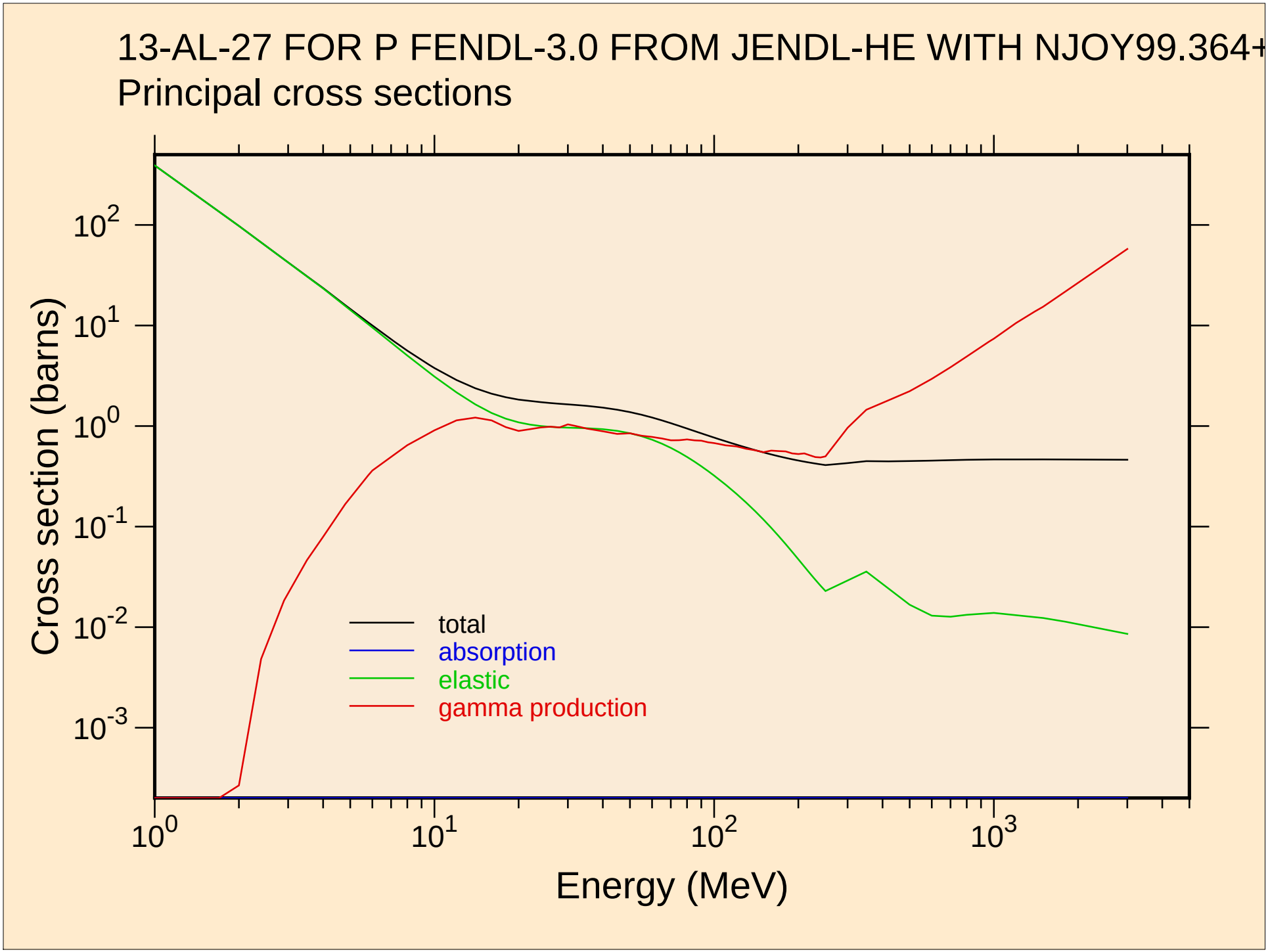
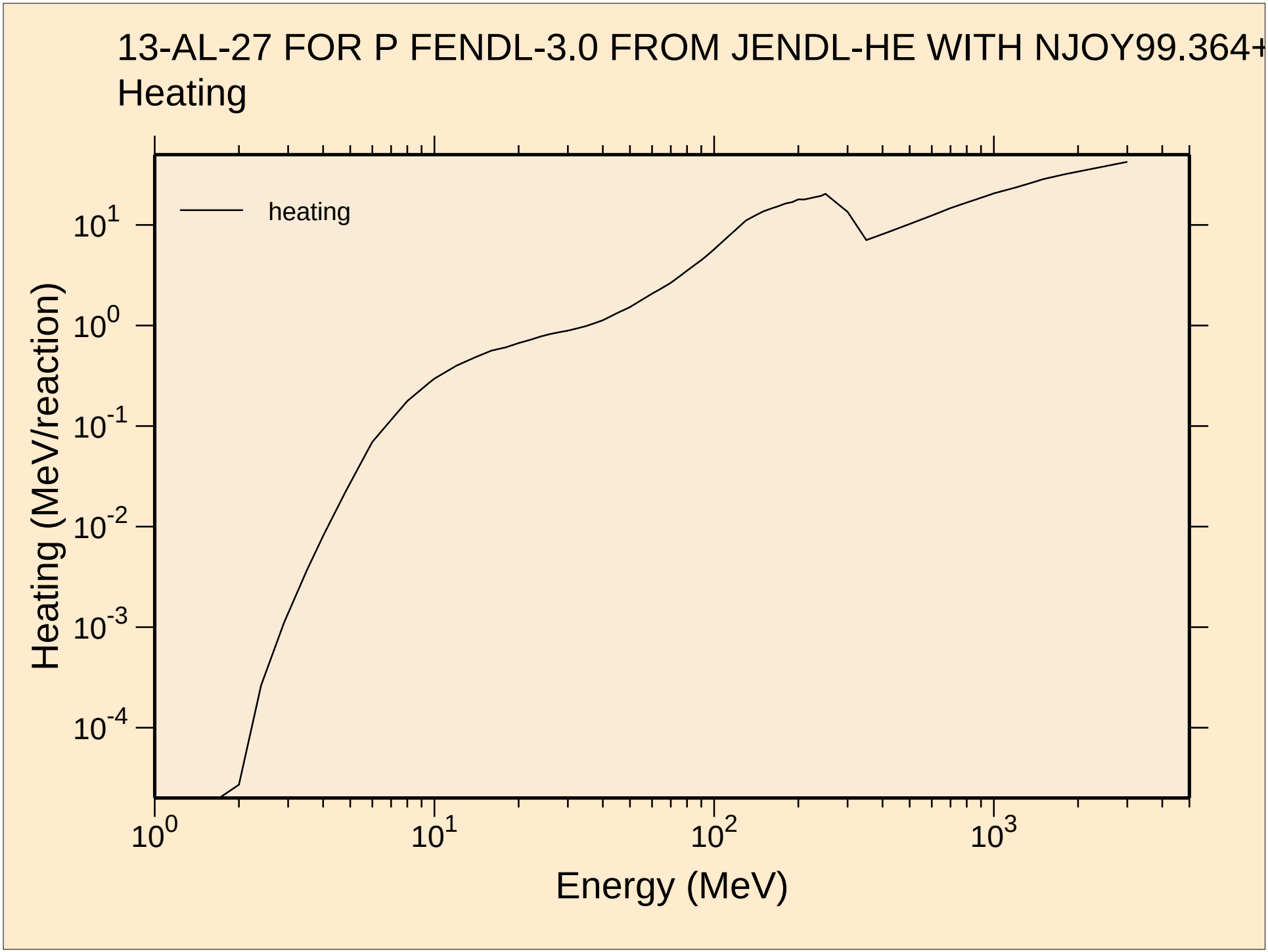
