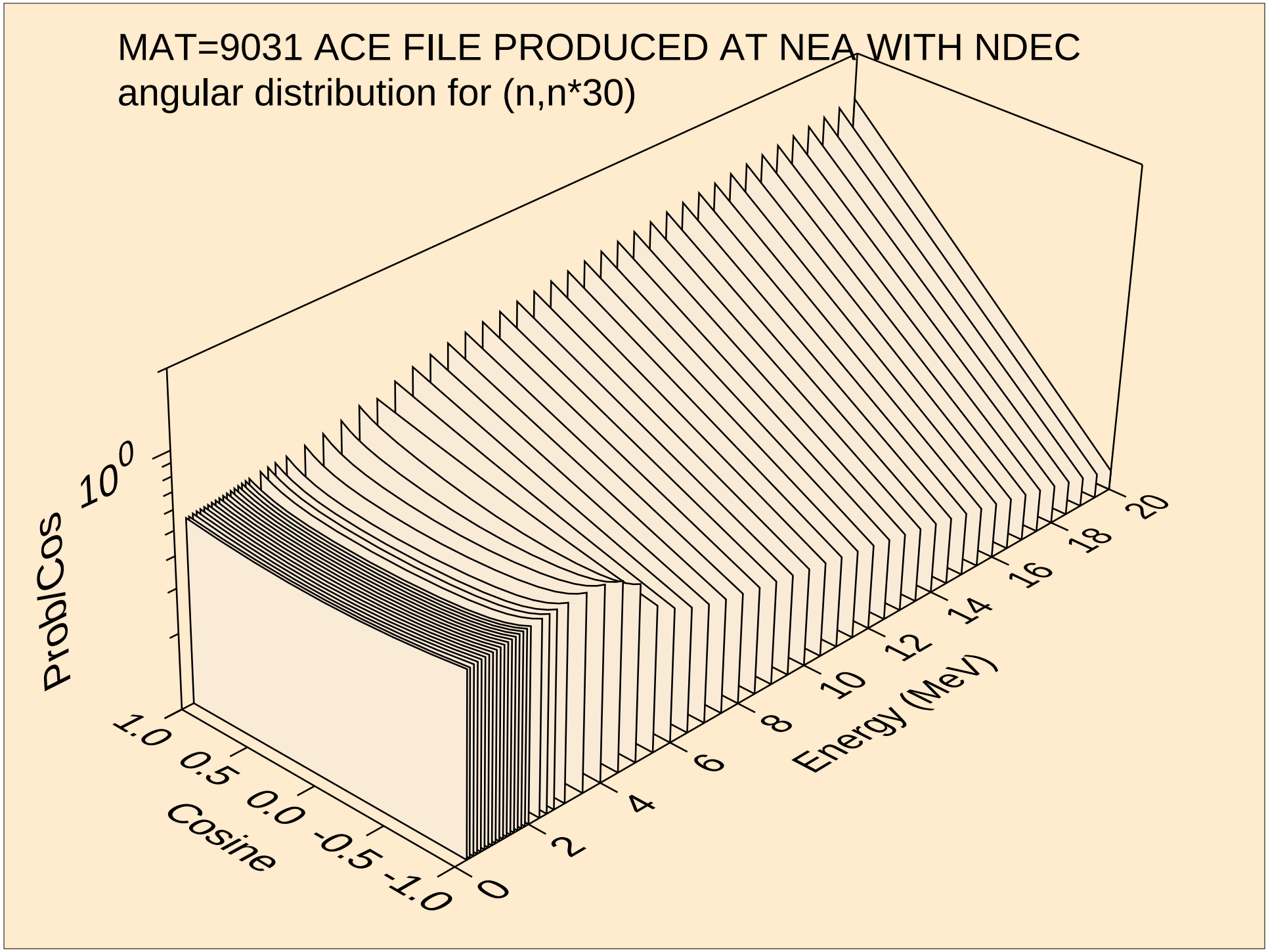

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*25)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

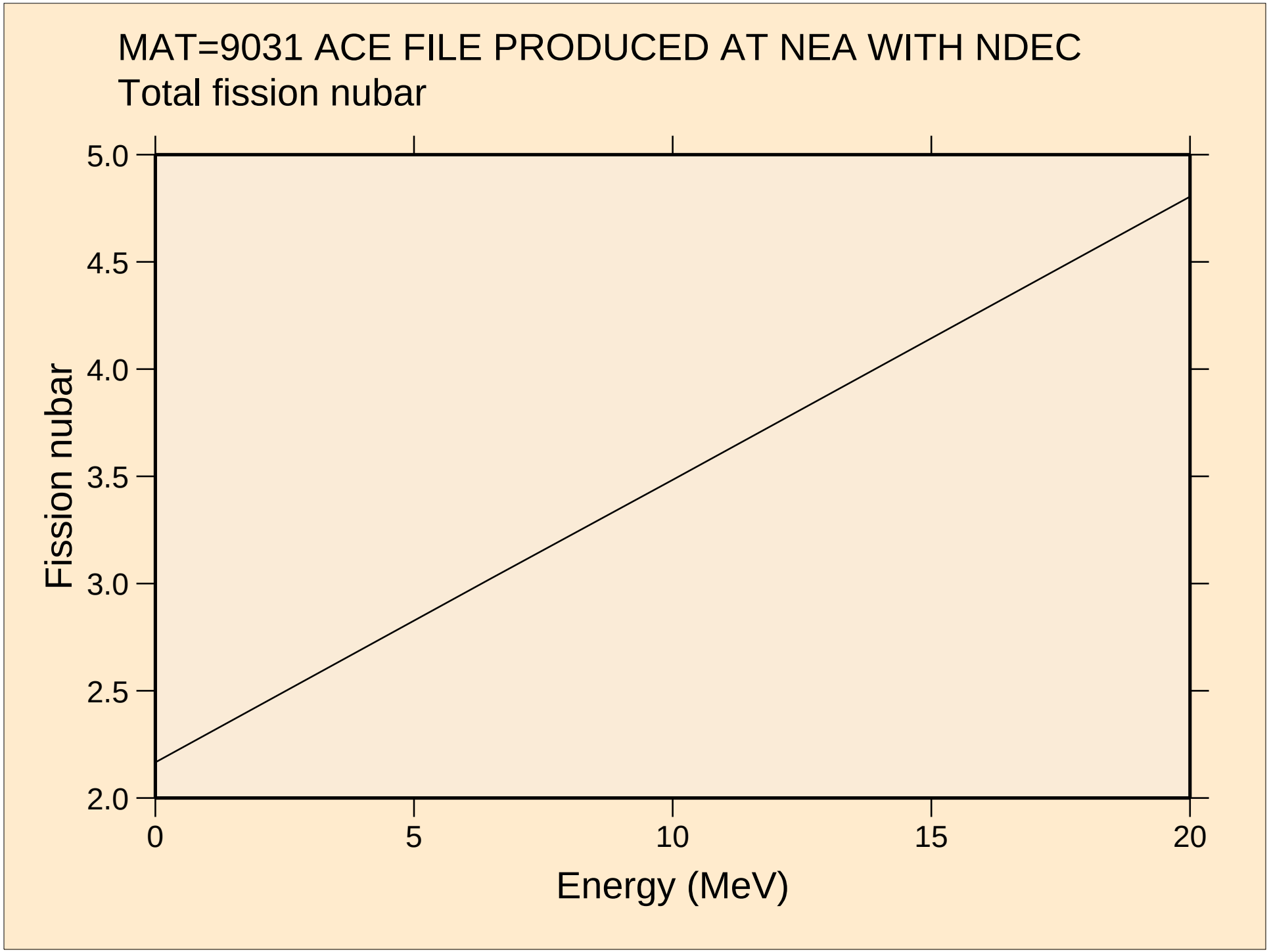

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*26)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

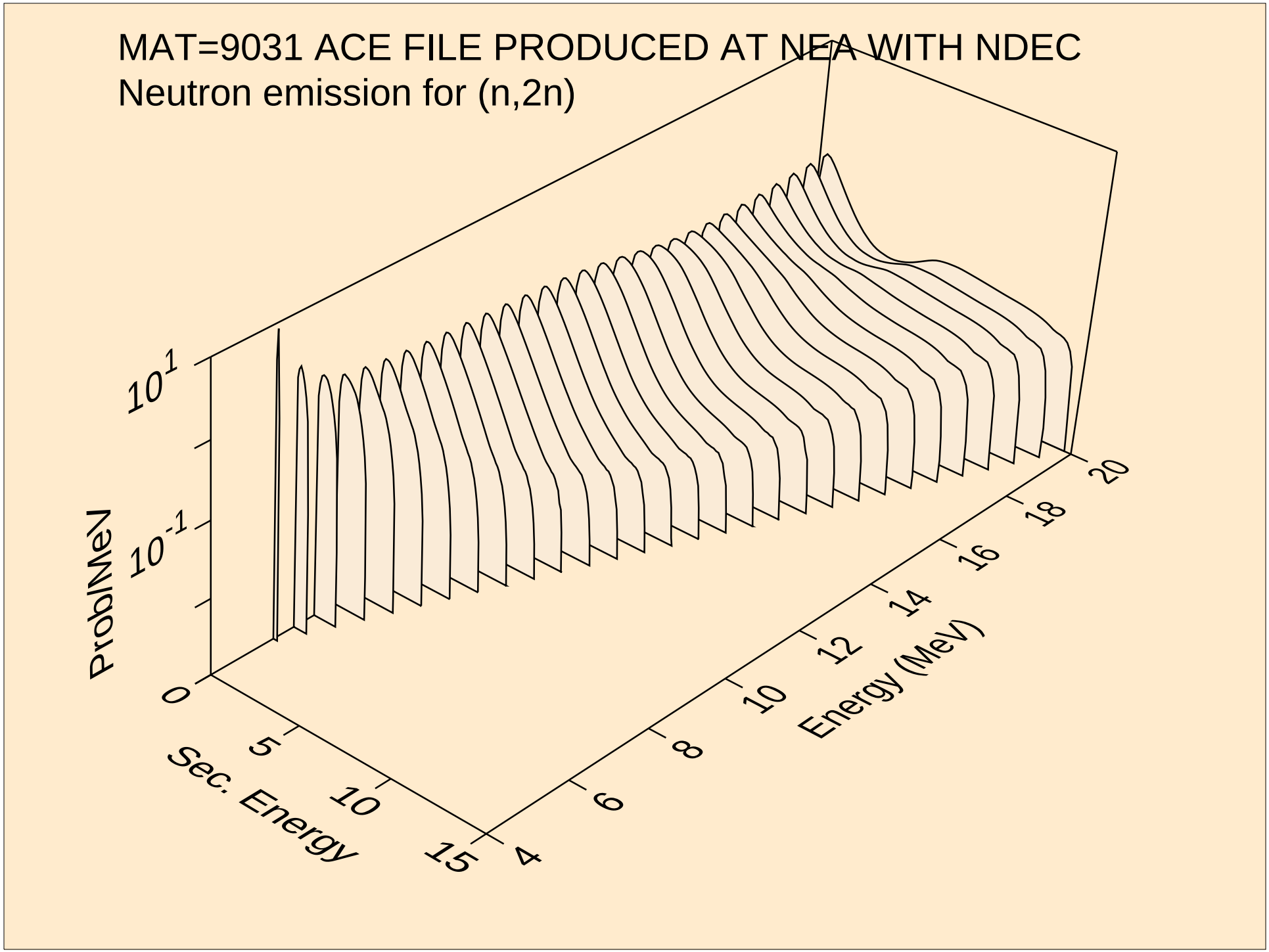

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*27)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

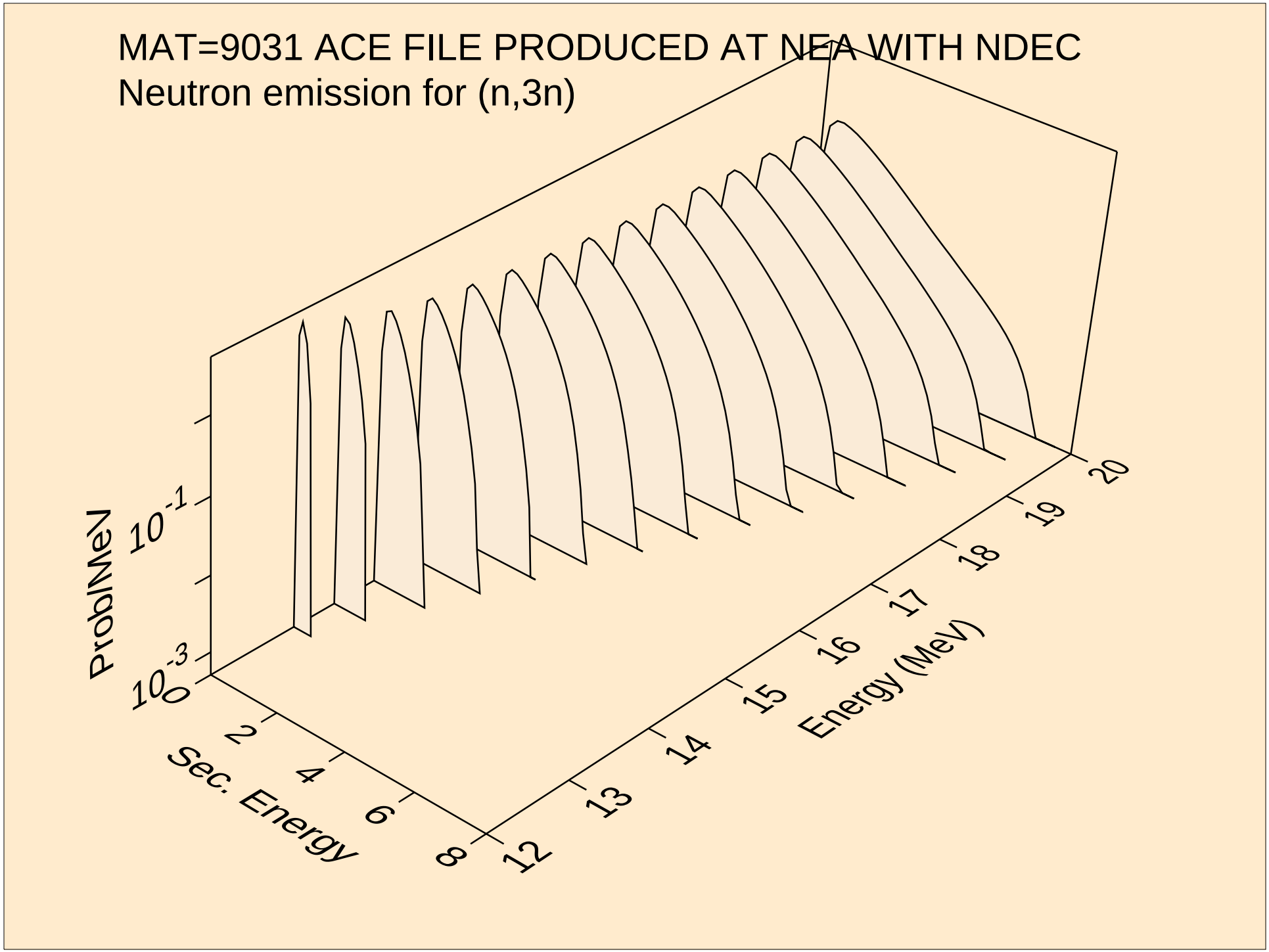

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*28)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

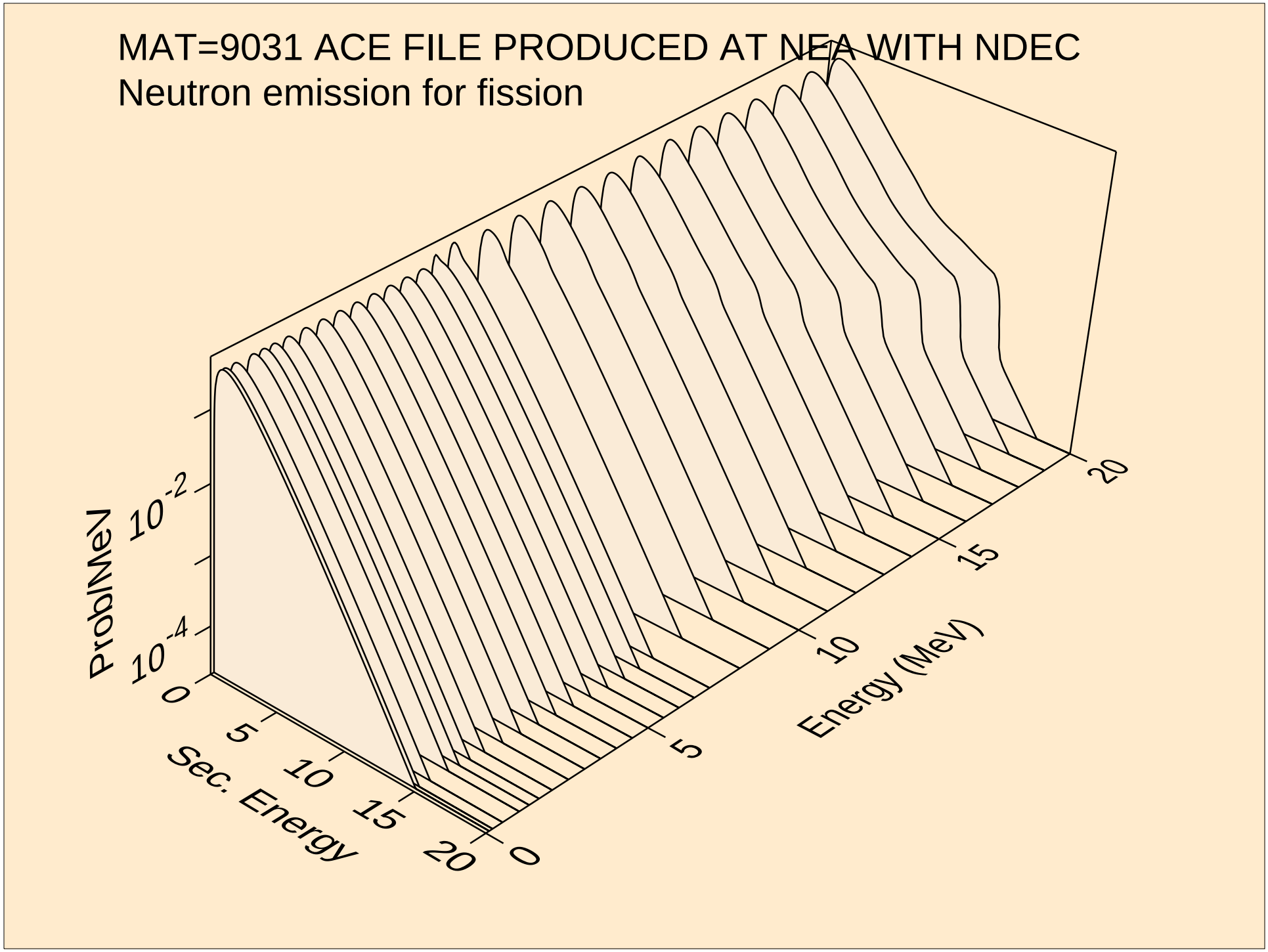

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*29)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

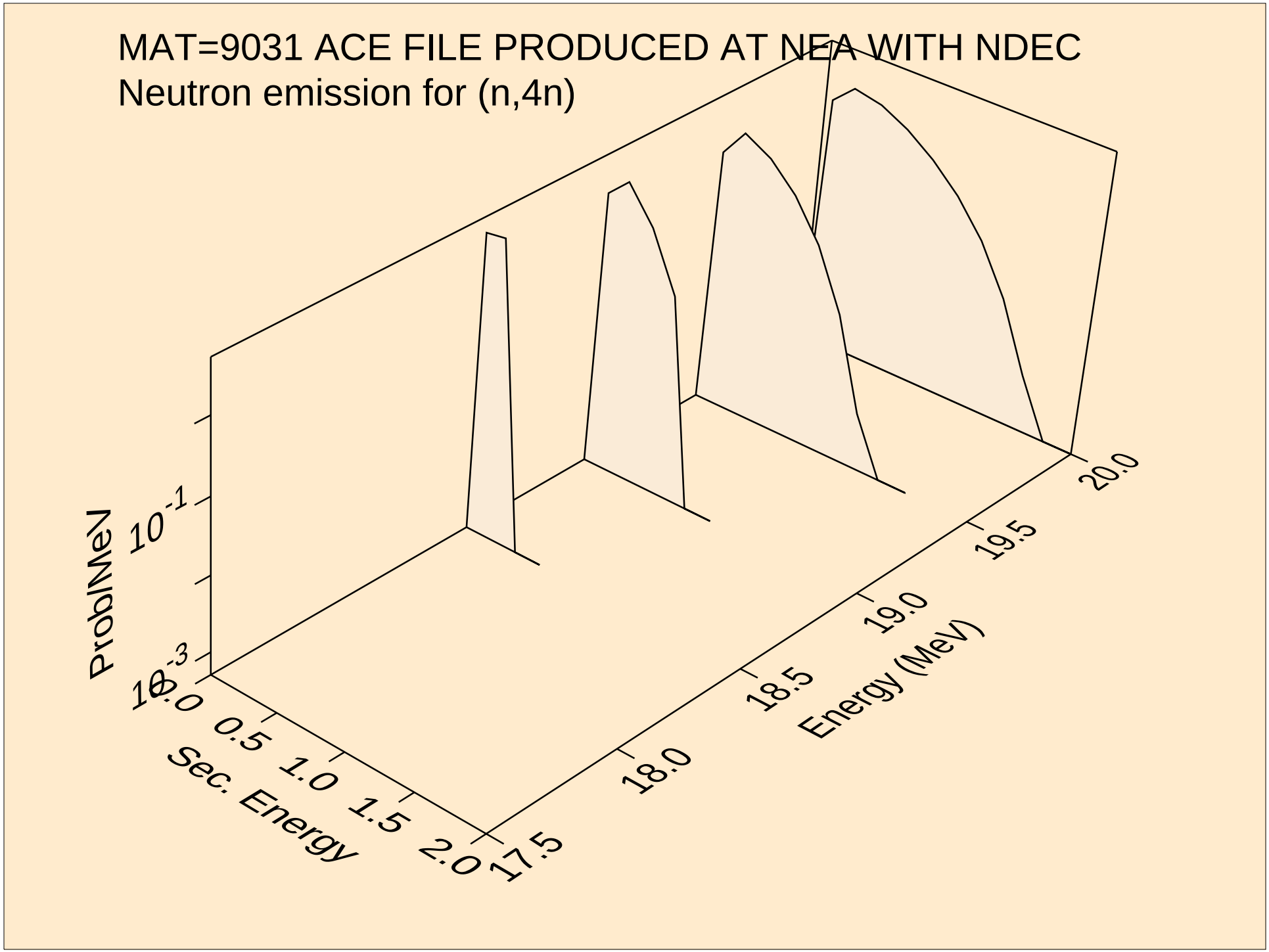

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*30)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

