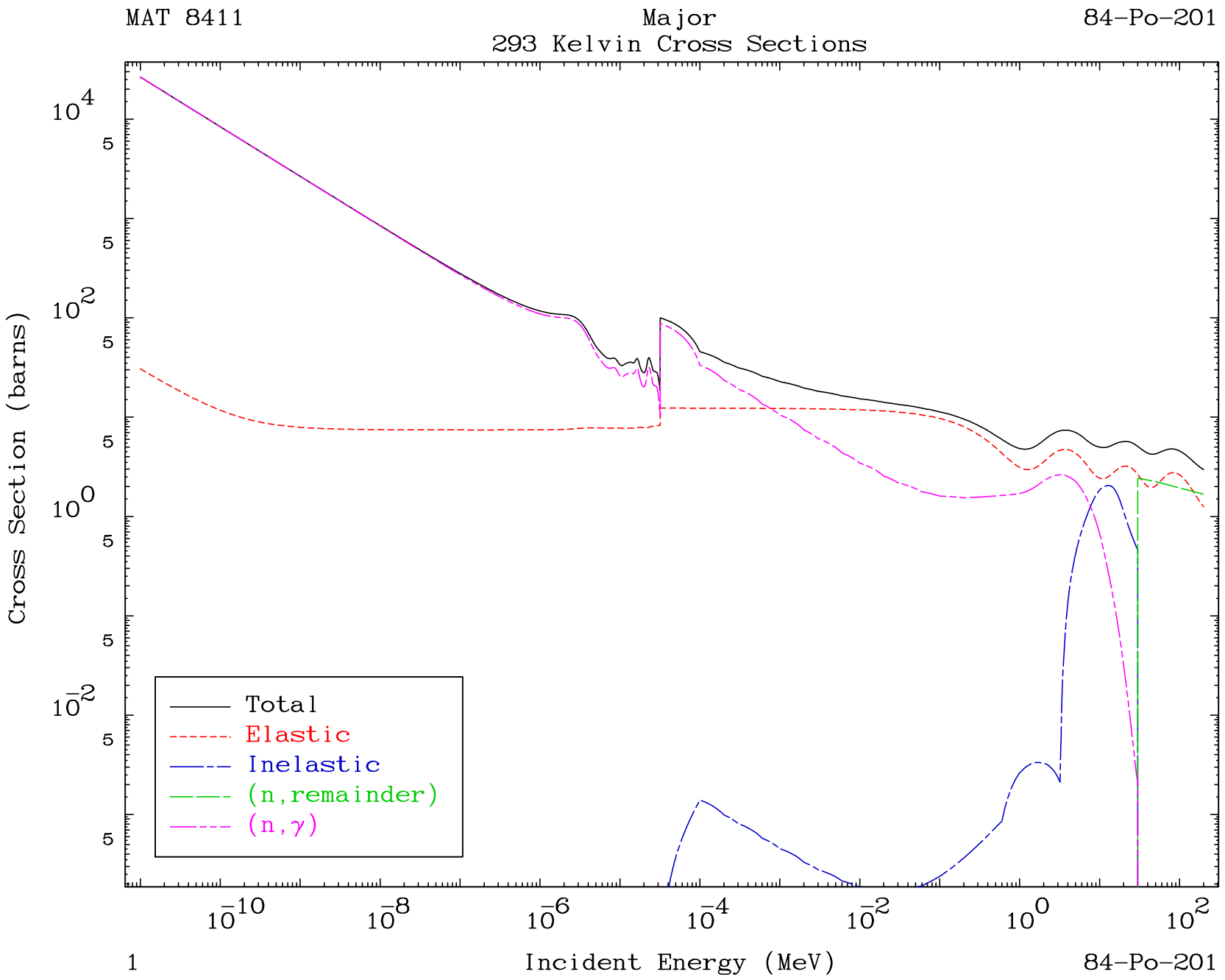
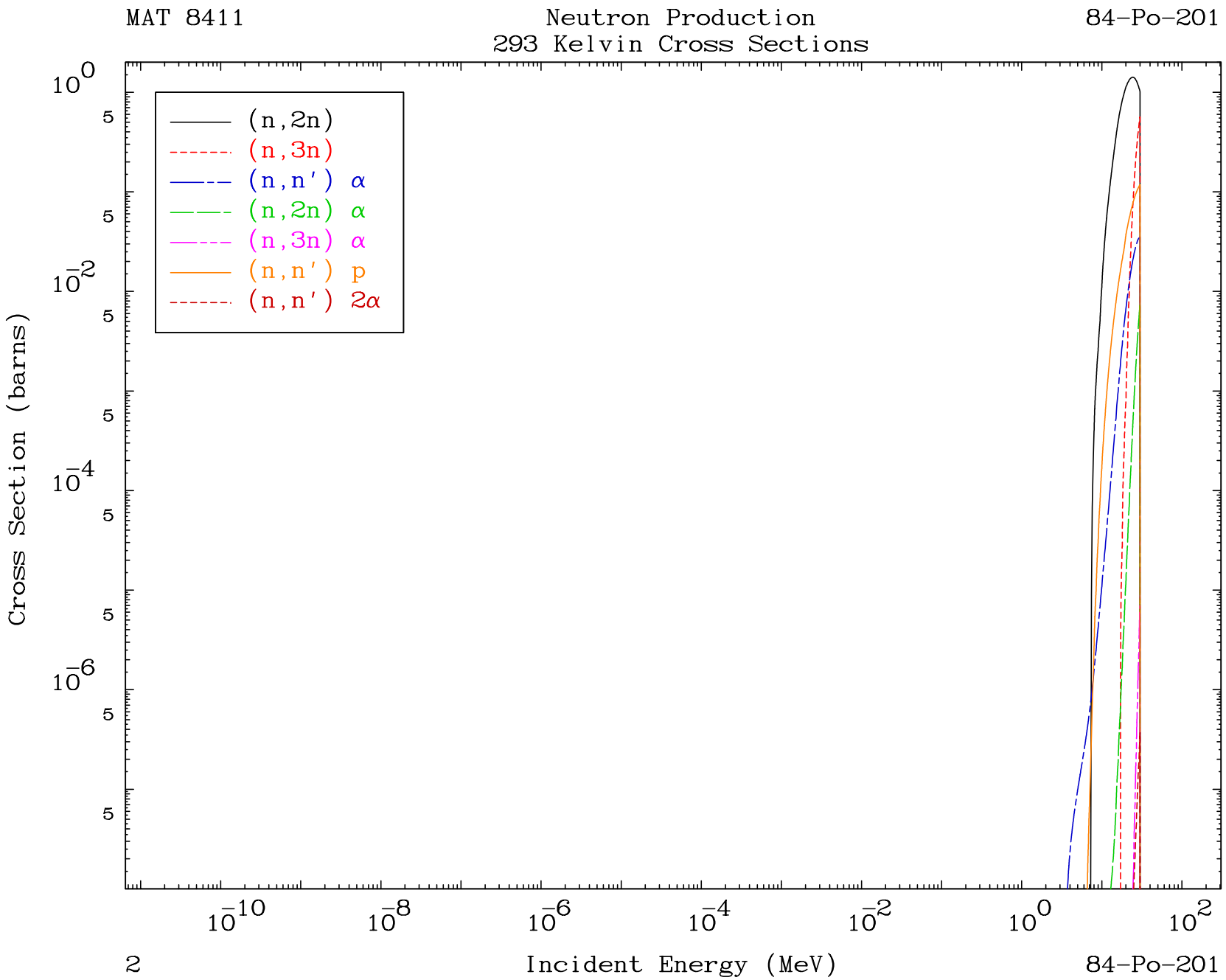
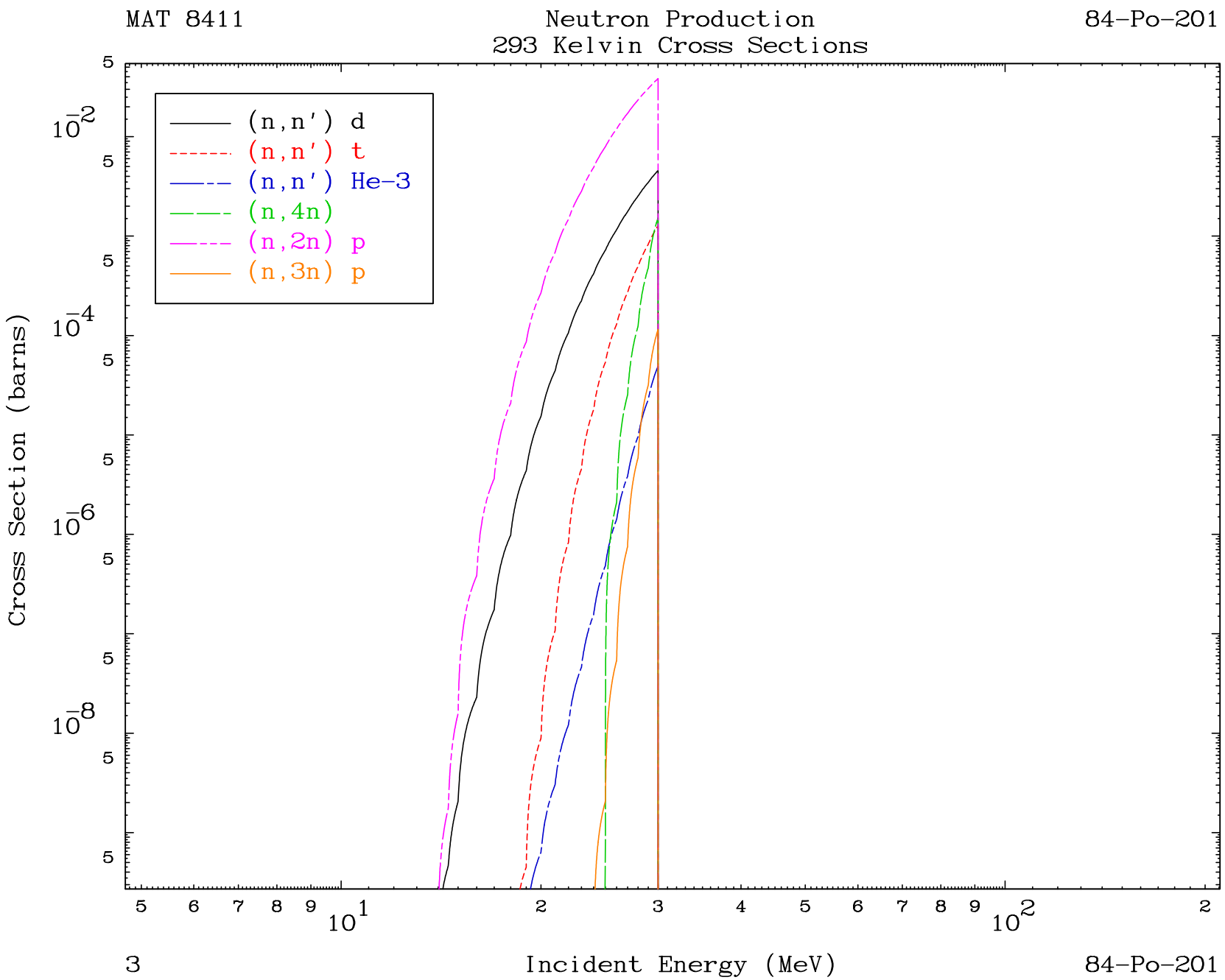
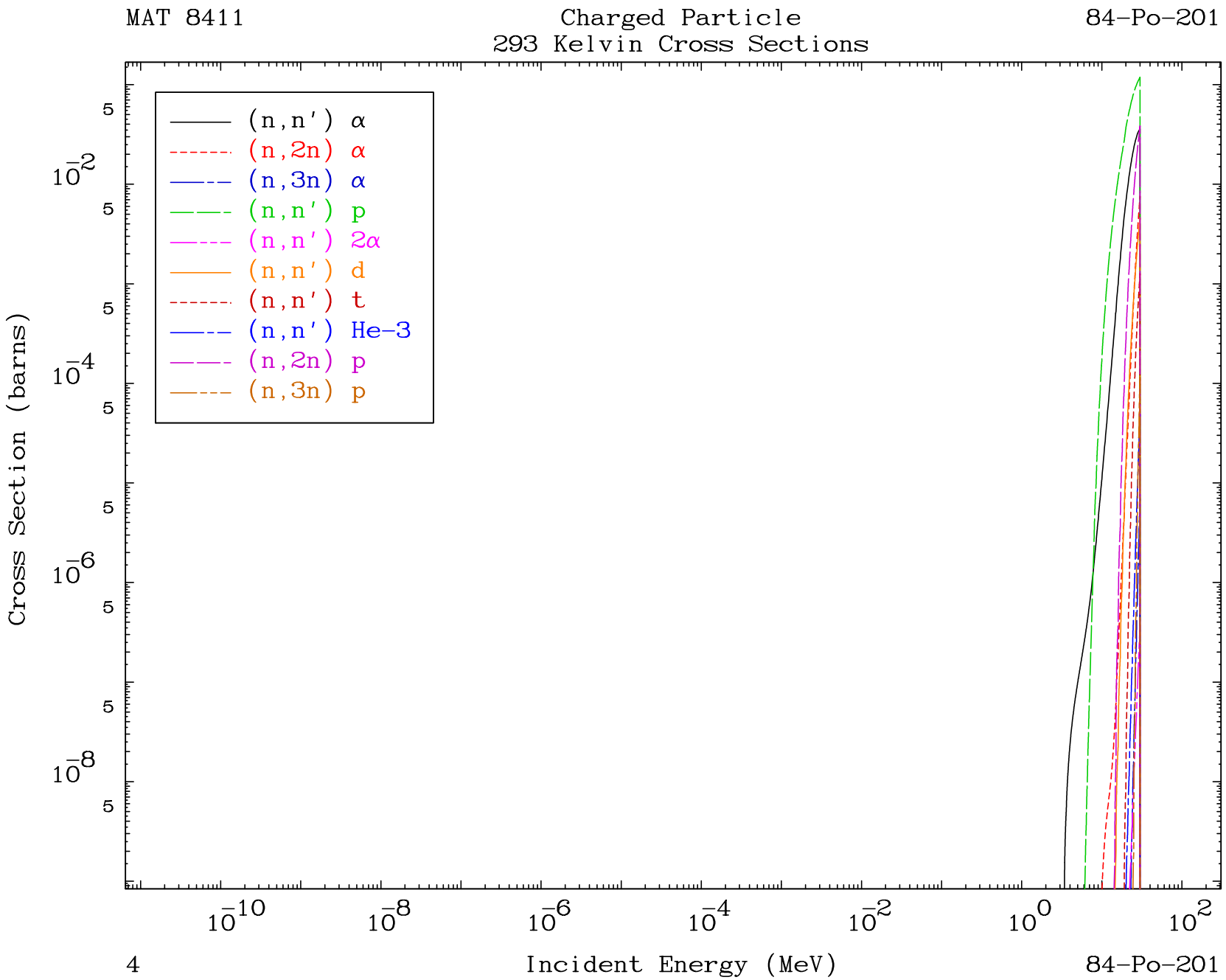
Program EVALPLOT
(Version 2017-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

