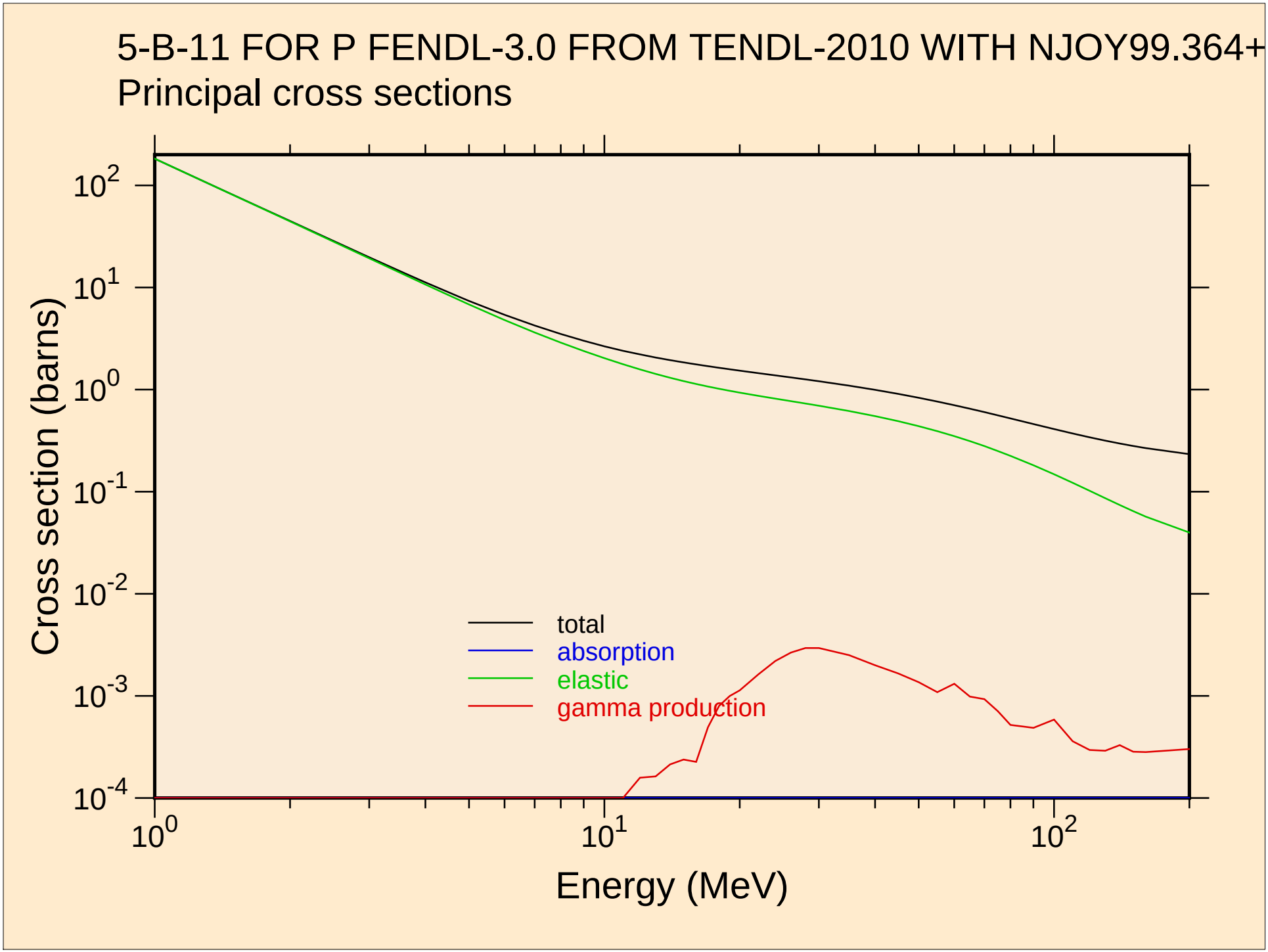
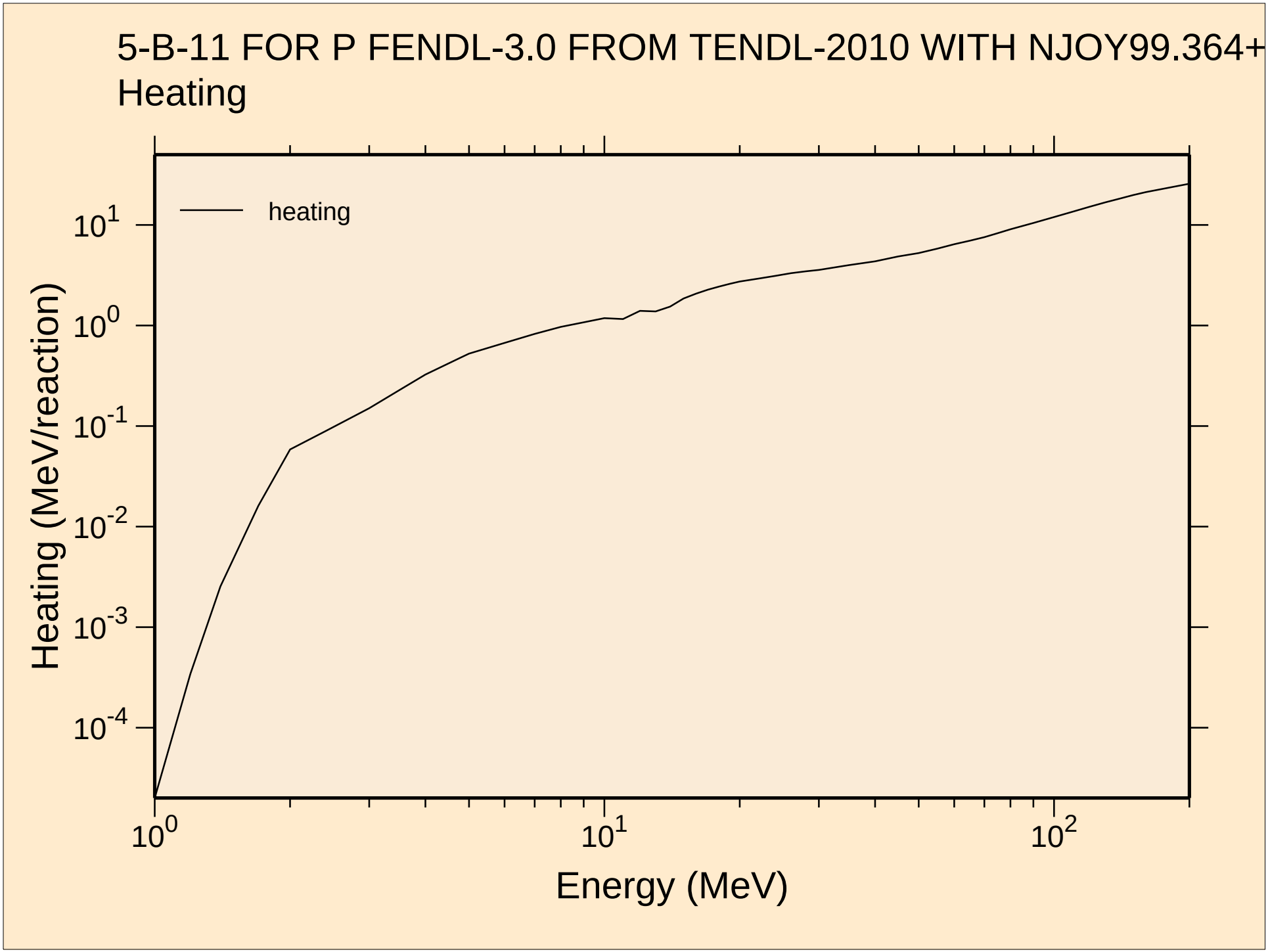
