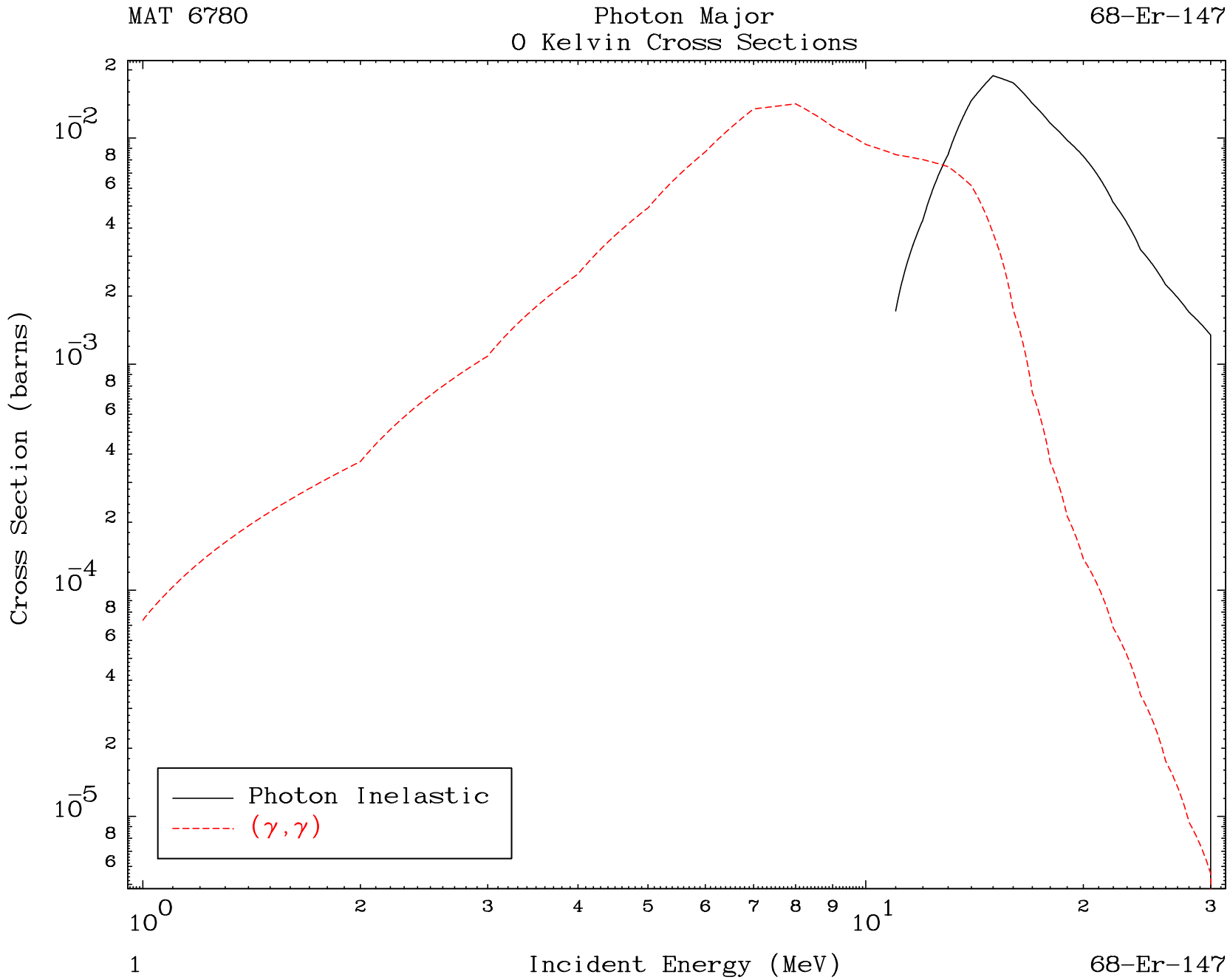
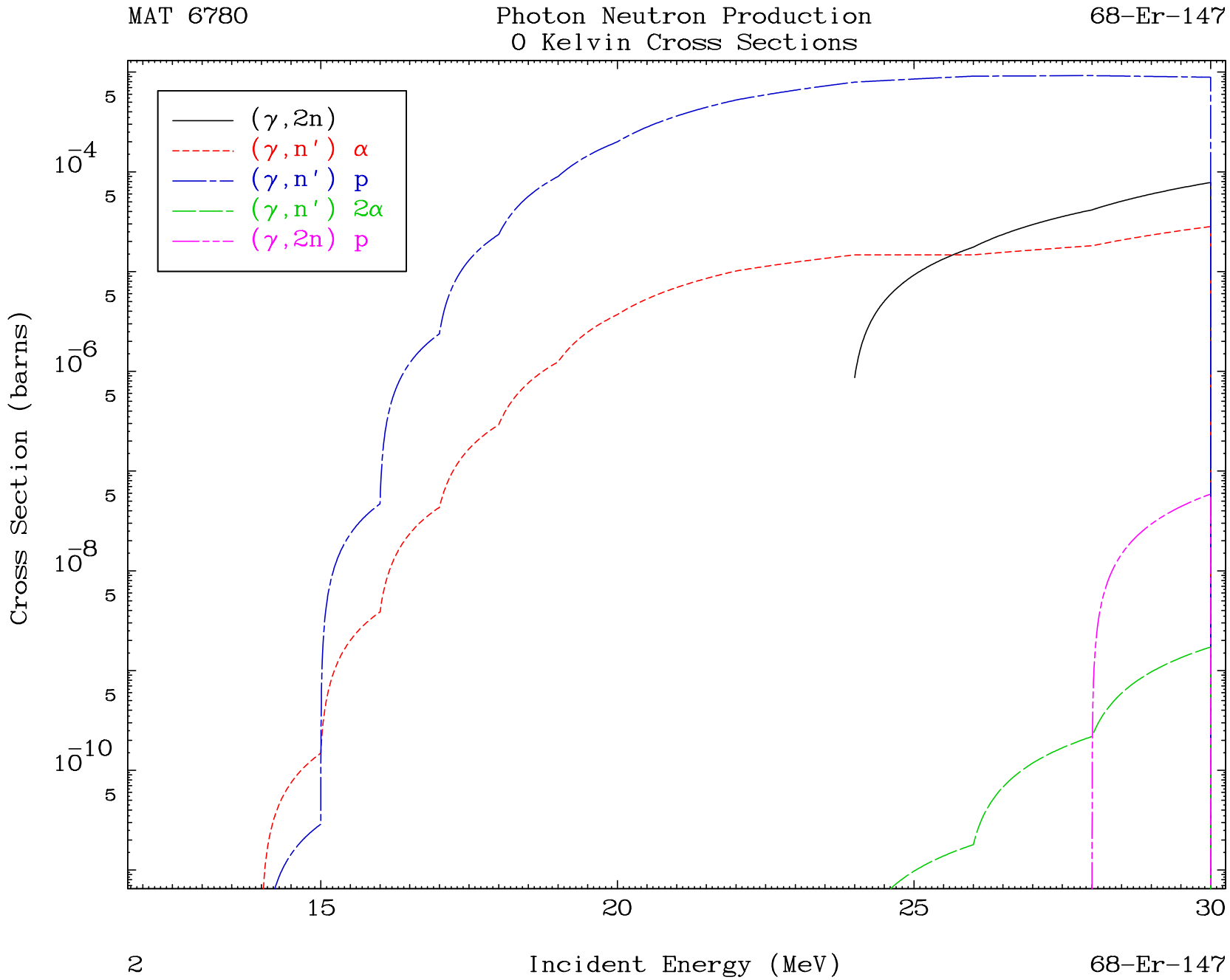
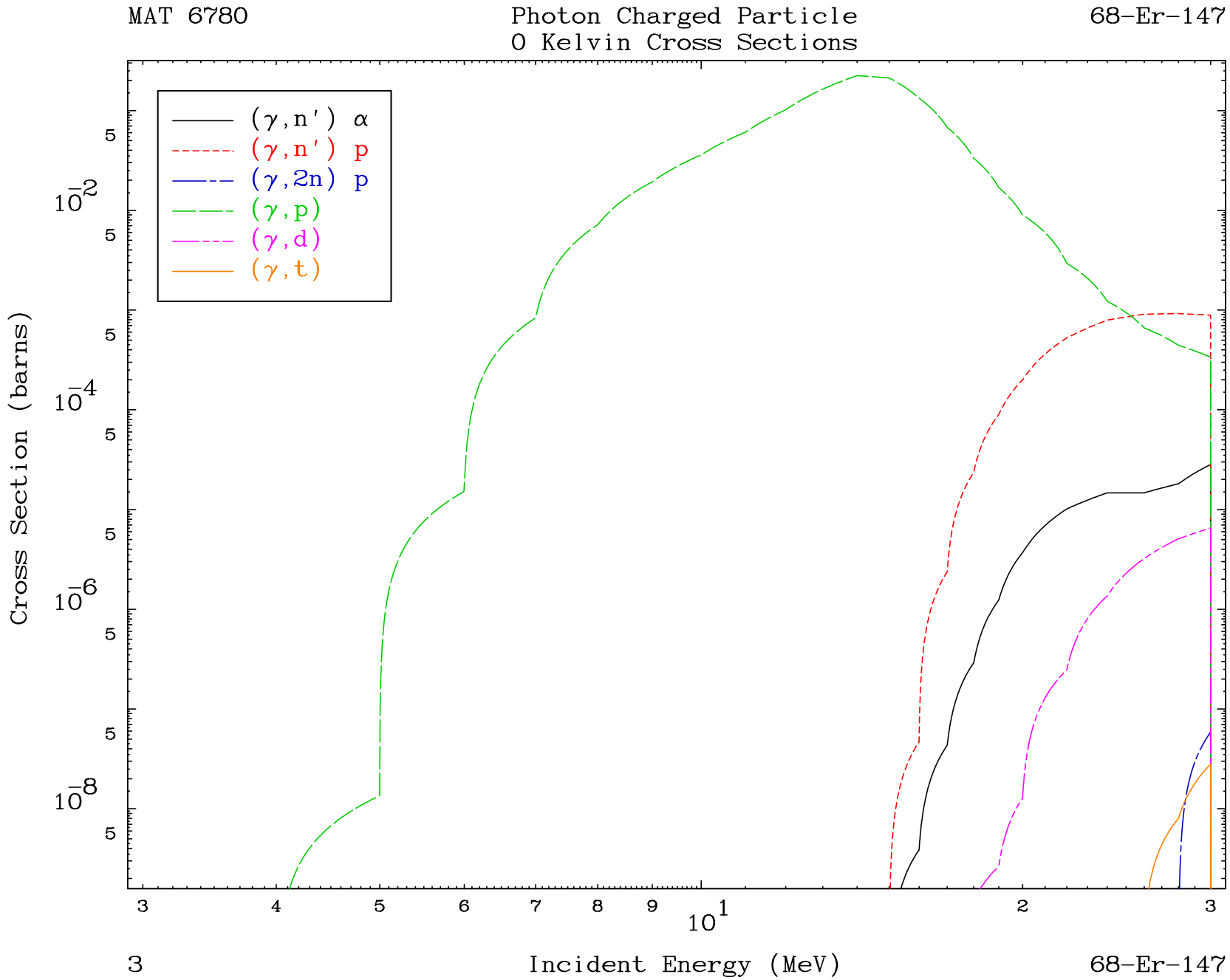
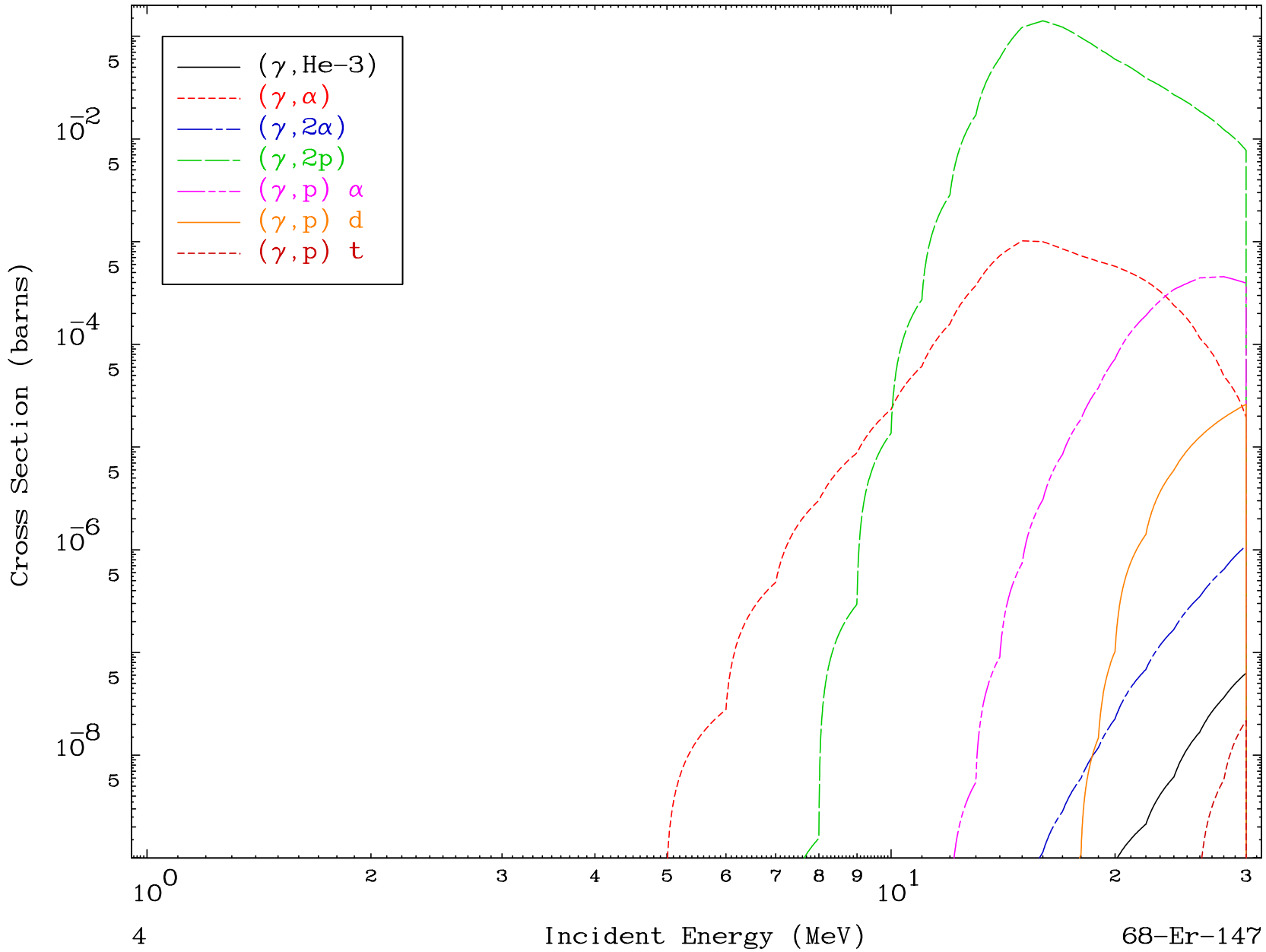
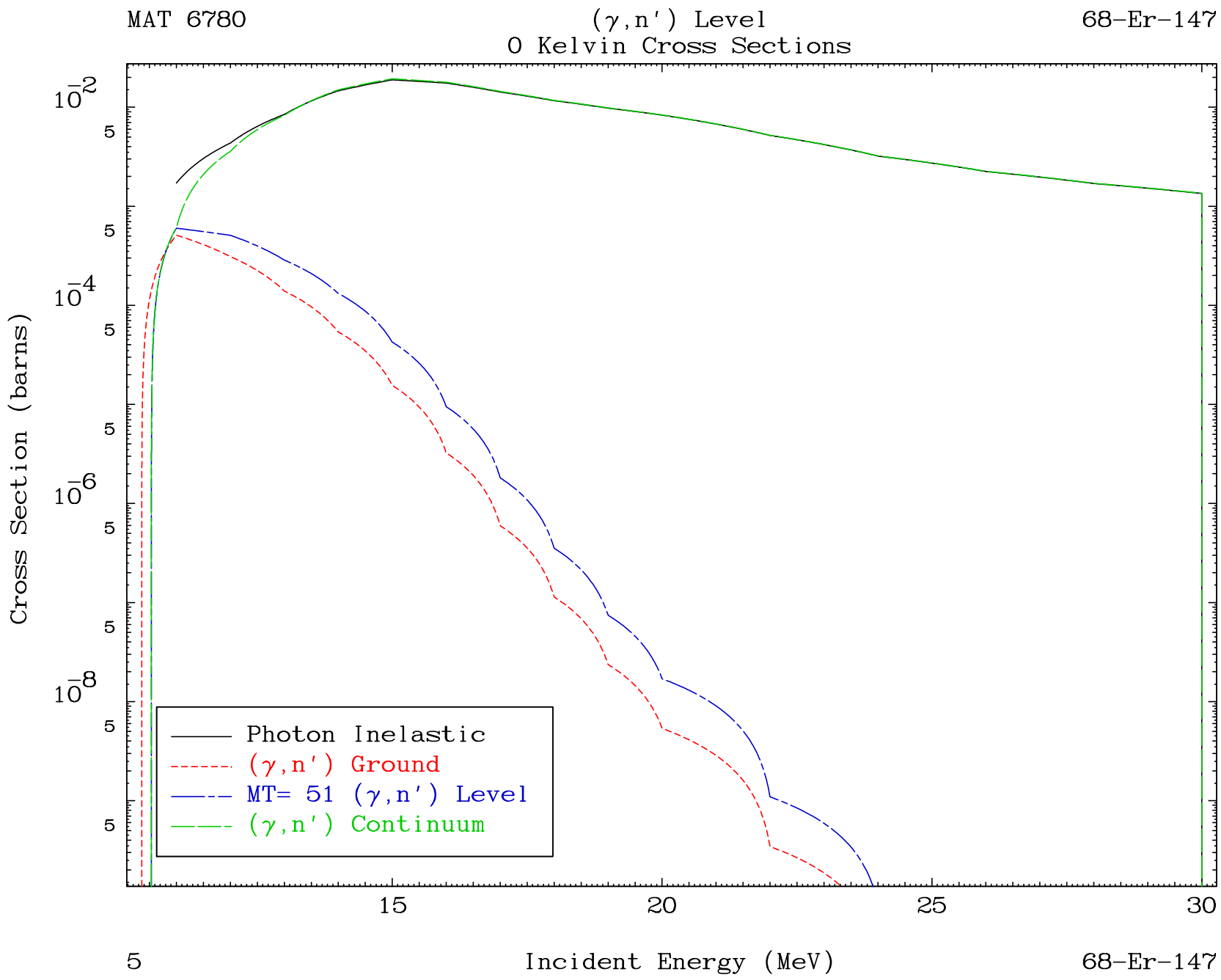

