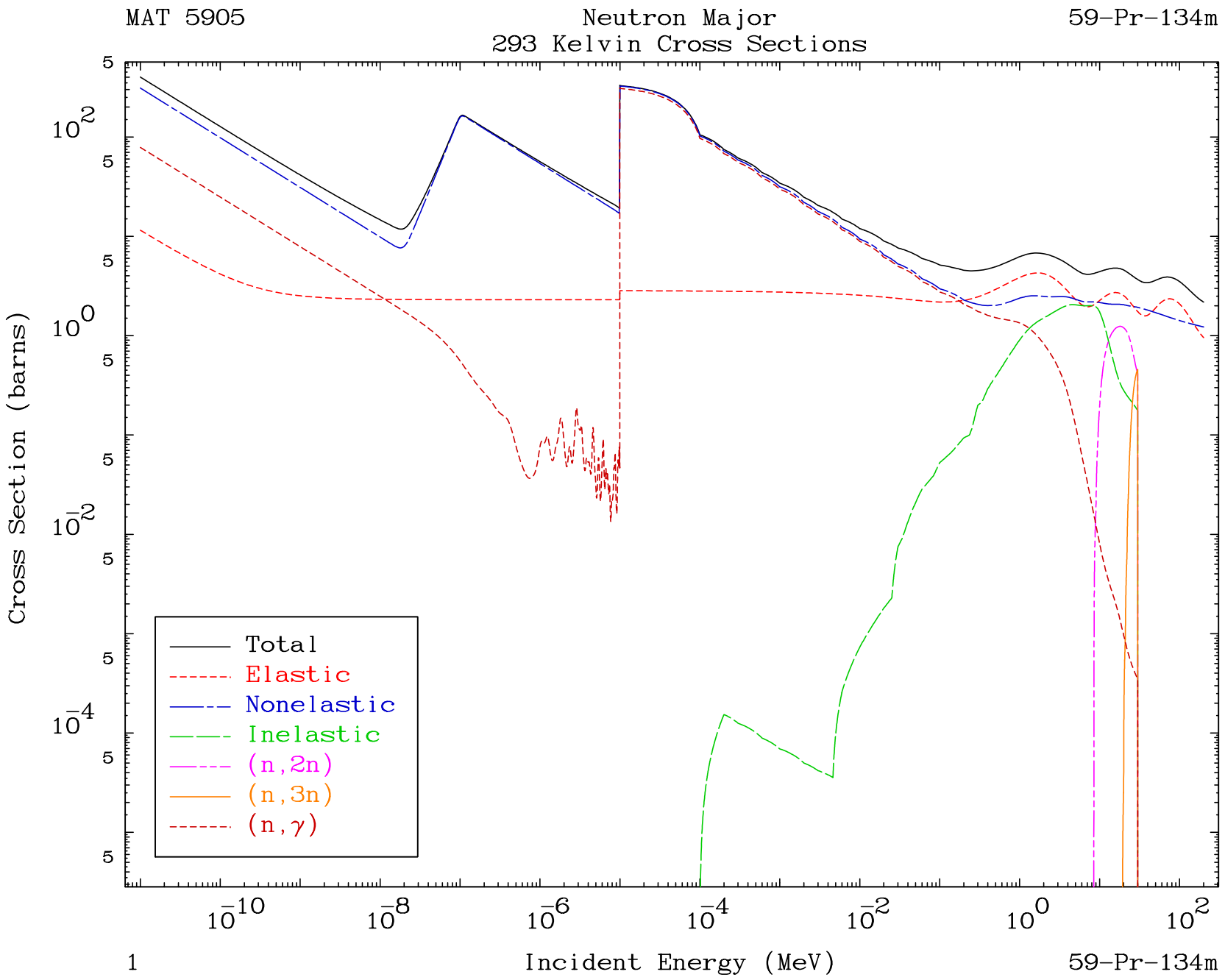
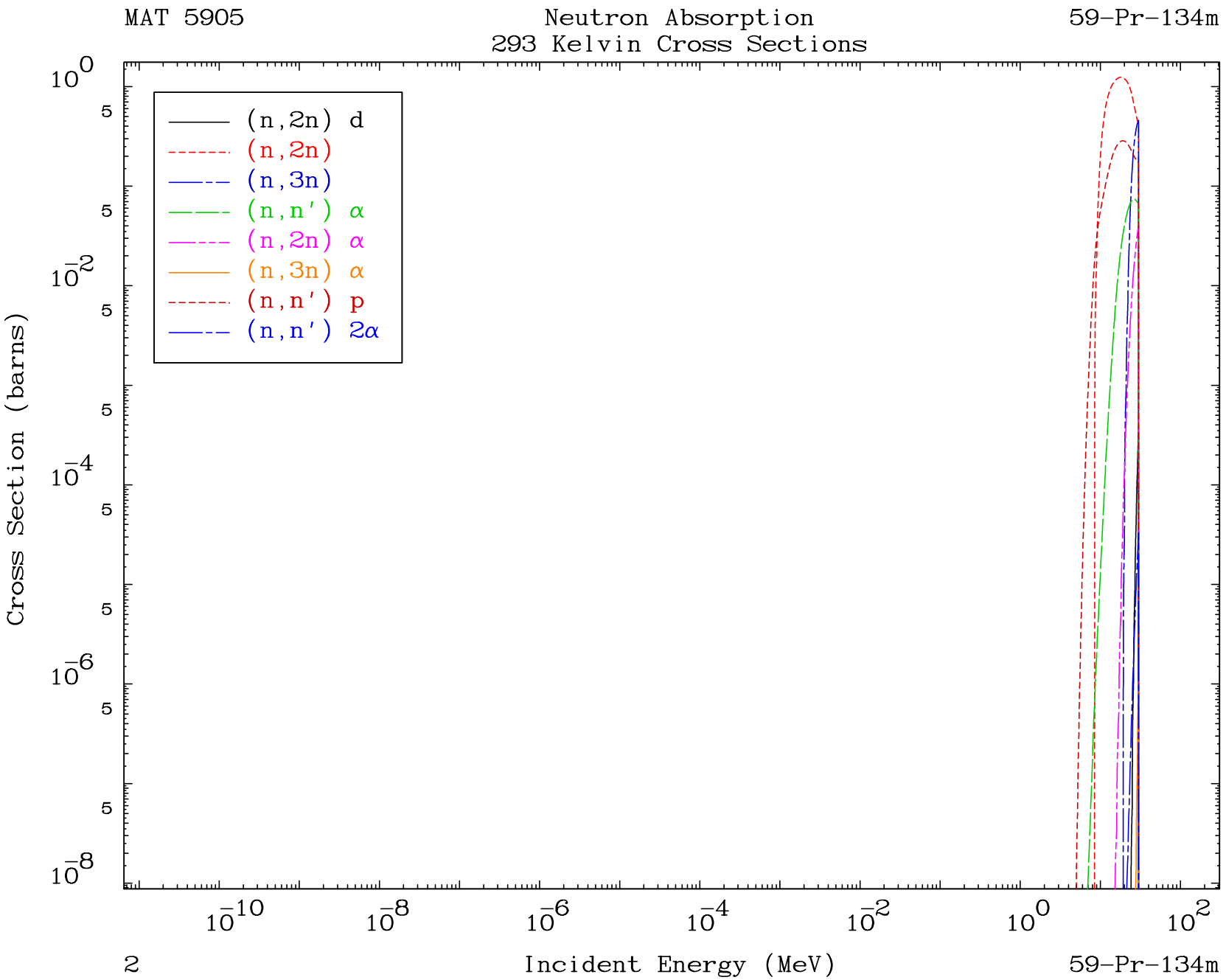
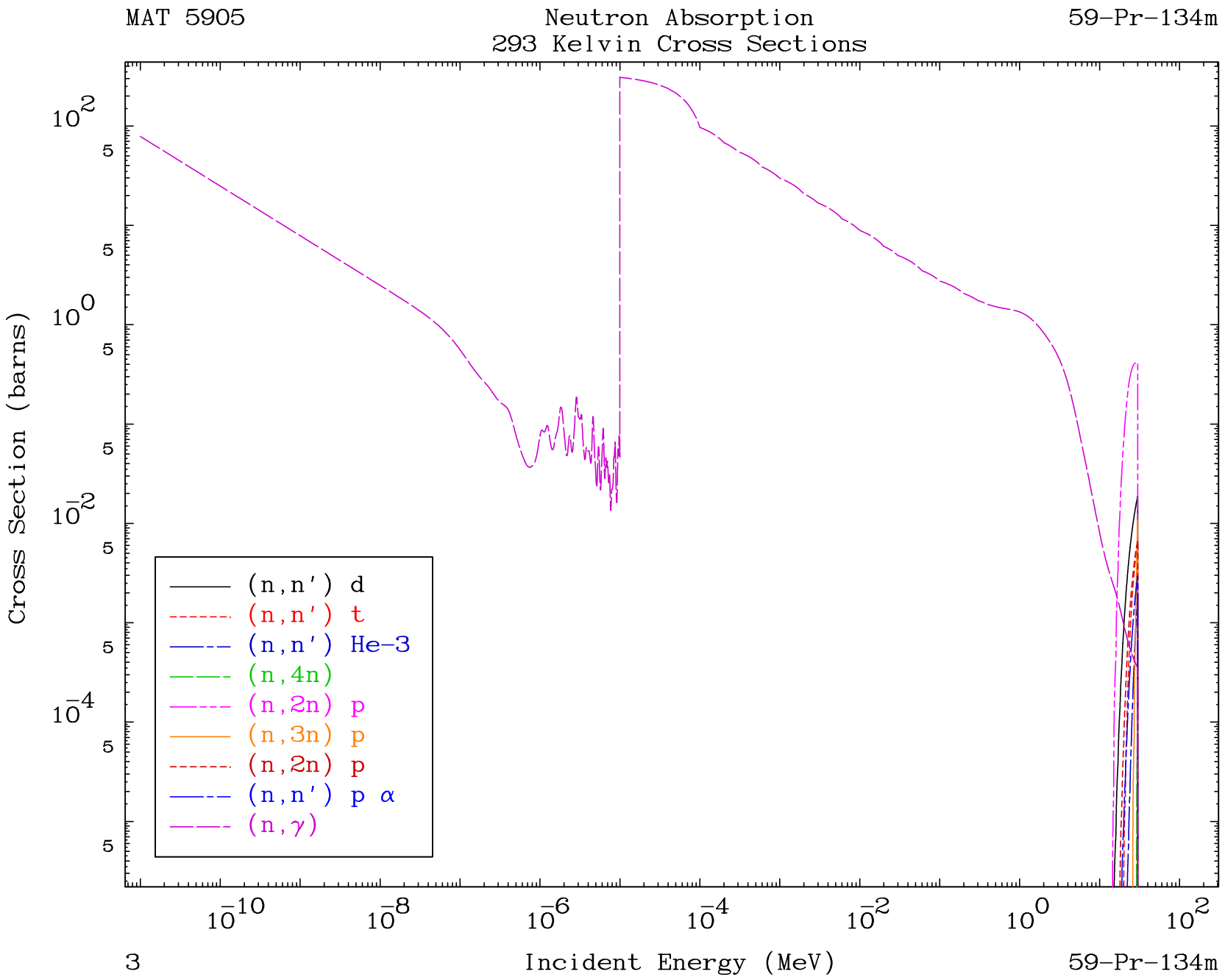
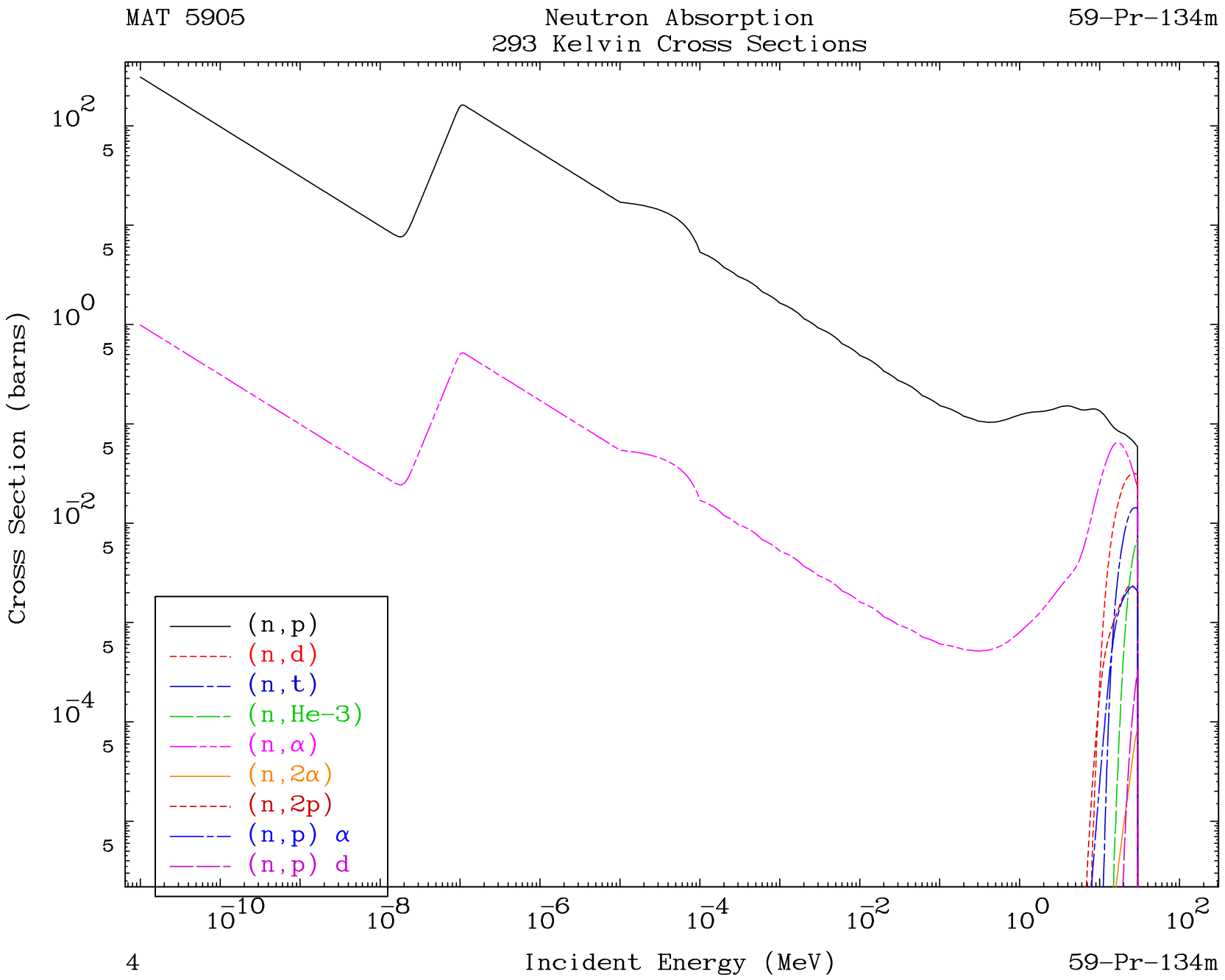
Program EVALPLOT
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

