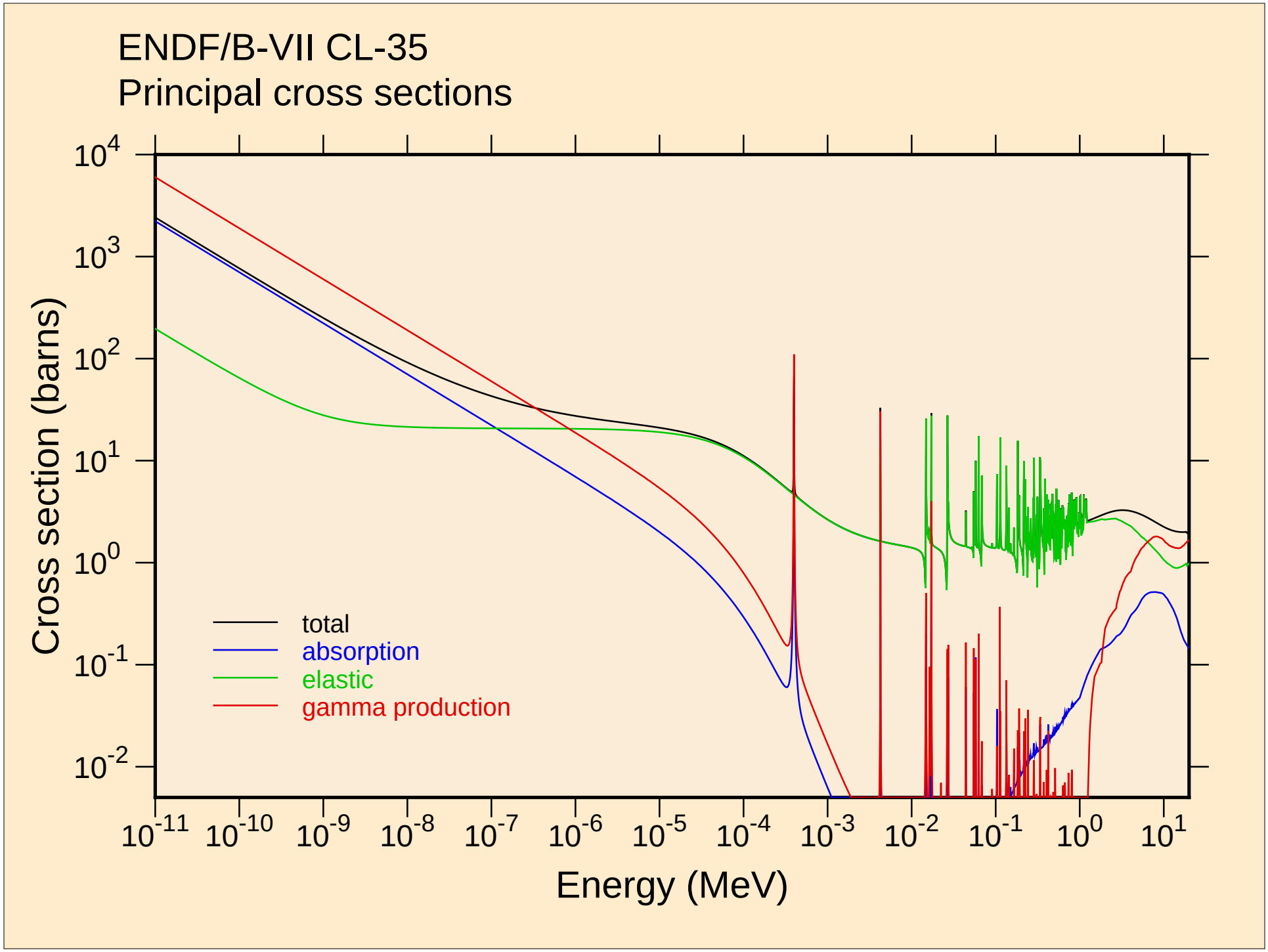
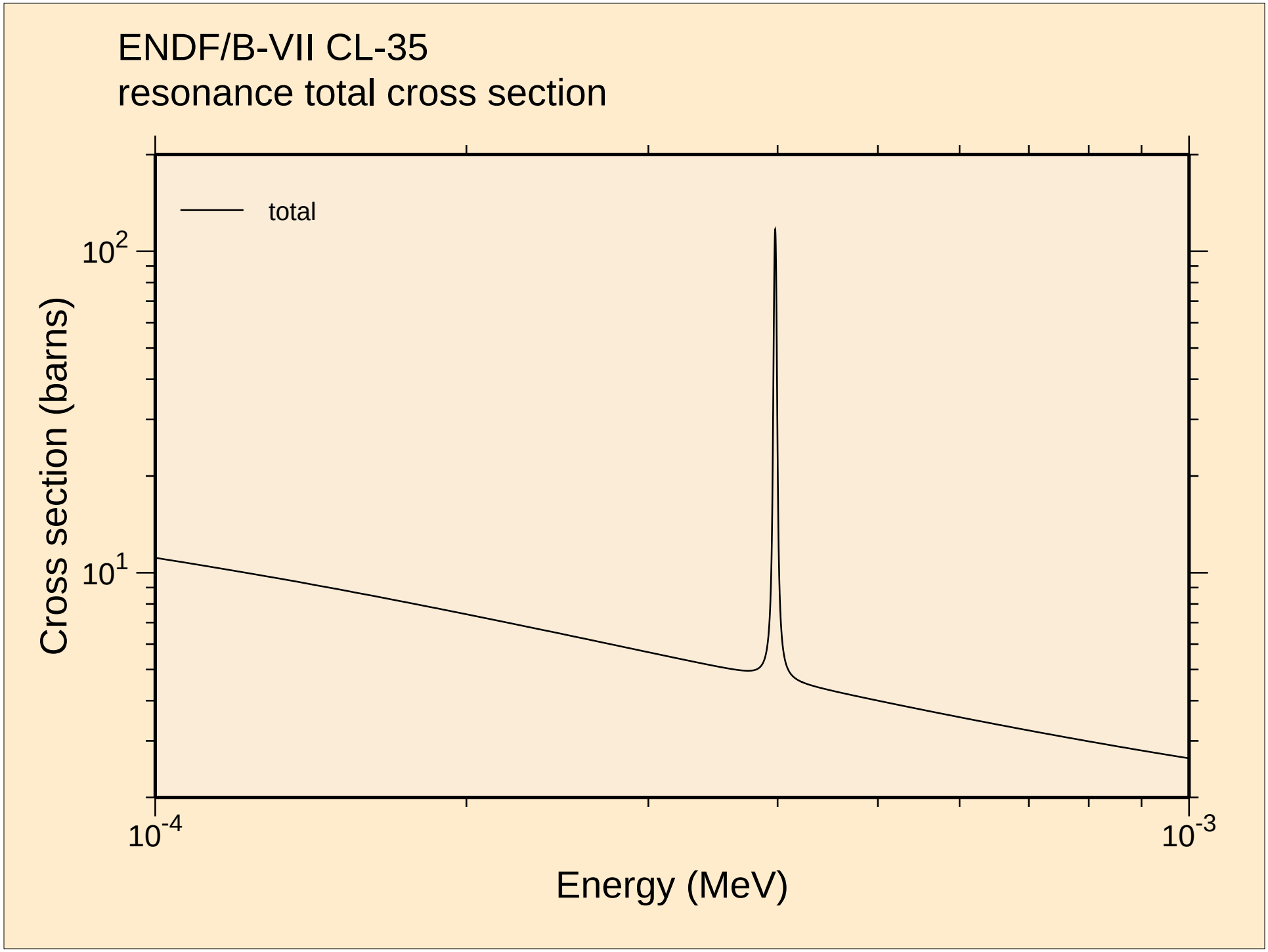
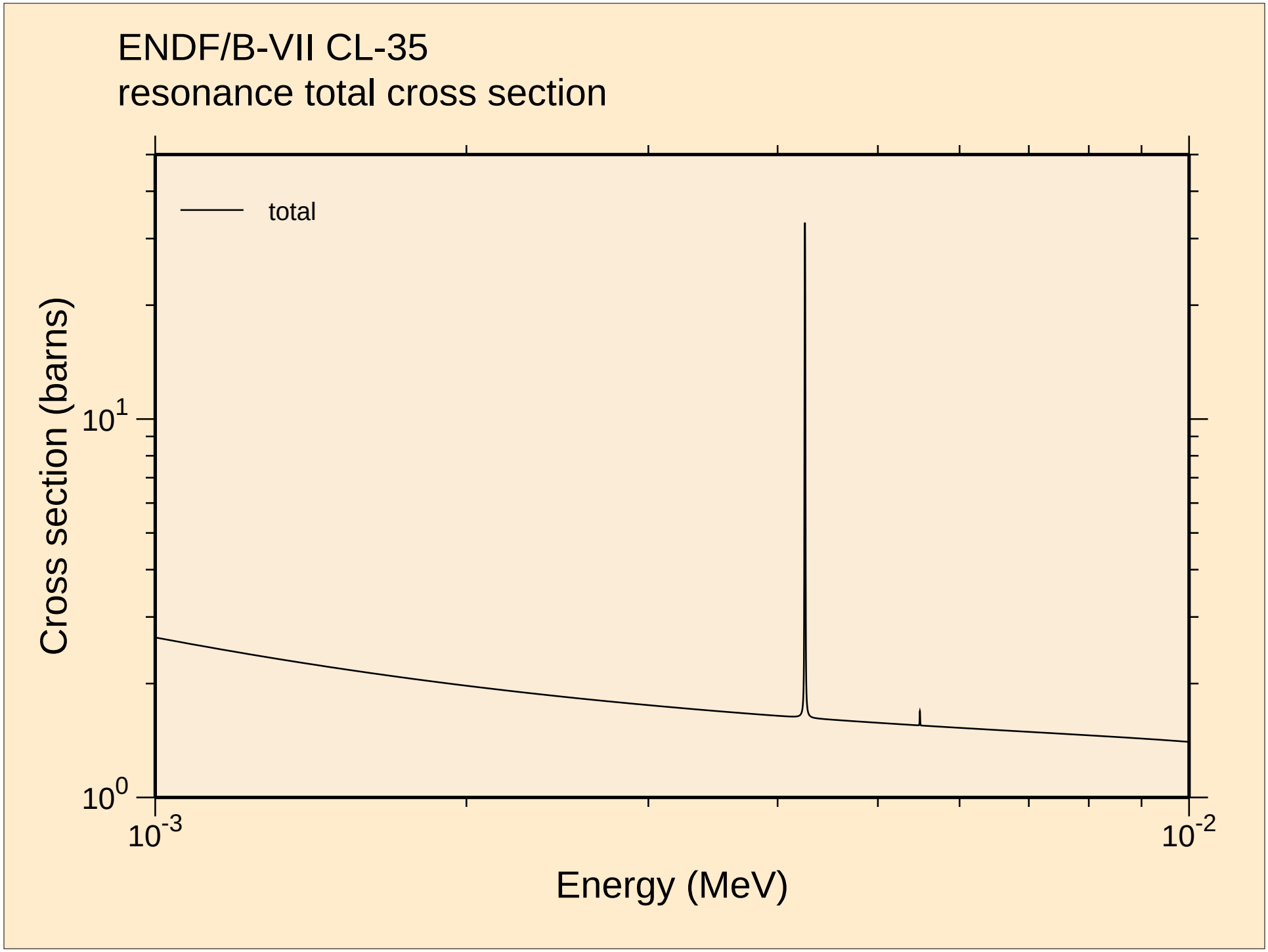
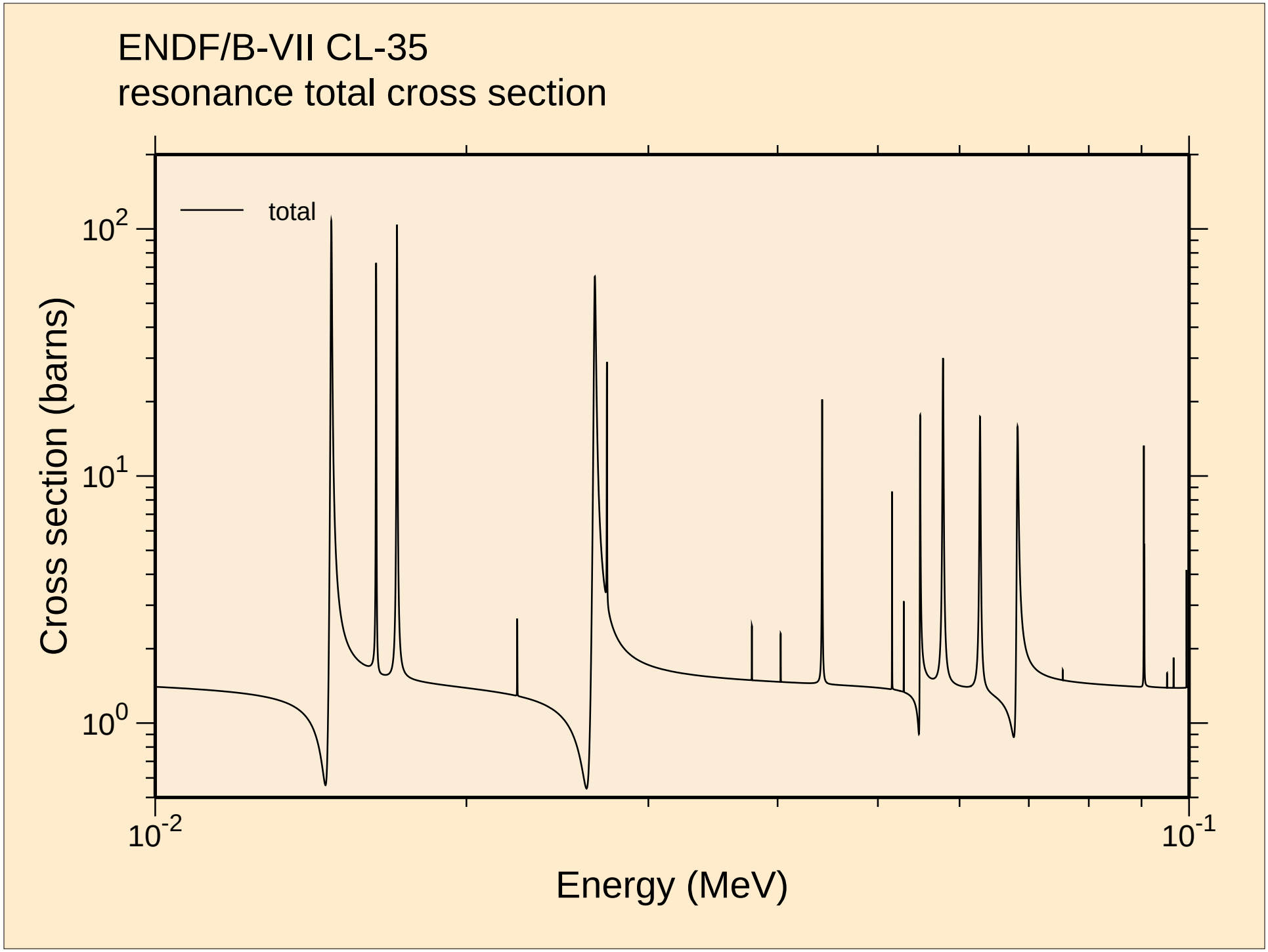
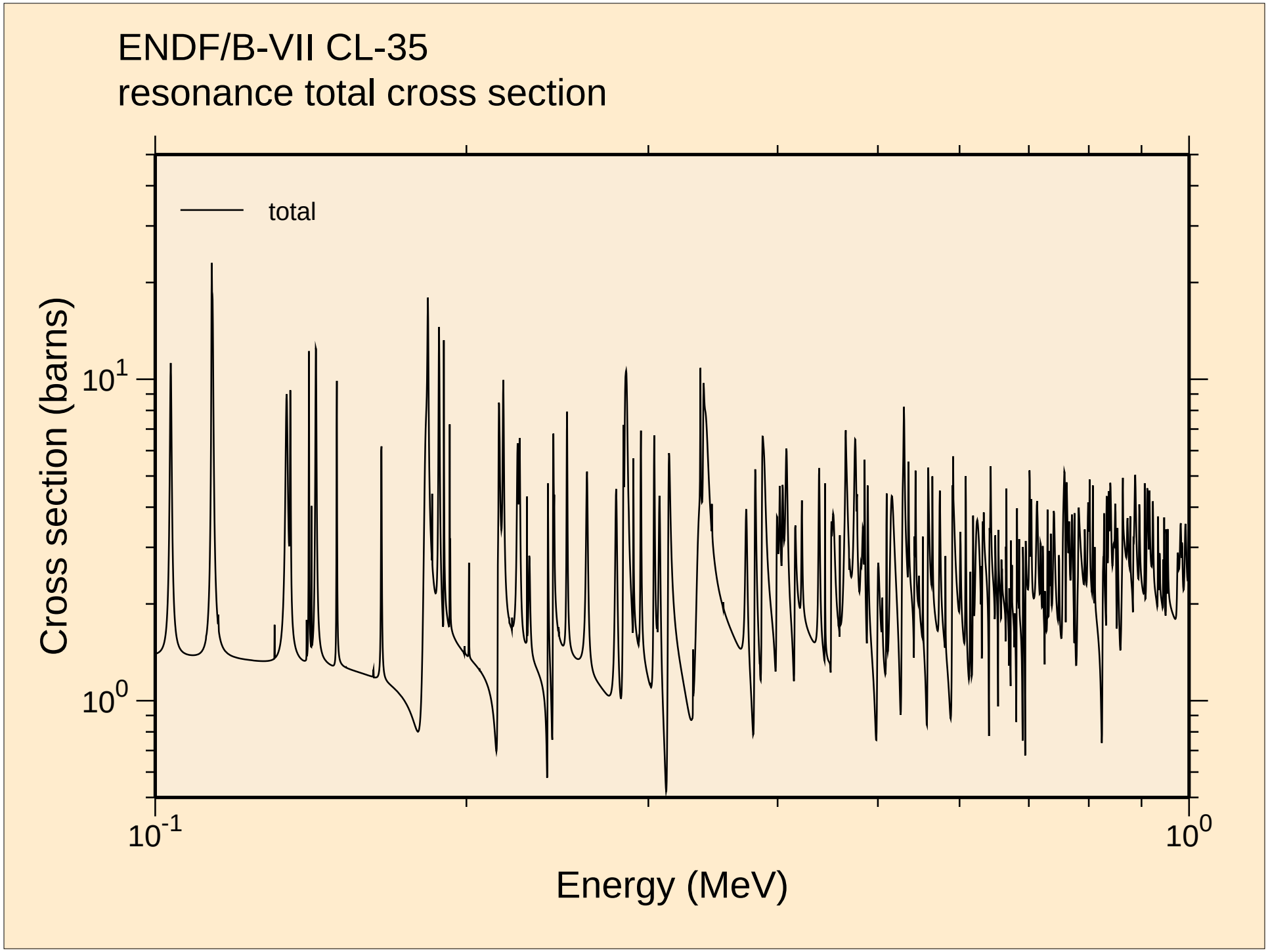
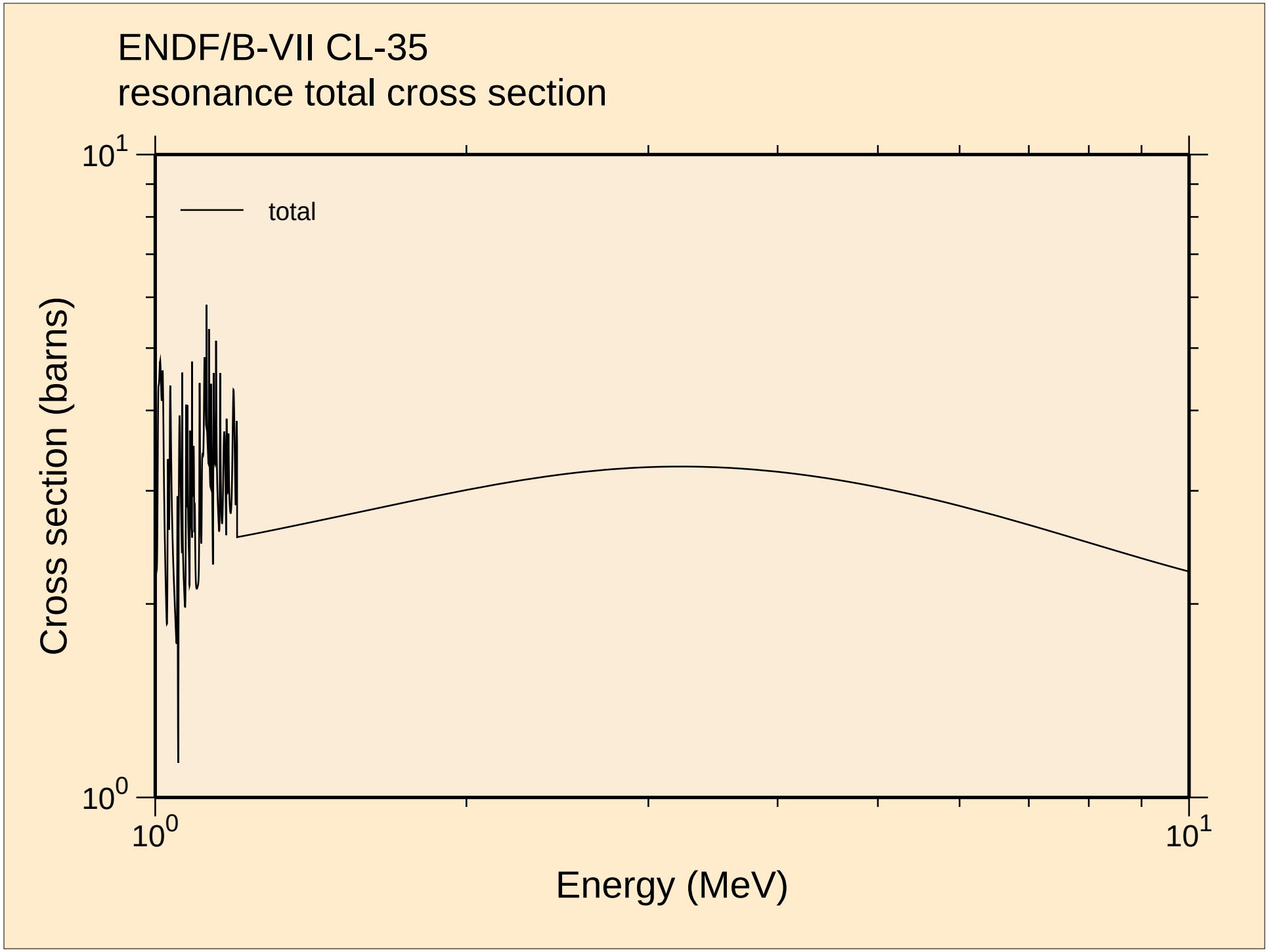

ENDF/B-VII CL-35
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
10^{-5}
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}

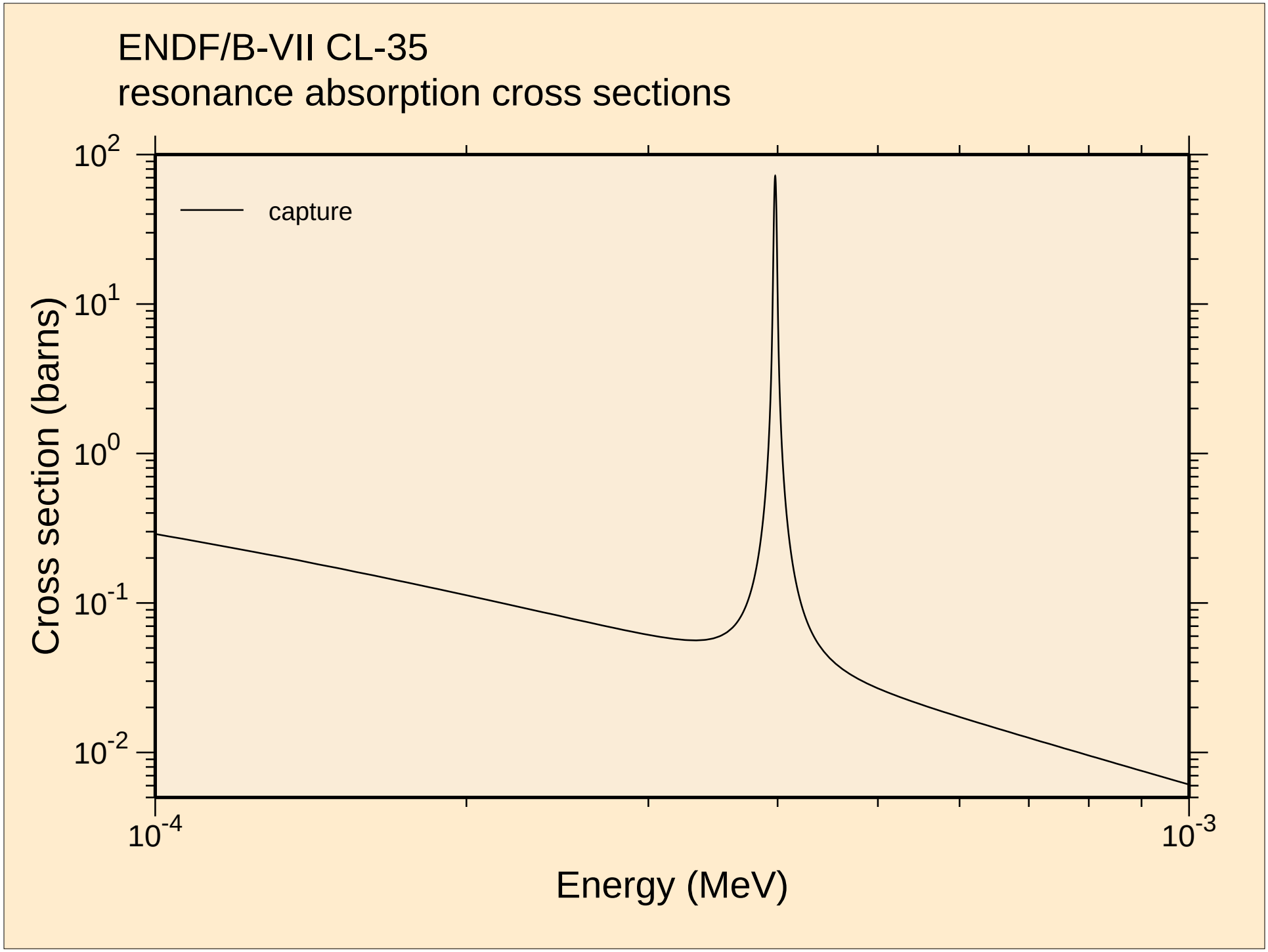

ENDF/B-VII CL-35
resonance total cross section
total
Cross section (barns)
10^2
10^1
10^{-4}
10^{-3}
Energy (MeV)


ENDF/B-VII CL-35
resonance total cross section
total
Cross section (barns)
10^1
10^0
10^{-3}
10^{-2}
Energy (MeV)

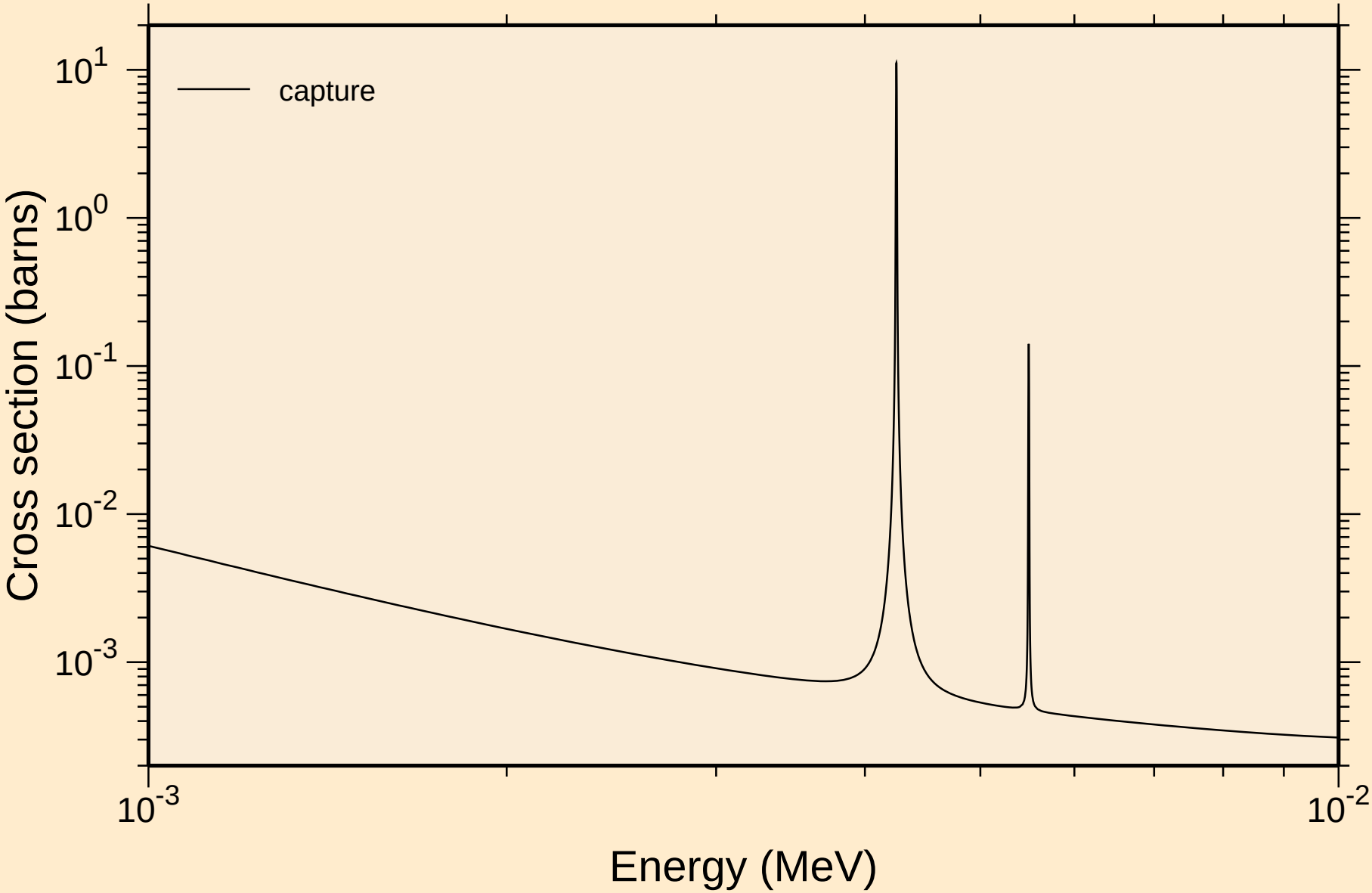

ENDF/B-VII CL-35
resonance total cross section
total
Cross section (barns)
10^2
10^1
10^0
10^{-2}
10^{-1}
Energy (MeV)


ENDF/B-VII CL-35
resonance total cross section
total
Cross section (barns)
10^1
10^0
10^{-1}
10^0
Energy (MeV)

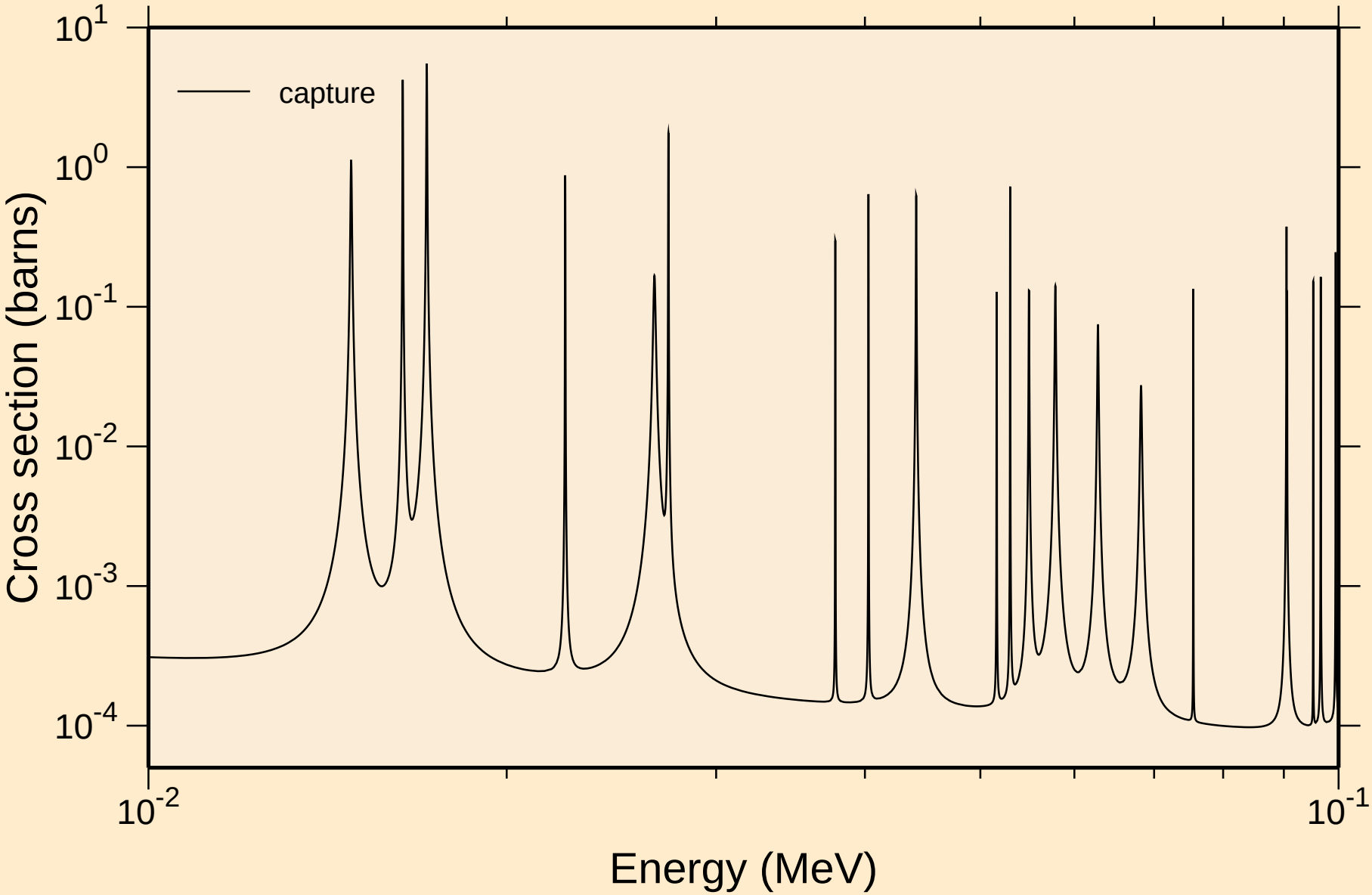

ENDF/B-VII CL-35
resonance total cross section
total
Cross section (barns)
Energy (MeV)
10^1
10^0
10^0
10^1


ENDF/B-VII CL-35
resonance absorption cross sections
capture
Cross section (barns)
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-4}
10^{-3}
Energy (MeV)

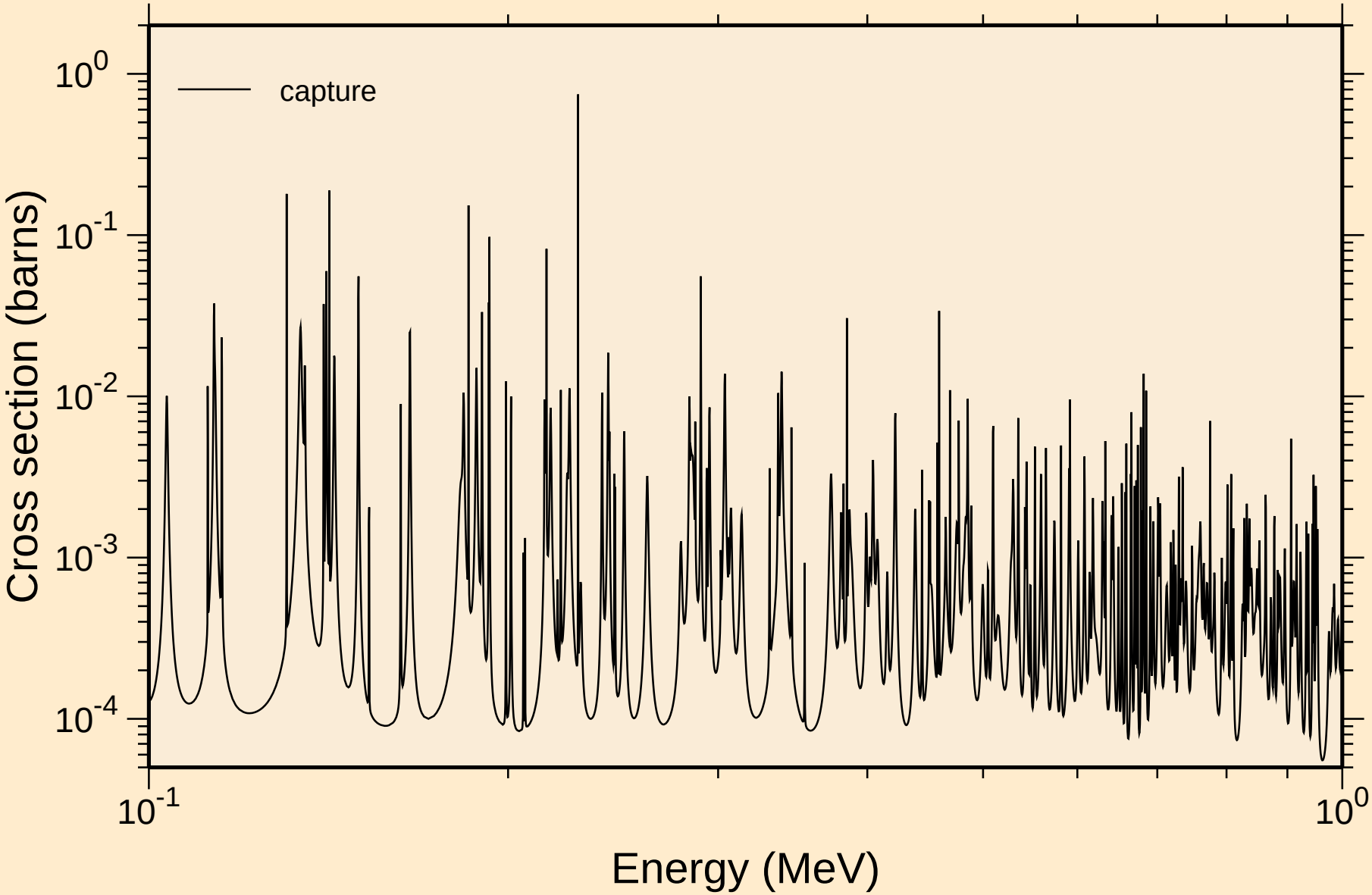
ENDF/B-VII CL-35
resonance absorption cross sections



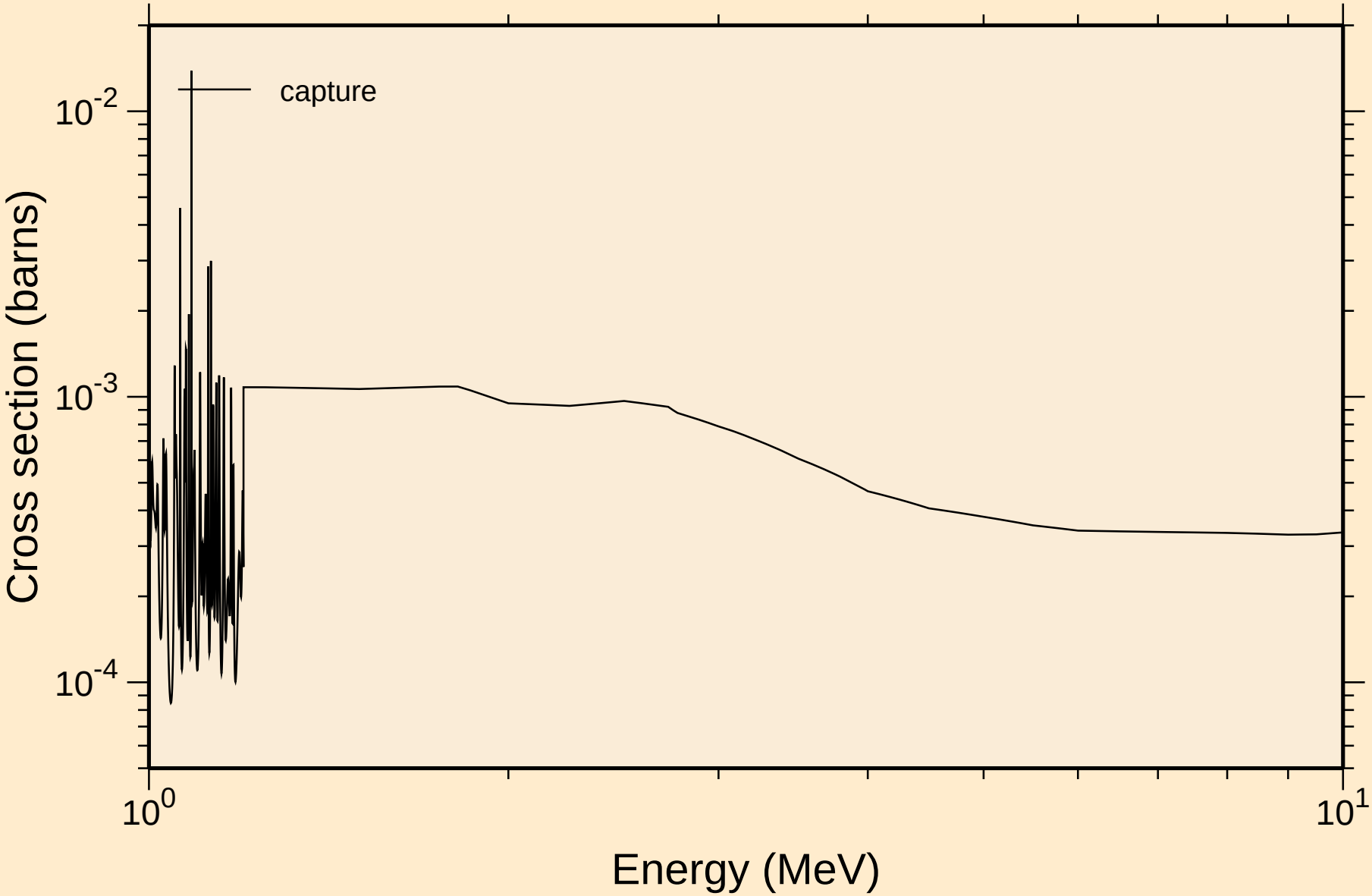
ENDF/B-VII CL-35
resonance absorption cross sections

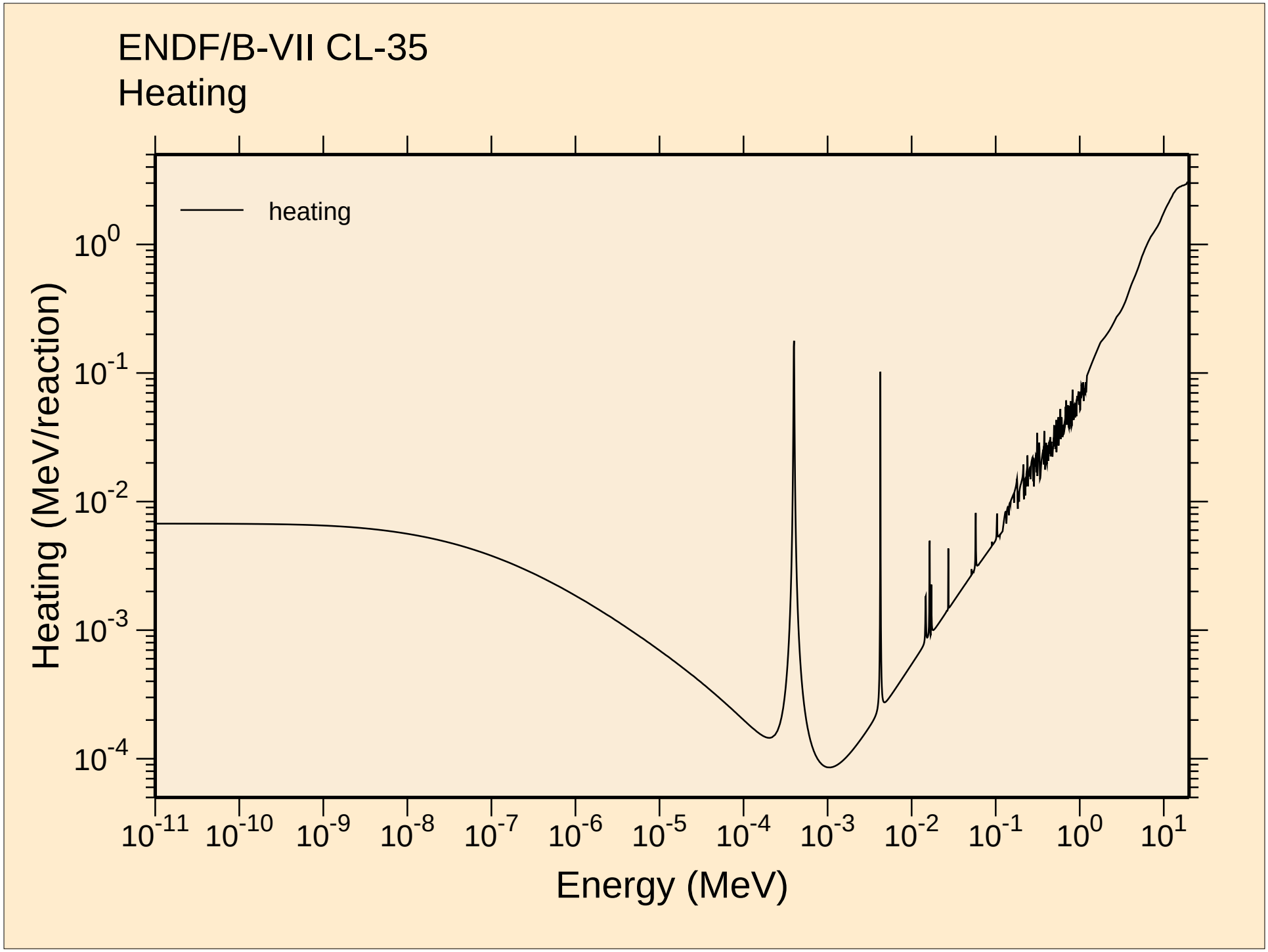


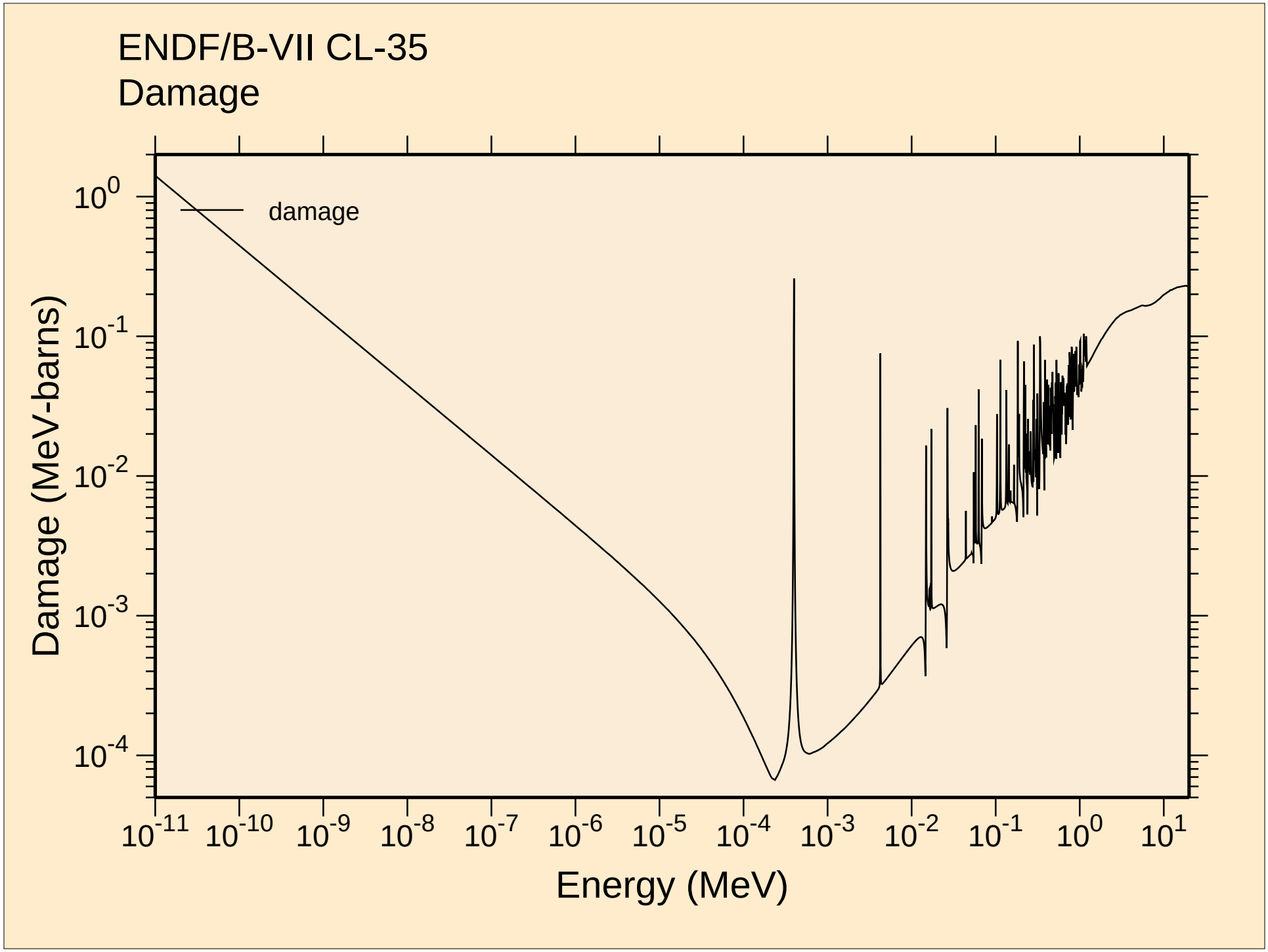
ENDF/B-VII CL-35
resonance absorption cross sections

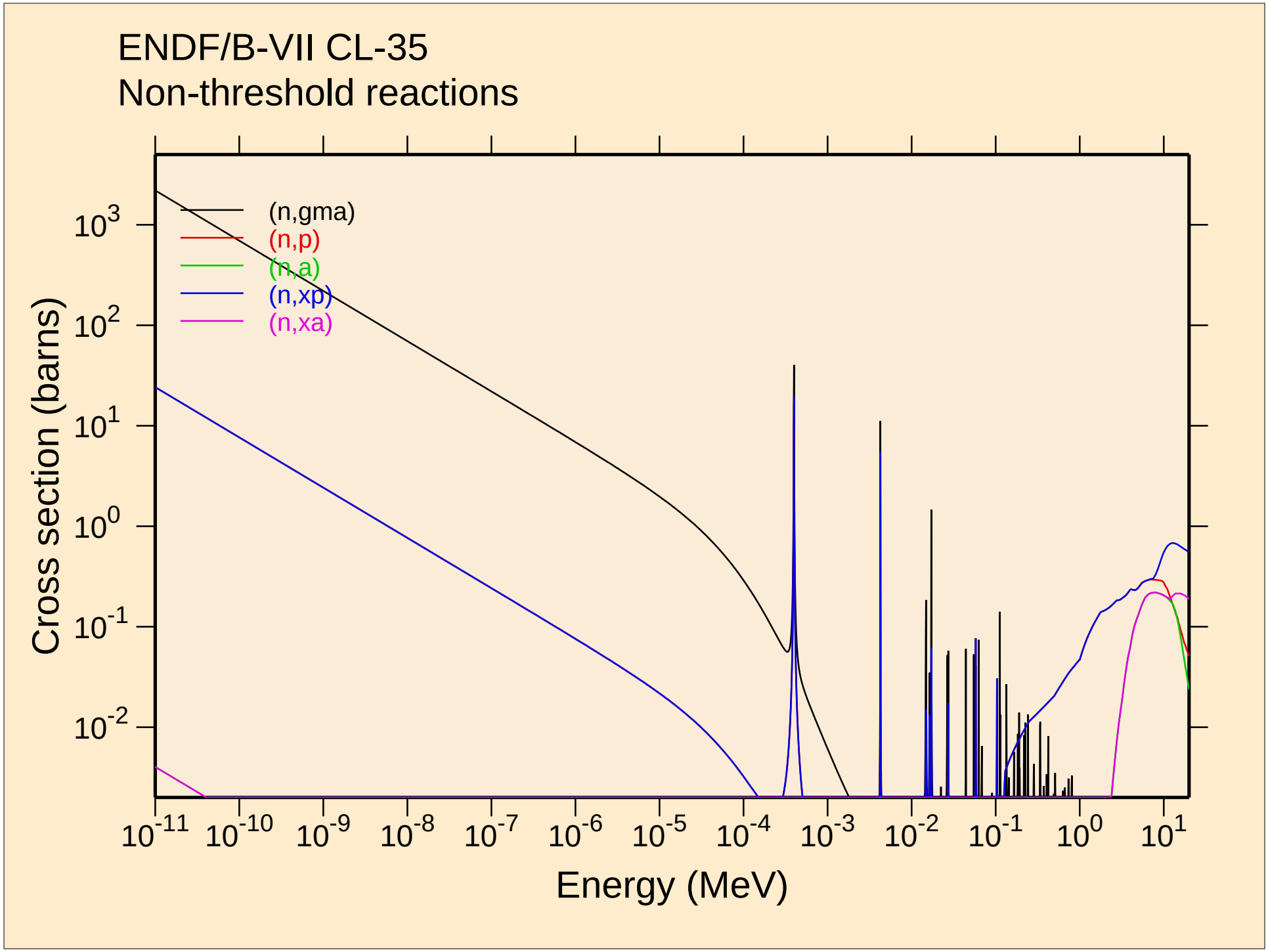


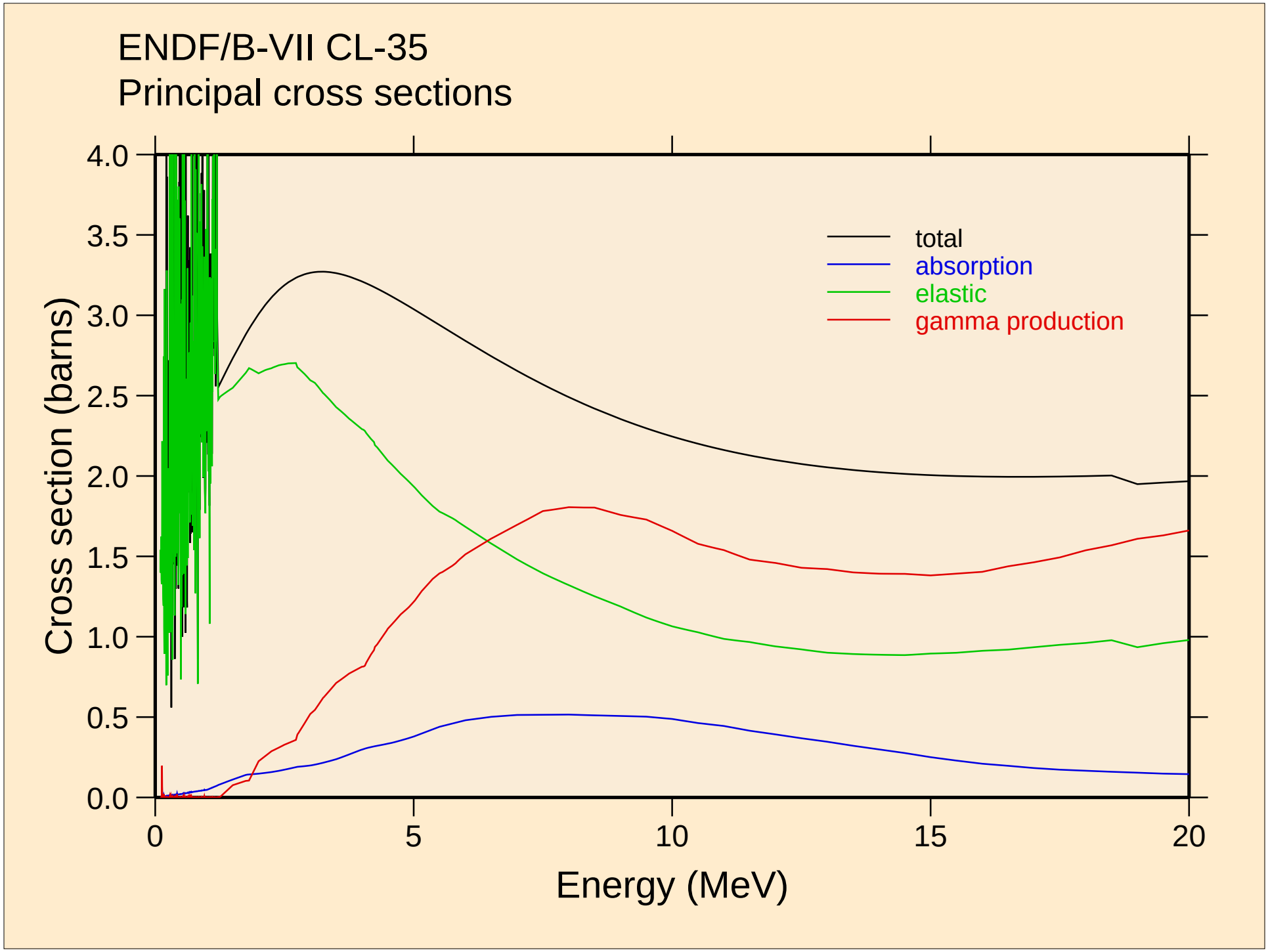
ENDF/B-VII CL-35
resonance absorption cross sections

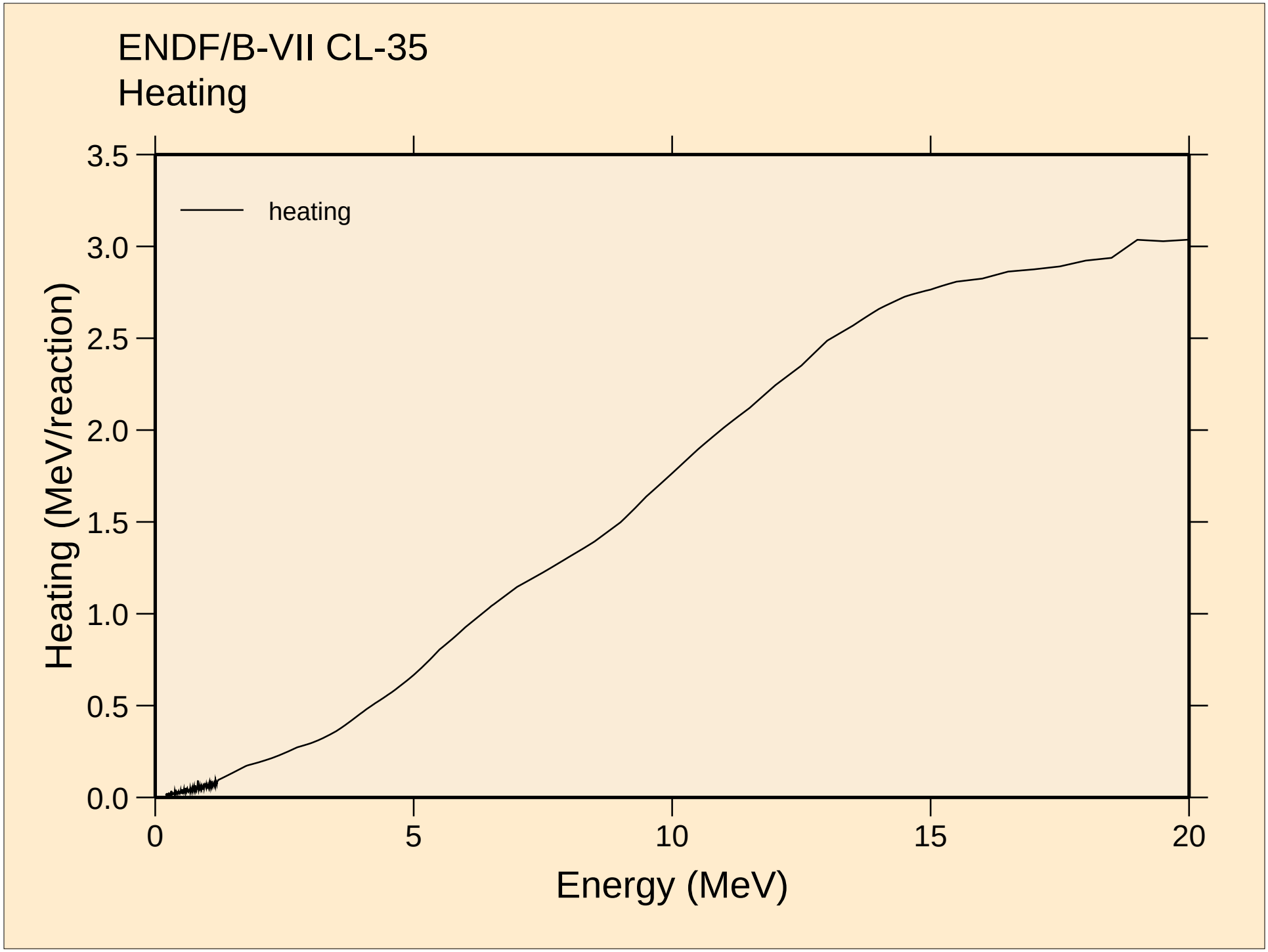


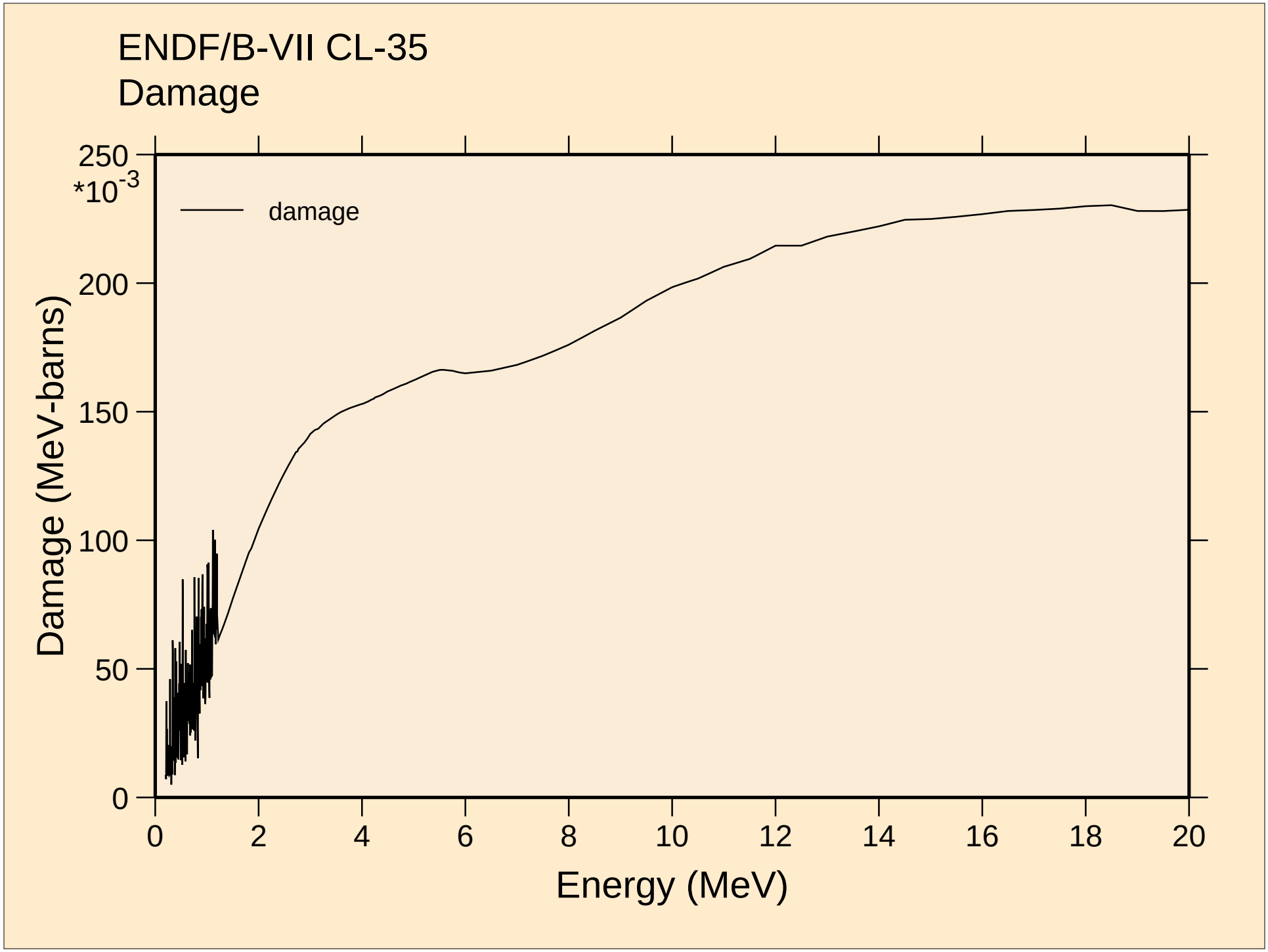

ENDF/B-VII CL-35
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}

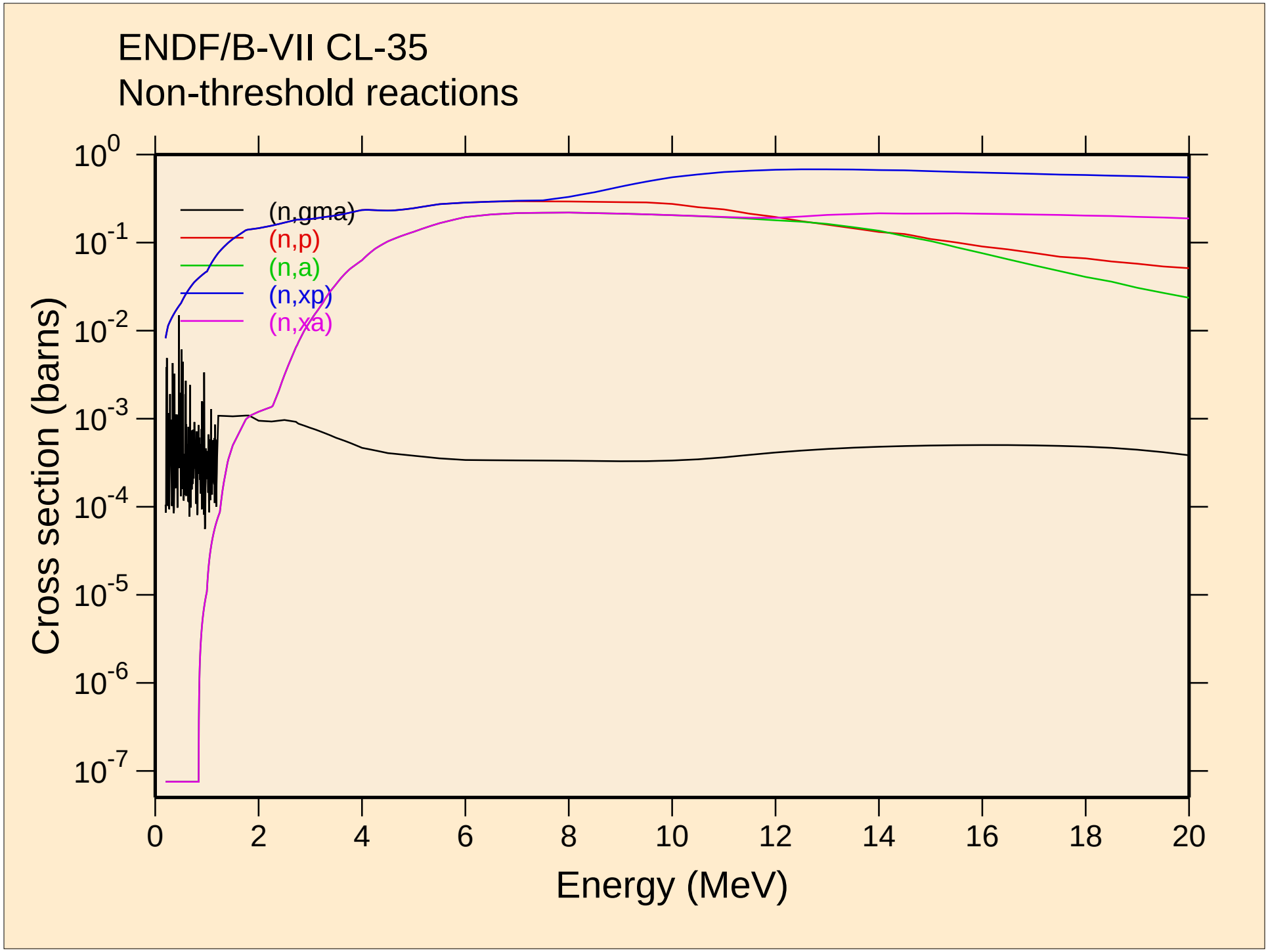

ENDF/B-VII CL-35
Damage
damage
Damage (MeV-barns)
Energy (MeV)
10^0
10^-1
10^-2
10^-3
10^-4
10^-11
10^-10
10^-9
10^-8
10^-7
10^-6
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1

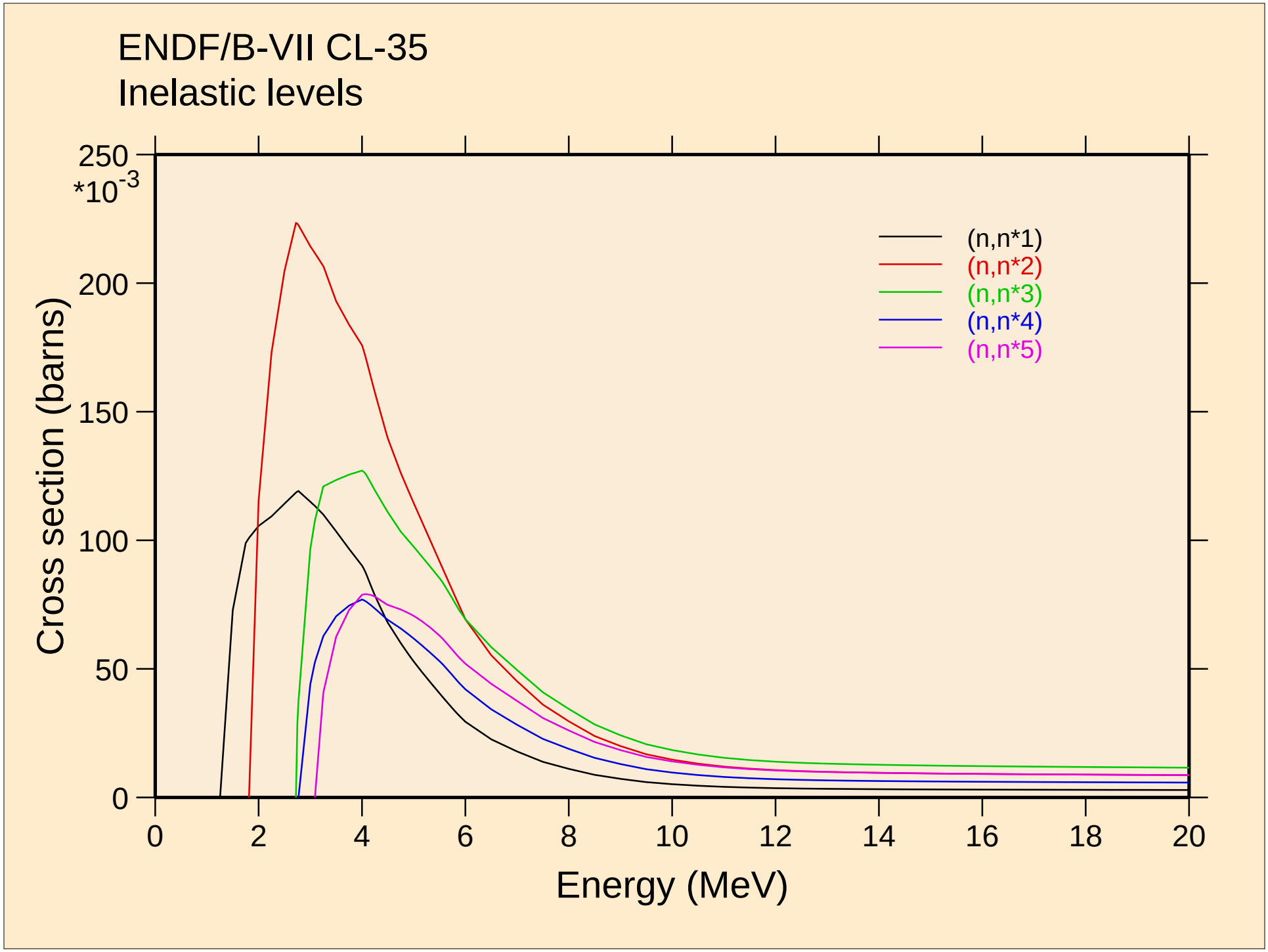

ENDF/B-VII CL-35
Non-threshold reactions
(n,gma)
(n,p)
(n,a)
(n,xp)
(n,xa)
Cross section (barns)
Energy (MeV)
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-11
10^-10
10^-9
10^-8
10^-7
10^-6
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1

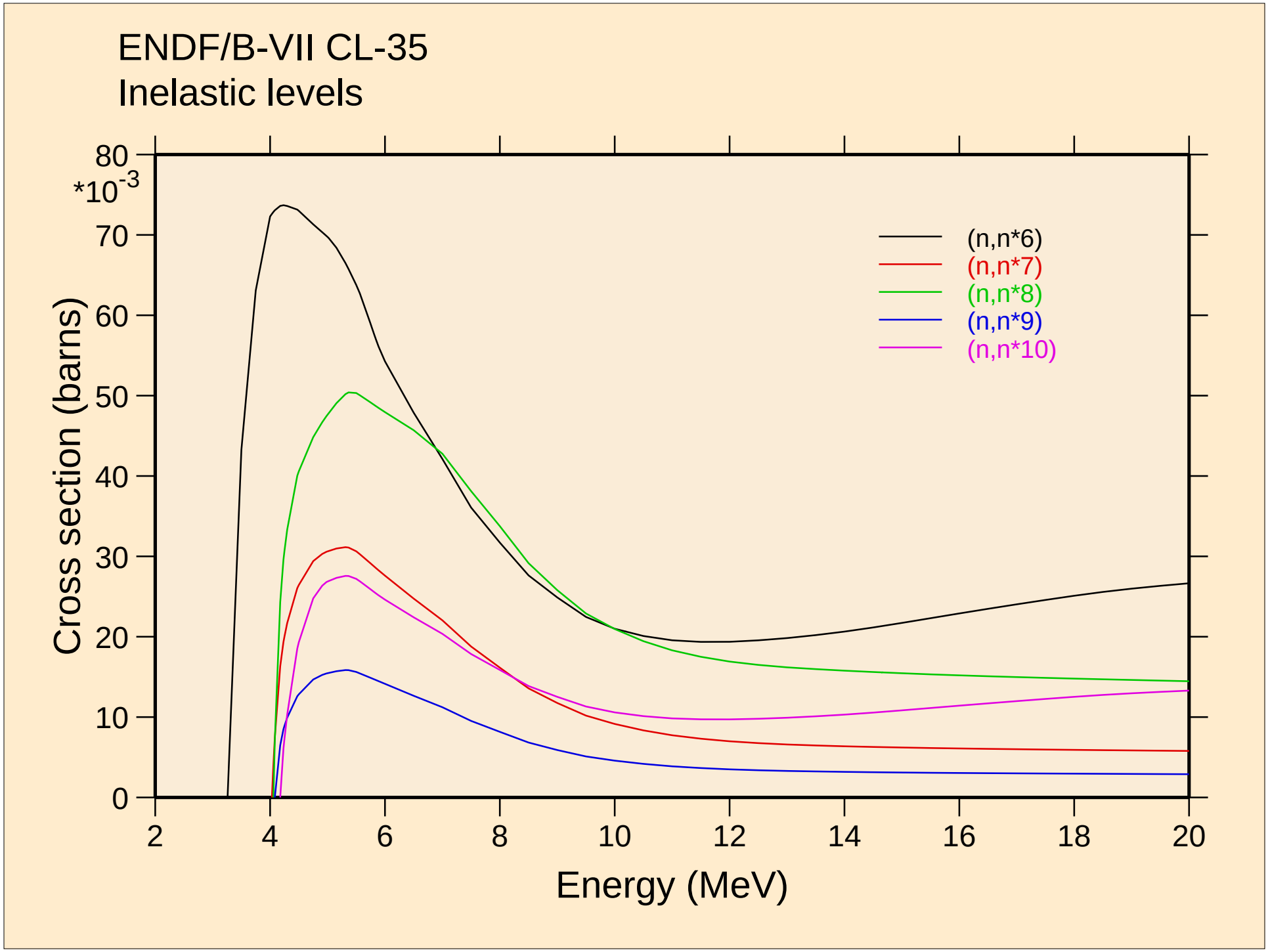

ENDF/B-VII CL-35
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
5
10
15
20

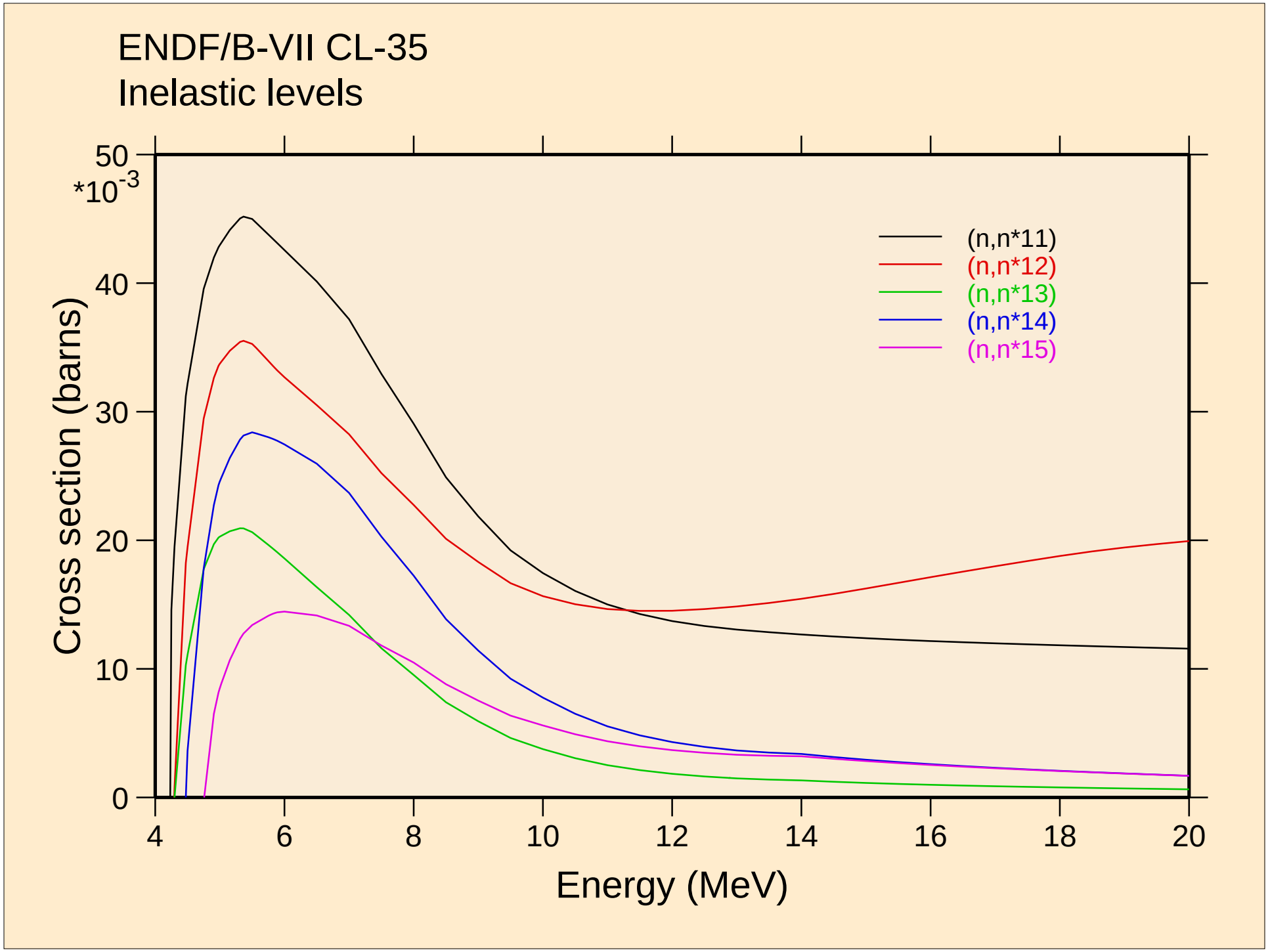

ENDF/B-VII CL-35
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
5
10
15
20

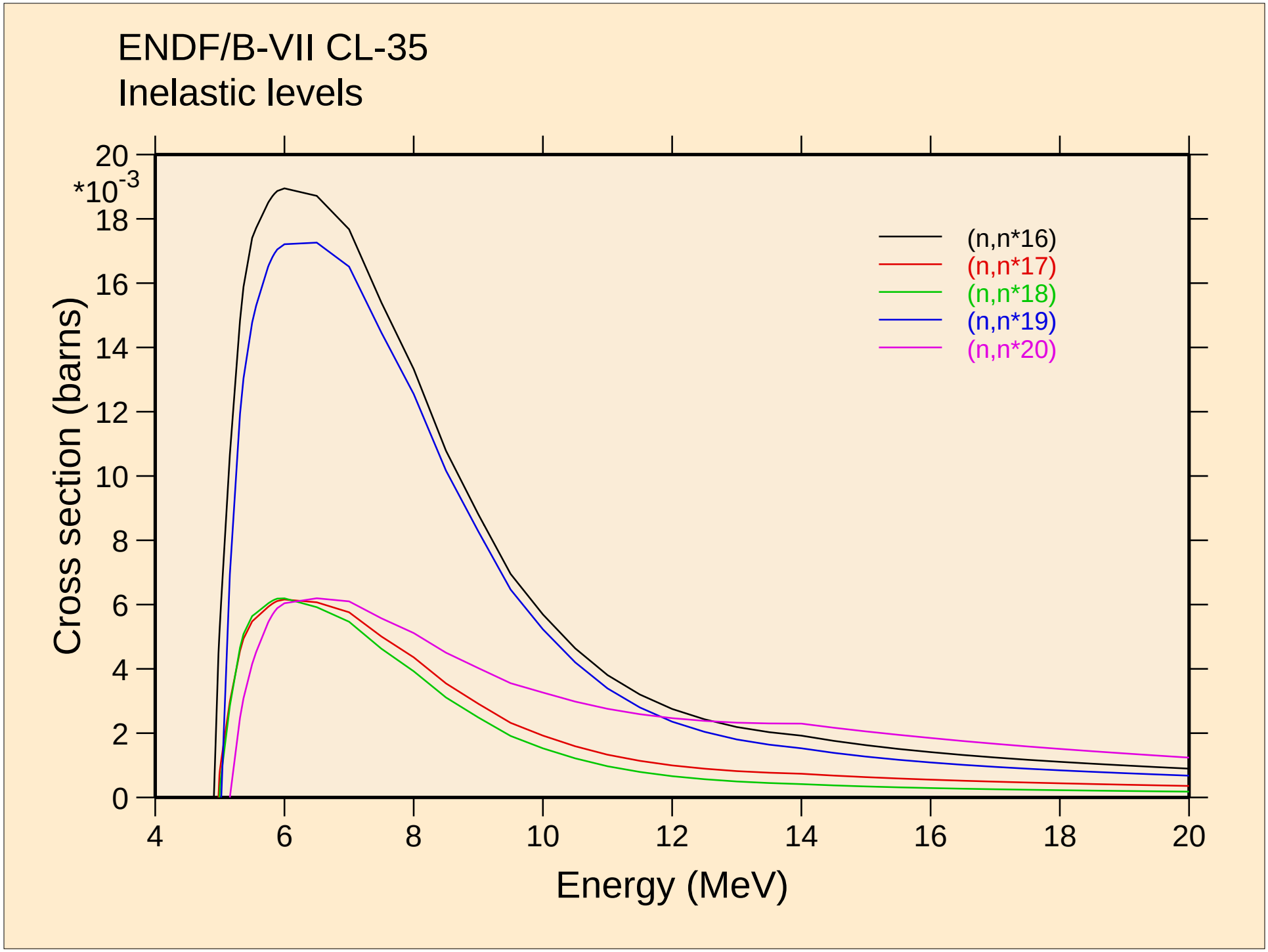

ENDF/B-VII CL-35
Damage
damage
*10^-3
250
200
150
100
50
0
Damage (MeV-barns)
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

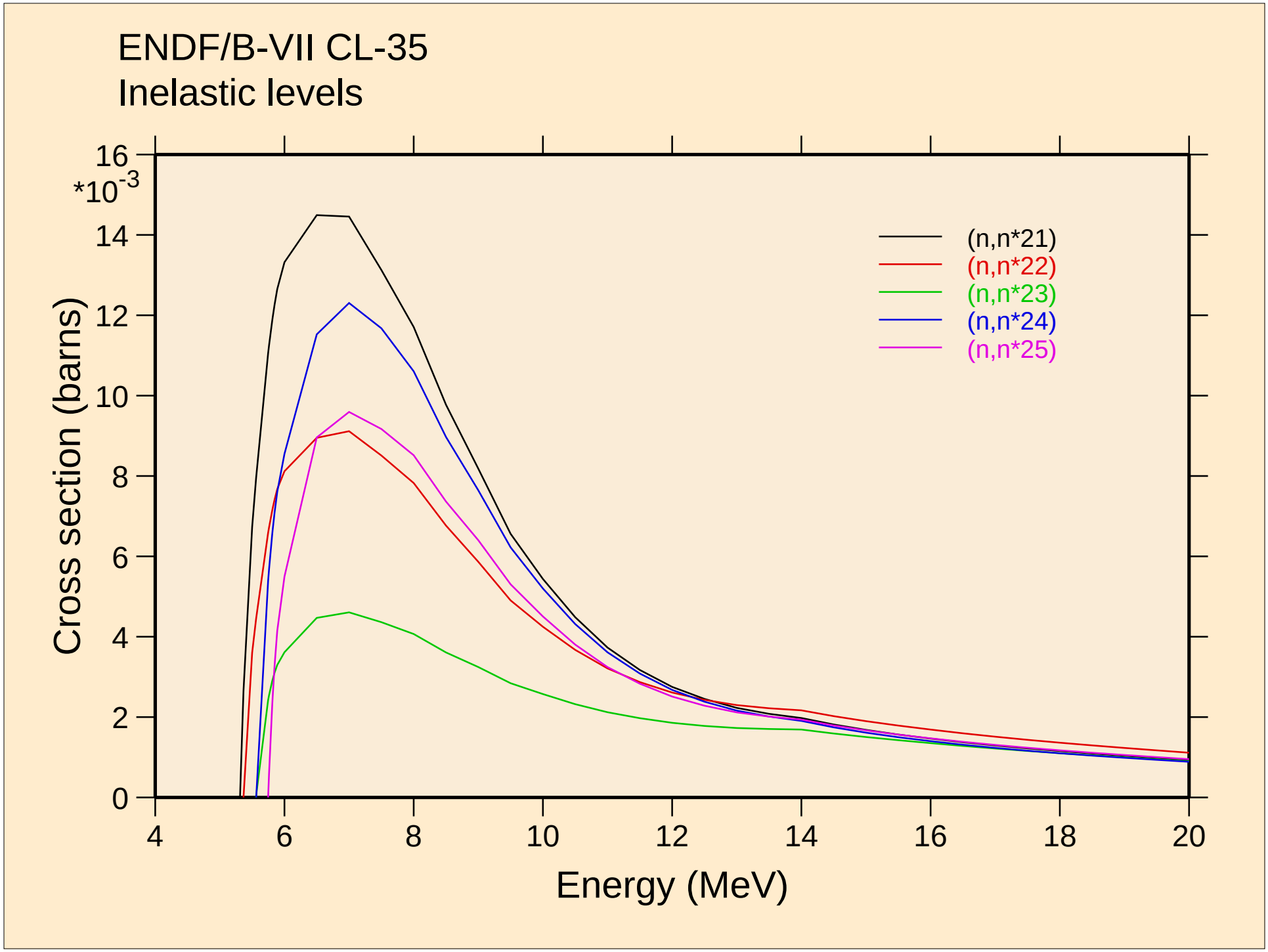

ENDF/B-VII CL-35
Non-threshold reactions
(n,gma)
(n,p)
(n,a)
(n,xp)
(n,xa)
Cross section (barns)
Energy (MeV)
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-6
10^-7
0
2
4
6
8
10
12
14
16
18
20

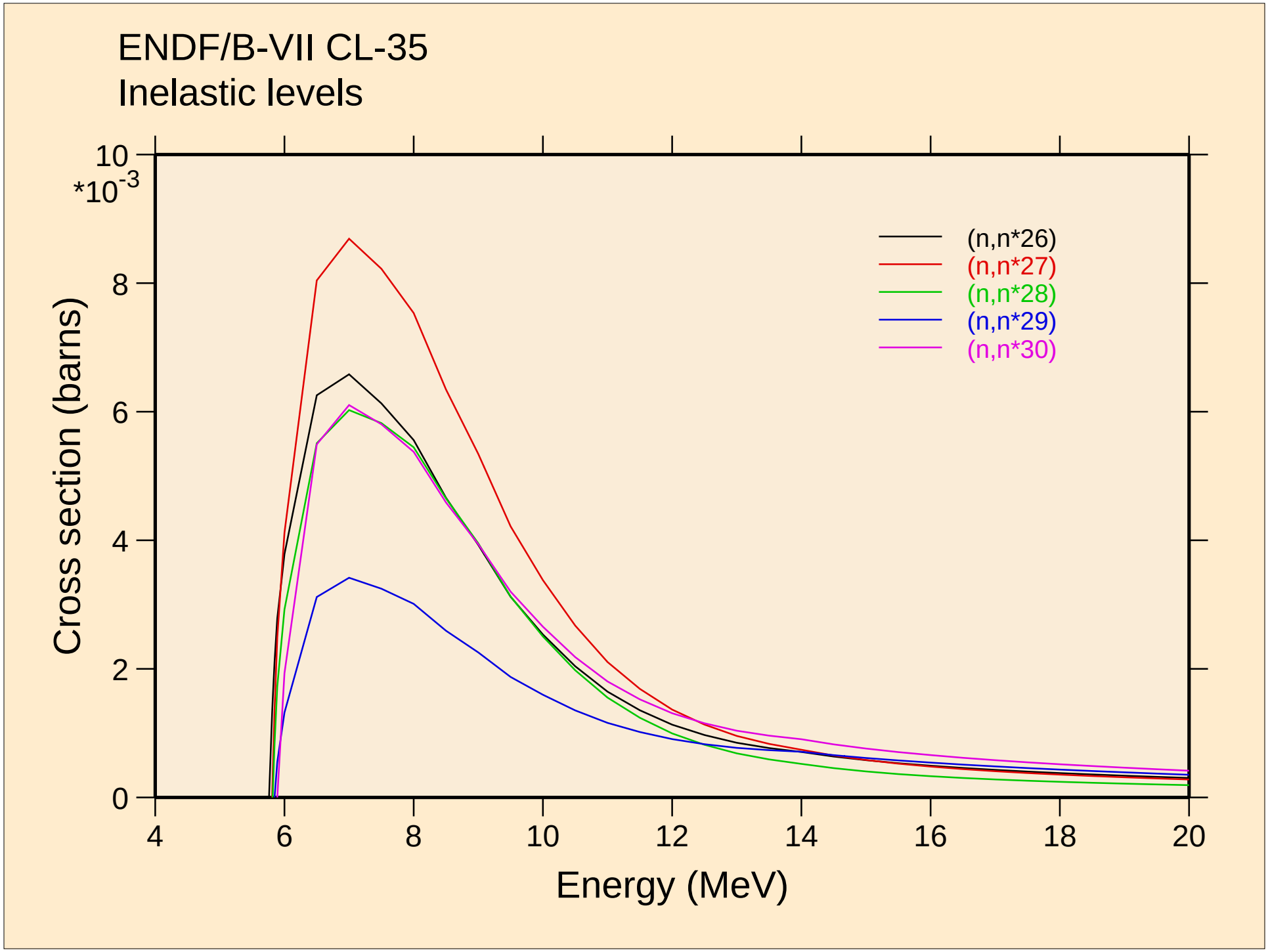

ENDF/B-VII CL-35
Inelastic levels
Cross section (barns)
*10^-3
250
200
150
100
50
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

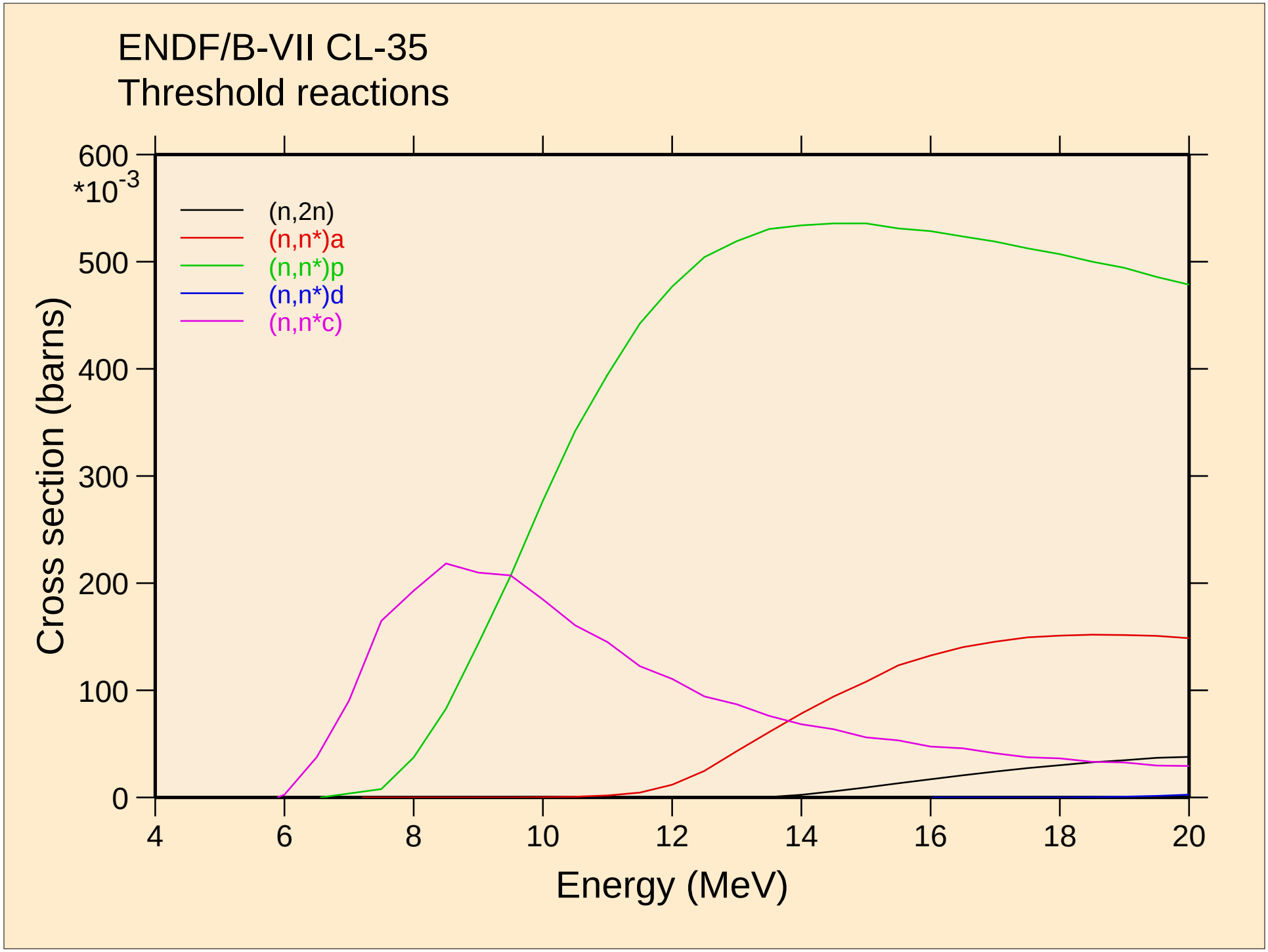

ENDF/B-VII CL-35
Inelastic levels
*10^-3
Cross section (barns)
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)
0
10
20
30
40
50
60
70
80
2
4
6
8
10
12
14
16
18
20

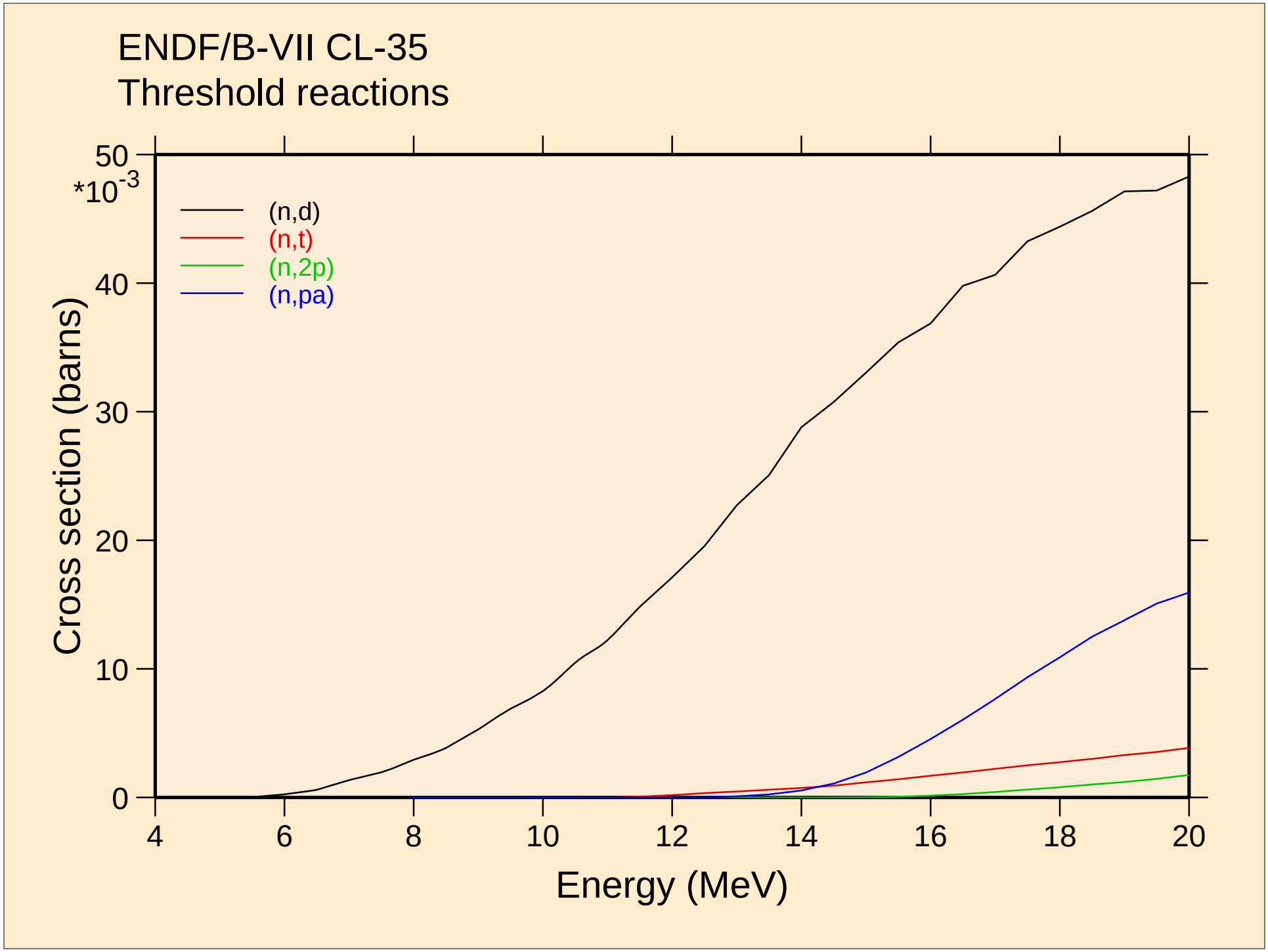

ENDF/B-VII CL-35
Inelastic levels
Cross section (barns)
*10^-3
50
40
30
20
10
0
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*11)
(n,n*12)
(n,n*13)
(n,n*14)
(n,n*15)

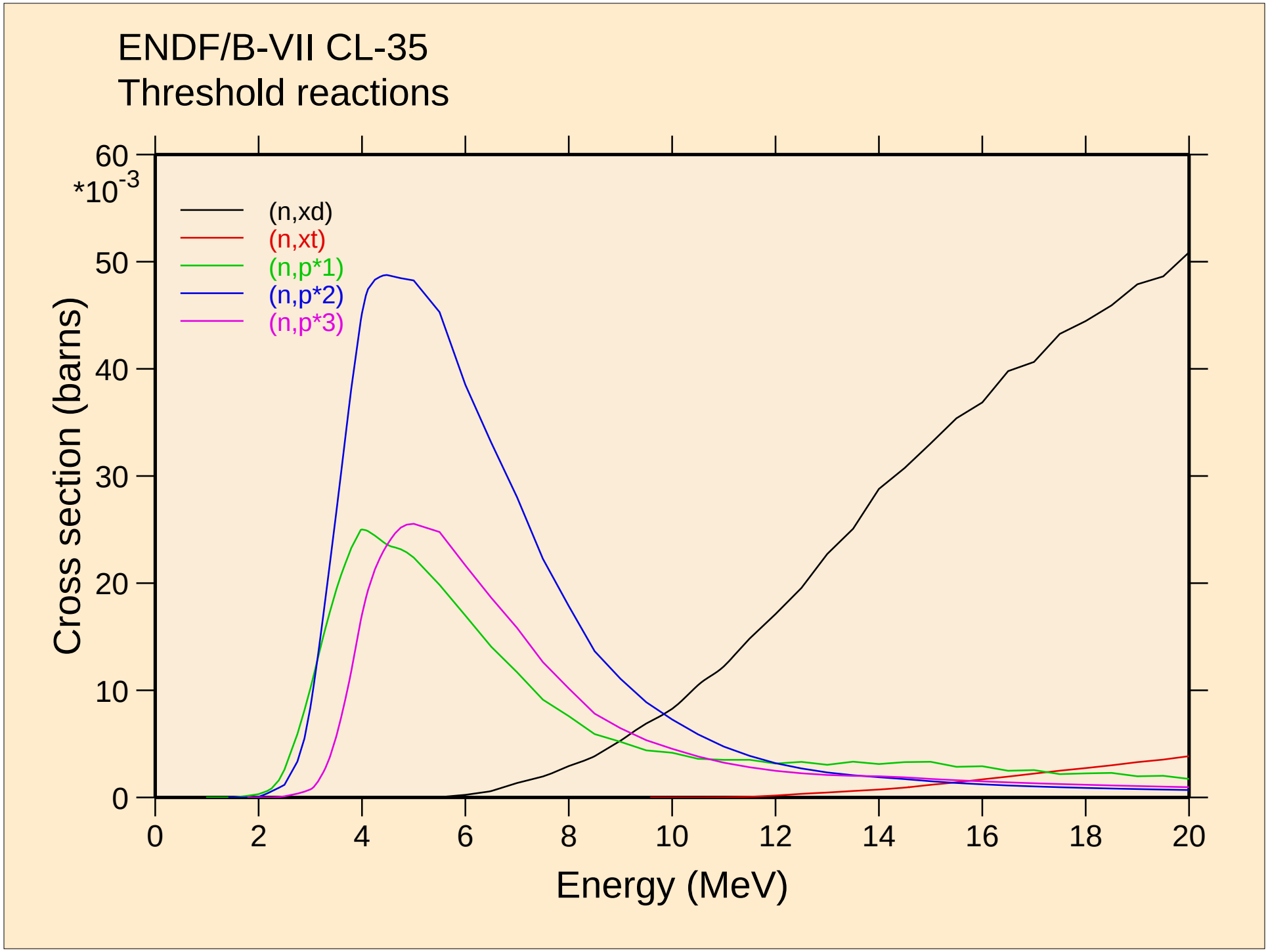

ENDF/B-VII CL-35
Inelastic levels
Cross section (barns)
*10^-3
20
18
16
14
12
10
8
6
4
2
0
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*16)
(n,n*17)
(n,n*18)
(n,n*19)
(n,n*20)

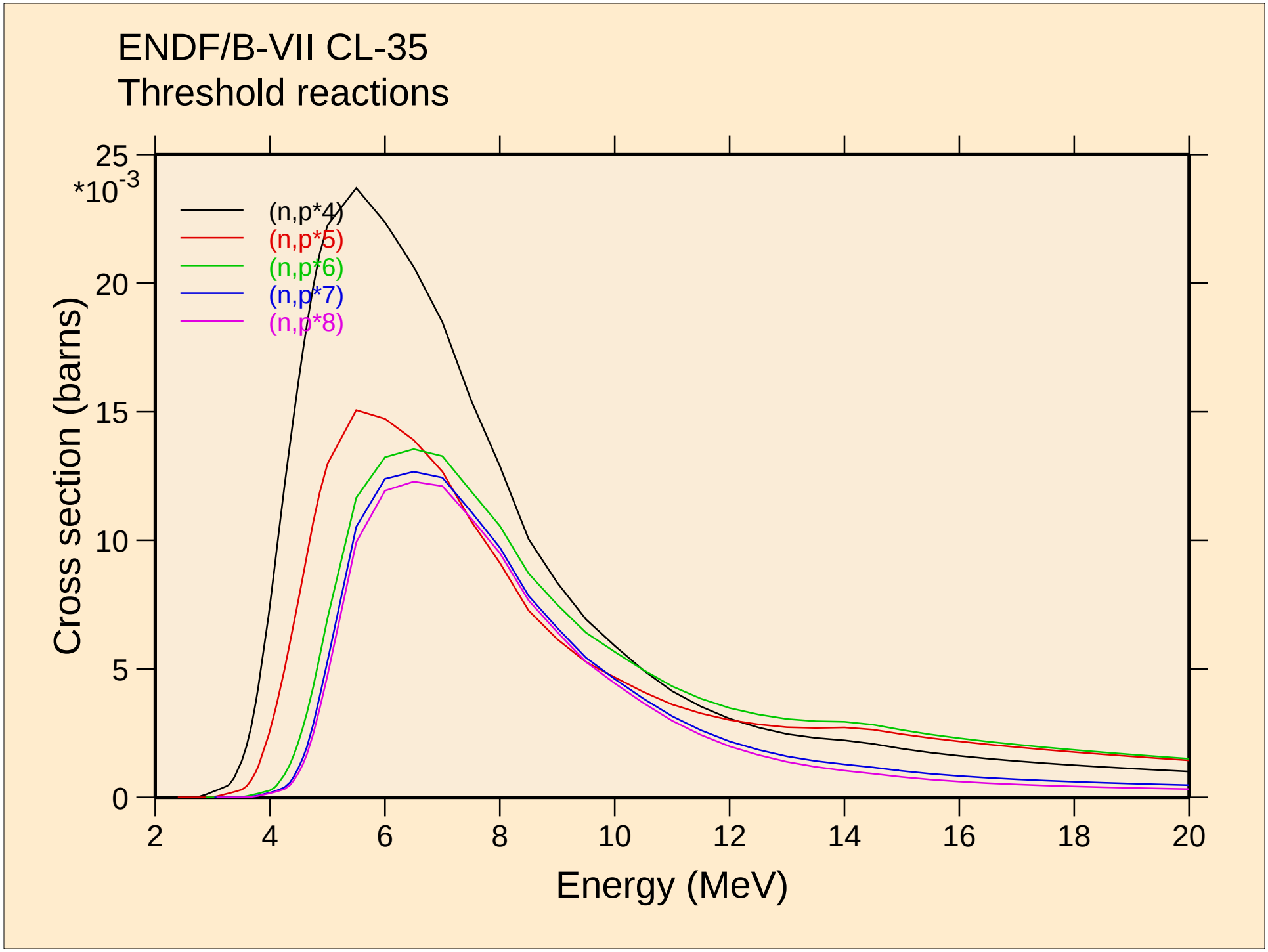

ENDF/B-VII CL-35
Inelastic levels
*10^-3
16
14
12
10
8
6
4
2
0
Cross section (barns)
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*21)
(n,n*22)
(n,n*23)
(n,n*24)
(n,n*25)

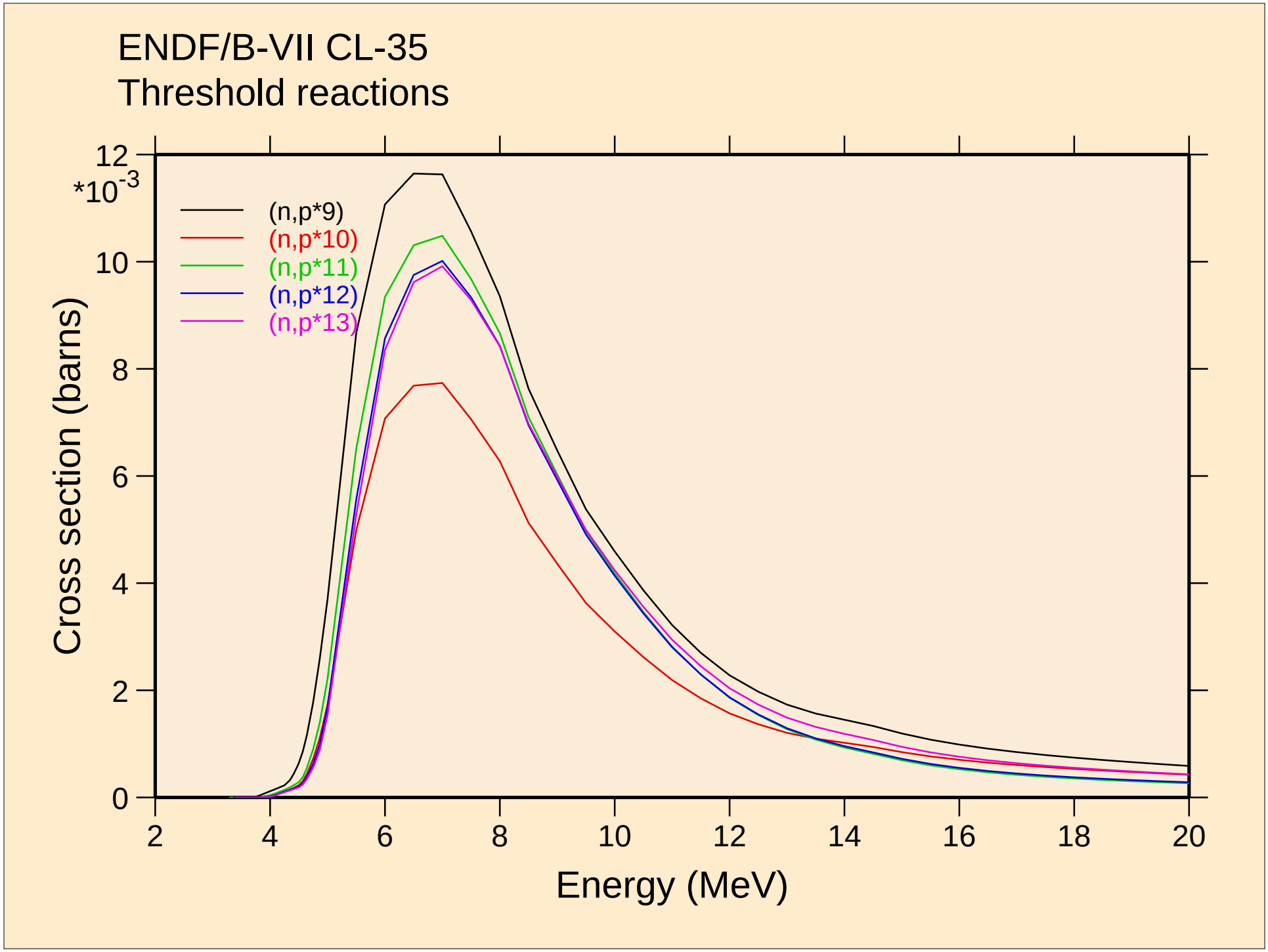

ENDF/B-VII CL-35
Inelastic levels
Cross section (barns)
*10^-3
10
8
6
4
2
0
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,n*26)
(n,n*27)
(n,n*28)
(n,n*29)
(n,n*30)

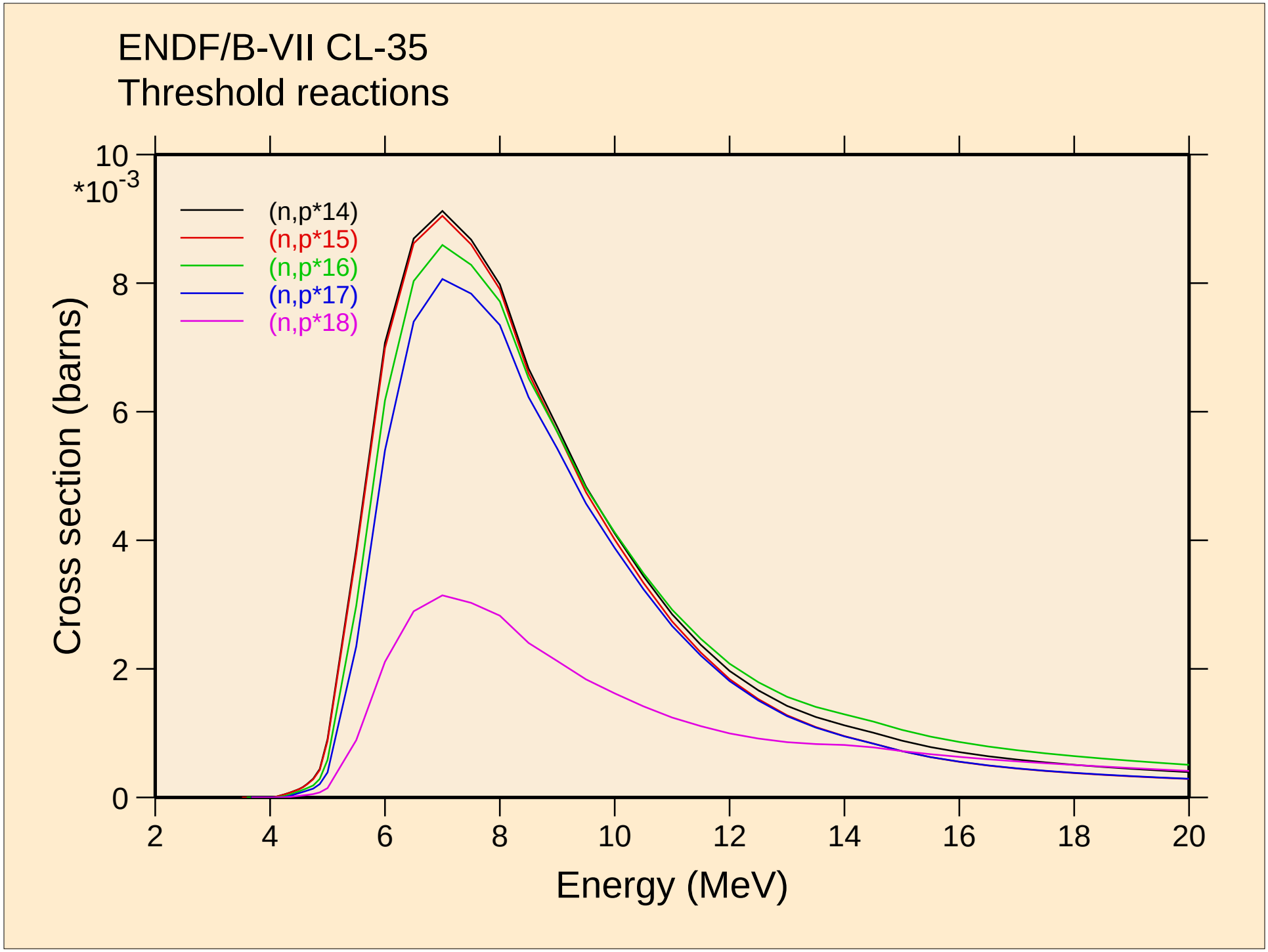

ENDF/B-VII CL-35
Threshold reactions
600
*10-3
500
400
300
200
100
0
Cross section (barns)
(n,2n)
(n,n*)a
(n,n*)p
(n,n*)d
(n,n*c)
4
6
8
10
12
14
16
18
20
Energy (MeV)

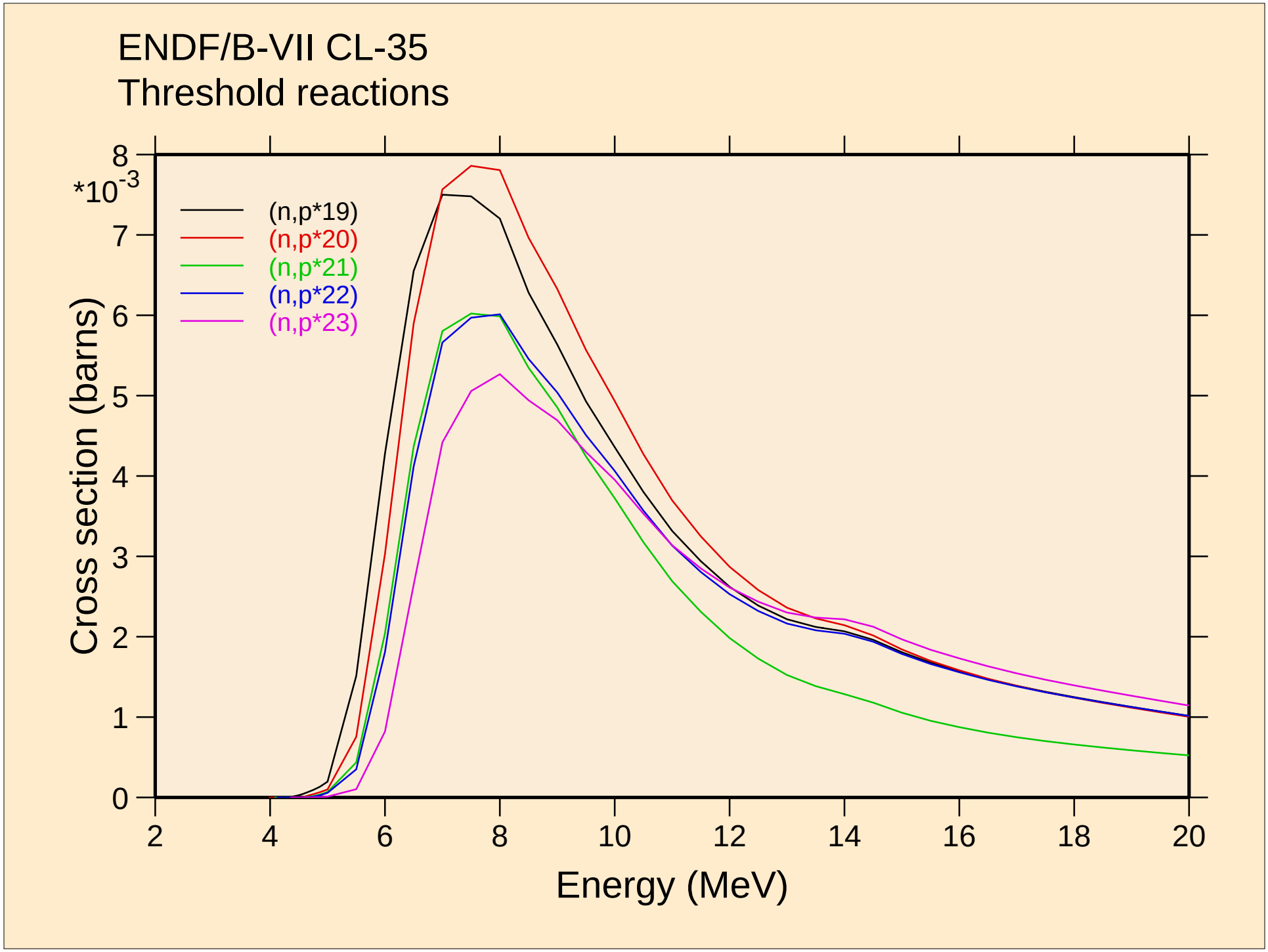

ENDF/B-VII CL-35
Threshold reactions
*10-3
50
40
30
20
10
0
Cross section (barns)
(n,d)
(n,t)
(n,2p)
(n,pa)
4
6
8
10
12
14
16
18
20
Energy (MeV)

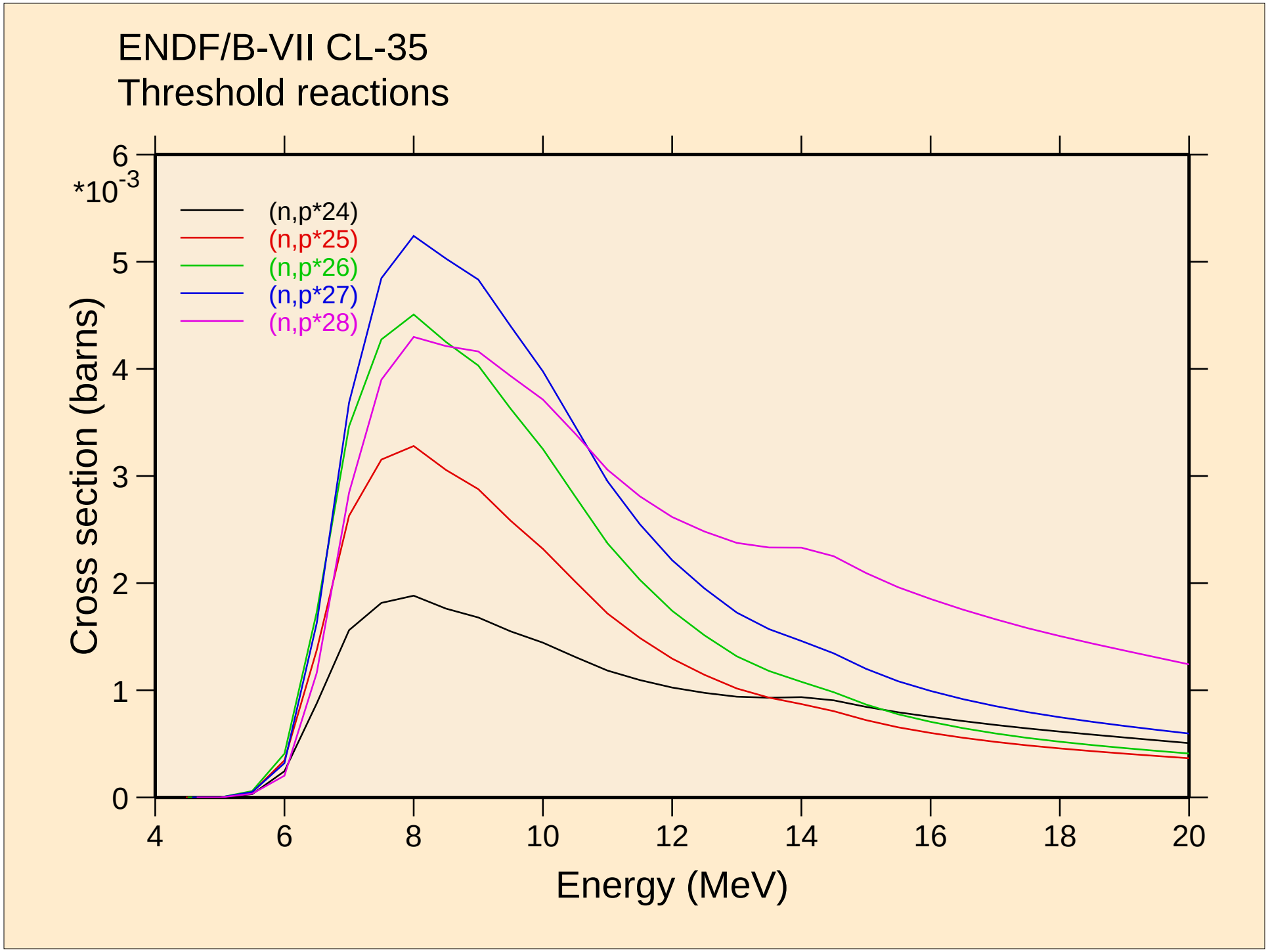

ENDF/B-VII CL-35
Threshold reactions
*10^-3
(n,xd)
(n,xt)
(n,p*1)
(n,p*2)
(n,p*3)
Cross section (barns)
Energy (MeV)
0
10
20
30
40
50
60
0
2
4
6
8
10
12
14
16
18
20

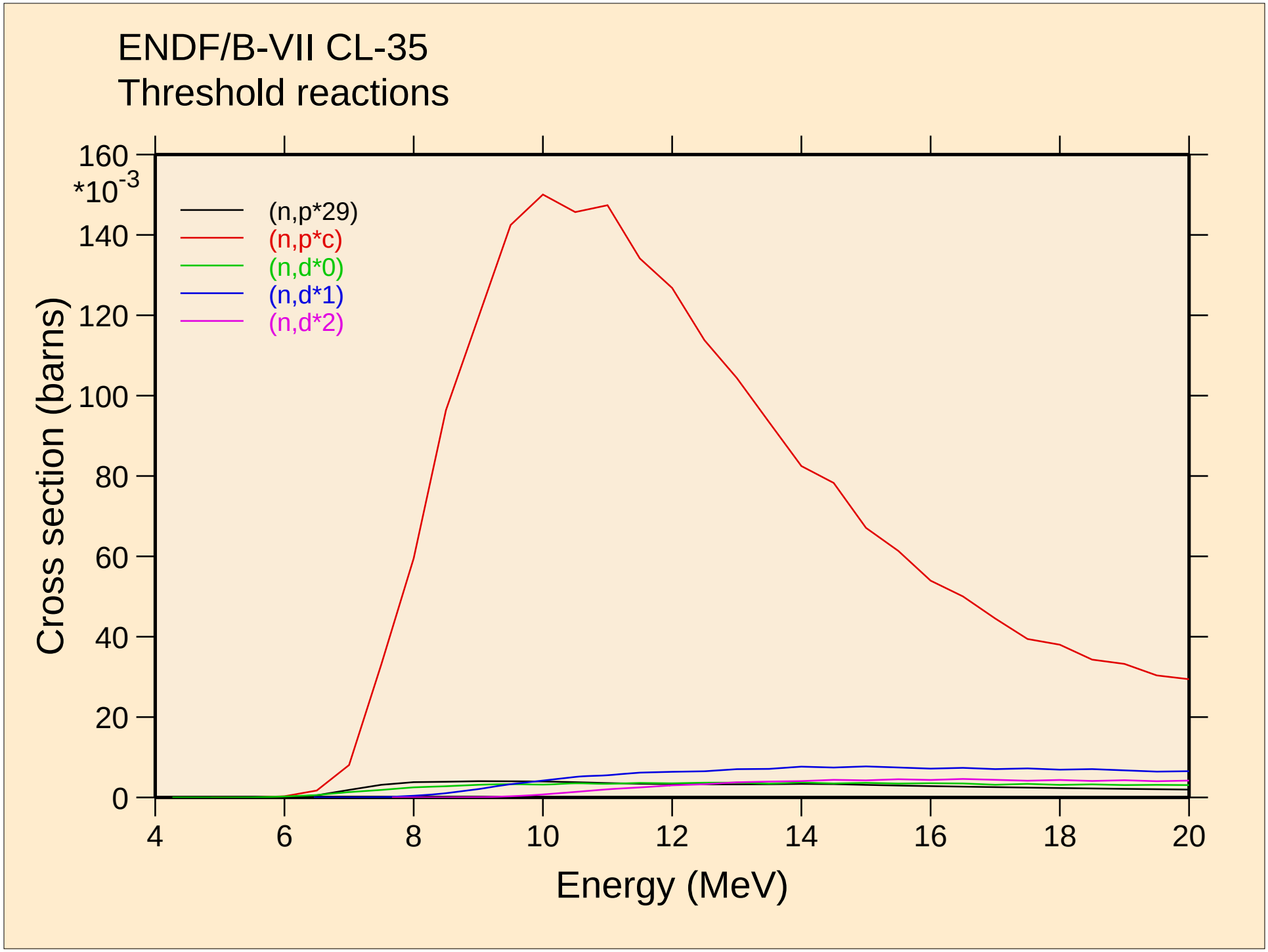

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,p*4)
(n,p*5)
(n,p*6)
(n,p*7)
(n,p*8)
Cross section (barns)
Energy (MeV)
0
5
10
15
20
25
2
4
6
8
10
12
14
16
18
20

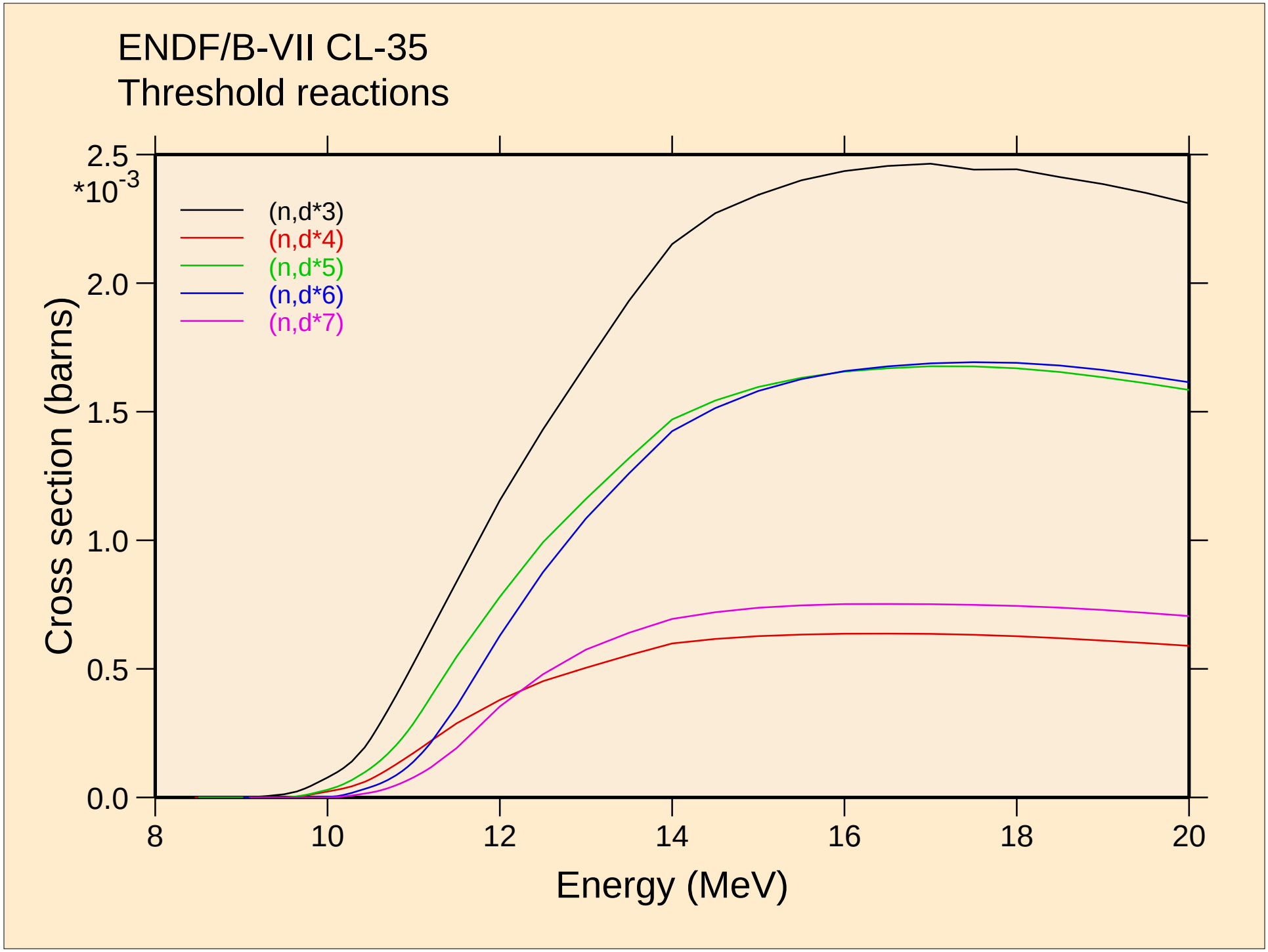

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,p*9)
(n,p*10)
(n,p*11)
(n,p*12)
(n,p*13)
Cross section (barns)
Energy (MeV)
0
2
4
6
8
10
12
2
4
6
8
10
12
14
16
18
20

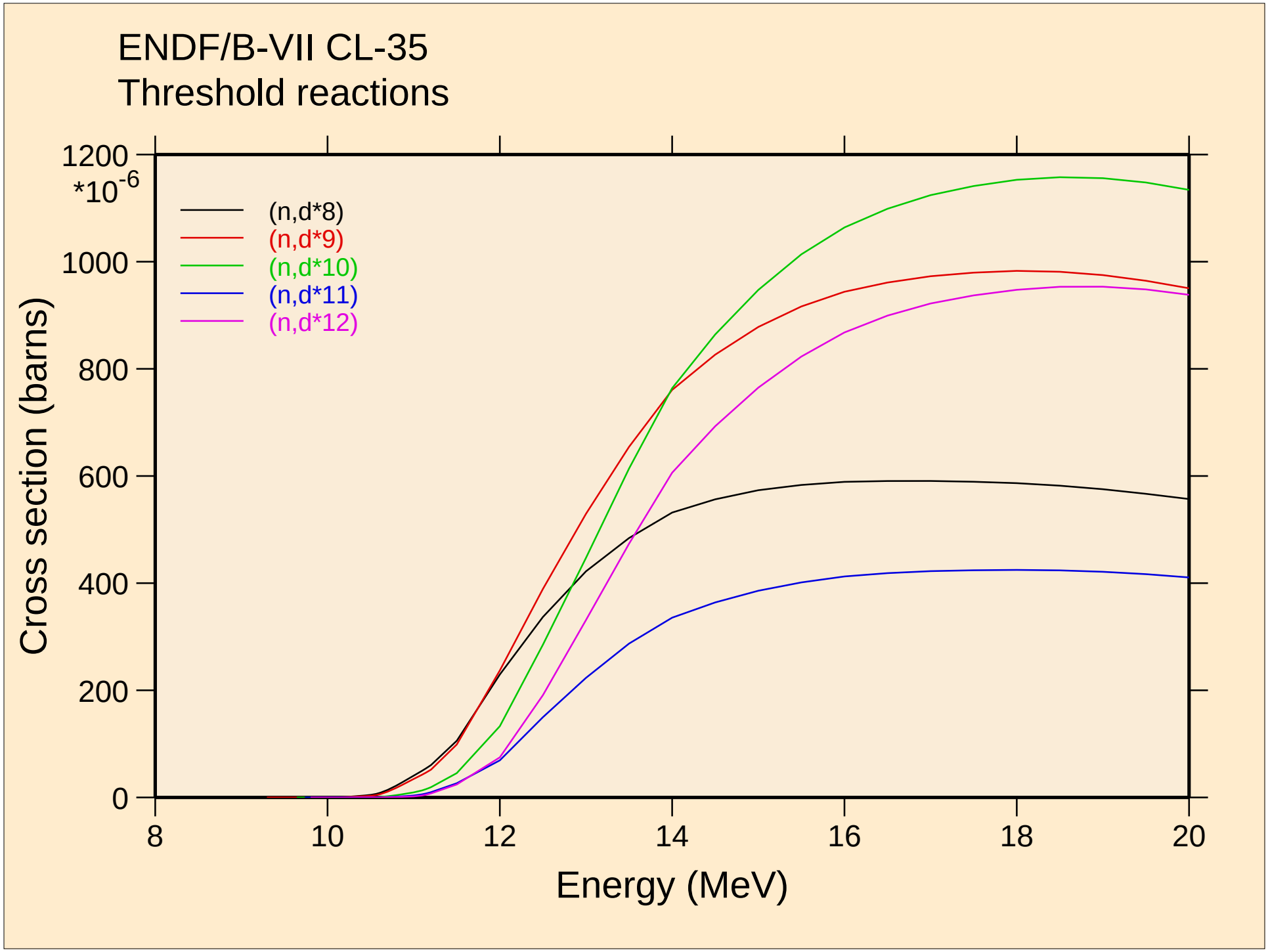

ENDF/B-VII CL-35
Threshold reactions
(n,p*14)
(n,p*15)
(n,p*16)
(n,p*17)
(n,p*18)
Cross section (barns)
*10-3
10
8
6
4
2
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

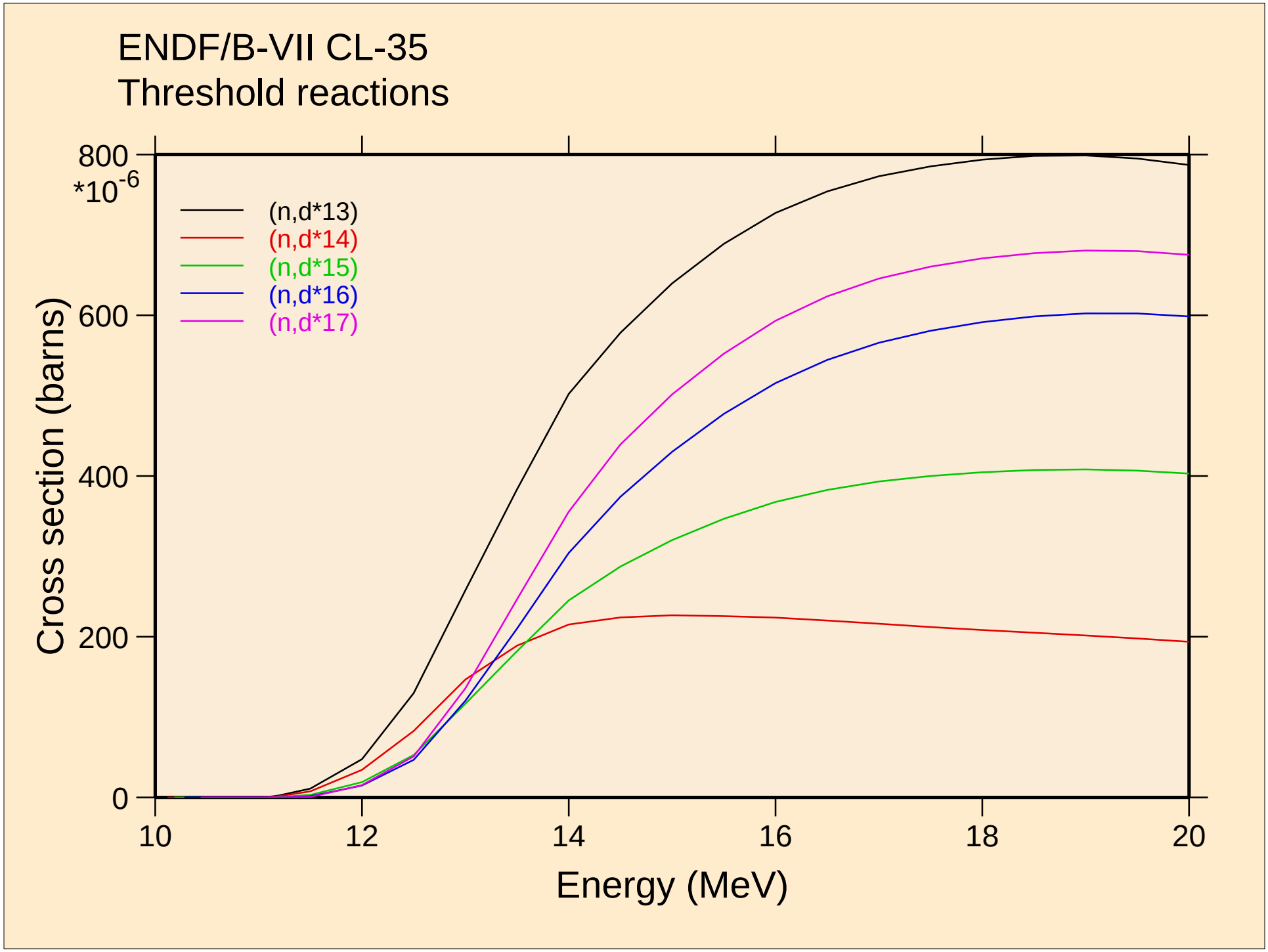

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,p*19)
(n,p*20)
(n,p*21)
(n,p*22)
(n,p*23)
Cross section (barns)
Energy (MeV)
0
1
2
3
4
5
6
7
8
2
4
6
8
10
12
14
16
18
20

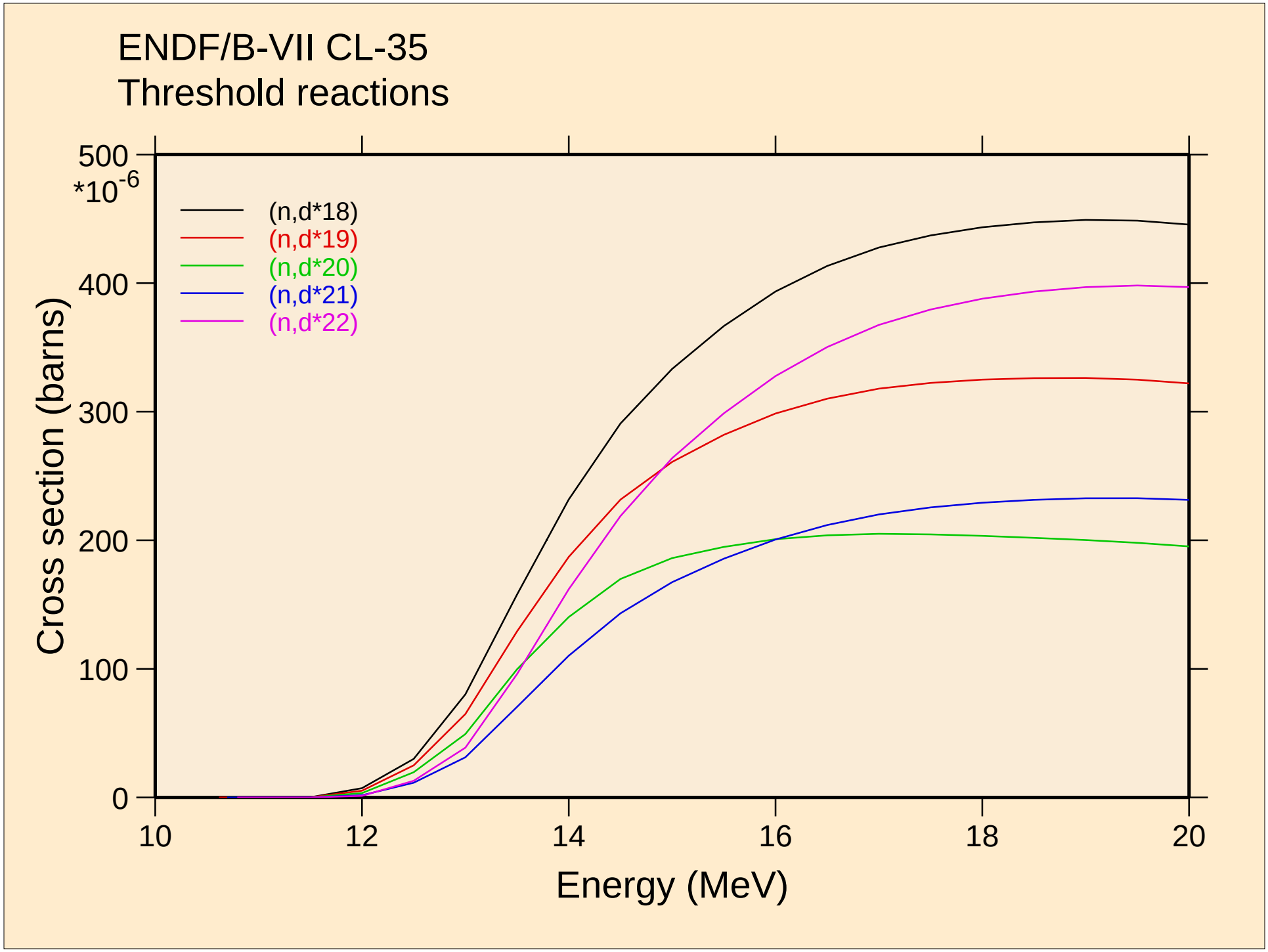

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,p*24)
(n,p*25)
(n,p*26)
(n,p*27)
(n,p*28)
Cross section (barns)
Energy (MeV)
0
1
2
3
4
5
6
4
6
8
10
12
14
16
18
20

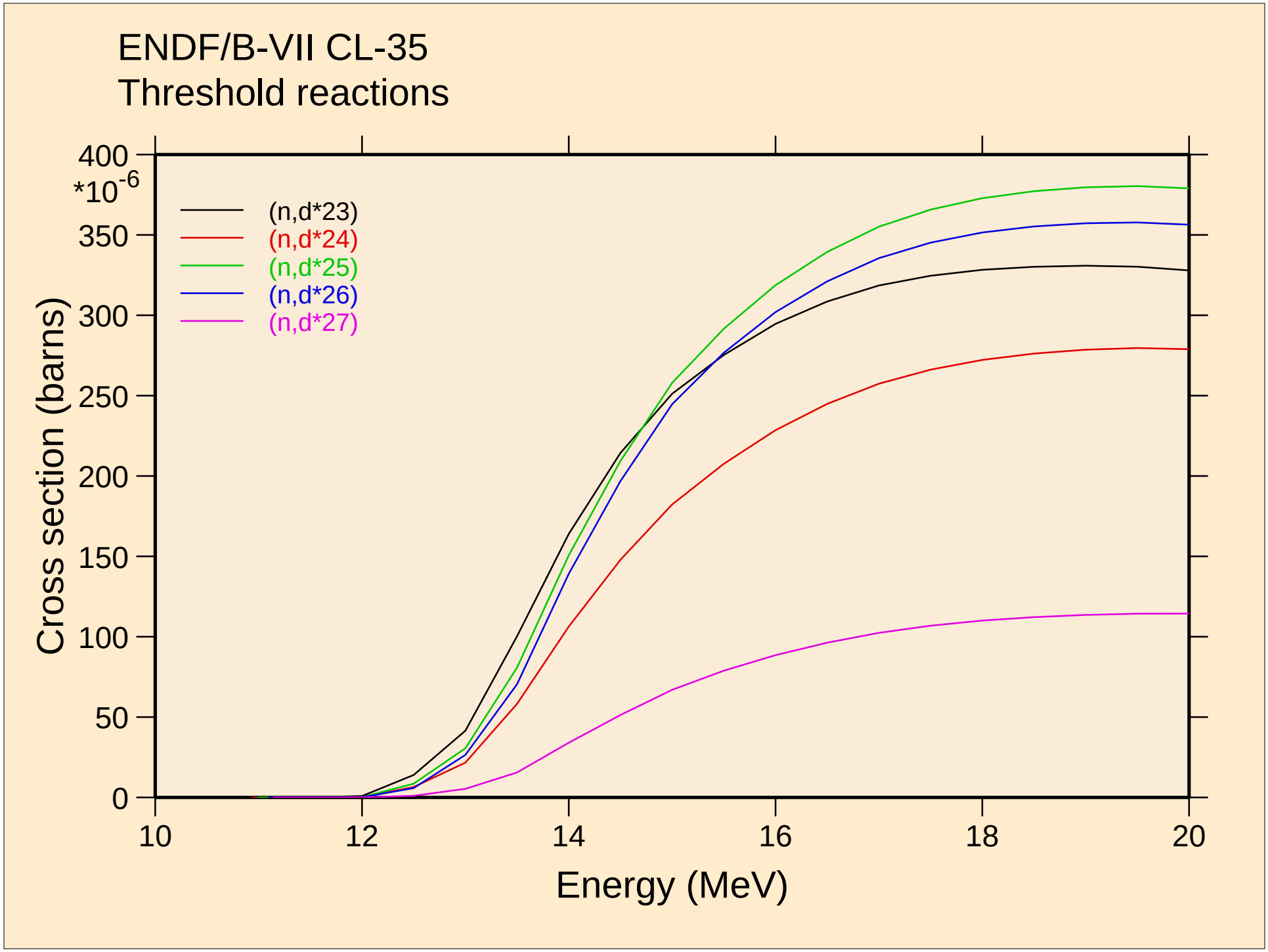

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,p*29)
(n,p*c)
(n,d*0)
(n,d*1)
(n,d*2)
Cross section (barns)
Energy (MeV)
0
20
40
60
80
100
120
140
160
4
6
8
10
12
14
16
18
20

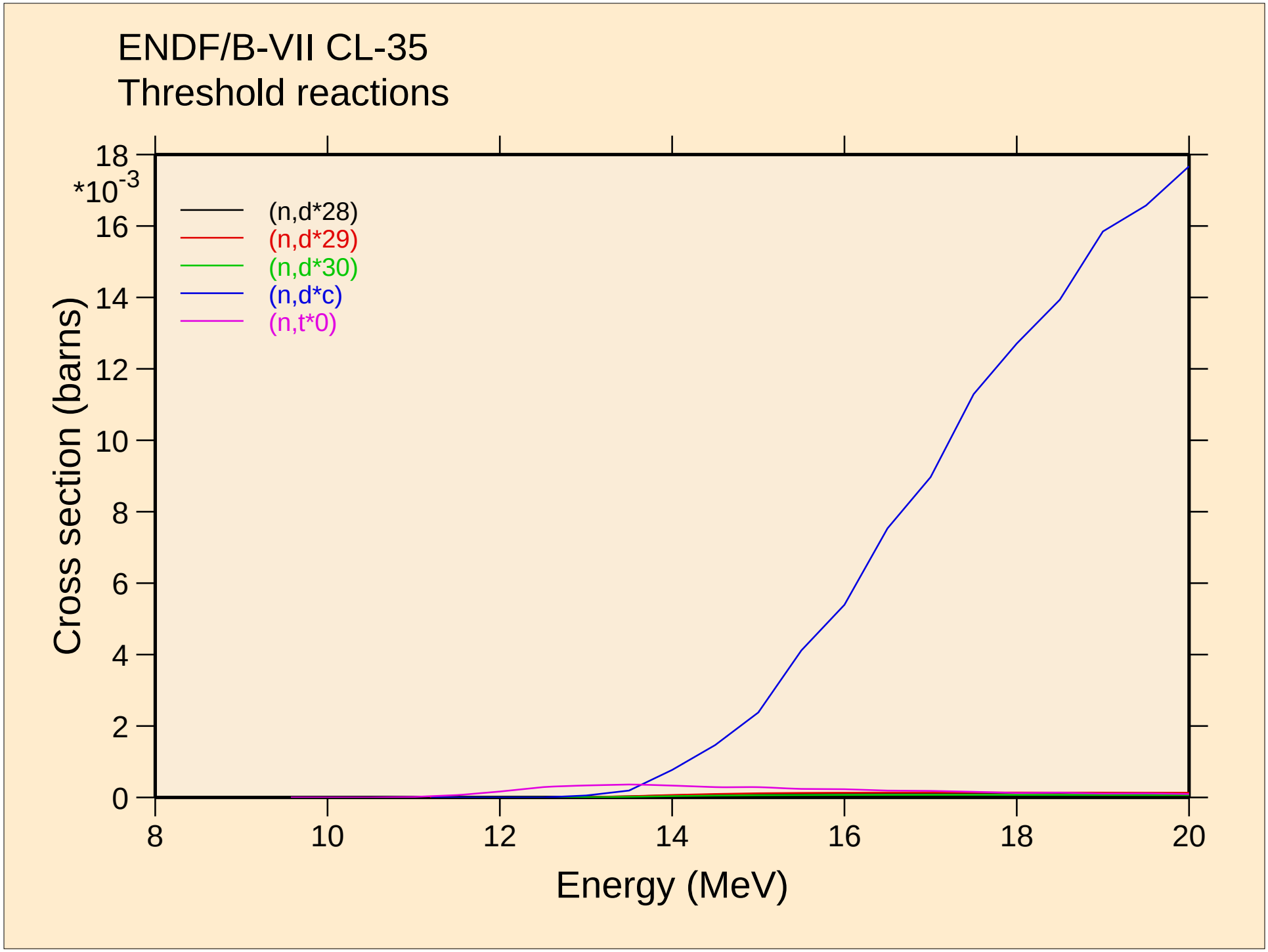

ENDF/B-VII CL-35
Threshold reactions
(n,d*3)
(n,d*4)
(n,d*5)
(n,d*6)
(n,d*7)
Cross section (barns)
*10-3
2.5
2.0
1.5
1.0
0.5
0.0
8
10
12
14
16
18
20
Energy (MeV)

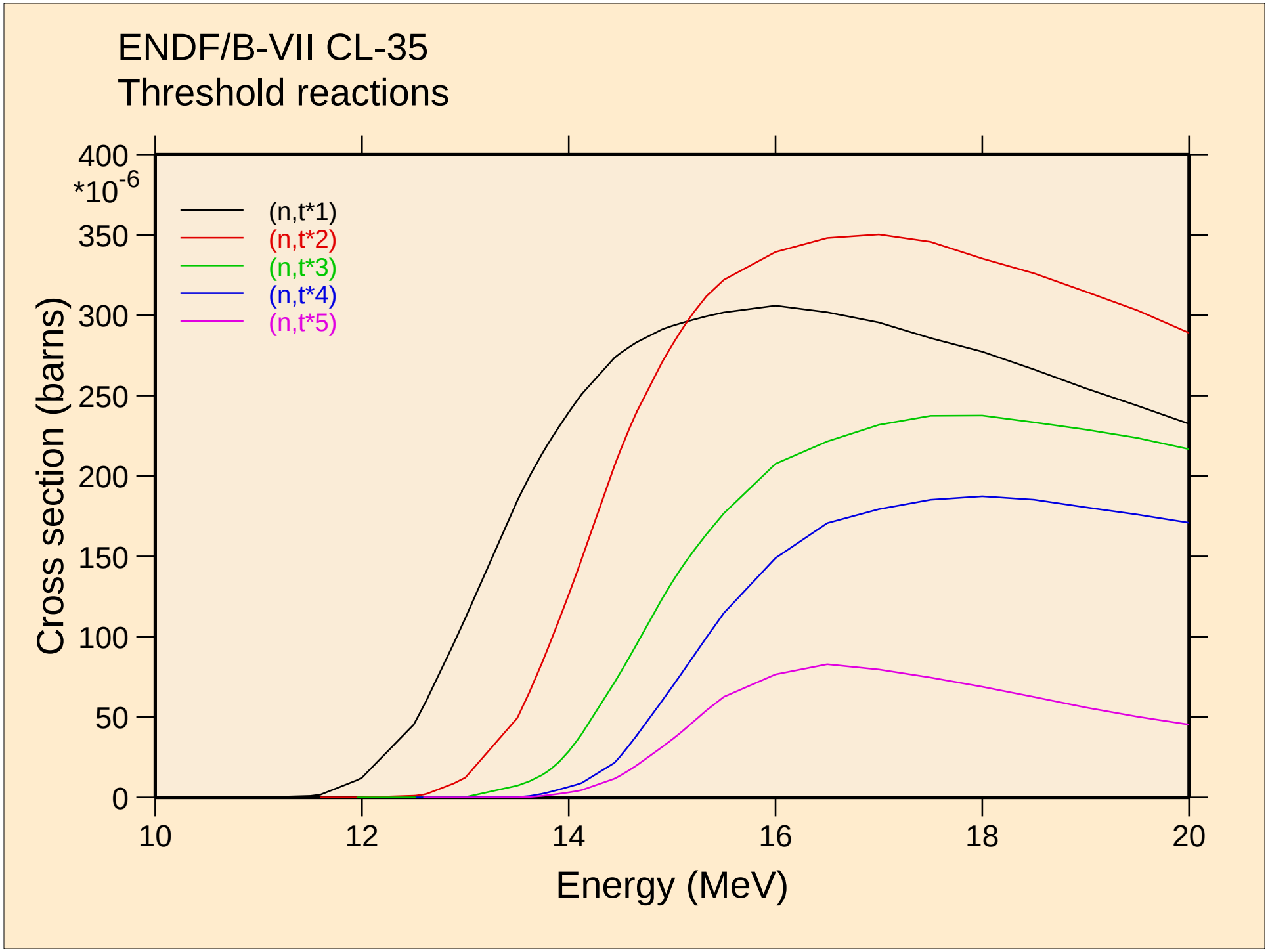

ENDF/B-VII CL-35
Threshold reactions
(n,d*8)
(n,d*9)
(n,d*10)
(n,d*11)
(n,d*12)
Cross section (barns)
*10^-6
1200
1000
800
600
400
200
0
8
10
12
14
16
18
20
Energy (MeV)

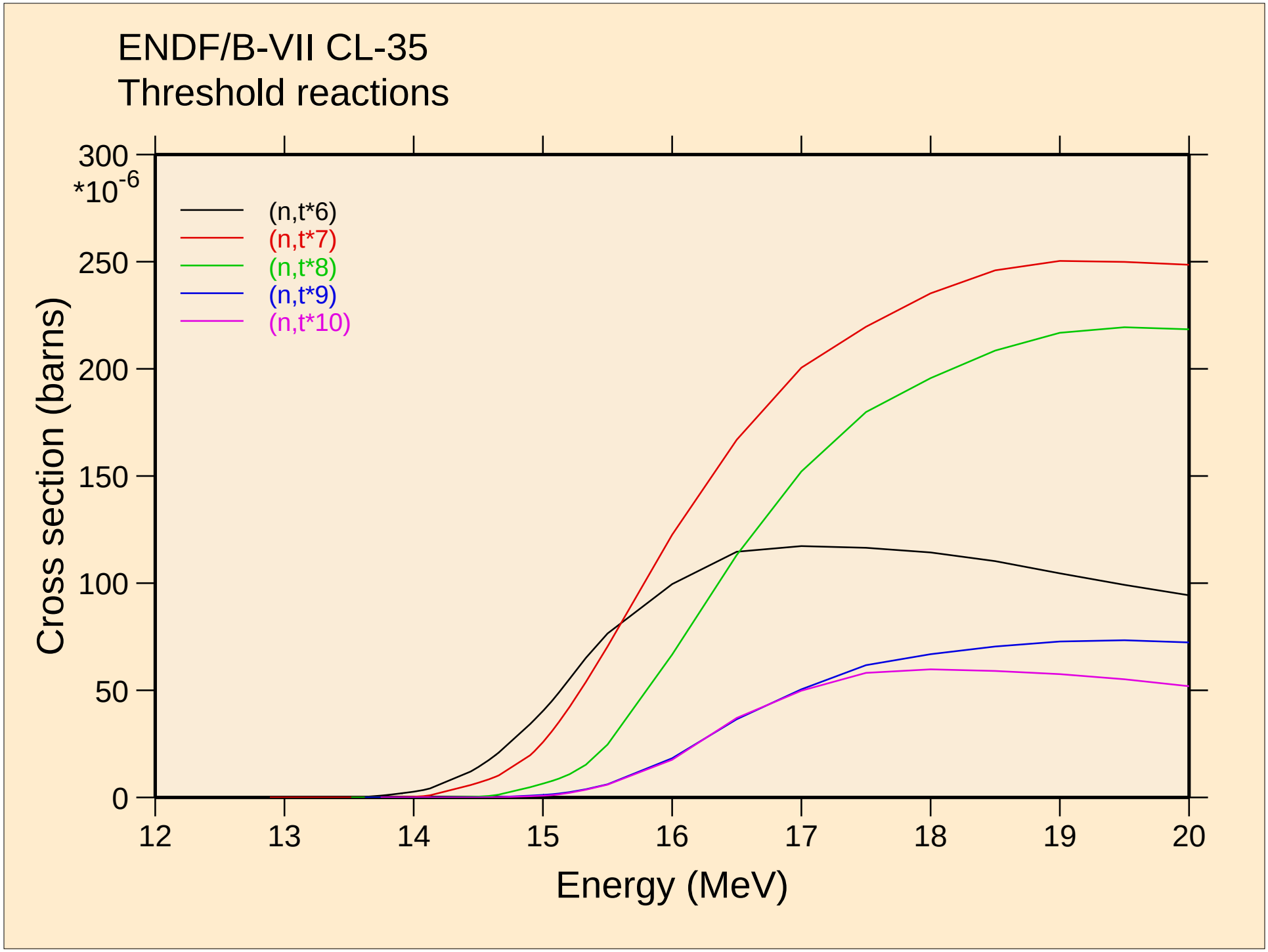

ENDF/B-VII CL-35
Threshold reactions
800
*10-6
600
400
200
0
Cross section (barns)
(n,d*13)
(n,d*14)
(n,d*15)
(n,d*16)
(n,d*17)
10
12
14
16
18
20
Energy (MeV)

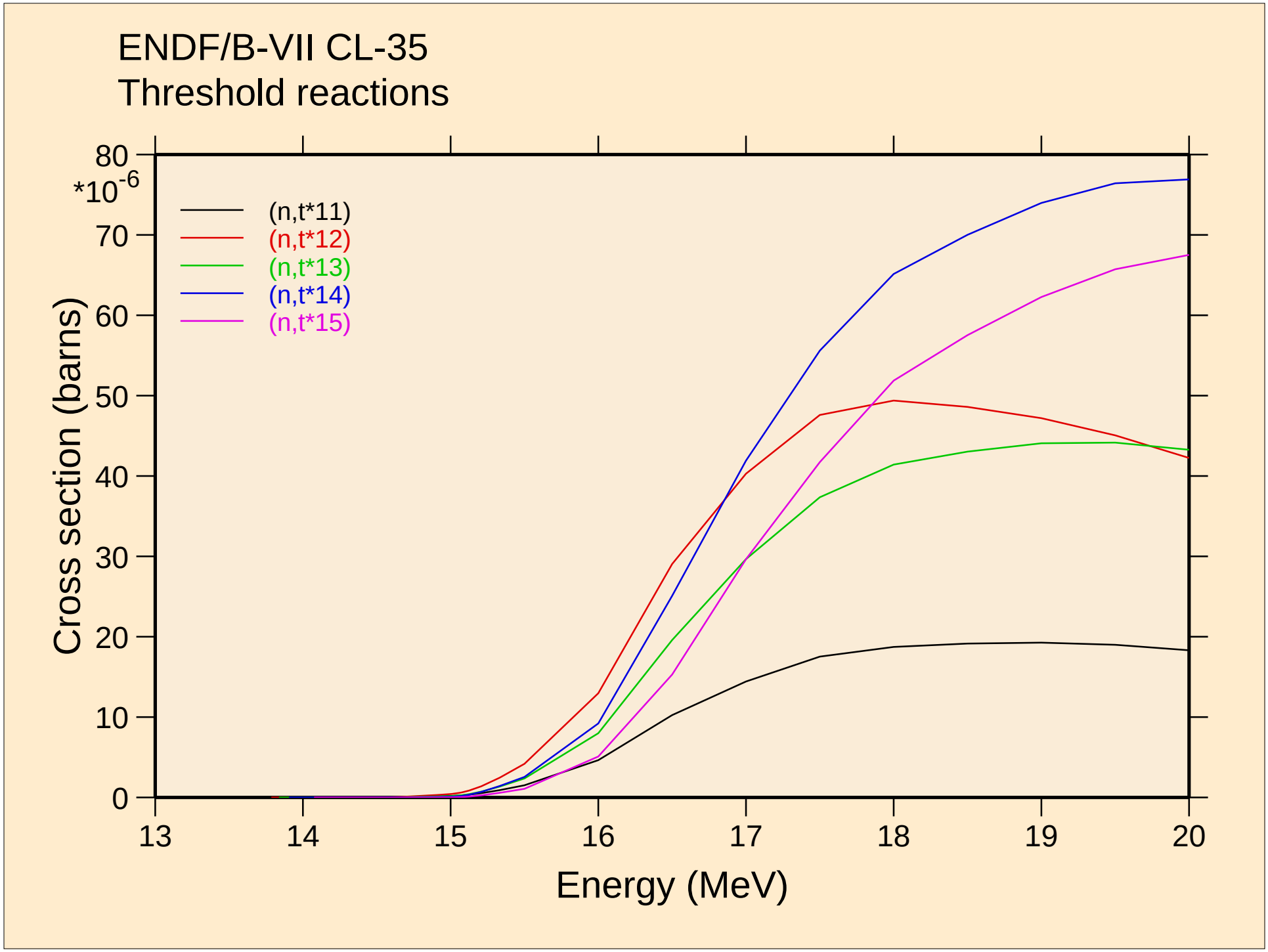

ENDF/B-VII CL-35
Threshold reactions
500
*10-6
400
300
200
100
0
Cross section (barns)
(n,d*18)
(n,d*19)
(n,d*20)
(n,d*21)
(n,d*22)
10
12
14
16
18
20
Energy (MeV)

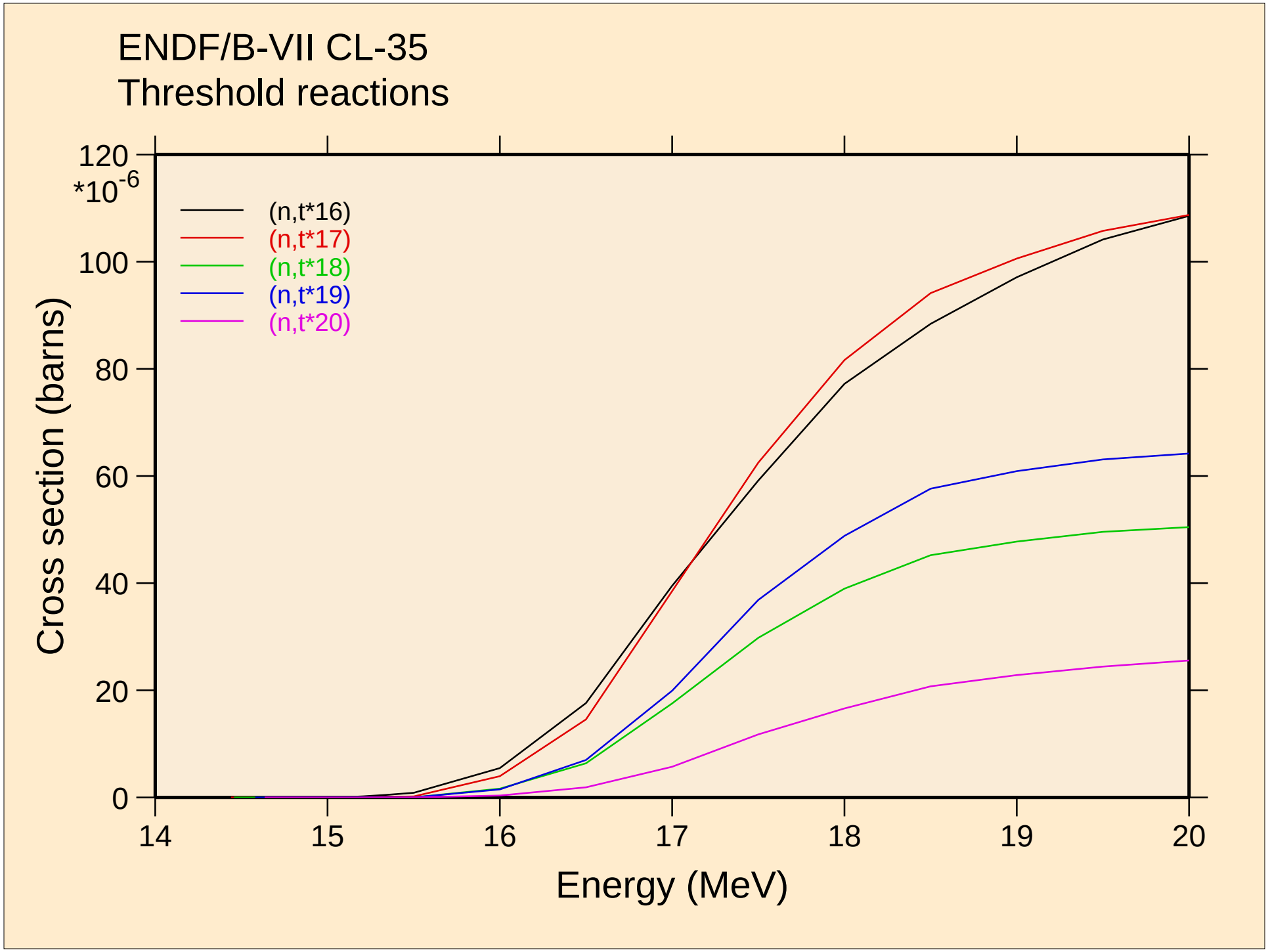

ENDF/B-VII CL-35
Threshold reactions
(n,d*23)
(n,d*24)
(n,d*25)
(n,d*26)
(n,d*27)
Cross section (barns)
*10^-6
400
350
300
250
200
150
100
50
0
10
12
14
16
18
20
Energy (MeV)

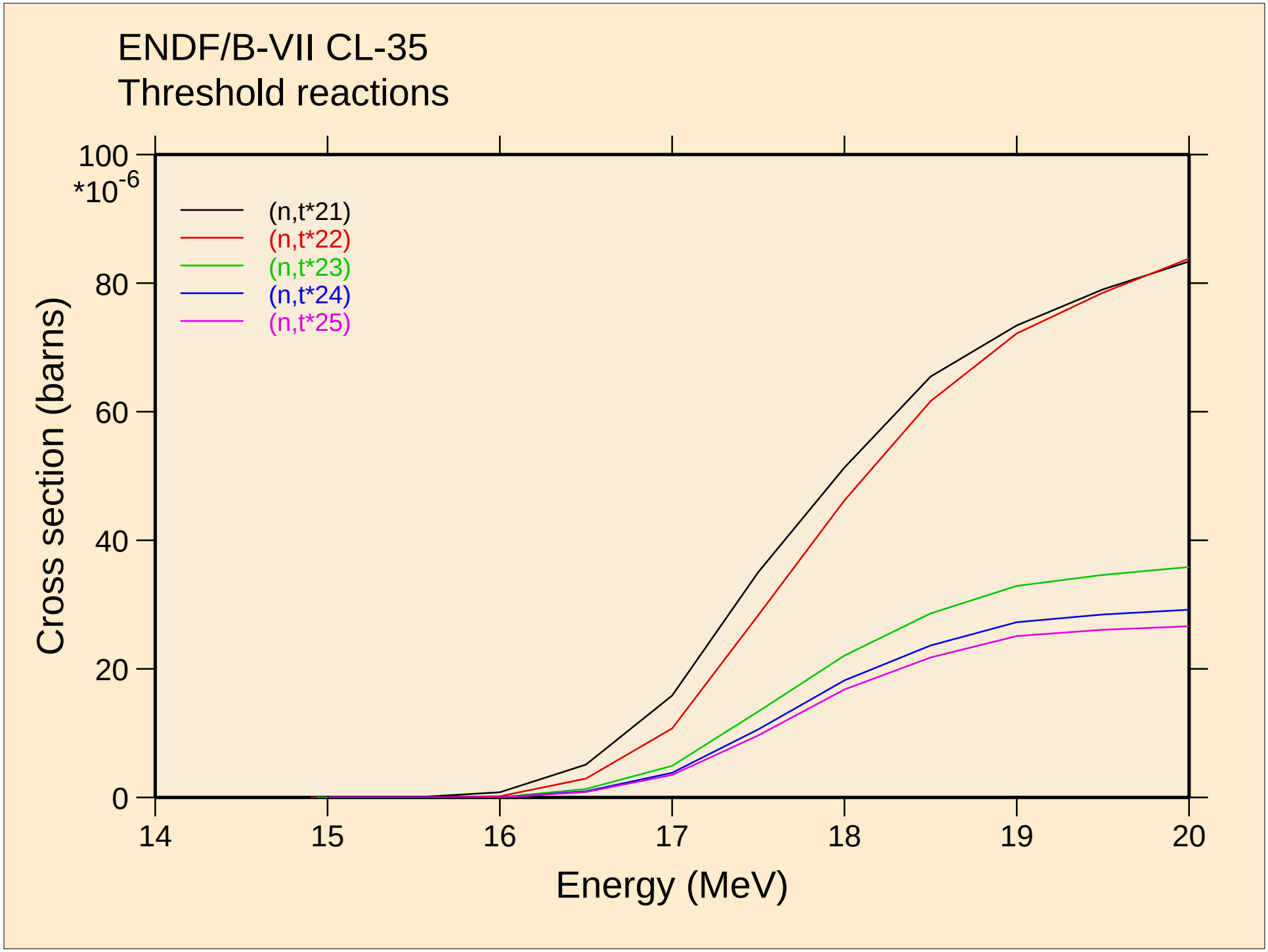

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,d*28)
(n,d*29)
(n,d*30)
(n,d*c)
(n,t*0)
Cross section (barns)
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
8
10
12
14
16
18
20

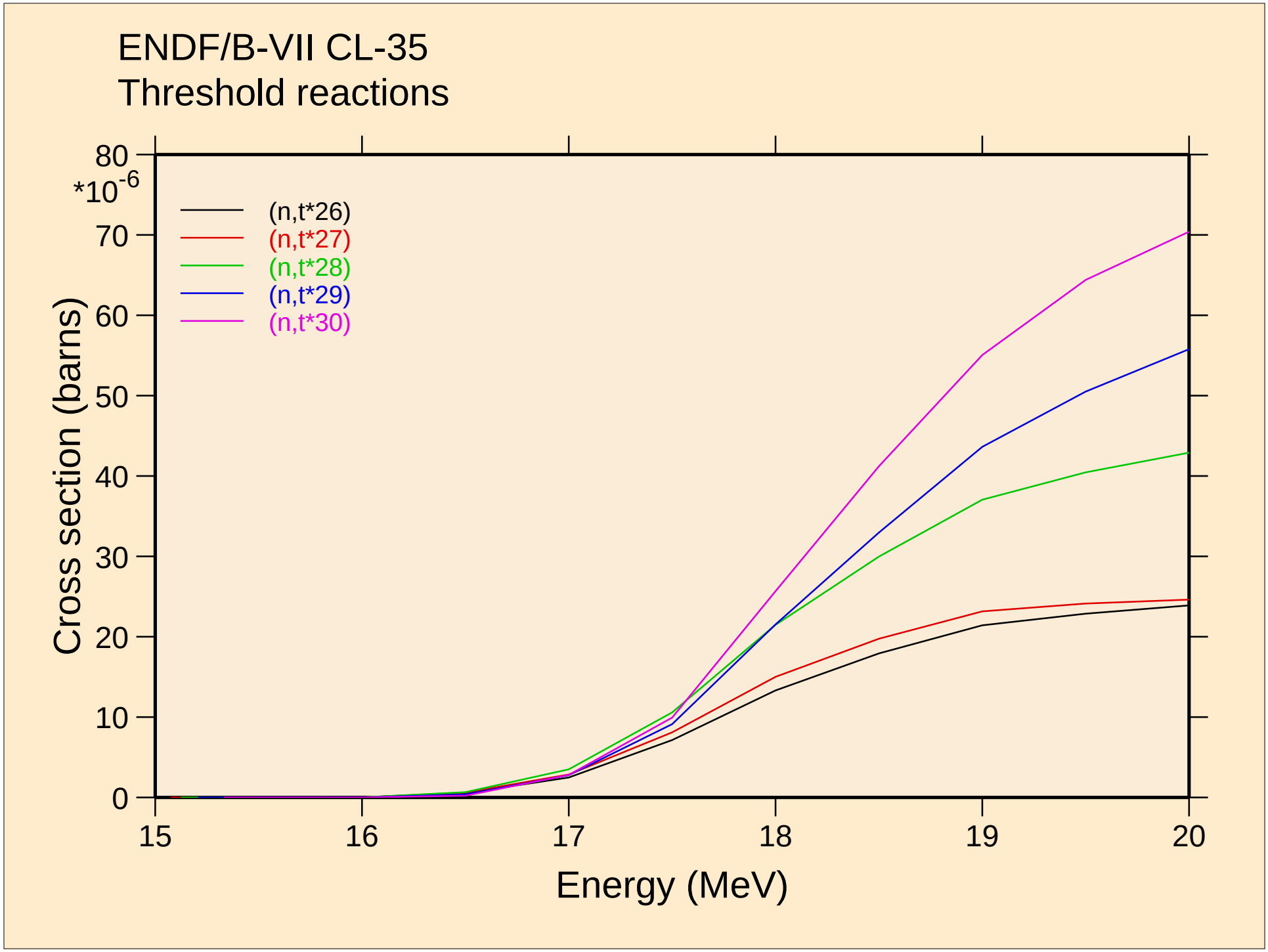

ENDF/B-VII CL-35
Threshold reactions
*10^-6
400
350
300
250
200
150
100
50
0
Cross section (barns)
10
12
14
16
18
20
Energy (MeV)
(n,t*1)
(n,t*2)
(n,t*3)
(n,t*4)
(n,t*5)

