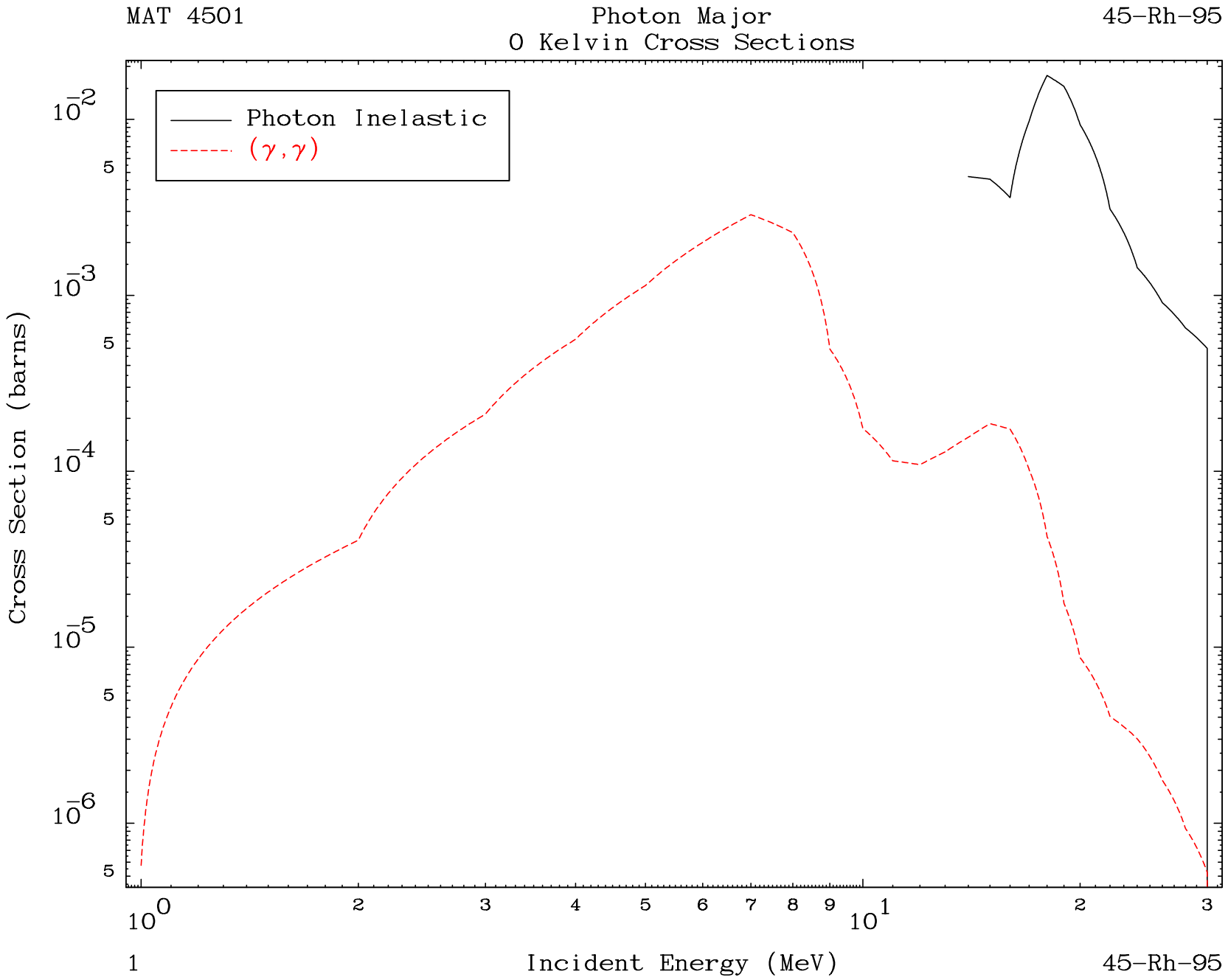
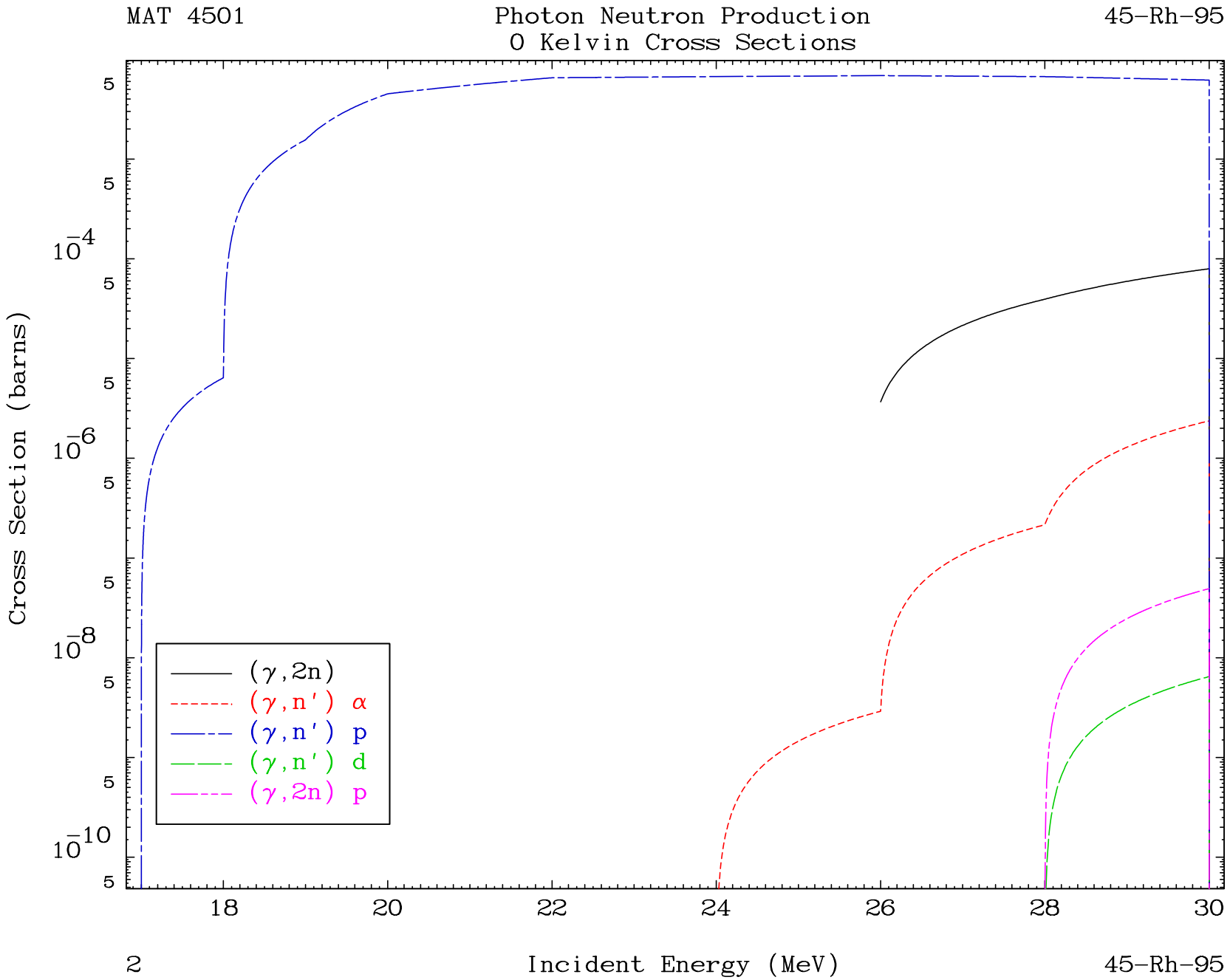
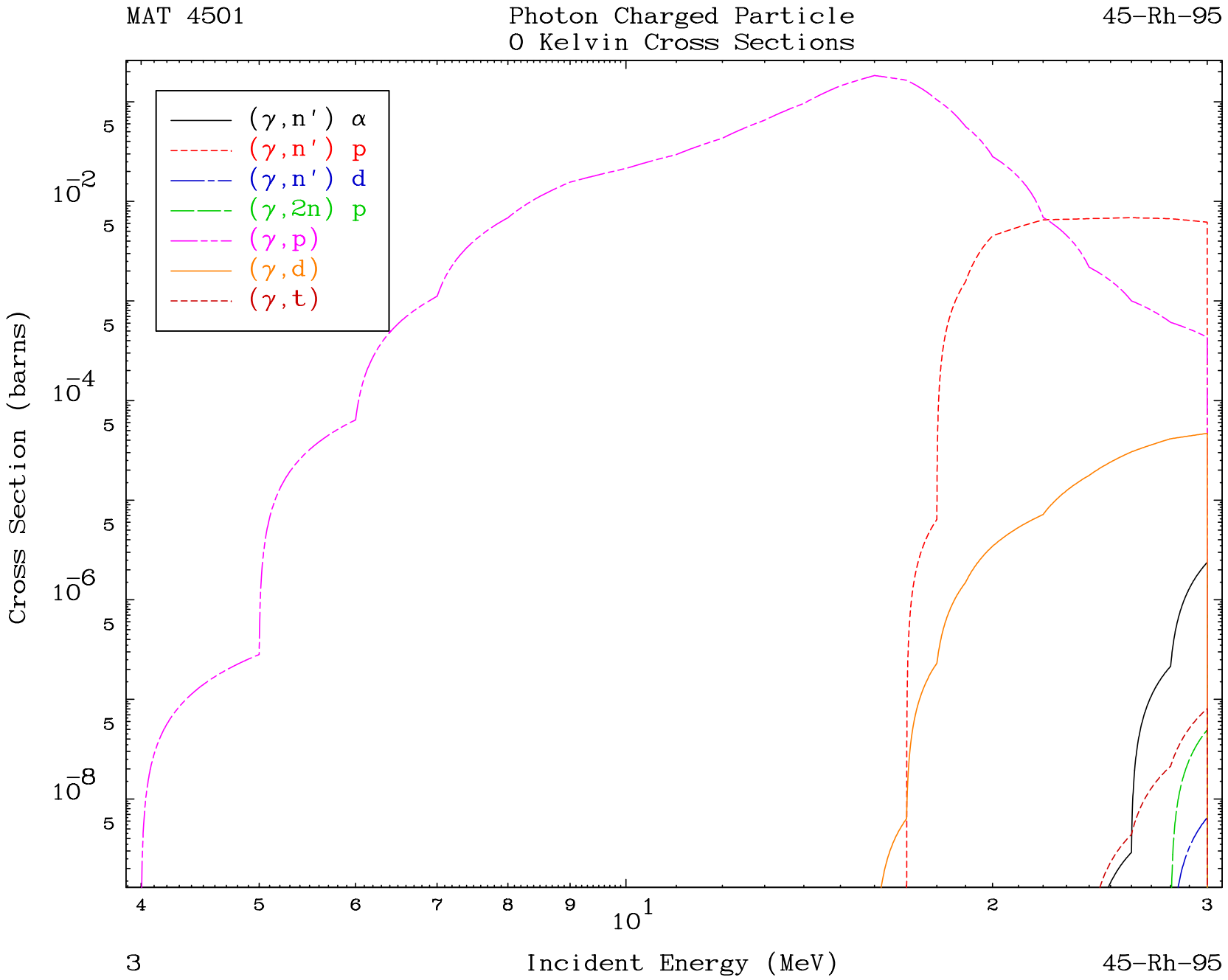
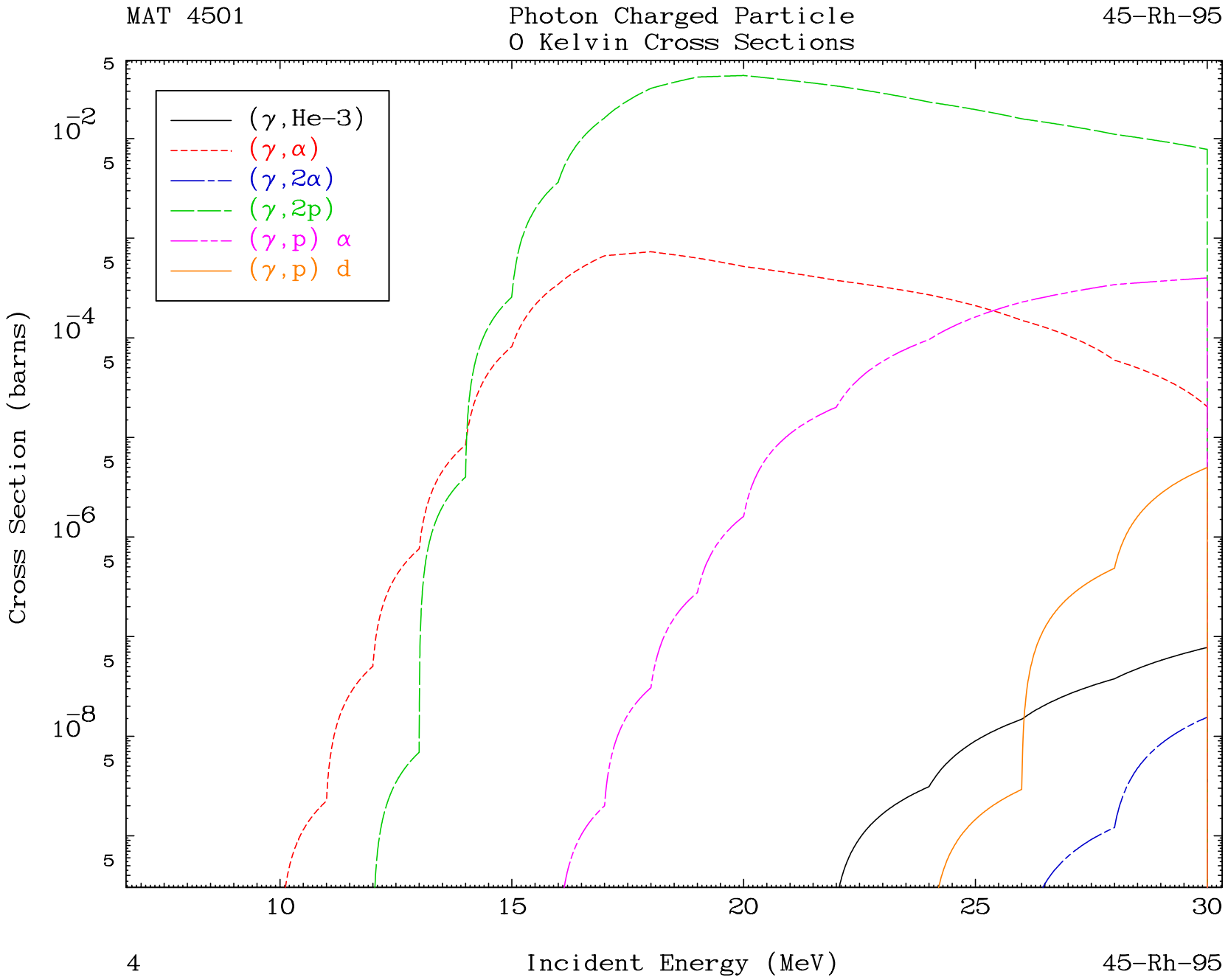
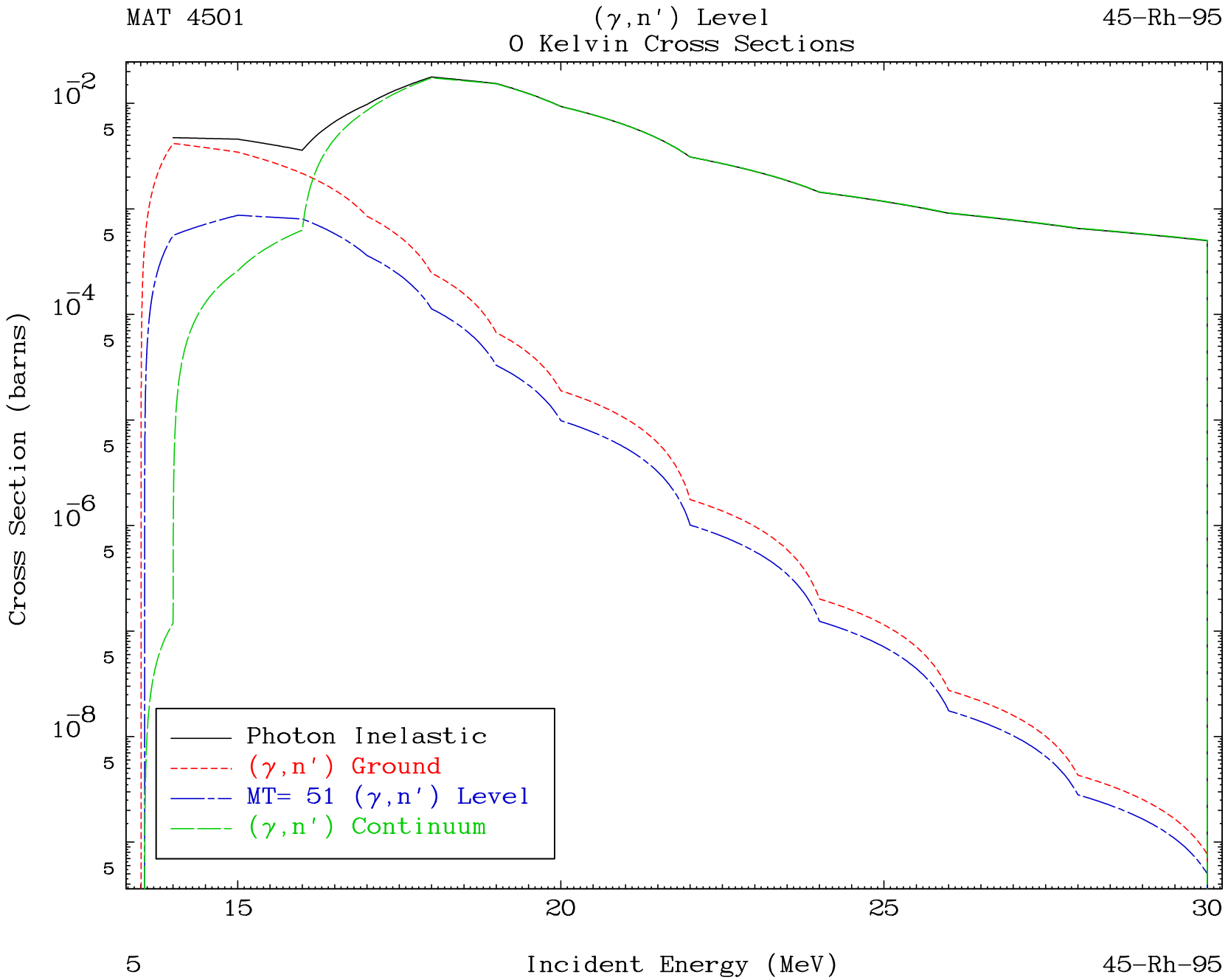
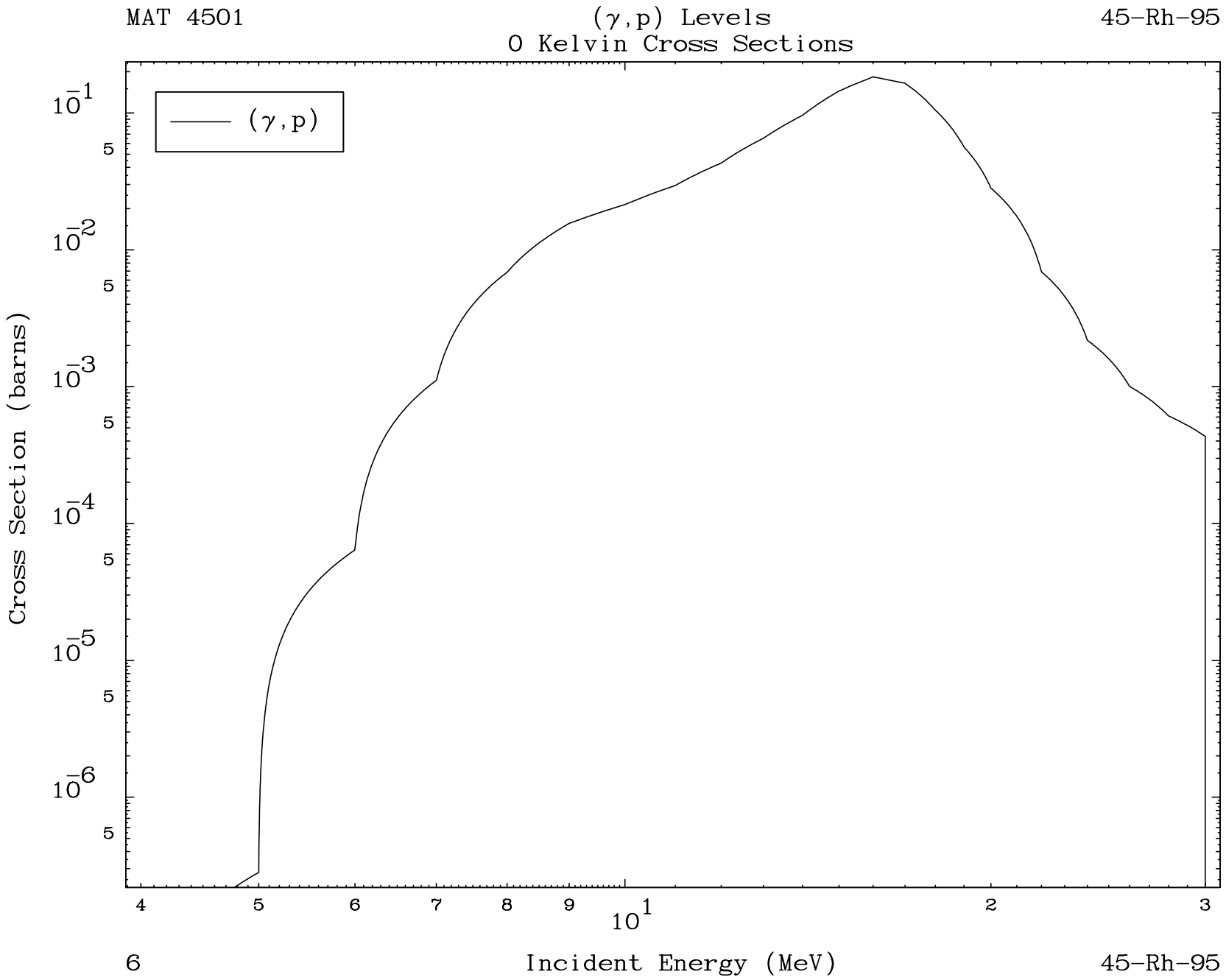