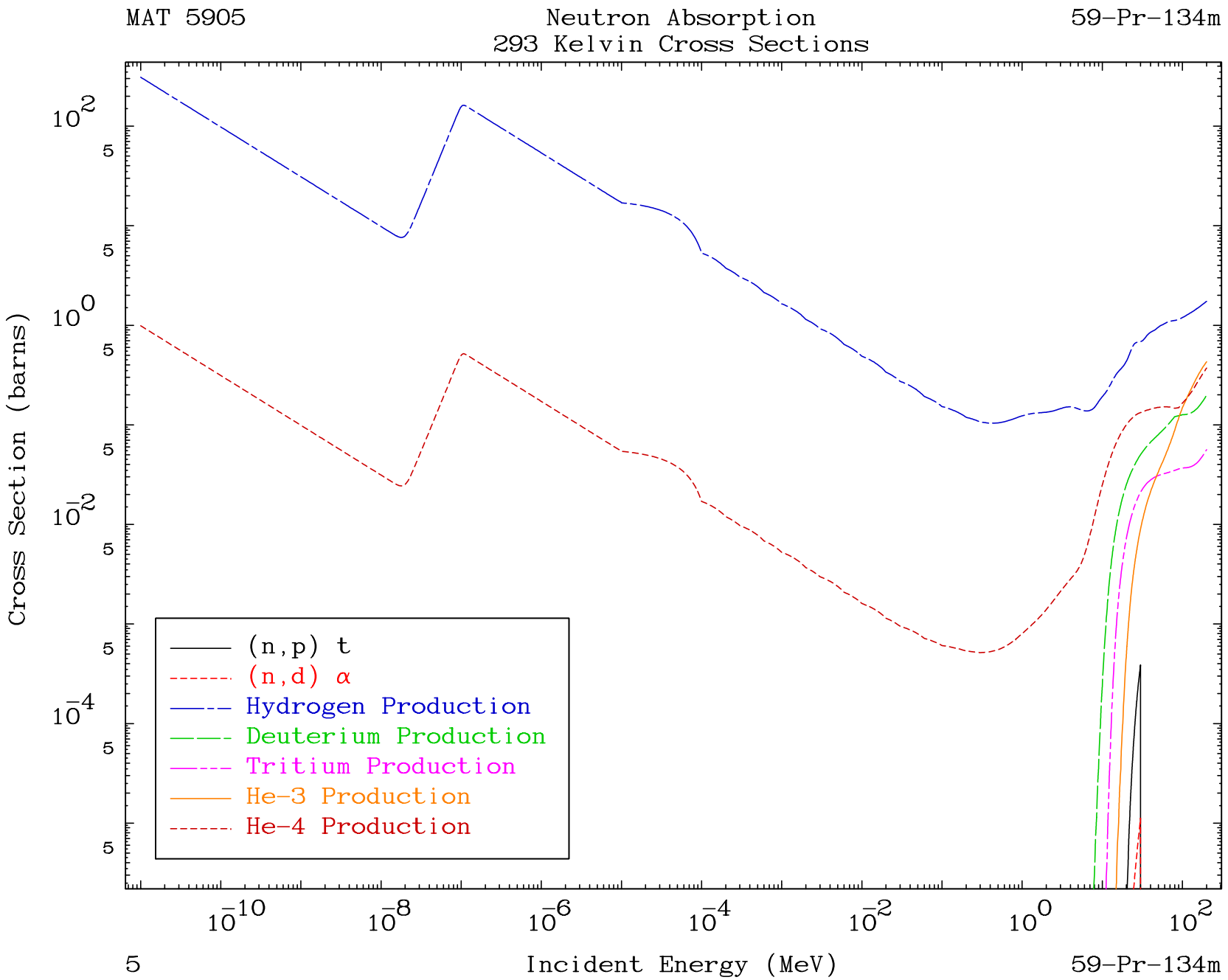
Press Mouse Button to Start

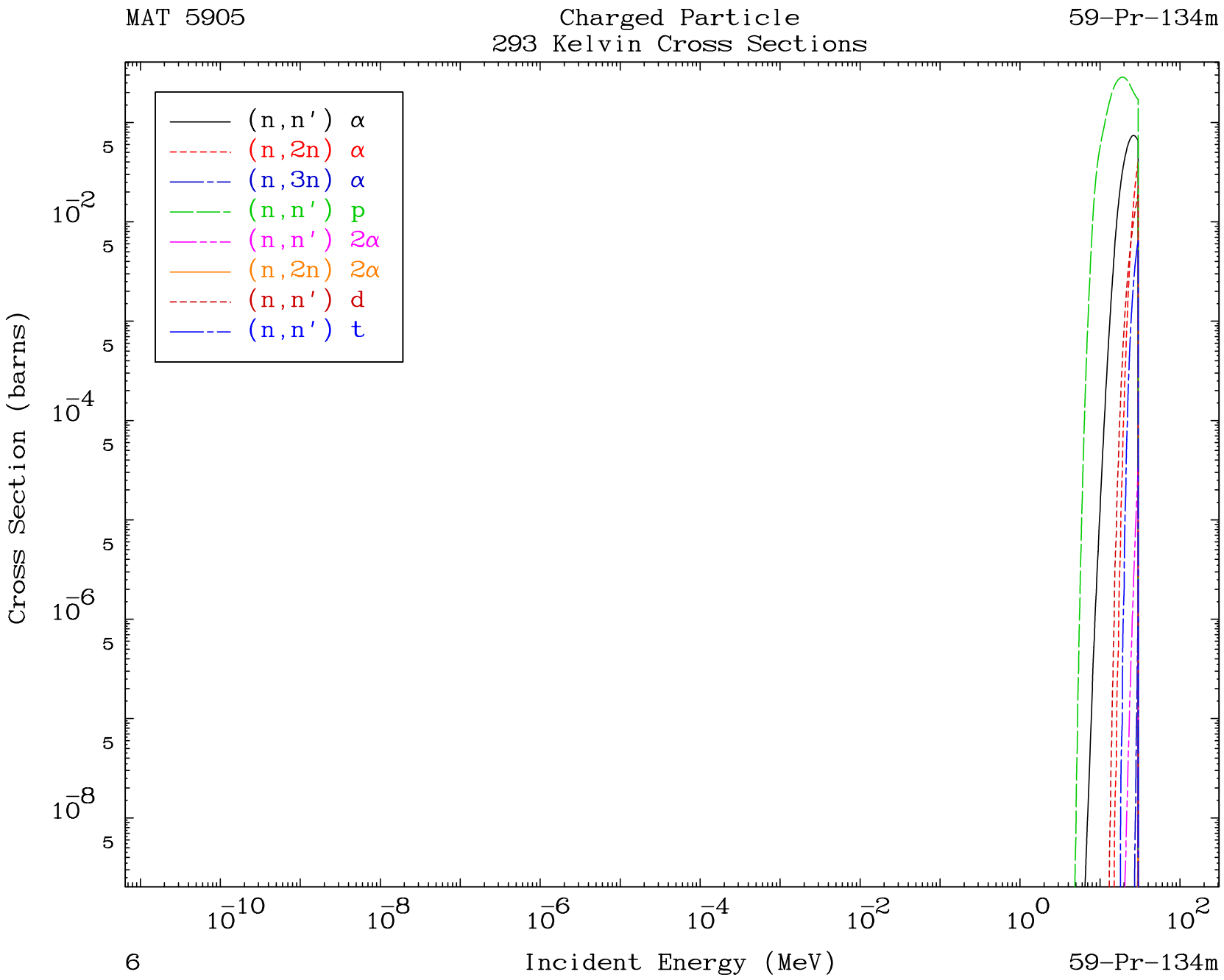

MAT 5905
Neutron Major
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
Incident Energy (MeV)
59-Pr-134m
1
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,3n)
(n,γ)

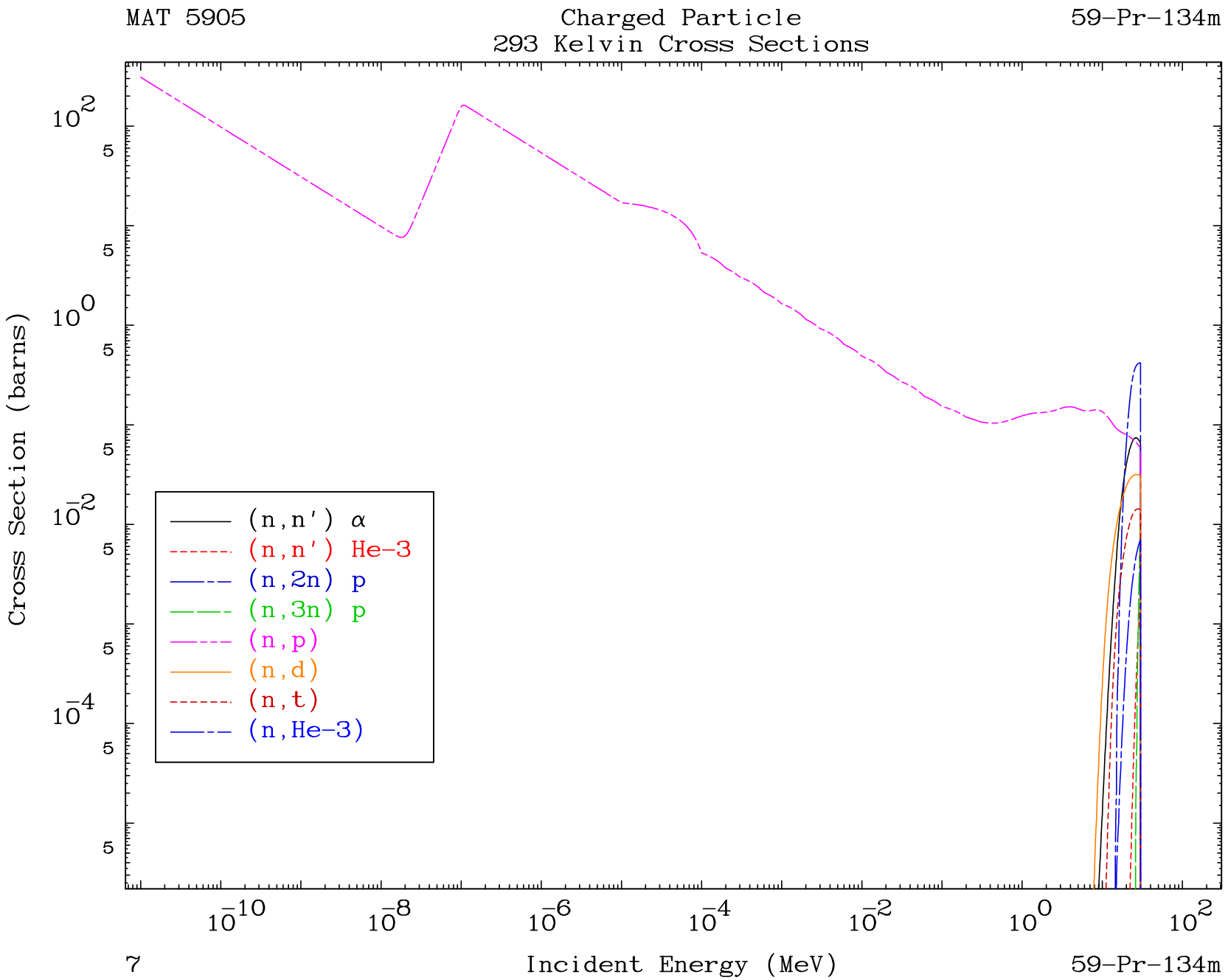

MAT 5905
Neutron Absorption
293 Kelvin Cross Sections
59-Pr-134m
(n,2n) d
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
59-Pr-134m
2

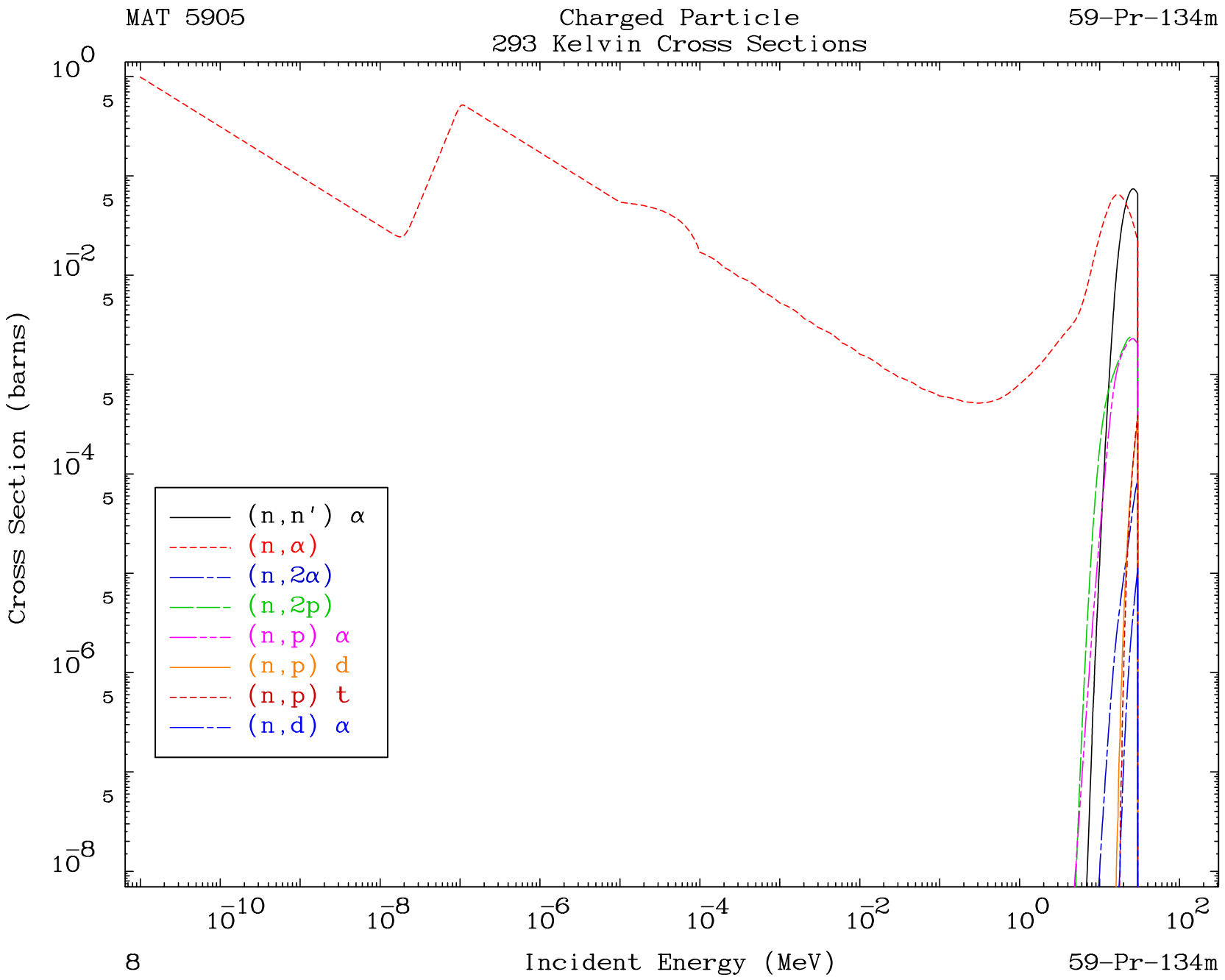

MAT 5905
Neutron Absorption
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
Incident Energy (MeV)
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
(n,2n) p
(n,n') p α
(n,γ)
3
59-Pr-134m

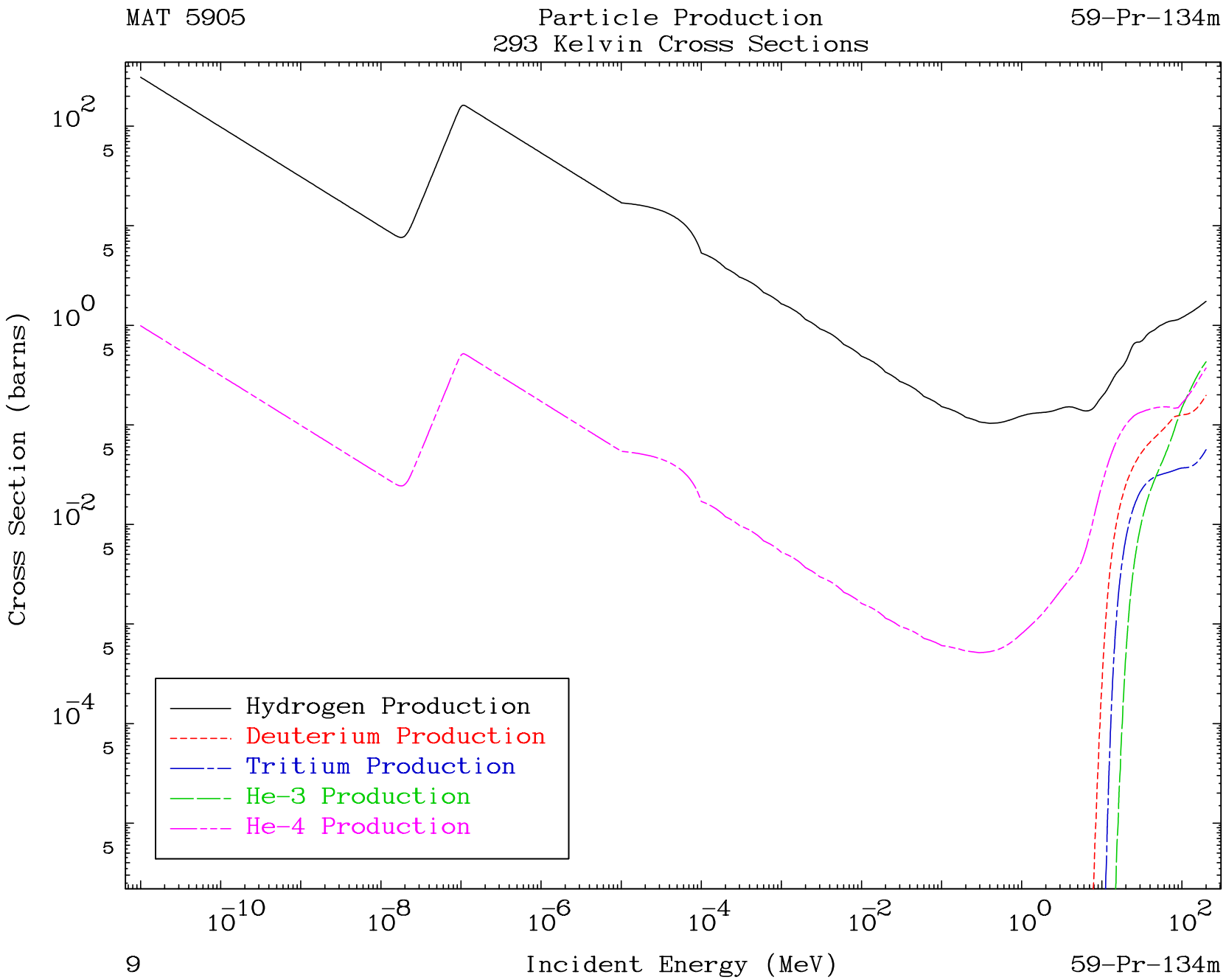

MAT 5905
Neutron Absorption
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
Incident Energy (MeV)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
4
59-Pr-134m

