Program EVALPLOT
(Version 2021-1)
by
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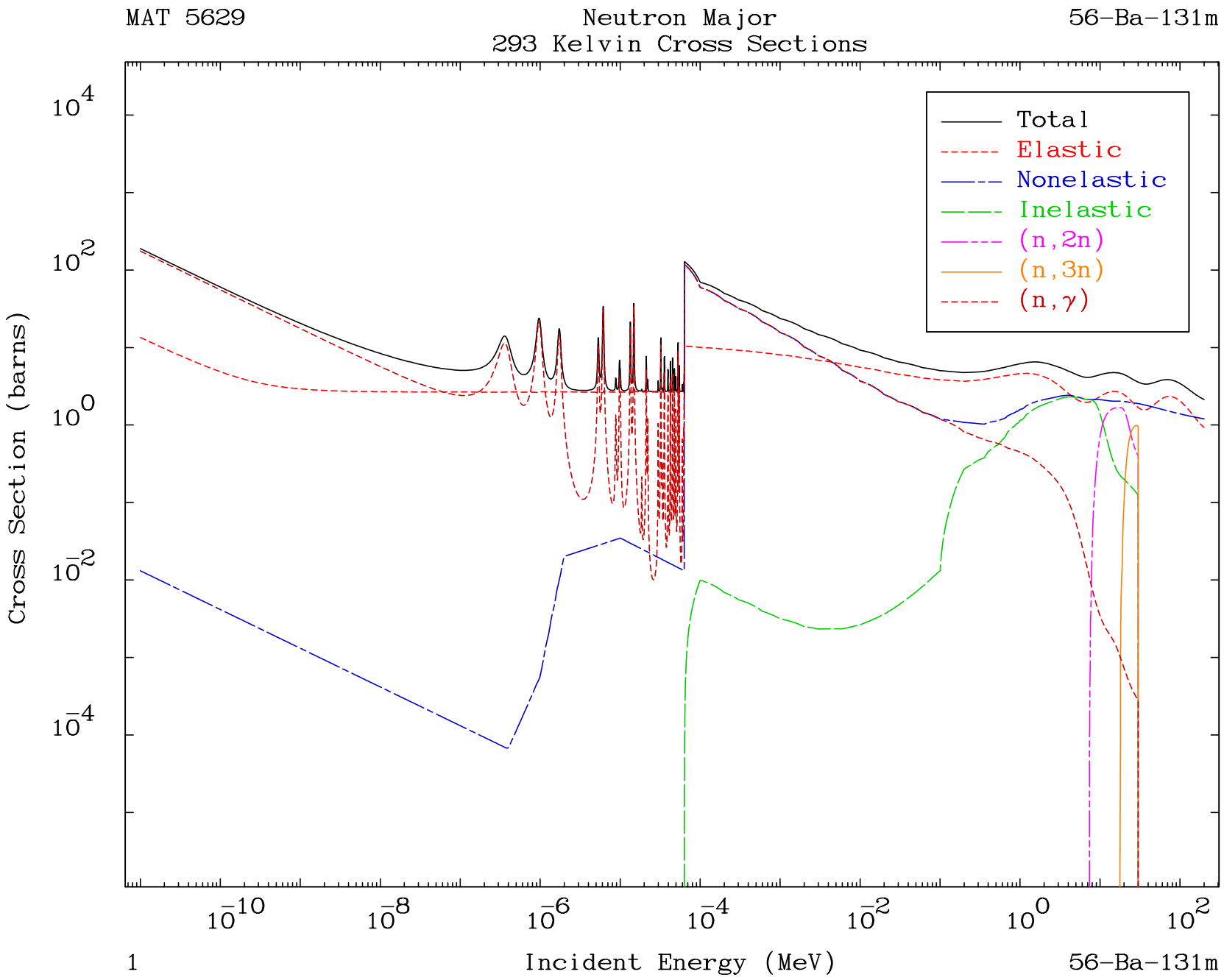
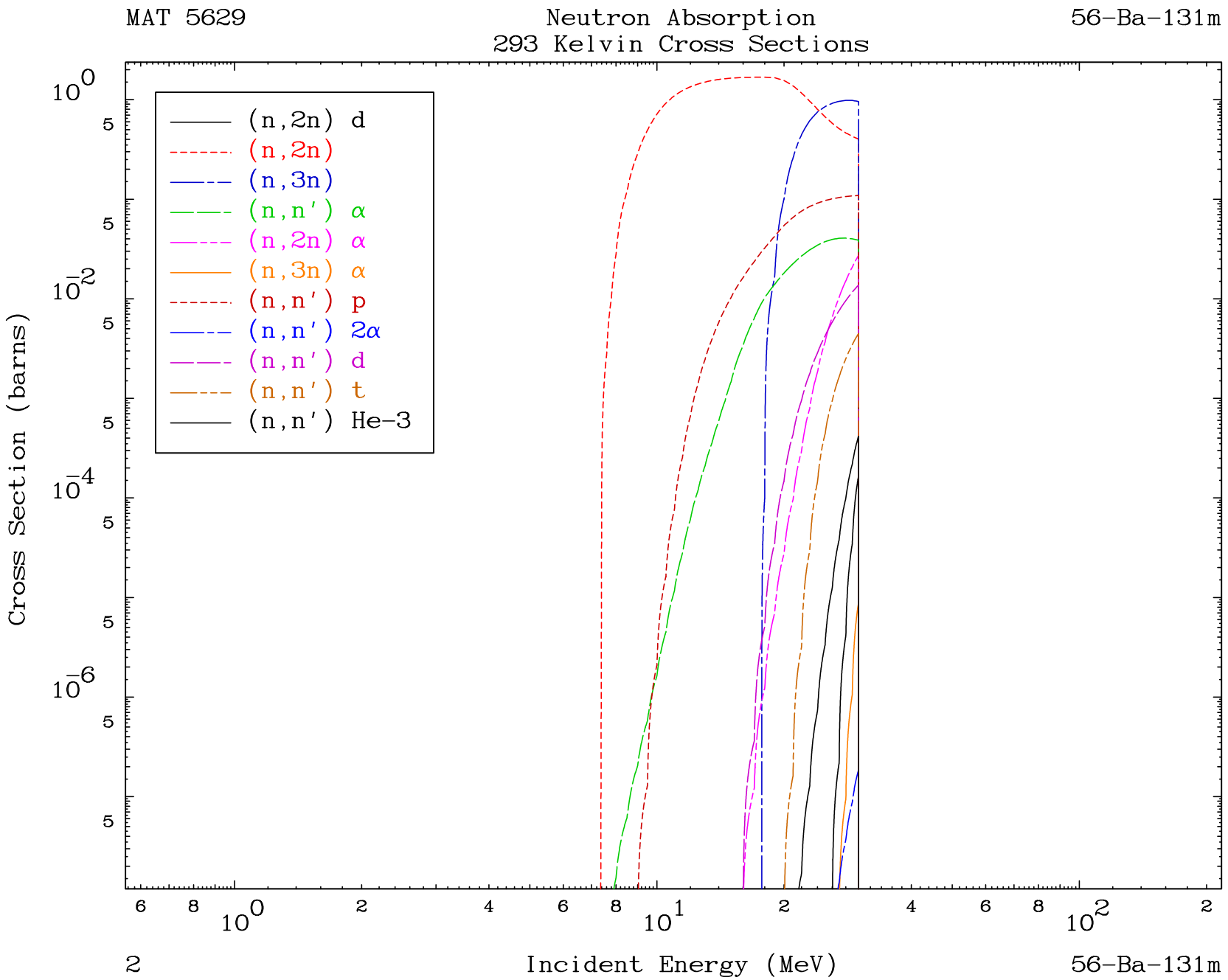
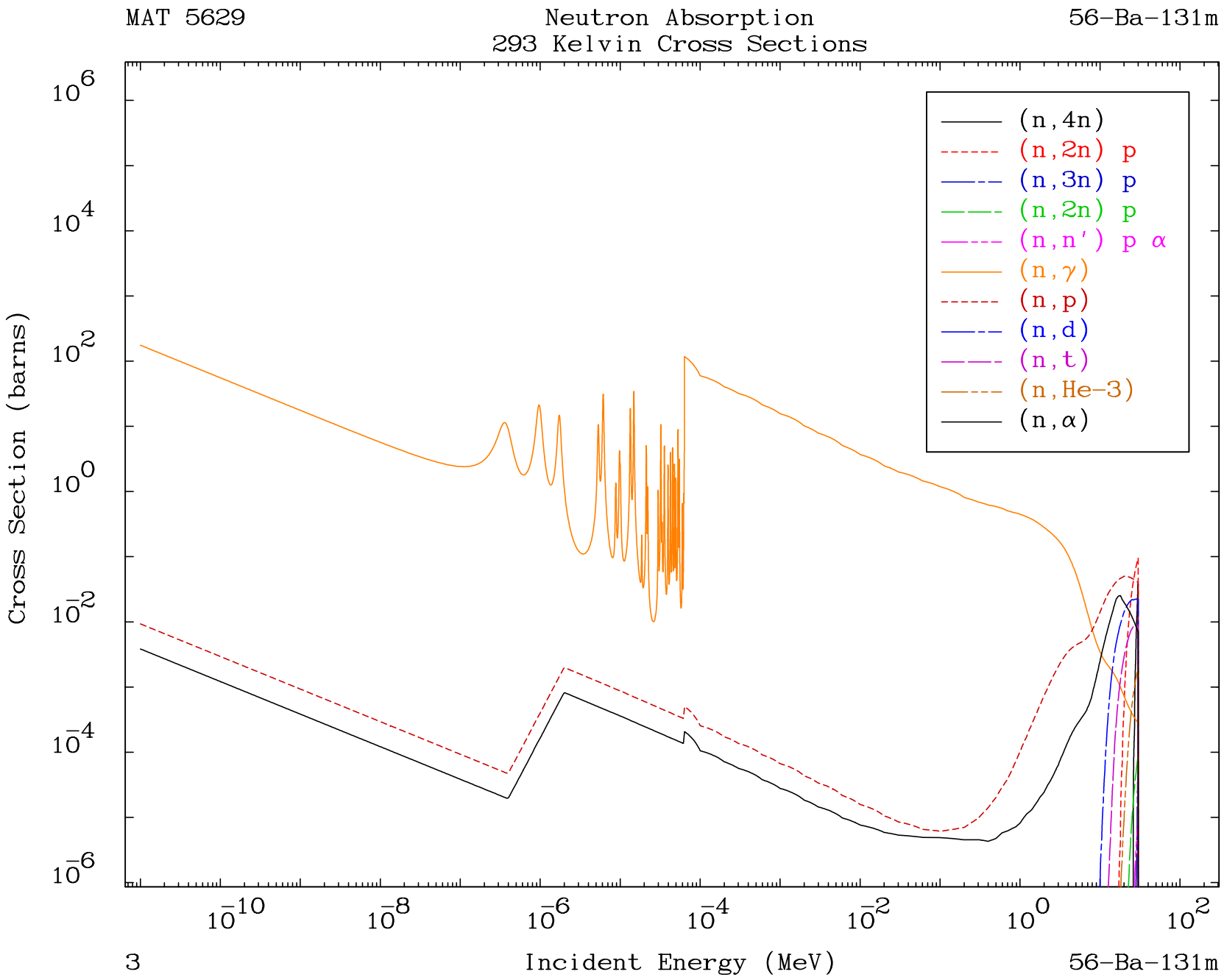
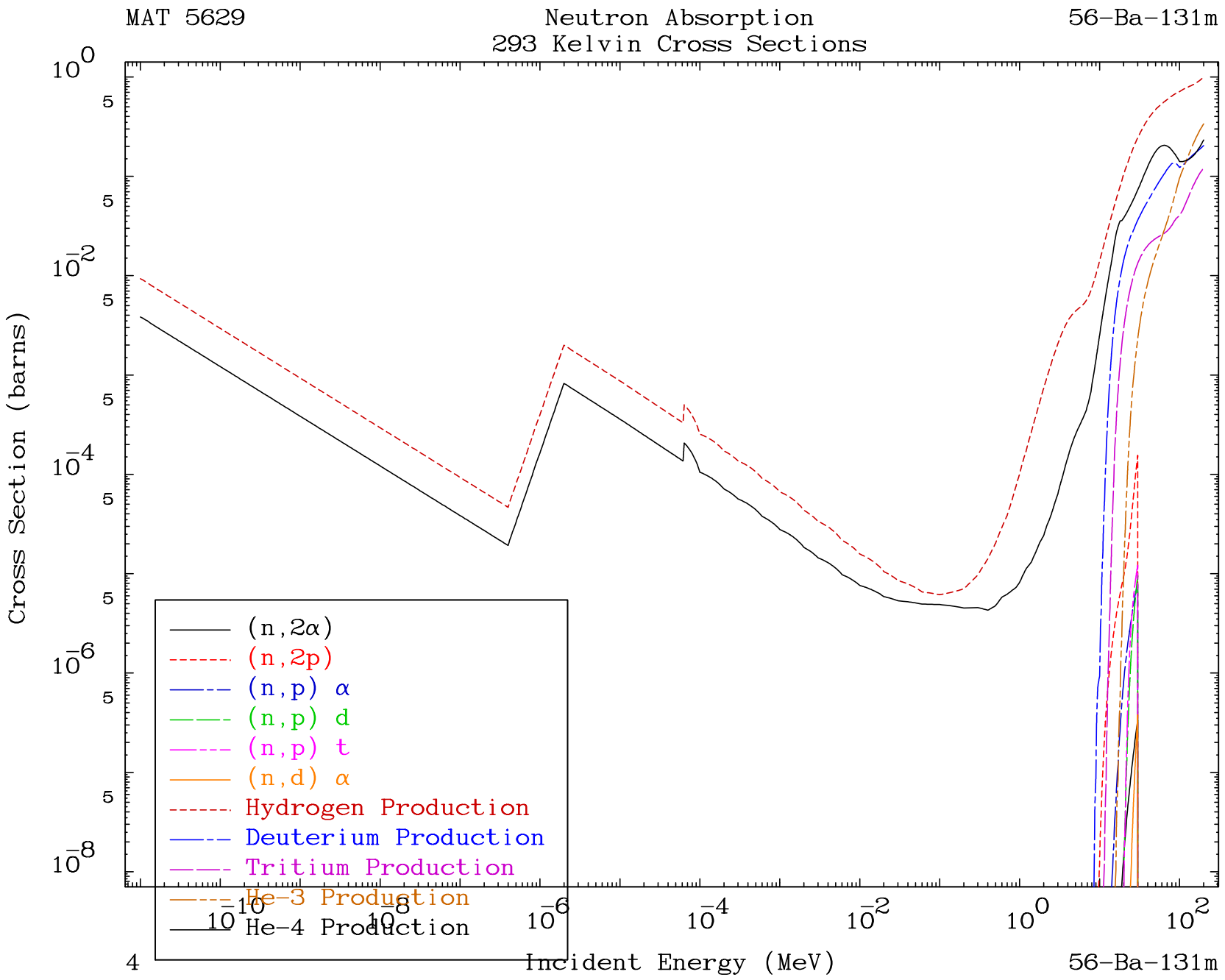
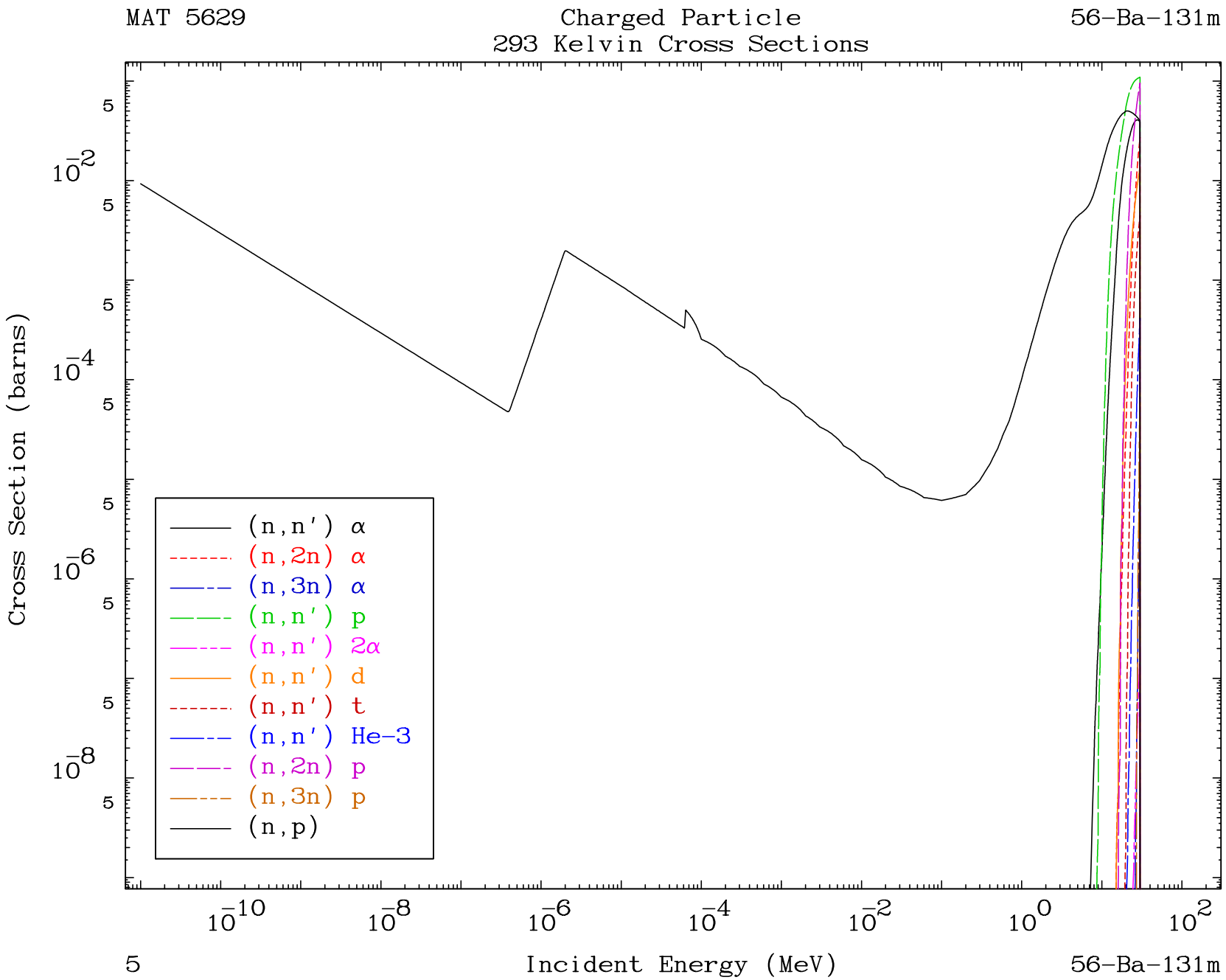
Press Mouse Button to Start

