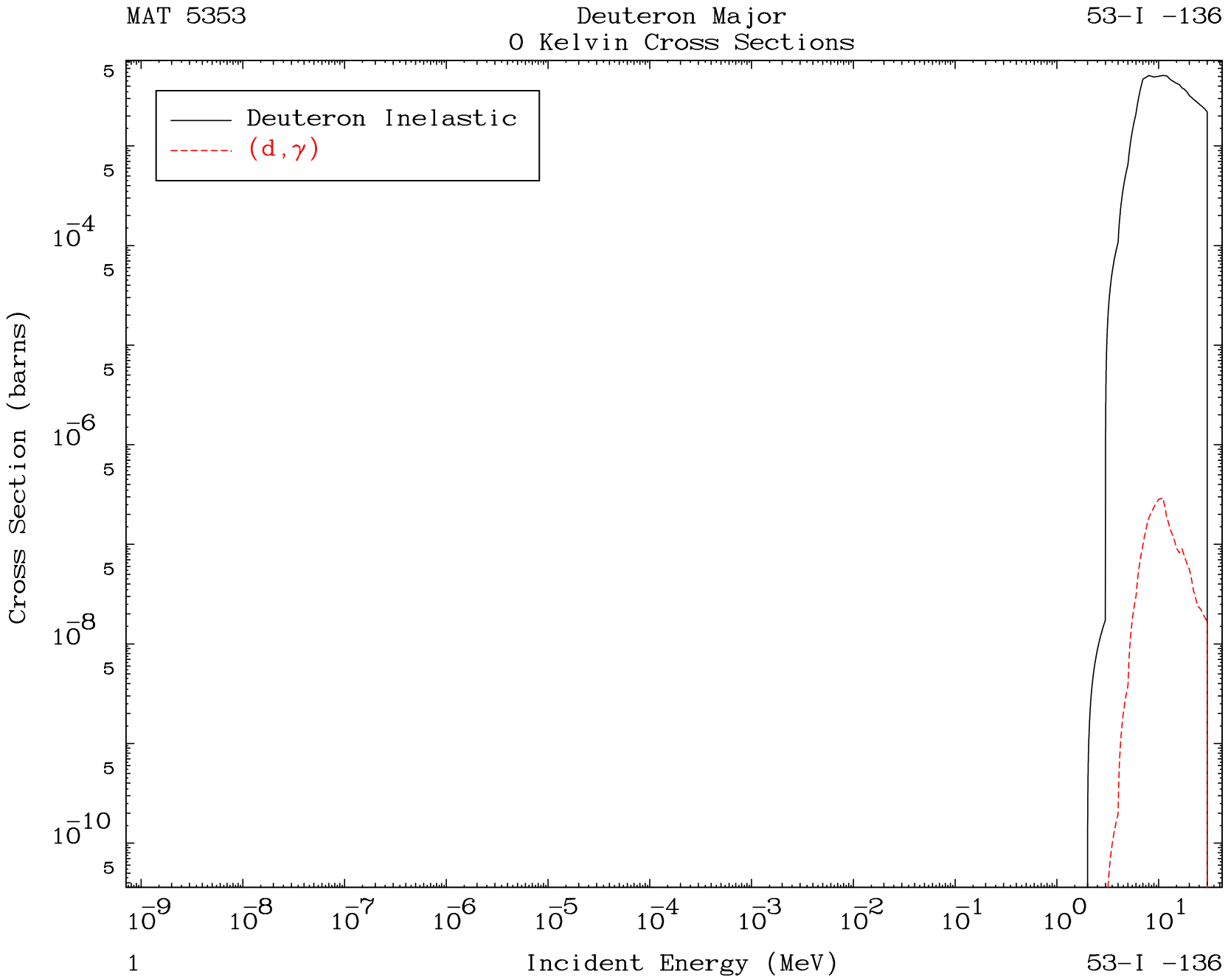
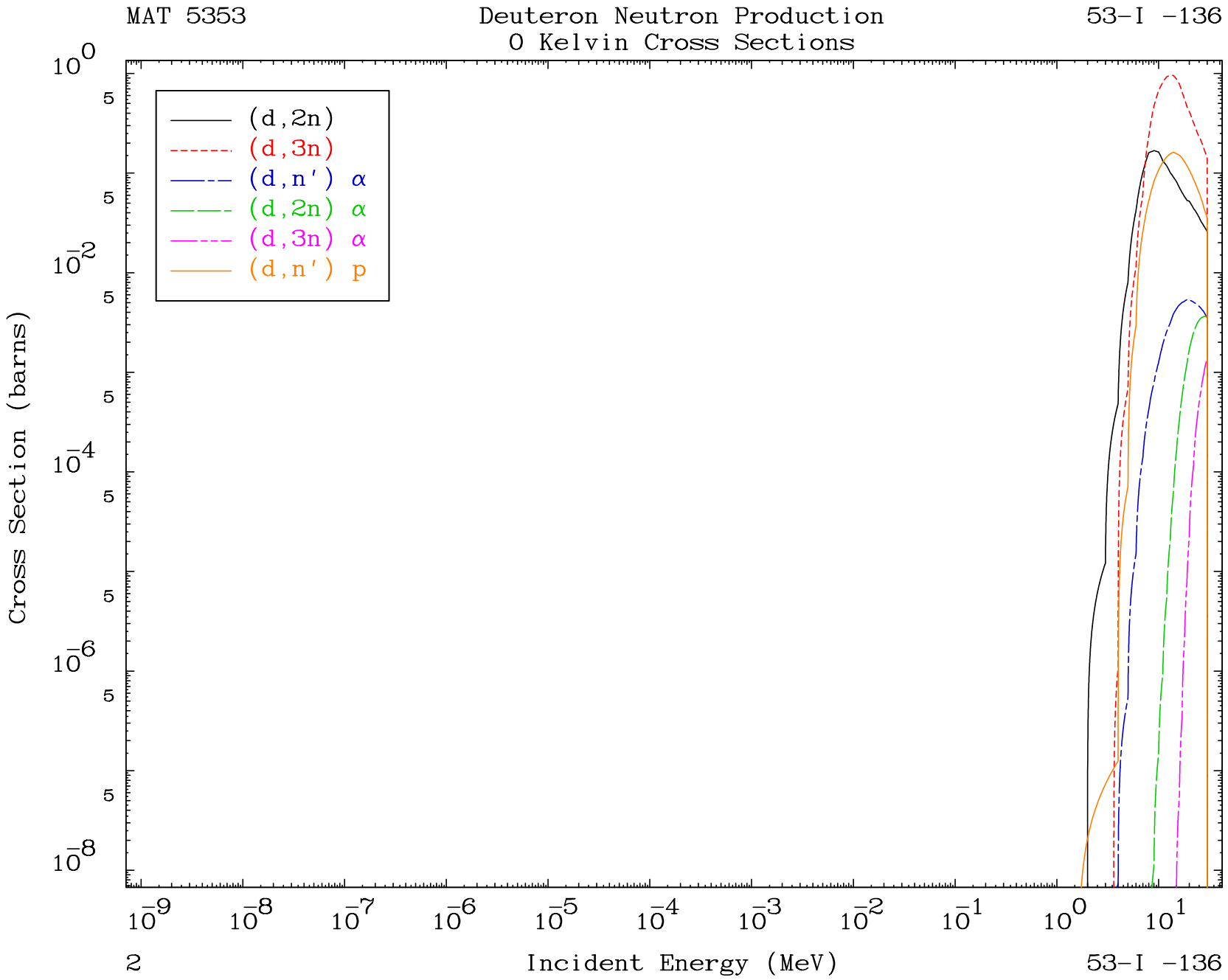
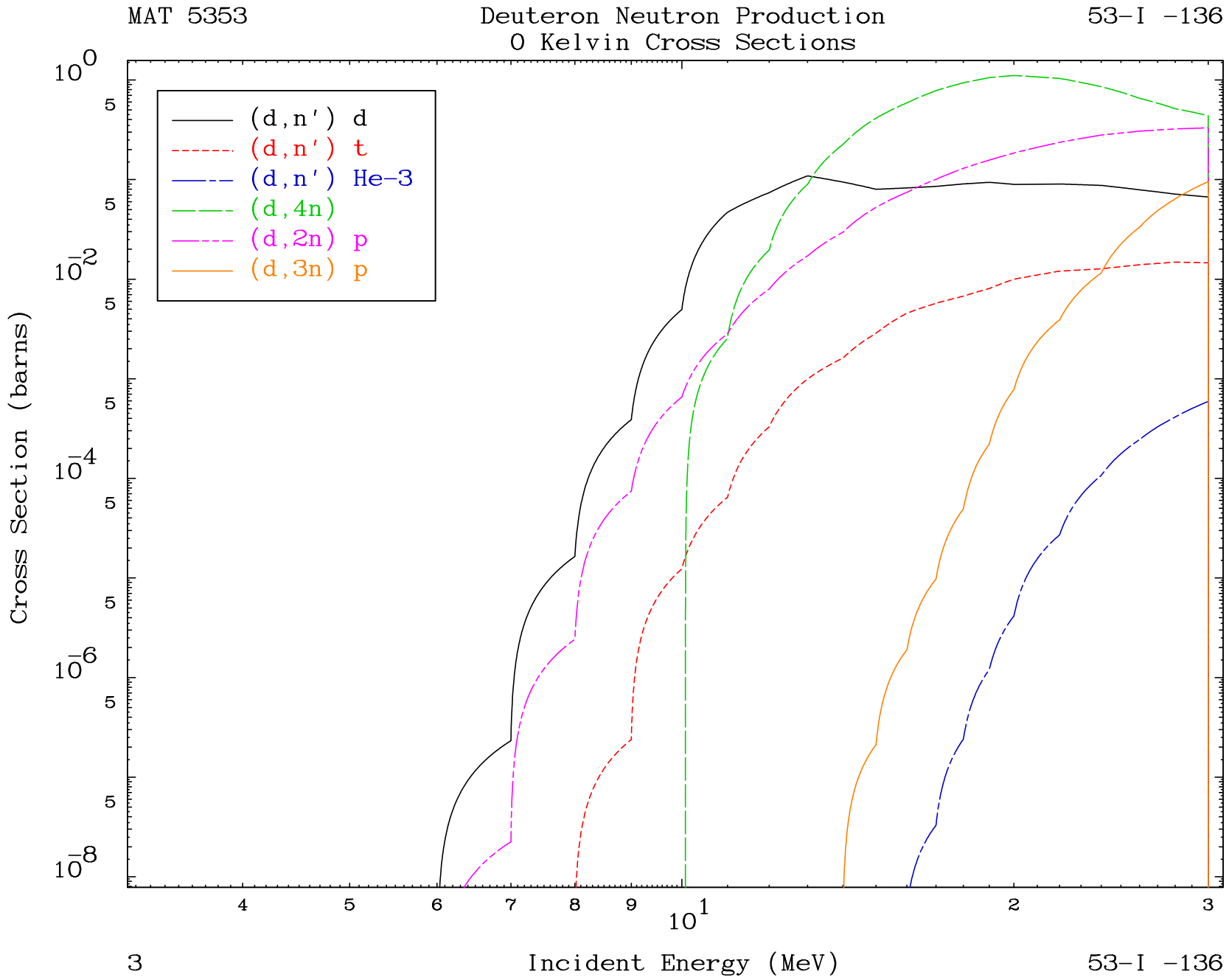
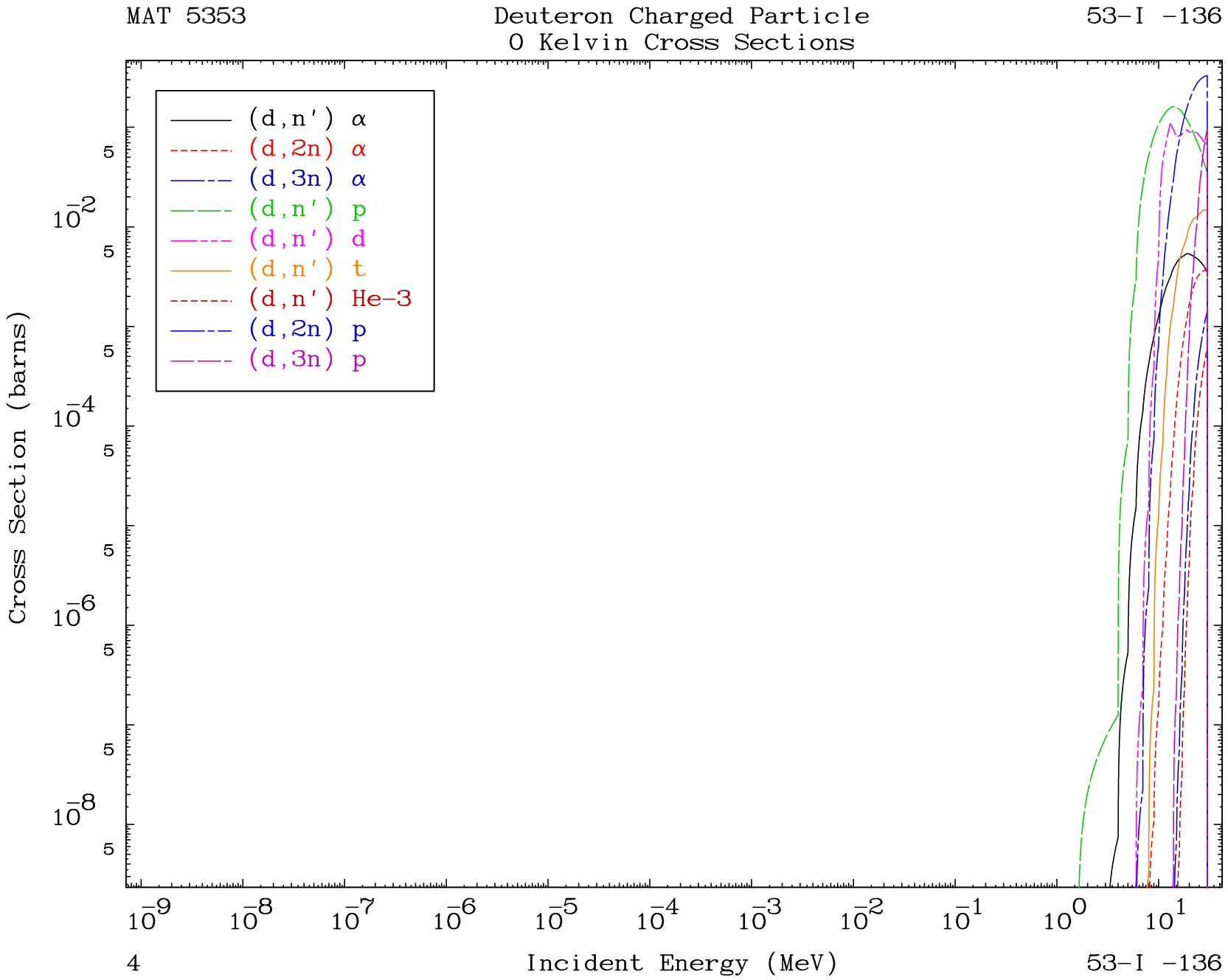
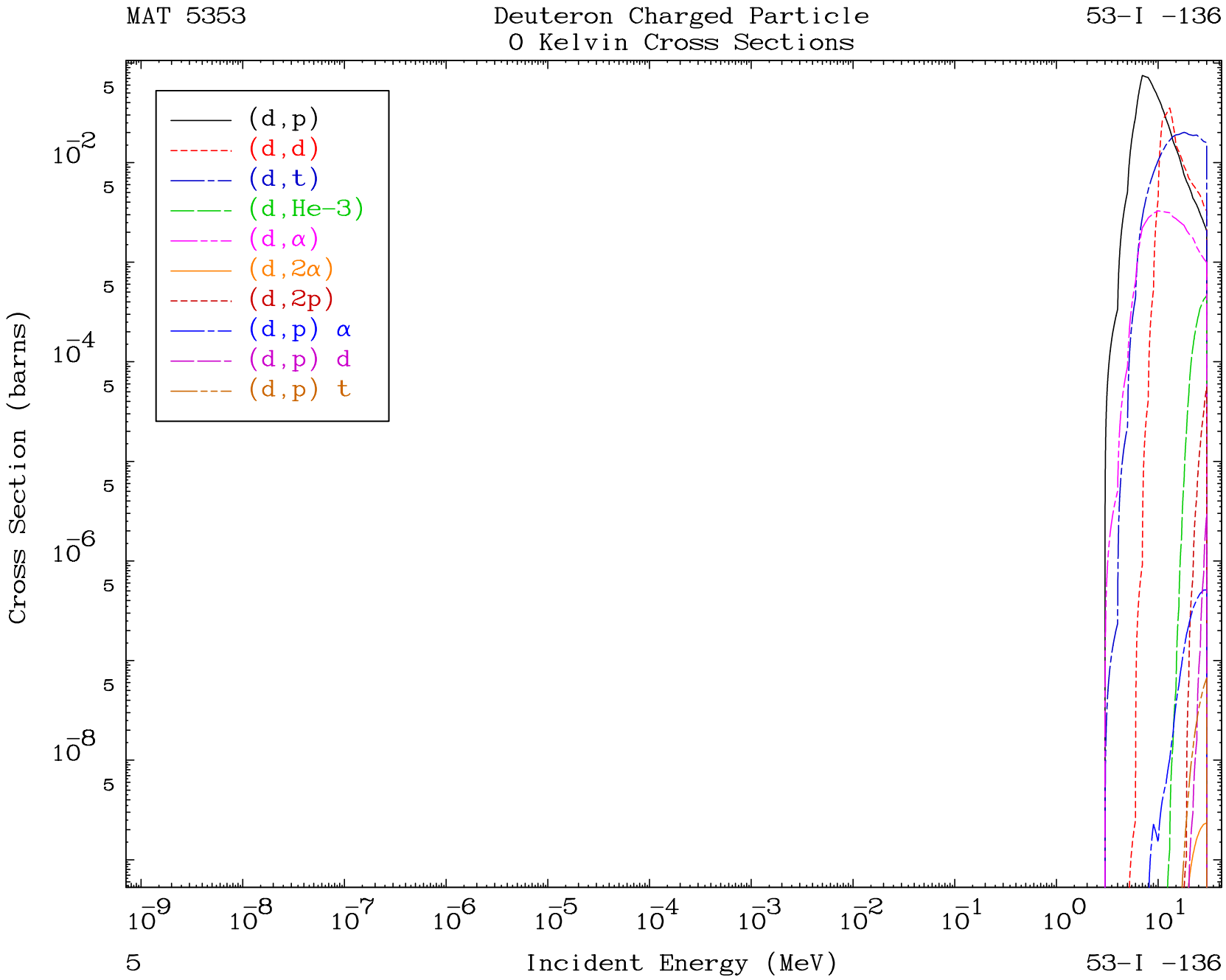

MAT 5353
Deuteron Major
0 Kelvin Cross Sections
53-I -136
Deuteron Inelastic
(d,γ)
Cross Section (barns)
Incident Energy (MeV)
53-I -136

