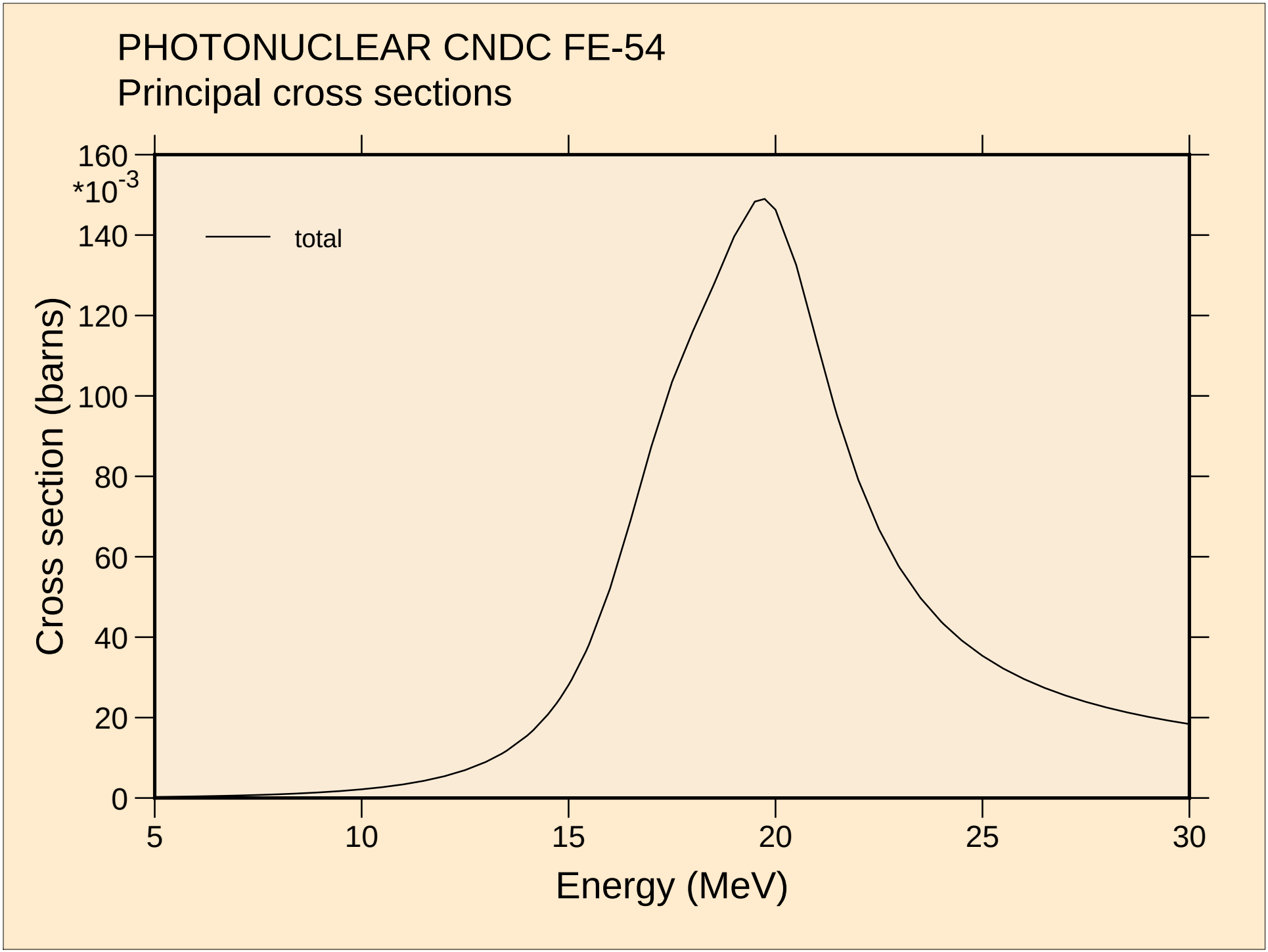
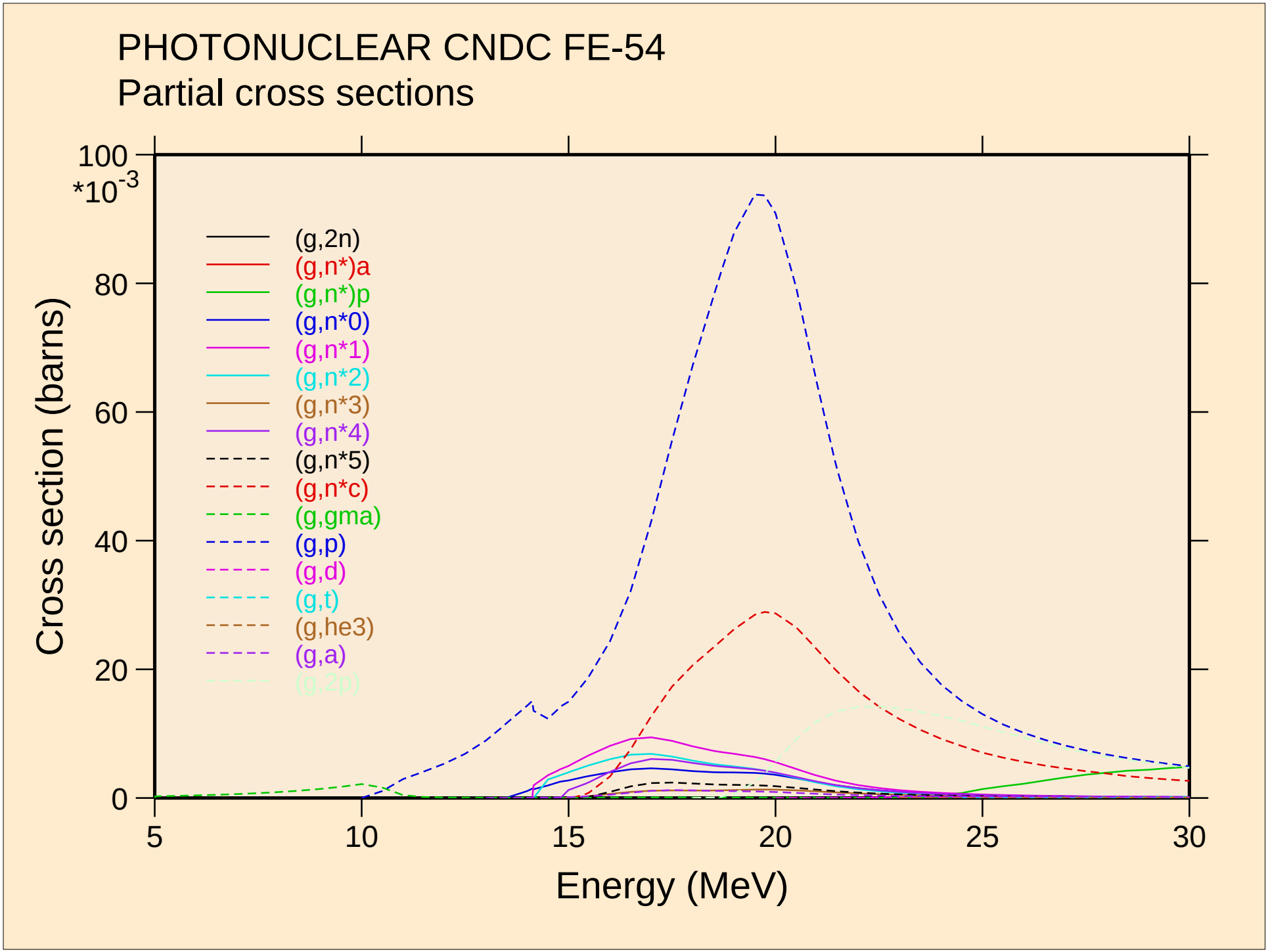
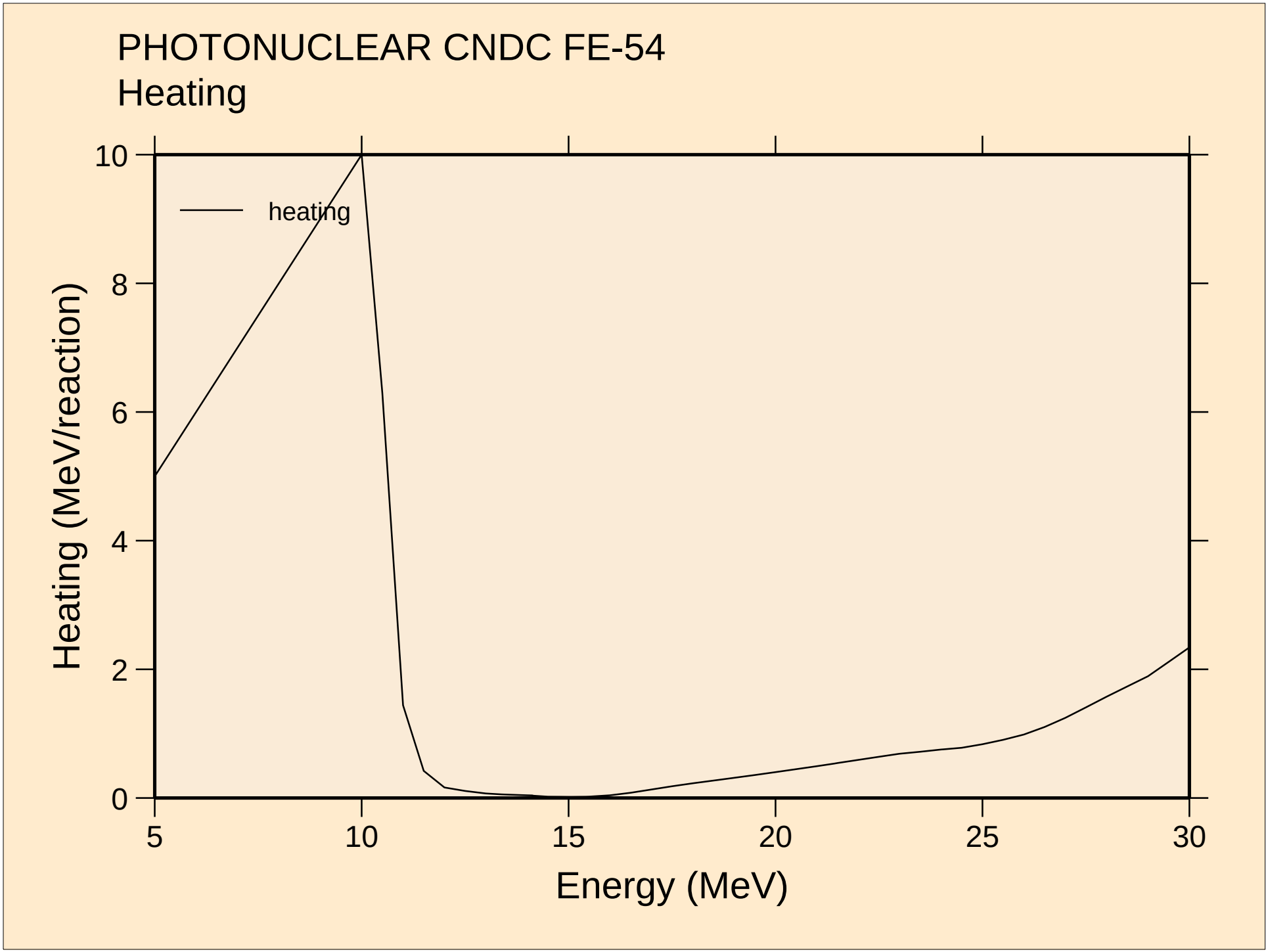
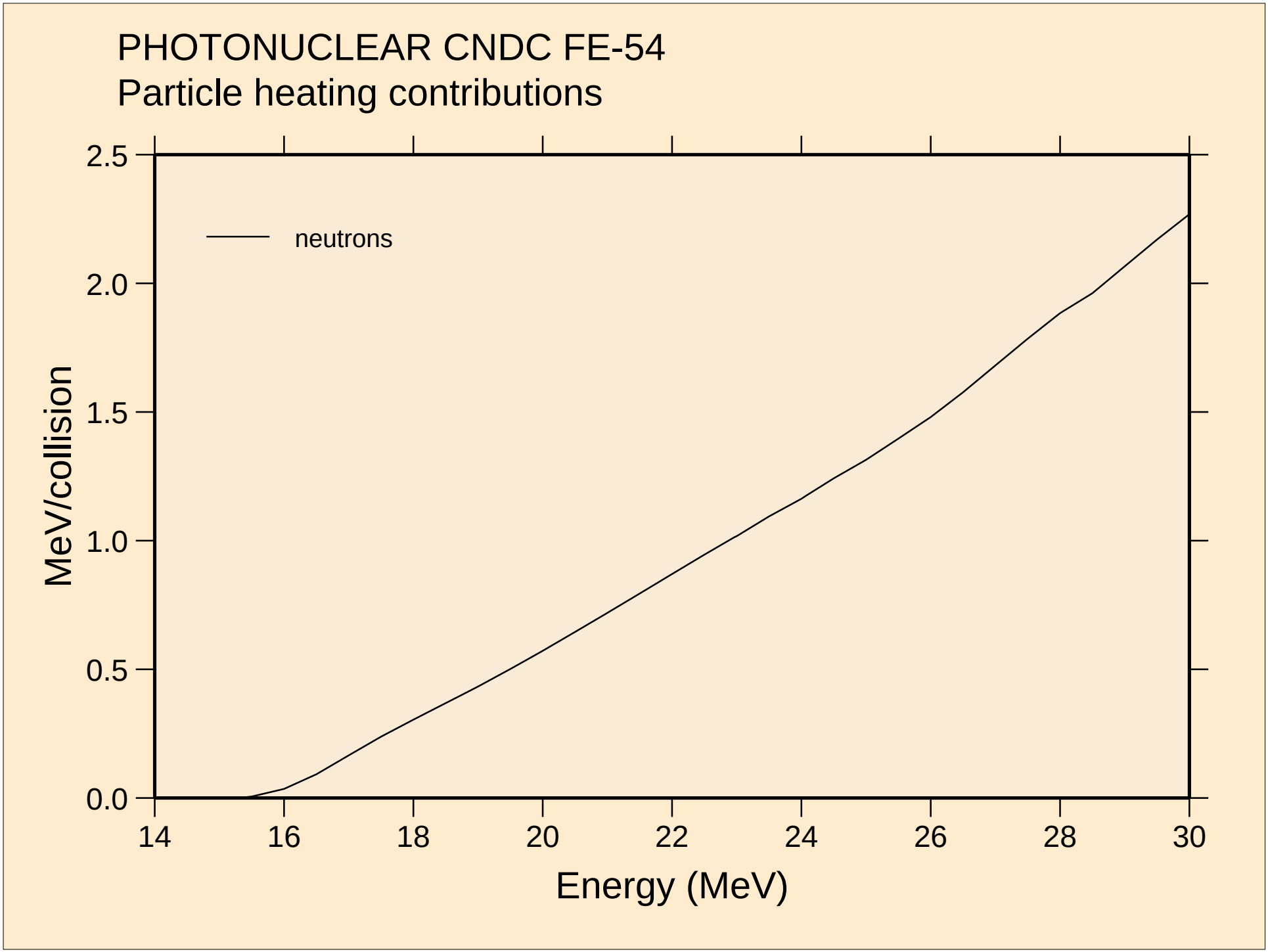
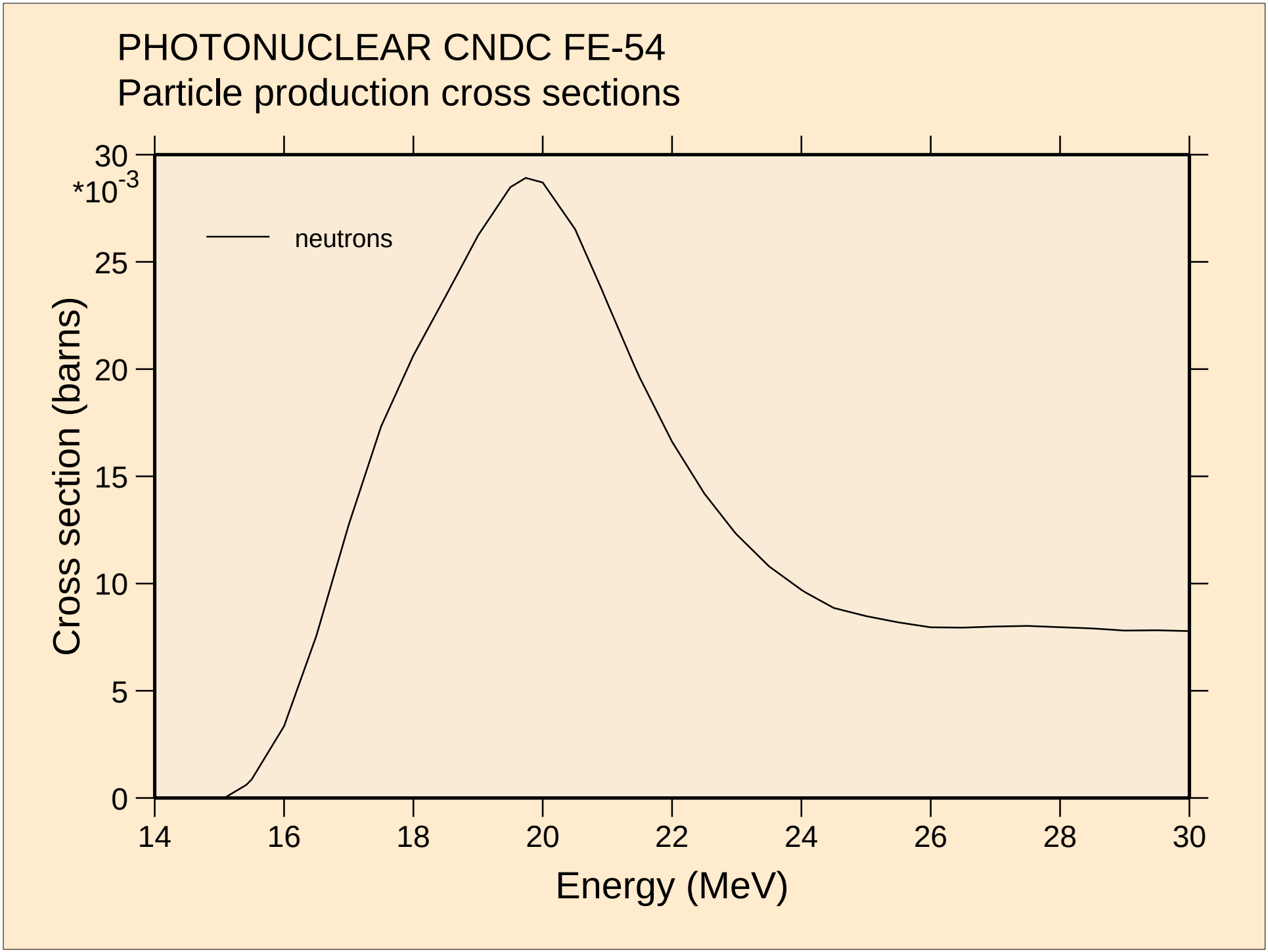
