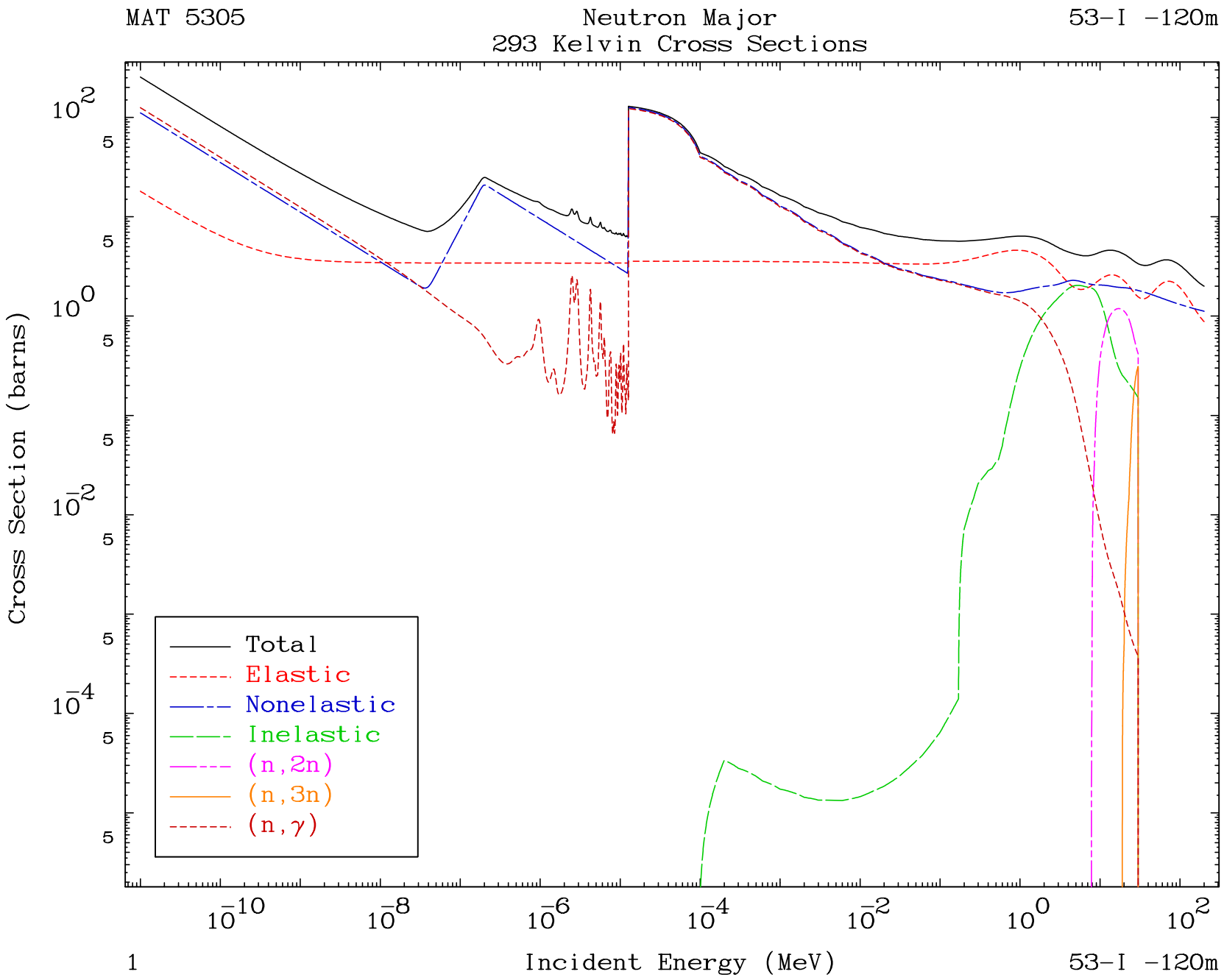
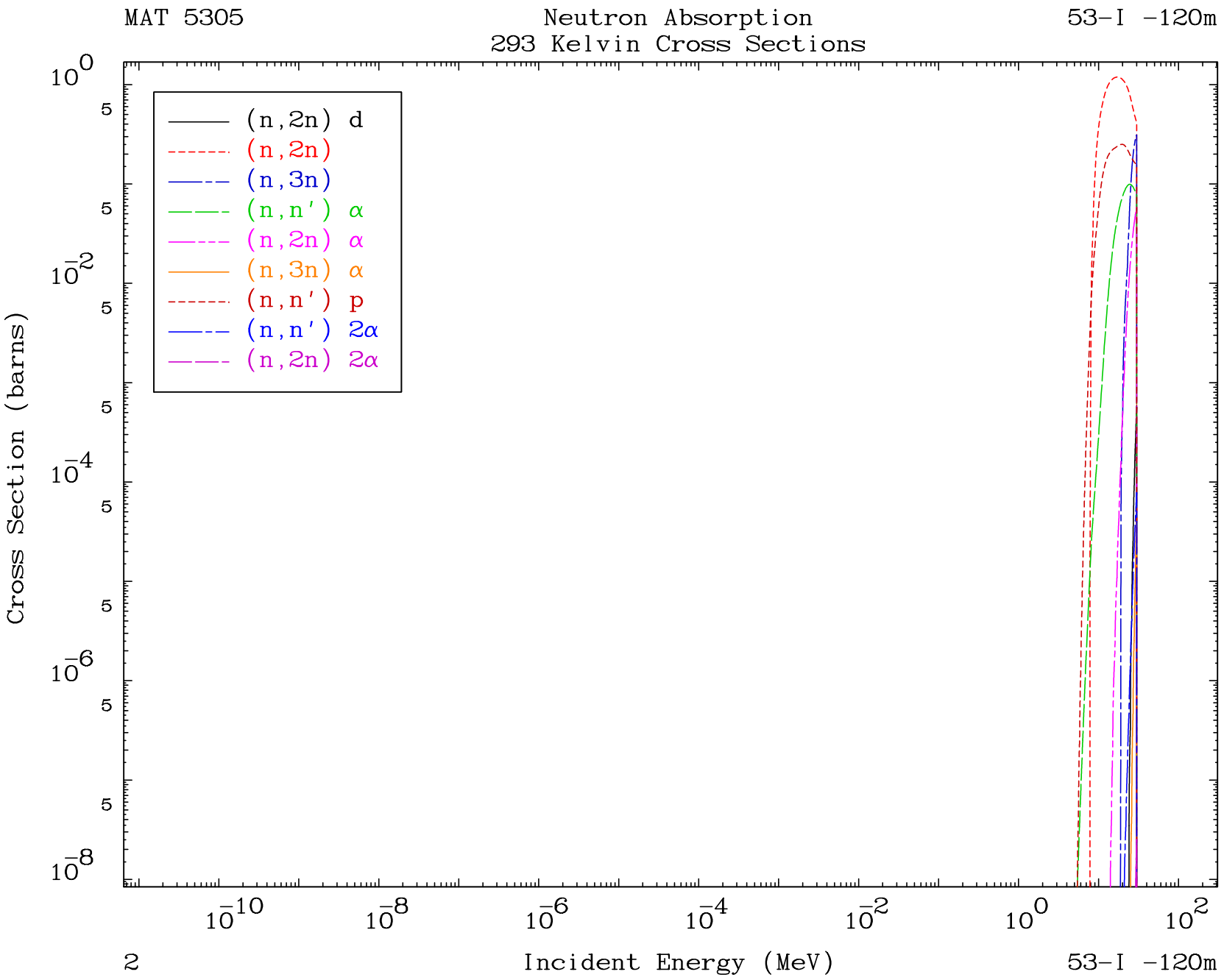
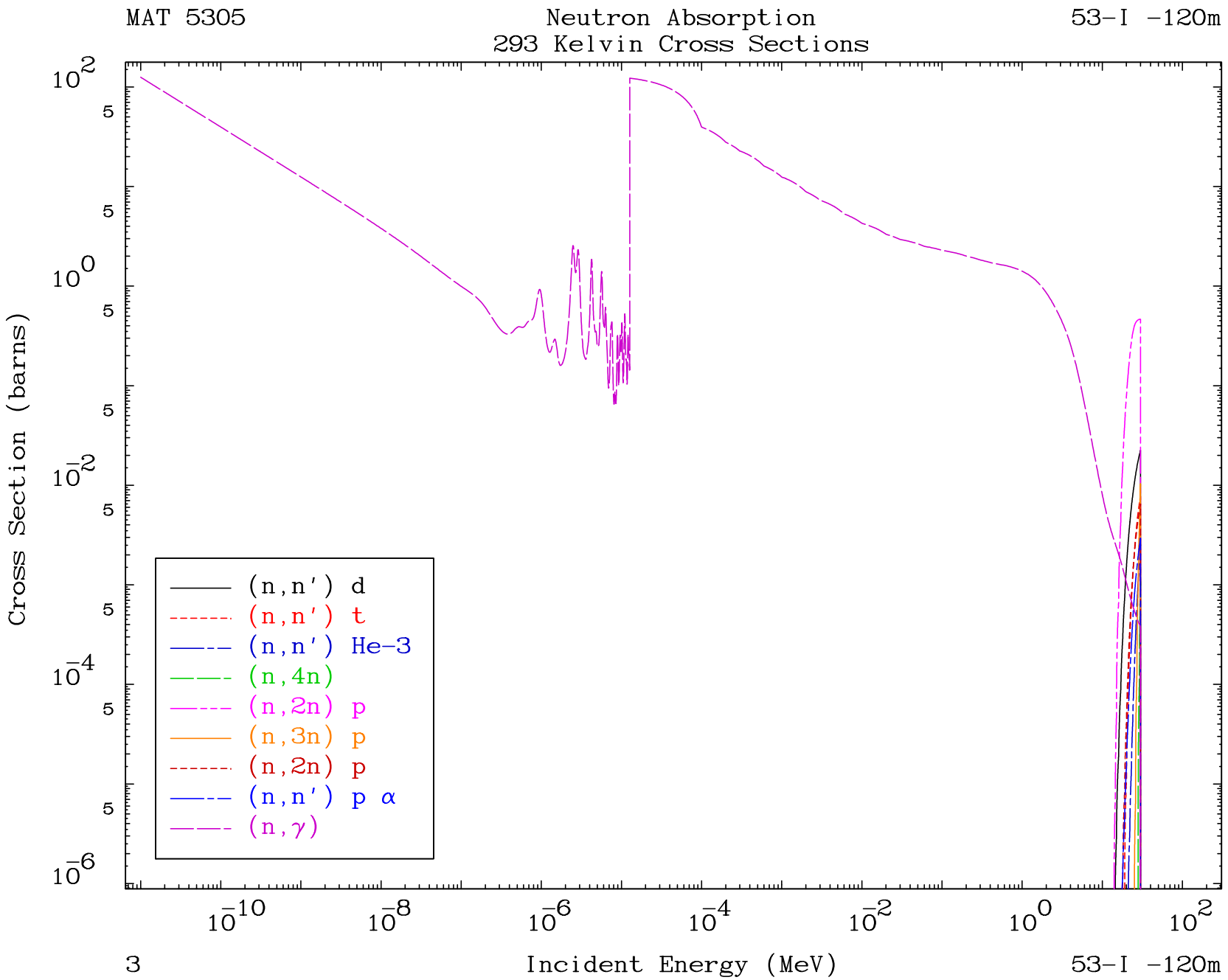
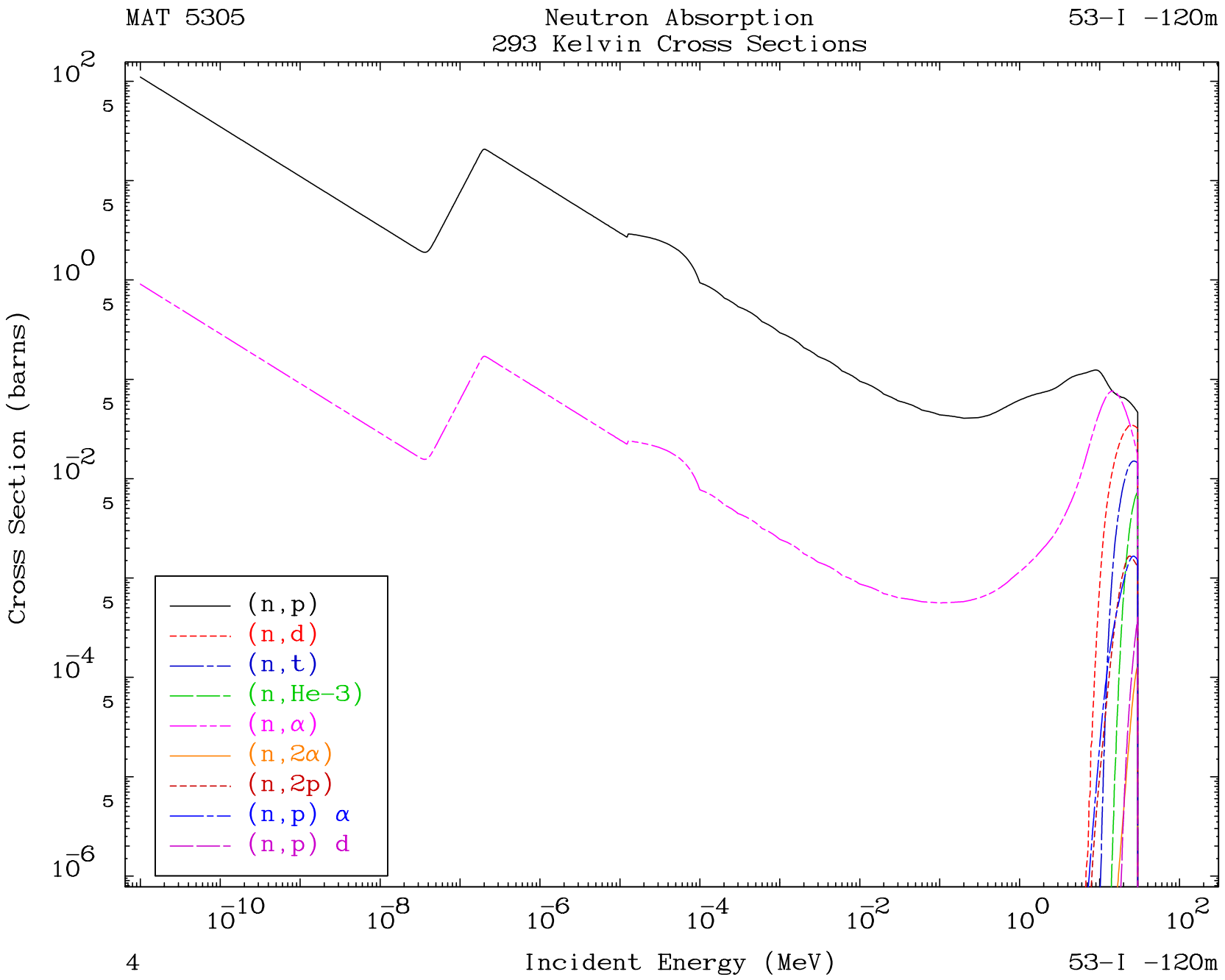
Program EVALPLOT
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