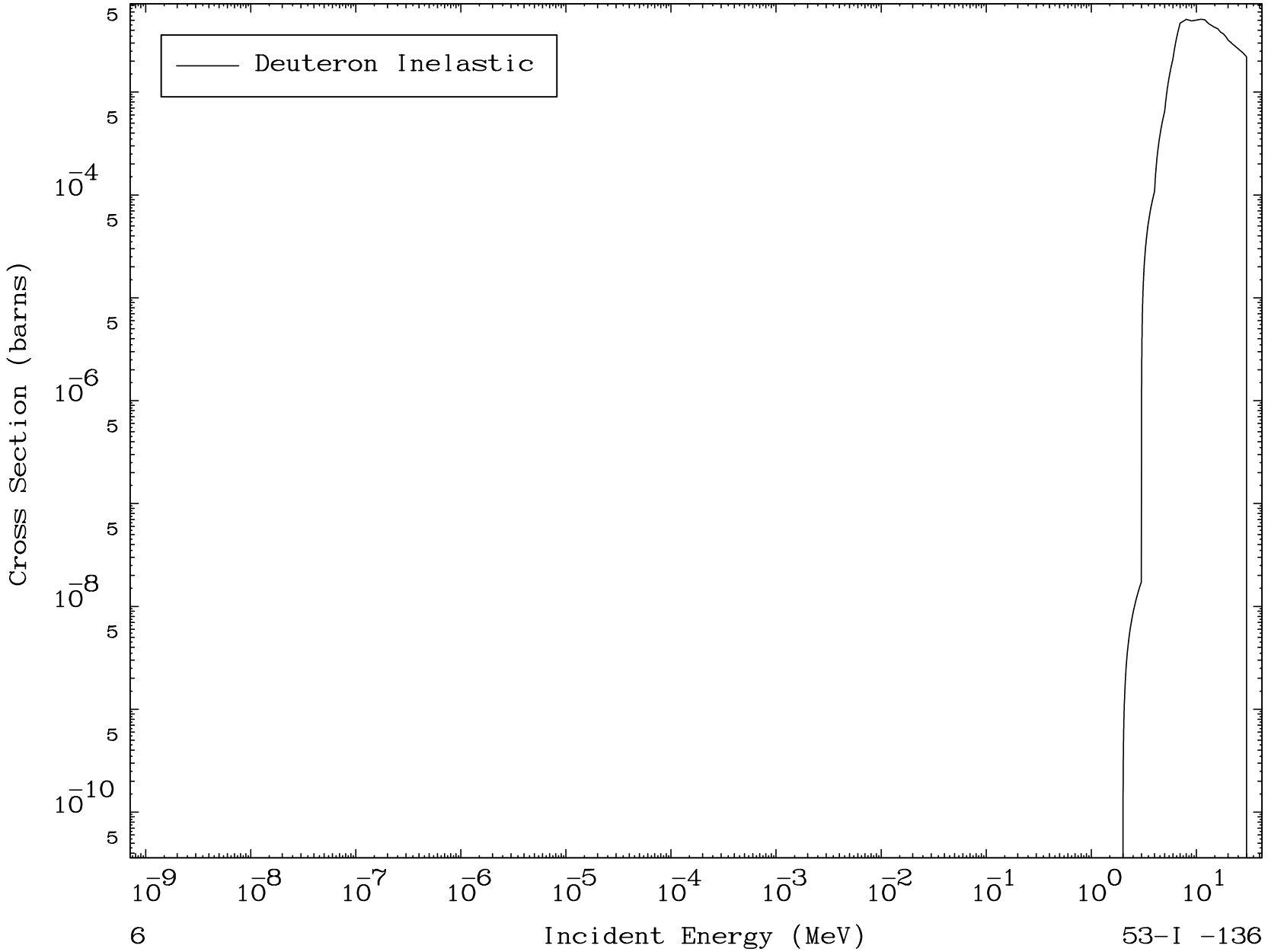

MAT 5353
Deuteron Neutron Production
0 Kelvin Cross Sections
53-I -136
(d,2n)
(d,3n)
(d,n') α
(d,2n) α
(d,3n) α
(d,n') p
Cross Section (barns)
Incident Energy (MeV)
53-I -136
2

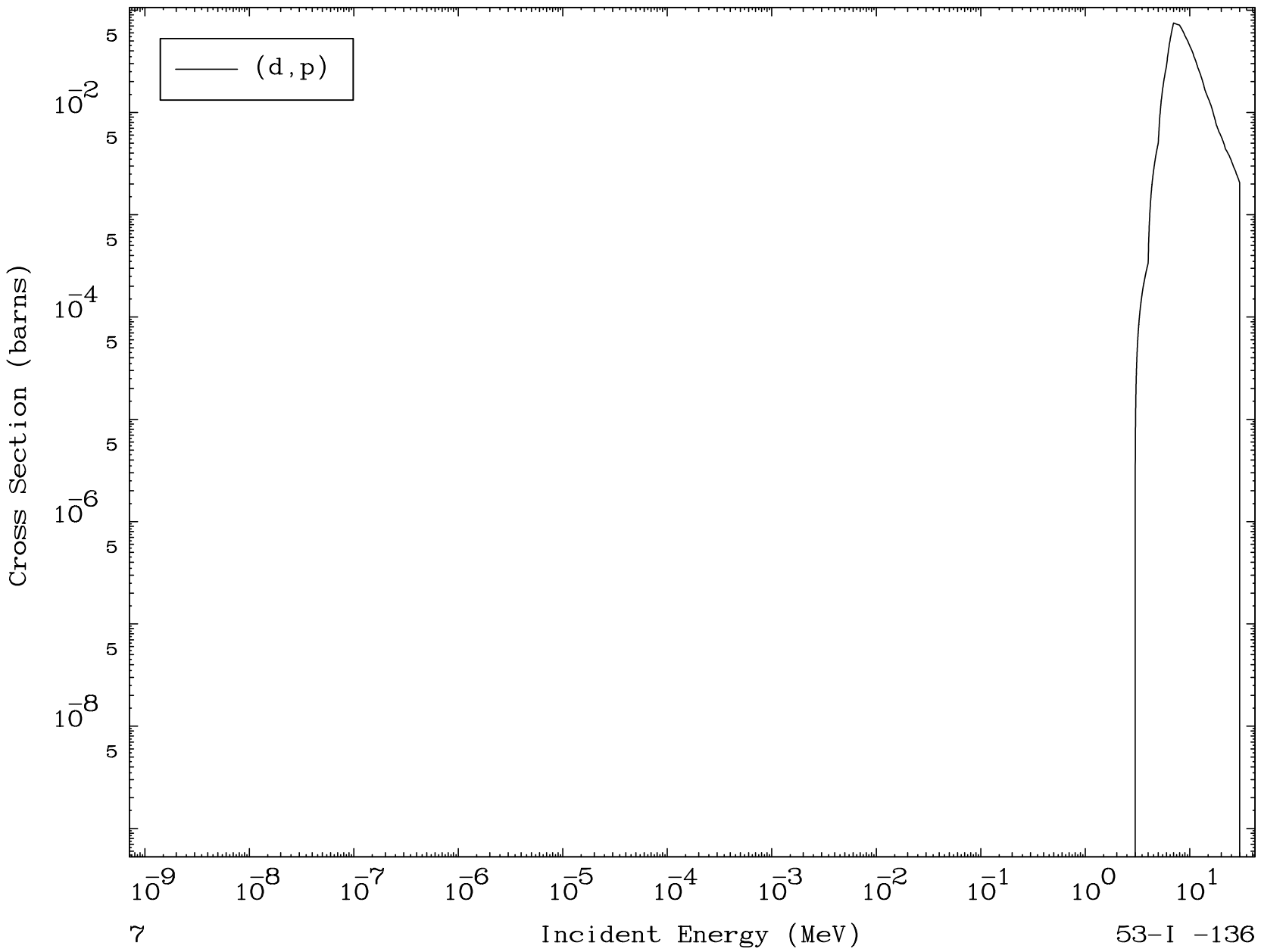

MAT 5353
Deuteron Neutron Production
0 Kelvin Cross Sections
53-I -136
(d,n') d
(d,n') t
(d,n') He-3
(d,4n)
(d,2n) p
(d,3n) p
Cross Section (barns)
Incident Energy (MeV)
3
53-I -136

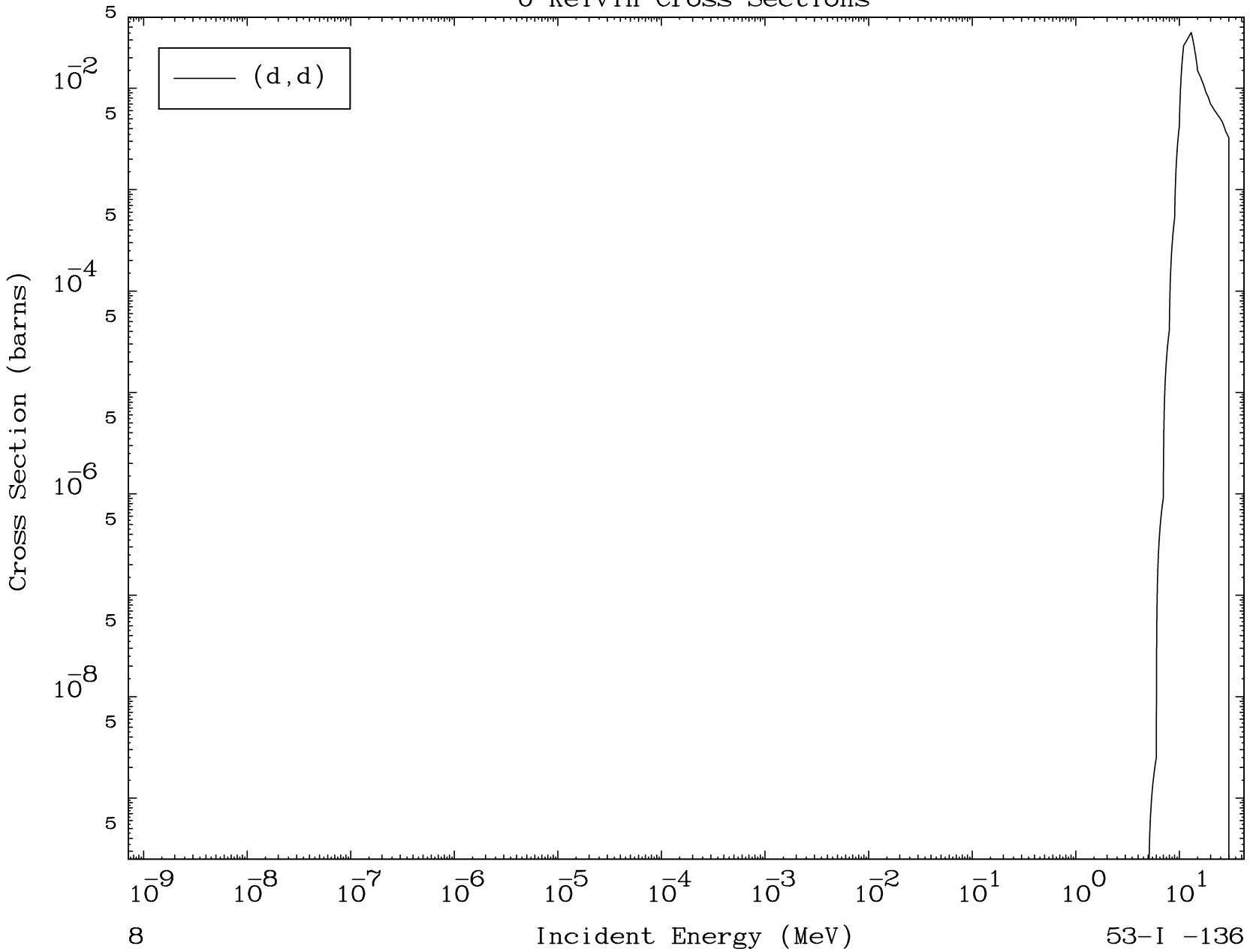

MAT 5353
Deuteron Charged Particle
0 Kelvin Cross Sections
53-I -136
(d,n') α
(d,2n) α
(d,3n) α
(d,n') p
(d,n') d
(d,n') t
(d,n') He-3
(d,2n) p
(d,3n) p
Cross Section (barns)
Incident Energy (MeV)
4
53-I -136


MAT 5353
Deuteron Charged Particle
0 Kelvin Cross Sections
53-I -136
(d,p)
(d,d)
(d,t)
(d,He-3)
(d,α)
(d,2α)
(d,2p)
(d,p) α
(d,p) d
(d,p) t
Cross Section (barns)
Incident Energy (MeV)
53-I -136

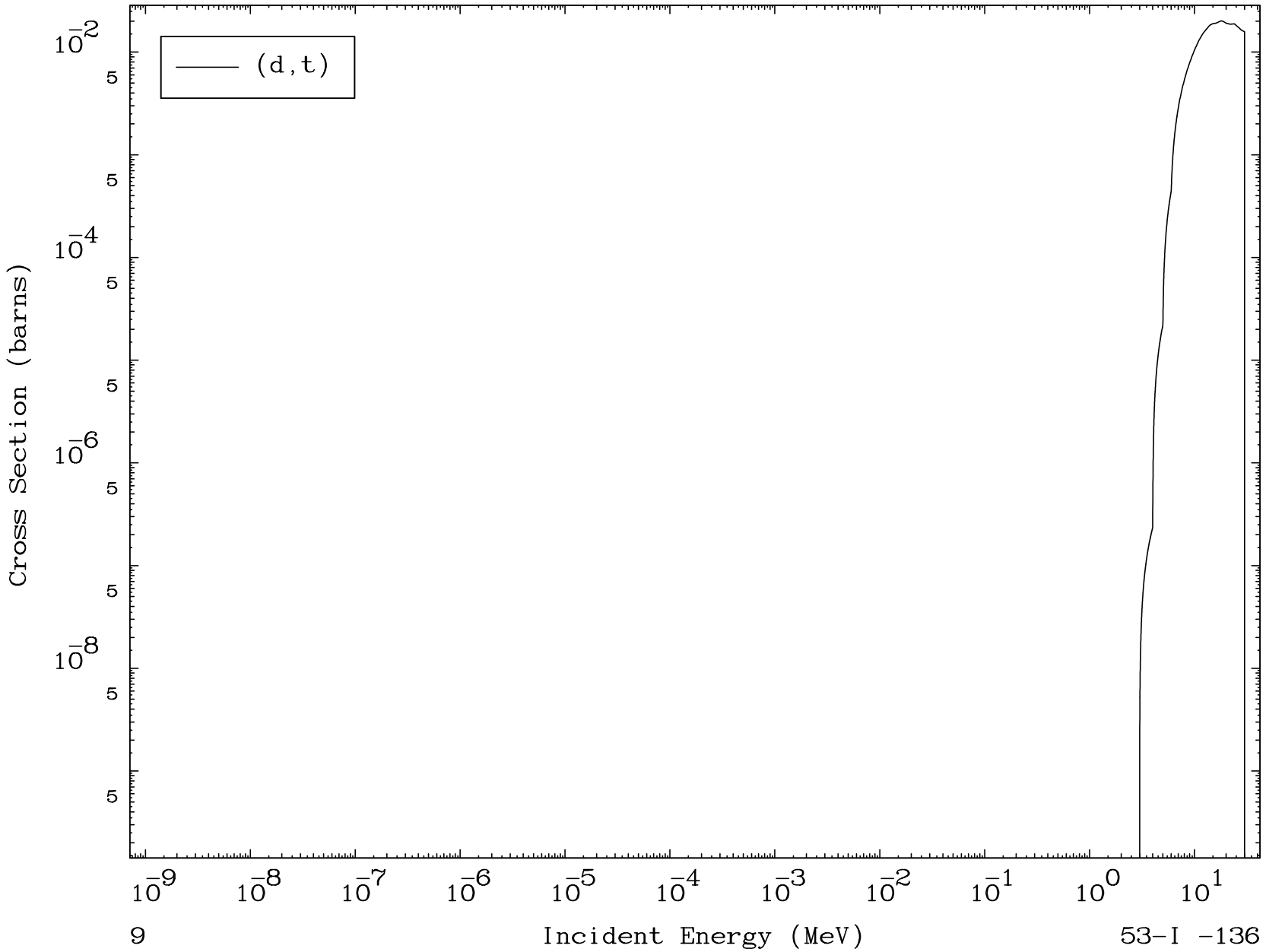
0 Kelvin Cross Sections

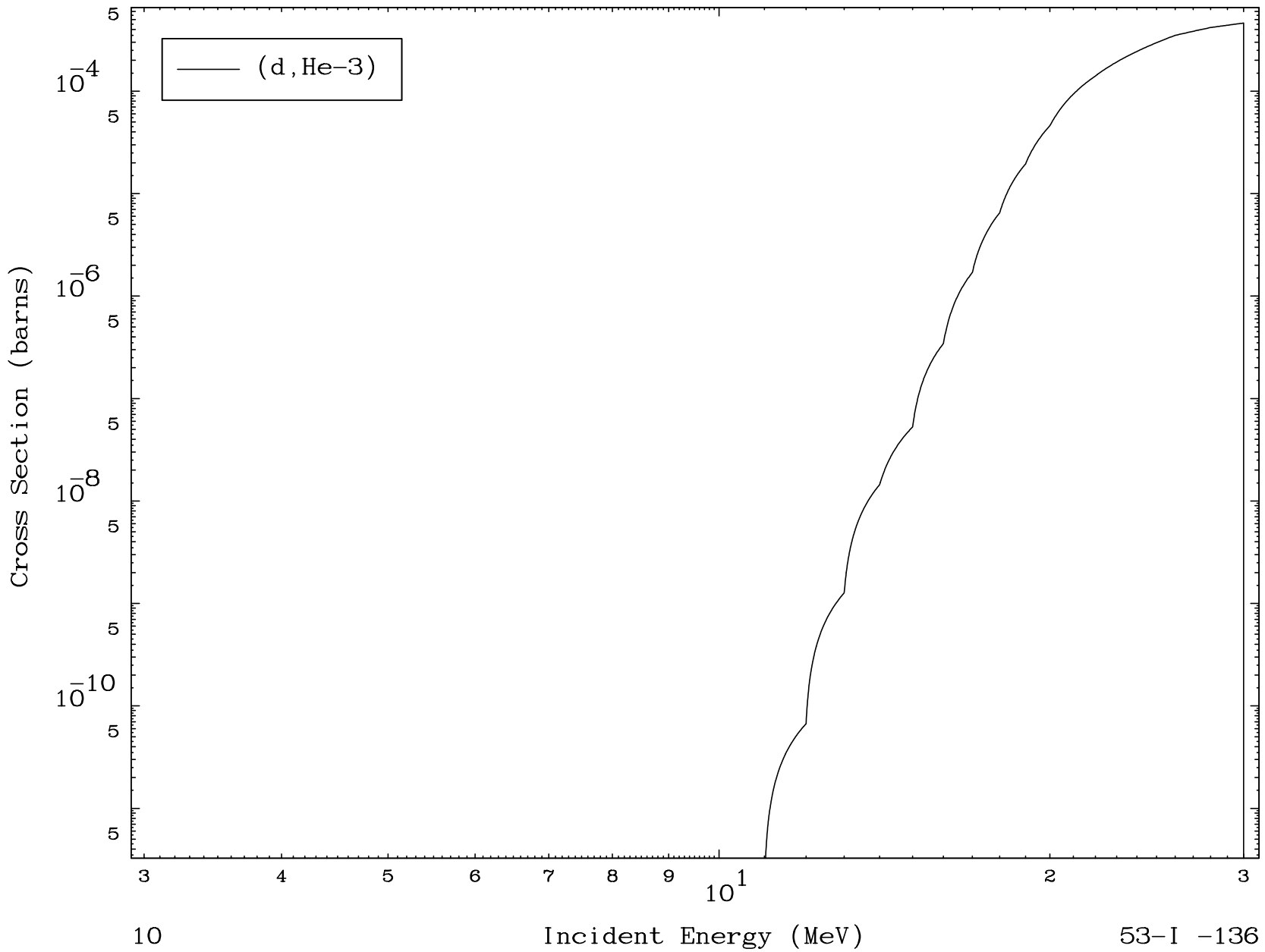



0 Kelvin Cross Sections
(d,p)
Cross Section (barns)
10-2
10-4
10-6
10-8
10-9
10-8
10-7
10-6
10-5
10-4
10-3
10-2
10-1
100
101
Incident Energy (MeV)

