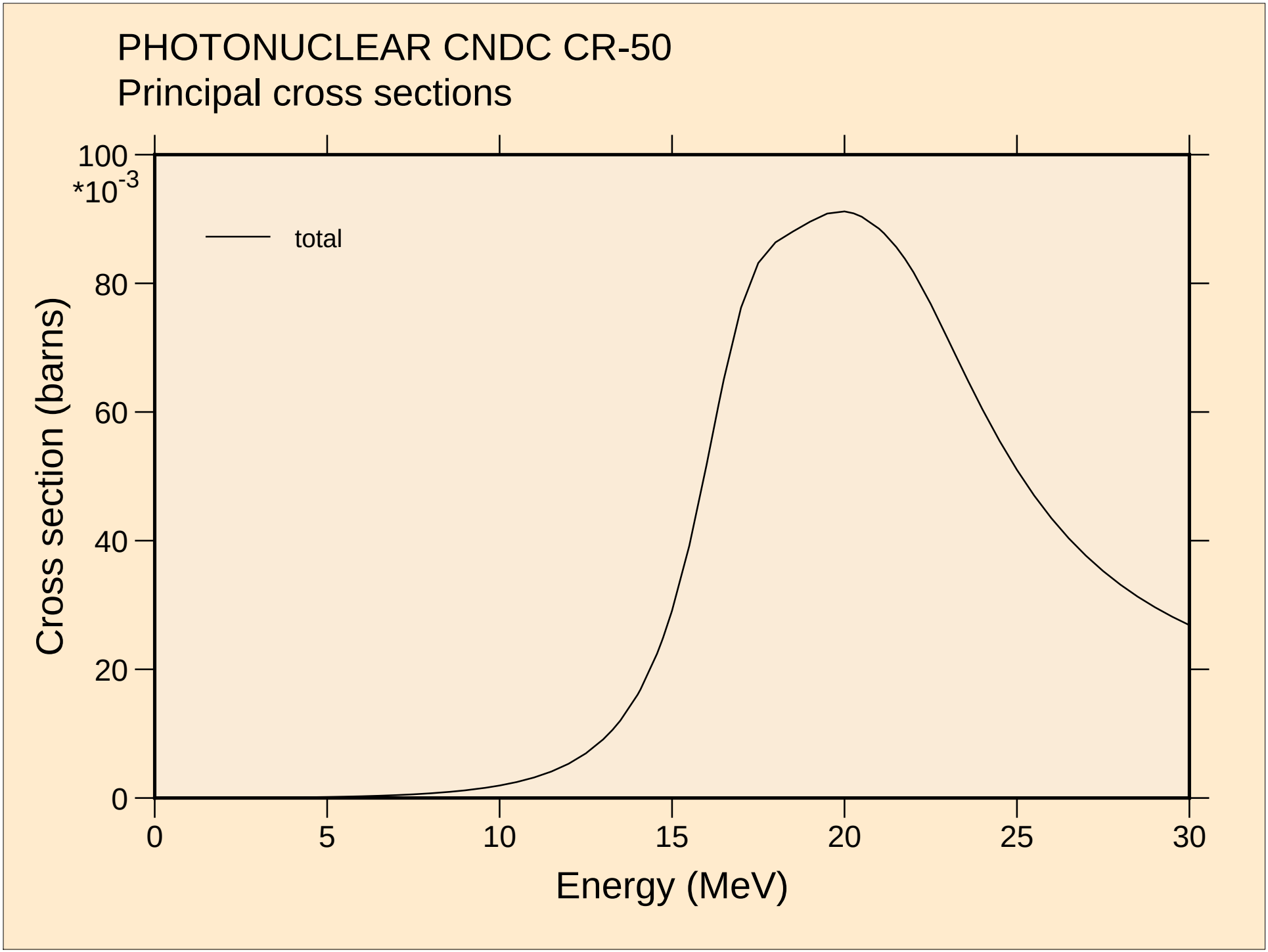
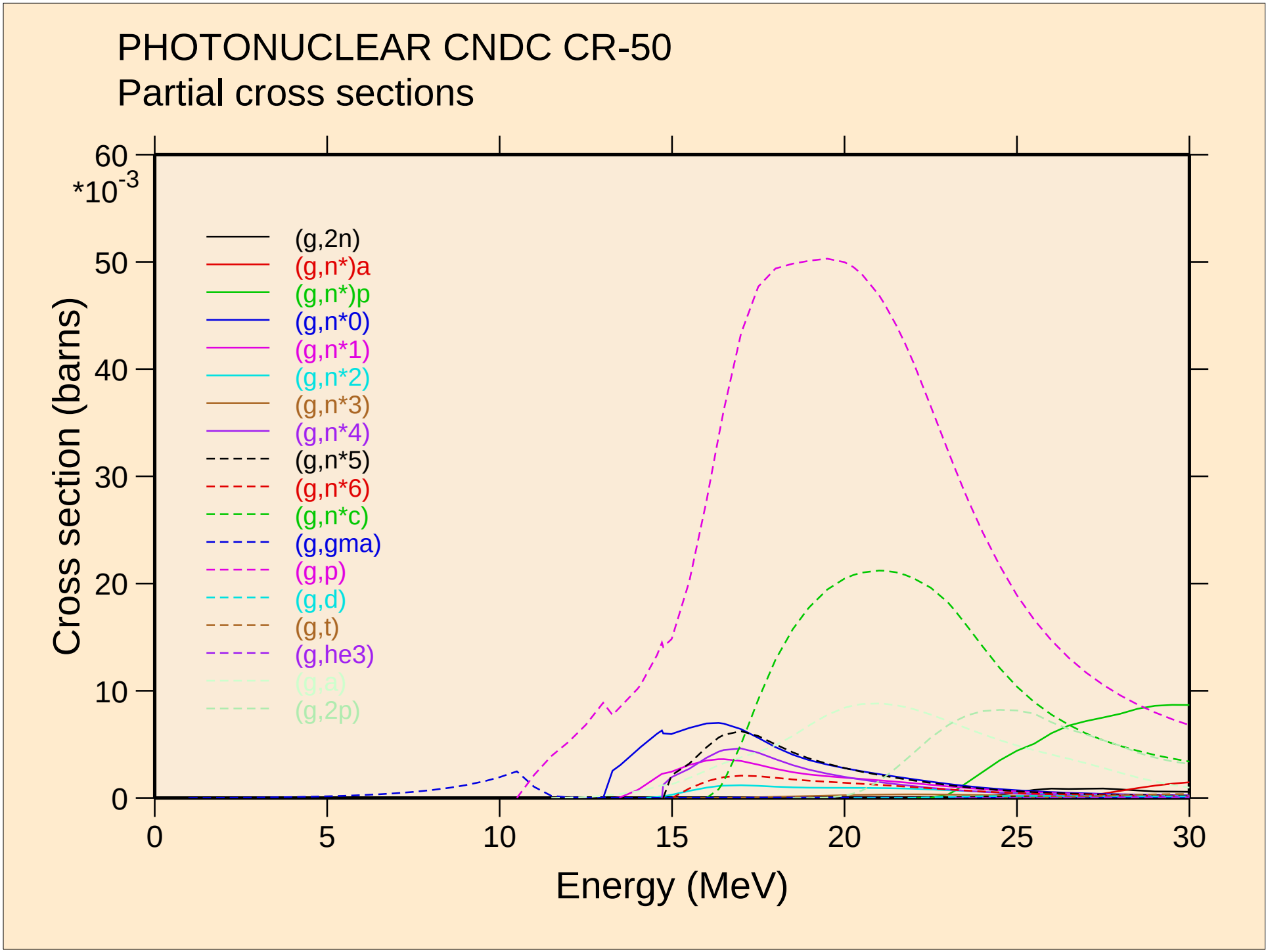
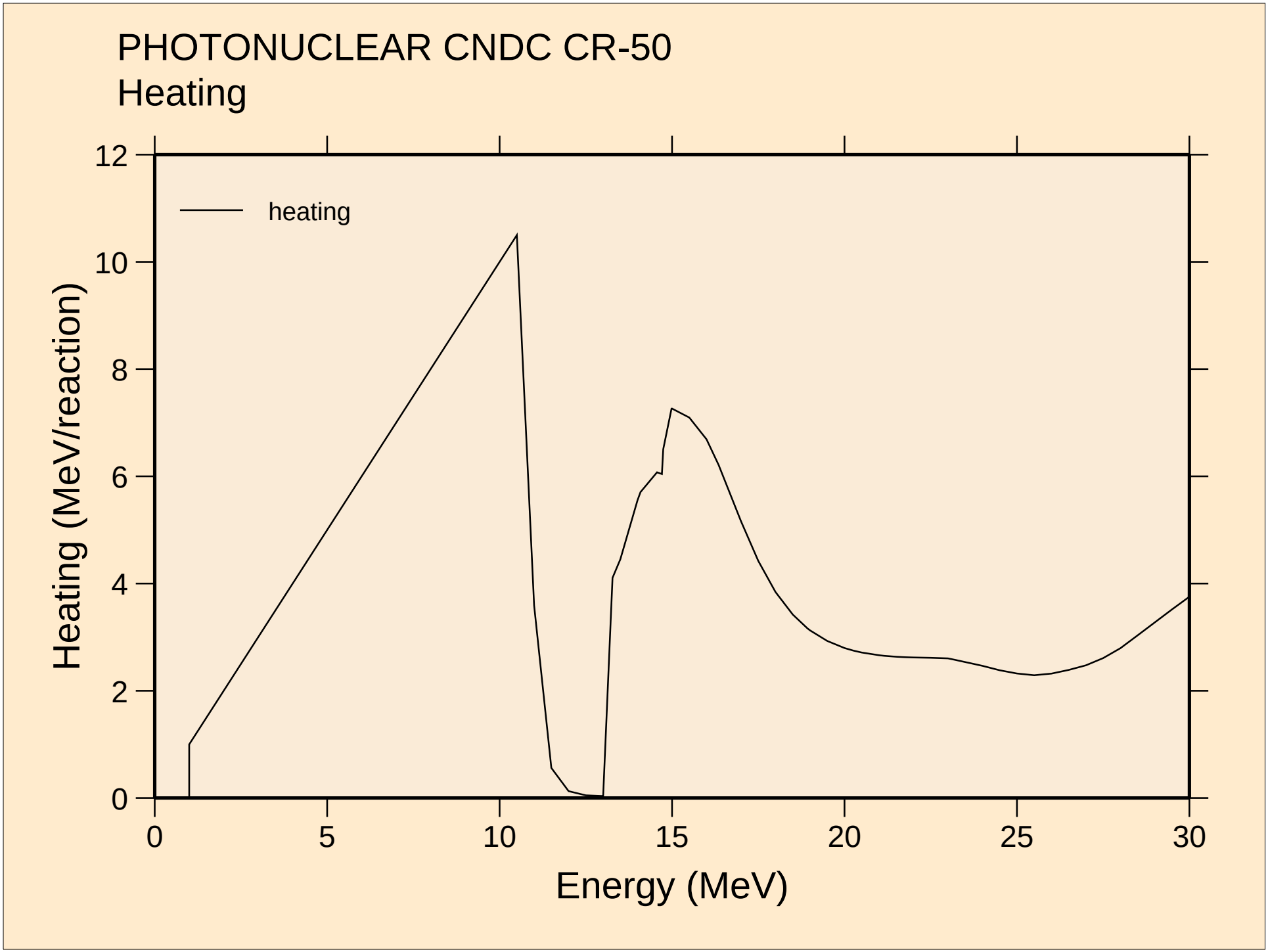
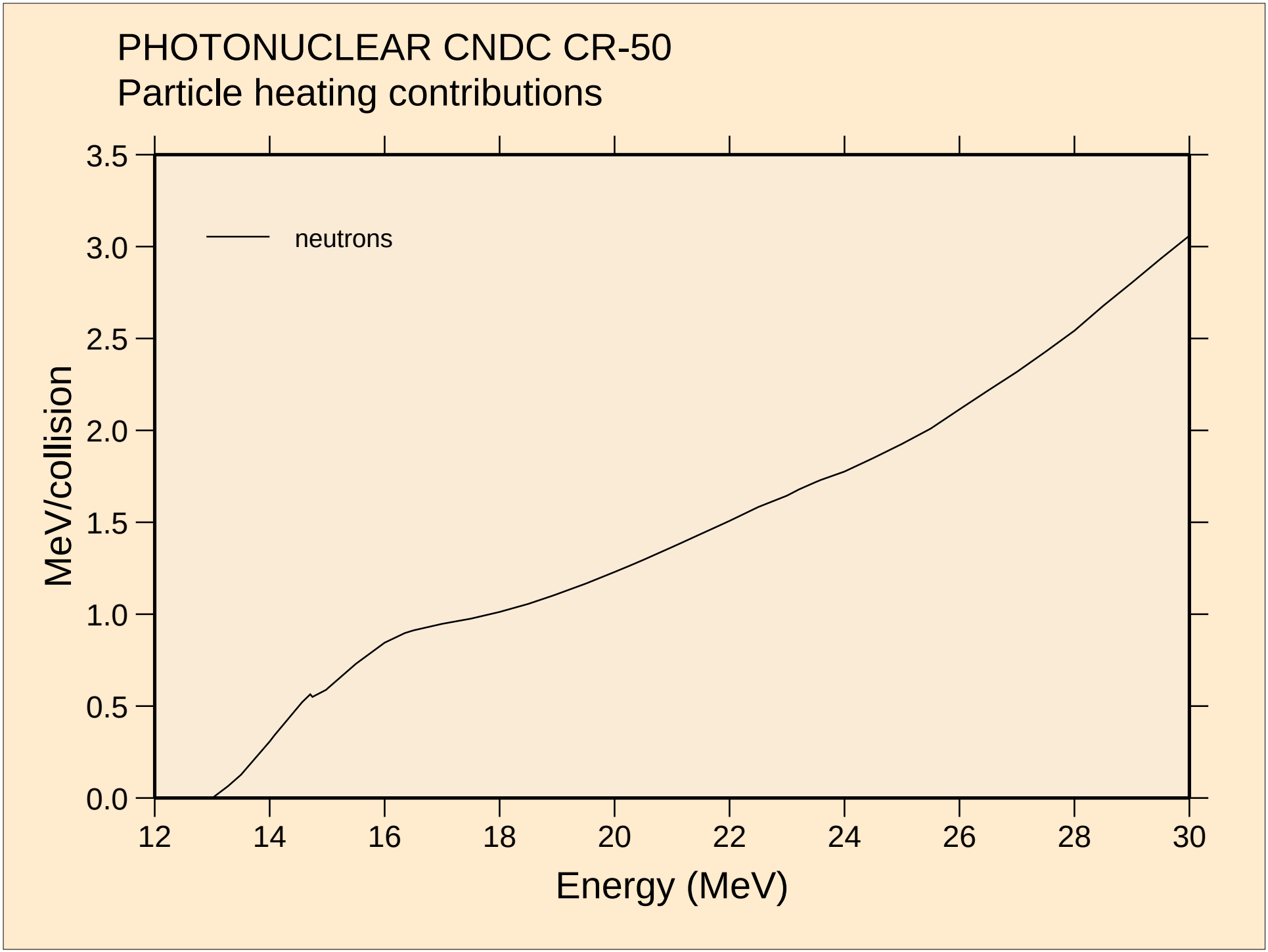
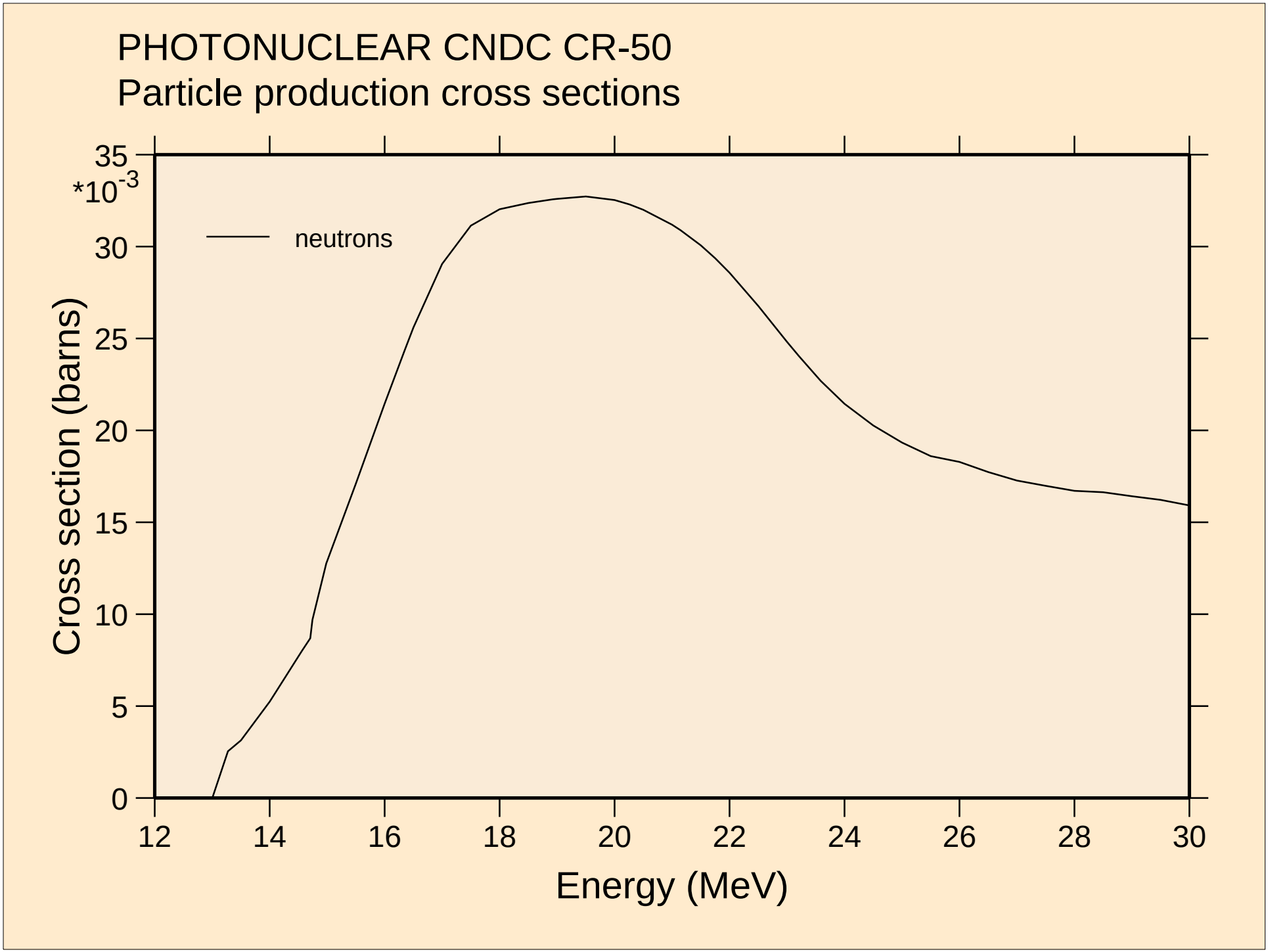