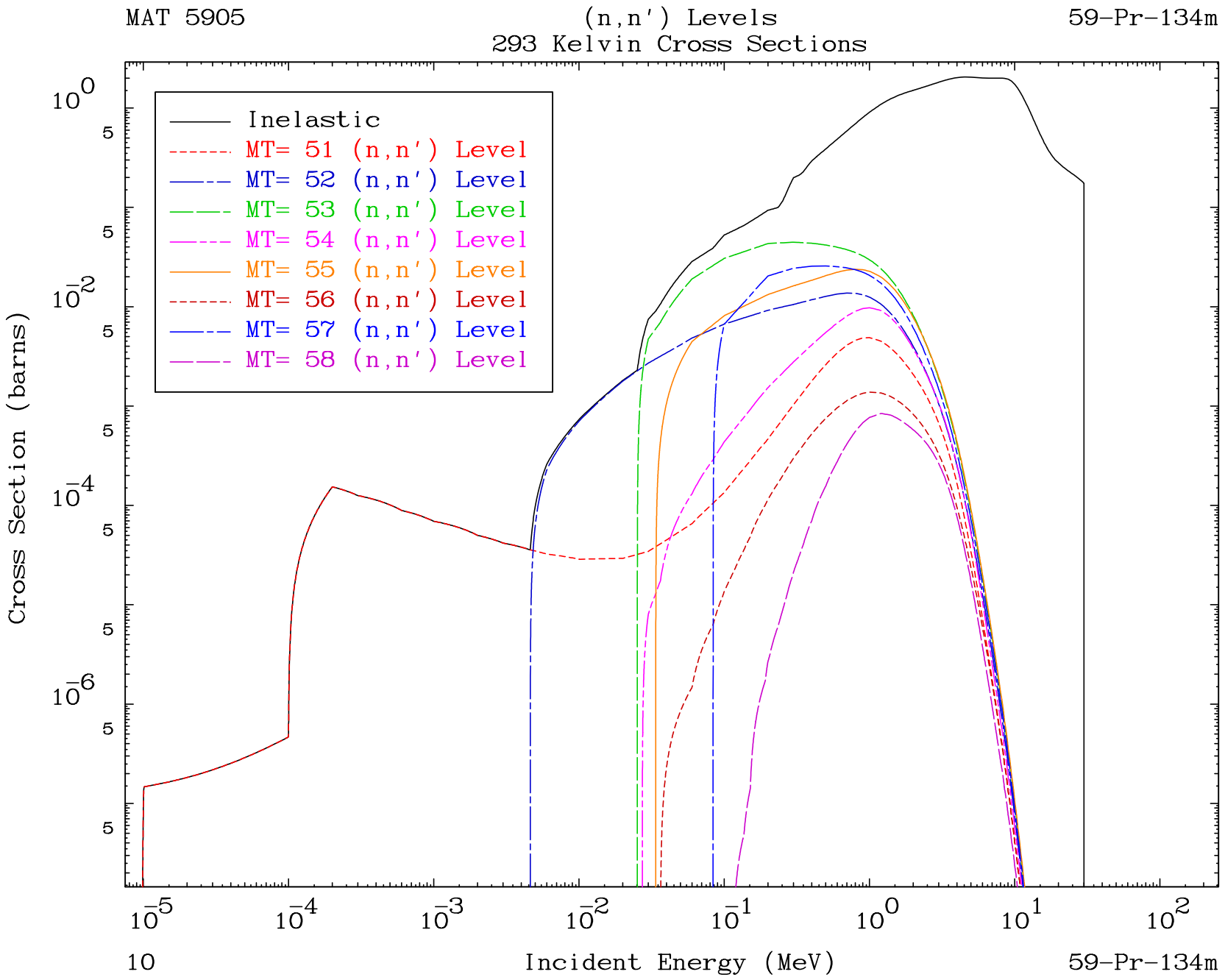

MAT 5905
Neutron Absorption
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
Incident Energy (MeV)
59-Pr-134m
5
(n,p) t
(n,d) α
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production

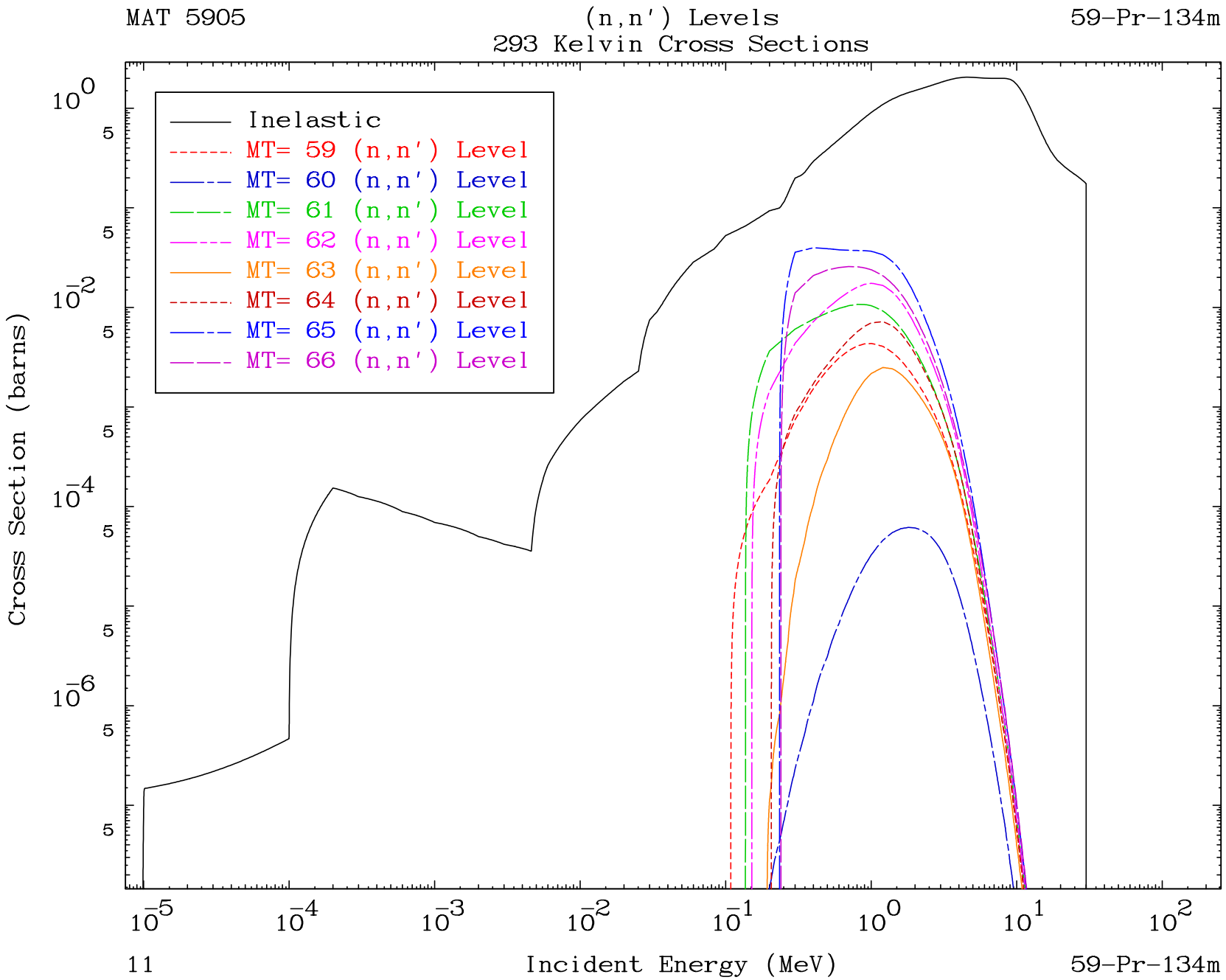

MAT 5905
Charged Particle
293 Kelvin Cross Sections
59-Pr-134m
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
Cross Section (barns)
10-2
10-4
10-6
10-8
10-10
10-8
10-6
10-4
10-2
100
102
Incident Energy (MeV)
6
59-Pr-134m

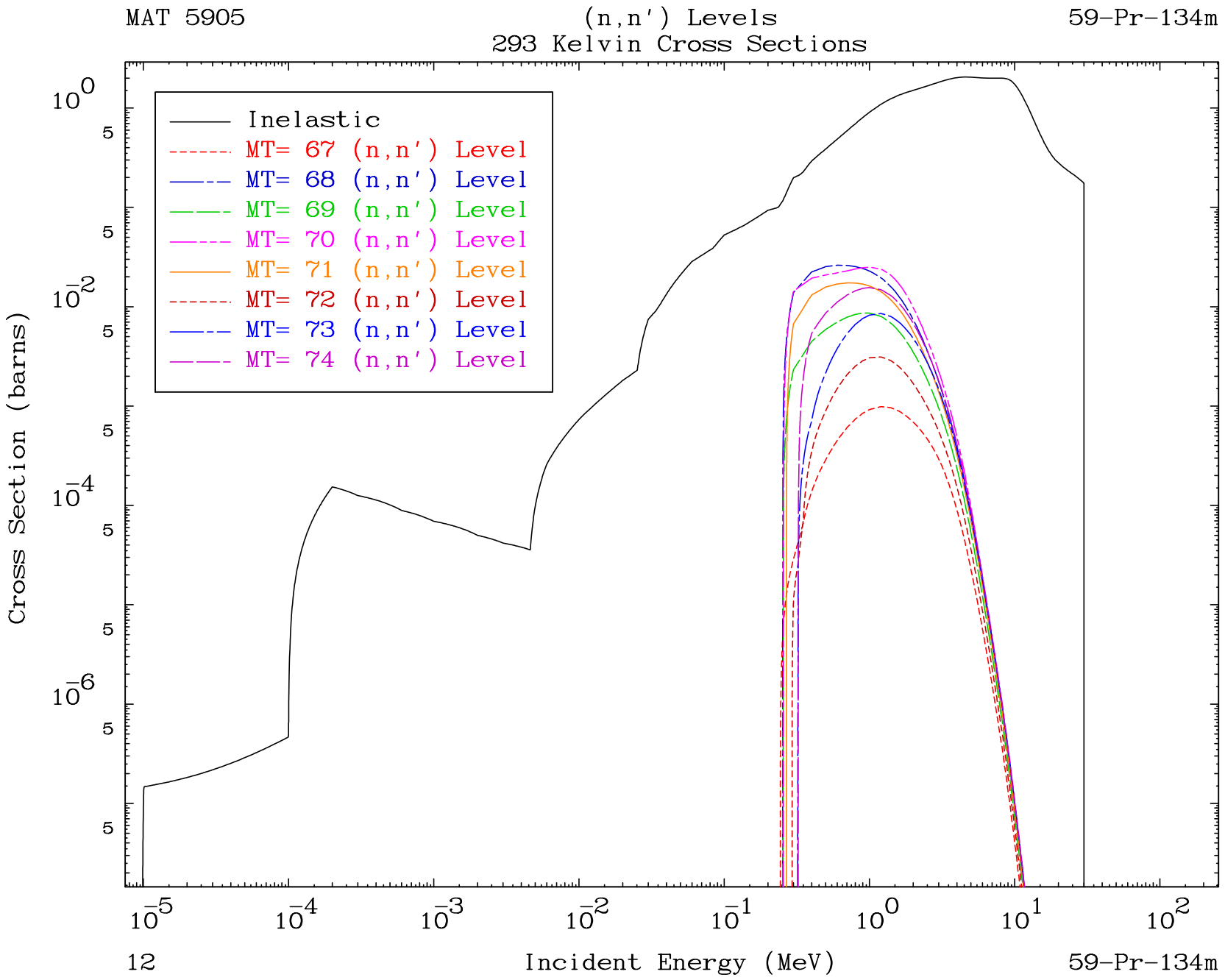

MAT 5905
Charged Particle
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
Incident Energy (MeV)
7
59-Pr-134m
(n,n') α
(n,n') He-3
(n,2n) p
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)

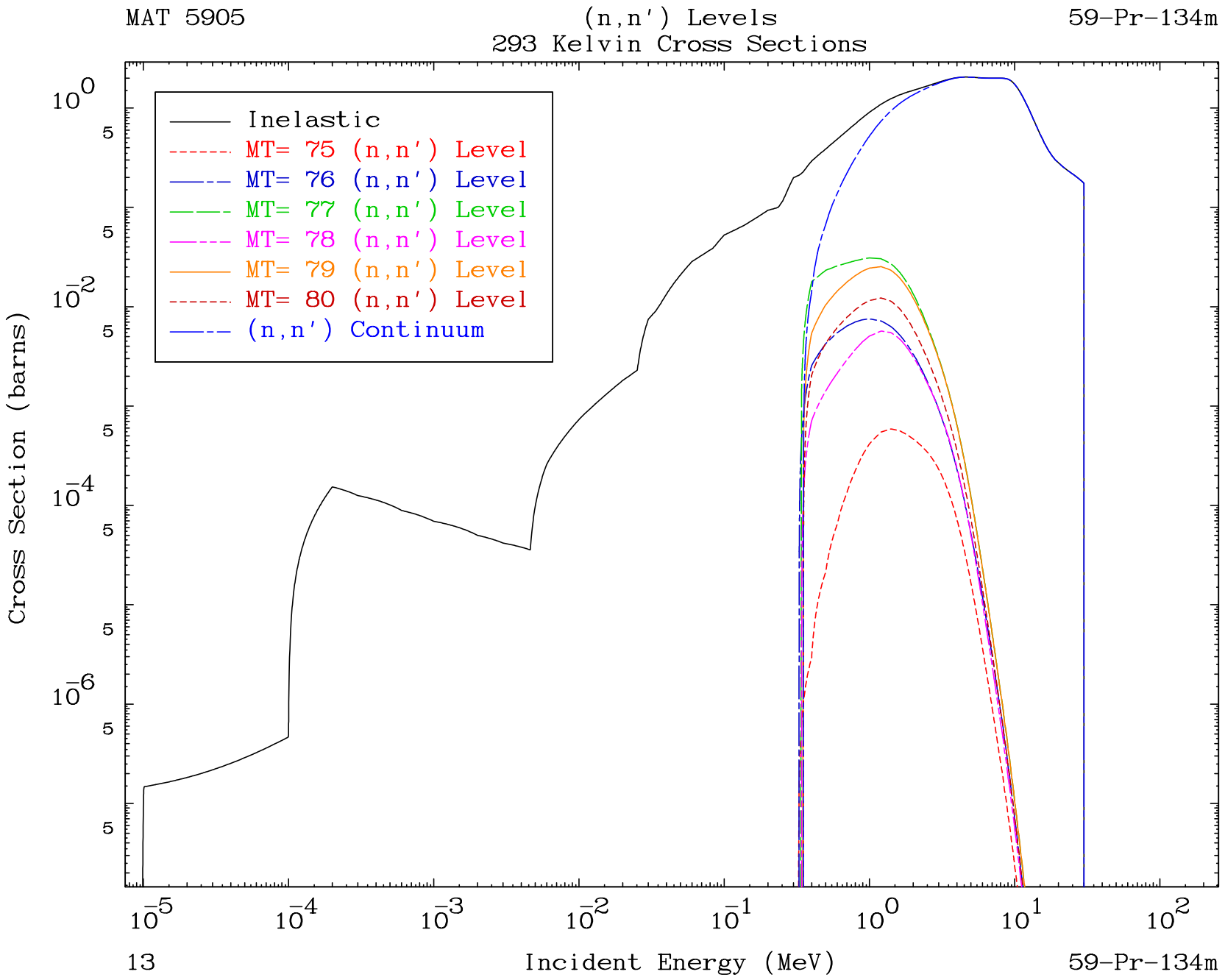

MAT 5905
Charged Particle
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
Incident Energy (MeV)
59-Pr-134m
8
(n,n') α
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α

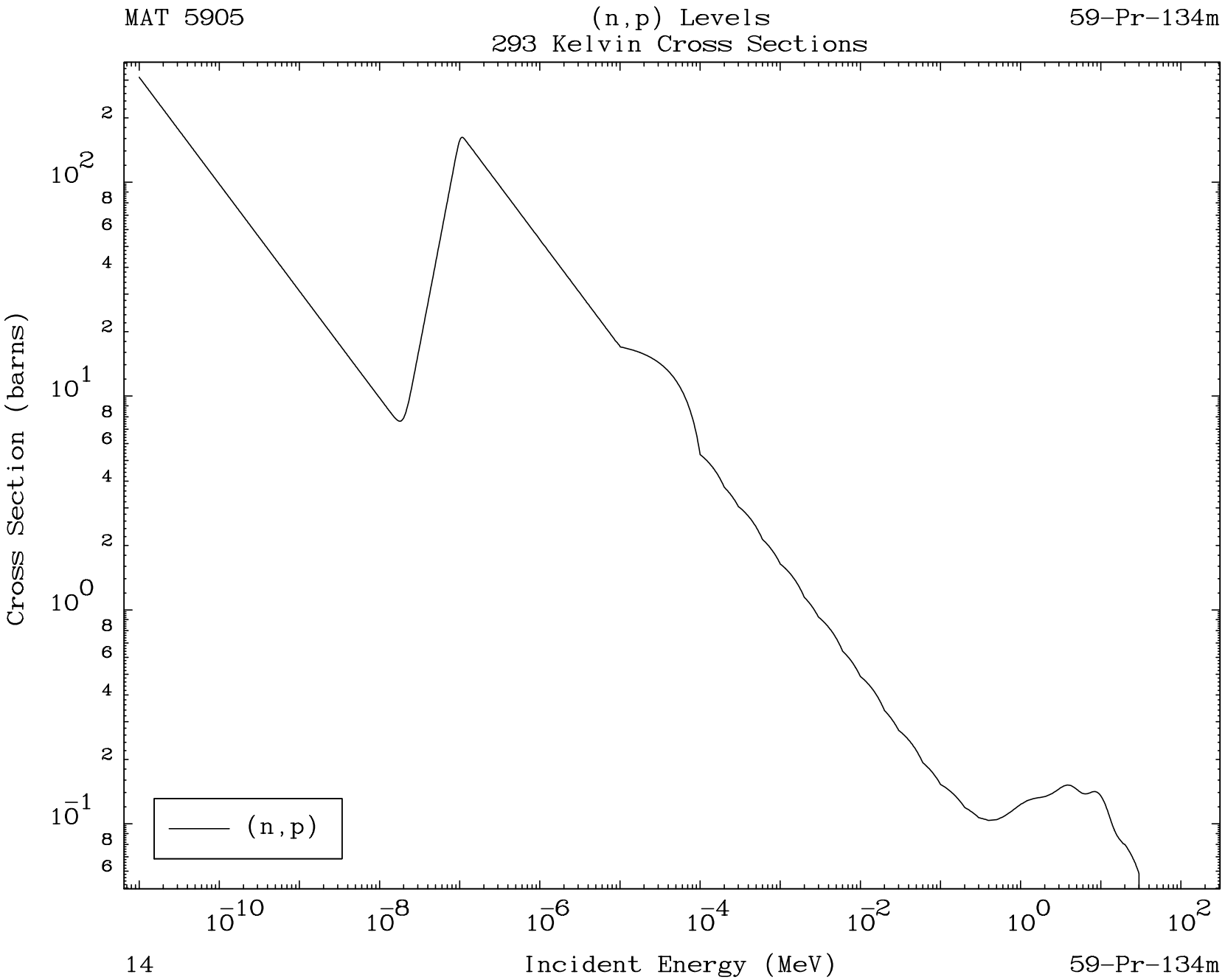

MAT 5905
Particle Production
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
10^2
5
10^0
5
10^-2
5
10^-4
5
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
9
Incident Energy (MeV)
59-Pr-134m

