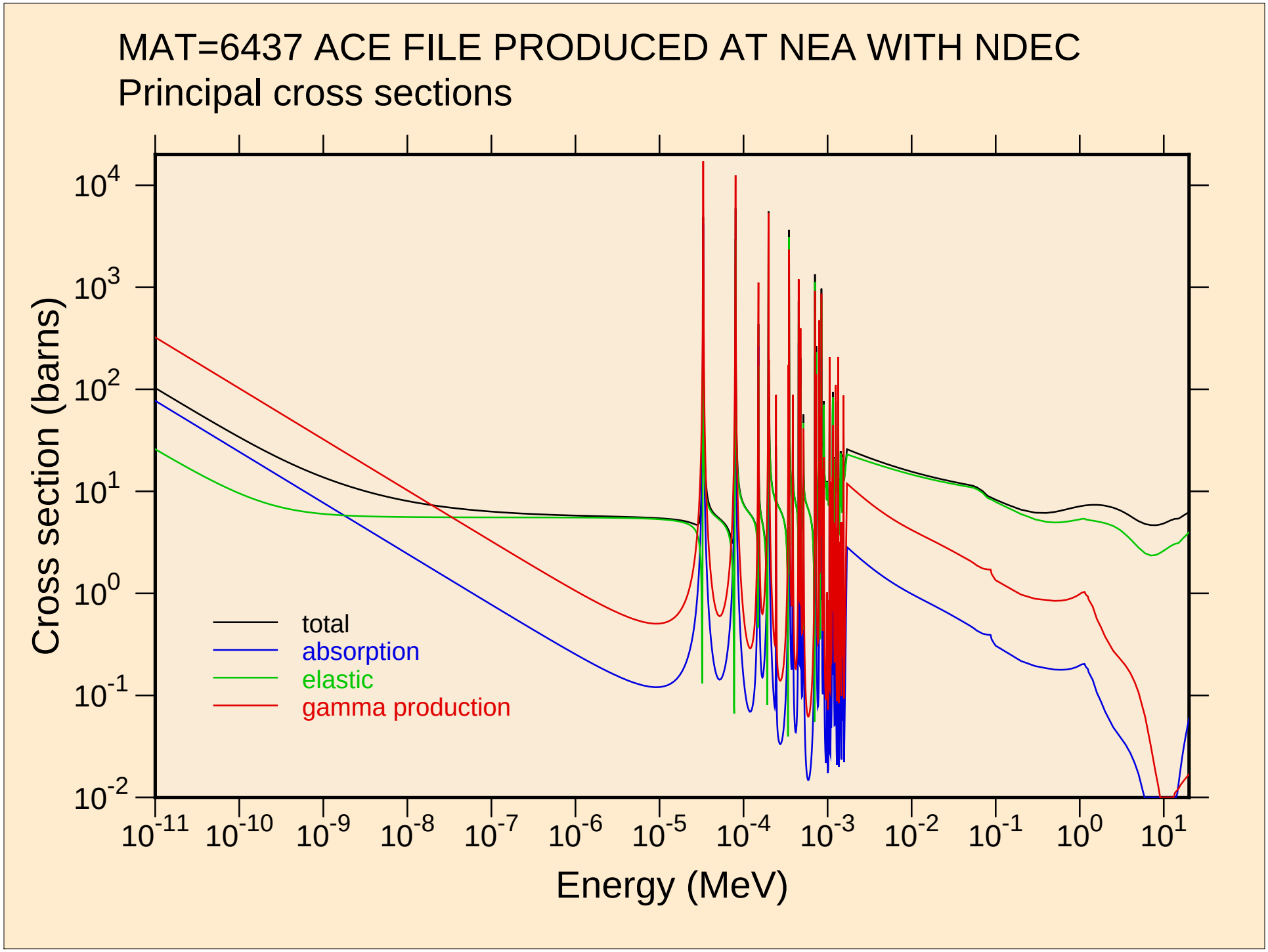
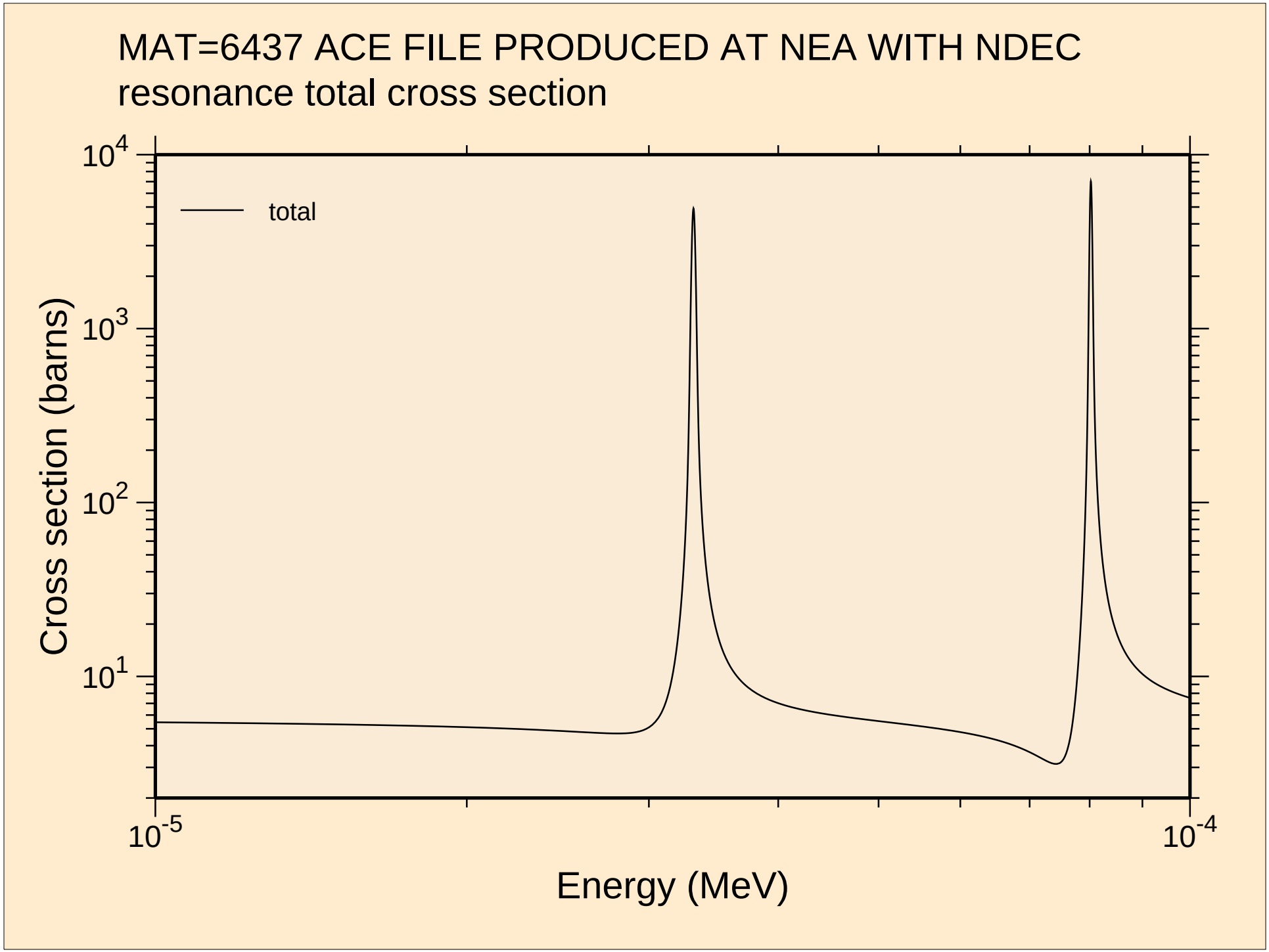
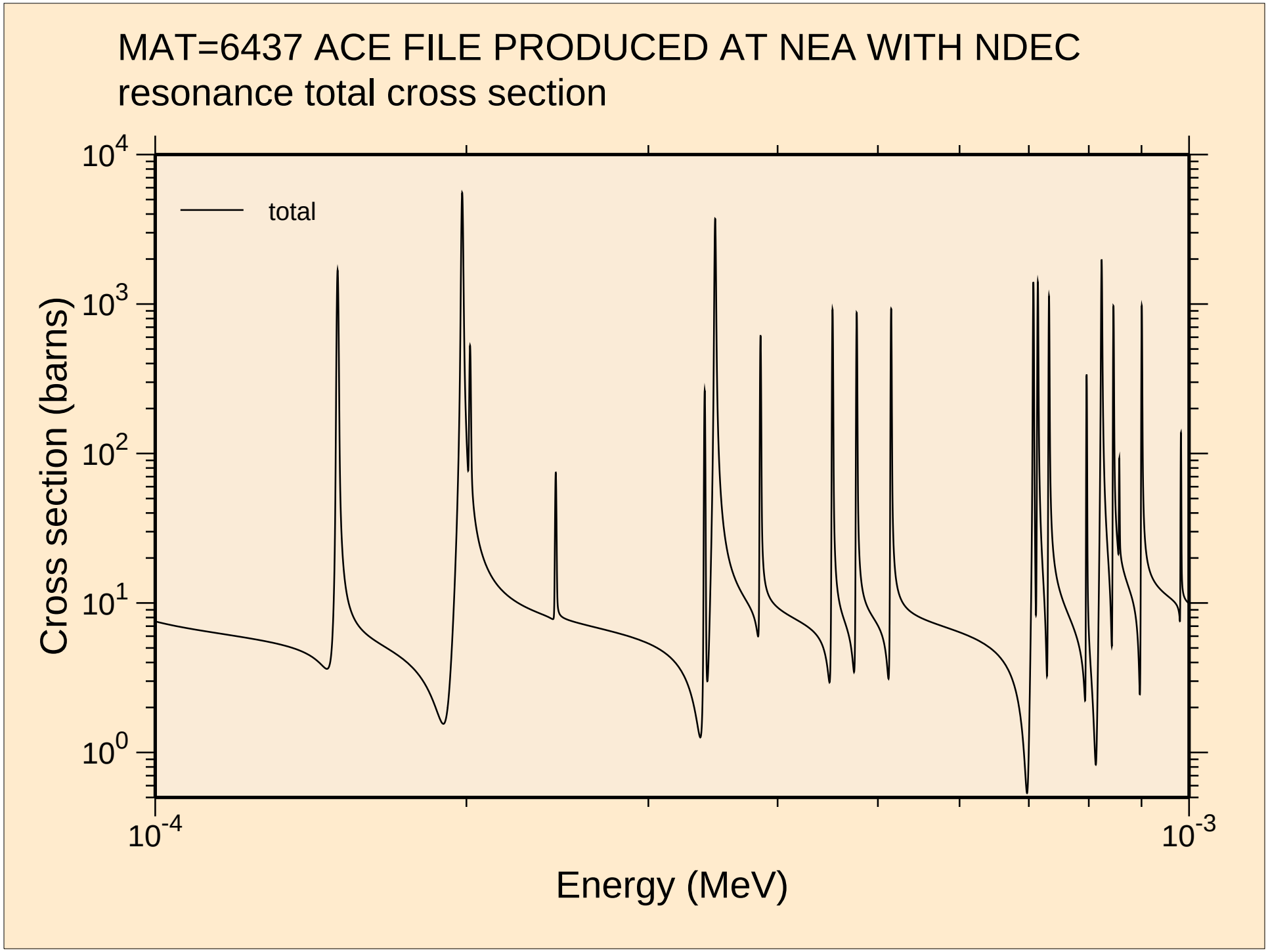
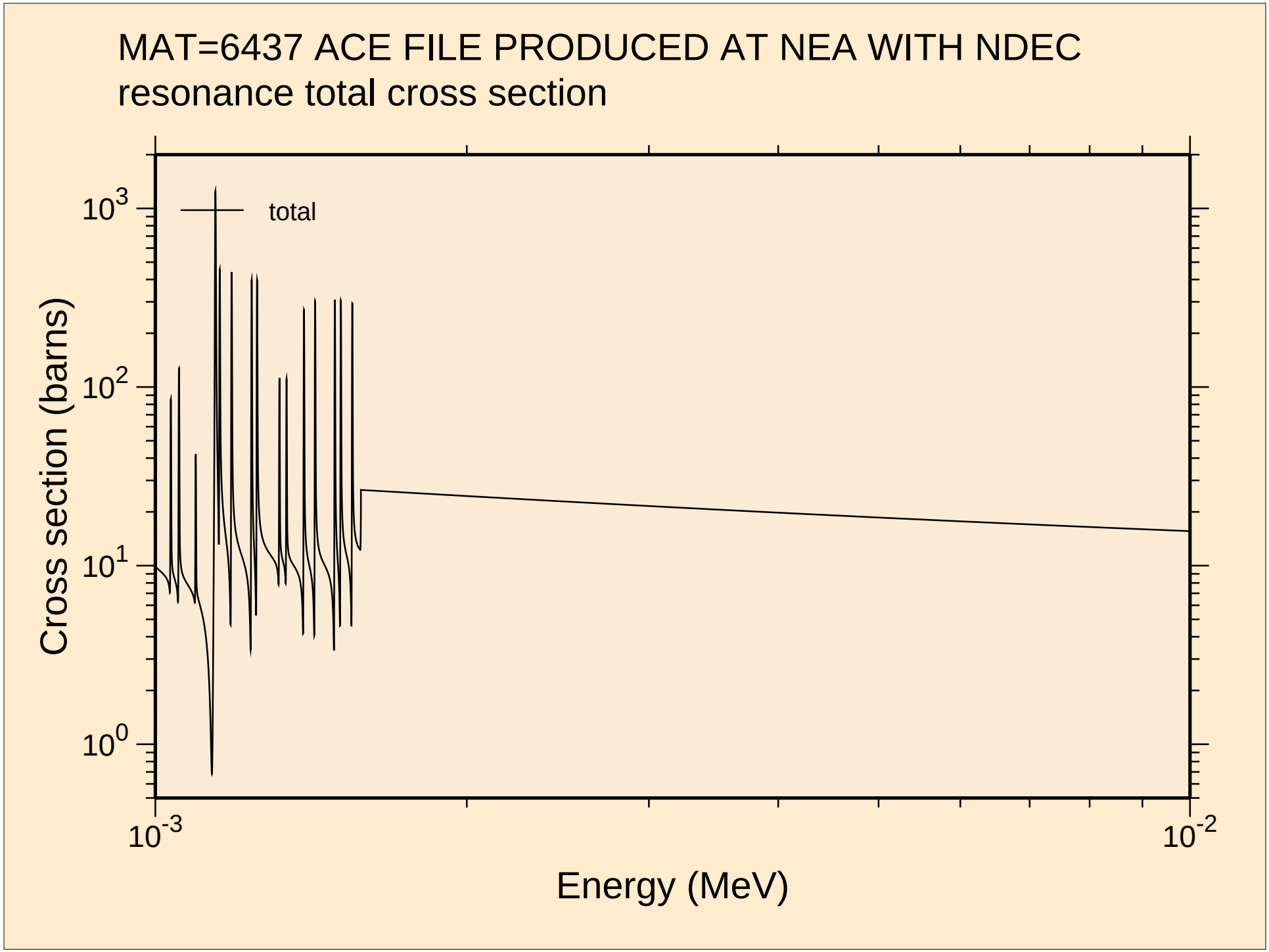
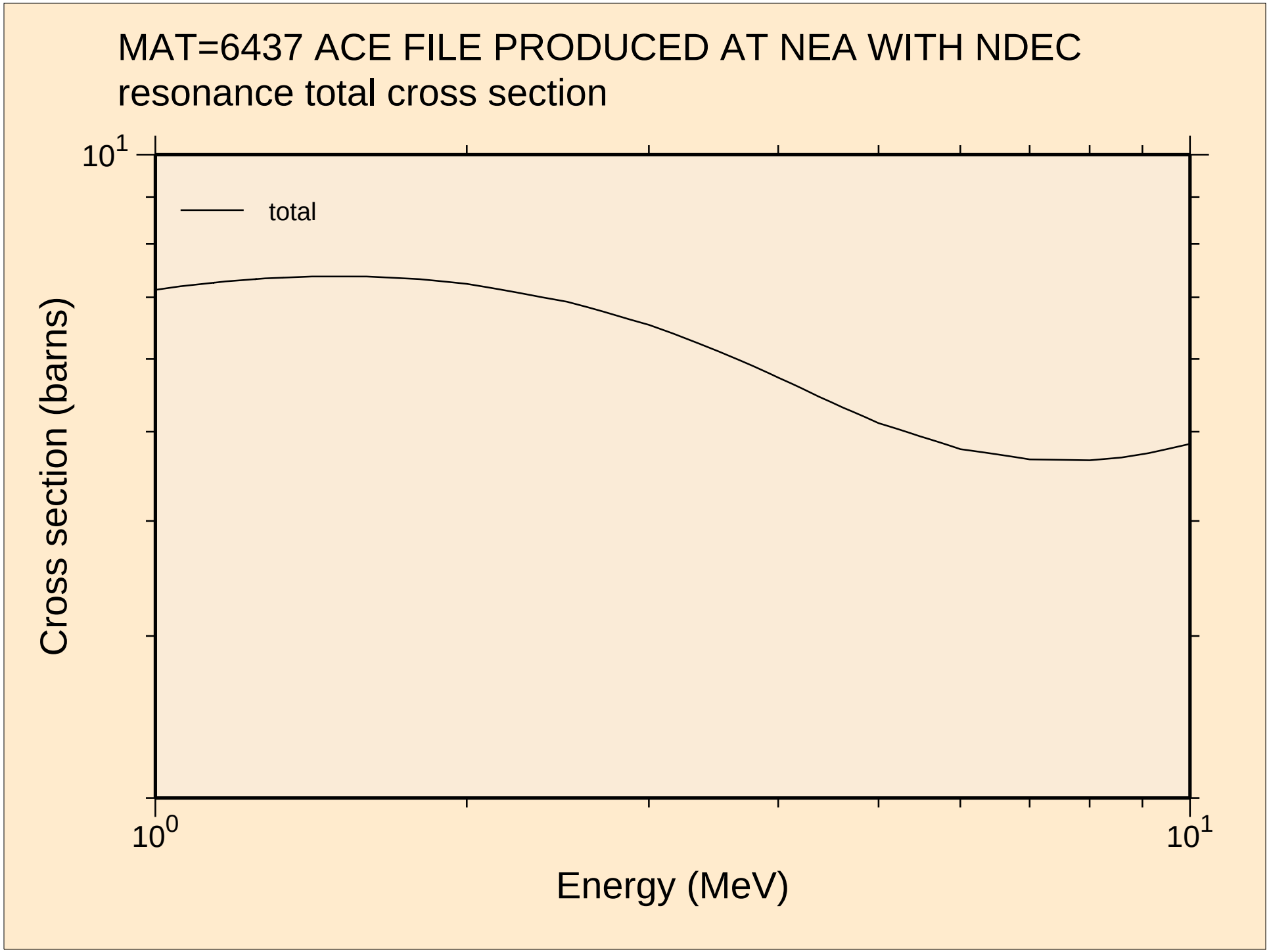

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Principal cross sections
Cross section (barns)
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
total
absorption
elastic
gamma production
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}
Energy (MeV)

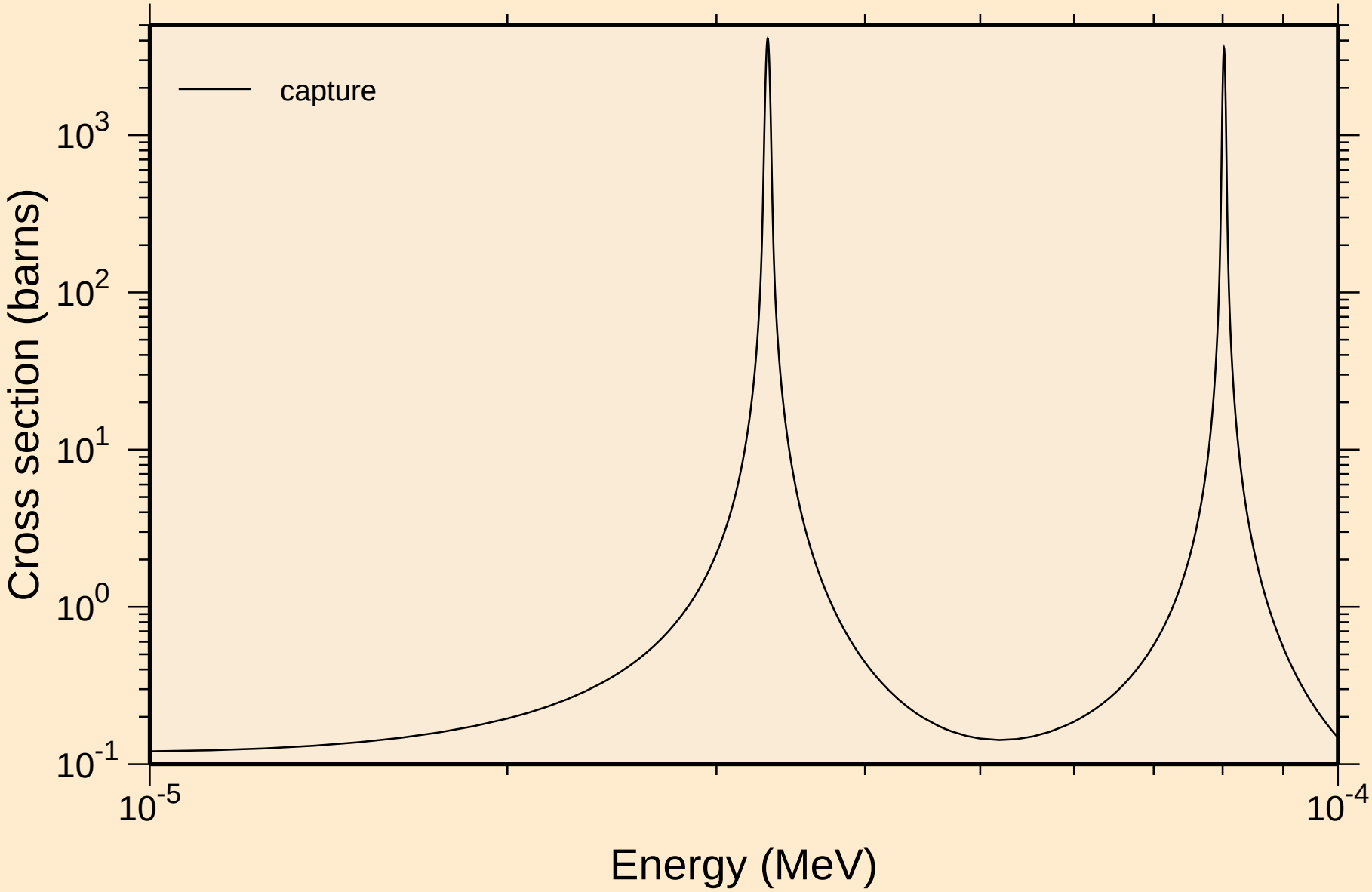

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section
total
Cross section (barns)
10^4
10^3
10^2
10^1
10^-5
10^-4
Energy (MeV)


MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section
total
Cross section (barns)
10^4
10^3
10^2
10^1
10^0
10^-4
10^-3
Energy (MeV)

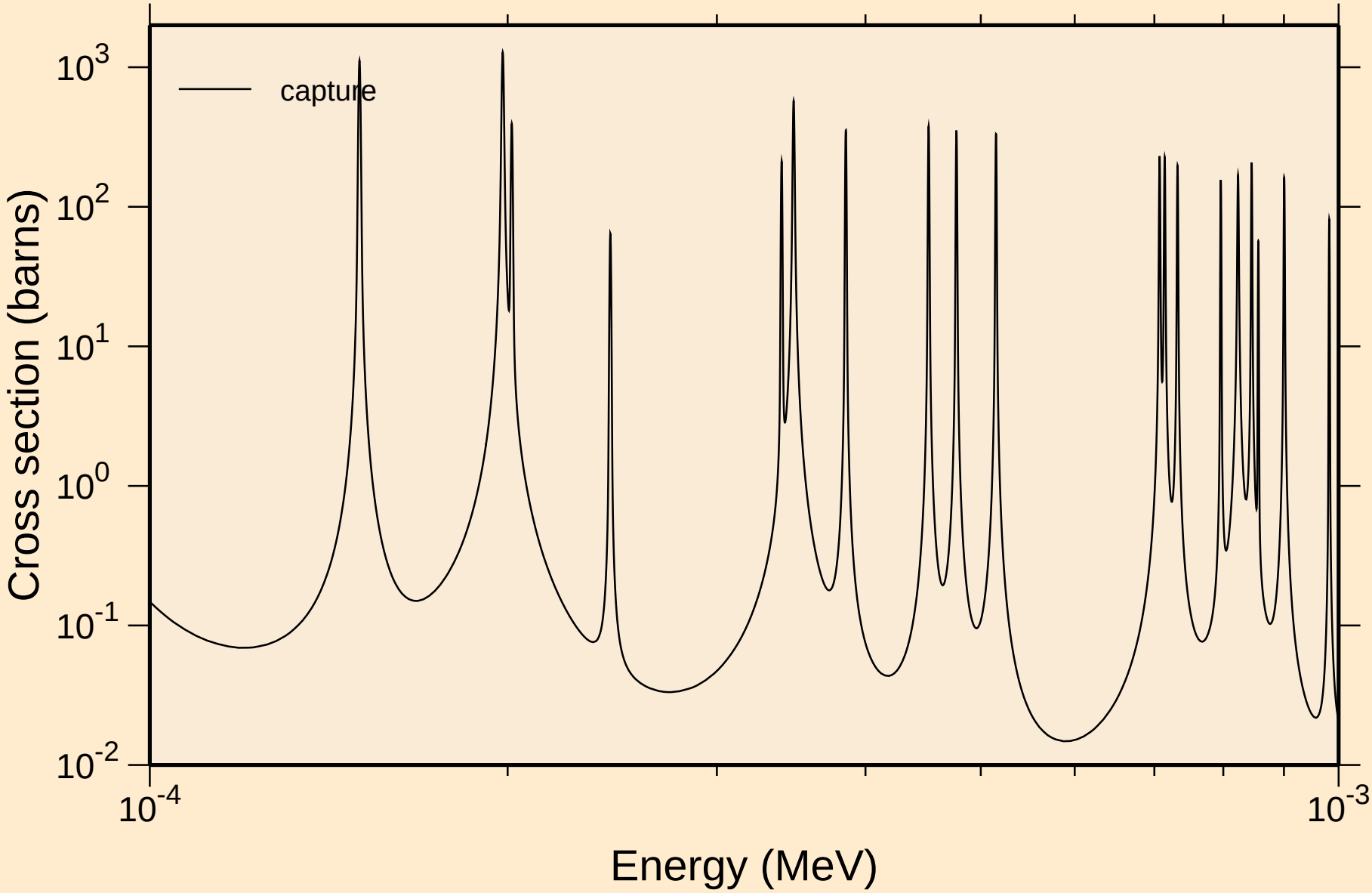

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section
total
Cross section (barns)
10^3
10^2
10^1
10^0
10^-3
10^-2
Energy (MeV)

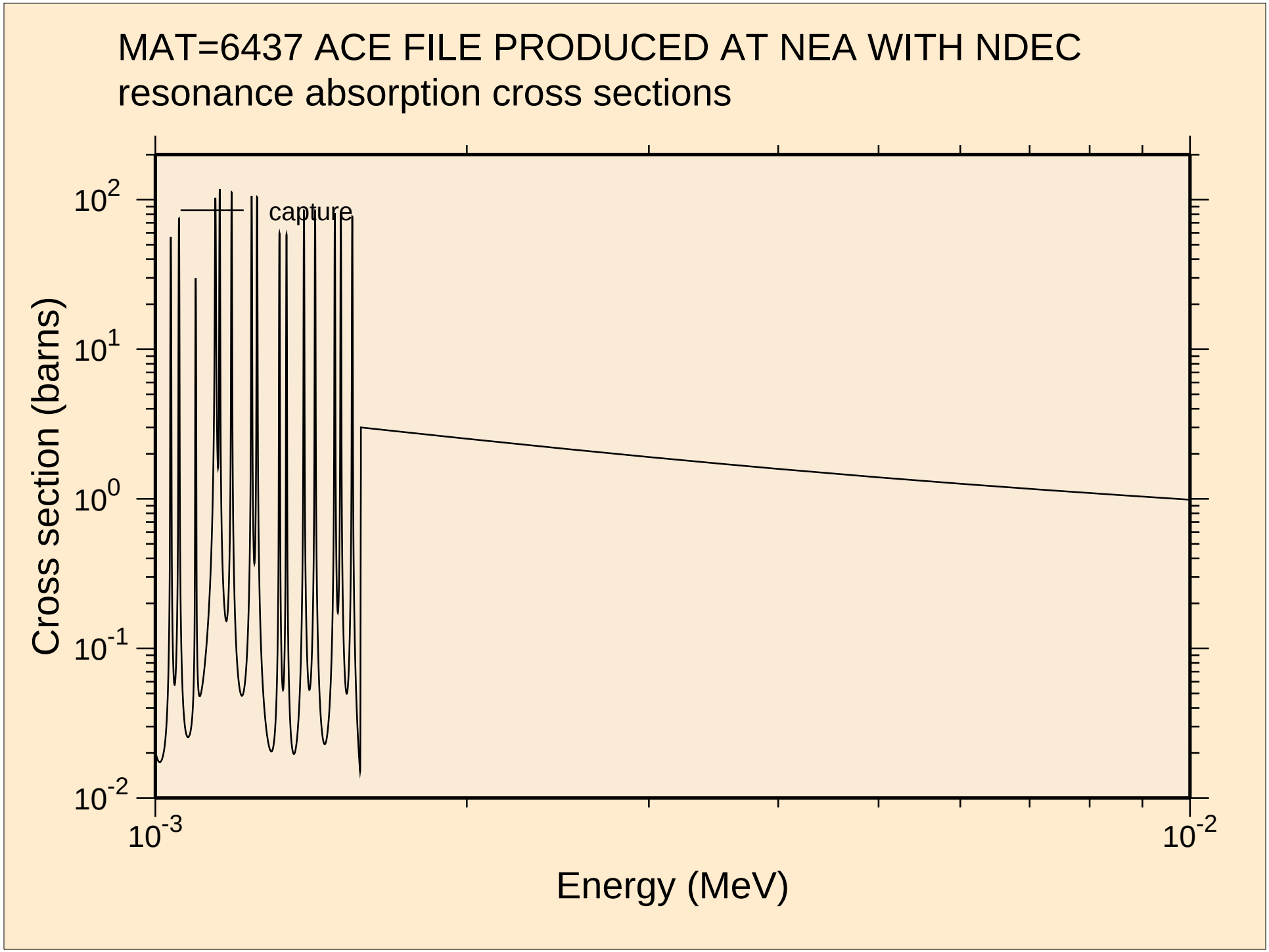

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance total cross section
10^1
total
Cross section (barns)
10^0
10^1
Energy (MeV)

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections

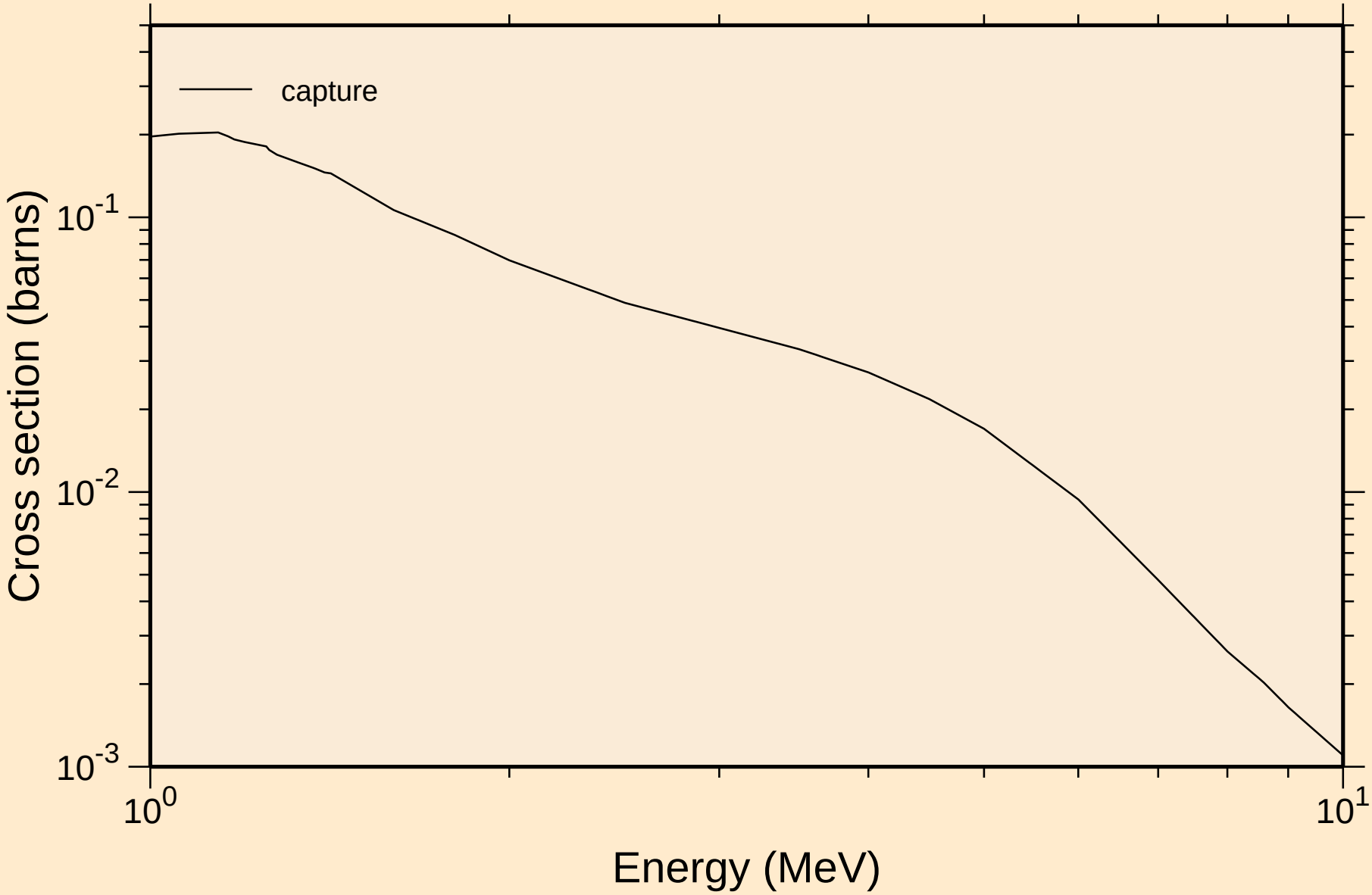


MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections

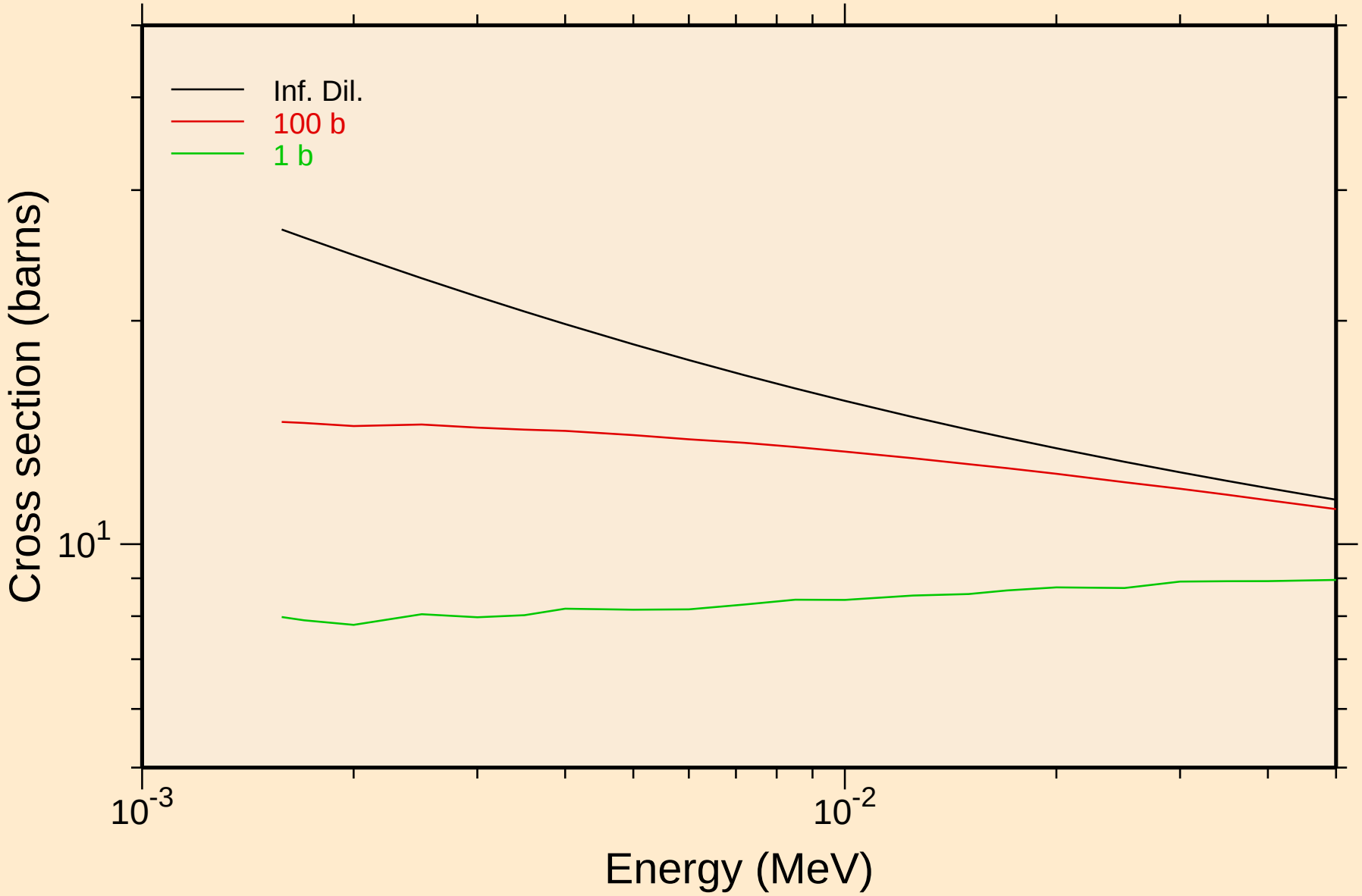



MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections
capture
Cross section (barns)
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-2
Energy (MeV)

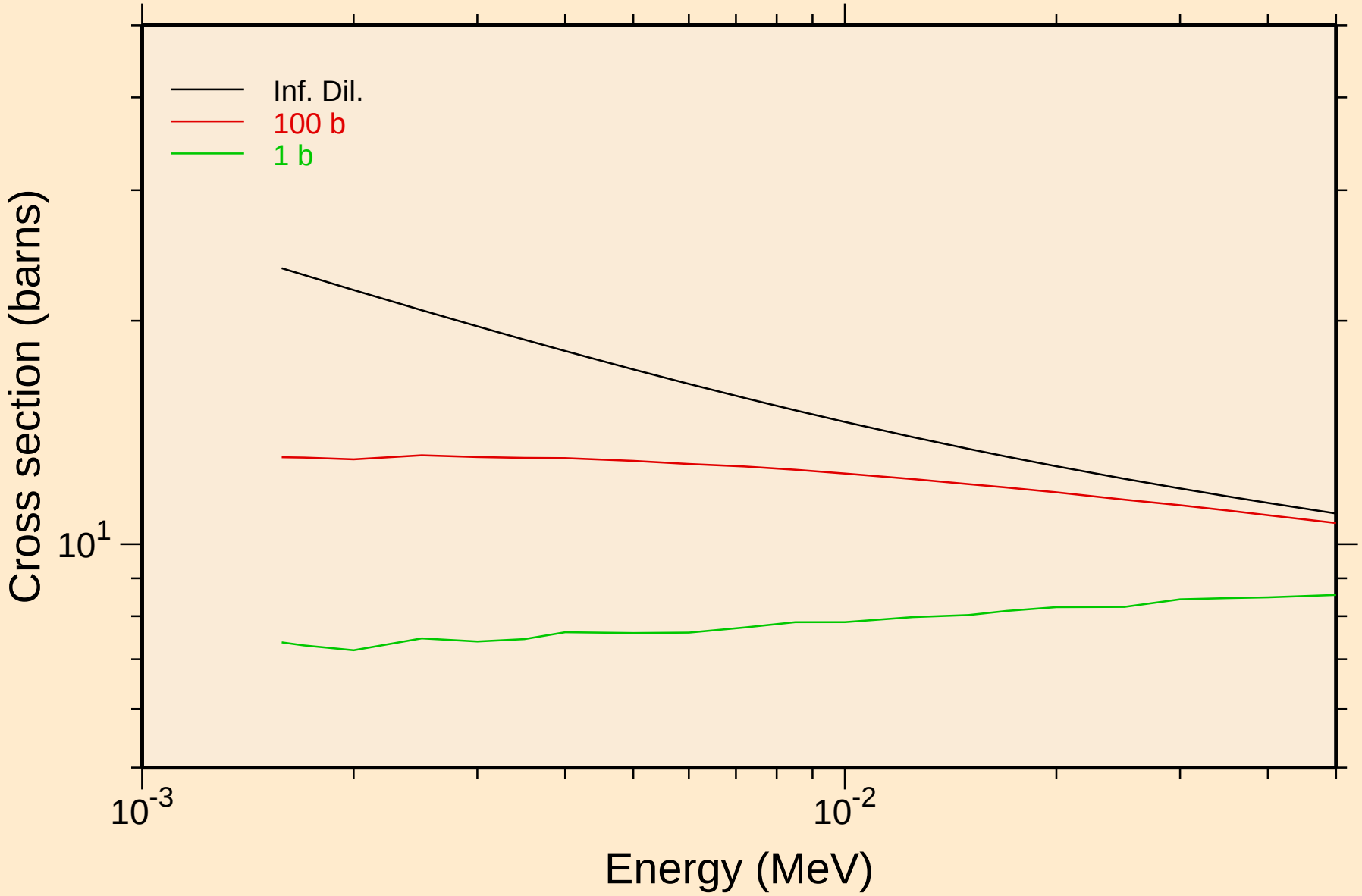
MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
resonance absorption cross sections