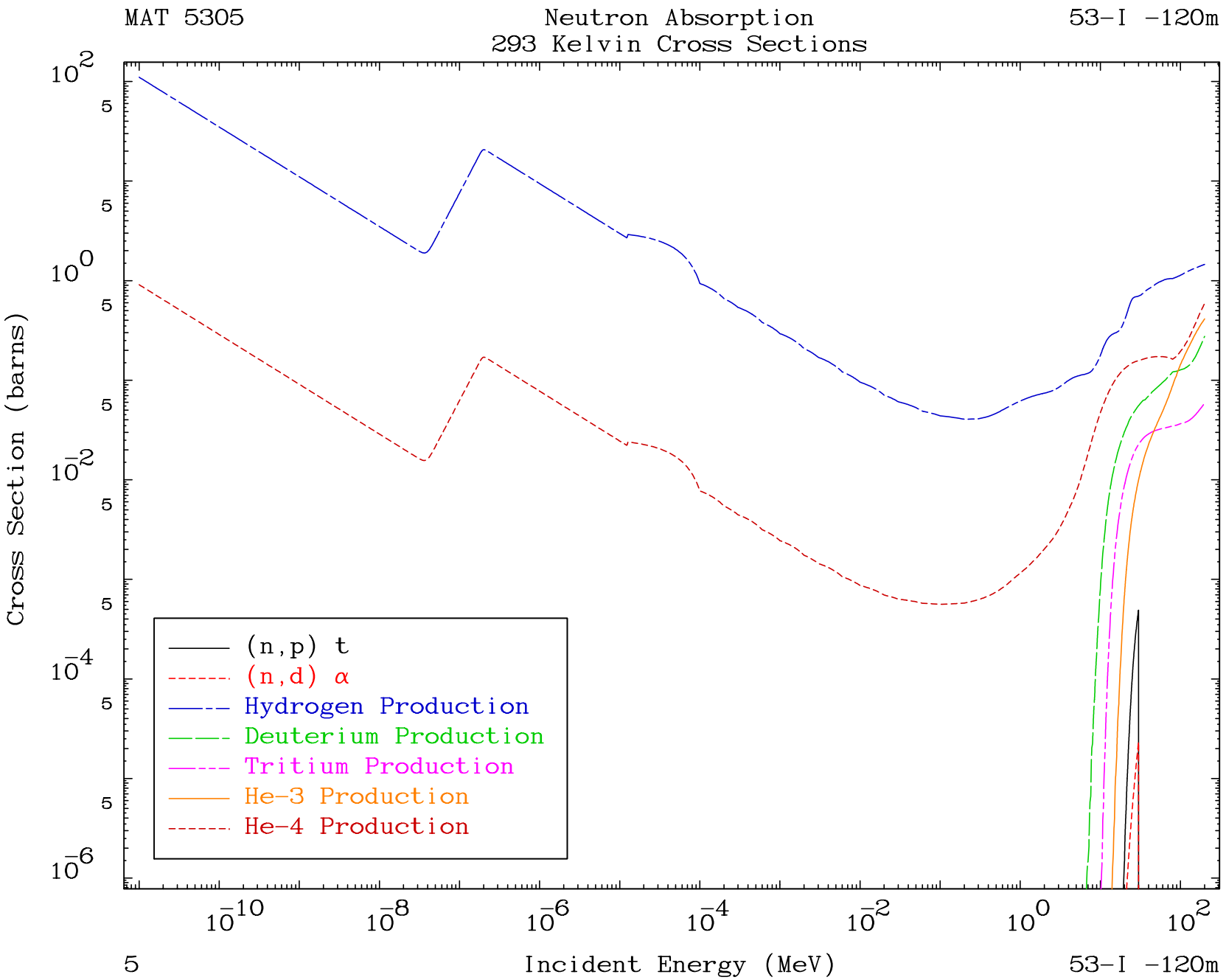
Press Mouse Button to Start

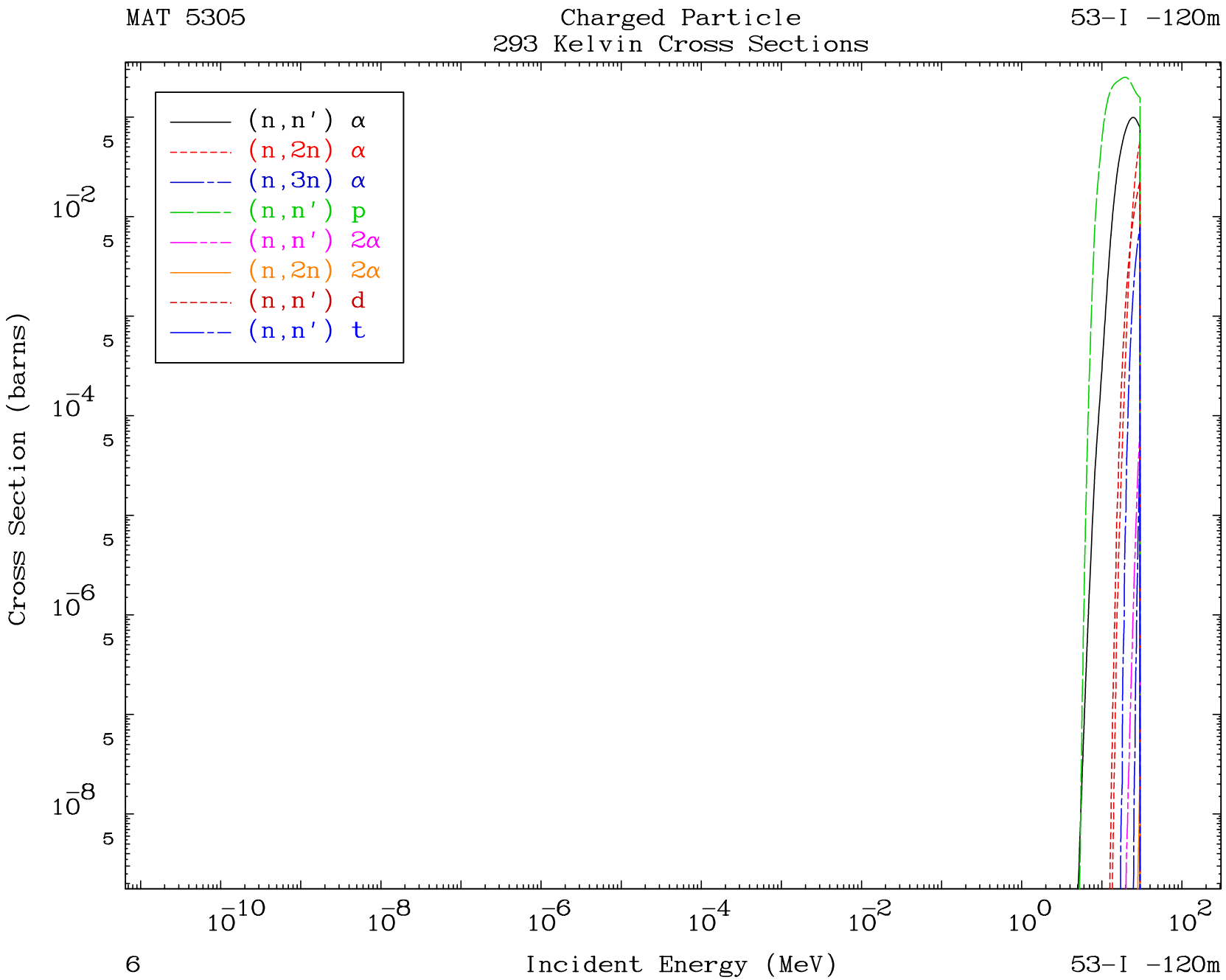

MAT 5305
Neutron Major
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,3n)
(n,γ)
1
53-I -120m

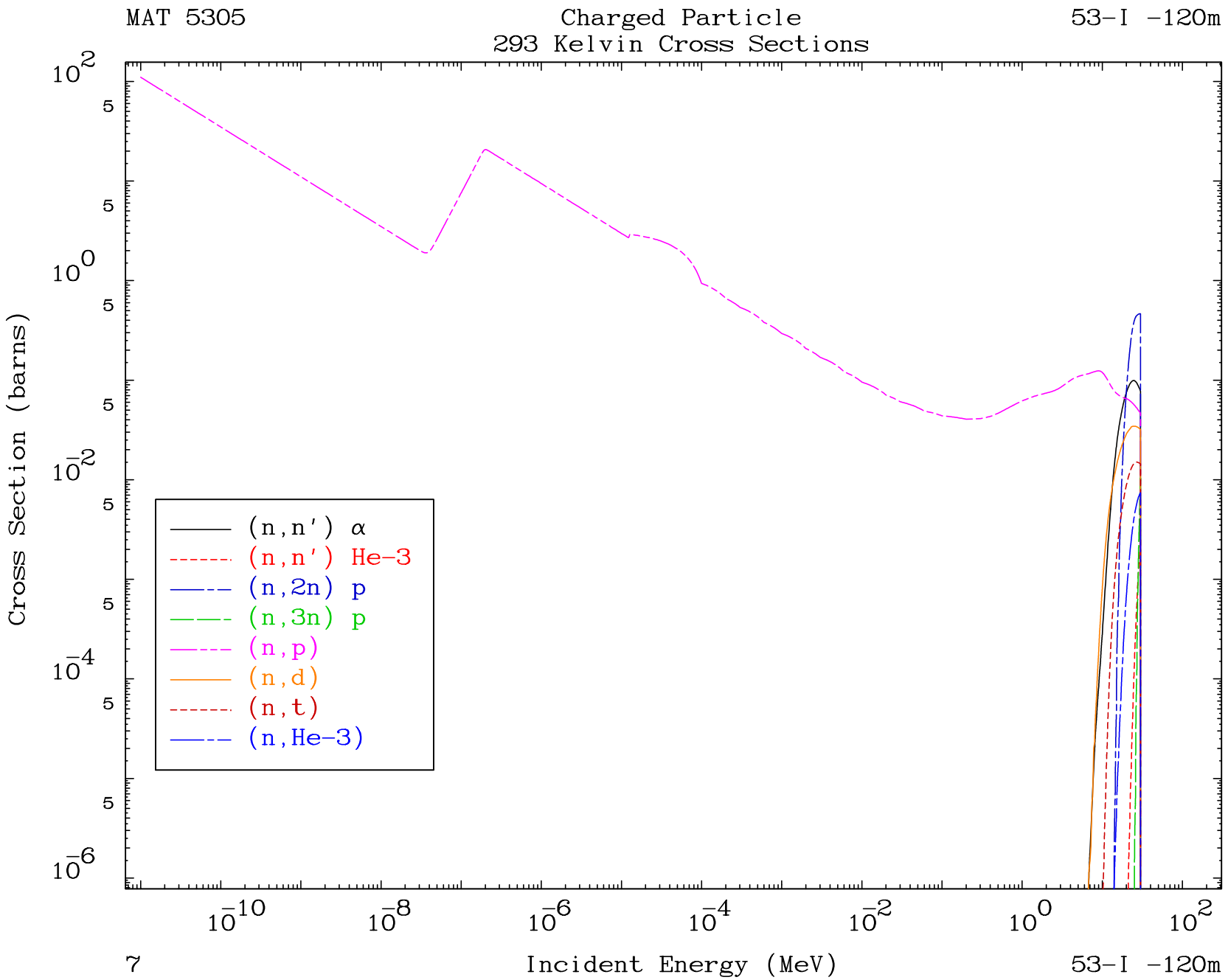

MAT 5305
Neutron Absorption
293 Kelvin Cross Sections
53-I -120m
(n,2n) d
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
Cross Section (barns)
Incident Energy (MeV)
2
53-I -120m

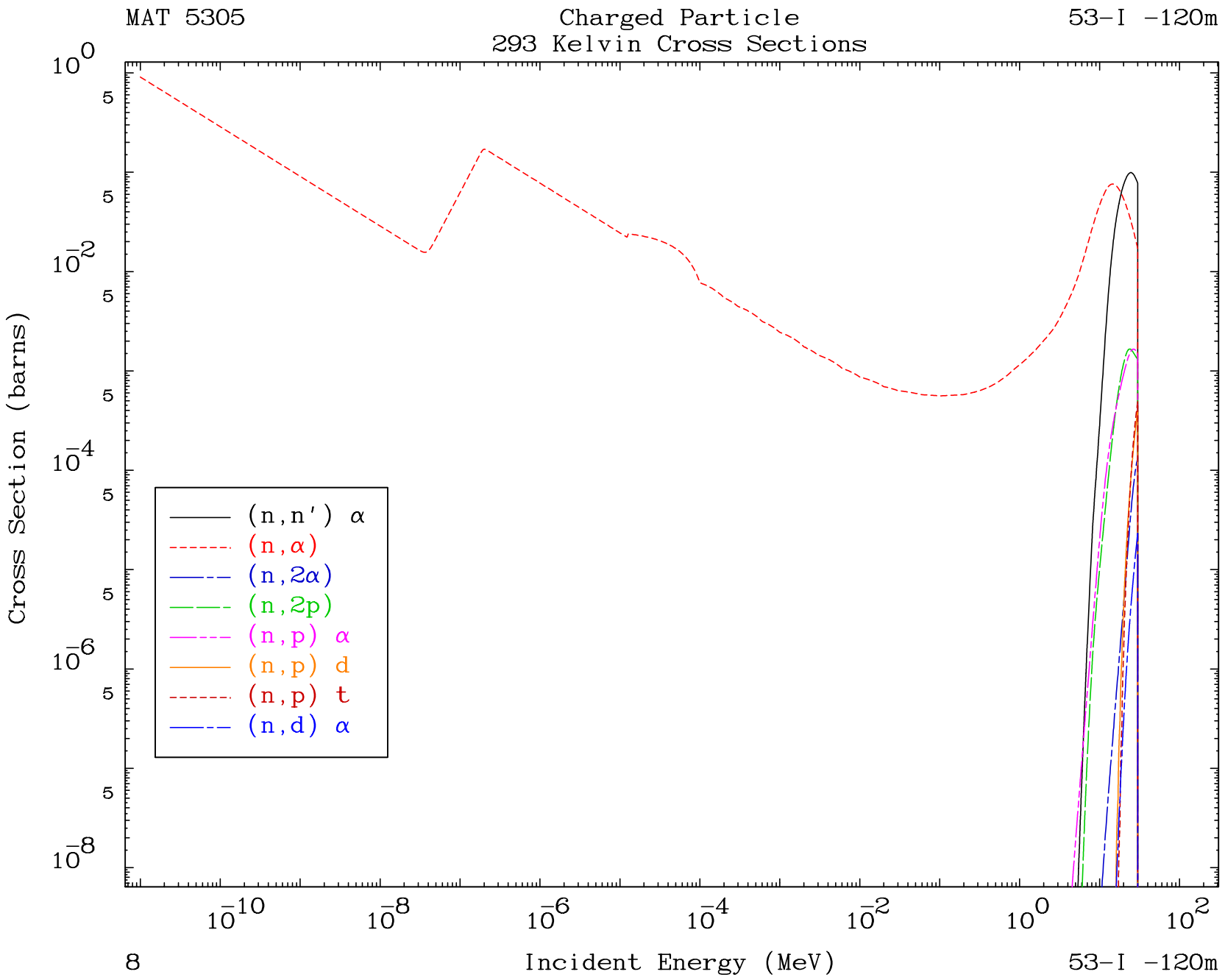

MAT 5305
Neutron Absorption
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
Incident Energy (MeV)
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
(n,2n) p
(n,n') p α
(n,γ)
3
53-I -120m

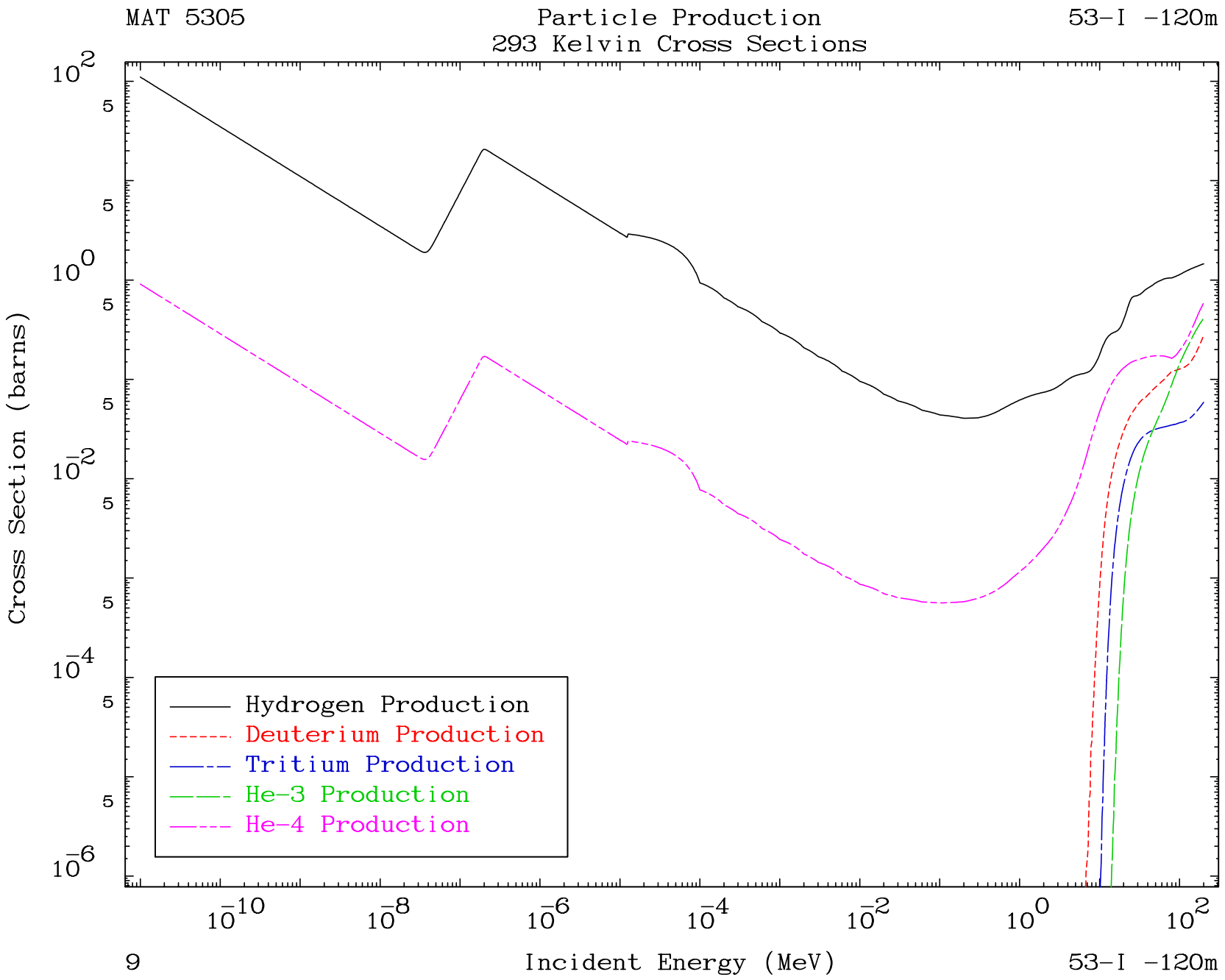

MAT 5305
Neutron Absorption
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
Incident Energy (MeV)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
4
53-I -120m