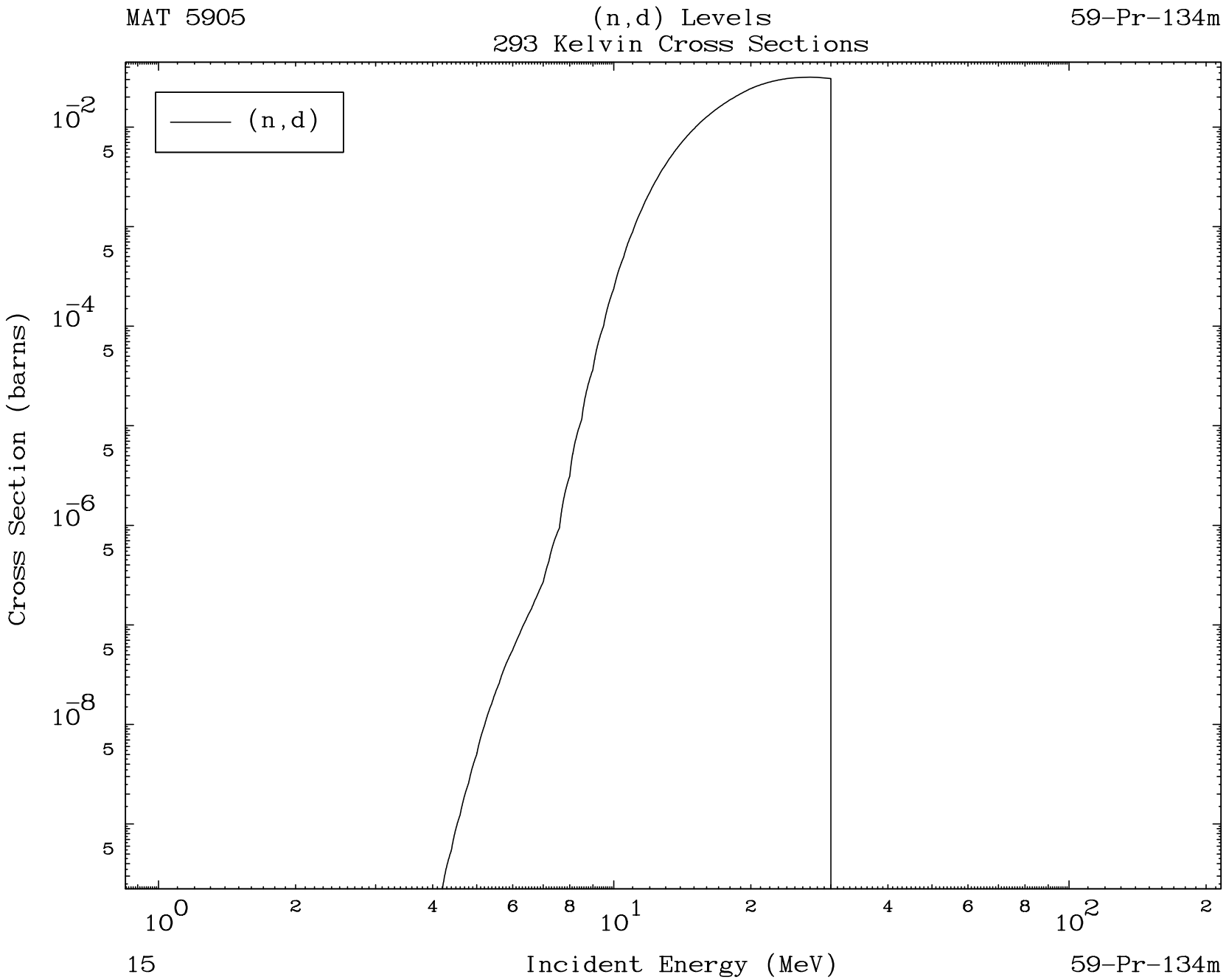

MAT 5905
(n,n') Levels
293 Kelvin Cross Sections
59-Pr-134m
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
59-Pr-134m

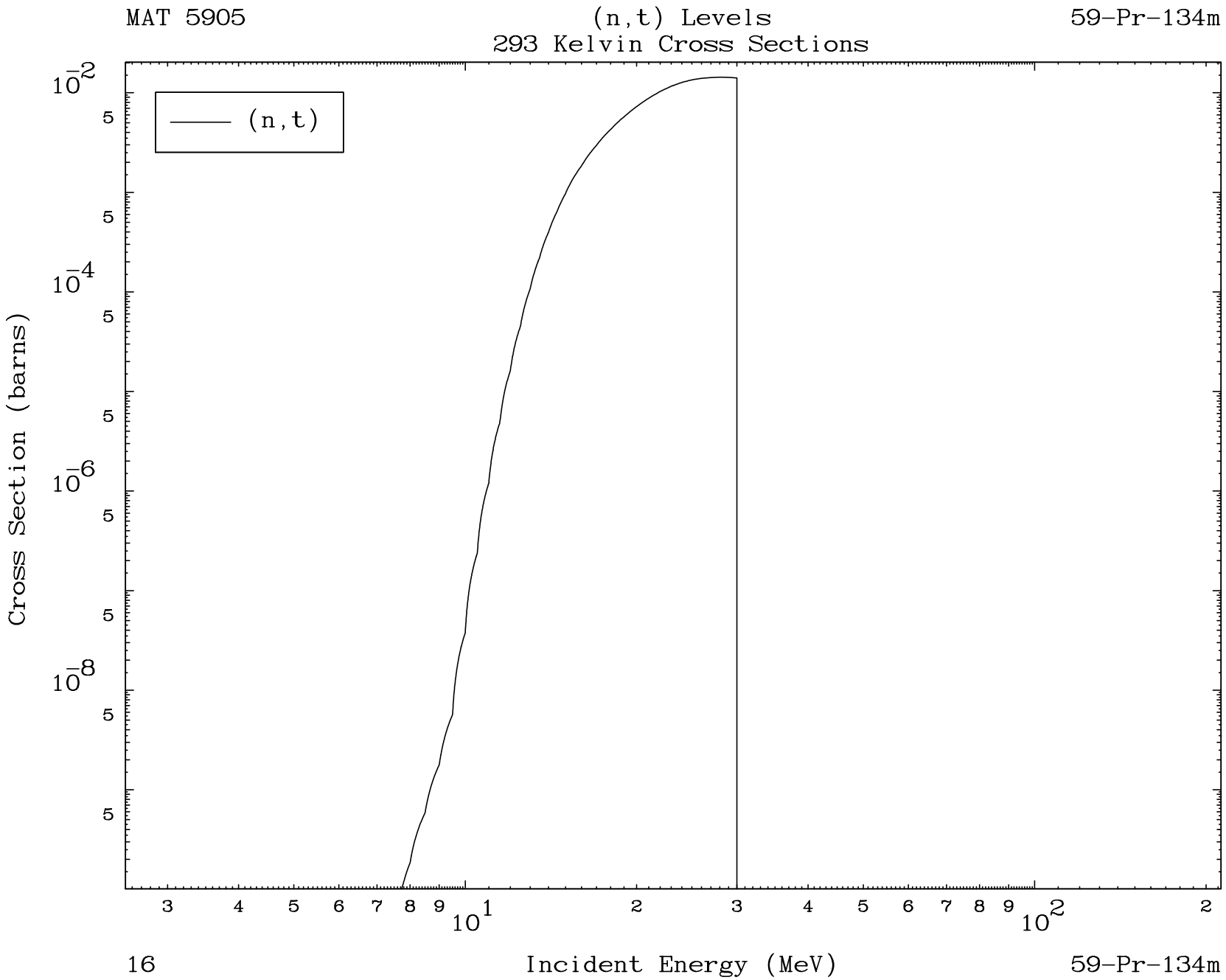

MAT 5905
(n,n') Levels
293 Kelvin Cross Sections
59-Pr-134m
Inelastic
MT= 59 (n,n') Level
MT= 60 (n,n') Level
MT= 61 (n,n') Level
MT= 62 (n,n') Level
MT= 63 (n,n') Level
MT= 64 (n,n') Level
MT= 65 (n,n') Level
MT= 66 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
11
59-Pr-134m

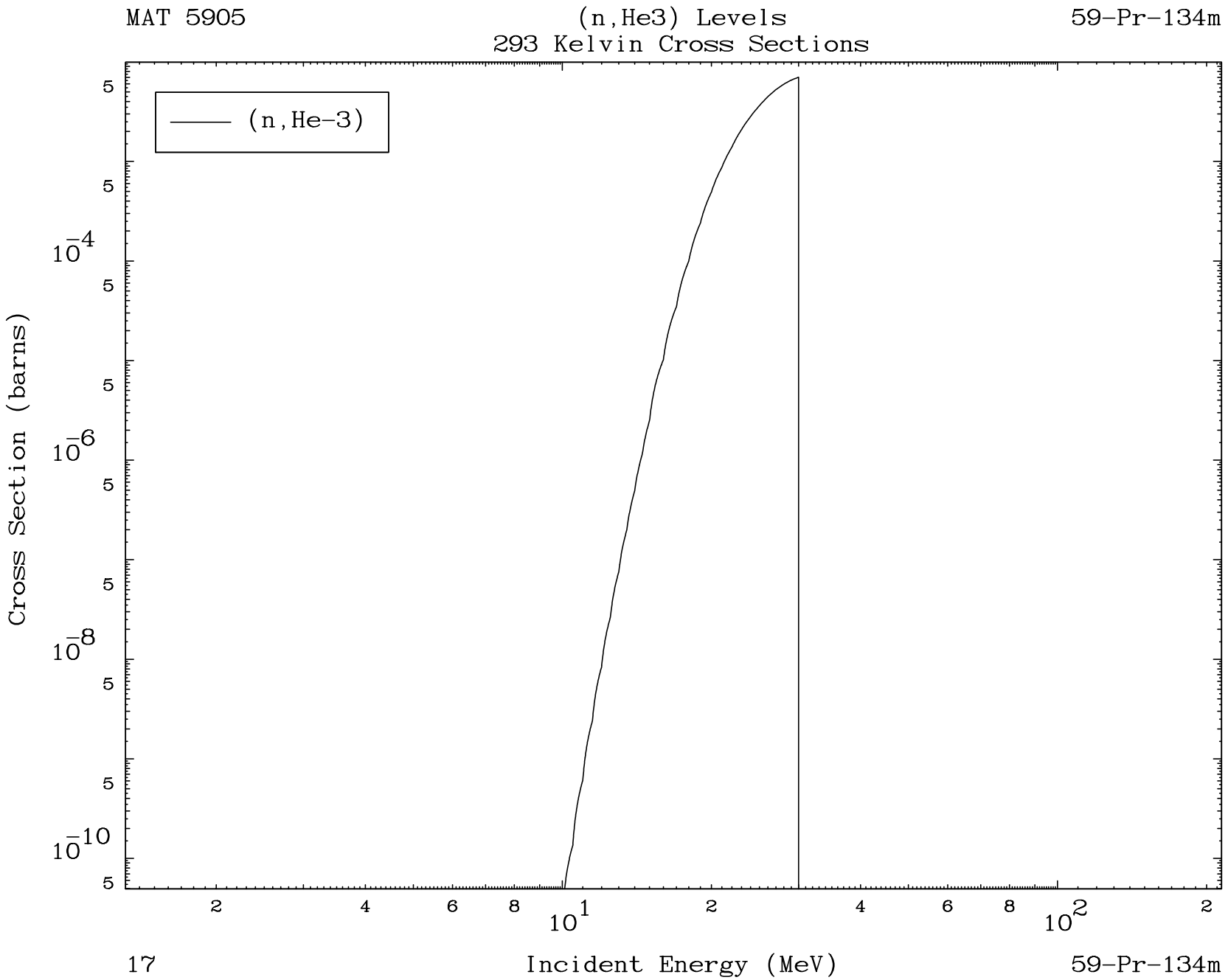

MAT 5905
(n,n') Levels
293 Kelvin Cross Sections
59-Pr-134m
Inelastic
MT= 67 (n,n') Level
MT= 68 (n,n') Level
MT= 69 (n,n') Level
MT= 70 (n,n') Level
MT= 71 (n,n') Level
MT= 72 (n,n') Level
MT= 73 (n,n') Level
MT= 74 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
12
59-Pr-134m

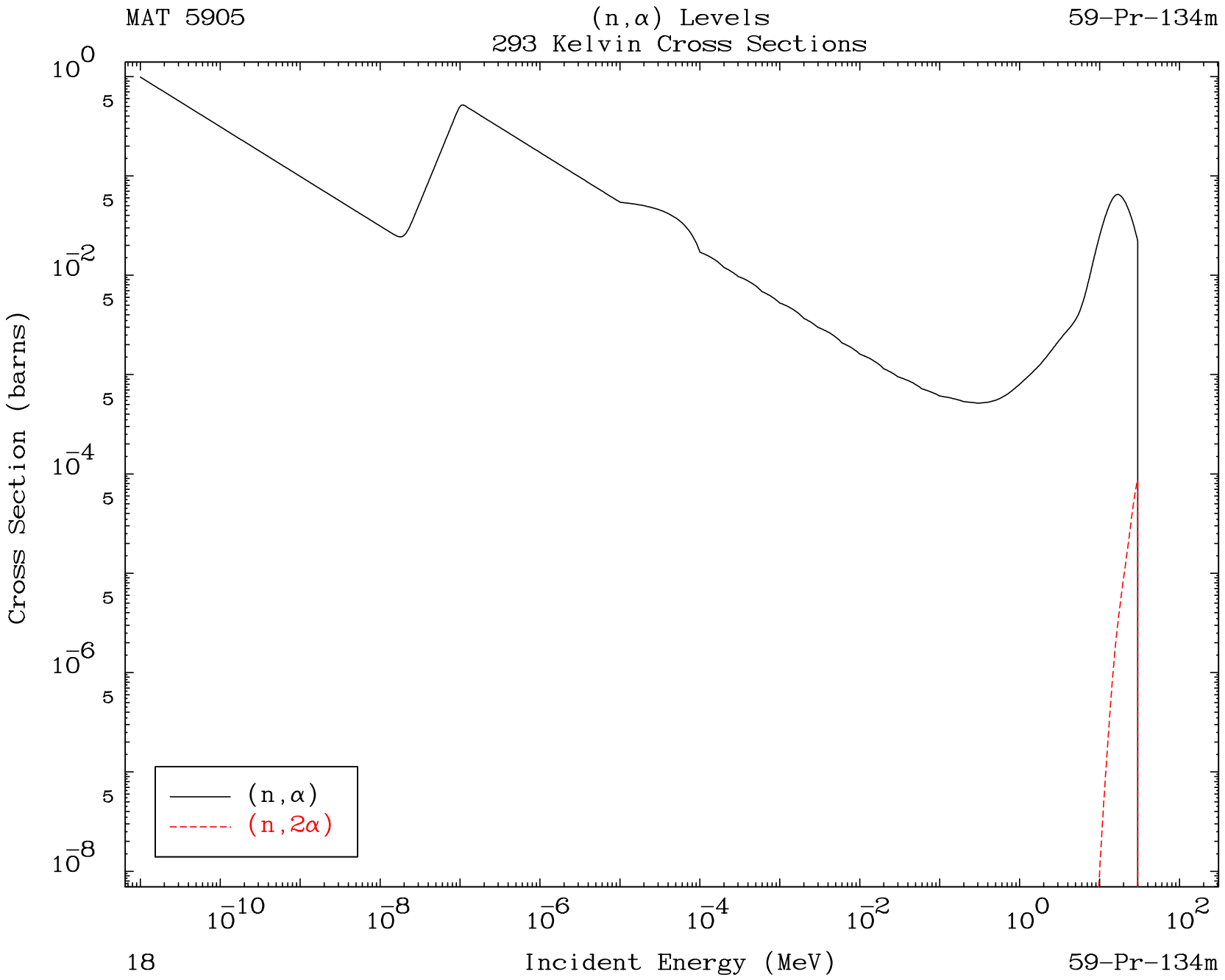

MAT 5905
(n,n') Levels
293 Kelvin Cross Sections
59-Pr-134m
Inelastic
MT= 75 (n,n') Level
MT= 76 (n,n') Level
MT= 77 (n,n') Level
MT= 78 (n,n') Level
MT= 79 (n,n') Level
MT= 80 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
13
59-Pr-134m

