Program EVALPLOT
(Version 2015-2)
by
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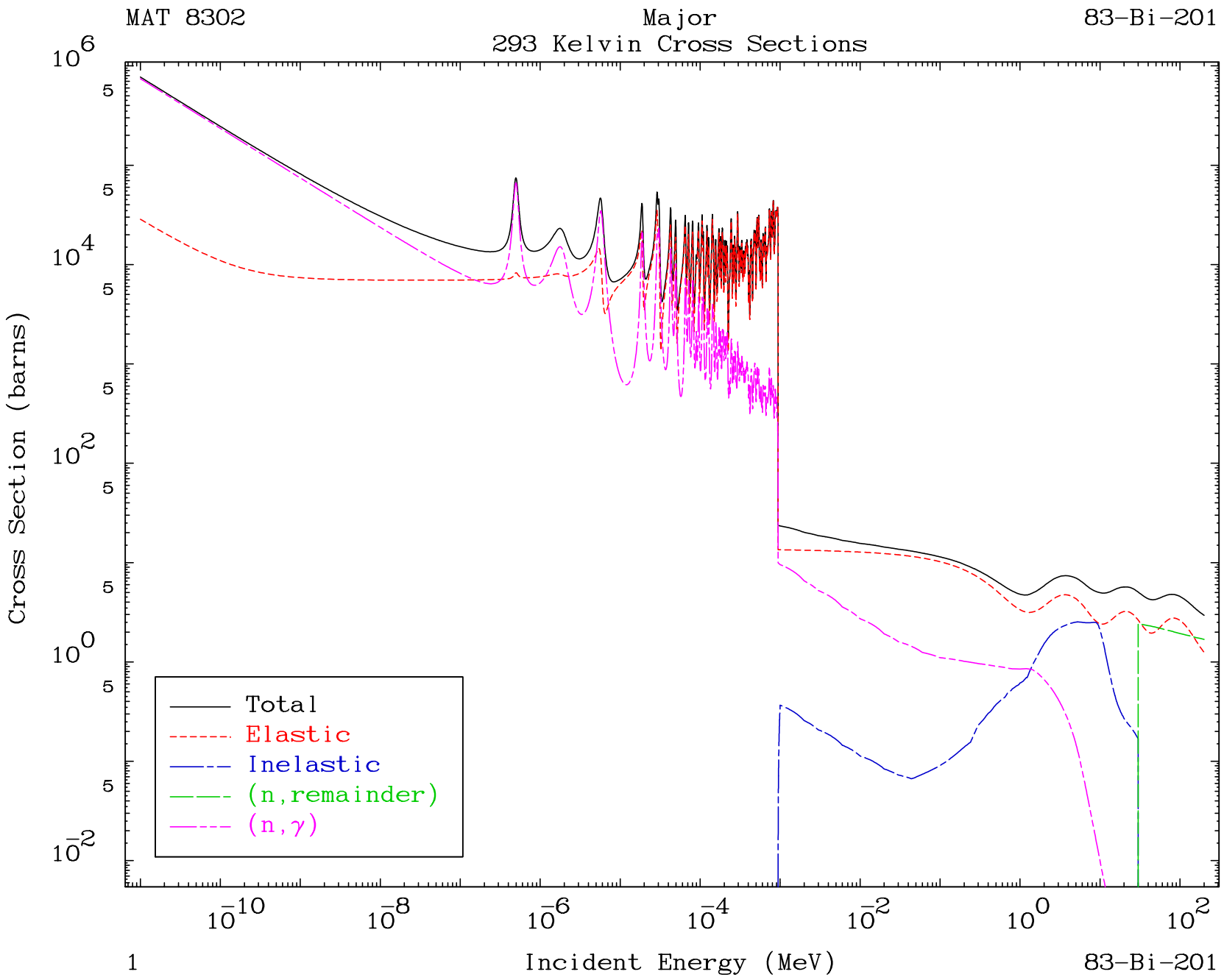
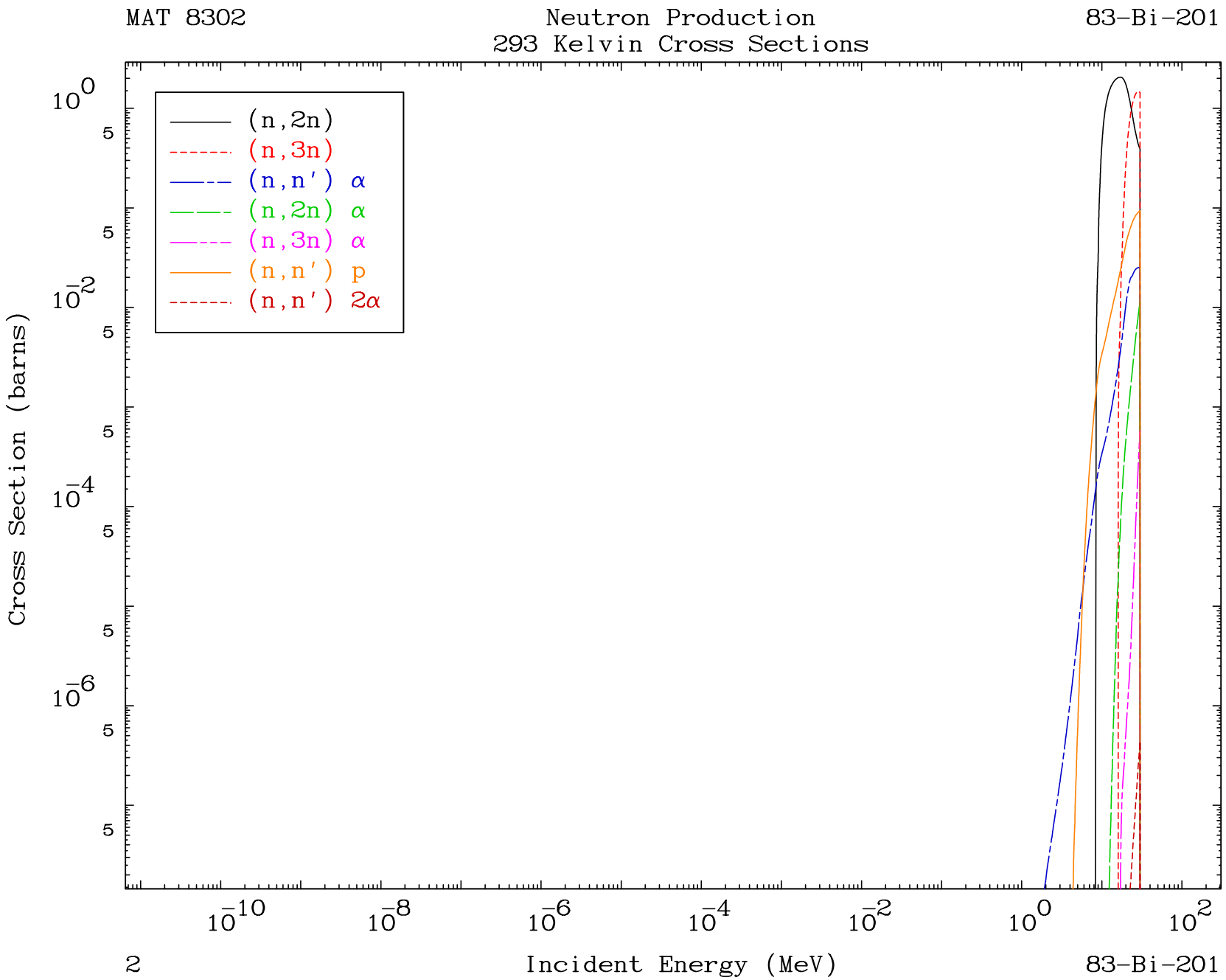
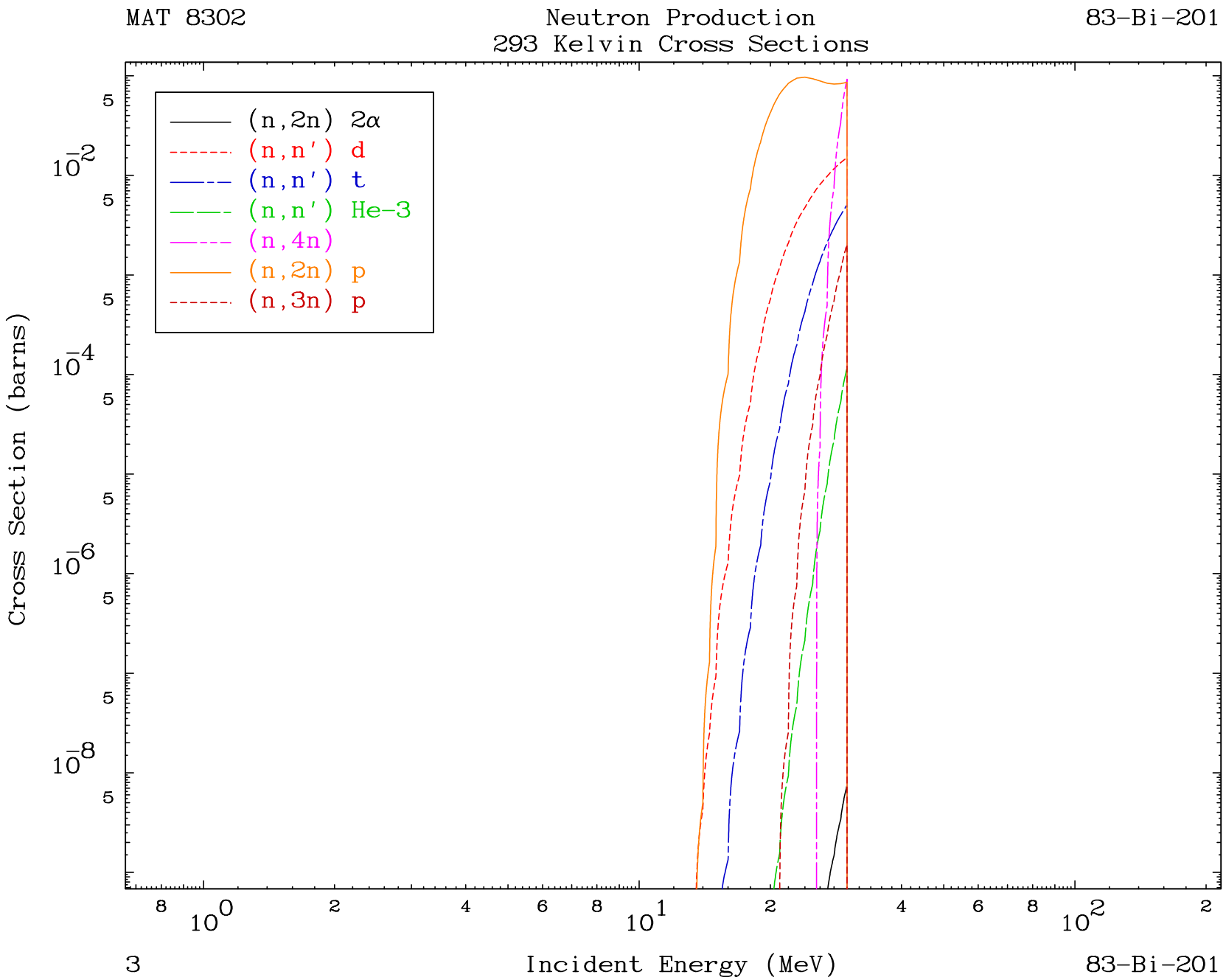
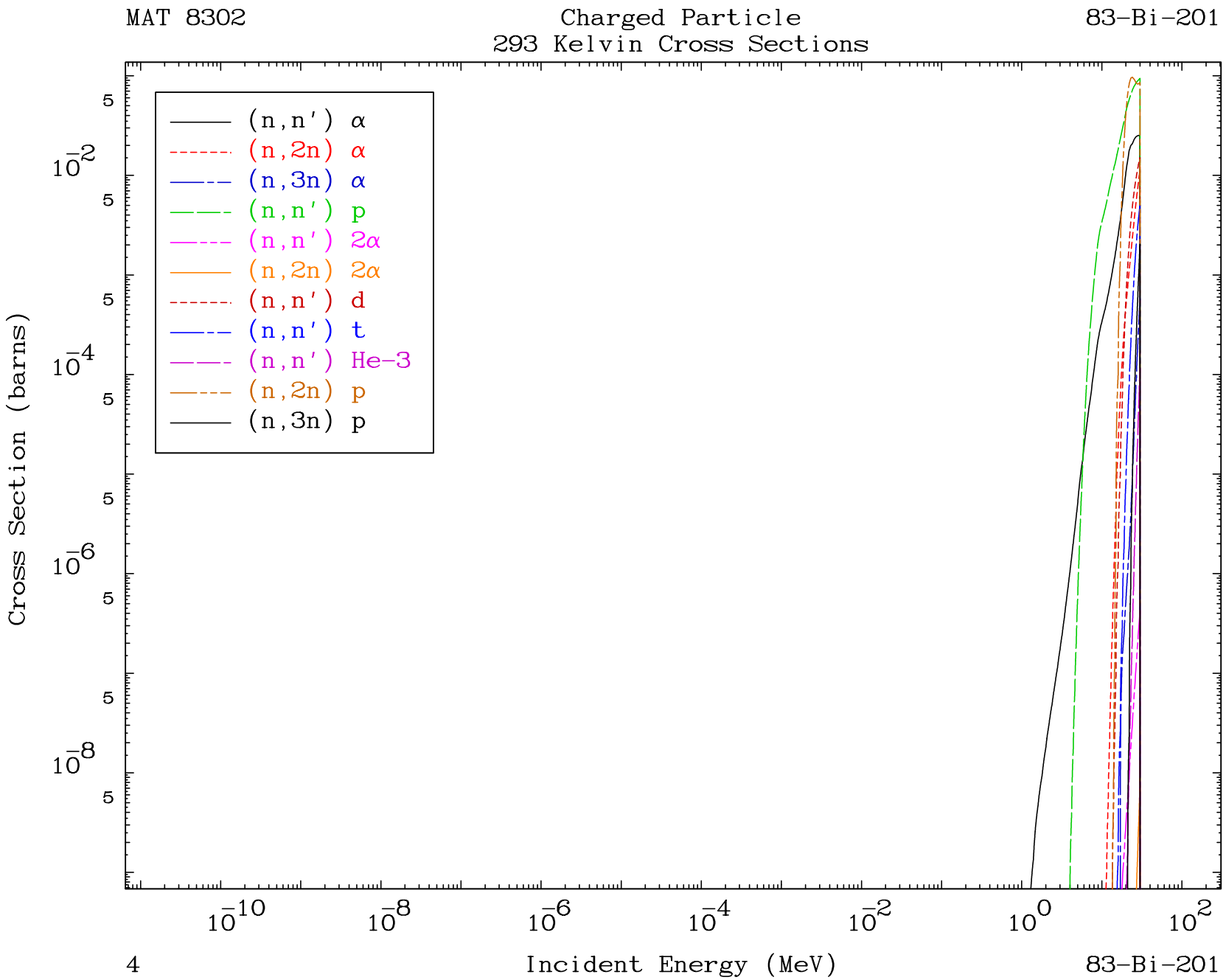
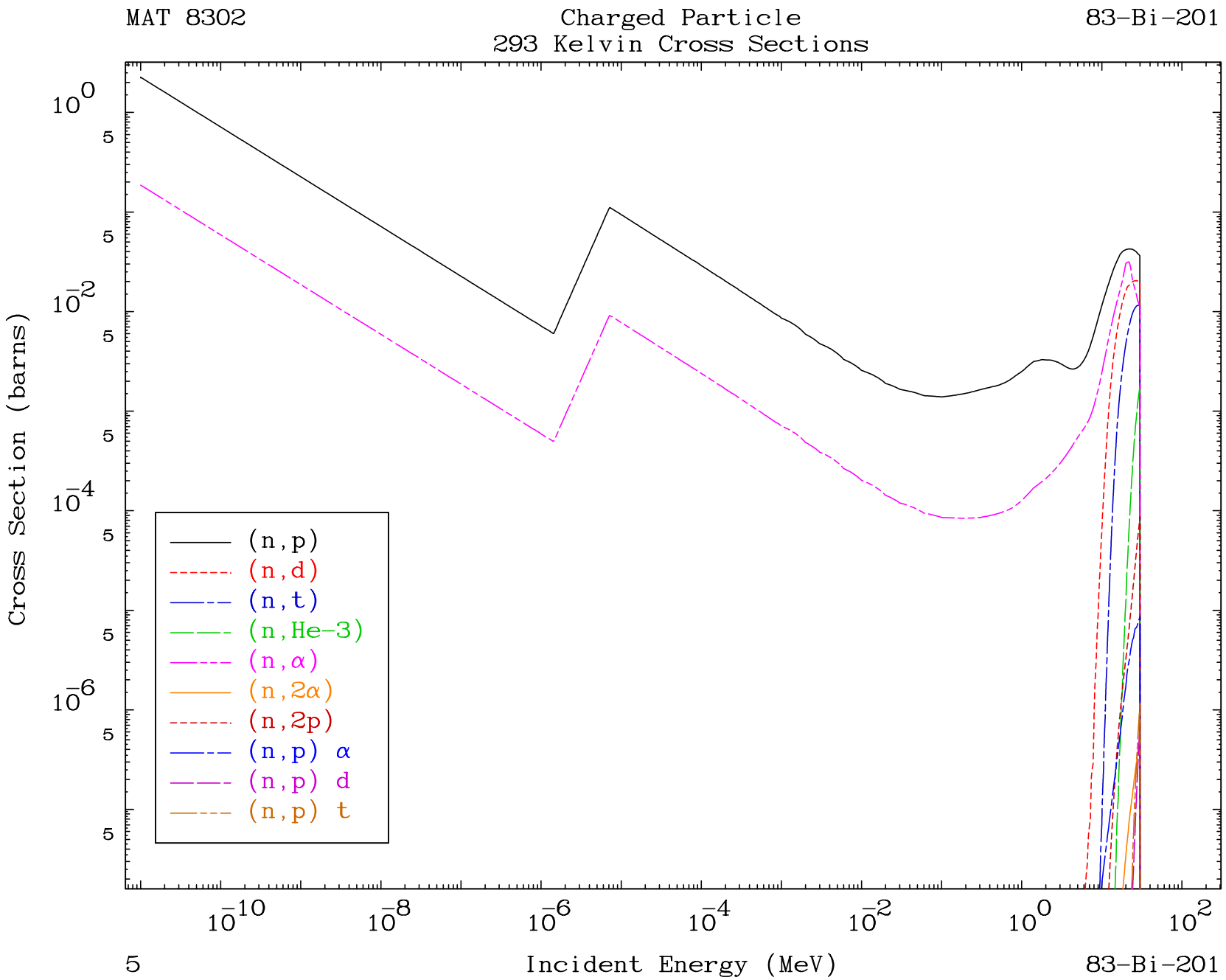
Press Mouse Button to Start