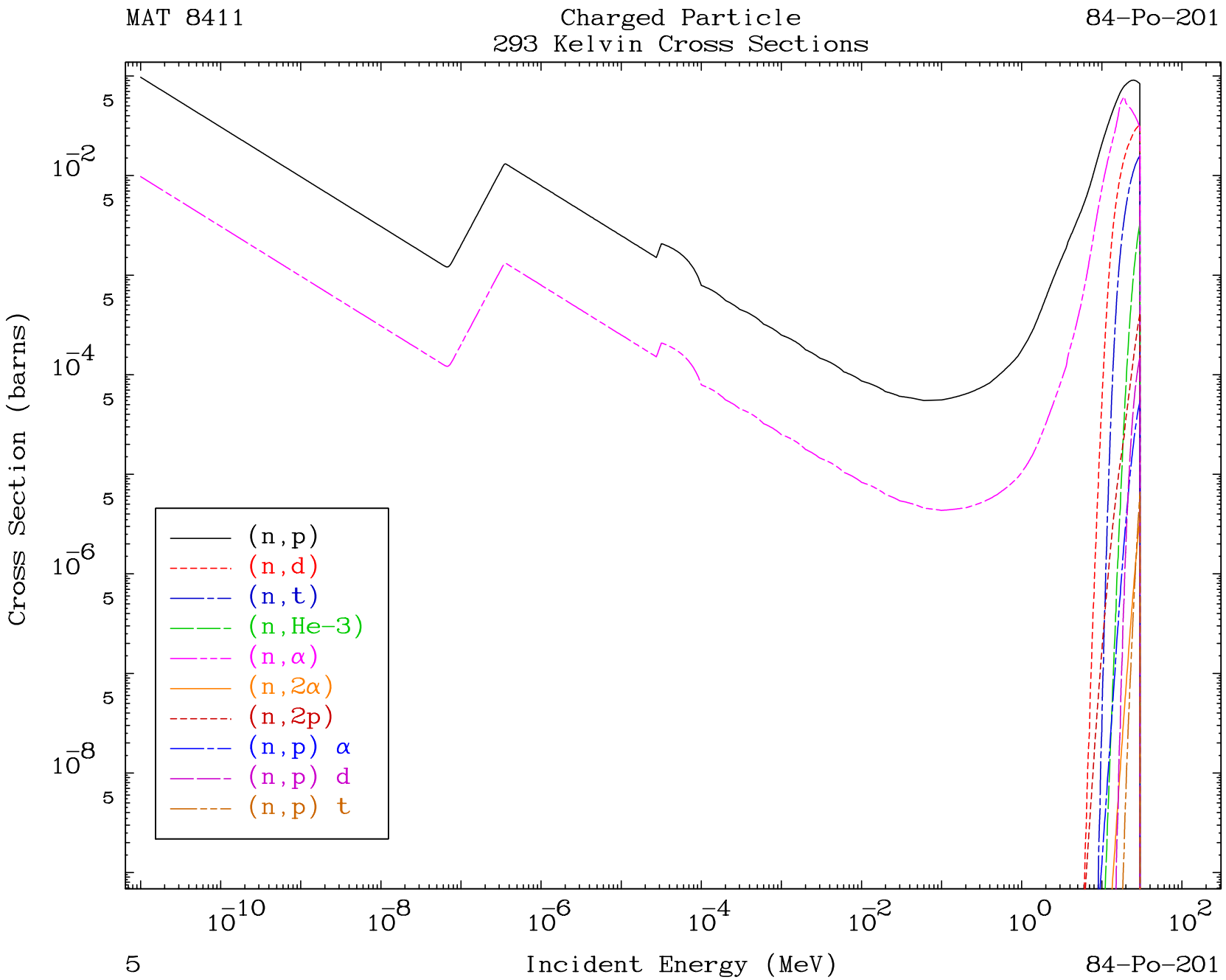
Press Mouse Button to Start

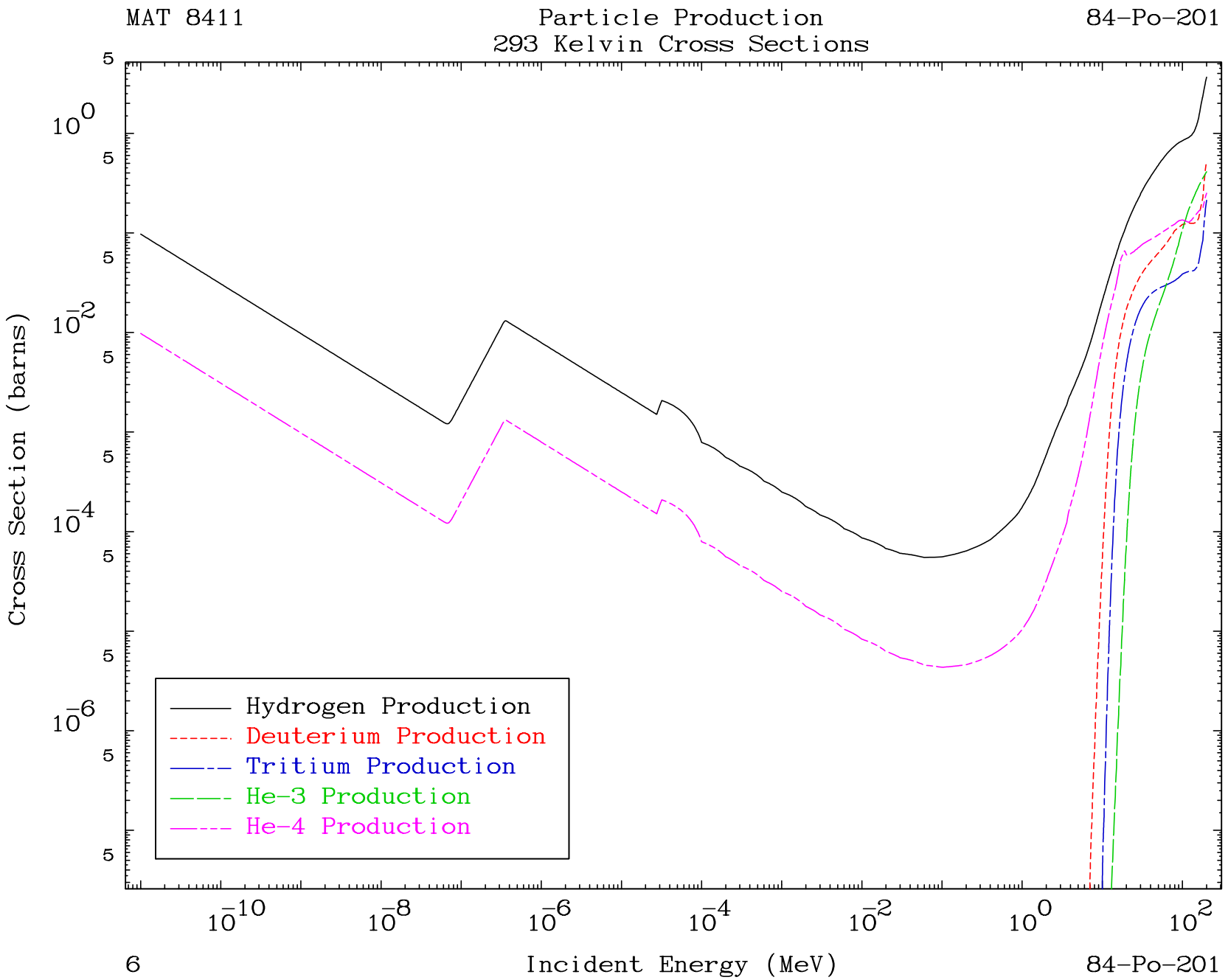

MAT 8411
Major
84-Po-201
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
84-Po-201

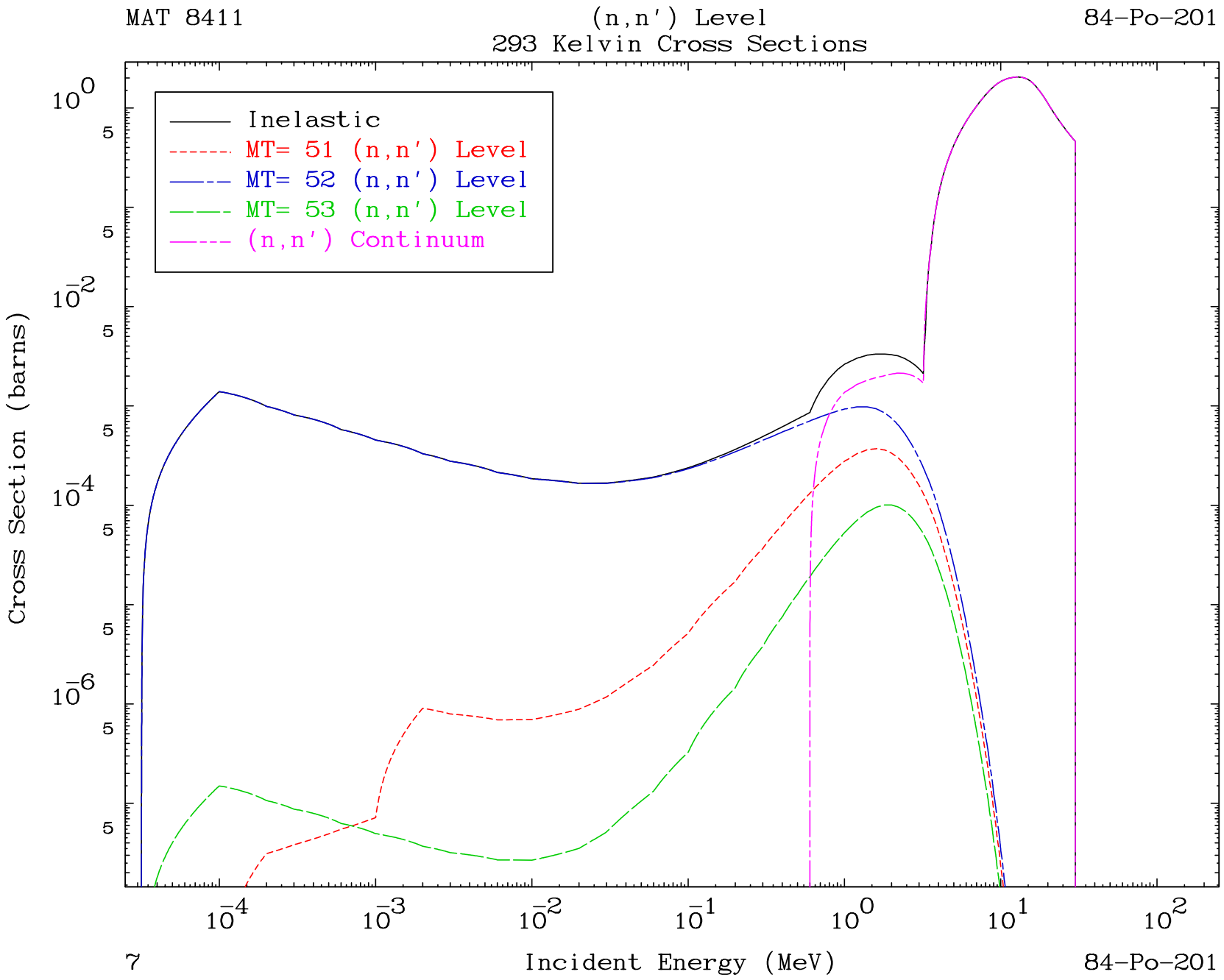

MAT 8411
Neutron Production
293 Kelvin Cross Sections
84-Po-201
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
84-Po-201
2