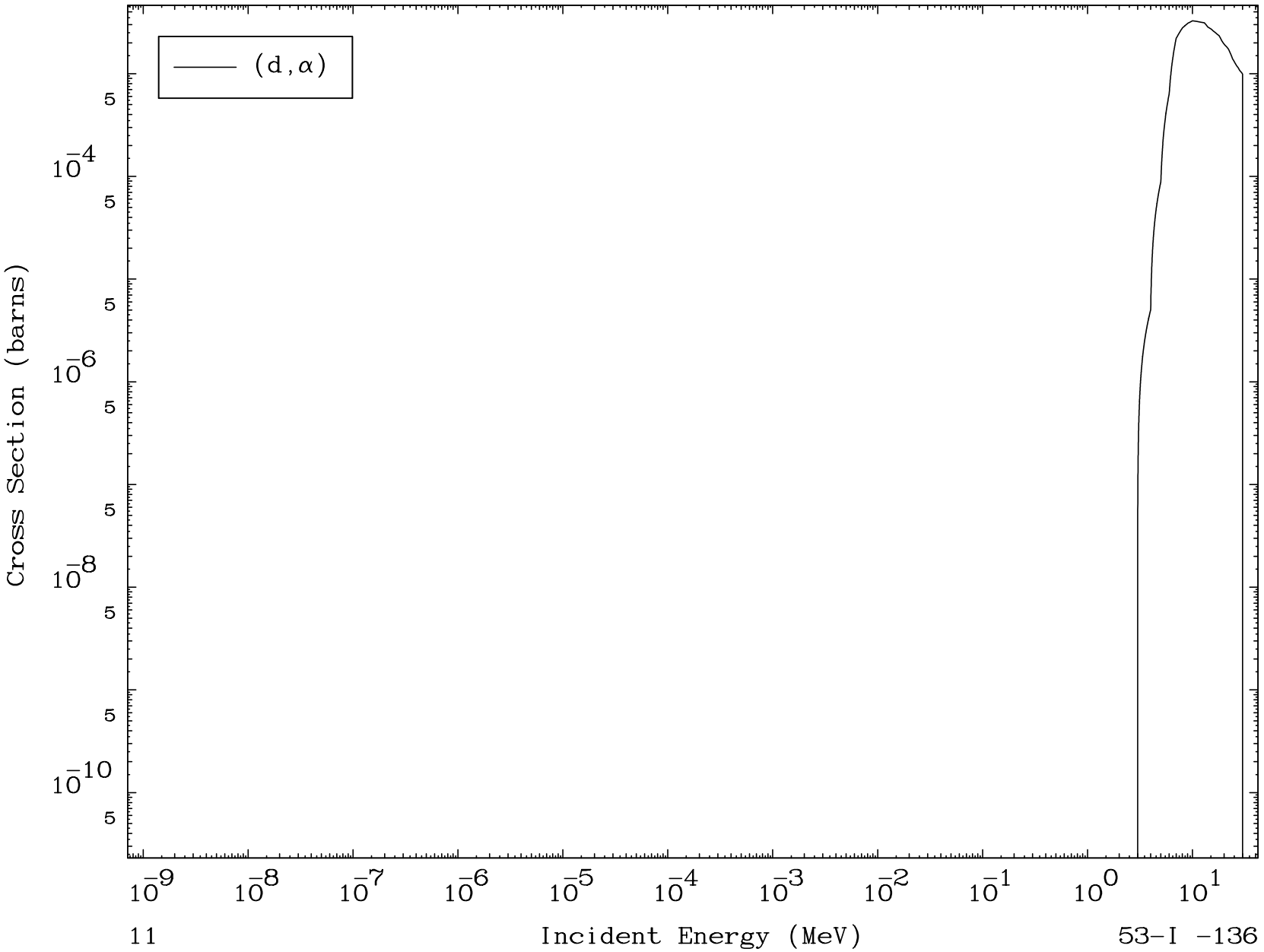

0 Kelvin Cross Sections
(d,d)
Cross Section (barns)
Incident Energy (MeV)
10^-2
10^-4
10^-6
10^-8
10^-9
10^-8
10^-7
10^-6
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1

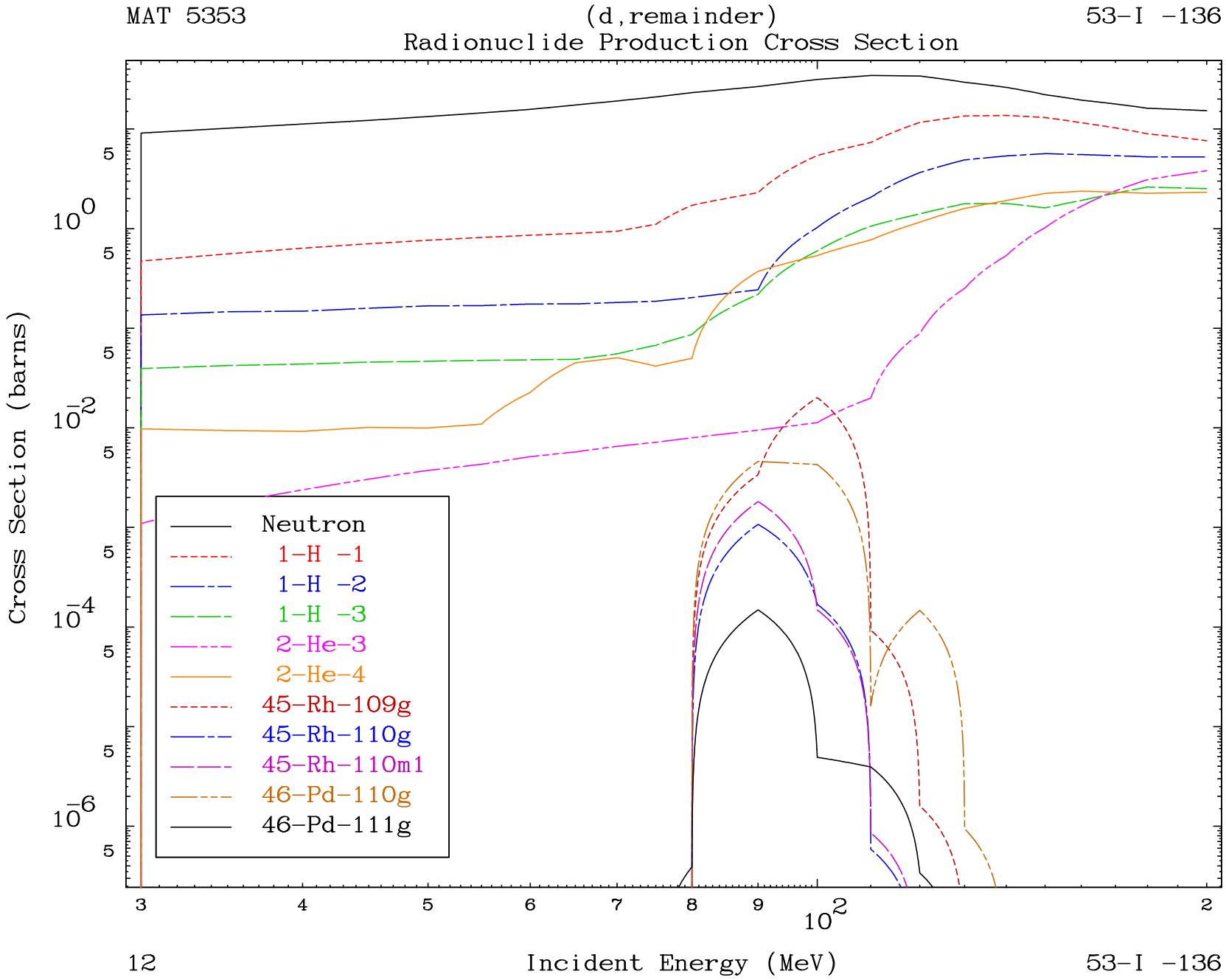
0 Kelvin Cross Sections

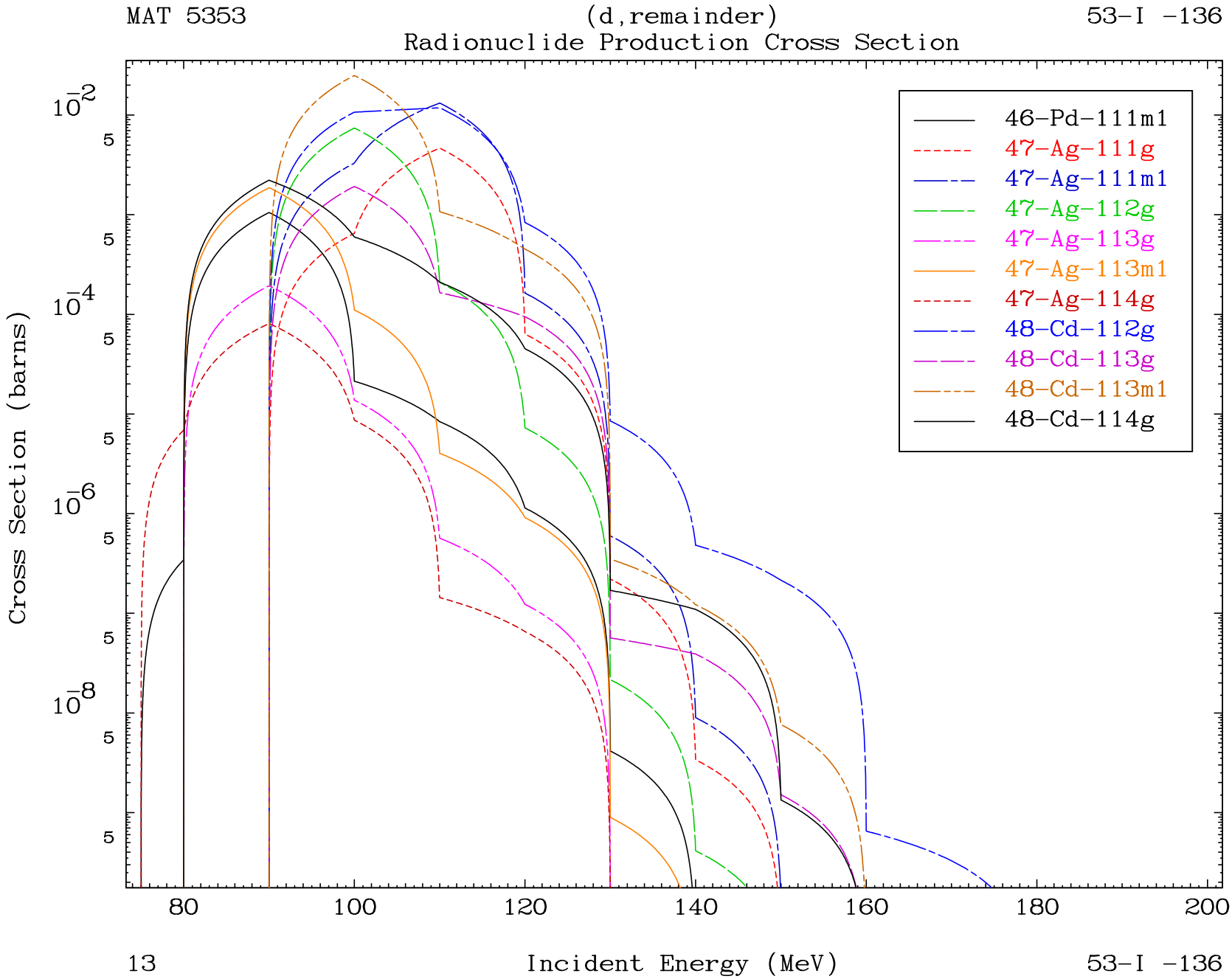



0 Kelvin Cross Sections
(d,He-3)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
3 4 5 6 7 8 9 10^1 2 3
10
Incident Energy (MeV)

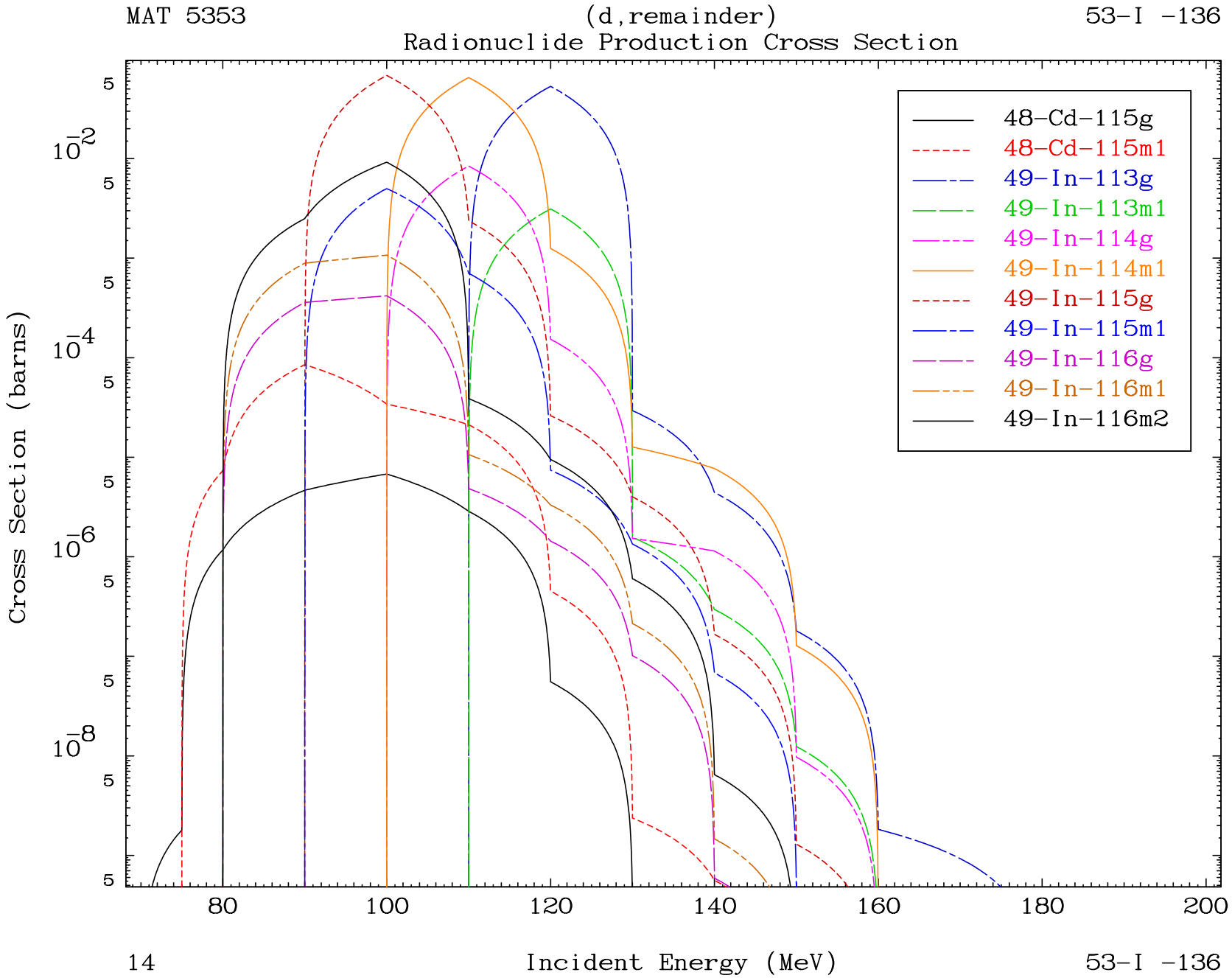
0 Kelvin Cross Sections



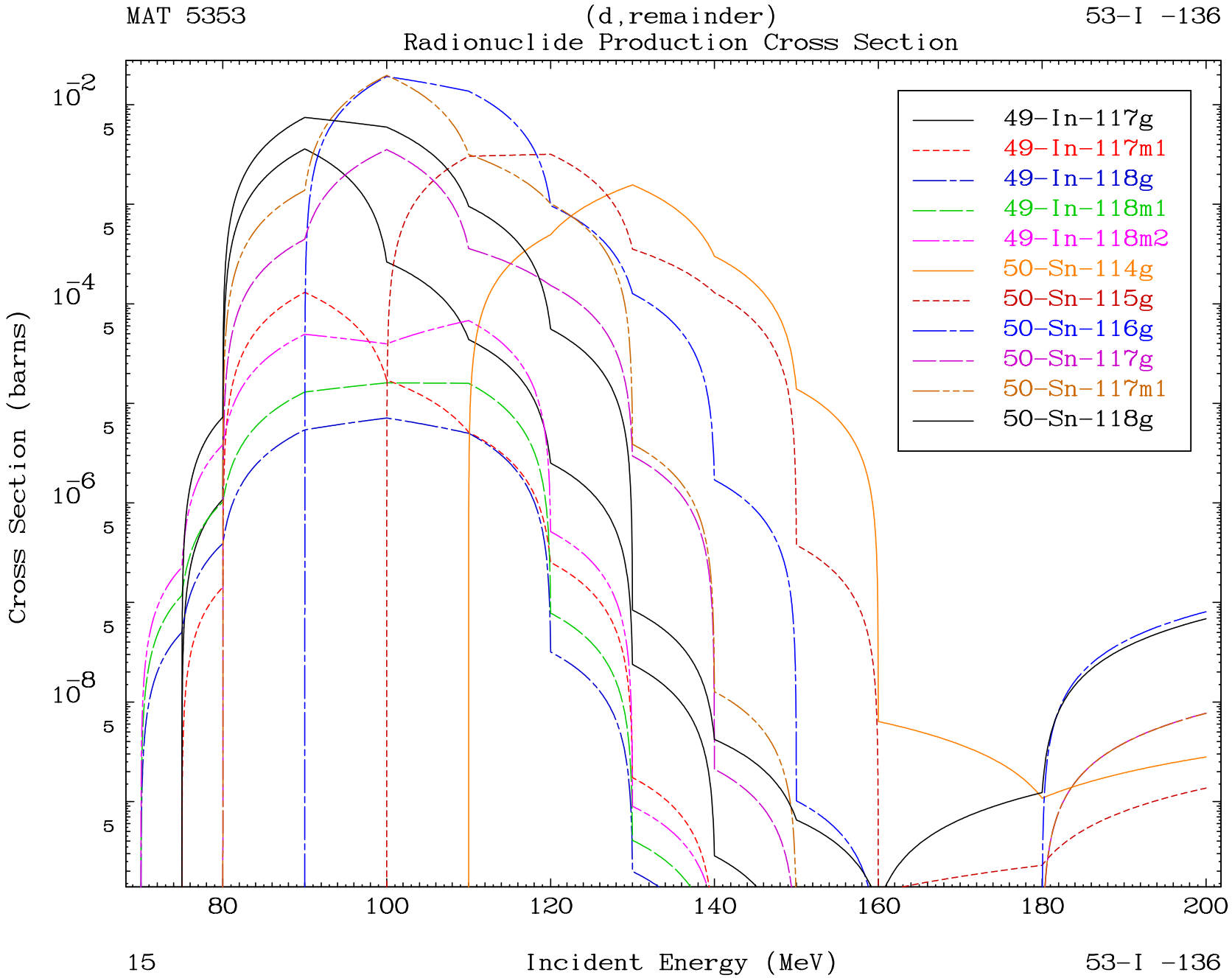

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
5
3
4
6
7
8
9
10^2
2
Neutron
1-H -1
1-H -2
1-H -3
2-He-3
2-He-4
45-Rh-109g
45-Rh-110g
45-Rh-110m1
46-Pd-110g
46-Pd-111g
12
Incident Energy (MeV)
53-I -136