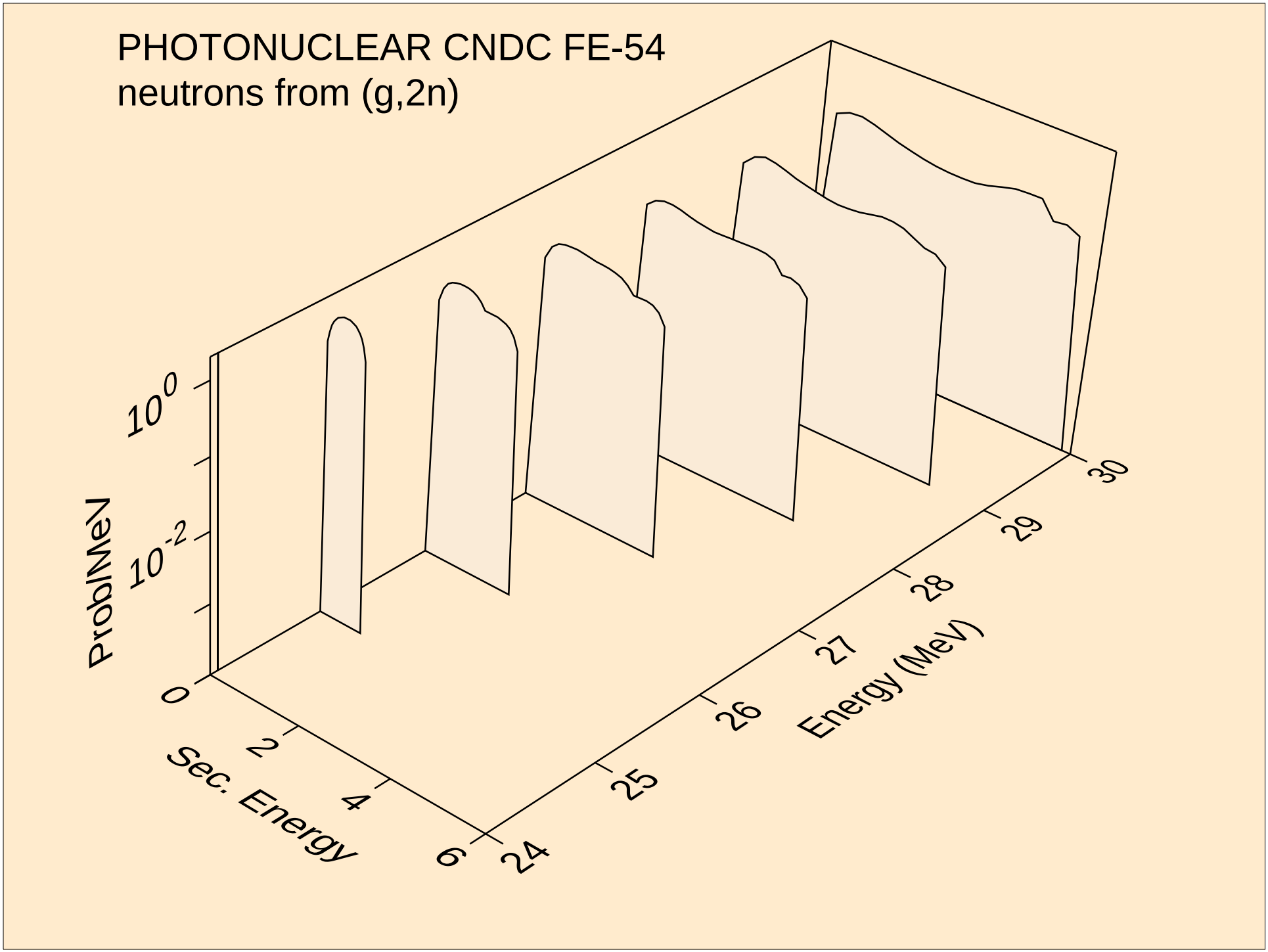

PHOTONUCLEAR CNDC FE-54
Principal cross sections
160
*10-3
140
120
100
80
60
40
20
0
Cross section (barns)
total
5
10
15
20
25
30
Energy (MeV)

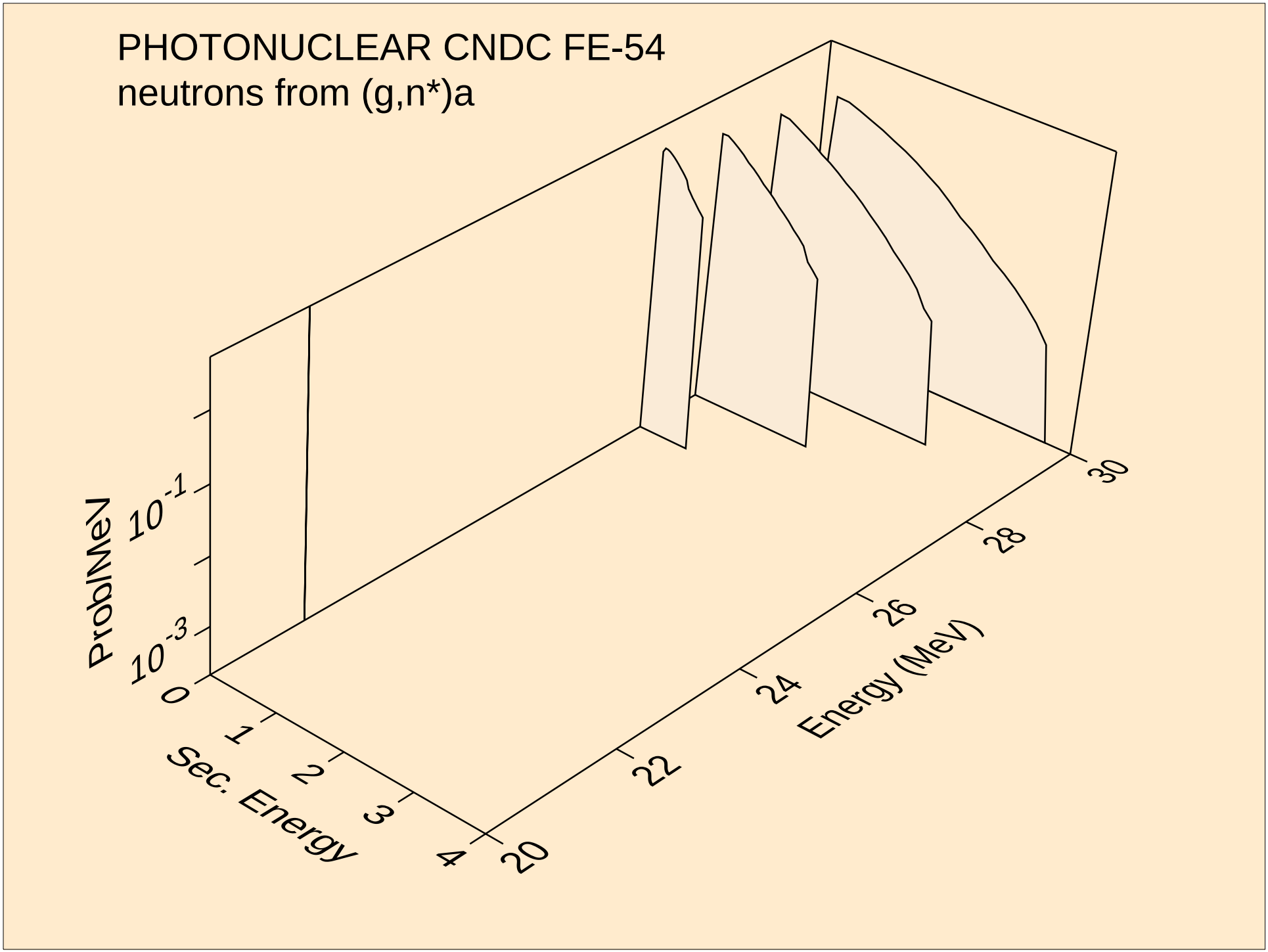