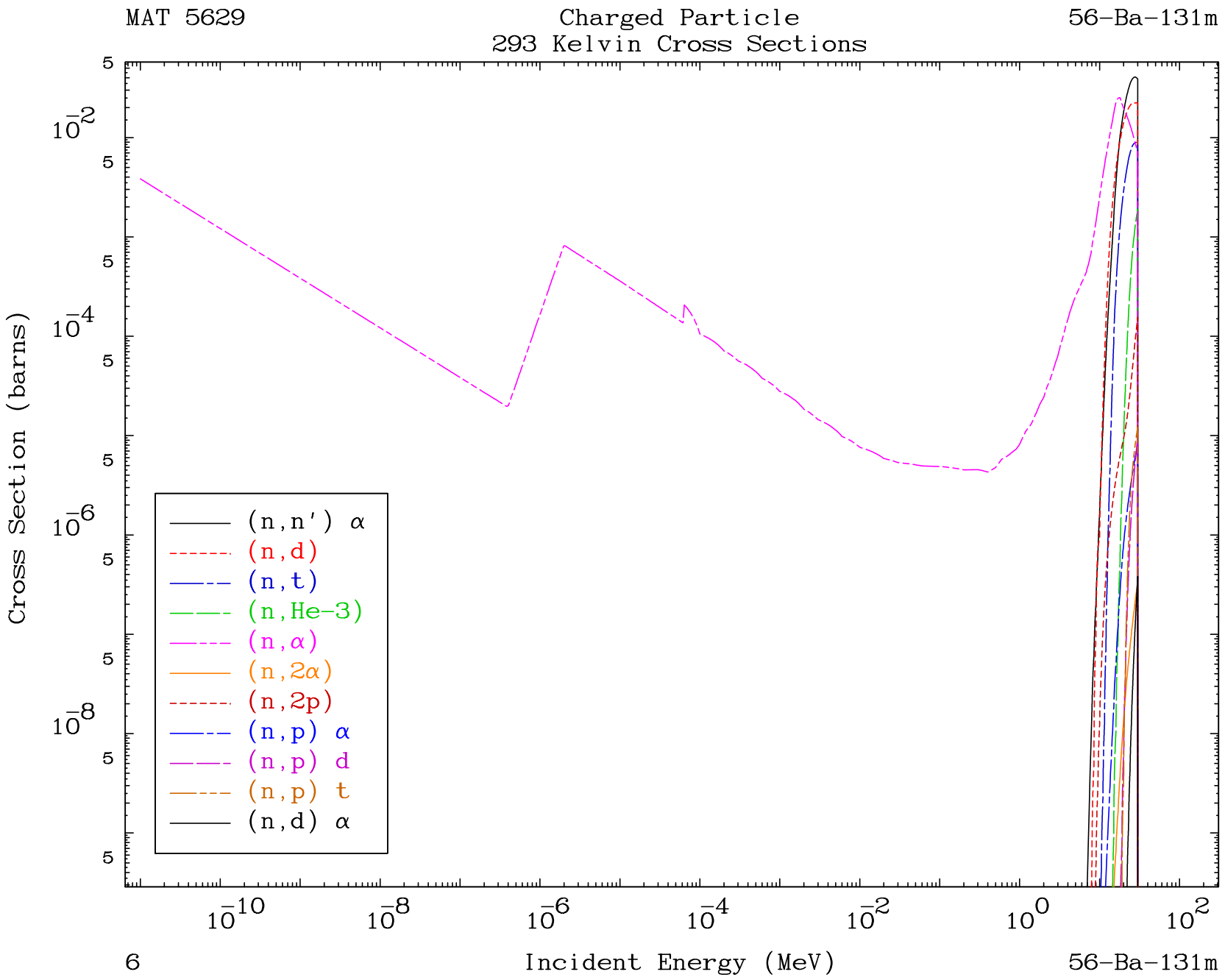

MAT 5629
Neutron Major
293 Kelvin Cross Sections
56-Ba-131m
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,3n)
(n,γ)
Cross Section (barns)
10^4
10^2
10^0
10^-2
10^-4
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
1
56-Ba-131m

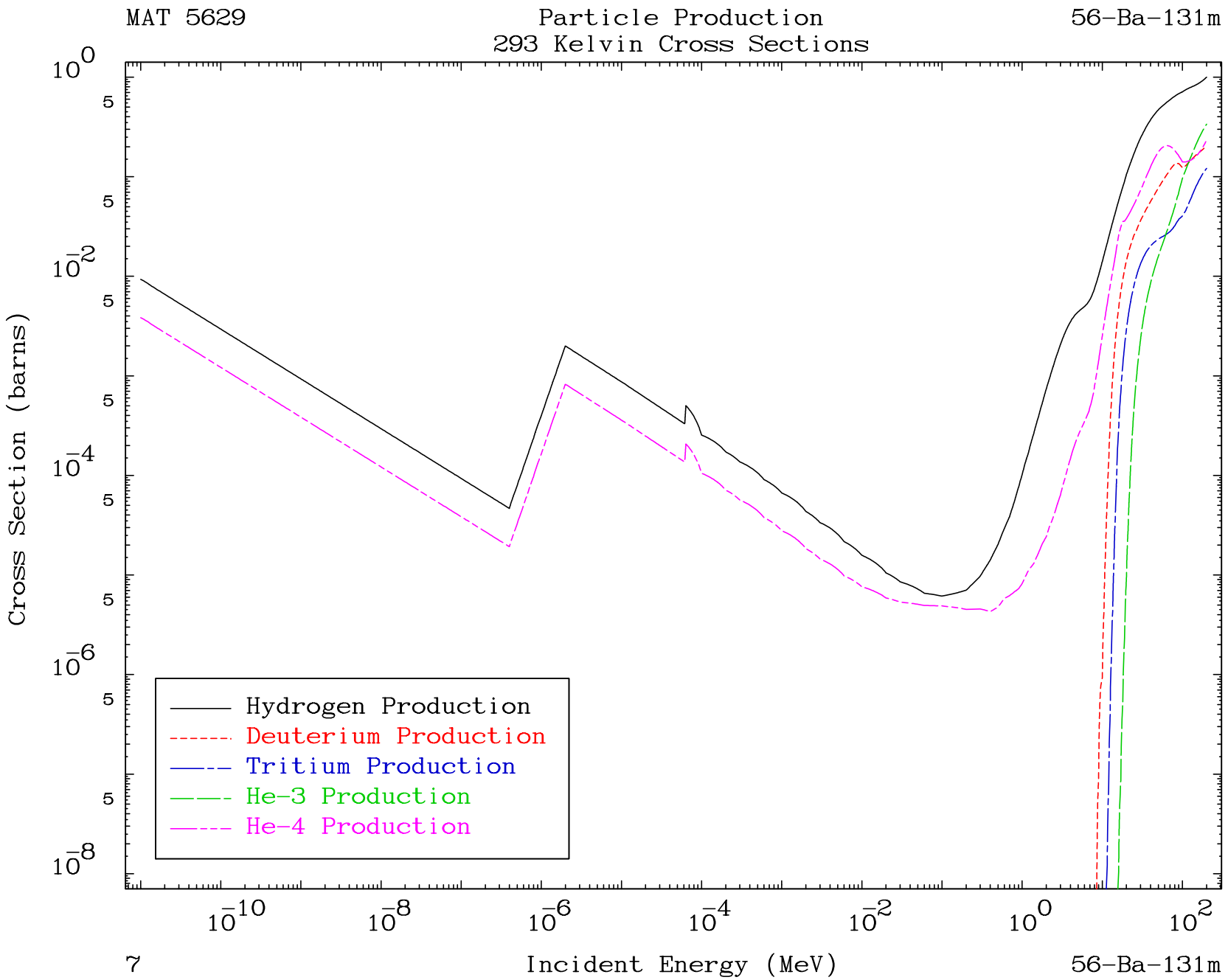

MAT 5629
Neutron Absorption
293 Kelvin Cross Sections
56-Ba-131m
(n,2n) d
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
Cross Section (barns)
Incident Energy (MeV)
56-Ba-131m