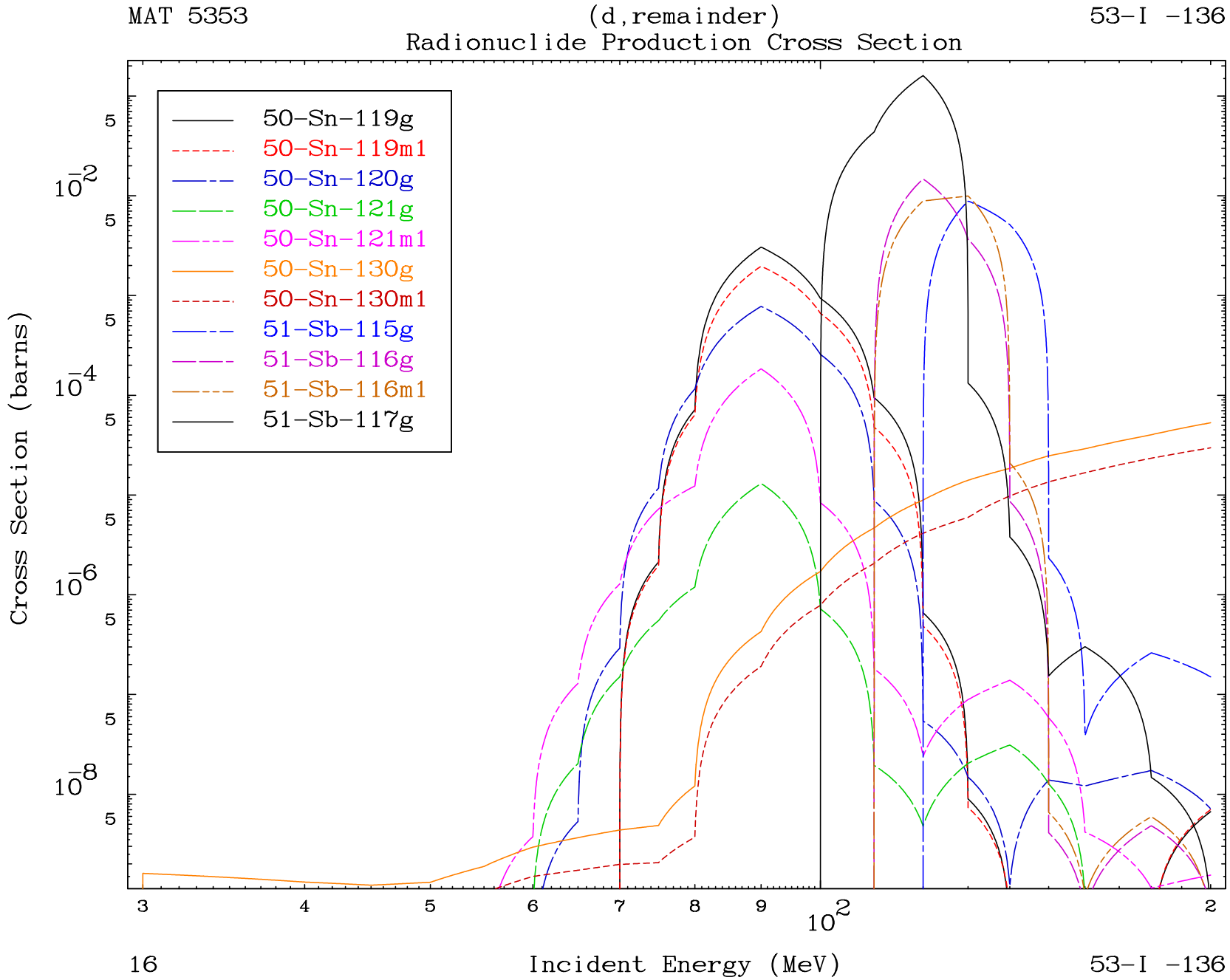

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
5
80
100
120
140
160
180
200
Incident Energy (MeV)
46-Pd-111m1
47-Ag-111g
47-Ag-111m1
47-Ag-112g
47-Ag-113g
47-Ag-113m1
47-Ag-114g
48-Cd-112g
48-Cd-113g
48-Cd-113m1
48-Cd-114g

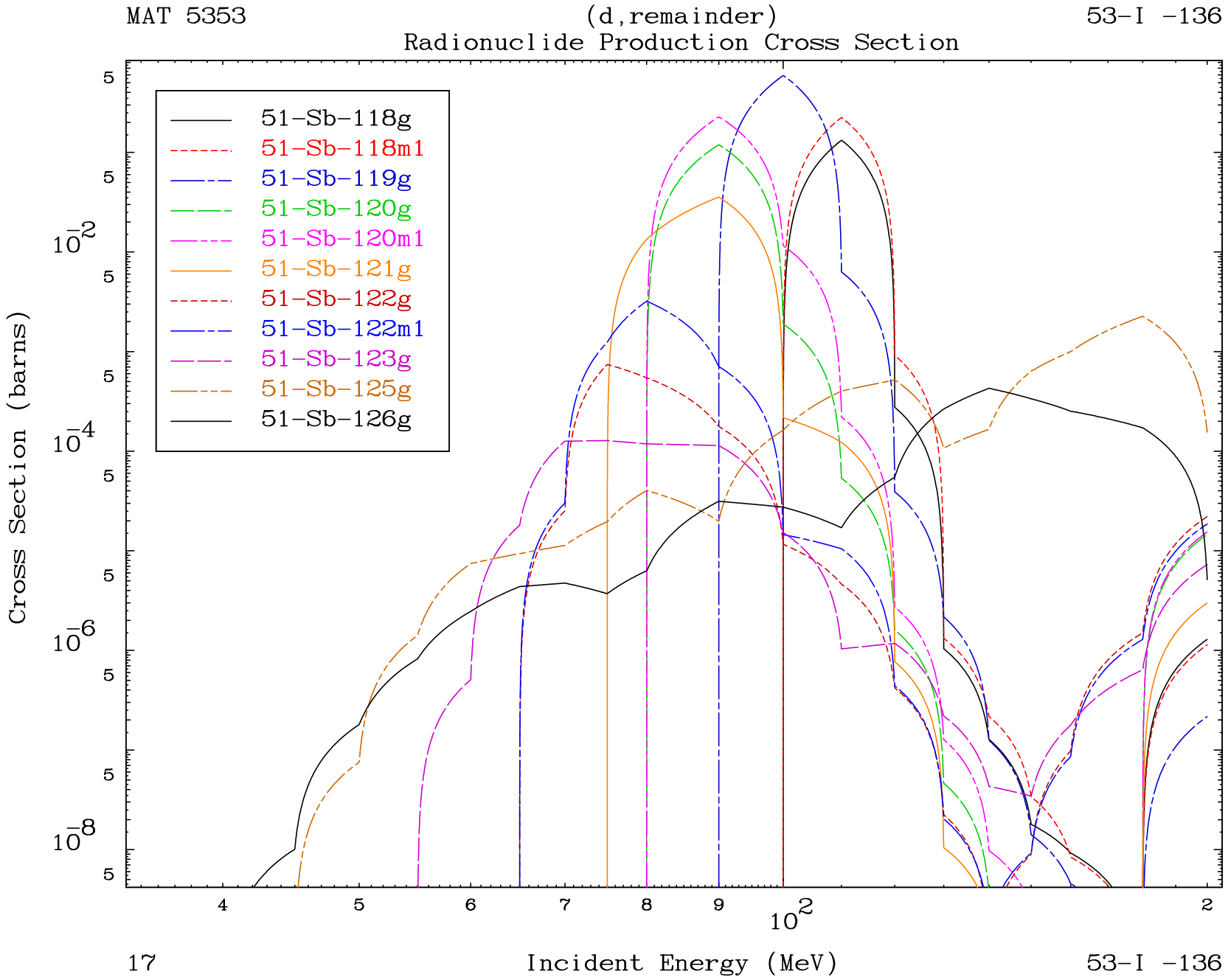
53-I -136

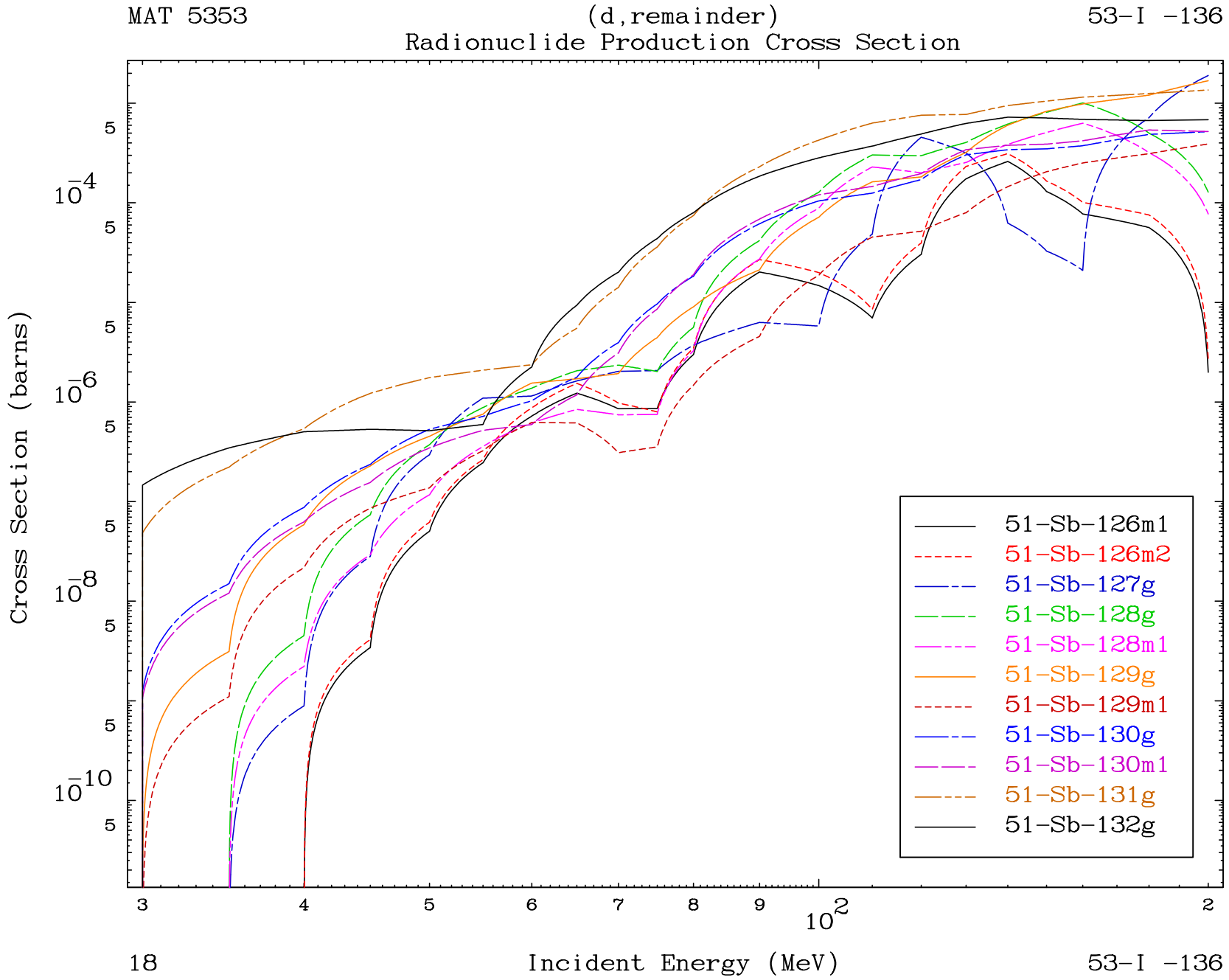

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
5
80
100
120
140
160
180
200
Incident Energy (MeV)
48-Cd-115g
48-Cd-115m1
49-In-113g
49-In-113m1
49-In-114g
49-In-114m1
49-In-115g
49-In-115m1
49-In-116g
49-In-116m1
49-In-116m2

53-I -136

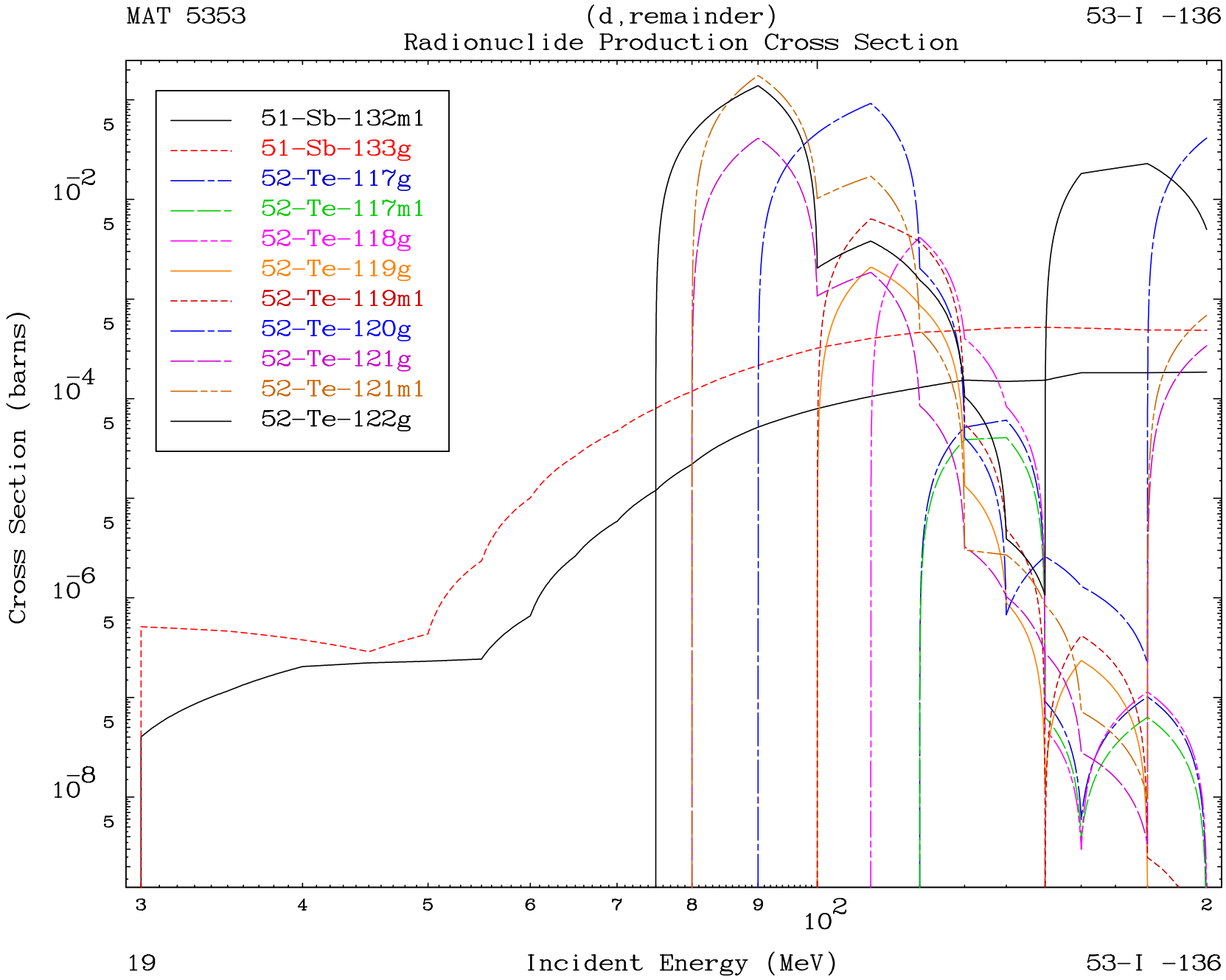

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
5
80
100
120
140
160
180
200
Incident Energy (MeV)
15
53-I -136
49-In-117g
49-In-117m1
49-In-118g
49-In-118m1
49-In-118m2
50-Sn-114g
50-Sn-115g
50-Sn-116g
50-Sn-117g
50-Sn-117m1
50-Sn-118g

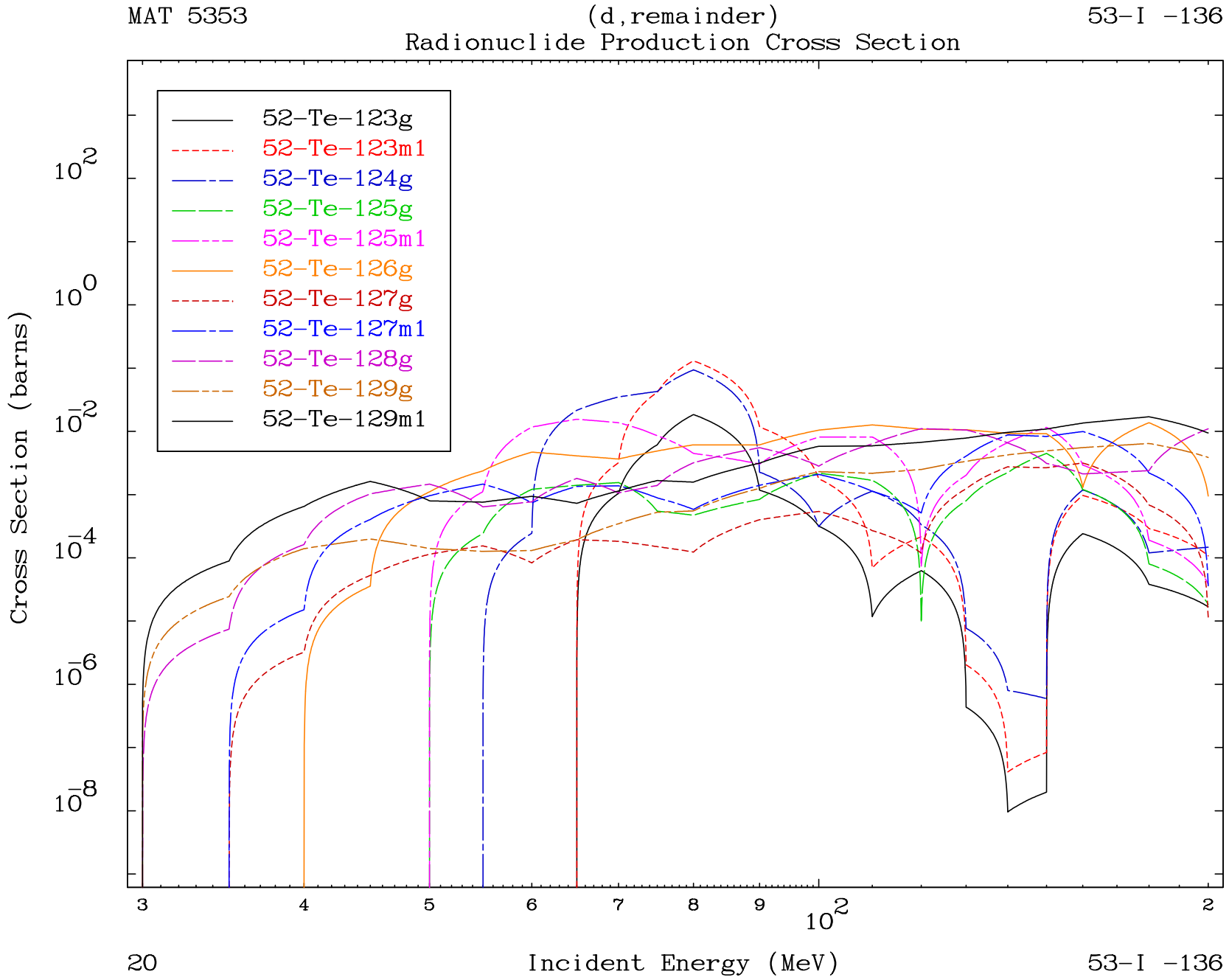

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
50-Sn-119g
50-Sn-119m1
50-Sn-120g
50-Sn-121g
50-Sn-121m1
50-Sn-130g
50-Sn-130m1
51-Sb-115g
51-Sb-116g
51-Sb-116m1
51-Sb-117g
Cross Section (barns)
10-2
10-4
10-6
10-8
3
4
5
6
7
8
9
10 2
2
16
Incident Energy (MeV)
53-I -136