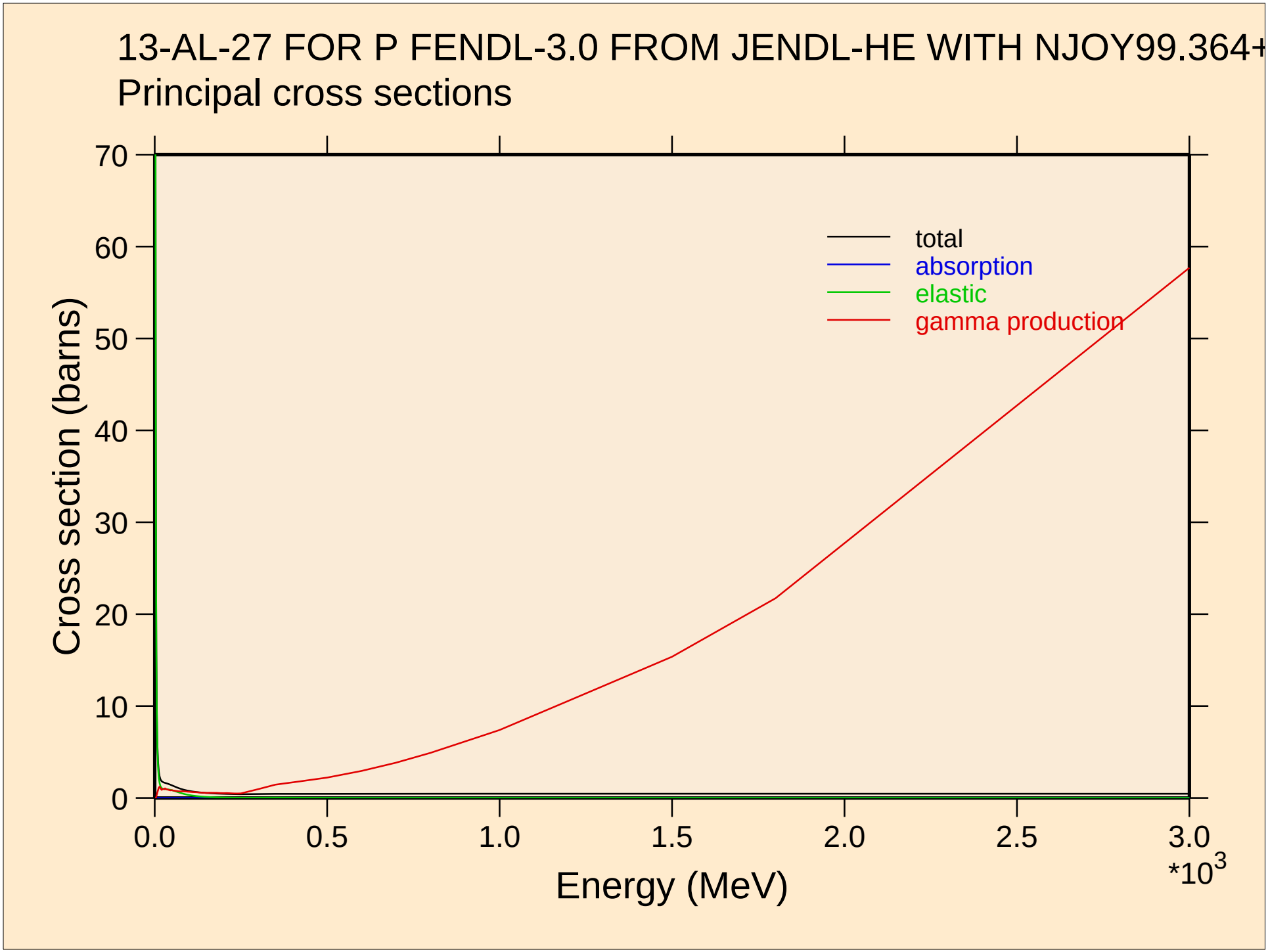
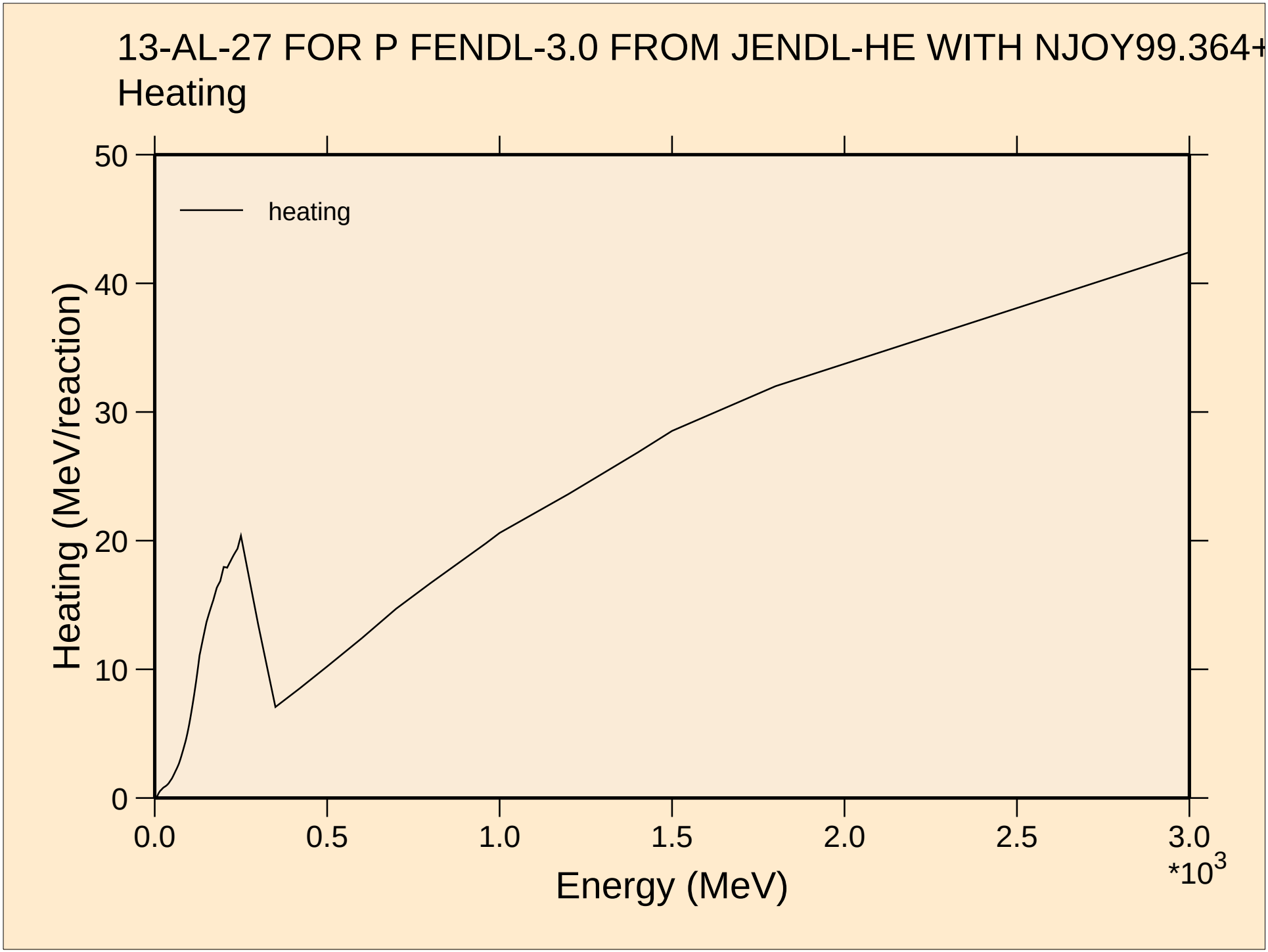