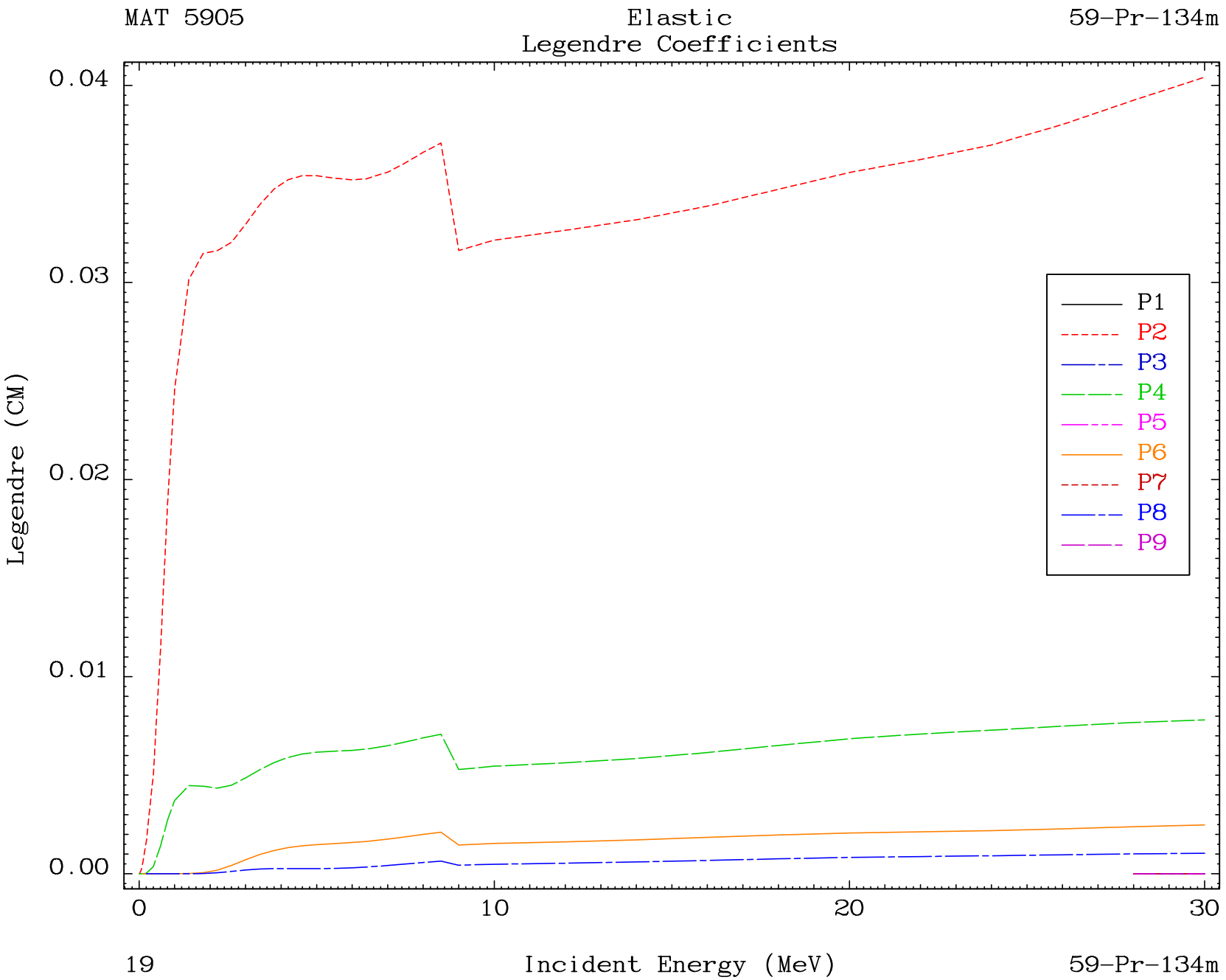

MAT 5905
(n,p) Levels
59-Pr-134m
293 Kelvin Cross Sections
Cross Section (barns)
(n,p)
Incident Energy (MeV)
14
59-Pr-134m

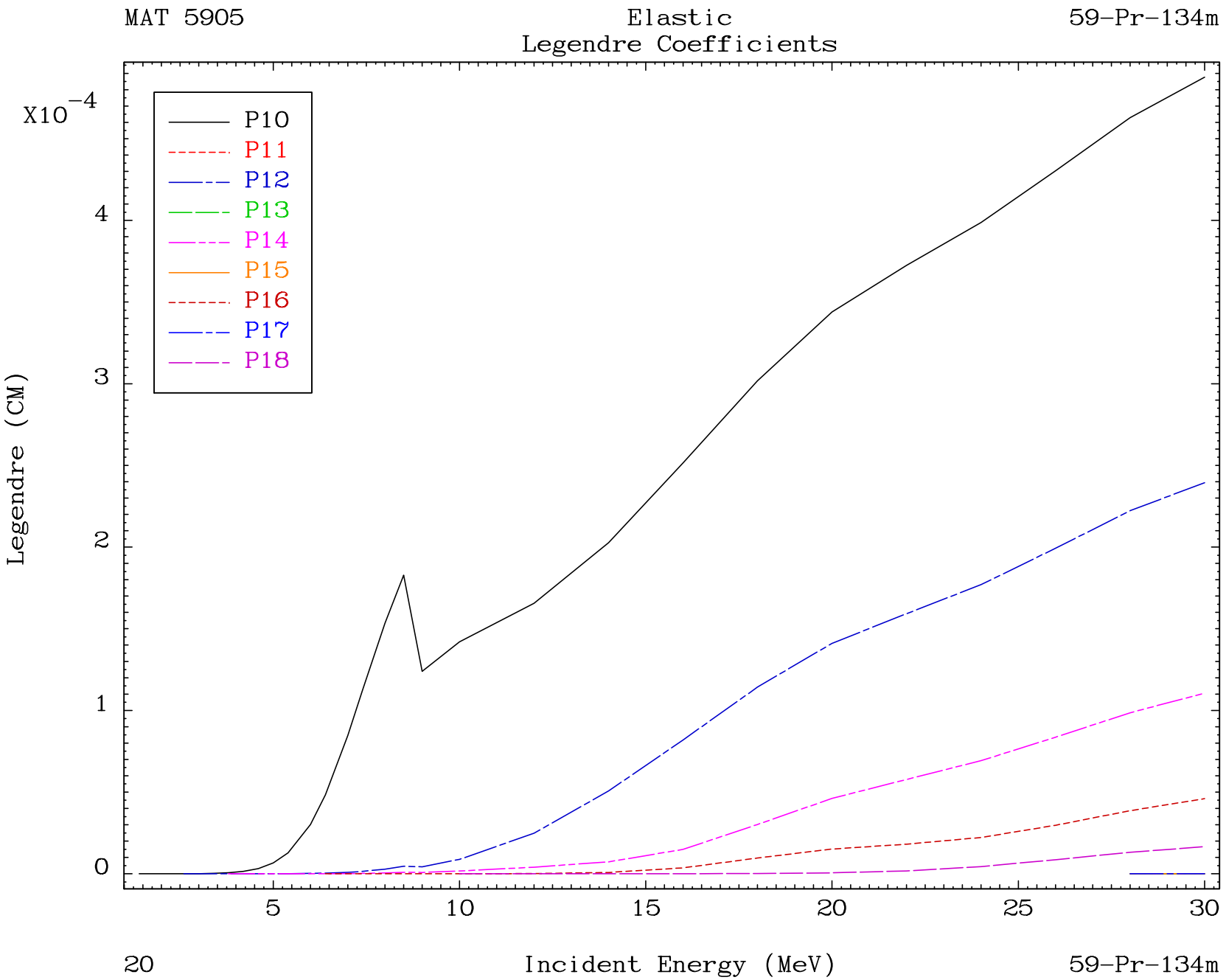

MAT 5905
(n,d) Levels
59-Pr-134m
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
59-Pr-134m
15

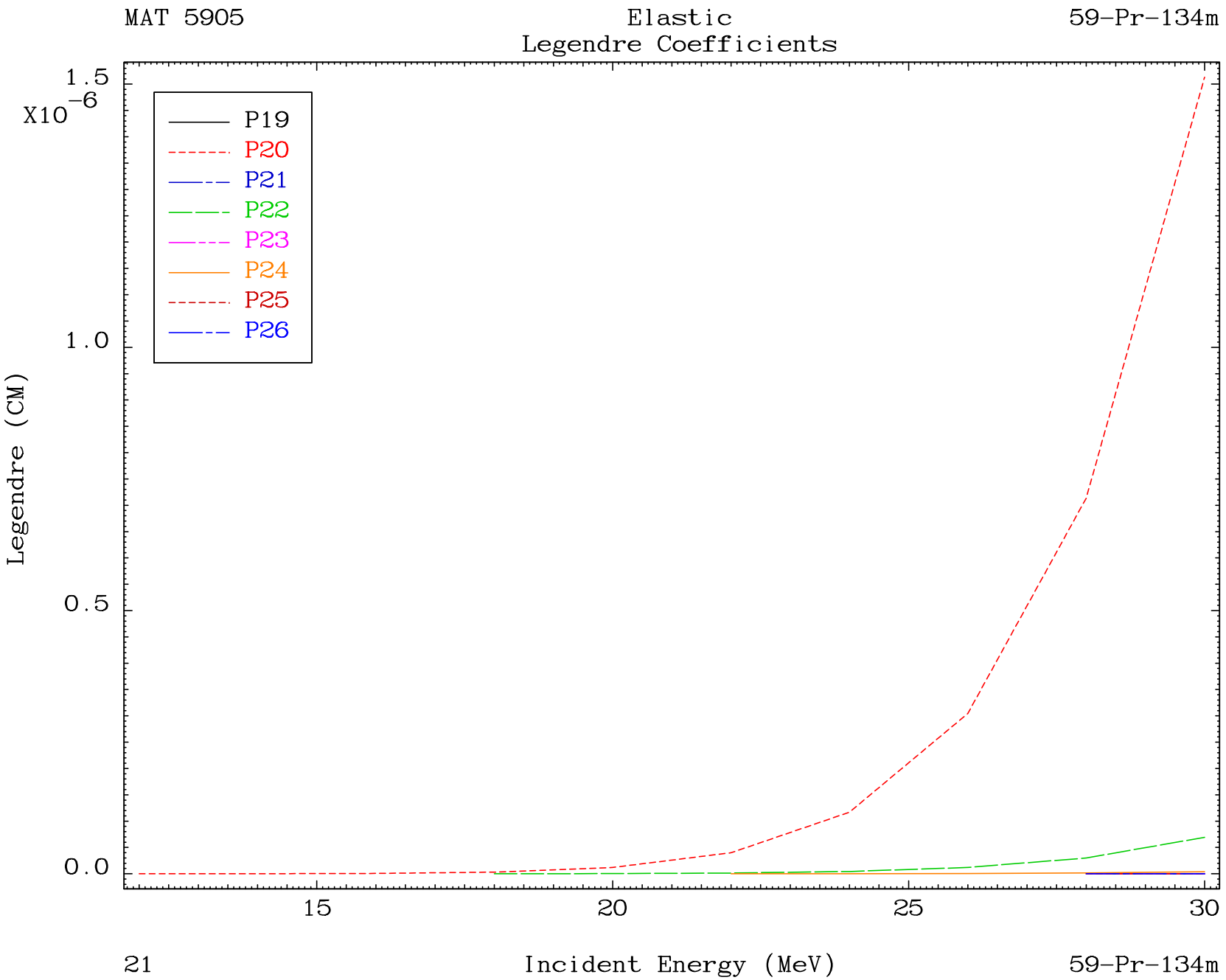

MAT 5905
(n,t) Levels
59-Pr-134m
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
16
59-Pr-134m

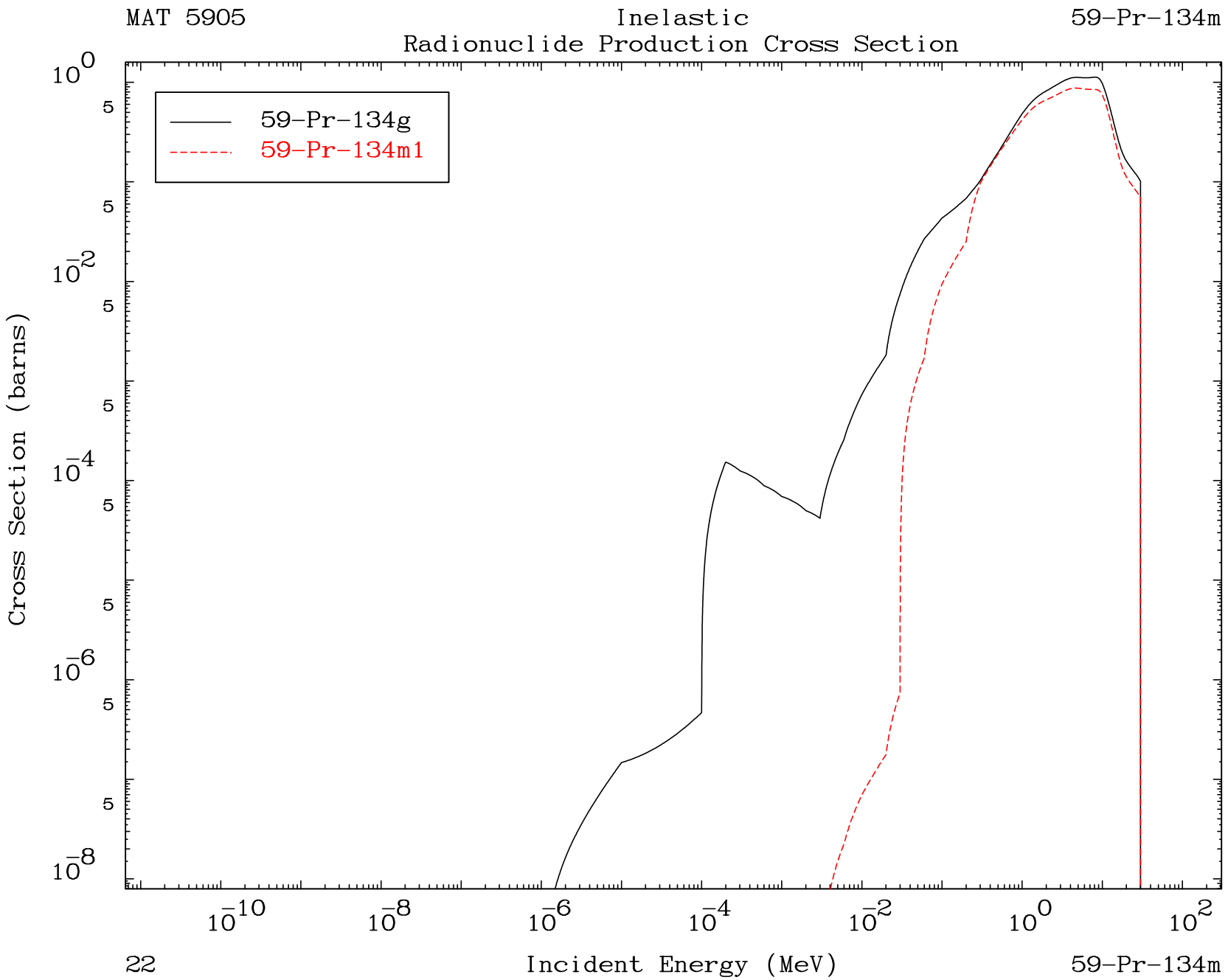

MAT 5905
(n,He3) Levels
59-Pr-134m
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-4
10-6
10-8
10-10
5
2
4
6
8
101
102
17
Incident Energy (MeV)
59-Pr-134m

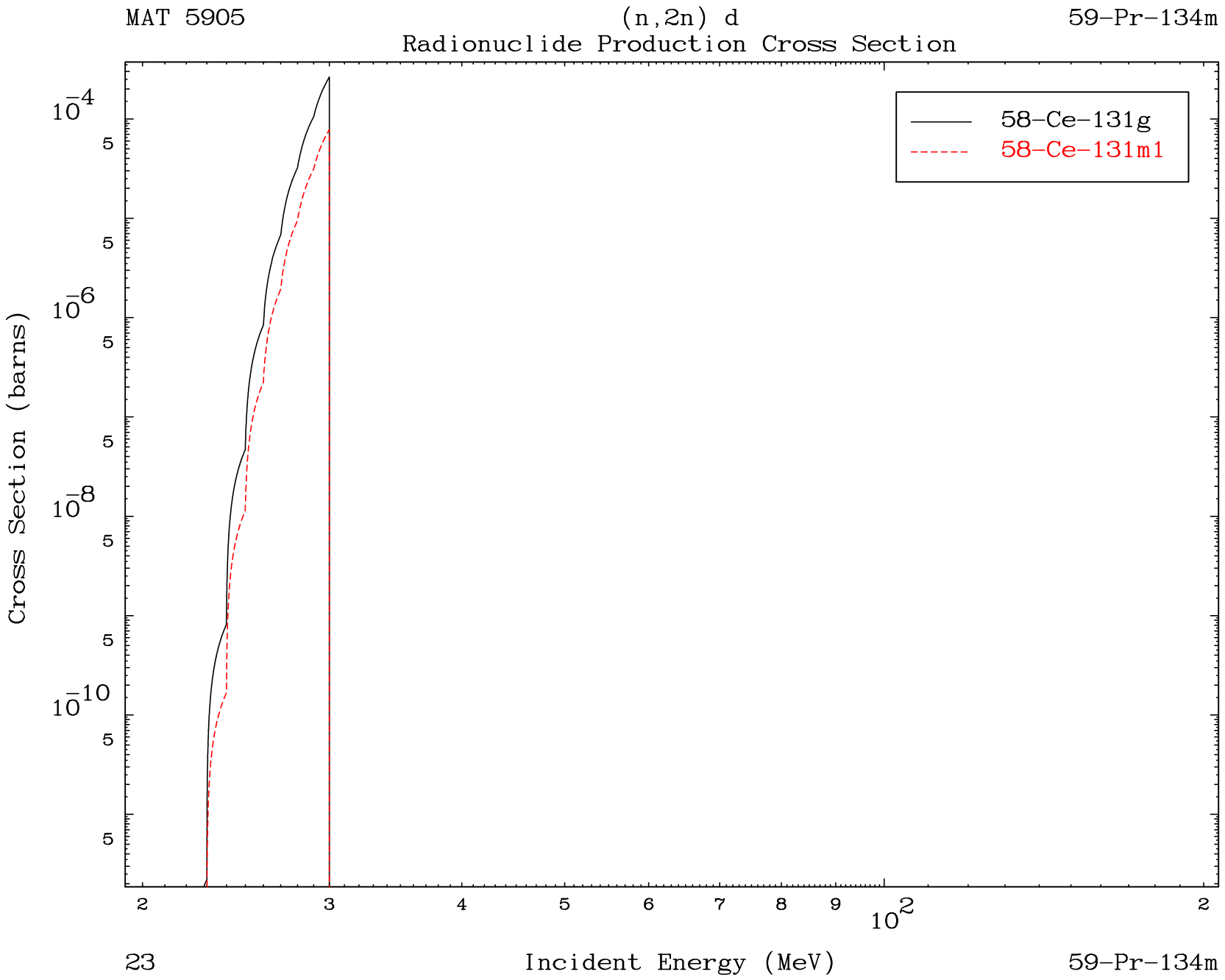

MAT 5905
(n,α) Levels
293 Kelvin Cross Sections
59-Pr-134m
Cross Section (barns)
10^0
5
10^-2
5
10^-4
5
10^-6
5
10^-8
5
(n,α)
(n,2α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
18
59-Pr-134m