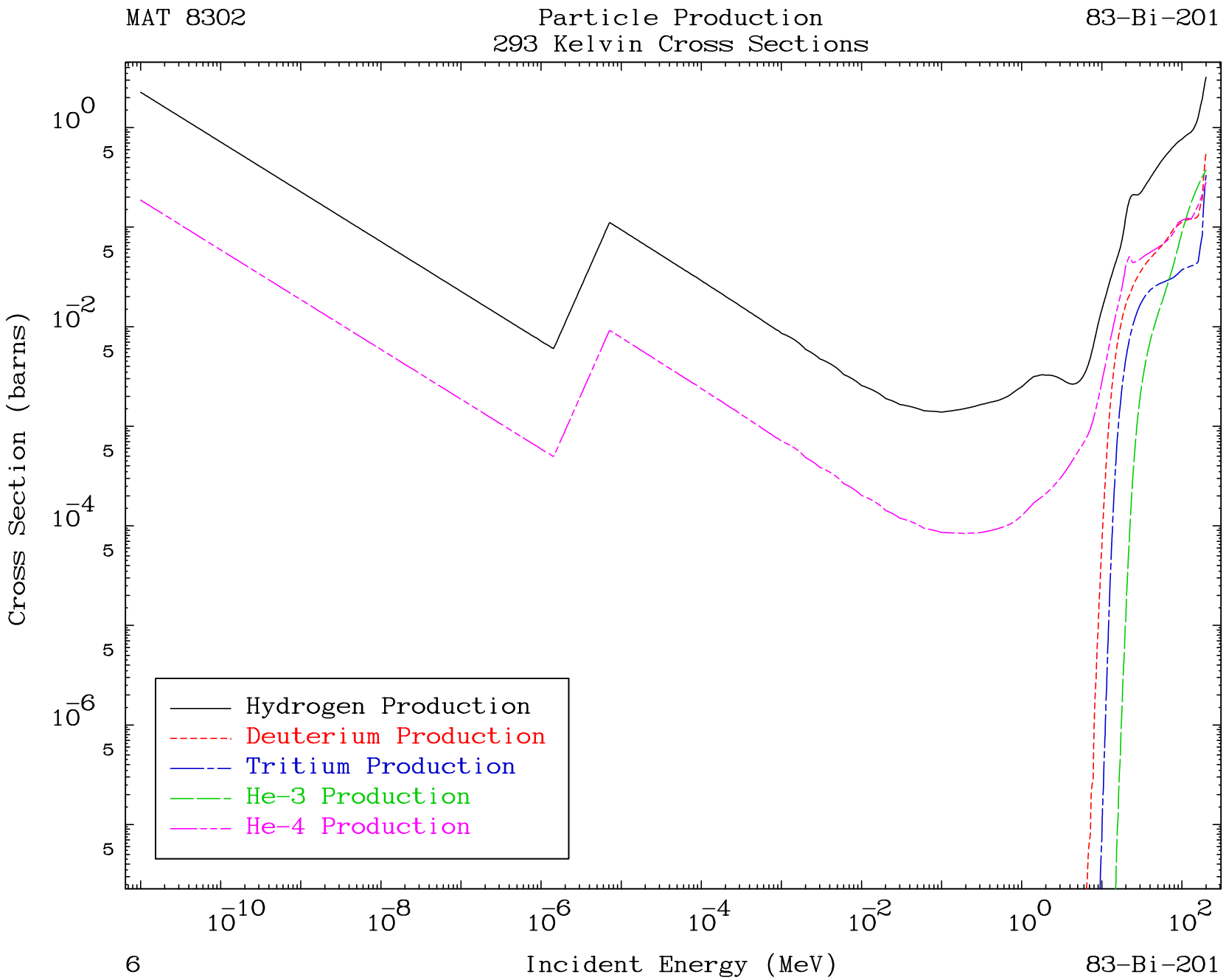

MAT 8302
Major
83-Bi-201
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
83-Bi-201

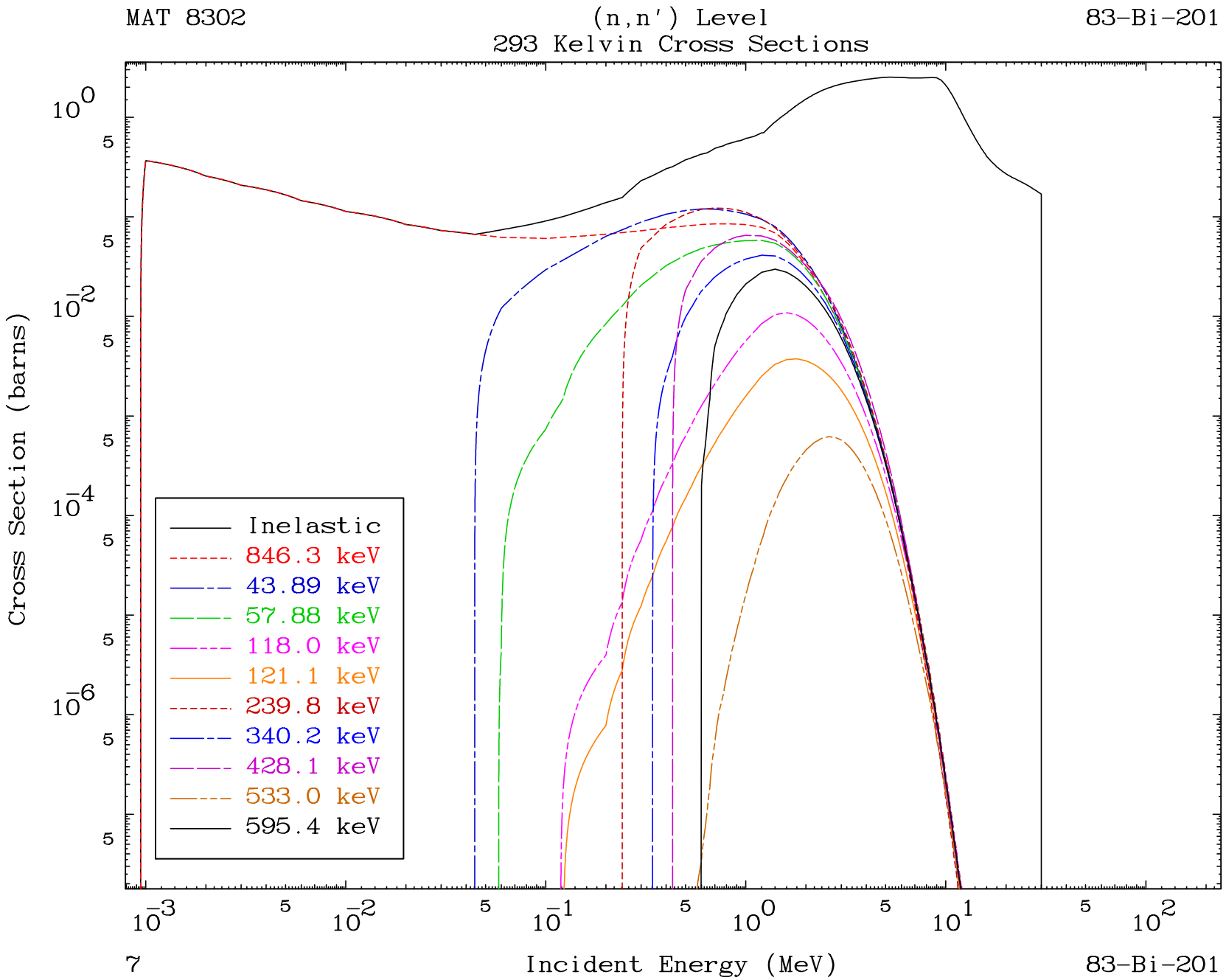

MAT 8302
Neutron Production
293 Kelvin Cross Sections
83-Bi-201
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
2
83-Bi-201

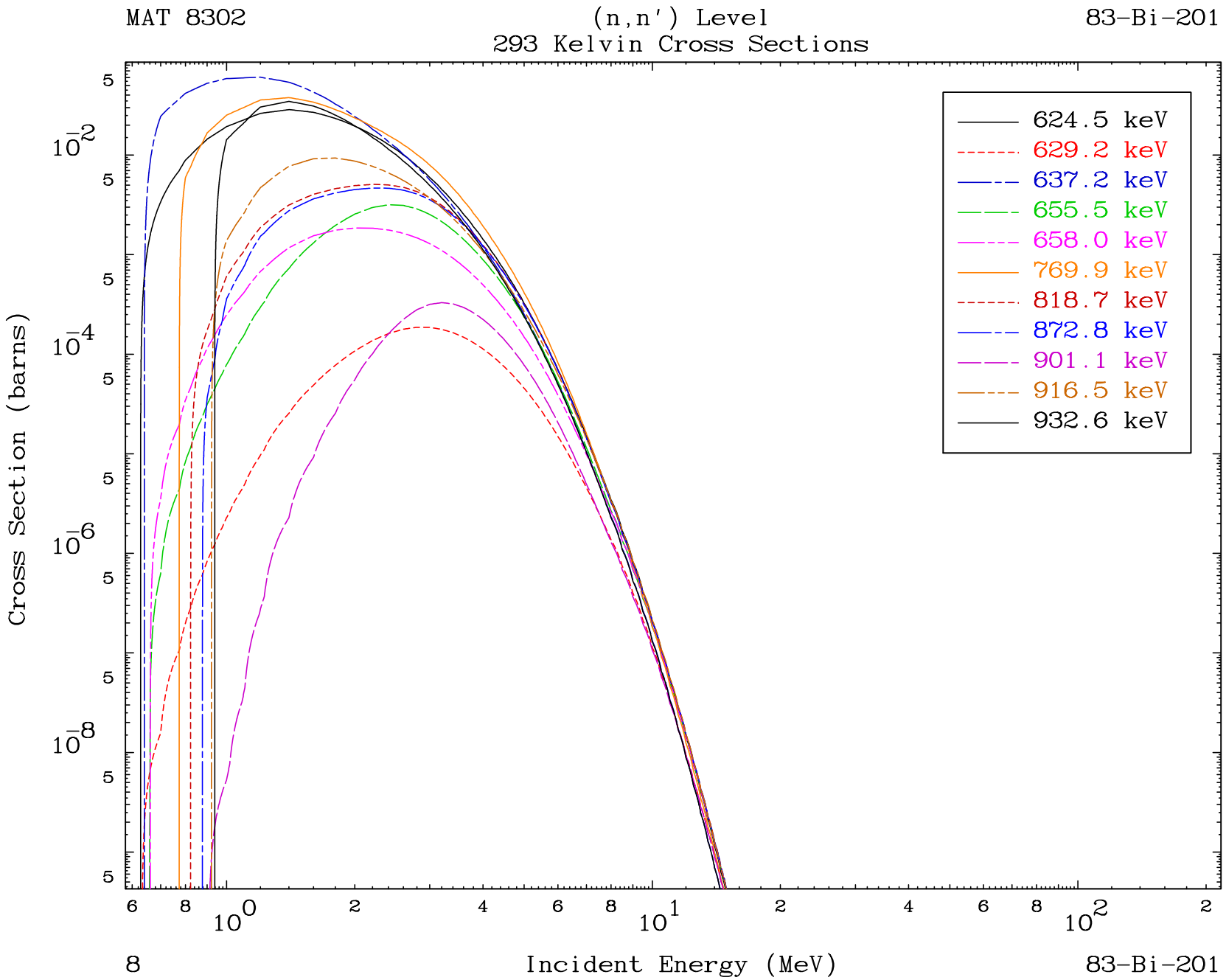

MAT 8302
Neutron Production
293 Kelvin Cross Sections
83-Bi-201
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
3
83-Bi-201

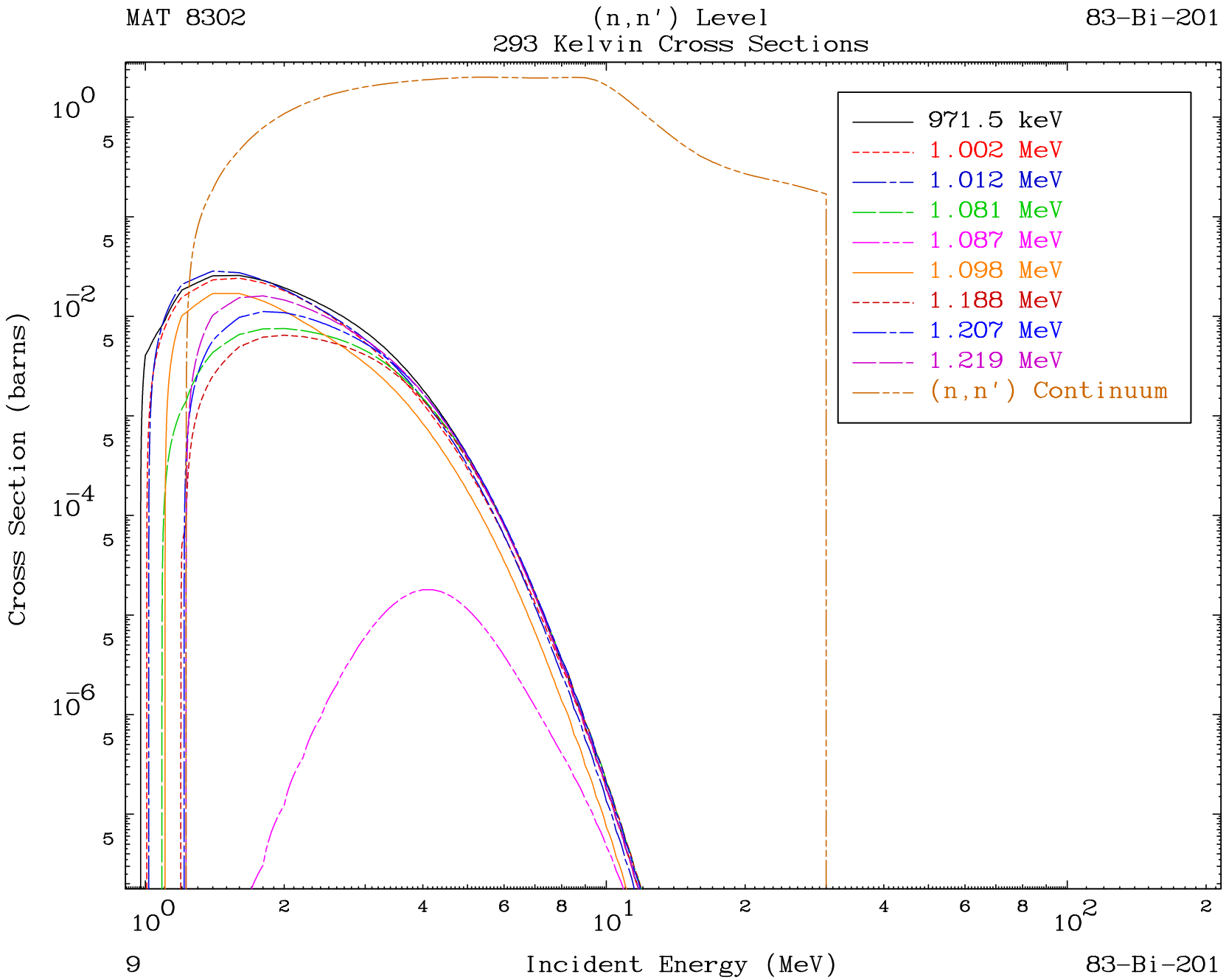

MAT 8302
Charged Particle
293 Kelvin Cross Sections
83-Bi-201
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
4
83-Bi-201

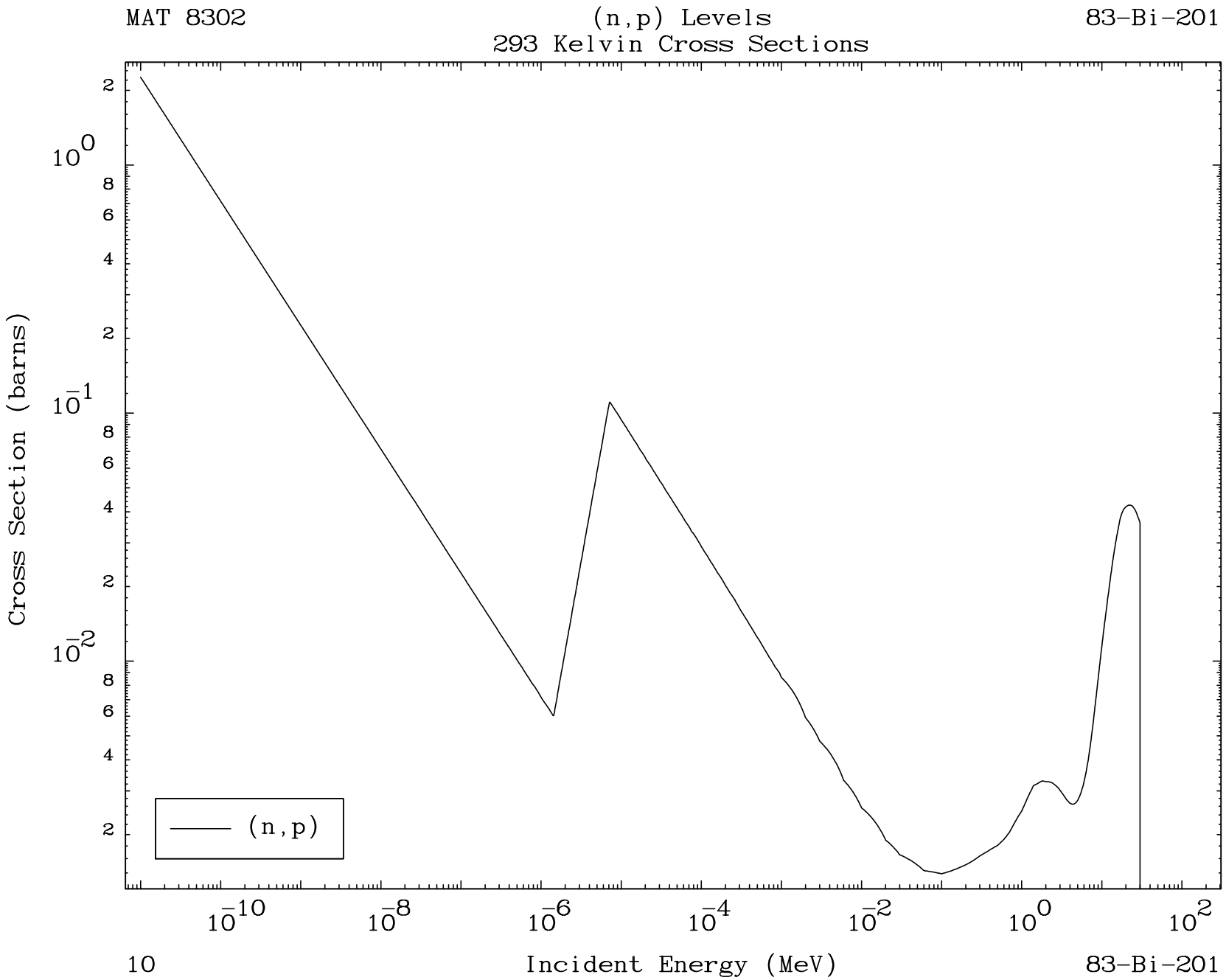

MAT 8302
Charged Particle
293 Kelvin Cross Sections
83-Bi-201
Cross Section (barns)
Incident Energy (MeV)
83-Bi-201
5
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t