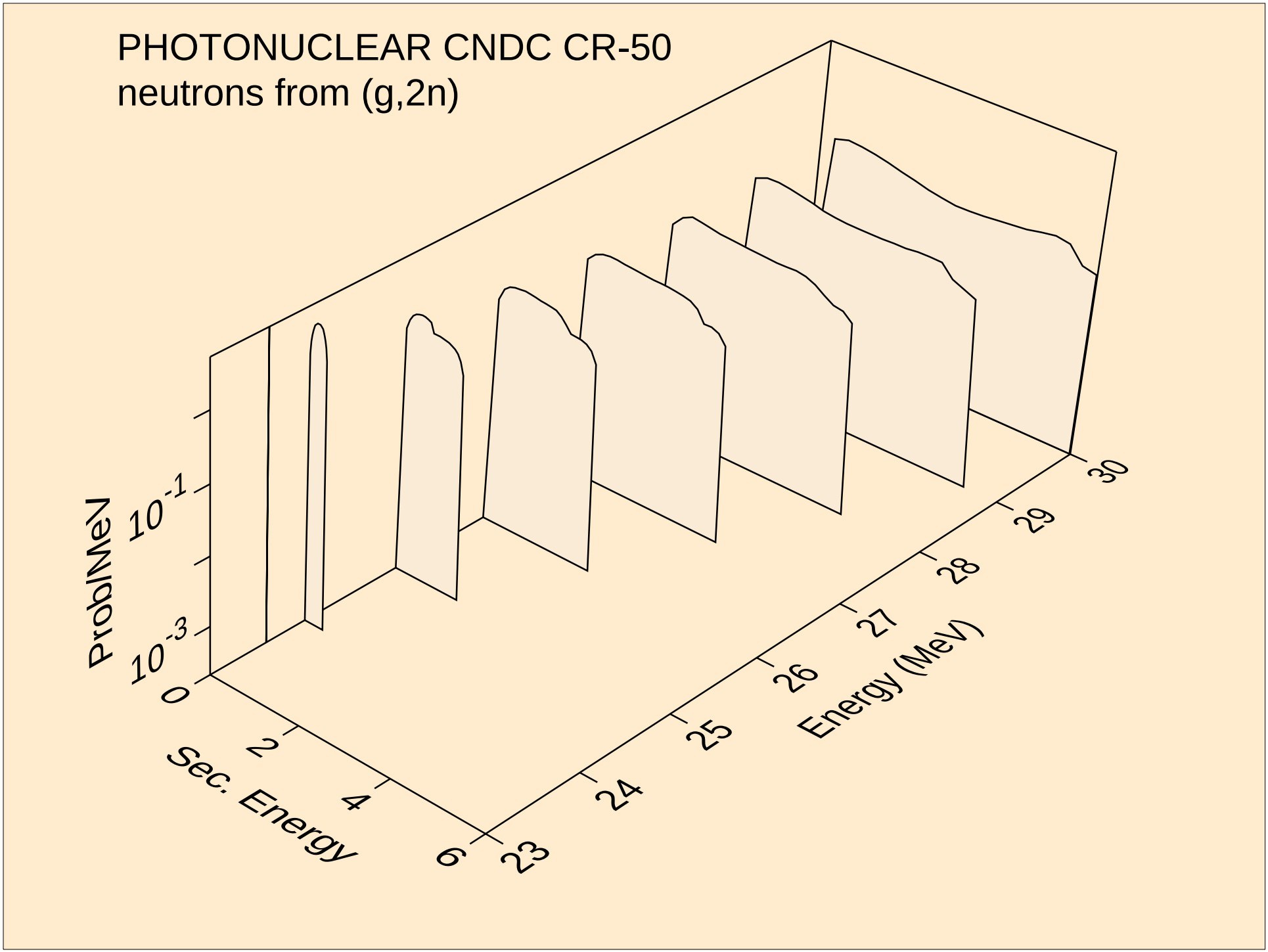

PHOTONUCLEAR CNDC CR-50
Principal cross sections
100
*10-3
80
60
40
20
0
total
Cross section (barns)
0
5
10
15
20
25
30
Energy (MeV)

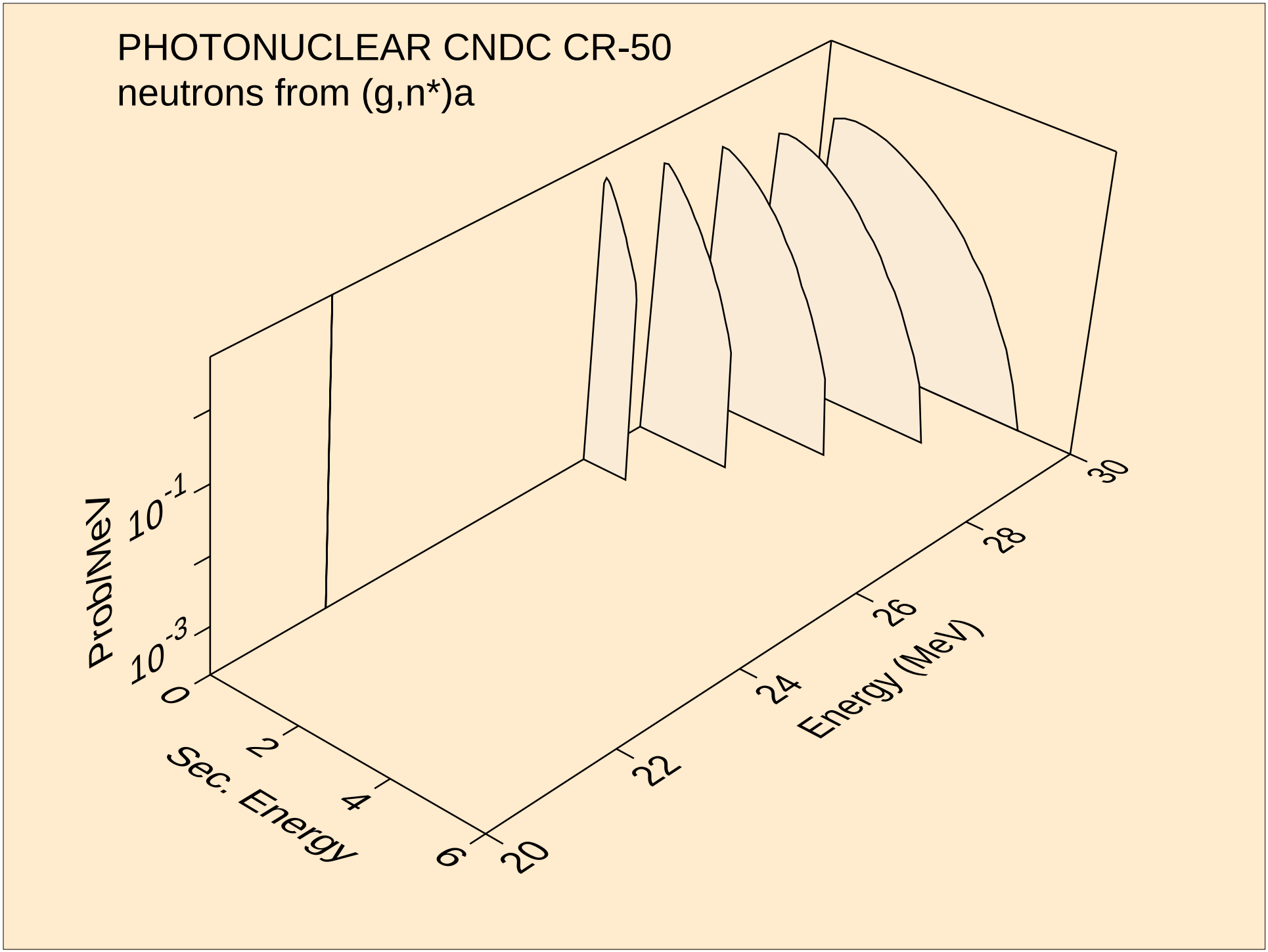