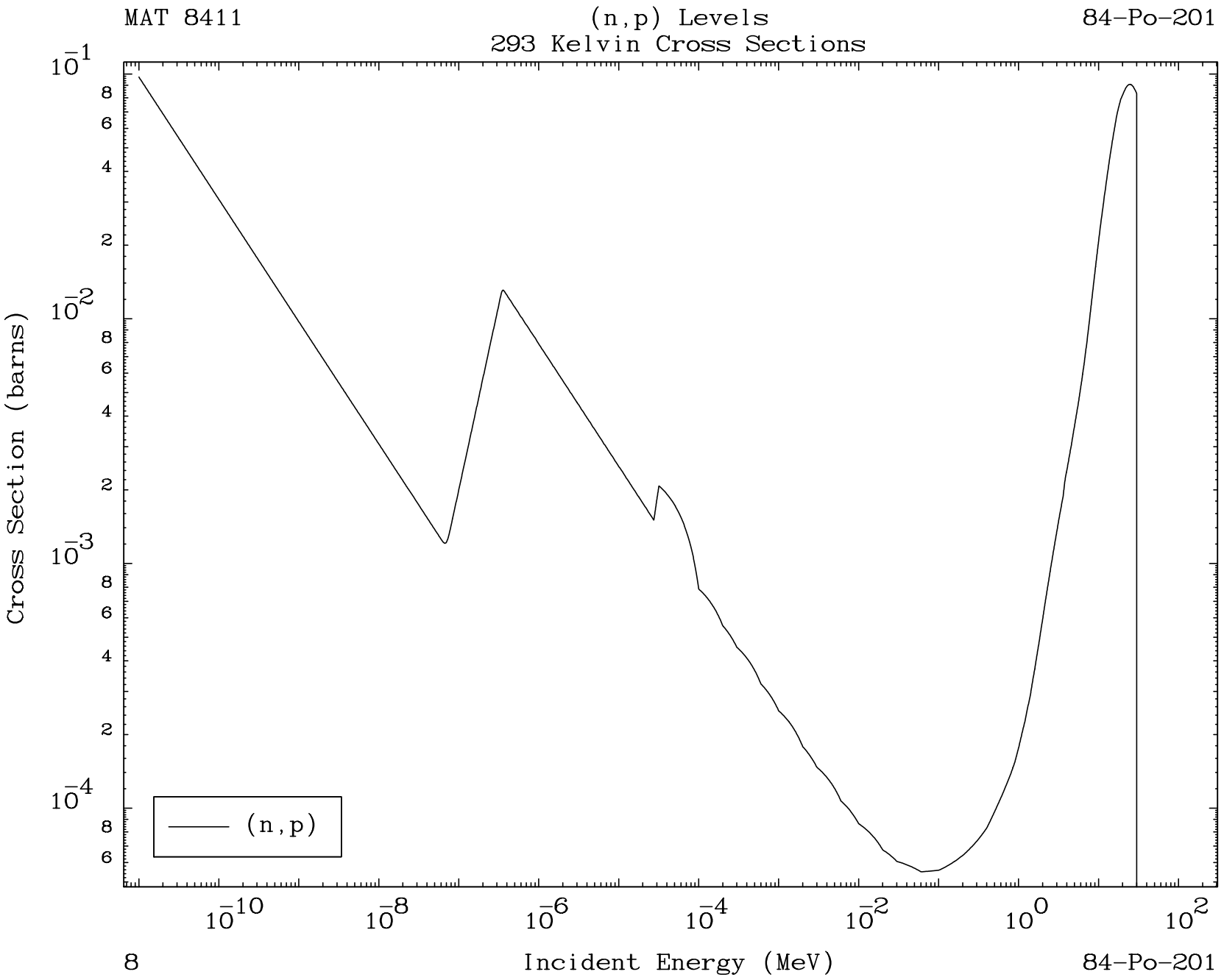

MAT 8411
Neutron Production
293 Kelvin Cross Sections
84-Po-201
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
3
84-Po-201

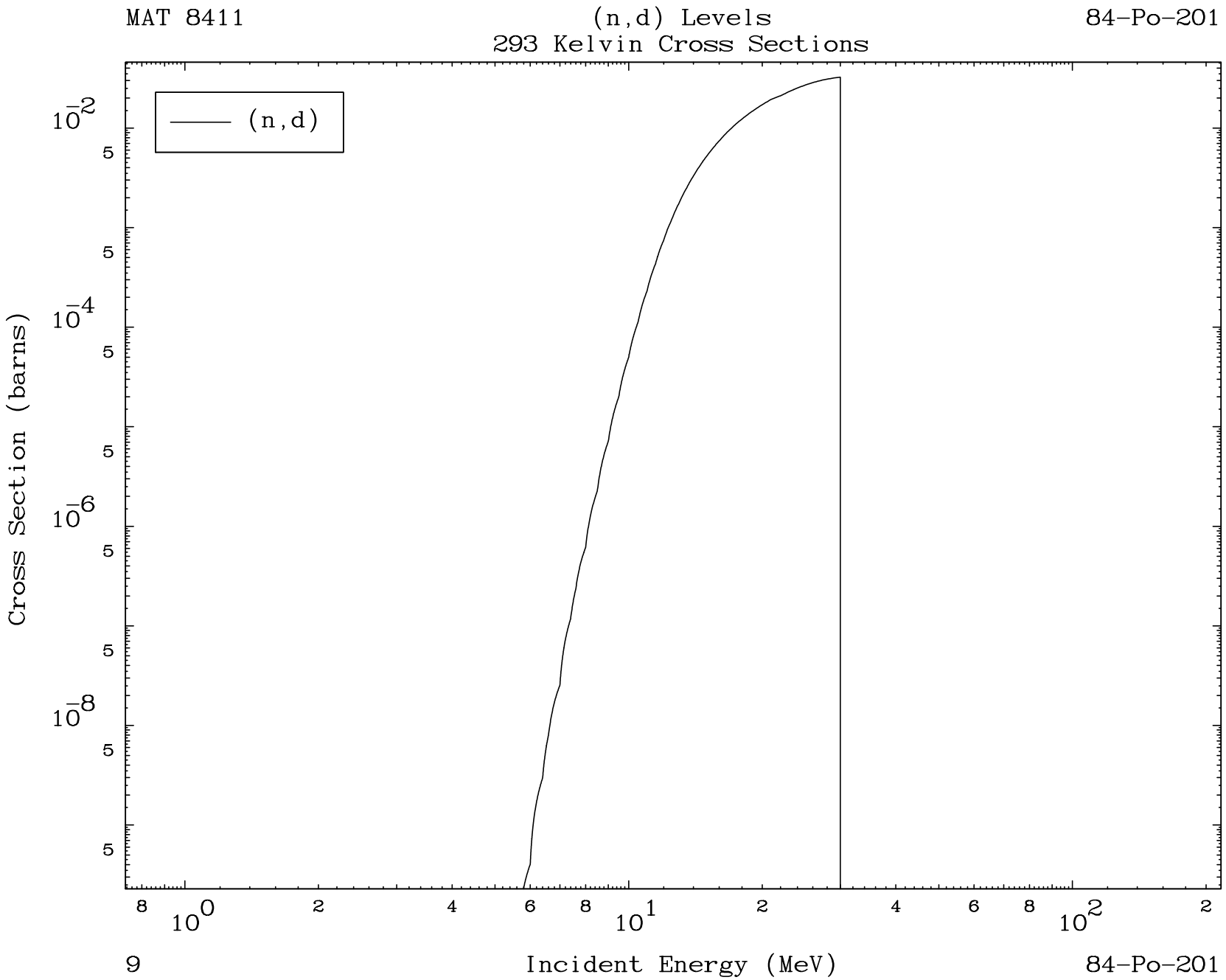

MAT 8411
Charged Particle
293 Kelvin Cross Sections
84-Po-201
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
4
84-Po-201

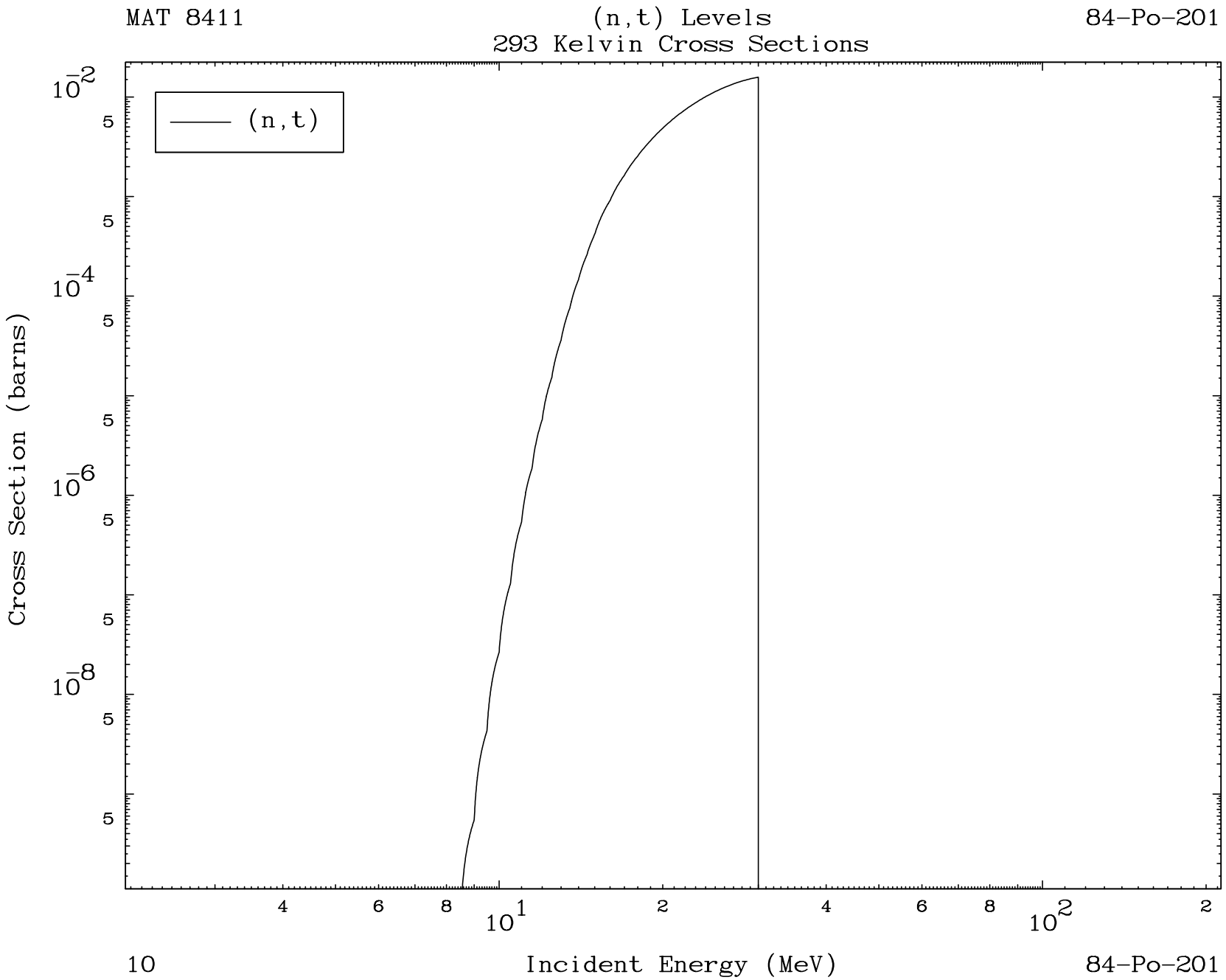

MAT 8411
Charged Particle
293 Kelvin Cross Sections
84-Po-201
Cross Section (barns)
Incident Energy (MeV)
84-Po-201
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t

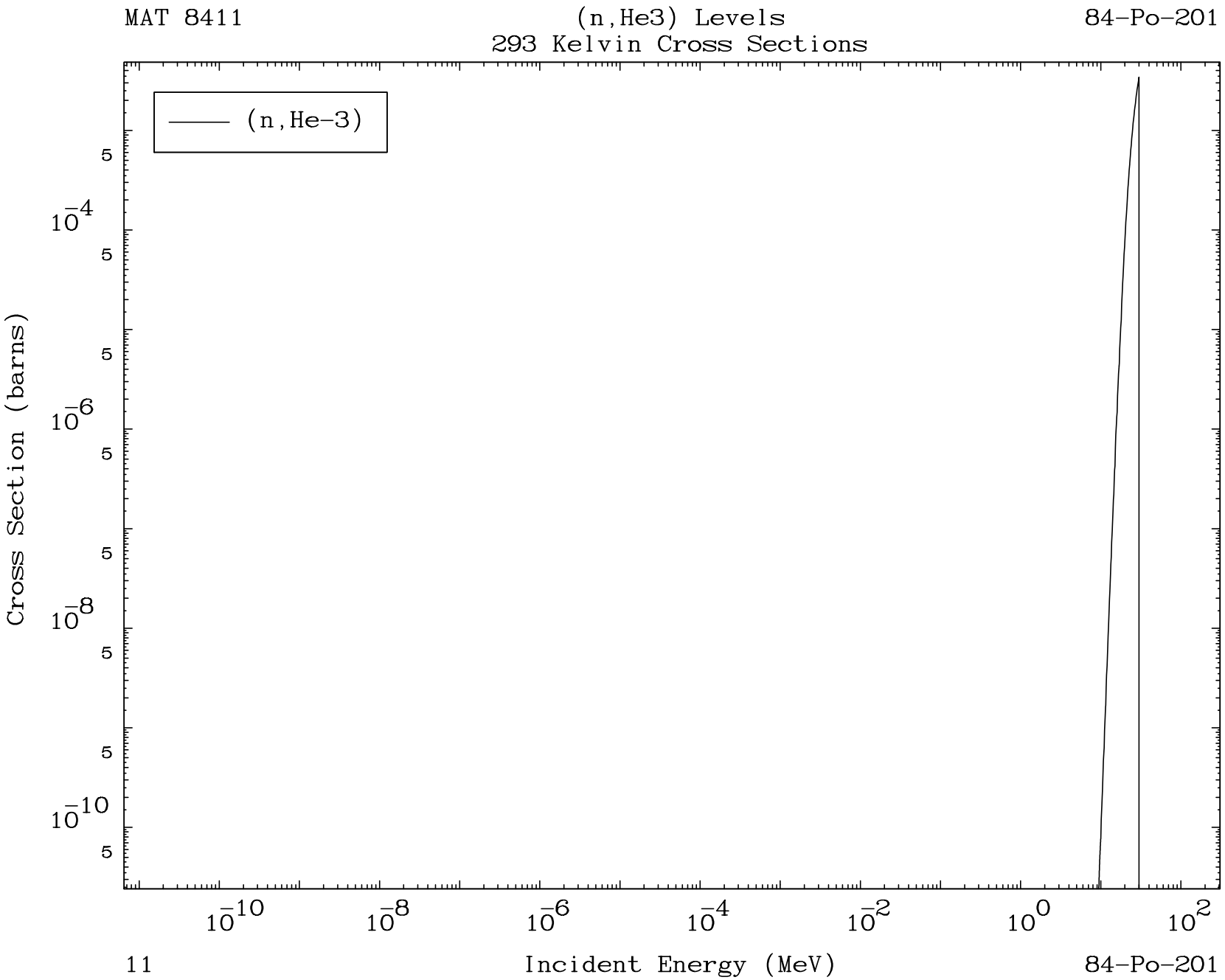

MAT 8411
Particle Production
293 Kelvin Cross Sections
84-Po-201
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
6
84-Po-201