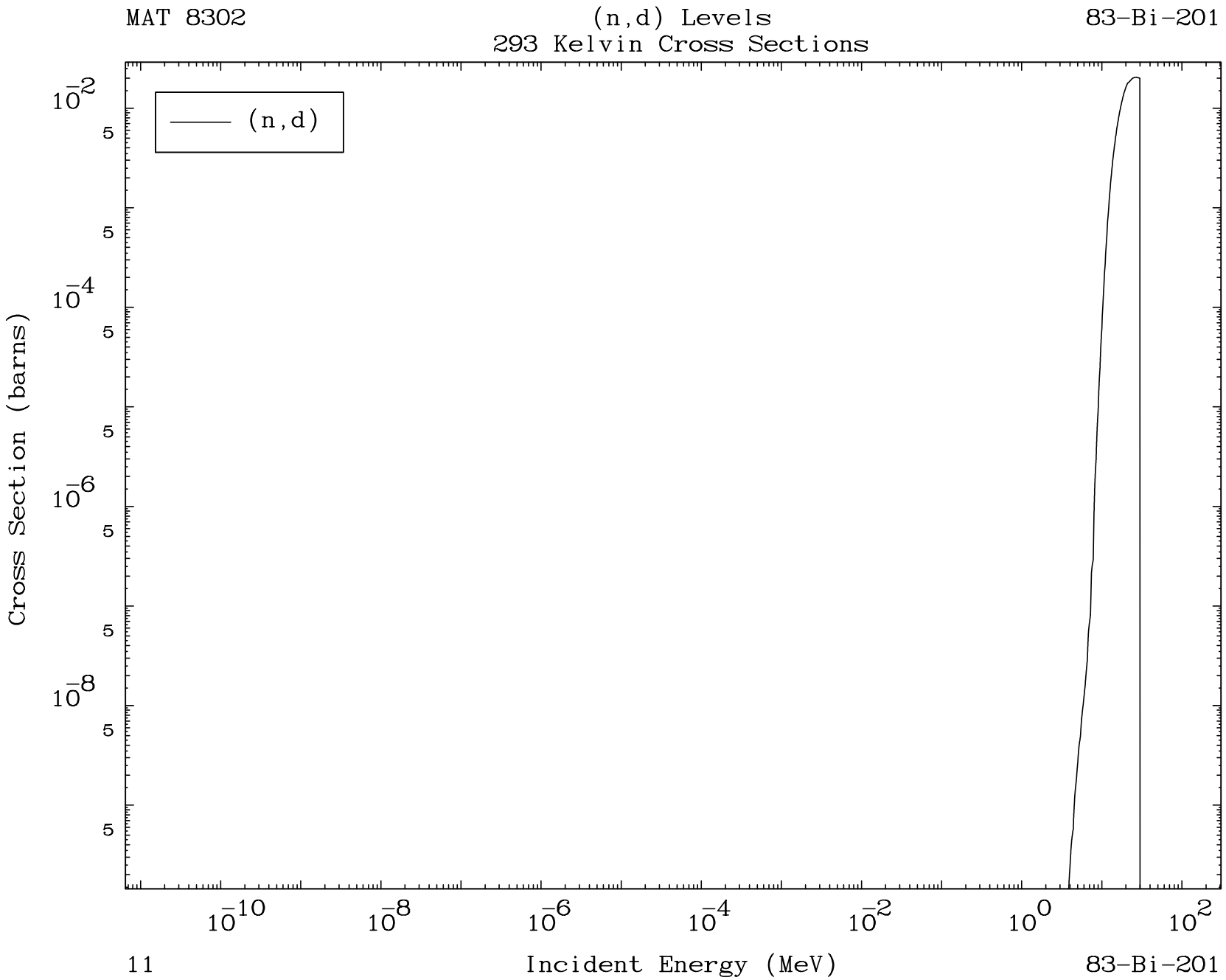

MAT 8302
Particle Production
293 Kelvin Cross Sections
83-Bi-201
Cross Section (barns)
10^0
5
10^-2
5
10^-4
5
10^-6
5
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
6
83-Bi-201

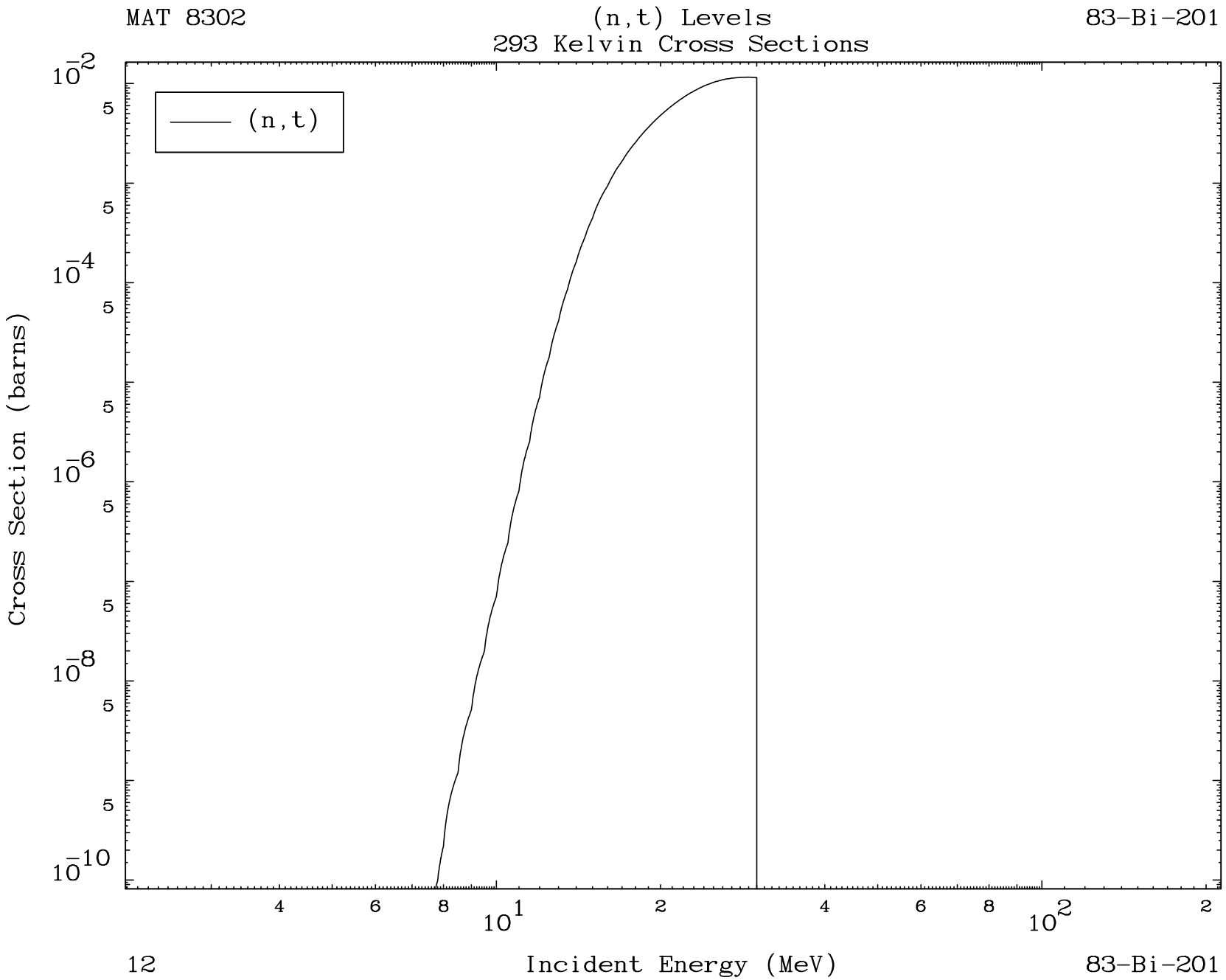

MAT 8302
(n,n') Level
293 Kelvin Cross Sections
83-Bi-201
Cross Section (barns)
Incident Energy (MeV)
Inelastic
846.3 keV
43.89 keV
57.88 keV
118.0 keV
121.1 keV
239.8 keV
340.2 keV
428.1 keV
533.0 keV
595.4 keV
7
83-Bi-201

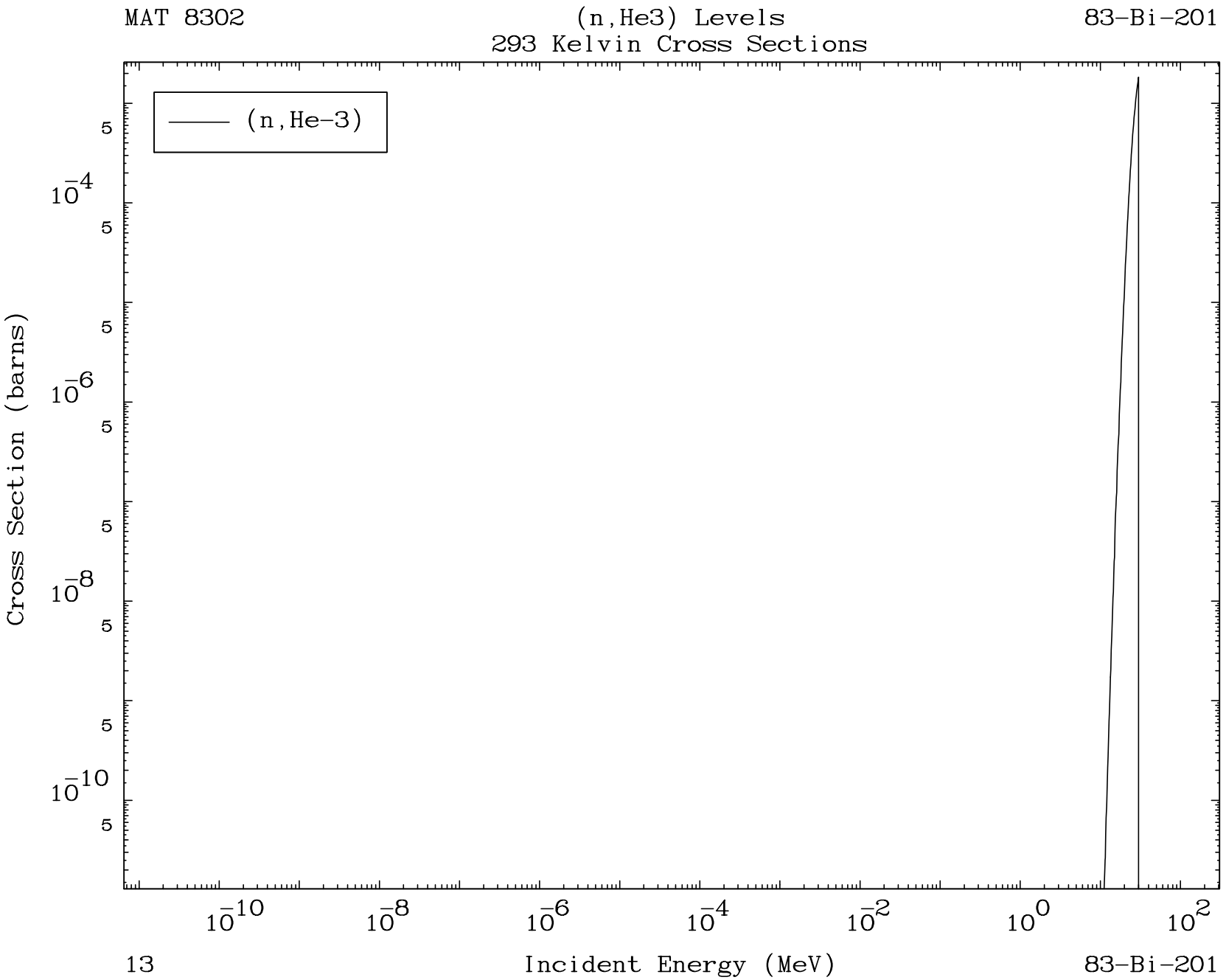

MAT 8302
(n,n') Level
293 Kelvin Cross Sections
83-Bi-201
624.5 keV
629.2 keV
637.2 keV
655.5 keV
658.0 keV
769.9 keV
818.7 keV
872.8 keV
901.1 keV
916.5 keV
932.6 keV
Cross Section (barns)
Incident Energy (MeV)
8
83-Bi-201

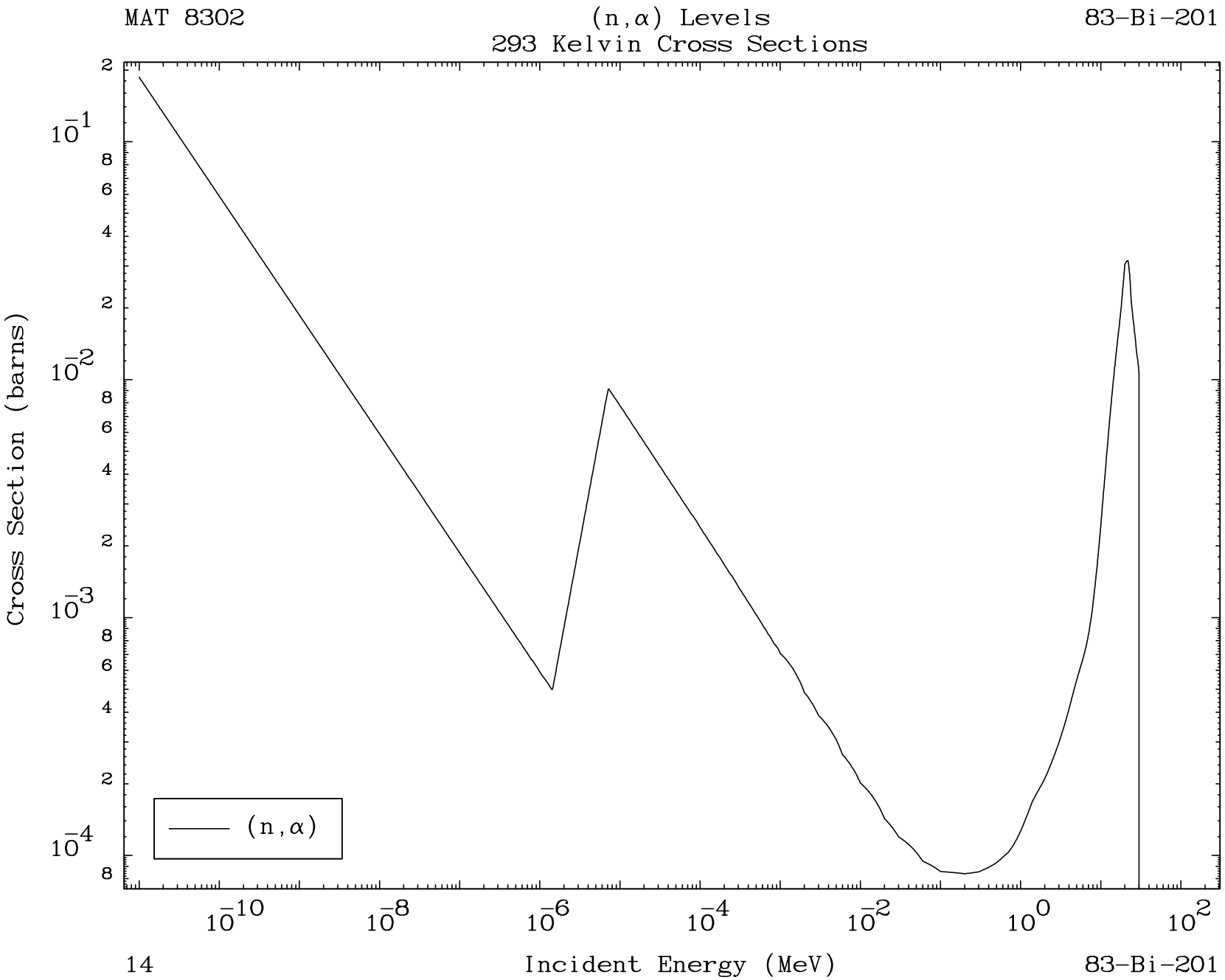

MAT 8302
(n,n') Level
293 Kelvin Cross Sections
83-Bi-201
971.5 keV
1.002 MeV
1.012 MeV
1.081 MeV
1.087 MeV
1.098 MeV
1.188 MeV
1.207 MeV
1.219 MeV
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
9
83-Bi-201