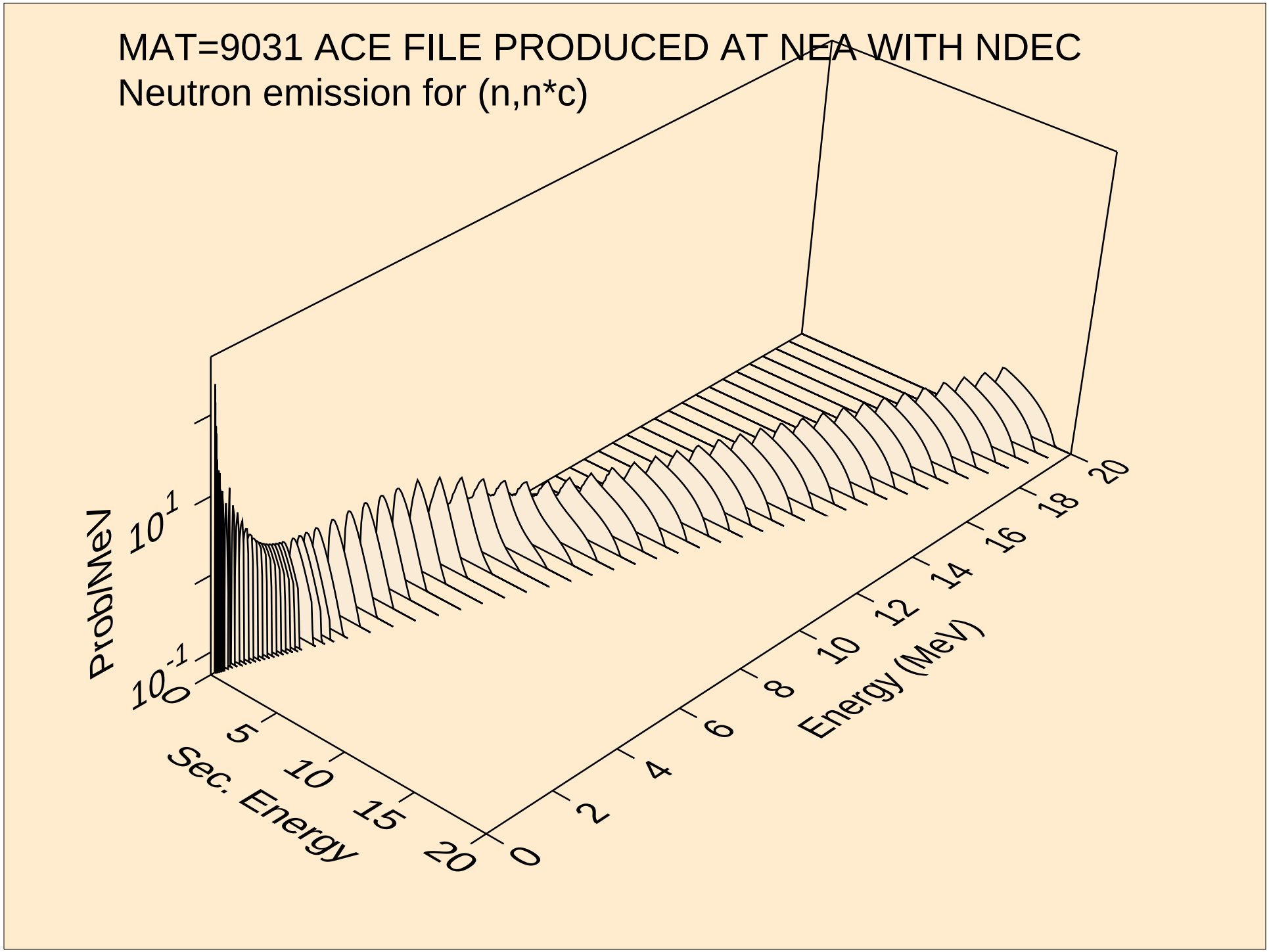

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Total fission nubar
Fission nubar
5.0
4.5
4.0
3.5
3.0
2.5
2.0
0
5
10
15
20
Energy (MeV)

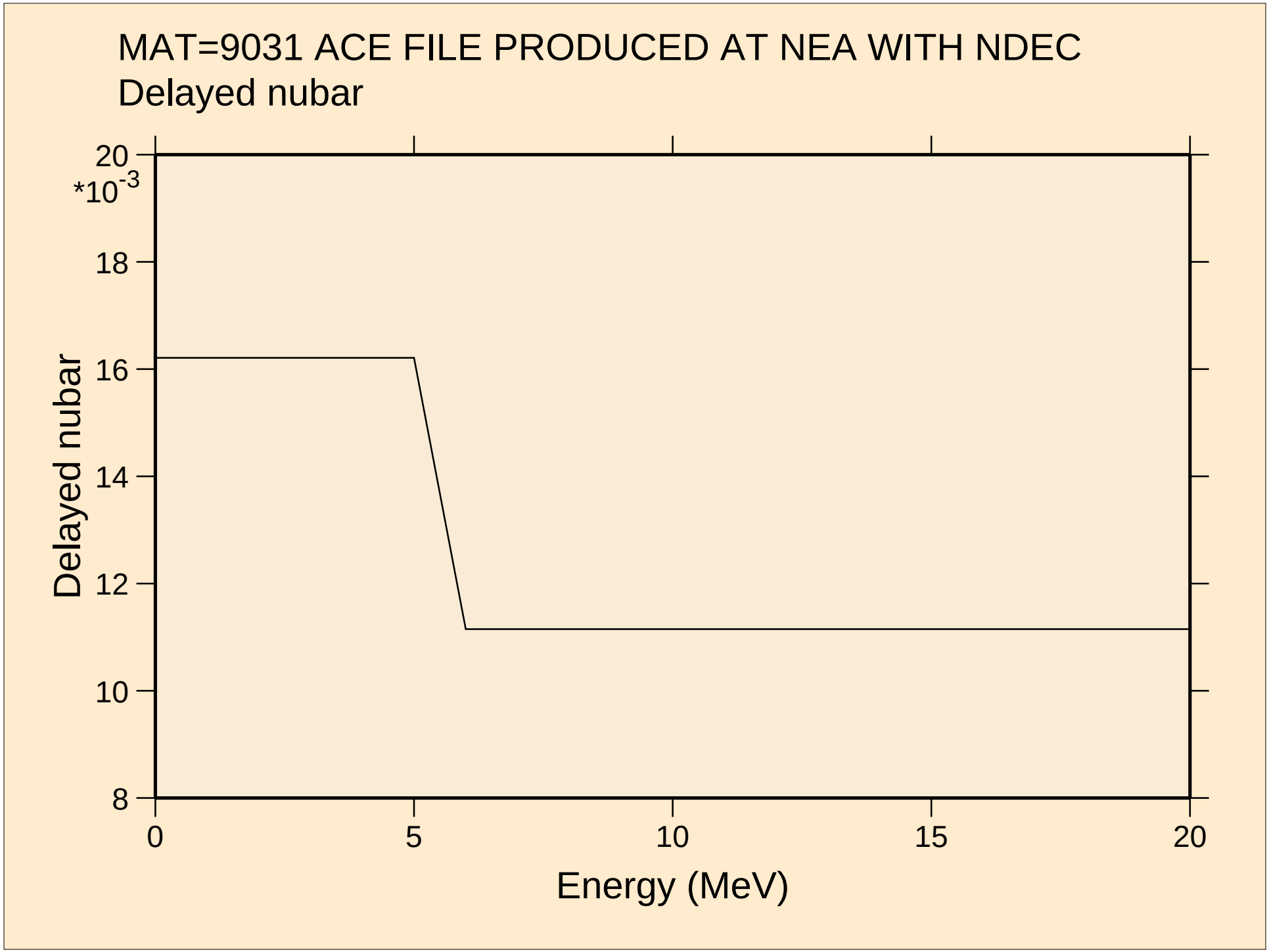

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,2n)
Prob/MeV
10^{1}
10^{-1}
0
5
10
15
Sec. Energy
4
6
8
10
12
14
16
18
20
Energy (MeV)

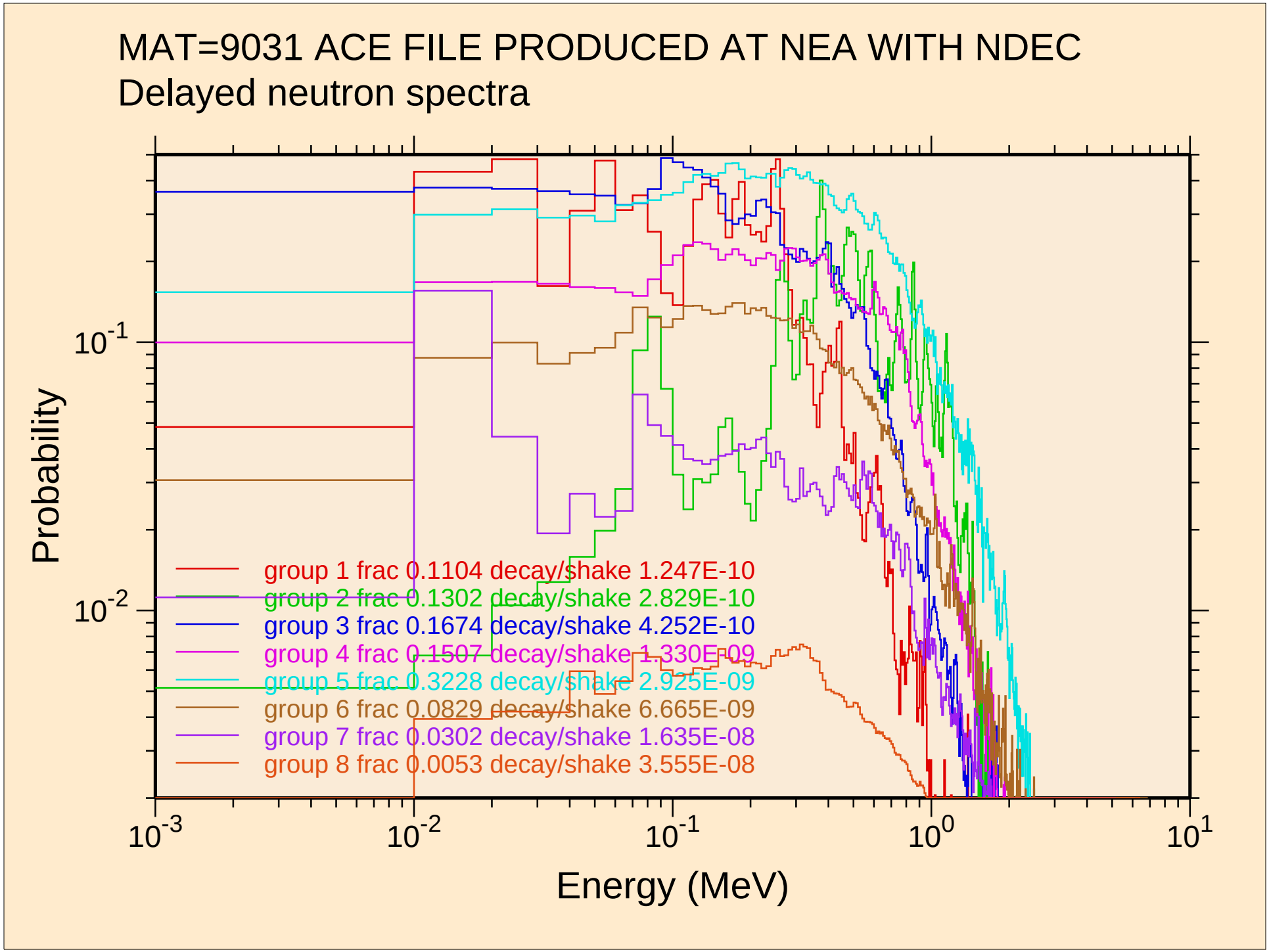

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,3n)
Prob/MeV
10-1
10-3
0
2
4
6
8
Sec. Energy
12
13
14
15
16
17
18
19
20
Energy (MeV)

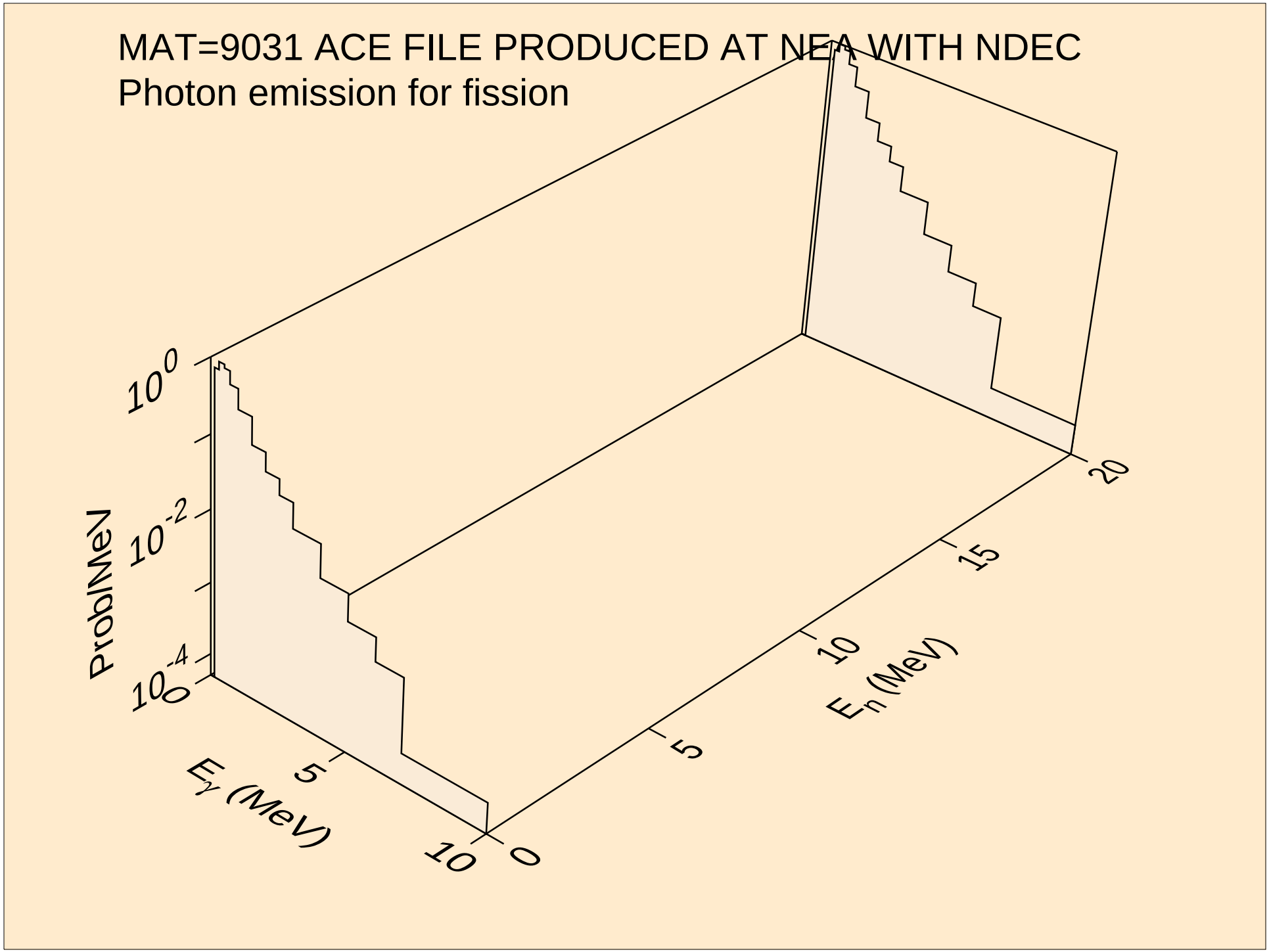

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for fission
Prob/MeV
10-2
10-4
0
5
10
15
20
Sec. Energy
0
5
10
15
20
Energy (MeV)

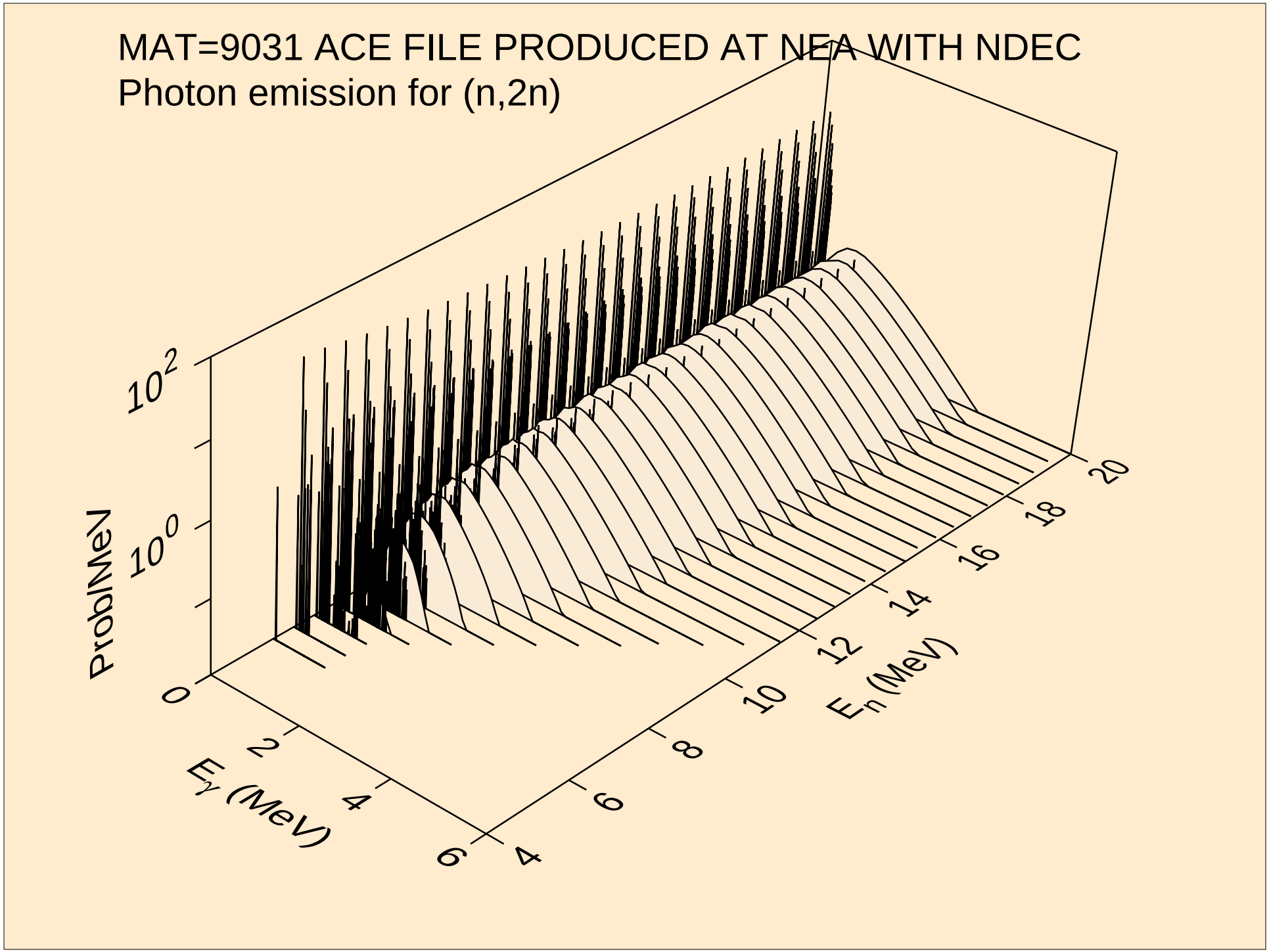

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,4n)
Prob/MeV
10-1
10-3
0.0
0.5
1.0
1.5
2.0
Sec. Energy
17.5
18.0
18.5
19.0
19.5
20.0
Energy (MeV)

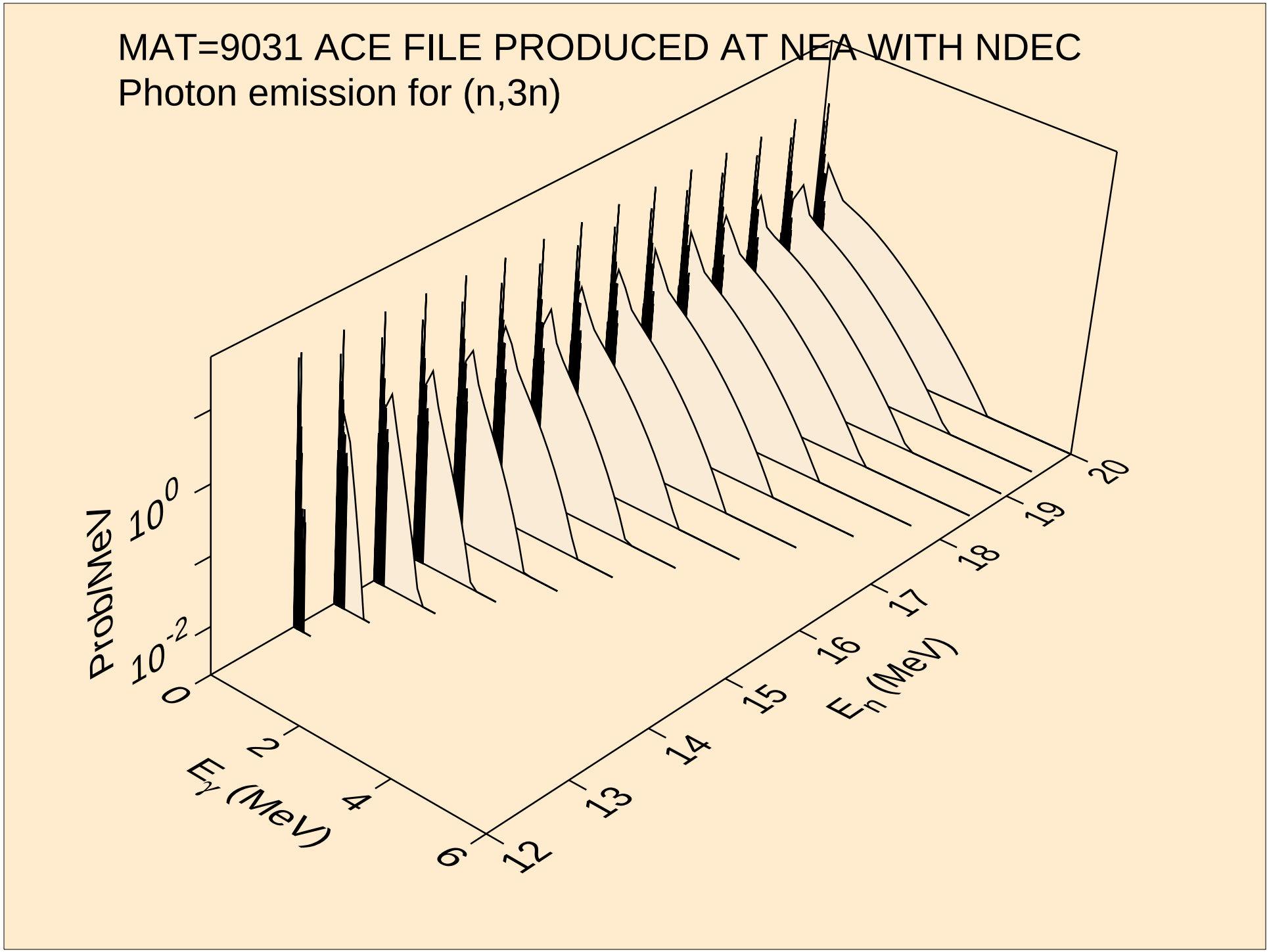

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Neutron emission for (n,n*c)
Prob/MeV
10^1
10^-1
0
5
10
15
20
Sec. Energy
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