MAT 4501
Photon Major
45-Rh-95
0 Kelvin Cross Sections
Photon Inelastic
(γ,γ)
Cross Section (barns)
10-2
5
10-3
5
10-4
5
10-5
5
10-6
5
100
1
2
3
4
5
6
7
8
9
101
2
3
Incident Energy (MeV)
45-Rh-95

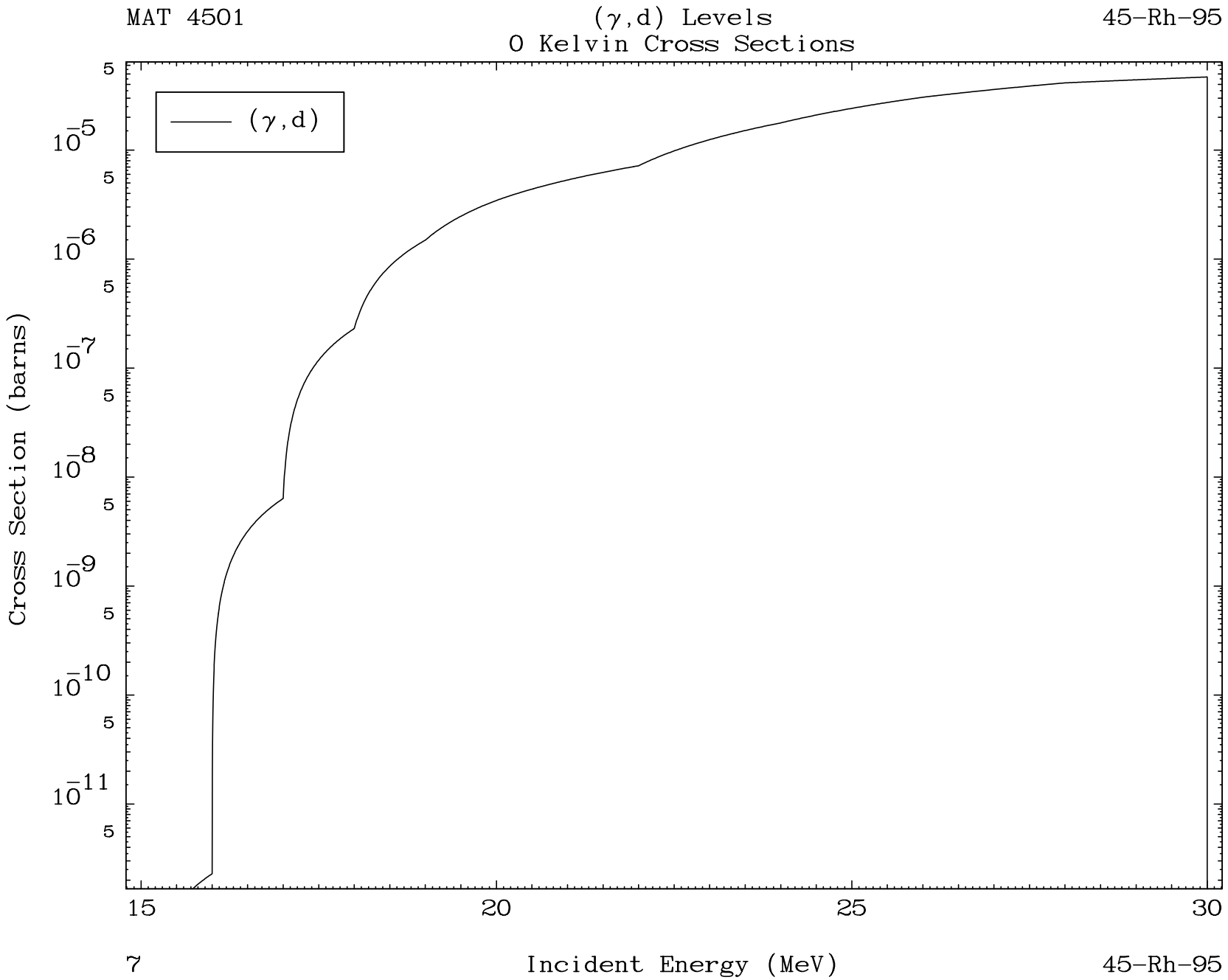

MAT 4501
Photon Neutron Production
0 Kelvin Cross Sections
45-Rh-95
Cross Section (barns)
5
5
10-4
5
5
10-6
5
5
10-8
5
5
10-10
5
18
20
22
24
26
28
30
2
Incident Energy (MeV)
45-Rh-95
(γ,2n)
(γ,n') α
(γ,n') p
(γ,n') d
(γ,2n) p

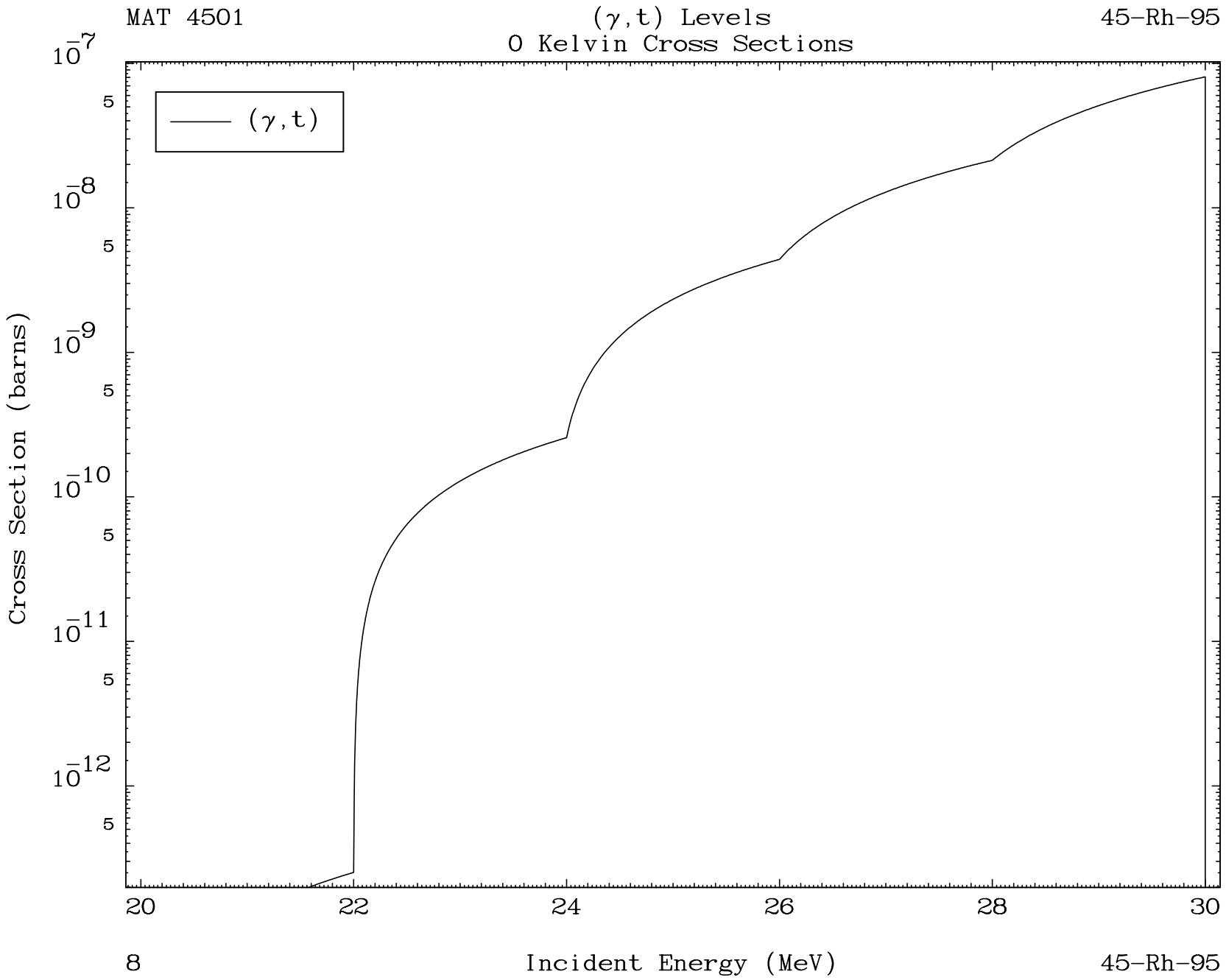

MAT 4501
Photon Charged Particle
0 Kelvin Cross Sections
45-Rh-95
(γ,n') α
(γ,n') p
(γ,n') d
(γ,2n) p
(γ,p)
(γ,d)
(γ,t)
Cross Section (barns)
10-2
10-4
10-6
10-8
4
5
6
7
8
9
10 1
2
3
Incident Energy (MeV)
3
45-Rh-95