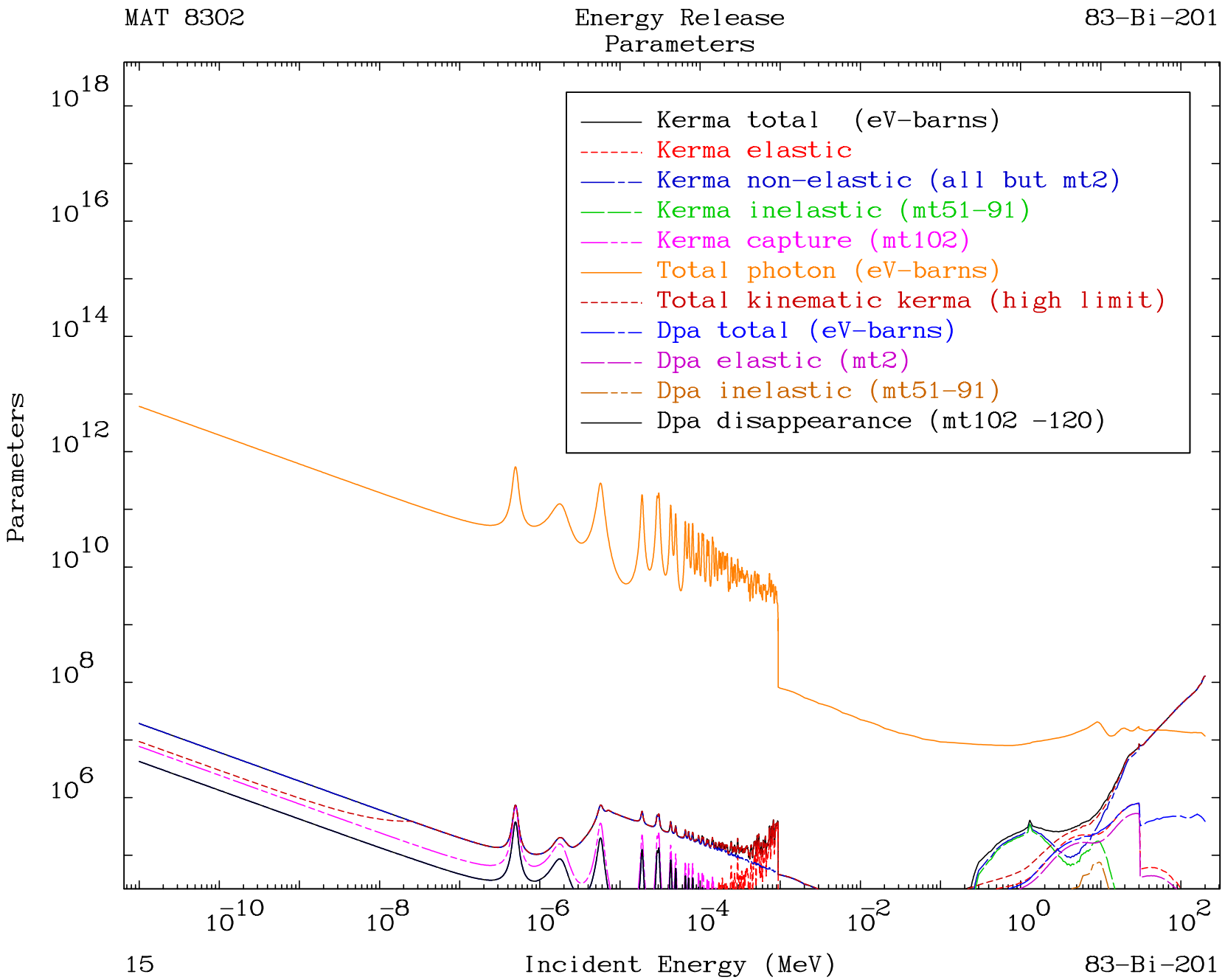

MAT 8302
(n,p) Levels
83-Bi-201
293 Kelvin Cross Sections
Cross Section (barns)
10^0
10^-1
10^-2
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
10
Incident Energy (MeV)
83-Bi-201

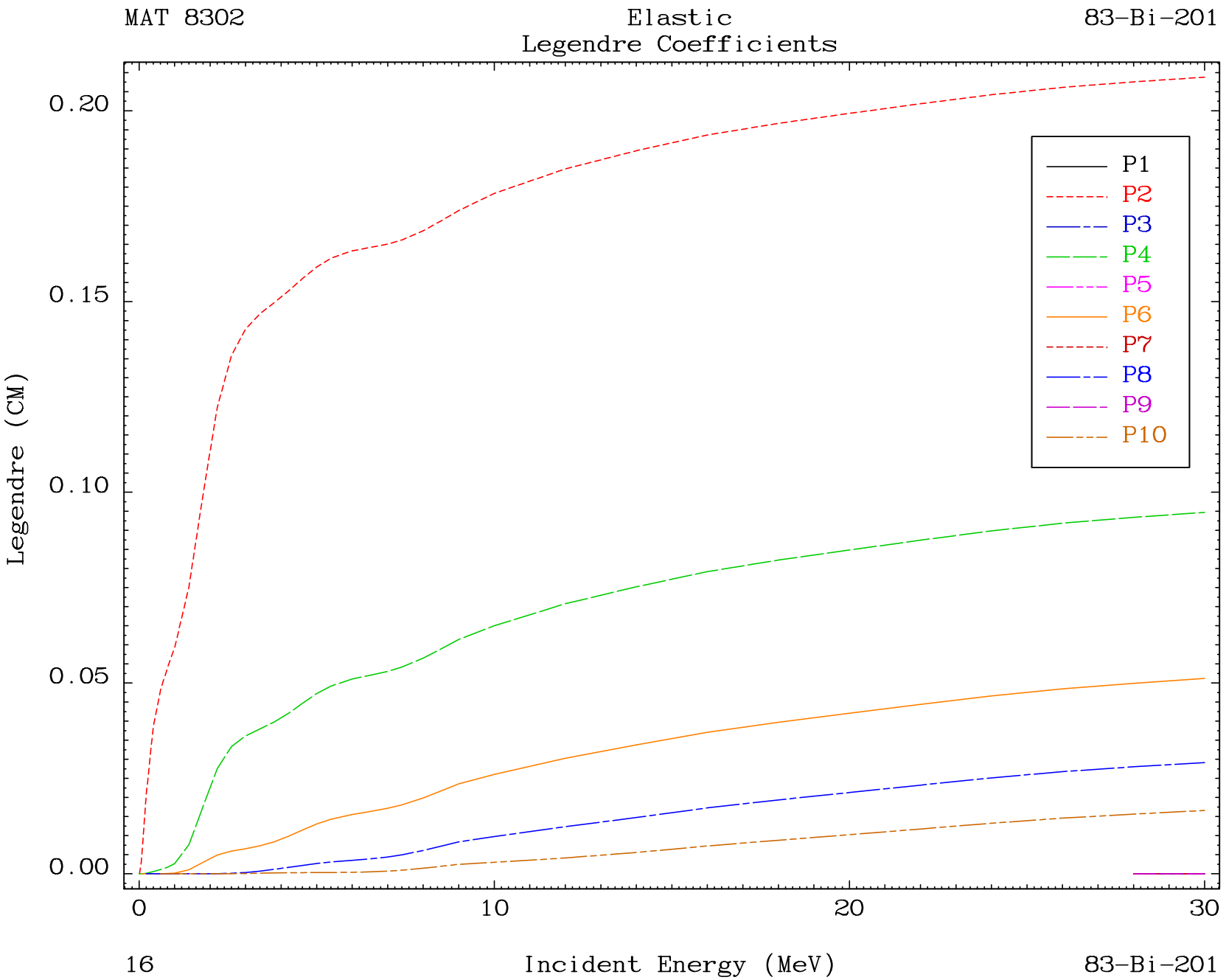

MAT 8302
(n,d) Levels
83-Bi-201
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
11
83-Bi-201

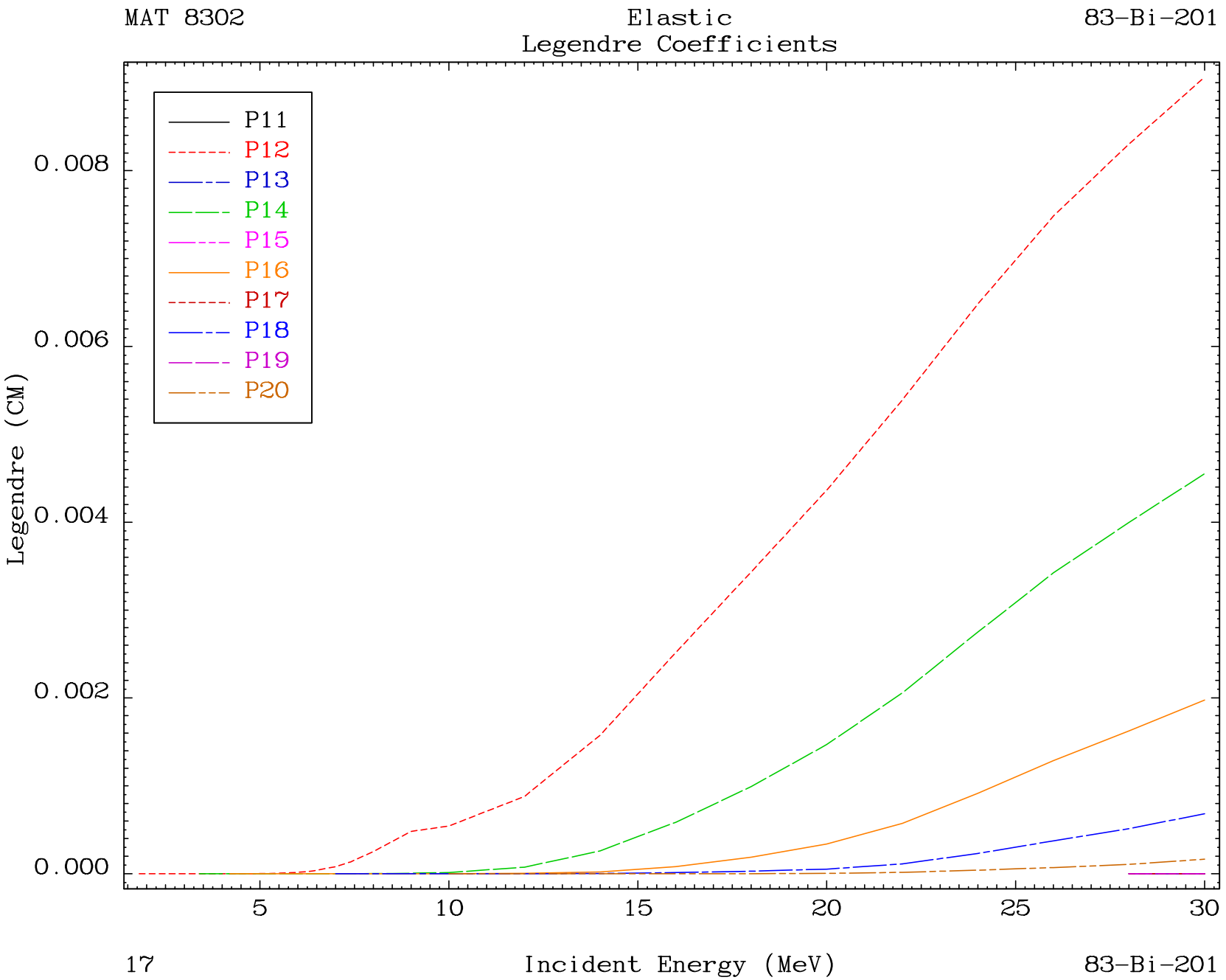

MAT 8302
(n,t) Levels
83-Bi-201
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
12
83-Bi-201

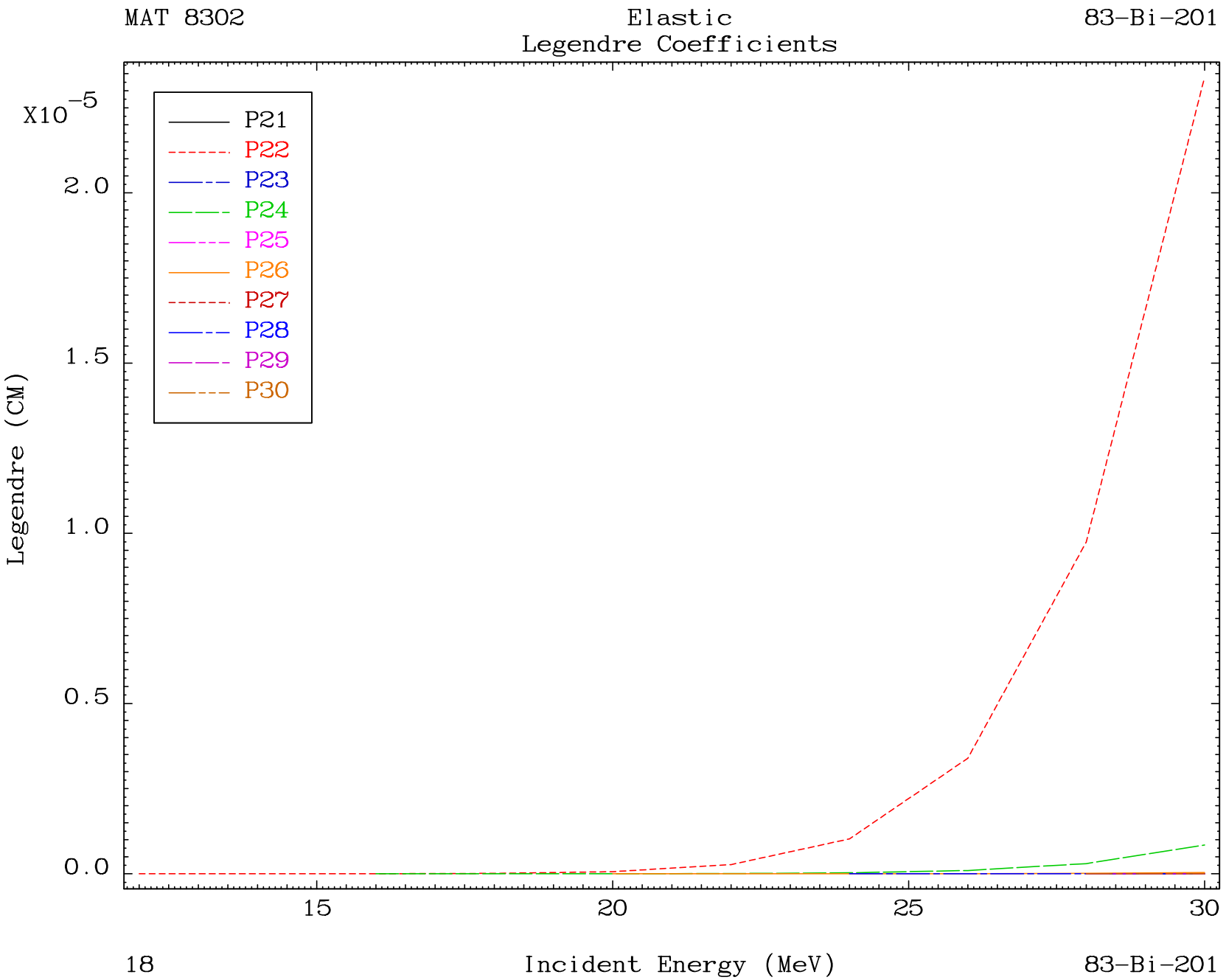

MAT 8302
(n,He3) Levels
83-Bi-201
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
Incident Energy (MeV)
13
83-Bi-201

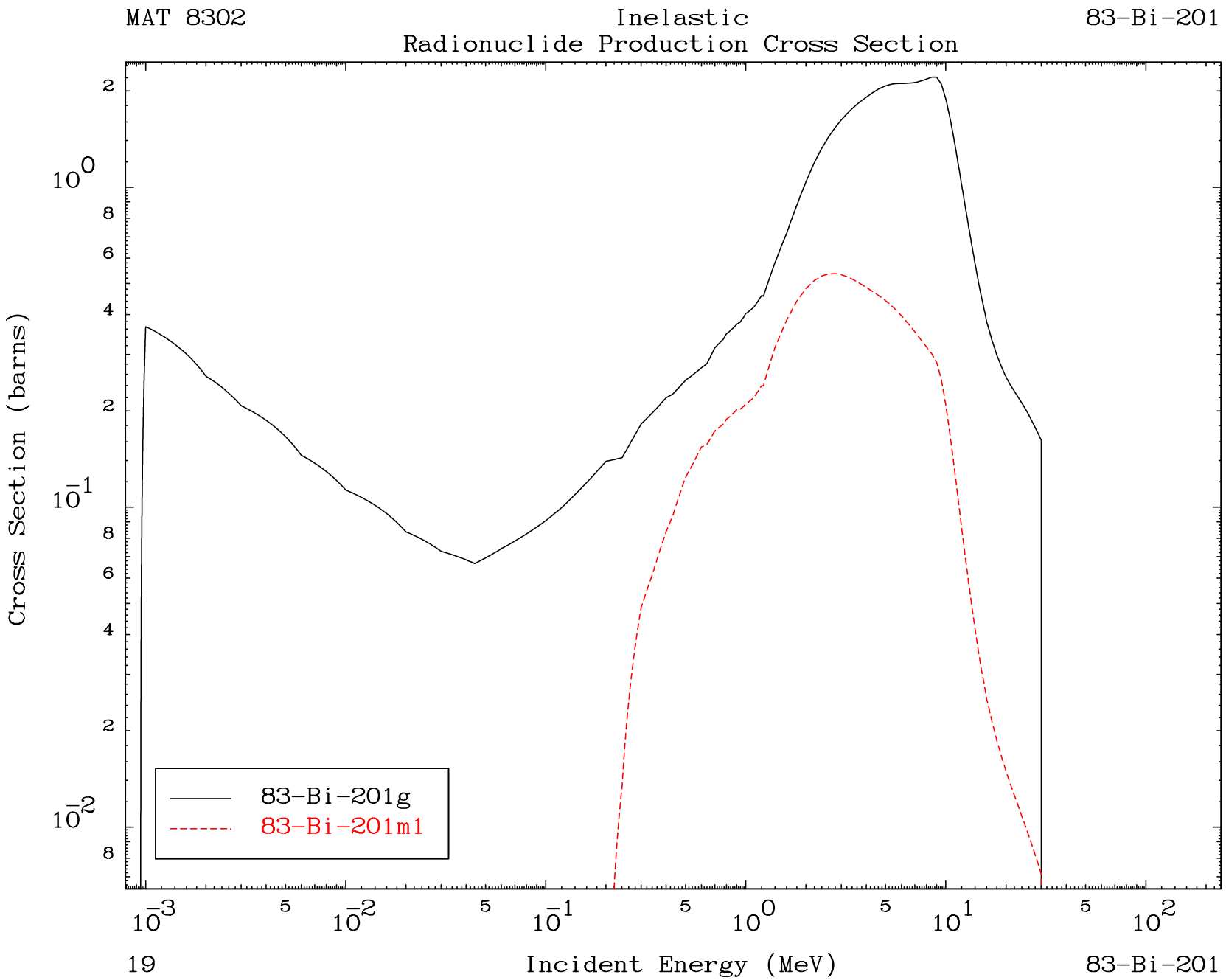

MAT 8302
(n,α) Levels
83-Bi-201
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
(n,α)
14
83-Bi-201