MAT 6780
Photon Major
0 Kelvin Cross Sections
68-Er-147
Cross Section (barns)
Incident Energy (MeV)
Photon Inelastic
(γ,γ)
68-Er-147


MAT 6780
Photon Neutron Production
0 Kelvin Cross Sections
68-Er-147
(γ,2n)
(γ,n') α
(γ,n') p
(γ,n') 2α
(γ,2n) p
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
15
20
25
30
2
Incident Energy (MeV)
68-Er-147

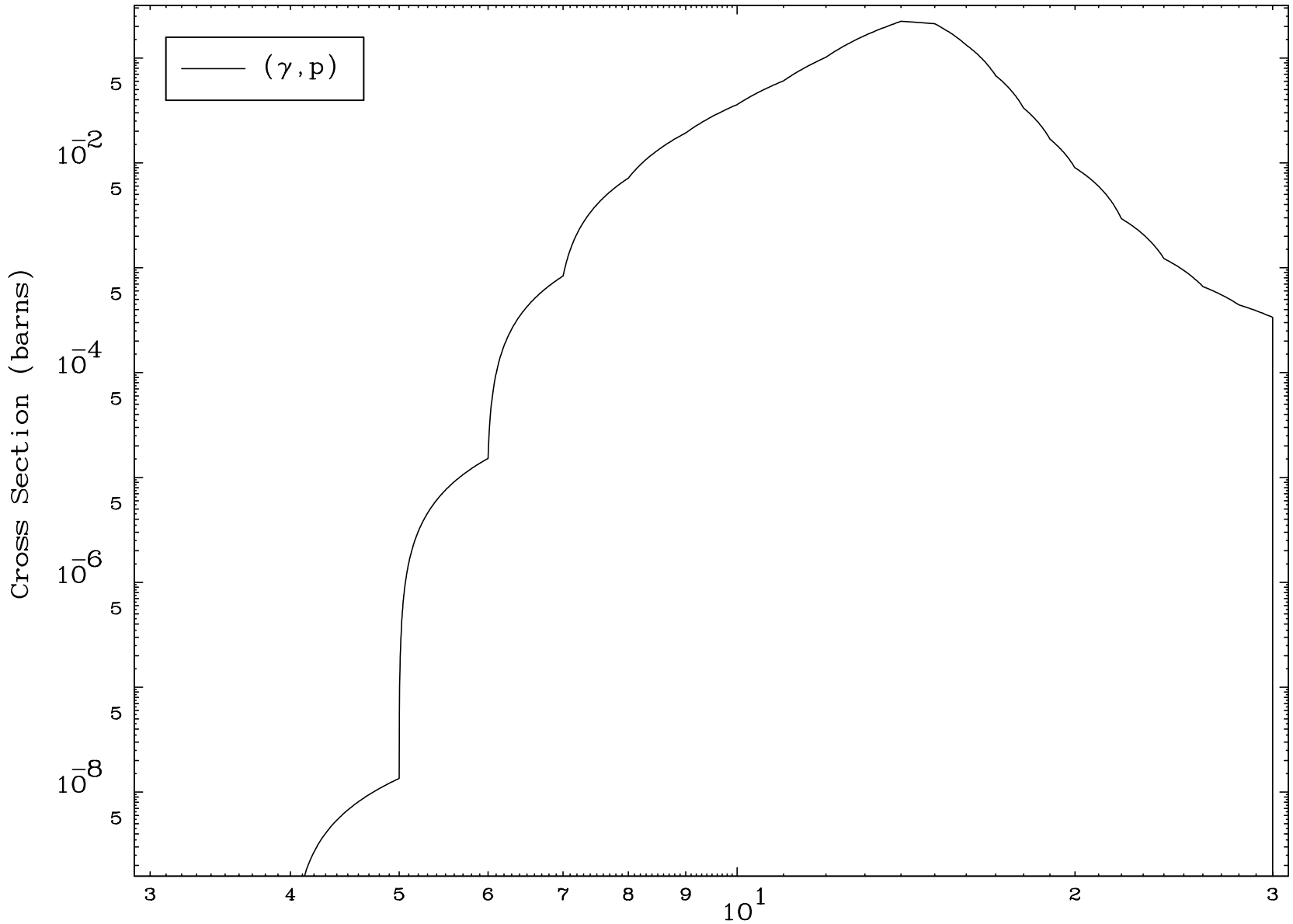

MAT 6780
Photon Charged Particle
0 Kelvin Cross Sections
68-Er-147
(γ,n') α
(γ,n') p
(γ,2n) p
(γ,p)
(γ,d)
(γ,t)
Cross Section (barns)
Incident Energy (MeV)
3
68-Er-147

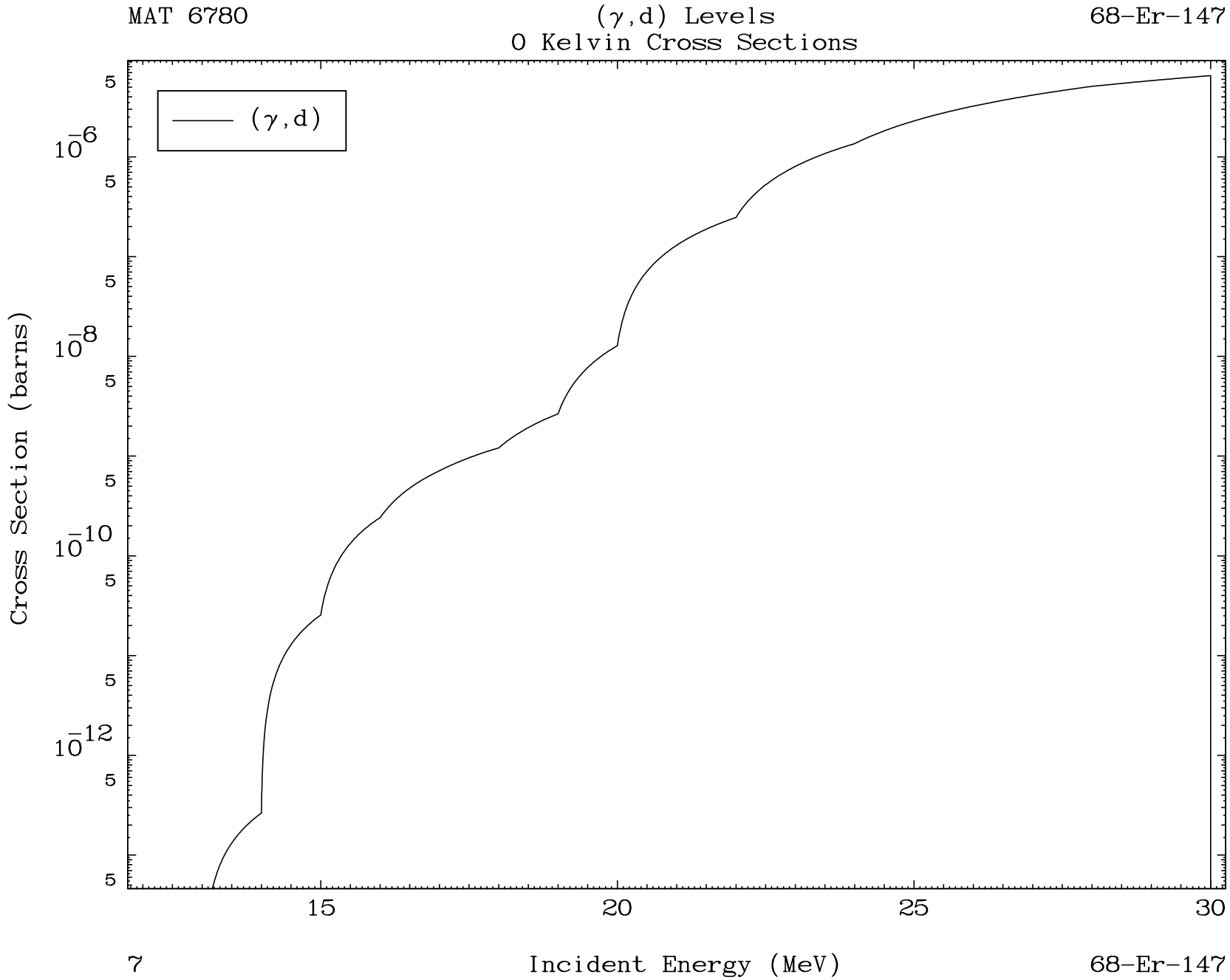
Photon Charged Particle
0 Kelvin Cross Sections



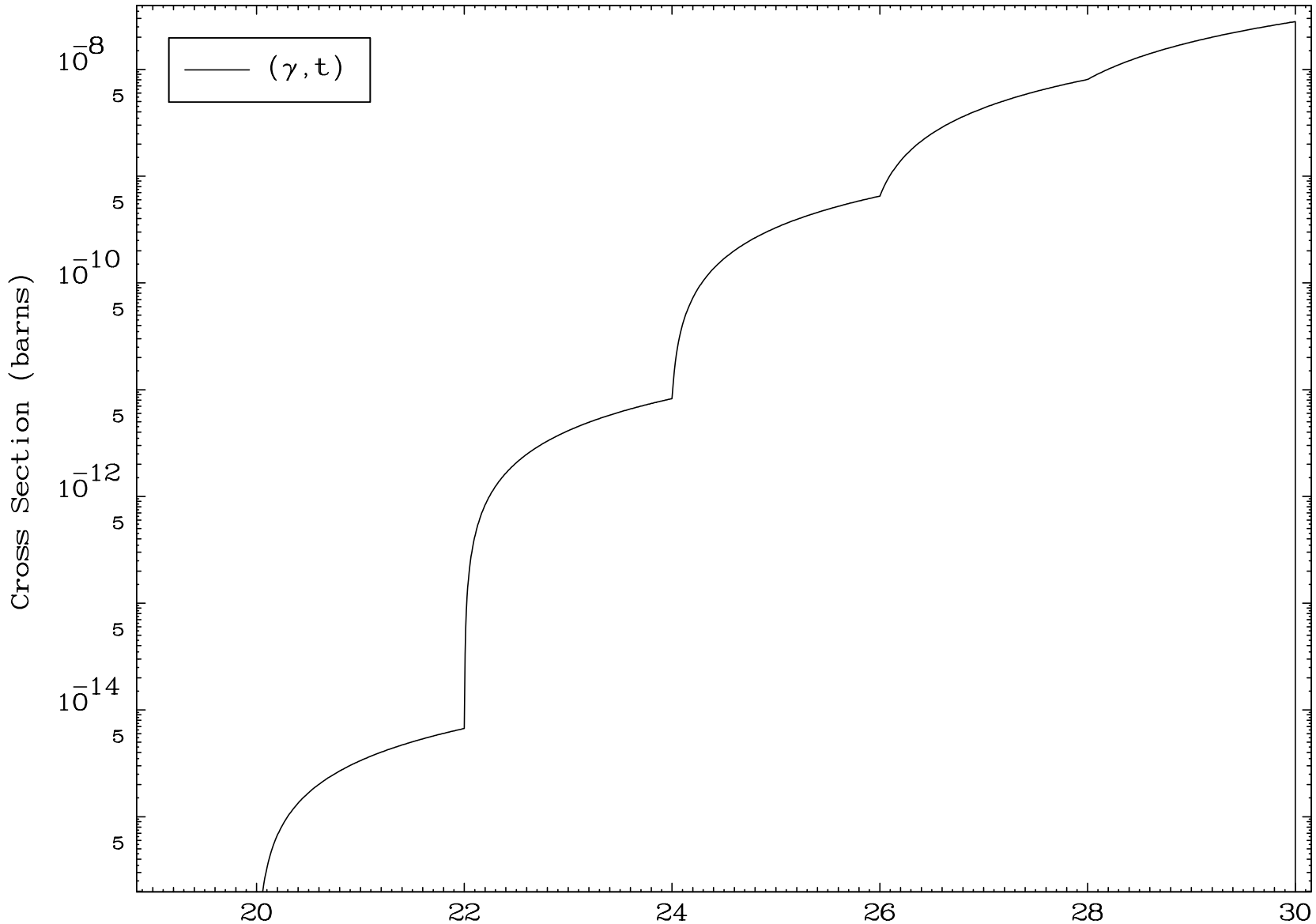

MAT 6780
(γ,n') Level
0 Kelvin Cross Sections
68-Er-147
Cross Section (barns)
Incident Energy (MeV)
Photon Inelastic
(γ,n') Ground
MT= 51 (γ,n') Level
(γ,n') Continuum
15
20
25
30