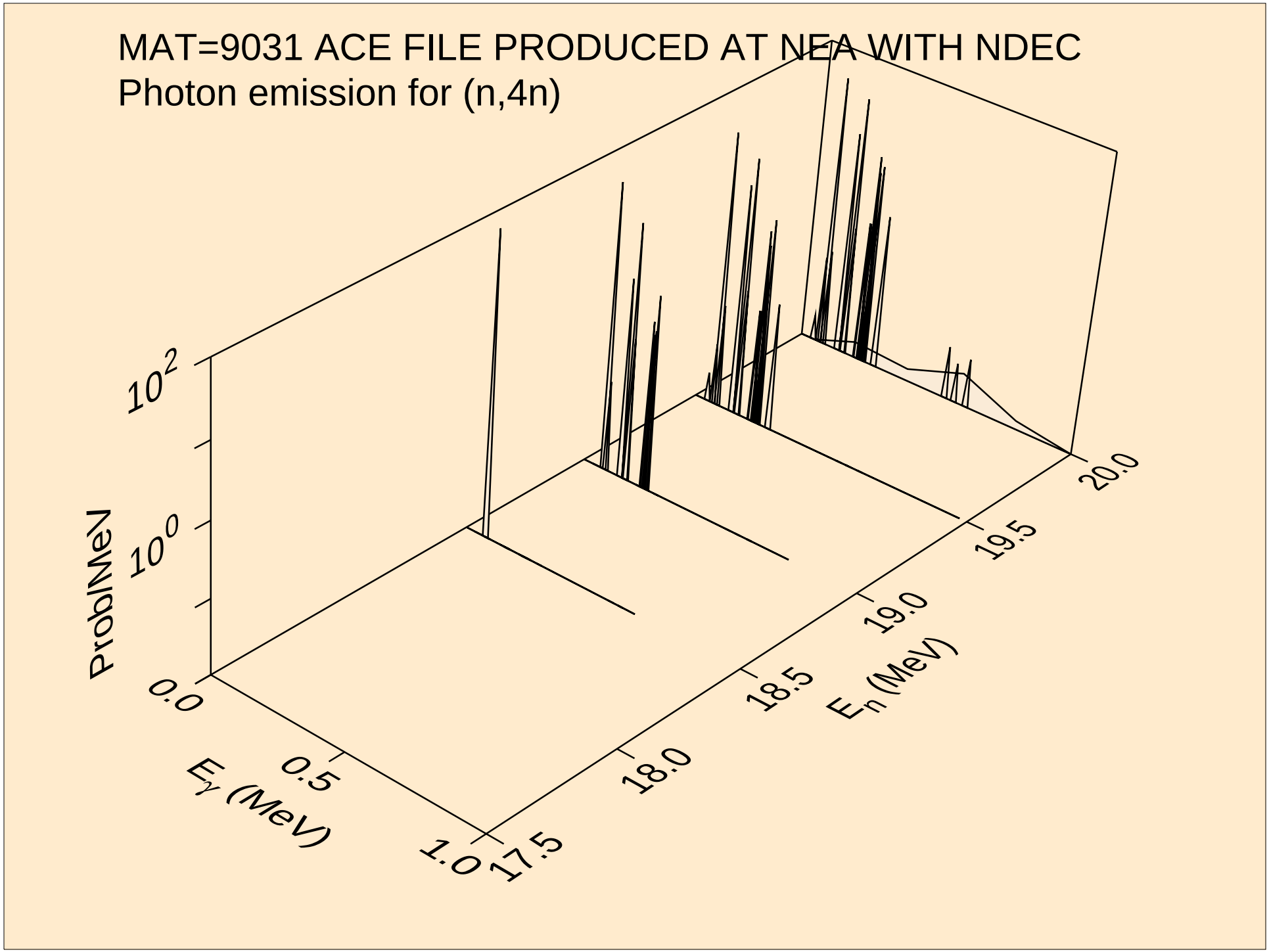

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Delayed nubar
20
*10-3
18
16
14
12
10
8
Delayed nubar
0
5
10
15
20
Energy (MeV)

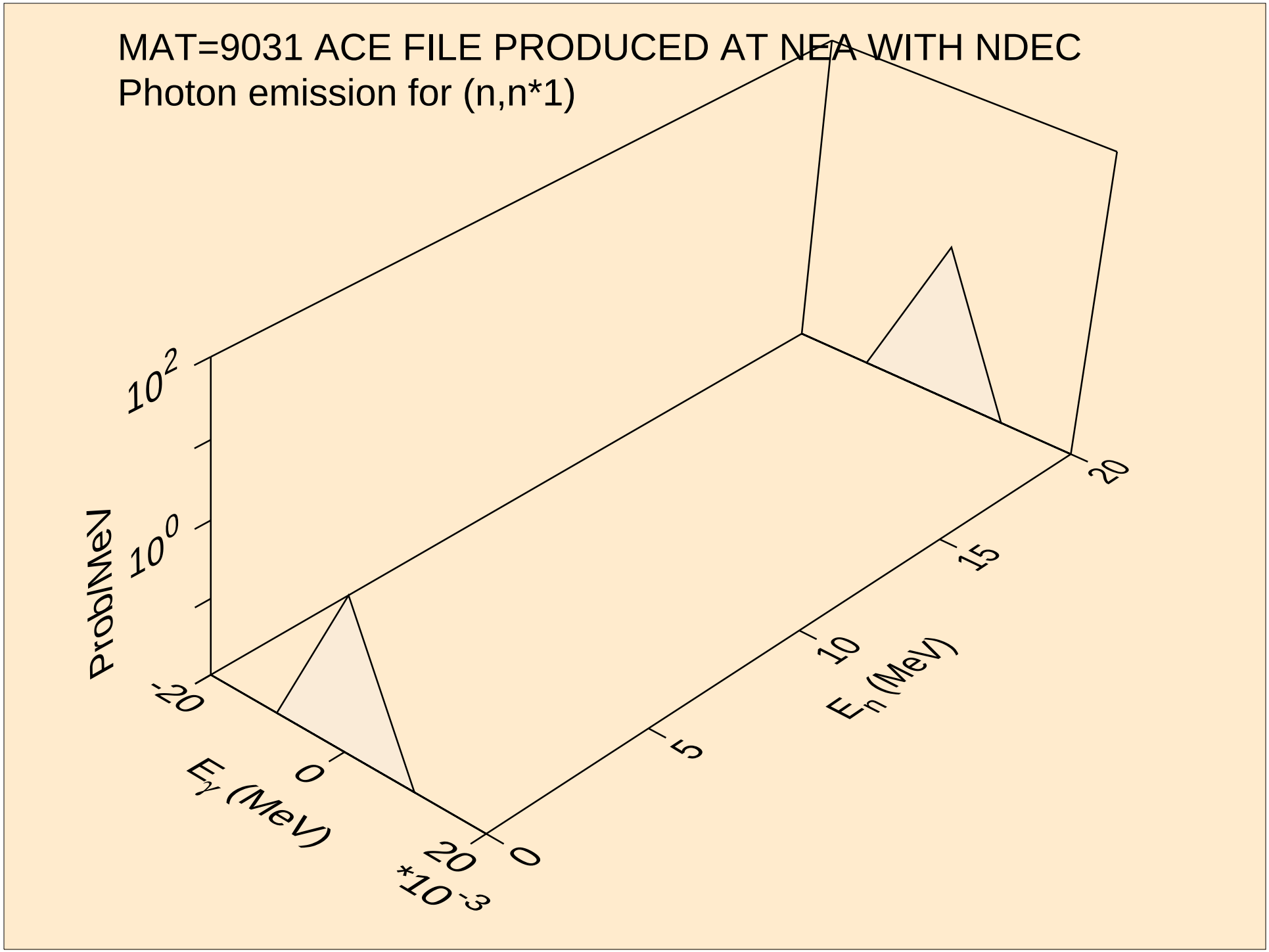

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Delayed neutron spectra
Probability
Energy (MeV)
10-1
10-2
10-3
10-2
10-1
100
101
group 1 frac 0.1104 decay/shake 1.247E-10
group 2 frac 0.1302 decay/shake 2.829E-10
group 3 frac 0.1674 decay/shake 4.252E-10
group 4 frac 0.1507 decay/shake 1.330E-09
group 5 frac 0.3228 decay/shake 2.925E-09
group 6 frac 0.0829 decay/shake 6.665E-09
group 7 frac 0.0302 decay/shake 1.635E-08
group 8 frac 0.0053 decay/shake 3.555E-08

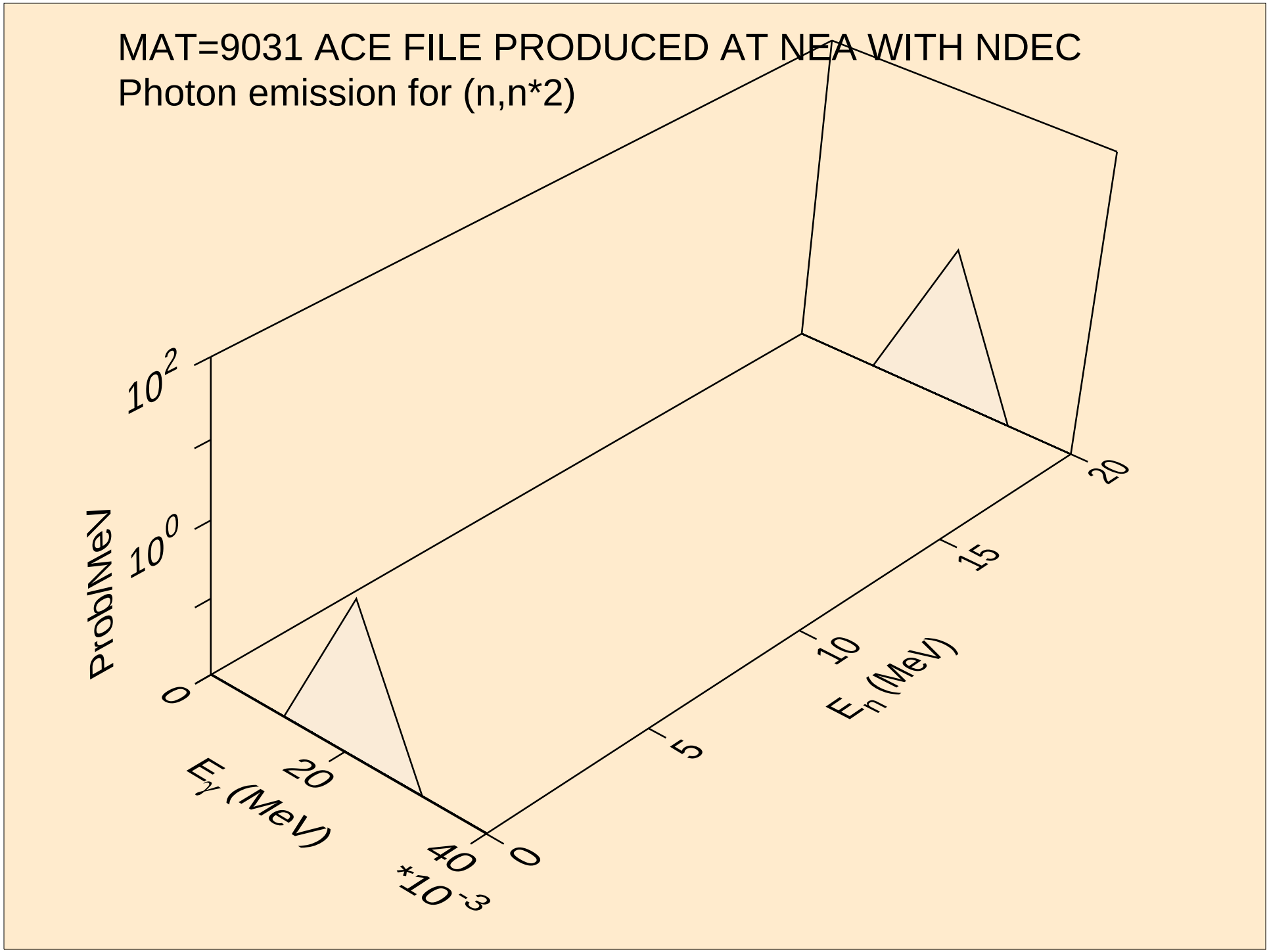

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for fission
Prob/MeV
10^{0}
10^{-2}
10^{-4}
0
5
10
E_γ (MeV)
5
10
15
20
E_n (MeV)

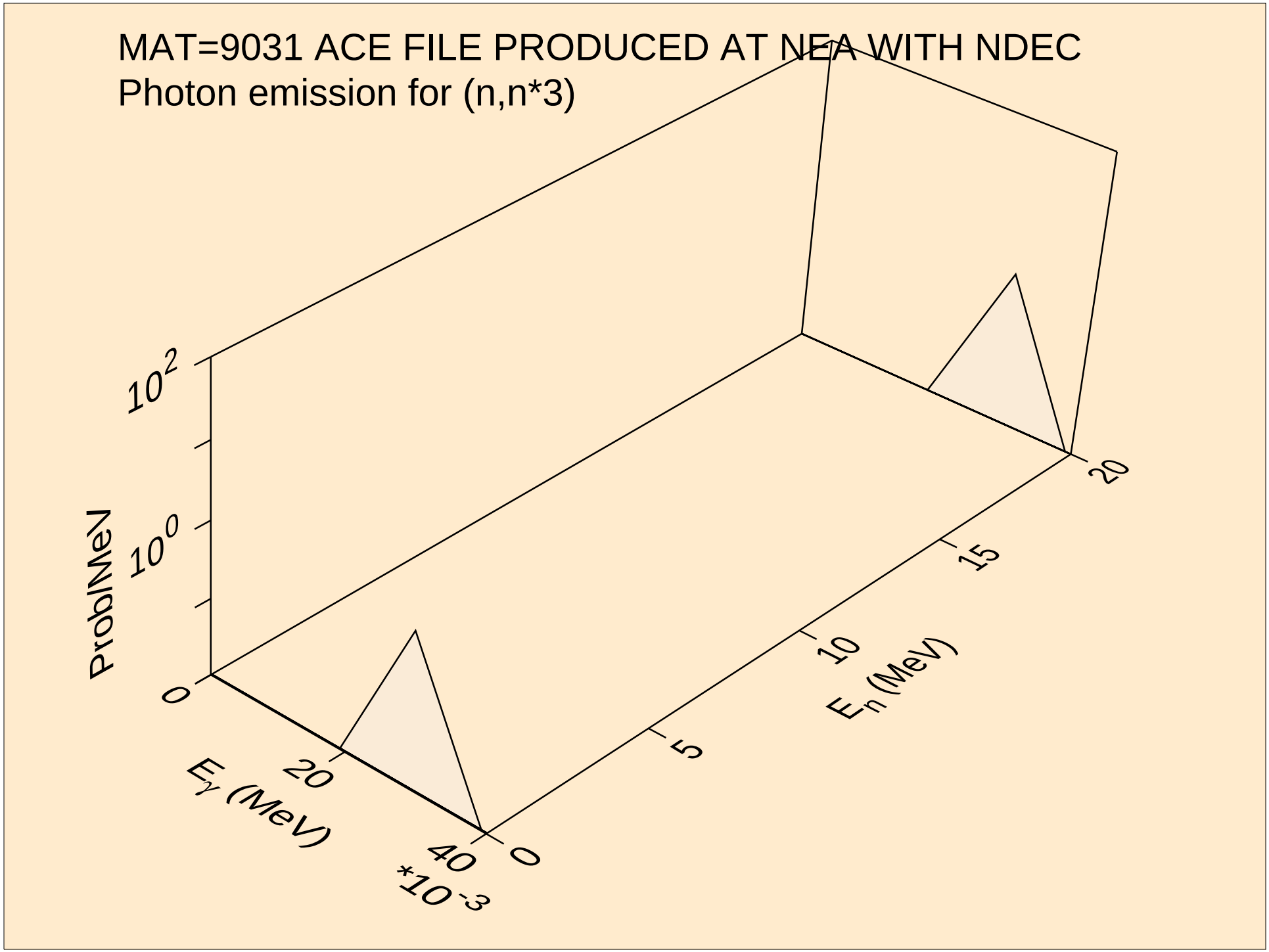

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,2n)
Prob/MeV
10^2
10^0
0
2
4
6
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

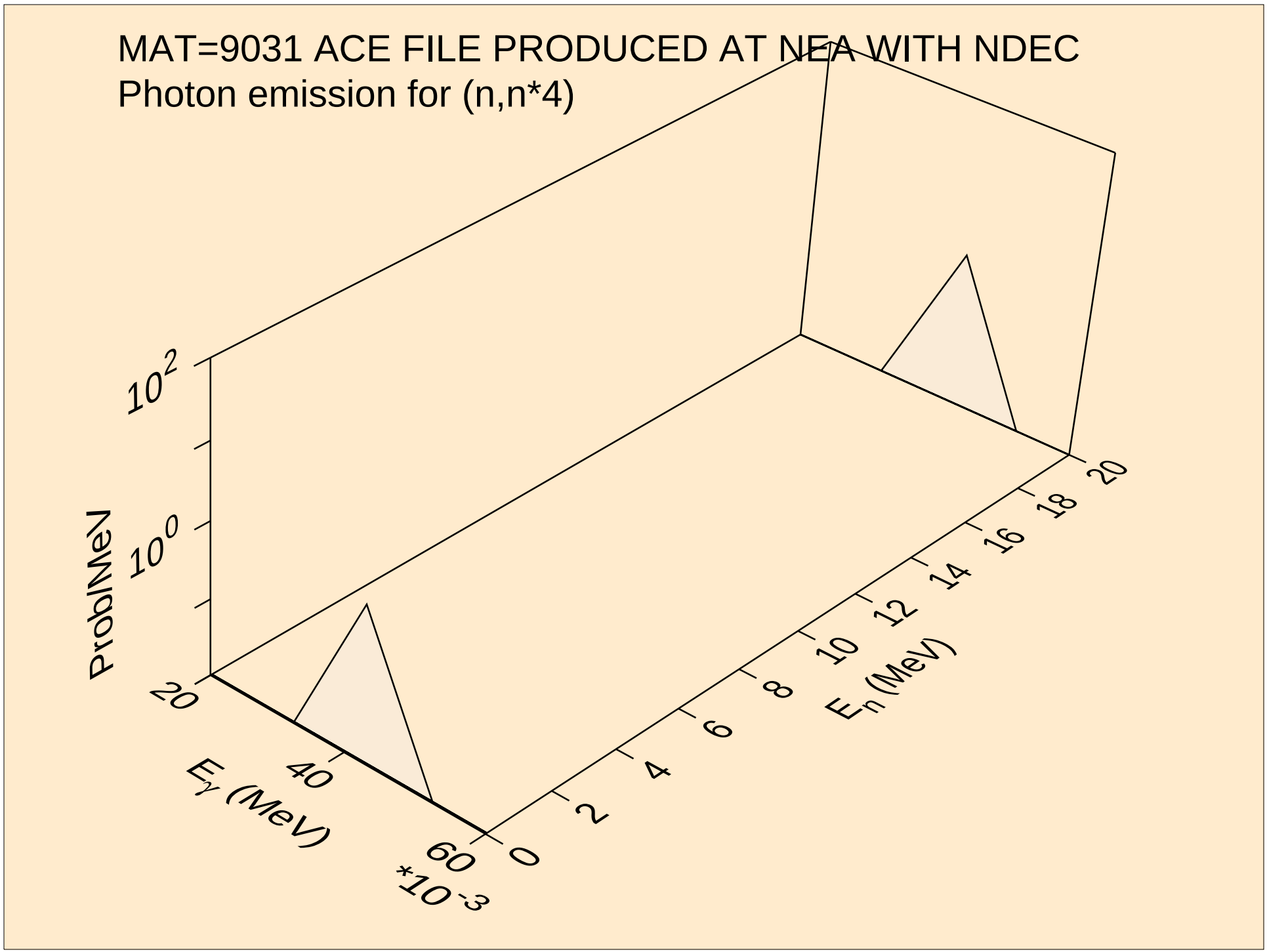

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,3n)
Prob/MeV
10^{0}
10^{-2}
0
E_γ (MeV)
2
4
6
12
13
14
15
16
17
18
19
20
E_n (MeV)

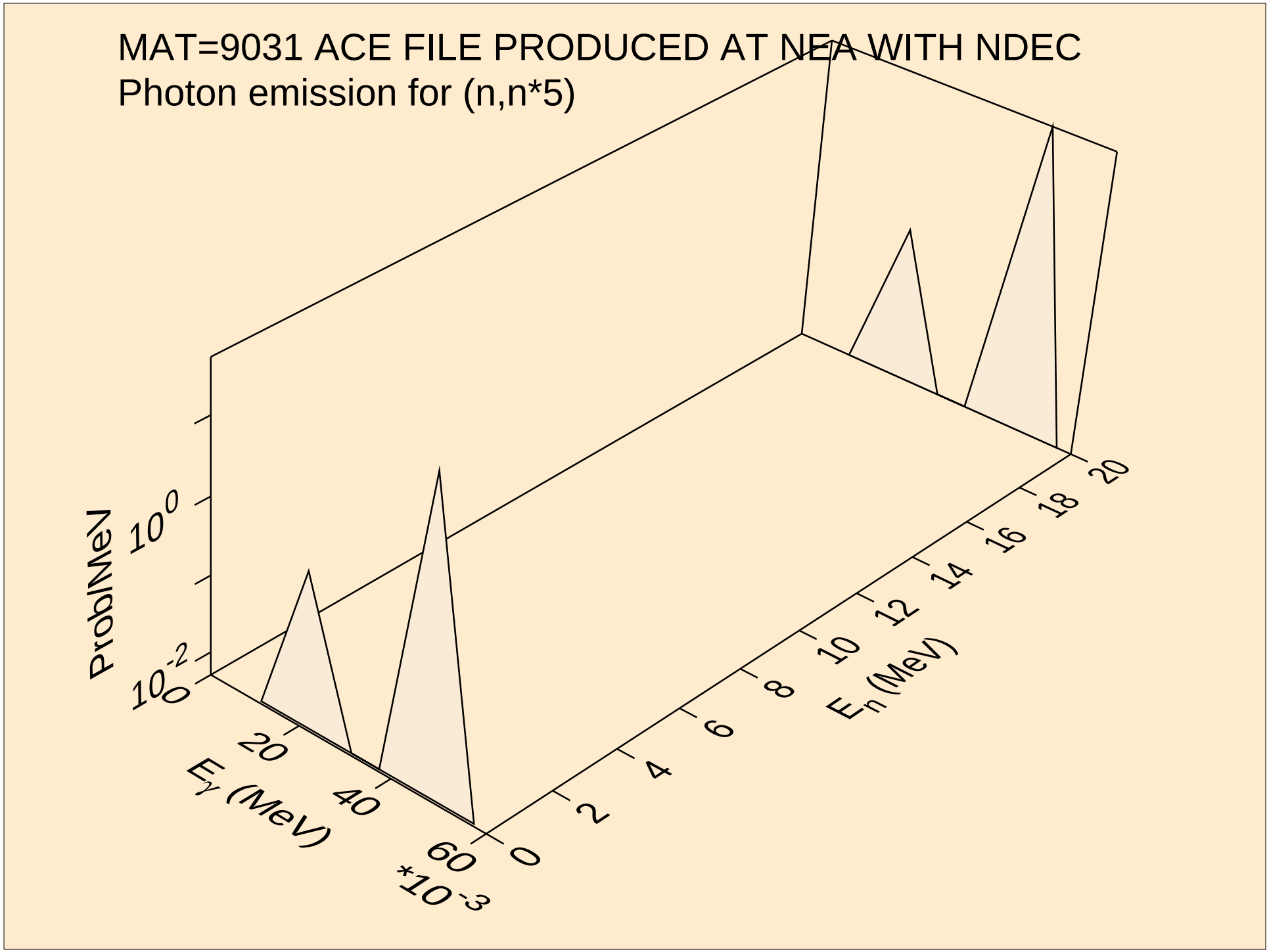

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,4n)
Prob/MeV
10^2
10^0
0.0
0.5
1.0
E_γ (MeV)
17.5
18.0
18.5
19.0
19.5
20.0
E_n (MeV)