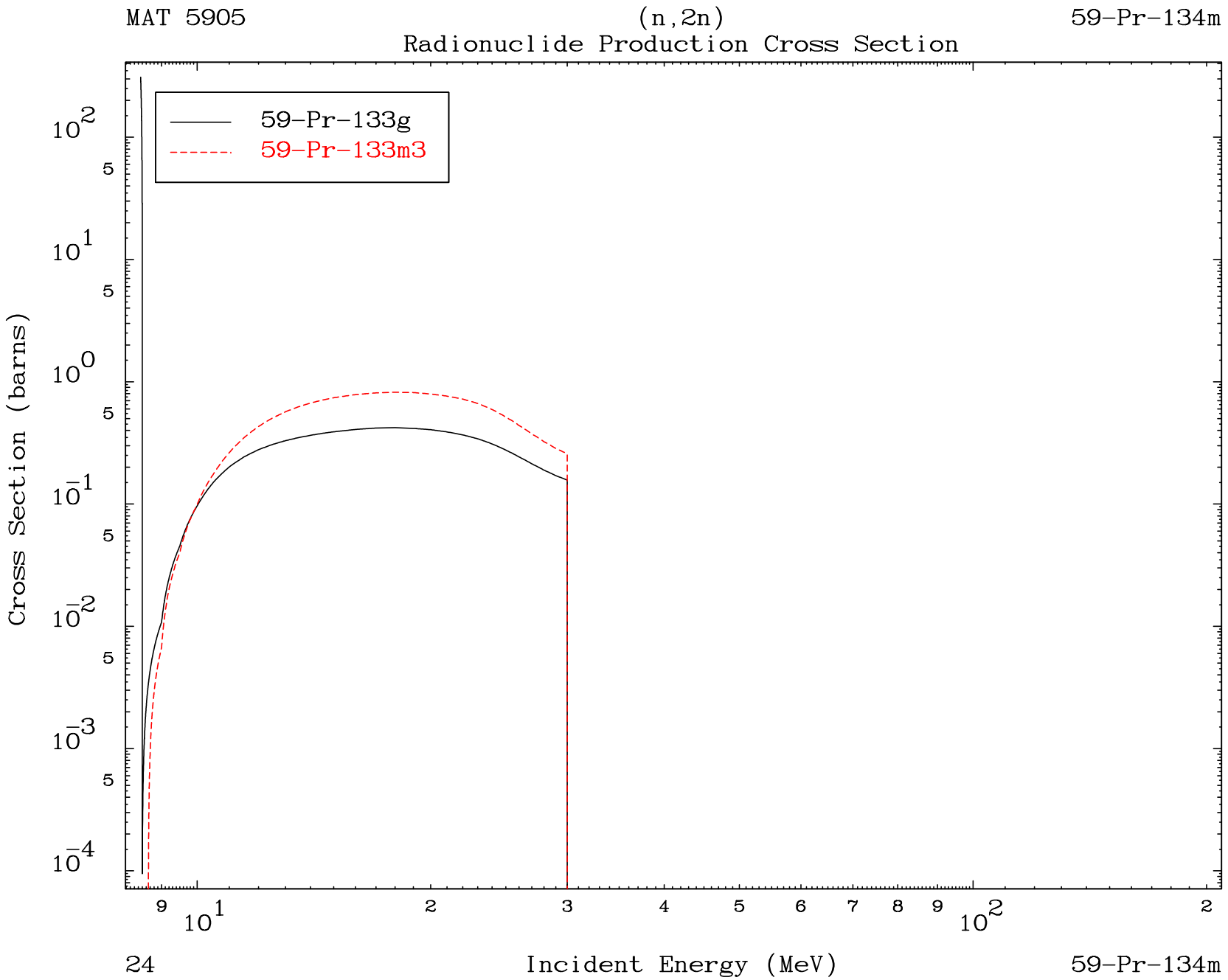

MAT 5905
Elastic
Legendre Coefficients
59-Pr-134m
0.04
0.03
0.02
0.01
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
10
20
30
19
Incident Energy (MeV)
59-Pr-134m

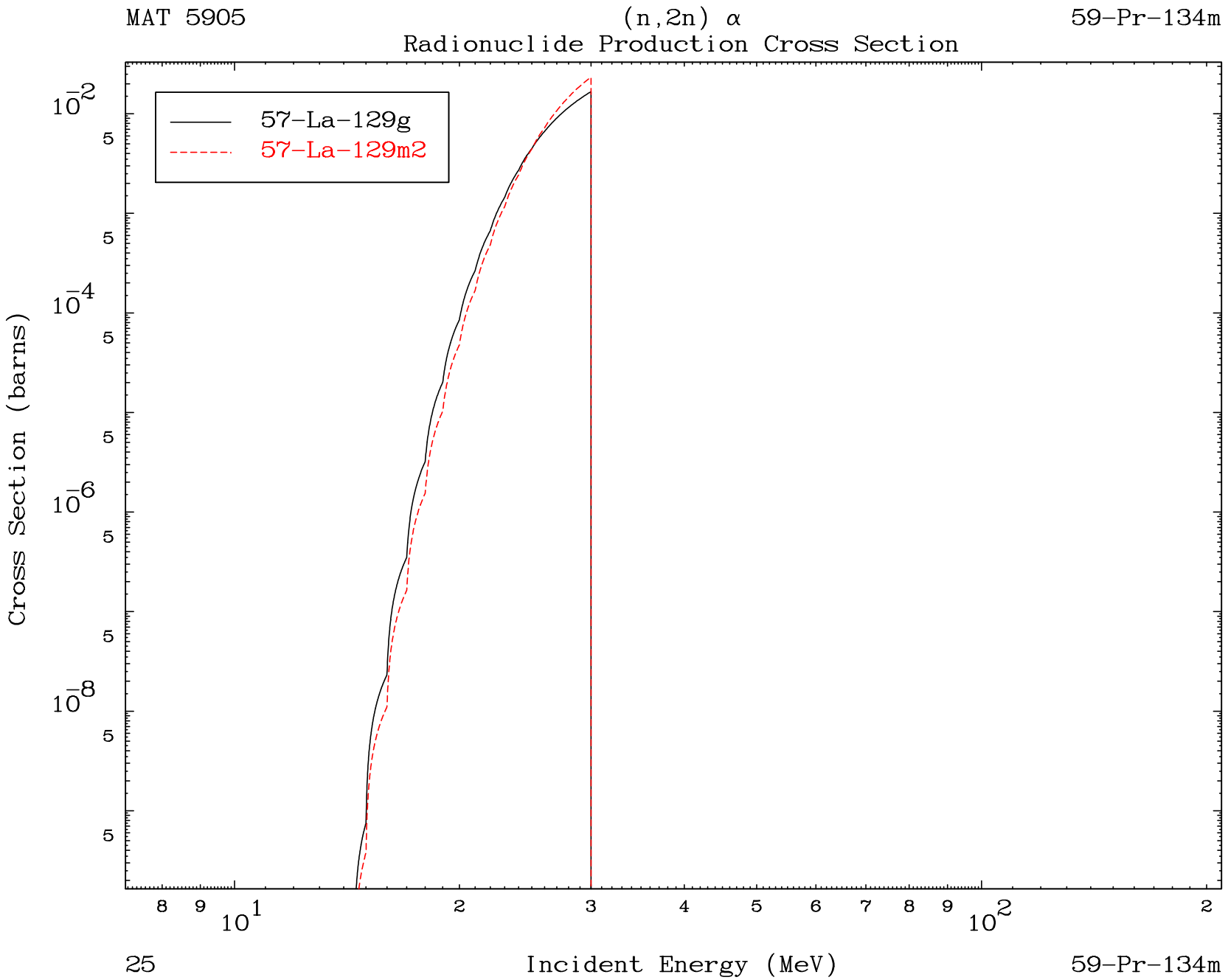

MAT 5905
Elastic
Legendre Coefficients
59-Pr-134m
X10^{-4}
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0
1
2
3
4
5
10
15
20
25
30
20
Incident Energy (MeV)
59-Pr-134m

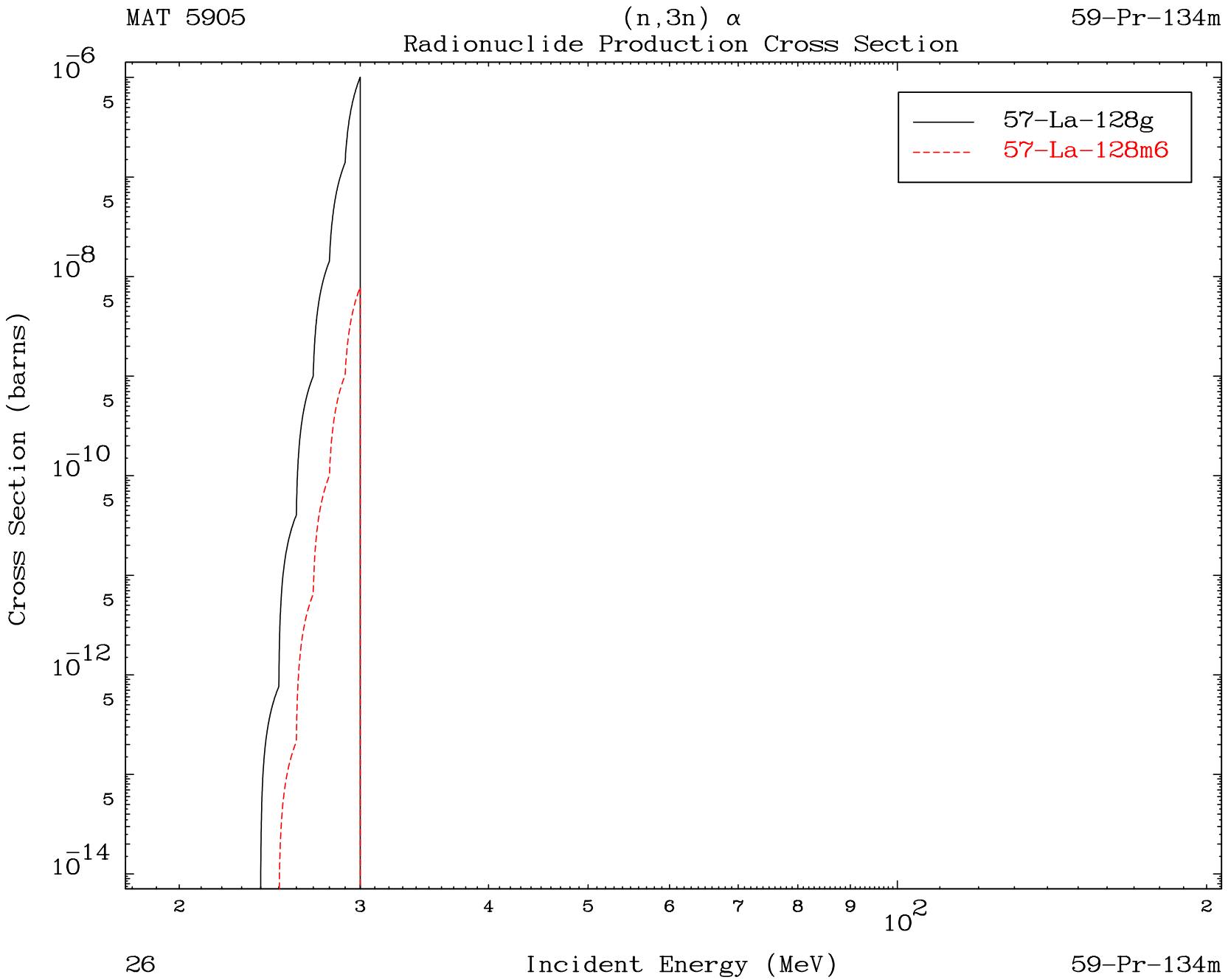

MAT 5905
Elastic
Legendre Coefficients
59-Pr-134m
X10 −6
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
15
20
25
30
21
Incident Energy (MeV)
59-Pr-134m

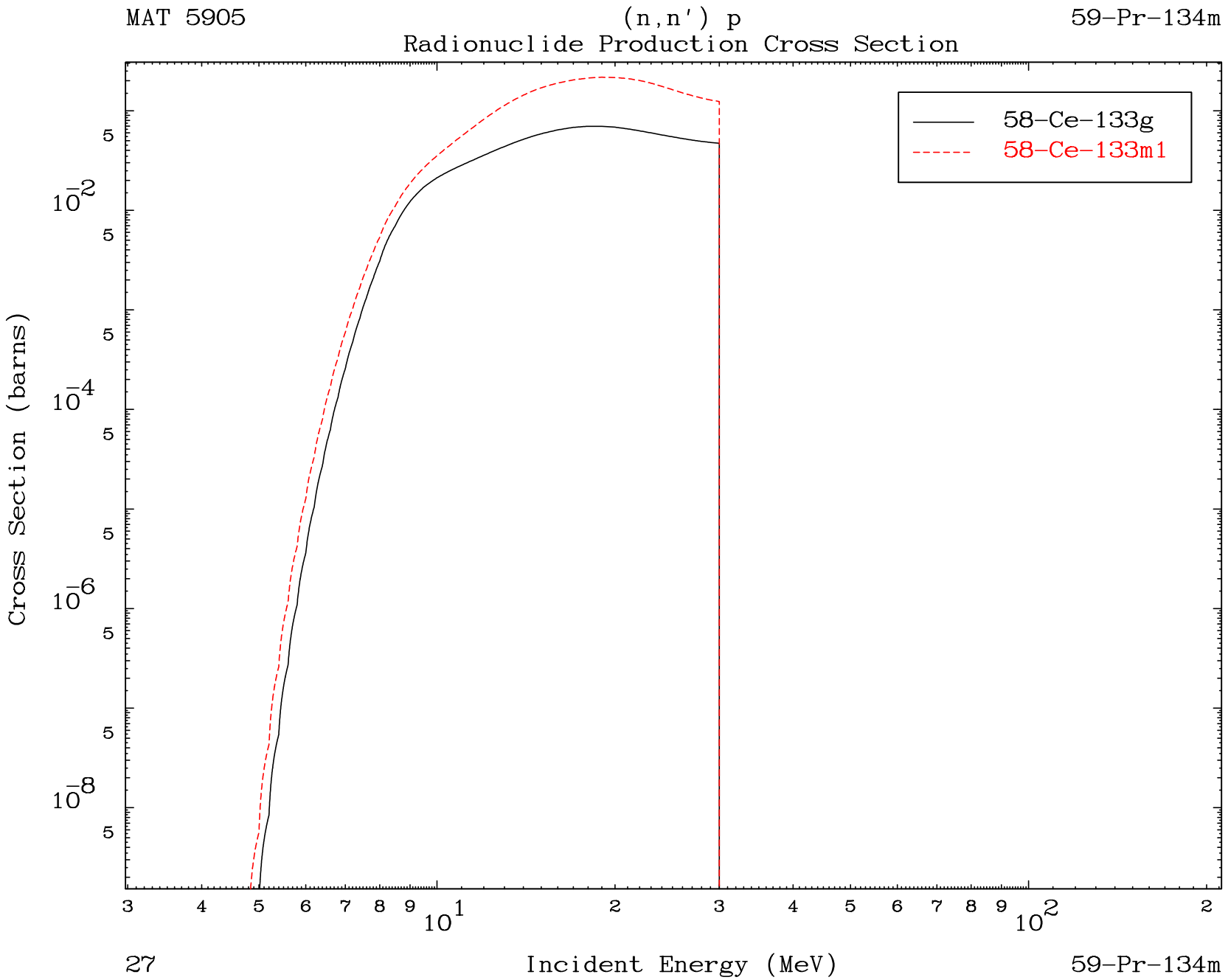

MAT 5905
Inelastic
59-Pr-134m
Radionuclide Production Cross Section
59-Pr-134g
59-Pr-134m1
Cross Section (barns)
Incident Energy (MeV)
22
59-Pr-134m