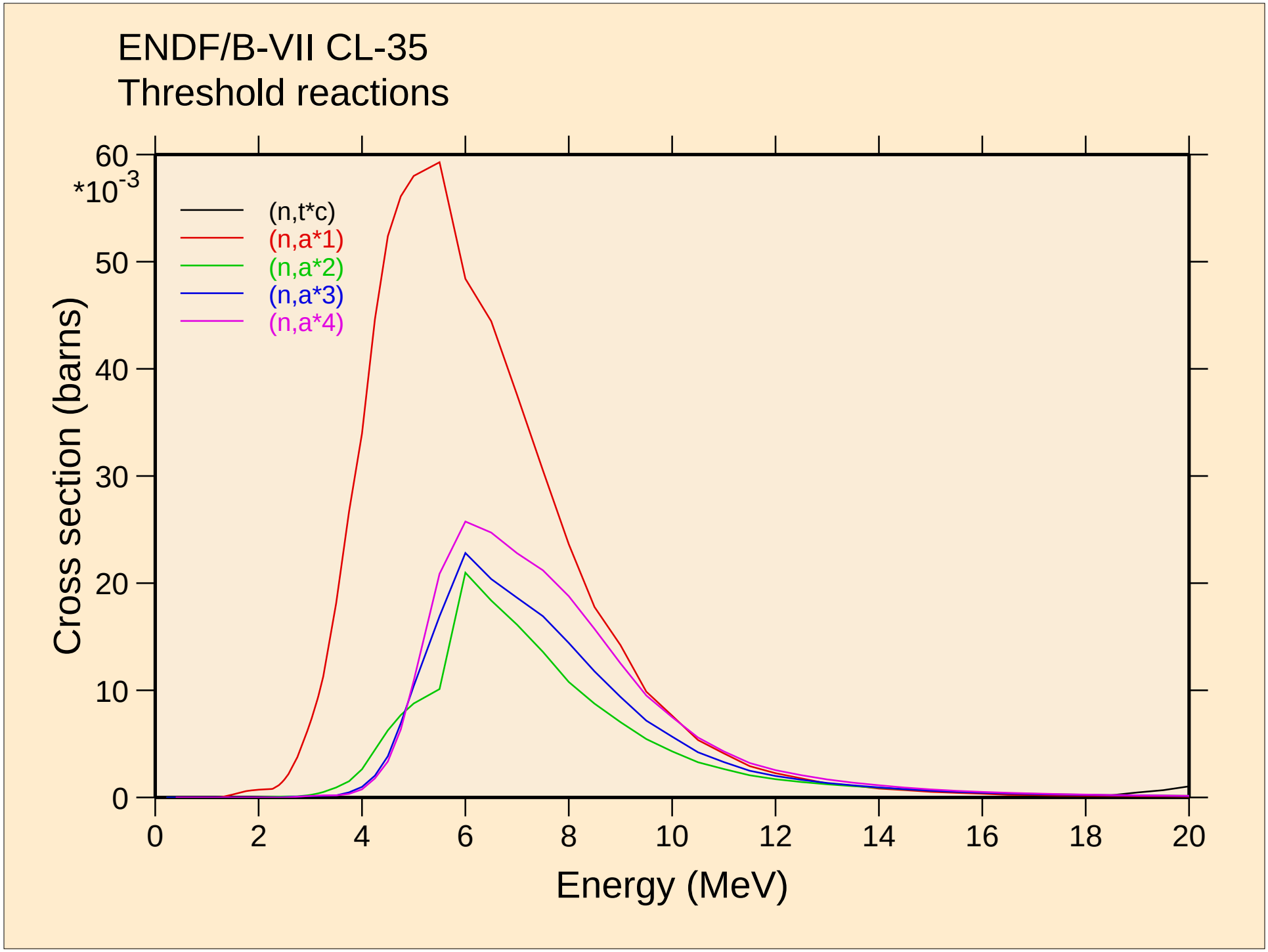

ENDF/B-VII CL-35
Threshold reactions
(n,t*6)
(n,t*7)
(n,t*8)
(n,t*9)
(n,t*10)
Cross section (barns)
*10-6
300
250
200
150
100
50
0
12
13
14
15
16
17
18
19
20
Energy (MeV)

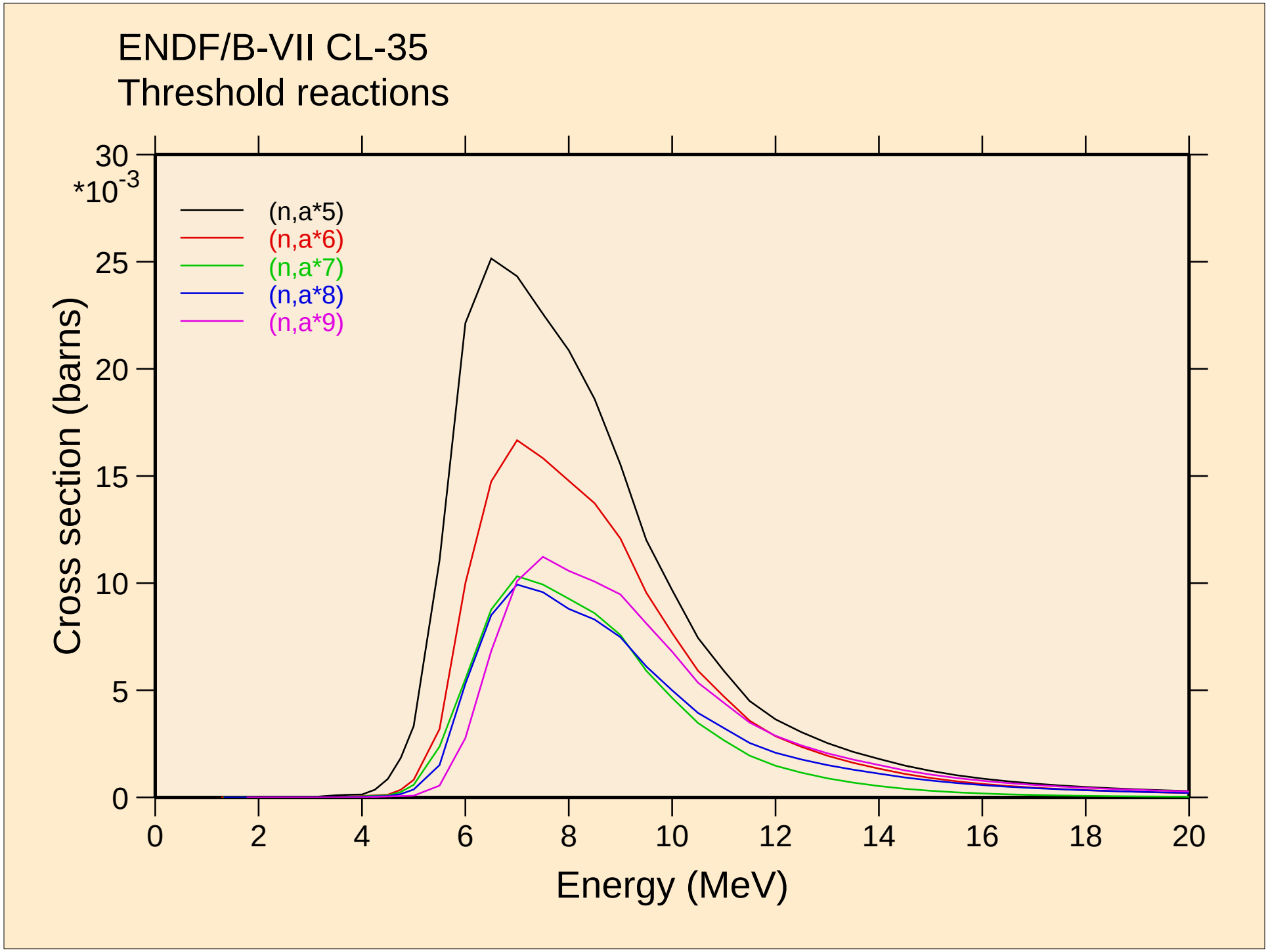

ENDF/B-VII CL-35
Threshold reactions
*10^-6
(n,t*11)
(n,t*12)
(n,t*13)
(n,t*14)
(n,t*15)
Cross section (barns)
Energy (MeV)
0
10
20
30
40
50
60
70
80
13
14
15
16
17
18
19
20

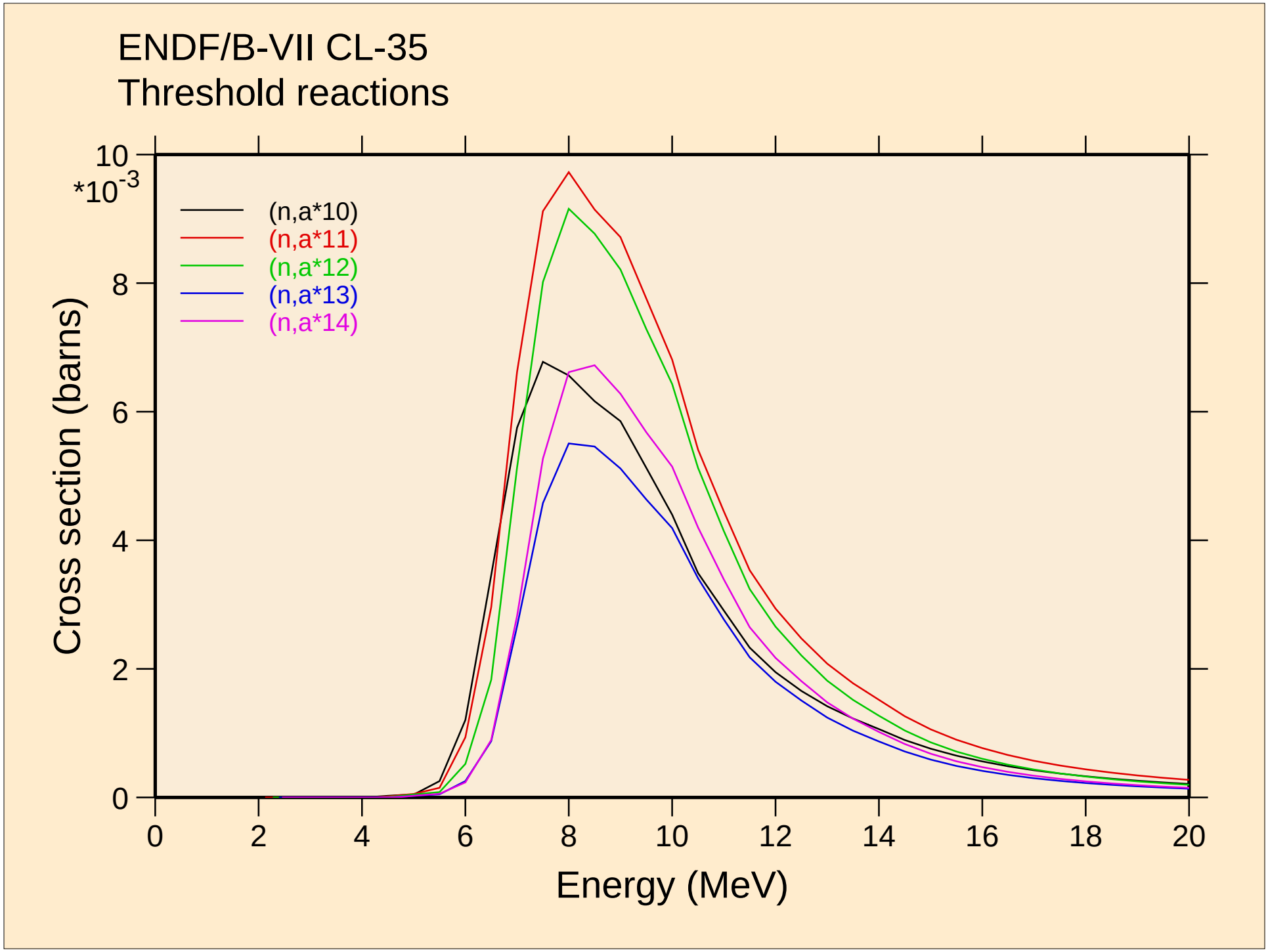

ENDF/B-VII CL-35
Threshold reactions
120
*10-6
100
80
60
40
20
0
Cross section (barns)
(n,t*16)
(n,t*17)
(n,t*18)
(n,t*19)
(n,t*20)
14
15
16
17
18
19
20
Energy (MeV)

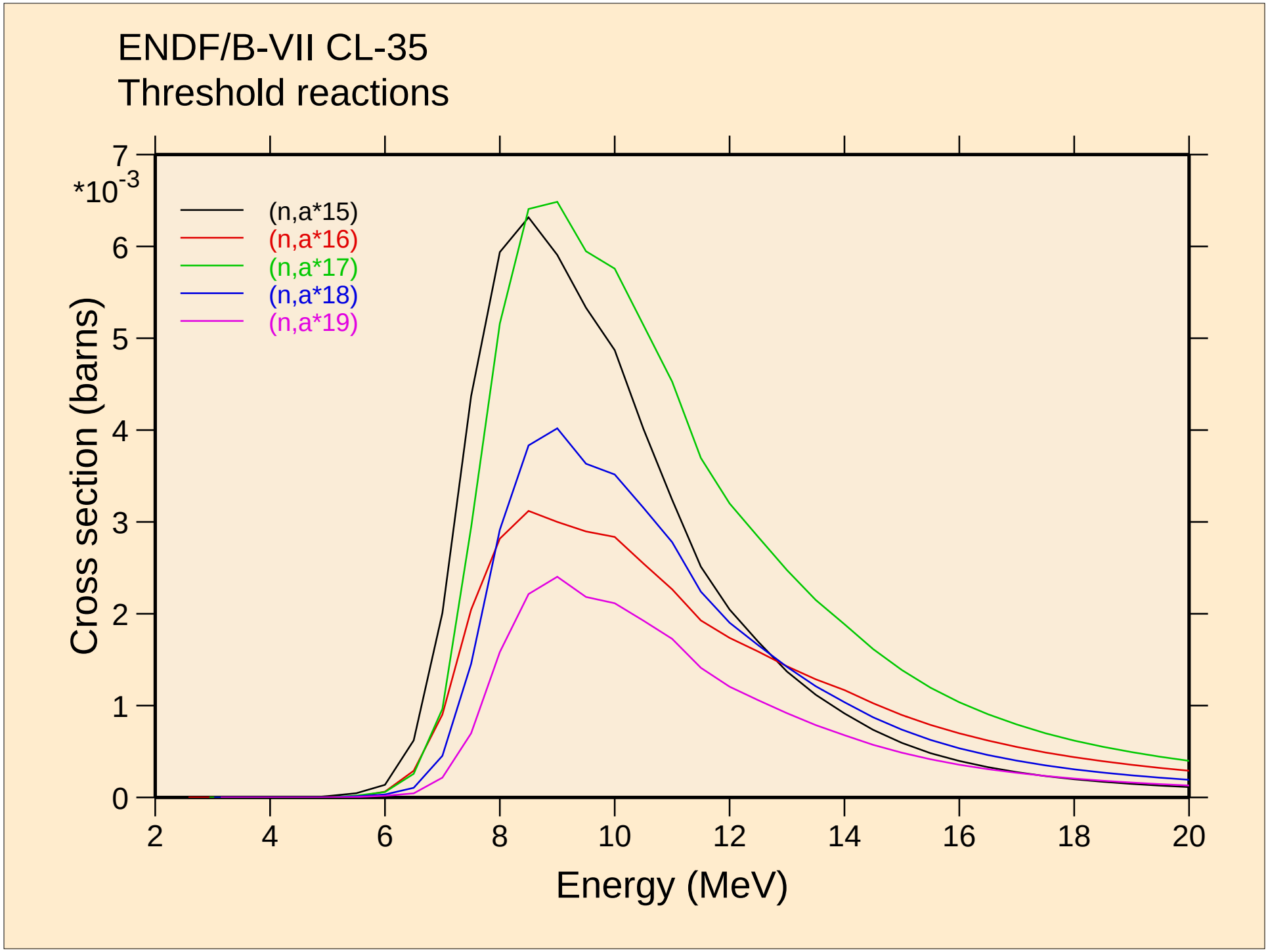

ENDF/B-VII CL-35
Threshold reactions
100
*10-6
80
60
40
20
0
Cross section (barns)
(n,t*21)
(n,t*22)
(n,t*23)
(n,t*24)
(n,t*25)
14
15
16
17
18
19
20
Energy (MeV)

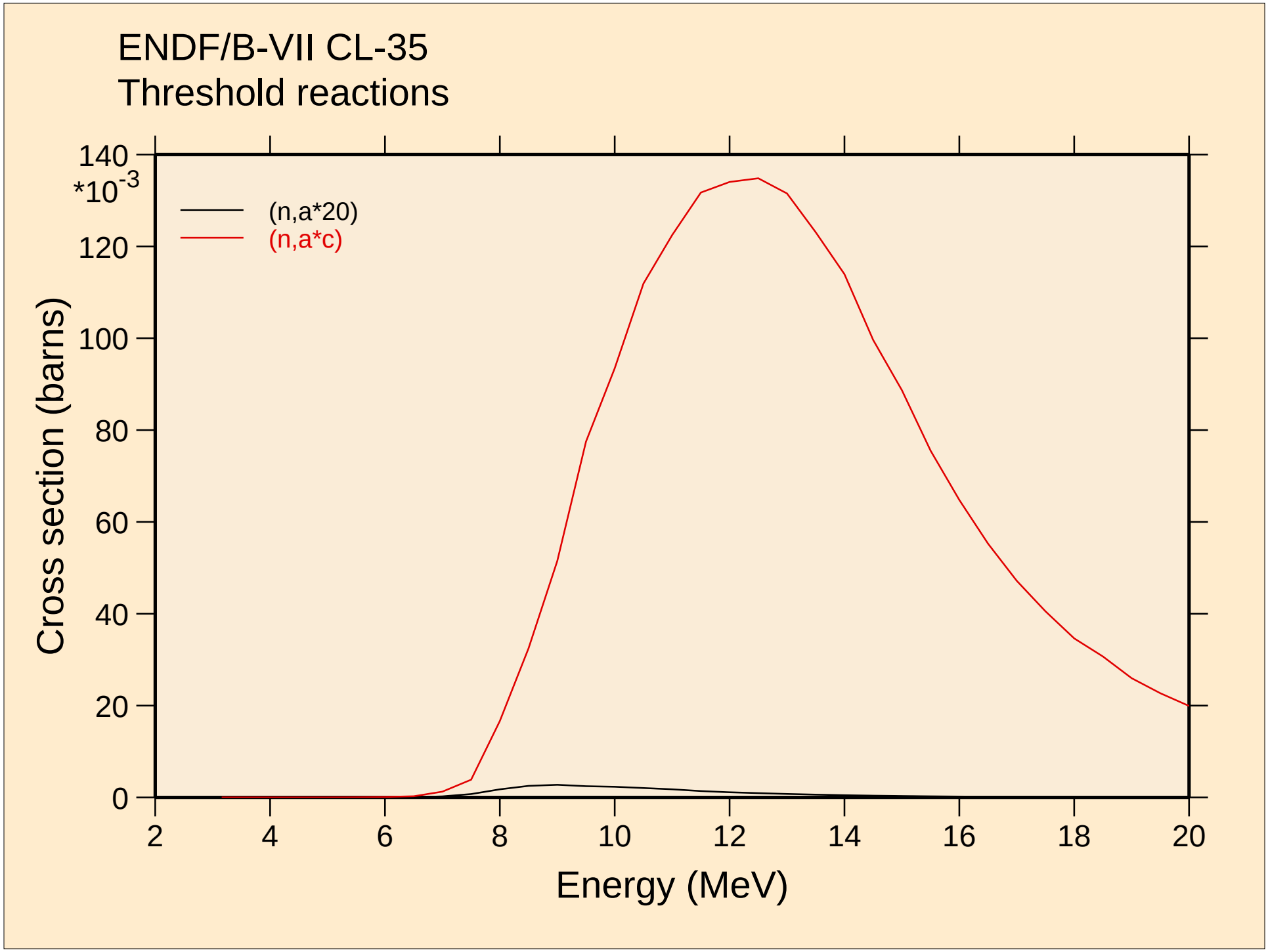

ENDF/B-VII CL-35
Threshold reactions
*10^-6
80
70
60
50
40
30
20
10
0
Cross section (barns)
(n,t*26)
(n,t*27)
(n,t*28)
(n,t*29)
(n,t*30)
15
16
17
18
19
20
Energy (MeV)

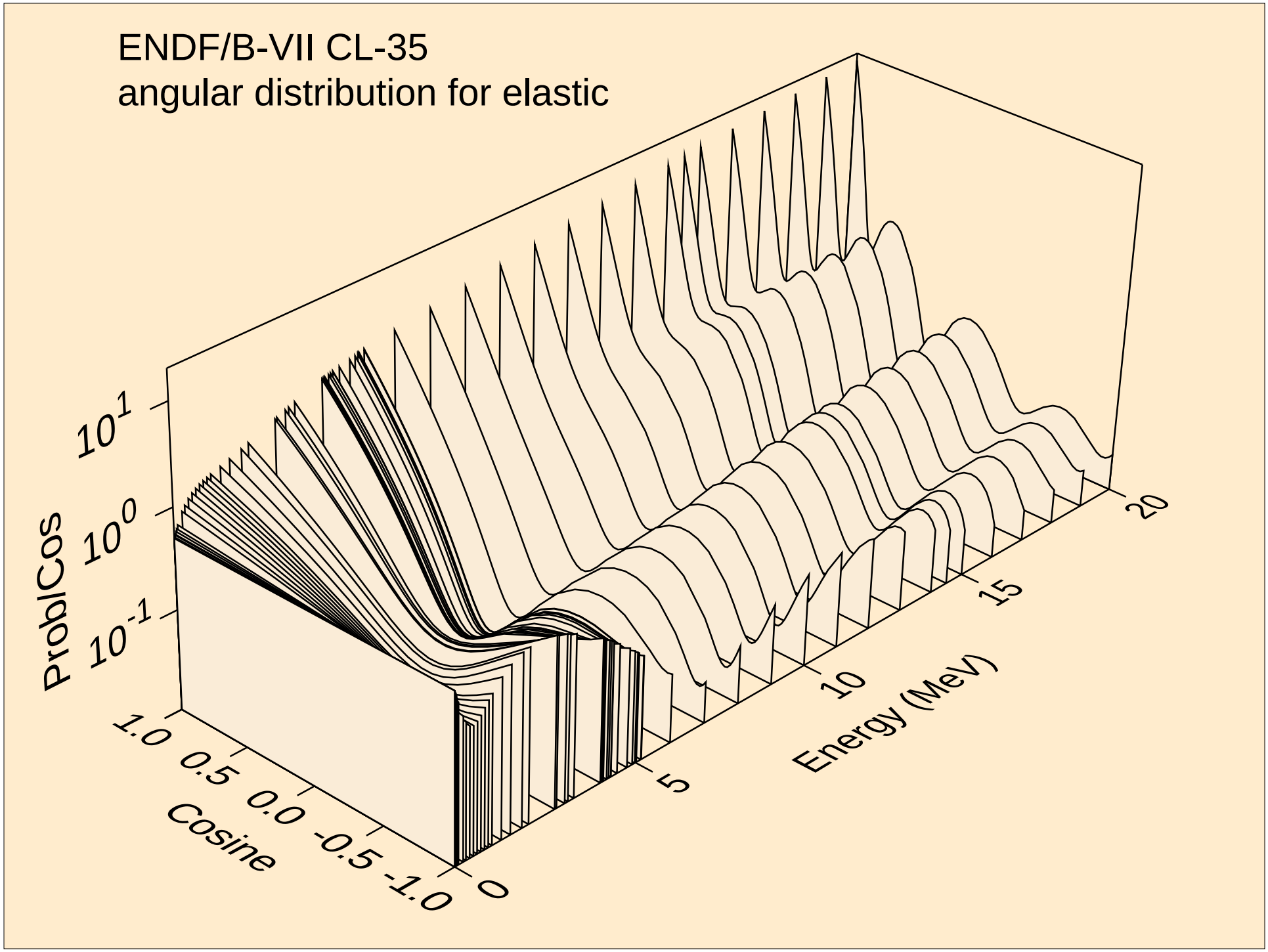

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,t*c)
(n,a*1)
(n,a*2)
(n,a*3)
(n,a*4)
Cross section (barns)
Energy (MeV)
0
10
20
30
40
50
60
0
2
4
6
8
10
12
14
16
18
20

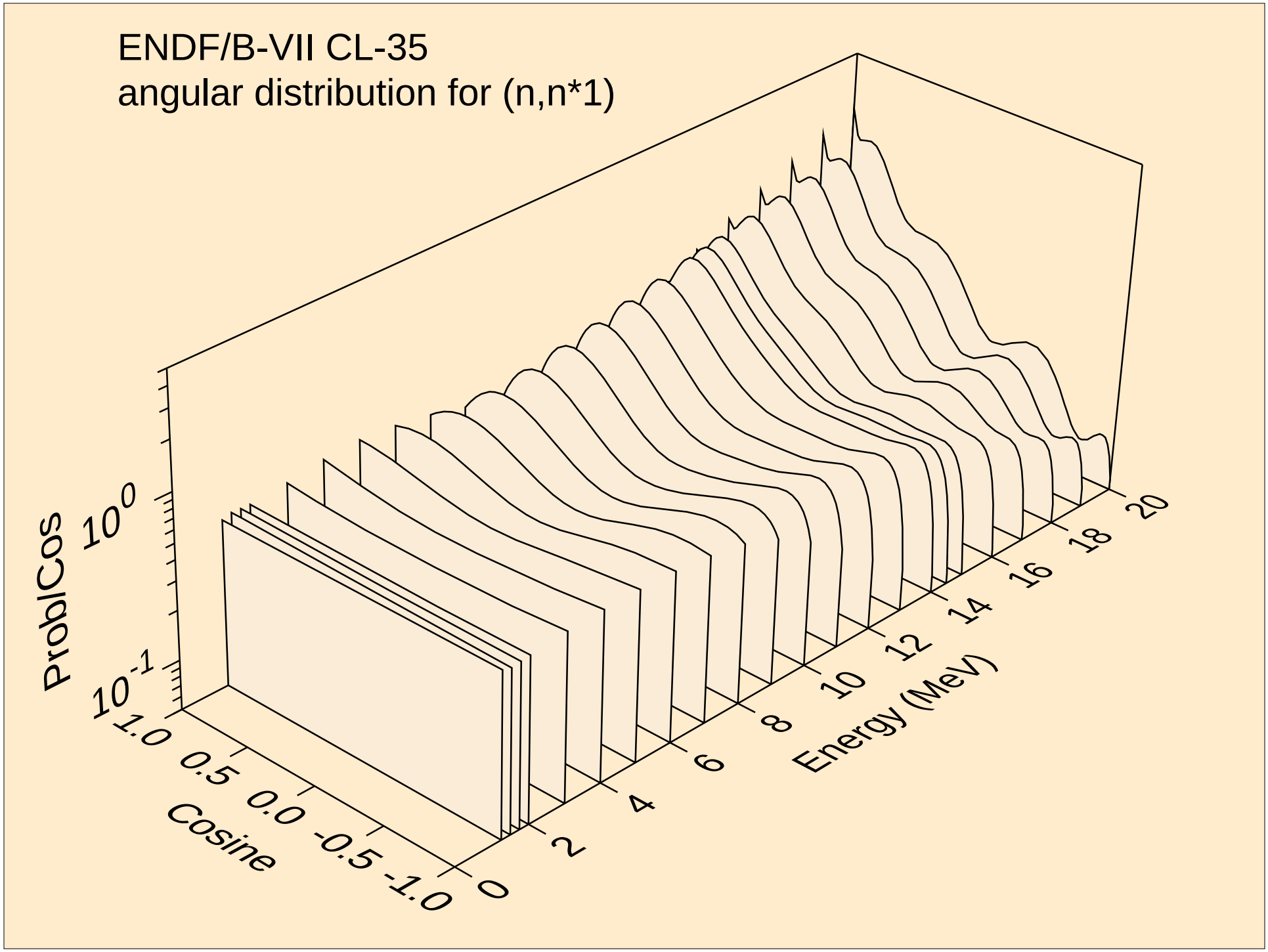

ENDF/B-VII CL-35
Threshold reactions
*10^-3
(n,a*5)
(n,a*6)
(n,a*7)
(n,a*8)
(n,a*9)
Cross section (barns)
Energy (MeV)
0
5
10
15
20
25
30
0
2
4
6
8
10
12
14
16
18
20

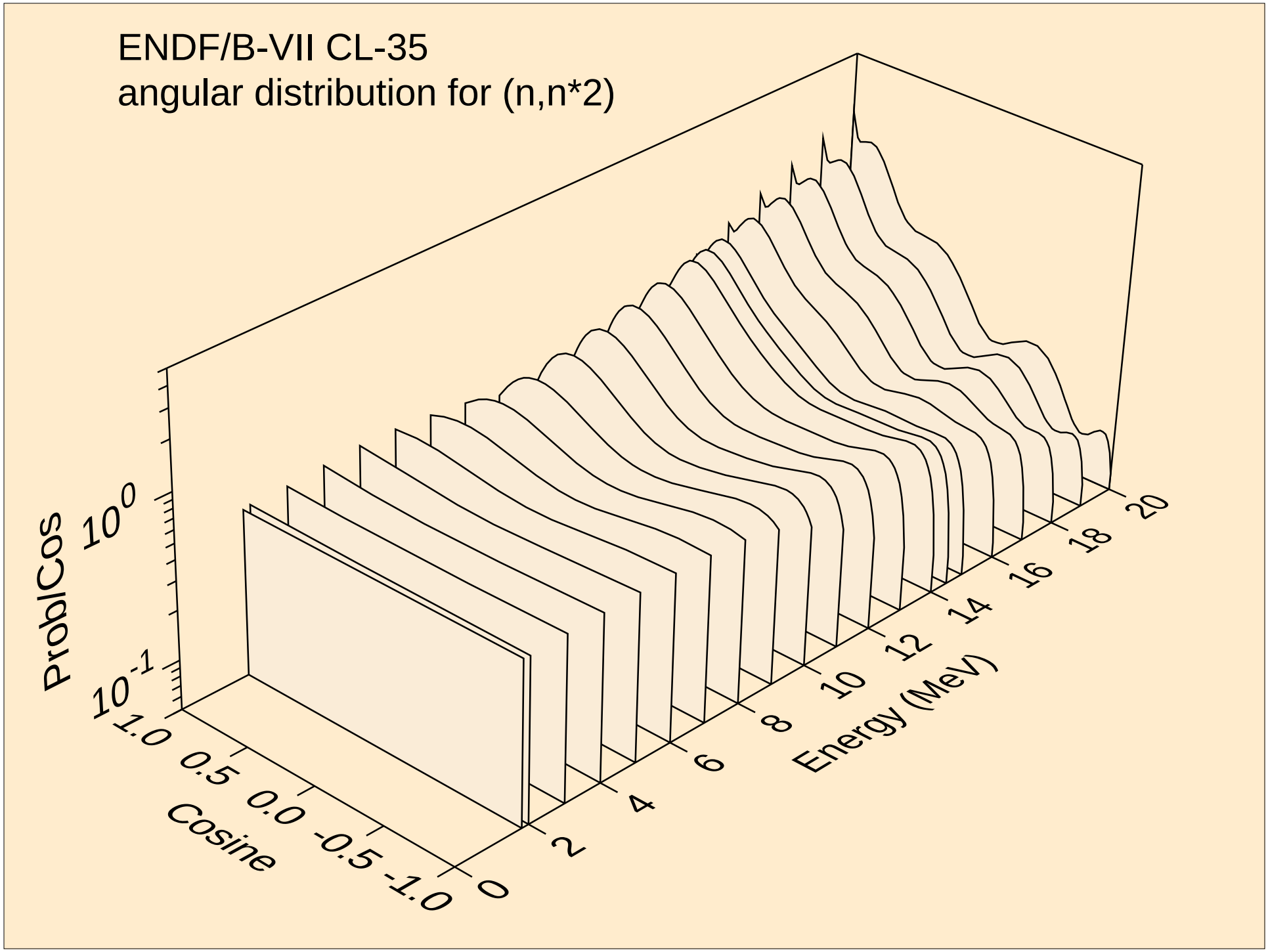

ENDF/B-VII CL-35
Threshold reactions
(n,a*10)
(n,a*11)
(n,a*12)
(n,a*13)
(n,a*14)
Cross section (barns)
*10-3
10
8
6
4
2
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

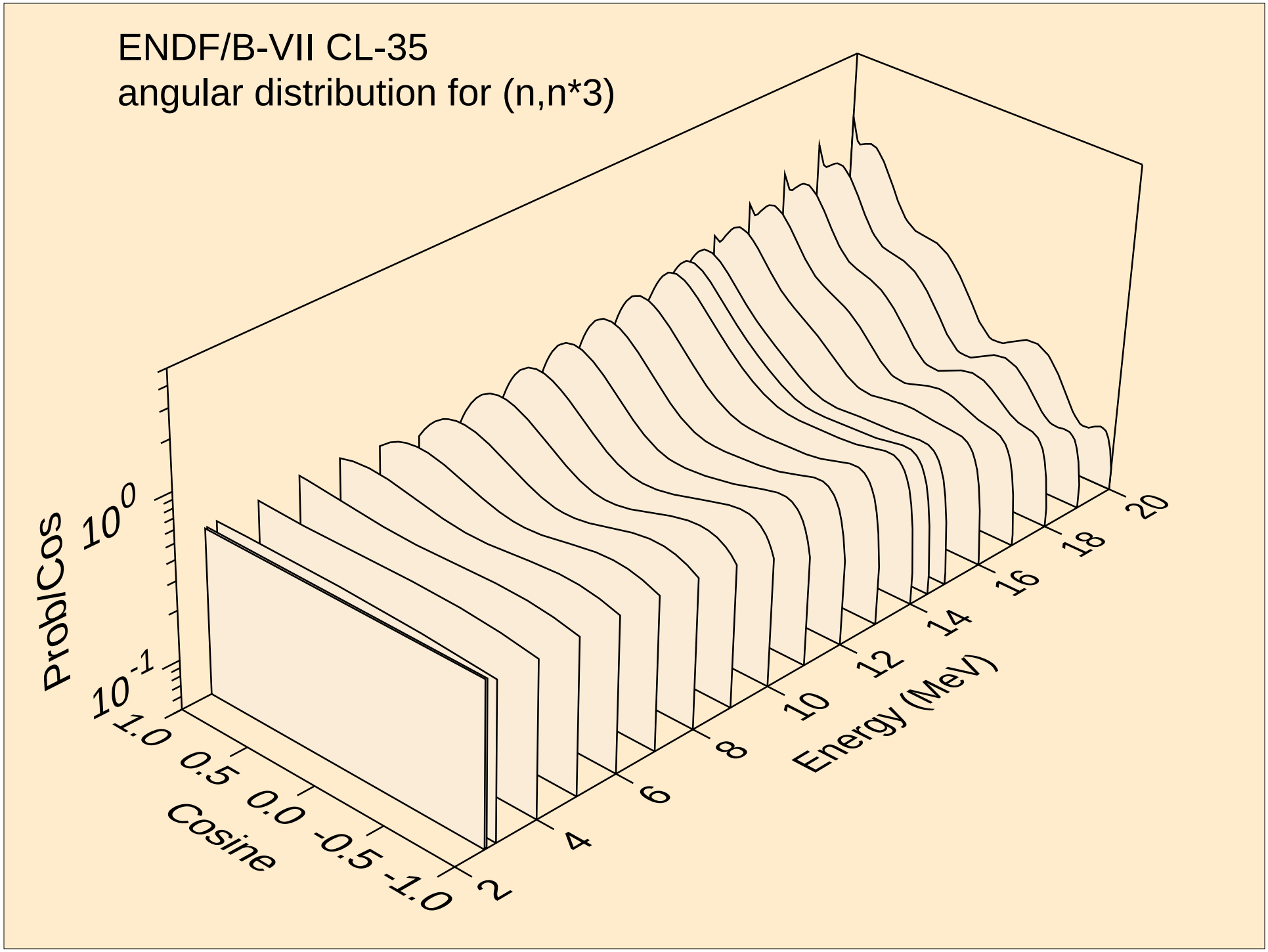

ENDF/B-VII CL-35
Threshold reactions
*10-3
(n,a*15)
(n,a*16)
(n,a*17)
(n,a*18)
(n,a*19)
Cross section (barns)
Energy (MeV)
0
1
2
3
4
5
6
7
2
4
6
8
10
12
14
16
18
20

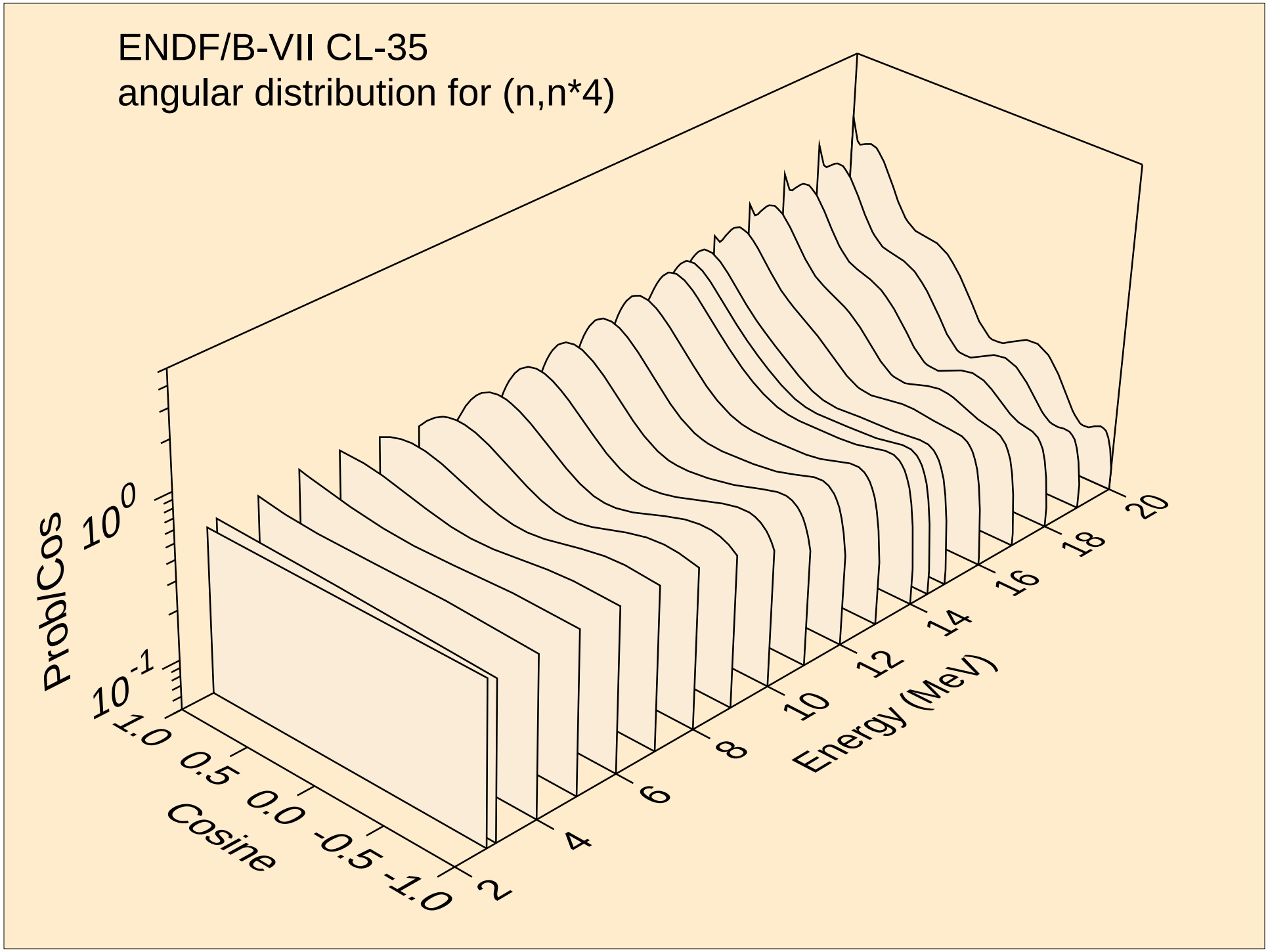

ENDF/B-VII CL-35
Threshold reactions
(n,a*20)
(n,a*c)
*10-3
Cross section (barns)
Energy (MeV)
0
20
40
60
80
100
120
140
2
4
6
8
10
12
14
16
18
20

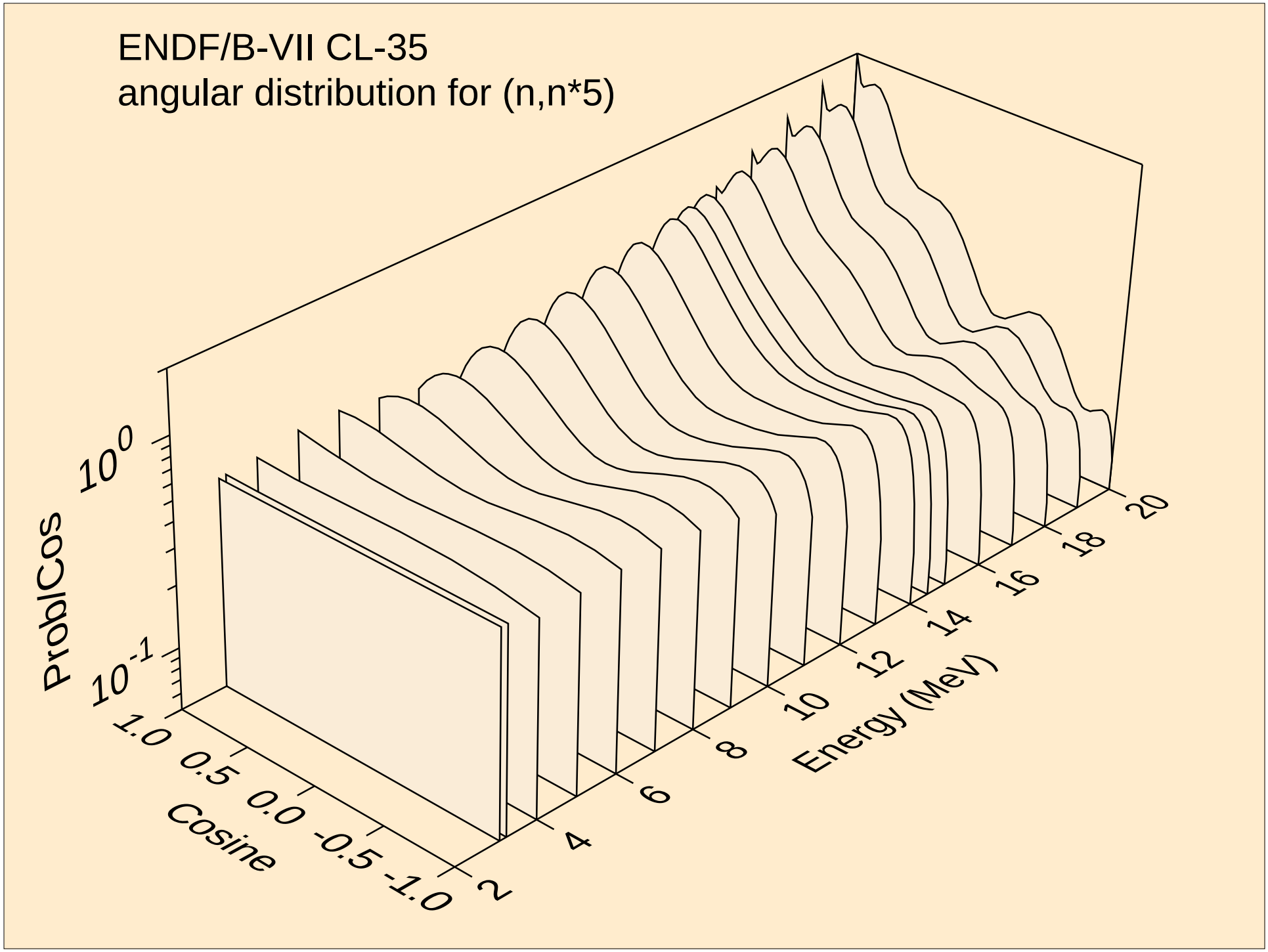

ENDF/B-VII CL-35
angular distribution for elastic
ProblCos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

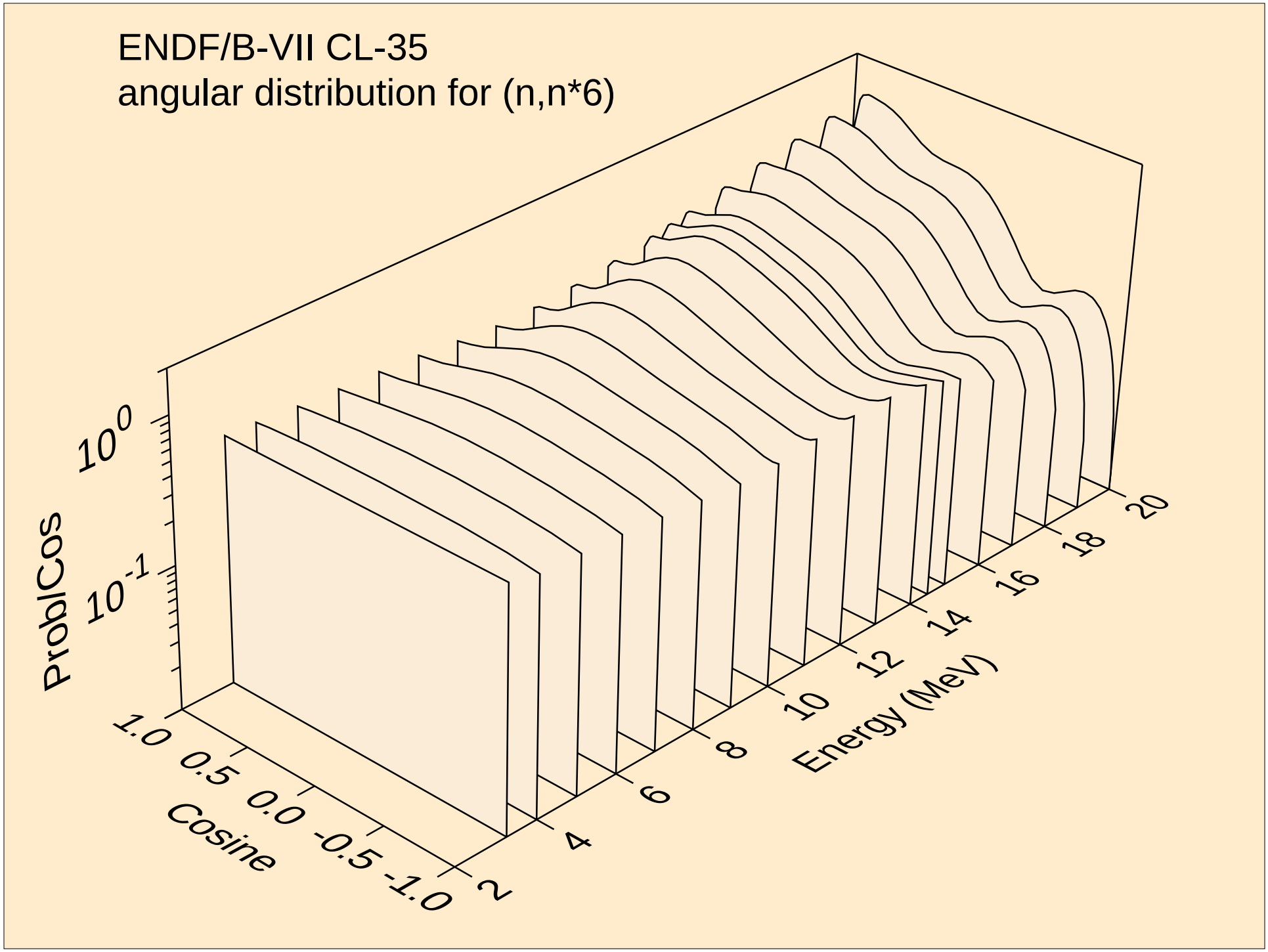

ENDF/B-VII CL-35
angular distribution for (n,n*1)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

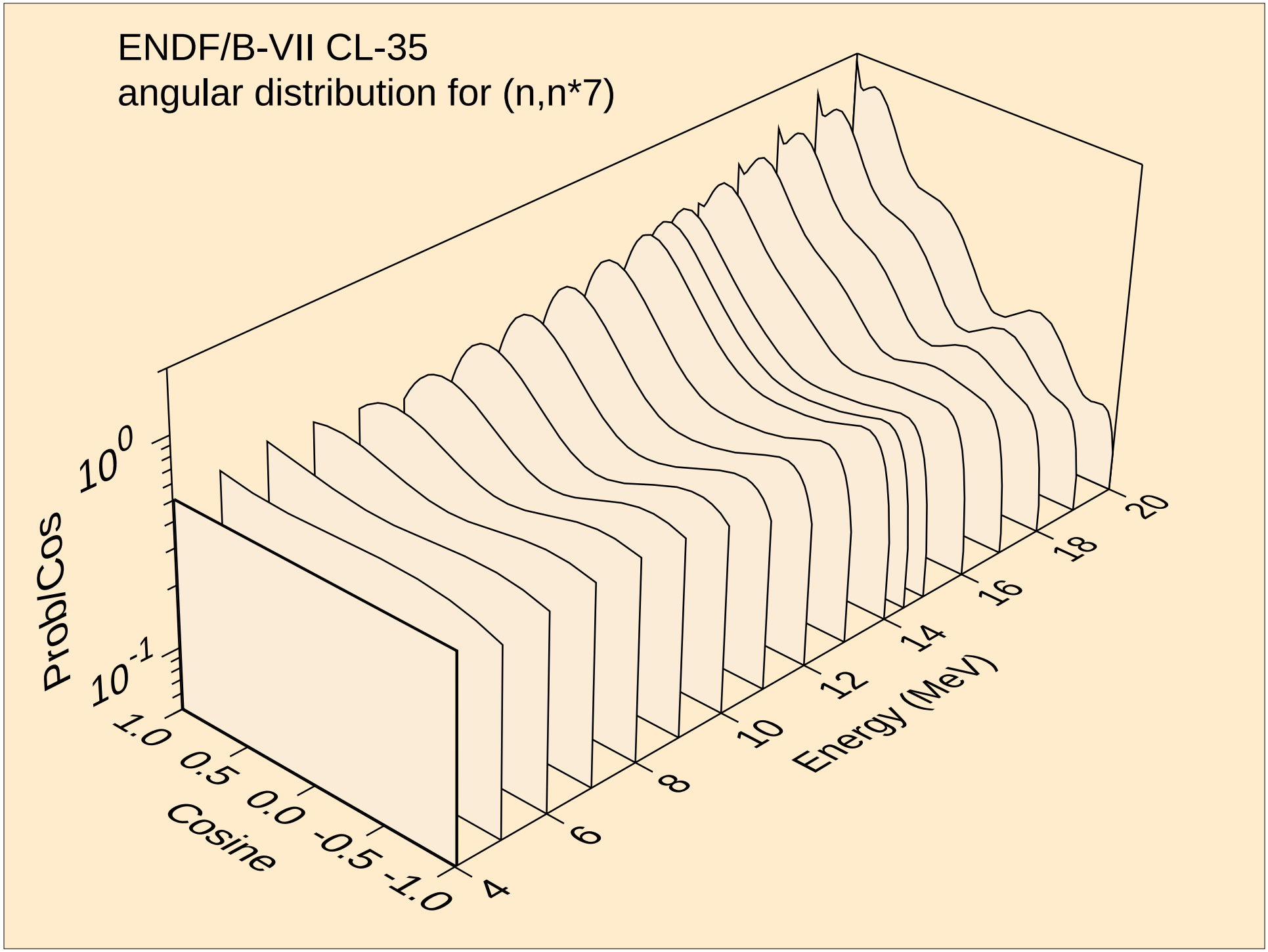

ENDF/B-VII CL-35
angular distribution for (n,n*2)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

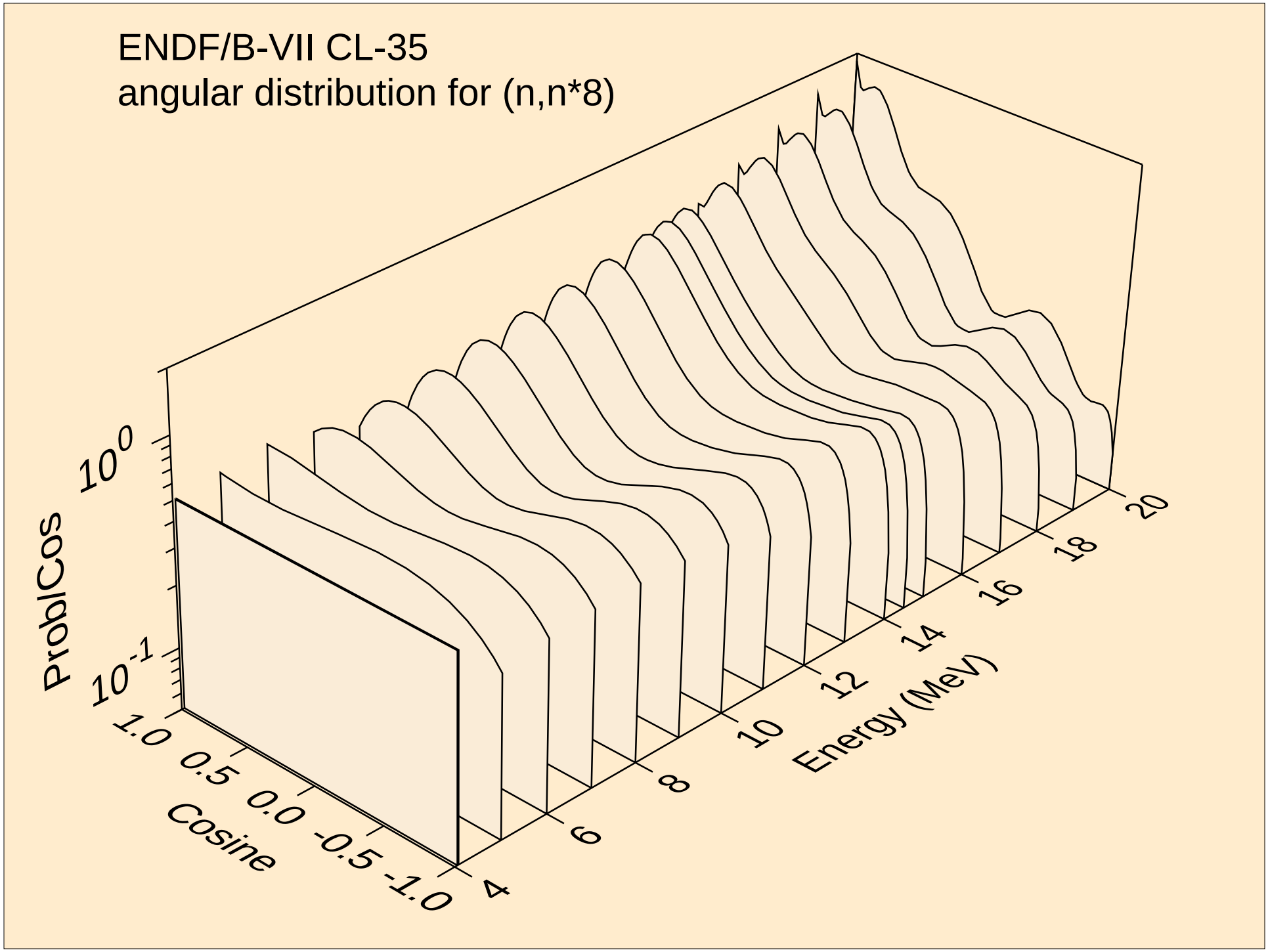

ENDF/B-VII CL-35
angular distribution for (n,n*3)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

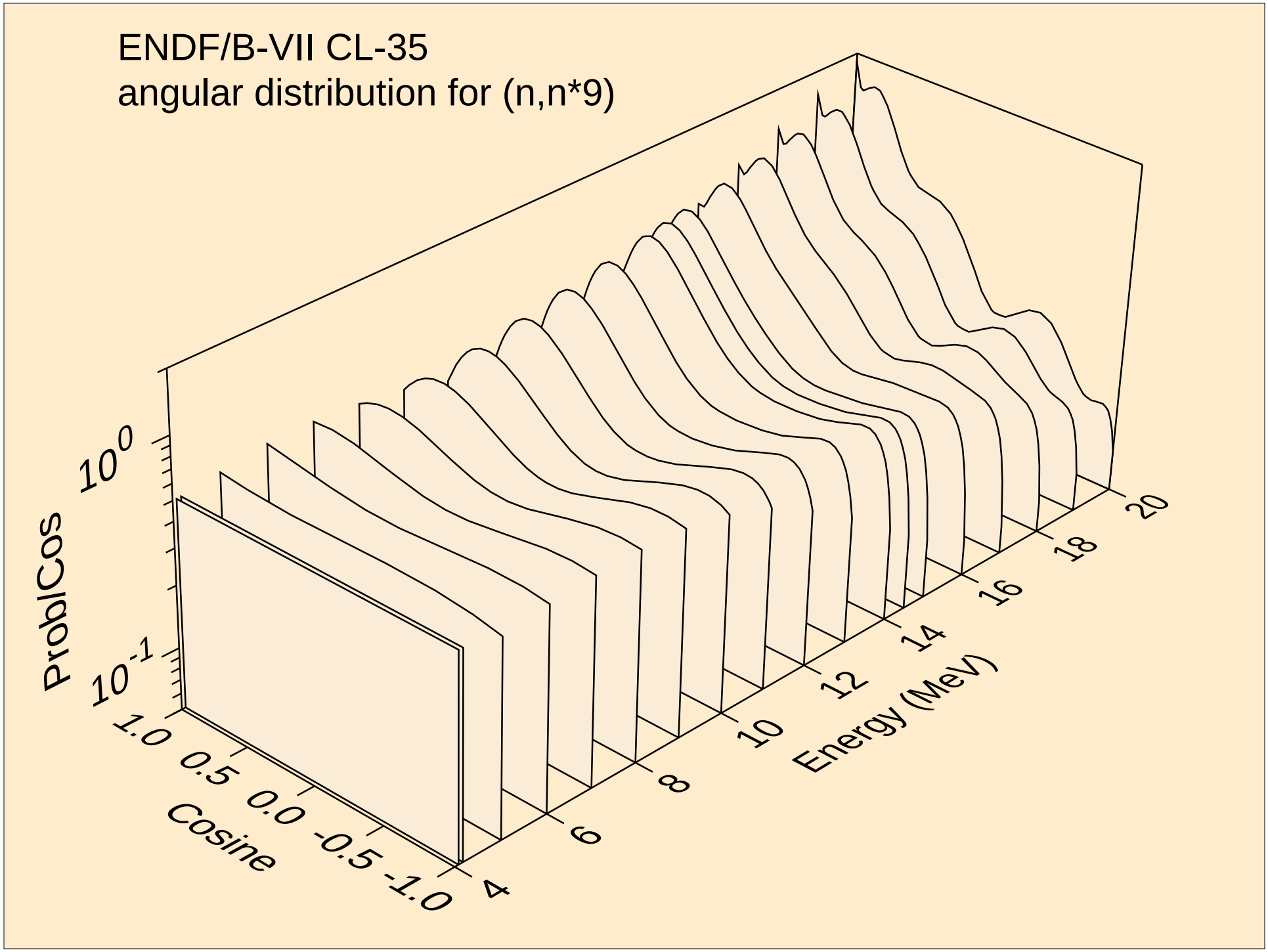

ENDF/B-VII CL-35
angular distribution for (n,n*4)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

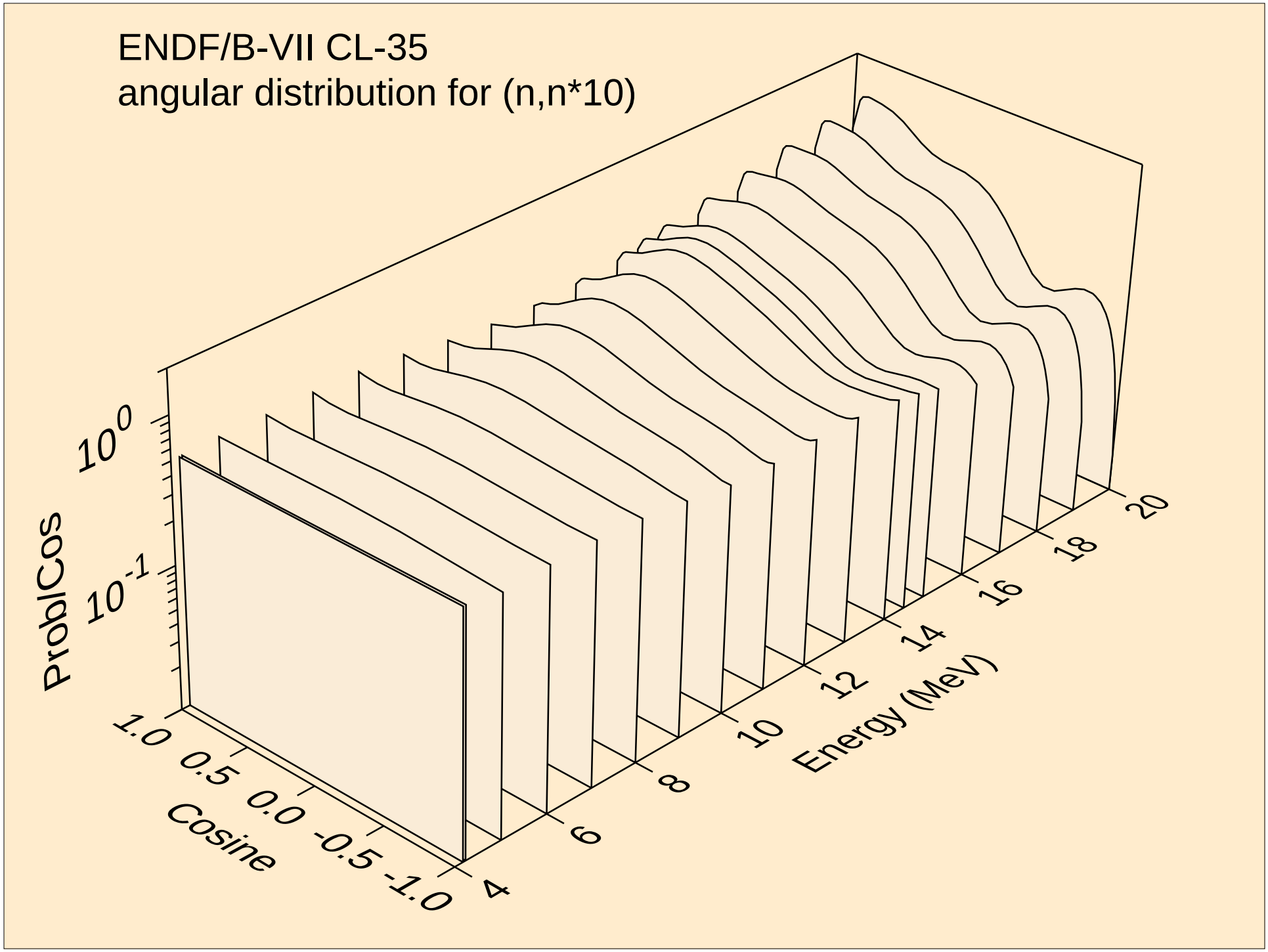

ENDF/B-VII CL-35
angular distribution for (n,n*5)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

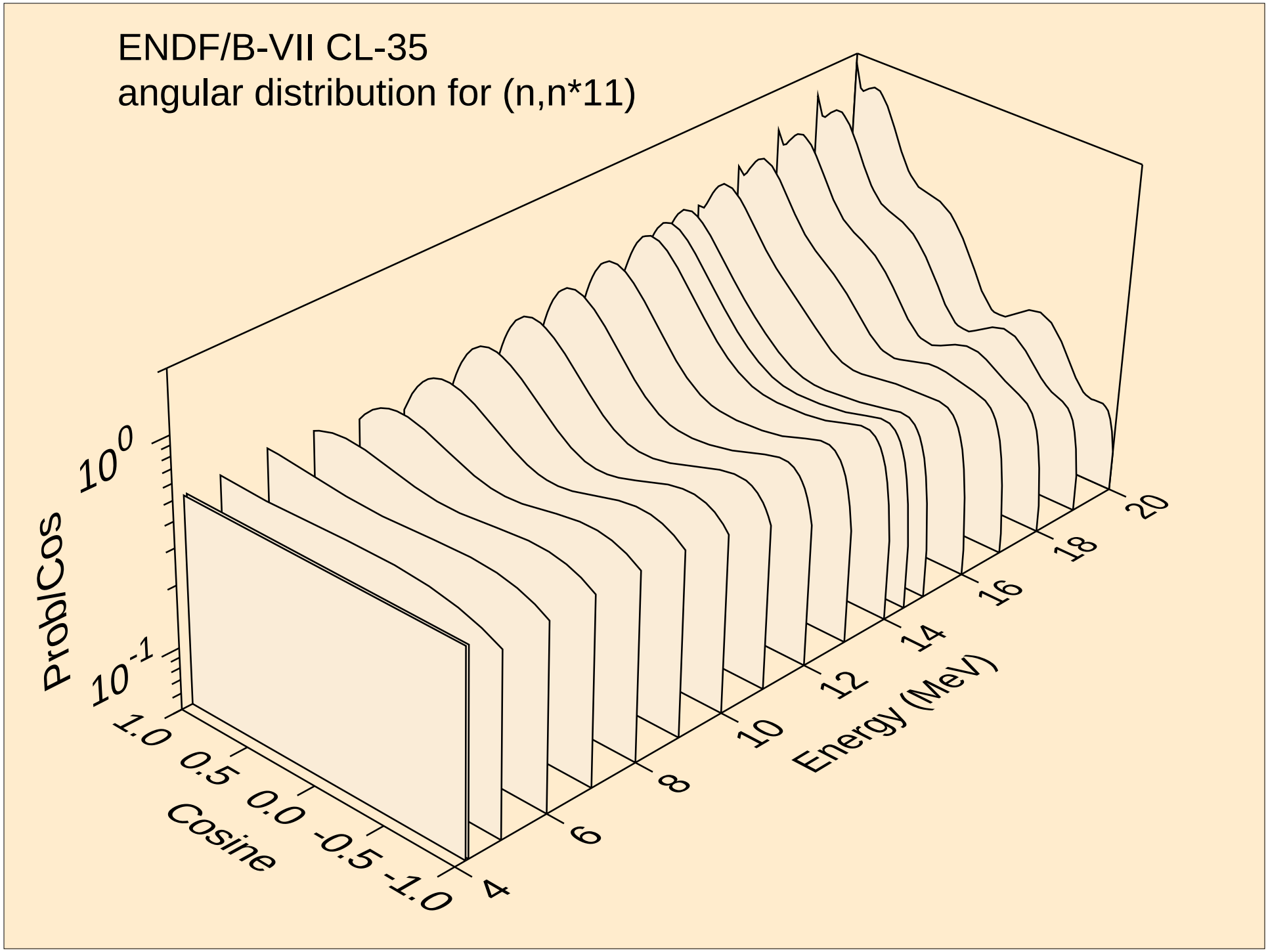

ENDF/B-VII CL-35
angular distribution for (n,n*6)
ProbCos
10^0
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
2
4
6
8
10
12
14
16
18
20

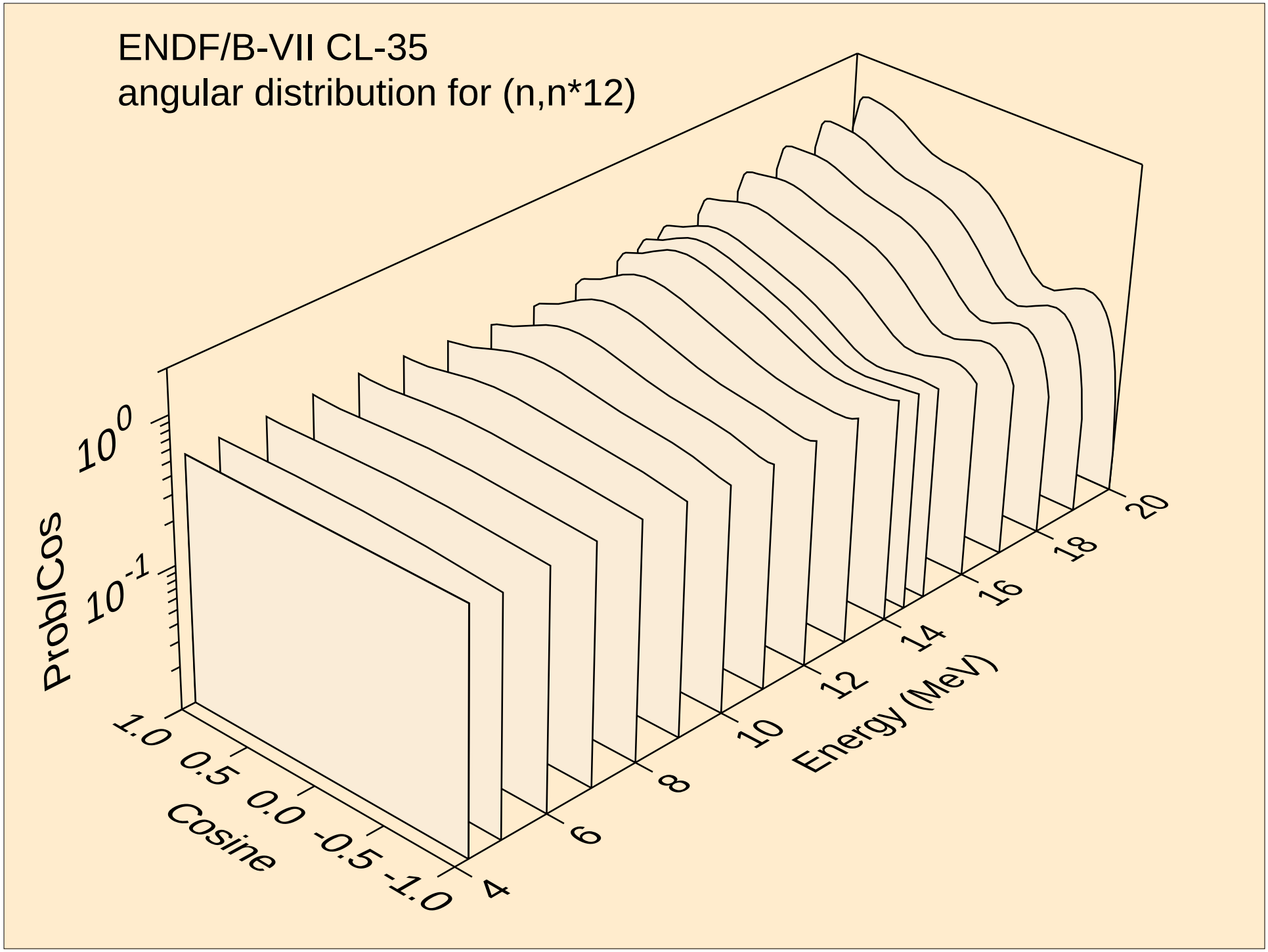

ENDF/B-VII CL-35
angular distribution for (n,n*7)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

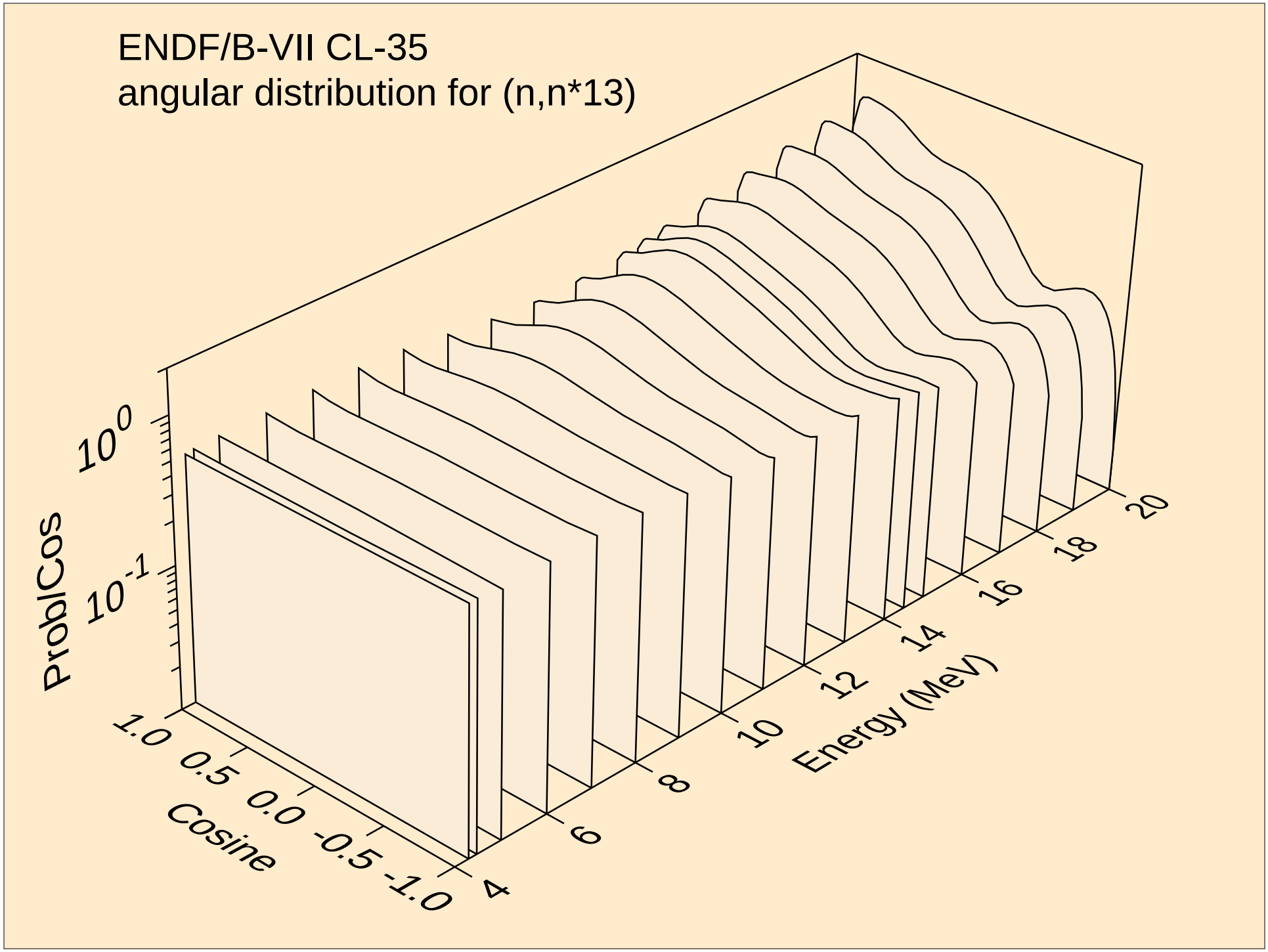

ENDF/B-VII CL-35
angular distribution for (n,n*8)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

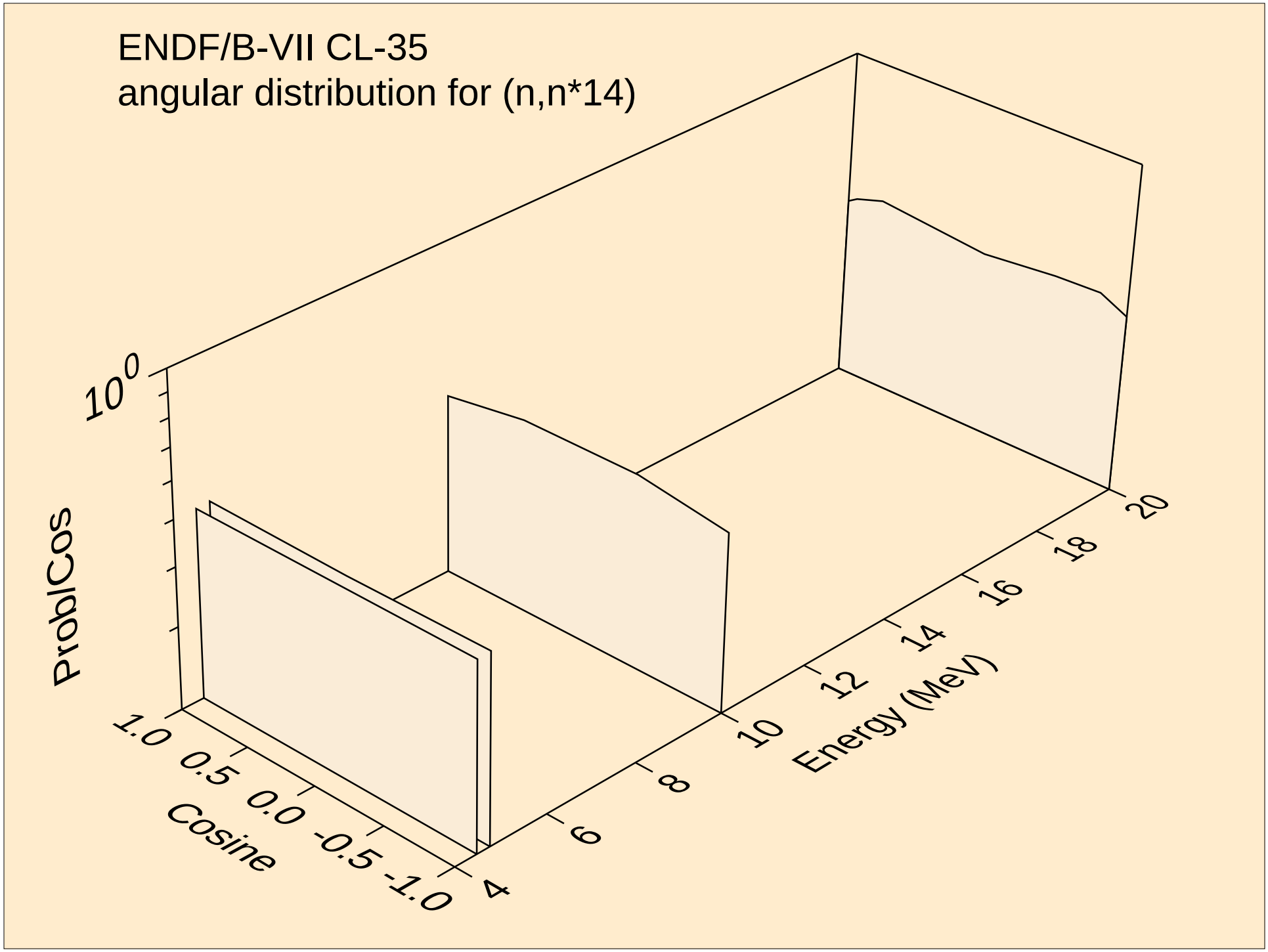

ENDF/B-VII CL-35
angular distribution for (n,n*9)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

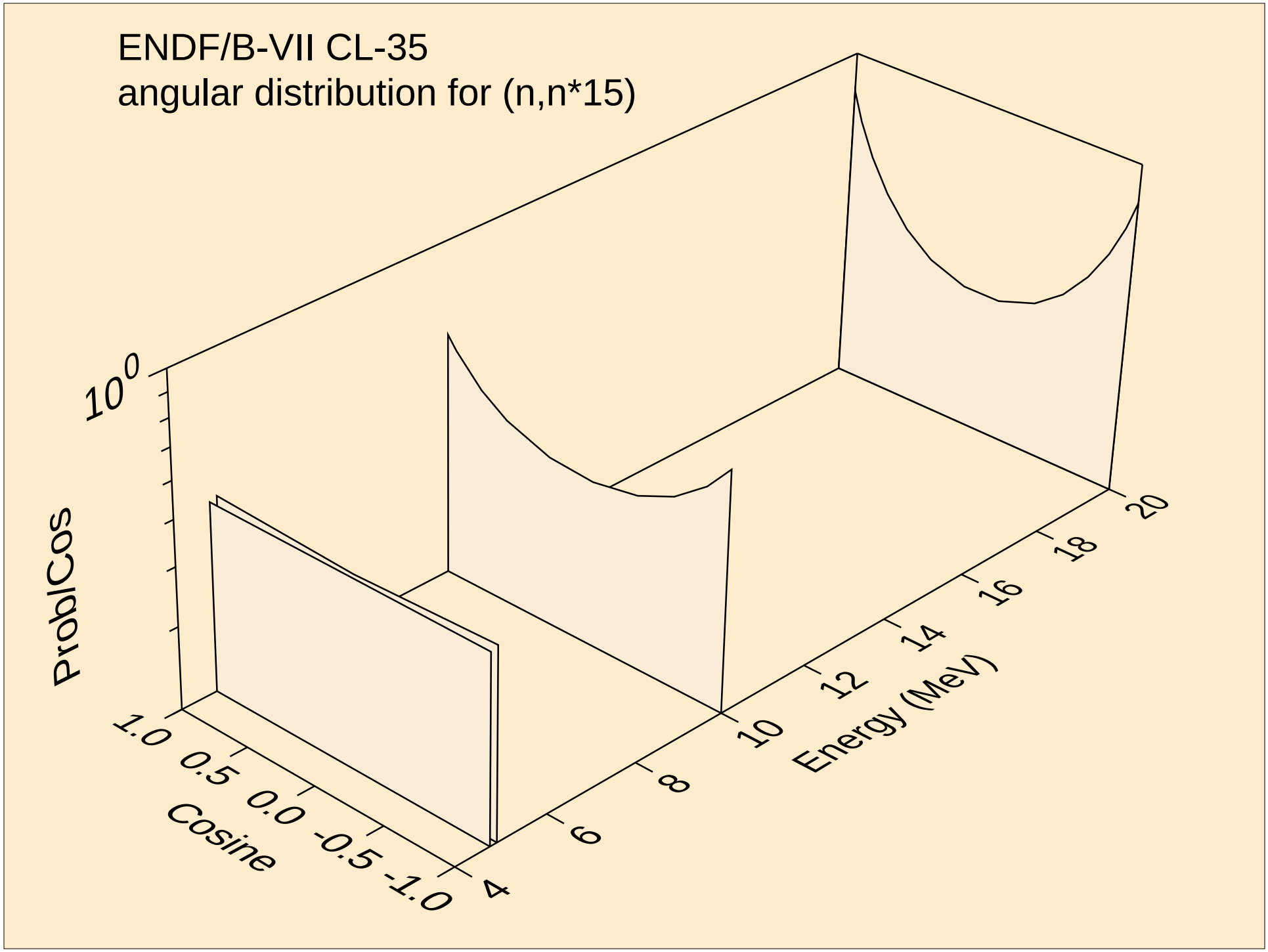

ENDF/B-VII CL-35
angular distribution for (n,n*10)
ProbCos
10^0
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
4
6
8
10
12
14
16
18
20

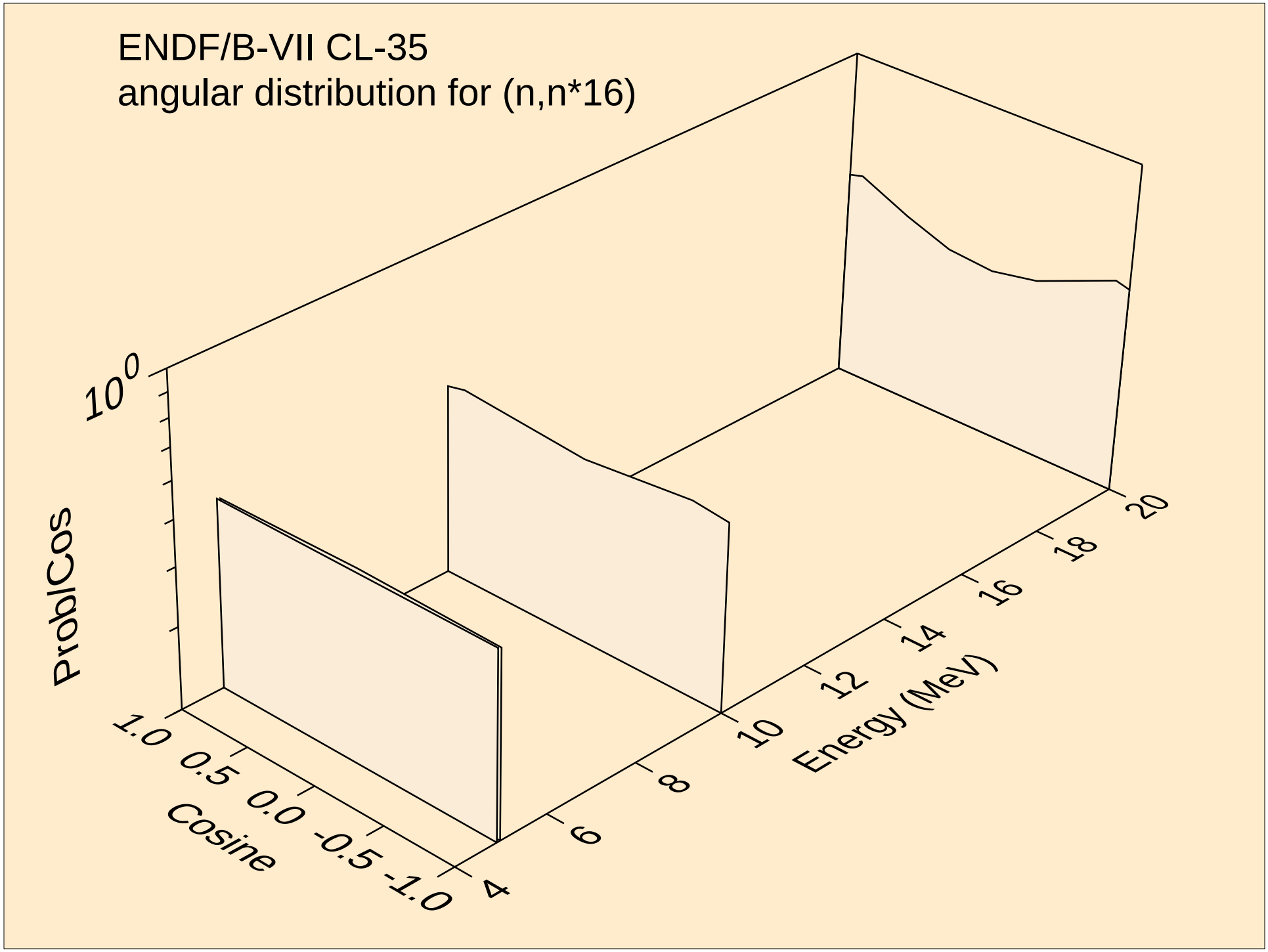

ENDF/B-VII CL-35
angular distribution for (n,n*11)
Prob/Cos
10^0
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

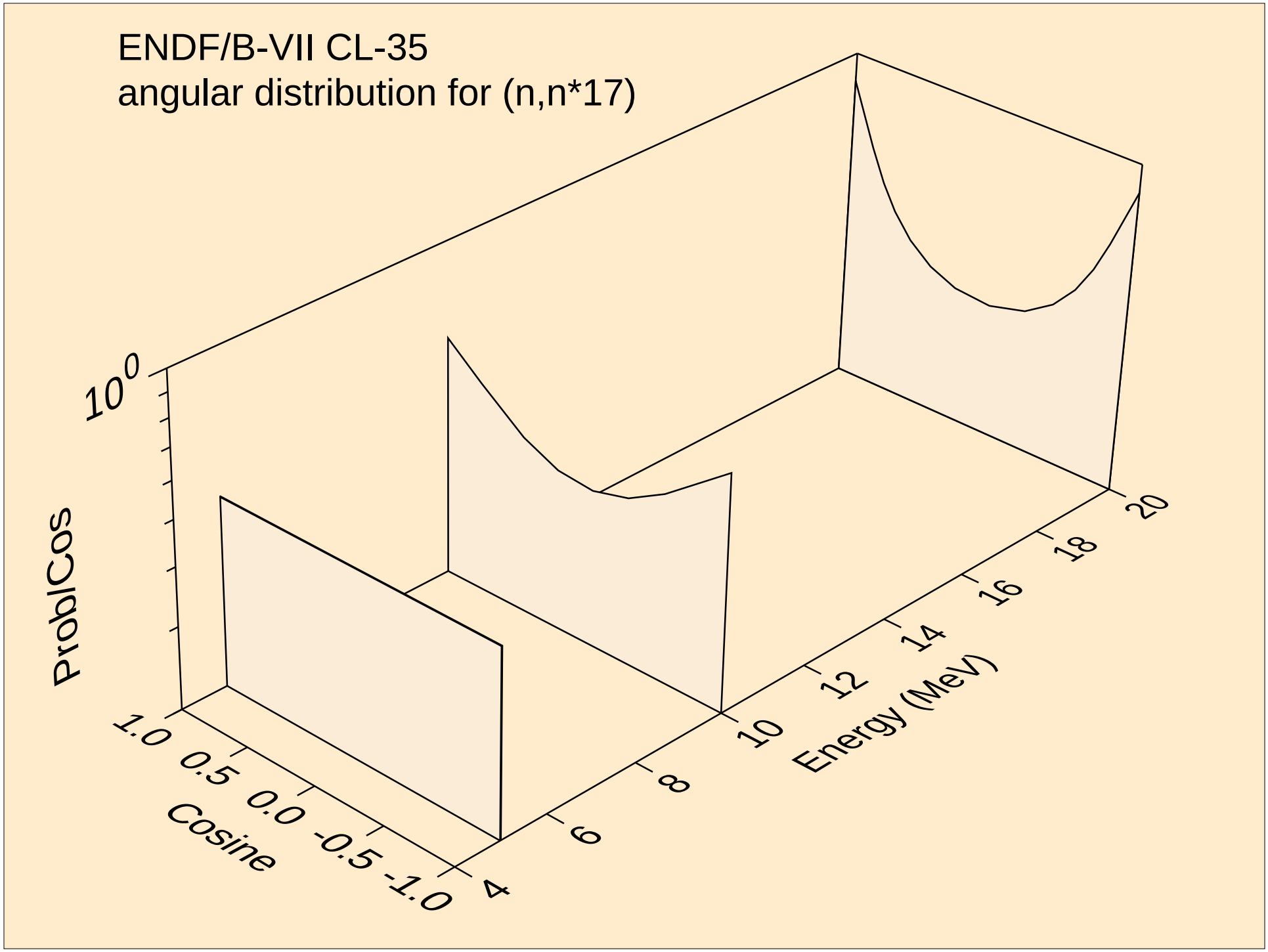

ENDF/B-VII CL-35
angular distribution for (n,n*12)
ProbCos
10^0
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
4
6
8
10
12
14
16
18
20

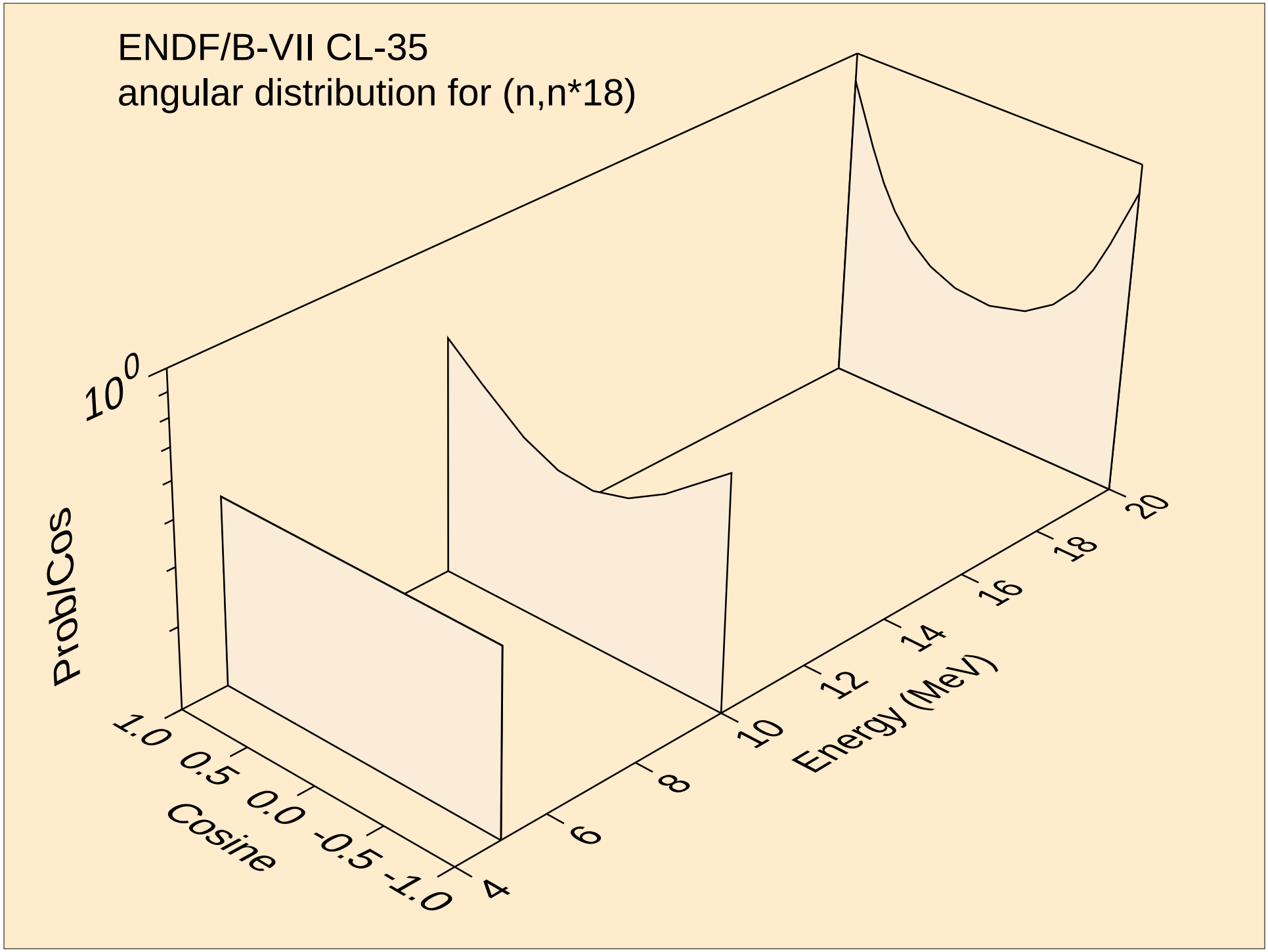

ENDF/B-VII CL-35
angular distribution for (n,n*13)
ProbCos
10^0
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
4
6
8
10
12
14
16
18
20

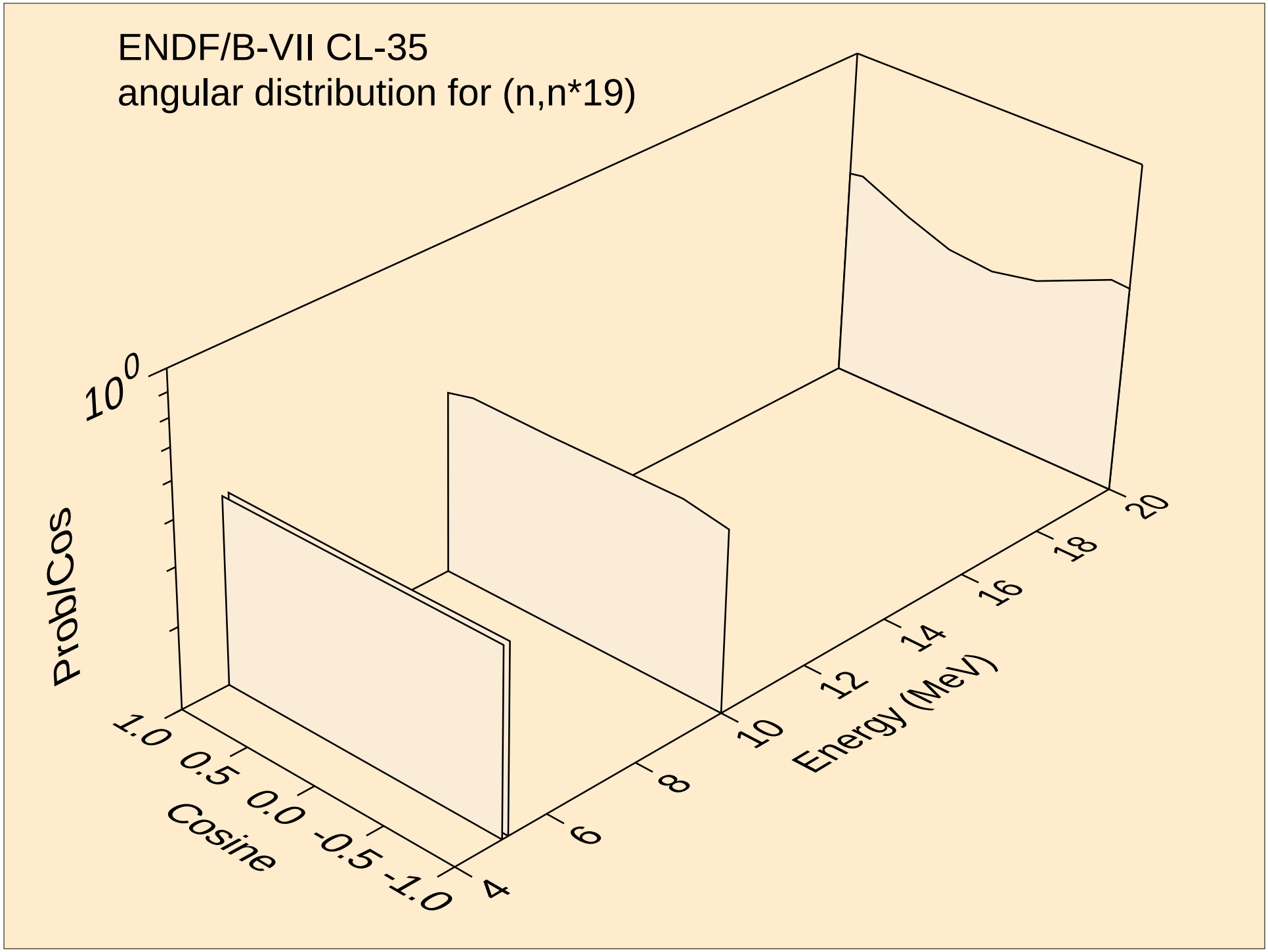

ENDF/B-VII CL-35
angular distribution for (n,n*14)
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

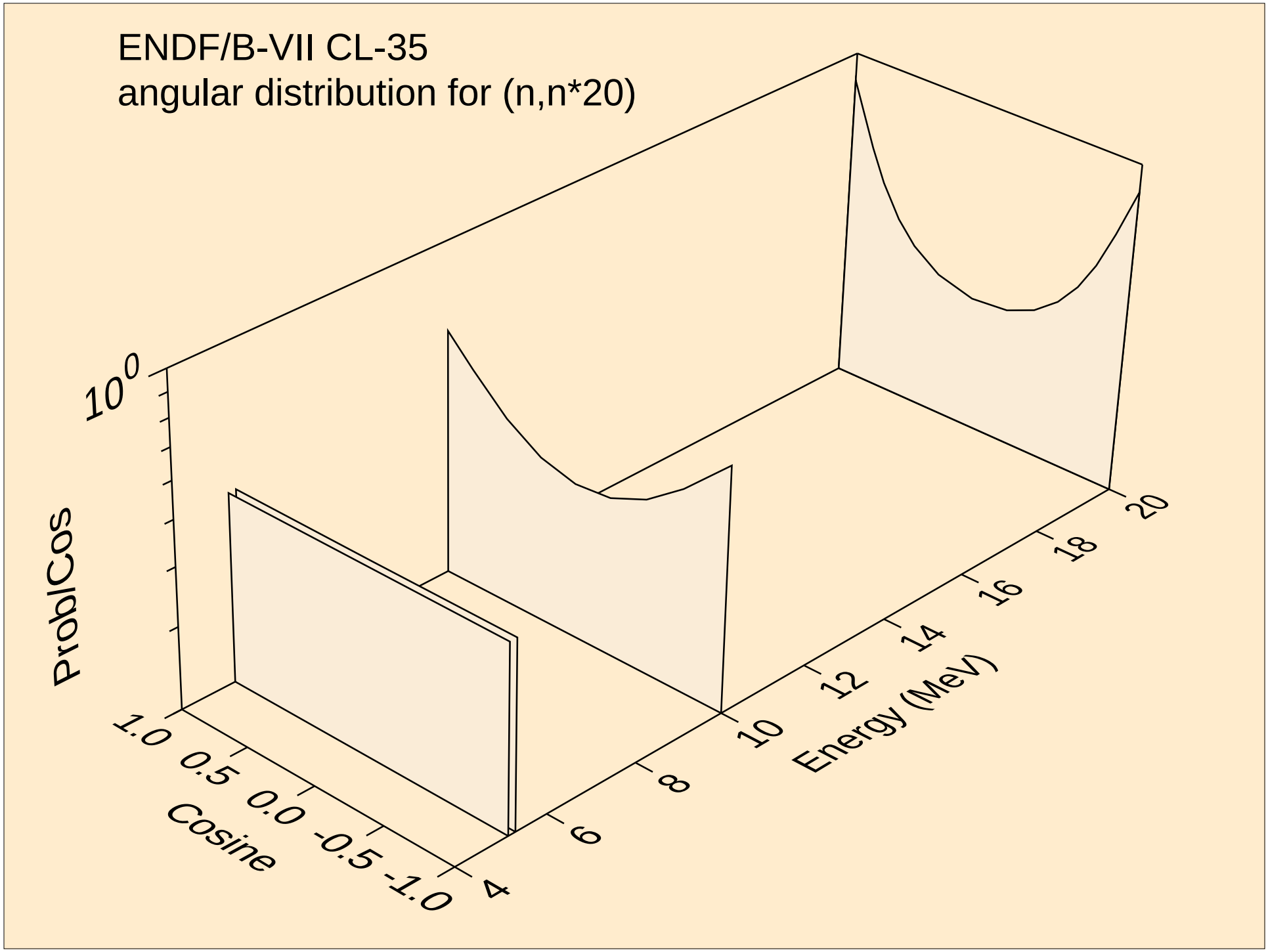

ENDF/B-VII CL-35
angular distribution for (n,n*15)
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

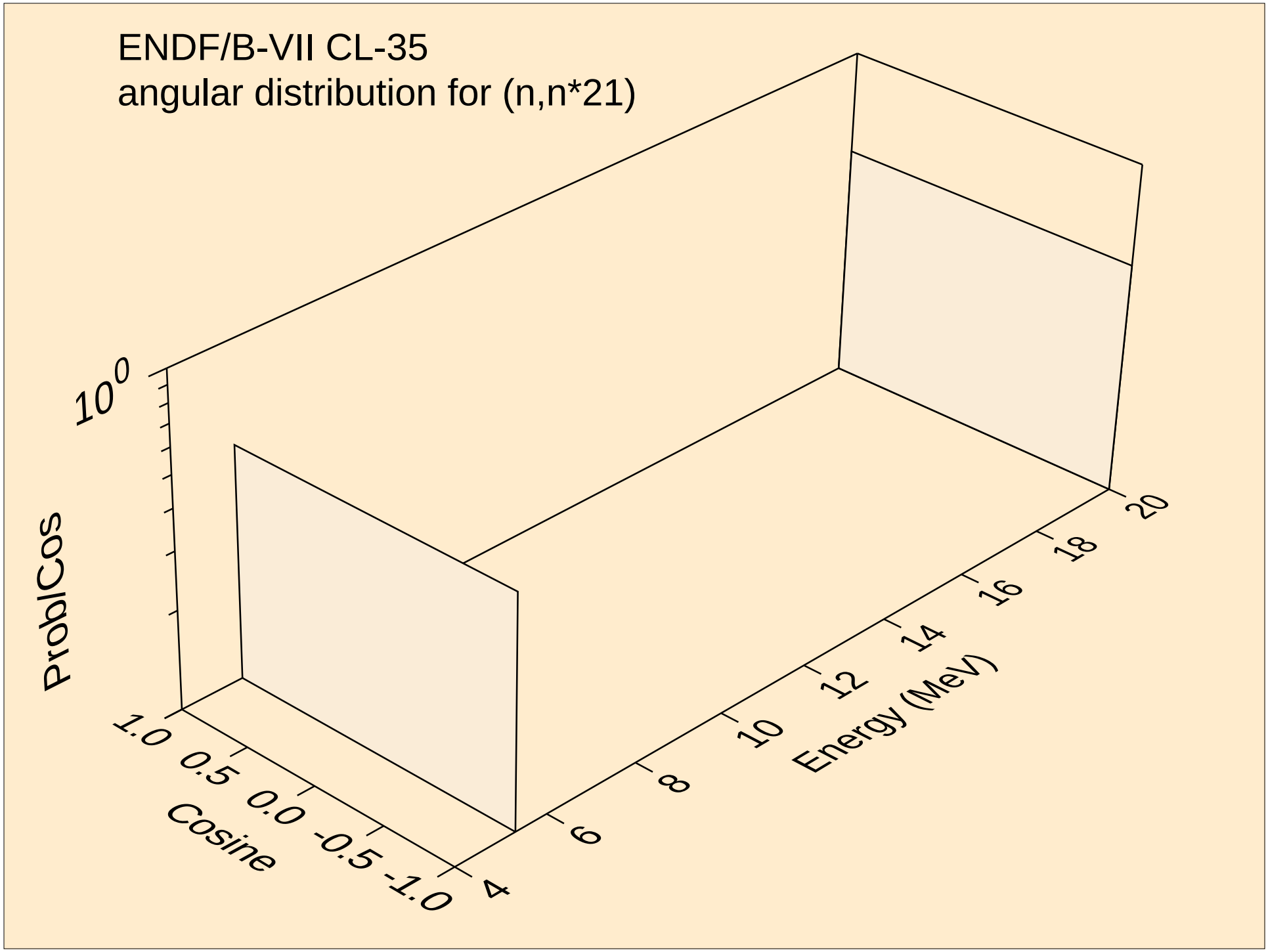

ENDF/B-VII CL-35
angular distribution for (n,n*16)
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

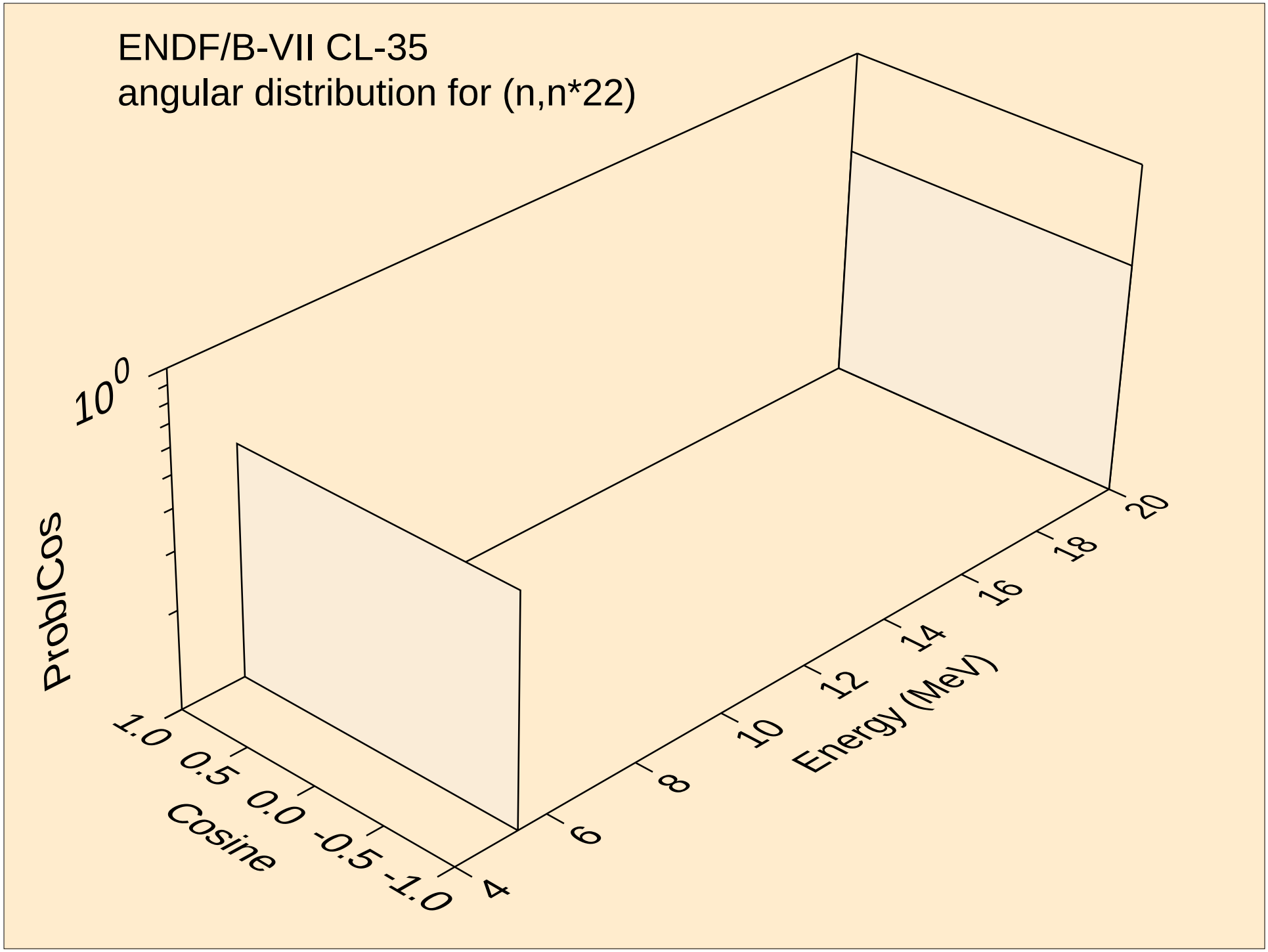

ENDF/B-VII CL-35
angular distribution for (n,n*17)
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

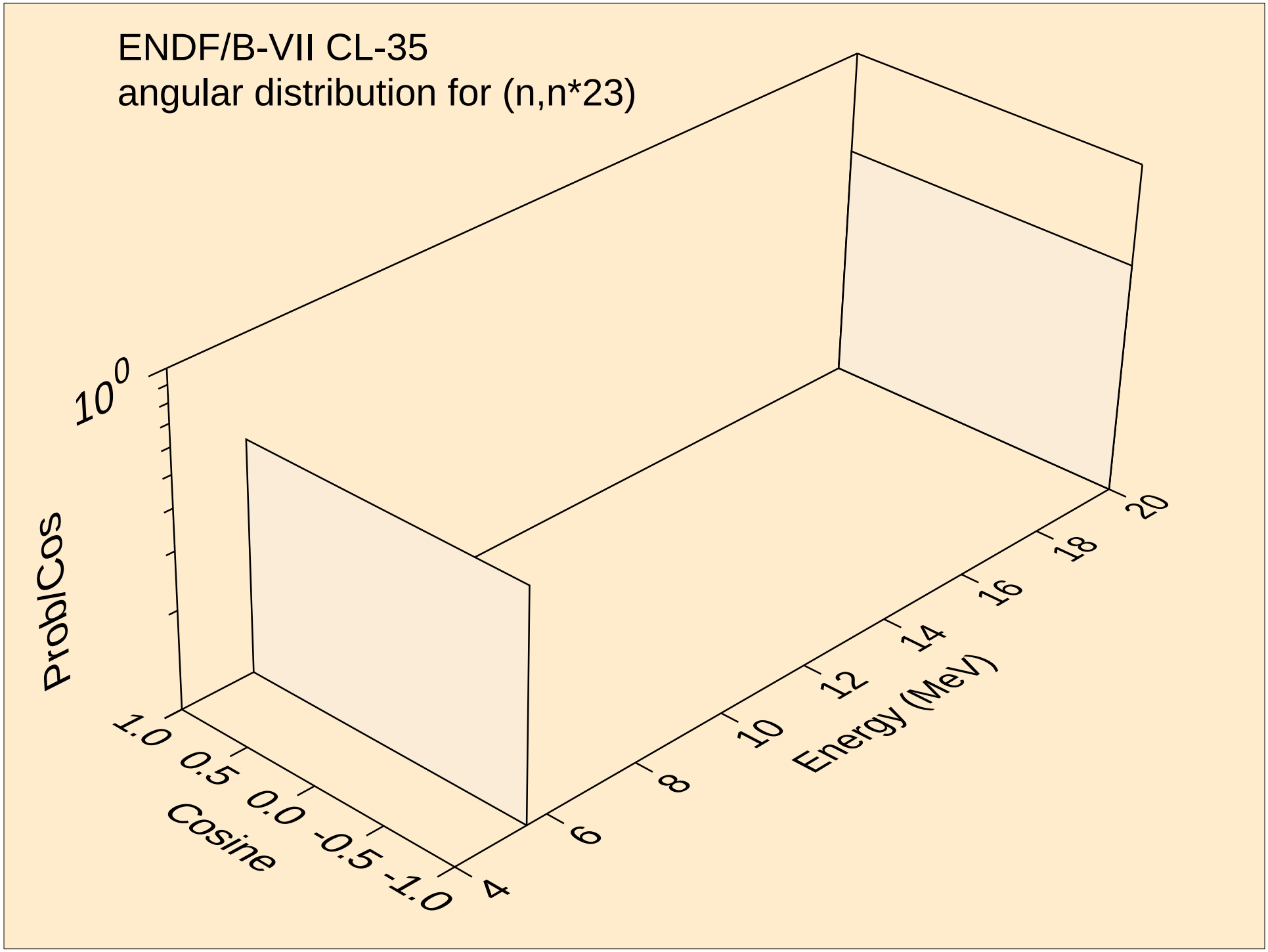

ENDF/B-VII CL-35
angular distribution for (n,n*18)
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

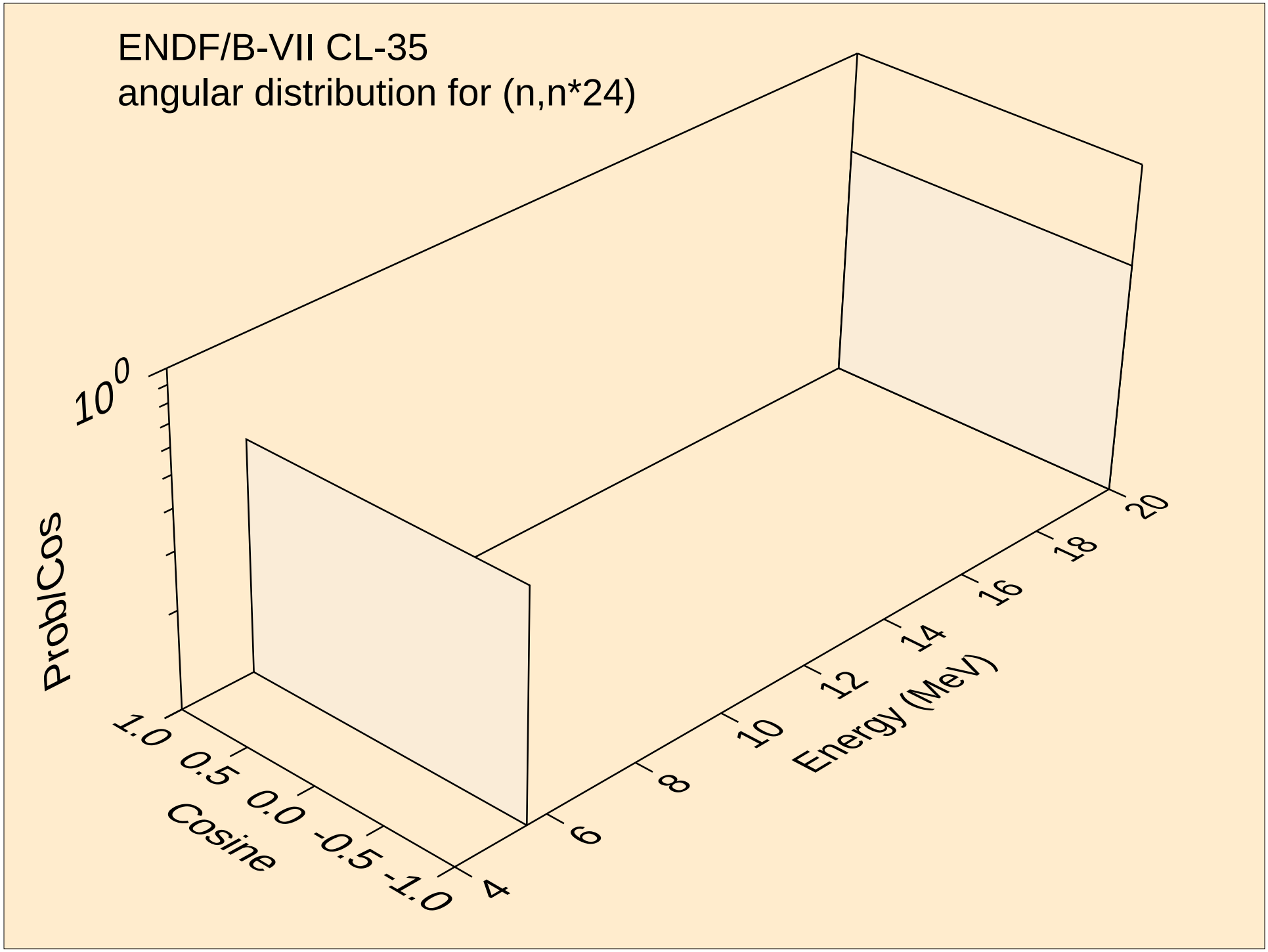

ENDF/B-VII CL-35
angular distribution for (n,n*19)
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

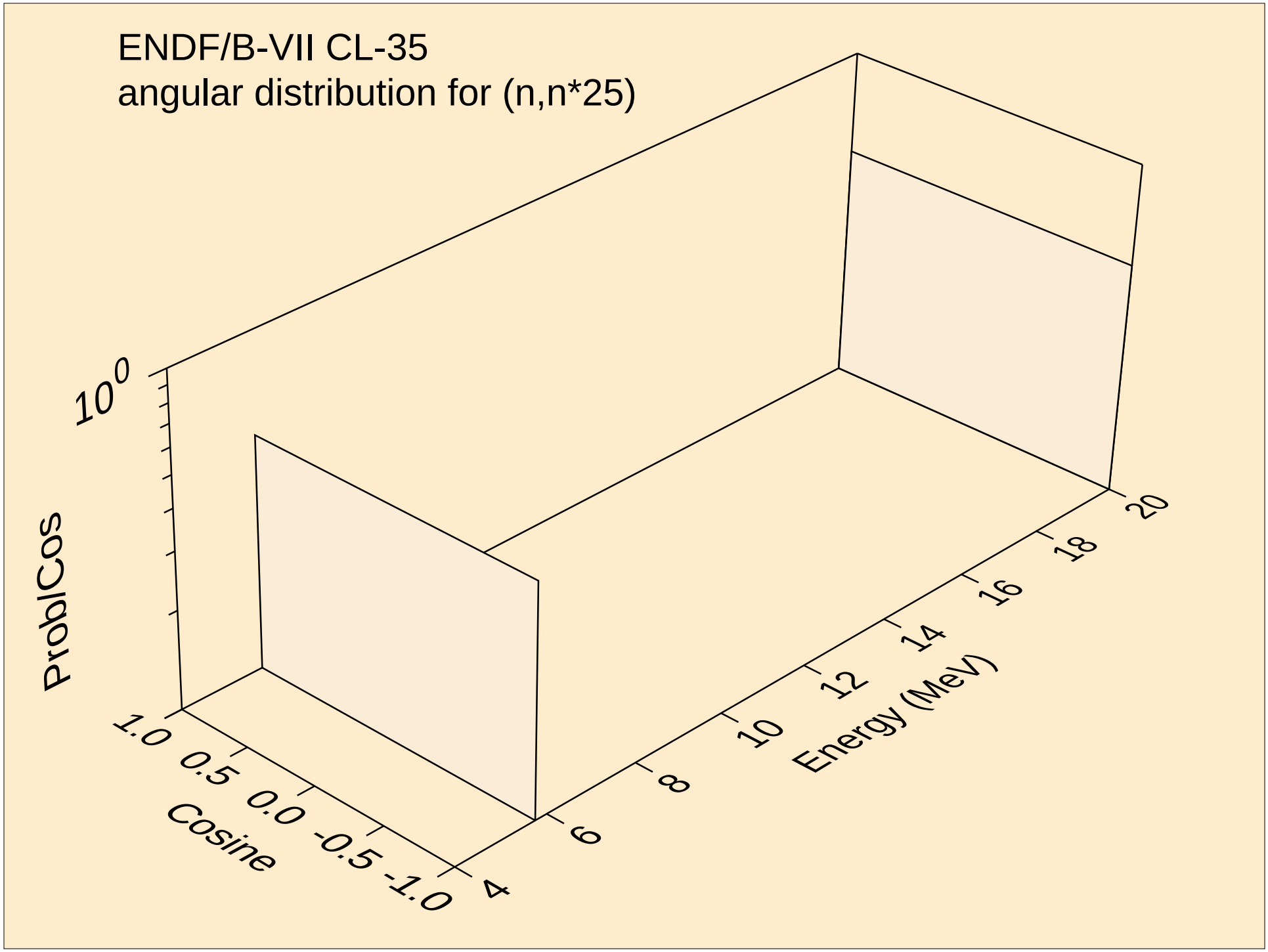

ENDF/B-VII CL-35
angular distribution for (n,n*20)
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

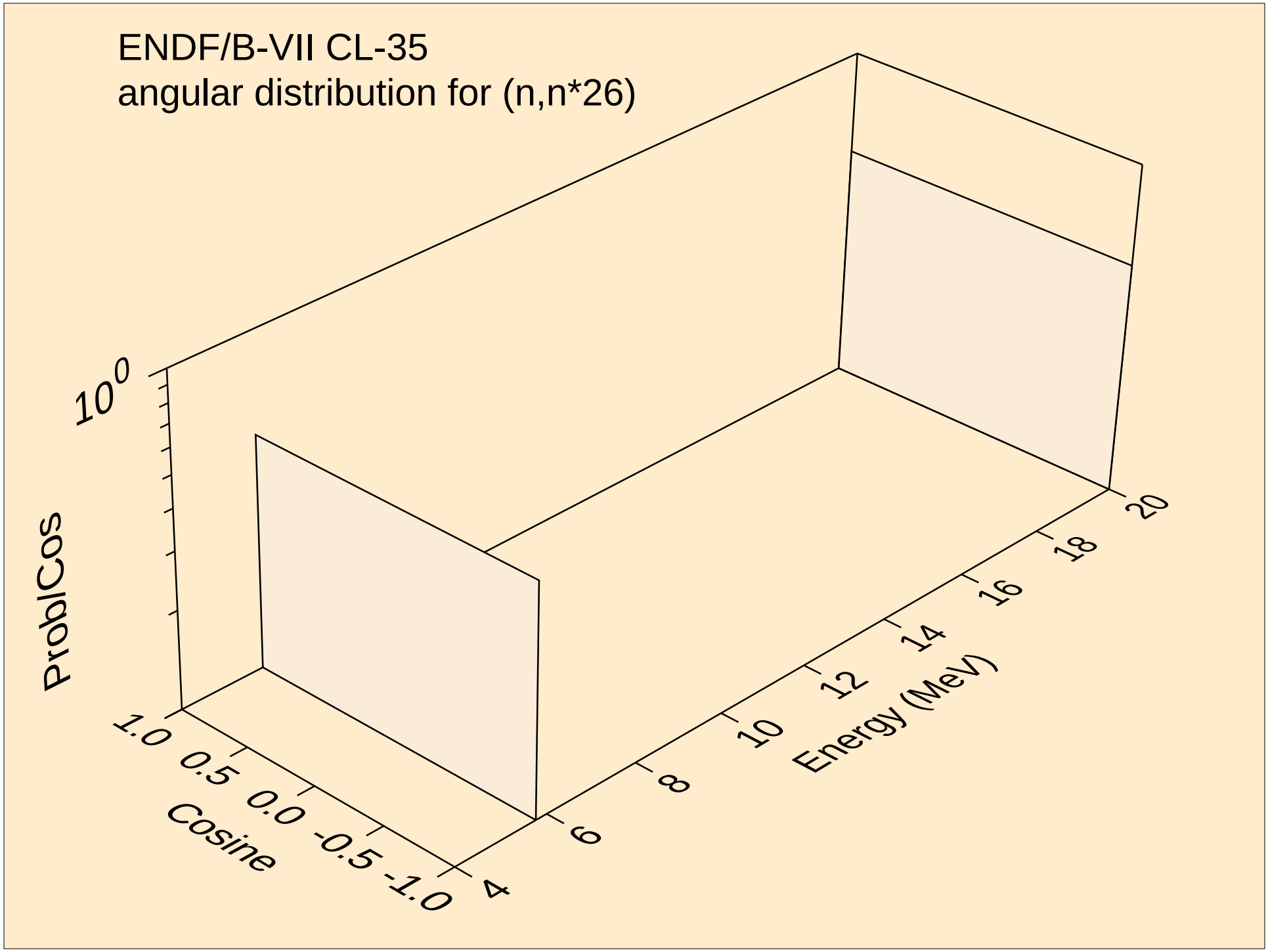

ENDF/B-VII CL-35
angular distribution for (n,n*21)
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

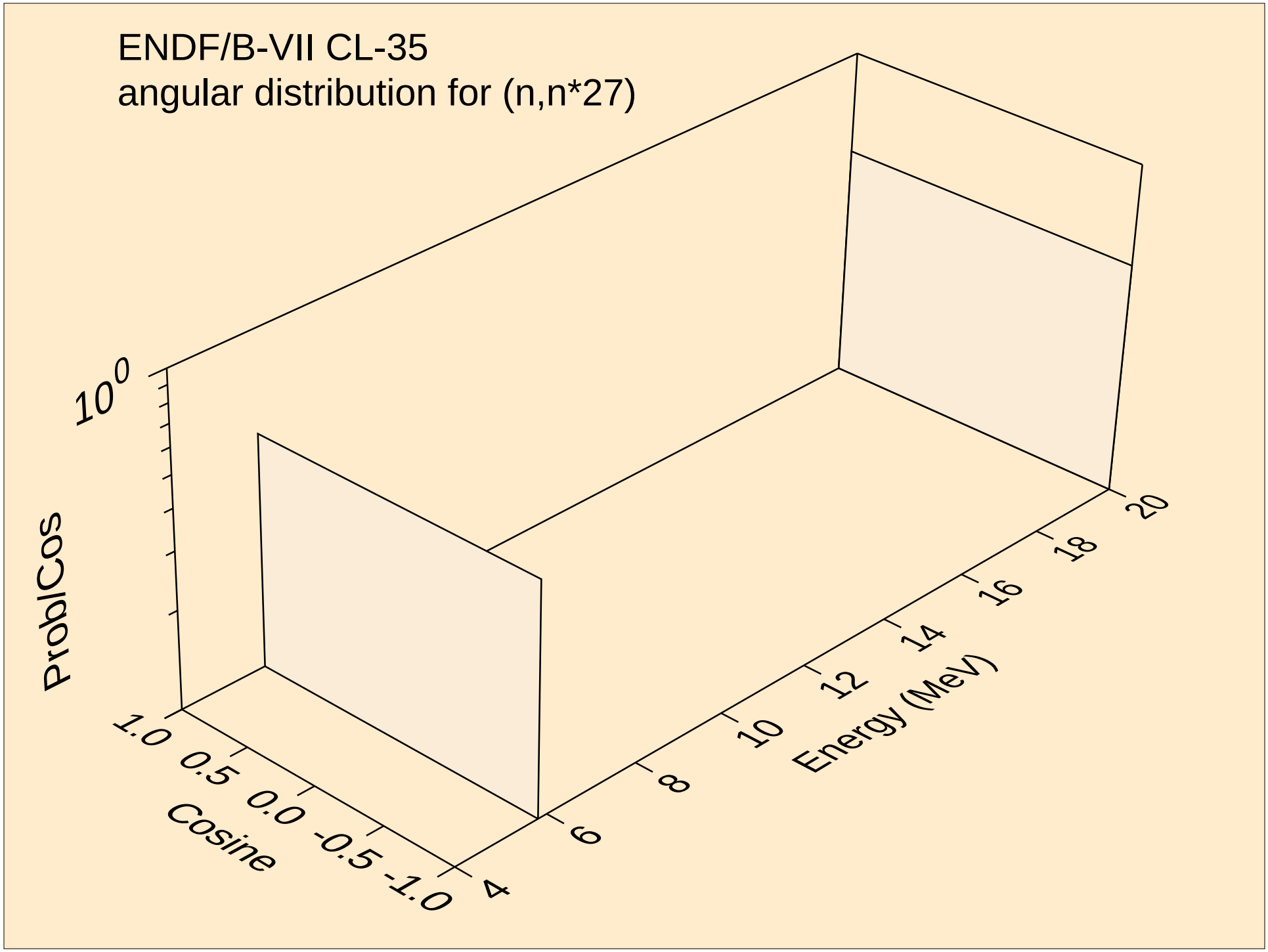

ENDF/B-VII CL-35
angular distribution for (n,n*22)
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

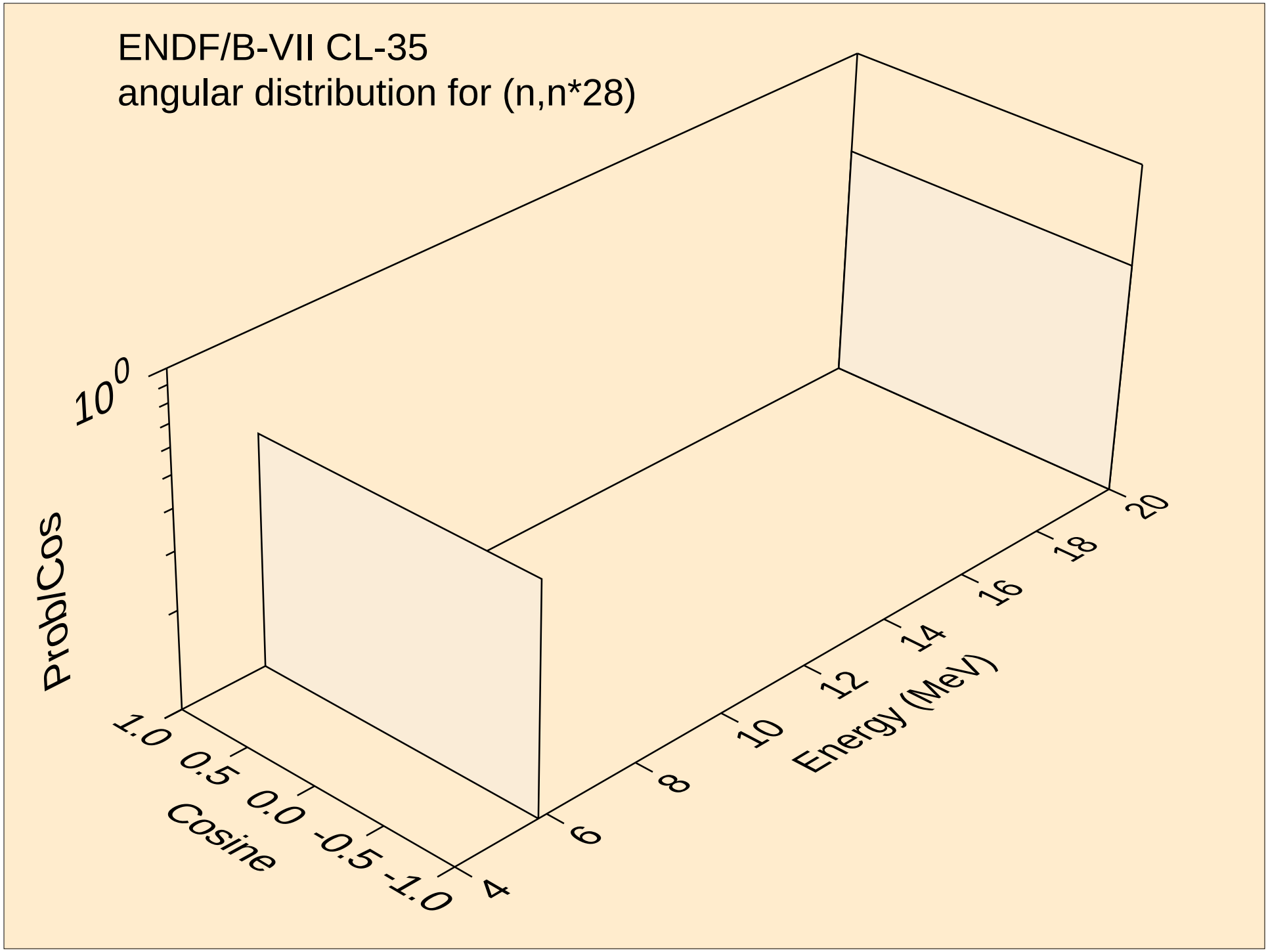

ENDF/B-VII CL-35
angular distribution for (n,n*23)
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

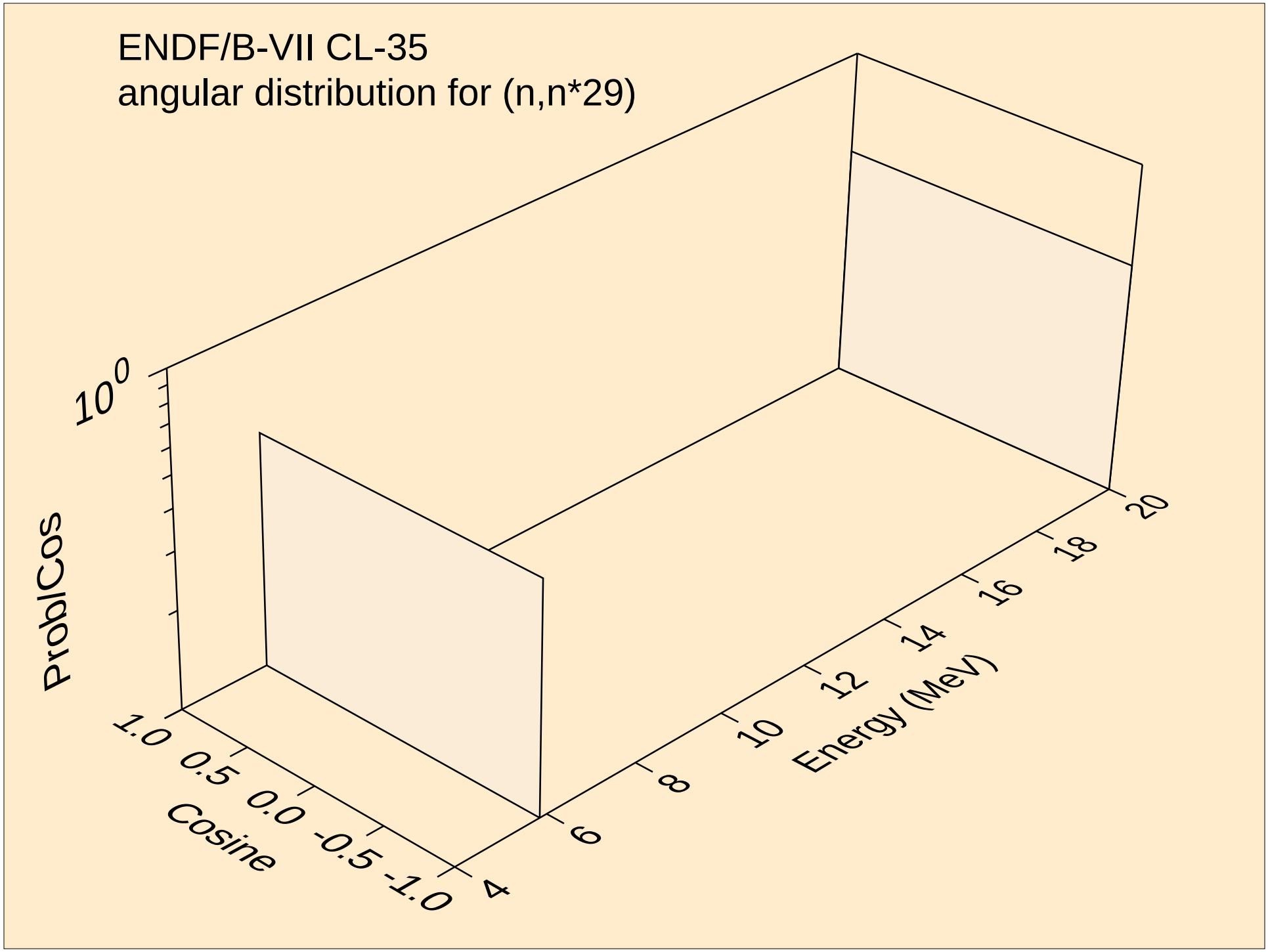

ENDF/B-VII CL-35
angular distribution for (n,n*24)
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

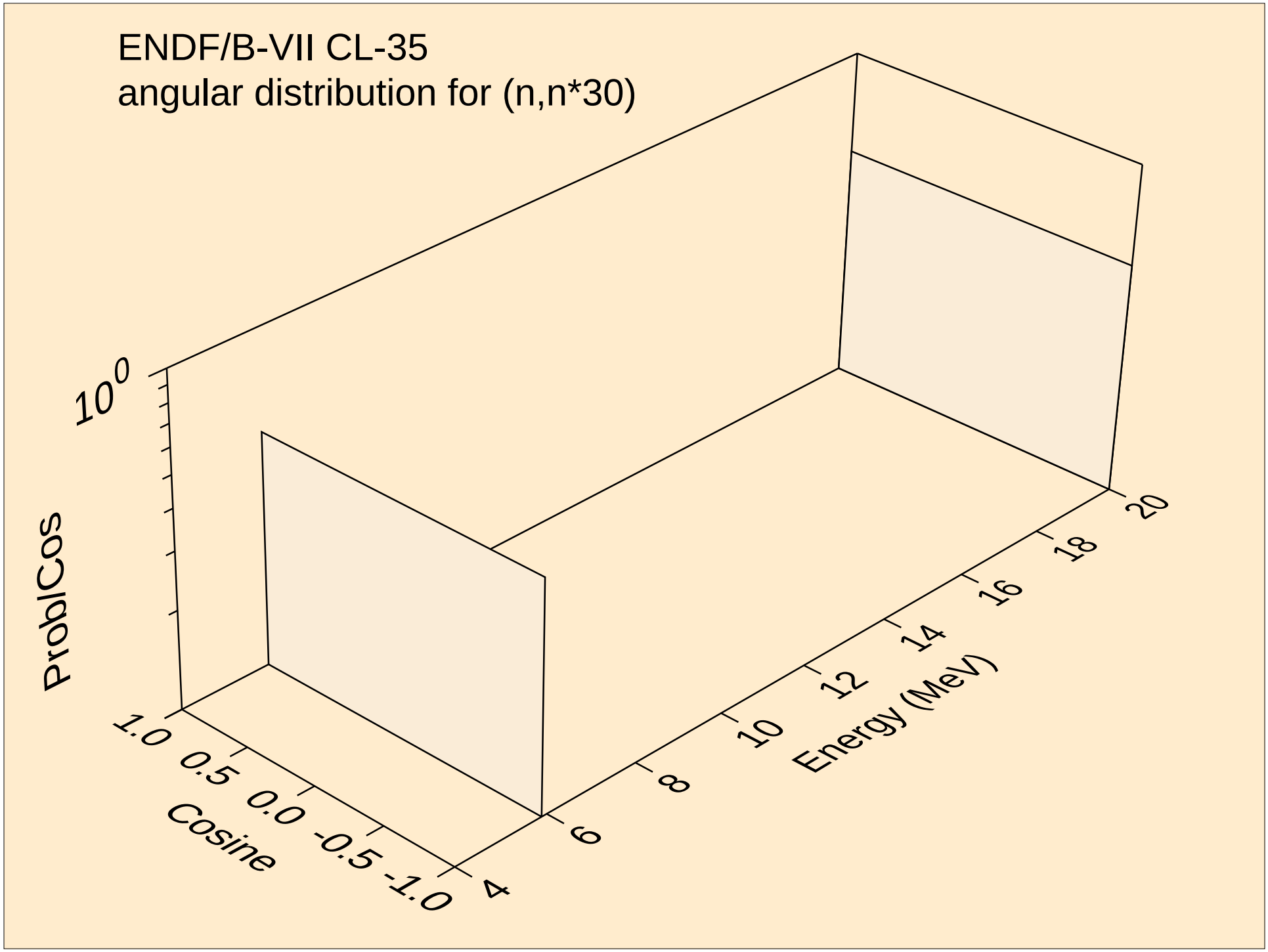

ENDF/B-VII CL-35
angular distribution for (n,n*25)
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

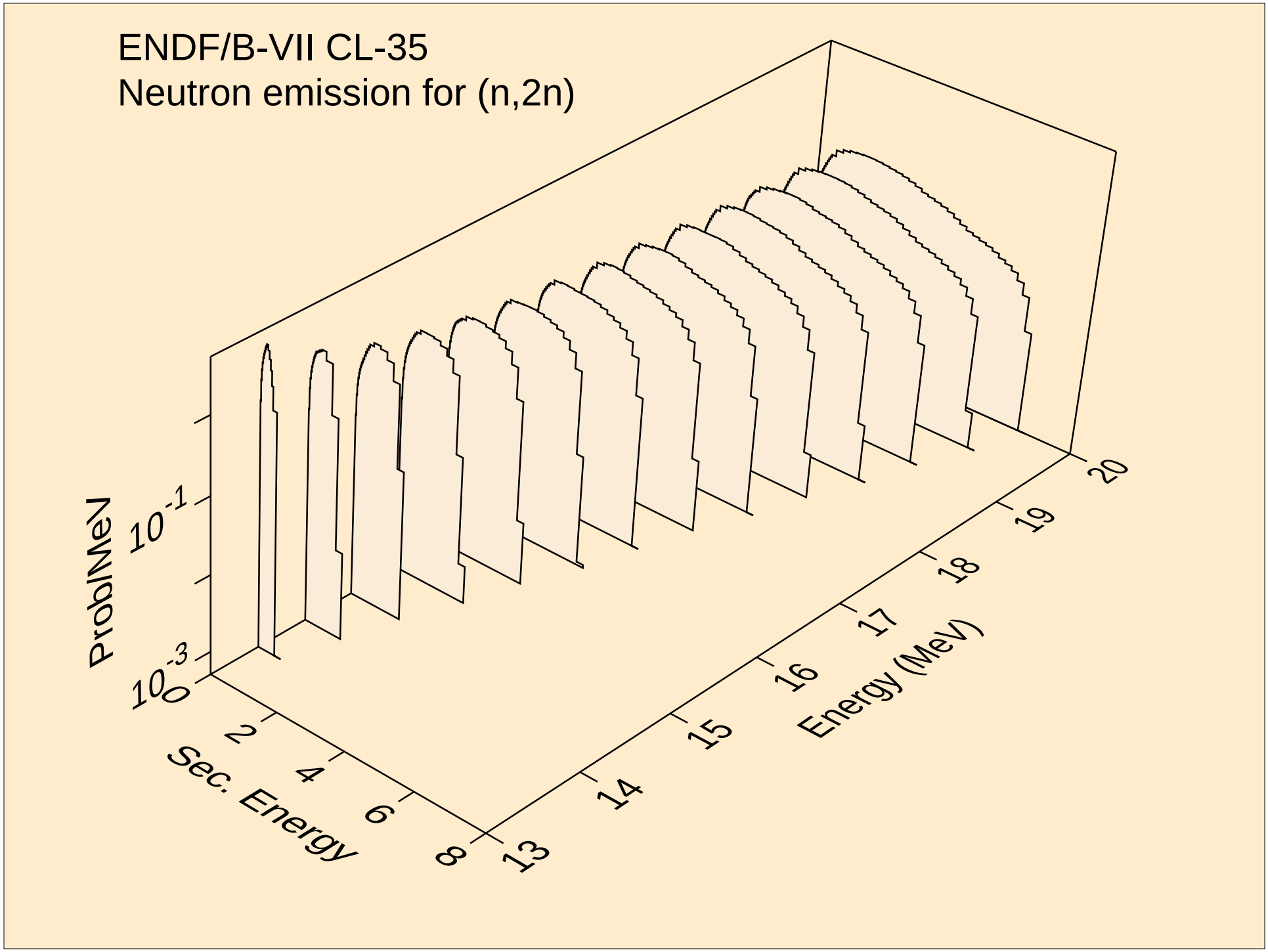

ENDF/B-VII CL-35
angular distribution for (n,n*26)
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)


ENDF/B-VII CL-35
angular distribution for (n,n*27)
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

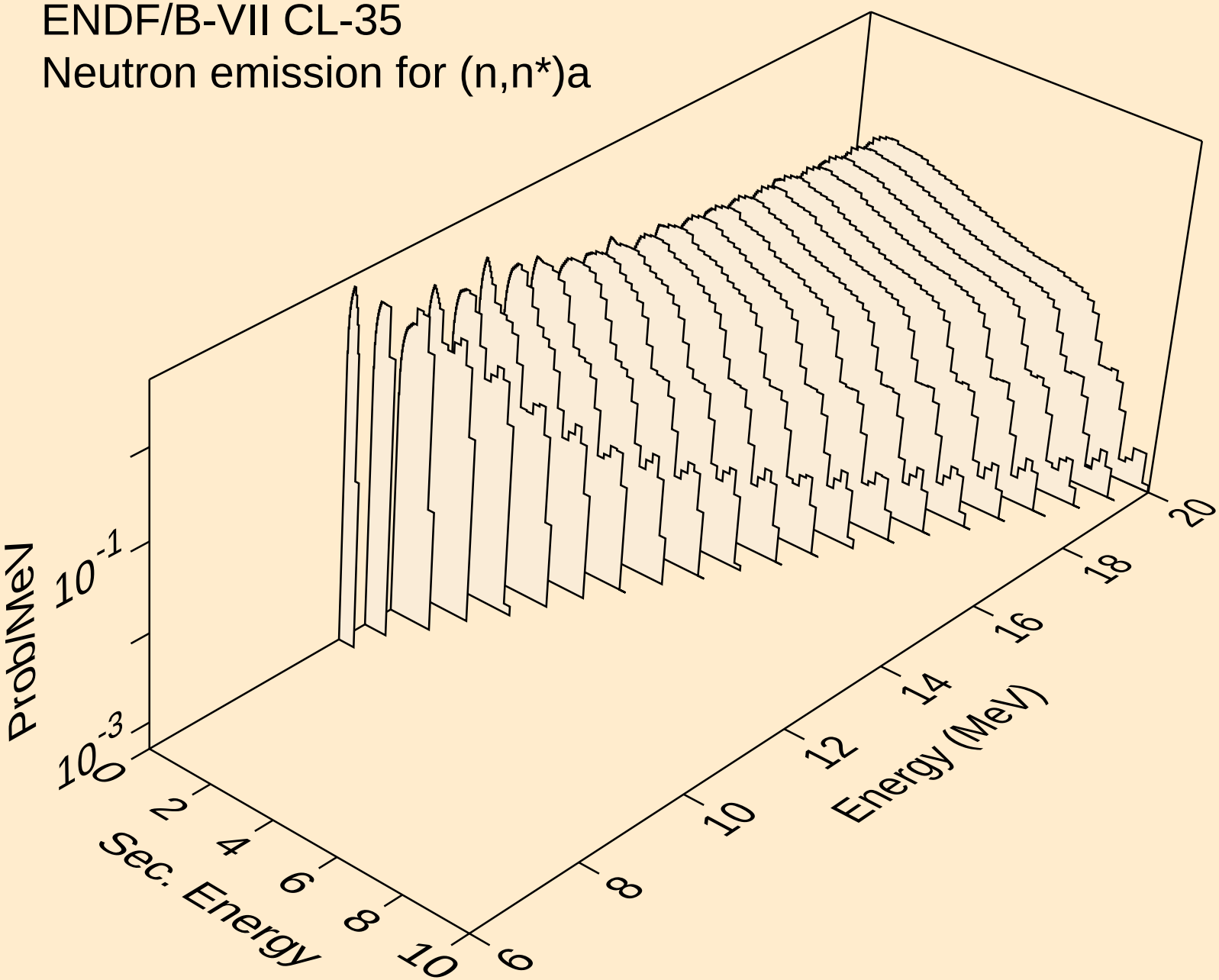

ENDF/B-VII CL-35
angular distribution for (n,n*28)
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

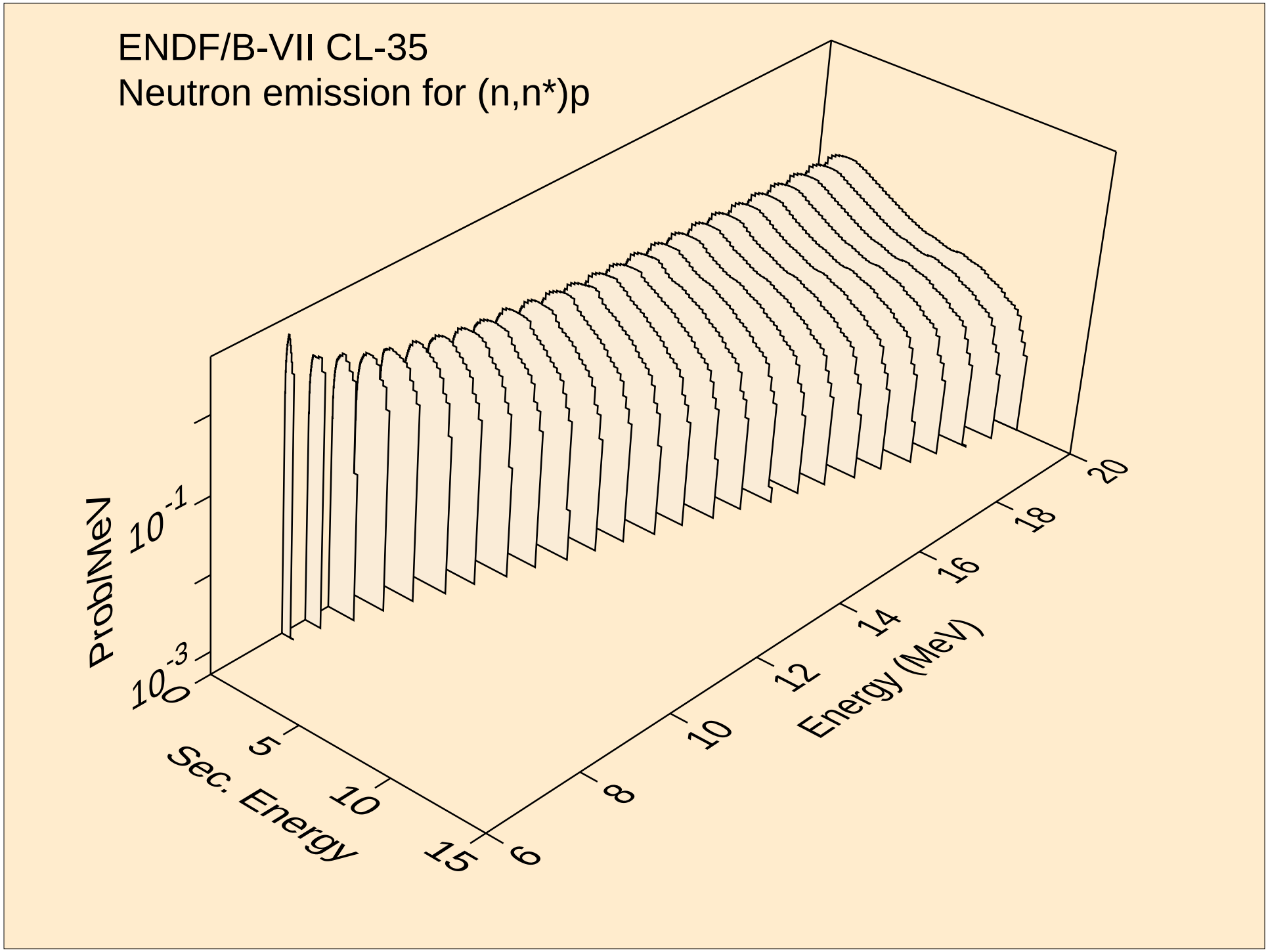

ENDF/B-VII CL-35
angular distribution for (n,n*29)
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

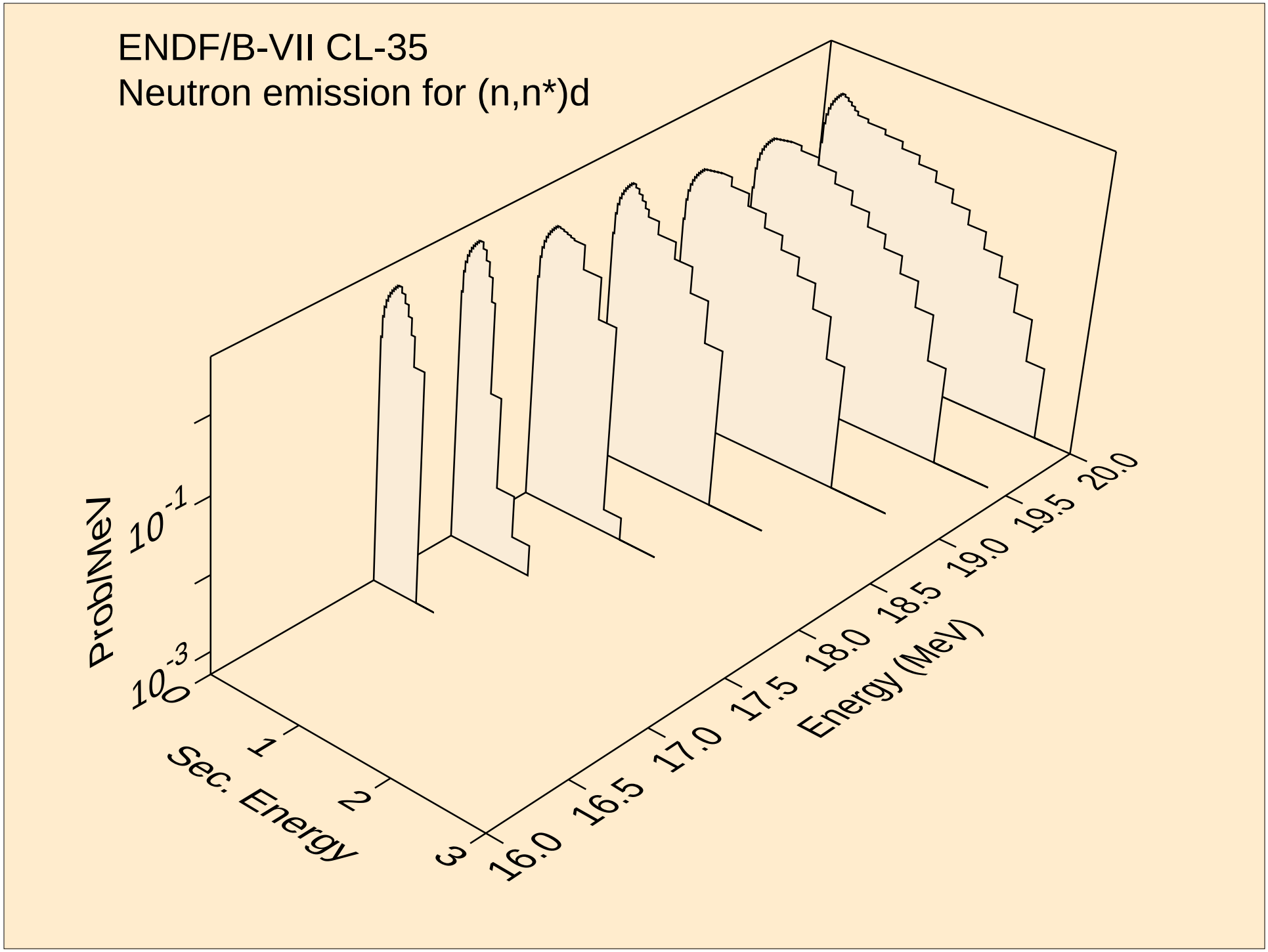

ENDF/B-VII CL-35
angular distribution for (n,n*30)
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

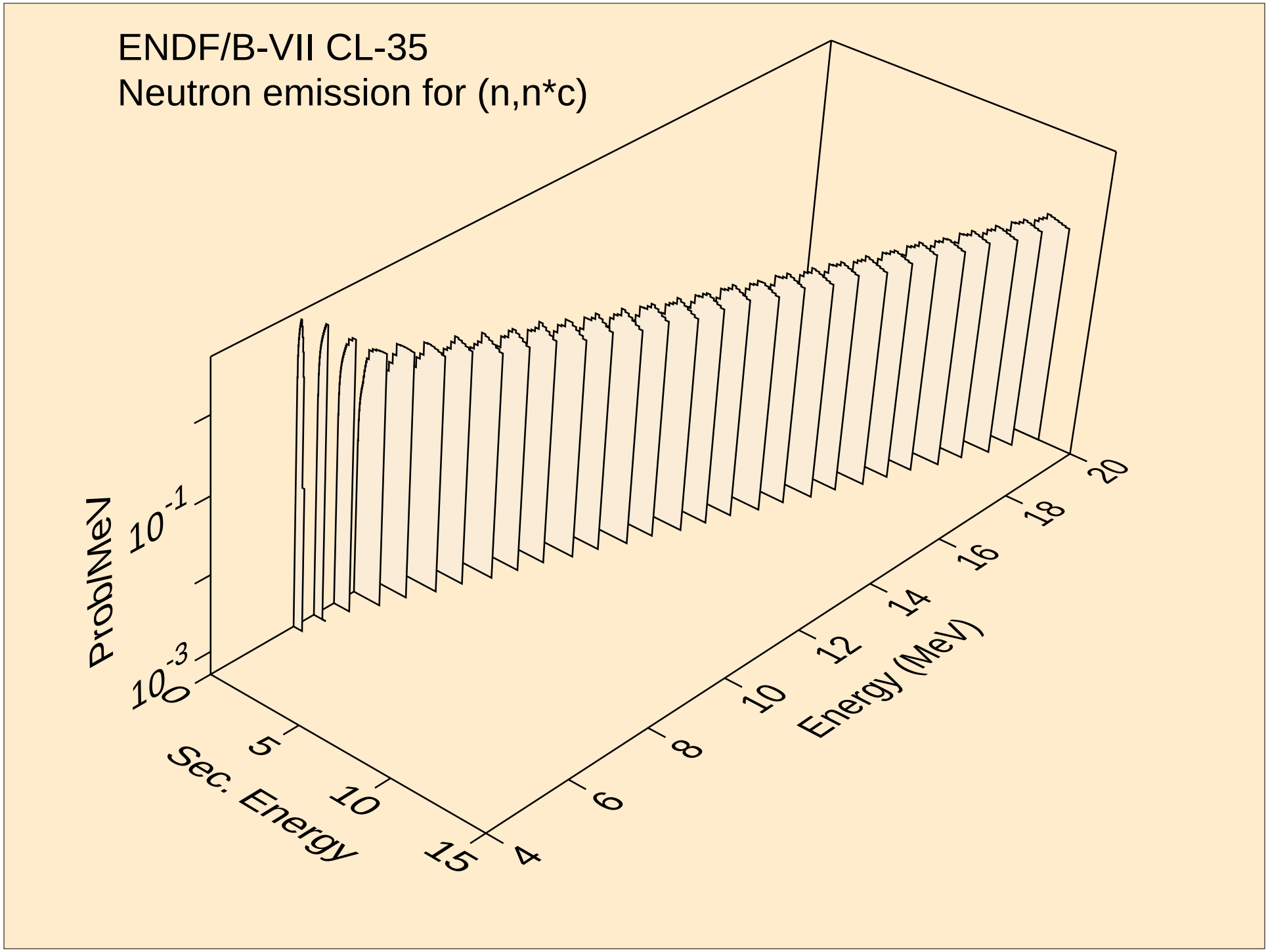

ENDF/B-VII CL-35
Neutron emission for (n,2n)
Prob/MeV
10^{-1}
10^{-3}
0
2
4
6
8
Sec. Energy
13
14
15
16
17
18
19
20
Energy (MeV)

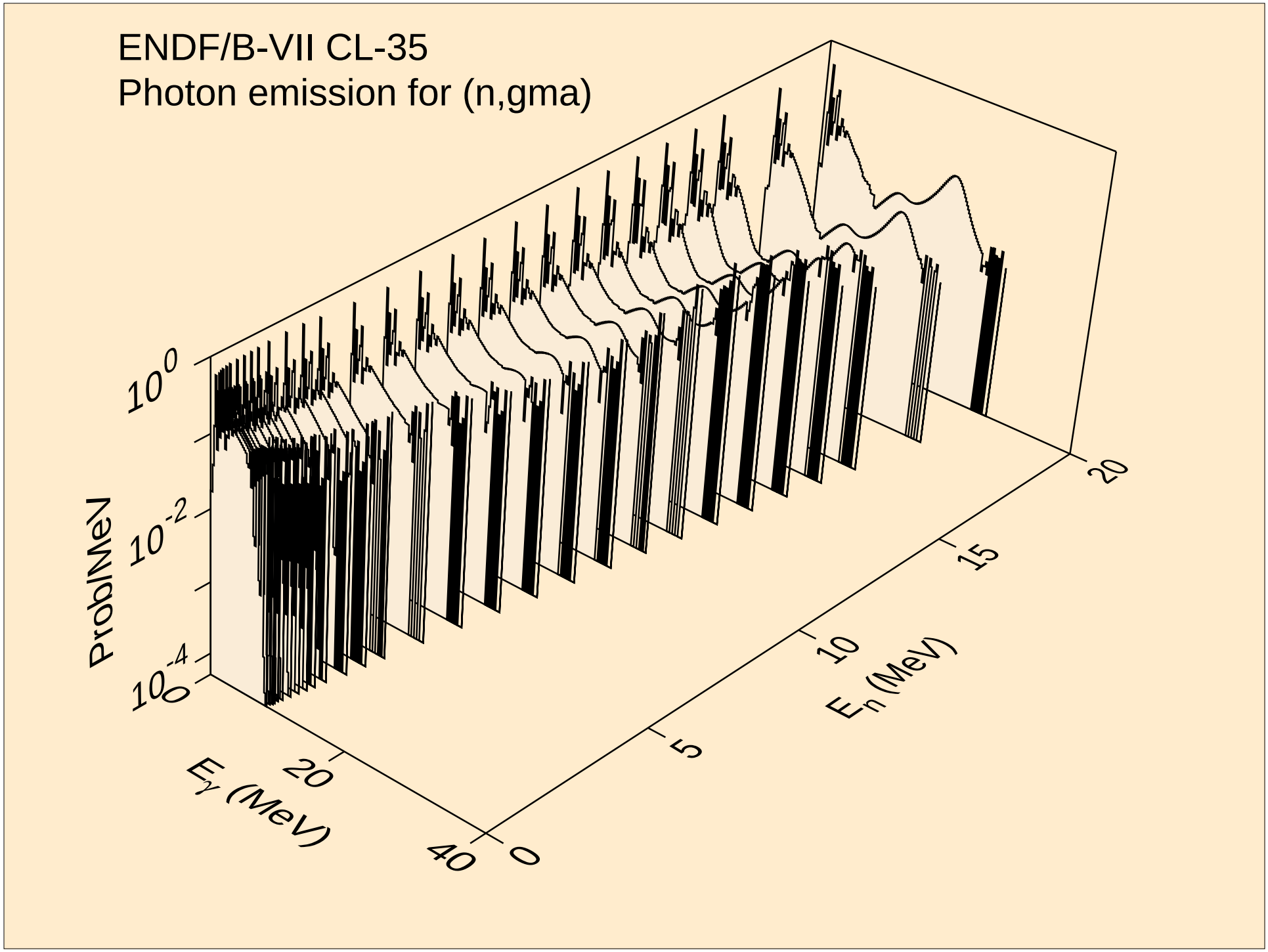
ENDF/B-VII CL-35
Neutron emission for (n,n*)a

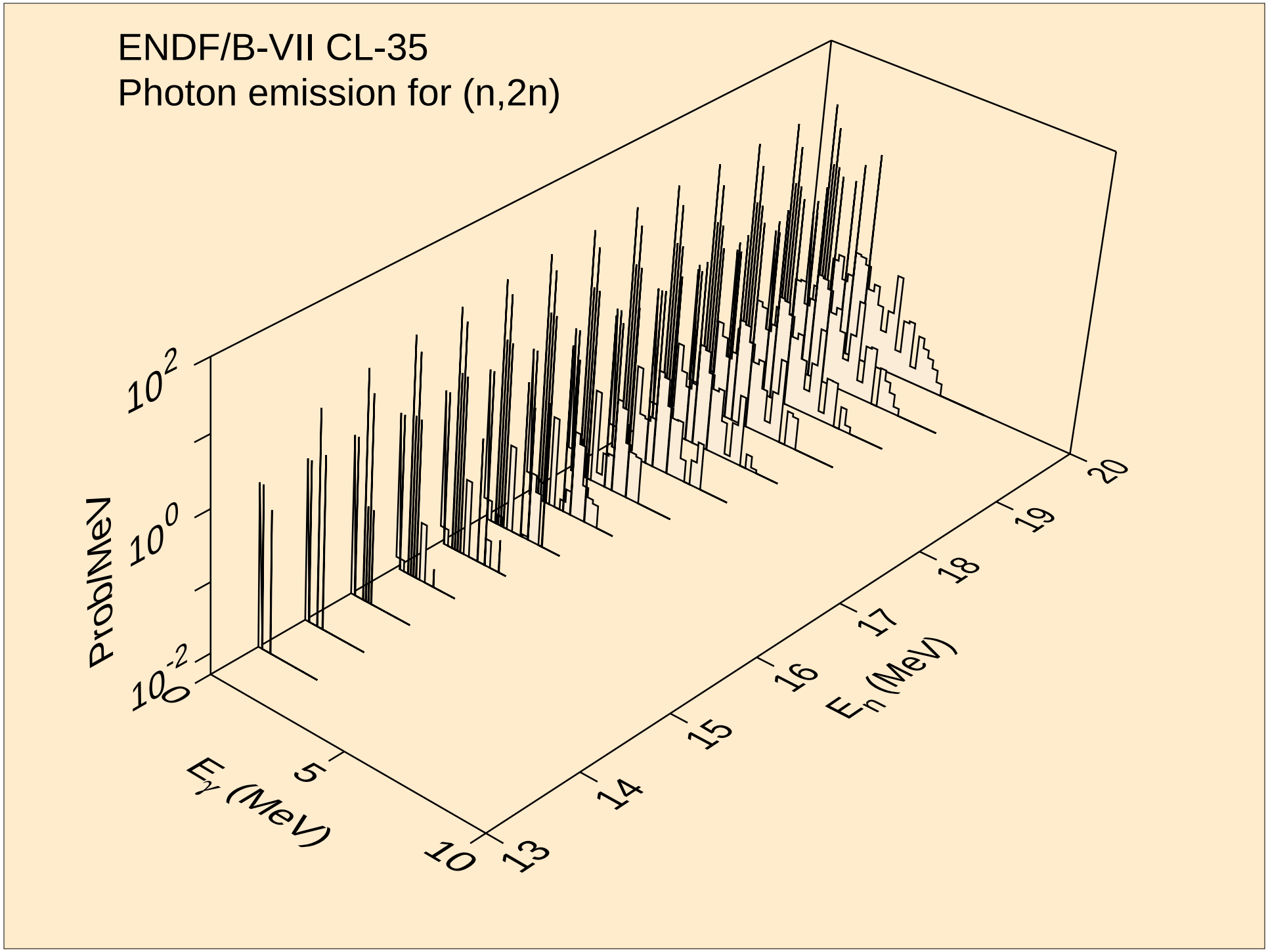



ENDF/B-VII CL-35
Neutron emission for (n,n*)p
Prob/MeV
10^{-1}
10^{-3}
0
5
10
15
Sec. Energy
6
8
10
12
14
16
18
20
Energy (MeV)

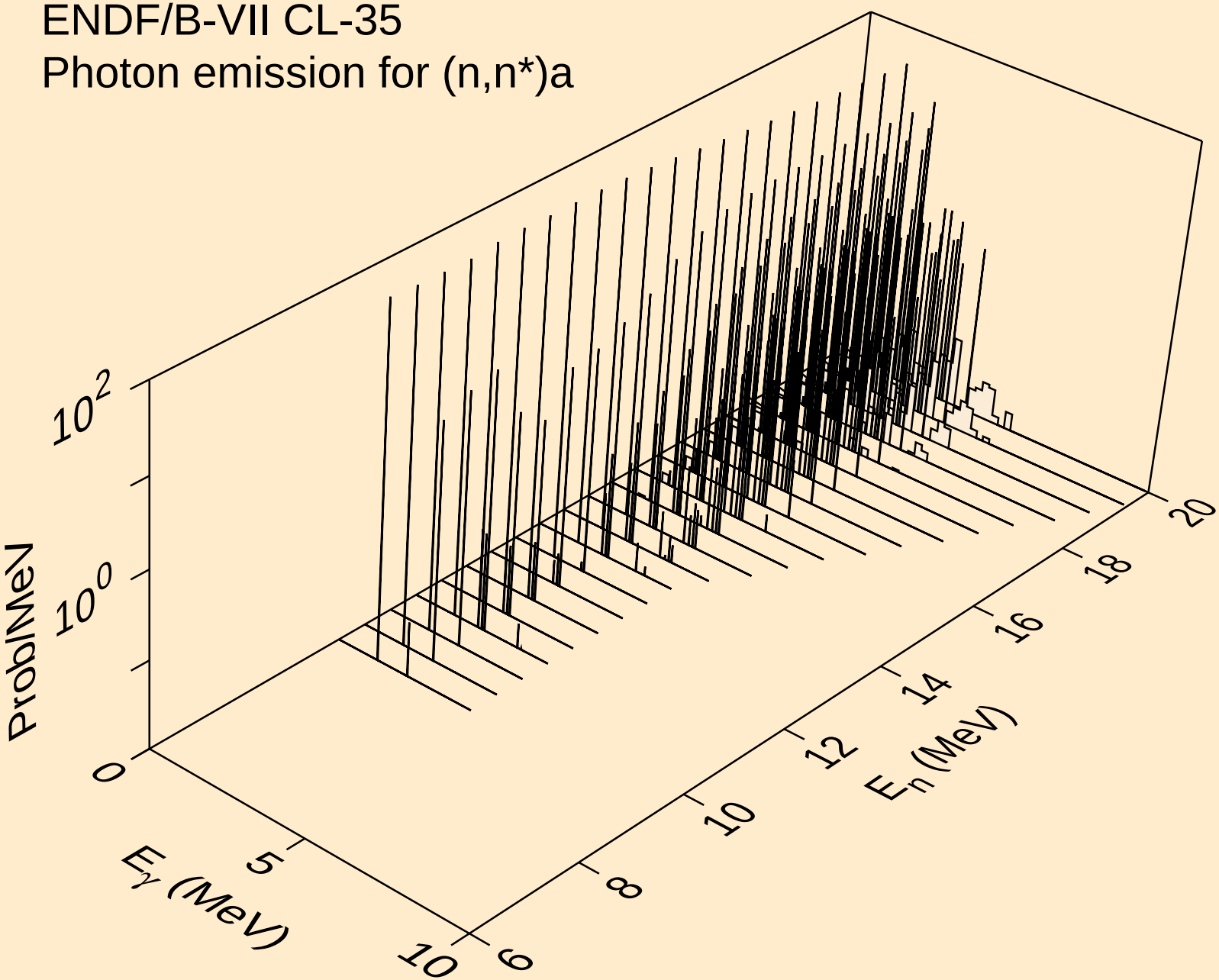

ENDF/B-VII CL-35
Neutron emission for (n,n*)d
Prob/MeV
10^-1
10^-3
0
1
2
3
Sec. Energy
16.0
16.5
17.0
17.5
18.0
18.5
19.0
19.5
20.0
Energy (MeV)


ENDF/B-VII CL-35
Neutron emission for (n,n*c)
Prob/MeV
10^{-1}
10^{-3}
0
5
10
15
Sec. Energy
4
6
8
10
12
14
16
18
20
Energy (MeV)

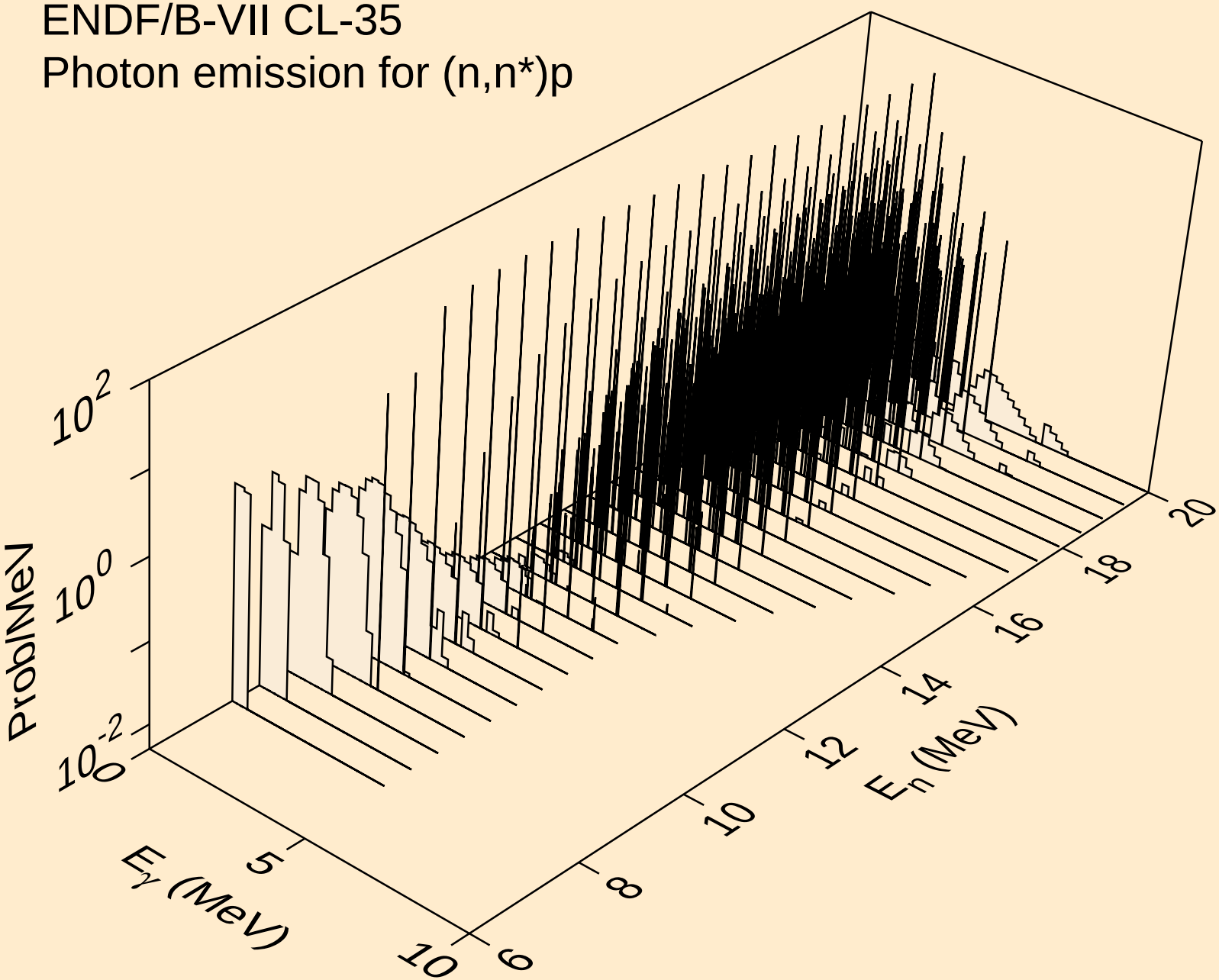

ENDF/B-VII CL-35
Photon emission for (n,gma)
Prob/MeV
10^0
10^{-2}
10^{-4}
E_γ (MeV)
0
20
40
E_n (MeV)
0
5
10
15
20

