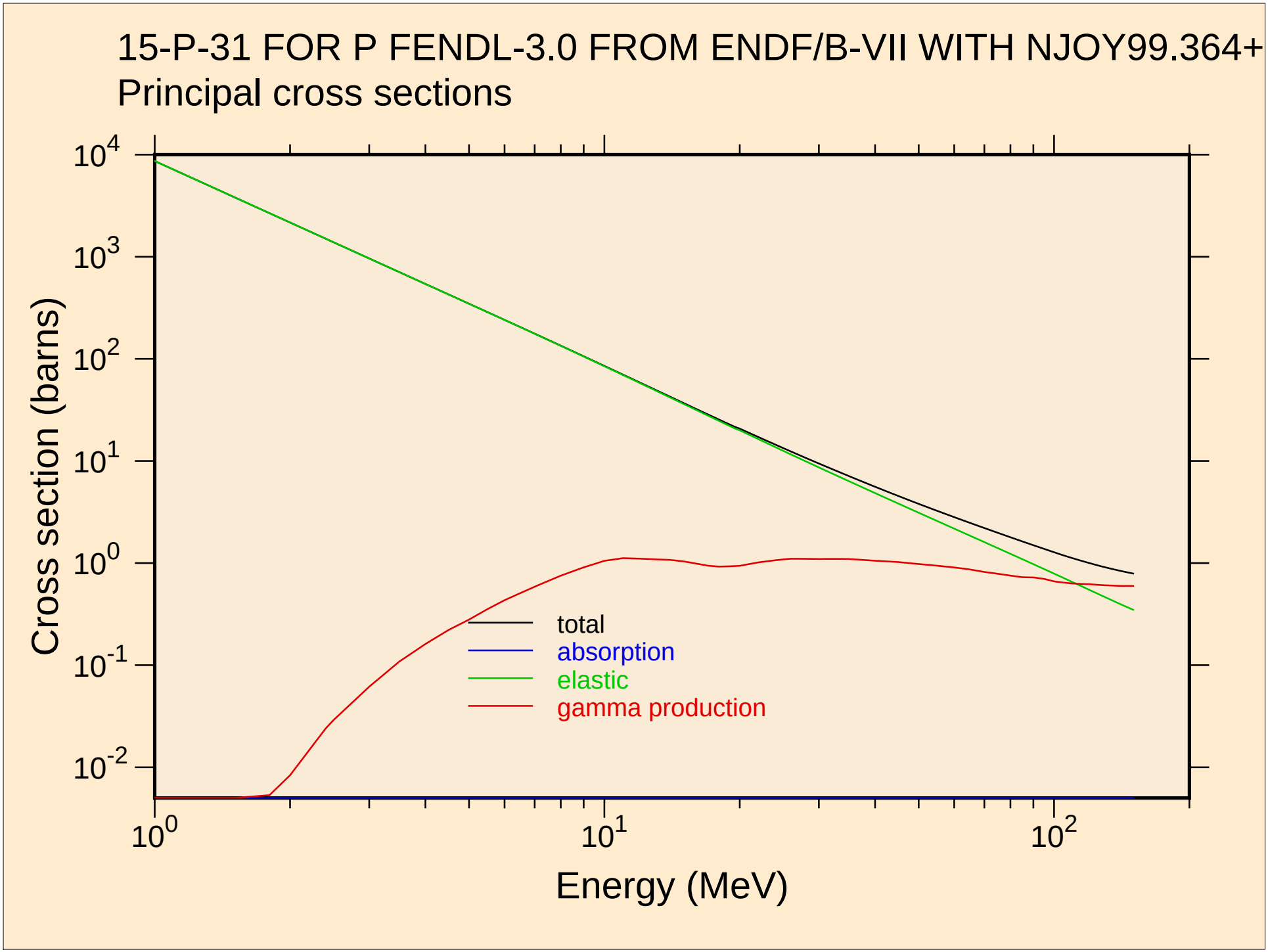
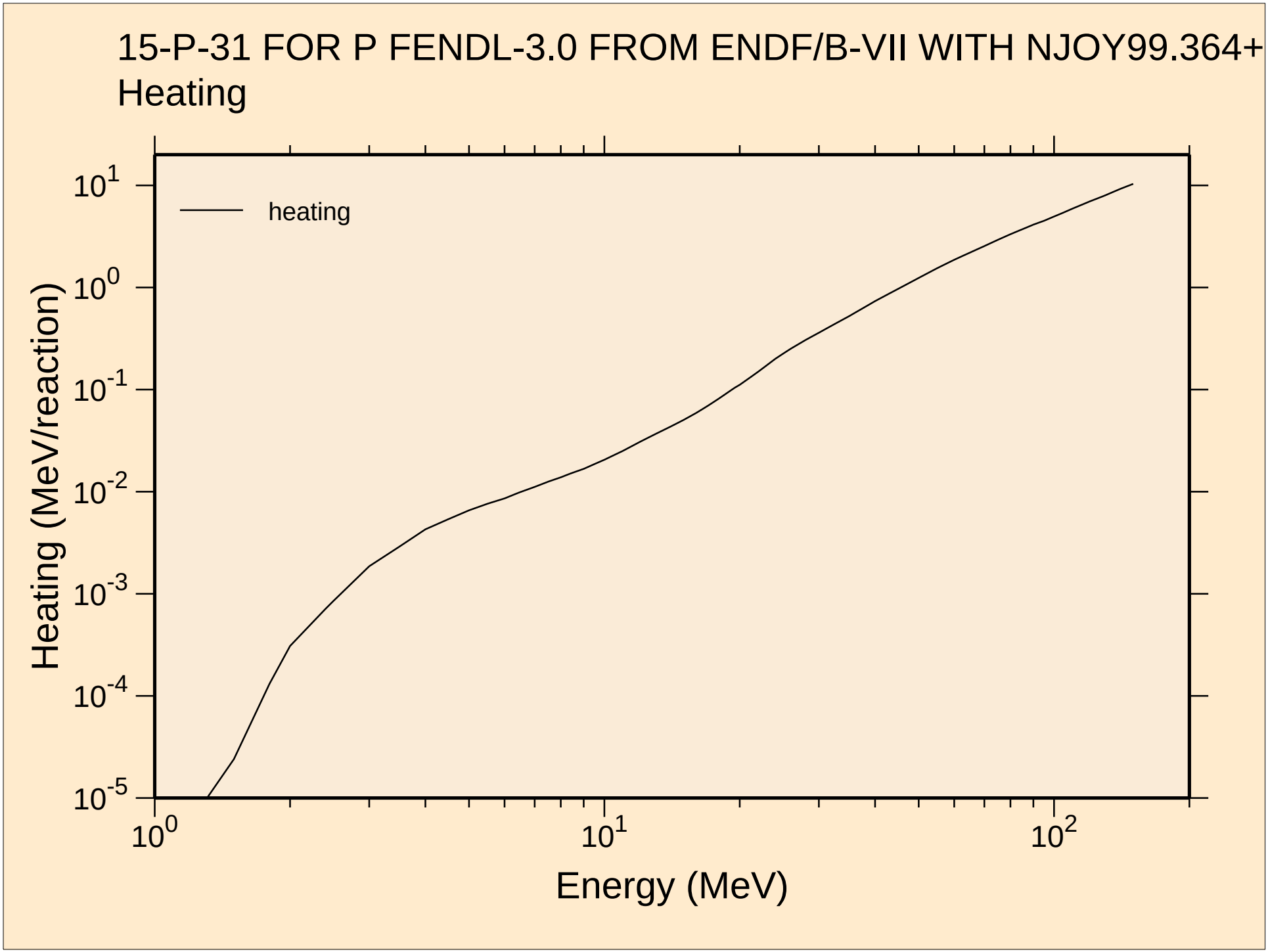
