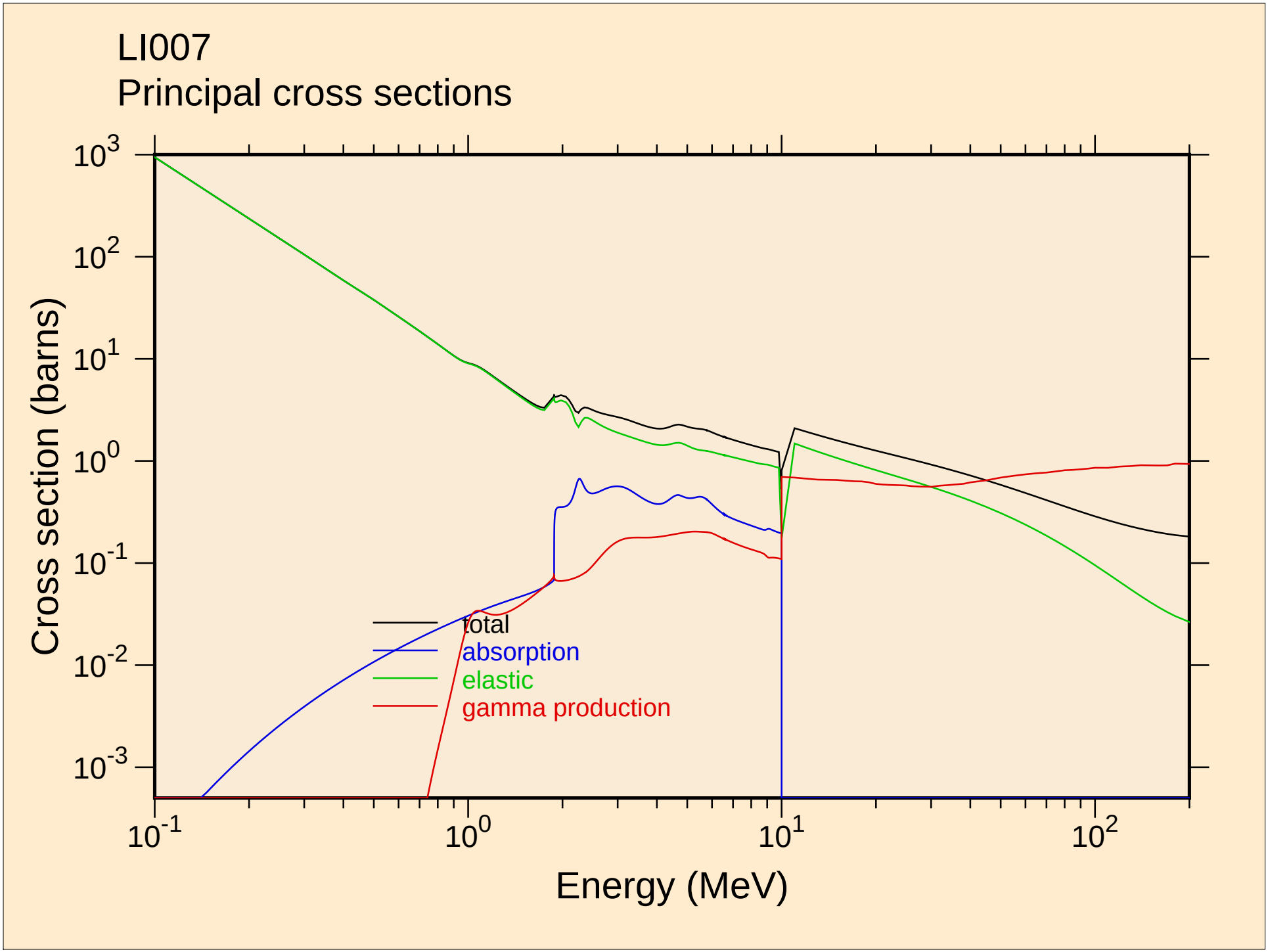
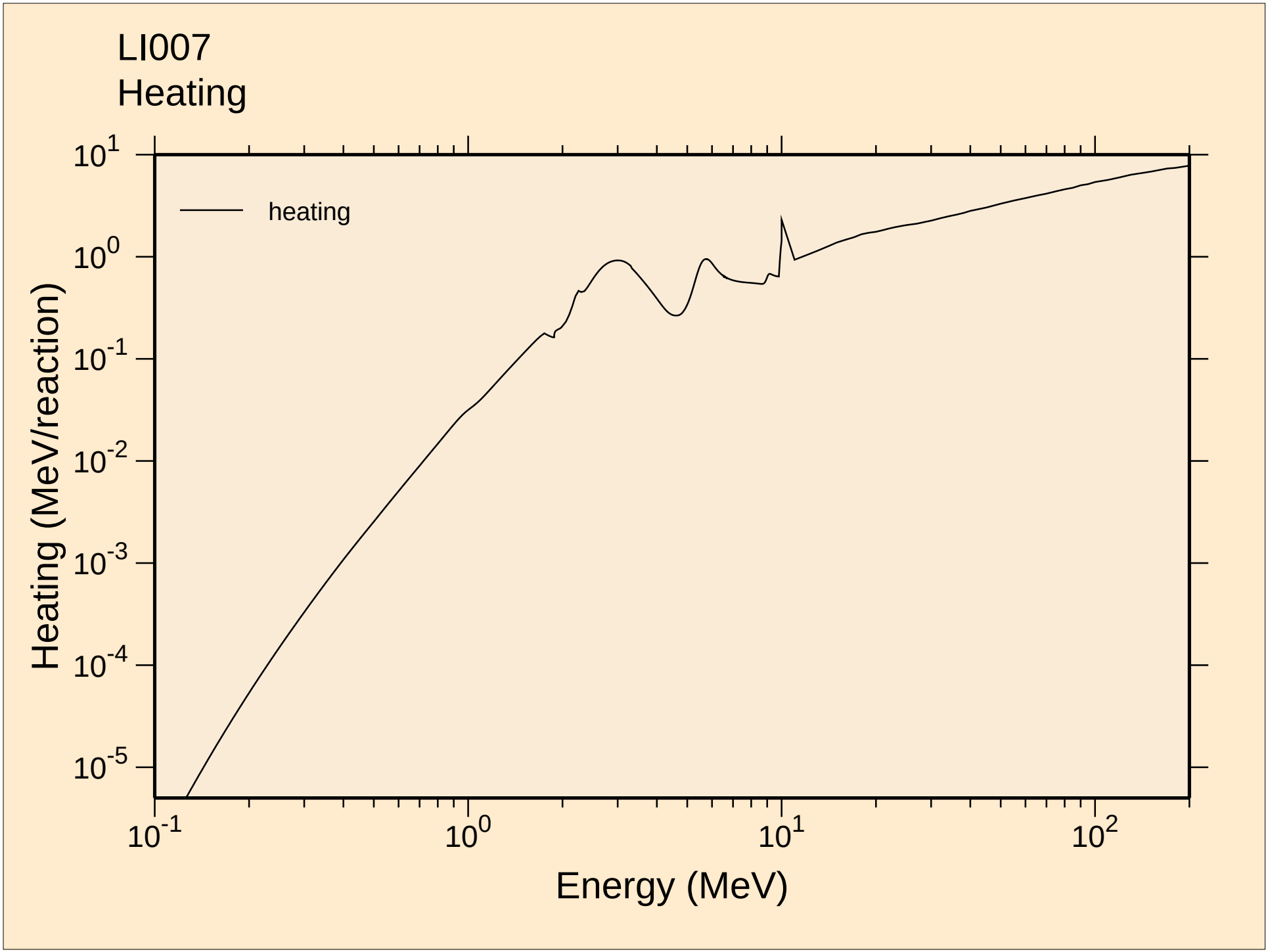
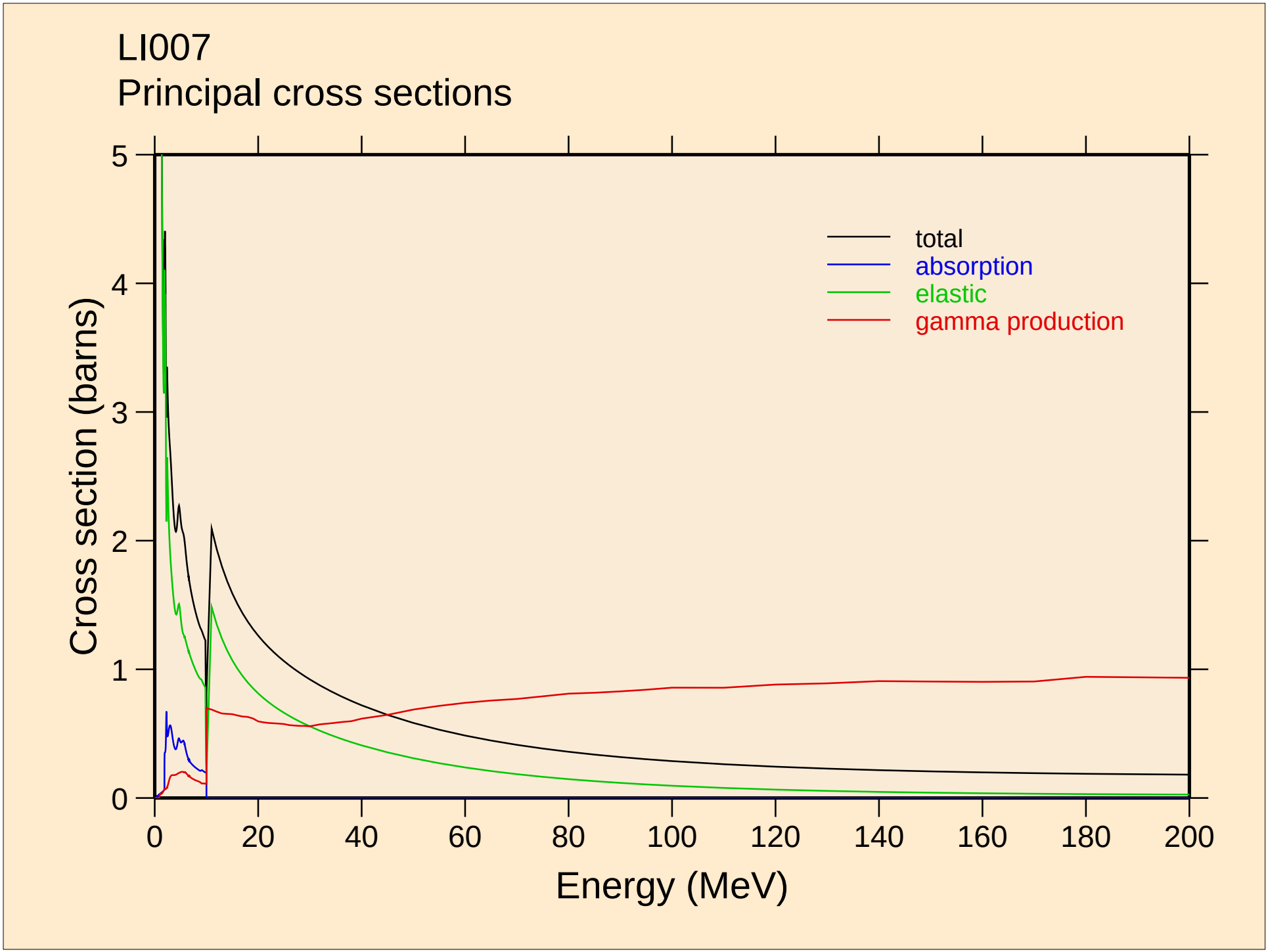
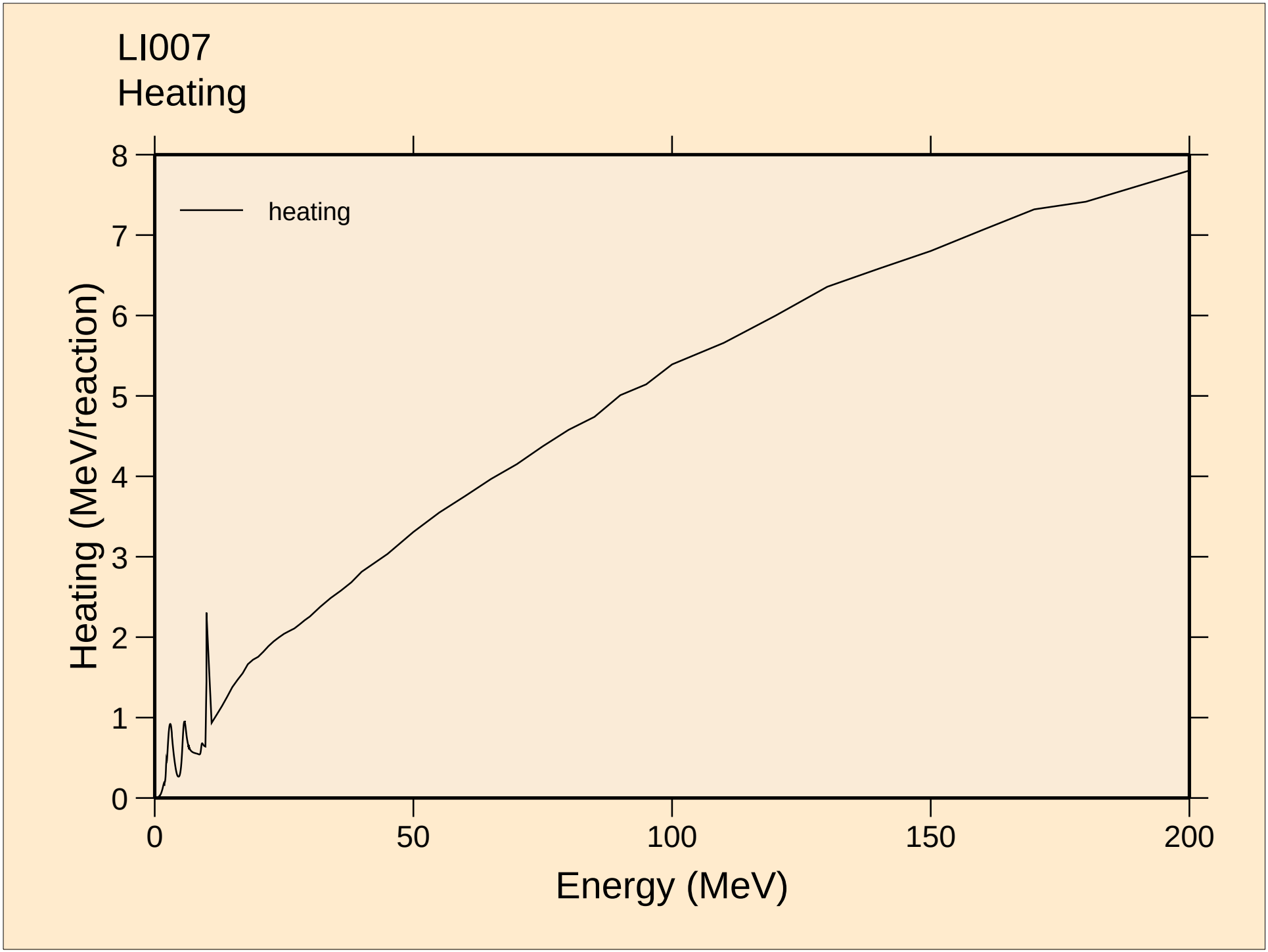
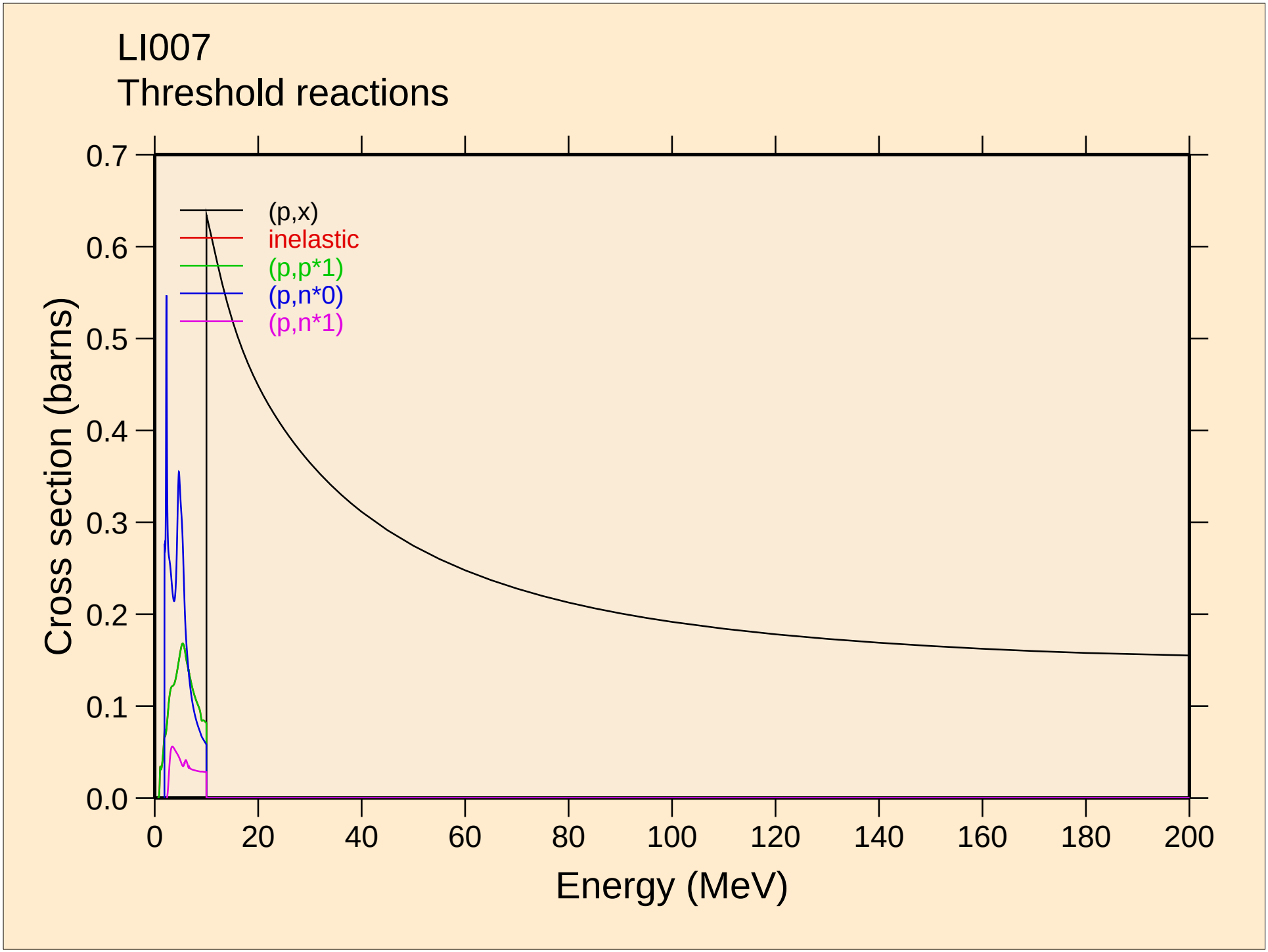
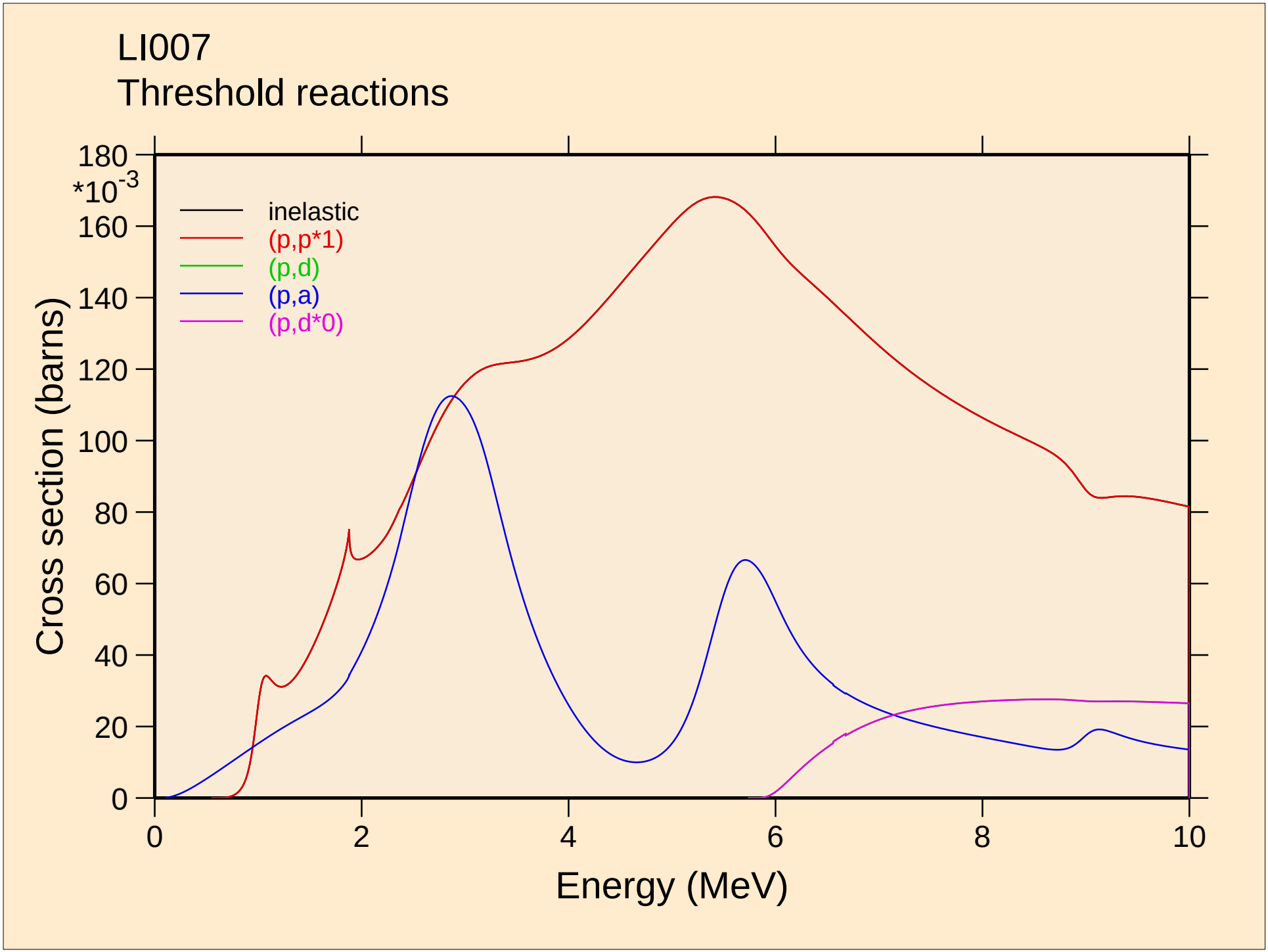