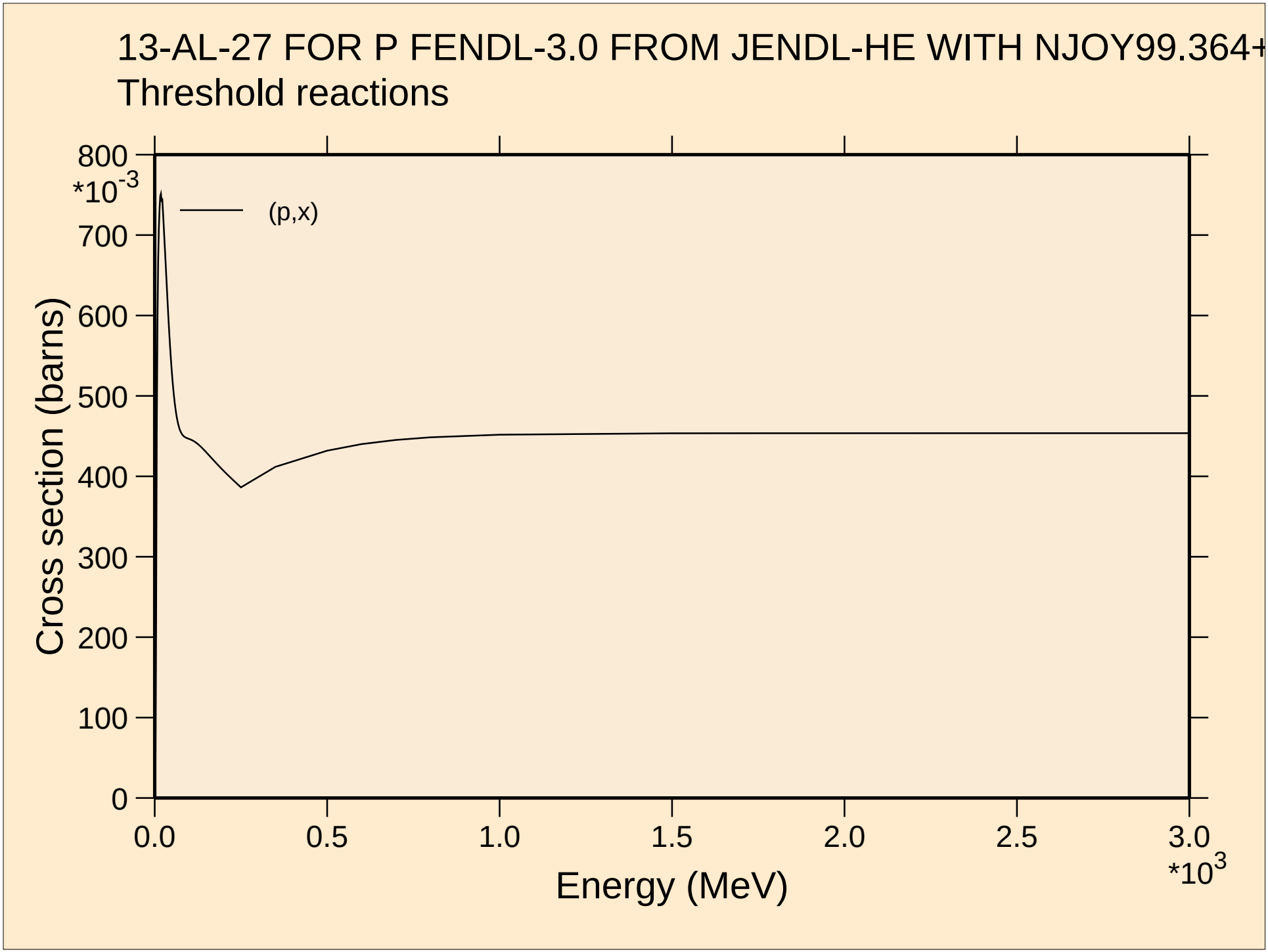
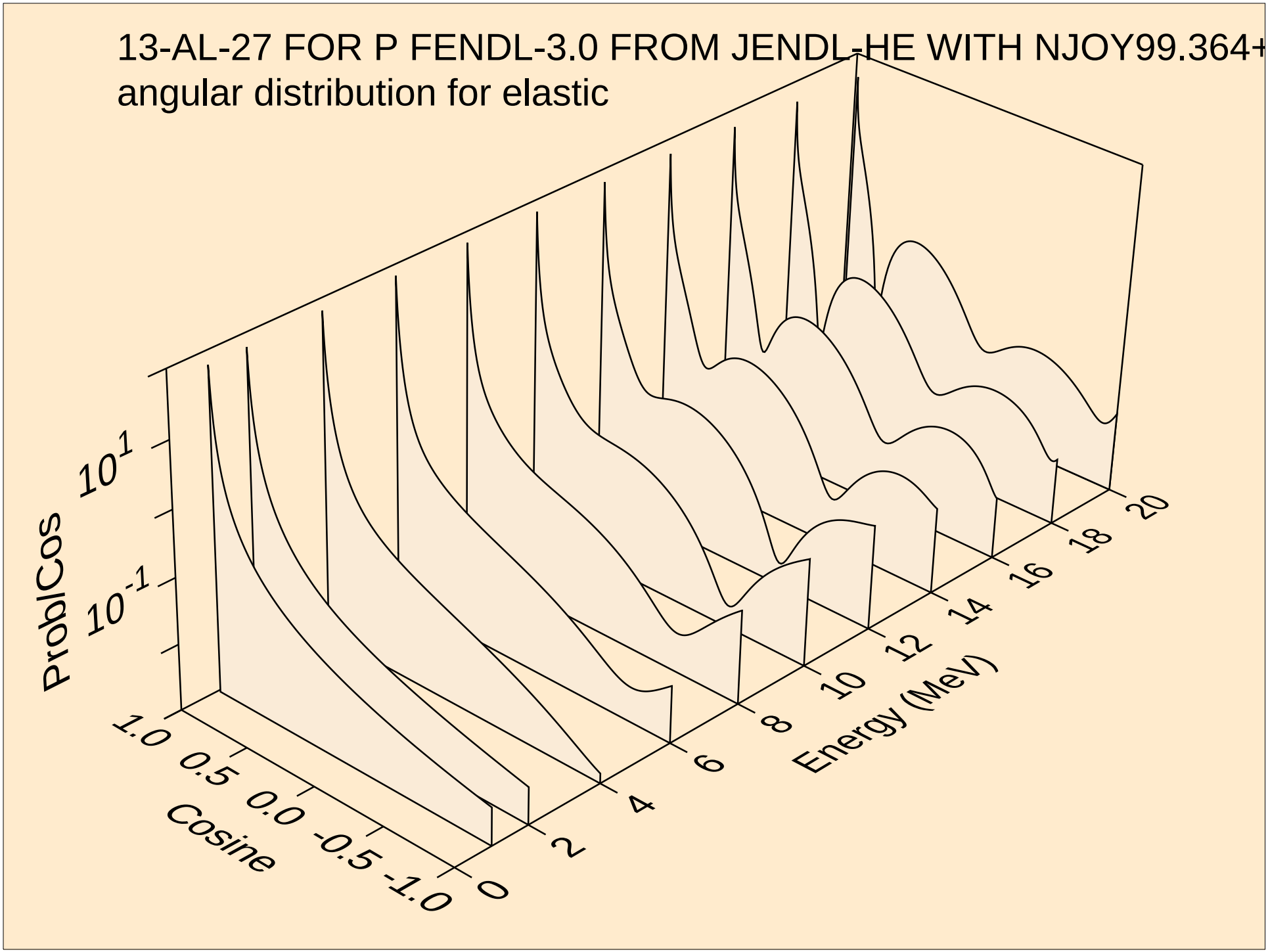