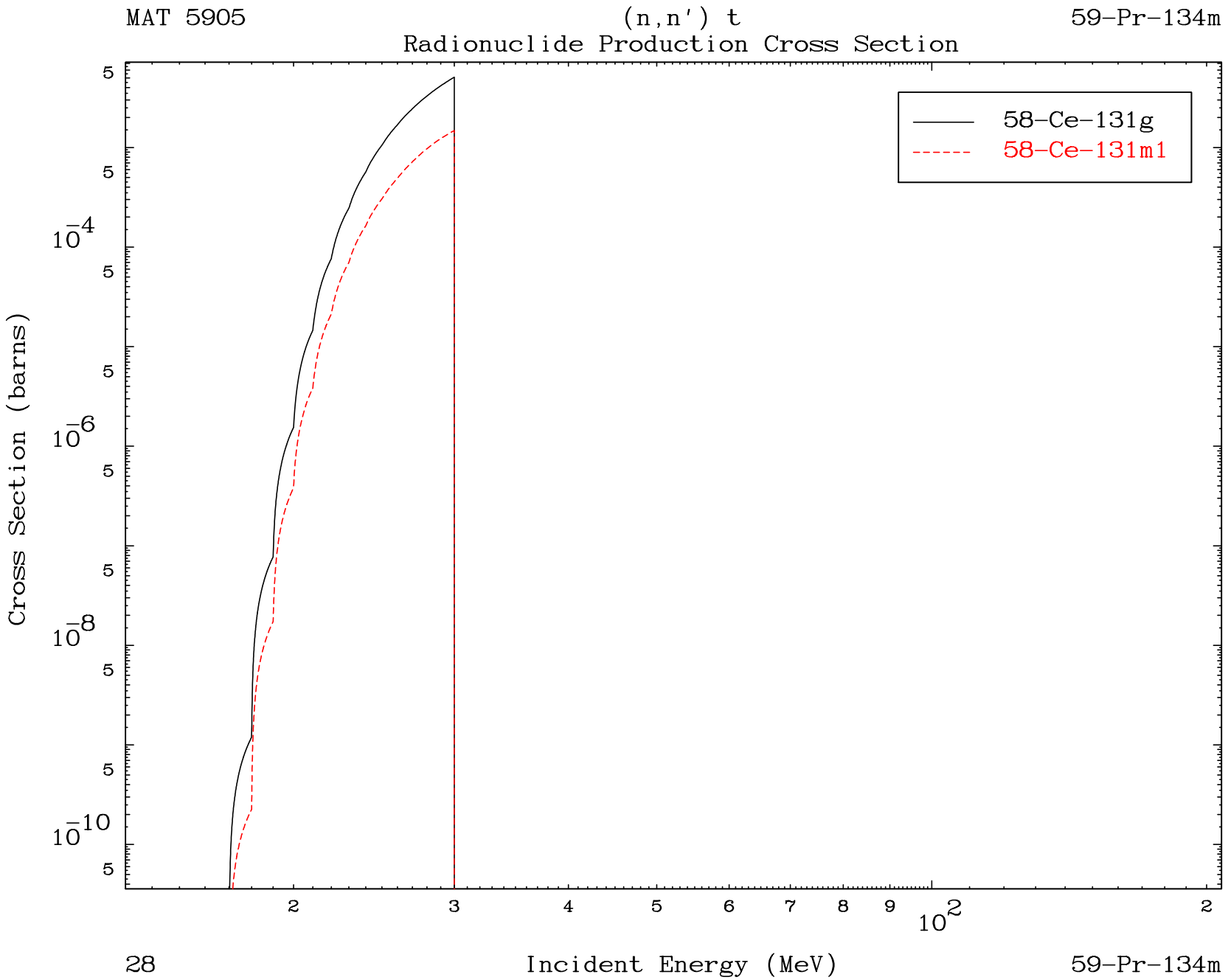

MAT 5905
(n,2n) d
59-Pr-134m
Radionuclide Production Cross Section
58-Ce-131g
58-Ce-131m1
Cross Section (barns)
10-4
10-6
10-8
10-10
5
2
3
4
5
6
7
8
9
102
2
23
Incident Energy (MeV)
59-Pr-134m

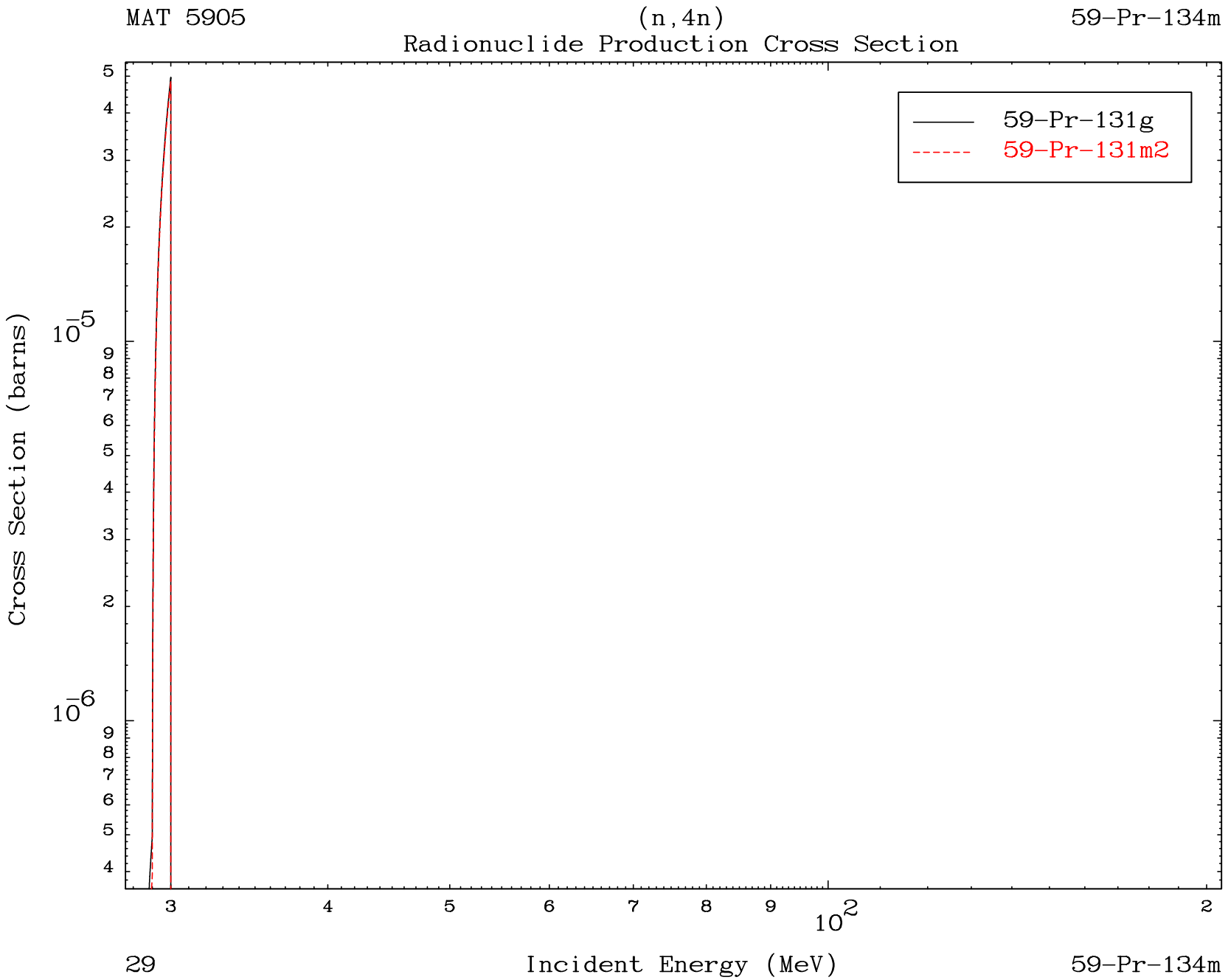

MAT 5905
(n,2n)
59-Pr-134m
Radionuclide Production Cross Section
59-Pr-133g
59-Pr-133m3
Cross Section (barns)
Incident Energy (MeV)
24
59-Pr-134m

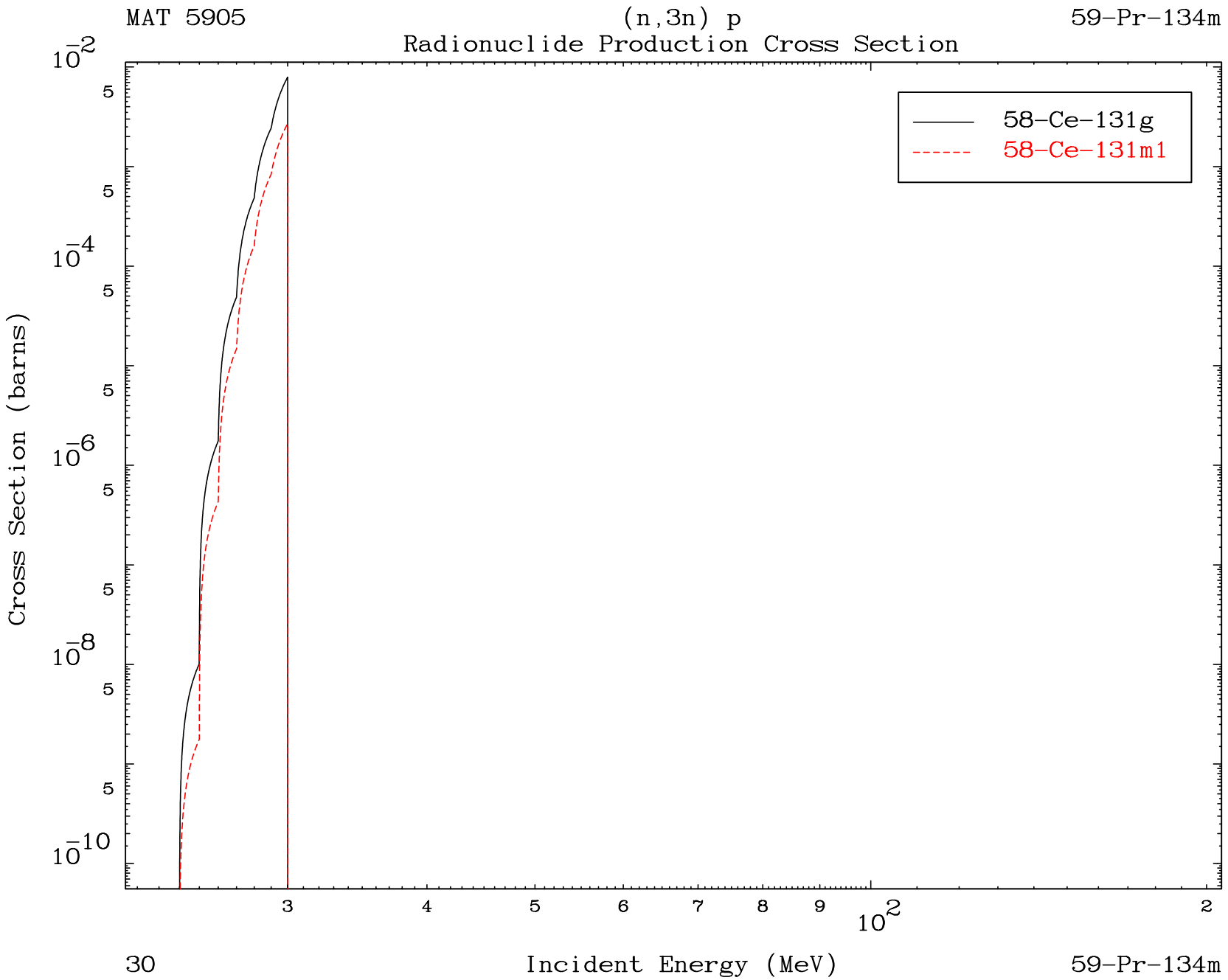

MAT 5905
(n,2n) α
59-Pr-134m
Radionuclide Production Cross Section
57-La-129g
57-La-129m2
Cross Section (barns)
10-2
10-4
10-6
10-8
5
8 9 10 1 2 3 4 5 6 7 8 9 10 2 2
25
Incident Energy (MeV)
59-Pr-134m

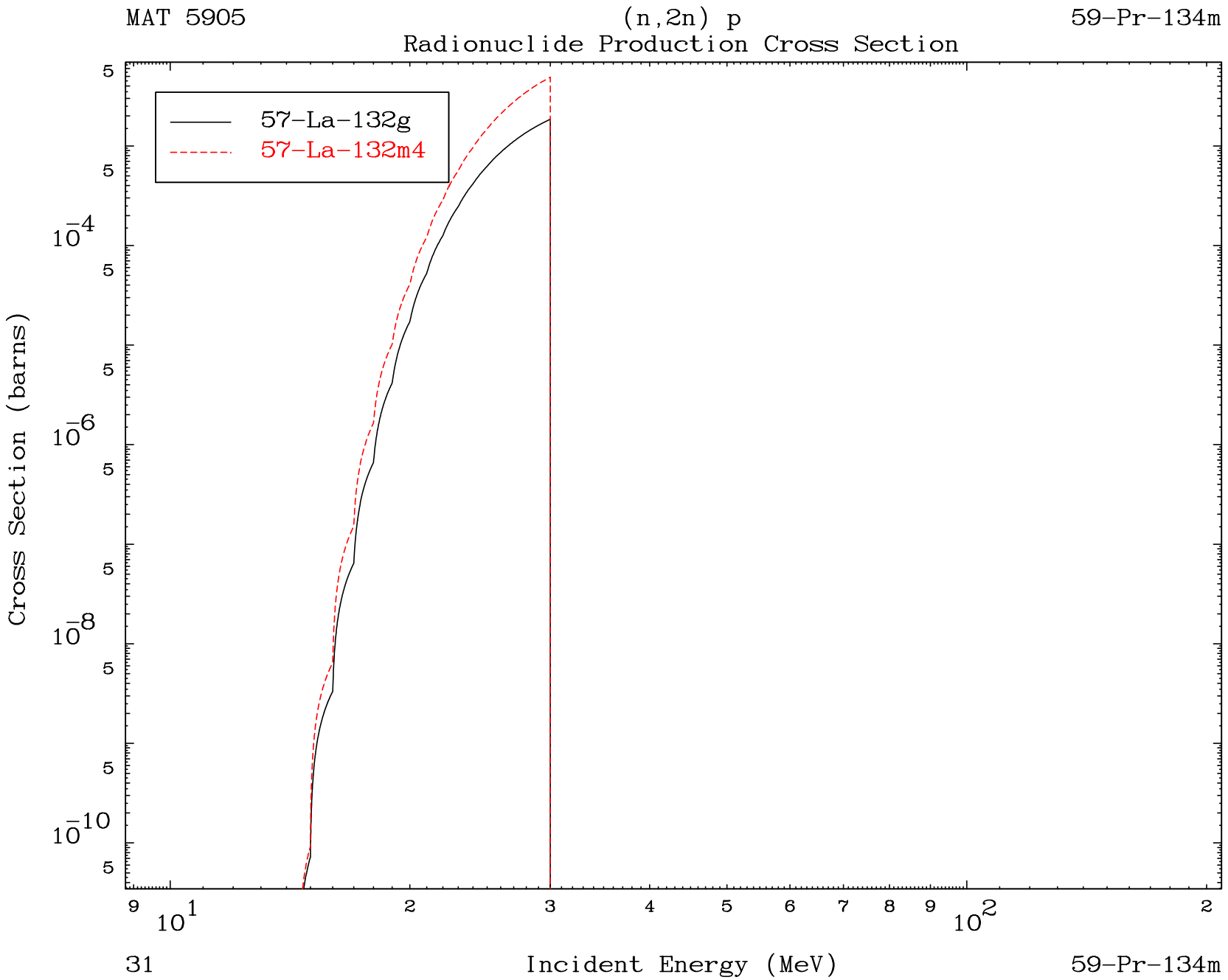

MAT 5905
(n,3n) α
59-Pr-134m
Radionuclide Production Cross Section
57-La-128g
57-La-128m6
Cross Section (barns)
Incident Energy (MeV)
26
59-Pr-134m

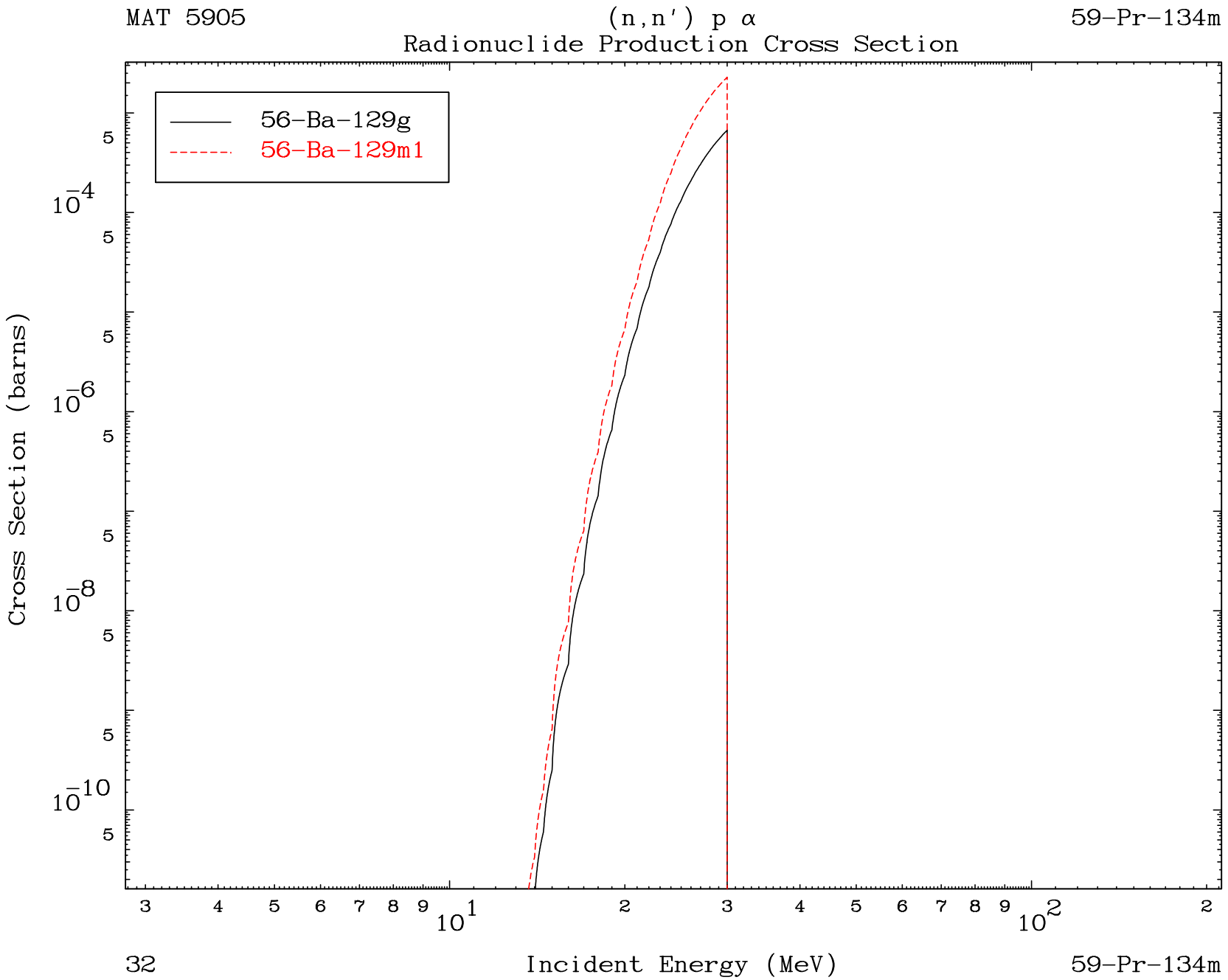

MAT 5905
(n,n') p
59-Pr-134m
Radionuclide Production Cross Section
58-Ce-133g
58-Ce-133m1
Cross Section (barns)
Incident Energy (MeV)
27
59-Pr-134m