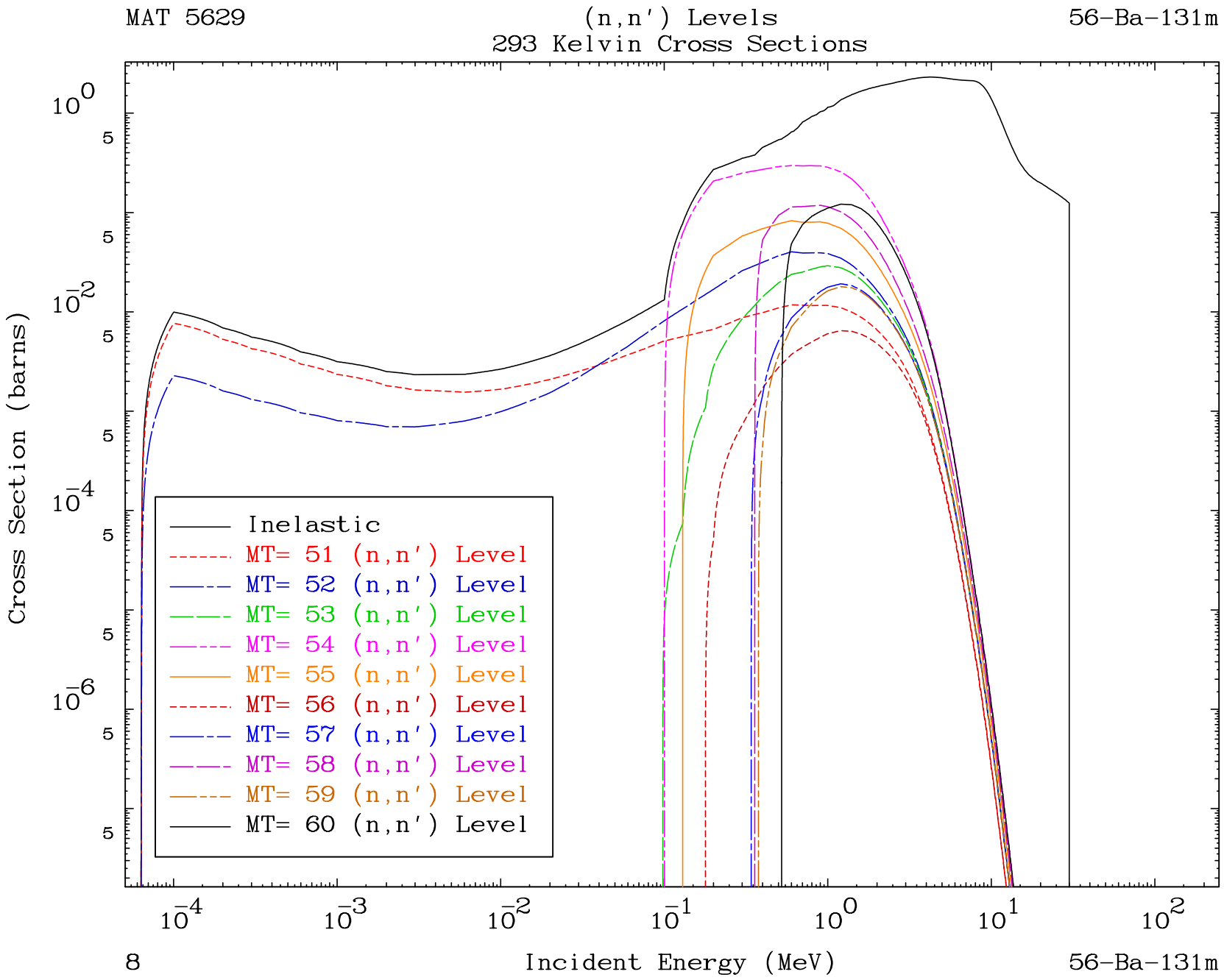

MAT 5629
Neutron Absorption
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
10^6
10^4
10^2
10^0
10^-2
10^-4
10^-6
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
(n,4n)
(n,2n) p
(n,3n) p
(n,2n) p
(n,n') p α
(n,γ)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
3
56-Ba-131m

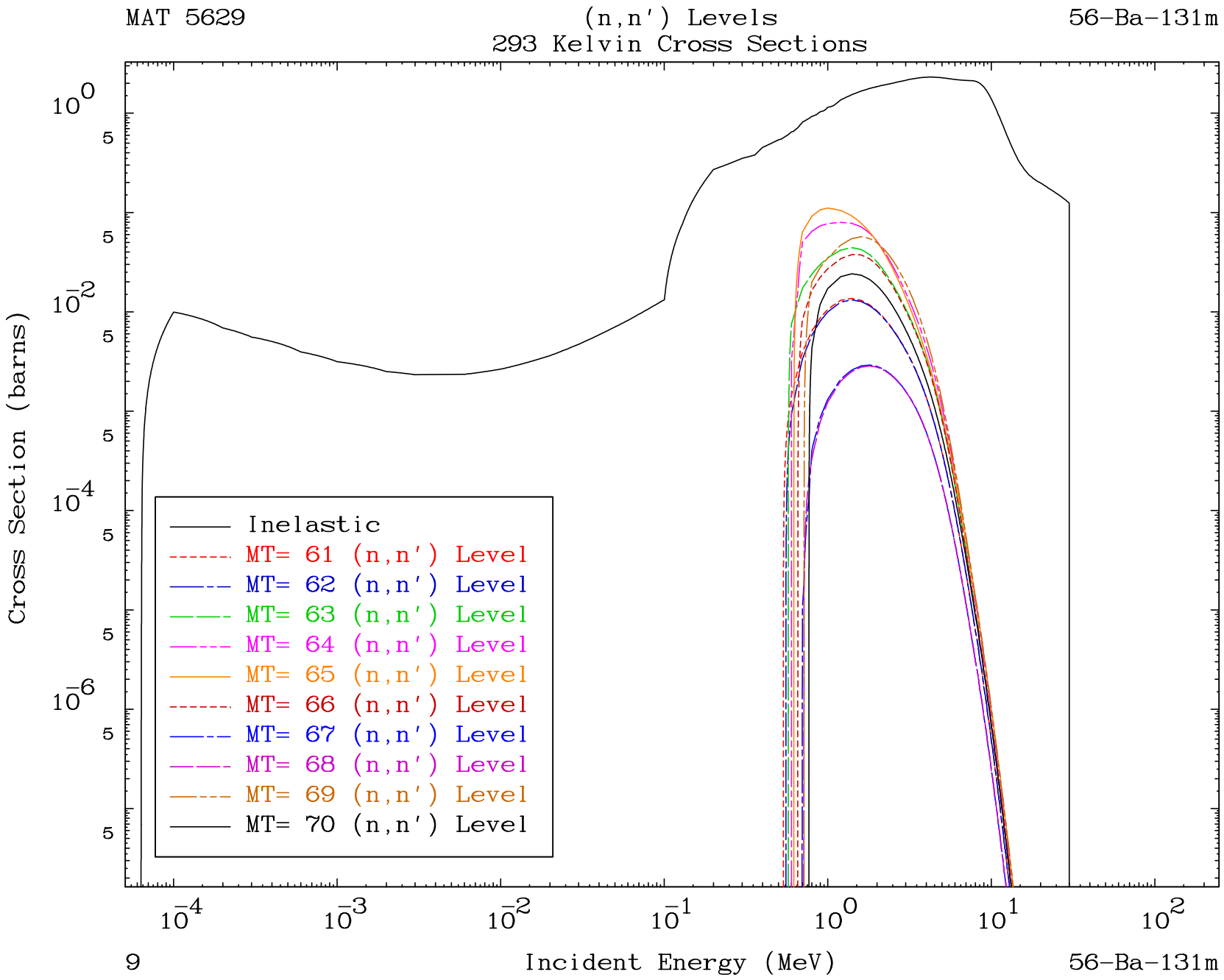

MAT 5629
Neutron Absorption
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
Incident Energy (MeV)
56-Ba-131m
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production

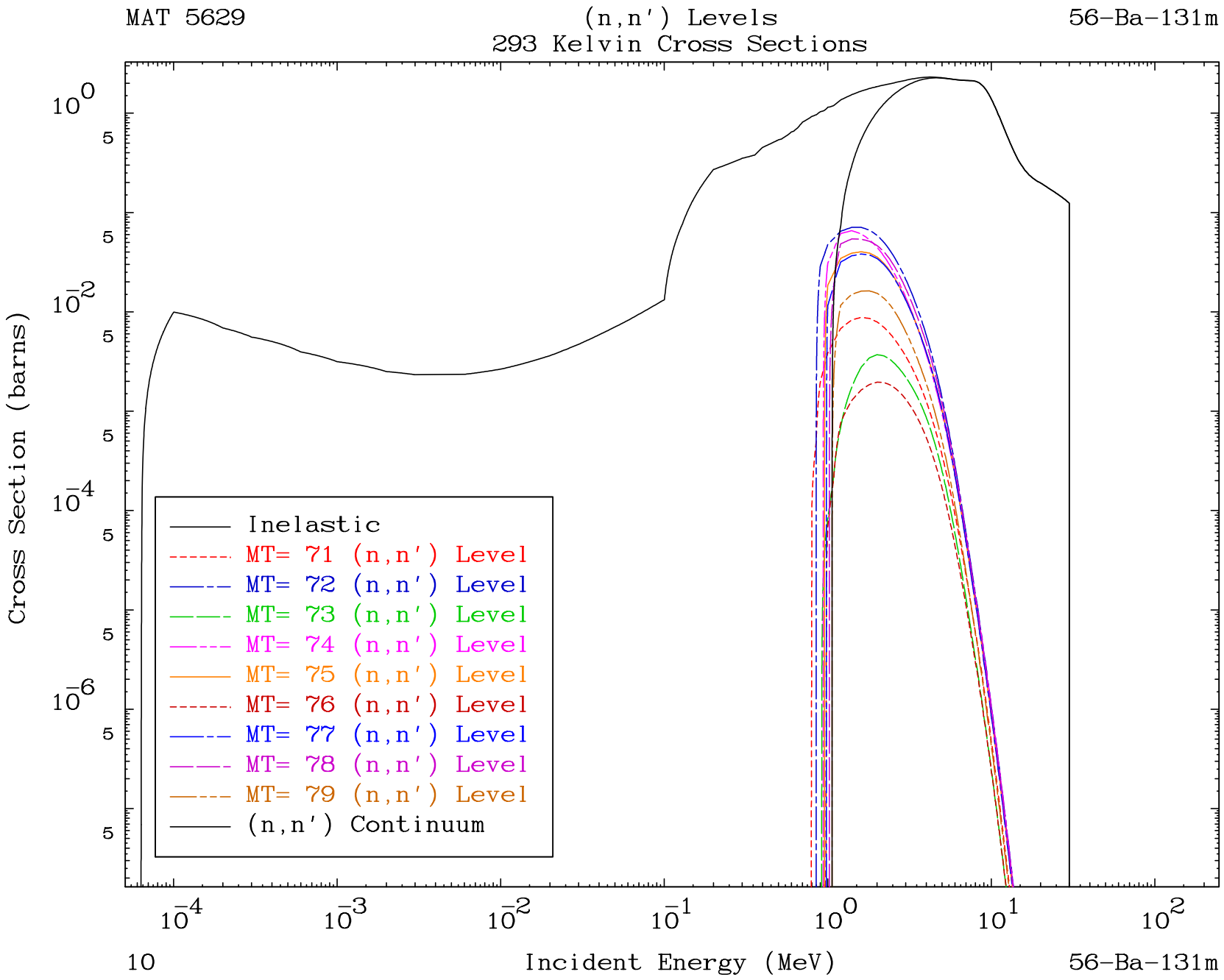

MAT 5629
Charged Particle
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
Incident Energy (MeV)
56-Ba-131m
5
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
(n,p)

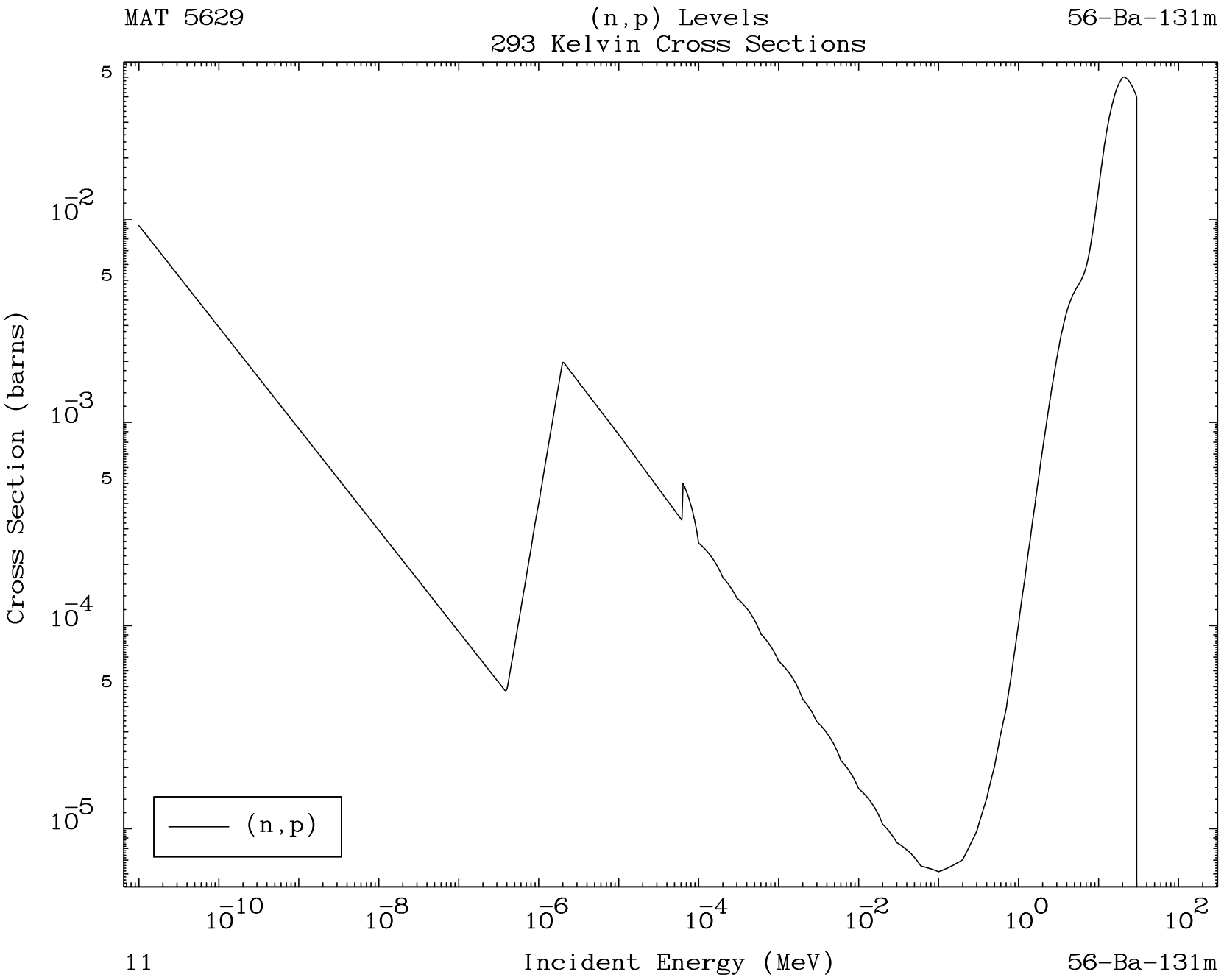

MAT 5629
Charged Particle
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α
6
56-Ba-131m