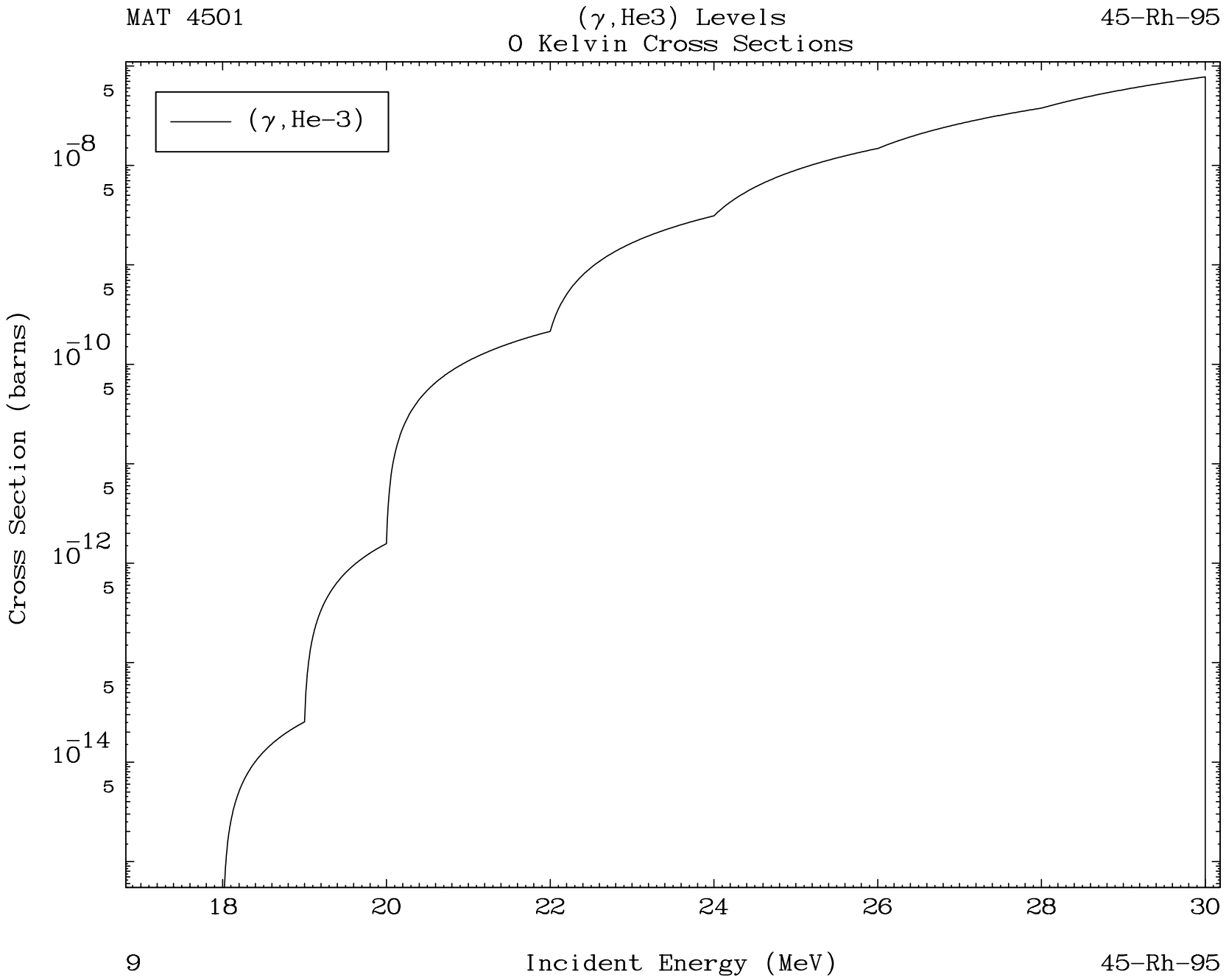

MAT 4501
Photon Charged Particle
0 Kelvin Cross Sections
45-Rh-95
(γ,He-3)
(γ,α)
(γ,2α)
(γ,2p)
(γ,p) α
(γ,p) d
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
5
10
15
20
25
30
Incident Energy (MeV)
4
45-Rh-95

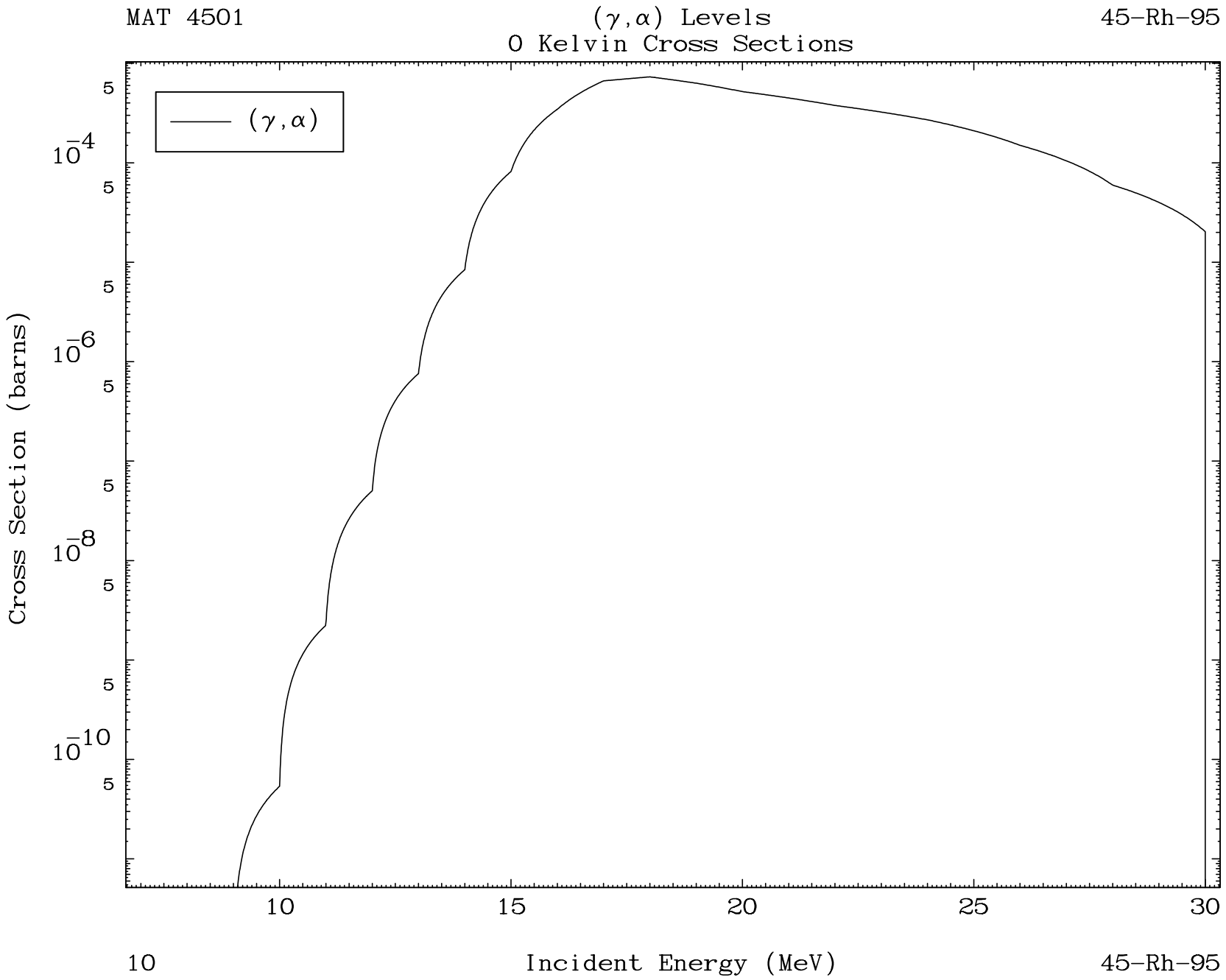

MAT 4501
(γ,n') Level
45-Rh-95
0 Kelvin Cross Sections
Cross Section (barns)
10-2
5
10-4
5
10-6
5
10-8
5
15
20
25
30
5
Incident Energy (MeV)
45-Rh-95
Photon Inelastic
(γ,n') Ground
MT= 51 (γ,n') Level
(γ,n') Continuum

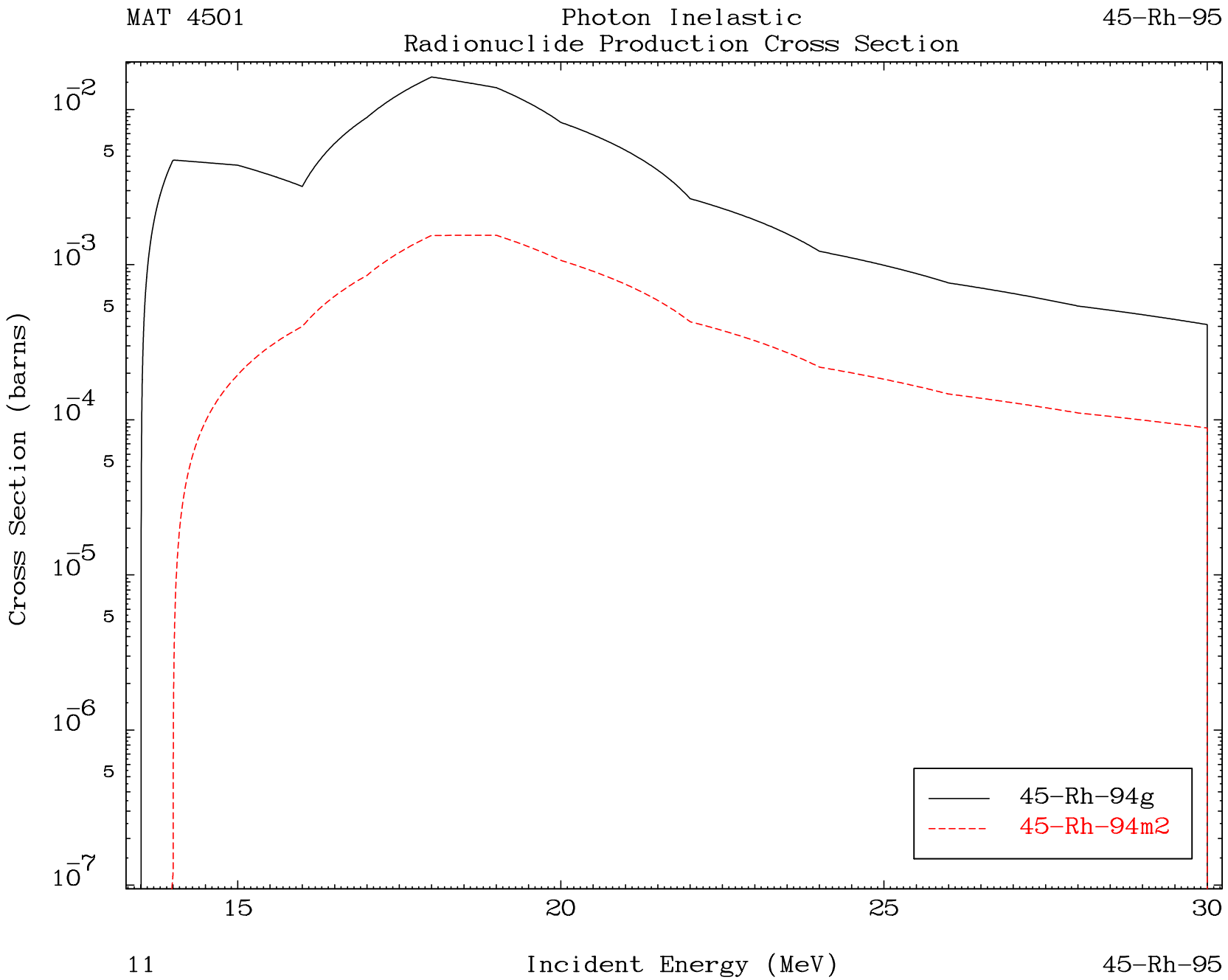

MAT 4501
(γ,p) Levels
45-Rh-95
0 Kelvin Cross Sections
(γ,p)
Cross Section (barns)
10-1
5
10-2
5
10-3
5
10-4
5
10-5
5
10-6
5
4
5
6
7
8
9
101
2
3
Incident Energy (MeV)
6
45-Rh-95

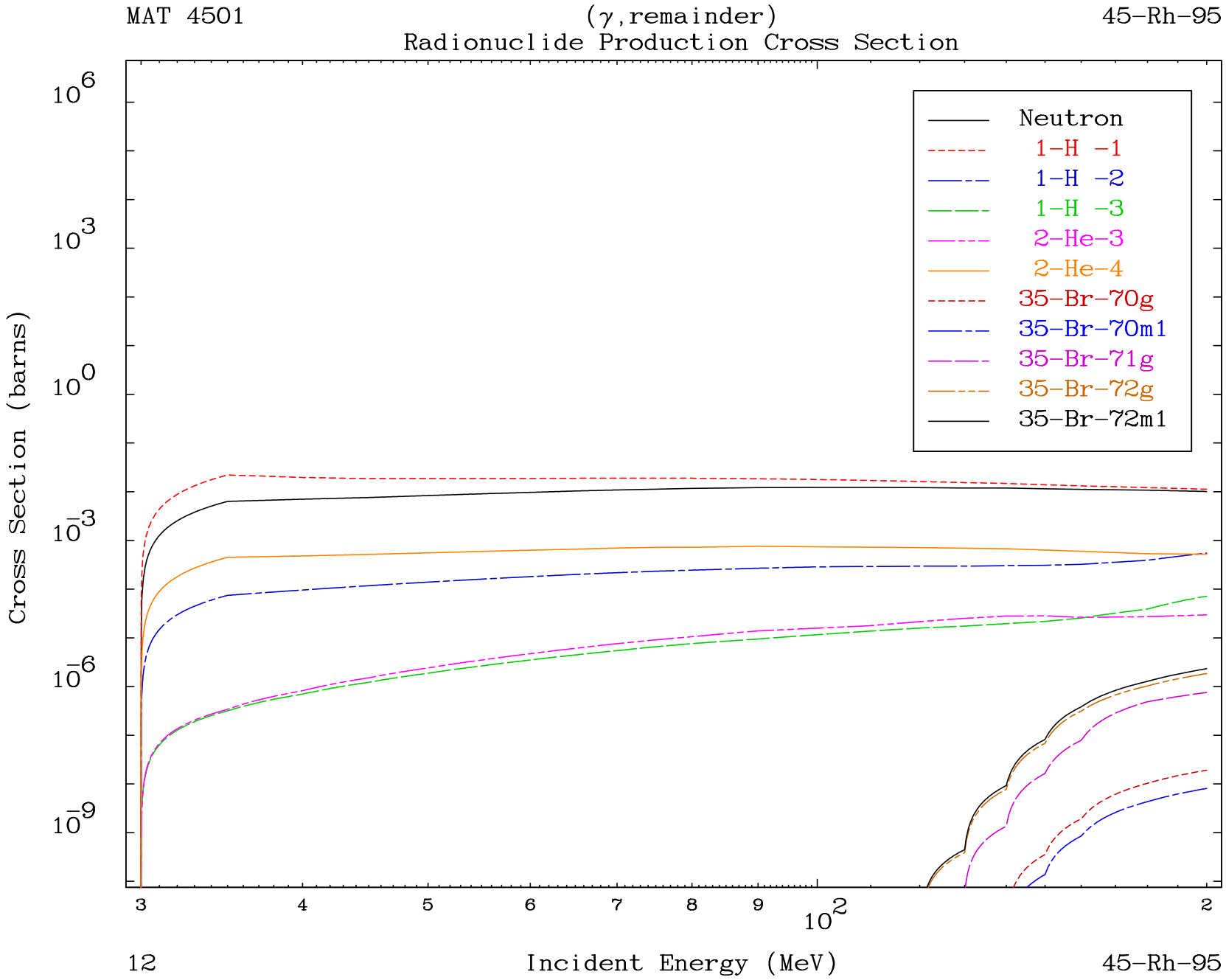

MAT 4501
(γ,d) Levels
45-Rh-95
0 Kelvin Cross Sections
(γ,d)
Cross Section (barns)
10-5
10-6
10-7
10-8
10-9
10-10
10-11
15
20
25
30
Incident Energy (MeV)
7
45-Rh-95