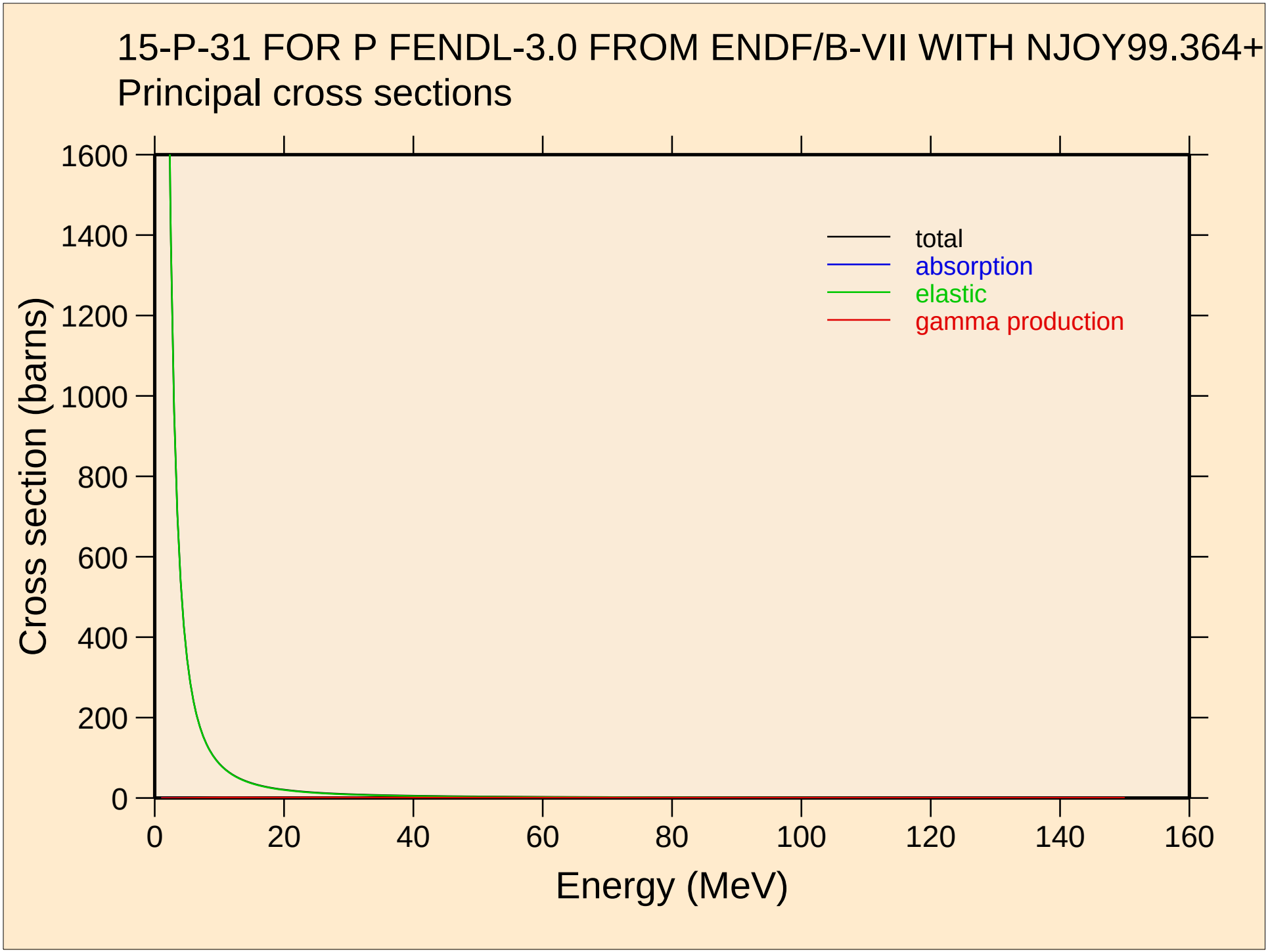
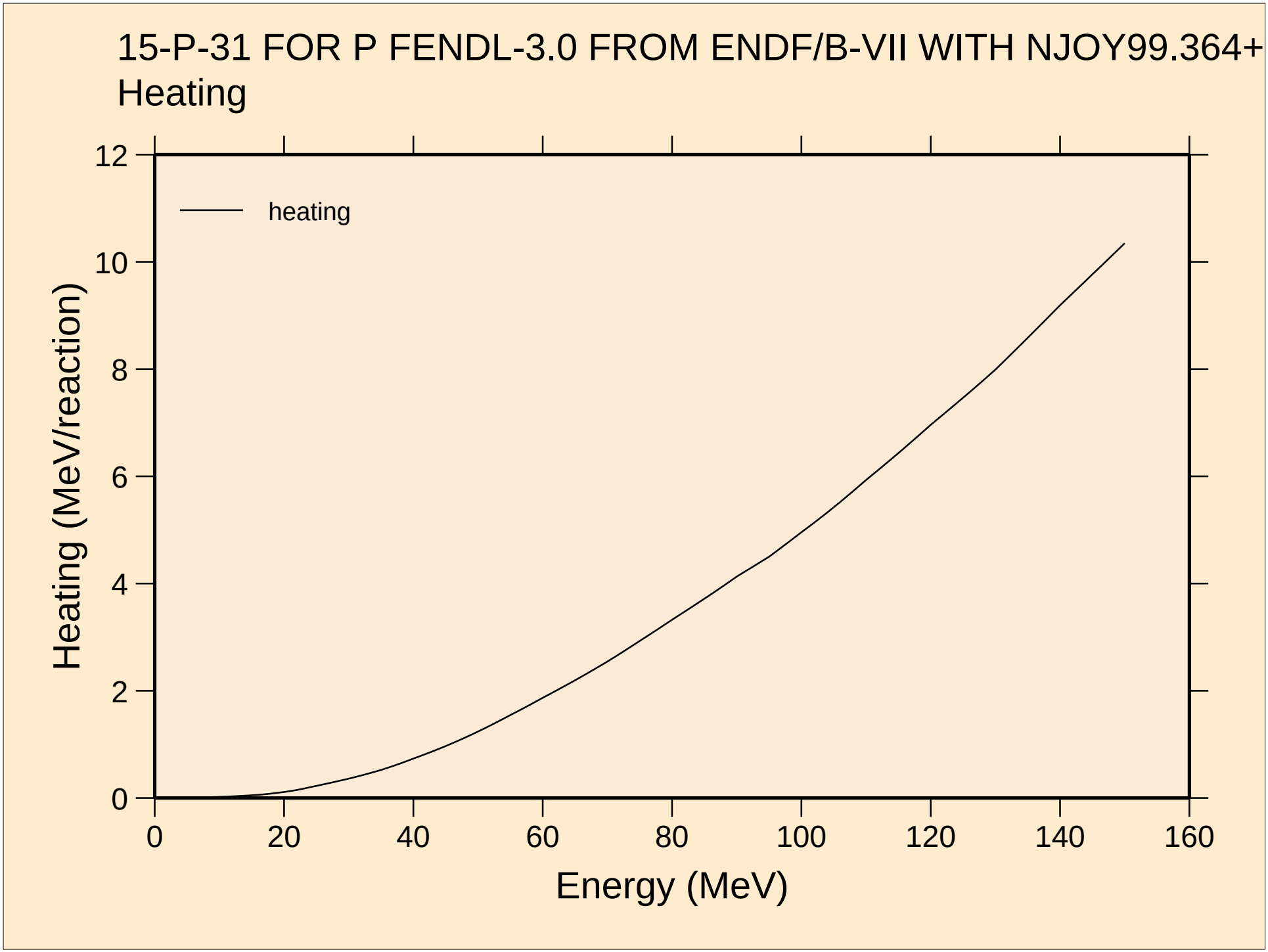