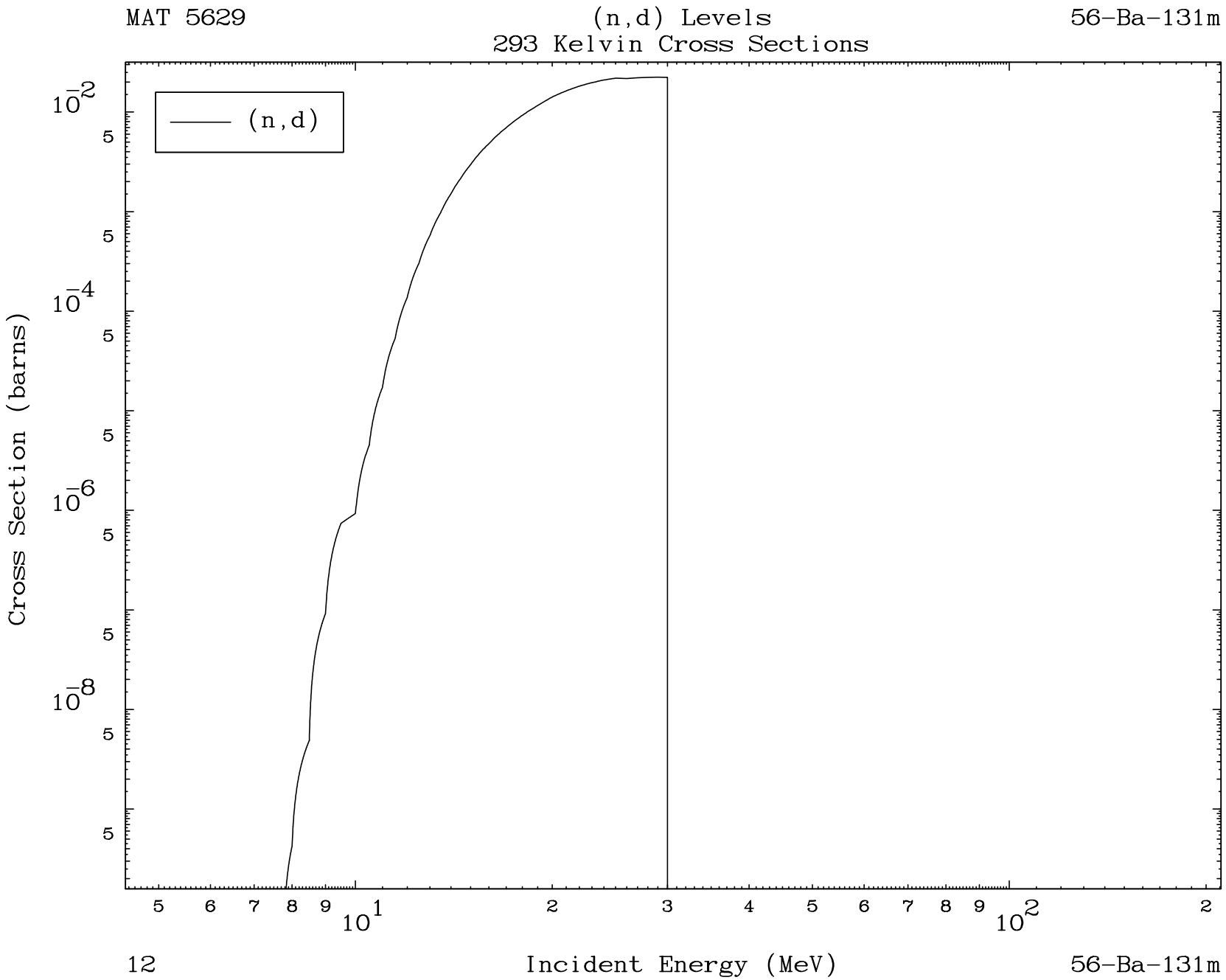

MAT 5629
Particle Production
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
7
56-Ba-131m

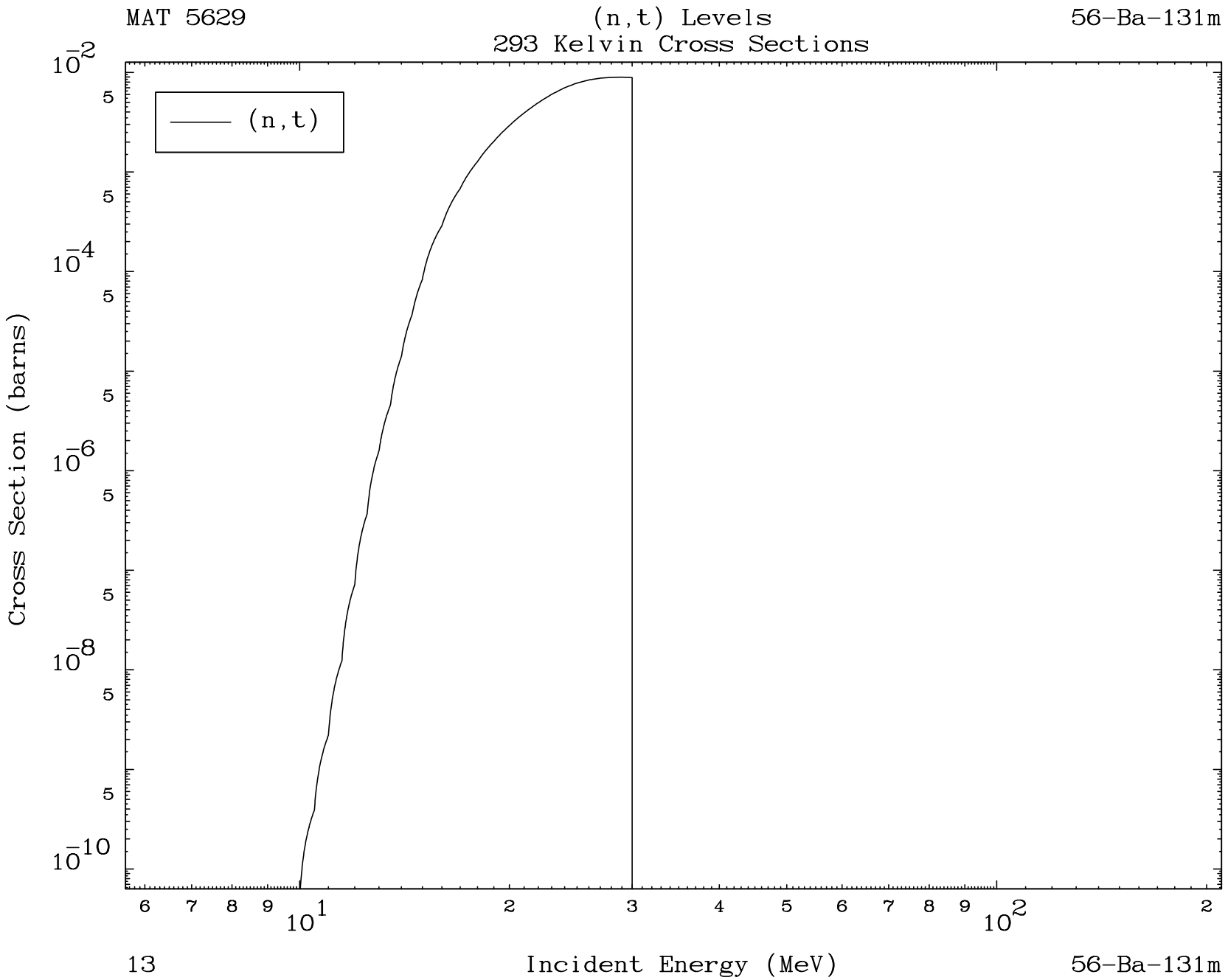

MAT 5629
(n,n') Levels
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
Incident Energy (MeV)
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
MT= 59 (n,n') Level
MT= 60 (n,n') Level
8
56-Ba-131m


MAT 5629
(n,n') Levels
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
Incident Energy (MeV)
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
9
56-Ba-131m

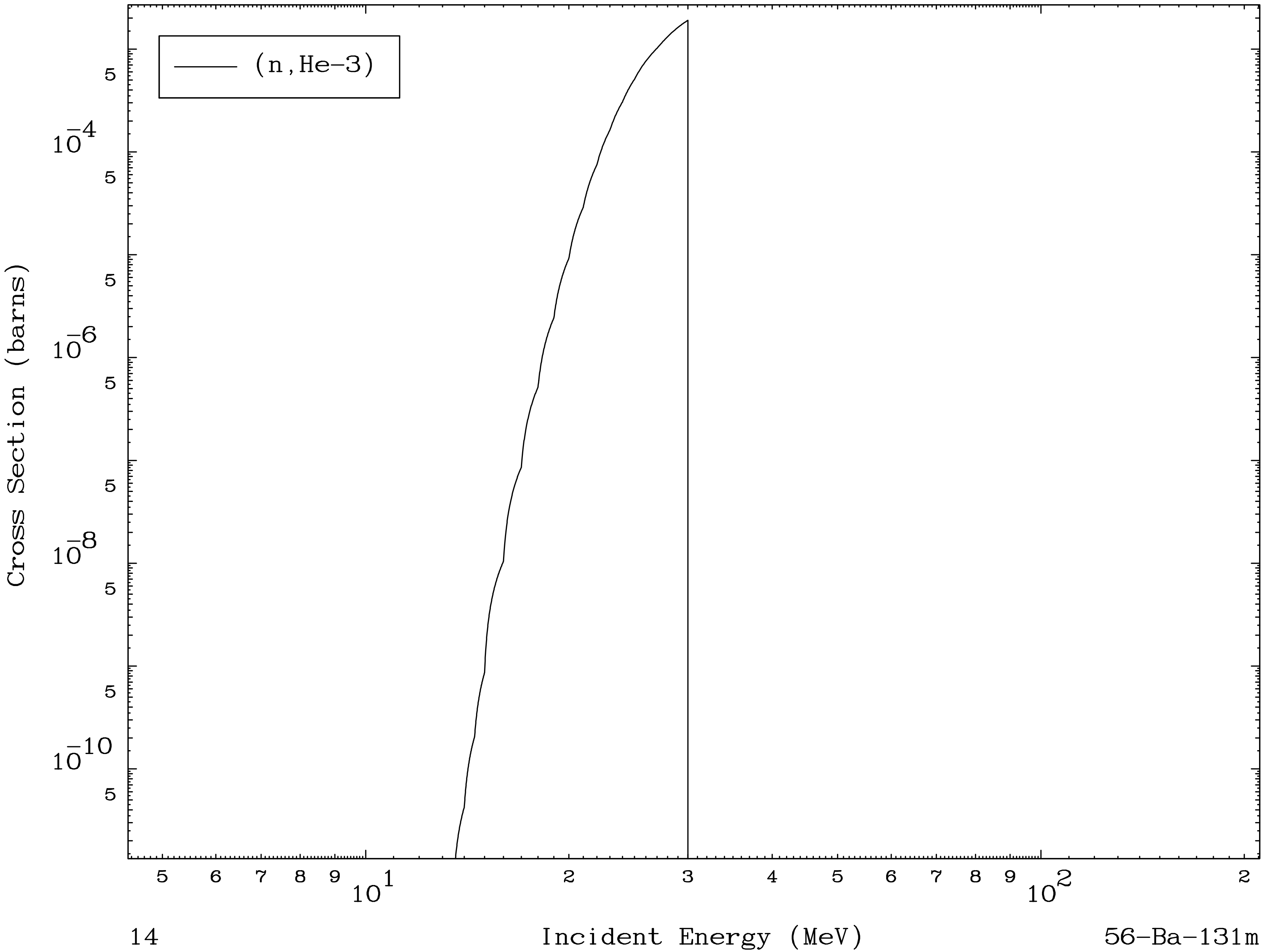

MAT 5629
(n,n') Levels
293 Kelvin Cross Sections
56-Ba-131m
Cross Section (barns)
Incident Energy (MeV)
Inelastic
MT= 71 (n,n') Level
MT= 72 (n,n') Level
MT= 73 (n,n') Level
MT= 74 (n,n') Level
MT= 75 (n,n') Level
MT= 76 (n,n') Level
MT= 77 (n,n') Level
MT= 78 (n,n') Level
MT= 79 (n,n') Level
(n,n') Continuum
10
56-Ba-131m