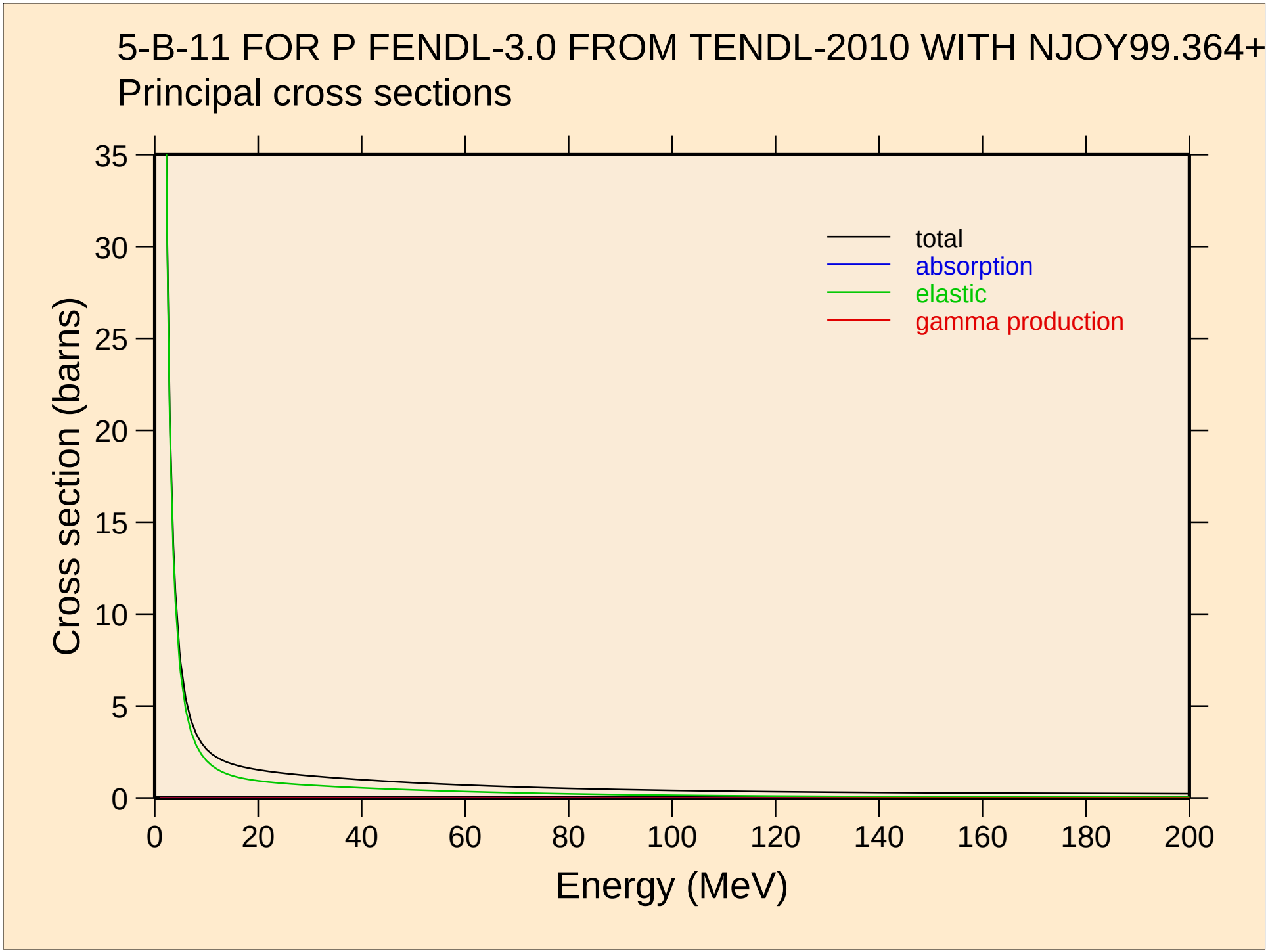
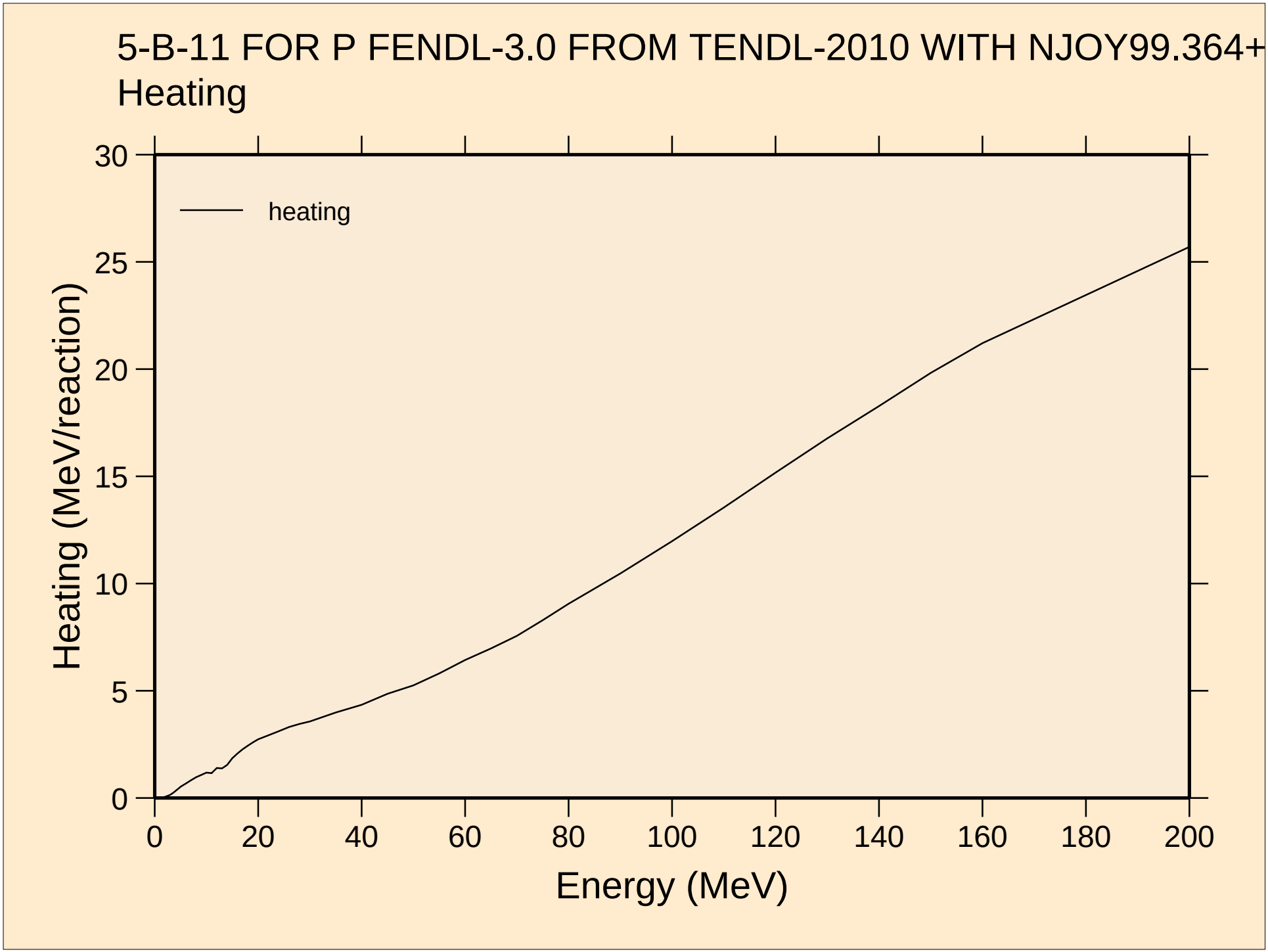