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Principal cross sections
Cross section (barns)
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
total
absorption
elastic
gamma production
10^{0}
10^{1}
10^{2}
10^{3}
Energy (MeV)

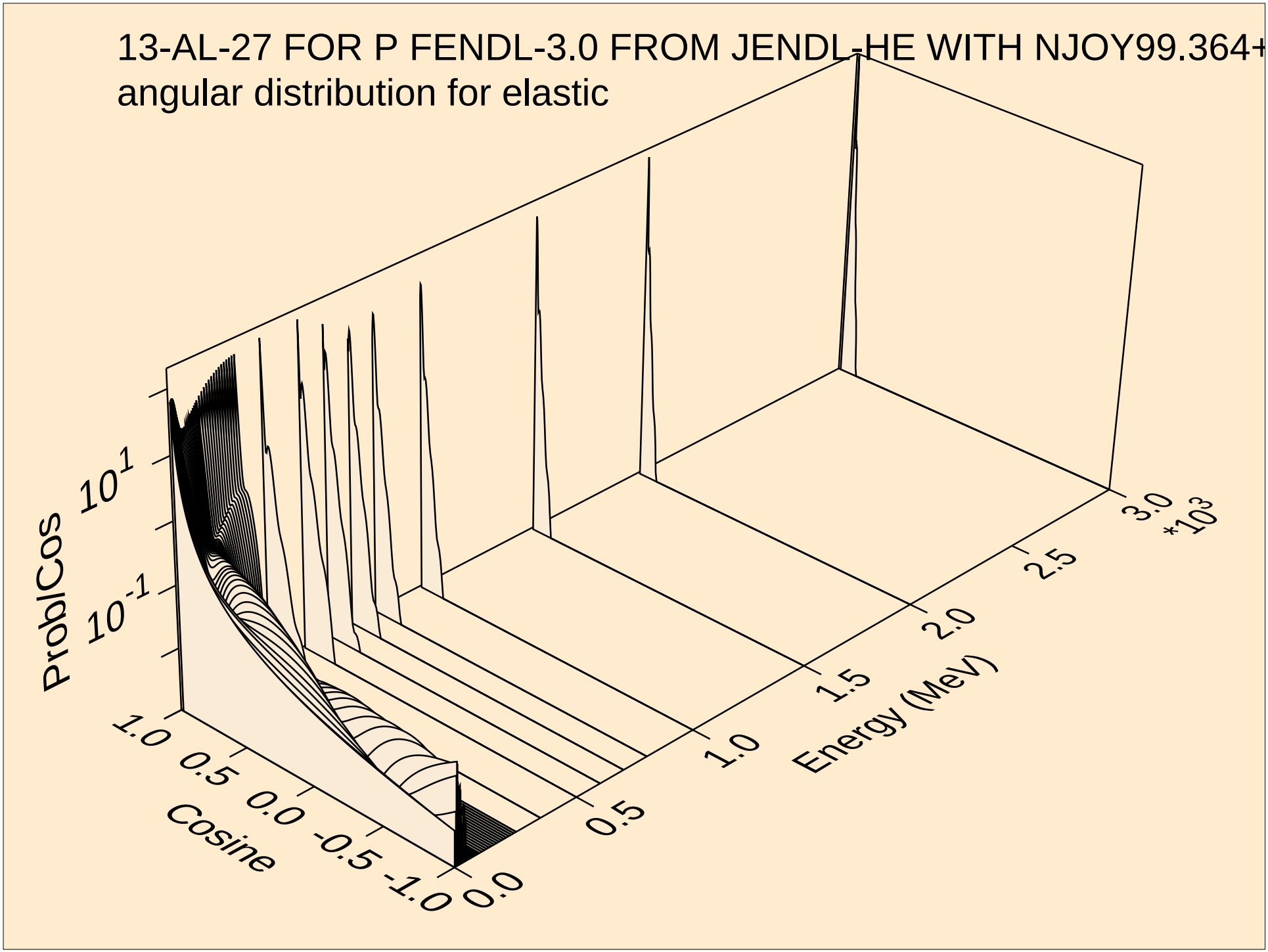

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{0}
10^{1}
10^{2}
10^{3}
Energy (MeV)

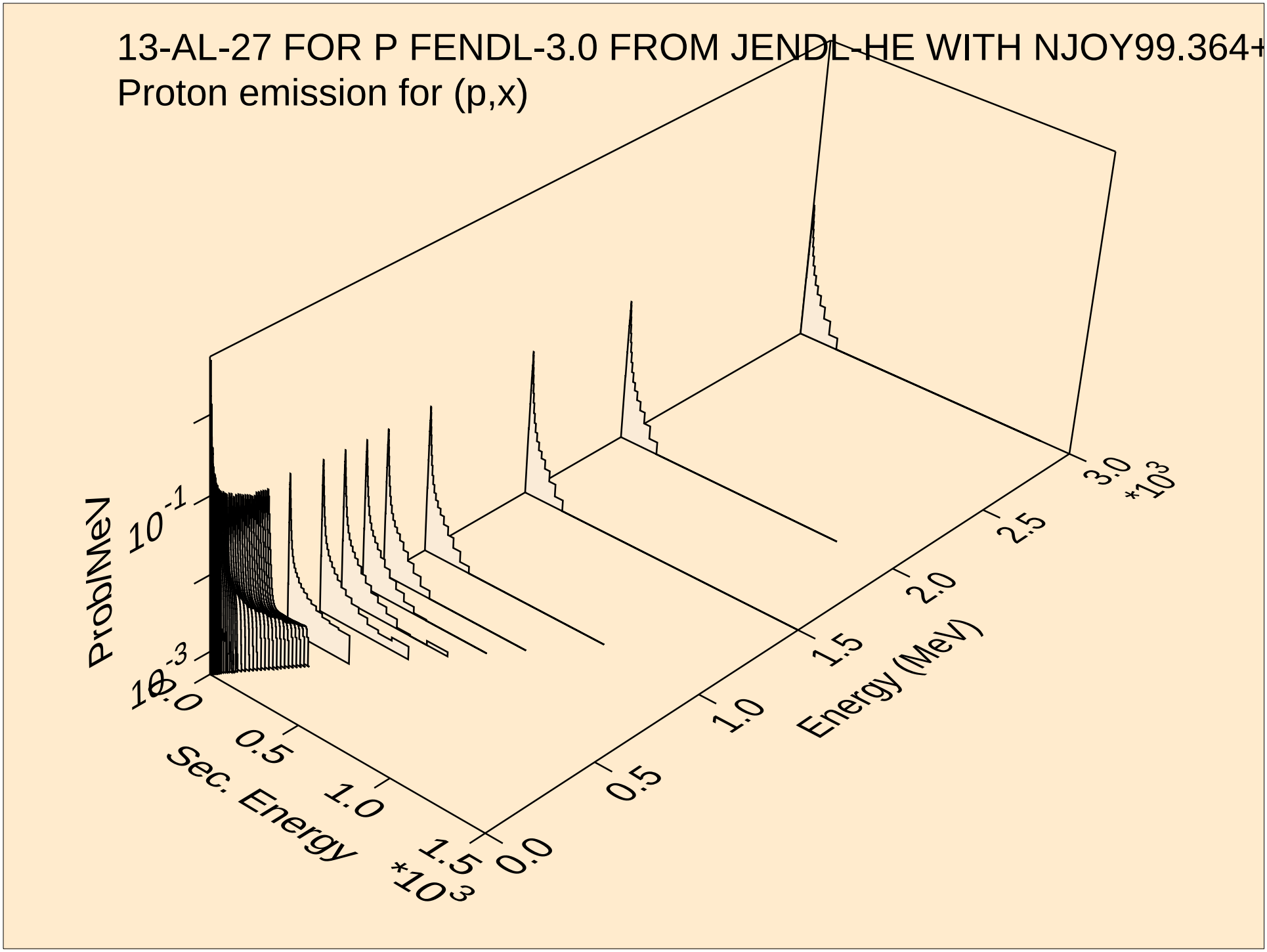

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Principal cross sections
Cross section (barns)
Energy (MeV)
*10^3
total
absorption
elastic
gamma production
0
10
20
30
40
50
60
70
0.0
0.5
1.0
1.5
2.0
2.5
3.0