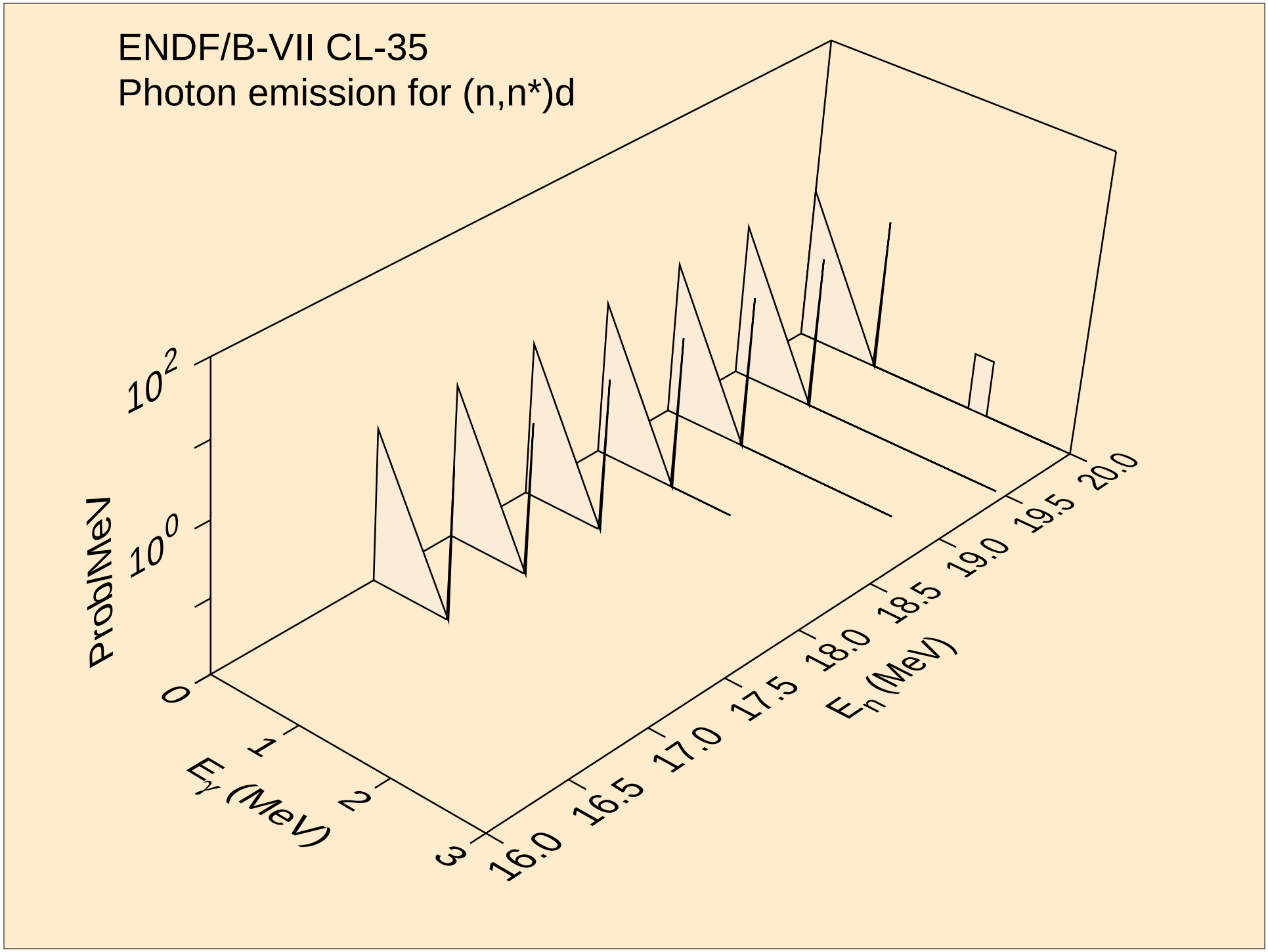

ENDF/B-VII CL-35
Photon emission for (n,2n)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
5
10
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,n*)a

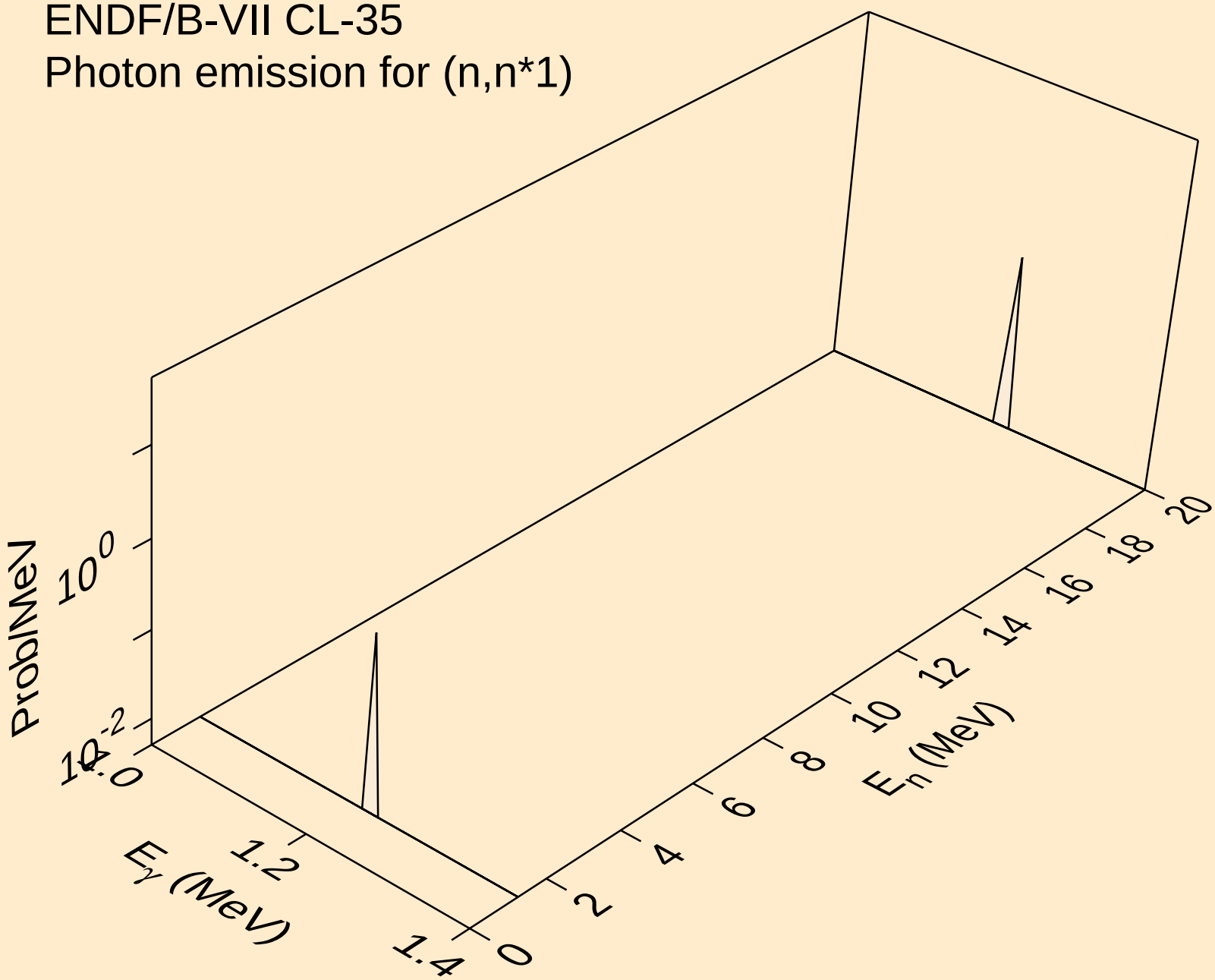


ENDF/B-VII CL-35
Photon emission for (n,n*)p

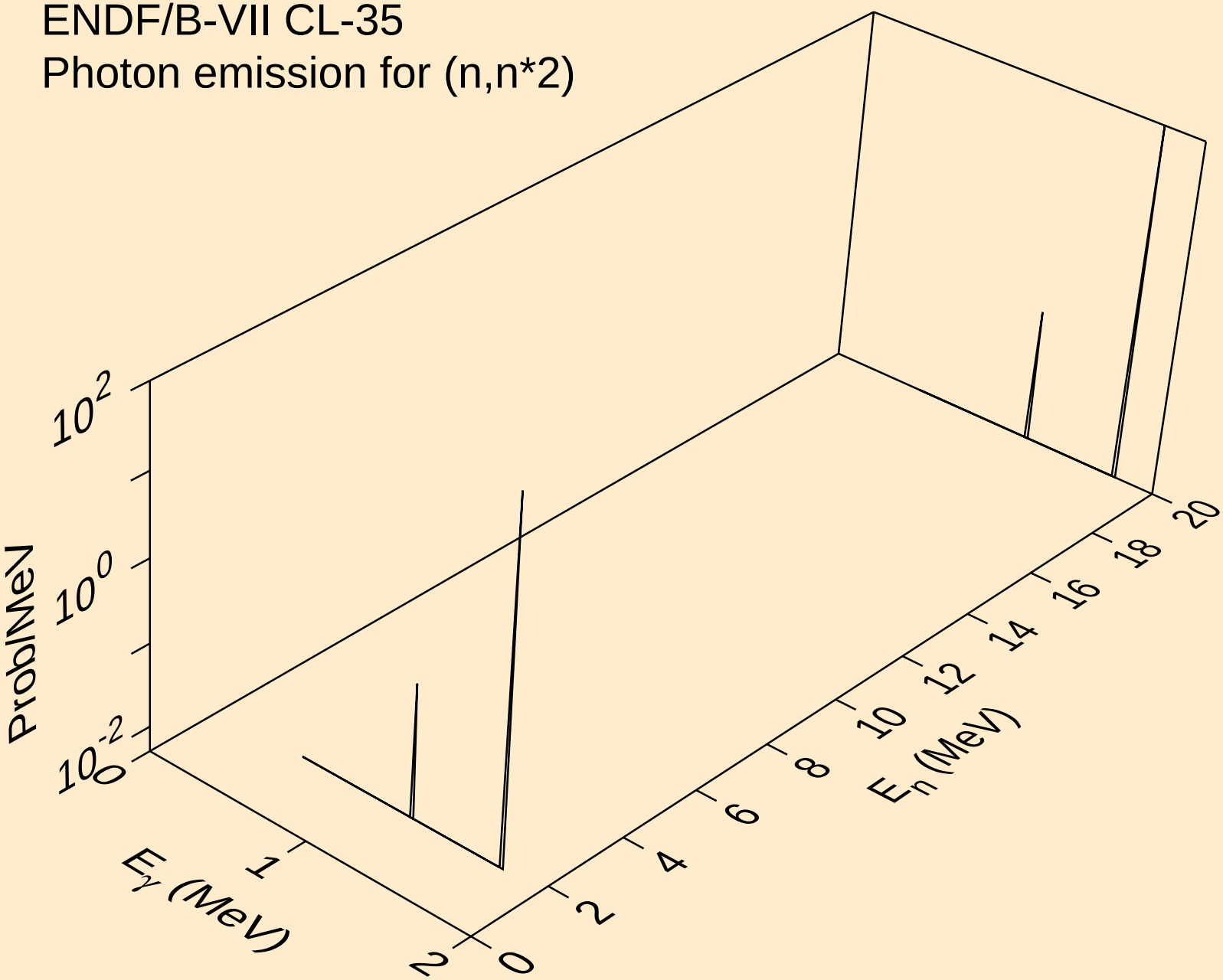



ENDF/B-VII CL-35
Photon emission for (n,n*)d
Prob/MeV
10^2
10^0
0
1
2
3
E_γ (MeV)
16.0
16.5
17.0
17.5
18.0
18.5
19.0
19.5
20.0
E_n (MeV)

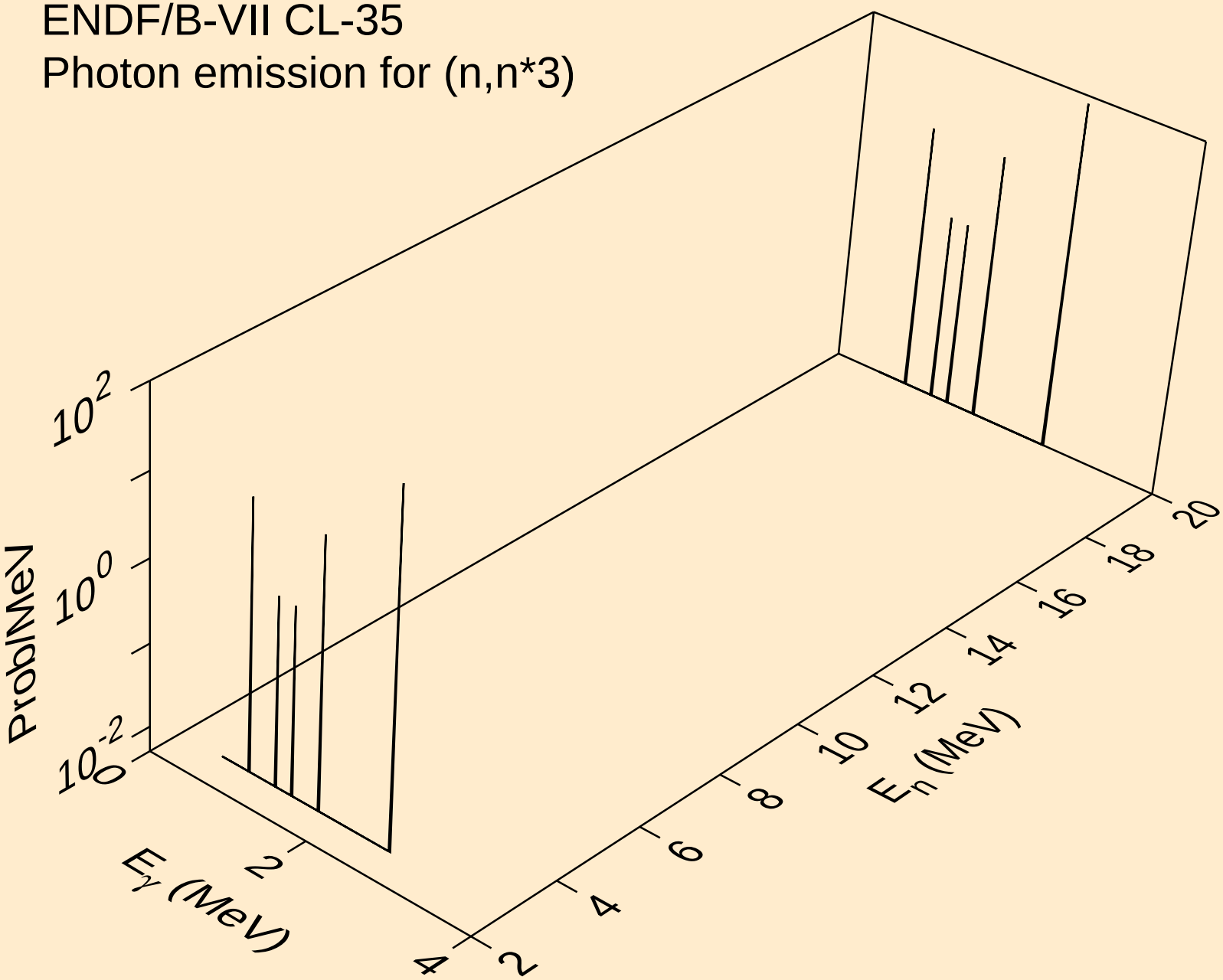
ENDF/B-VII CL-35
Photon emission for (n,n*1)



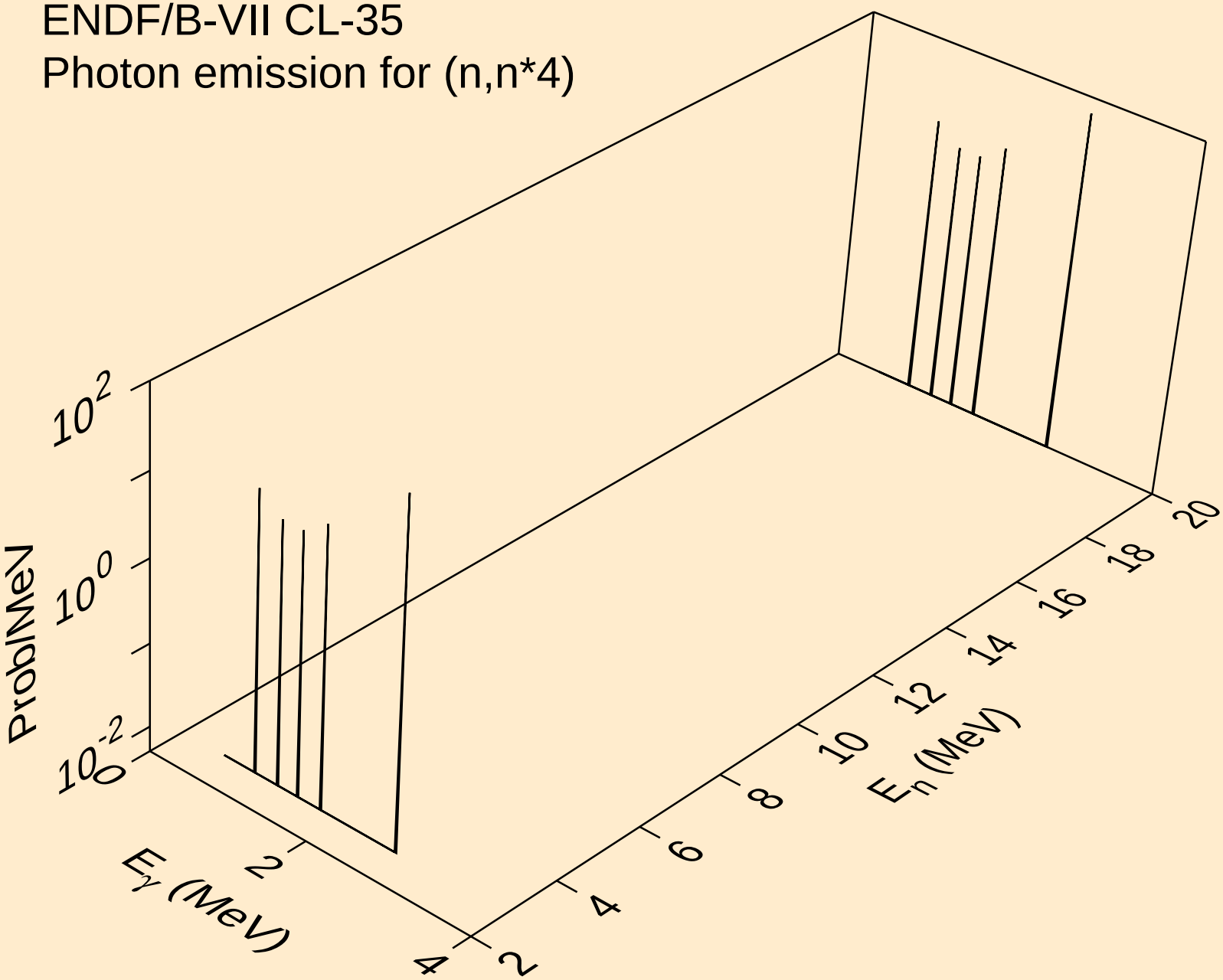
ENDF/B-VII CL-35
Photon emission for (n,n*2)



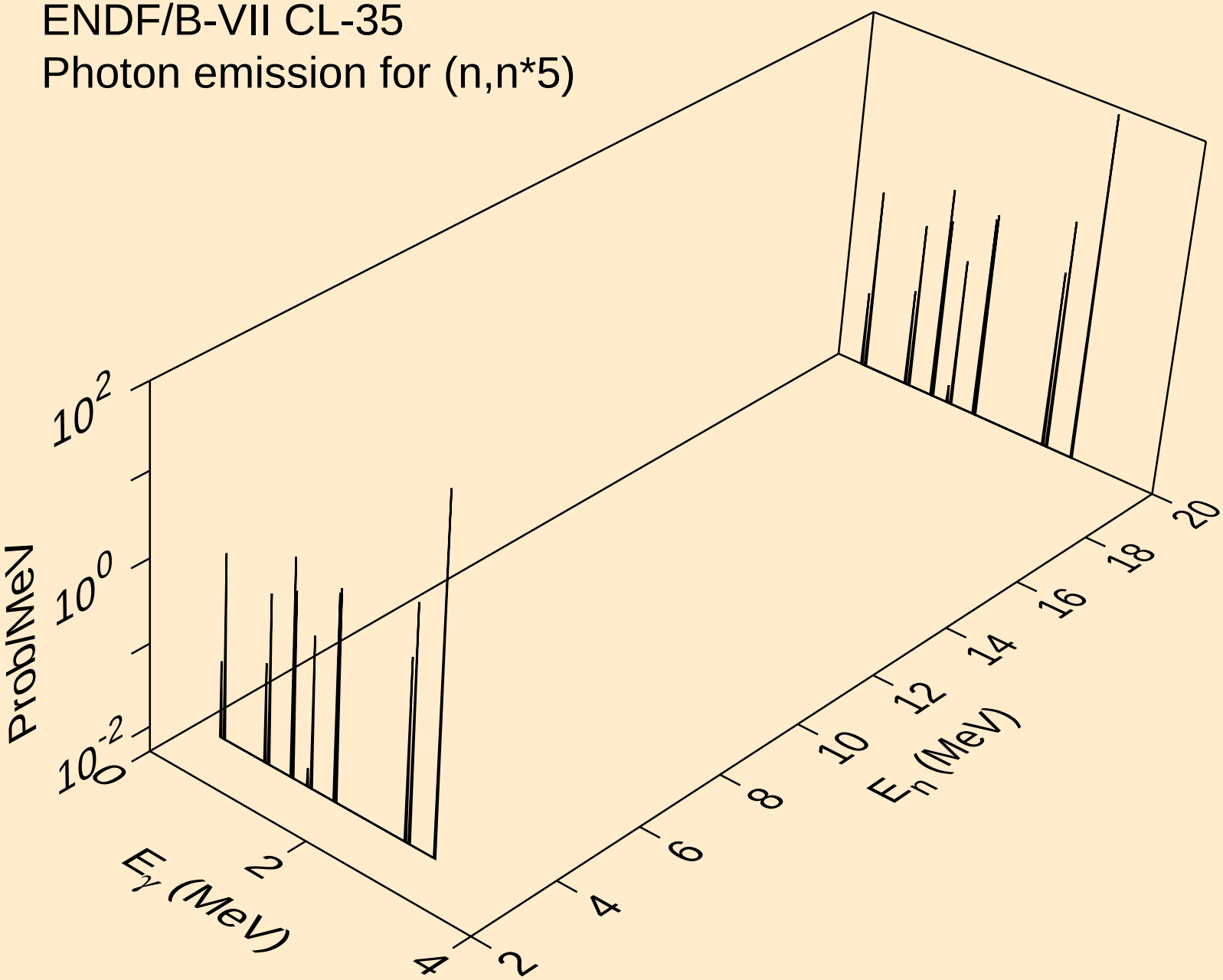
ENDF/B-VII CL-35
Photon emission for (n,n*3)

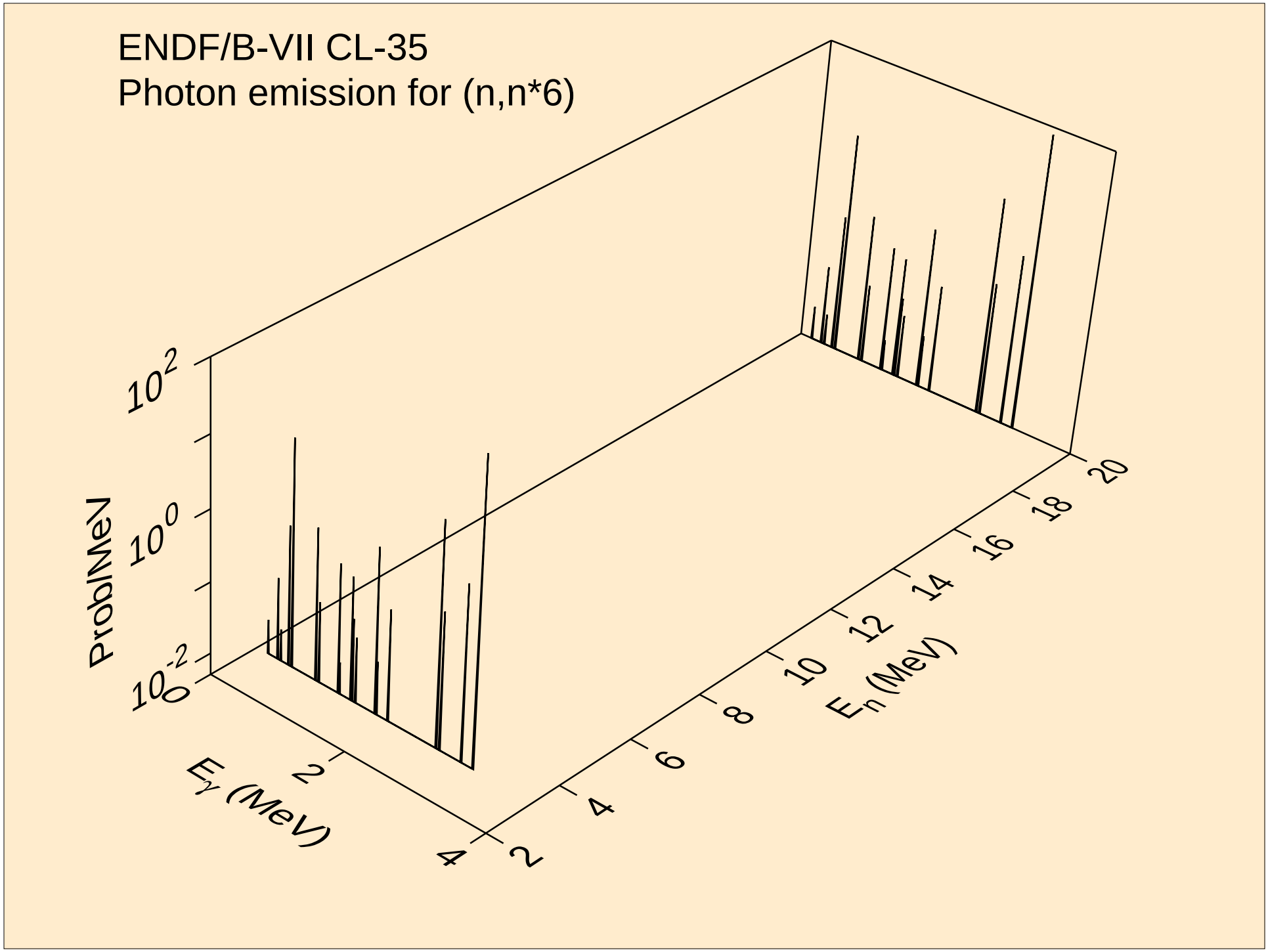


ENDF/B-VII CL-35
Photon emission for (n,n*4)

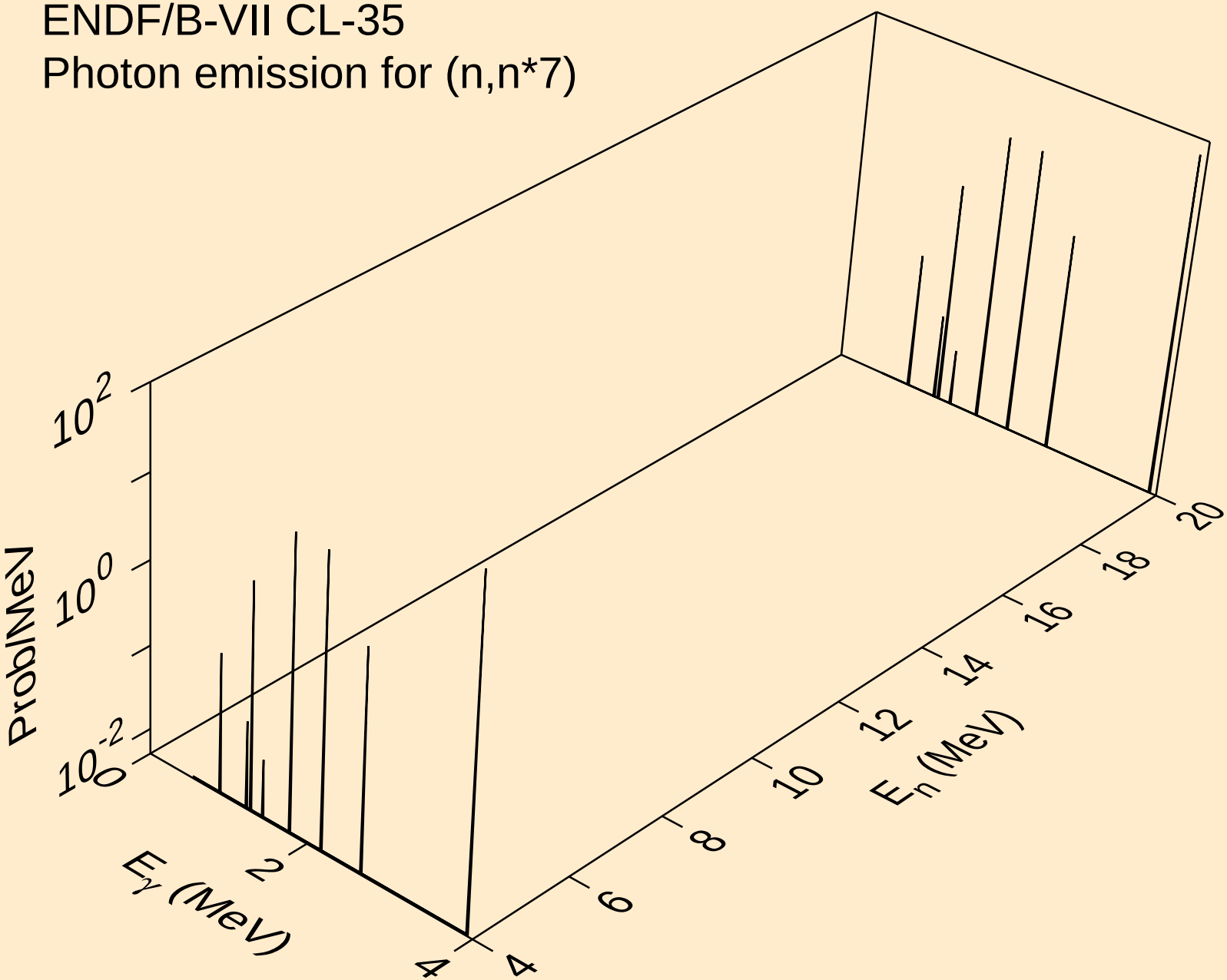


ENDF/B-VII CL-35
Photon emission for (n,n*5)

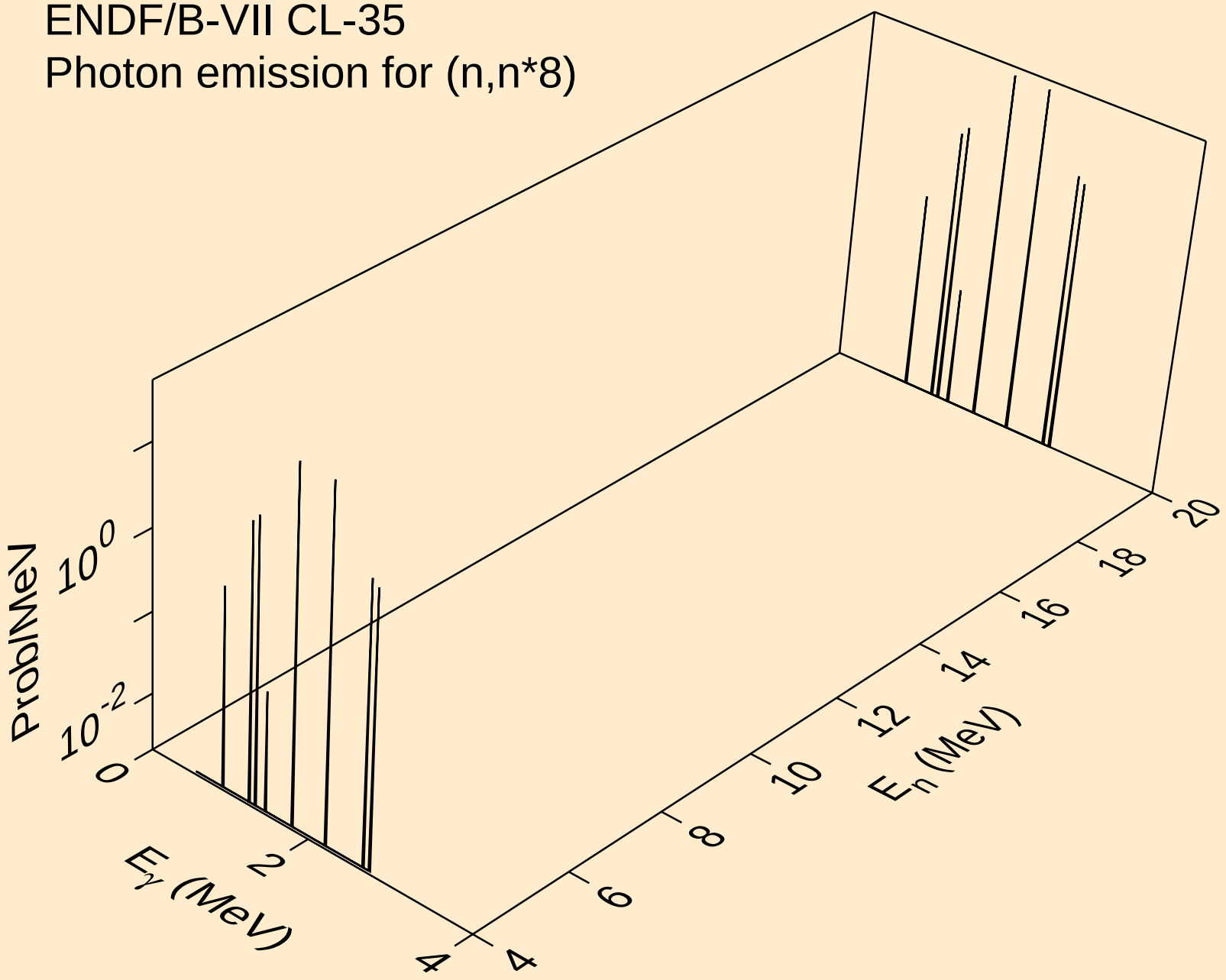



ENDF/B-VII CL-35
Photon emission for (n,n*6)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
E_n (MeV)
2
4
6
8
10
12
14
16
18
20

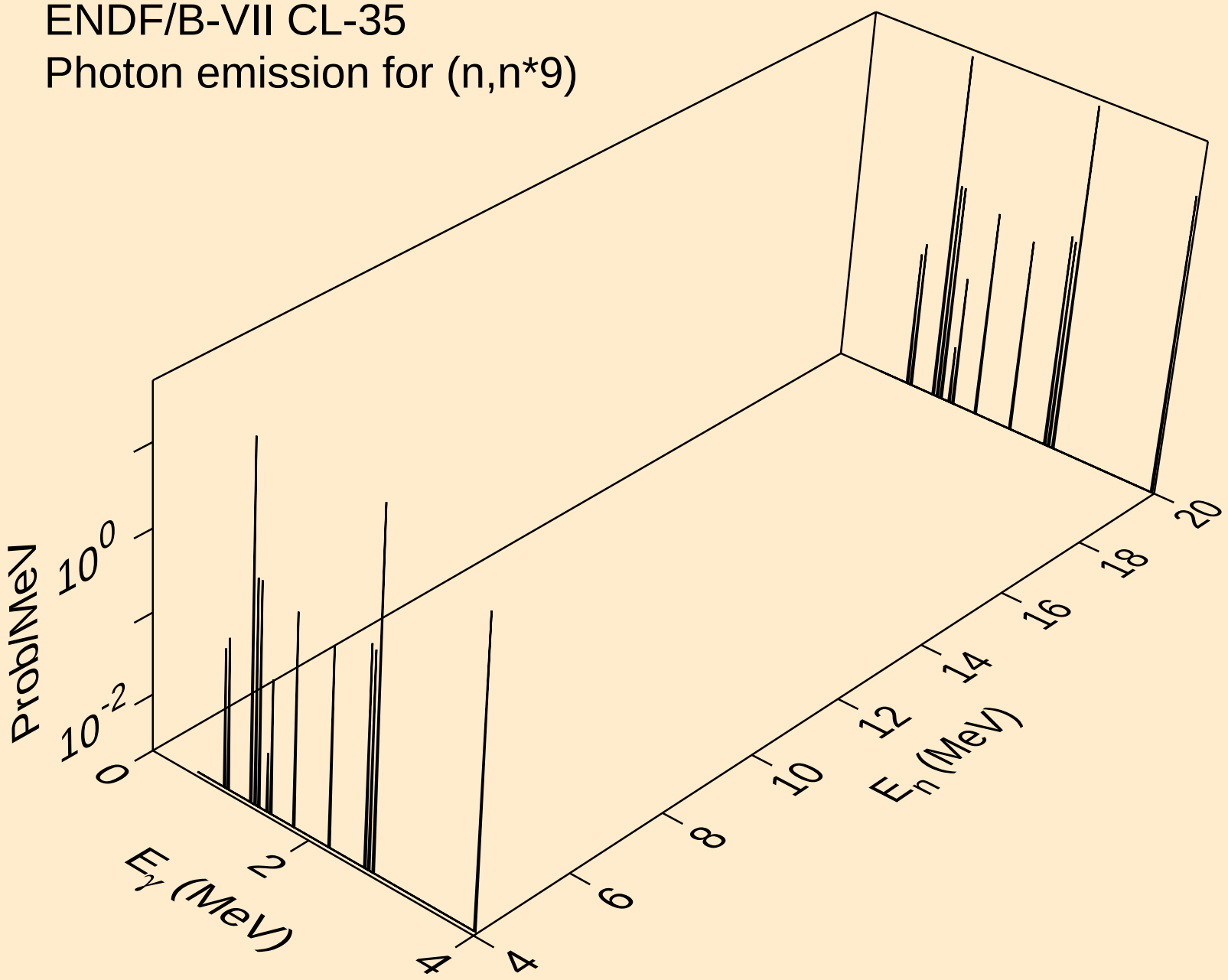
ENDF/B-VII CL-35
Photon emission for (n,n*7)

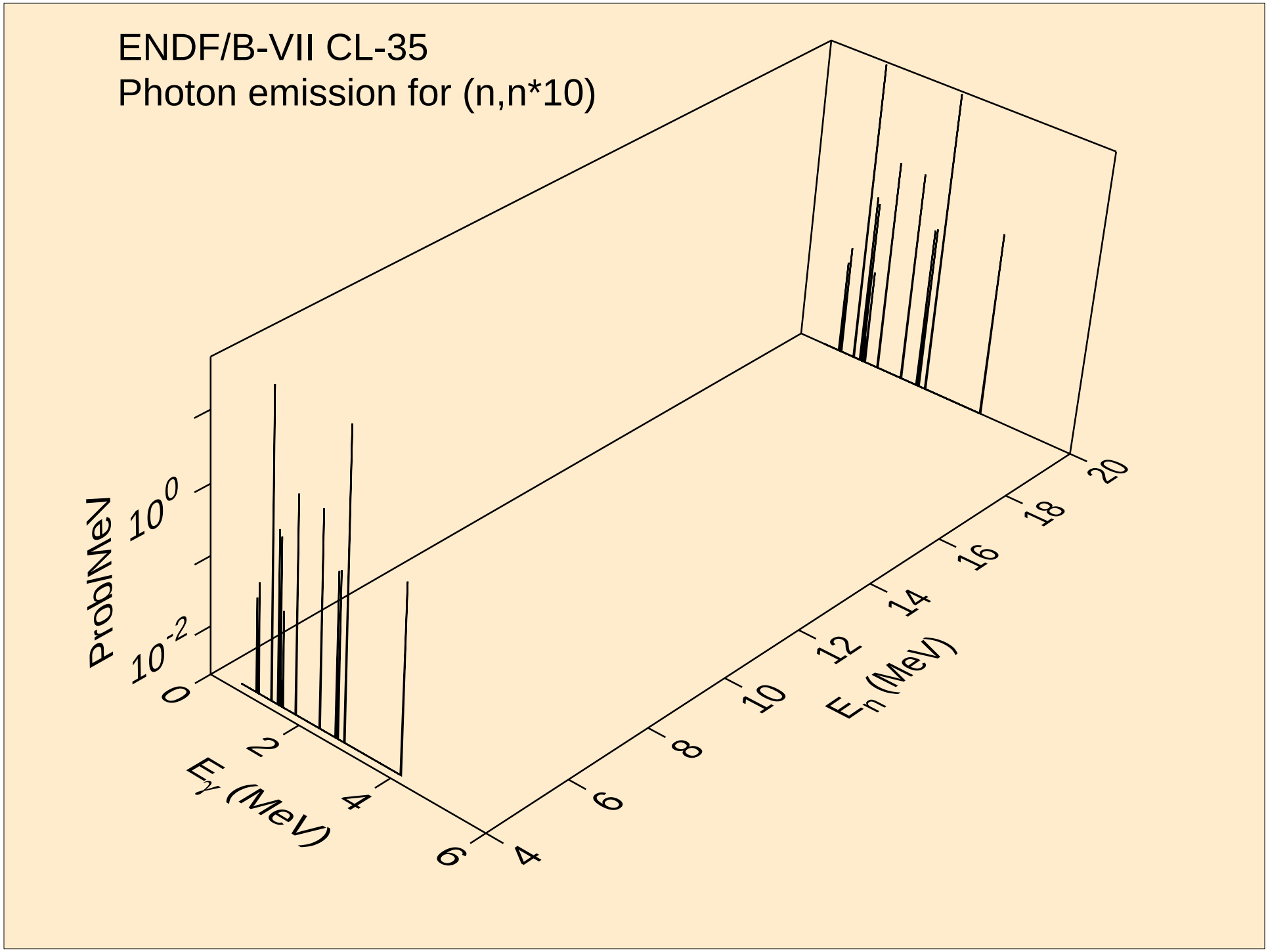


ENDF/B-VII CL-35
Photon emission for (n,n*8)

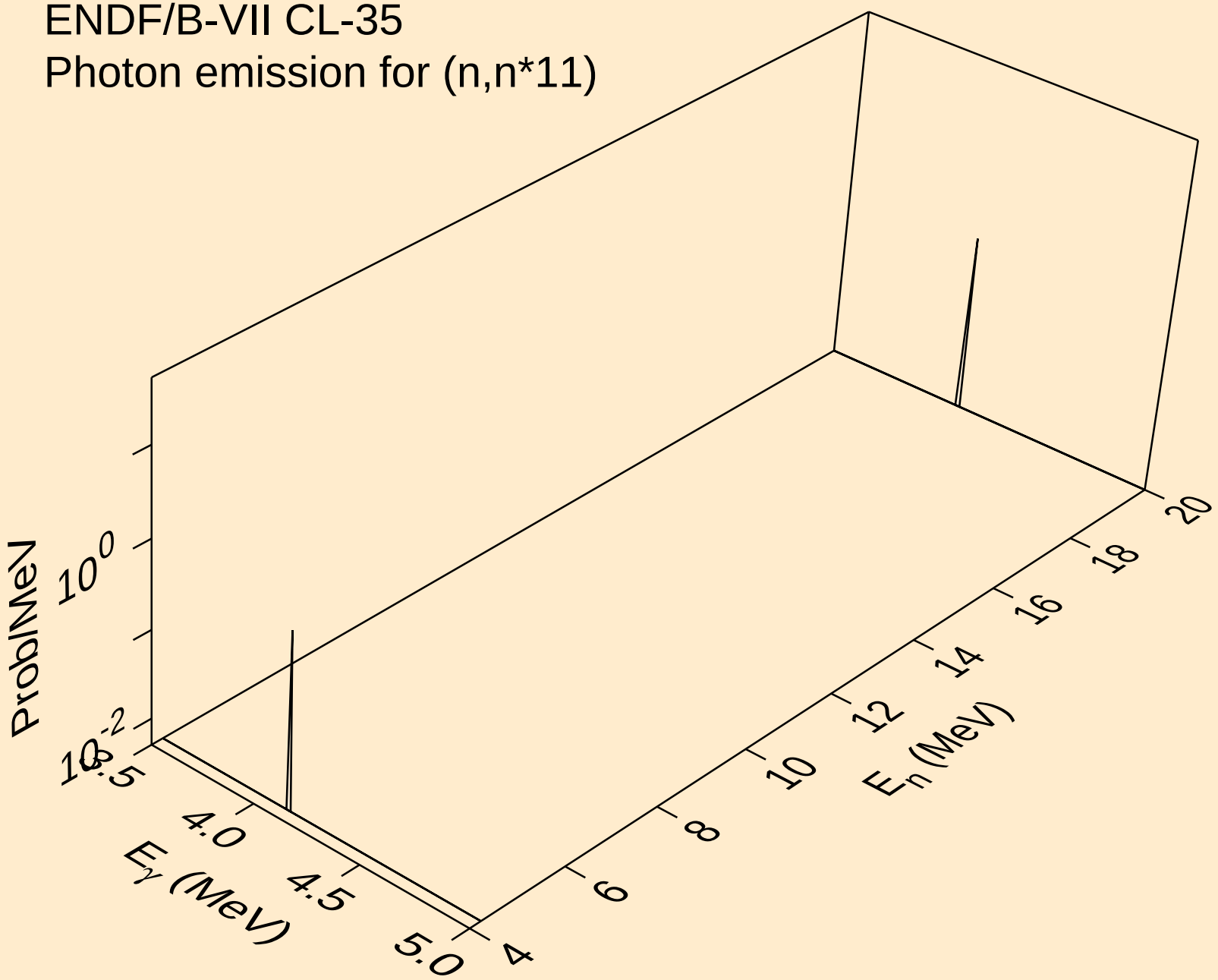


ENDF/B-VII CL-35
Photon emission for (n,n*9)

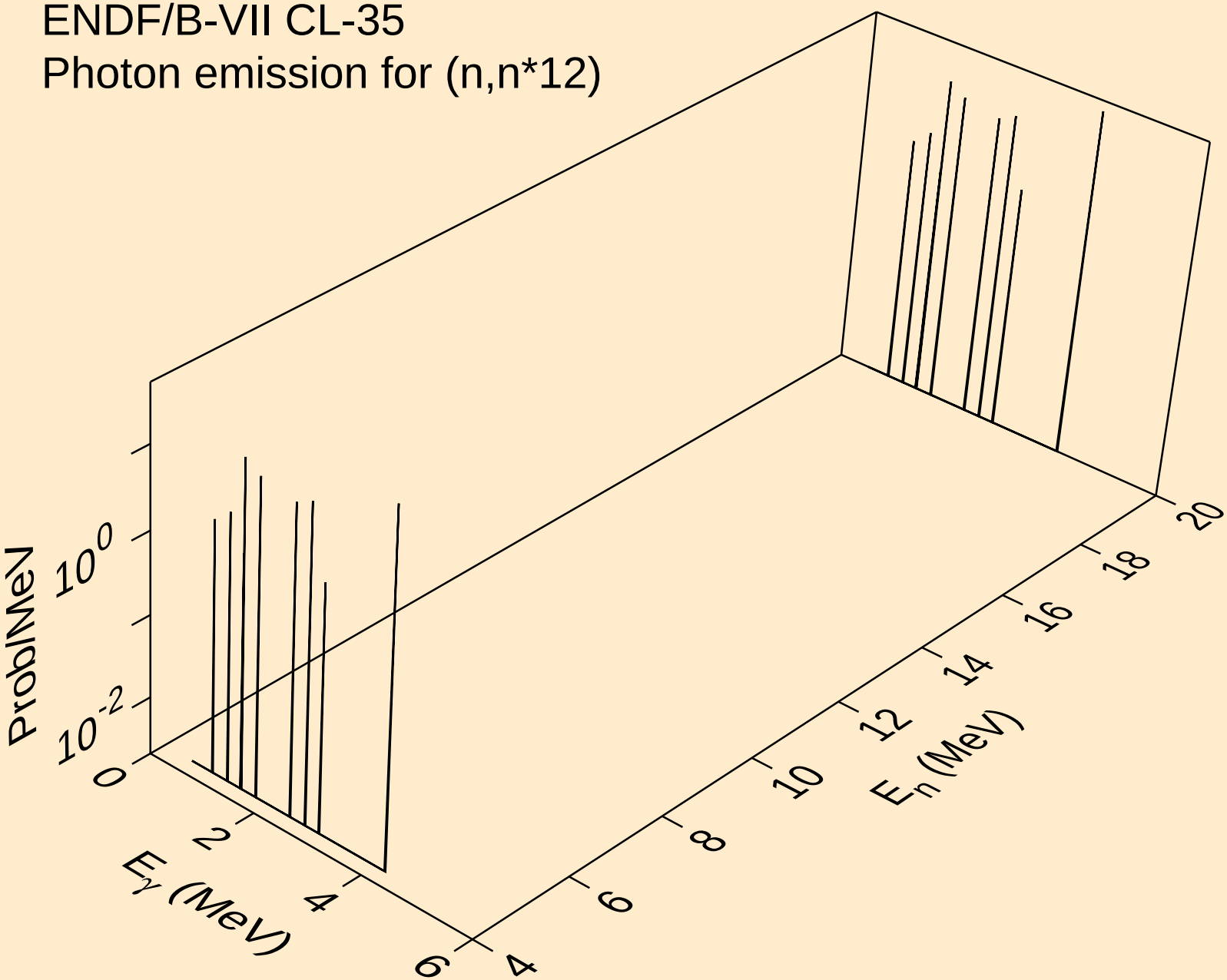


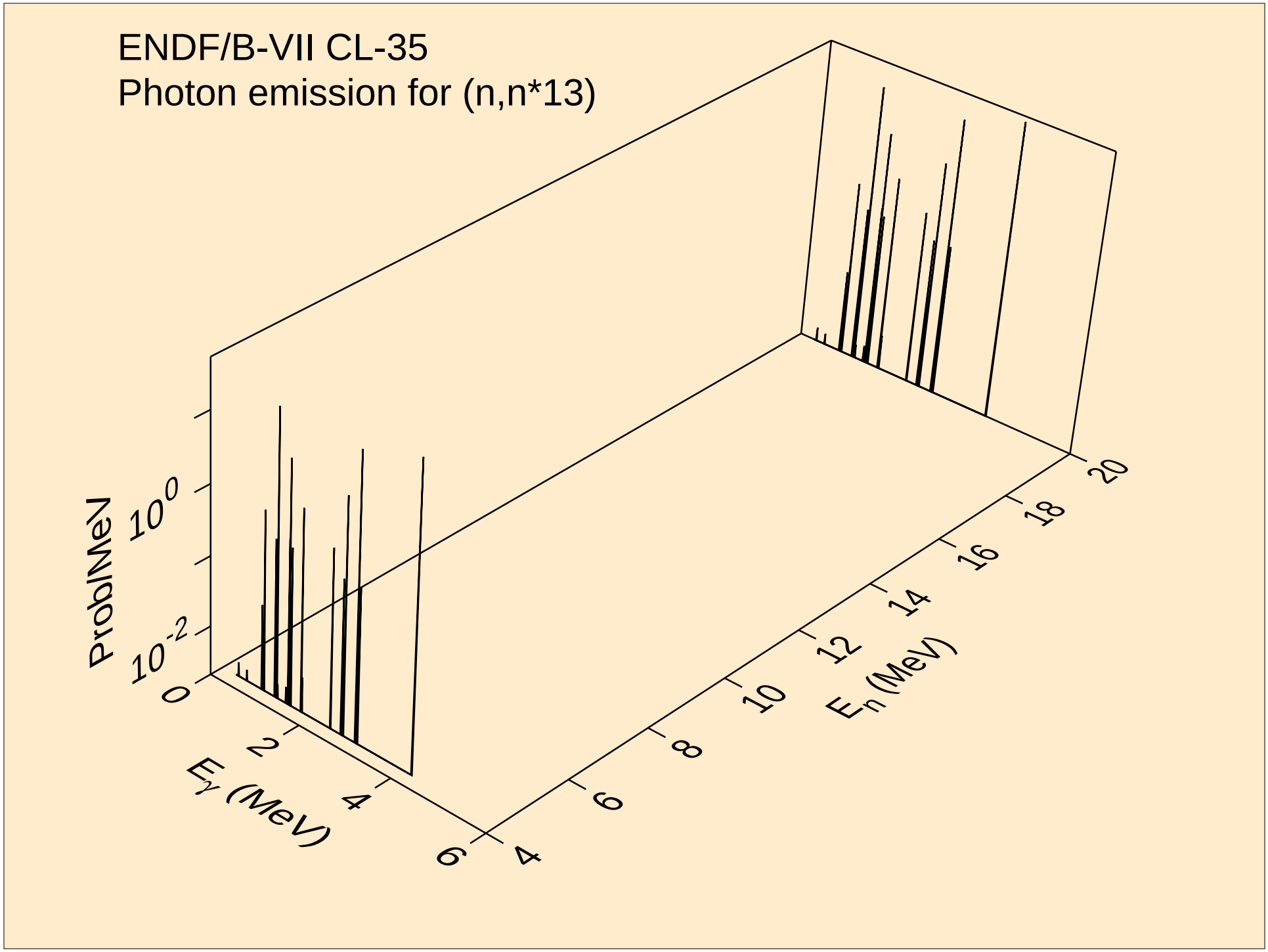

ENDF/B-VII CL-35
Photon emission for (n,n*10)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

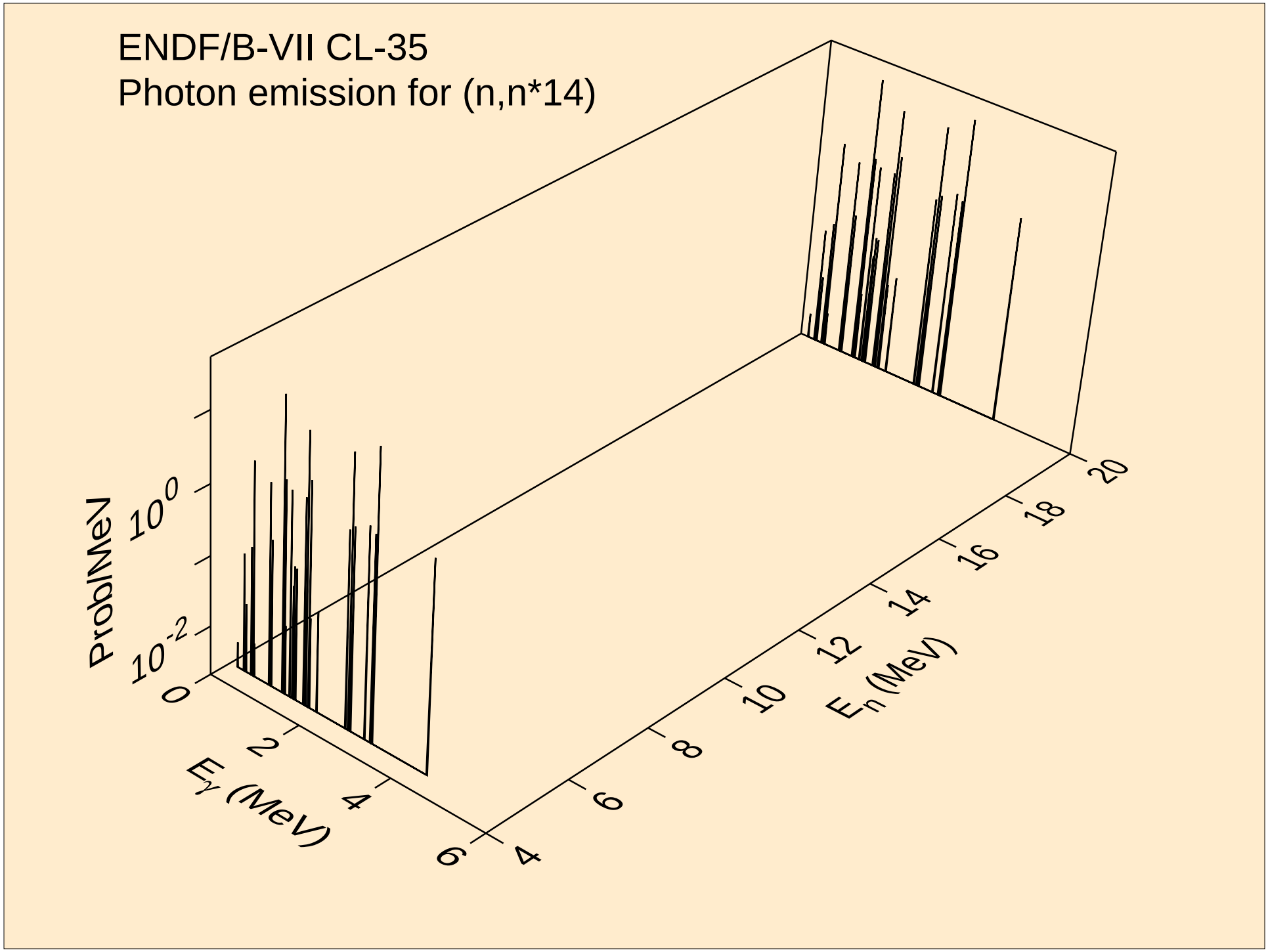
ENDF/B-VII CL-35
Photon emission for (n,n*11)



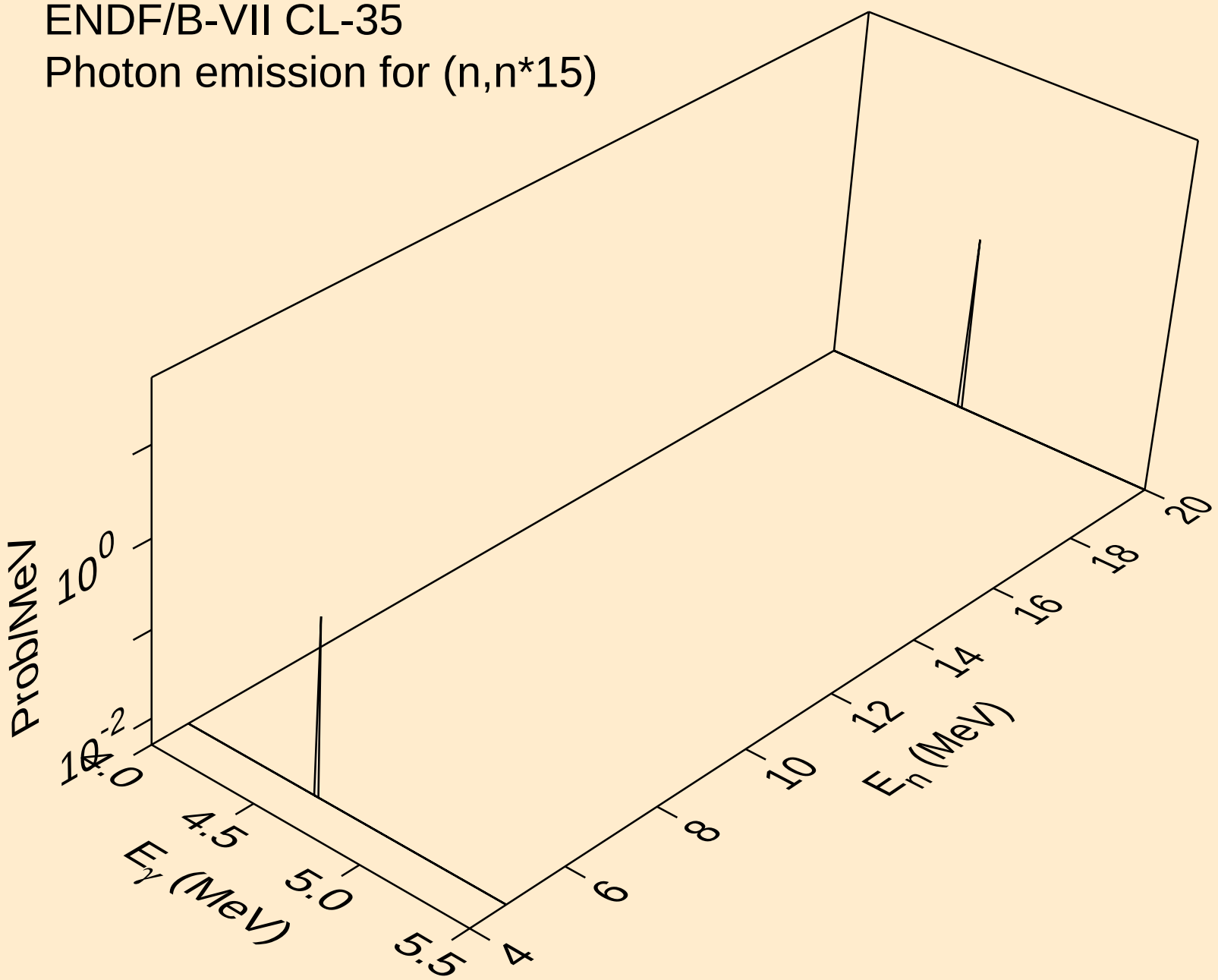
ENDF/B-VII CL-35
Photon emission for (n,n*12)

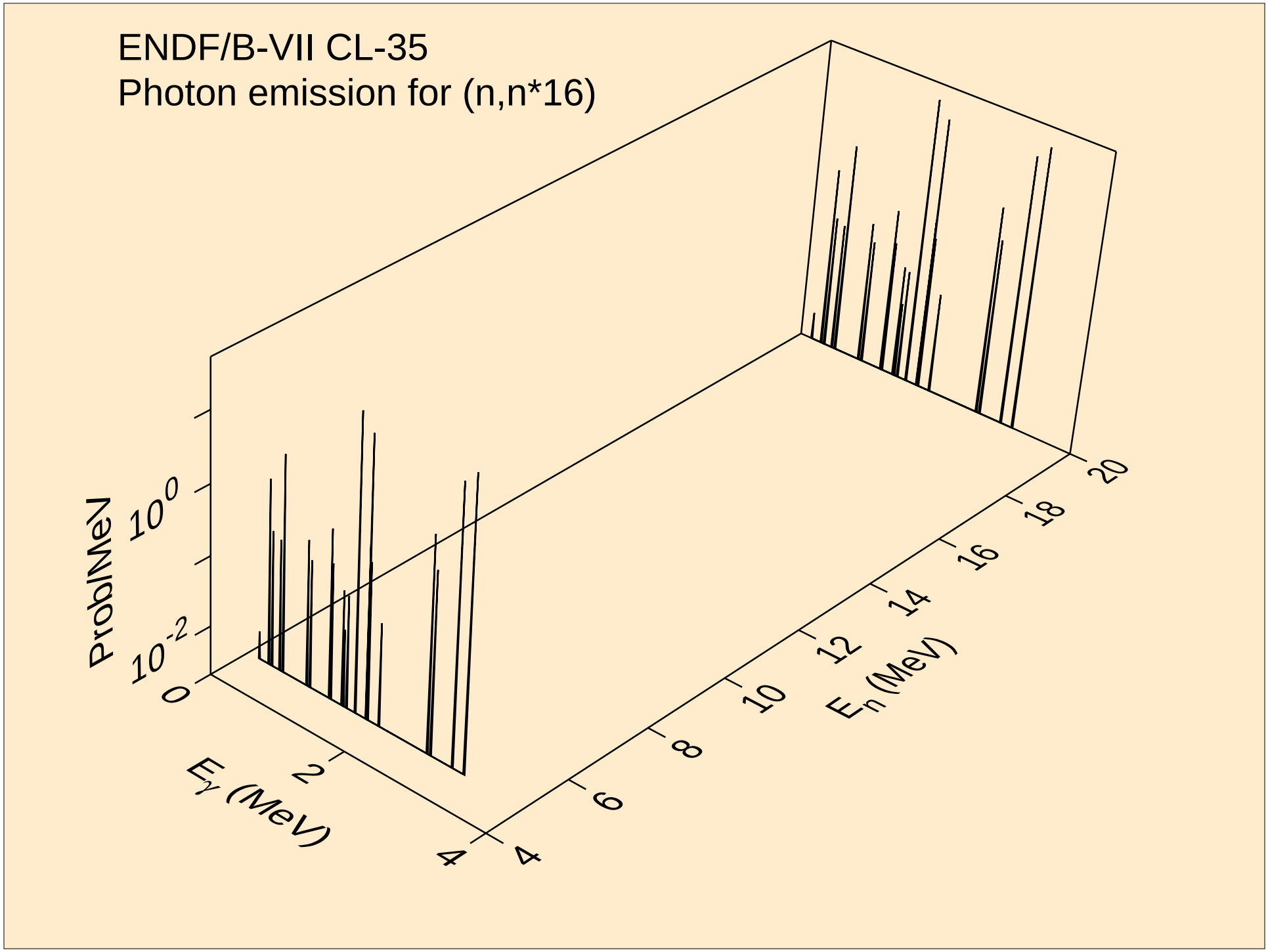



ENDF/B-VII CL-35
Photon emission for (n,n*13)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

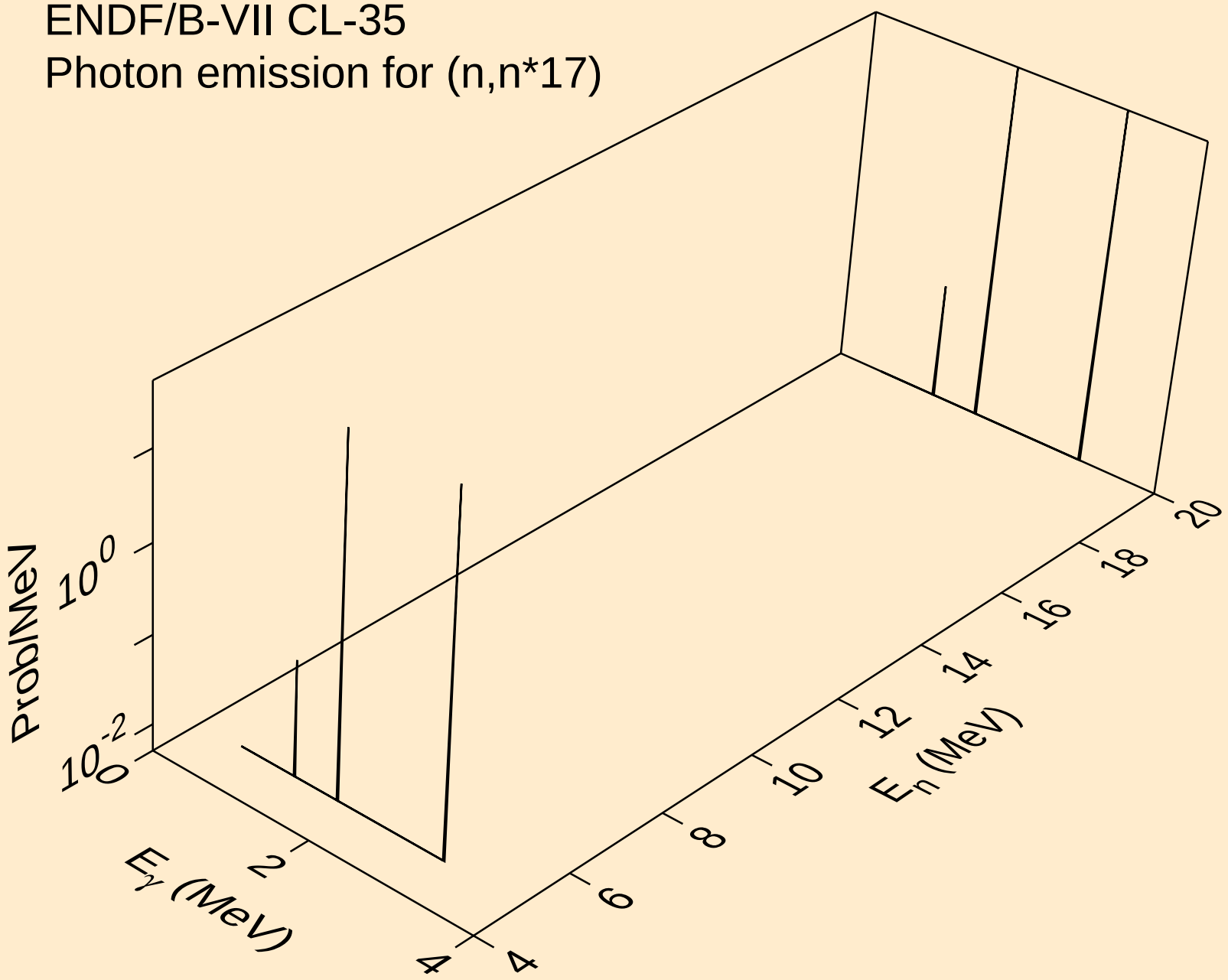

ENDF/B-VII CL-35
Photon emission for (n,n*14)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,n*15)

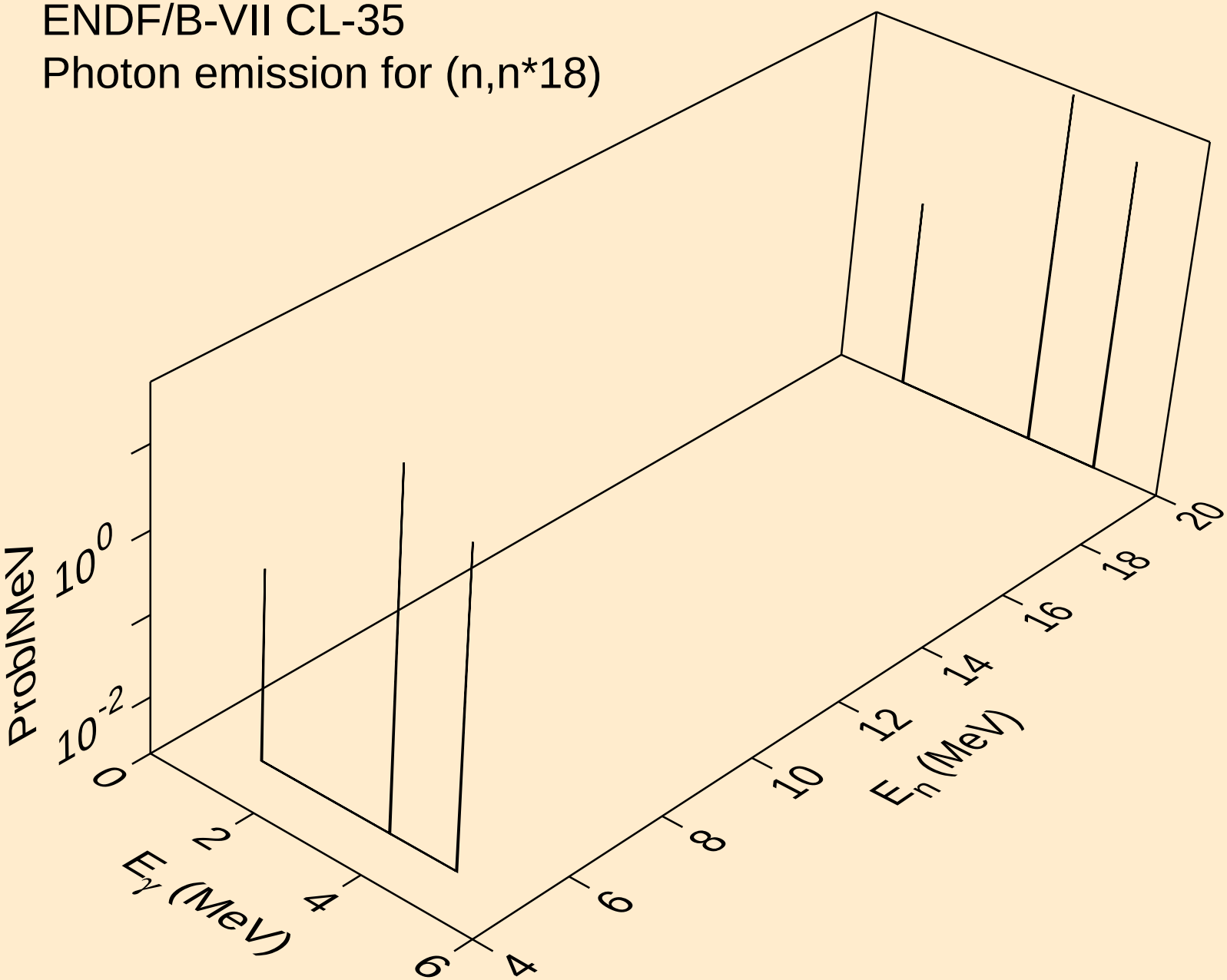


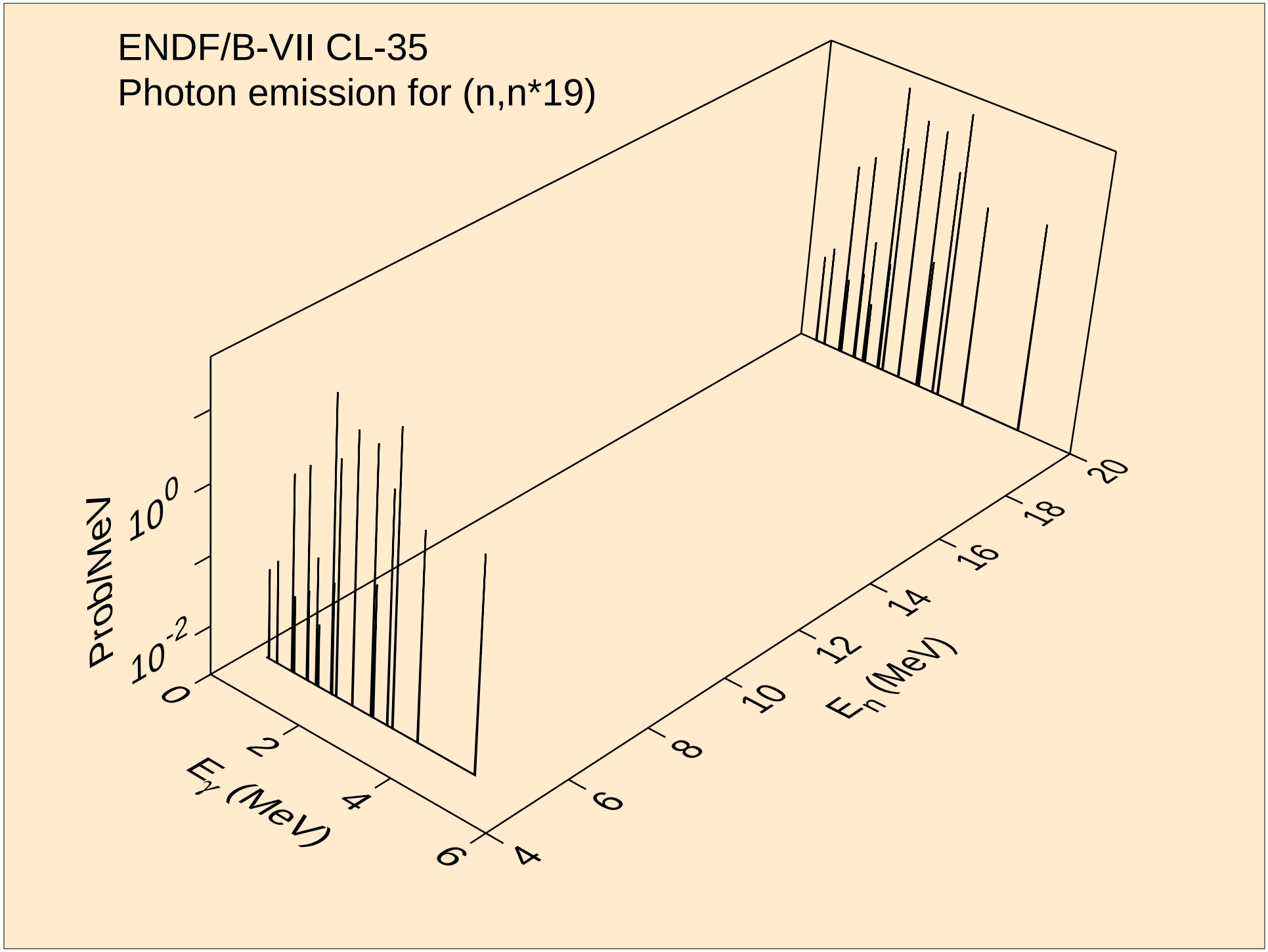

ENDF/B-VII CL-35
Photon emission for (n,n*16)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,n*17)

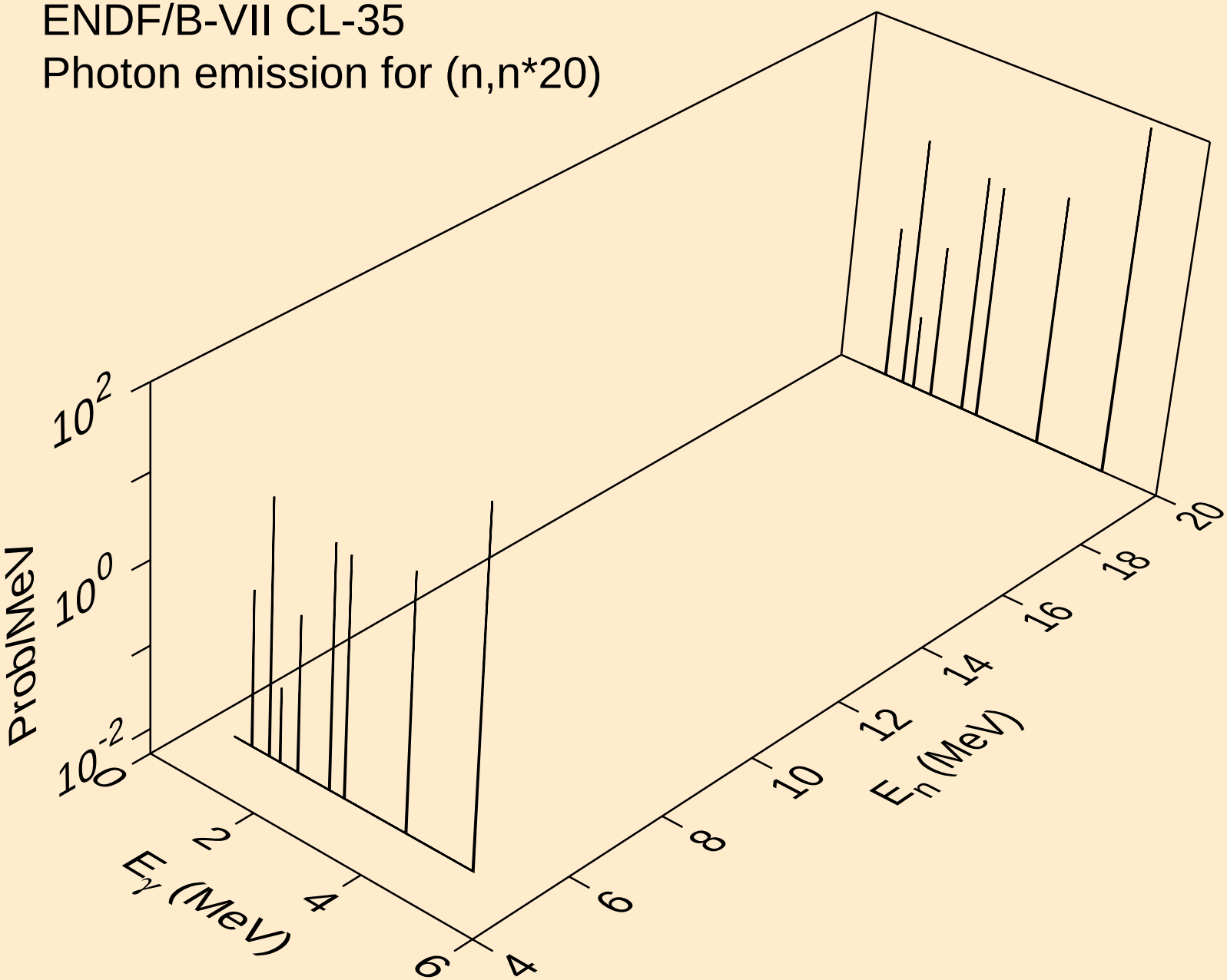


ENDF/B-VII CL-35
Photon emission for (n,n*18)

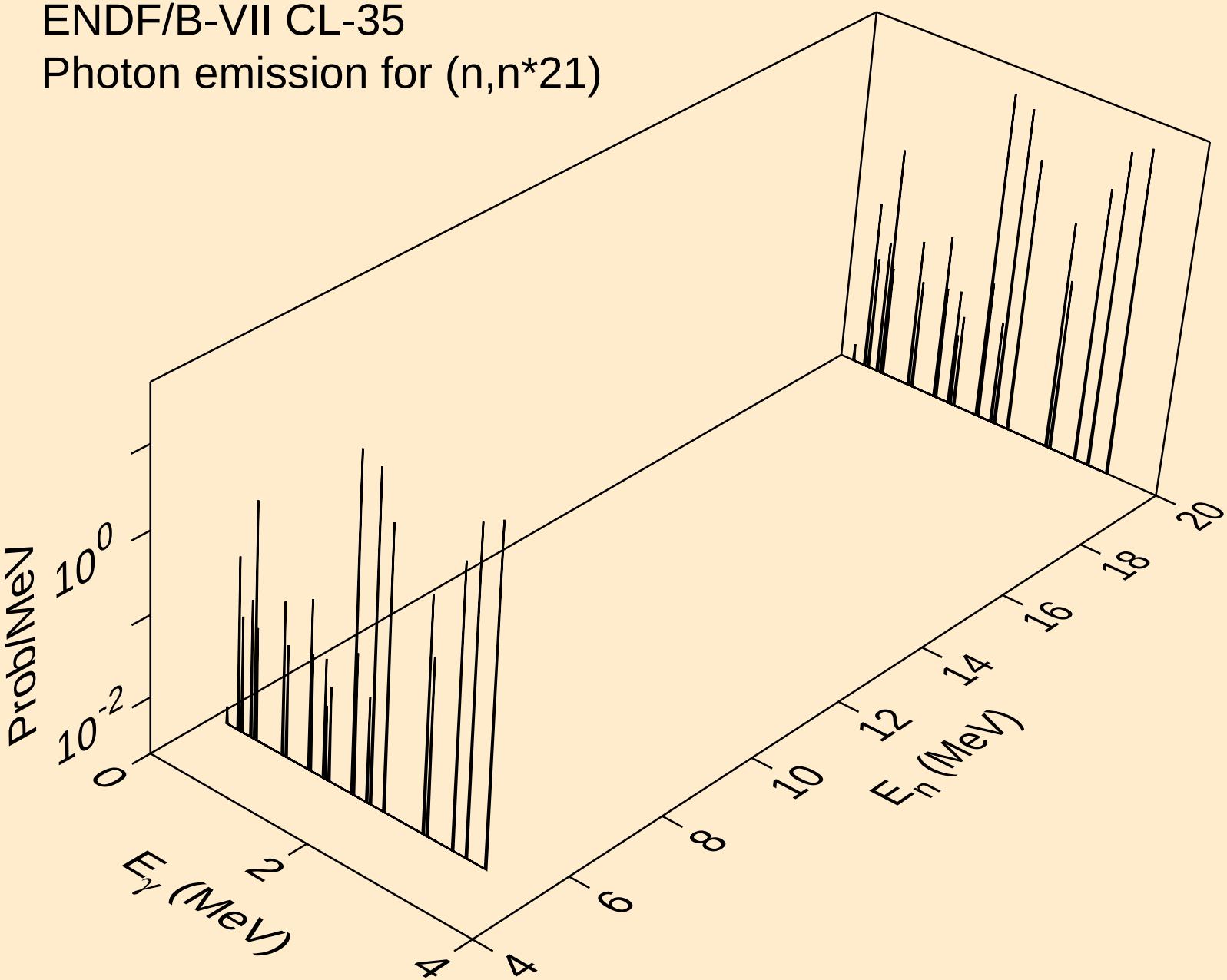



ENDF/B-VII CL-35
Photon emission for (n,n*19)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

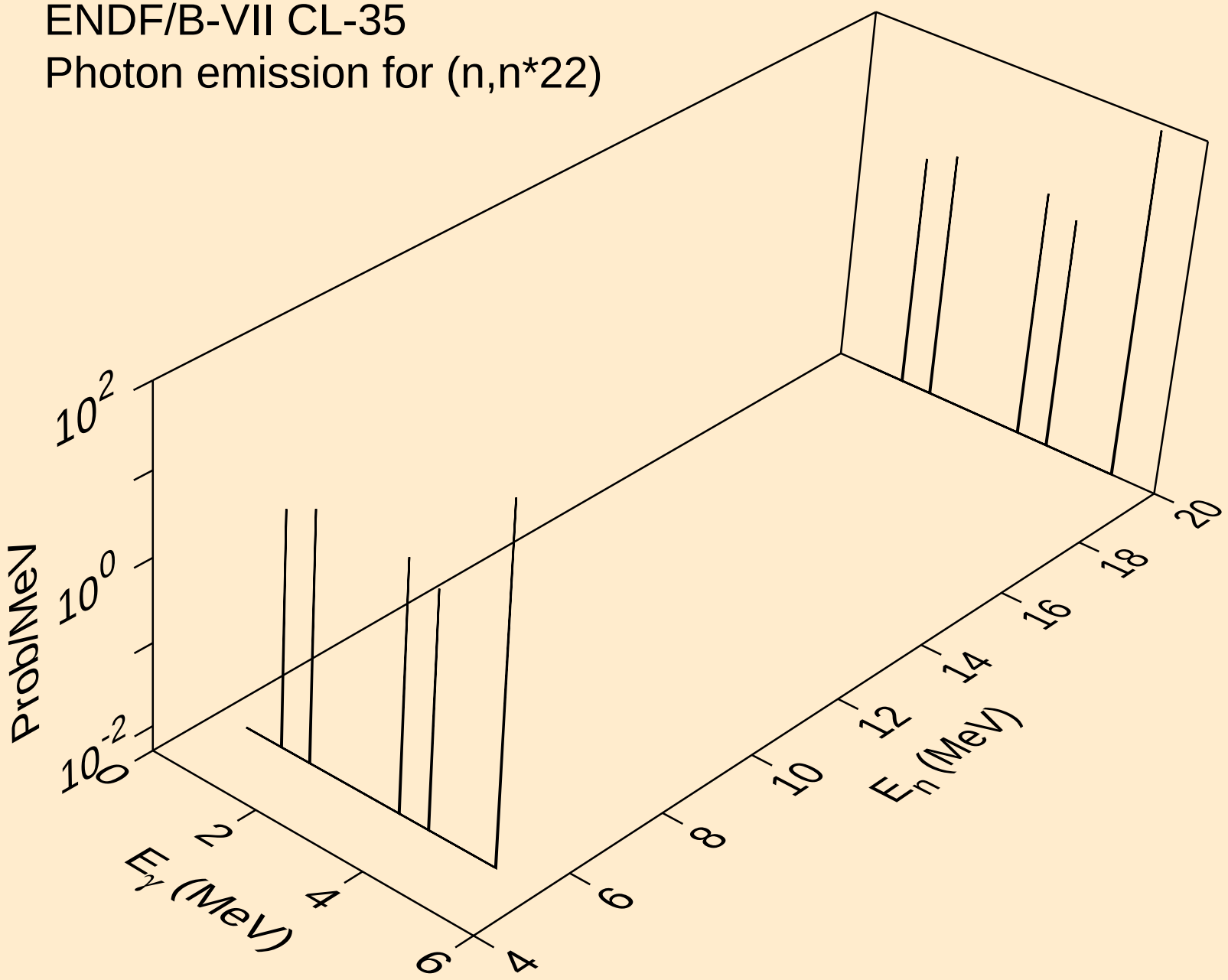
ENDF/B-VII CL-35
Photon emission for (n,n*20)



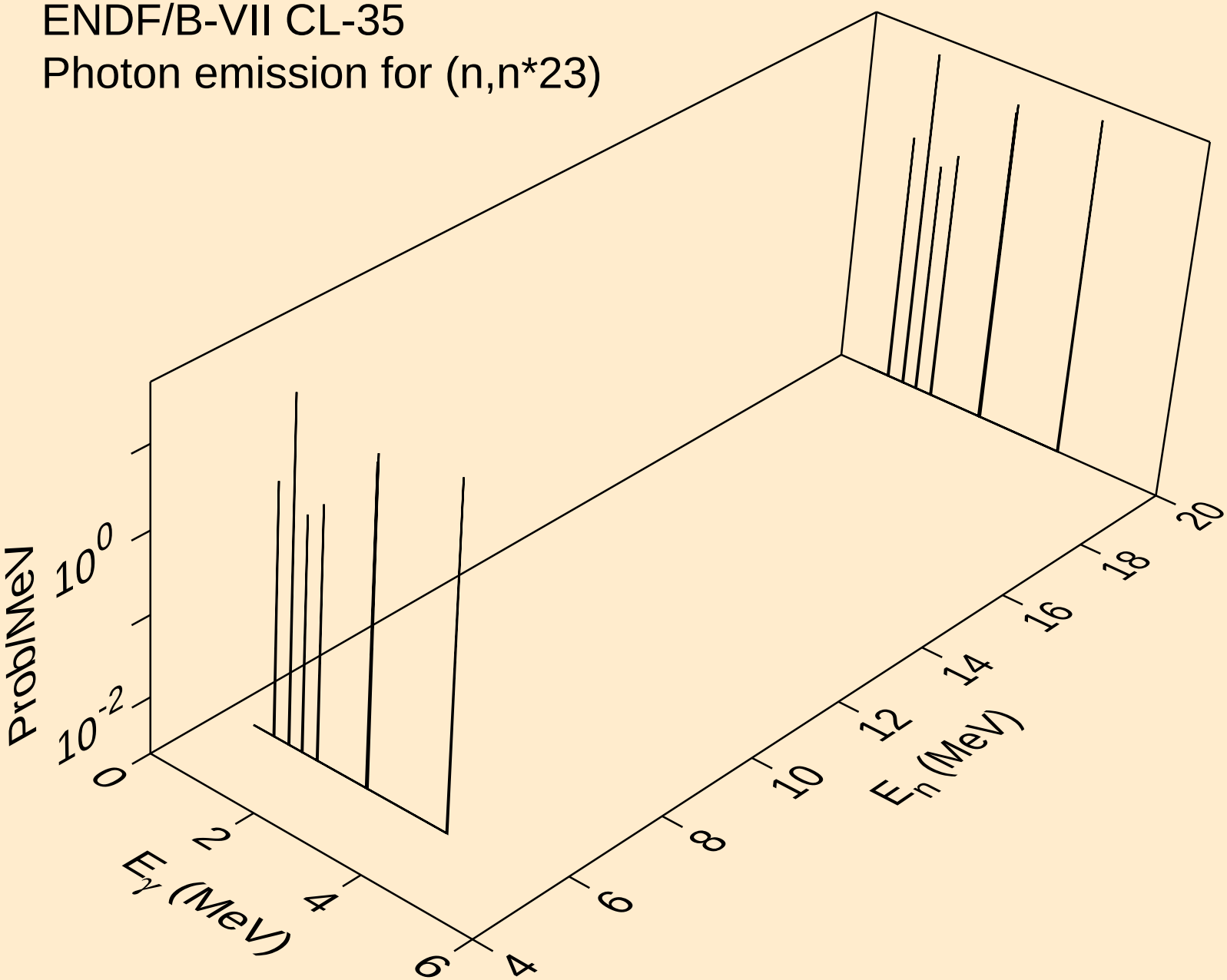
ENDF/B-VII CL-35
Photon emission for (n,n*21)

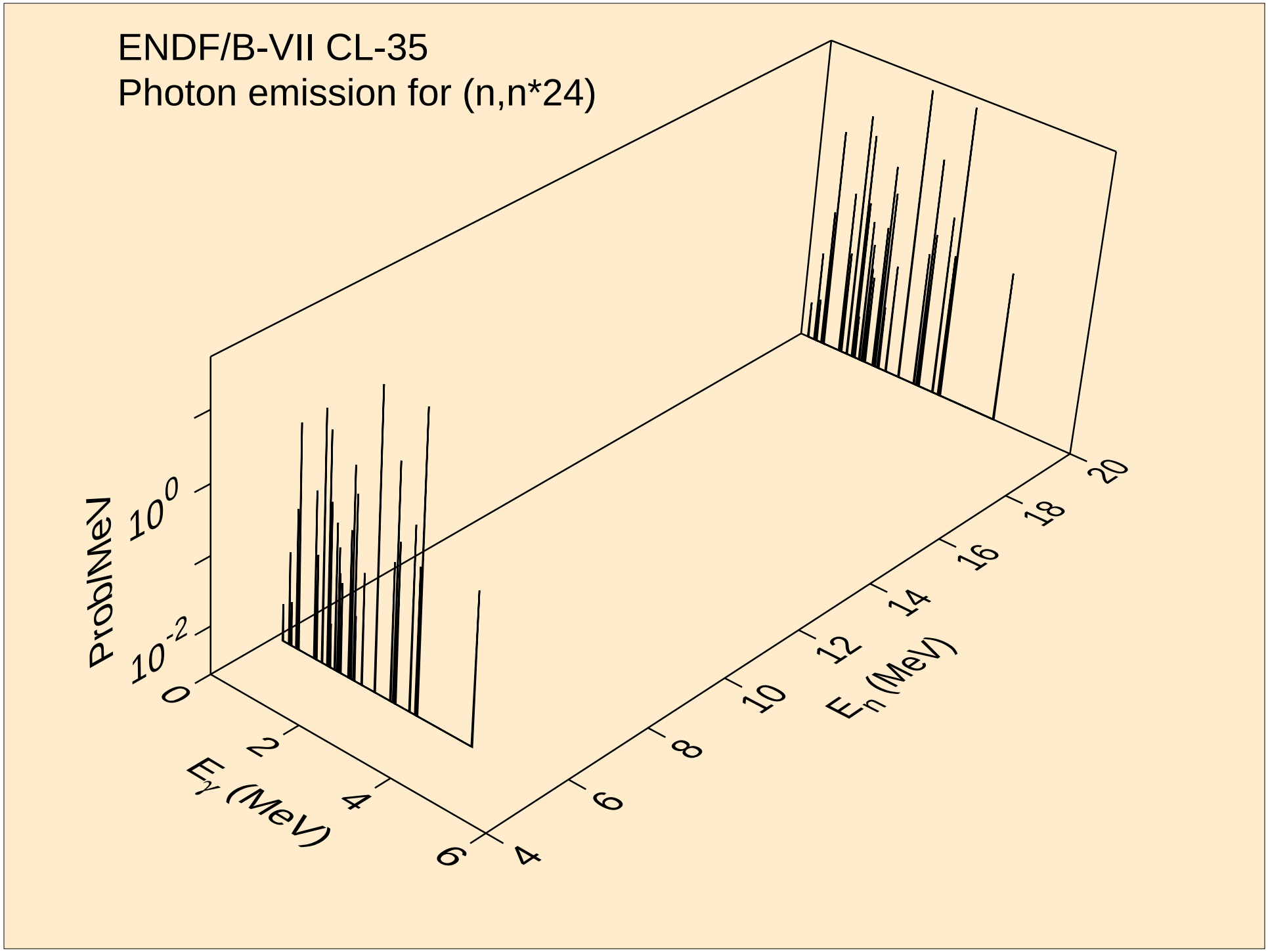


ENDF/B-VII CL-35
Photon emission for (n,n*22)

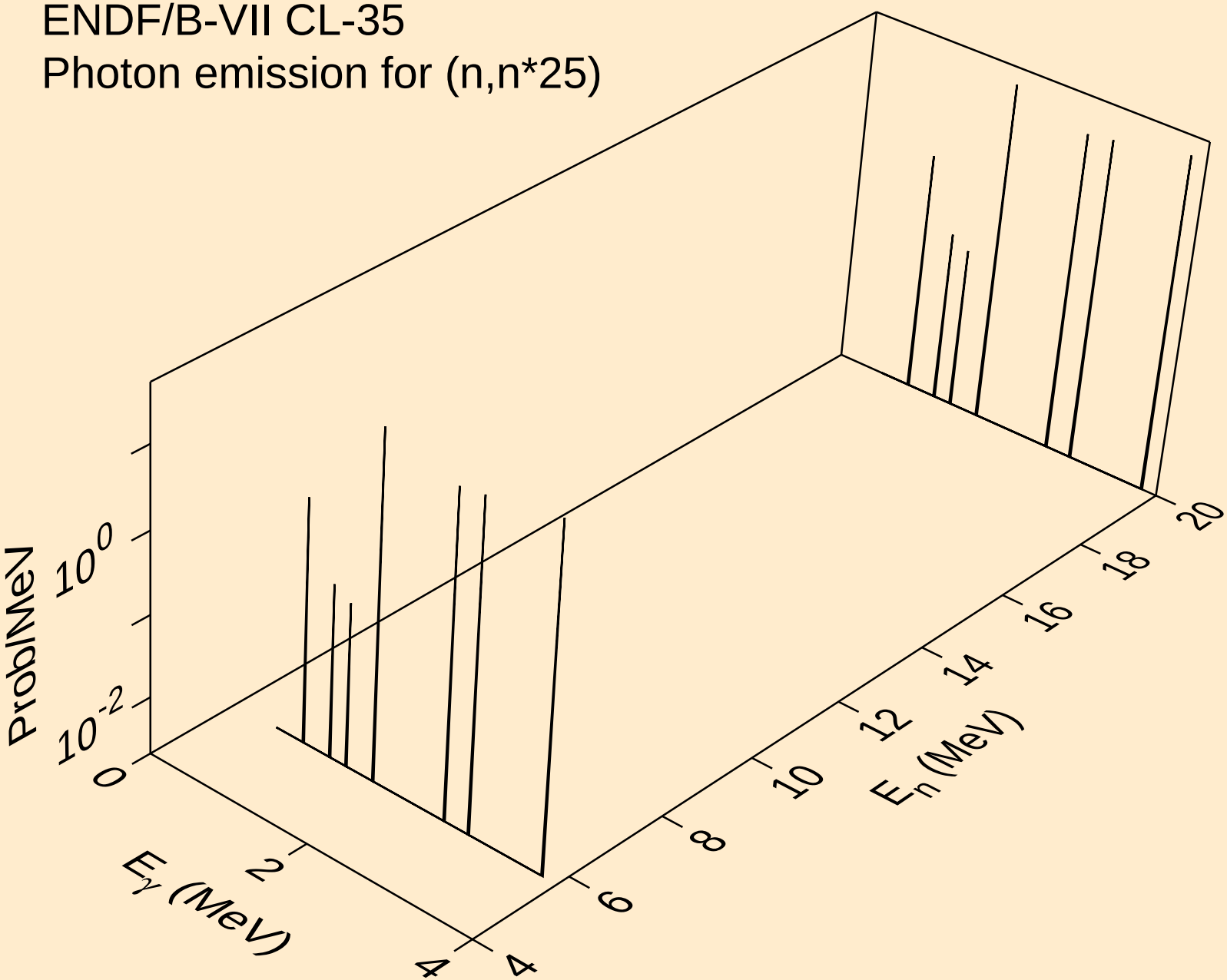


ENDF/B-VII CL-35
Photon emission for (n,n*23)

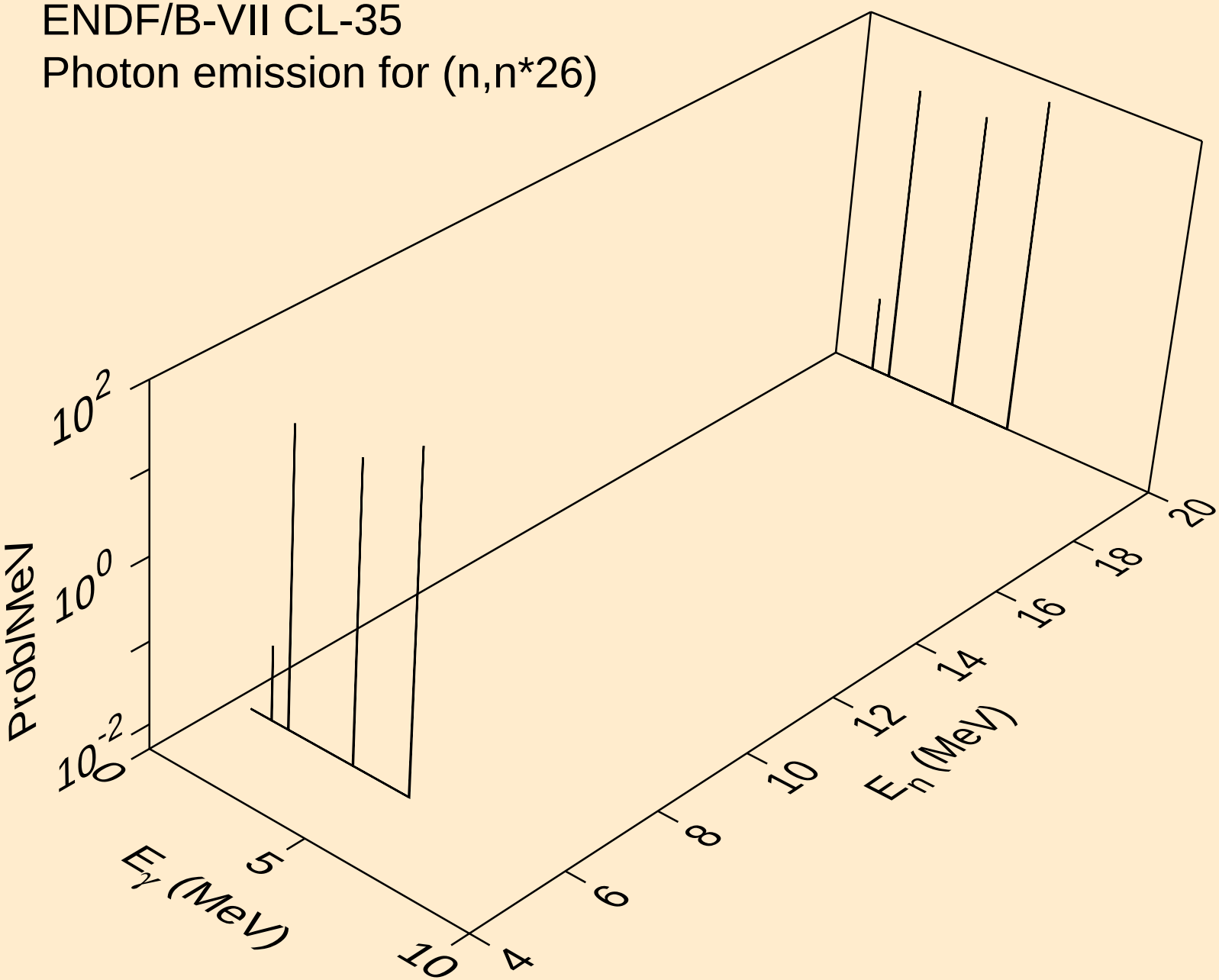


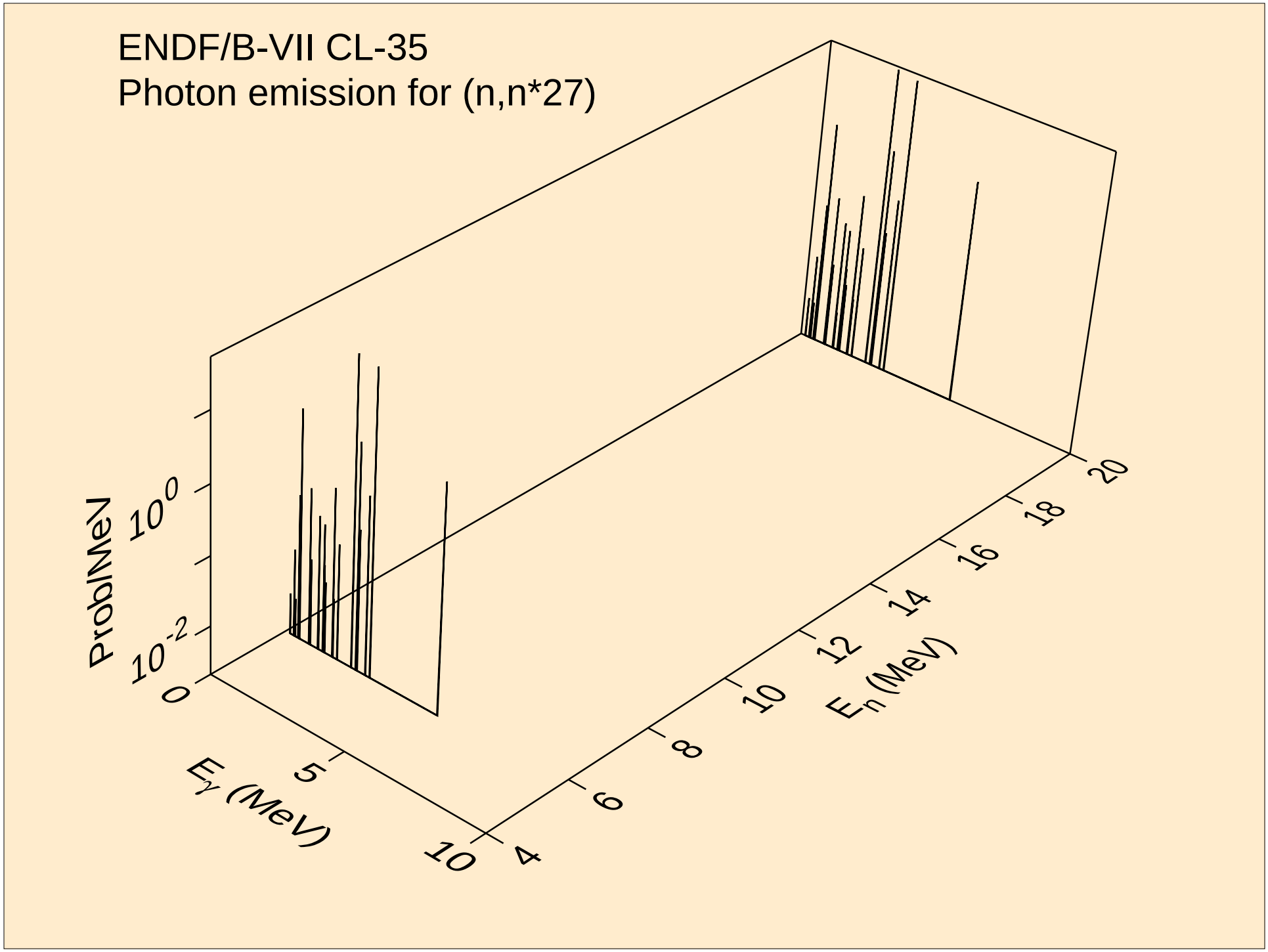

ENDF/B-VII CL-35
Photon emission for (n,n*24)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,n*25)

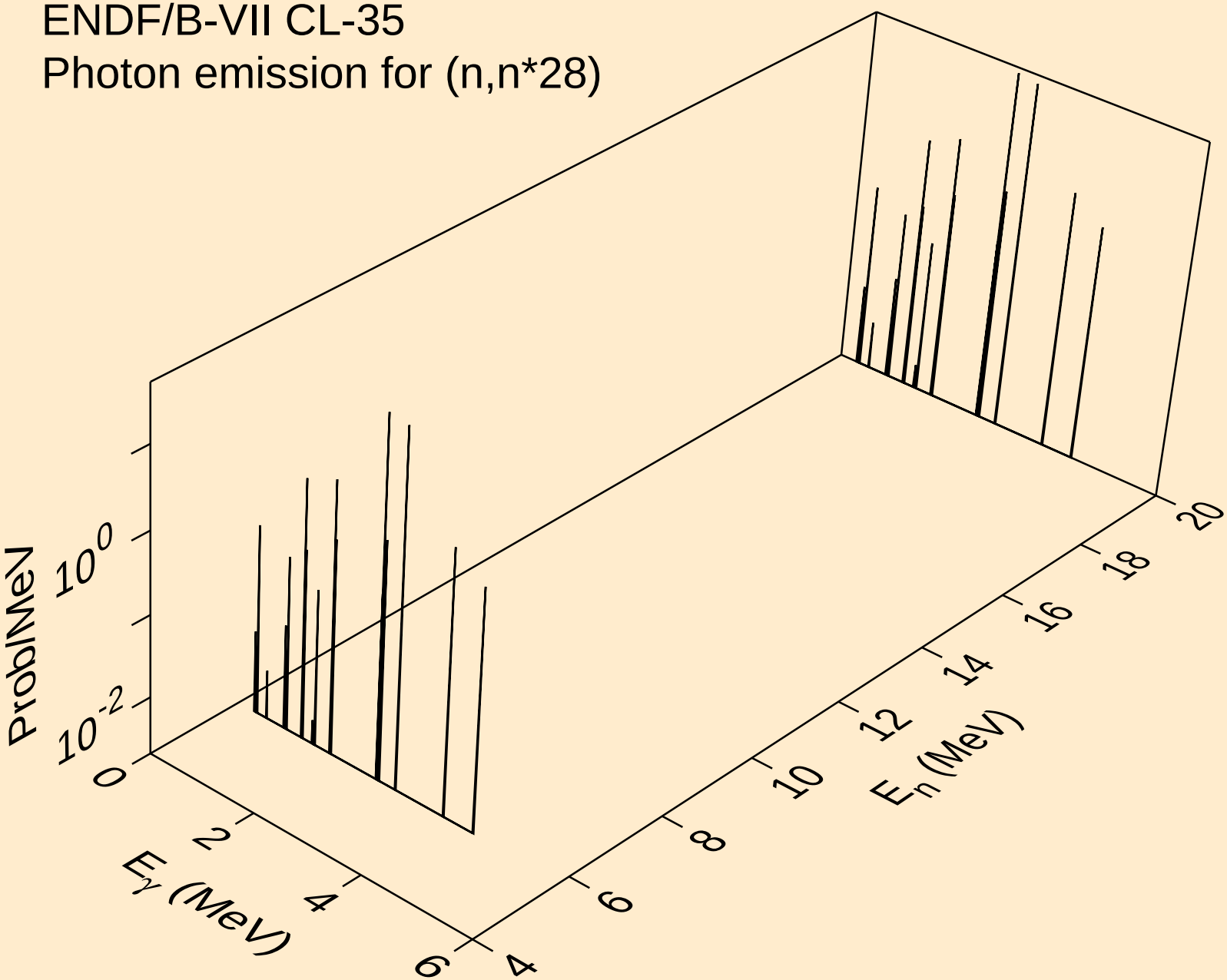


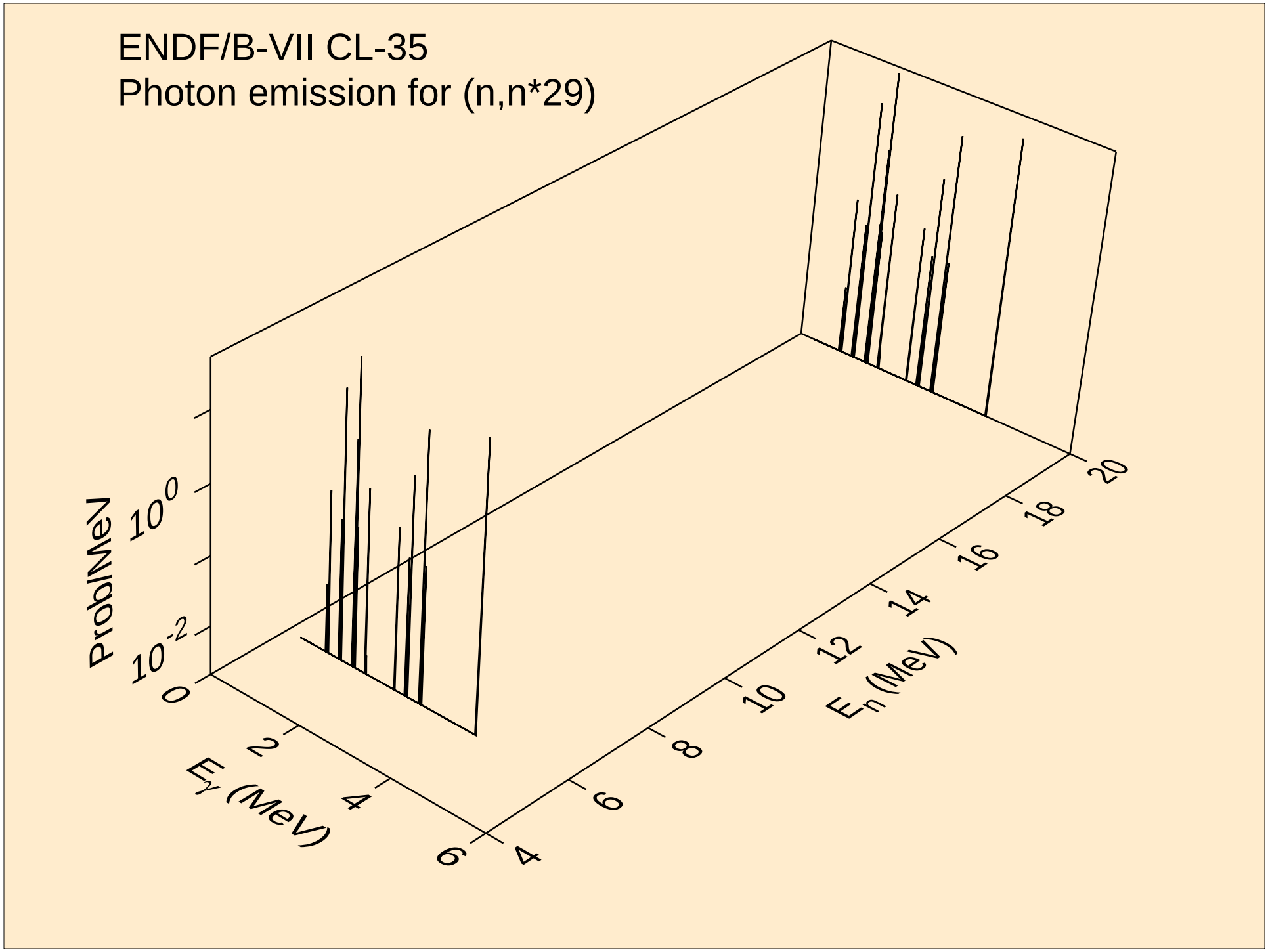
ENDF/B-VII CL-35
Photon emission for (n,n*26)



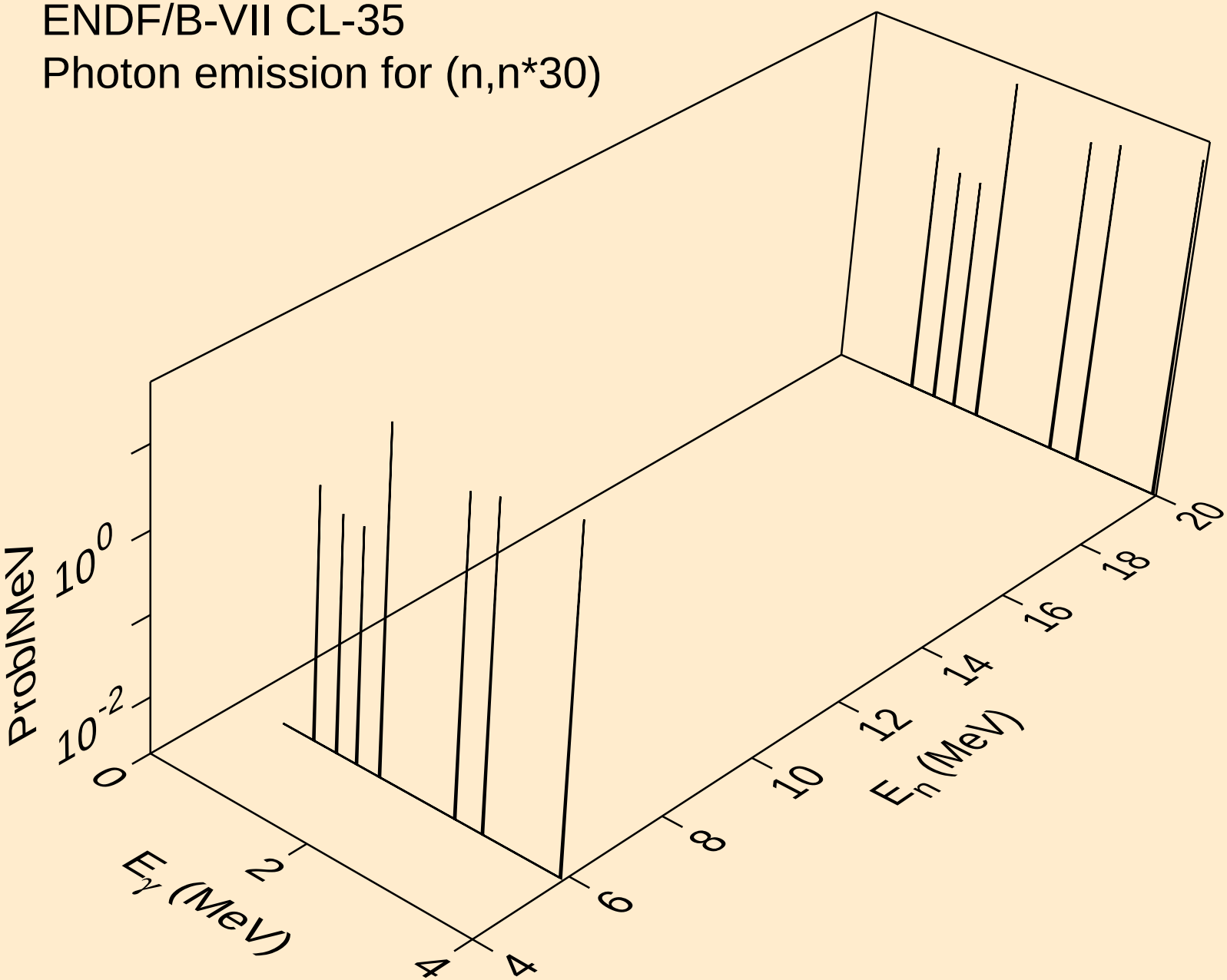

ENDF/B-VII CL-35
Photon emission for (n,n*27)
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

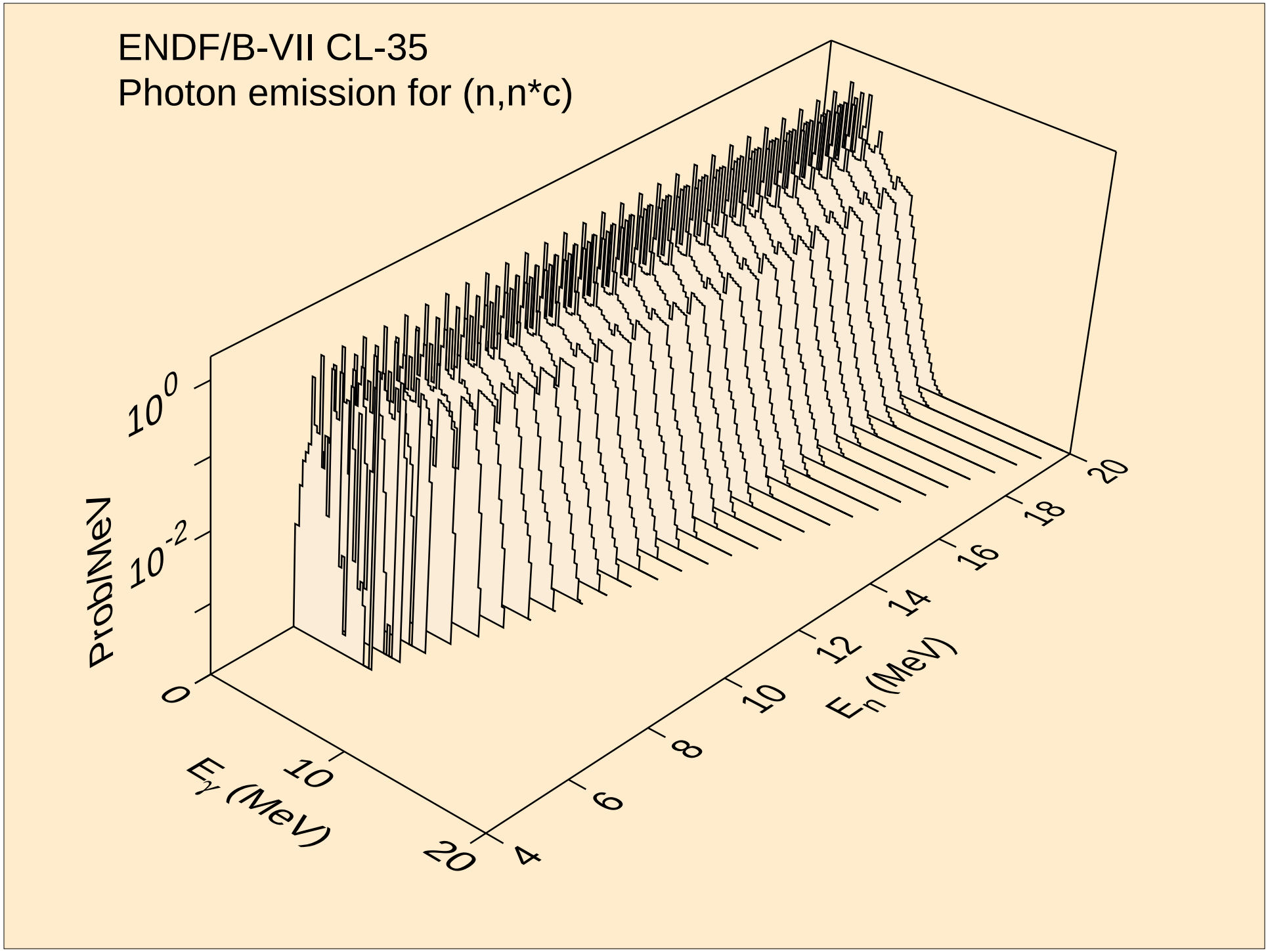
ENDF/B-VII CL-35
Photon emission for (n,n*28)

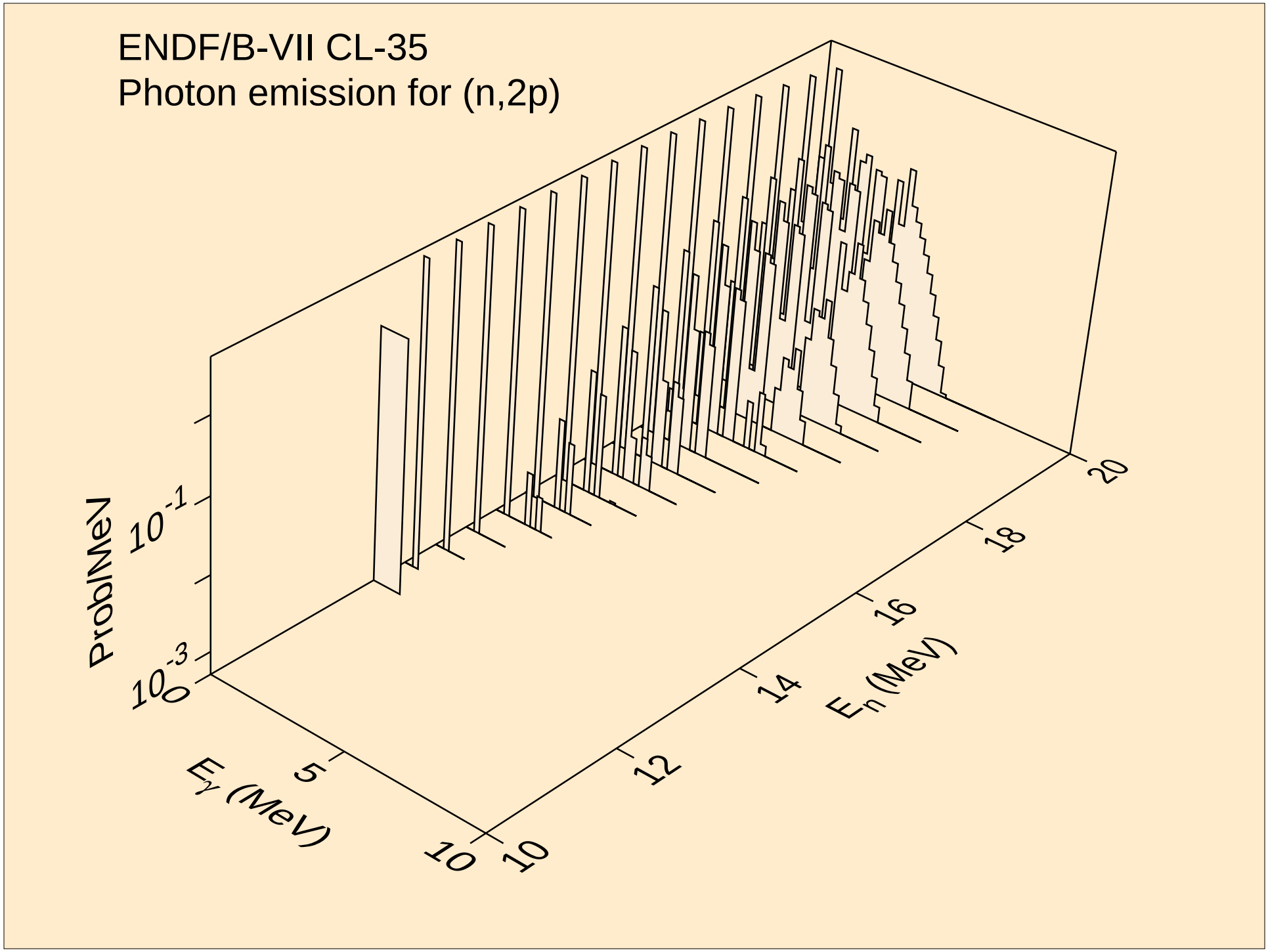



ENDF/B-VII CL-35
Photon emission for (n,n*29)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

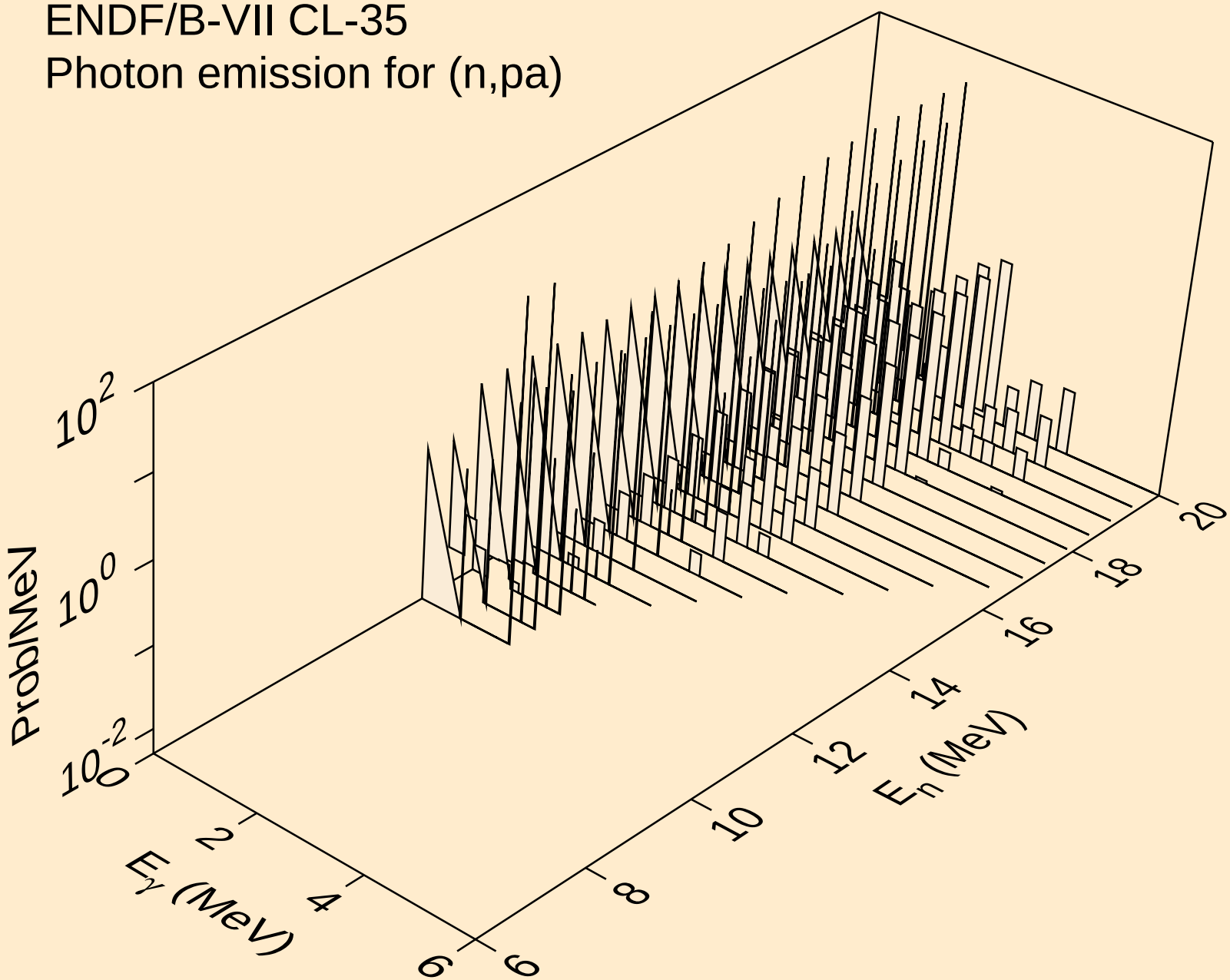
ENDF/B-VII CL-35
Photon emission for (n,n*30)

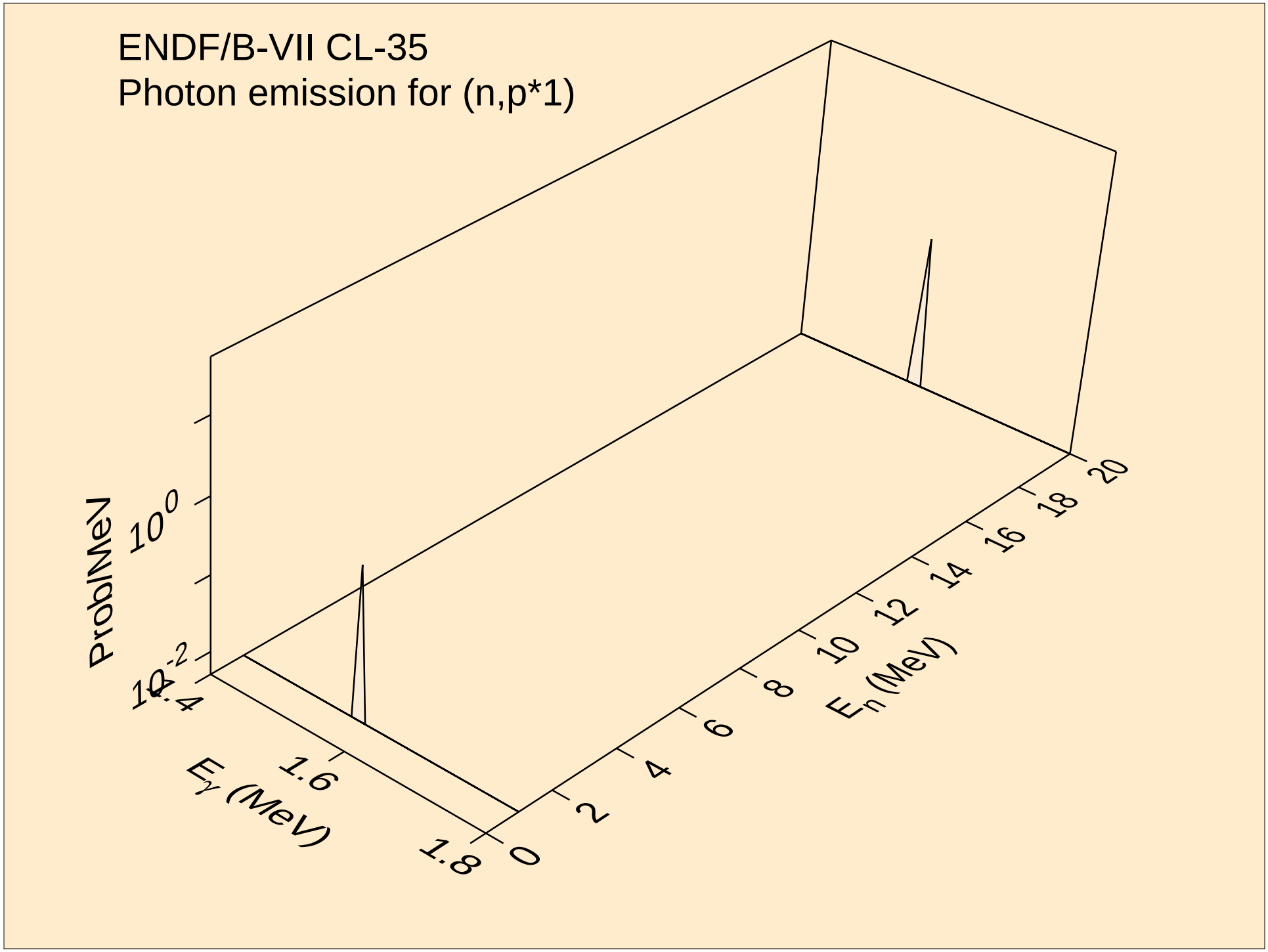



ENDF/B-VII CL-35
Photon emission for (n,n*c)
Prob/MeV
10^0
10^{-2}
0
10
20
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

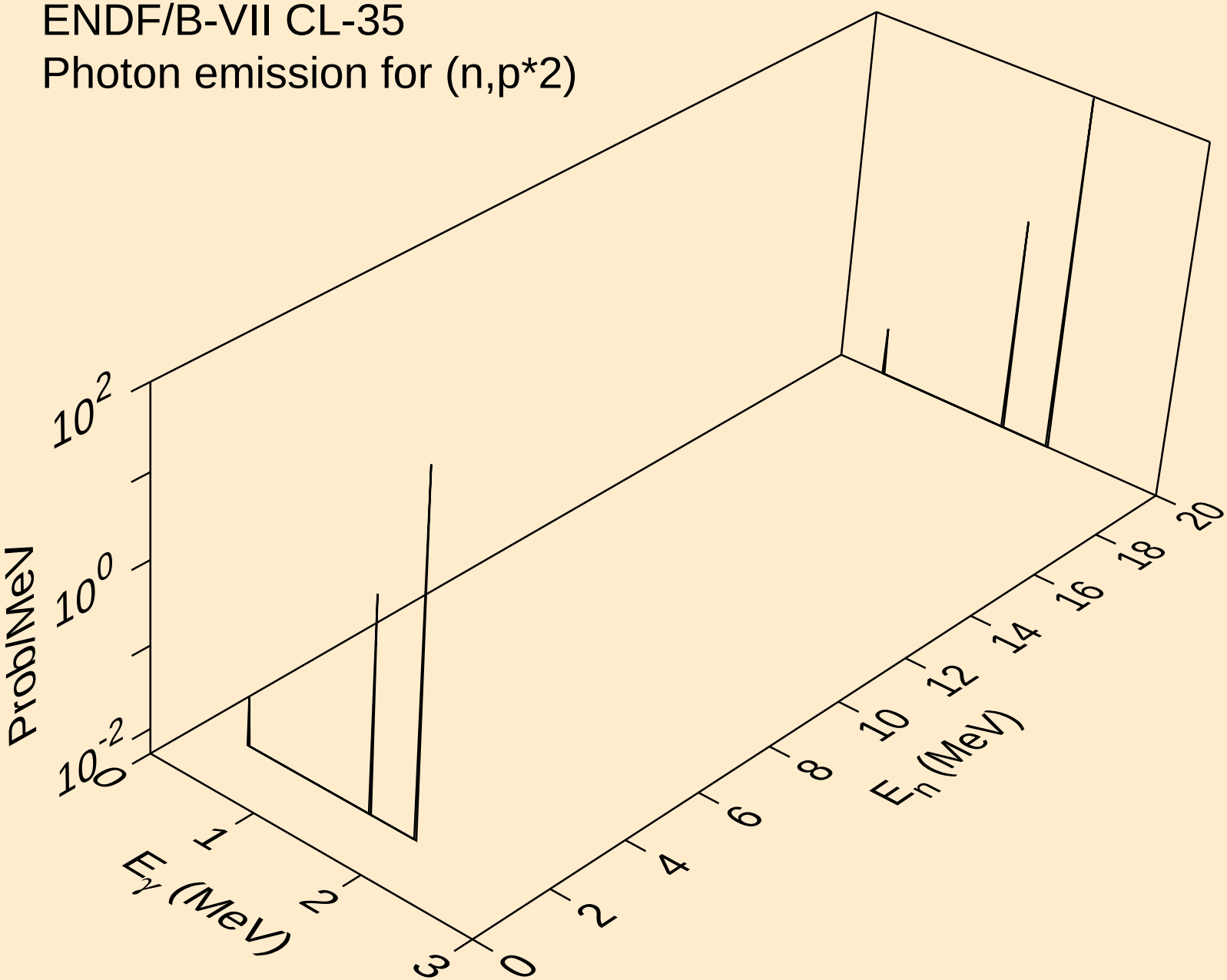

ENDF/B-VII CL-35
Photon emission for (n,2p)
Prob/MeV
10^{-1}
10^{-3}
0
5
10
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,pa)

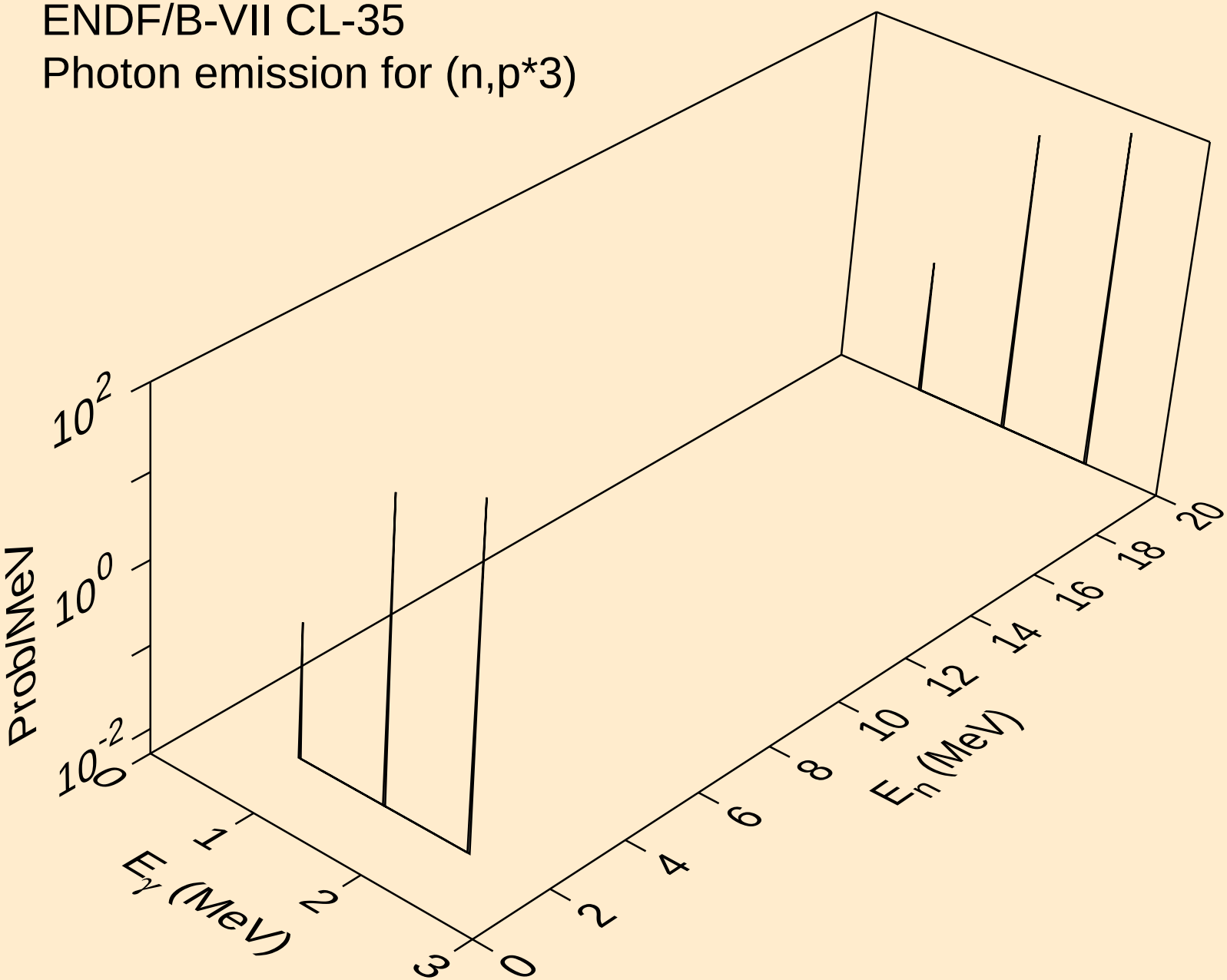



ENDF/B-VII CL-35
Photon emission for (n,p*1)
Prob/MeV
10^0
10^{-2}
1.4
1.6
1.8
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

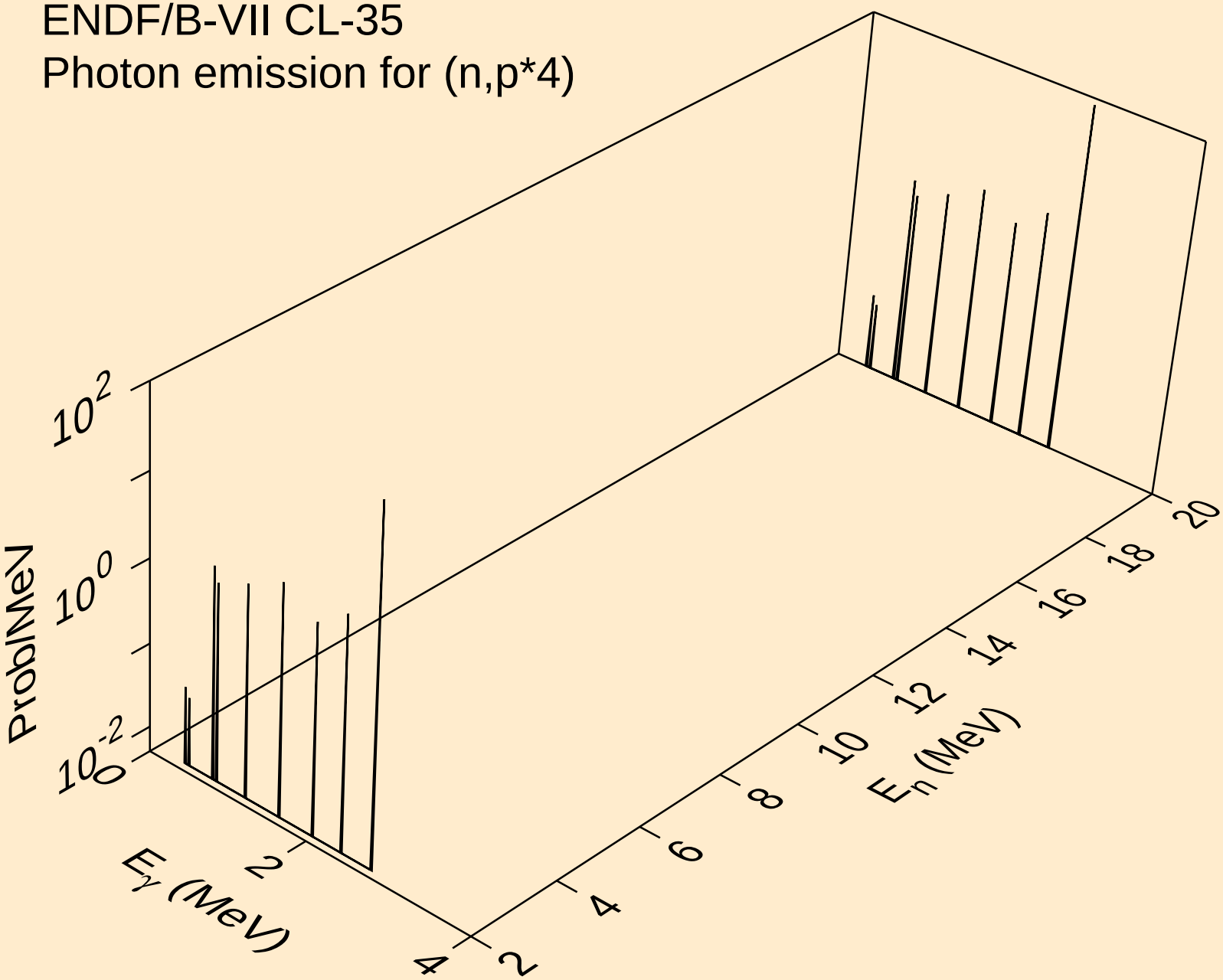
ENDF/B-VII CL-35
Photon emission for (n,p*2)



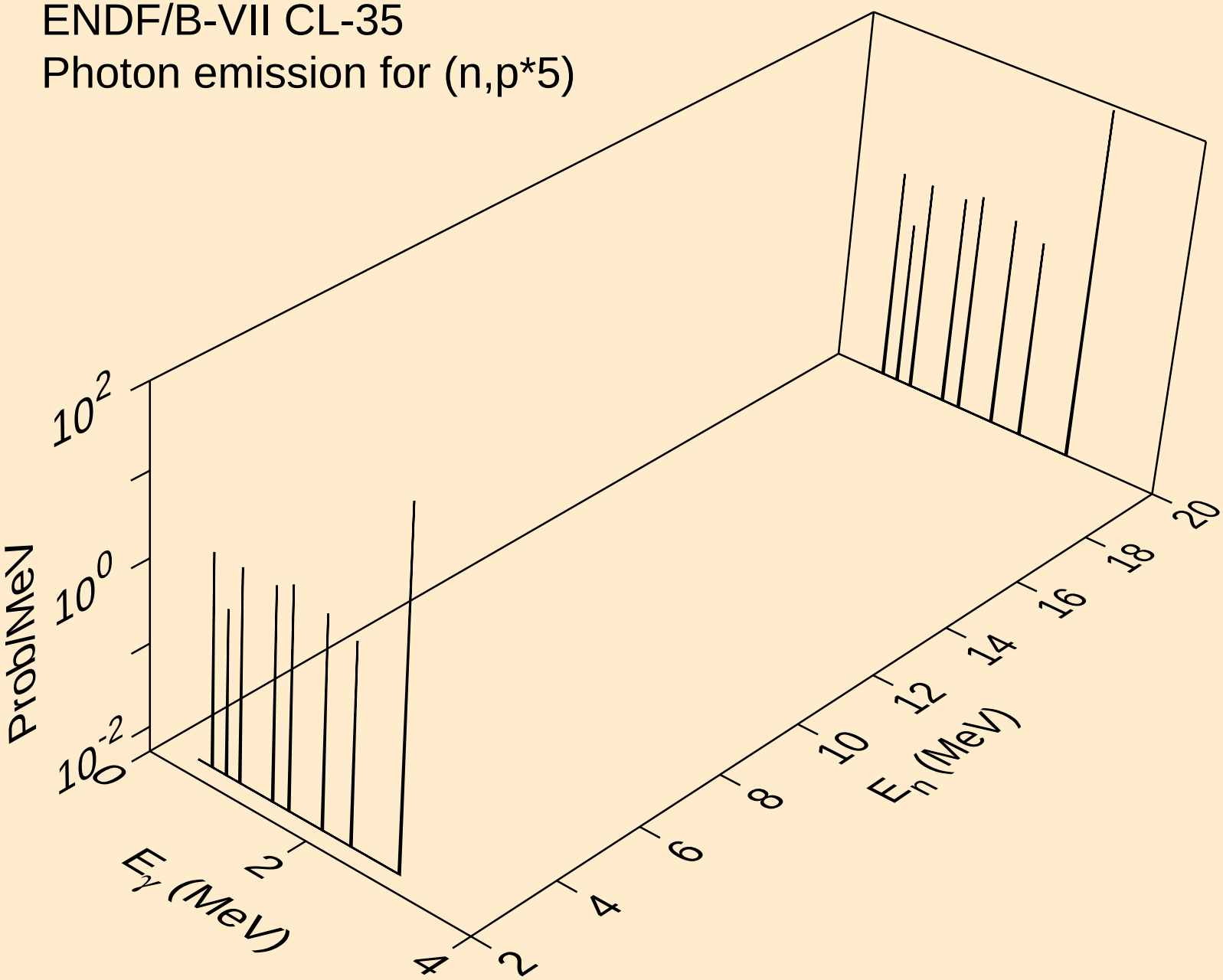
ENDF/B-VII CL-35
Photon emission for (n,p*3)

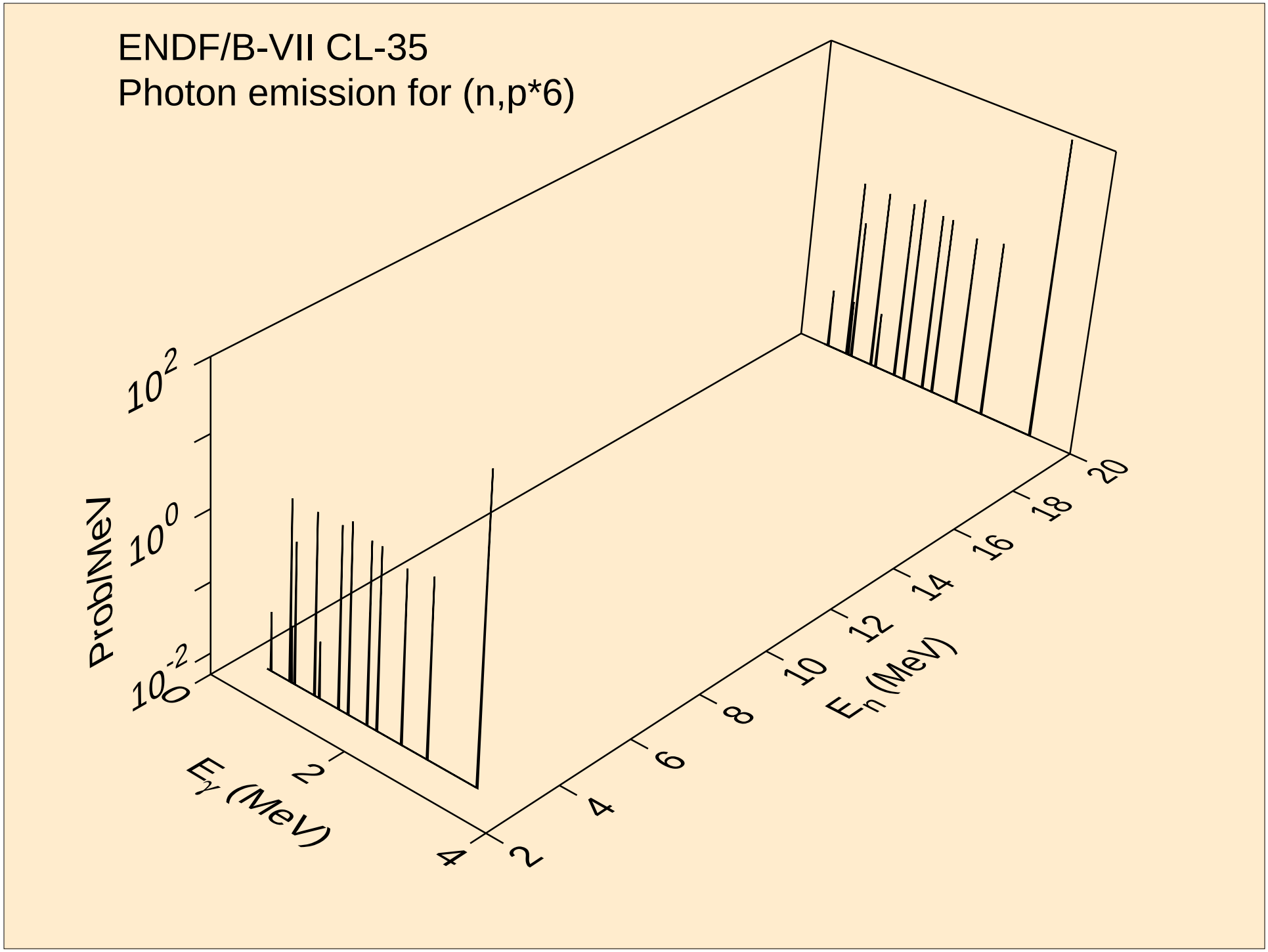


ENDF/B-VII CL-35
Photon emission for (n,p*4)

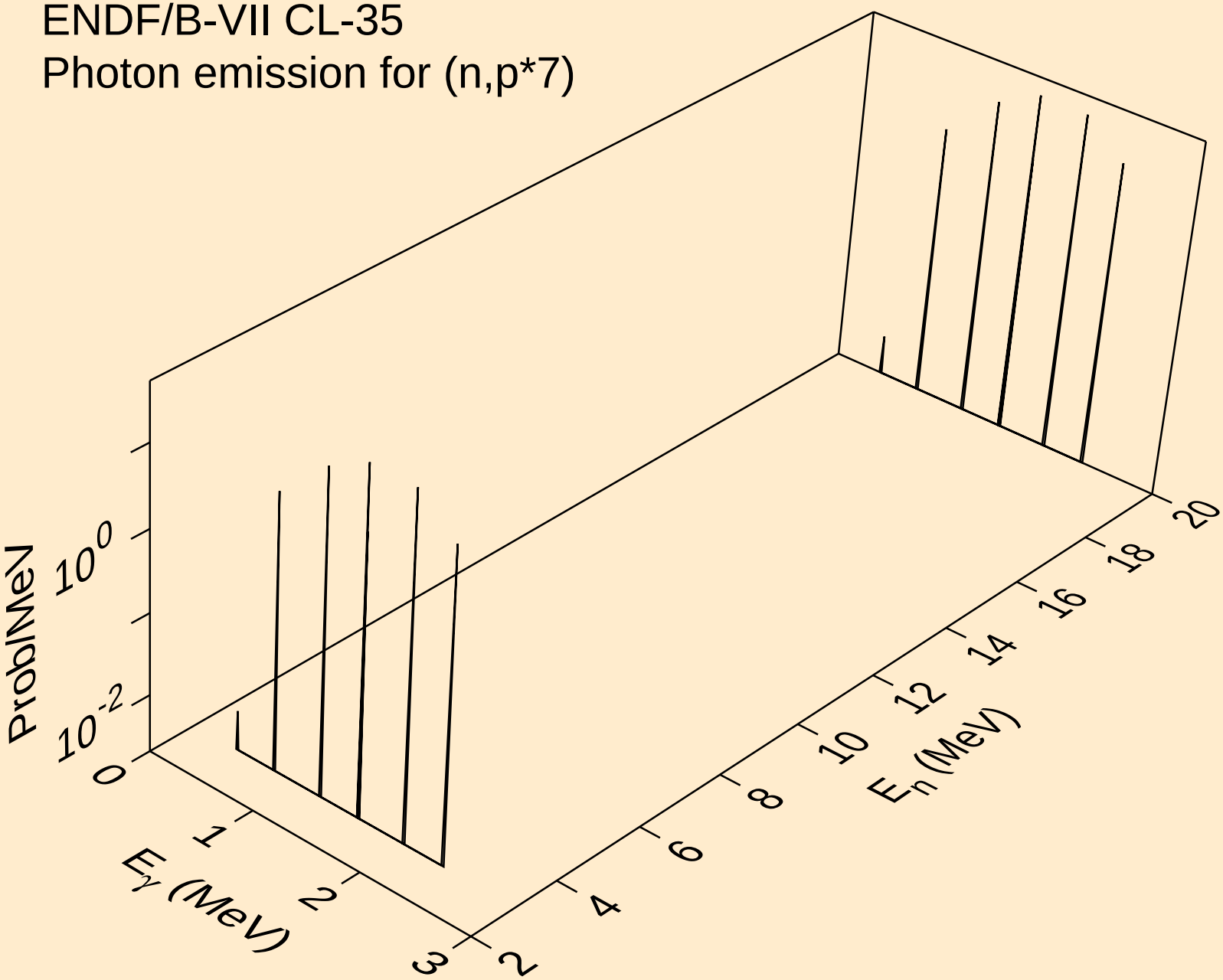


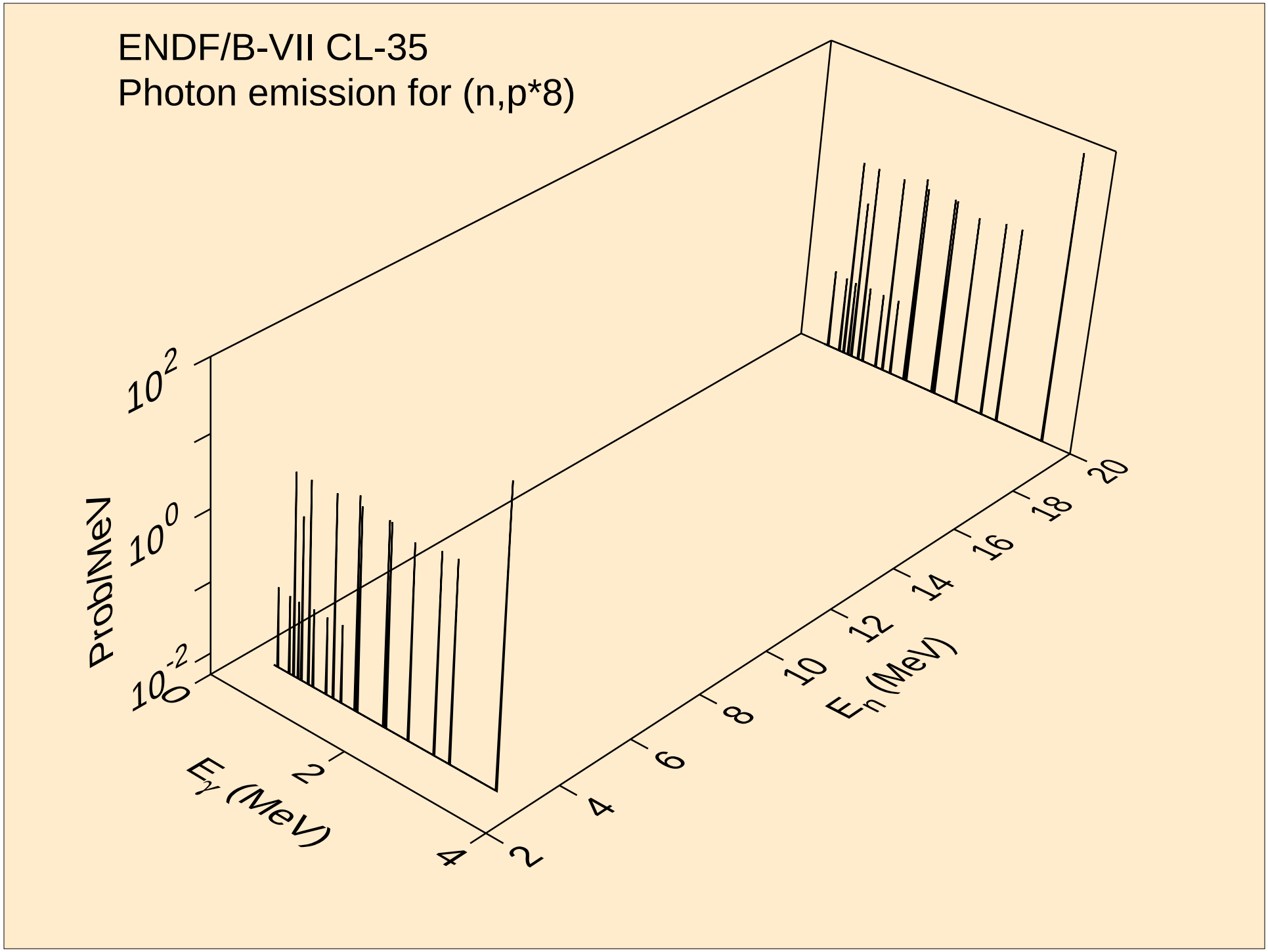
ENDF/B-VII CL-35
Photon emission for (n,p*5)



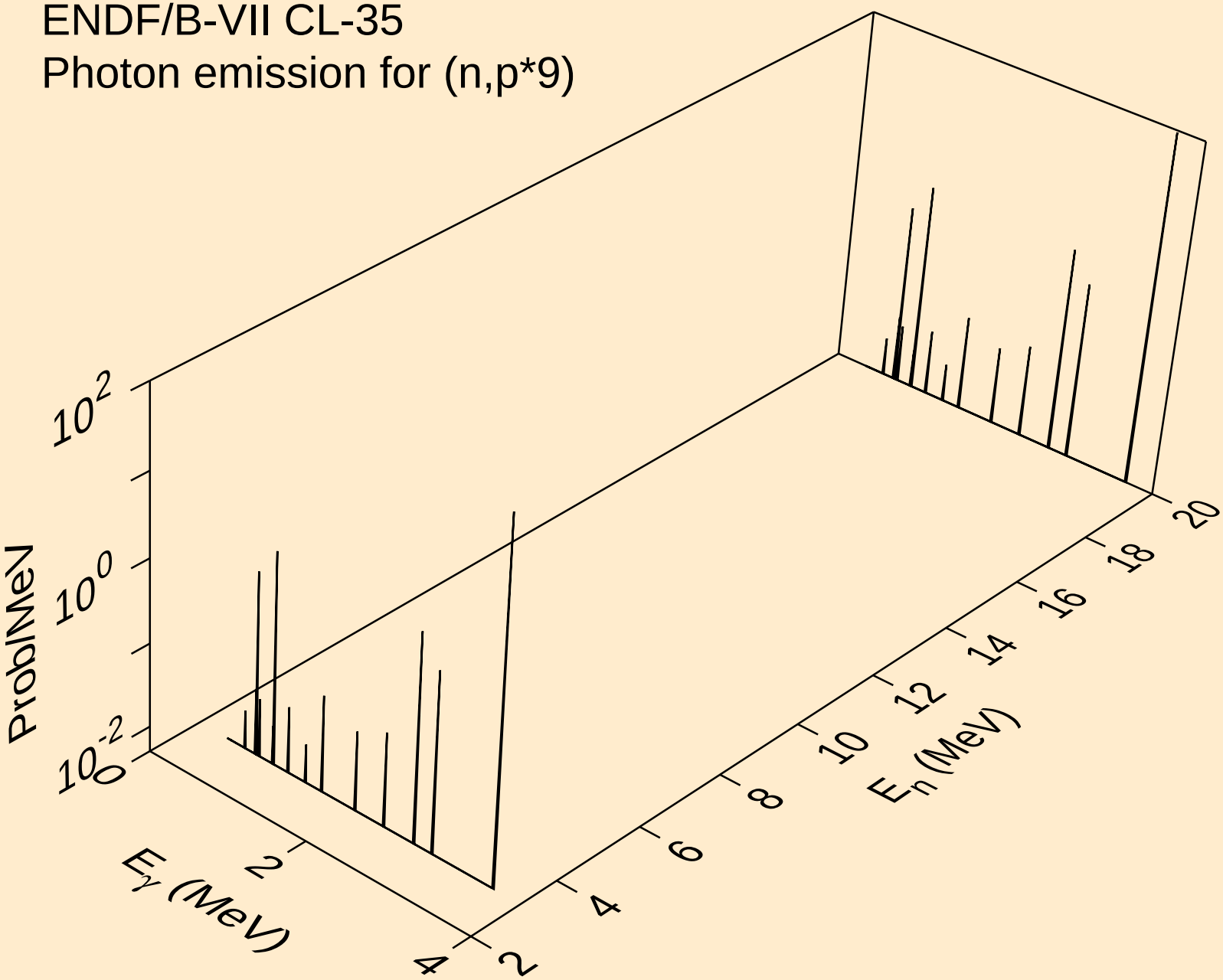

ENDF/B-VII CL-35
Photon emission for (n,p*6)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
E_n (MeV)
2
4
6
8
10
12
14
16
18
20

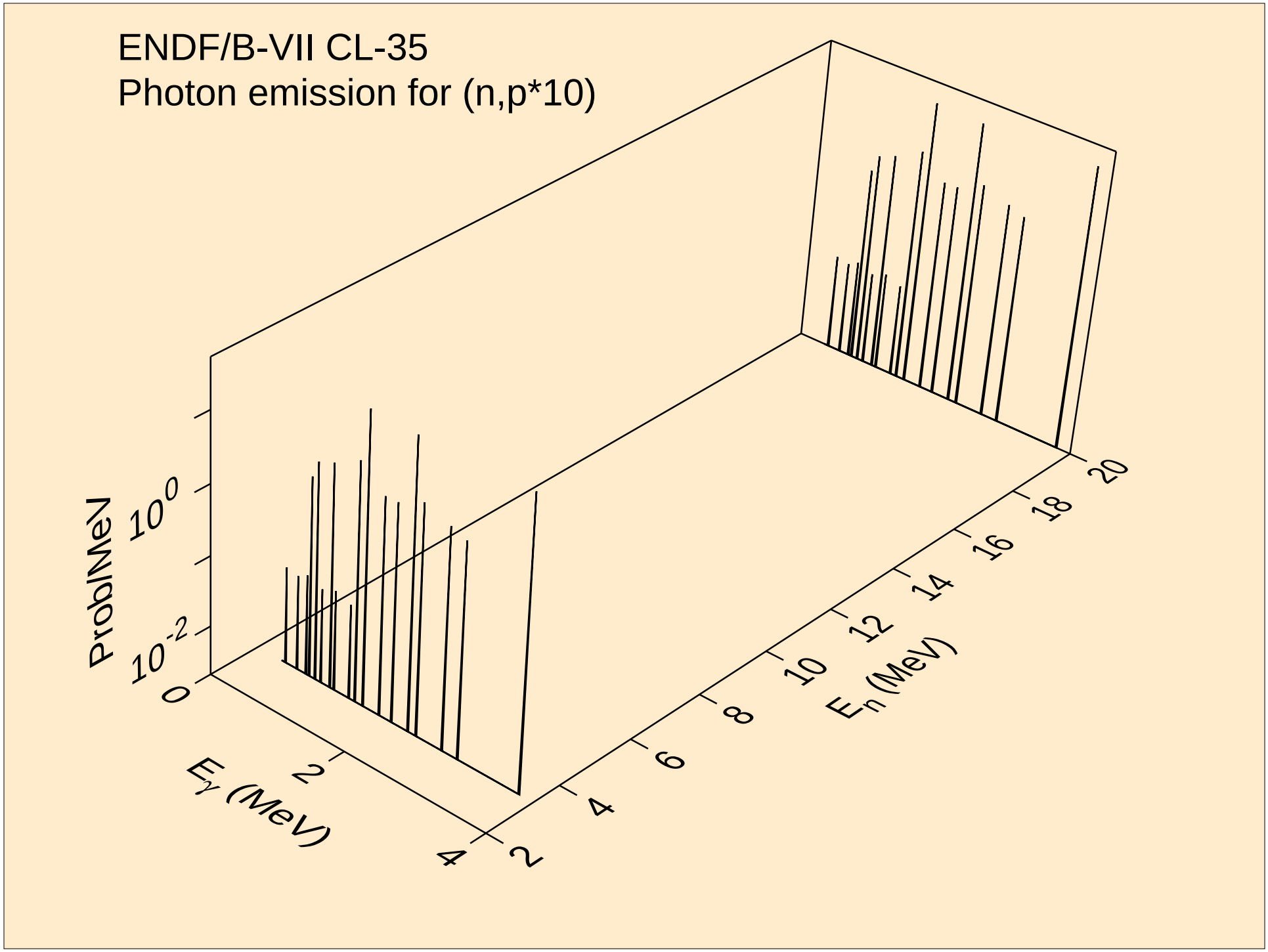
ENDF/B-VII CL-35
Photon emission for (n,p*7)



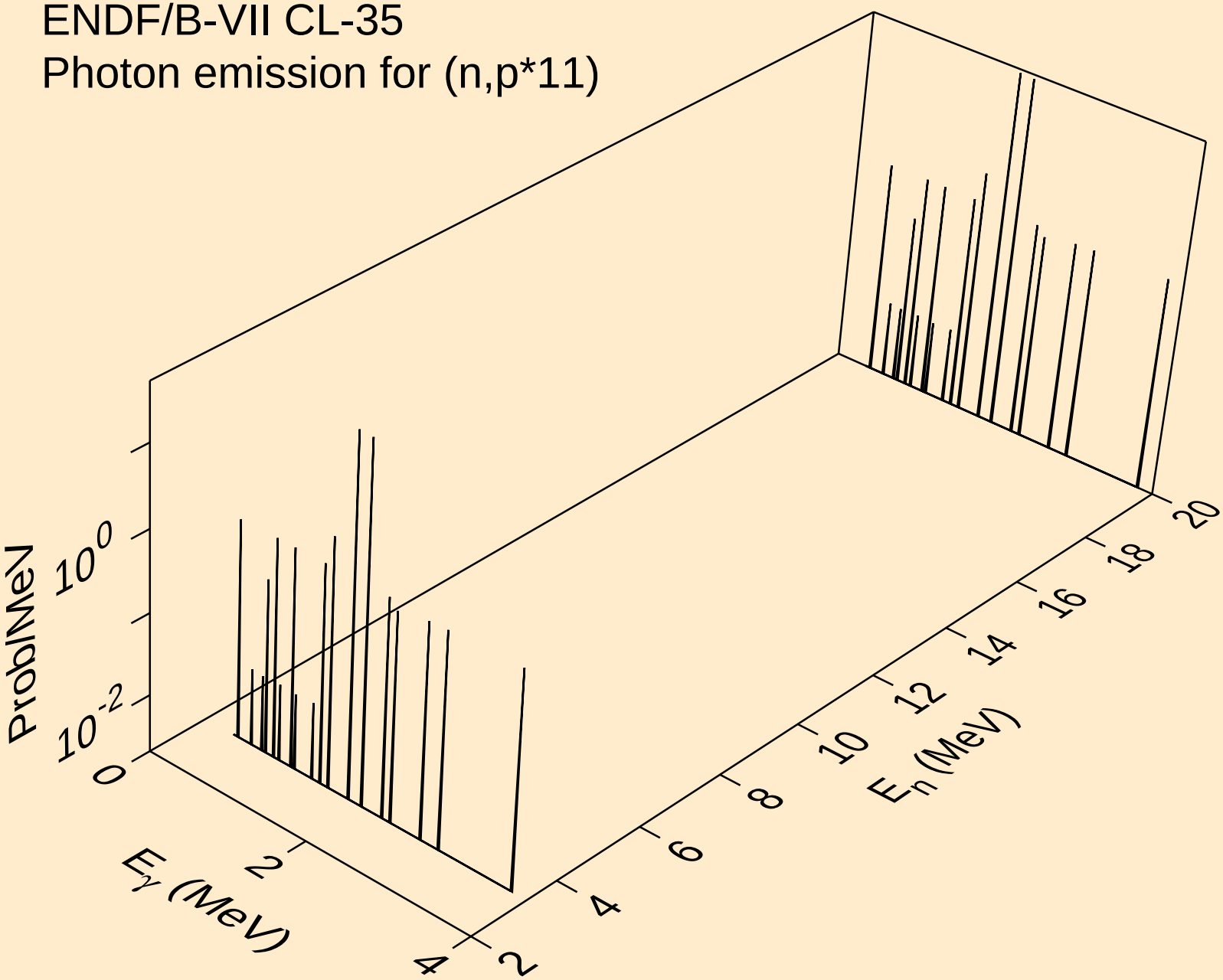

ENDF/B-VII CL-35
Photon emission for (n,p*8)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
E_n (MeV)
2
4
6
8
10
12
14
16
18
20

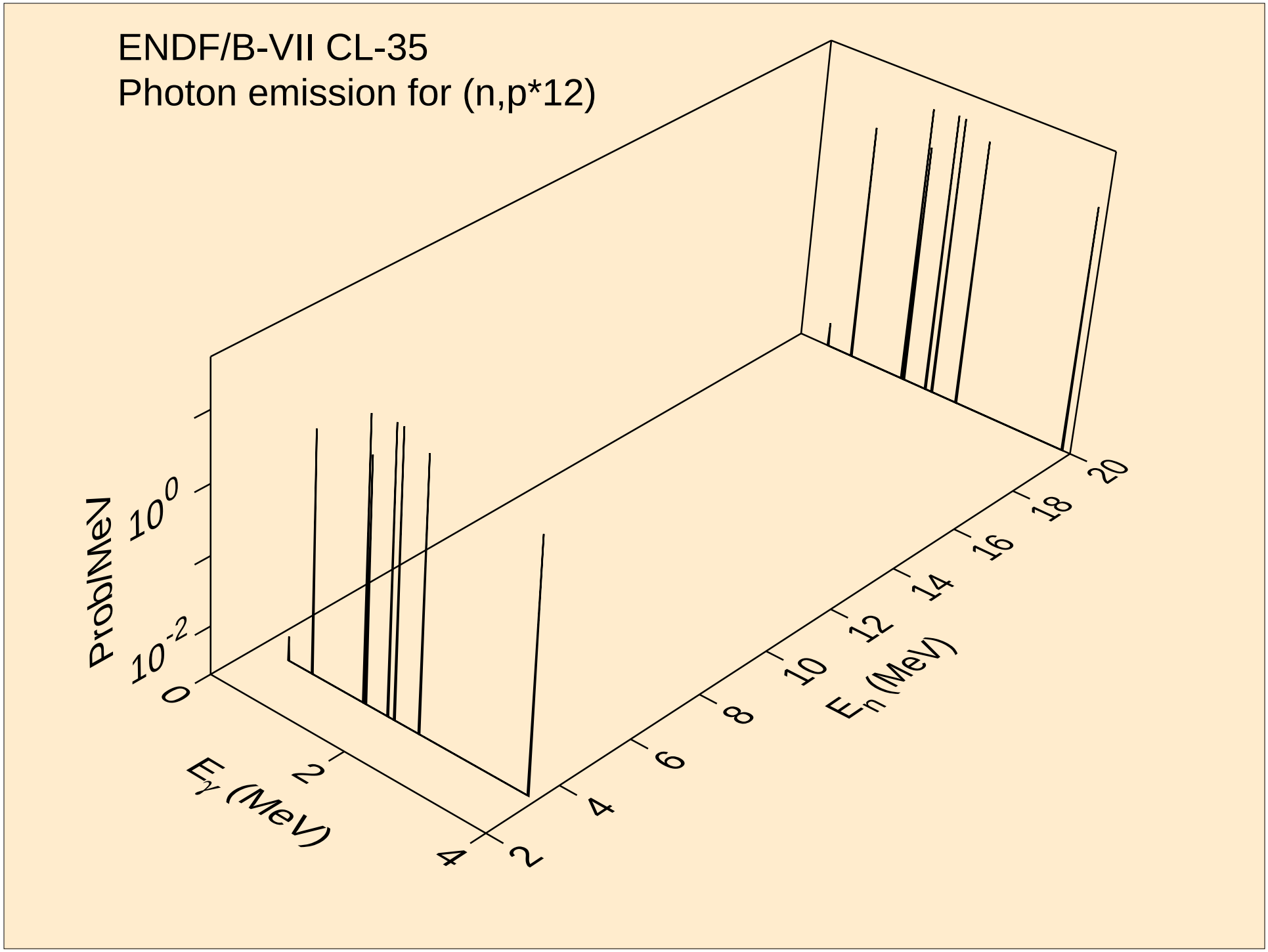
ENDF/B-VII CL-35
Photon emission for (n,p*9)