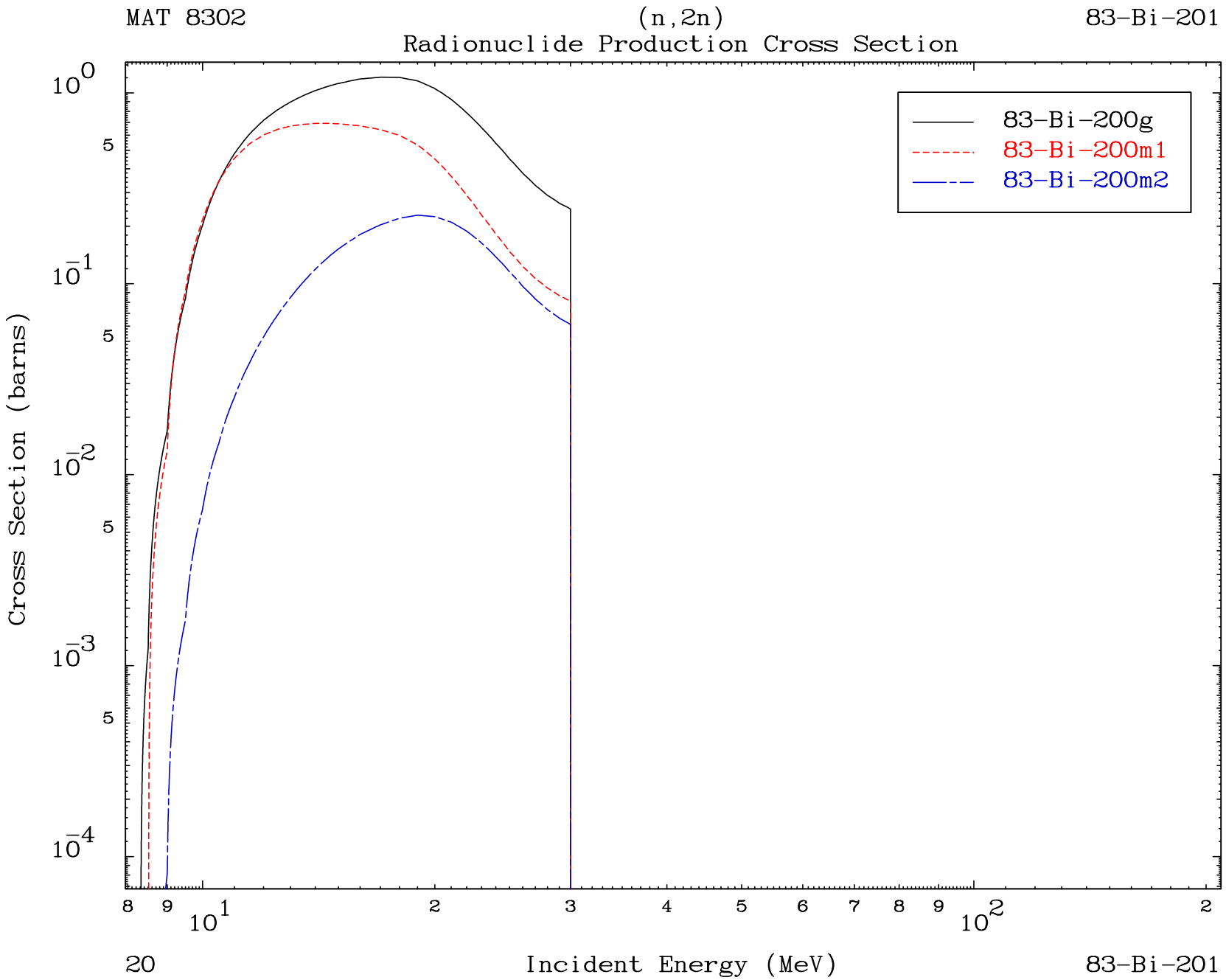

MAT 8302
Energy Release
Parameters
83-Bi-201
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
10^{18}
10^{16}
10^{14}
10^{12}
10^{10}
10^{8}
10^{6}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
10^{0}
10^{2}
15
Incident Energy (MeV)
83-Bi-201

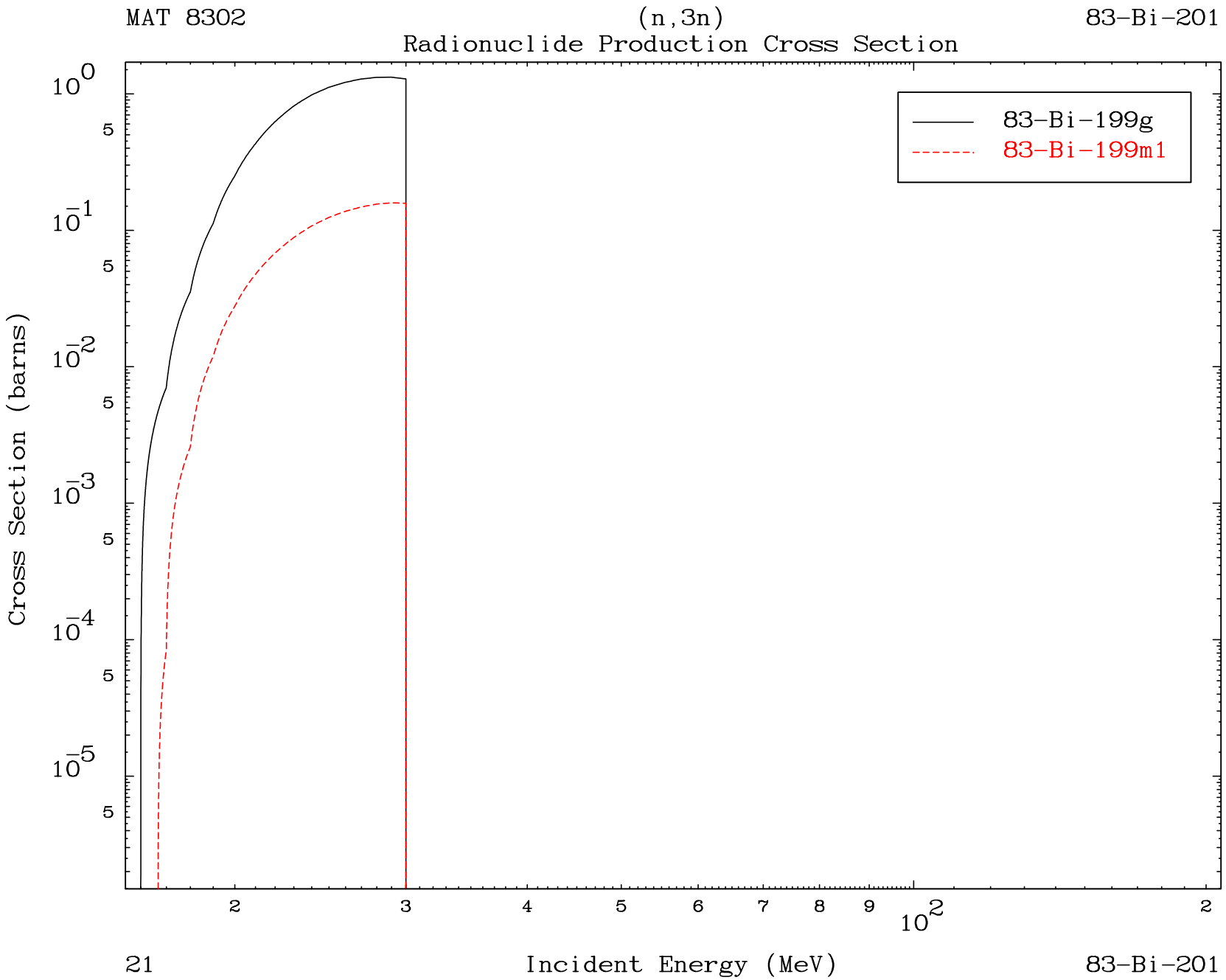

MAT 8302
Elastic
Legendre Coefficients
83-Bi-201
0.20
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
10
20
30
16
Incident Energy (MeV)
83-Bi-201

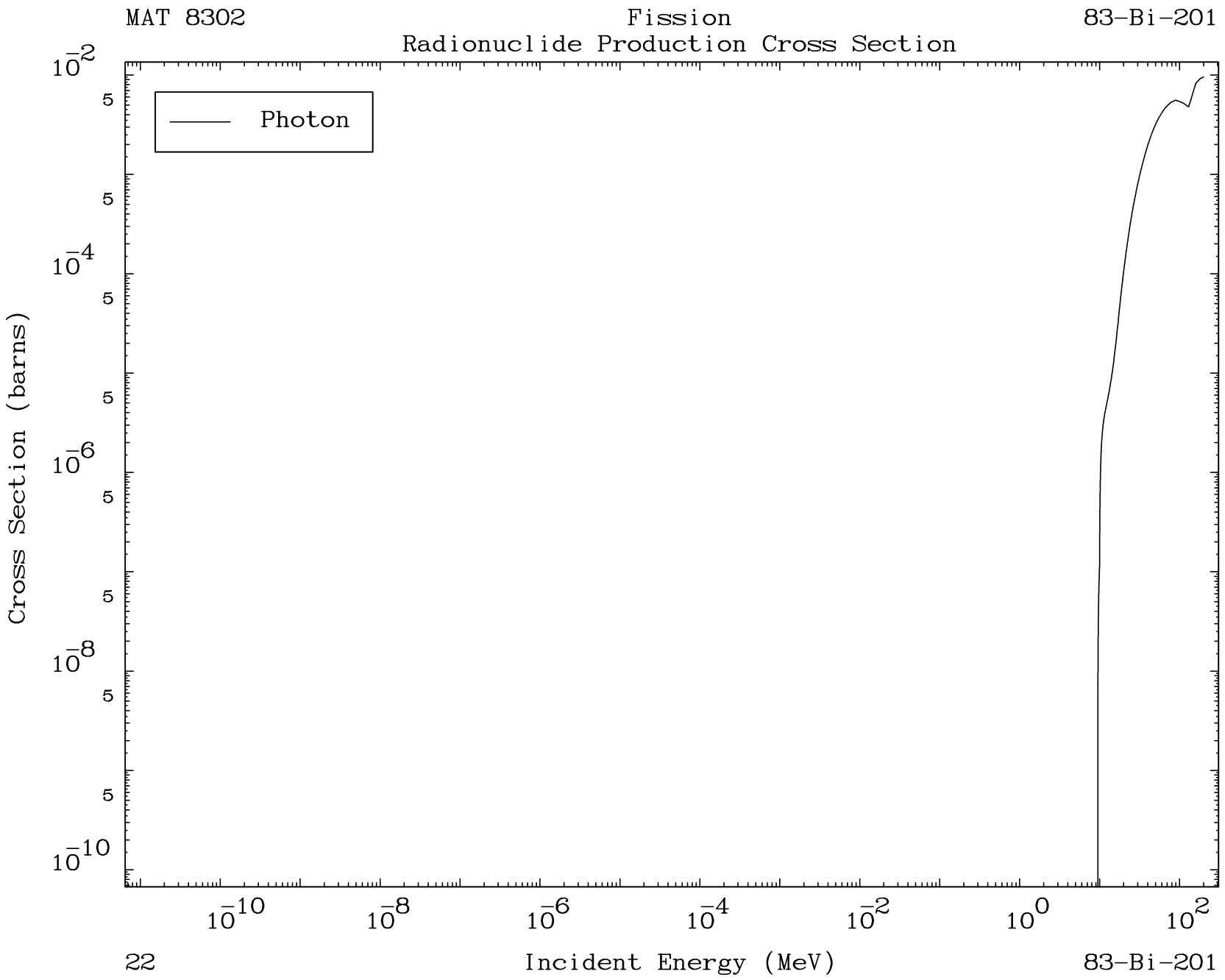

MAT 8302
Elastic
Legendre Coefficients
83-Bi-201
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.008
0.006
0.004
0.002
0.000
Legendre (CM)
5
10
15
20
25
30
17
Incident Energy (MeV)
83-Bi-201

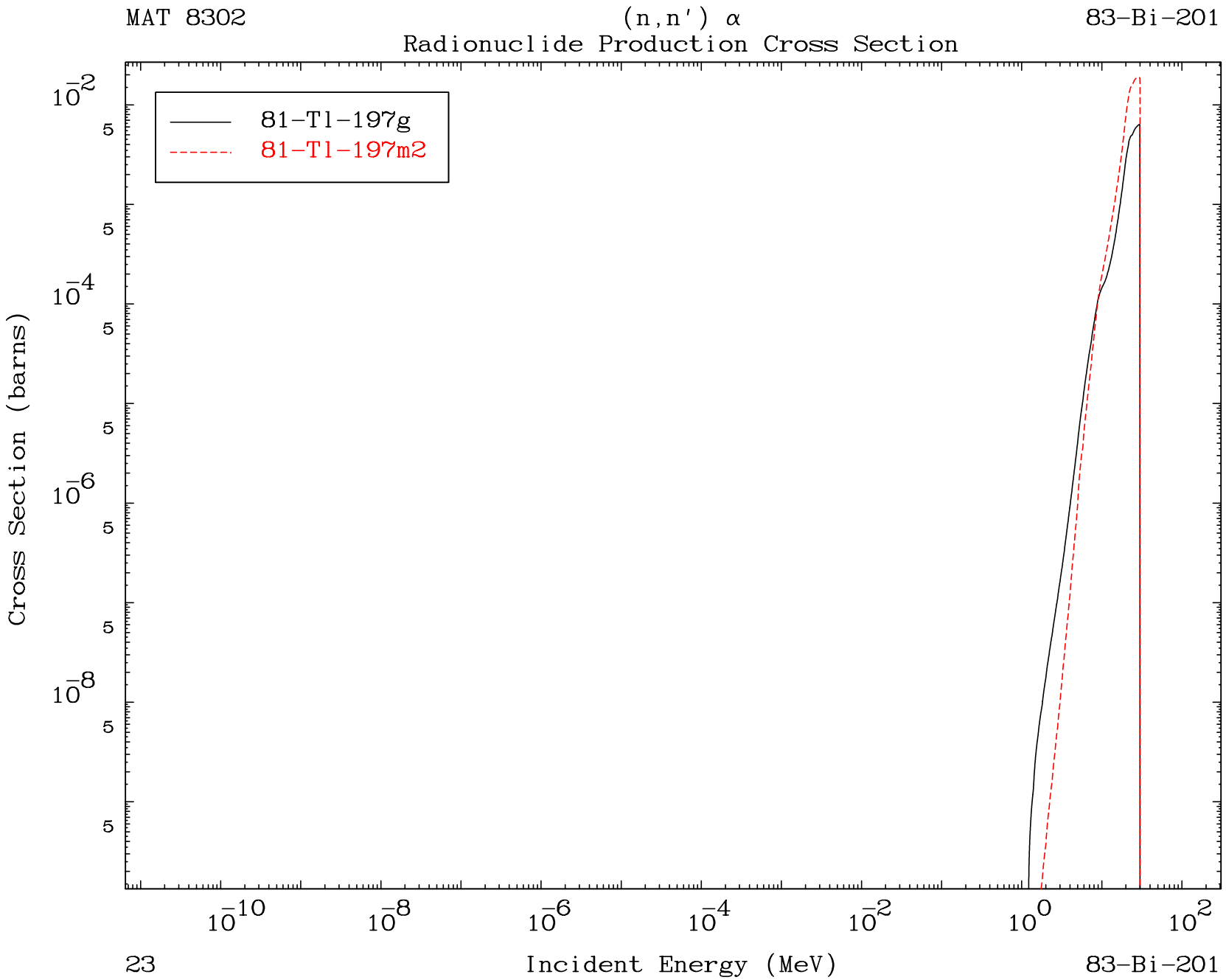

MAT 8302
Elastic
Legendre Coefficients
83-Bi-201
X10 -5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
15
20
25
30
18
Incident Energy (MeV)
83-Bi-201

