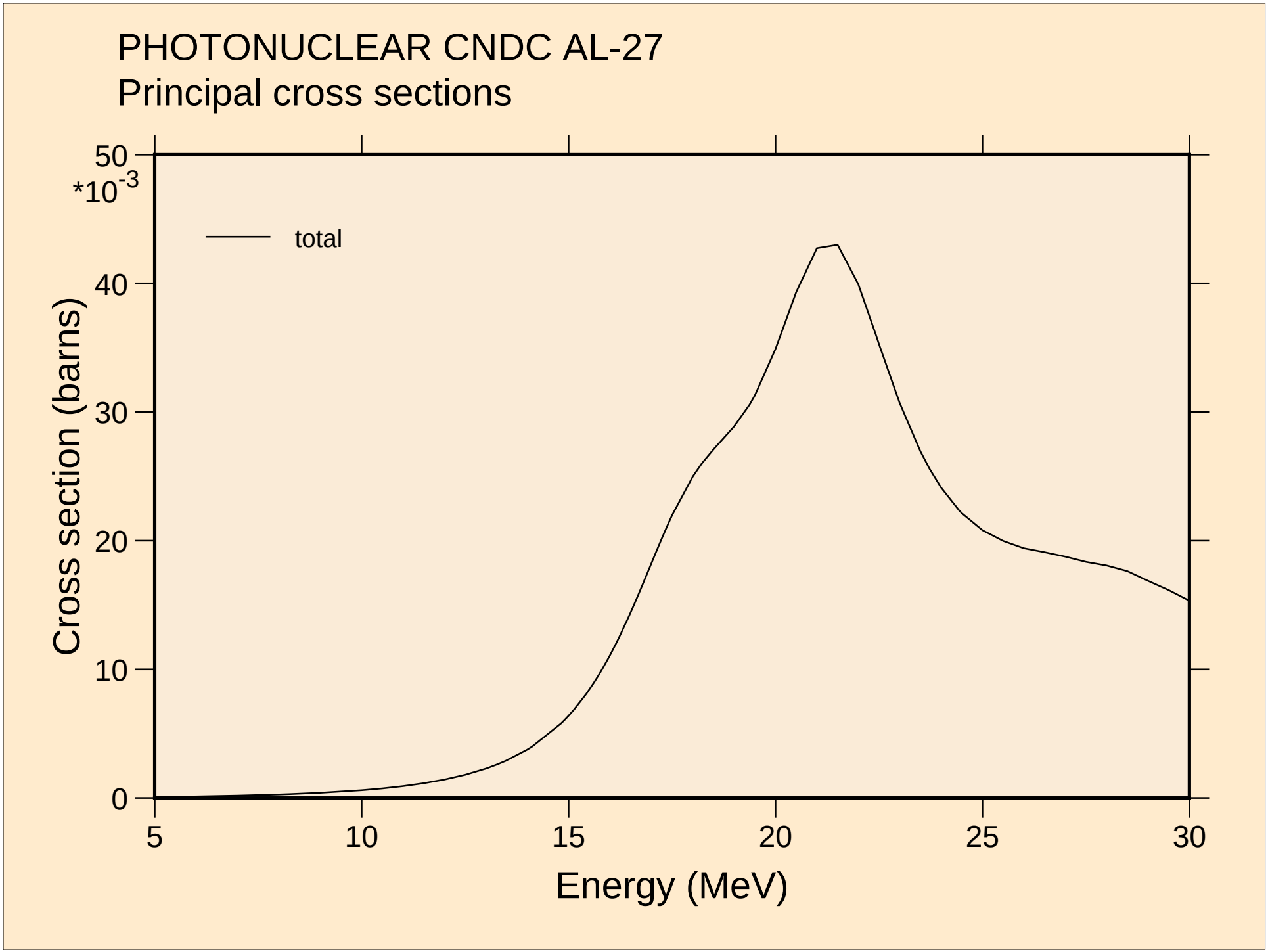
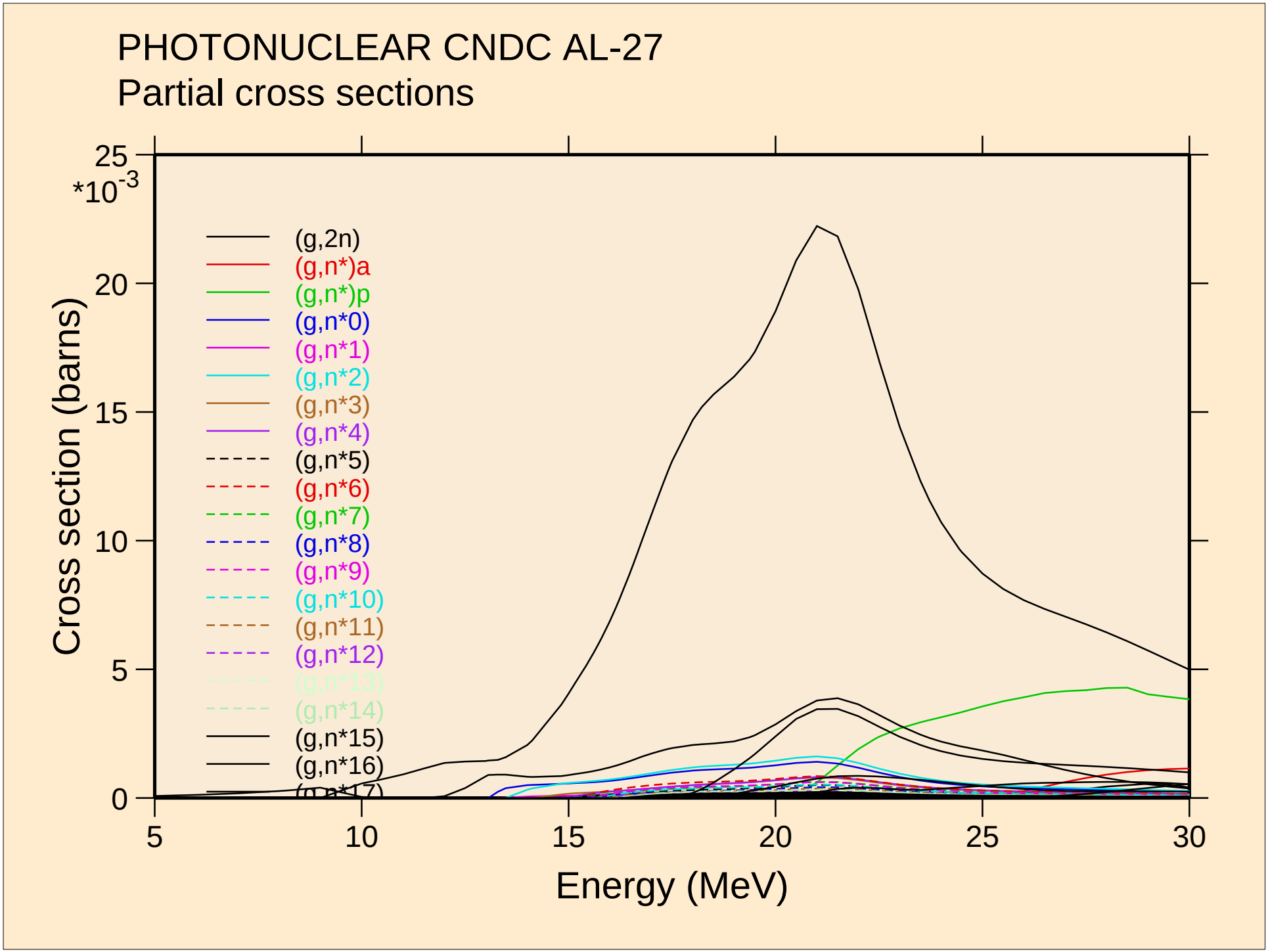
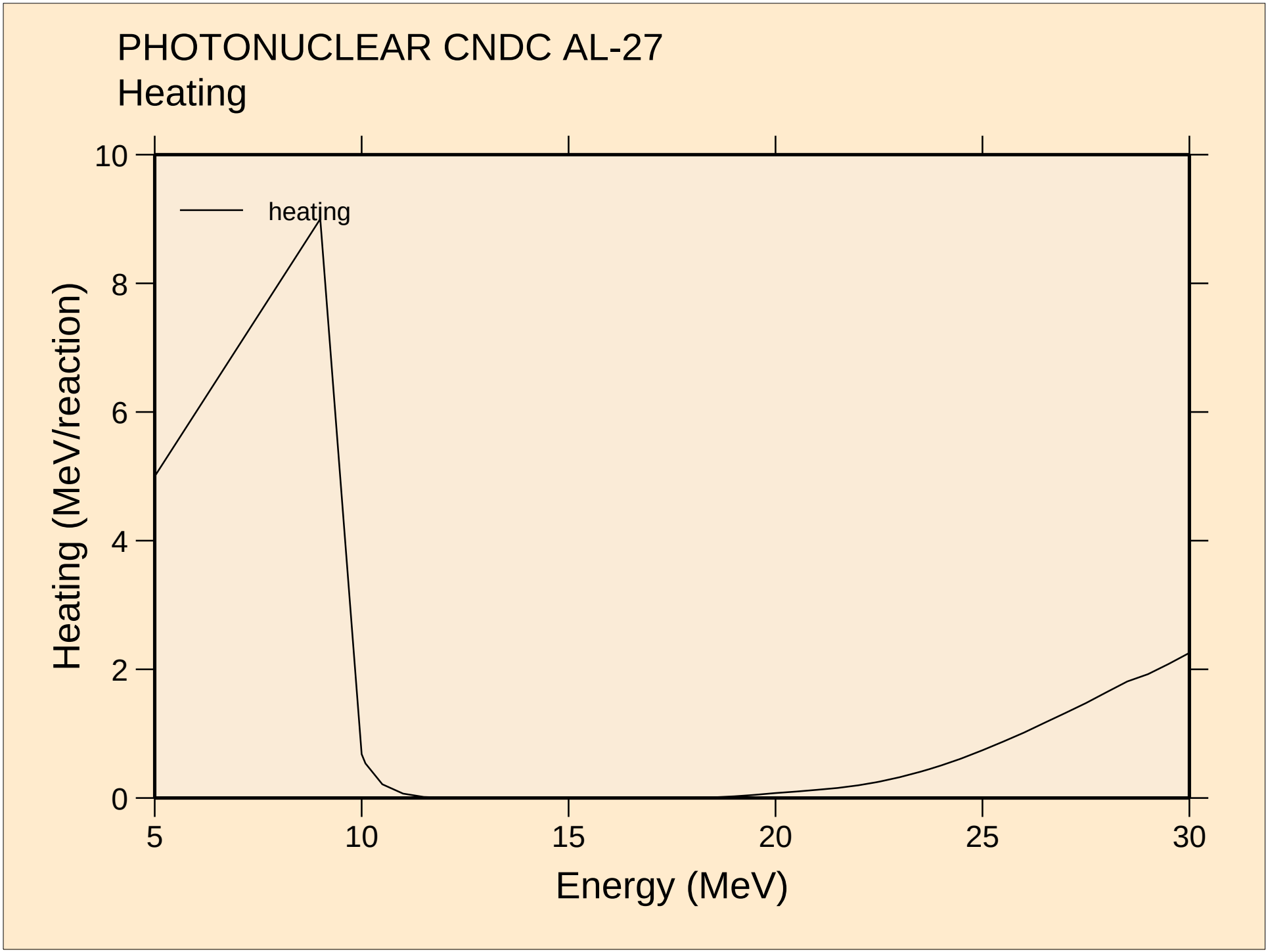
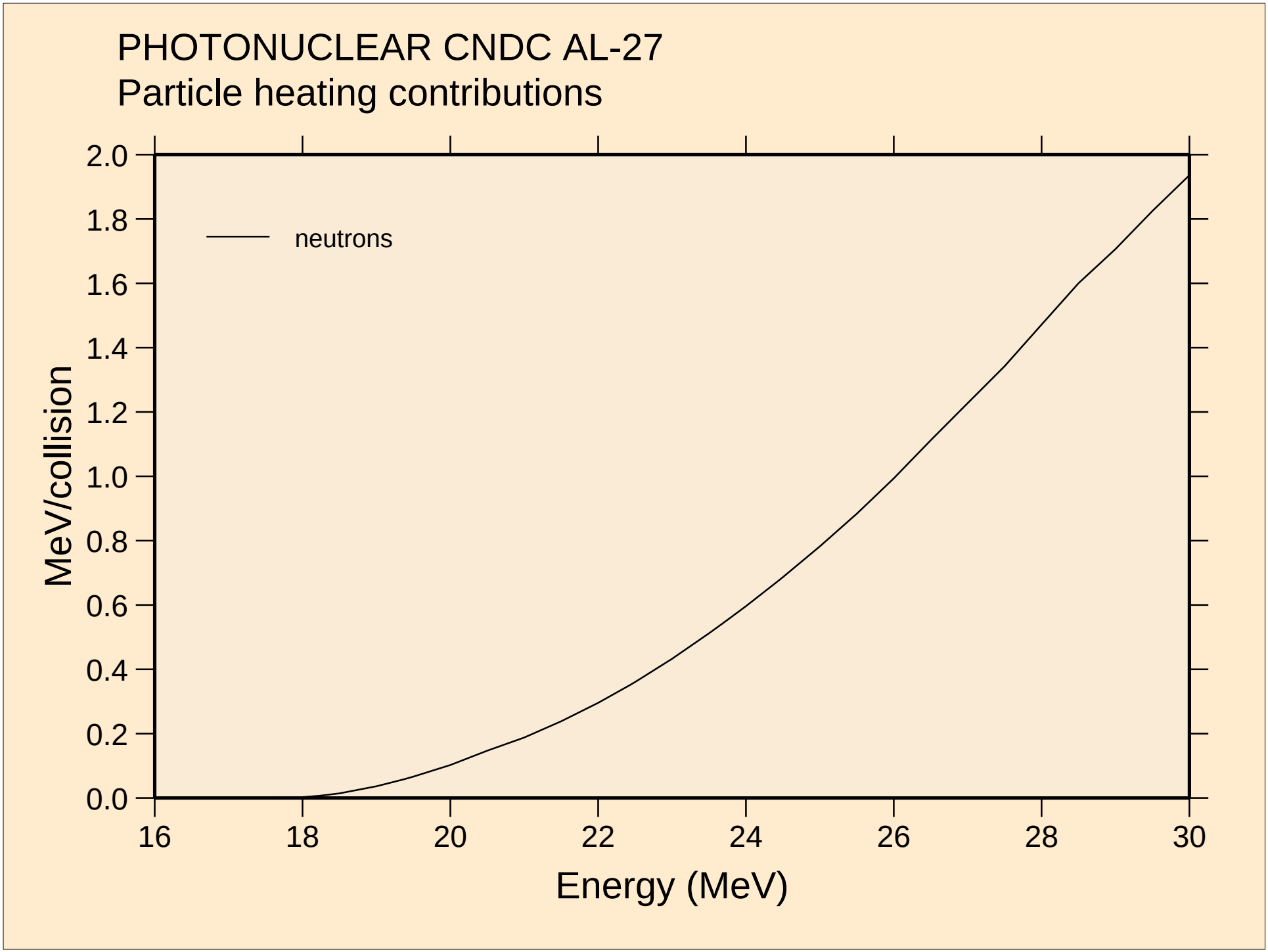
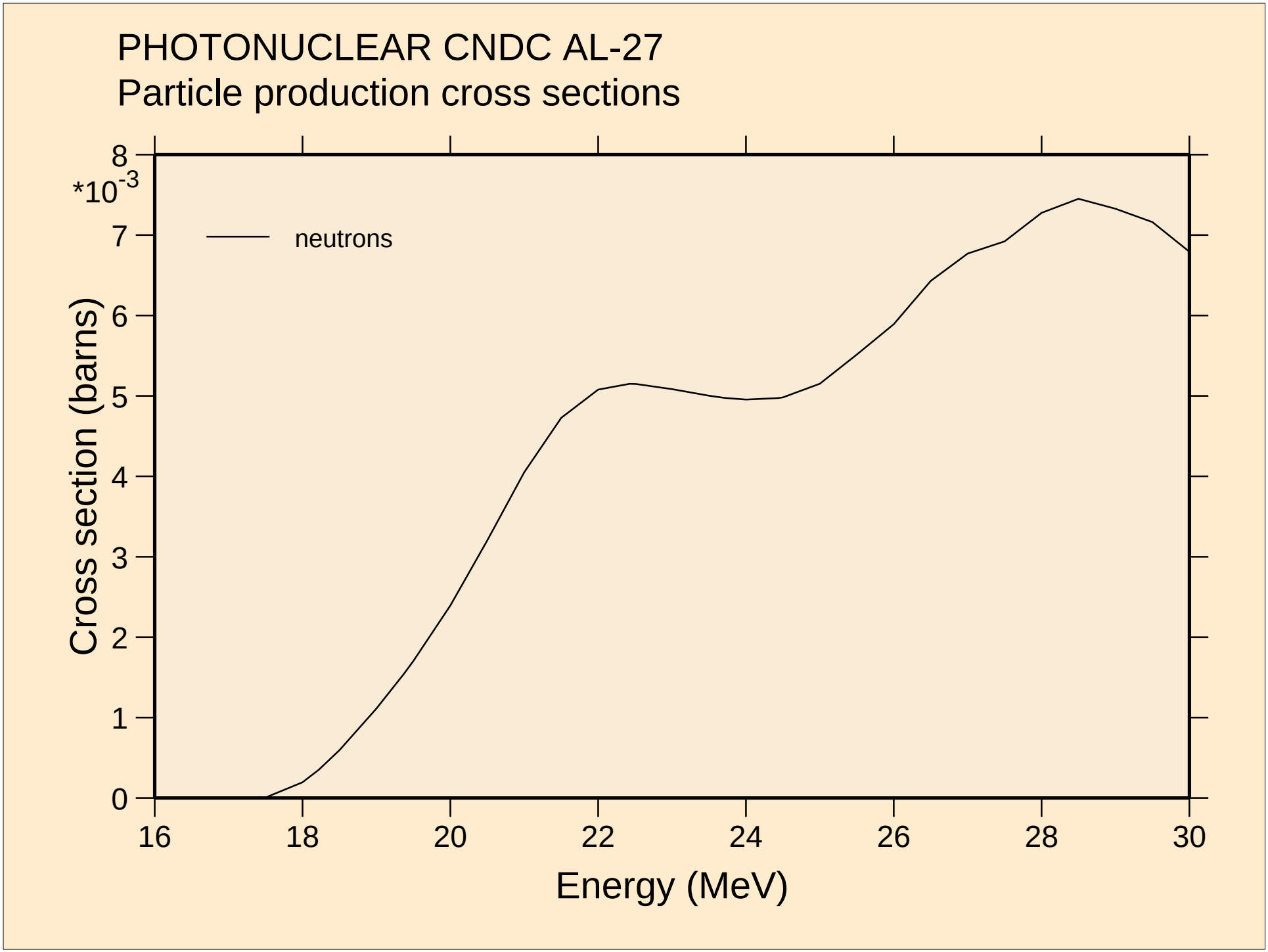