LI007
Principal cross sections
Cross section (barns)
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
Energy (MeV)
total
absorption
elastic
gamma production

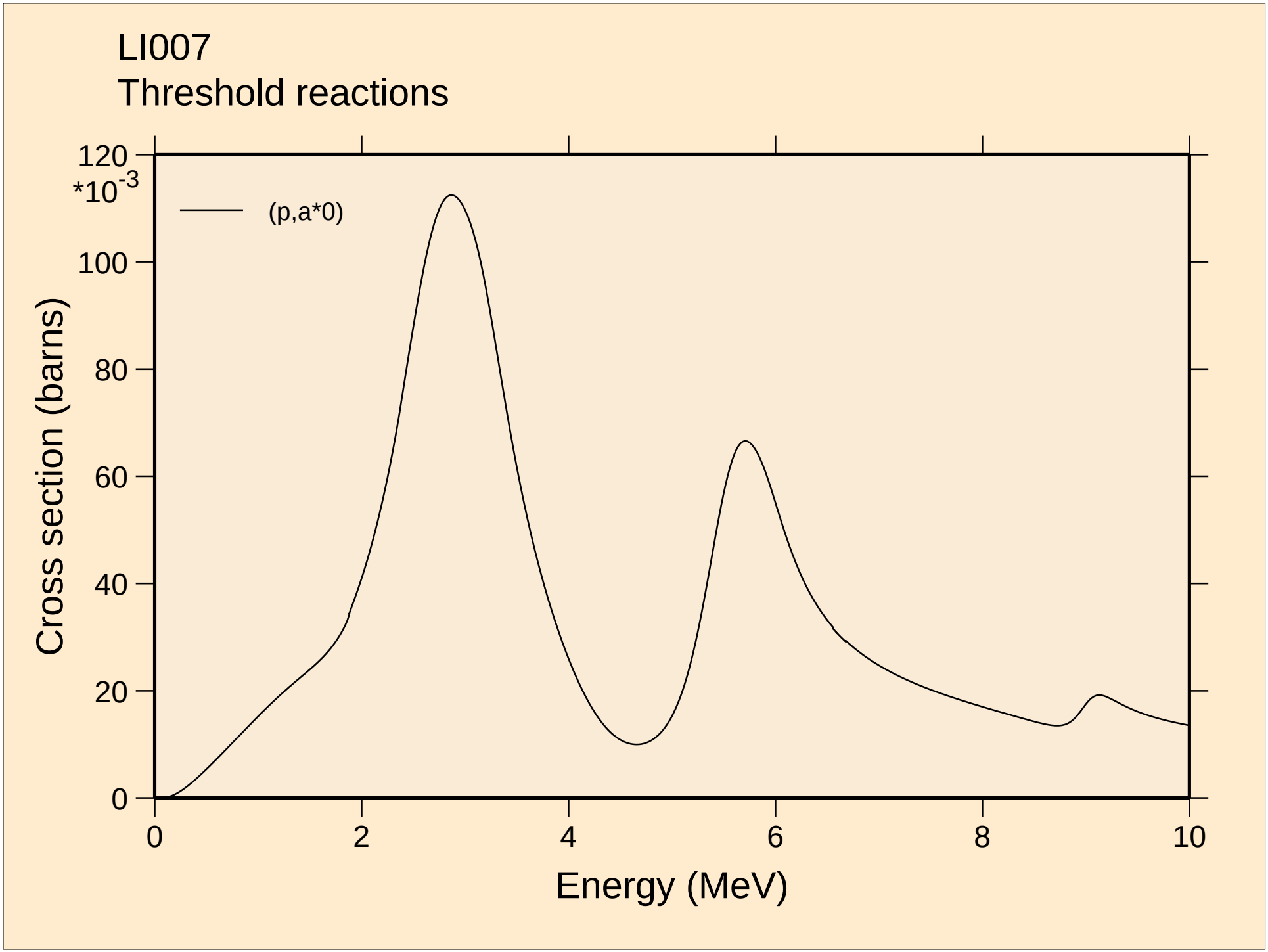

LI007
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-1
10^0
10^1
10^2

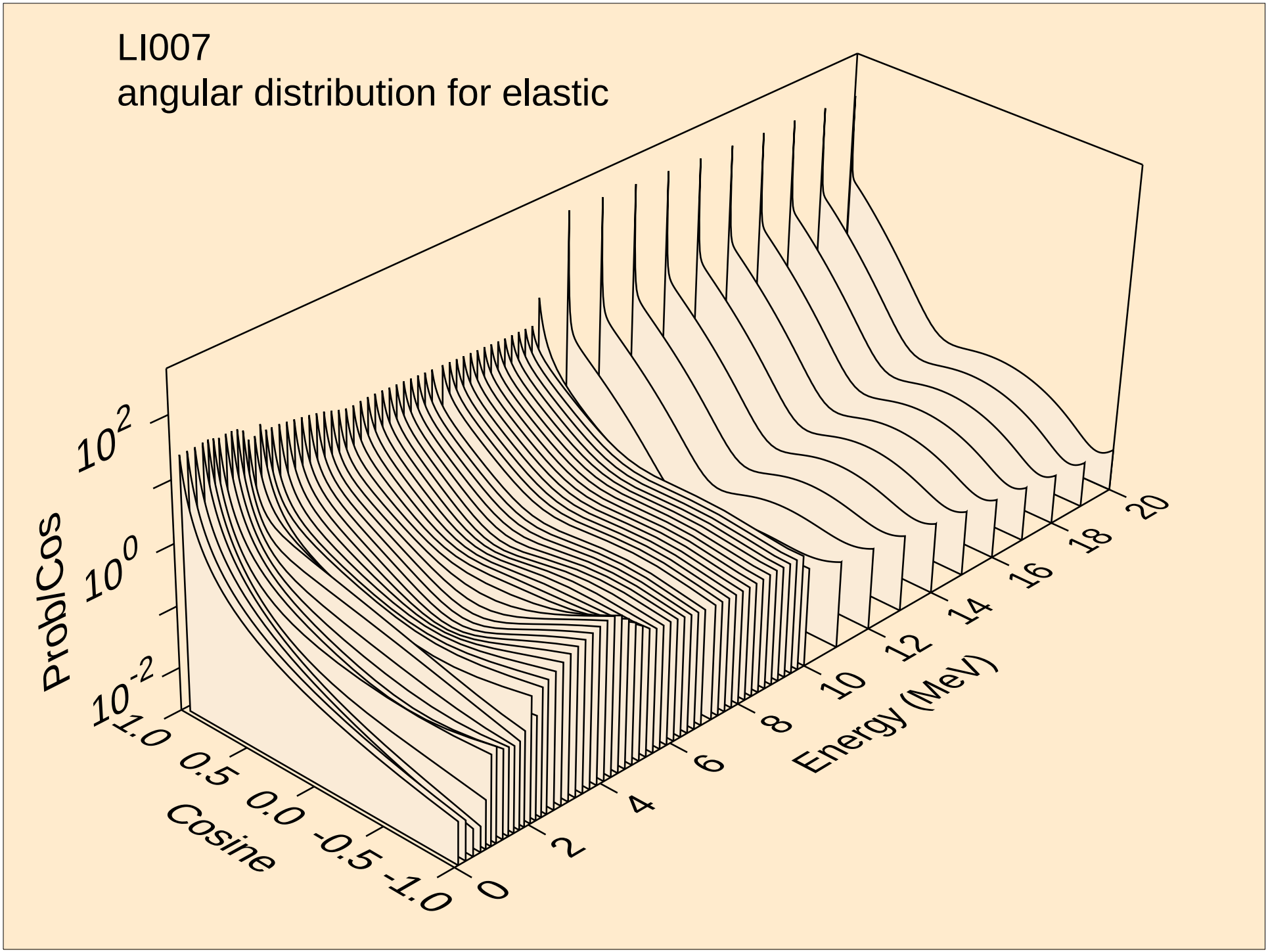

LI007
Principal cross sections
Cross section (barns)
Energy (MeV)
0
1
2
3
4
5
0
20
40
60
80
100
120
140
160
180
200
total
absorption
elastic
gamma production

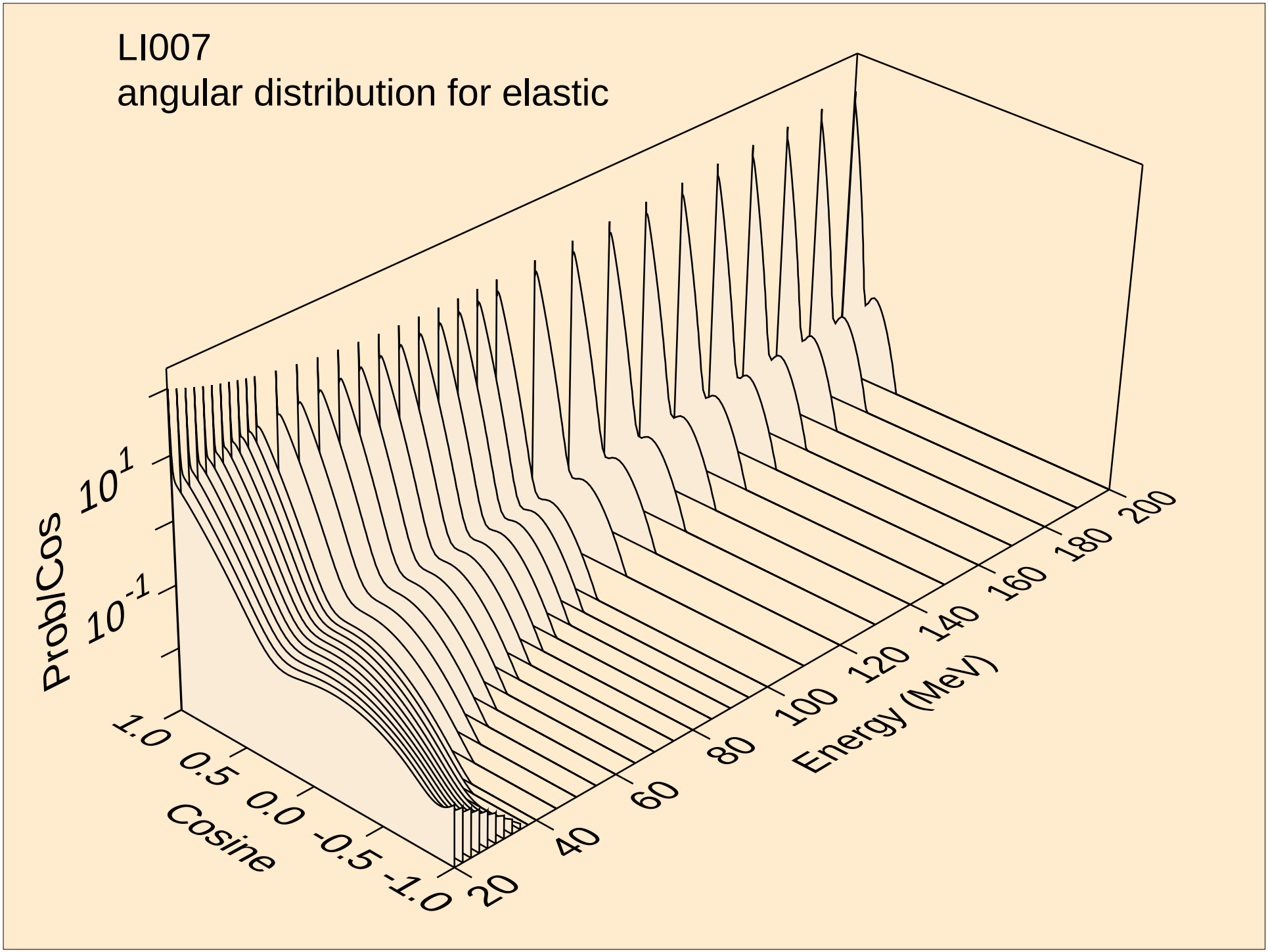

LI007
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
1
2
3
4
5
6
7
8
0
50
100
150
200