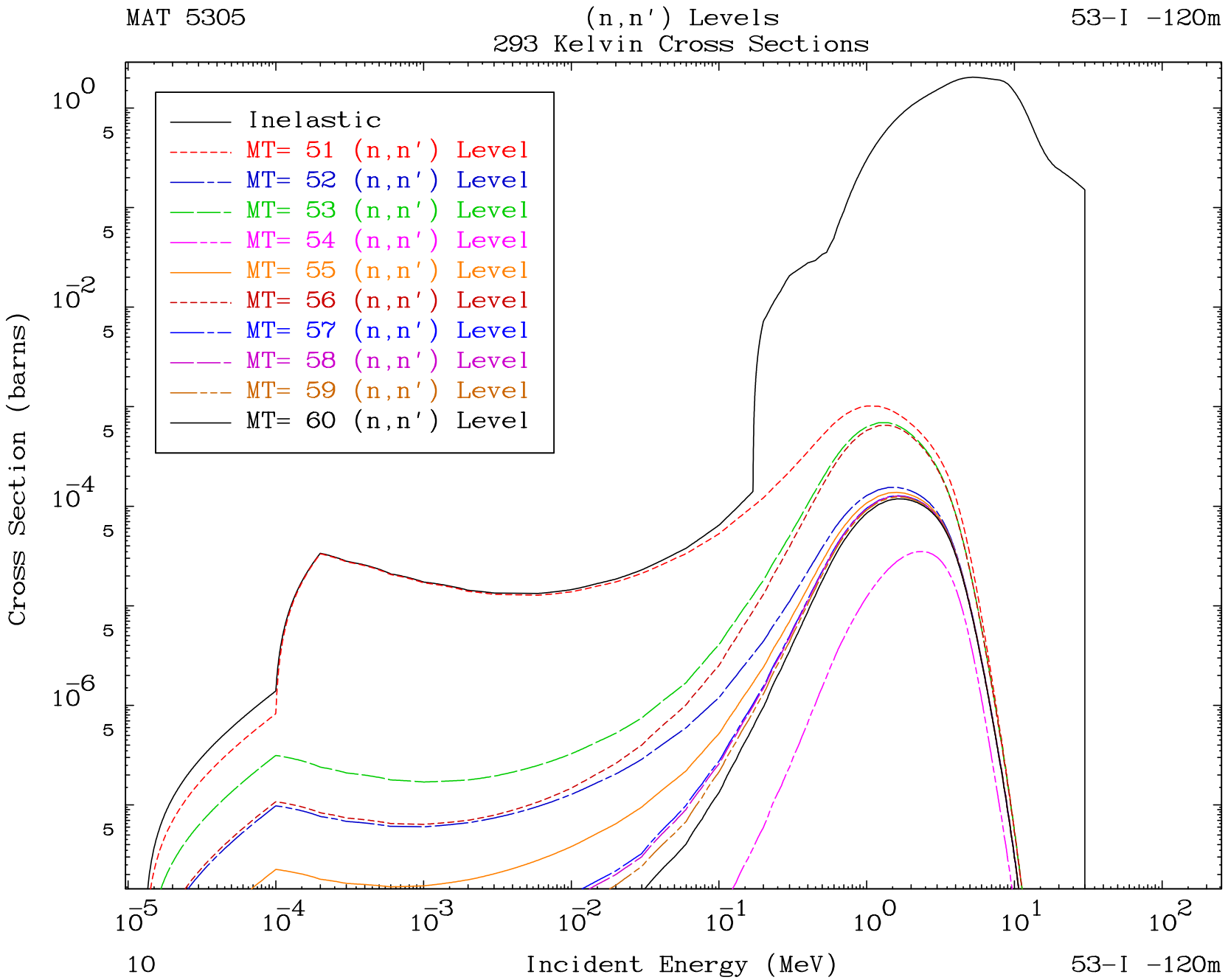

MAT 5305
Neutron Absorption
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
Incident Energy (MeV)
(n,p) t
(n,d) α
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
53-I -120m

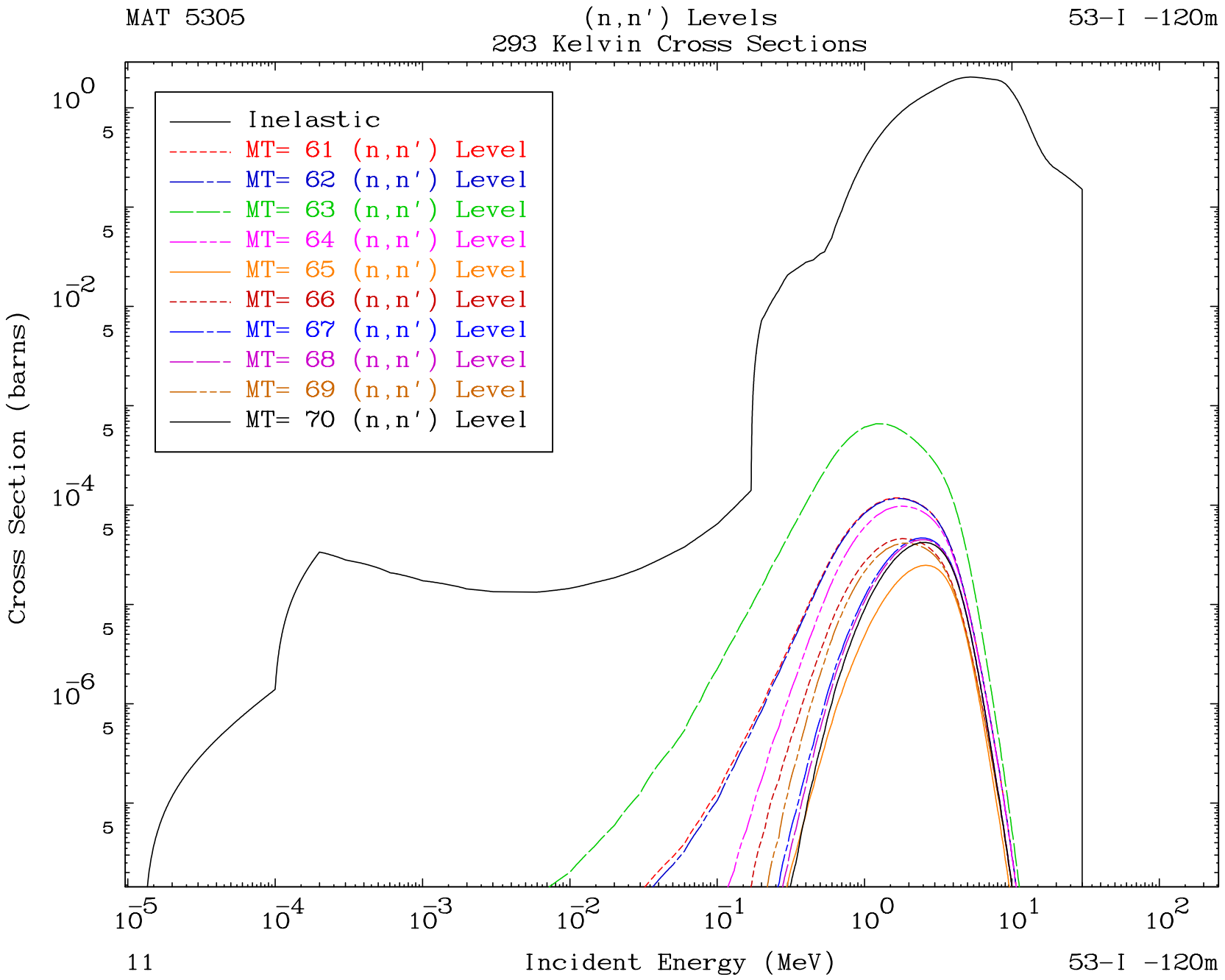

MAT 5305
Charged Particle
293 Kelvin Cross Sections
53-I -120m
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
Cross Section (barns)
Incident Energy (MeV)
6
53-I -120m

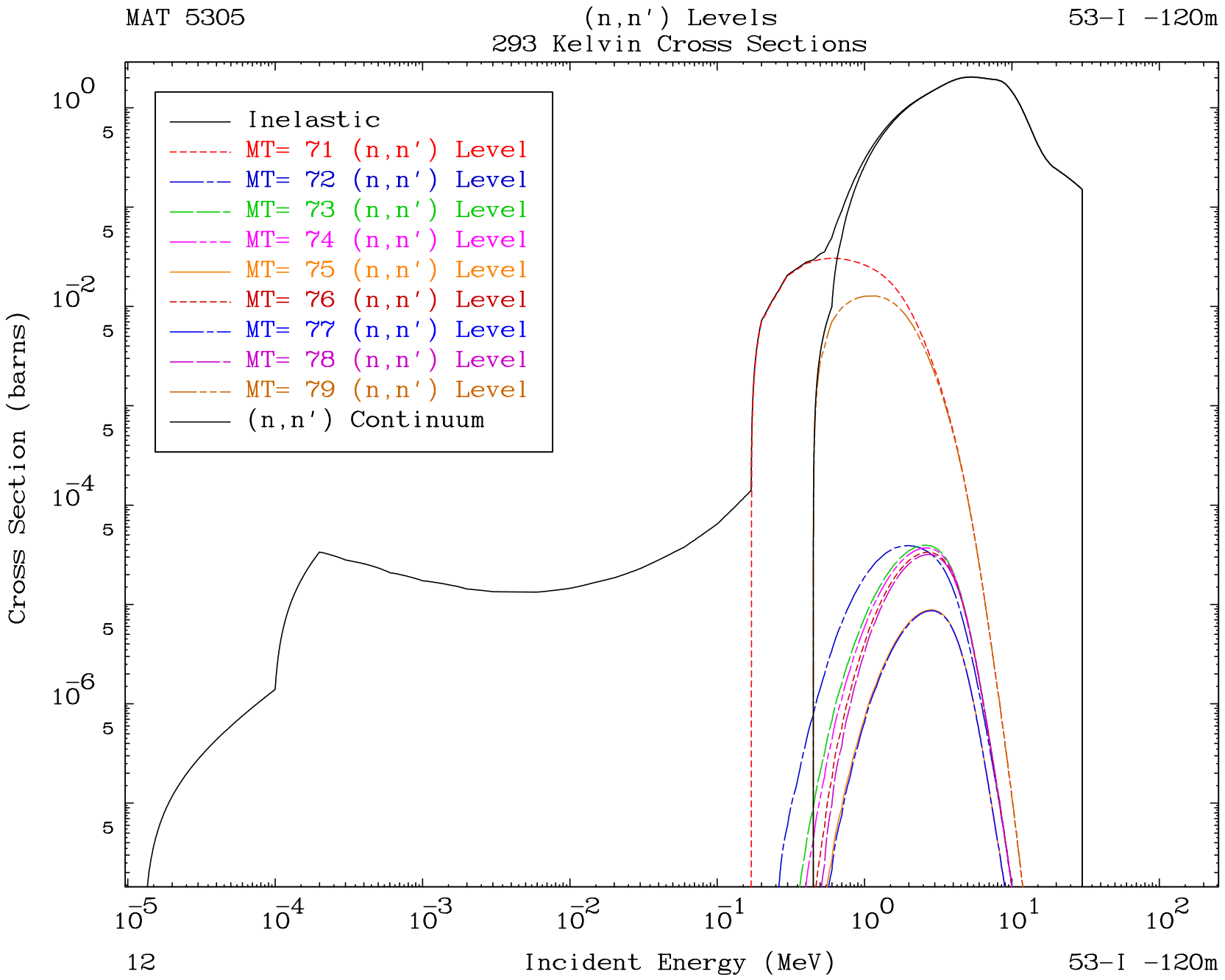

MAT 5305
Charged Particle
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,n') He-3
(n,2n) p
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)
7
53-I -120m

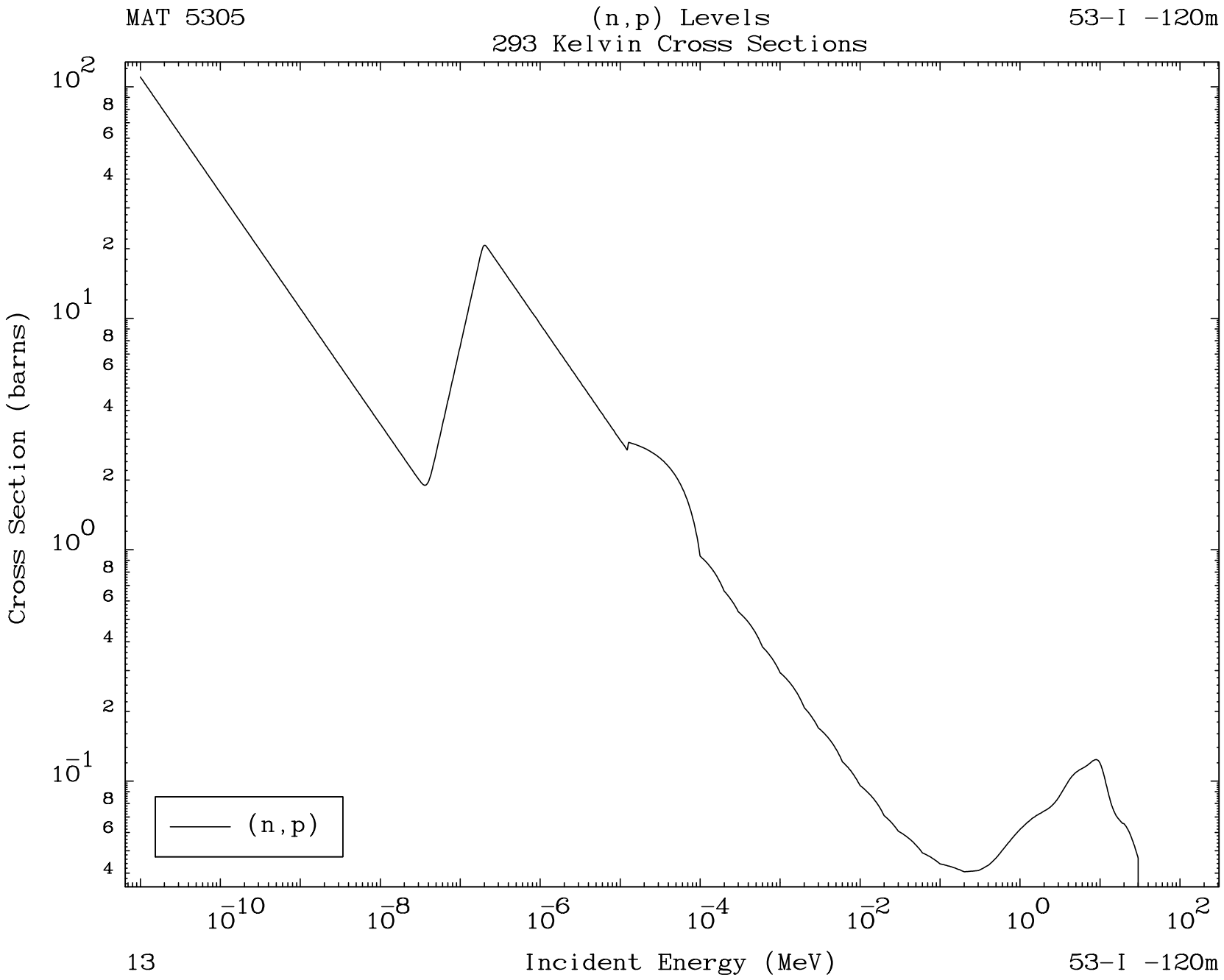

MAT 5305
Charged Particle
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α
8