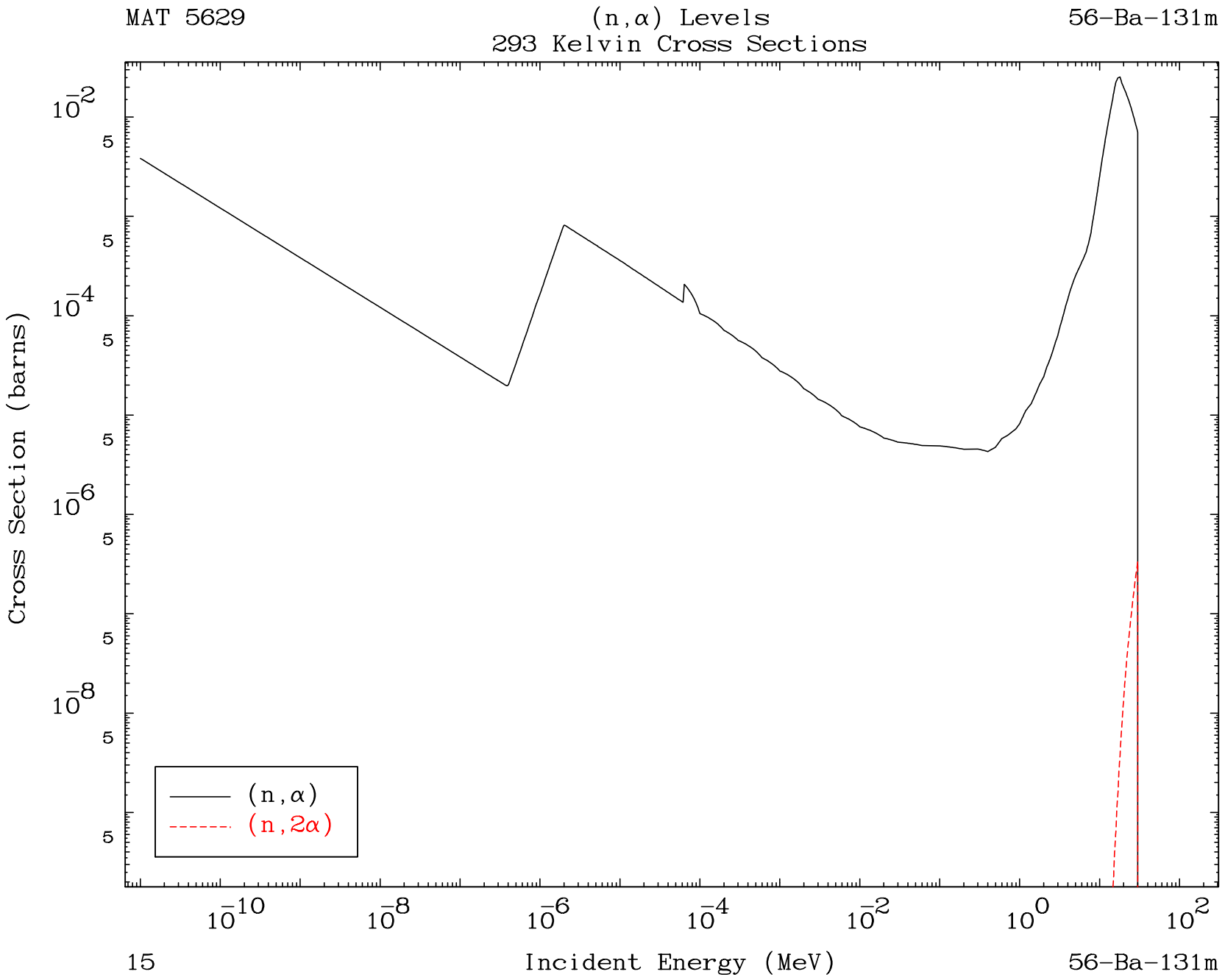

MAT 5629
(n,p) Levels
56-Ba-131m
293 Kelvin Cross Sections
Cross Section (barns)
5
10-2
5
10-3
5
10-4
5
10-5
(n,p)
10-10
10-8
10-6
10-4
10-2
100
102
11
Incident Energy (MeV)
56-Ba-131m

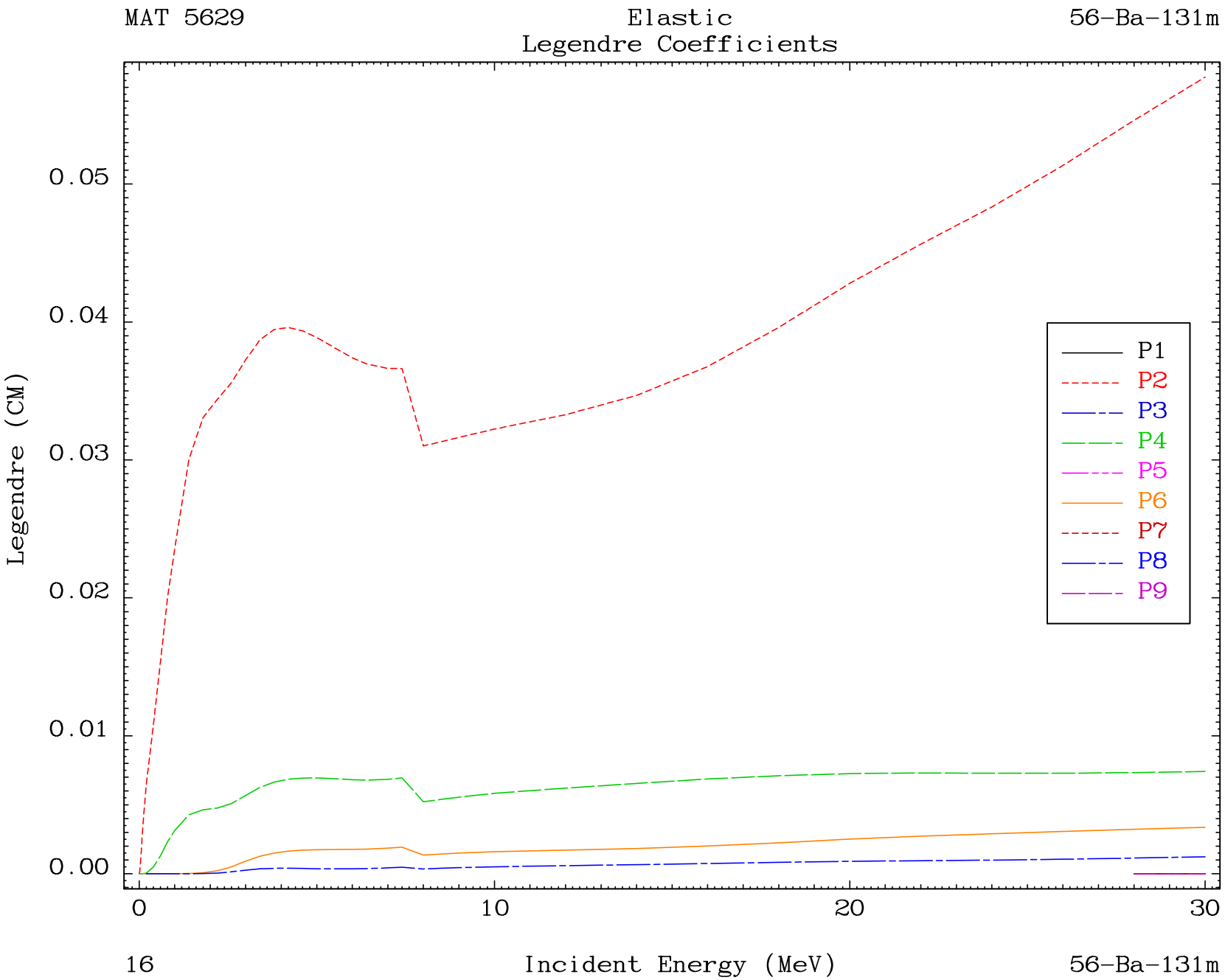

MAT 5629
(n,d) Levels
56-Ba-131m
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
12
56-Ba-131m

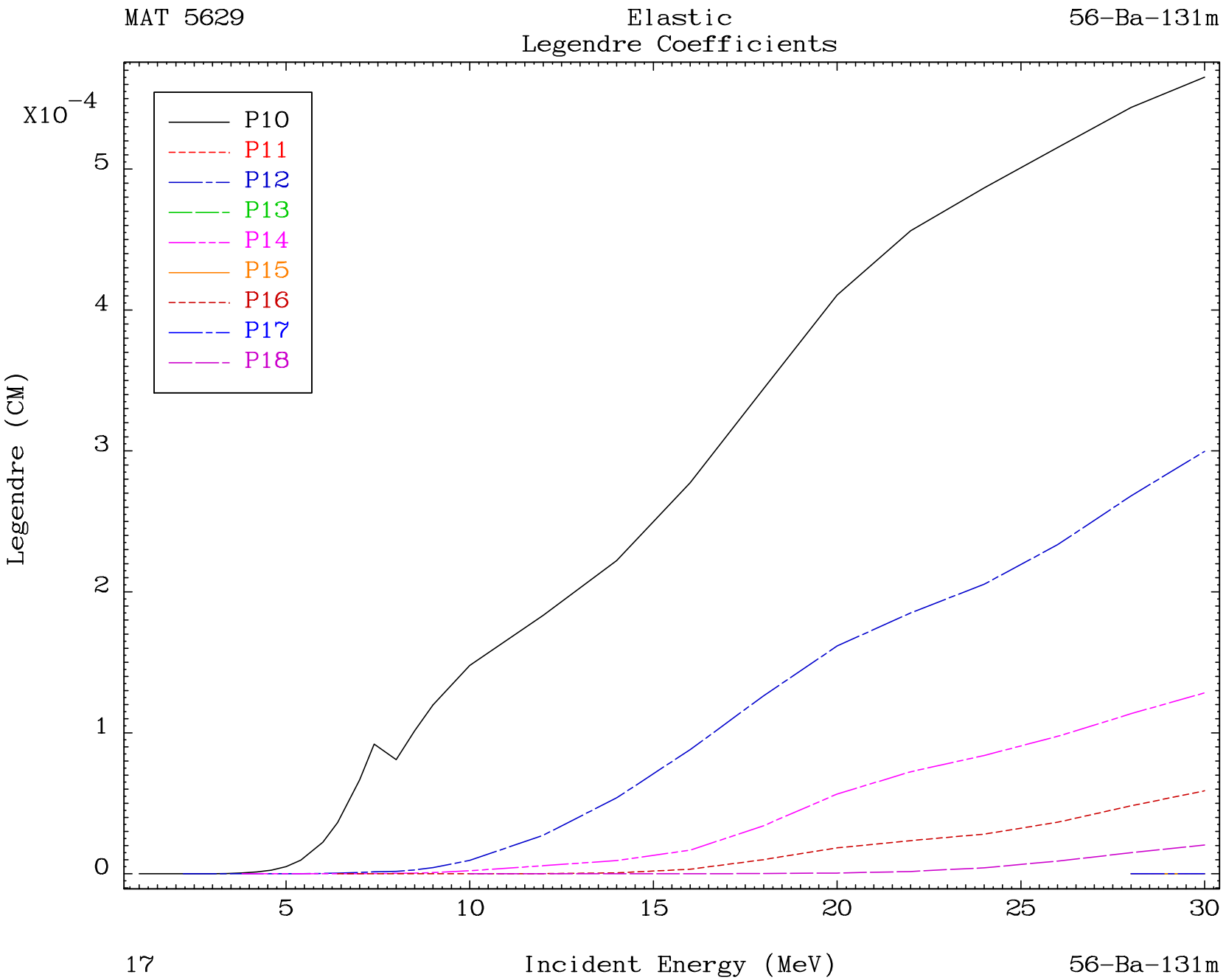

MAT 5629
(n,t) Levels
56-Ba-131m
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
13
56-Ba-131m

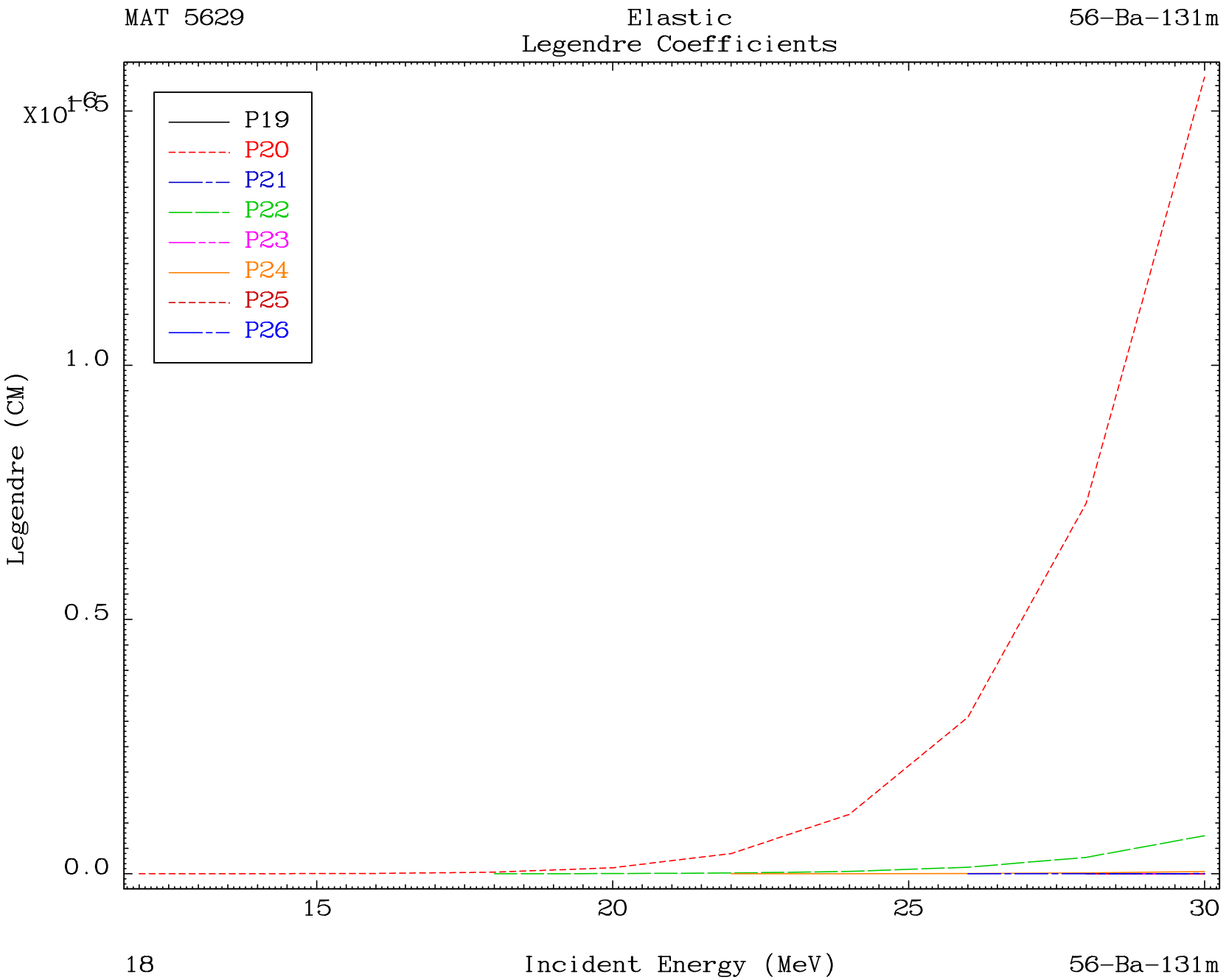
(n,He3) Levels
293 Kelvin Cross Sections