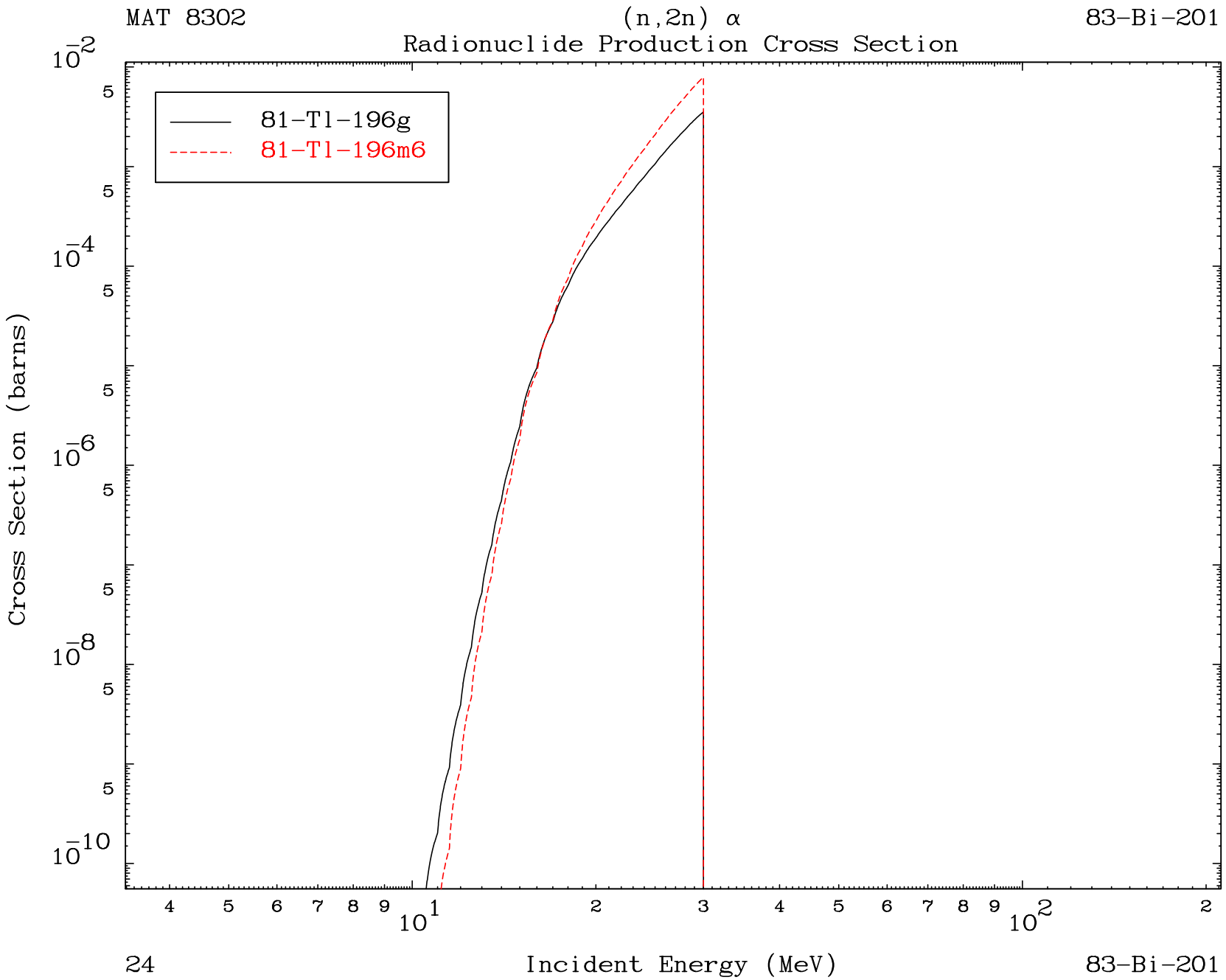

MAT 8302
Inelastic
83-Bi-201
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
83-Bi-201g
83-Bi-201m1
19
83-Bi-201

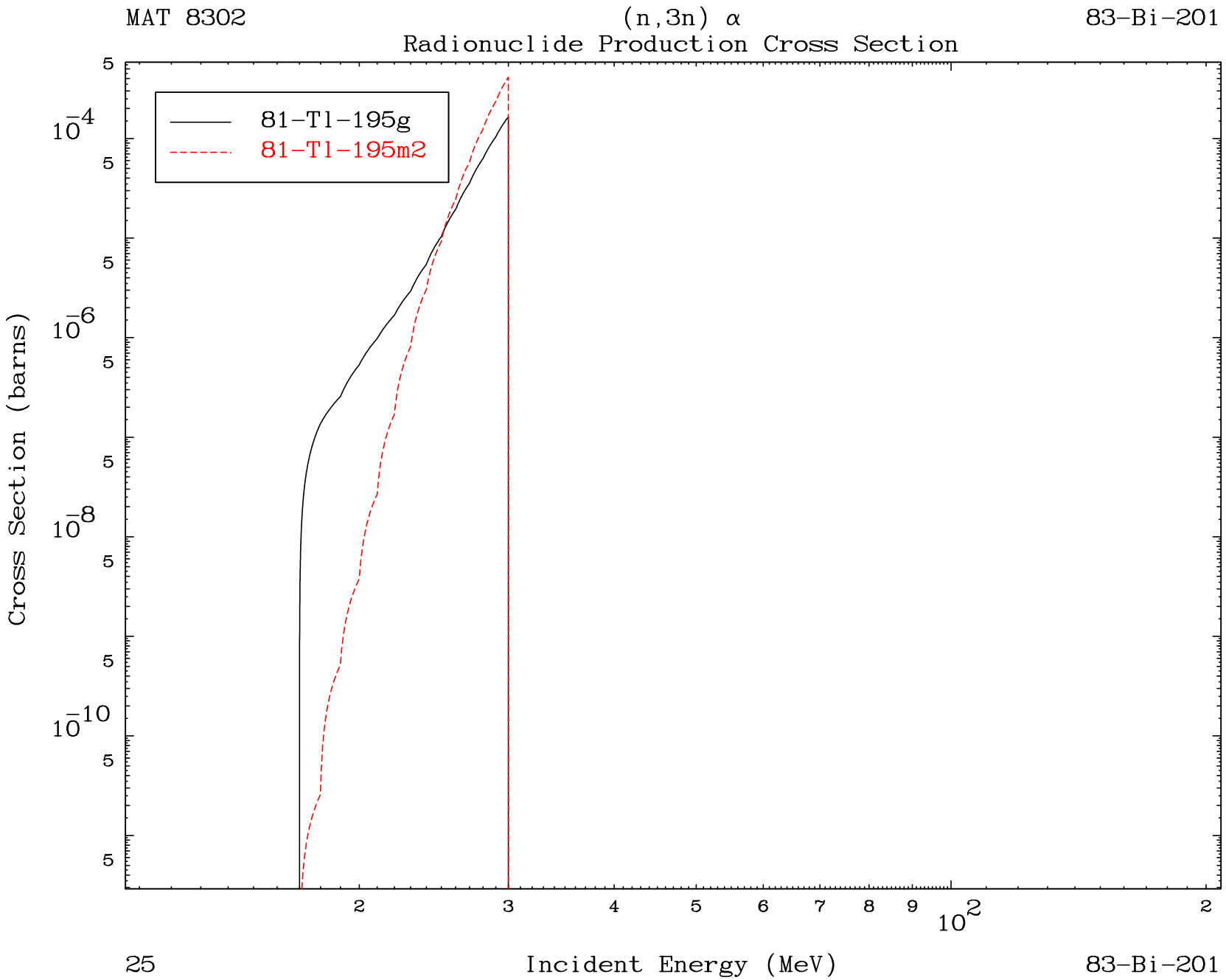

MAT 8302
(n,2n)
83-Bi-201
Radionuclide Production Cross Section
83-Bi-200g
83-Bi-200m1
83-Bi-200m2
Cross Section (barns)
Incident Energy (MeV)
20
83-Bi-201

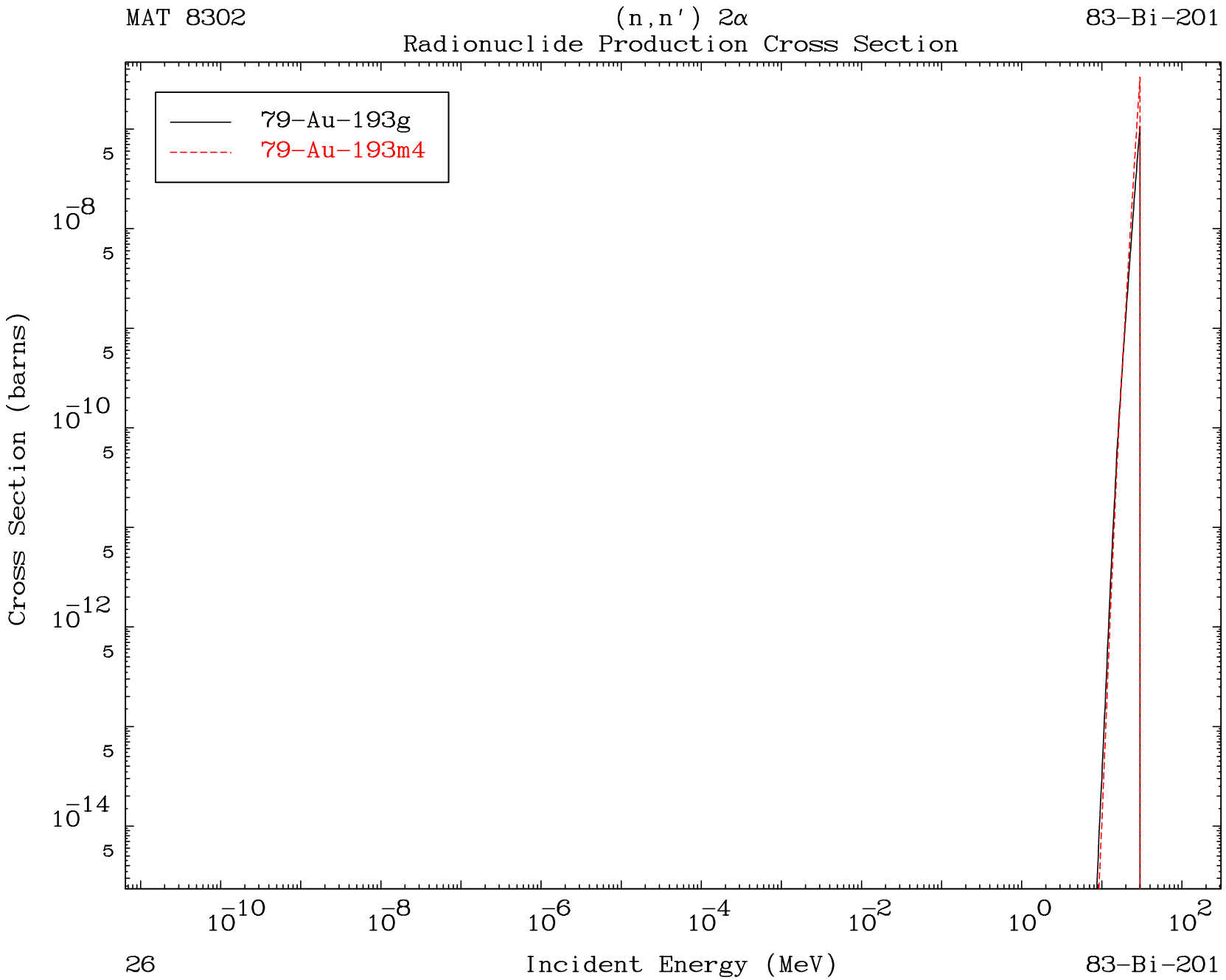

MAT 8302
(n,3n)
83-Bi-201
Radionuclide Production Cross Section
83-Bi-199g
83-Bi-199m1
Cross Section (barns)
Incident Energy (MeV)
21
83-Bi-201

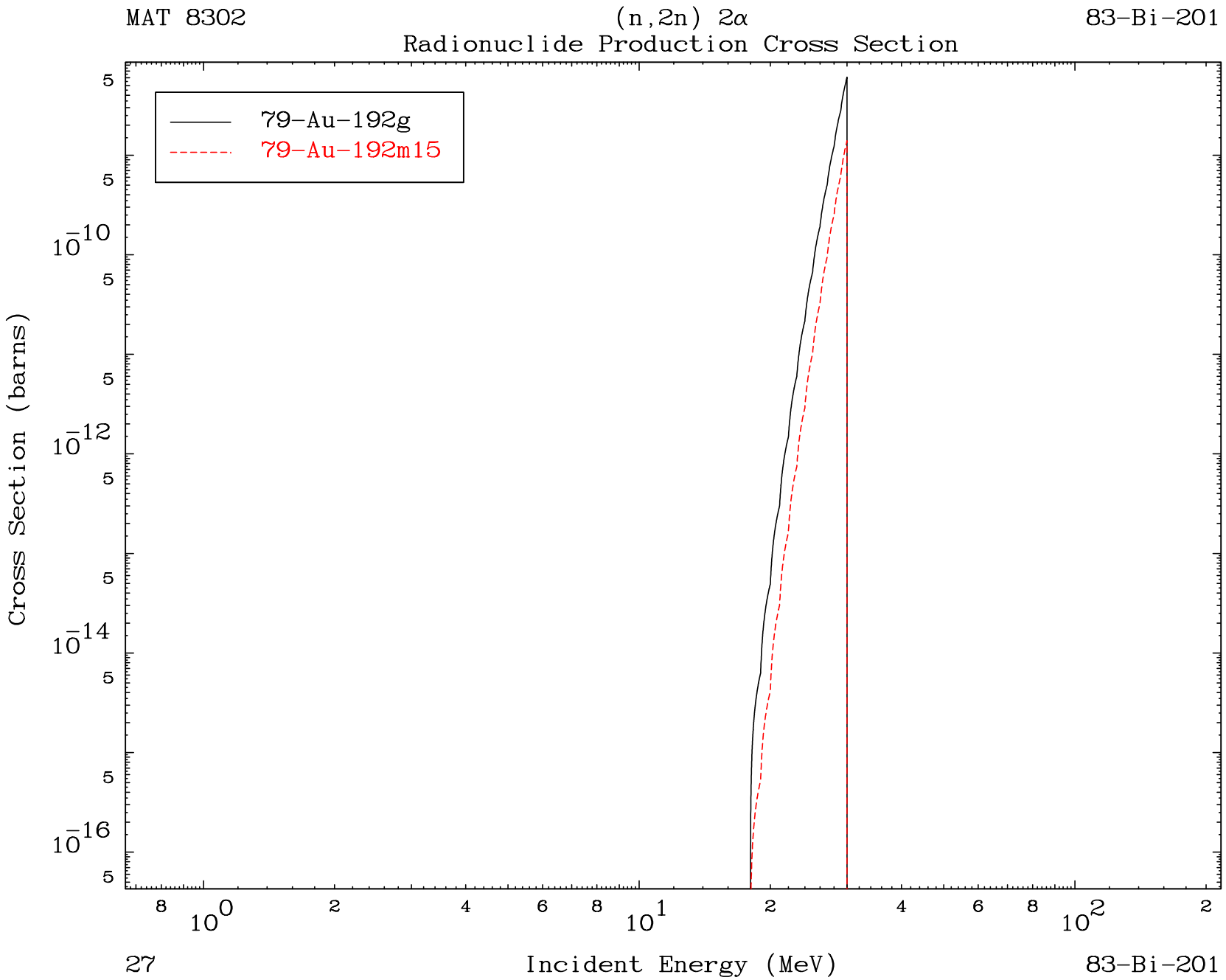

MAT 8302
Fission
83-Bi-201
Radionuclide Production Cross Section
Photon
Cross Section (barns)
Incident Energy (MeV)
22
83-Bi-201

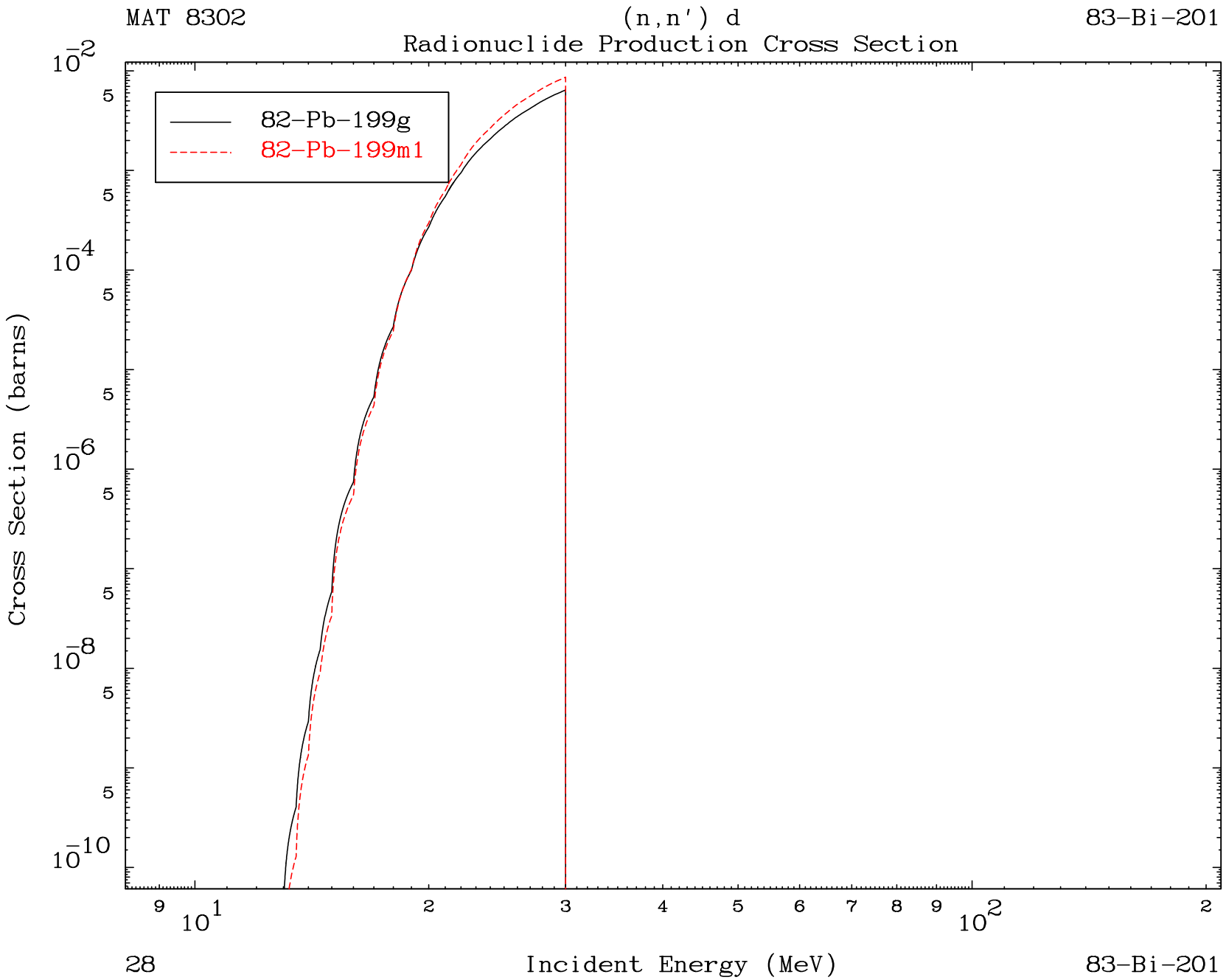

MAT 8302
(n,n') α
83-Bi-201
Radionuclide Production Cross Section
81-Tl-197g
81-Tl-197m2
Cross Section (barns)
Incident Energy (MeV)
23
83-Bi-201