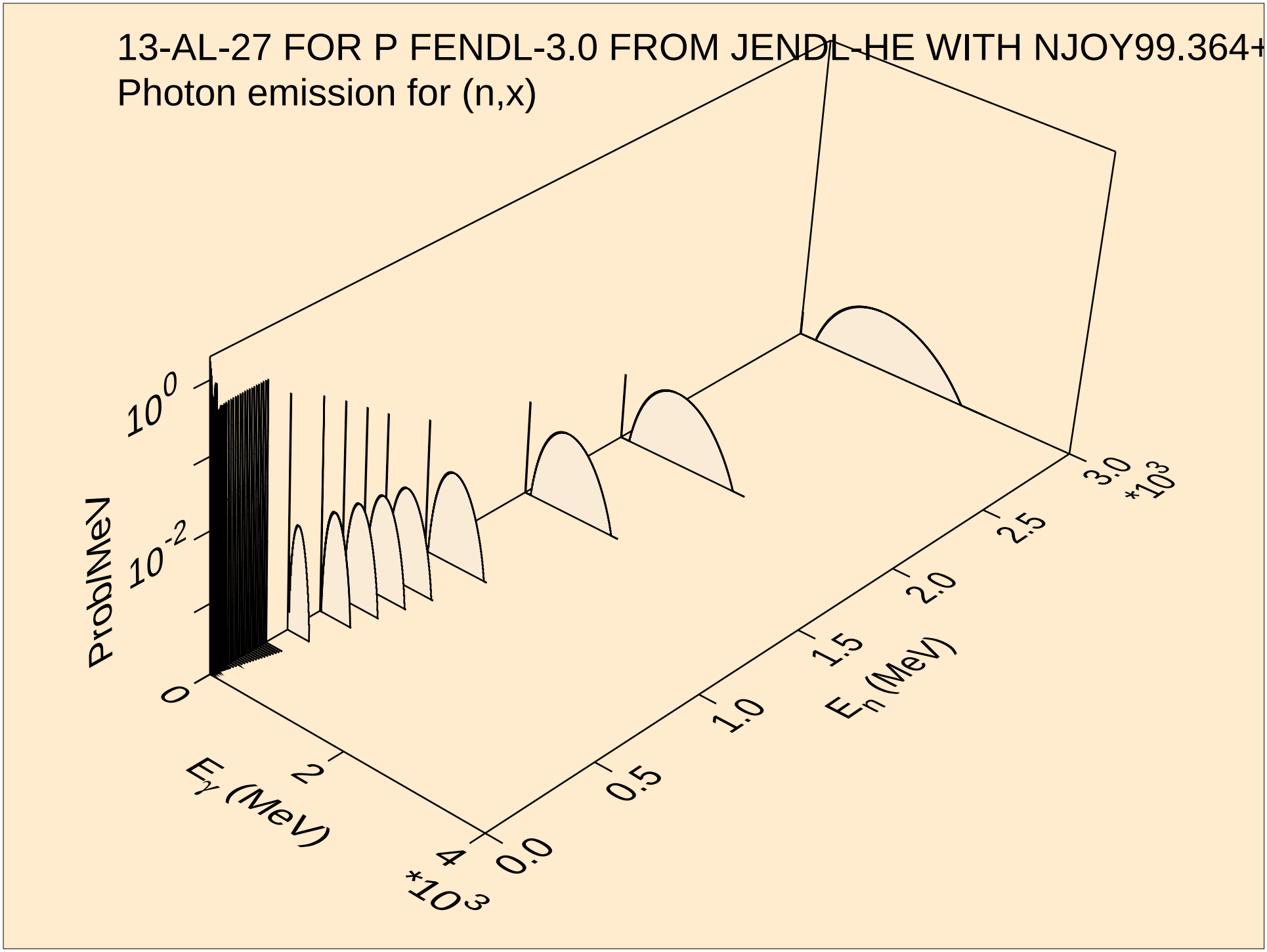

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
0
10
20
30
40
50
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)

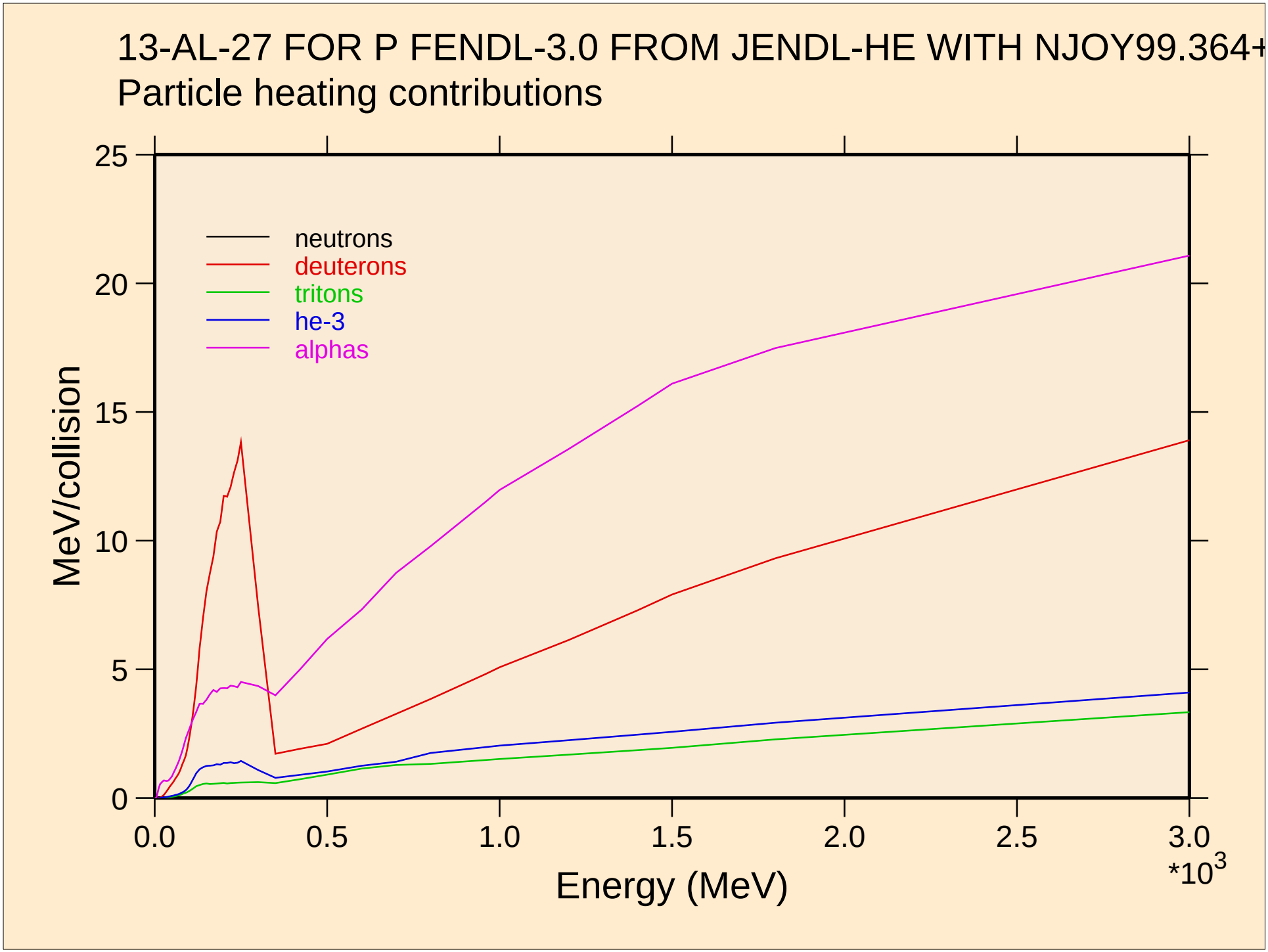

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Threshold reactions
800
*10-3
700
600
500
400
300
200
100
0
(p,x)
Cross section (barns)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)

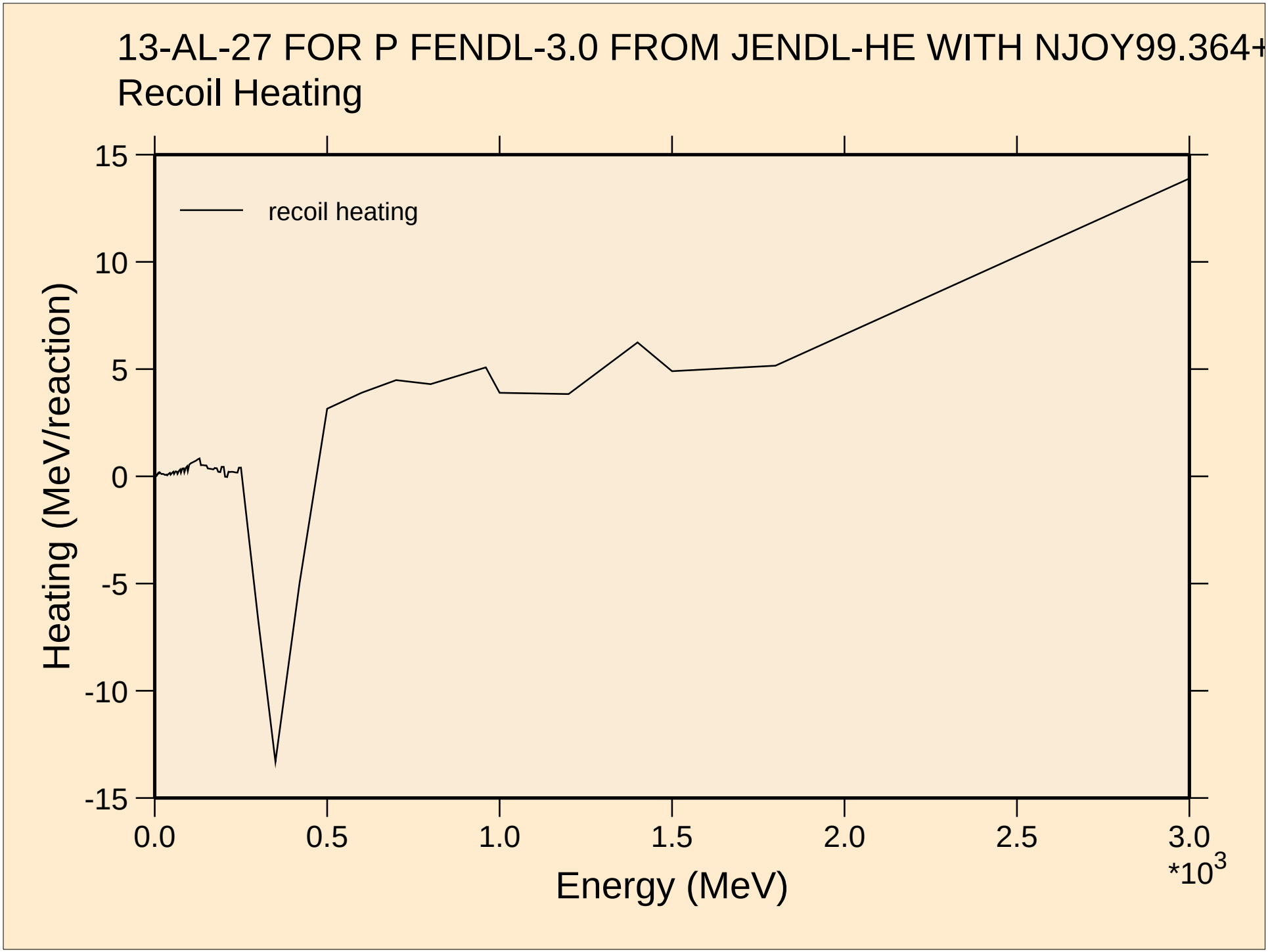

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
angular distribution for elastic
ProbICos
10^1
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

