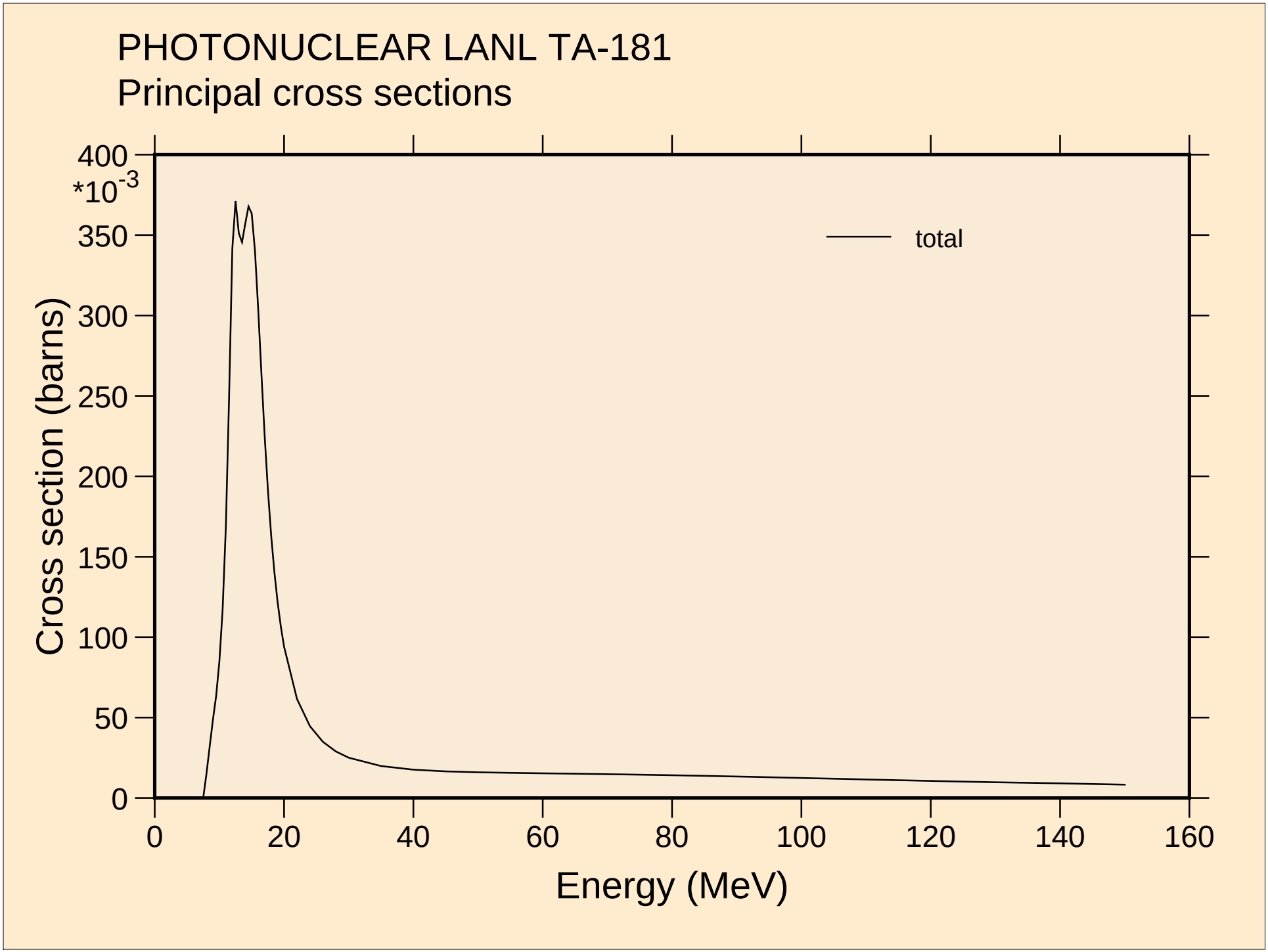
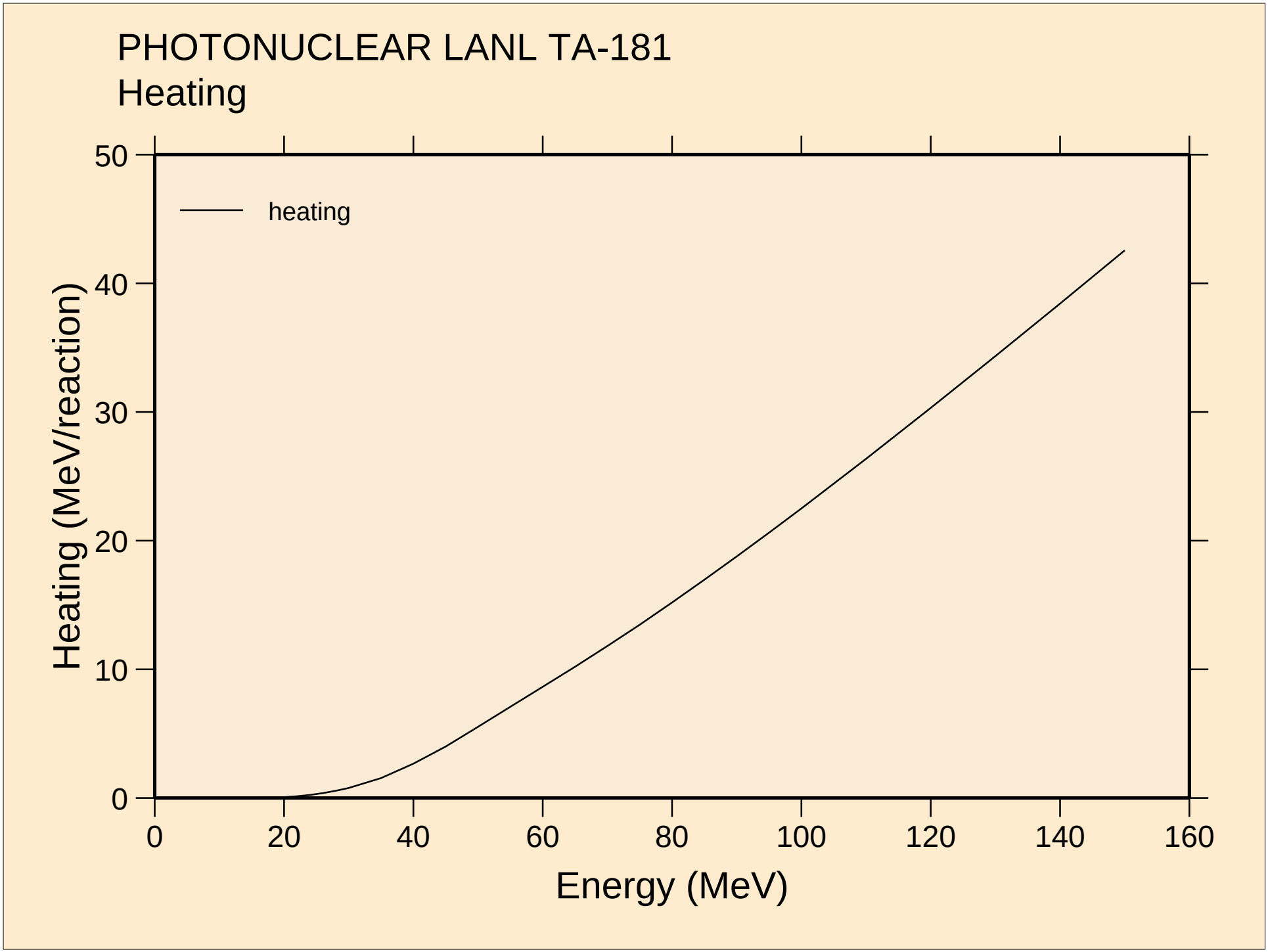
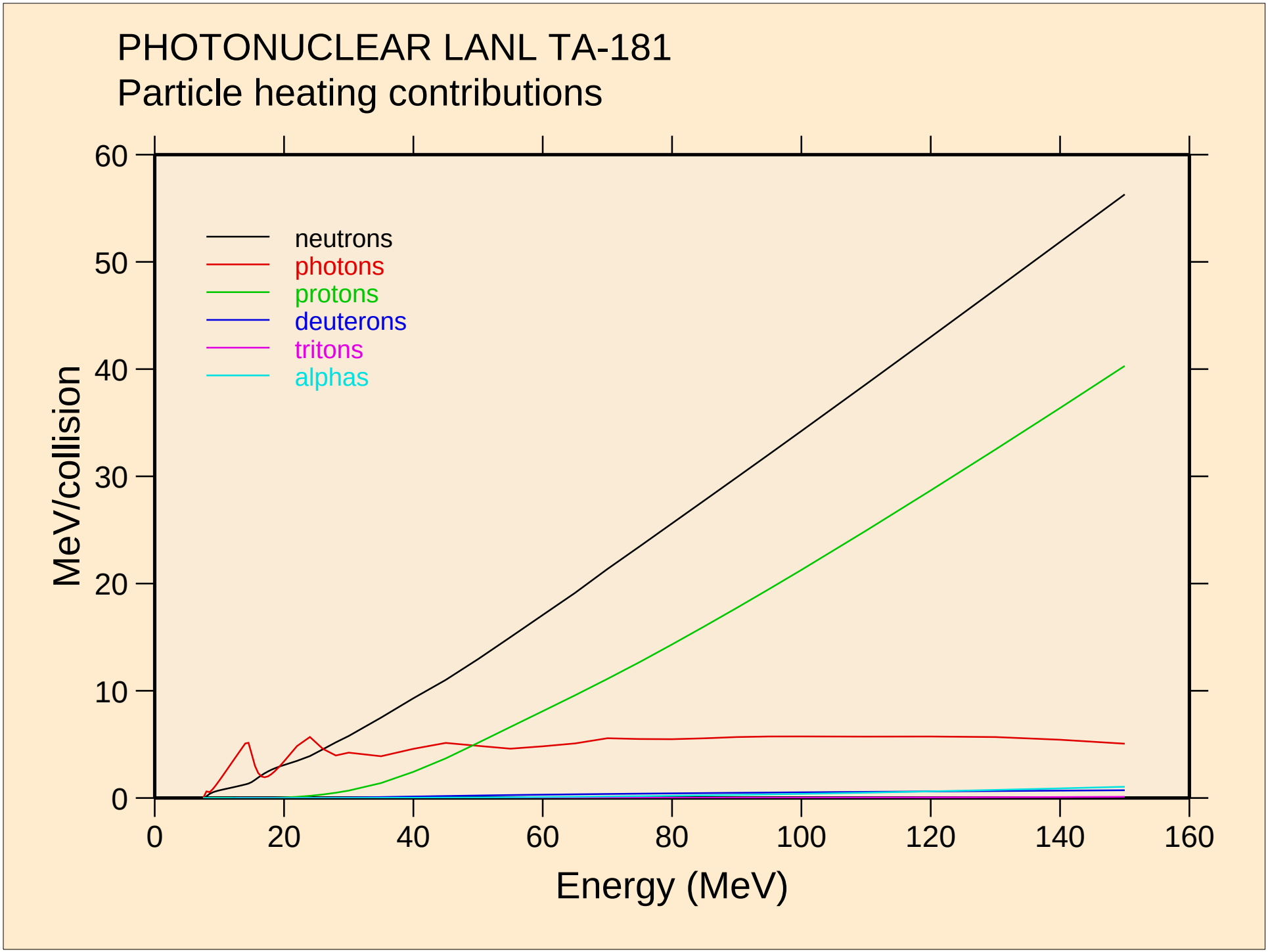
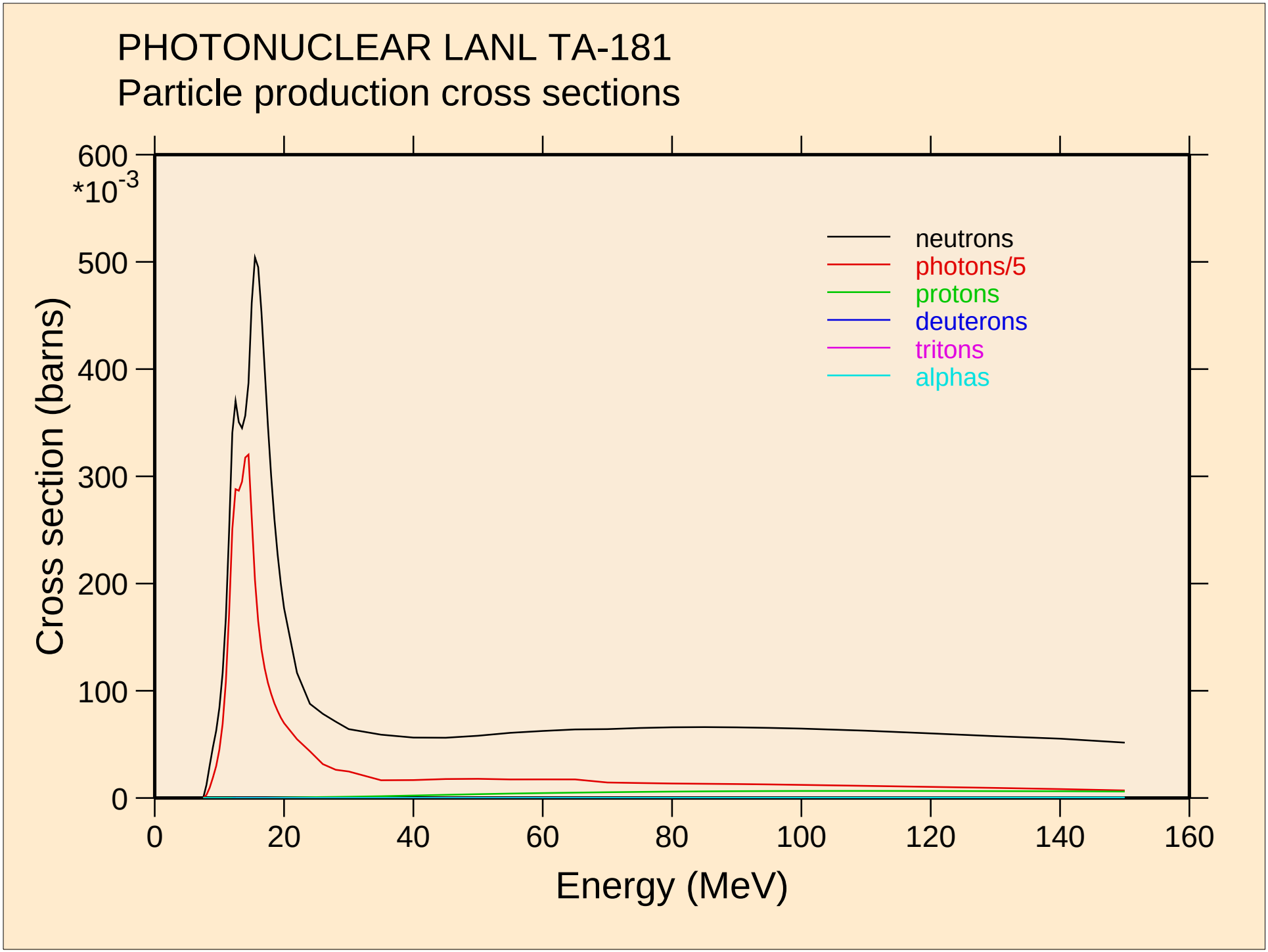
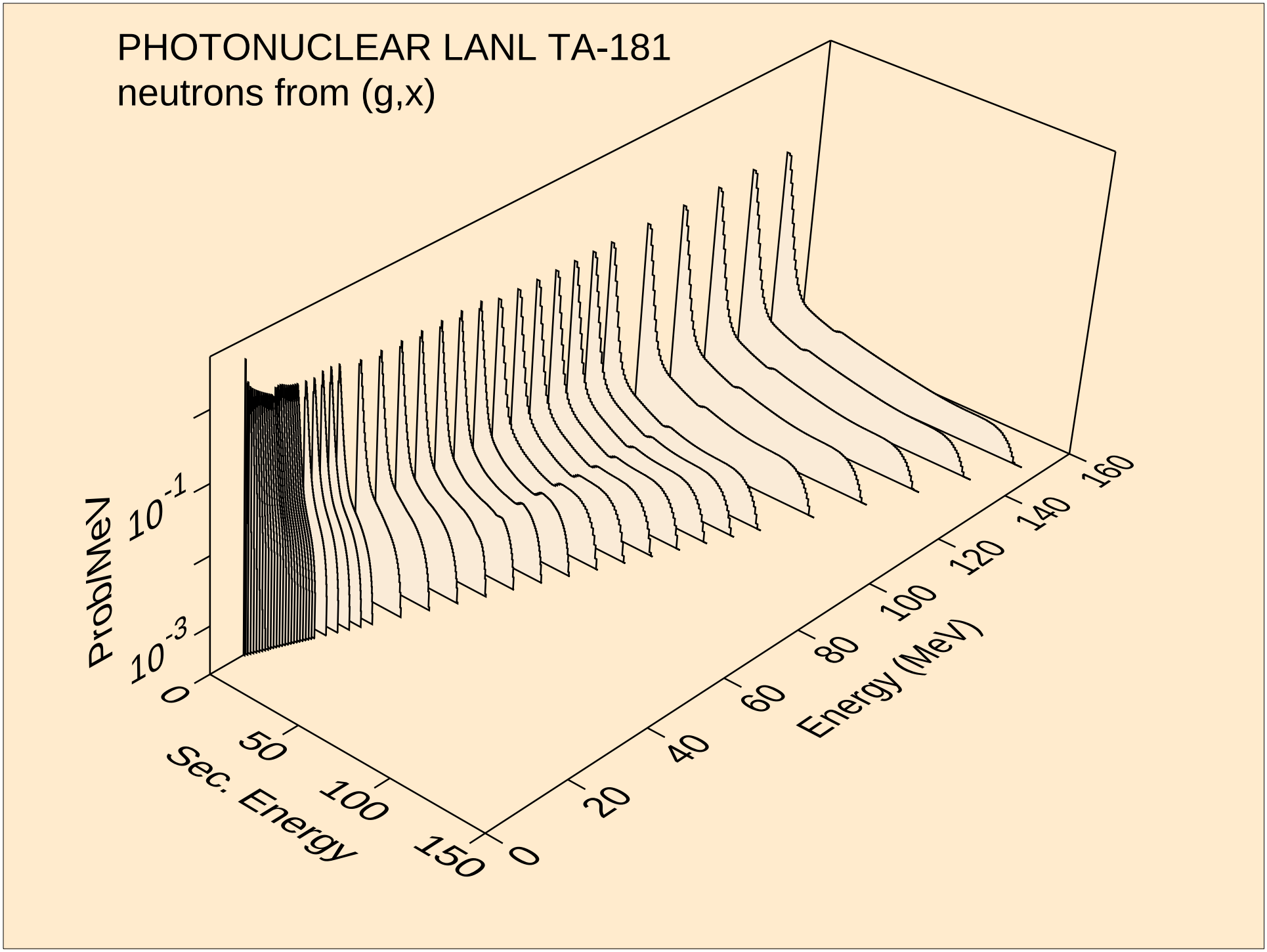
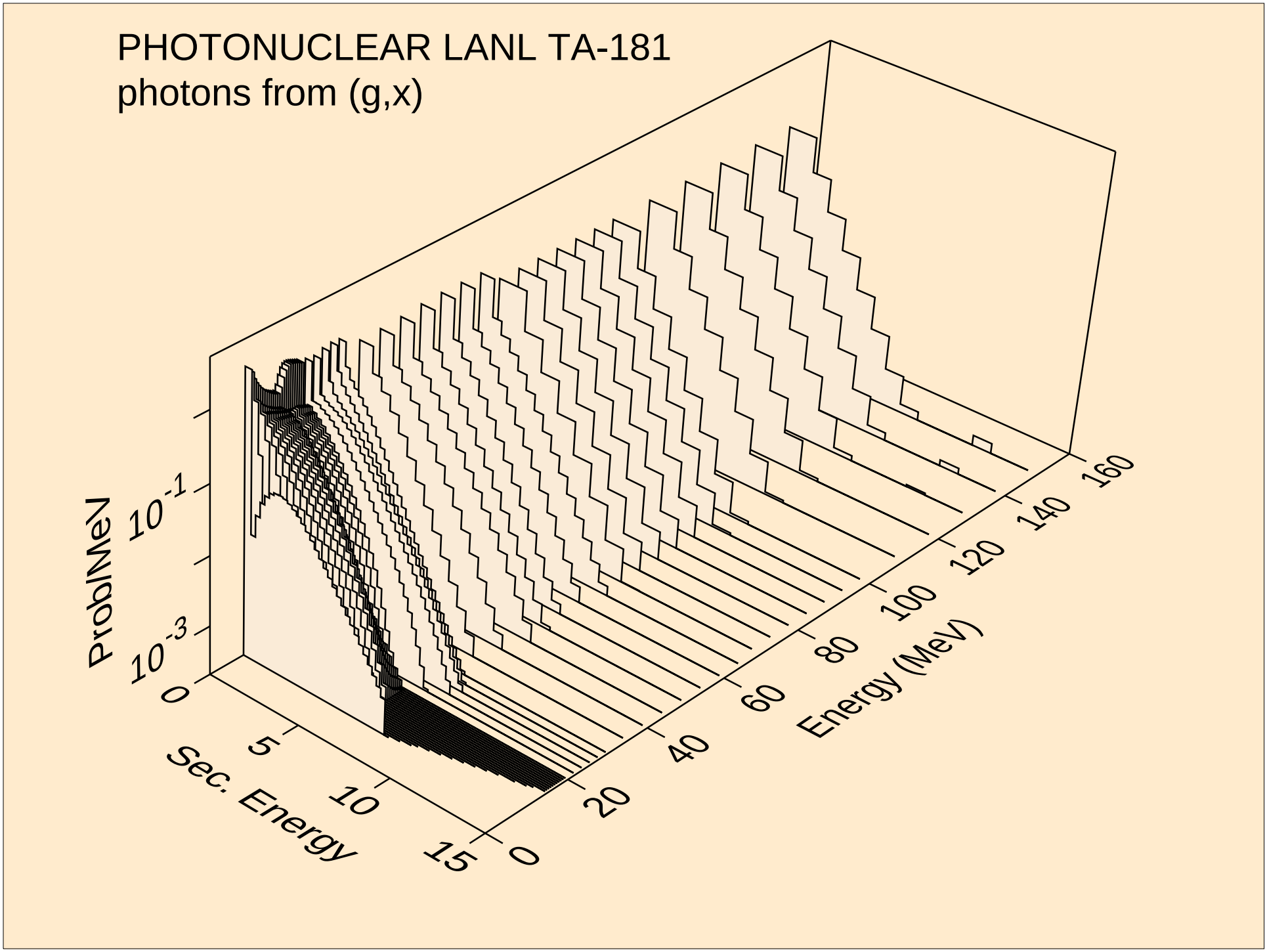