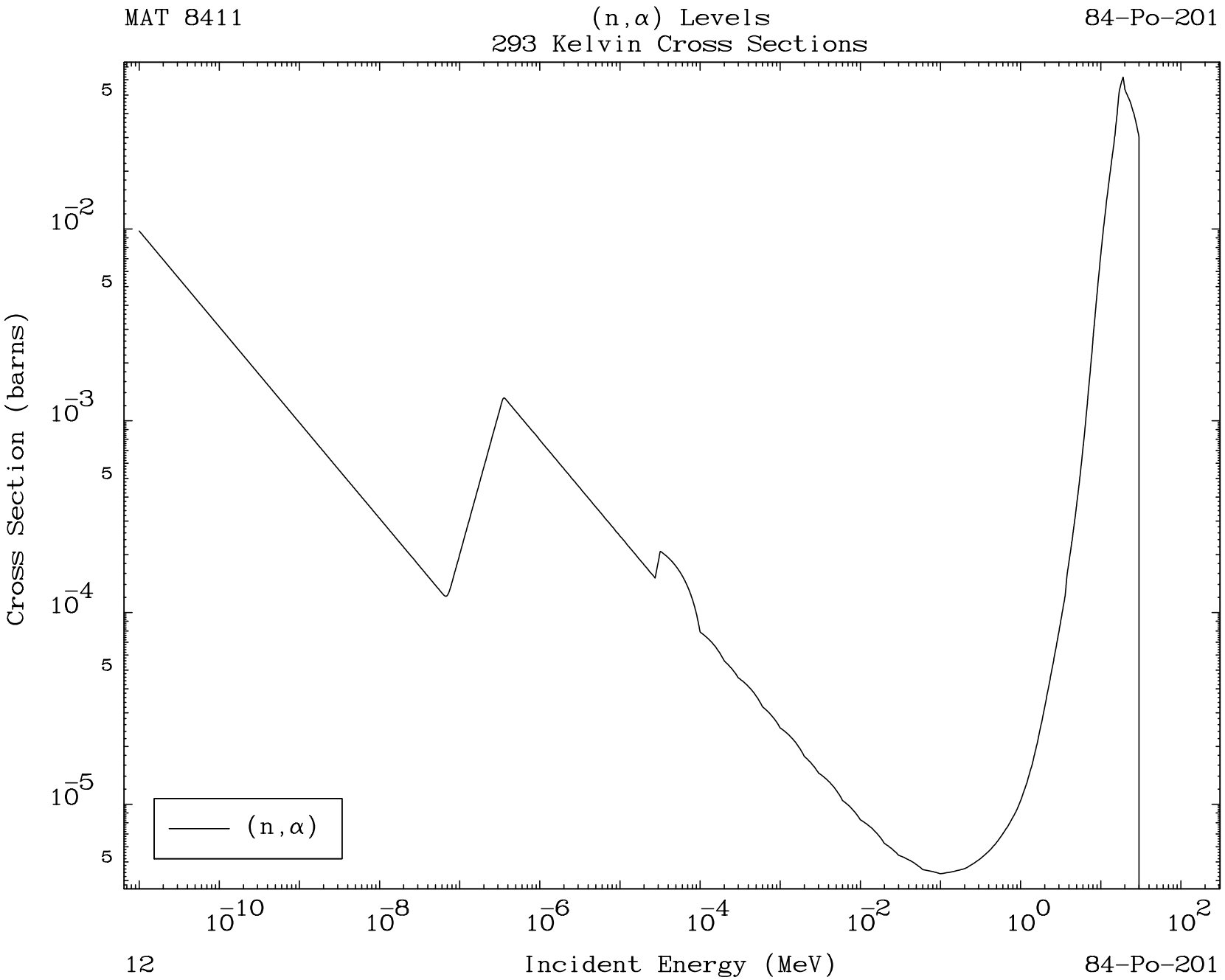

MAT 8411
(n,n') Level
84-Po-201
293 Kelvin Cross Sections
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
7
84-Po-201

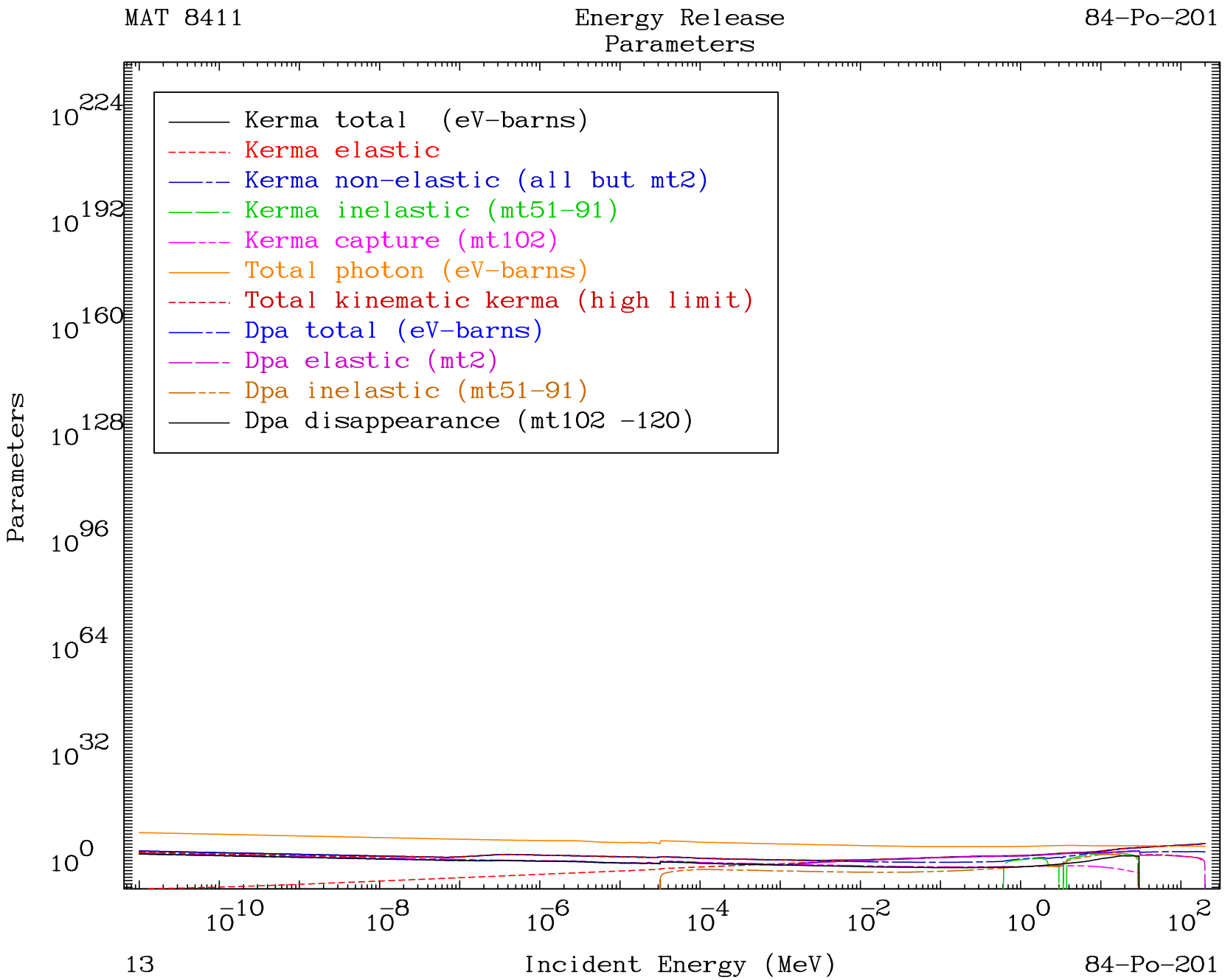

MAT 8411
(n,p) Levels
84-Po-201
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
(n,p)
8
84-Po-201

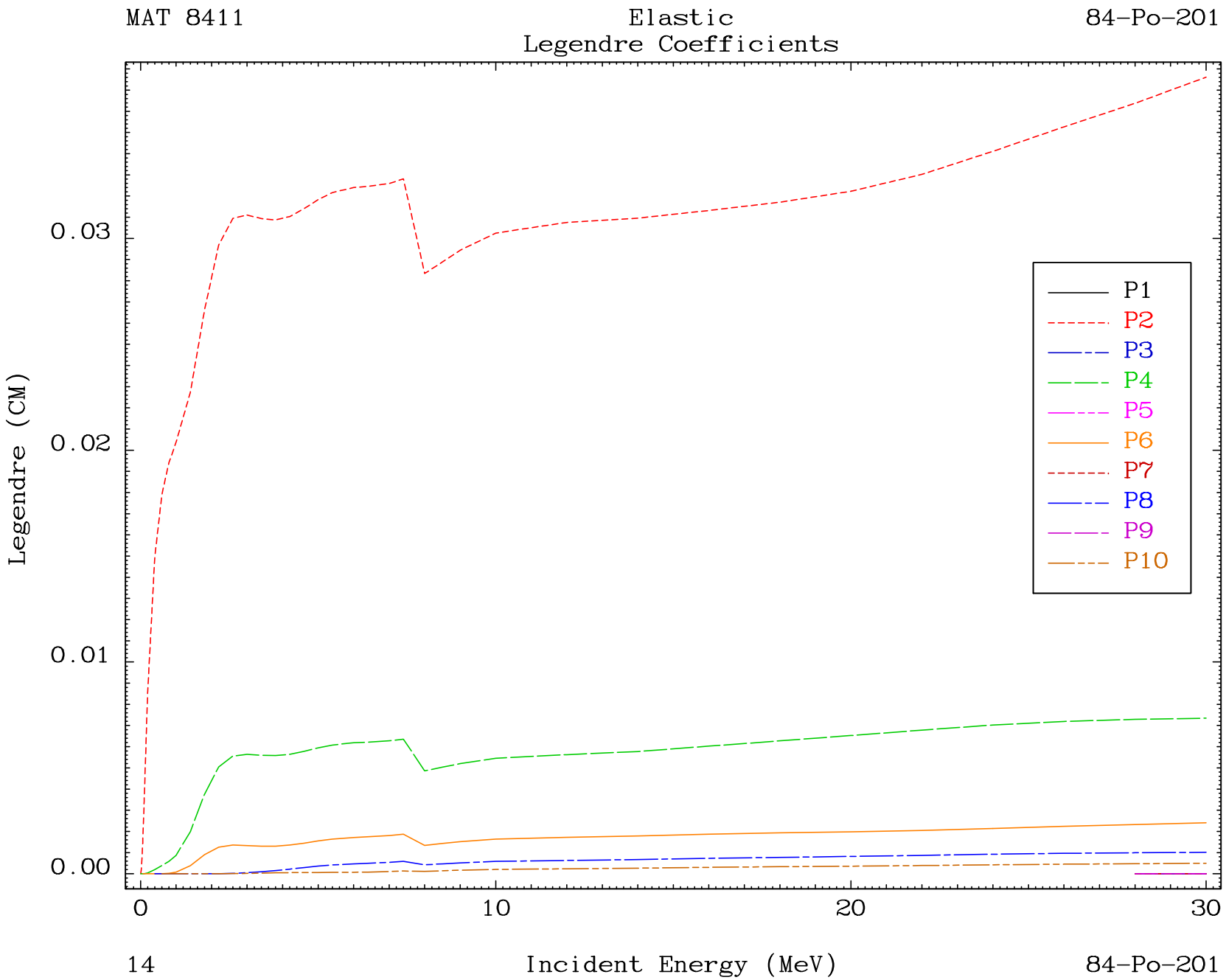

MAT 8411
(n,d) Levels
84-Po-201
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
10-2
10-4
10-6
10-8
5
100
2
4
6
8
101
102
Incident Energy (MeV)
9
84-Po-201

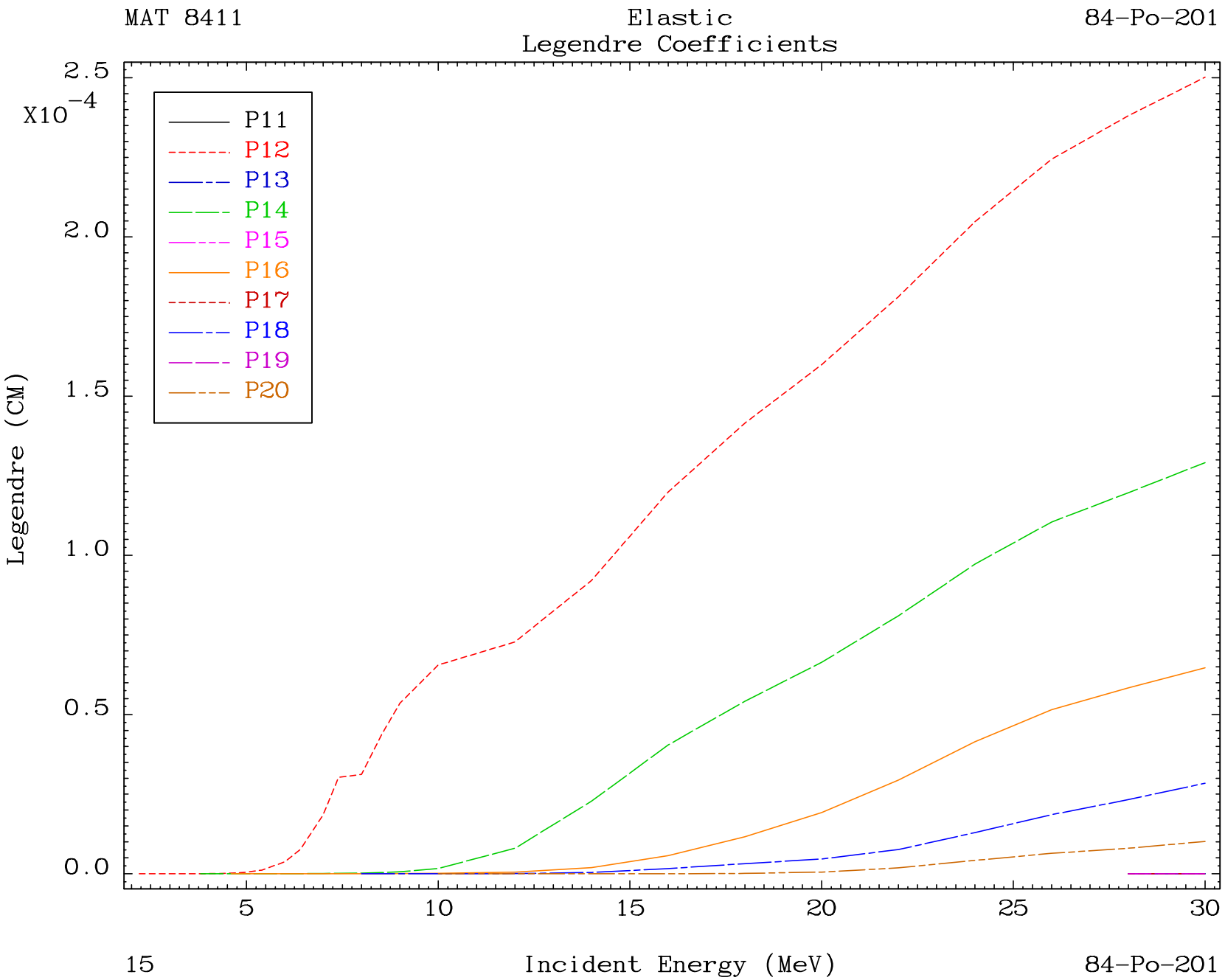

MAT 8411
(n,t) Levels
84-Po-201
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
10^1
10^2
10
Incident Energy (MeV)
84-Po-201

