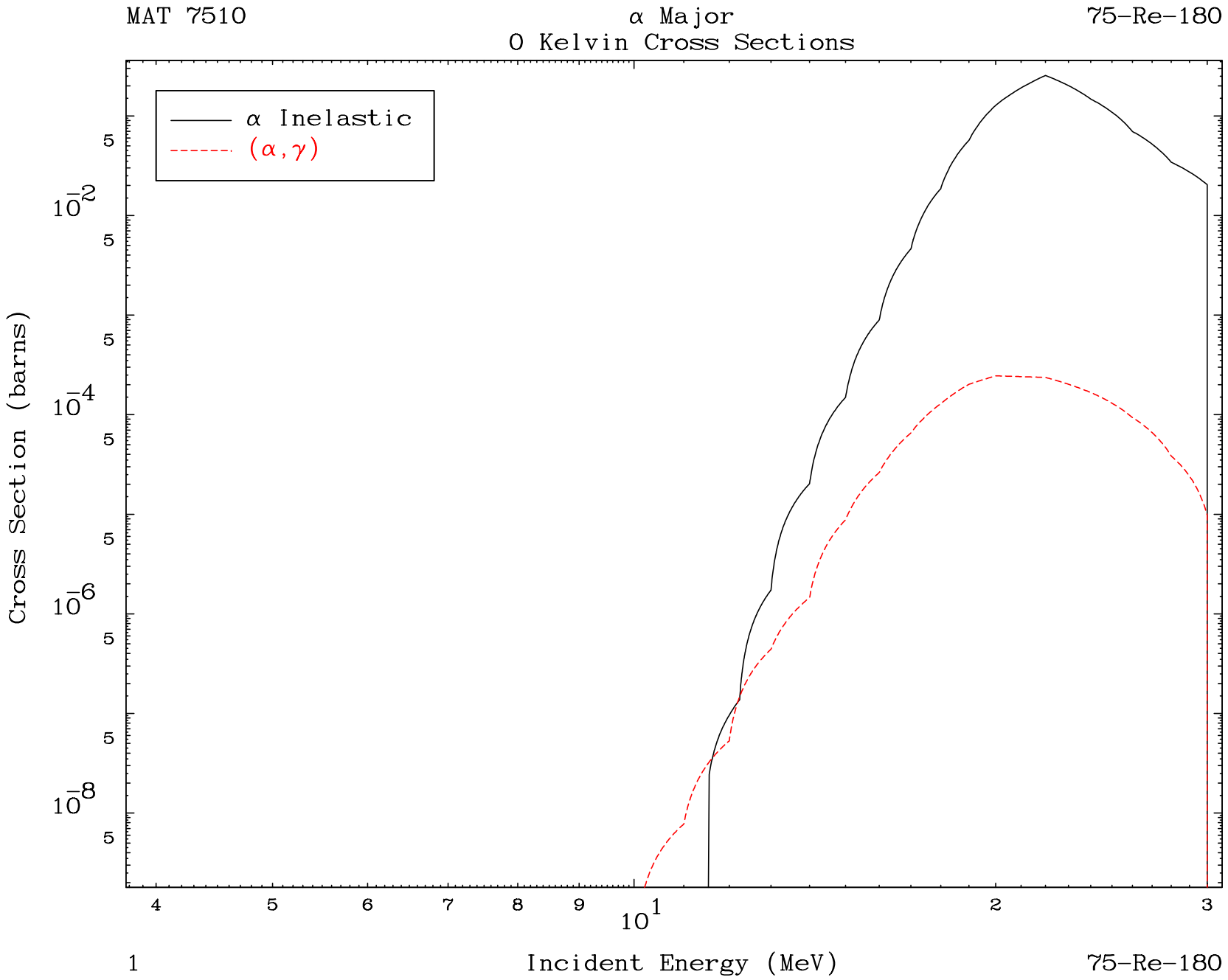
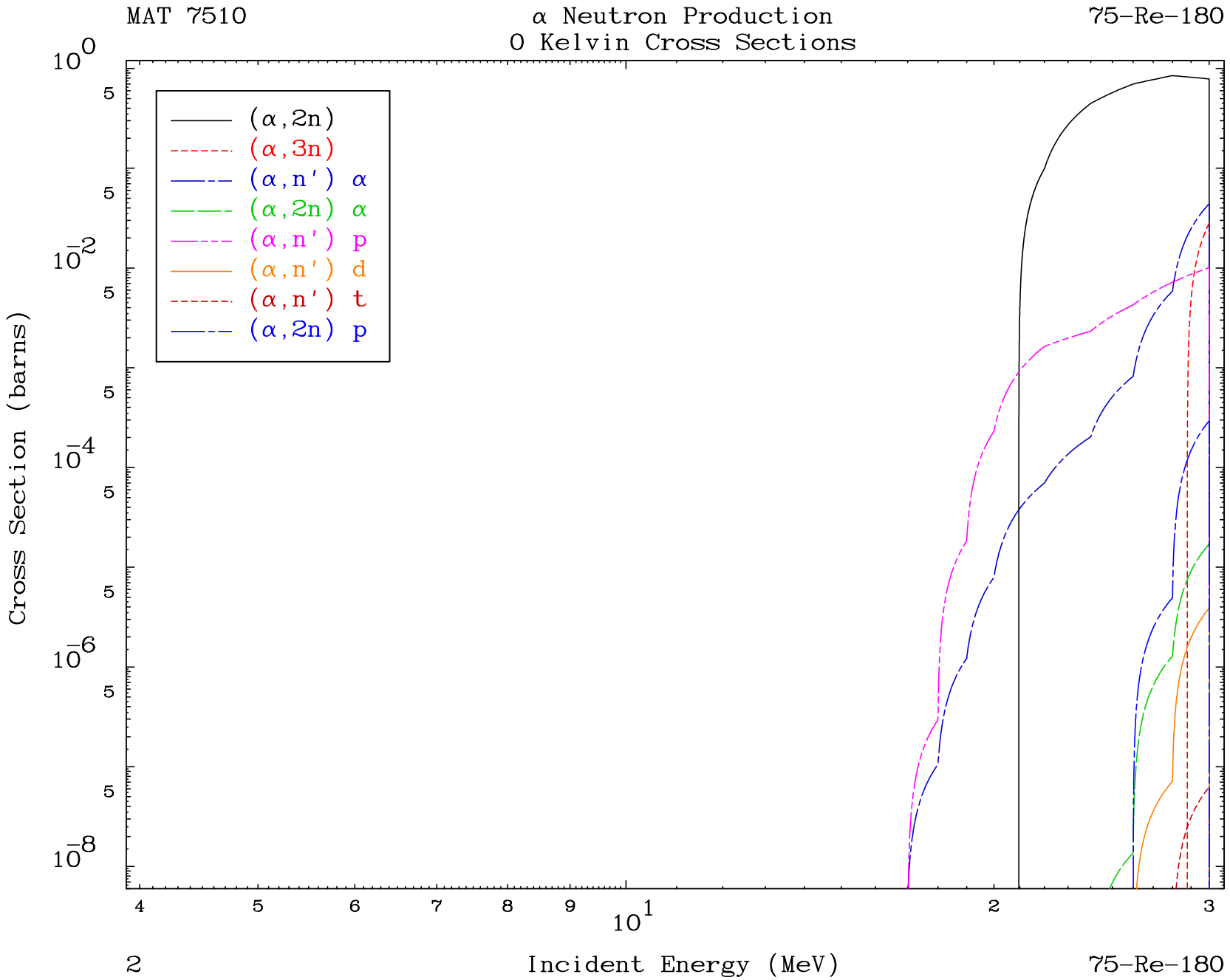
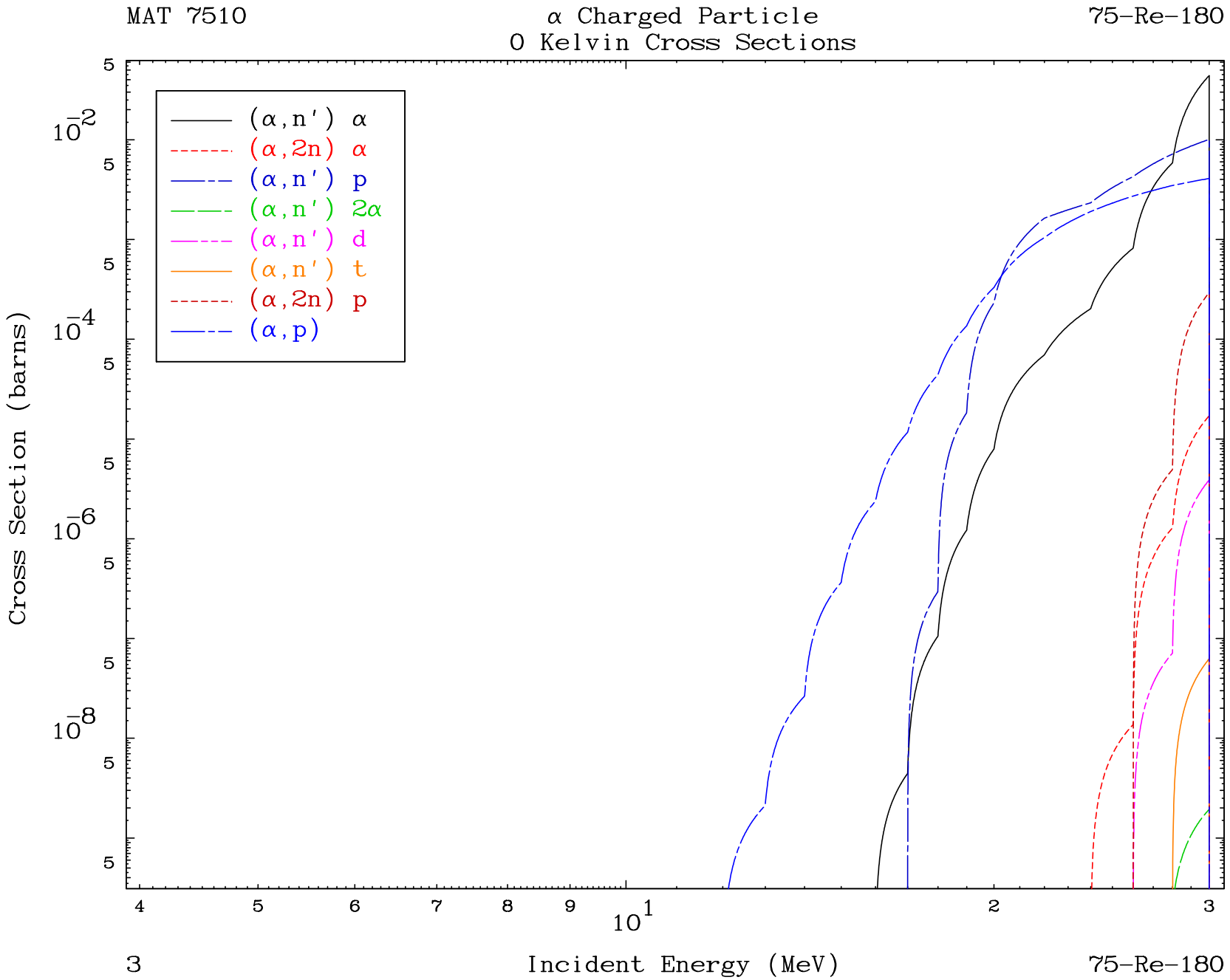
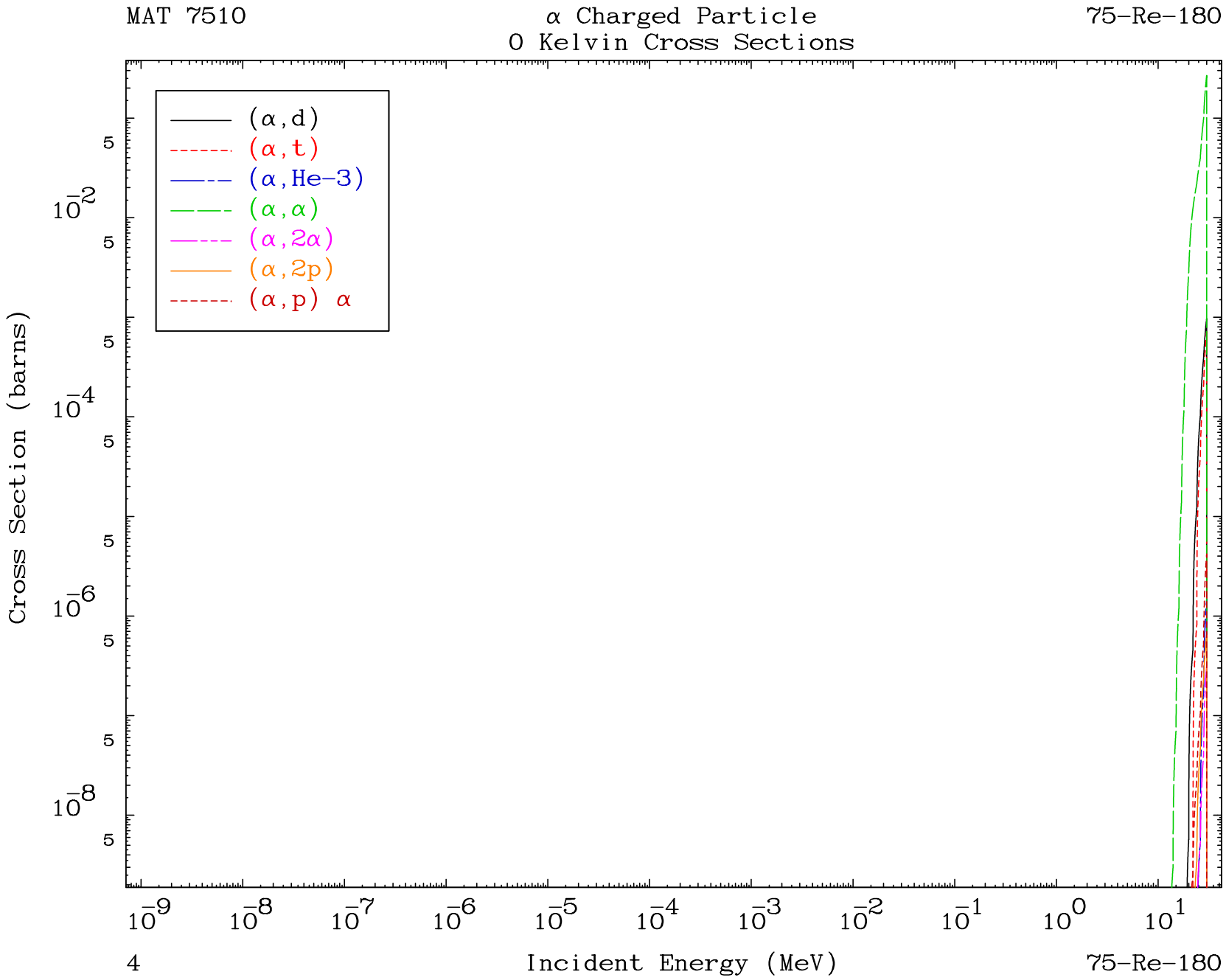
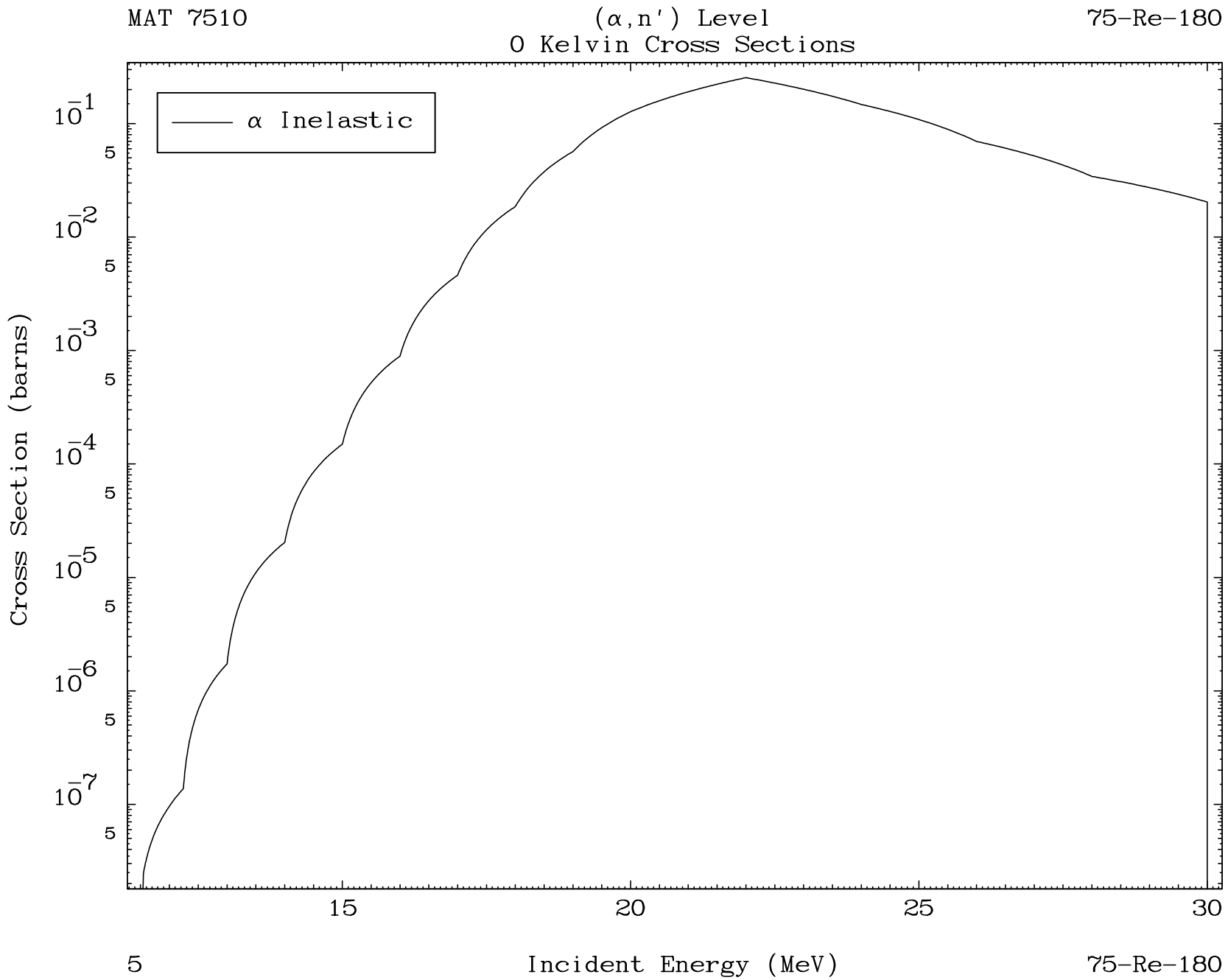
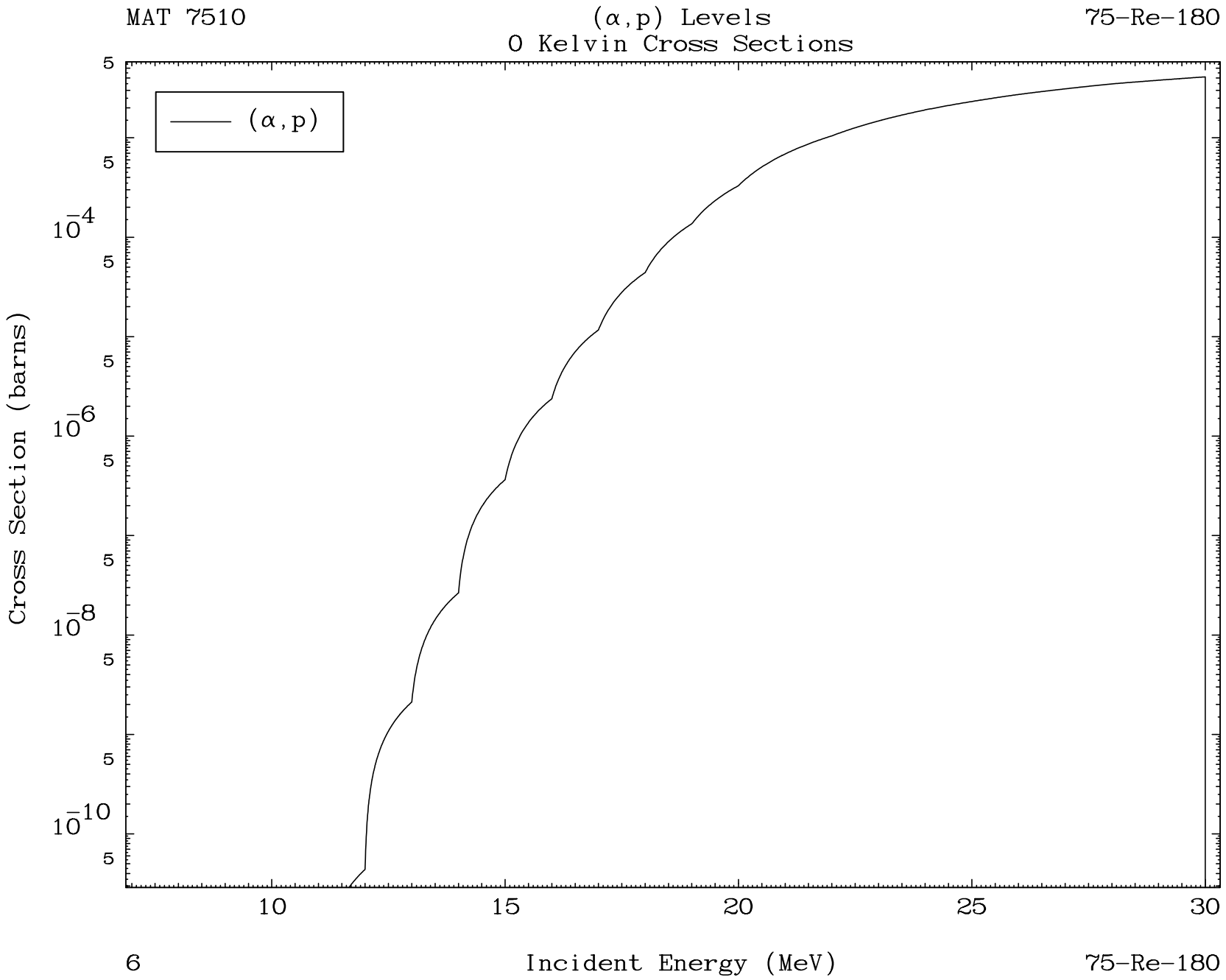