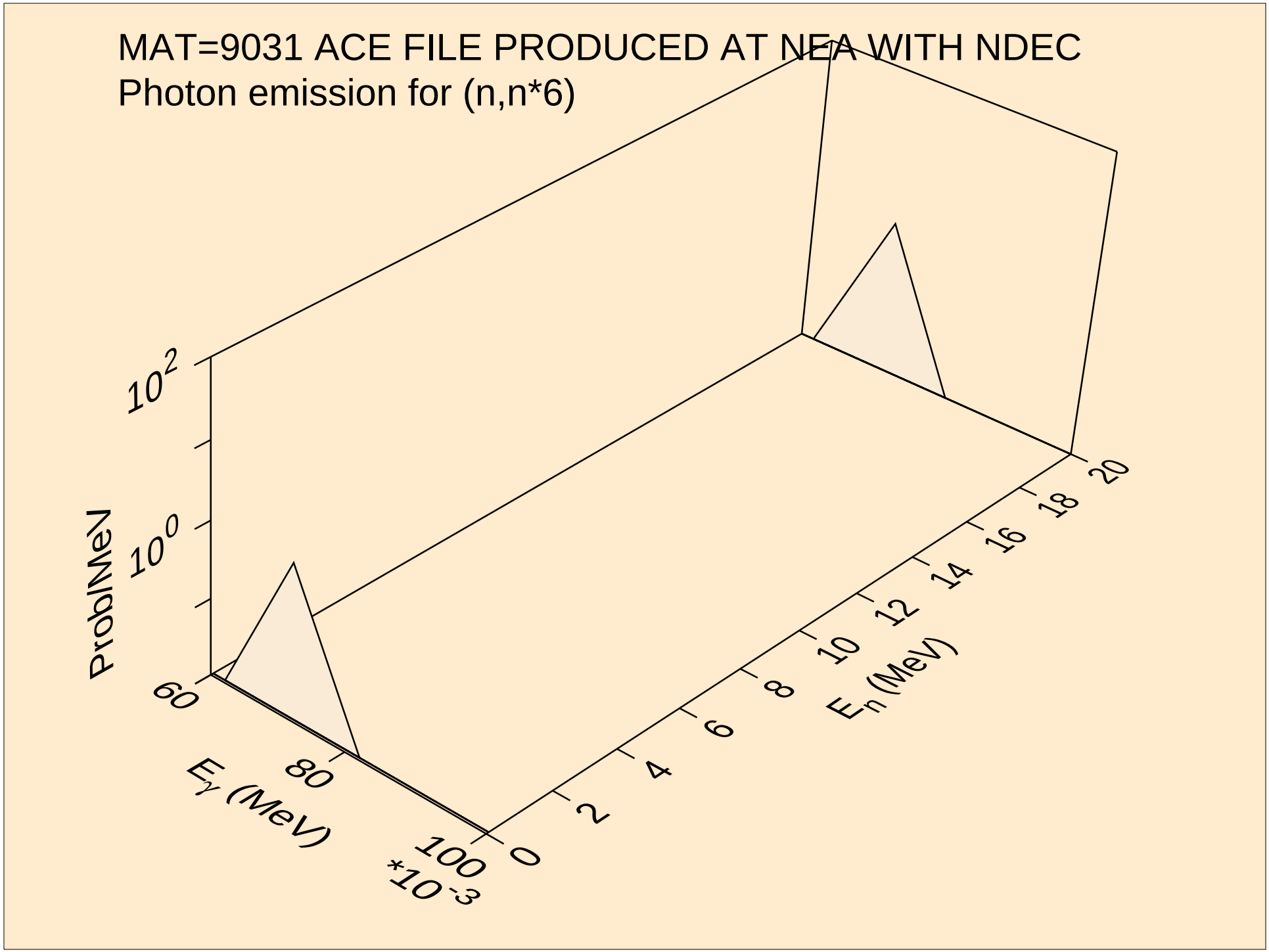

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*1)
Prob/MeV
10^2
10^0
-20
0
20
E_γ (MeV)
*10 -3
0
5
10
15
20
E_n (MeV)

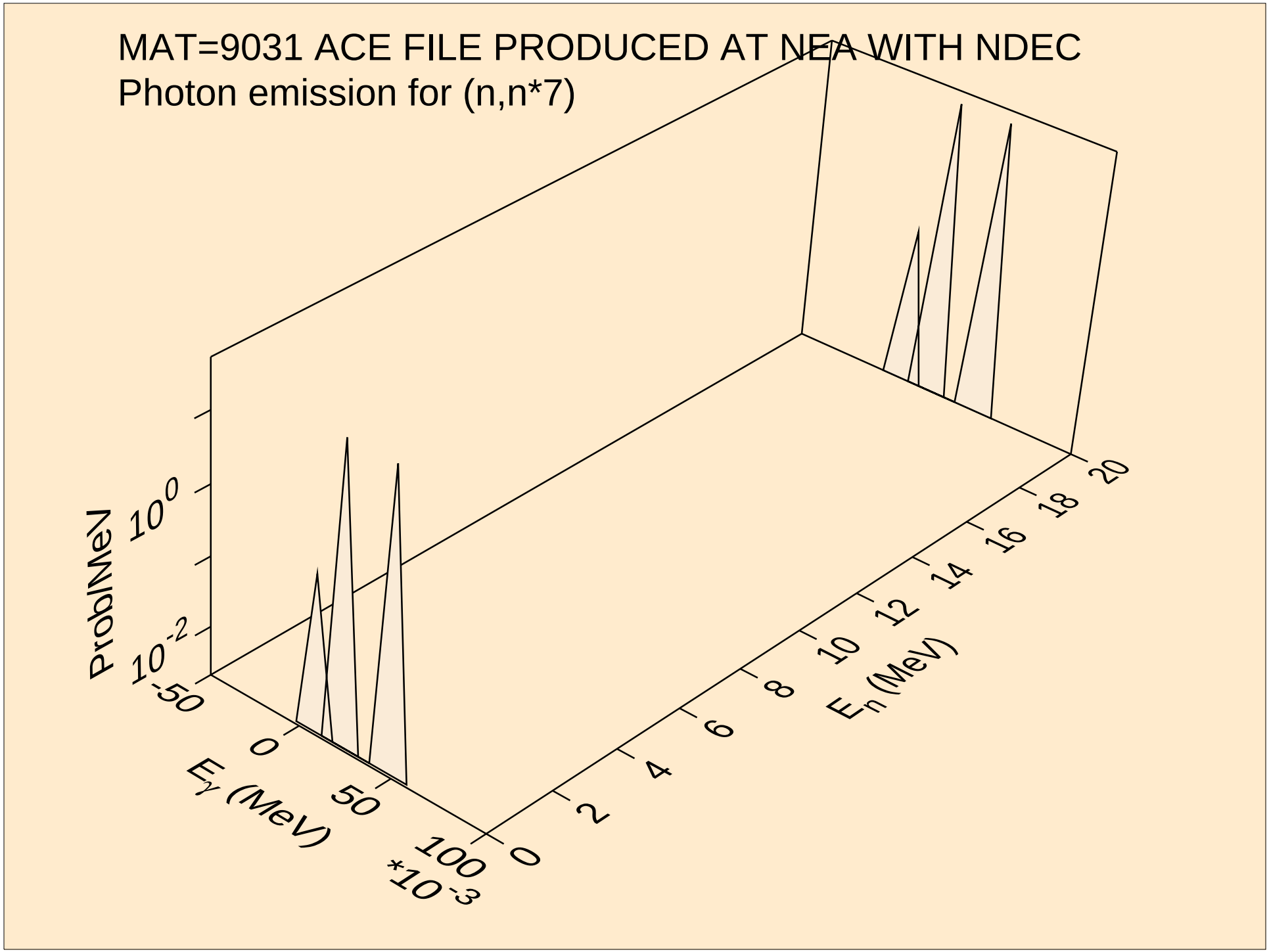

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*2)
Prob/MeV
10^2
10^0
0
20
E_γ (MeV)
40
*10 -3
0
5
10
15
20
E_n (MeV)

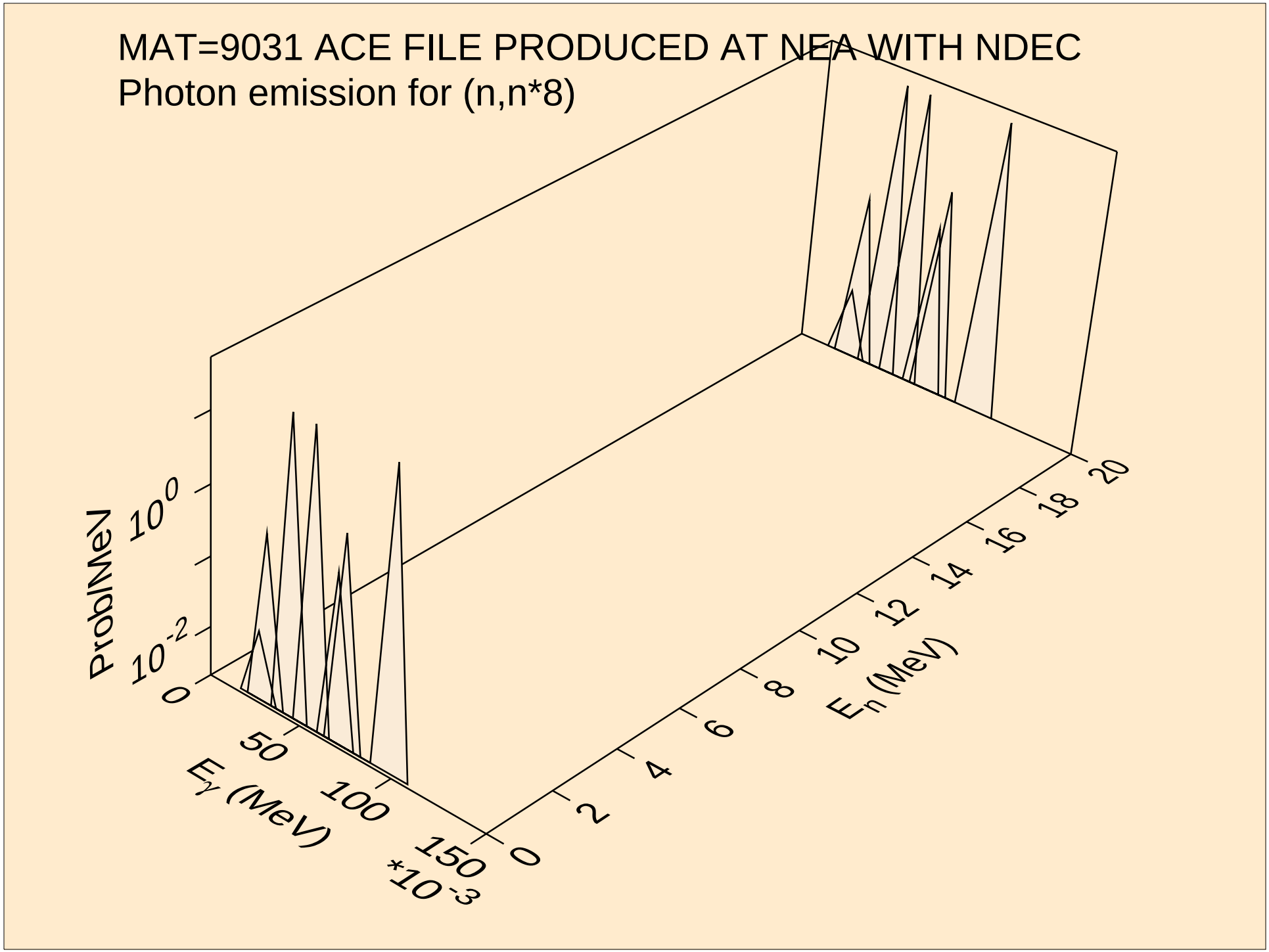

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*3)
Prob/MeV
10^2
10^0
0
20
E_γ (MeV)
40
*10 -3
0
5
10
15
20
E_n (MeV)

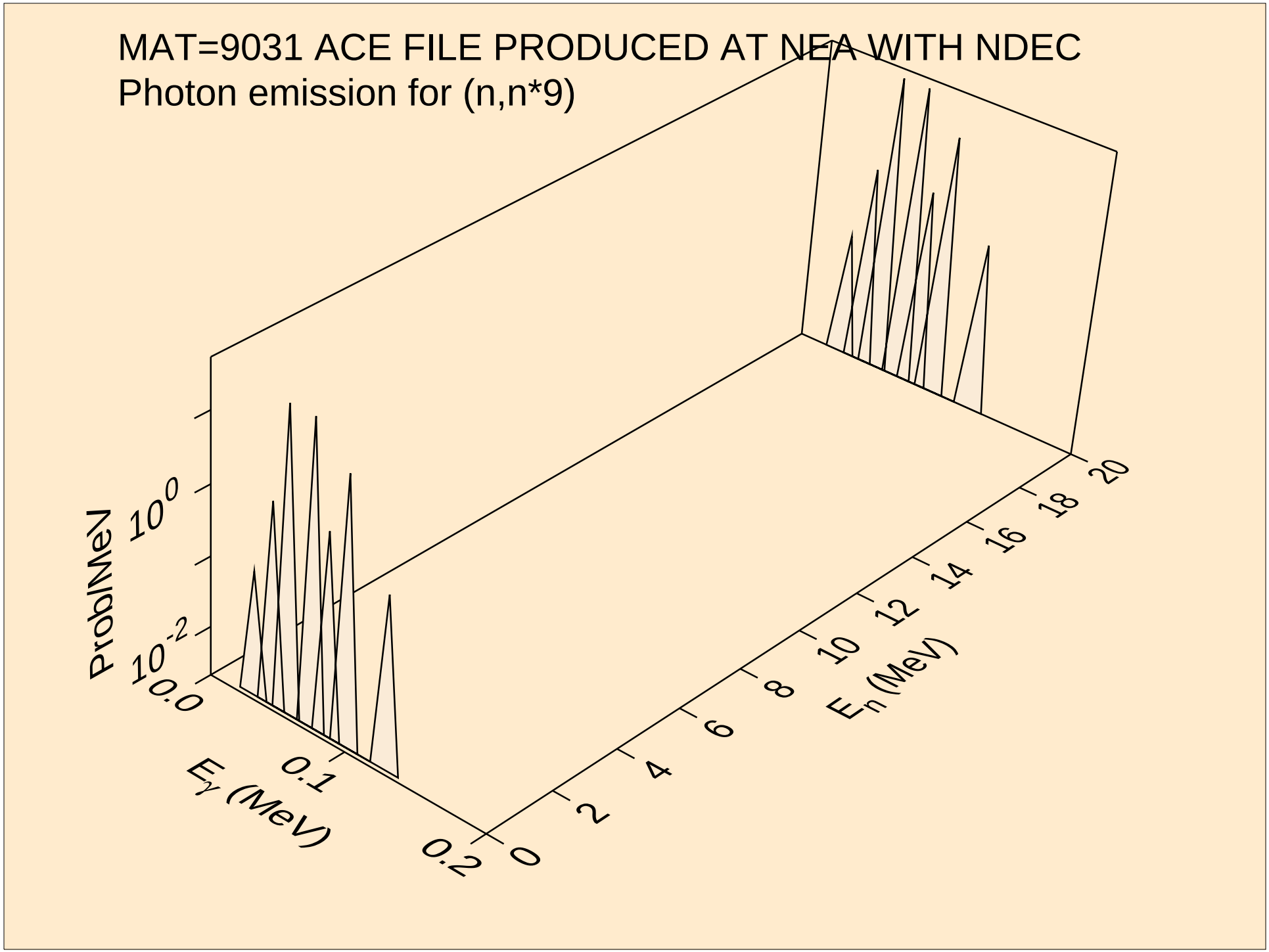

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*4)
Prob/MeV
10^2
10^0
20
40
60
E_γ (MeV)
*10 -3
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

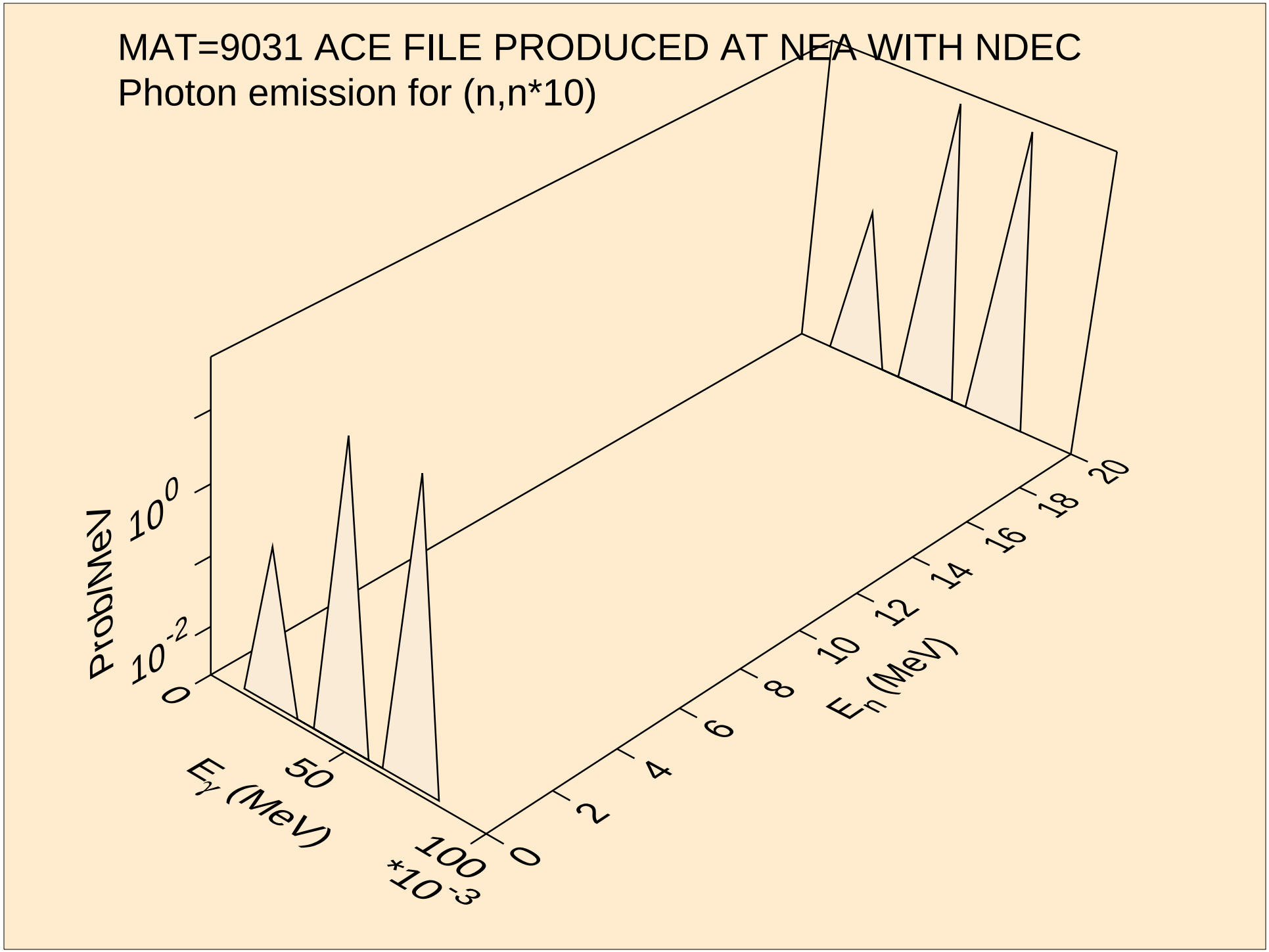

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*5)
Prob/MeV
10^0
10^-2
0
20
40
60
*10^-3
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