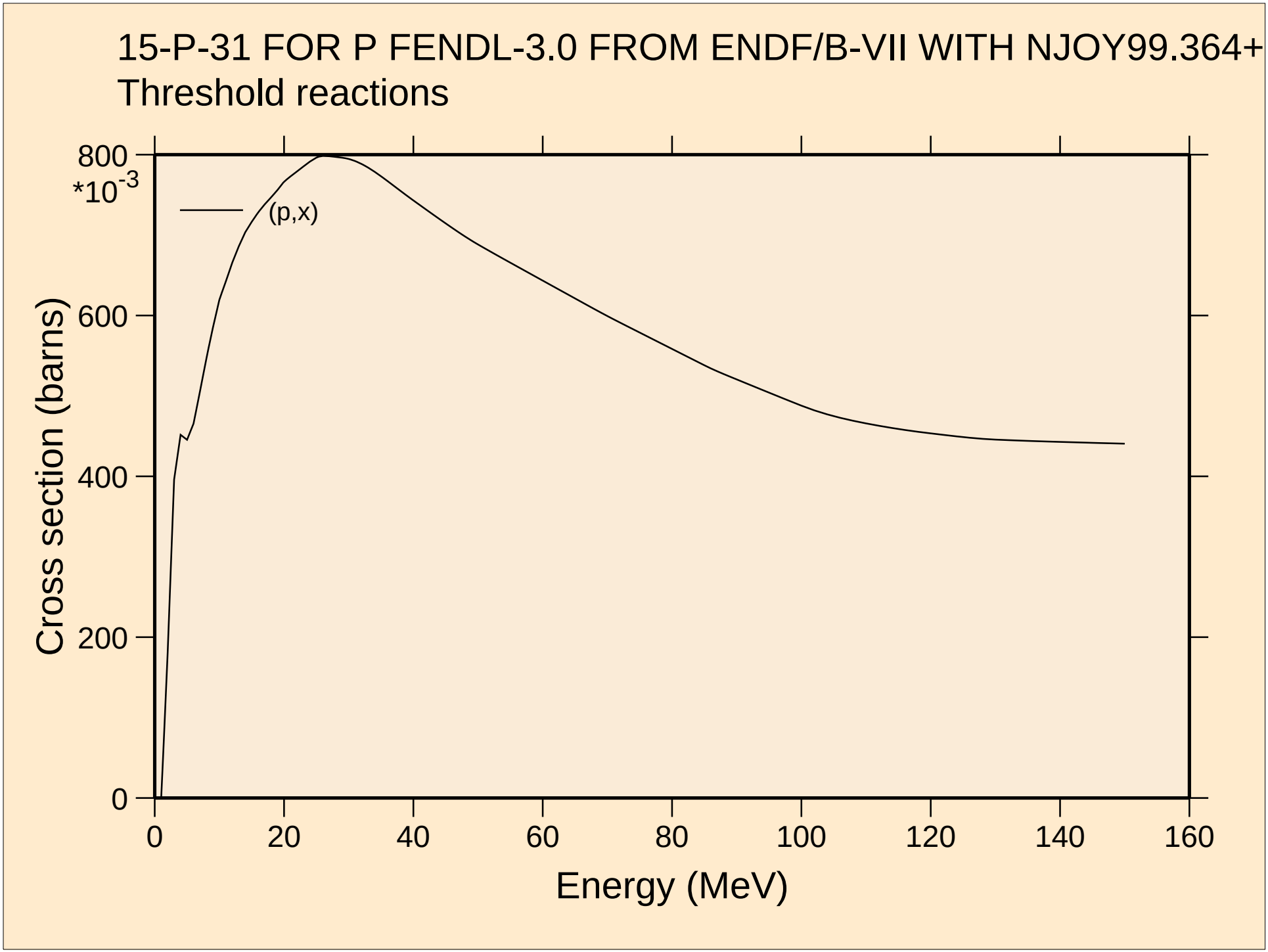
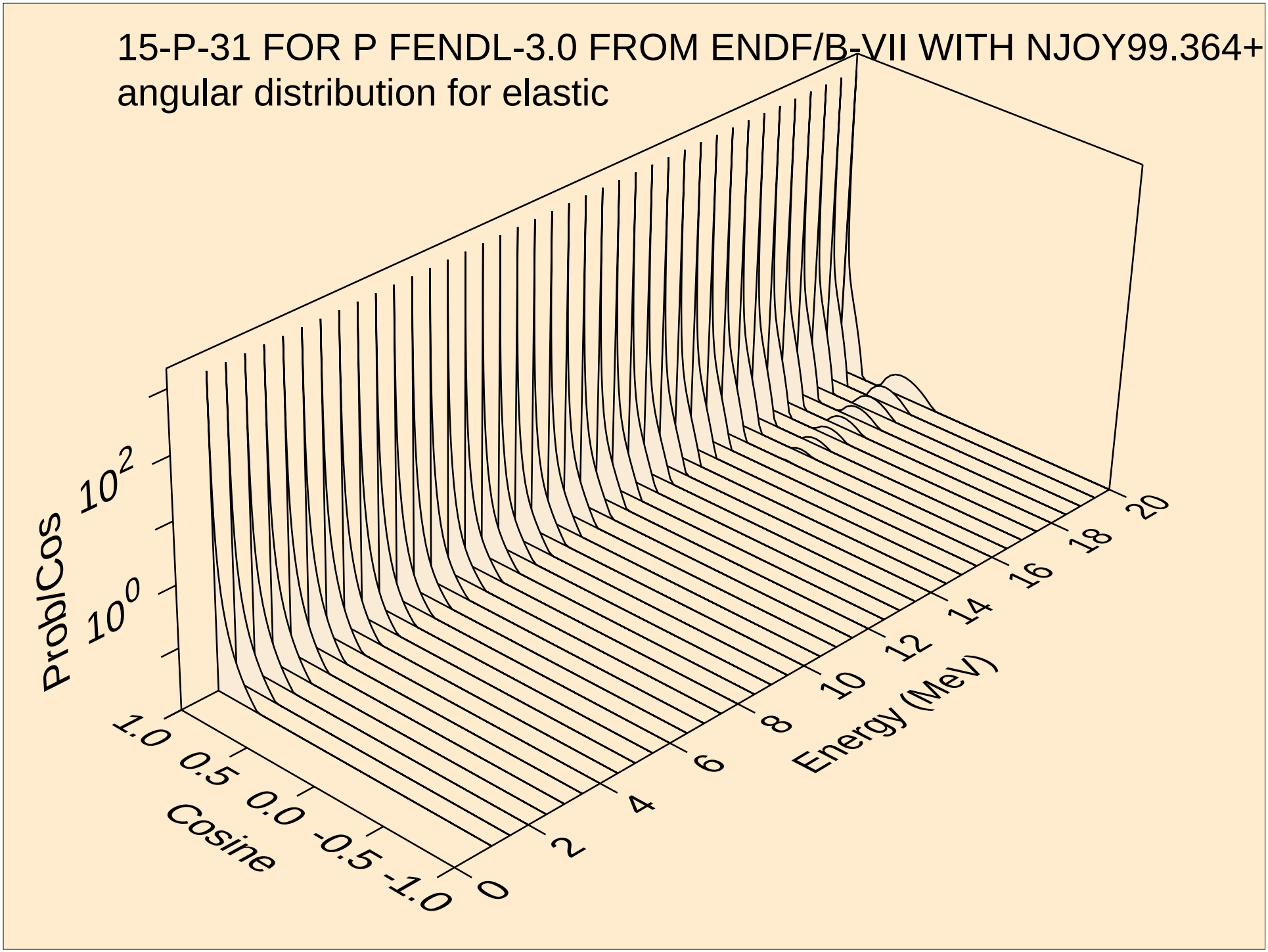