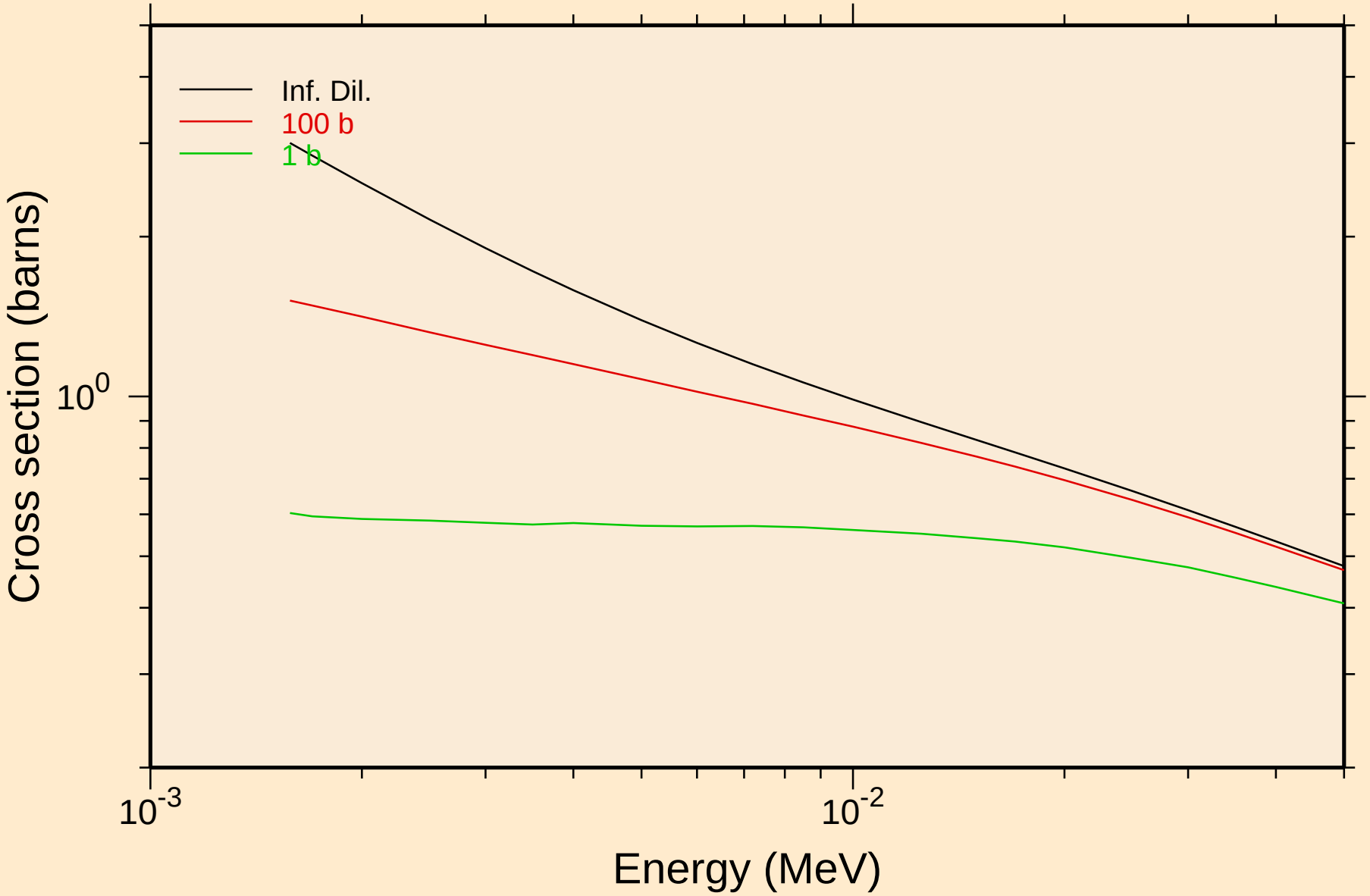
MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
UR total cross section

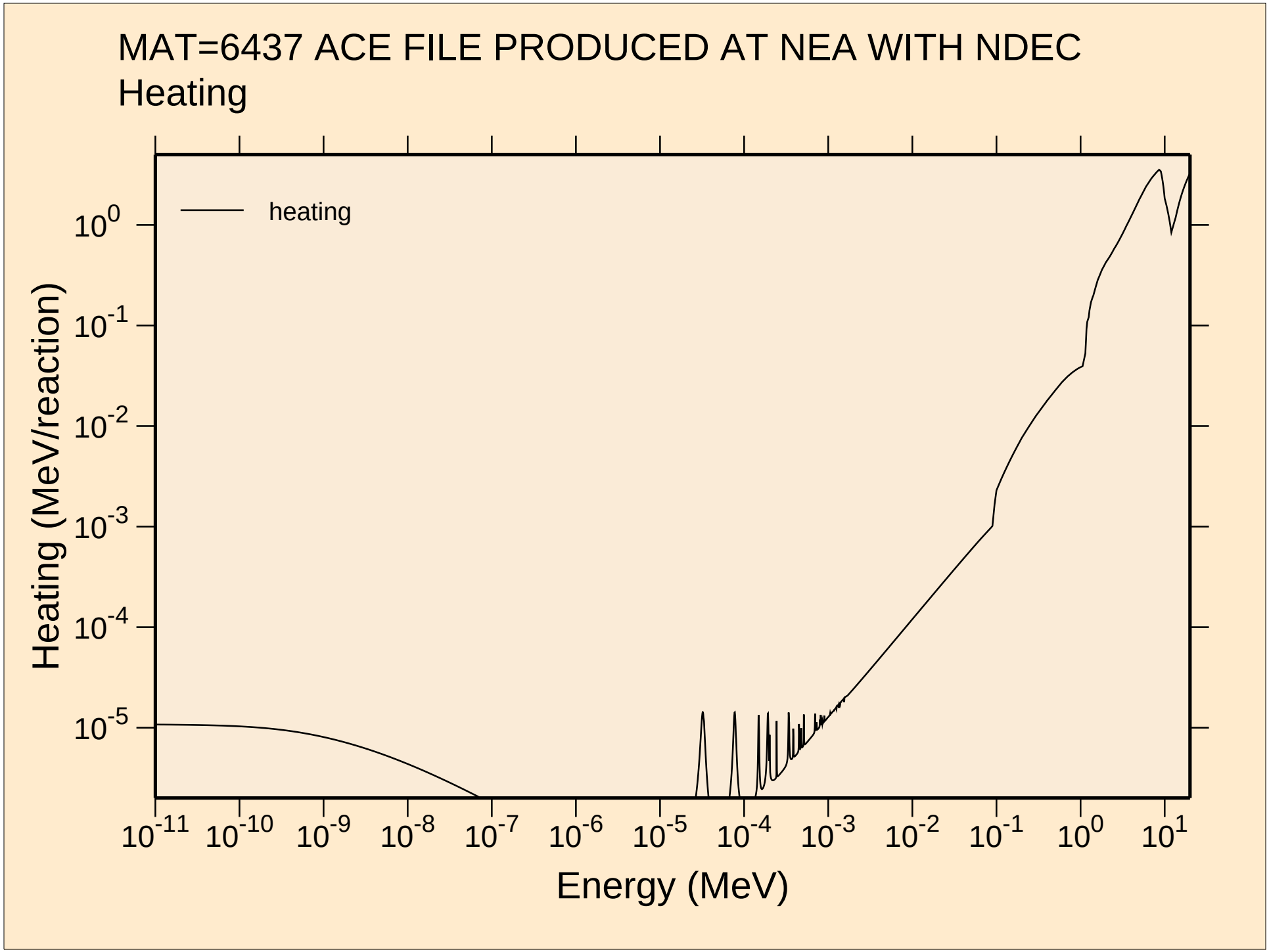


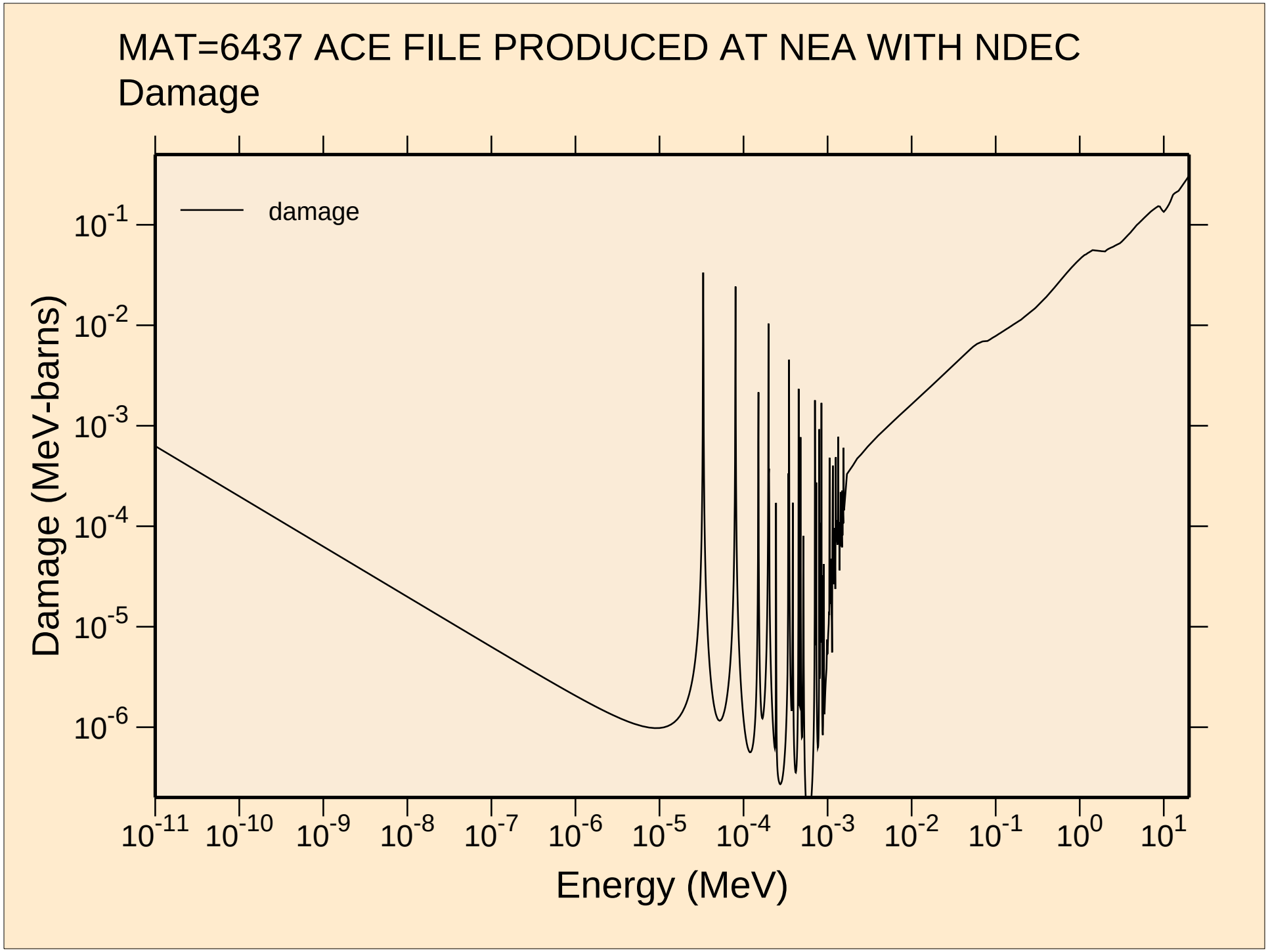
MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
UR elastic cross section



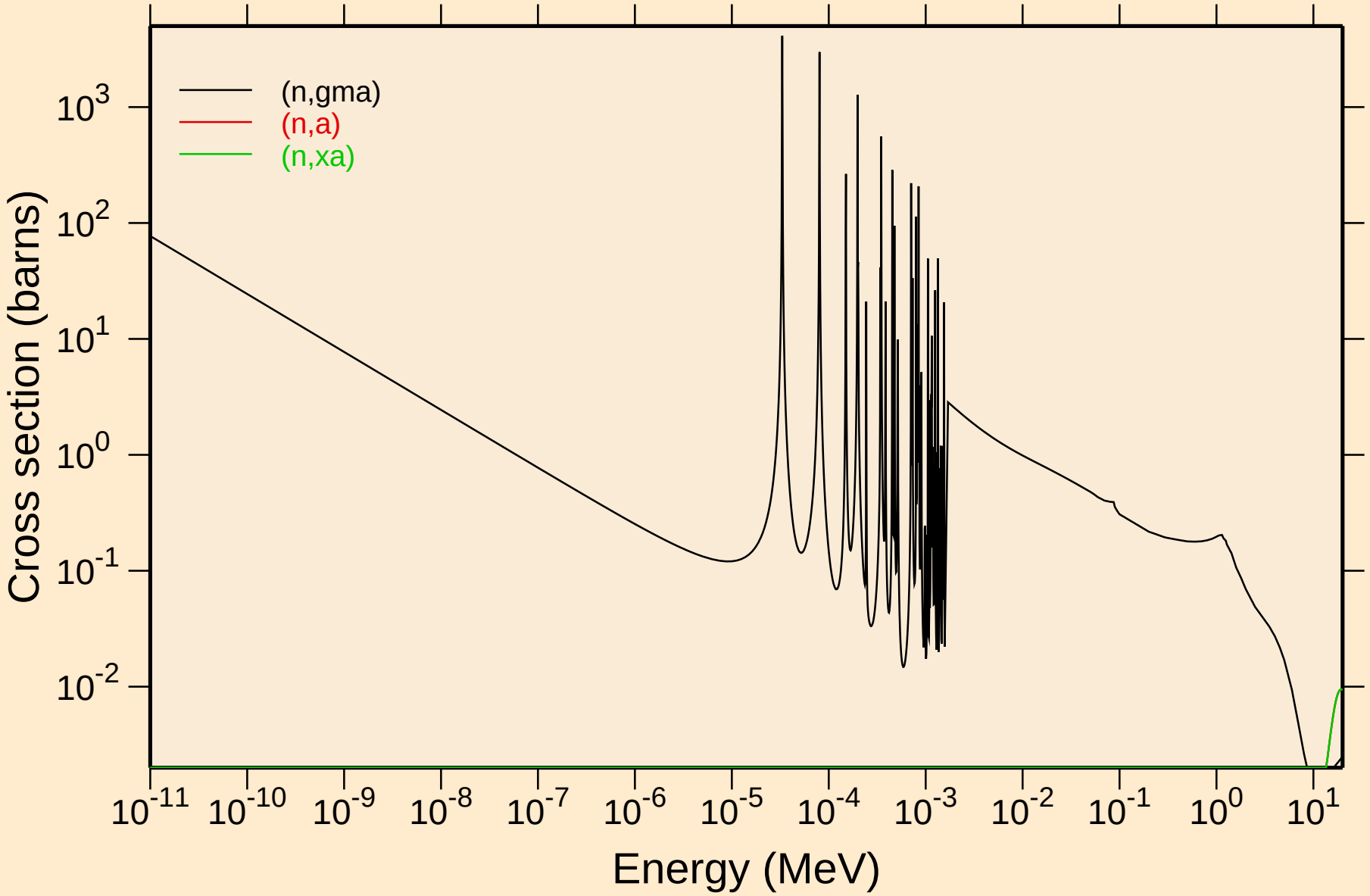
MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
UR capture cross section

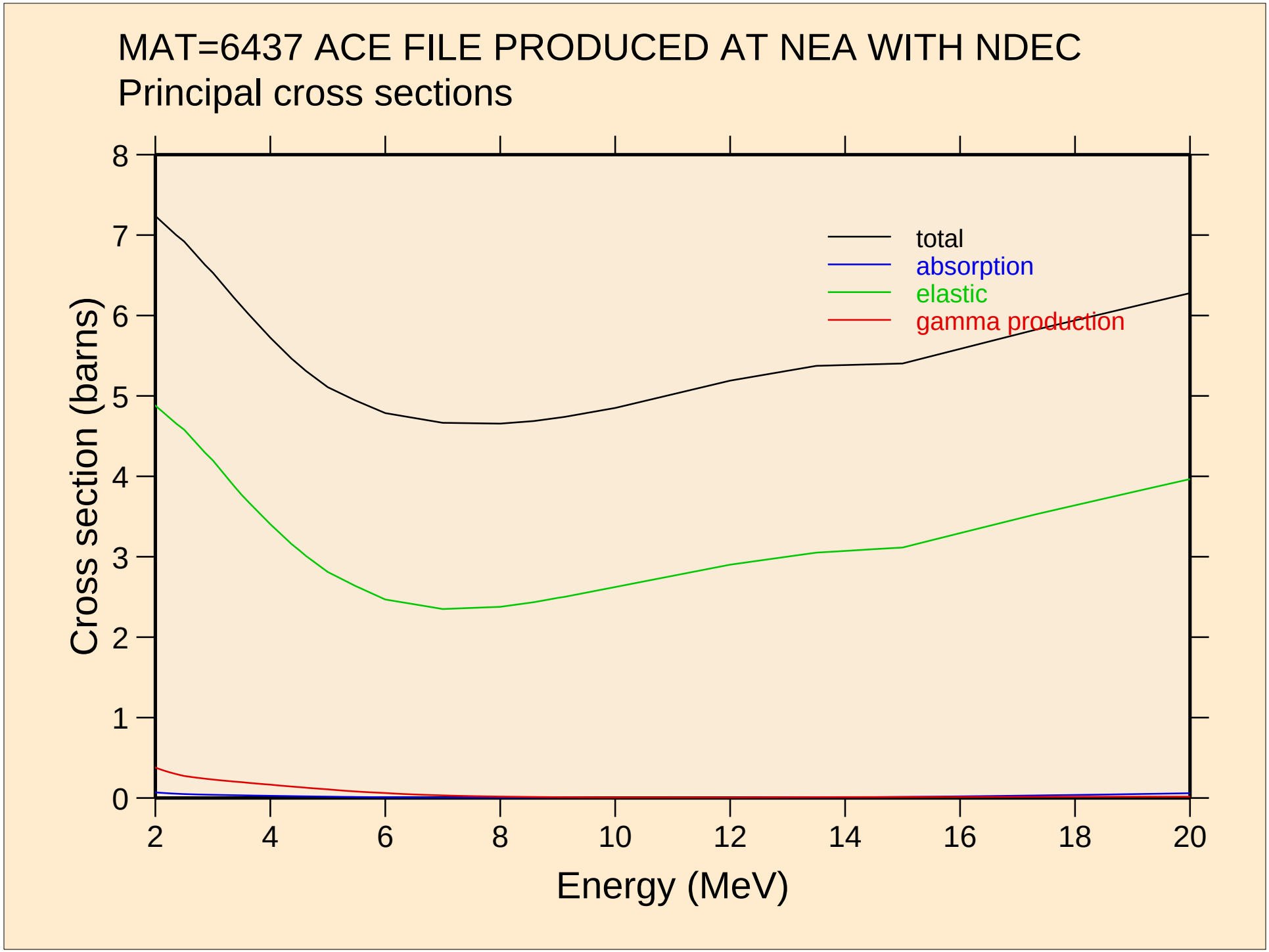


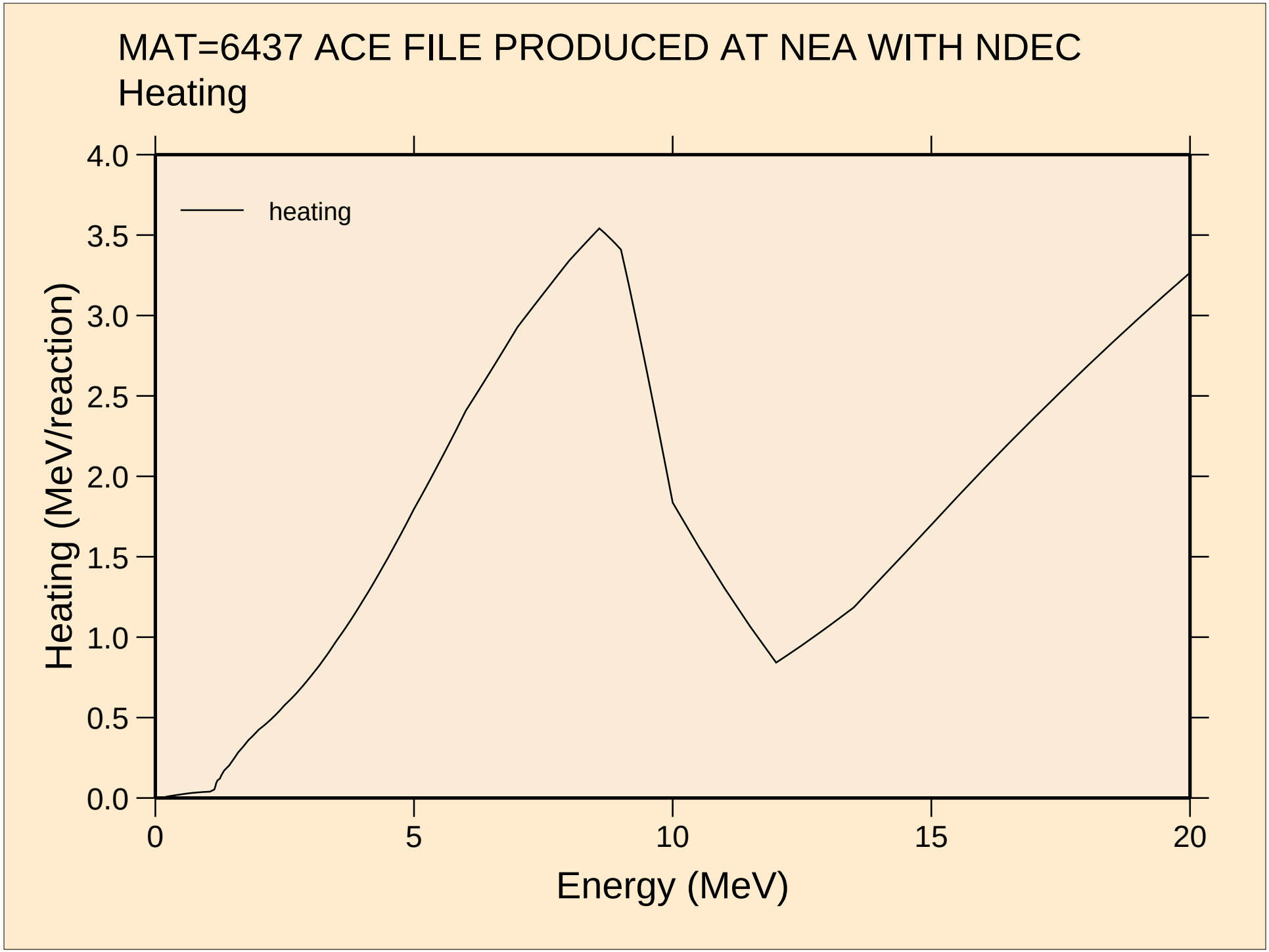

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Heating
heating
Heating (MeV/reaction)
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}
Energy (MeV)