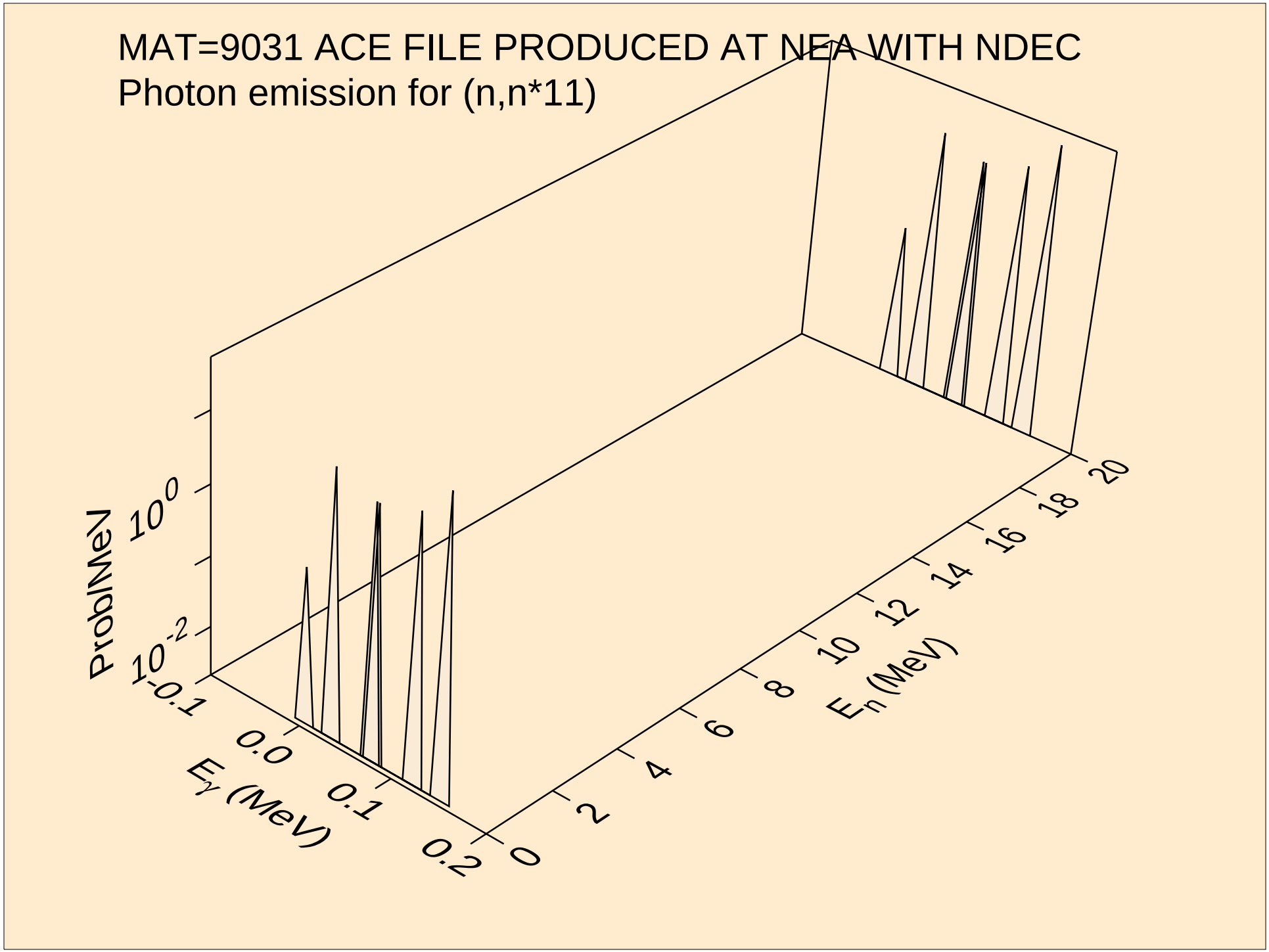

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*6)
Prob/MeV
10^2
10^0
60
80
100
E_γ (MeV)
*10 -3
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

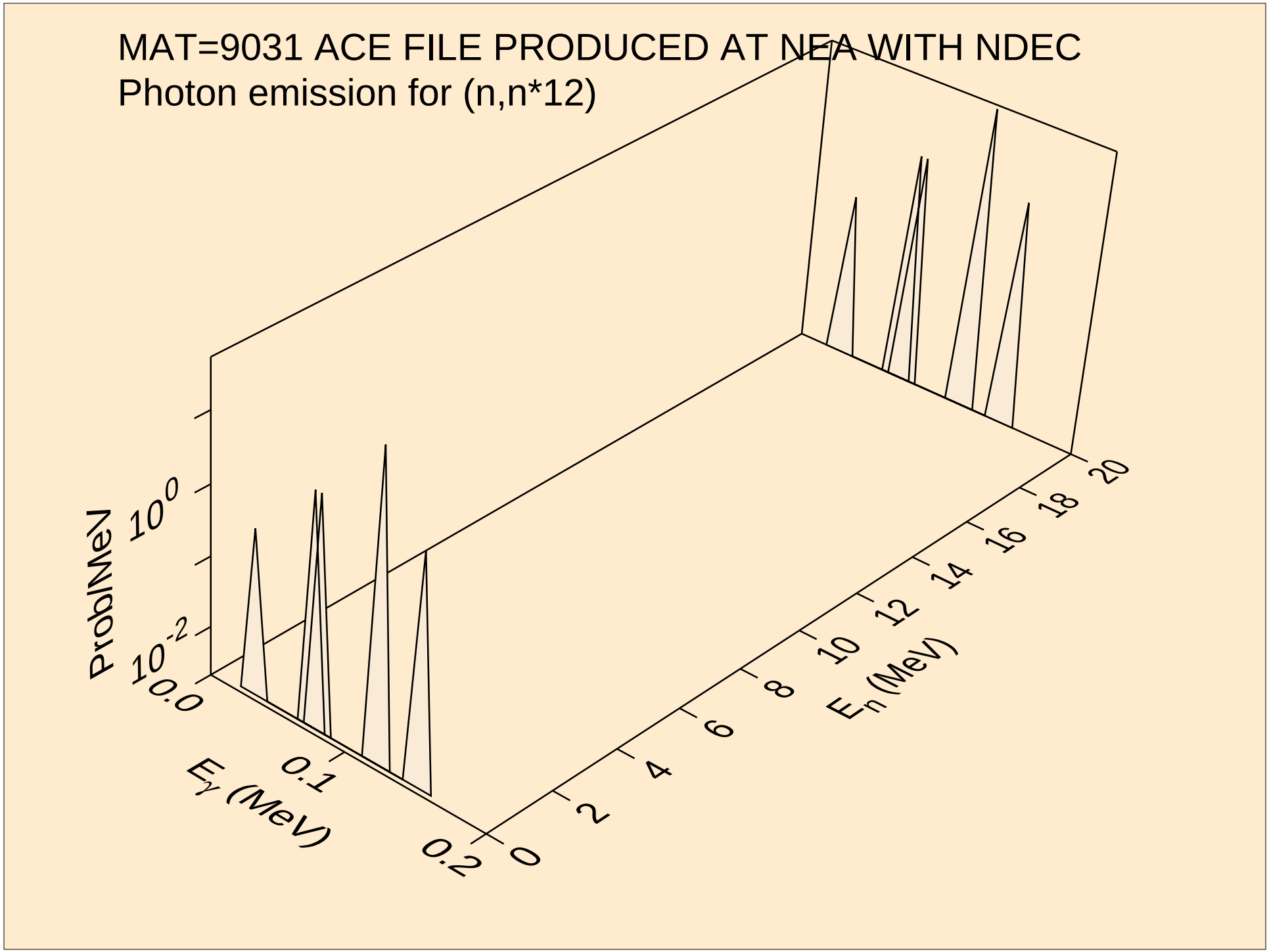

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*7)
Prob/MeV
10^0
10^-2
-50
0
50
100
*10^-3
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

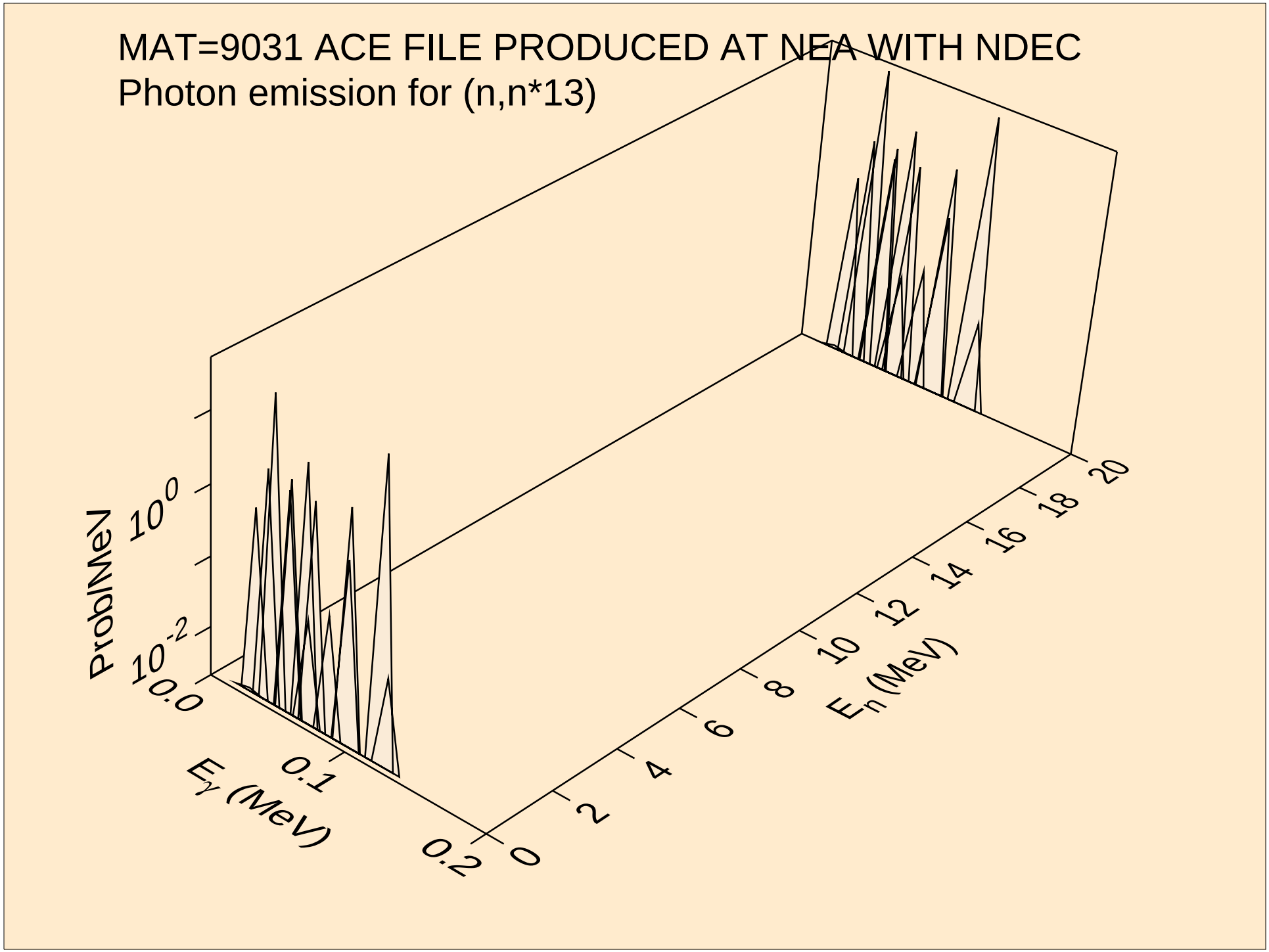

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*8)
Prob/MeV
10^0
10^-2
0
50
100
150
Eγ (MeV)
*10^-3
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

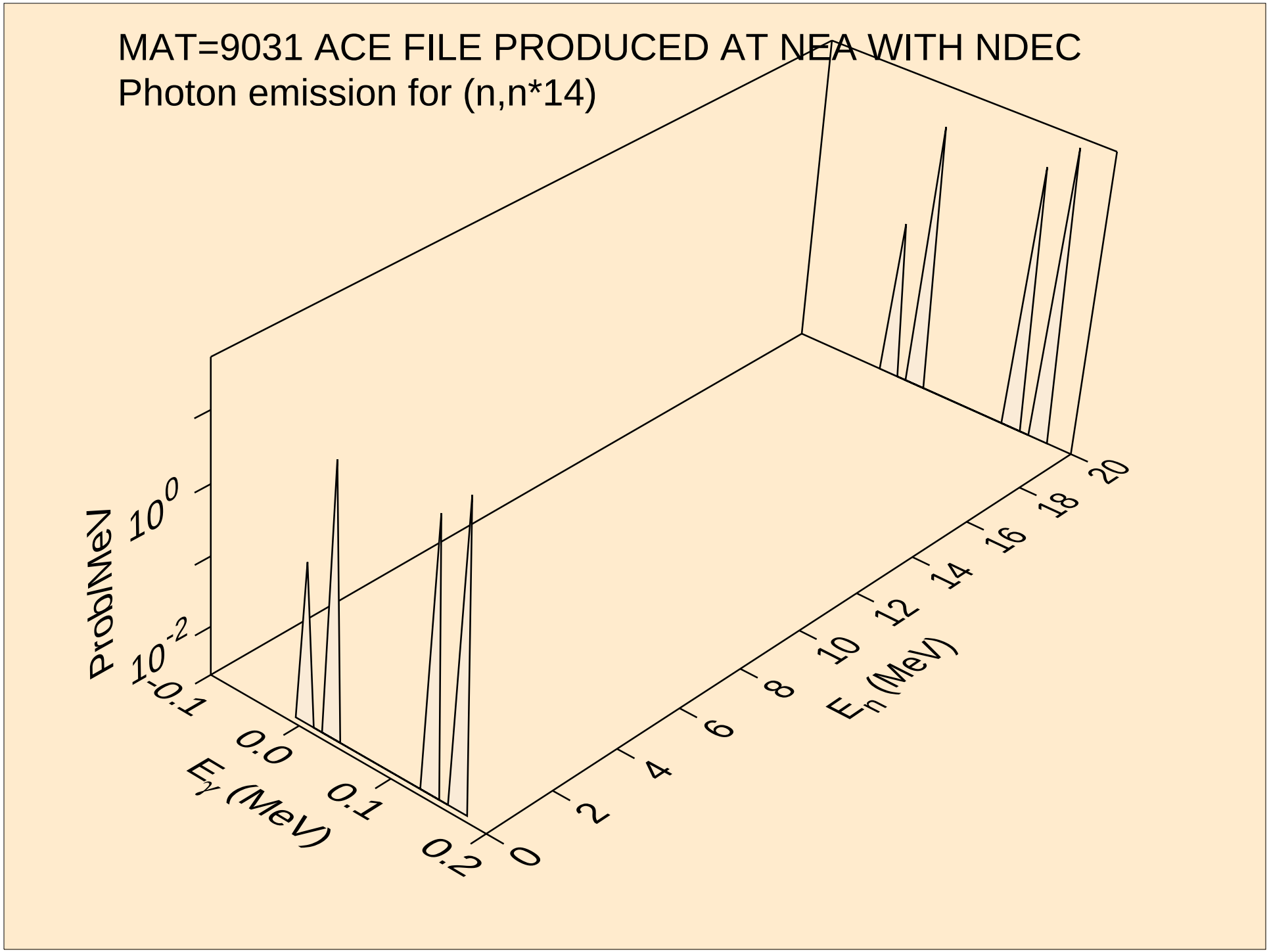

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*9)
Prob/MeV
10^{0}
10^{-2}
0.0
0.1
0.2
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

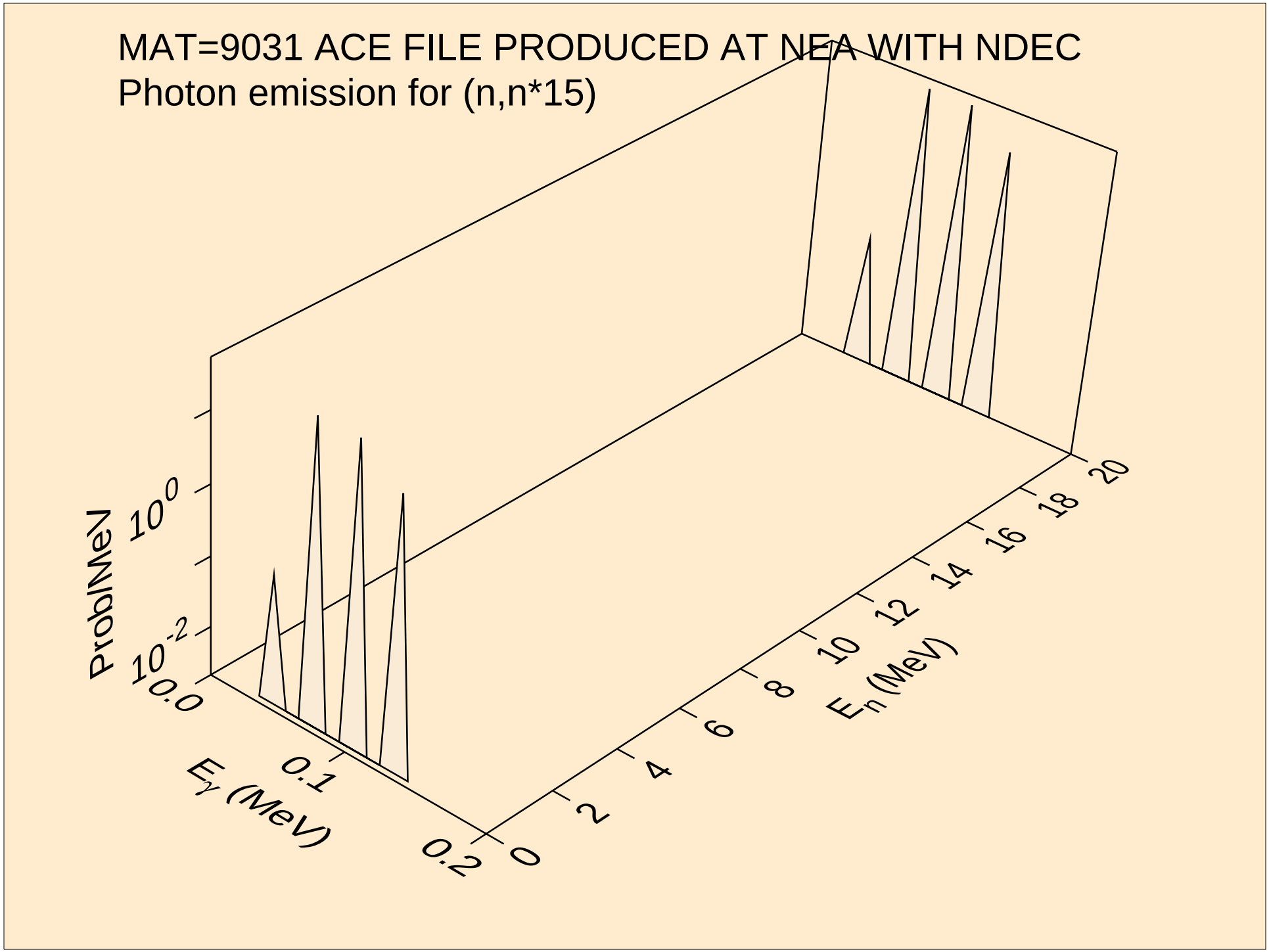

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*10)
Prob/MeV
10^0
10^-2
0
50
100
*10^-3
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

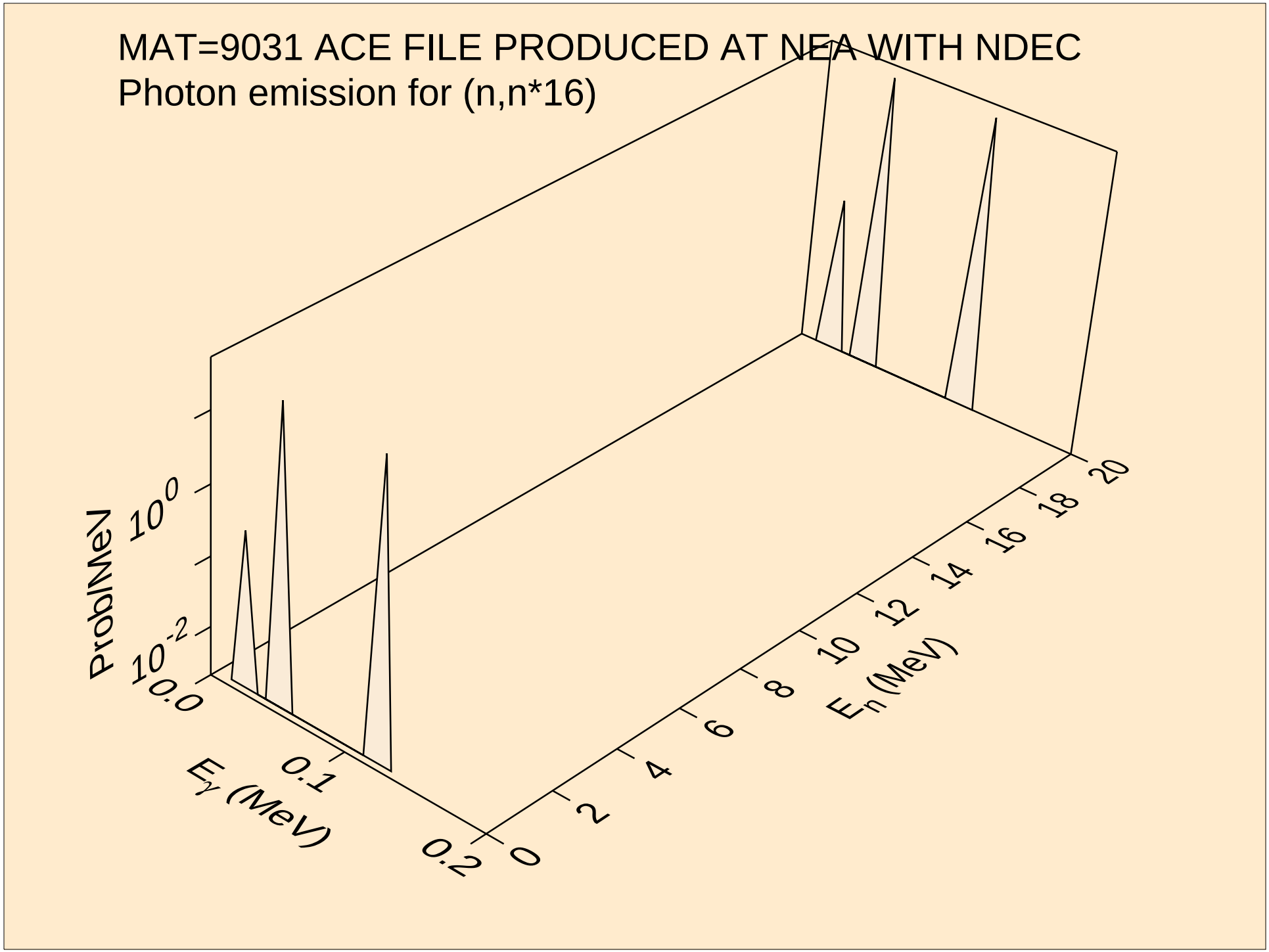

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*11)
Prob/MeV
10^0
10^-2
-0.1
0.0
0.1
0.2
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