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production

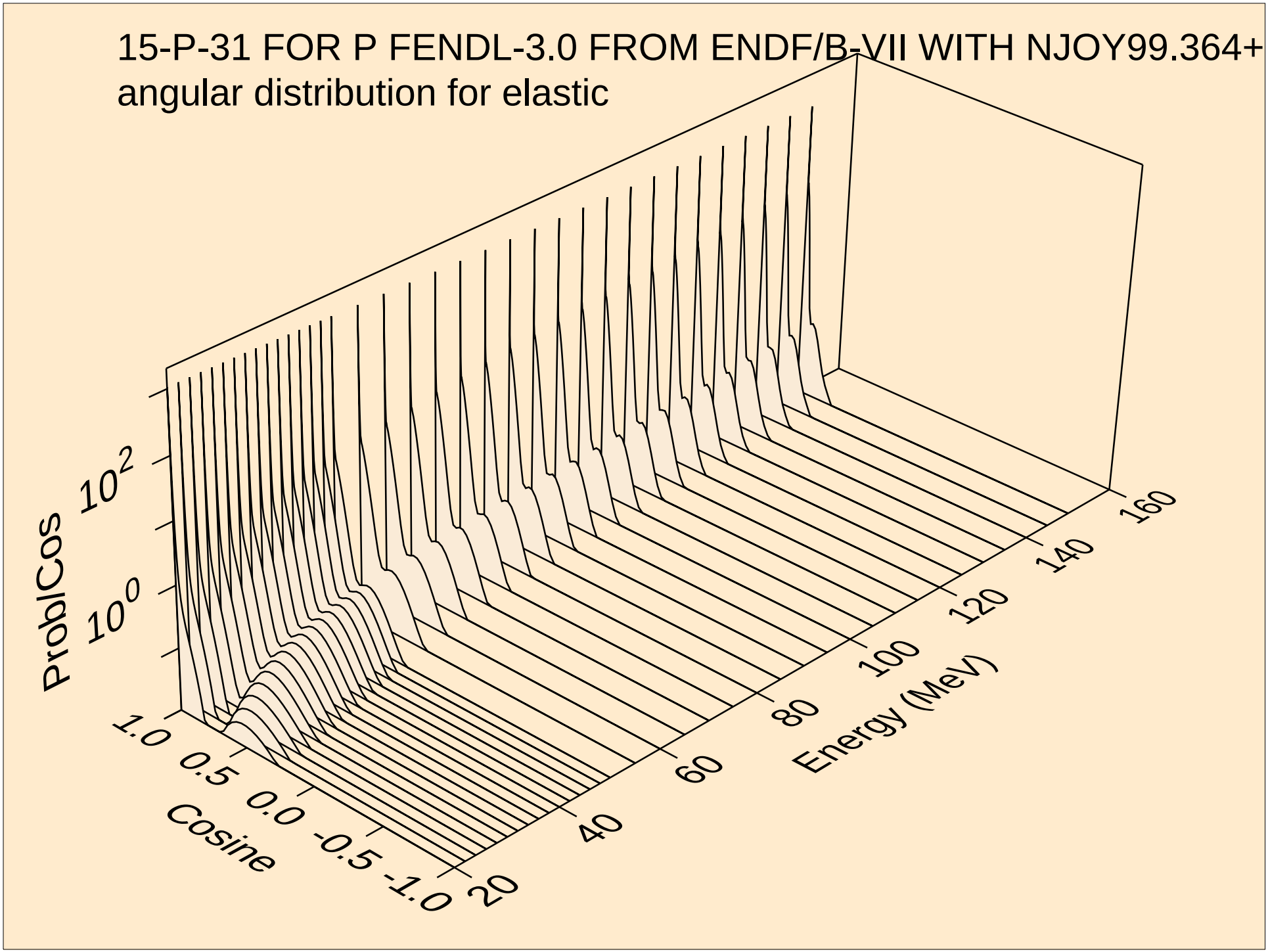

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^0
10^1
10^2

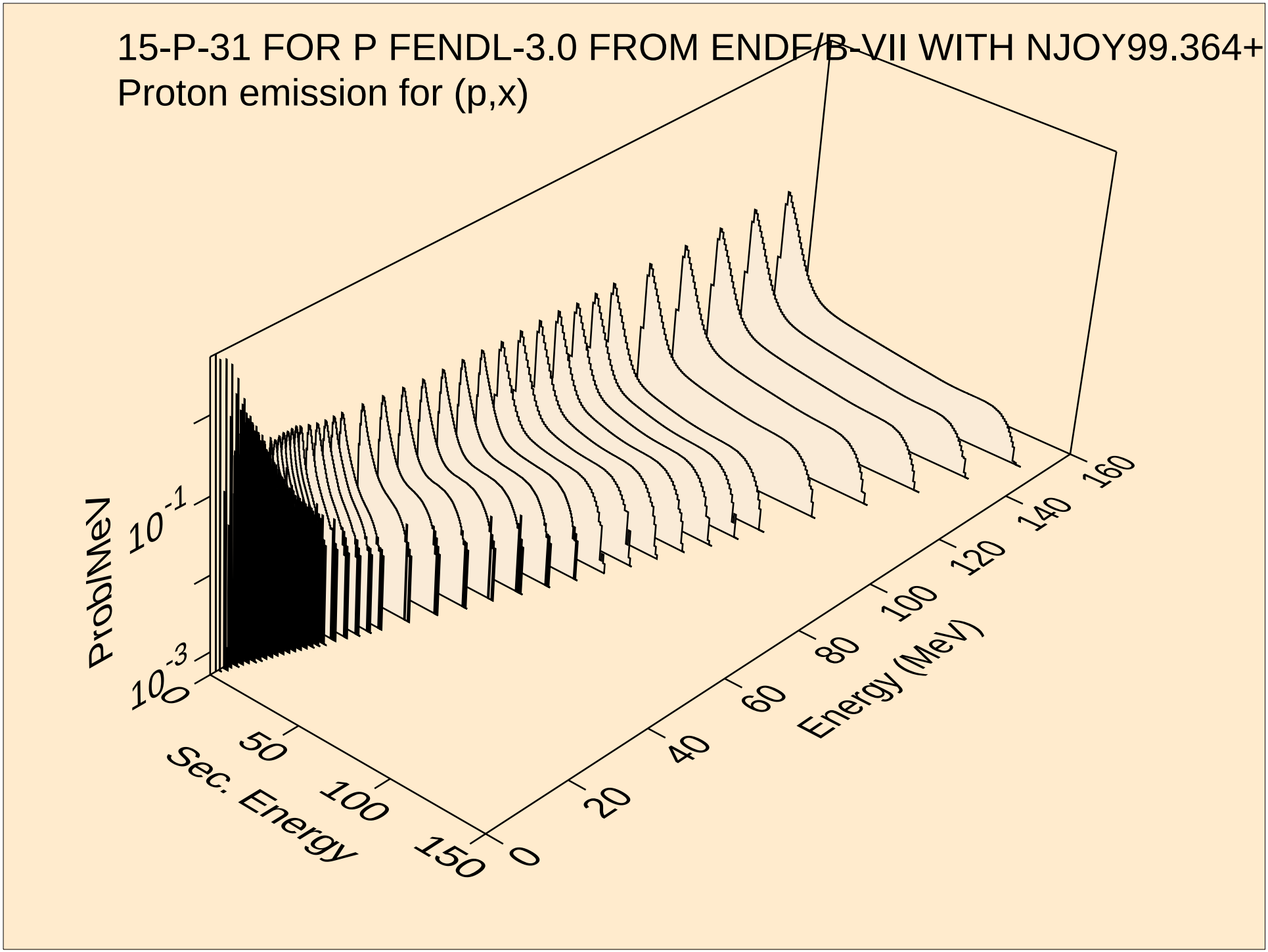

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Principal cross sections
