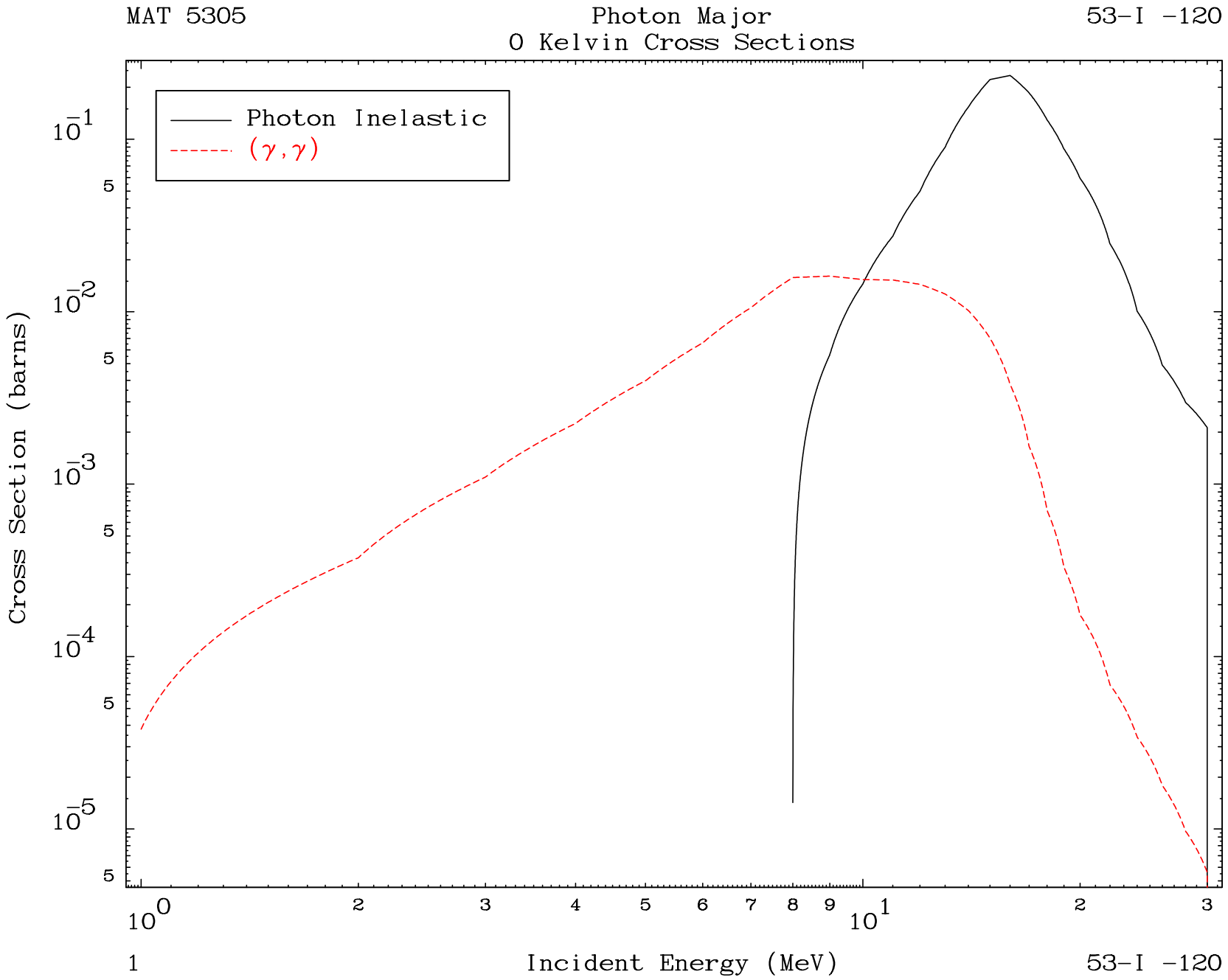
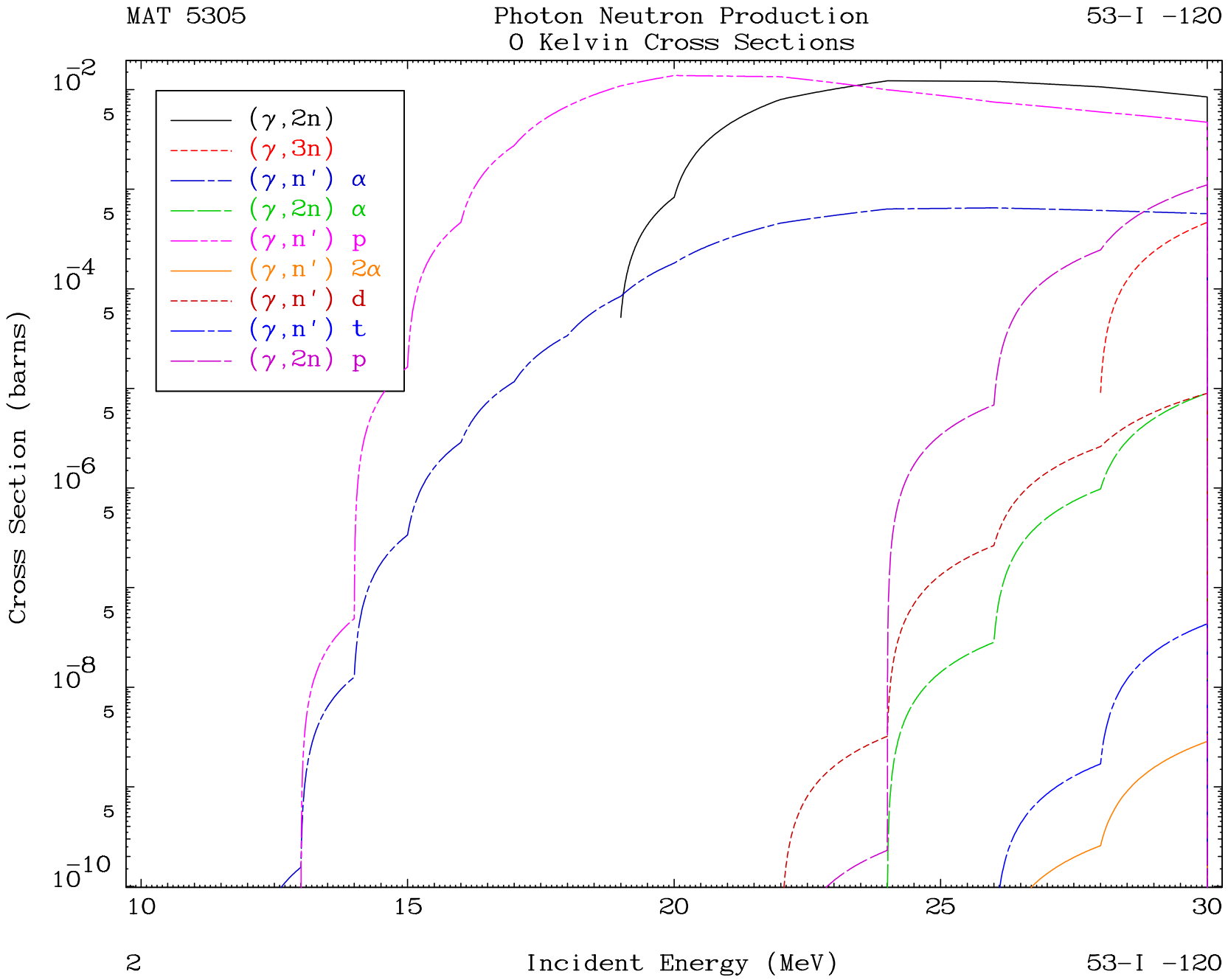
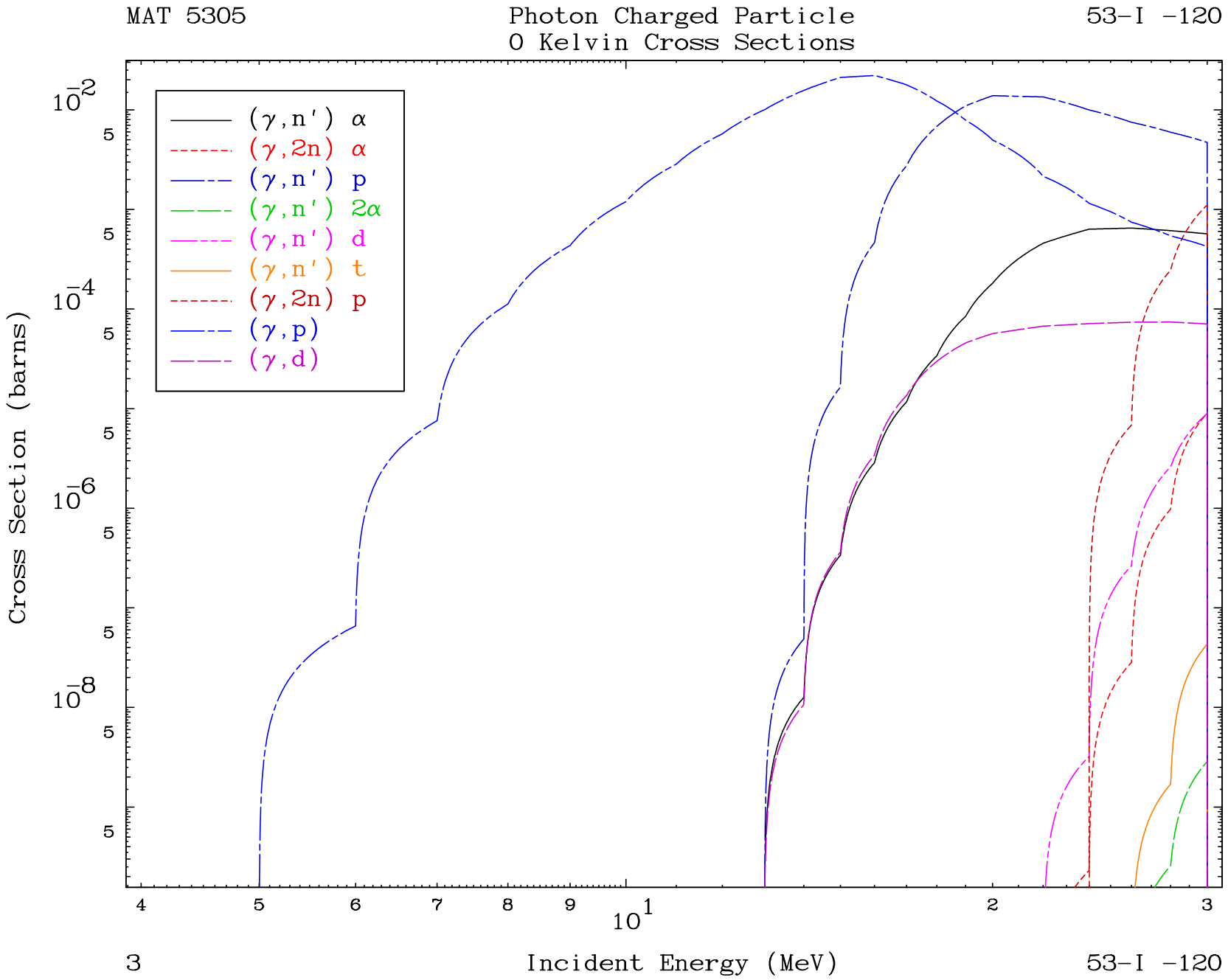
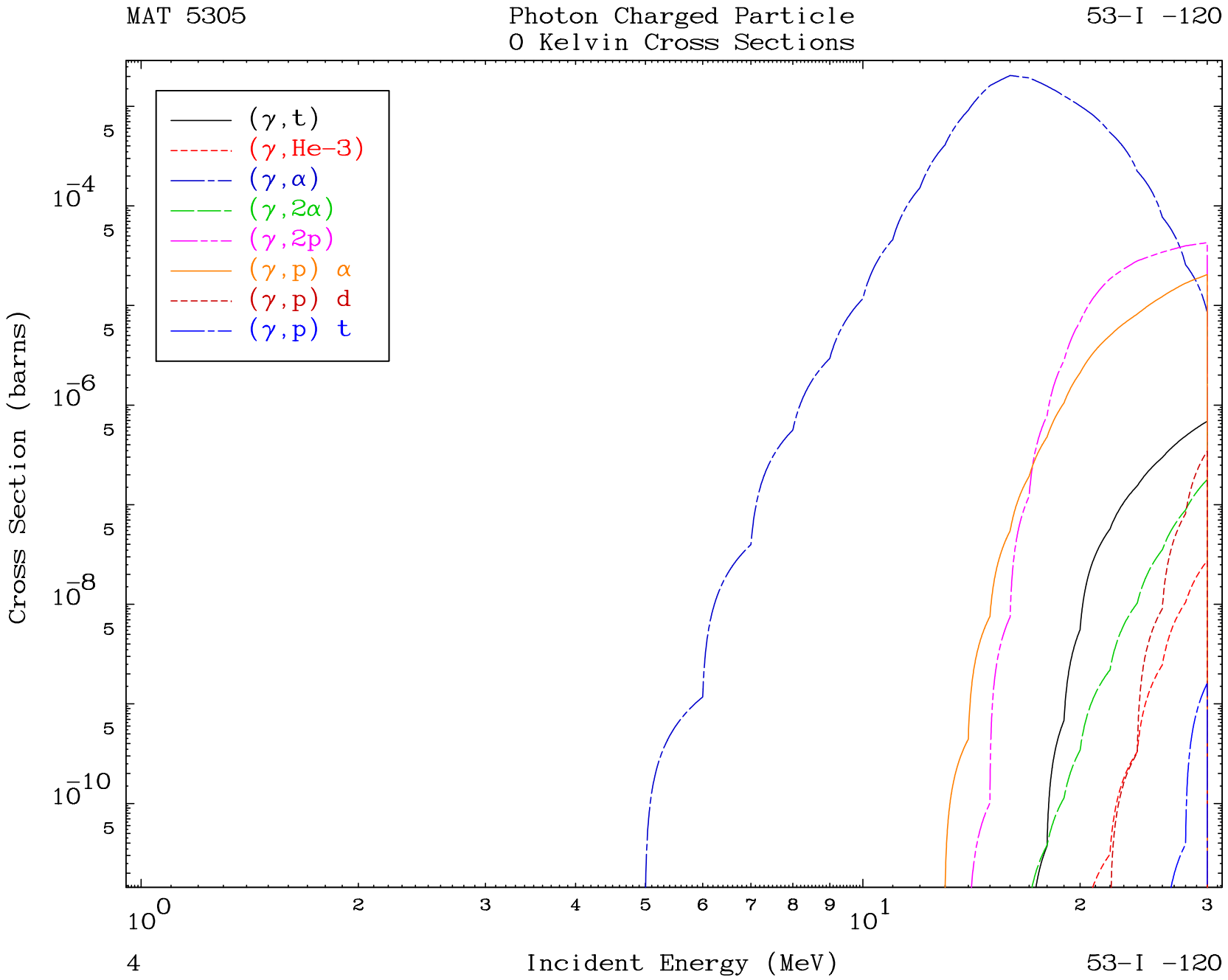
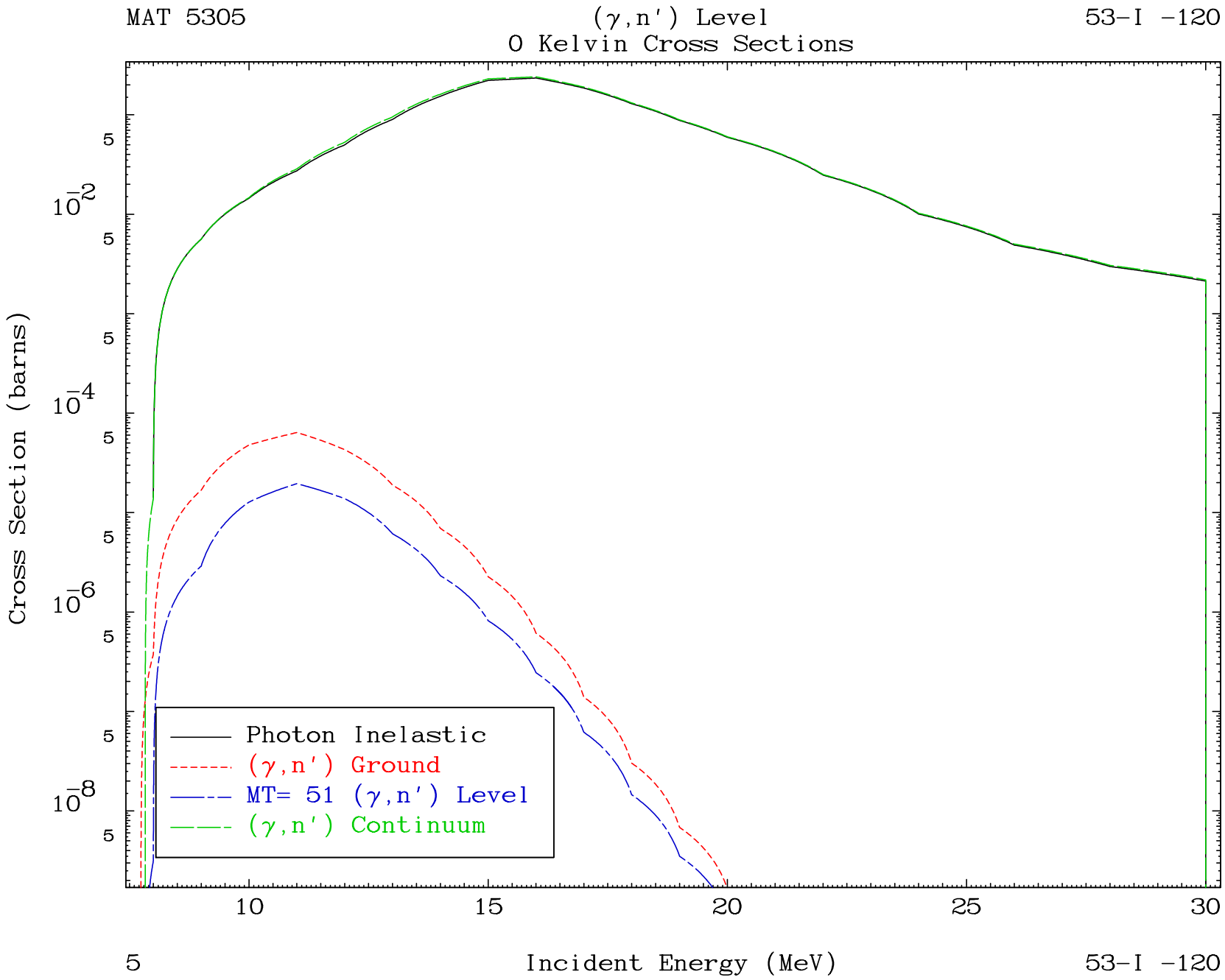
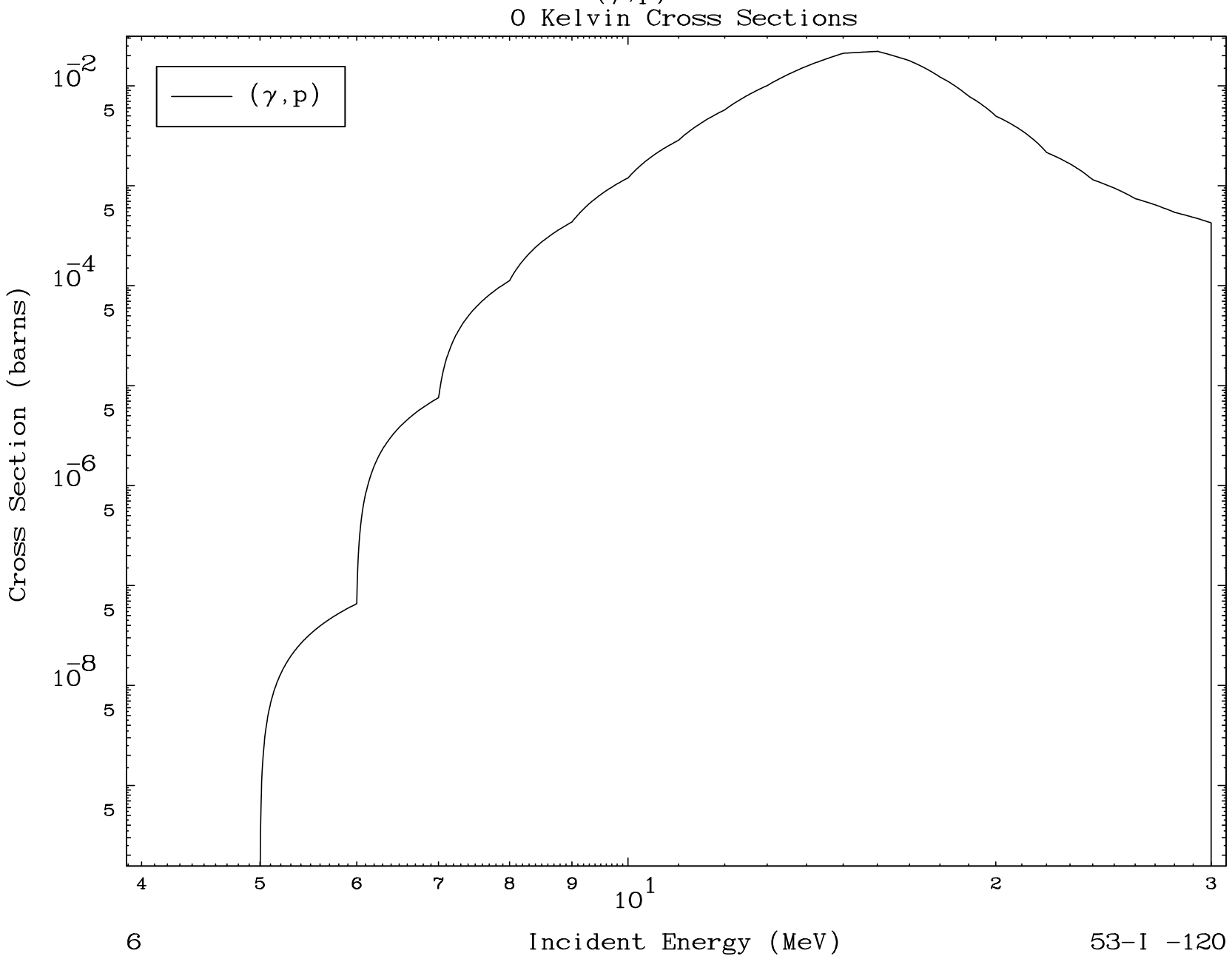