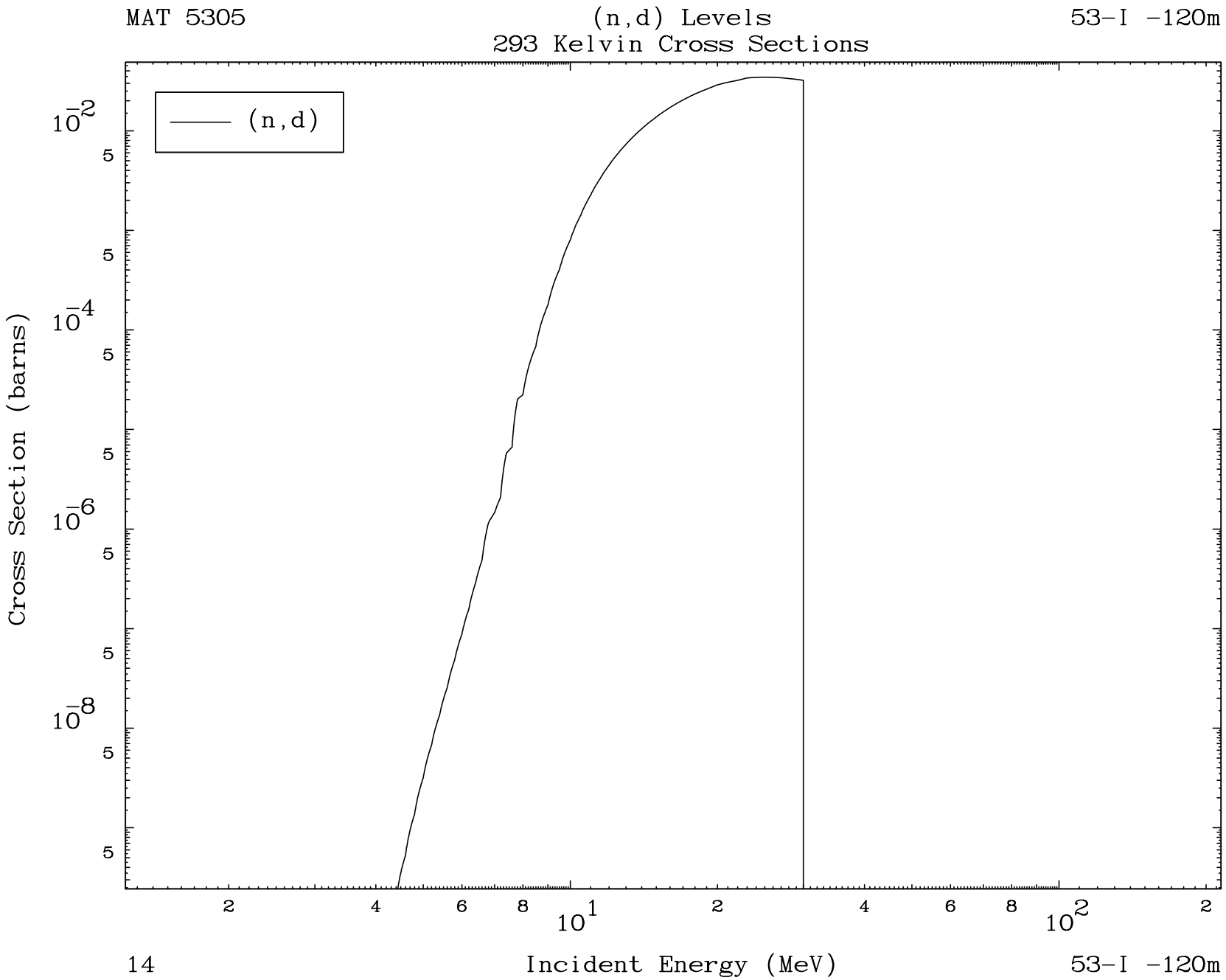

MAT 5305
Particle Production
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
9
53-I -120m

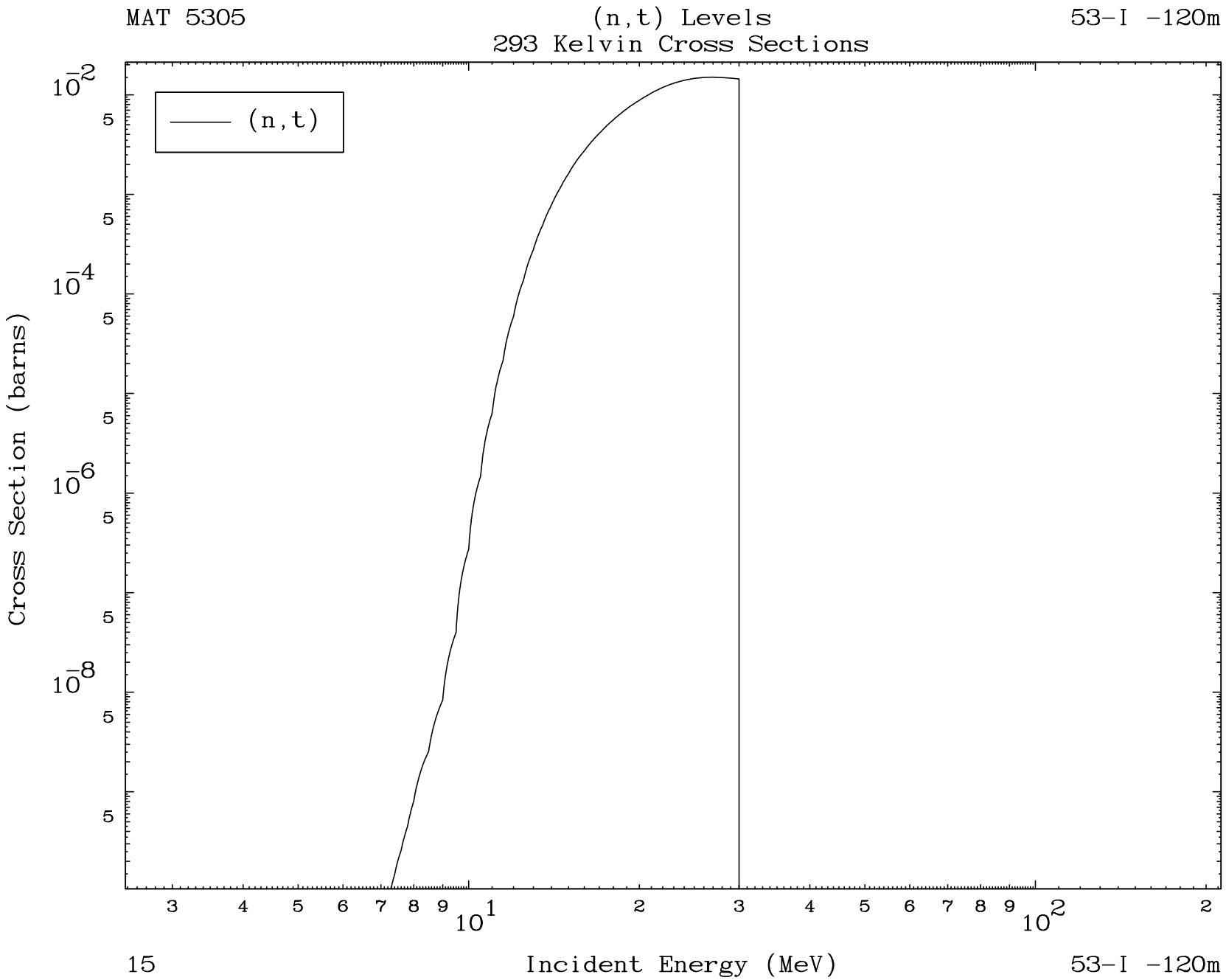

MAT 5305
(n,n') Levels
293 Kelvin Cross Sections
53-I -120m
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
MT= 59 (n,n') Level
MT= 60 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
53-I -120m

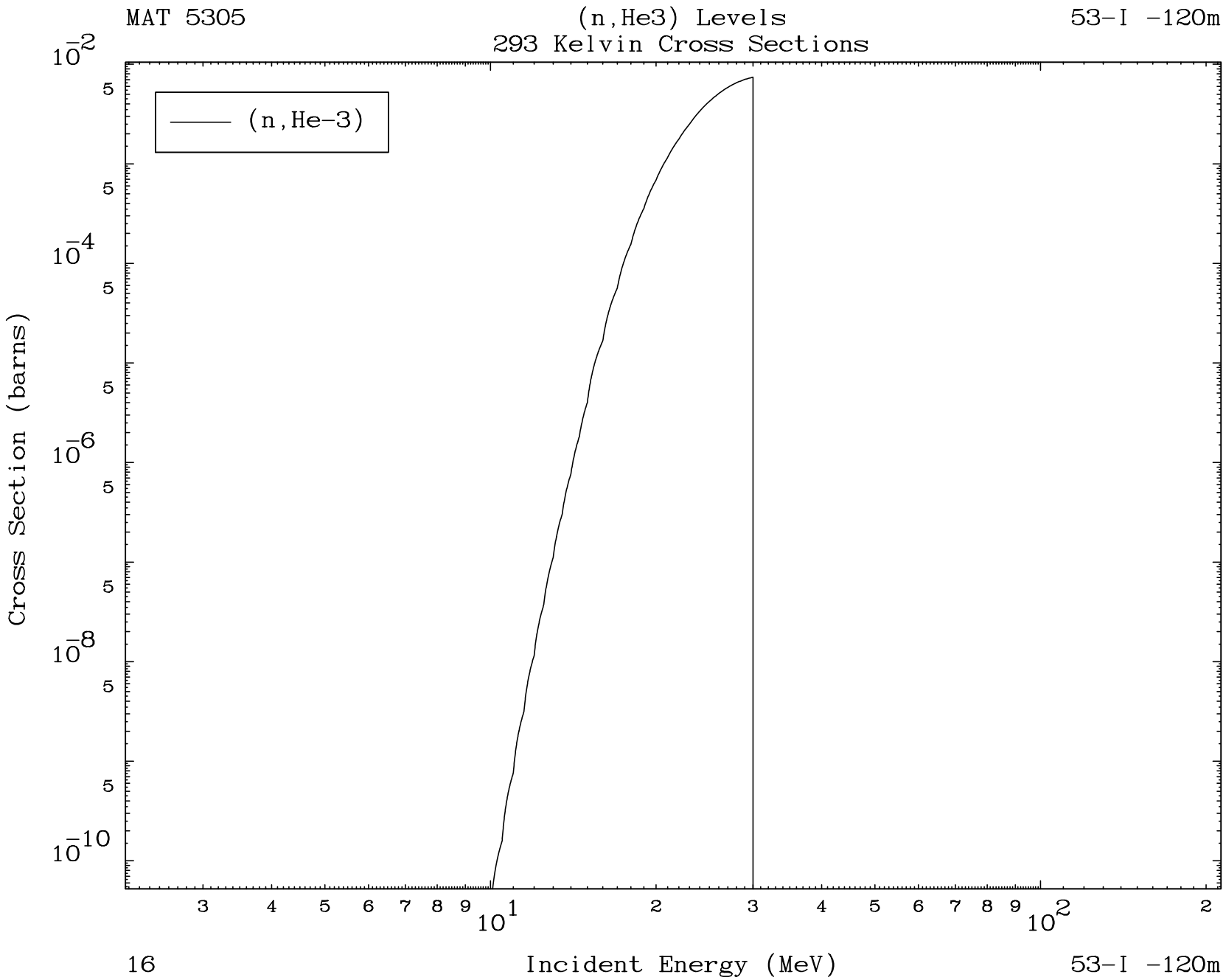

MAT 5305
(n,n') Levels
293 Kelvin Cross Sections
53-I -120m
Inelastic
MT= 61 (n,n') Level
MT= 62 (n,n') Level
MT= 63 (n,n') Level
MT= 64 (n,n') Level
MT= 65 (n,n') Level
MT= 66 (n,n') Level
MT= 67 (n,n') Level
MT= 68 (n,n') Level
MT= 69 (n,n') Level
MT= 70 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
11
53-I -120m

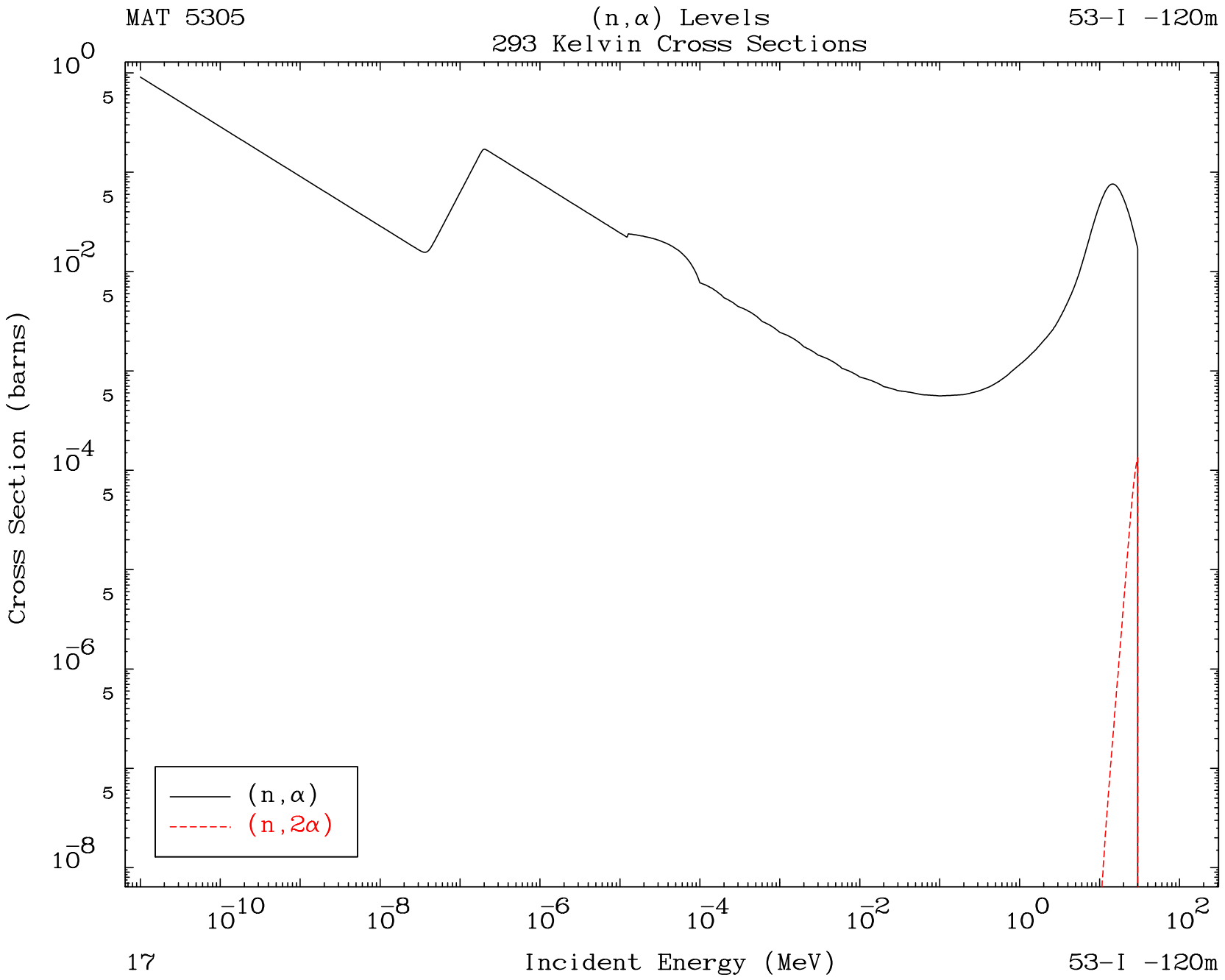

MAT 5305
(n,n') Levels
293 Kelvin Cross Sections
53-I -120m
Inelastic
MT= 71 (n,n') Level
MT= 72 (n,n') Level
MT= 73 (n,n') Level
MT= 74 (n,n') Level
MT= 75 (n,n') Level
MT= 76 (n,n') Level
MT= 77 (n,n') Level
MT= 78 (n,n') Level
MT= 79 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
12
53-I -120m