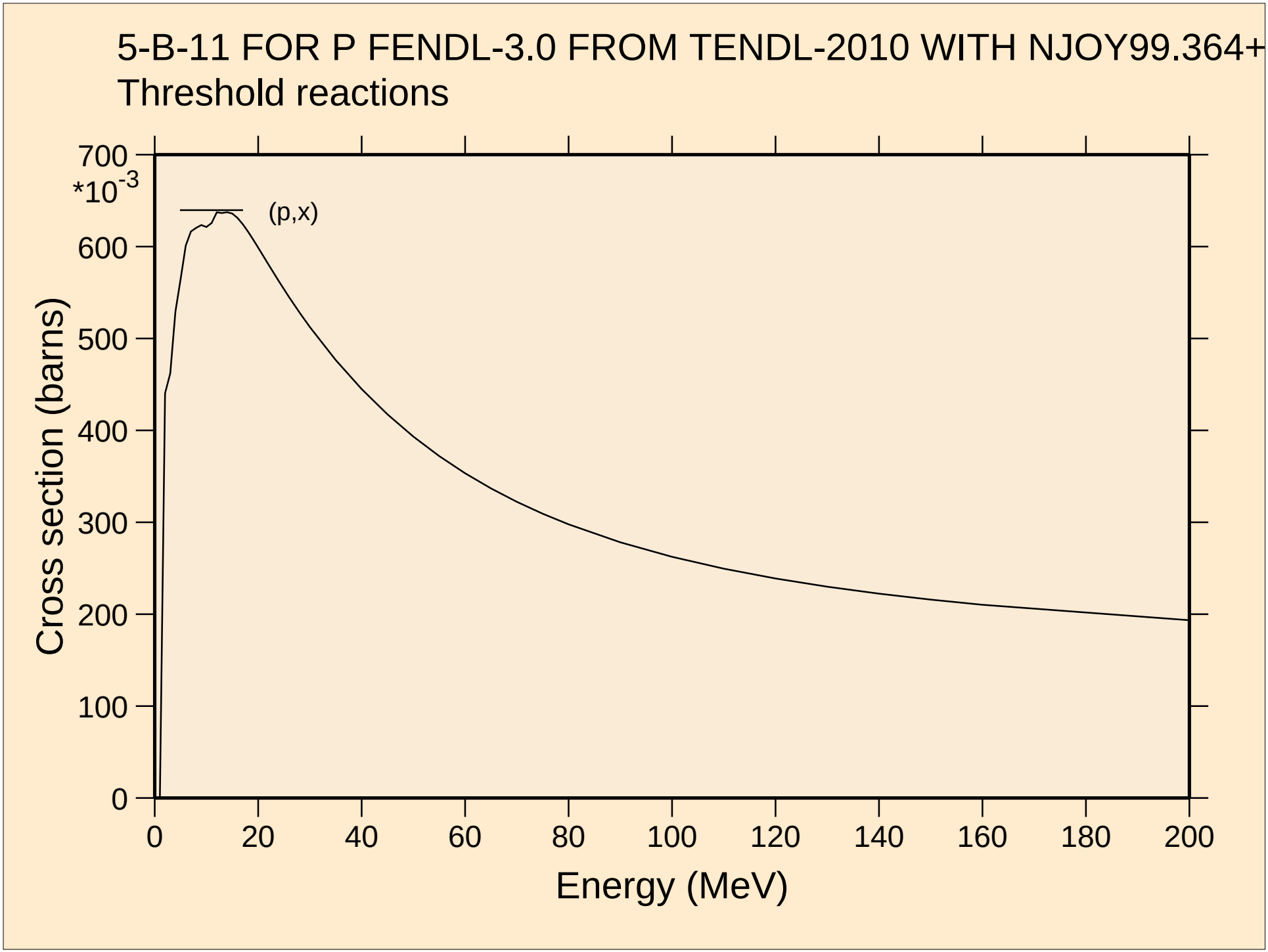
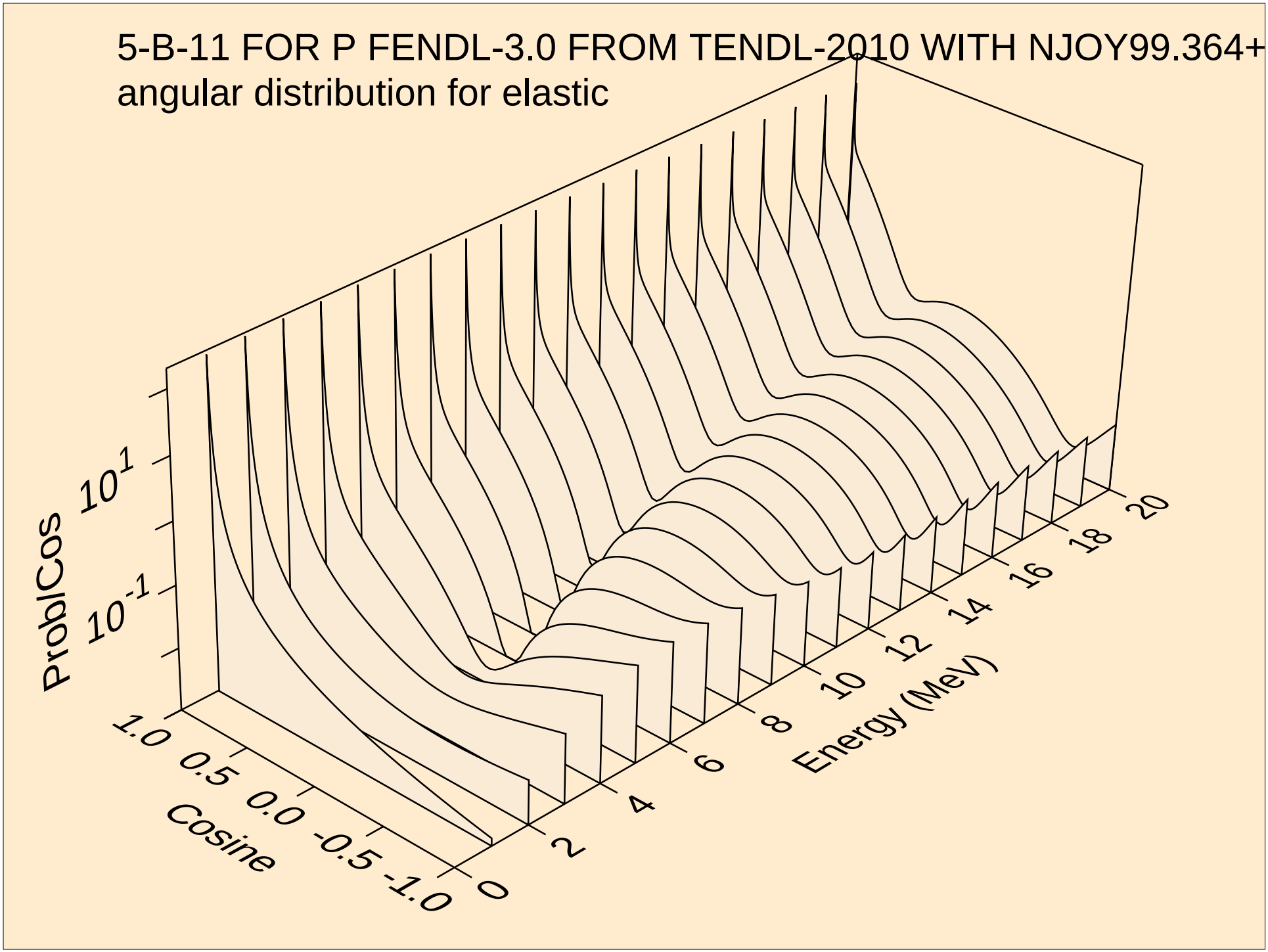