PHOTONUCLEAR CNDC CR-50
Partial cross sections
Cross section (barns)
*10-3
60
50
40
30
20
10
0
0
5
10
15
20
25
30
Energy (MeV)
(g,2n)
(g,n*)a
(g,n*)p
(g,n*0)
(g,n*1)
(g,n*2)
(g,n*3)
(g,n*4)
(g,n*5)
(g,n*6)
(g,n*c)
(g,gma)
(g,p)
(g,d)
(g,t)
(g,he3)
(g,a)
(g,2p)

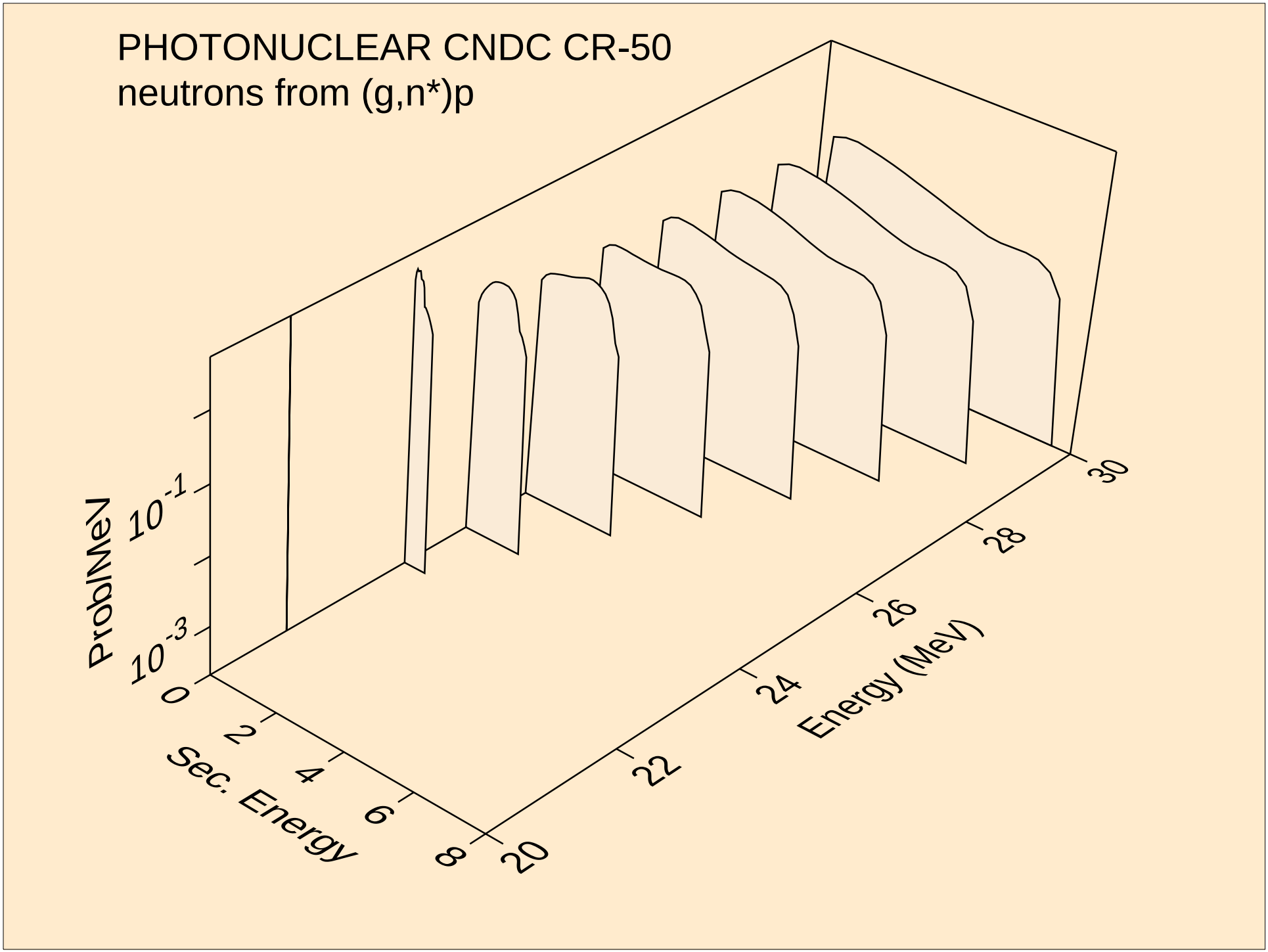

PHOTONUCLEAR CNDC CR-50
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
2
4
6
8
10
12
0
5
10
15
20
25
30