PHOTONUCLEAR LANL TA-181
Principal cross sections
Cross section (barns)
*10-3
400
350
300
250
200
150
100
50
0
0
20
40
60
80
100
120
140
160
Energy (MeV)
total

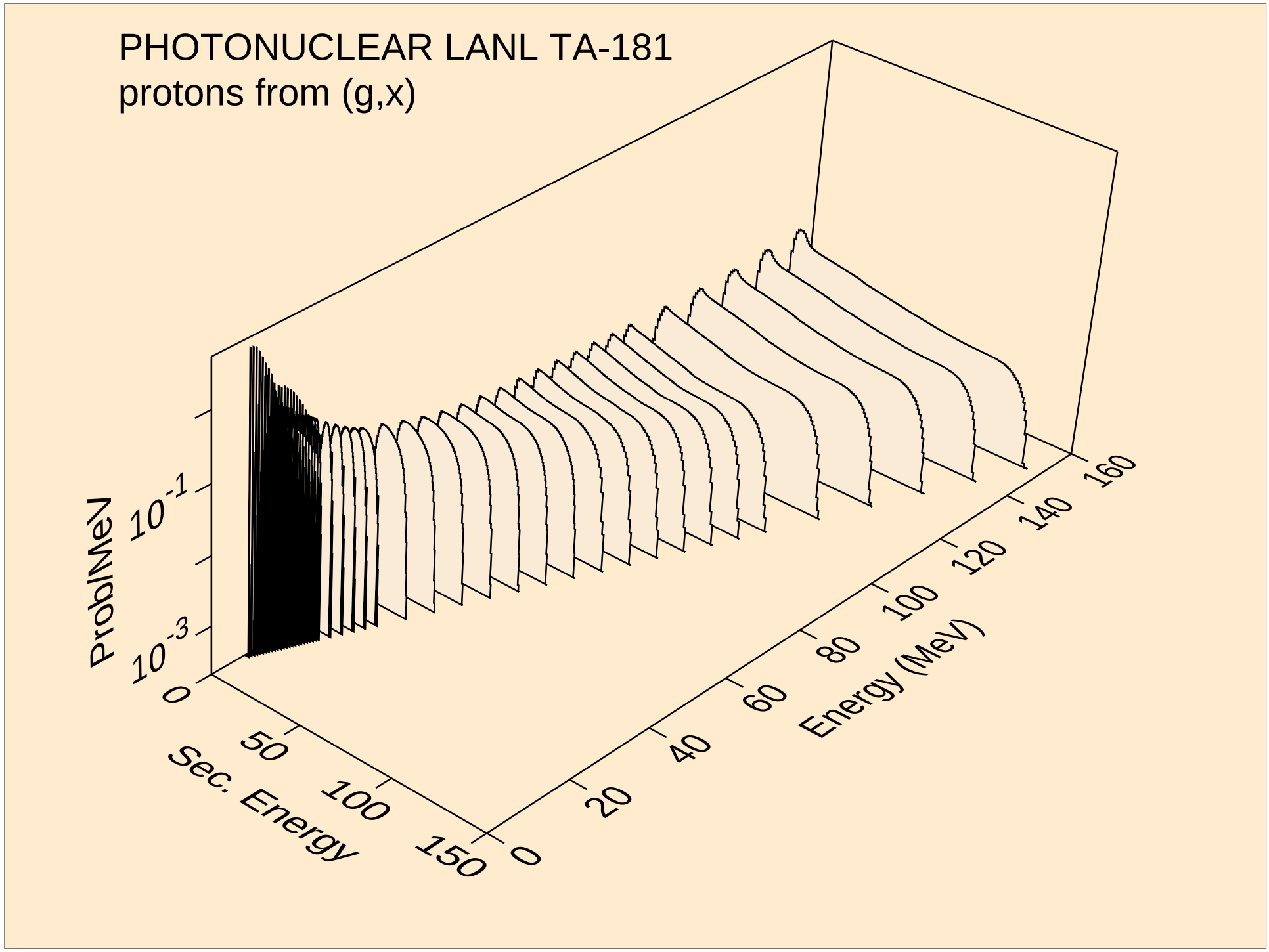

PHOTONUCLEAR LANL TA-181