MAT 7510
α Major
75-Re-180
0 Kelvin Cross Sections
α Inelastic
(α,γ)
Cross Section (barns)
10-2
10-4
10-6
10-8
5
4
5
6
7
8
9
101
2
3
1
Incident Energy (MeV)
75-Re-180

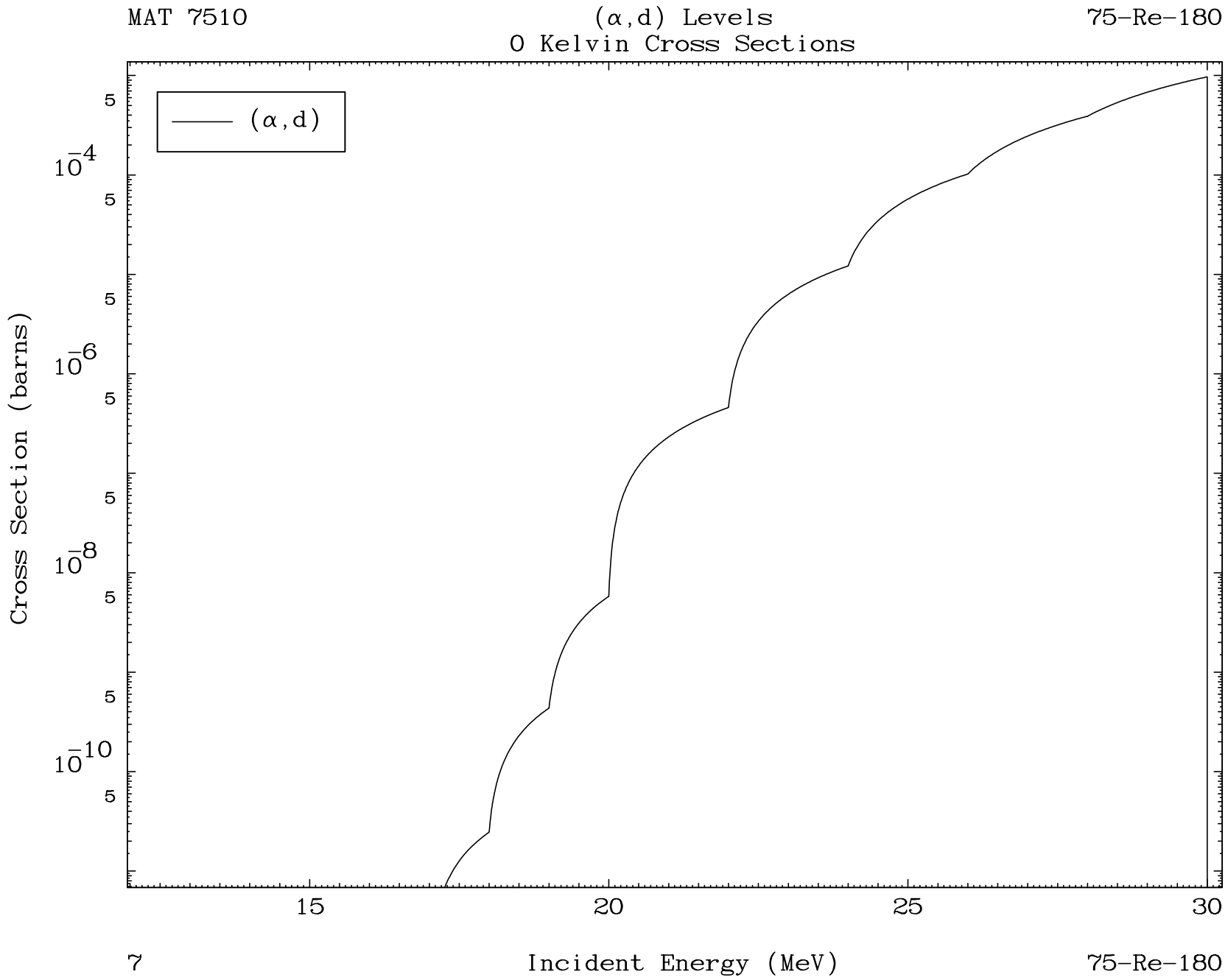

MAT 7510
α Neutron Production
0 Kelvin Cross Sections
75-Re-180
(α,2n)
(α,3n)
(α,n') α
(α,2n) α
(α,n') p
(α,n') d
(α,n') t
(α,2n) p
Cross Section (barns)
Incident Energy (MeV)
75-Re-180

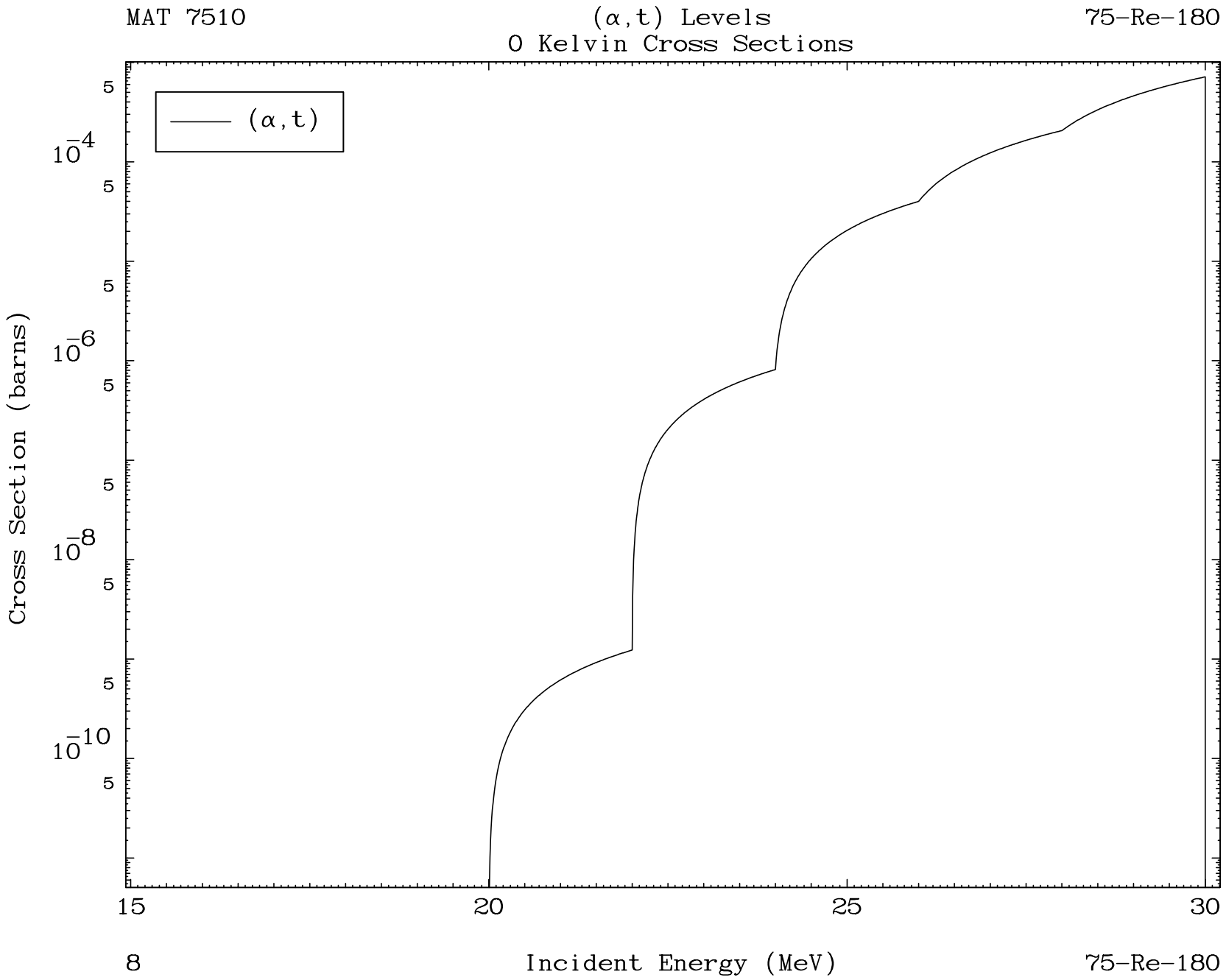

MAT 7510
α Charged Particle
0 Kelvin Cross Sections
75-Re-180
(α,n') α
(α,2n) α
(α,n') p
(α,n') 2α
(α,n') d
(α,n') t
(α,2n) p
(α,p)
Cross Section (barns)
Incident Energy (MeV)
3
75-Re-180