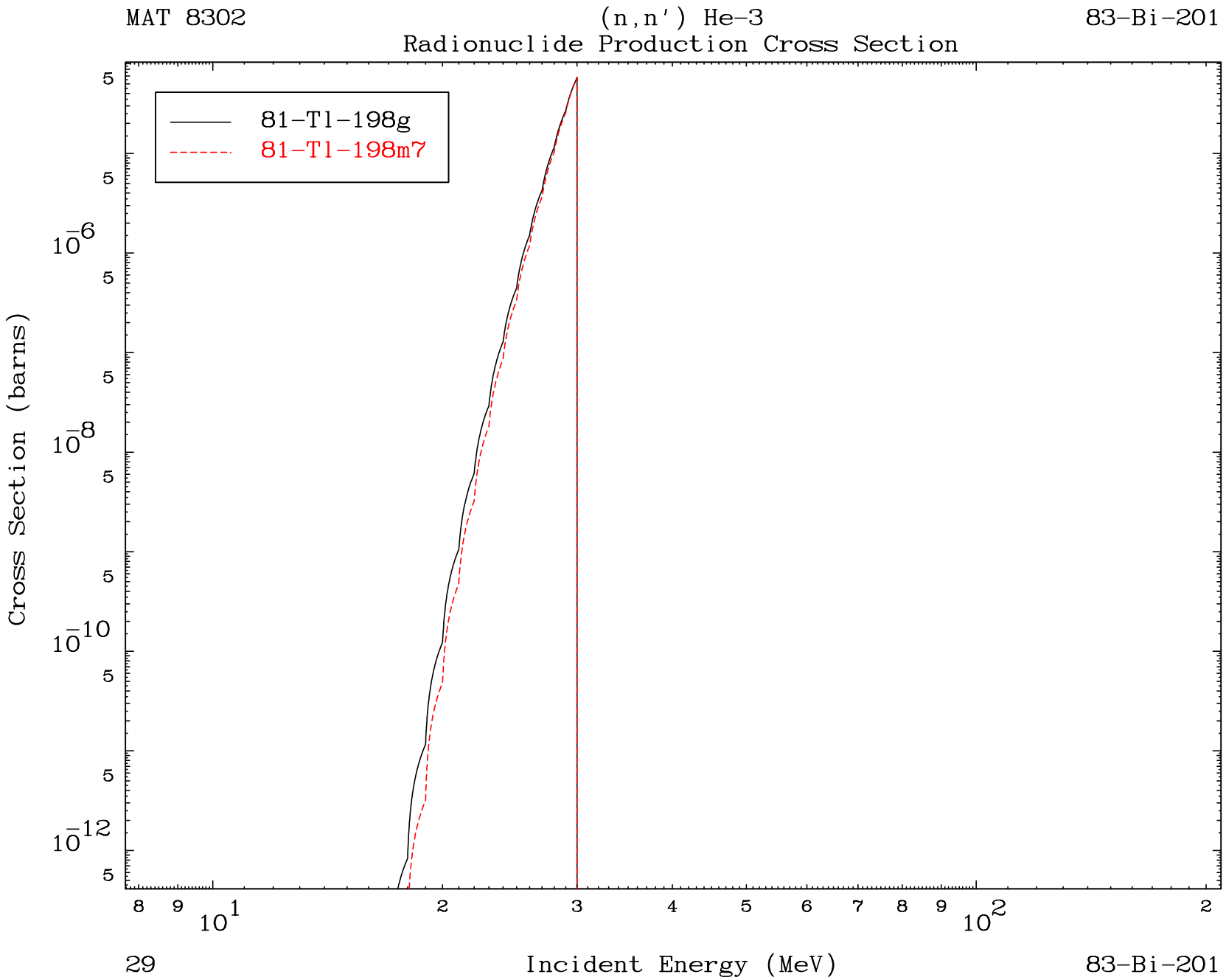

MAT 8302
(n,2n) α
83-Bi-201
Radionuclide Production Cross Section
81-Tl-196g
81-Tl-196m6
Cross Section (barns)
Incident Energy (MeV)
24
83-Bi-201

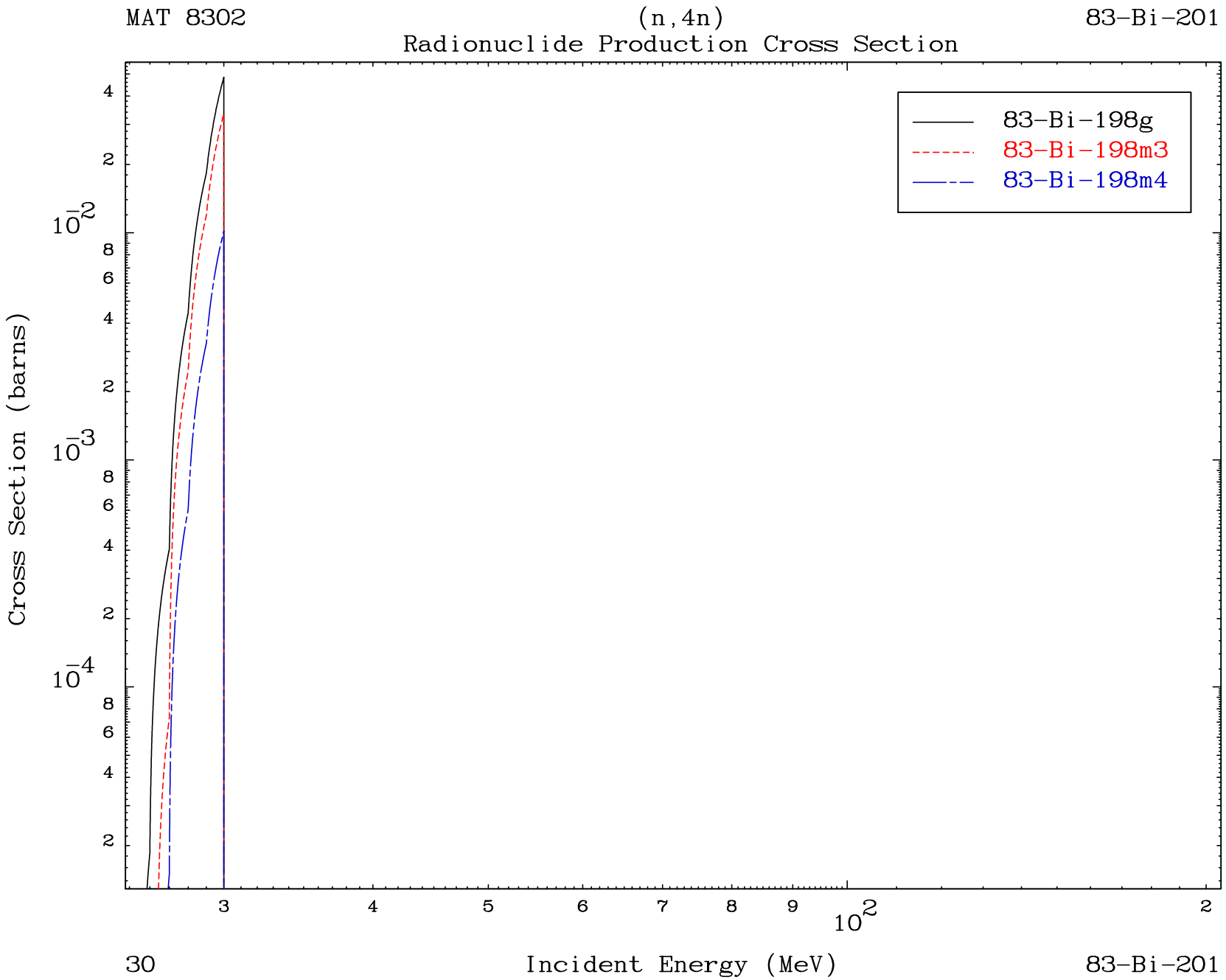

MAT 8302
(n,3n) α
83-Bi-201
Radionuclide Production Cross Section
81-Tl-195g
81-Tl-195m2
Cross Section (barns)
10-4
10-6
10-8
10-10
2
3
4
5
6
7
8
9
10 2
2
25
Incident Energy (MeV)
83-Bi-201

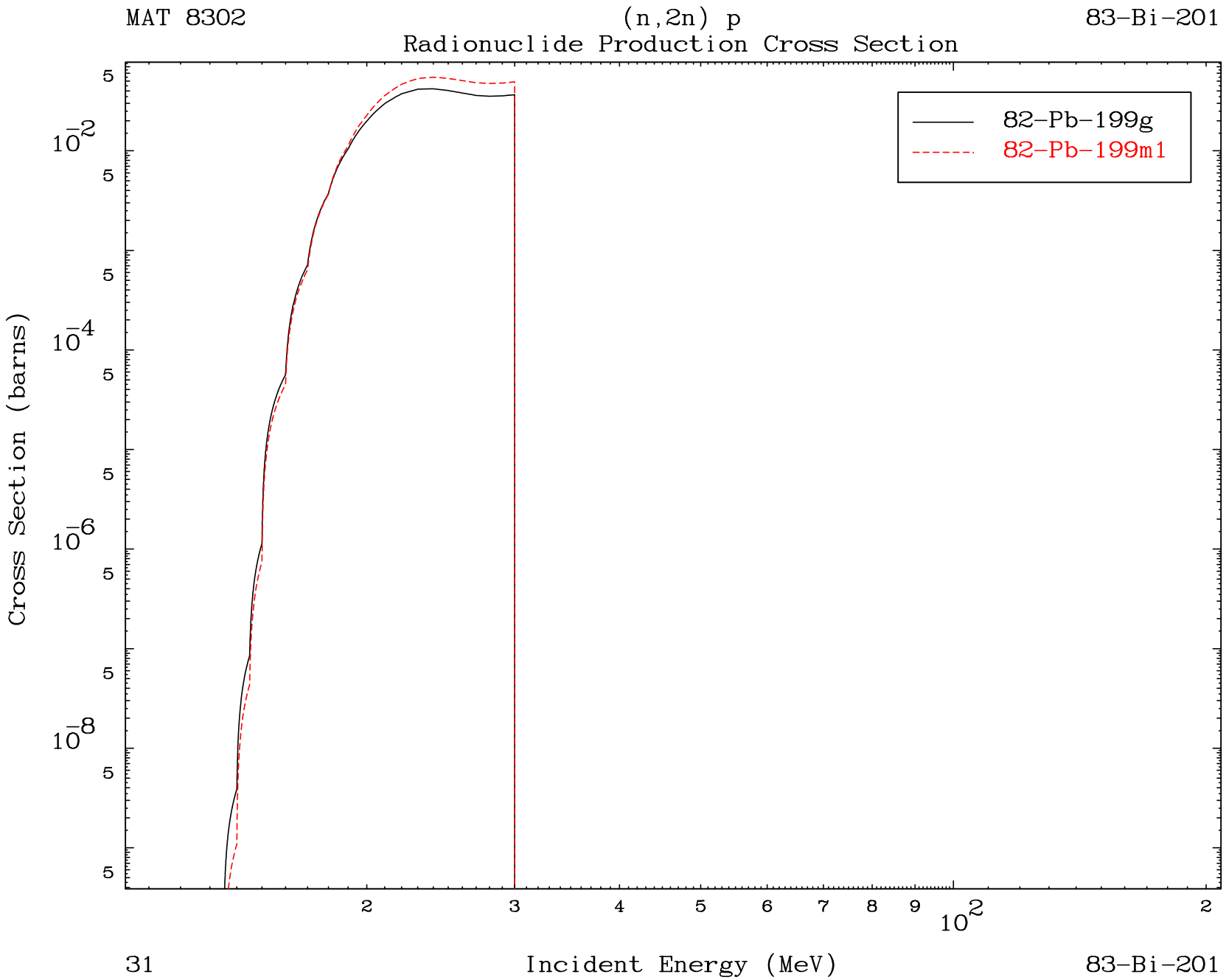

MAT 8302
(n,n') 2α
83-Bi-201
Radionuclide Production Cross Section
79-Au-193g
79-Au-193m4
Cross Section (barns)
10^-8
10^-10
10^-12
10^-14
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
26
83-Bi-201

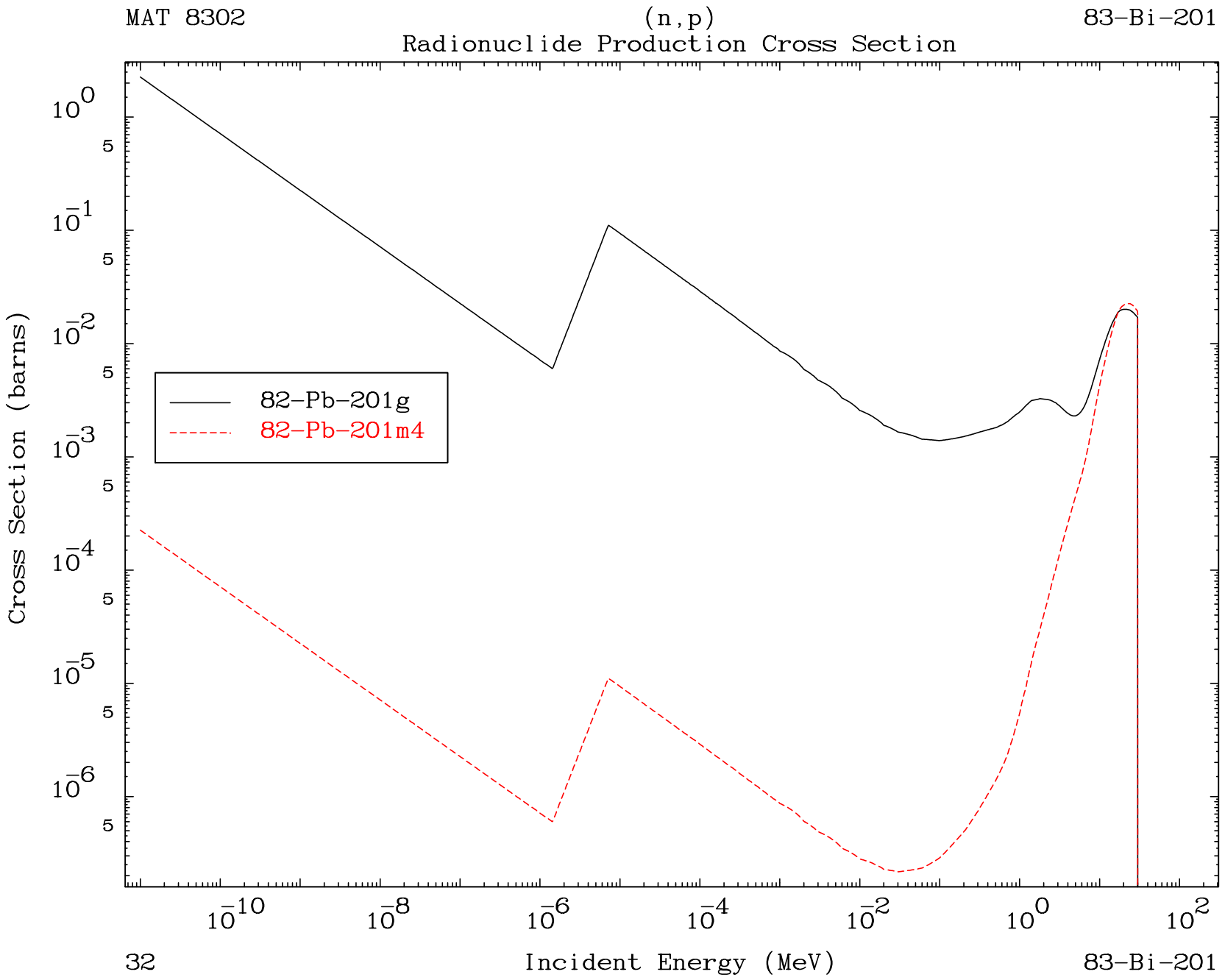

MAT 8302
(n,2n) 2α
83-Bi-201
Radionuclide Production Cross Section
79-Au-192g
79-Au-192m15
Cross Section (barns)
Incident Energy (MeV)
27
83-Bi-201

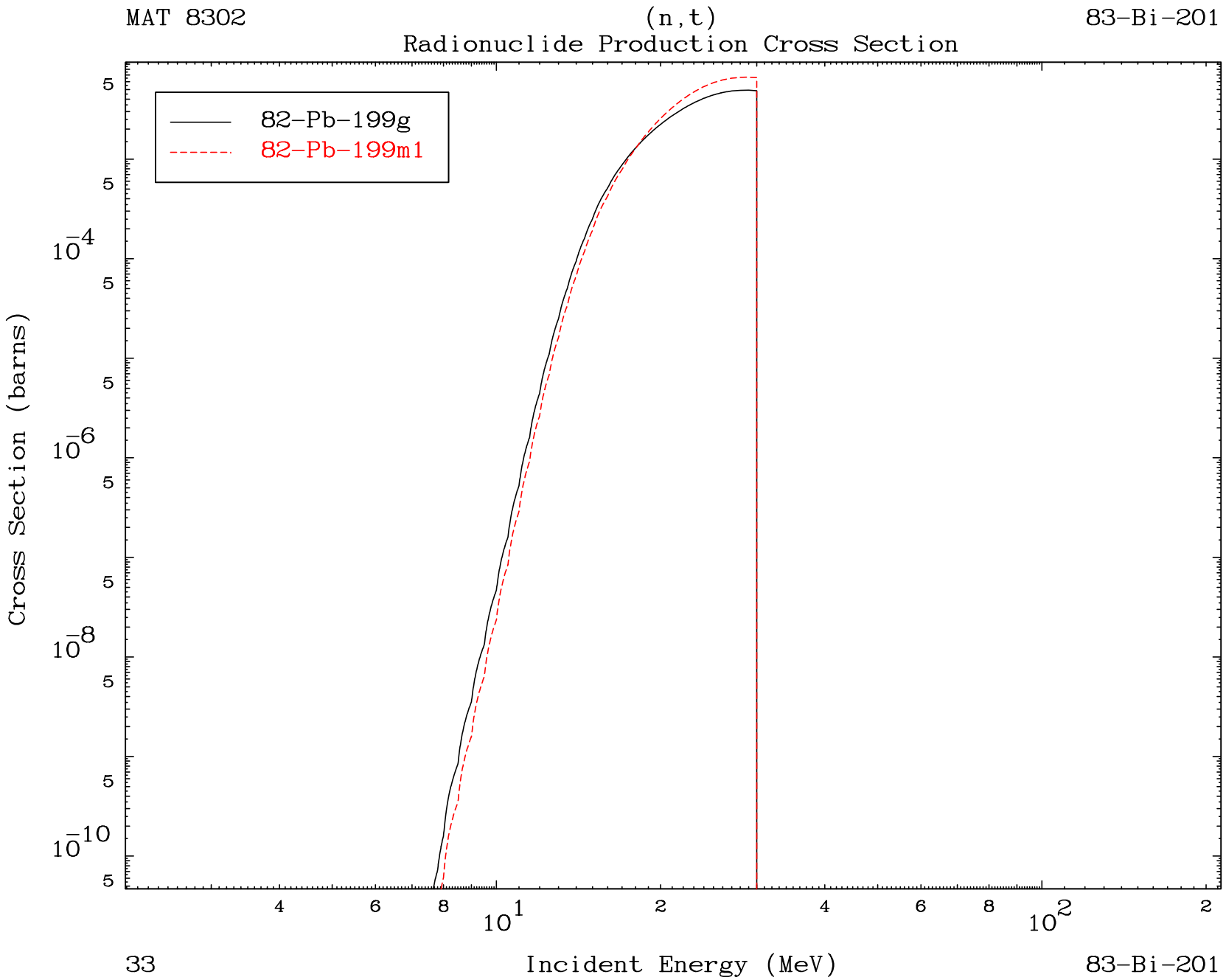

MAT 8302
(n,n') d
83-Bi-201
Radionuclide Production Cross Section
82-Pb-199g
82-Pb-199m1
Cross Section (barns)
Incident Energy (MeV)
28
83-Bi-201