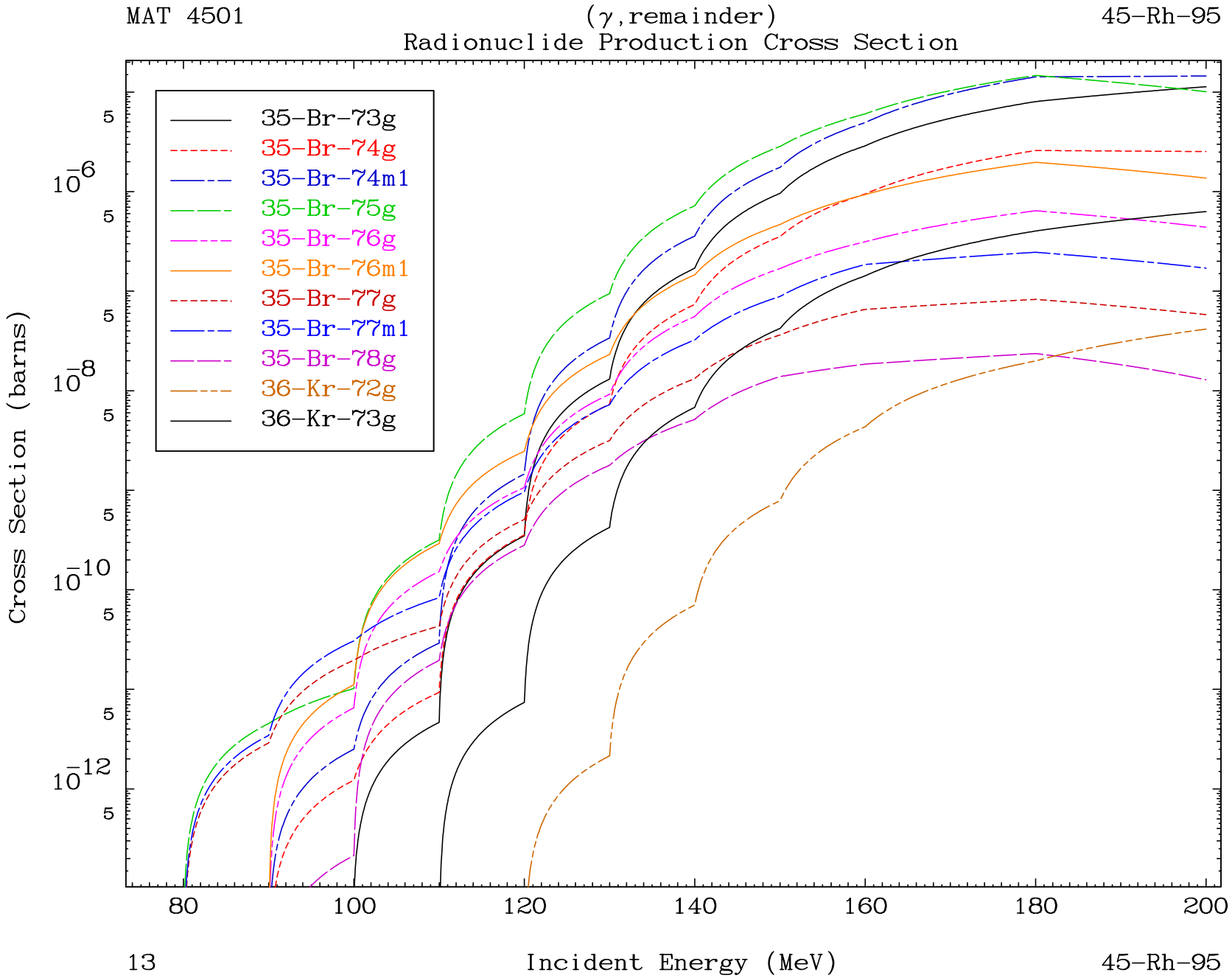

MAT 4501
(γ,t) Levels
45-Rh-95
0 Kelvin Cross Sections
(γ,t)
Cross Section (barns)
10-7
10-8
10-9
10-10
10-11
10-12
5
20
22
24
26
28
30
Incident Energy (MeV)
8
45-Rh-95

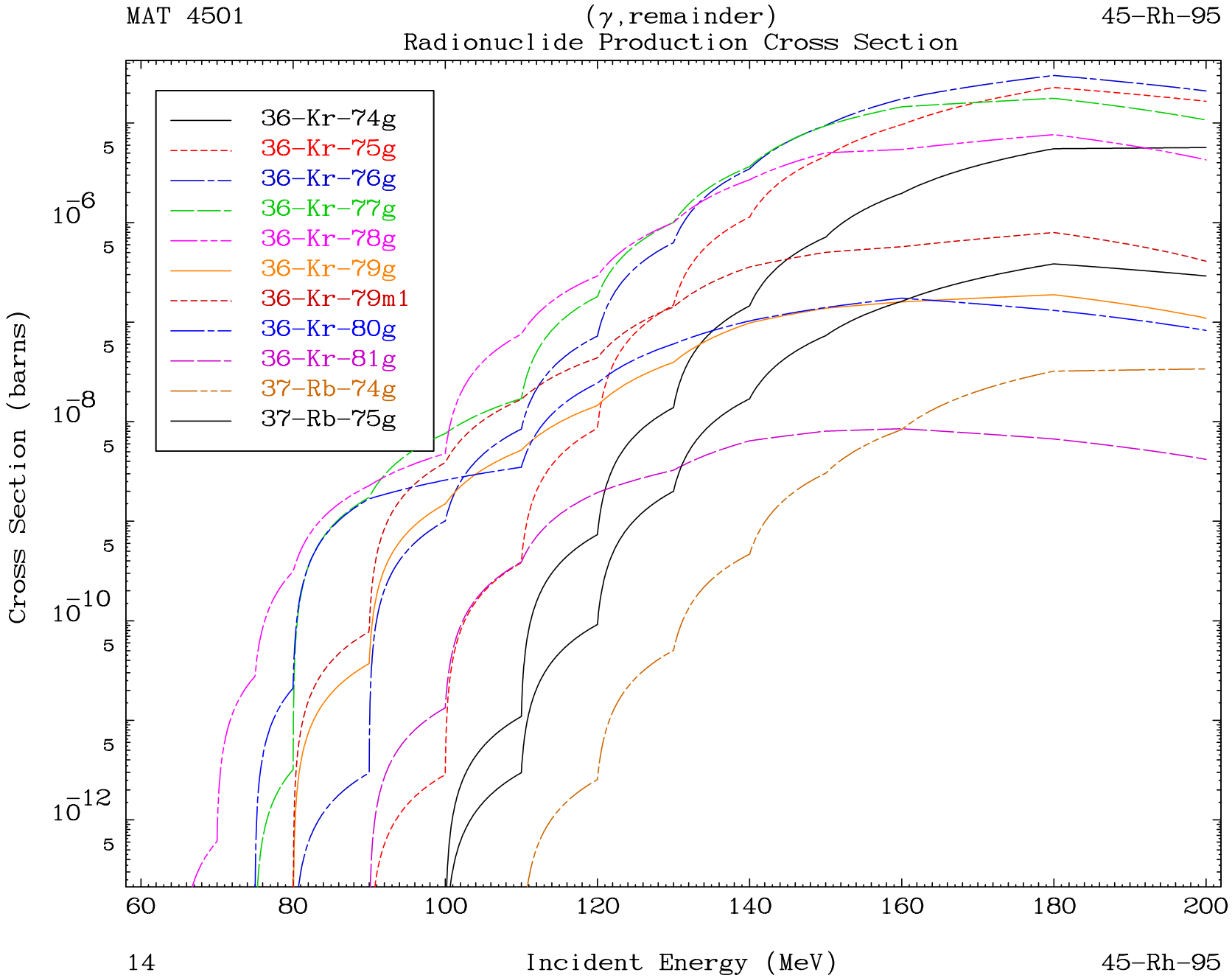

MAT 4501
(γ,He3) Levels
45-Rh-95
0 Kelvin Cross Sections
(γ,He-3)
Cross Section (barns)
10-8
10-10
10-12
10-14
5
18
20
22
24
26
28
30
Incident Energy (MeV)
9
45-Rh-95

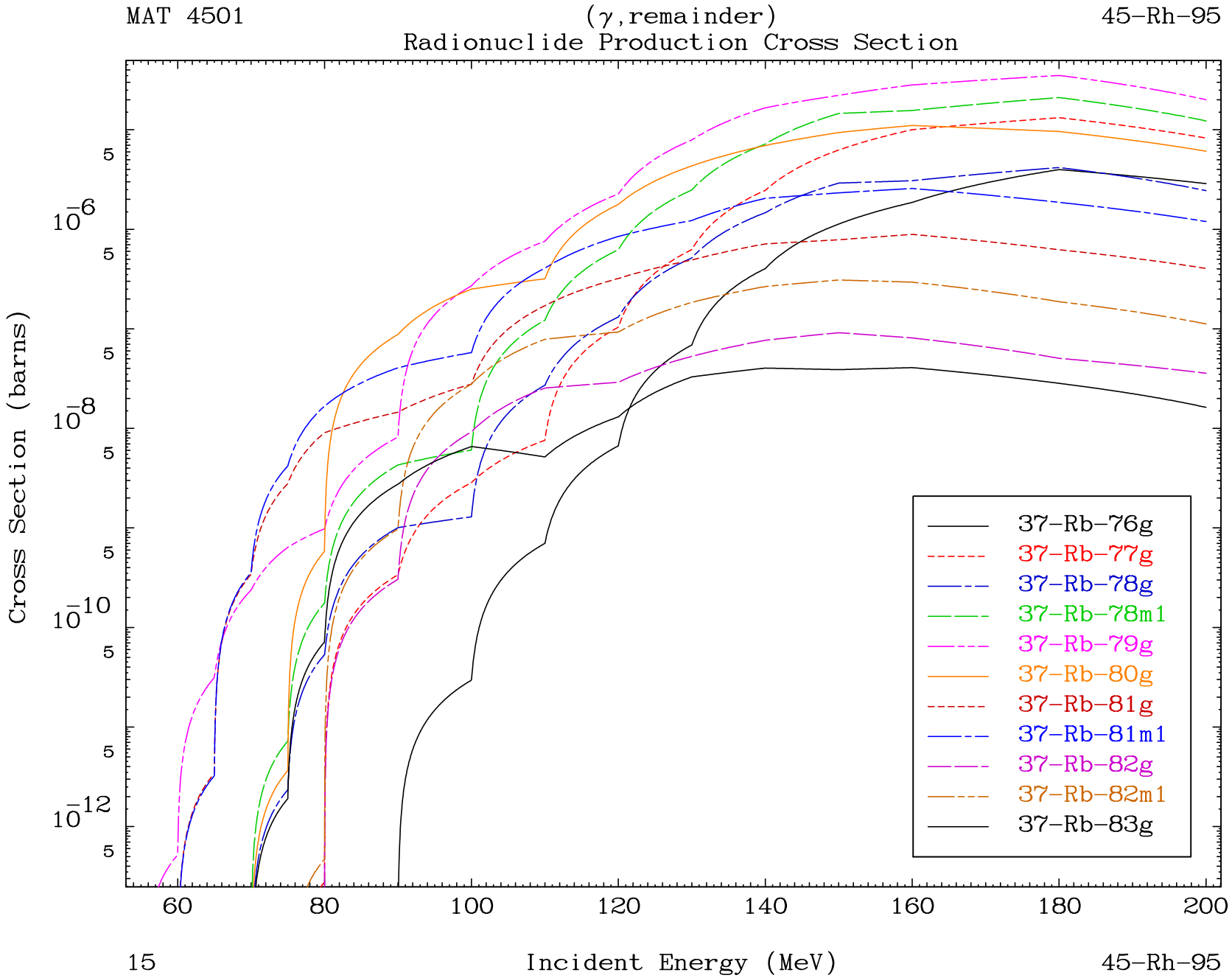

MAT 4501
(γ,α) Levels
45-Rh-95
0 Kelvin Cross Sections
(γ,α)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
10
15
20
25
30
10
Incident Energy (MeV)
45-Rh-95

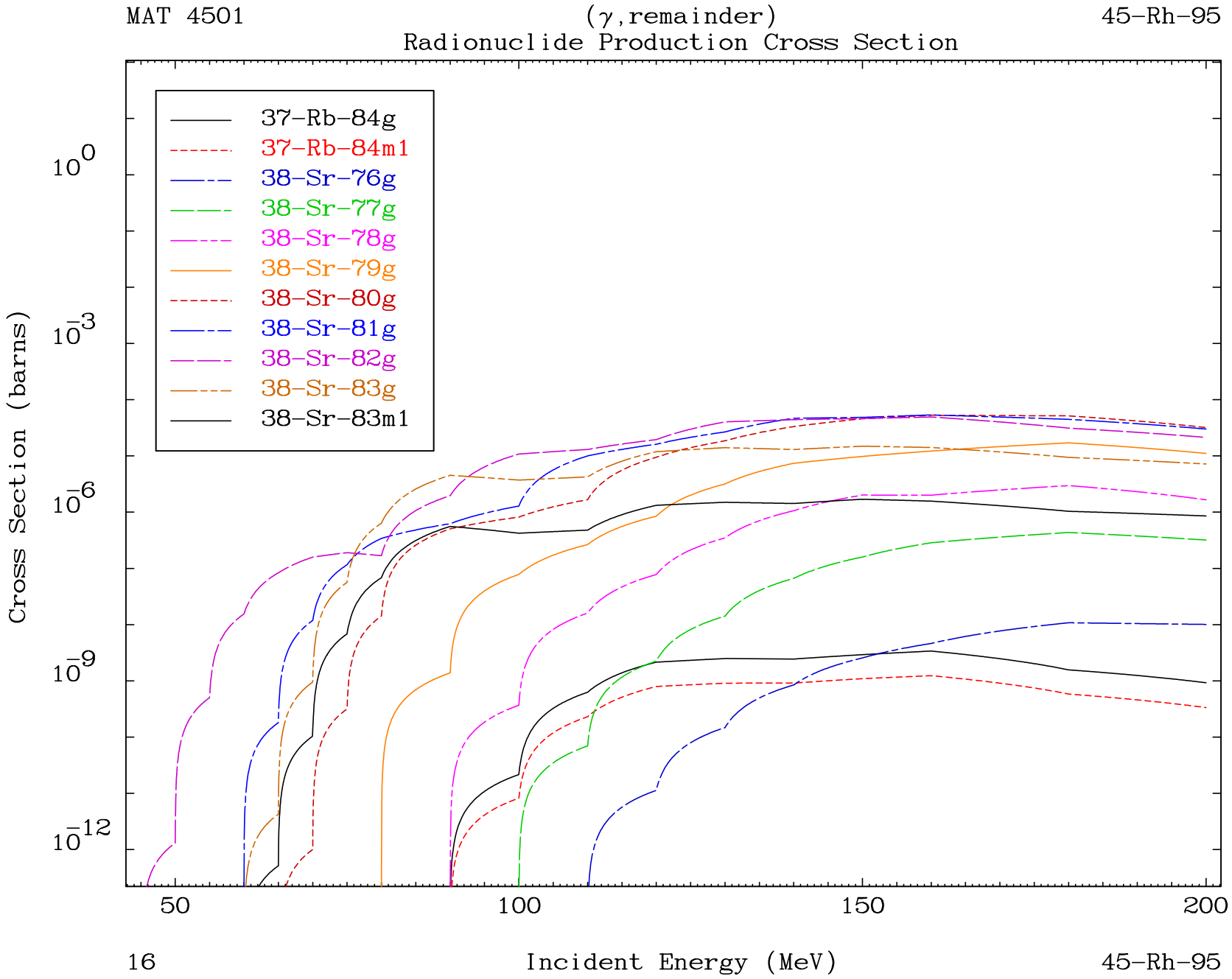

MAT 4501
Photon Inelastic
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-2
5
10-3
5
10-4
5
10-5
5
10-6
5
10-7
15
20
25
30
45-Rh-94g
45-Rh-94m2
11
Incident Energy (MeV)
45-Rh-95