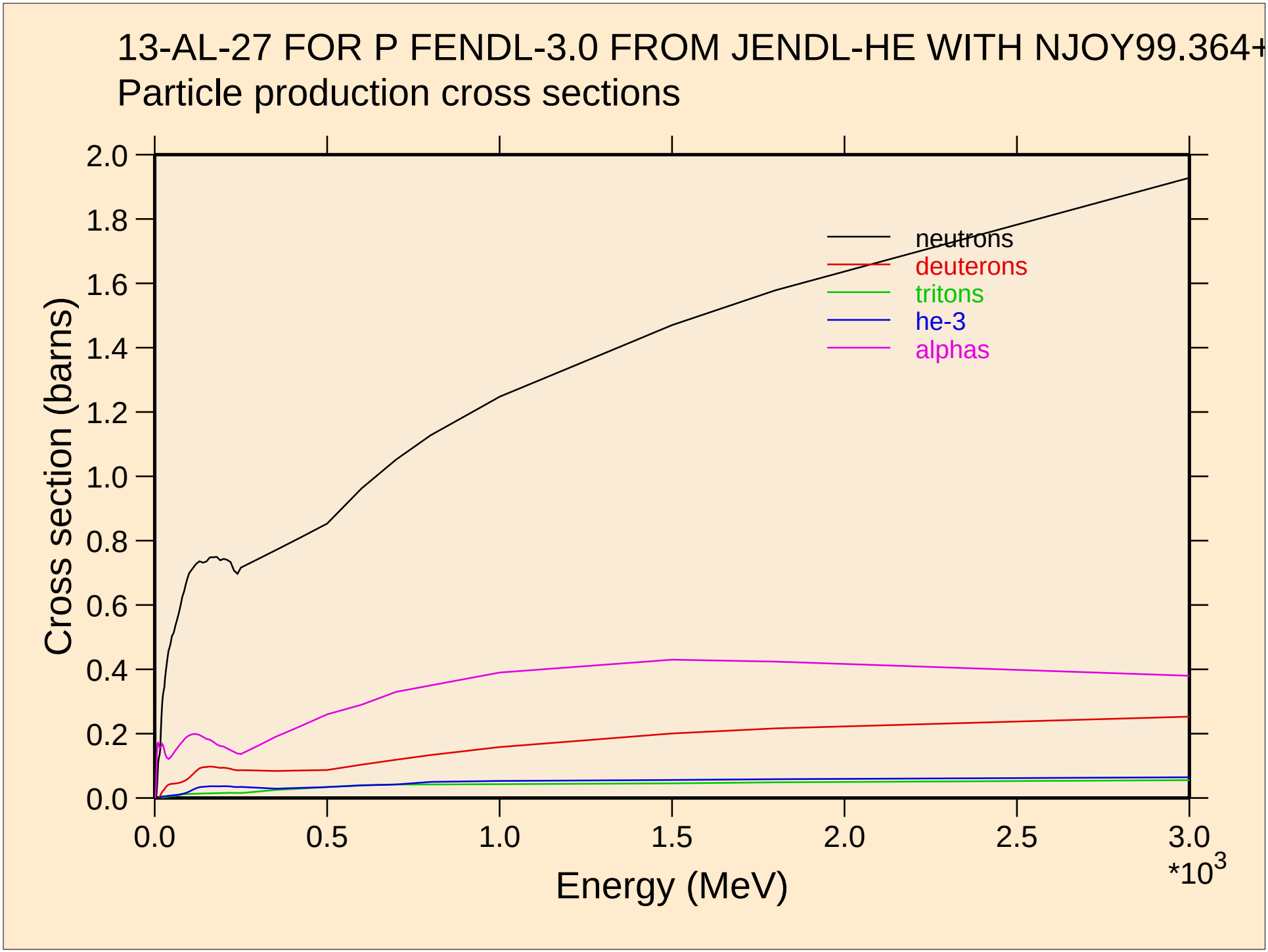

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
angular distribution for elastic
ProbICos
10^1
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)

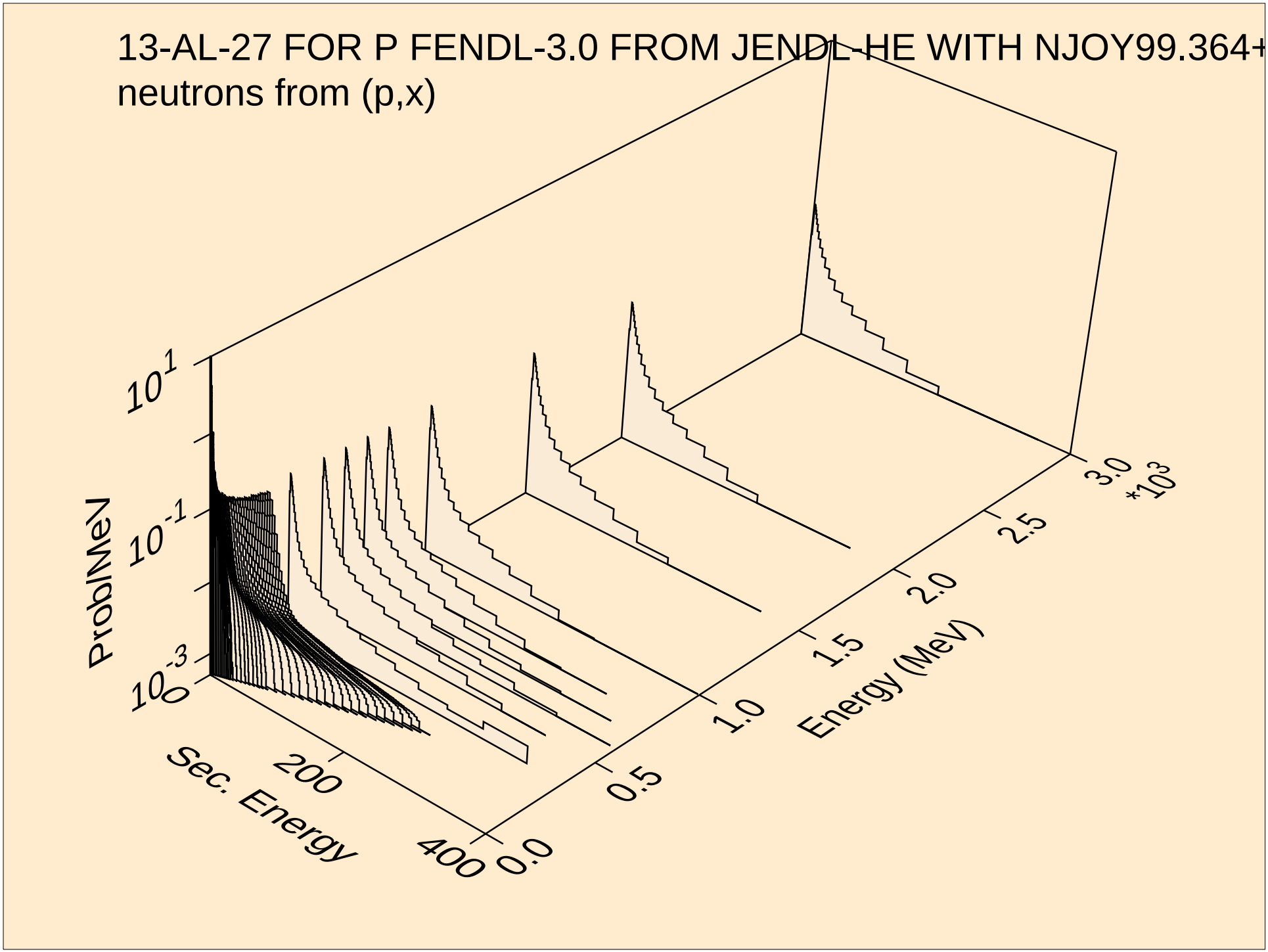

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Proton emission for (p,x)
Prob/MeV
10-1
10-3
0.0
0.5
1.0
1.5
Sec. Energy
*10³
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Energy (MeV)
*10³