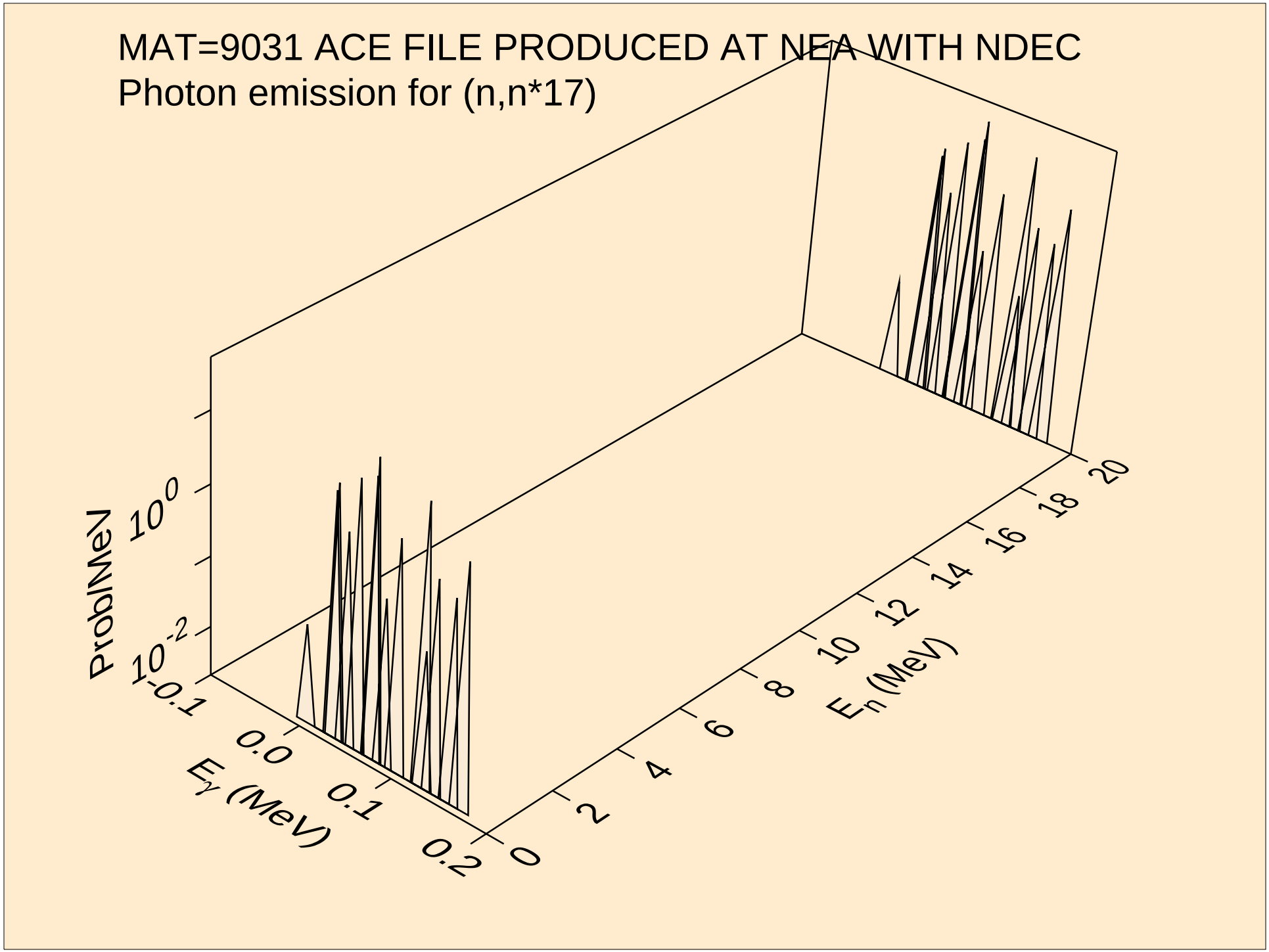

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*12)
Prob/MeV
10^{0}
10^{-2}
0.0
0.1
0.2
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

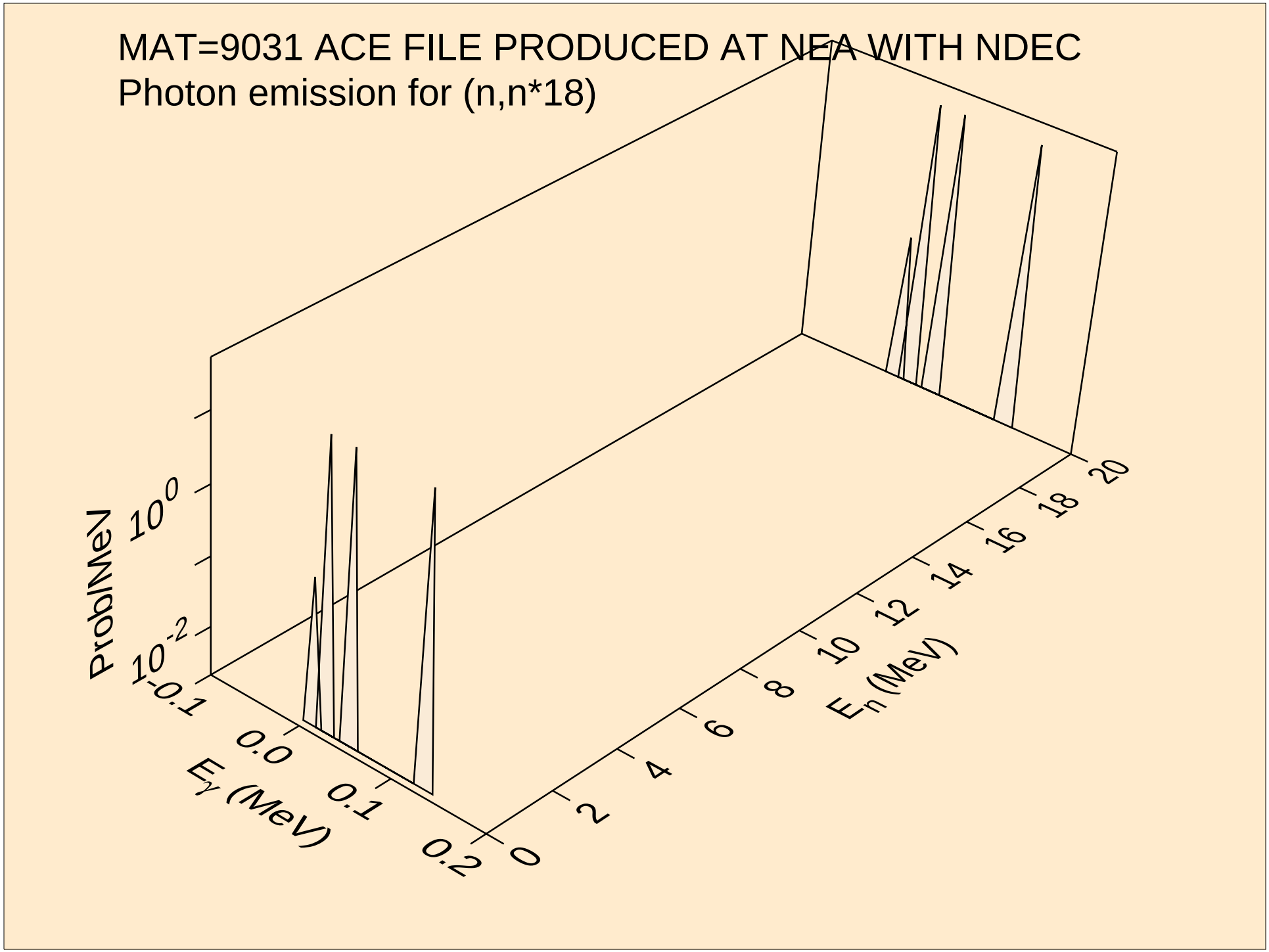

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*13)
Prob/MeV
10^0
10^-2
0.0
0.1
0.2
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

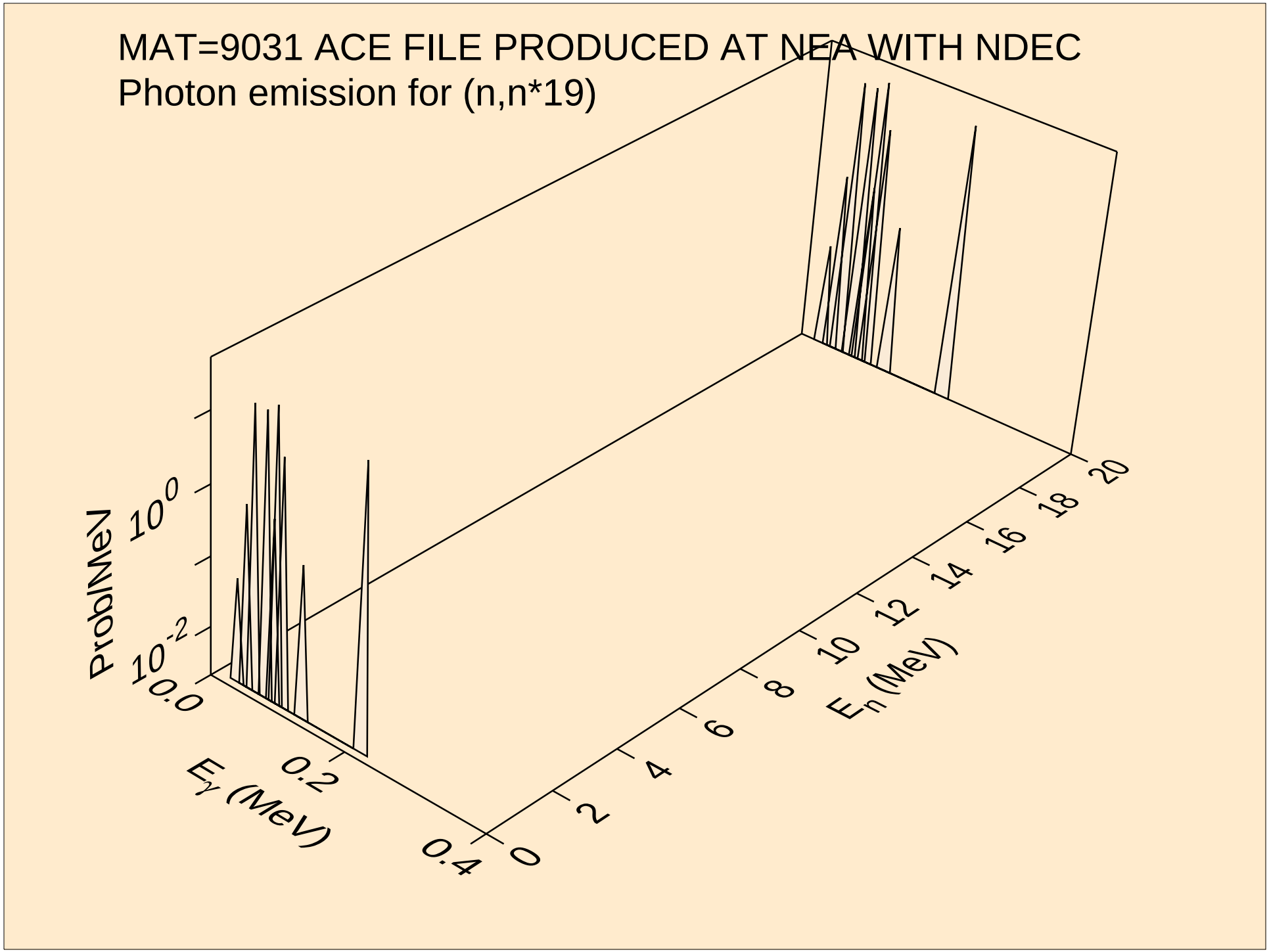

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*14)
Prob/MeV
10^0
10^-2
-0.1
0.0
0.1
0.2
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

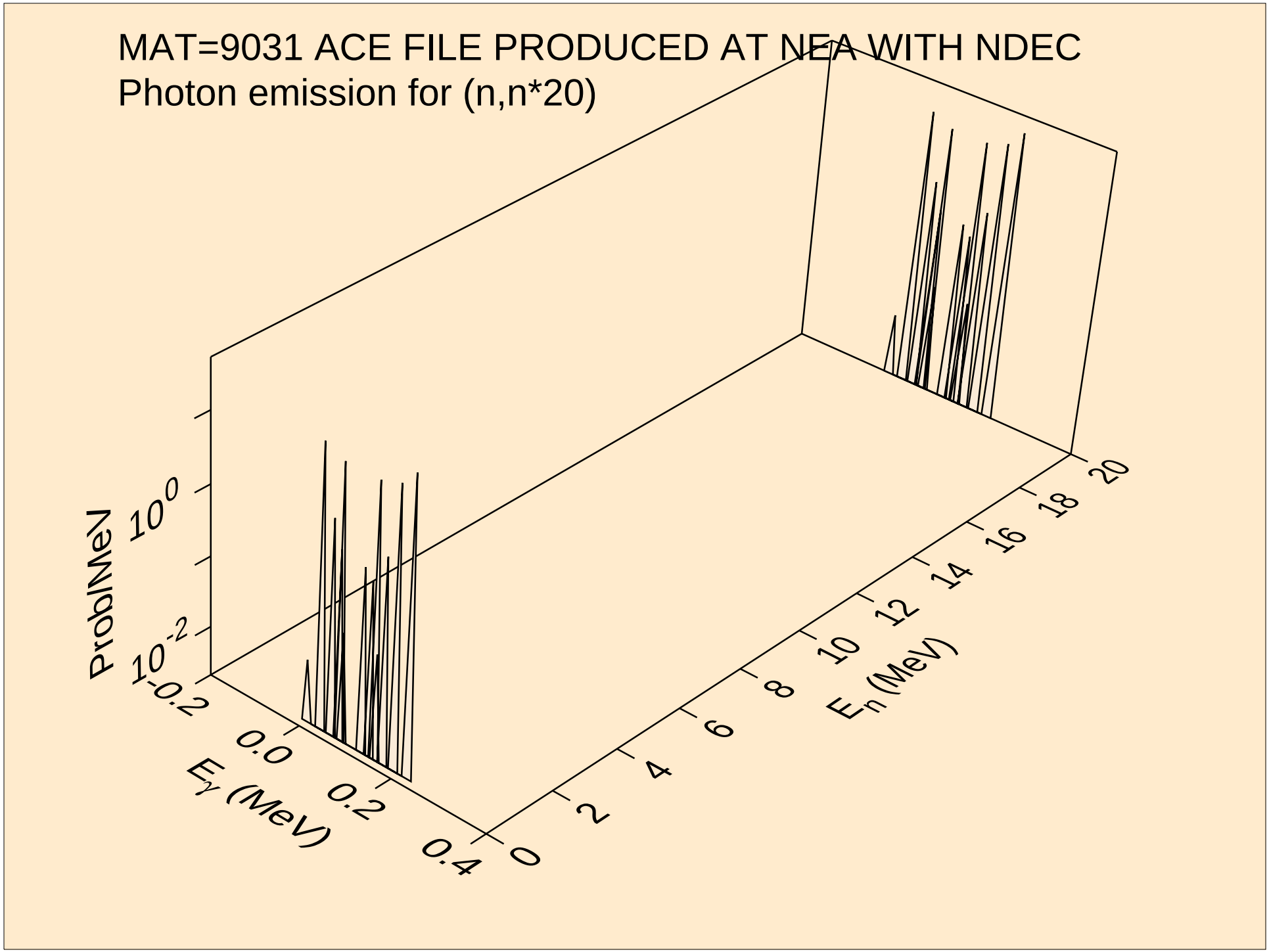

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*15)
Prob/MeV
10^0
10^-2
0.0
0.1
0.2
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

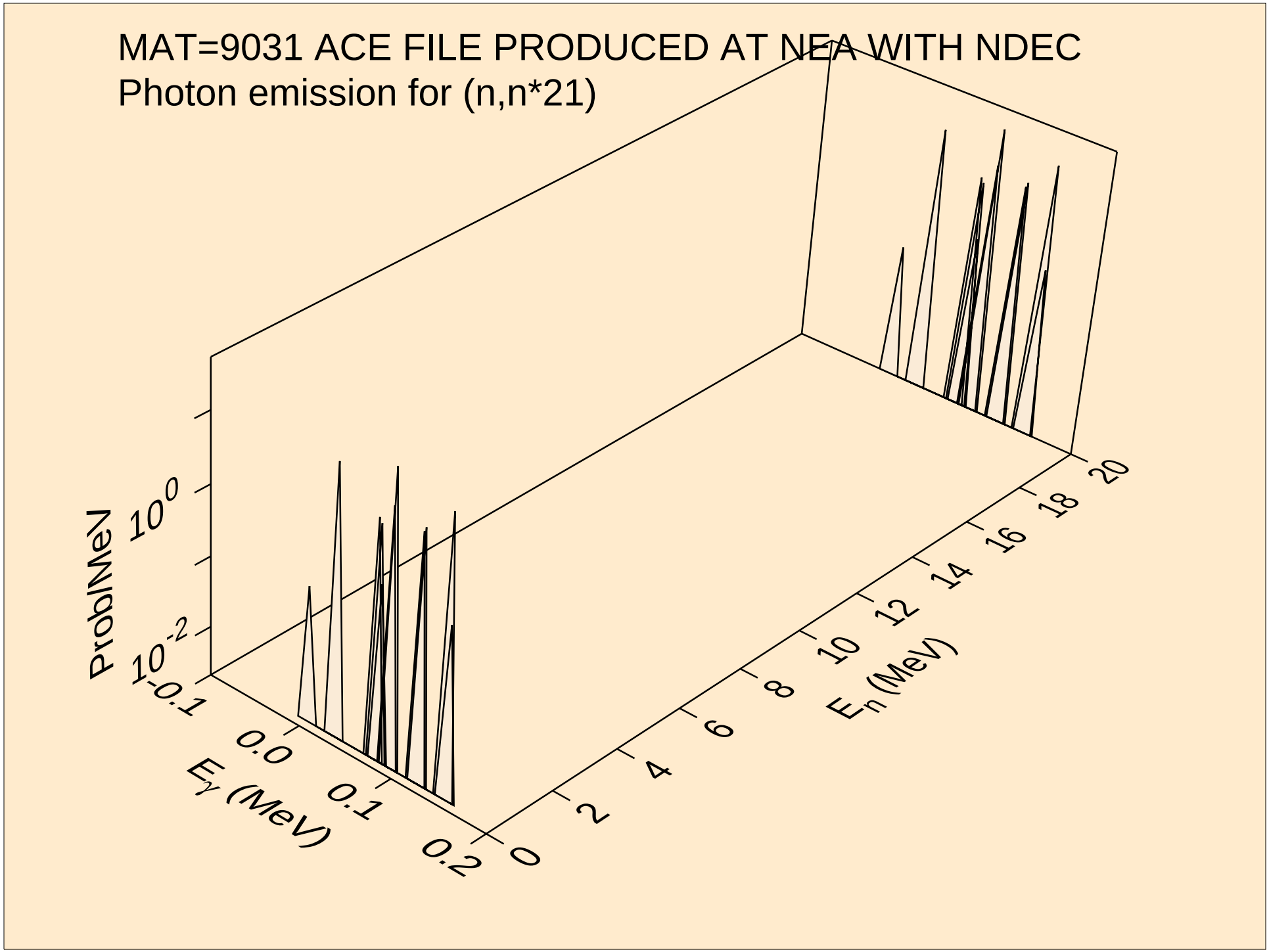

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*16)
Prob/MeV
10^0
10^-2
0.0
0.1
0.2
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

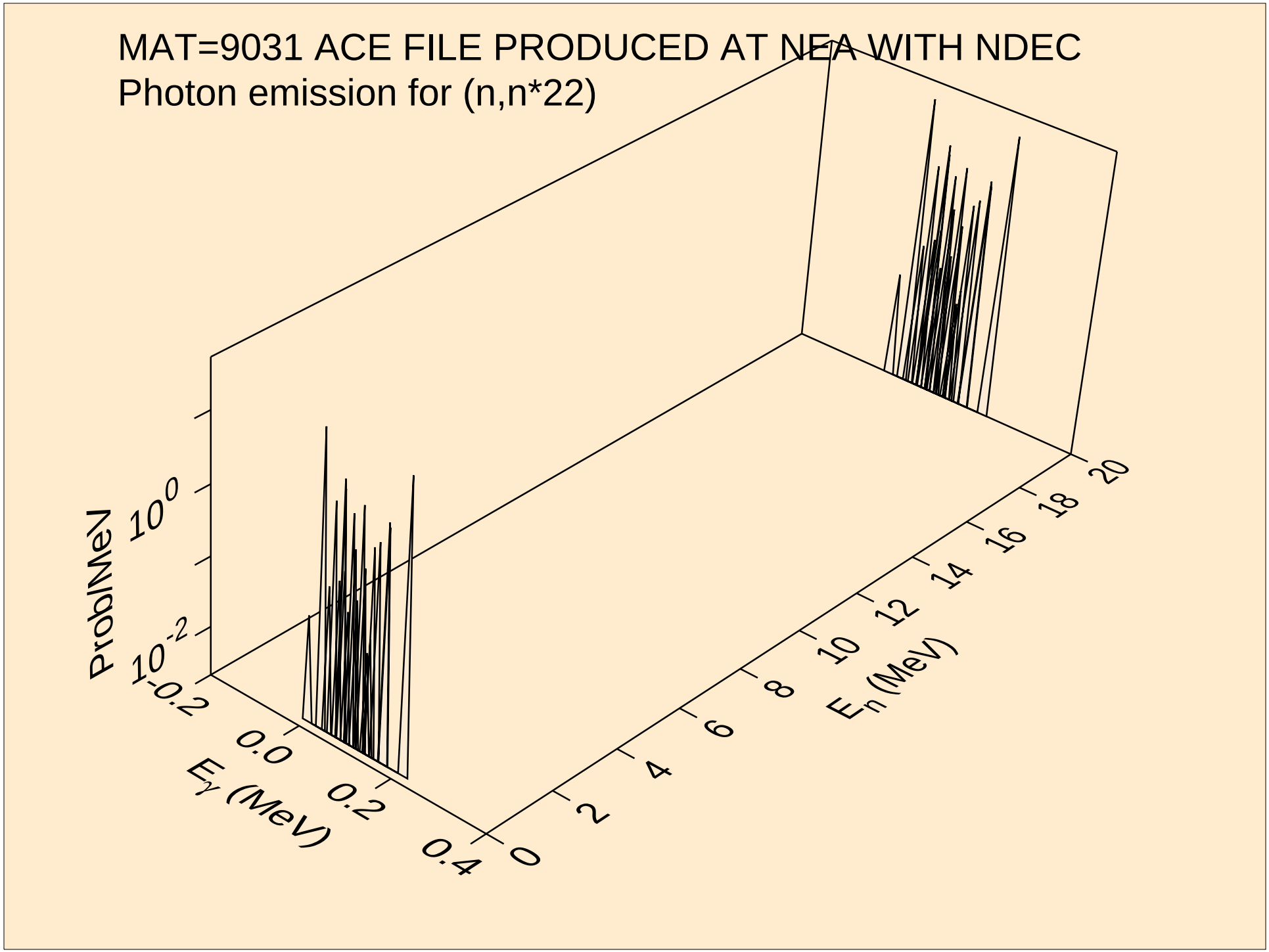

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*17)
Prob/MeV
10^0
10^-2
-0.1
0.0
0.1
0.2
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