MAT 5305
Photon Major
53-I -120
0 Kelvin Cross Sections
Photon Inelastic
(γ,γ)
Cross Section (barns)
10-1
10-2
10-3
10-4
10-5
5
100
101
2
3
4
5
6
7
8
9
Incident Energy (MeV)
53-I -120

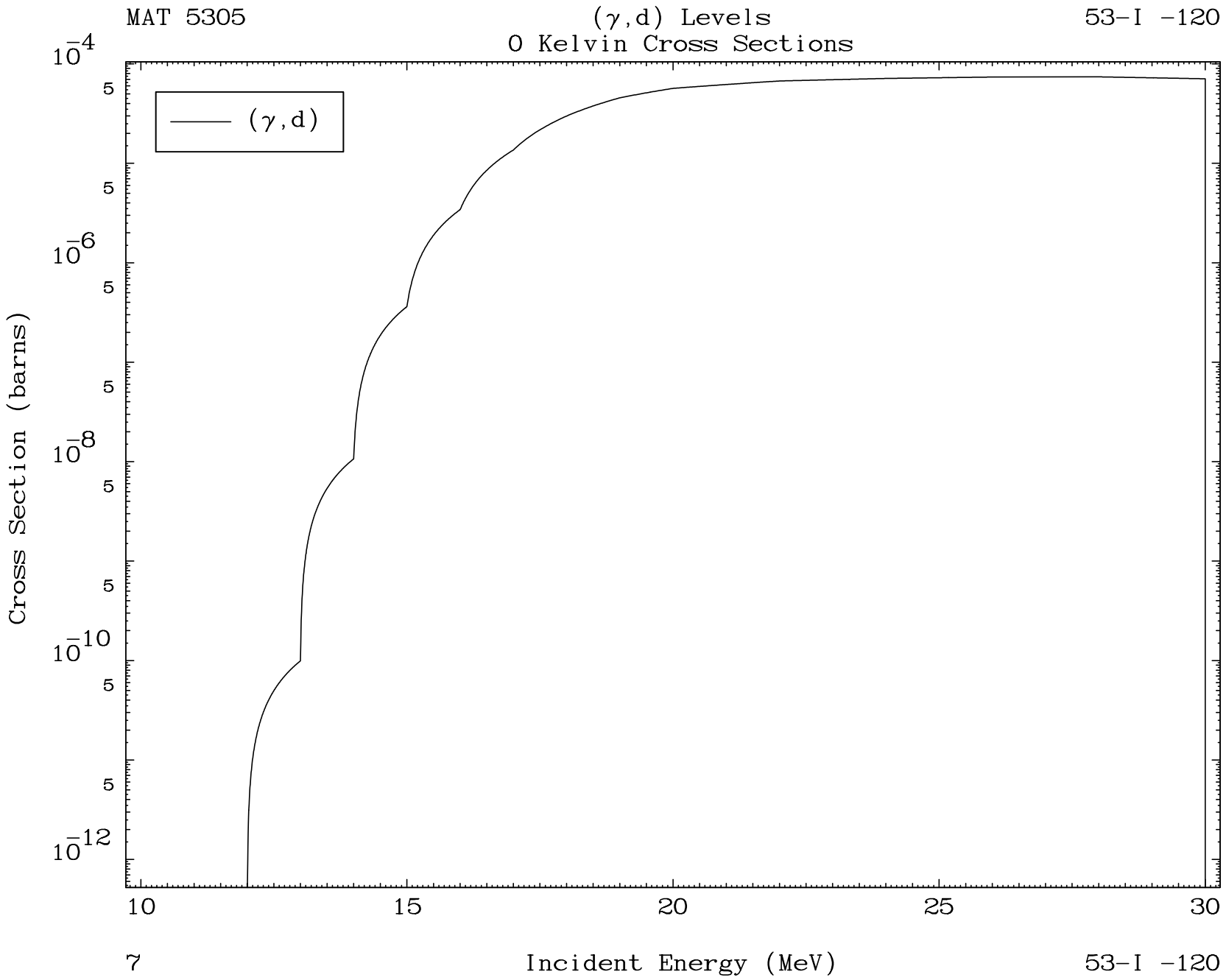

MAT 5305
Photon Neutron Production
0 Kelvin Cross Sections
53-I -120
(γ,2n)
(γ,3n)
(γ,n') α
(γ,2n) α
(γ,n') p
(γ,n') 2α
(γ,n') d
(γ,n') t
(γ,2n) p
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
10^-10
10
15
20
25
30
2
Incident Energy (MeV)
53-I -120

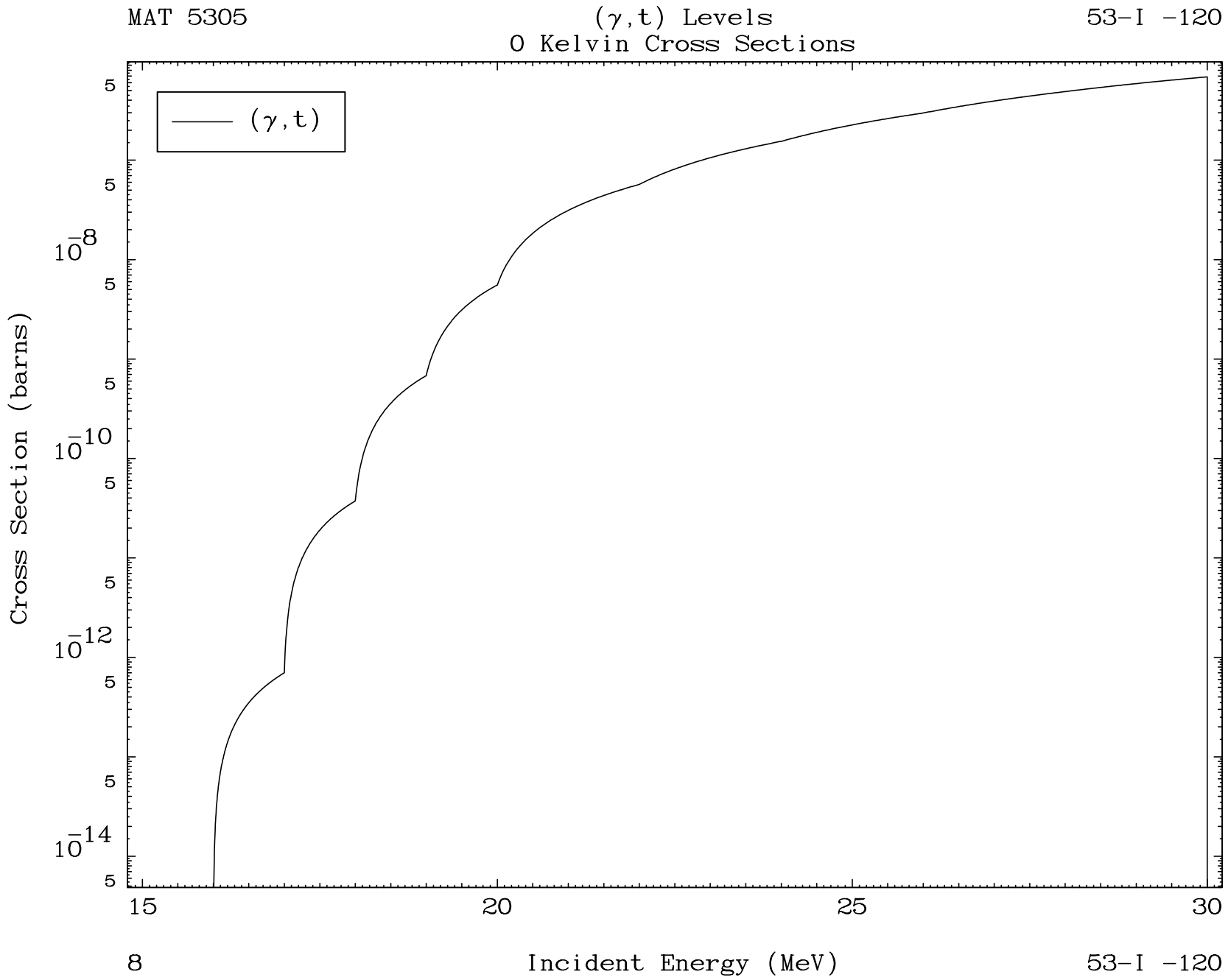

MAT 5305
Photon Charged Particle
0 Kelvin Cross Sections
53-I -120
(γ,n') α
(γ,2n) α
(γ,n') p
(γ,n') 2α
(γ,n') d
(γ,n') t
(γ,2n) p
(γ,p)
(γ,d)
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
4
5
6
7
8
9
10^1
2
3
Incident Energy (MeV)
53-I -120

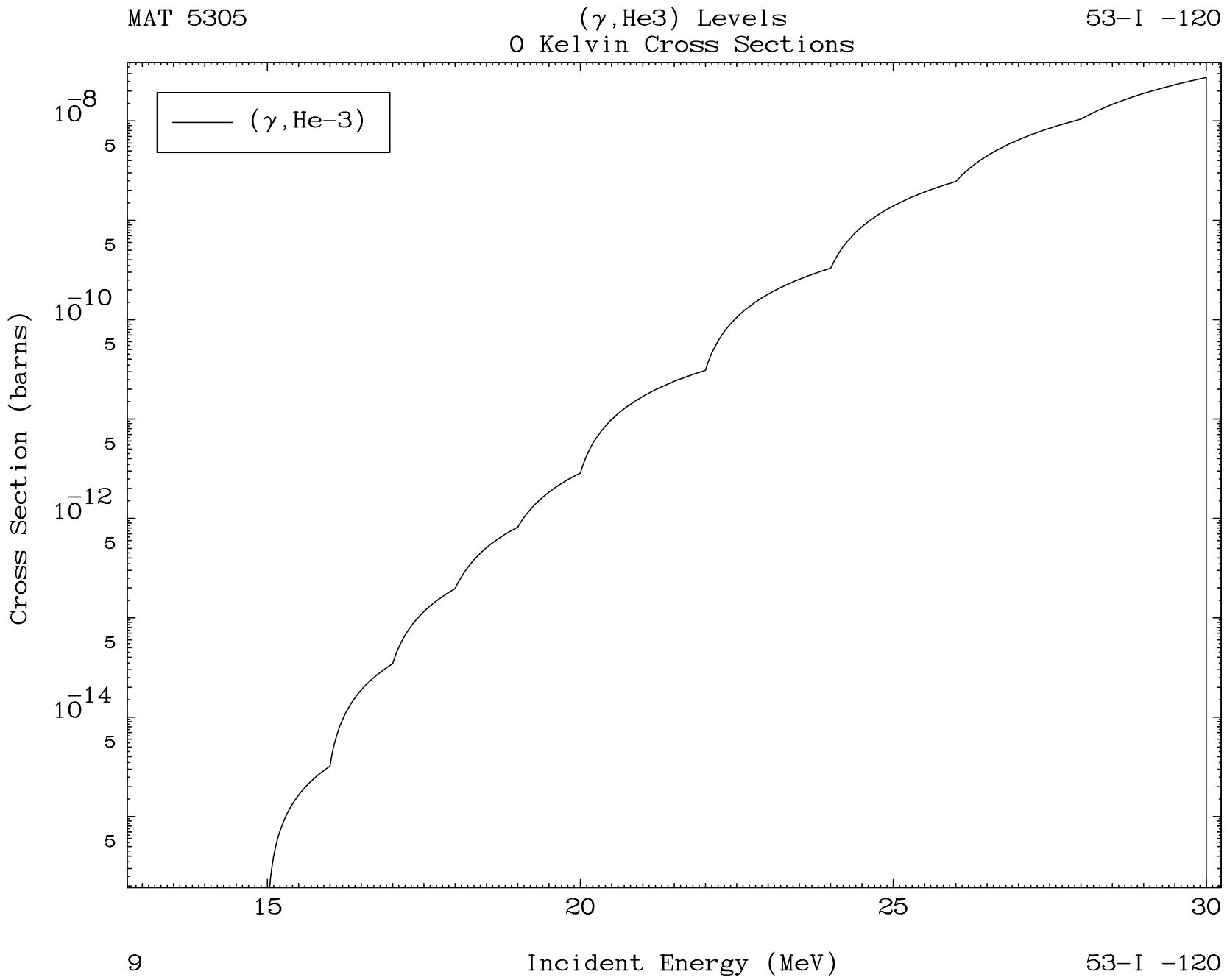

MAT 5305
Photon Charged Particle
0 Kelvin Cross Sections
53-I -120
(γ,t)
(γ,He-3)
(γ,α)
(γ,2α)
(γ,2p)
(γ,p) α
(γ,p) d
(γ,p) t
Cross Section (barns)
10-4
10-6
10-8
10-10
100
101
Incident Energy (MeV)
4
53-I -120