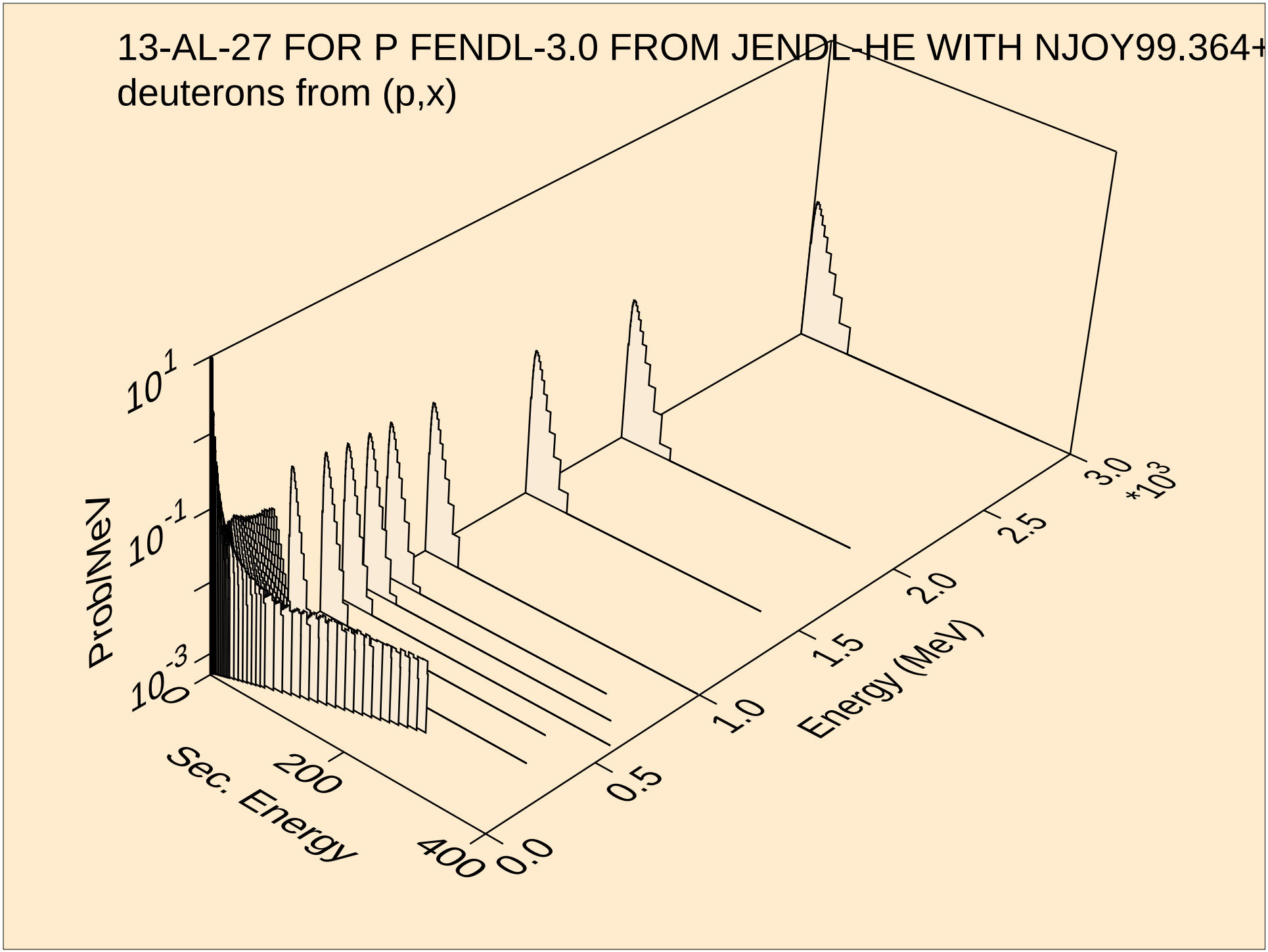

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Photon emission for (n,x)
Prob/MeV
10^{0}
10^{-2}
0
E_γ (MeV)
2
4
*10^{3}
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^{3}
E_n (MeV)

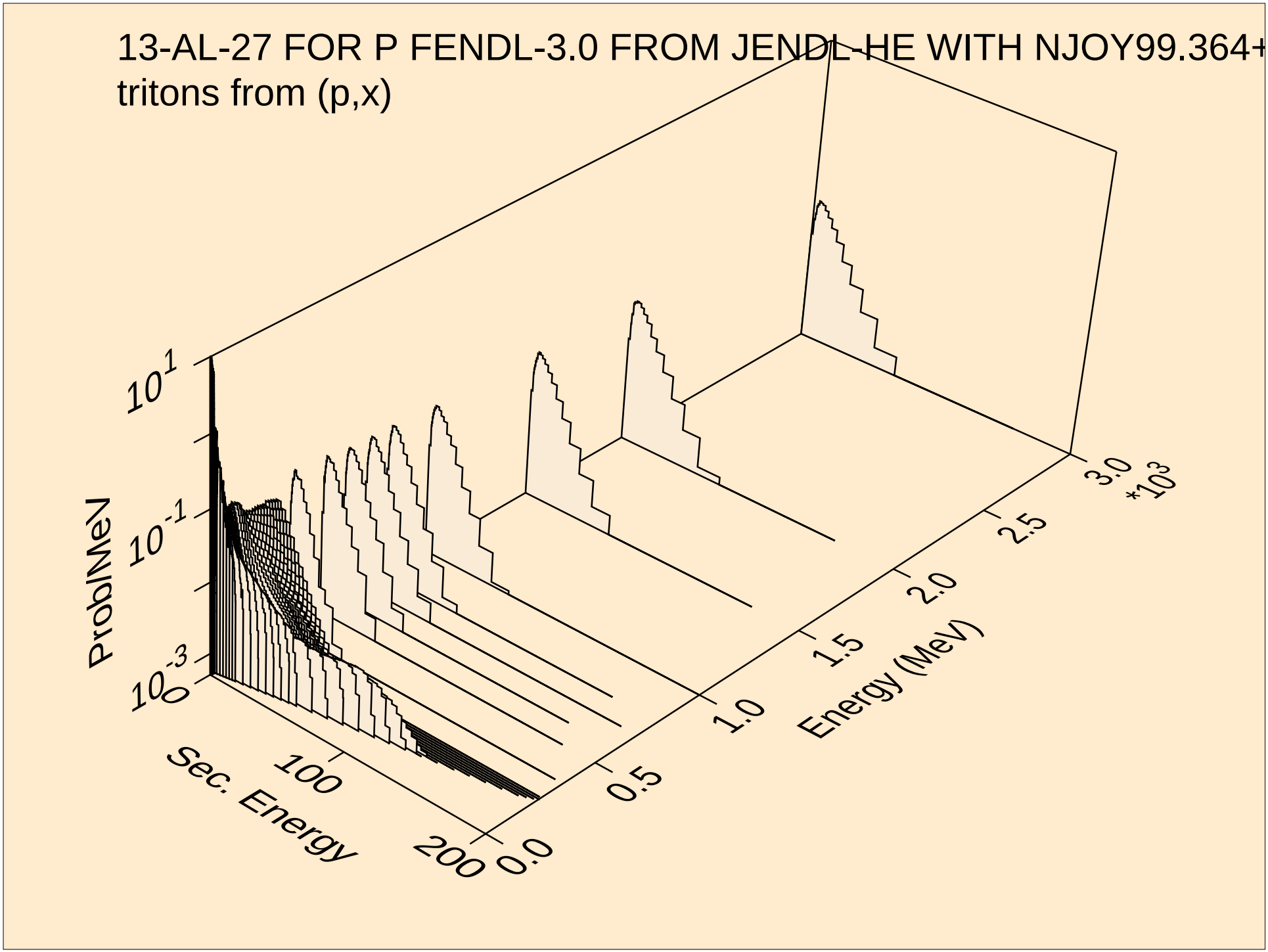

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Particle heating contributions
neutrons
deuterons
tritons
he-3
alphas
MeV/collision
0
5
10
15
20
25
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)