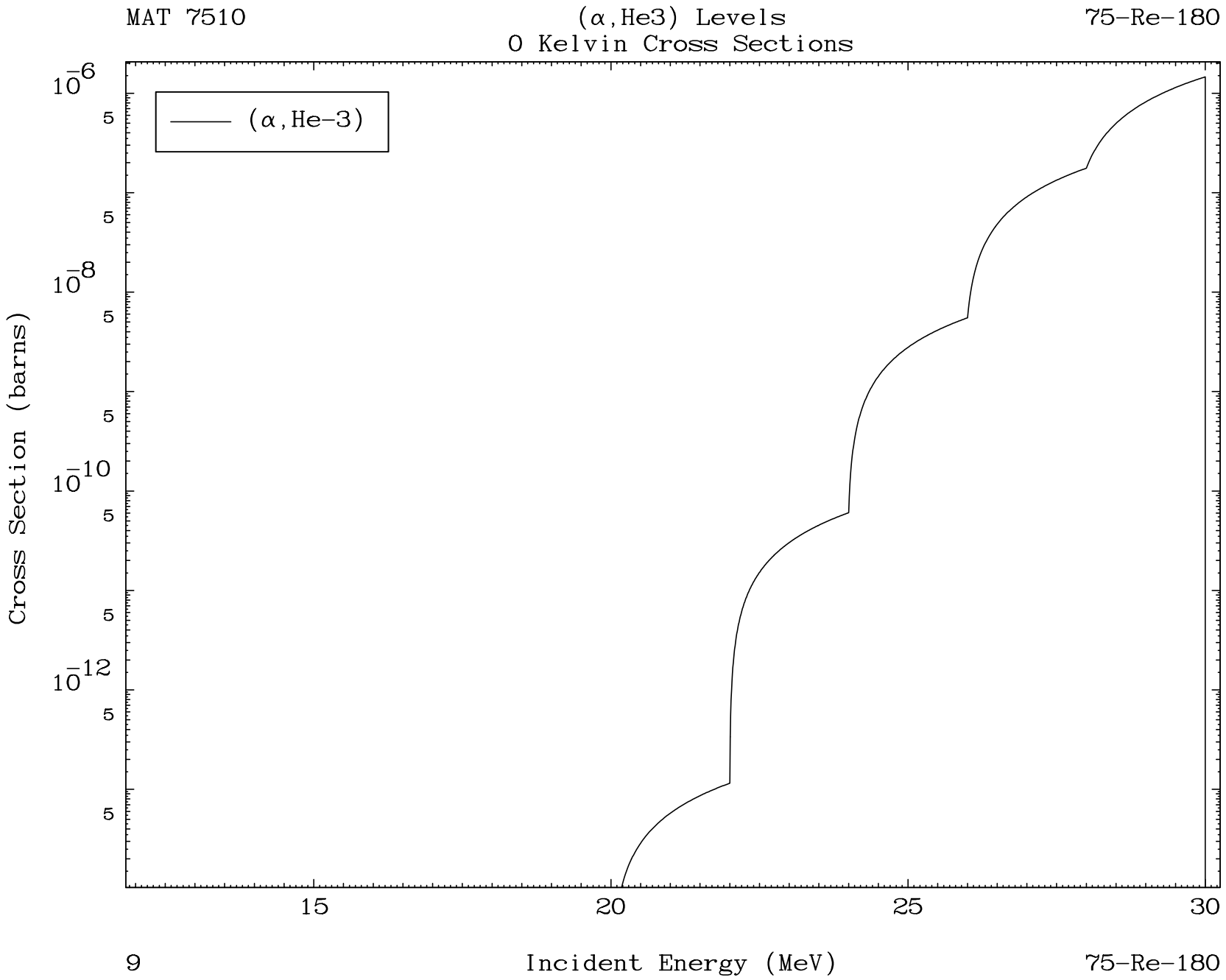

MAT 7510
α Charged Particle
0 Kelvin Cross Sections
75-Re-180
(α,d)
(α,t)
(α,He-3)
(α,α)
(α,2α)
(α,2p)
(α,p) α
Cross Section (barns)
Incident Energy (MeV)
4
75-Re-180

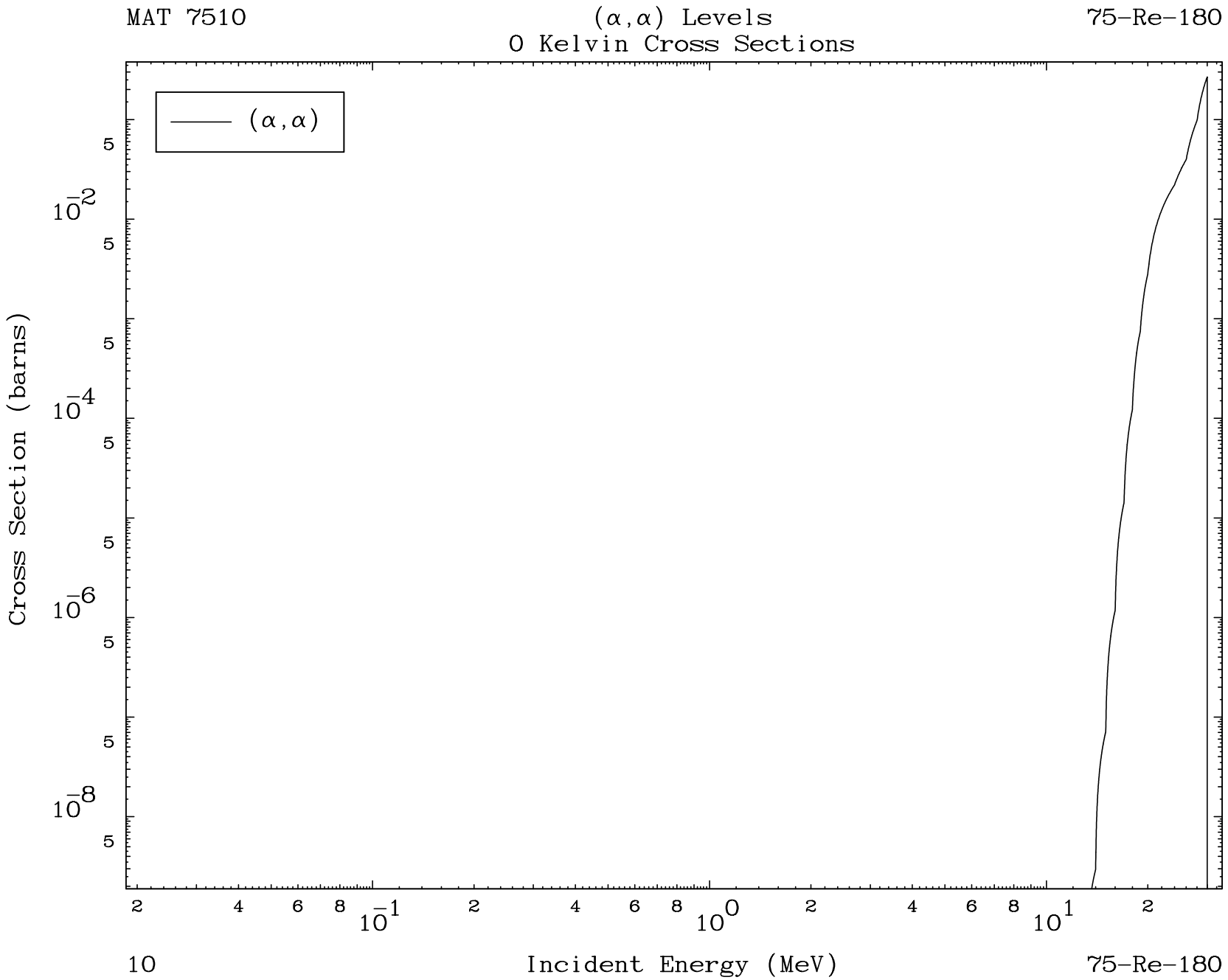

MAT 7510
(α,n') Level
75-Re-180
0 Kelvin Cross Sections
α Inelastic
Cross Section (barns)
10-1
10-2
10-3
10-4
10-5
10-6
10-7
5
15
20
25
30
Incident Energy (MeV)
75-Re-180

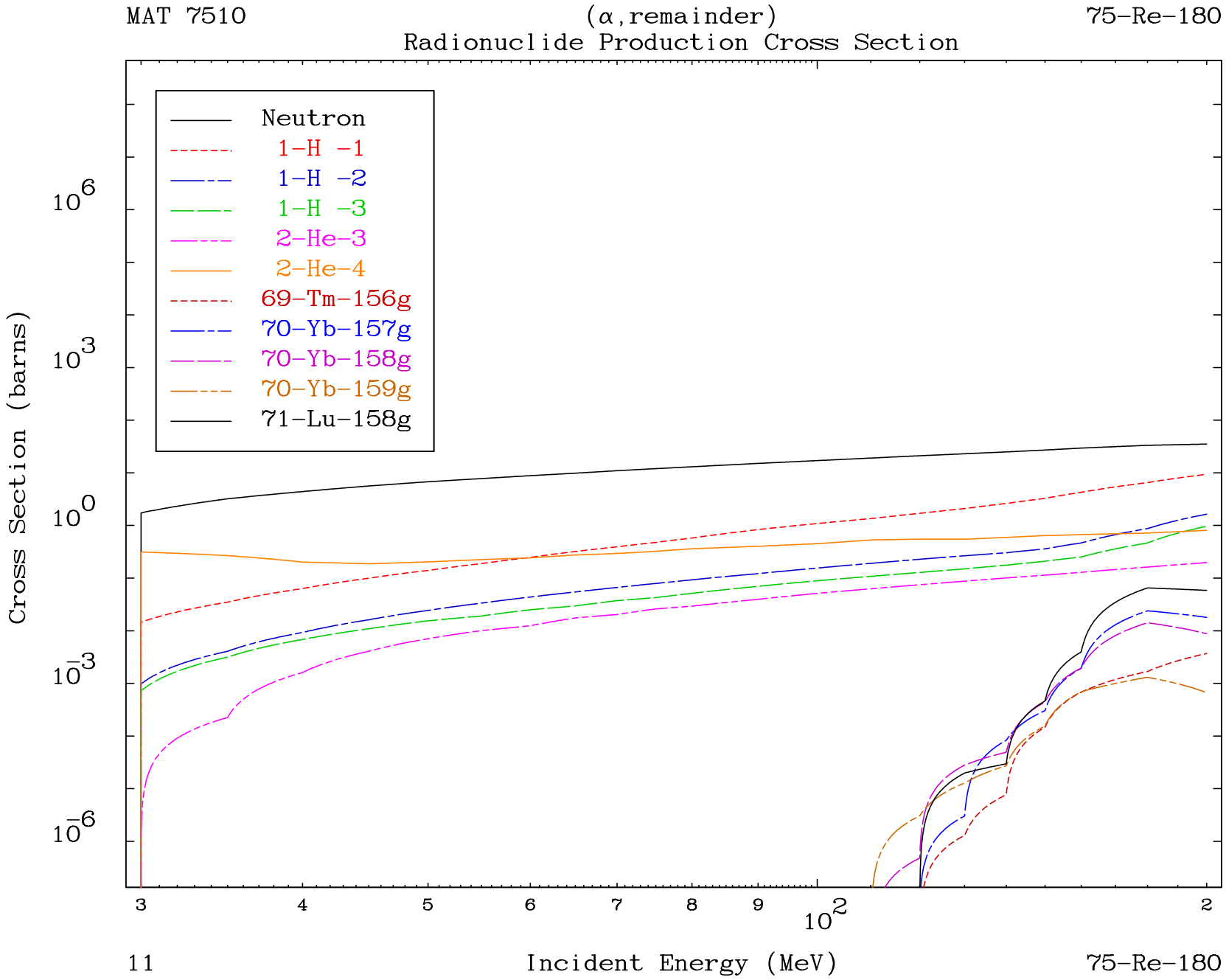

MAT 7510
(α,p) Levels
75-Re-180
0 Kelvin Cross Sections
(α,p)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10
15
20
25
30
Incident Energy (MeV)
6
75-Re-180