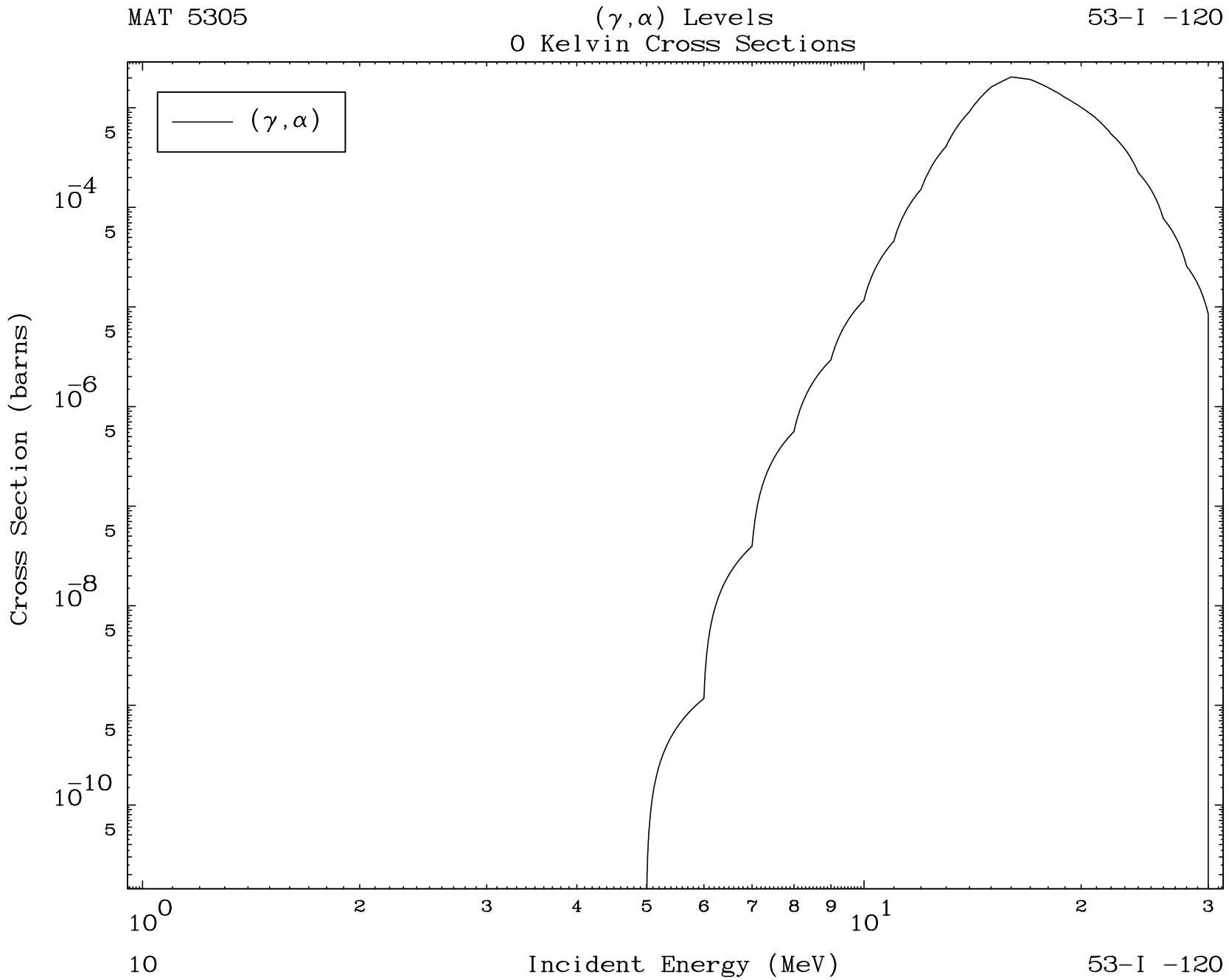

MAT 5305
(γ,n') Level
53-I -120
0 Kelvin Cross Sections
Cross Section (barns)
10-2
10-4
10-6
10-8
5
10
15
20
25
30
Photon Inelastic
(γ,n') Ground
MT= 51 (γ,n') Level
(γ,n') Continuum
Incident Energy (MeV)
53-I -120

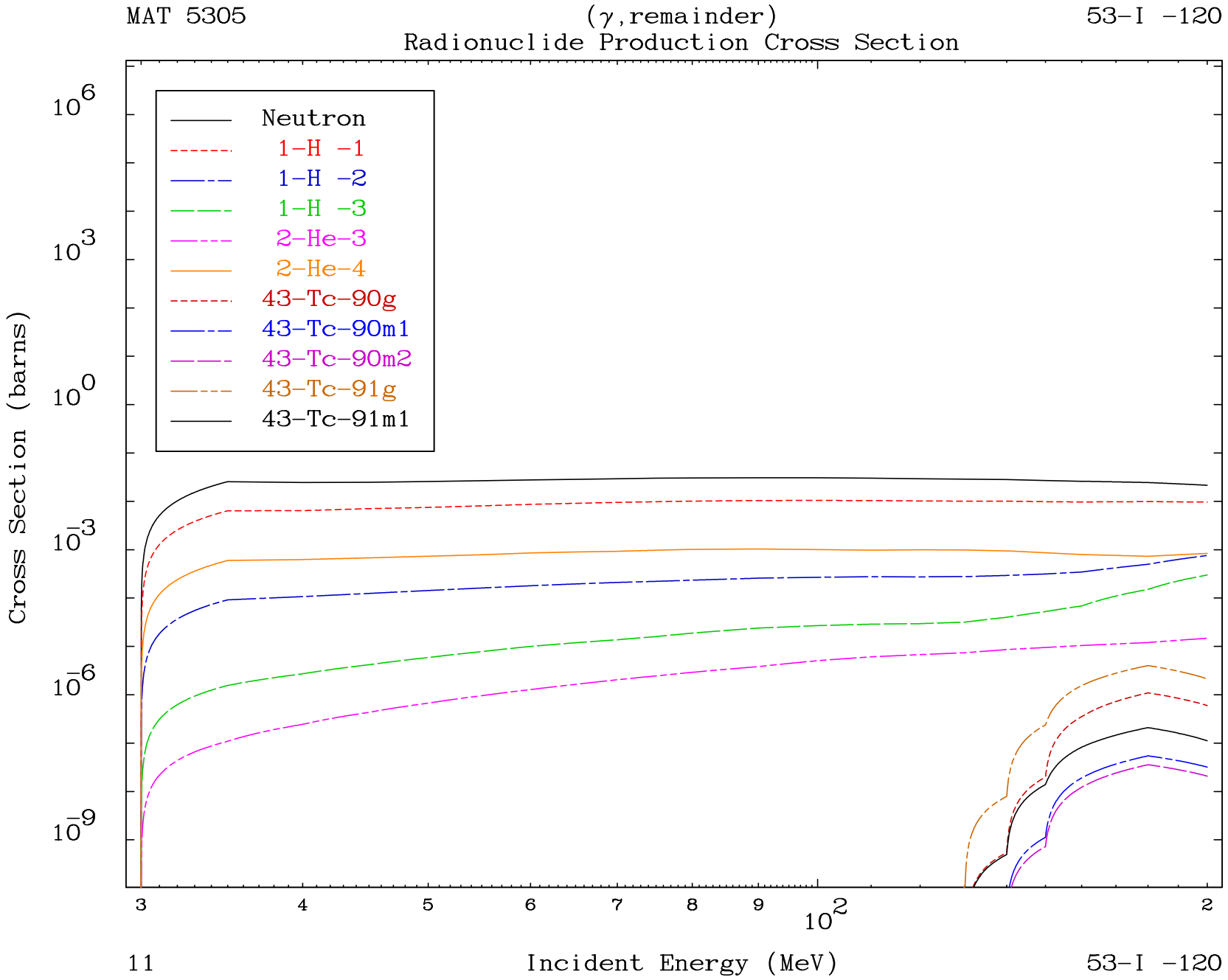

0 Kelvin Cross Sections
(γ,p)
Cross Section (barns)
10-2
5
10-4
5
10-6
5
10-8
5
4
5
6
7
8
9
101
2
3
Incident Energy (MeV)

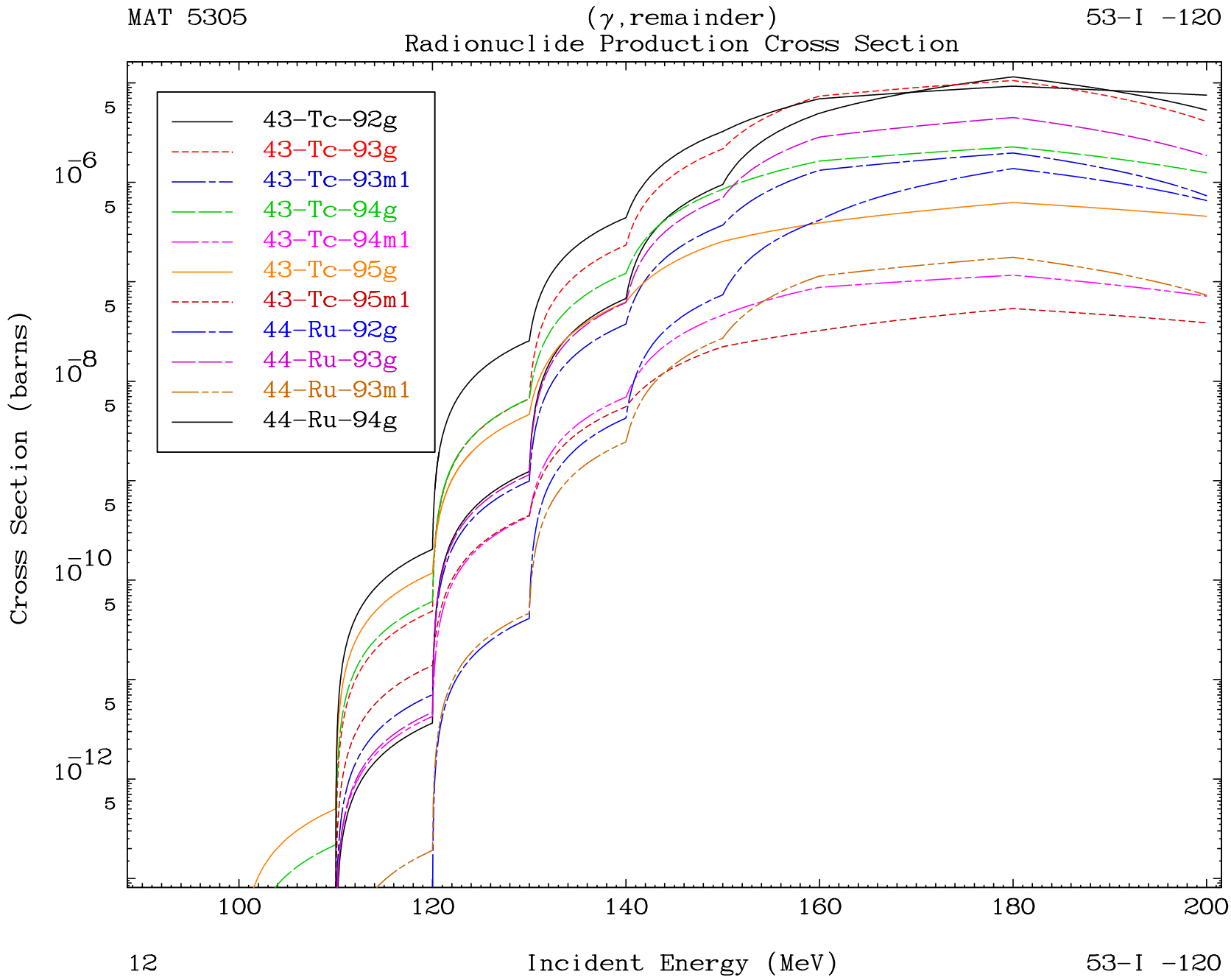

MAT 5305
(γ,d) Levels
53-I -120
0 Kelvin Cross Sections
(γ,d)
Cross Section (barns)
10^-4
5
10^-6
5
10^-8
5
10^-10
5
10^-12
5
10
15
20
25
30
Incident Energy (MeV)
7
53-I -120

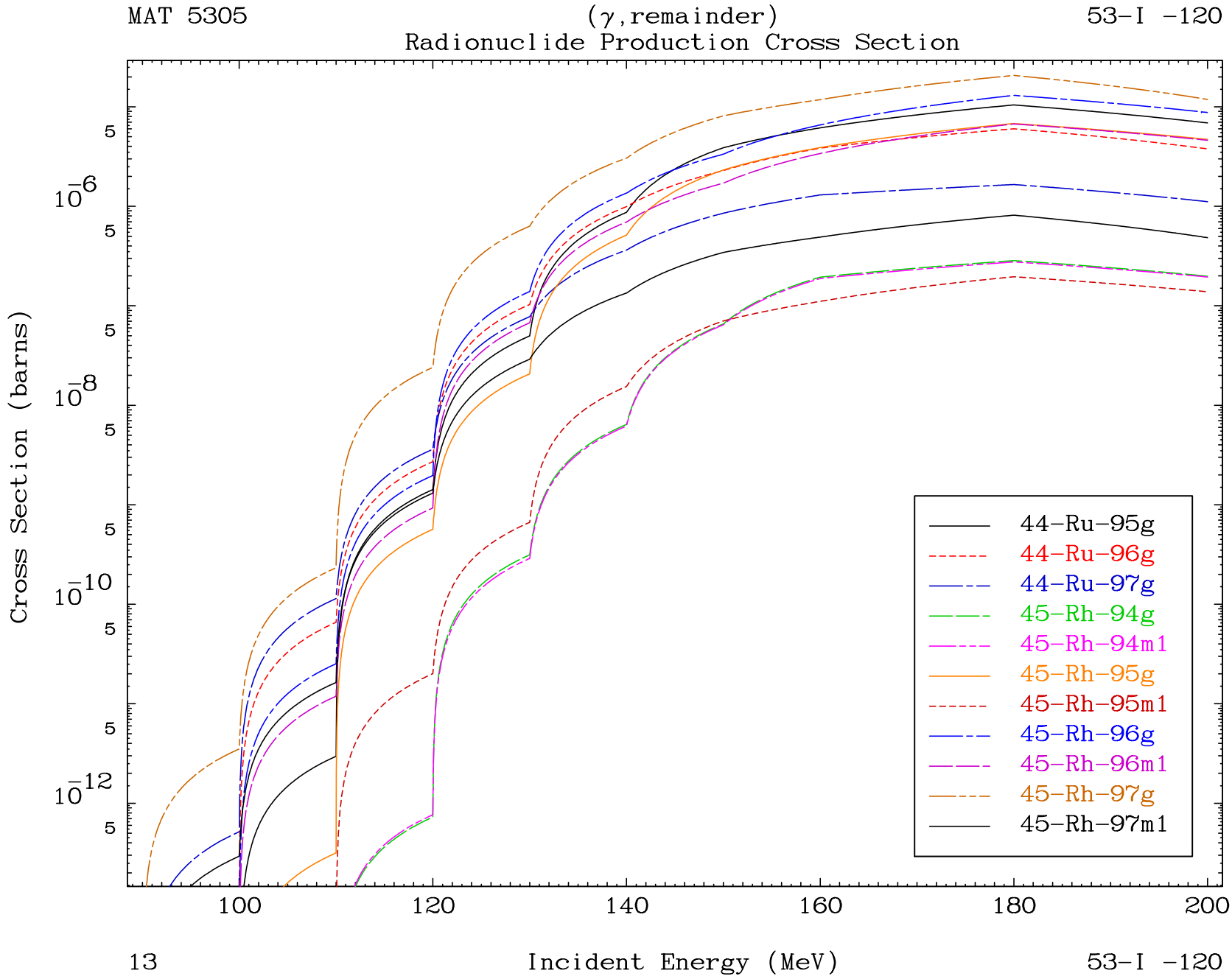

MAT 5305
(γ,t) Levels
53-I -120
0 Kelvin Cross Sections
(γ,t)
Cross Section (barns)
10-8
10-10
10-12
10-14
5
15
20
25
30
Incident Energy (MeV)
8
53-I -120


MAT 5305
(γ,He3) Levels
53-I -120
0 Kelvin Cross Sections
(γ,He-3)
Cross Section (barns)
10-8
10-10
10-12
10-14
5
15
20
25
30
Incident Energy (MeV)
9
53-I -120