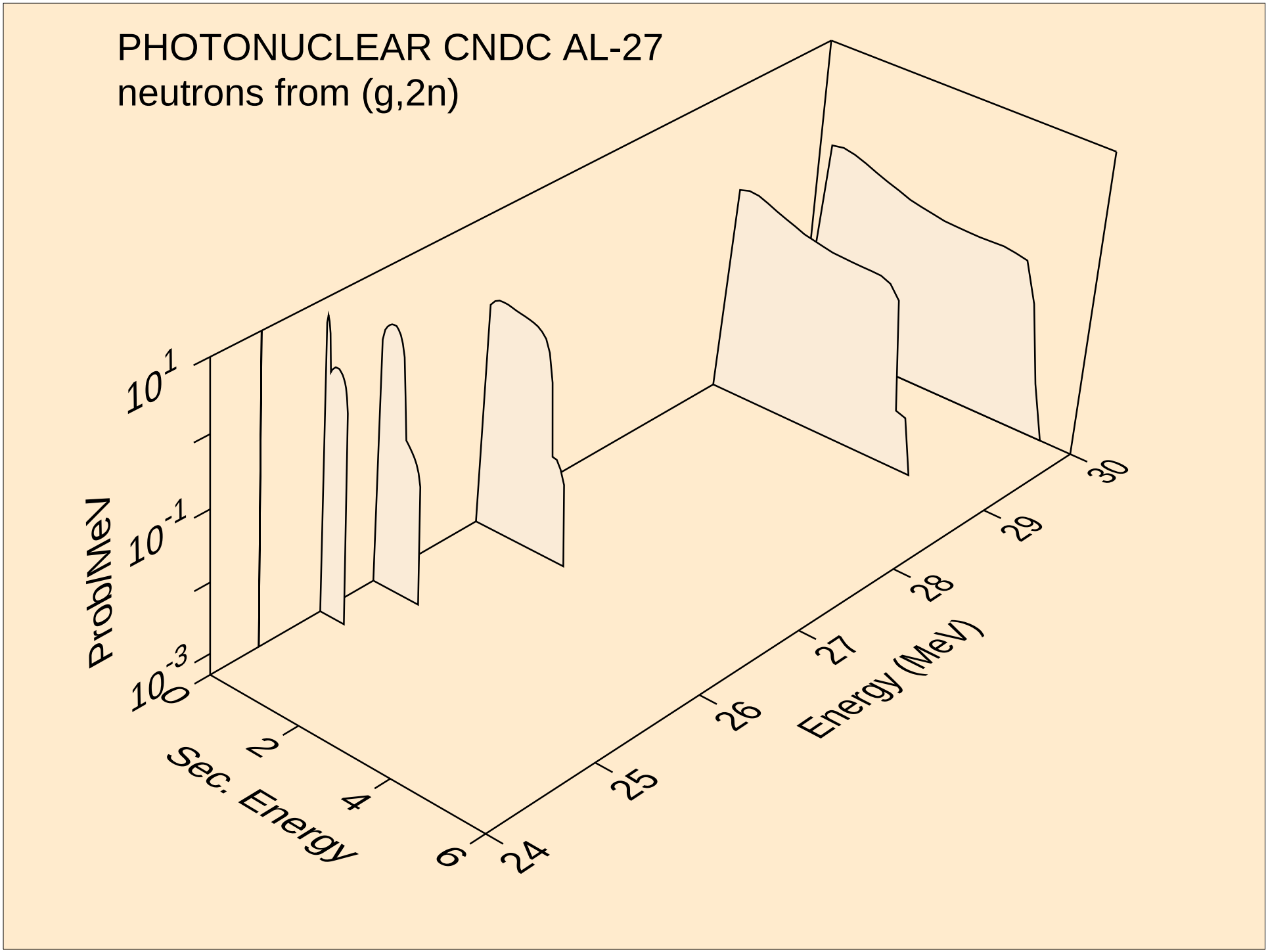

PHOTONUCLEAR CNDC AL-27
Principal cross sections
50
*10-3
40
30
20
10
0
total
Cross section (barns)
5
10
15
20
25
30
Energy (MeV)

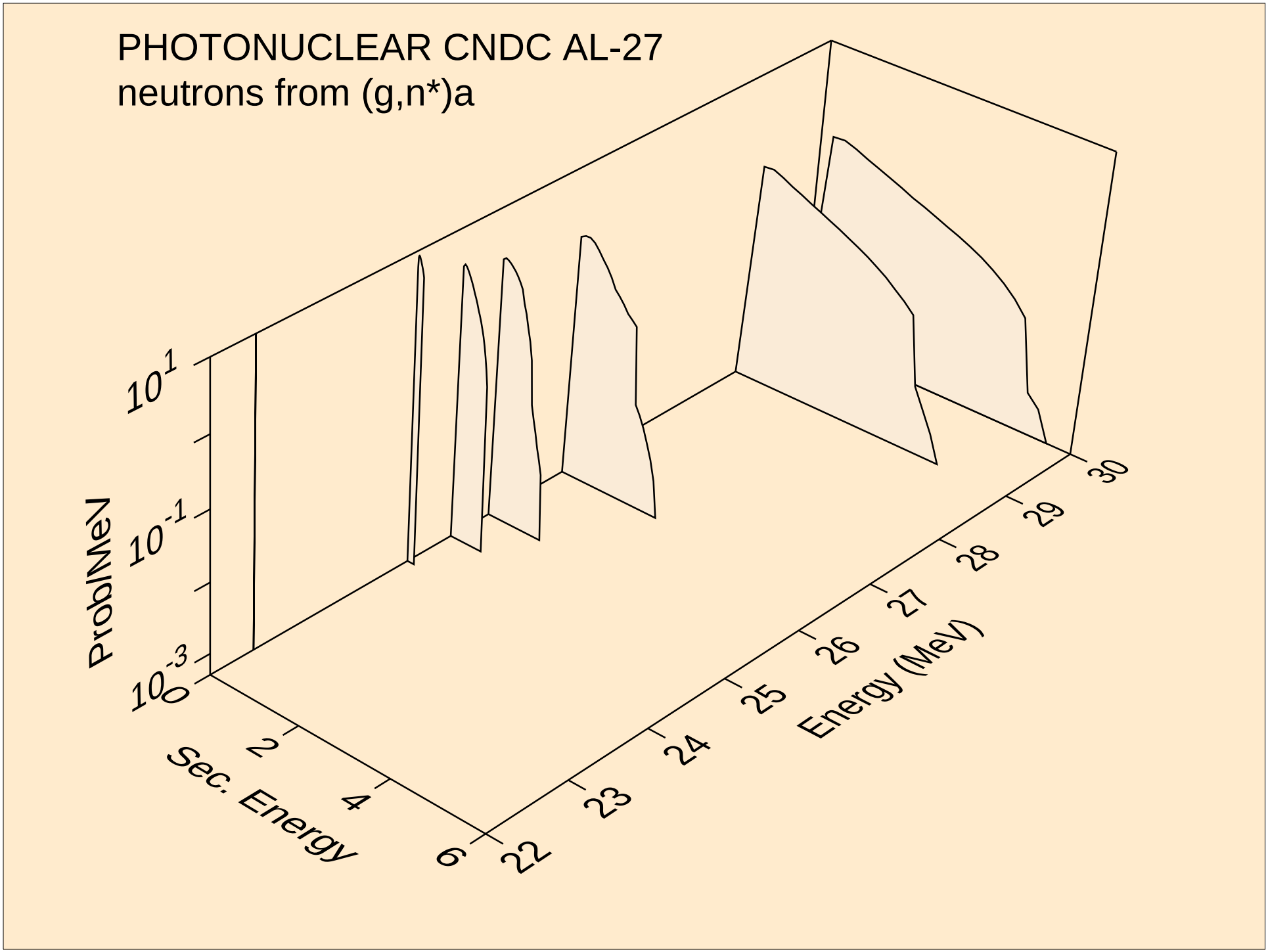

PHOTONUCLEAR CNDC AL-27