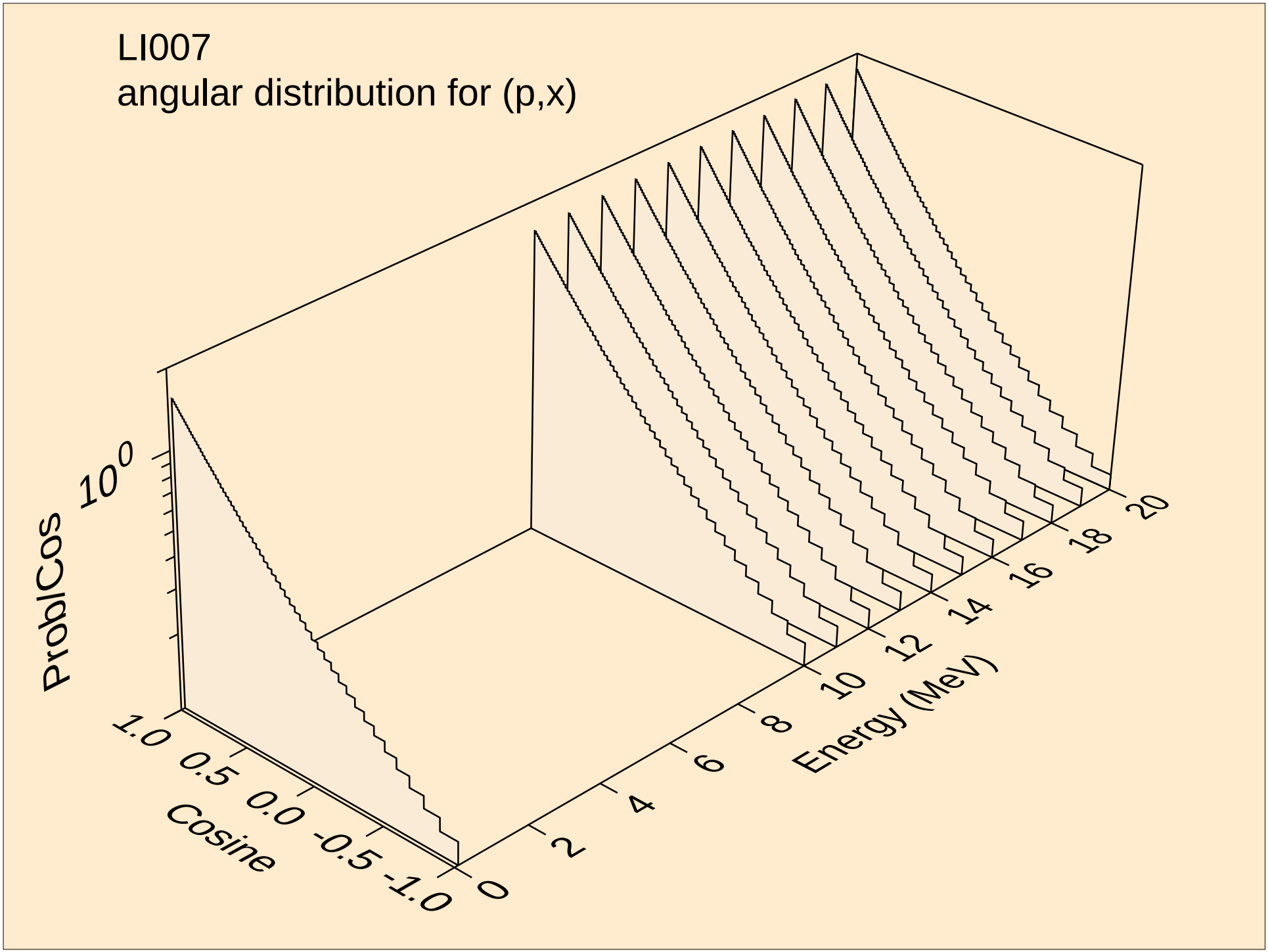

LI007
Threshold reactions
Cross section (barns)
Energy (MeV)
(p,x)
inelastic
(p,p*1)
(p,n*0)
(p,n*1)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
20
40
60
80
100
120
140
160
180
200

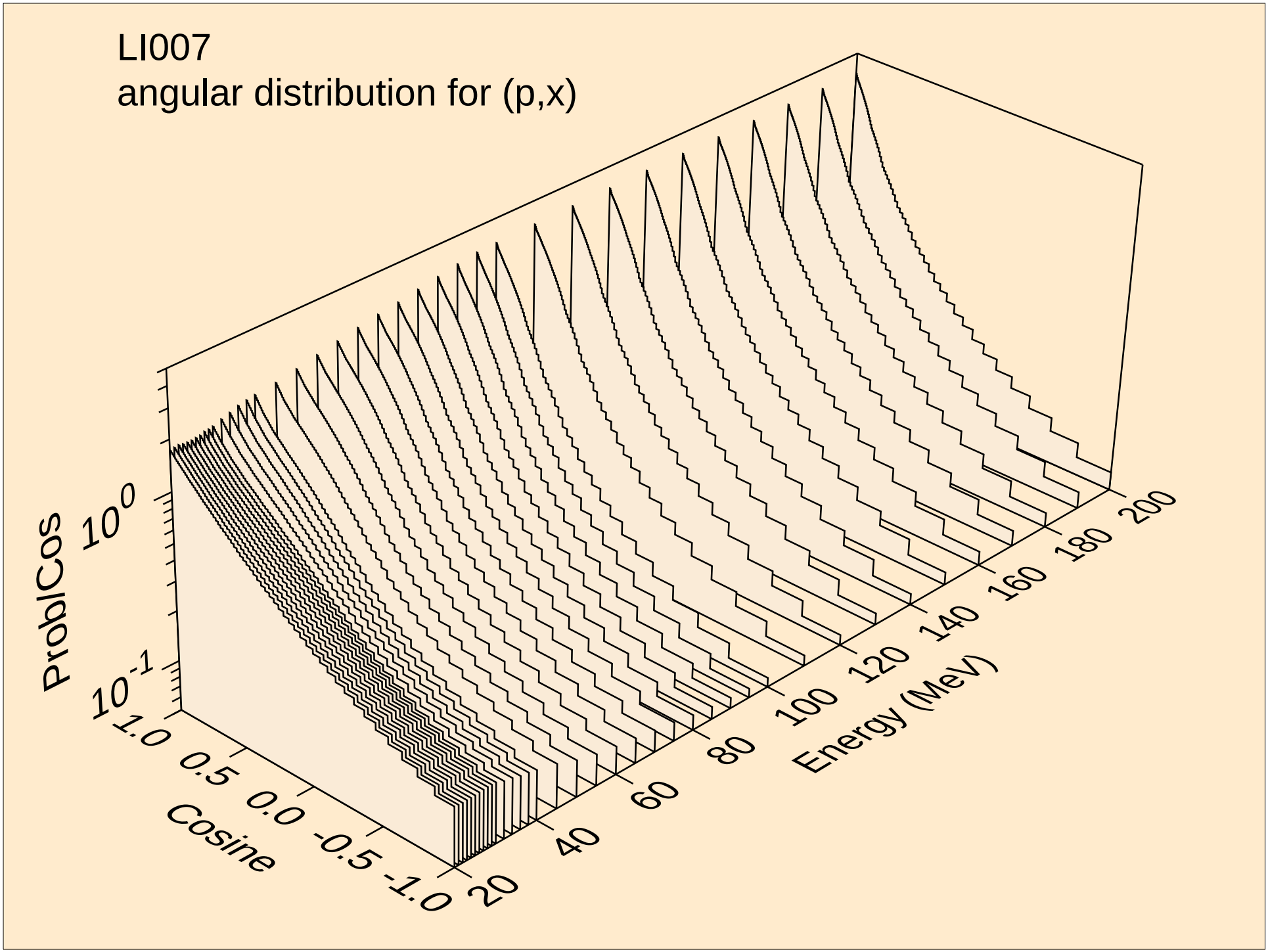

LI007
Threshold reactions
180
*10-3
160
140
120
100
80
60
40
20
0
Cross section (barns)
inelastic
(p,p*1)
(p,d)
(p,a)
(p,d*0)
0
2
4
6
8
10
Energy (MeV)

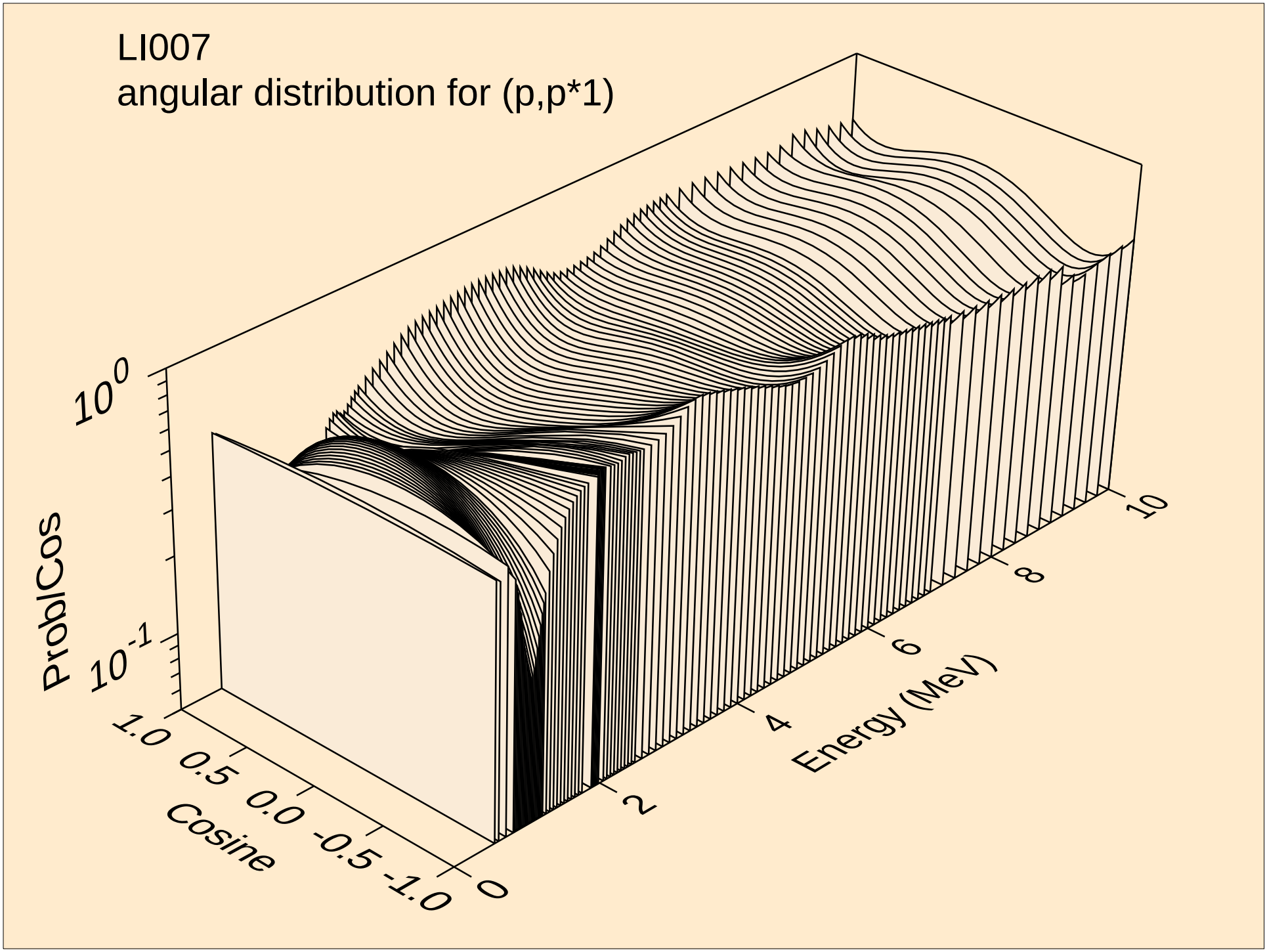

LI007
Threshold reactions
120
*10-3
100
80
60
40
20
0
(p,a*0)
Cross section (barns)
0
2
4
6
8
10
Energy (MeV)

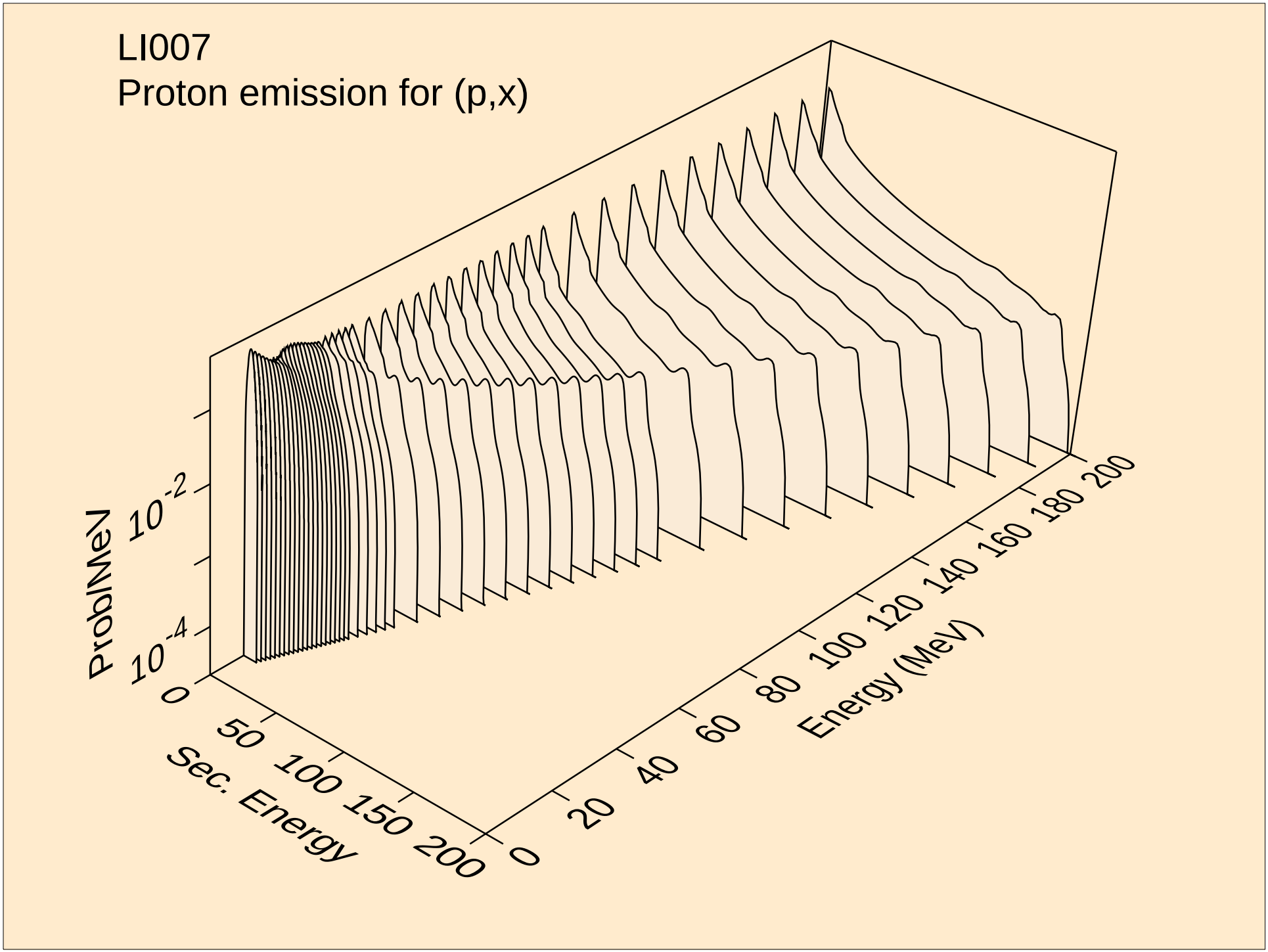

LI007
angular distribution for elastic
ProblCos
10^{2}
10^{0}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