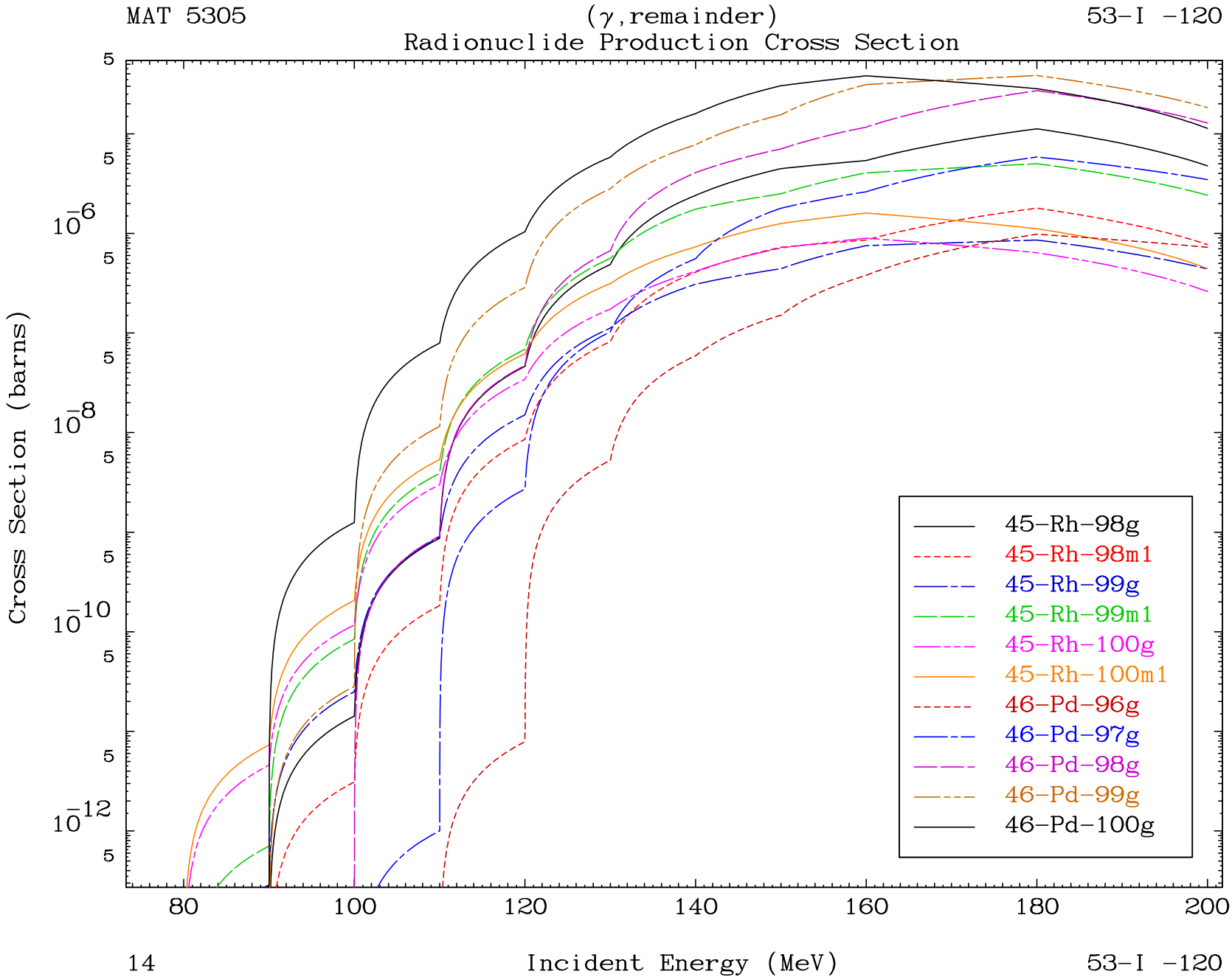

MAT 5305
(γ,α) Levels
53-I -120
0 Kelvin Cross Sections
(γ,α)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10^0
10^1
Incident Energy (MeV)
53-I -120


MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Neutron
1-H -1
1-H -2
1-H -3
2-He-3
2-He-4
43-Tc-90g
43-Tc-90m1
43-Tc-90m2
43-Tc-91g
43-Tc-91m1
Cross Section (barns)
10^6
10^3
10^0
10^-3
10^-6
10^-9
3
4
5
6
7
8
9
10^2
2
11
Incident Energy (MeV)
53-I -120

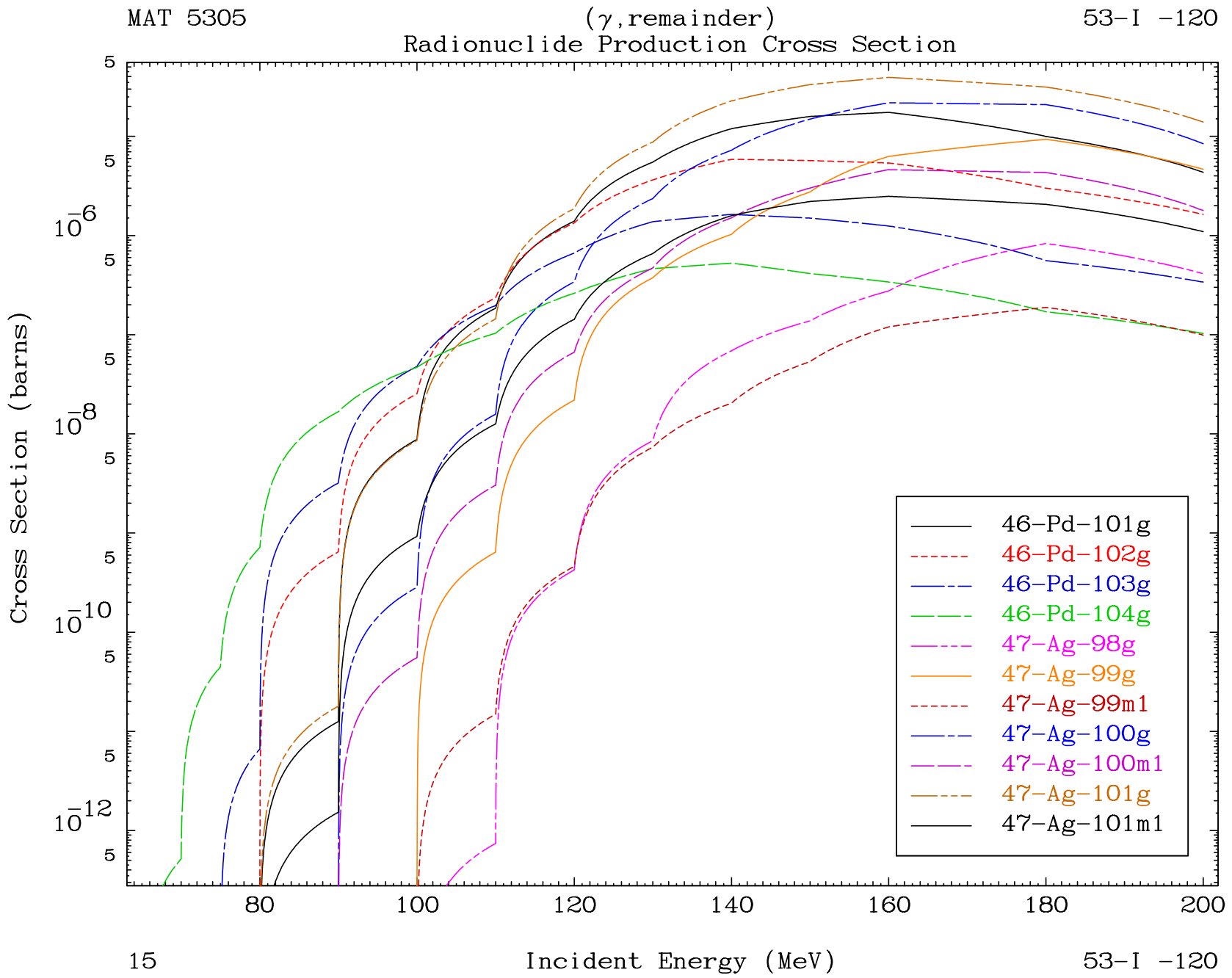

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
43-Tc-92g
43-Tc-93g
43-Tc-93m1
43-Tc-94g
43-Tc-94m1
43-Tc-95g
43-Tc-95m1
44-Ru-92g
44-Ru-93g
44-Ru-93m1
44-Ru-94g
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
100
120
140
160
180
200
12
Incident Energy (MeV)
53-I -120

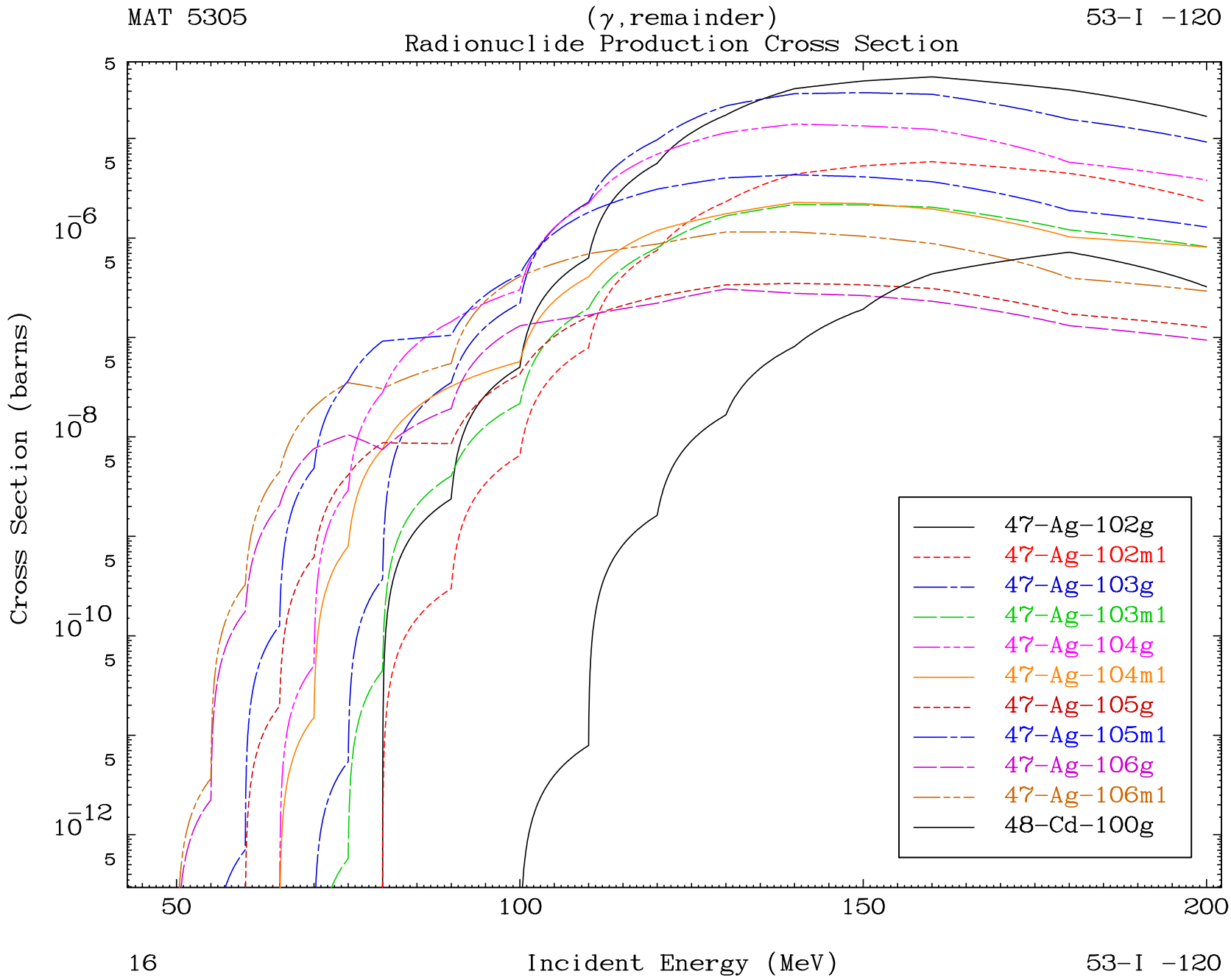

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-6
10-8
10-10
10-12
5
100
120
140
160
180
200
Incident Energy (MeV)
44-Ru-95g
44-Ru-96g
44-Ru-97g
45-Rh-94g
45-Rh-94m1
45-Rh-95g
45-Rh-95m1
45-Rh-96g
45-Rh-96m1
45-Rh-97g
45-Rh-97m1

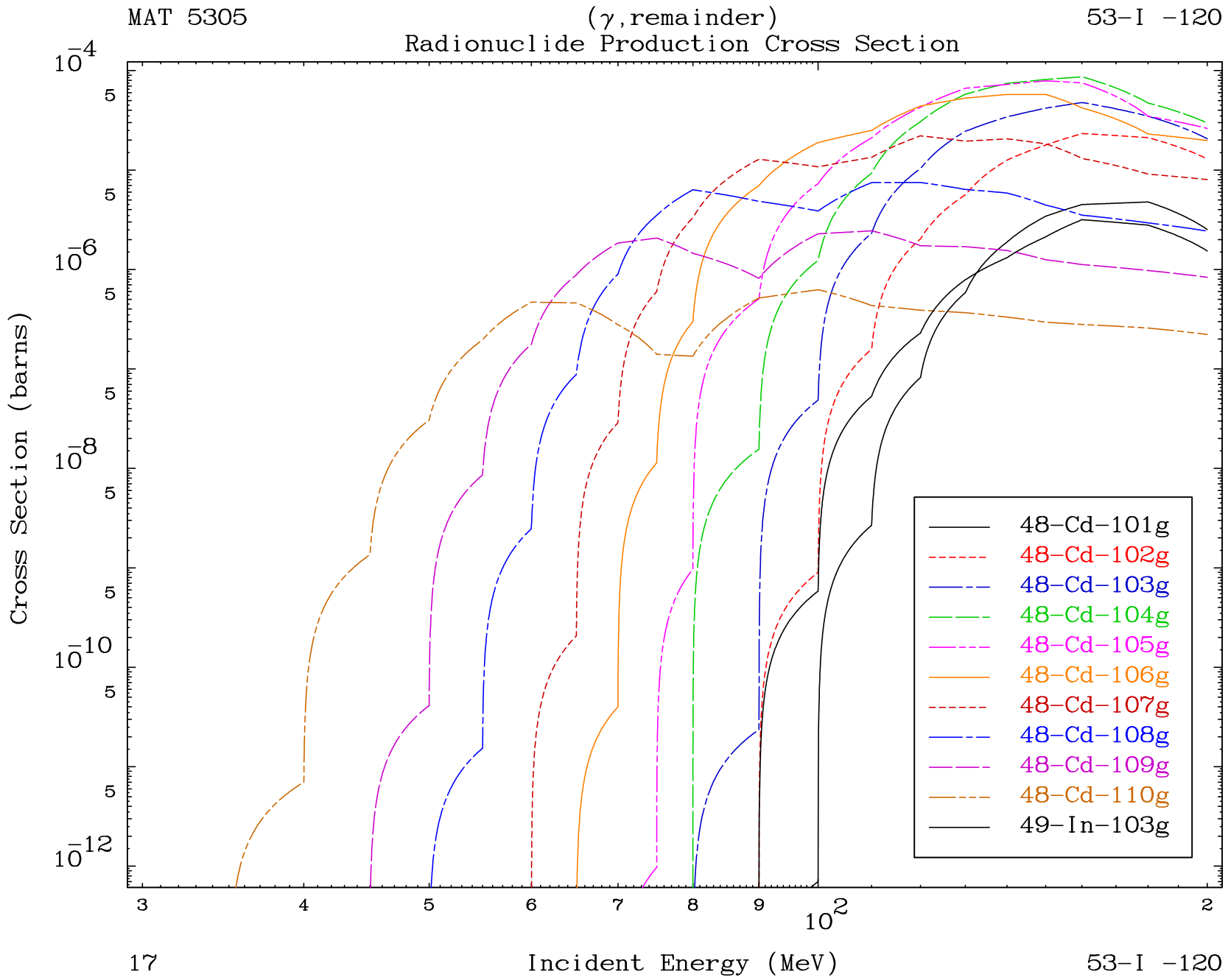
53-I -120

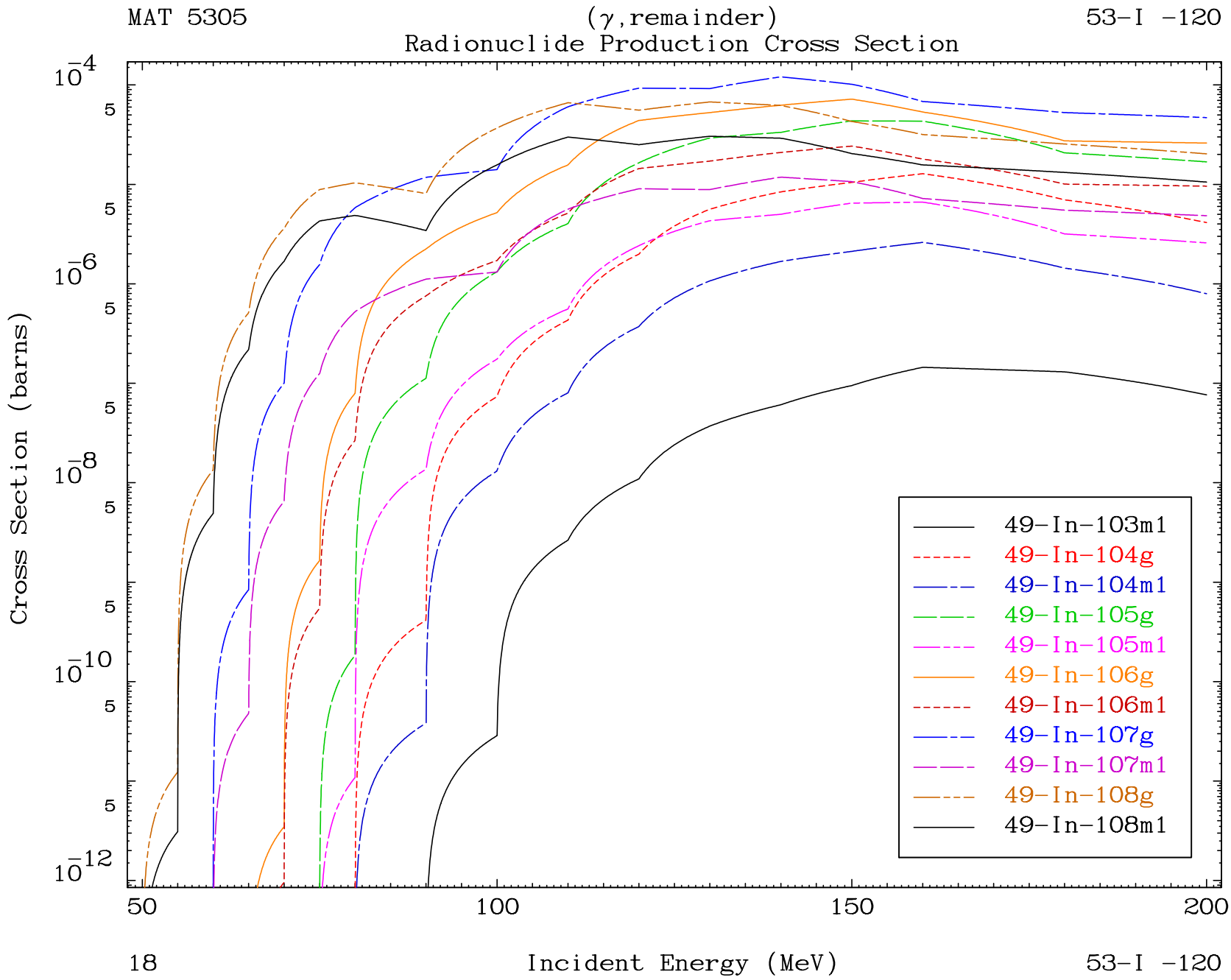

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-6
10-8
10-10
10-12
80
100
120
140
160
180
200
Incident Energy (MeV)
45-Rh-98g
45-Rh-98m1
45-Rh-99g
45-Rh-99m1
45-Rh-100g
45-Rh-100m1
46-Pd-96g
46-Pd-97g
46-Pd-98g
46-Pd-99g
46-Pd-100g