Cross section (barns)
Energy (MeV)
0
200
400
600
800
1000
1200
1400
1600
0
20
40
60
80
100
120
140
160
total
absorption
elastic
gamma production

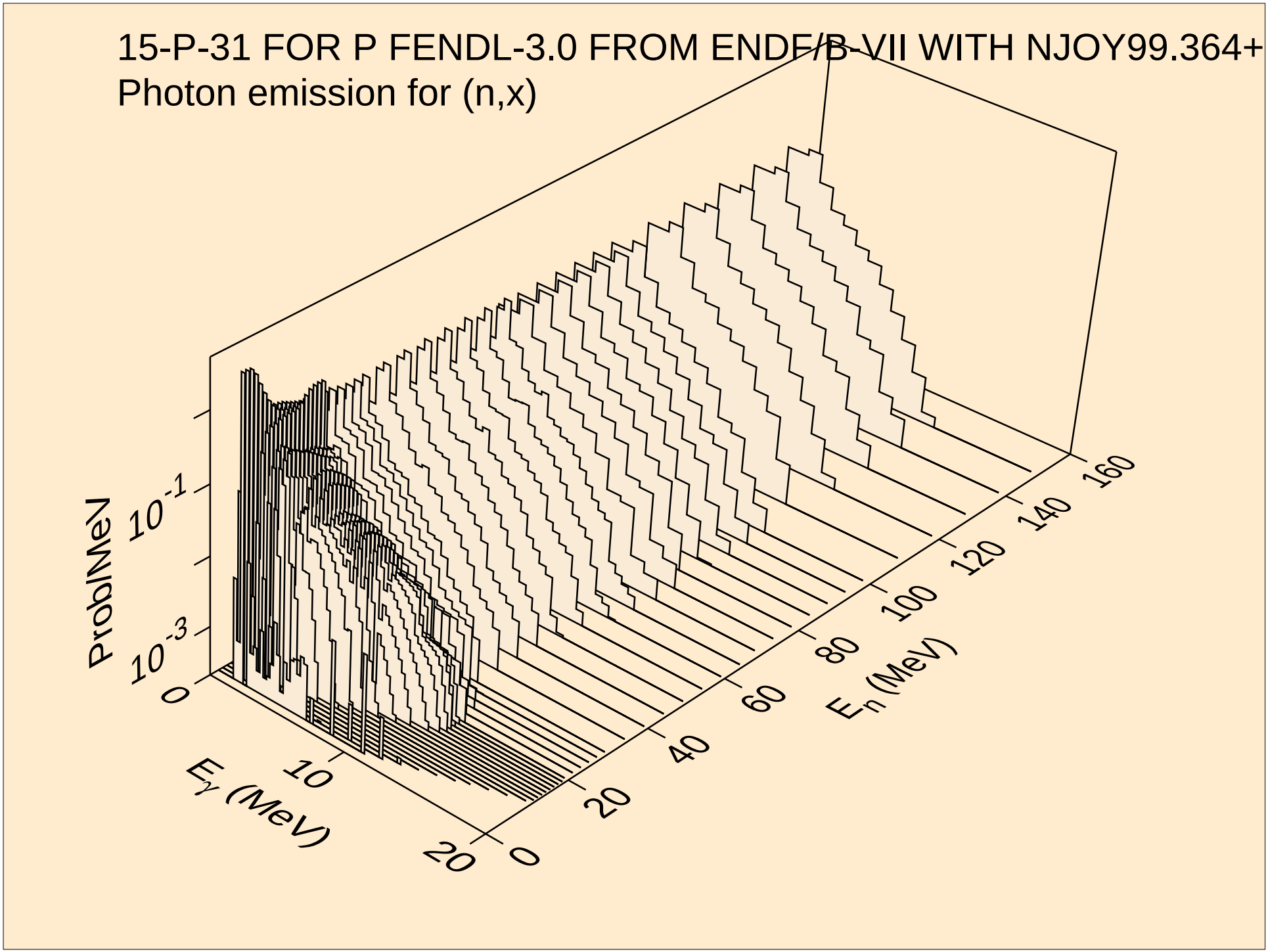

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
2
4
6
8
10
12
0
20
40
60
80
100
120
140
160