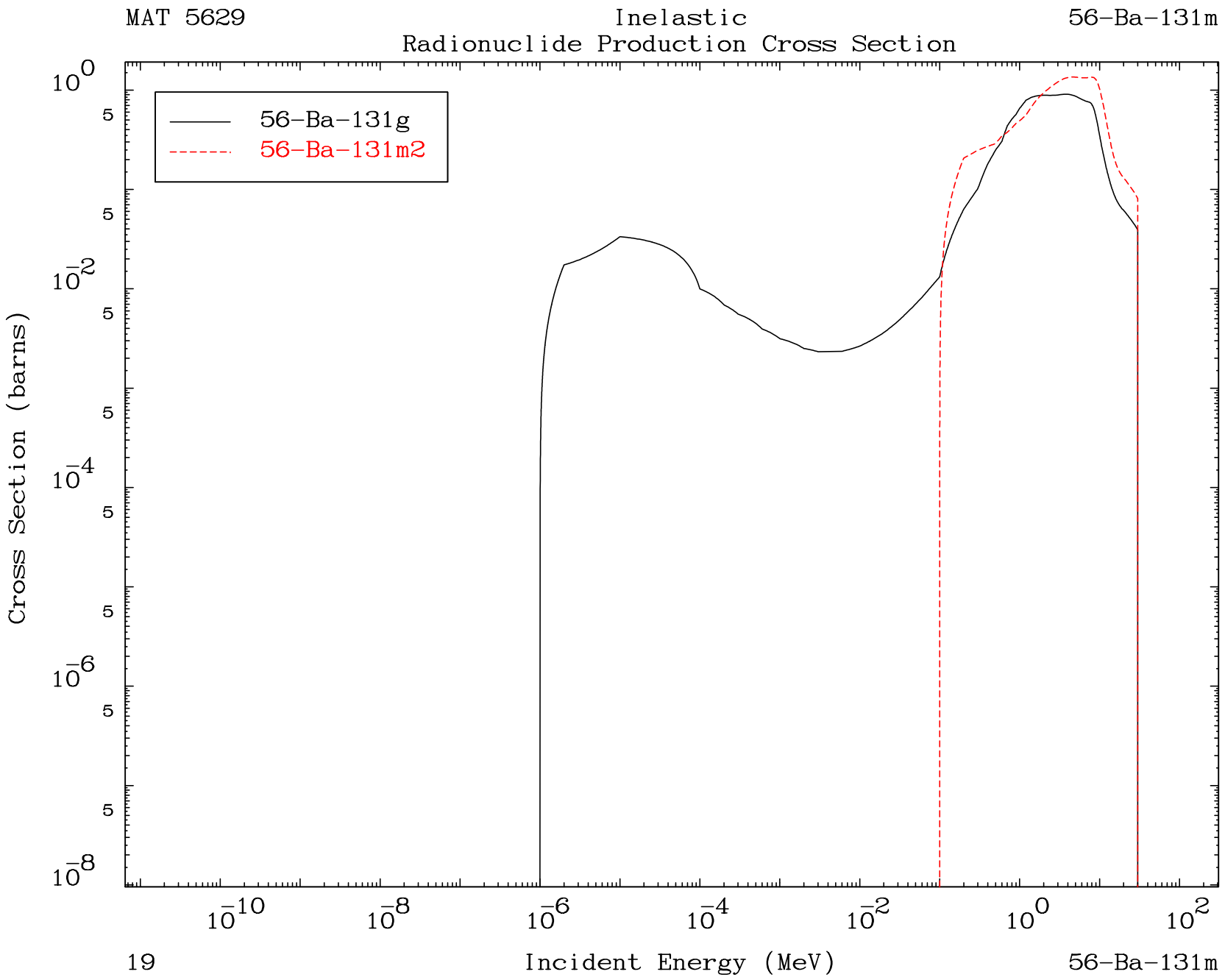


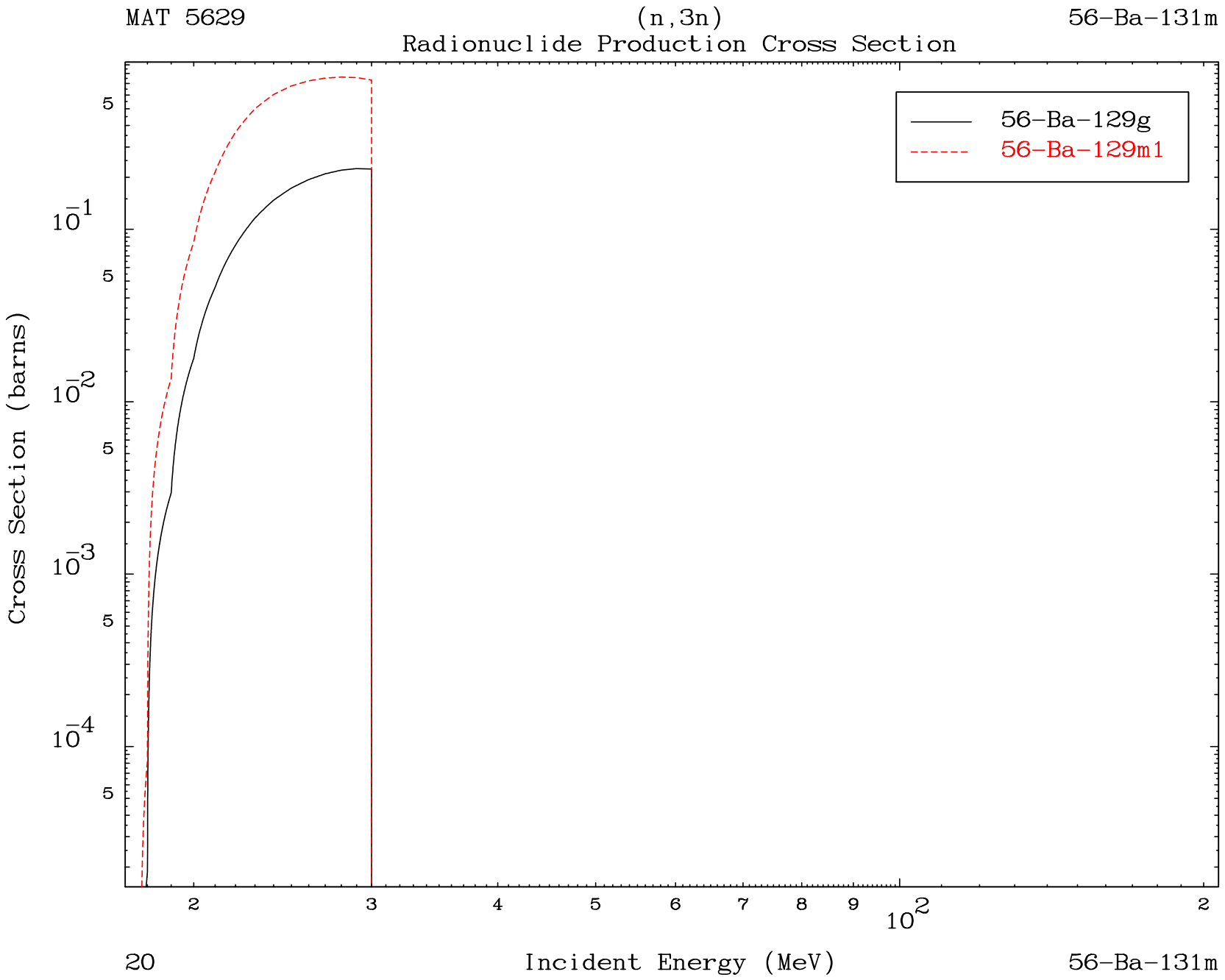

MAT 5629
(n,α) Levels
56-Ba-131m
293 Kelvin Cross Sections
Cross Section (barns)
10-2
10-4
10-6
10-8
5
(n,α)
(n,2α)
10-10
10-8
10-6
10-4
10-2
100
102
15
Incident Energy (MeV)
56-Ba-131m

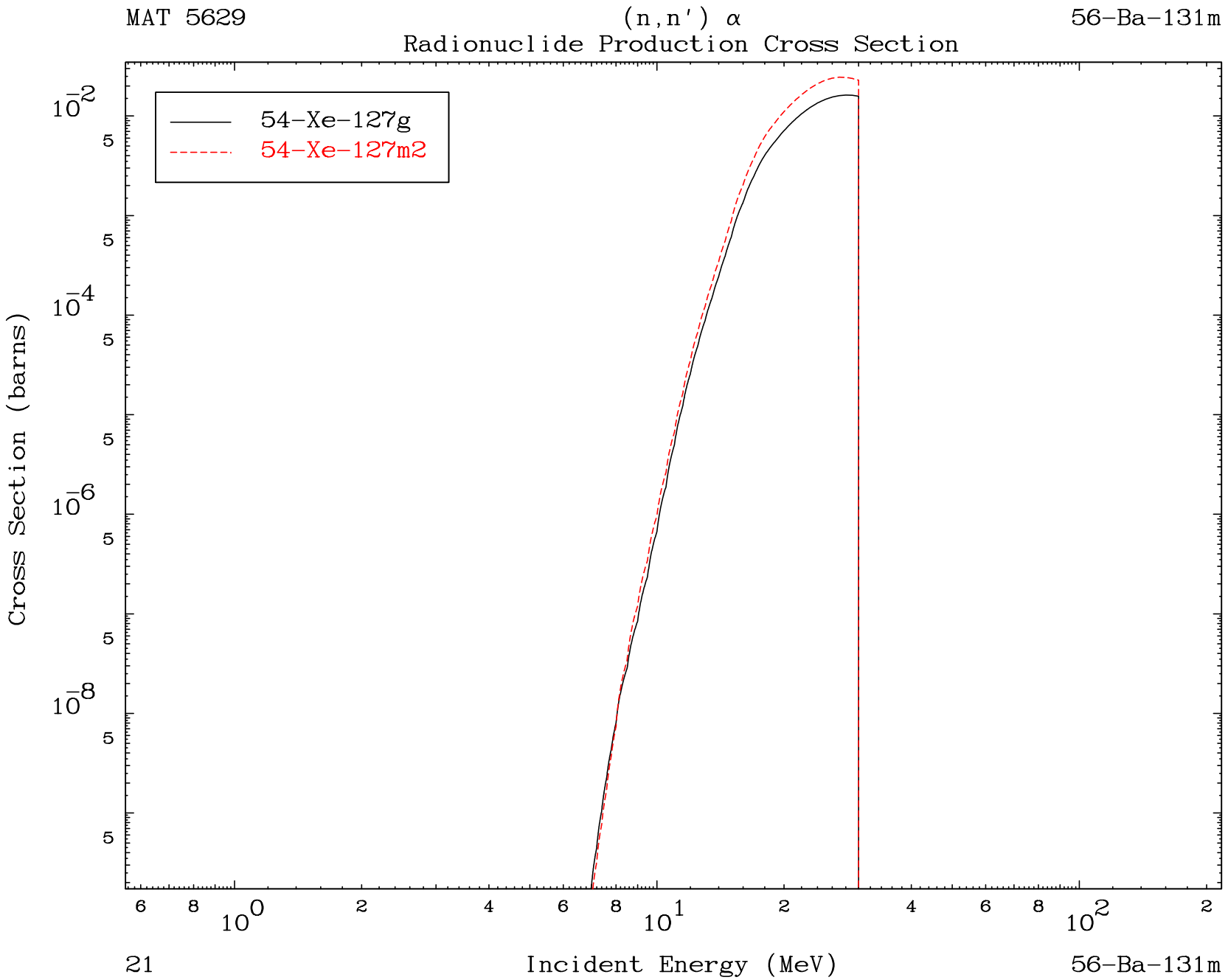

MAT 5629
Elastic
Legendre Coefficients
56-Ba-131m
Legendre (CM)
0.05
0.04
0.03
0.02
0.01
0.00
0
10
20
30
16
Incident Energy (MeV)
56-Ba-131m
P1
P2
P3
P4
P5
P6
P7
P8
P9