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
10
20
30
40
50
0
20
40
60
80
100
120
140
160

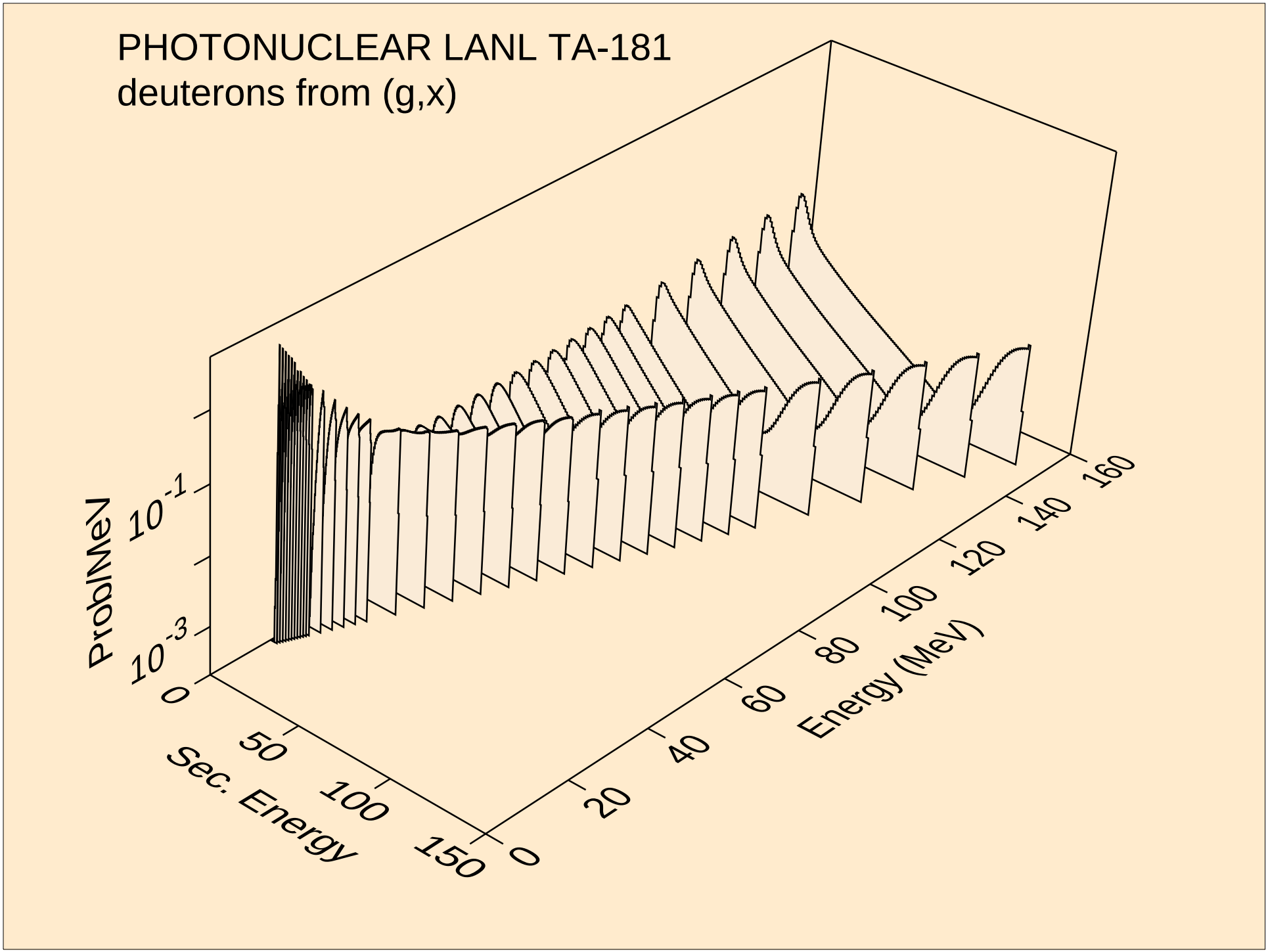

PHOTONUCLEAR LANL TA-181
Particle heating contributions
neutrons
photons
protons
deuterons