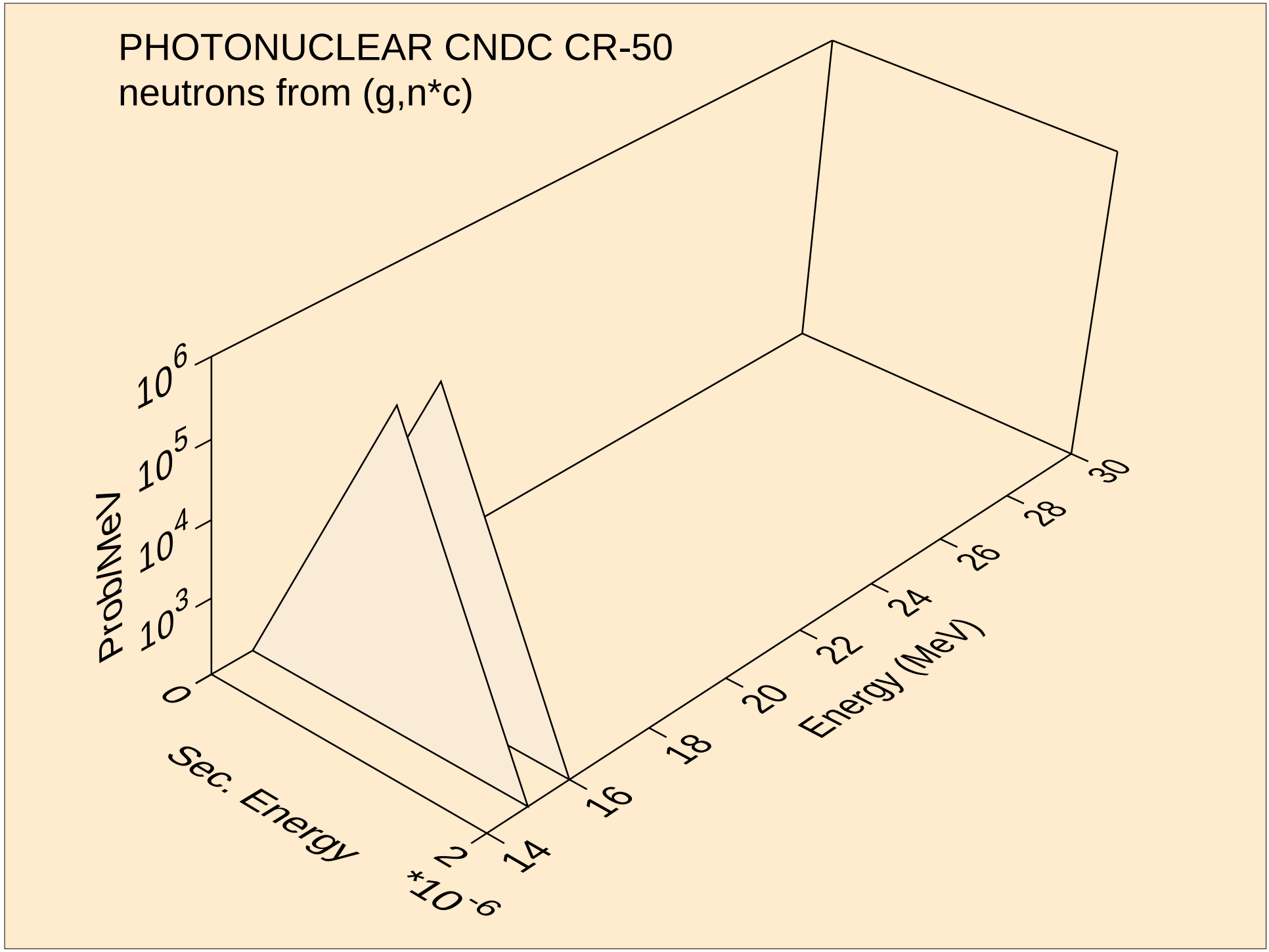

PHOTONUCLEAR CNDC CR-50
Particle heating contributions
neutrons
MeV/collision
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
12
14
16
18
20
22
24
26
28
30


PHOTONUCLEAR CNDC CR-50
Particle production cross sections
neutrons
*10-3
35
30
25
20
15
10
5
0
Cross section (barns)
12
14
16
18
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC CR-50
neutrons from (g,2n)
Prob/MeV
10-1
10-3
0
Sec. Energy
2
4
6
23
24
25
26
27
28
29
30
Energy (MeV)


PHOTONUCLEAR CNDC CR-50
neutrons from (g,n*)a
Prob/MeV
10-1
10-3
0
Sec. Energy
2
4
6
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC CR-50
neutrons from (g,n*)p
Prob/MeV
10-1
10-3
0
2
4
6
8
Sec. Energy
20
22
24
26
28
30
Energy (MeV)


PHOTONUCLEAR CNDC CR-50
neutrons from (g,n*c)
Prob/MeV
10^6
10^5
10^4
10^3
0
Sec. Energy
*10-6
2
14
16
18
20
22
24
26
28
30
Energy (MeV)