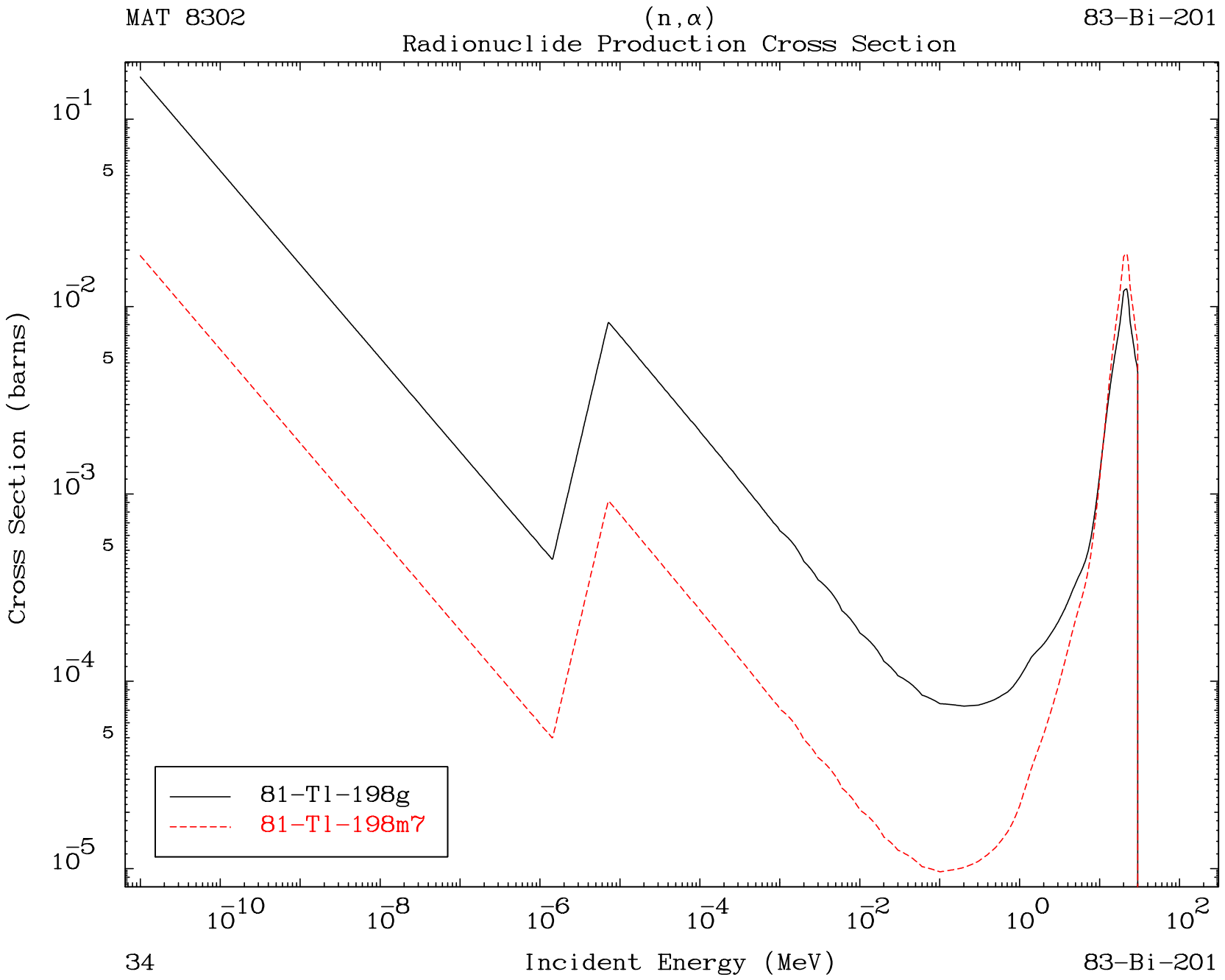

MAT 8302
(n,n') He-3
83-Bi-201
Radionuclide Production Cross Section
81-Tl-198g
81-Tl-198m7
Cross Section (barns)
Incident Energy (MeV)
29
83-Bi-201

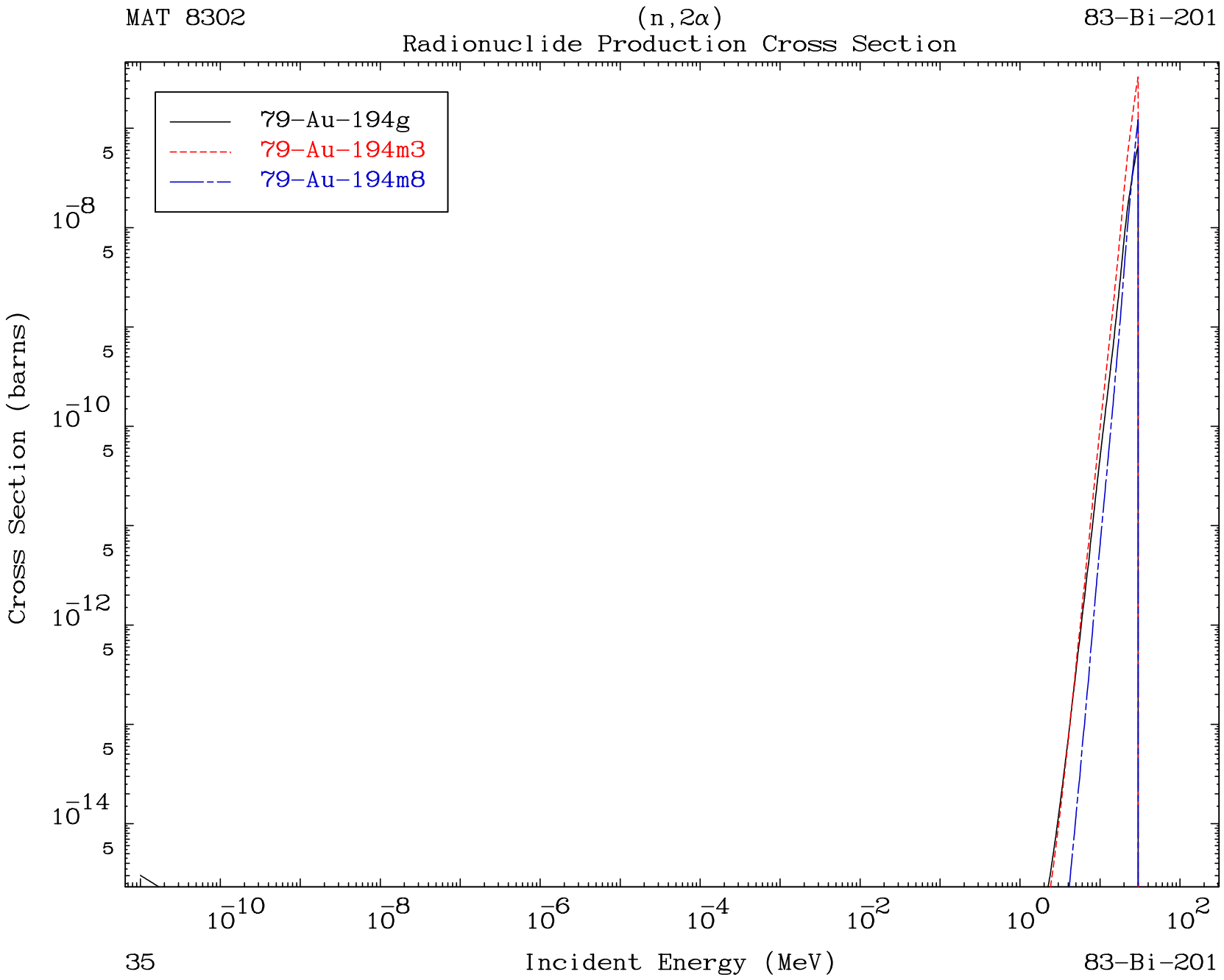

MAT 8302
(n,4n)
83-Bi-201
Radionuclide Production Cross Section
83-Bi-198g
83-Bi-198m3
83-Bi-198m4
Cross Section (barns)
Incident Energy (MeV)
30
83-Bi-201

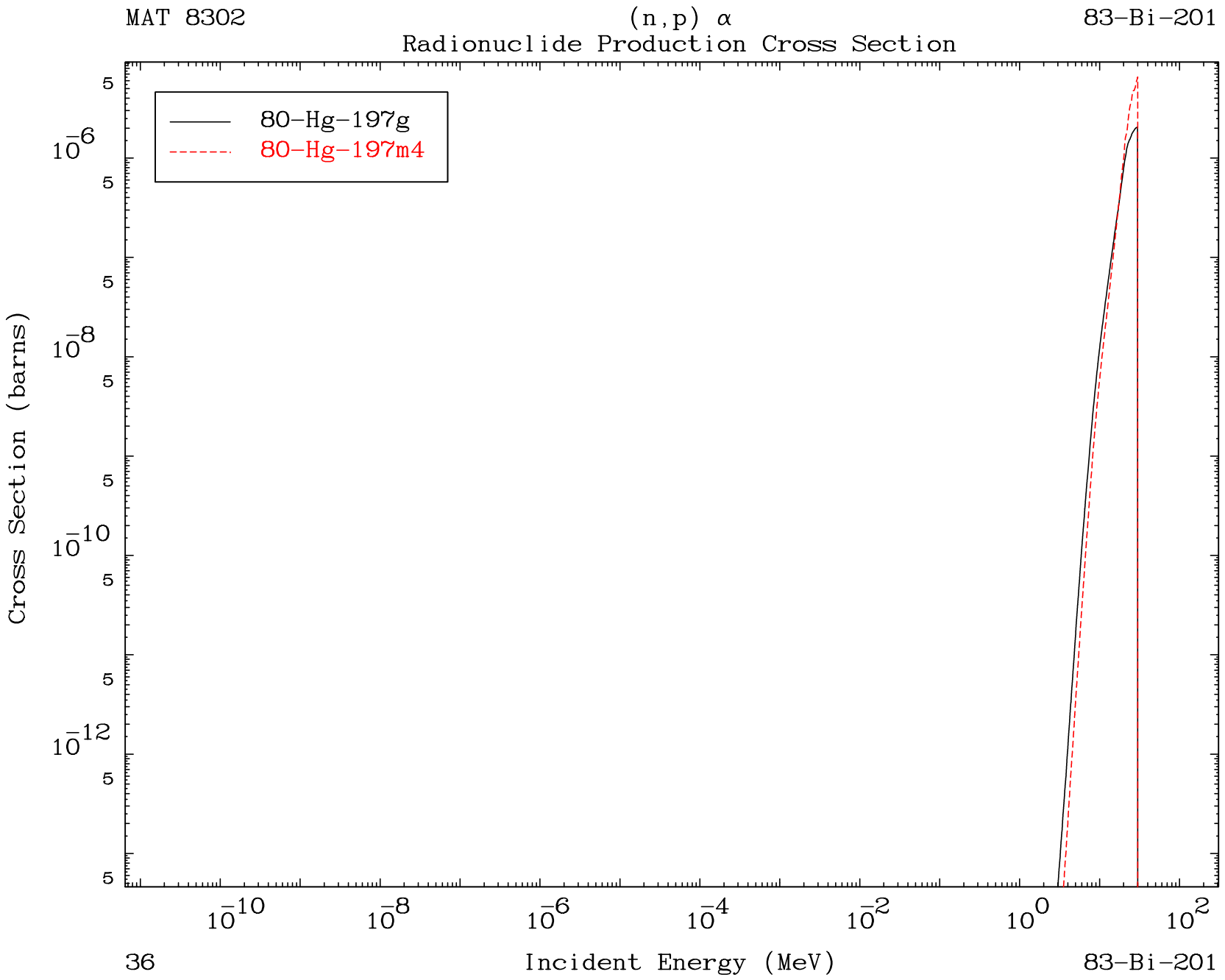

MAT 8302
(n,2n) p
83-Bi-201
Radionuclide Production Cross Section
82-Pb-199g
82-Pb-199m1
Cross Section (barns)
Incident Energy (MeV)
31
83-Bi-201

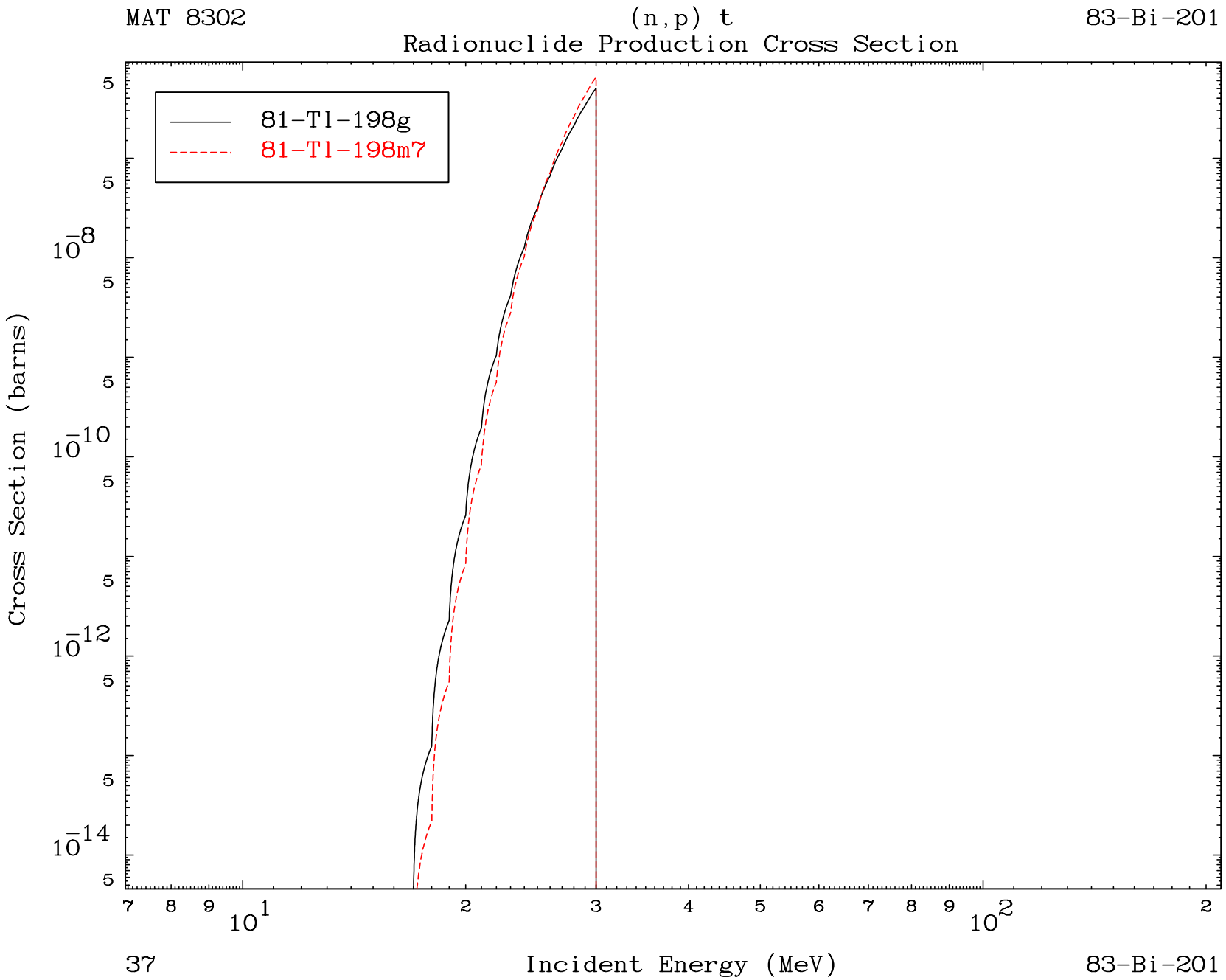

MAT 8302
(n,p)
83-Bi-201
Radionuclide Production Cross Section
Cross Section (barns)
82-Pb-201g
82-Pb-201m4
Incident Energy (MeV)
32
83-Bi-201


MAT 8302
(n,t)
83-Bi-201
Radionuclide Production Cross Section
82-Pb-199g
82-Pb-199m1
Cross Section (barns)
Incident Energy (MeV)
33
83-Bi-201


MAT 8302
(n,α)
83-Bi-201
Radionuclide Production Cross Section
Cross Section (barns)
10-1
5
10-2
5
10-3
5
10-4
5
10-5
81-Tl-198g
81-Tl-198m7
10-10
10-8
10-6
10-4
10-2
100
102
34
Incident Energy (MeV)
83-Bi-201


MAT 8302
(n,2α)
83-Bi-201
Radionuclide Production Cross Section
79-Au-194g
79-Au-194m3
79-Au-194m8
Cross Section (barns)
Incident Energy (MeV)
35
83-Bi-201


MAT 8302
(n,p) α
83-Bi-201
Radionuclide Production Cross Section
80-Hg-197g
80-Hg-197m4
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
36
Incident Energy (MeV)
83-Bi-201


MAT 8302
(n,p) t
83-Bi-201
Radionuclide Production Cross Section
81-Tl-198g
81-Tl-198m7
Cross Section (barns)
Incident Energy (MeV)
37
83-Bi-201