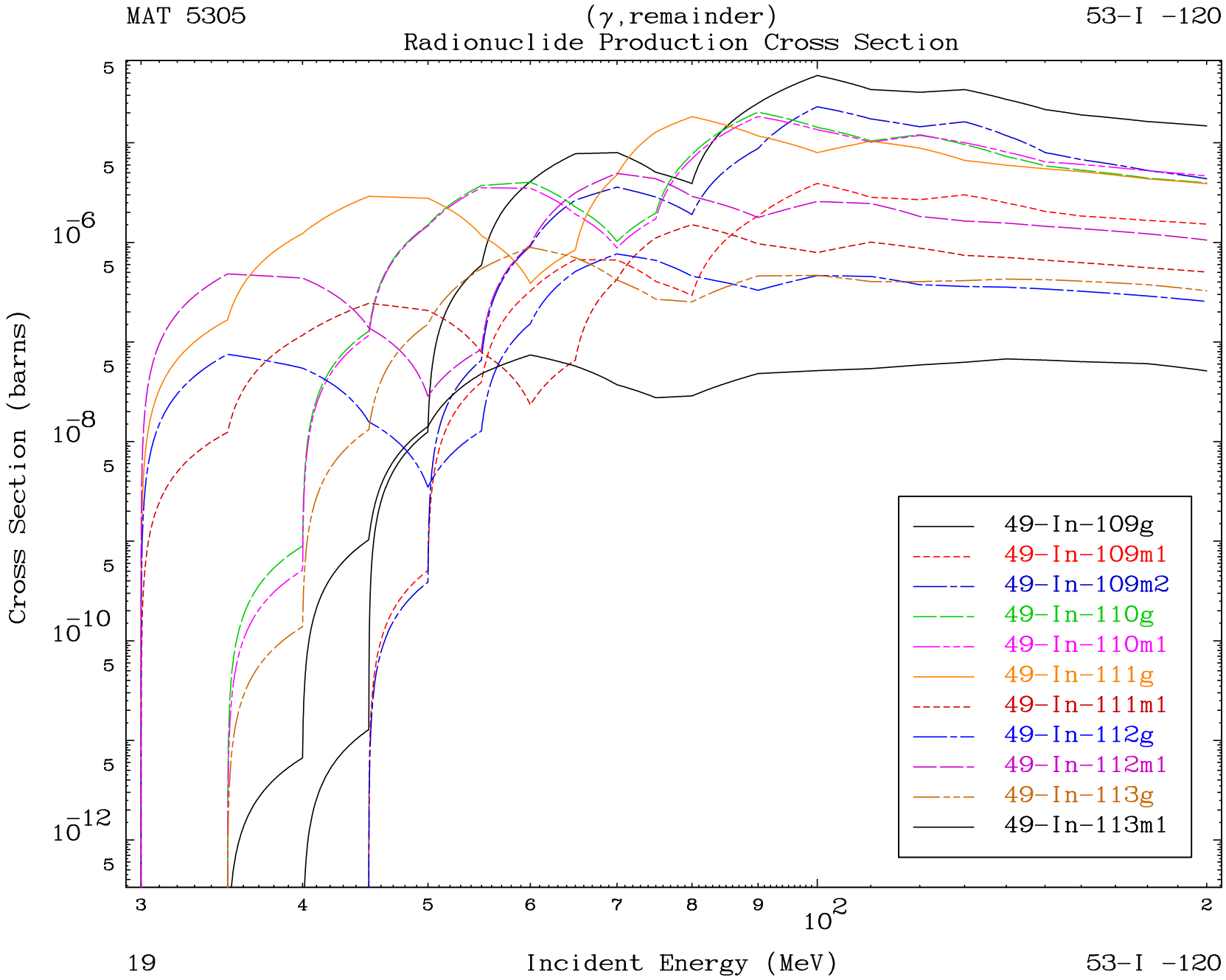
53-I -120


MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-6
10-8
10-10
10-12
80
100
120
140
160
180
200
Incident Energy (MeV)
15
53-I -120
46-Pd-101g
46-Pd-102g
46-Pd-103g
46-Pd-104g
47-Ag-98g
47-Ag-99g
47-Ag-99m1
47-Ag-100g
47-Ag-100m1
47-Ag-101g
47-Ag-101m1

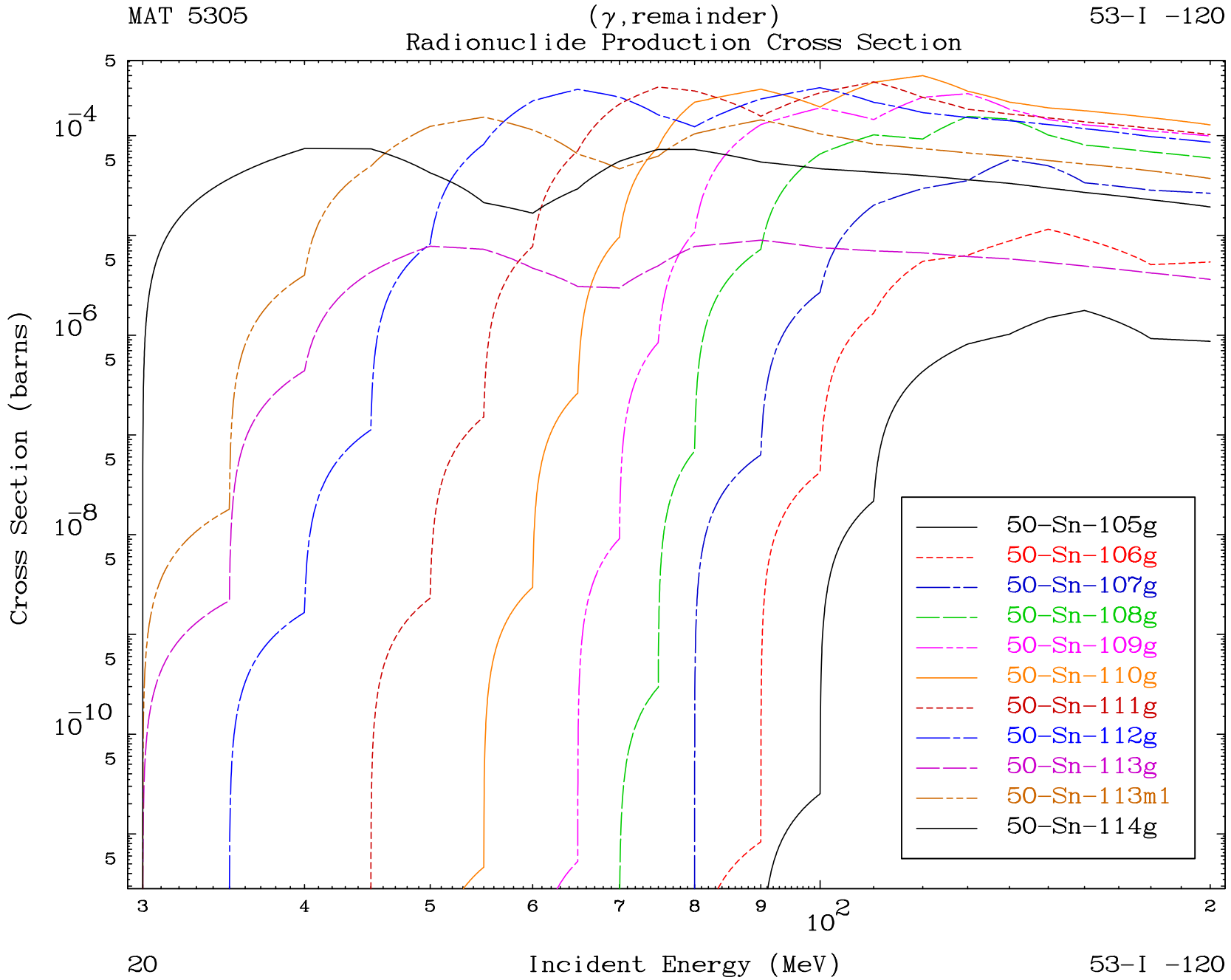

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-6
10-8
10-10
10-12
50
100
150
200
Incident Energy (MeV)
47-Ag-102g
47-Ag-102m1
47-Ag-103g
47-Ag-103m1
47-Ag-104g
47-Ag-104m1
47-Ag-105g
47-Ag-105m1
47-Ag-106g
47-Ag-106m1
48-Cd-100g

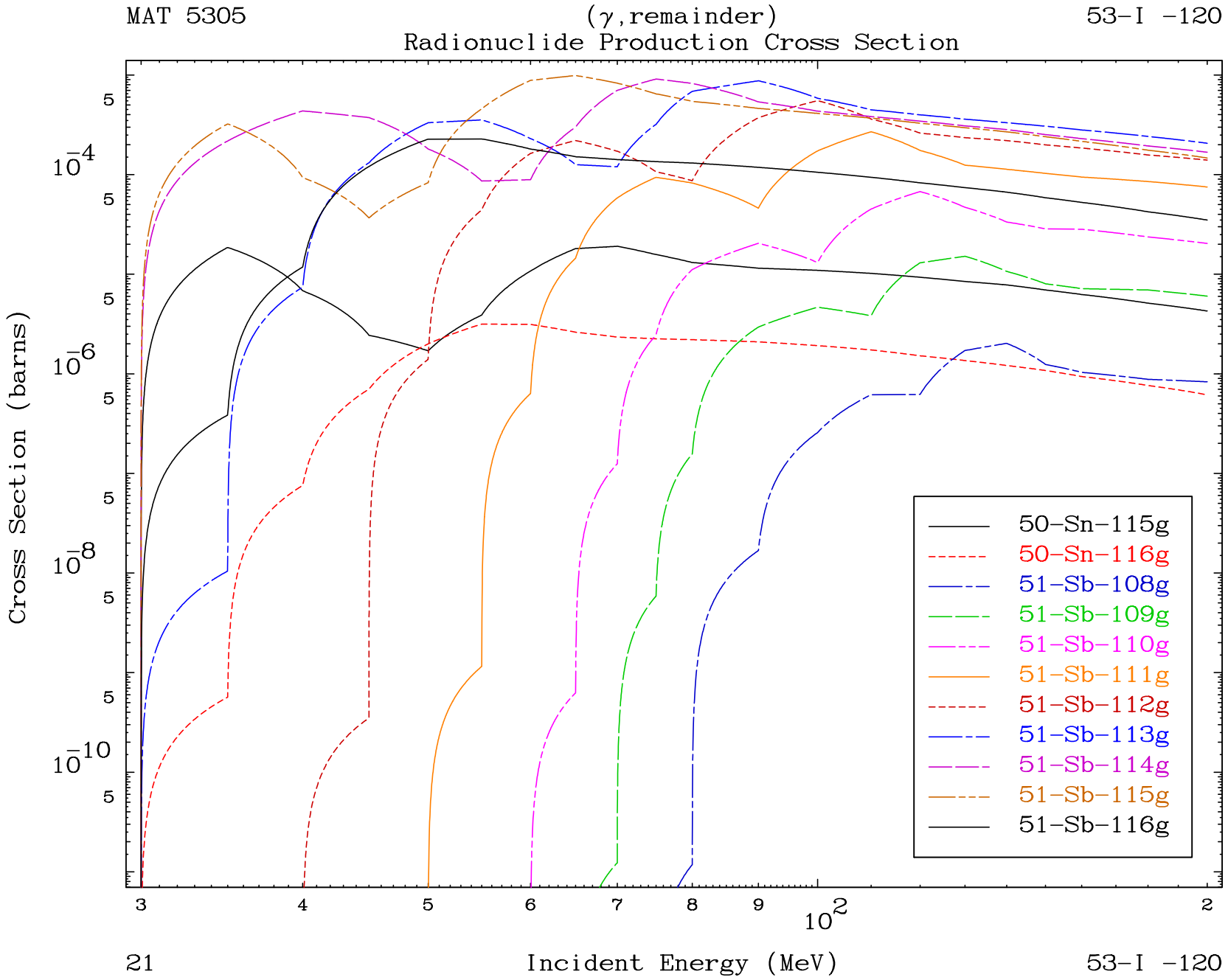

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
10-12
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
48-Cd-101g
48-Cd-102g
48-Cd-103g
48-Cd-104g
48-Cd-105g
48-Cd-106g
48-Cd-107g
48-Cd-108g
48-Cd-109g
48-Cd-110g
49-In-103g


MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-4
5
10-6
5
10-8
5
10-10
5
10-12
5
50
100
150
200
18
Incident Energy (MeV)
53-I -120
49-In-103m1
49-In-104g
49-In-104m1
49-In-105g
49-In-105m1
49-In-106g
49-In-106m1
49-In-107g
49-In-107m1
49-In-108g
49-In-108m1

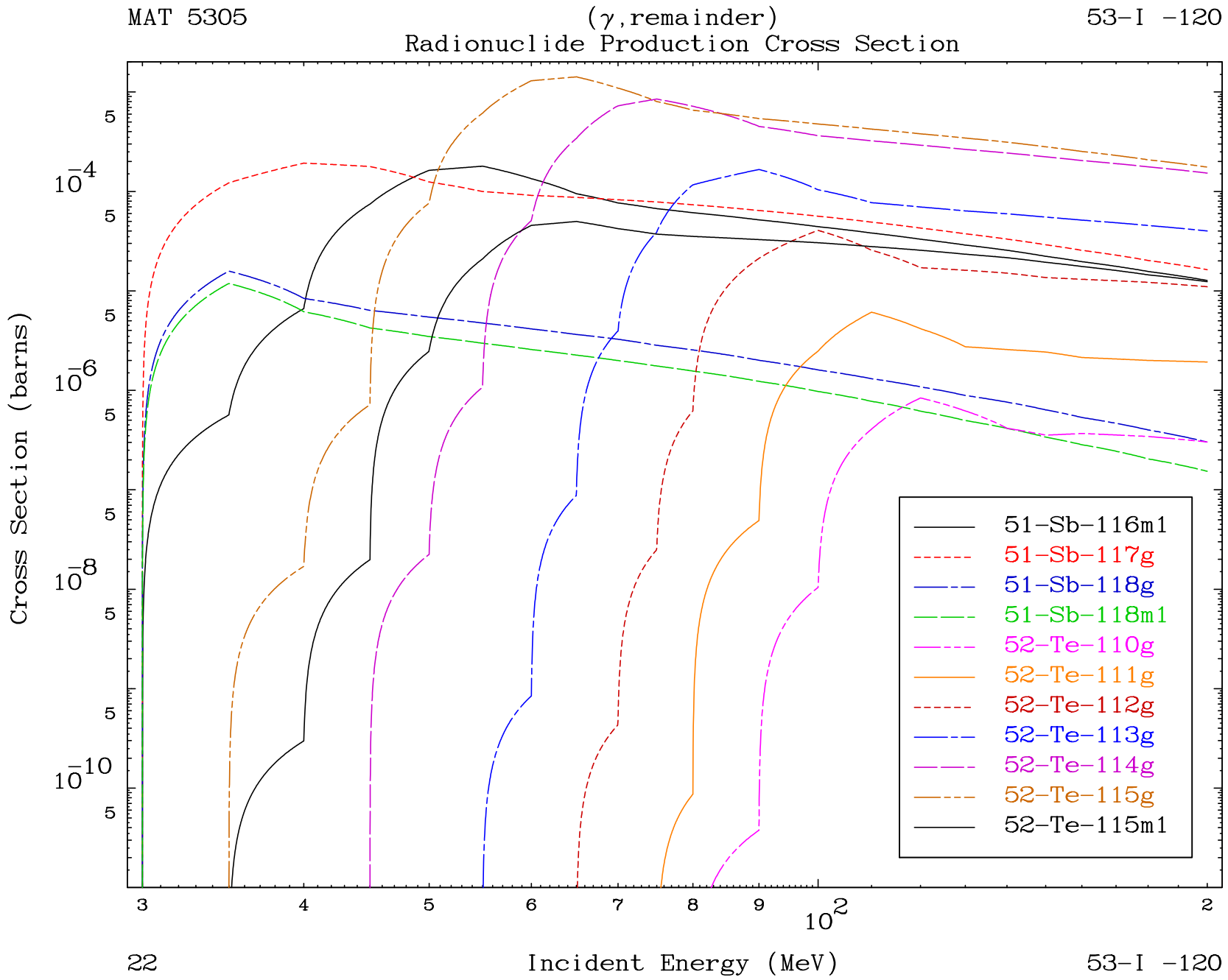

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
3
4
5
6
7
8
9
10^2
2
Incident Energy (MeV)
49-In-109g
49-In-109m1
49-In-109m2
49-In-110g
49-In-110m1
49-In-111g
49-In-111m1
49-In-112g
49-In-112m1
49-In-113g
49-In-113m1