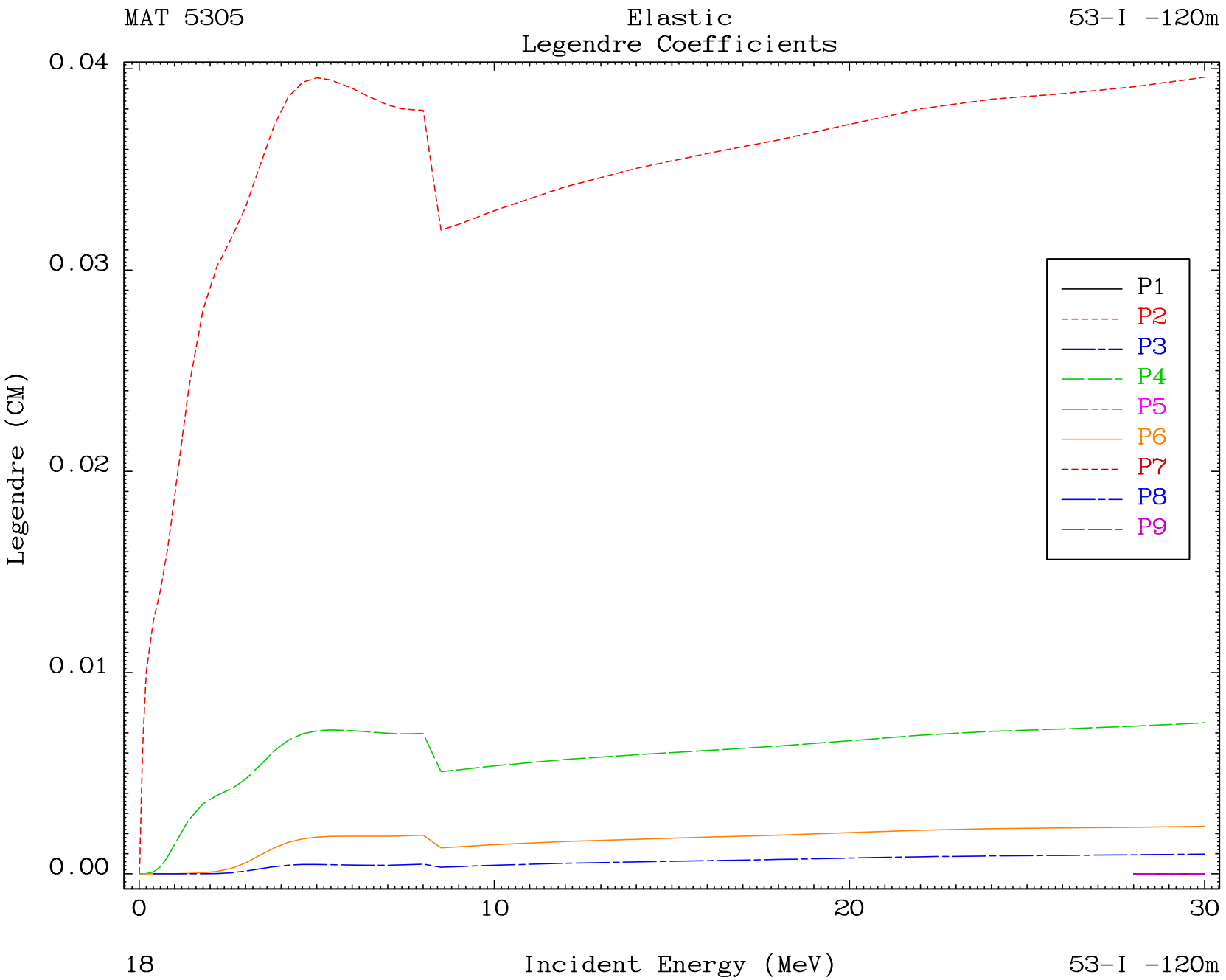

MAT 5305
(n,p) Levels
53-I -120m
293 Kelvin Cross Sections
Cross Section (barns)
10^2
8
6
4
2
10^1
8
6
4
2
10^0
8
6
4
2
10^-1
8
6
4
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
13
Incident Energy (MeV)
53-I -120m

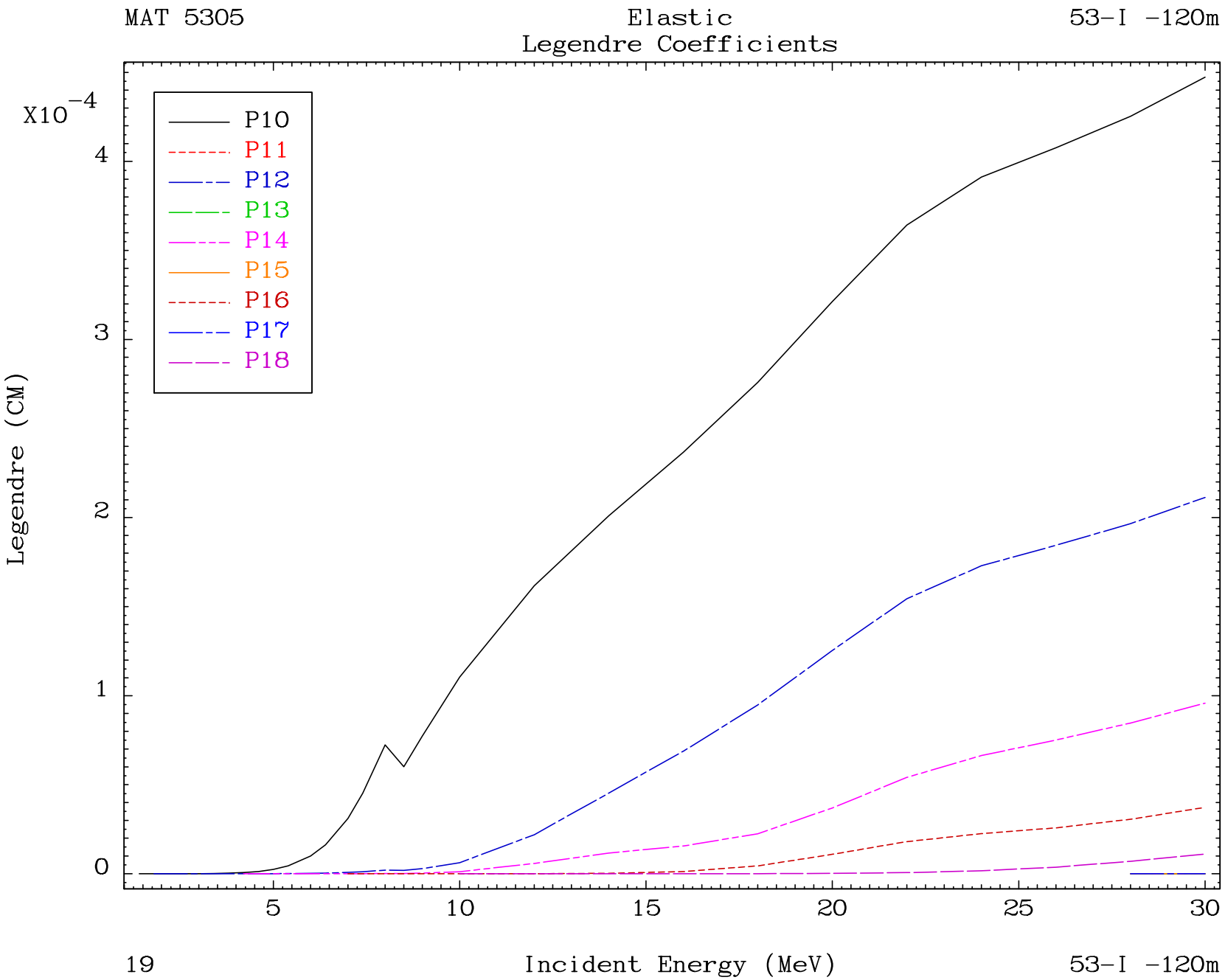

MAT 5305
(n,d) Levels
53-I -120m
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
4
6
8
10 1
10 2
Incident Energy (MeV)
14
53-I -120m

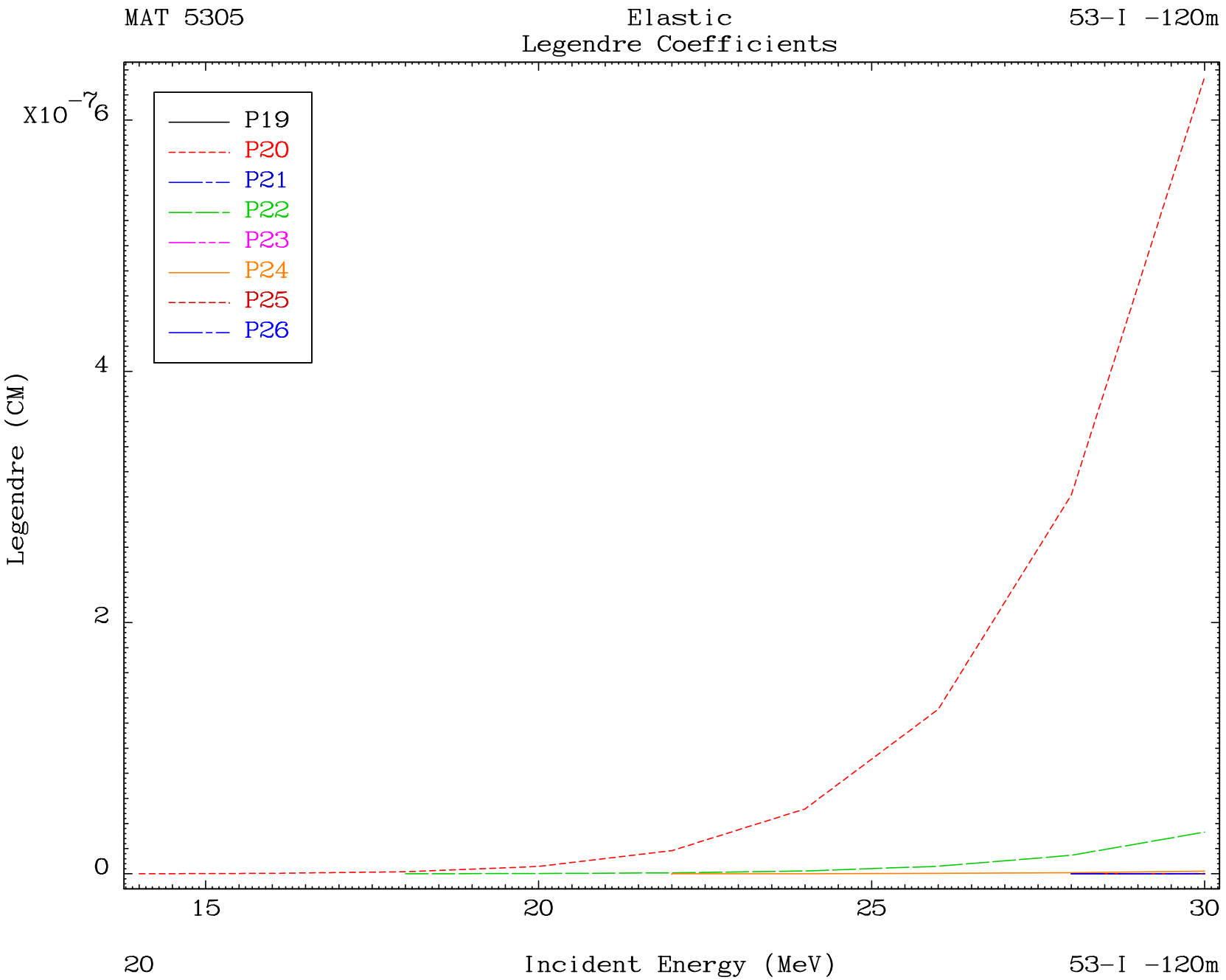

MAT 5305
(n,t) Levels
53-I -120m
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
15
53-I -120m

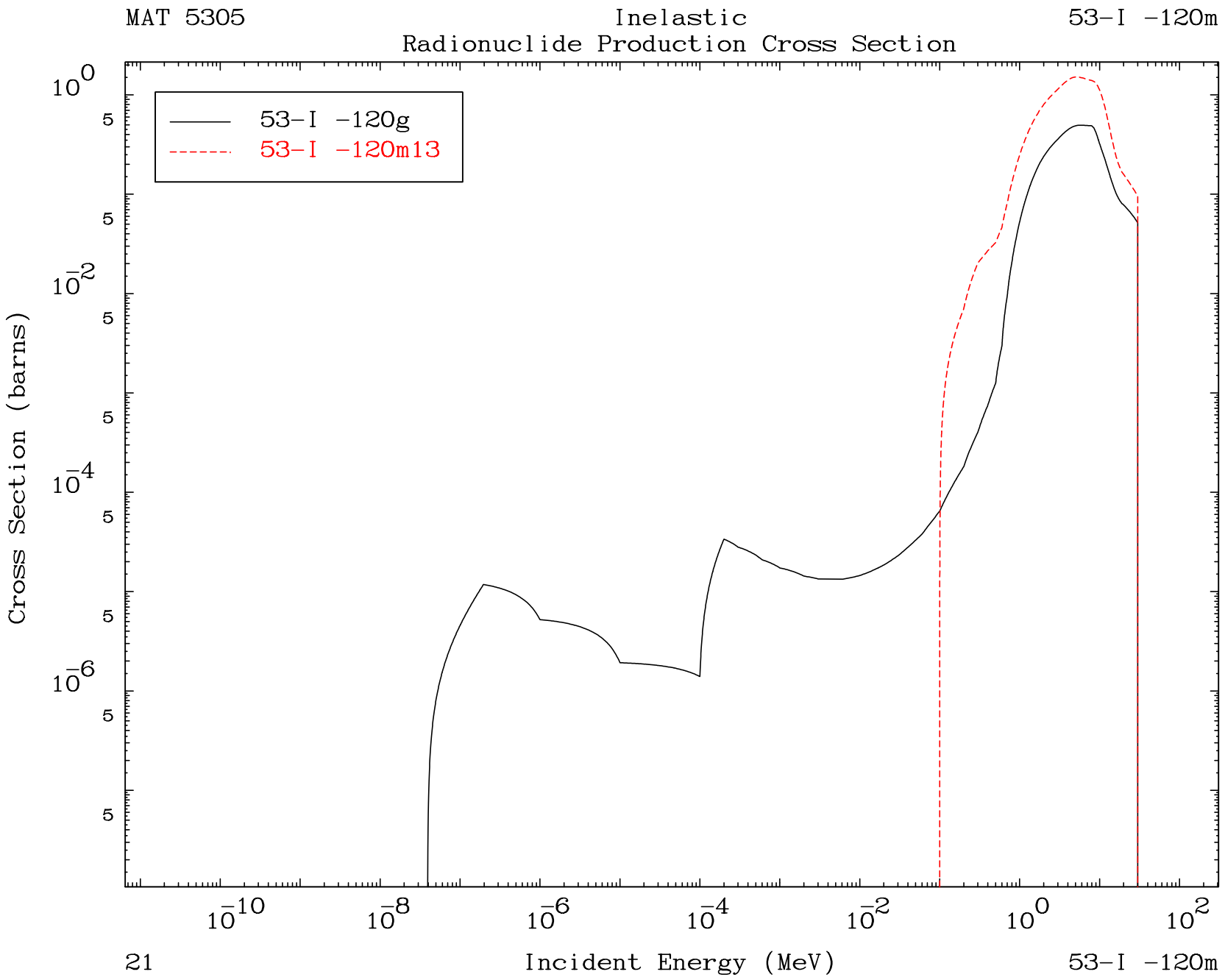

MAT 5305
(n,He3) Levels
53-I -120m
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
Incident Energy (MeV)
16
53-I -120m

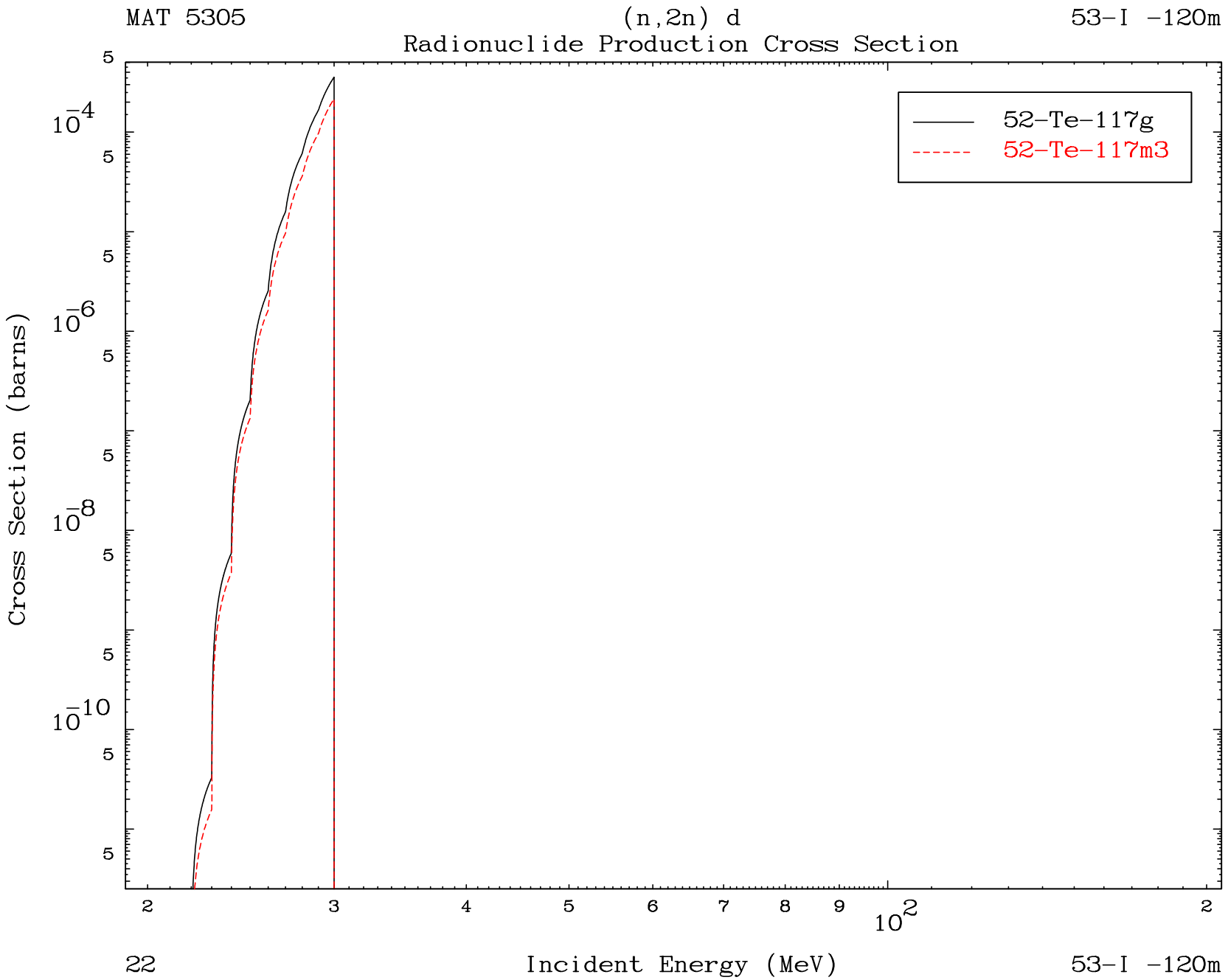

MAT 5305
(n,α) Levels
293 Kelvin Cross Sections
53-I -120m
Cross Section (barns)
10^0
5
10^-2
5
10^-4
5
10^-6
5
10^-8
5
(n,α)
(n,2α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
17
53-I -120m