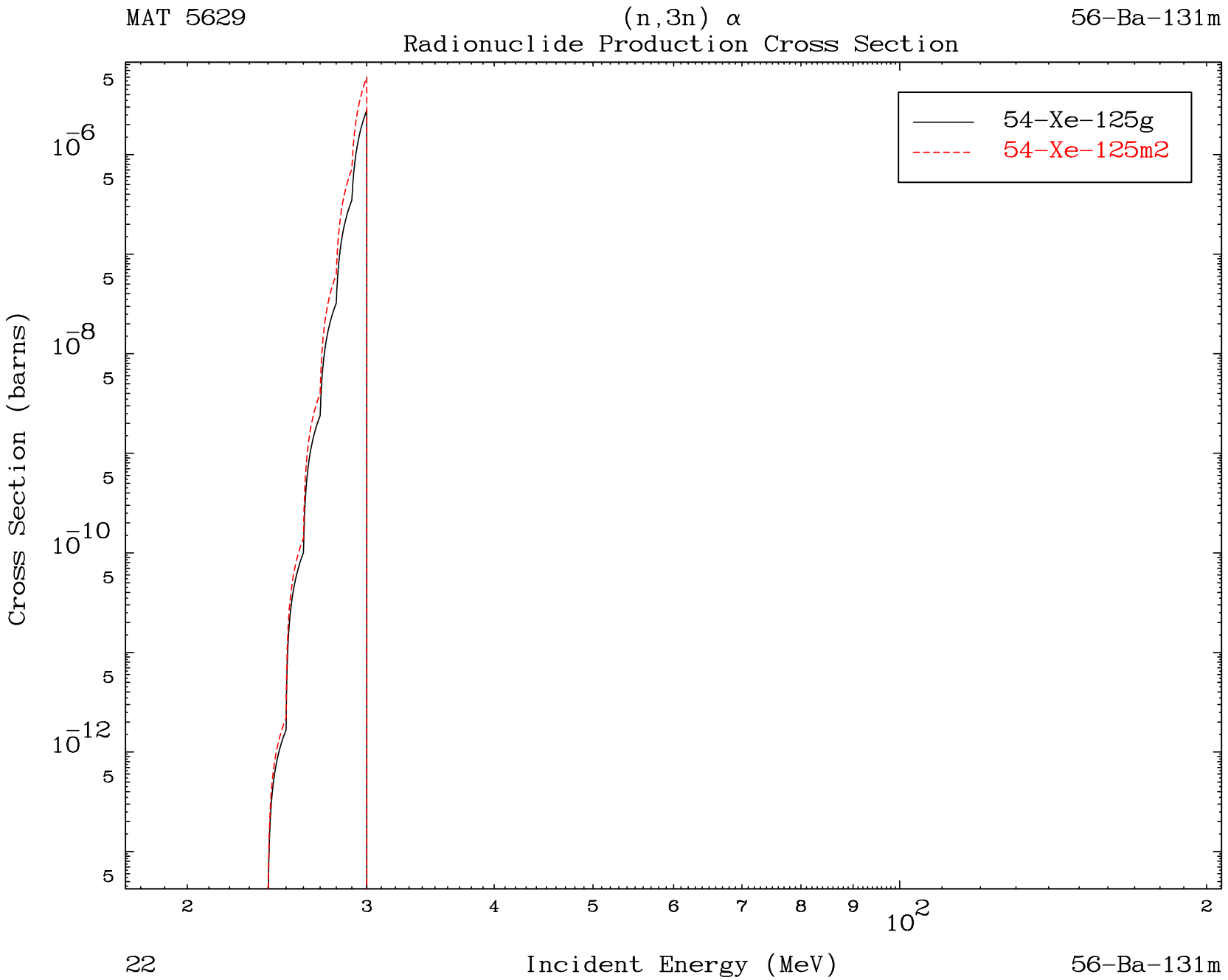

MAT 5629
Elastic
Legendre Coefficients
56-Ba-131m
X10^-4
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0
1
2
3
4
5
5
10
15
20
25
30
17
Incident Energy (MeV)
56-Ba-131m

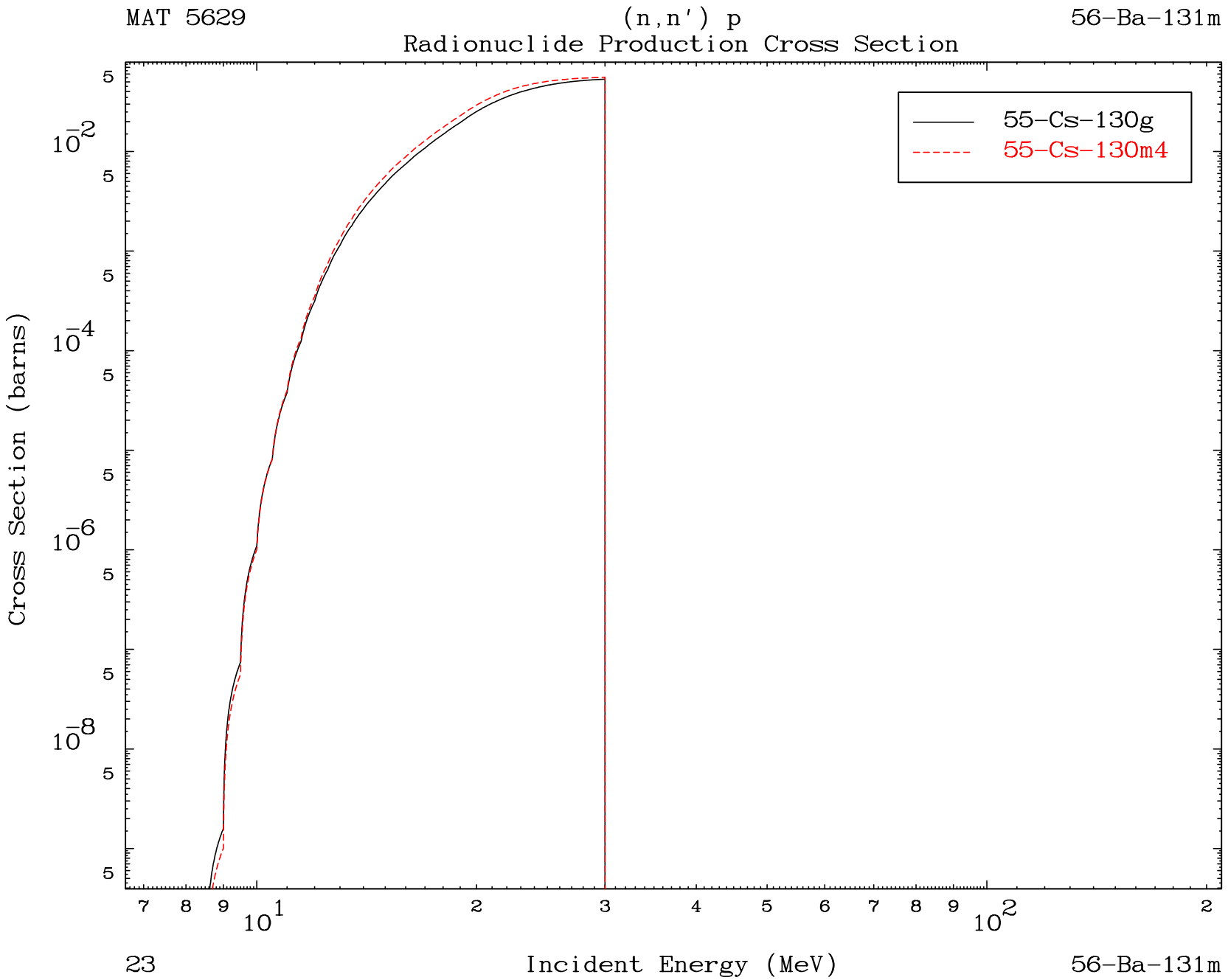

MAT 5629
Elastic
Legendre Coefficients
56-Ba-131m
X10-05
P19
P20
P21
P22
P23
P24
P25
P26
1.0
0.5
0.0
Legendre (CM)
15
20
25
30
18
Incident Energy (MeV)
56-Ba-131m

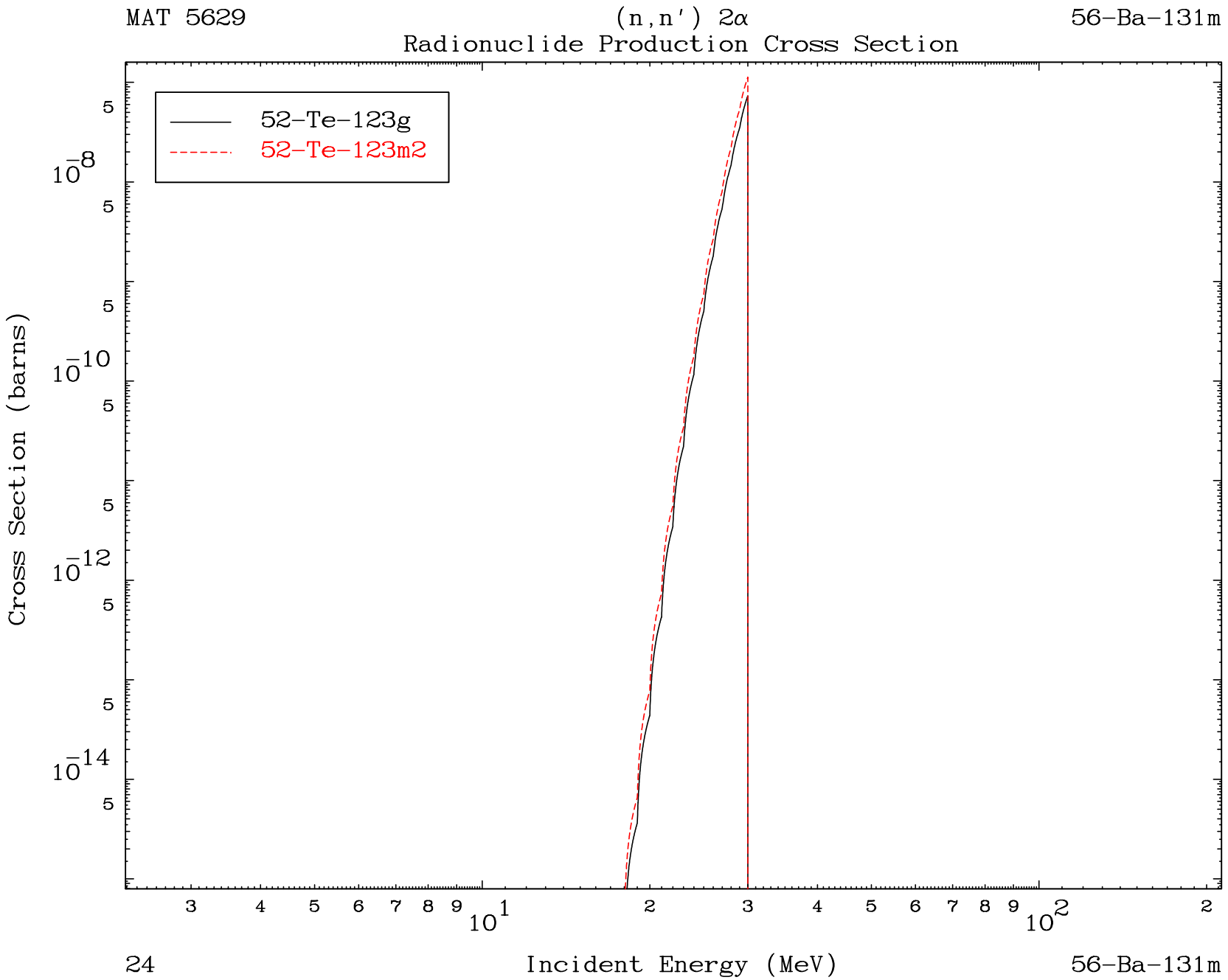

MAT 5629
Inelastic
56-Ba-131m
Radionuclide Production Cross Section
56-Ba-131g
56-Ba-131m2
Cross Section (barns)
Incident Energy (MeV)
19
56-Ba-131m

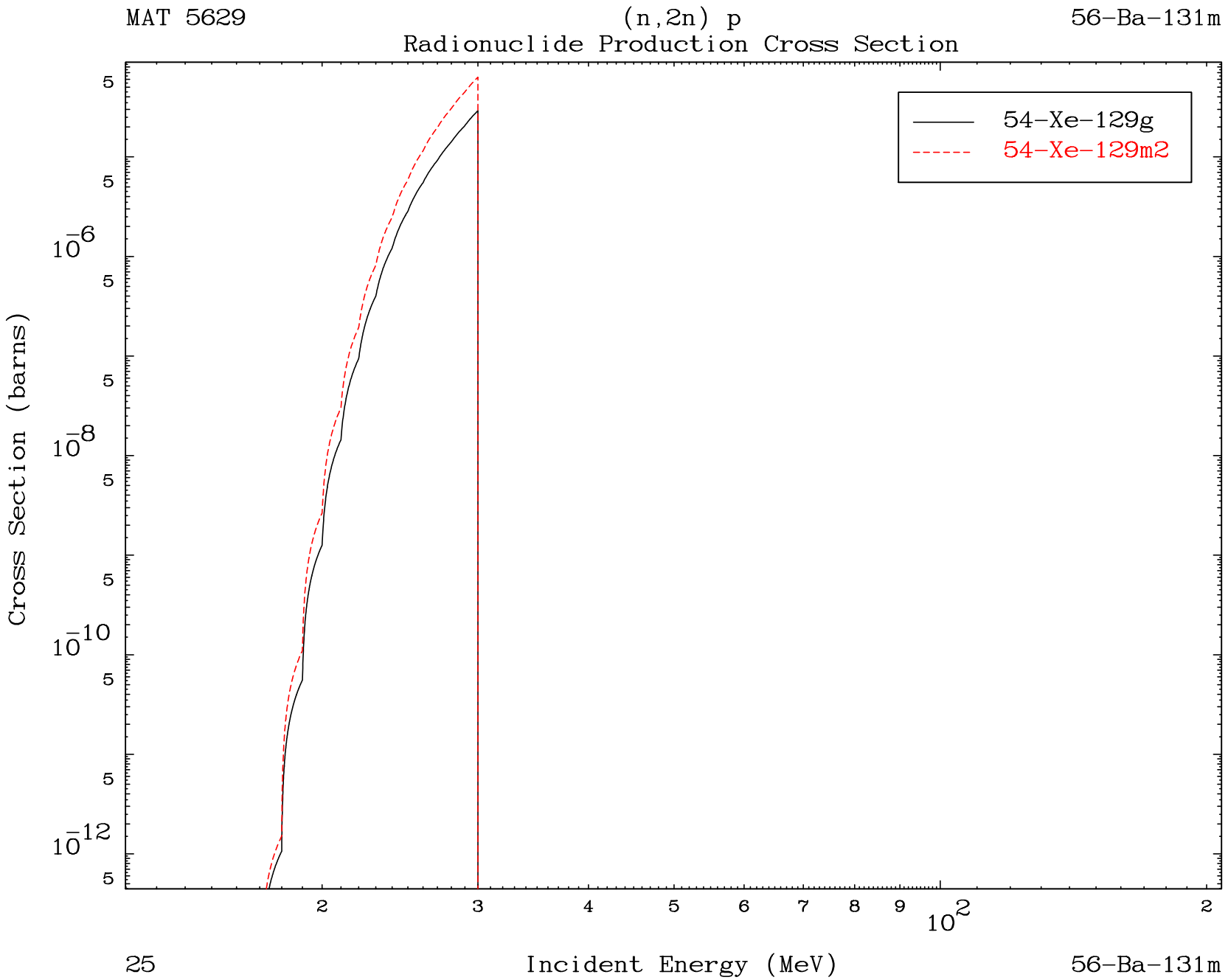

MAT 5629
(n,3n)
56-Ba-131m
Radionuclide Production Cross Section
56-Ba-129g
56-Ba-129m1
Cross Section (barns)
Incident Energy (MeV)
20
56-Ba-131m