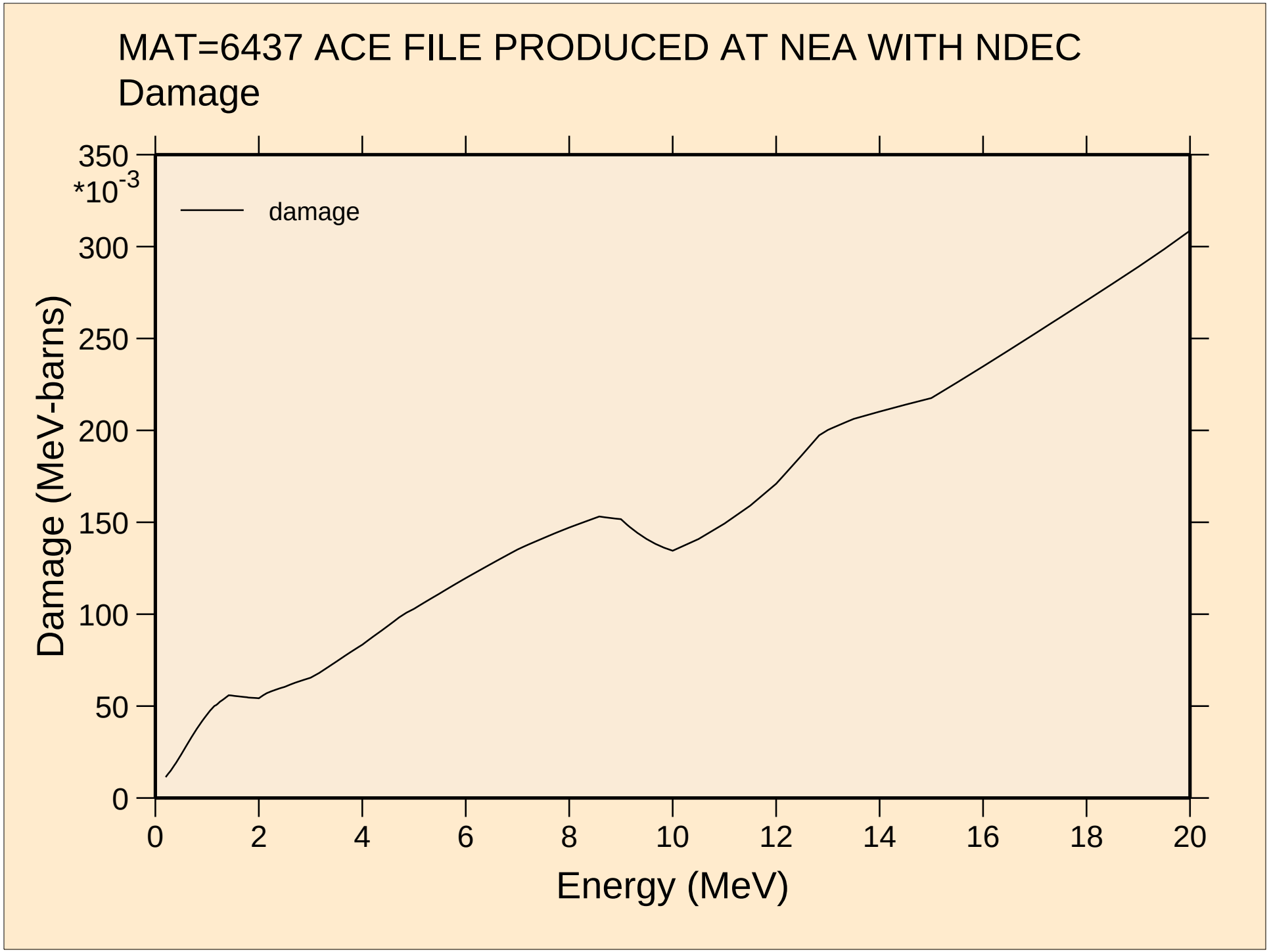

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Damage
damage
Damage (MeV-barns)
10-1
10-2
10-3
10-4
10-5
10-6
10-11 10-10 10-9 10-8 10-7 10-6 10-5 10-4 10-3 10-2 10-1 100 101
Energy (MeV)

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Non-threshold reactions

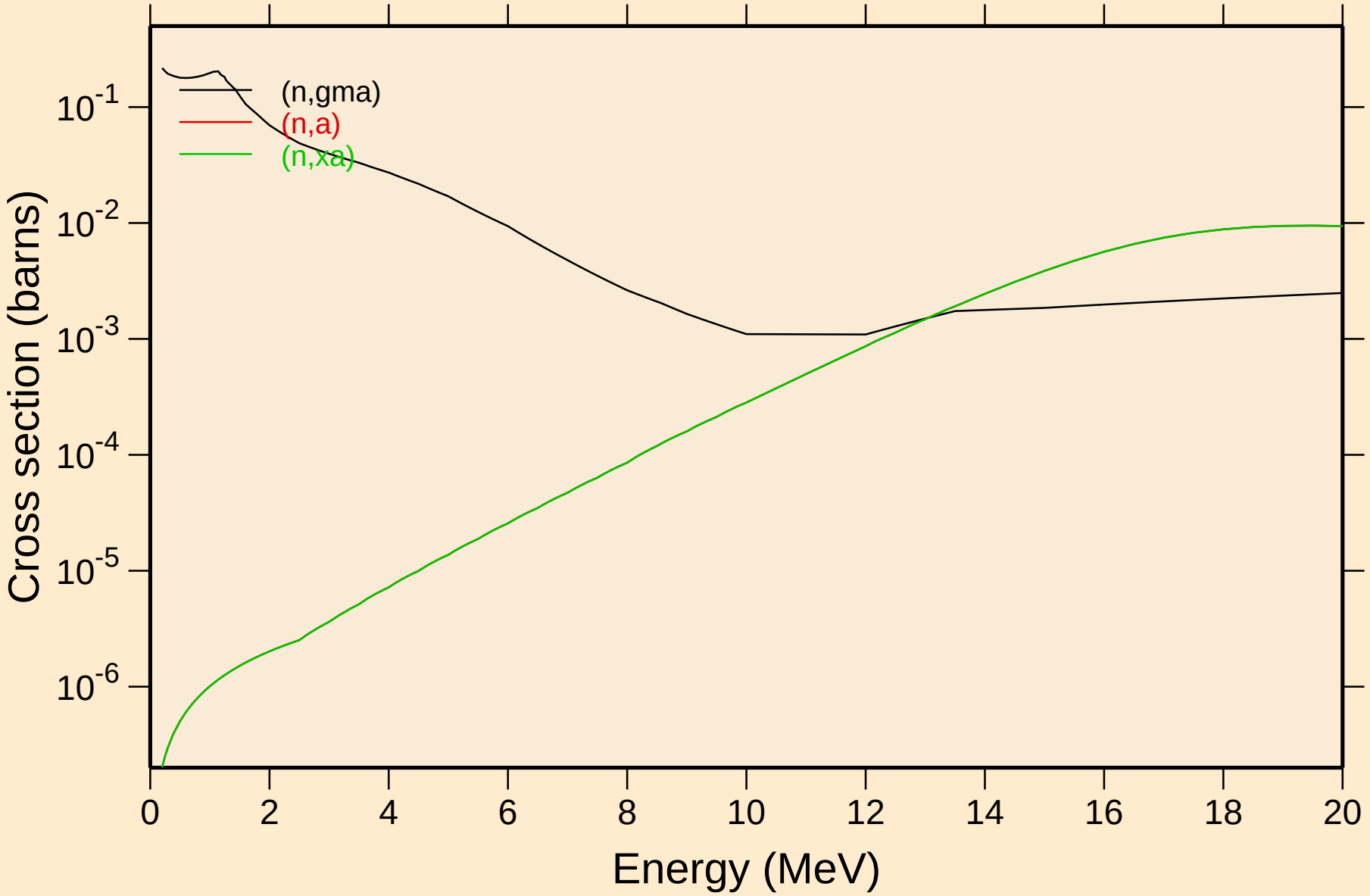


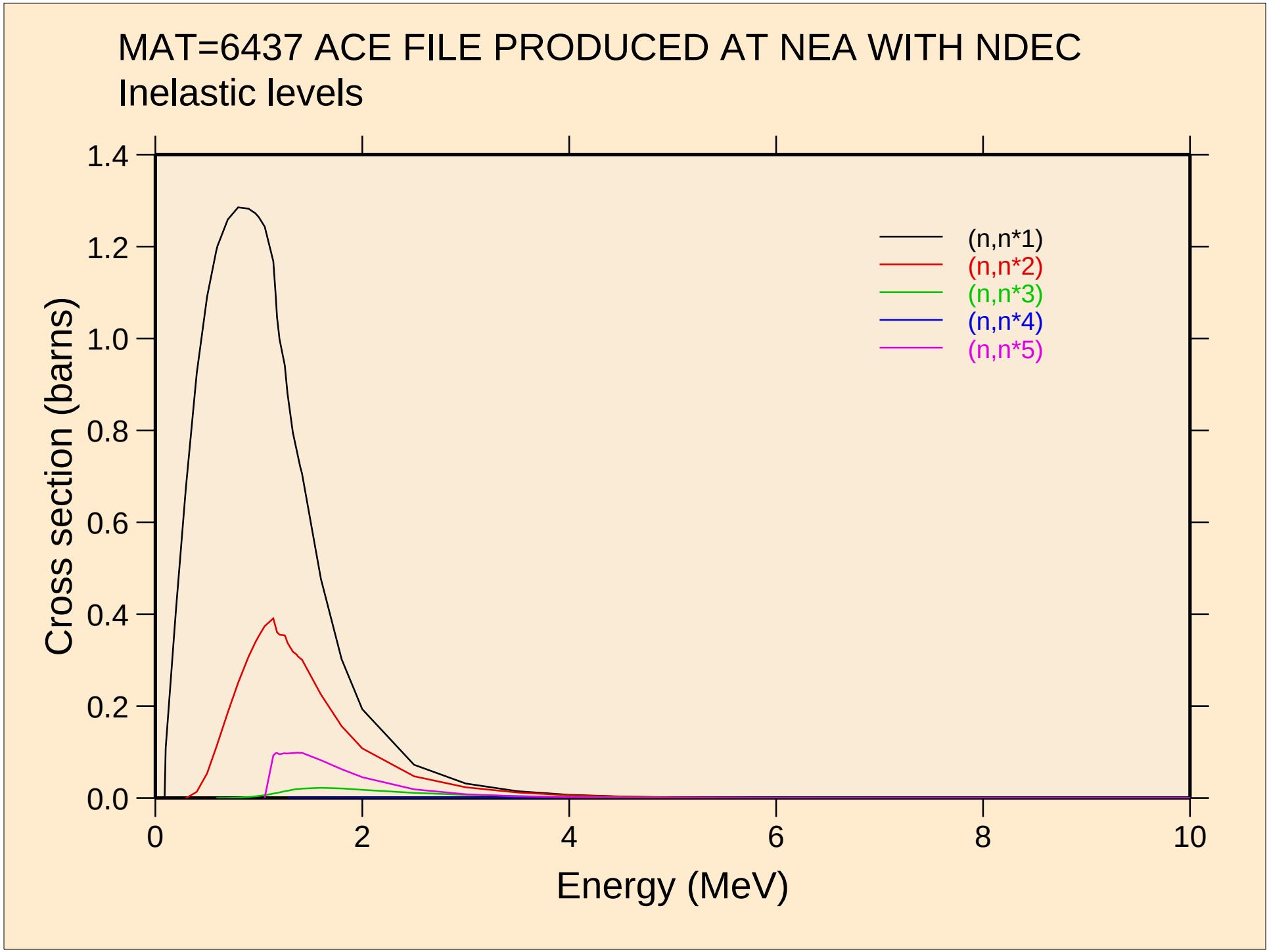

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production
0
1
2
3
4
5
6
7
8
2
4
6
8
10
12
14
16
18
20

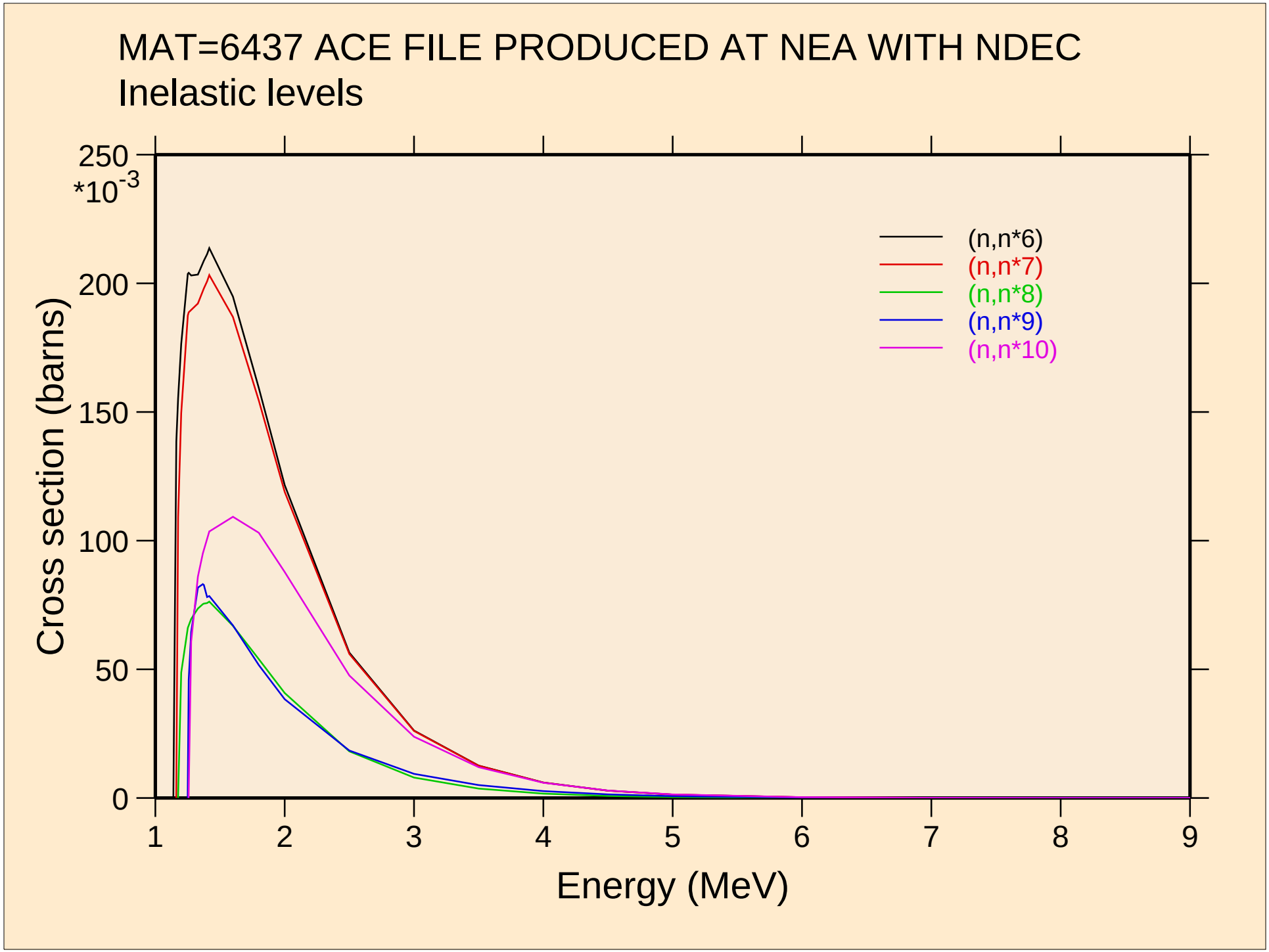

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
5
10
15
20

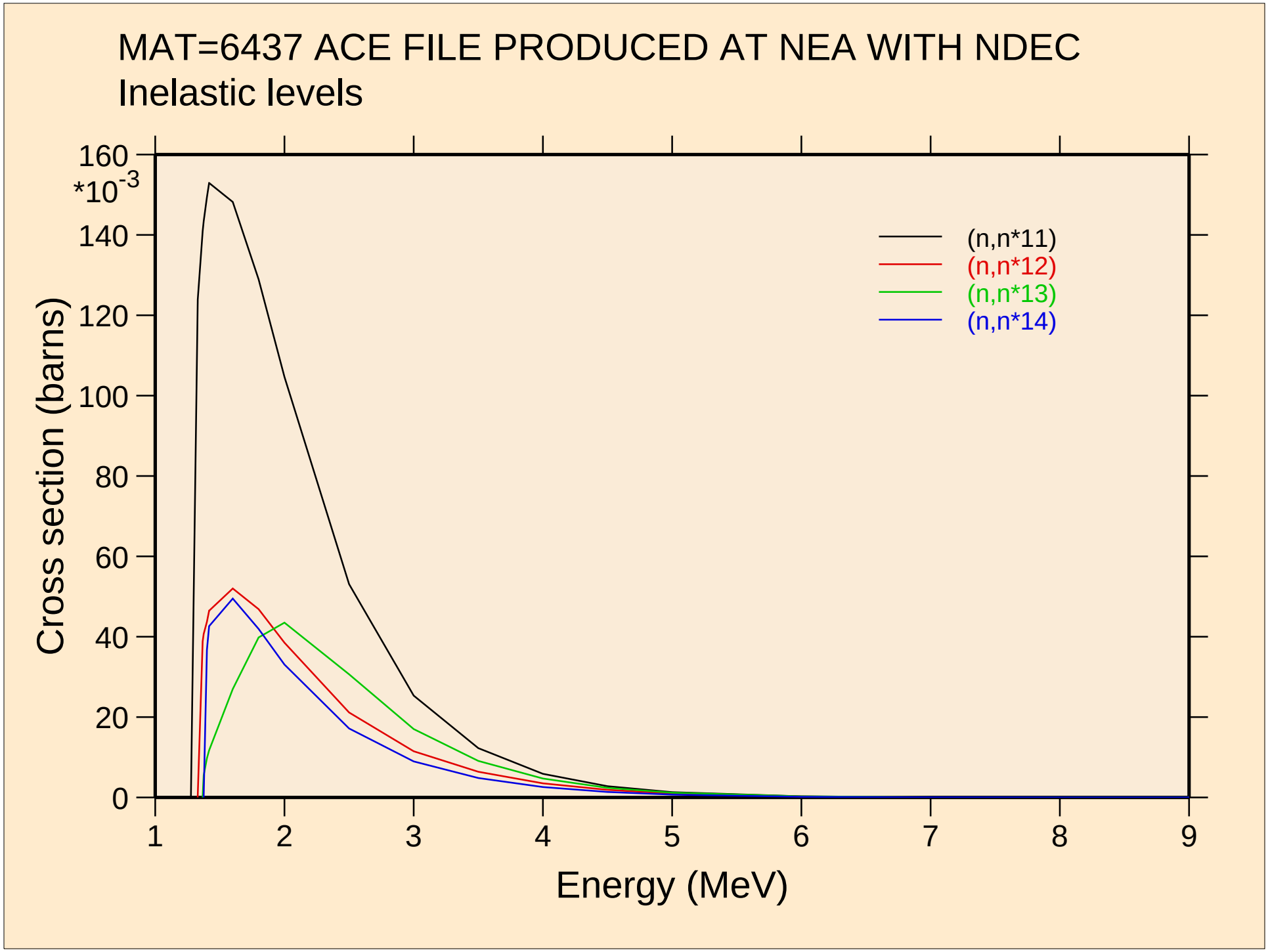

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Damage
damage
*10-3
350
300
250
200
150
100
50
0
Damage (MeV-barns)
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

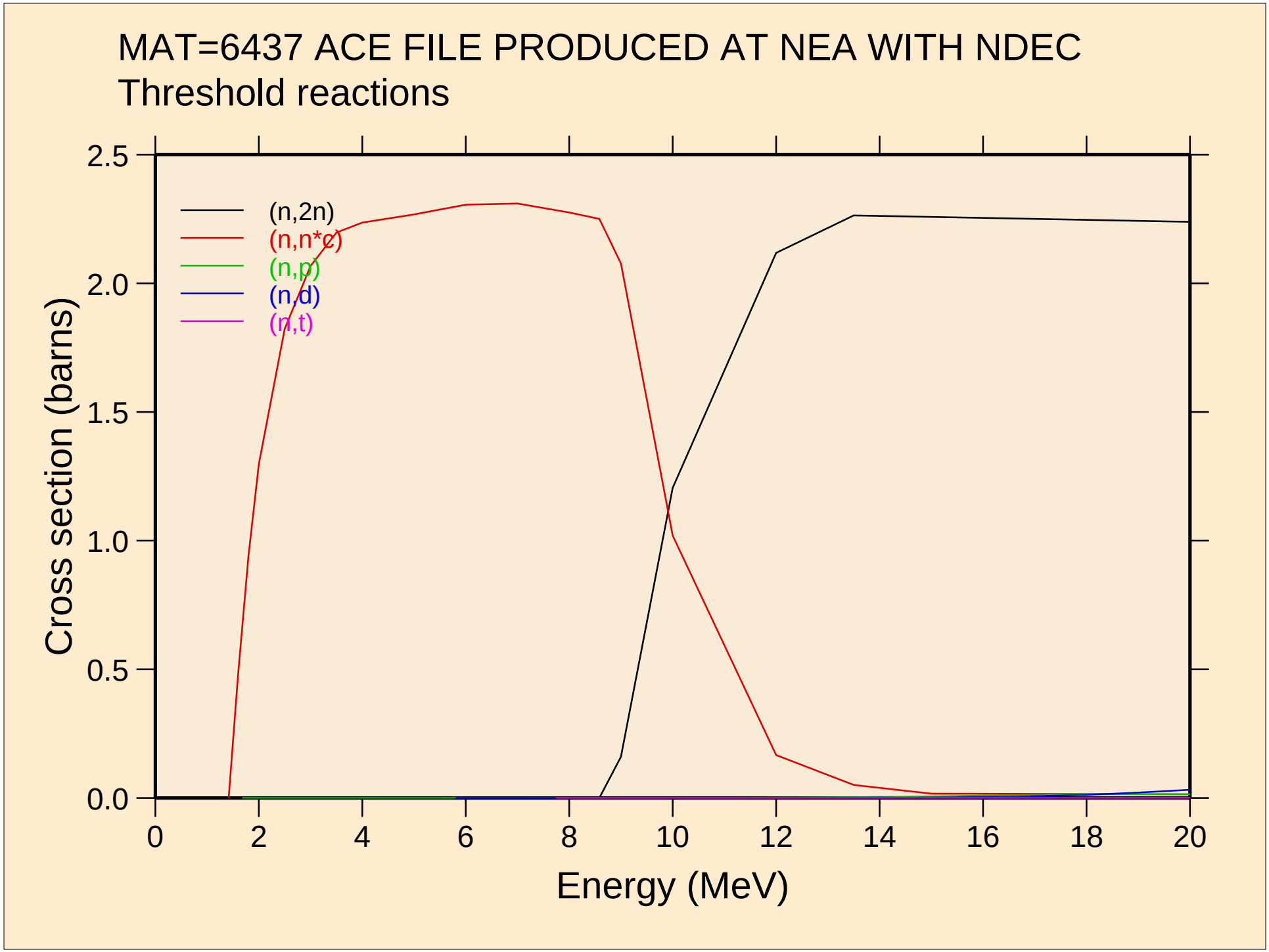
MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Non-threshold reactions