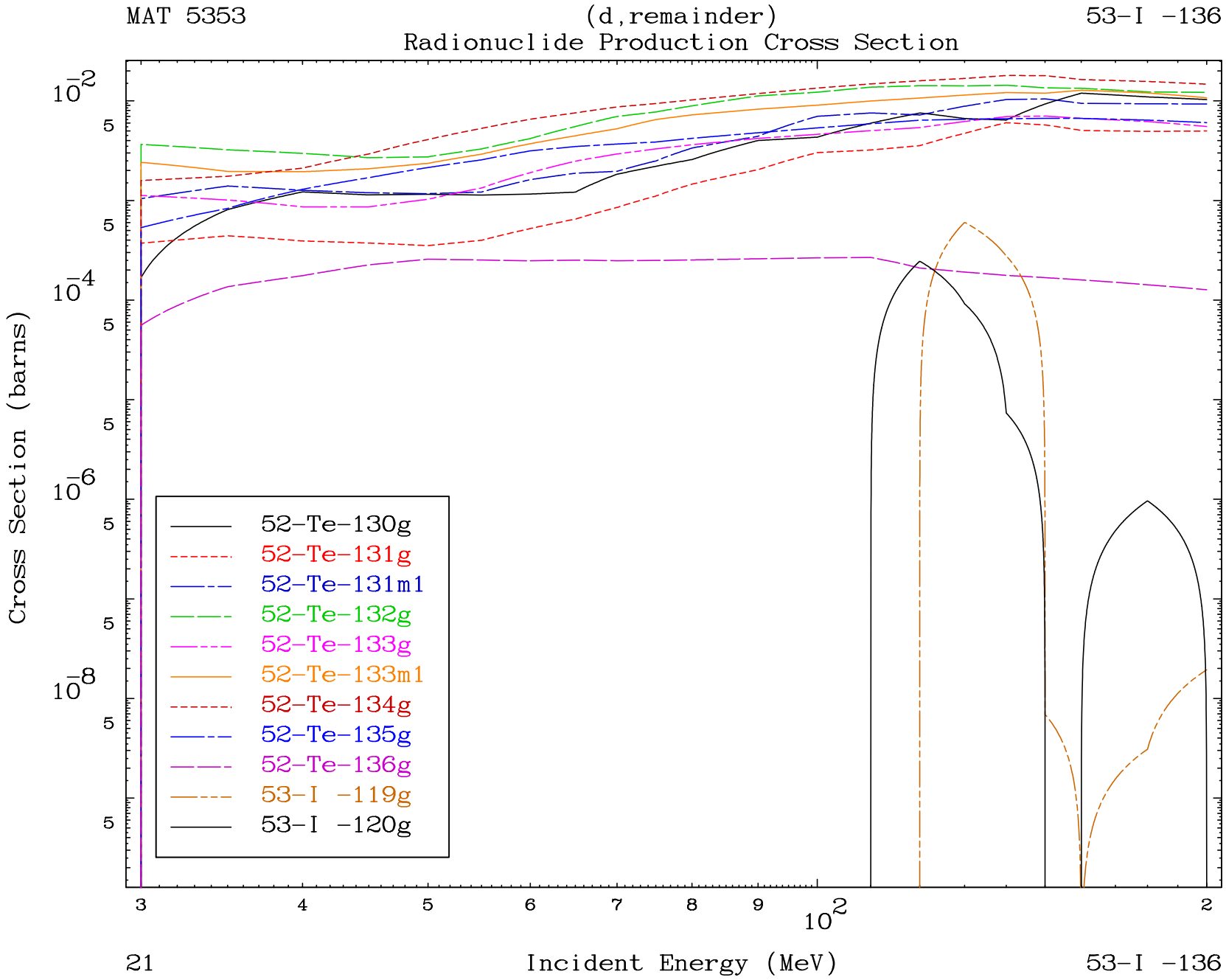

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
51-Sb-118g
51-Sb-118m1
51-Sb-119g
51-Sb-120g
51-Sb-120m1
51-Sb-121g
51-Sb-122g
51-Sb-122m1
51-Sb-123g
51-Sb-125g
51-Sb-126g
Cross Section (barns)
10-2
10-4
10-6
10-8
4
5
6
7
8
9
10 2
2
17
Incident Energy (MeV)
53-I -136

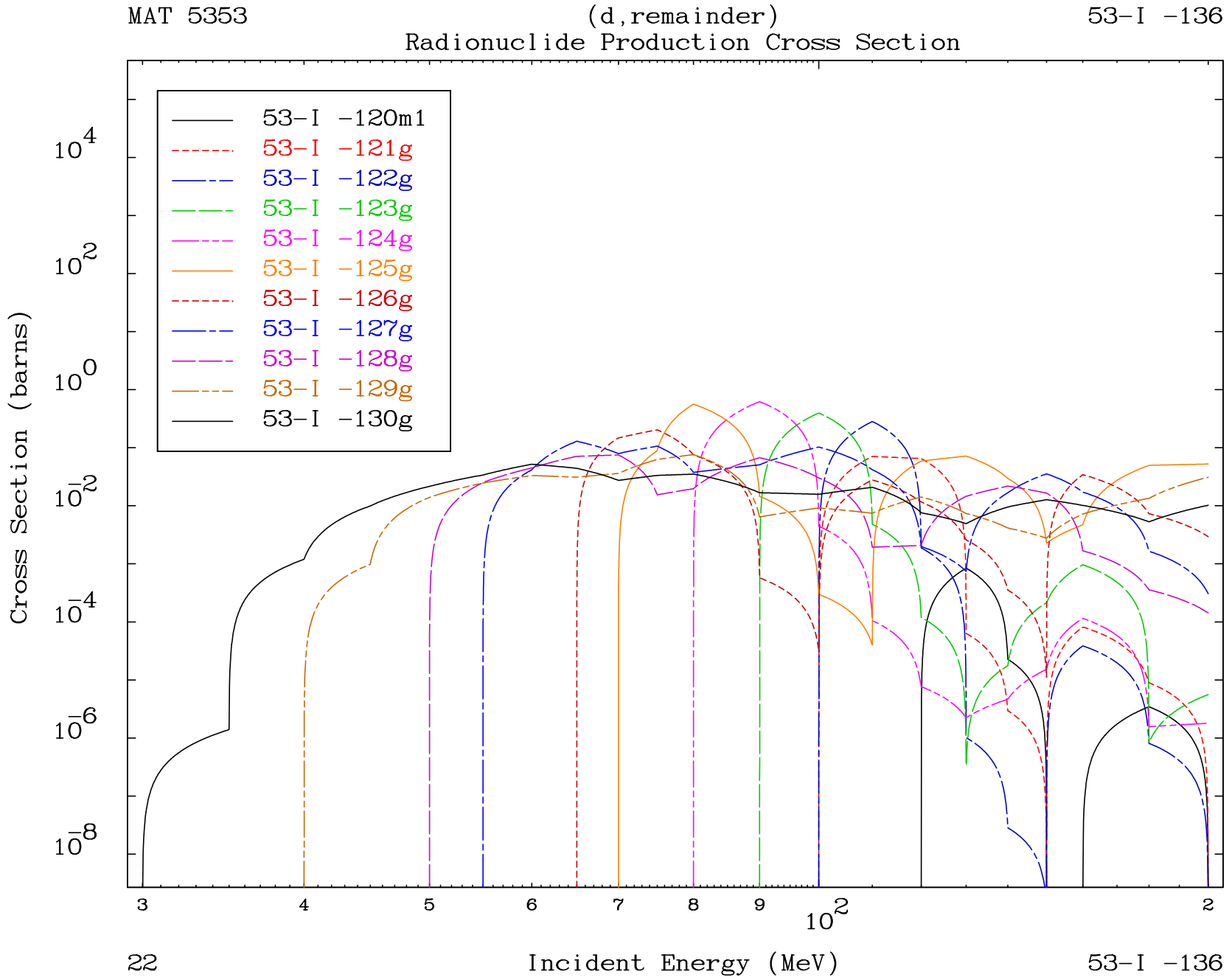

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10-4
10-6
10-8
10-10
5
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
51-Sb-126m1
51-Sb-126m2
51-Sb-127g
51-Sb-128g
51-Sb-128m1
51-Sb-129g
51-Sb-129m1
51-Sb-130g
51-Sb-130m1
51-Sb-131g
51-Sb-132g

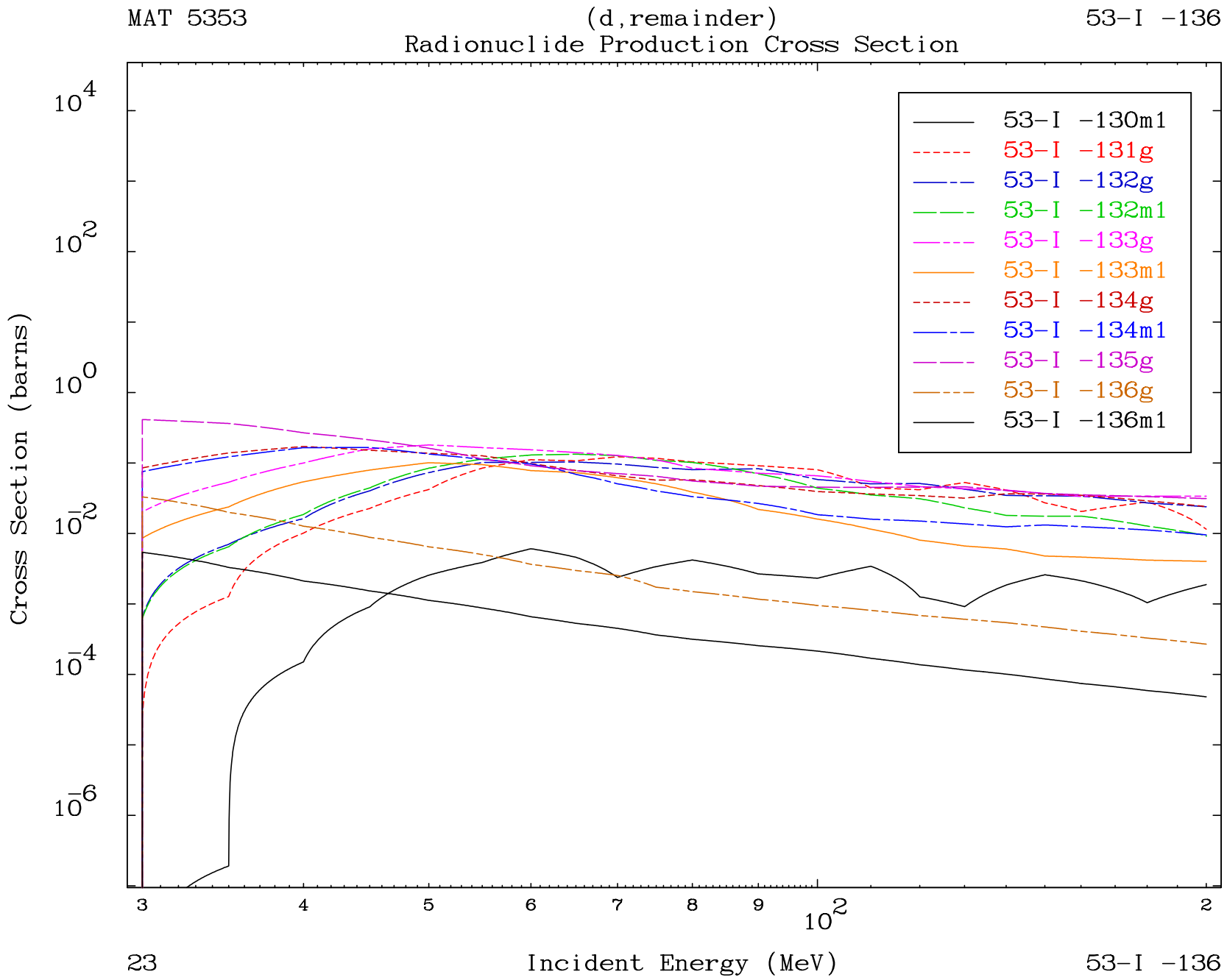
53-I -136

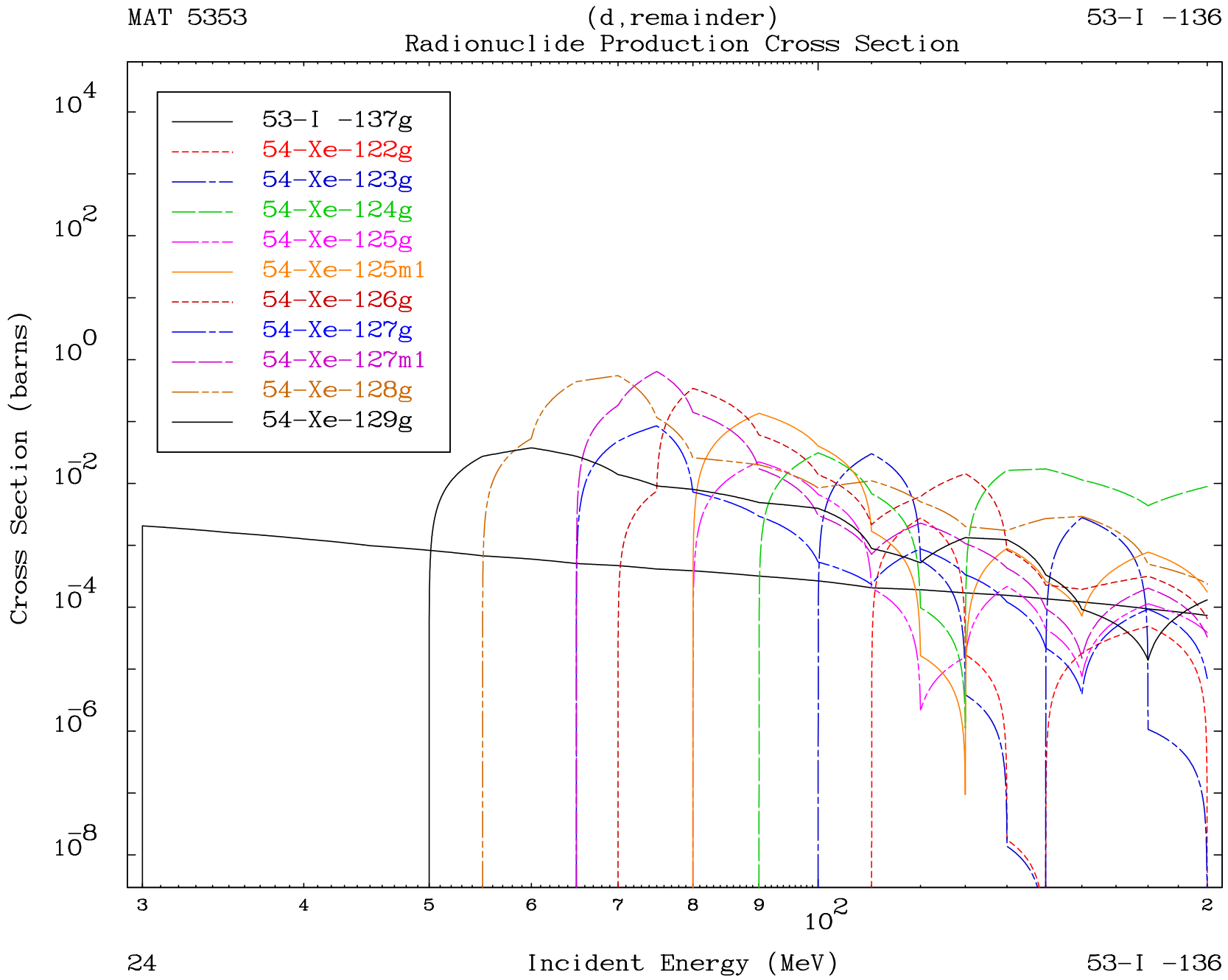

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
51-Sb-132m1
51-Sb-133g
52-Te-117g
52-Te-117m1
52-Te-118g
52-Te-119g
52-Te-119m1
52-Te-120g
52-Te-121g
52-Te-121m1
52-Te-122g
Cross Section (barns)
10-2
10-4
10-6
10-8
3
4
5
6
7
8
9
10 2
2
19
Incident Energy (MeV)
53-I -136

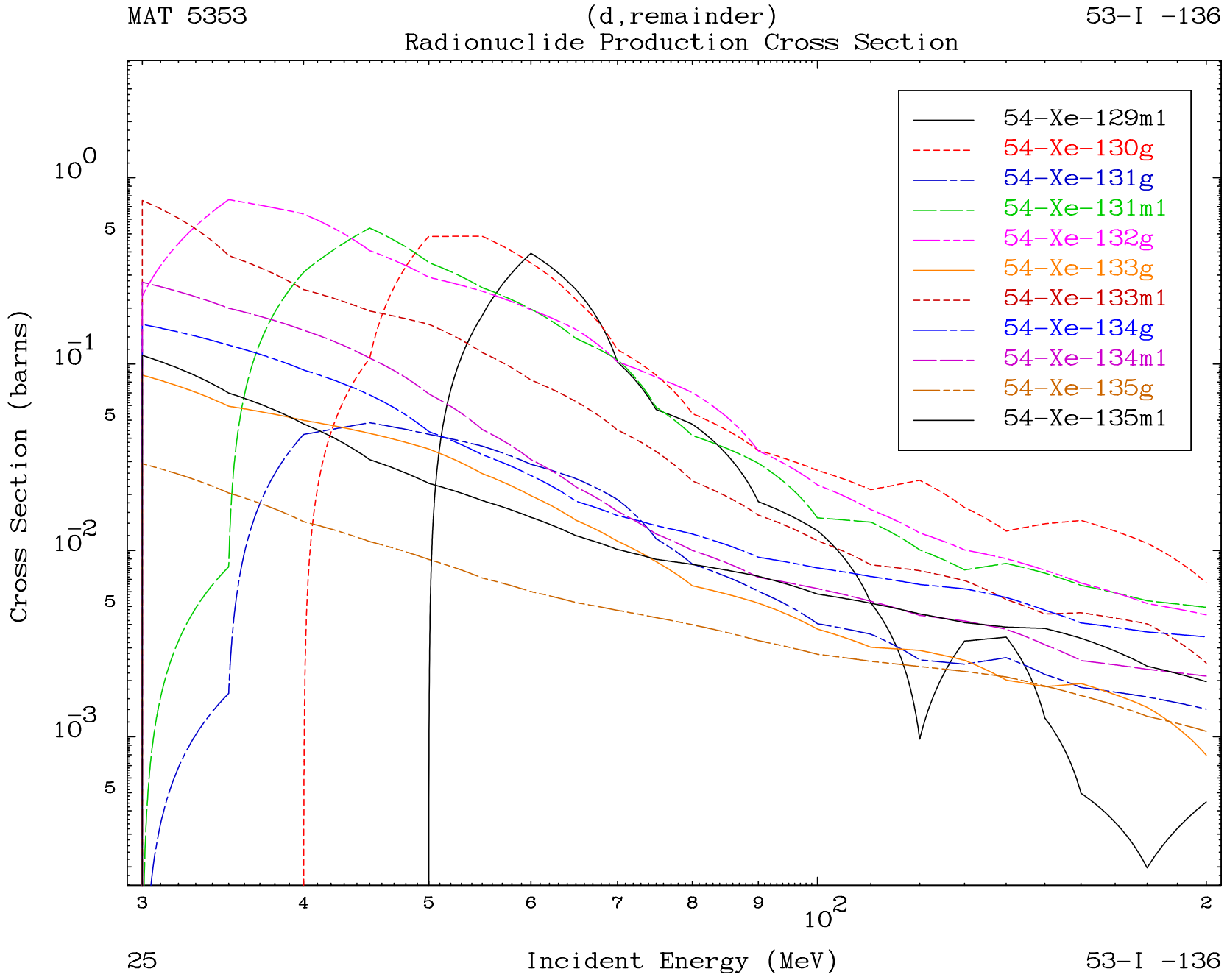

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
52-Te-123g
52-Te-123m1
52-Te-124g
52-Te-125g
52-Te-125m1
52-Te-126g
52-Te-127g
52-Te-127m1
52-Te-128g
52-Te-129g
52-Te-129m1
Cross Section (barns)
10^2
10^0
10^-2
10^-4
10^-6
10^-8
3
4
5
6
7
8
9
10^2
2
20
Incident Energy (MeV)
53-I -136