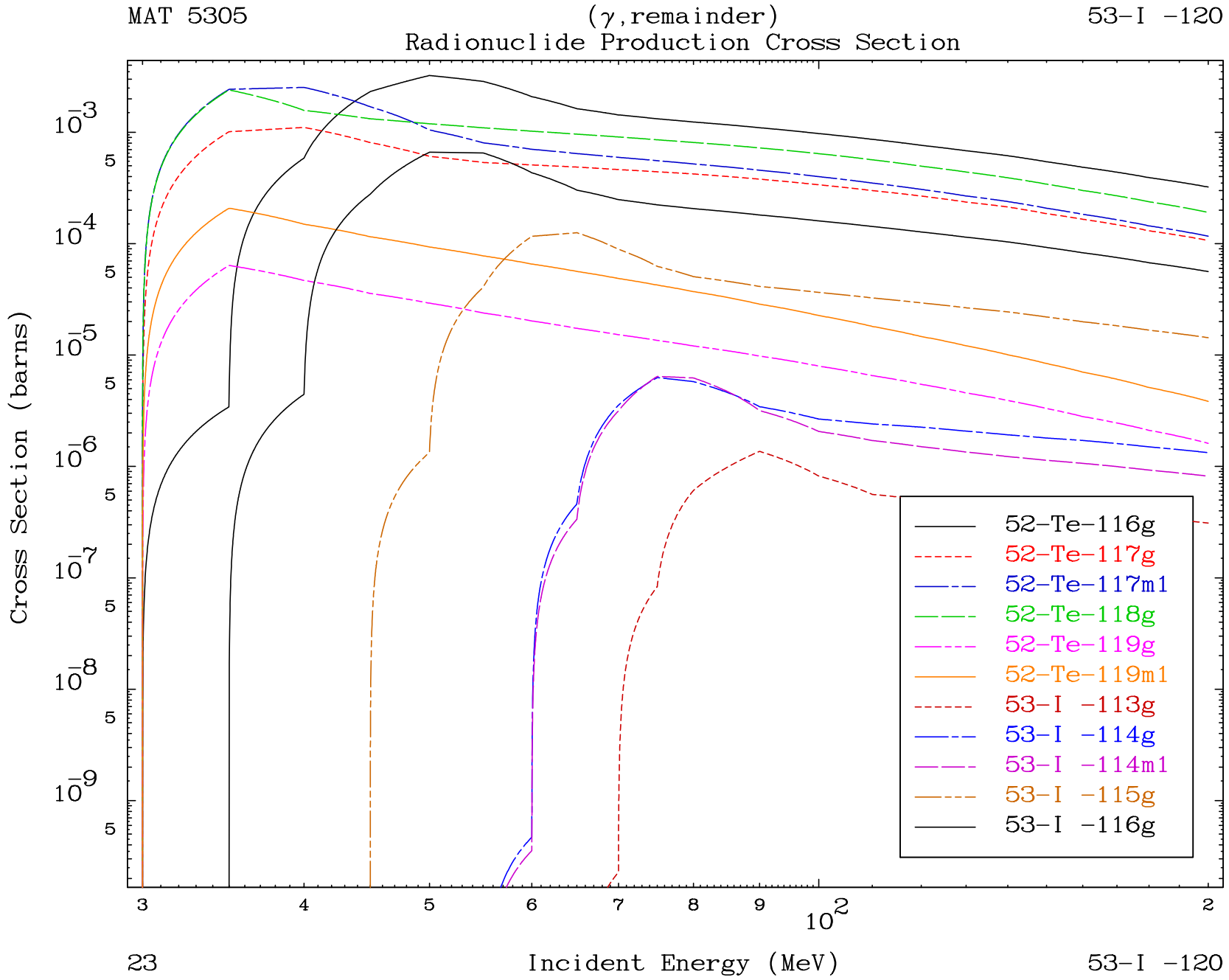
53-I -120

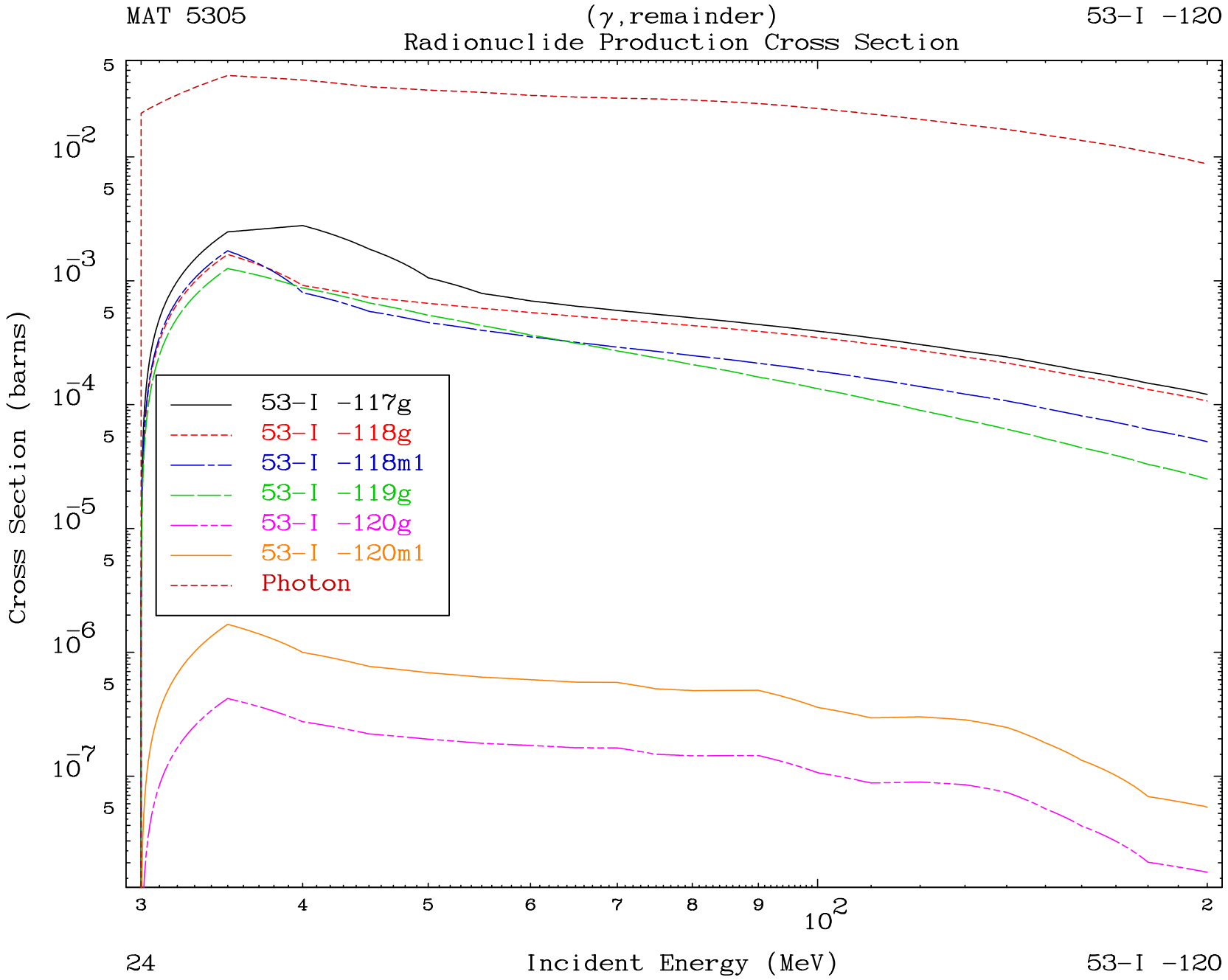

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
20
53-I -120
50-Sn-105g
50-Sn-106g
50-Sn-107g
50-Sn-108g
50-Sn-109g
50-Sn-110g
50-Sn-111g
50-Sn-112g
50-Sn-113g
50-Sn-113m1
50-Sn-114g

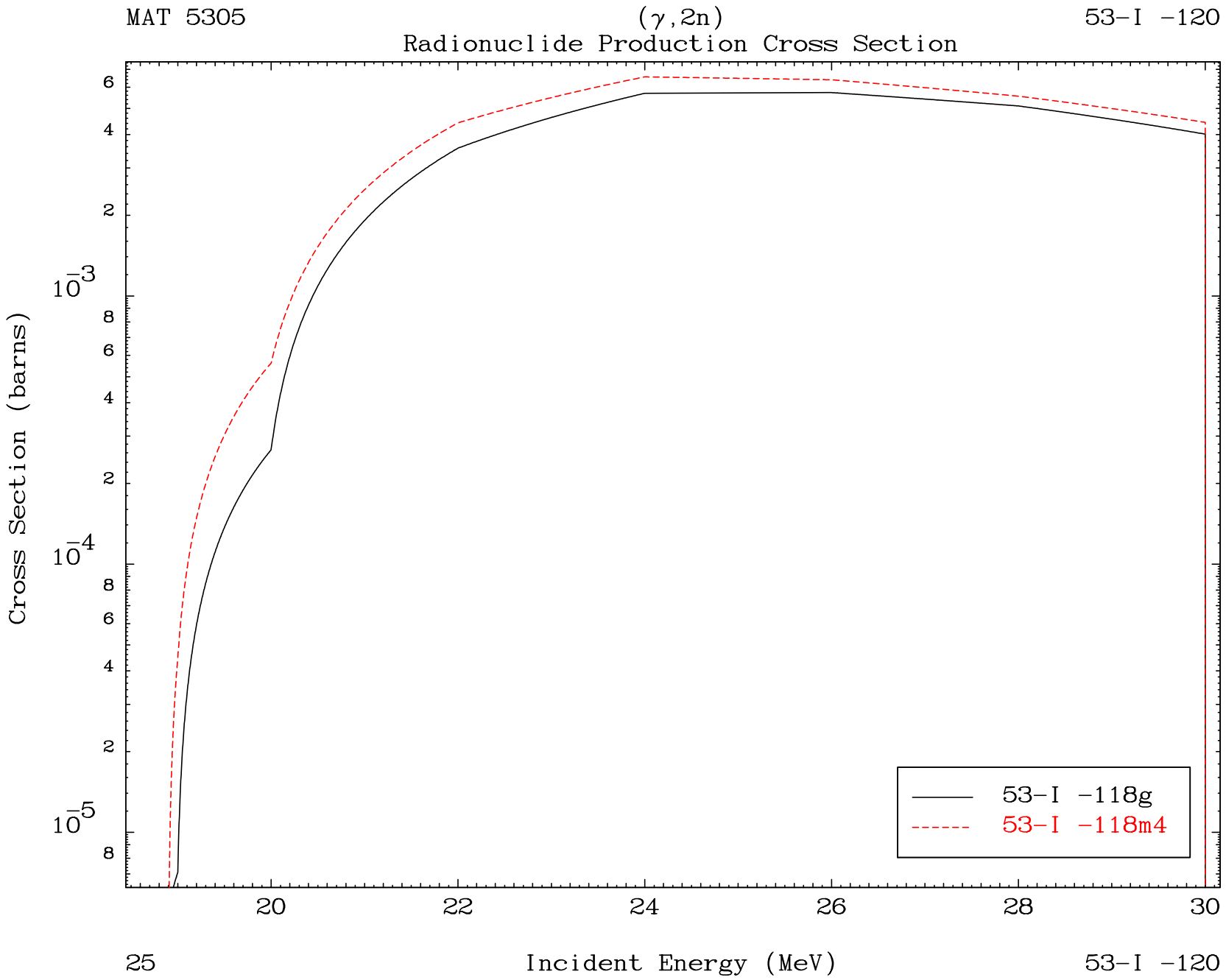

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
5
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
50-Sn-115g
50-Sn-116g
51-Sb-108g
51-Sb-109g
51-Sb-110g
51-Sb-111g
51-Sb-112g
51-Sb-113g
51-Sb-114g
51-Sb-115g
51-Sb-116g

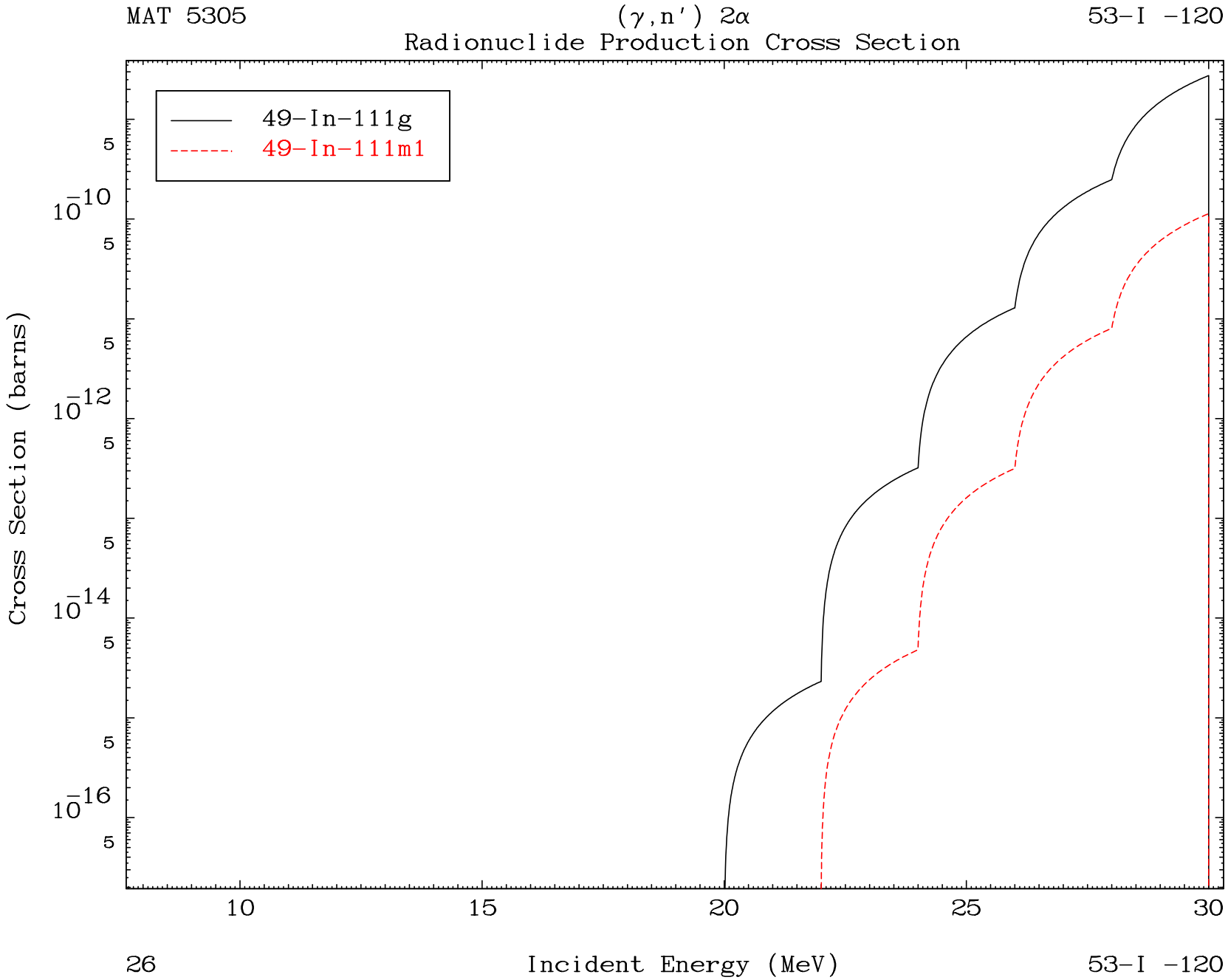
53-I -120

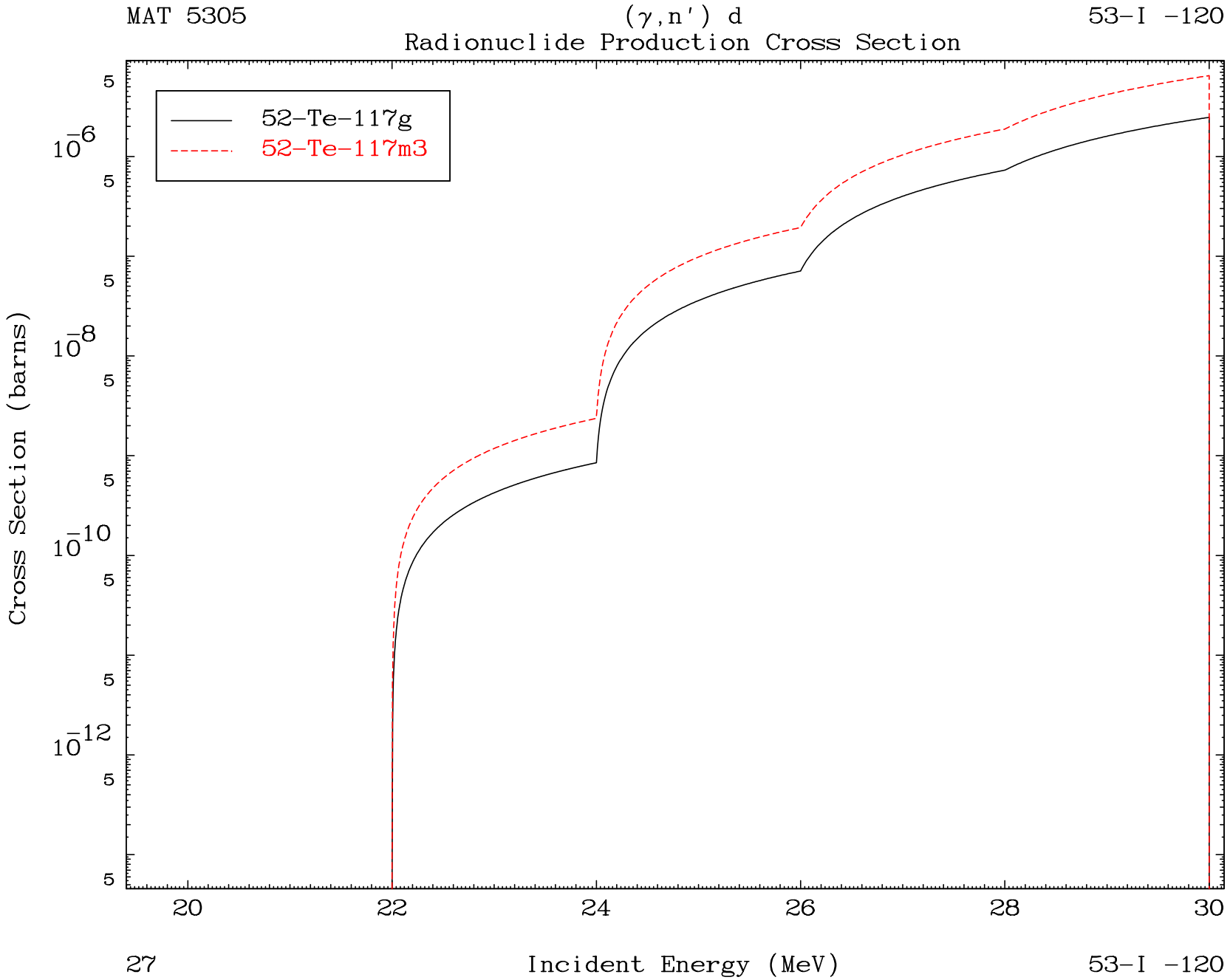

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
5
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
22
53-I -120
51-Sb-116m1
51-Sb-117g
51-Sb-118g
51-Sb-118m1
52-Te-110g
52-Te-111g
52-Te-112g
52-Te-113g
52-Te-114g
52-Te-115g
52-Te-115m1