(γ,p) Levels
0 Kelvin Cross Sections

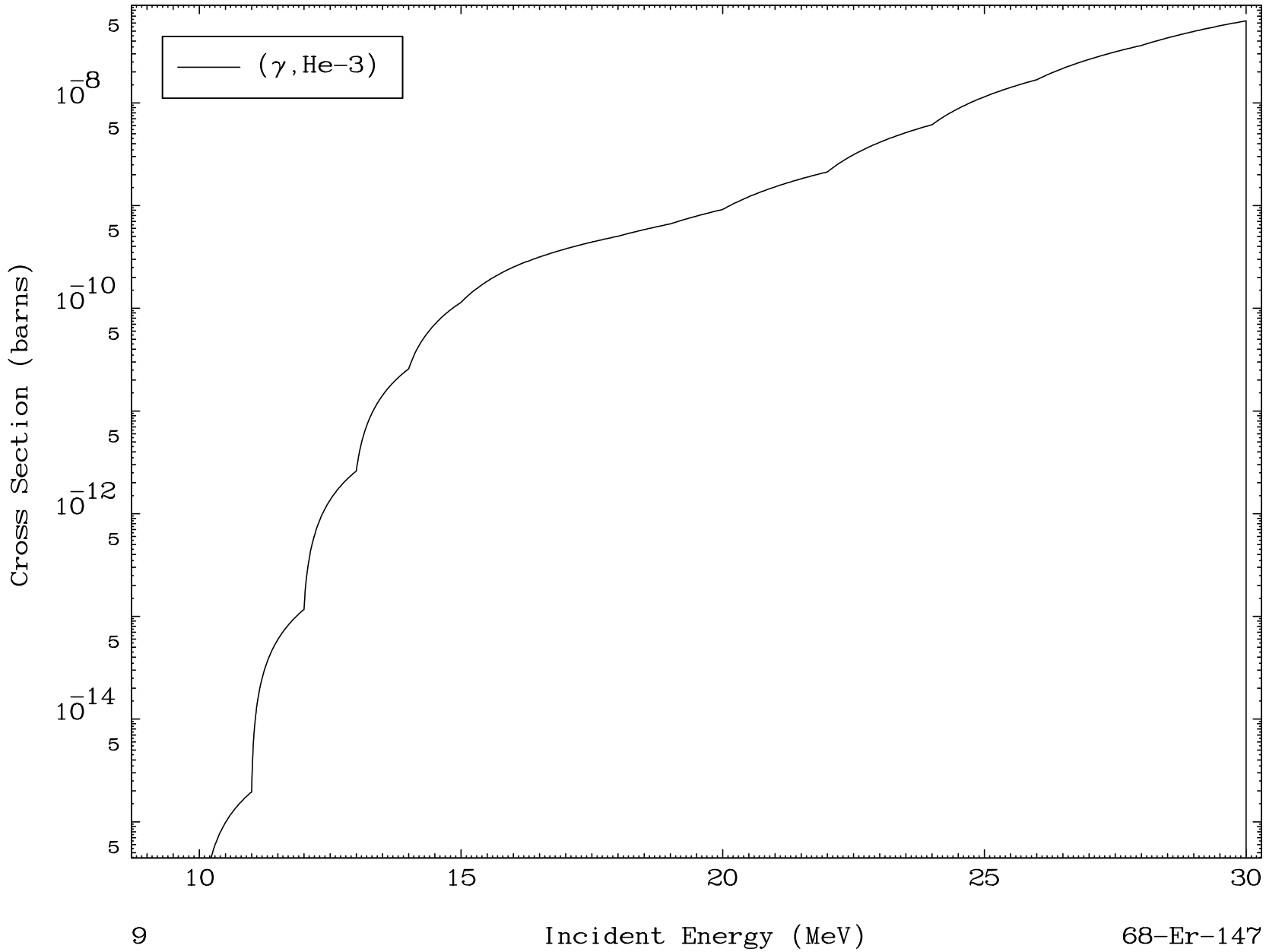


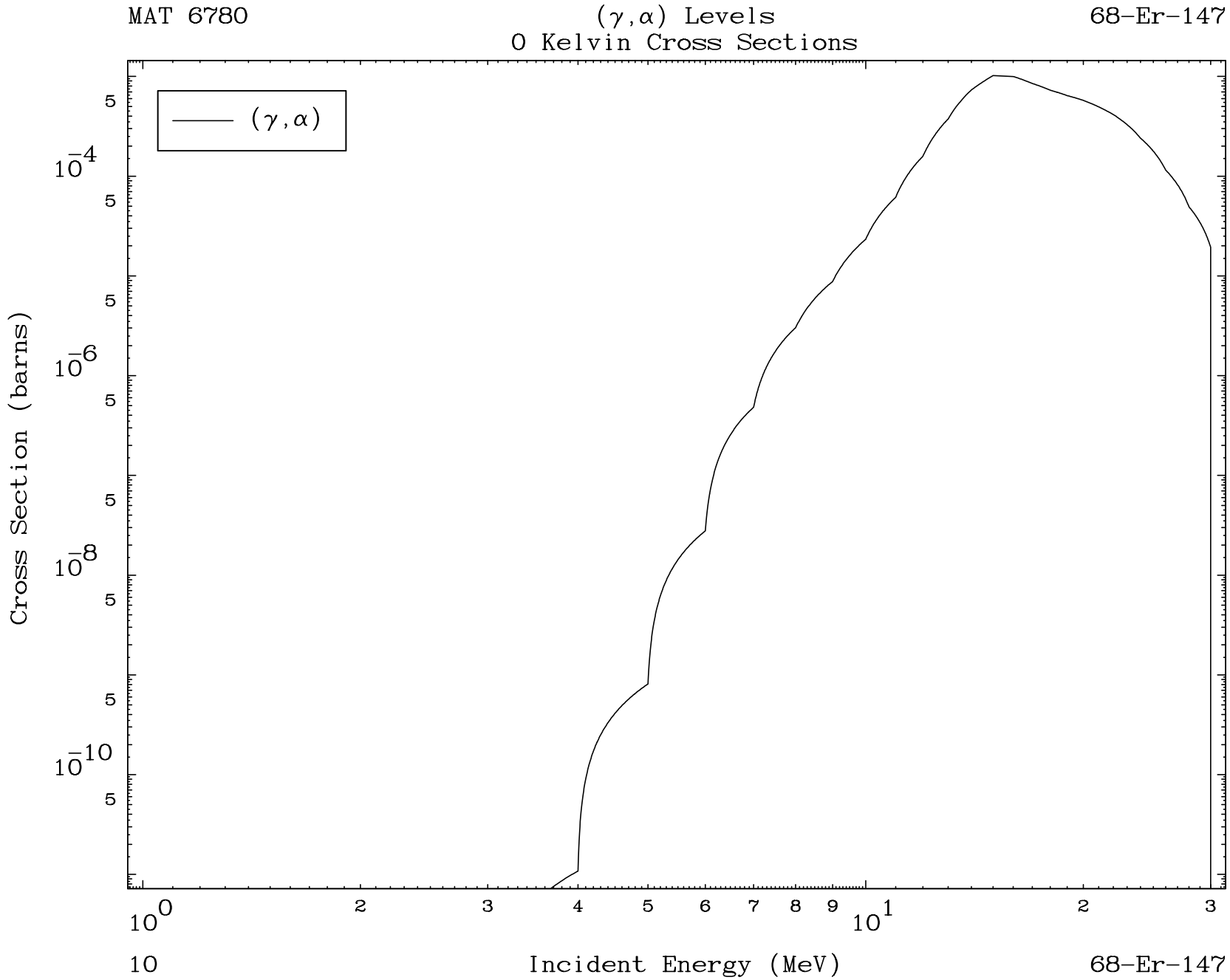

MAT 6780
(γ,d) Levels
0 Kelvin Cross Sections
68-Er-147
(γ,d)
Cross Section (barns)
10⁻⁶
10⁻⁸
10⁻¹⁰
10⁻¹²
5
7
15
20
25
30
Incident Energy (MeV)
68-Er-147