tritons
alphas
MeV/collision
Energy (MeV)
0
10
20
30
40
50
60
0
20
40
60
80
100
120
140
160

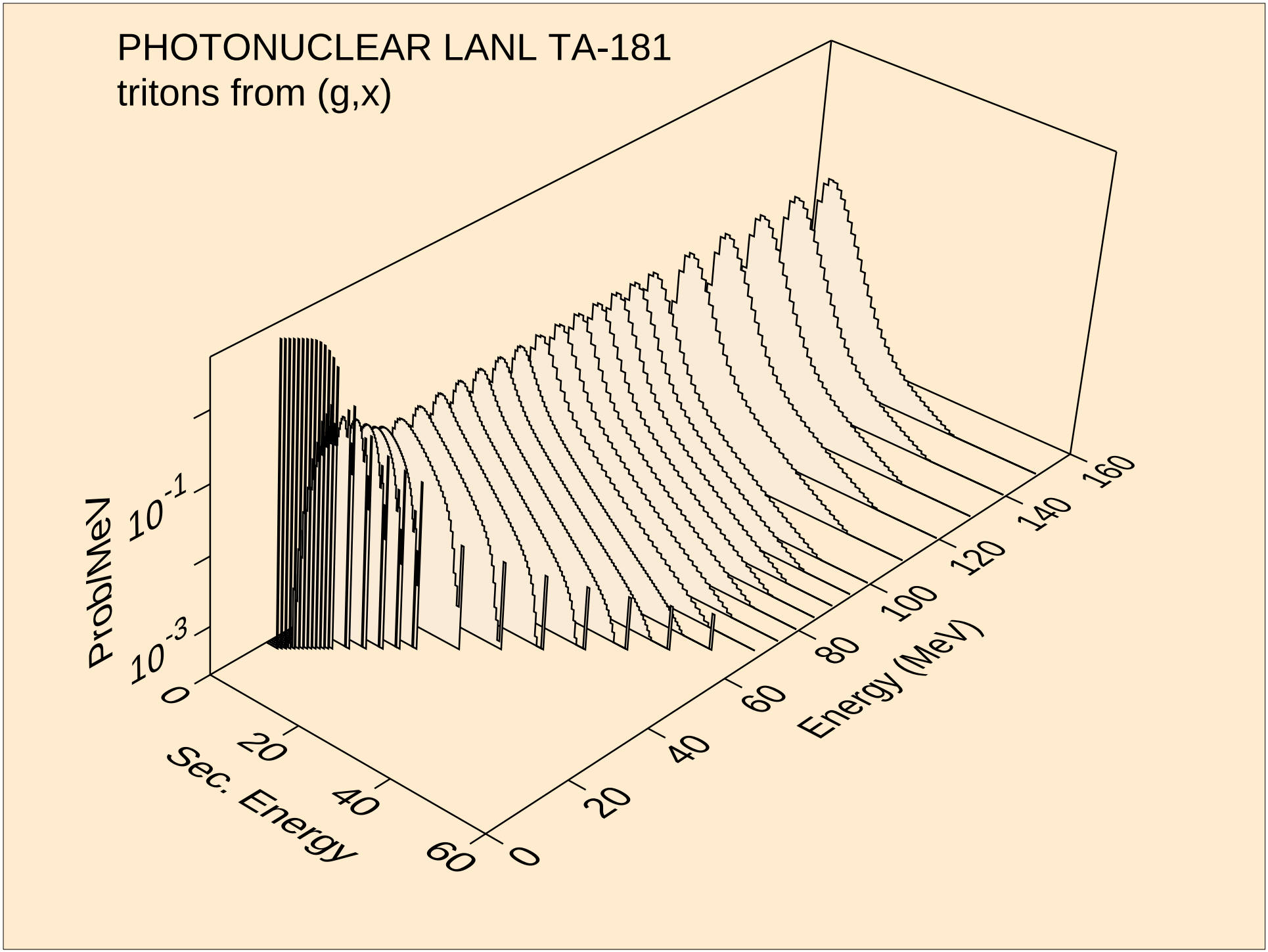

PHOTONUCLEAR LANL TA-181
Particle production cross sections
Cross section (barns)
*10-3
600
500
400