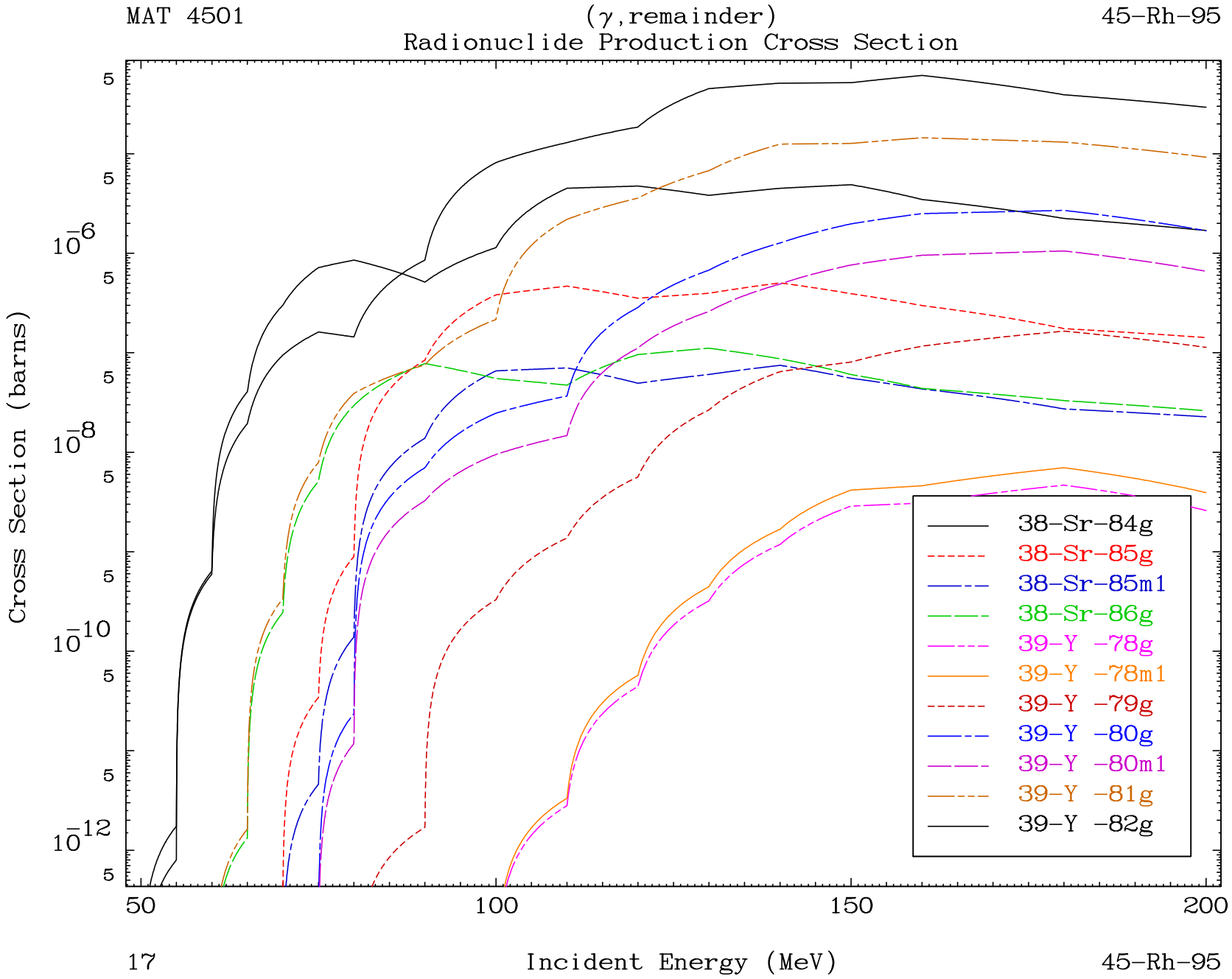

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10^6
10^3
10^0
10^-3
10^-6
10^-9
Neutron
1-H -1
1-H -2
1-H -3
2-He-3
2-He-4
35-Br-70g
35-Br-70m1
35-Br-71g
35-Br-72g
35-Br-72m1
3
4
5
6
7
8
9
10^2
2
12
Incident Energy (MeV)
45-Rh-95

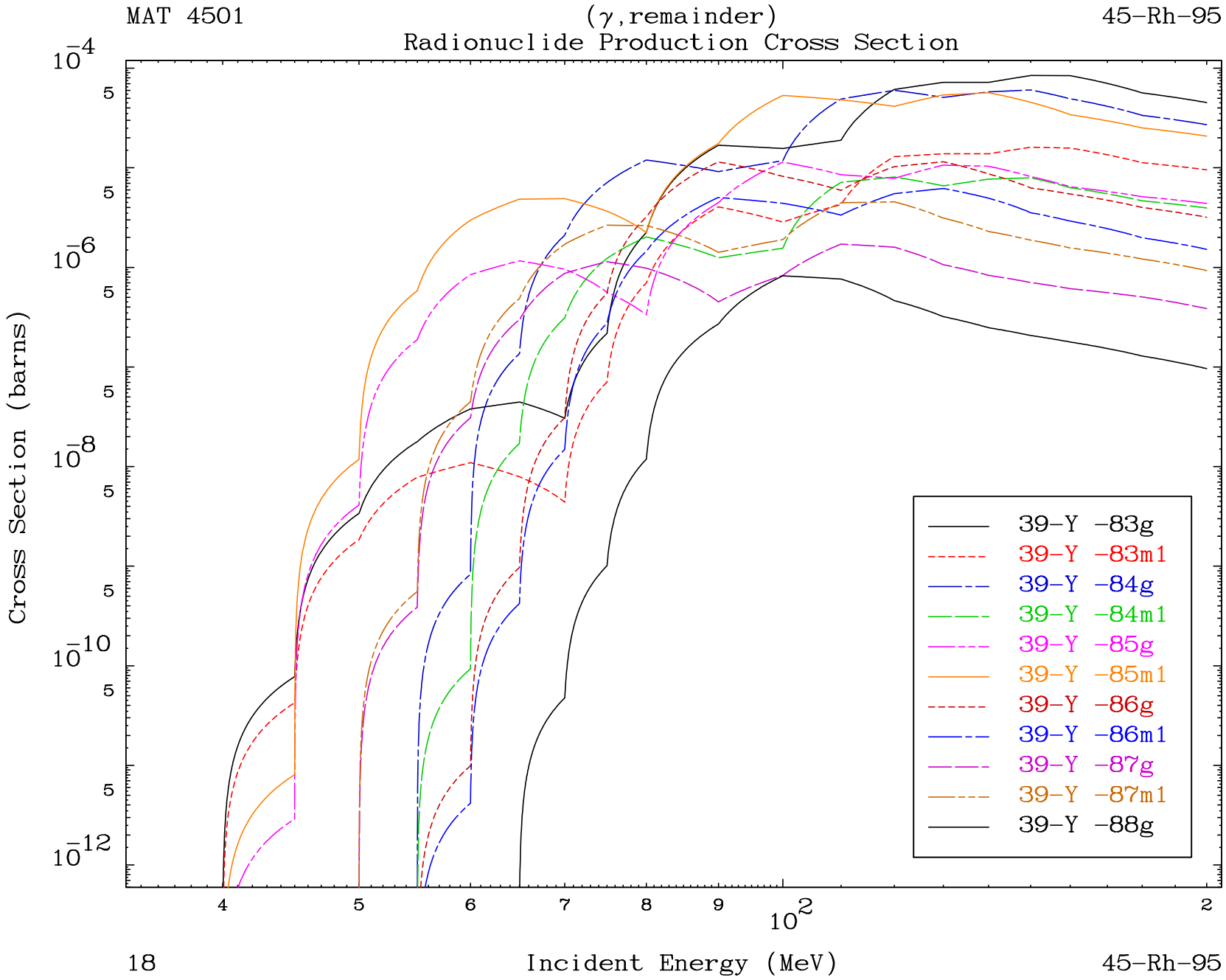

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
35-Br-73g
35-Br-74g
35-Br-74m1
35-Br-75g
35-Br-76g
35-Br-76m1
35-Br-77g
35-Br-77m1
35-Br-78g
36-Kr-72g
36-Kr-73g
Cross Section (barns)
10-6
10-8
10-10
10-12
80
100
120
140
160
180
200
13
Incident Energy (MeV)
45-Rh-95

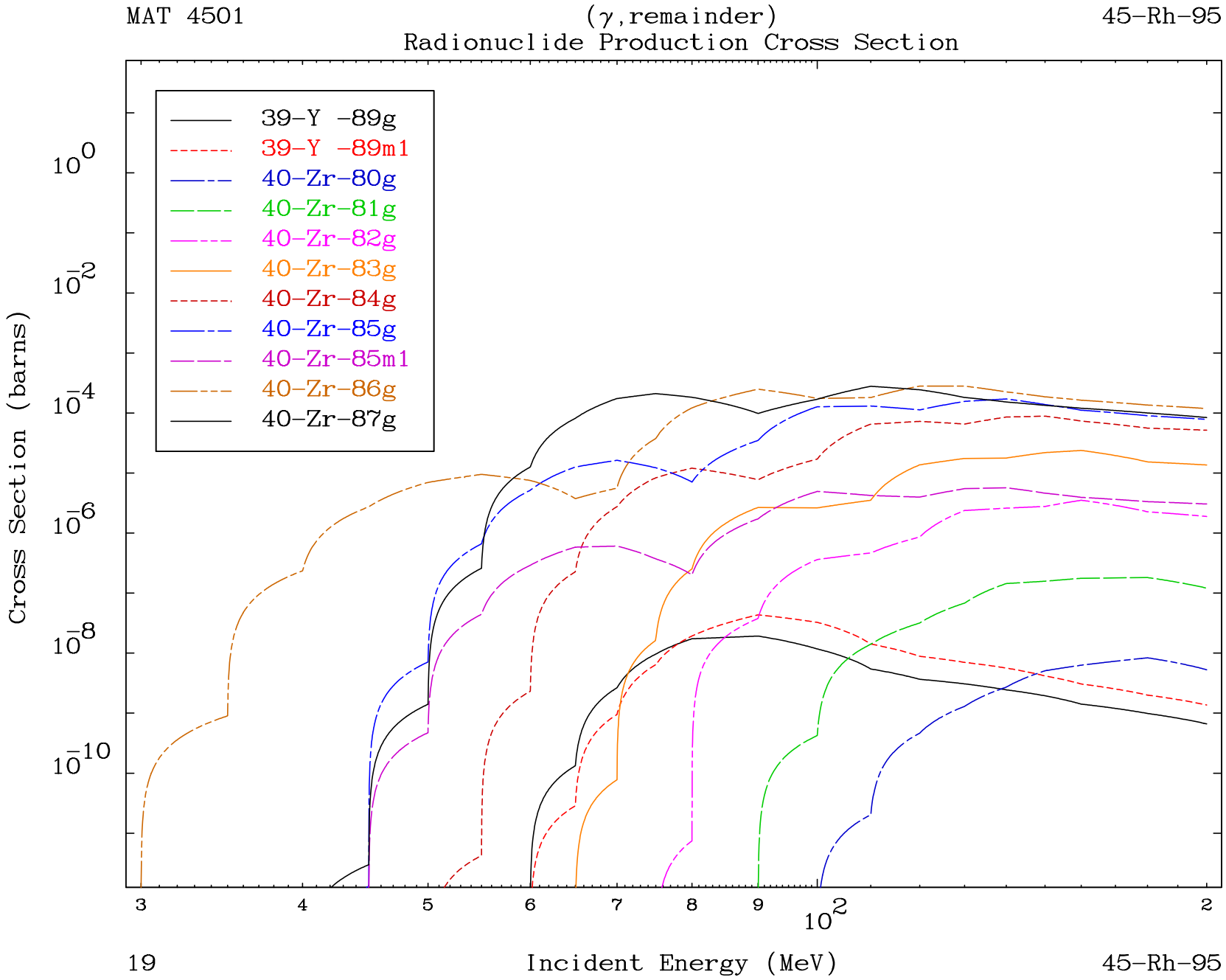

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
36-Kr-74g
36-Kr-75g
36-Kr-76g
36-Kr-77g
36-Kr-78g
36-Kr-79g
36-Kr-79m1
36-Kr-80g
36-Kr-81g
37-Rb-74g
37-Rb-75g
Cross Section (barns)
10-6
10-8
10-10
10-12
5
60
80
100
120
140
160
180
200
14
Incident Energy (MeV)
45-Rh-95

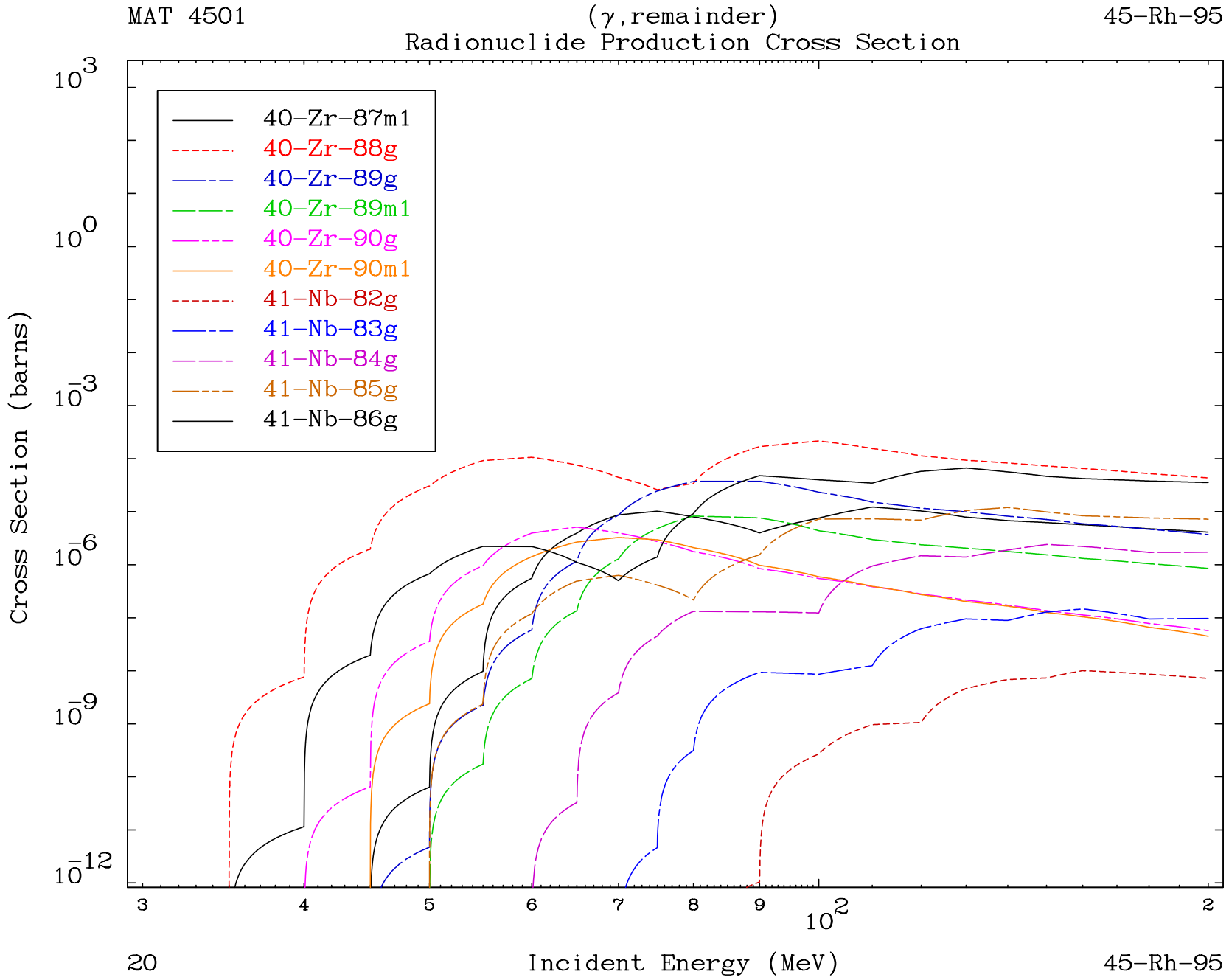

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-6
10-8
10-10
10-12
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
45-Rh-95
37-Rb-76g
37-Rb-77g
37-Rb-78g
37-Rb-78m1
37-Rb-79g
37-Rb-80g
37-Rb-81g
37-Rb-81m1
37-Rb-82g
37-Rb-82m1
37-Rb-83g