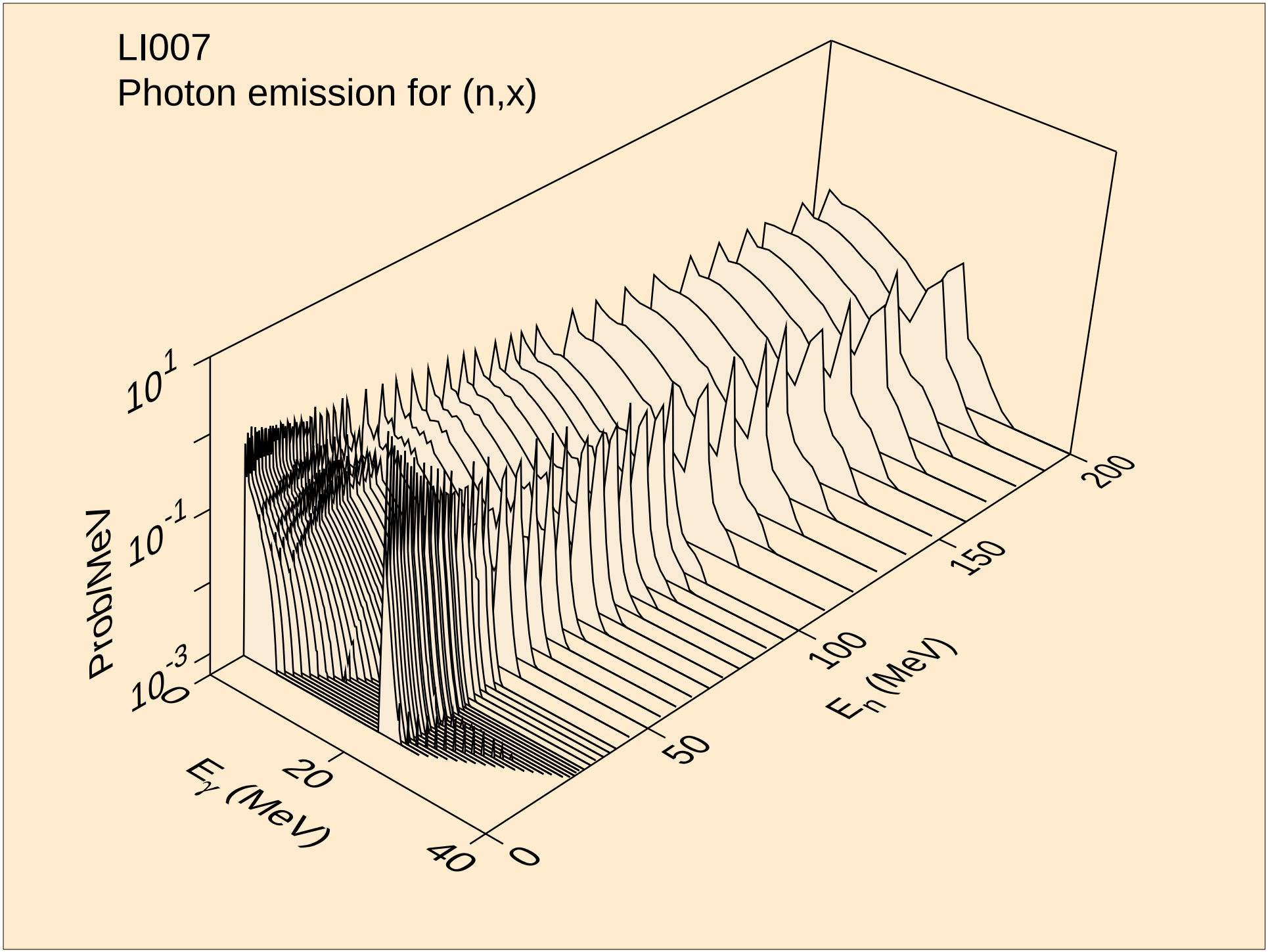

LI007
angular distribution for elastic
ProbICos
10^{1}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

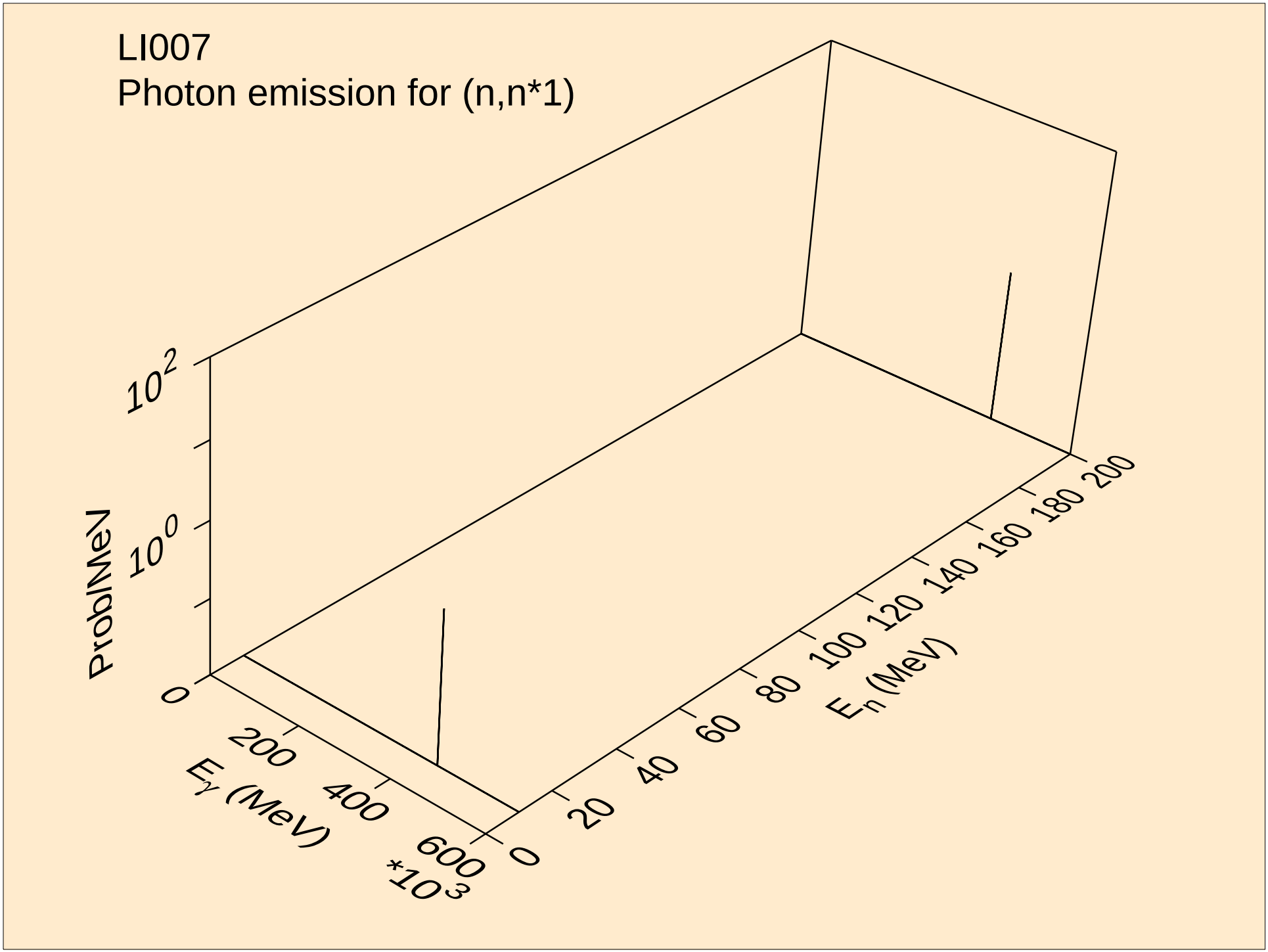

LI007
angular distribution for (p,x)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

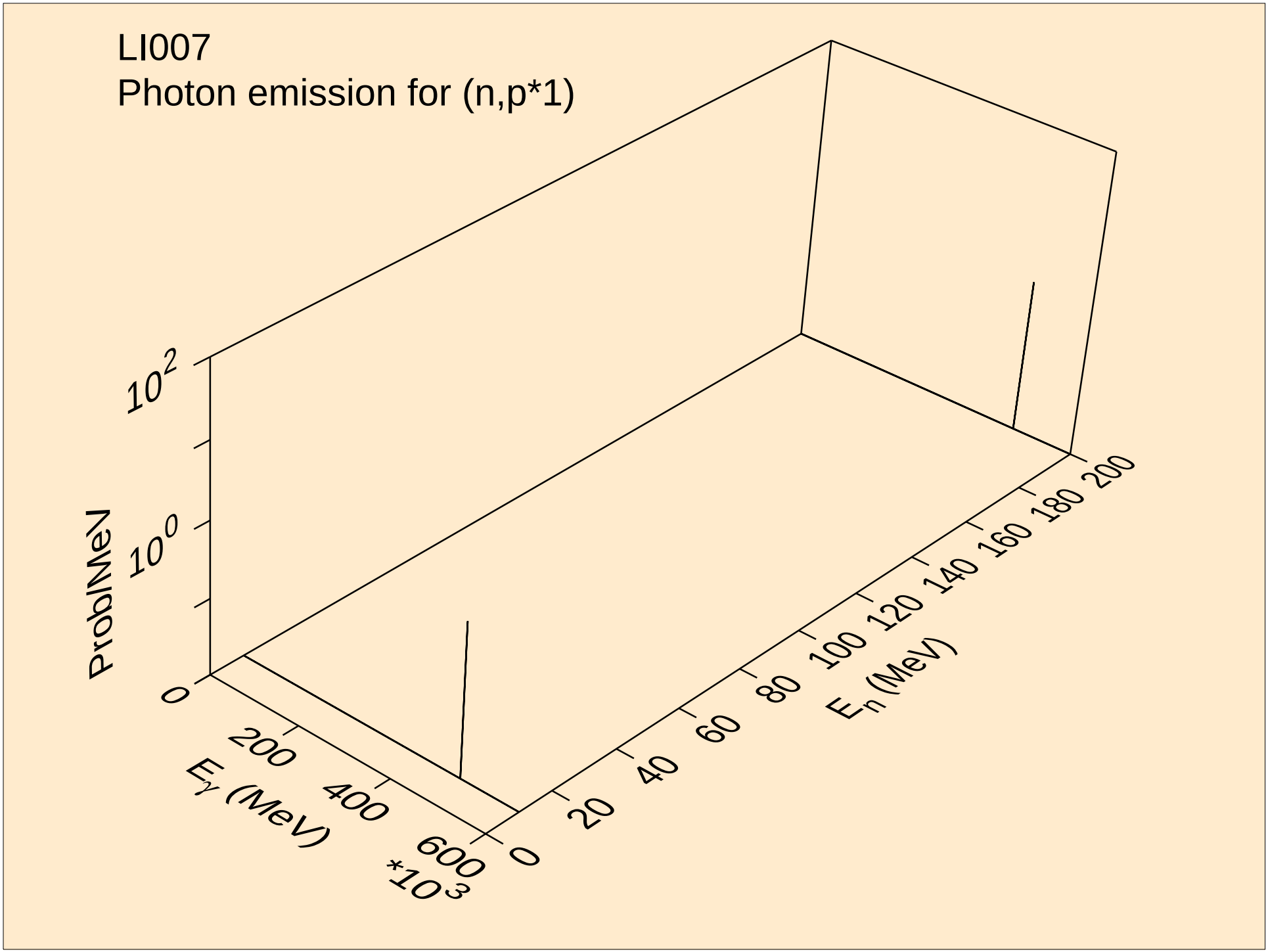

LI007
angular distribution for (p,x)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

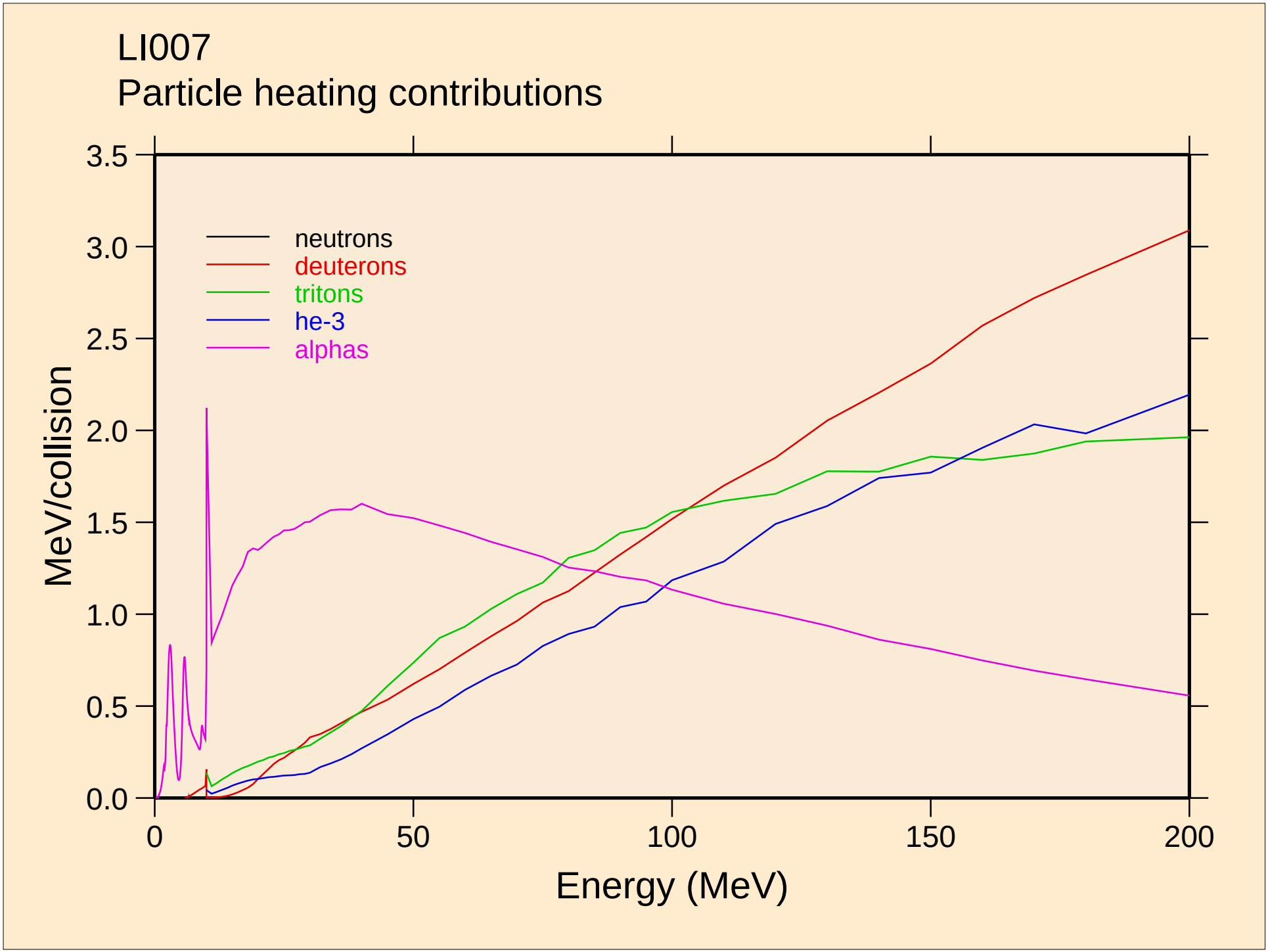

LI007
angular distribution for (p,p*1)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
Energy (MeV)