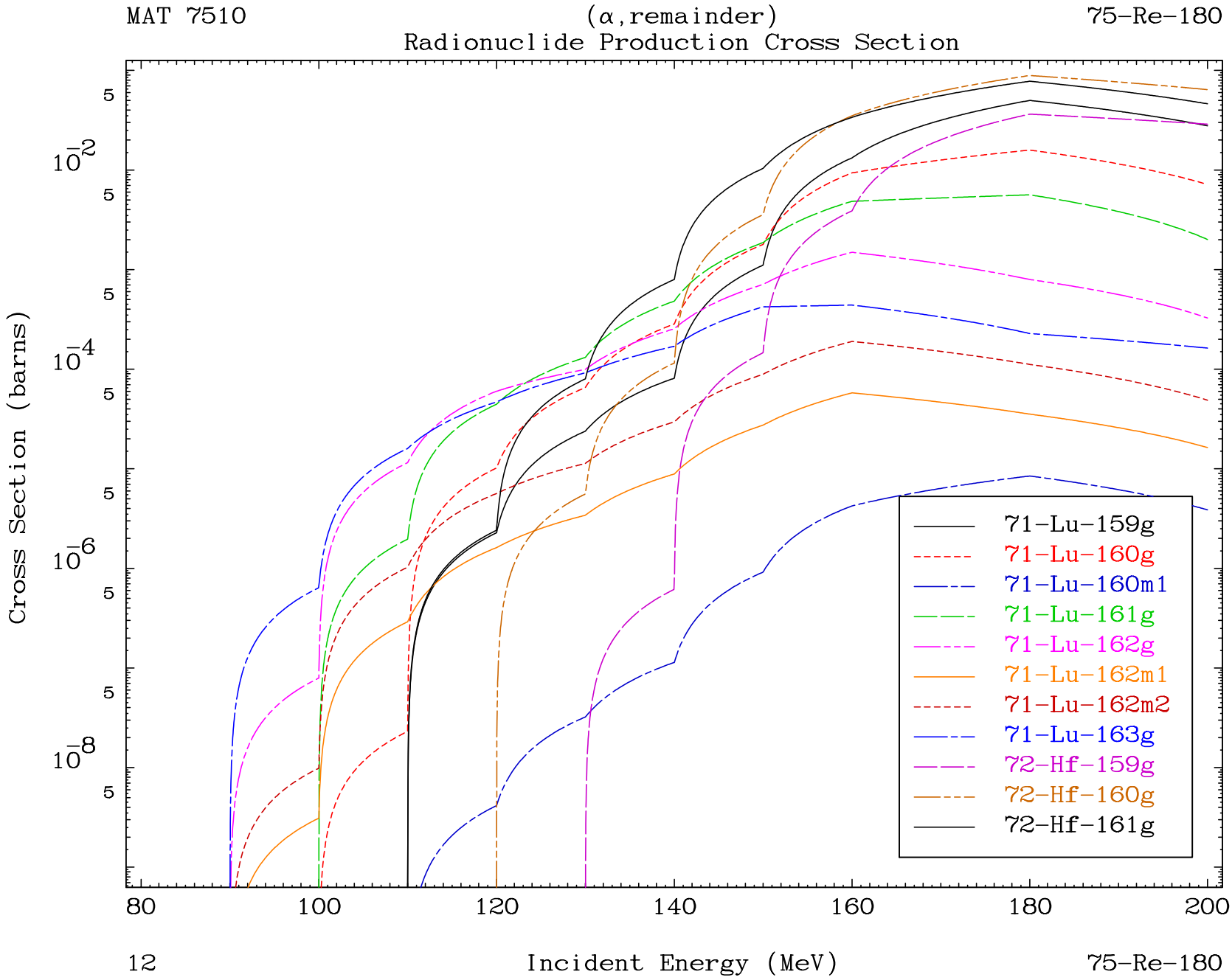

MAT 7510
(α,d) Levels
75-Re-180
0 Kelvin Cross Sections
(α,d)
Cross Section (barns)
10-4
10-6
10-8
10-10
15
20
25
30
7
Incident Energy (MeV)
75-Re-180

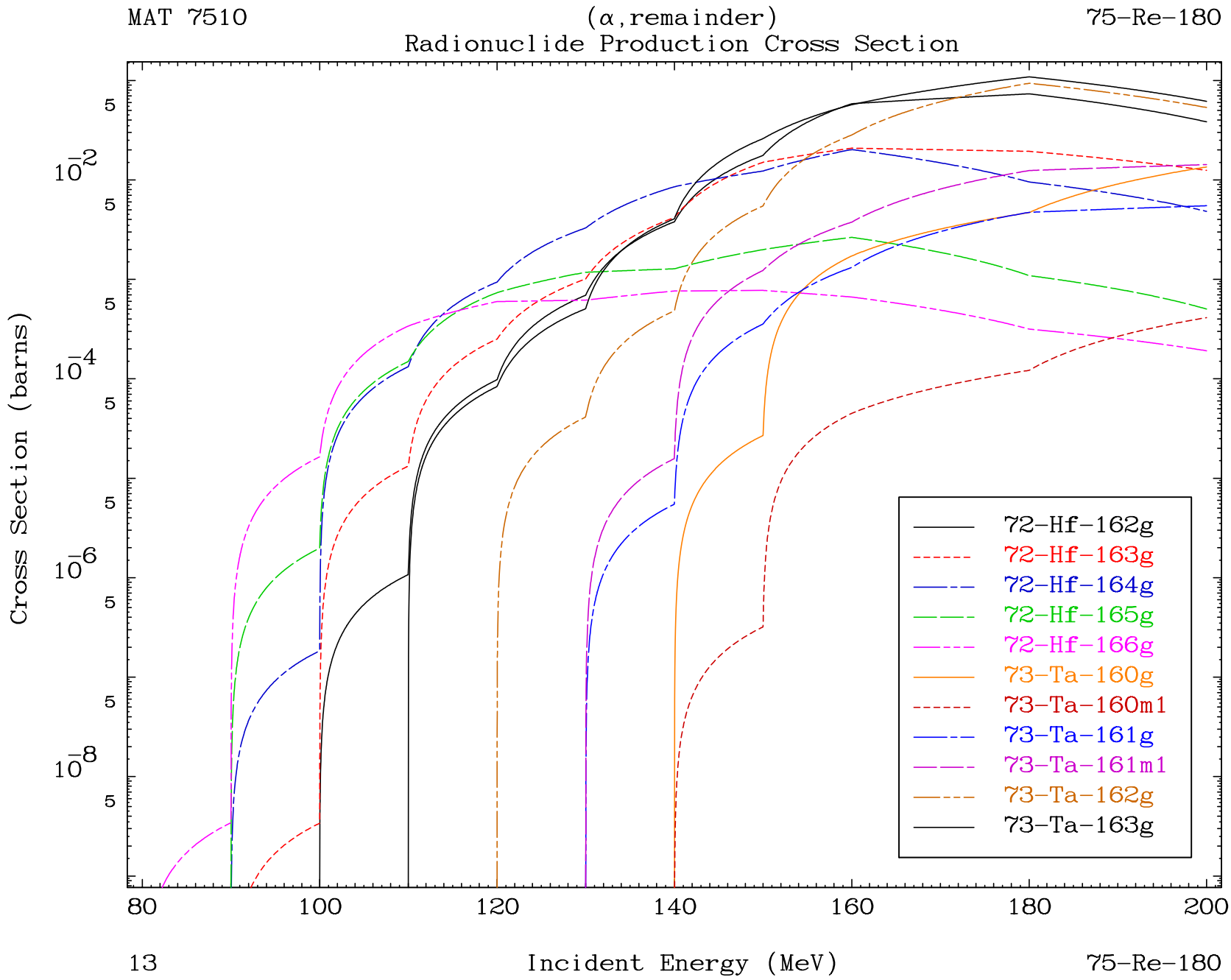

MAT 7510
(α,t) Levels
75-Re-180
0 Kelvin Cross Sections
(α,t)
Cross Section (barns)
10-4
10-6
10-8
10-10
15
20
25
30
Incident Energy (MeV)
8
75-Re-180

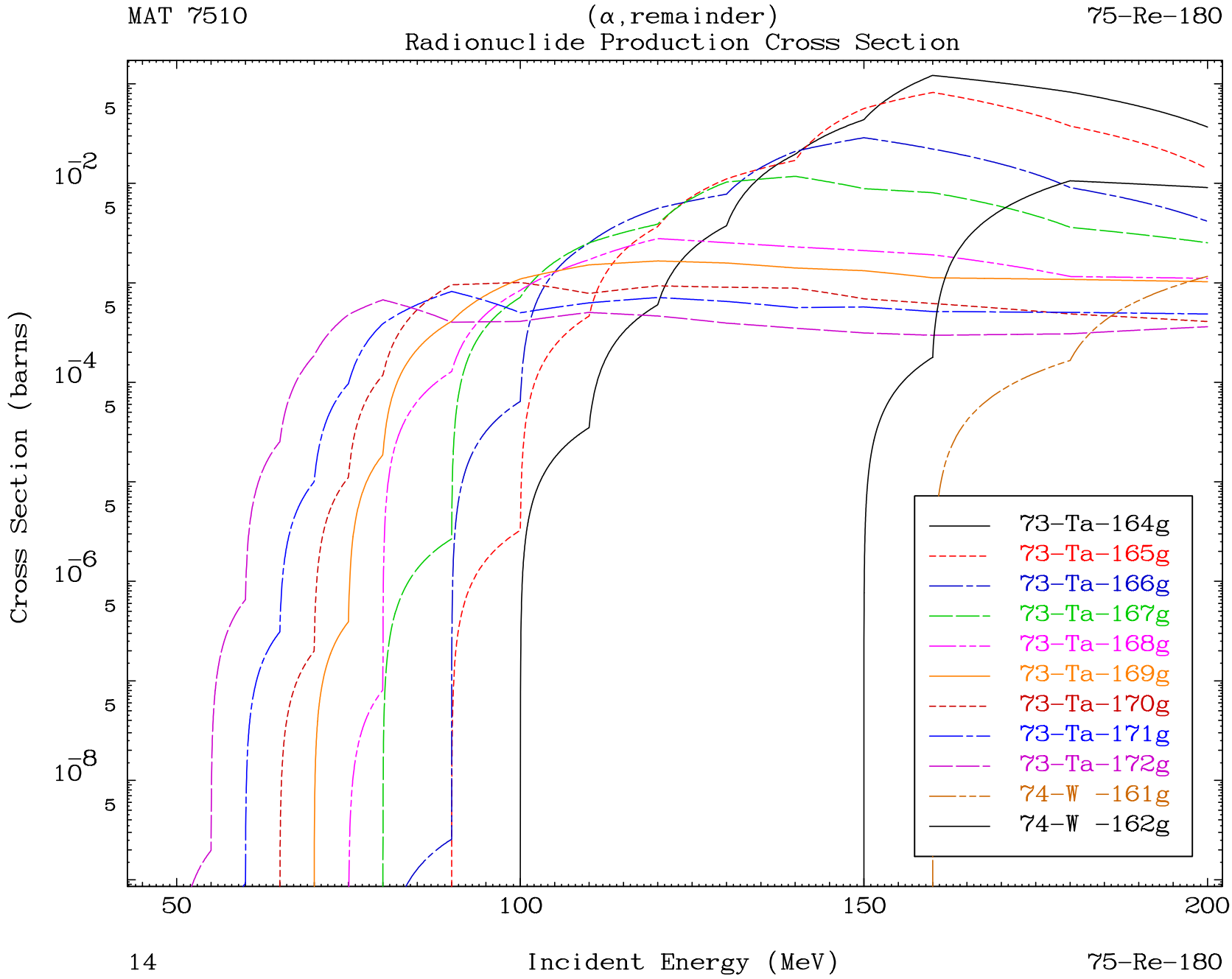

MAT 7510
(α,He3) Levels
75-Re-180
0 Kelvin Cross Sections
(α,He-3)
Cross Section (barns)
10-6
5
10-8
5
10-10
5
10-12
5
5
15
20
25
30
9
Incident Energy (MeV)
75-Re-180

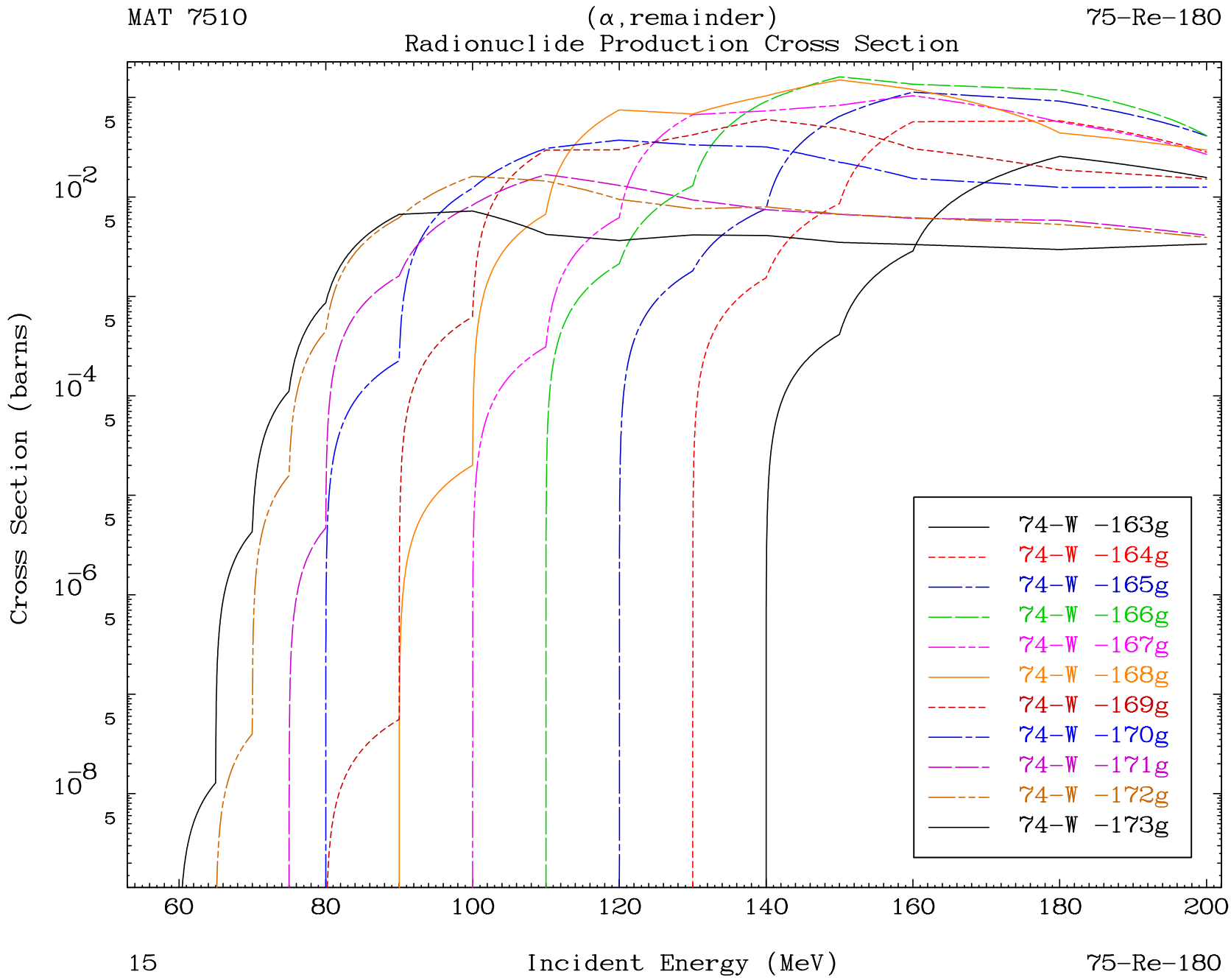

MAT 7510
(α,α) Levels
75-Re-180
0 Kelvin Cross Sections
(α,α)
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
10^-1
10^0
10^1
Incident Energy (MeV)
10
75-Re-180