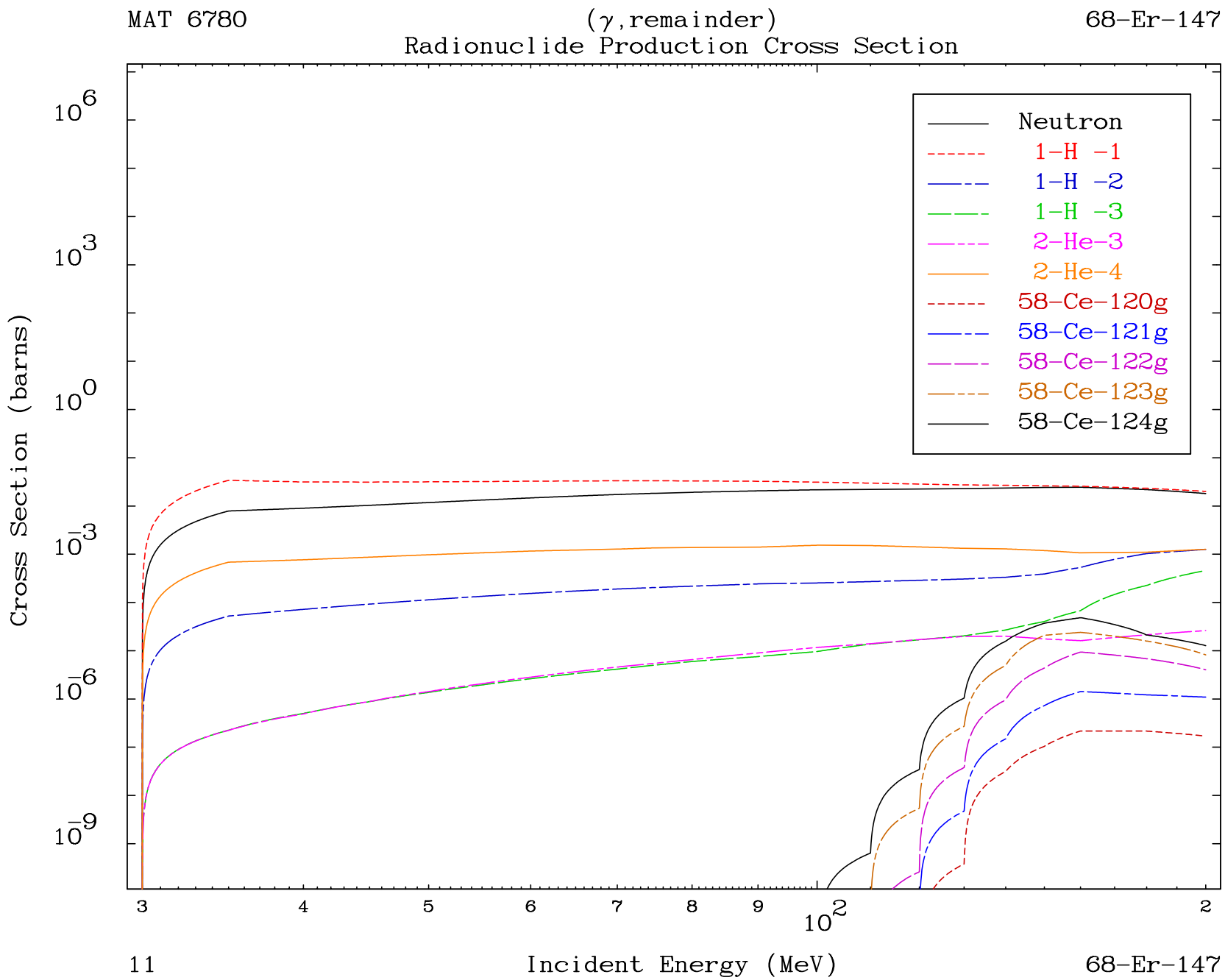
(γ,t) Levels
0 Kelvin Cross Sections

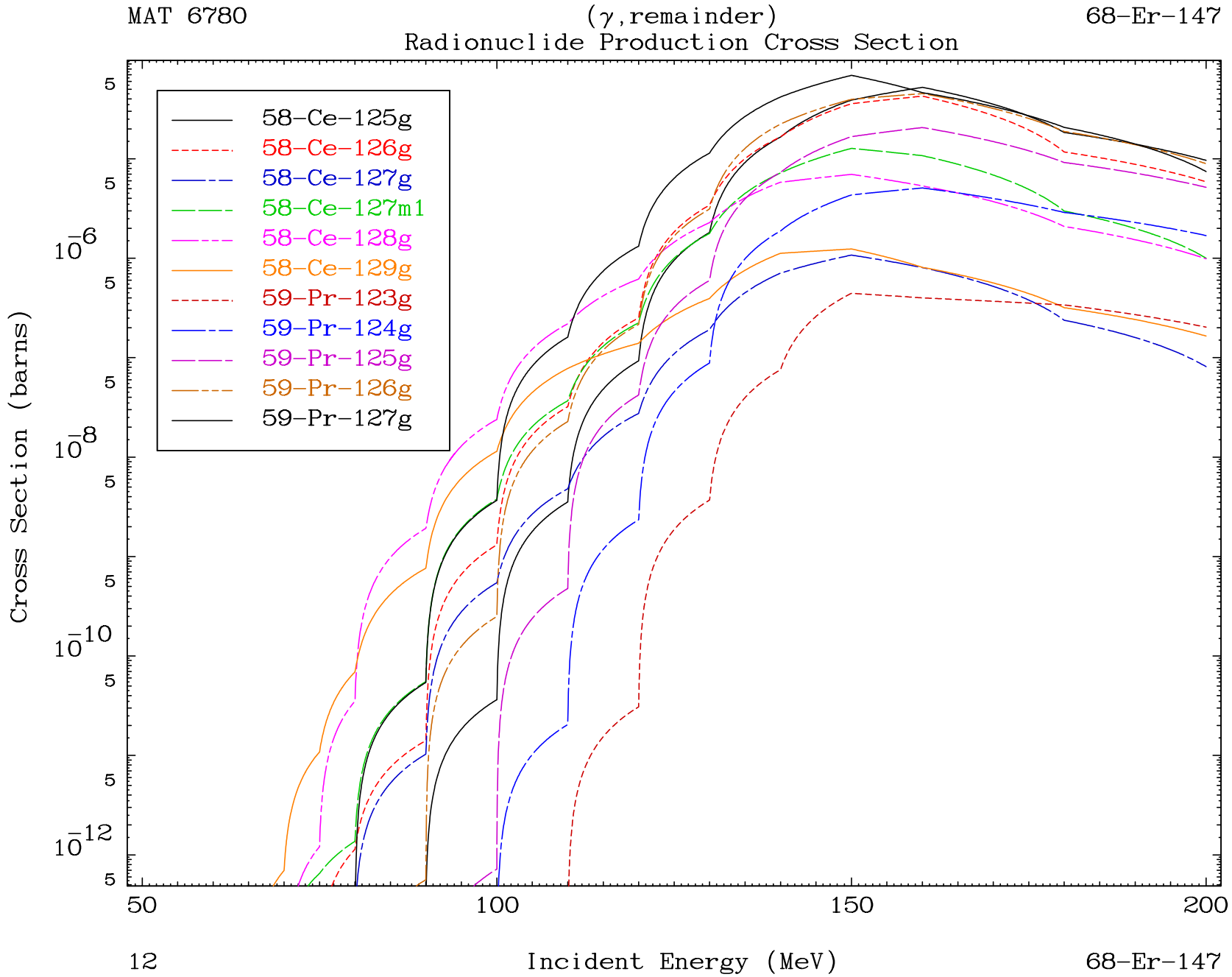


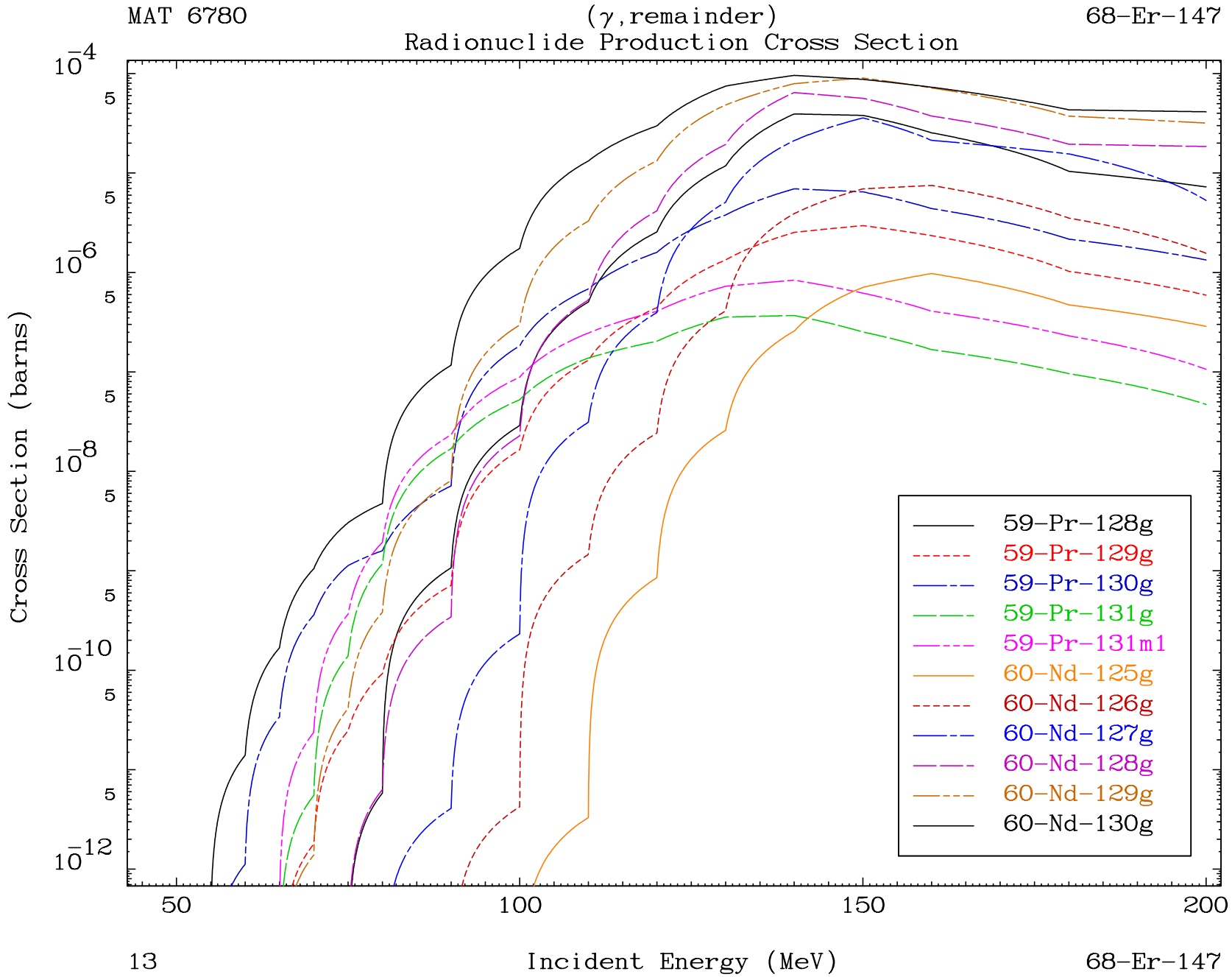
(γ,He3) Levels
0 Kelvin Cross Sections

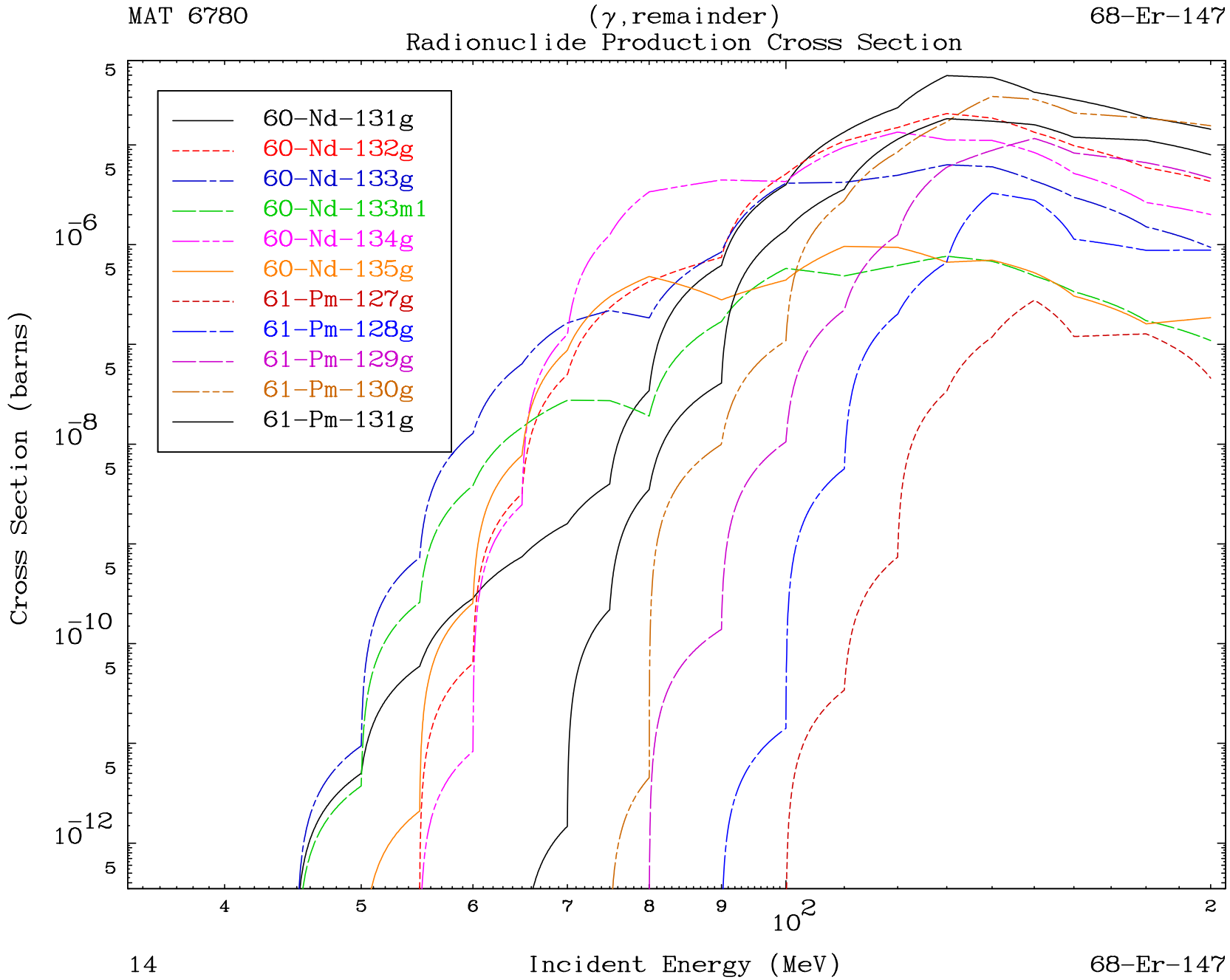


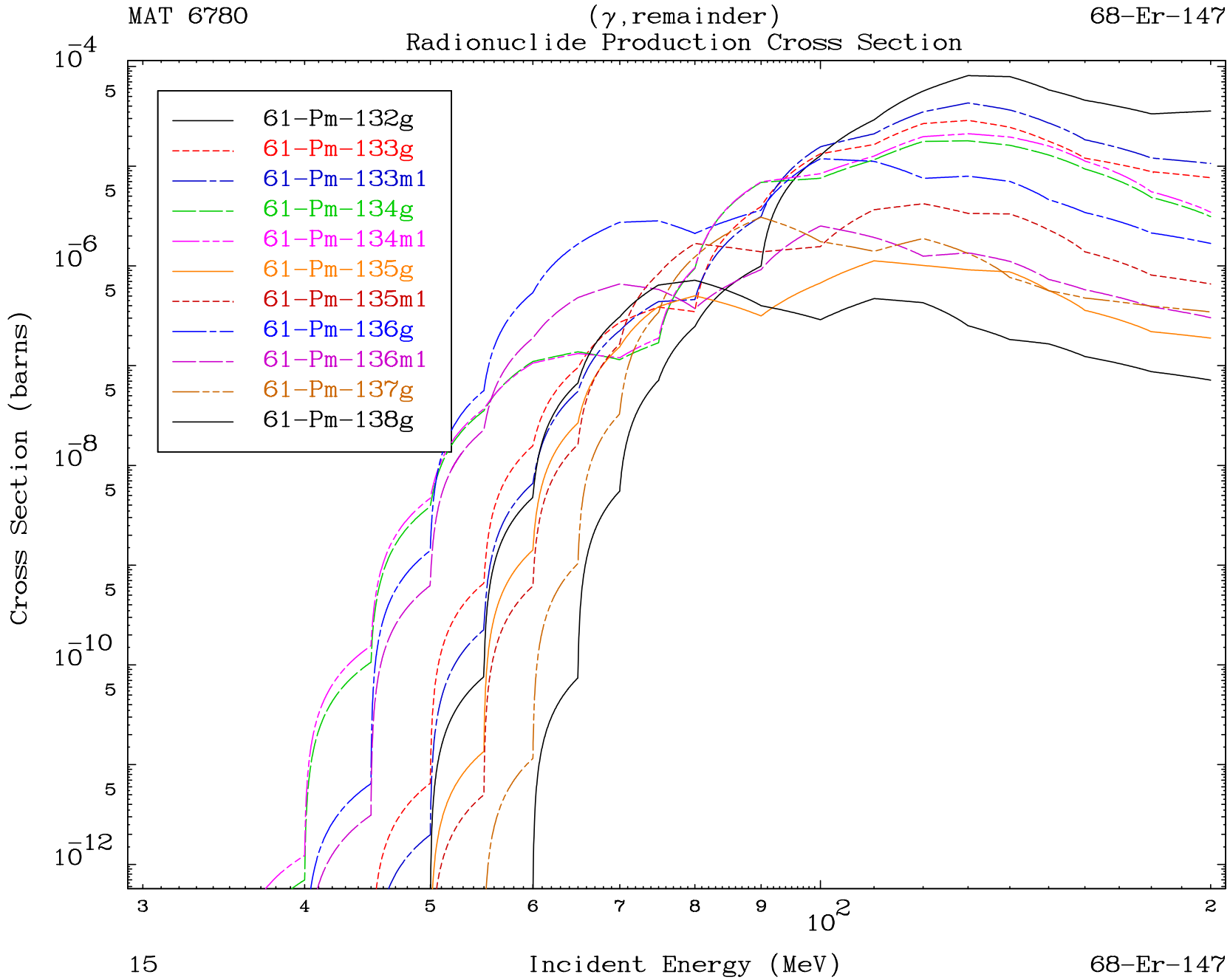

MAT 6780
(γ,α) Levels
0 Kelvin Cross Sections
68-Er-147
(γ,α)
Cross Section (barns)
Incident Energy (MeV)
68-Er-147