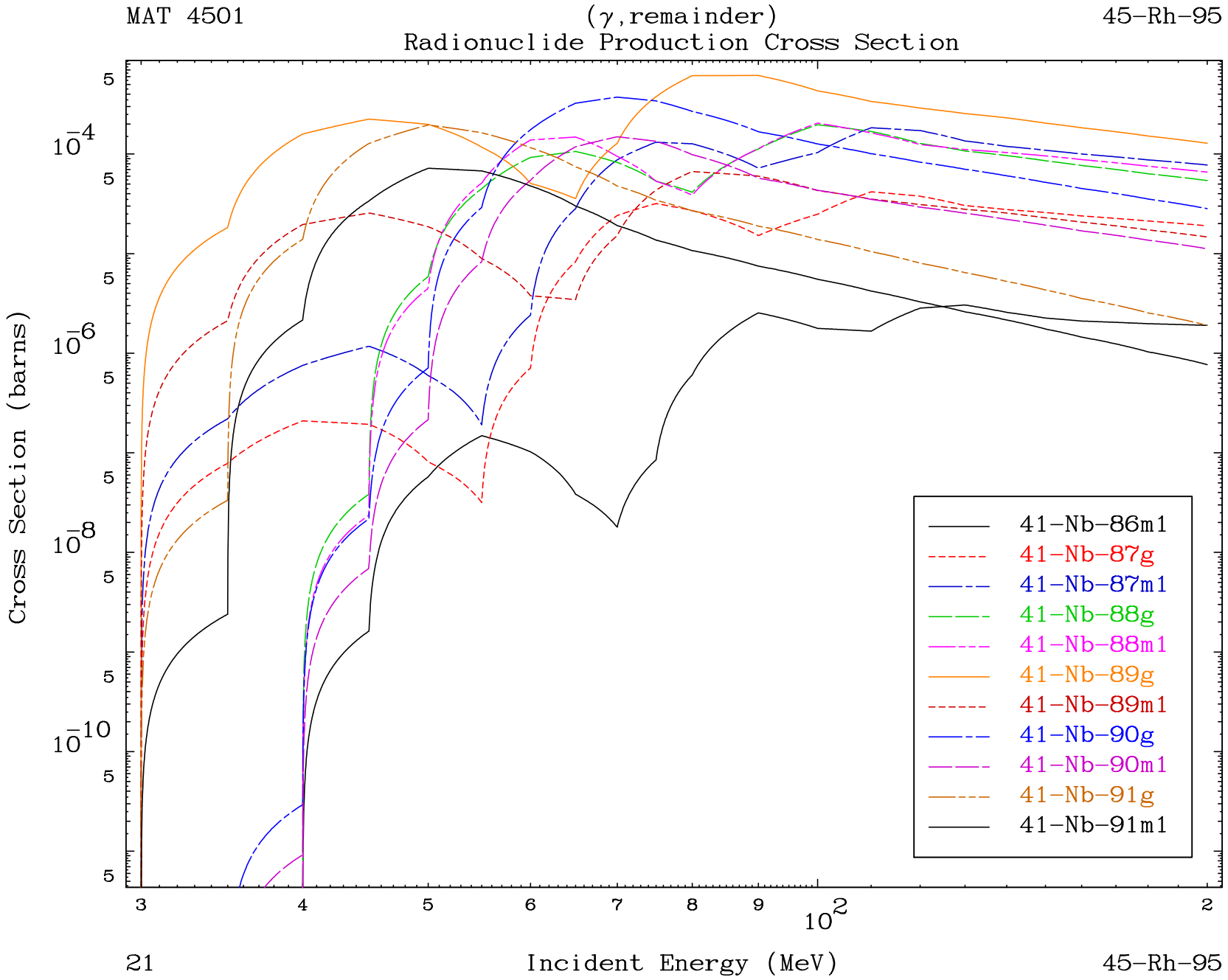

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
37-Rb-84g
37-Rb-84m1
38-Sr-76g
38-Sr-77g
38-Sr-78g
38-Sr-79g
38-Sr-80g
38-Sr-81g
38-Sr-82g
38-Sr-83g
38-Sr-83m1
Cross Section (barns)
10^0
10^-3
10^-6
10^-9
10^-12
50
100
150
200
16
Incident Energy (MeV)
45-Rh-95


MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-6
10-8
10-10
10-12
50
100
150
200
17
Incident Energy (MeV)
45-Rh-95
38-Sr-84g
38-Sr-85g
38-Sr-85m1
38-Sr-86g
39-Y -78g
39-Y -78m1
39-Y -79g
39-Y -80g
39-Y -80m1
39-Y -81g
39-Y -82g

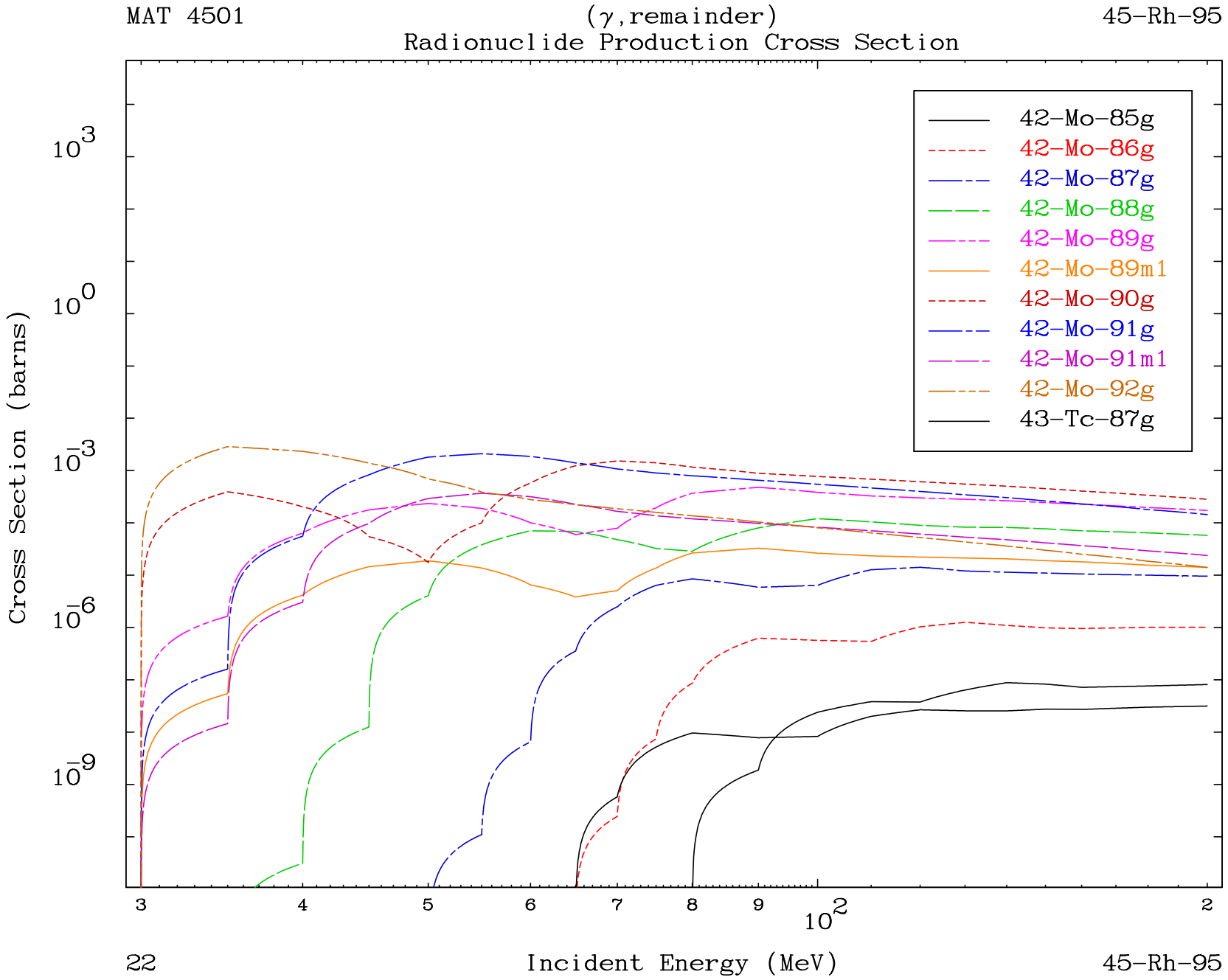

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
18
45-Rh-95
39-Y -83g
39-Y -83m1
39-Y -84g
39-Y -84m1
39-Y -85g
39-Y -85m1
39-Y -86g
39-Y -86m1
39-Y -87g
39-Y -87m1
39-Y -88g

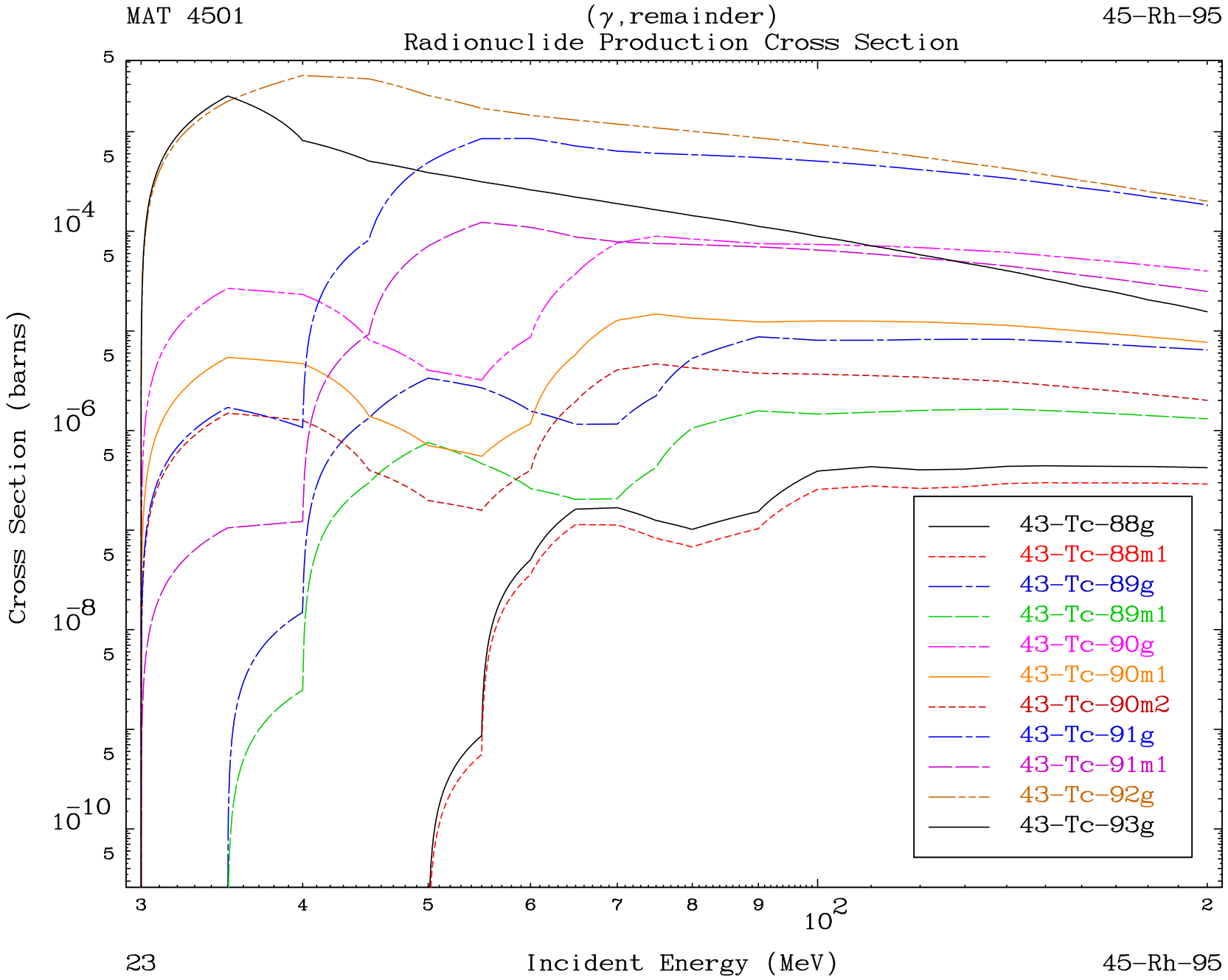

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
39-Y -89g
39-Y -89m1
40-Zr-80g
40-Zr-81g
40-Zr-82g
40-Zr-83g
40-Zr-84g
40-Zr-85g
40-Zr-85m1
40-Zr-86g
40-Zr-87g
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
10^-8
10^-10
3
4
5
6
7
8
9
10^2
2
19
Incident Energy (MeV)
45-Rh-95

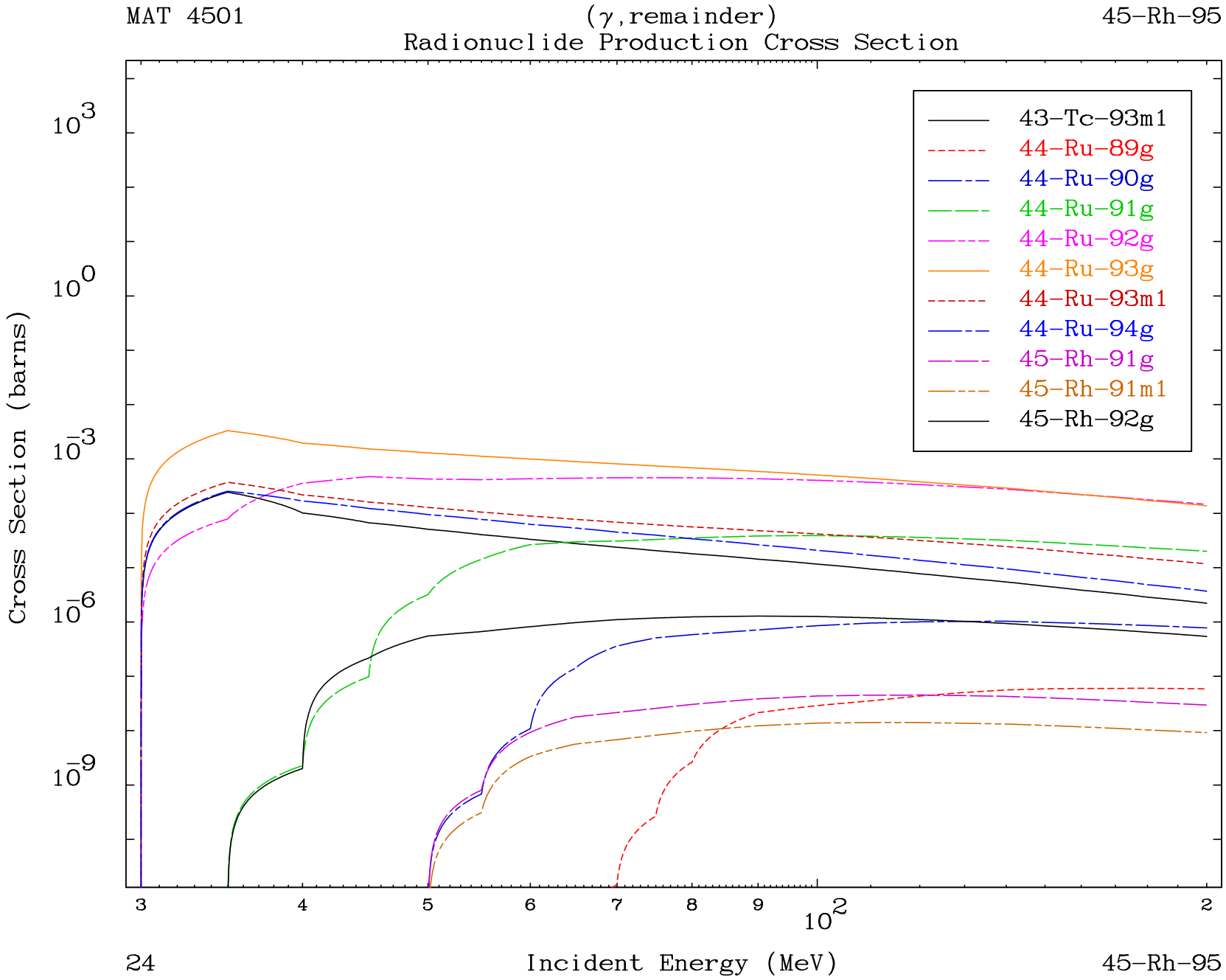

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
40-Zr-87m1
40-Zr-88g
40-Zr-89g
40-Zr-89m1
40-Zr-90g
40-Zr-90m1
41-Nb-82g
41-Nb-83g
41-Nb-84g
41-Nb-85g
41-Nb-86g
Cross Section (barns)
10^3
10^0
10^-3
10^-6
10^-9
10^-12
3
4
5
6
7
8
9
10^2
2
20
Incident Energy (MeV)
45-Rh-95