Partial cross sections
Cross section (barns)
*10-3
25
20
15
10
5
0
5
10
15
20
25
30
Energy (MeV)
(g,2n)
(g,n*)a
(g,n*)p
(g,n*0)
(g,n*1)
(g,n*2)
(g,n*3)
(g,n*4)
(g,n*5)
(g,n*6)
(g,n*7)
(g,n*8)
(g,n*9)
(g,n*10)
(g,n*11)
(g,n*12)
(g,n*13)
(g,n*14)
(g,n*15)
(g,n*16)
(g,n*17)

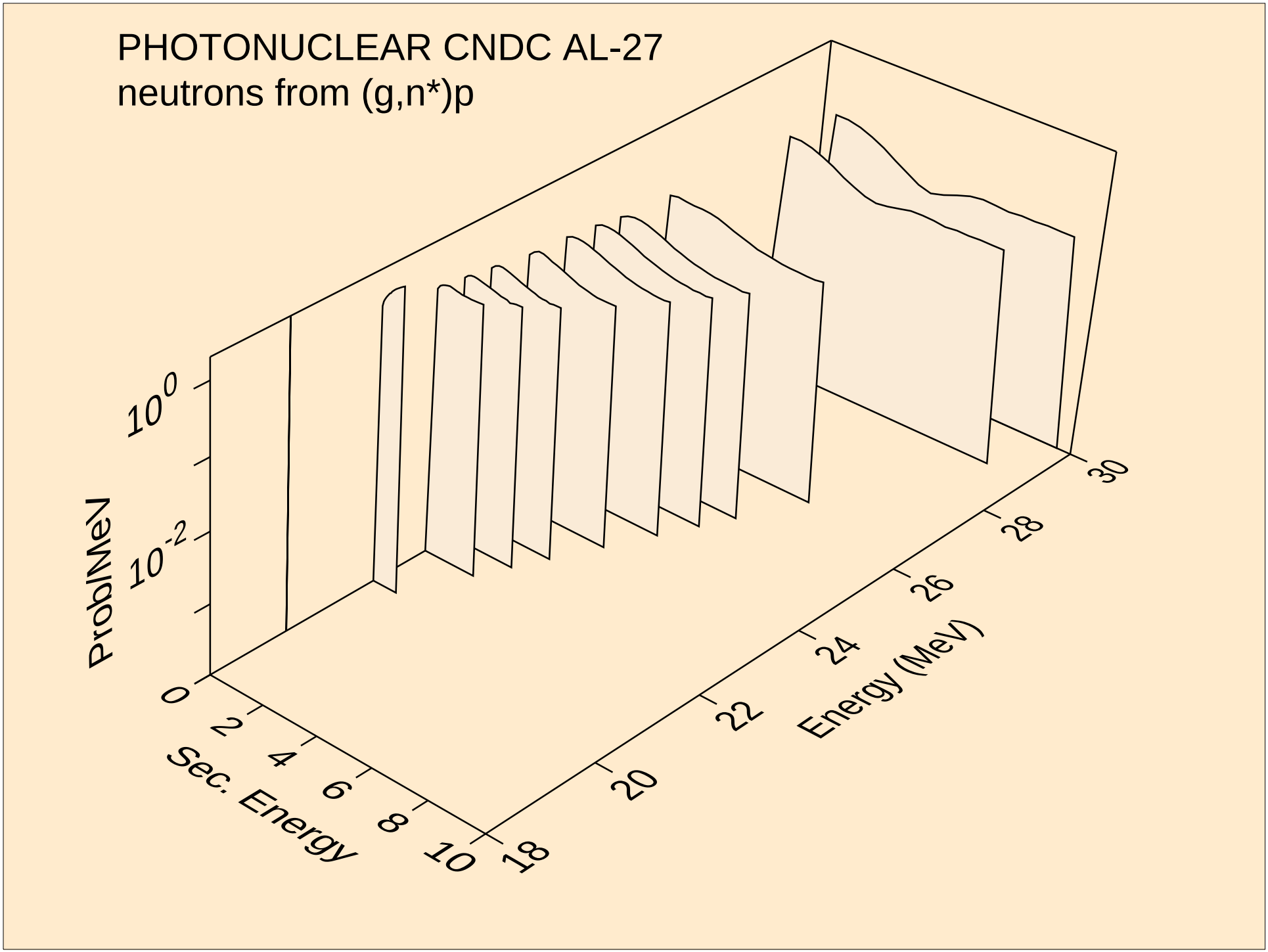

PHOTONUCLEAR CNDC AL-27
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
2
4
6
8
10
5
10
15
20
25
30