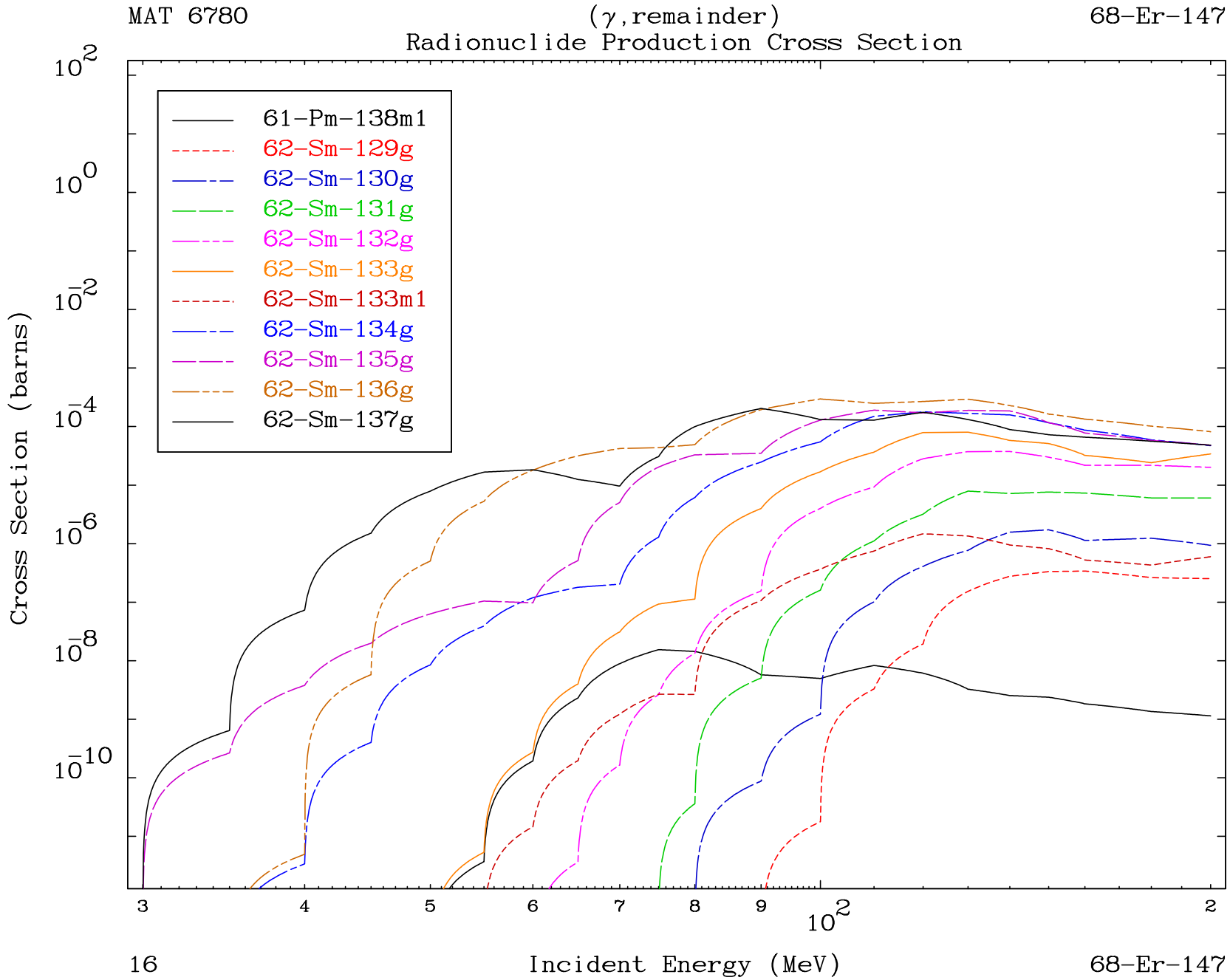

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Neutron
1-H -1
1-H -2
1-H -3
2-He-3
2-He-4
58-Ce-120g
58-Ce-121g
58-Ce-122g
58-Ce-123g
58-Ce-124g
Cross Section (barns)
Incident Energy (MeV)
11
68-Er-147

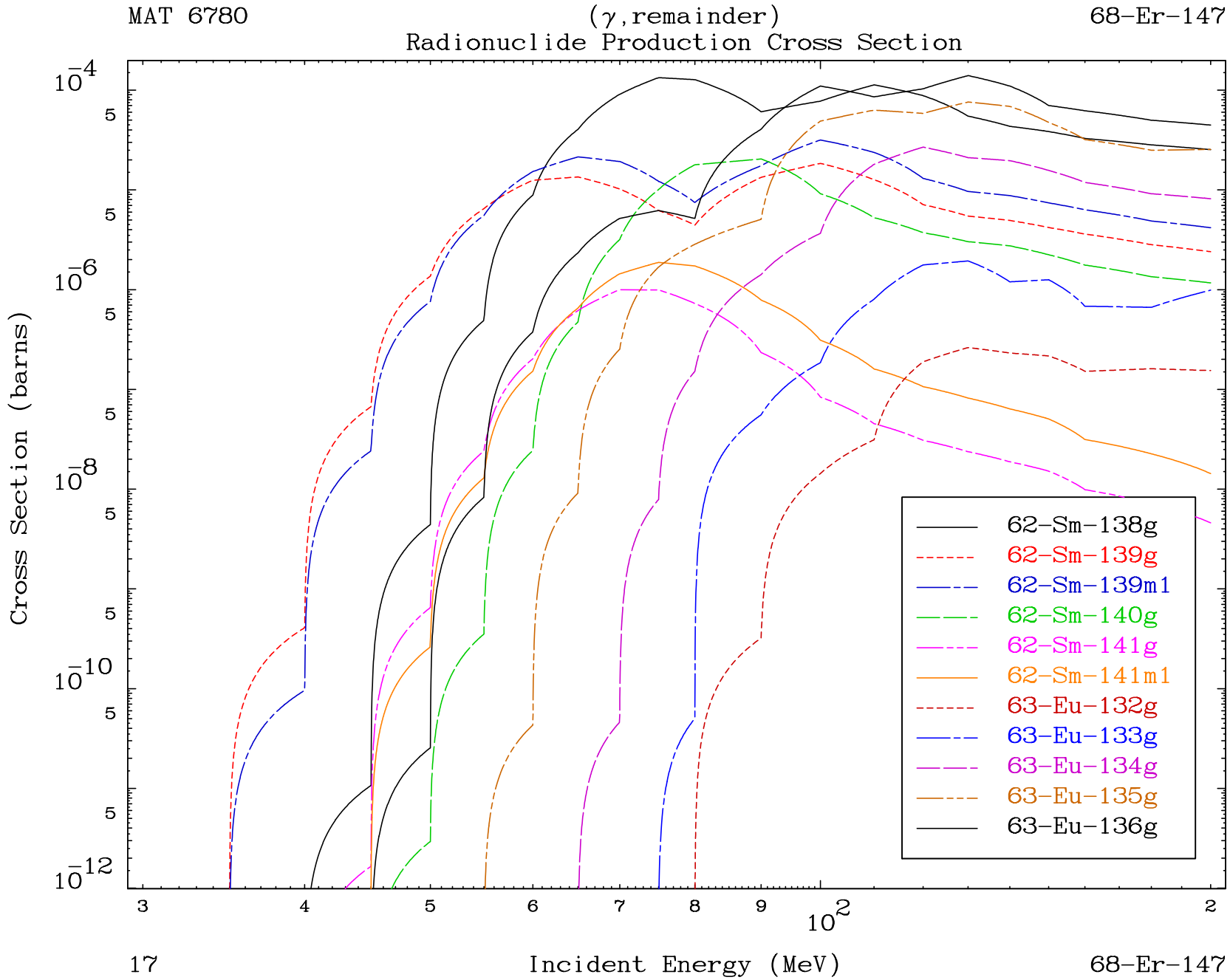

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
58-Ce-125g
58-Ce-126g
58-Ce-127g
58-Ce-127m1
58-Ce-128g
58-Ce-129g
59-Pr-123g
59-Pr-124g
59-Pr-125g
59-Pr-126g
59-Pr-127g
Cross Section (barns)
Incident Energy (MeV)
12
68-Er-147

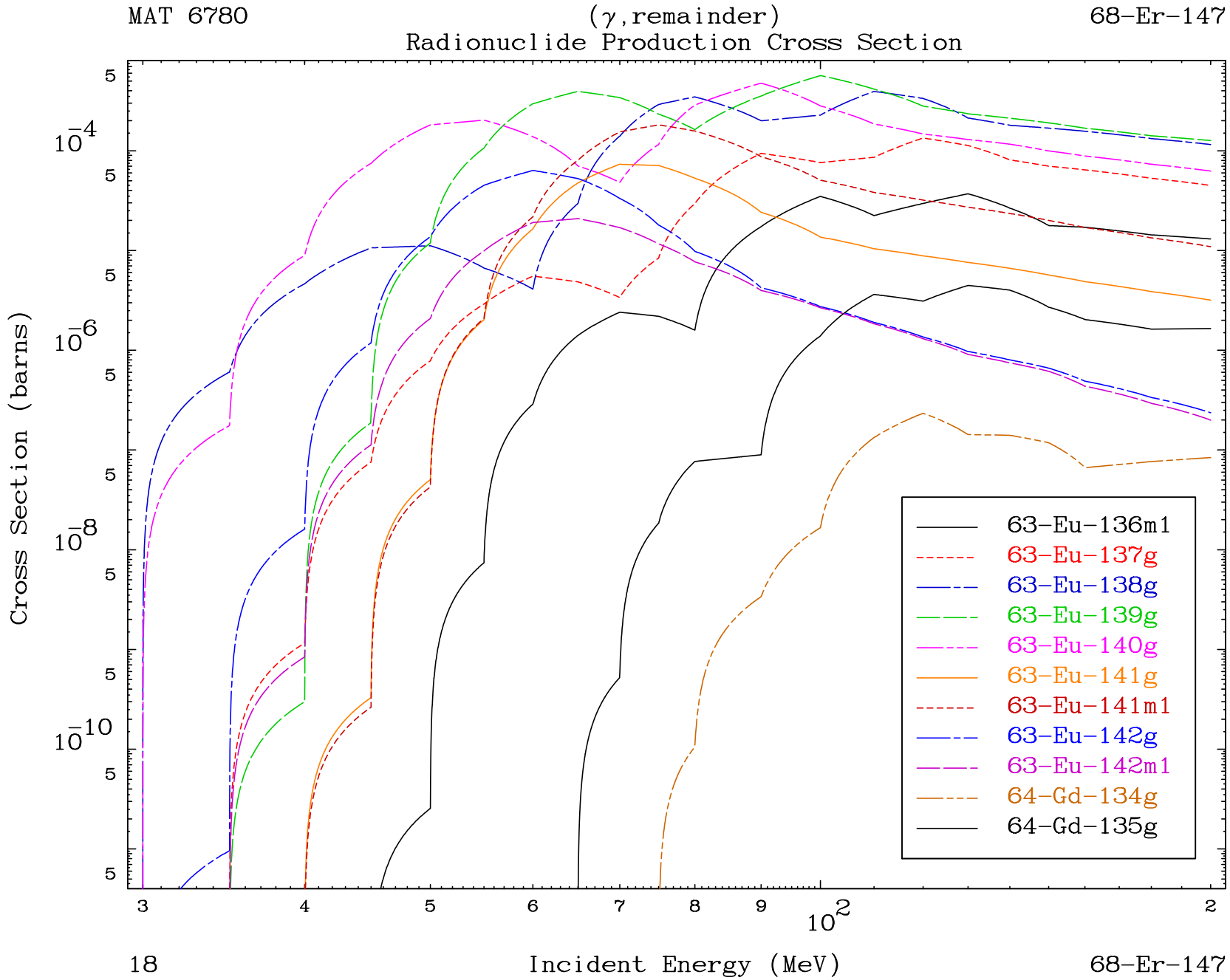

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
13
68-Er-147
59-Pr-128g
59-Pr-129g
59-Pr-130g
59-Pr-131g
59-Pr-131m1
60-Nd-125g
60-Nd-126g
60-Nd-127g
60-Nd-128g
60-Nd-129g
60-Nd-130g

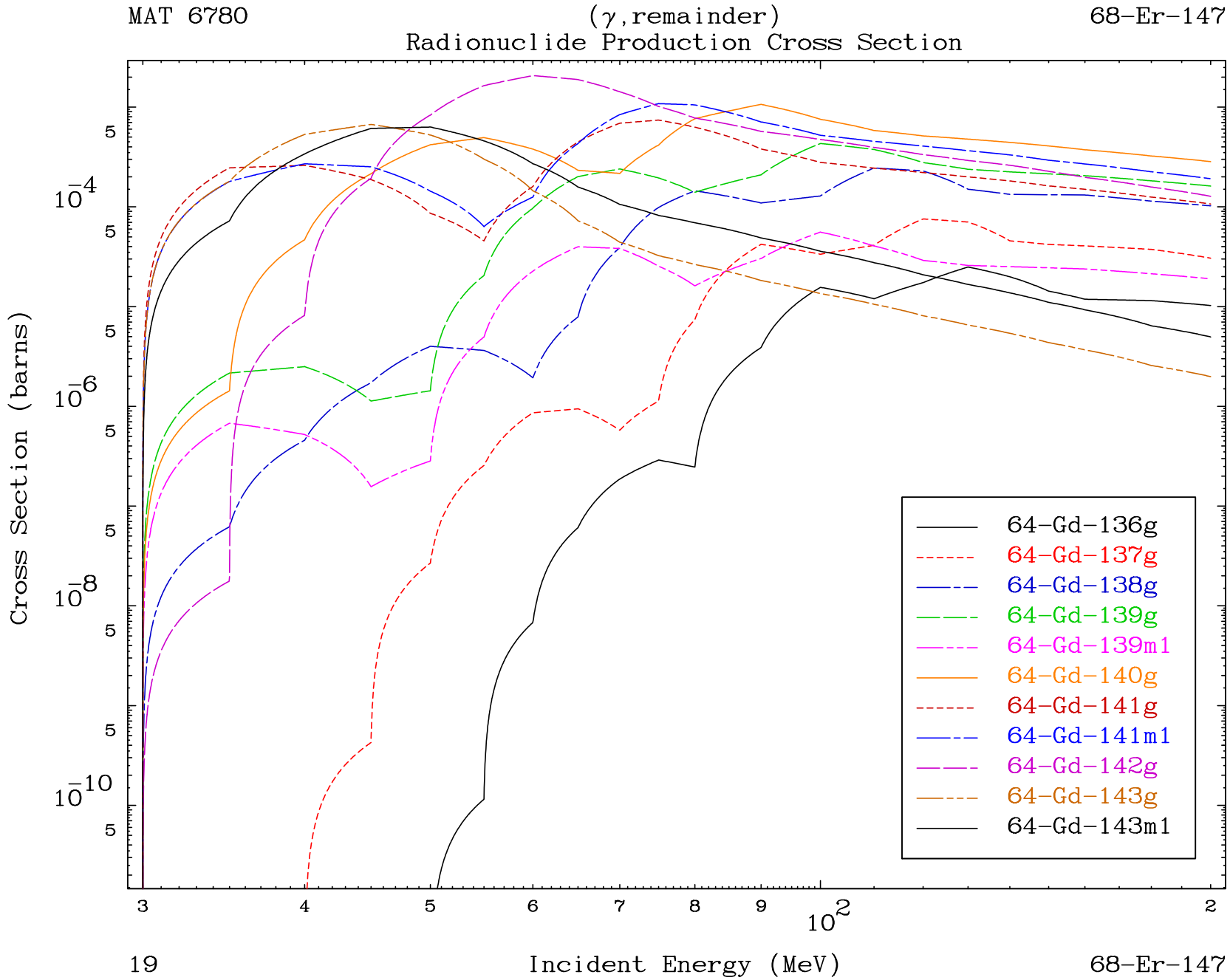

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
60-Nd-131g
60-Nd-132g
60-Nd-133g
60-Nd-133m1
60-Nd-134g
60-Nd-135g
61-Pm-127g
61-Pm-128g
61-Pm-129g
61-Pm-130g
61-Pm-131g
Cross Section (barns)
Incident Energy (MeV)
14
68-Er-147