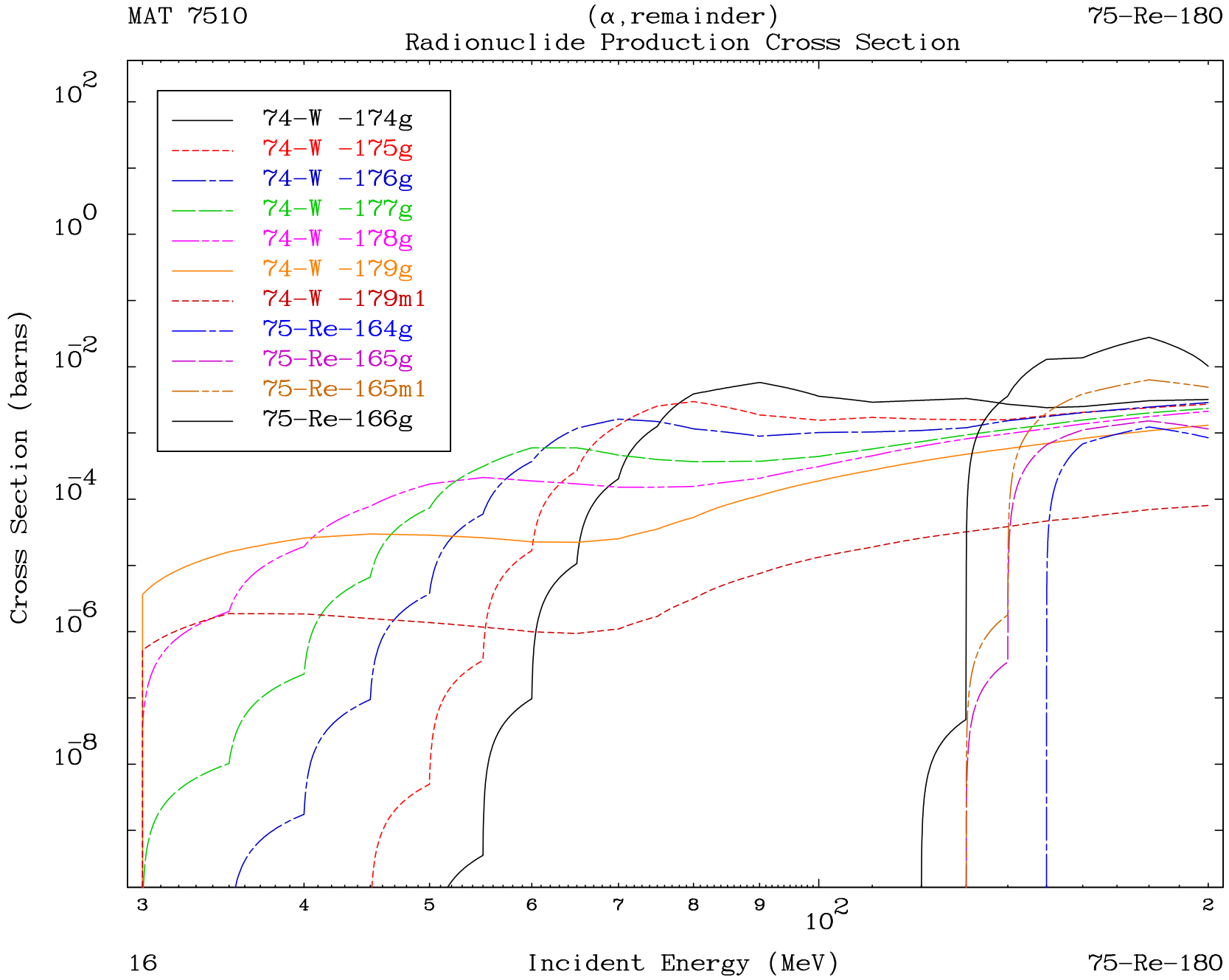

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Neutron
1-H -1
1-H -2
1-H -3
2-He-3
2-He-4
69-Tm-156g
70-Yb-157g
70-Yb-158g
70-Yb-159g
71-Lu-158g
Cross Section (barns)
10^6
10^3
10^0
10^-3
10^-6
3
4
5
6
7
8
9
10^2
2
11
Incident Energy (MeV)
75-Re-180

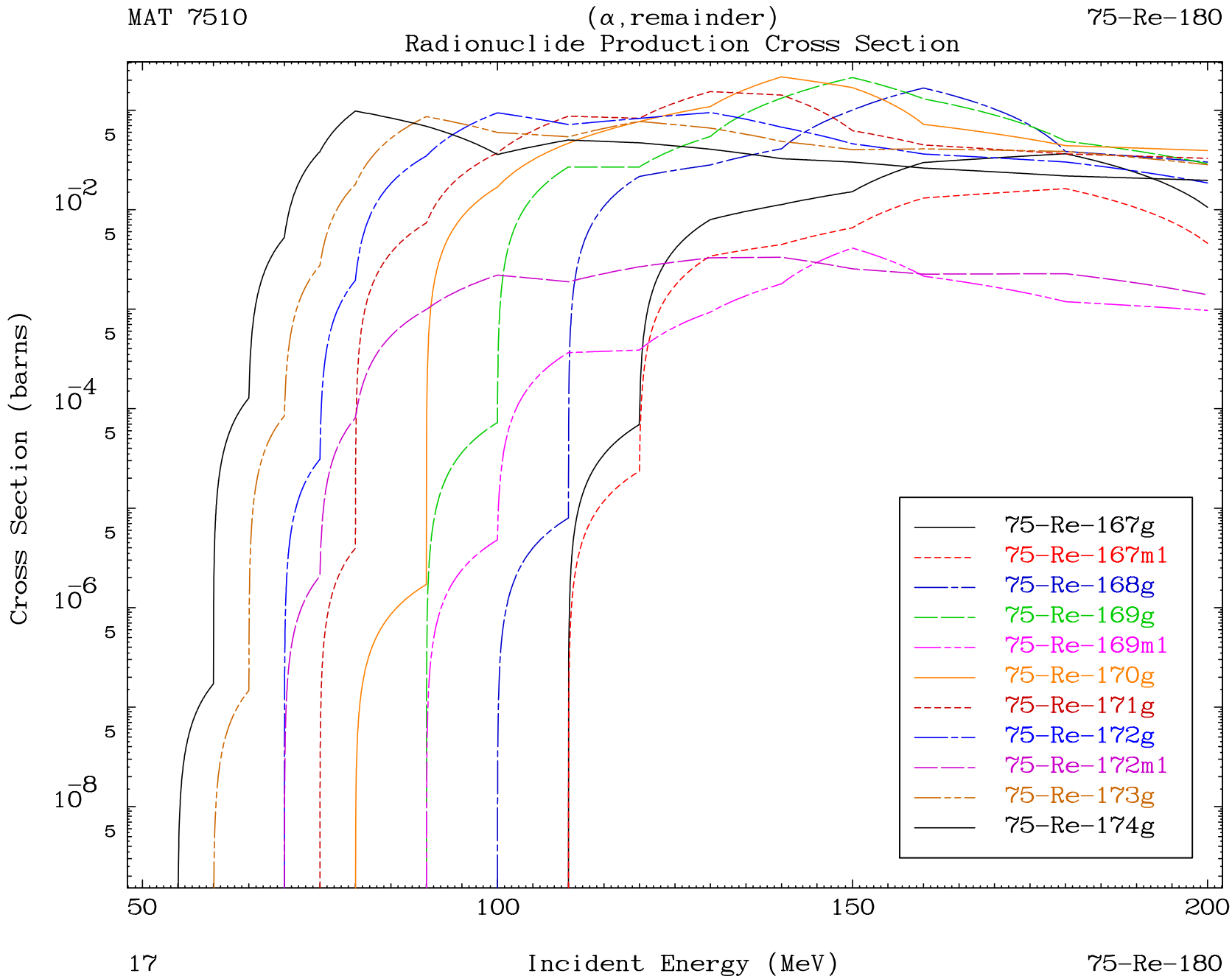

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
5
80
100
120
140
160
180
200
Incident Energy (MeV)
12
75-Re-180
71-Lu-159g
71-Lu-160g
71-Lu-160m1
71-Lu-161g
71-Lu-162g
71-Lu-162m1
71-Lu-162m2
71-Lu-163g
72-Hf-159g
72-Hf-160g
72-Hf-161g

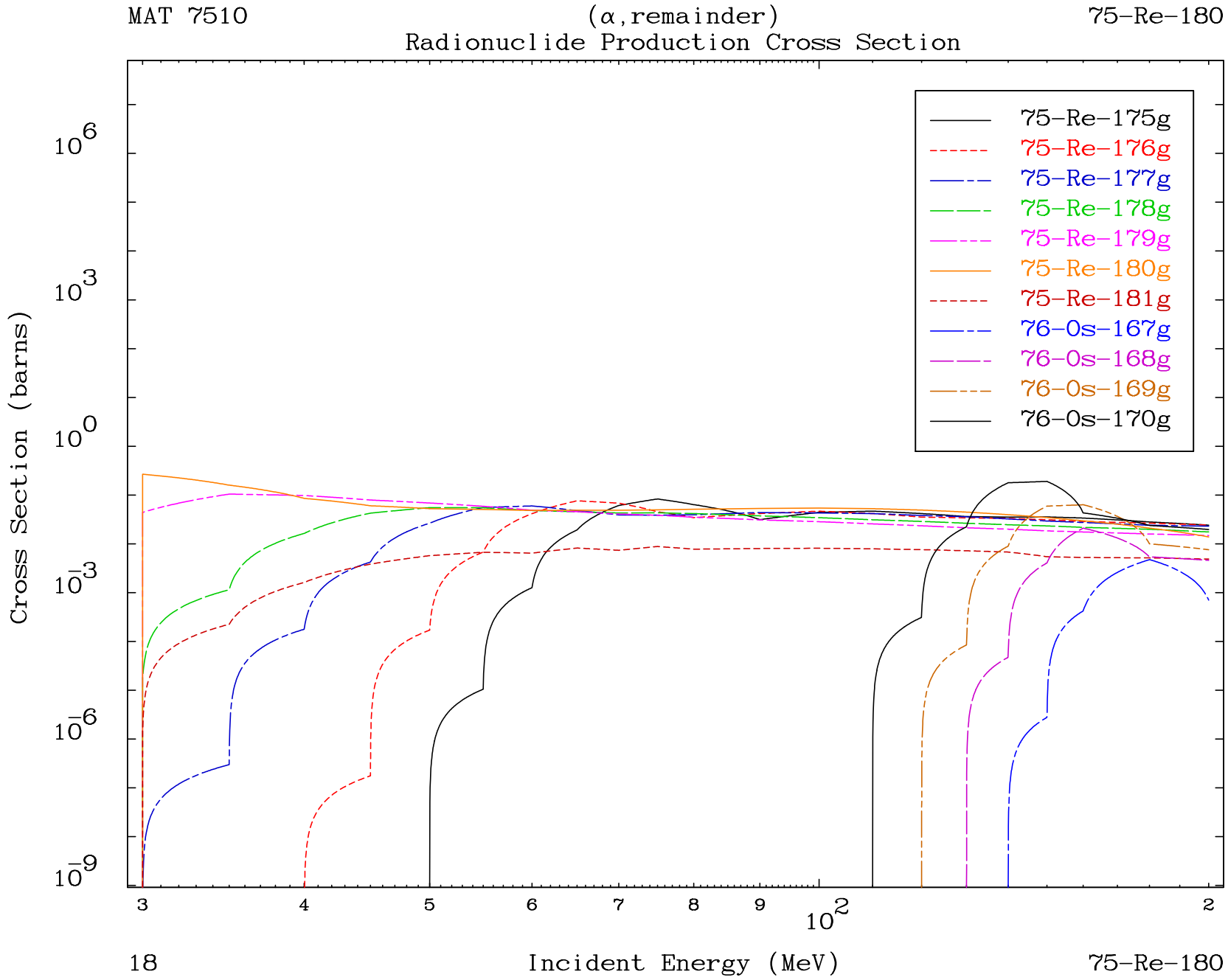

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
5
80
100
120
140
160
180
200
13
Incident Energy (MeV)
75-Re-180
72-Hf-162g
72-Hf-163g
72-Hf-164g
72-Hf-165g
72-Hf-166g
73-Ta-160g
73-Ta-160m1
73-Ta-161g
73-Ta-161m1
73-Ta-162g
73-Ta-163g

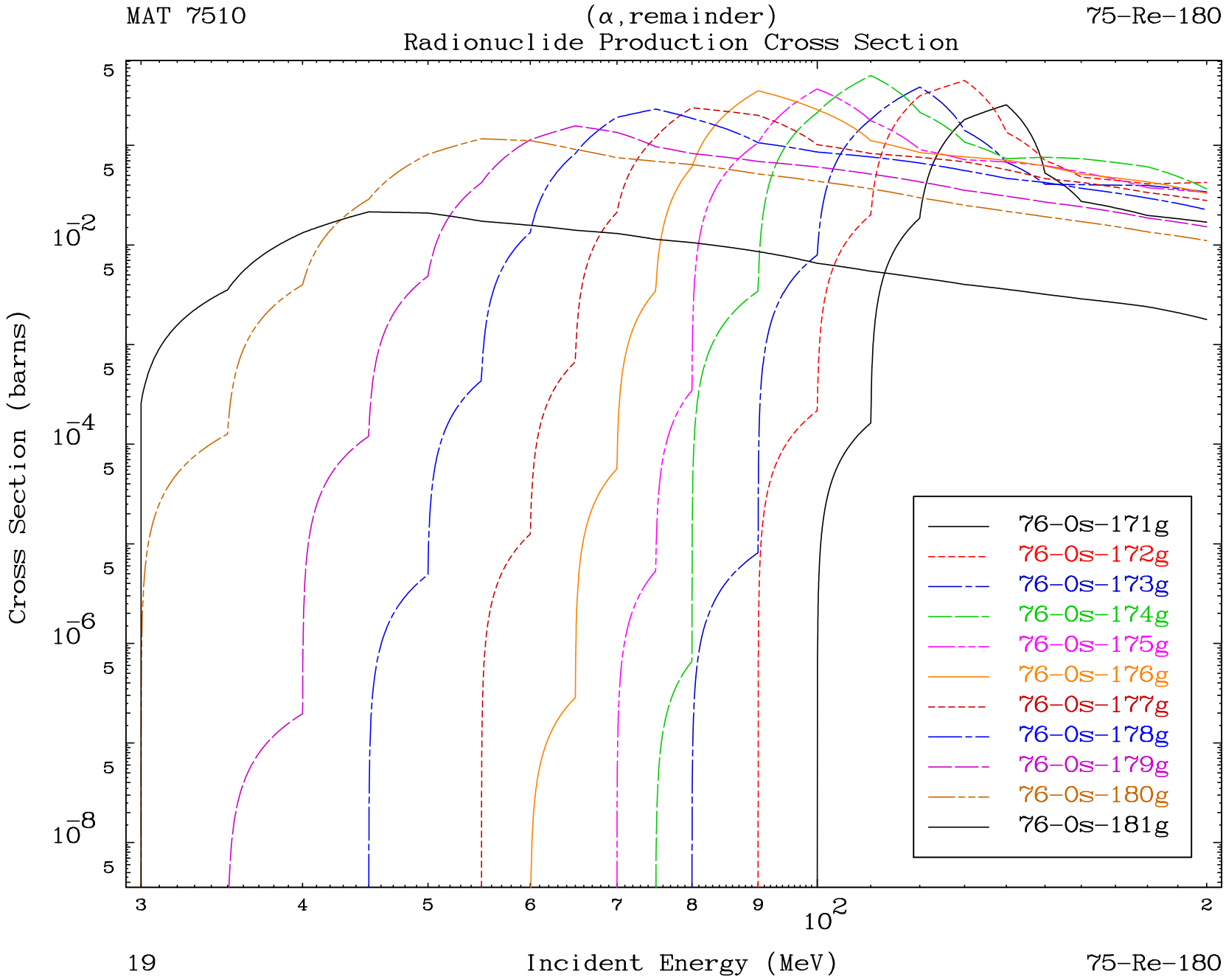

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
5
50
100
150
200
Incident Energy (MeV)
14
75-Re-180
73-Ta-164g
73-Ta-165g
73-Ta-166g
73-Ta-167g
73-Ta-168g
73-Ta-169g
73-Ta-170g
73-Ta-171g
73-Ta-172g
74-W -161g
74-W -162g