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production

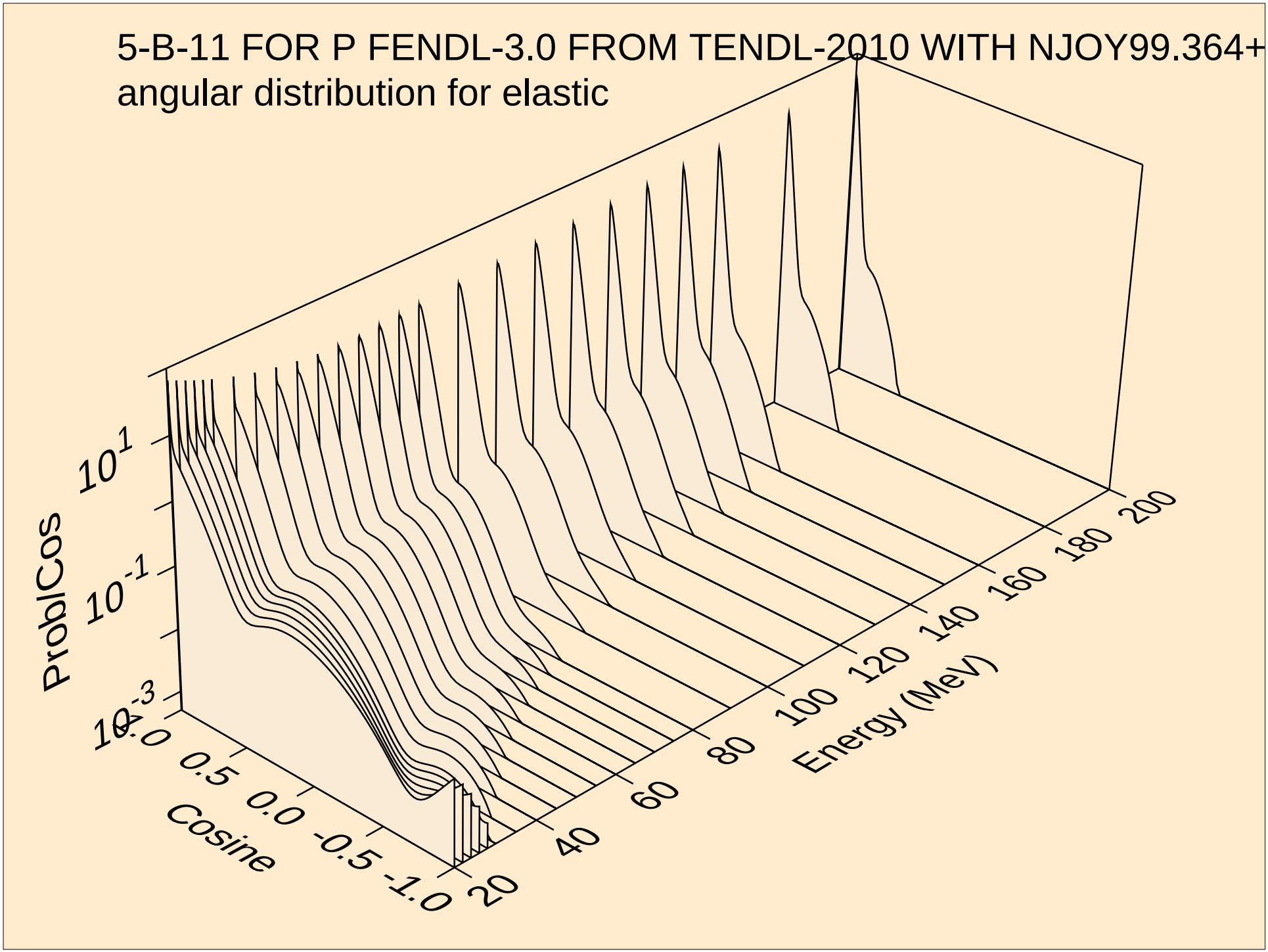

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{0}
10^{1}
10^{2}
Energy (MeV)

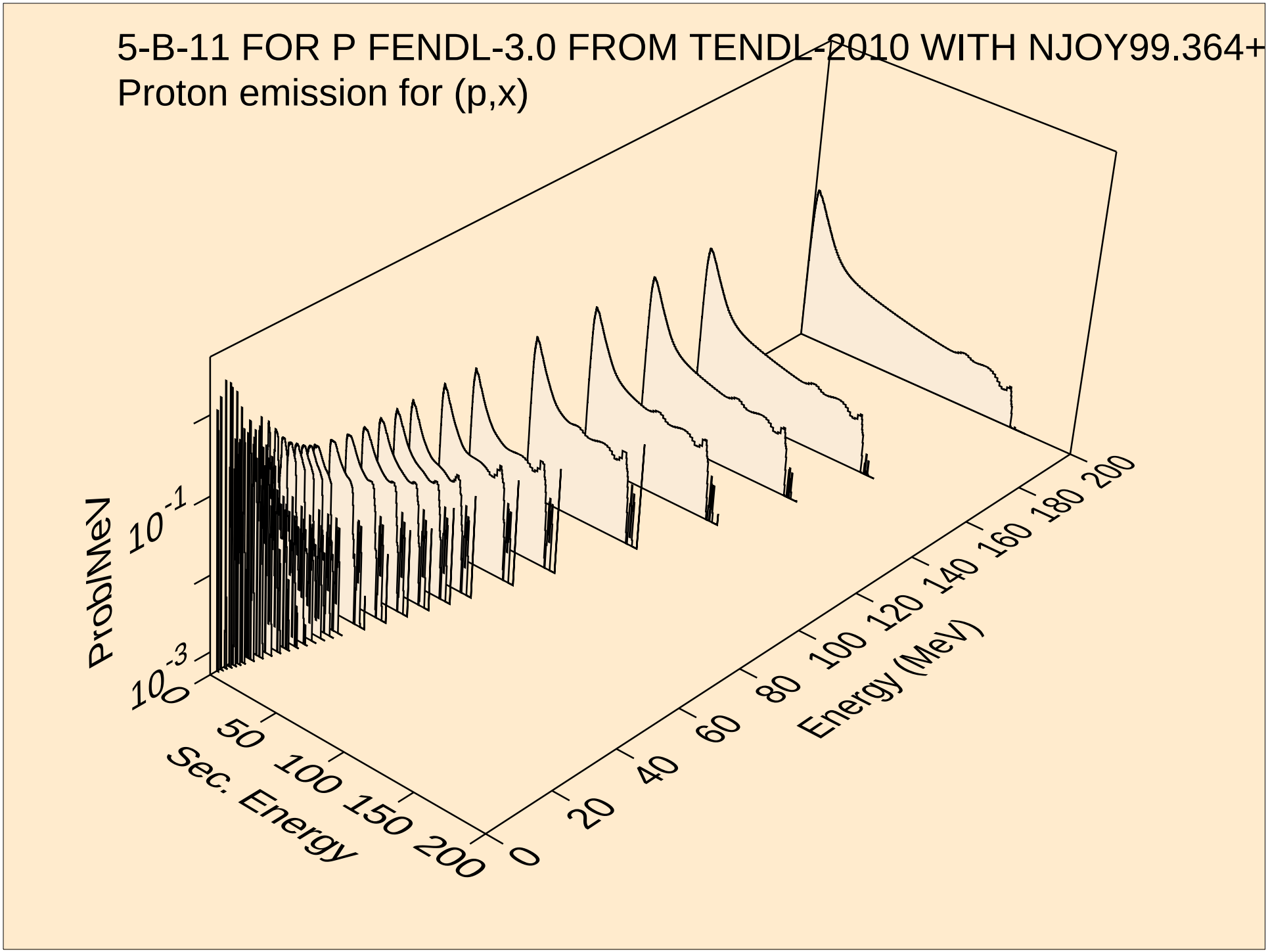

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Principal cross sections
Cross section (barns)
Energy (MeV)
0
5
10
15
20
25
30
35
0
20
40
60
80
100
120
140
160
180
200
total
absorption
elastic
gamma production