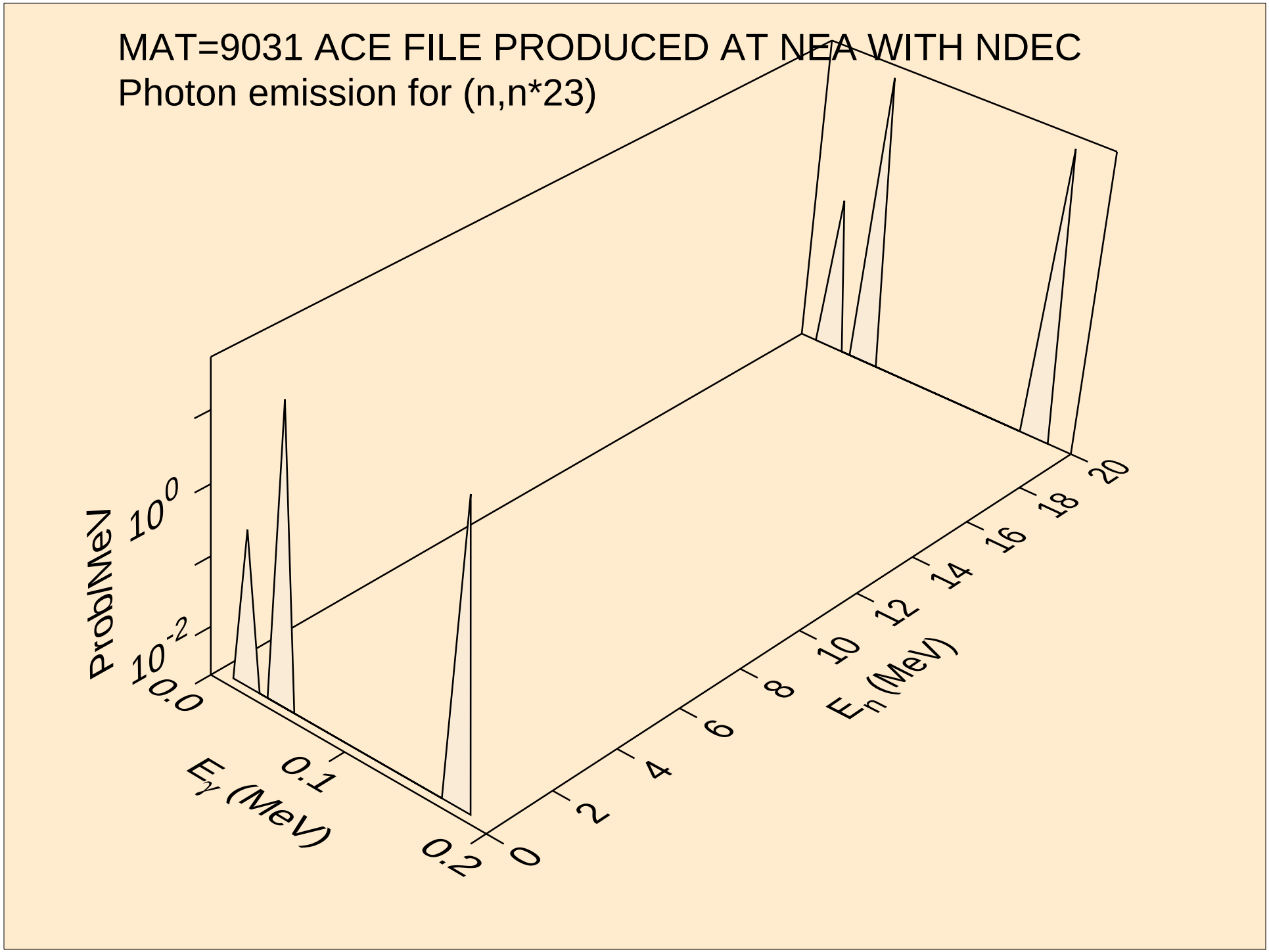

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*18)
Prob/MeV
10^0
10^-2
-0.1
0.0
0.1
0.2
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

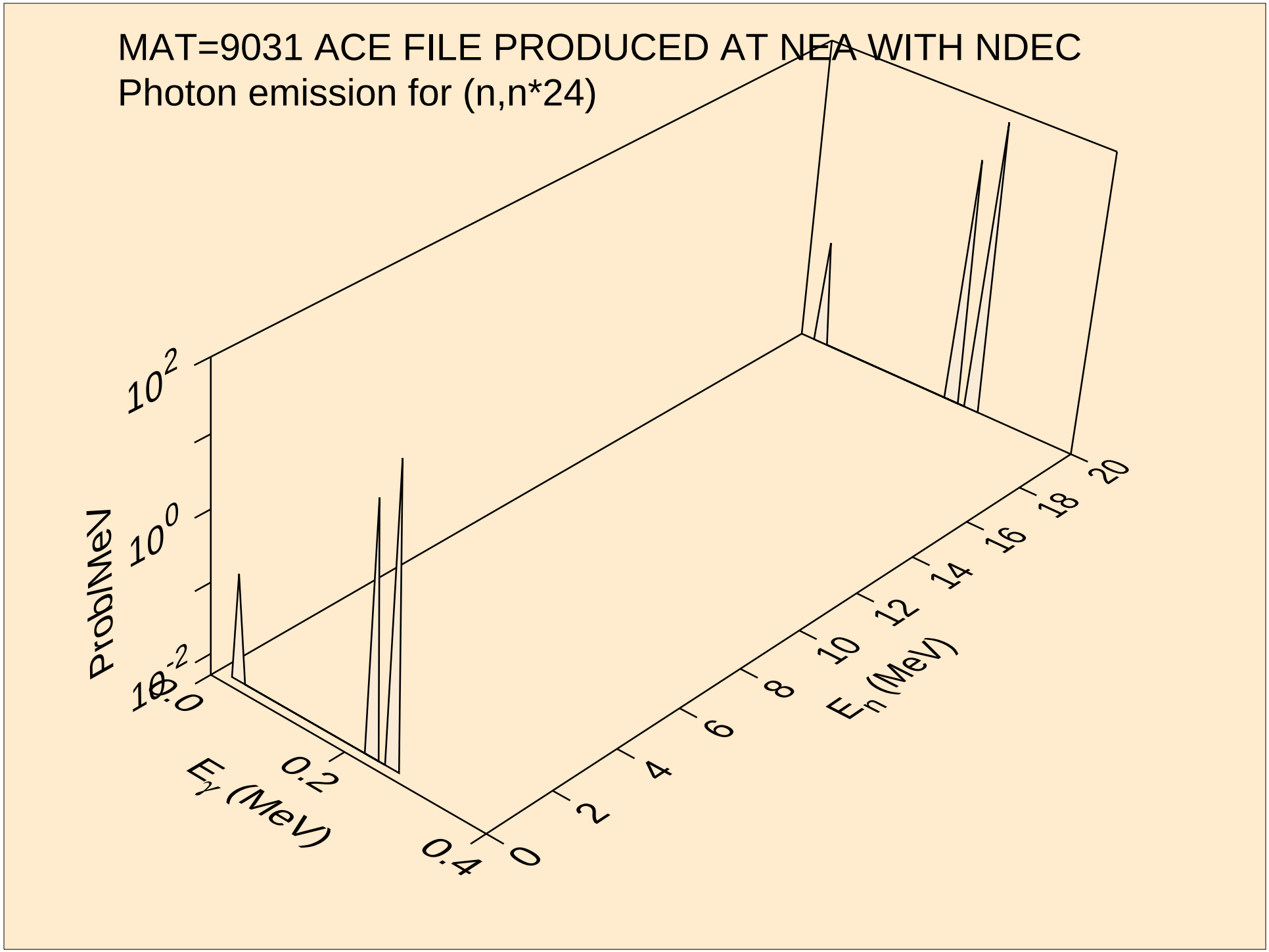

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*19)
Prob/MeV
10^0
10^-2
0.0
0.2
0.4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

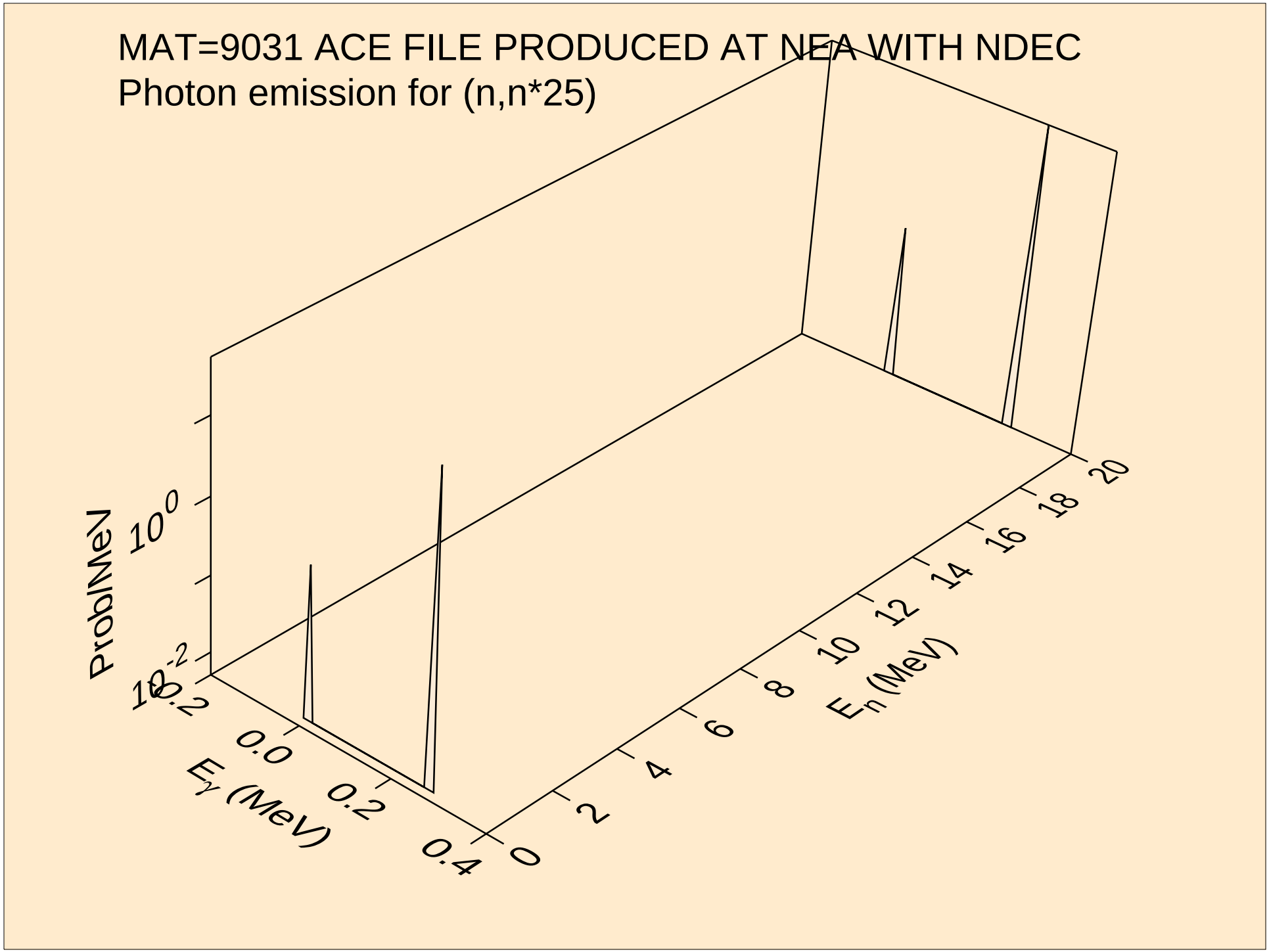

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*20)
Prob/MeV
10^0
10^-2
-0.2
0.0
0.2
0.4
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

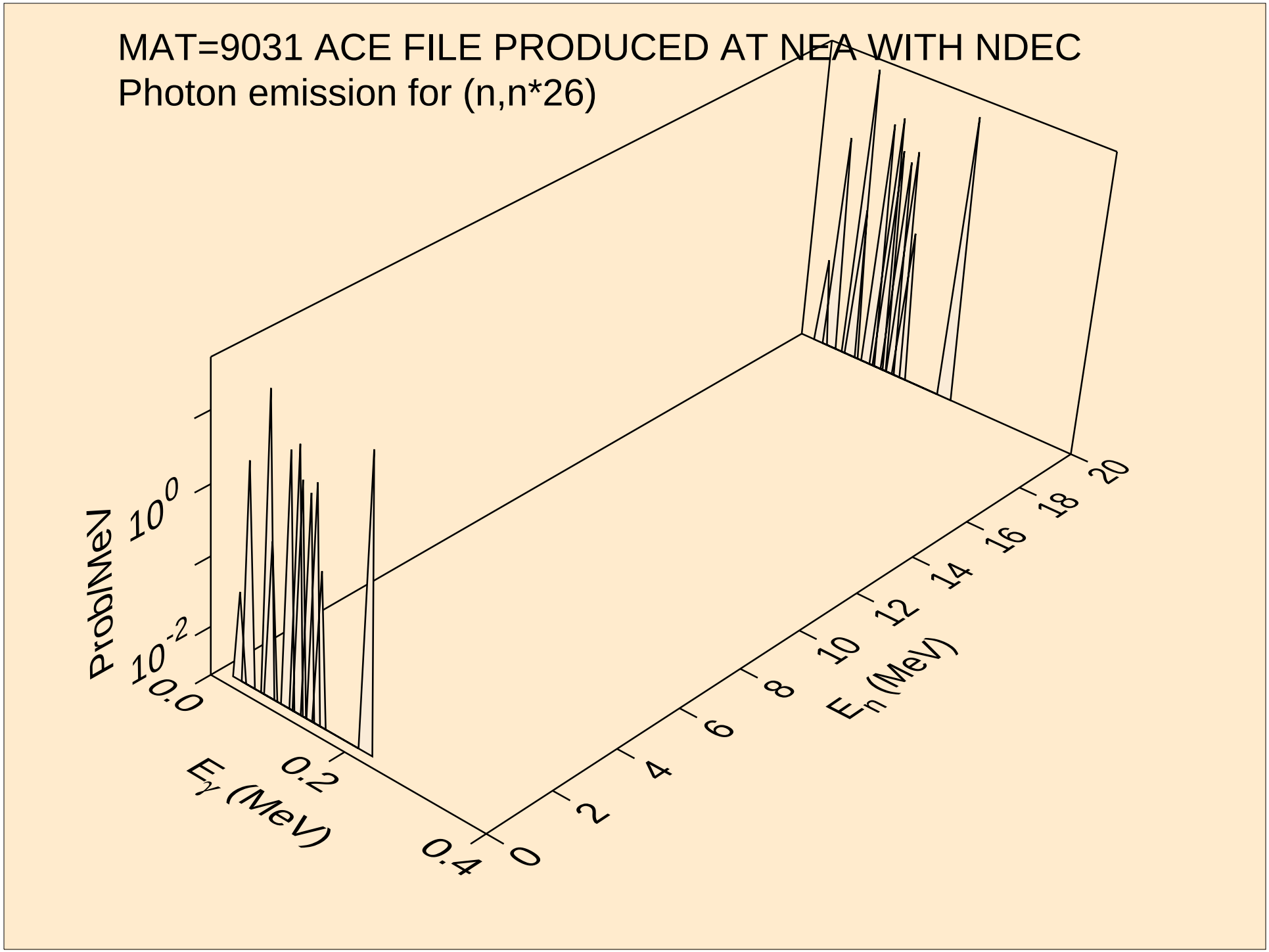

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*21)
Prob/MeV
10^0
10^-2
-0.1
0.0
0.1
0.2
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

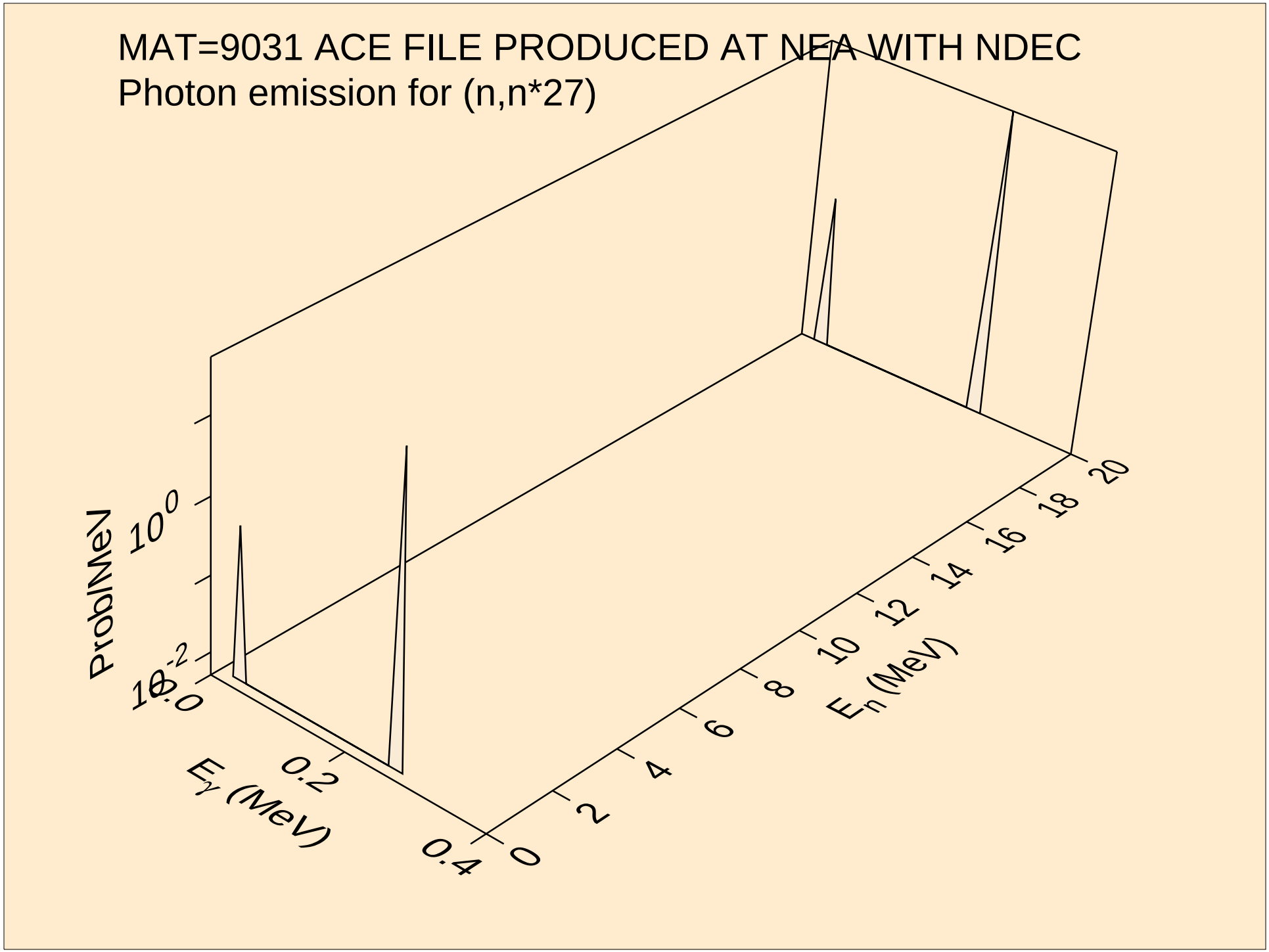

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*22)
Prob/MeV
10^0
10^-2
-0.2
0.0
0.2
0.4
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

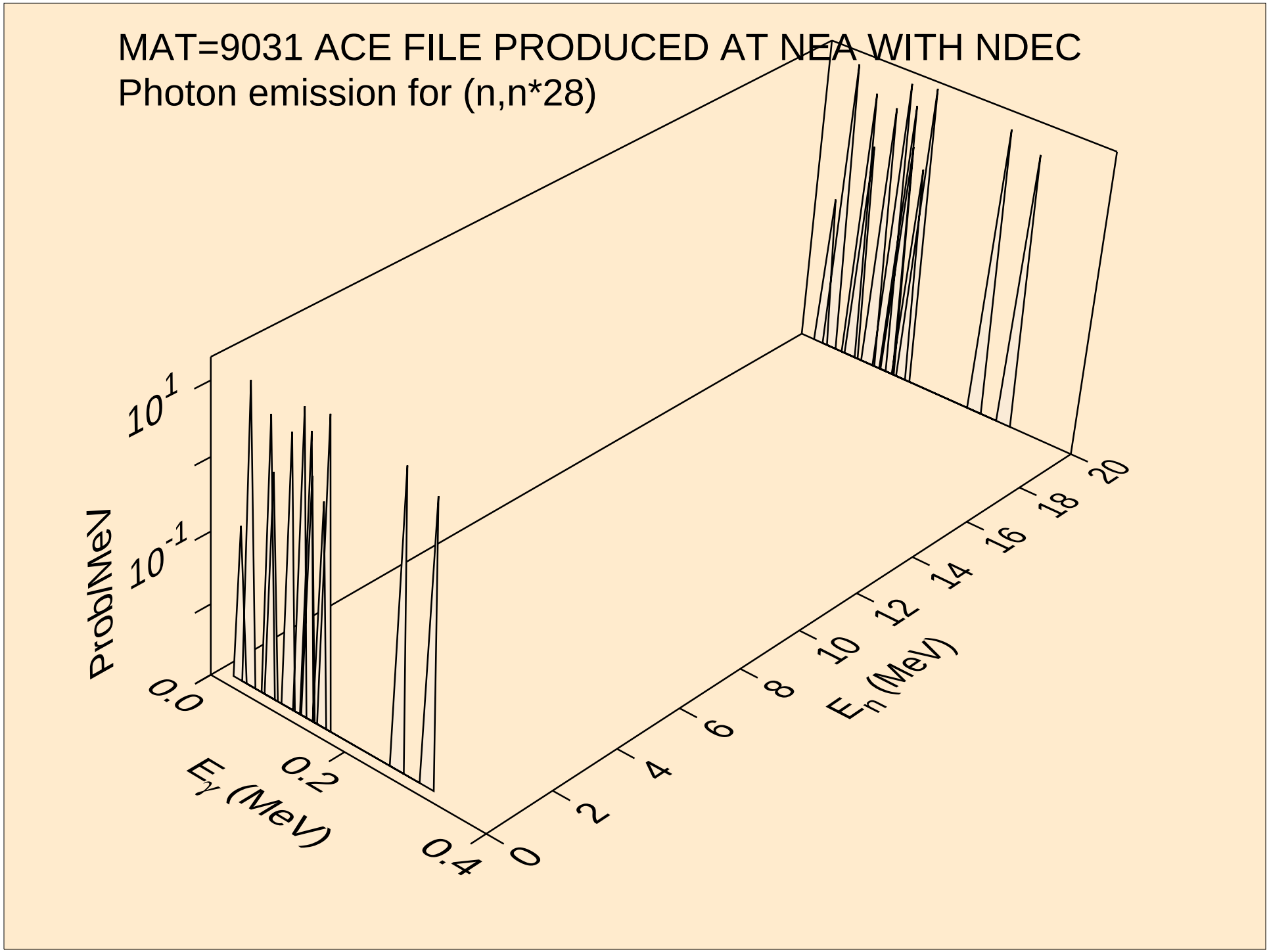

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*23)
Prob/MeV
10^0
10^-2
0.0
0.1
0.2
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