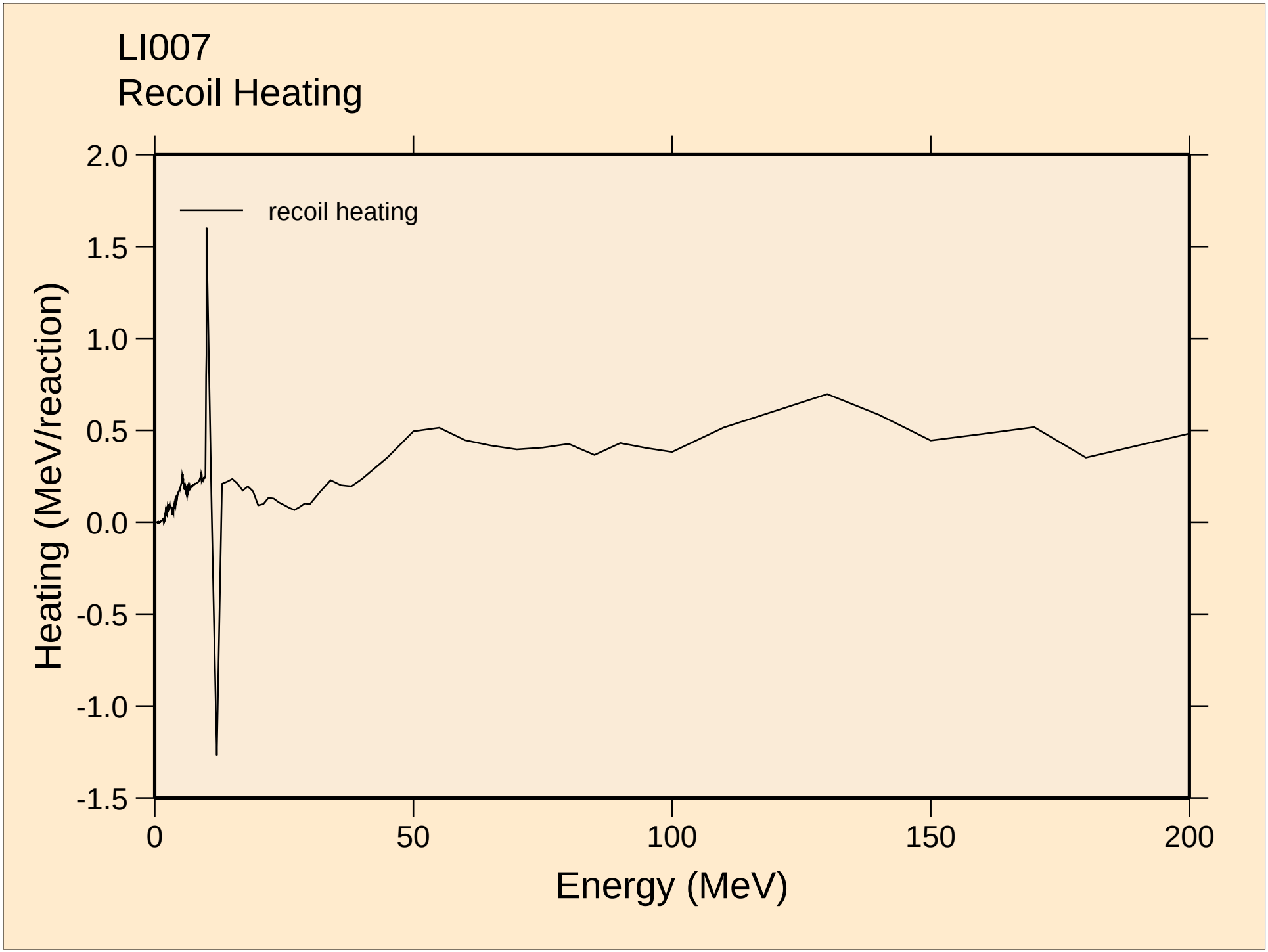

LI007
Proton emission for (p,x)
Prob/MeV
10^{-2}
10^{-4}
0
50
100
150
200
Sec. Energy
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

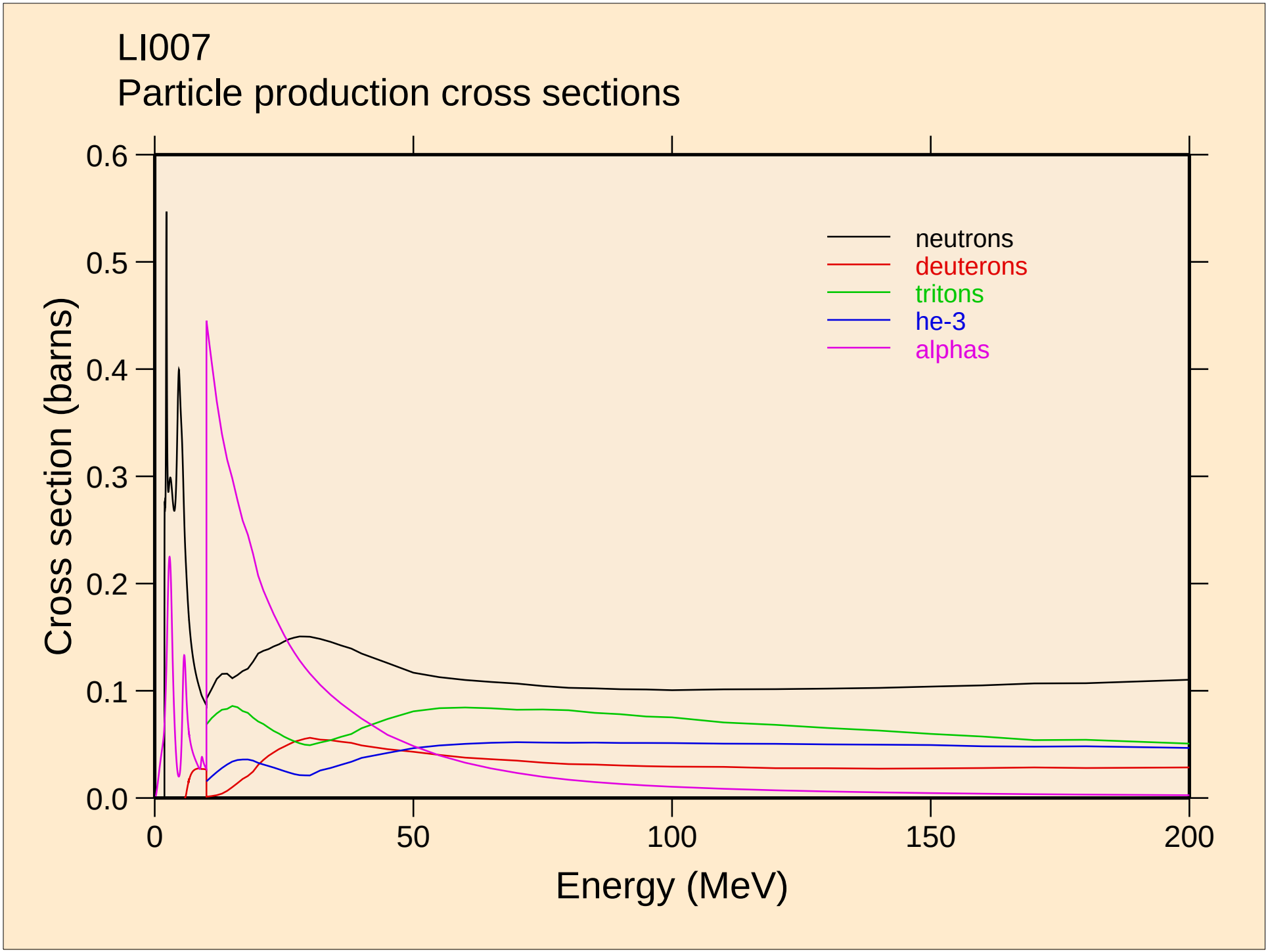

LI007
Photon emission for (n,x)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
0
20
40
E_γ (MeV)
50
100
150
200
E_n (MeV)

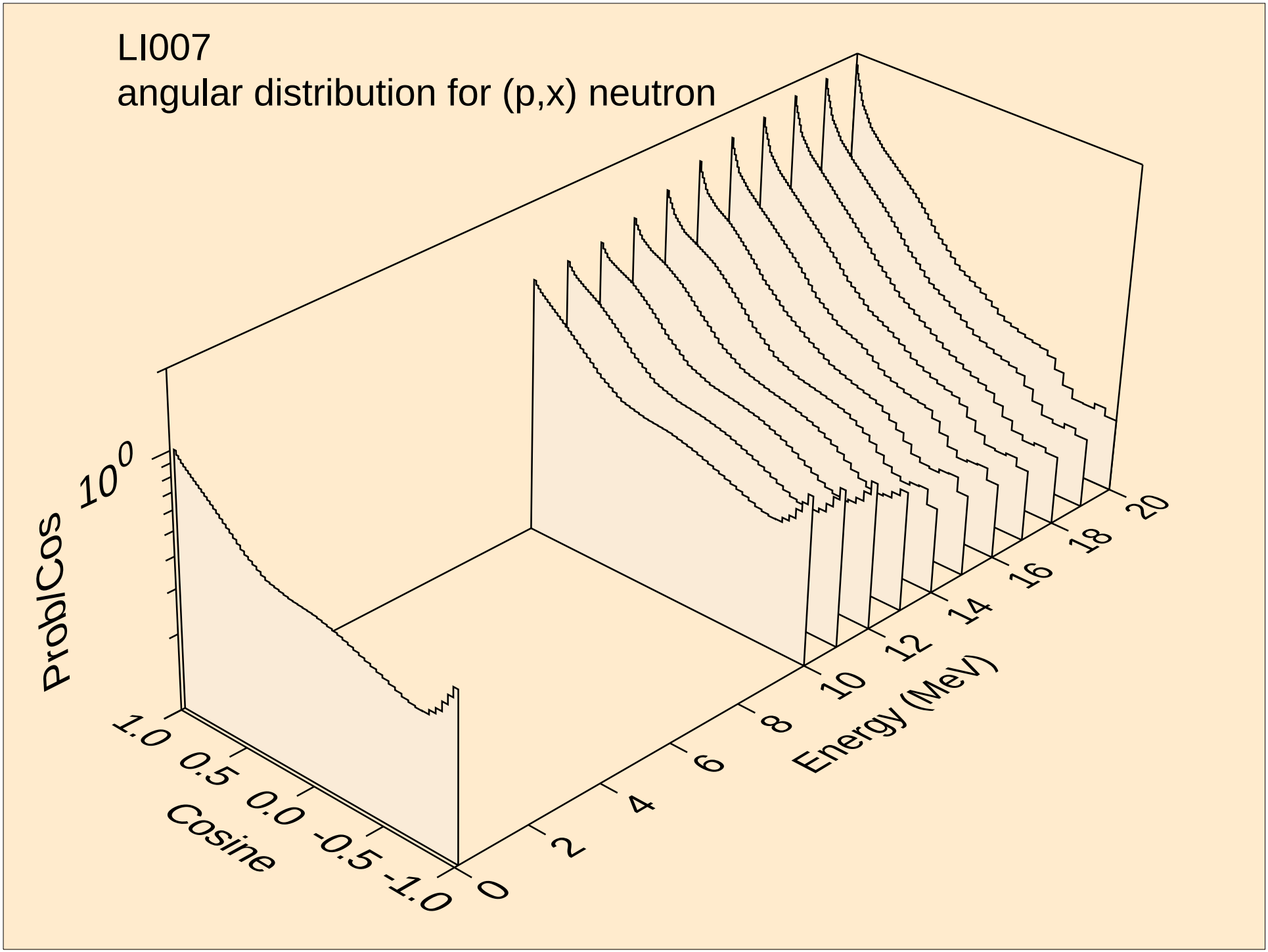

LI007
Photon emission for (n,n*1)
Prob/MeV
10^2
10^0
0
200
400
600
*10^3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
180
200
E_n (MeV)

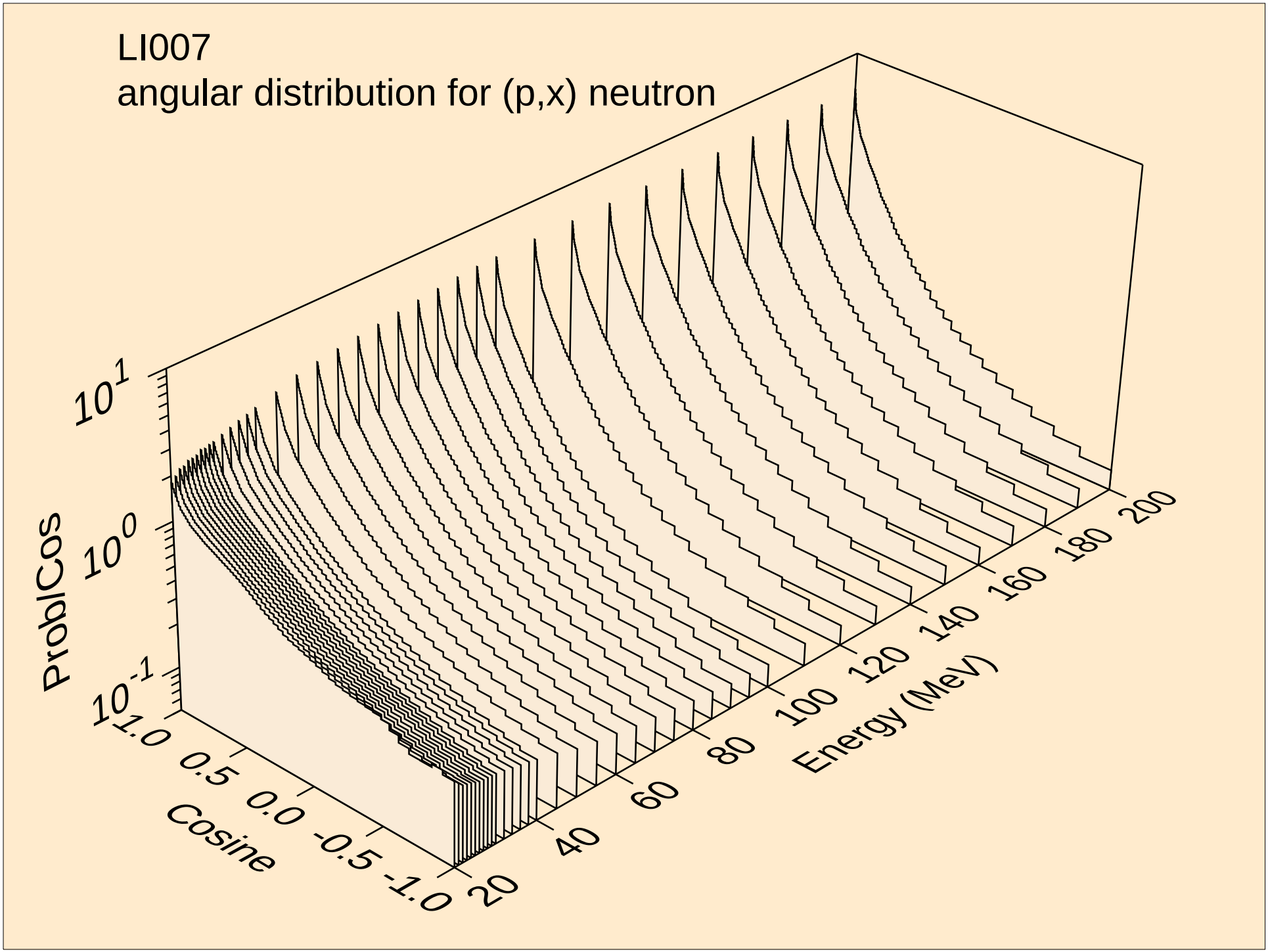

LI007
Photon emission for (n,p*1)
Prob/MeV
10^2
10^0
0
200
400
600
*10^3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
180
200
E_n (MeV)