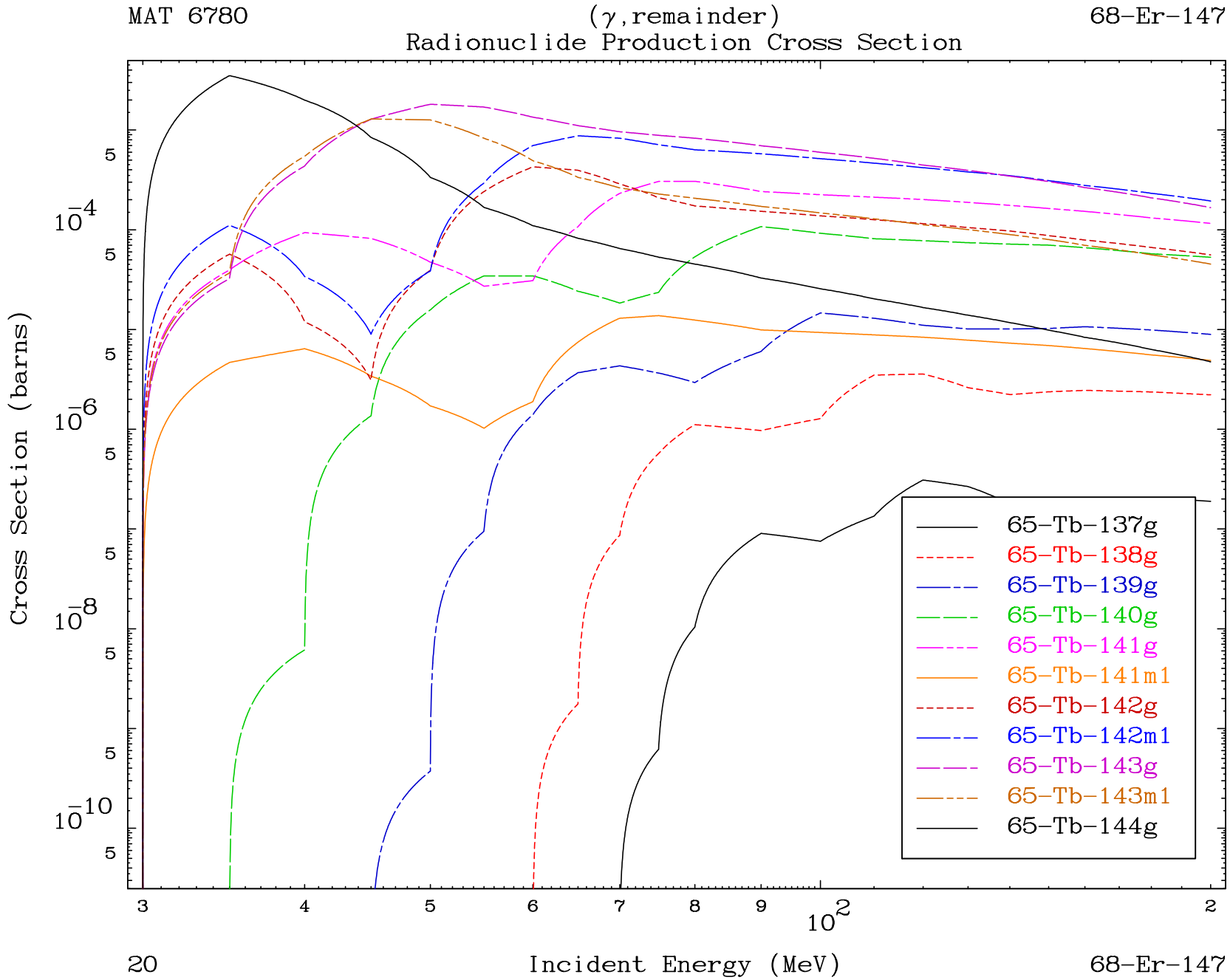

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
61-Pm-132g
61-Pm-133g
61-Pm-133m1
61-Pm-134g
61-Pm-134m1
61-Pm-135g
61-Pm-135m1
61-Pm-136g
61-Pm-136m1
61-Pm-137g
61-Pm-138g
Cross Section (barns)
Incident Energy (MeV)
15
68-Er-147

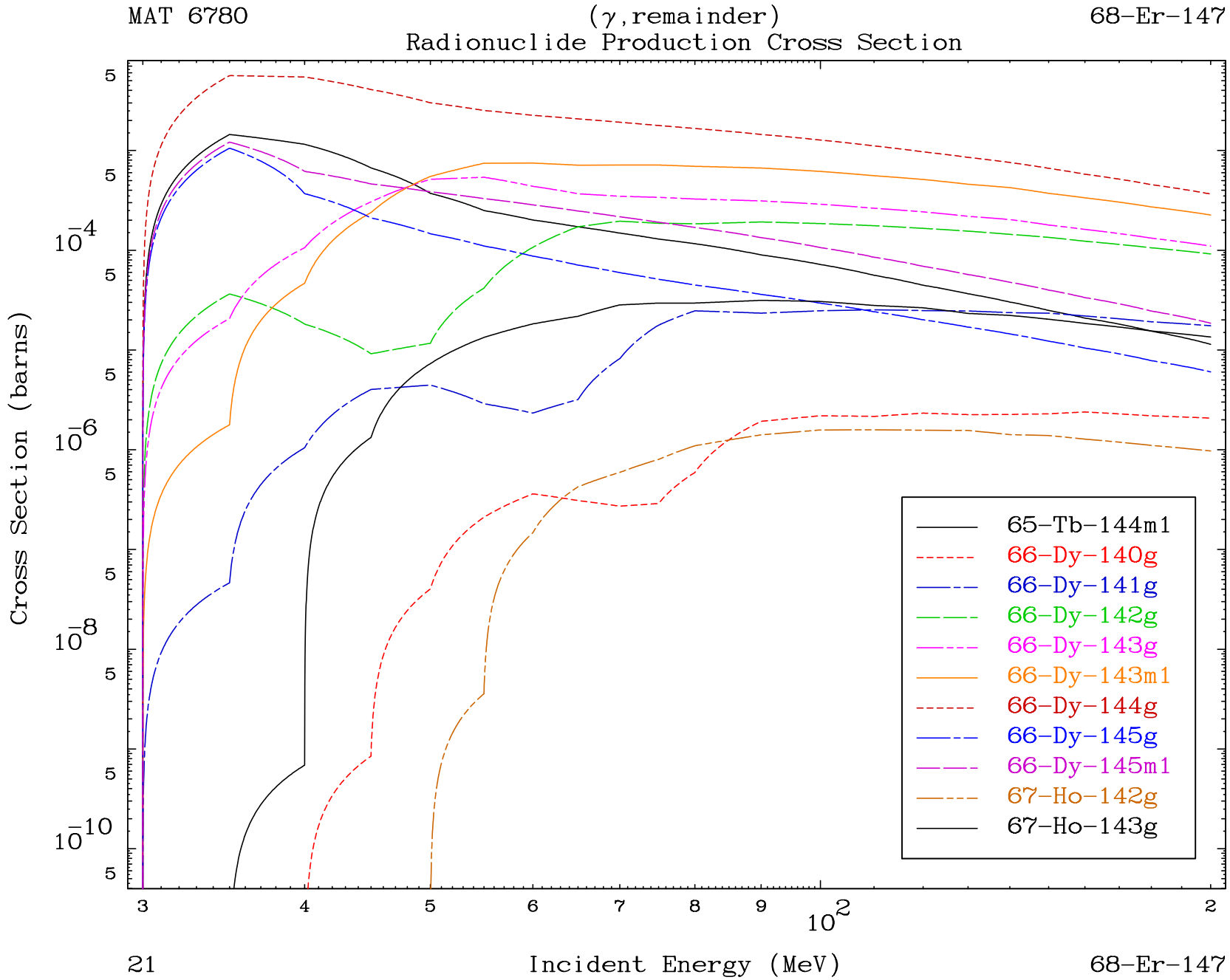

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
61-Pm-138m1
62-Sm-129g
62-Sm-130g
62-Sm-131g
62-Sm-132g
62-Sm-133g
62-Sm-133m1
62-Sm-134g
62-Sm-135g
62-Sm-136g
62-Sm-137g
Cross Section (barns)
Incident Energy (MeV)
16
68-Er-147

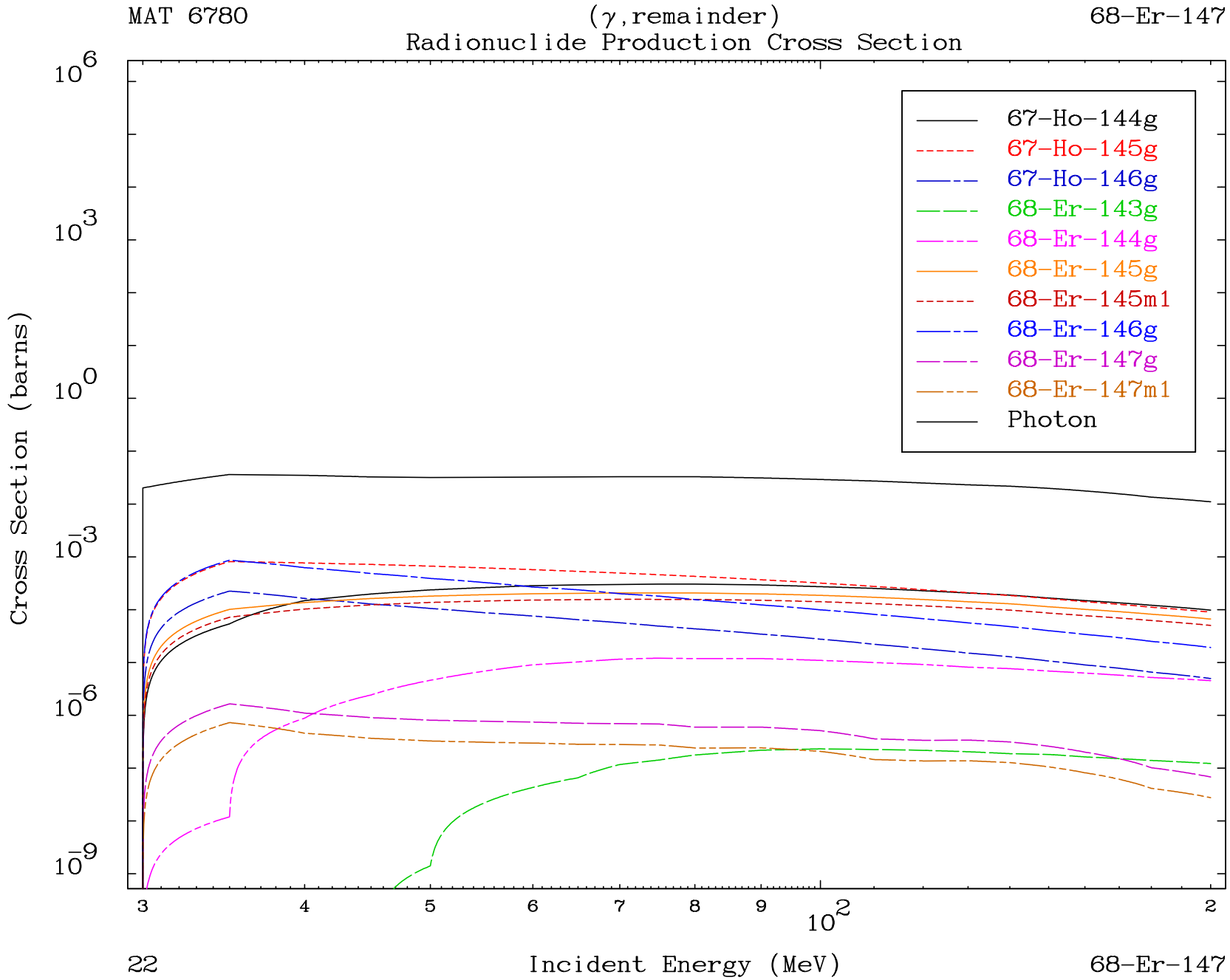

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
17
68-Er-147
62-Sm-138g
62-Sm-139g
62-Sm-139m1
62-Sm-140g
62-Sm-141g
62-Sm-141m1
63-Eu-132g
63-Eu-133g
63-Eu-134g
63-Eu-135g
63-Eu-136g

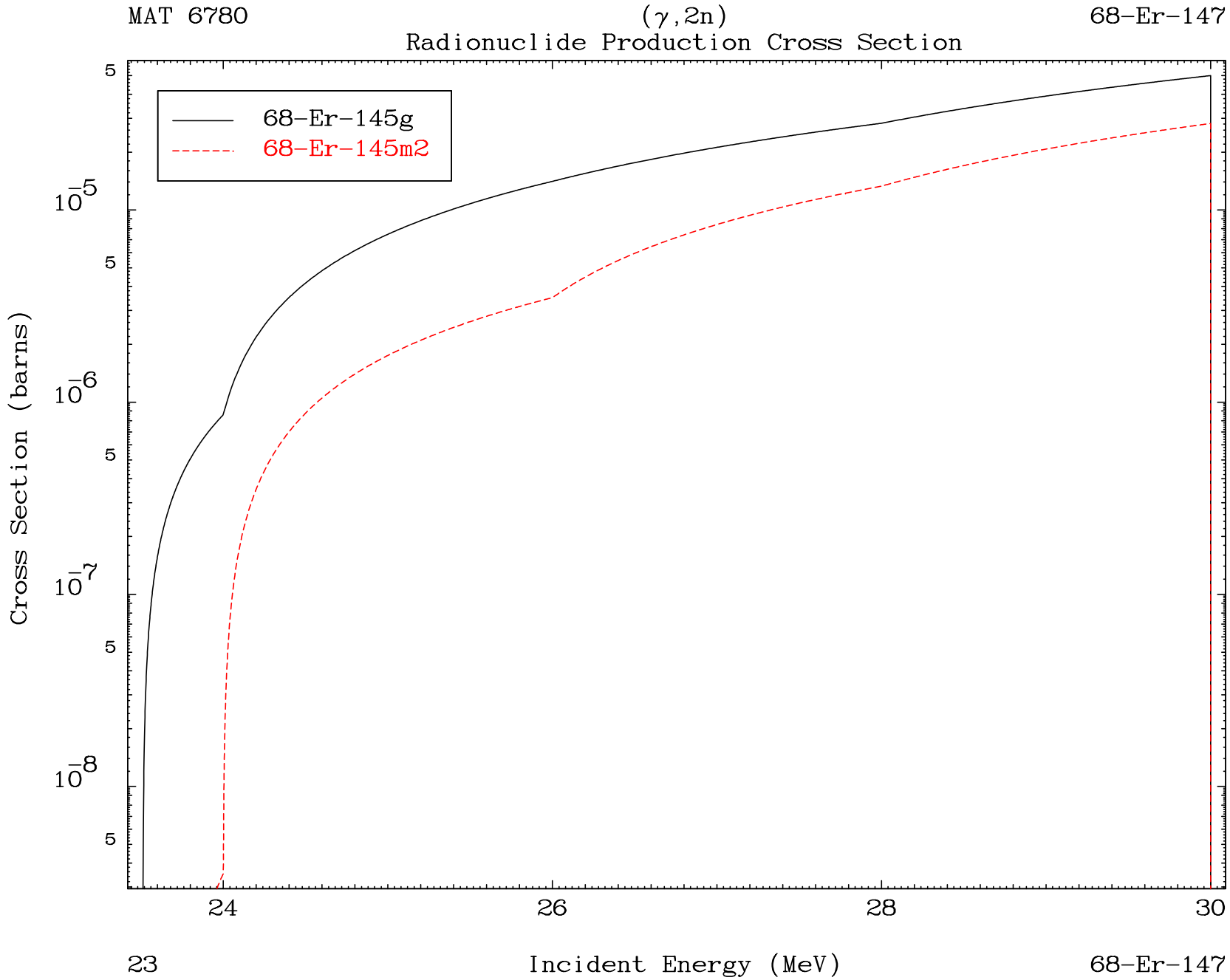

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
63-Eu-136m1
63-Eu-137g
63-Eu-138g
63-Eu-139g
63-Eu-140g
63-Eu-141g
63-Eu-141m1
63-Eu-142g
63-Eu-142m1
64-Gd-134g
64-Gd-135g
18
68-Er-147