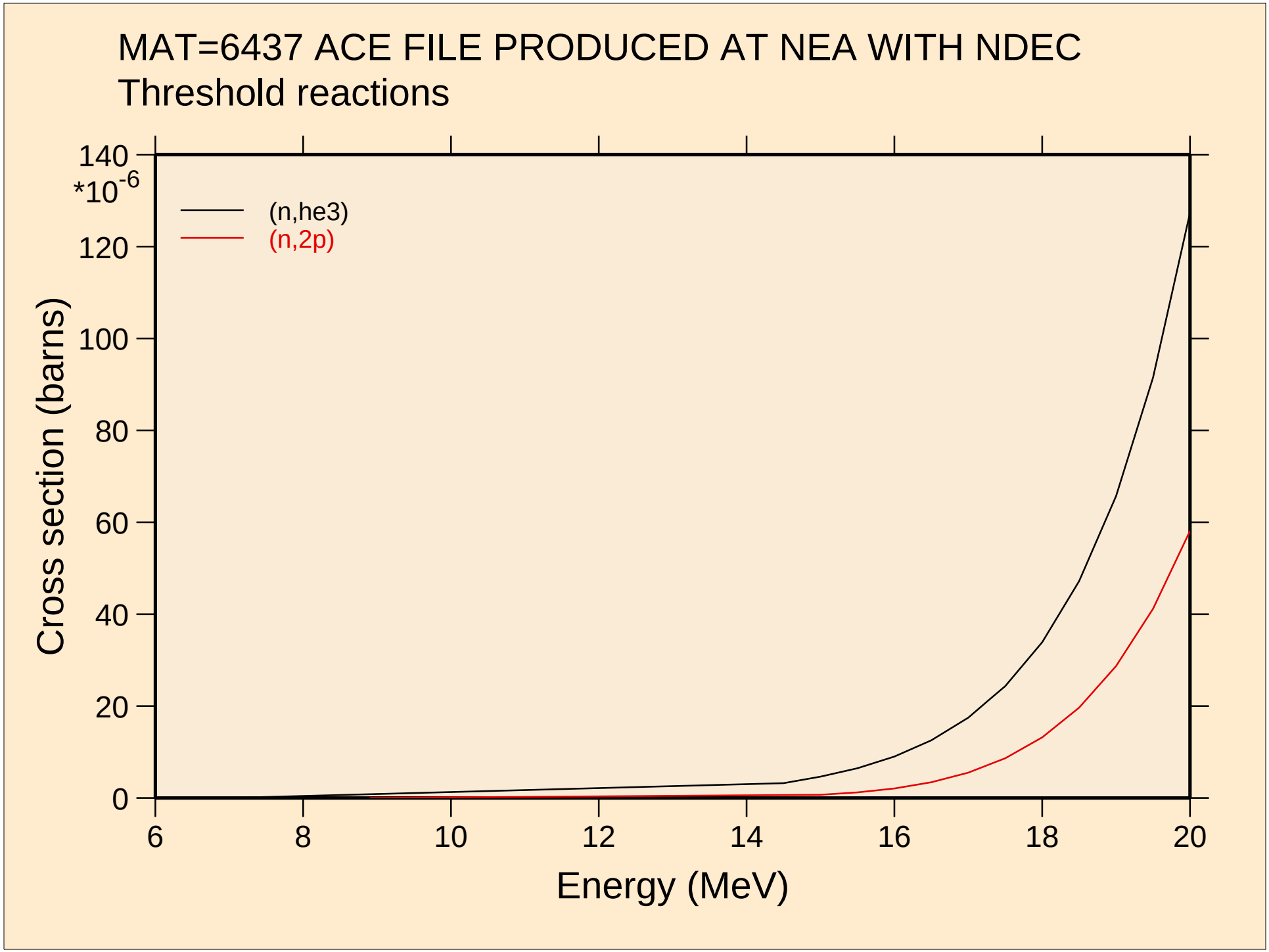


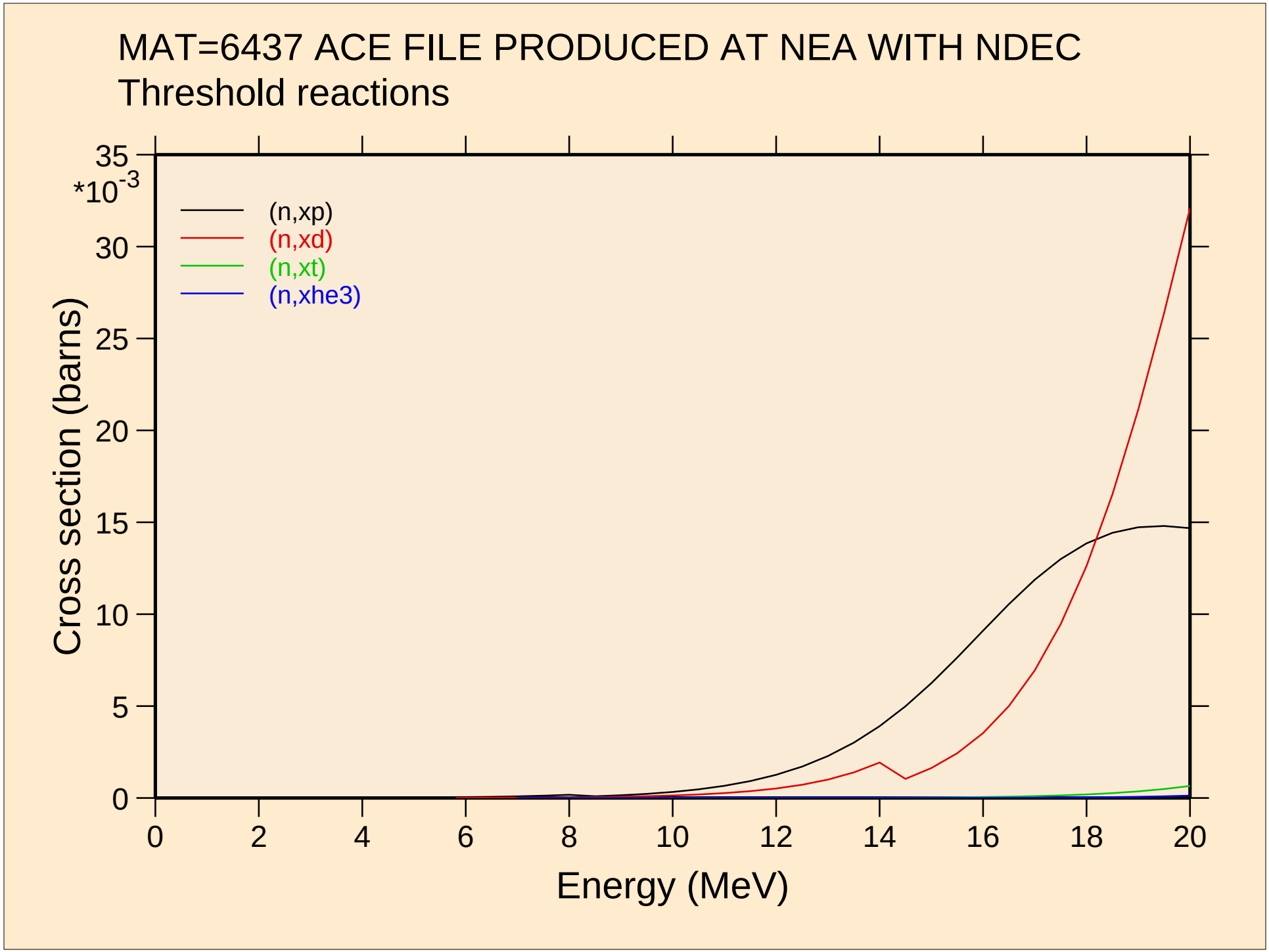

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0
2
4
6
8
10
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

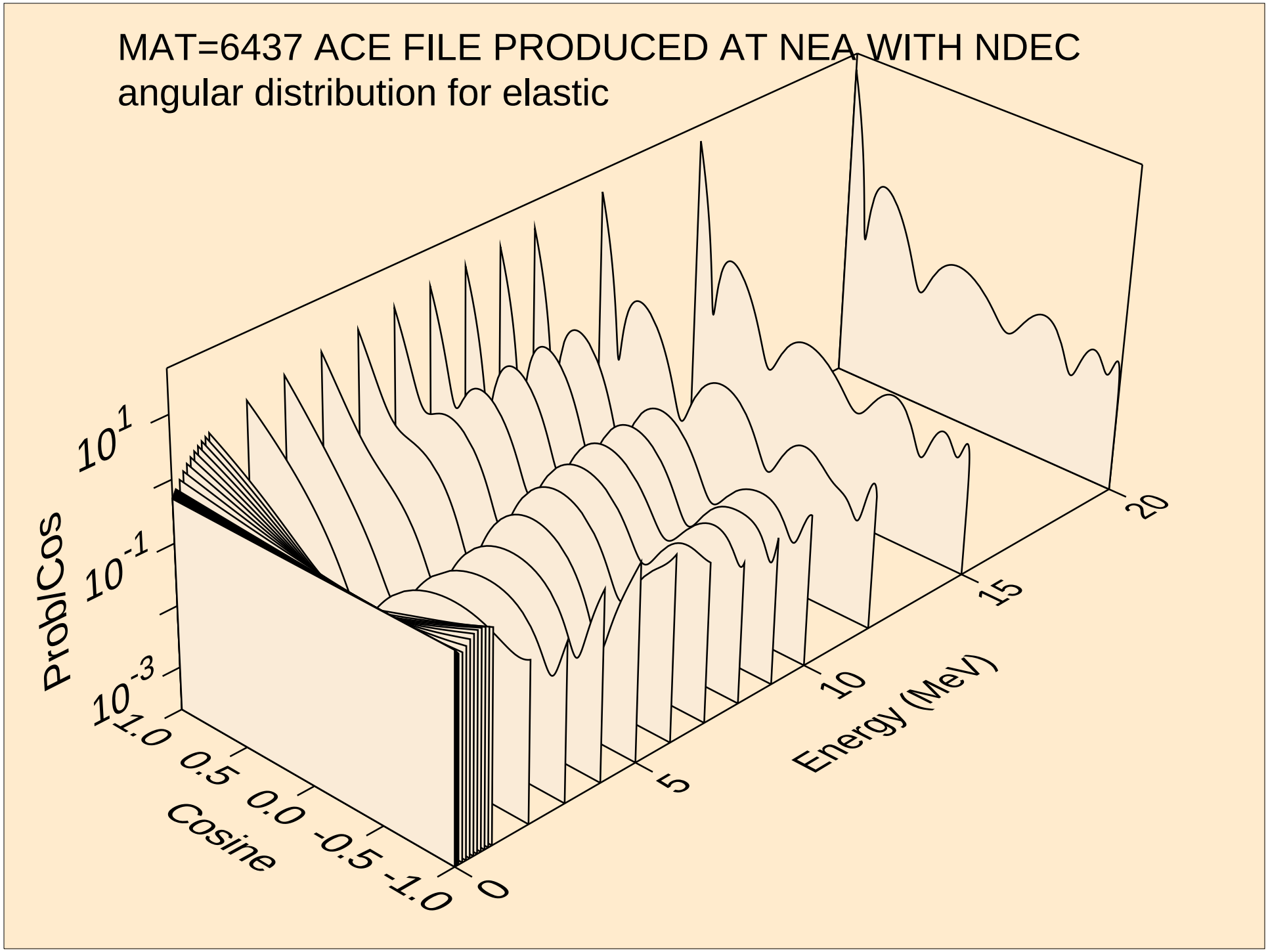

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
250
*10-3
200
150
100
50
0
Cross section (barns)
1
2
3
4
5
6
7
8
9
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)

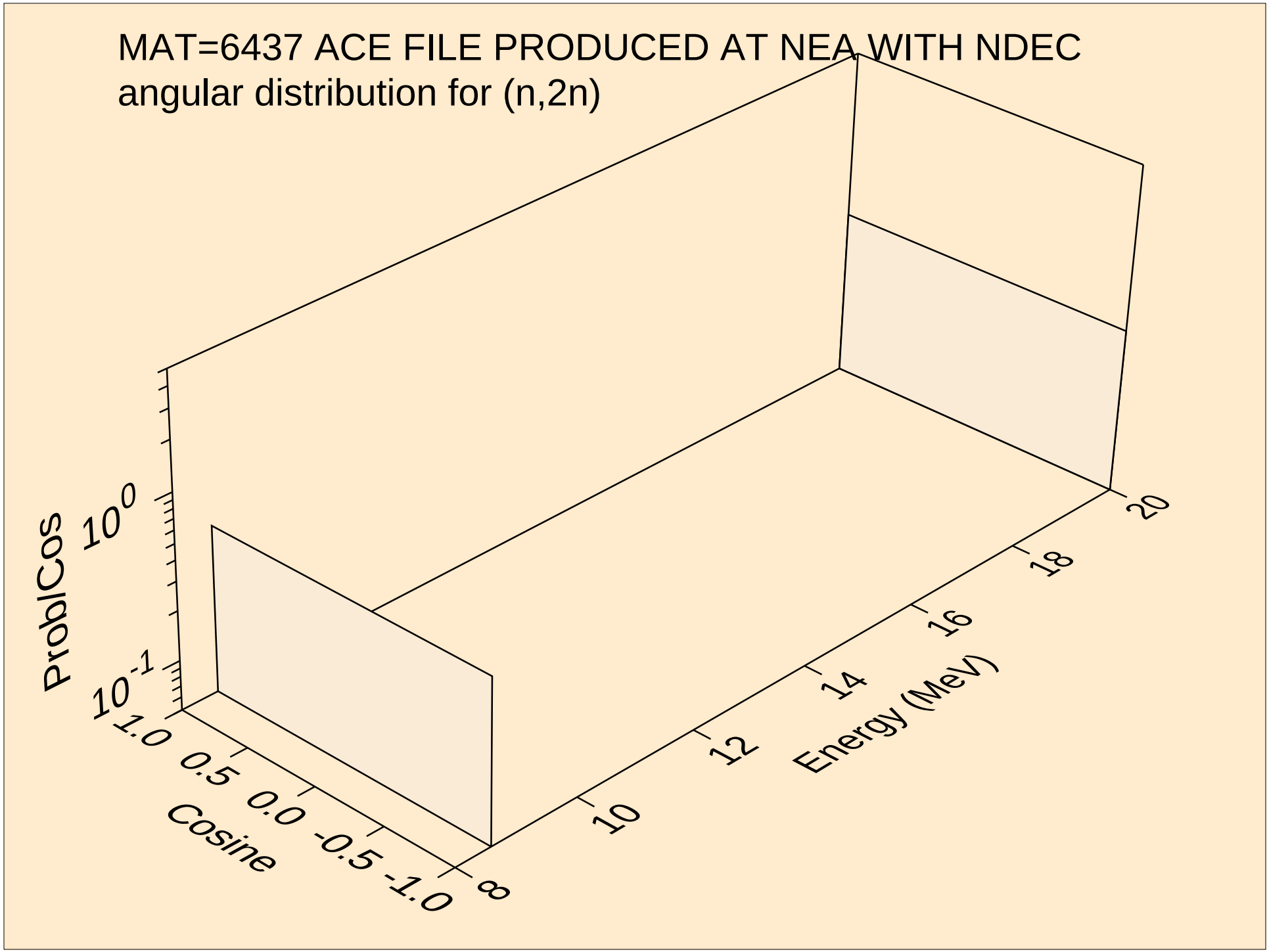

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Inelastic levels
Cross section (barns)
*10-3
160
140
120
100
80
60
40
20
0
1
2
3
4
5
6
7
8
9
Energy (MeV)
(n,n*11)
(n,n*12)
(n,n*13)
(n,n*14)

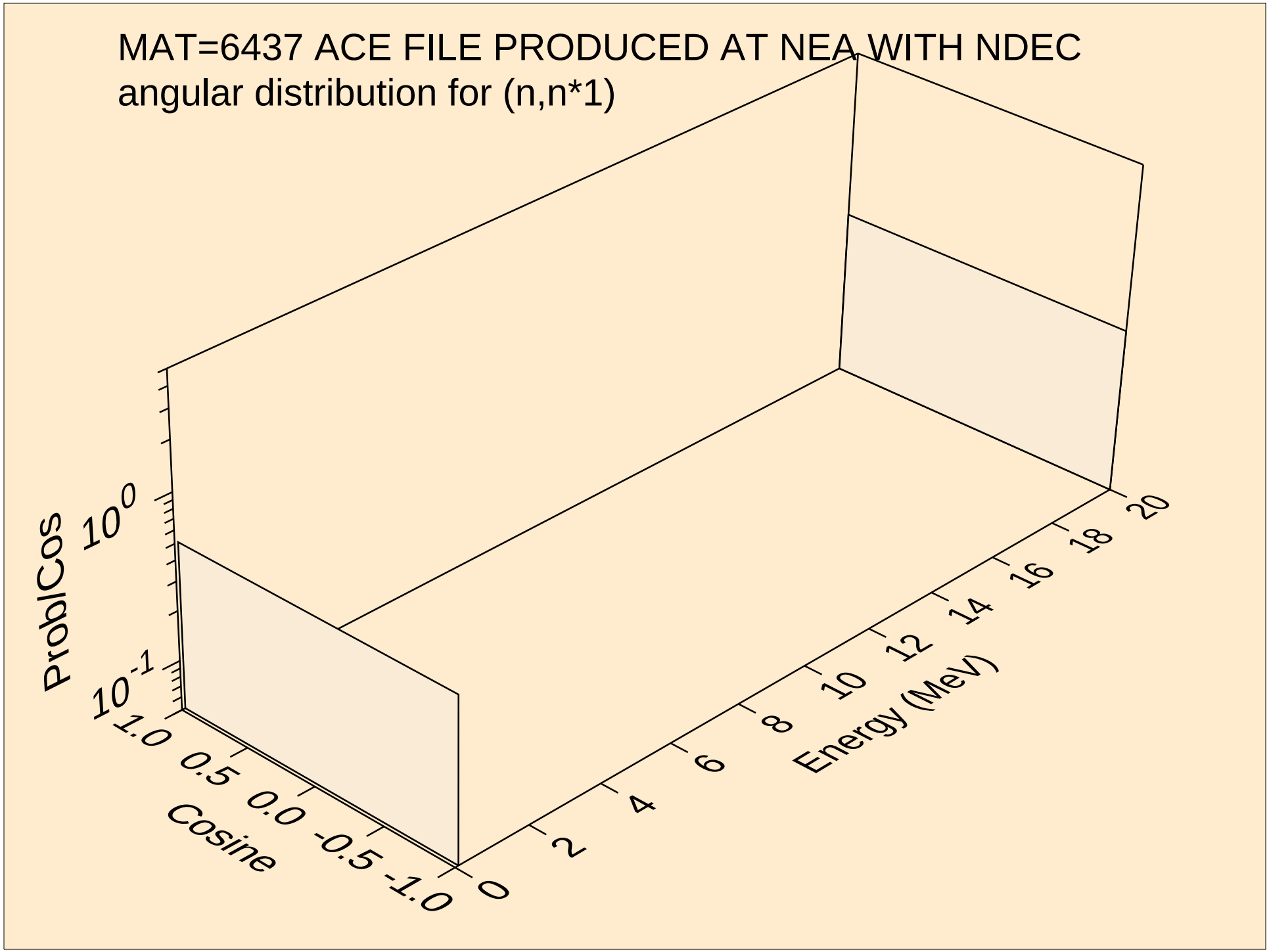

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Threshold reactions
(n,2n)
(n,n*c)
(n,p)
(n,d)
(n,t)
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
0
2
4
6
8
10
12
14
16
18
20