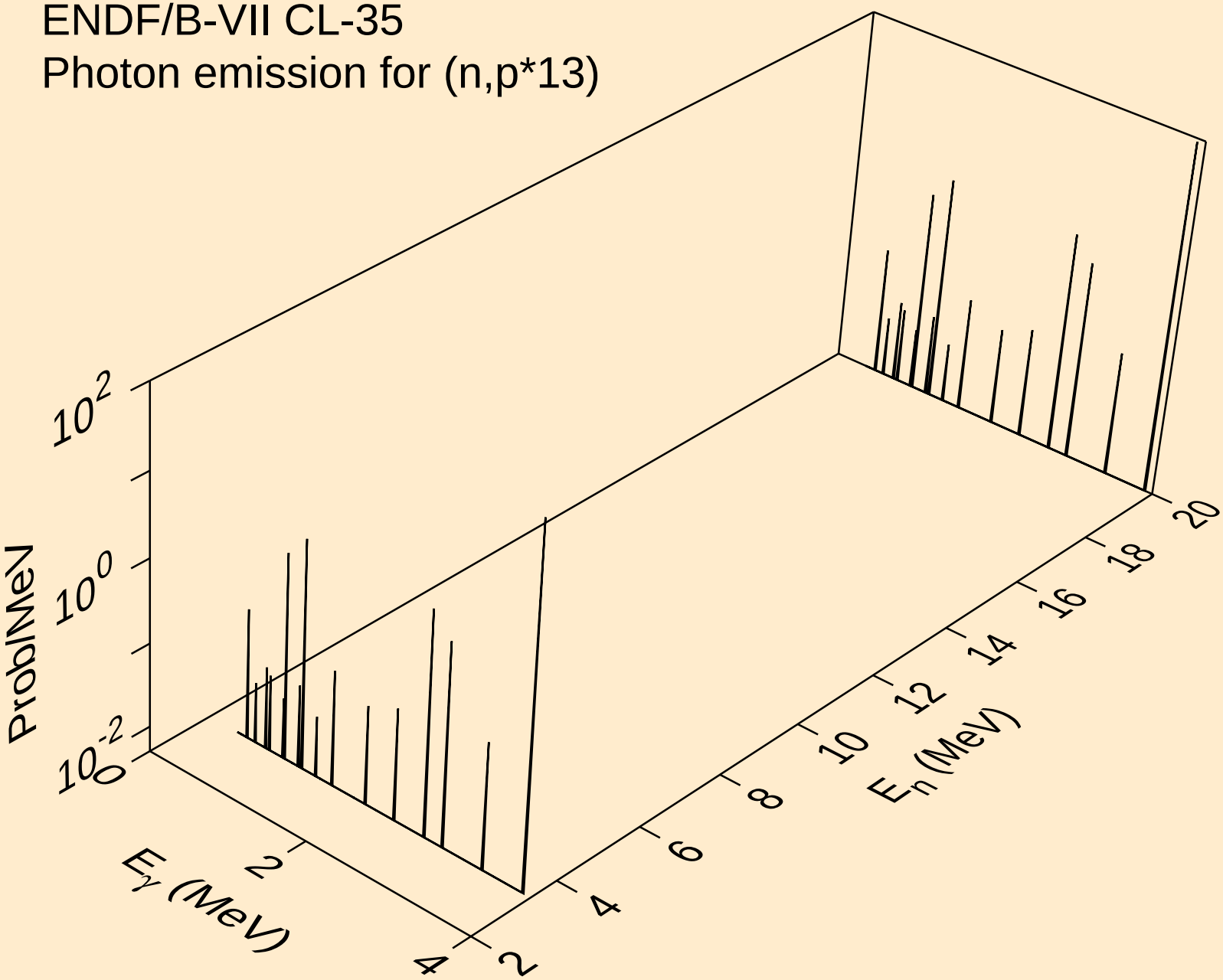

ENDF/B-VII CL-35
Photon emission for (n,p*10)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,p*11)

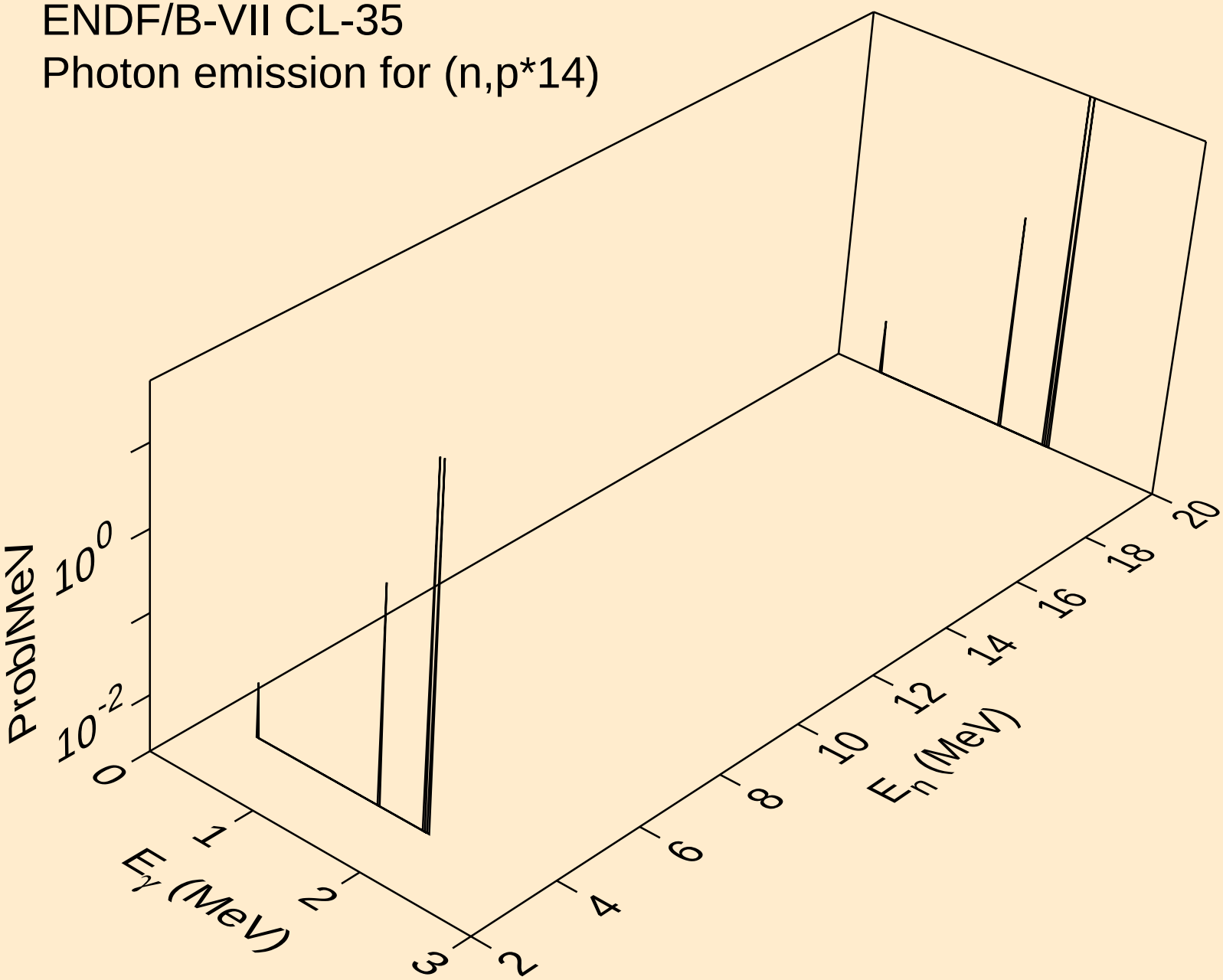



ENDF/B-VII CL-35
Photon emission for (n,p*12)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

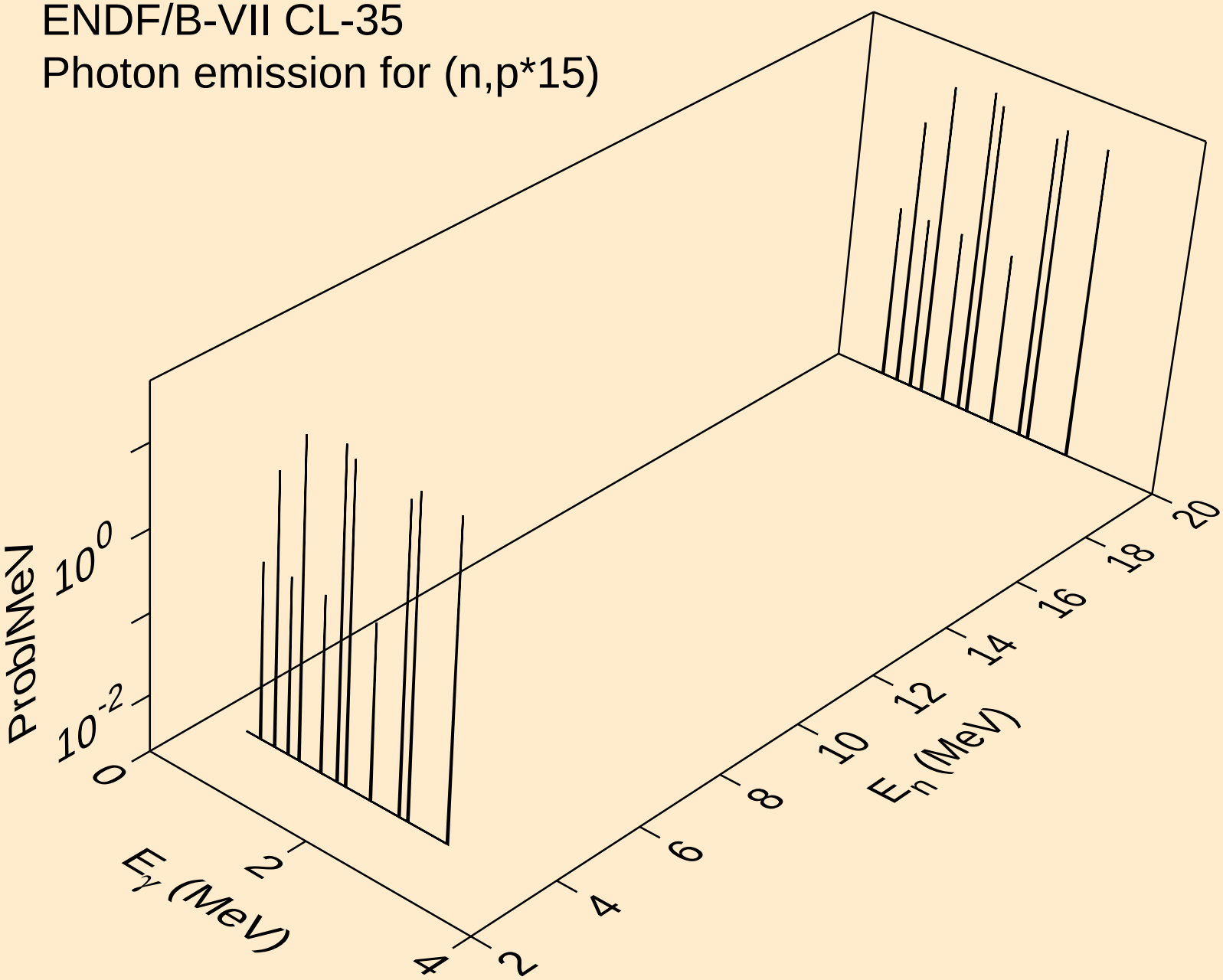
ENDF/B-VII CL-35
Photon emission for (n,p*13)



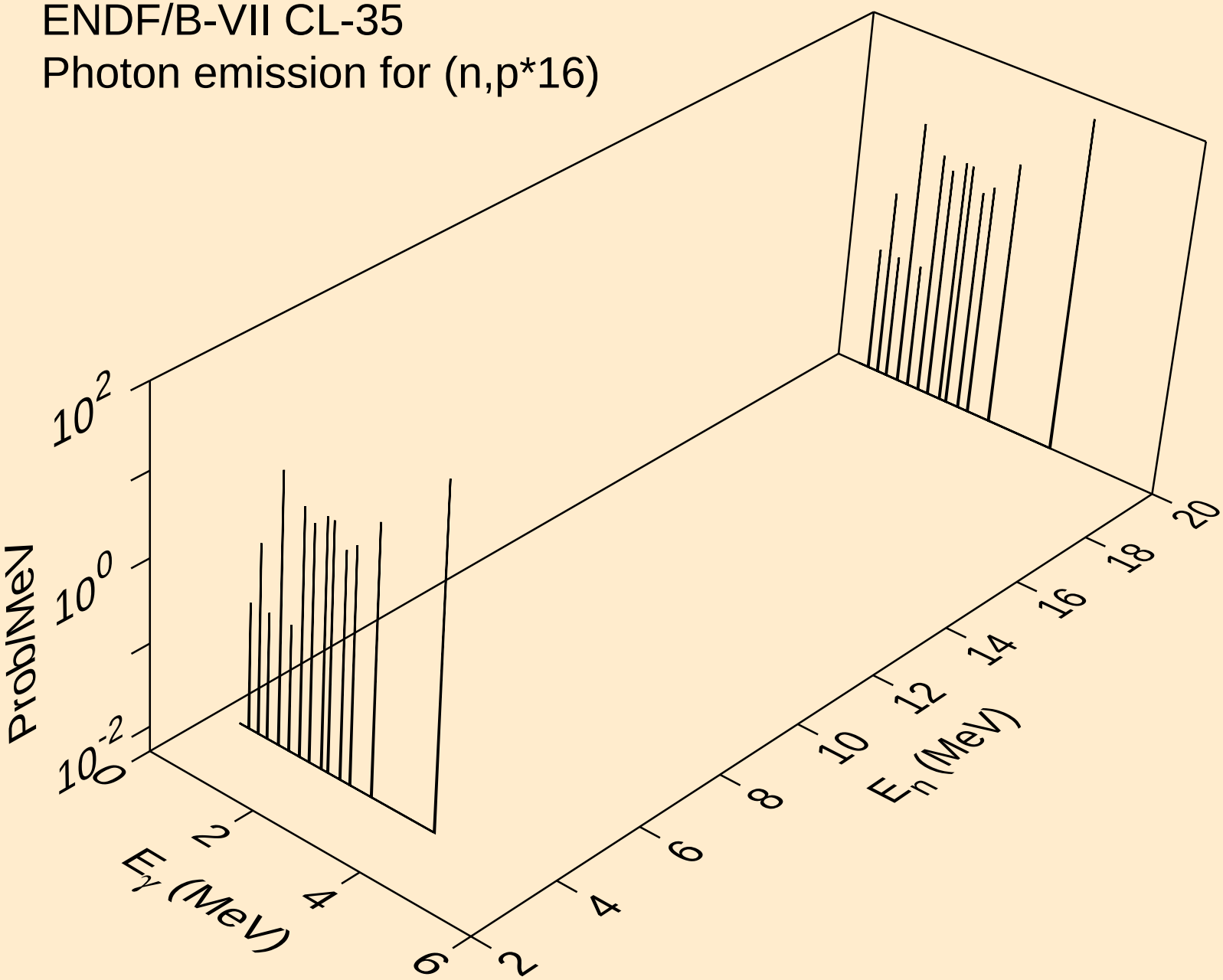
ENDF/B-VII CL-35
Photon emission for (n,p*14)



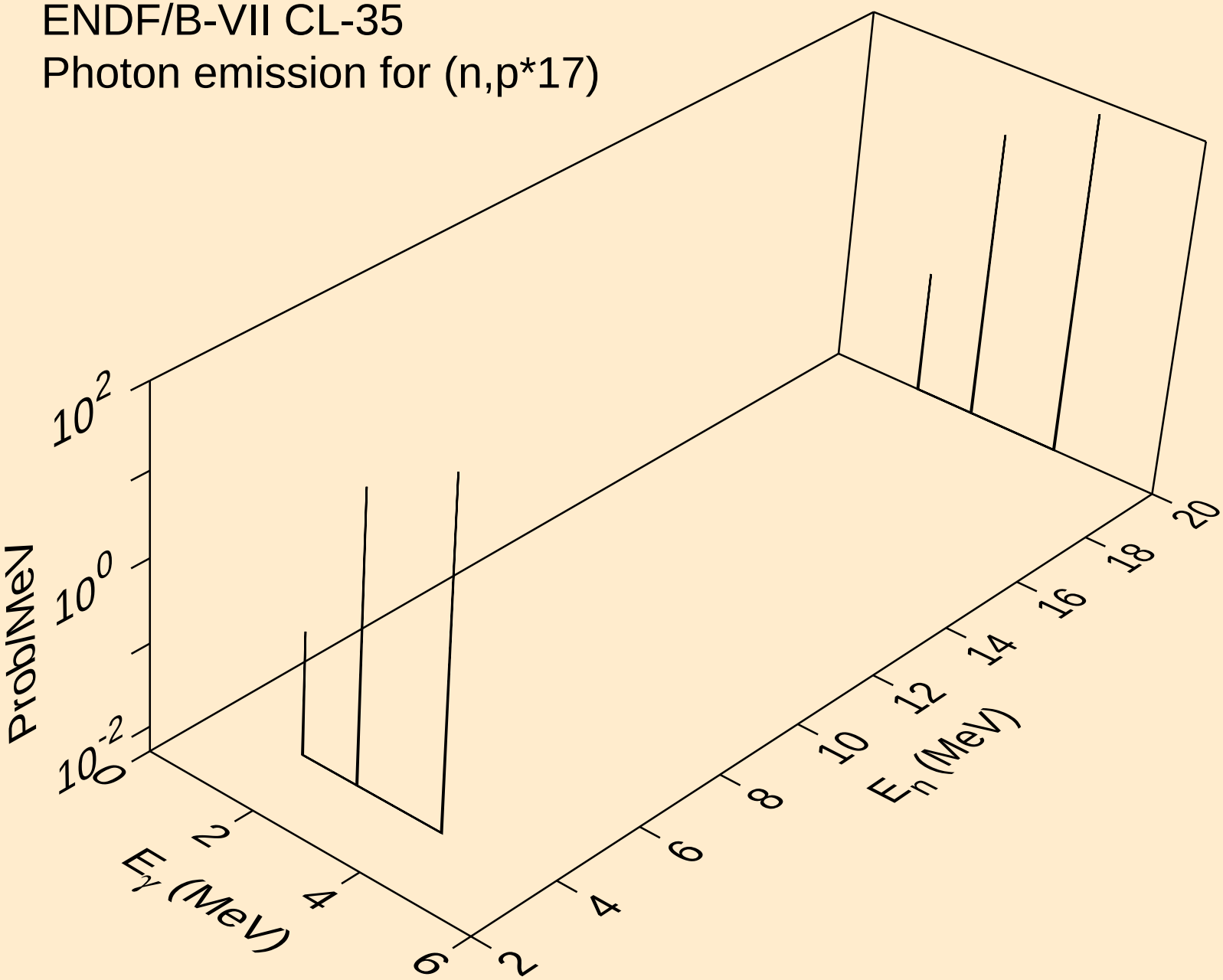
ENDF/B-VII CL-35
Photon emission for (n,p*15)

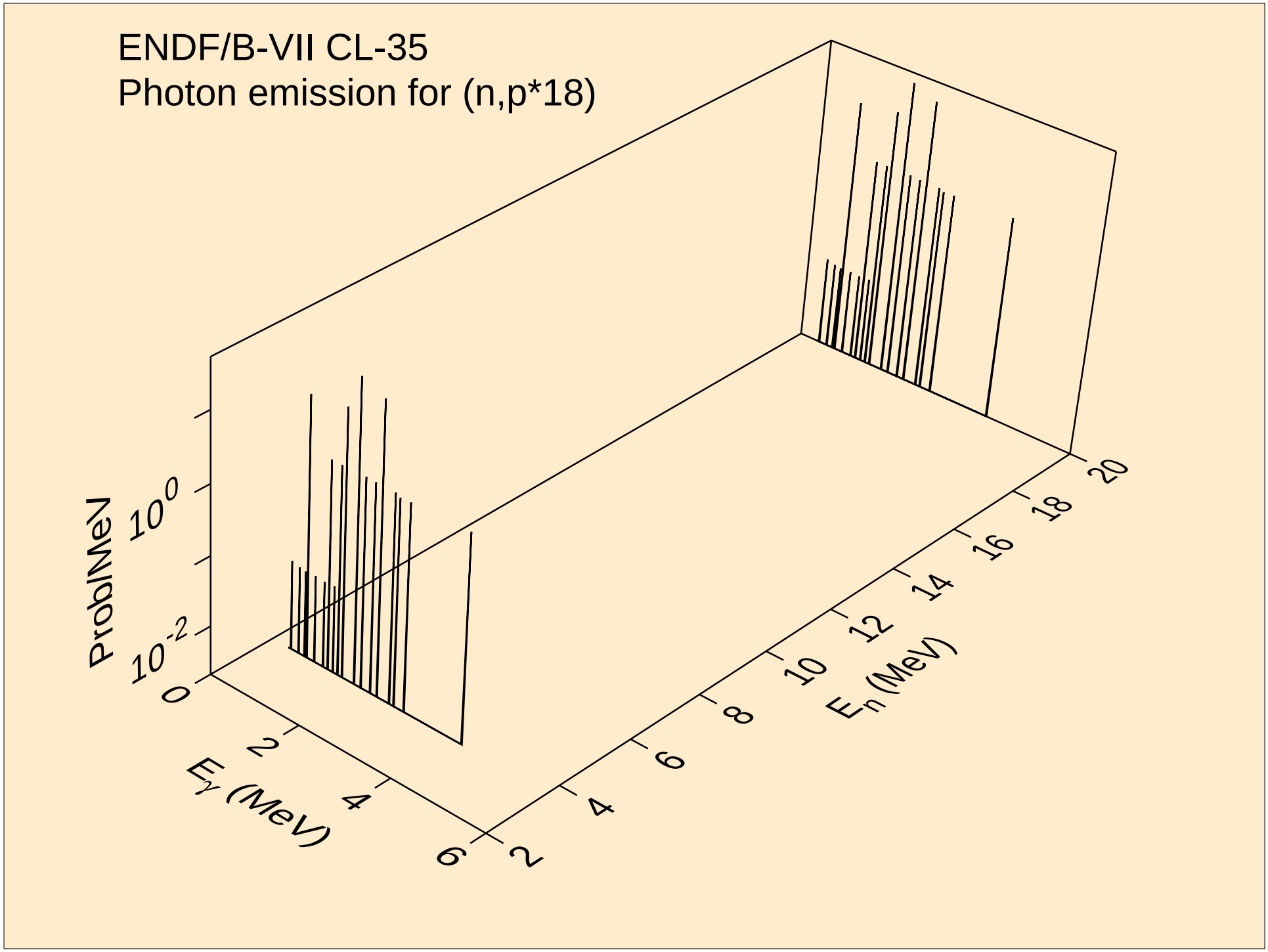


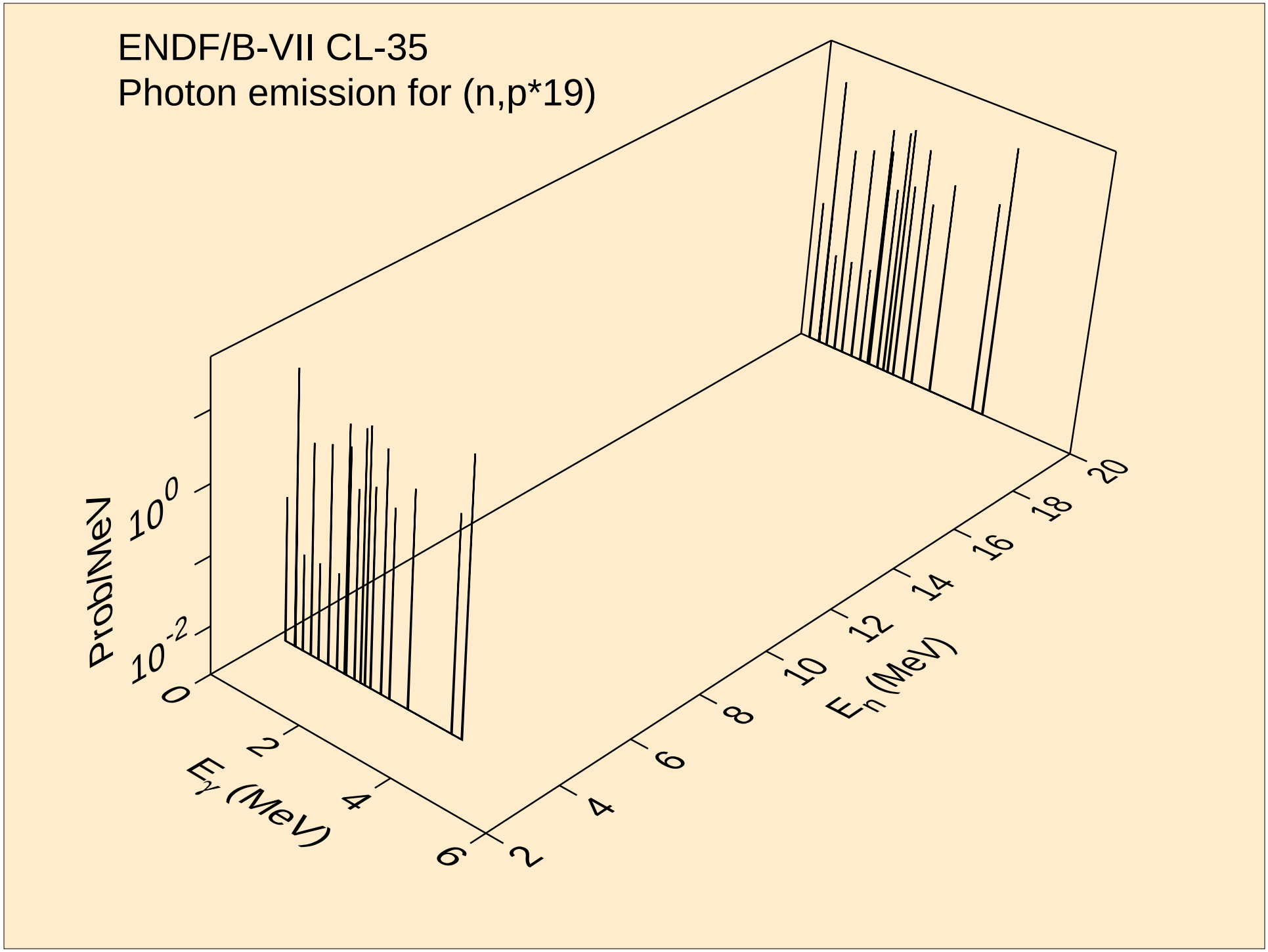
ENDF/B-VII CL-35
Photon emission for (n,p*16)

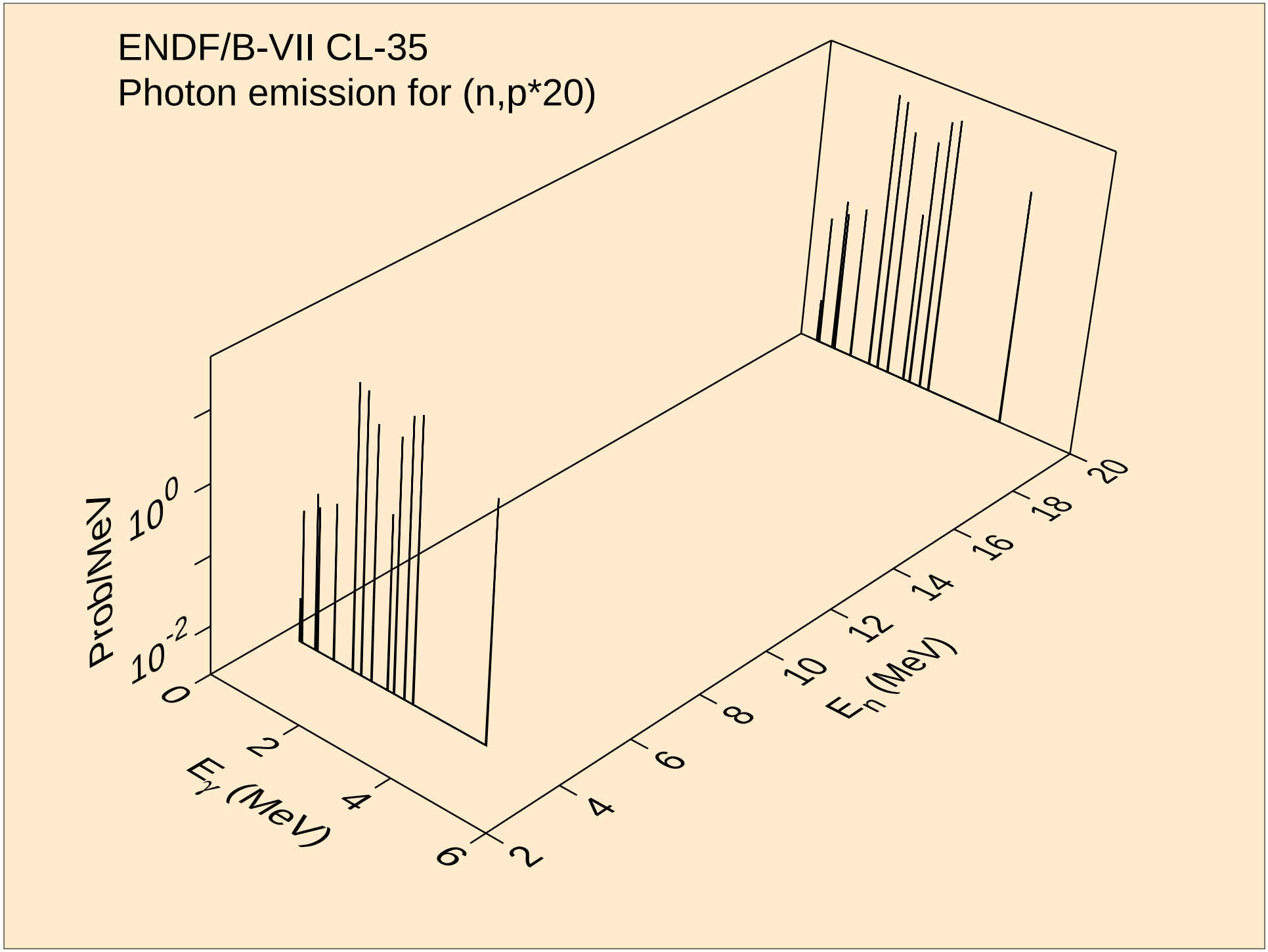


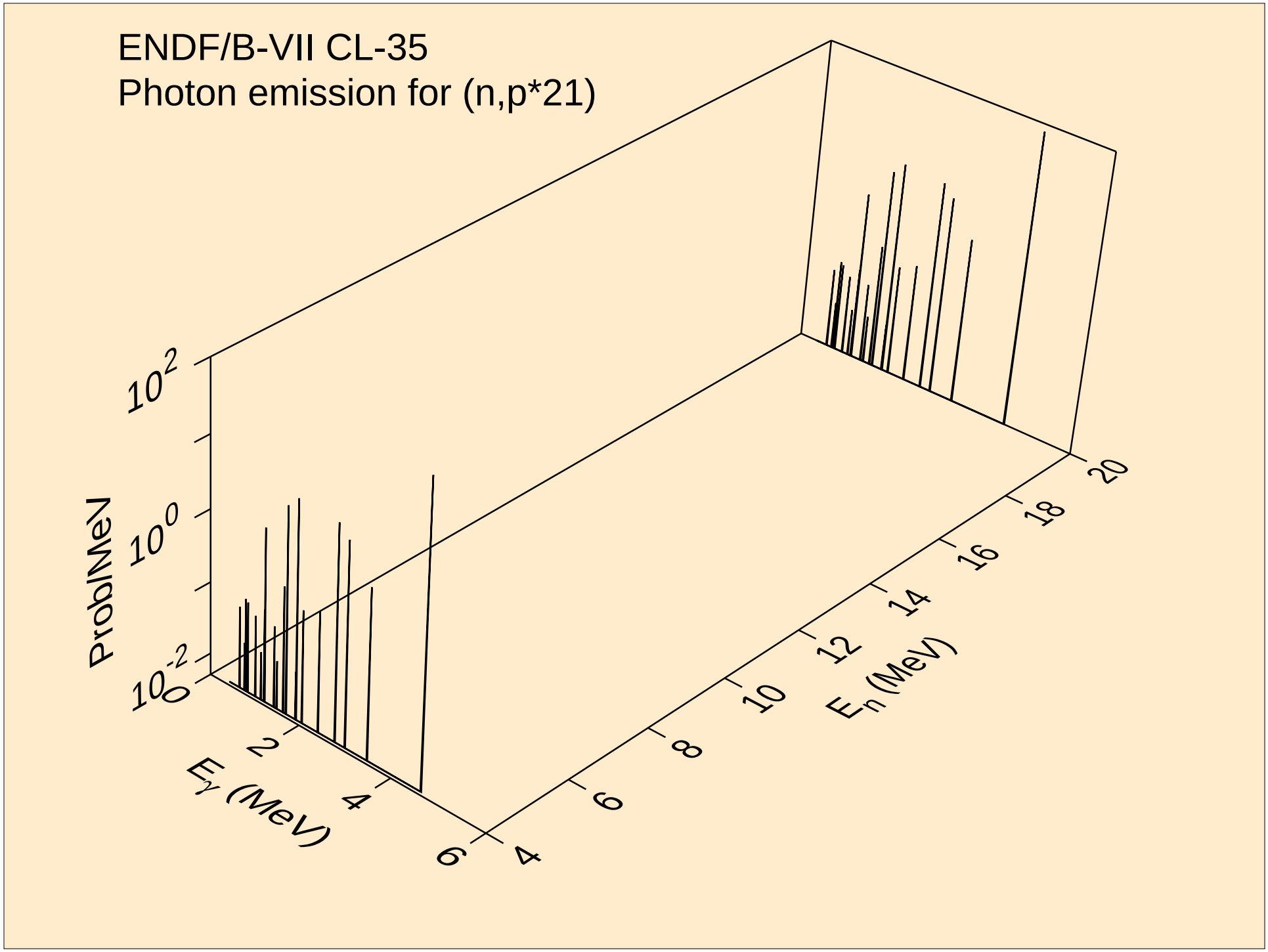
ENDF/B-VII CL-35
Photon emission for (n,p*17)



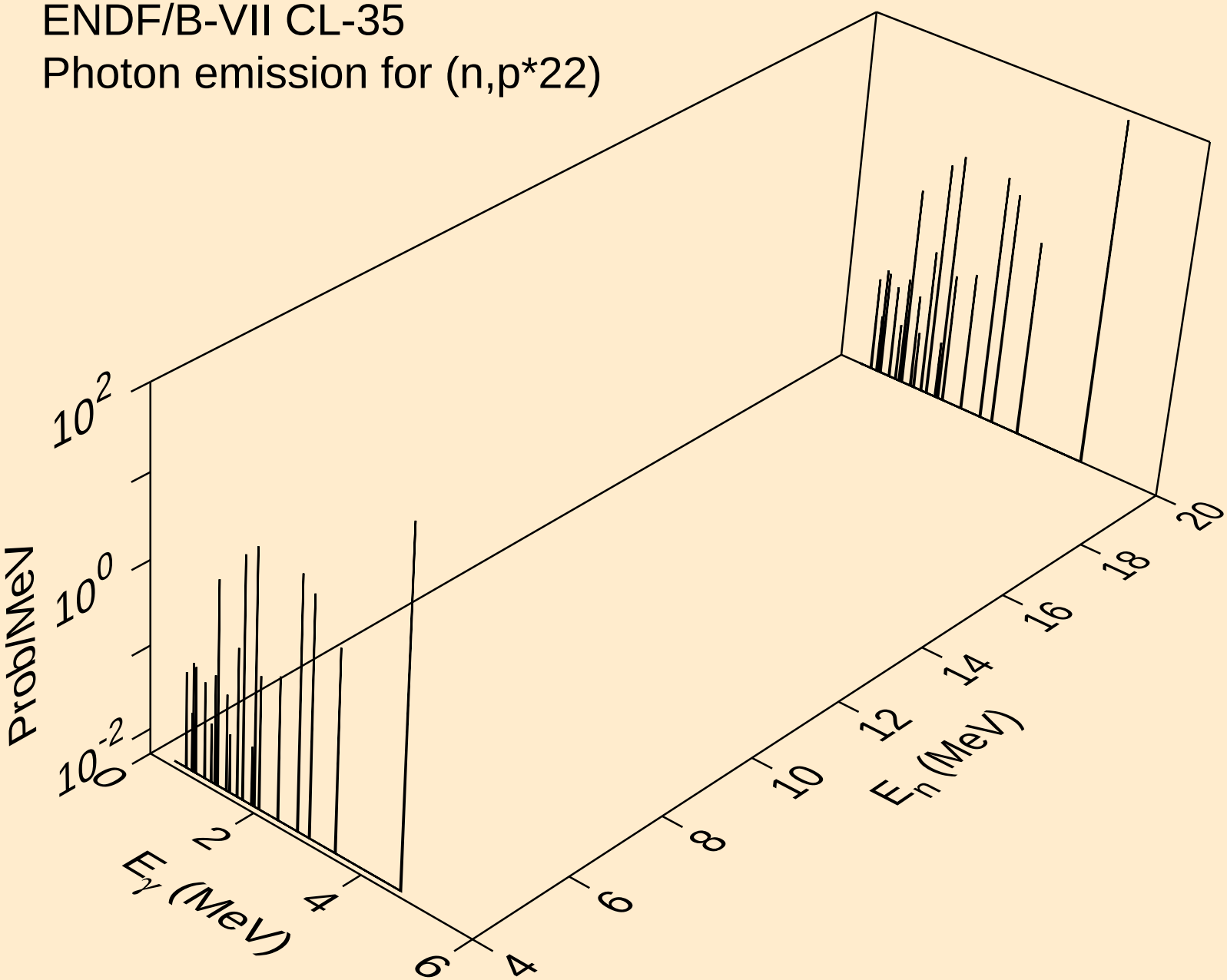

ENDF/B-VII CL-35
Photon emission for (n,p*18)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

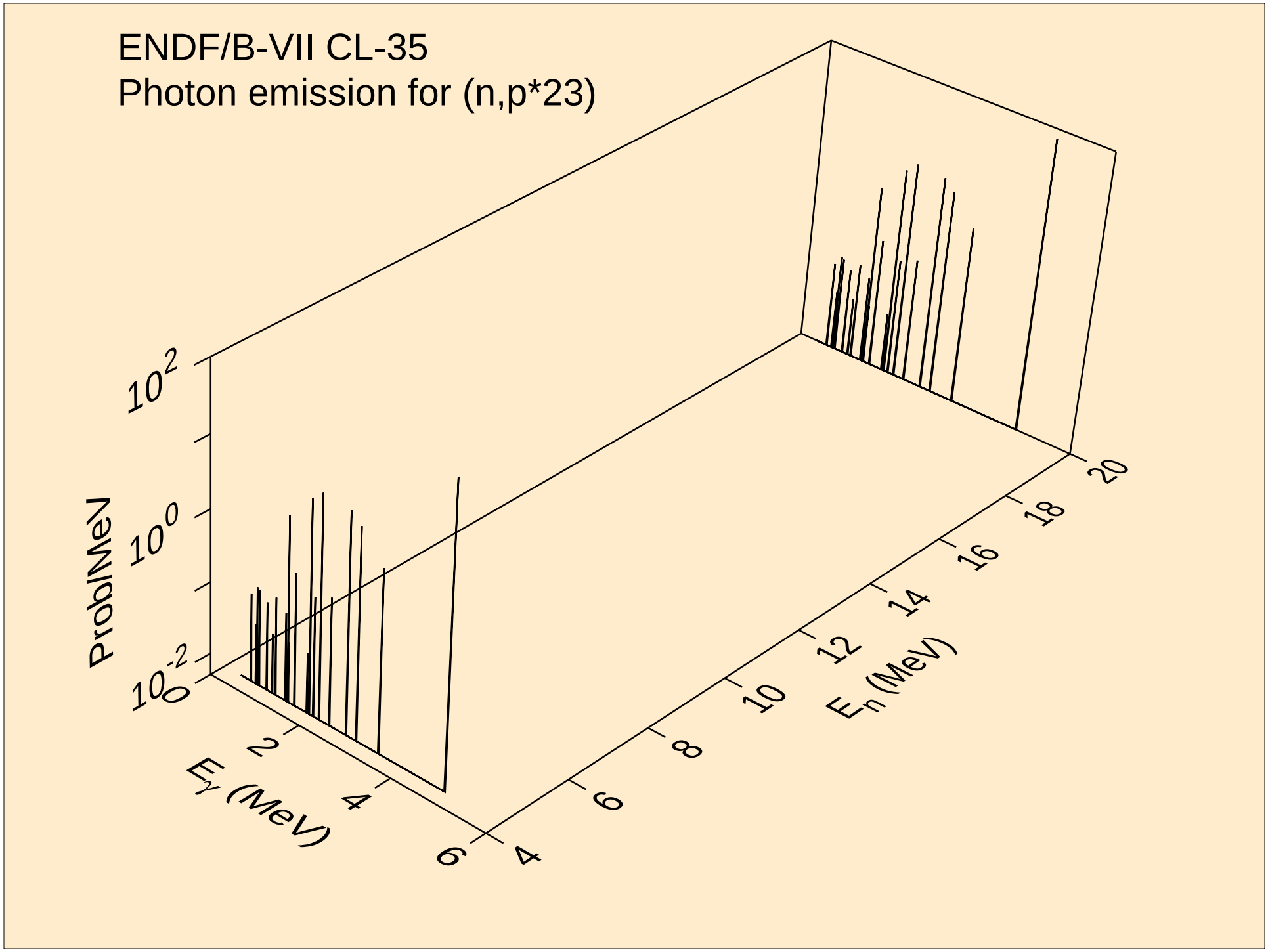

ENDF/B-VII CL-35
Photon emission for (n,p*19)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,p*20)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

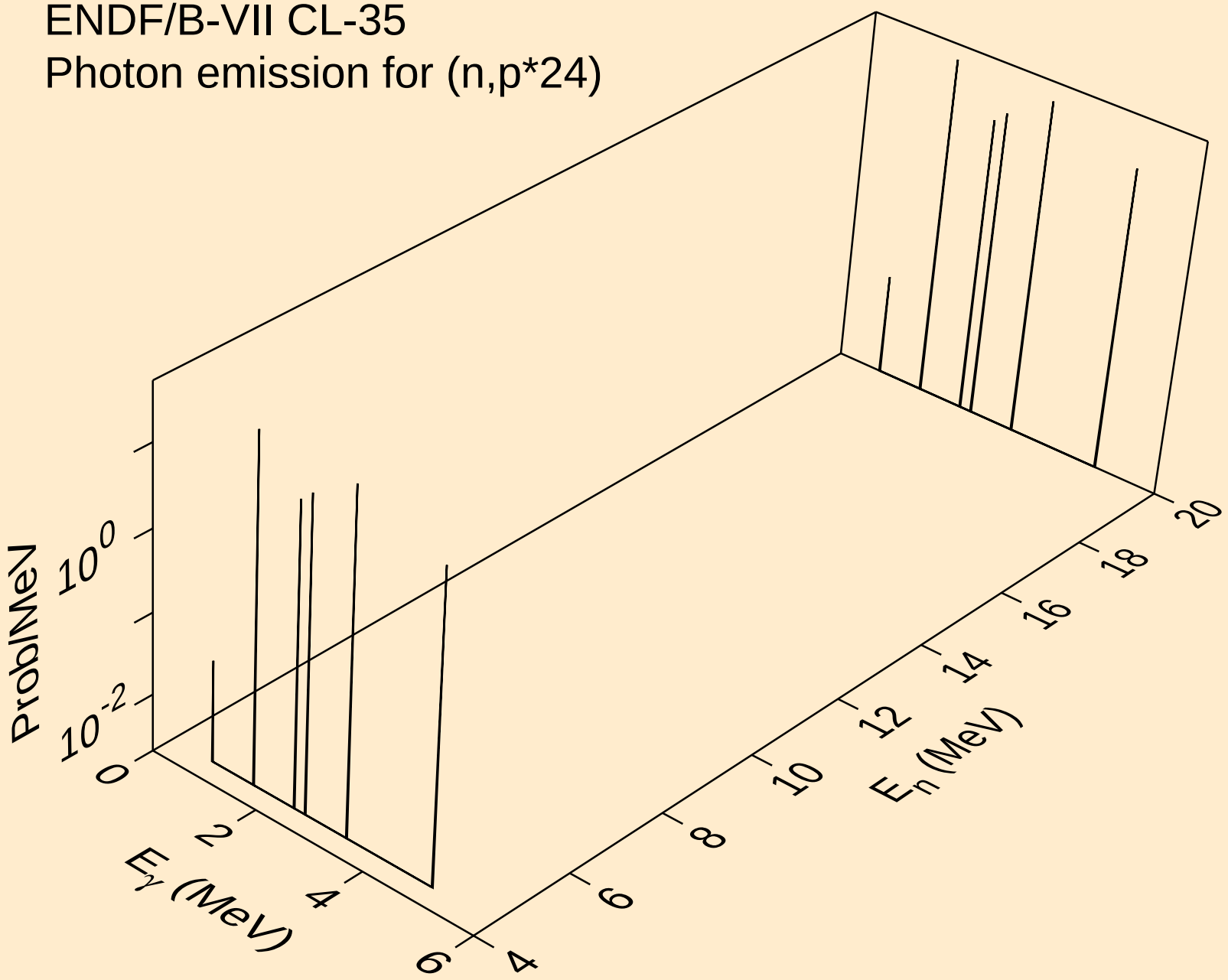

ENDF/B-VII CL-35
Photon emission for (n,p*21)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
6
E_n (MeV)
4
6
8
10
12
14
16
18
20

ENDF/B-VII CL-35
Photon emission for (n,p*22)

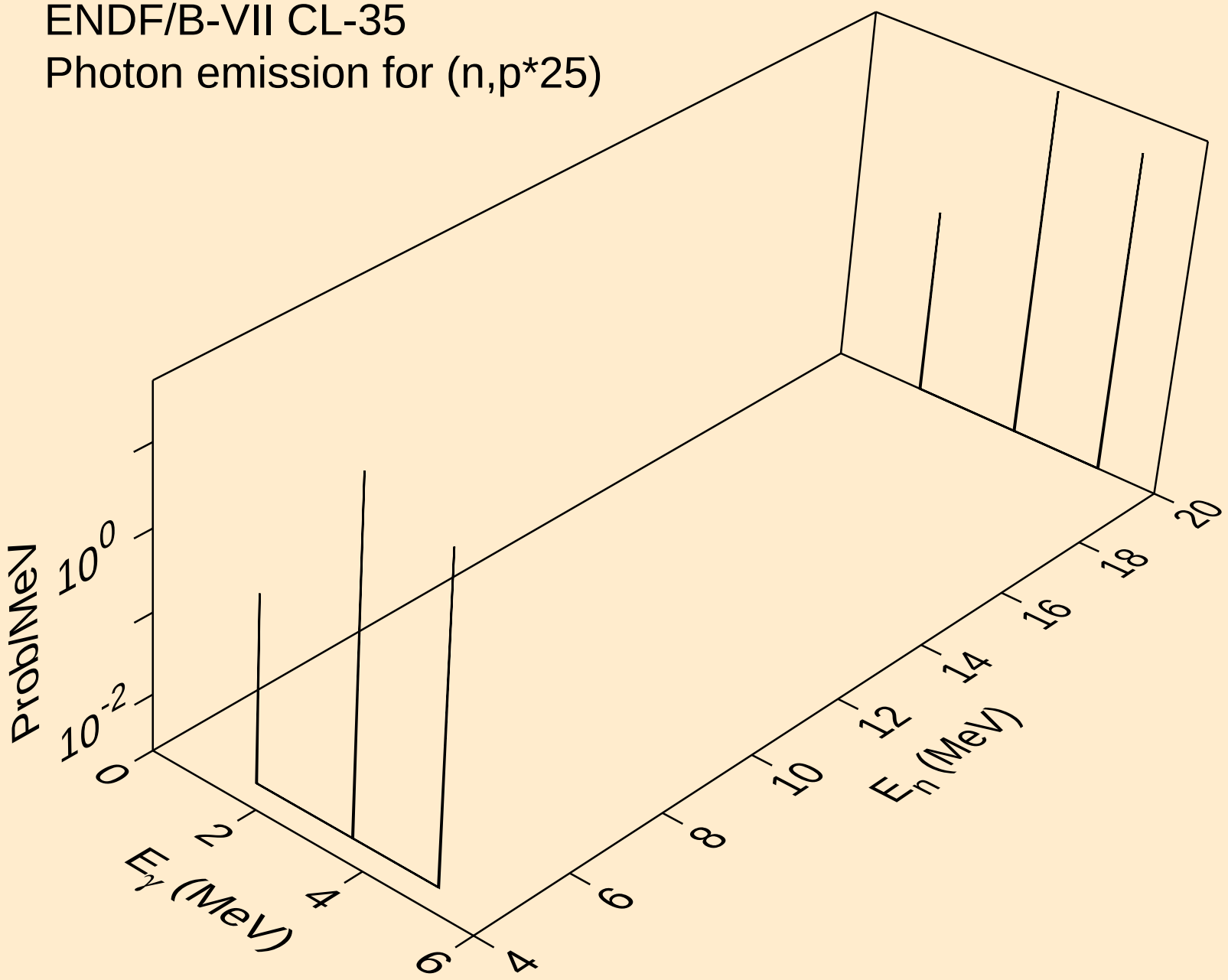


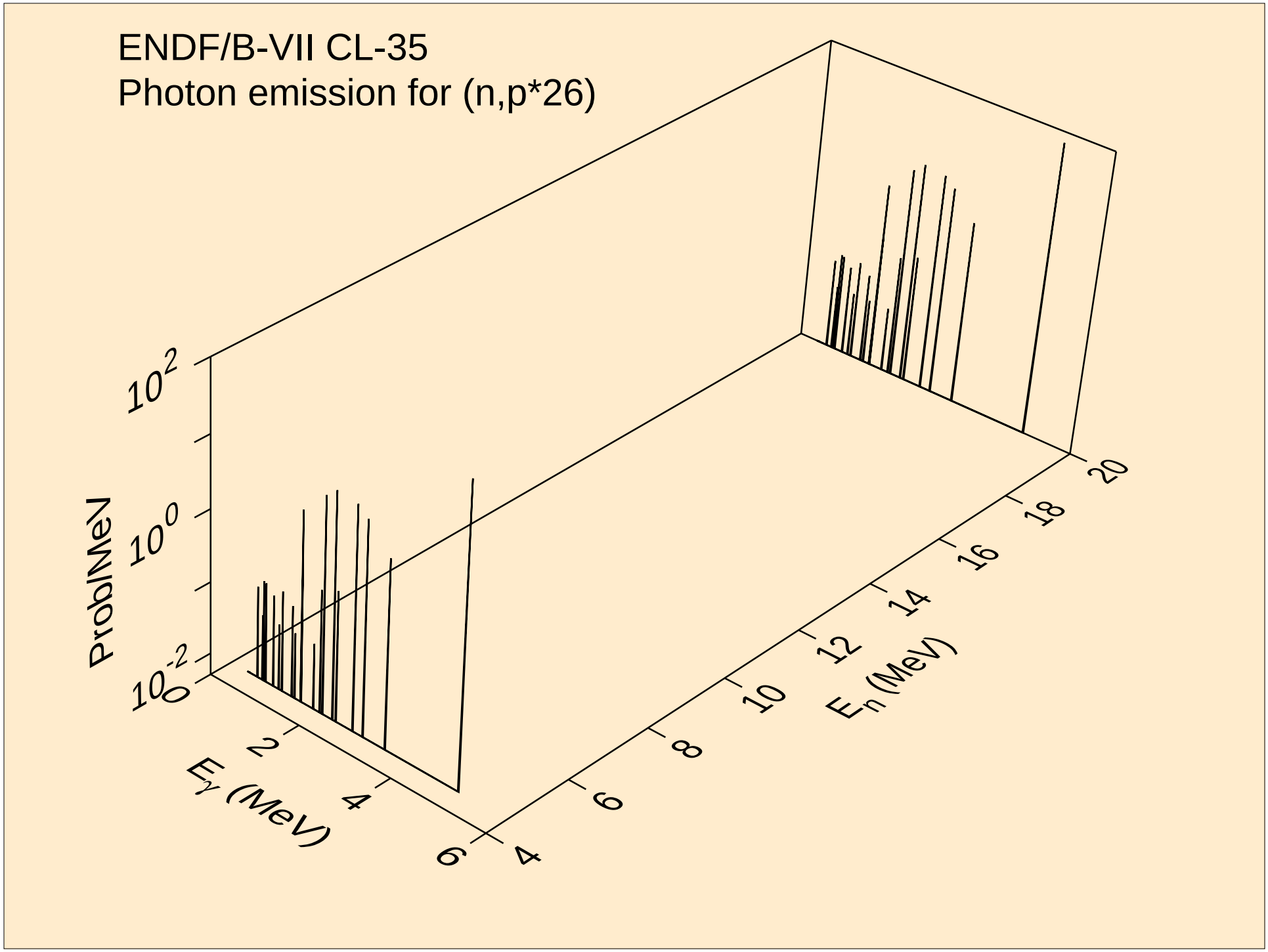

ENDF/B-VII CL-35
Photon emission for (n,p*23)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
6
E_n (MeV)
4
6
8
10
12
14
16
18
20

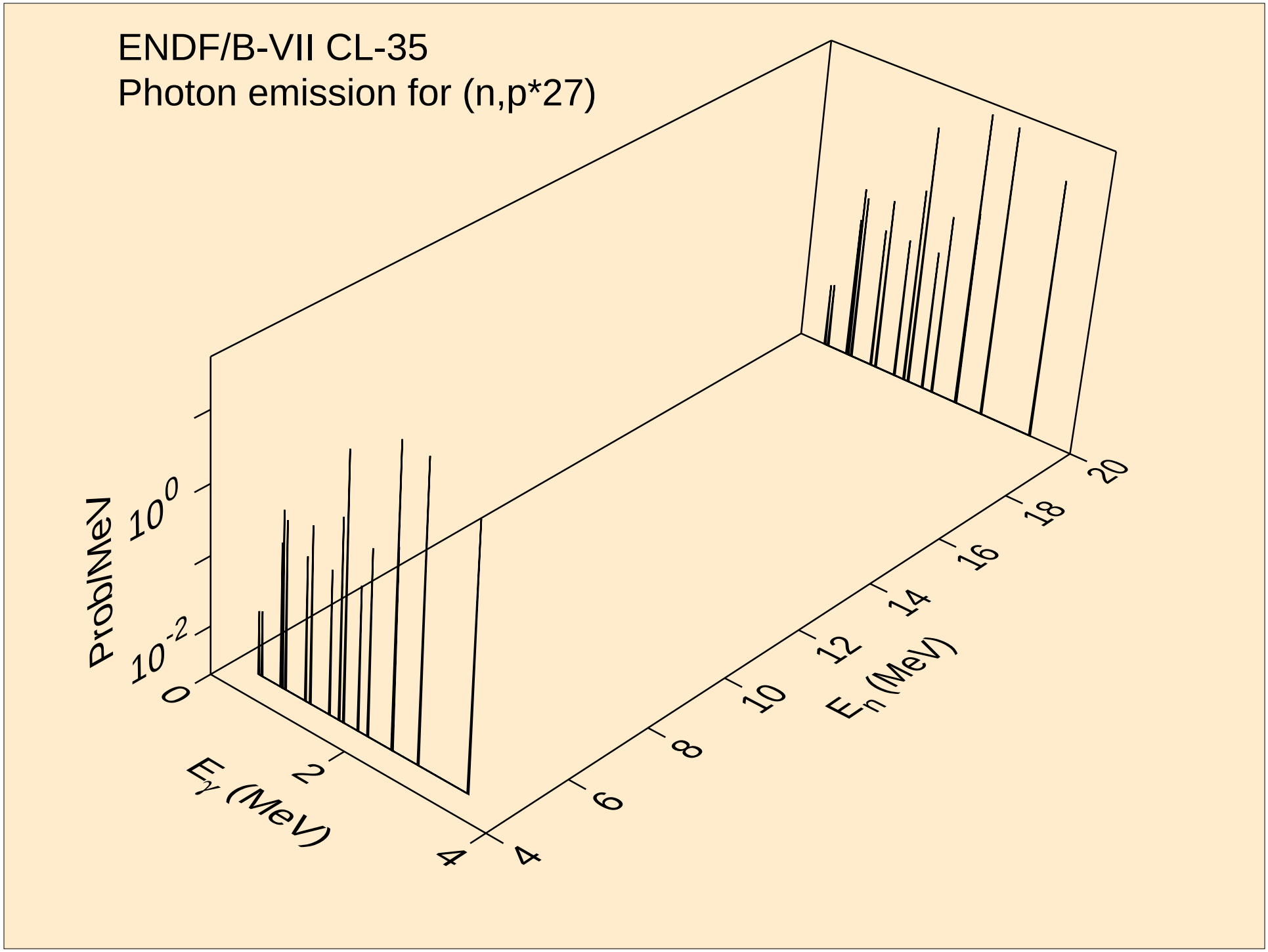
ENDF/B-VII CL-35
Photon emission for (n,p*24)

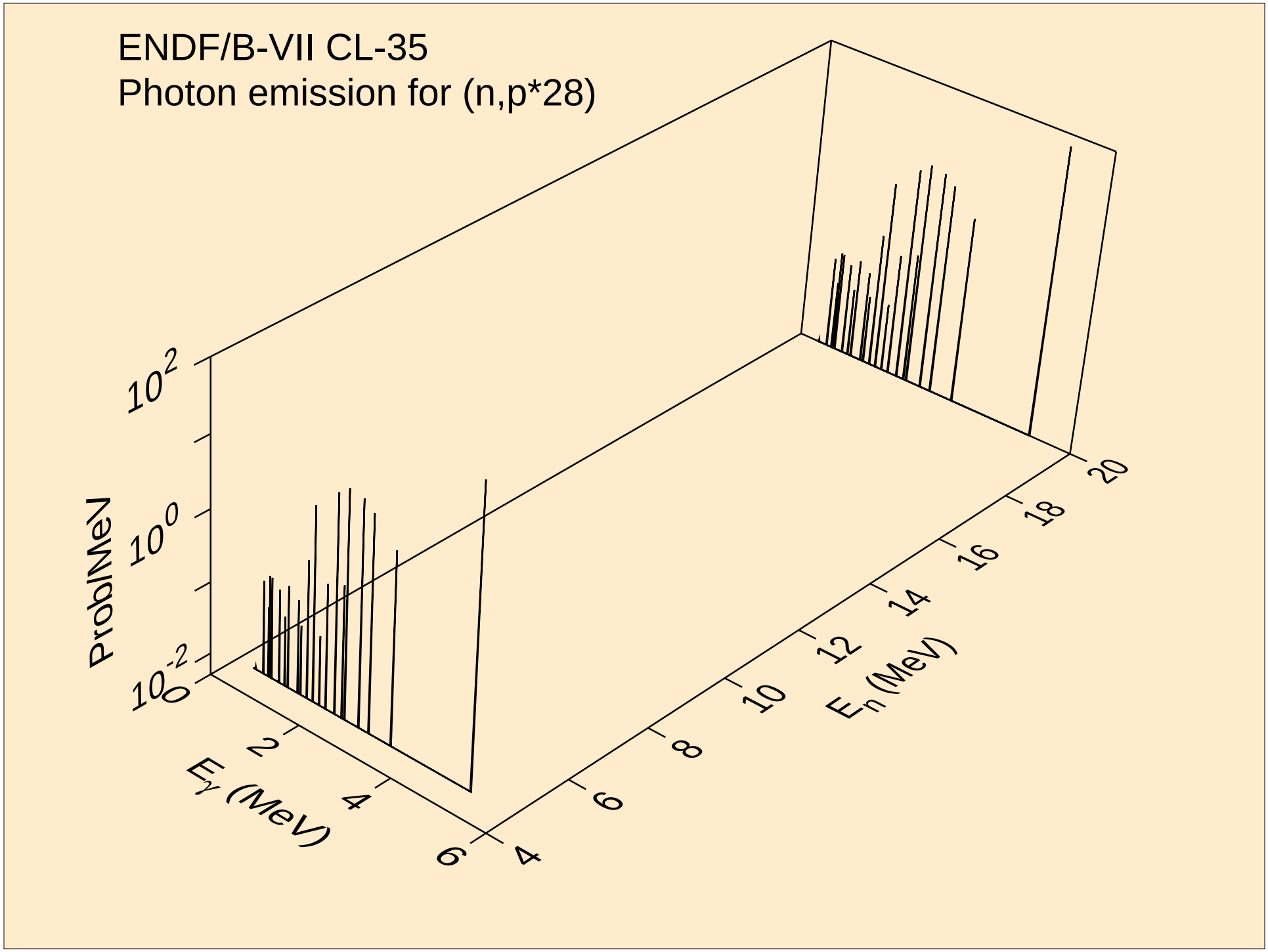


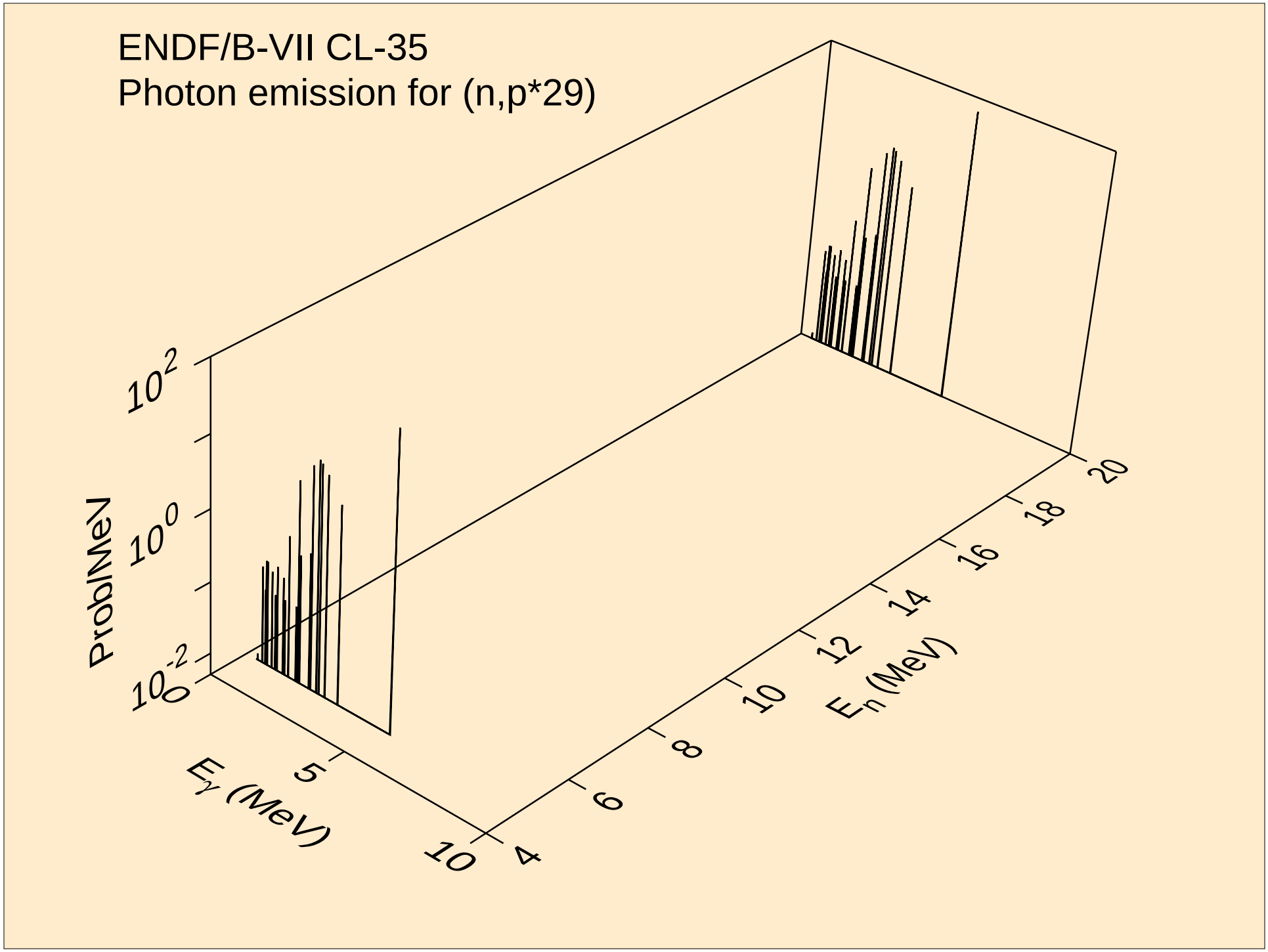
ENDF/B-VII CL-35
Photon emission for (n,p*25)



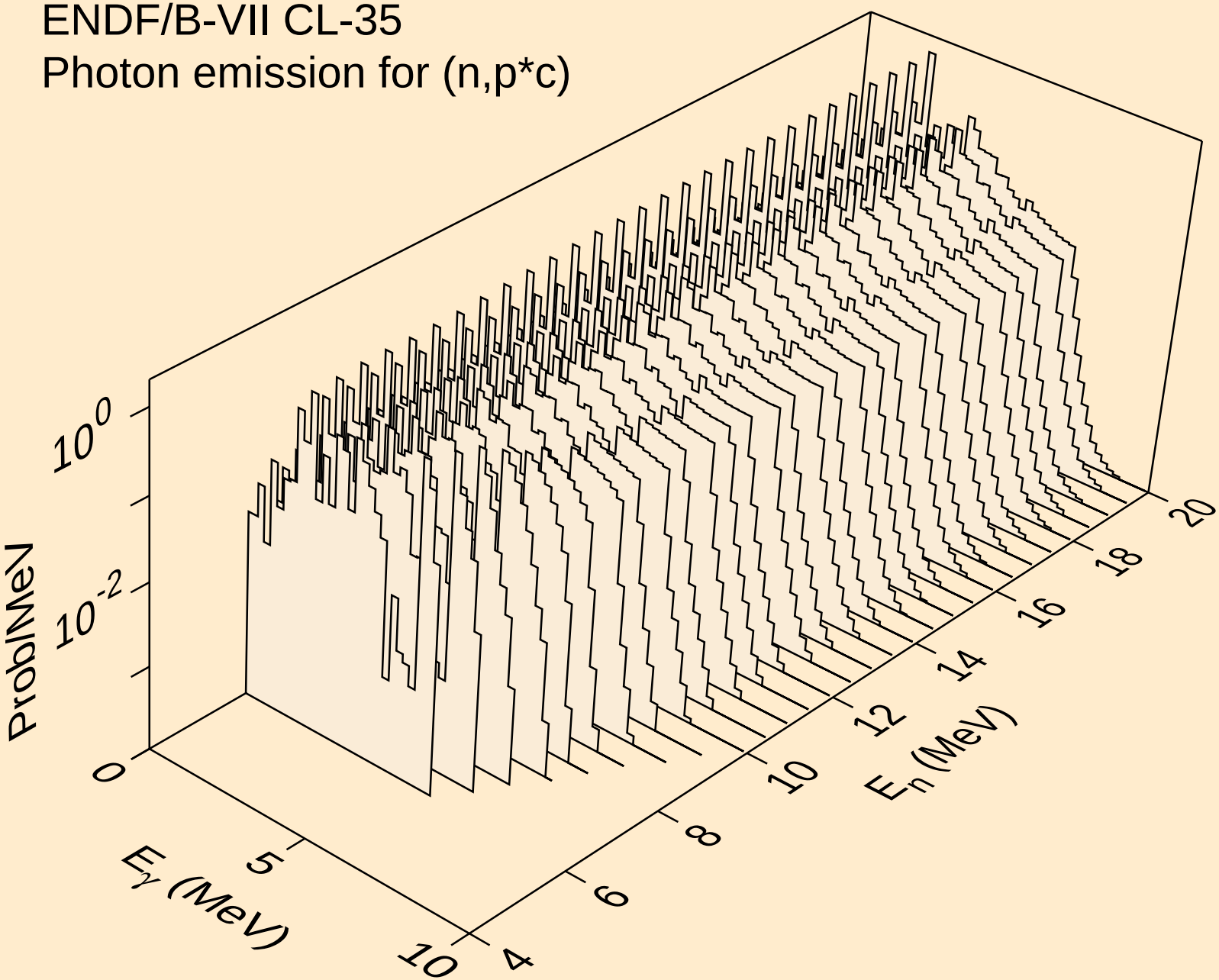

ENDF/B-VII CL-35
Photon emission for (n,p*26)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
6
E_n (MeV)
4
6
8
10
12
14
16
18
20


ENDF/B-VII CL-35
Photon emission for (n,p*27)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

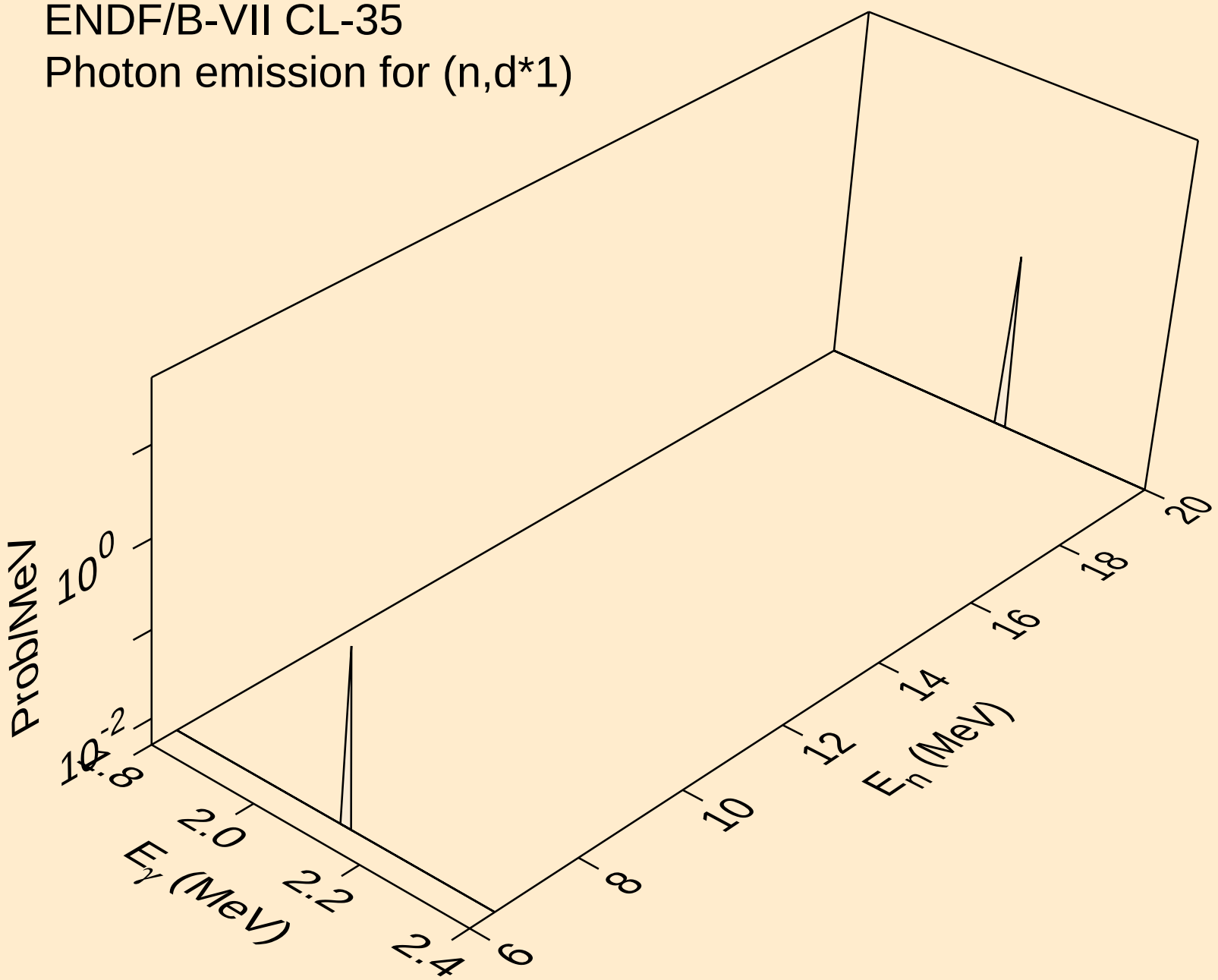

ENDF/B-VII CL-35
Photon emission for (n,p*28)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
6
E_n (MeV)
4
6
8
10
12
14
16
18
20


ENDF/B-VII CL-35
Photon emission for (n,p*29)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
5
10
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

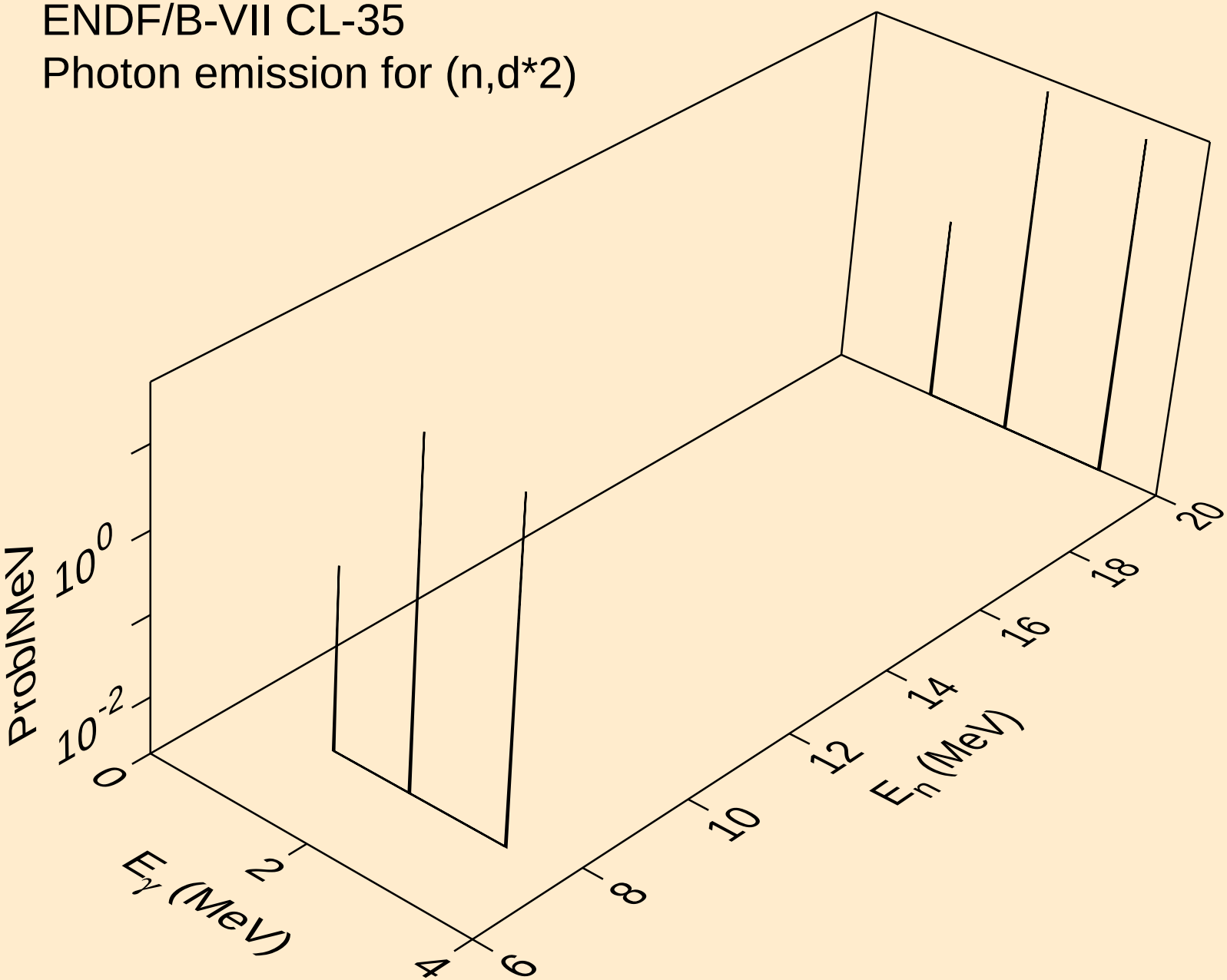
ENDF/B-VII CL-35
Photon emission for (n,p*c)



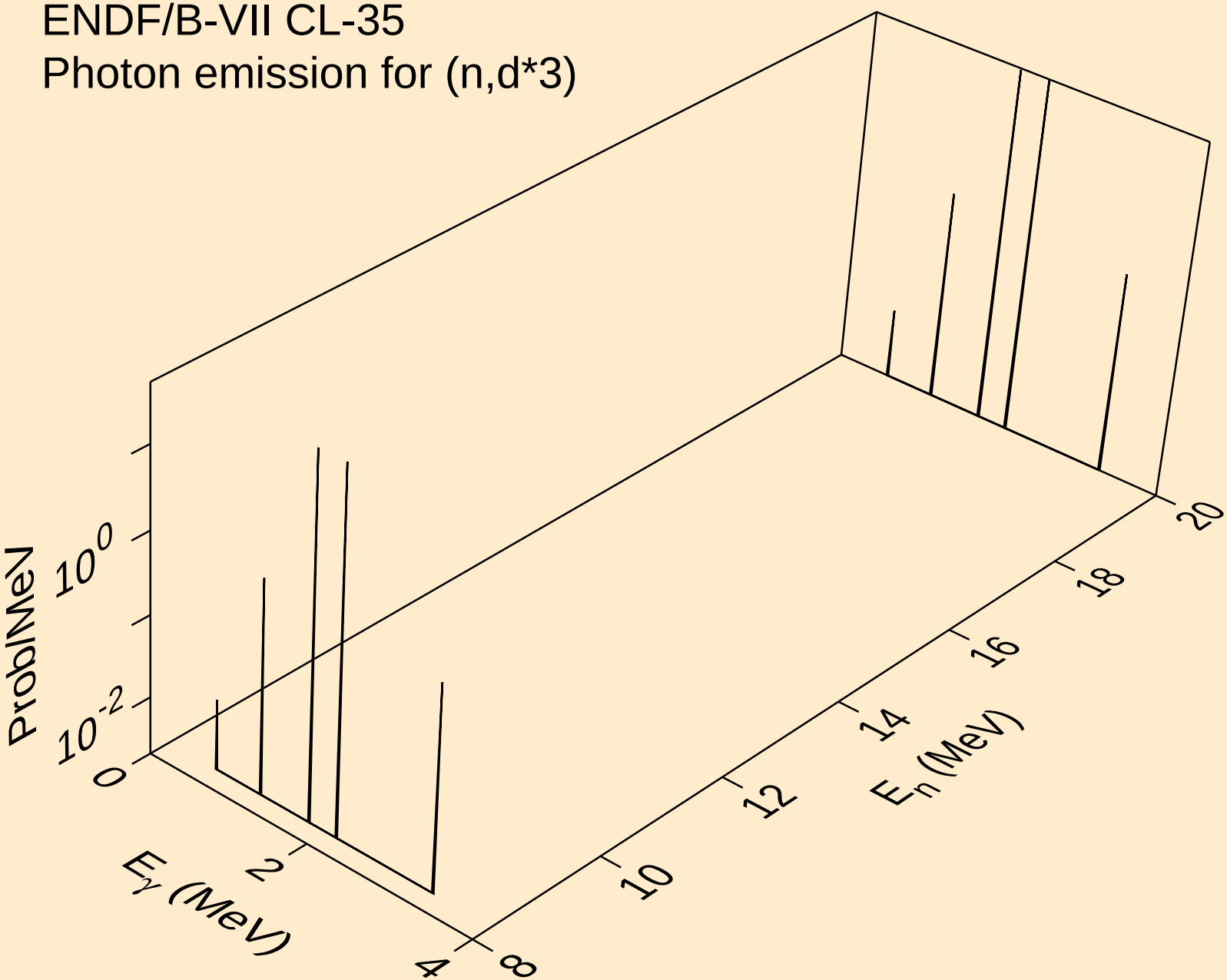
ENDF/B-VII CL-35
Photon emission for (n,d*1)

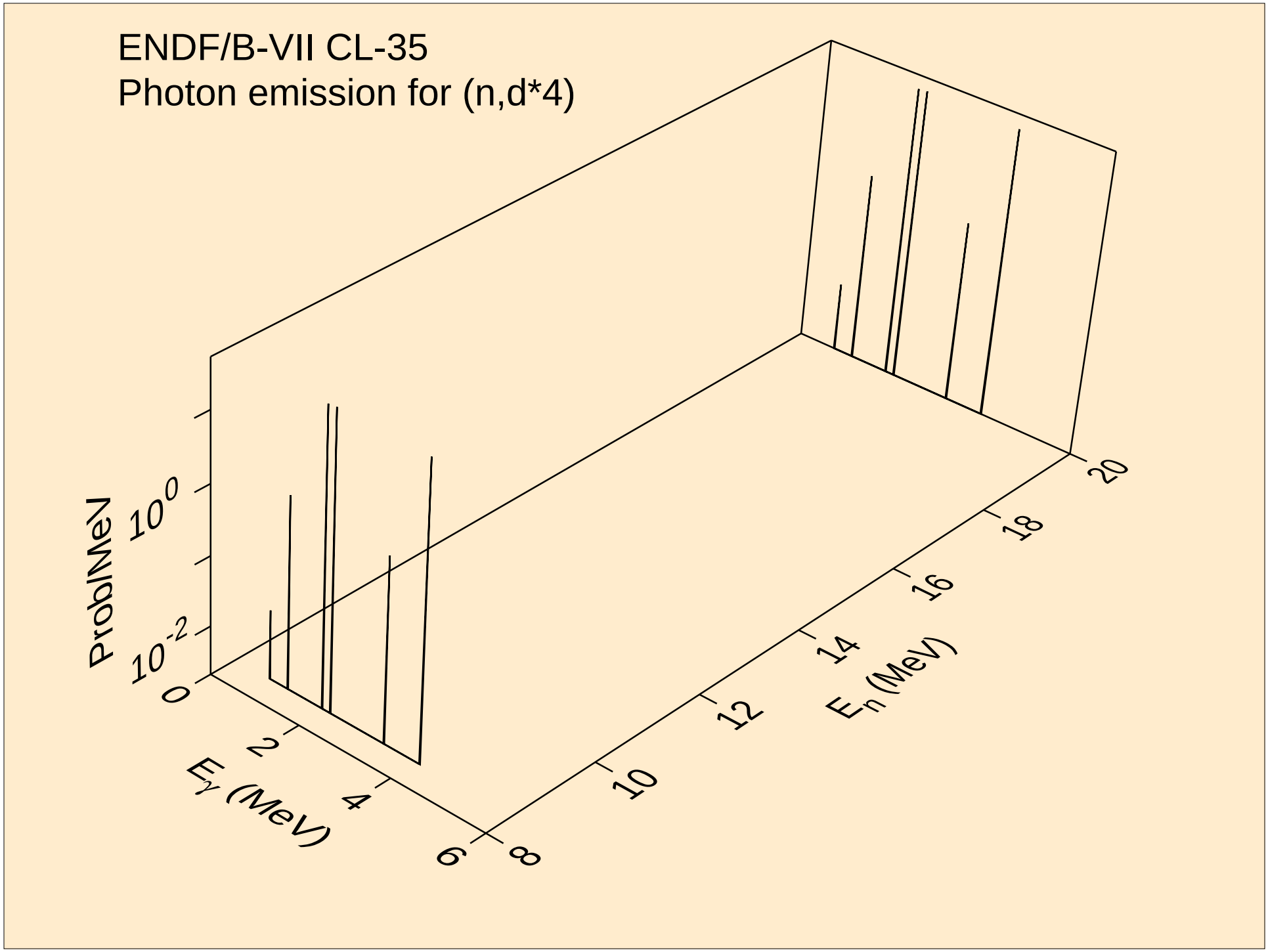


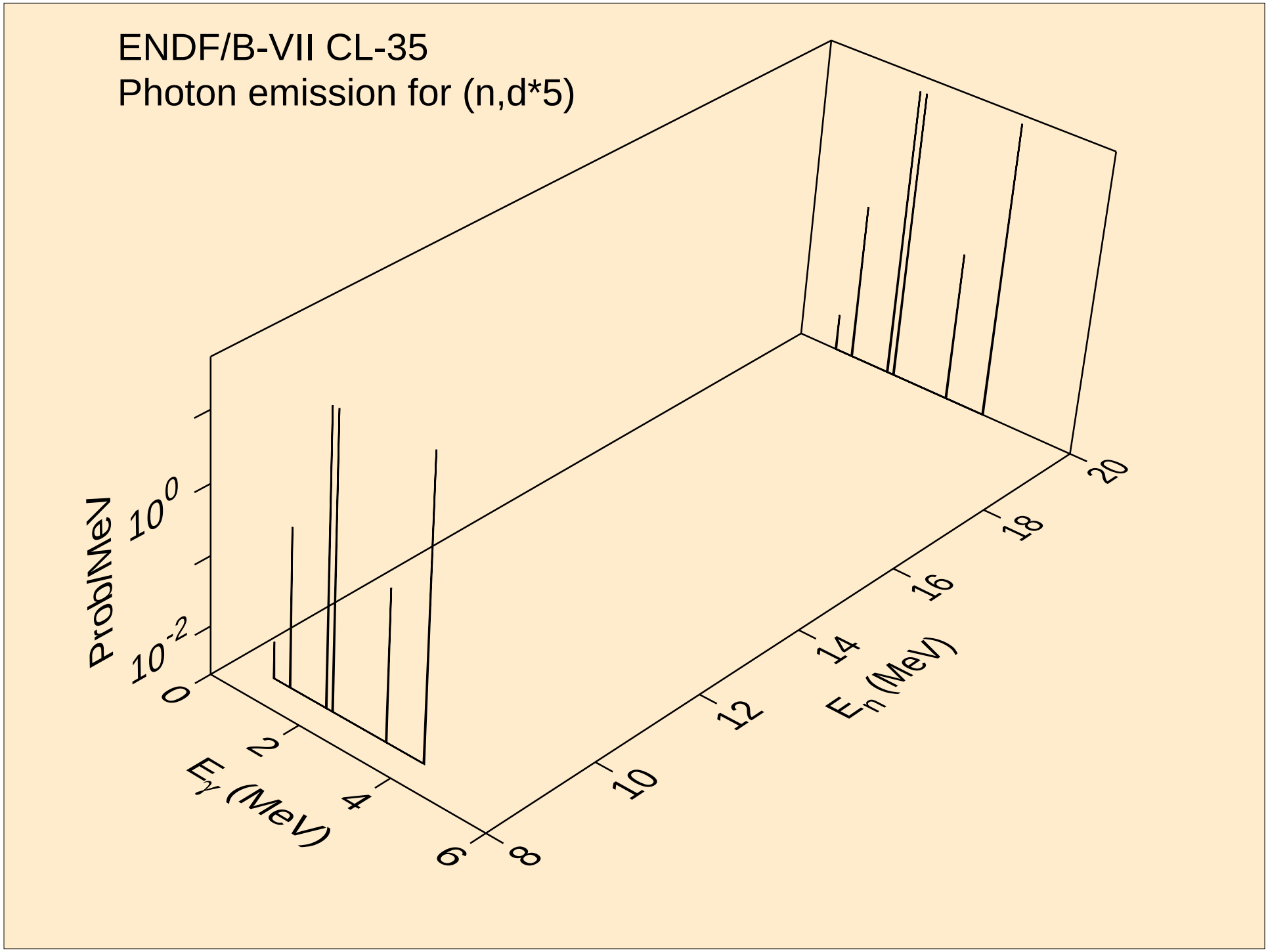
ENDF/B-VII CL-35
Photon emission for (n,d*2)

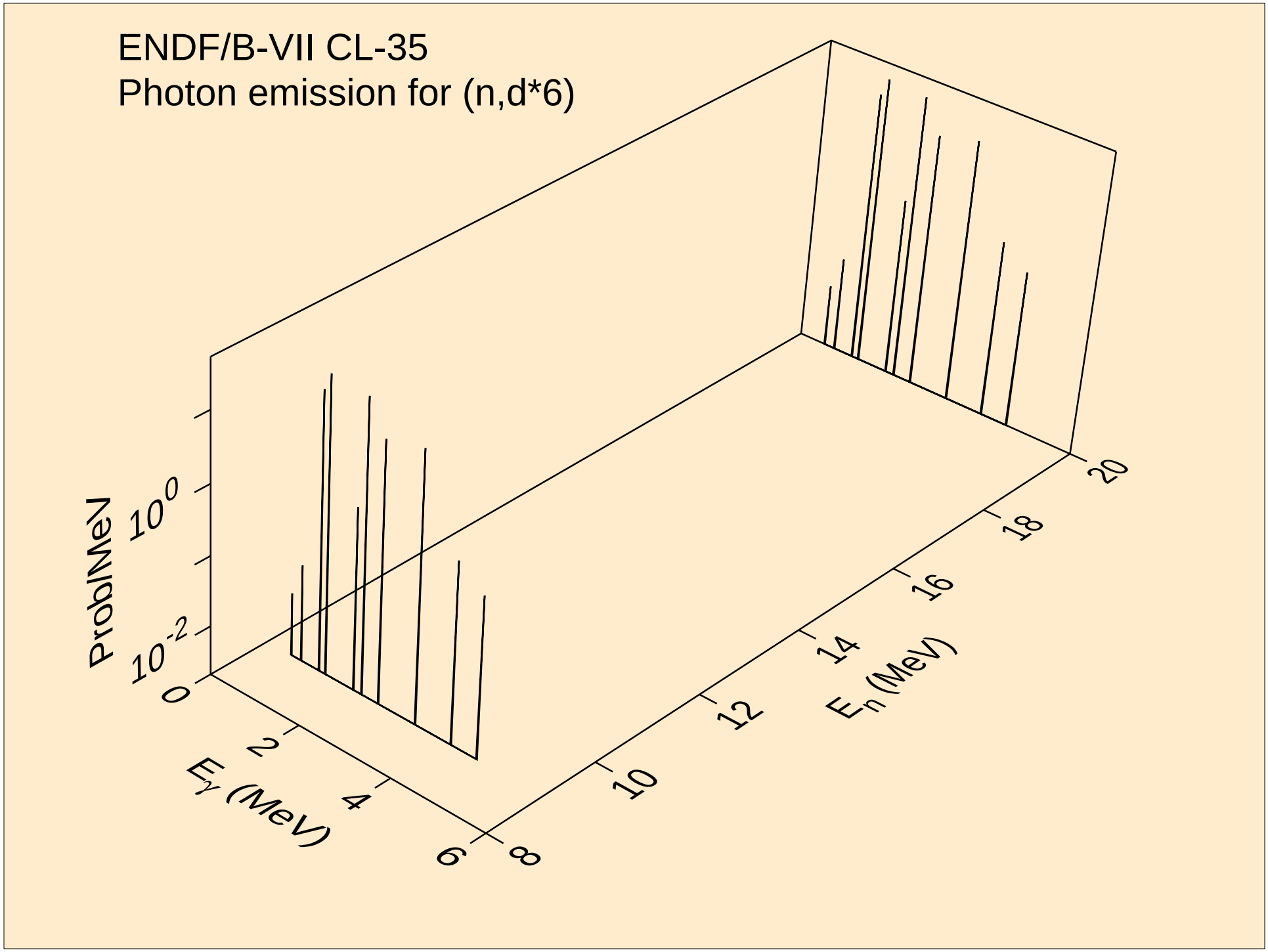


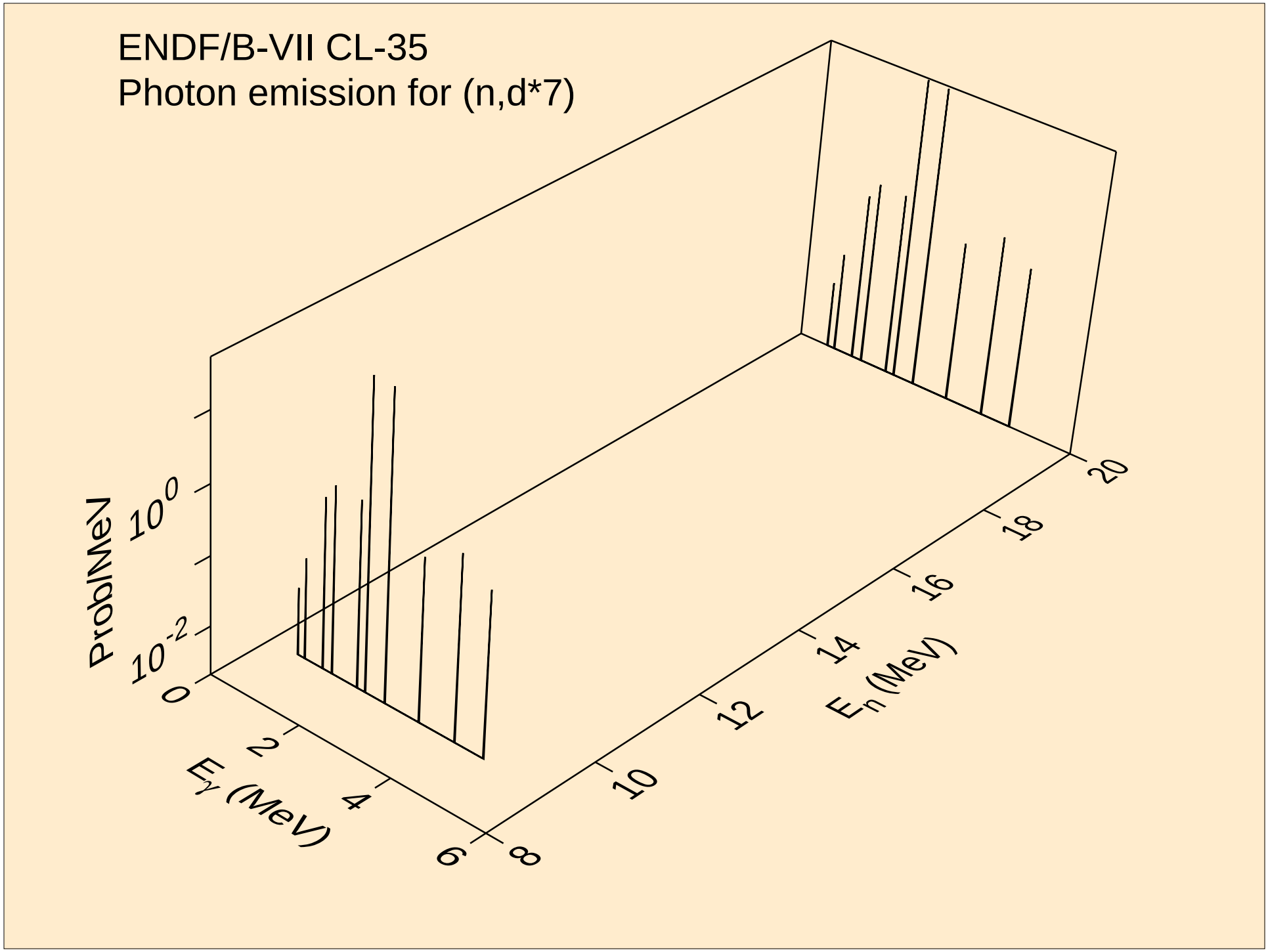
ENDF/B-VII CL-35
Photon emission for (n,d*3)



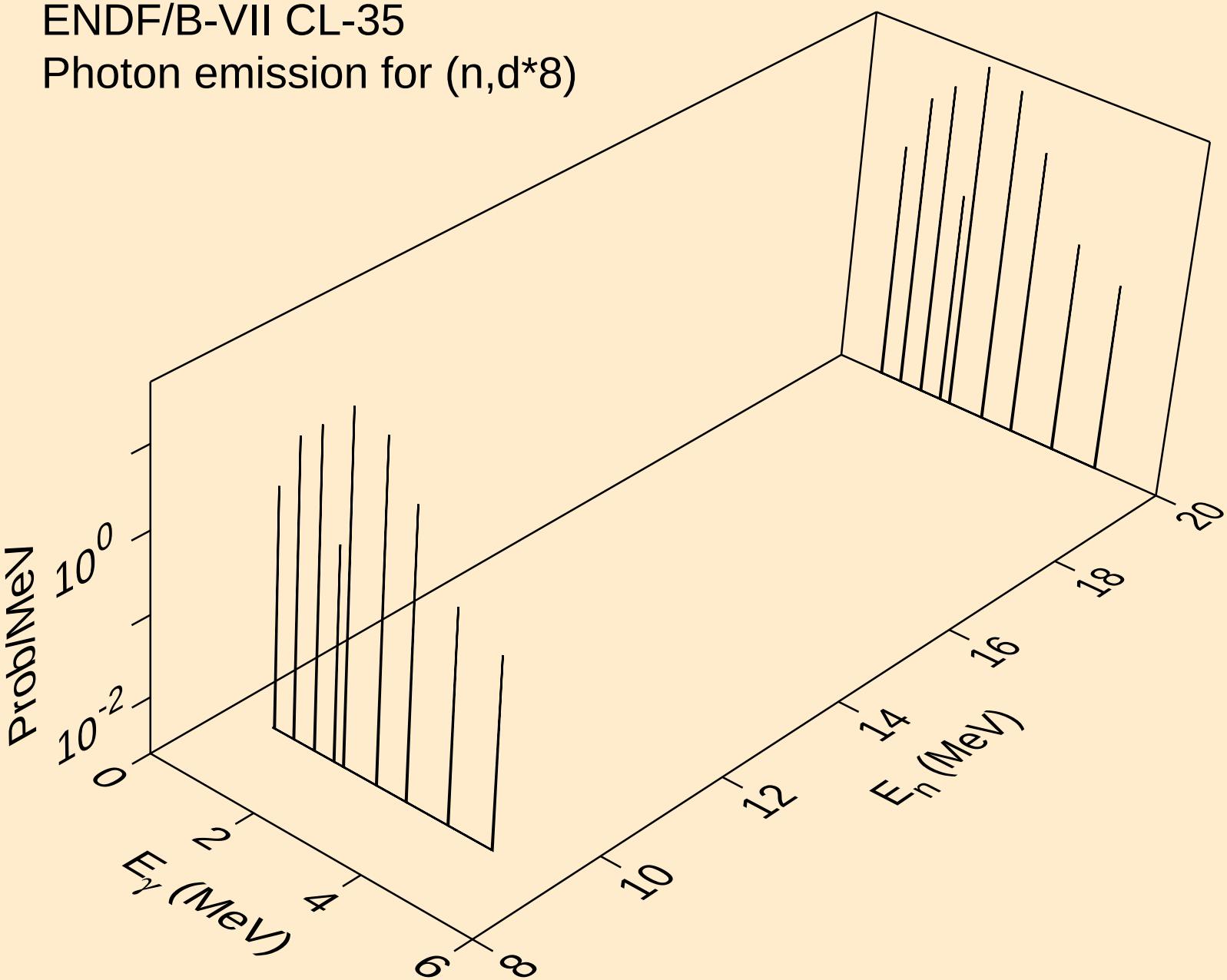

ENDF/B-VII CL-35
Photon emission for (n,d*4)
Prob/MeV
10^0
10^{-2}
0
2
4
6
8
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

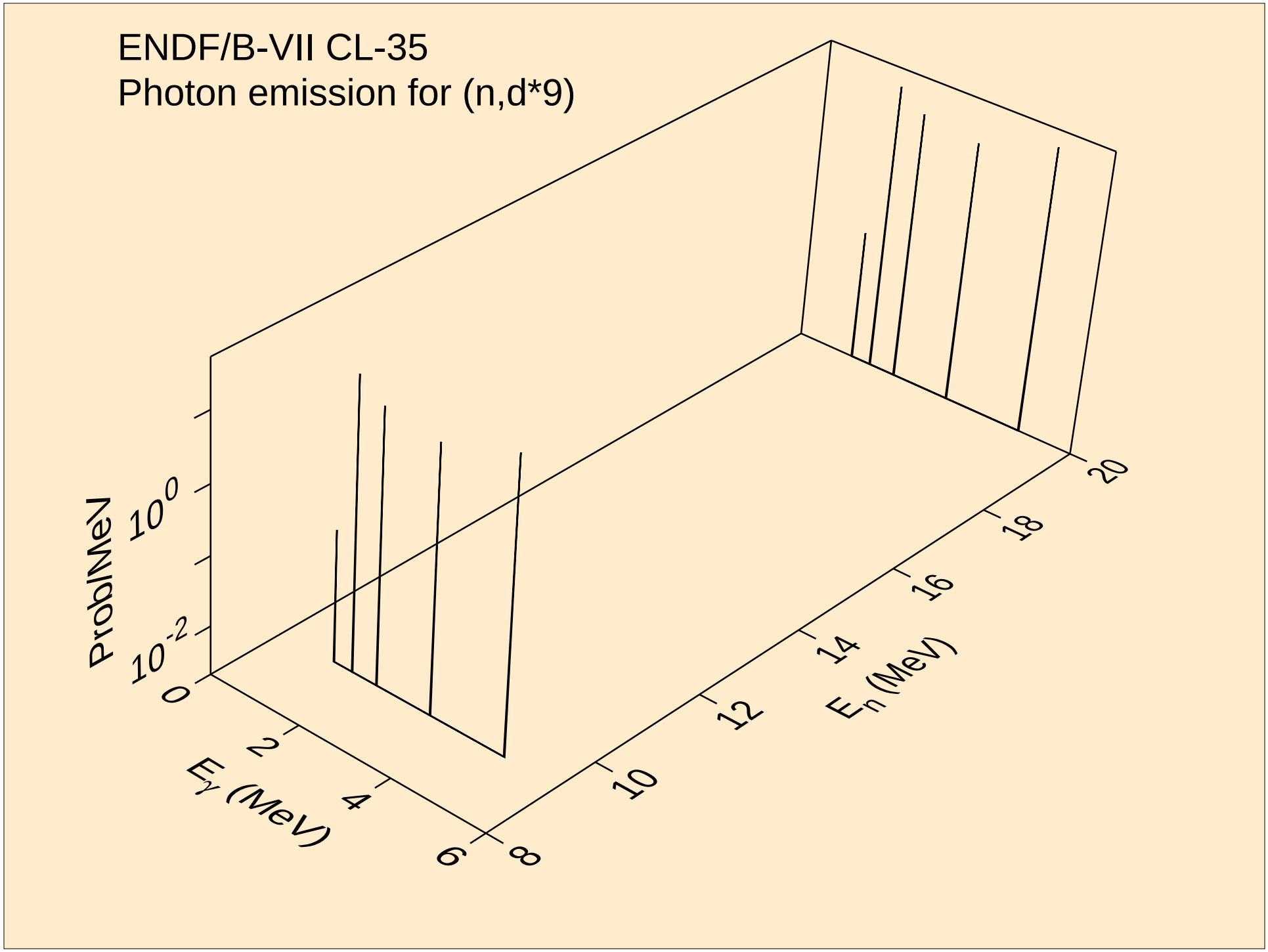

ENDF/B-VII CL-35
Photon emission for (n,d*5)
Prob/MeV
10^0
10^{-2}
0
2
4
6
8
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

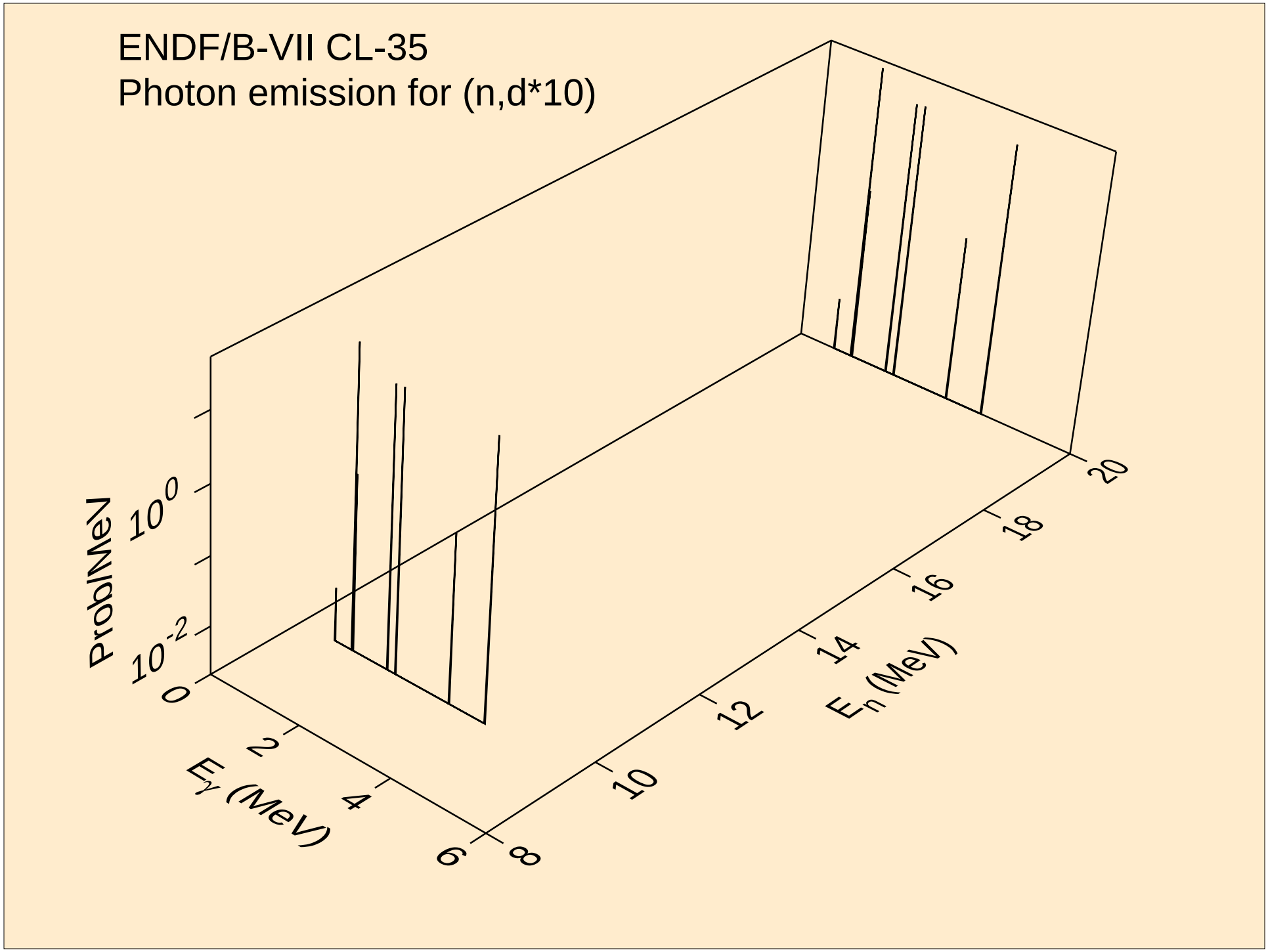

ENDF/B-VII CL-35
Photon emission for (n,d*6)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
8
10
12
14
16
18
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,d*7)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
8
10
12
14
16
18
20
E_n (MeV)

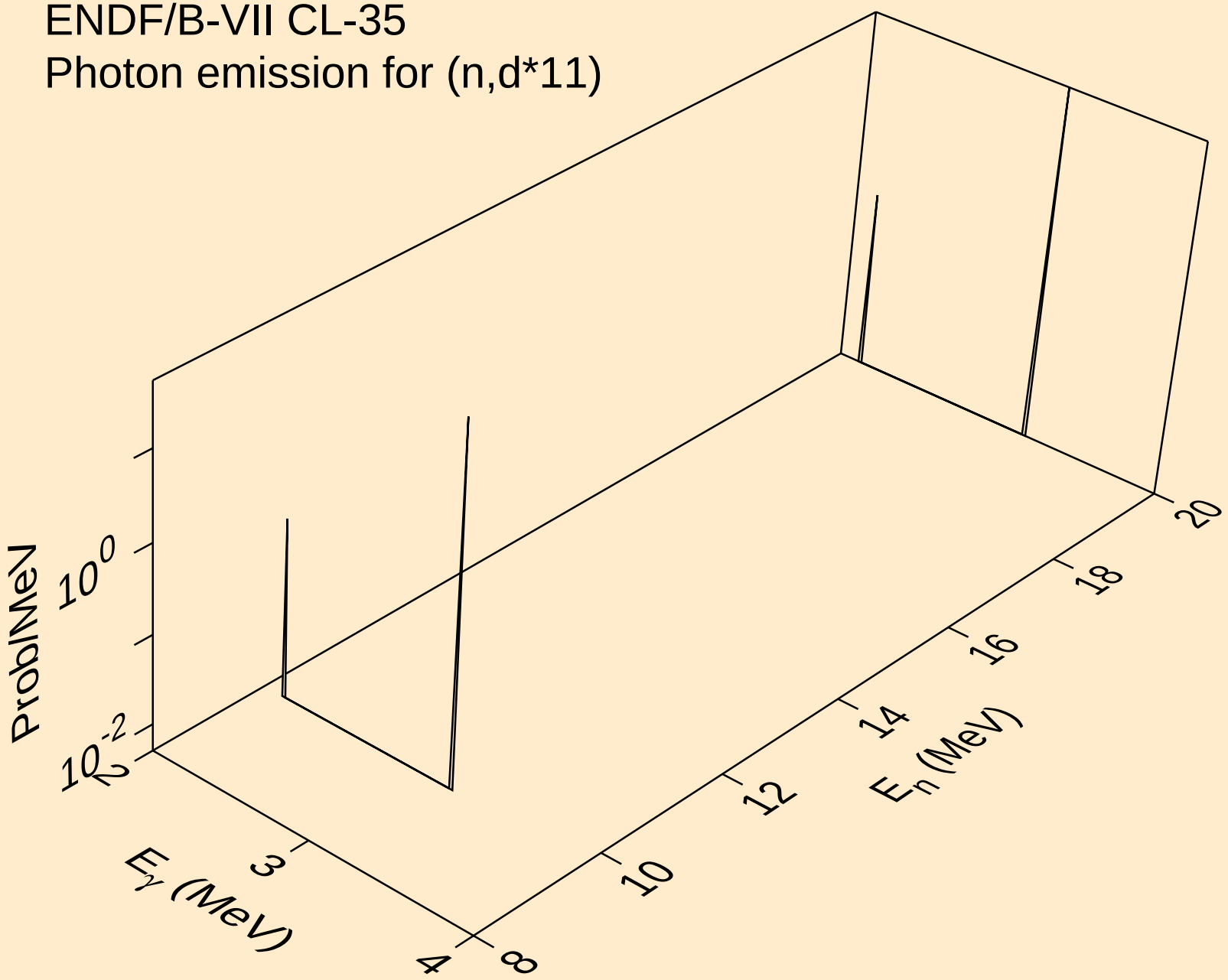
ENDF/B-VII CL-35
Photon emission for (n,d*8)



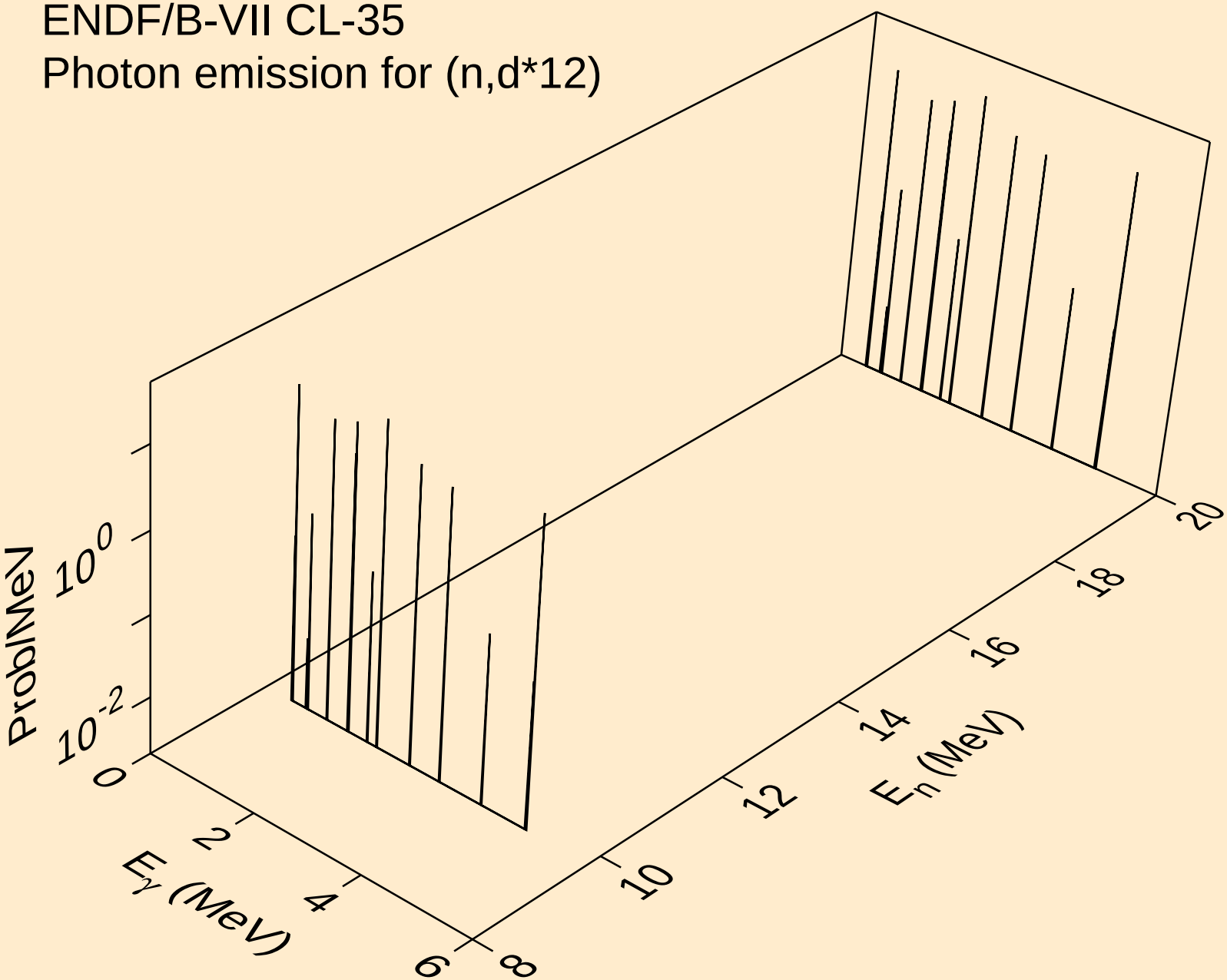

ENDF/B-VII CL-35
Photon emission for (n,d*9)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
8
10
12
14
16
18
20
E_n (MeV)

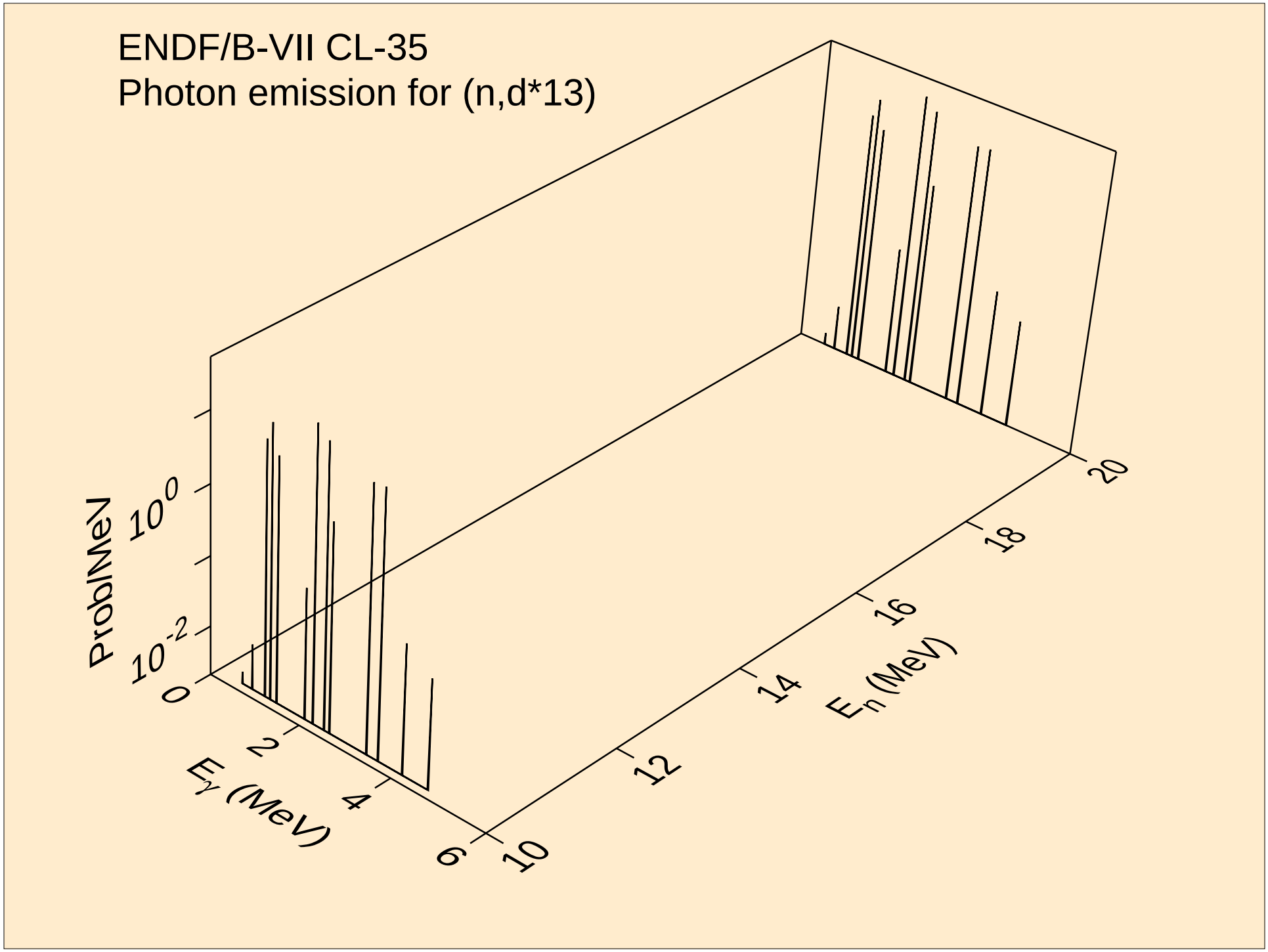

ENDF/B-VII CL-35
Photon emission for (n,d*10)
Prob/MeV
10^0
10^{-2}
0
2
4
6
8
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

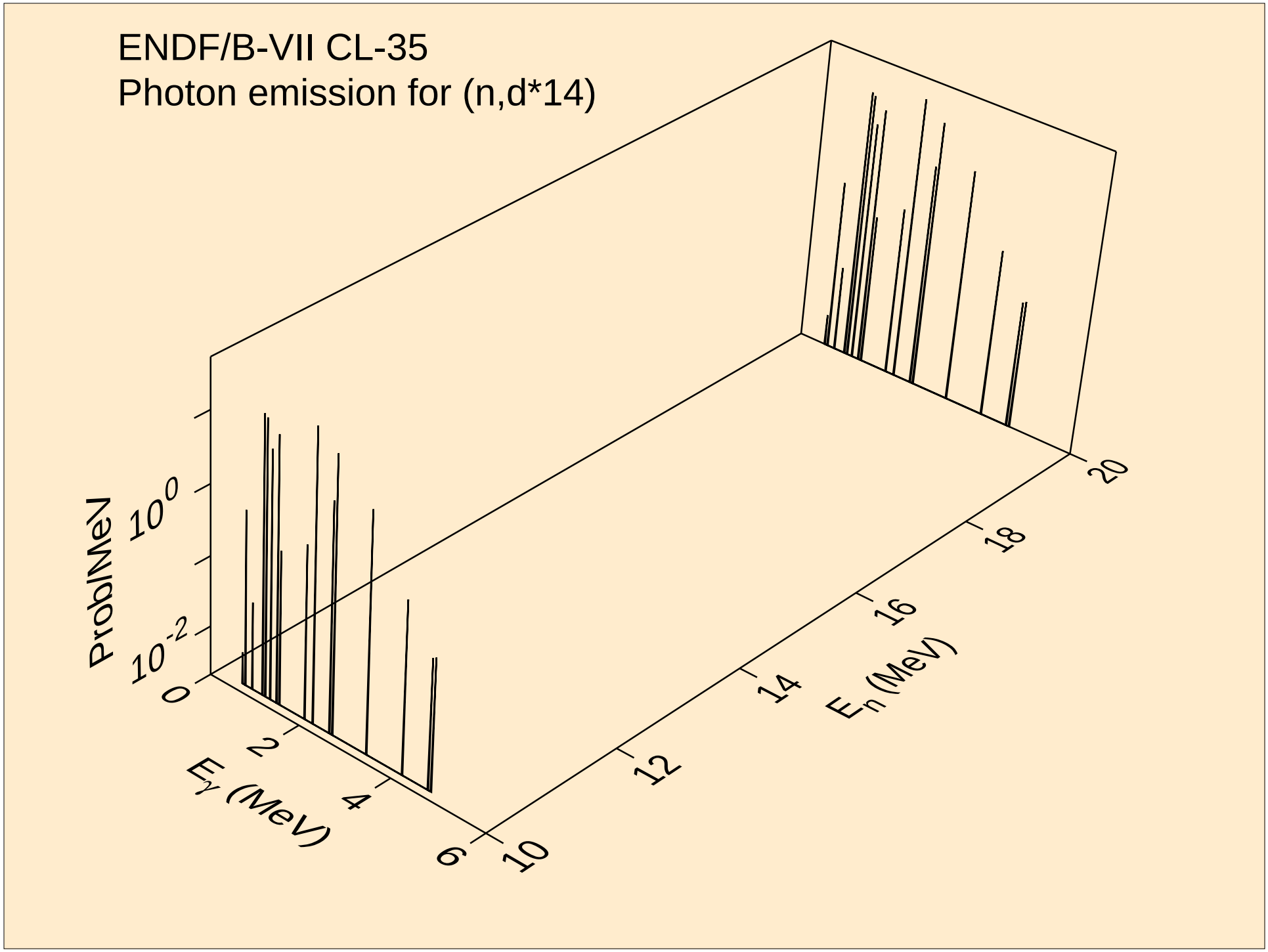
ENDF/B-VII CL-35
Photon emission for (n,d*11)



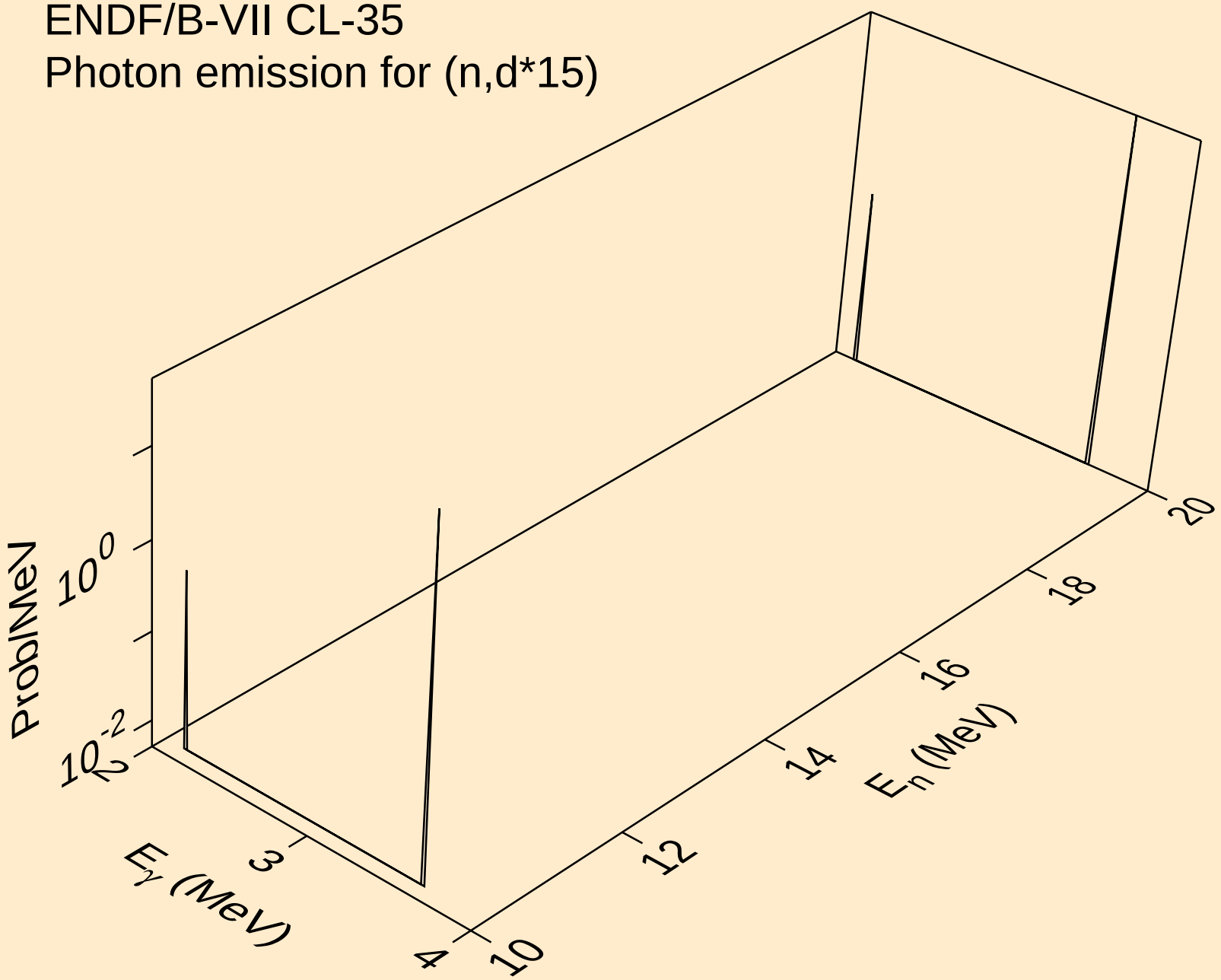
ENDF/B-VII CL-35
Photon emission for (n,d*12)

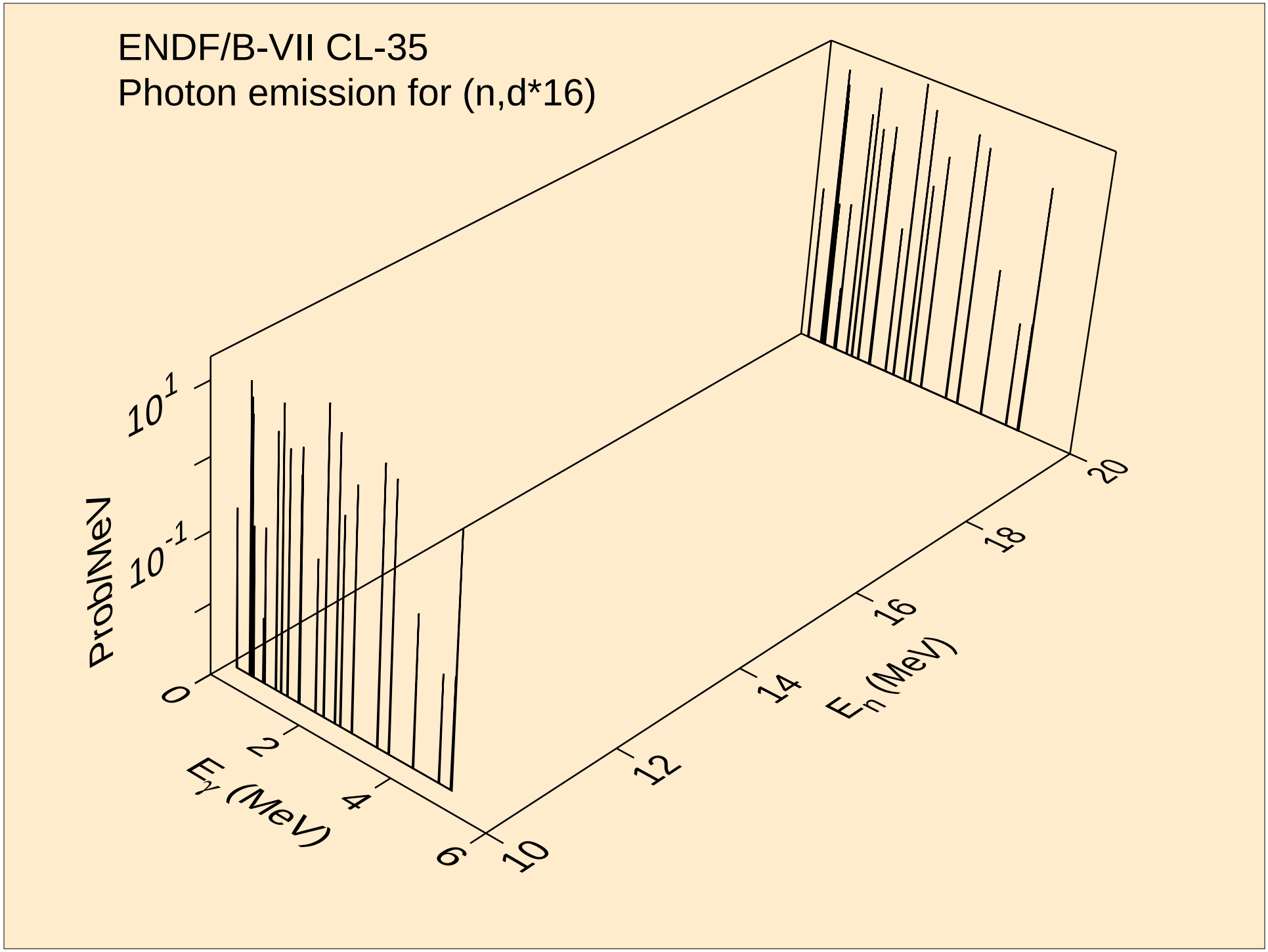


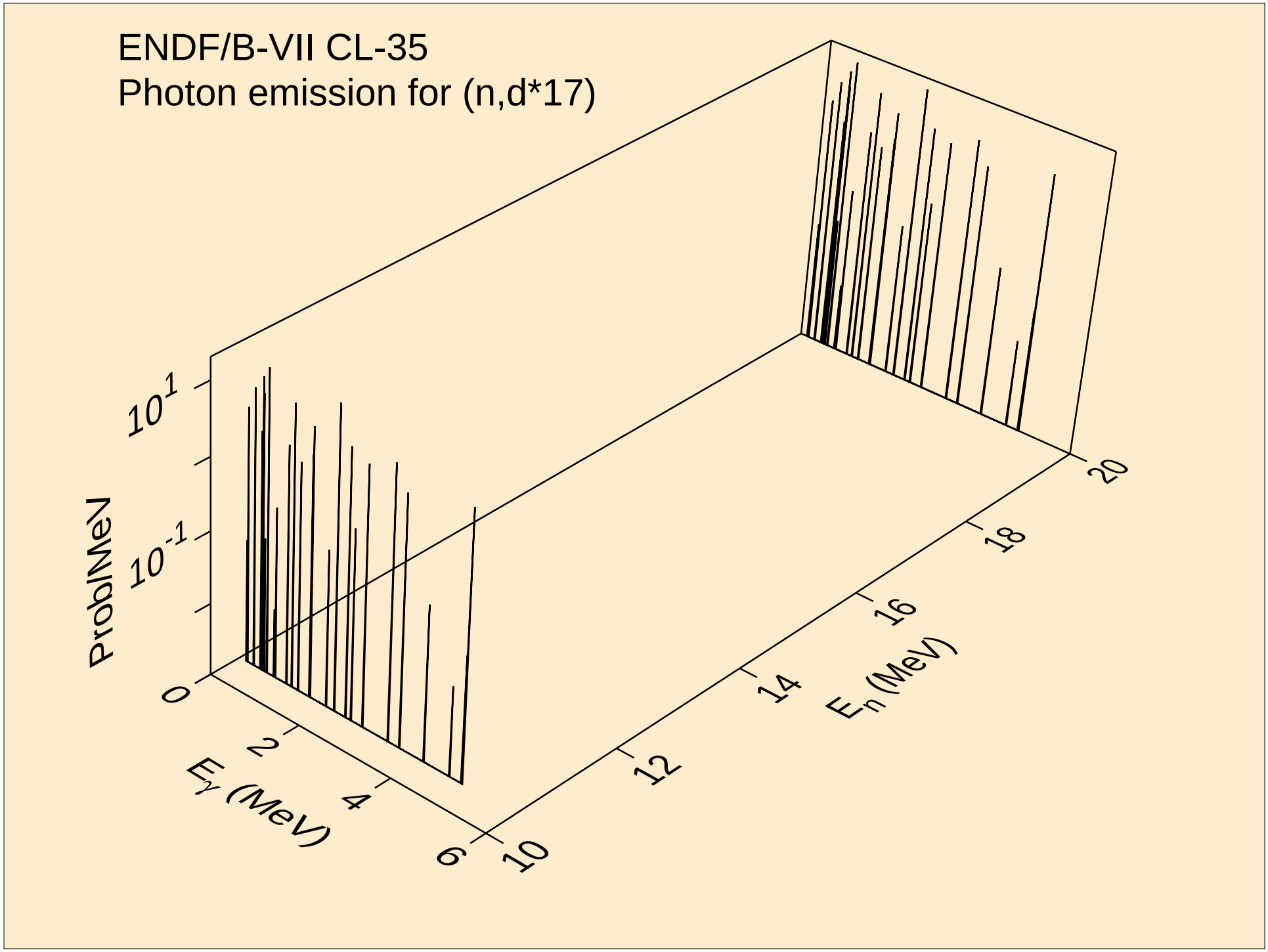

ENDF/B-VII CL-35
Photon emission for (n,d*13)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,d*14)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

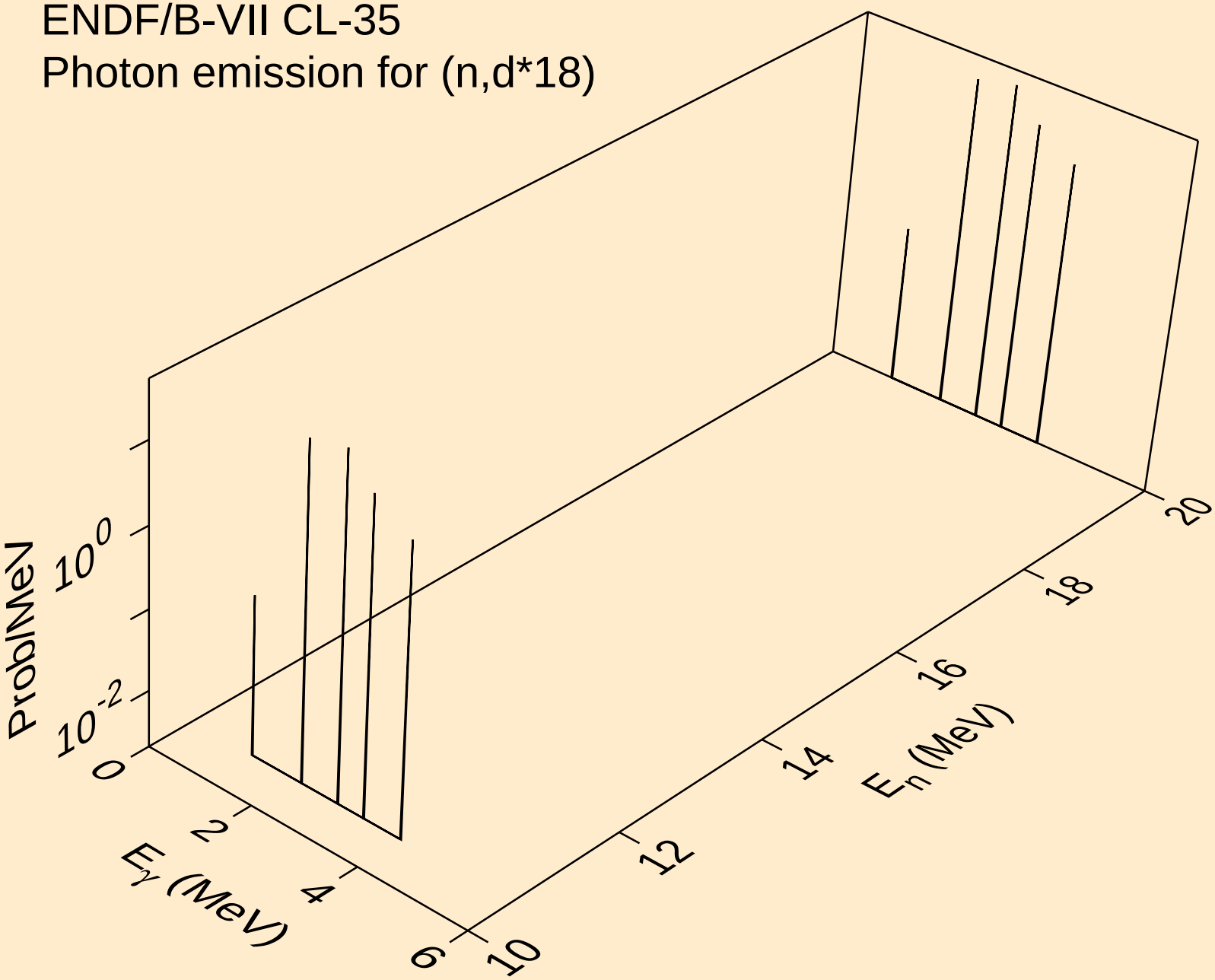
ENDF/B-VII CL-35
Photon emission for (n,d*15)



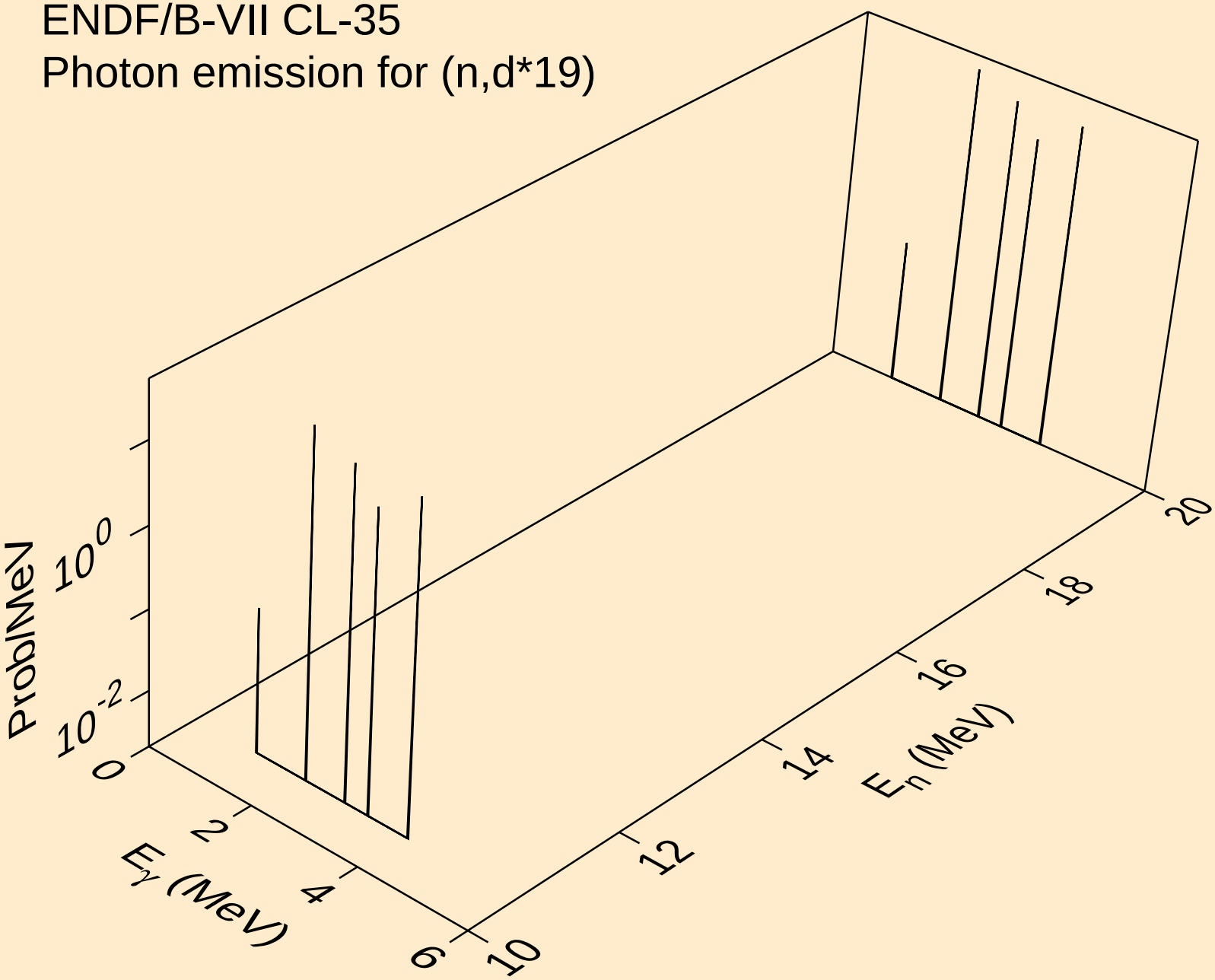

ENDF/B-VII CL-35
Photon emission for (n,d*16)
Prob/MeV
10^{1}
10^{-1}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

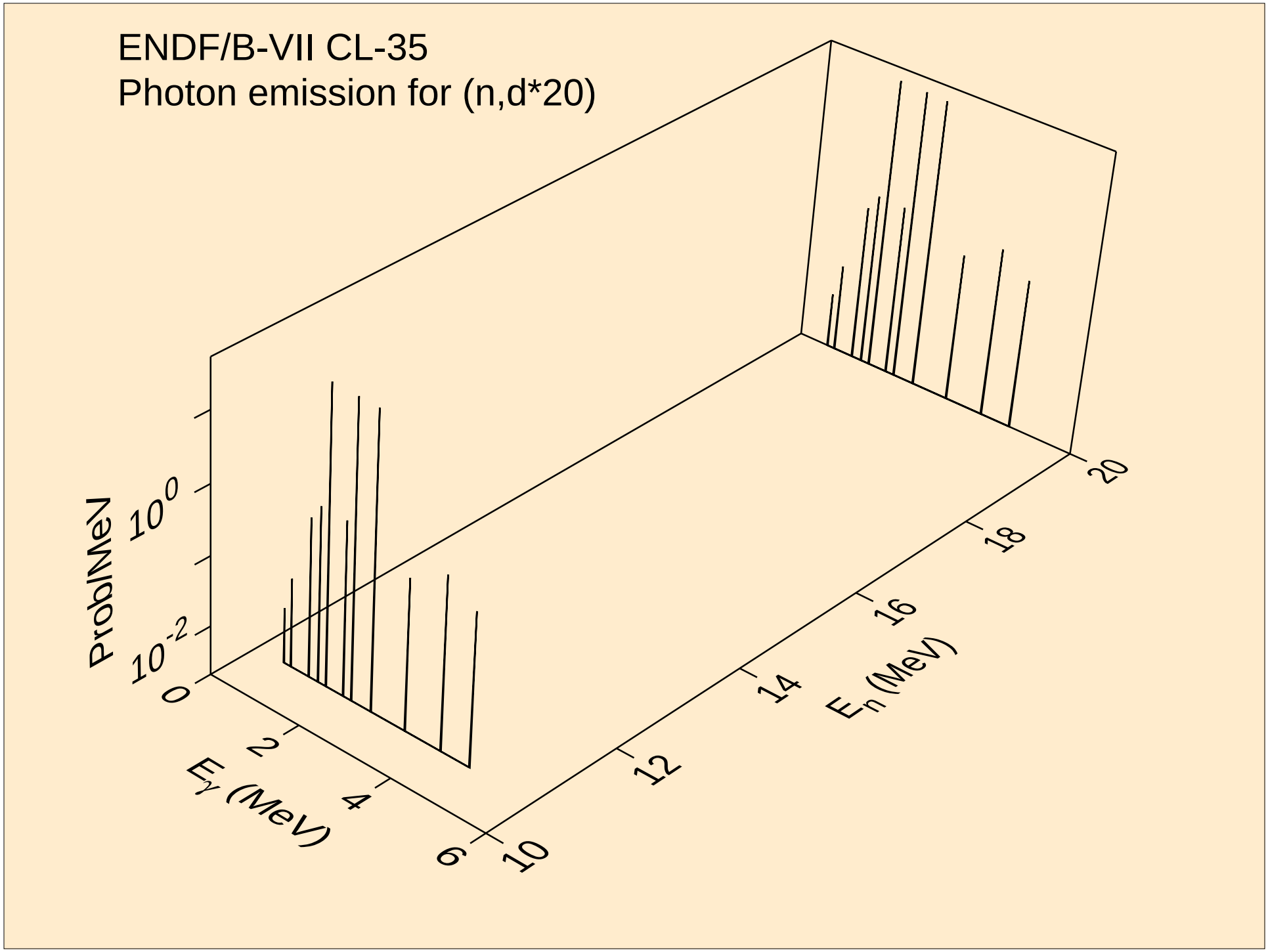

ENDF/B-VII CL-35
Photon emission for (n,d*17)
Prob/MeV
10^{1}
10^{-1}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

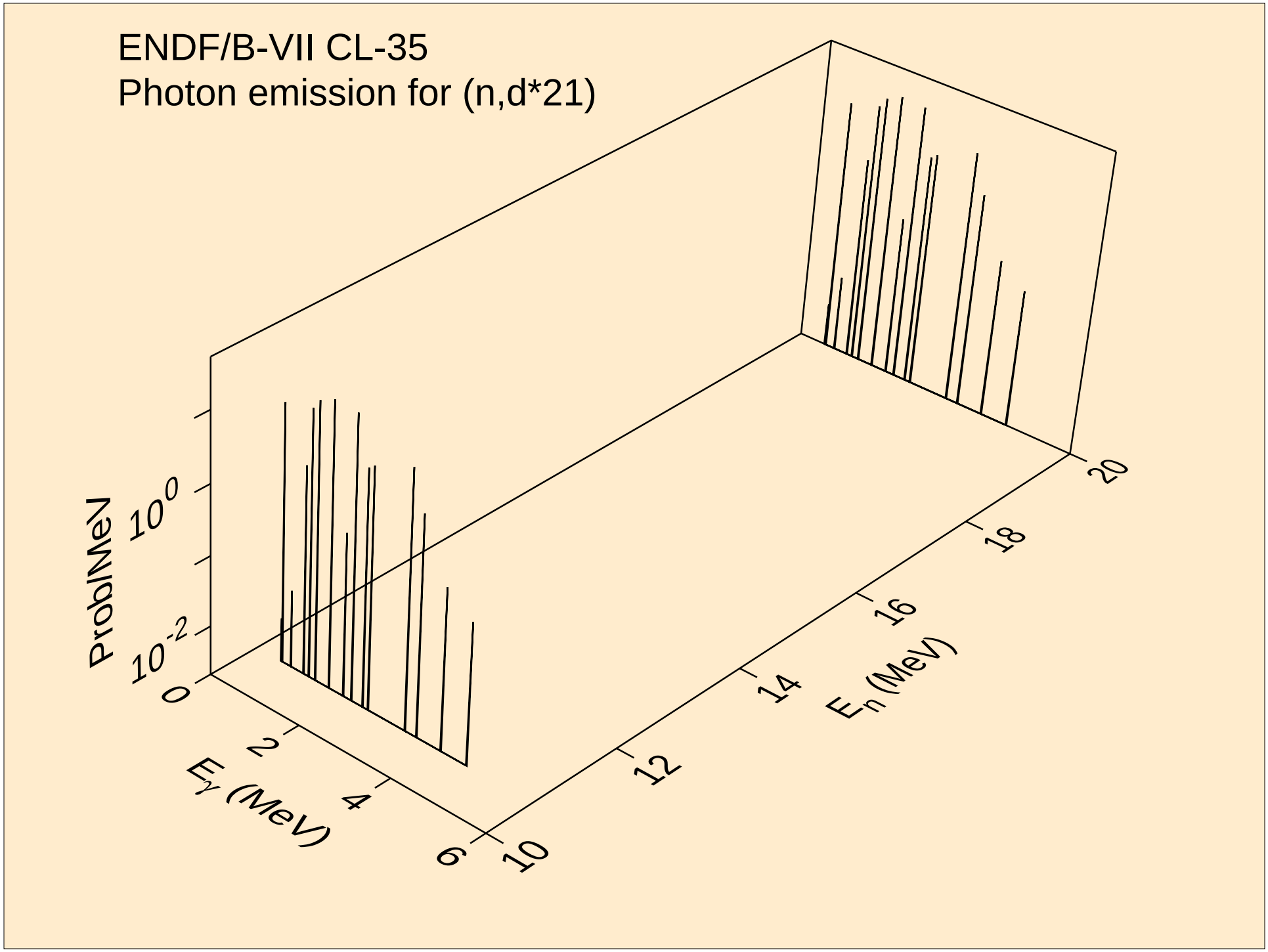
ENDF/B-VII CL-35
Photon emission for (n,d*18)

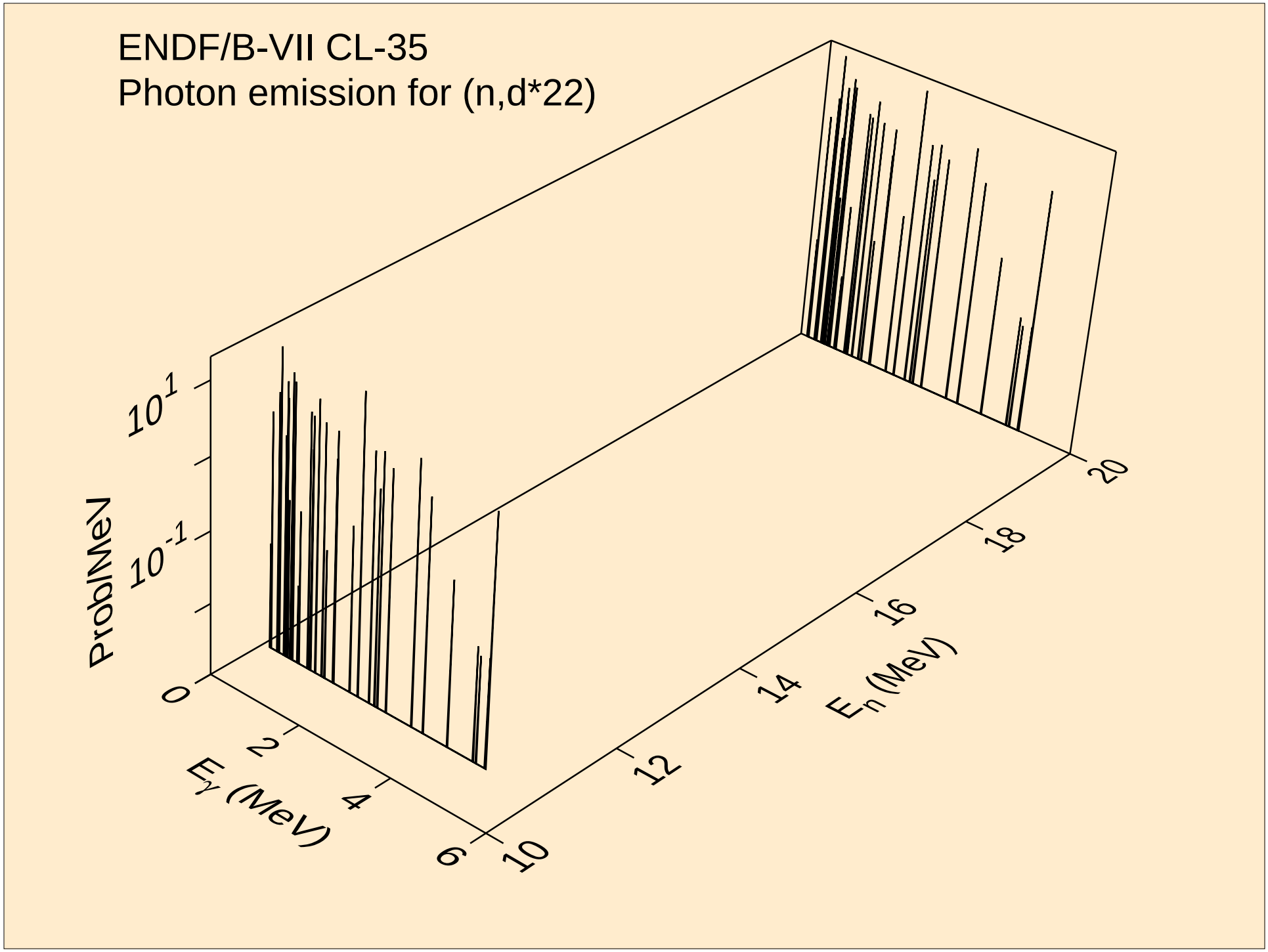


ENDF/B-VII CL-35
Photon emission for (n,d*19)

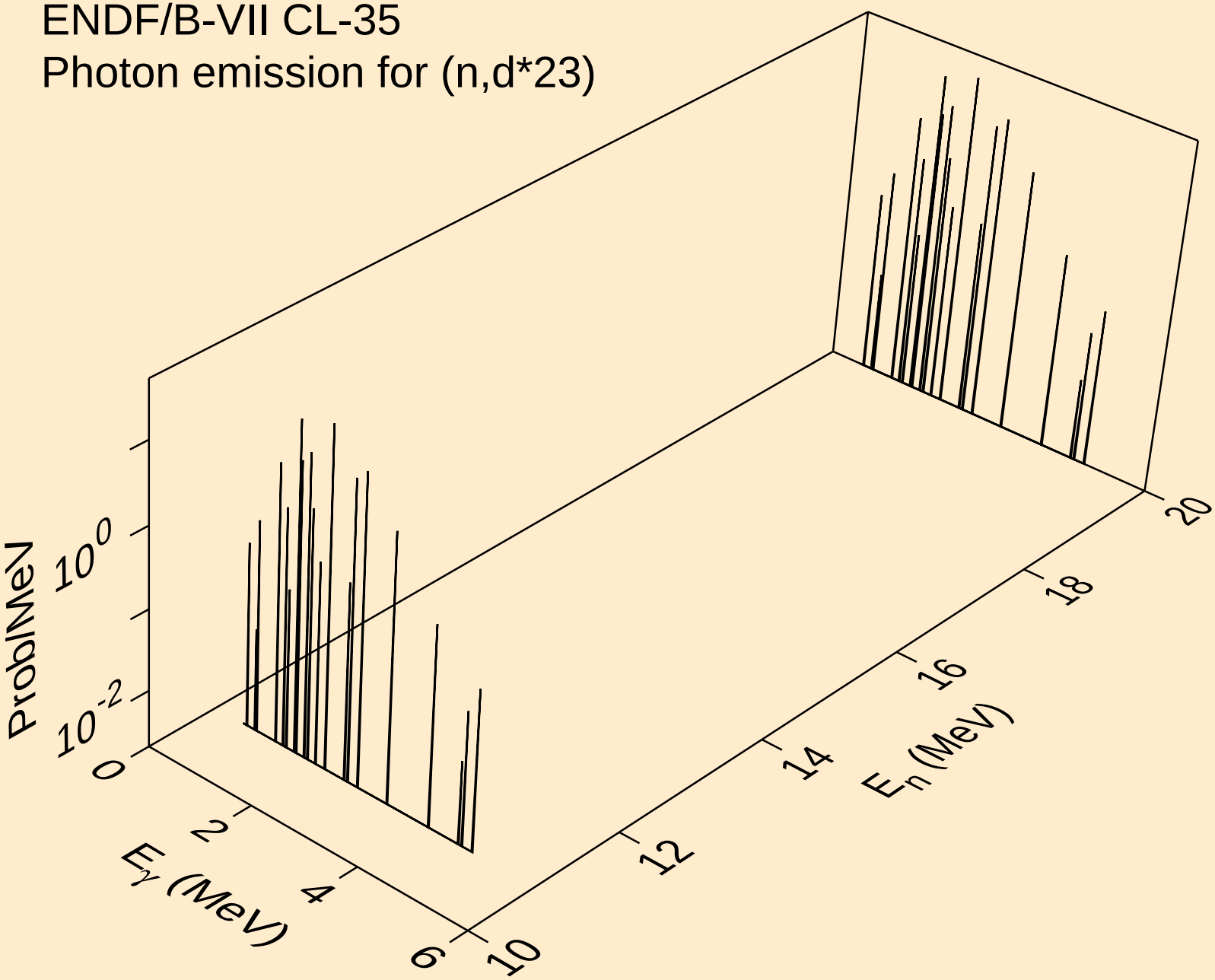


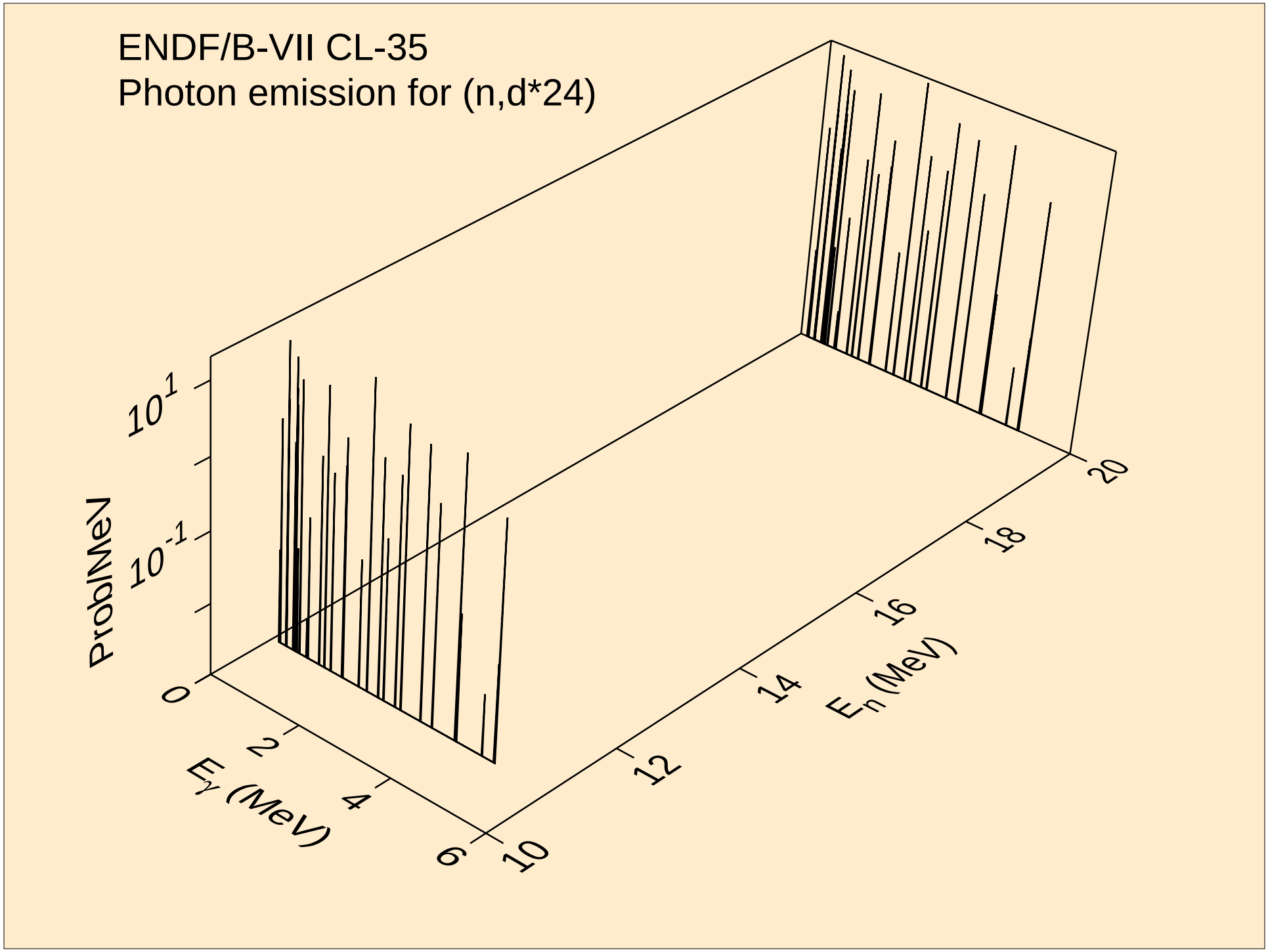

ENDF/B-VII CL-35
Photon emission for (n,d*20)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

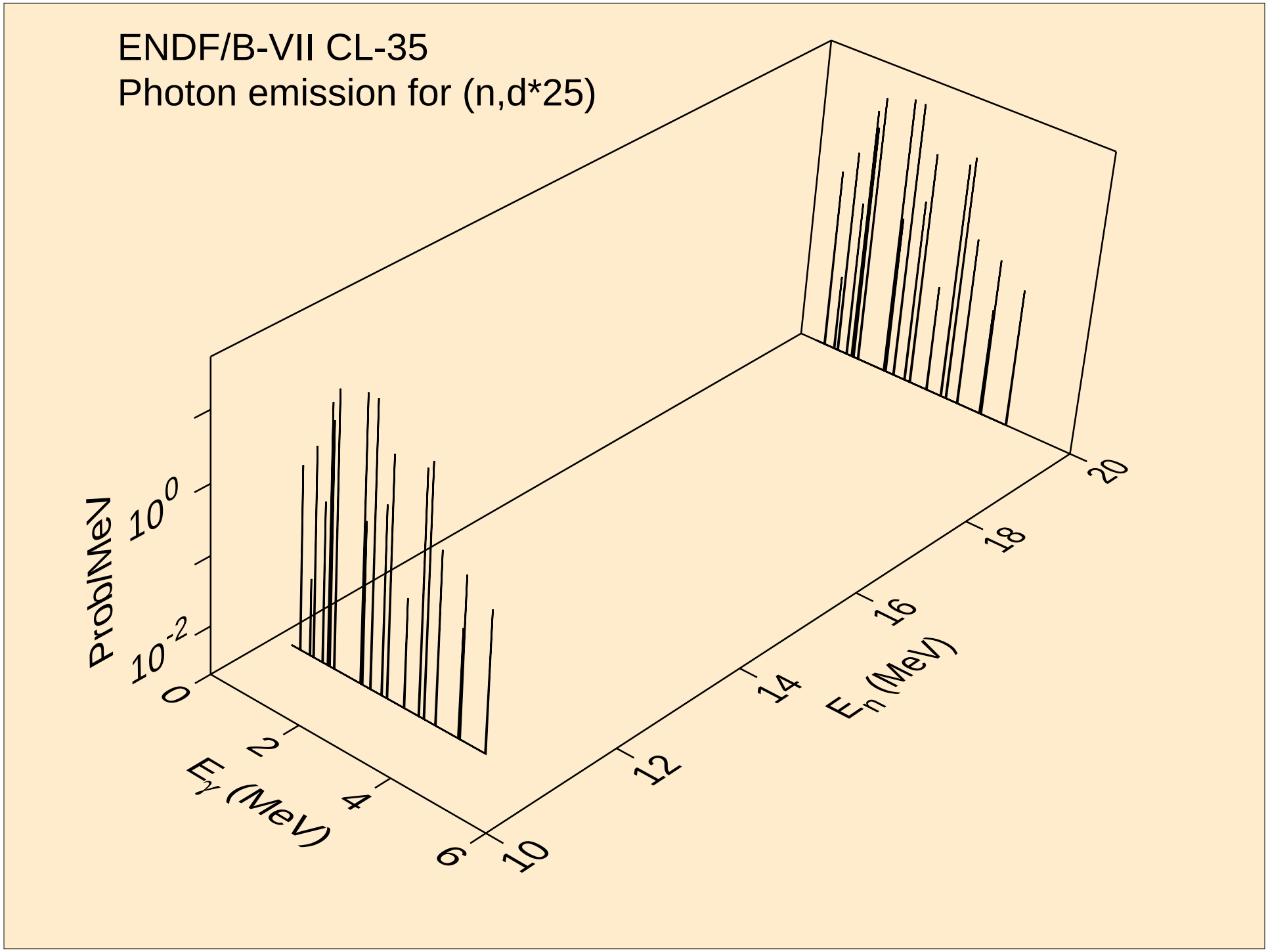

ENDF/B-VII CL-35
Photon emission for (n,d*21)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

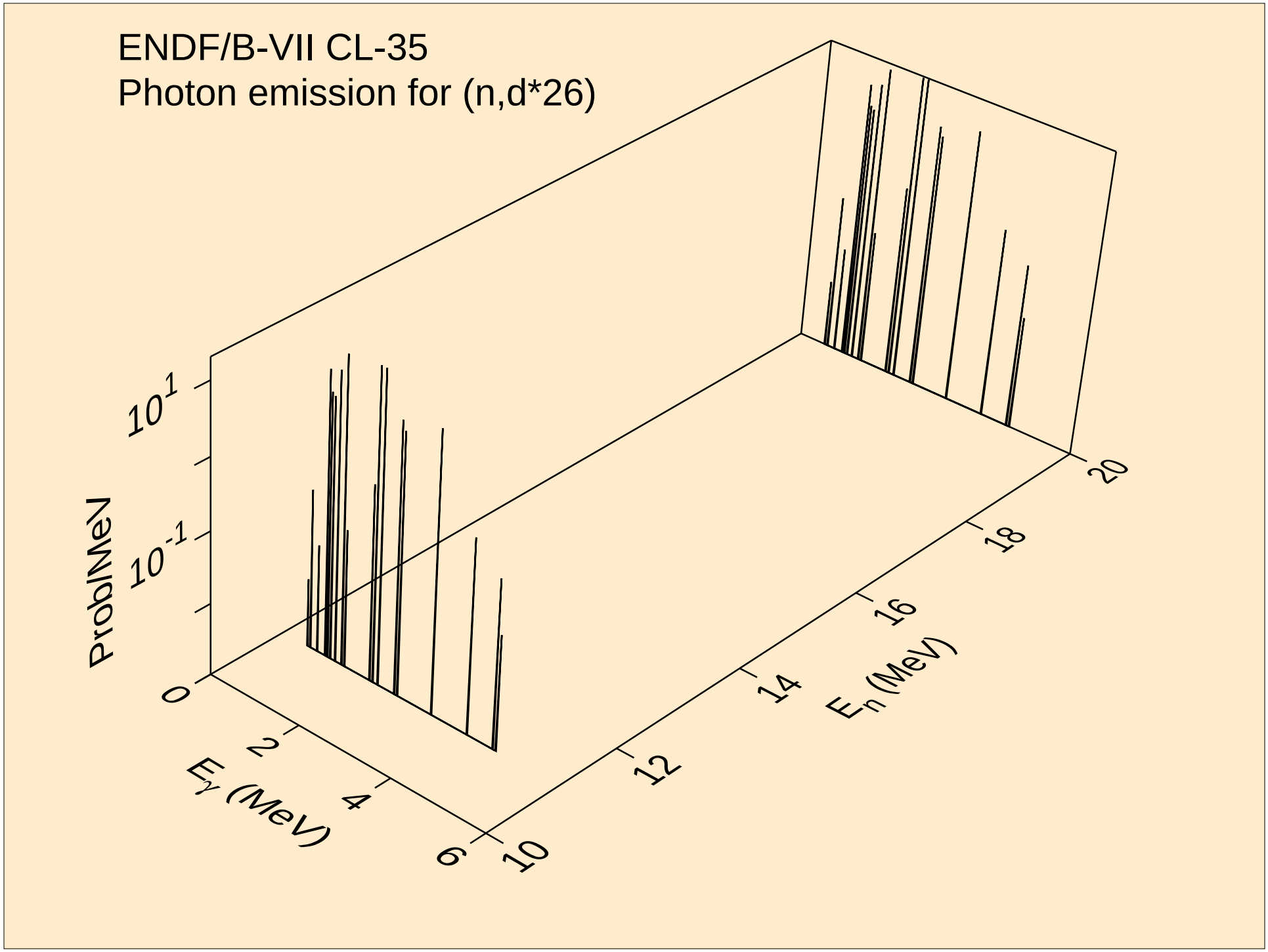

ENDF/B-VII CL-35
Photon emission for (n,d*22)
Prob/MeV
10^{1}
10^{-1}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

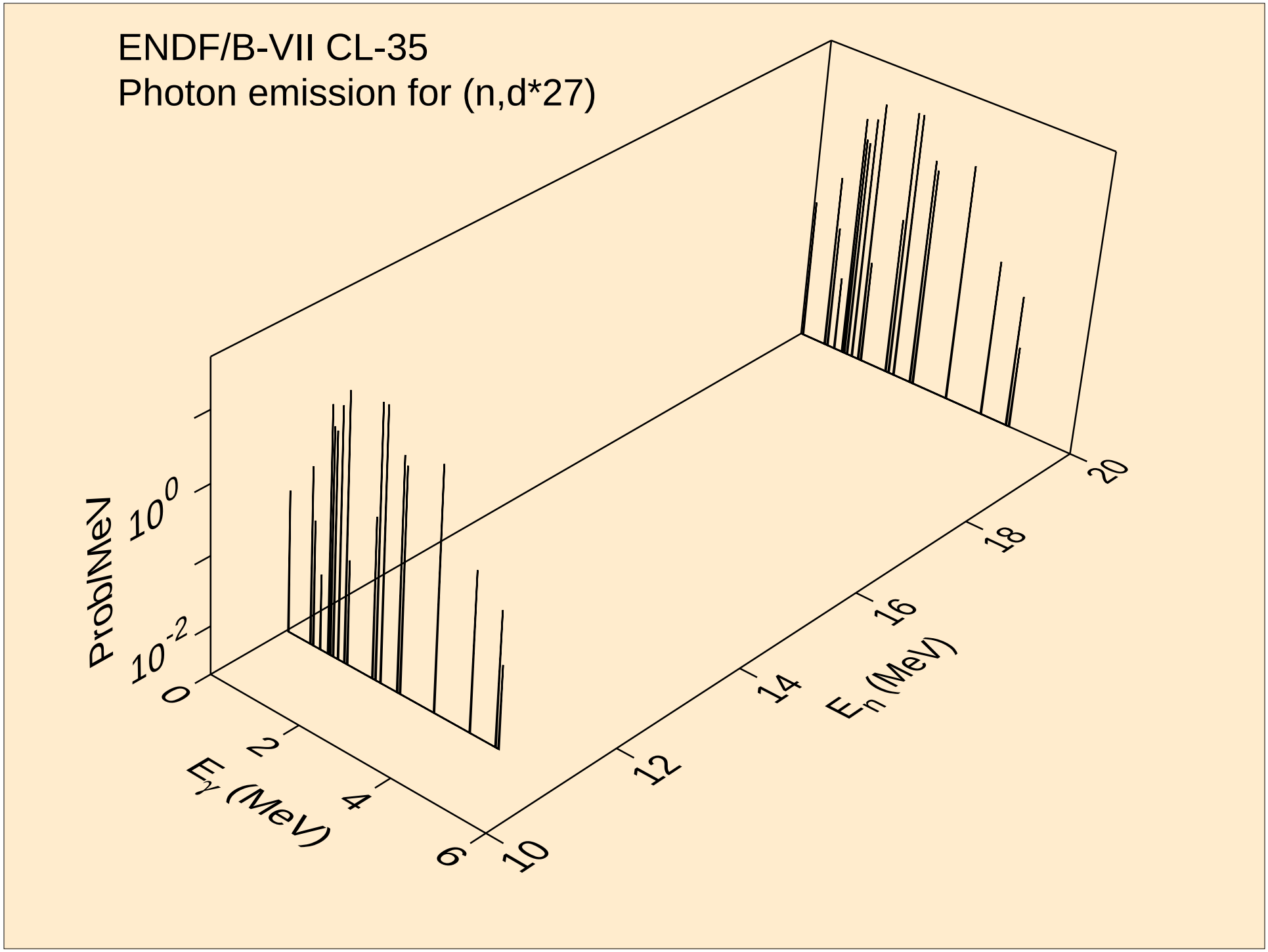
ENDF/B-VII CL-35
Photon emission for (n,d*23)

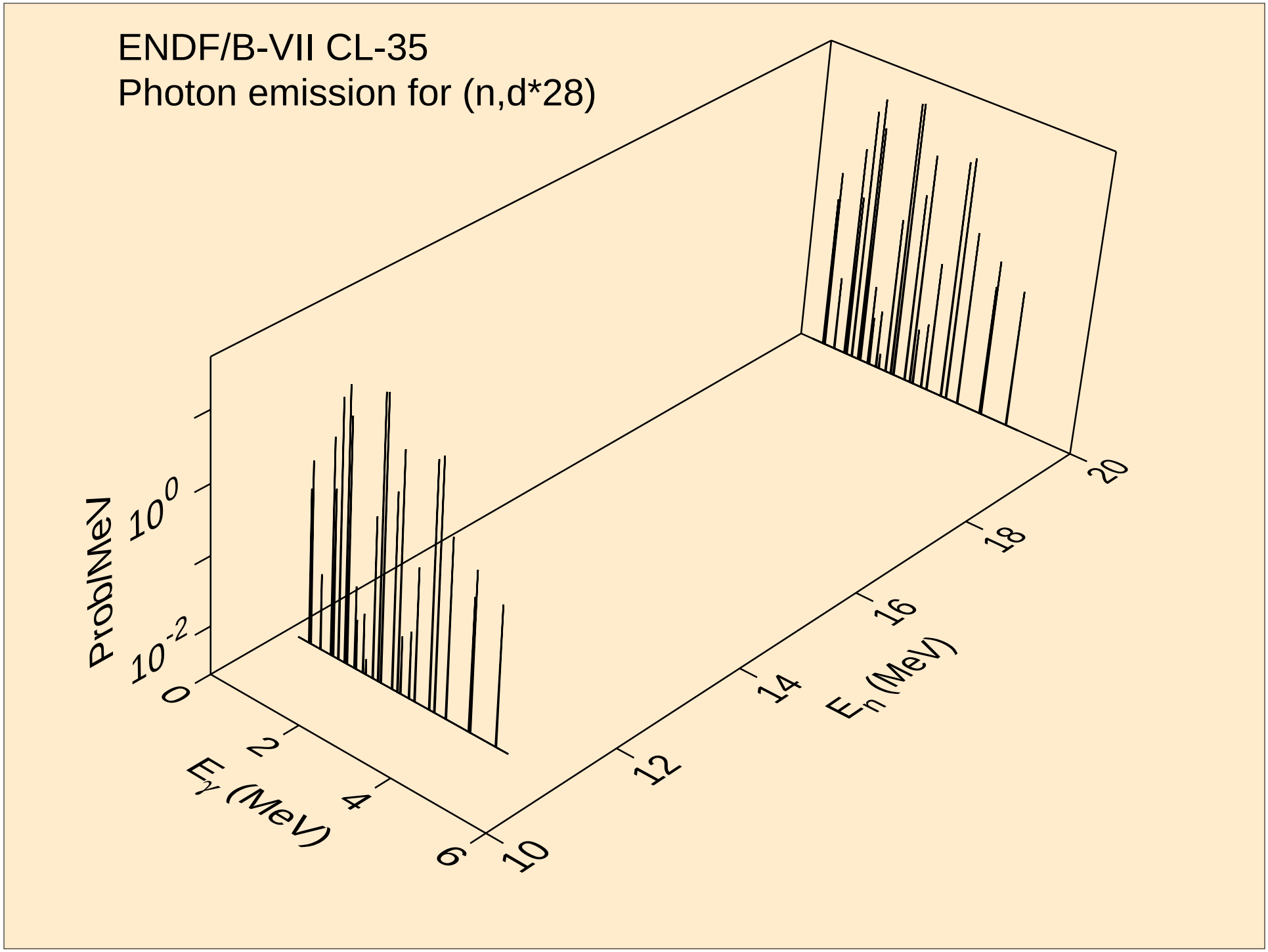



ENDF/B-VII CL-35
Photon emission for (n,d*24)
Prob/MeV
10^{1}
10^{-1}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