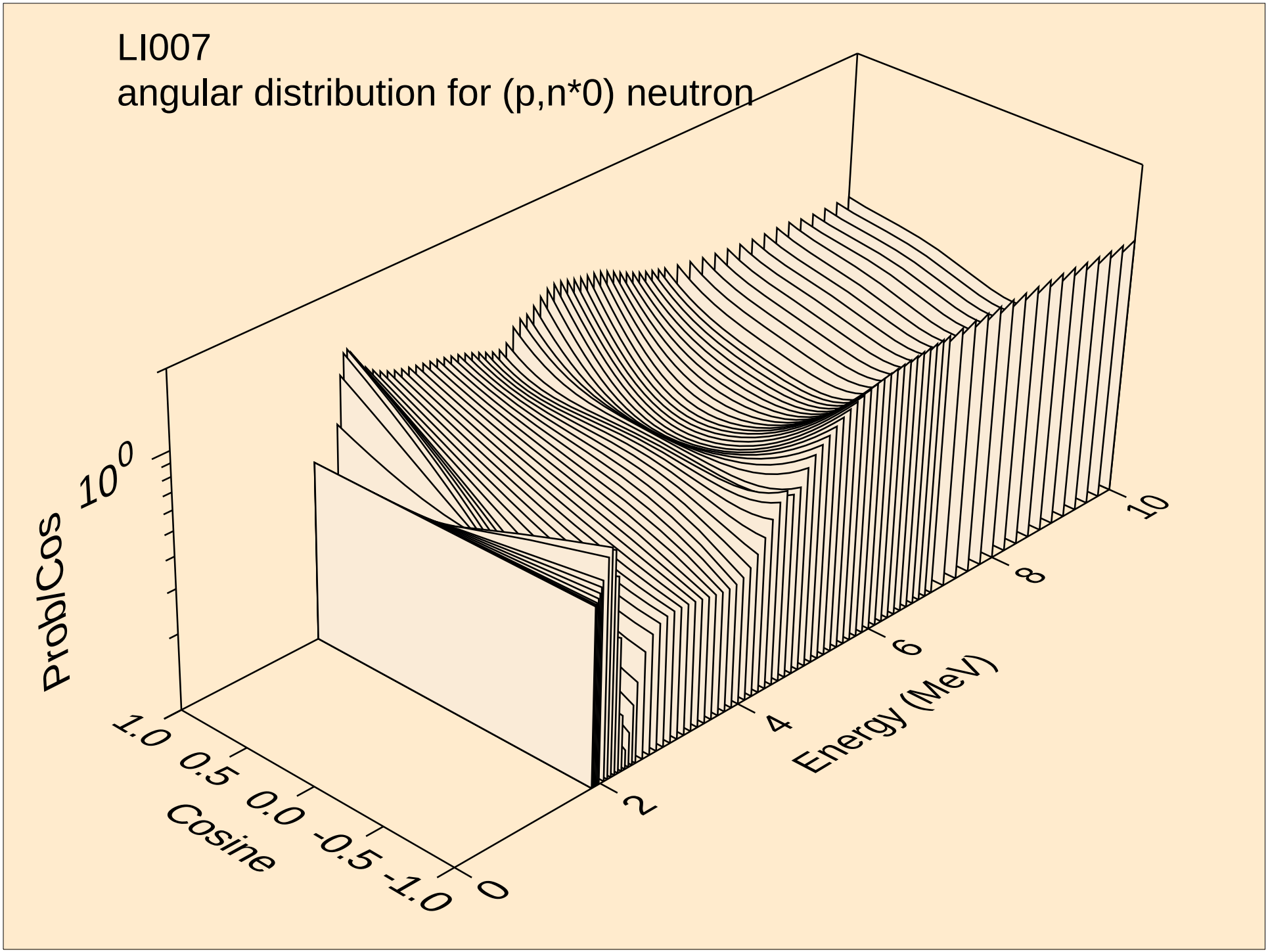

LI007
Particle heating contributions
neutrons
deuterons
tritons
he-3
alphas
MeV/collision
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
50
100
150
200

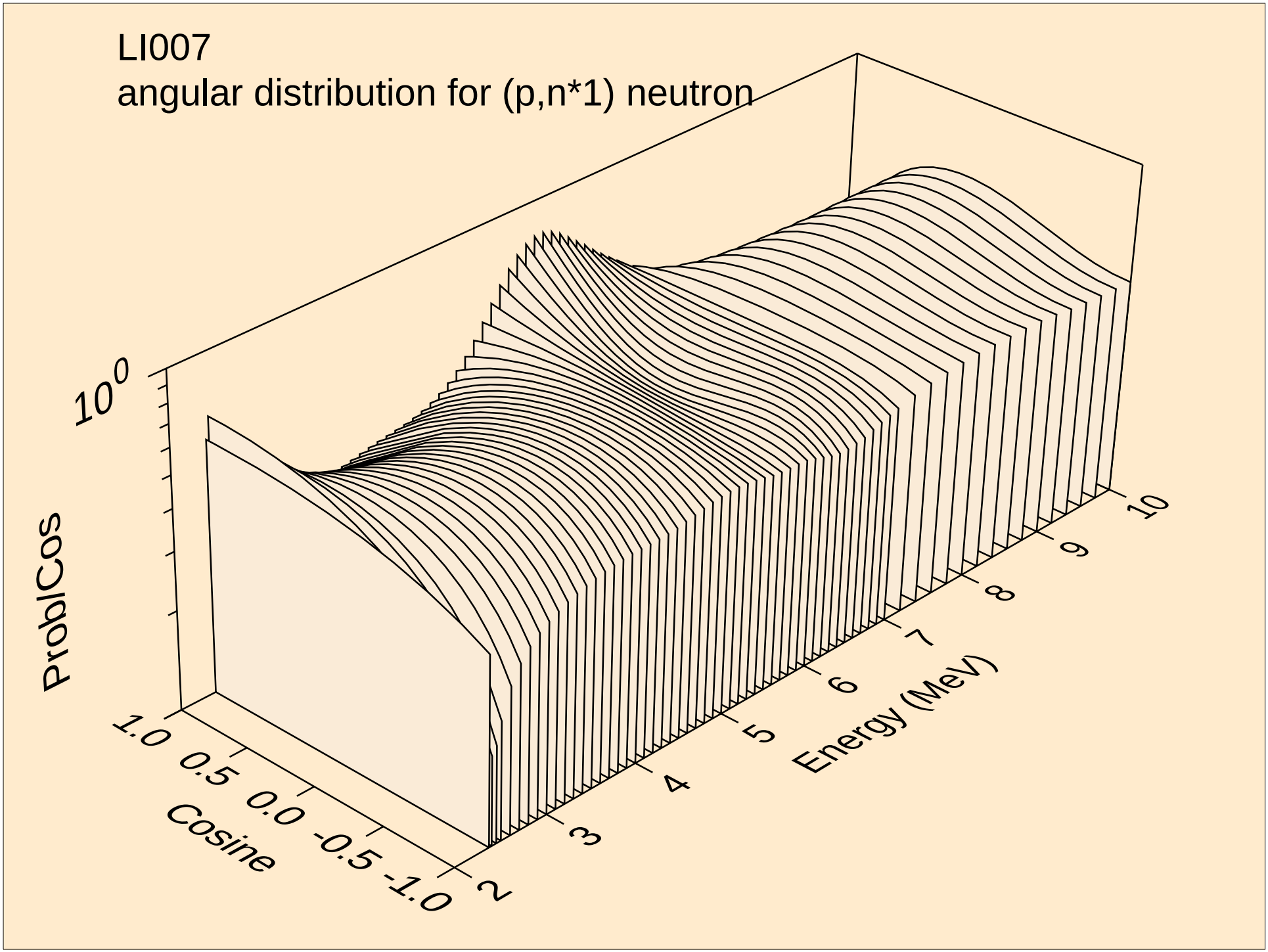

LI007
Recoil Heating
recoil heating
Heating (MeV/reaction)
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
0
50
100
150
200
Energy (MeV)

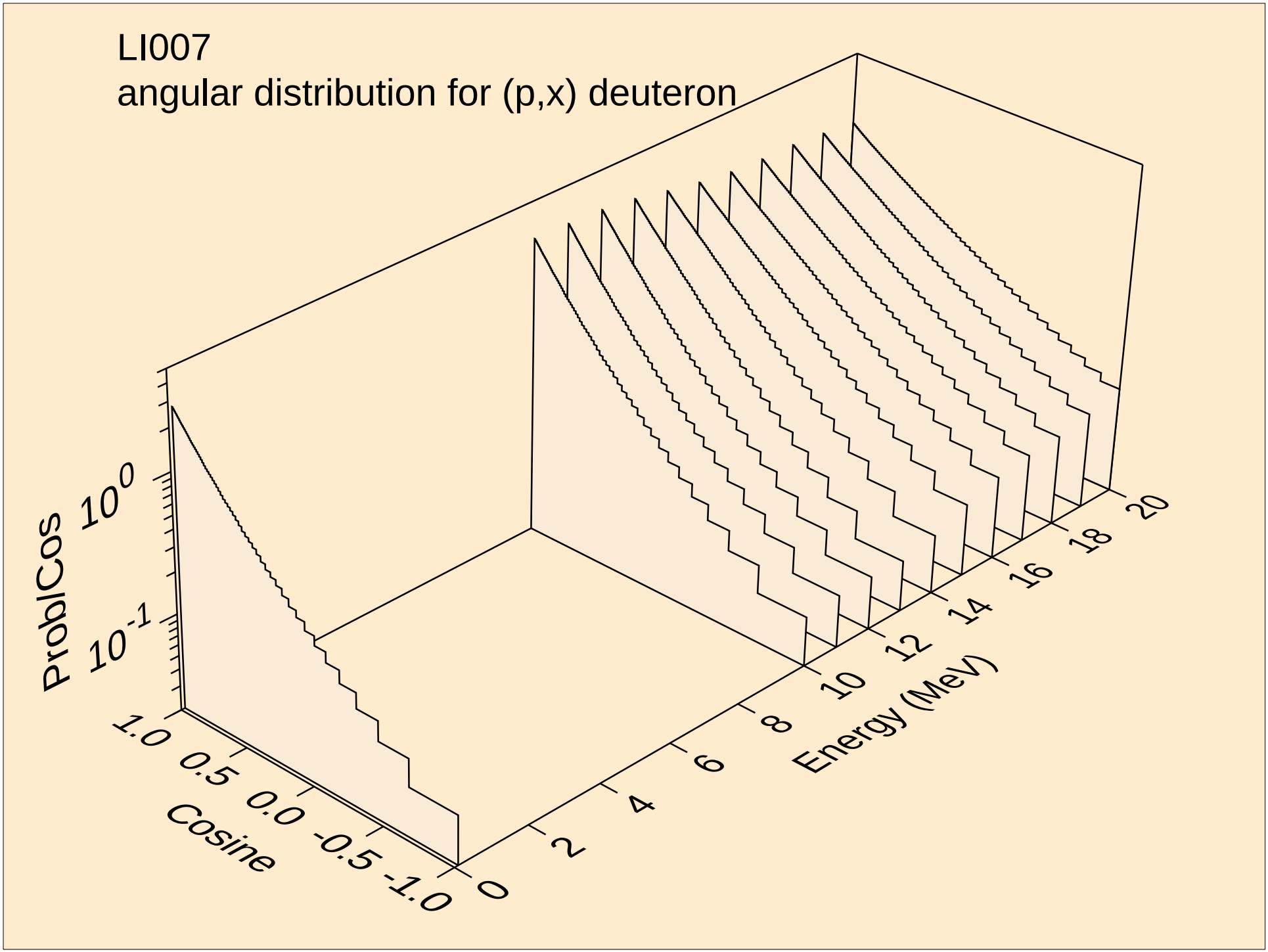

LI007
Particle production cross sections
Cross section (barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
50
100
150
200
Energy (MeV)
neutrons
deuterons
tritons
he-3
alphas

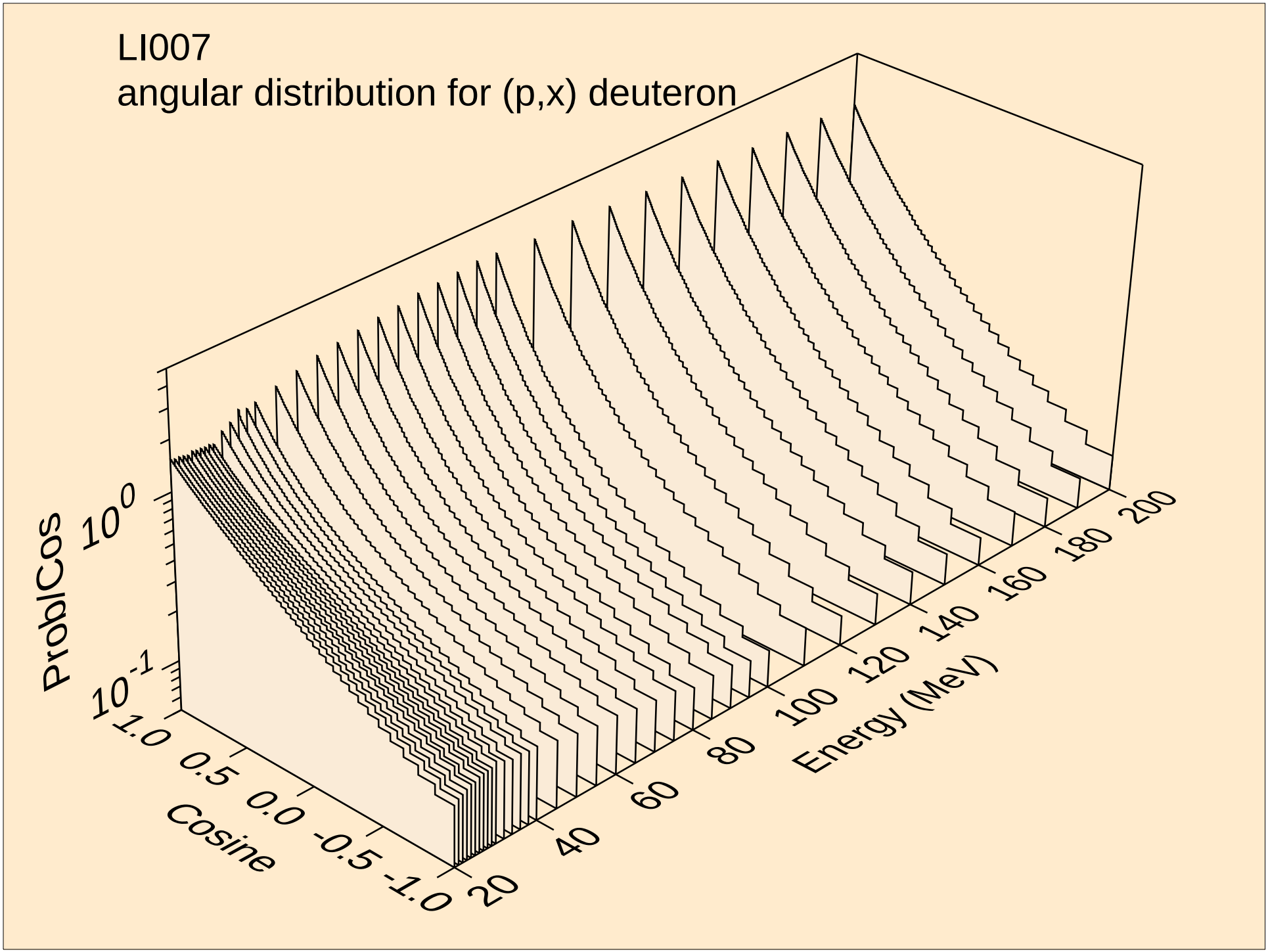

LI007
angular distribution for (p,x) neutron
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

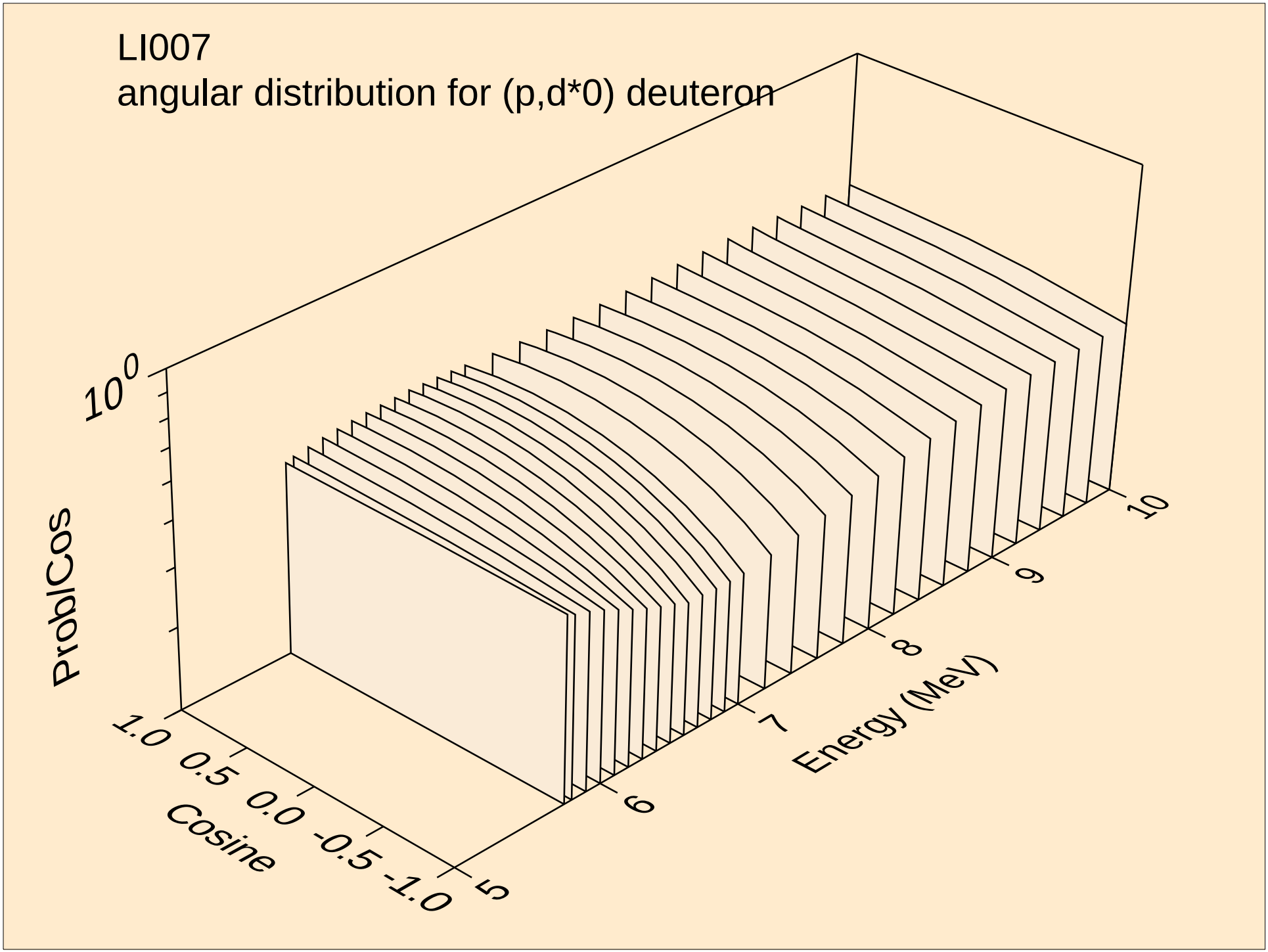

LI007
angular distribution for (p,x) neutron
ProblCos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