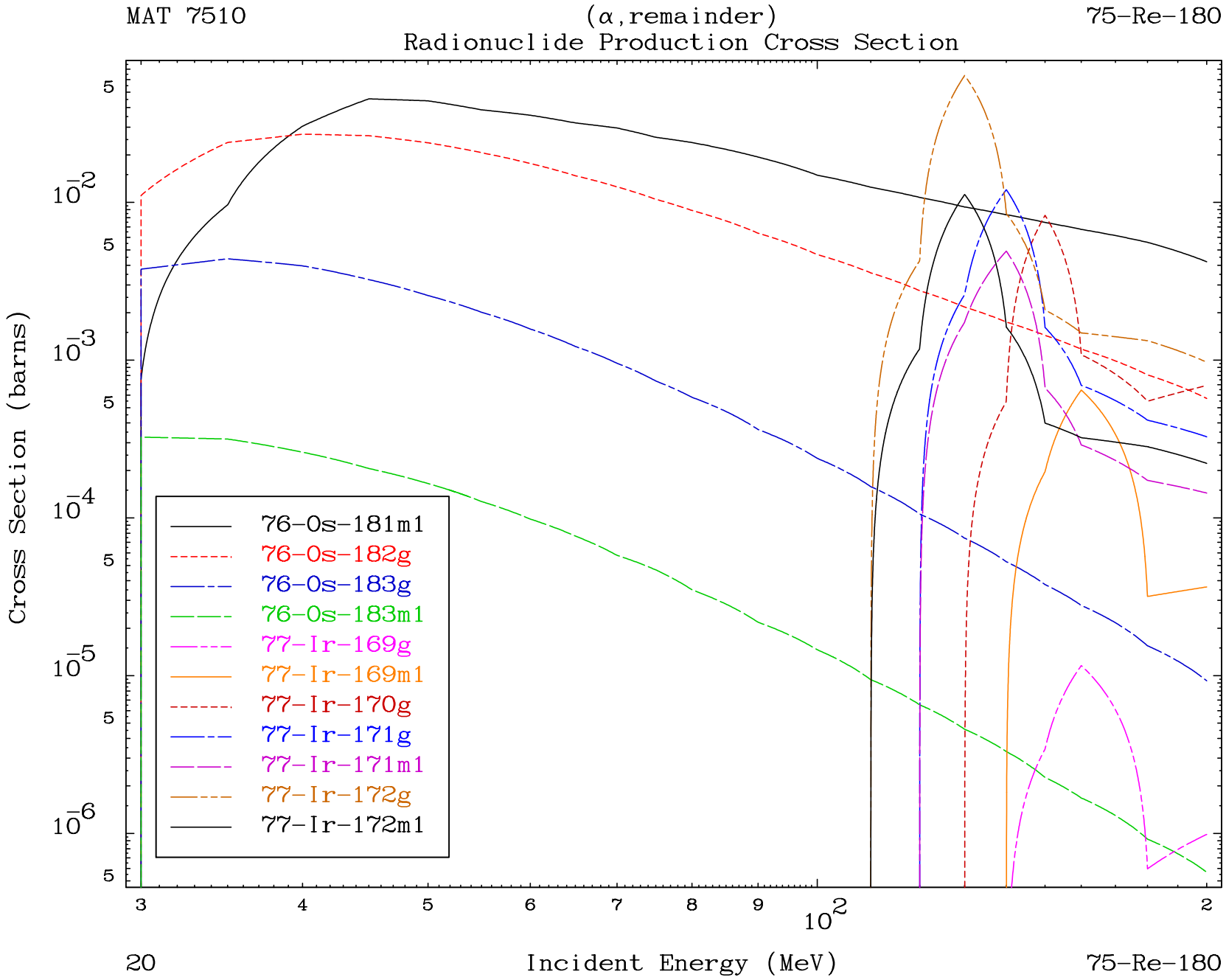

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
5
60
80
100
120
140
160
180
200
Incident Energy (MeV)
15
75-Re-180
74-W -163g
74-W -164g
74-W -165g
74-W -166g
74-W -167g
74-W -168g
74-W -169g
74-W -170g
74-W -171g
74-W -172g
74-W -173g

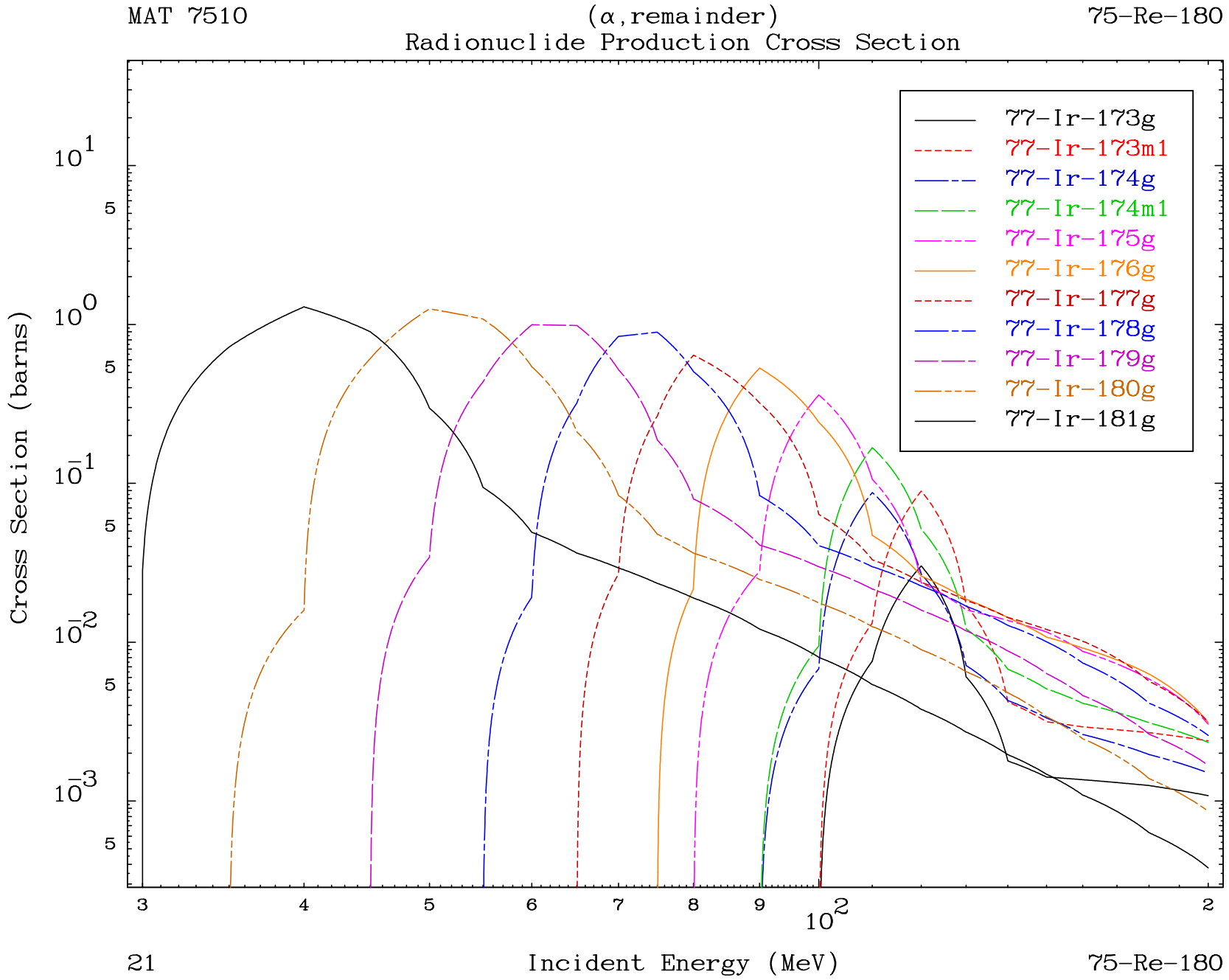

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
74-W -174g
74-W -175g
74-W -176g
74-W -177g
74-W -178g
74-W -179g
74-W -179m1
75-Re-164g
75-Re-165g
75-Re-165m1
75-Re-166g
Cross Section (barns)
10^2
10^0
10^-2
10^-4
10^-6
10^-8
3
4
5
6
7
8
9
10^2
2
16
Incident Energy (MeV)
75-Re-180

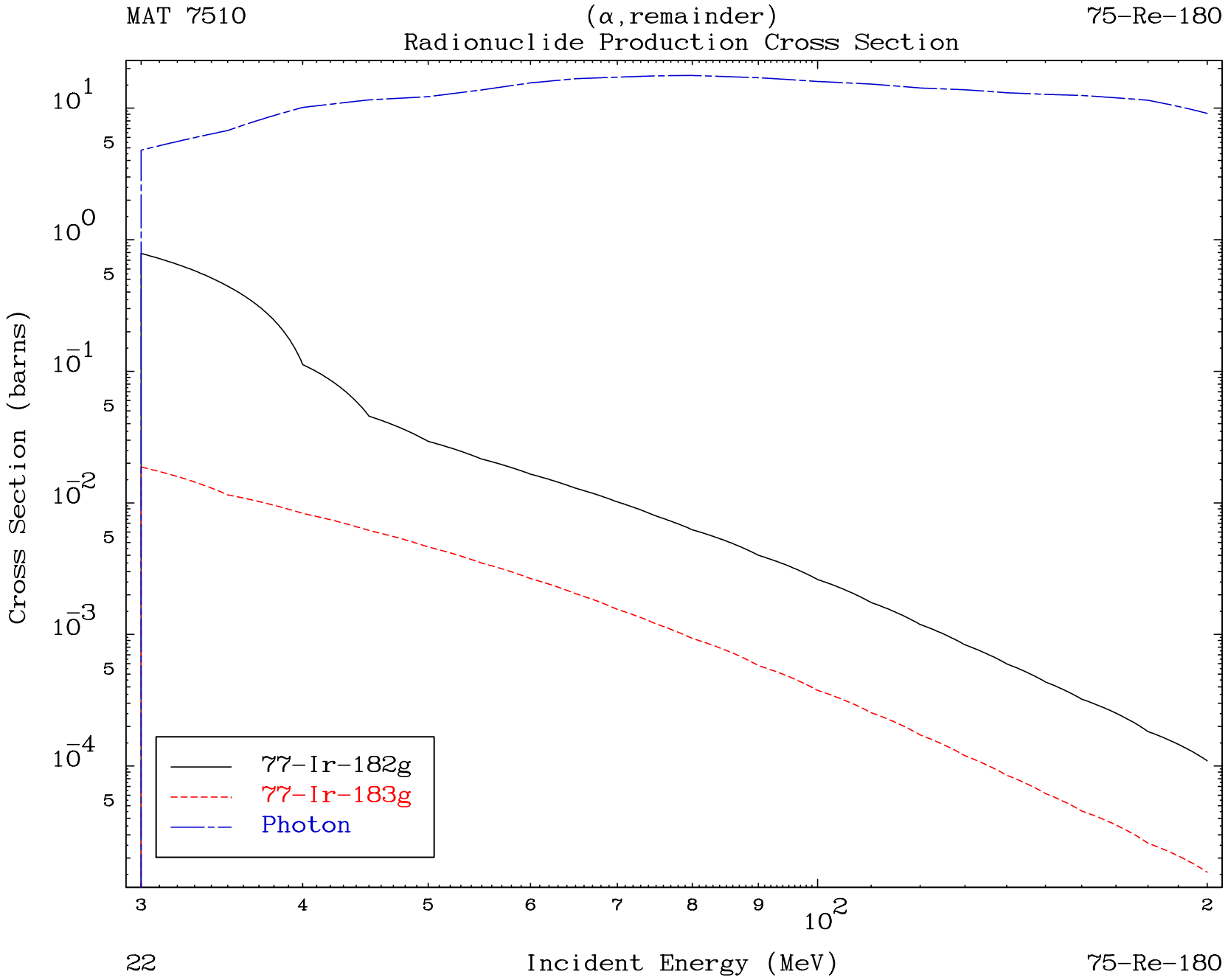

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
50
100
150
200
17
Incident Energy (MeV)
75-Re-180
75-Re-167g
75-Re-167m1
75-Re-168g
75-Re-169g
75-Re-169m1
75-Re-170g
75-Re-171g
75-Re-172g
75-Re-172m1
75-Re-173g
75-Re-174g