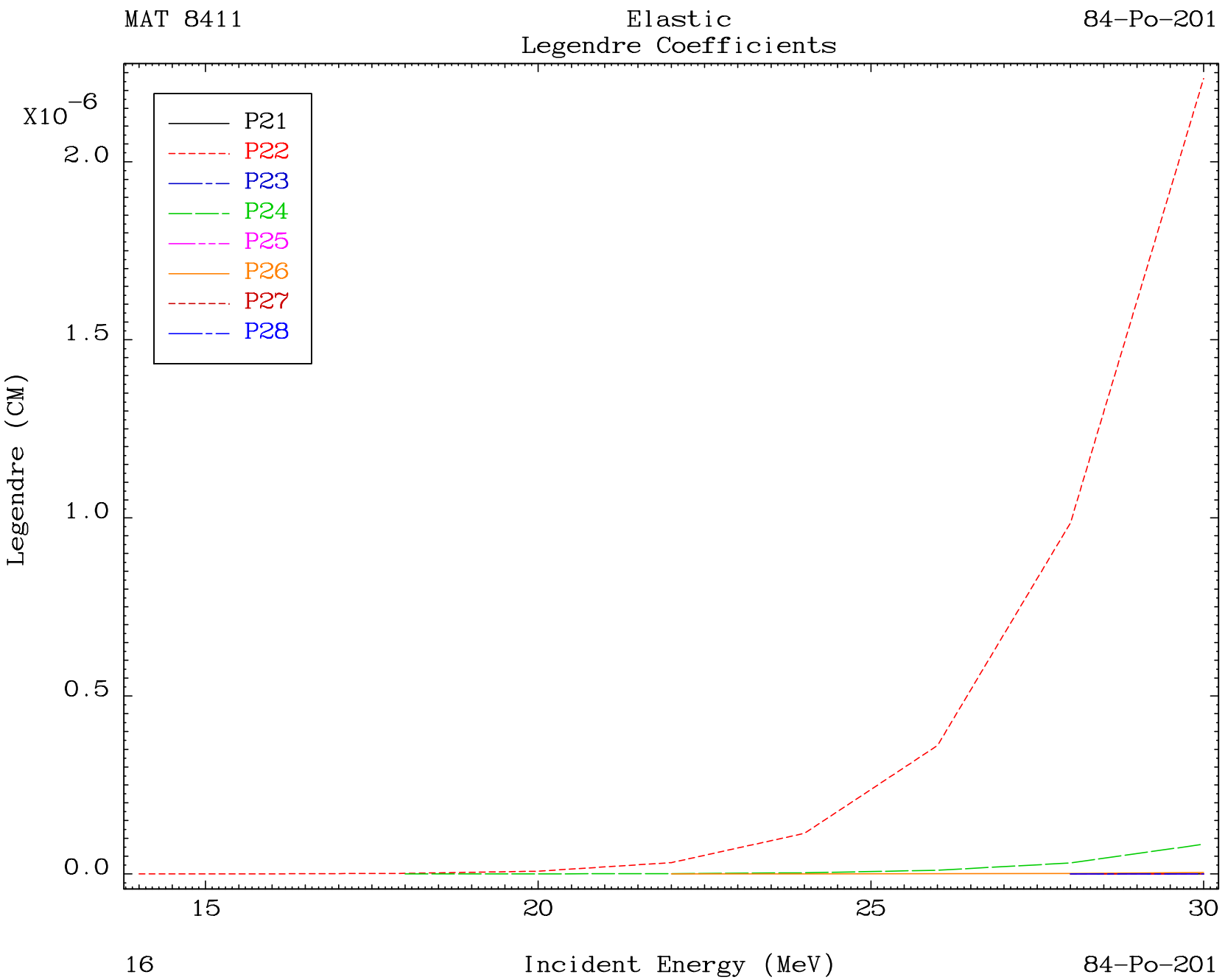

MAT 8411
(n,He3) Levels
84-Po-201
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
11
Incident Energy (MeV)
84-Po-201

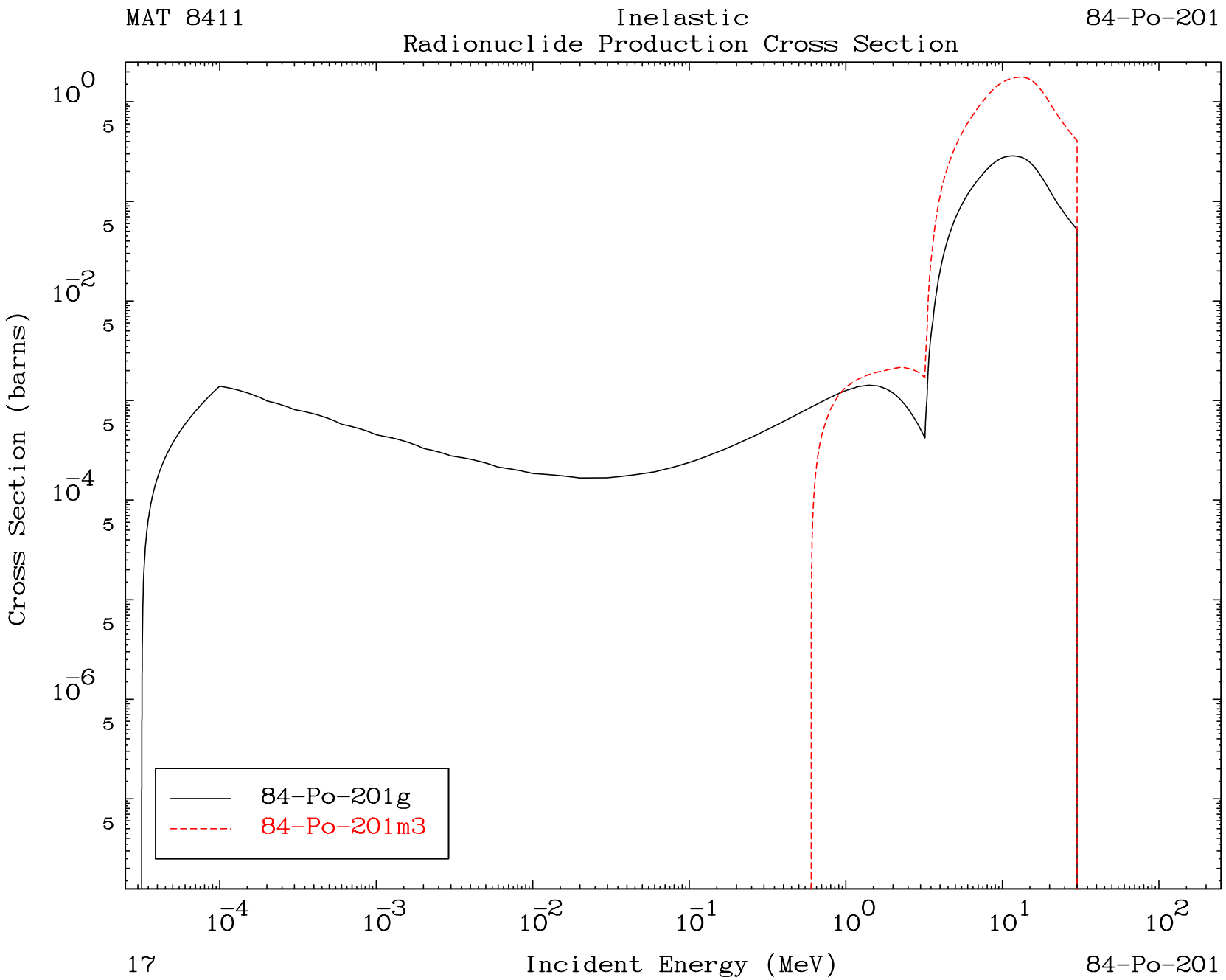

MAT 8411
(n,α) Levels
84-Po-201
293 Kelvin Cross Sections
Cross Section (barns)
5
10-2
5
10-3
5
10-4
5
10-5
5
(n,α)
10-10
10-8
10-6
10-4
10-2
100
102
12
Incident Energy (MeV)
84-Po-201

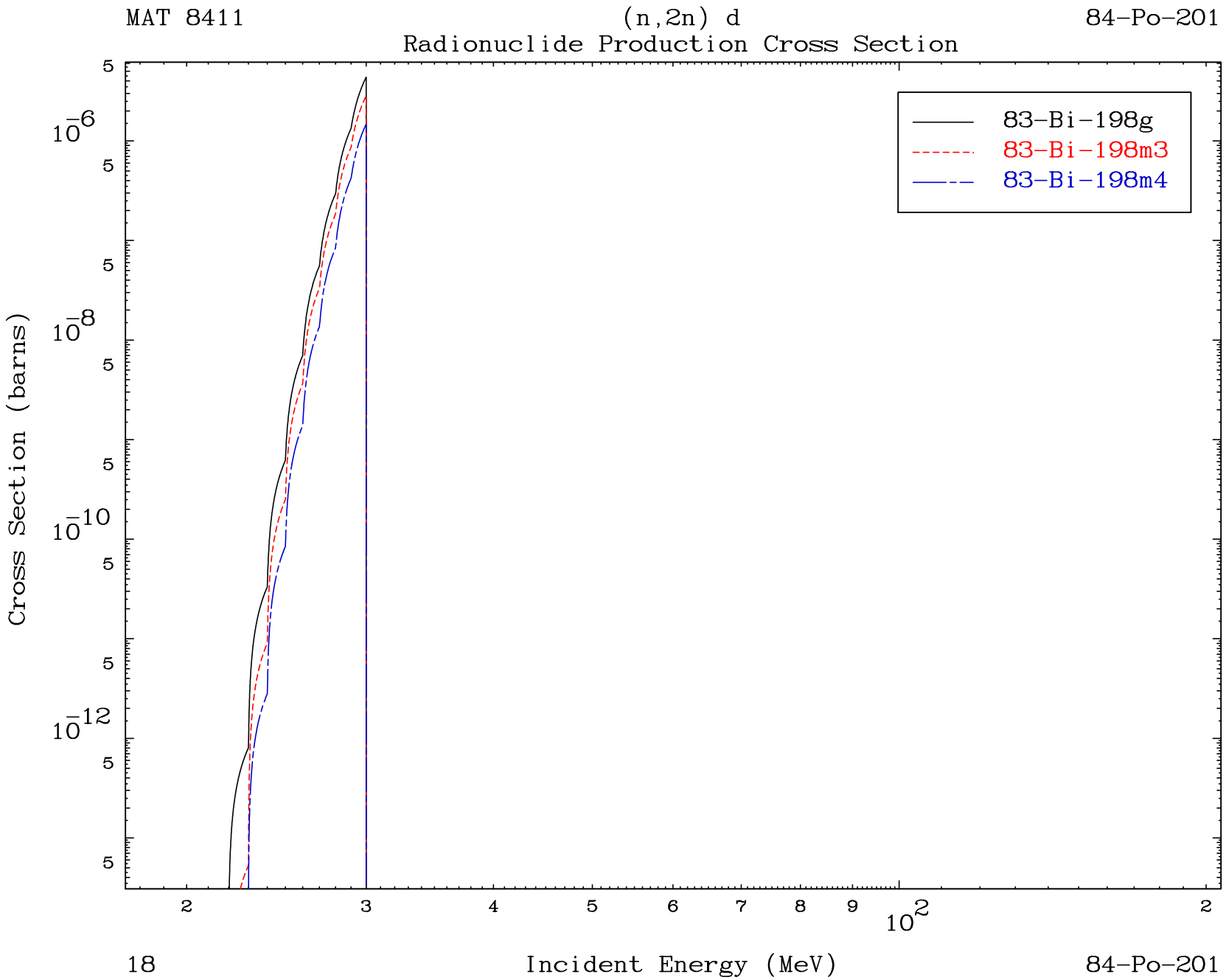

MAT 8411
Energy Release
Parameters
84-Po-201
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
10^224
10^192
10^160
10^128
10^96
10^64
10^32
10^0
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
13
Incident Energy (MeV)
84-Po-201