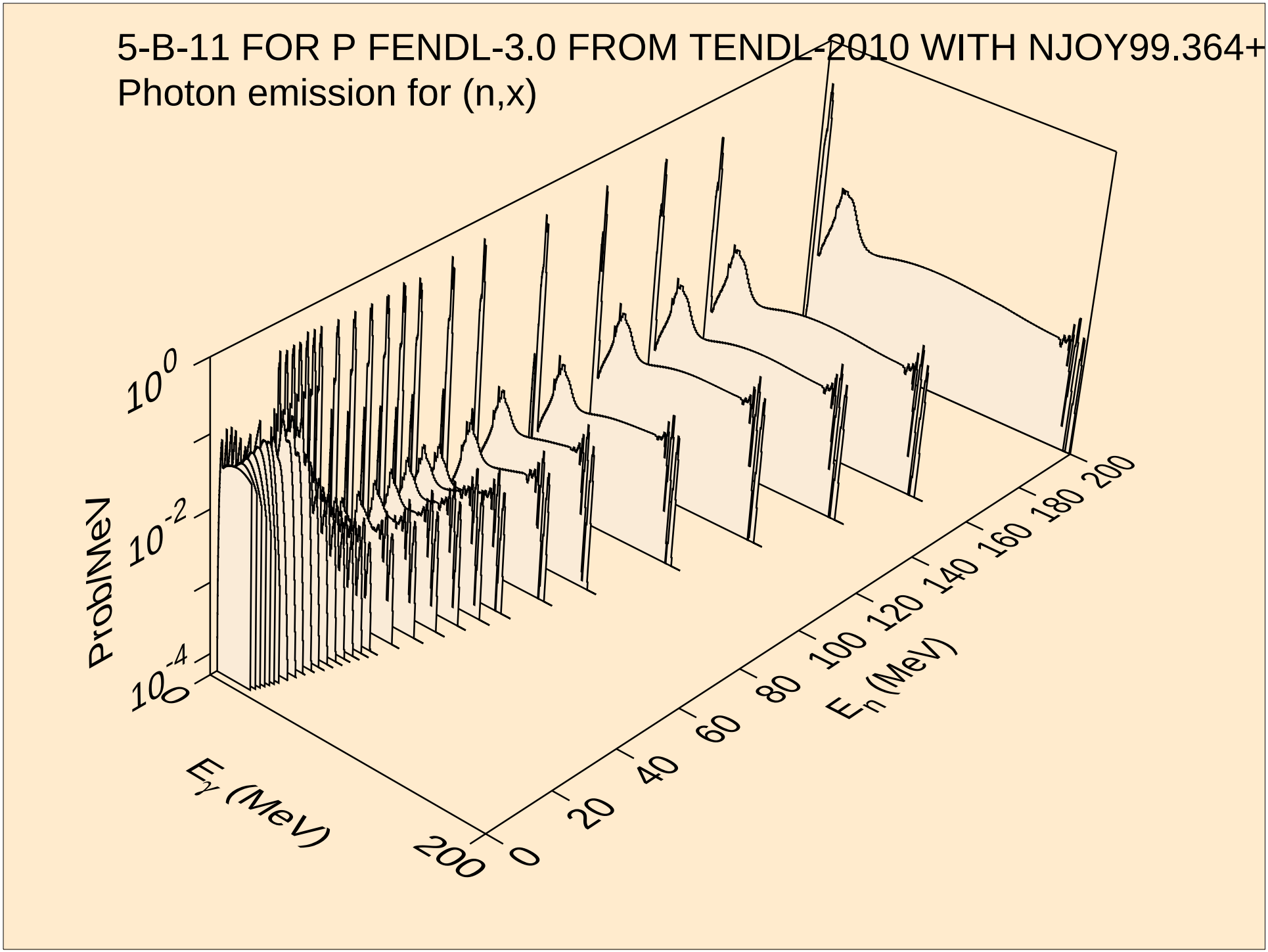

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
5
10
15
20
25
30
0
20
40
60
80
100
120
140
160
180
200

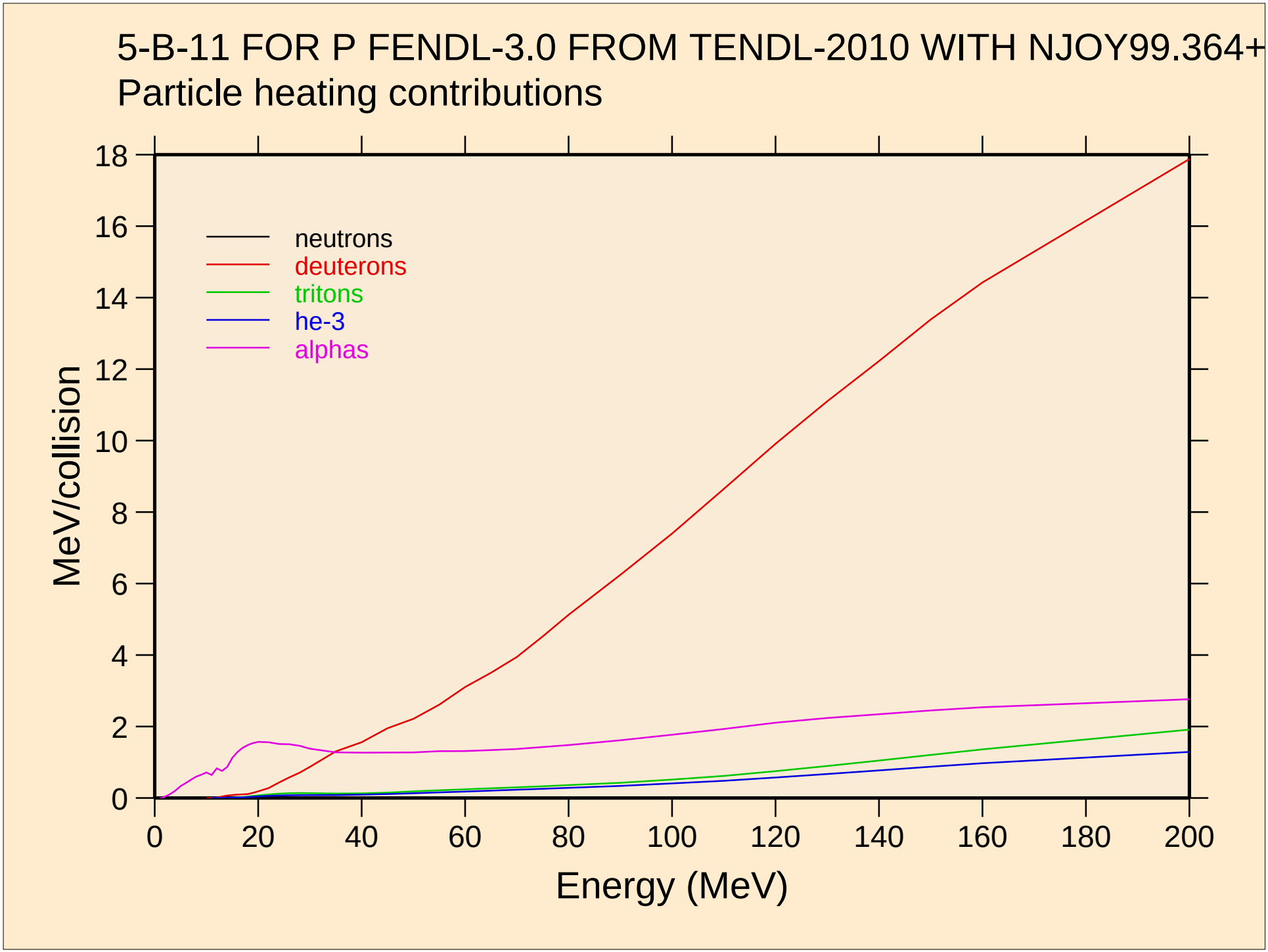

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Threshold reactions
700
*10-3
600
500
400
300
200
100
0
(p,x)
Cross section (barns)
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

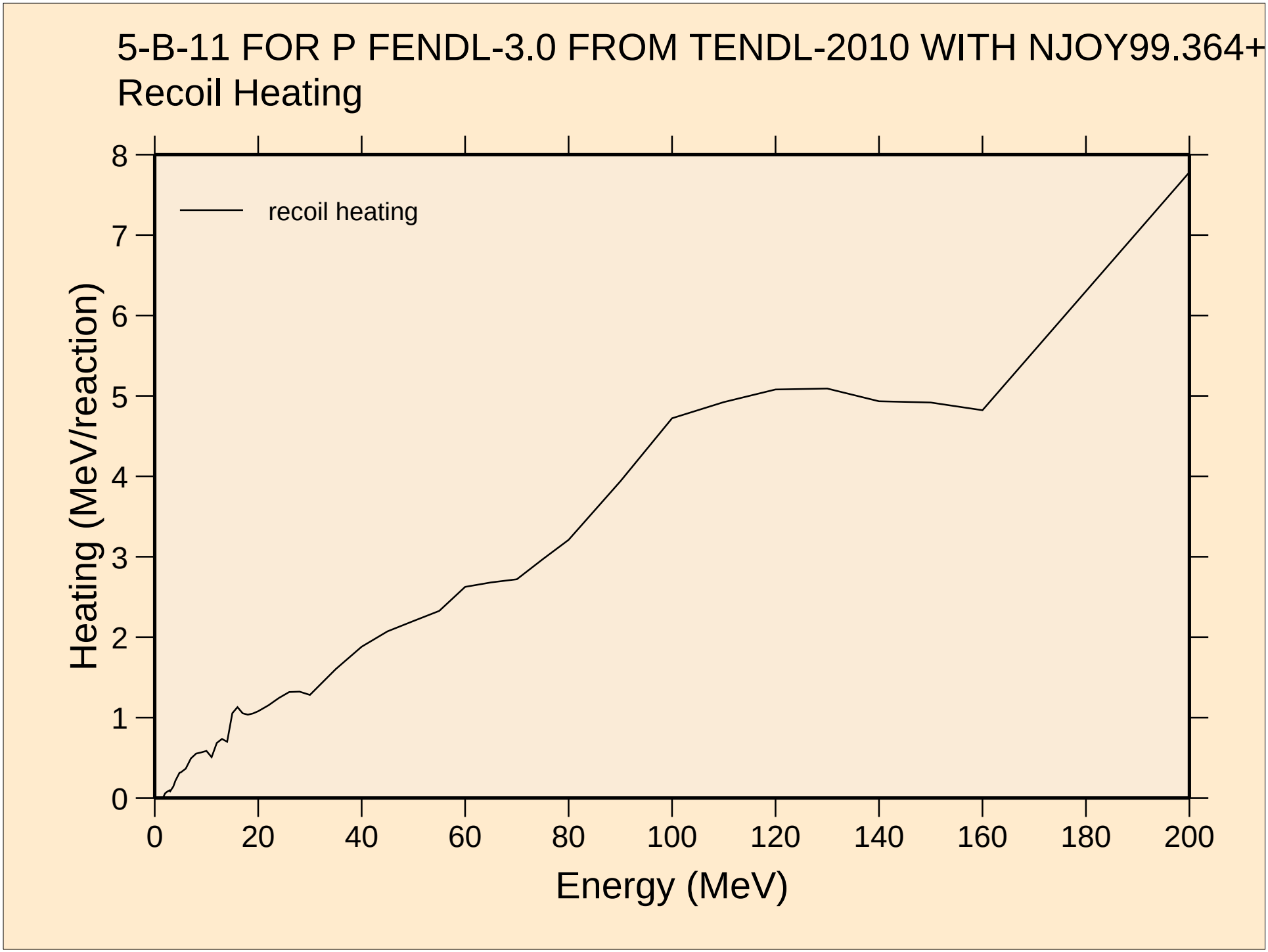

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
angular distribution for elastic
ProbICos
10^1
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