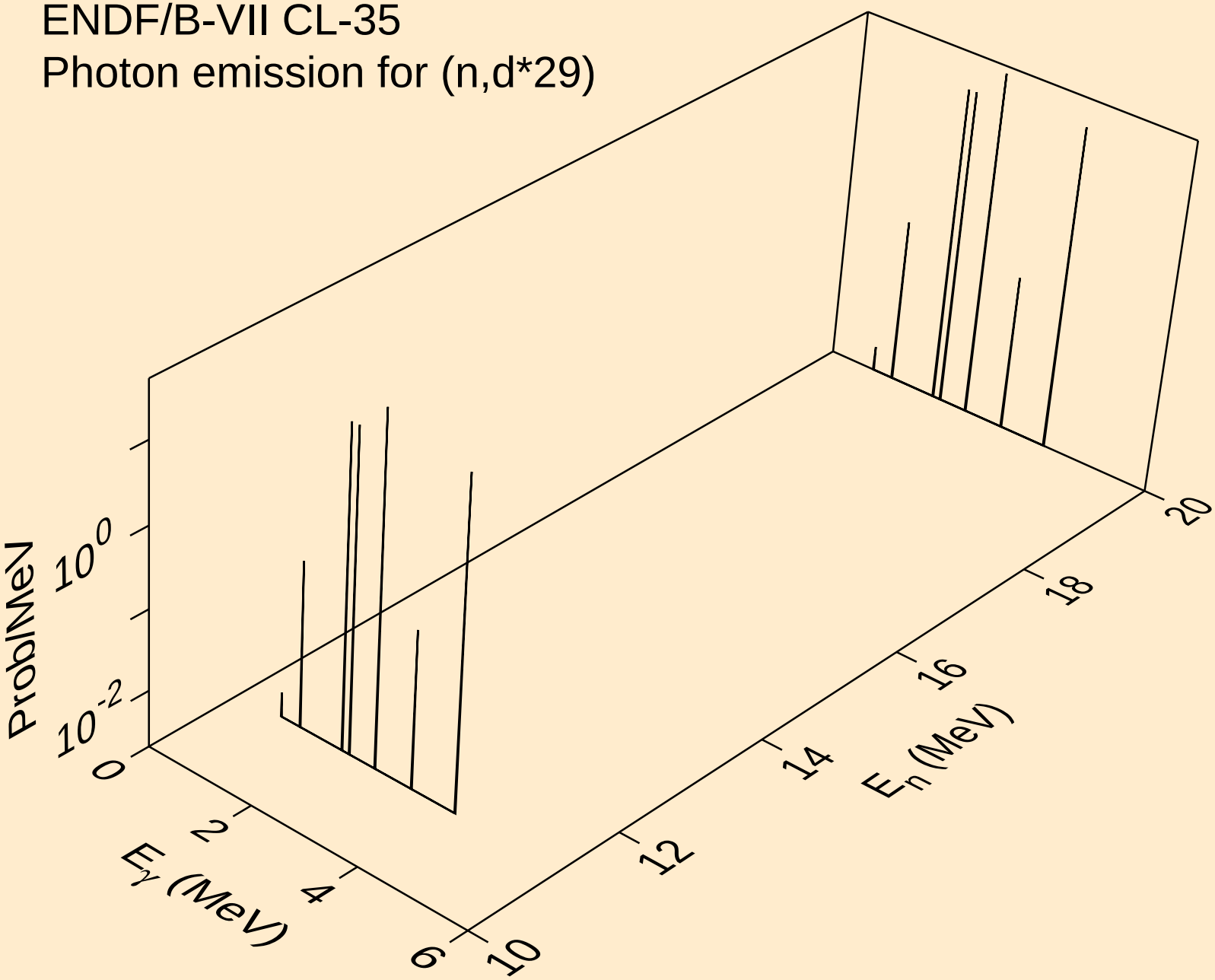

ENDF/B-VII CL-35
Photon emission for (n,d*25)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

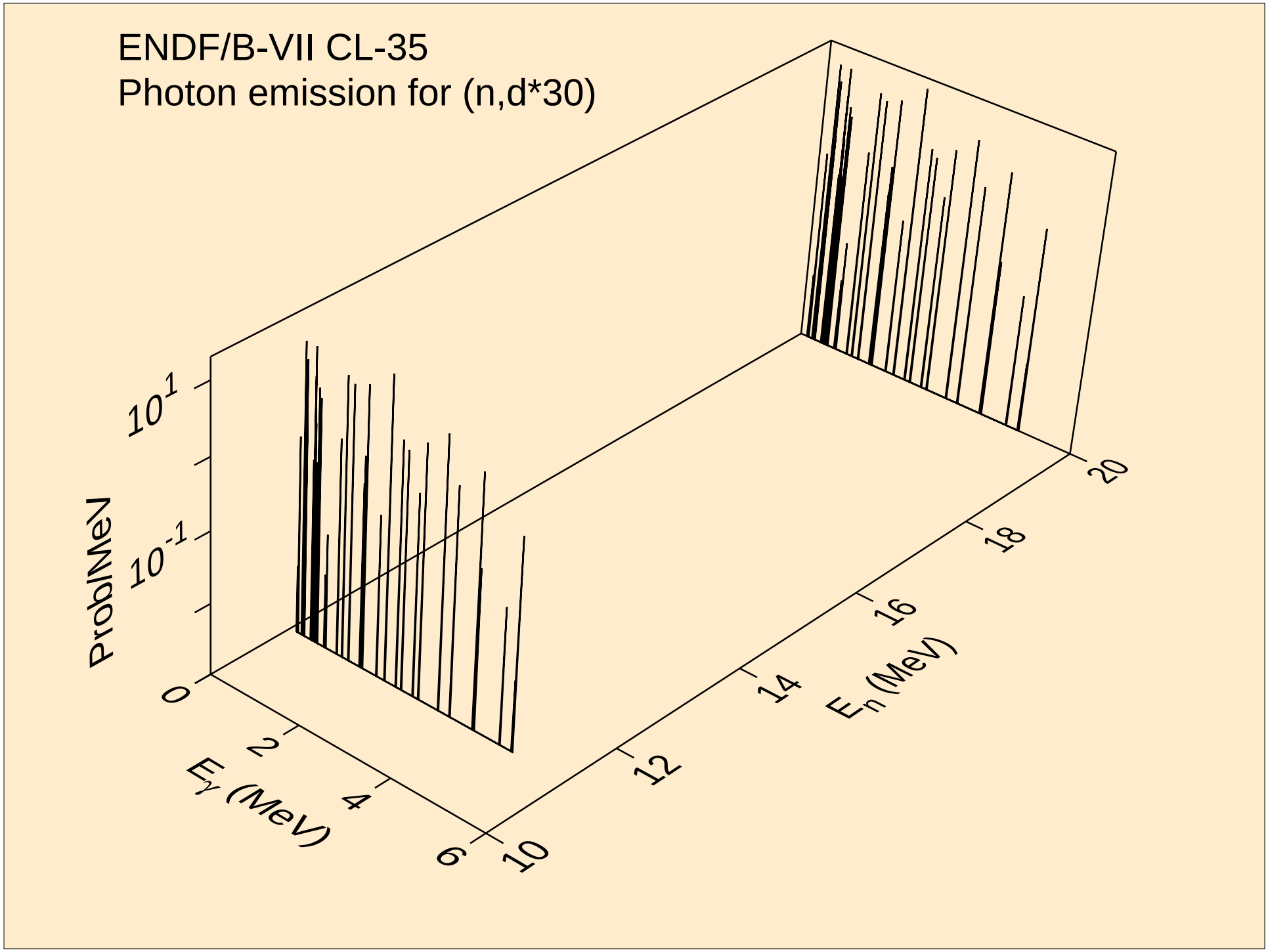

ENDF/B-VII CL-35
Photon emission for (n,d*26)
Prob/MeV
10^{1}
10^{-1}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

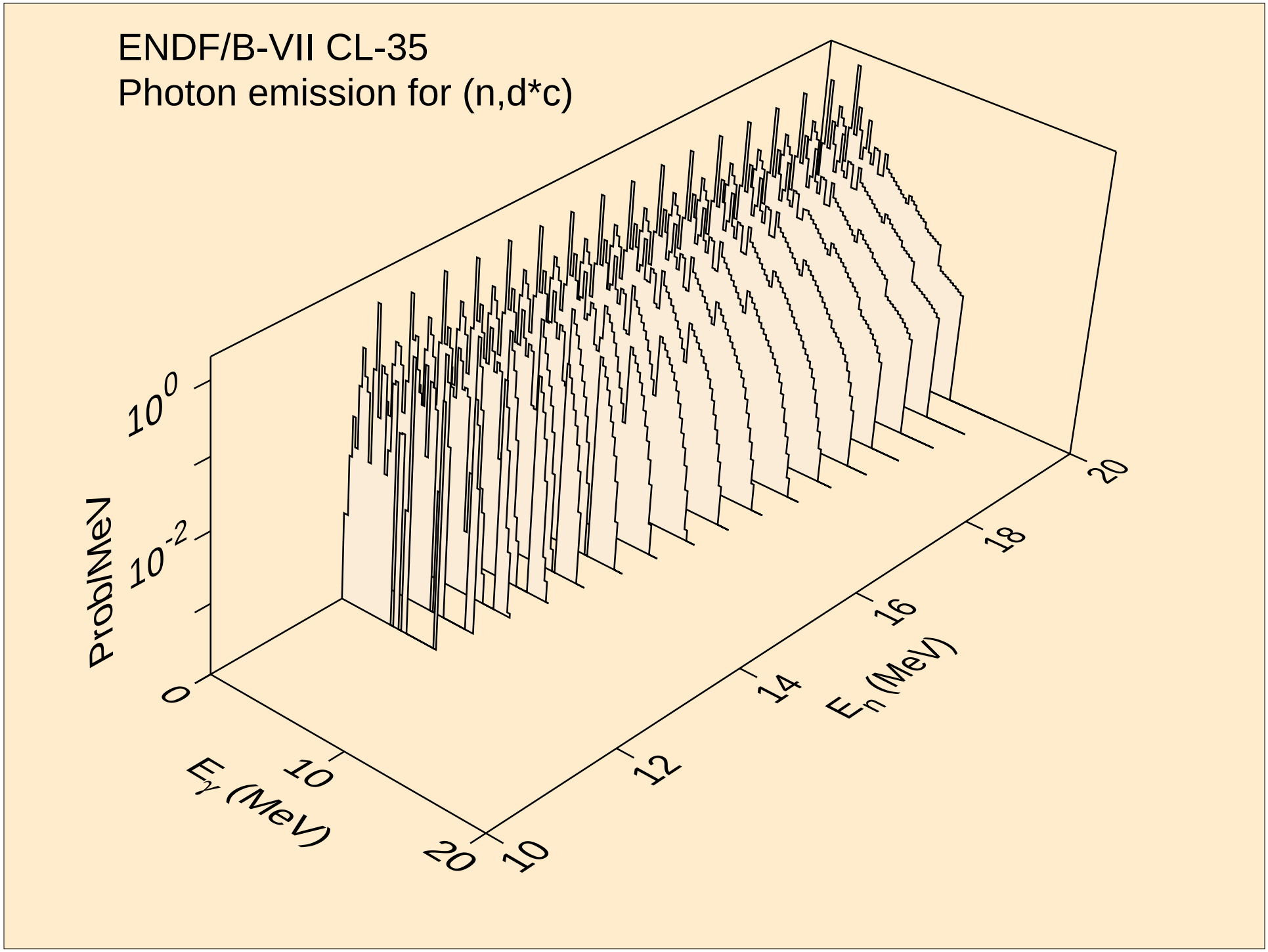

ENDF/B-VII CL-35
Photon emission for (n,d*27)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,d*28)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

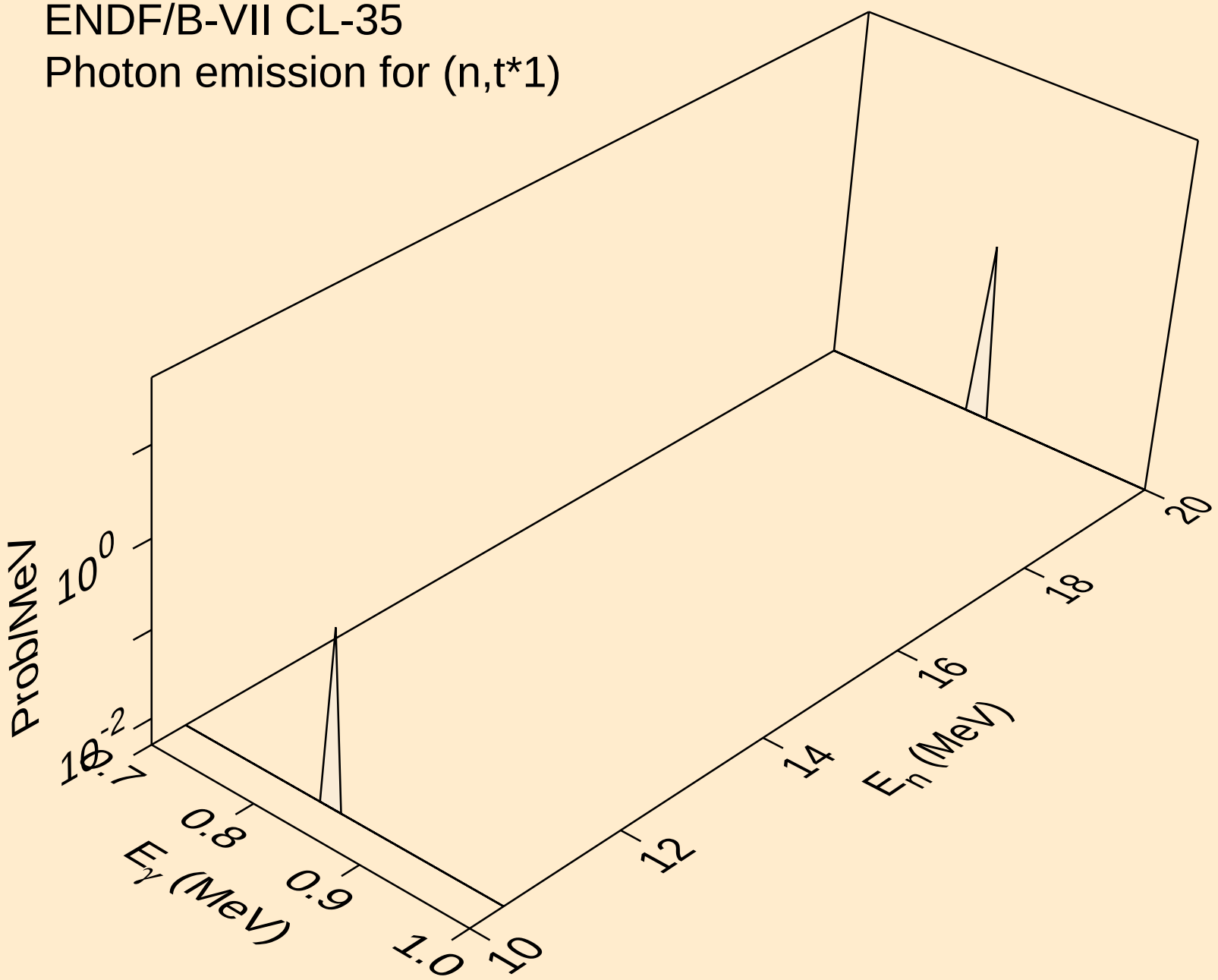
ENDF/B-VII CL-35
Photon emission for (n,d*29)



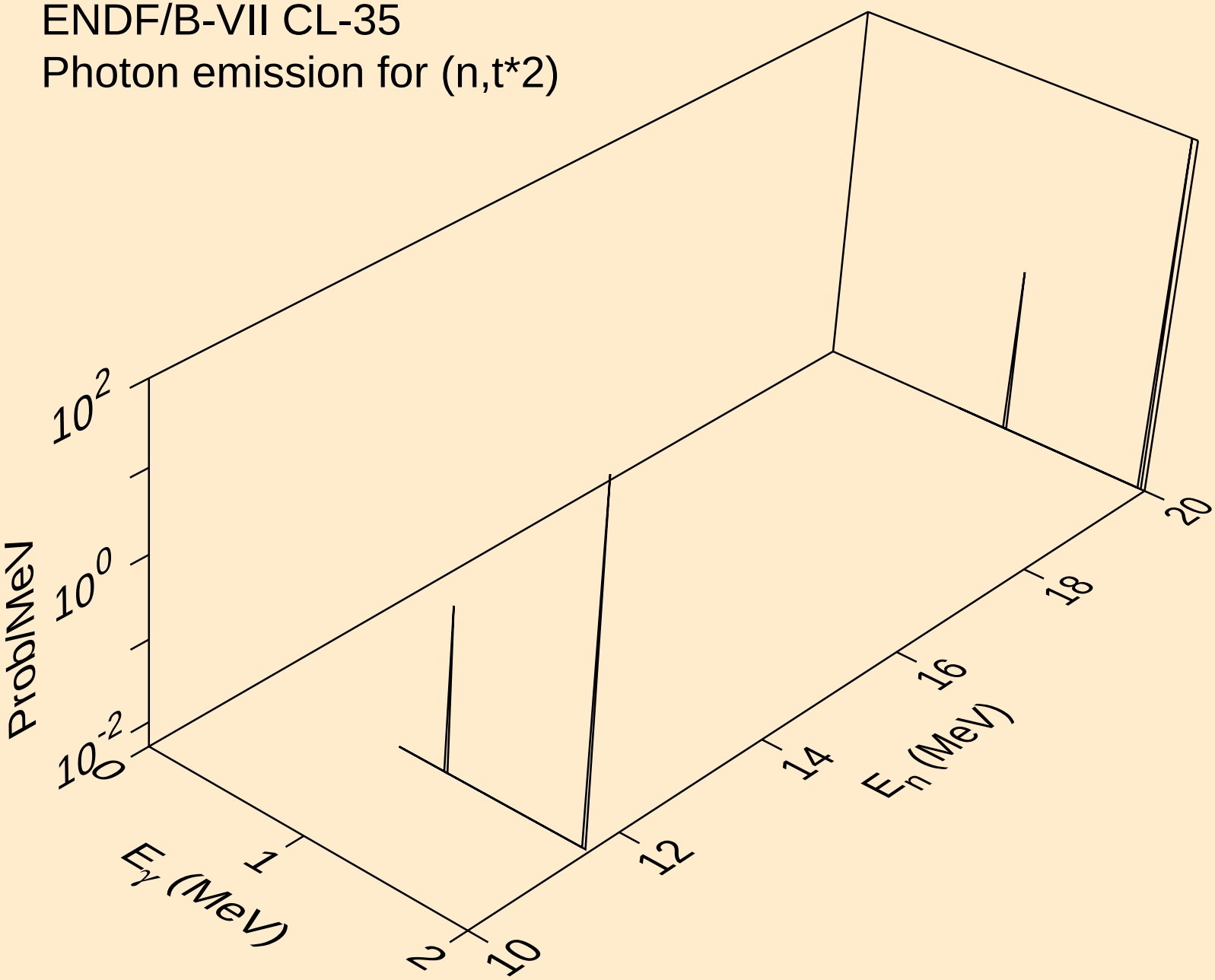

ENDF/B-VII CL-35
Photon emission for (n,d*30)
Prob/MeV
10^{1}
10^{-1}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,d*c)
Prob/MeV
10^0
10^{-2}
0
10
20
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

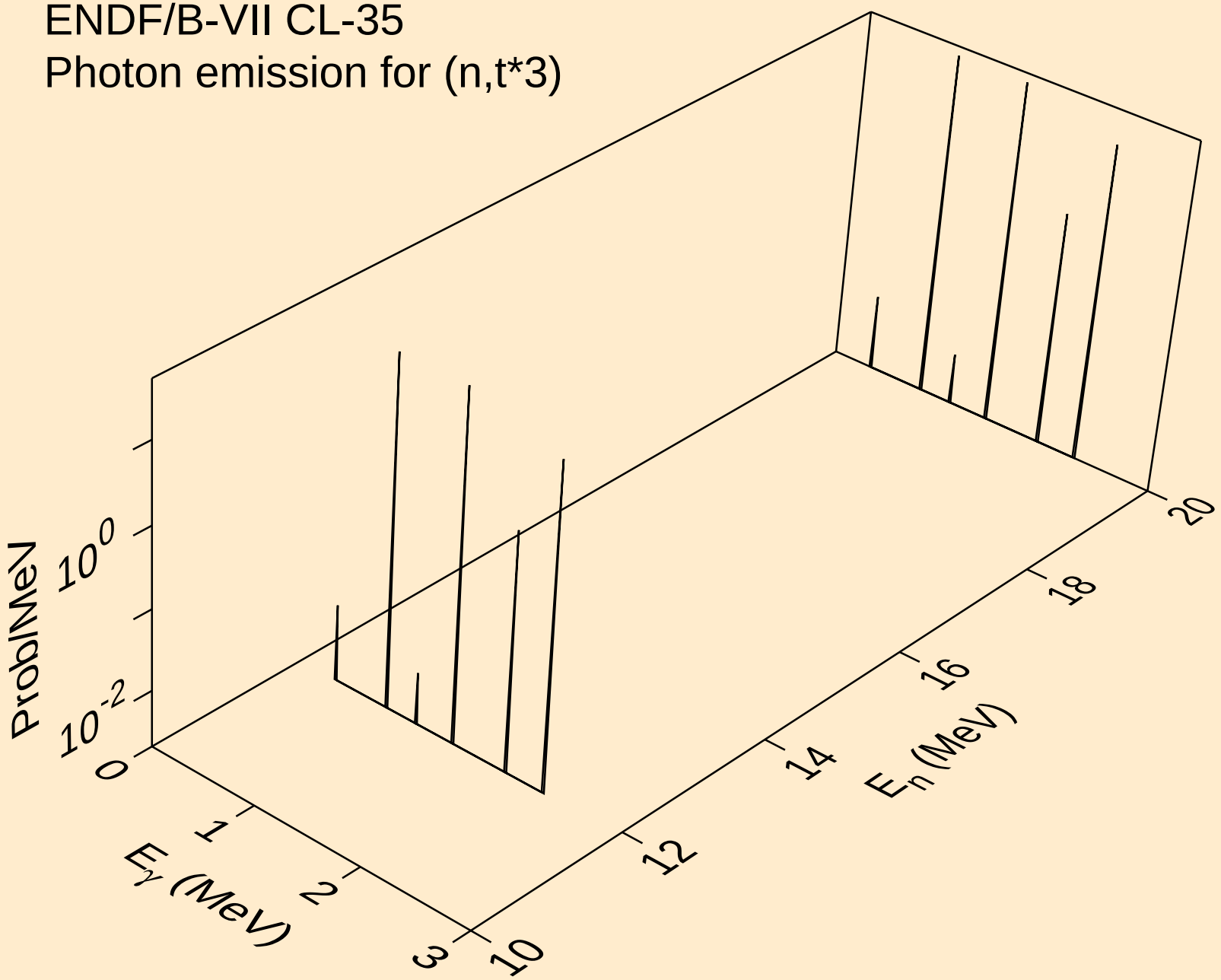
ENDF/B-VII CL-35
Photon emission for (n,t*1)



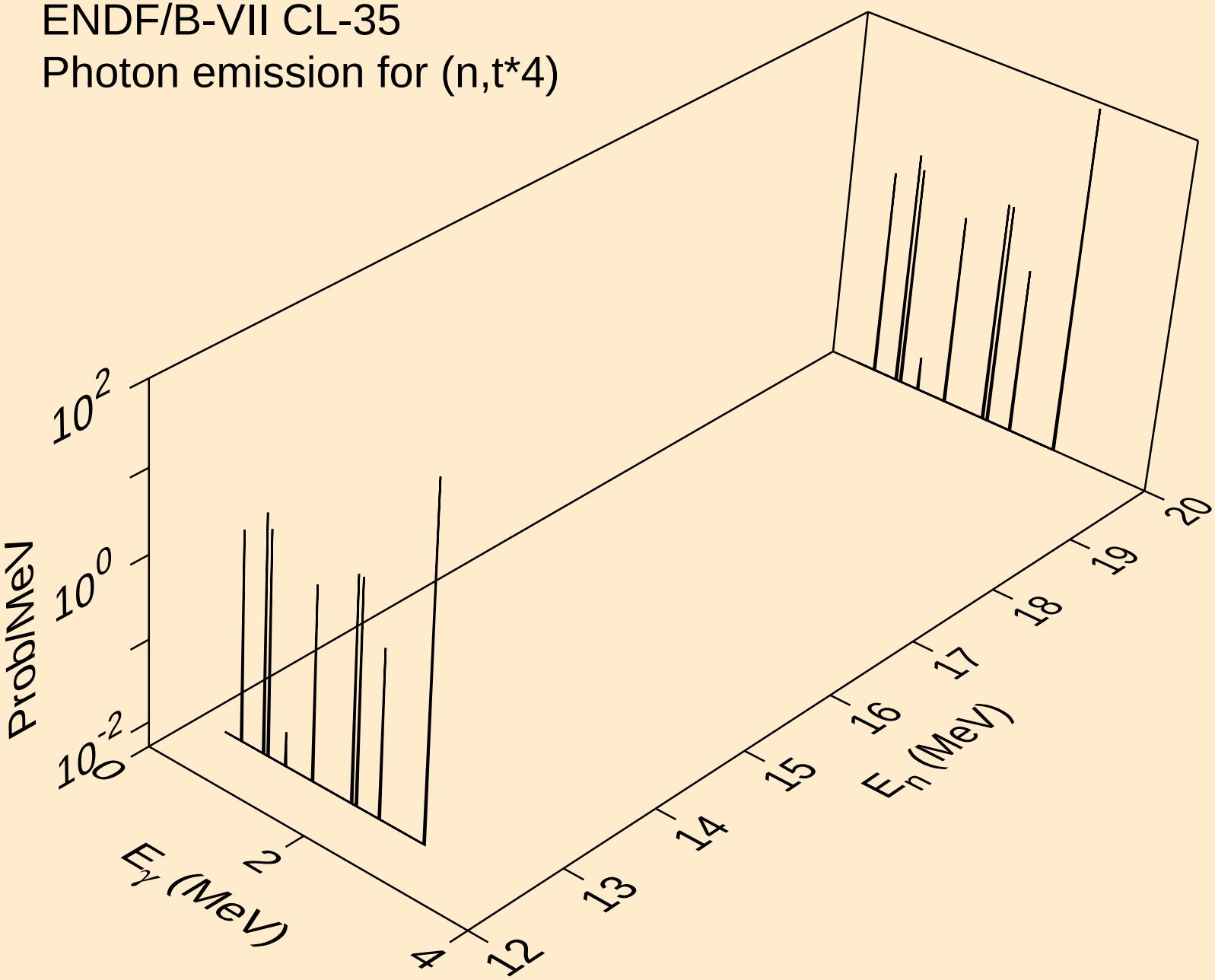
ENDF/B-VII CL-35
Photon emission for (n,t*2)



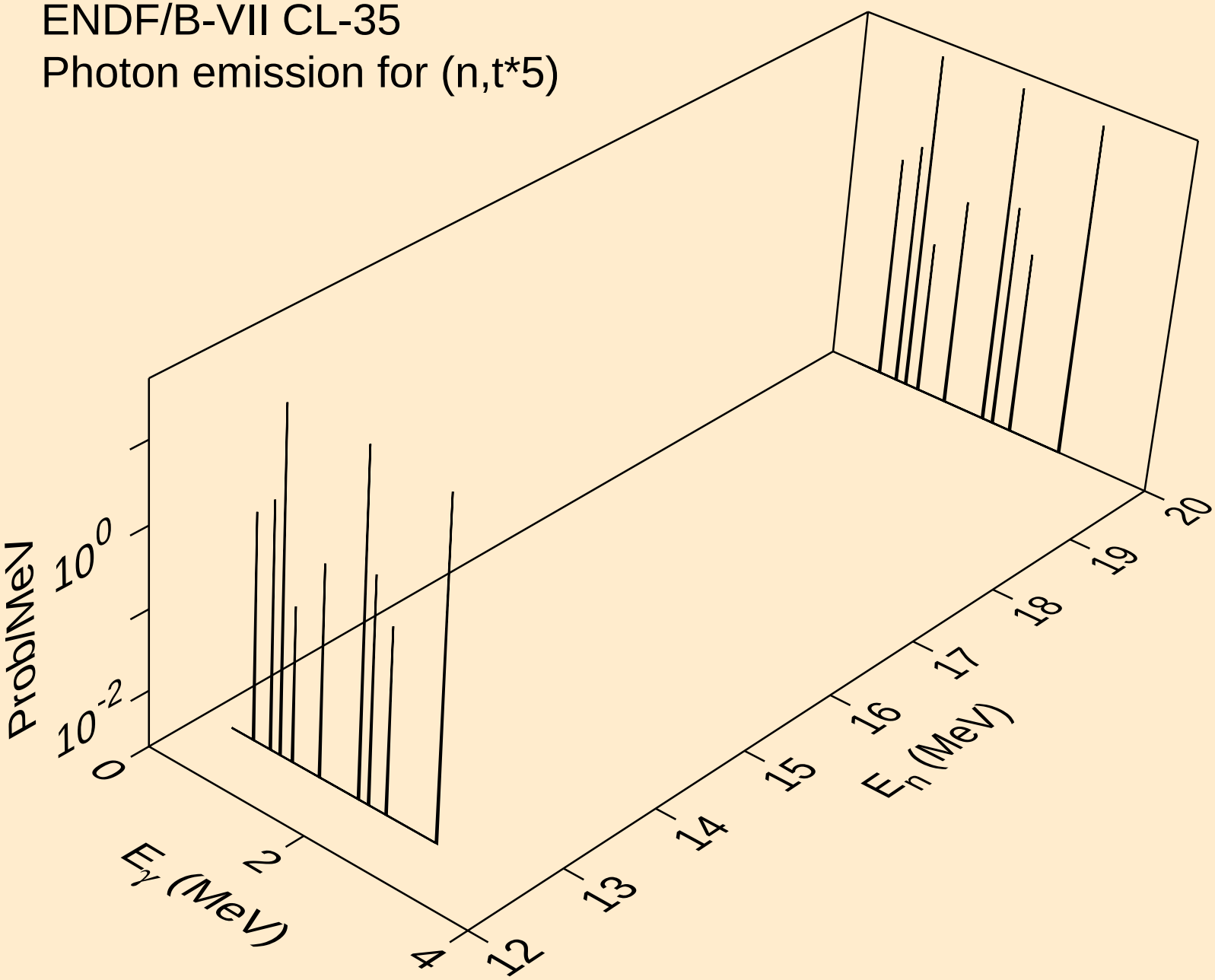
ENDF/B-VII CL-35
Photon emission for (n,t*3)



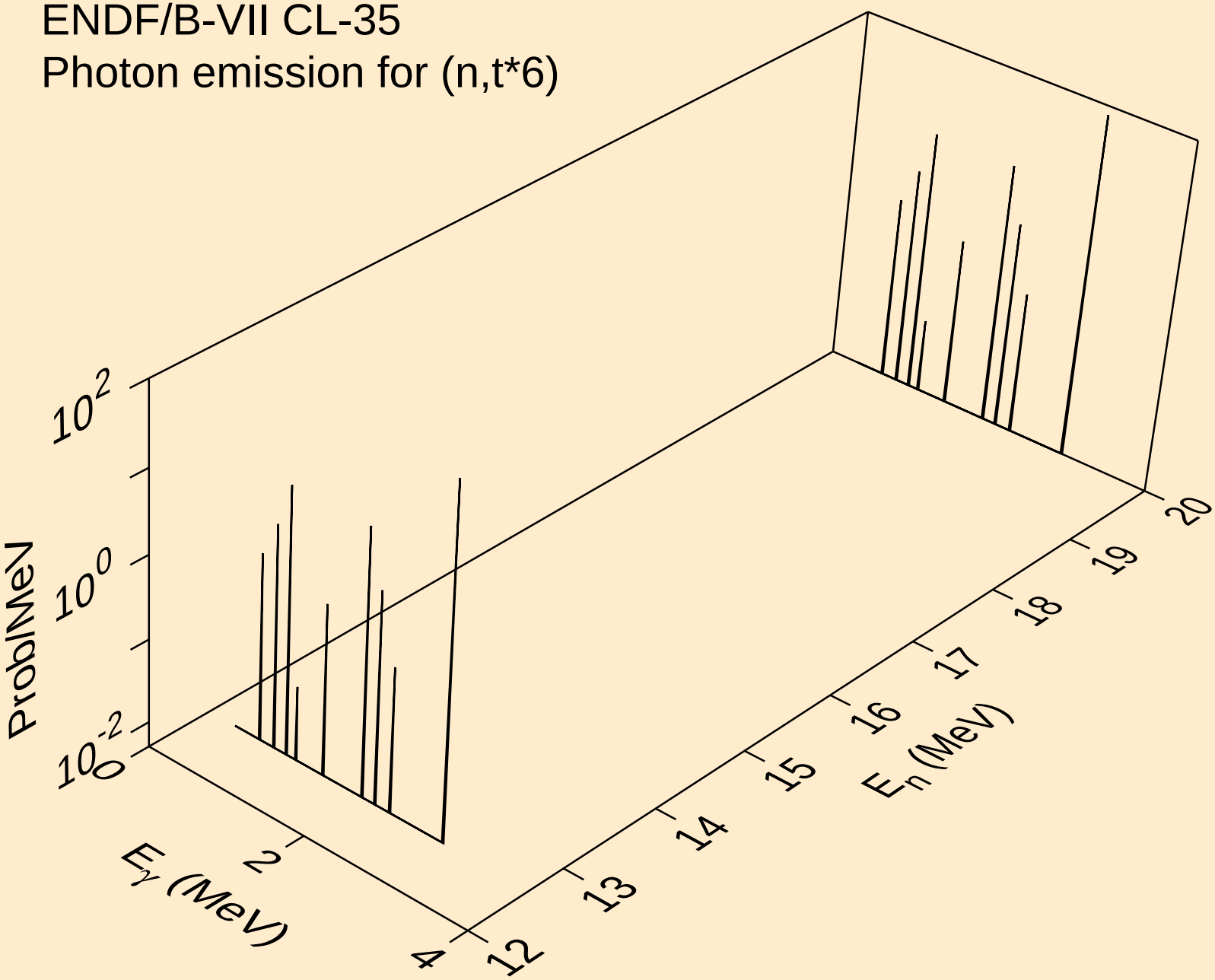
ENDF/B-VII CL-35
Photon emission for (n,t*4)

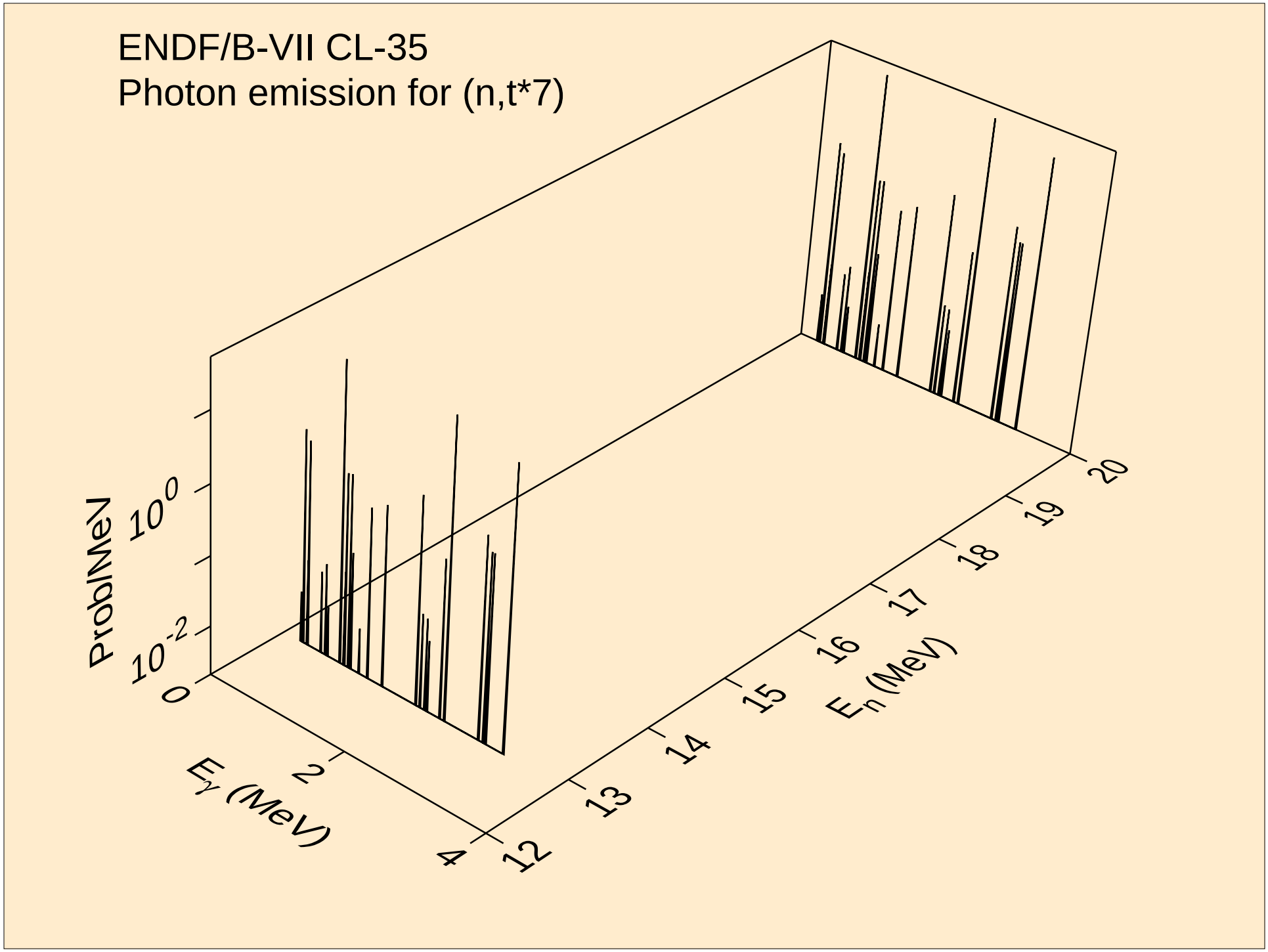


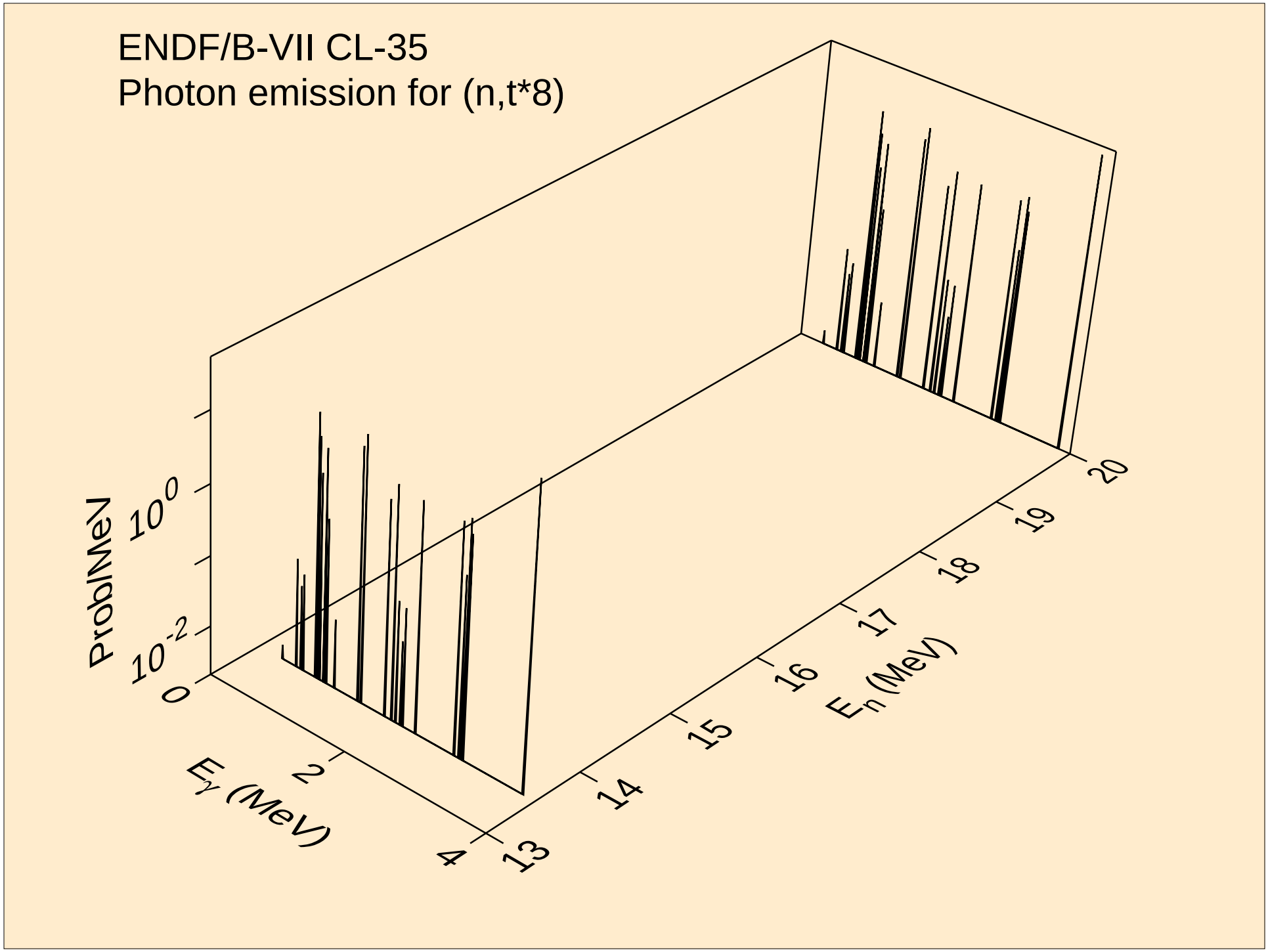
ENDF/B-VII CL-35
Photon emission for (n,t*5)

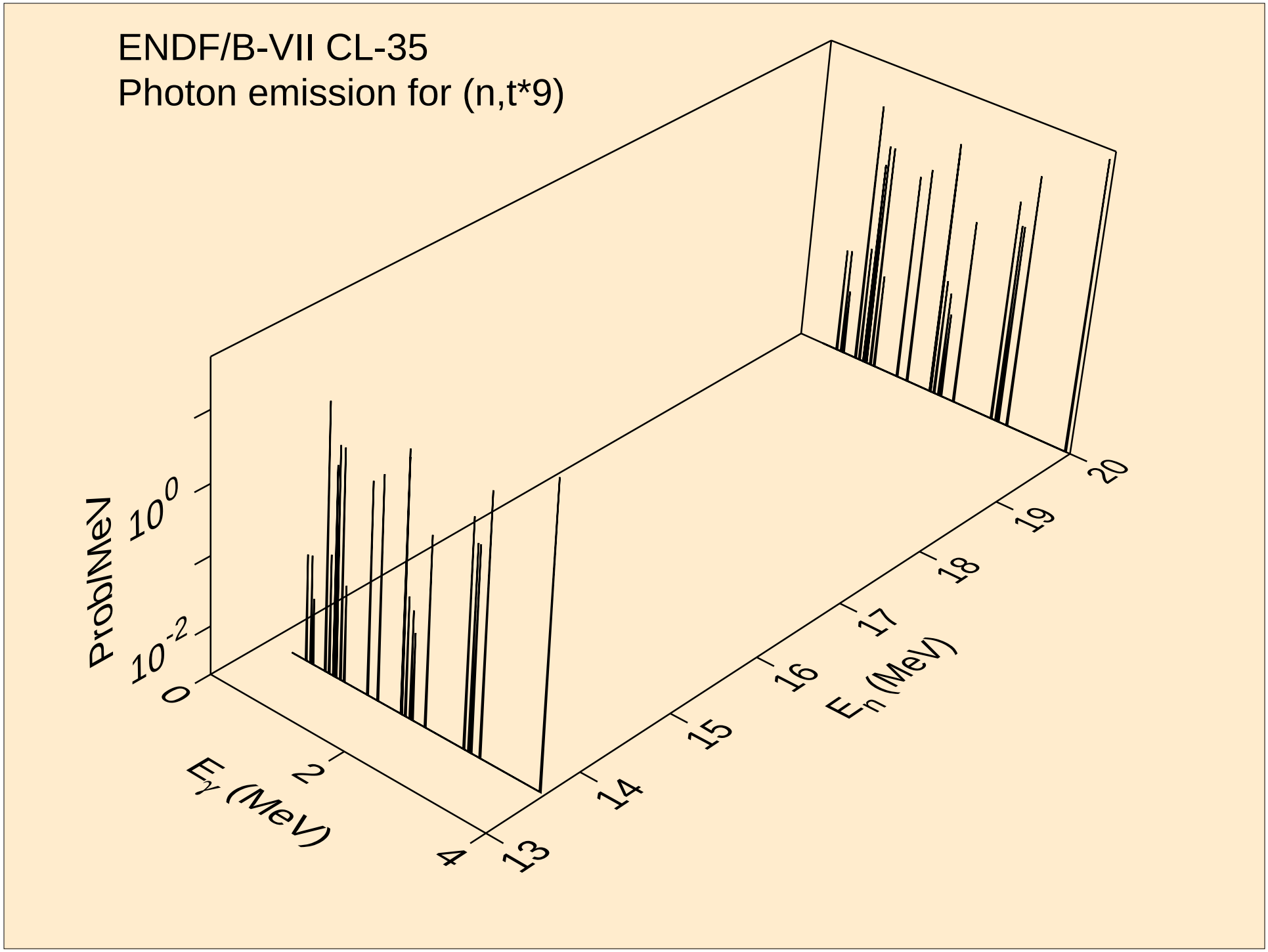


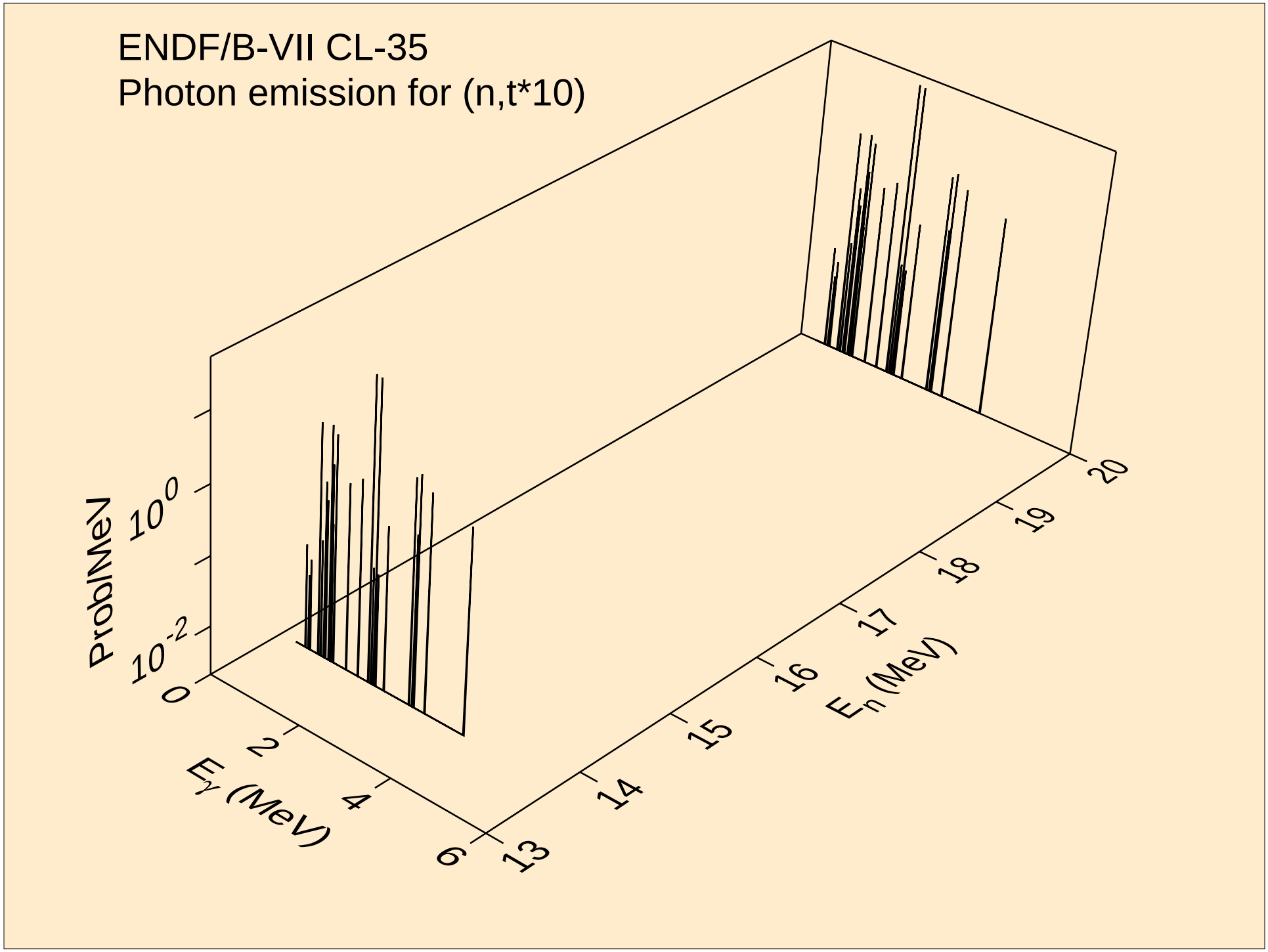
ENDF/B-VII CL-35
Photon emission for (n,t*6)



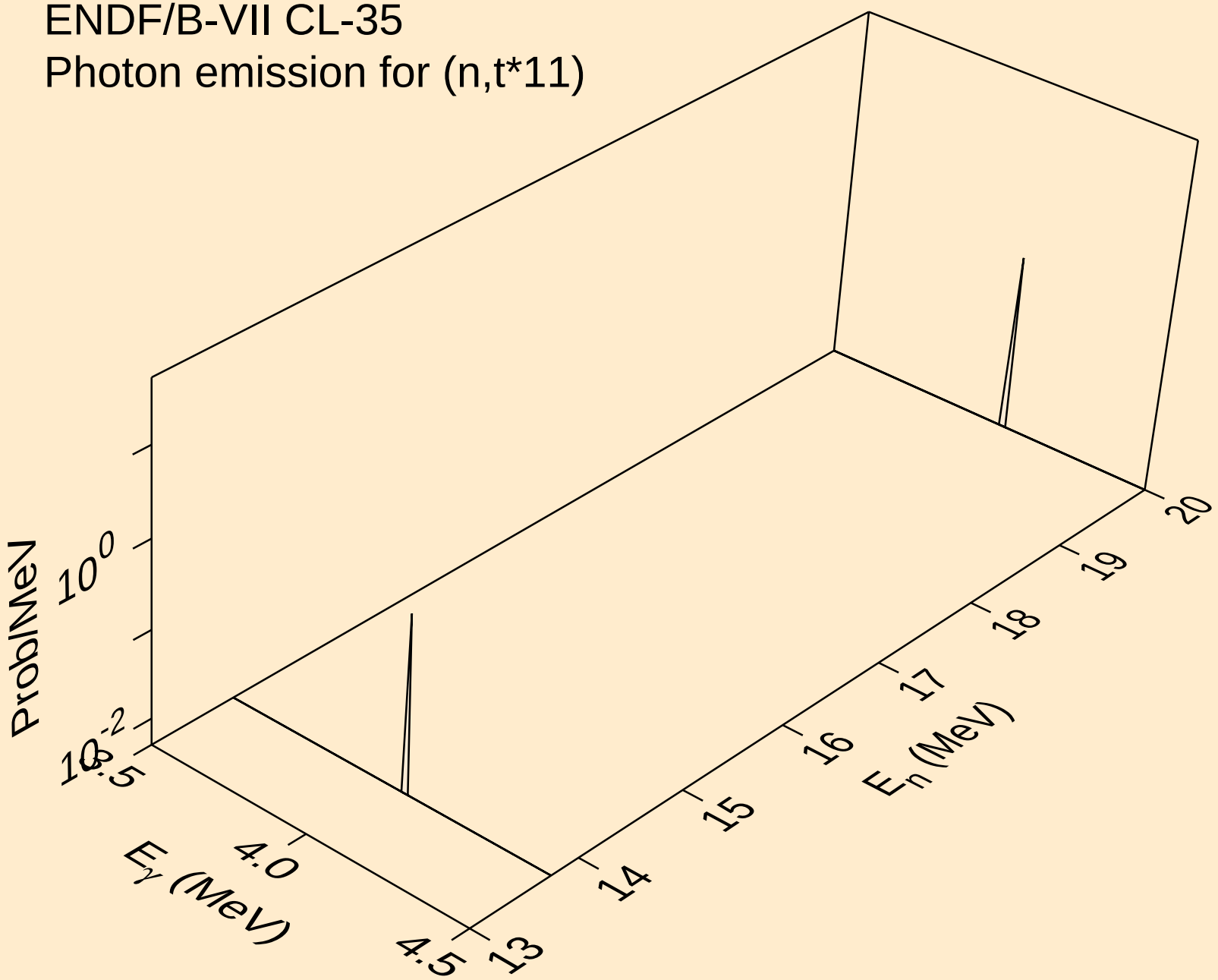

ENDF/B-VII CL-35
Photon emission for (n,t*7)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
12
13
14
15
16
17
18
19
20
E_n (MeV)

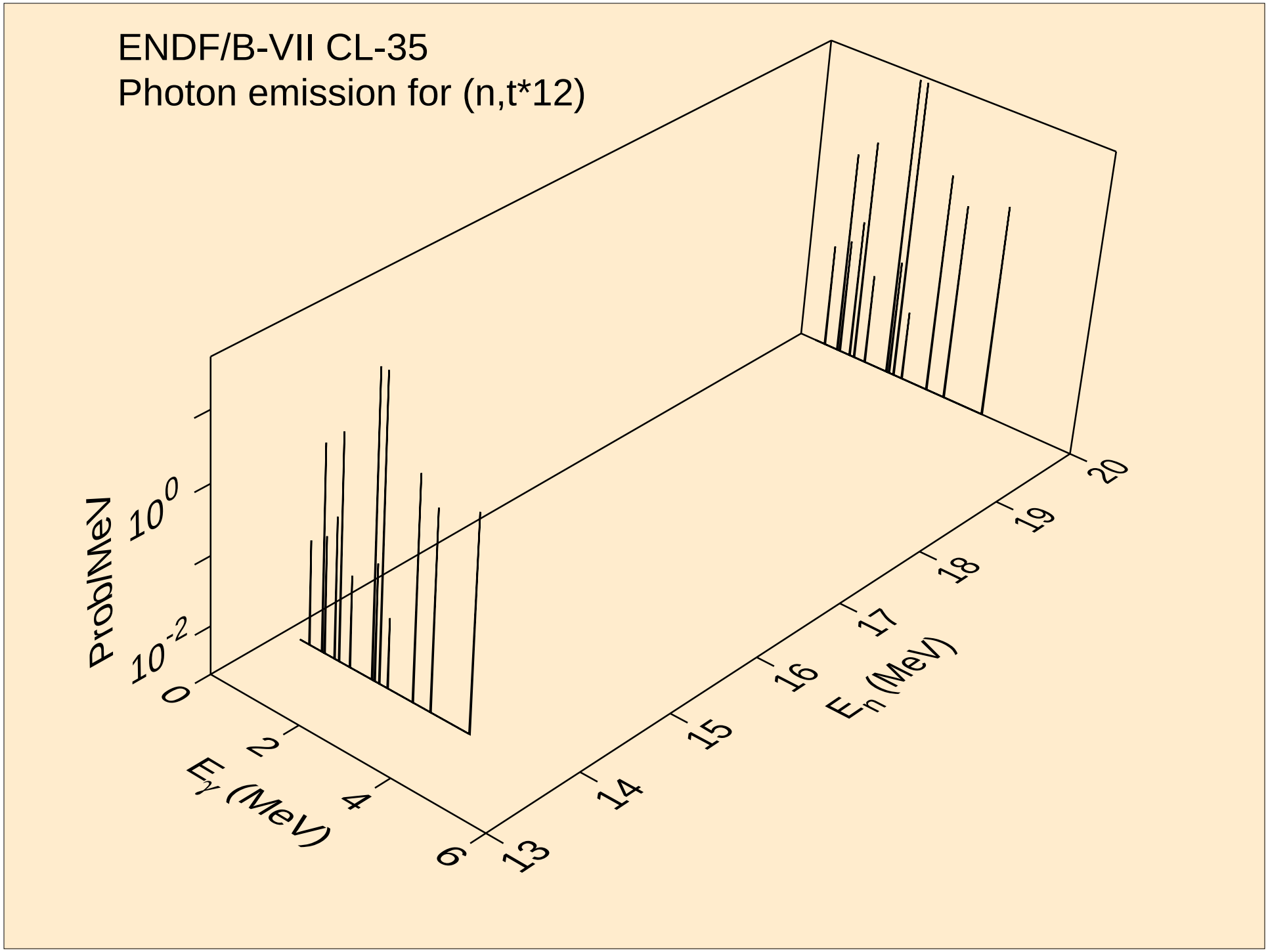

ENDF/B-VII CL-35
Photon emission for (n,t*8)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)

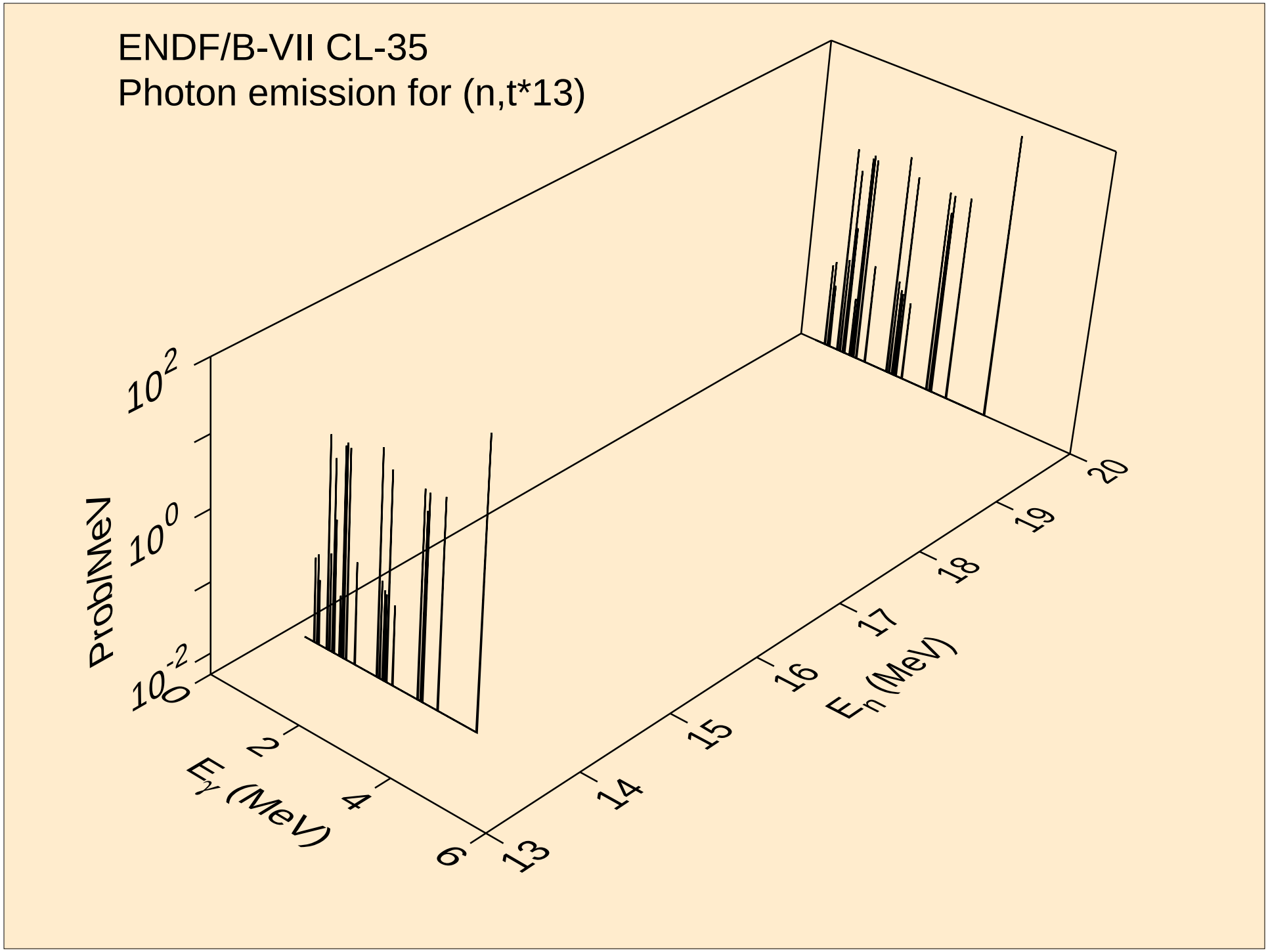

ENDF/B-VII CL-35
Photon emission for (n,t*9)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)

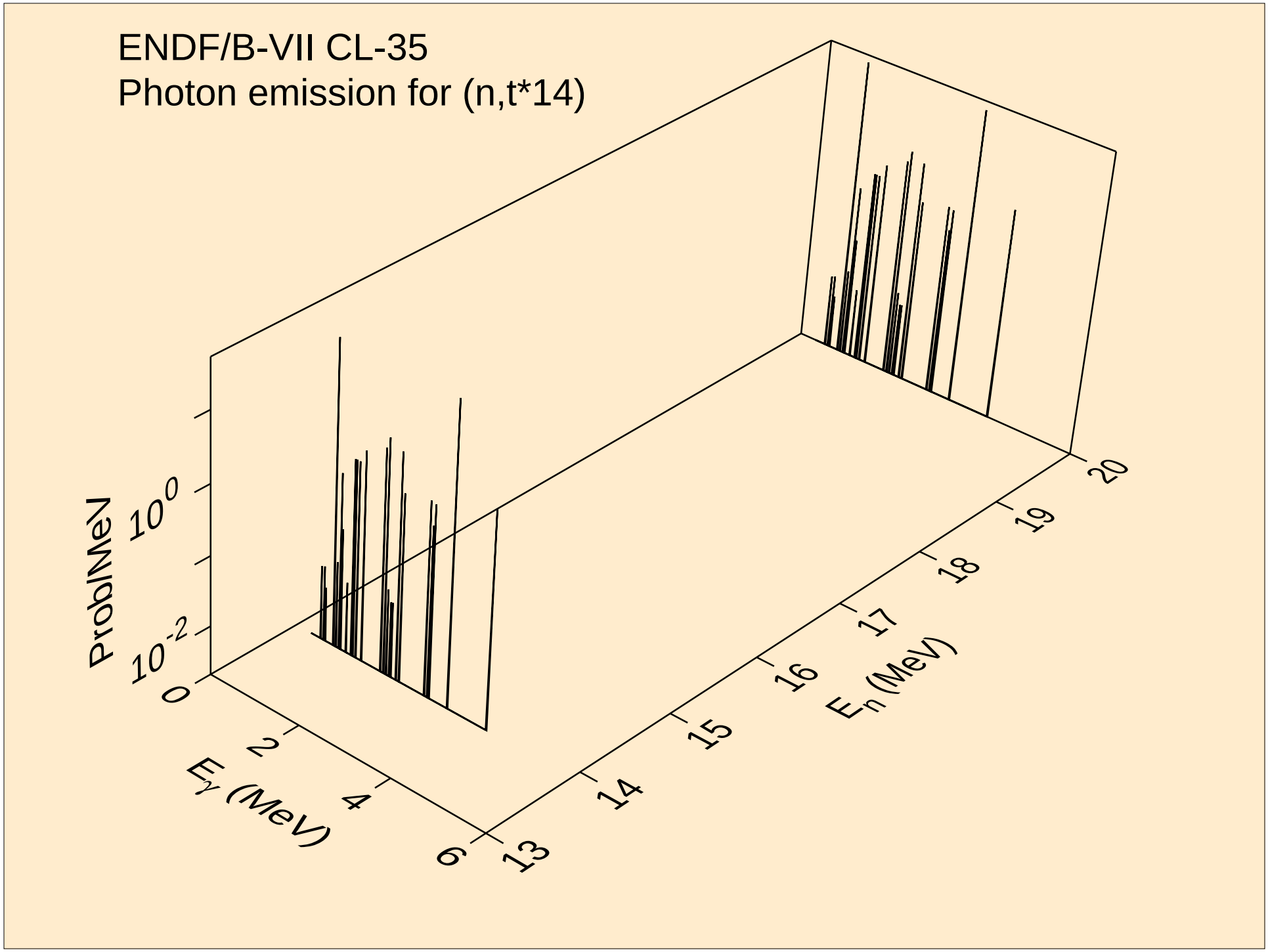

ENDF/B-VII CL-35
Photon emission for (n,t*10)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,t*11)

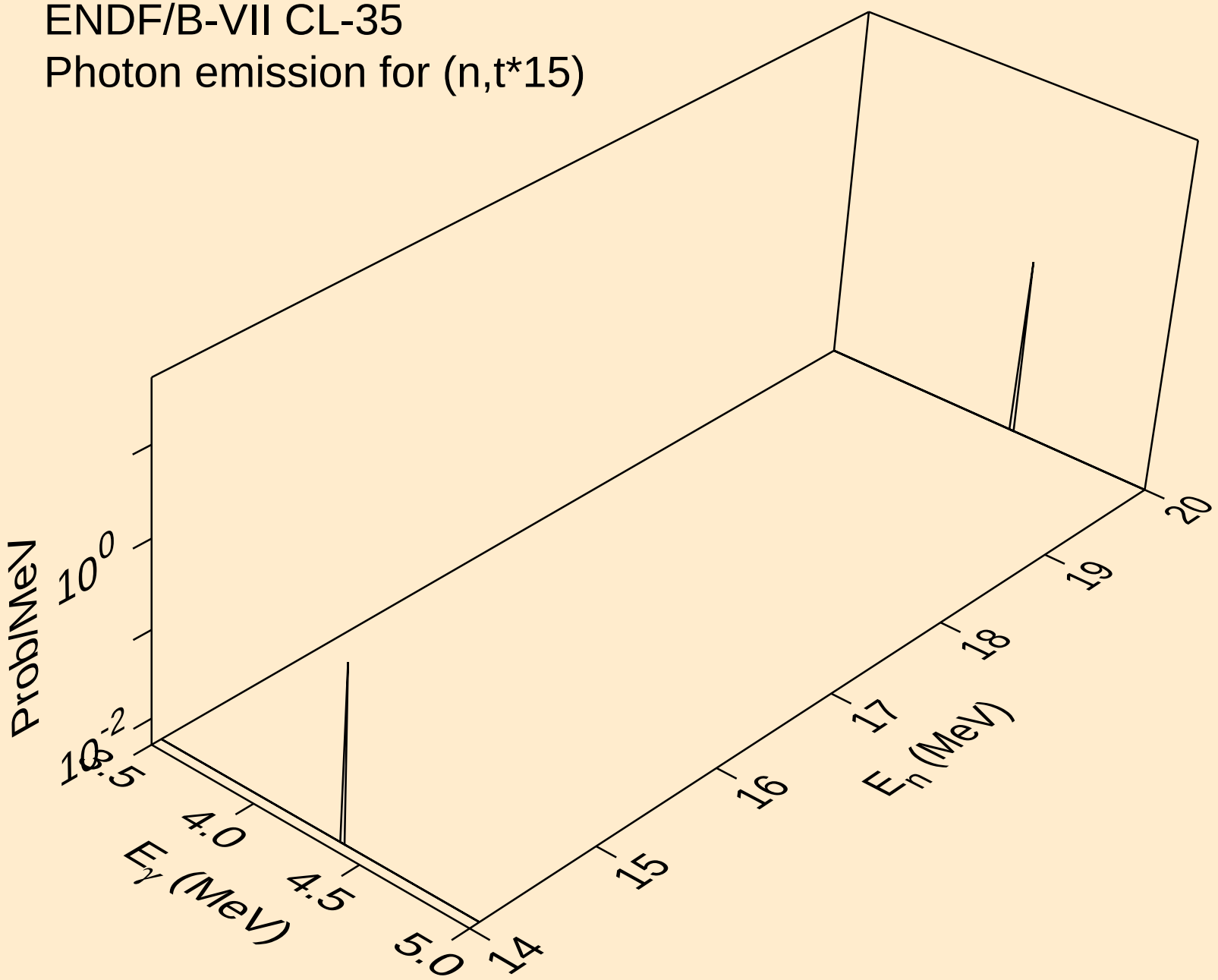


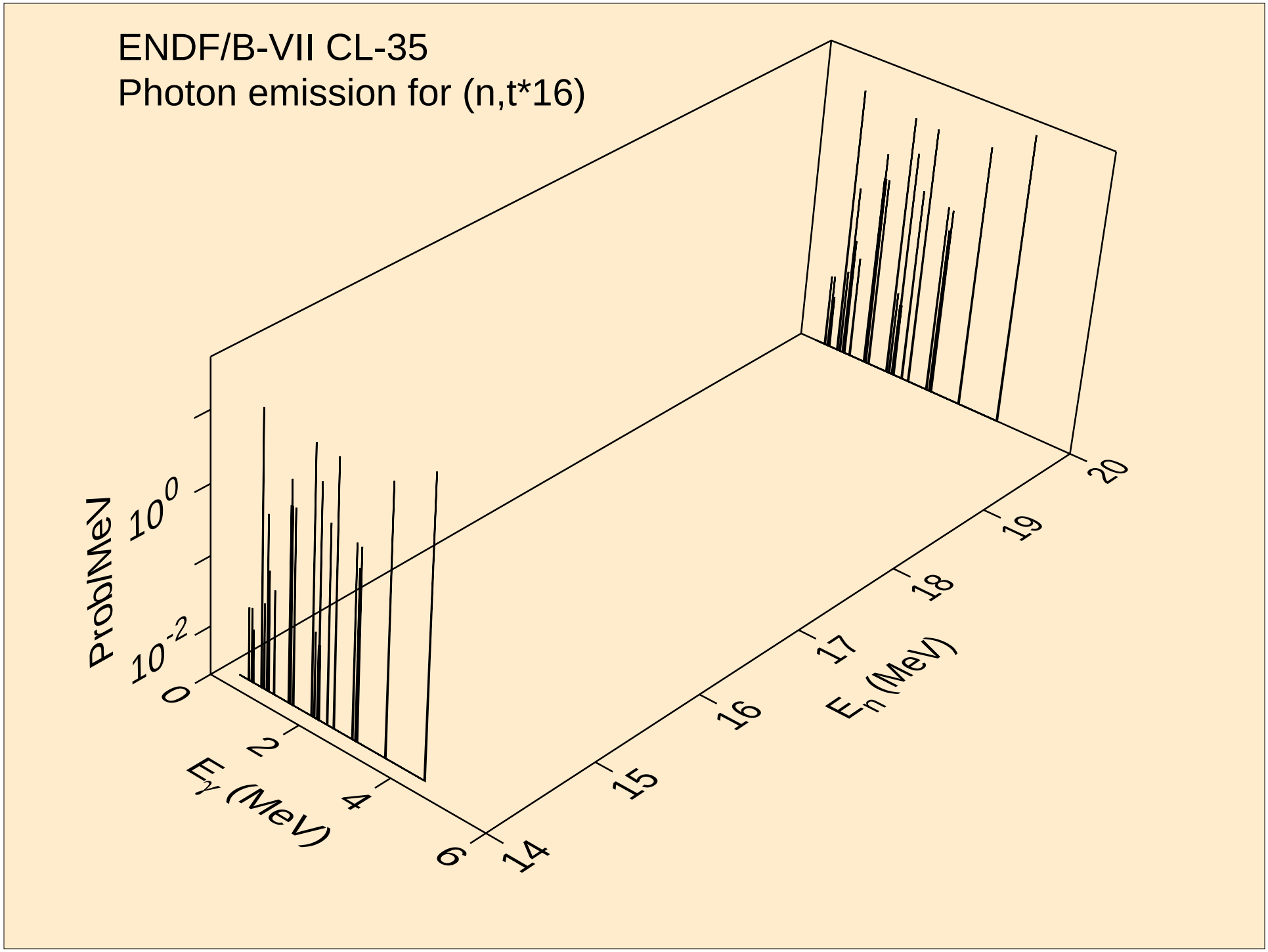

ENDF/B-VII CL-35
Photon emission for (n,t*12)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)

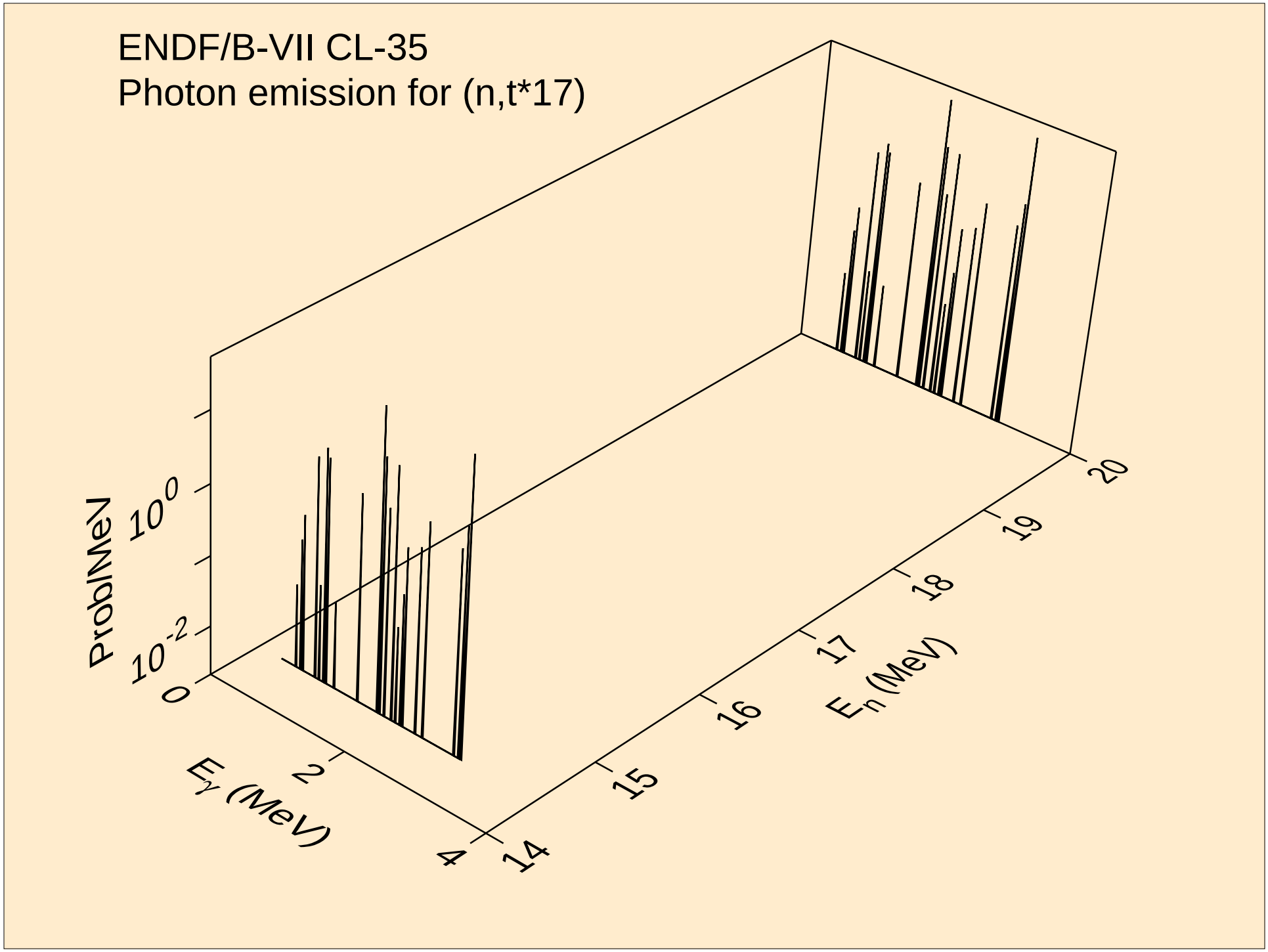

ENDF/B-VII CL-35
Photon emission for (n,t*13)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
2
4
6
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,t*14)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)

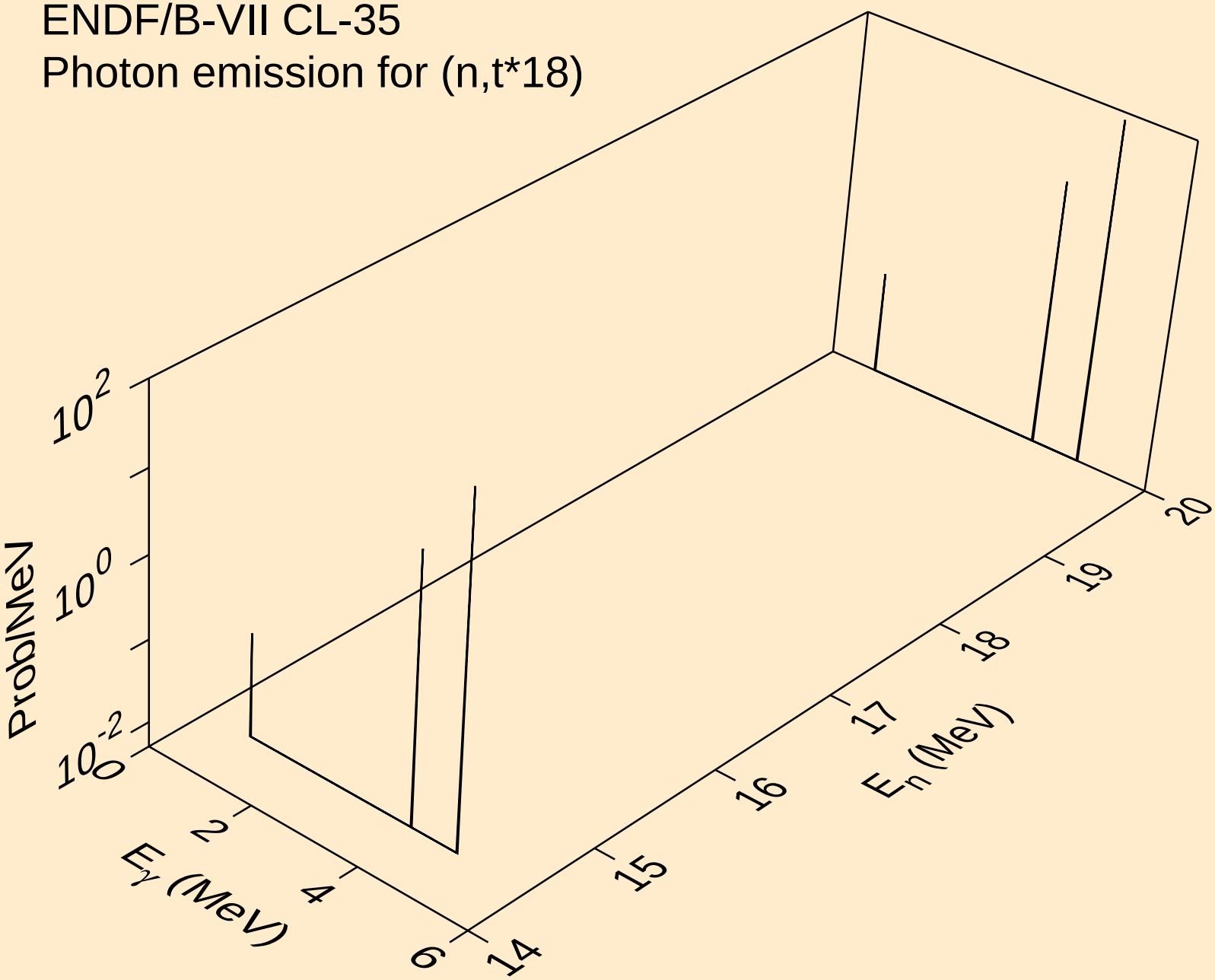
ENDF/B-VII CL-35
Photon emission for (n,t*15)

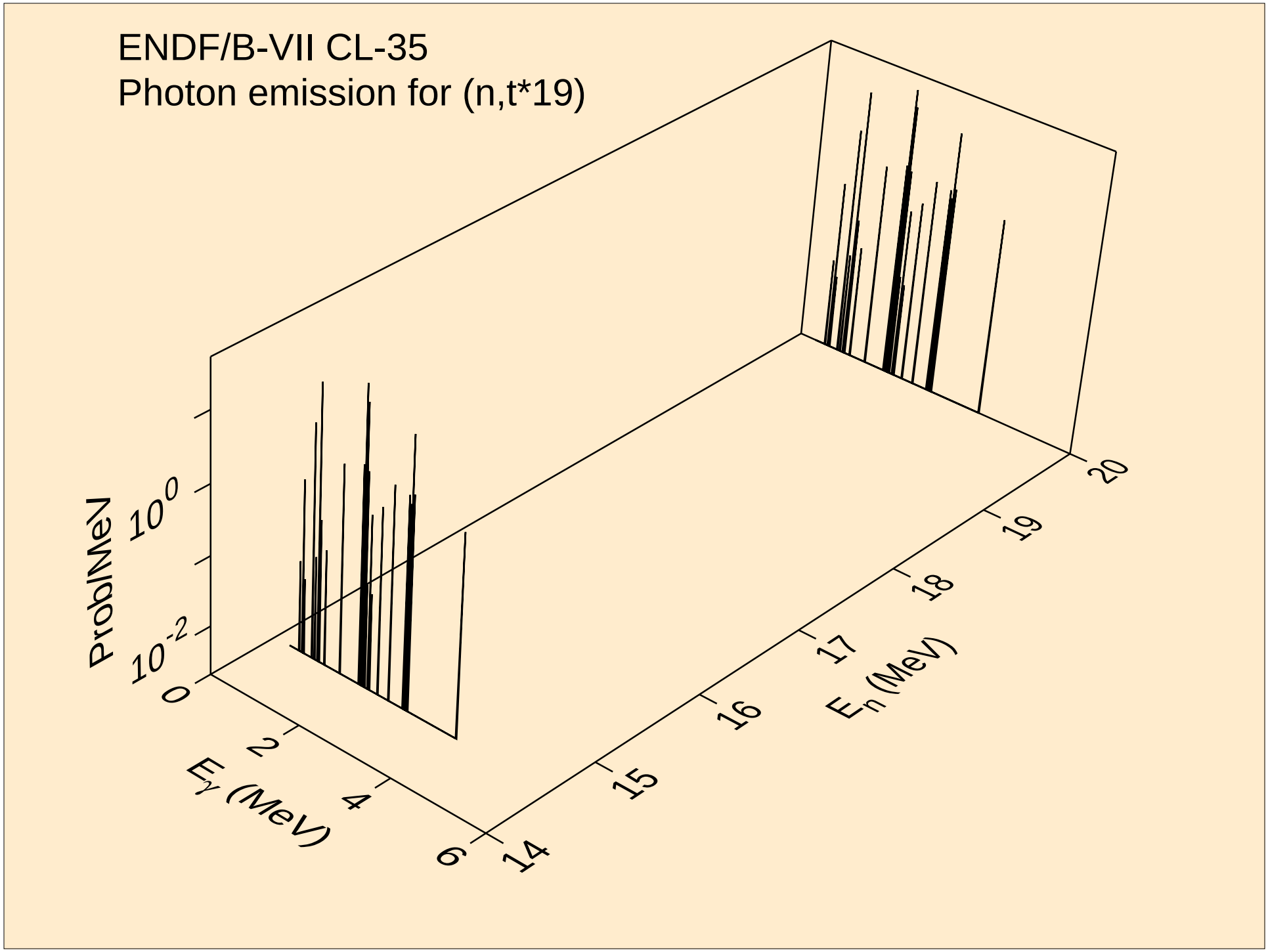


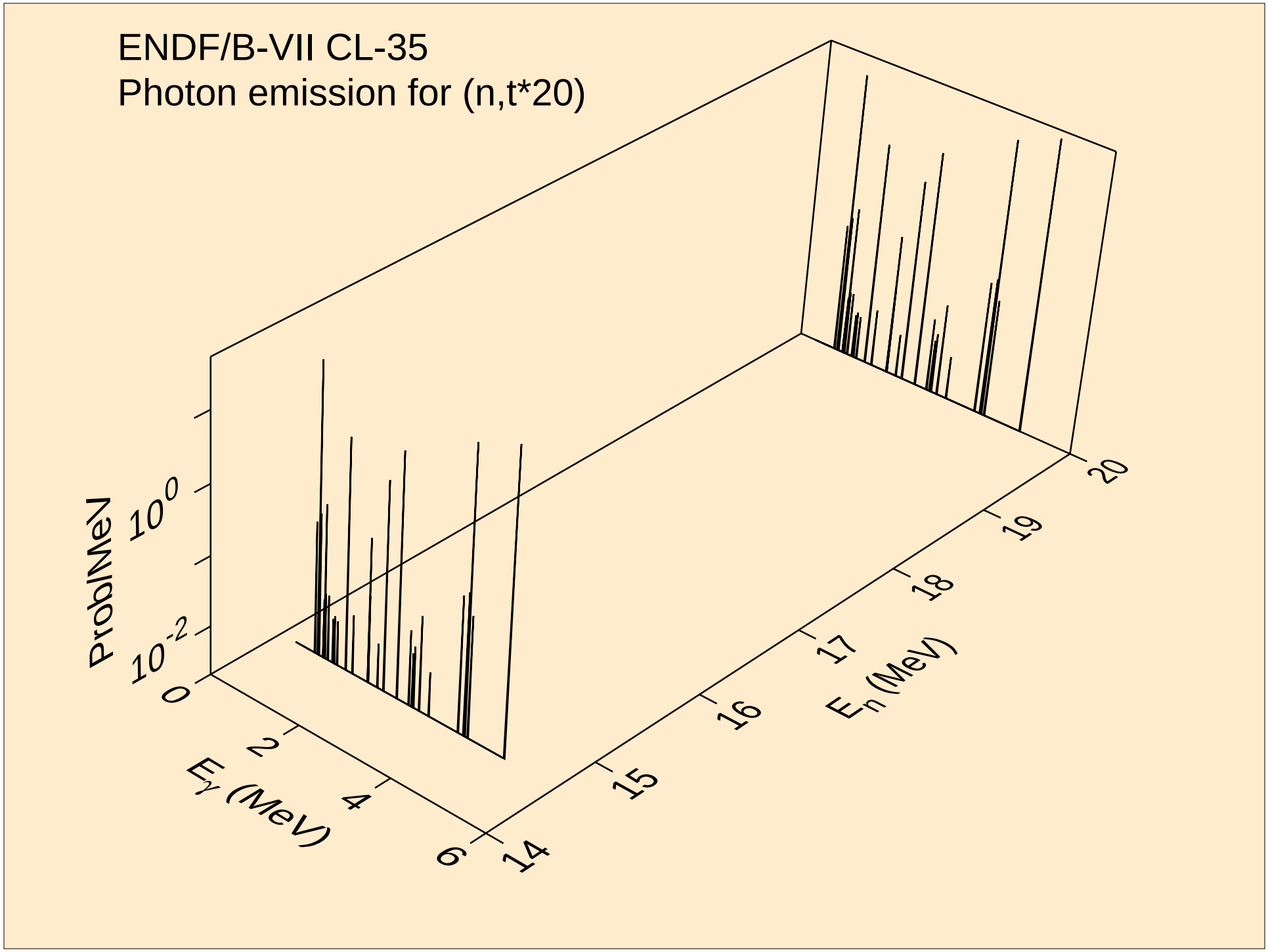

ENDF/B-VII CL-35
Photon emission for (n,t*16)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
14
15
16
17
18
19
20
E_n (MeV)

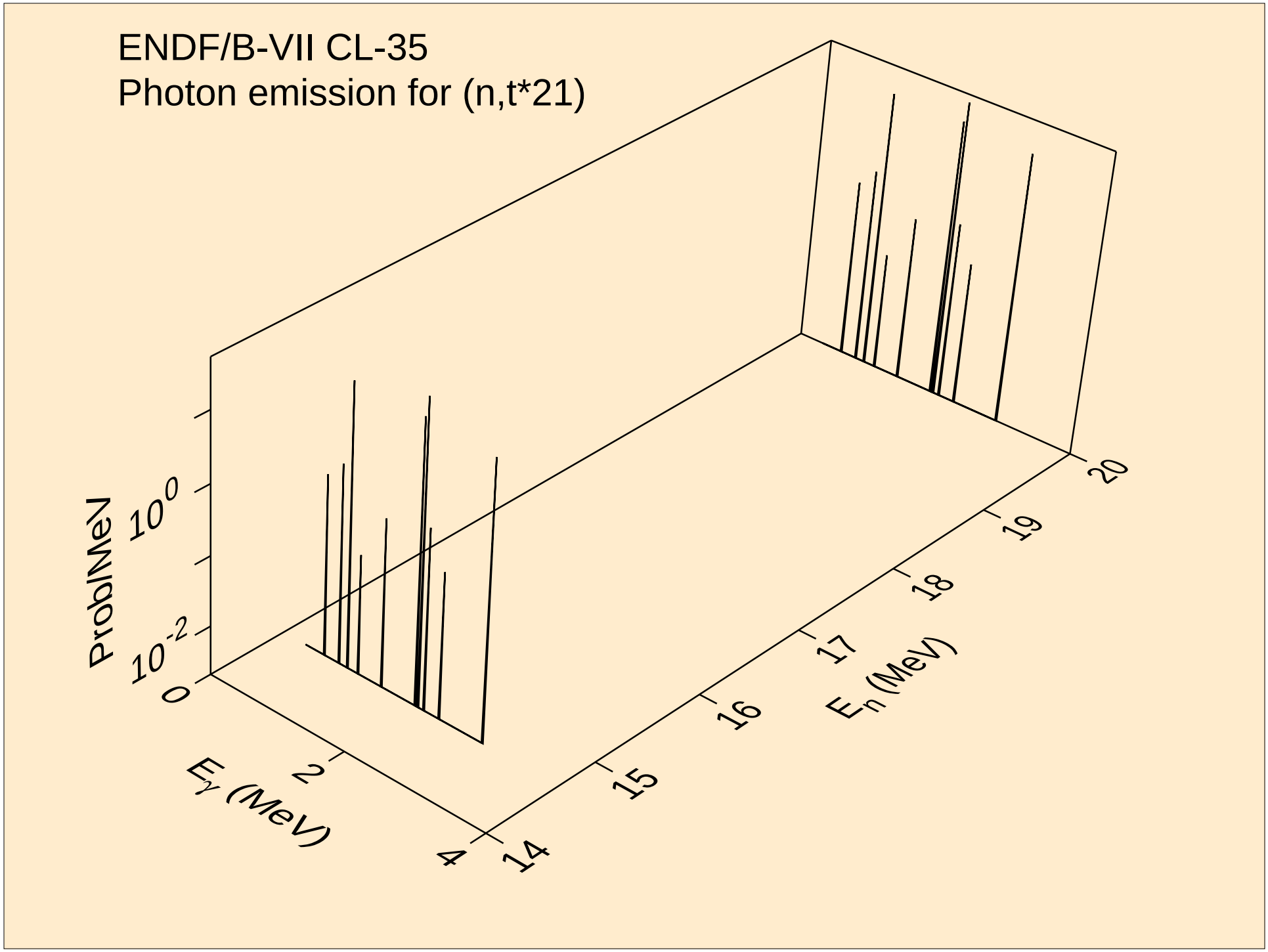

ENDF/B-VII CL-35
Photon emission for (n,t*17)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
14
15
16
17
18
19
20
E_n (MeV)

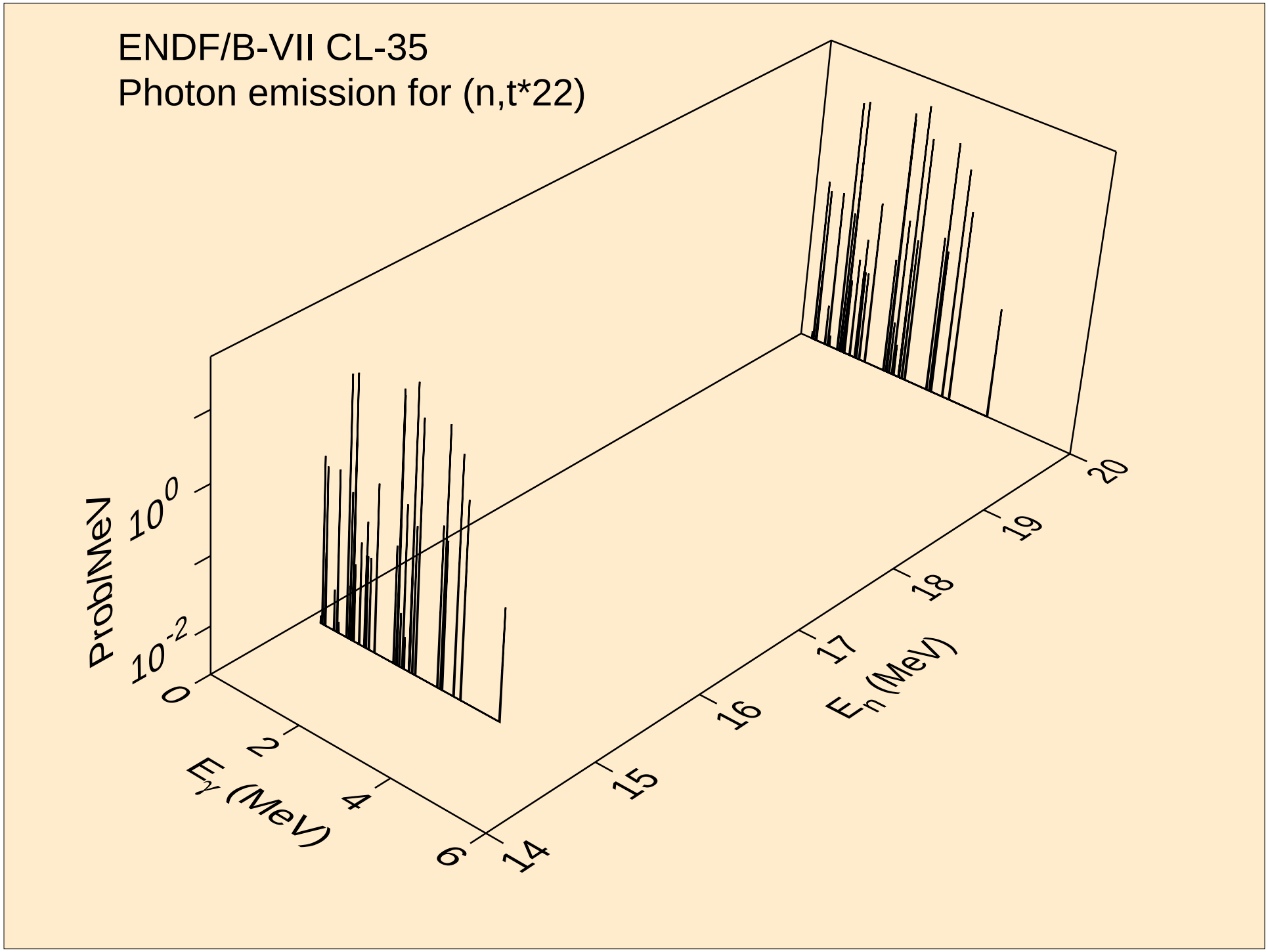
ENDF/B-VII CL-35
Photon emission for (n,t*18)



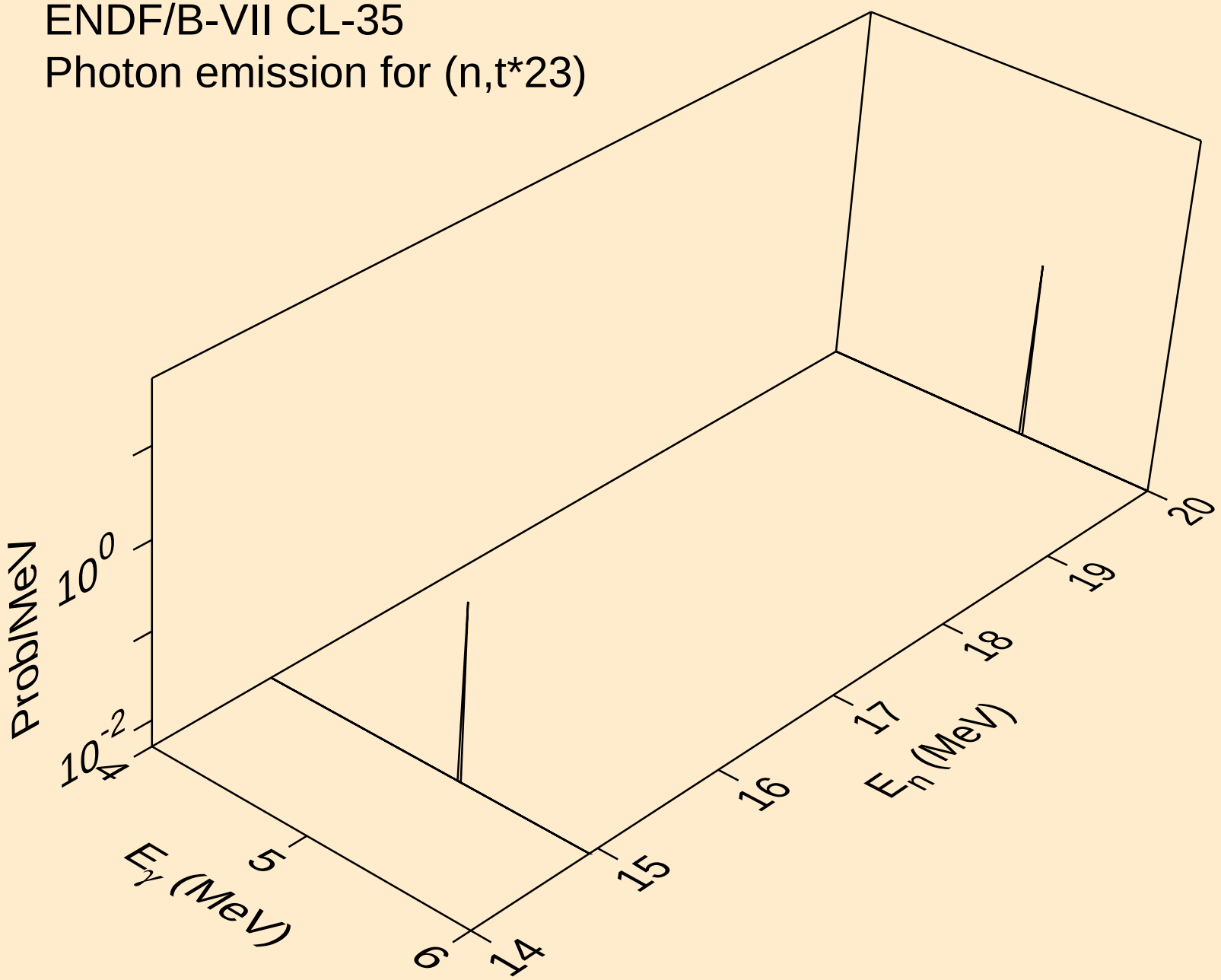

ENDF/B-VII CL-35
Photon emission for (n,t*19)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
14
15
16
17
18
19
20
E_n (MeV)

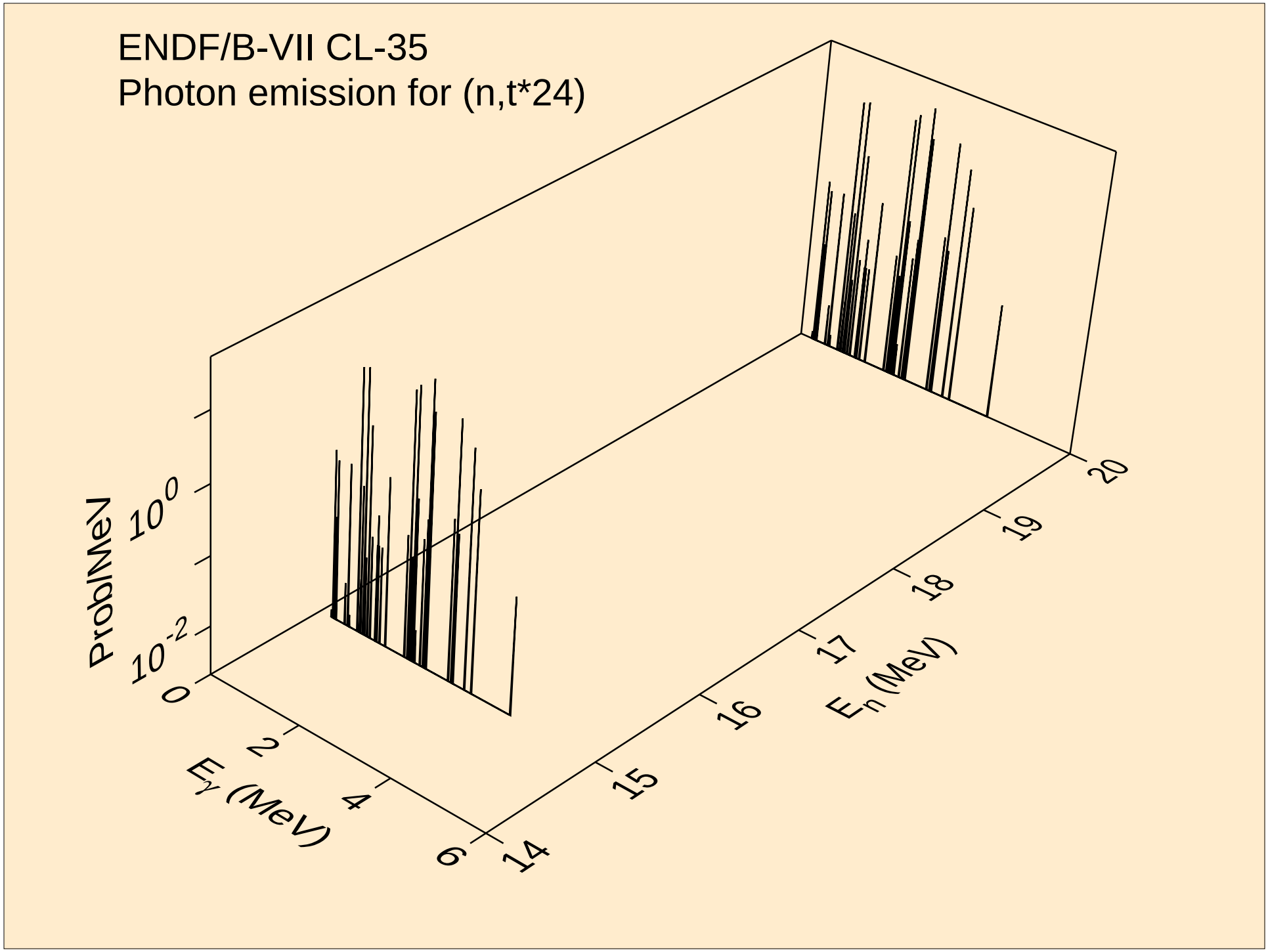

ENDF/B-VII CL-35
Photon emission for (n,t*20)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
14
15
16
17
18
19
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,t*21)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
14
15
16
17
18
19
20
E_n (MeV)

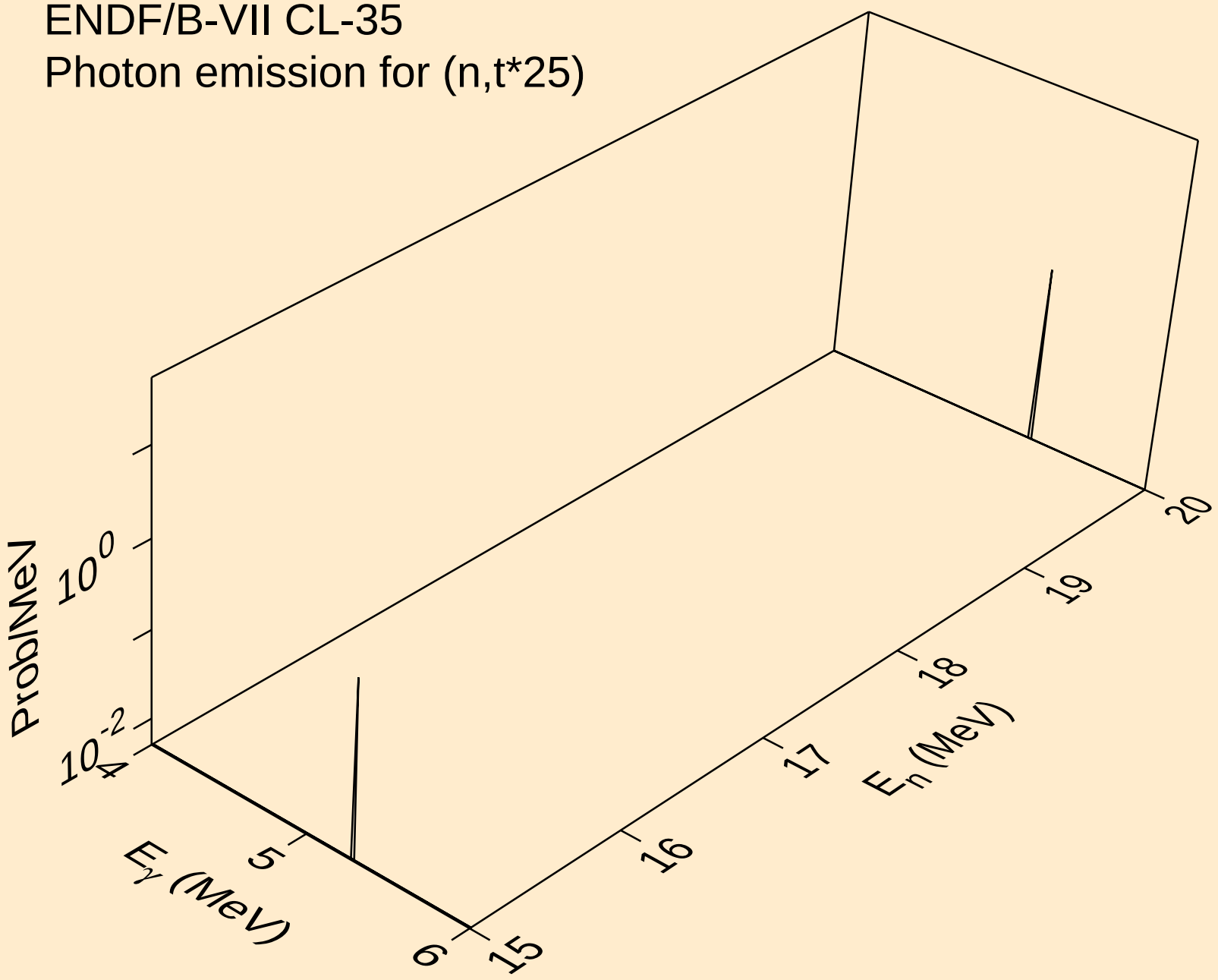

ENDF/B-VII CL-35
Photon emission for (n,t*22)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
14
15
16
17
18
19
20
E_n (MeV)

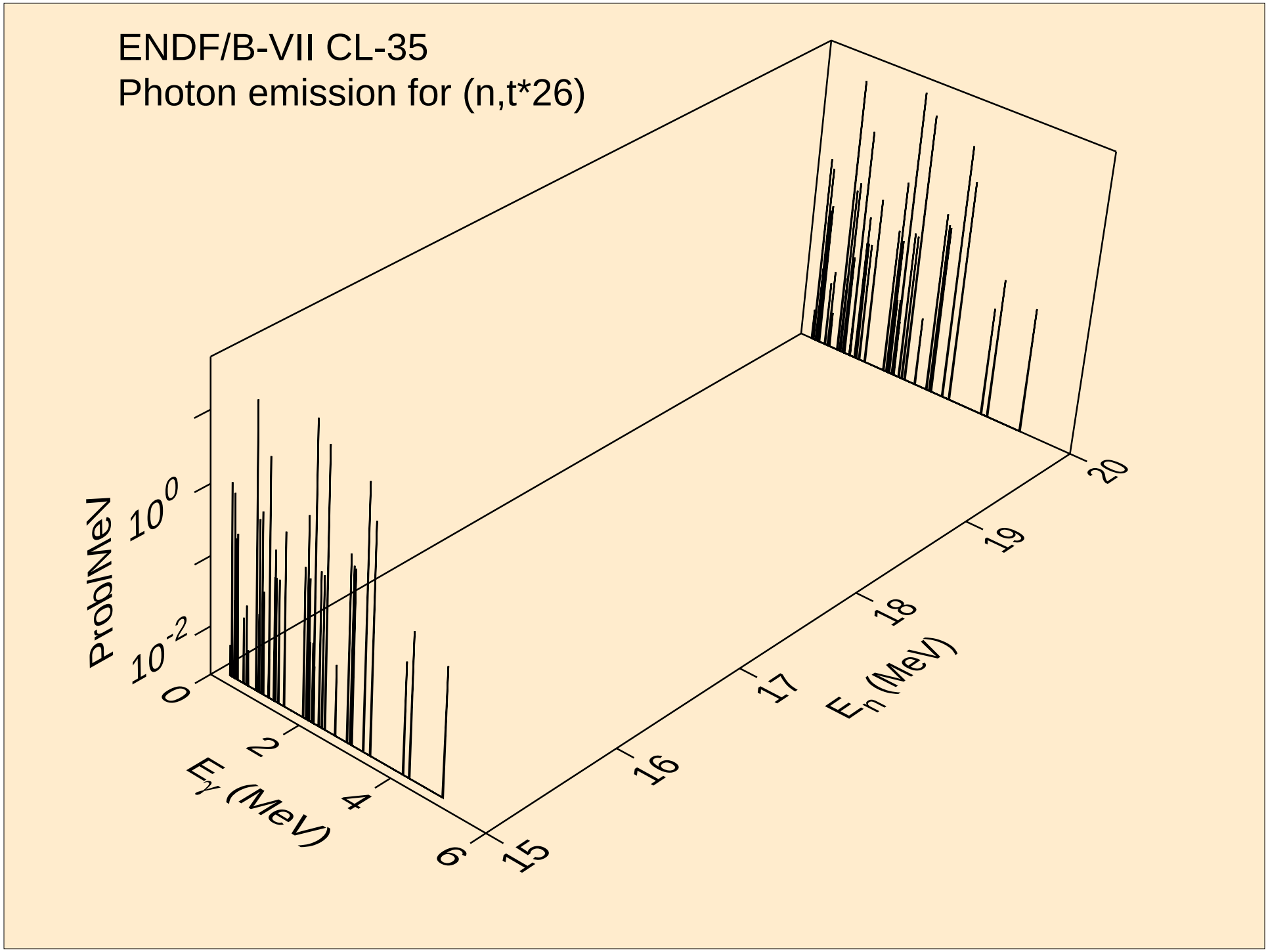
ENDF/B-VII CL-35
Photon emission for (n,t*23)

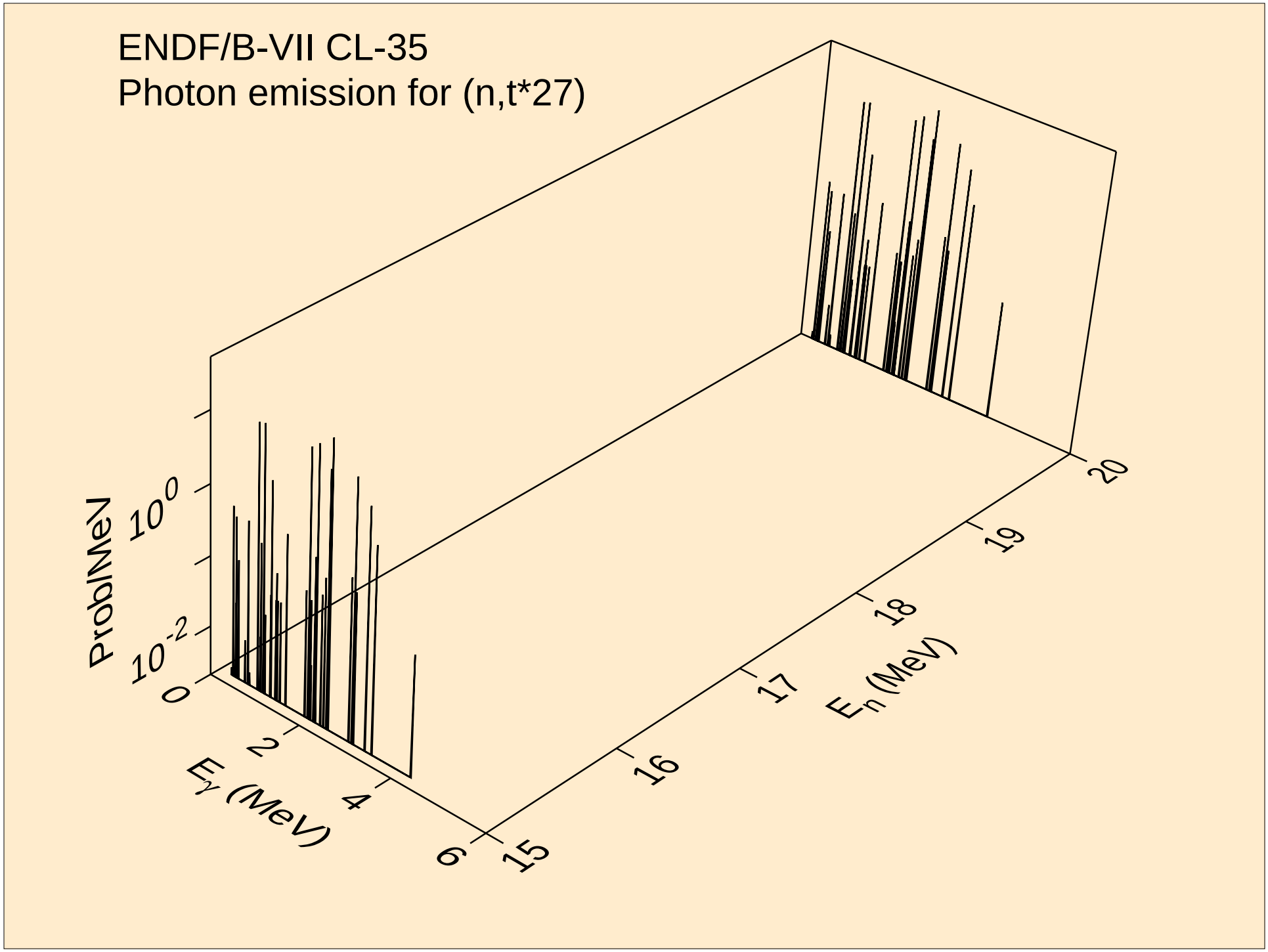


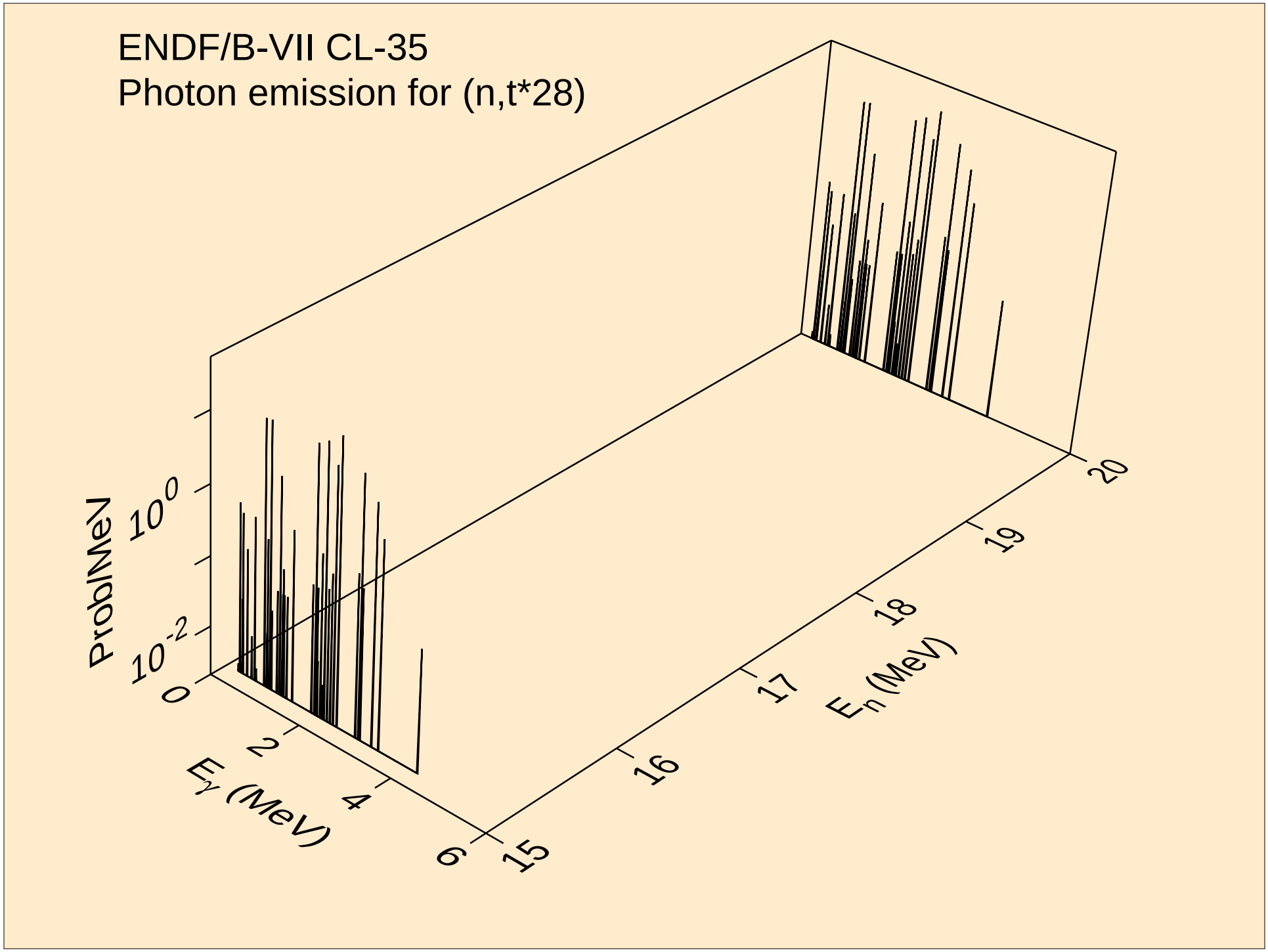

ENDF/B-VII CL-35
Photon emission for (n,t*24)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
14
15
16
17
18
19
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,t*25)

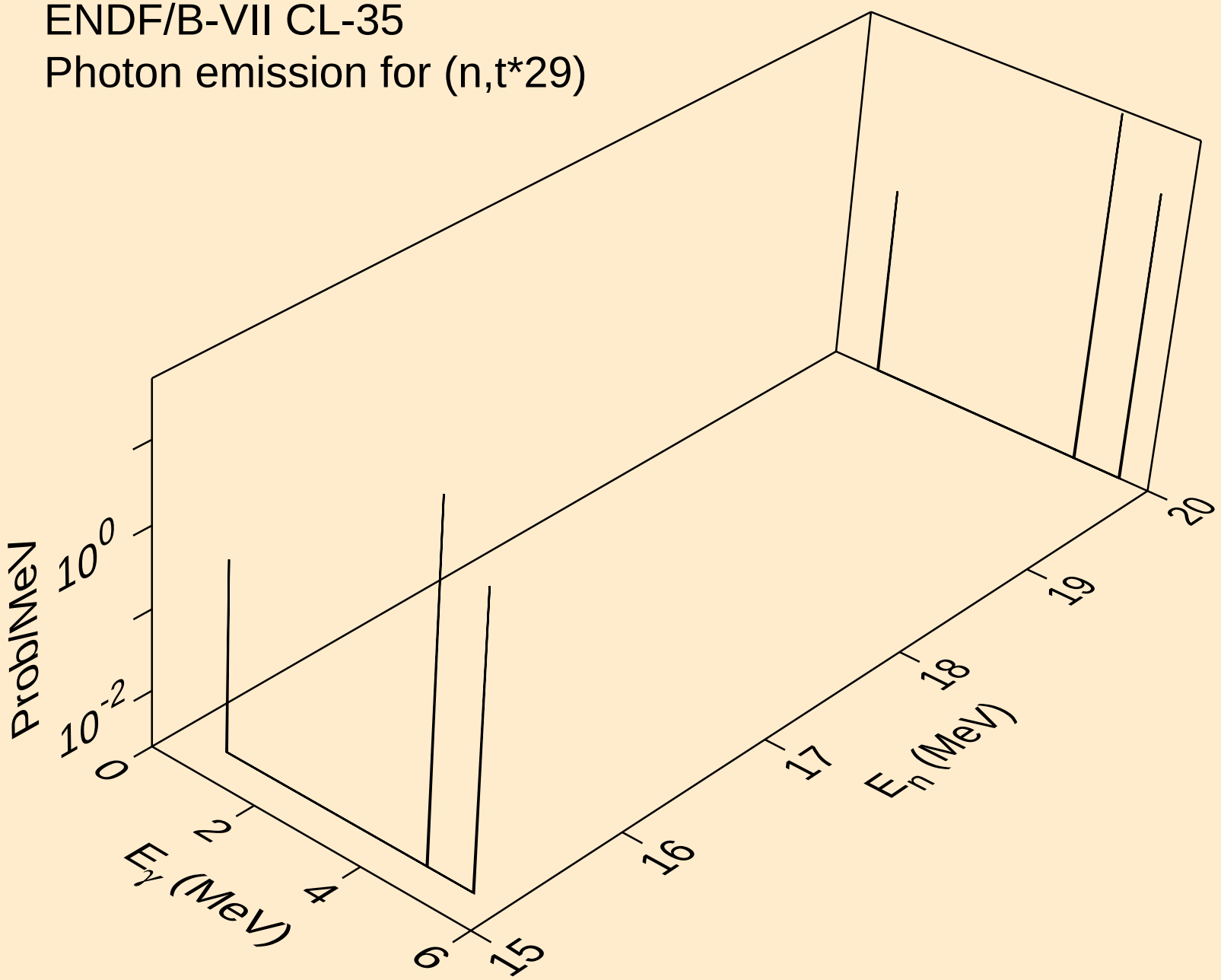


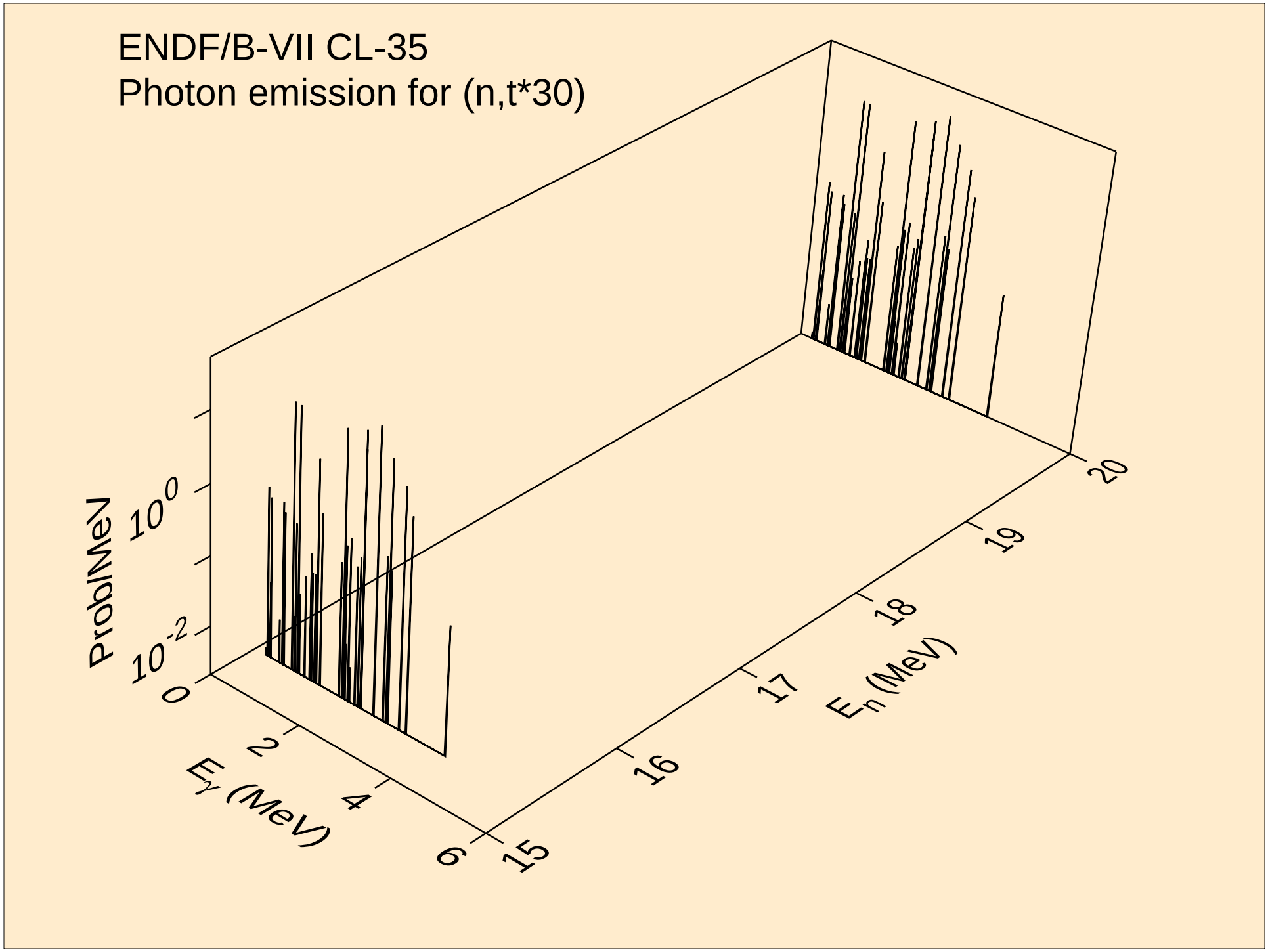

ENDF/B-VII CL-35
Photon emission for (n,t*26)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
15
16
17
18
19
20
E_n (MeV)

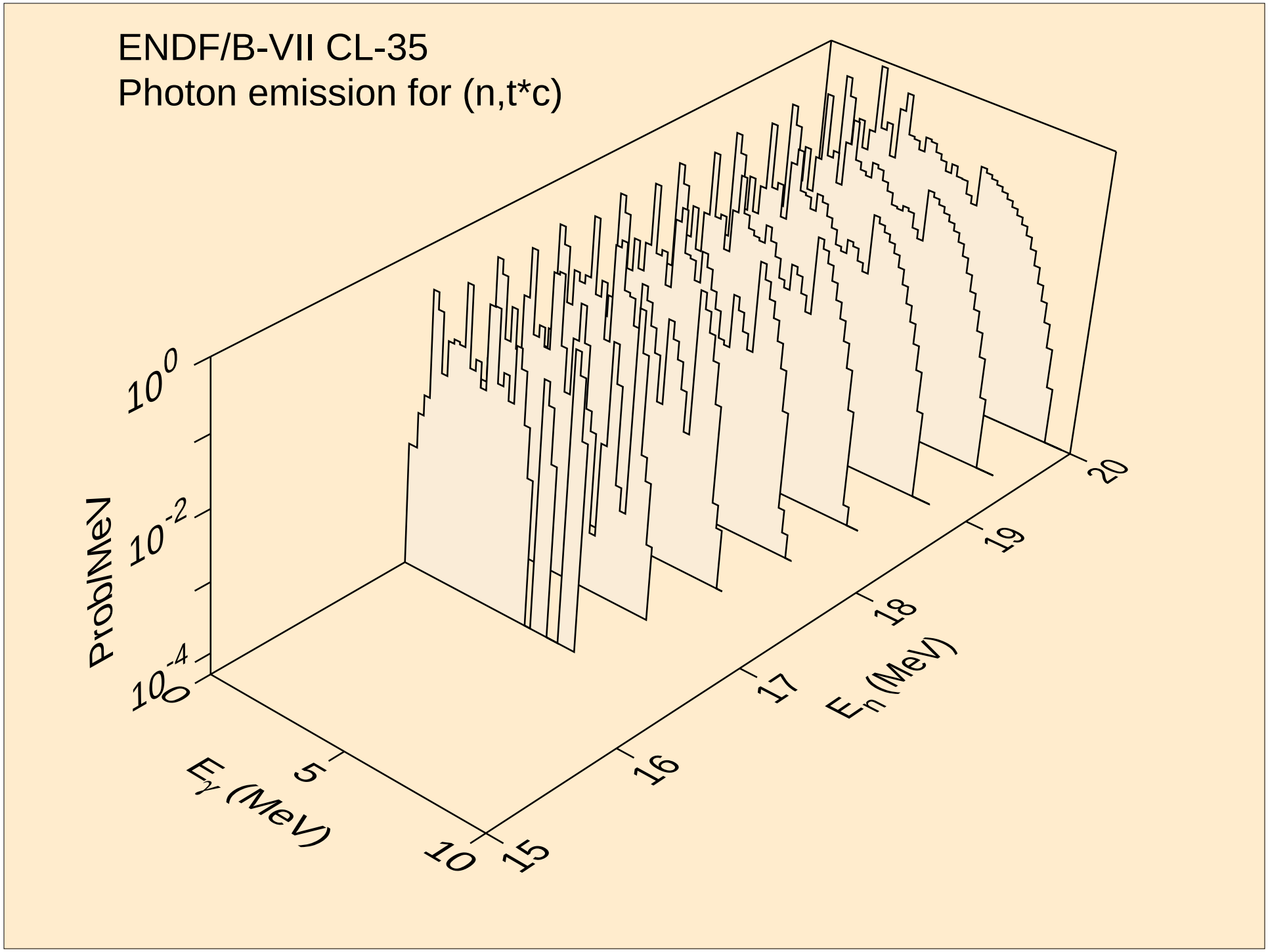

ENDF/B-VII CL-35
Photon emission for (n,t*27)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
15
16
17
18
19
20
E_n (MeV)

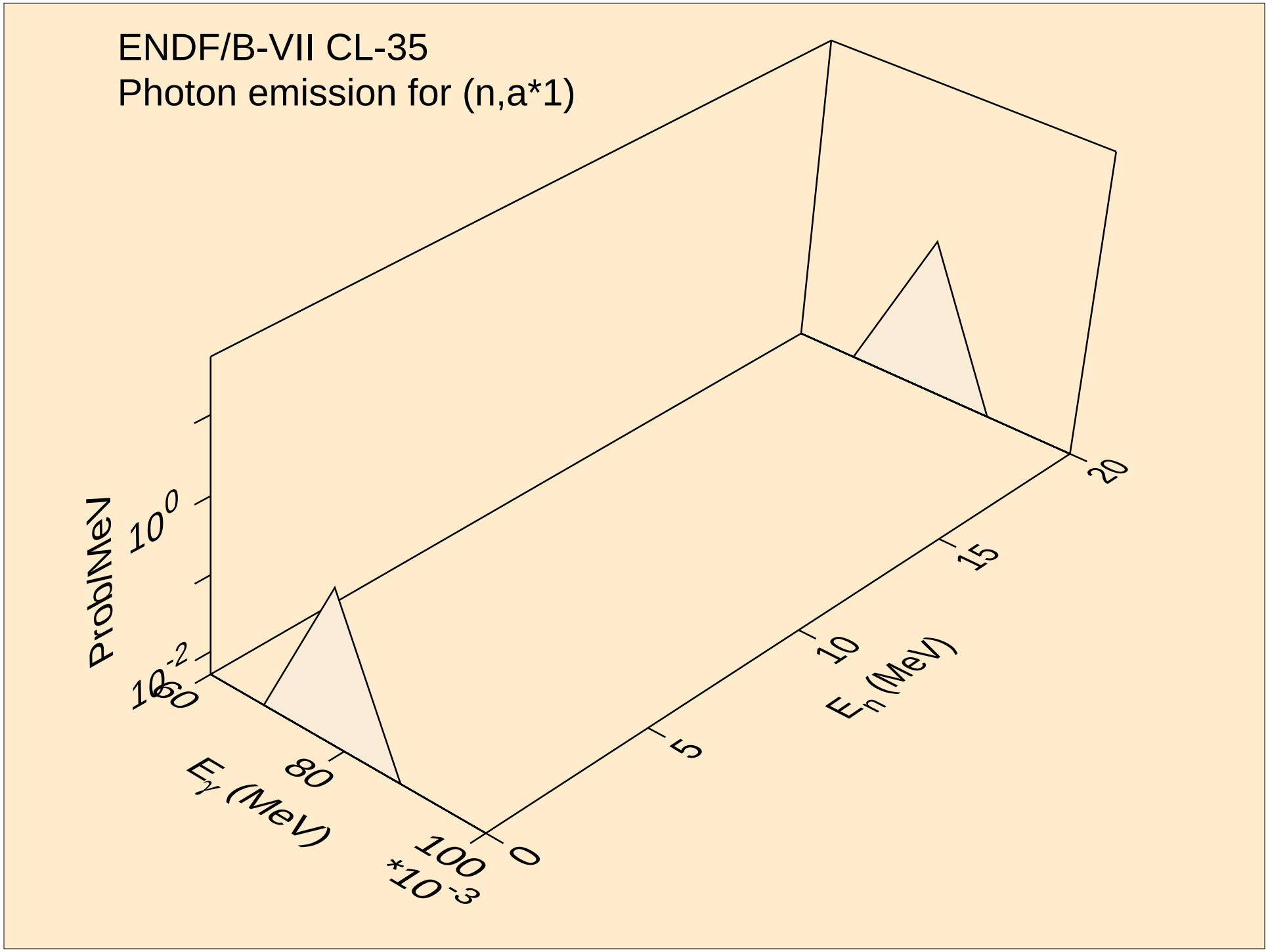

ENDF/B-VII CL-35
Photon emission for (n,t*28)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
15
16
17
18
19
20
E_n (MeV)

ENDF/B-VII CL-35
Photon emission for (n,t*29)

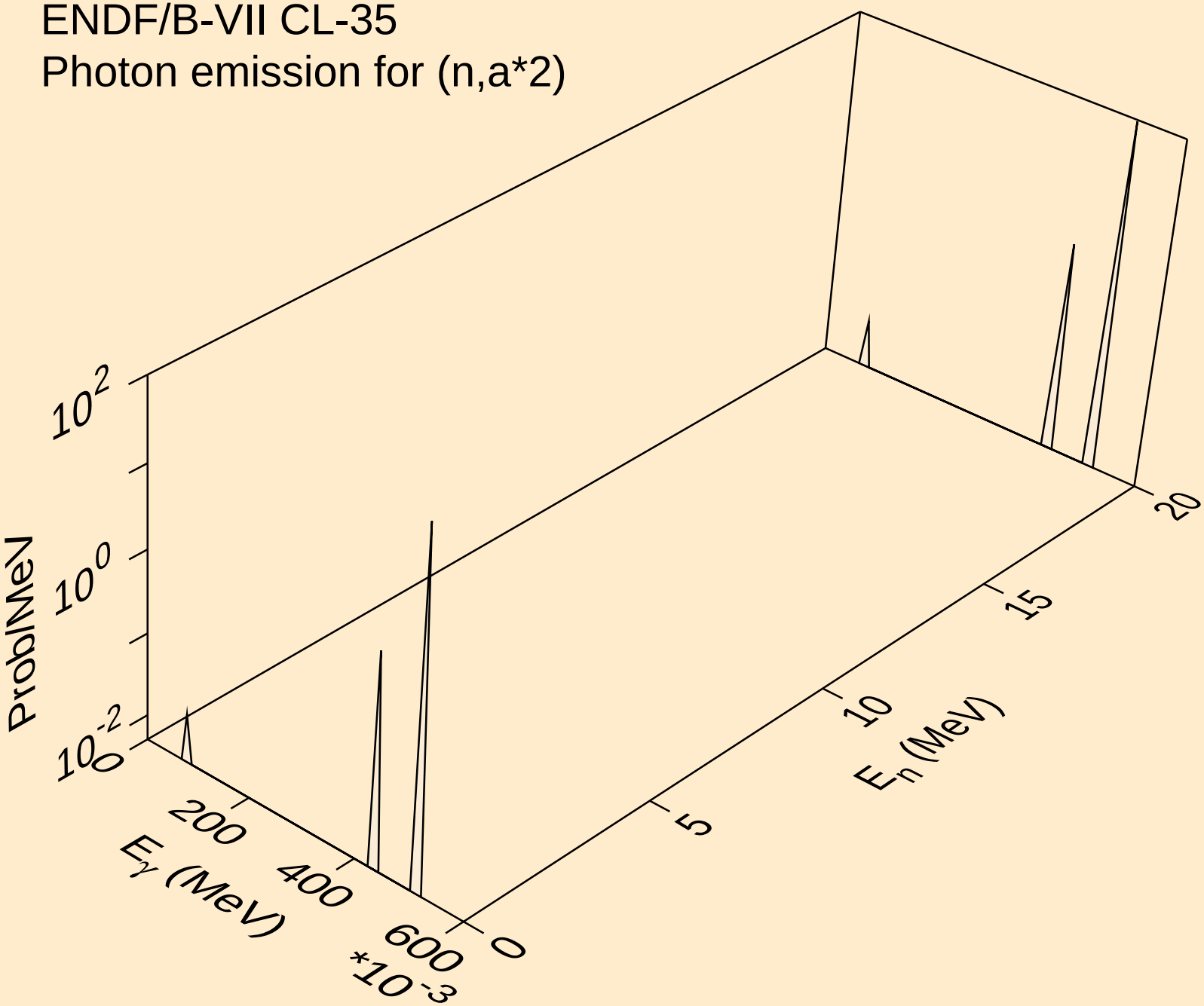



ENDF/B-VII CL-35
Photon emission for (n,t*30)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
15
16
17
18
19
20
E_n (MeV)

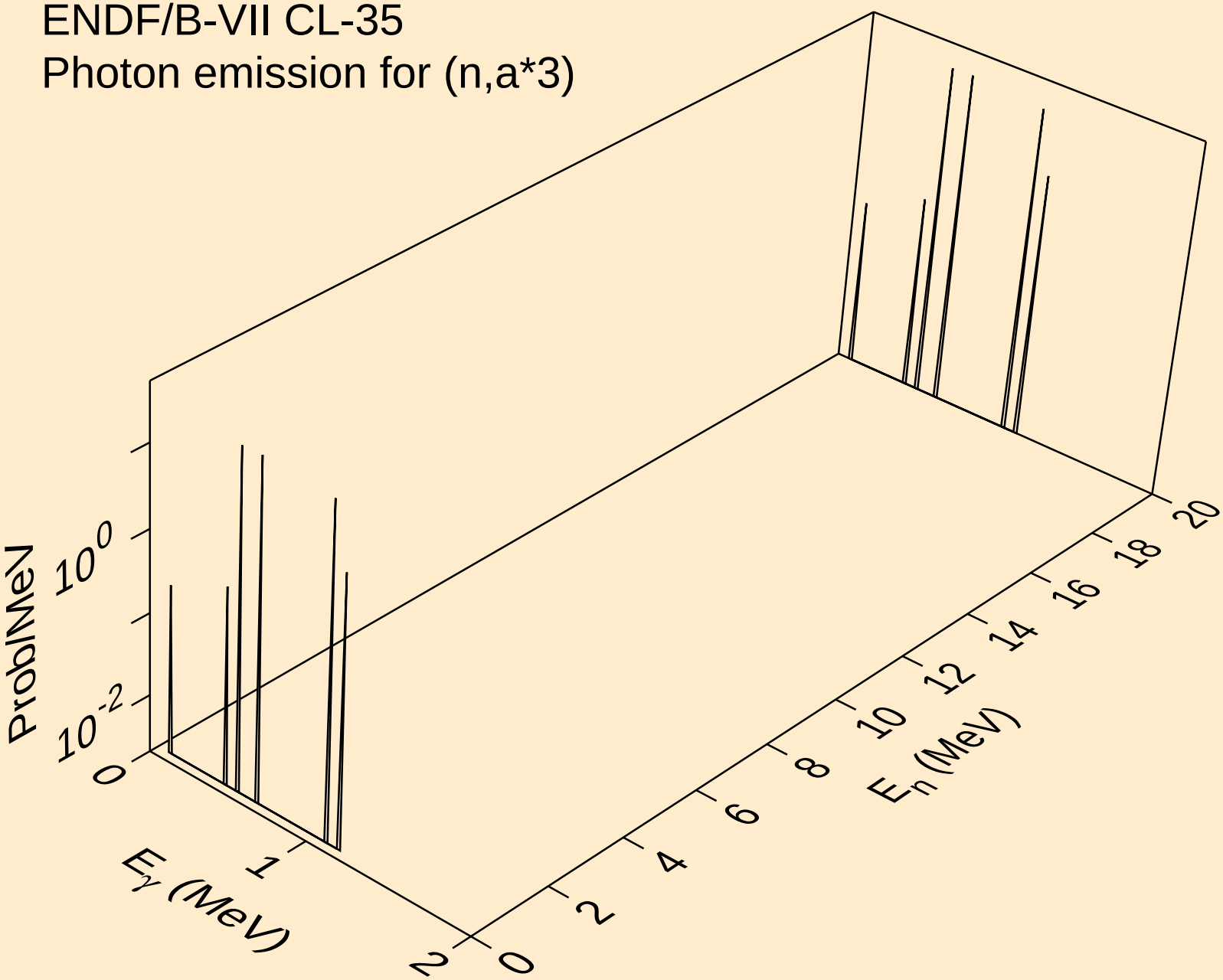

ENDF/B-VII CL-35
Photon emission for (n,t*c)
Prob/MeV
10^0
10^{-2}
10^{-4}
0
5
10
15
E_γ (MeV)
16
17
18
19
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,a*1)
Prob/MeV
10^0
10^{-2}
60
80
100
E_γ (MeV)
$*10^{-3}$
0
5
10
15
20
E_n (MeV)

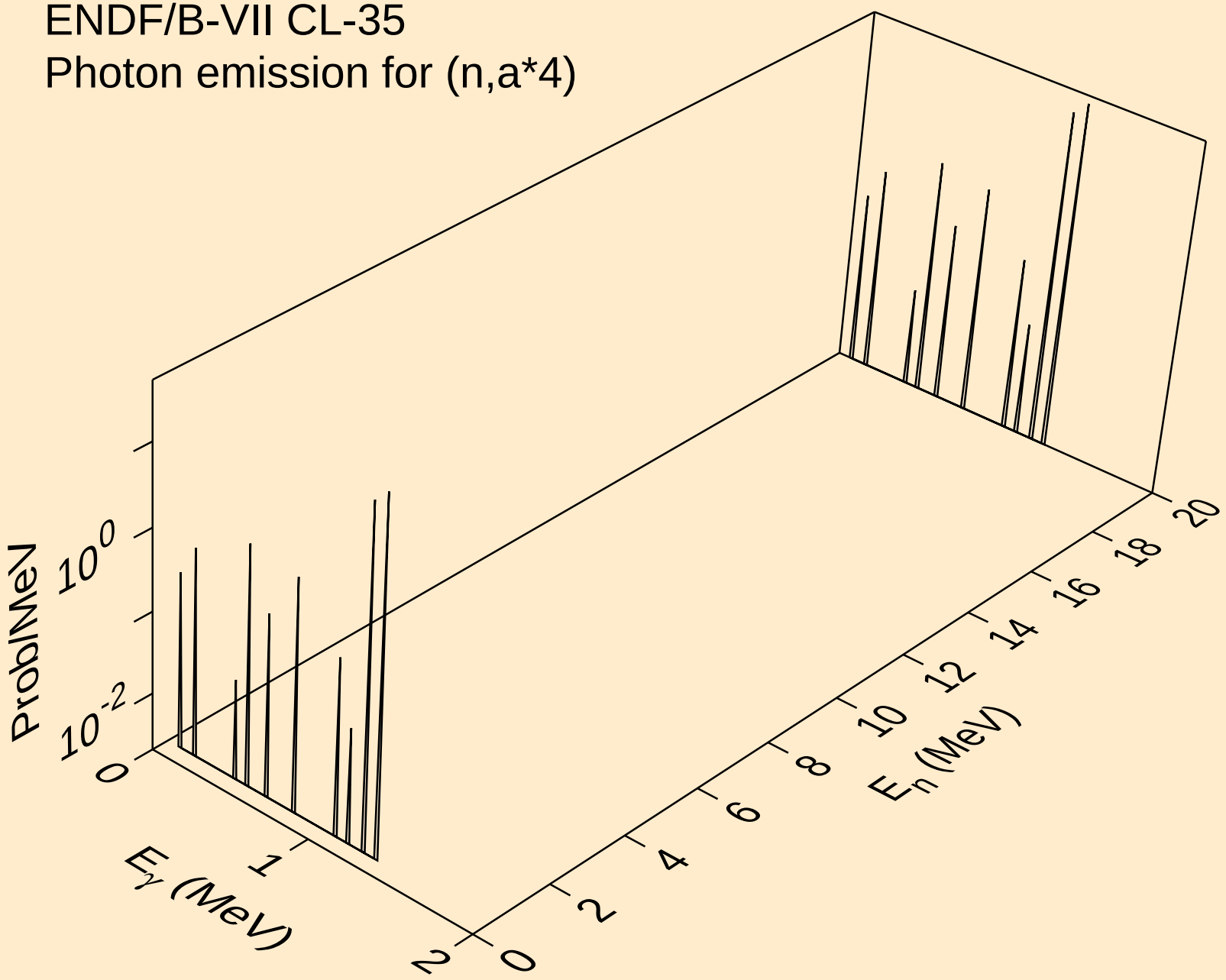
ENDF/B-VII CL-35
Photon emission for (n,a*2)

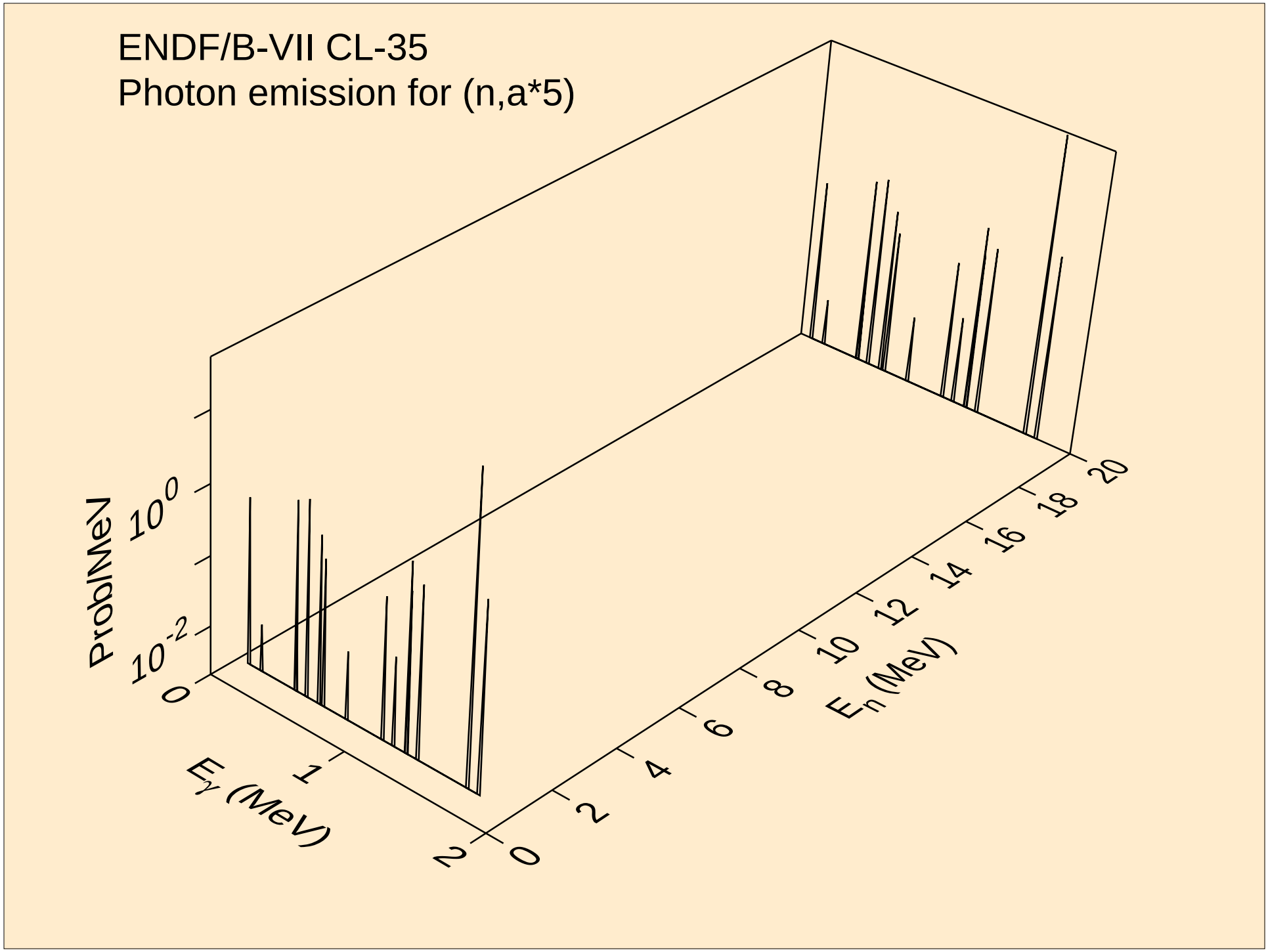


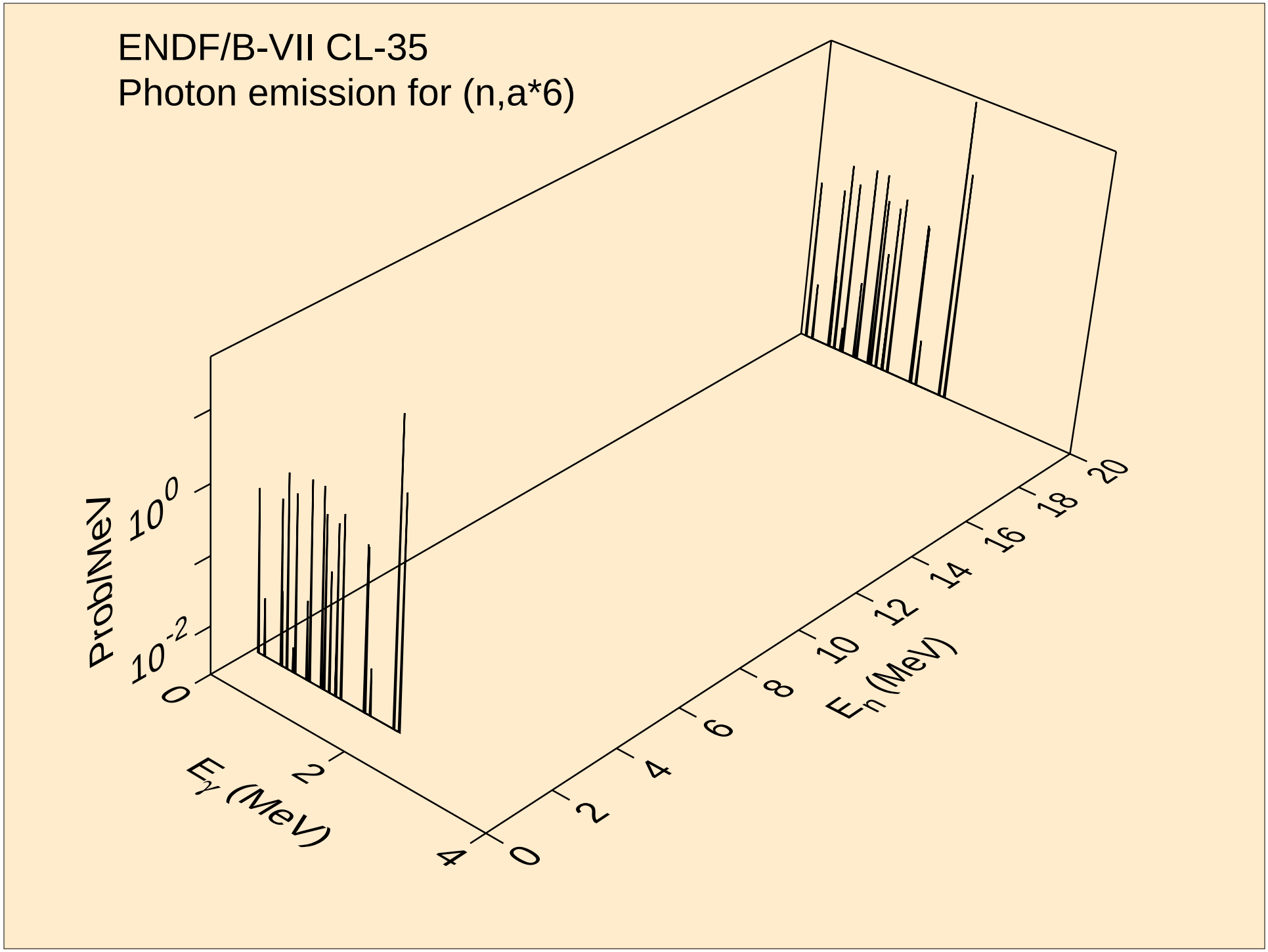
ENDF/B-VII CL-35
Photon emission for (n,a*3)

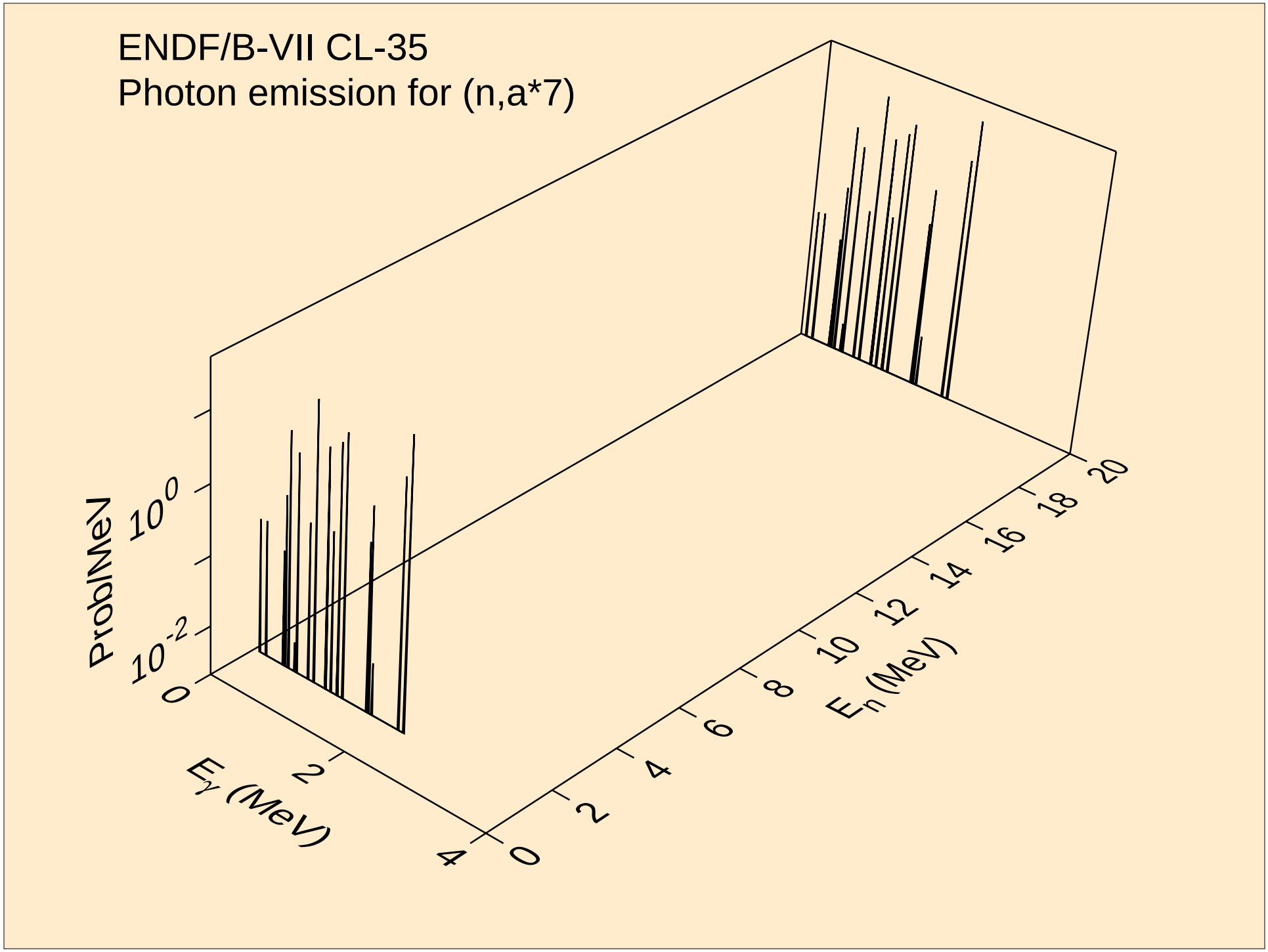


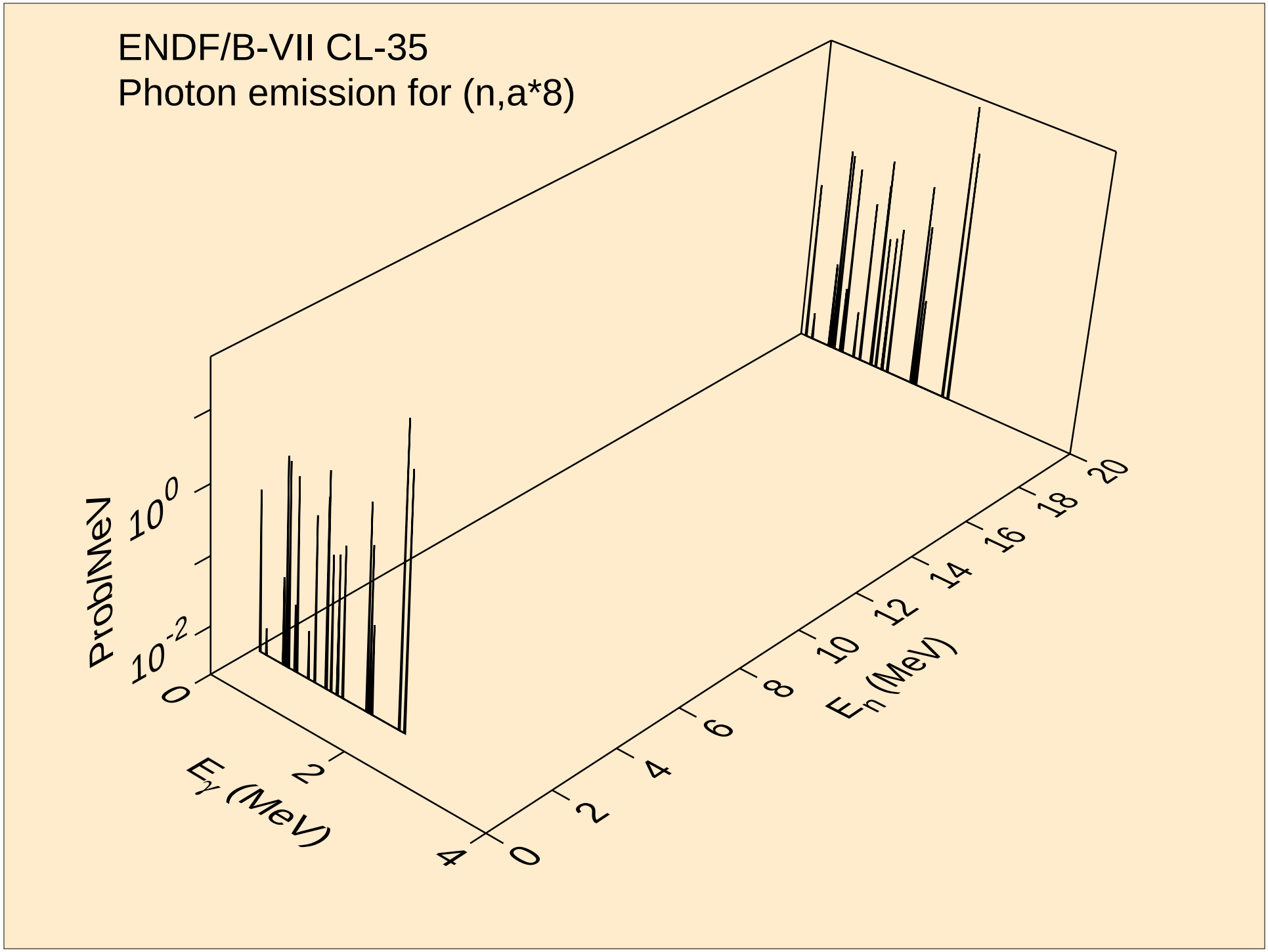
ENDF/B-VII CL-35
Photon emission for (n,a*4)

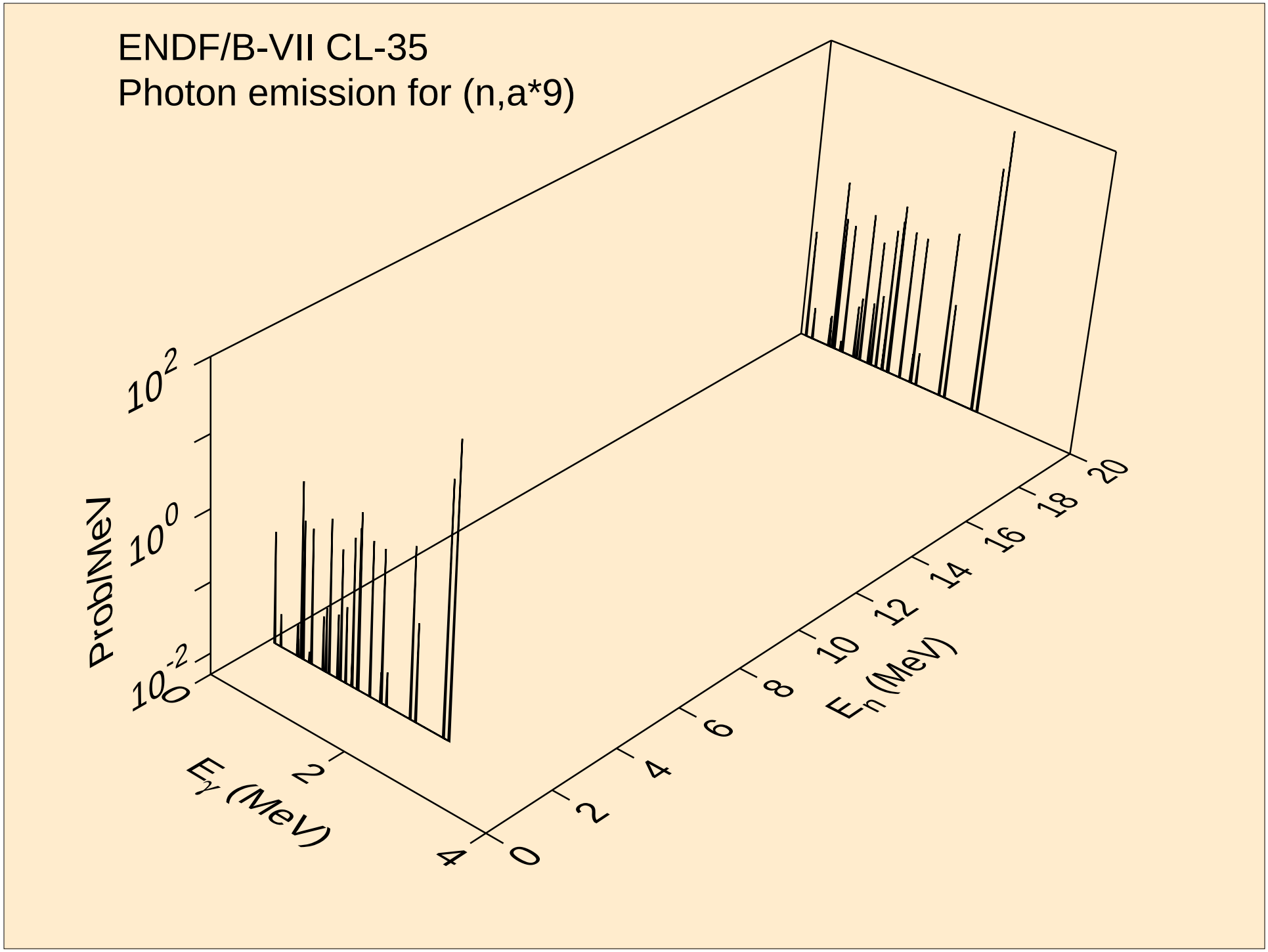


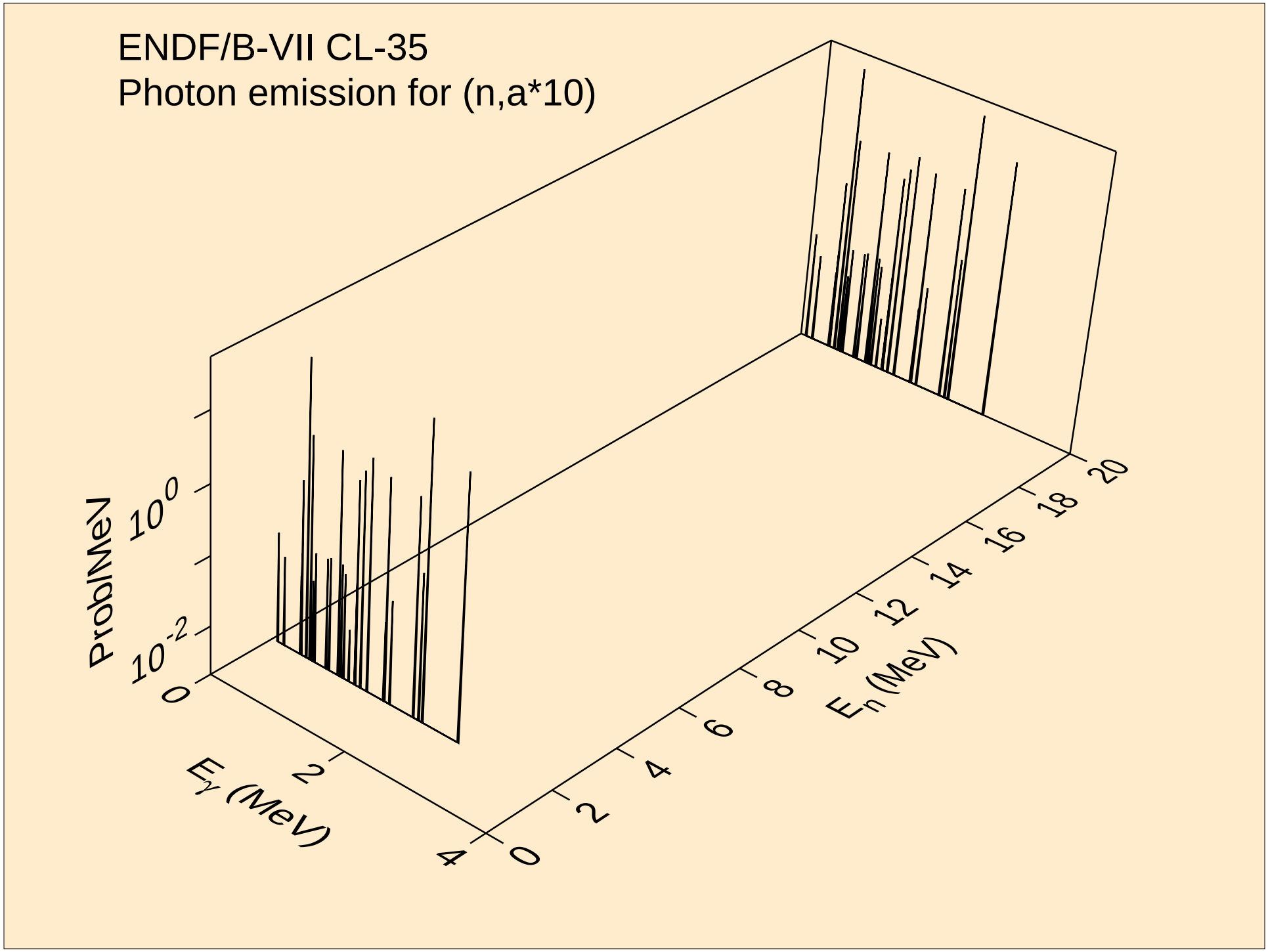

ENDF/B-VII CL-35
Photon emission for (n,a*5)
Prob/MeV
10^0
10^{-2}
0
1
2
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)


ENDF/B-VII CL-35
Photon emission for (n,a*6)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

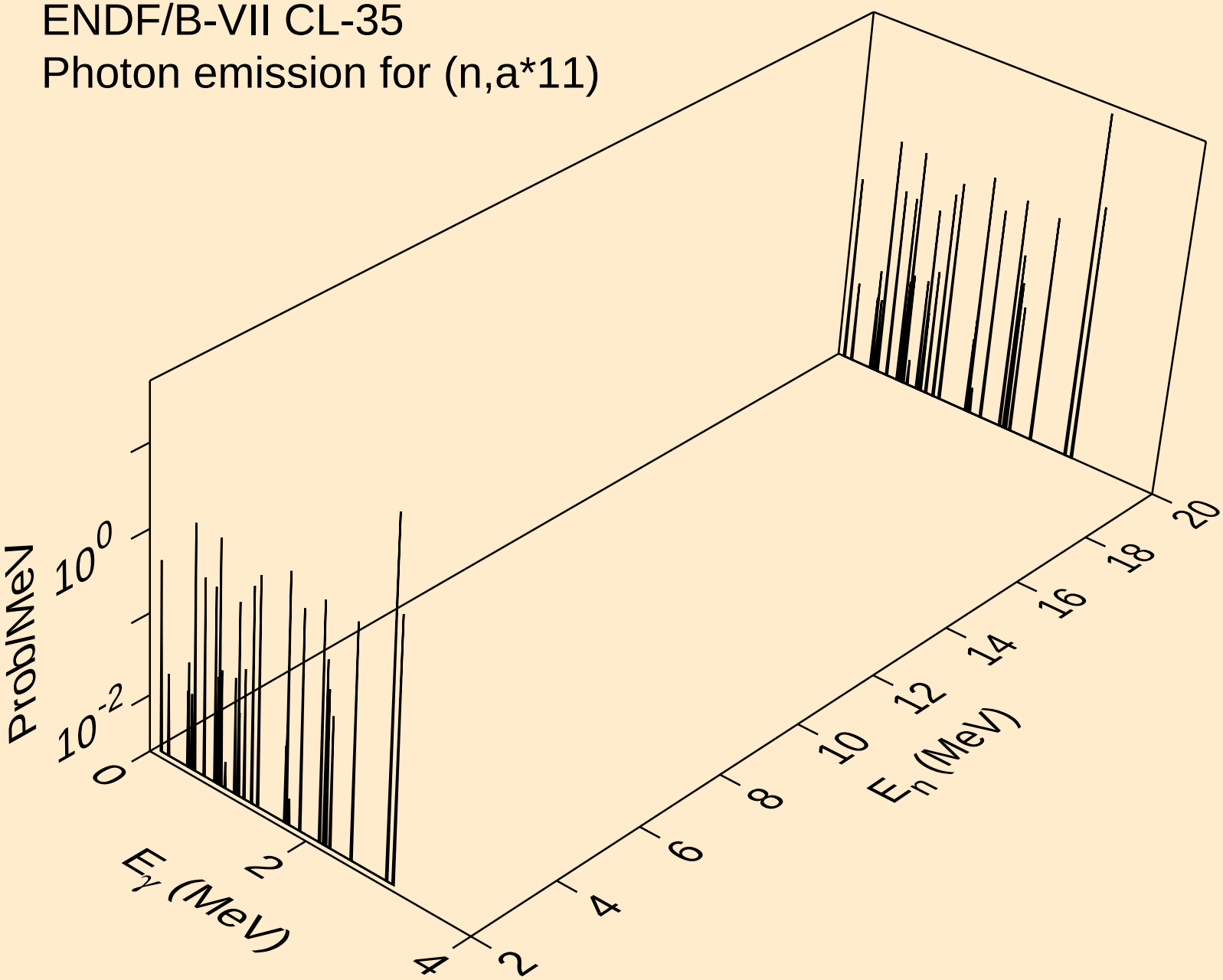

ENDF/B-VII CL-35
Photon emission for (n,a*7)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

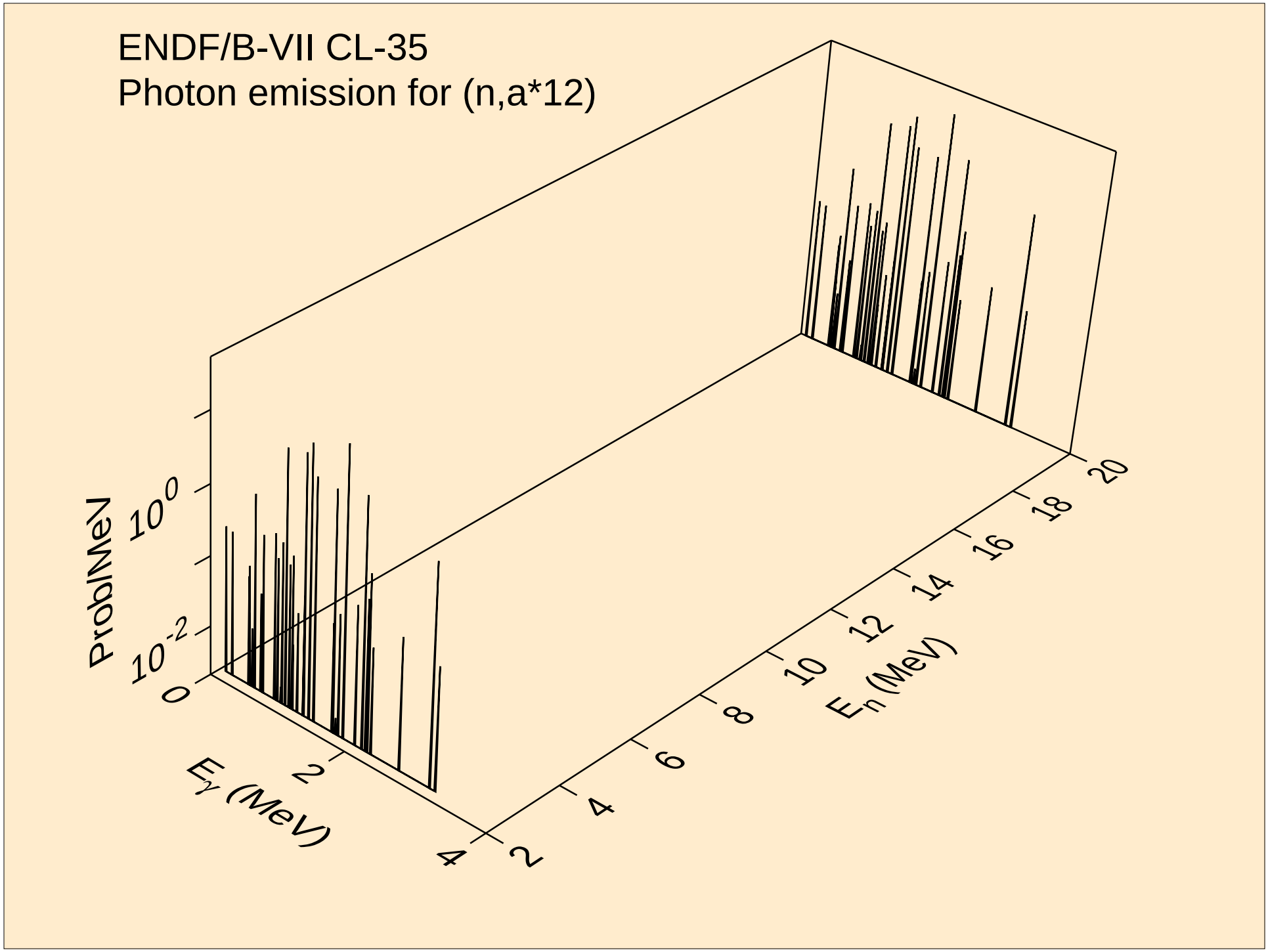

ENDF/B-VII CL-35
Photon emission for (n,a*8)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