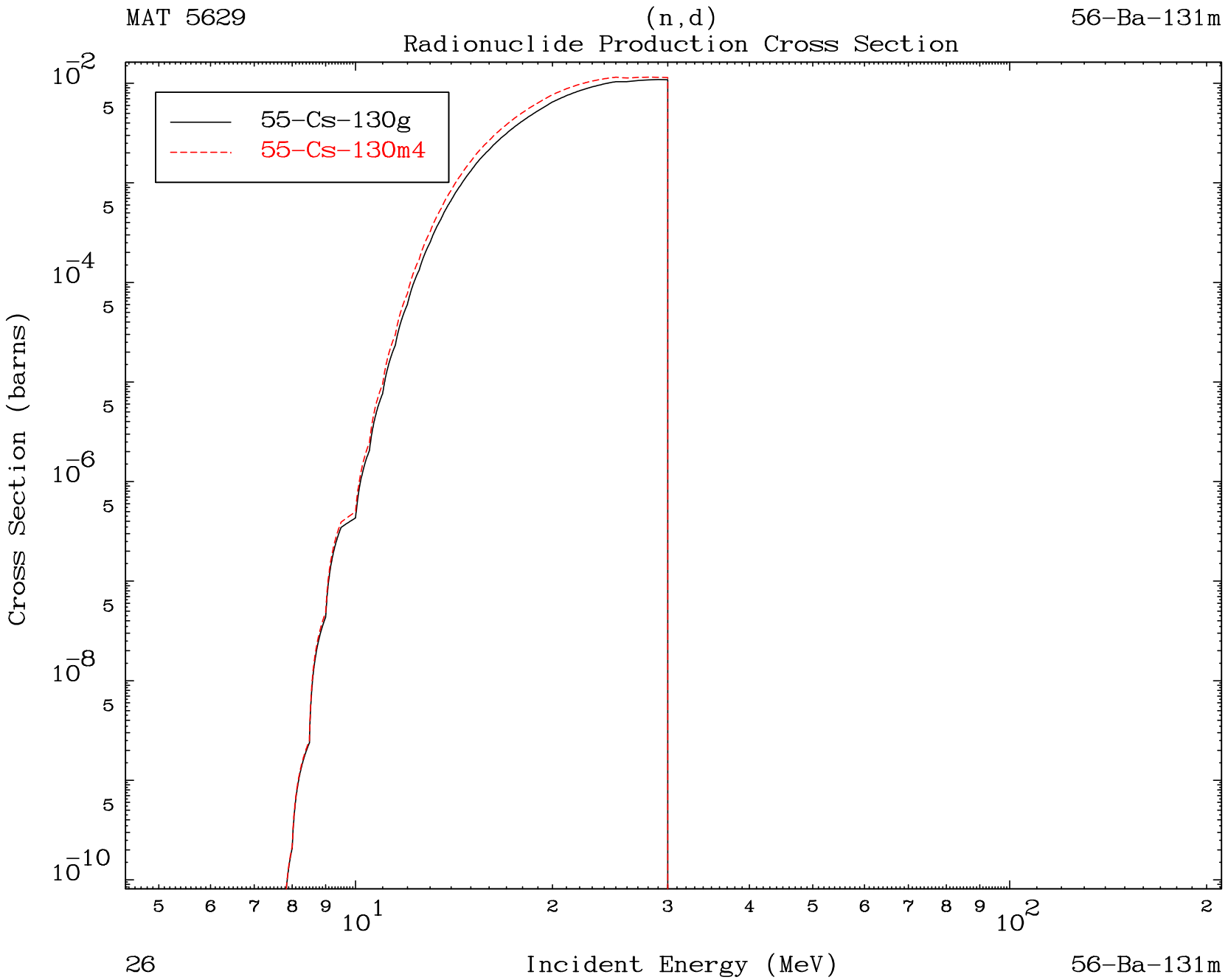

MAT 5629
(n,n') α
56-Ba-131m
Radionuclide Production Cross Section
54-Xe-127g
54-Xe-127m2
Cross Section (barns)
10-2
10-4
10-6
10-8
5
6 8 100 2 4 6 8 101 2 4 6 8 102 2
21
Incident Energy (MeV)
56-Ba-131m

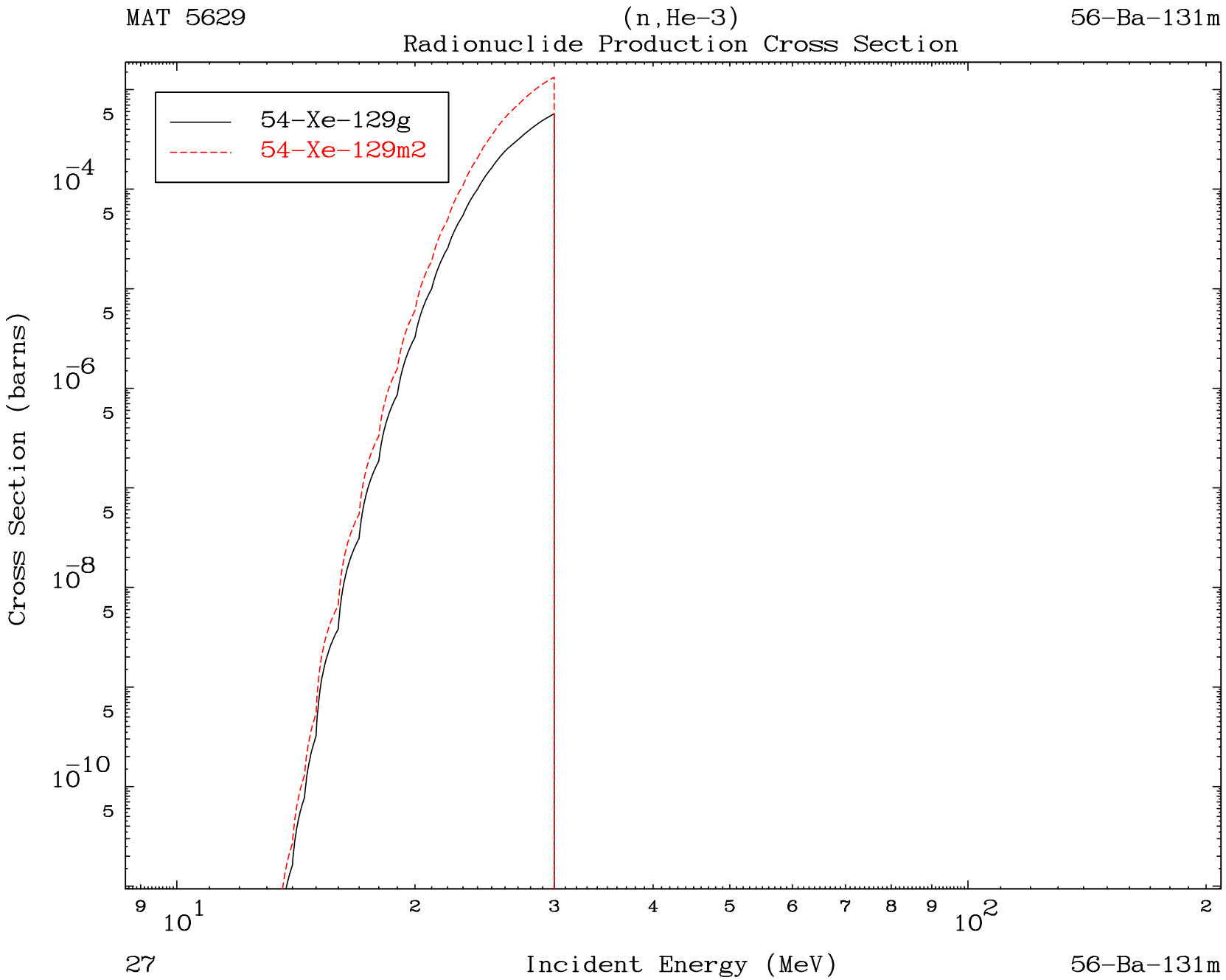

MAT 5629
(n,3n) α
56-Ba-131m
Radionuclide Production Cross Section
54-Xe-125g
54-Xe-125m2
Cross Section (barns)
10-6
10-8
10-10
10-12
5
2
3
4
5
6
7
8
9
10 2
2
22
Incident Energy (MeV)
56-Ba-131m

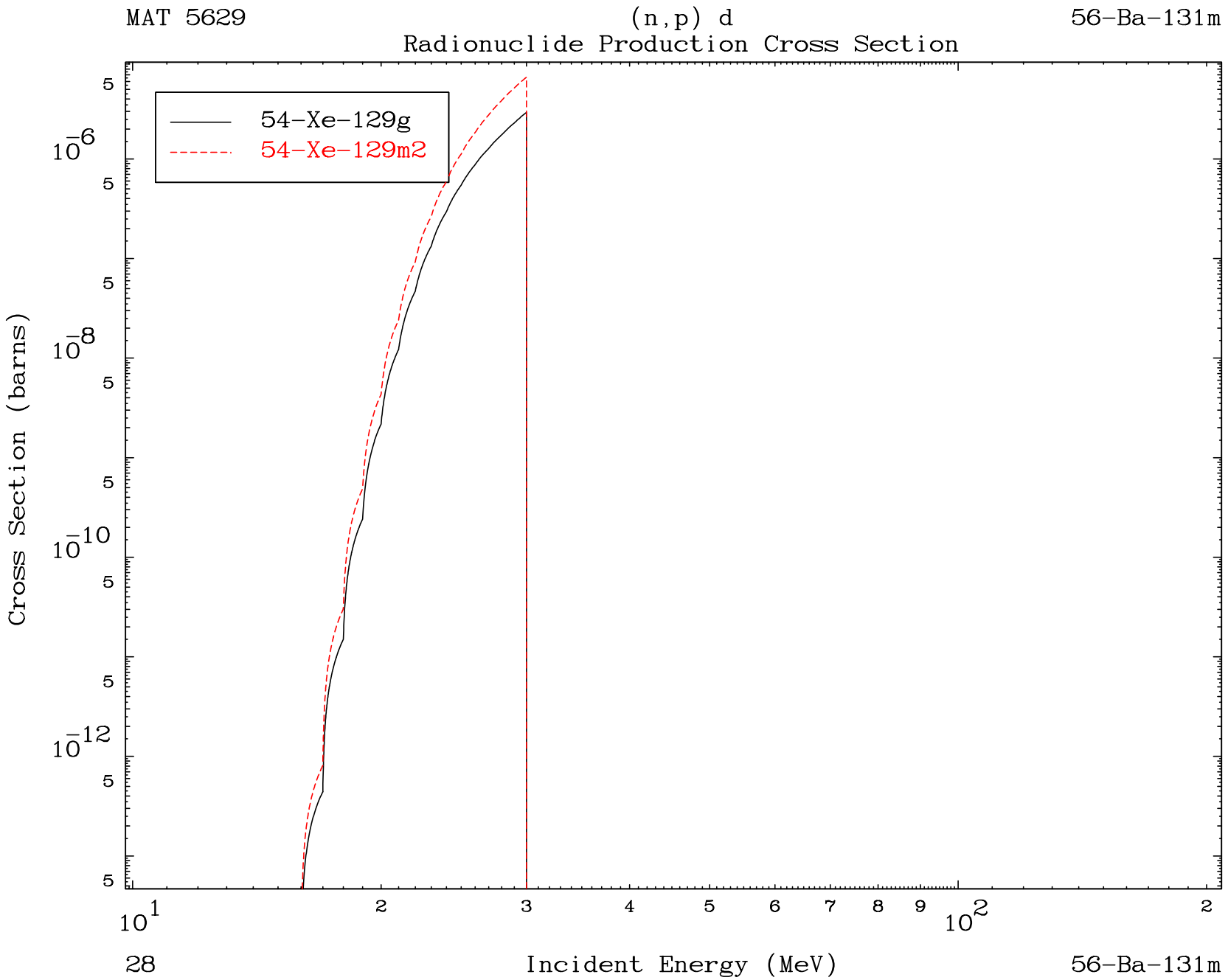

MAT 5629
(n,n') p
56-Ba-131m
Radionuclide Production Cross Section
55-Cs-130g
55-Cs-130m4
Cross Section (barns)
Incident Energy (MeV)
23
56-Ba-131m


MAT 5629
(n,n') 2α
56-Ba-131m
Radionuclide Production Cross Section
52-Te-123g
52-Te-123m2
Cross Section (barns)
Incident Energy (MeV)
24
56-Ba-131m


MAT 5629
(n,2n) p
56-Ba-131m
Radionuclide Production Cross Section
54-Xe-129g
54-Xe-129m2
Cross Section (barns)
Incident Energy (MeV)
25
56-Ba-131m


MAT 5629
(n,d)
56-Ba-131m
Radionuclide Production Cross Section
55-Cs-130g
55-Cs-130m4
Cross Section (barns)
Incident Energy (MeV)
26
56-Ba-131m


MAT 5629
(n,He-3)
56-Ba-131m
Radionuclide Production Cross Section
54-Xe-129g
54-Xe-129m2
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10^1
10^2
Incident Energy (MeV)
27
56-Ba-131m


MAT 5629
(n,p) d
56-Ba-131m
Radionuclide Production Cross Section
54-Xe-129g
54-Xe-129m2
Cross Section (barns)
Incident Energy (MeV)
28
56-Ba-131m