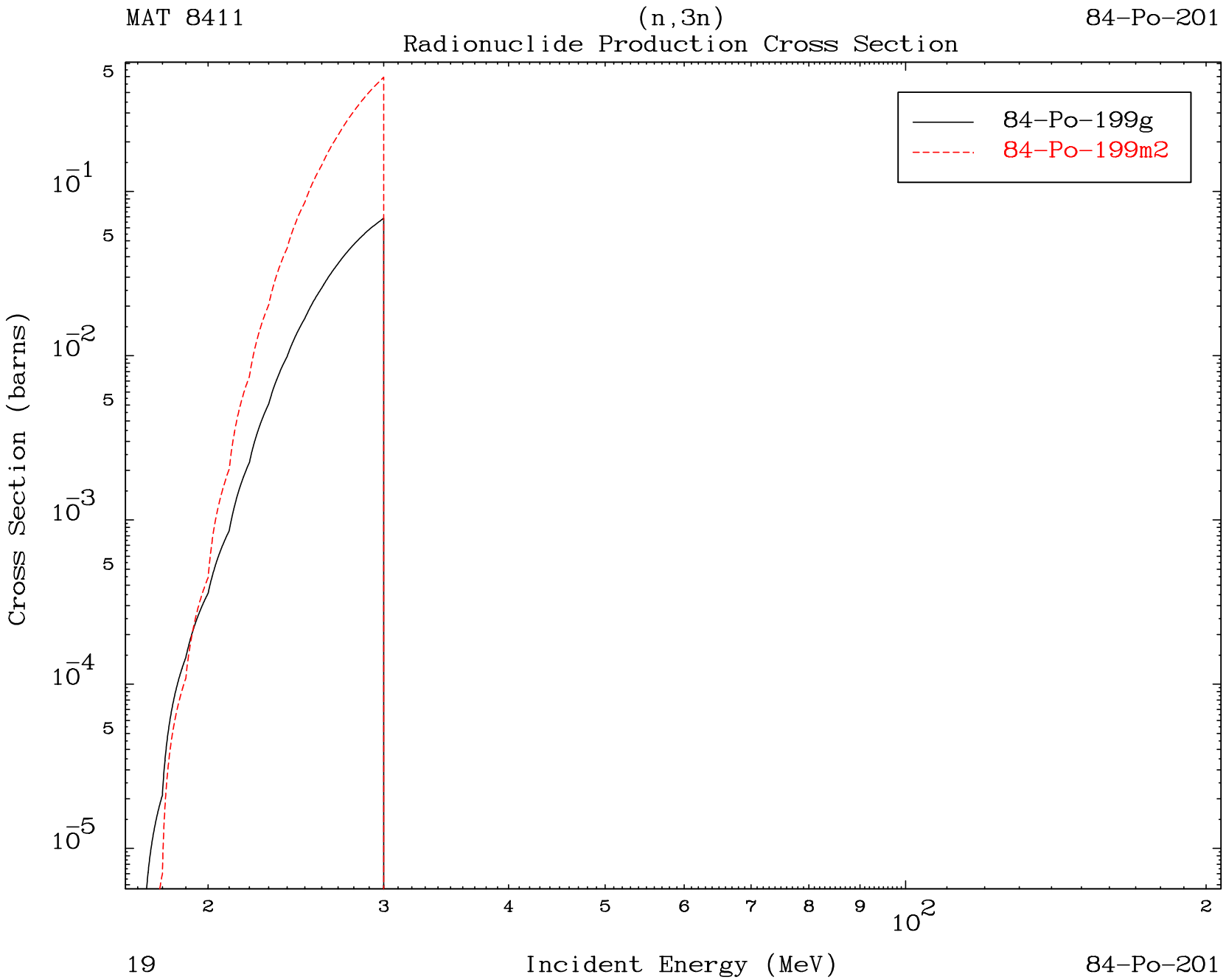

MAT 8411
Elastic
Legendre Coefficients
84-Po-201
Legendre (CM)
0.03
0.02
0.01
0.00
0
10
20
30
14
Incident Energy (MeV)
84-Po-201
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

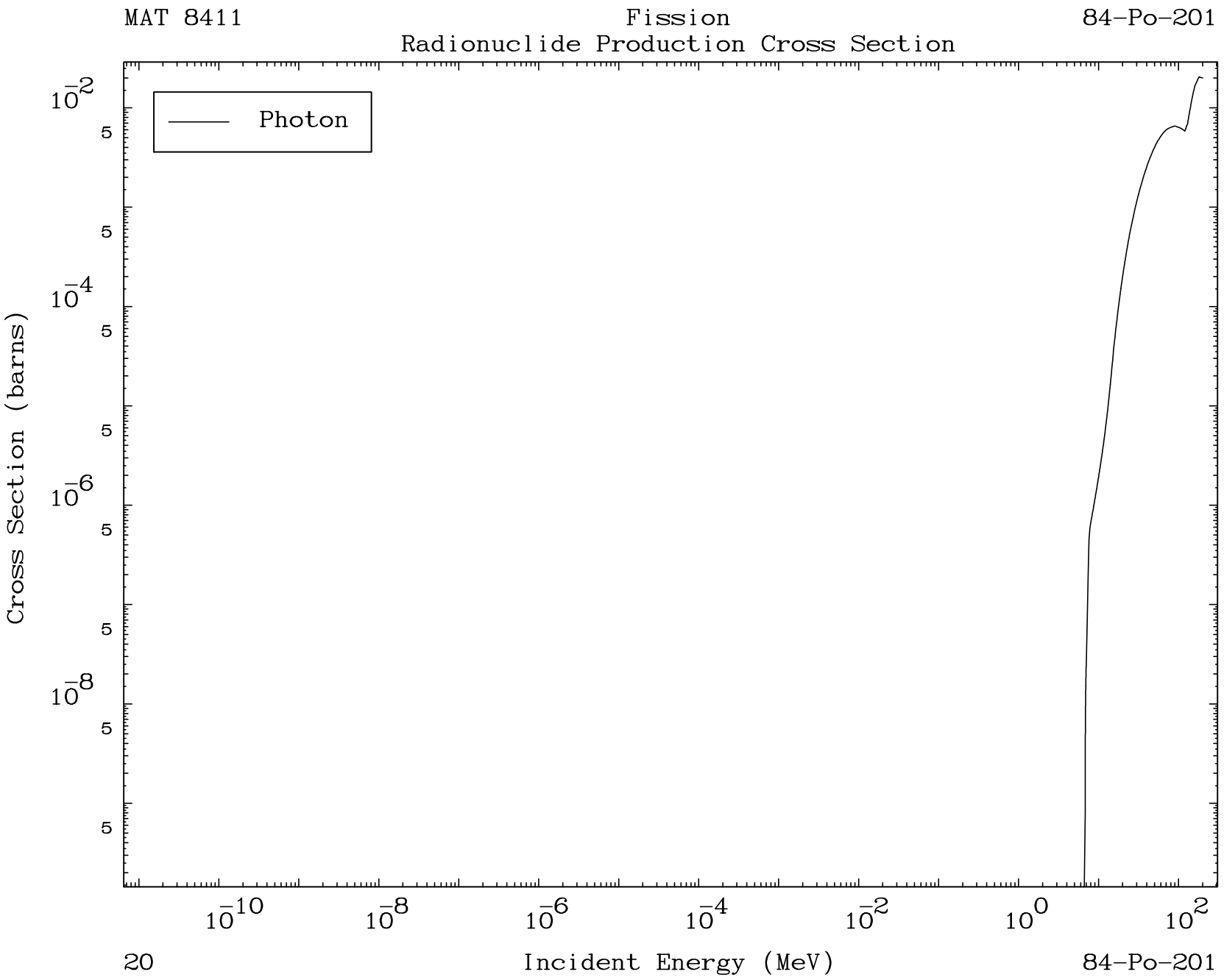

MAT 8411
Elastic
Legendre Coefficients
84-Po-201
X10 −4
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
5
10
15
20
25
30
15
Incident Energy (MeV)
84-Po-201

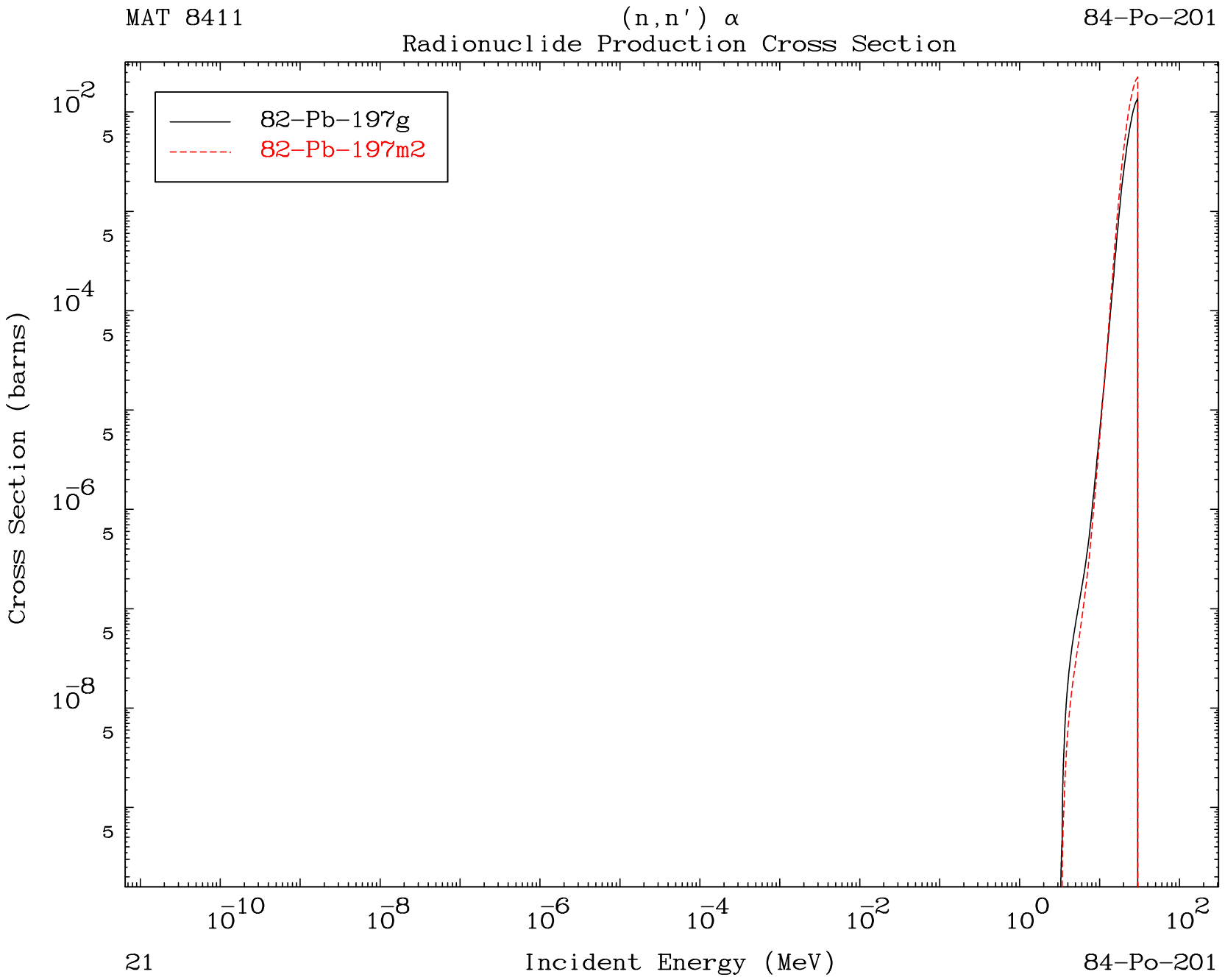

MAT 8411
Elastic
Legendre Coefficients
84-Po-201
X10^-6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
15
20
25
30
16
Incident Energy (MeV)
84-Po-201

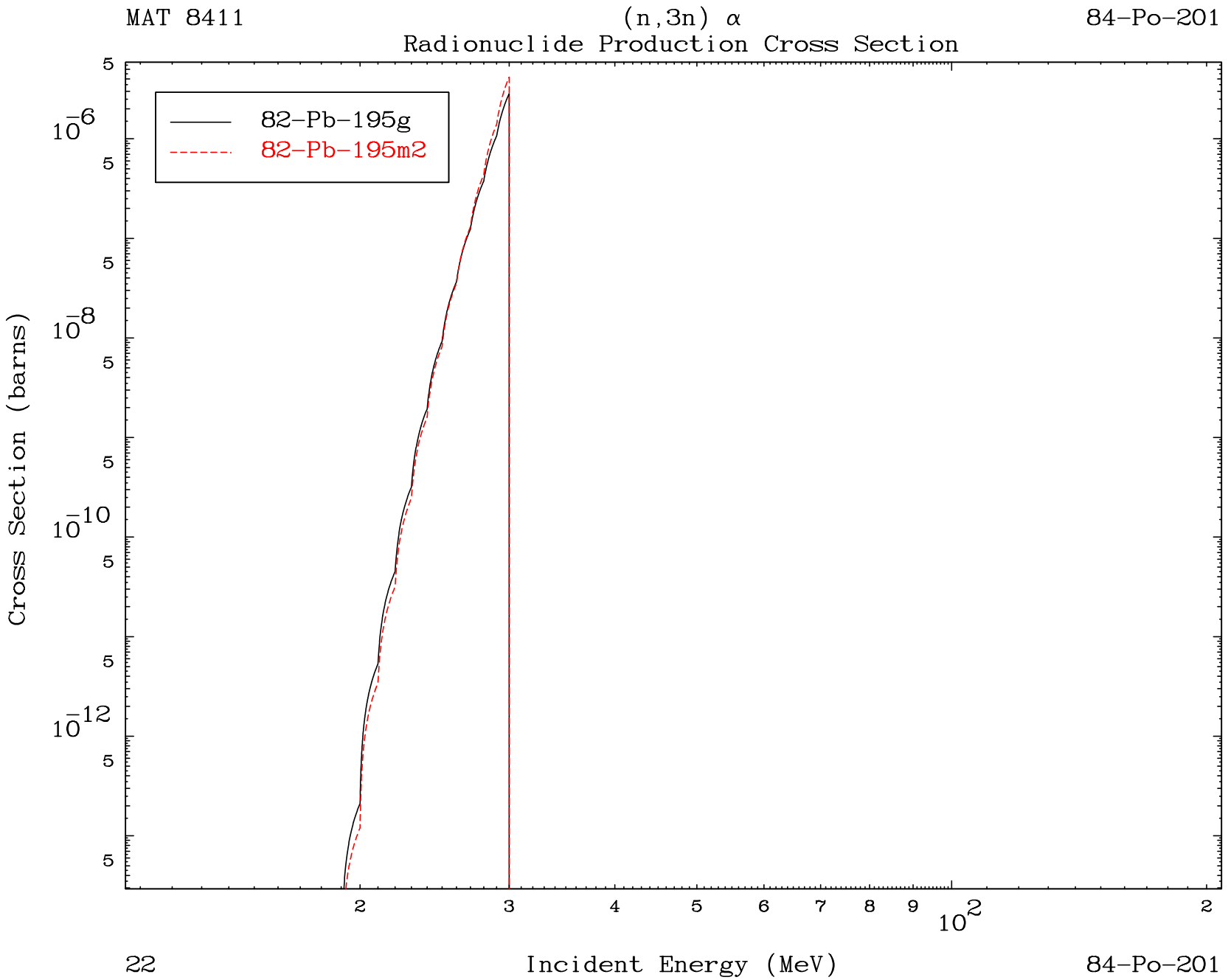

MAT 8411
Inelastic
84-Po-201
Radionuclide Production Cross Section
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
5
84-Po-201g
84-Po-201m3
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2
17
Incident Energy (MeV)
84-Po-201