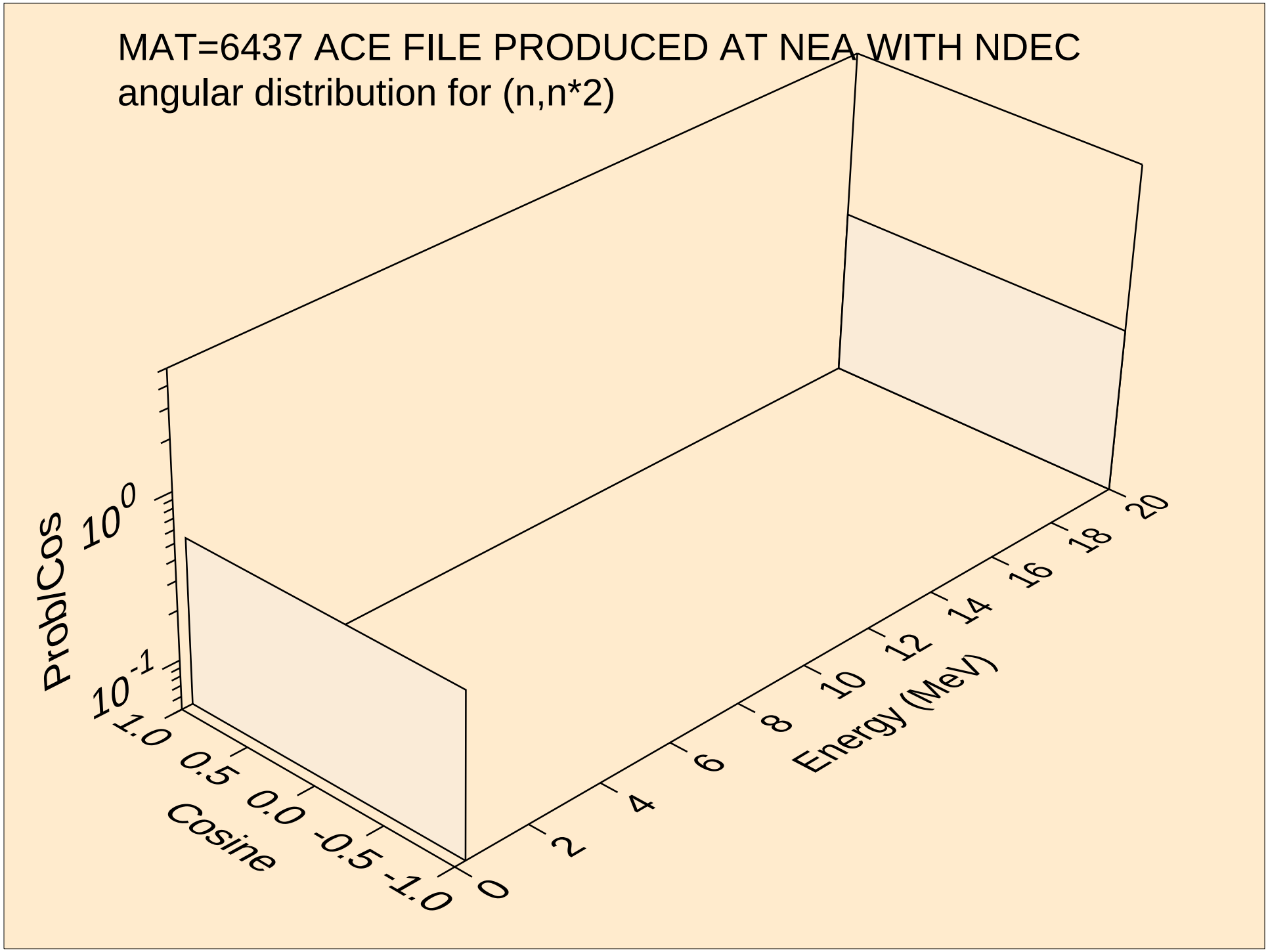

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Threshold reactions
140
*10-6
120
100
80
60
40
20
0
Cross section (barns)
(n,he3)
(n,2p)
6
8
10
12
14
16
18
20
Energy (MeV)

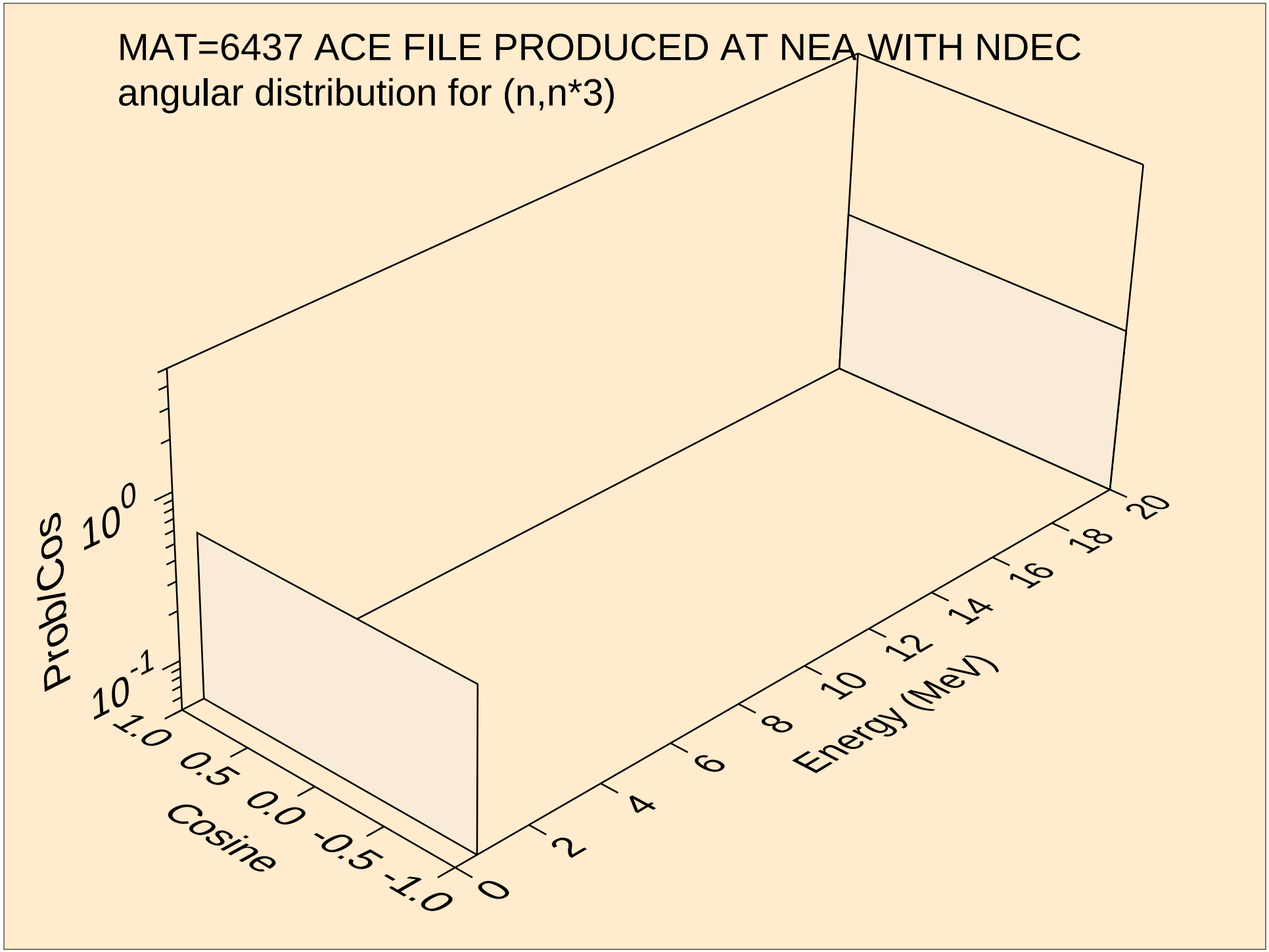

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
Threshold reactions
*10-3
Cross section (barns)
Energy (MeV)
(n,xp)
(n,xd)
(n,xt)
(n,xhe3)
0
5
10
15
20
25
30
35
0
2
4
6
8
10
12
14
16
18
20

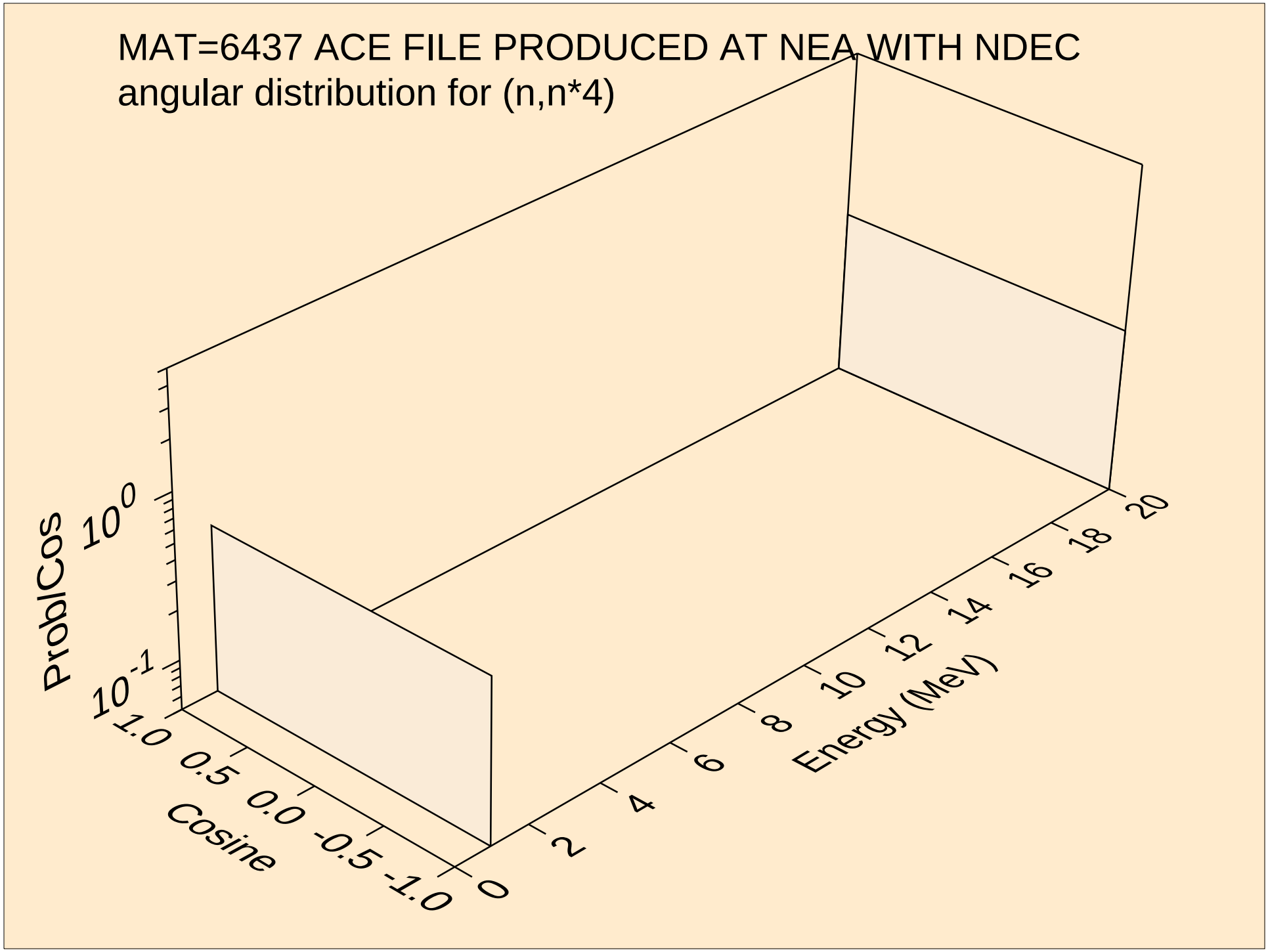

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for elastic
ProbICos
10^{1}
10^{-1}
10^{-3}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

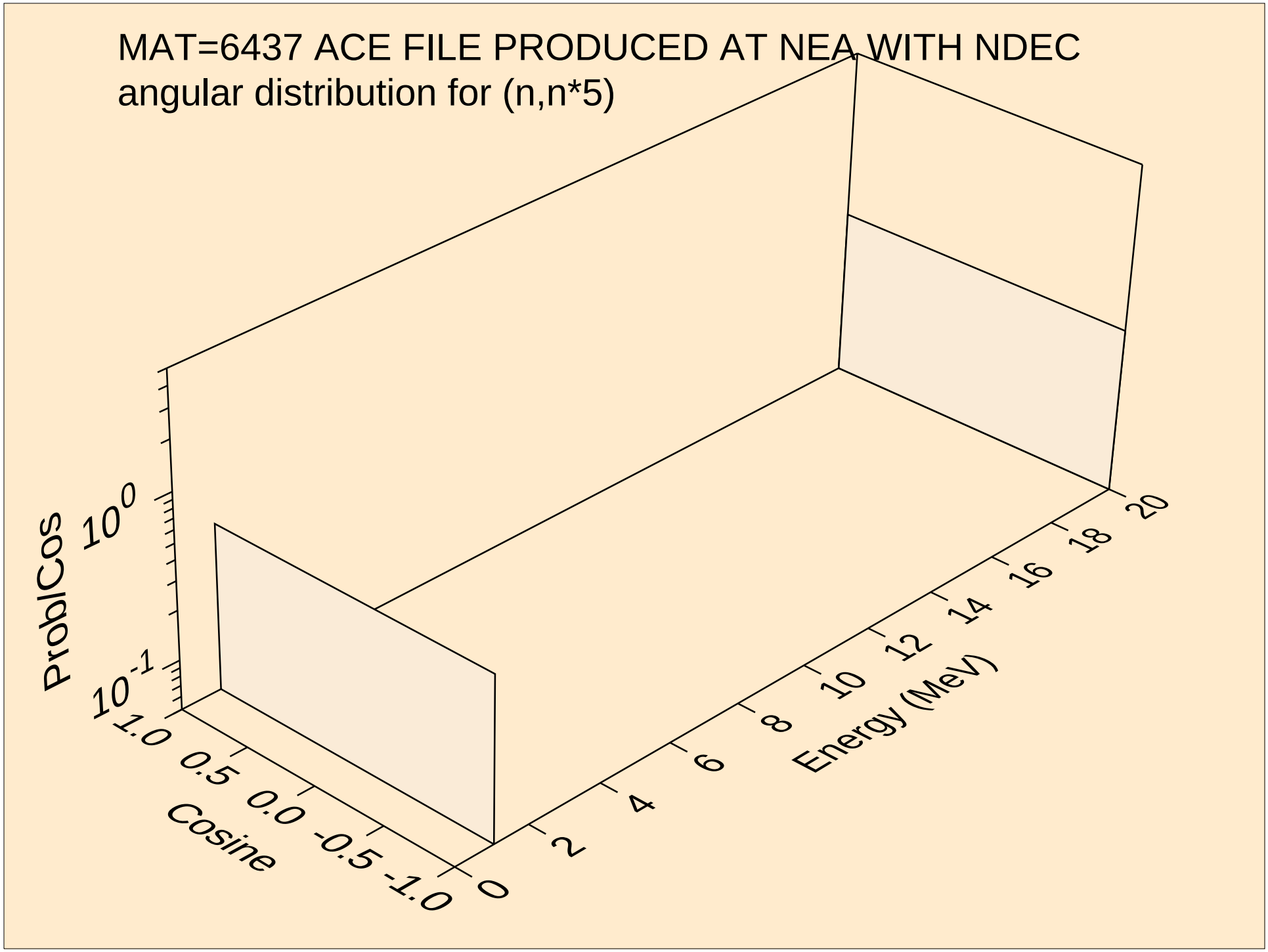

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,2n)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

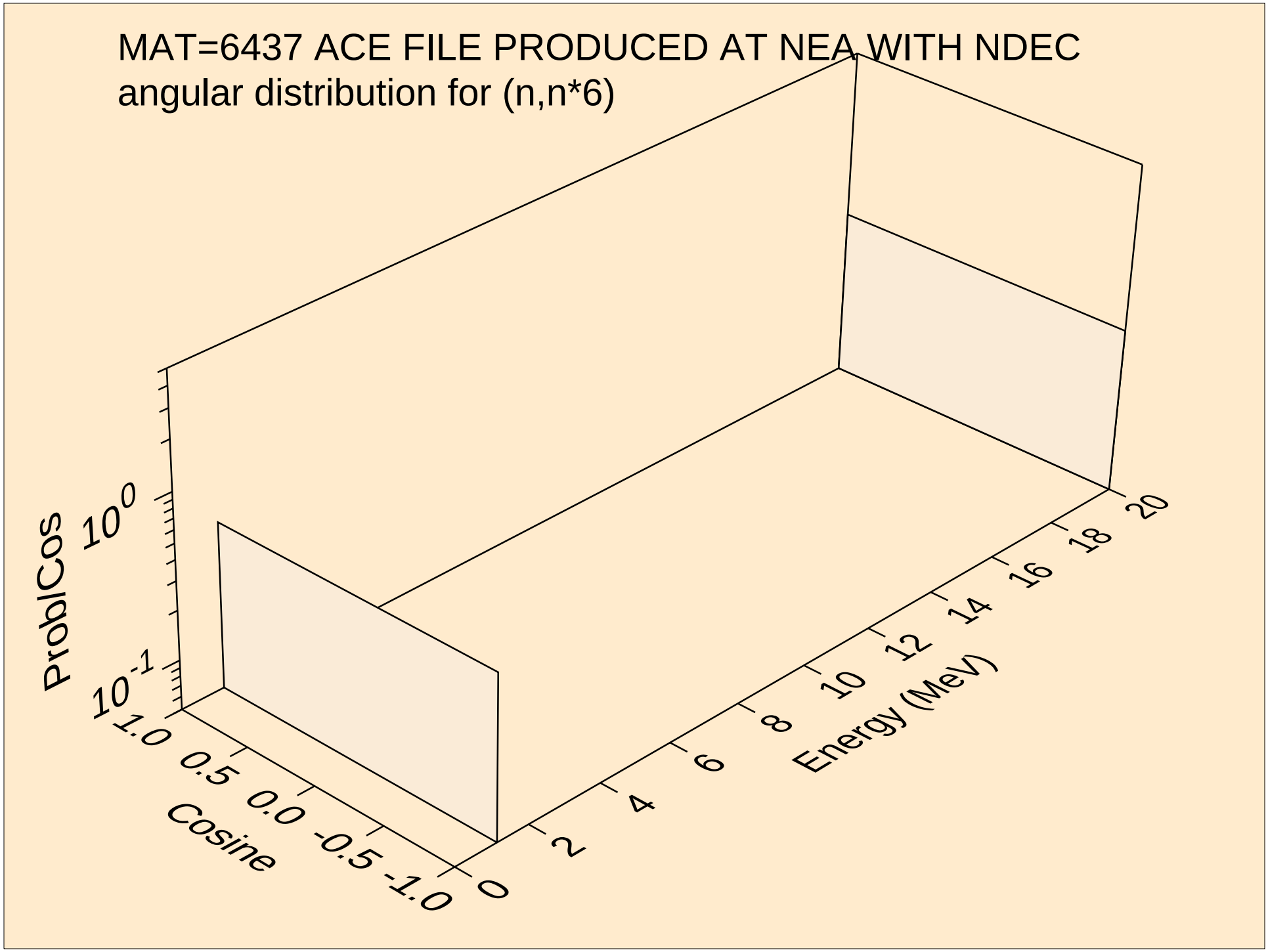

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*1)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

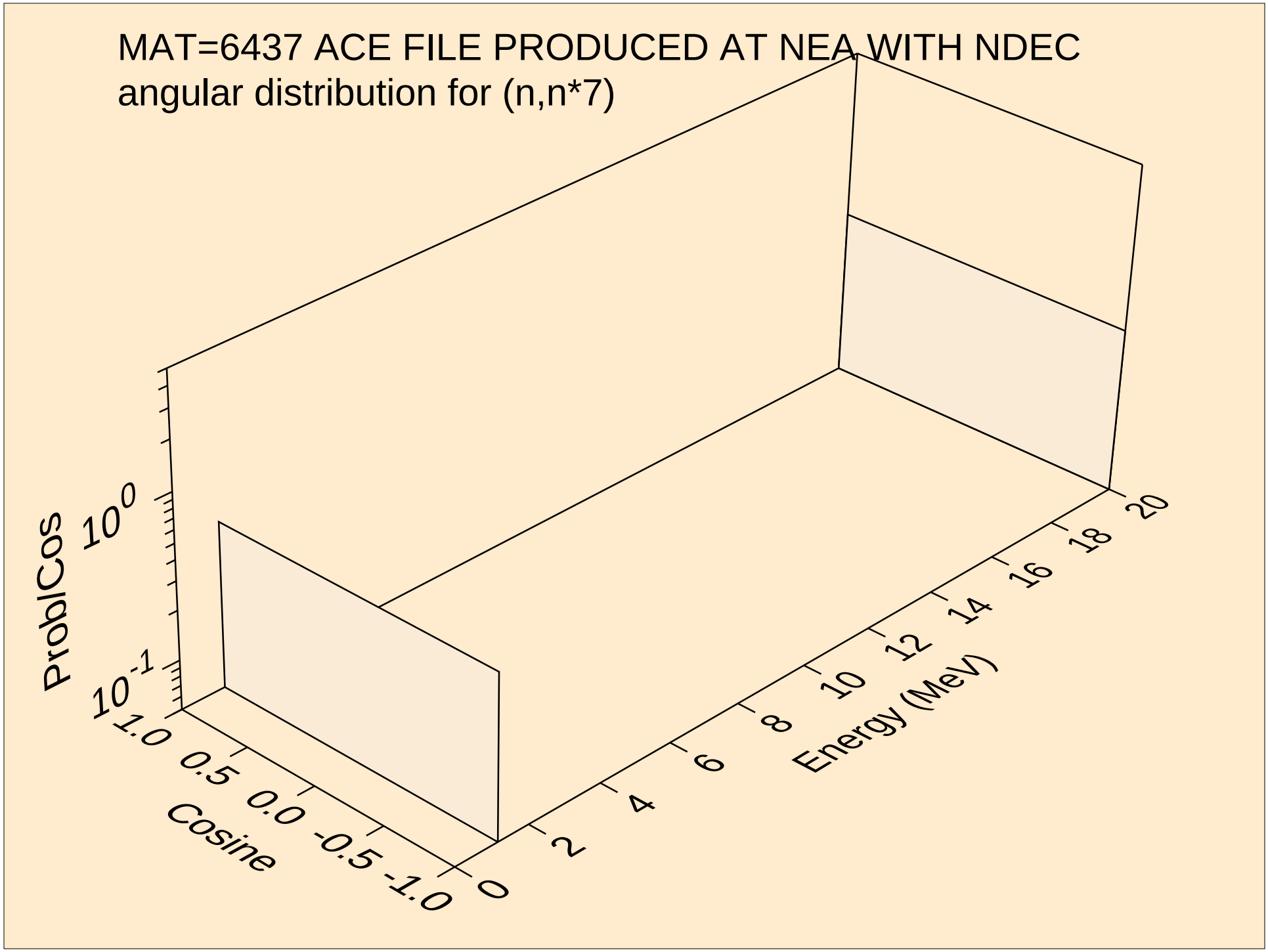

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*2)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