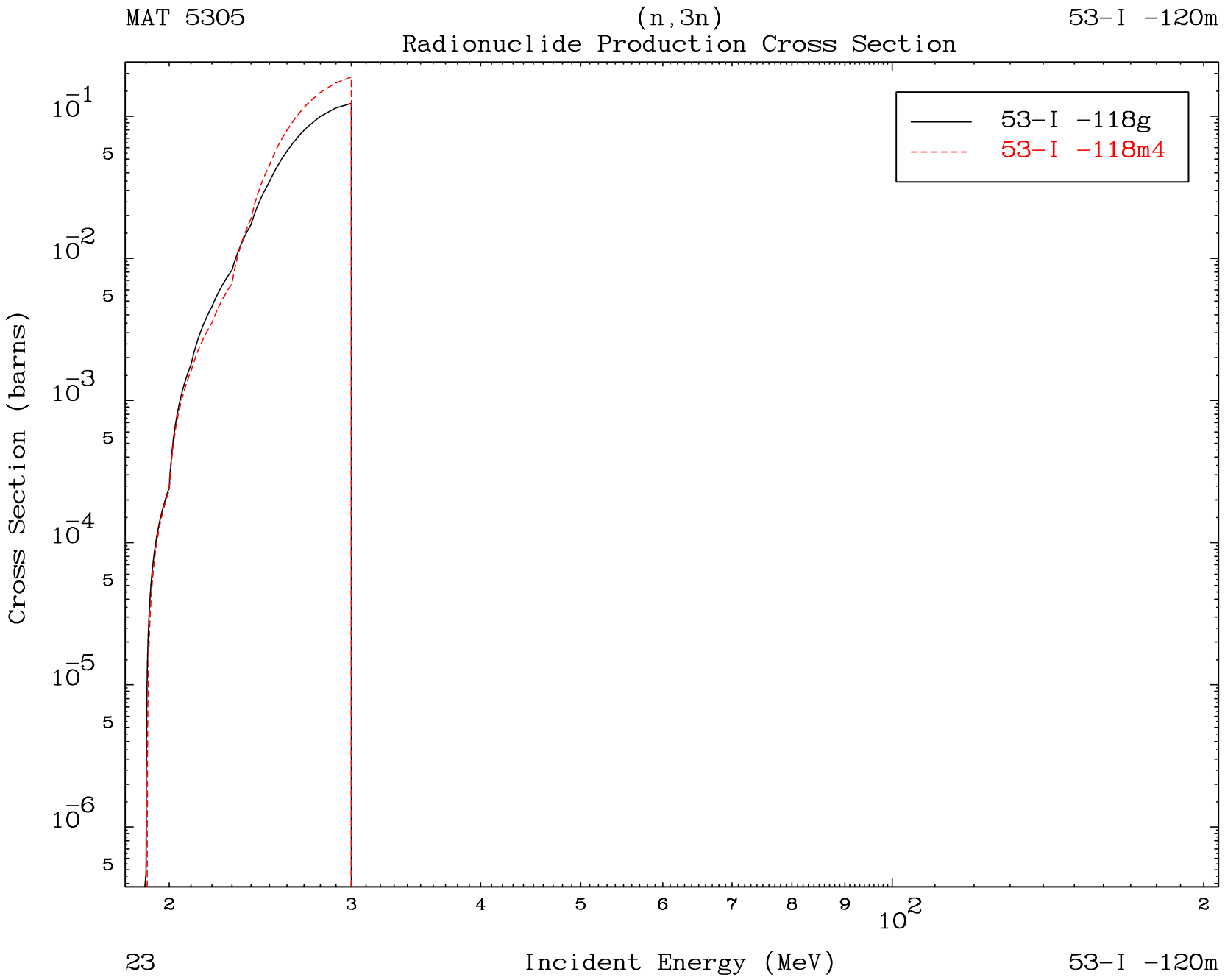

MAT 5305
Elastic
Legendre Coefficients
53-I -120m
0.04
0.03
0.02
0.01
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
10
20
30
18
Incident Energy (MeV)
53-I -120m

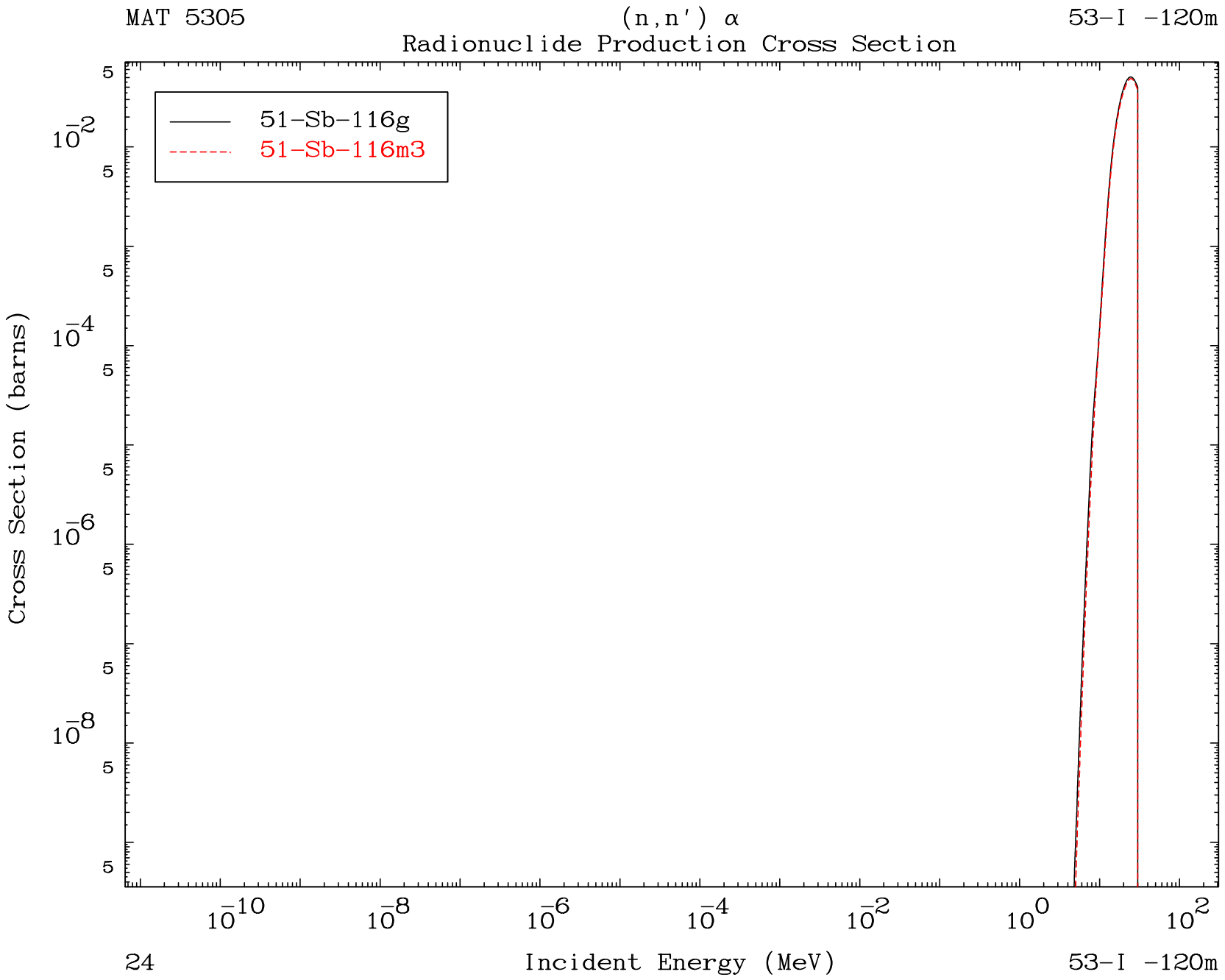

MAT 5305
Elastic
Legendre Coefficients
53-I -120m
X10^-4
4
3
2
1
0
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
5
10
15
20
25
30
19
Incident Energy (MeV)
53-I -120m

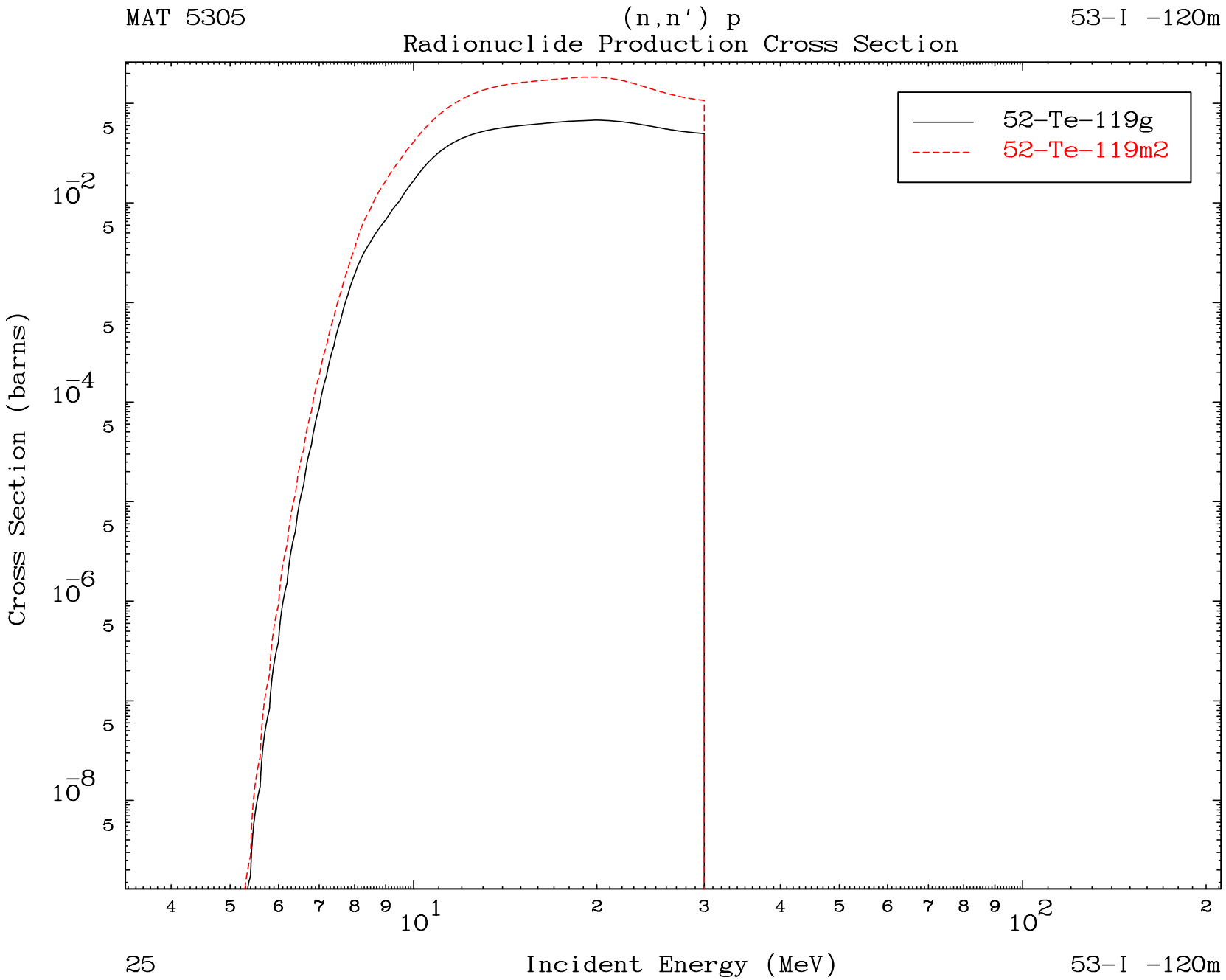

MAT 5305
Elastic
Legendre Coefficients
53-I -120m
X10^-7
6
4
2
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
15
20
25
30
20
Incident Energy (MeV)
53-I -120m

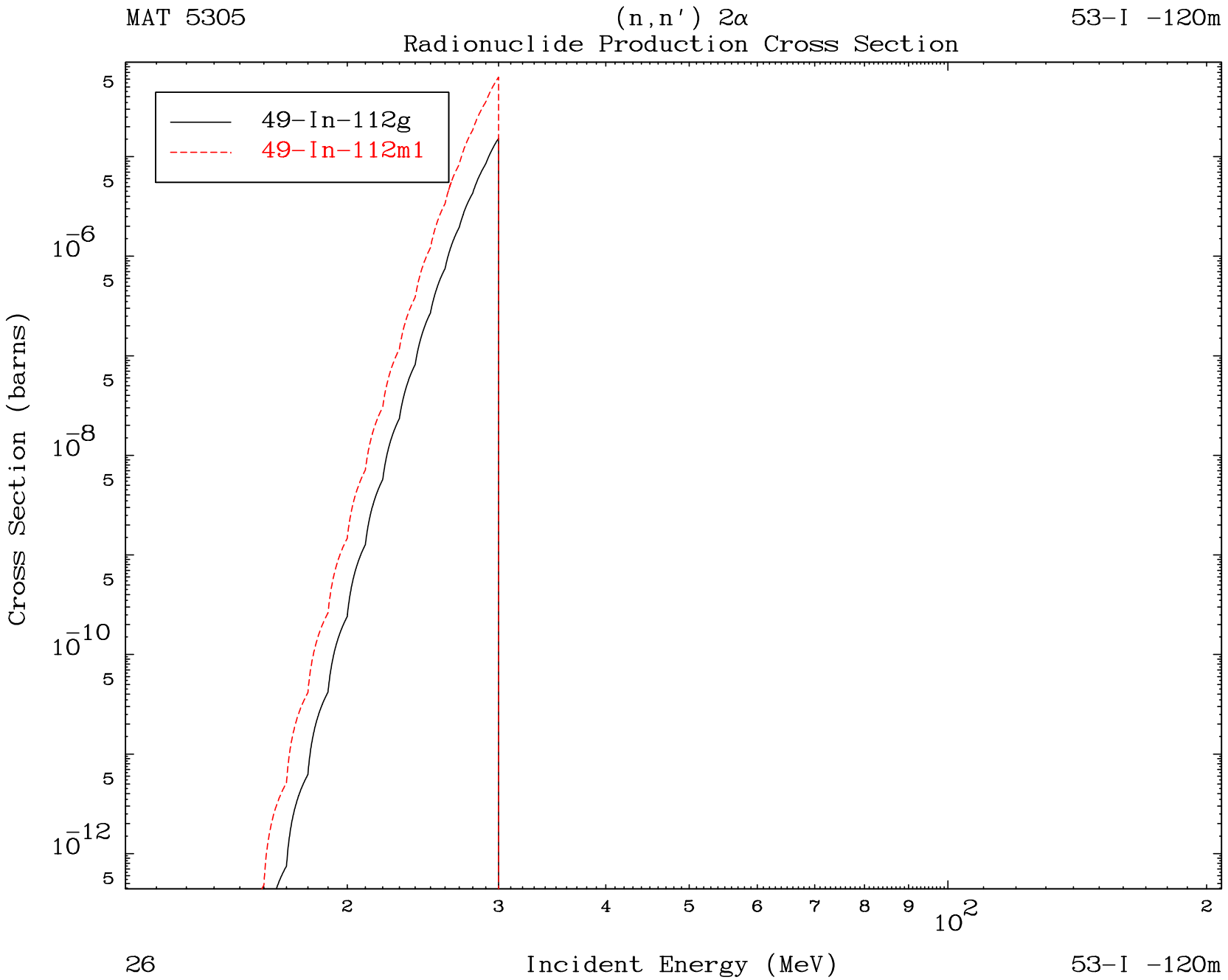

MAT 5305
Inelastic
53-I -120m
Radionuclide Production Cross Section
53-I -120g
53-I -120m13
Cross Section (barns)
Incident Energy (MeV)
21
53-I -120m