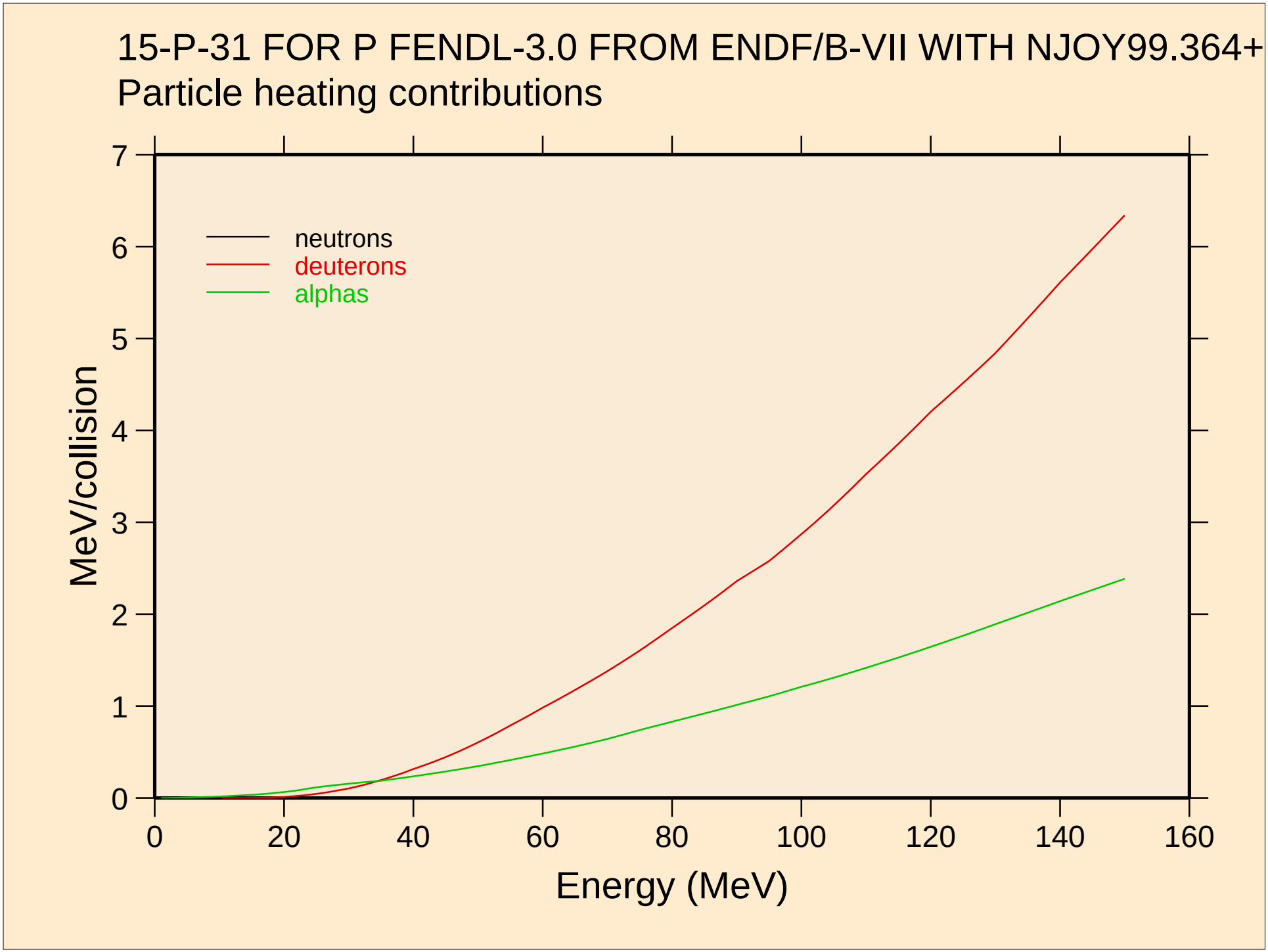

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Threshold reactions
800
*10-3
600
400
200
0
(p,x)
Cross section (barns)
0
20
40
60
80
100
120
140
160
Energy (MeV)

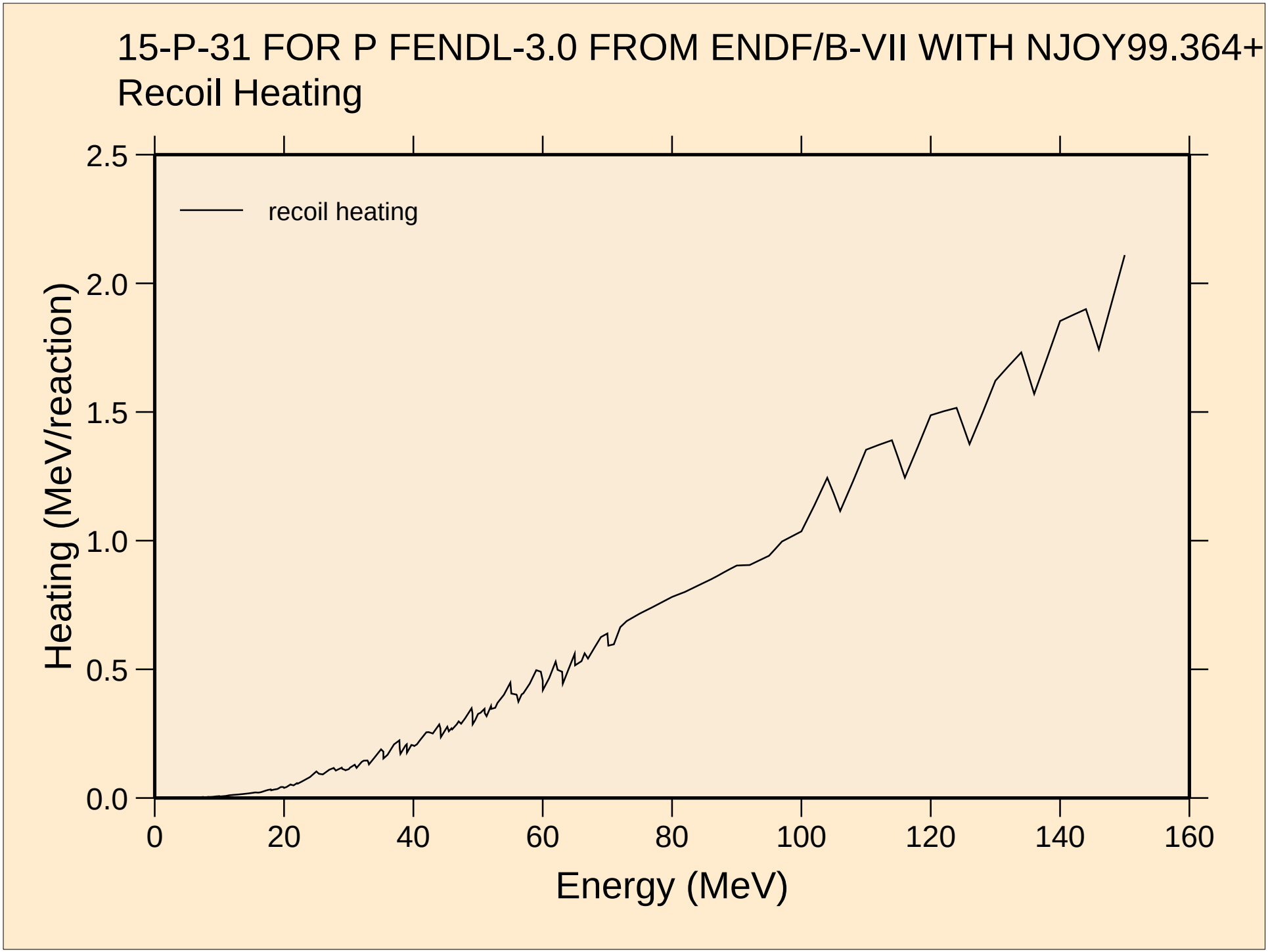

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
angular distribution for elastic
Prob\Cos
10^2
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