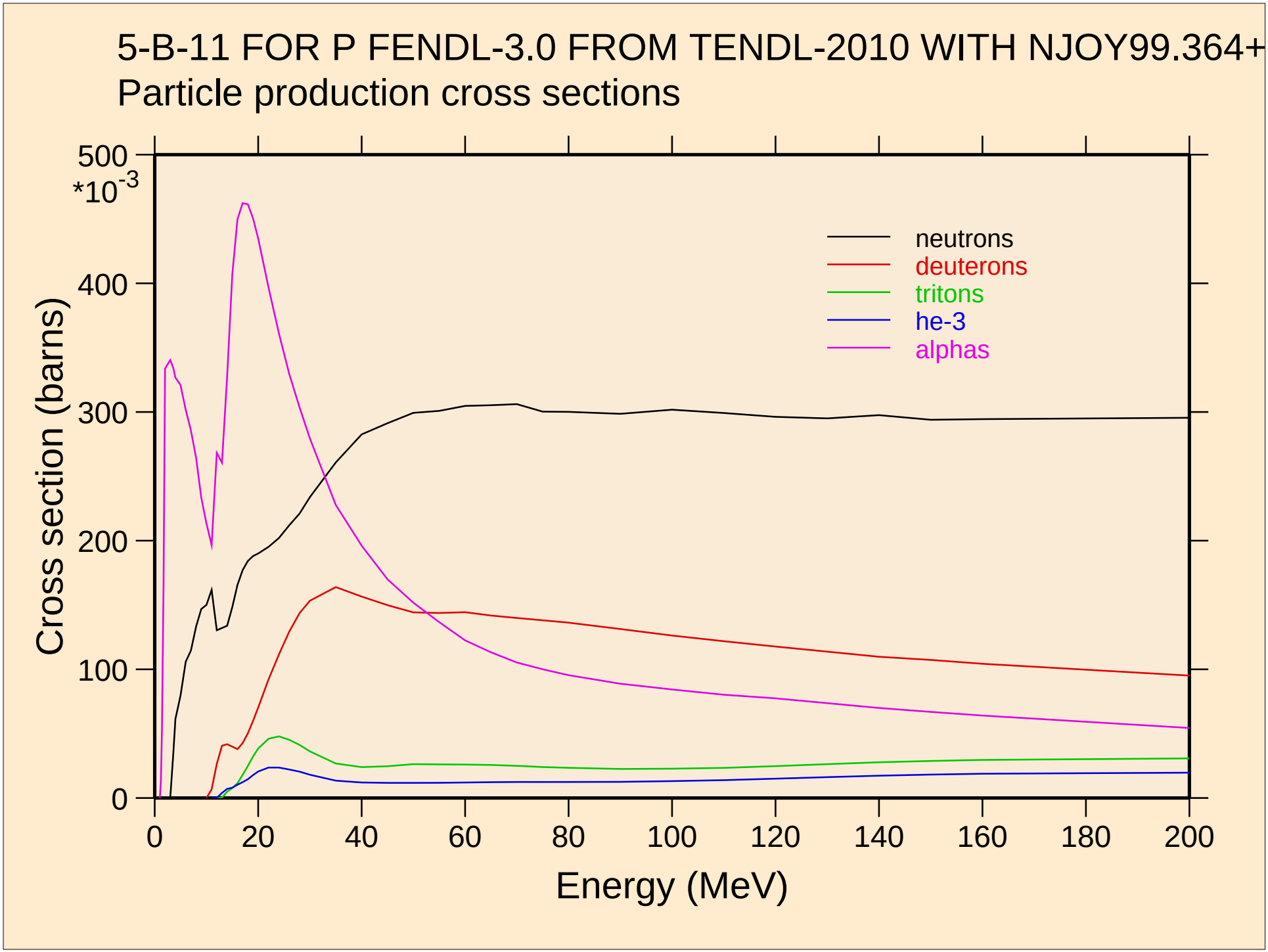

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
angular distribution for elastic
ProbCos
10^1
10^-1
10^-3
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

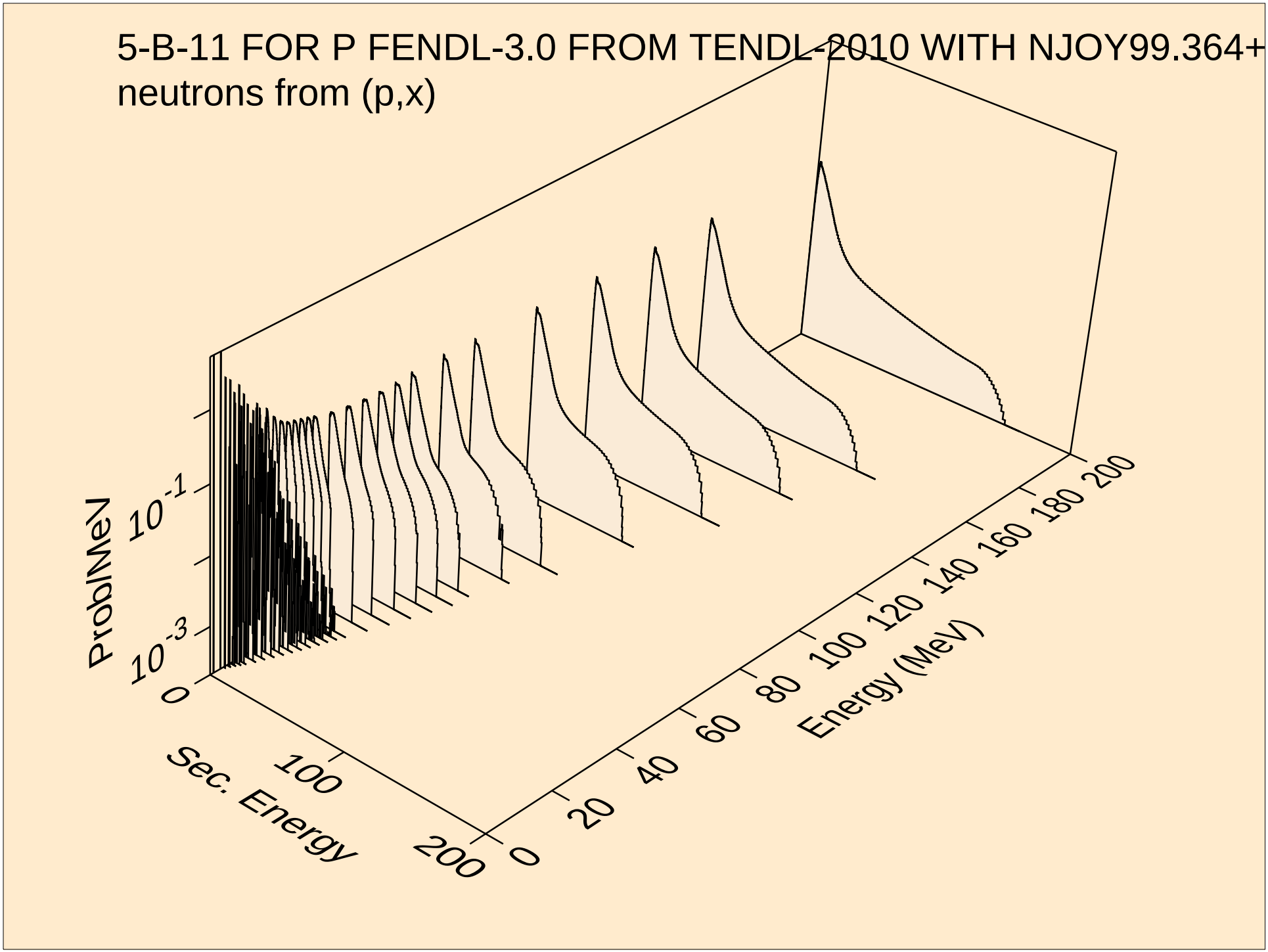

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Proton emission for (p,x)
Prob/MeV
10-1
10-3
0
50
100
150
200
Sec. Energy
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