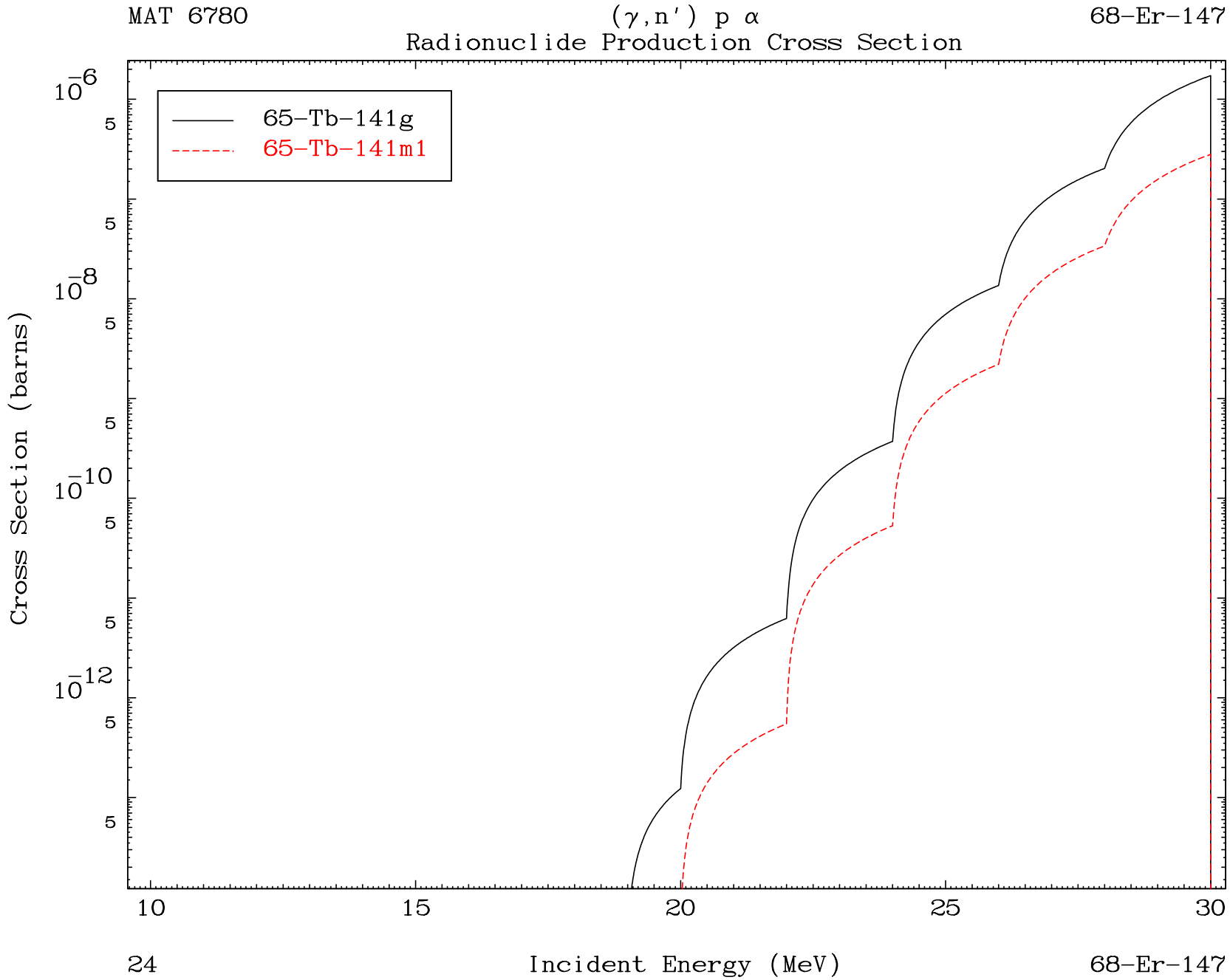

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
19
68-Er-147
64-Gd-136g
64-Gd-137g
64-Gd-138g
64-Gd-139g
64-Gd-139m1
64-Gd-140g
64-Gd-141g
64-Gd-141m1
64-Gd-142g
64-Gd-143g
64-Gd-143m1

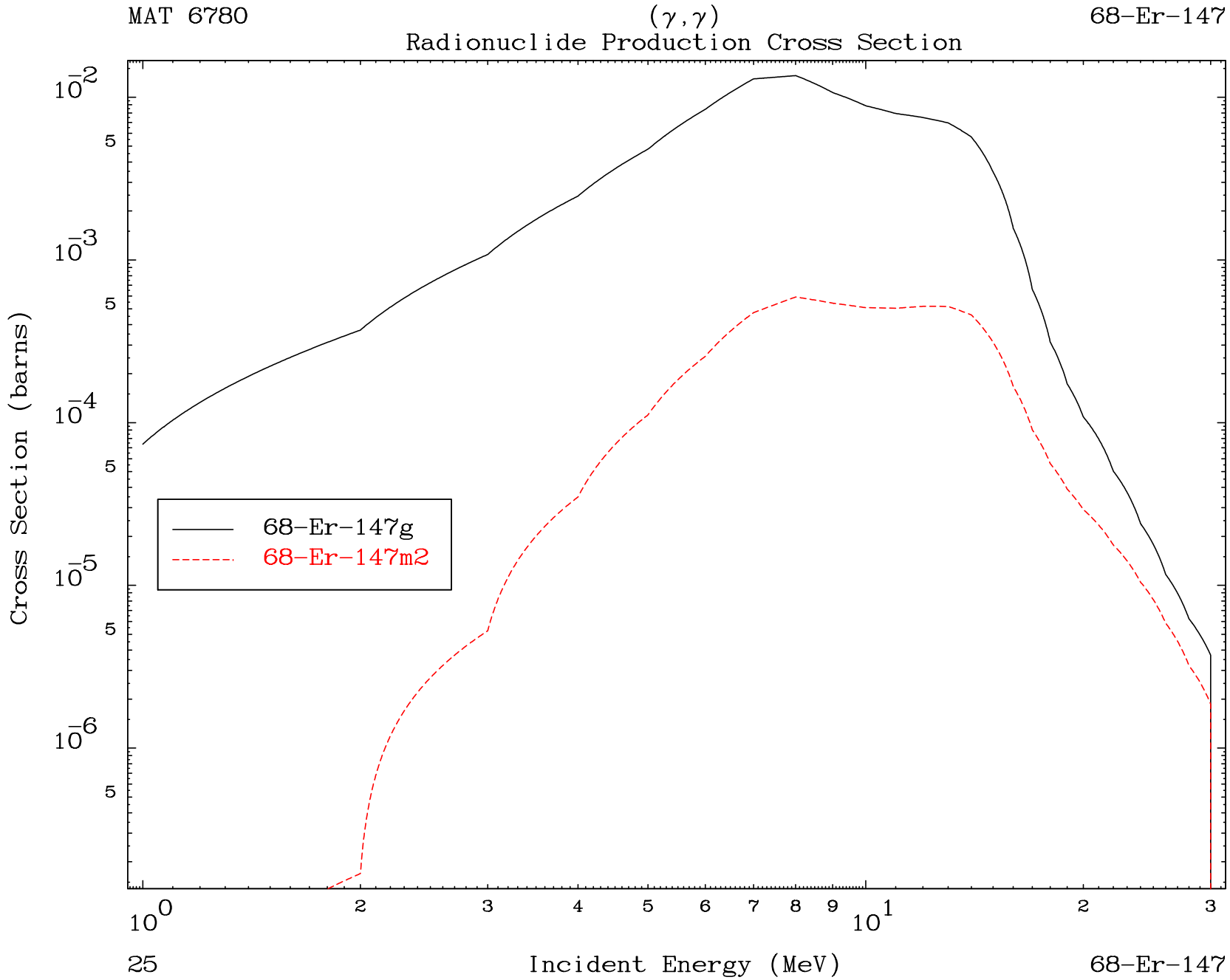

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
20
68-Er-147
65-Tb-137g
65-Tb-138g
65-Tb-139g
65-Tb-140g
65-Tb-141g
65-Tb-141m1
65-Tb-142g
65-Tb-142m1
65-Tb-143g
65-Tb-143m1
65-Tb-144g

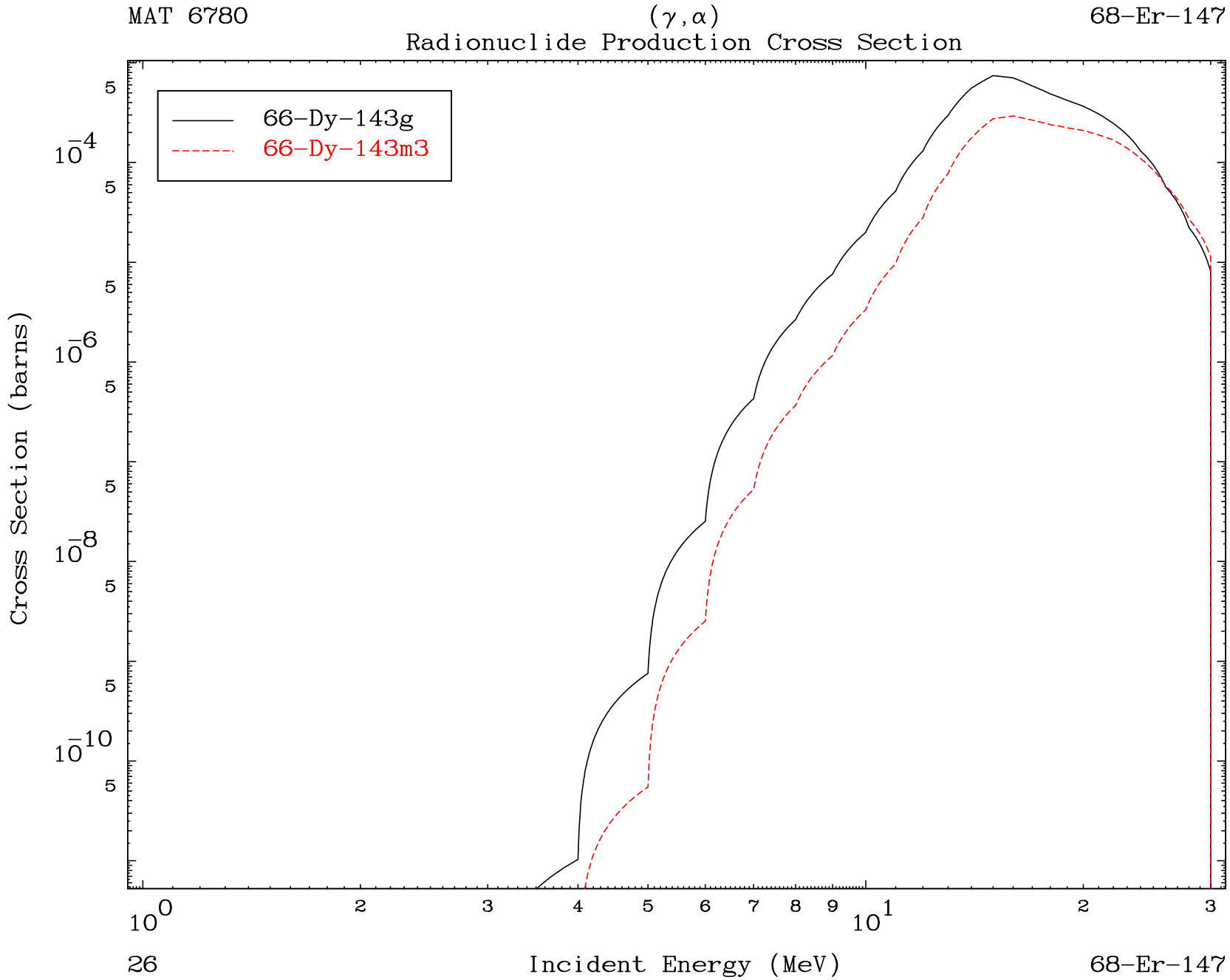

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
21
68-Er-147
65-Tb-144m1
66-Dy-140g
66-Dy-141g
66-Dy-142g
66-Dy-143g
66-Dy-143m1
66-Dy-144g
66-Dy-145g
66-Dy-145m1
67-Ho-142g
67-Ho-143g

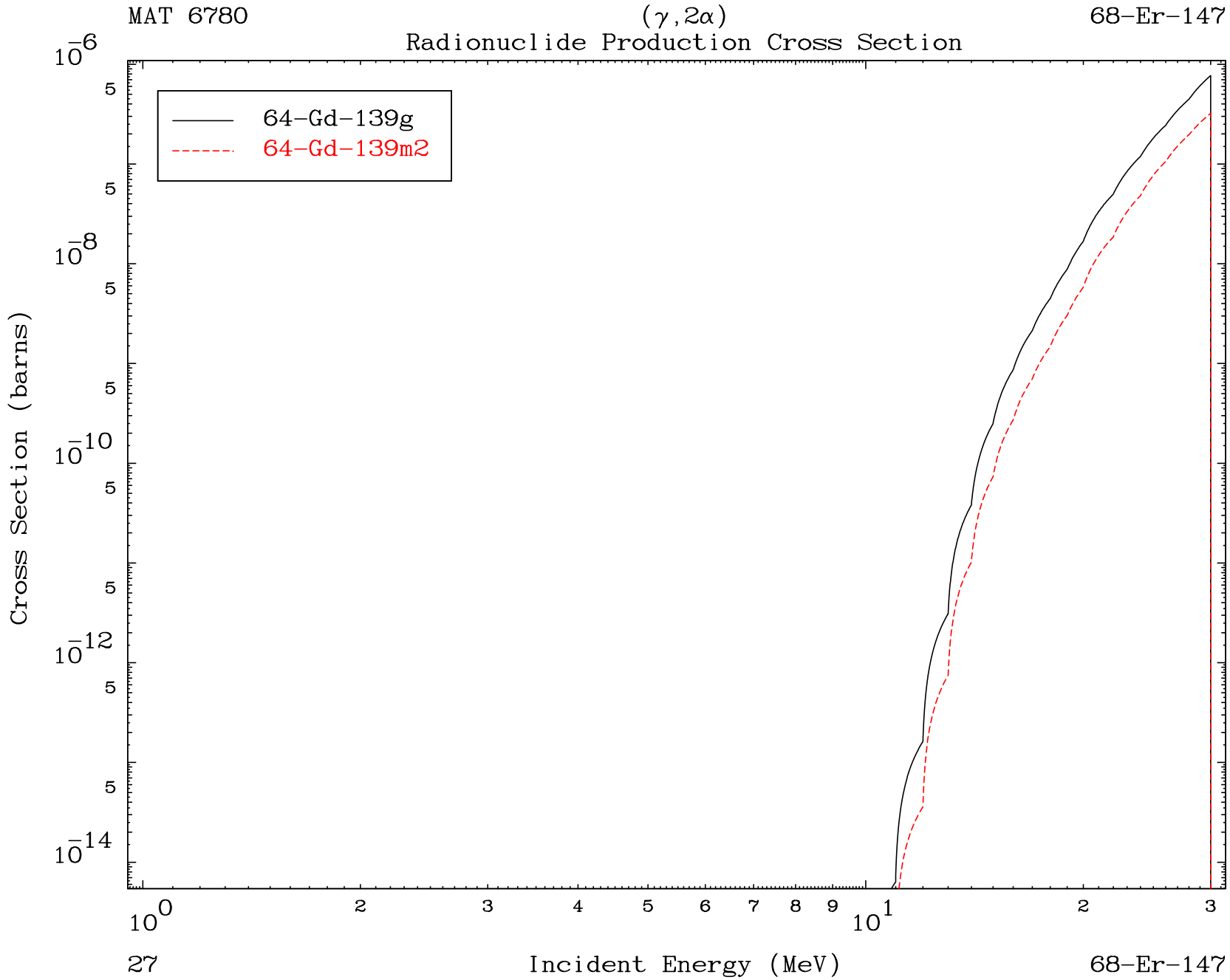

MAT 6780
(γ,remainder)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
22
68-Er-147
67-Ho-144g
67-Ho-145g
67-Ho-146g
68-Er-143g
68-Er-144g
68-Er-145g
68-Er-145m1
68-Er-146g
68-Er-147g
68-Er-147m1
Photon