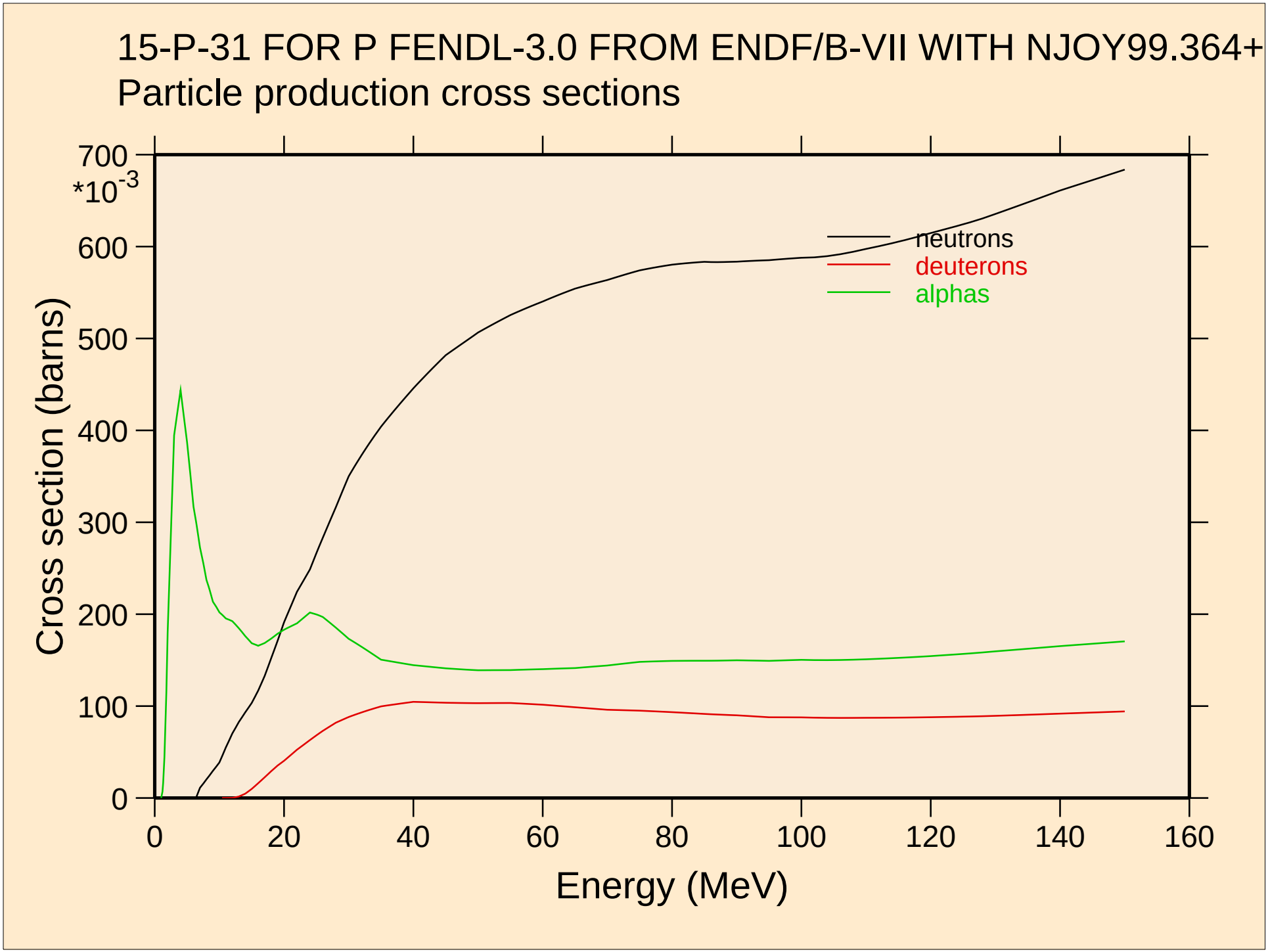

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
angular distribution for elastic
ProbICos
10^2
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
Energy (MeV)

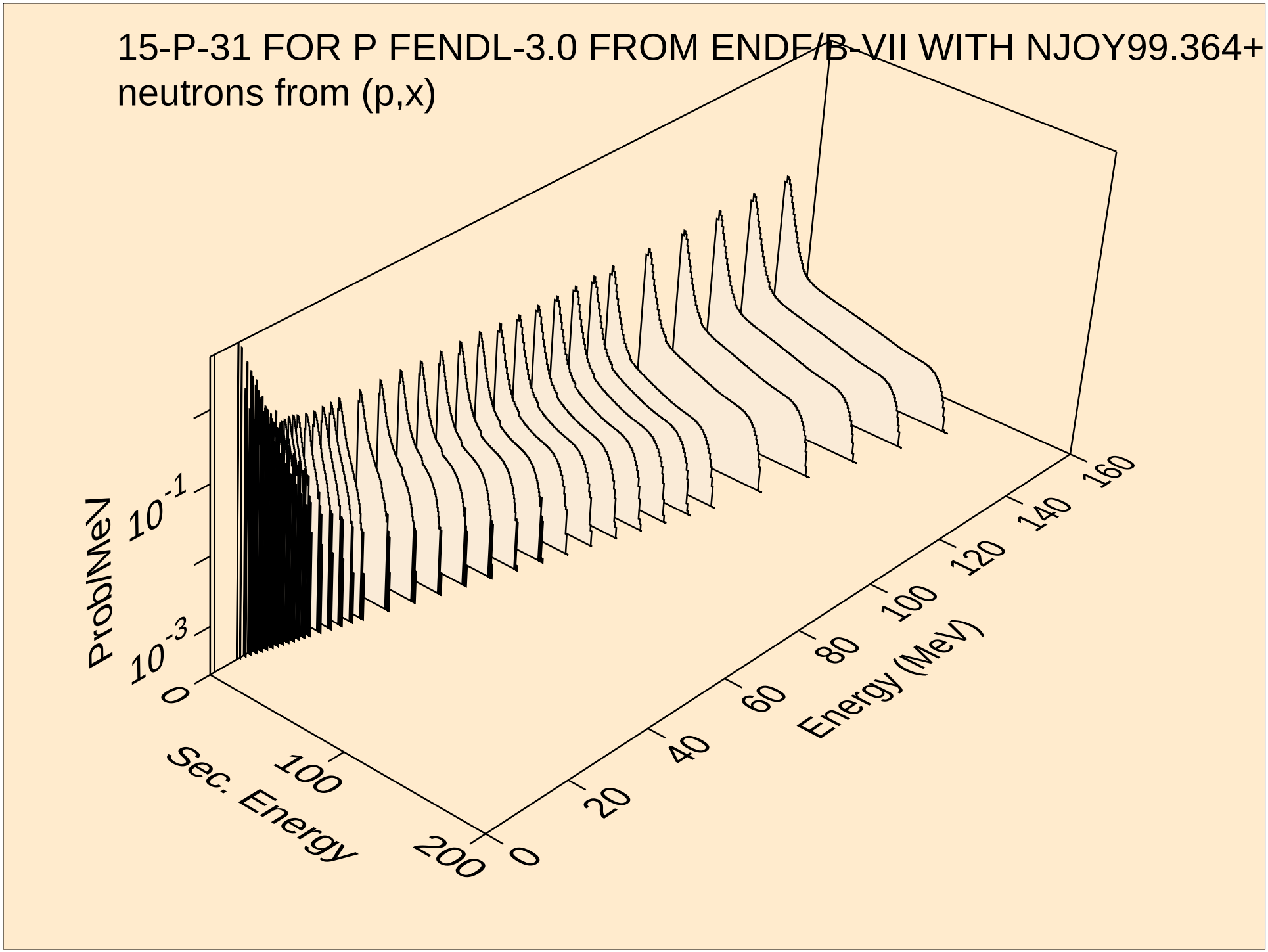

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Proton emission for (p,x)
Prob/MeV
10-1
10-3
0
50
100
150
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)