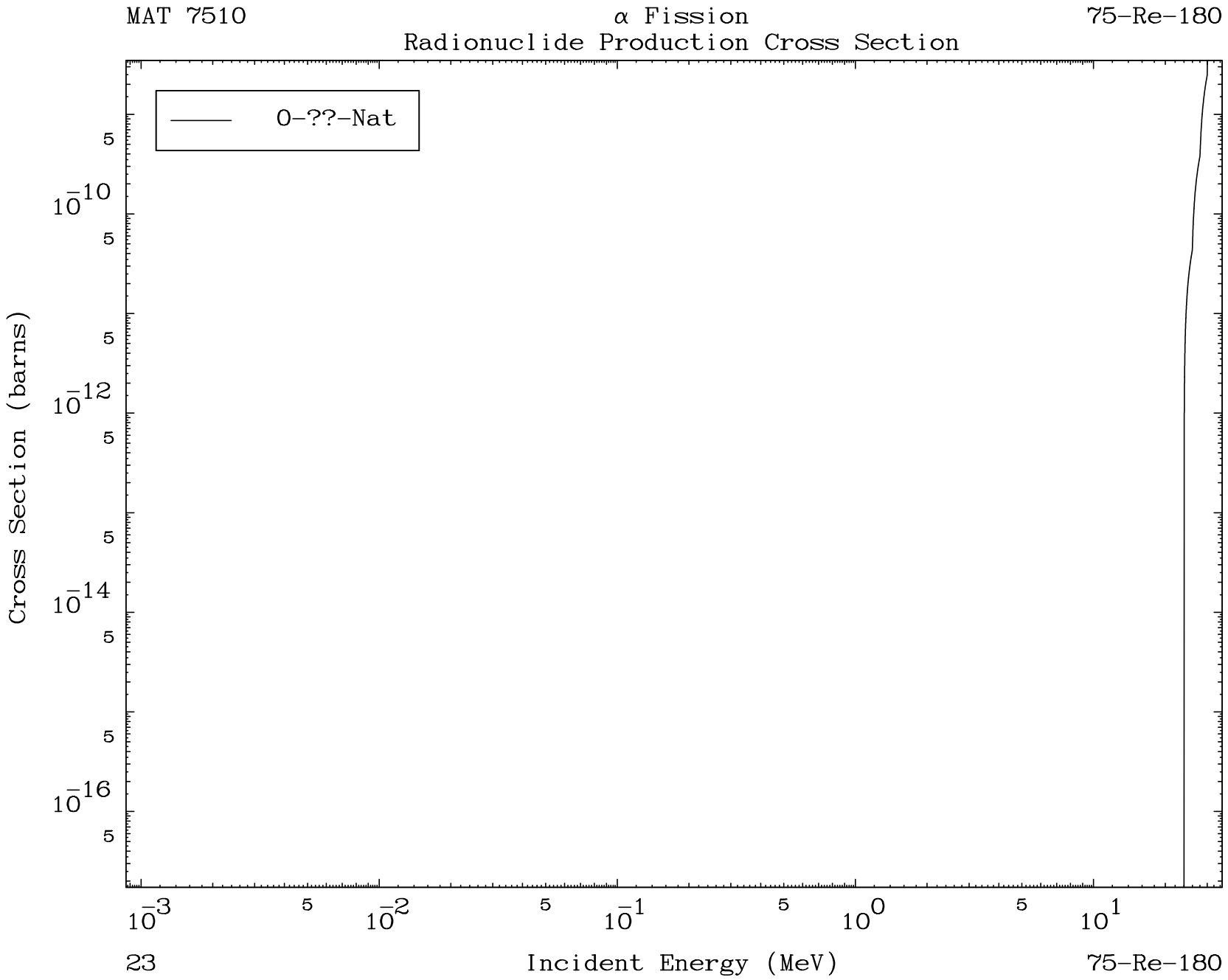

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
75-Re-175g
75-Re-176g
75-Re-177g
75-Re-178g
75-Re-179g
75-Re-180g
75-Re-181g
76-Os-167g
76-Os-168g
76-Os-169g
76-Os-170g
Cross Section (barns)
10^6
10^3
10^0
10^-3
10^-6
10^-9
3
4
5
6
7
8
9
10^2
2
18
Incident Energy (MeV)
75-Re-180

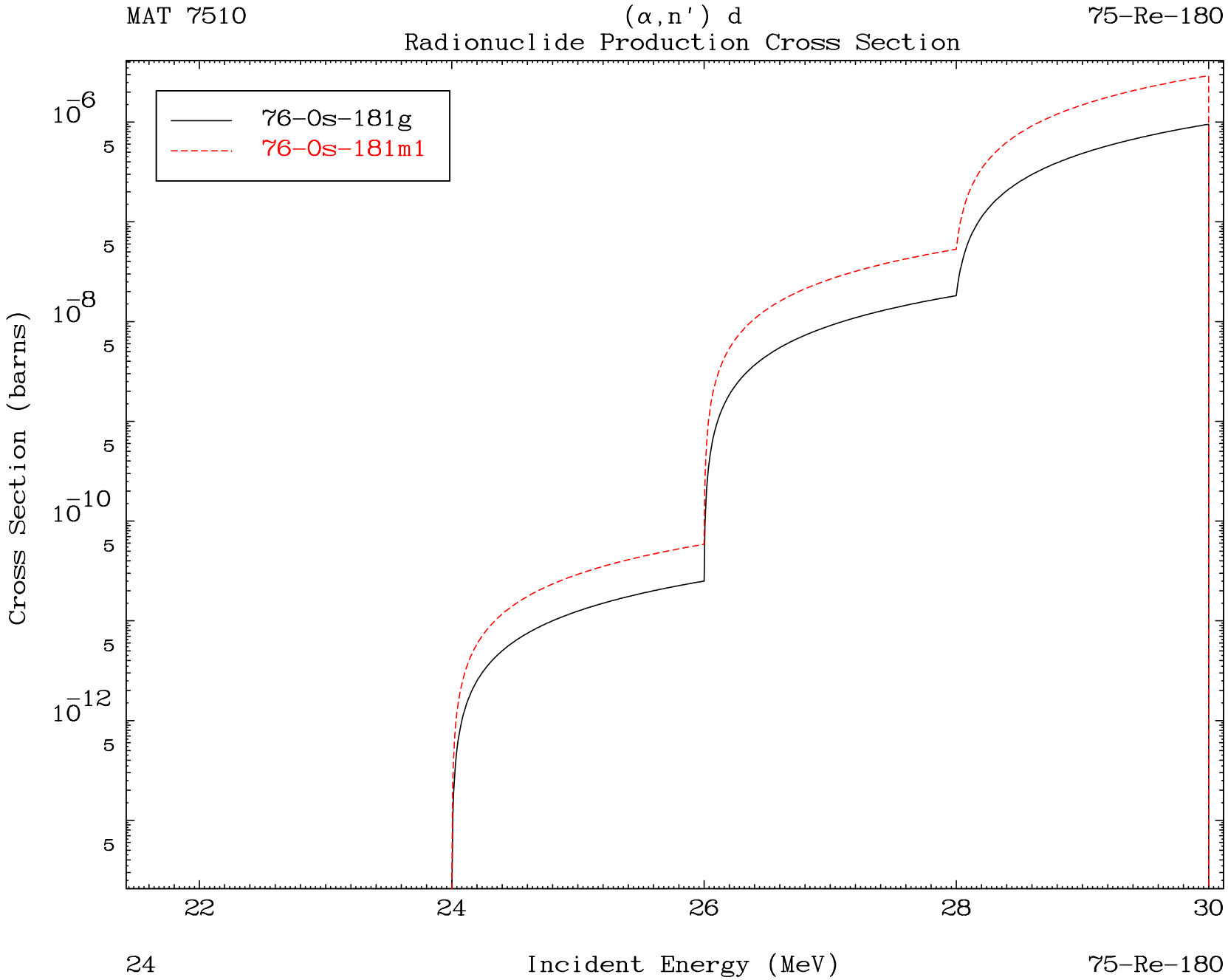

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
19
75-Re-180
76-Os-171g
76-Os-172g
76-Os-173g
76-Os-174g
76-Os-175g
76-Os-176g
76-Os-177g
76-Os-178g
76-Os-179g
76-Os-180g
76-Os-181g

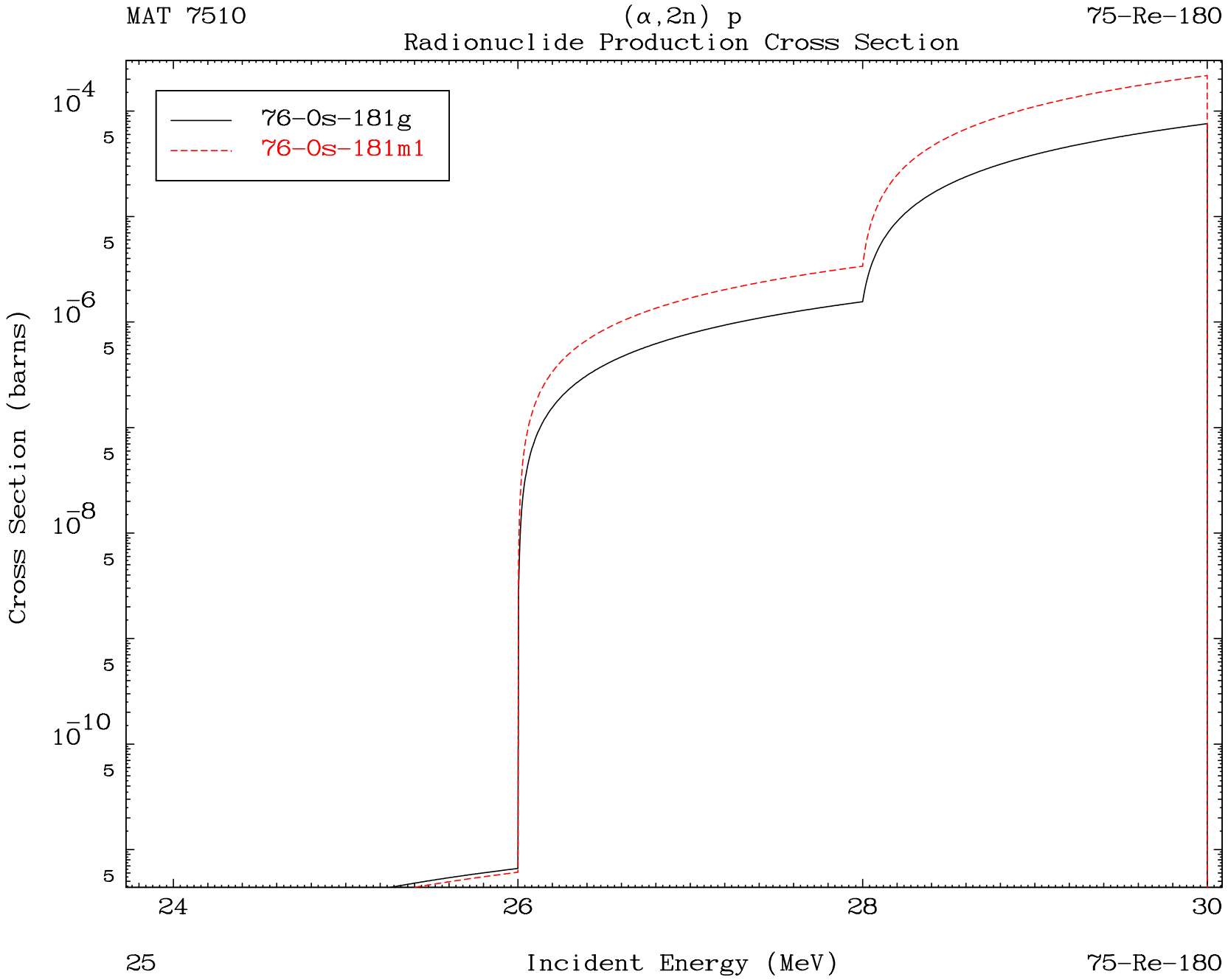

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-3
10-4
10-5
10-6
5
3
4
5
6
7
8
9
10 2
2
76-Os-181m1
76-Os-182g
76-Os-183g
76-Os-183m1
77-Ir-169g
77-Ir-169m1
77-Ir-170g
77-Ir-171g
77-Ir-171m1
77-Ir-172g
77-Ir-172m1
20
Incident Energy (MeV)
75-Re-180

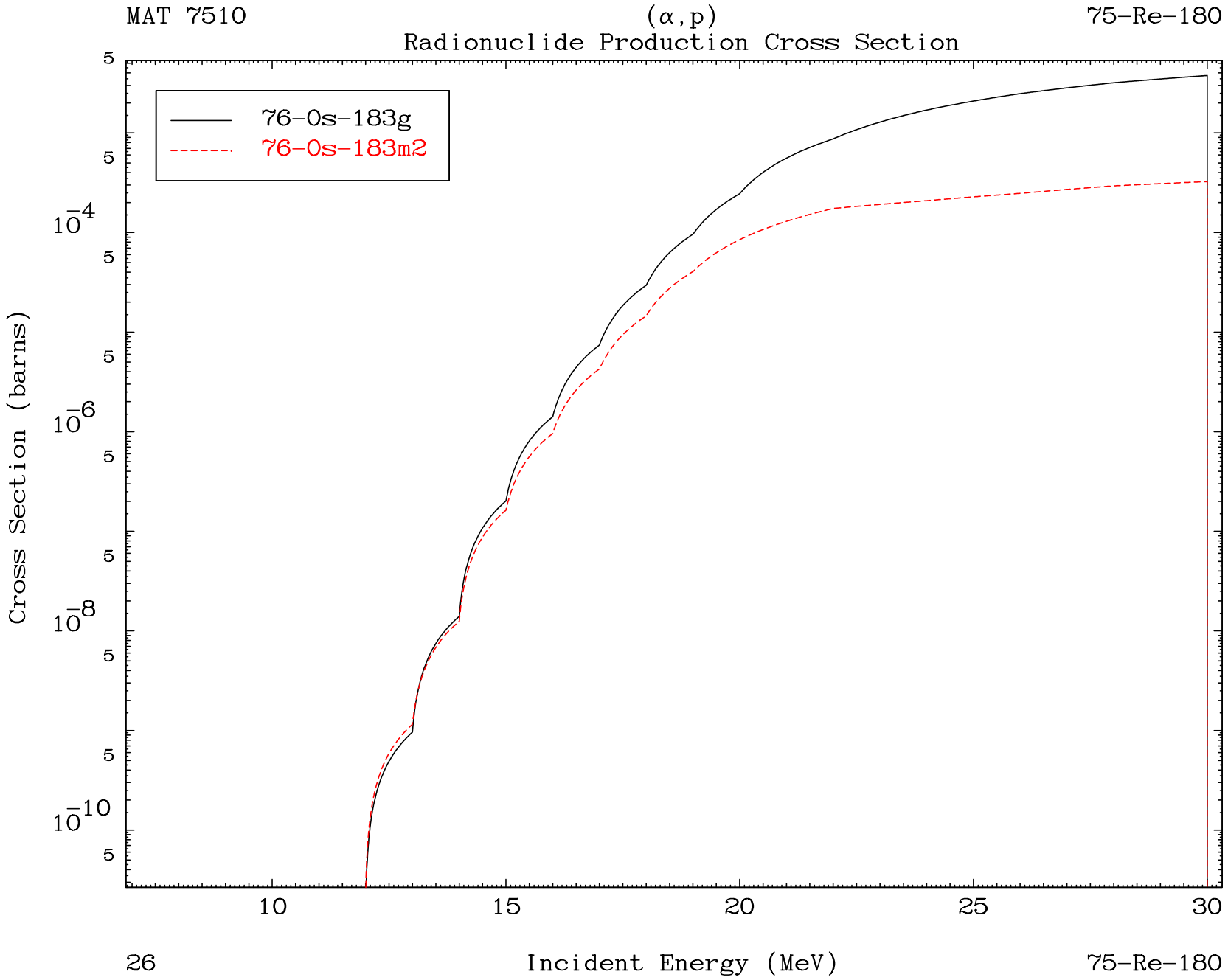

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
77-Ir-173g
77-Ir-173m1
77-Ir-174g
77-Ir-174m1
77-Ir-175g
77-Ir-176g
77-Ir-177g
77-Ir-178g
77-Ir-179g
77-Ir-180g
77-Ir-181g
Cross Section (barns)
10^1
10^0
10^-1
10^-2
10^-3
5
3
4
5
6
7
8
9
10^2
2
21
Incident Energy (MeV)
75-Re-180