300
200
100
0
0
20
40
60
80
100
120
140
160
Energy (MeV)
neutrons
photons/5
protons
deuterons
tritons
alphas

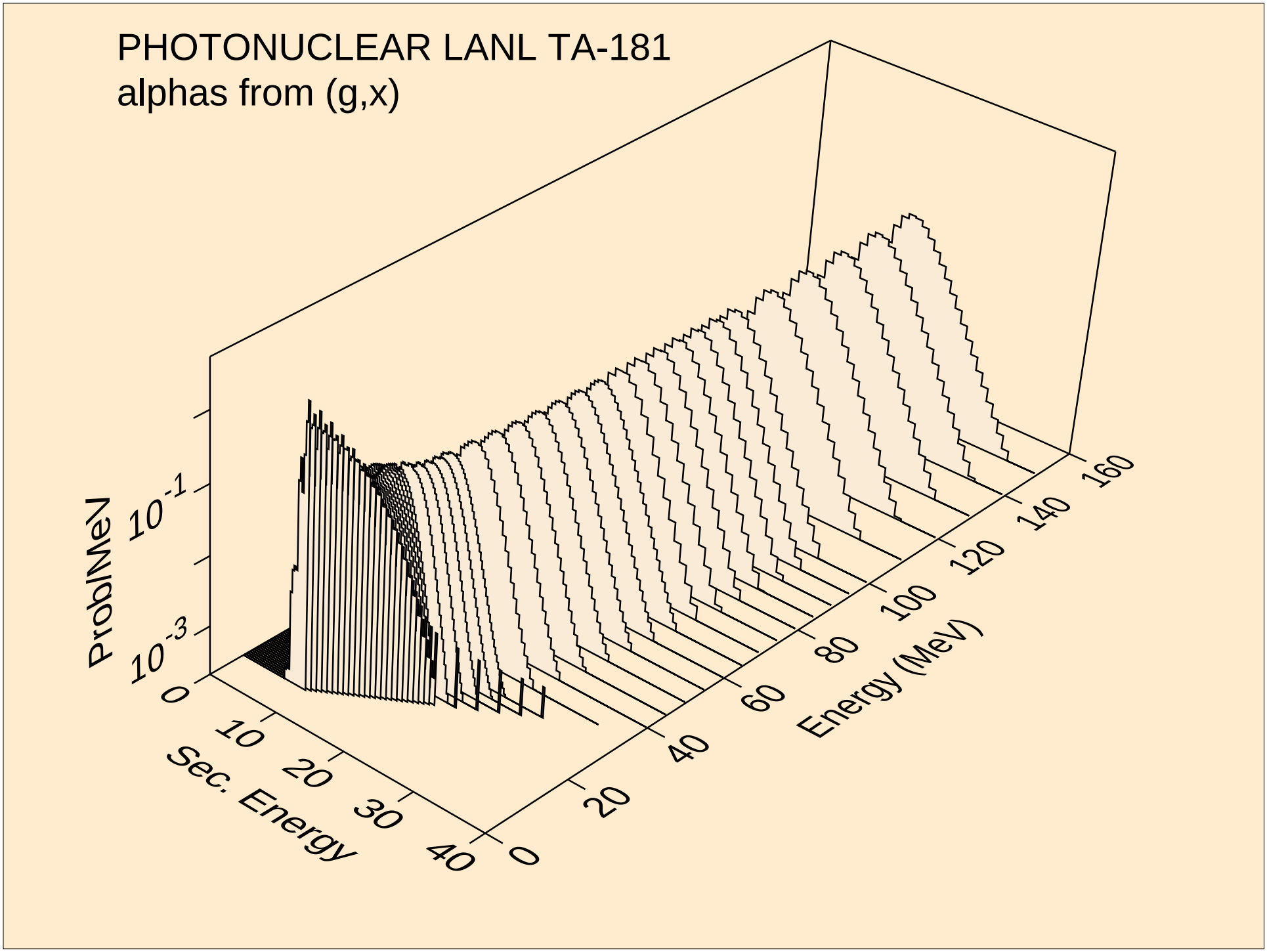

PHOTONUCLEAR LANL TA-181
neutrons from (g,x)
Prob/MeV
10-1
10-3
0
50
100
150
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)


PHOTONUCLEAR LANL TA-181
photons from (g,x)
Prob/MeV
10-1
10-3
0
5
10
15
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)


PHOTONUCLEAR LANL TA-181
protons from (g,x)
Prob/MeV
10-1
10-3
0
50
100
150
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)


PHOTONUCLEAR LANL TA-181
deuterons from (g,x)
Prob/MeV
10-1
10-3
0
50
100
150
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)


PHOTONUCLEAR LANL TA-181
tritons from (g,x)
Prob/MeV
10-1
10-3
0
20
40
60
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)


PHOTONUCLEAR LANL TA-181
alphas from (g,x)
Prob/MeV
10-1
10-3
0
10
20
30
40
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)