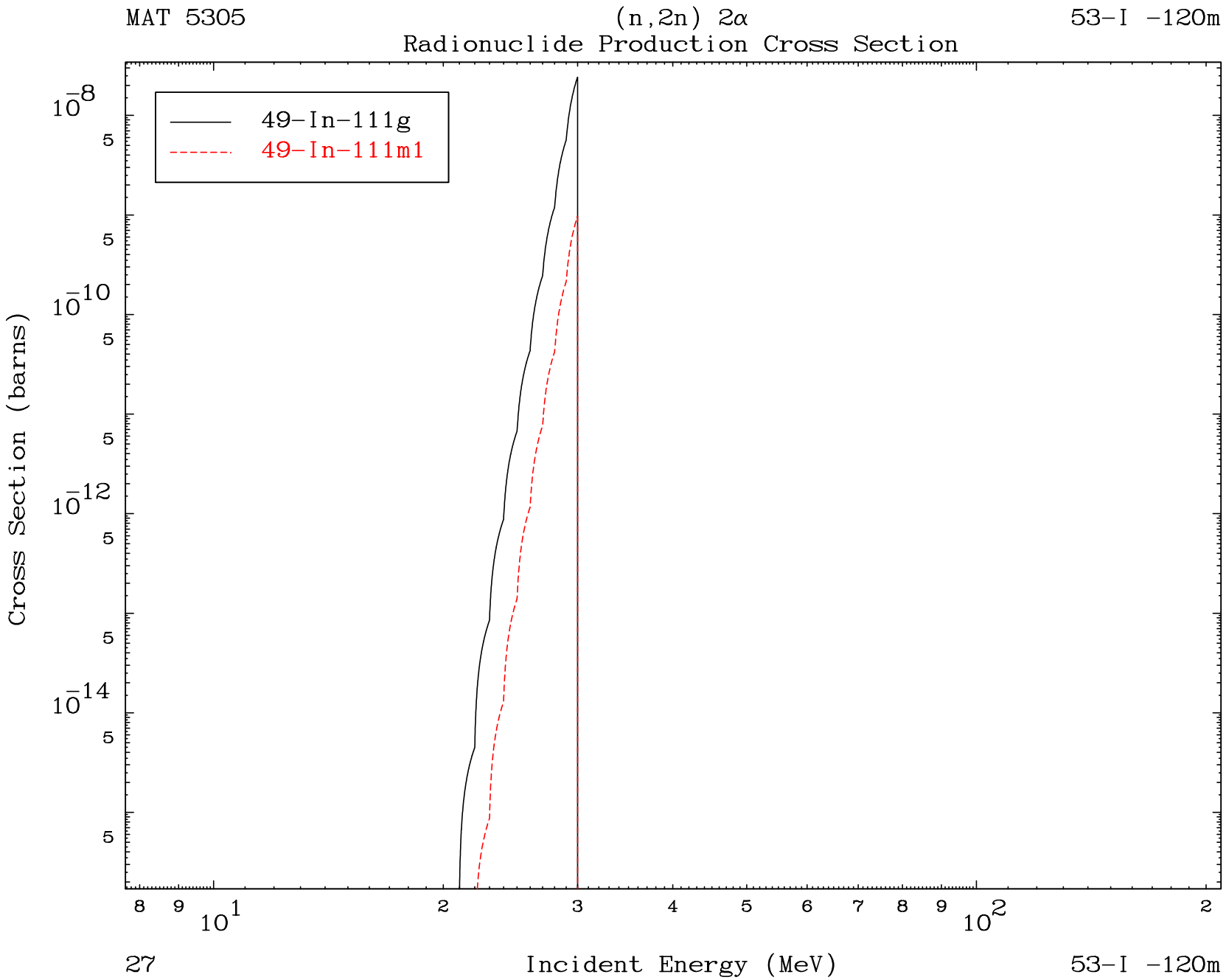

MAT 5305
(n,2n) d
53-I -120m
Radionuclide Production Cross Section
52-Te-117g
52-Te-117m3
Cross Section (barns)
Incident Energy (MeV)
22
53-I -120m

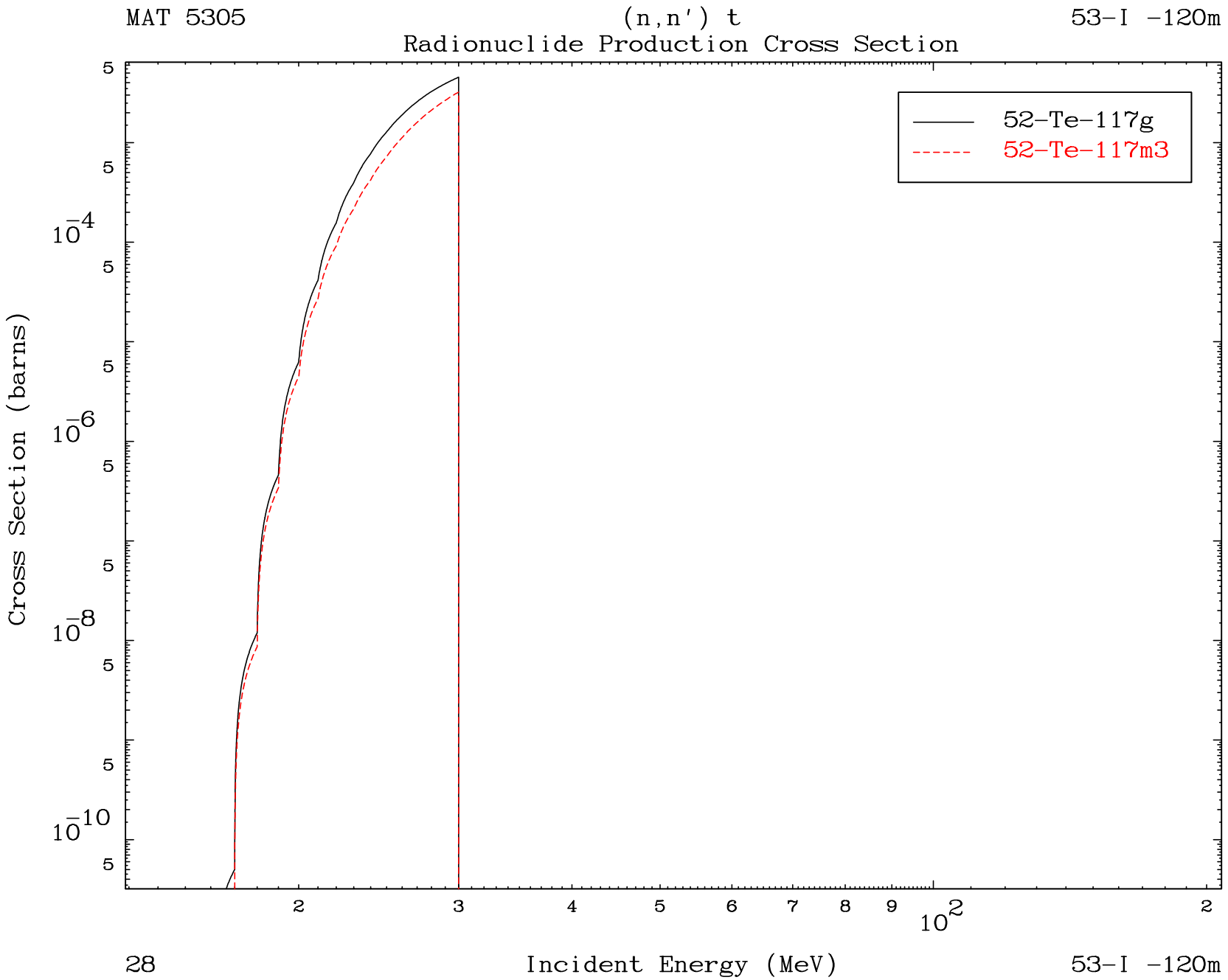

MAT 5305
(n,3n)
53-I -120m
Radionuclide Production Cross Section
53-I -118g
53-I -118m4
Cross Section (barns)
Incident Energy (MeV)
23
53-I -120m

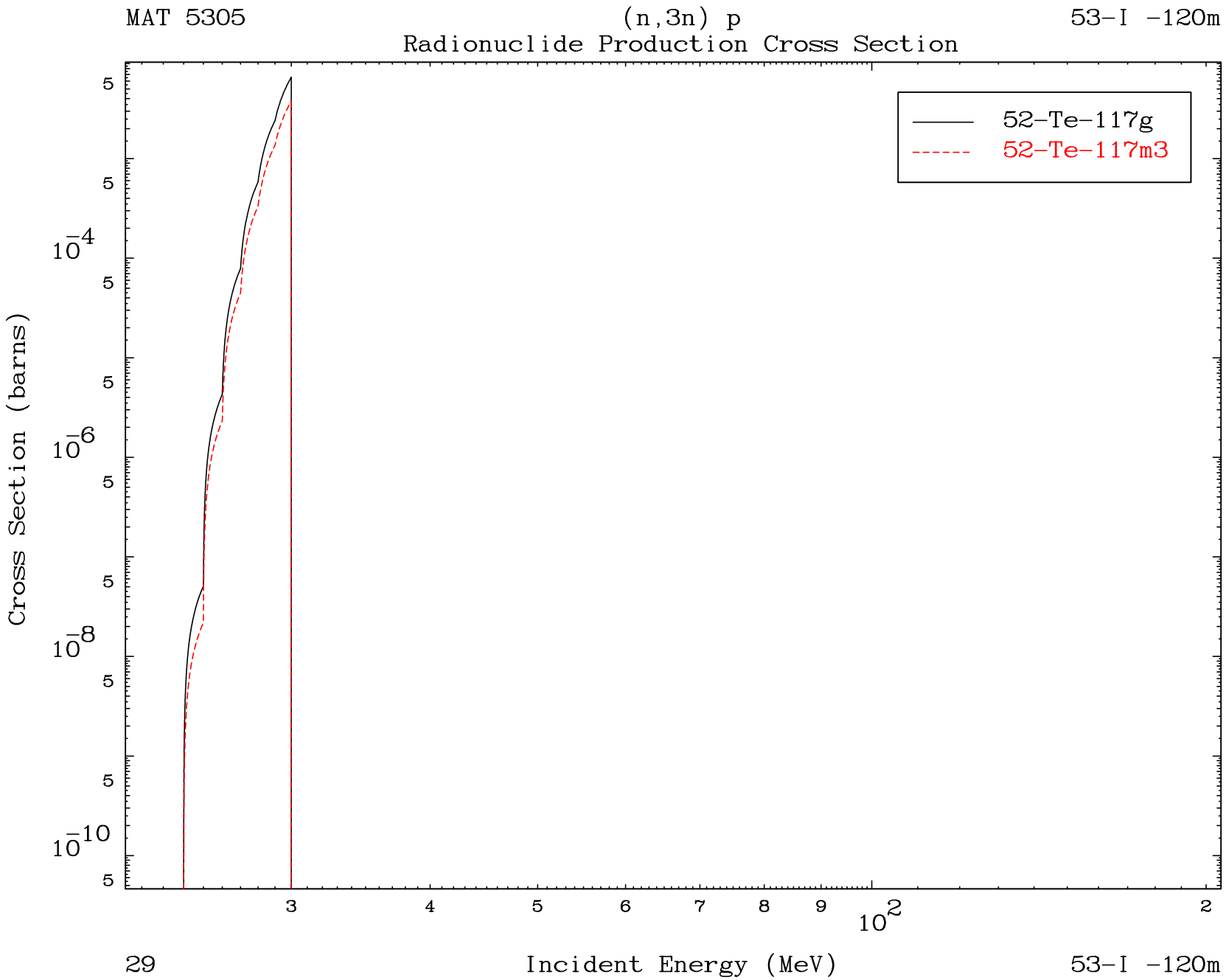

MAT 5305
(n,n') α
53-I -120m
Radionuclide Production Cross Section
51-Sb-116g
51-Sb-116m3
Cross Section (barns)
Incident Energy (MeV)
24
53-I -120m

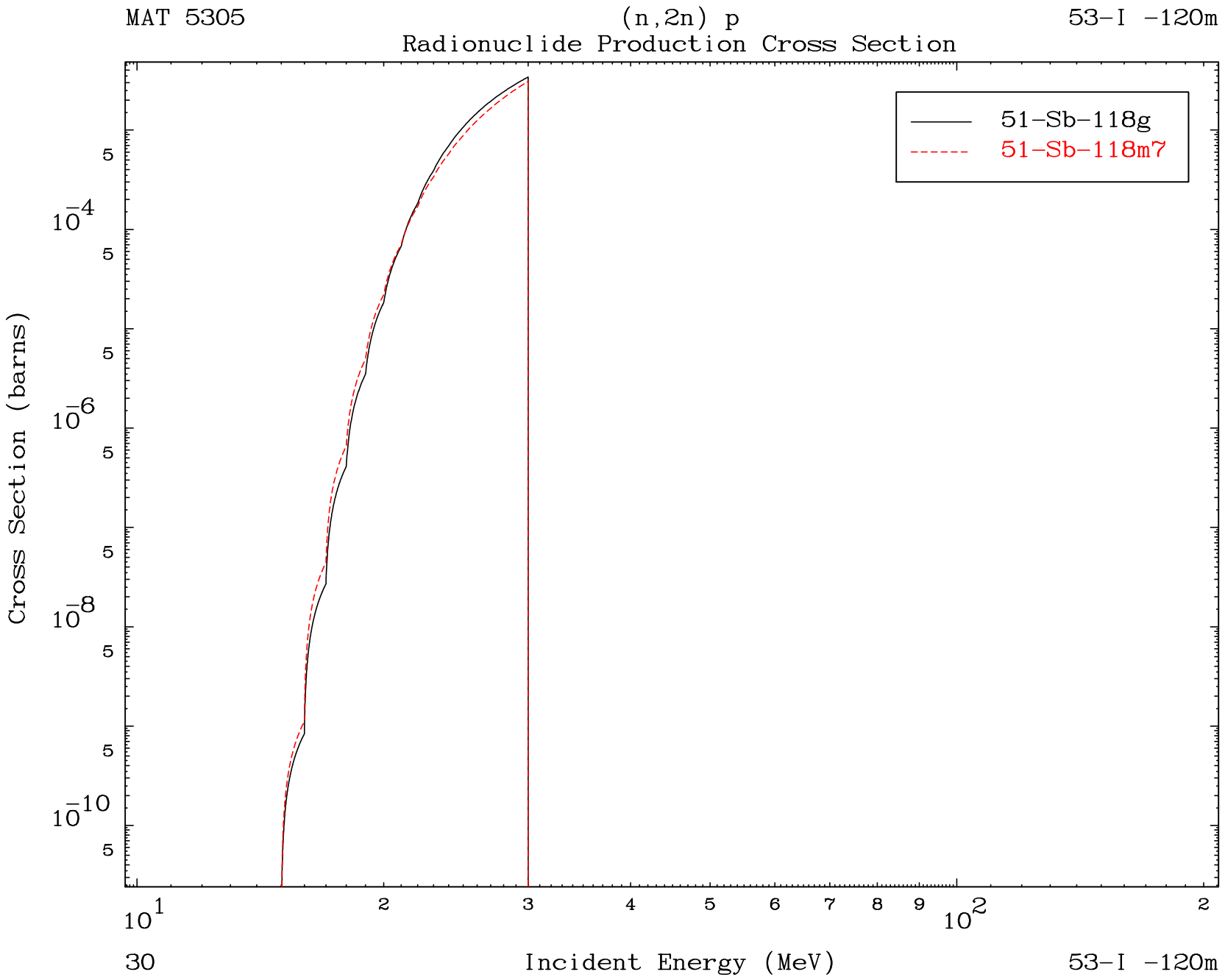

MAT 5305
(n,n') p
53-I -120m
Radionuclide Production Cross Section
52-Te-119g
52-Te-119m2
Cross Section (barns)
10-2
10-4
10-6
10-8
4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10 2 2
Incident Energy (MeV)
25
53-I -120m