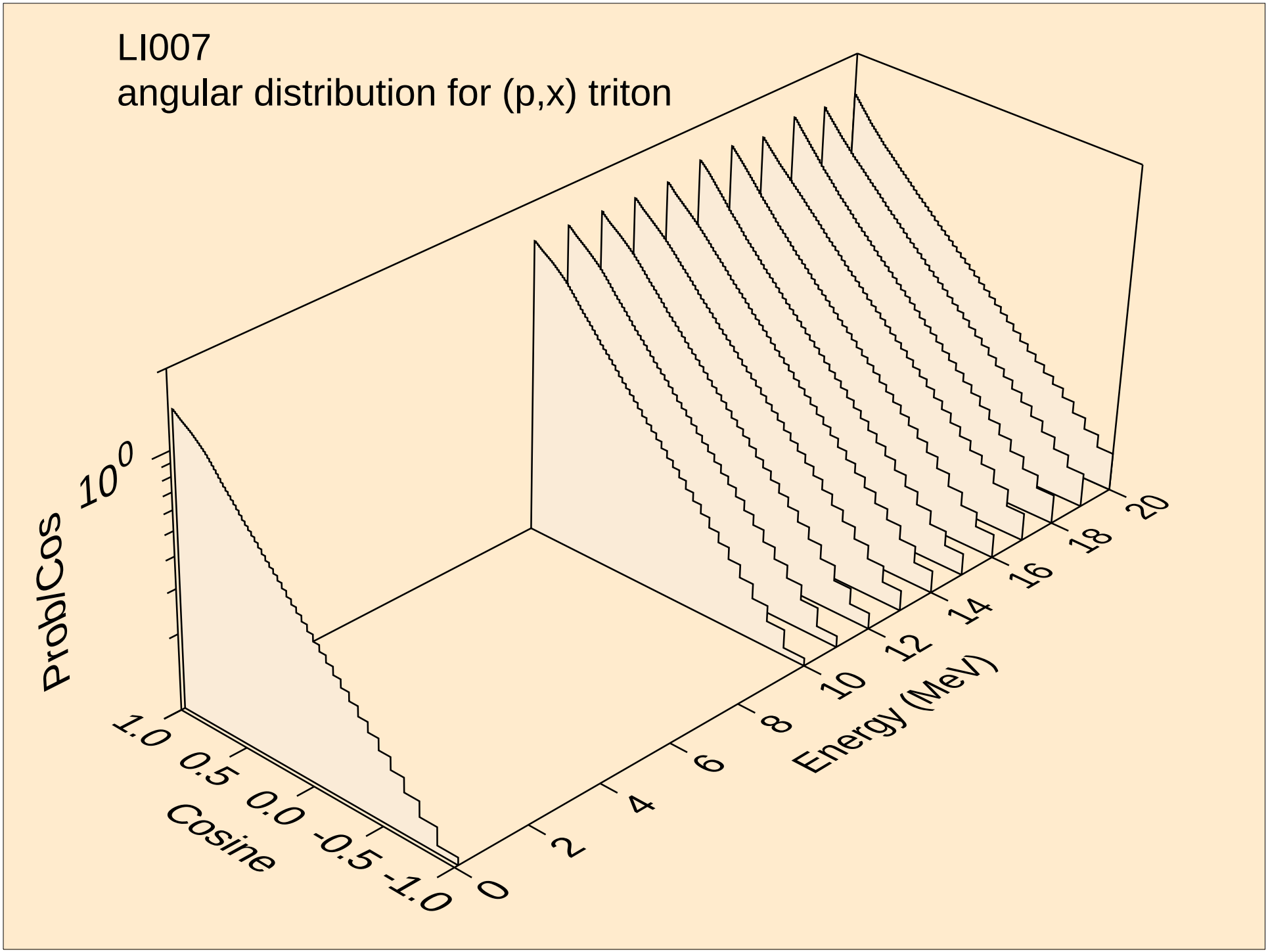

LI007
angular distribution for (p,n*0) neutron
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
Energy (MeV)

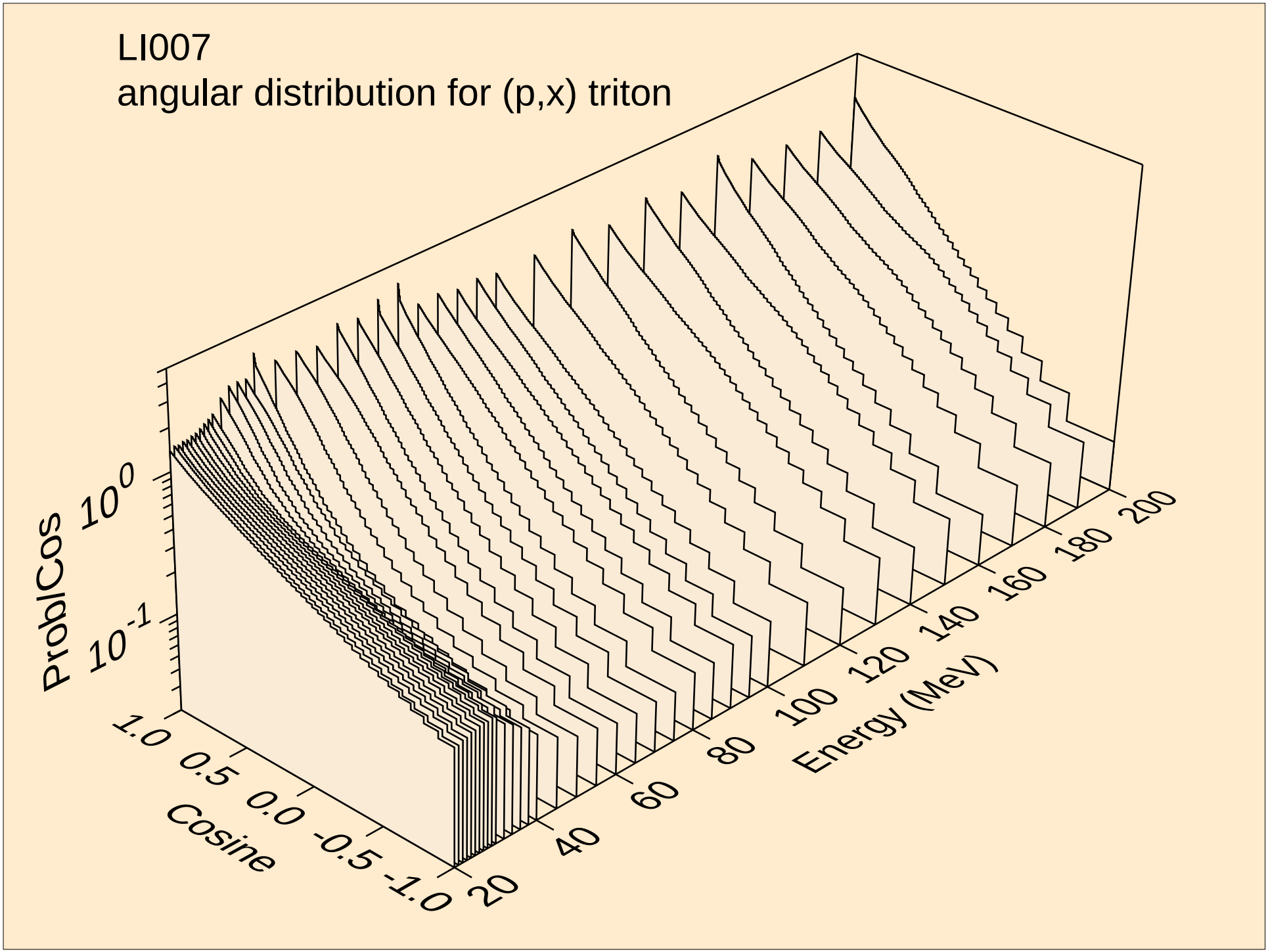

LI007
angular distribution for (p,n*1) neutron
10^0
ProblCos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
3
4
5
6
7
8
9
10
Energy (MeV)

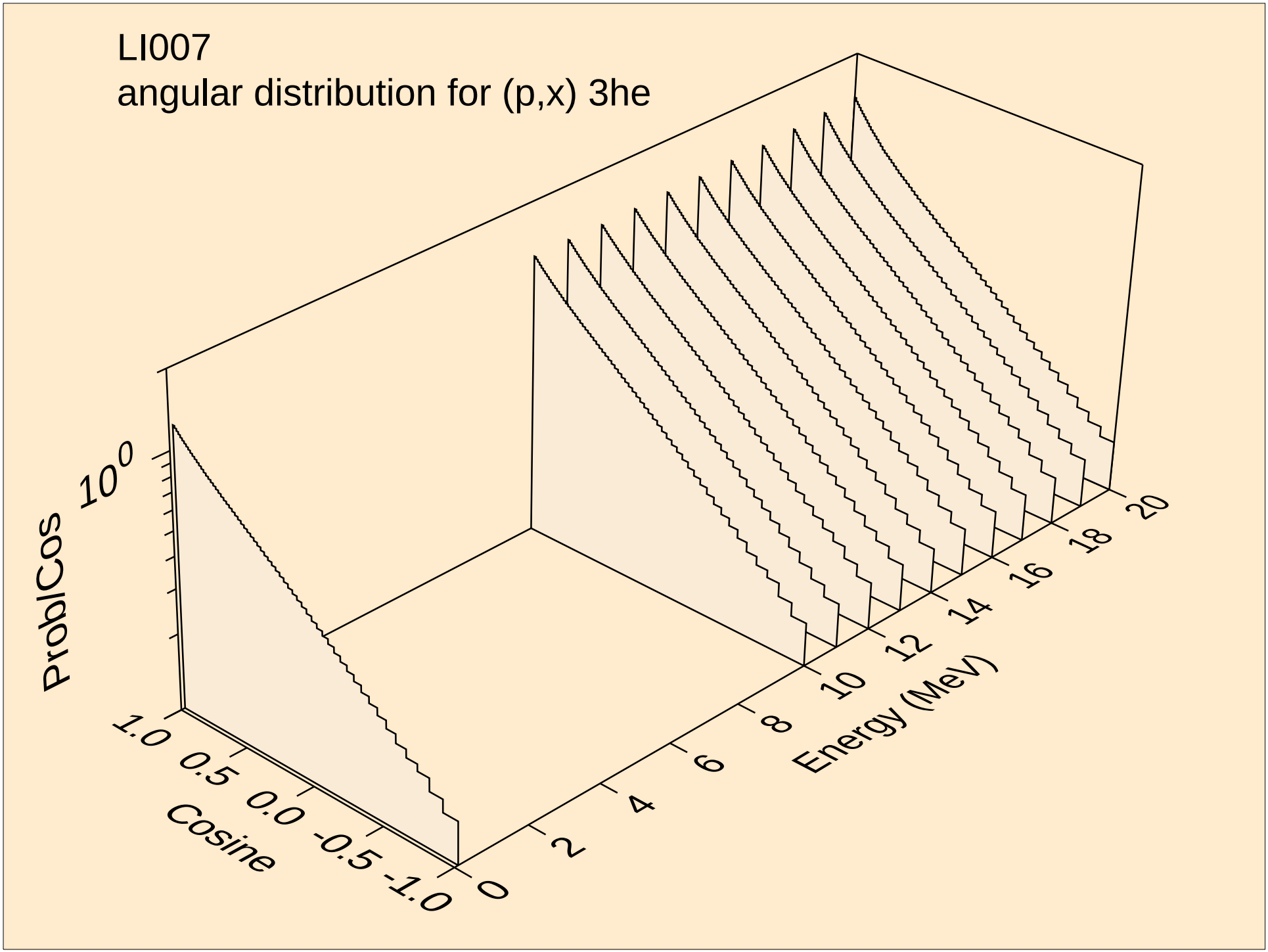

LI007
angular distribution for (p,x) deuteron
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

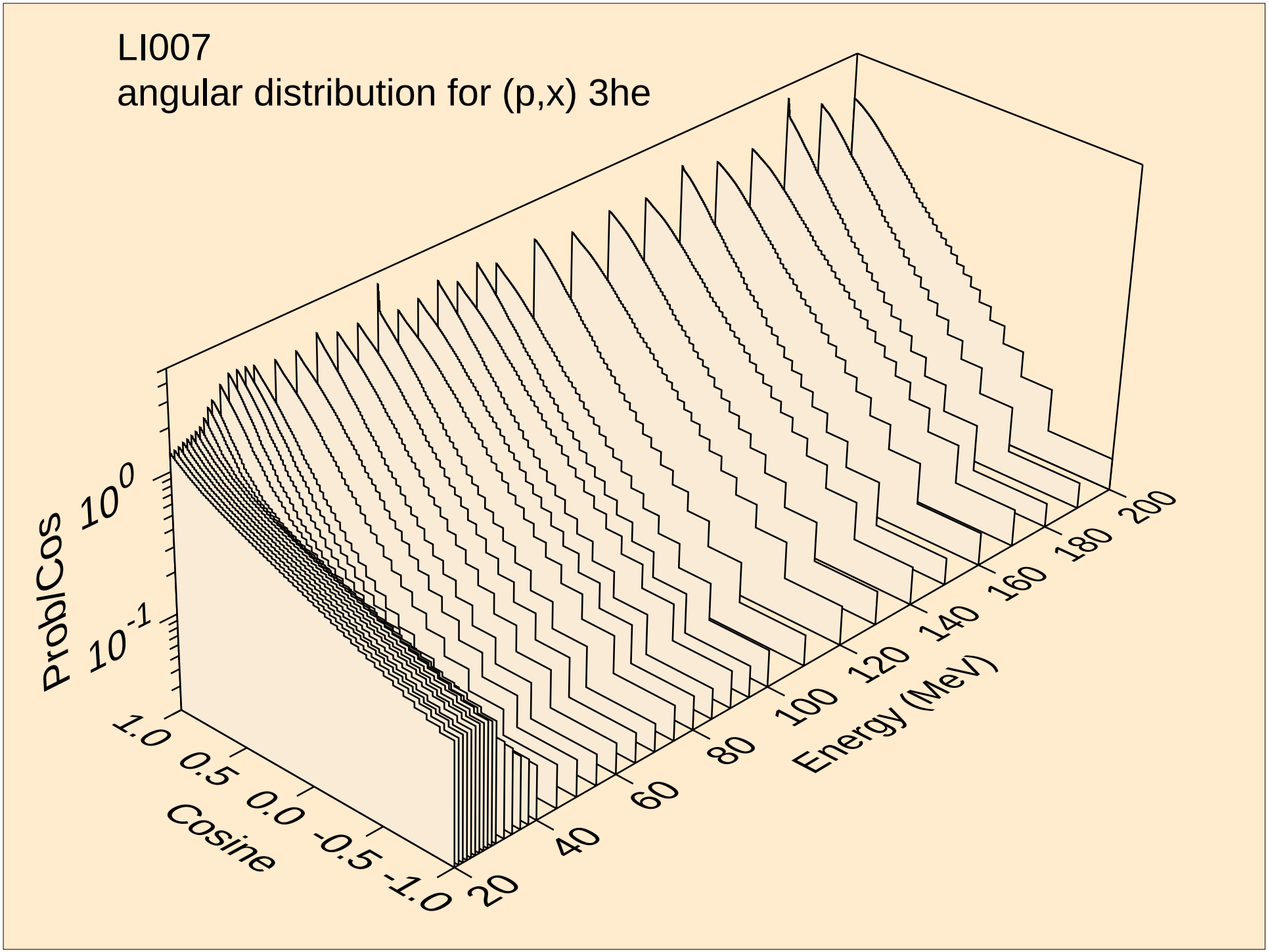

LI007
angular distribution for (p,x) deuteron
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