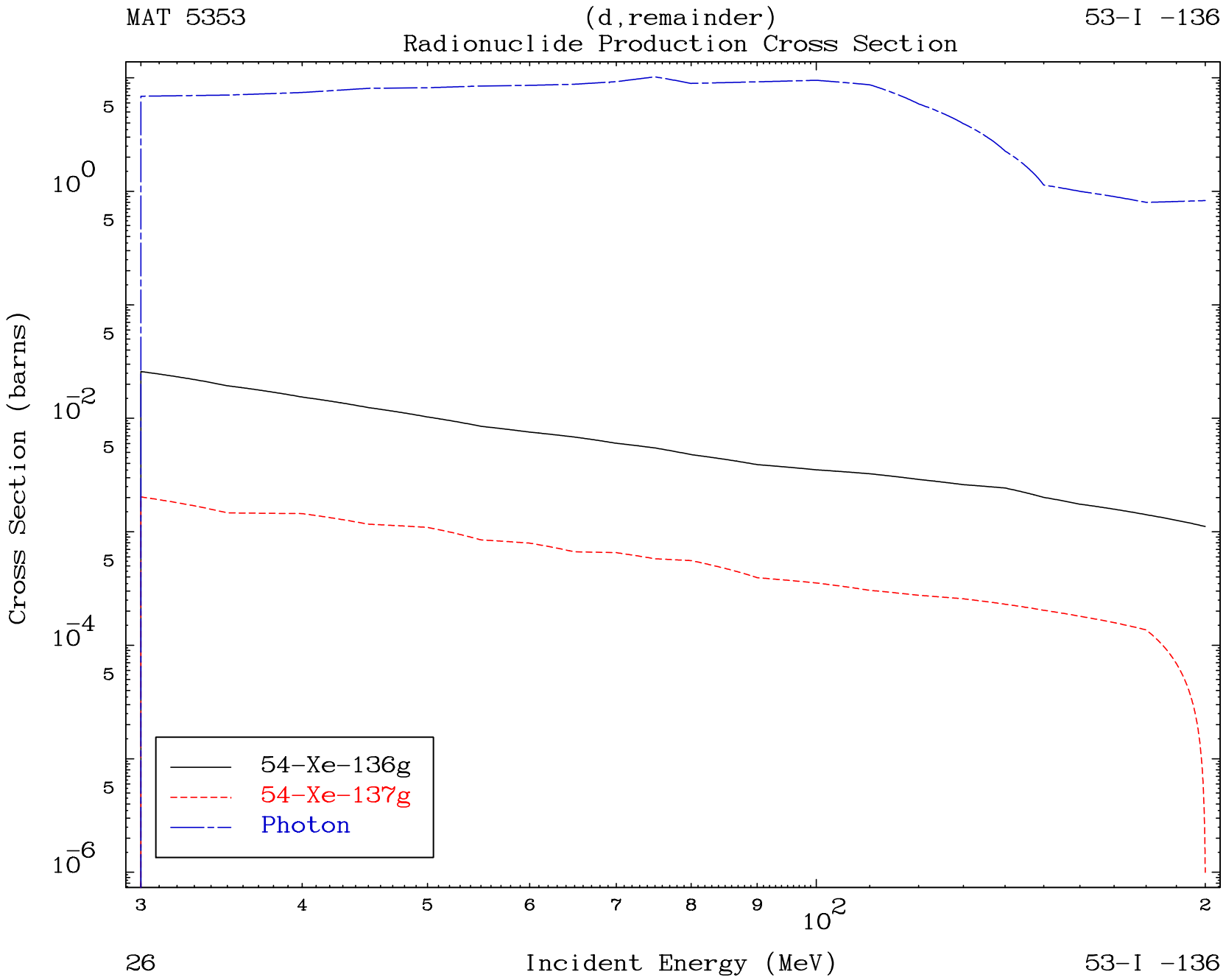

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10-2
10-4
10-6
10-8
52-Te-130g
52-Te-131g
52-Te-131m1
52-Te-132g
52-Te-133g
52-Te-133m1
52-Te-134g
52-Te-135g
52-Te-136g
53-I -119g
53-I -120g
3
4
5
6
7
8
9
10 2
2
21
Incident Energy (MeV)
53-I -136

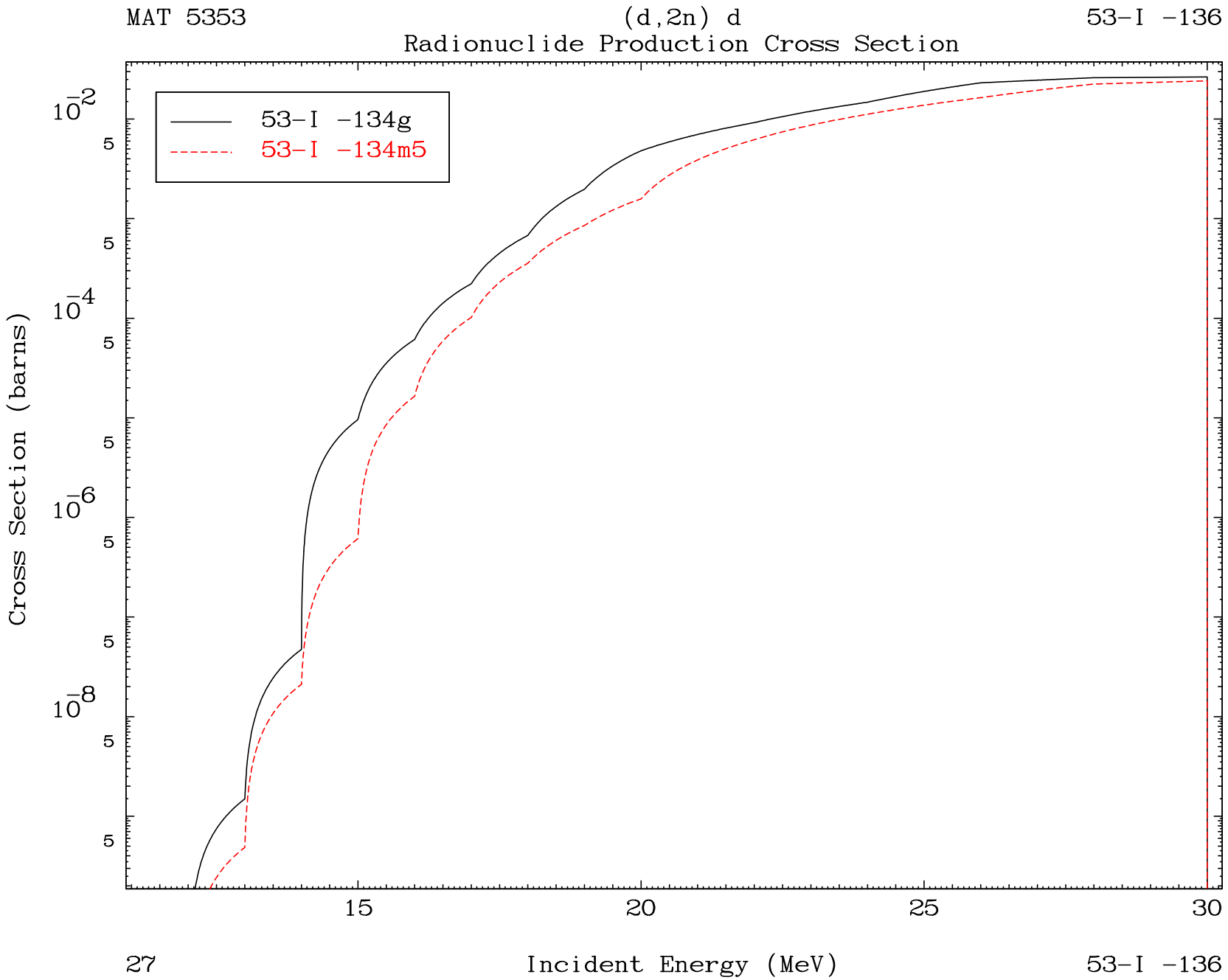

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
53-I -120m1
53-I -121g
53-I -122g
53-I -123g
53-I -124g
53-I -125g
53-I -126g
53-I -127g
53-I -128g
53-I -129g
53-I -130g
Cross Section (barns)
10^4
10^2
10^0
10^-2
10^-4
10^-6
10^-8
3
4
5
6
7
8
9
10^2
2
22
Incident Energy (MeV)
53-I -136

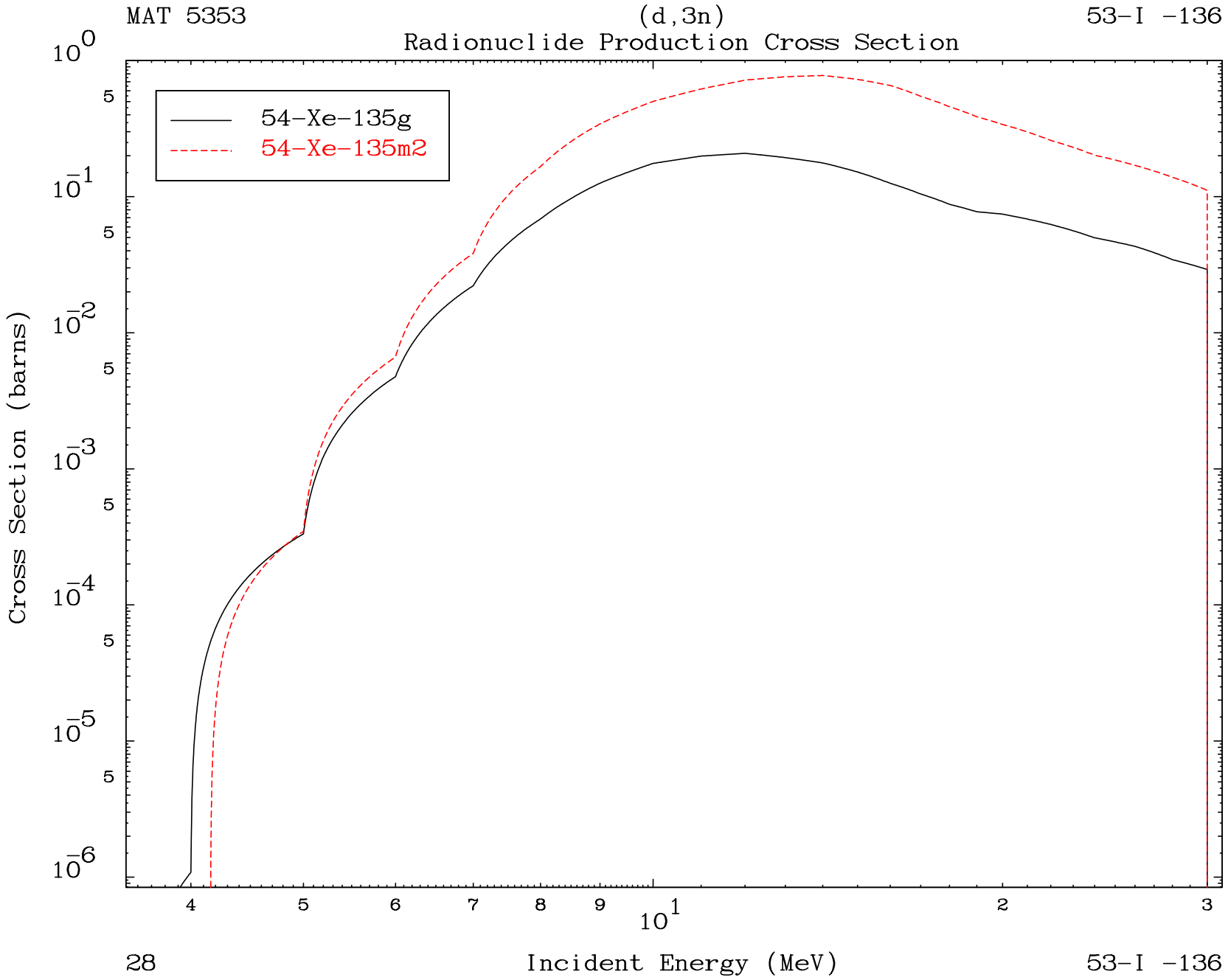

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10^4
10^2
10^0
10^-2
10^-4
10^-6
53-I -130m1
53-I -131g
53-I -132g
53-I -132m1
53-I -133g
53-I -133m1
53-I -134g
53-I -134m1
53-I -135g
53-I -136g
53-I -136m1
3
4
5
6
7
8
9
10^2
2
23
Incident Energy (MeV)
53-I -136

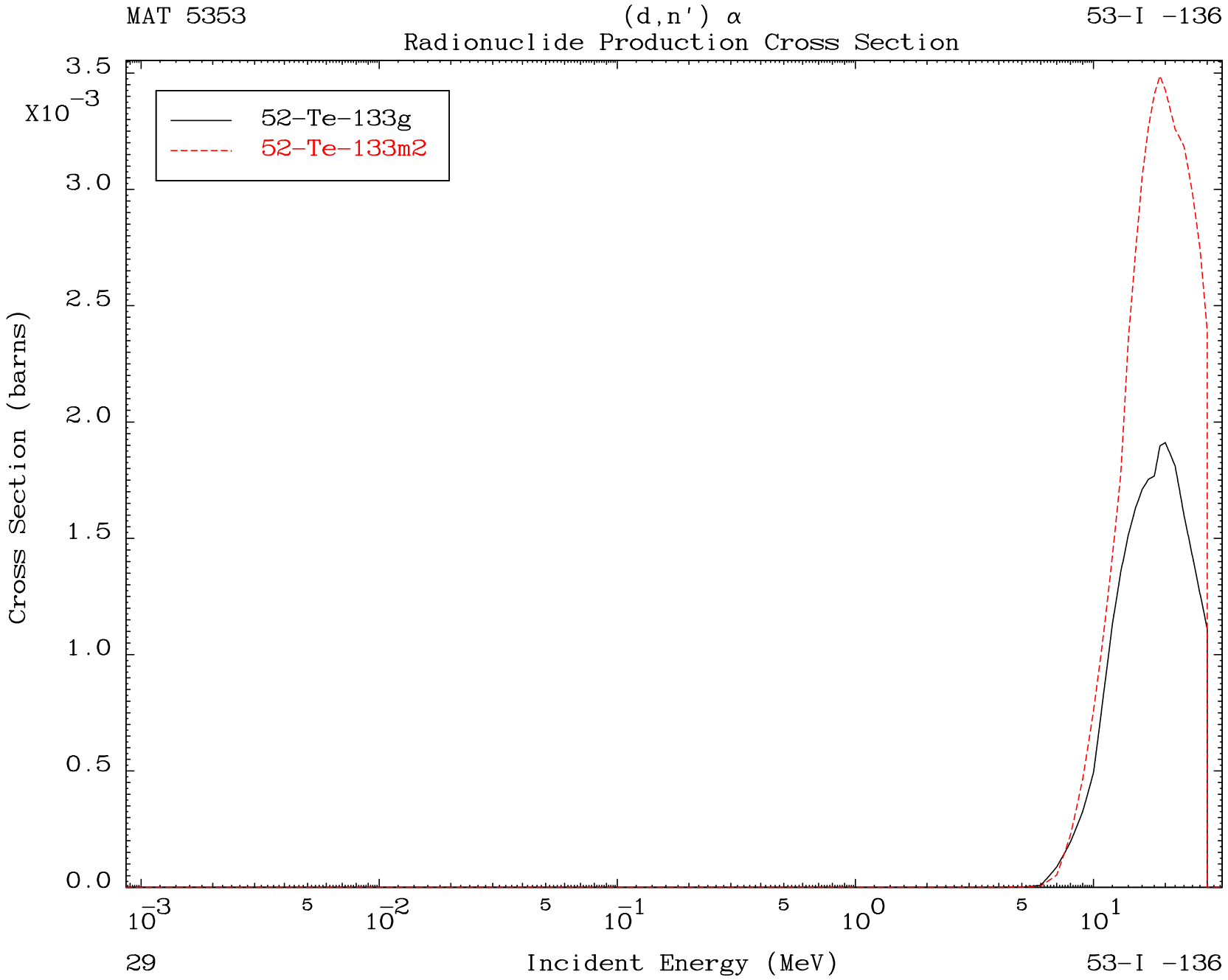

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
53-I -137g
54-Xe-122g
54-Xe-123g
54-Xe-124g
54-Xe-125g
54-Xe-125m1
54-Xe-126g
54-Xe-127g
54-Xe-127m1
54-Xe-128g
54-Xe-129g
Cross Section (barns)
10^4
10^2
10^0
10^-2
10^-4
10^-6
10^-8
3
4
5
6
7
8
9
10^2
2
24
Incident Energy (MeV)
53-I -136

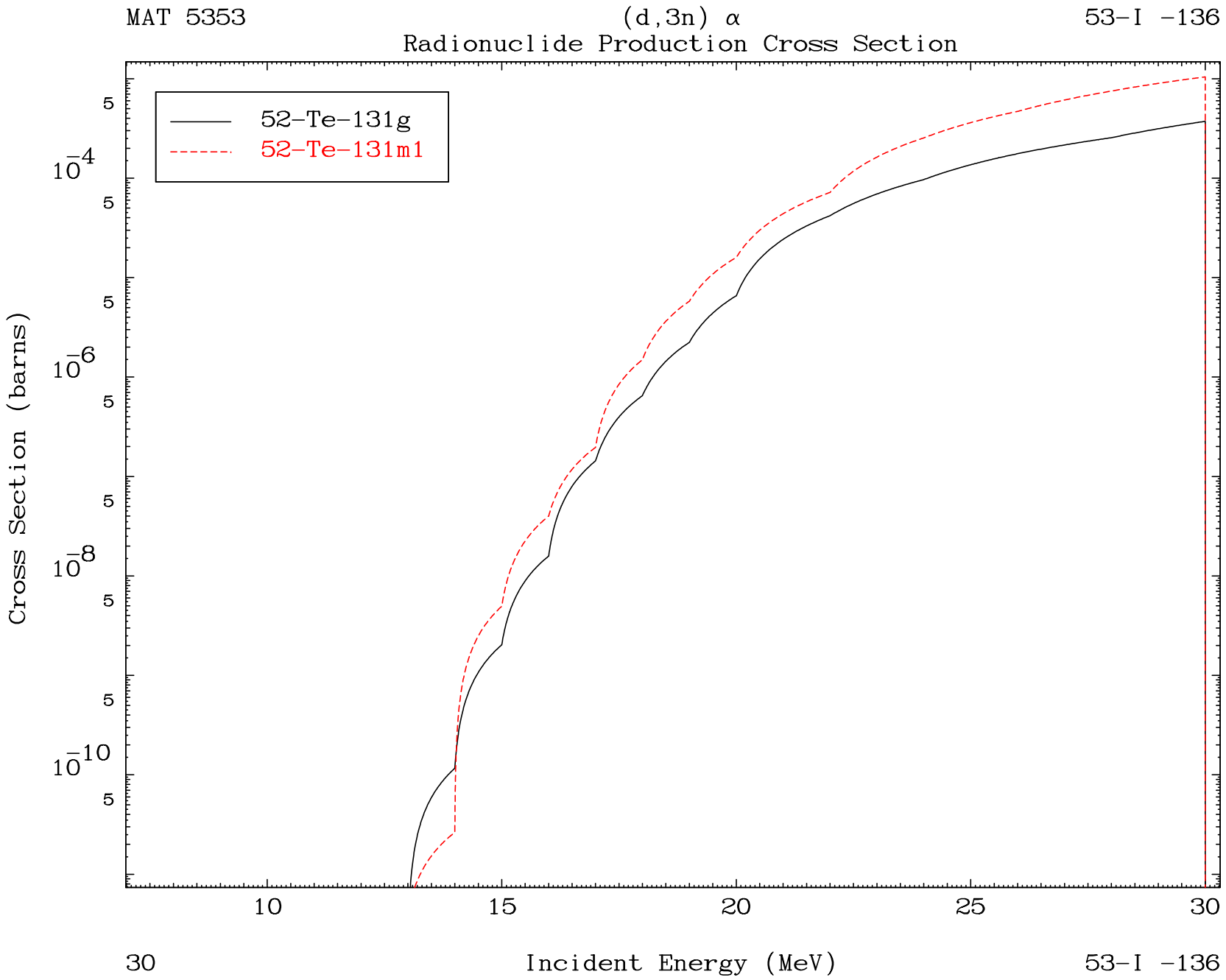

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
54-Xe-129m1
54-Xe-130g
54-Xe-131g
54-Xe-131m1
54-Xe-132g
54-Xe-133g
54-Xe-133m1
54-Xe-134g
54-Xe-134m1
54-Xe-135g
54-Xe-135m1
Cross Section (barns)
10^0
5
10^-1
5
10^-2
5
10^-3
5
3
4
5
6
7
8
9
10^2
2
25
Incident Energy (MeV)
53-I -136