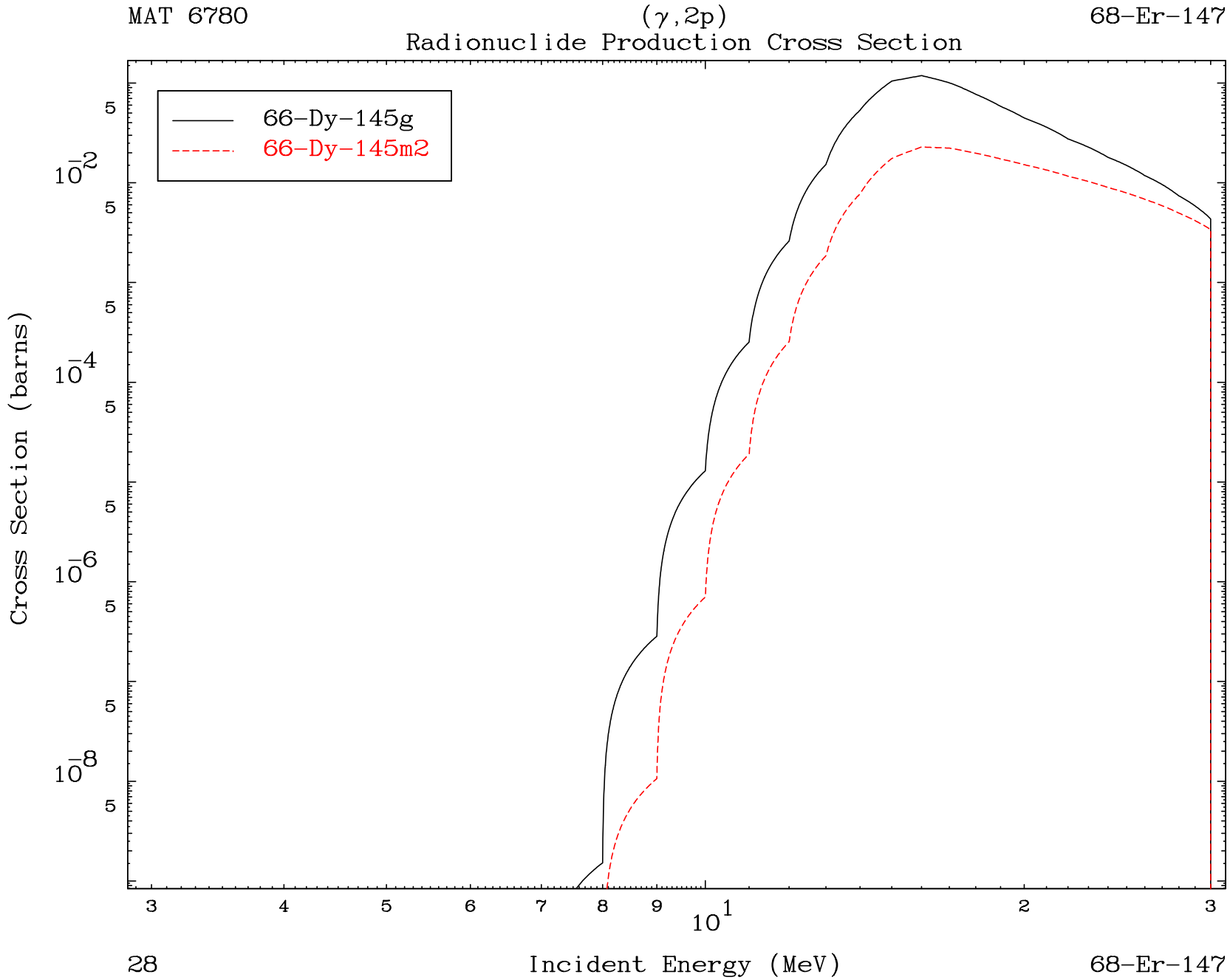

MAT 6780
(γ,2n)
68-Er-147
Radionuclide Production Cross Section
68-Er-145g
68-Er-145m2
Cross Section (barns)
5
10-5
5
10-6
5
10-7
5
10-8
5
24
26
28
30
23
Incident Energy (MeV)
68-Er-147

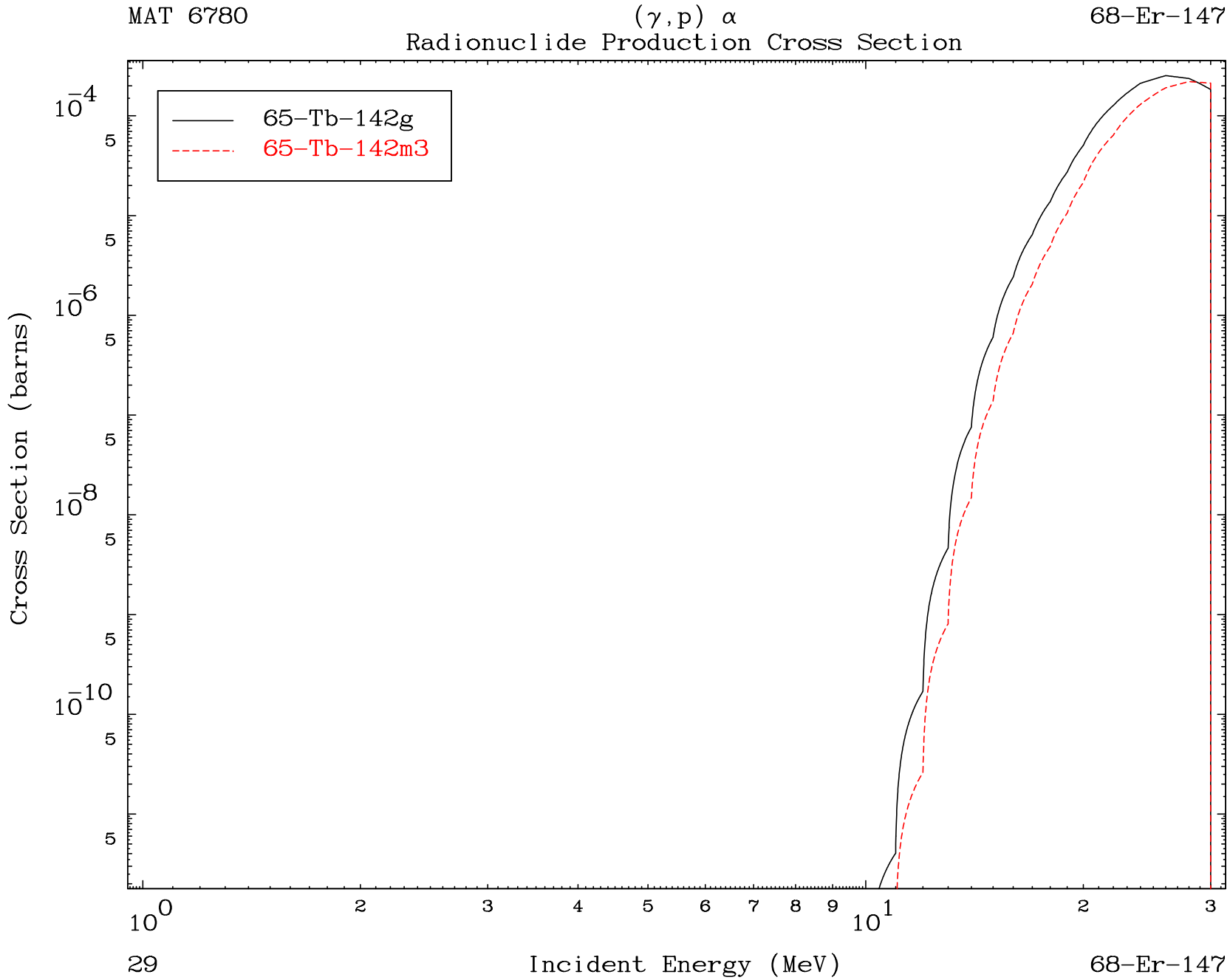

MAT 6780
(γ,n') p α
68-Er-147
Radionuclide Production Cross Section
65-Tb-141g
65-Tb-141m1
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
10
15
20
25
30
24
Incident Energy (MeV)
68-Er-147

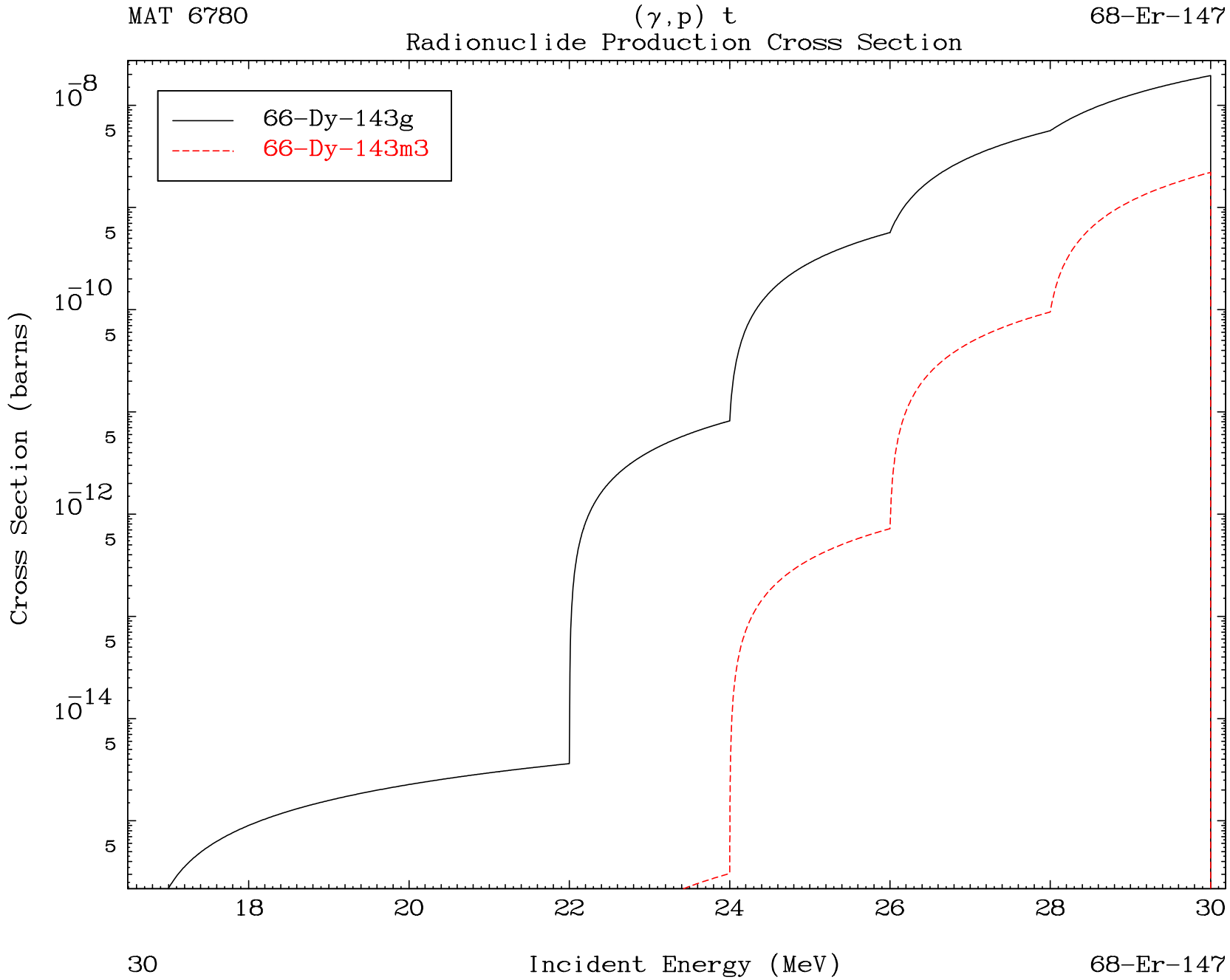

MAT 6780
(γ,γ)
68-Er-147
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
68-Er-147g
68-Er-147m2
25
68-Er-147


MAT 6780
(γ,α)
68-Er-147
Radionuclide Production Cross Section
66-Dy-143g
66-Dy-143m3
Cross Section (barns)
Incident Energy (MeV)
26
68-Er-147


MAT 6780
(γ,2α)
68-Er-147
Radionuclide Production Cross Section
64-Gd-139g
64-Gd-139m2
Cross Section (barns)
Incident Energy (MeV)
27
68-Er-147


MAT 6780
(γ,2p)
68-Er-147
Radionuclide Production Cross Section
66-Dy-145g
66-Dy-145m2
Cross Section (barns)
Incident Energy (MeV)
28
68-Er-147


MAT 6780
(γ,p) α
68-Er-147
Radionuclide Production Cross Section
65-Tb-142g
65-Tb-142m3
Cross Section (barns)
Incident Energy (MeV)
29
68-Er-147


MAT 6780
(γ,p) t
68-Er-147
Radionuclide Production Cross Section
66-Dy-143g
66-Dy-143m3
Cross Section (barns)
10^-8
10^-10
10^-12
10^-14
5
18
20
22
24
26
28
30
Incident Energy (MeV)
30
68-Er-147