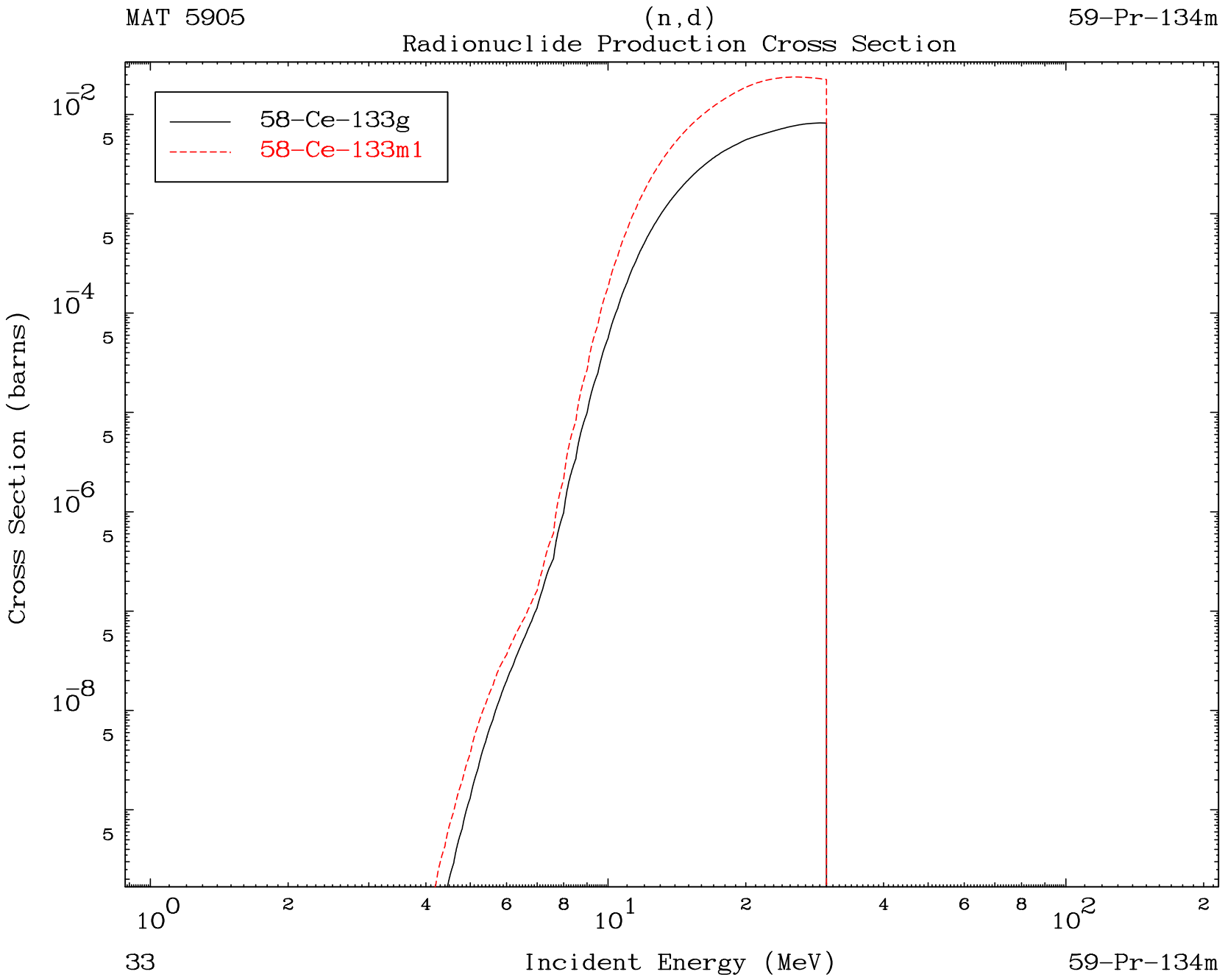

MAT 5905
(n,n') t
59-Pr-134m
Radionuclide Production Cross Section
58-Ce-131g
58-Ce-131m1
Cross Section (barns)
Incident Energy (MeV)
28
59-Pr-134m

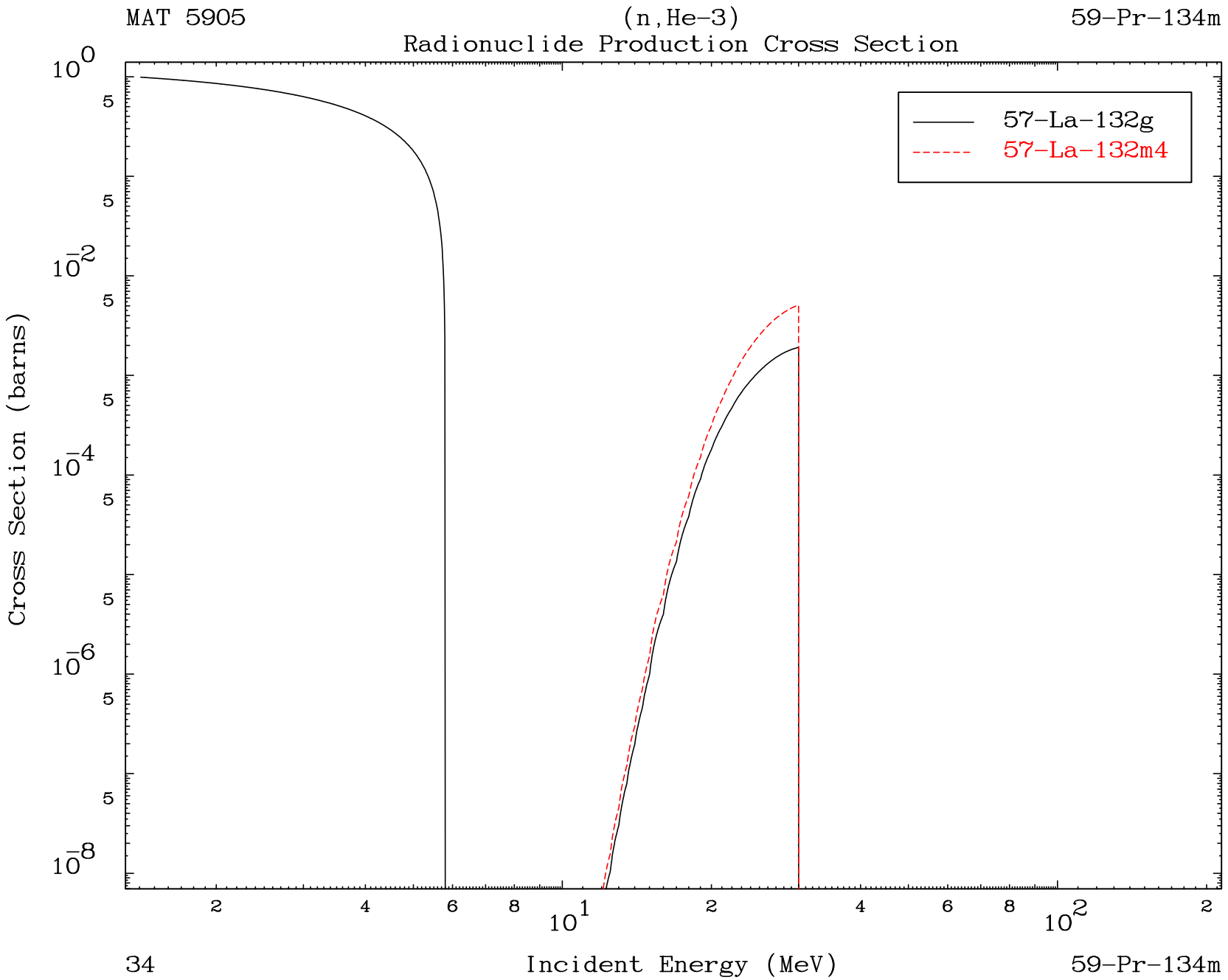

MAT 5905
(n,4n)
59-Pr-134m
Radionuclide Production Cross Section
59-Pr-131g
59-Pr-131m2
Cross Section (barns)
10^-5
10^-6
10^2
Incident Energy (MeV)
29
59-Pr-134m

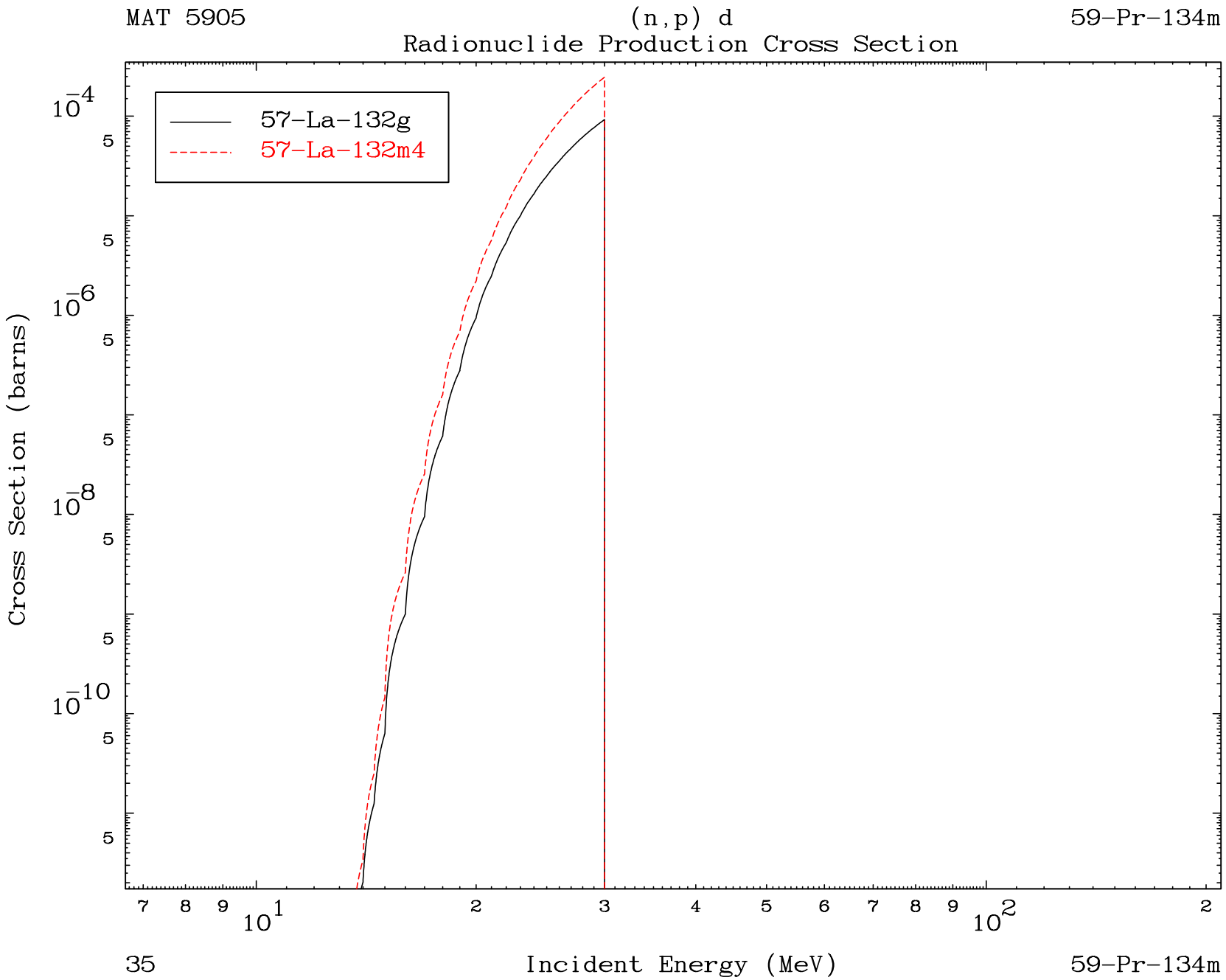

MAT 5905
(n,3n) p
59-Pr-134m
Radionuclide Production Cross Section
58-Ce-131g
58-Ce-131m1
Cross Section (barns)
Incident Energy (MeV)
30
59-Pr-134m

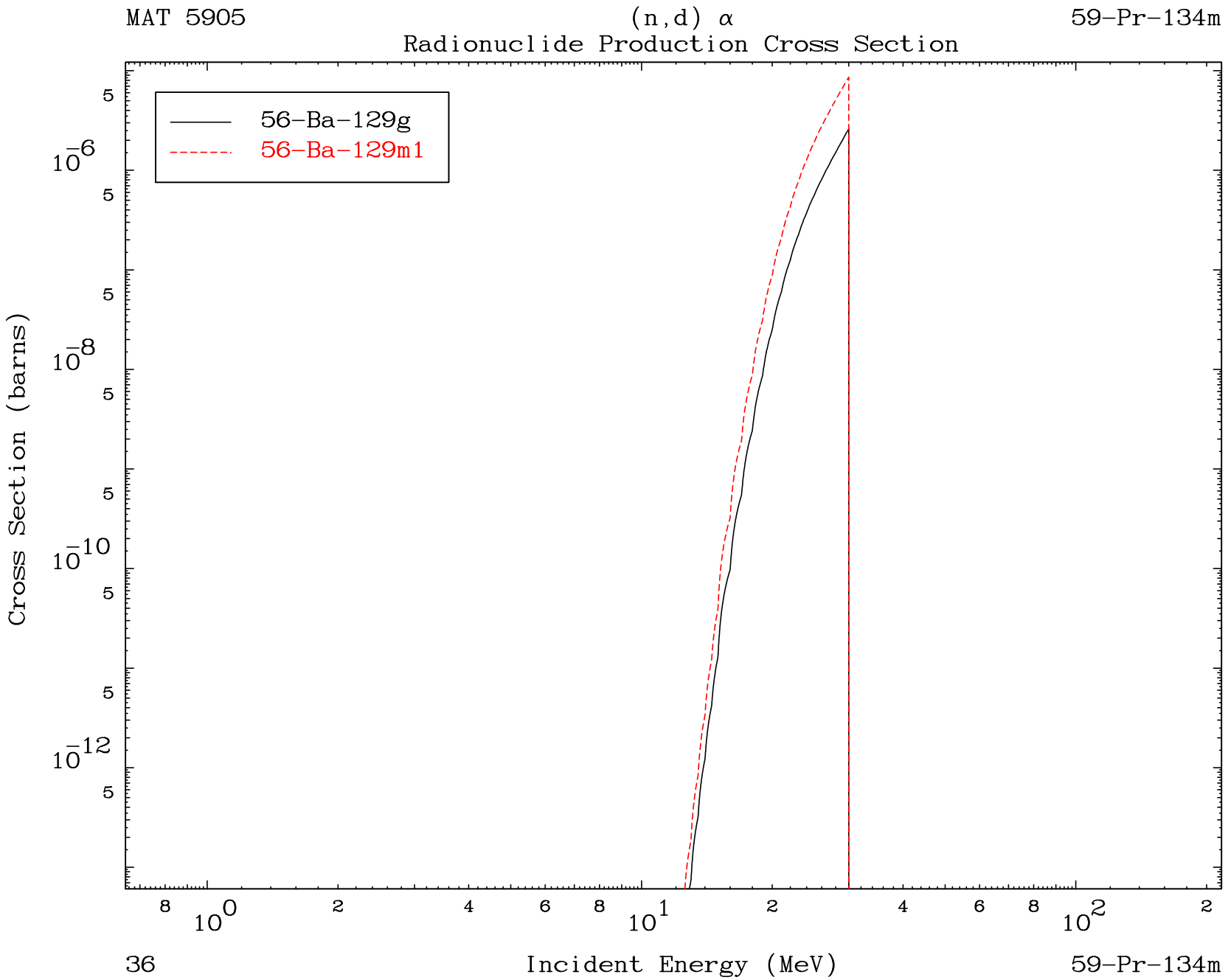

MAT 5905
(n,2n) p
59-Pr-134m
Radionuclide Production Cross Section
57-La-132g
57-La-132m4
Cross Section (barns)
Incident Energy (MeV)
31
59-Pr-134m


MAT 5905
(n,n') p α
59-Pr-134m
Radionuclide Production Cross Section
56-Ba-129g
56-Ba-129m1
Cross Section (barns)
10-4
10-6
10-8
10-10
3 4 5 6 7 8 9 10 1
2 3 4 5 6 7 8 9 10 2
2
32
Incident Energy (MeV)
59-Pr-134m


MAT 5905
(n,d)
59-Pr-134m
Radionuclide Production Cross Section
58-Ce-133g
58-Ce-133m1
Cross Section (barns)
Incident Energy (MeV)
33
59-Pr-134m


MAT 5905
(n,He-3)
59-Pr-134m
Radionuclide Production Cross Section
57-La-132g
57-La-132m4
Cross Section (barns)
Incident Energy (MeV)
34
59-Pr-134m


MAT 5905
(n,p) d
59-Pr-134m
Radionuclide Production Cross Section
57-La-132g
57-La-132m4
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
Incident Energy (MeV)
35
59-Pr-134m


MAT 5905
(n,d) α
59-Pr-134m
Radionuclide Production Cross Section
56-Ba-129g
56-Ba-129m1
Cross Section (barns)
Incident Energy (MeV)
36
59-Pr-134m