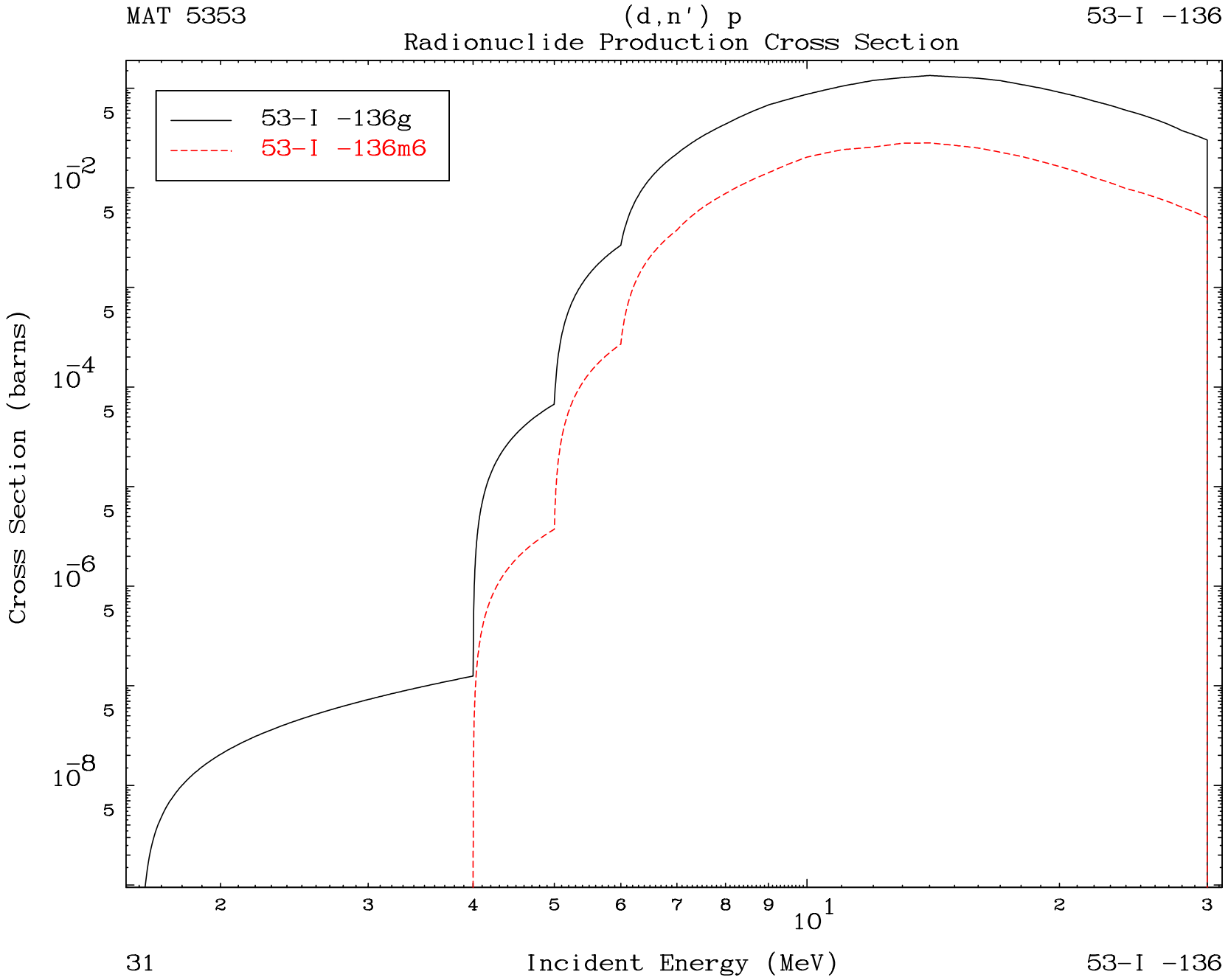

MAT 5353
(d,remainder)
53-I -136
Radionuclide Production Cross Section
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
5
3
4
5
6
7
8
9
10^2
2
54-Xe-136g
54-Xe-137g
Photon
26
Incident Energy (MeV)
53-I -136

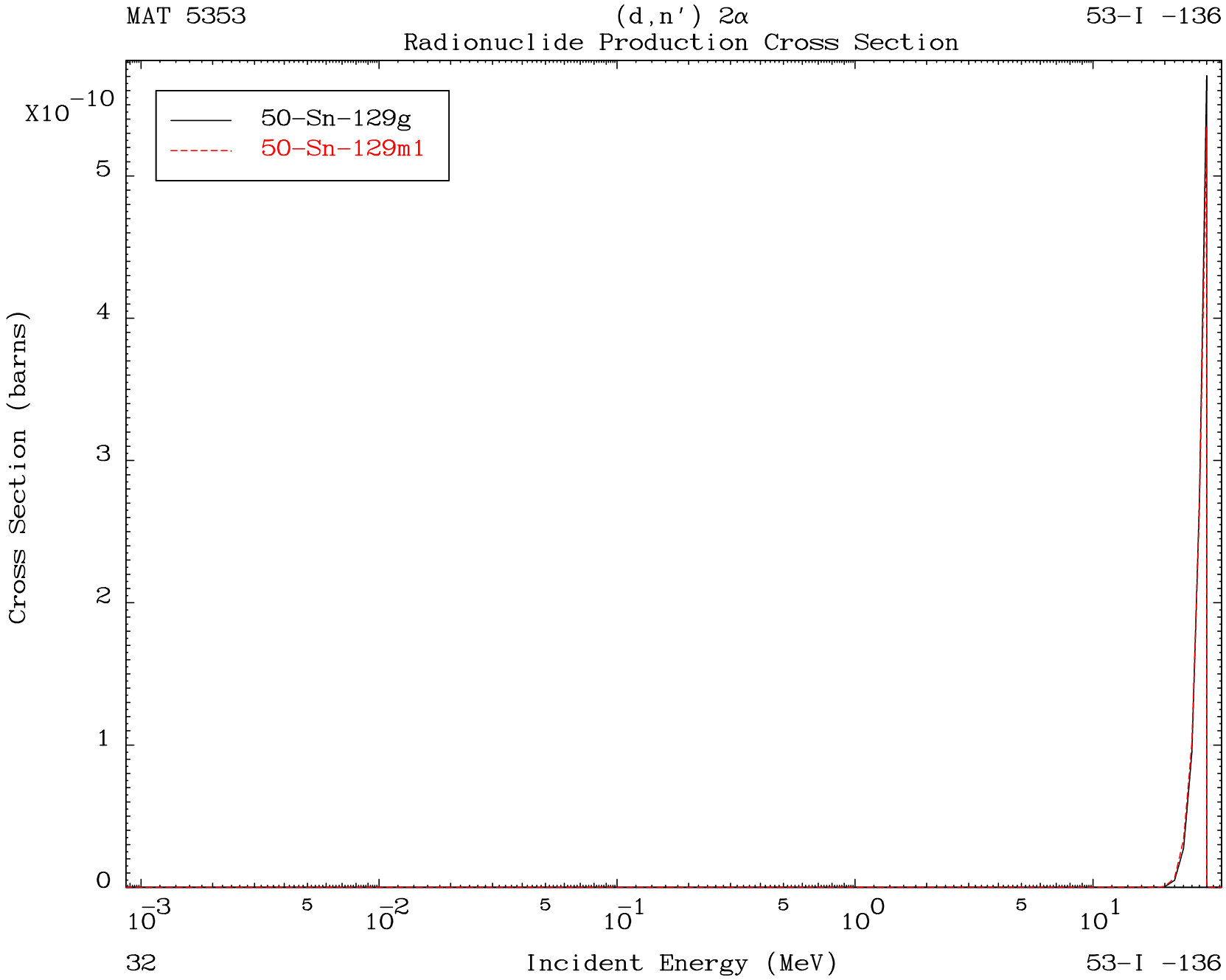

MAT 5353
(d,2n) d
53-I -136
Radionuclide Production Cross Section
53-I -134g
53-I -134m5
Cross Section (barns)
10-2
10-4
10-6
10-8
5
15
20
25
30
27
Incident Energy (MeV)
53-I -136

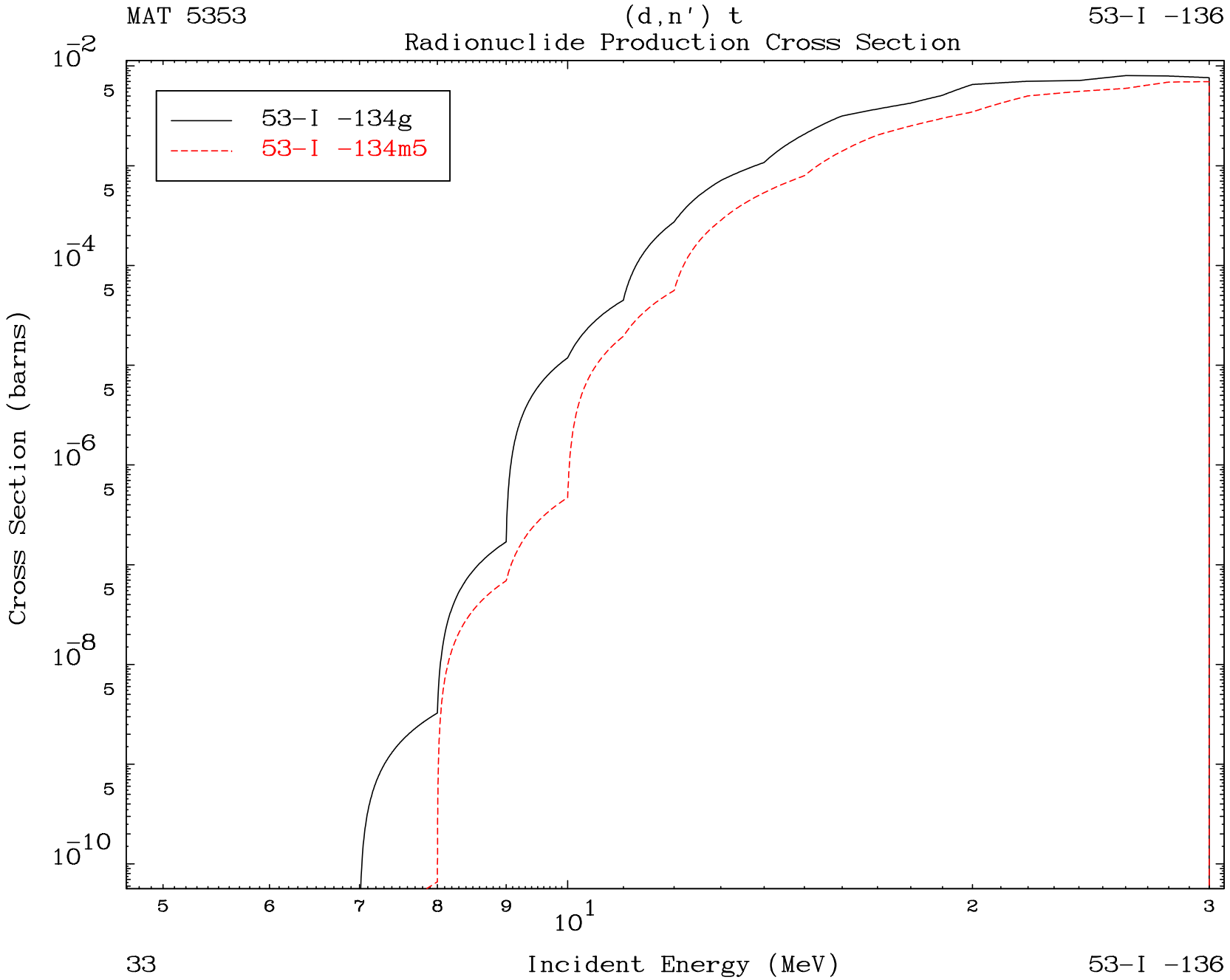

MAT 5353
(d,3n)
53-I -136
Radionuclide Production Cross Section
54-Xe-135g
54-Xe-135m2
Cross Section (barns)
Incident Energy (MeV)
28
53-I -136

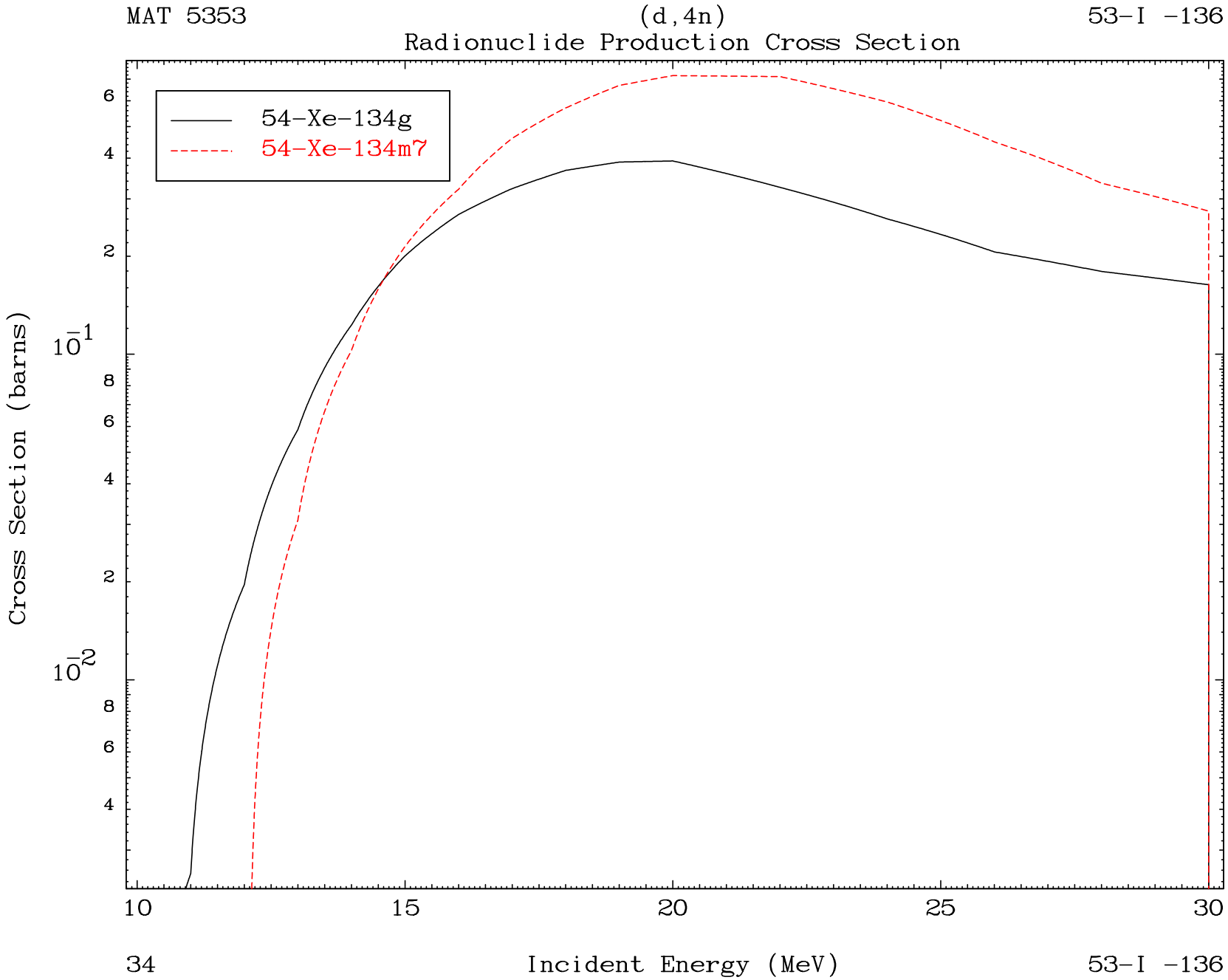

MAT 5353
(d,n') α
53-I -136
Radionuclide Production Cross Section
3.5
X10-3
3.0
2.5
2.0
1.5
1.0
0.5
0.0
52-Te-133g
52-Te-133m2
Cross Section (barns)
10-3
5
10-2
5
10-1
5
100
5
101
29
Incident Energy (MeV)
53-I -136