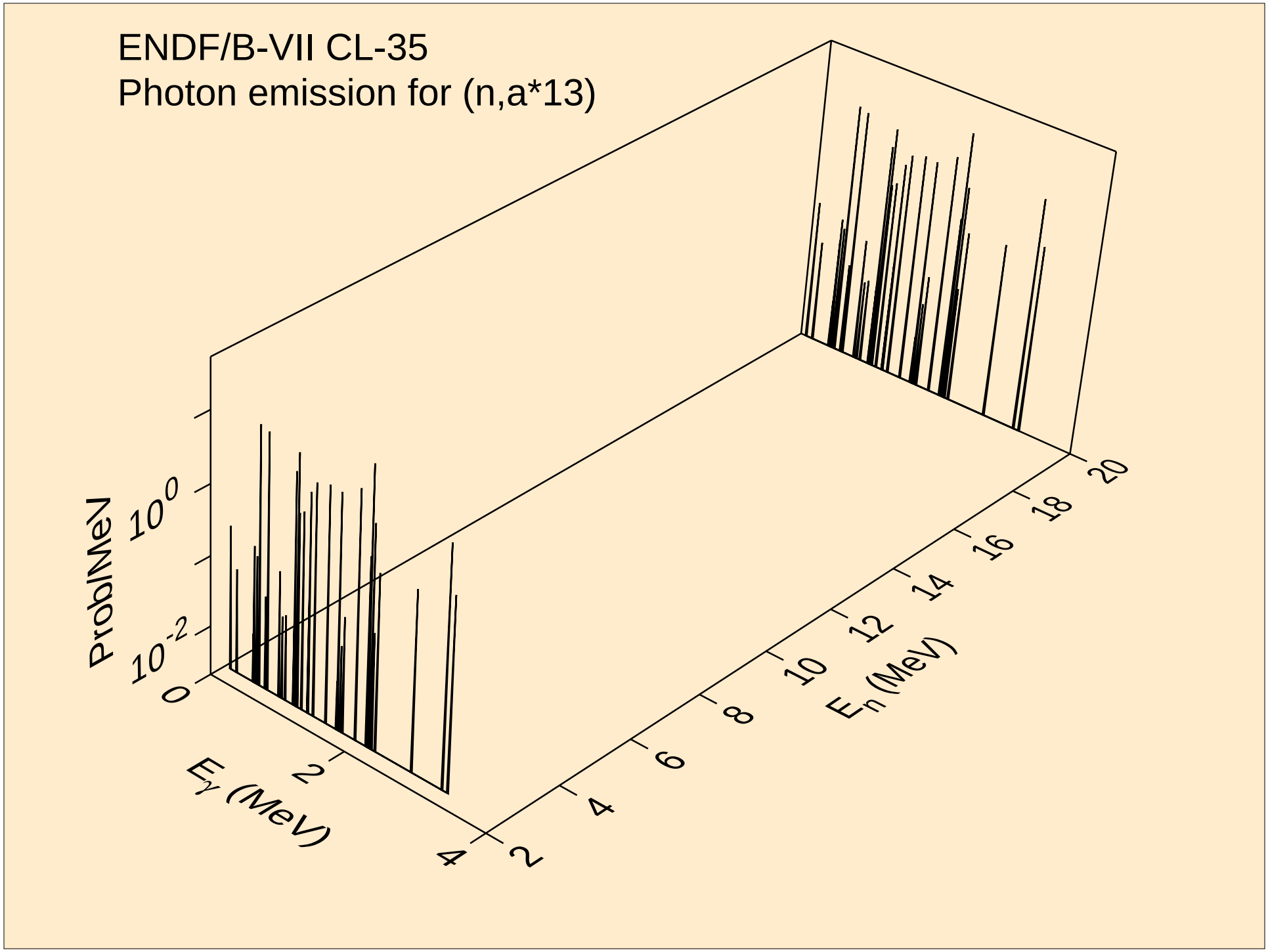

ENDF/B-VII CL-35
Photon emission for (n,a*9)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
E_n (MeV)
0
2
4
6
8
10
12
14
16
18
20


ENDF/B-VII CL-35
Photon emission for (n,a*10)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

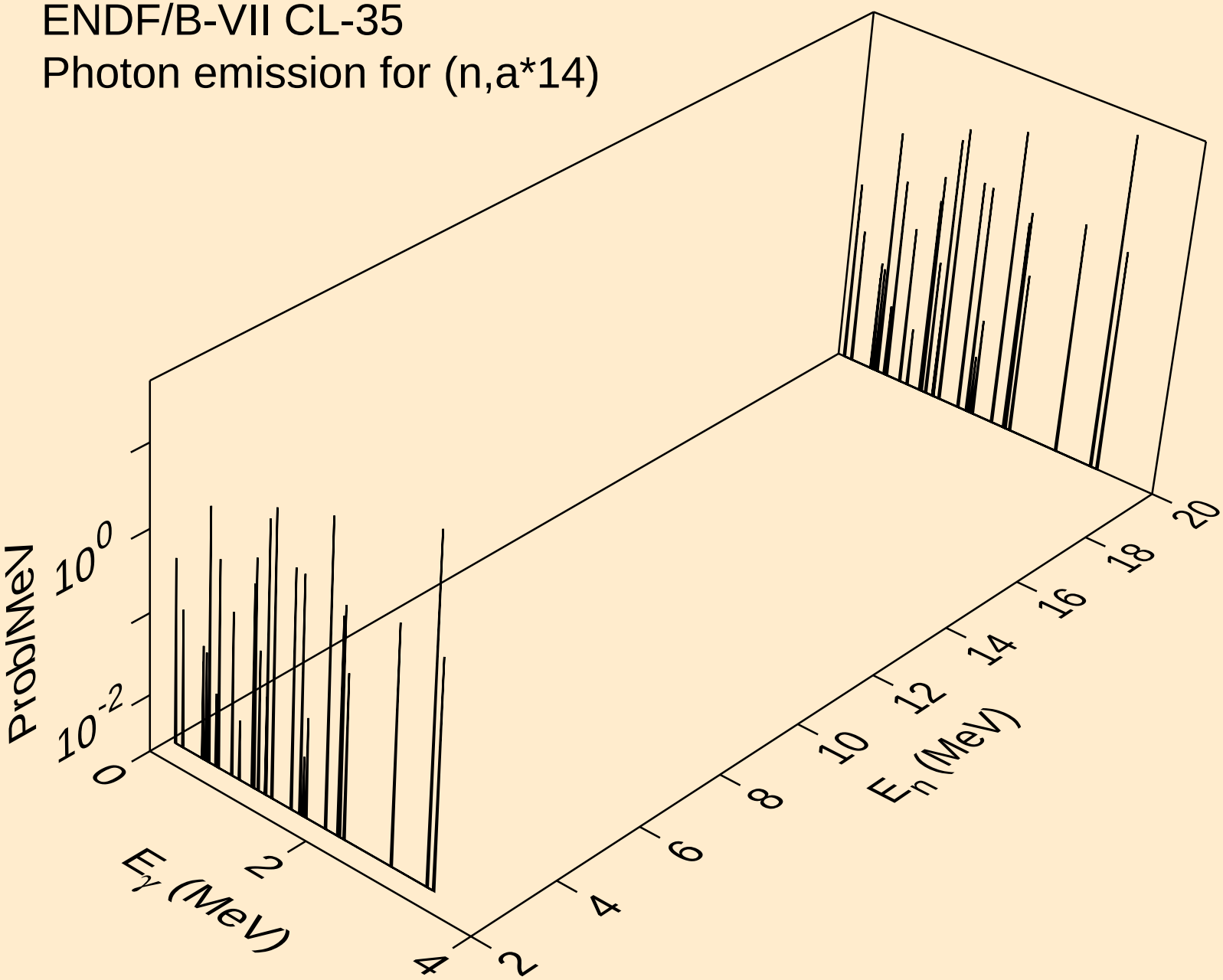
ENDF/B-VII CL-35
Photon emission for (n,a*11)

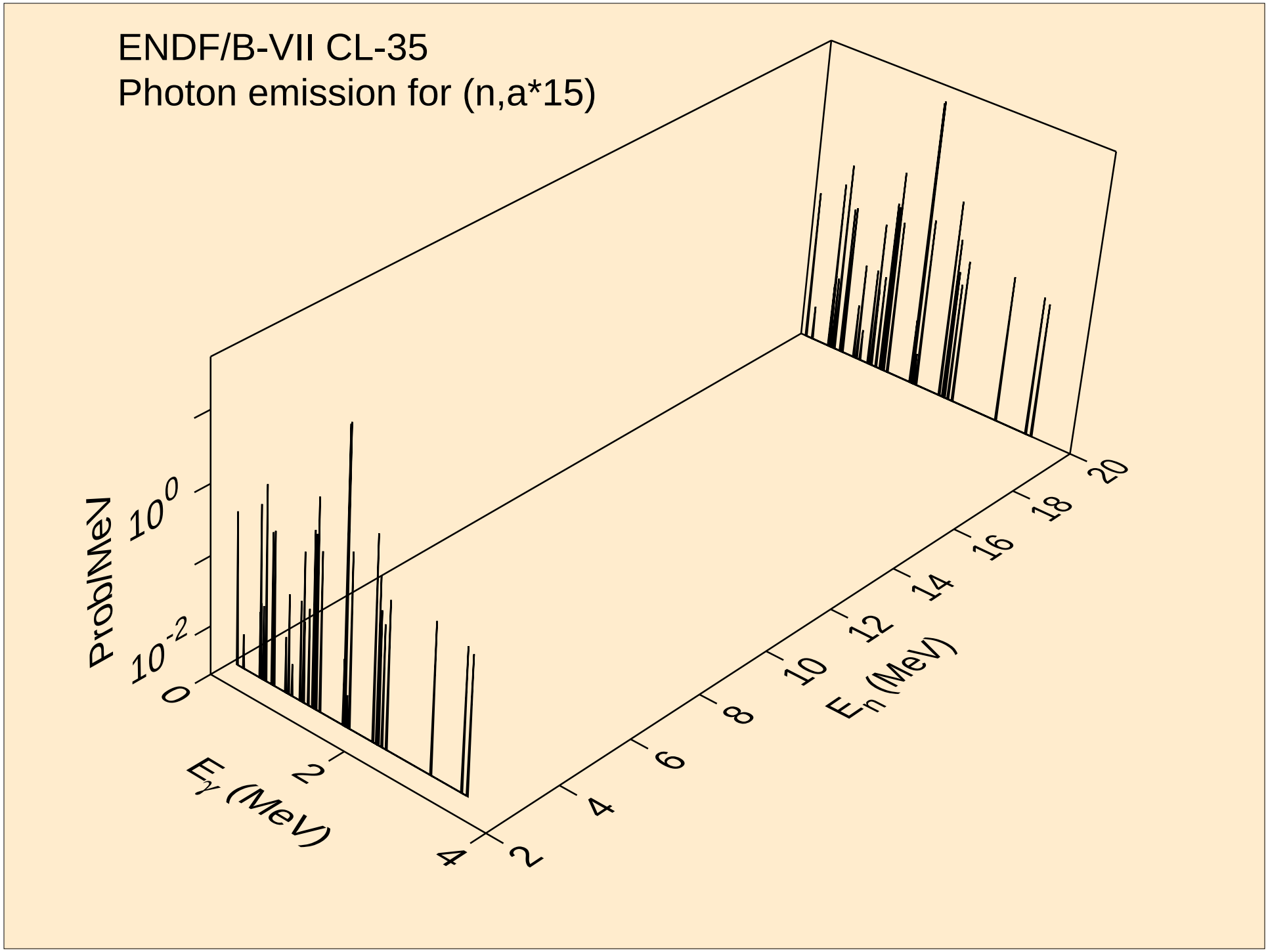


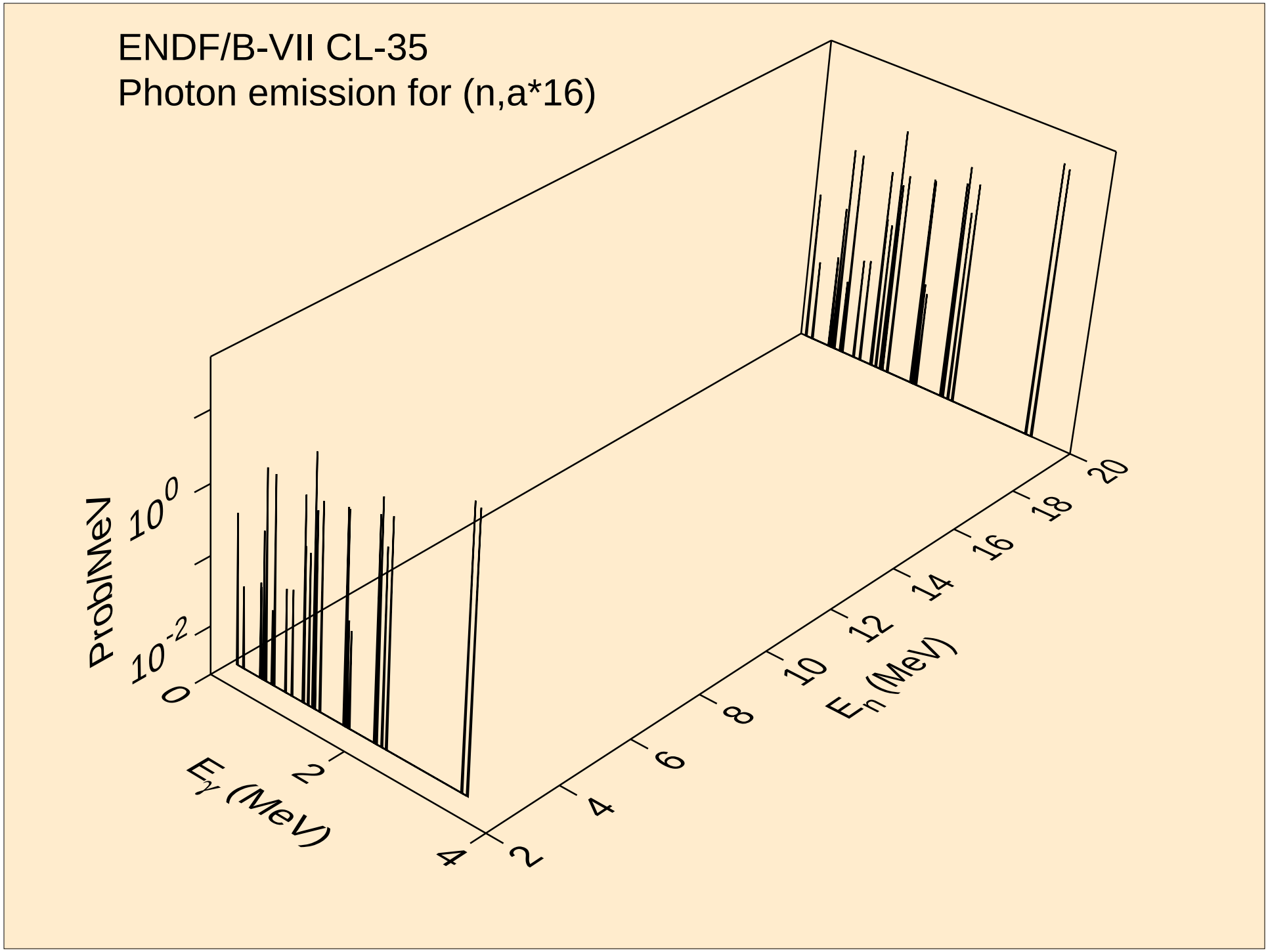

ENDF/B-VII CL-35
Photon emission for (n,a*12)
Prob/MeV
10^0
10^{-2}
0
E_γ (MeV)
2
4
E_n (MeV)
2
4
6
8
10
12
14
16
18
20


ENDF/B-VII CL-35
Photon emission for (n,a*13)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

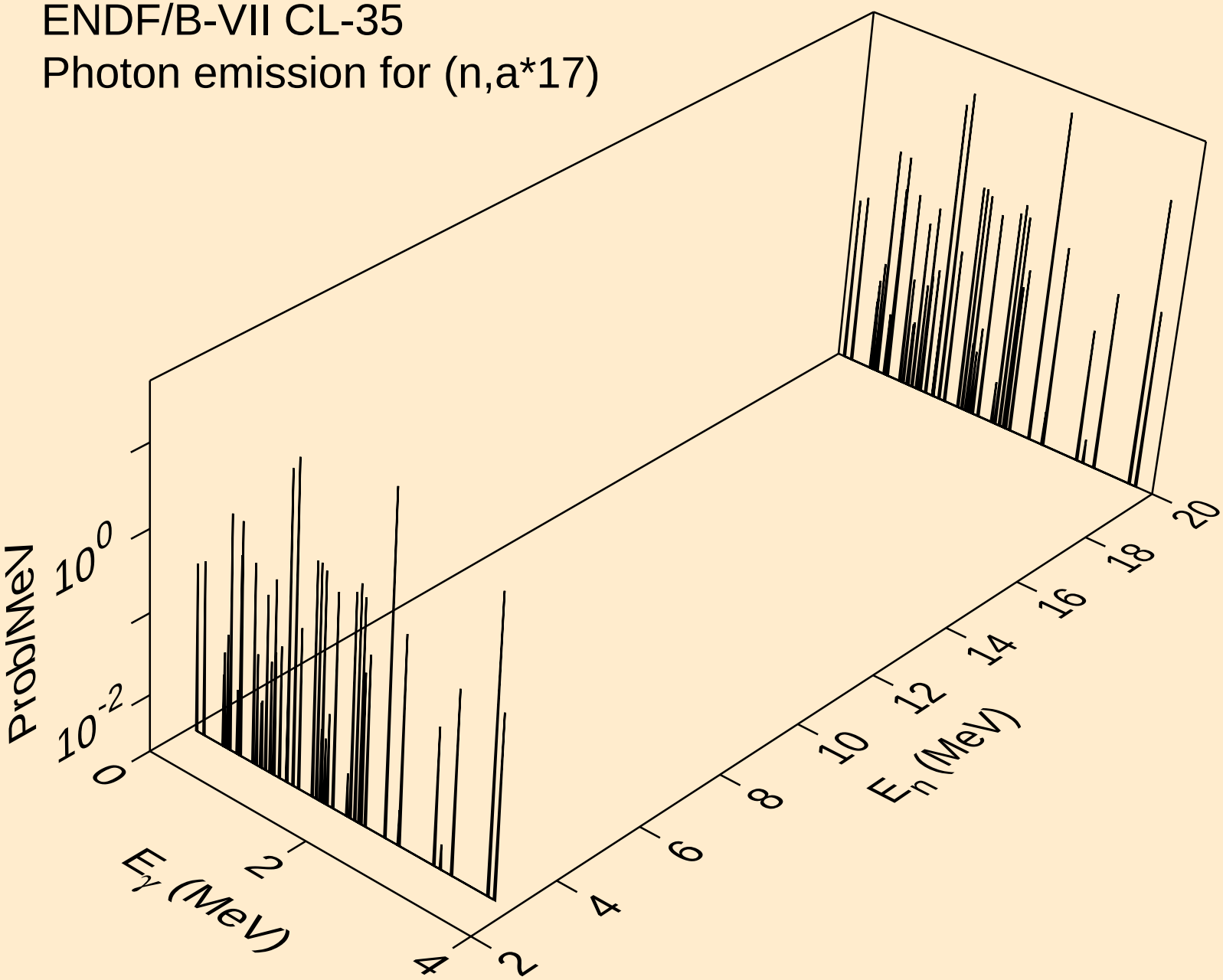
ENDF/B-VII CL-35
Photon emission for (n,a*14)



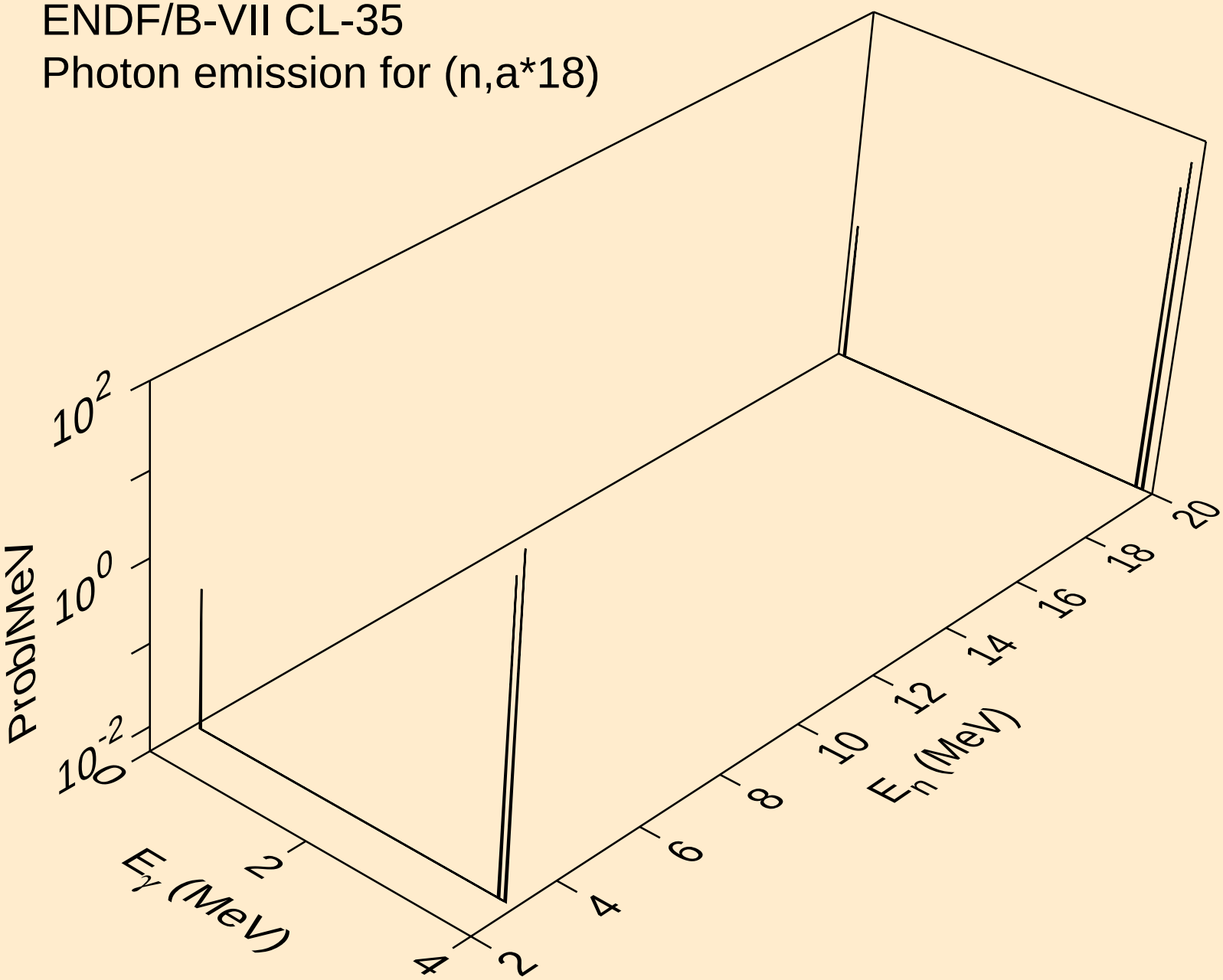

ENDF/B-VII CL-35
Photon emission for (n,a*15)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

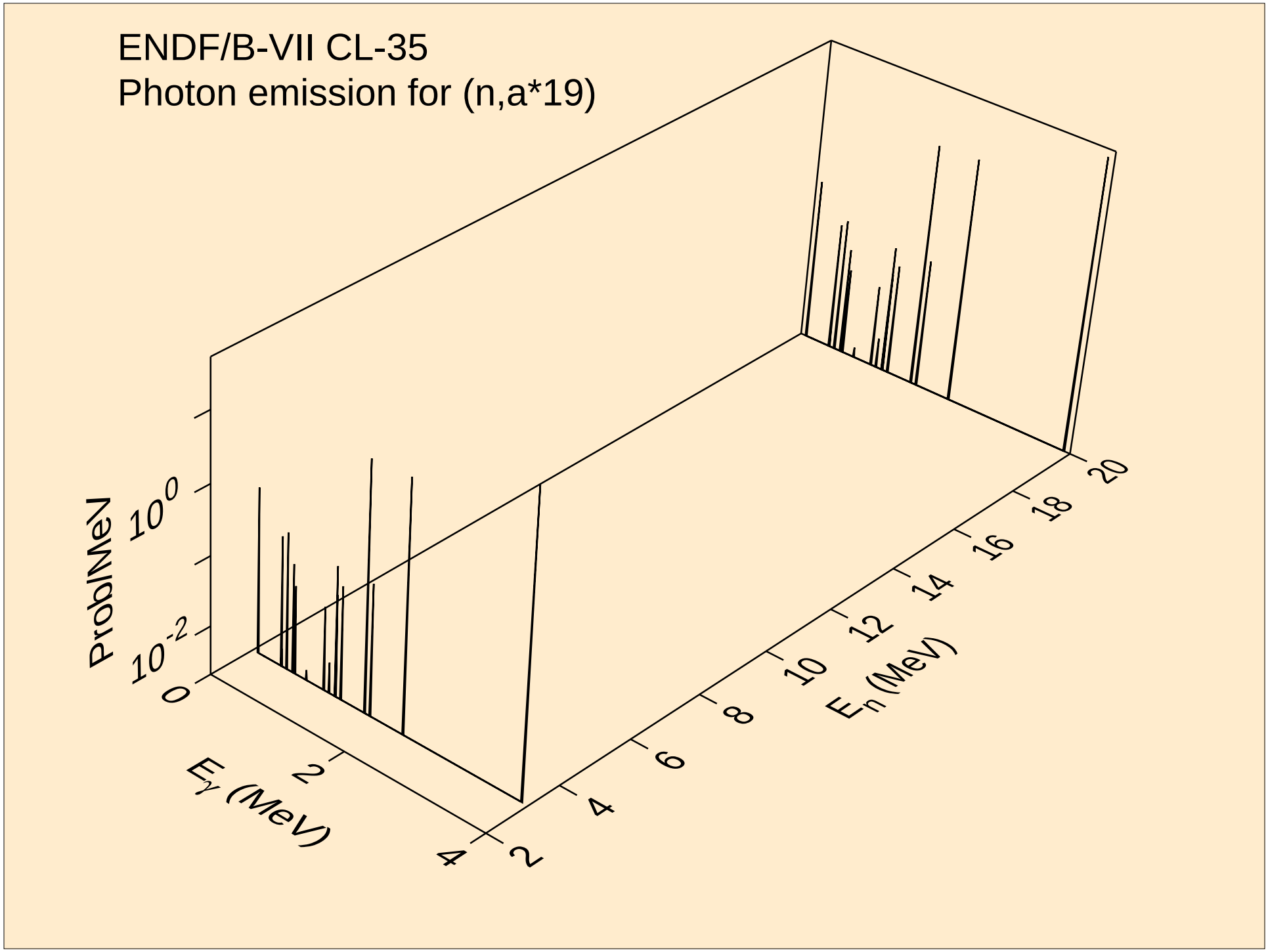

ENDF/B-VII CL-35
Photon emission for (n,a*16)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

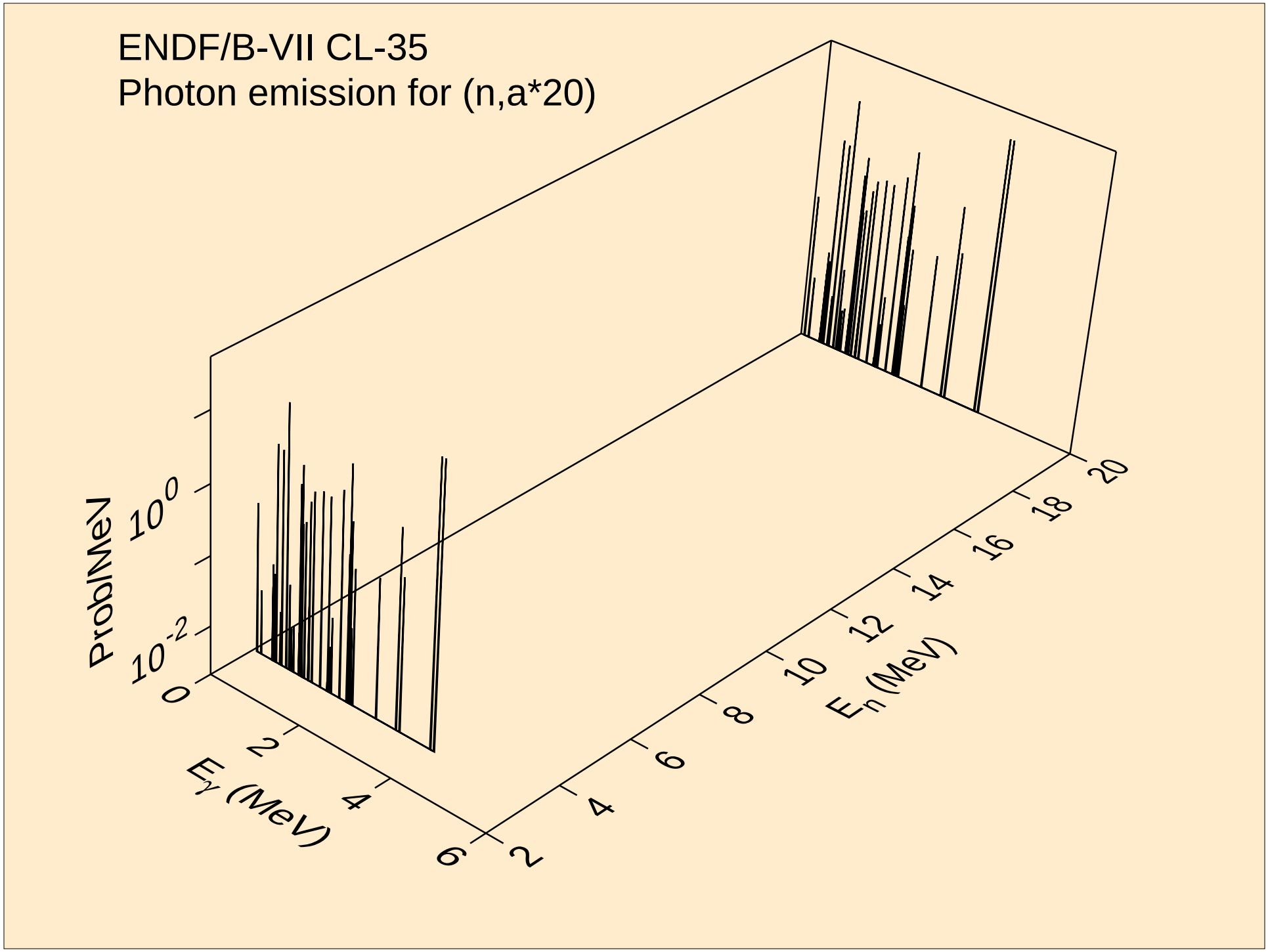
ENDF/B-VII CL-35
Photon emission for (n,a*17)

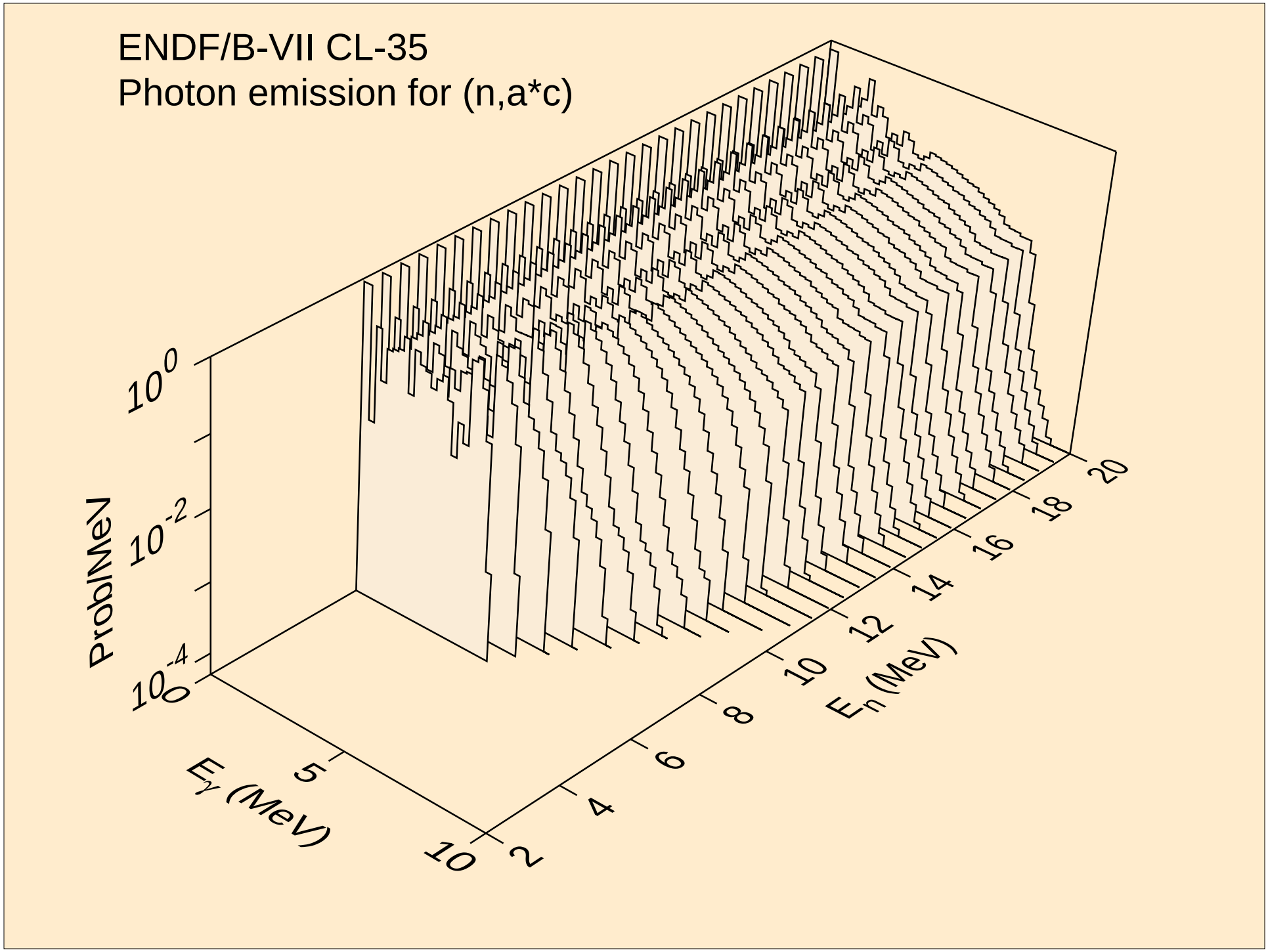


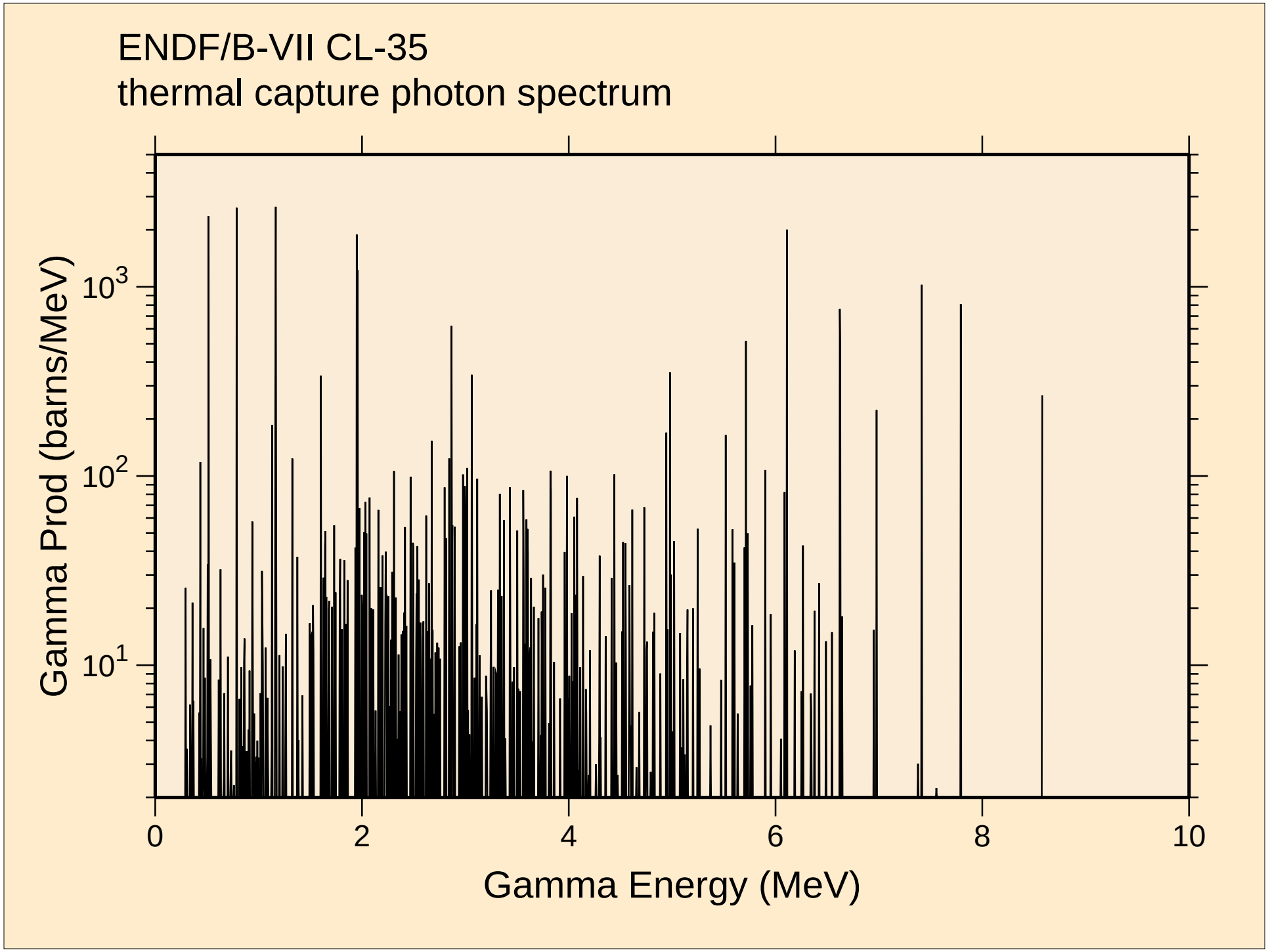
ENDF/B-VII CL-35
Photon emission for (n,a*18)

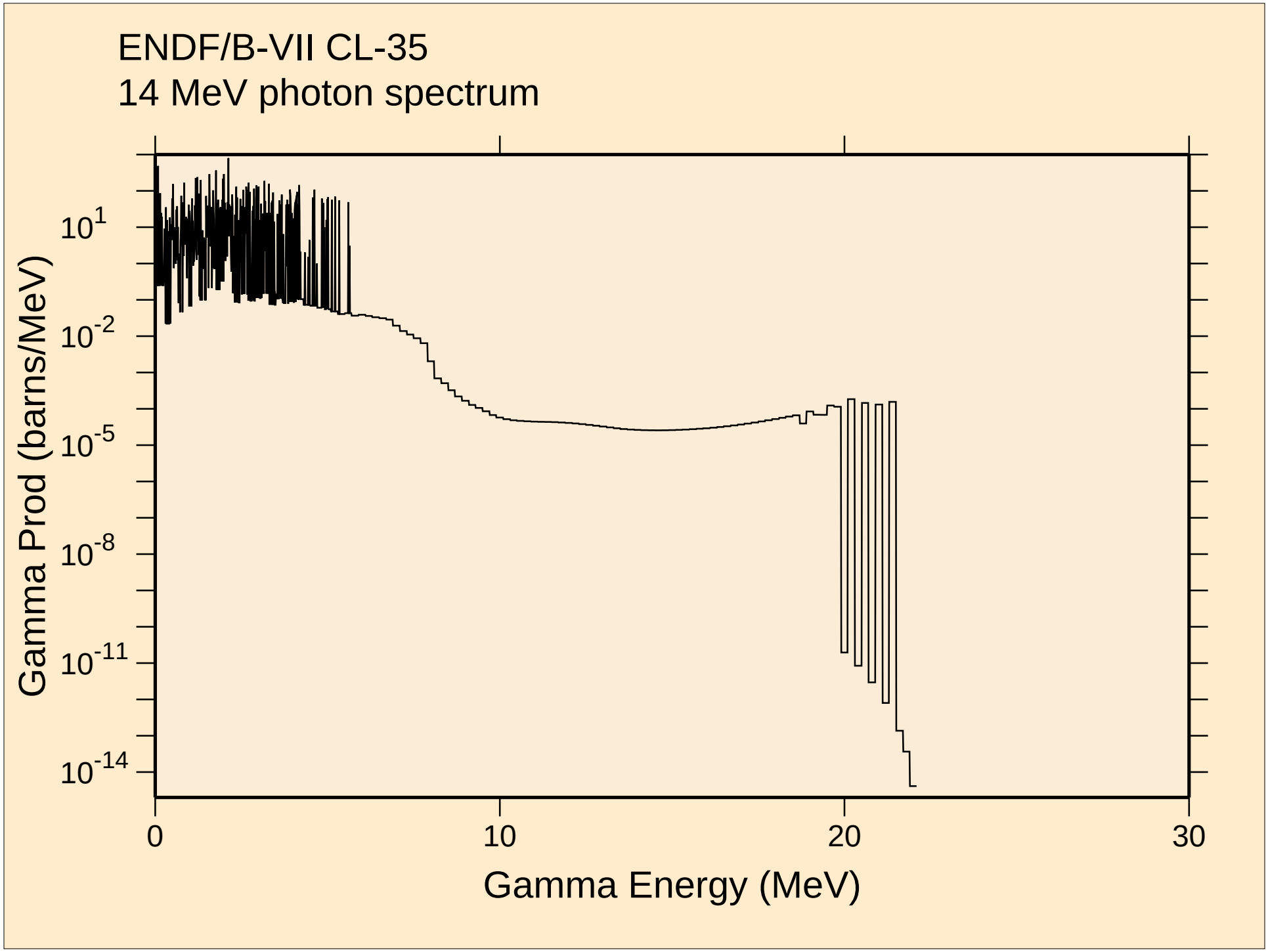


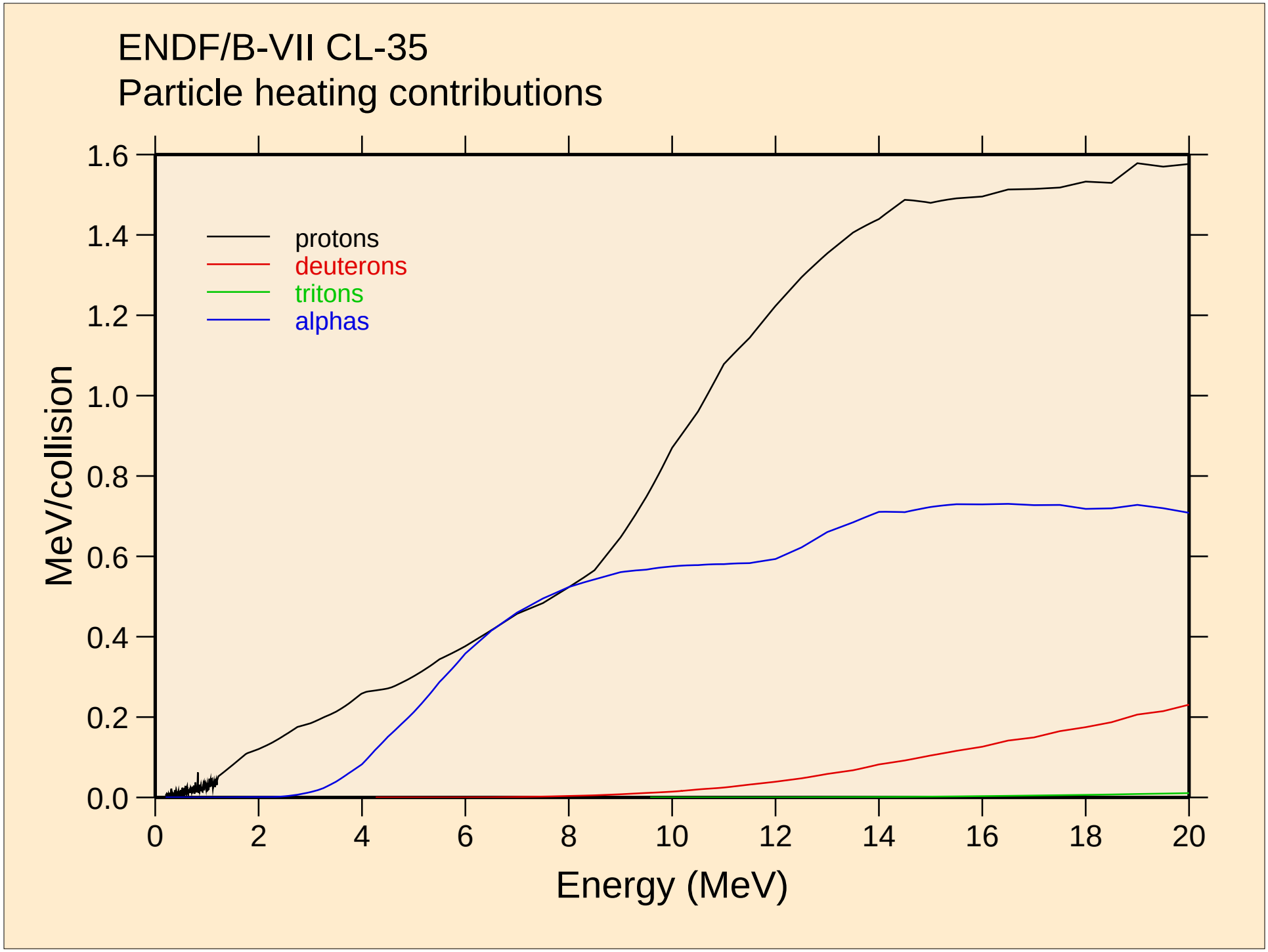

ENDF/B-VII CL-35
Photon emission for (n,a*19)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

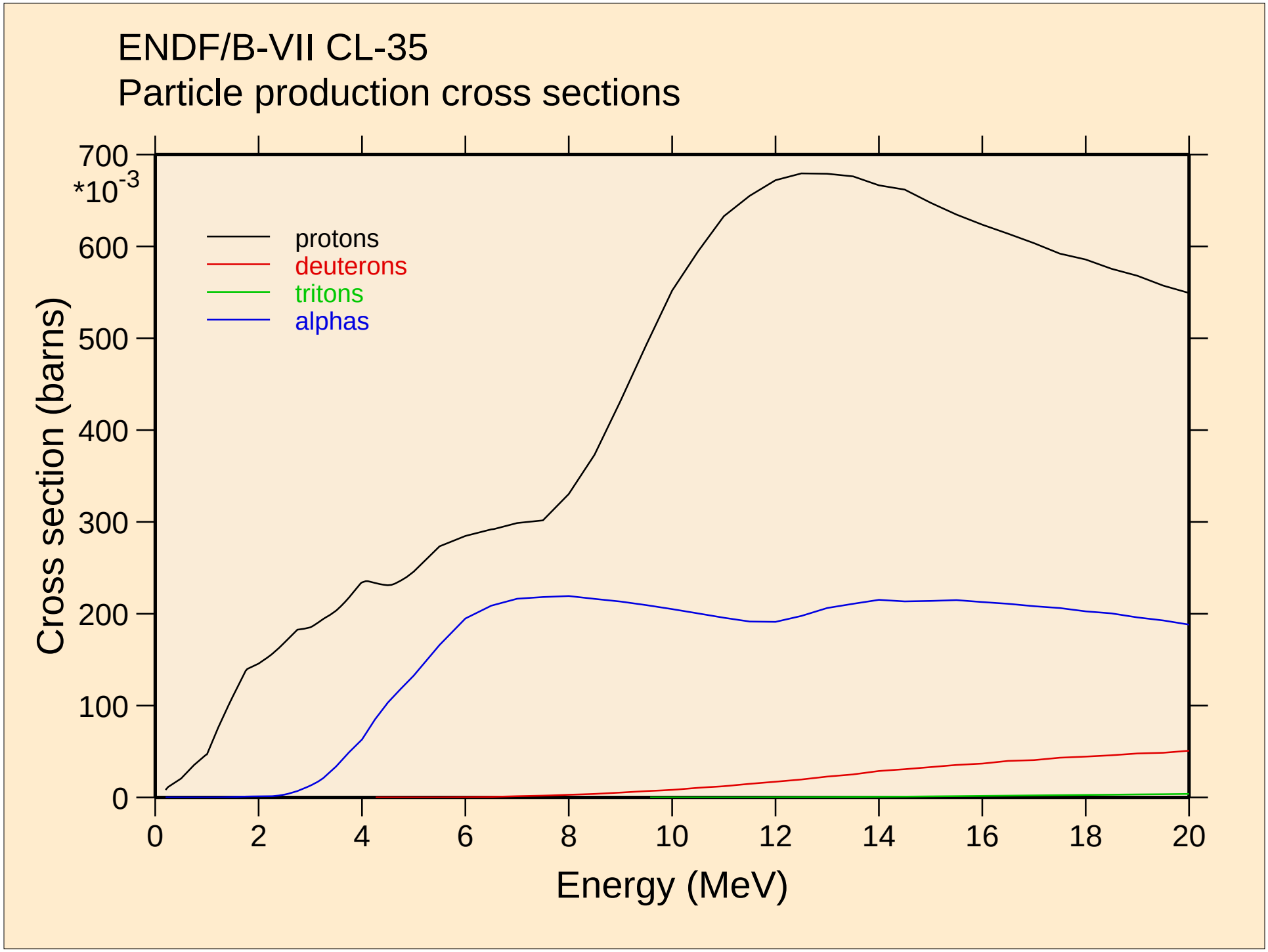

ENDF/B-VII CL-35
Photon emission for (n,a*20)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

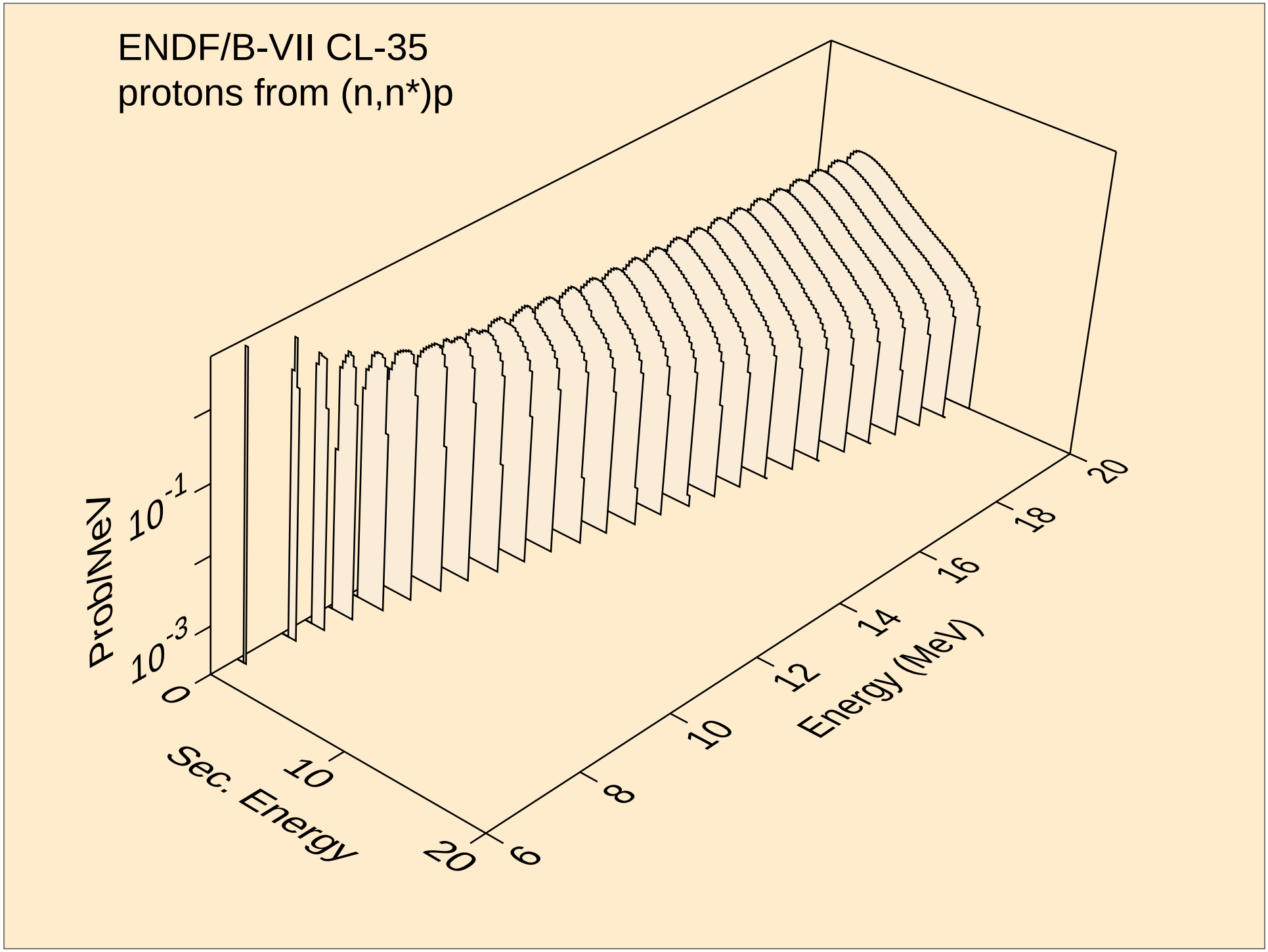

ENDF/B-VII CL-35
Photon emission for (n,a*c)
Prob/MeV
10^0
10^{-2}
10^{-4}
E_γ (MeV)
0
5
10
E_n (MeV)
2
4
6
8
10
12
14
16
18
20

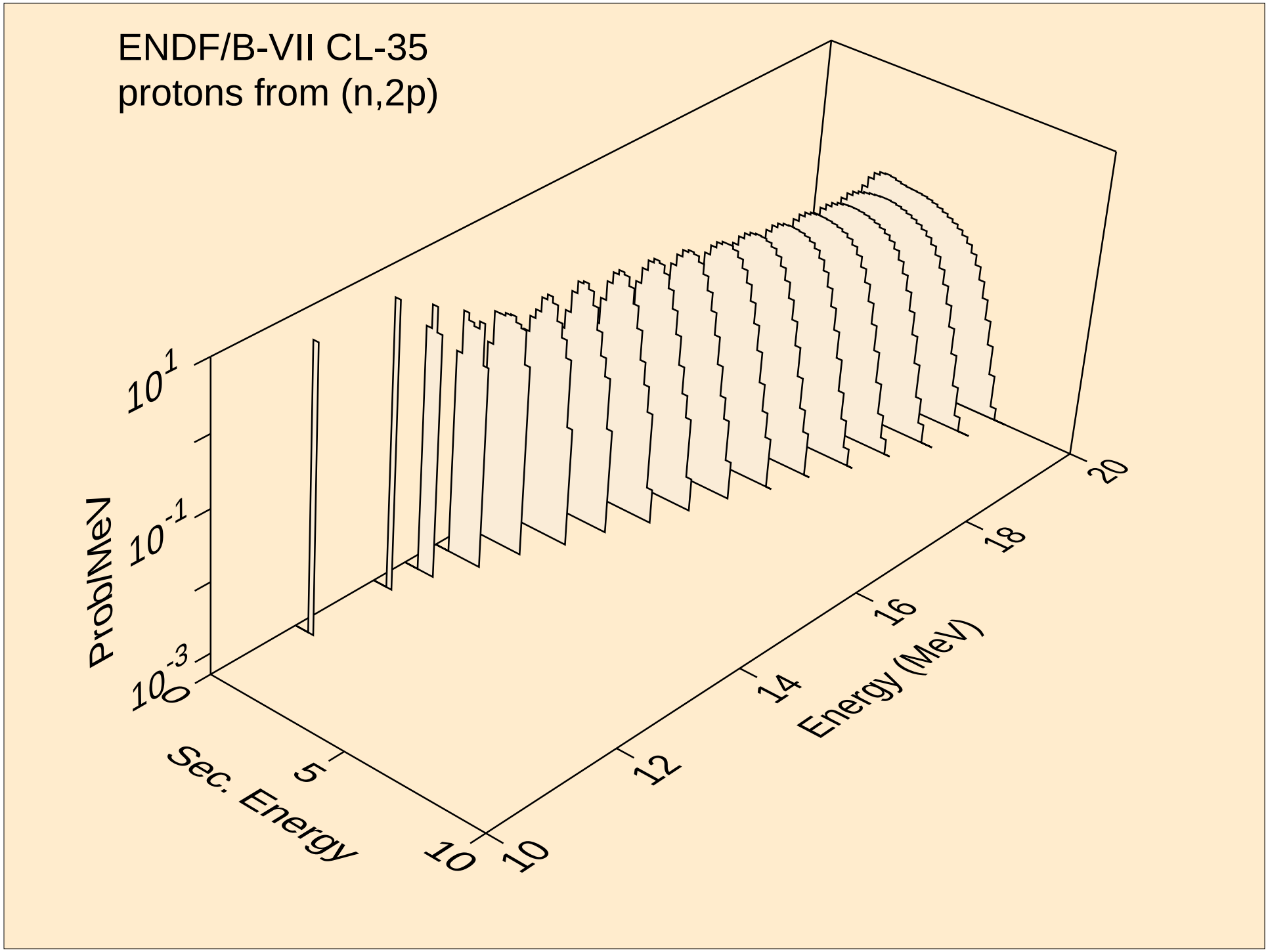

ENDF/B-VII CL-35
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^3
10^2
10^1
0
2
4
6
8
10
Gamma Energy (MeV)

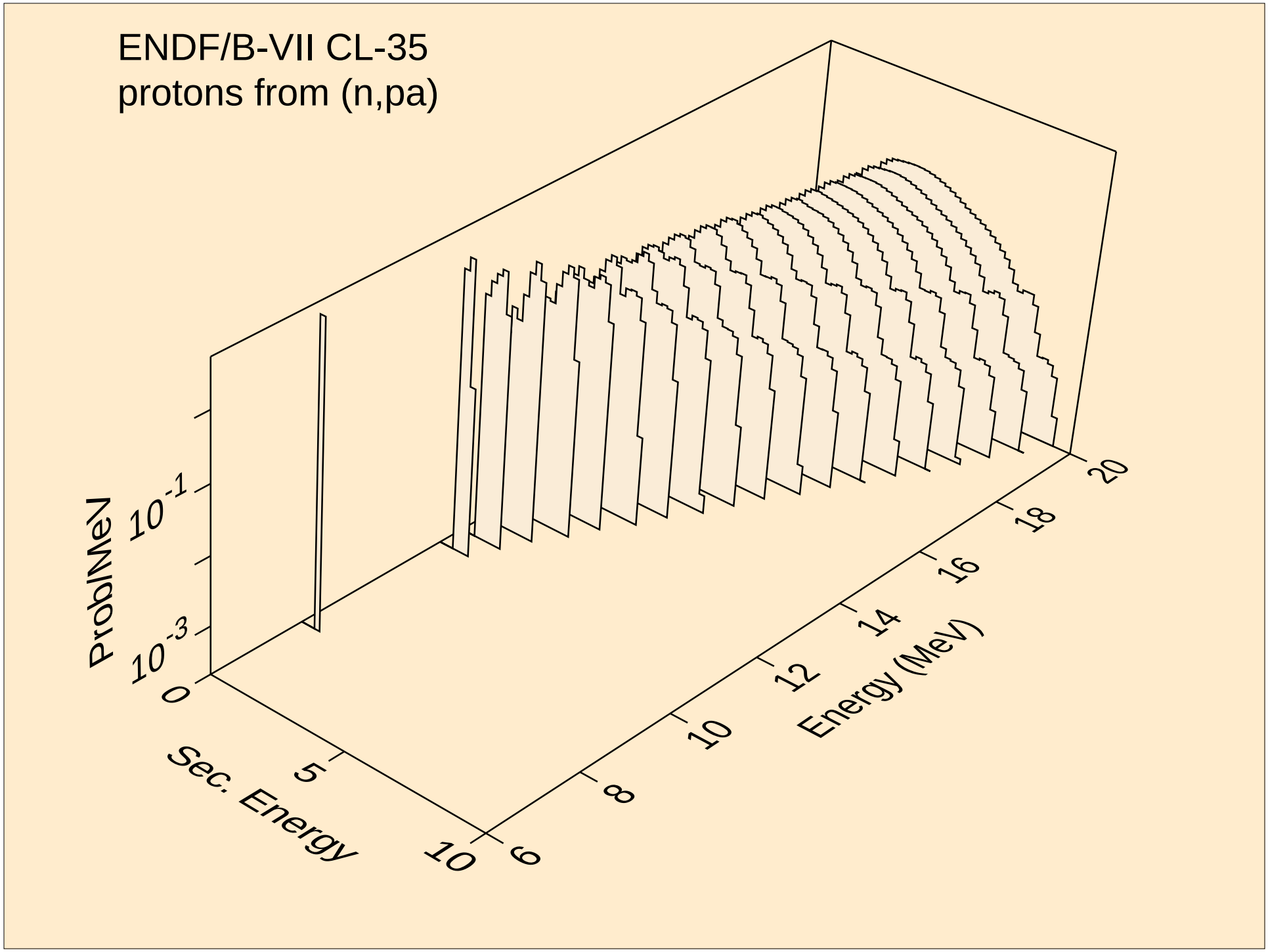

ENDF/B-VII CL-35
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^1
10^-2
10^-5
10^-8
10^-11
10^-14
0
10
20
30
Gamma Energy (MeV)

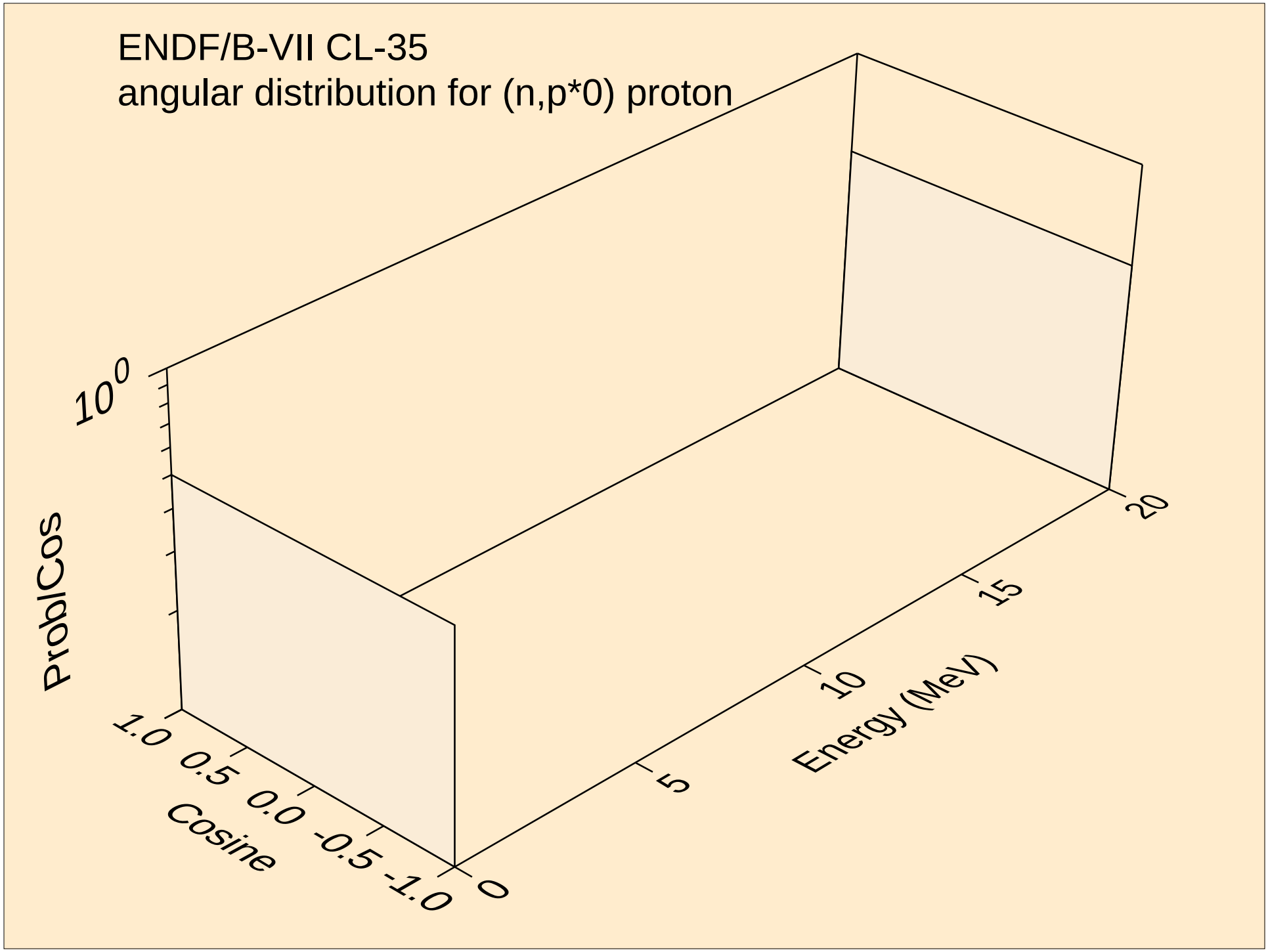

ENDF/B-VII CL-35
Particle heating contributions
protons
deuterons
tritons
alphas
MeV/collision
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
2
4
6
8
10
12
14
16
18
20

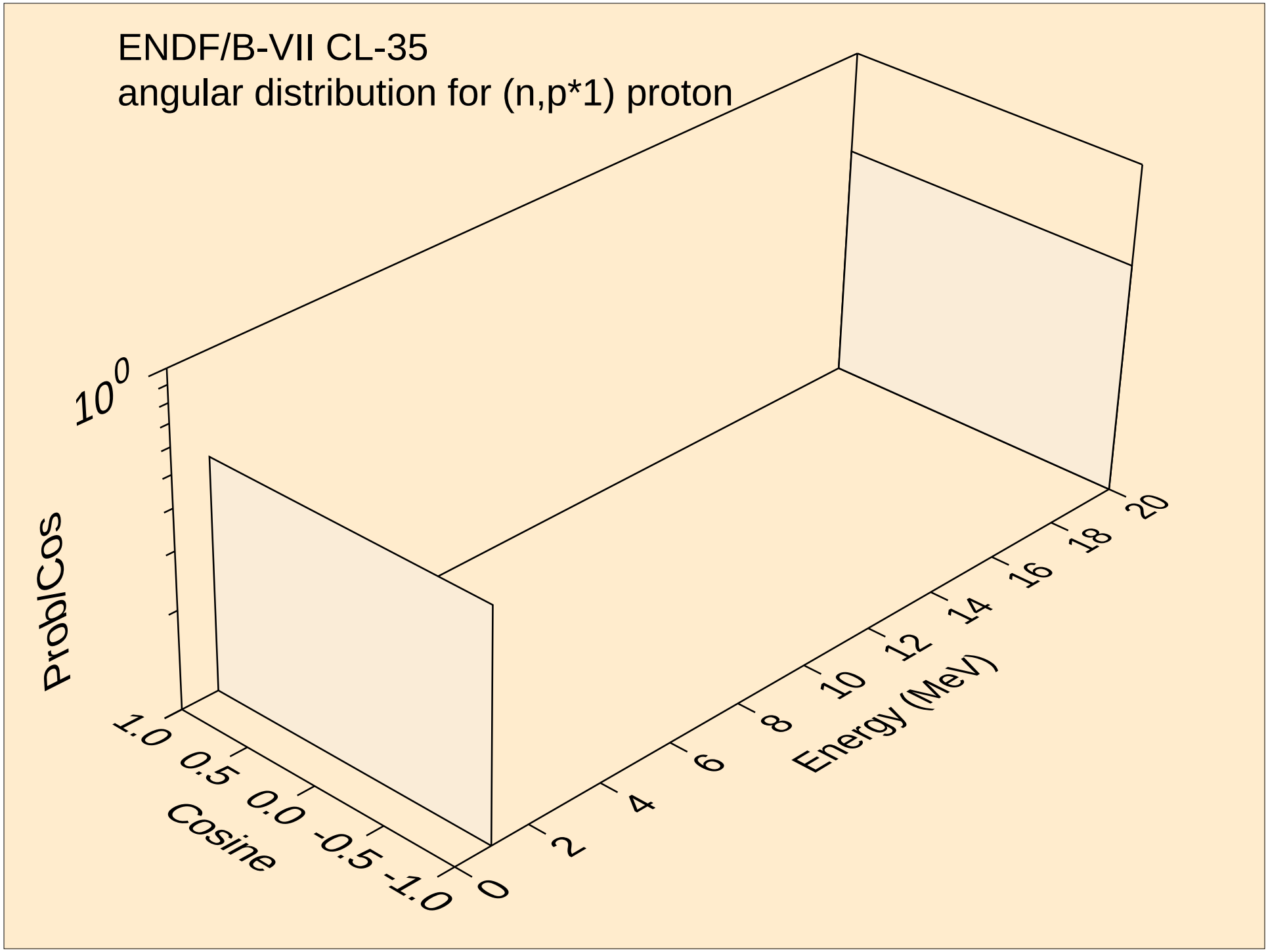

ENDF/B-VII CL-35
Particle production cross sections
Cross section (barns)
*10^-3
700
600
500
400
300
200
100
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)
protons
deuterons
tritons
alphas

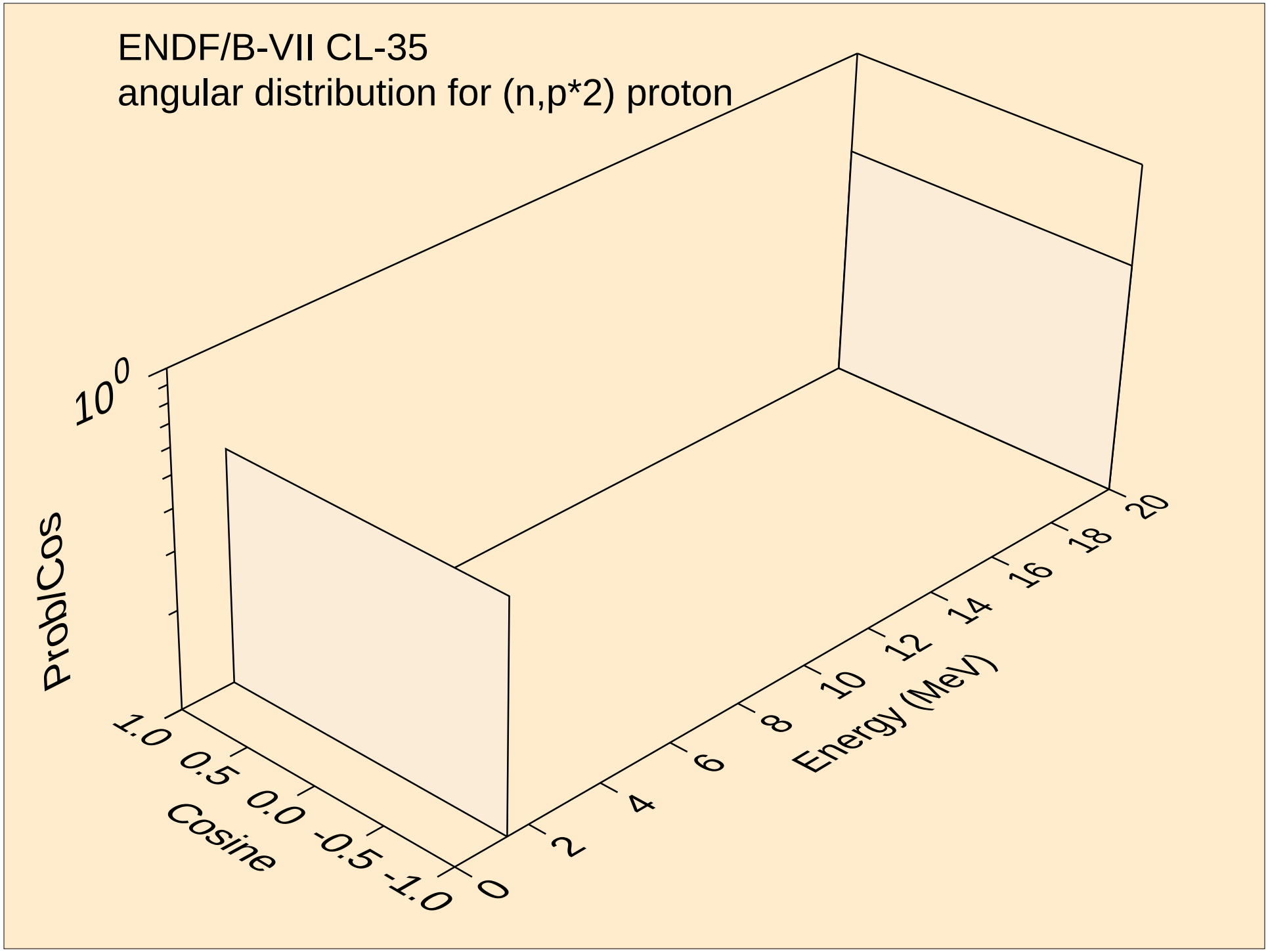

ENDF/B-VII CL-35
protons from (n,n*)p
Prob/MeV
10^-1
10^-3
0
Sec. Energy
10
20
6
8
10
12
14
16
18
20
Energy (MeV)

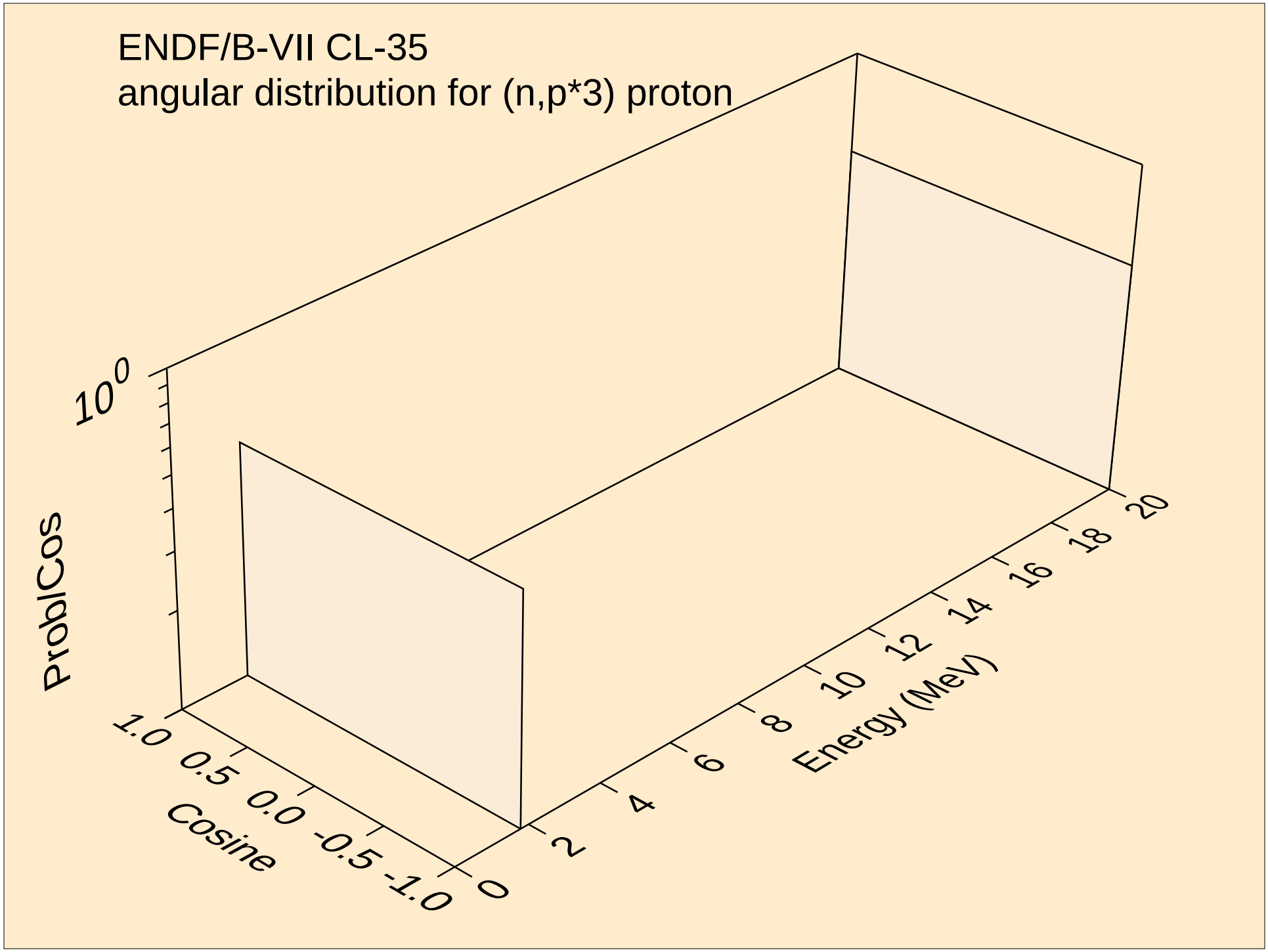

ENDF/B-VII CL-35
protons from (n,2p)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
Sec. Energy
0
5
10
Energy (MeV)
10
12
14
16
18
20

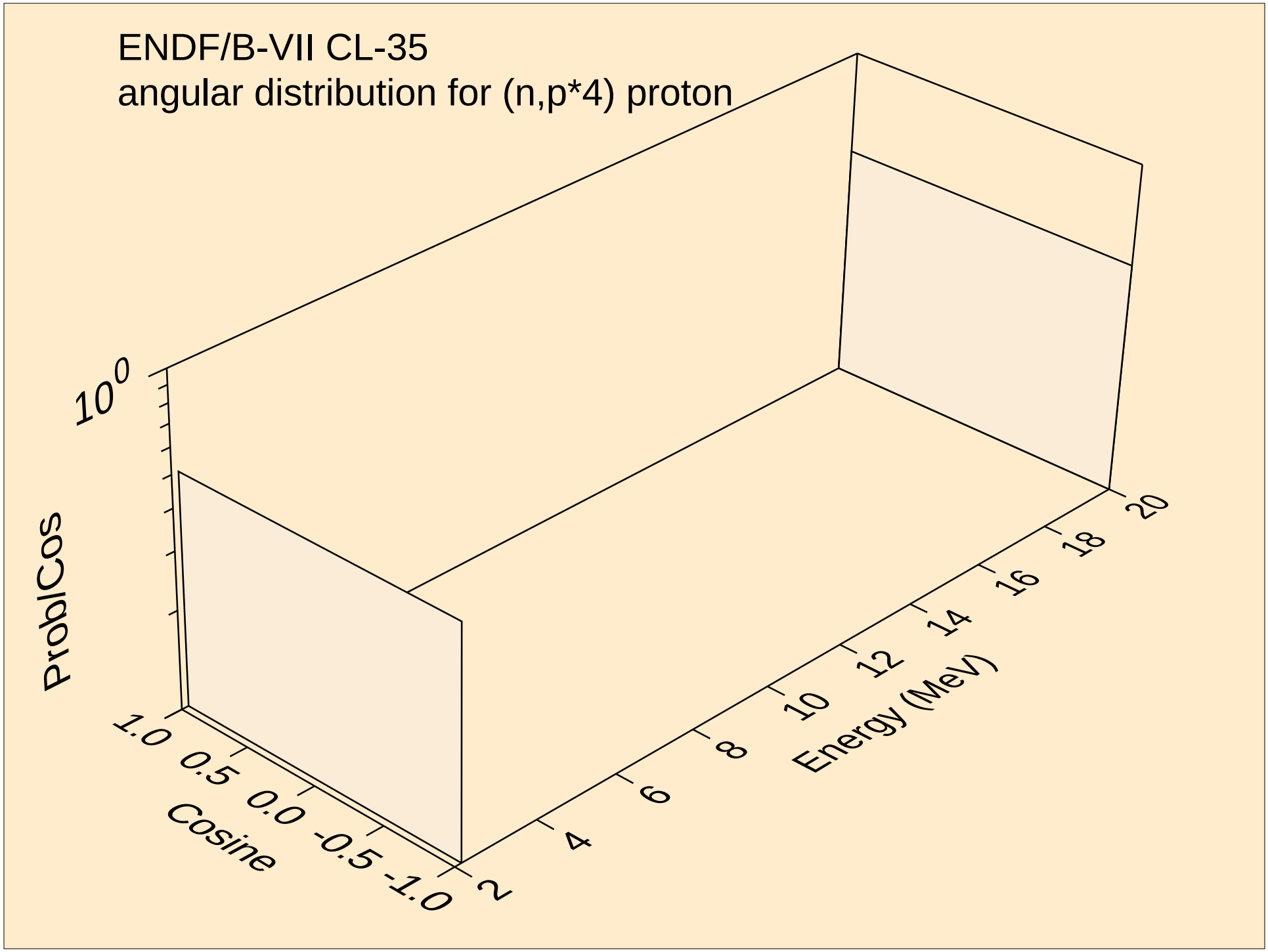

ENDF/B-VII CL-35
protons from (n,pa)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
5
10
6
8
10
12
14
16
18
20
Energy (MeV)

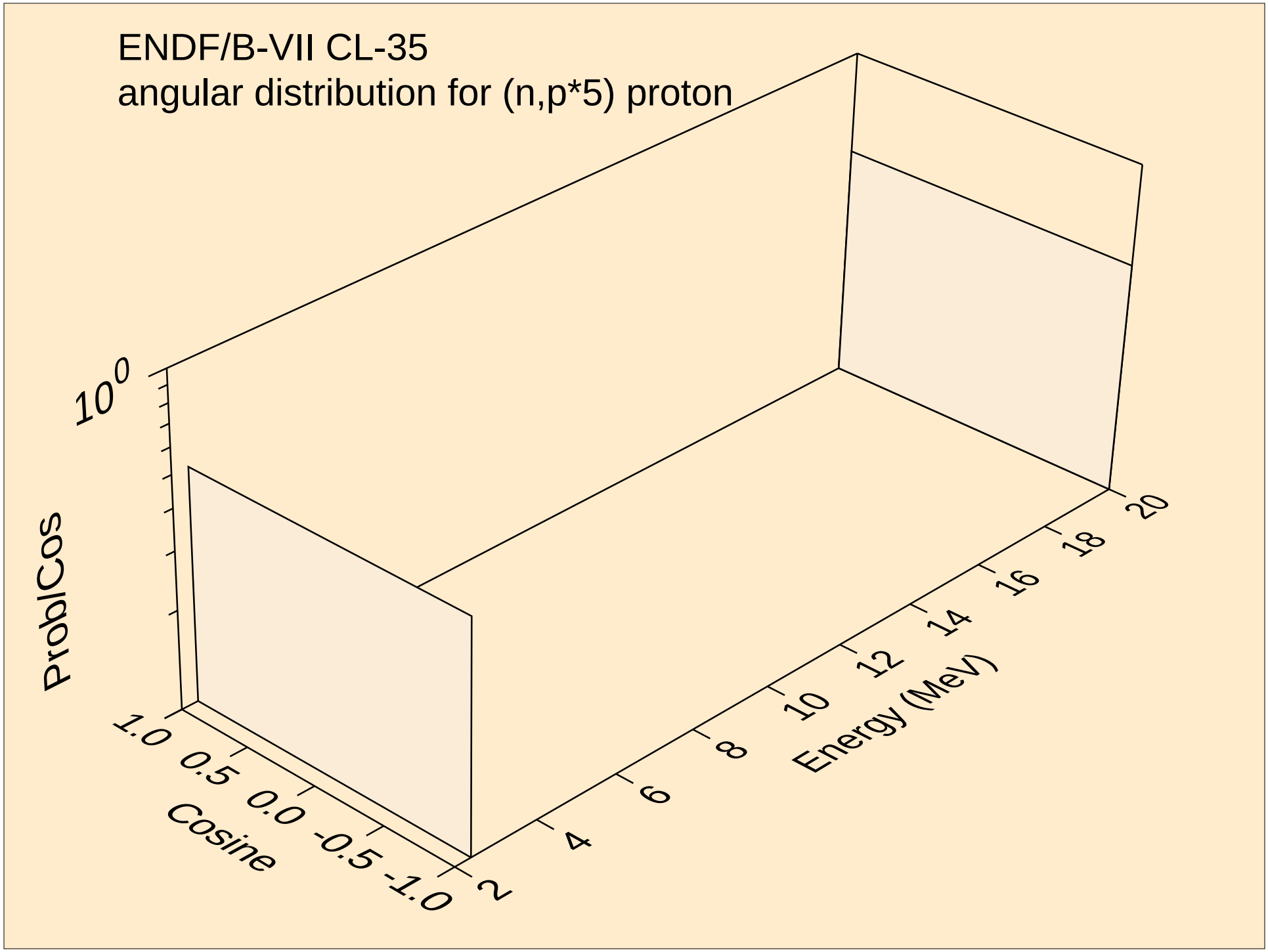

ENDF/B-VII CL-35
angular distribution for (n,p*0) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

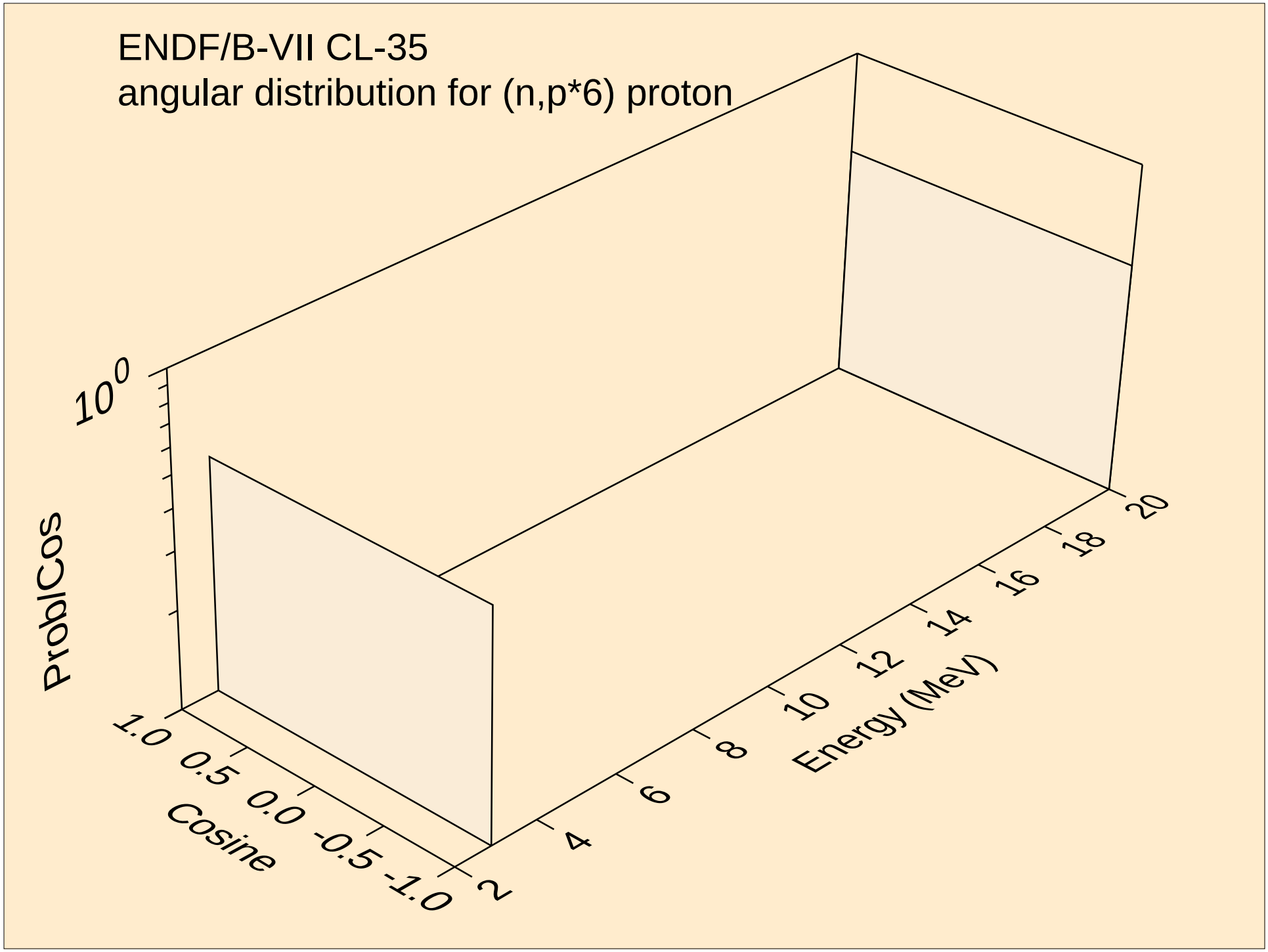

ENDF/B-VII CL-35
angular distribution for (n,p*1) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

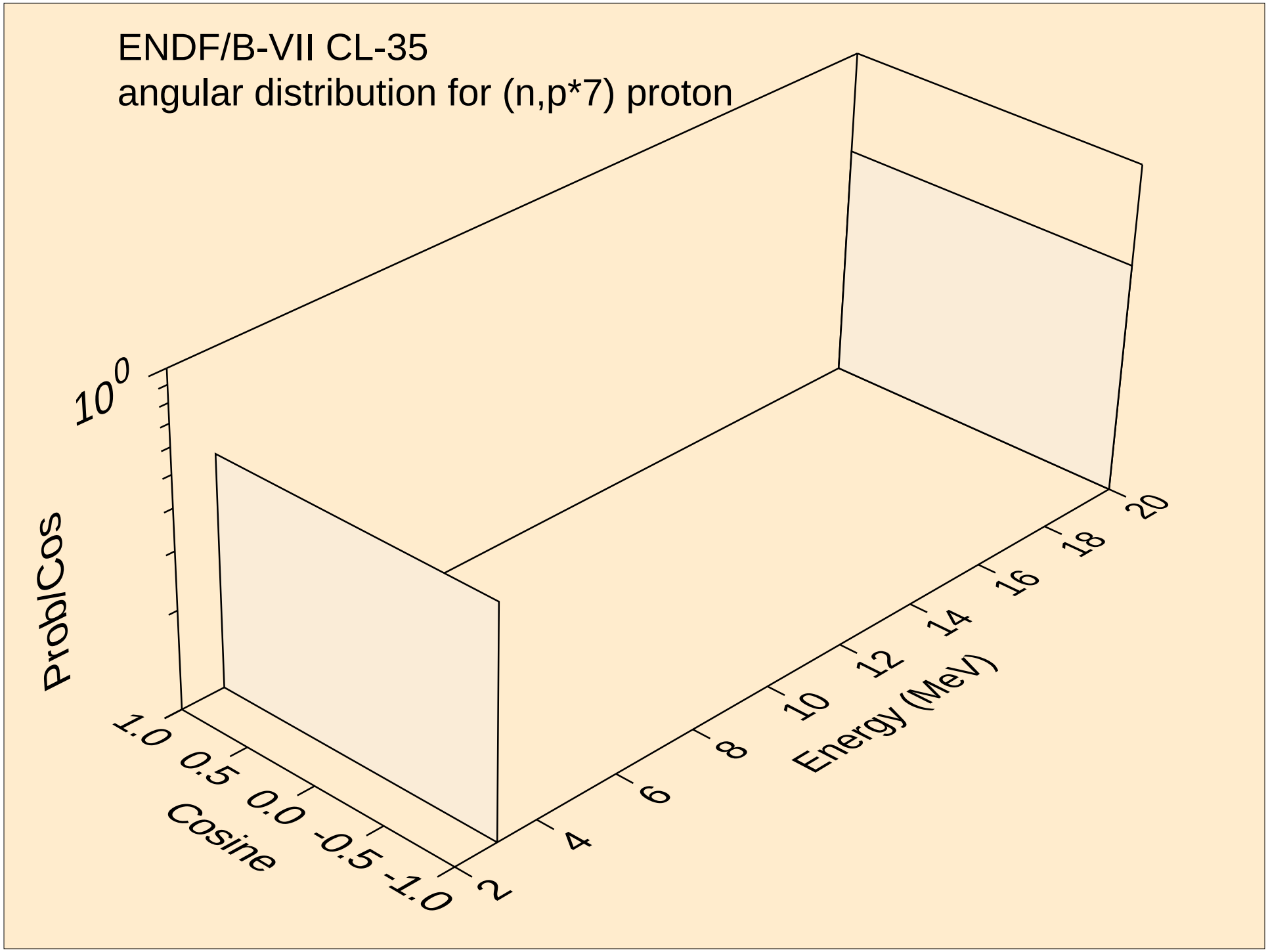

ENDF/B-VII CL-35
angular distribution for (n,p*2) proton
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

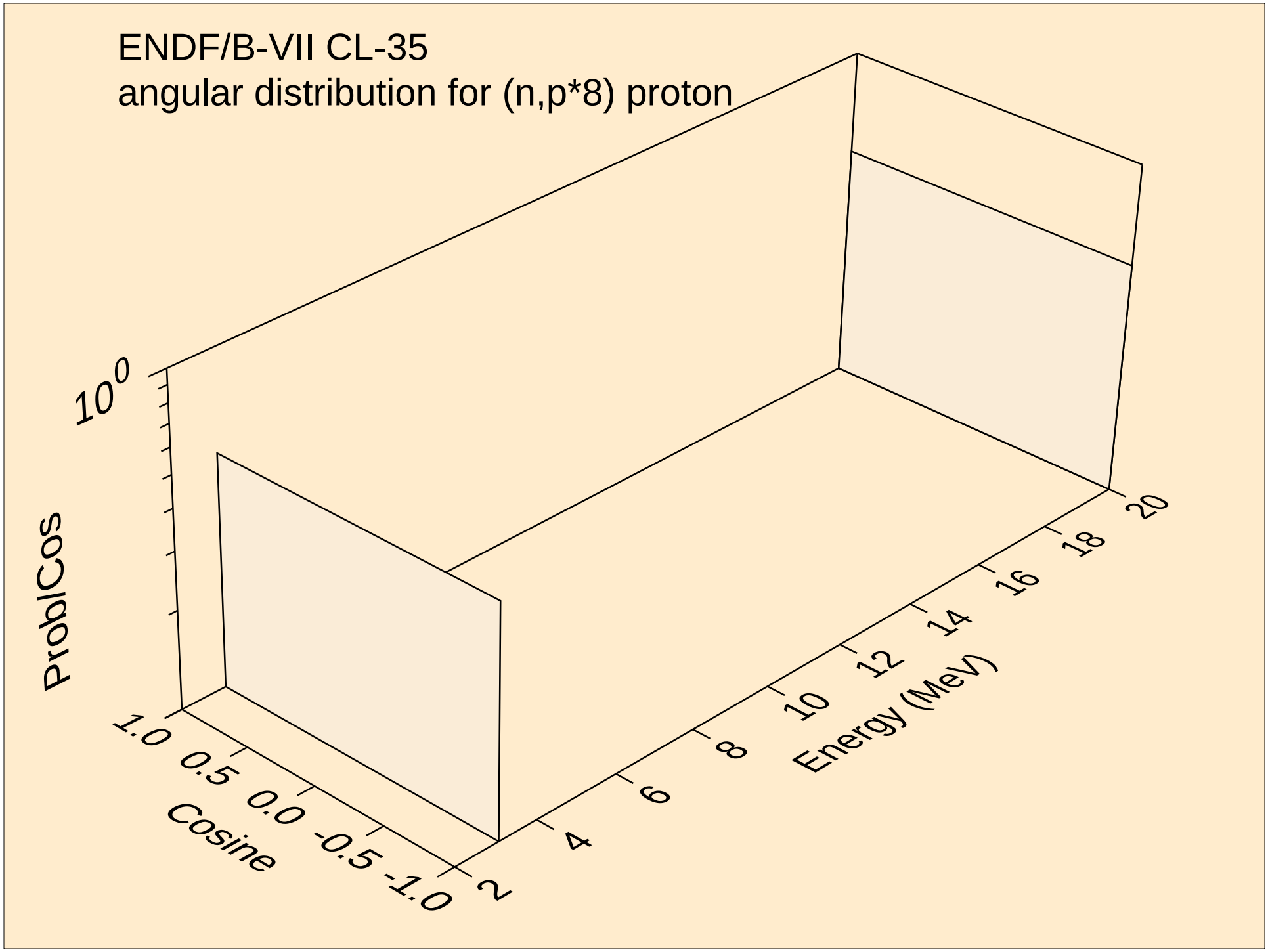

ENDF/B-VII CL-35
angular distribution for (n,p*3) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

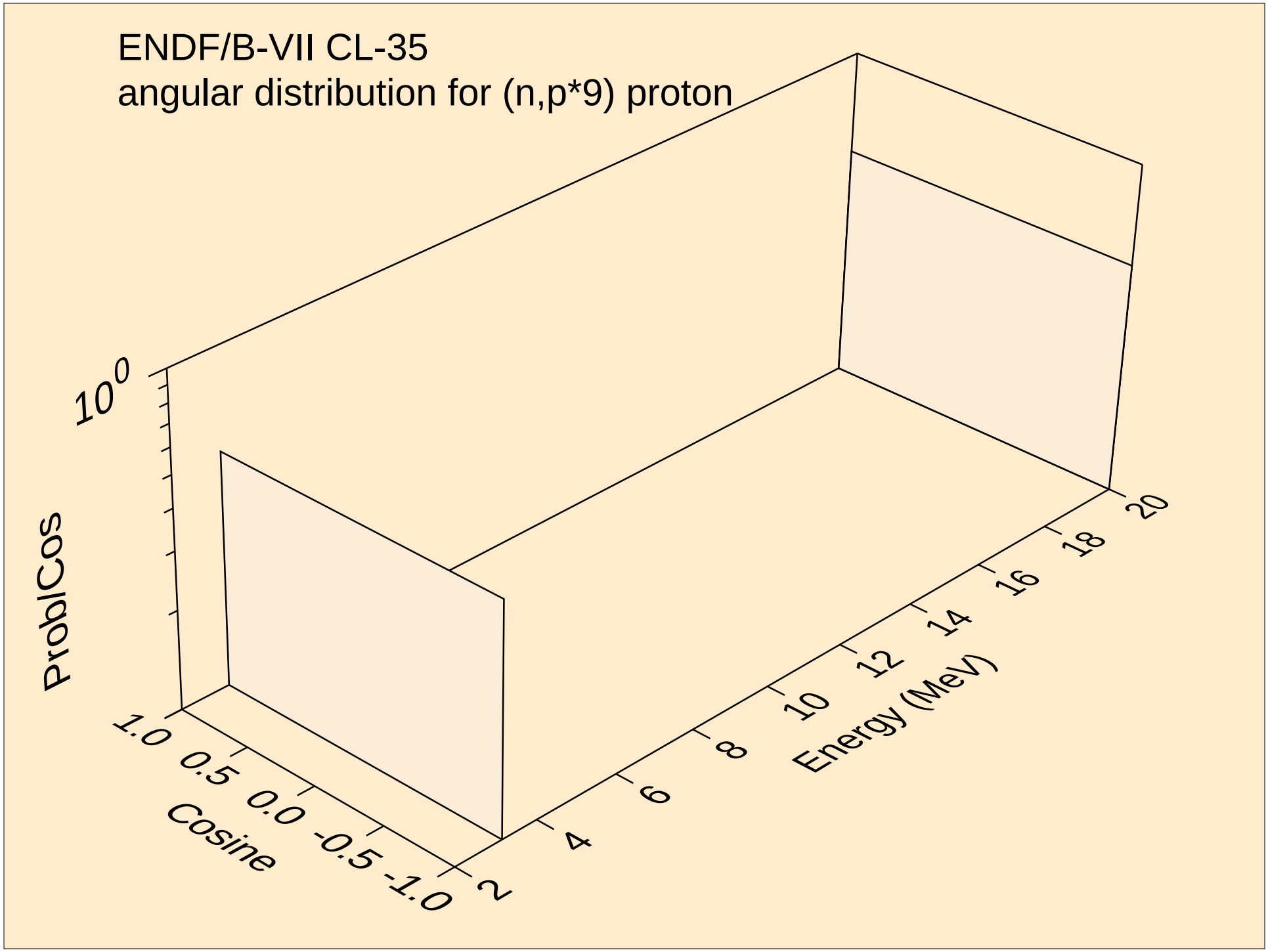

ENDF/B-VII CL-35
angular distribution for (n,p*4) proton
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

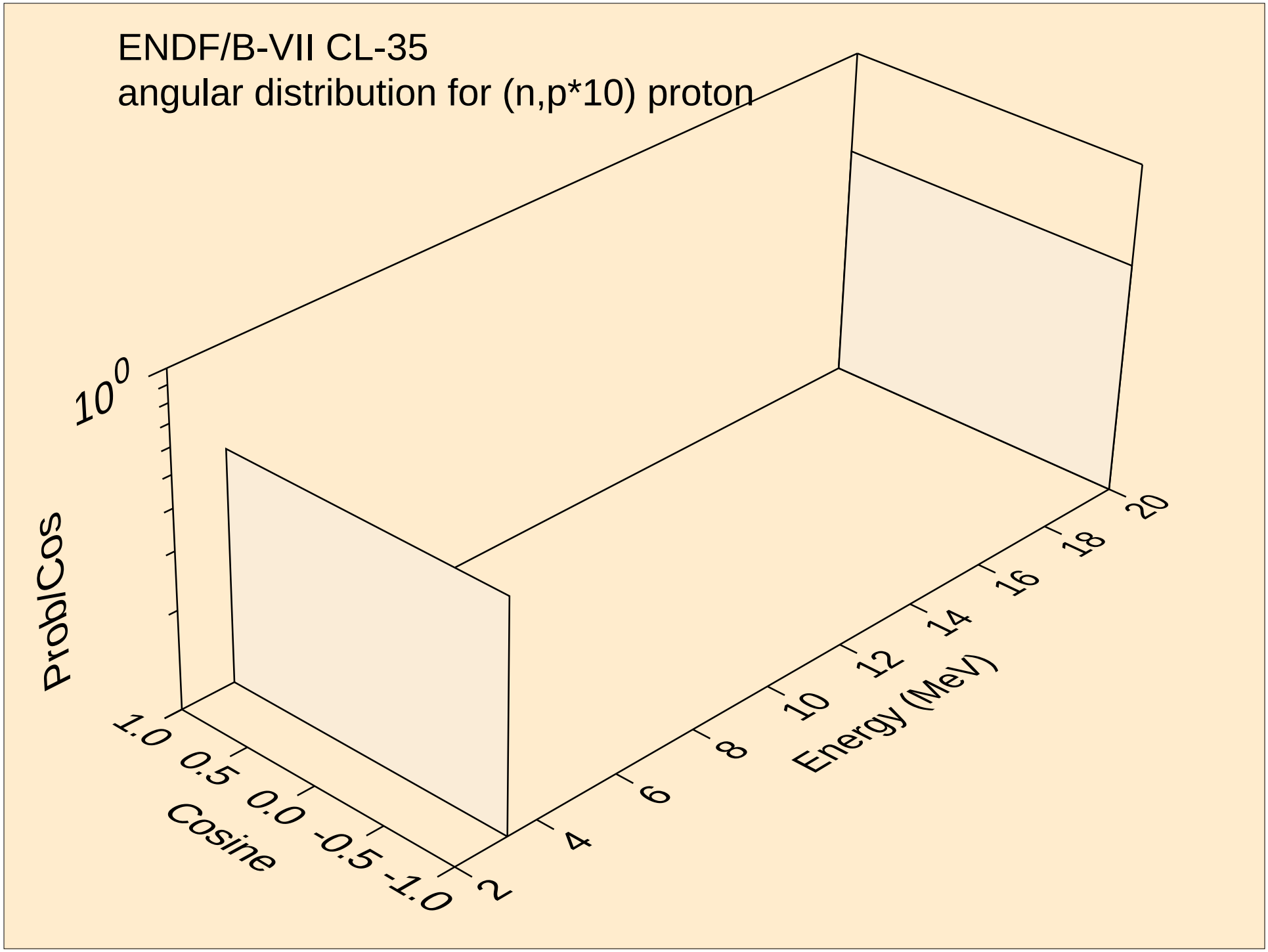

ENDF/B-VII CL-35
angular distribution for (n,p*5) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

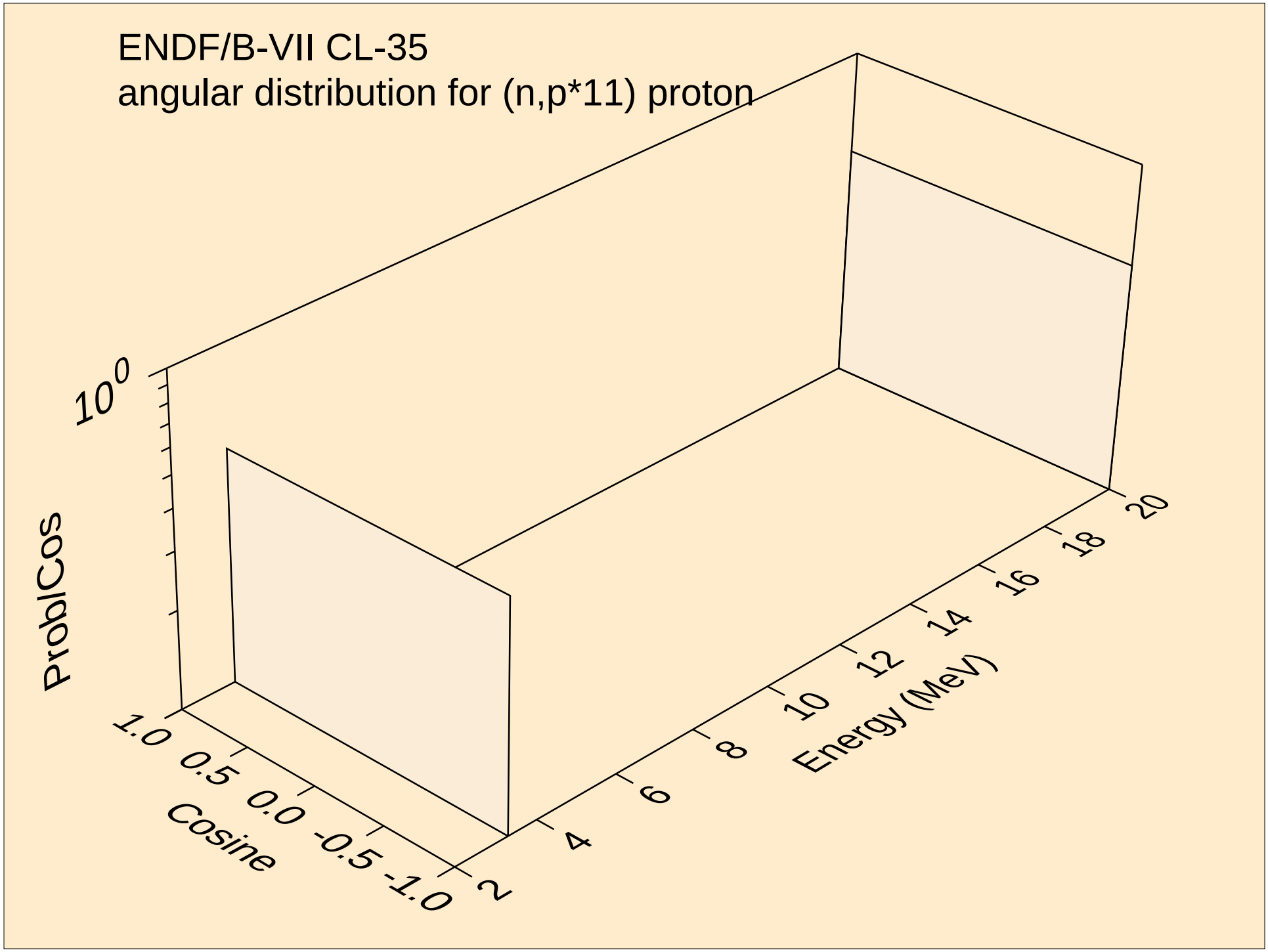

ENDF/B-VII CL-35
angular distribution for (n,p*6) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

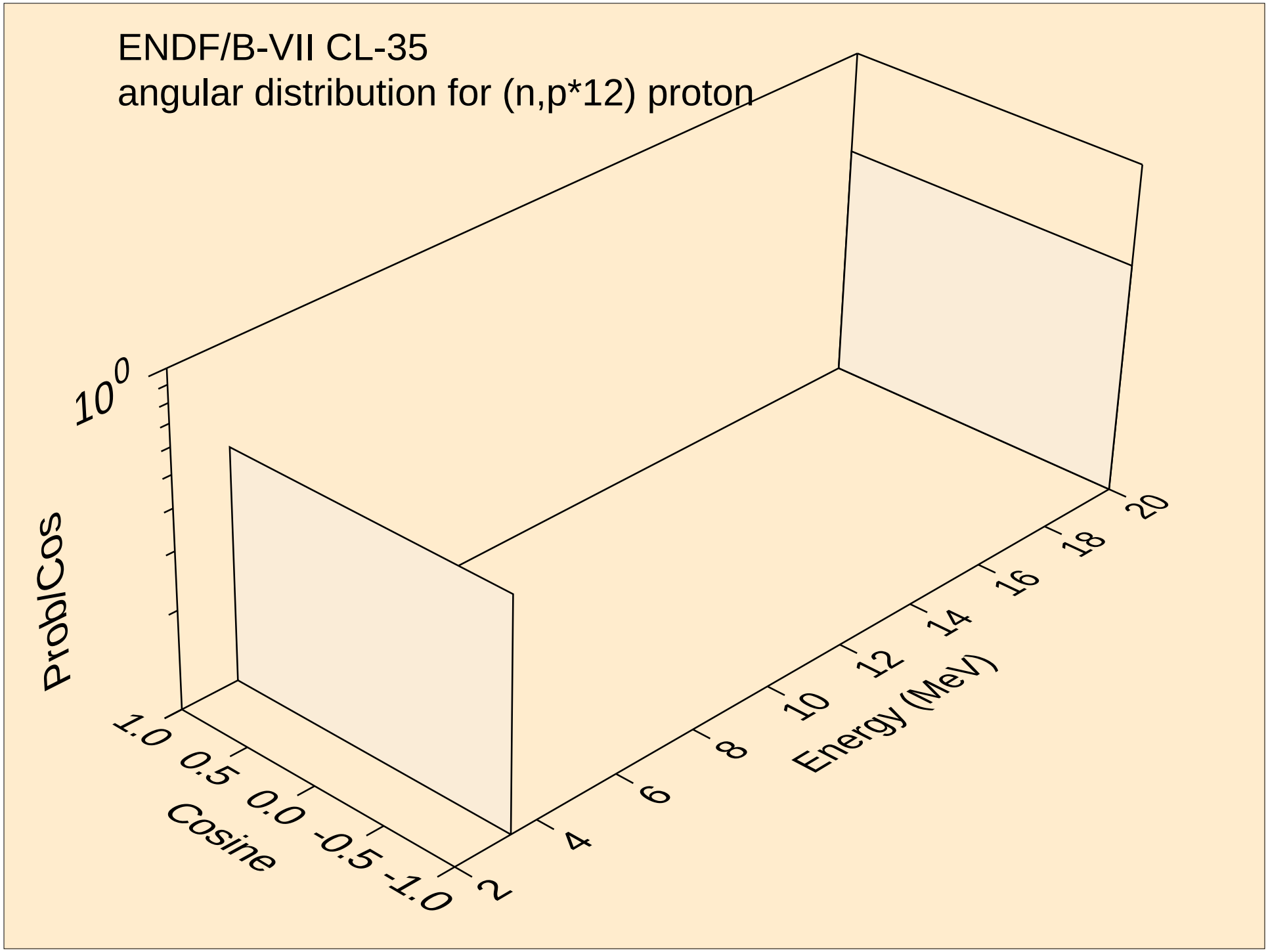

ENDF/B-VII CL-35
angular distribution for (n,p*7) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

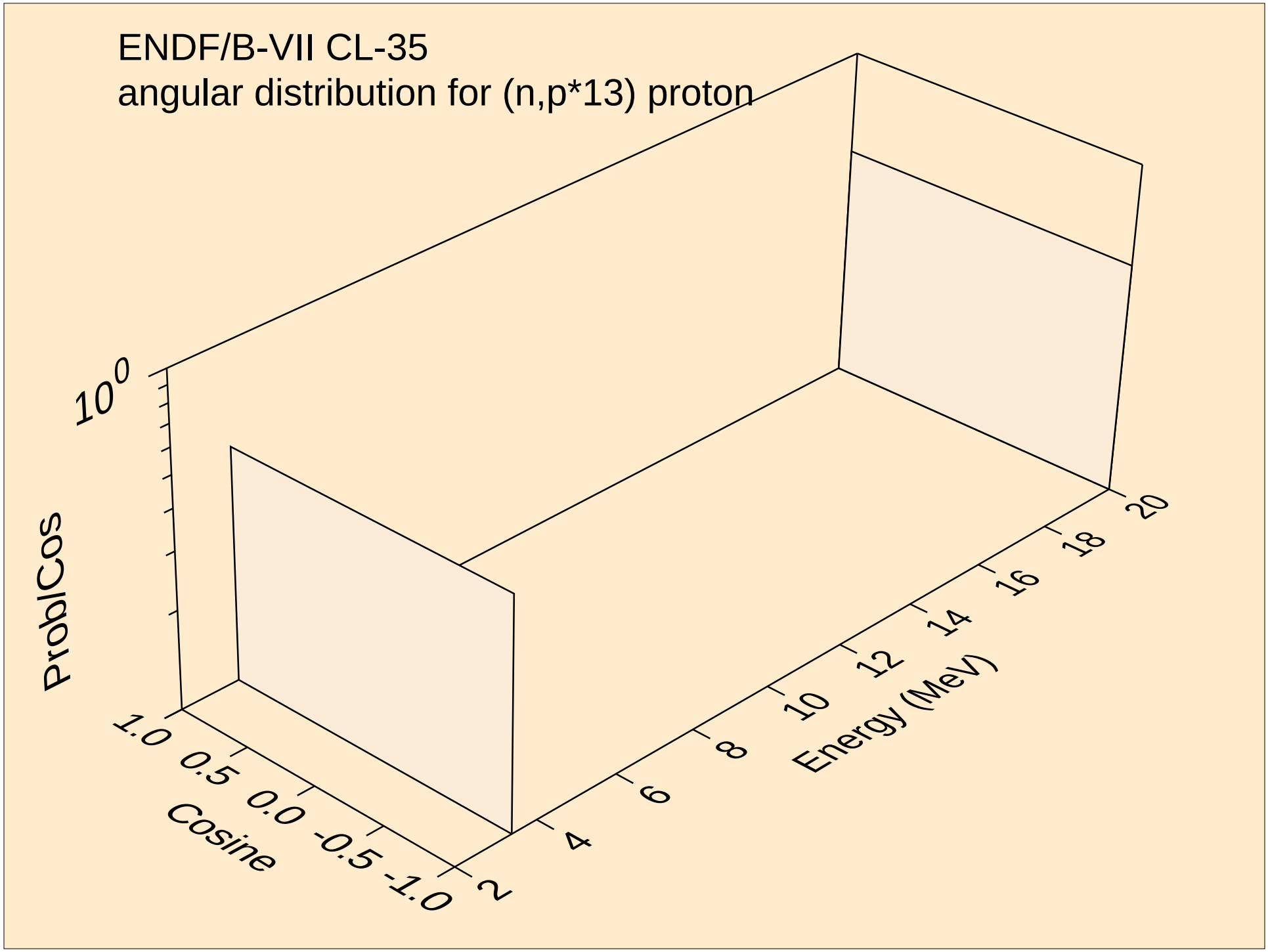

ENDF/B-VII CL-35
angular distribution for (n,p*8) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

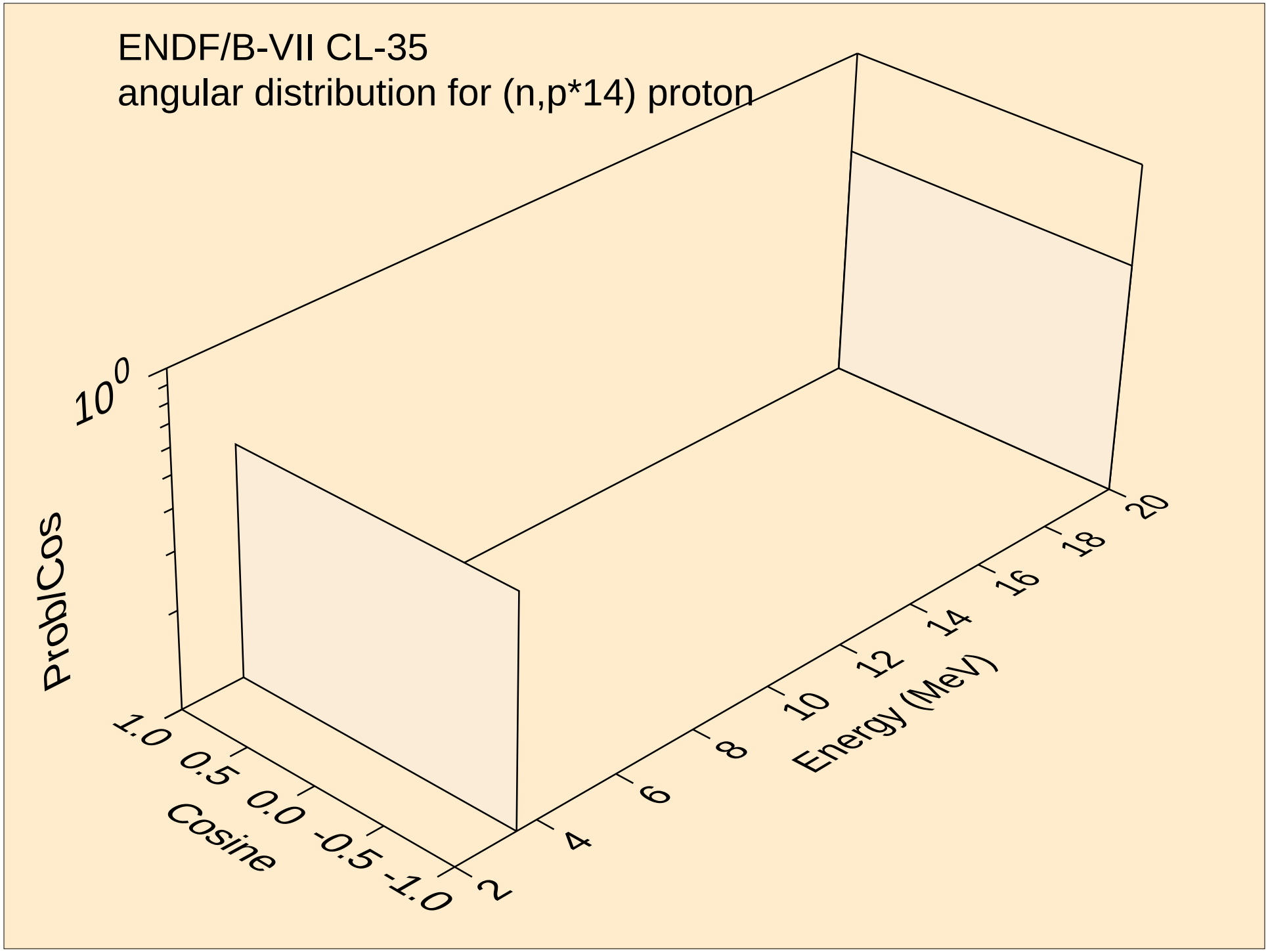

ENDF/B-VII CL-35
angular distribution for (n,p*9) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

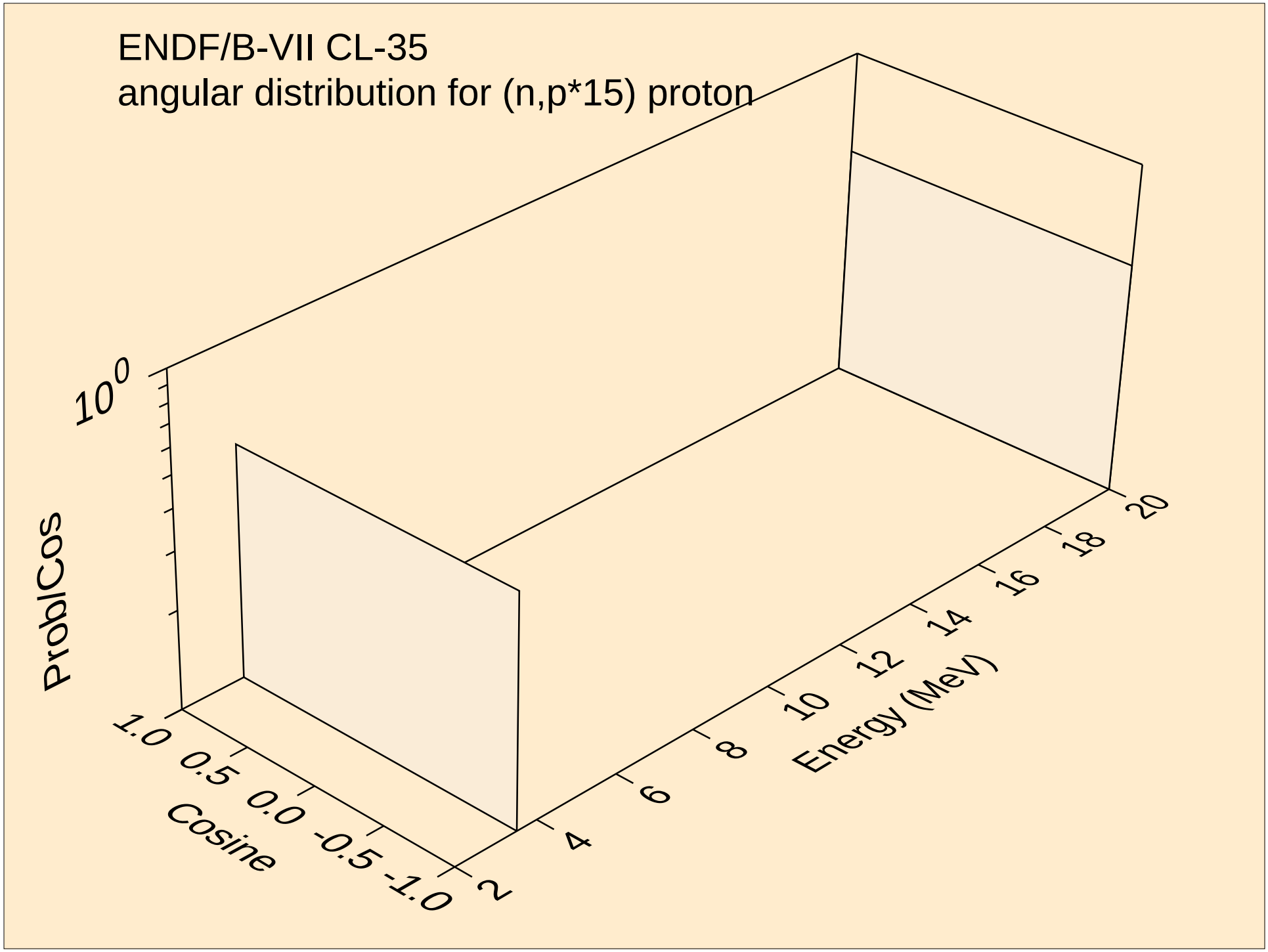

ENDF/B-VII CL-35
angular distribution for (n,p*10) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

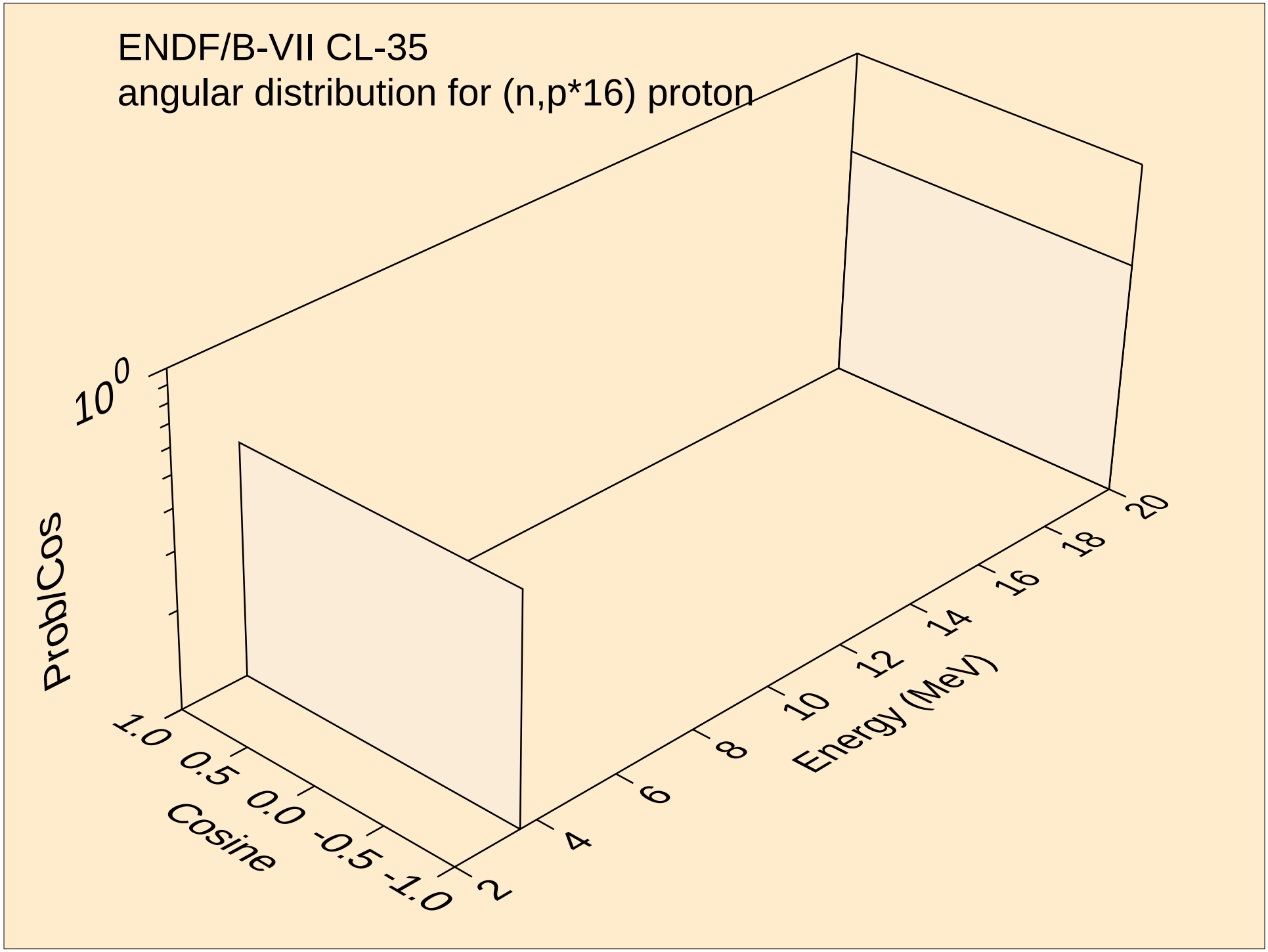

ENDF/B-VII CL-35
angular distribution for (n,p*11) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

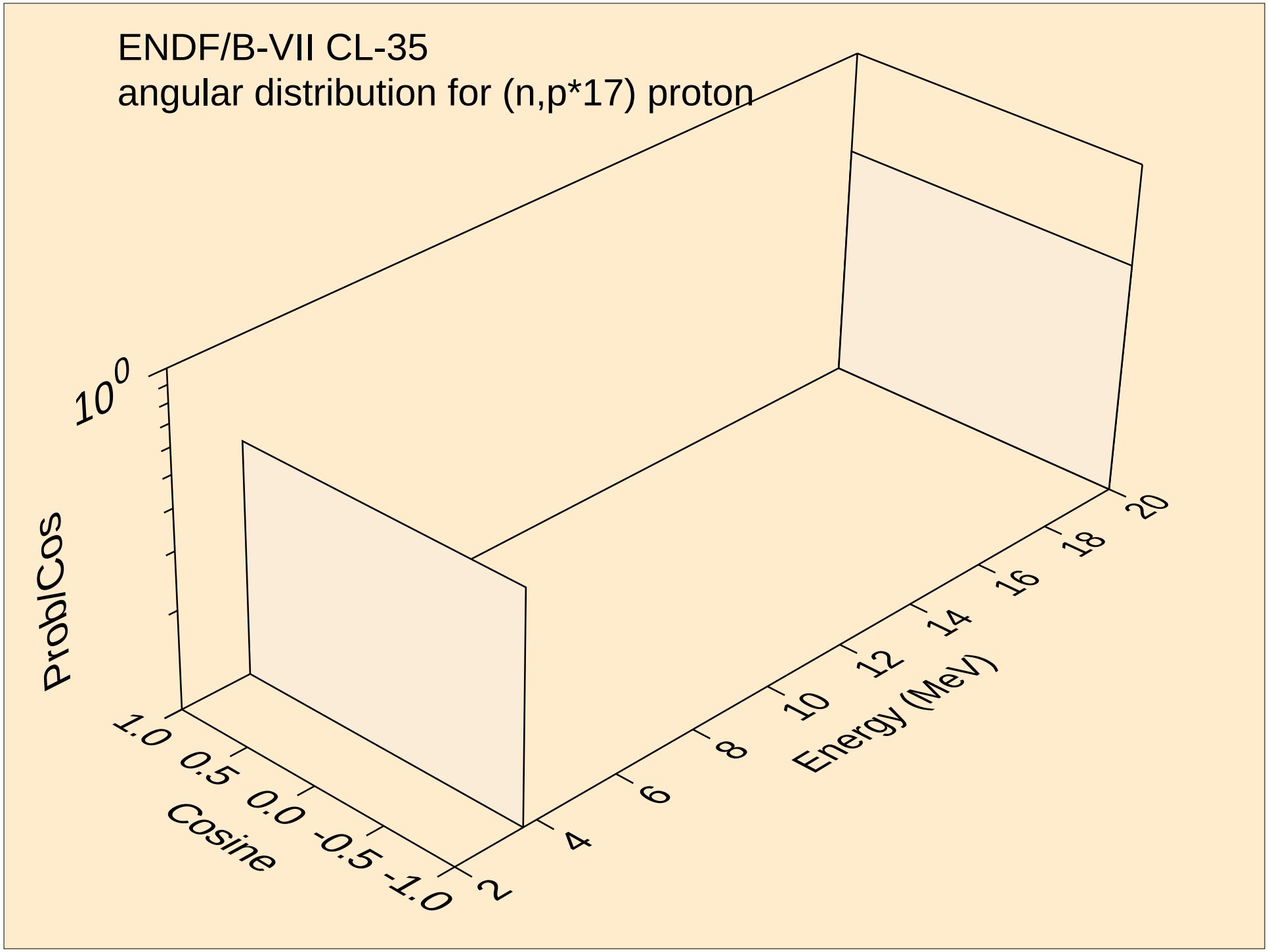

ENDF/B-VII CL-35
angular distribution for (n,p*12) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

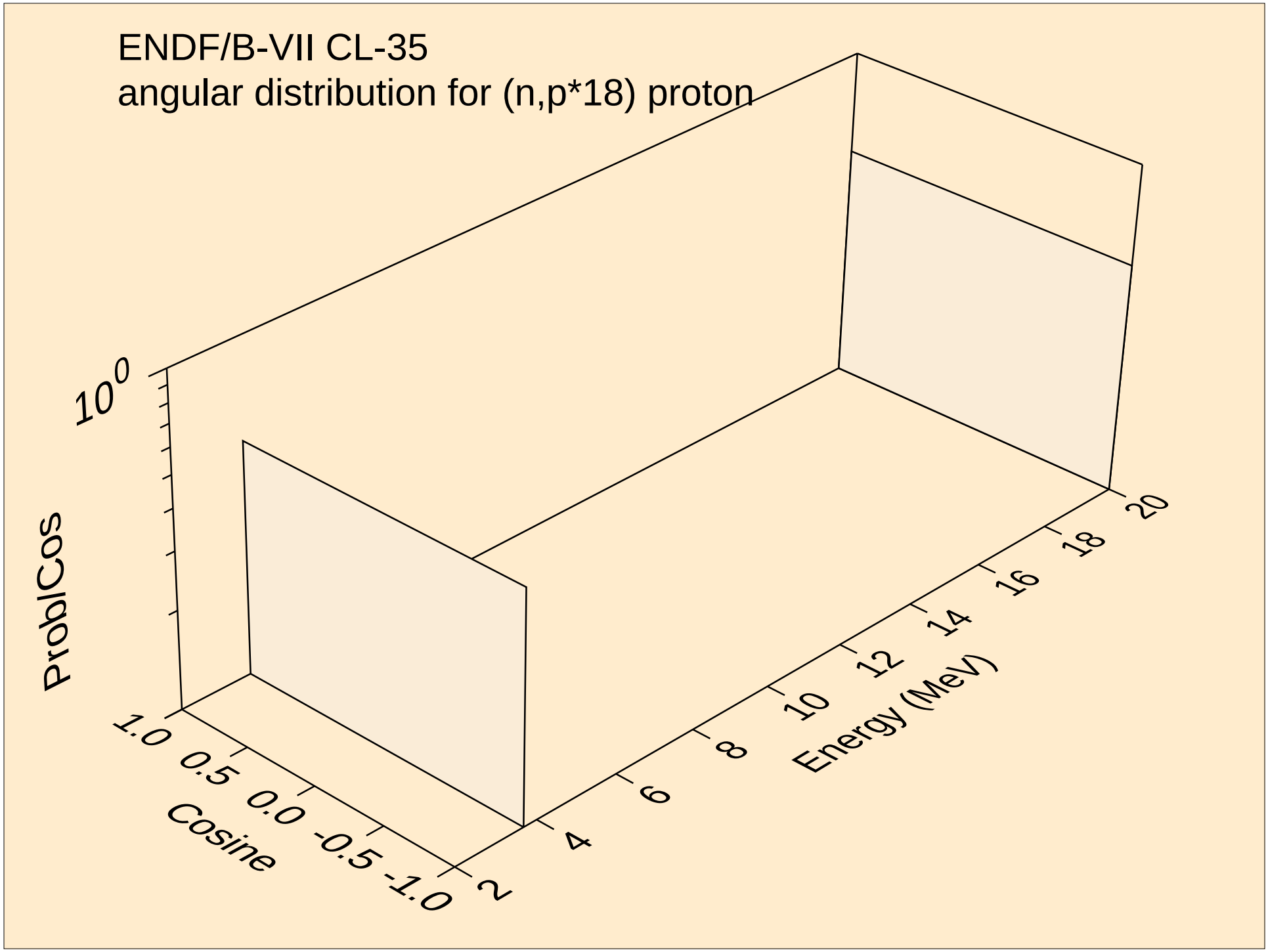

ENDF/B-VII CL-35
angular distribution for (n,p*13) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

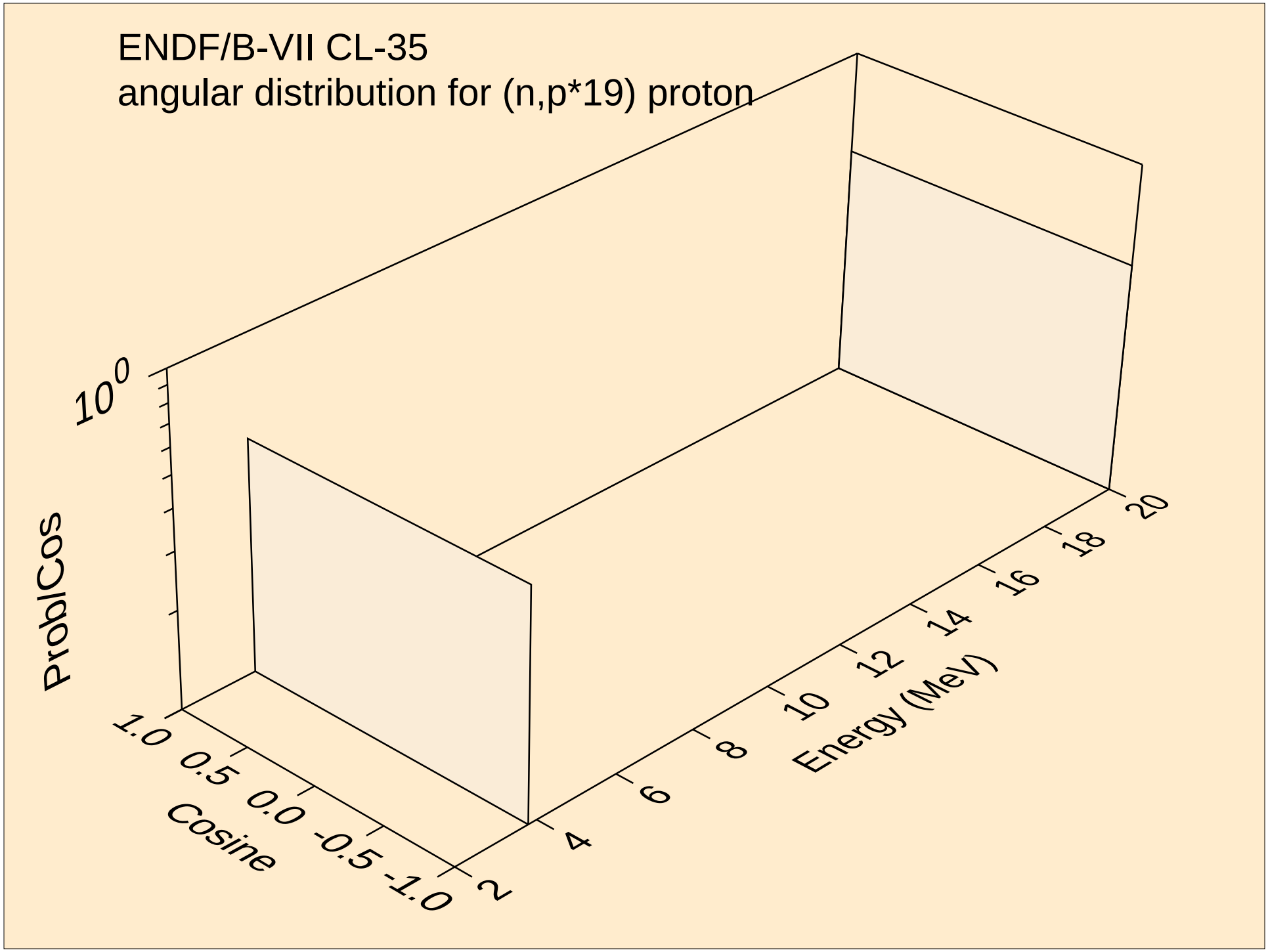

ENDF/B-VII CL-35
angular distribution for (n,p*14) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

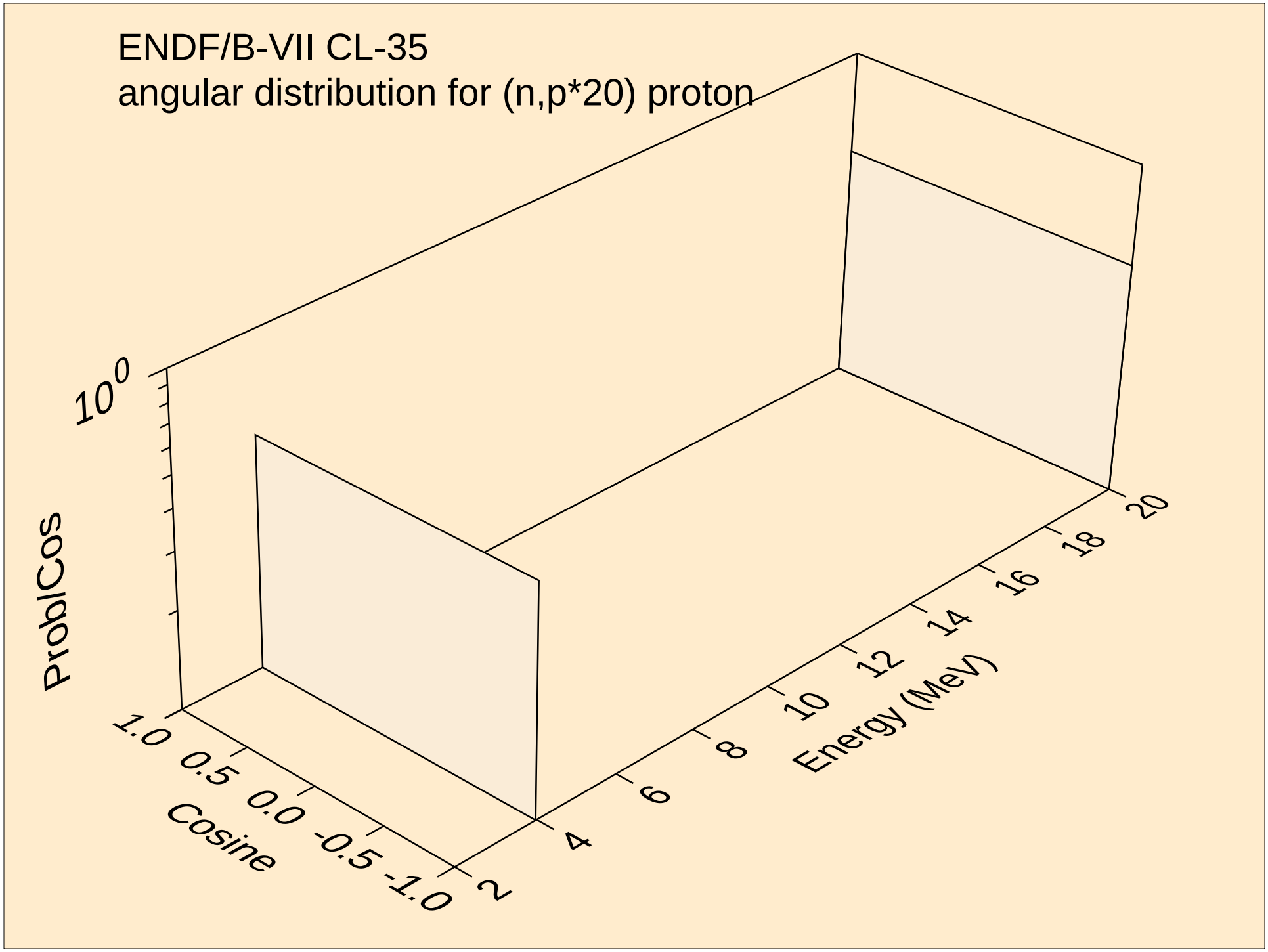

ENDF/B-VII CL-35
angular distribution for (n,p*15) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

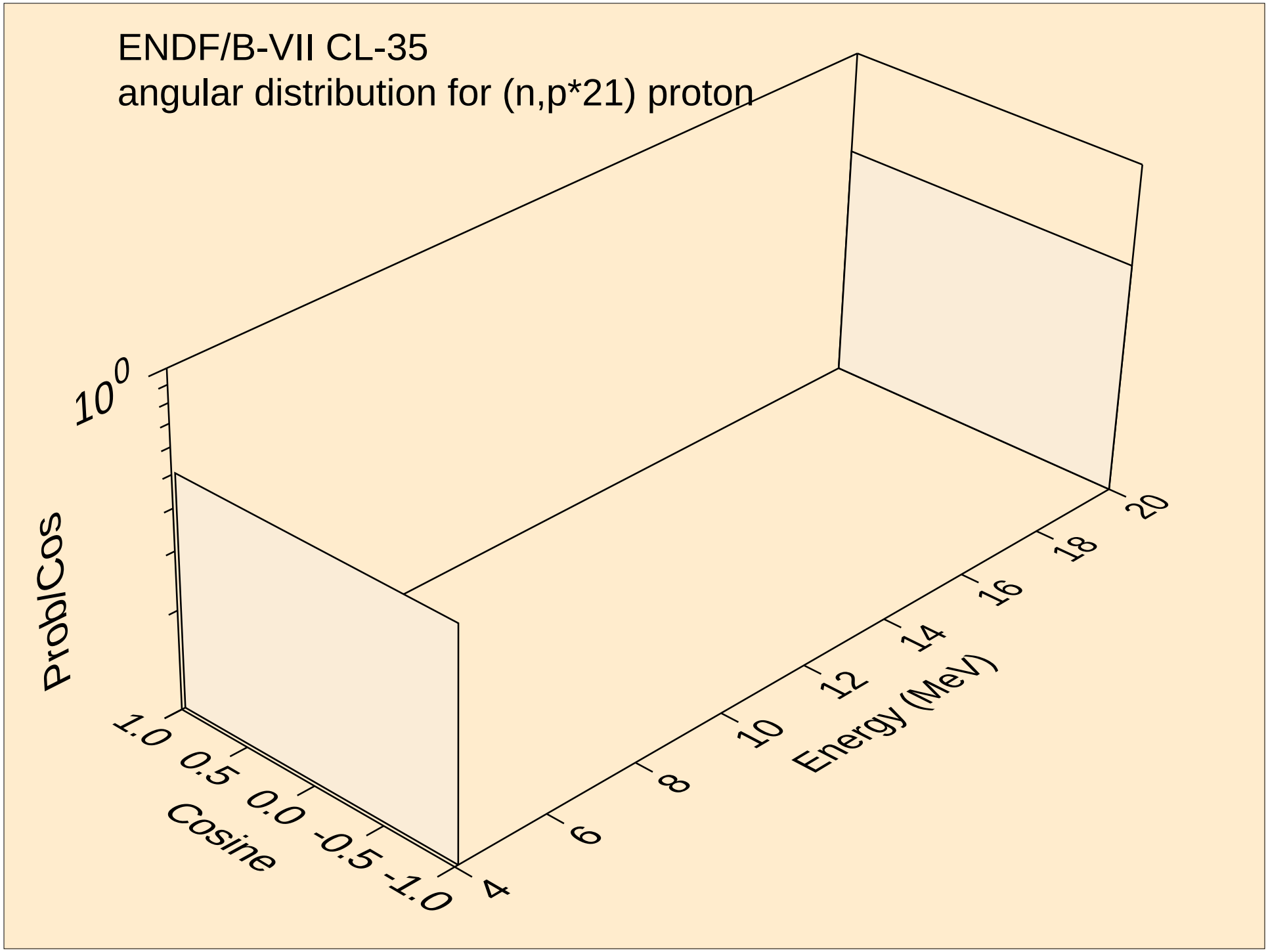

ENDF/B-VII CL-35
angular distribution for (n,p*16) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

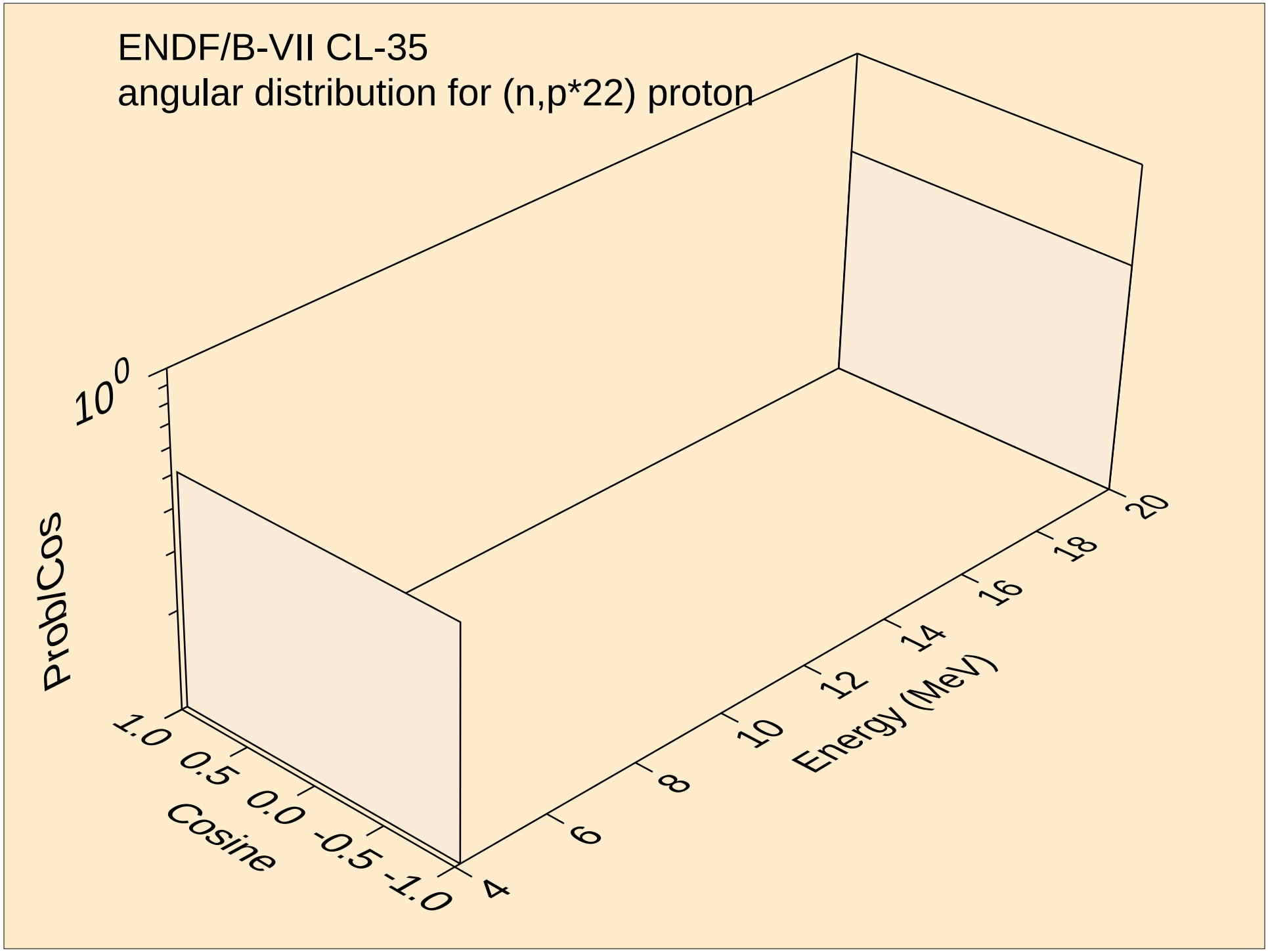

ENDF/B-VII CL-35
angular distribution for (n,p*17) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

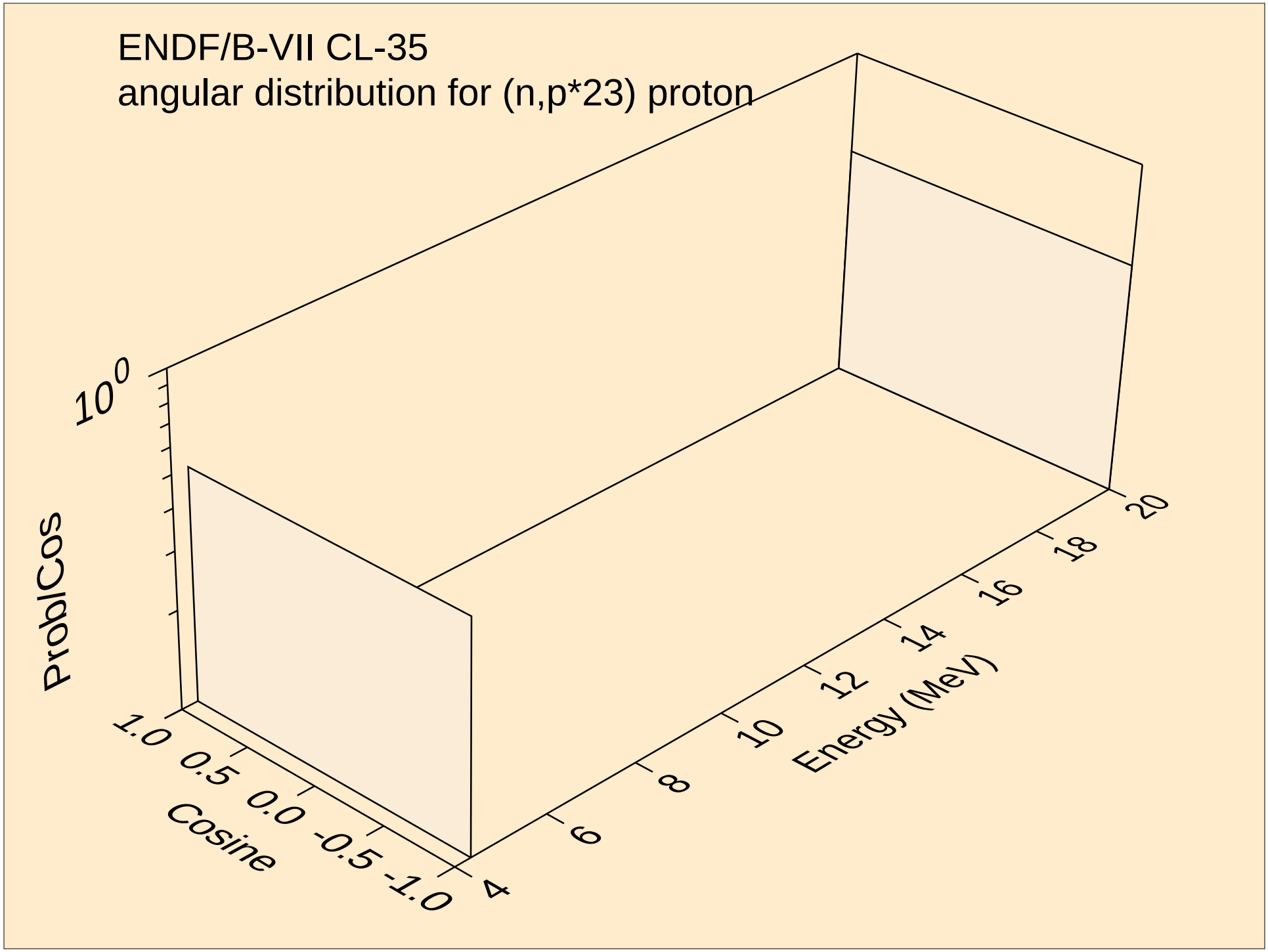

ENDF/B-VII CL-35
angular distribution for (n,p*18) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

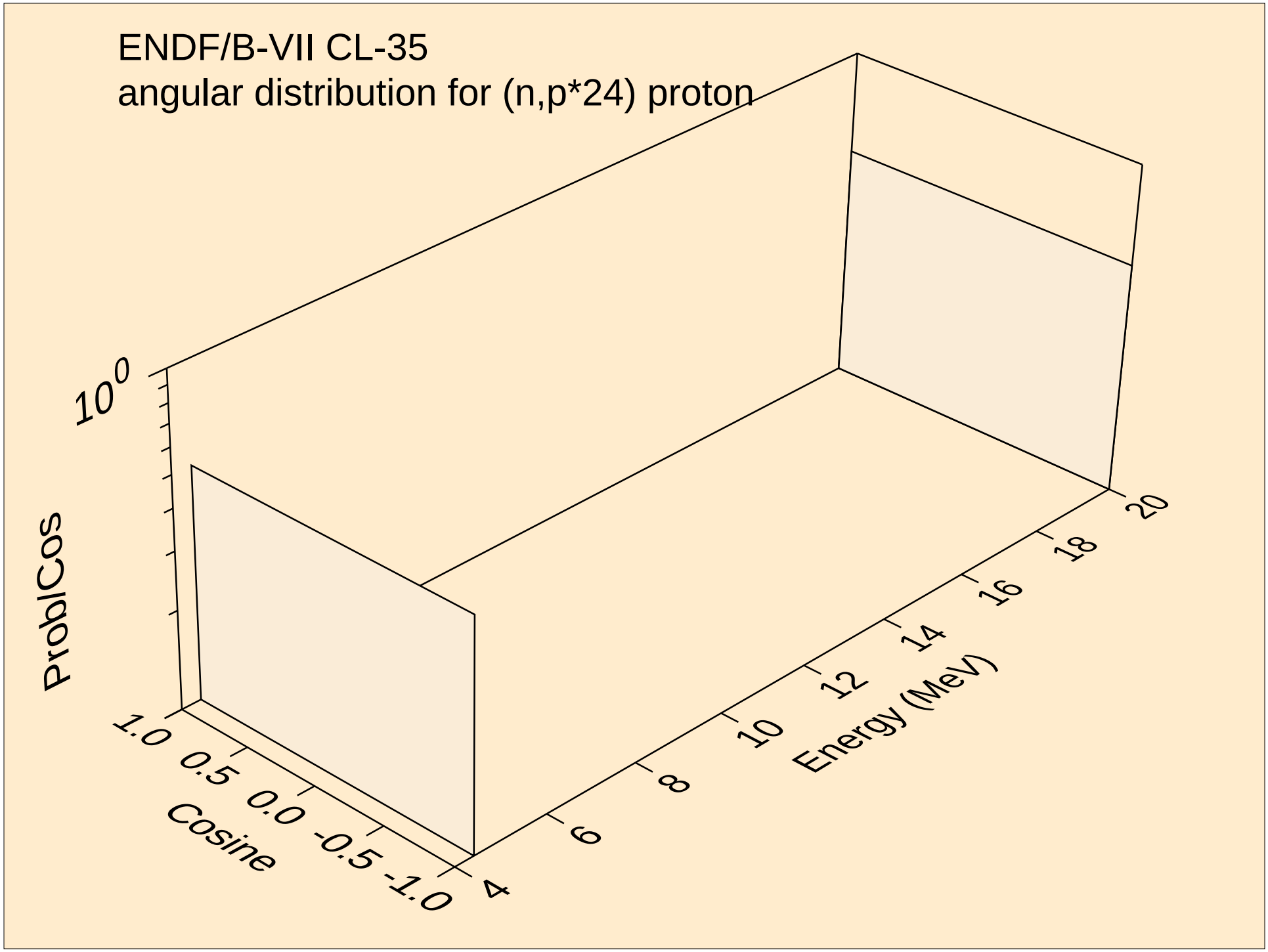

ENDF/B-VII CL-35
angular distribution for (n,p*19) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

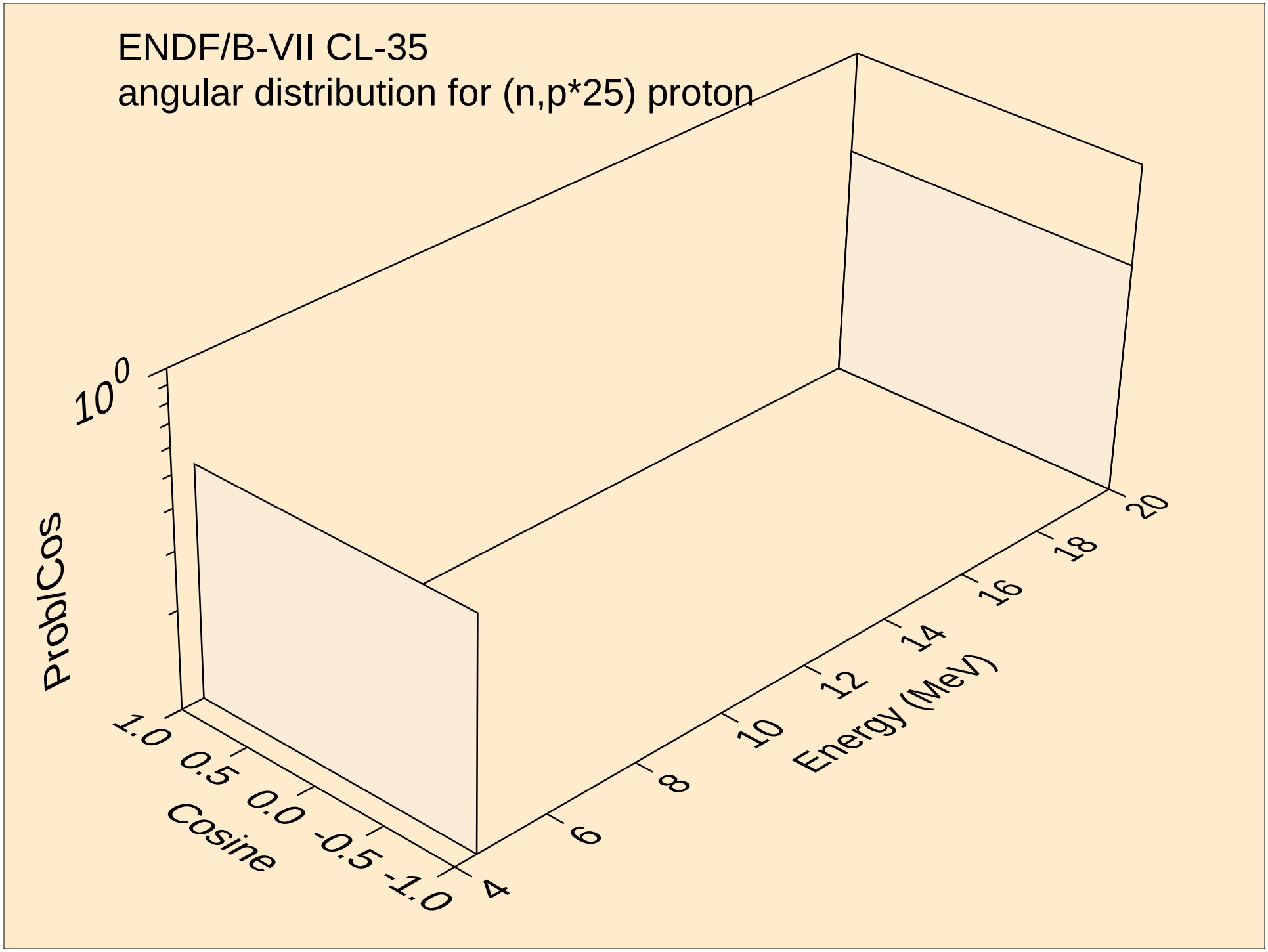

ENDF/B-VII CL-35
angular distribution for (n,p*20) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

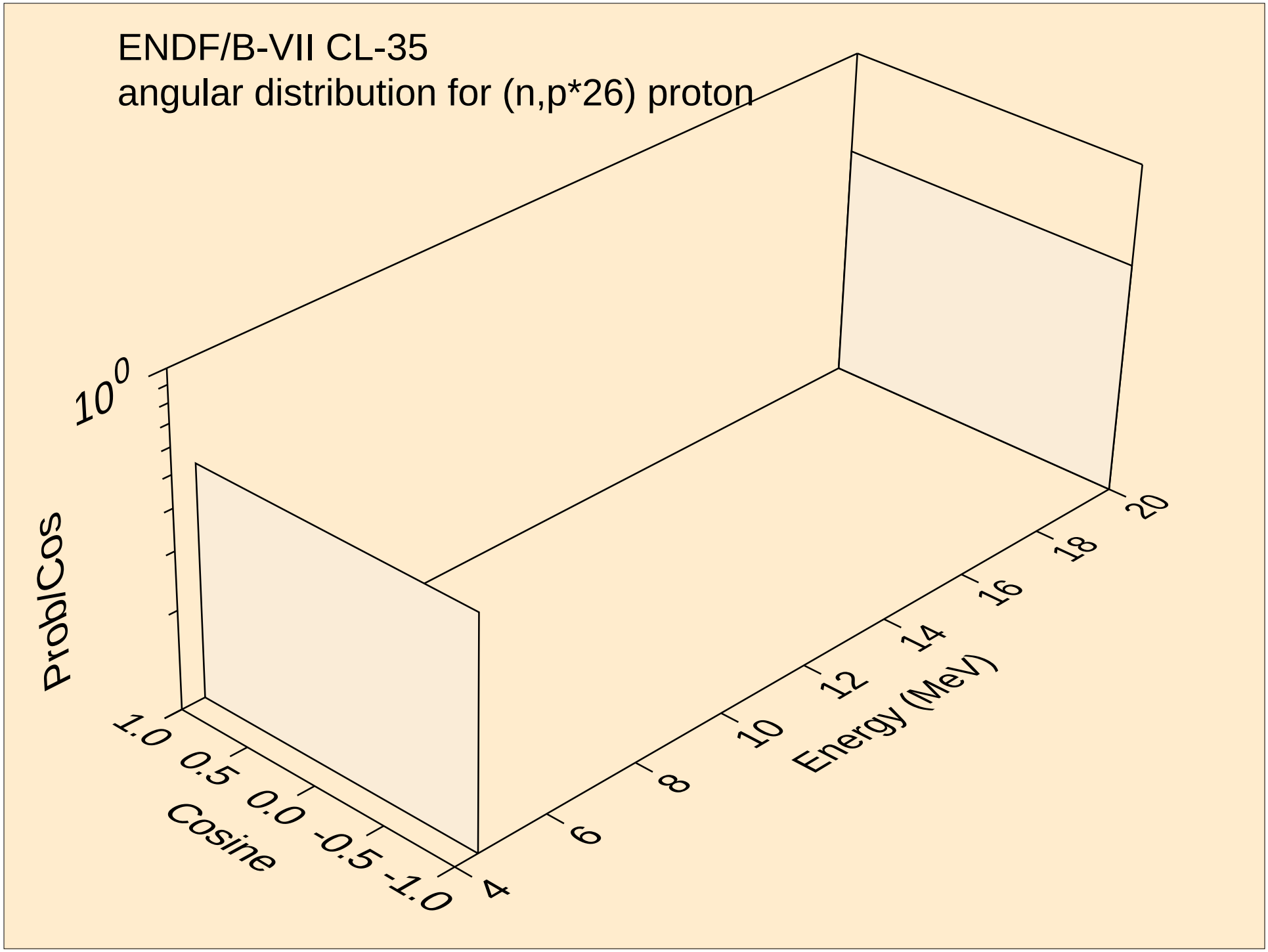

ENDF/B-VII CL-35
angular distribution for (n,p*21) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

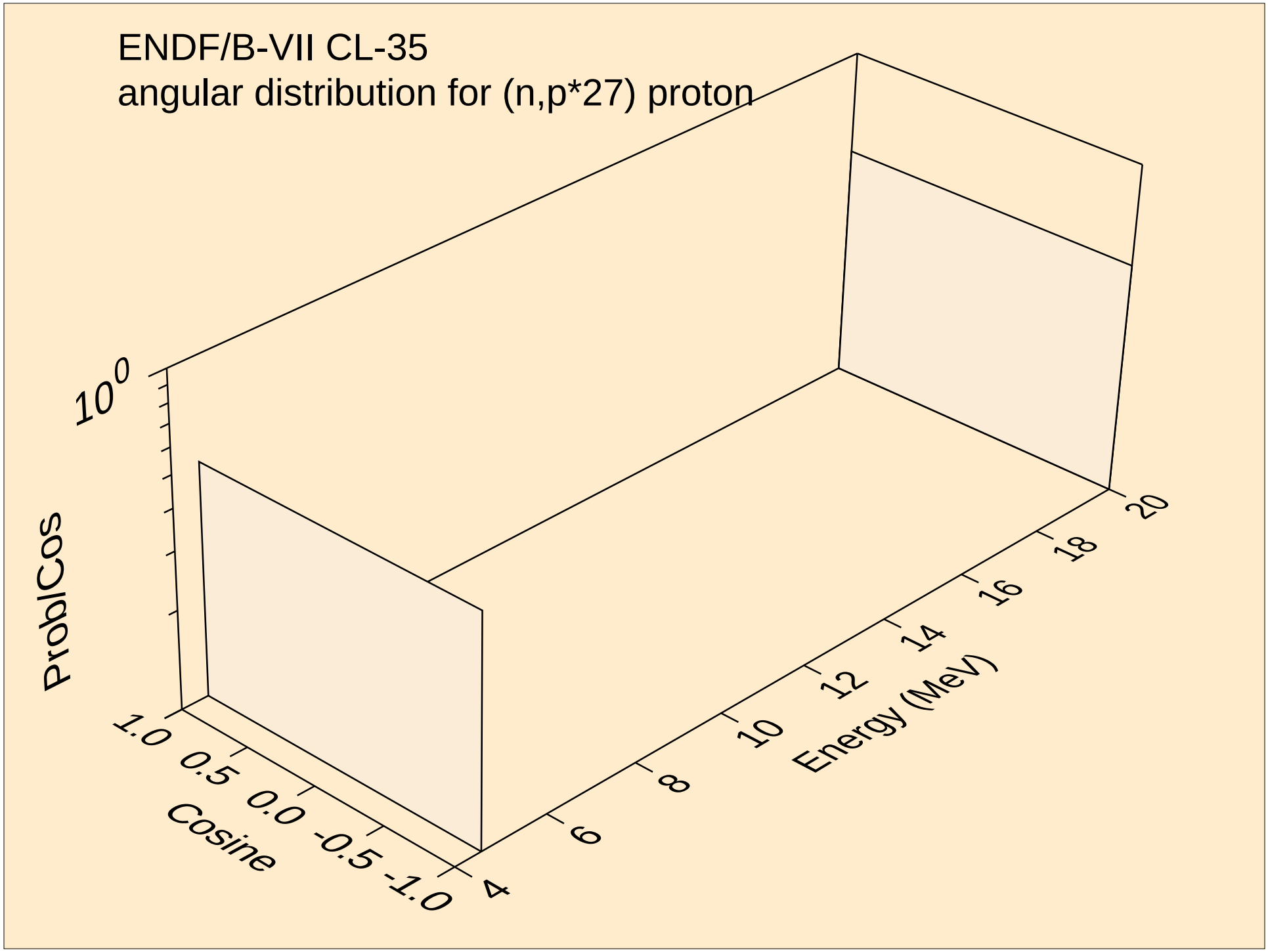

ENDF/B-VII CL-35
angular distribution for (n,p*22) proton
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

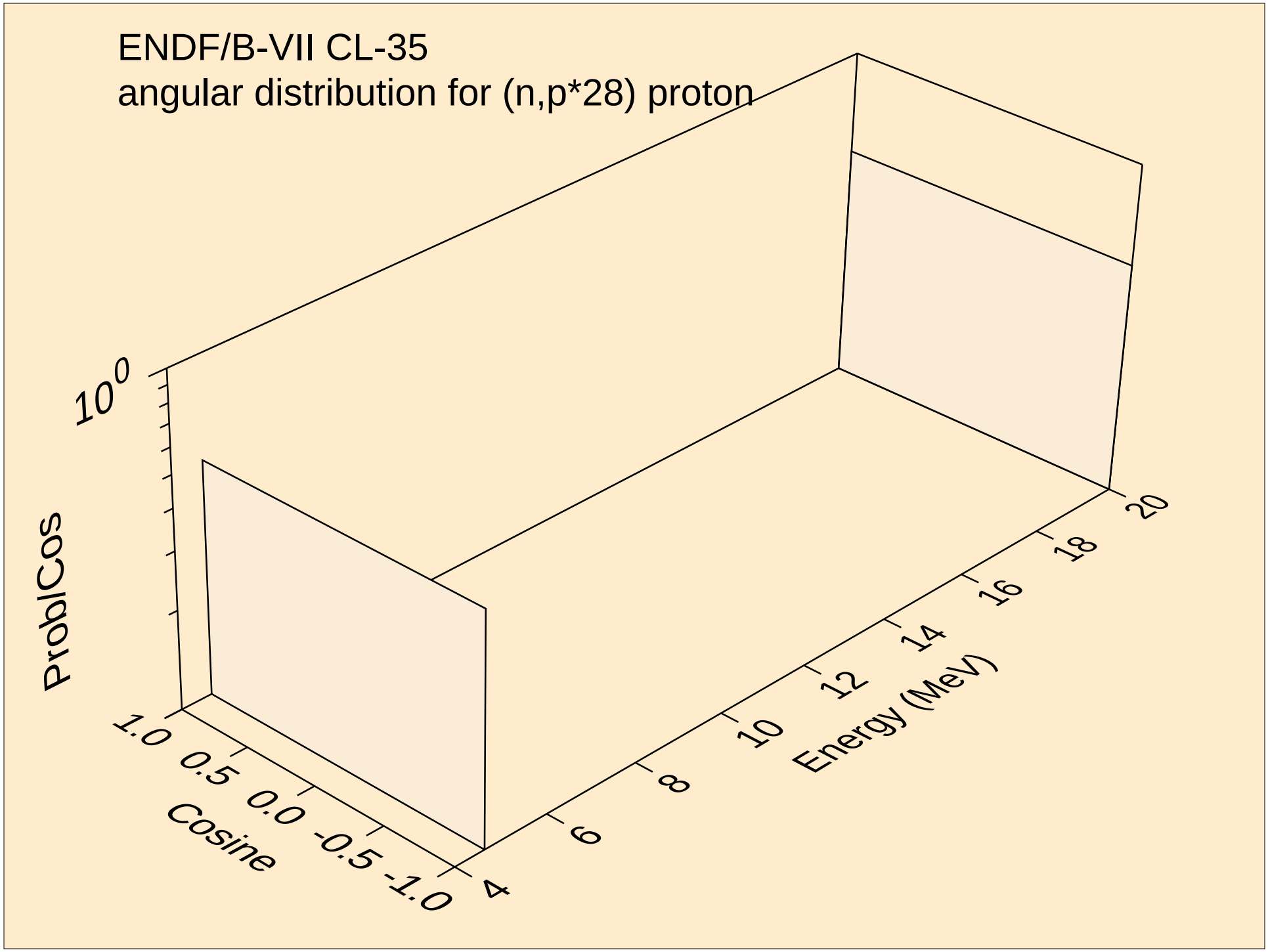

ENDF/B-VII CL-35
angular distribution for (n,p*23) proton
10^0
Prob|Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