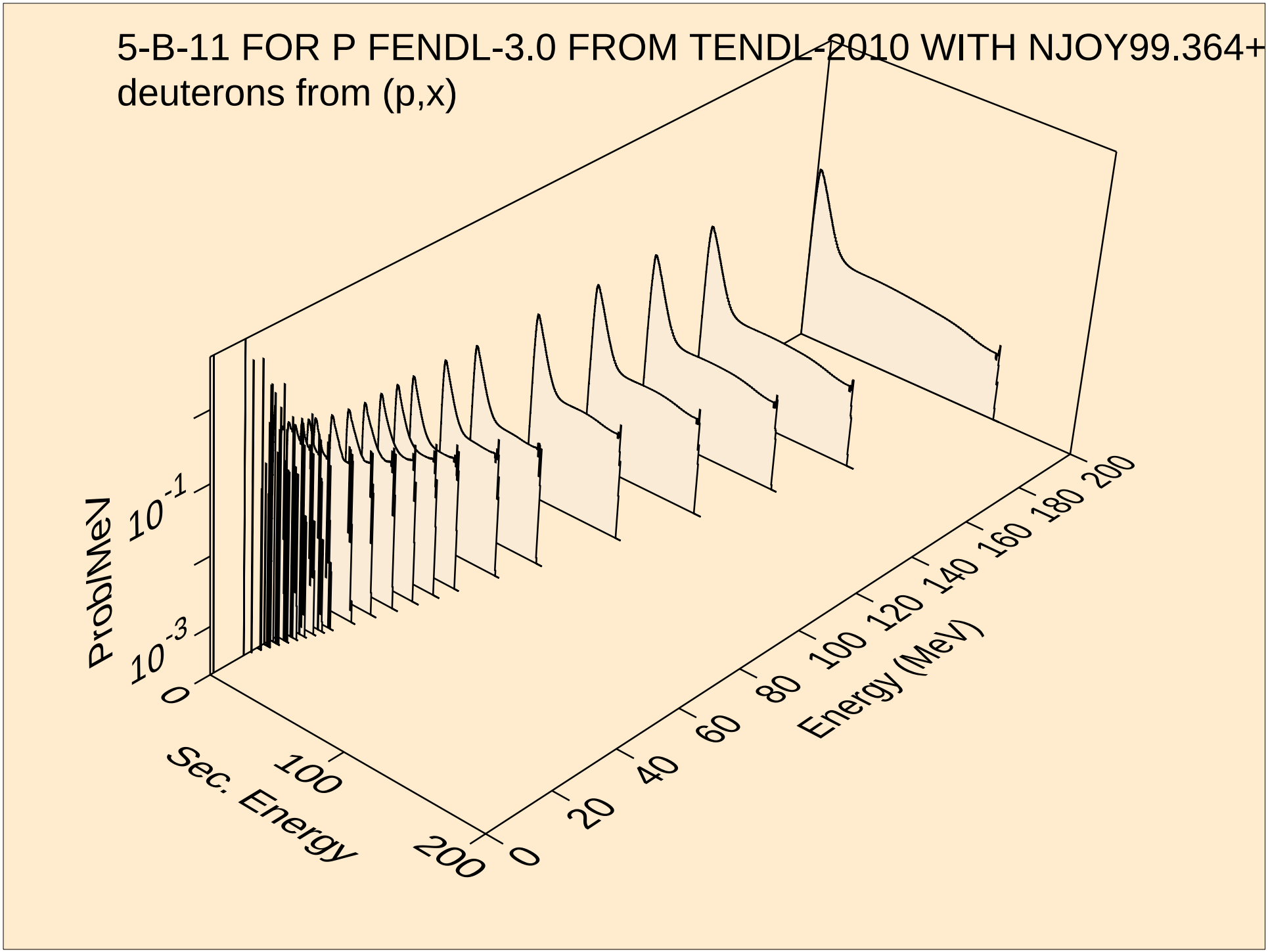

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Photon emission for (n,x)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
E_γ (MeV)
0
200
E_n (MeV)
0
20
40
60
80
100
120
140
160
180
200

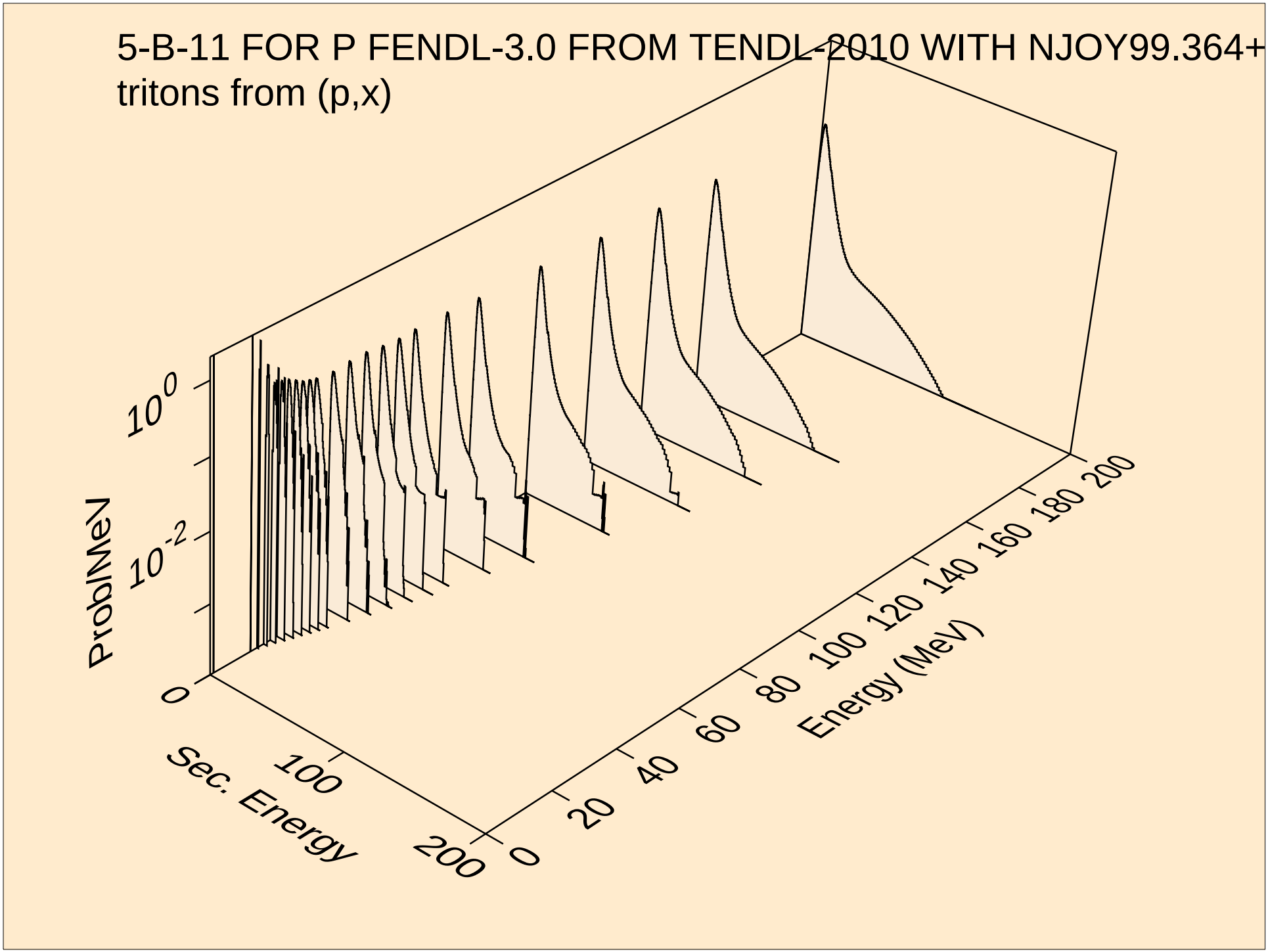

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Particle heating contributions
neutrons
deuterons
tritons
he-3
alphas
MeV/collision
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
0
20
40
60
80
100
120
140
160
180
200