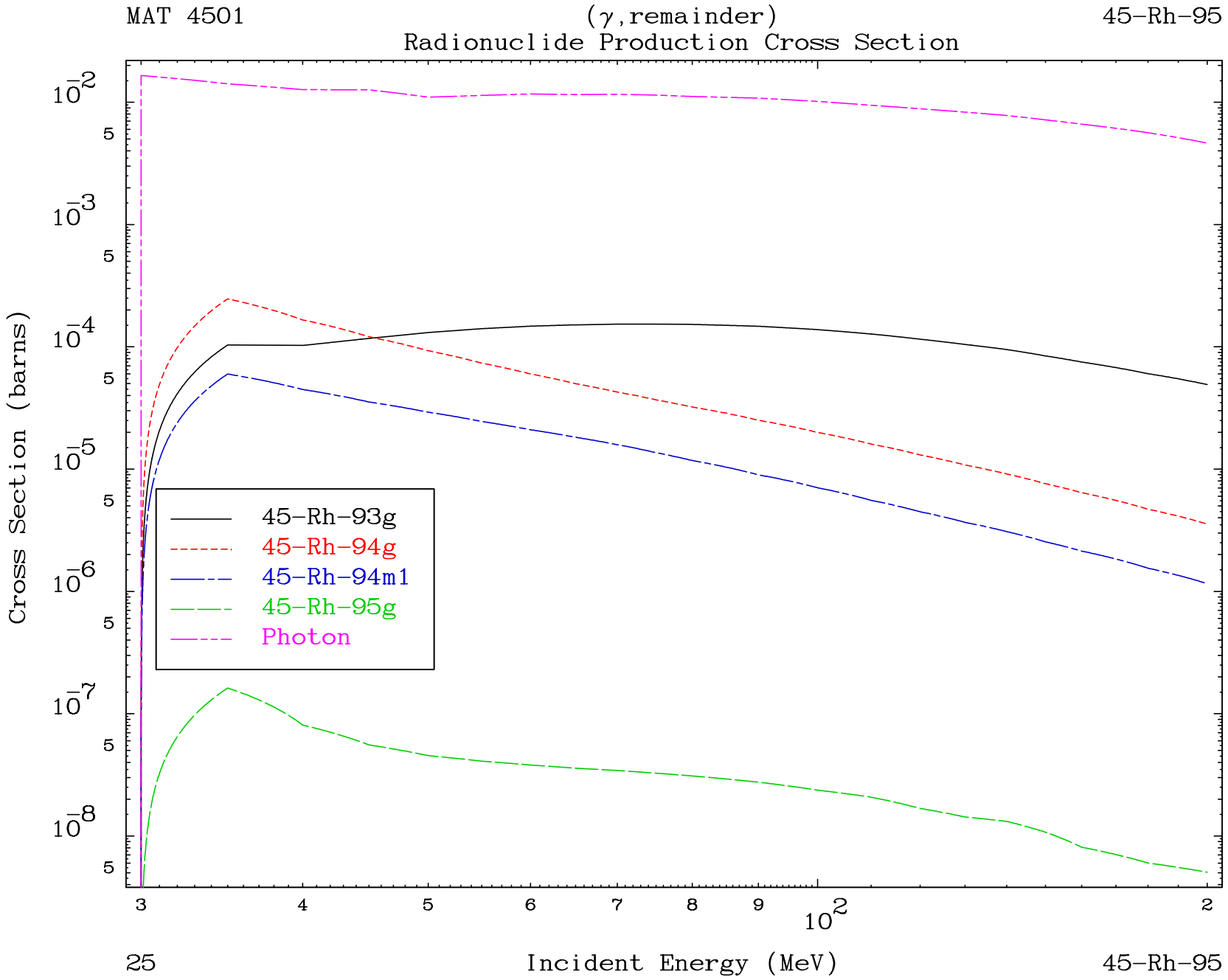

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
5
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
41-Nb-86m1
41-Nb-87g
41-Nb-87m1
41-Nb-88g
41-Nb-88m1
41-Nb-89g
41-Nb-89m1
41-Nb-90g
41-Nb-90m1
41-Nb-91g
41-Nb-91m1

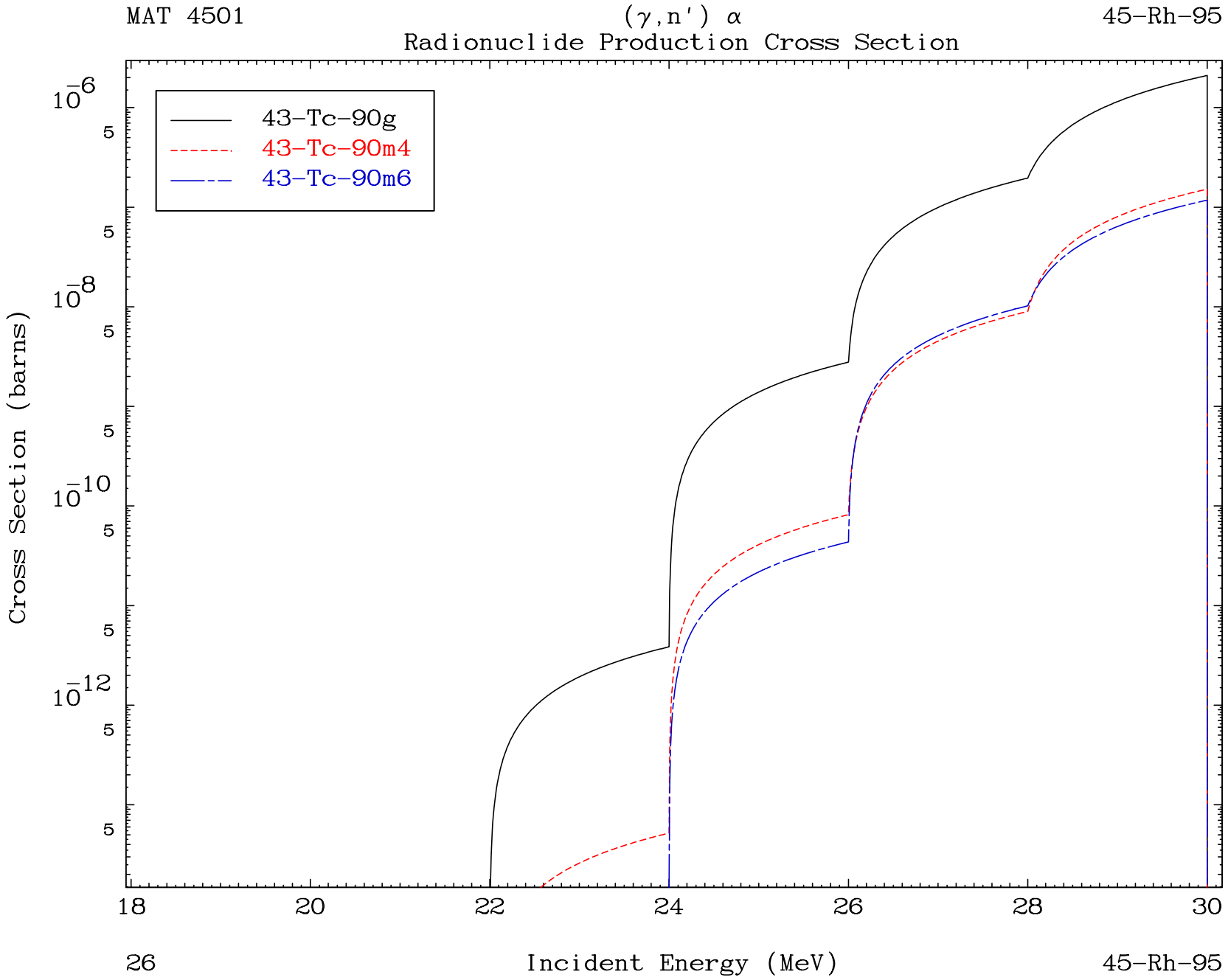
45-Rh-95

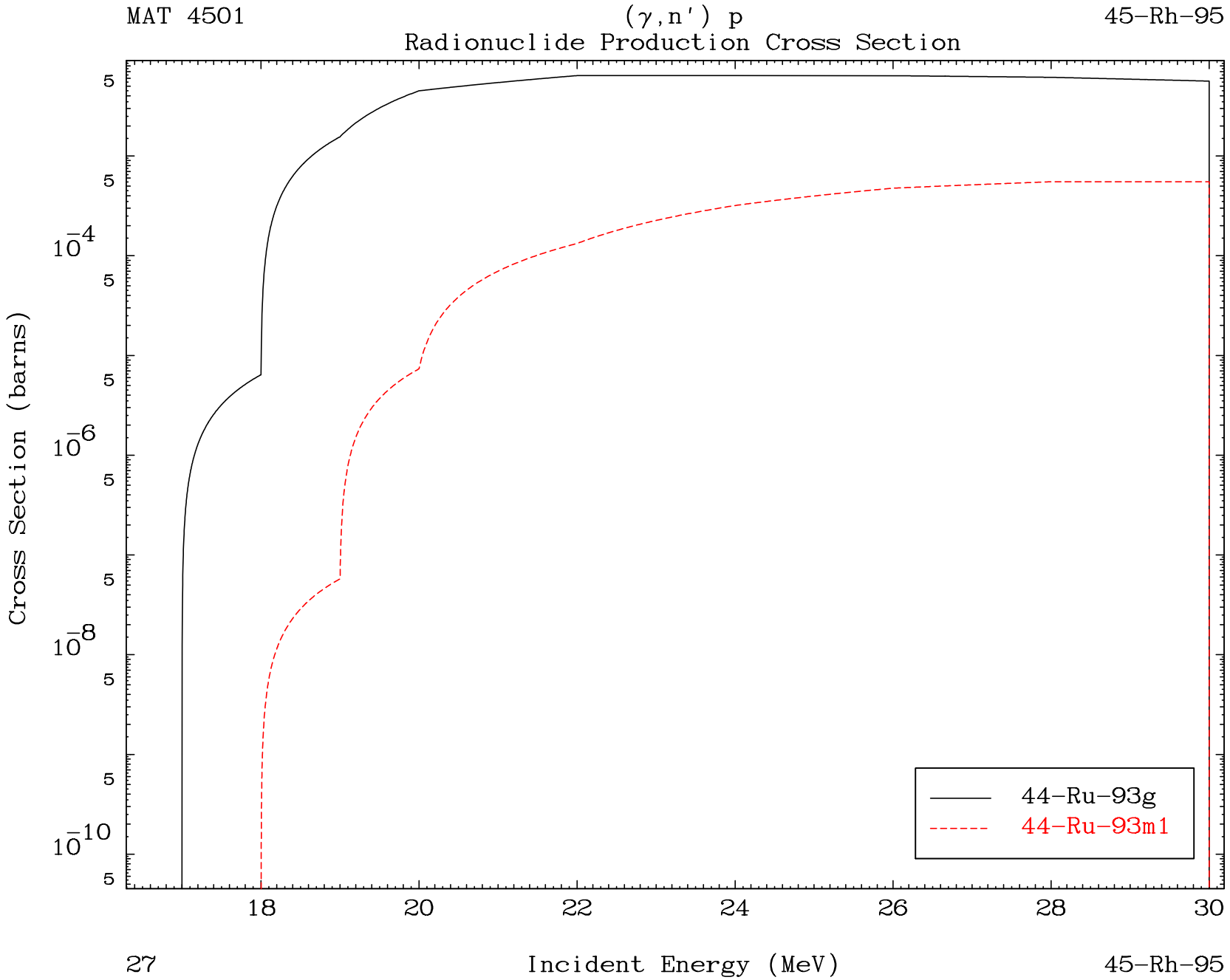

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
42-Mo-85g
42-Mo-86g
42-Mo-87g
42-Mo-88g
42-Mo-89g
42-Mo-89m1
42-Mo-90g
42-Mo-91g
42-Mo-91m1
42-Mo-92g
43-Tc-87g
Cross Section (barns)
10^3
10^0
10^-3
10^-6
10^-9
3
4
5
6
7
8
9
10^2
2
22
Incident Energy (MeV)
45-Rh-95

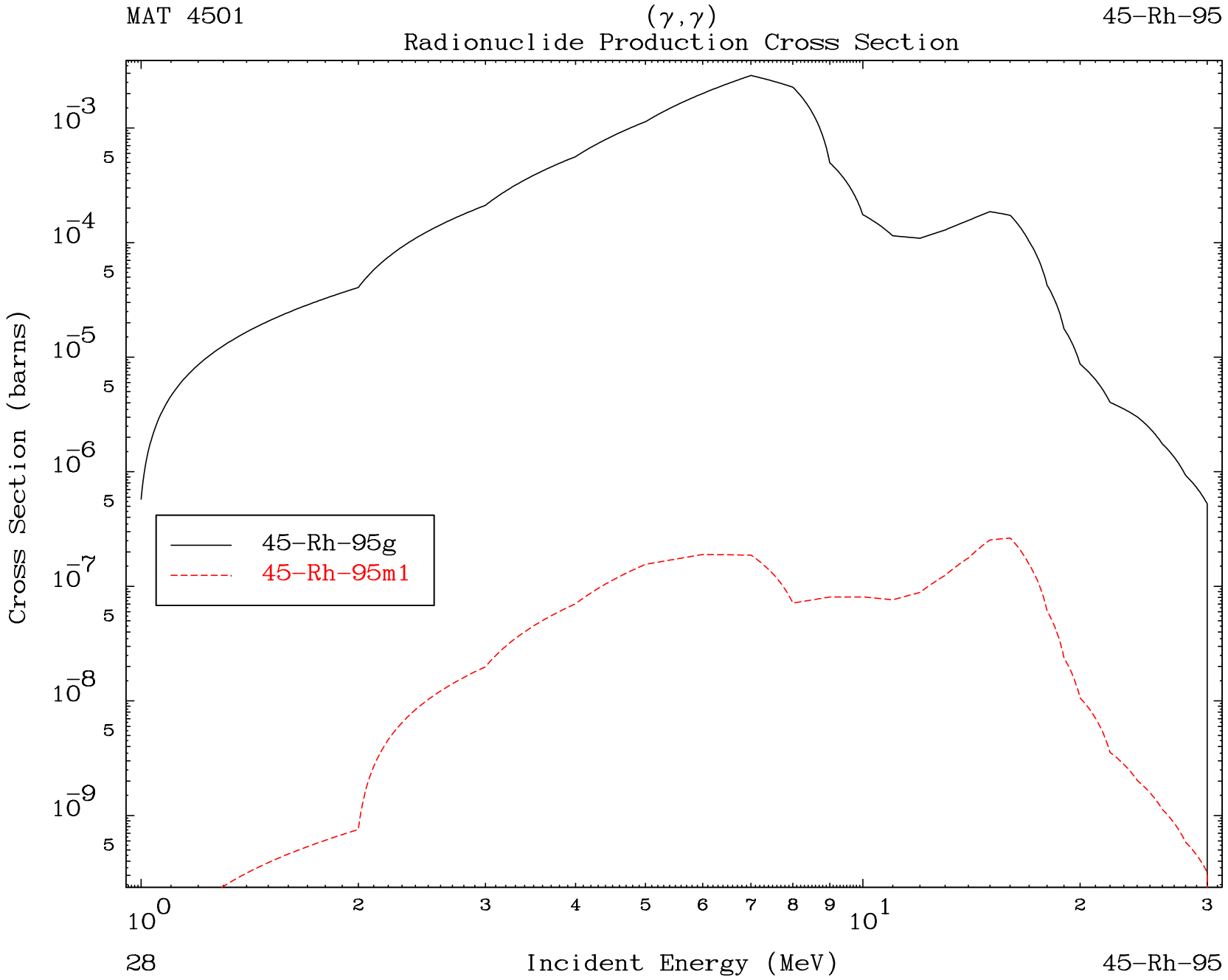

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
23
45-Rh-95
43-Tc-88g
43-Tc-88m1
43-Tc-89g
43-Tc-89m1
43-Tc-90g
43-Tc-90m1
43-Tc-90m2
43-Tc-91g
43-Tc-91m1
43-Tc-92g
43-Tc-93g