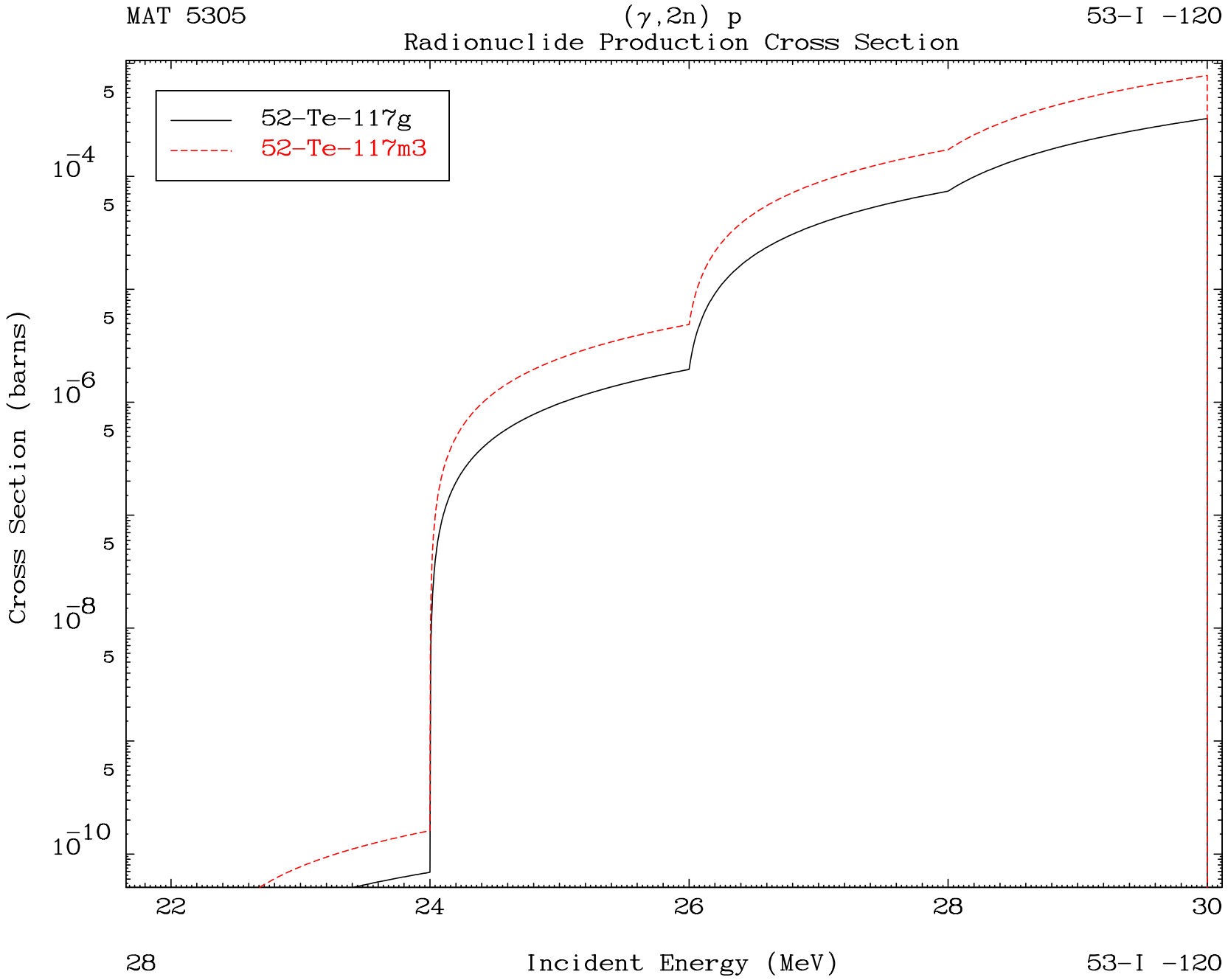

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-3
10-4
10-5
10-6
10-7
10-8
10-9
5
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
52-Te-116g
52-Te-117g
52-Te-117m1
52-Te-118g
52-Te-119g
52-Te-119m1
53-I -113g
53-I -114g
53-I -114m1
53-I -115g
53-I -116g

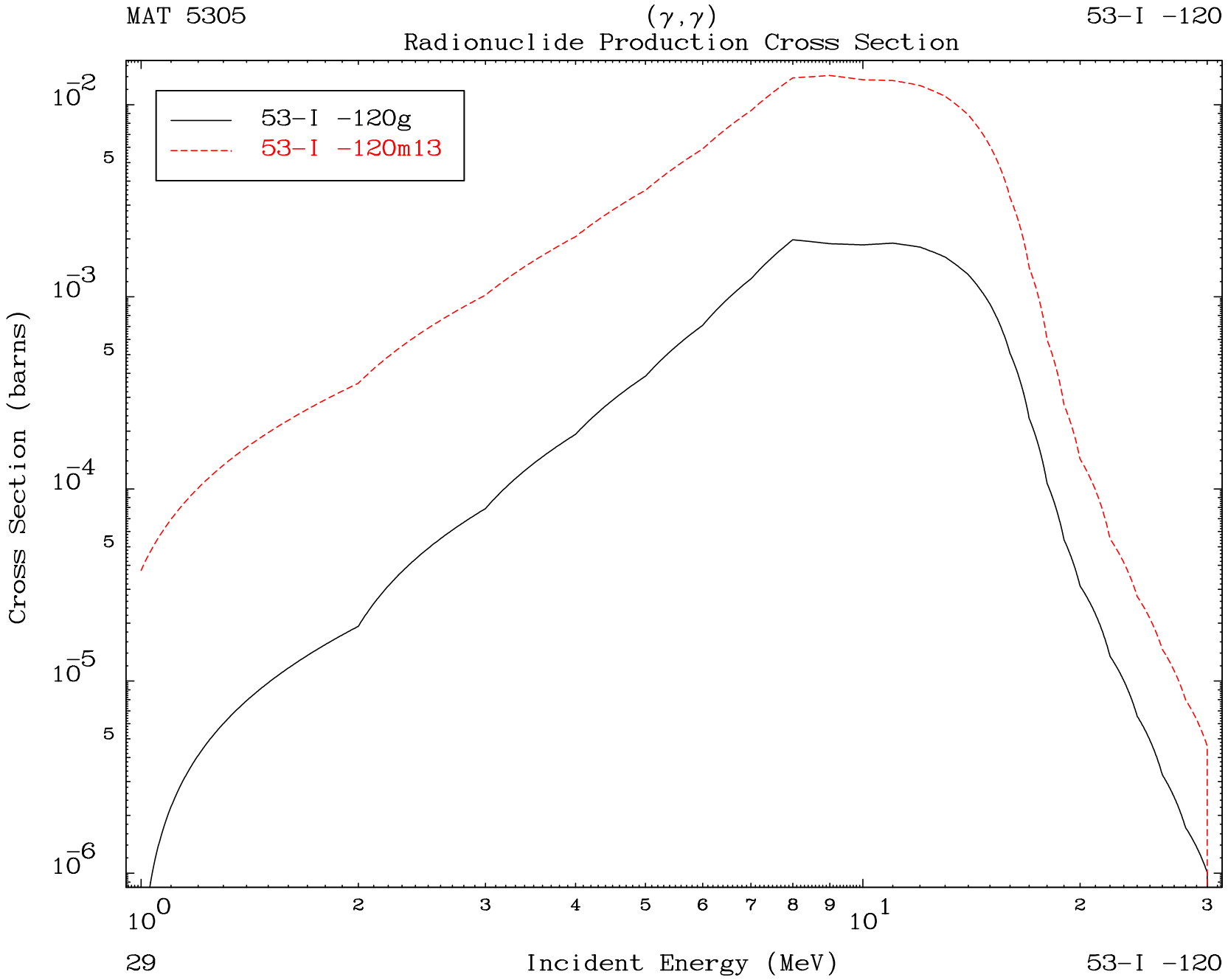

MAT 5305
(γ,remainder)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
53-I -117g
53-I -118g
53-I -118m1
53-I -119g
53-I -120g
53-I -120m1
Photon
Incident Energy (MeV)
24
53-I -120

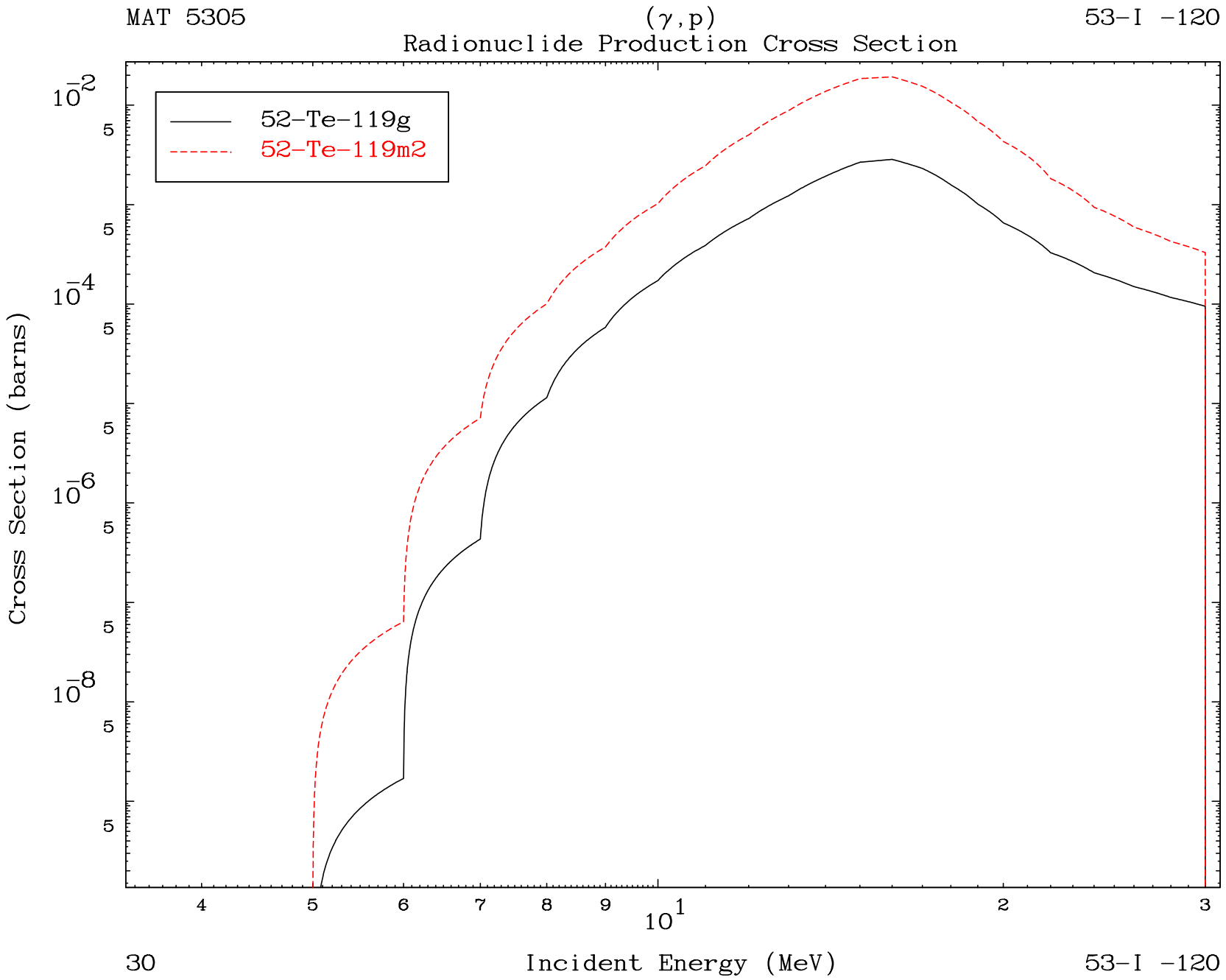

MAT 5305
(γ,2n)
53-I -120
Radionuclide Production Cross Section
Cross Section (barns)
10-3
10-4
10-5
6
4
2
8
20
22
24
26
28
30
25
Incident Energy (MeV)
53-I -120
53-I -118g
53-I -118m4

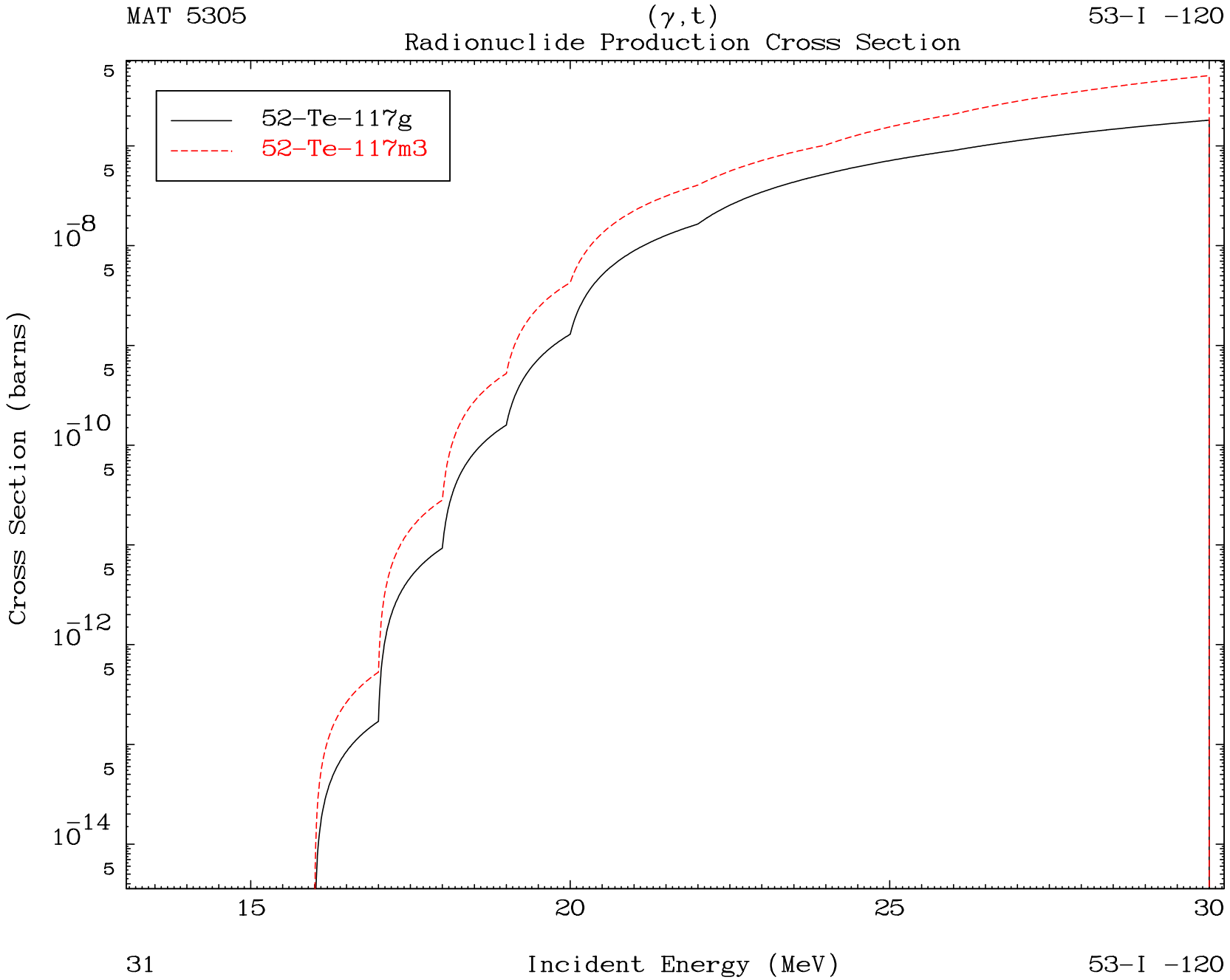

MAT 5305
(γ,n') 2α
53-I -120
Radionuclide Production Cross Section
49-In-111g
49-In-111m1
Cross Section (barns)
10^-10
10^-12
10^-14
10^-16
5
10
15
20
25
30
26
Incident Energy (MeV)
53-I -120