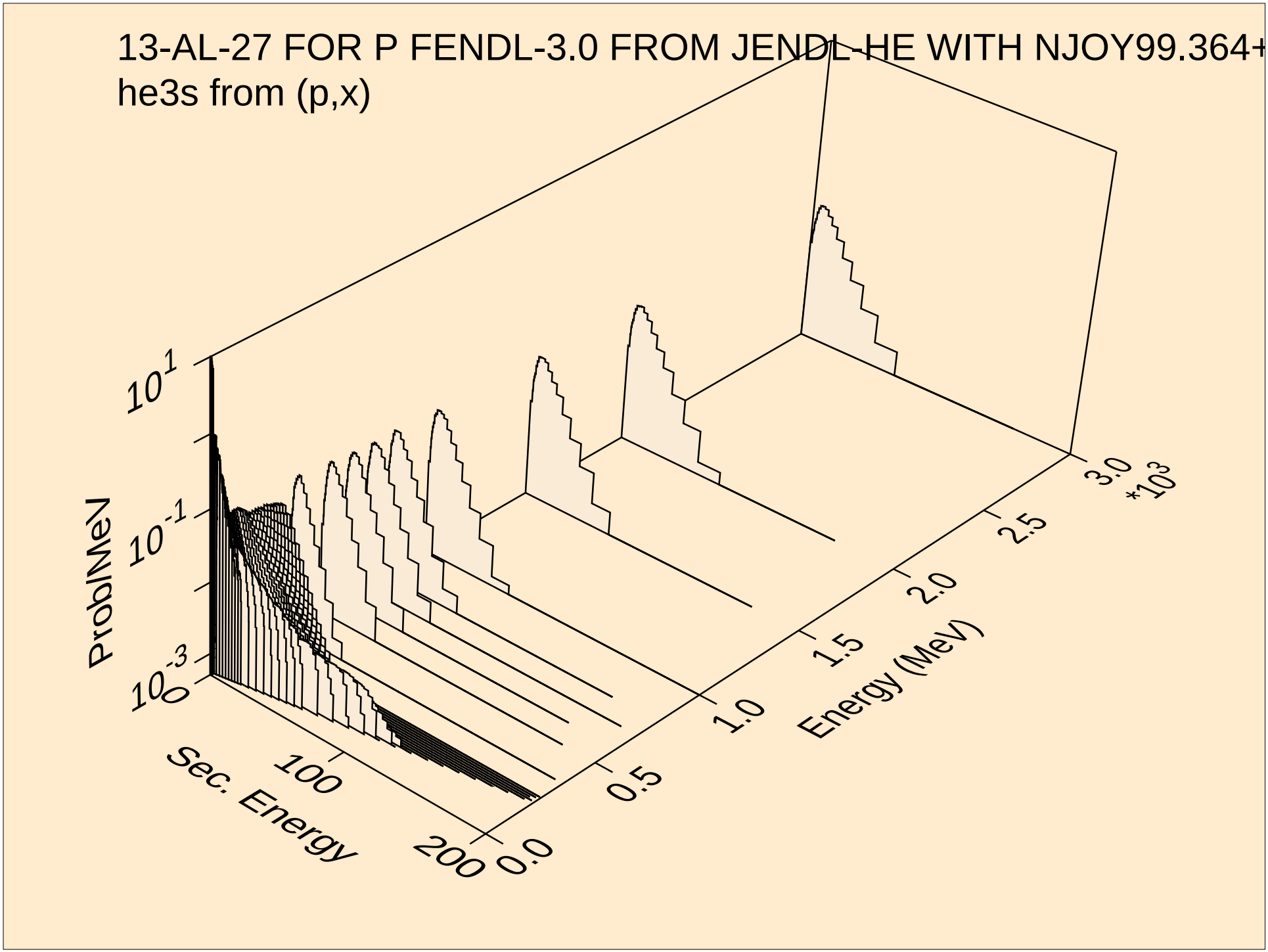

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Recoil Heating
recoil heating
Heating (MeV/reaction)
15
10
5
0
-5
-10
-15
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)

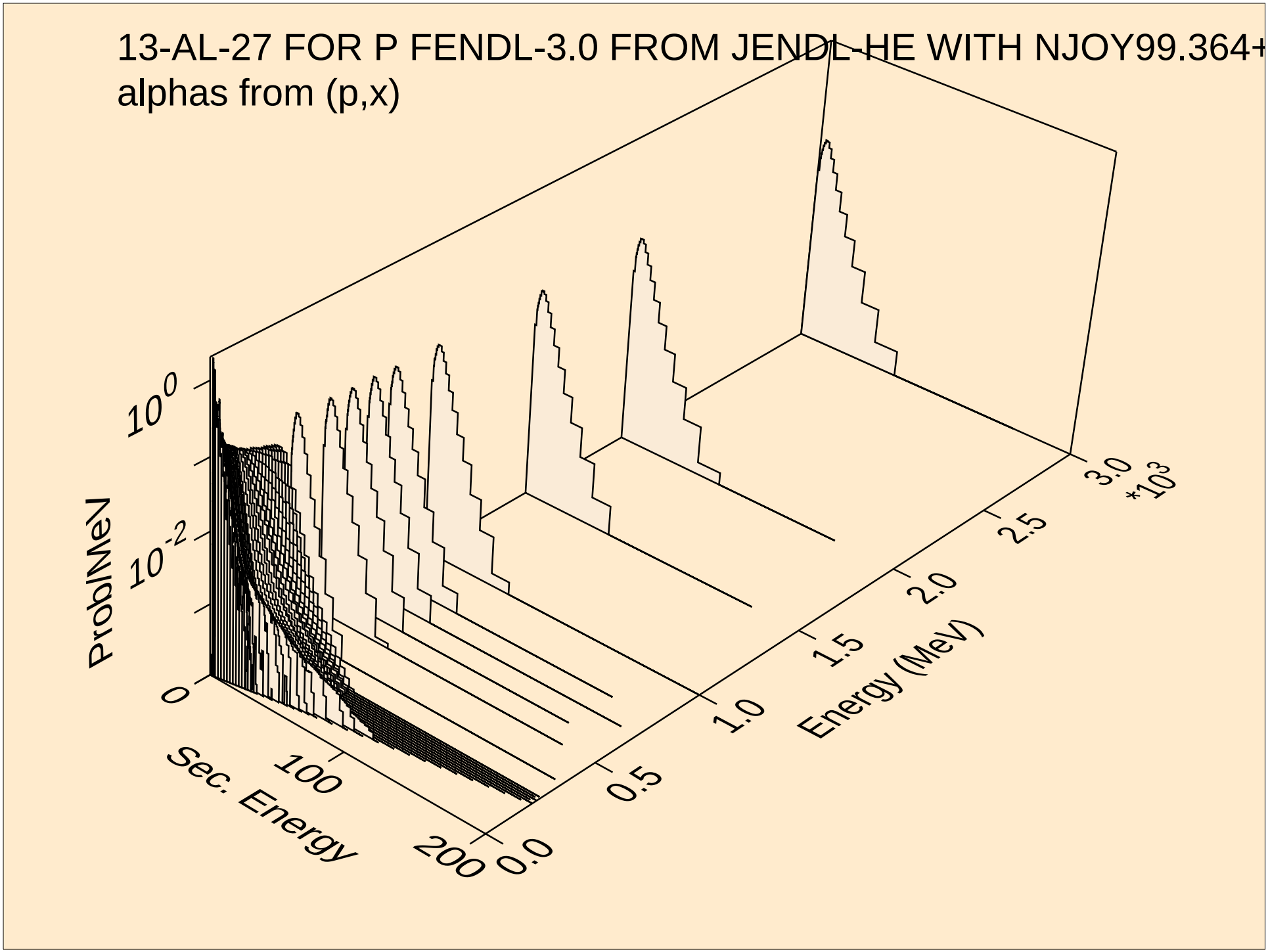

13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
Particle production cross sections
Cross section (barns)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)
neutrons
deuterons
tritons
he-3
alphas


13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
neutrons from (p,x)
Prob/MeV
10^1
10^-1
10^-3
0
200
400
Sec. Energy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)


13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
deuterons from (p,x)
Prob/MeV
10^1
10^-1
10^-3
0
200
400
Sec. Energy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)


13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
tritons from (p,x)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
0
100
200
Sec. Energy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^{3}
Energy (MeV)


13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
he3s from (p,x)
Prob/MeV
10^1
10^-1
10^-3
0
100
200
Sec. Energy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)


13-AL-27 FOR P FENDL-3.0 FROM JENDL-HE WITH NJOY99.364+
alphas from (p,x)
Prob/MeV
10^0
10^-2
0
Sec. Energy
100
200
0.0
0.5
1.0
1.5
2.0
2.5
3.0
*10^3
Energy (MeV)