PHOTONUCLEAR CNDC FE-54
Partial cross sections
Cross section (barns)
100
*10-3
80
60
40
20
0
5
10
15
20
25
30
Energy (MeV)
(g,2n)
(g,n*)a
(g,n*)p
(g,n*0)
(g,n*1)
(g,n*2)
(g,n*3)
(g,n*4)
(g,n*5)
(g,n*c)
(g,gma)
(g,p)
(g,d)
(g,t)
(g,he3)
(g,a)
(g,2p)

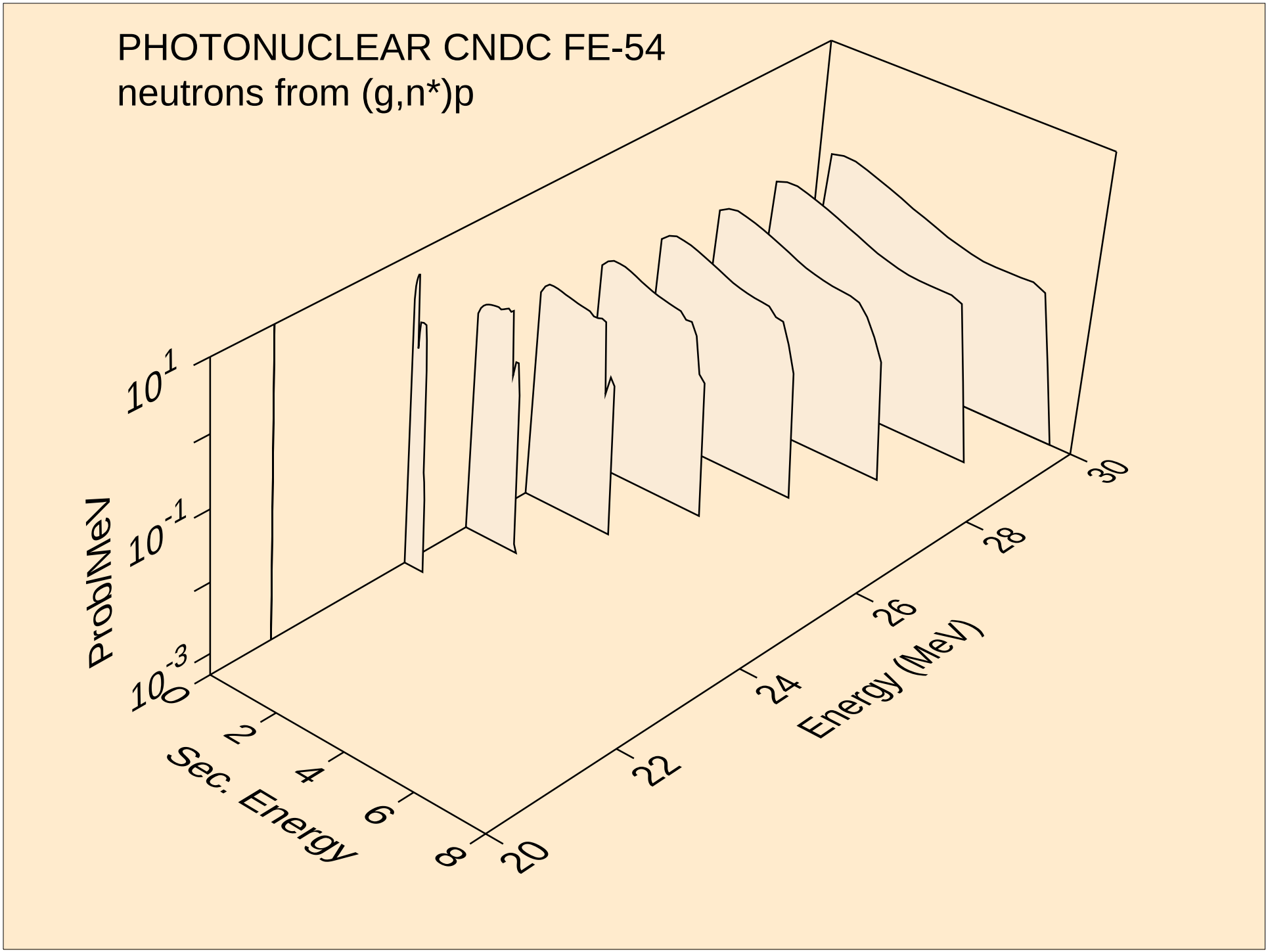

PHOTONUCLEAR CNDC FE-54
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
2
4
6
8
10
5
10
15
20
25
30