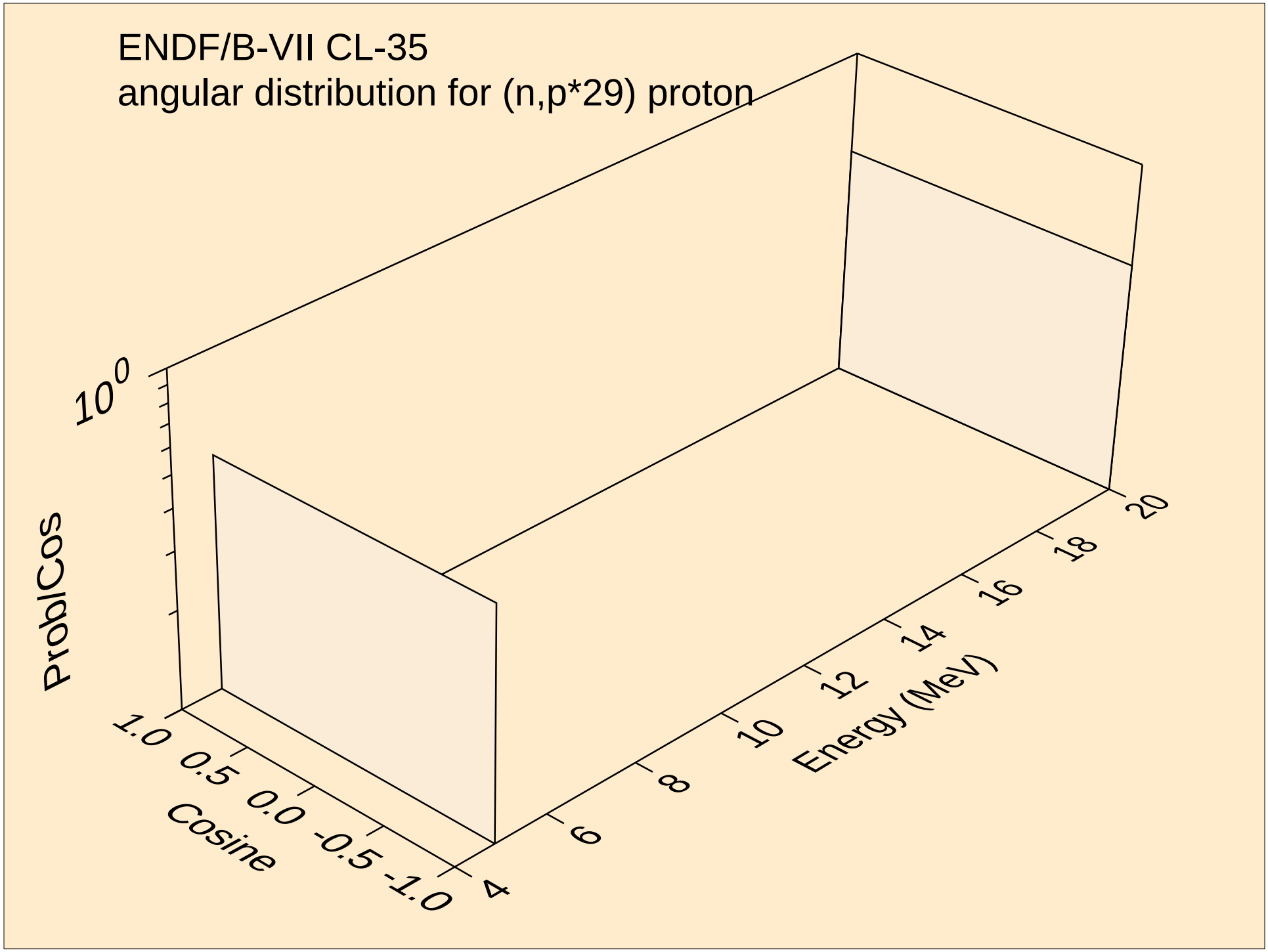

ENDF/B-VII CL-35
angular distribution for (n,p*24) proton
10^0
Prob|Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

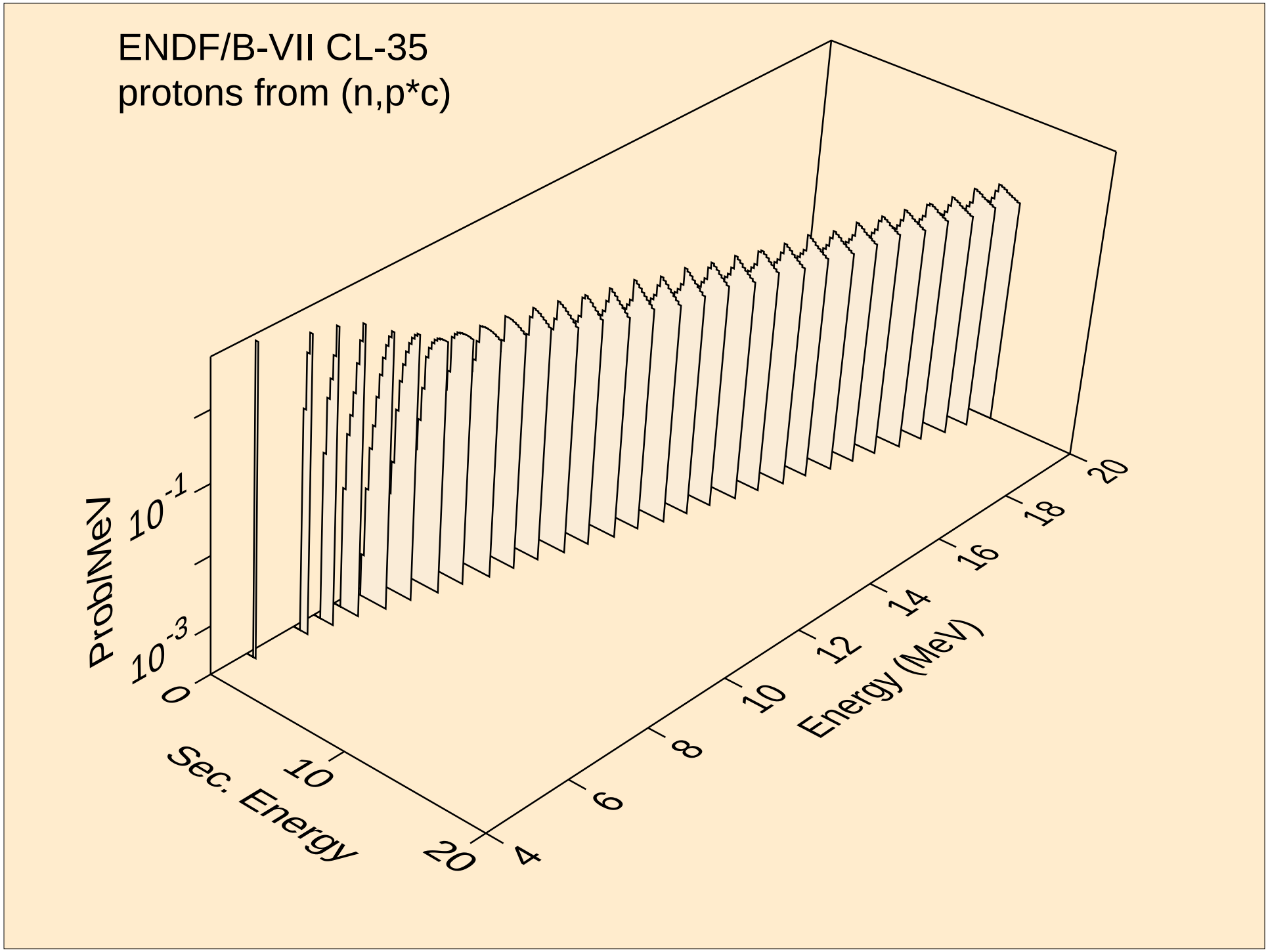

ENDF/B-VII CL-35
angular distribution for (n,p*25) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

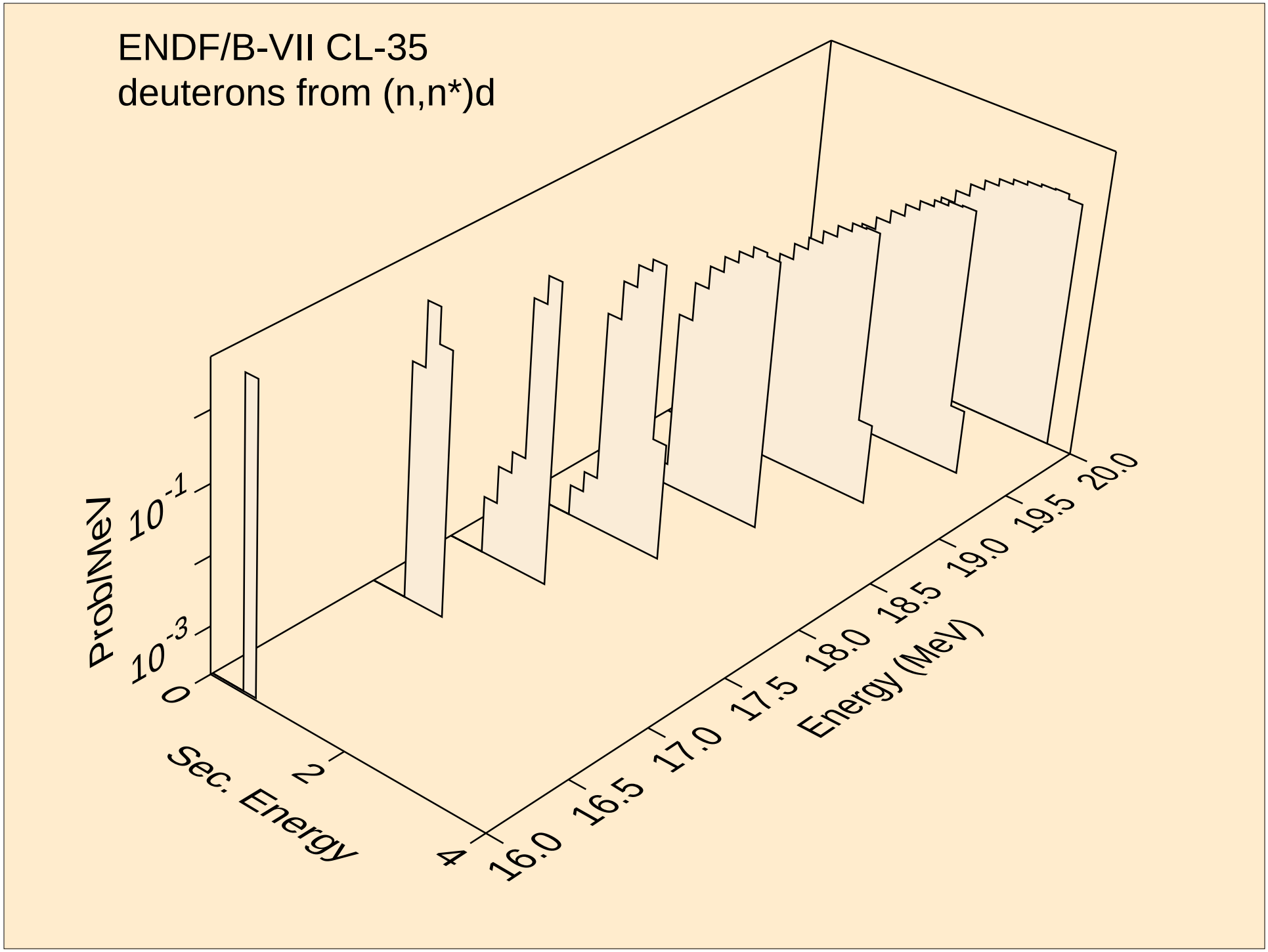

ENDF/B-VII CL-35
angular distribution for (n,p*26) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

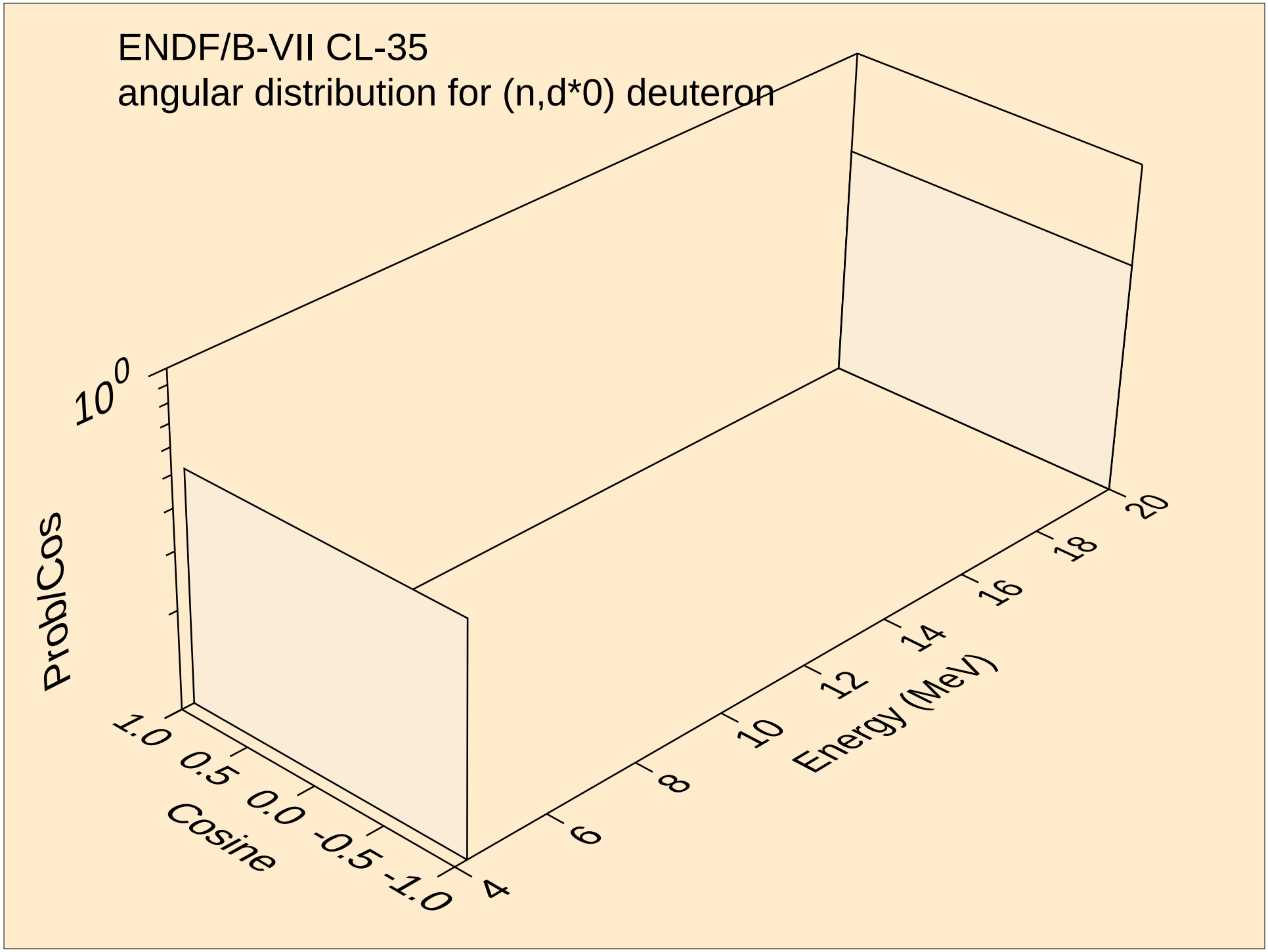

ENDF/B-VII CL-35
angular distribution for (n,p*27) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

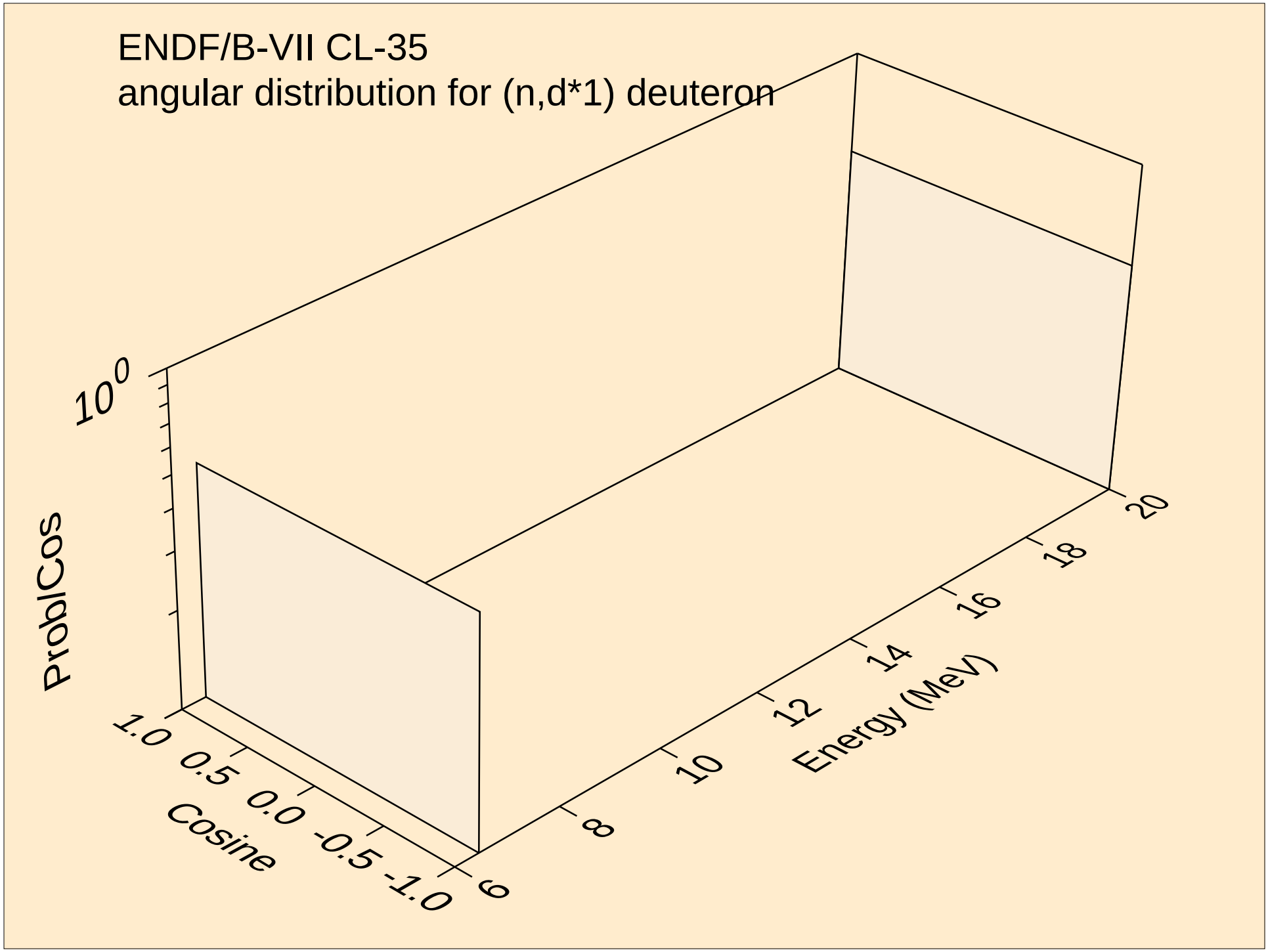

ENDF/B-VII CL-35
angular distribution for (n,p*28) proton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

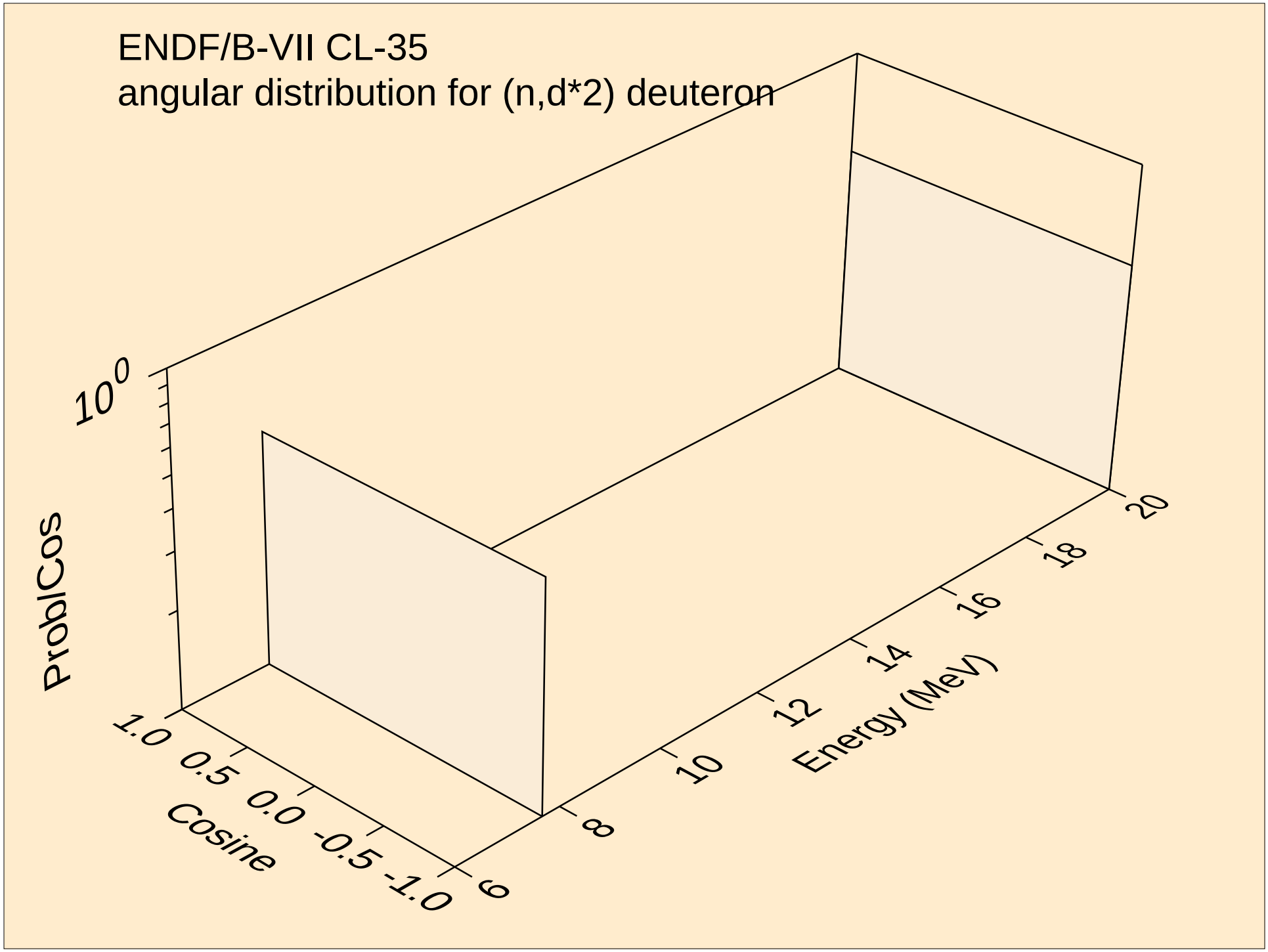

ENDF/B-VII CL-35
angular distribution for (n,p*29) proton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

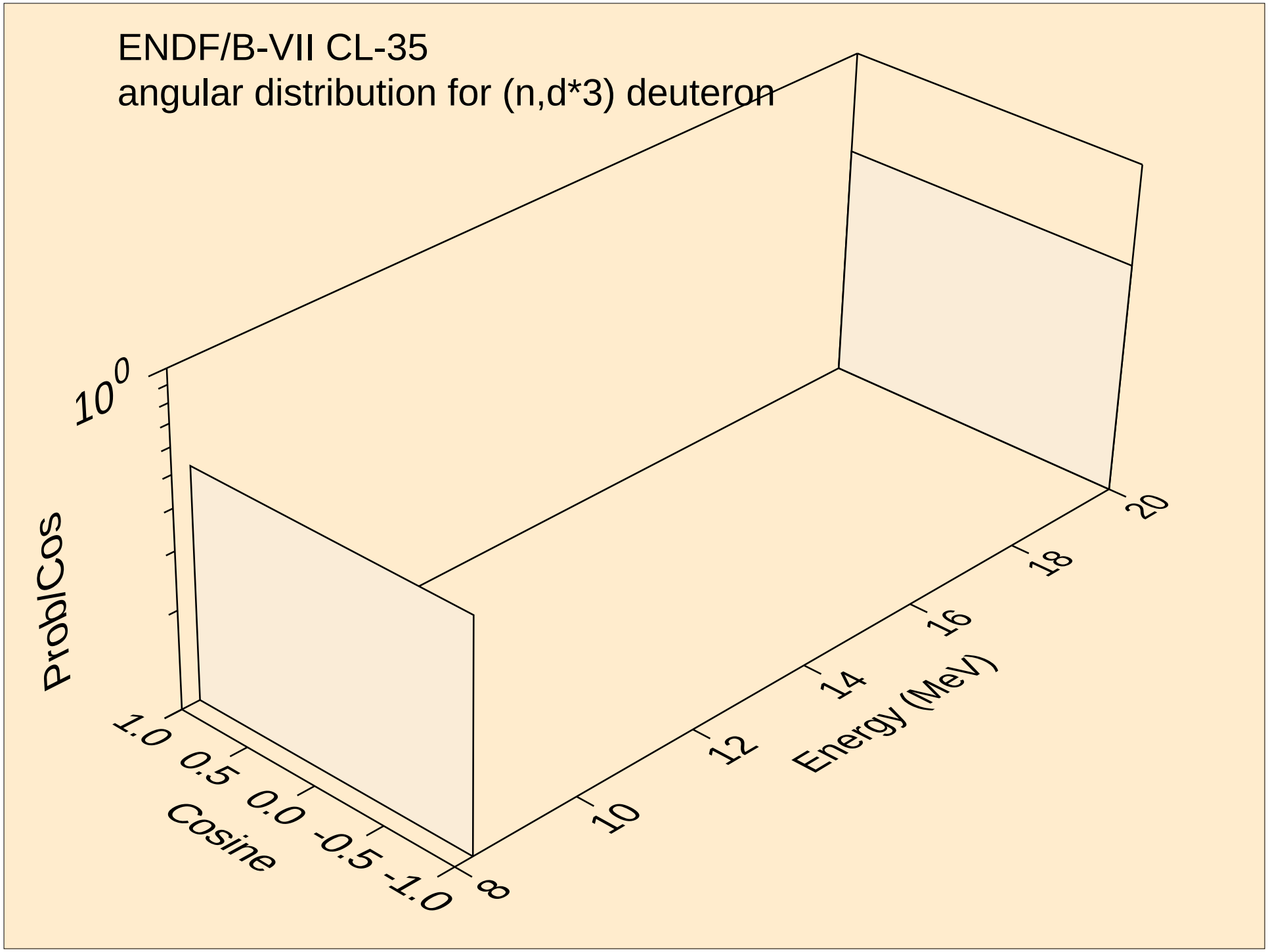

ENDF/B-VII CL-35
protons from (n,p*c)
Prob/MeV
10^-1
10^-3
0
10
20
Sec. Energy
4
6
8
10
12
14
16
18
20
Energy (MeV)

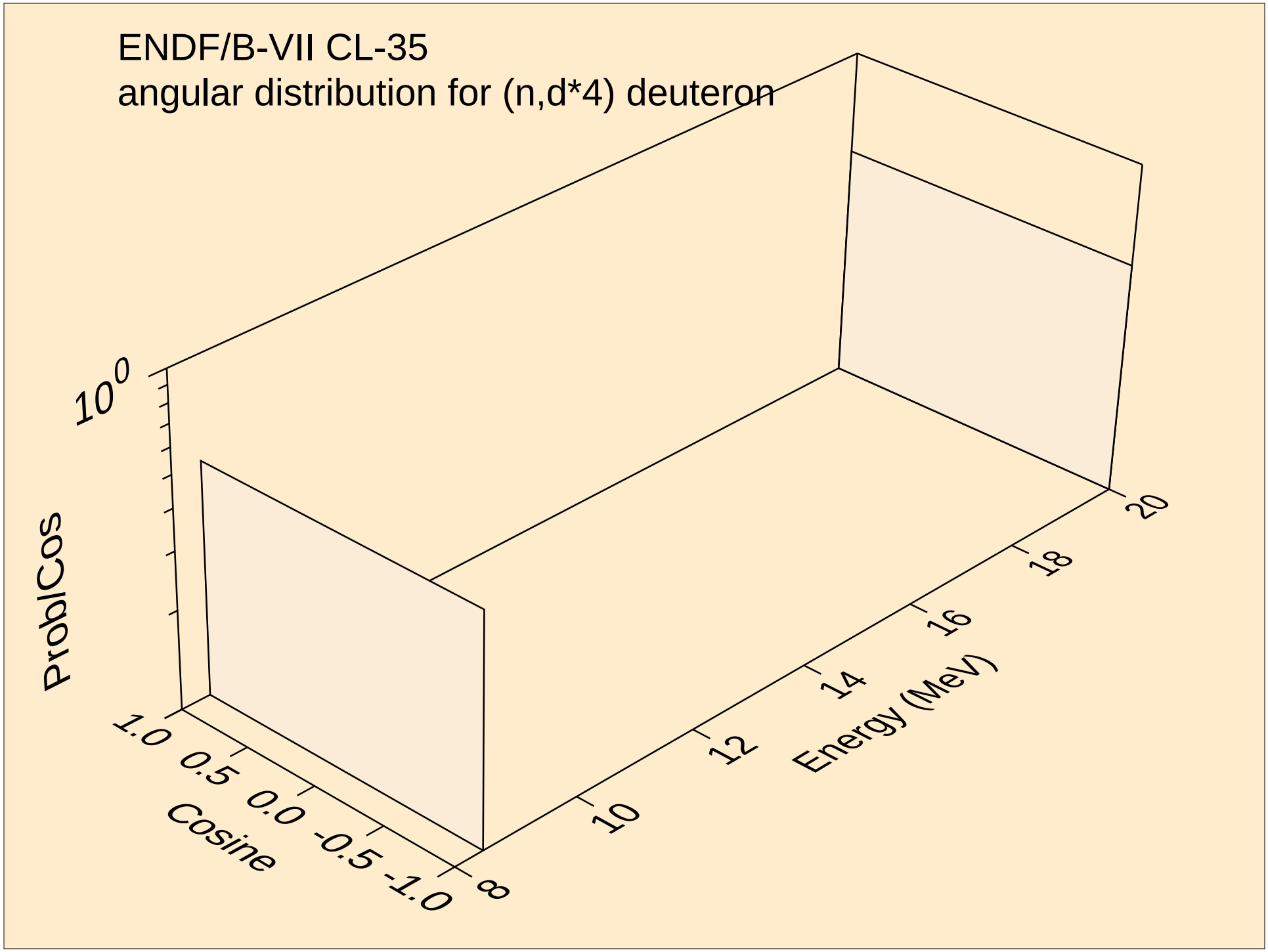

ENDF/B-VII CL-35
deuterons from (n,n*)d
Prob/MeV
10^-1
10^-3
0
Sec. Energy
2
4
16.0
16.5
17.0
17.5
18.0
18.5
19.0
19.5
20.0
Energy (MeV)

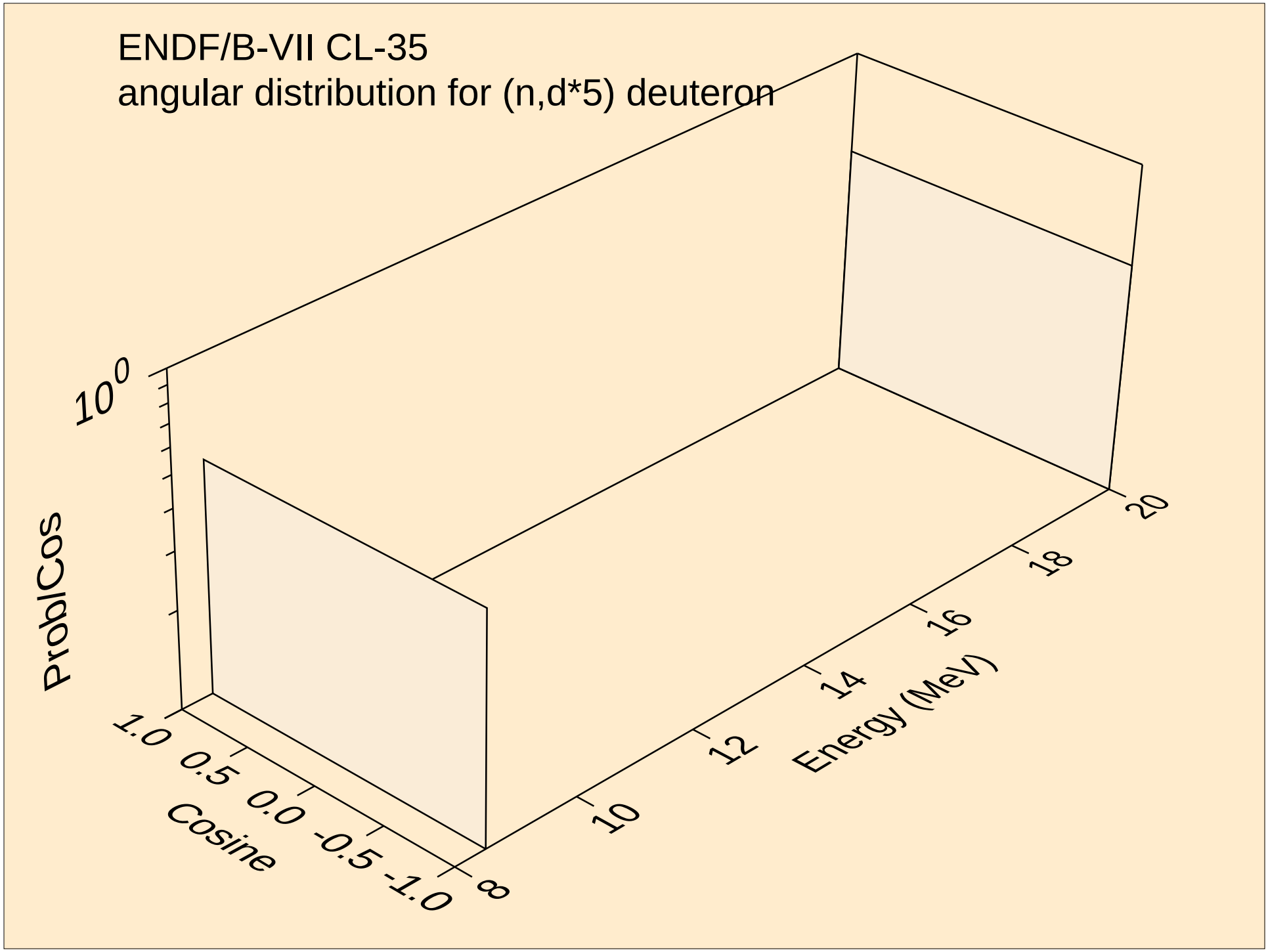

ENDF/B-VII CL-35
angular distribution for (n,d*0) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

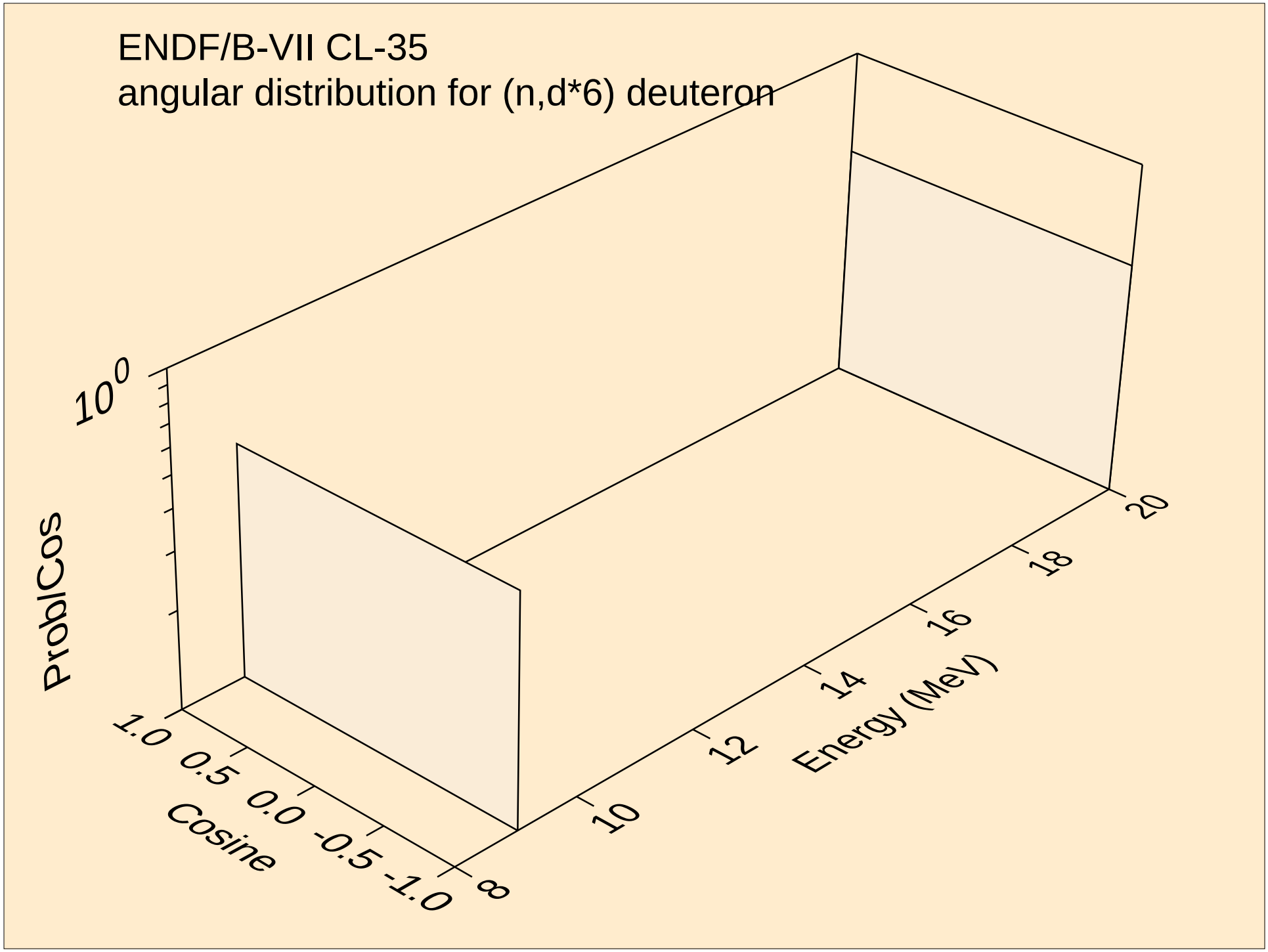

ENDF/B-VII CL-35
angular distribution for (n,d*1) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
6
8
10
12
14
16
18
20
Energy (MeV)

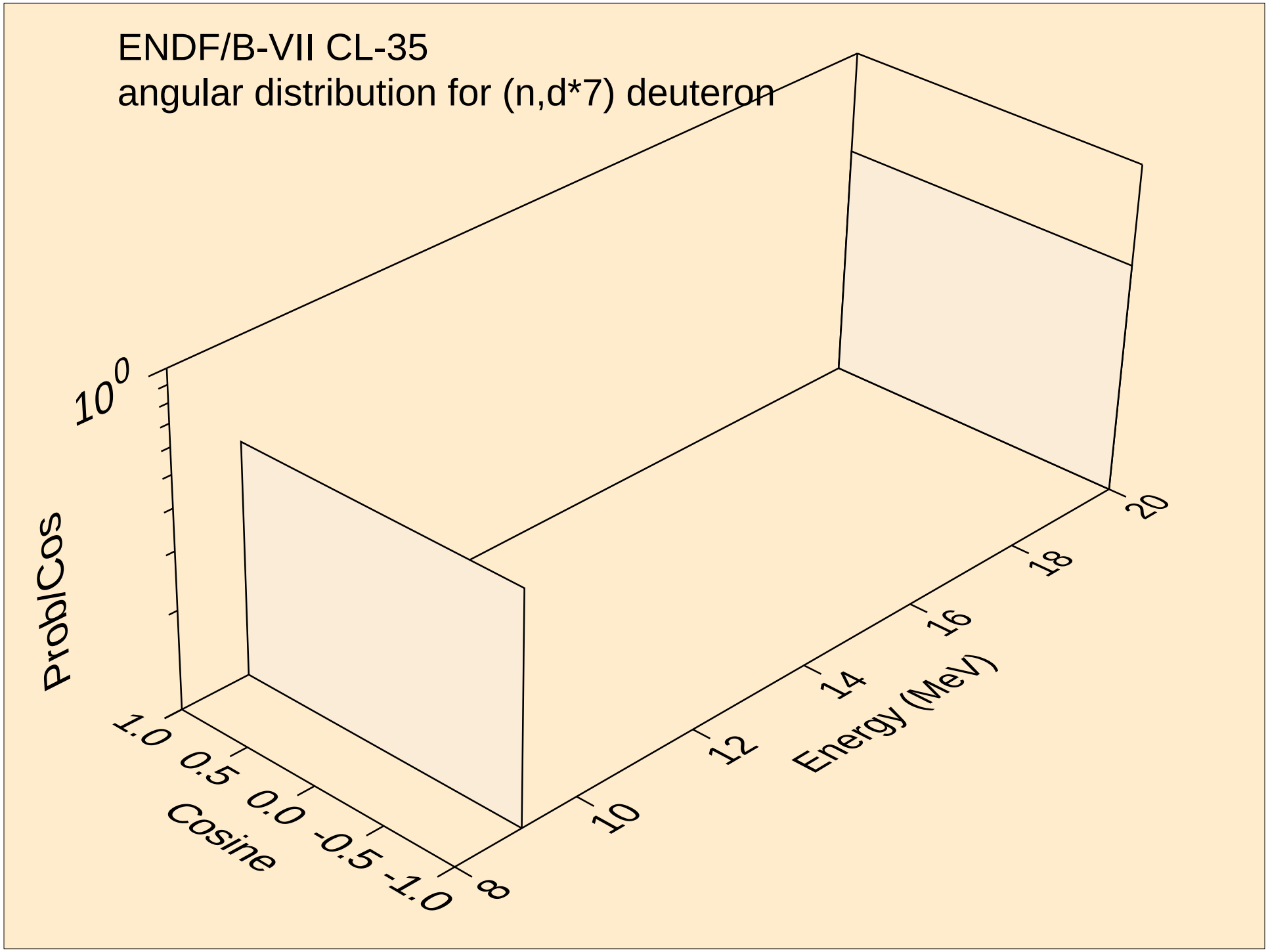

ENDF/B-VII CL-35
angular distribution for (n,d*2) deuteron
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
6
8
10
12
14
16
18
20
Energy (MeV)

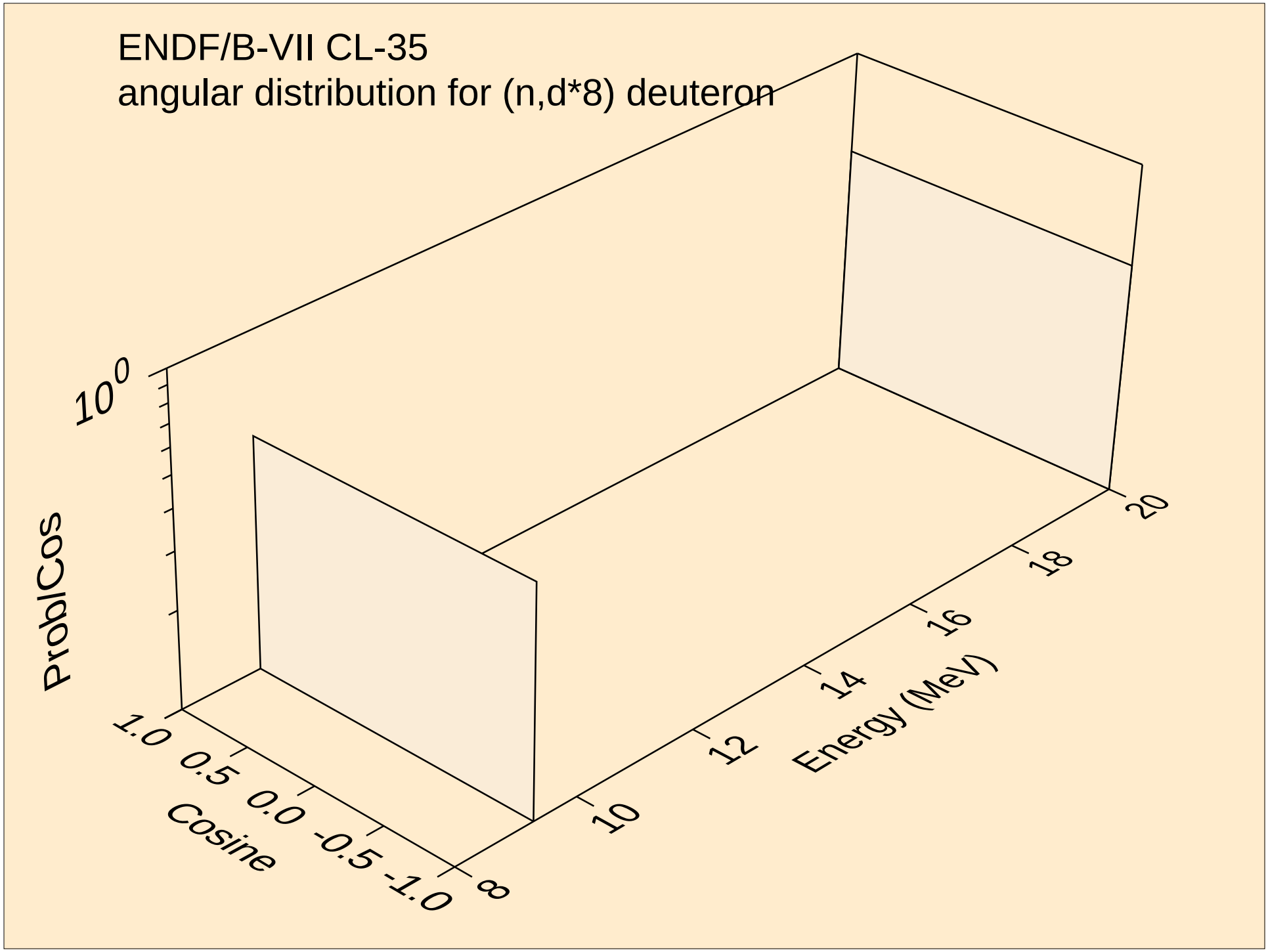

ENDF/B-VII CL-35
angular distribution for (n,d*3) deuteron
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

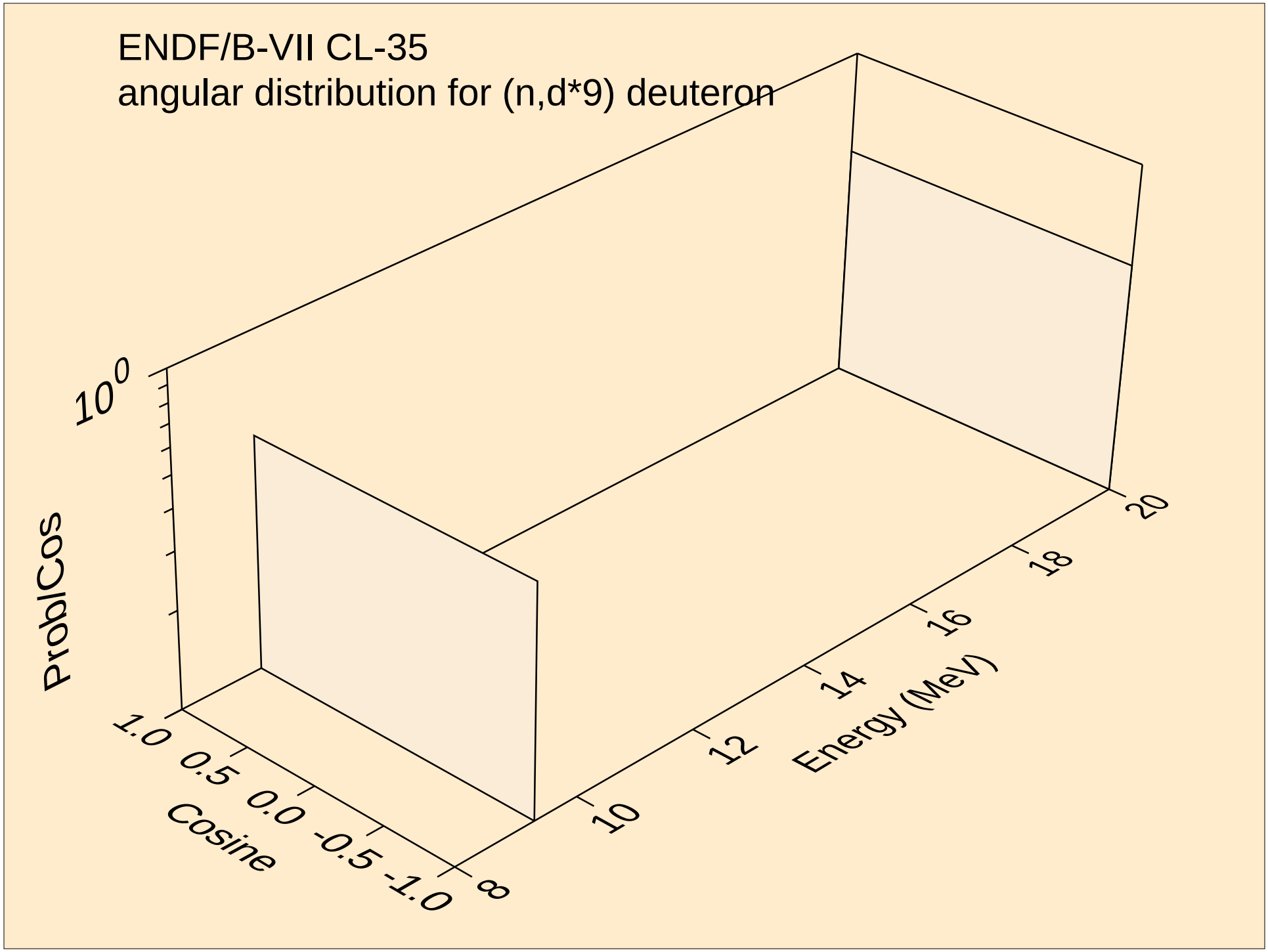

ENDF/B-VII CL-35
angular distribution for (n,d*4) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

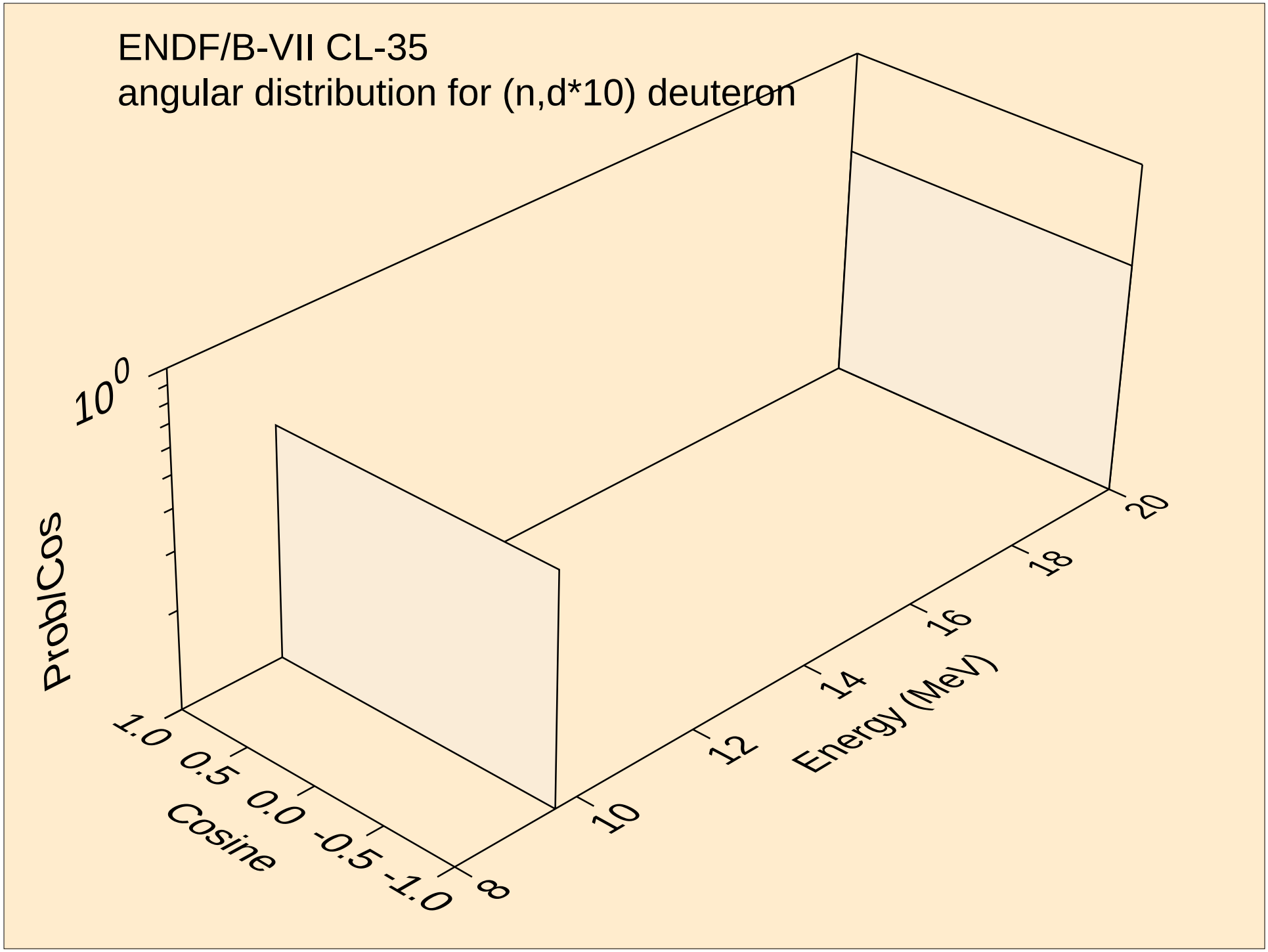

ENDF/B-VII CL-35
angular distribution for (n,d*5) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

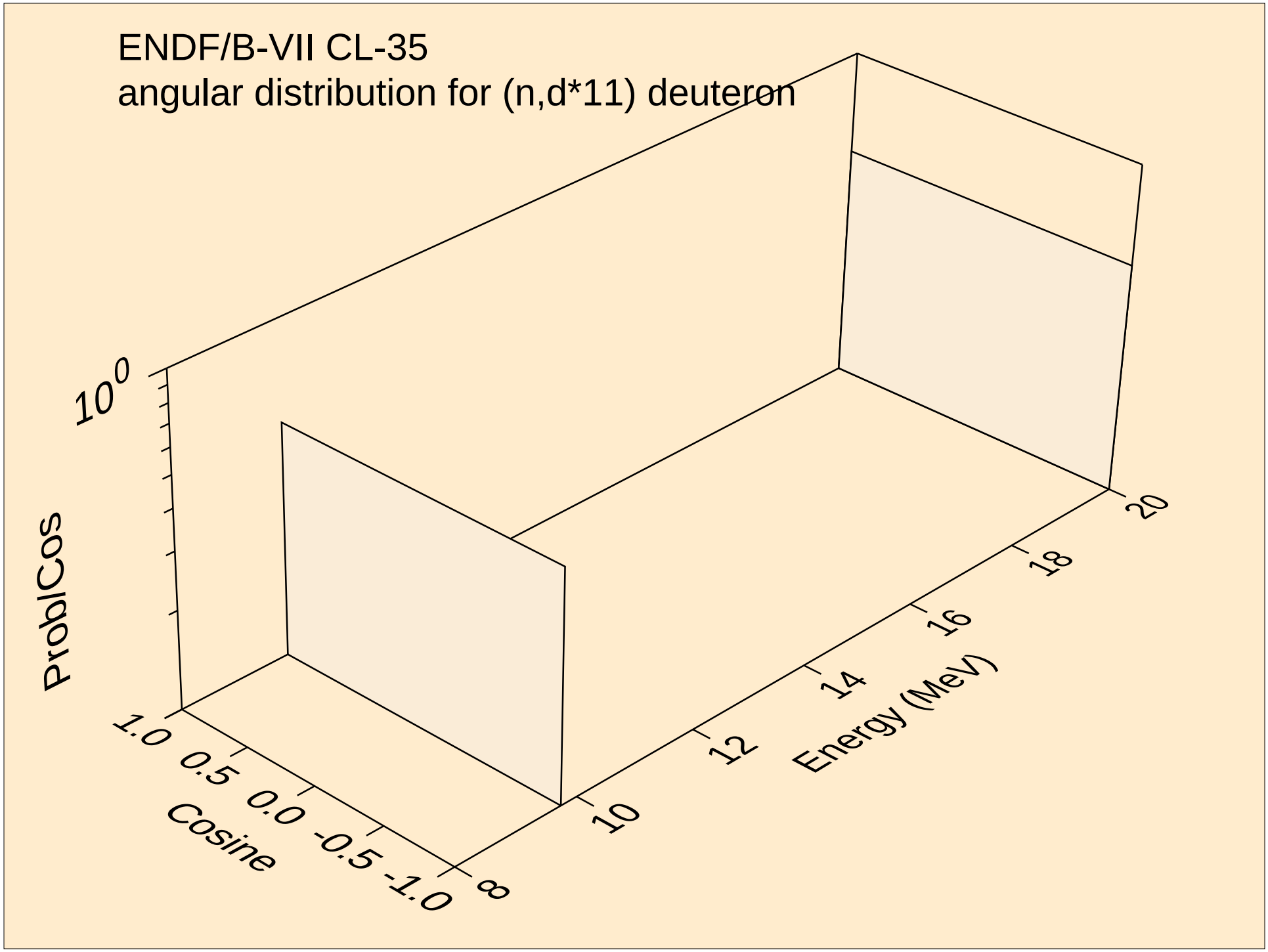

ENDF/B-VII CL-35
angular distribution for (n,d*6) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

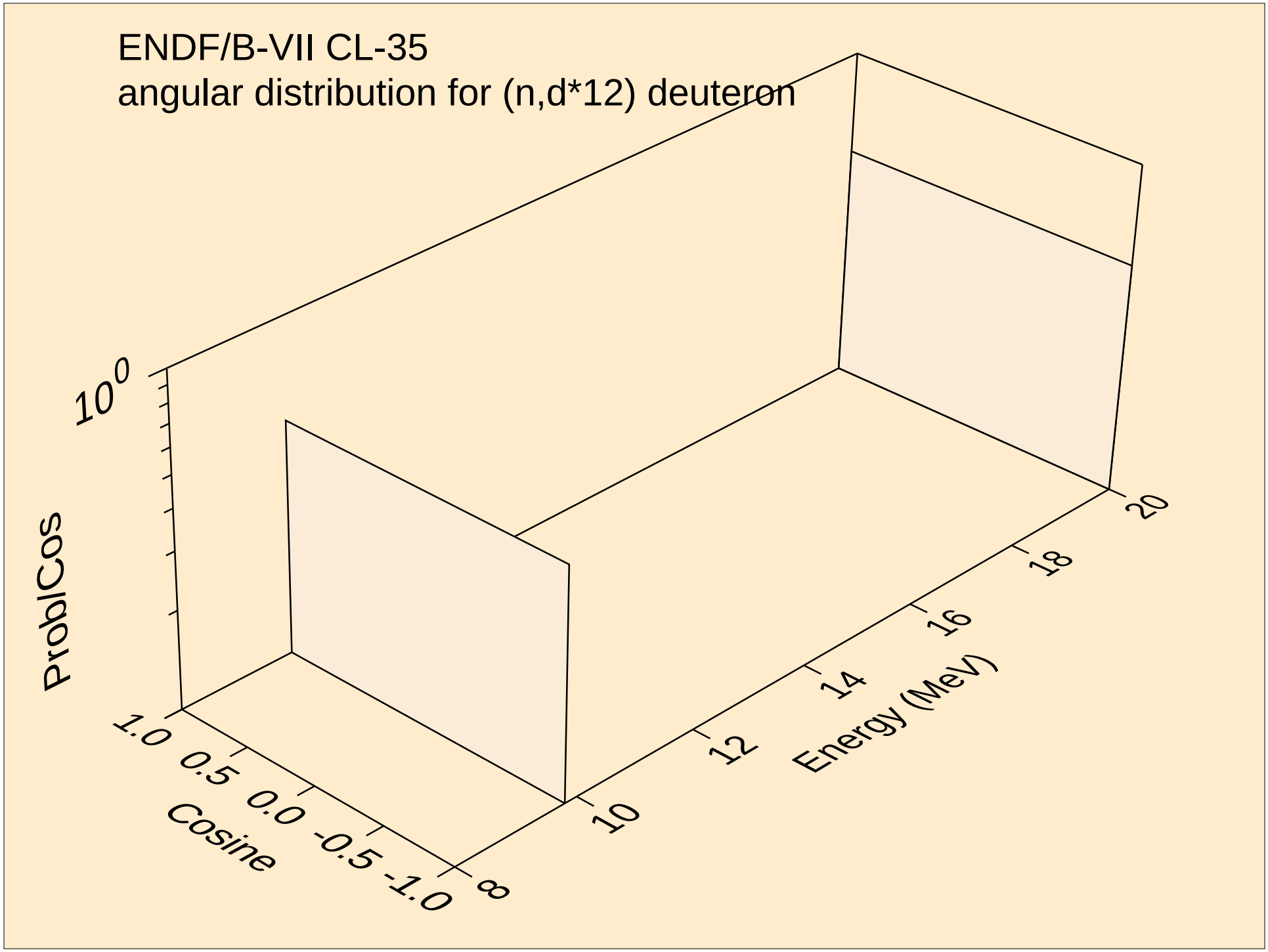

ENDF/B-VII CL-35
angular distribution for (n,d*7) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

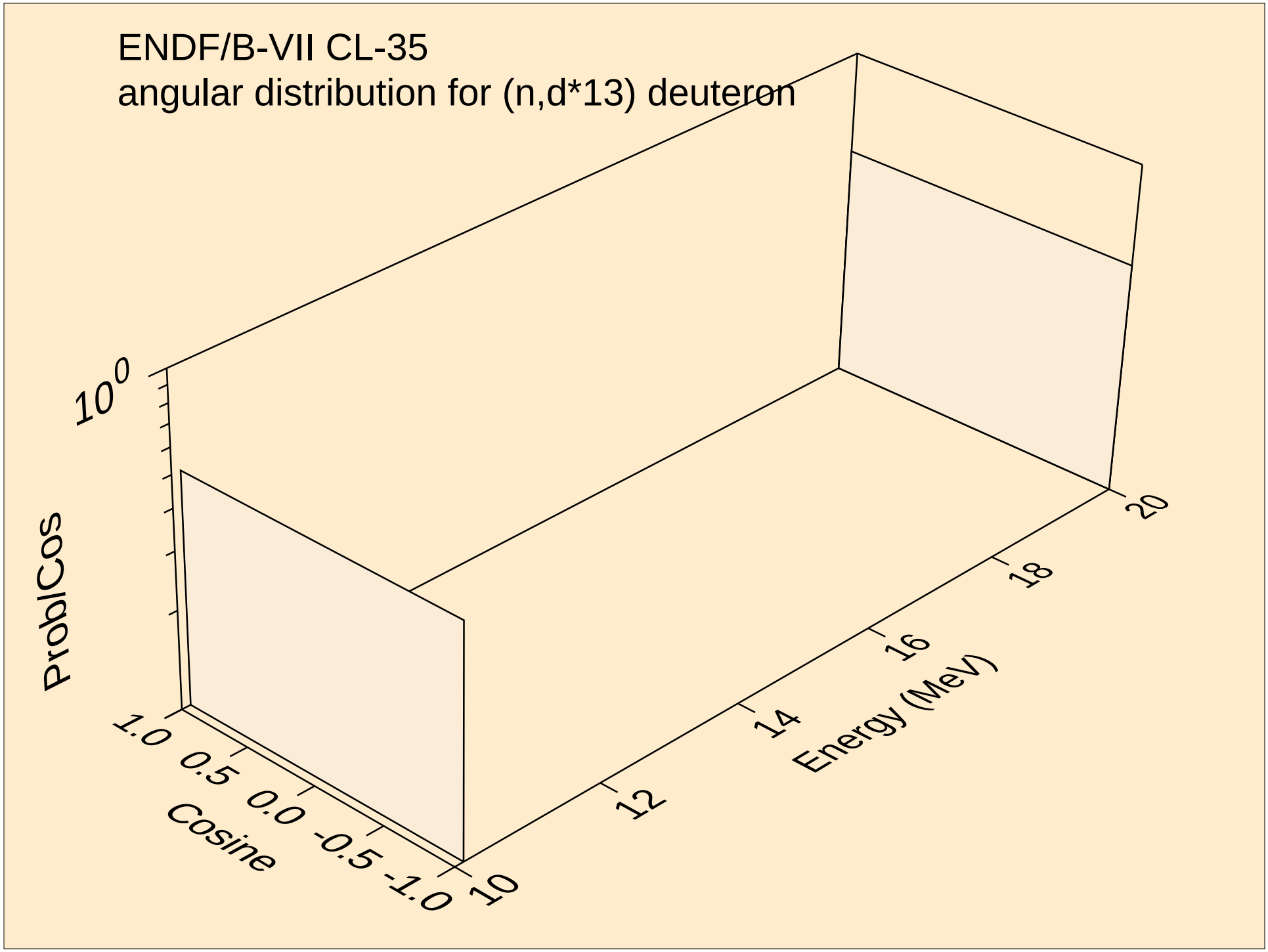

ENDF/B-VII CL-35
angular distribution for (n,d*8) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

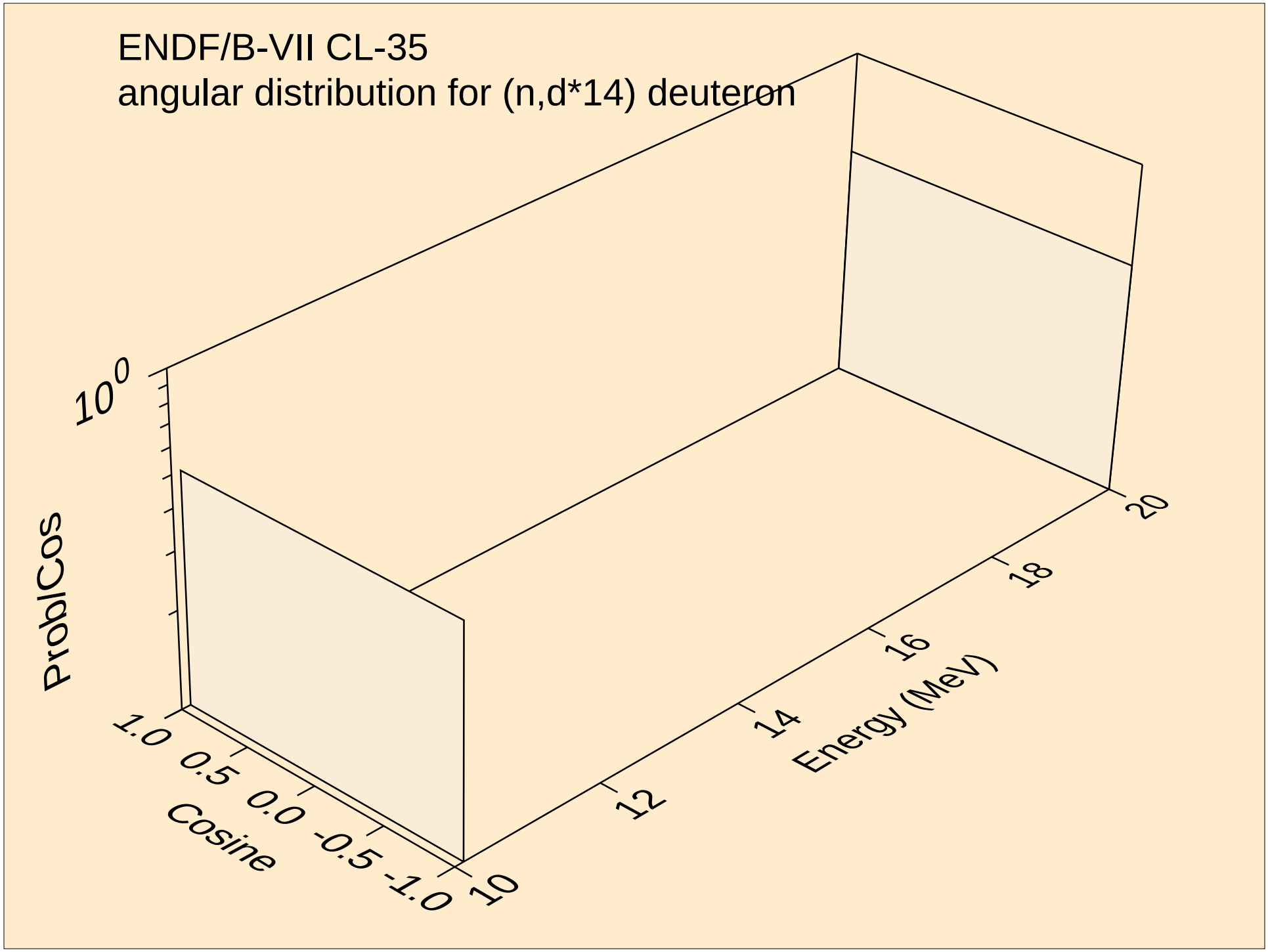

ENDF/B-VII CL-35
angular distribution for (n,d*9) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

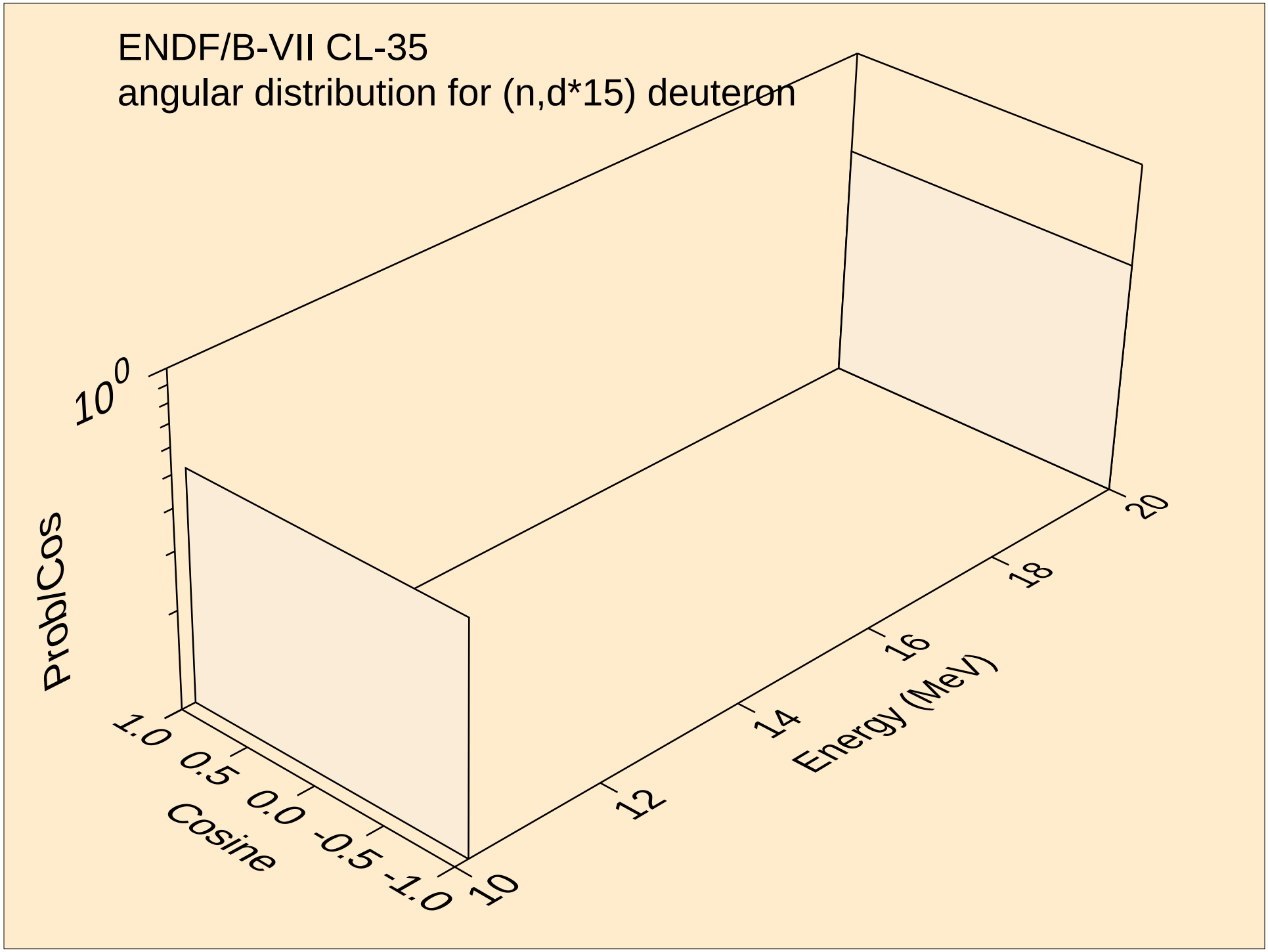

ENDF/B-VII CL-35
angular distribution for (n,d*10) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

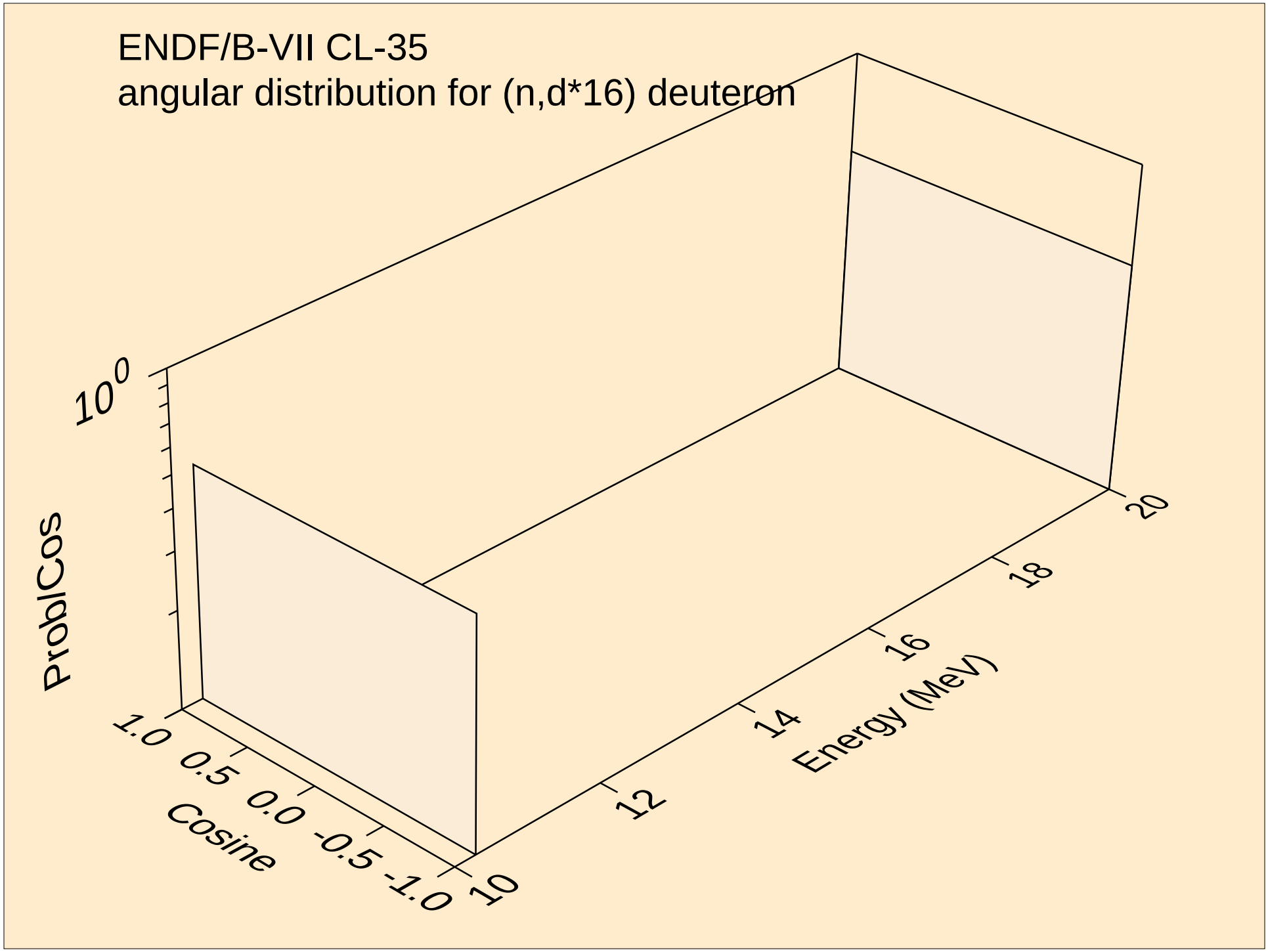

ENDF/B-VII CL-35
angular distribution for (n,d*11) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

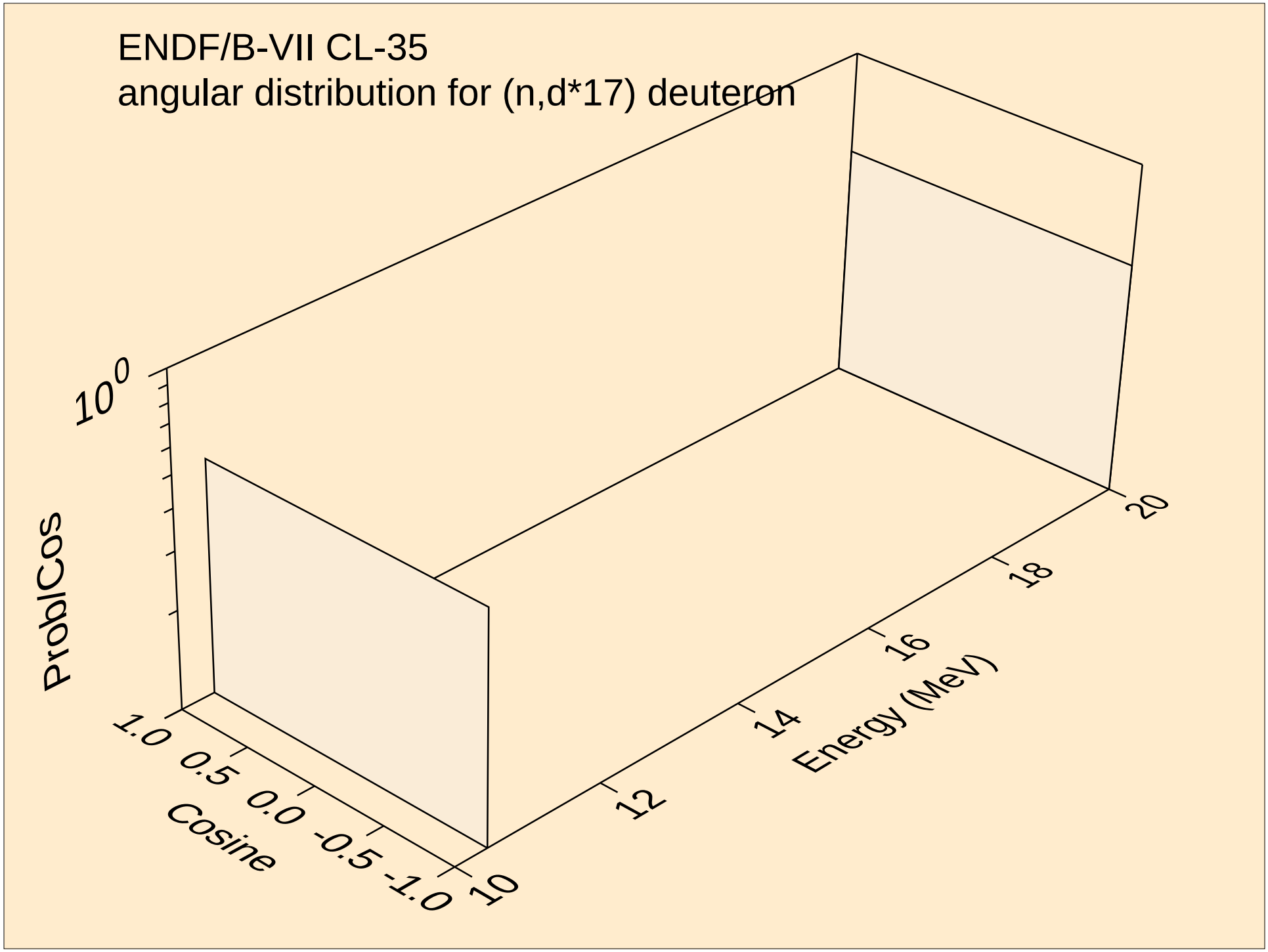

ENDF/B-VII CL-35
angular distribution for (n,d*12) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

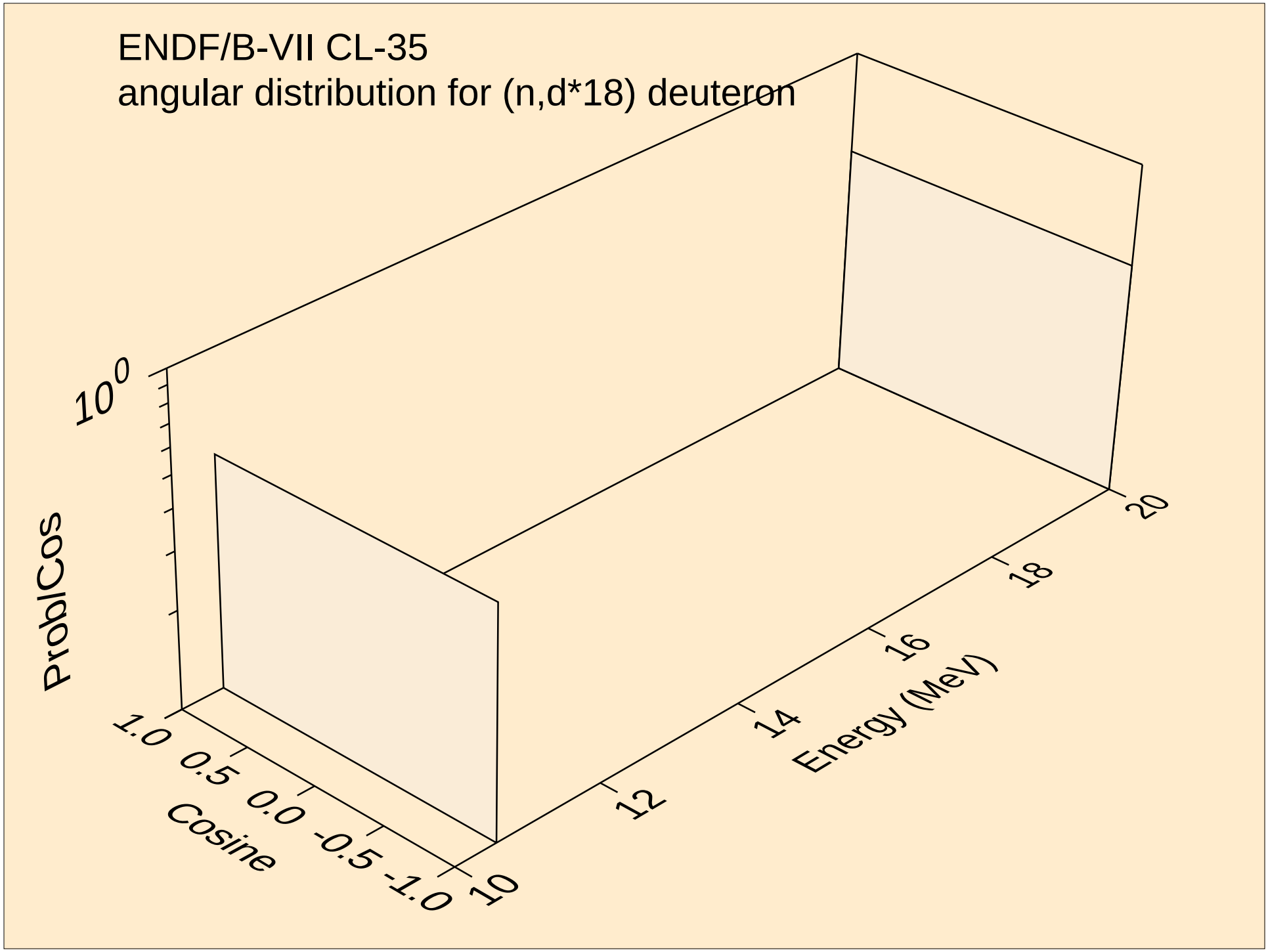

ENDF/B-VII CL-35
angular distribution for (n,d*13) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

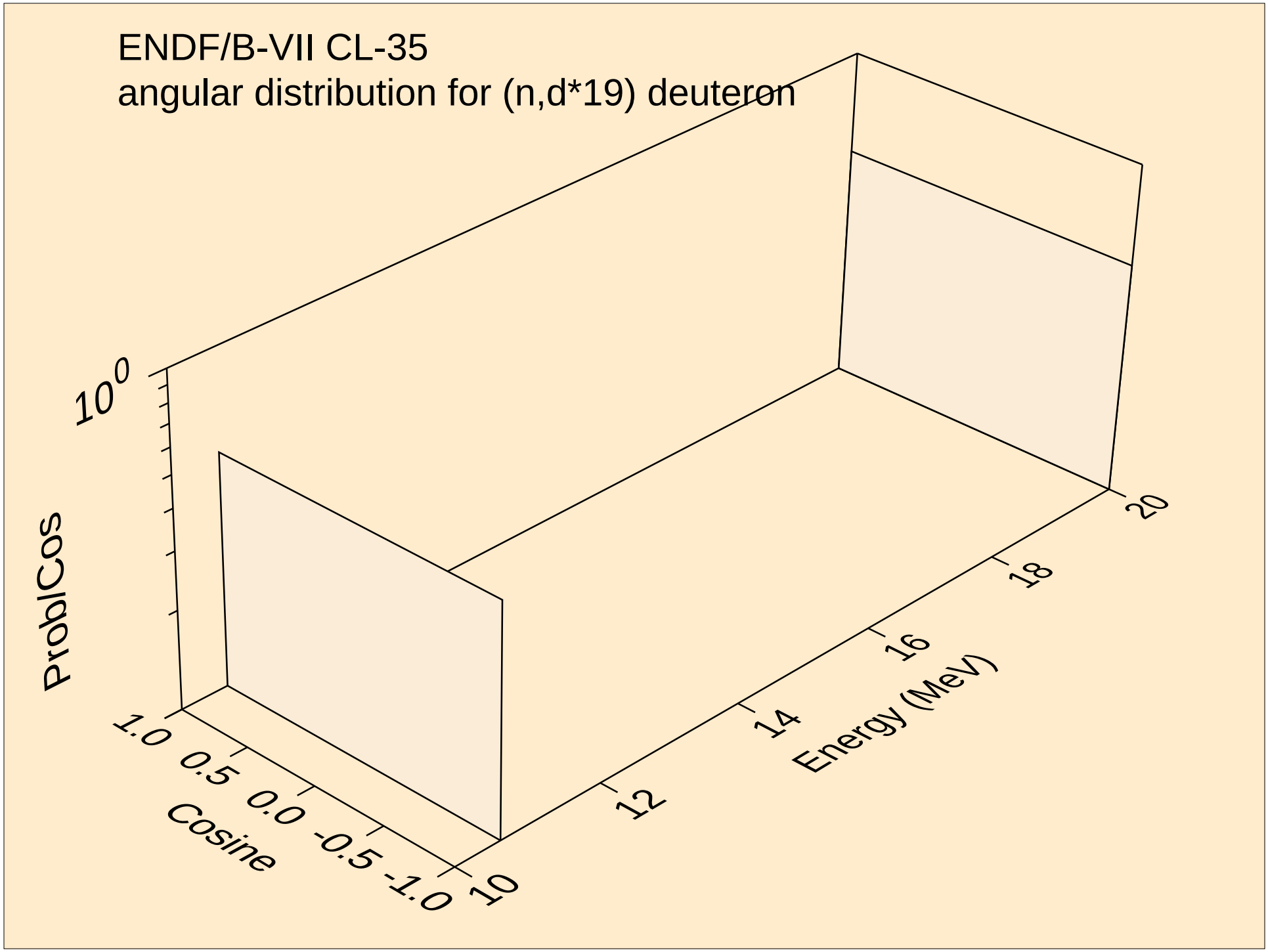

ENDF/B-VII CL-35
angular distribution for (n,d*14) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

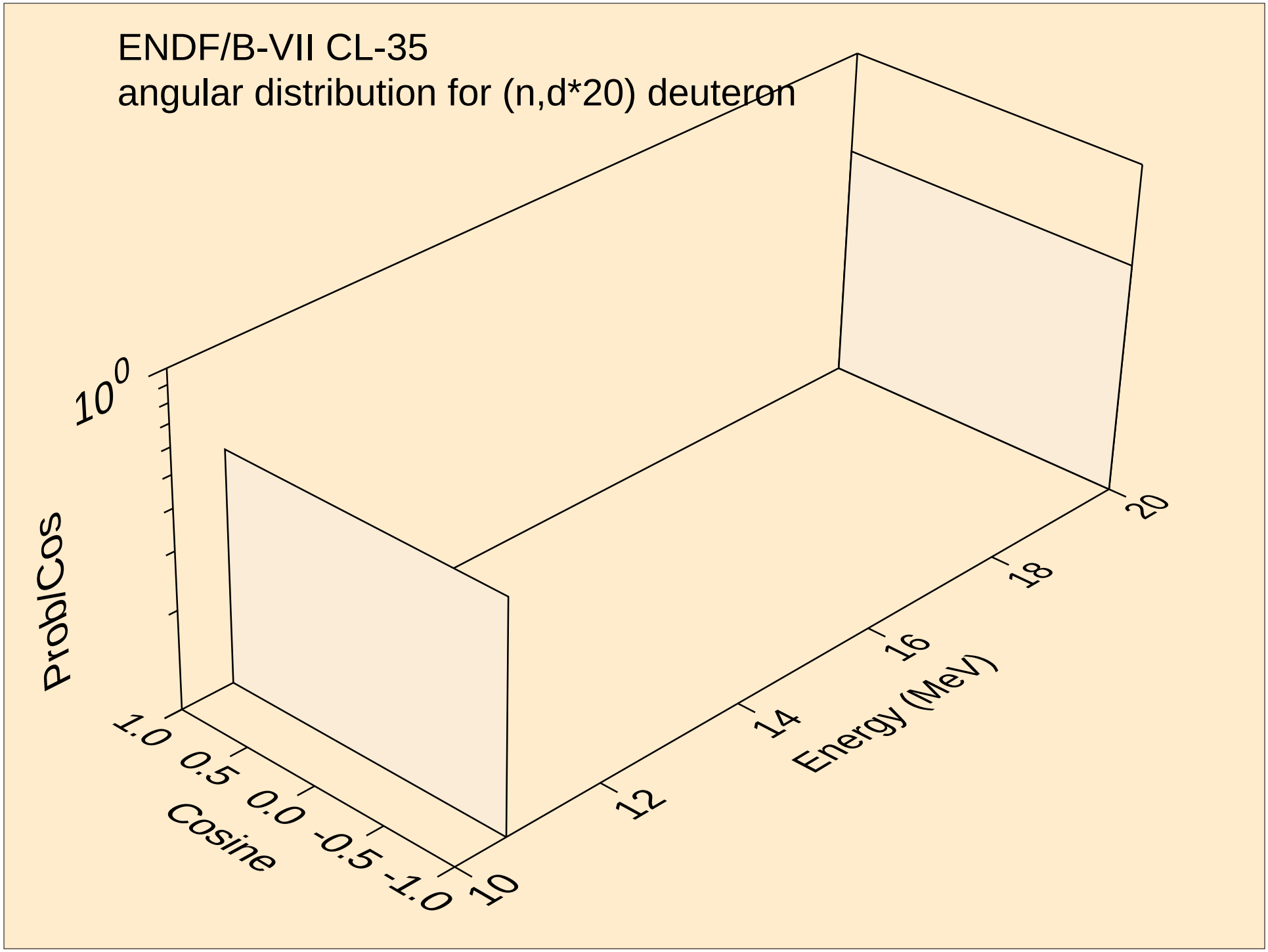

ENDF/B-VII CL-35
angular distribution for (n,d*15) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

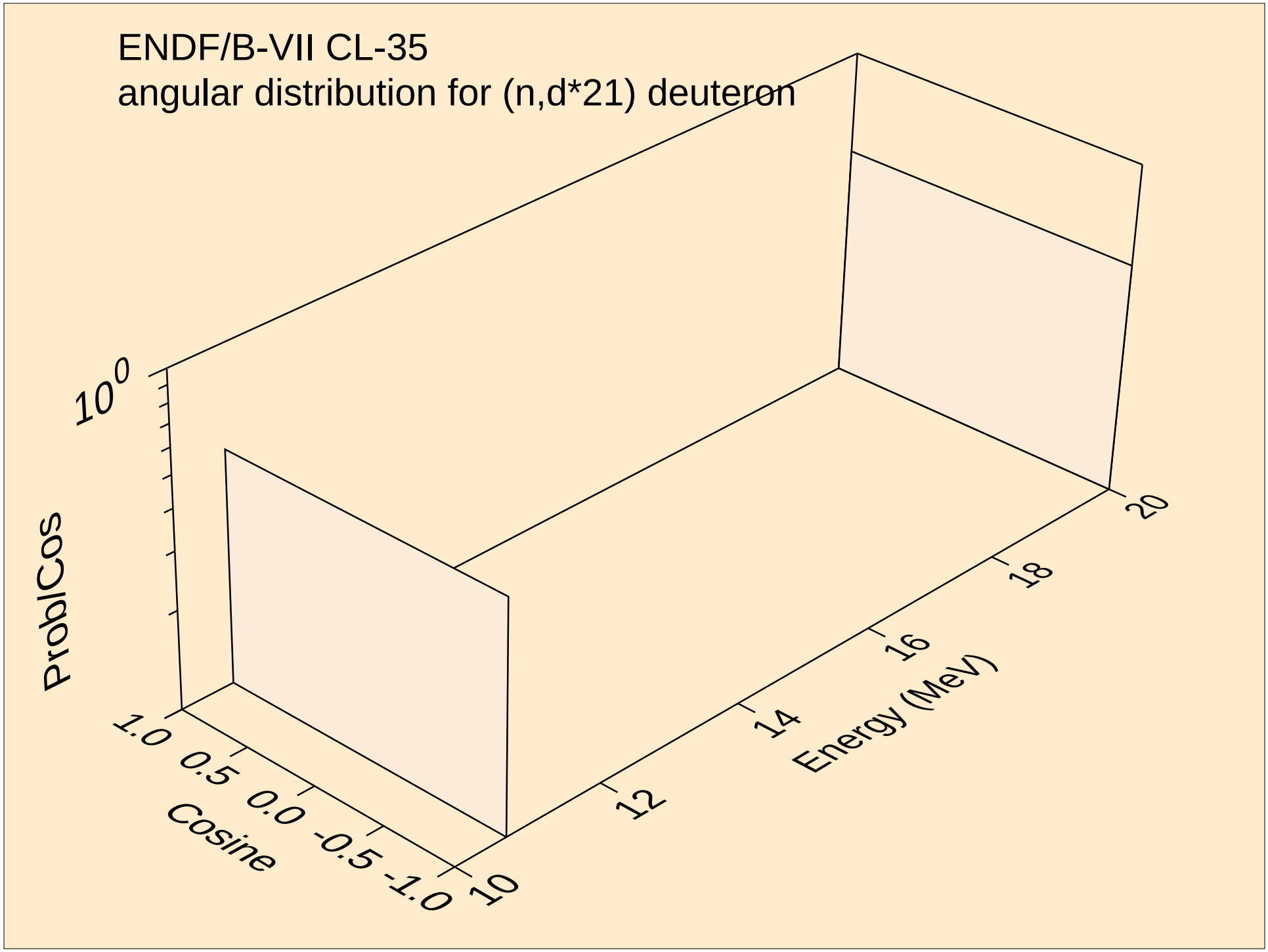

ENDF/B-VII CL-35
angular distribution for (n,d*16) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

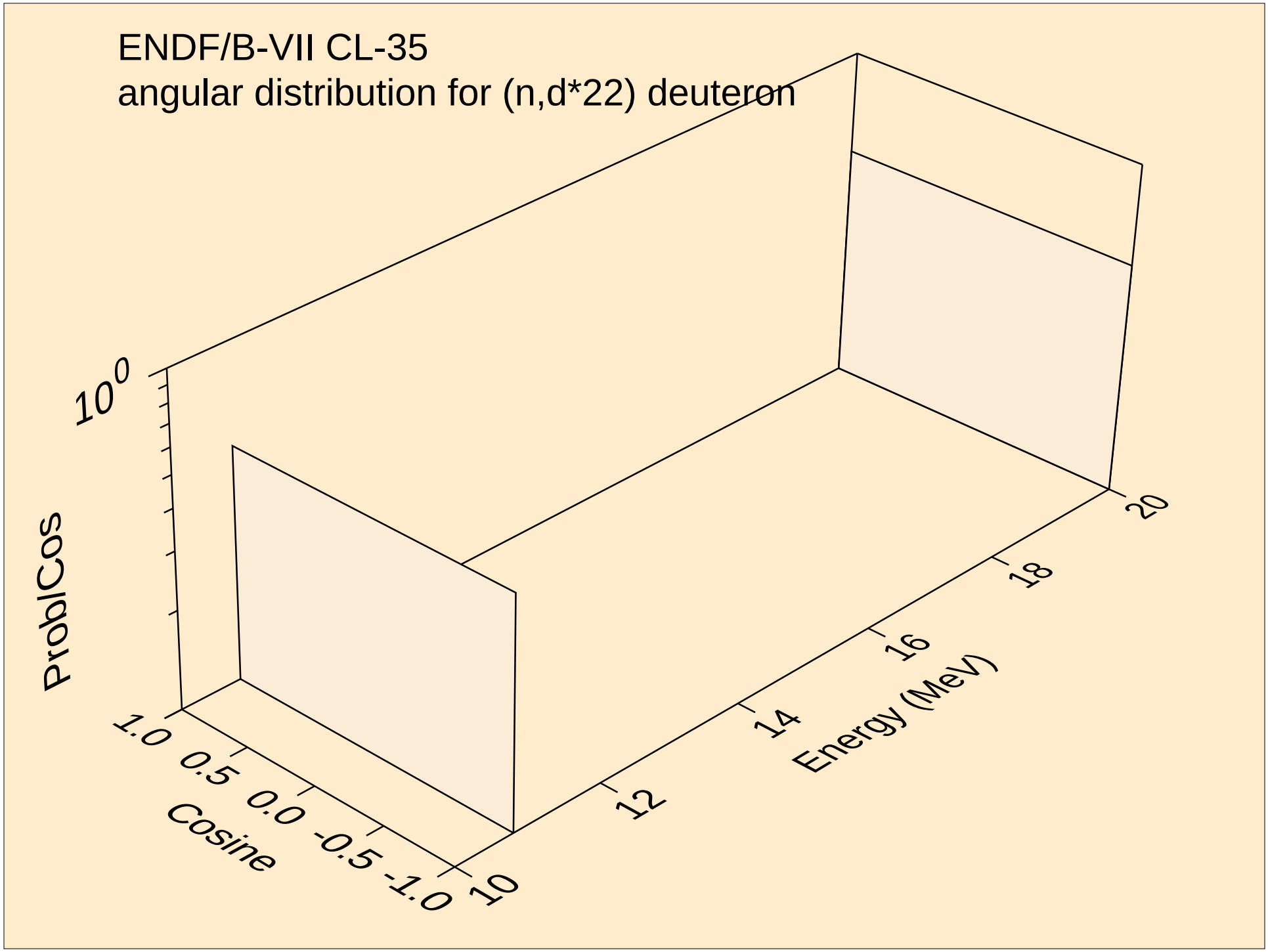

ENDF/B-VII CL-35
angular distribution for (n,d*17) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

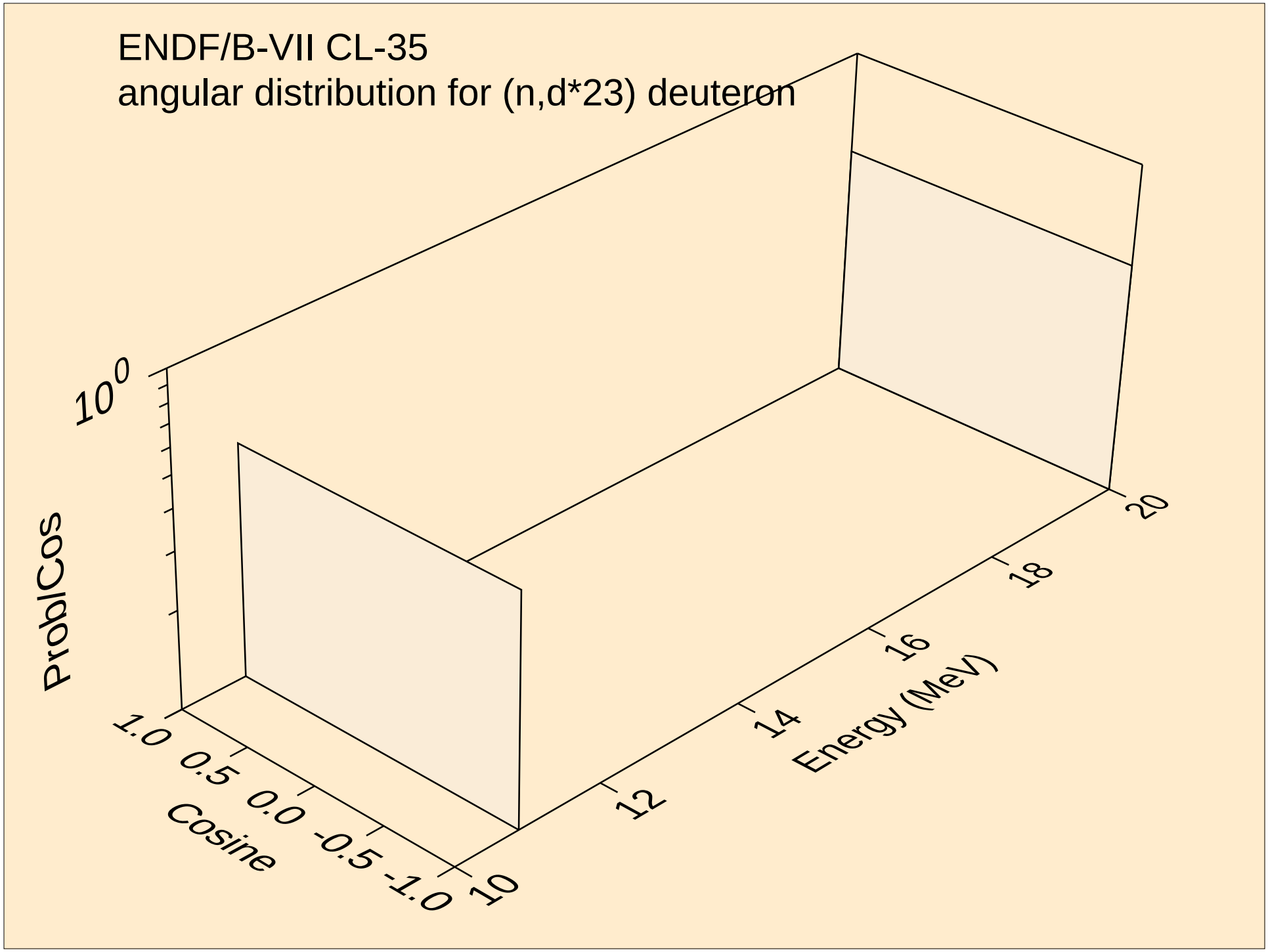

ENDF/B-VII CL-35
angular distribution for (n,d*18) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

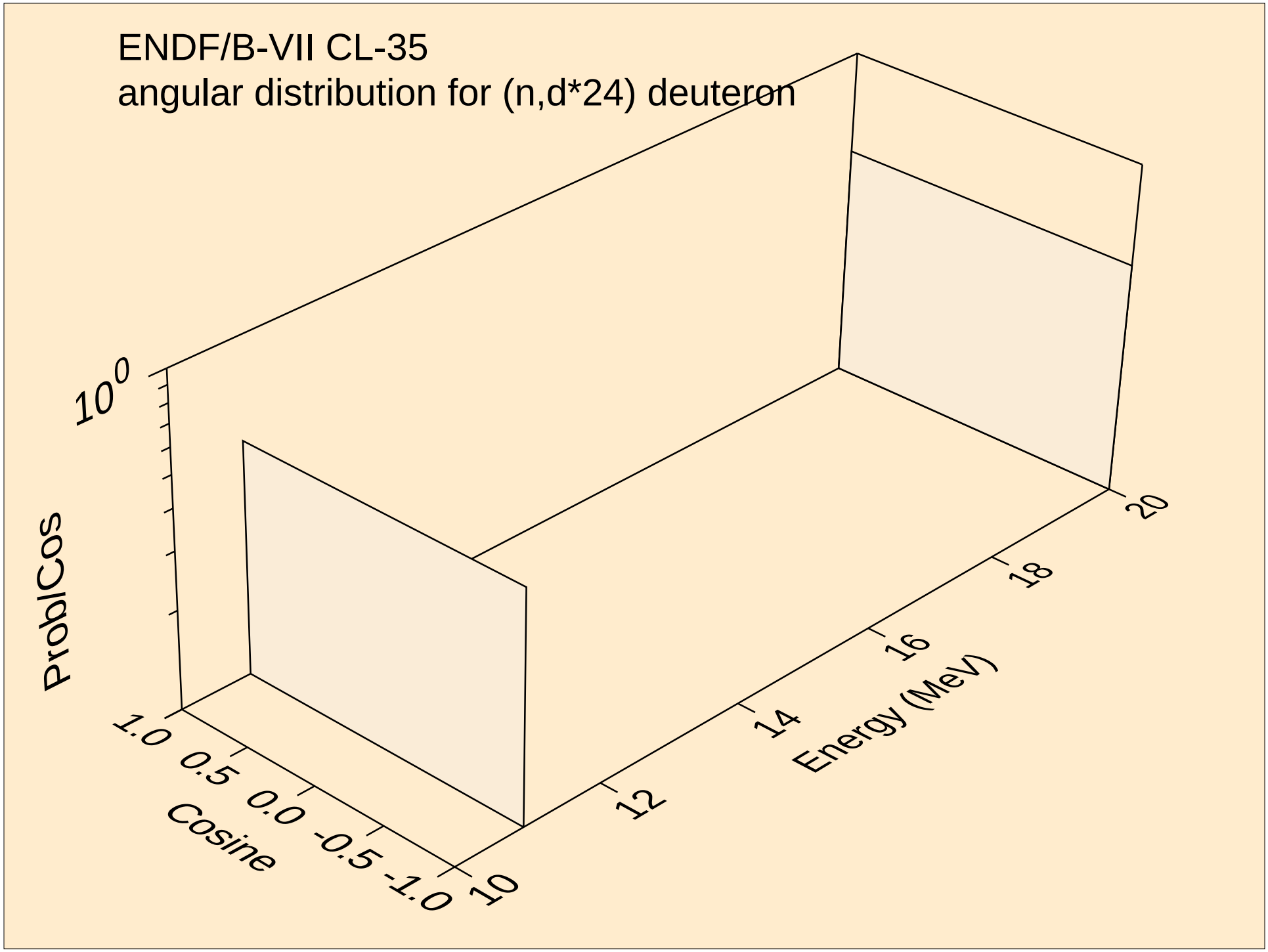

ENDF/B-VII CL-35
angular distribution for (n,d*19) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

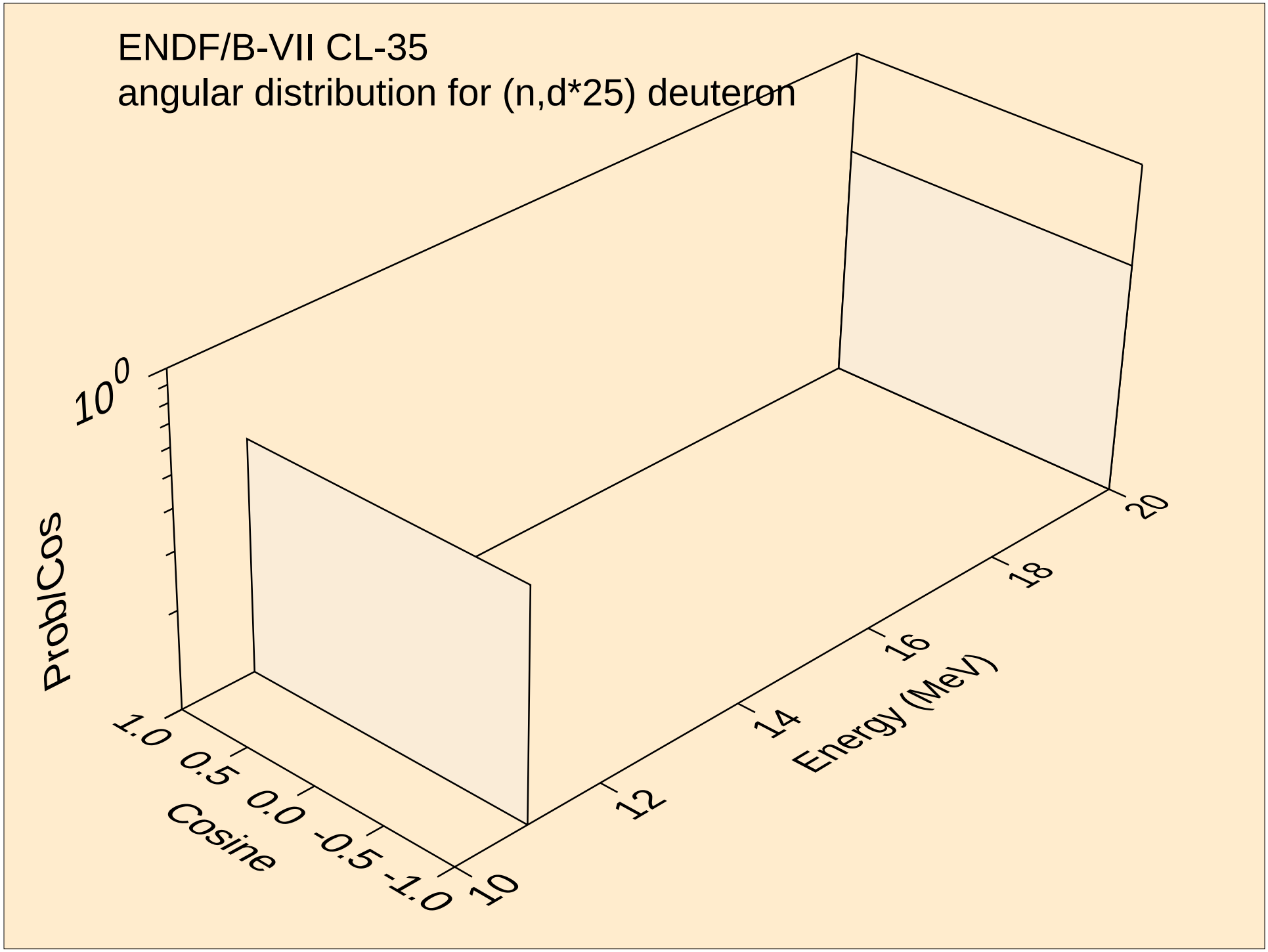

ENDF/B-VII CL-35
angular distribution for (n,d*20) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

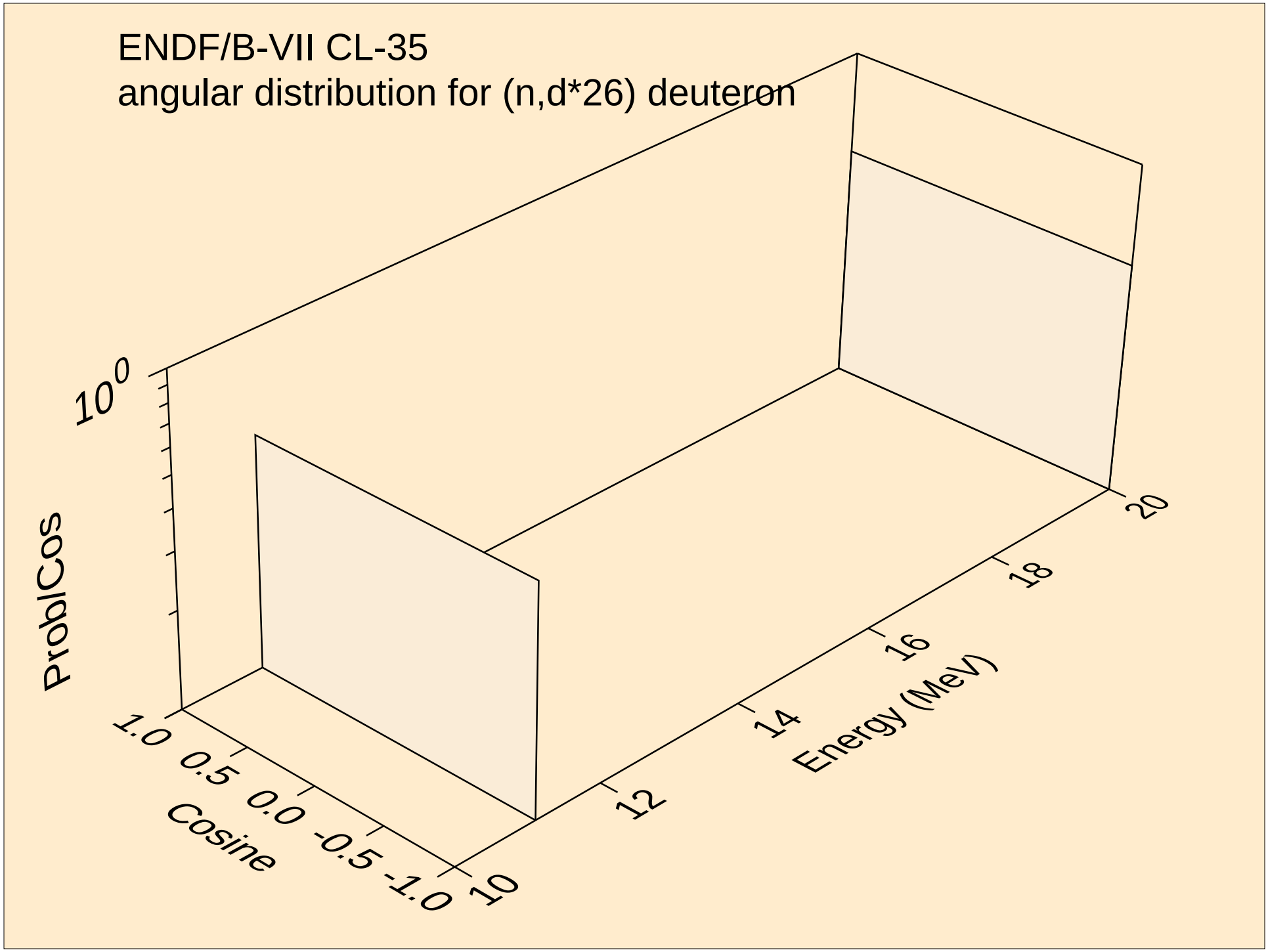

ENDF/B-VII CL-35
angular distribution for (n,d*21) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

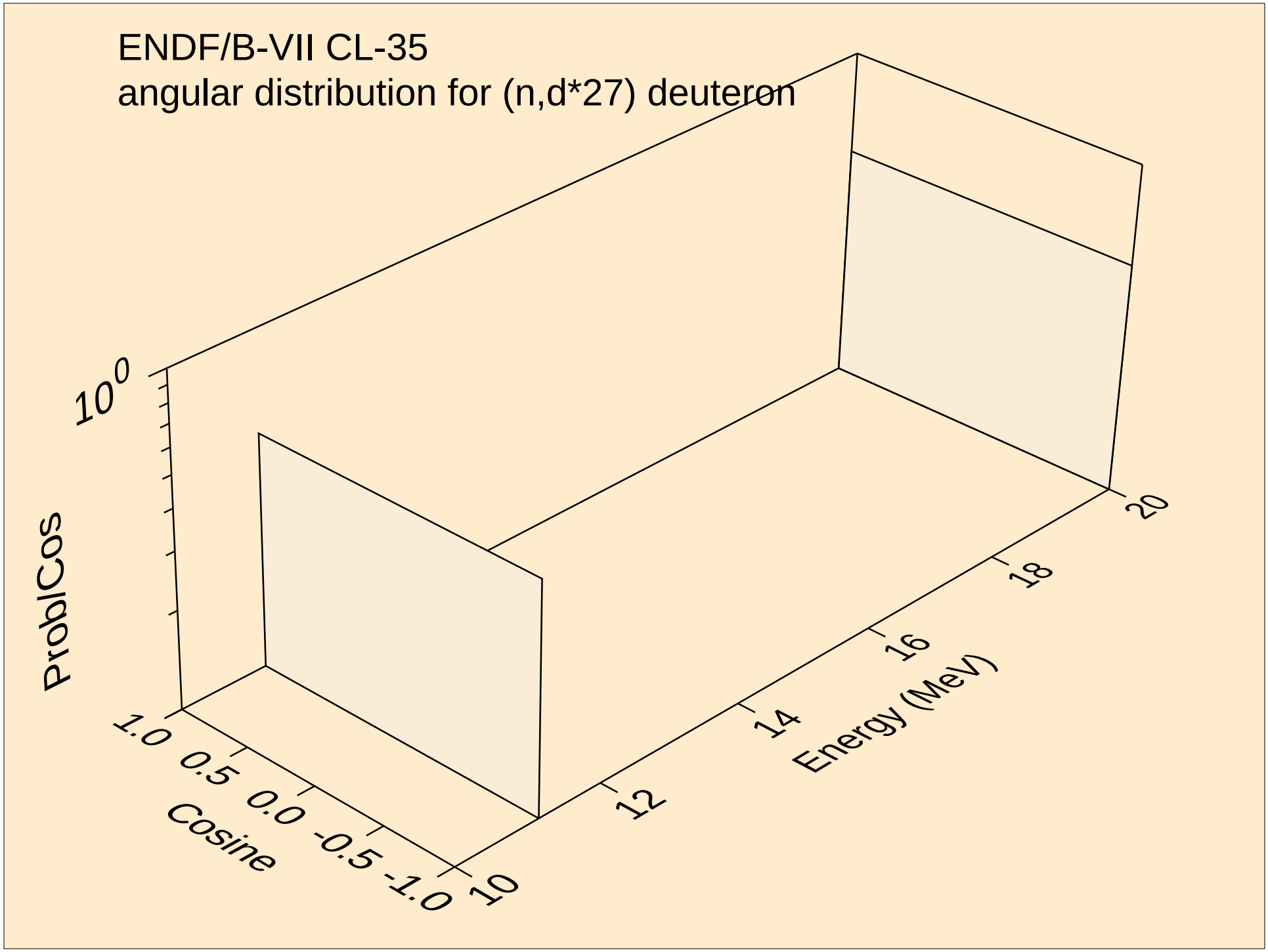

ENDF/B-VII CL-35
angular distribution for (n,d*22) deuteron
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

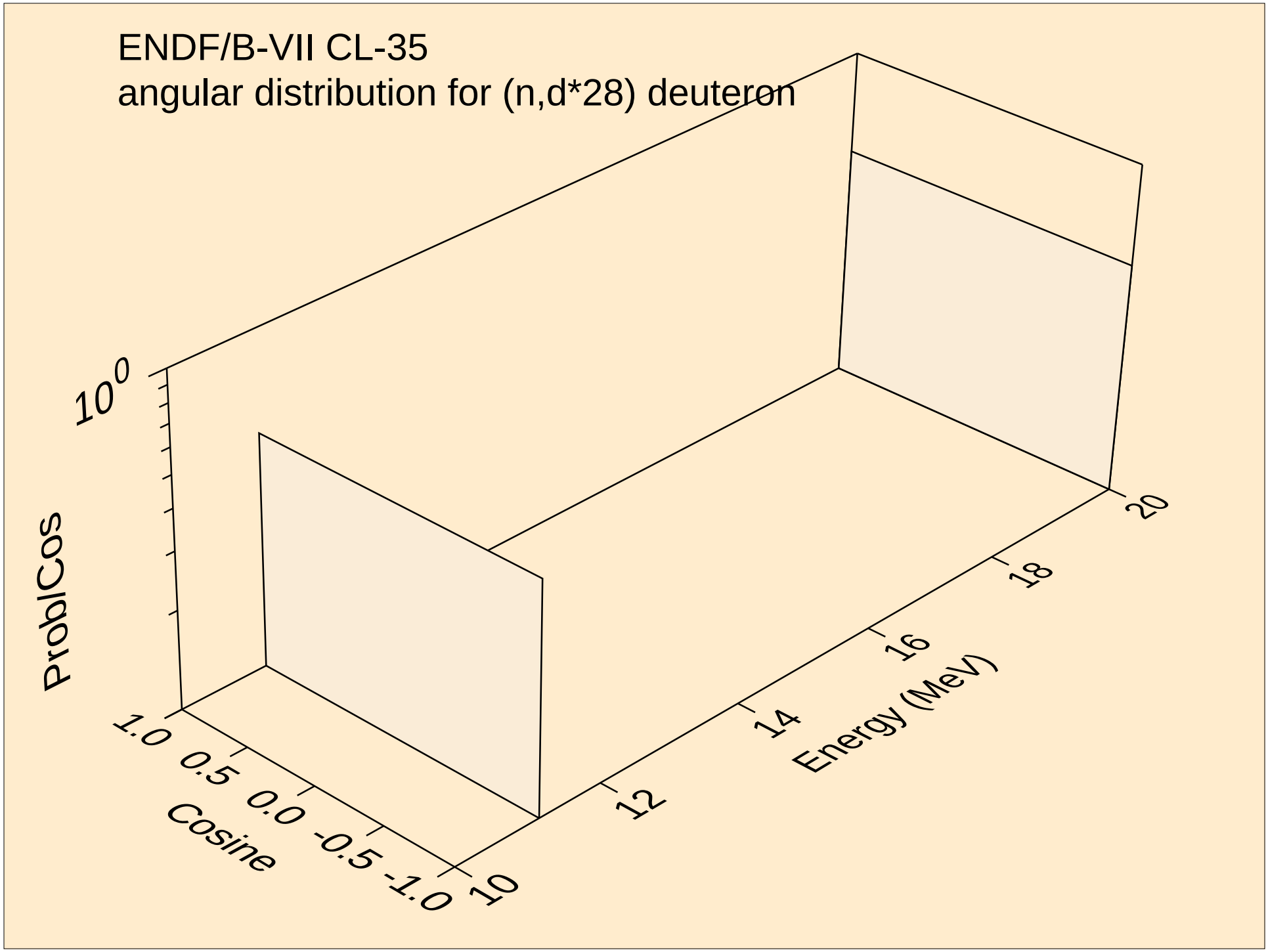

ENDF/B-VII CL-35
angular distribution for (n,d*23) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

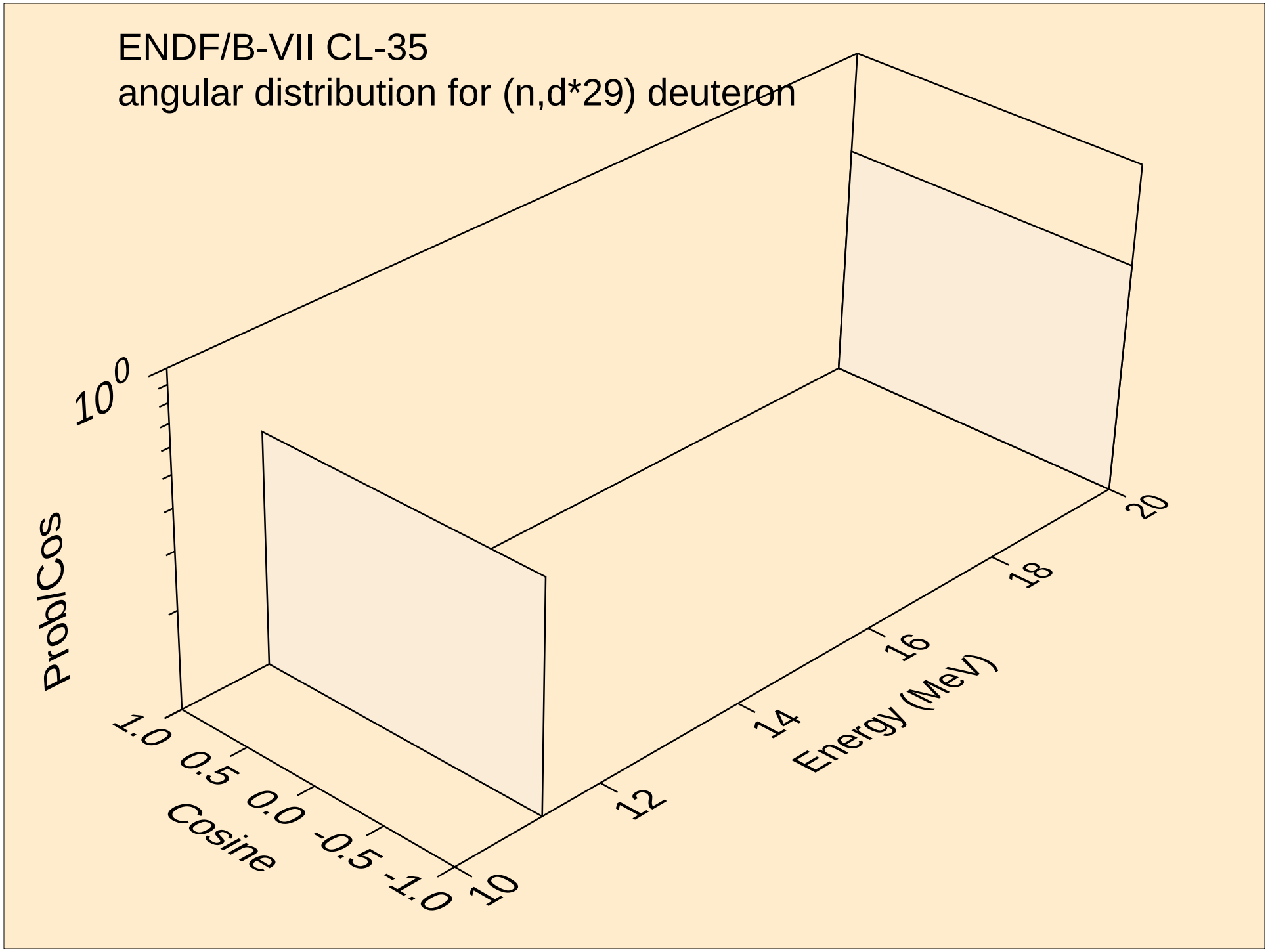

ENDF/B-VII CL-35
angular distribution for (n,d*24) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

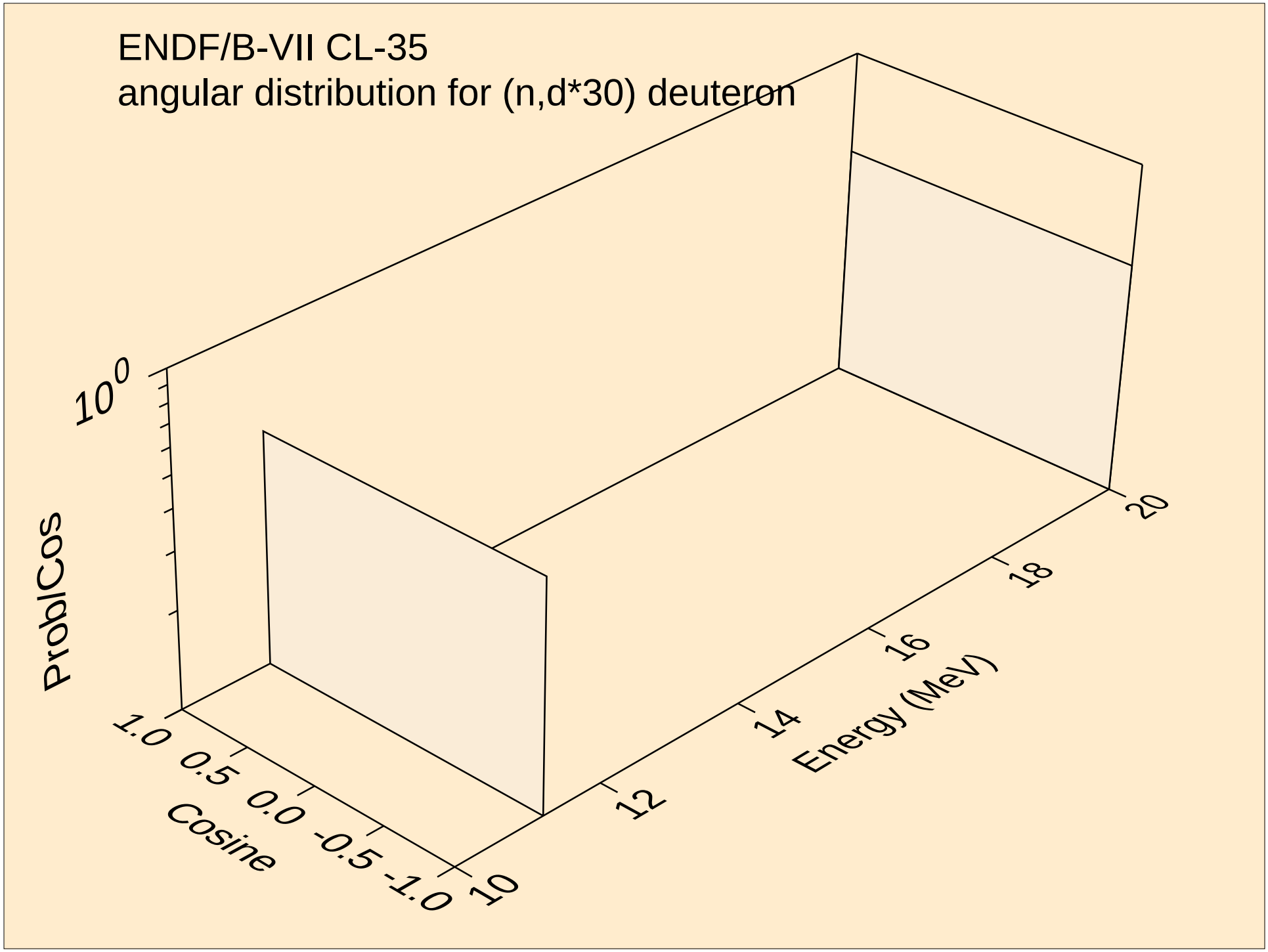

ENDF/B-VII CL-35
angular distribution for (n,d*25) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

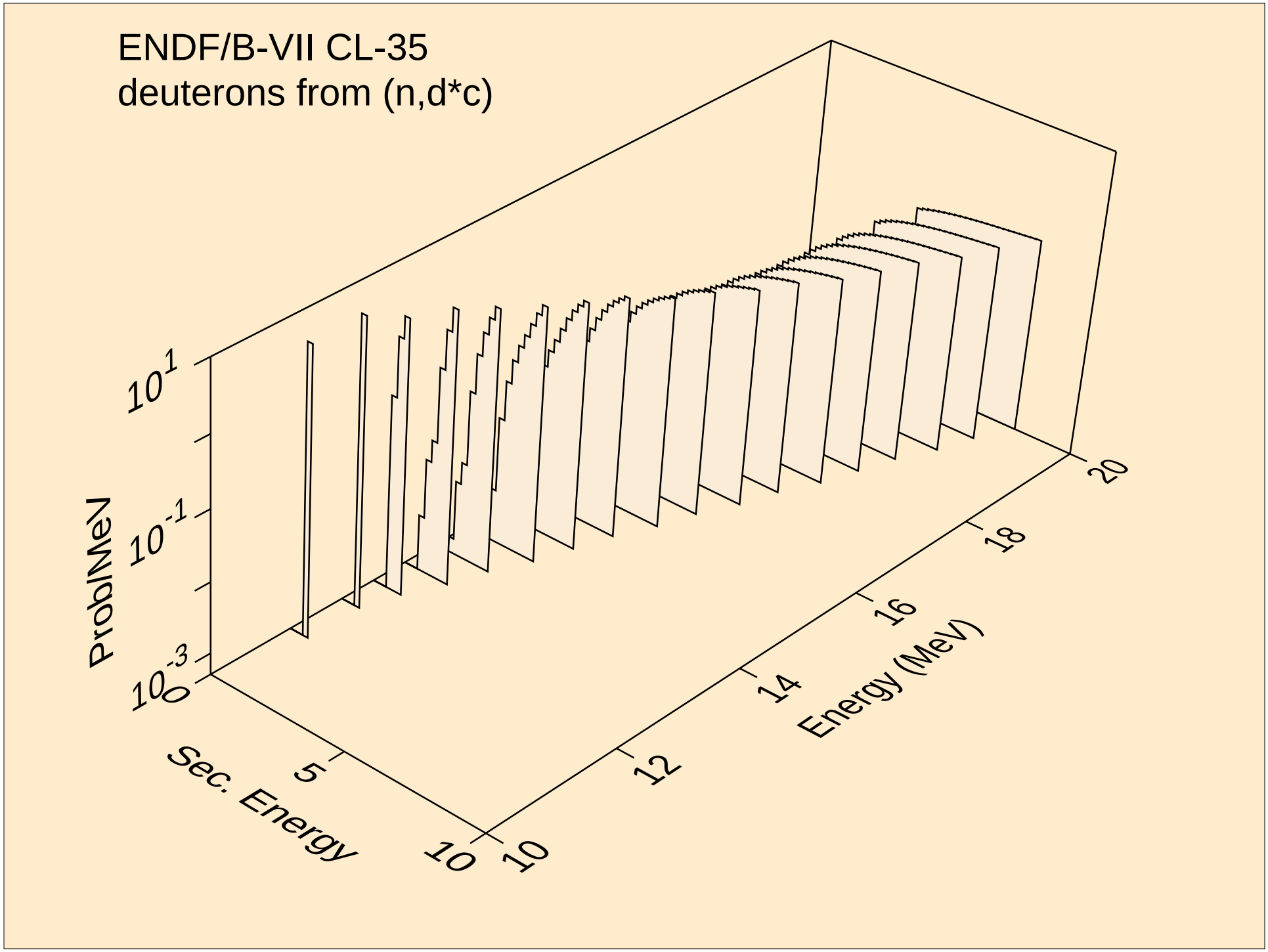

ENDF/B-VII CL-35
angular distribution for (n,d*26) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

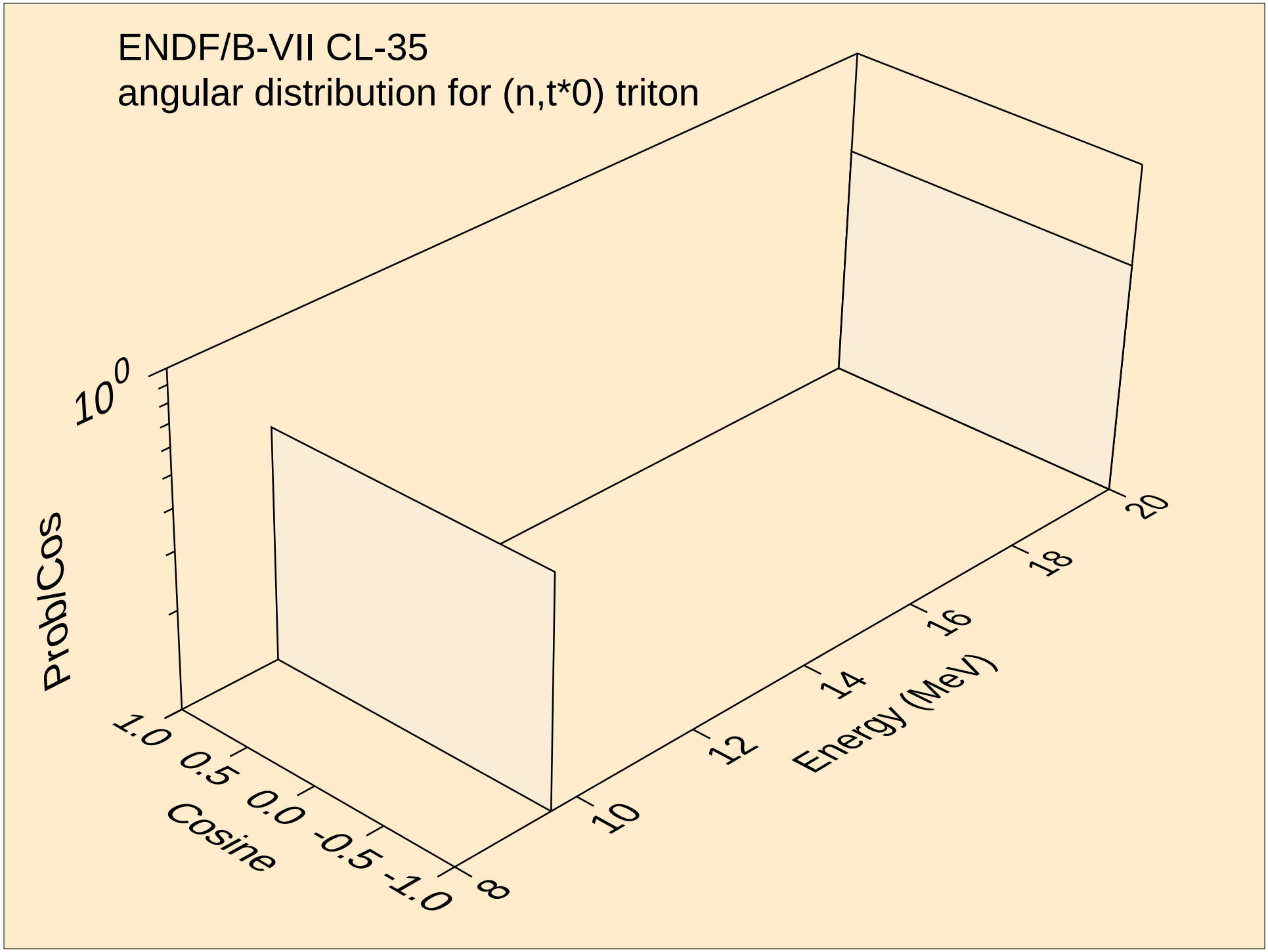

ENDF/B-VII CL-35
angular distribution for (n,d*27) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

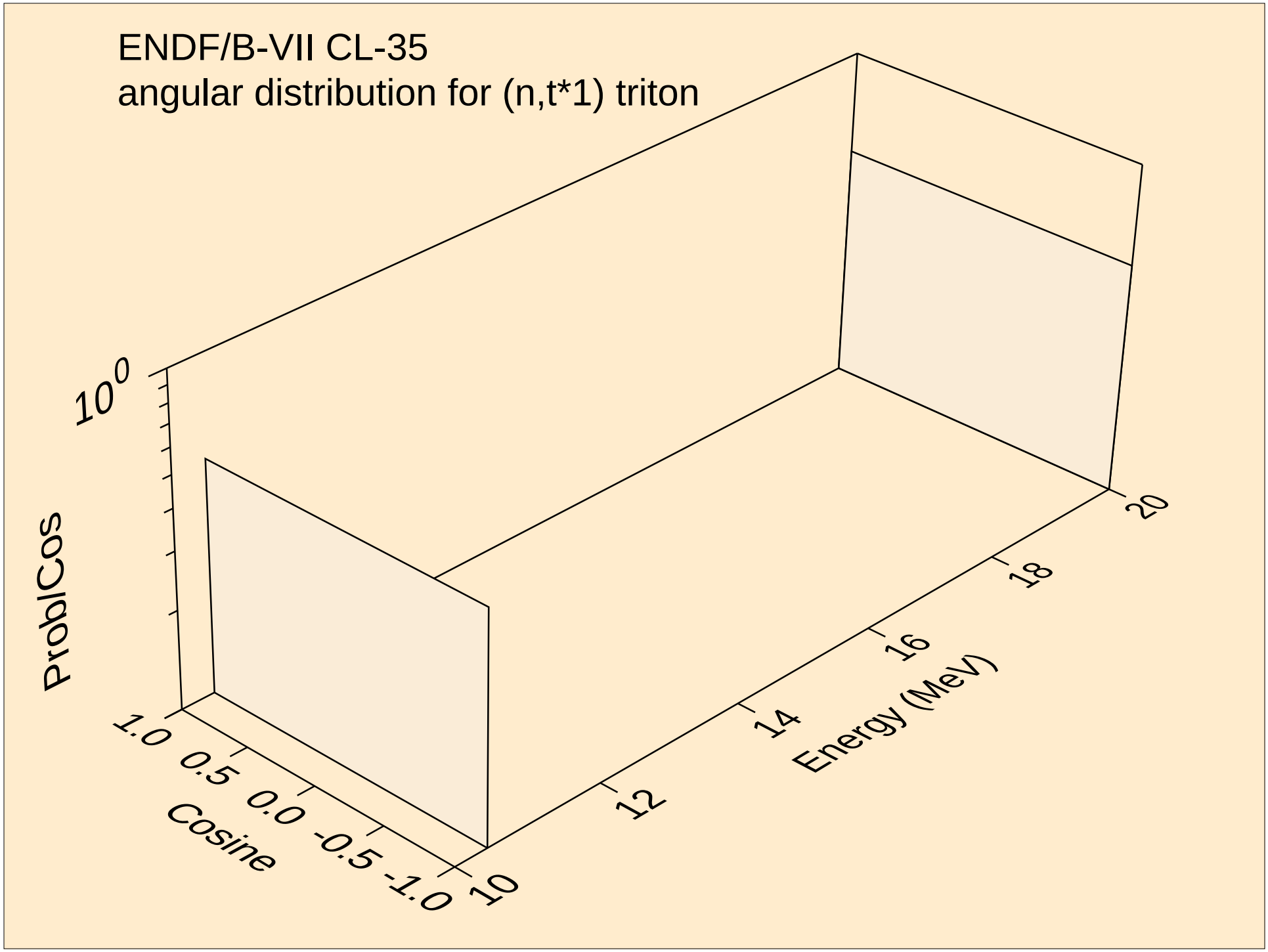

ENDF/B-VII CL-35
angular distribution for (n,d*28) deuteron
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

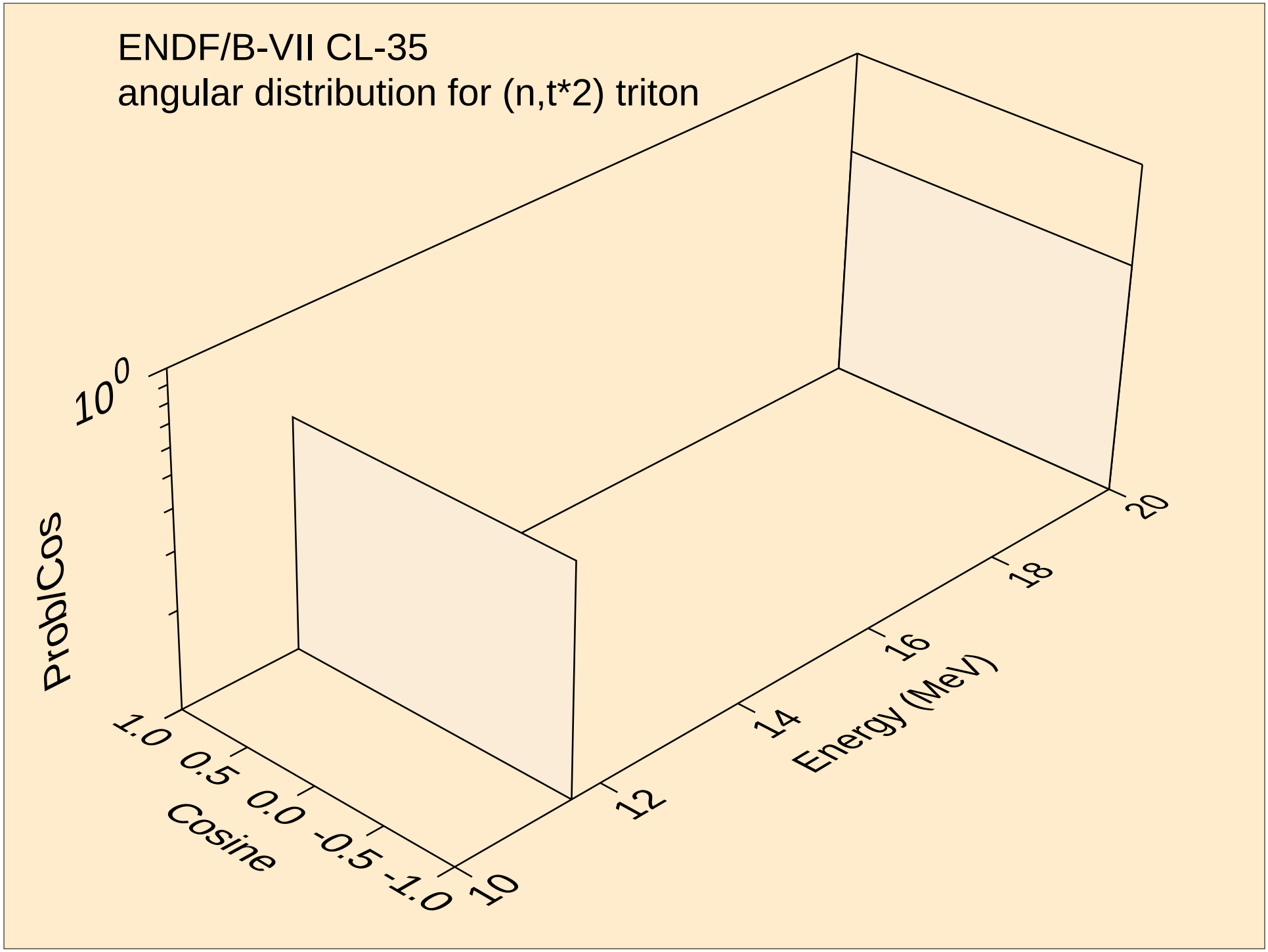

ENDF/B-VII CL-35
angular distribution for (n,d*29) deuteron
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

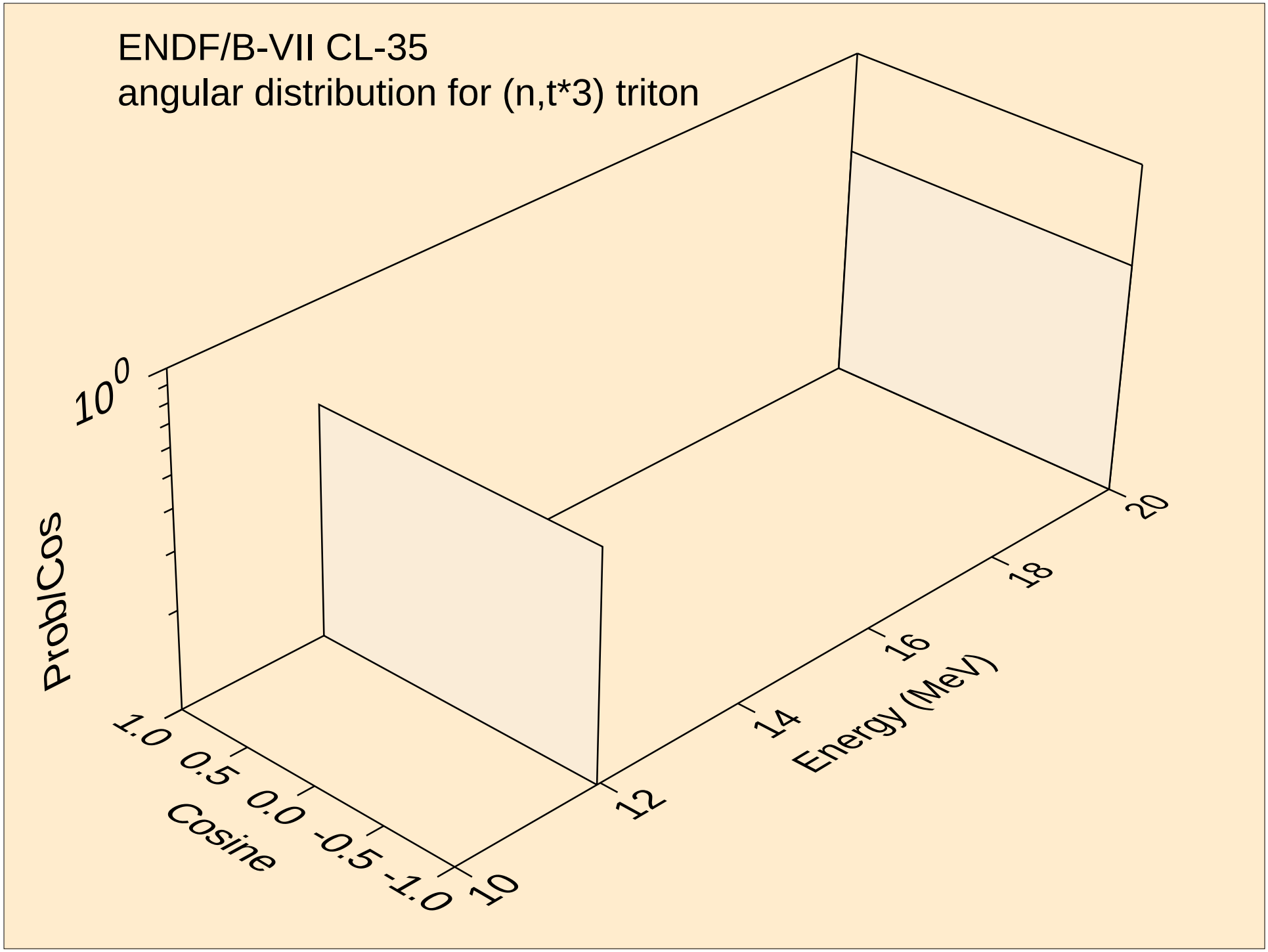

ENDF/B-VII CL-35
angular distribution for (n,d*30) deuteron
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

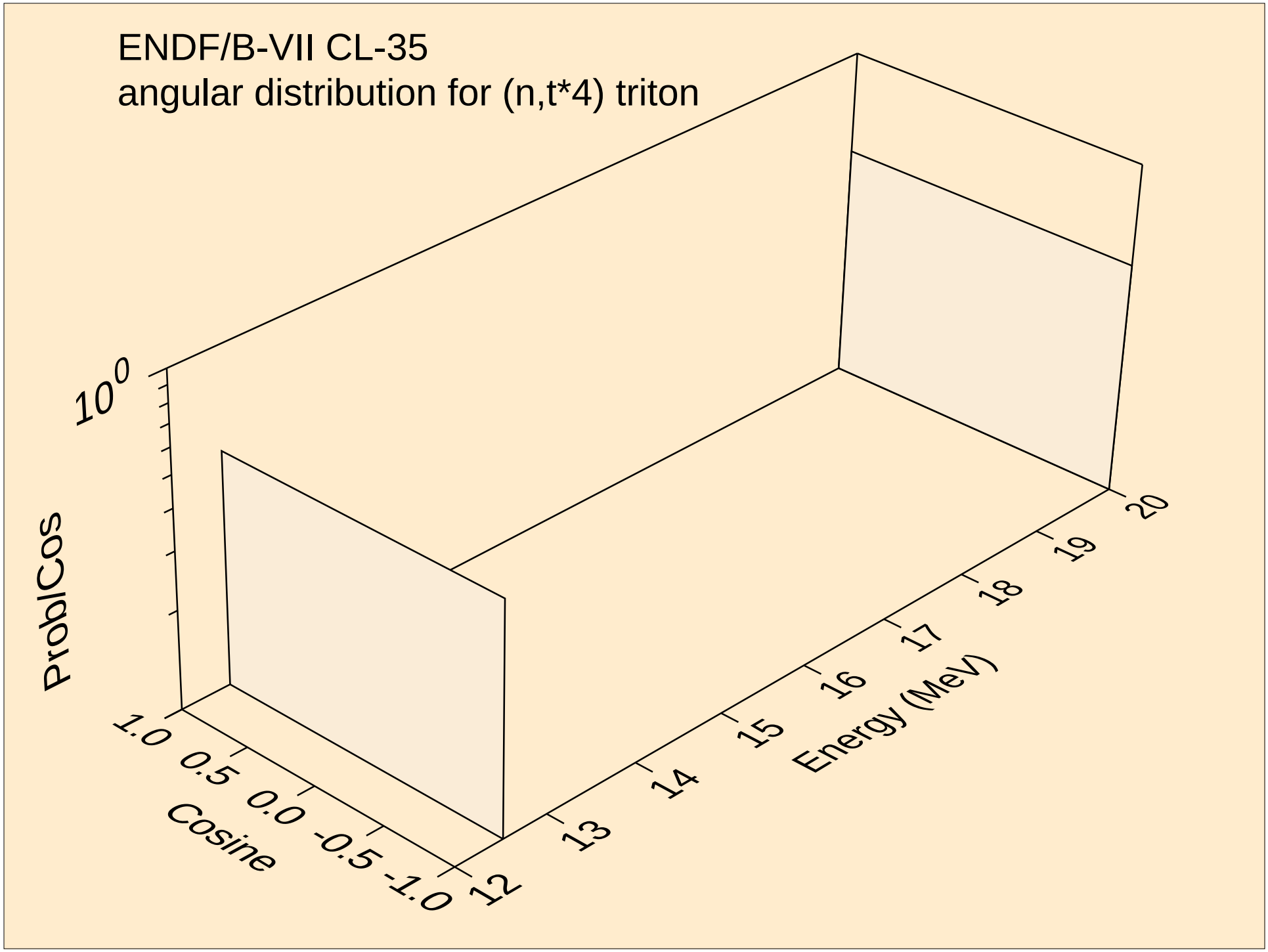

ENDF/B-VII CL-35
deuterons from (n,d*c)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
Sec. Energy
0
5
10
Energy (MeV)
10
12
14
16
18
20

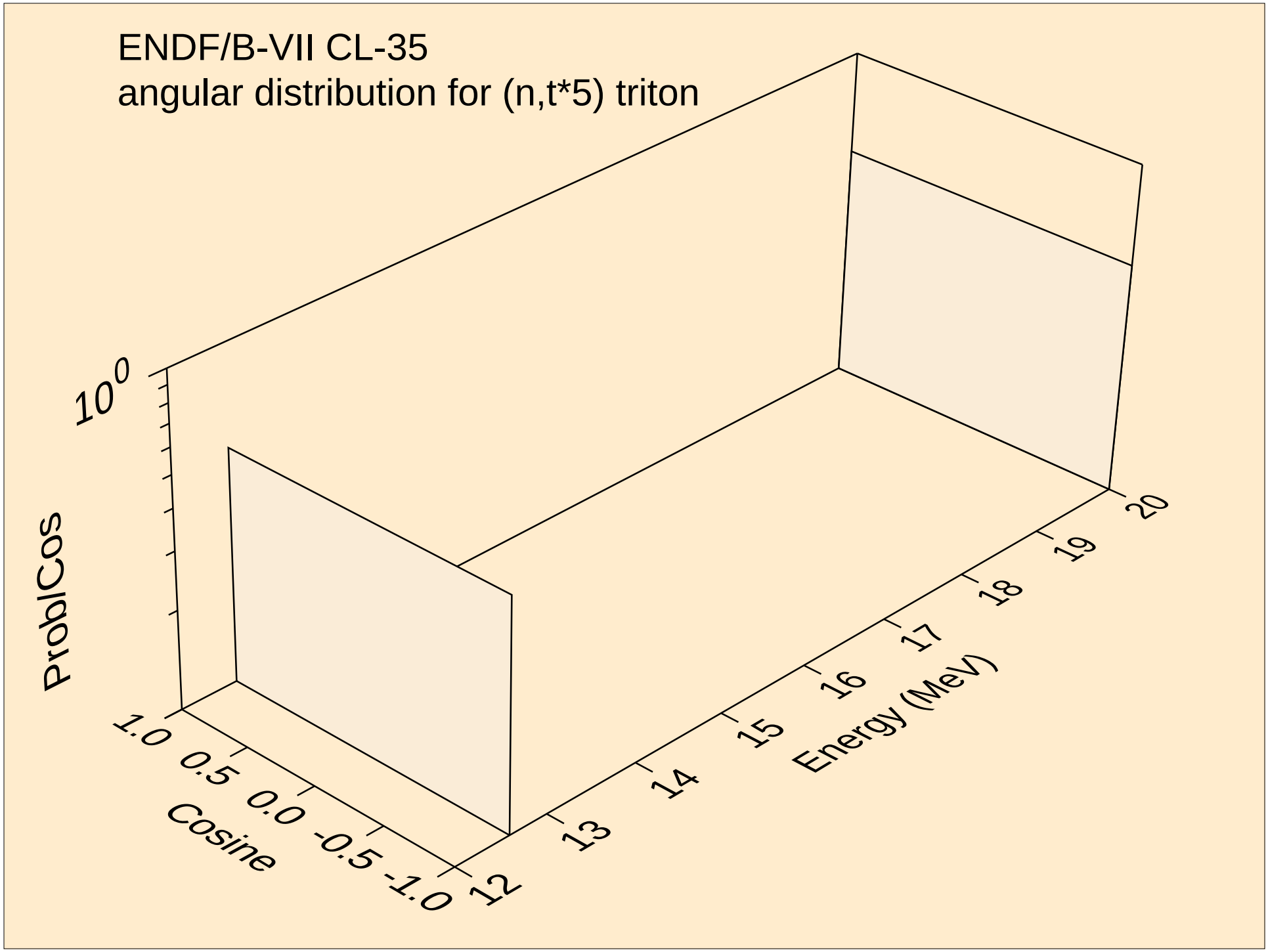

ENDF/B-VII CL-35
angular distribution for (n,t*0) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
8
10
12
14
16
18
20
Energy (MeV)

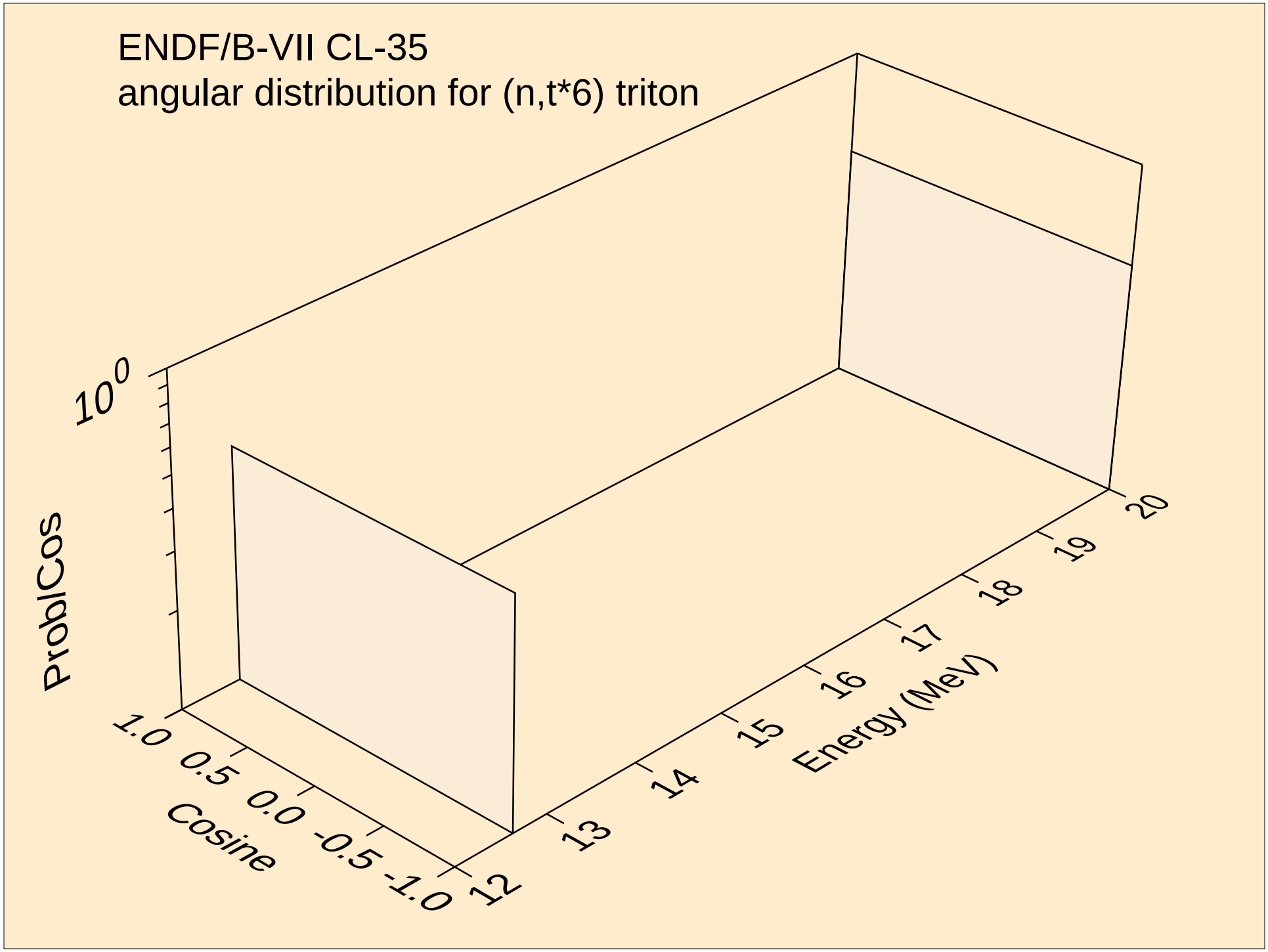

ENDF/B-VII CL-35
angular distribution for (n,t*1) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

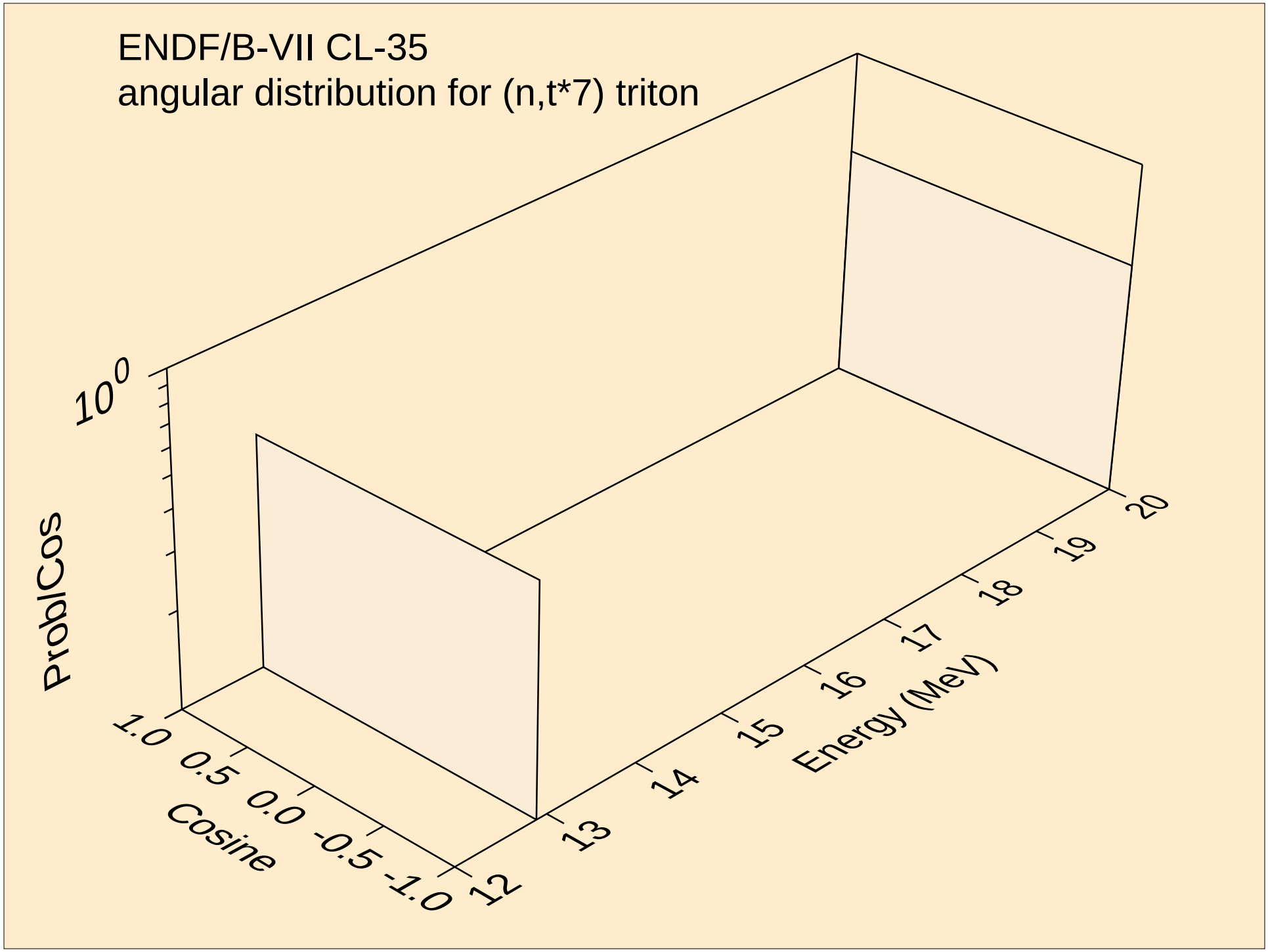

ENDF/B-VII CL-35
angular distribution for (n,t*2) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

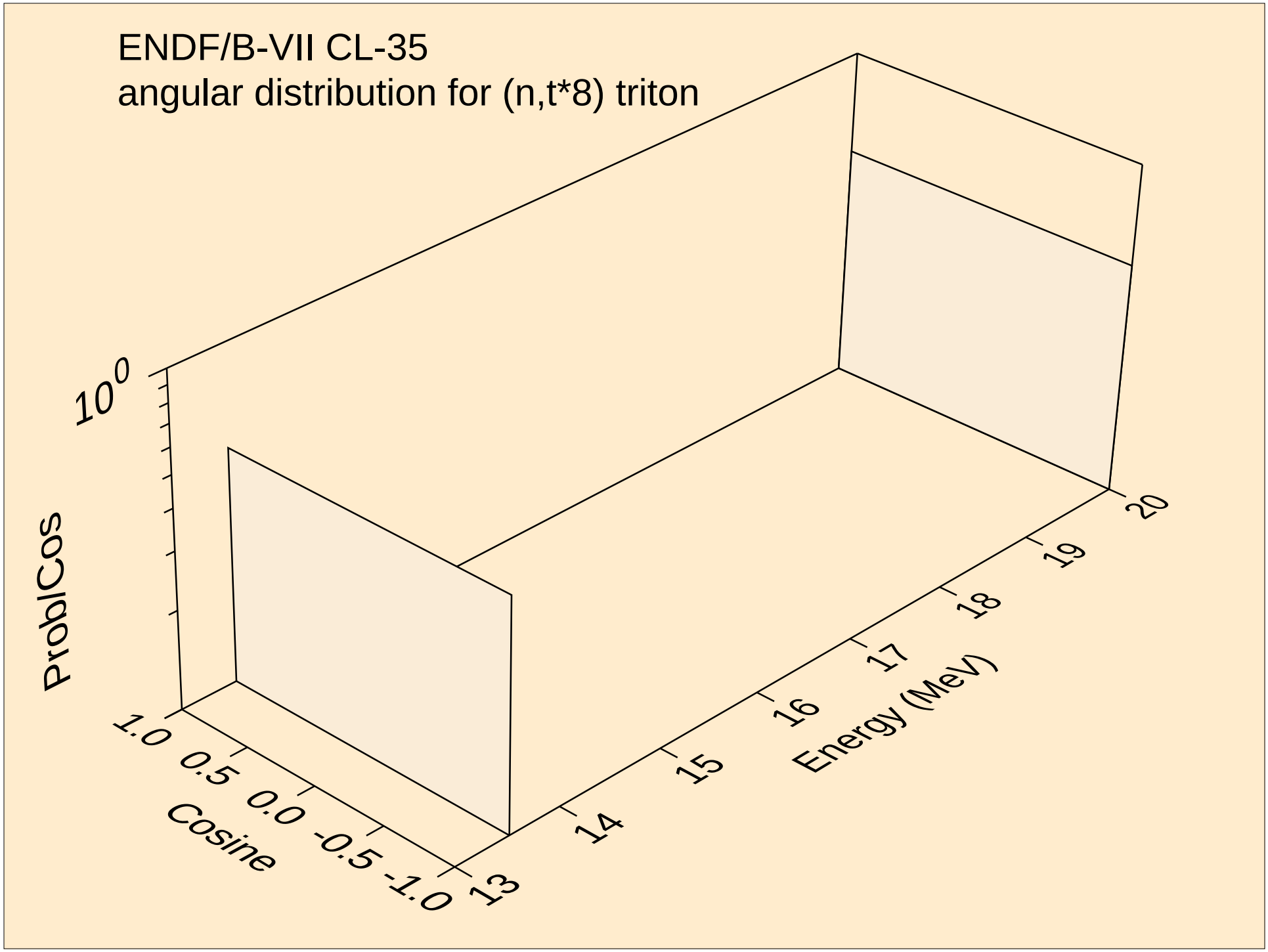

ENDF/B-VII CL-35
angular distribution for (n,t*3) triton
10^0
Prob/Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
10
12
14
16
18
20
Energy (MeV)

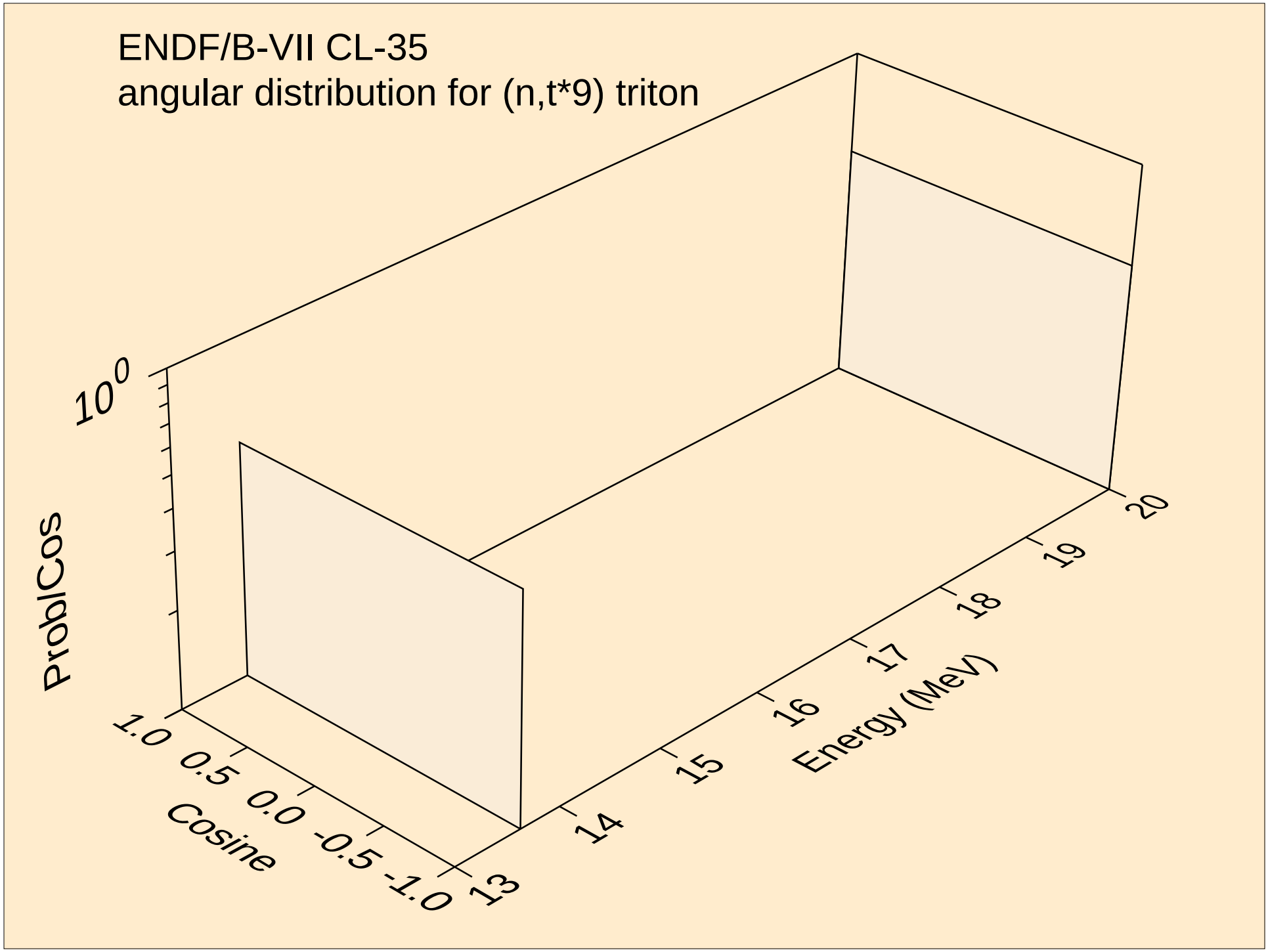

ENDF/B-VII CL-35
angular distribution for (n,t*4) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
12
13
14
15
16
17
18
19
20
Energy (MeV)

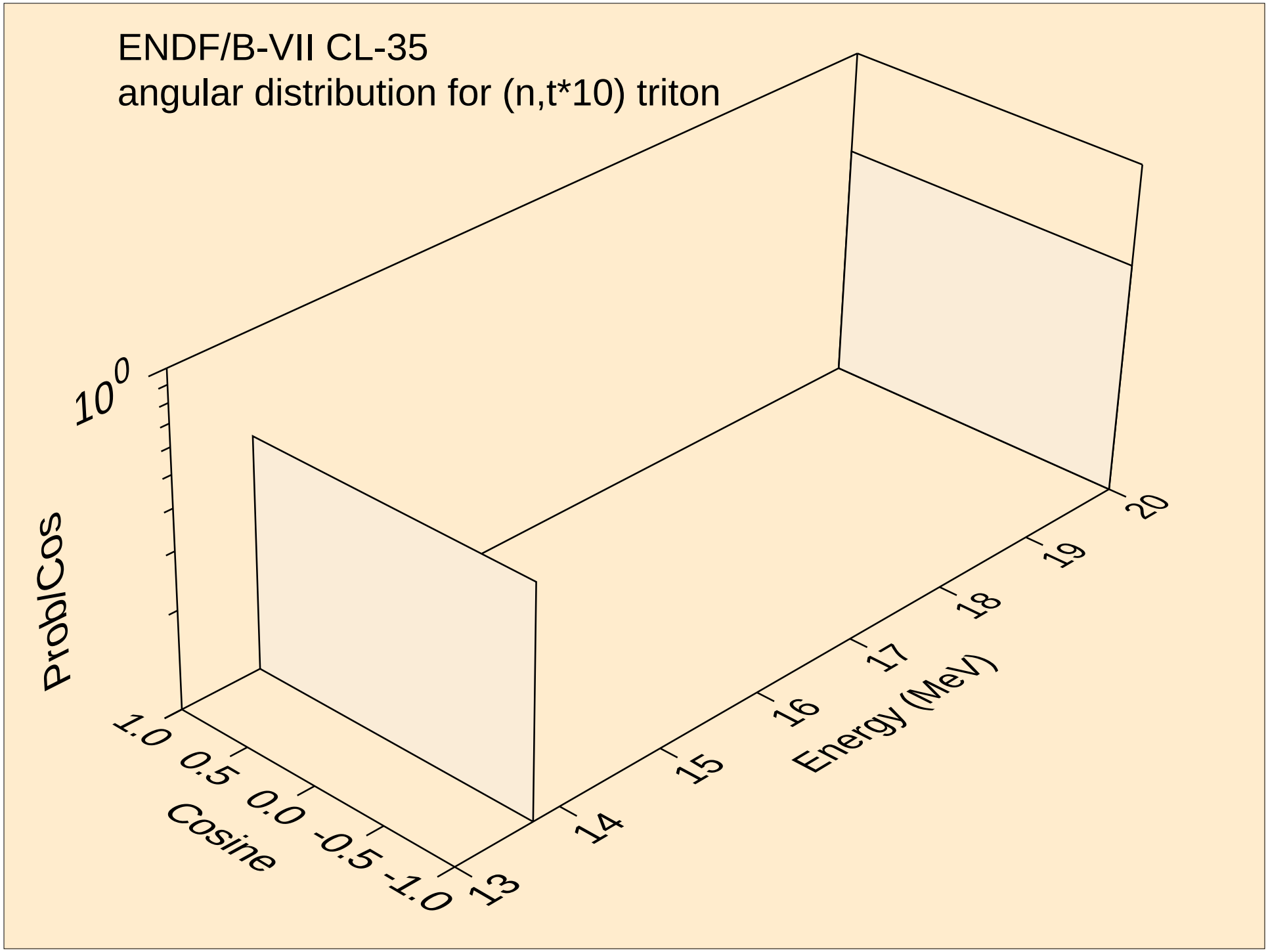

ENDF/B-VII CL-35
angular distribution for (n,t*5) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
12
13
14
15
16
17
18
19
20
Energy (MeV)