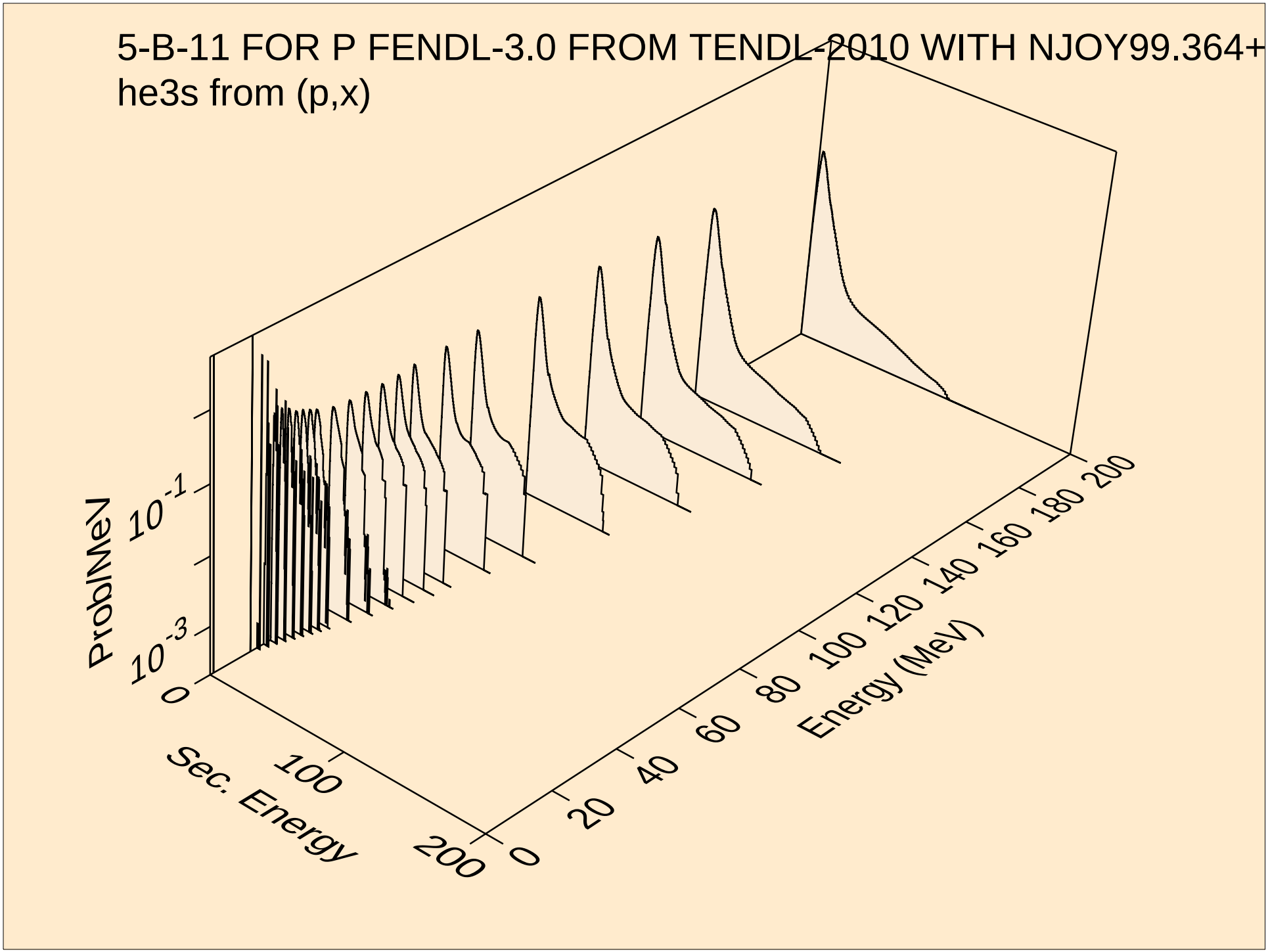

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Recoil Heating
recoil heating
Heating (MeV/reaction)
Energy (MeV)
0
1
2
3
4
5
6
7
8
0
20
40
60
80
100
120
140
160
180
200

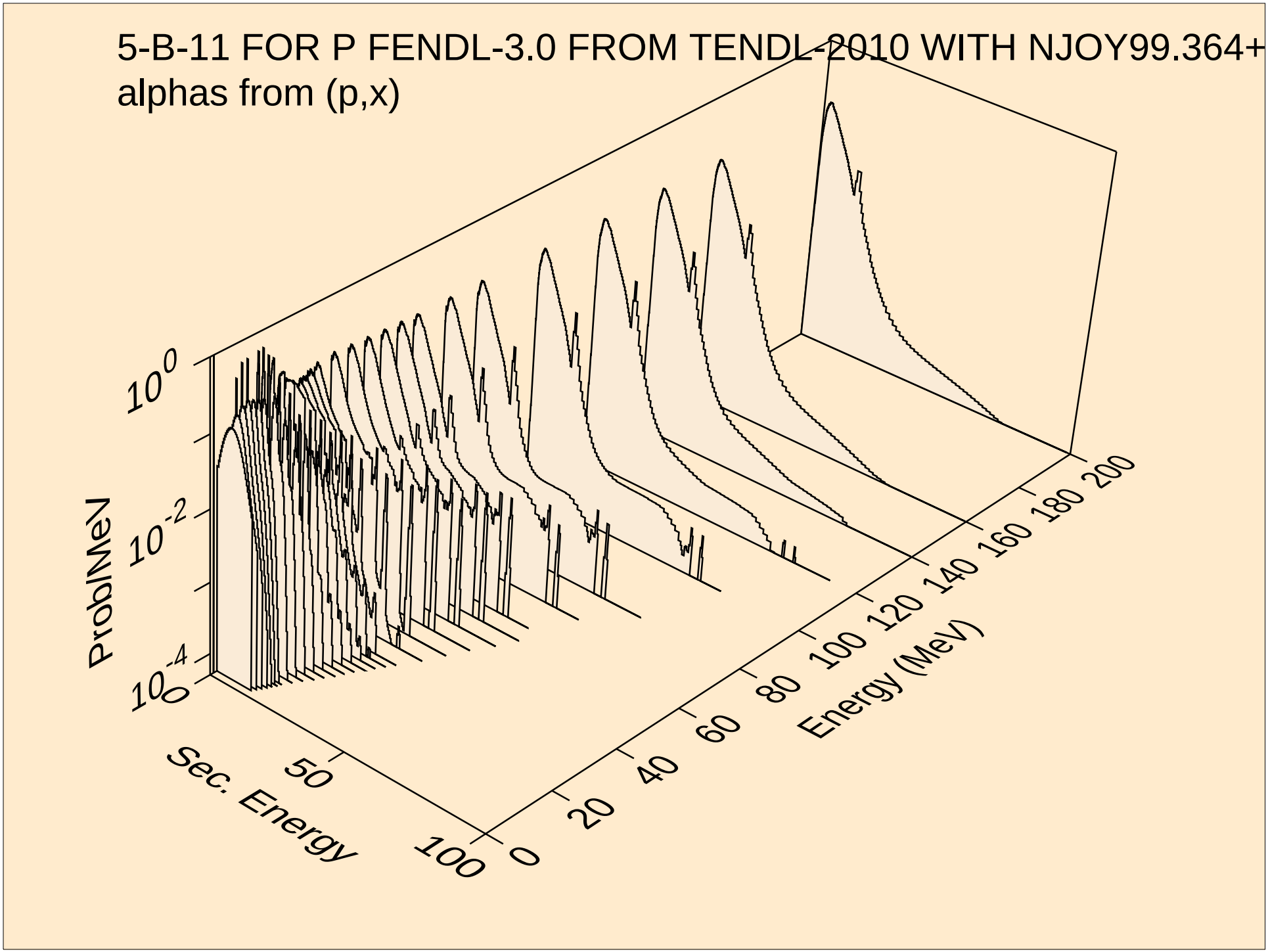

5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
Particle production cross sections
Cross section (barns)
*10-3
500
400
300
200
100
0
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)
neutrons
deuterons
tritons
he-3
alphas


5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
neutrons from (p,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)


5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
deuterons from (p,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)


5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
tritons from (p,x)
Prob/MeV
10^0
10^-2
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)


5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
he3s from (p,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)


5-B-11 FOR P FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364+
alphas from (p,x)
Prob/MeV
10^0
10^-2
10^-4
Sec. Energy
0
50
100
Energy (MeV)
0
20
40
60
80
100
120
140
160
180
200