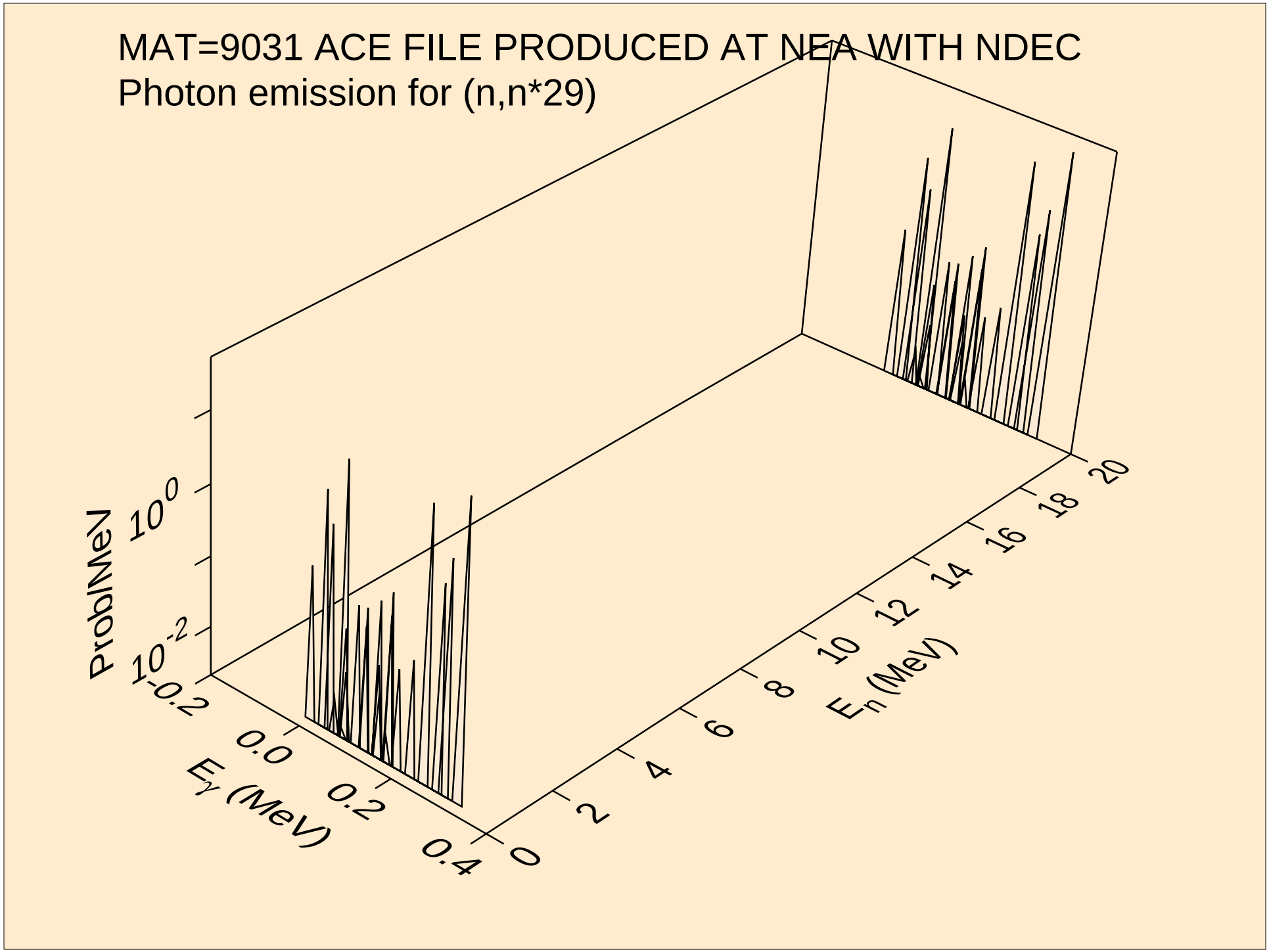

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*24)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0.0
0.2
0.4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

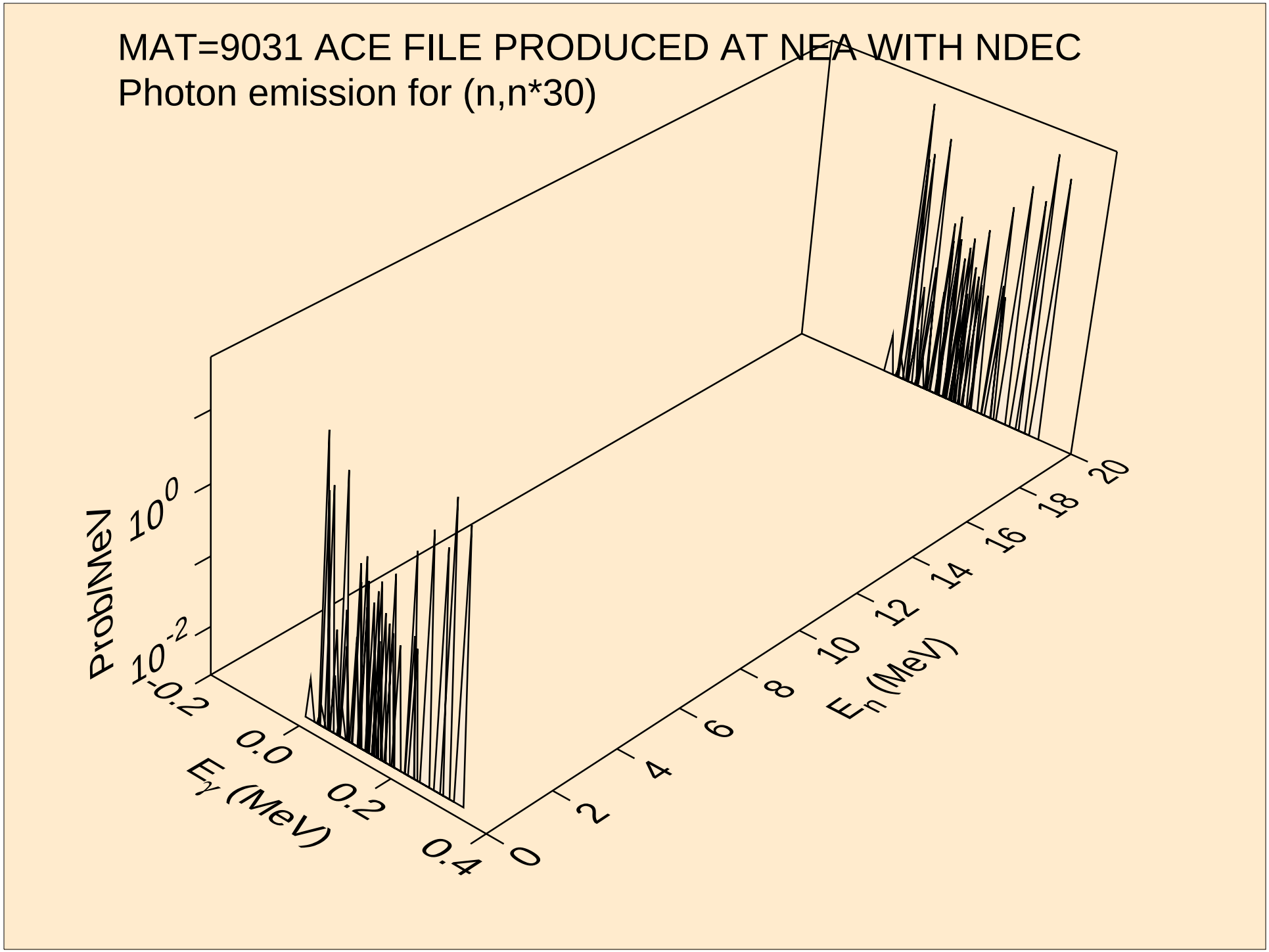

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*25)
Prob/MeV
10^{0}
10^{-2}
E_γ (MeV)
-0.2
0.0
0.2
0.4
E_n (MeV)
0
2
4
6
8
10
12
14
16
18
20

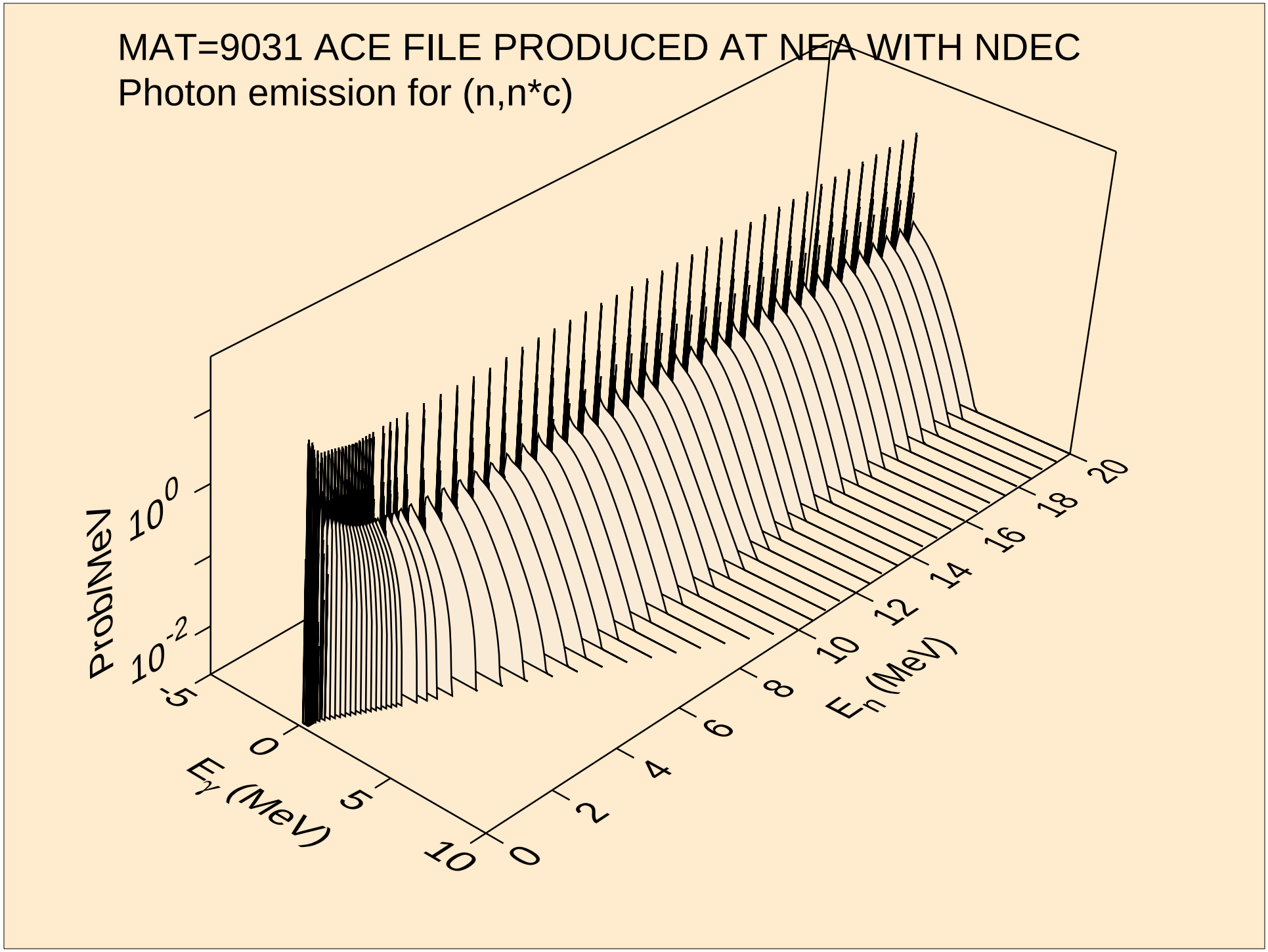

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*26)
Prob/MeV
10^0
10^-2
0.0
0.2
0.4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

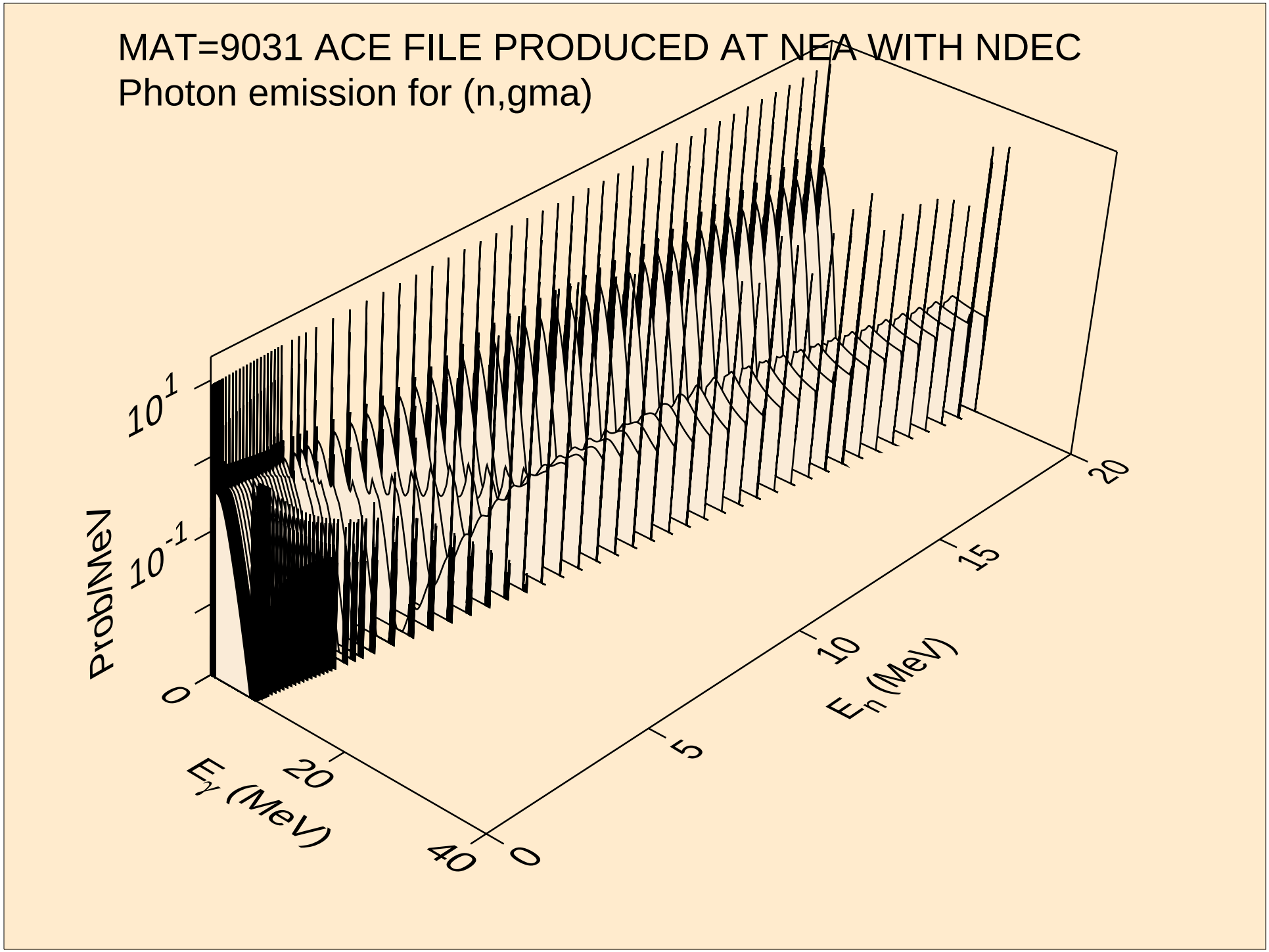

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*27)
Prob/MeV
10^{0}
10^{-2}
0.0
0.2
0.4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

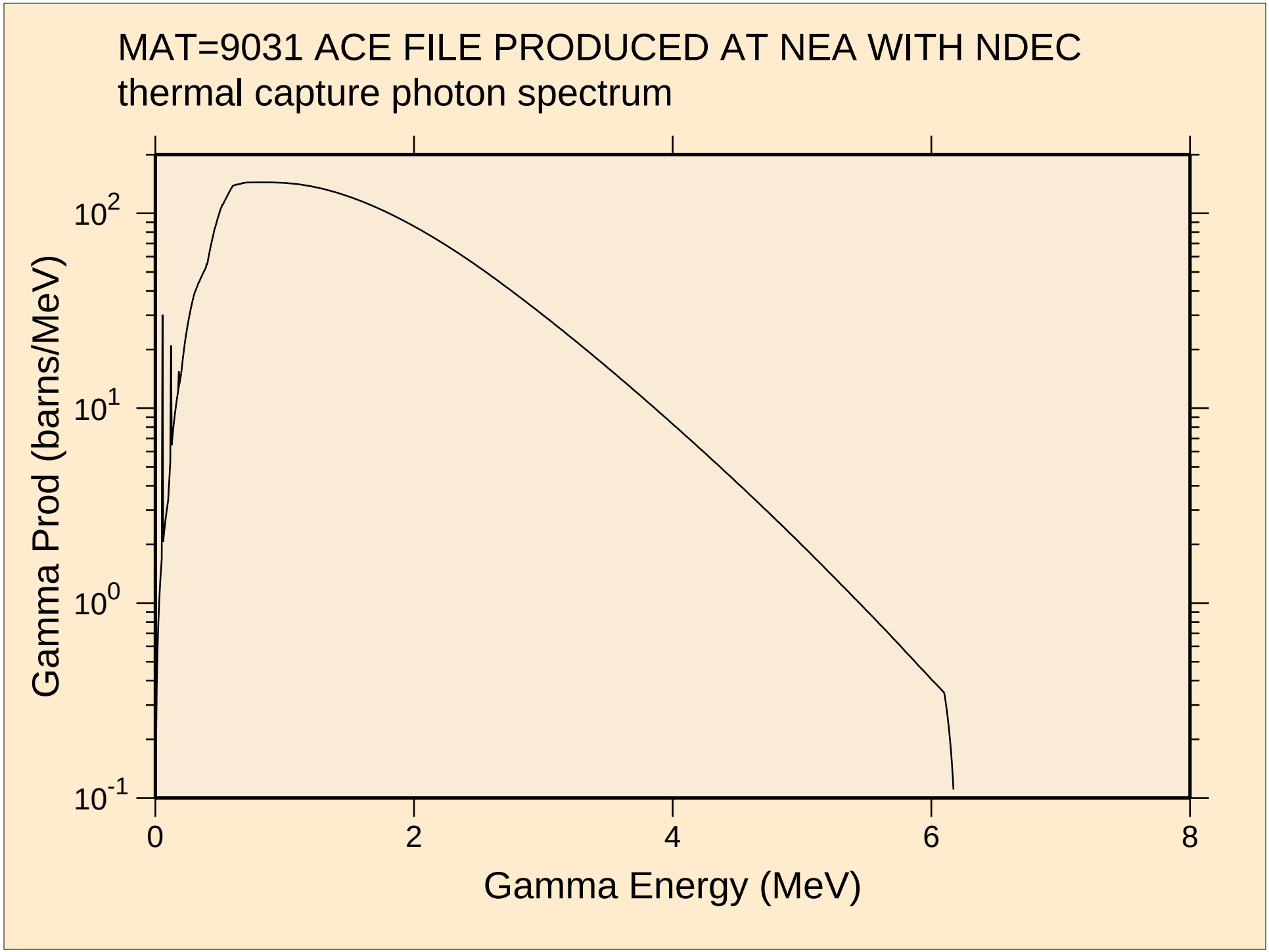

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*28)
Prob/MeV
10^{1}
10^{-1}
0.0
0.2
0.4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

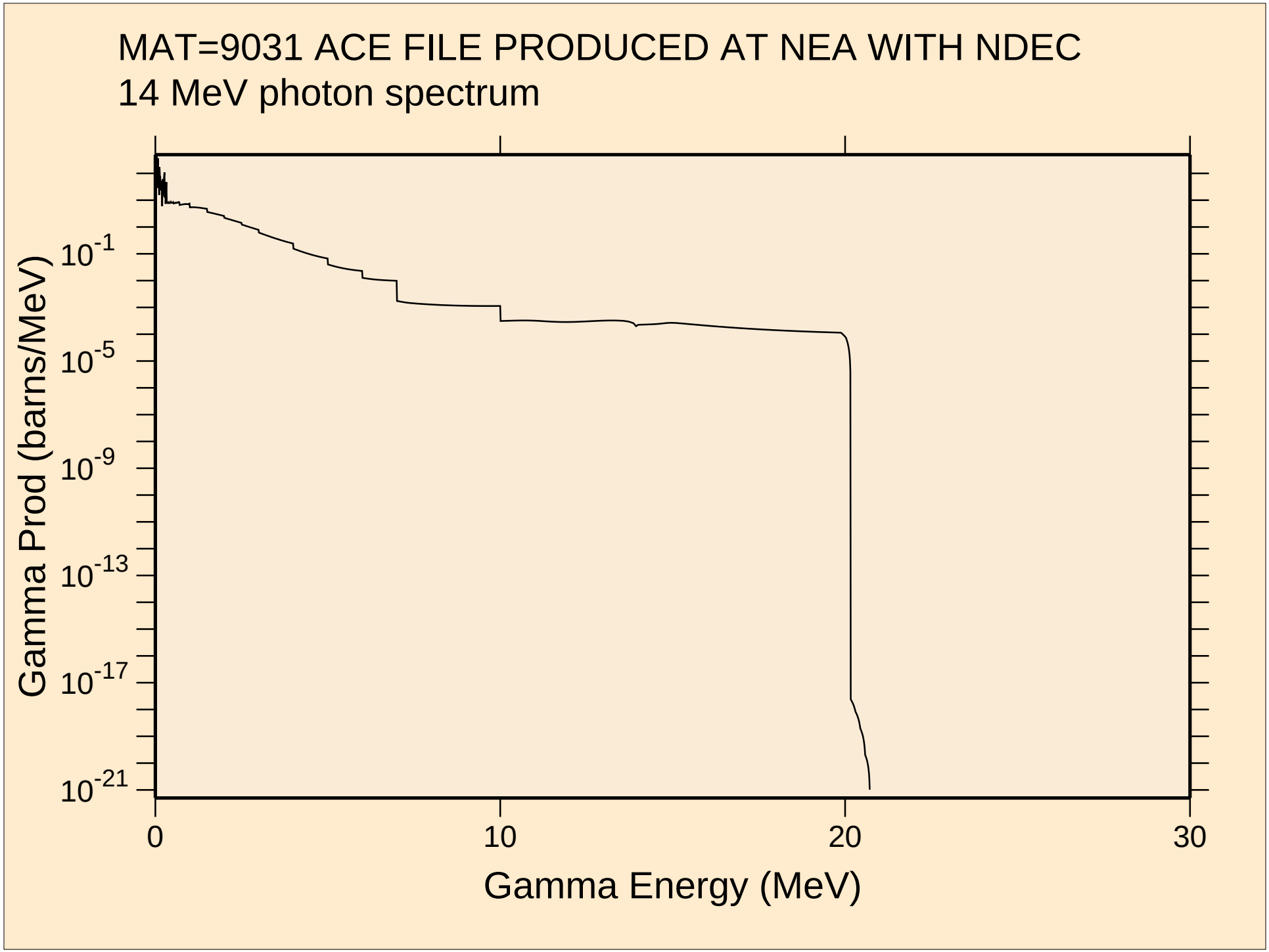

MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*29)
Prob/MeV
10^0
10^-2
-0.2
0.0
0.2
0.4
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)


MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*30)
Prob/MeV
10^0
10^-2
-0.2
0.0
0.2
0.4
Eγ (MeV)
0
2
4
6
8
10
12
14
16
18
20
En (MeV)


MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,n*c)
Prob/MeV
10^0
10^-2
-5
0
5
10
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)


MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
Photon emission for (n,gma)
Prob/MeV
10^{1}
10^{-1}
0
20
40
E_γ (MeV)
0
5
10
15
20
E_n (MeV)


MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^2
10^1
10^0
10^-1
0
2
4
6
8
Gamma Energy (MeV)


MAT=9031 ACE FILE PRODUCED AT NEA WITH NDEC
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10-1
10-5
10-9
10-13
10-17
10-21
0
10
20
30
Gamma Energy (MeV)