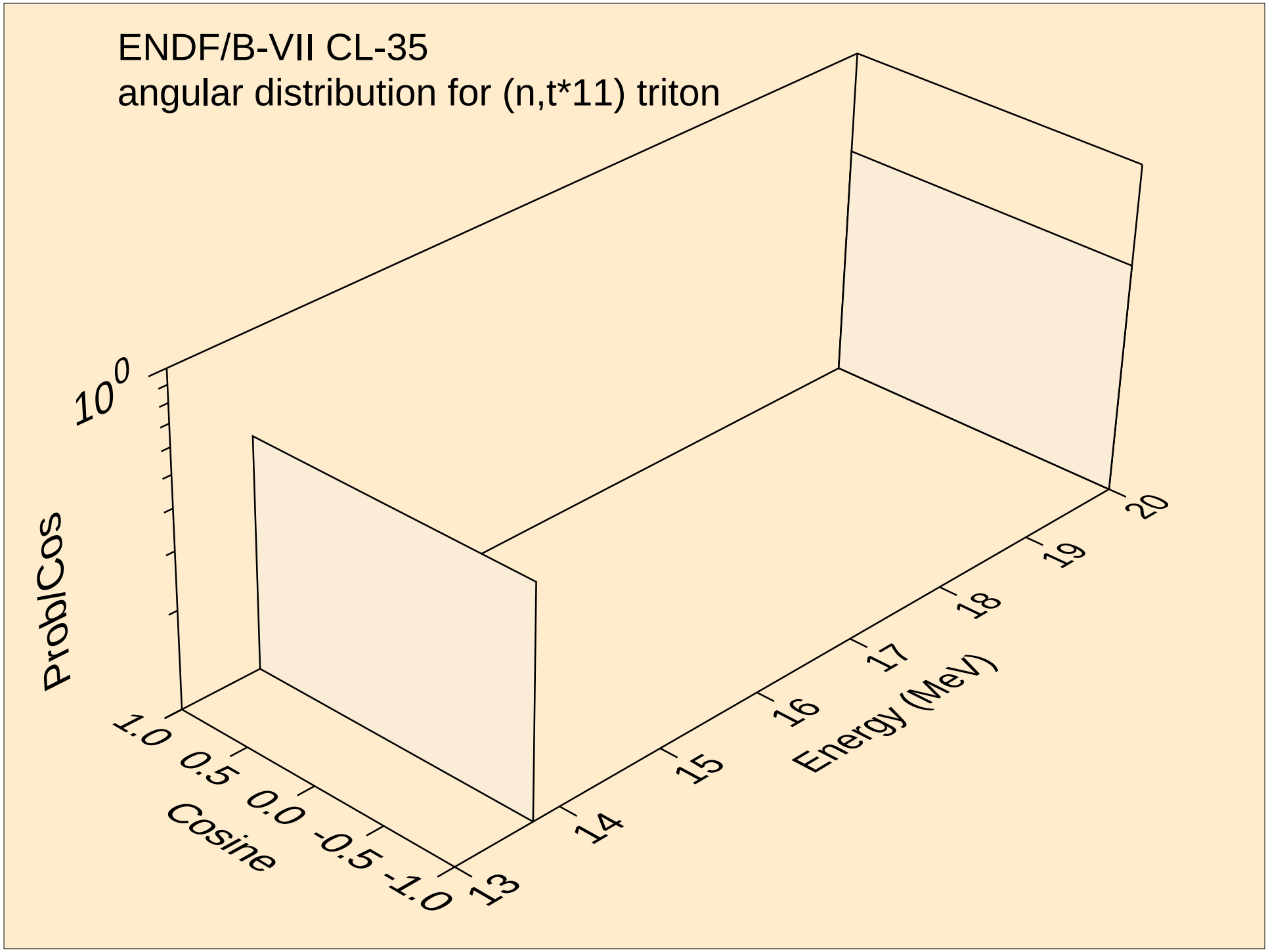

ENDF/B-VII CL-35
angular distribution for (n,t*6) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
12
13
14
15
16
17
18
19
20
Energy (MeV)

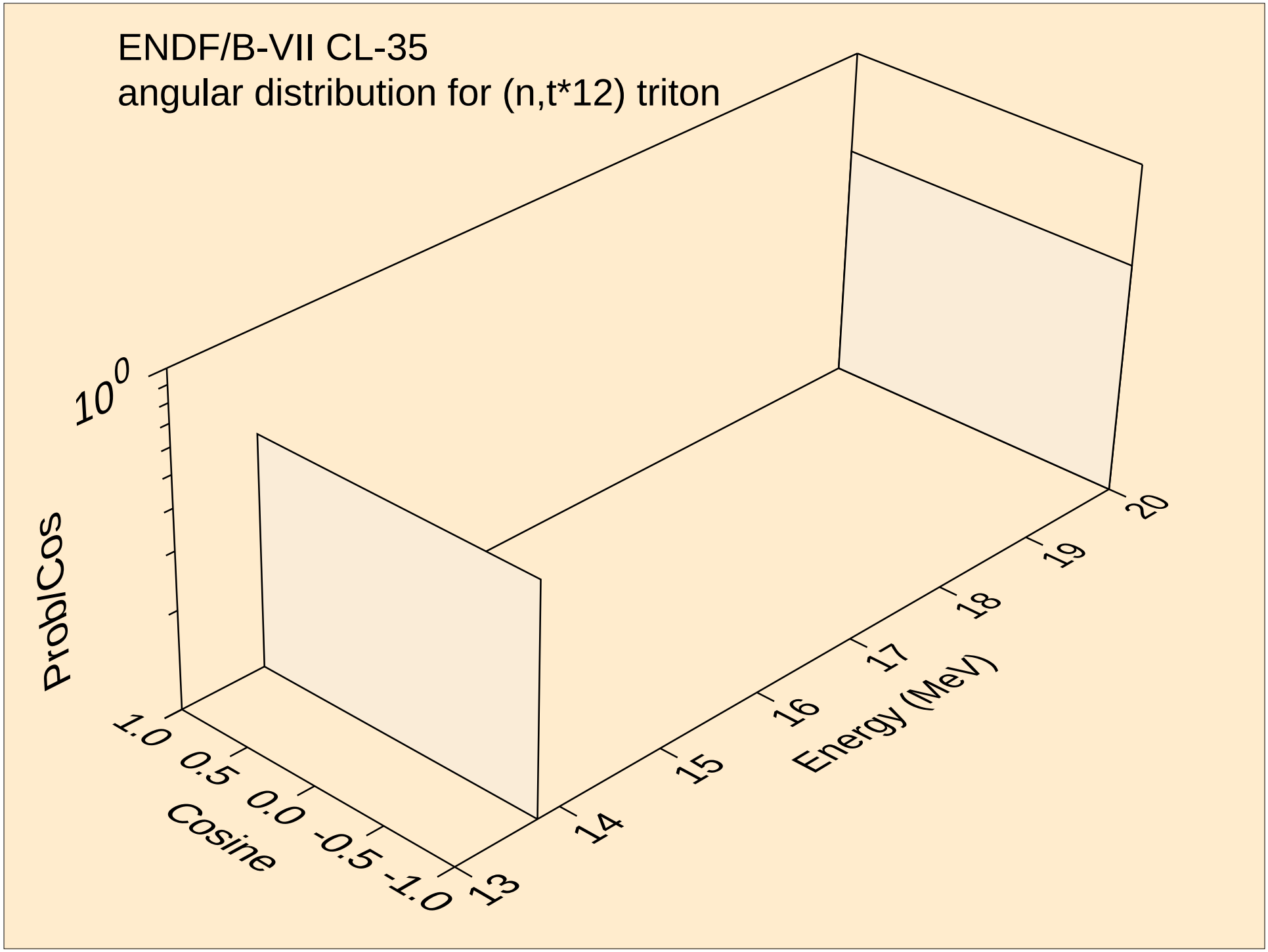

ENDF/B-VII CL-35
angular distribution for (n,t*7) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
12
13
14
15
16
17
18
19
20
Energy (MeV)

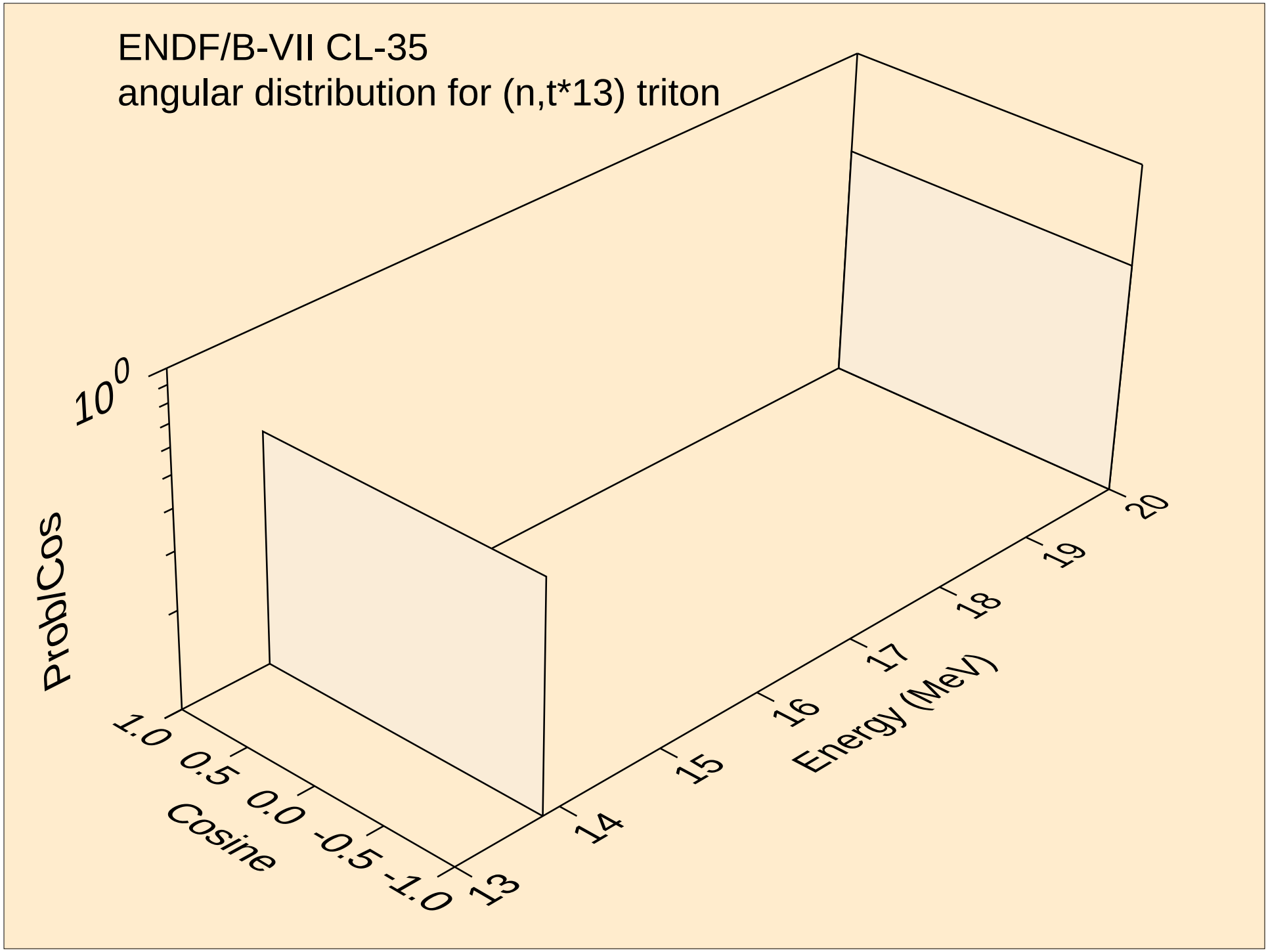

ENDF/B-VII CL-35
angular distribution for (n,t*8) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

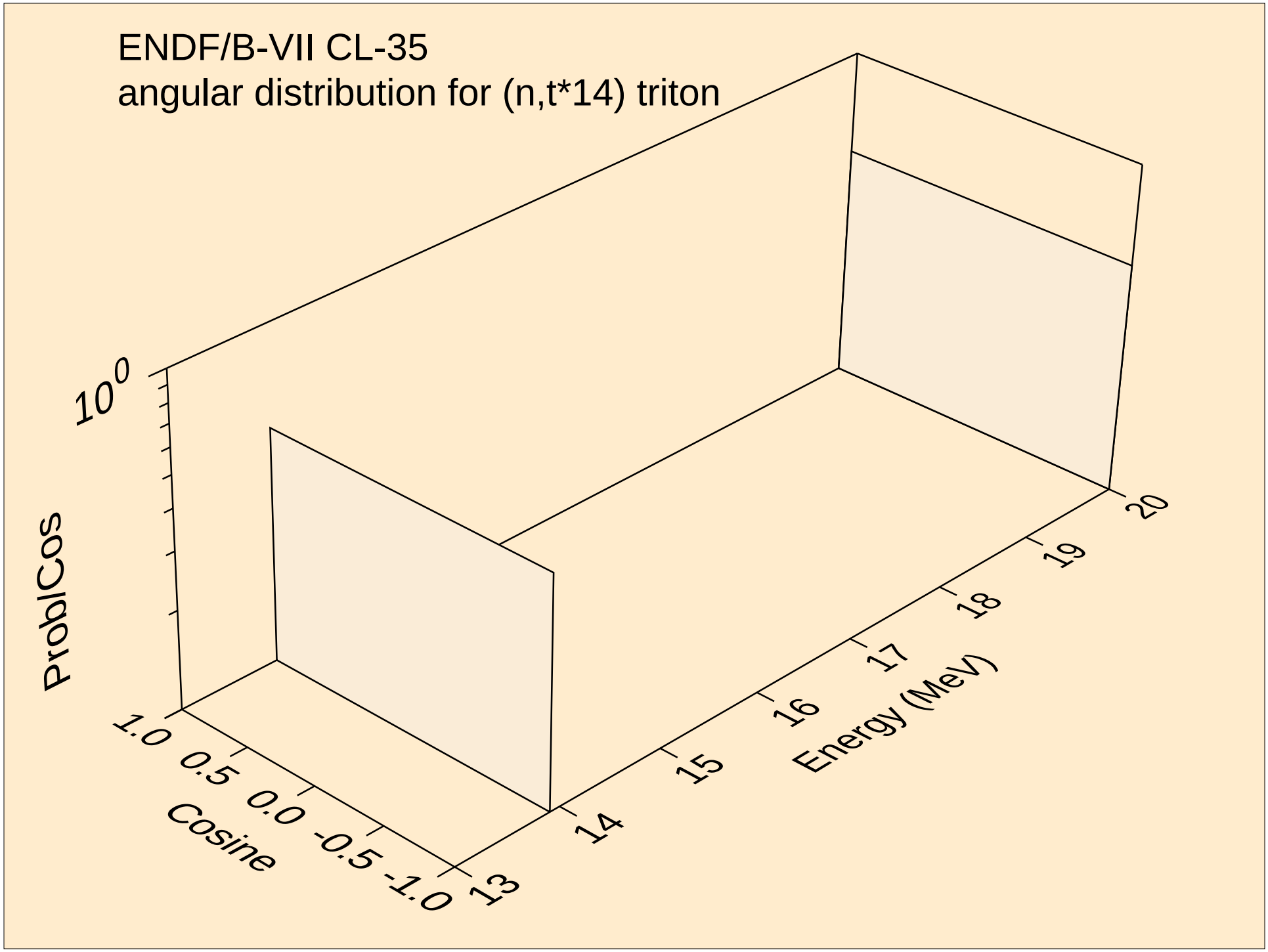

ENDF/B-VII CL-35
angular distribution for (n,t*9) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

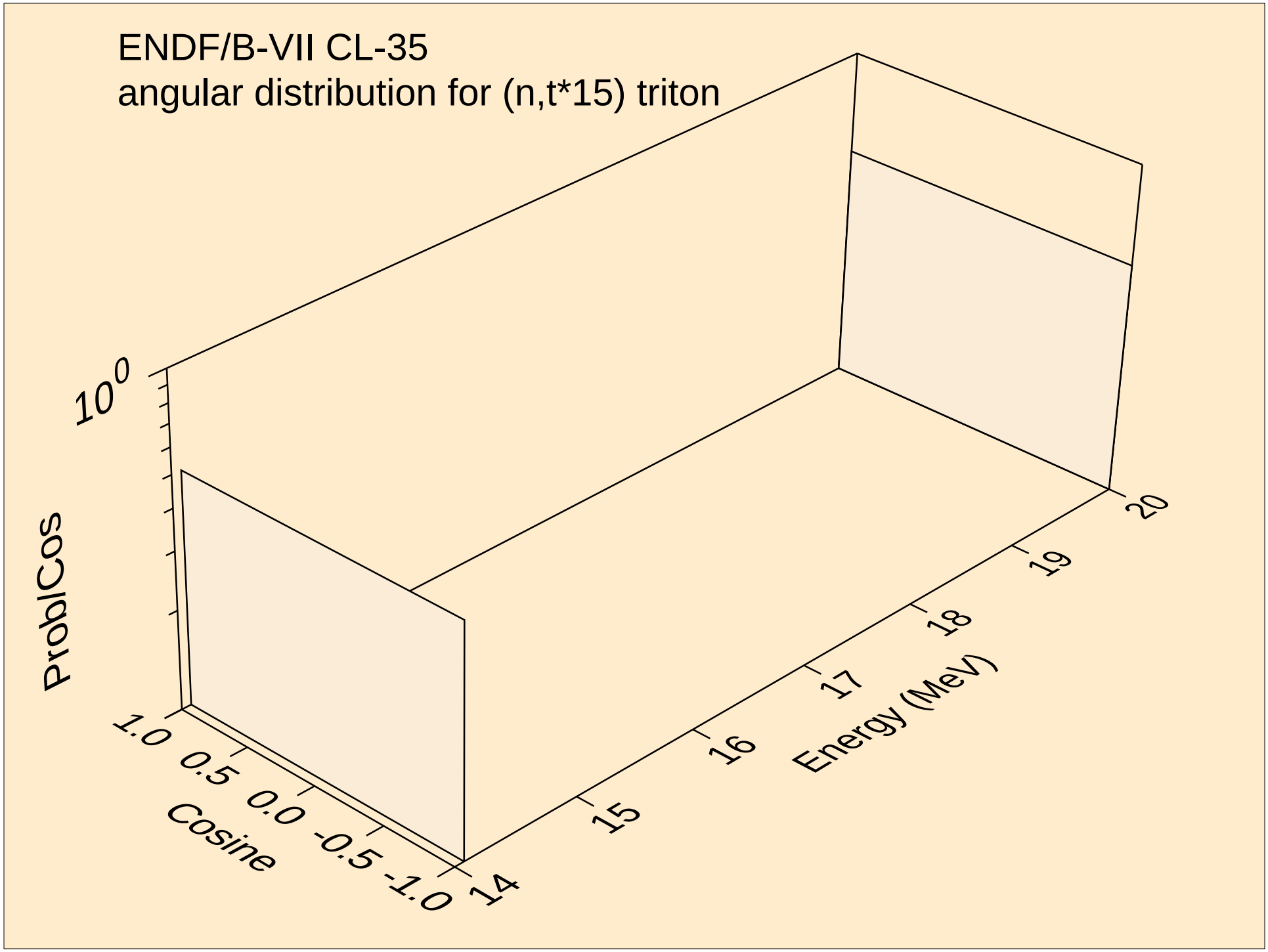

ENDF/B-VII CL-35
angular distribution for (n,t*10) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

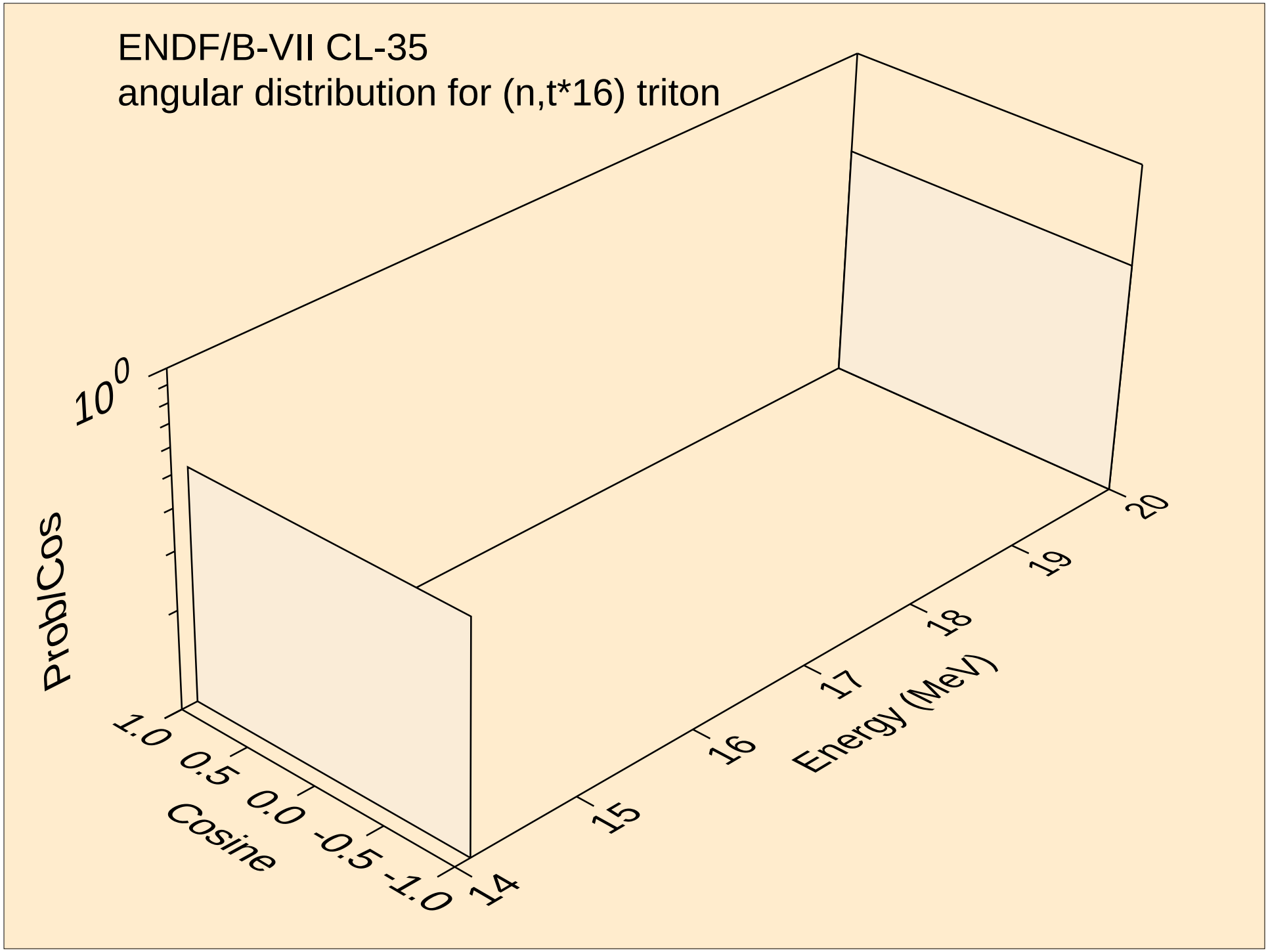

ENDF/B-VII CL-35
angular distribution for (n,t*11) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

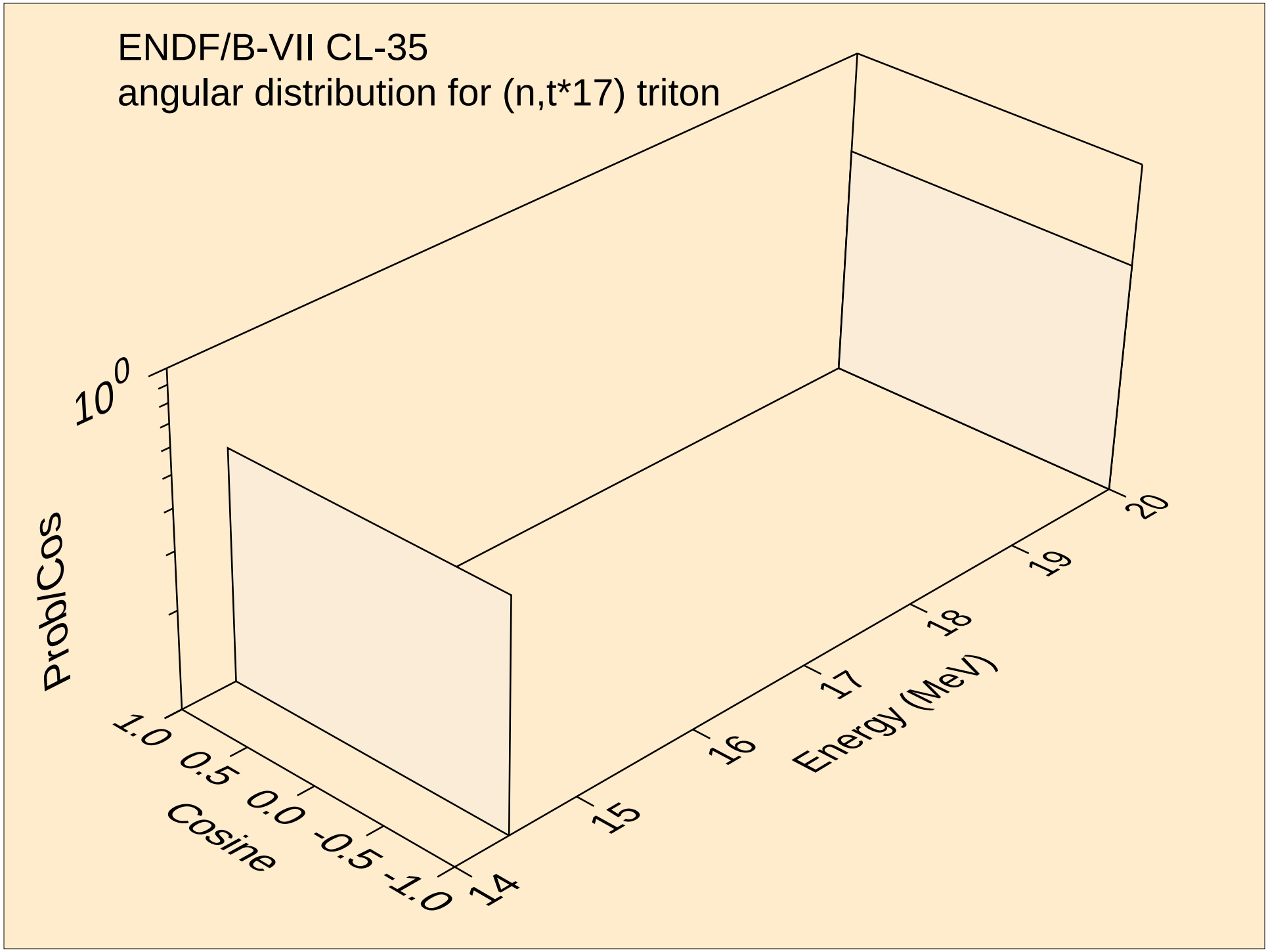

ENDF/B-VII CL-35
angular distribution for (n,t*12) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

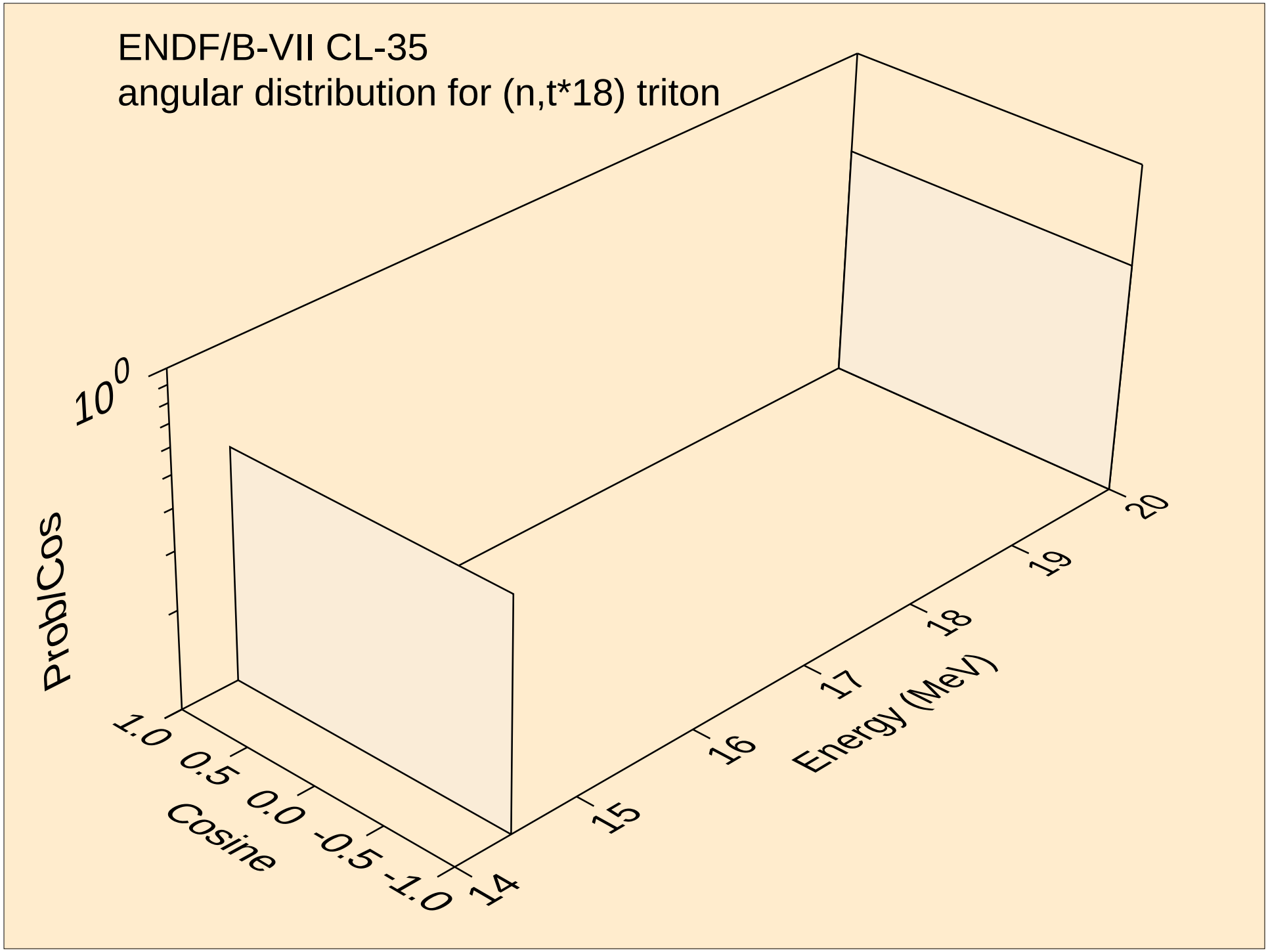

ENDF/B-VII CL-35
angular distribution for (n,t*13) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

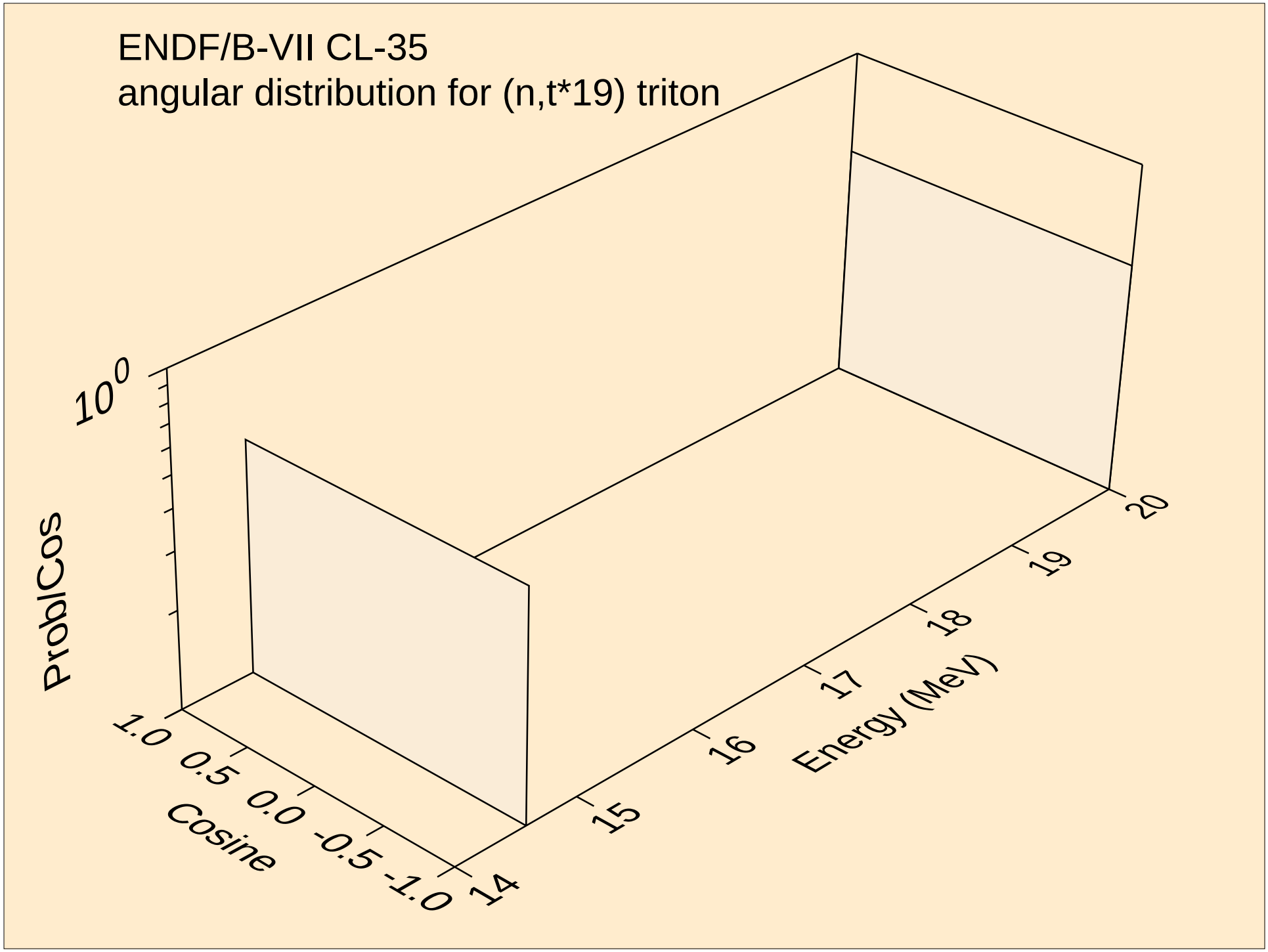

ENDF/B-VII CL-35
angular distribution for (n,t*14) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

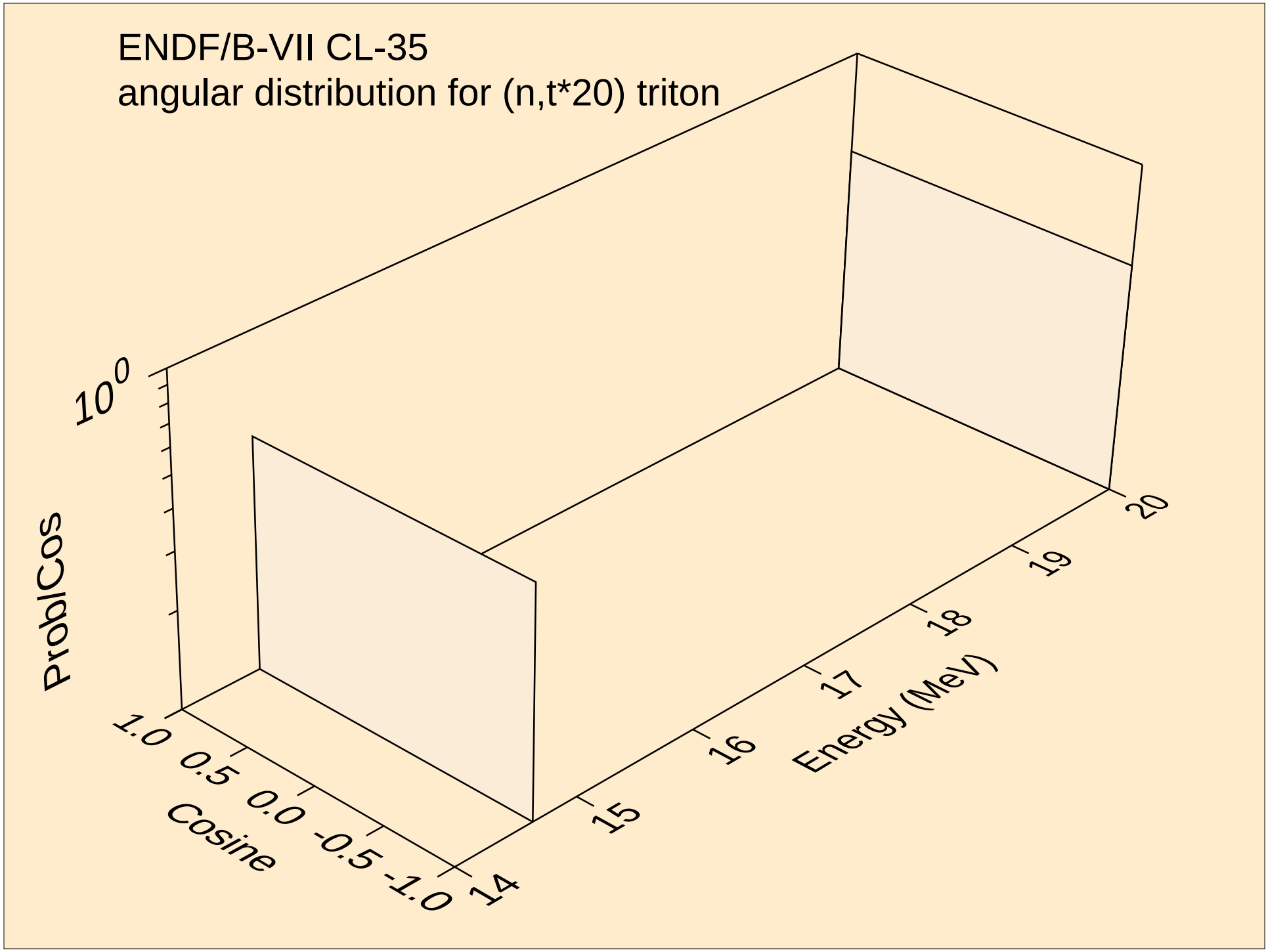

ENDF/B-VII CL-35
angular distribution for (n,t*15) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

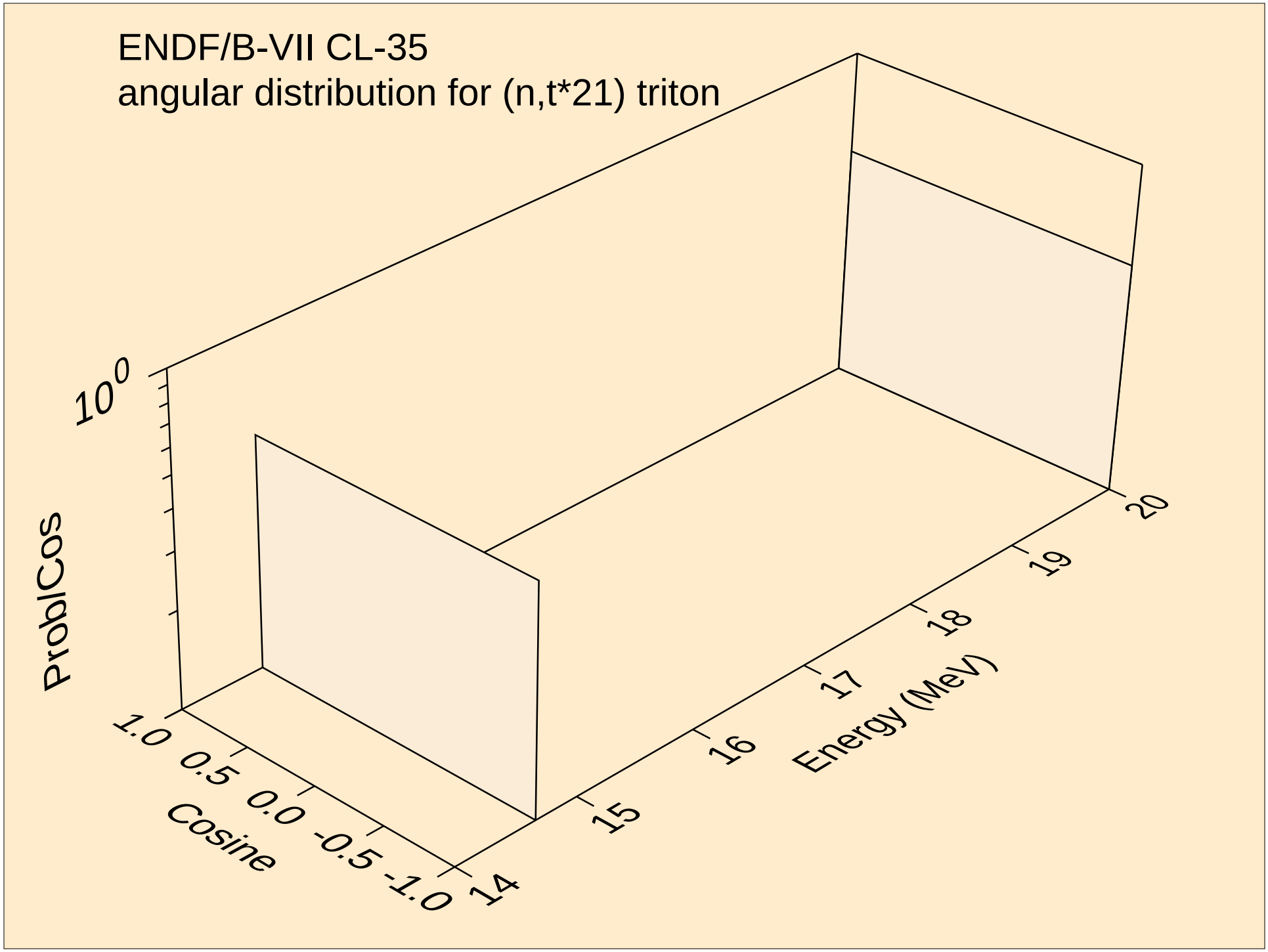

ENDF/B-VII CL-35
angular distribution for (n,t*16) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

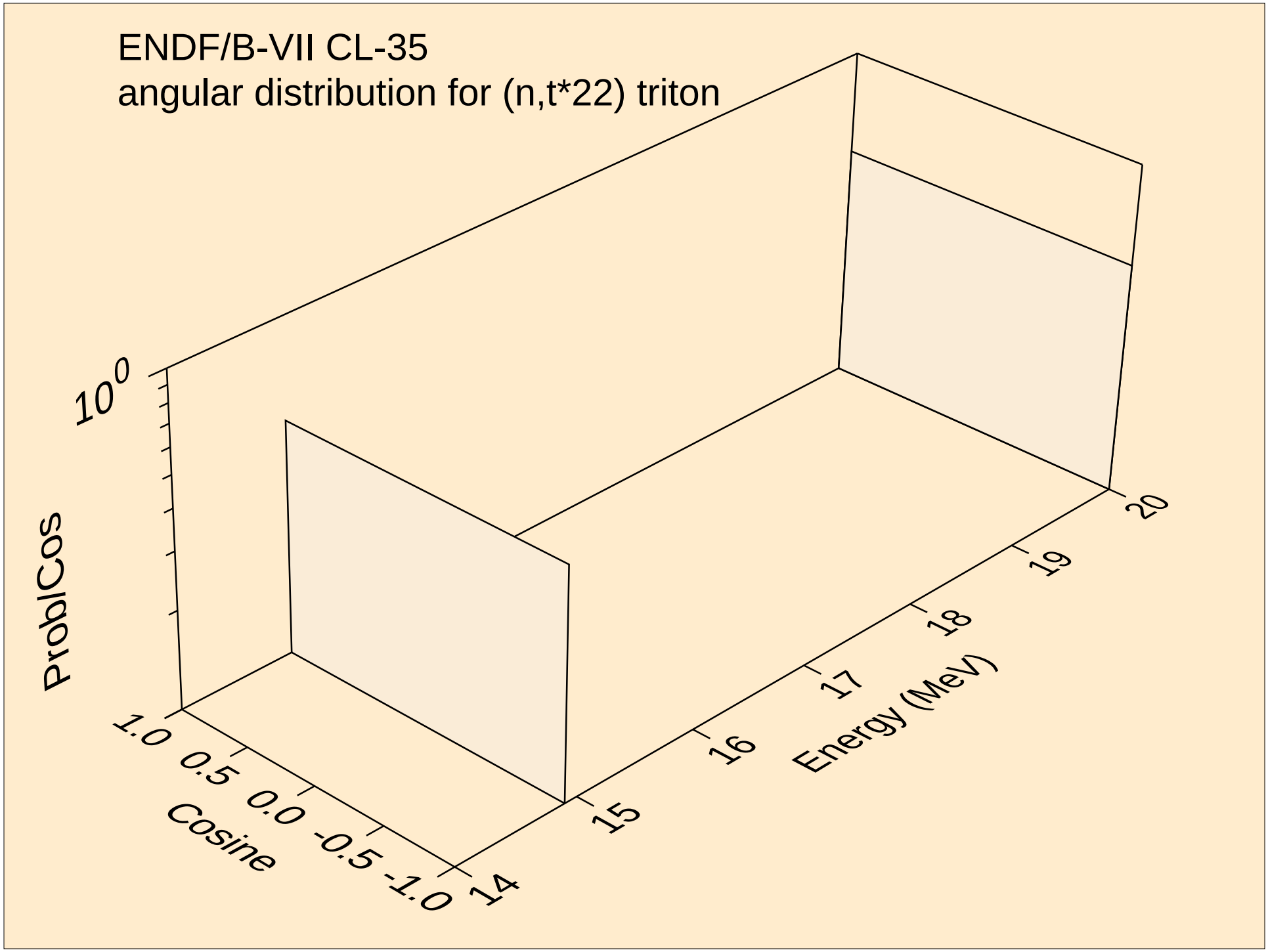

ENDF/B-VII CL-35
angular distribution for (n,t*17) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

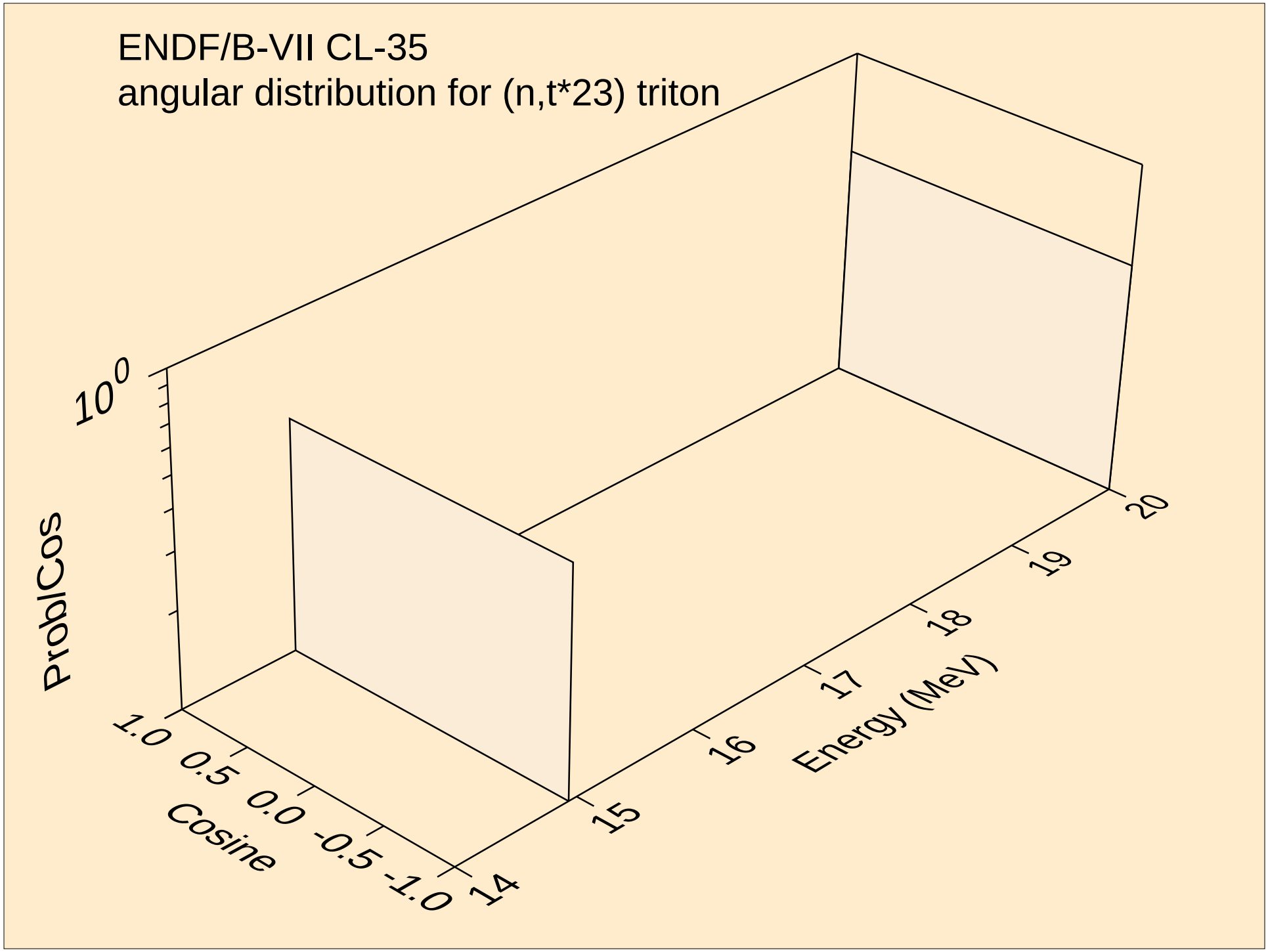

ENDF/B-VII CL-35
angular distribution for (n,t*18) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

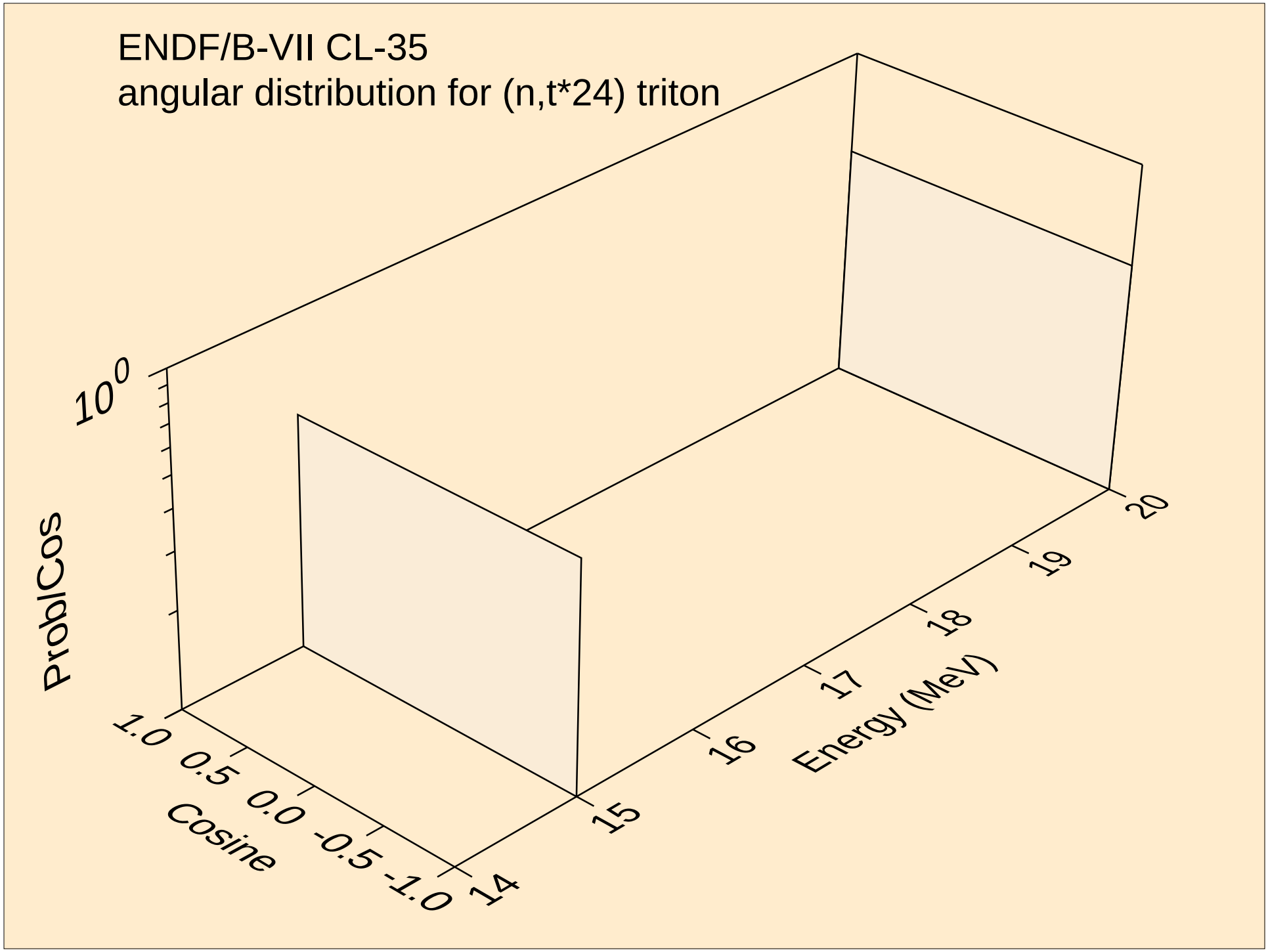

ENDF/B-VII CL-35
angular distribution for (n,t*19) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

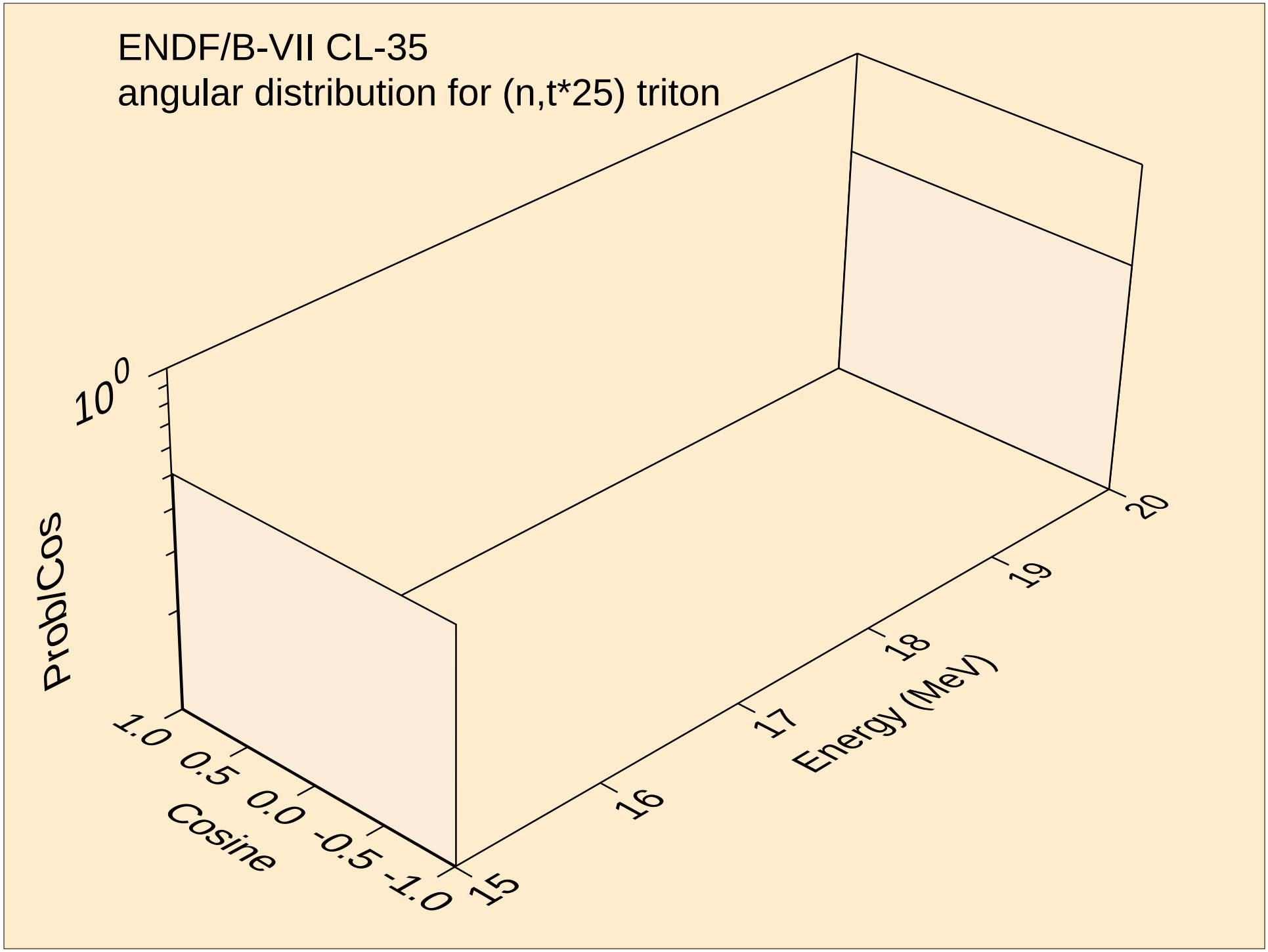

ENDF/B-VII CL-35
angular distribution for (n,t*20) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

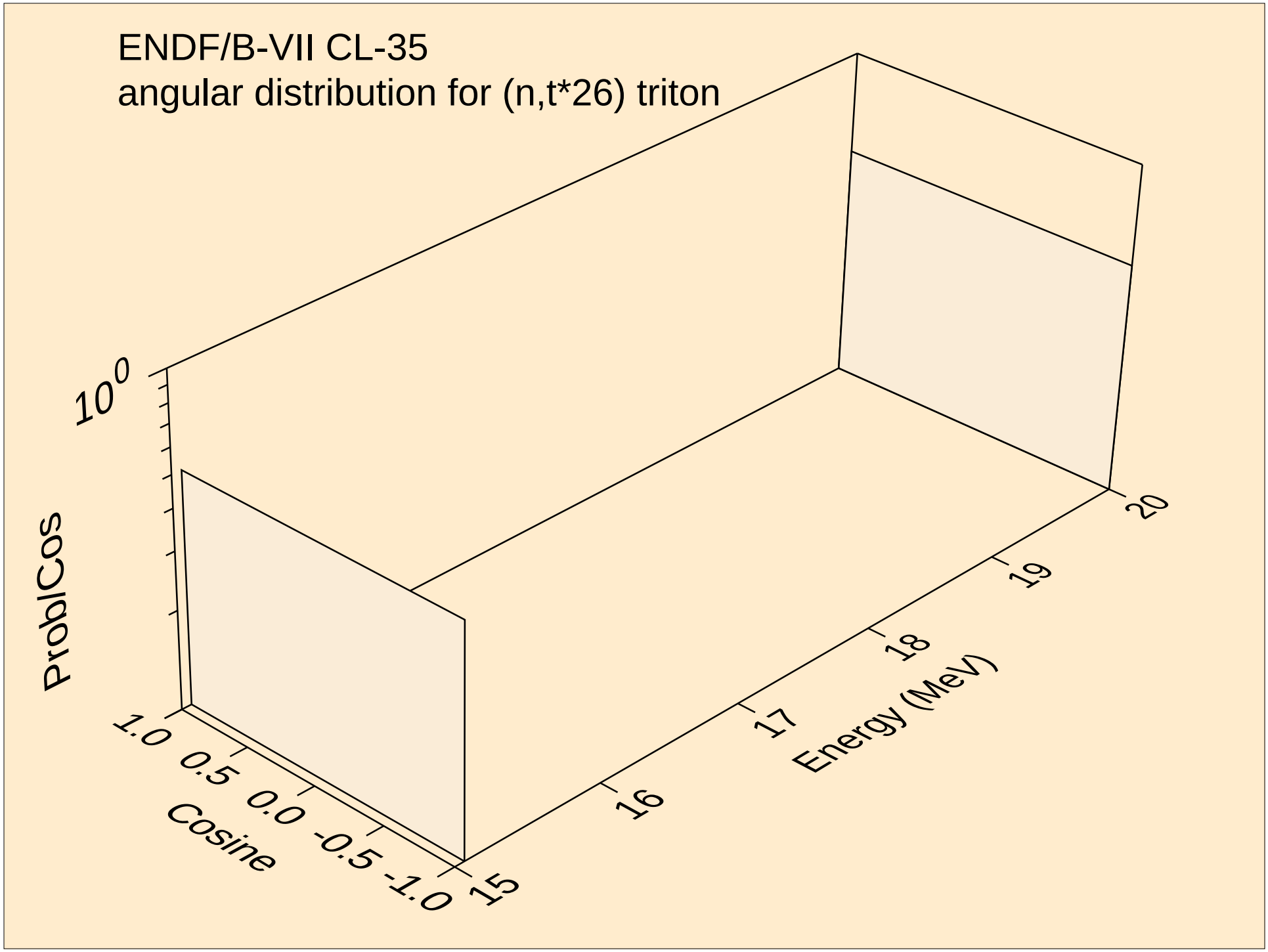

ENDF/B-VII CL-35
angular distribution for (n,t*21) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

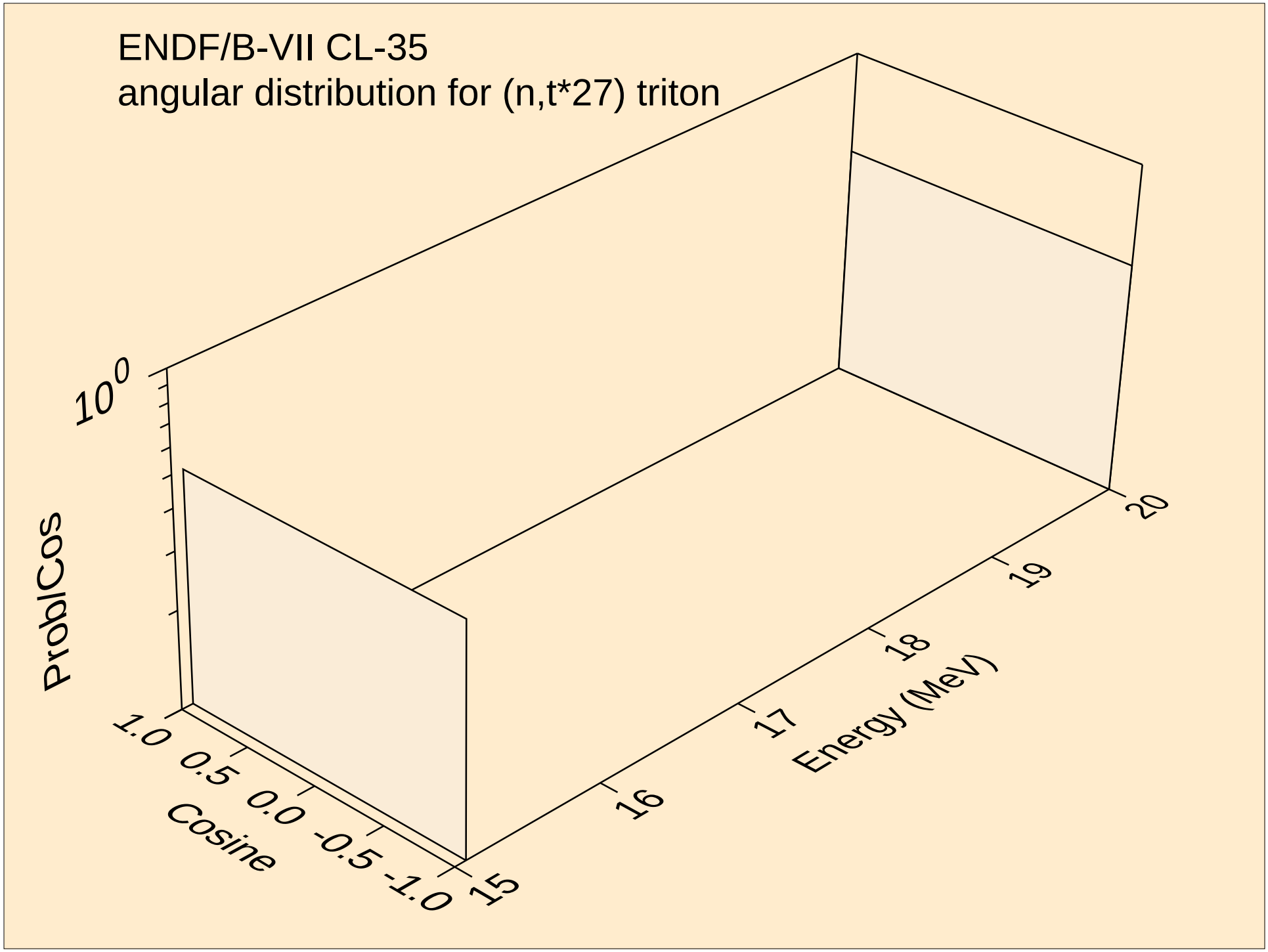

ENDF/B-VII CL-35
angular distribution for (n,t*22) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

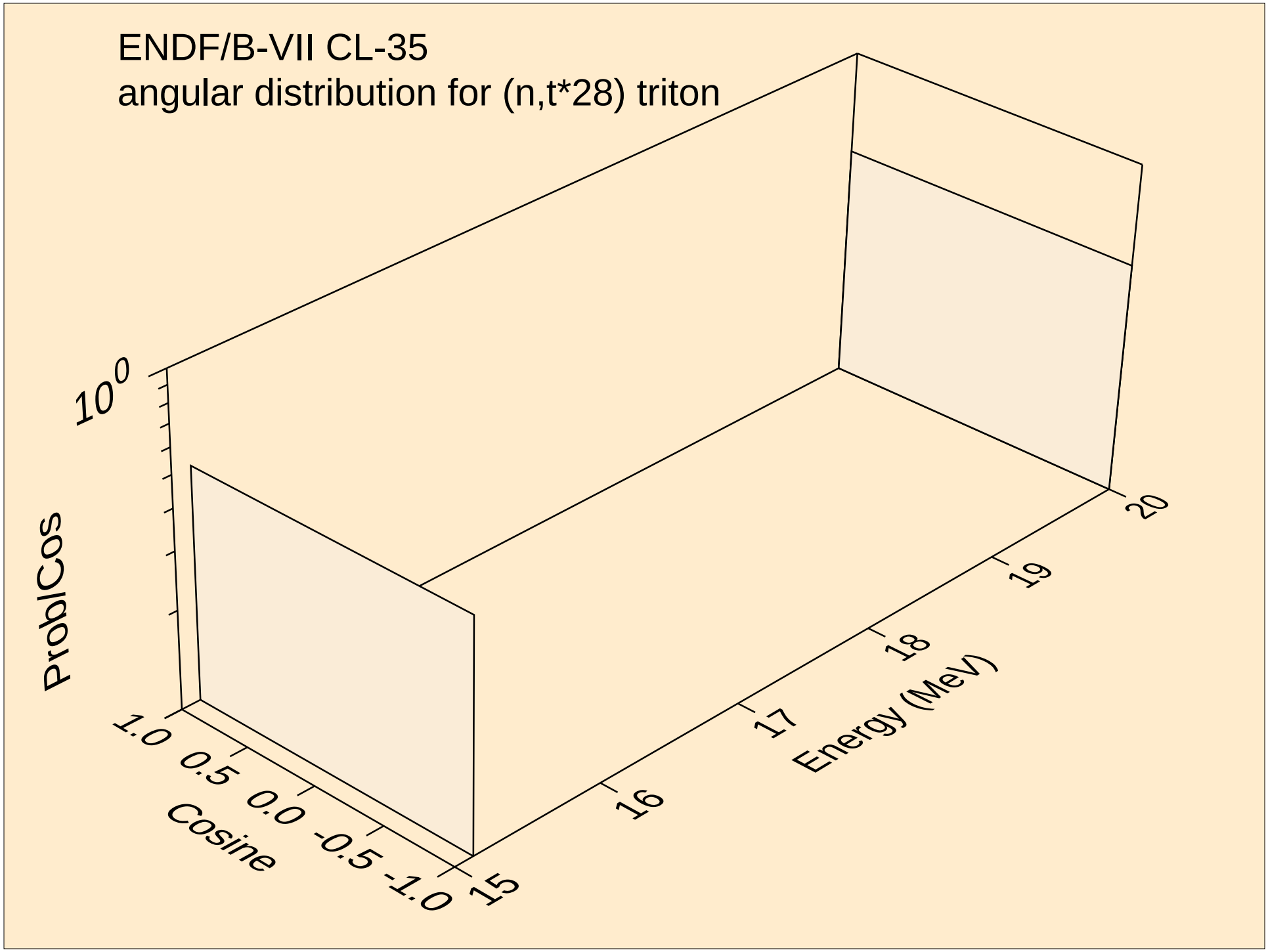

ENDF/B-VII CL-35
angular distribution for (n,t*23) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

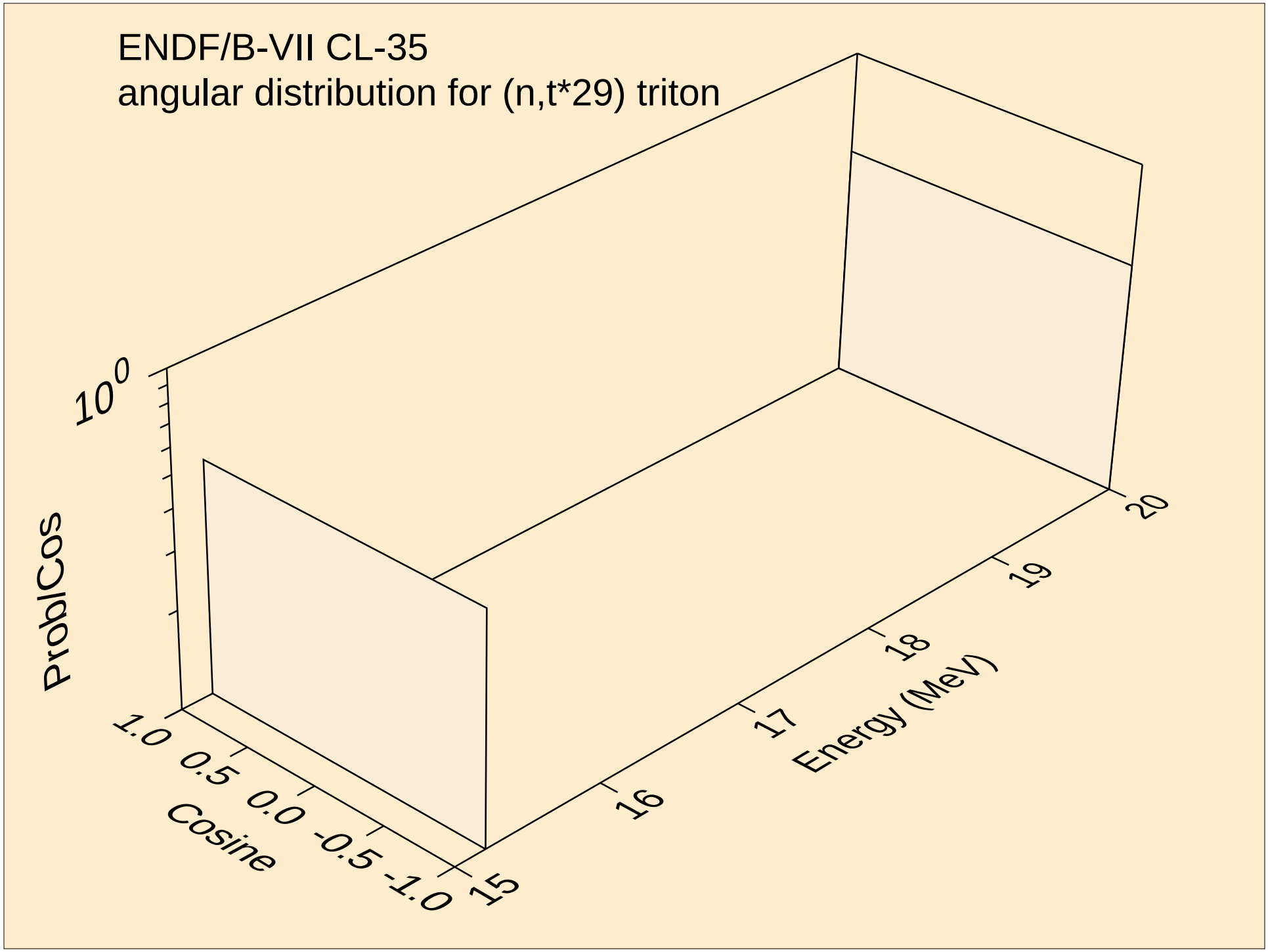

ENDF/B-VII CL-35
angular distribution for (n,t*24) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
14
15
16
17
18
19
20
Energy (MeV)

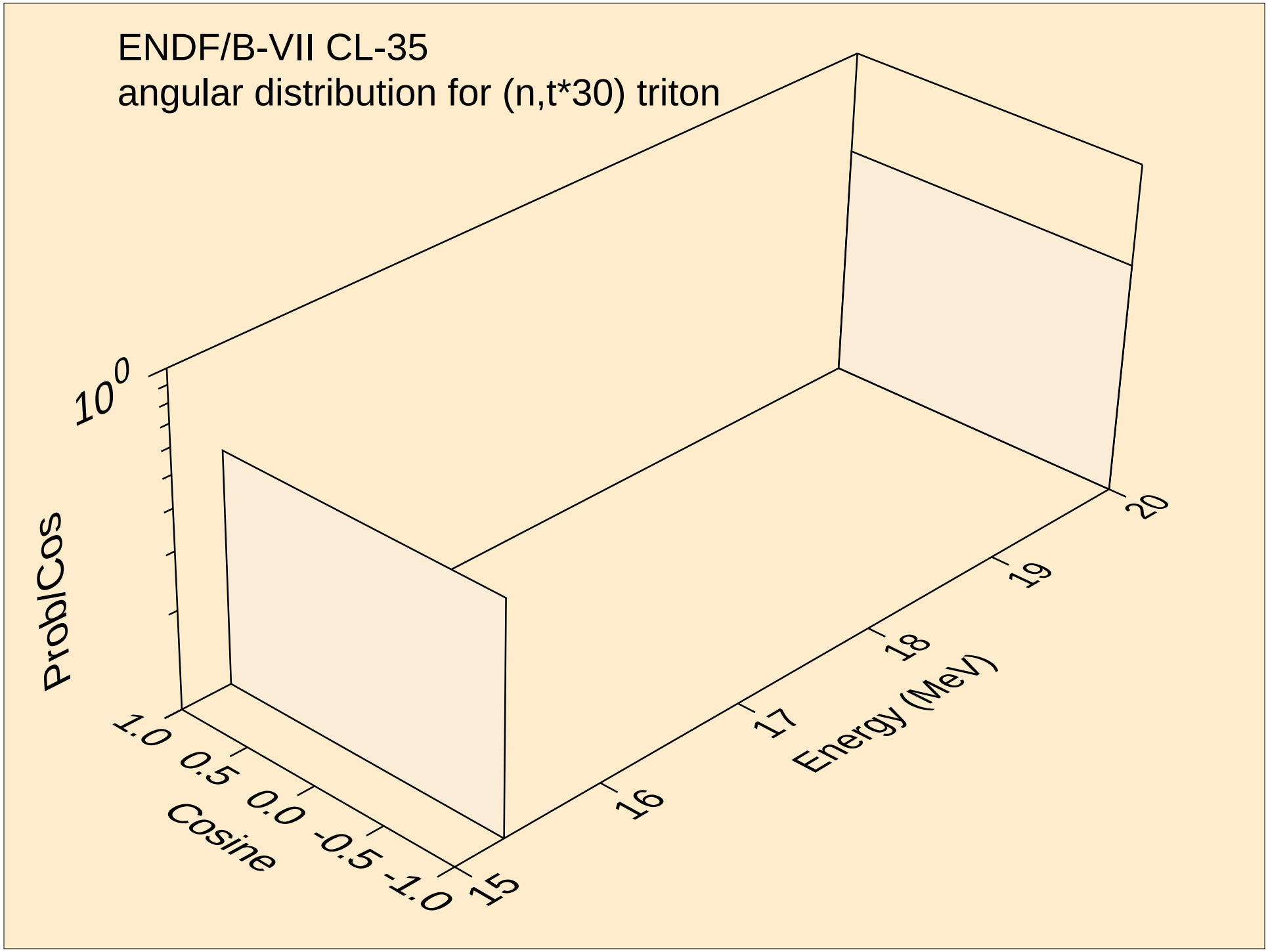

ENDF/B-VII CL-35
angular distribution for (n,t*25) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
15
16
17
18
19
20
Energy (MeV)

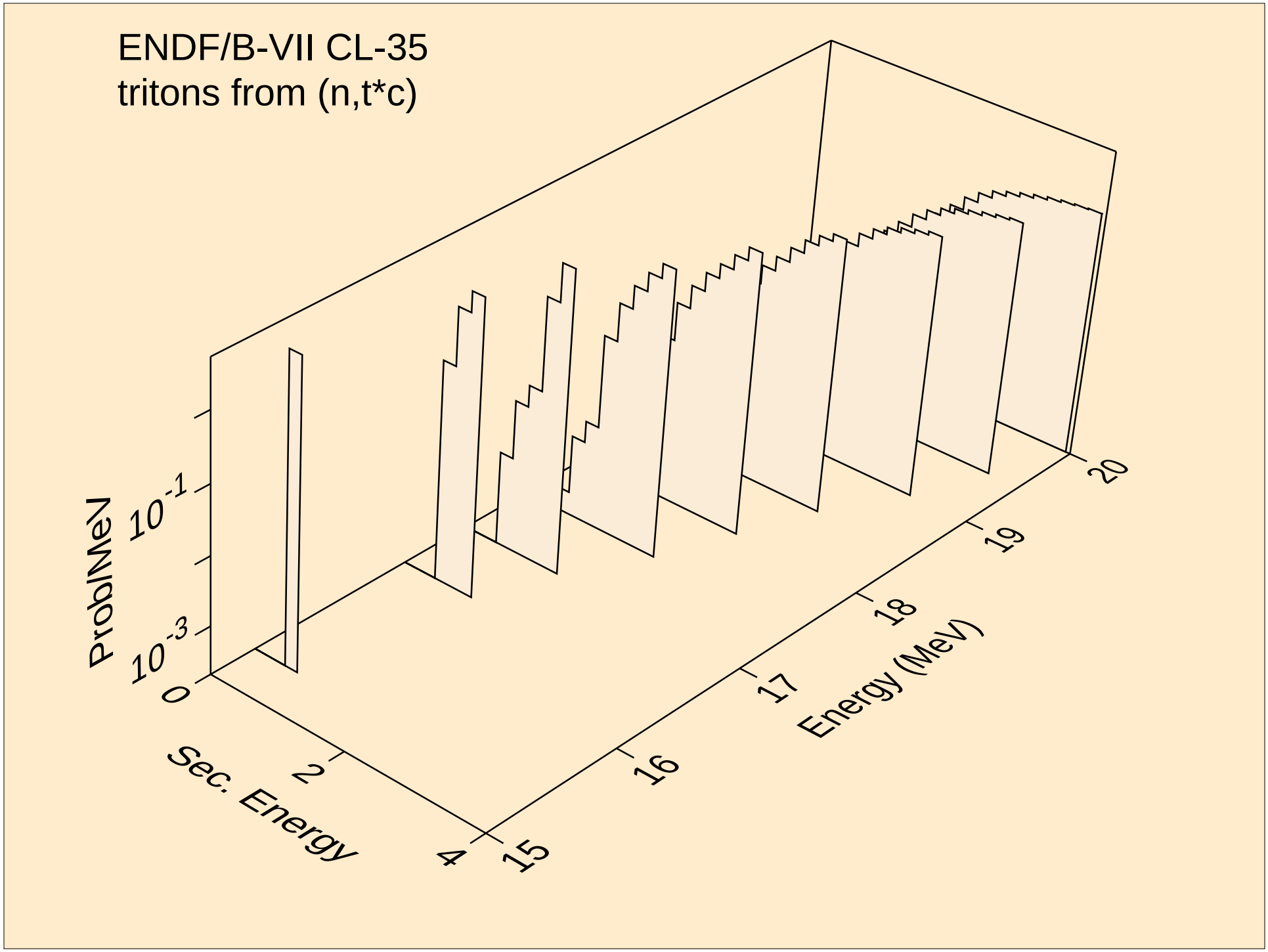

ENDF/B-VII CL-35
angular distribution for (n,t*26) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
15
16
17
18
19
20
Energy (MeV)

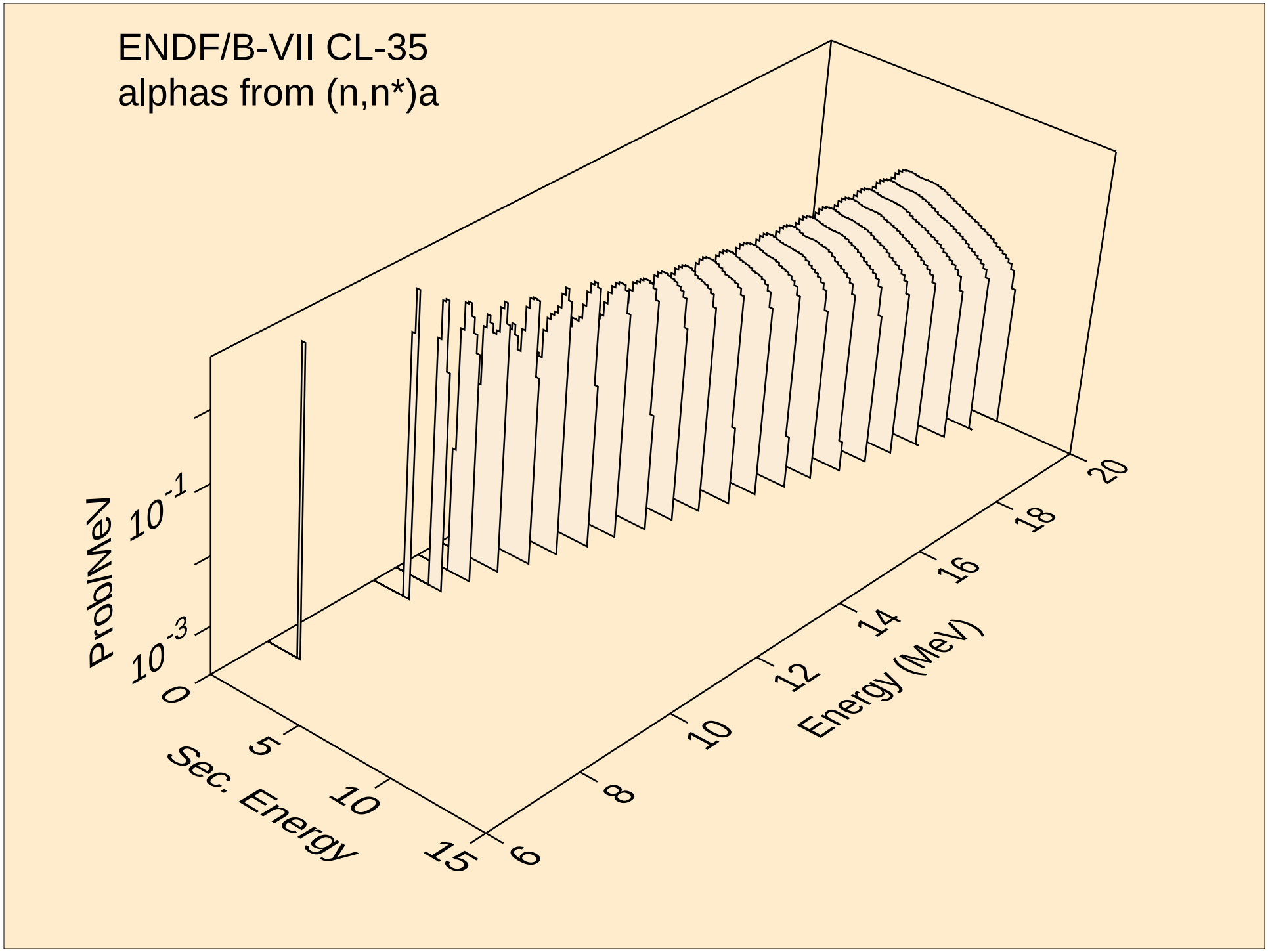

ENDF/B-VII CL-35
angular distribution for (n,t*27) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
15
16
17
18
19
20
Energy (MeV)

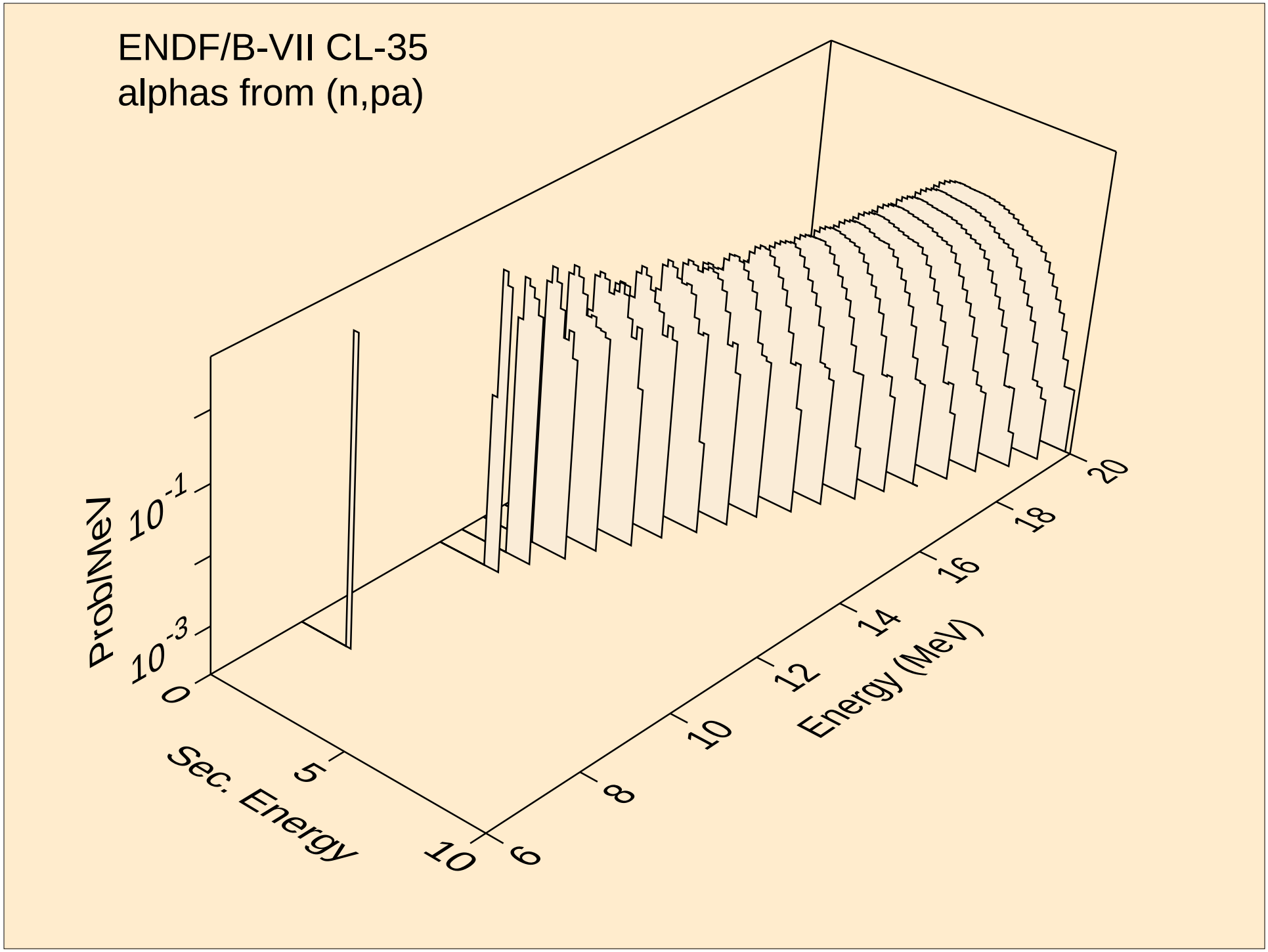

ENDF/B-VII CL-35
angular distribution for (n,t*28) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
15
16
17
18
19
20
Energy (MeV)

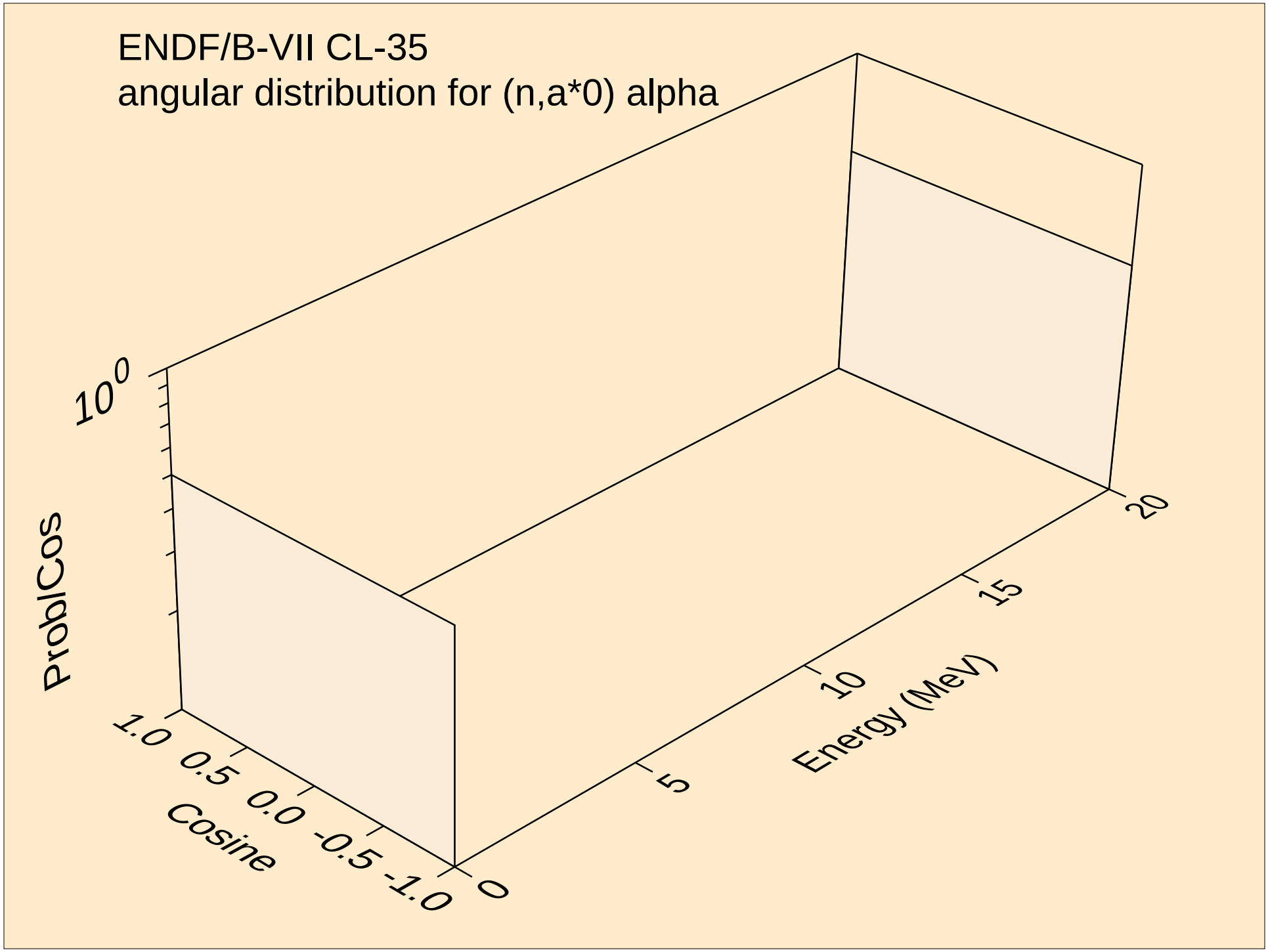

ENDF/B-VII CL-35
angular distribution for (n,t*29) triton
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
15
16
17
18
19
20
Energy (MeV)

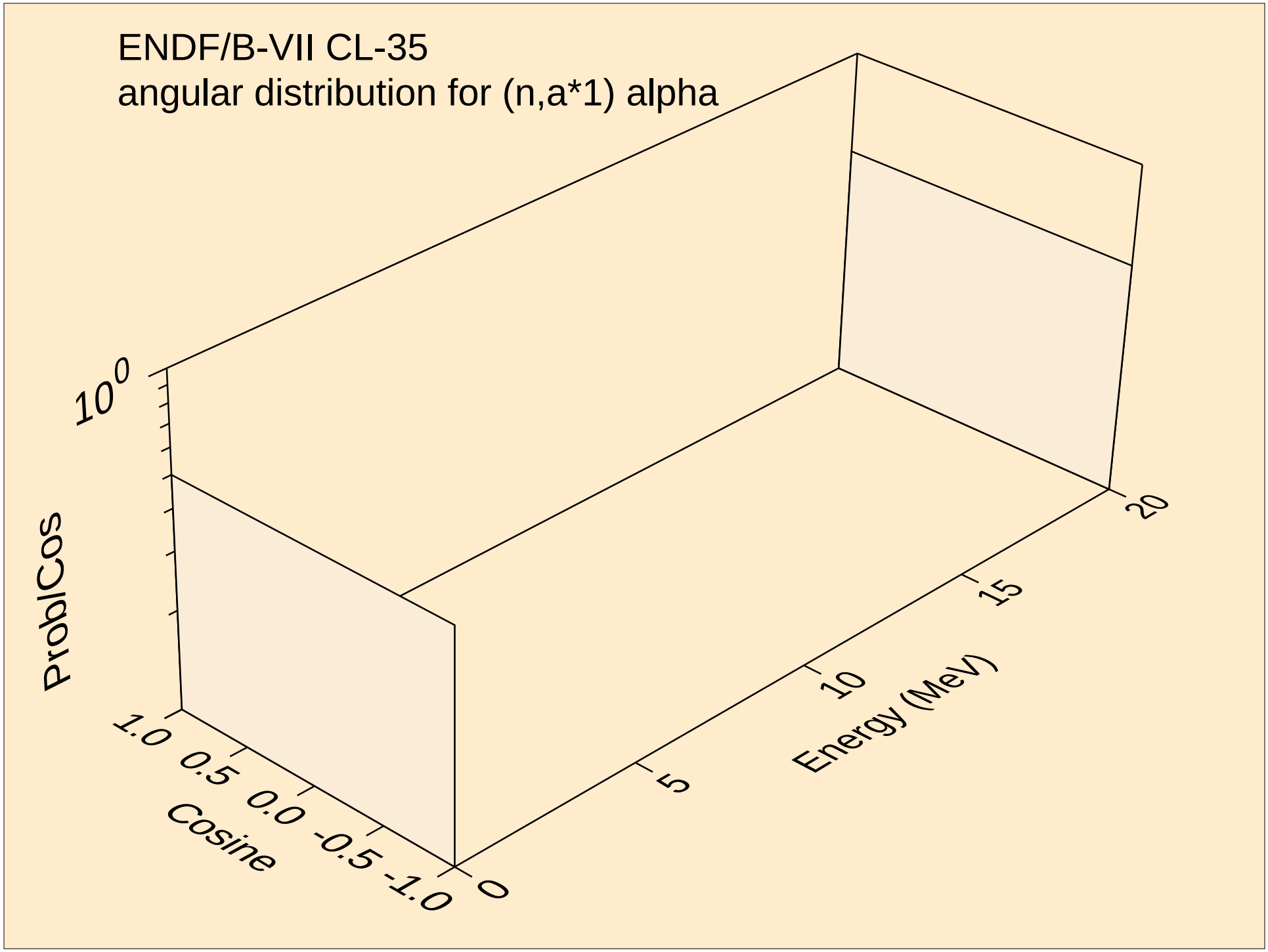

ENDF/B-VII CL-35
angular distribution for (n,t*30) triton
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
15
16
17
18
19
20
Energy (MeV)

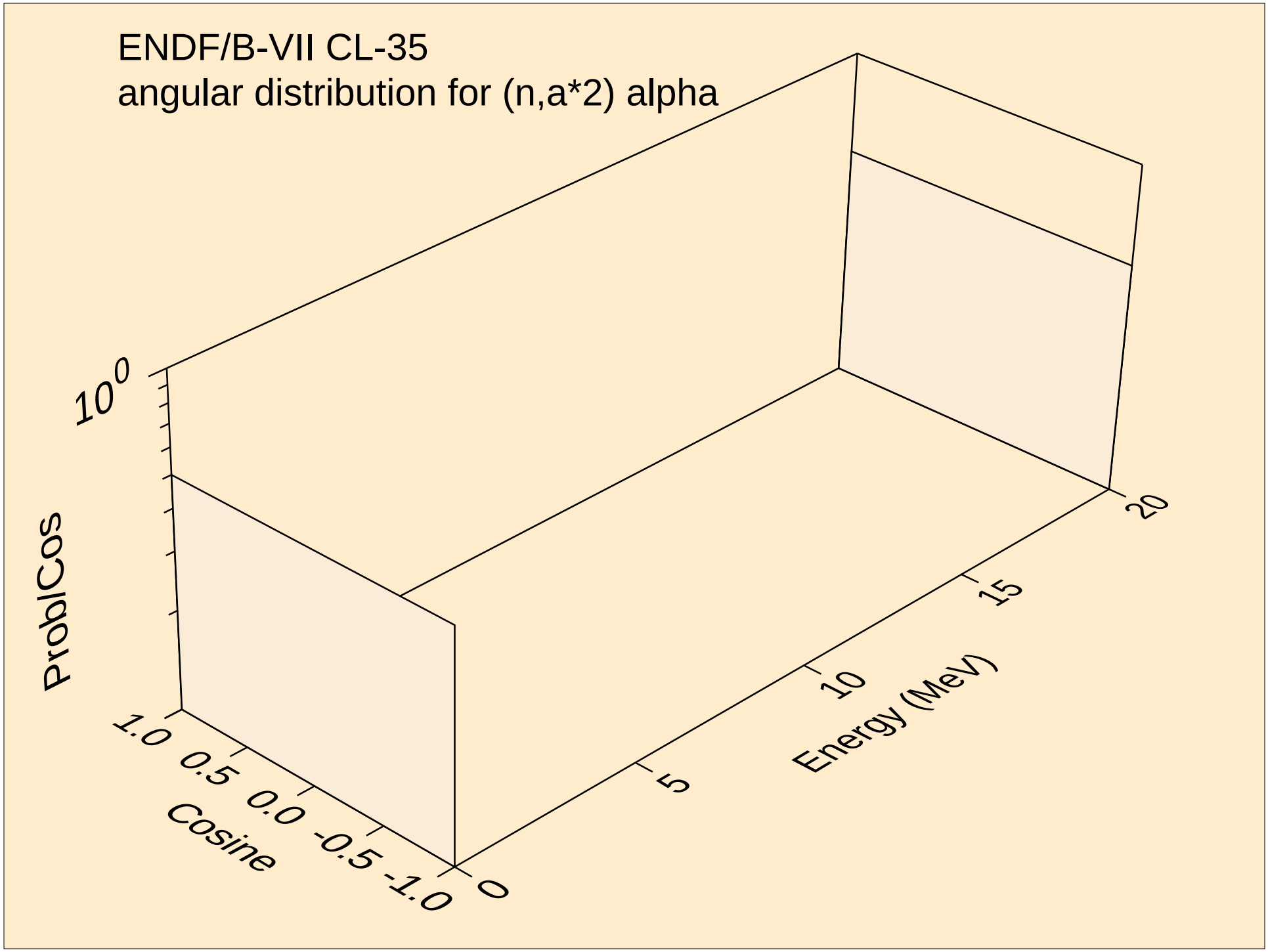

ENDF/B-VII CL-35
tritons from (n,t*c)
Prob/MeV
10^{-1}
10^{-3}
0
2
4
Sec. Energy
15
16
17
18
19
20
Energy (MeV)

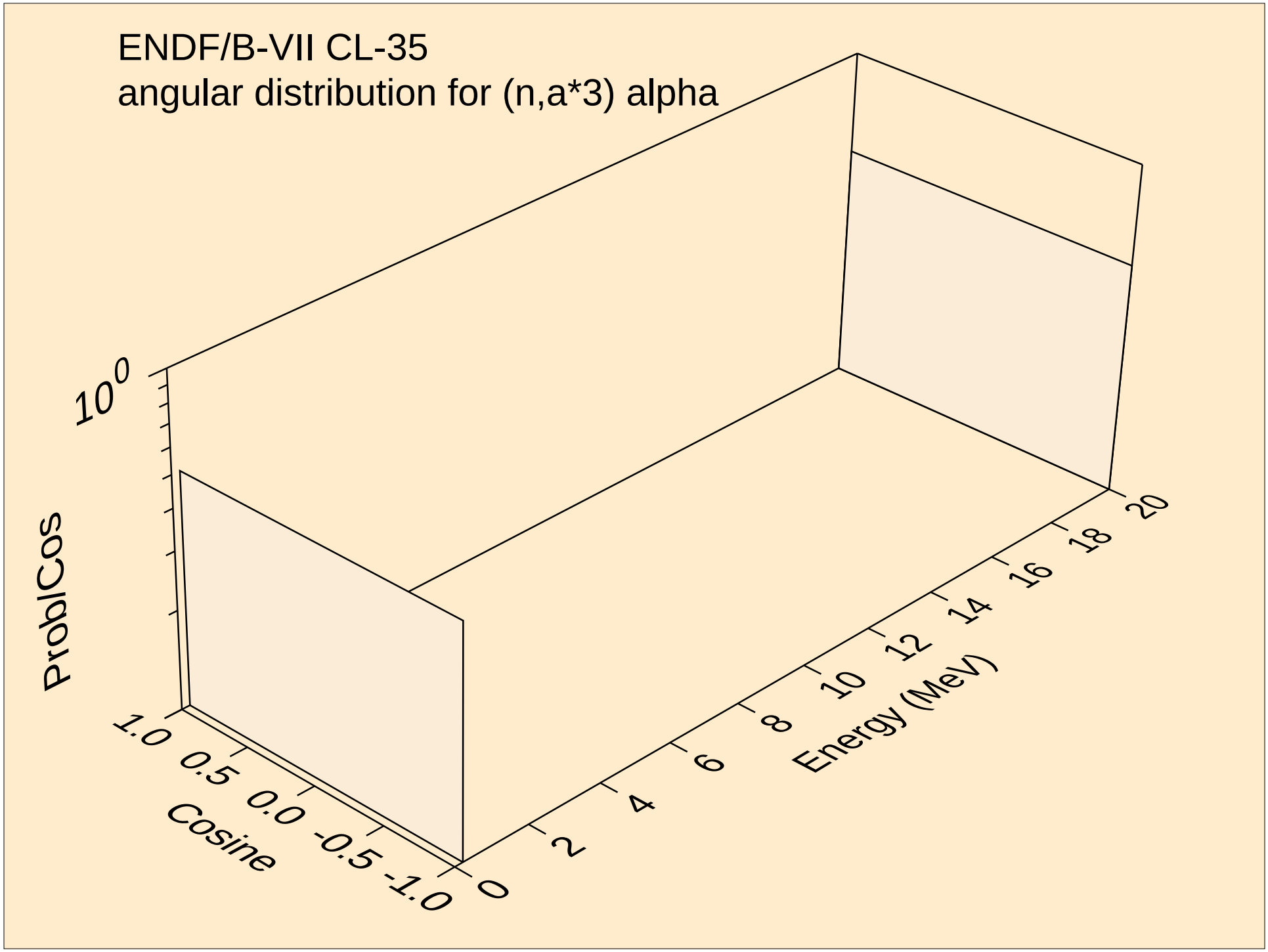

ENDF/B-VII CL-35
alphas from (n,n*)a
Prob/MeV
10^-1
10^-3
0
5
10
15
Sec. Energy
6
8
10
12
14
16
18
20
Energy (MeV)

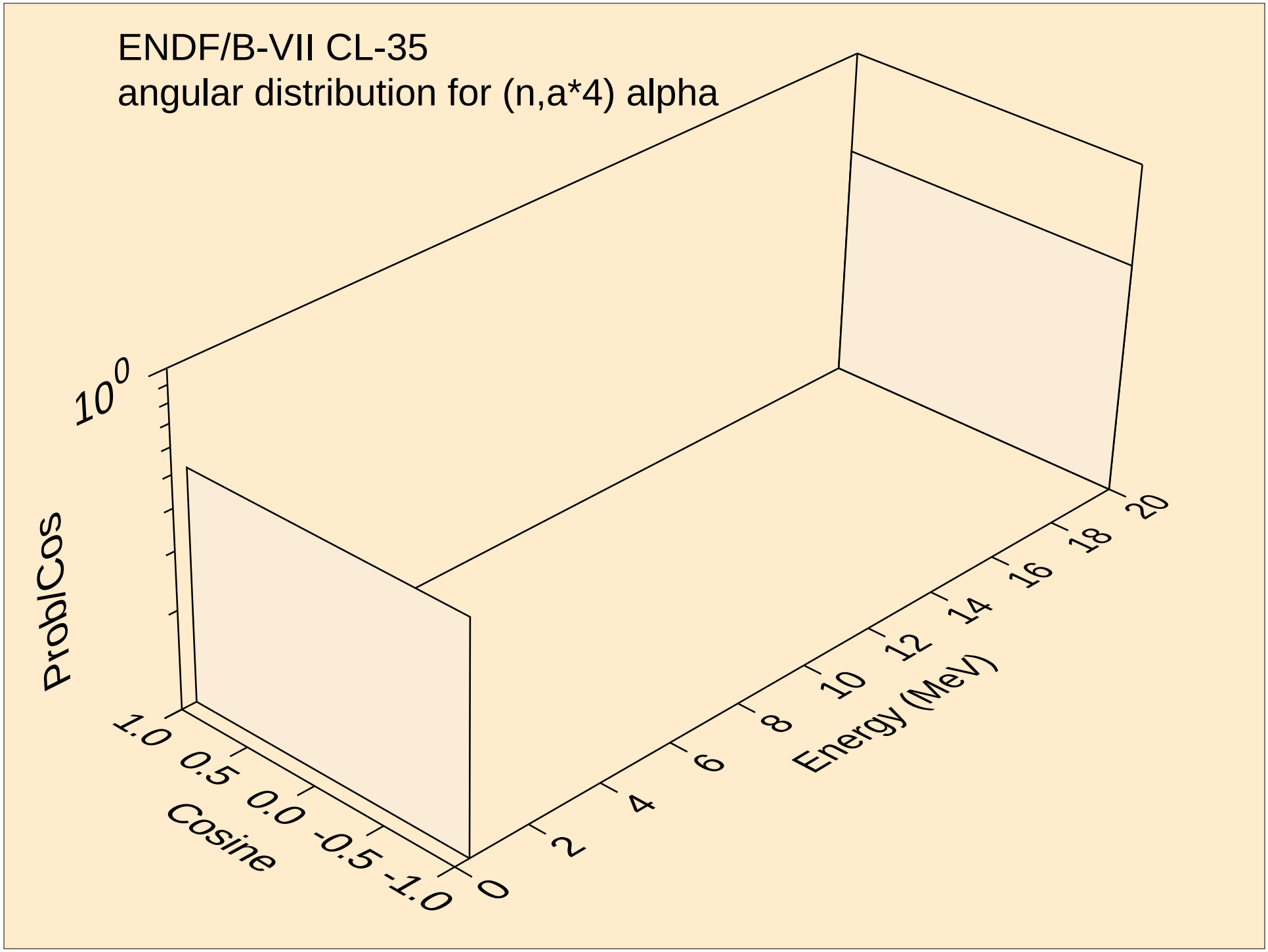

ENDF/B-VII CL-35
alphas from (n,pa)
Prob/MeV
10^{-1}
10^{-3}
0
5
10
Sec. Energy
6
8
10
12
14
16
18
20
Energy (MeV)

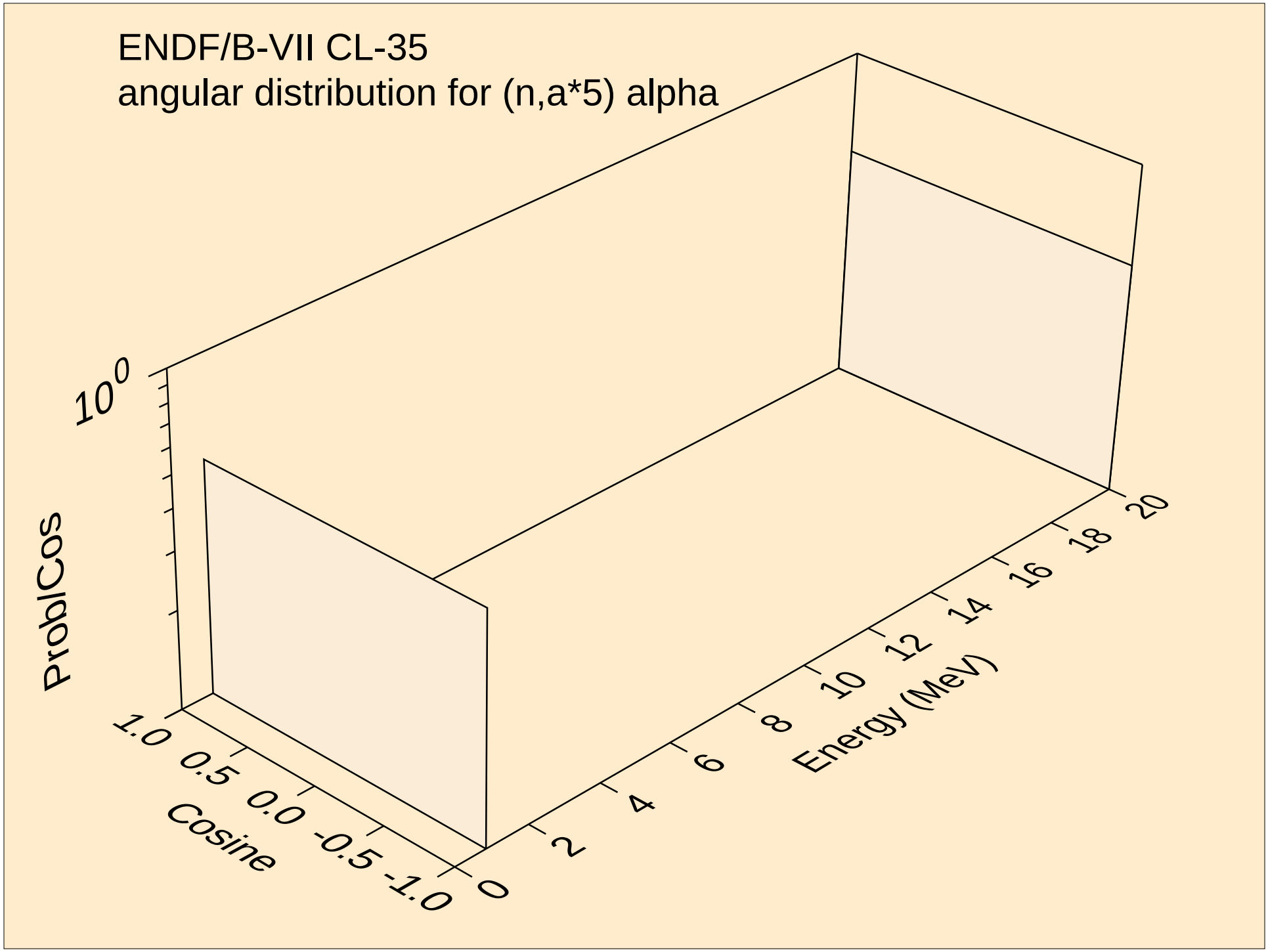

ENDF/B-VII CL-35
angular distribution for (n,a*0) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

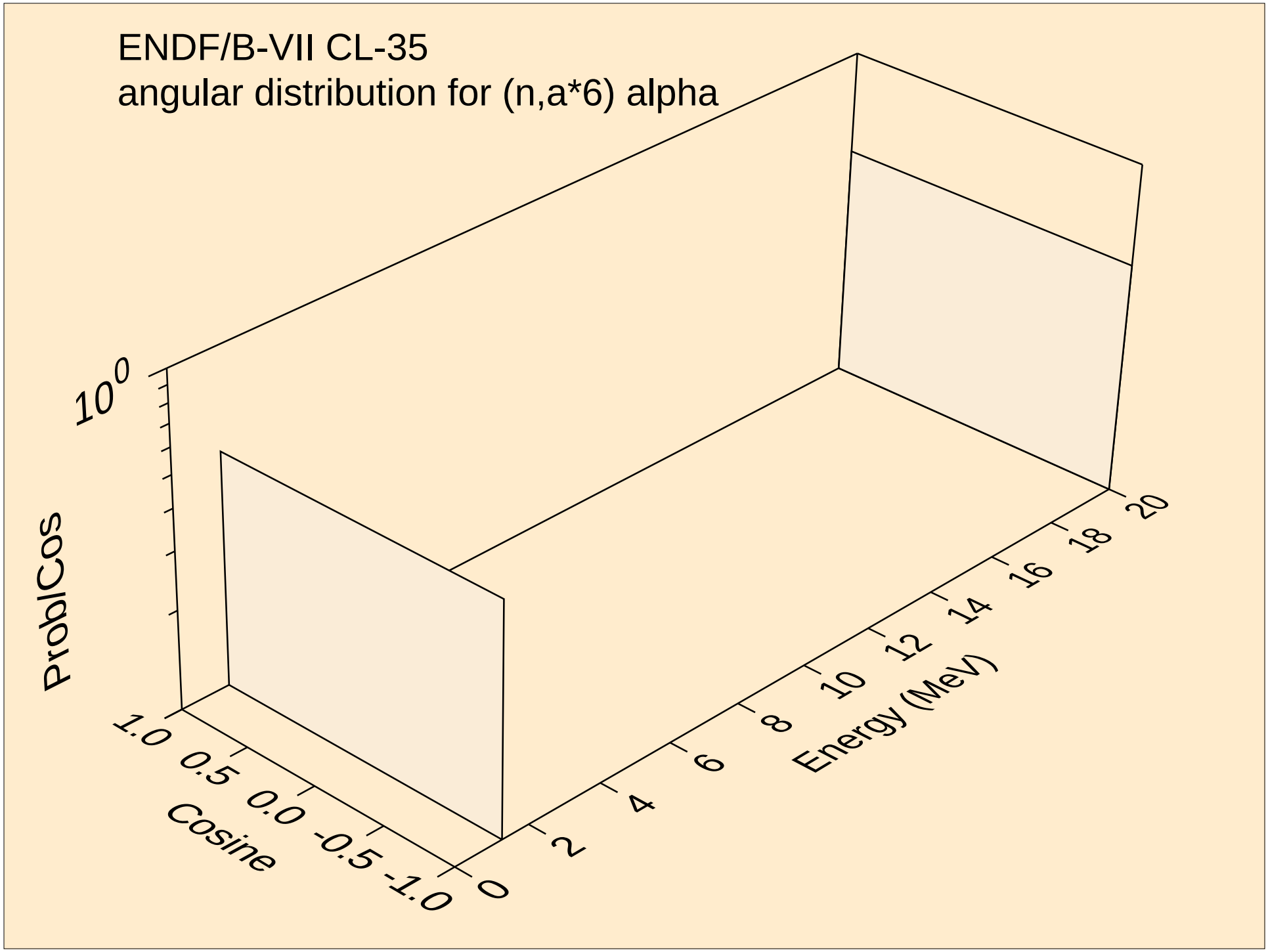

ENDF/B-VII CL-35
angular distribution for (n,a*1) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

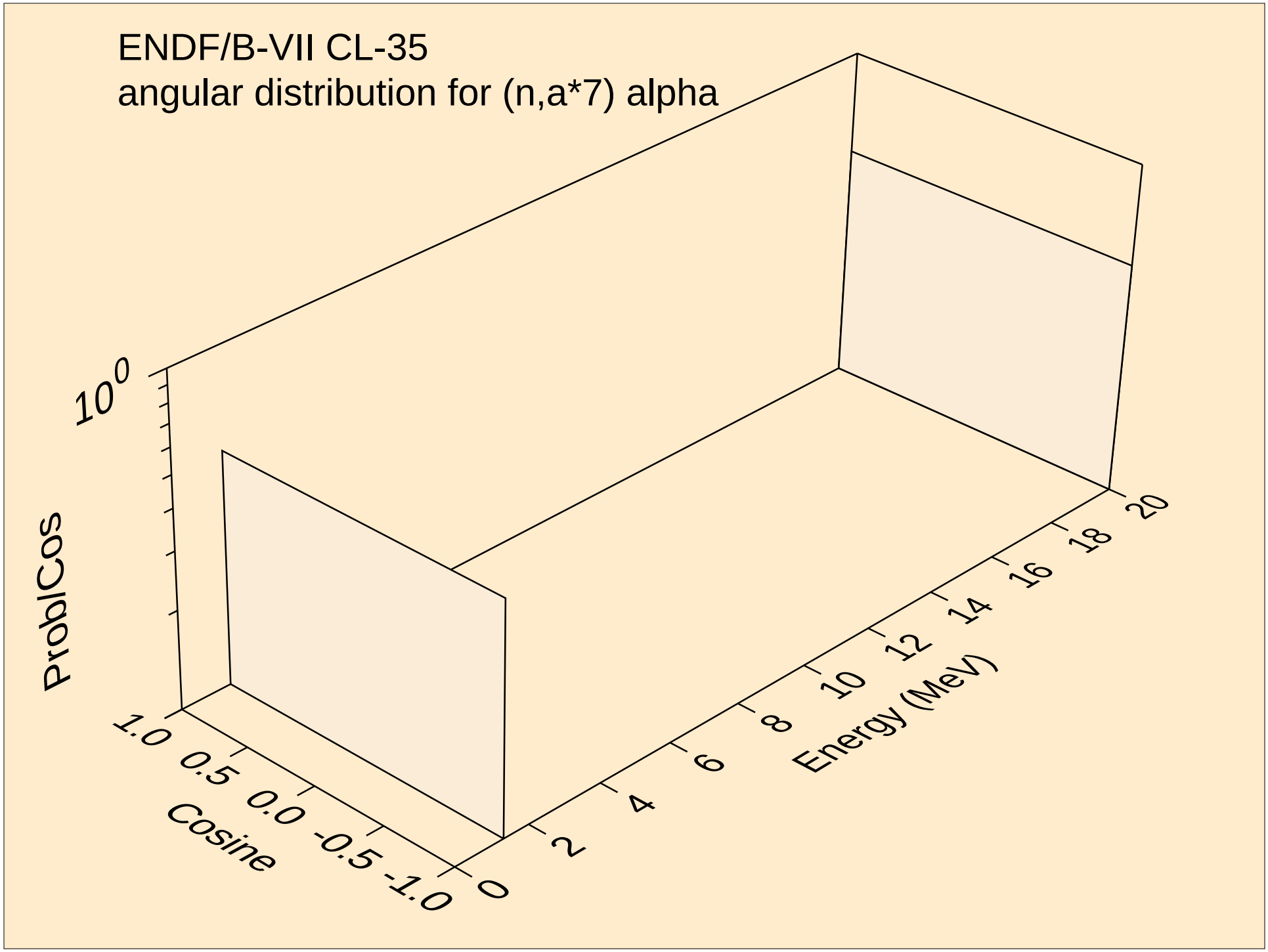

ENDF/B-VII CL-35
angular distribution for (n,a*2) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

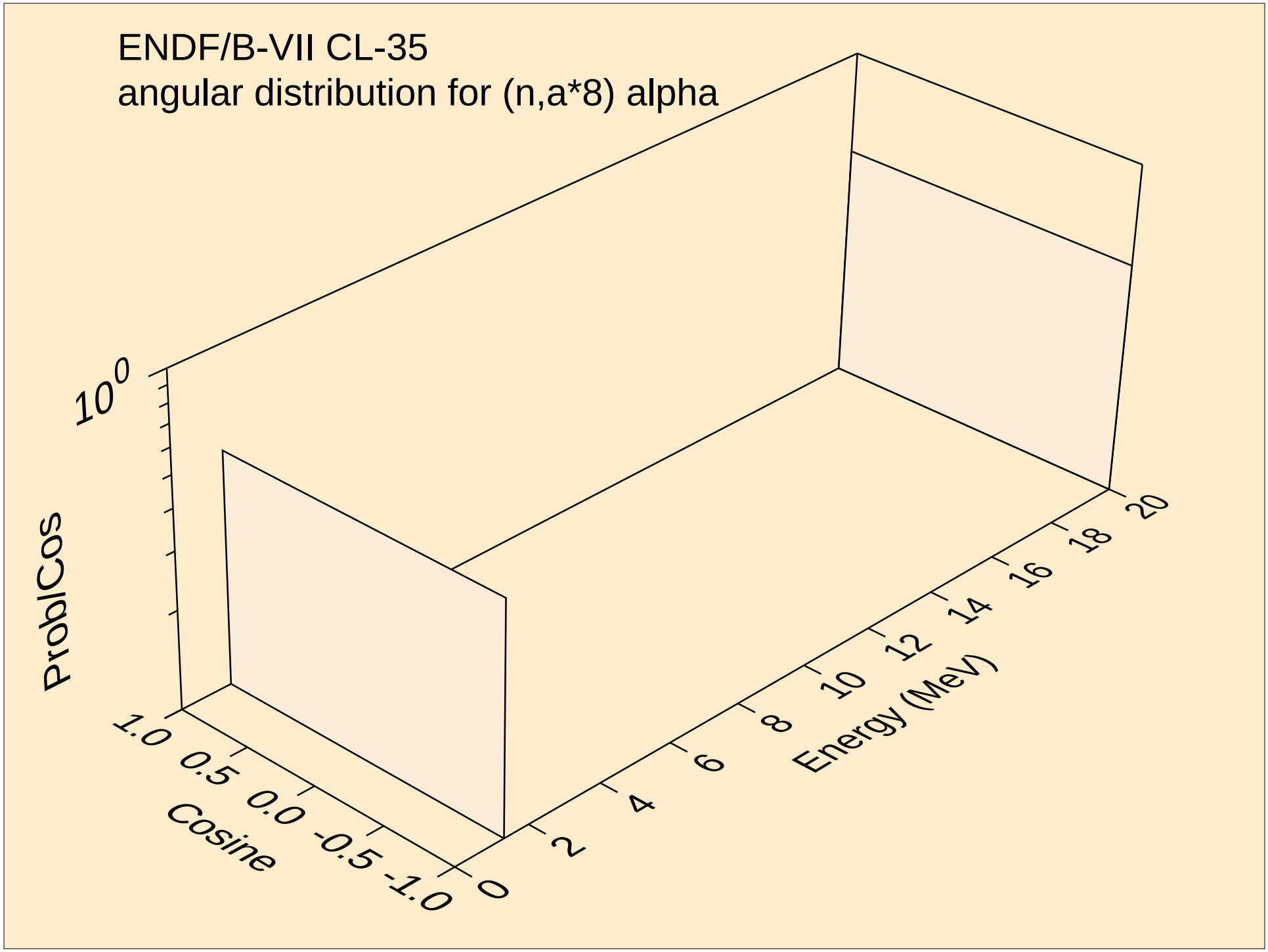

ENDF/B-VII CL-35
angular distribution for (n,a*3) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

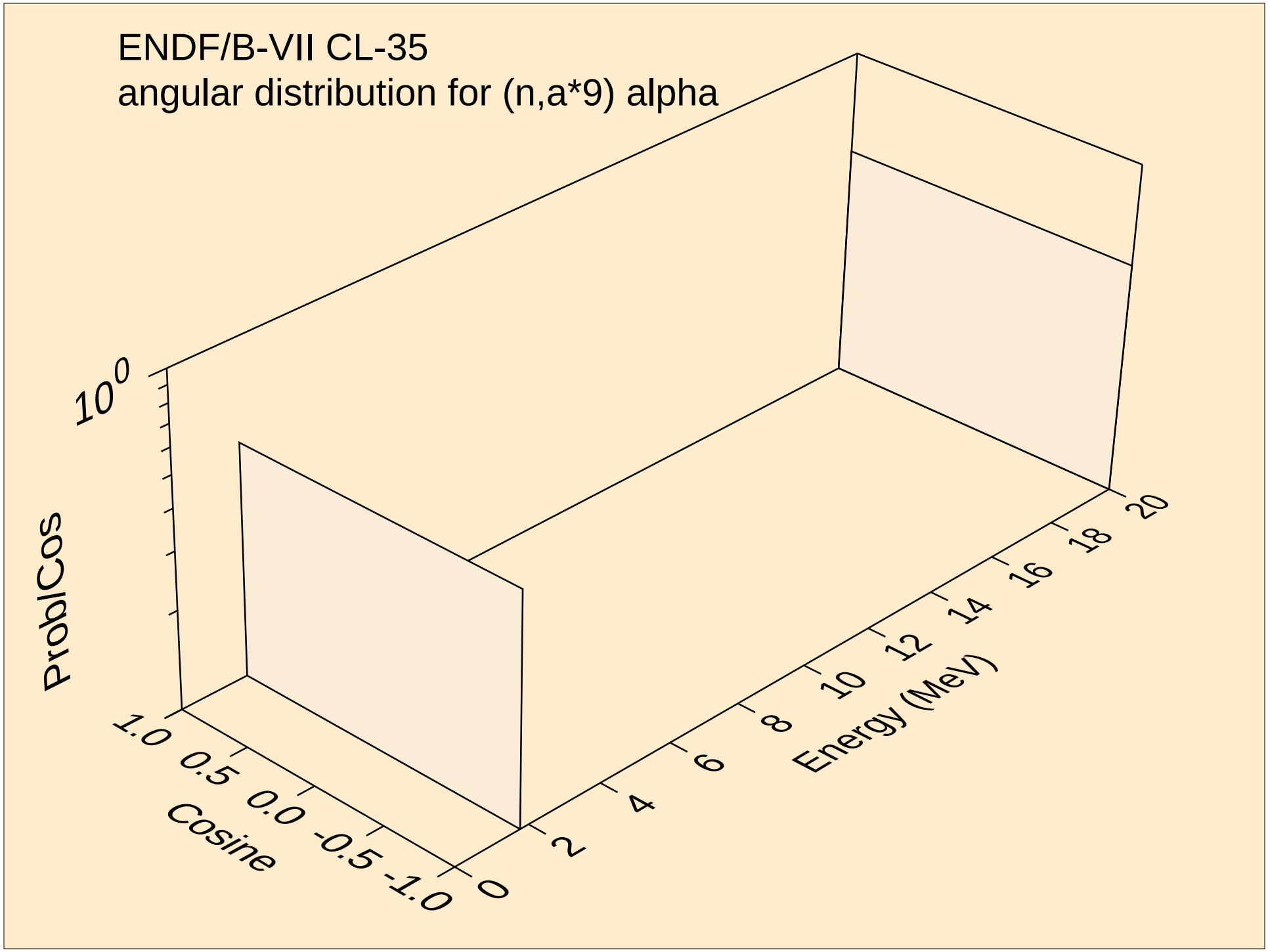

ENDF/B-VII CL-35
angular distribution for (n,a*4) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

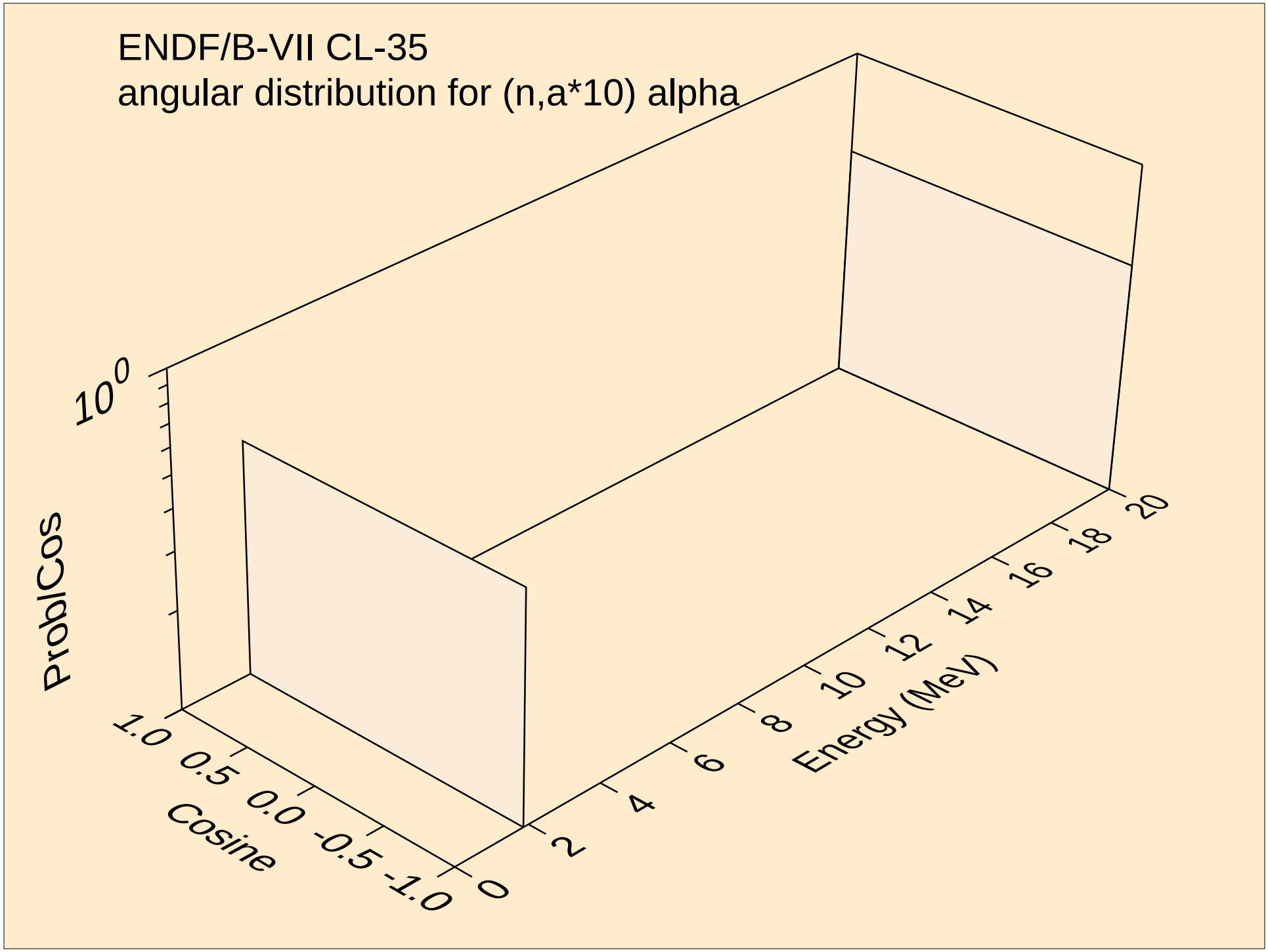

ENDF/B-VII CL-35
angular distribution for (n,a*5) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

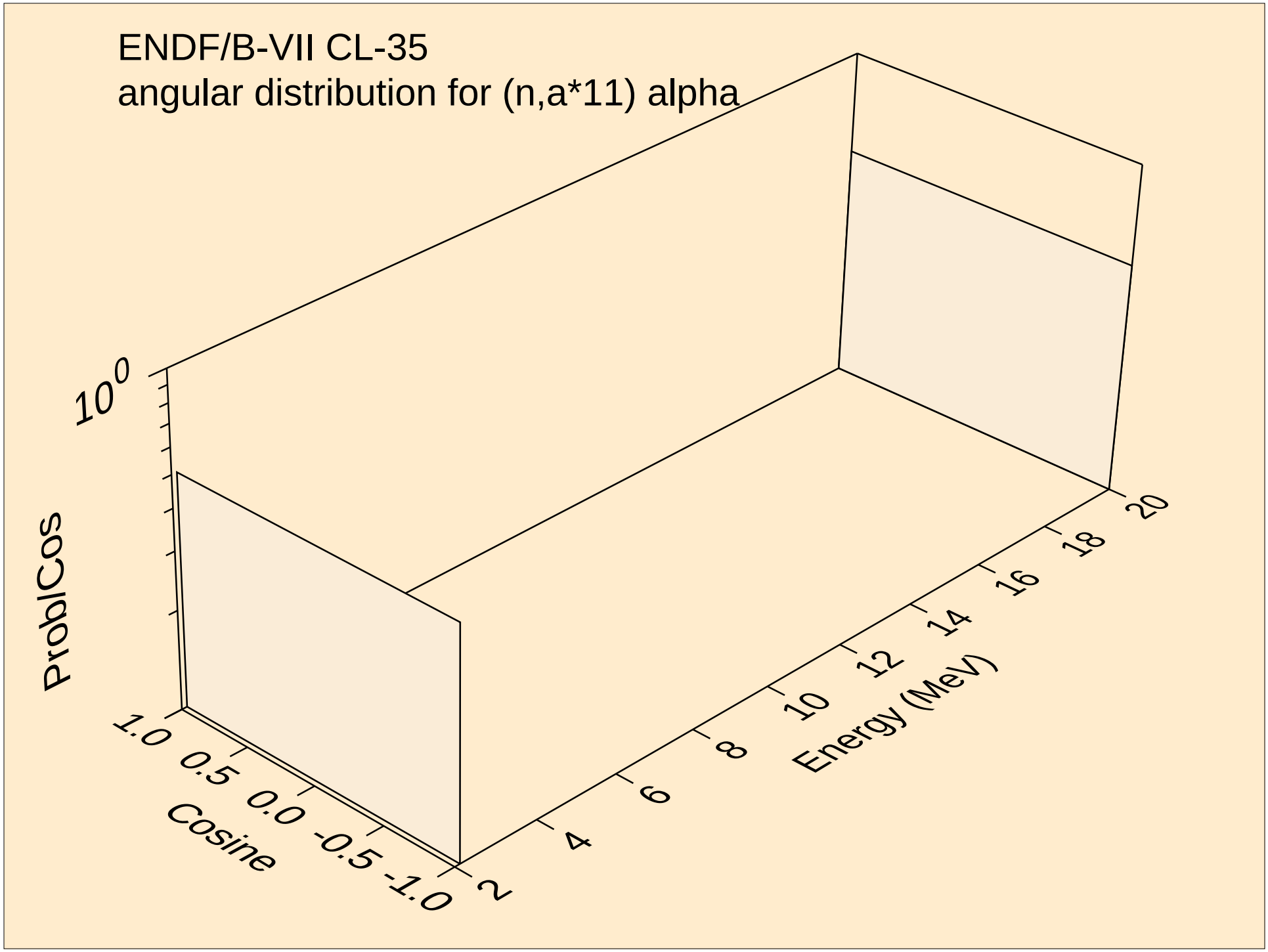

ENDF/B-VII CL-35
angular distribution for (n,a*6) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

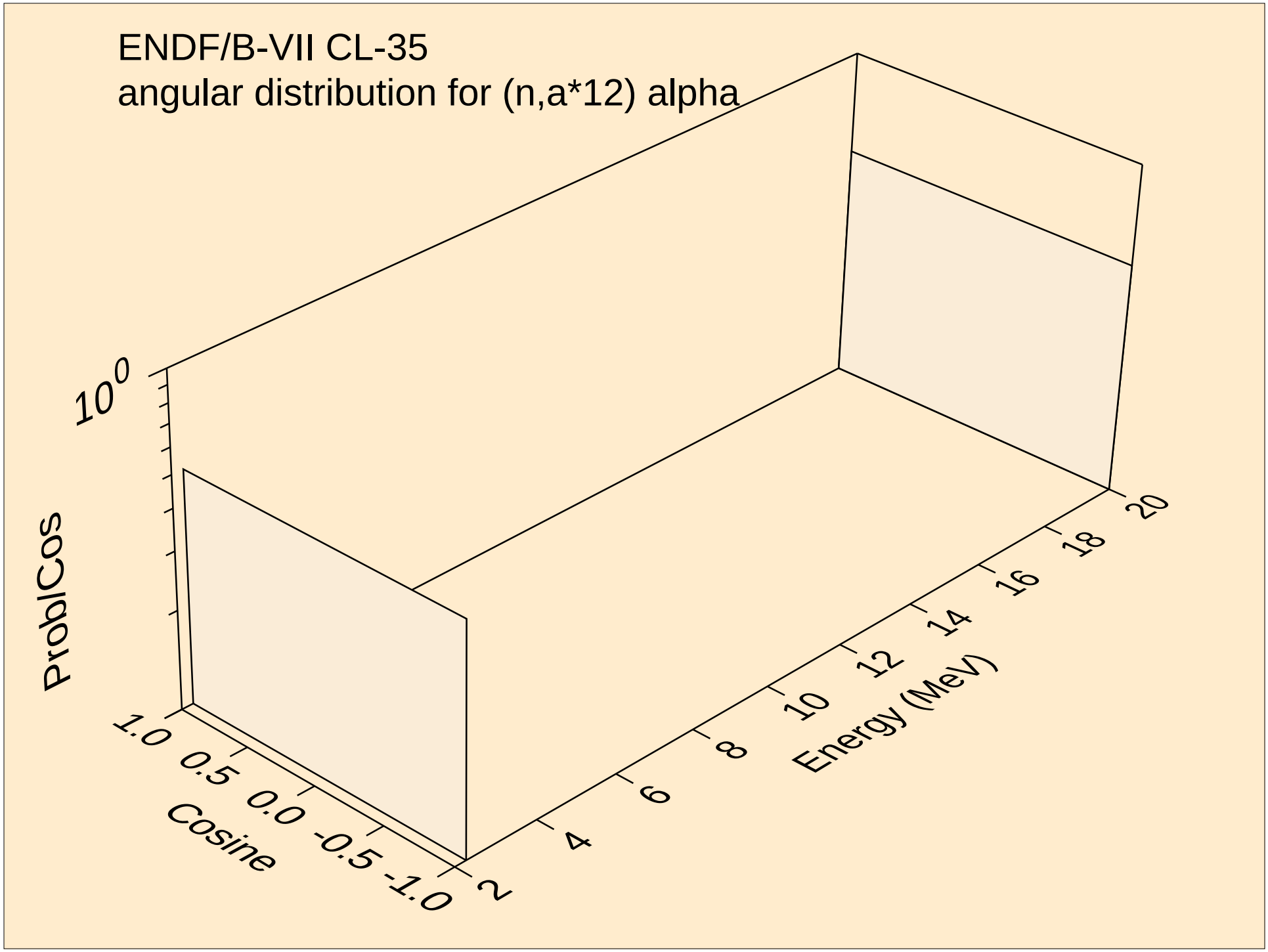

ENDF/B-VII CL-35
angular distribution for (n,a*7) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

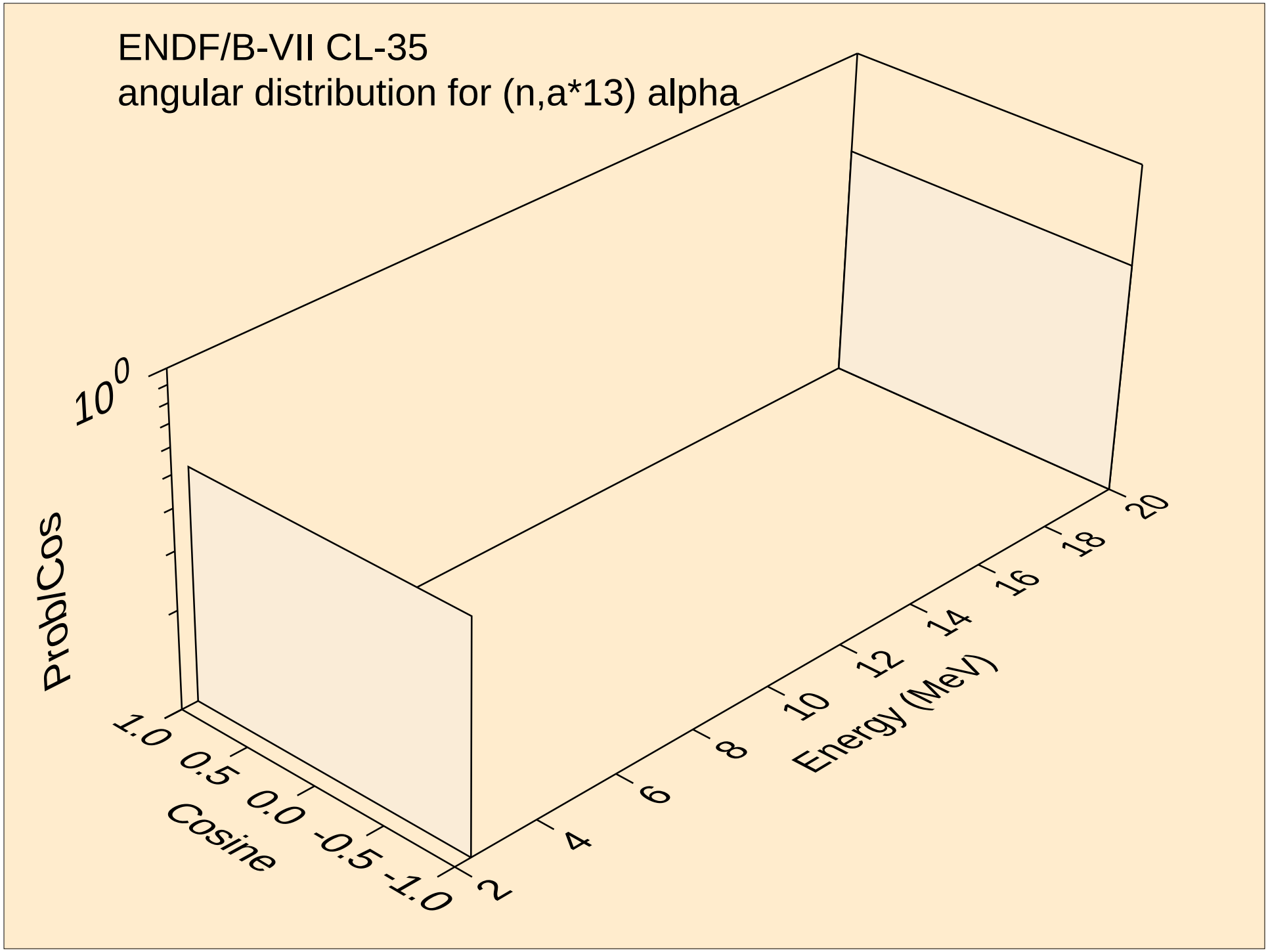

ENDF/B-VII CL-35
angular distribution for (n,a*8) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

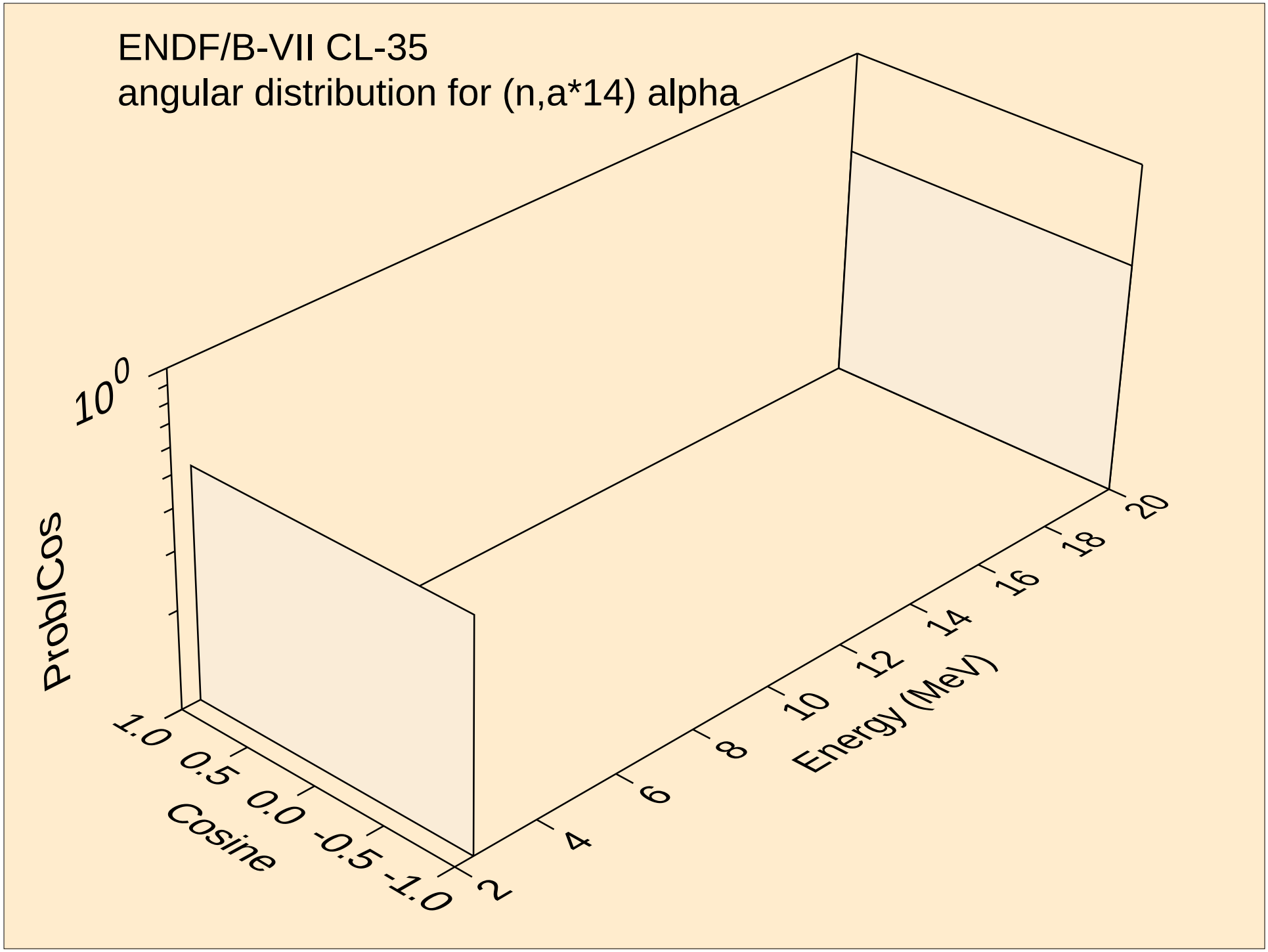

ENDF/B-VII CL-35
angular distribution for (n,a*9) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

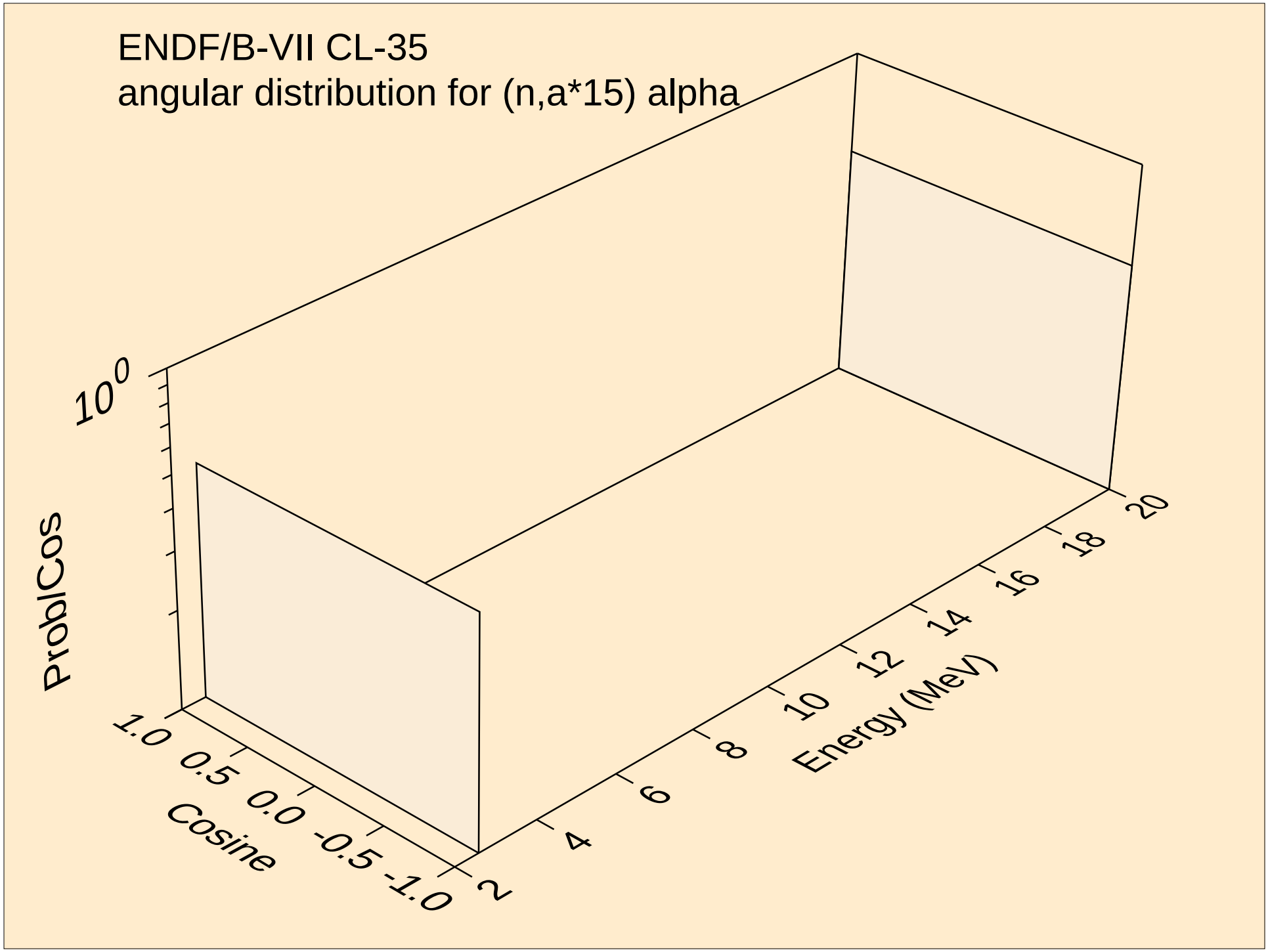

ENDF/B-VII CL-35
angular distribution for (n,a*10) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

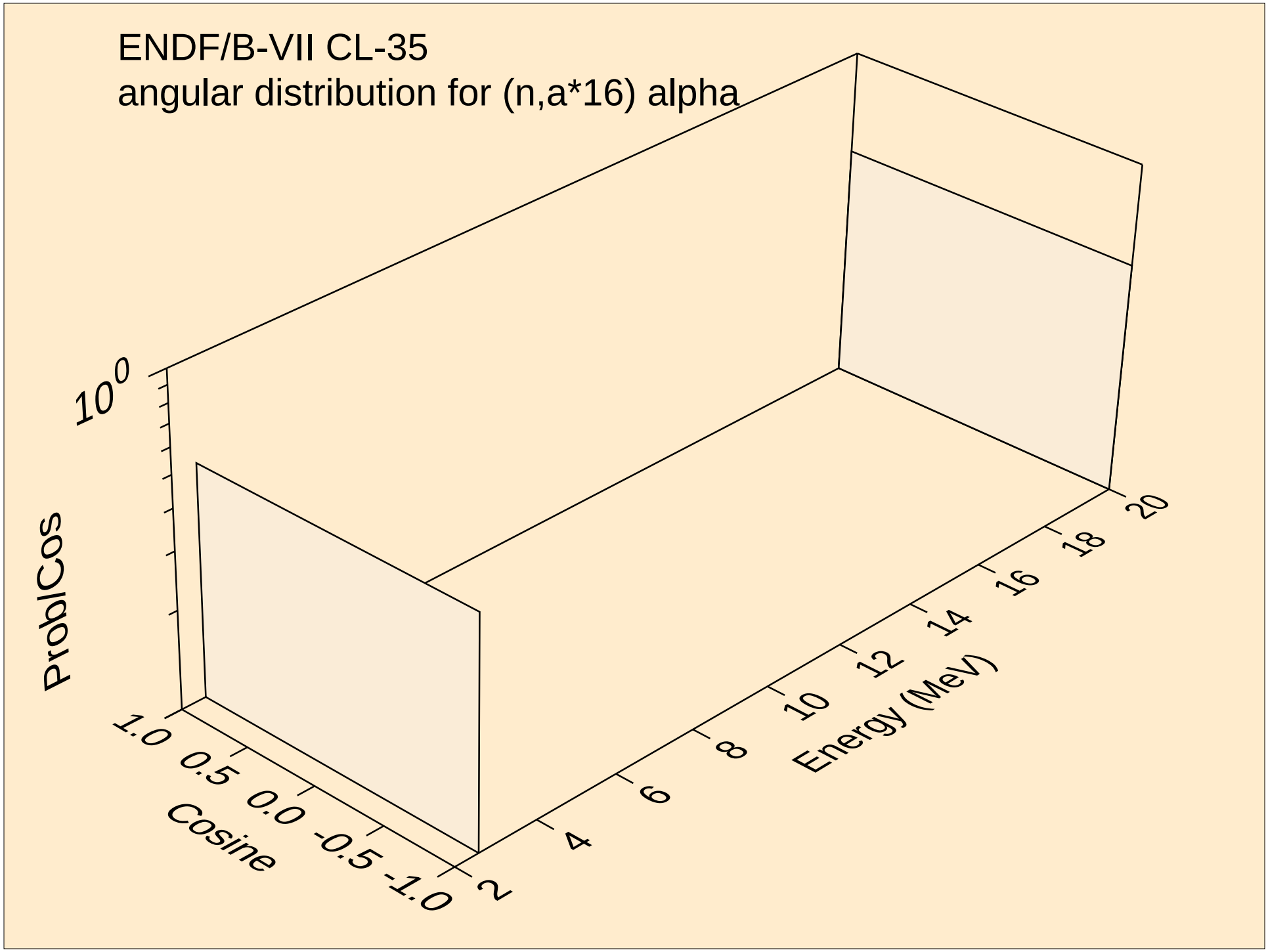

ENDF/B-VII CL-35
angular distribution for (n,a*11) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

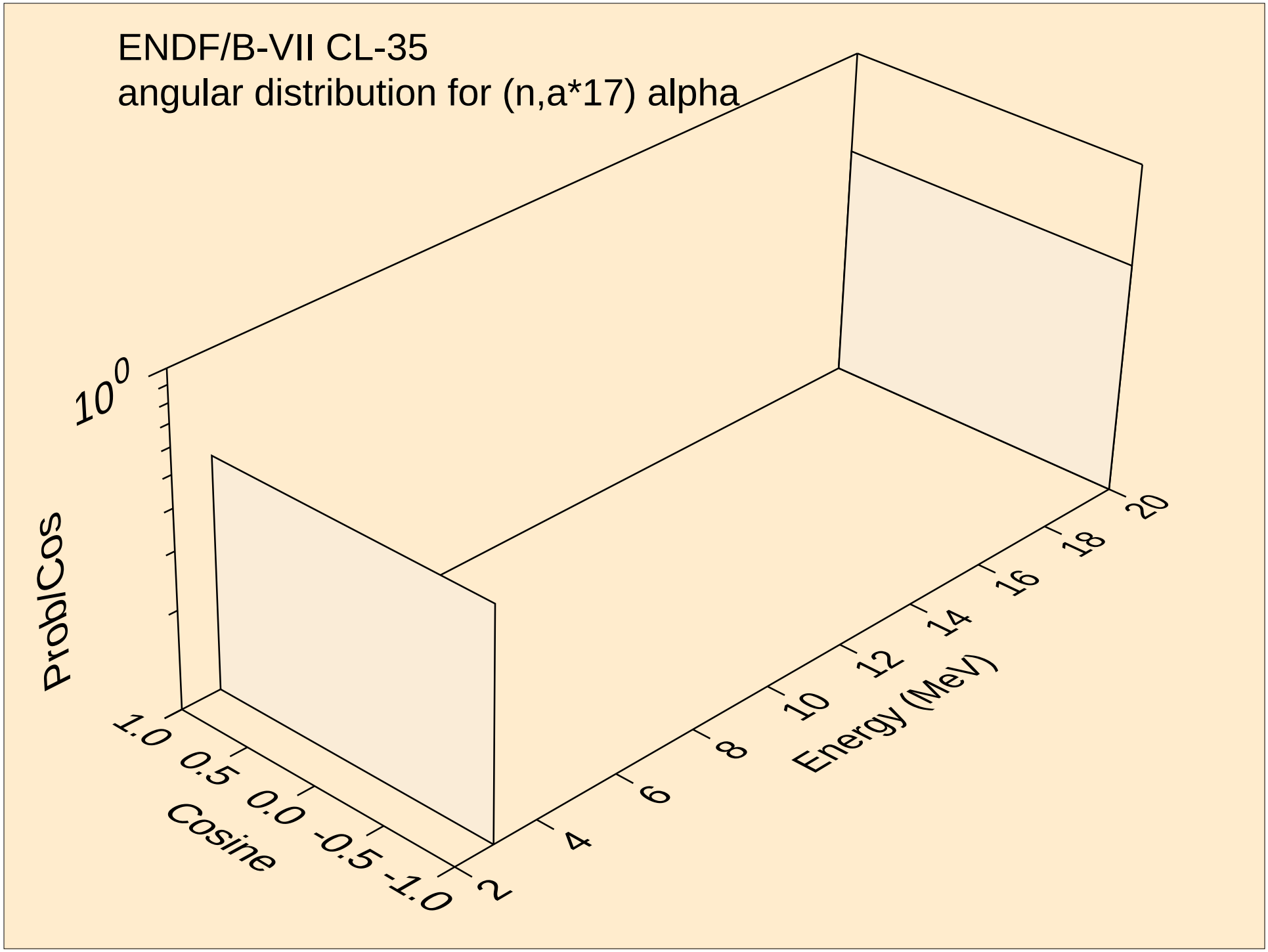

ENDF/B-VII CL-35
angular distribution for (n,a*12) alpha
10^0
ProbCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

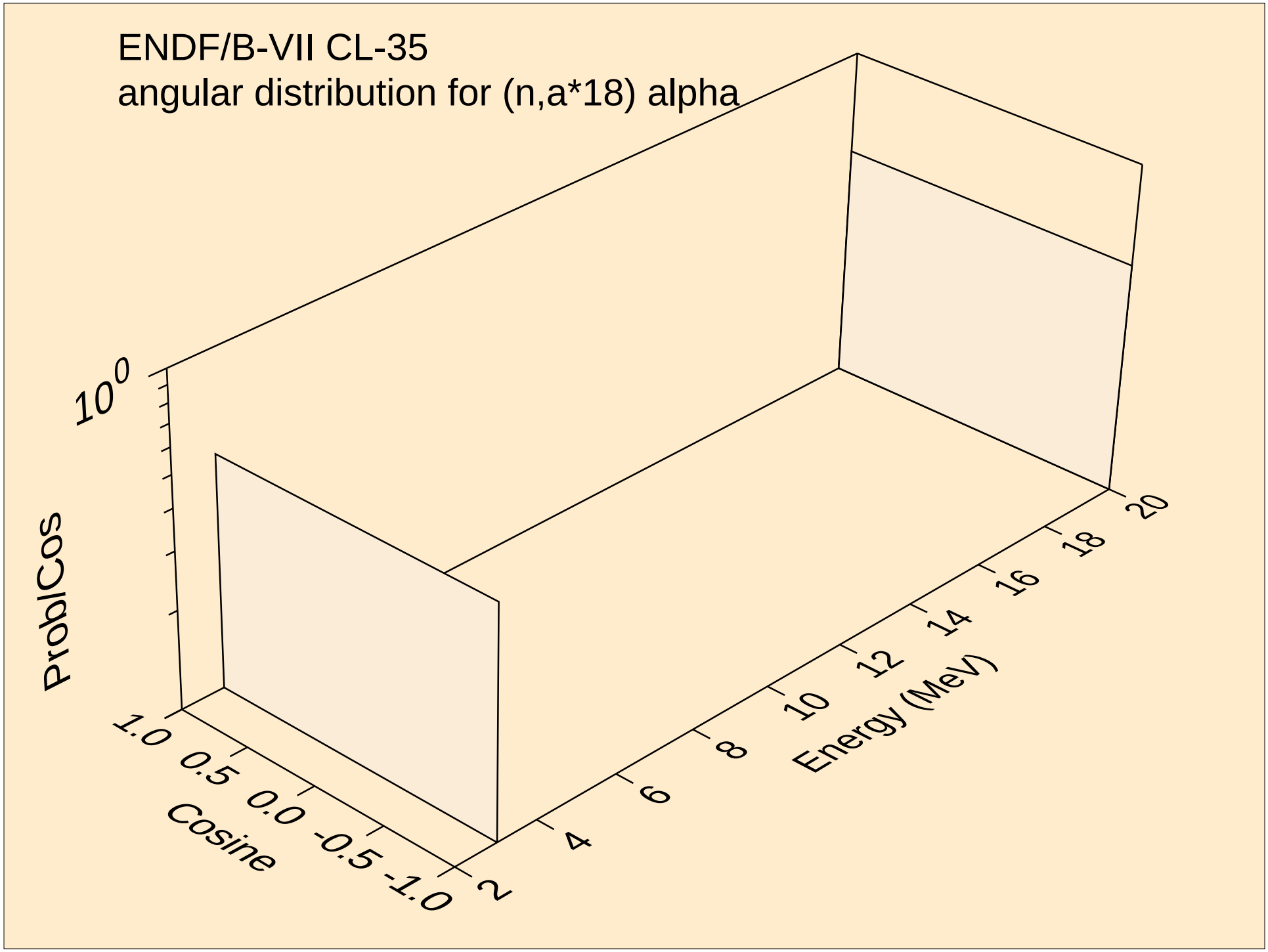

ENDF/B-VII CL-35
angular distribution for (n,a*13) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

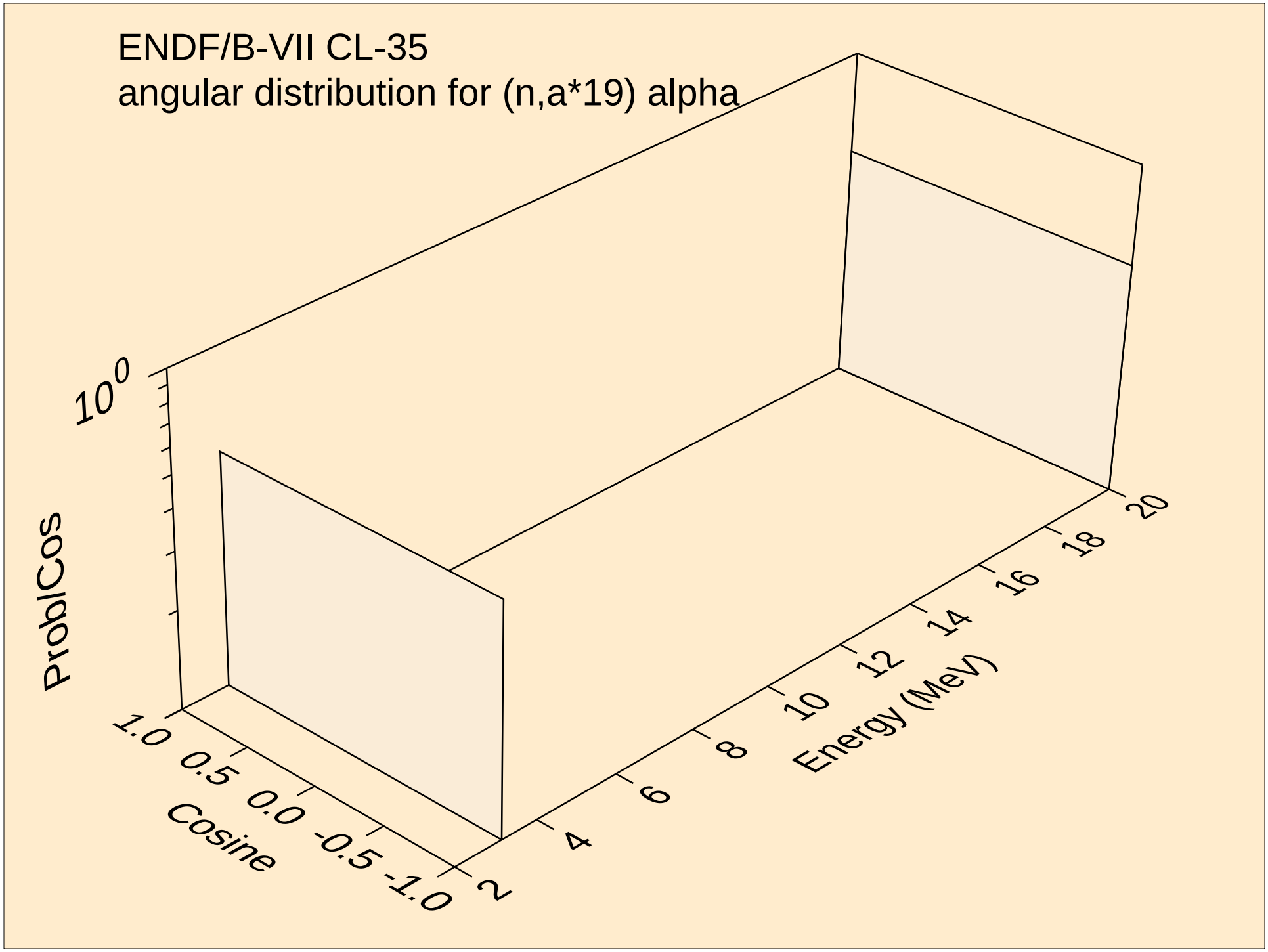

ENDF/B-VII CL-35
angular distribution for (n,a*14) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

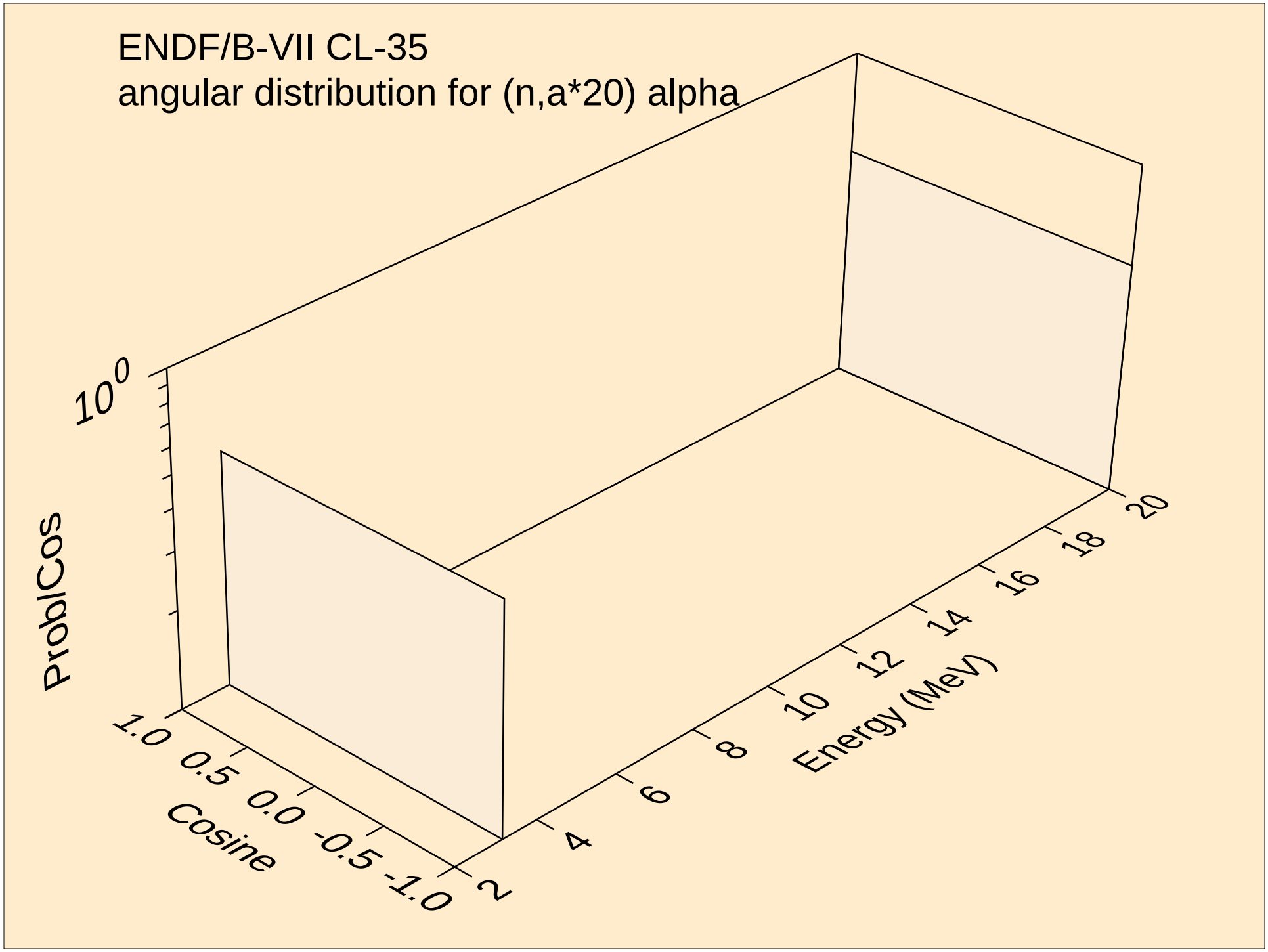

ENDF/B-VII CL-35
angular distribution for (n,a*15) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

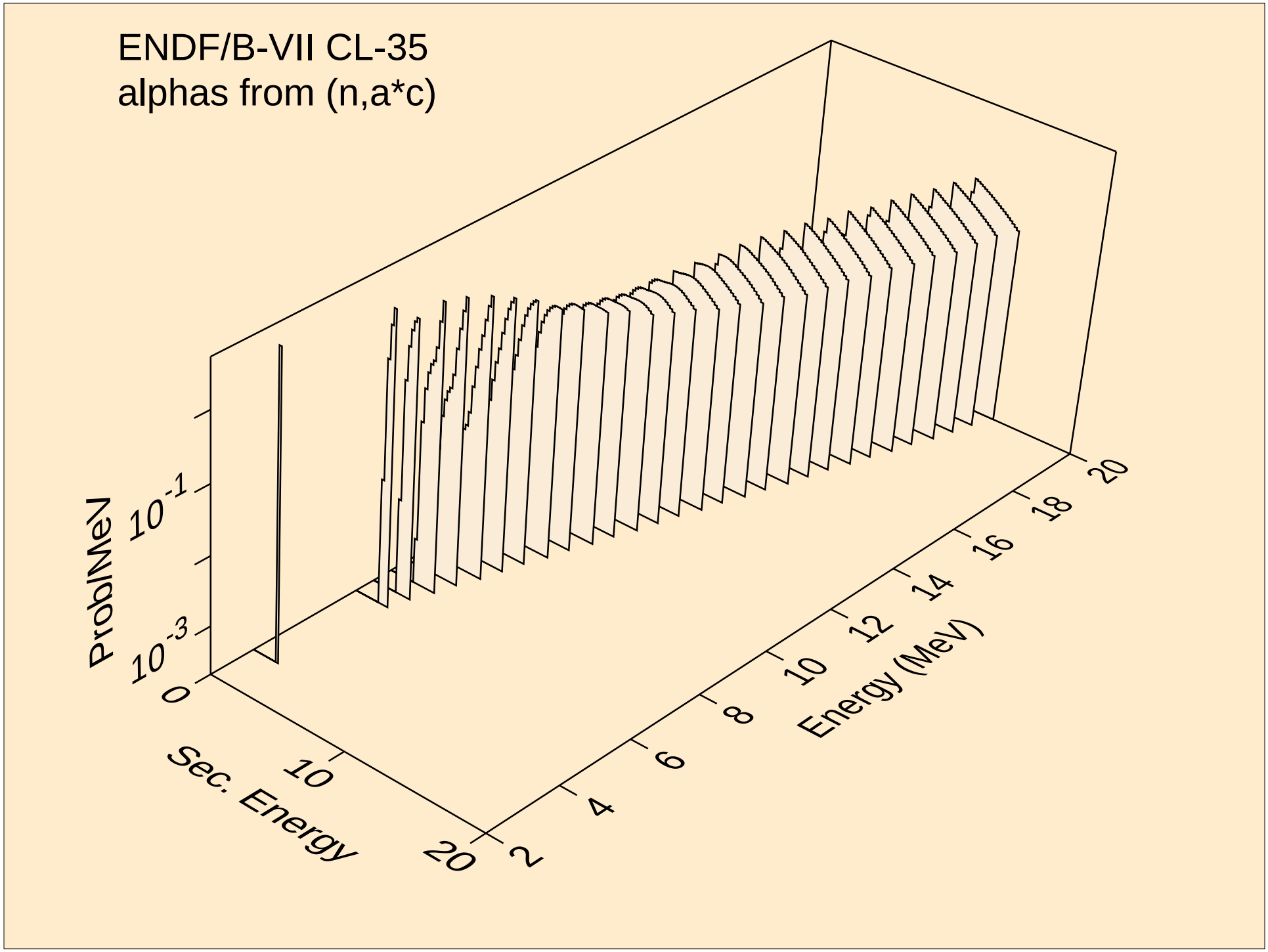

ENDF/B-VII CL-35
angular distribution for (n,a*16) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


ENDF/B-VII CL-35
angular distribution for (n,a*17) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


ENDF/B-VII CL-35
angular distribution for (n,a*18) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


ENDF/B-VII CL-35
angular distribution for (n,a*19) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


ENDF/B-VII CL-35
angular distribution for (n,a*20) alpha
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


ENDF/B-VII CL-35
alphas from (n,a*c)
Prob/MeV
10^{-1}
10^{-3}
0
Sec. Energy
10
20
2
4
6
8
10
12
14
16
18
20
Energy (MeV)