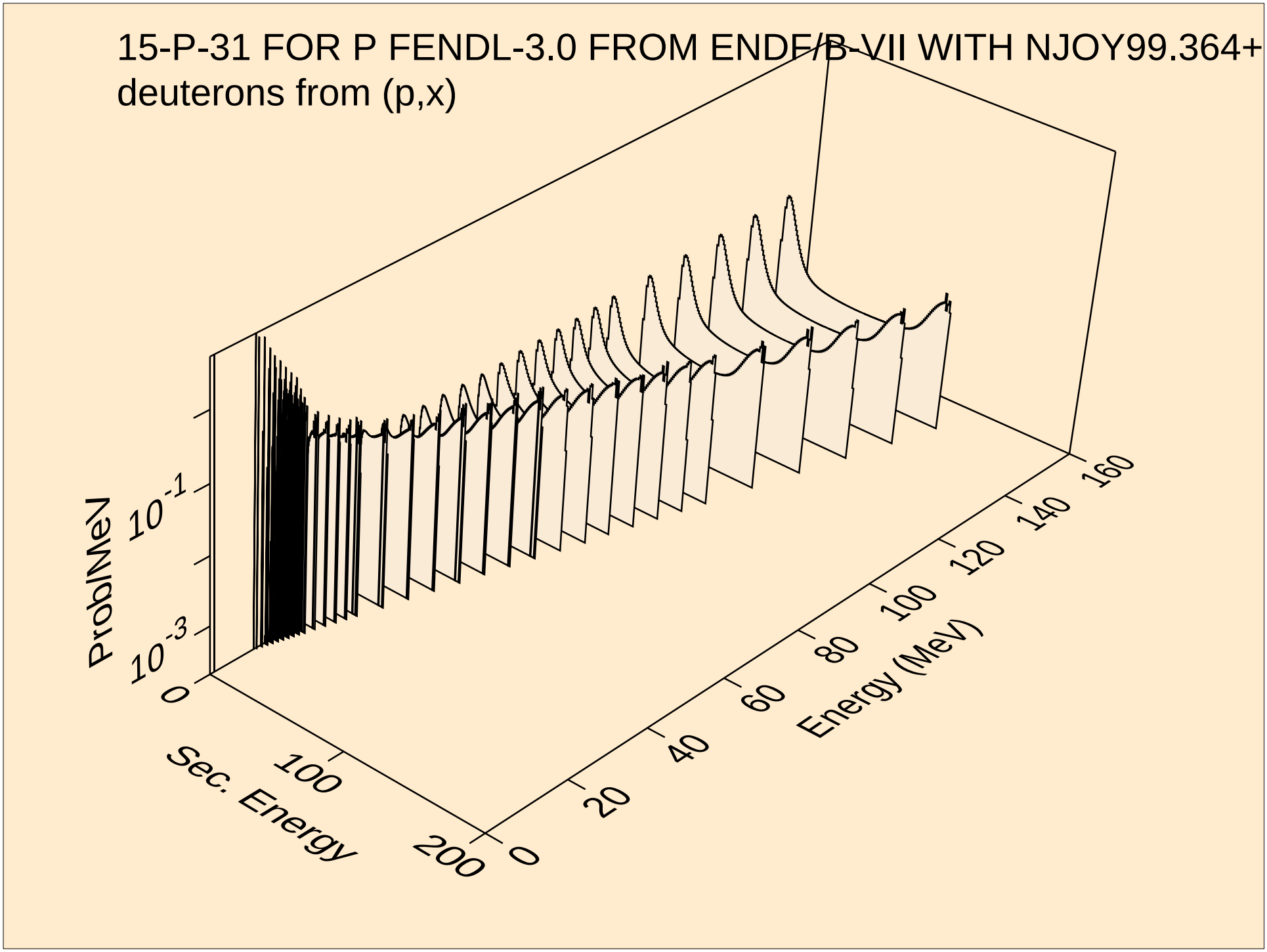

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Photon emission for (n,x)
Prob/MeV
10^-1
10^-3
0
E_γ (MeV)
10
20
0
20
40
60
80
100
120
140
160
E_n (MeV)

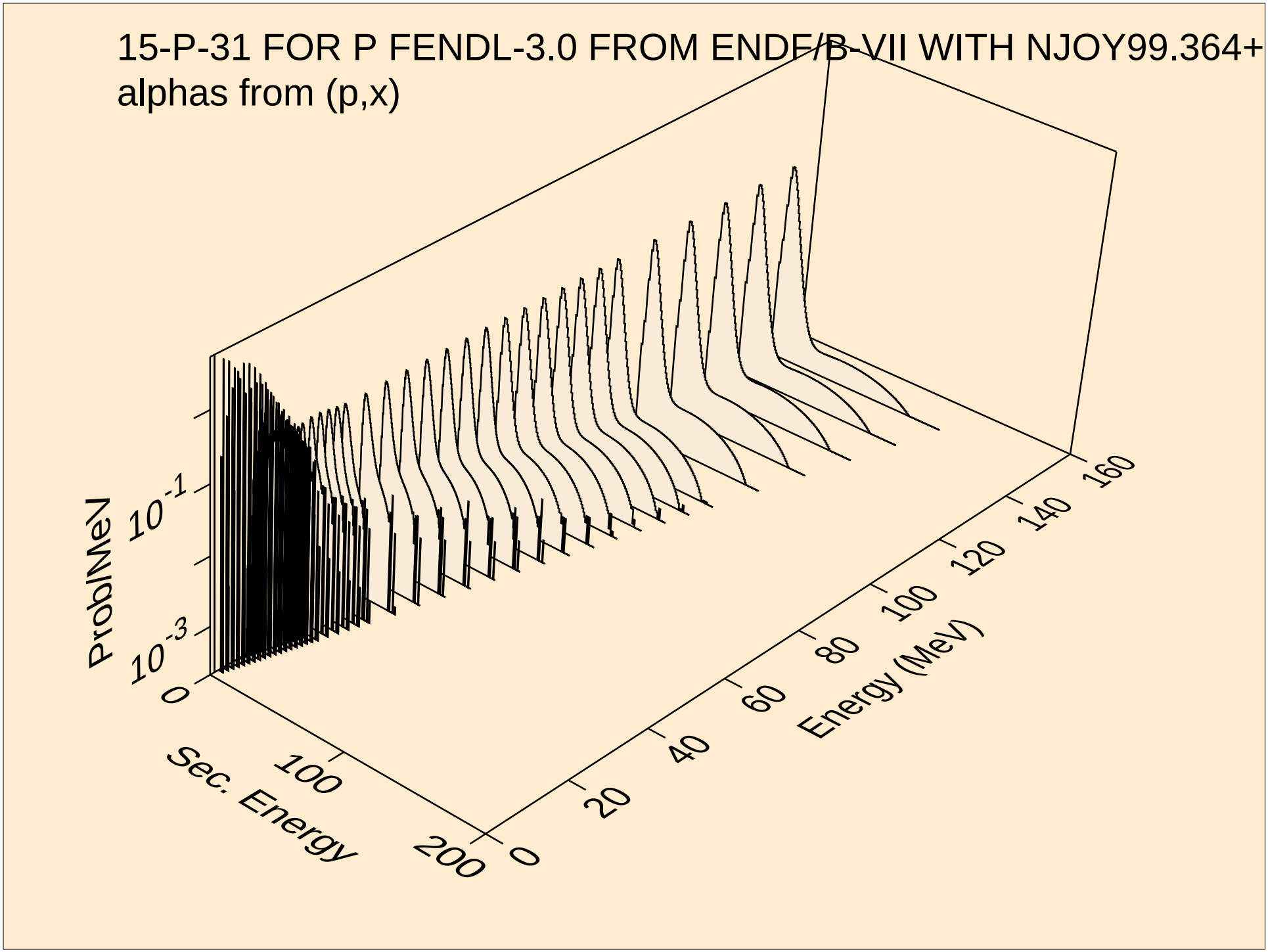

15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Particle heating contributions
neutrons
deuterons
alphas
MeV/collision
Energy (MeV)
0
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160


15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Recoil Heating
recoil heating
Heating (MeV/reaction)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160


15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
Particle production cross sections
Cross section (barns)
*10-3
700
600
500
400
300
200
100
0
0
20
40
60
80
100
120
140
160
Energy (MeV)
neutrons
deuterons
alphas


15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII 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
Energy (MeV)


15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII 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
Energy (MeV)


15-P-31 FOR P FENDL-3.0 FROM ENDF/B-VII WITH NJOY99.364+
alphas from (p,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
Energy (MeV)