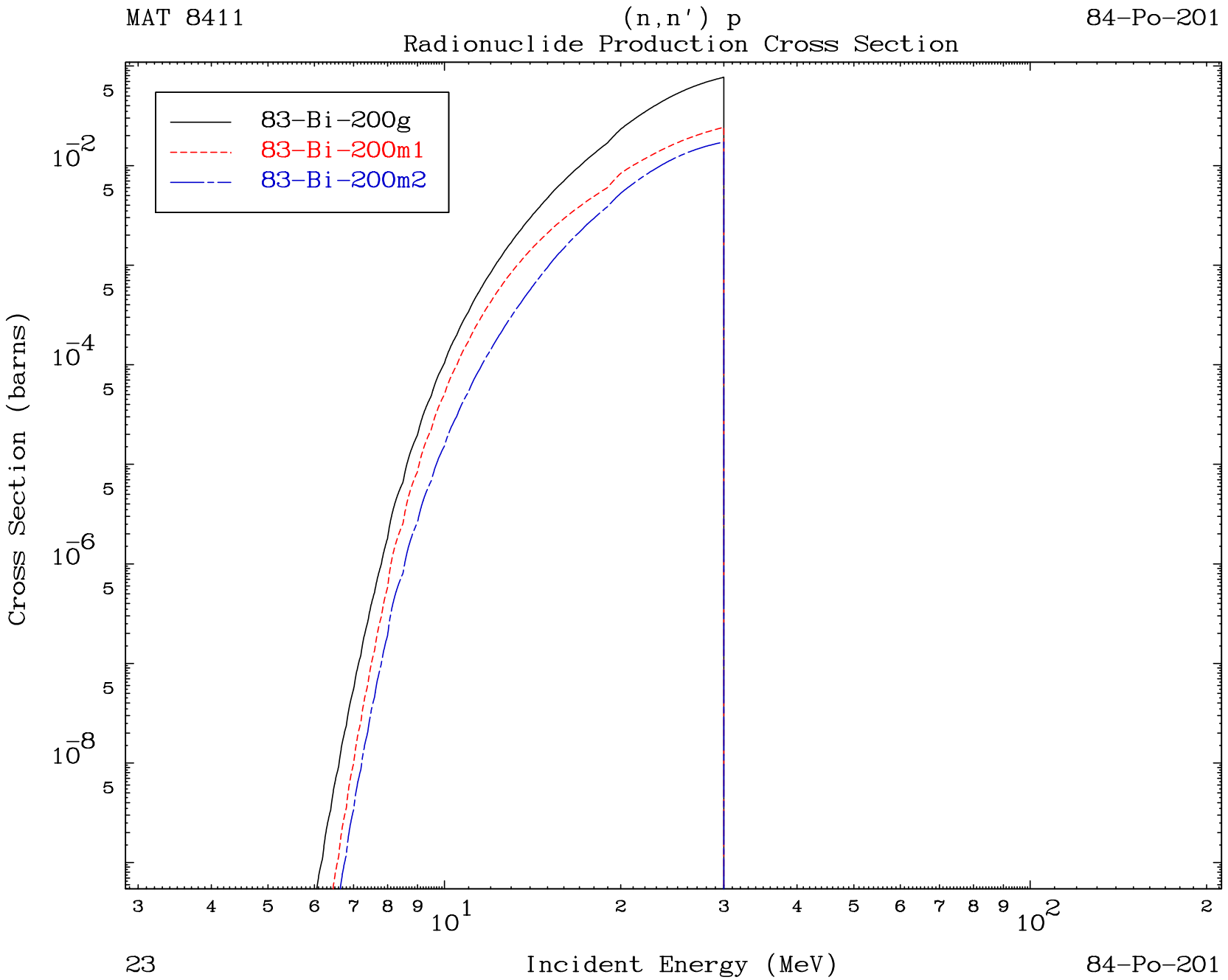

MAT 8411
(n,2n) d
84-Po-201
Radionuclide Production Cross Section
83-Bi-198g
83-Bi-198m3
83-Bi-198m4
Cross Section (barns)
10-6
10-8
10-10
10-12
5
2
3
4
5
6
7
8
9
10 2
2
18
Incident Energy (MeV)
84-Po-201

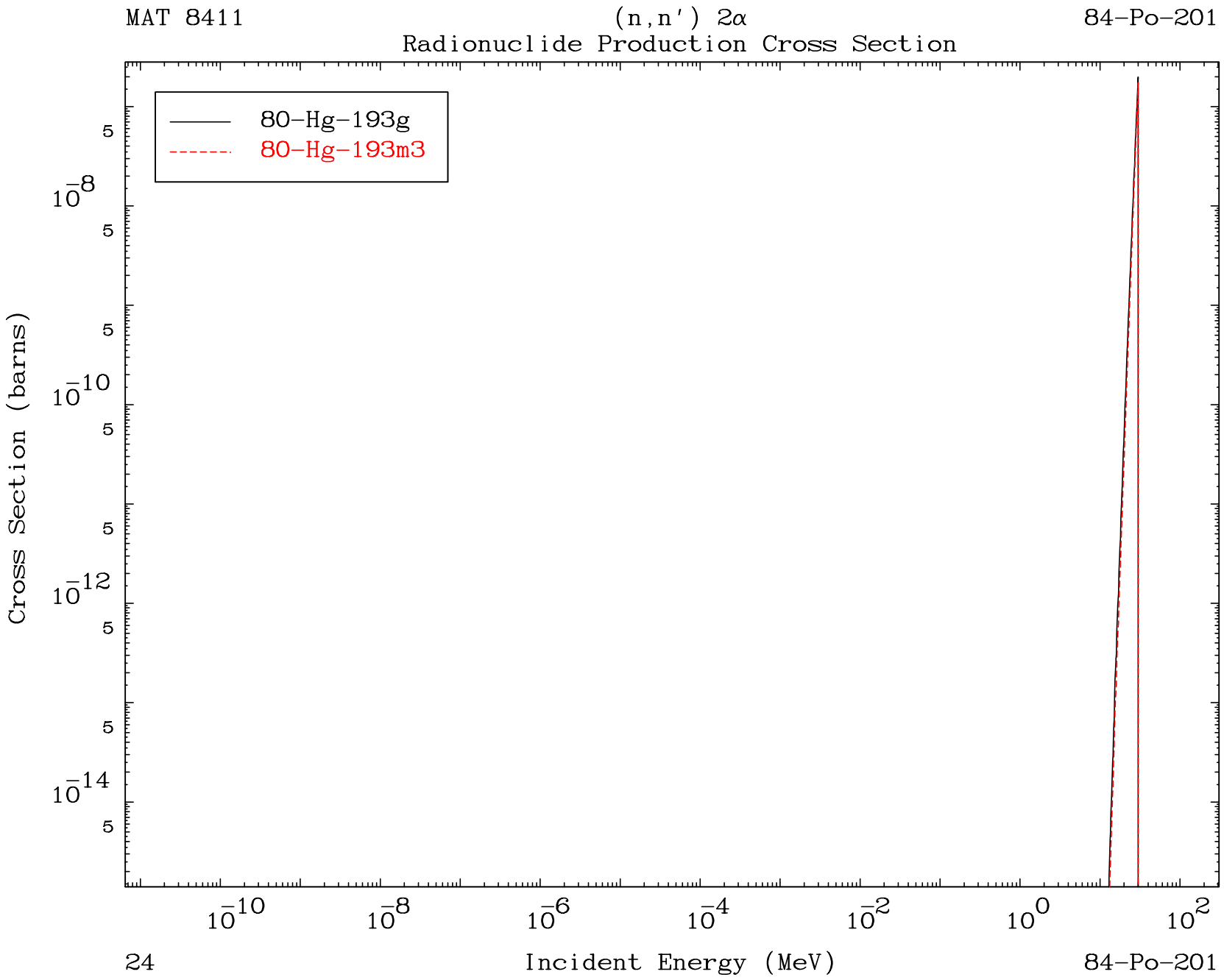

MAT 8411
(n,3n)
84-Po-201
Radionuclide Production Cross Section
84-Po-199g
84-Po-199m2
Cross Section (barns)
Incident Energy (MeV)
19
84-Po-201

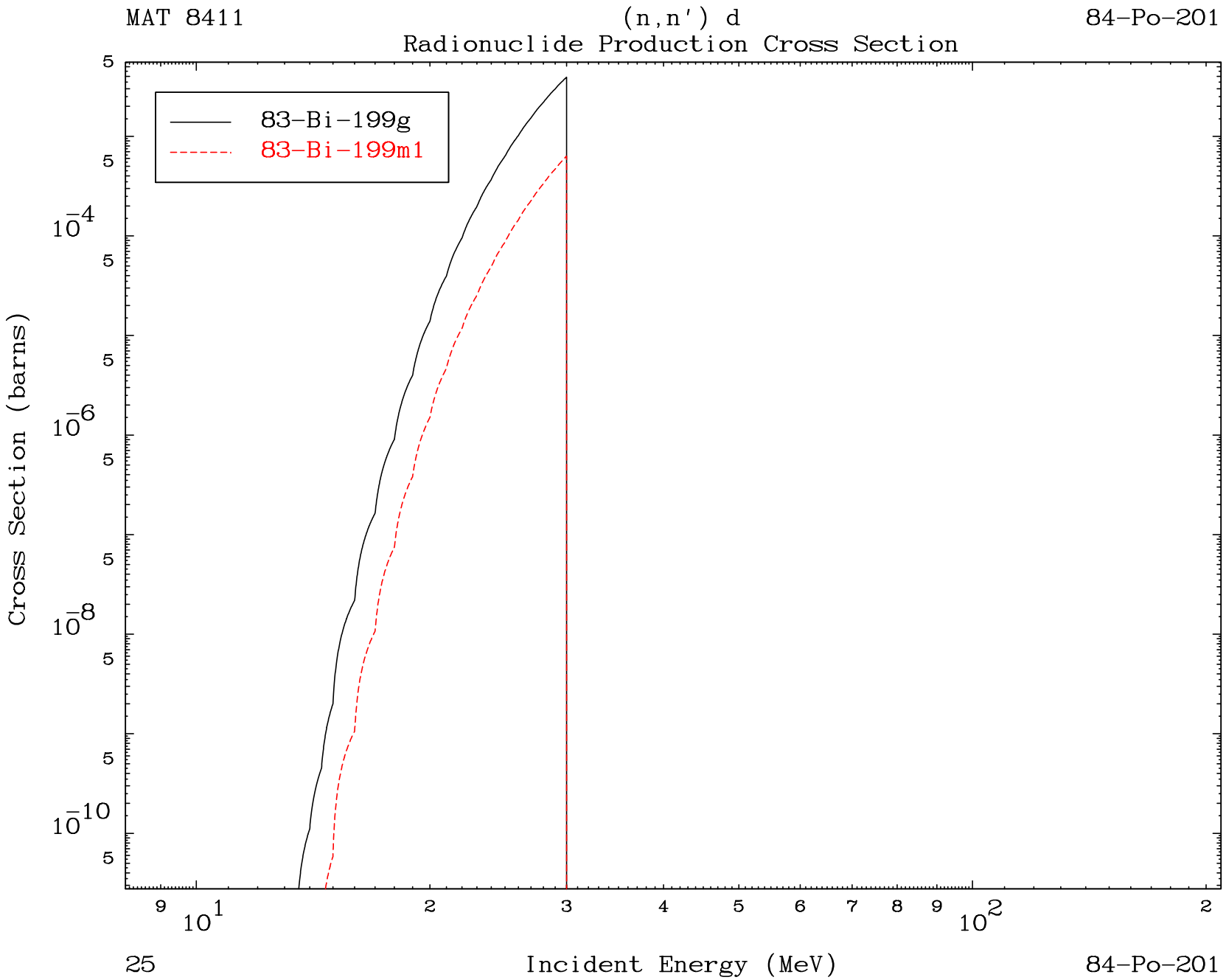

MAT 8411
Fission
84-Po-201
Radionuclide Production Cross Section
Photon
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
20
Incident Energy (MeV)
84-Po-201