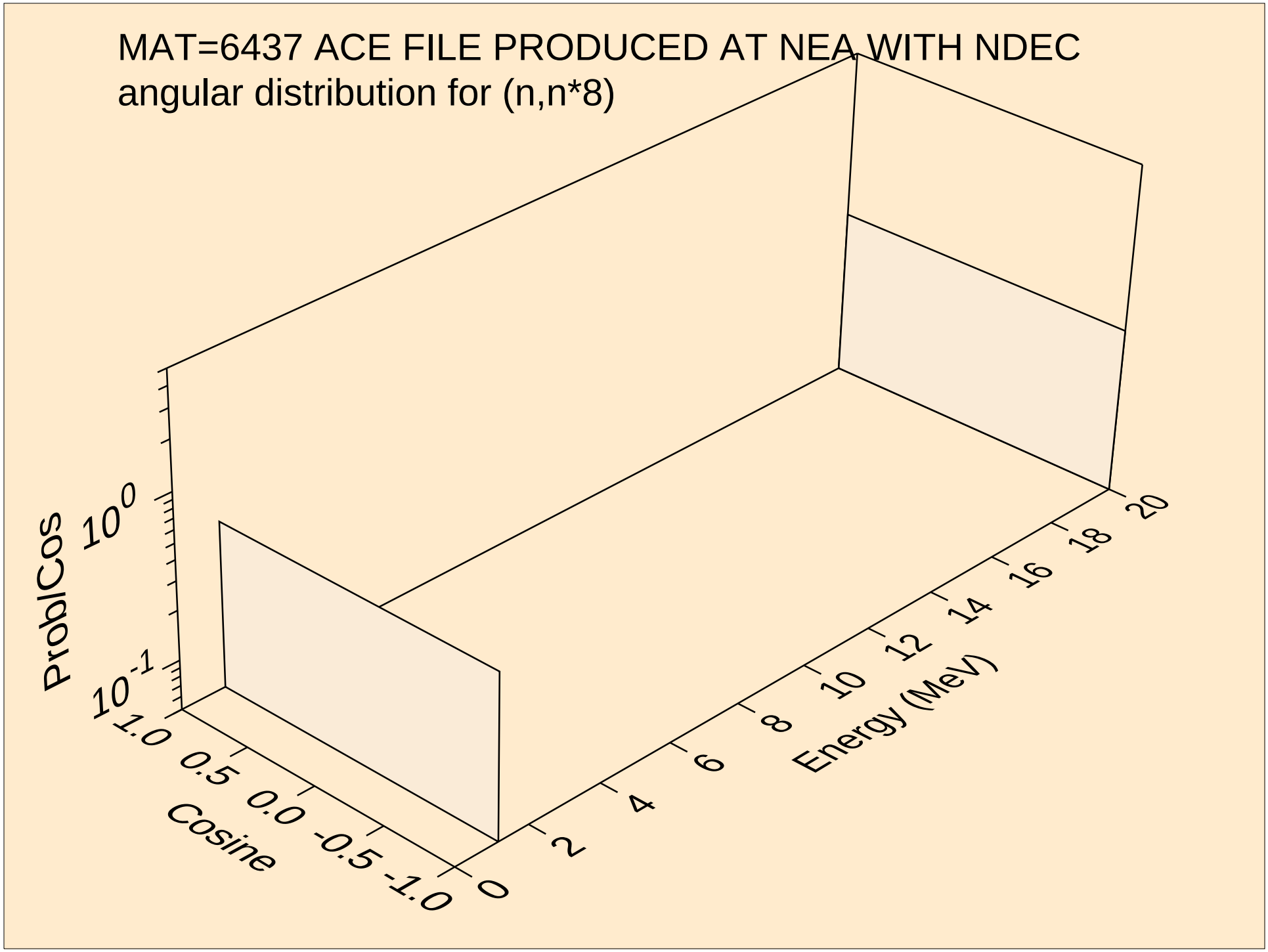

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*3)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

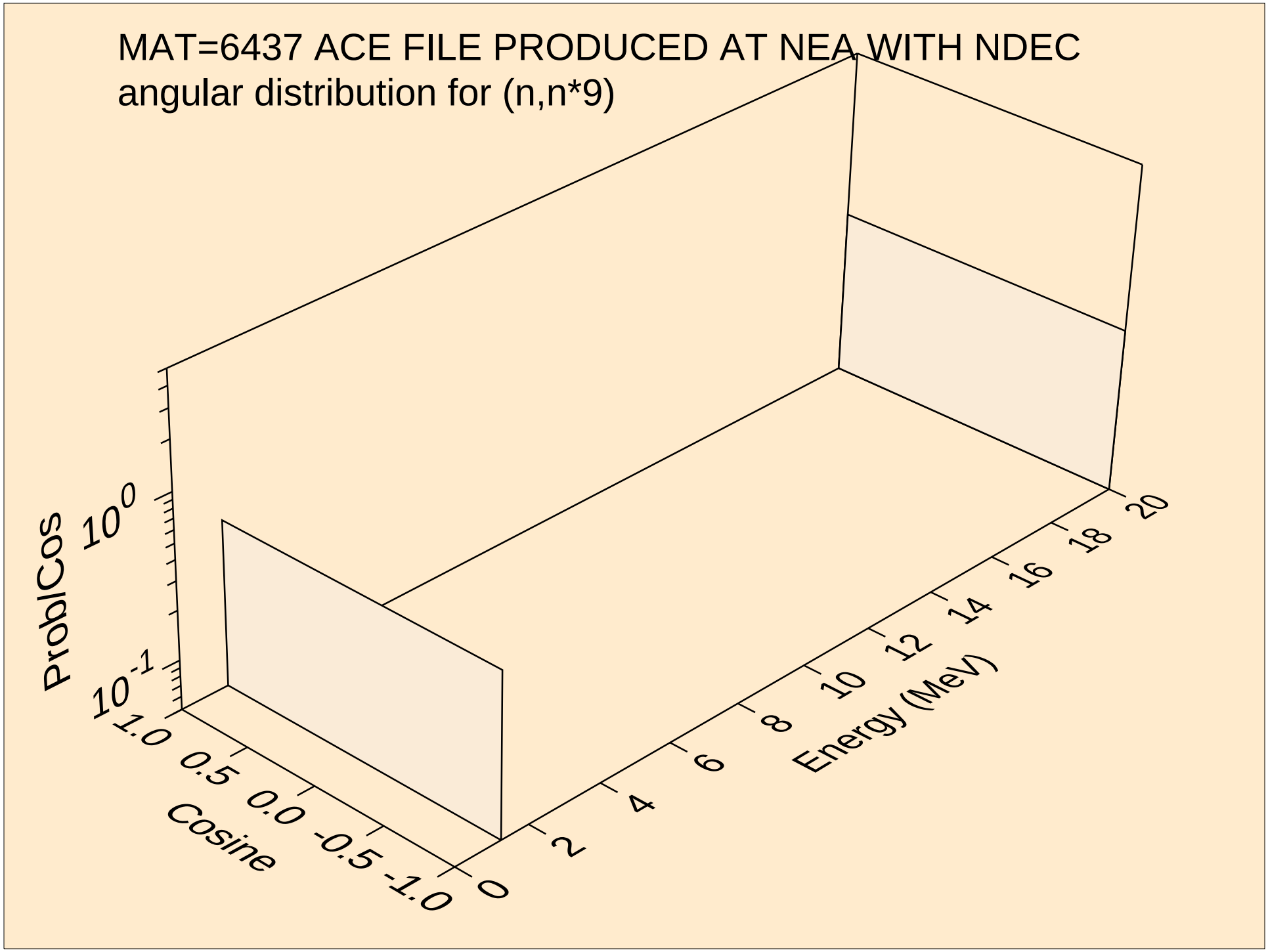

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*4)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

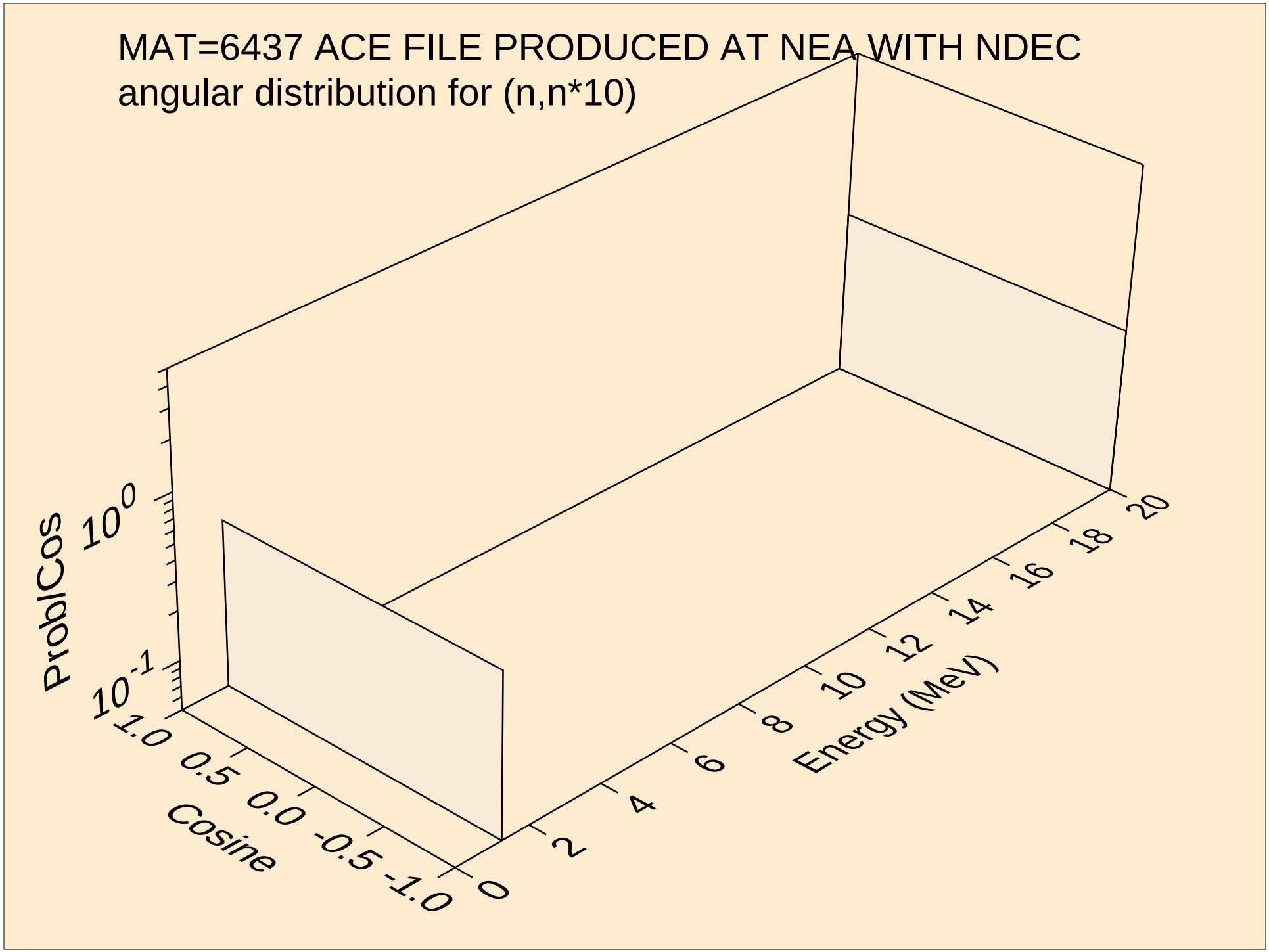

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*5)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

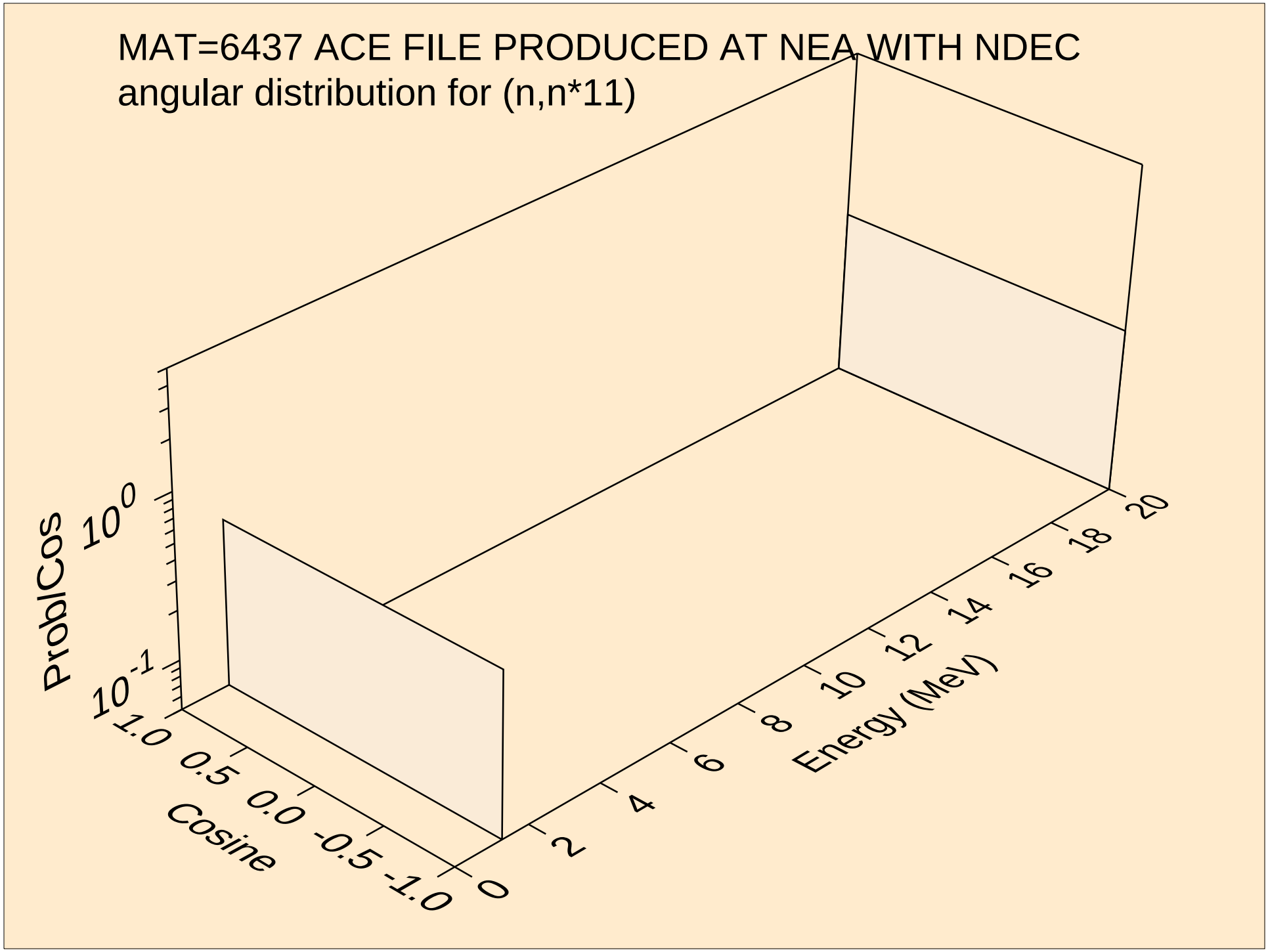

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*6)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

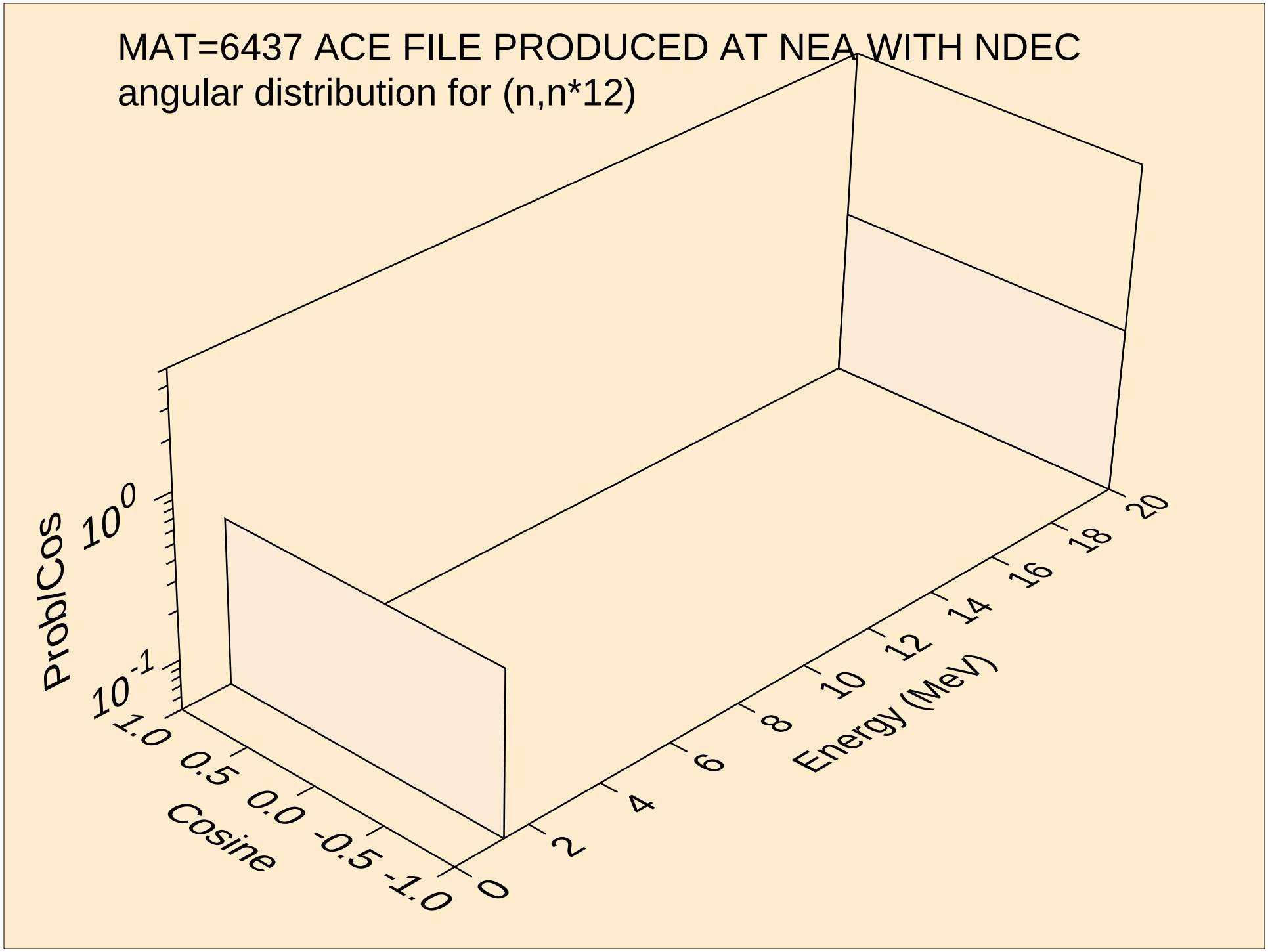

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*7)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