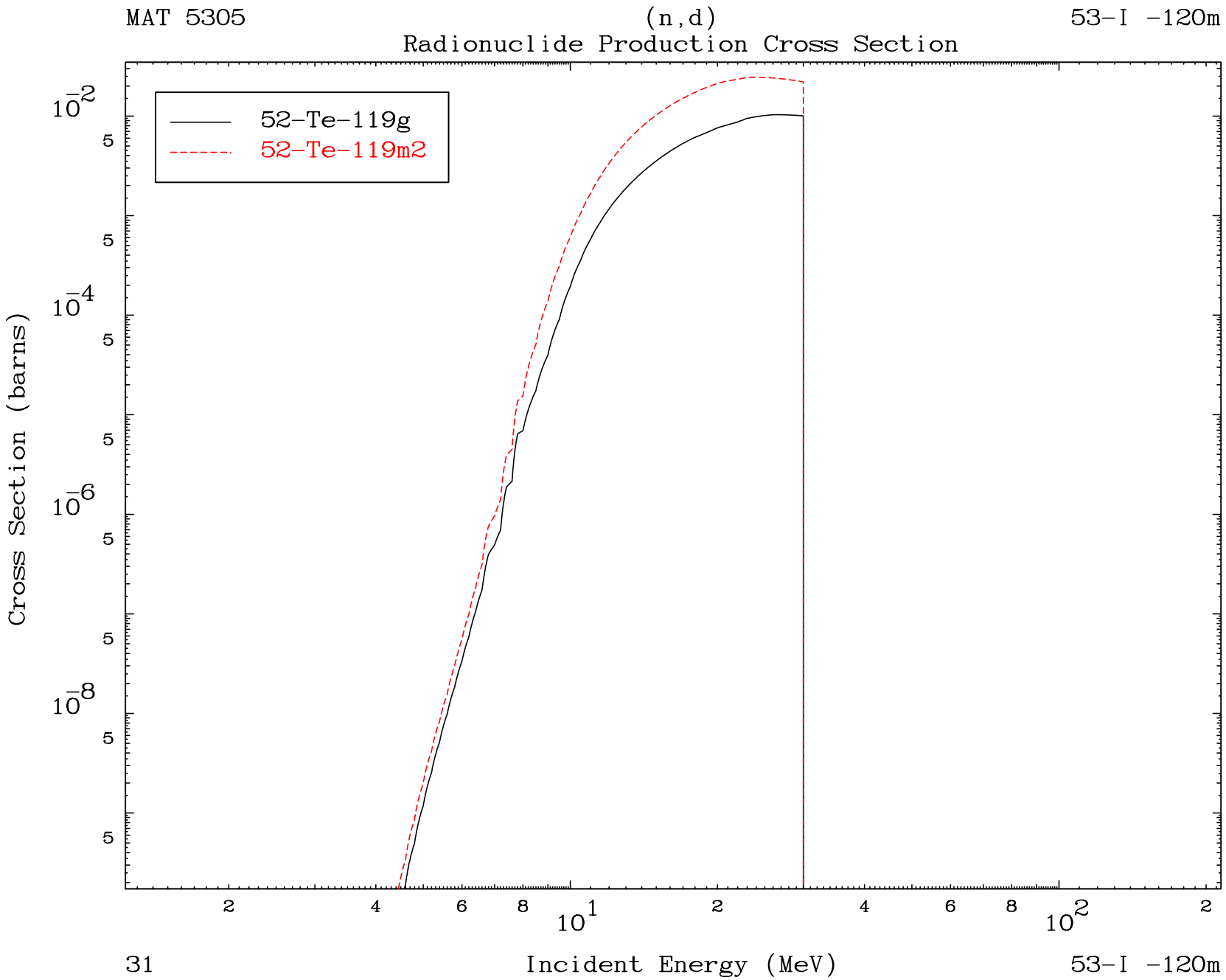

MAT 5305
(n,n') 2α
53-I -120m
Radionuclide Production Cross Section
49-In-112g
49-In-112m1
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
2
3
4
5
6
7
8
9
10^2
2
26
Incident Energy (MeV)
53-I -120m

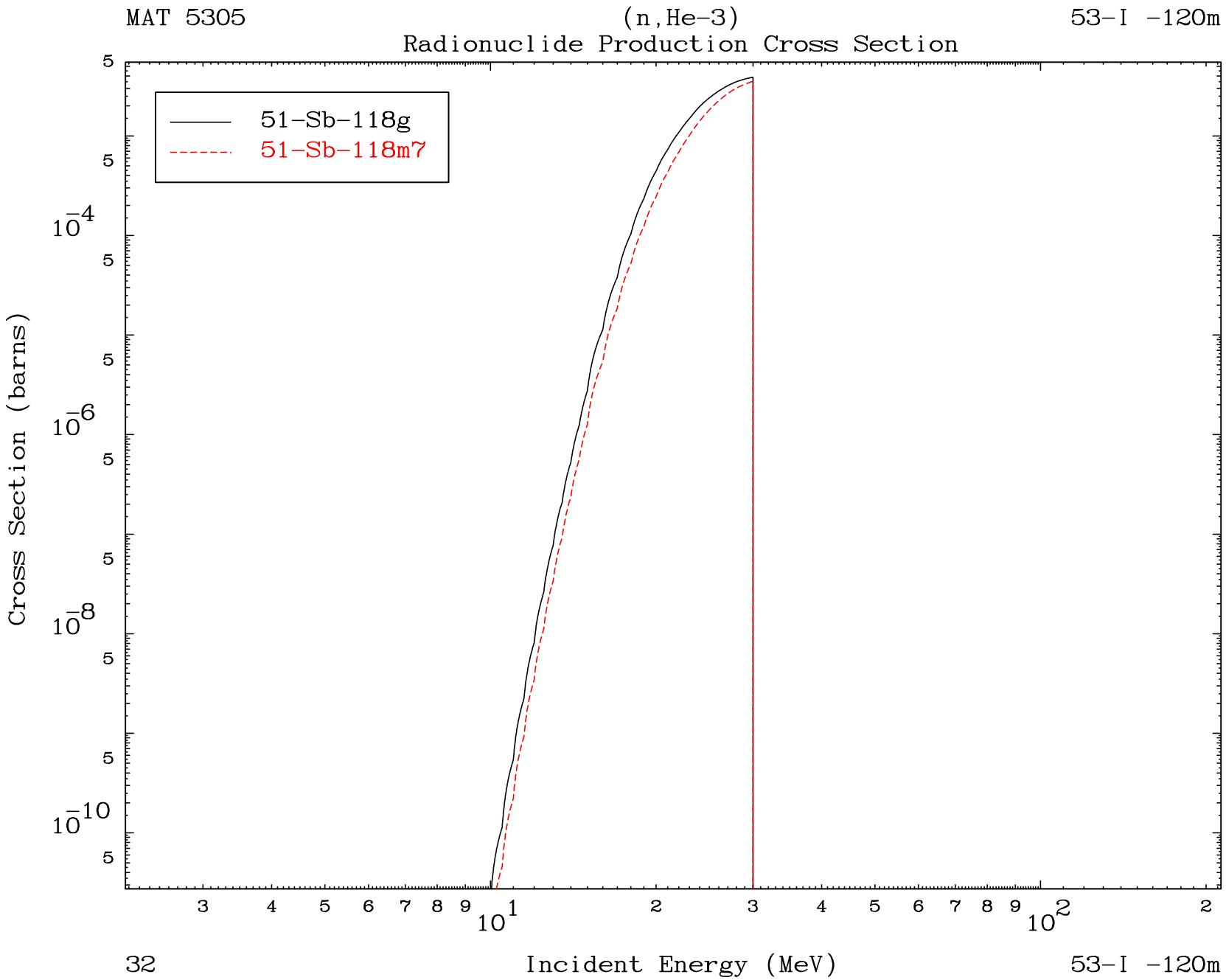

MAT 5305
(n,2n) 2α
53-I -120m
Radionuclide Production Cross Section
49-In-111g
49-In-111m1
Cross Section (barns)
10-8
10-10
10-12
10-14
5
8 9 10 1 2 3 4 5 6 7 8 9 10 2 2
Incident Energy (MeV)
27
53-I -120m

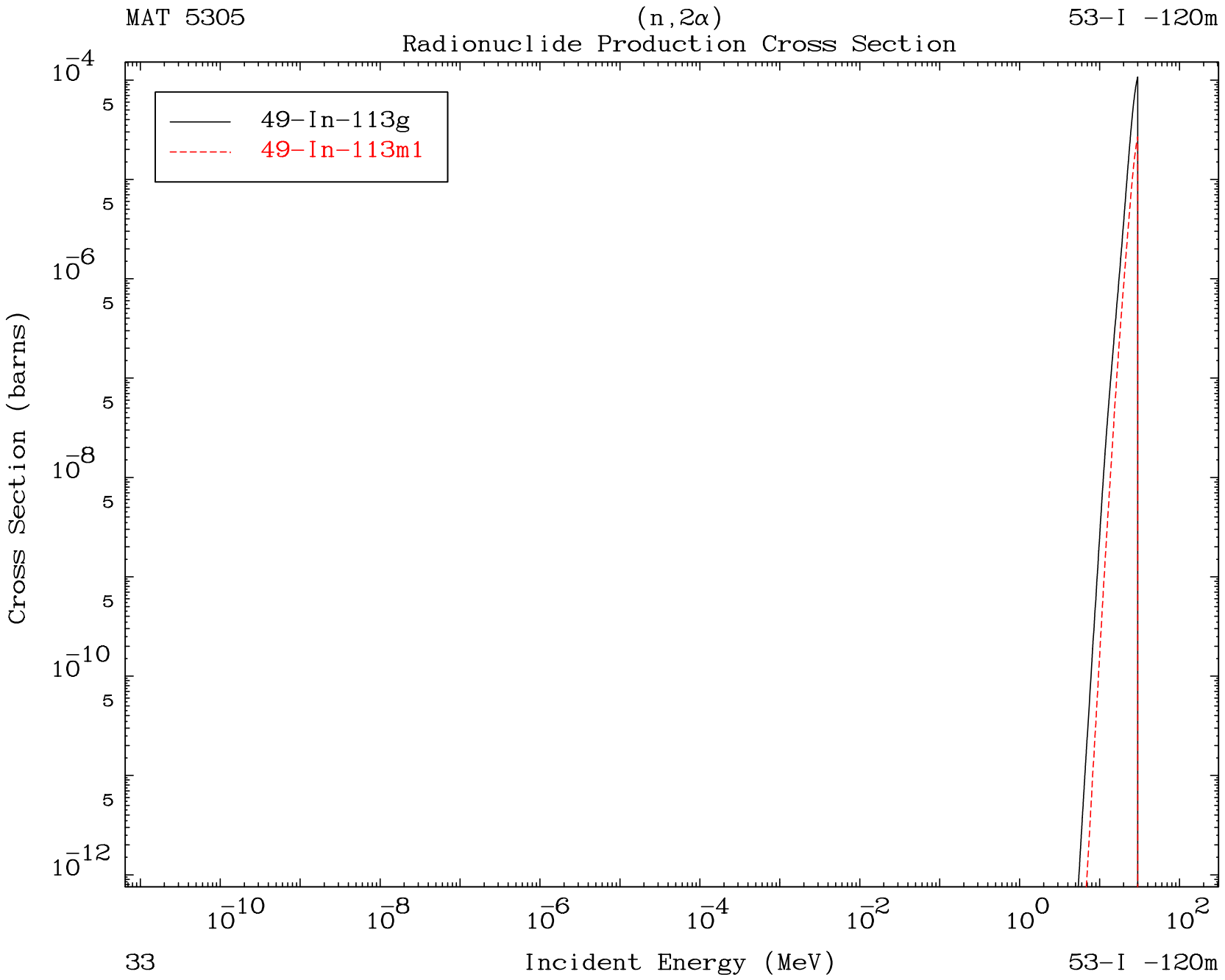

MAT 5305
(n,n') t
53-I -120m
Radionuclide Production Cross Section
52-Te-117g
52-Te-117m3
Cross Section (barns)
Incident Energy (MeV)
28
53-I -120m

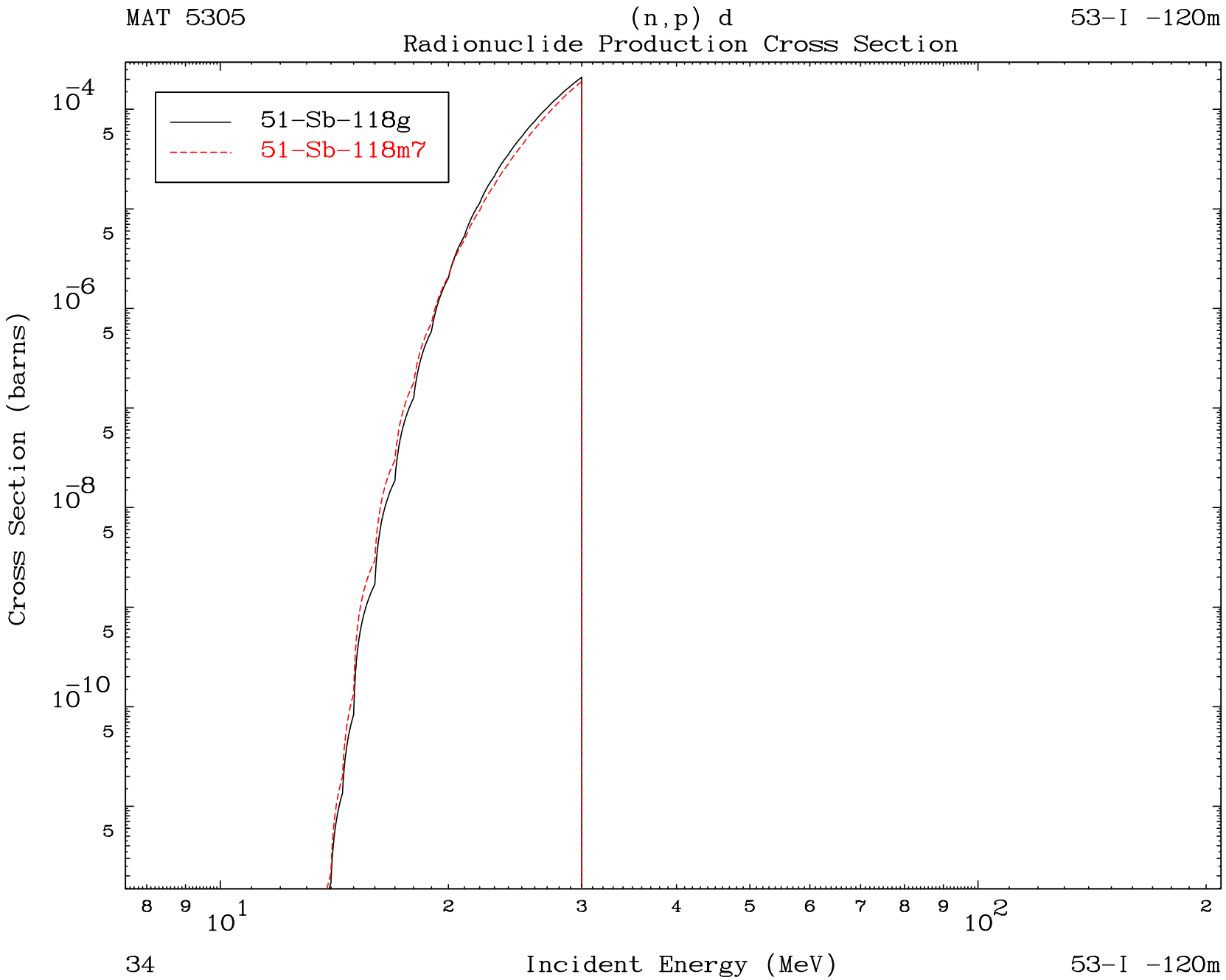

MAT 5305
(n,3n) p
53-I -120m
Radionuclide Production Cross Section
52-Te-117g
52-Te-117m3
Cross Section (barns)
10-4
10-6
10-8
10-10
Incident Energy (MeV)
29
53-I -120m


MAT 5305
(n,2n) p
53-I -120m
Radionuclide Production Cross Section
51-Sb-118g
51-Sb-118m7
Cross Section (barns)
Incident Energy (MeV)
30
53-I -120m


MAT 5305
(n,d)
53-I -120m
Radionuclide Production Cross Section
52-Te-119g
52-Te-119m2
Cross Section (barns)
Incident Energy (MeV)
31
53-I -120m


MAT 5305
(n,He-3)
53-I -120m
Radionuclide Production Cross Section
51-Sb-118g
51-Sb-118m7
Cross Section (barns)
Incident Energy (MeV)
32
53-I -120m


MAT 5305
(n,2α)
53-I -120m
Radionuclide Production Cross Section
49-In-113g
49-In-113m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10^-12
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
33
Incident Energy (MeV)
53-I -120m


MAT 5305
(n,p) d
53-I -120m
Radionuclide Production Cross Section
51-Sb-118g
51-Sb-118m7
Cross Section (barns)
Incident Energy (MeV)
34
53-I -120m