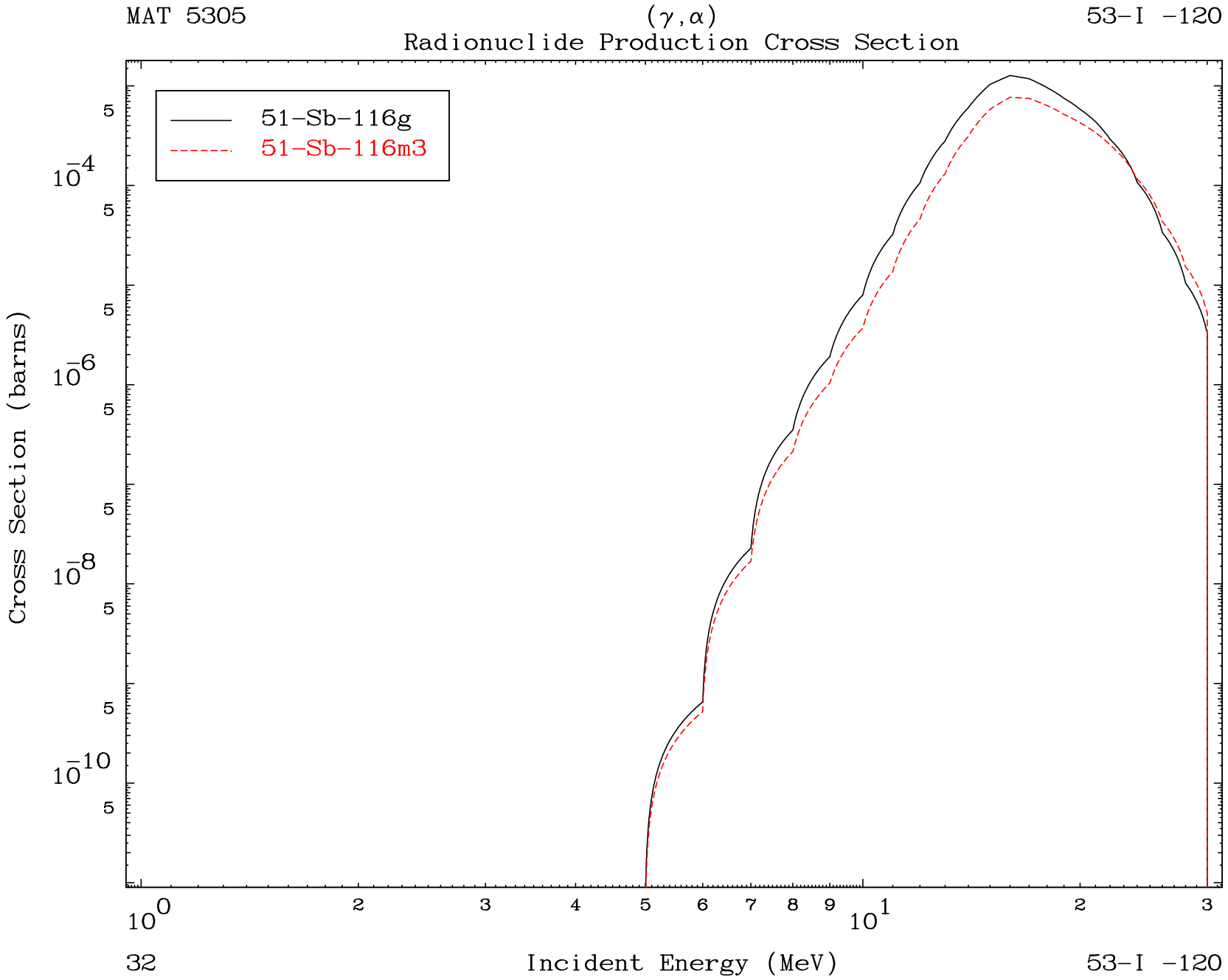

MAT 5305
(γ,n') d
53-I -120
Radionuclide Production Cross Section
52-Te-117g
52-Te-117m3
Cross Section (barns)
10-6
10-8
10-10
10-12
5
20
22
24
26
28
30
27
Incident Energy (MeV)
53-I -120

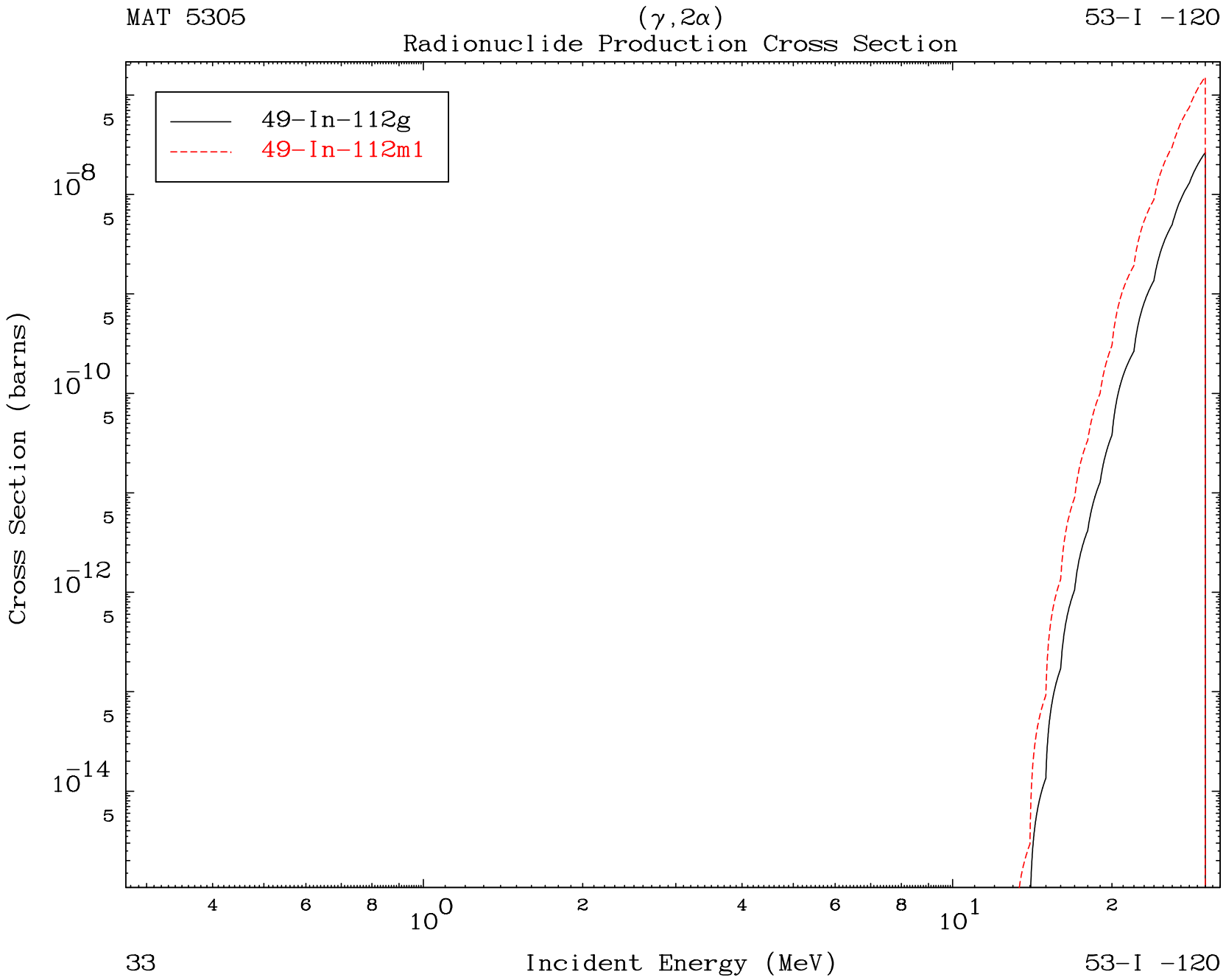

MAT 5305
(γ,2n) p
53-I -120
Radionuclide Production Cross Section
52-Te-117g
52-Te-117m3
Cross Section (barns)
10-4
10-6
10-8
10-10
22
24
26
28
30
28
Incident Energy (MeV)
53-I -120

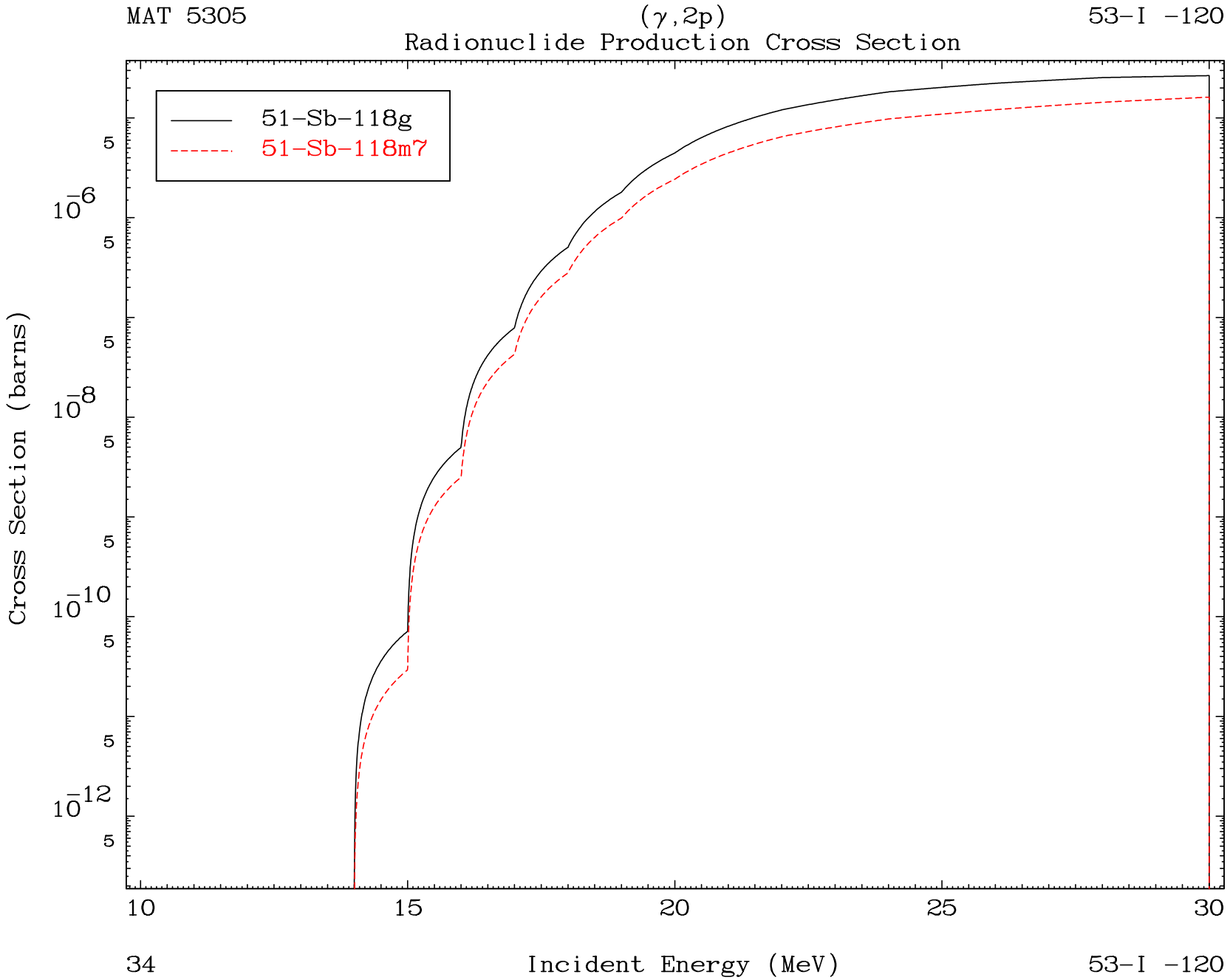

MAT 5305
(γ,γ)
53-I -120
Radionuclide Production Cross Section
53-I -120g
53-I -120m13
Cross Section (barns)
10-2
10-3
10-4
10-5
10-6
100
101
Incident Energy (MeV)
29
53-I -120

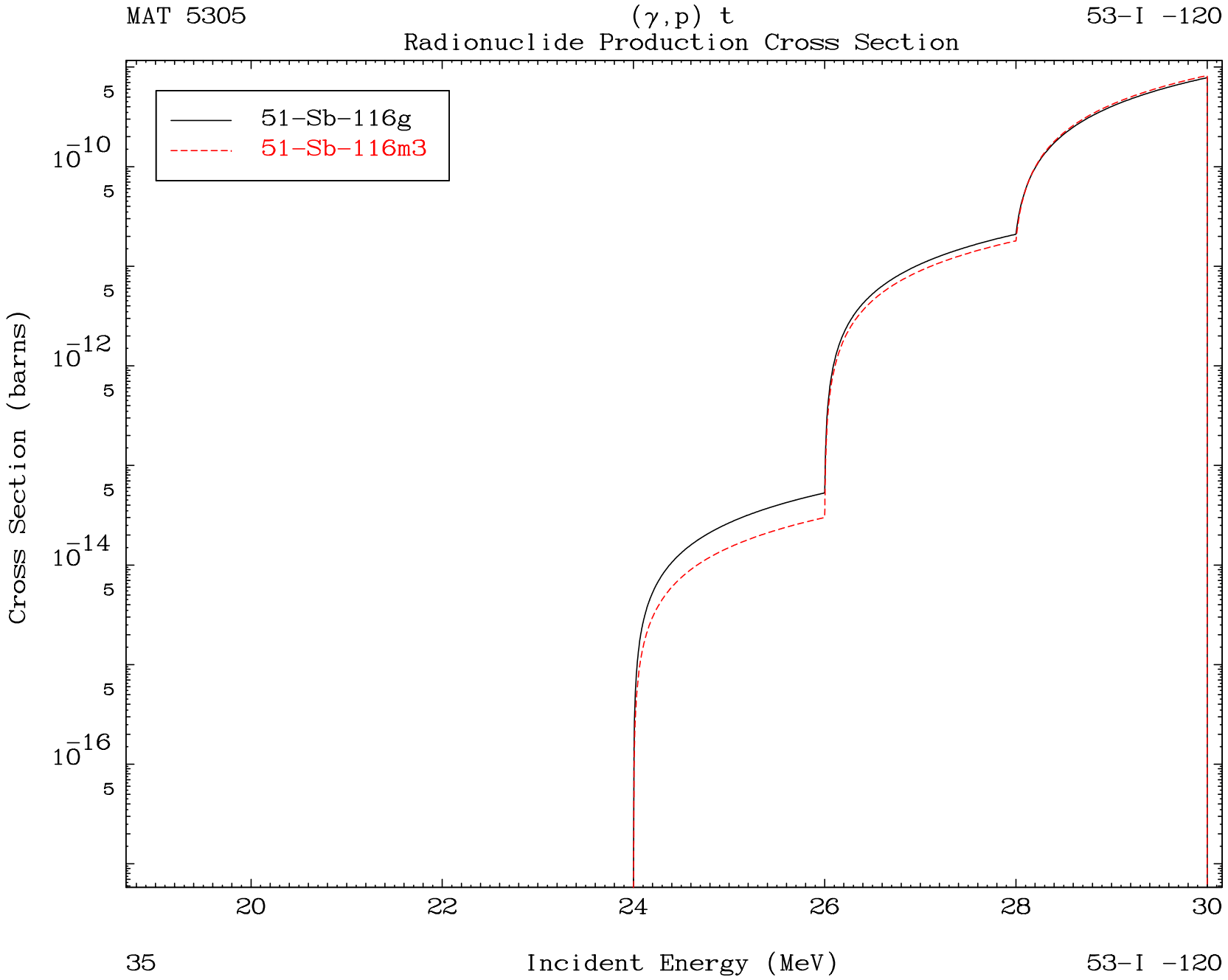

MAT 5305
(γ,p)
53-I -120
Radionuclide Production Cross Section
52-Te-119g
52-Te-119m2
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
4
5
6
7
8
9
10^1
2
3
30
Incident Energy (MeV)
53-I -120


MAT 5305
(γ,t)
53-I -120
Radionuclide Production Cross Section
52-Te-117g
52-Te-117m3
Cross Section (barns)
10-8
10-10
10-12
10-14
15
20
25
30
31
Incident Energy (MeV)
53-I -120


MAT 5305
(γ,α)
53-I -120
Radionuclide Production Cross Section
51-Sb-116g
51-Sb-116m3
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10^0
10^1
Incident Energy (MeV)
32
53-I -120


MAT 5305
(γ,2α)
53-I -120
Radionuclide Production Cross Section
49-In-112g
49-In-112m1
Cross Section (barns)
10^-8
10^-10
10^-12
10^-14
10^0
10^1
Incident Energy (MeV)
33
53-I -120


MAT 5305
(γ,2p)
53-I -120
Radionuclide Production Cross Section
51-Sb-118g
51-Sb-118m7
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
10
15
20
25
30
34
Incident Energy (MeV)
53-I -120


MAT 5305
(γ,p) t
53-I -120
Radionuclide Production Cross Section
51-Sb-116g
51-Sb-116m3
Cross Section (barns)
10-10
10-12
10-14
10-16
5
20
22
24
26
28
30
35
Incident Energy (MeV)
53-I -120