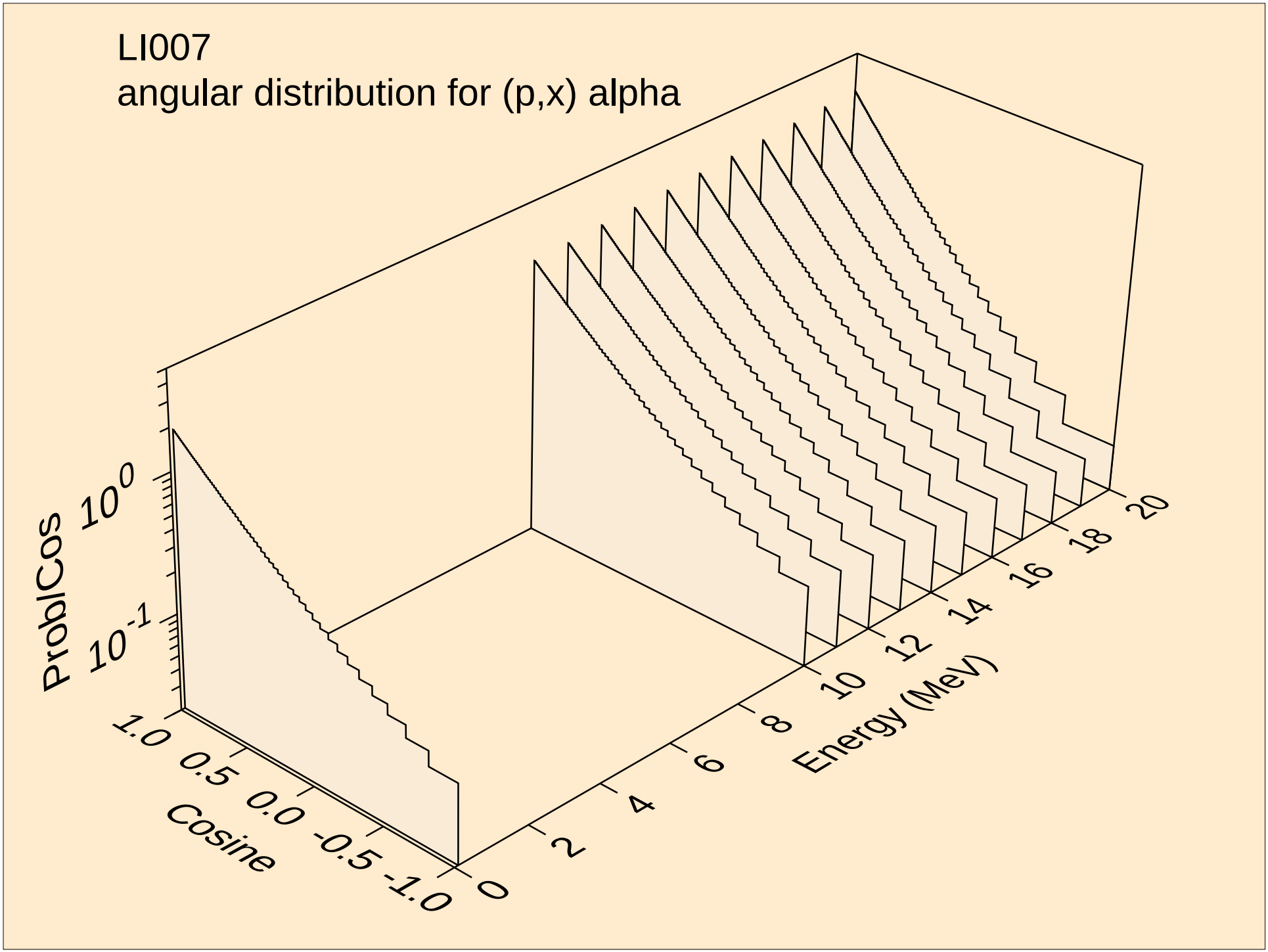

LI007
angular distribution for (p,d*0) deuteron
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
5
6
7
8
9
10
Energy (MeV)

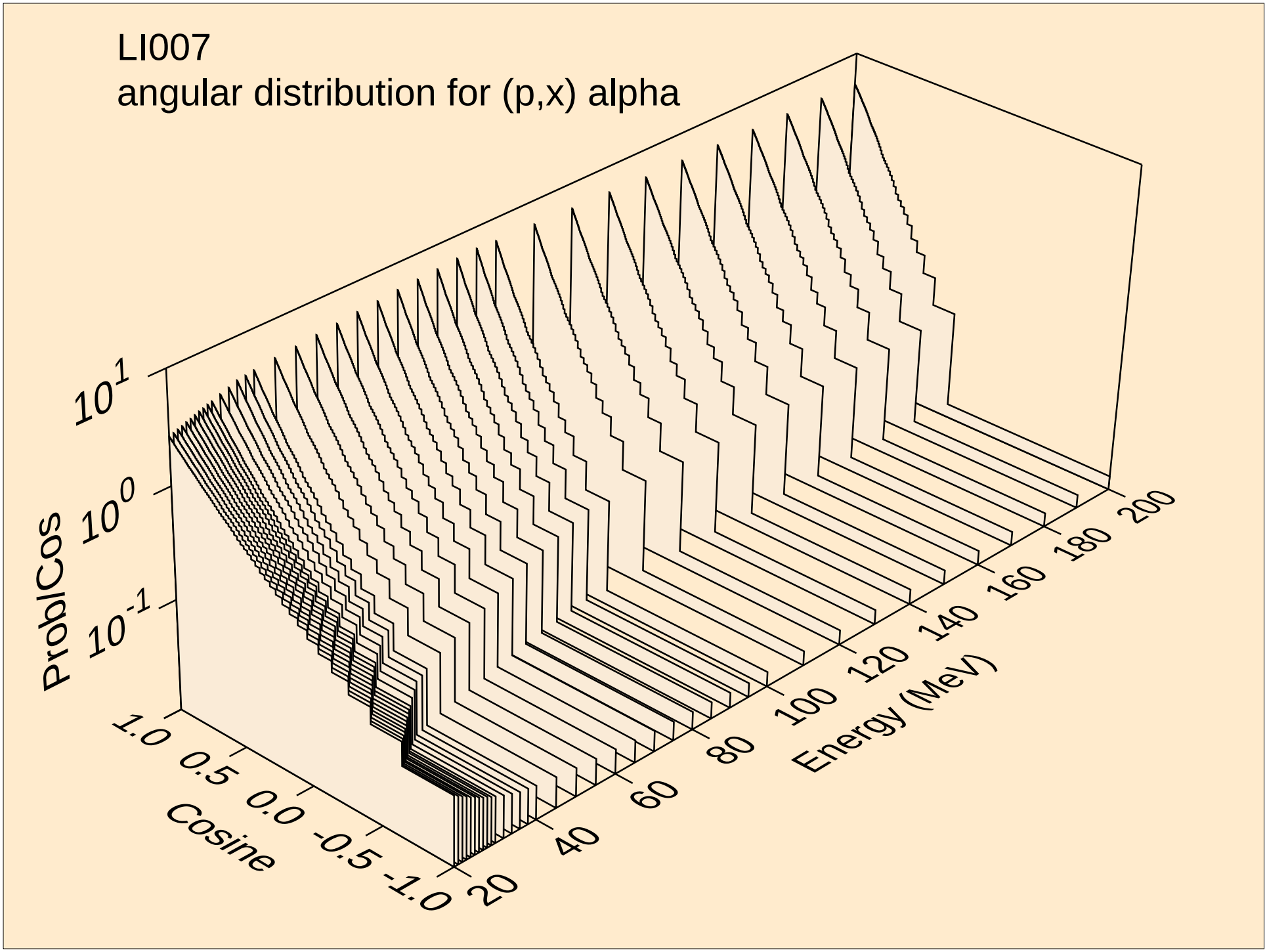

LI007
angular distribution for (p,x) triton
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

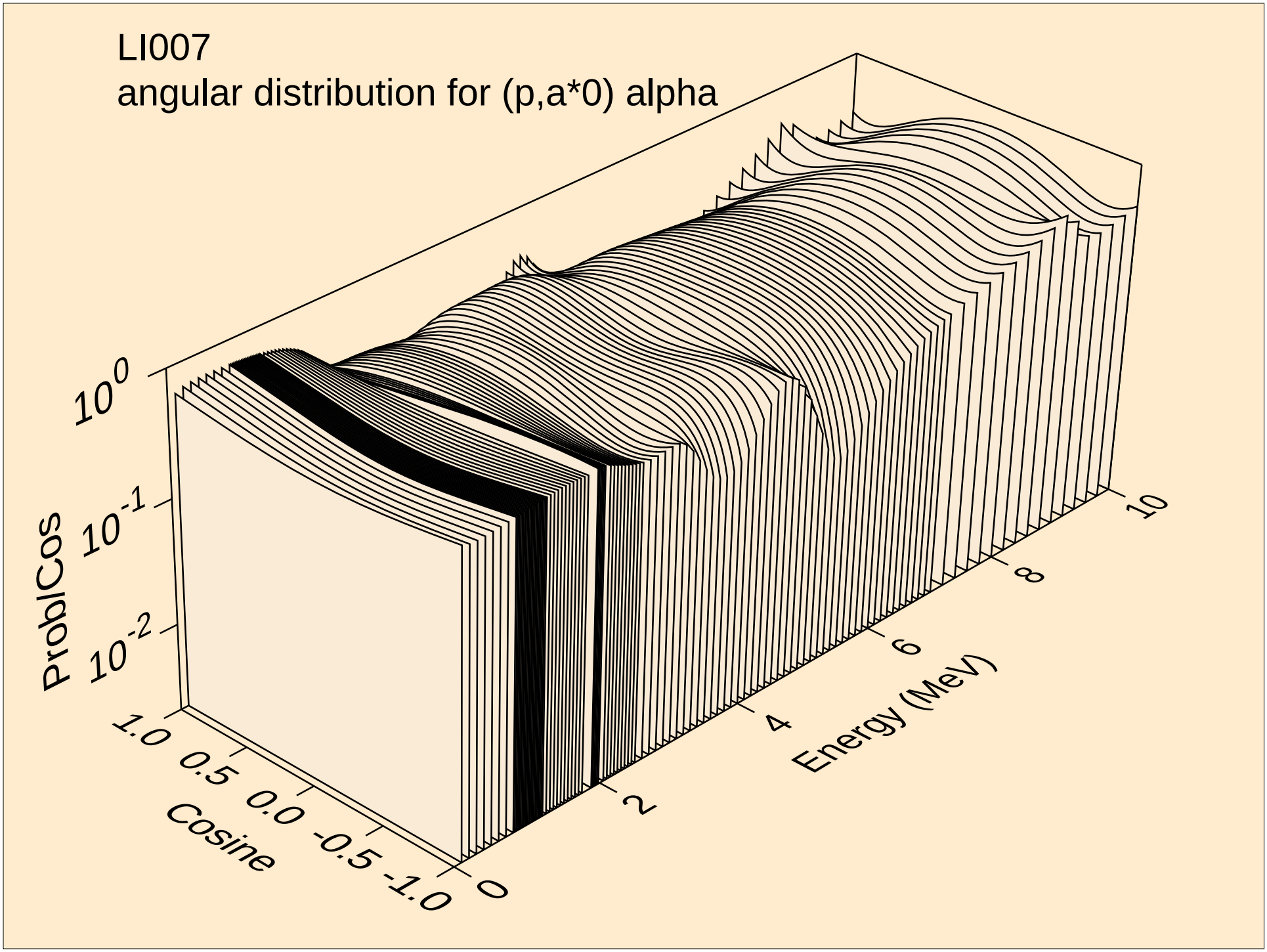

LI007
angular distribution for (p,x) triton
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

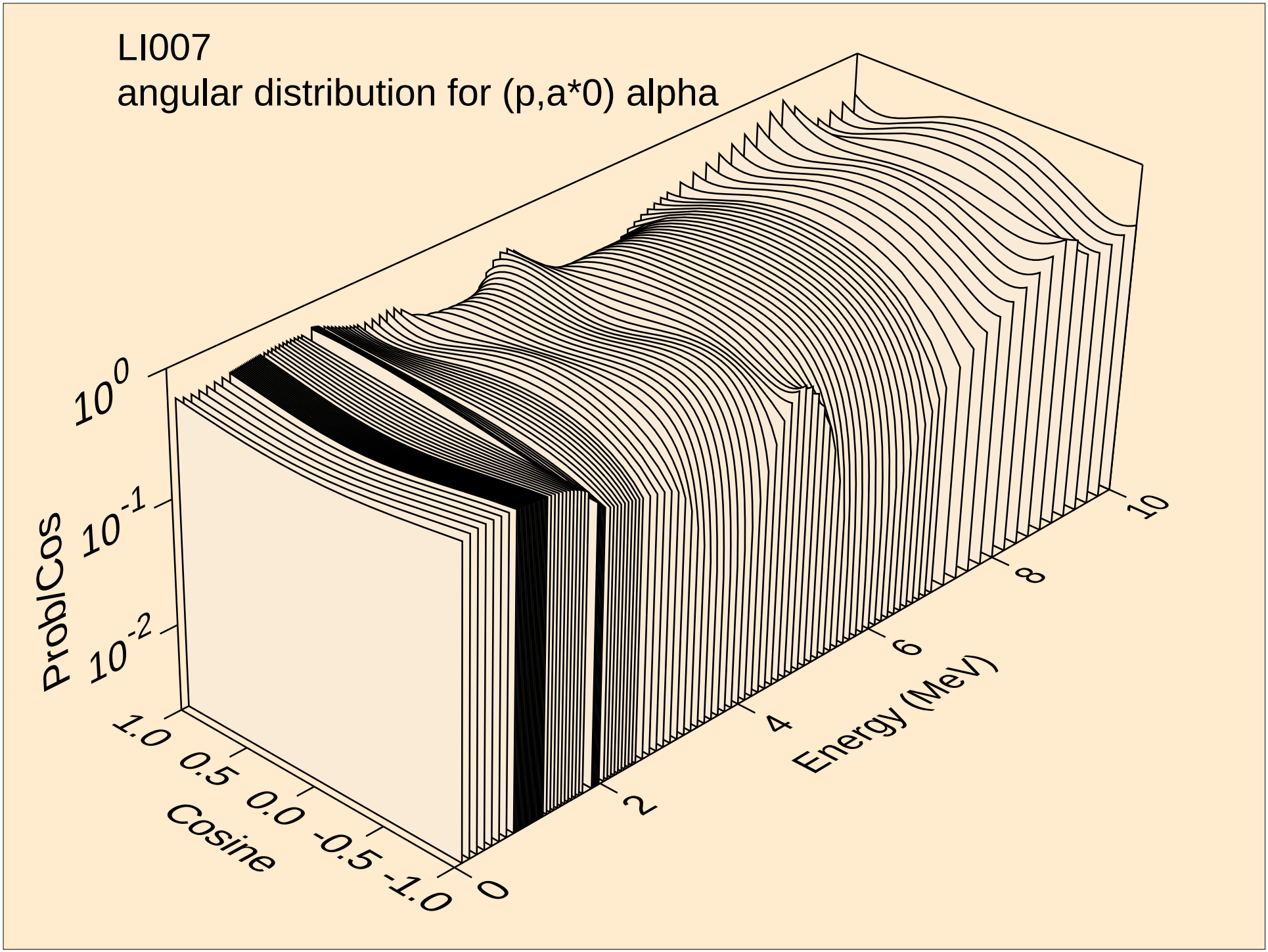

LI007
angular distribution for (p,x) 3he
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


LI007
angular distribution for (p,x) 3he
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)


LI007
angular distribution for (p,x) alpha
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


LI007
angular distribution for (p,x) alpha
ProblCos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)


LI007
angular distribution for (p,a*0) alpha
ProbCos
10^0
10^-1
10^-2
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
Energy (MeV)


LI007
angular distribution for (p,a*0) alpha
ProblCos
10^{0}
10^{-1}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
Energy (MeV)