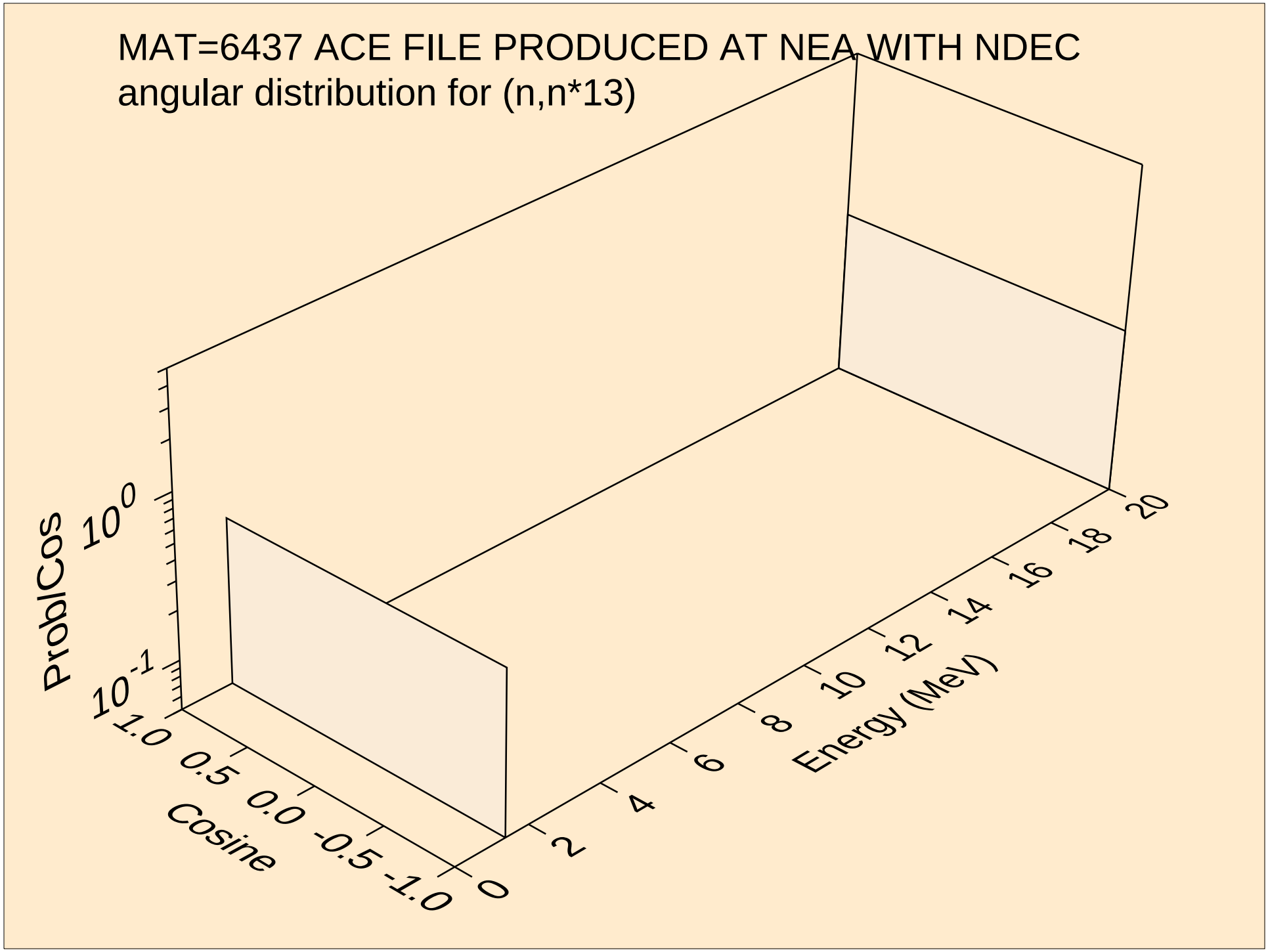

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*8)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

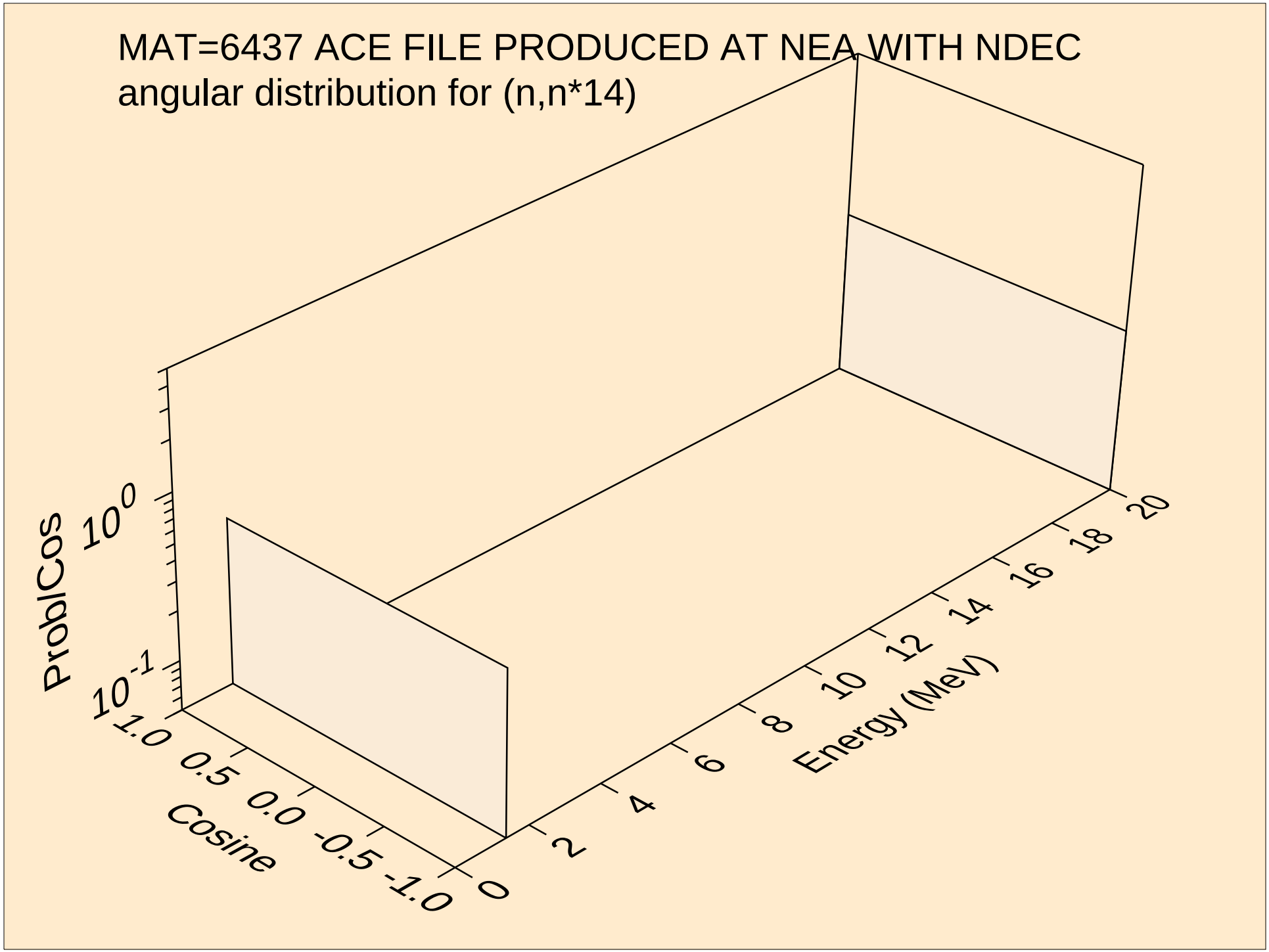

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*9)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

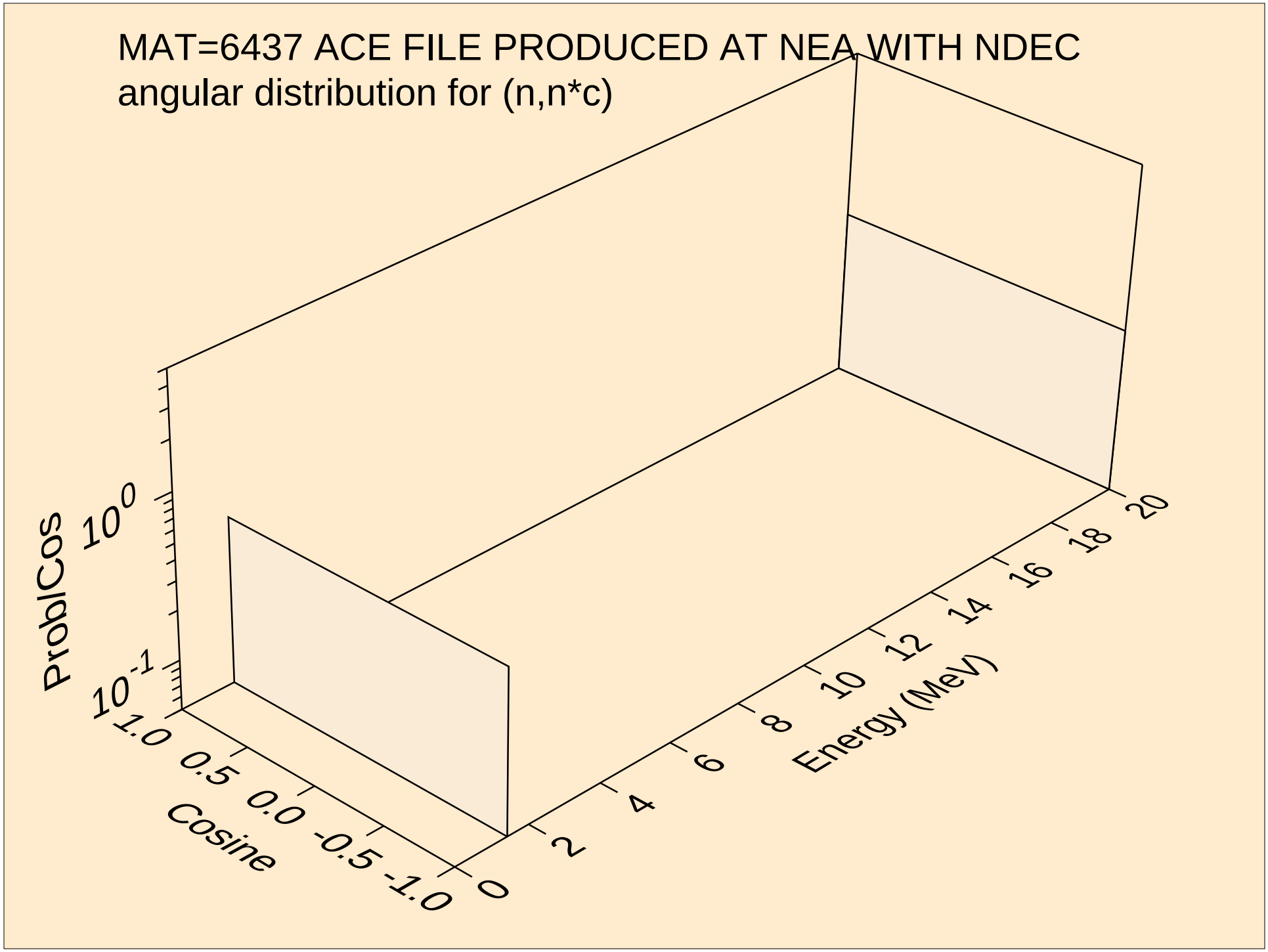

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*10)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

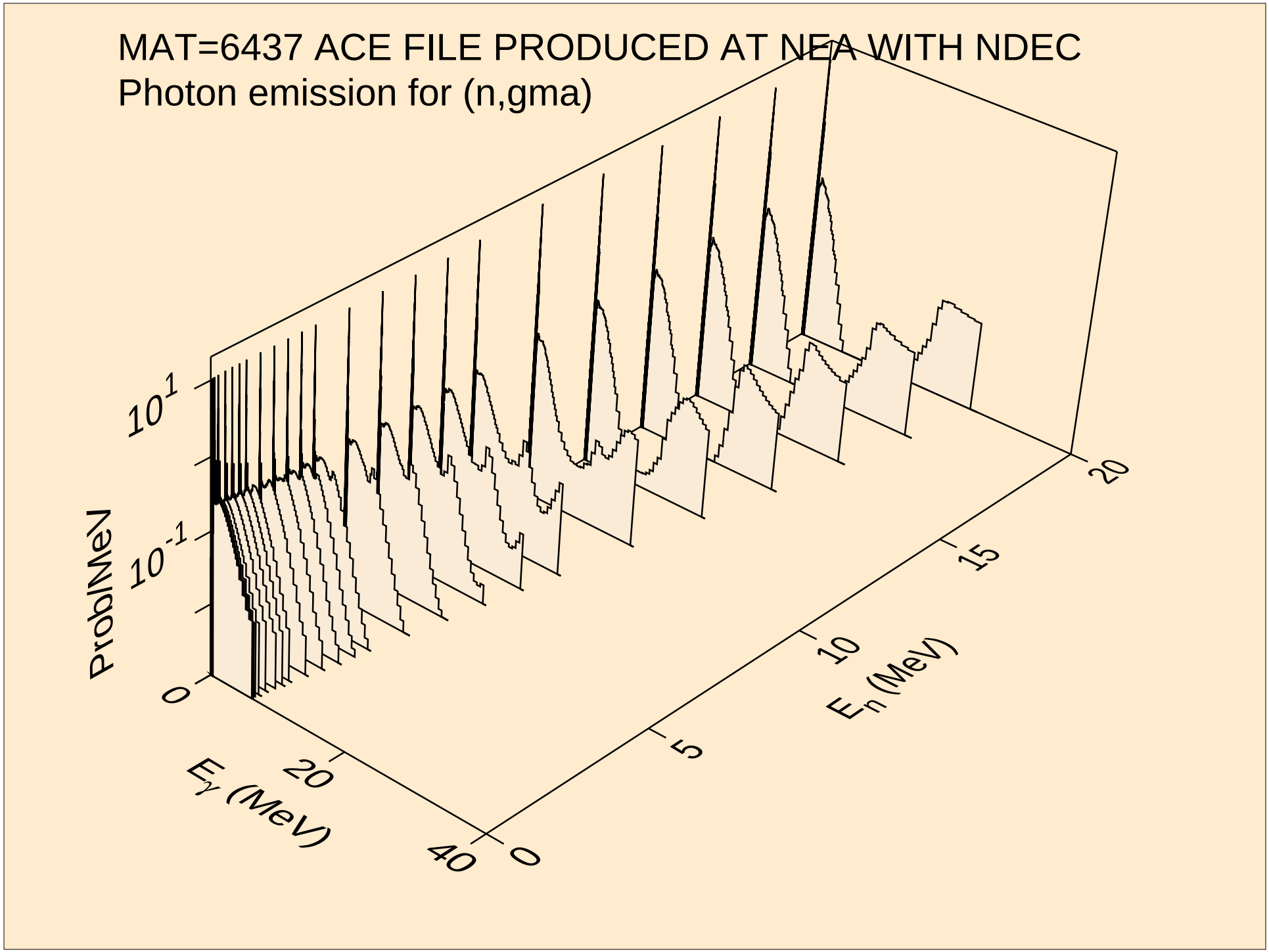

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*11)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

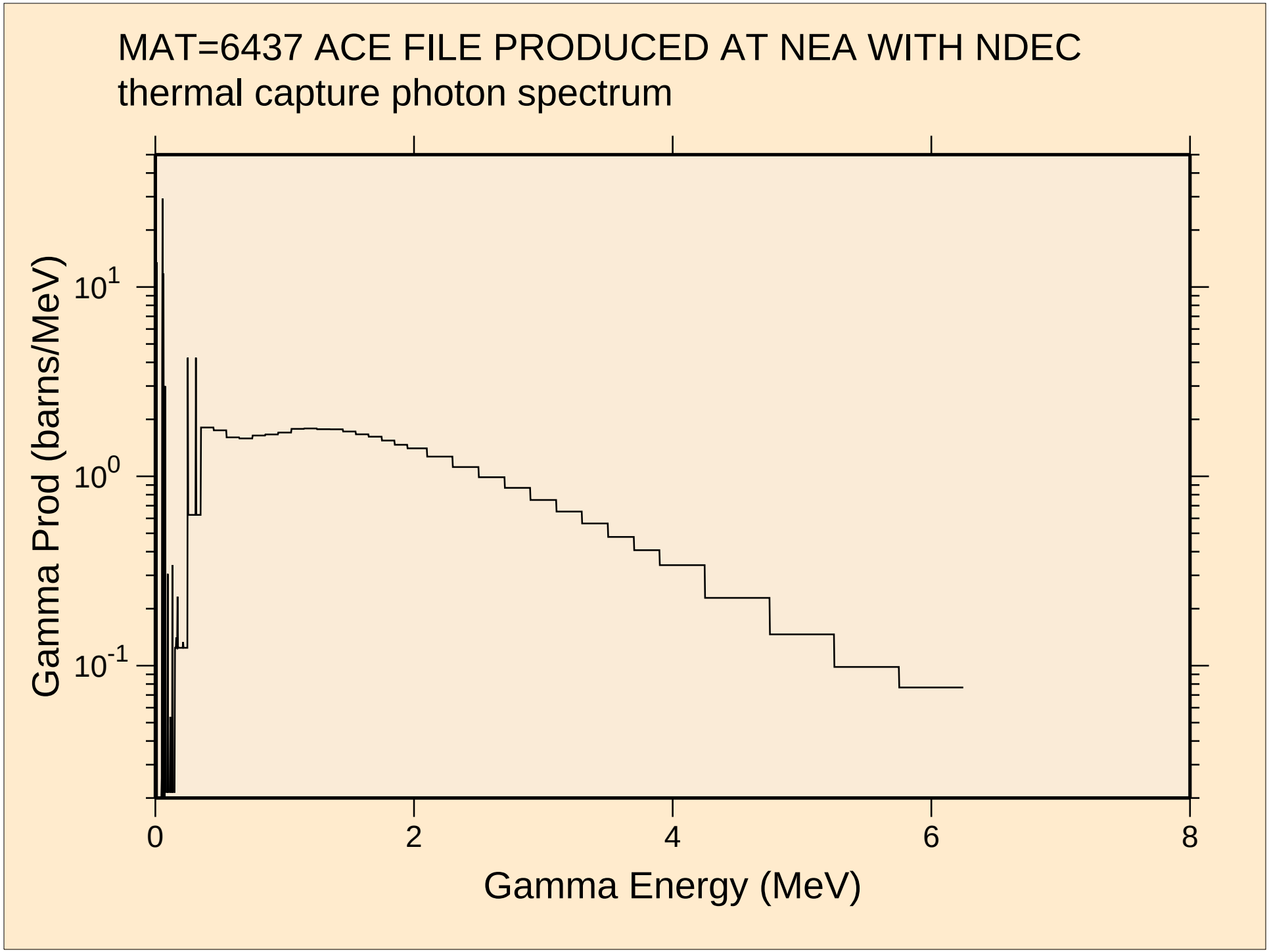

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*12)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

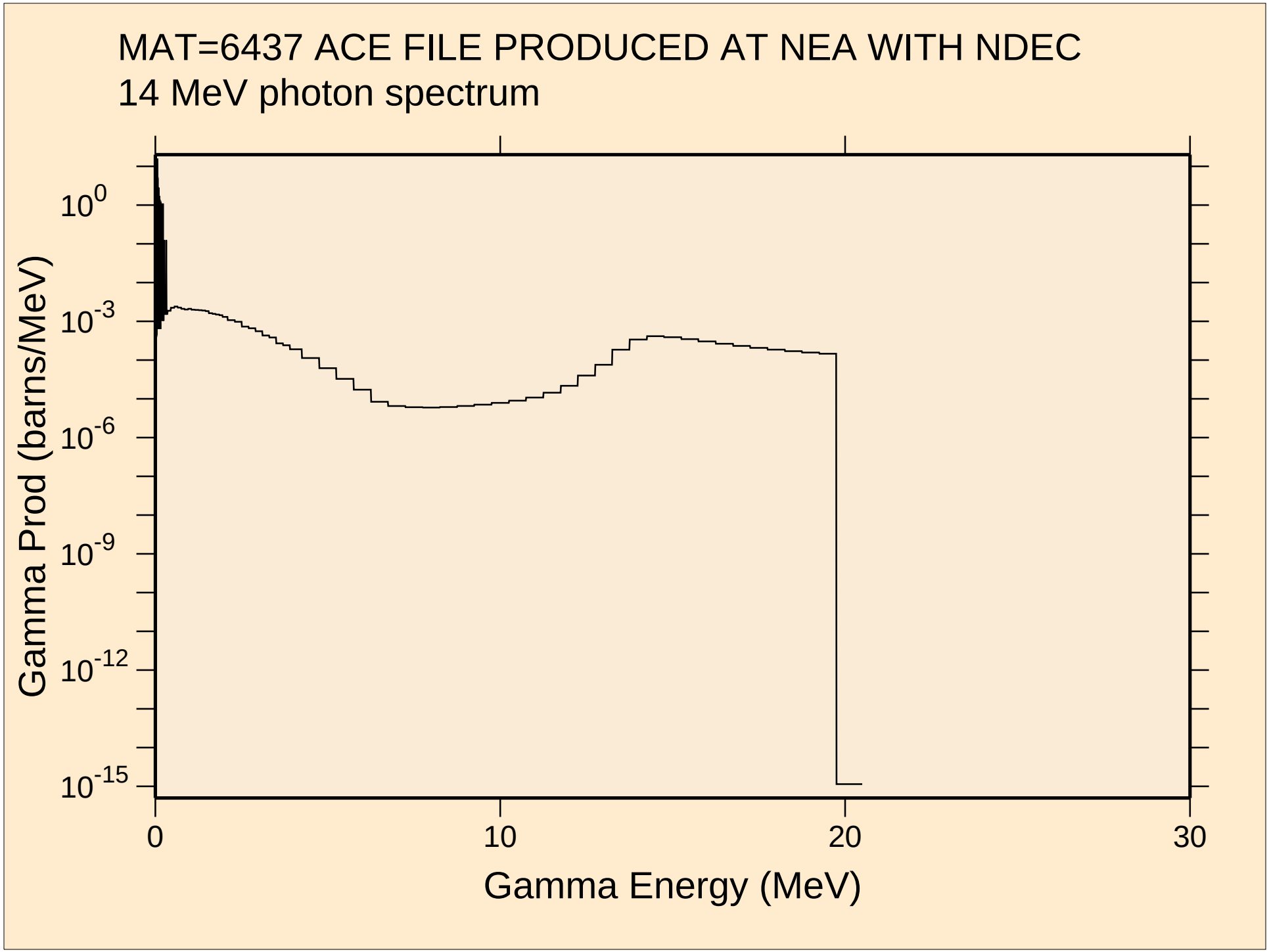

MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*13)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*14)
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=6437 ACE FILE PRODUCED AT NEA WITH NDEC
angular distribution for (n,n*c)
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=6437 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=6437 ACE FILE PRODUCED AT NEA WITH NDEC
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^1
10^0
10^-1
0
2
4
6
8
Gamma Energy (MeV)


MAT=6437 ACE FILE PRODUCED AT NEA WITH NDEC
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^0
10^-3
10^-6
10^-9
10^-12
10^-15
0
10
20
30
Gamma Energy (MeV)