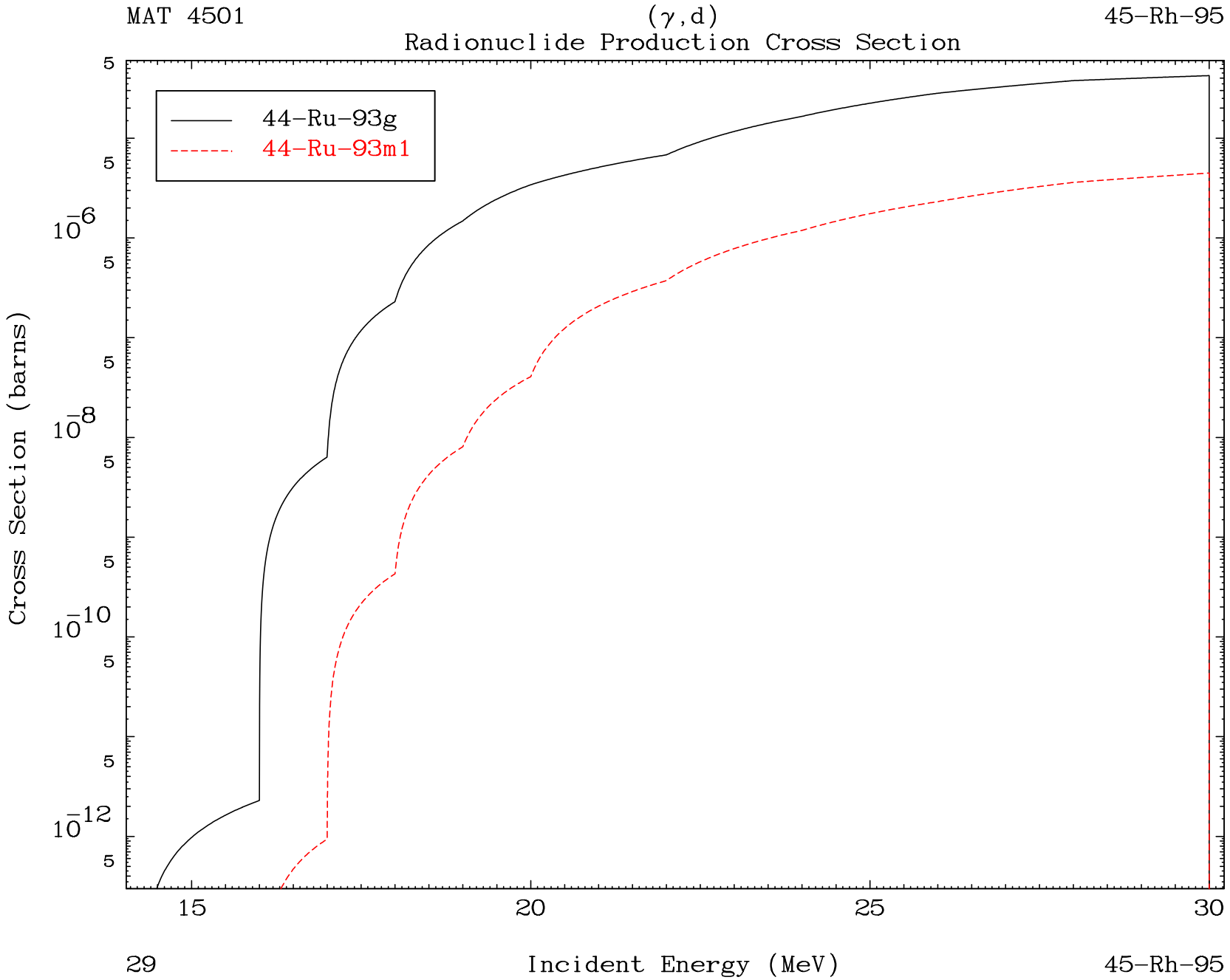

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10^3
10^0
10^-3
10^-6
10^-9
43-Tc-93m1
44-Ru-89g
44-Ru-90g
44-Ru-91g
44-Ru-92g
44-Ru-93g
44-Ru-93m1
44-Ru-94g
45-Rh-91g
45-Rh-91m1
45-Rh-92g
3
4
5
6
7
8
9
10^2
2
24
Incident Energy (MeV)
45-Rh-95

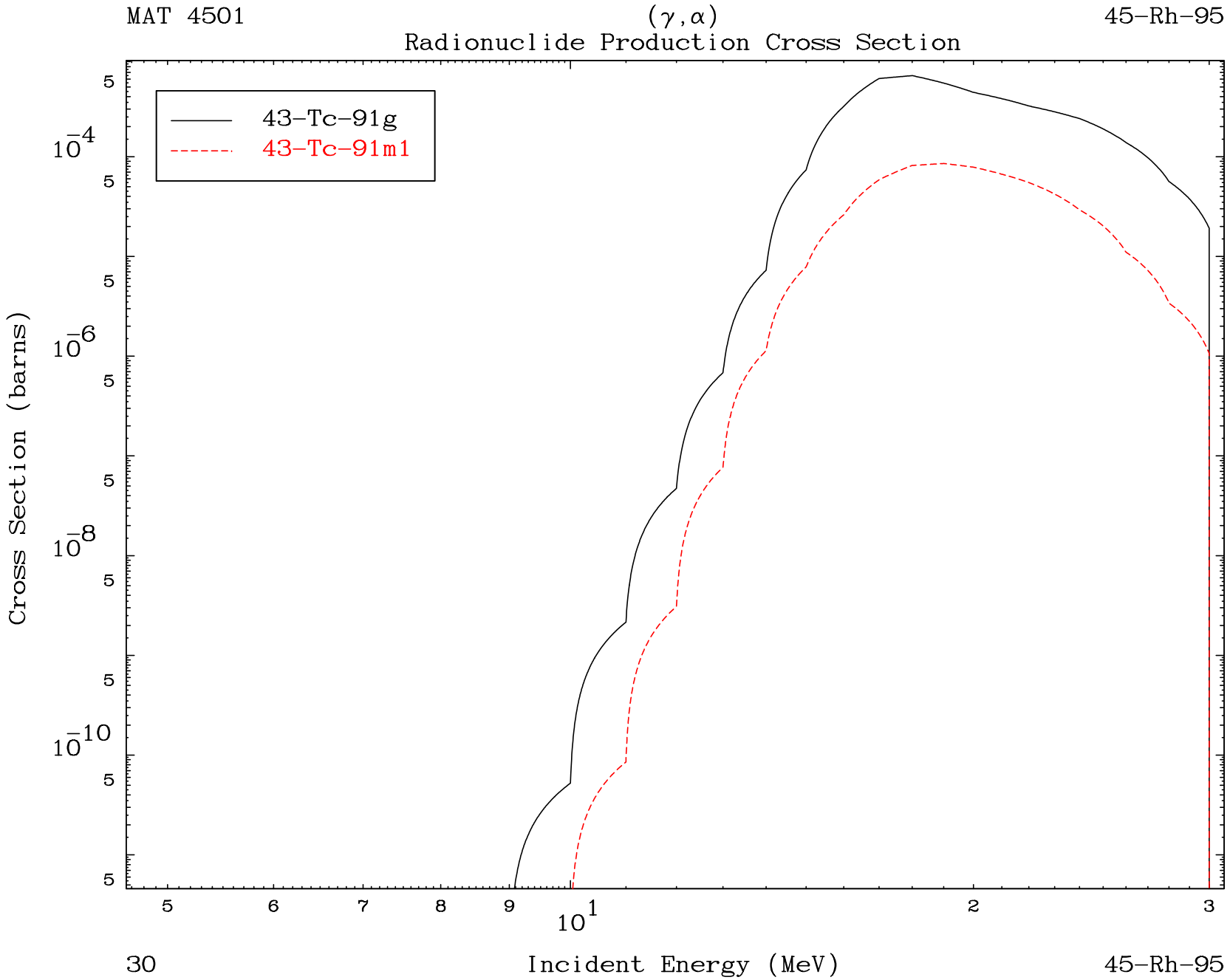

MAT 4501
(γ,remainder)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-3
10-4
10-5
10-6
10-7
10-8
5
3
4
5
6
7
8
9
10 2
2
45-Rh-93g
45-Rh-94g
45-Rh-94m1
45-Rh-95g
Photon
25
Incident Energy (MeV)
45-Rh-95

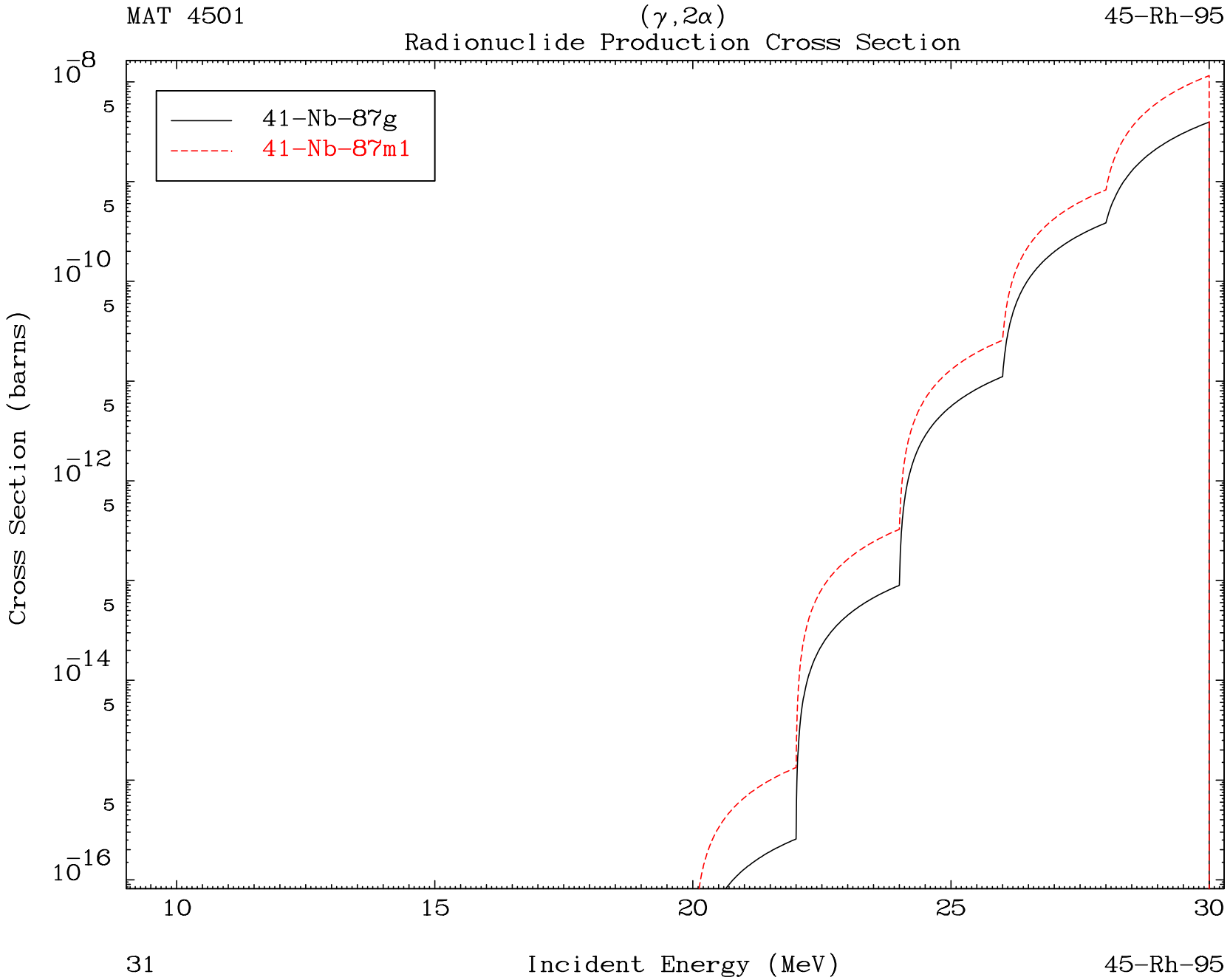

MAT 4501
(γ,n') α
45-Rh-95
Radionuclide Production Cross Section
43-Tc-90g
43-Tc-90m4
43-Tc-90m6
Cross Section (barns)
10-6
10-8
10-10
10-12
5
18
20
22
24
26
28
30
26
Incident Energy (MeV)
45-Rh-95

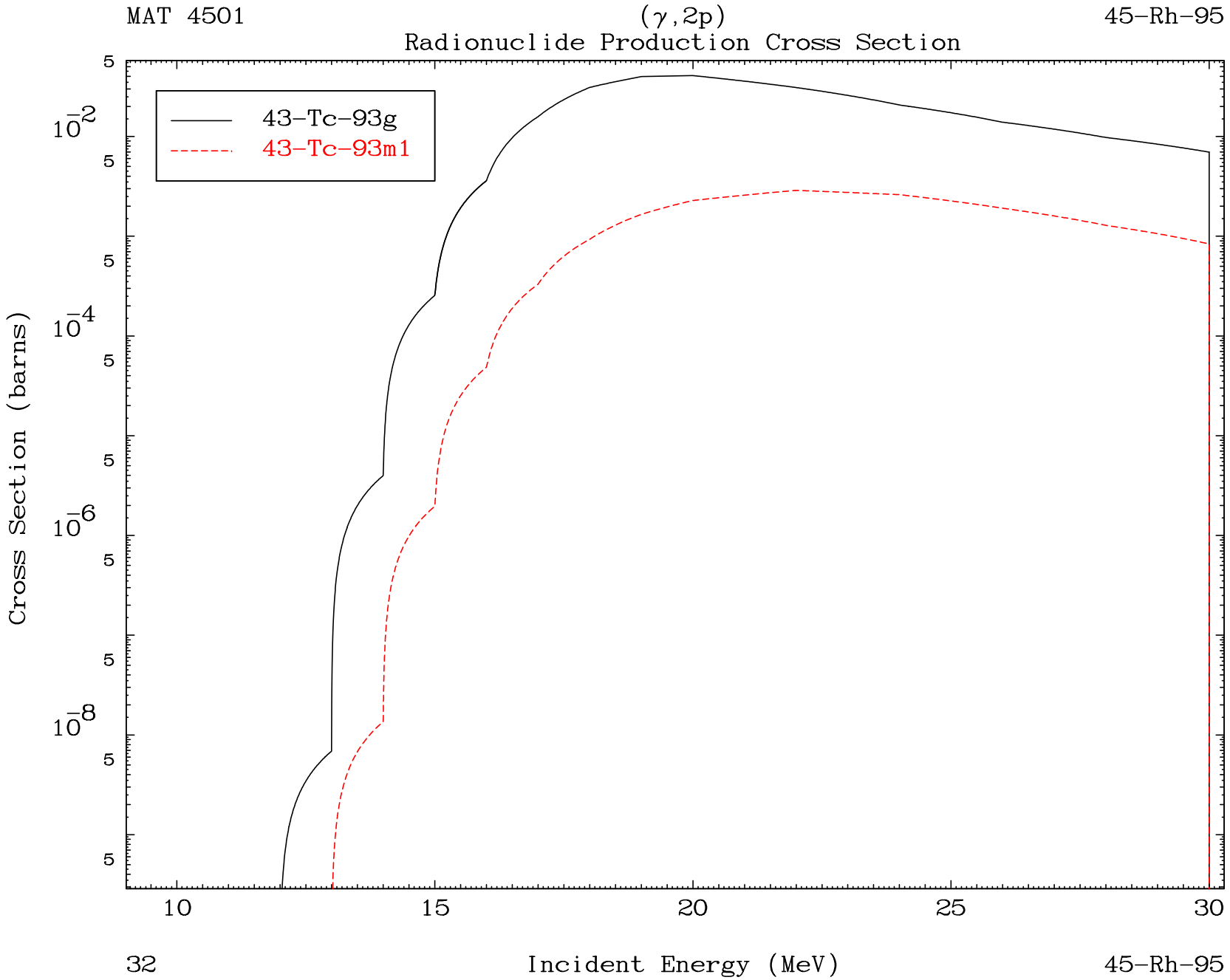

MAT 4501
(γ,n') p
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
18
20
22
24
26
28
30
Incident Energy (MeV)
27
45-Rh-95
44-Ru-93g
44-Ru-93m1


MAT 4501
(γ,γ)
45-Rh-95
Radionuclide Production Cross Section
Cross Section (barns)
10-3
10-4
10-5
10-6
10-7
10-8
10-9
45-Rh-95g
45-Rh-95m1
100
101
Incident Energy (MeV)
28
45-Rh-95


MAT 4501
(γ,d)
45-Rh-95
Radionuclide Production Cross Section
44-Ru-93g
44-Ru-93m1
Cross Section (barns)
10-6
10-8
10-10
10-12
15
20
25
30
29
Incident Energy (MeV)
45-Rh-95


MAT 4501
(γ,α)
45-Rh-95
Radionuclide Production Cross Section
43-Tc-91g
43-Tc-91m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
6
7
8
9
10^1
2
3
30
Incident Energy (MeV)
45-Rh-95


MAT 4501
(γ,2α)
45-Rh-95
Radionuclide Production Cross Section
41-Nb-87g
41-Nb-87m1
Cross Section (barns)
10^-8
5
10^-10
5
10^-12
5
10^-14
5
10^-16
5
10
15
20
25
30
31
Incident Energy (MeV)
45-Rh-95


MAT 4501
(γ,2p)
45-Rh-95
Radionuclide Production Cross Section
43-Tc-93g
43-Tc-93m1
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
5
10
15
20
25
30
32
Incident Energy (MeV)
45-Rh-95