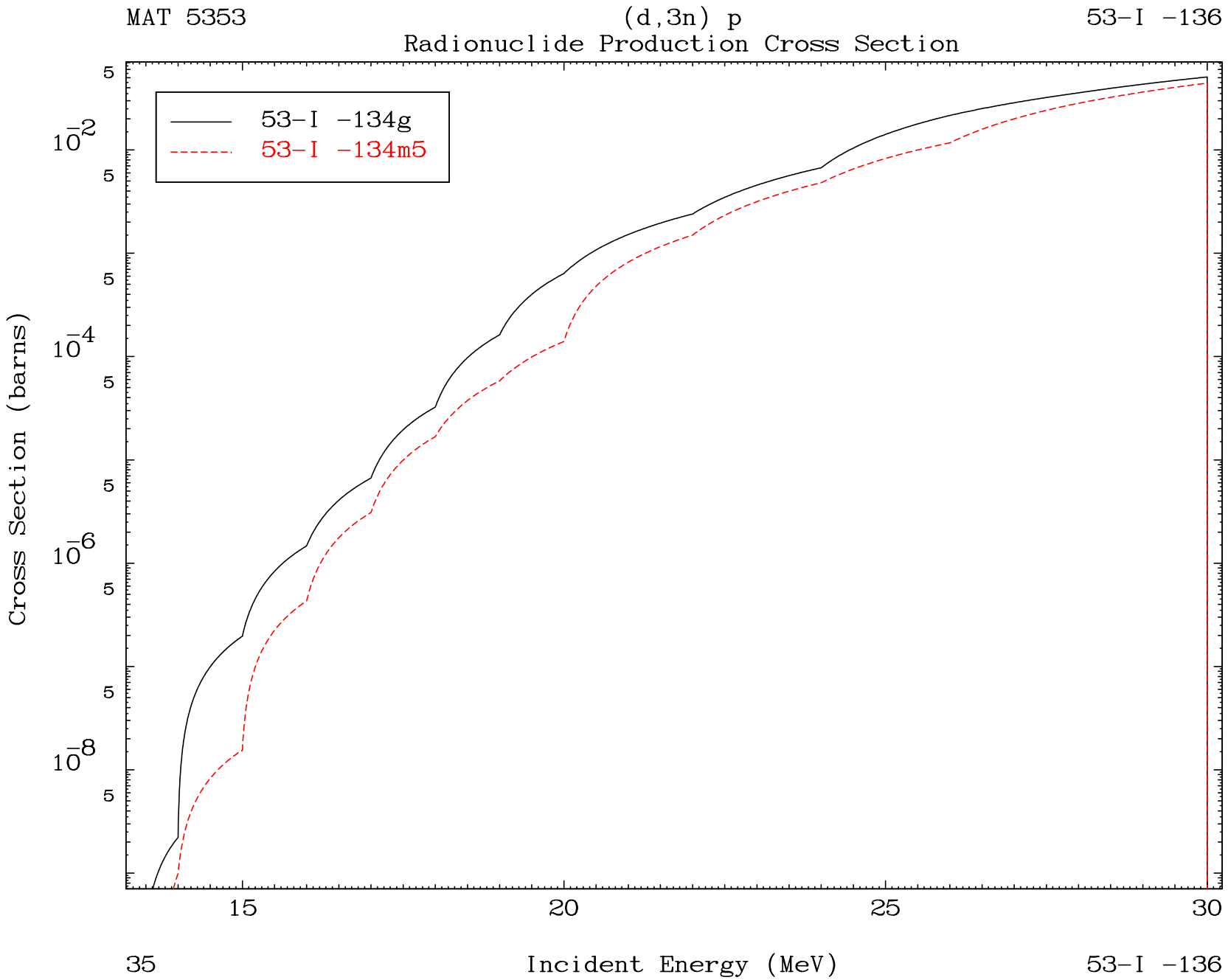

MAT 5353
(d,3n) α
53-I -136
Radionuclide Production Cross Section
52-Te-131g
52-Te-131m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10
15
20
25
30
Incident Energy (MeV)
53-I -136

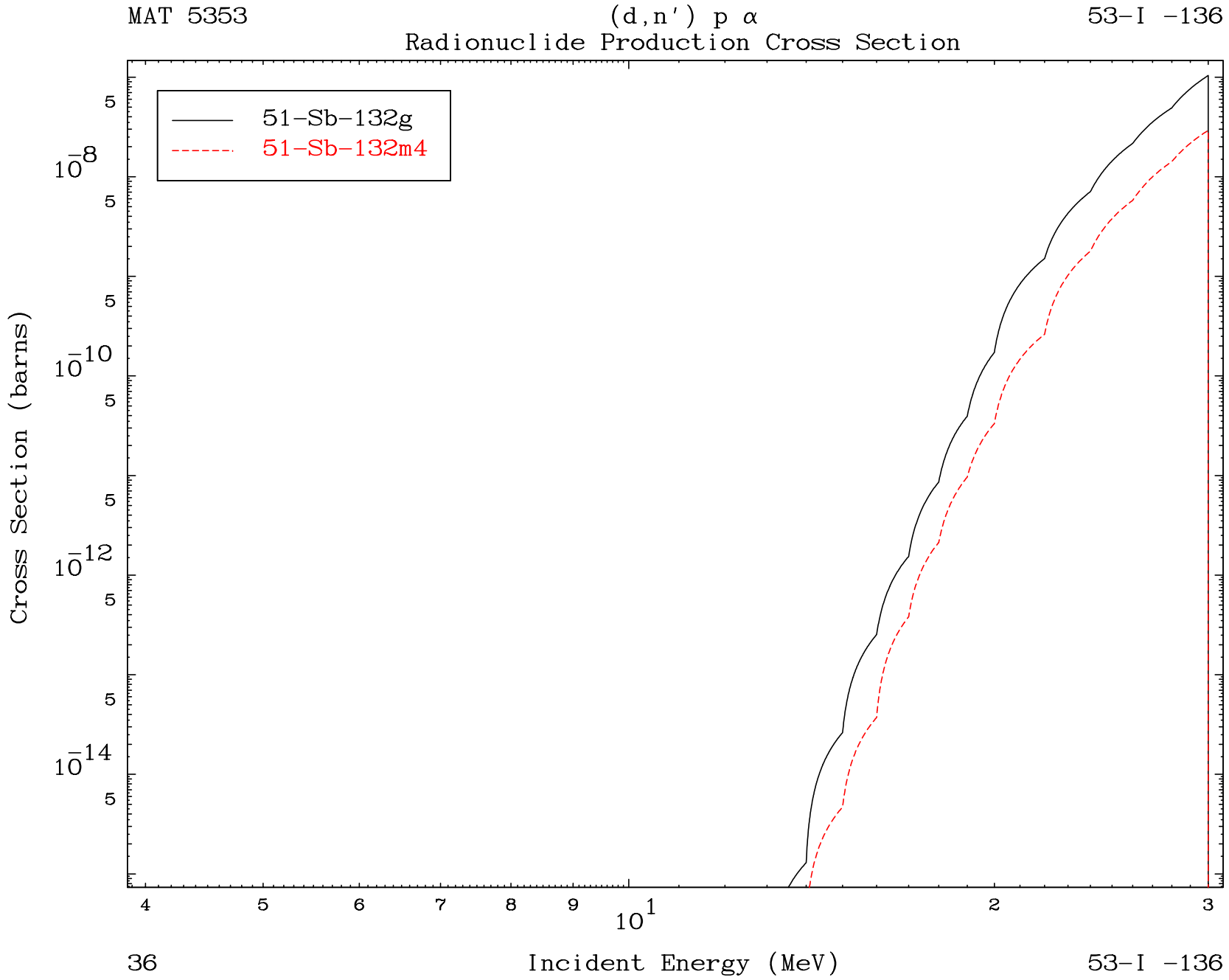

MAT 5353
(d,n') p
53-I -136
Radionuclide Production Cross Section
53-I -136g
53-I -136m6
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
3
4
5
6
7
8
9
101
2
3
31
Incident Energy (MeV)
53-I -136

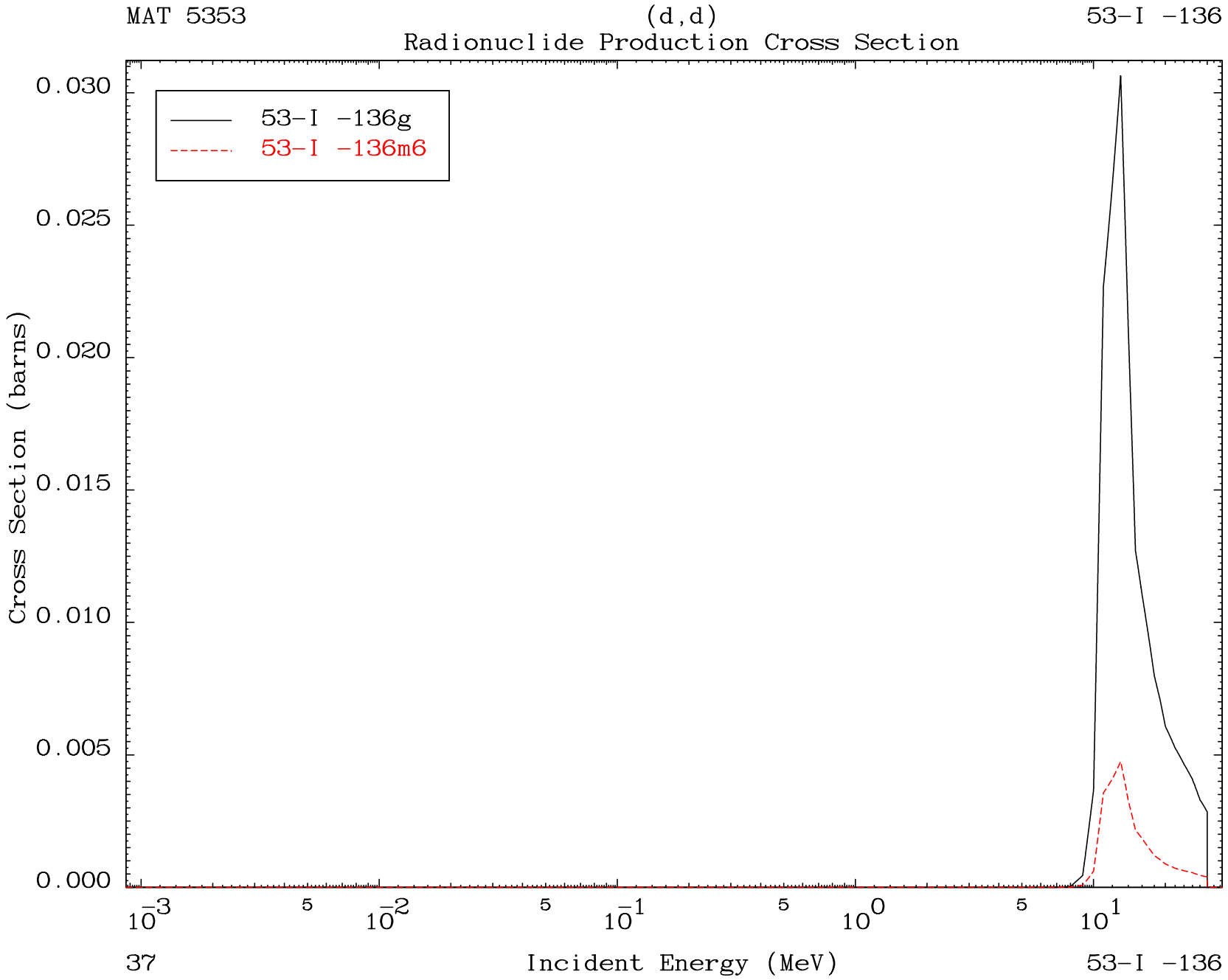

MAT 5353
(d,n') 2α
53-I -136
Radionuclide Production Cross Section
X10^-10
50-Sn-129g
50-Sn-129m1
Cross Section (barns)
0
1
2
3
4
5
10^-3
5
10^-2
5
10^-1
5
10^0
5
10^1
32
Incident Energy (MeV)
53-I -136

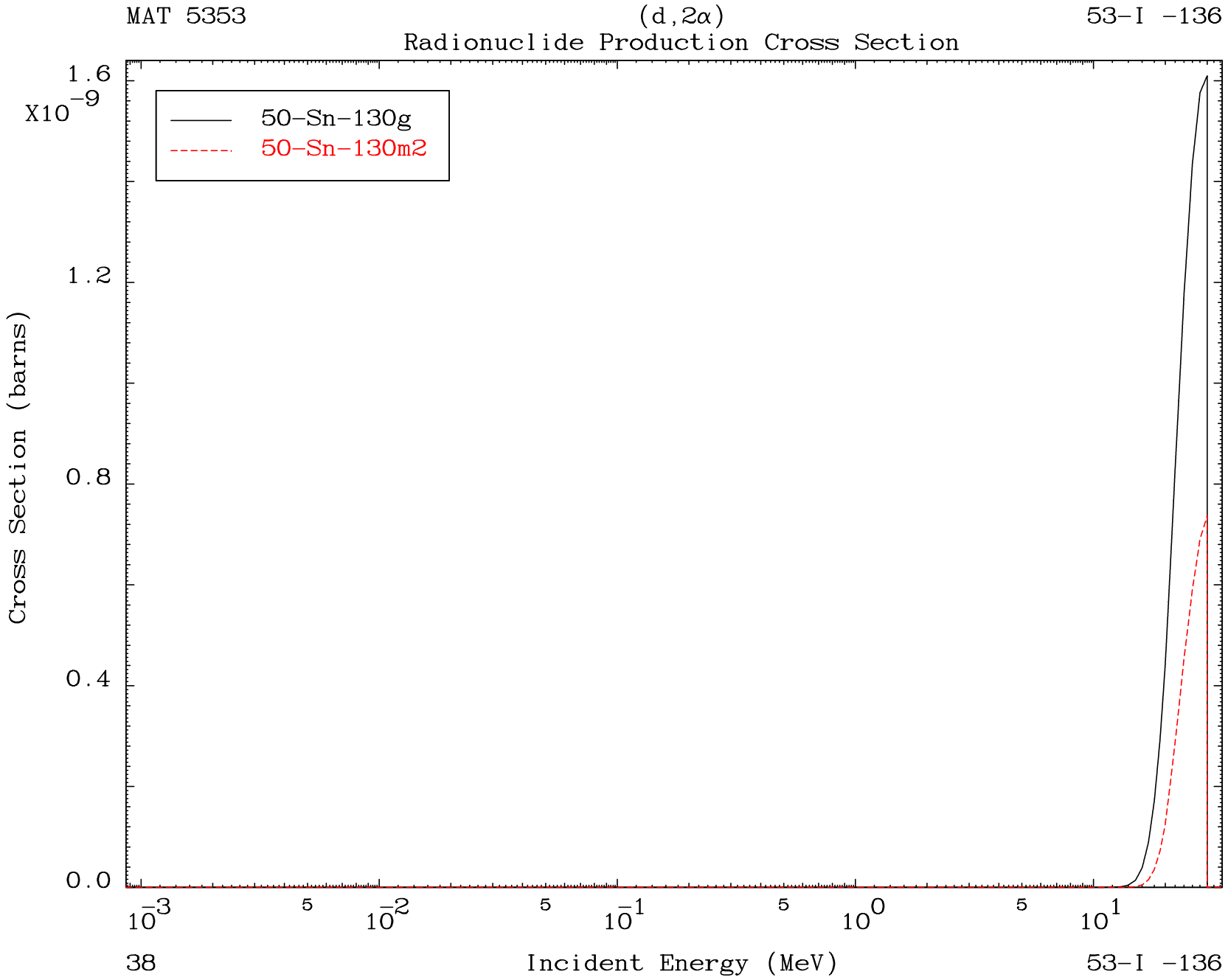

MAT 5353
(d,n') t
53-I -136
Radionuclide Production Cross Section
53-I -134g
53-I -134m5
Cross Section (barns)
Incident Energy (MeV)
33
53-I -136

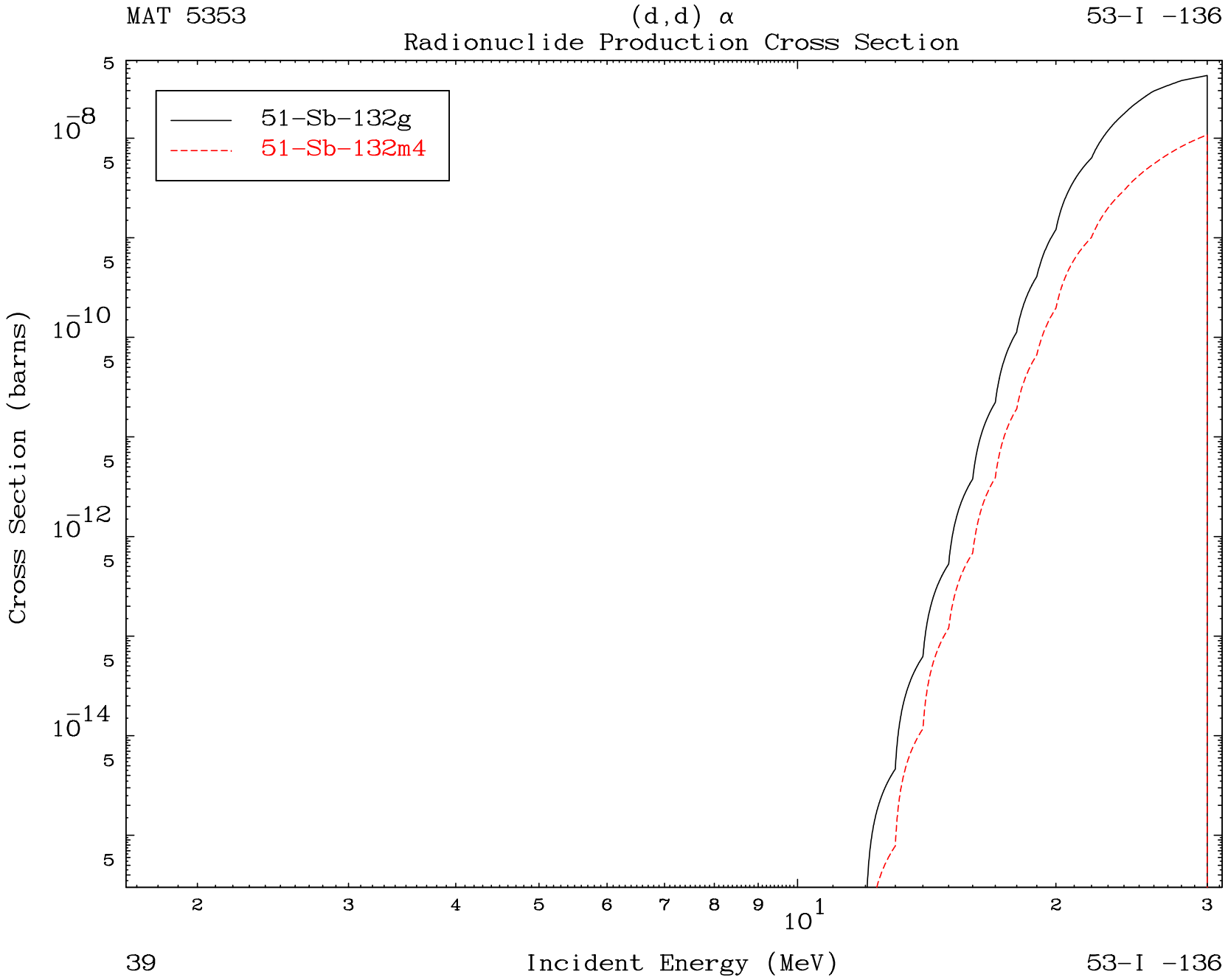

MAT 5353
(d,4n)
53-I -136
Radionuclide Production Cross Section
54-Xe-134g
54-Xe-134m7
Cross Section (barns)
10^-1
10^-2
6
4
2
8
6
4
2
8
6
4
10
15
20
25
30
34
Incident Energy (MeV)
53-I -136


MAT 5353
(d,3n) p
53-I -136
Radionuclide Production Cross Section
53-I -134g
53-I -134m5
Cross Section (barns)
10-2
10-4
10-6
10-8
15
20
25
30
35
Incident Energy (MeV)
53-I -136


MAT 5353
(d,n') p α
53-I -136
Radionuclide Production Cross Section
51-Sb-132g
51-Sb-132m4
Cross Section (barns)
10-8
10-10
10-12
10-14
5
4
6
7
8
9
101
2
3
36
Incident Energy (MeV)
53-I -136


MAT 5353
(d,d)
53-I -136
Radionuclide Production Cross Section
53-I -136g
53-I -136m6
Cross Section (barns)
0.030
0.025
0.020
0.015
0.010
0.005
0.000
10-3
5
10-2
5
10-1
5
100
5
101
37
Incident Energy (MeV)
53-I -136


MAT 5353
(d,2α)
53-I -136
Radionuclide Production Cross Section
1.6
X10 -9
1.2
0.8
0.4
0.0
50-Sn-130g
50-Sn-130m2
Cross Section (barns)
10-3
5
10-2
5
10-1
5
100
5
101
38
Incident Energy (MeV)
53-I -136


MAT 5353
(d,d) α
53-I -136
Radionuclide Production Cross Section
51-Sb-132g
51-Sb-132m4
Cross Section (barns)
Incident Energy (MeV)
39
53-I -136