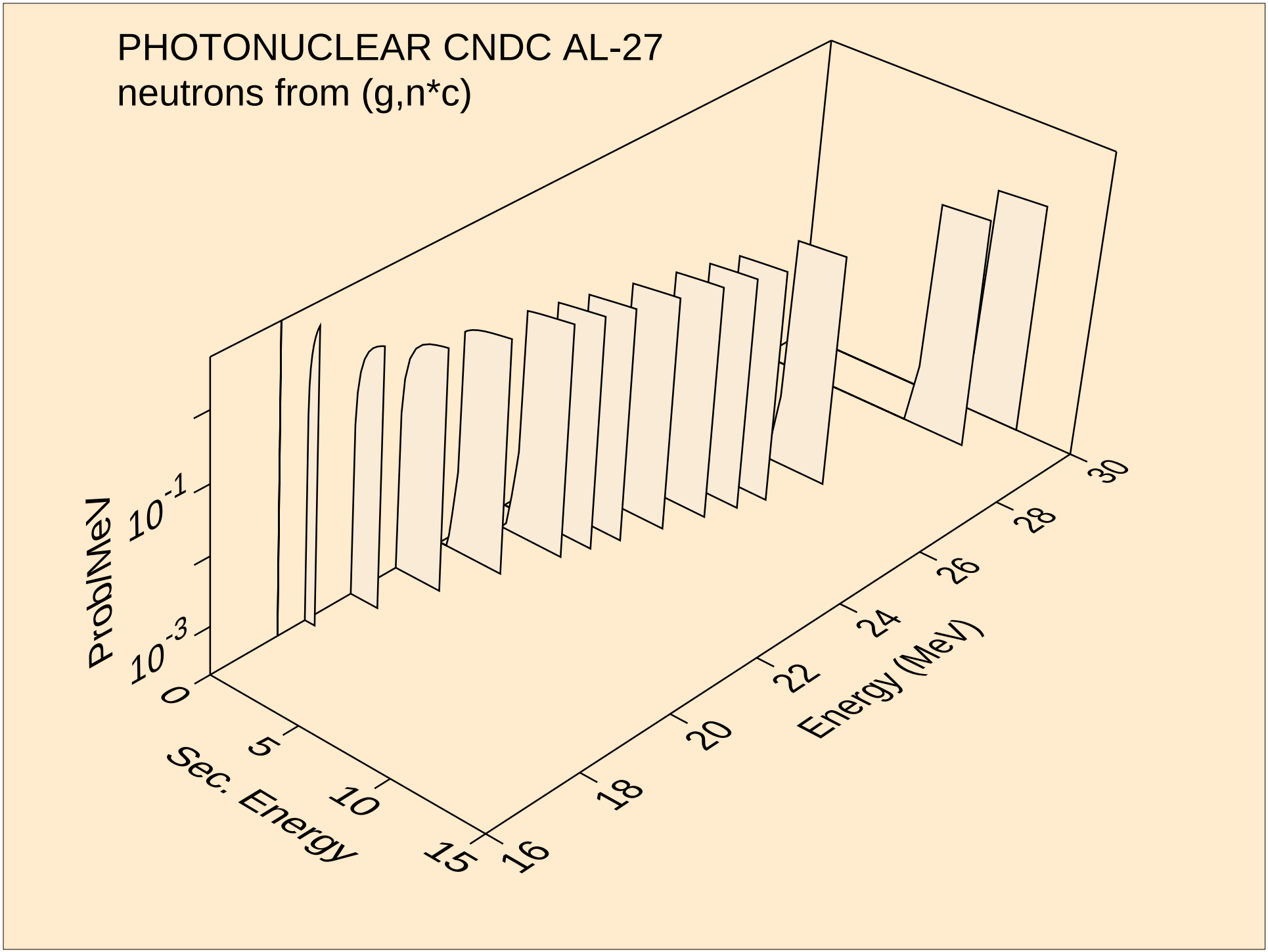

PHOTONUCLEAR CNDC AL-27
Particle heating contributions
neutrons
MeV/collision
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
16
18
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC AL-27
Particle production cross sections
*10-3
neutrons
Cross section (barns)
0
1
2
3
4
5
6
7
8
16
18
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC AL-27
neutrons from (g,2n)
Prob/MeV
10^1
10^-1
10^-3
0
2
4
6
Sec. Energy
24
25
26
27
28
29
30
Energy (MeV)


PHOTONUCLEAR CNDC AL-27
neutrons from (g,n*)a
Prob/MeV
10^1
10^-1
10^-3
0
2
4
6
Sec. Energy
22
23
24
25
26
27
28
29
30
Energy (MeV)


PHOTONUCLEAR CNDC AL-27
neutrons from (g,n*)p
Prob/MeV
10^0
10^-2
0
2
4
6
8
10
Sec. Energy
18
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC AL-27
neutrons from (g,n*c)
Prob/MeV
10-1
10-3
0
5
10
15
16
Sec. Energy
18
20
22
24
26
28
30
Energy (MeV)