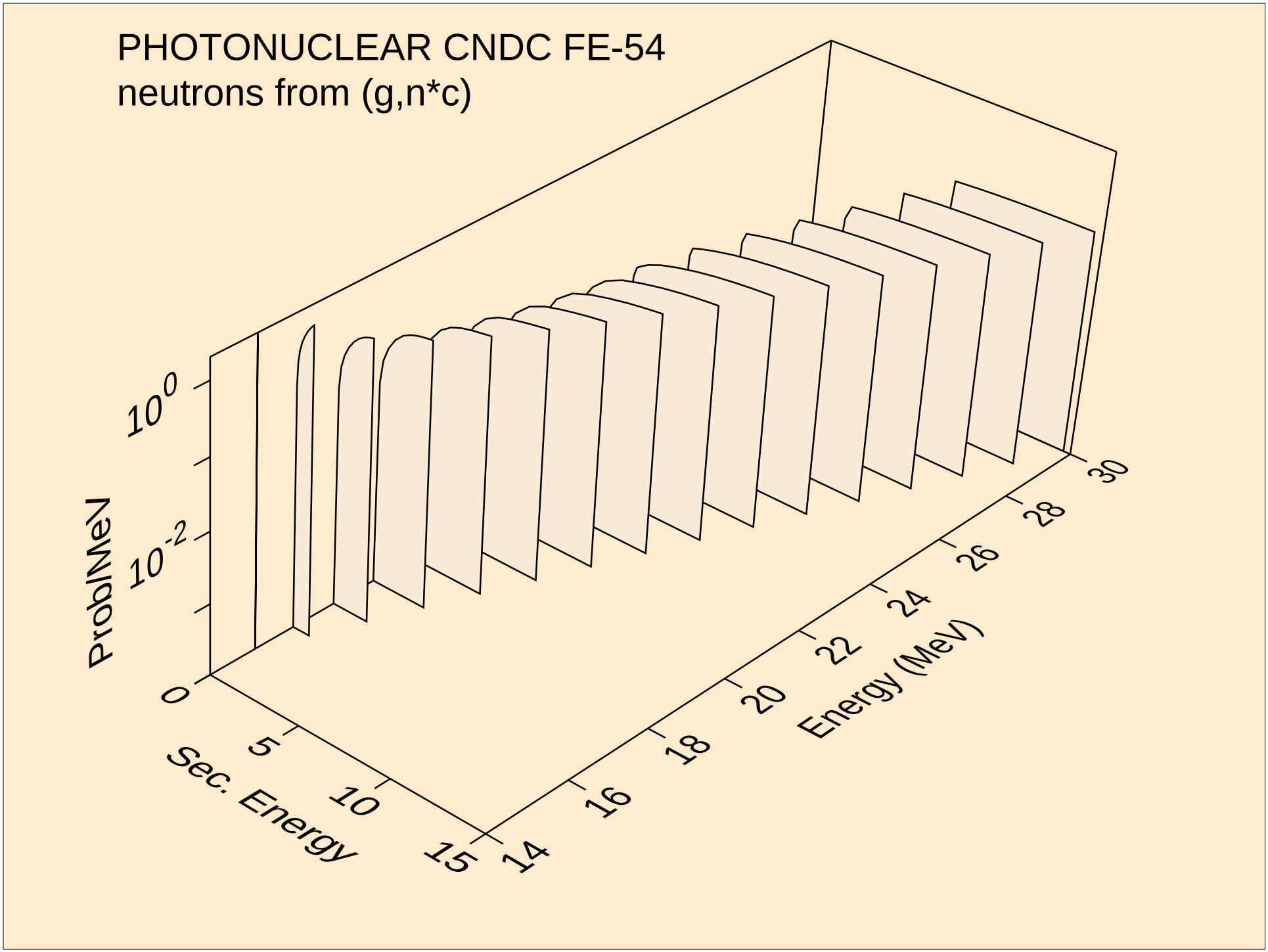

PHOTONUCLEAR CNDC FE-54
Particle heating contributions
neutrons
MeV/collision
2.5
2.0
1.5
1.0
0.5
0.0
14
16
18
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC FE-54
Particle production cross sections
*10-3
neutrons
Cross section (barns)
30
25
20
15
10
5
0
14
16
18
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC FE-54
neutrons from (g,2n)
Prob/MeV
10^0
10^-2
0
Sec. Energy
2
4
6
24
25
26
27
28
29
30
Energy (MeV)


PHOTONUCLEAR CNDC FE-54
neutrons from (g,n*)a
Prob/MeV
10-1
10-3
0
Sec. Energy
1
2
3
4
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC FE-54
neutrons from (g,n*)p
Prob/MeV
10^1
10^-1
10^-3
0
2
4
6
8
Sec. Energy
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC FE-54
neutrons from (g,n*c)
Prob/MeV
10^{0}
10^{-2}
0
5
10
15
Sec. Energy
14
16
18
20
22
24
26
28
30
Energy (MeV)