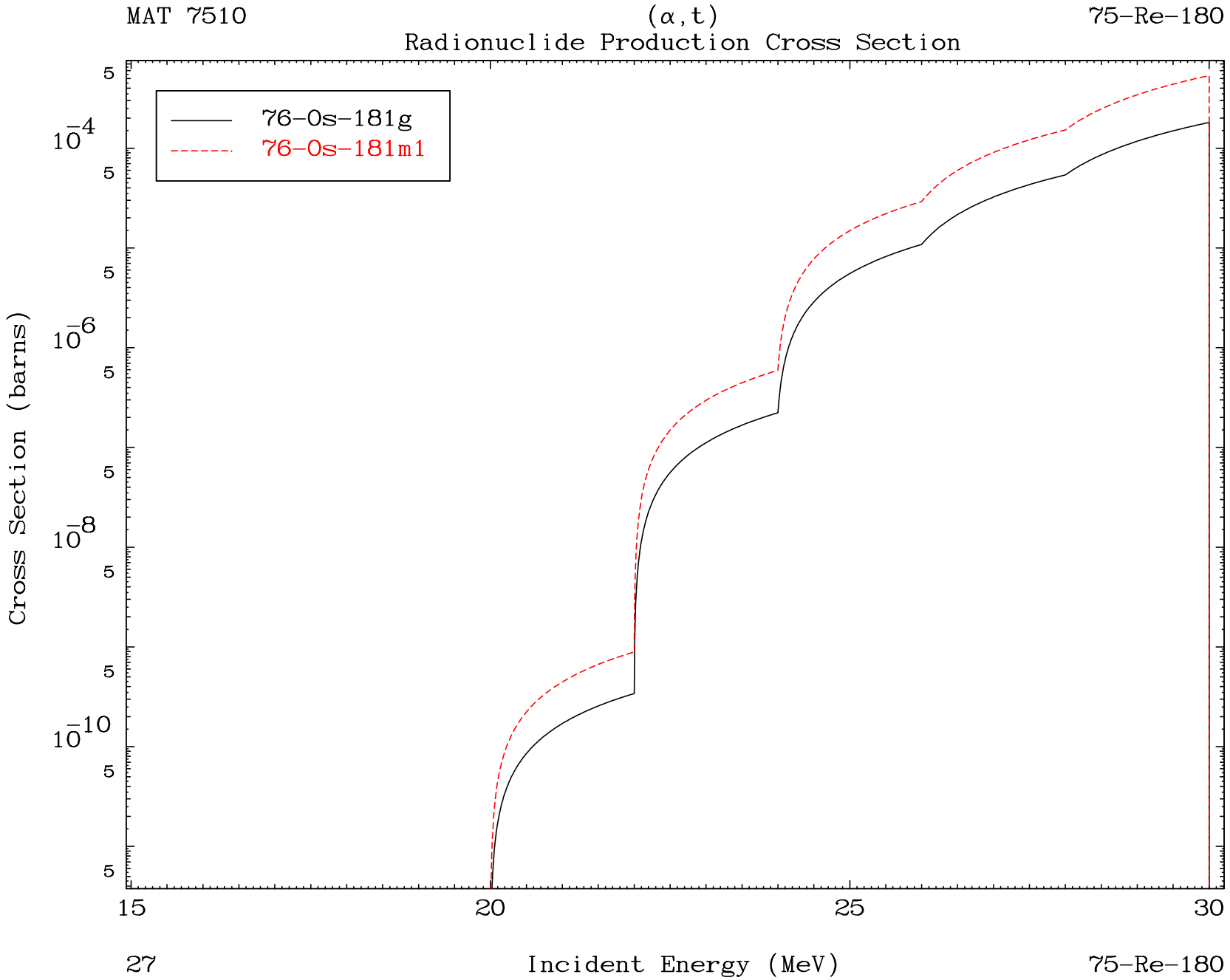

MAT 7510
(α,remainder)
75-Re-180
Radionuclide Production Cross Section
Cross Section (barns)
10^1
5
10^0
5
10^-1
5
10^-2
5
10^-3
5
10^-4
5
77-Ir-182g
77-Ir-183g
Photon
3
4
5
6
7
8
9
10^2
2
22
Incident Energy (MeV)
75-Re-180

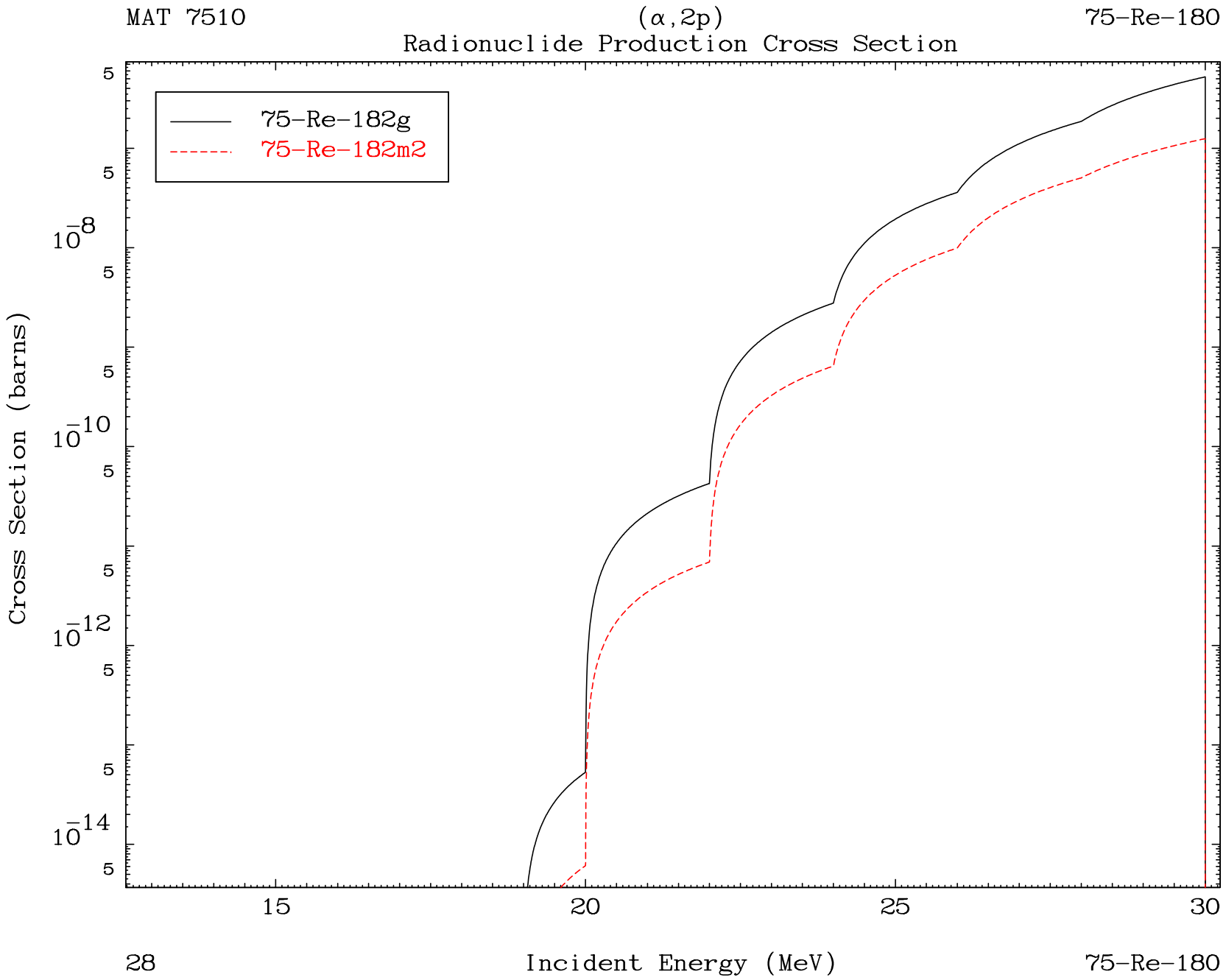

MAT 7510
α Fission
75-Re-180
Radionuclide Production Cross Section
0-??-Nat
Cross Section (barns)
10^-10
10^-12
10^-14
10^-16
10^-3
10^-2
10^-1
10^0
10^1
Incident Energy (MeV)
23
75-Re-180

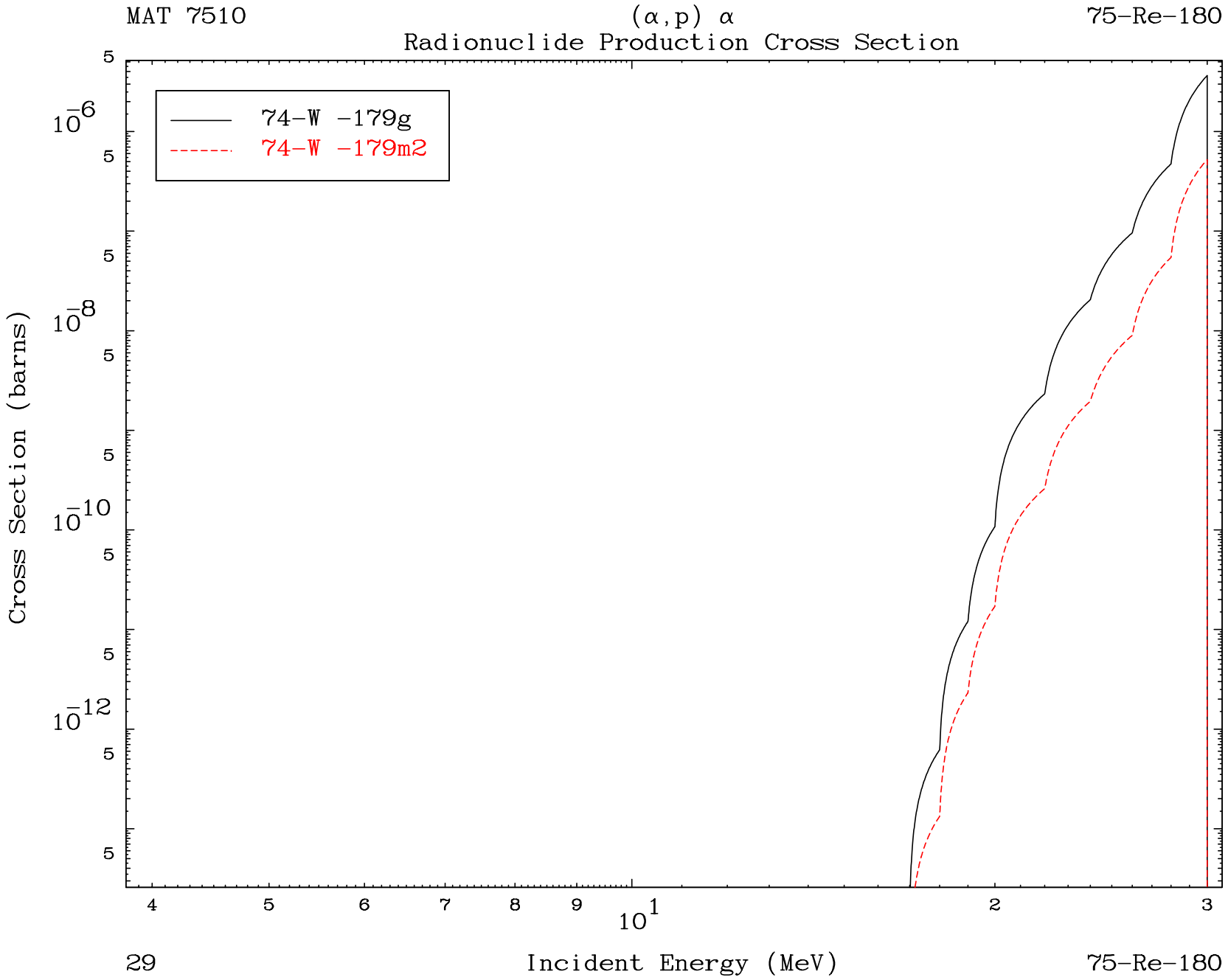

MAT 7510
(α,n') d
75-Re-180
Radionuclide Production Cross Section
76-Os-181g
76-Os-181m1
Cross Section (barns)
10-6
10-8
10-10
10-12
5
22
24
26
28
30
24
Incident Energy (MeV)
75-Re-180


MAT 7510
(α,2n) p
75-Re-180
Radionuclide Production Cross Section
76-Os-181g
76-Os-181m1
Cross Section (barns)
10-4
10-6
10-8
10-10
5
24
26
28
30
25
Incident Energy (MeV)
75-Re-180


MAT 7510
(α,p)
75-Re-180
Radionuclide Production Cross Section
76-Os-183g
76-Os-183m2
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10
15
20
25
30
26
Incident Energy (MeV)
75-Re-180


MAT 7510
(α,t)
75-Re-180
Radionuclide Production Cross Section
76-Os-181g
76-Os-181m1
Cross Section (barns)
10-4
10-6
10-8
10-10
5
15
20
25
30
27
Incident Energy (MeV)
75-Re-180


MAT 7510
(α,2p)
75-Re-180
Radionuclide Production Cross Section
75-Re-182g
75-Re-182m2
Cross Section (barns)
10-8
10-10
10-12
10-14
5
15
20
25
30
28
Incident Energy (MeV)
75-Re-180


MAT 7510
(α,p) α
75-Re-180
Radionuclide Production Cross Section
74-W -179g
74-W -179m2
Cross Section (barns)
10-6
10-8
10-10
10-12
4
5
6
7
8
9
101
2
3
Incident Energy (MeV)
29
75-Re-180