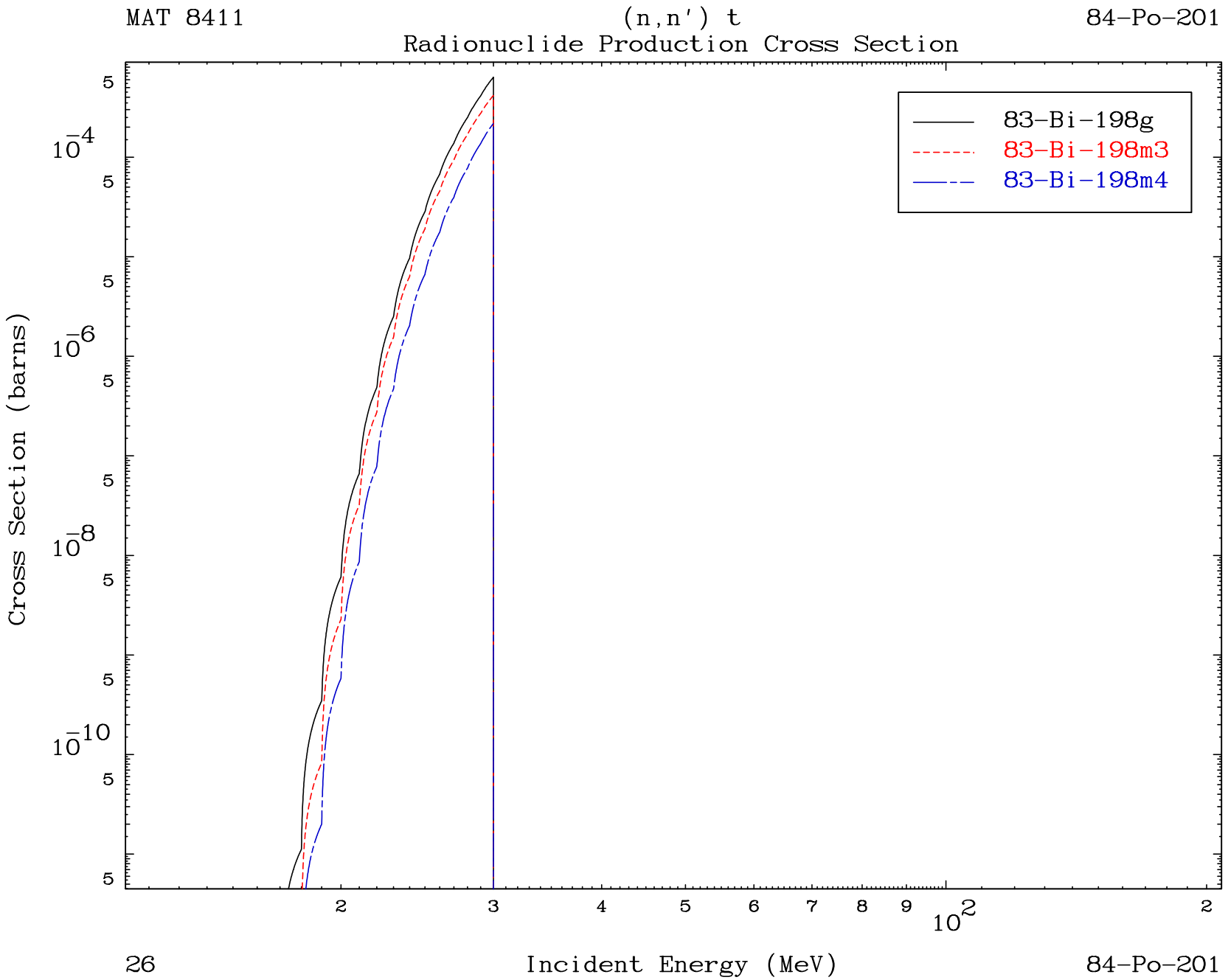

MAT 8411
(n,n') α
84-Po-201
Radionuclide Production Cross Section
82-Pb-197g
82-Pb-197m2
Cross Section (barns)
Incident Energy (MeV)
21
84-Po-201

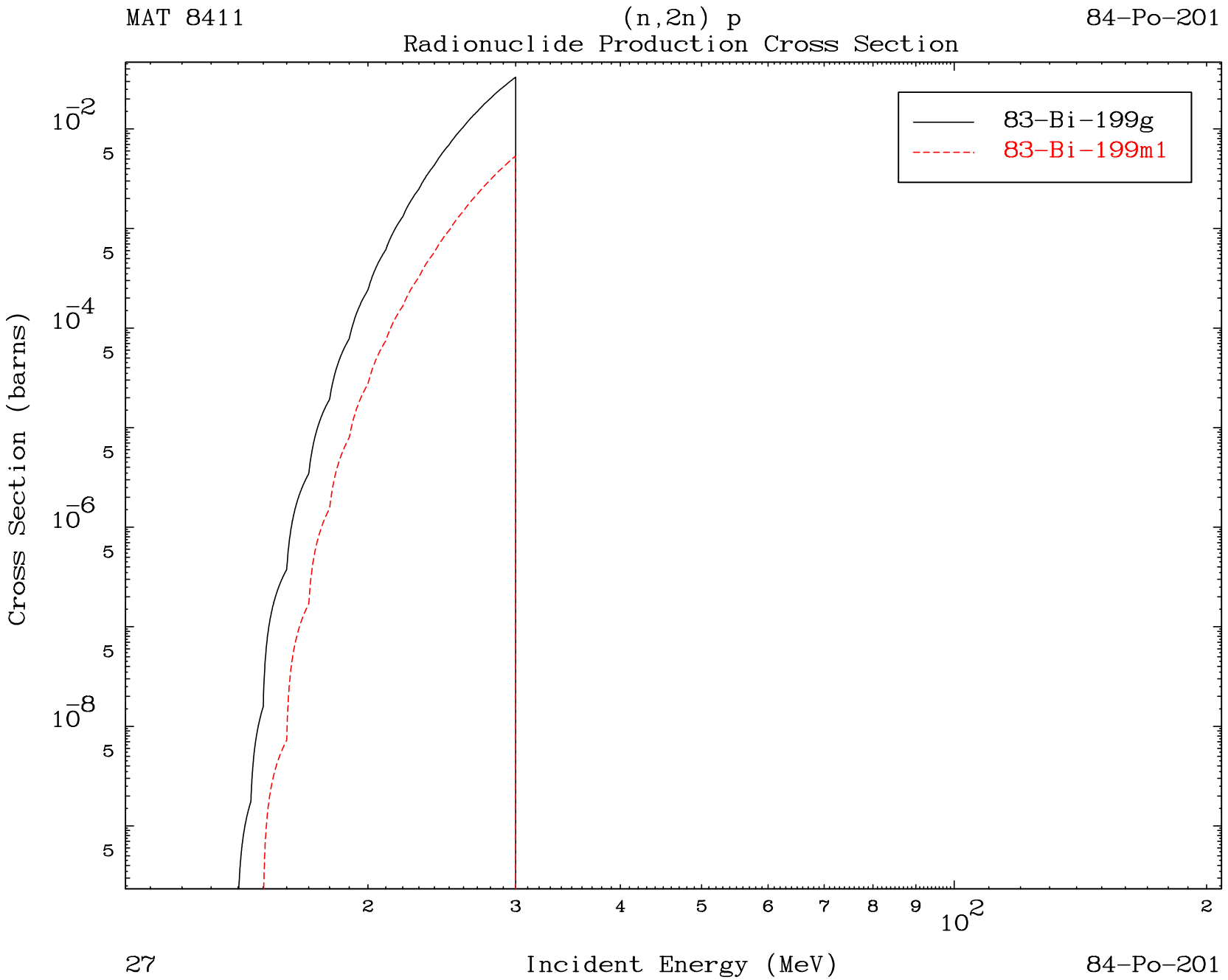

MAT 8411
(n,3n) α
84-Po-201
Radionuclide Production Cross Section
82-Pb-195g
82-Pb-195m2
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
2
3
4
5
6
7
8
9
10^2
2
22
Incident Energy (MeV)
84-Po-201

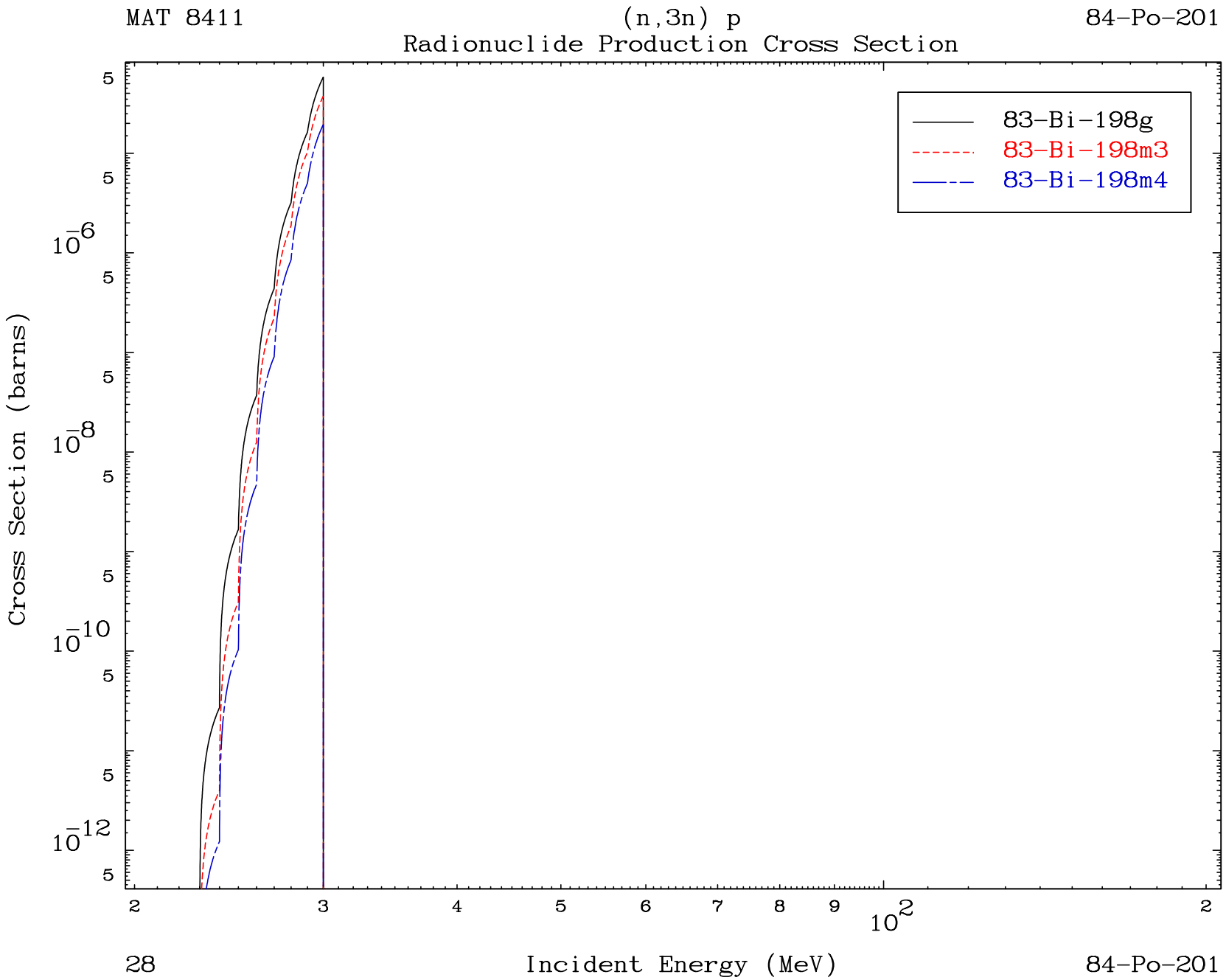

MAT 8411
(n,n') p
84-Po-201
Radionuclide Production Cross Section
83-Bi-200g
83-Bi-200m1
83-Bi-200m2
Cross Section (barns)
Incident Energy (MeV)
23
84-Po-201

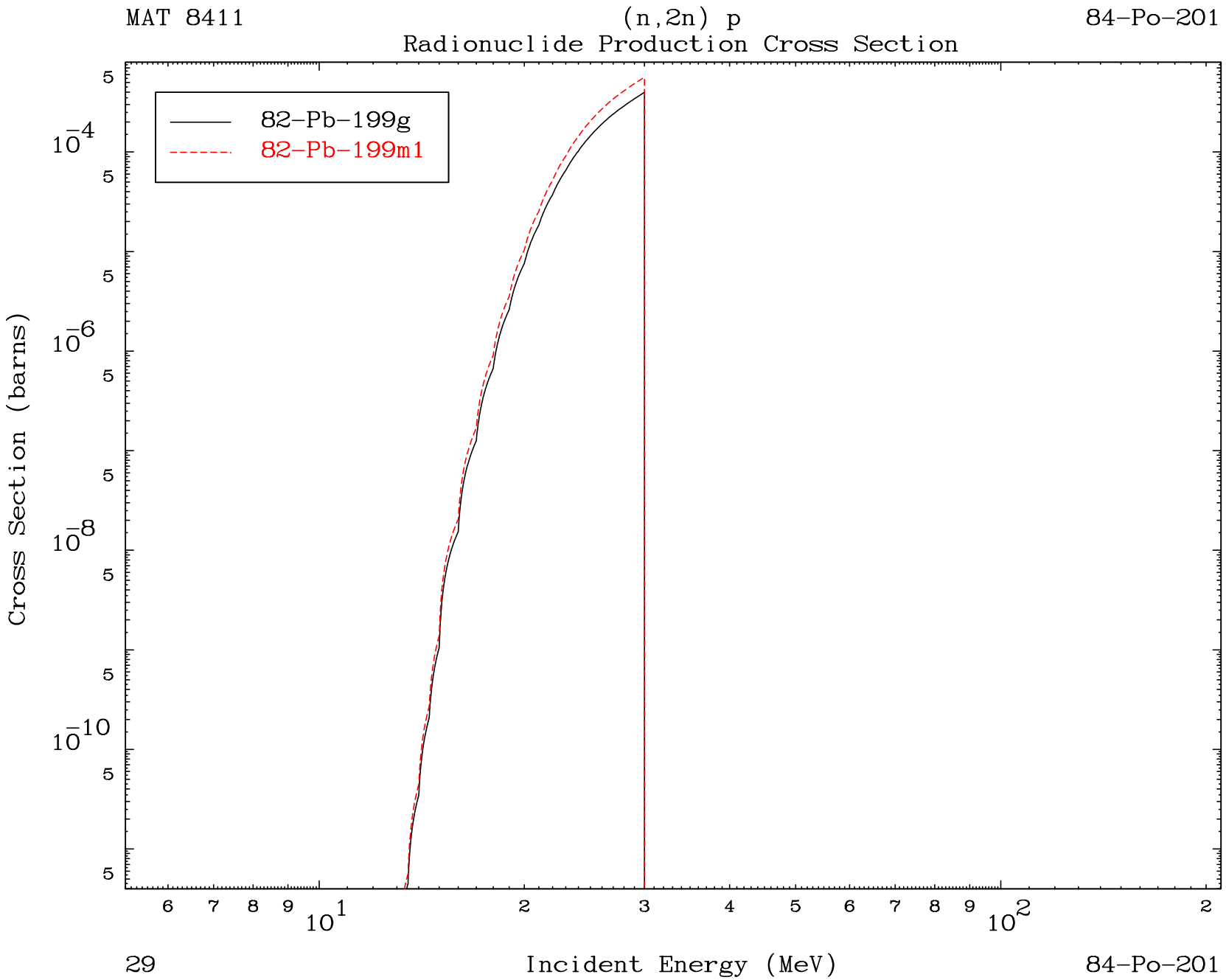

MAT 8411
(n,n') 2α
84-Po-201
Radionuclide Production Cross Section
80-Hg-193g
80-Hg-193m3
Cross Section (barns)
10^-8
10^-10
10^-12
10^-14
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
24
Incident Energy (MeV)
84-Po-201

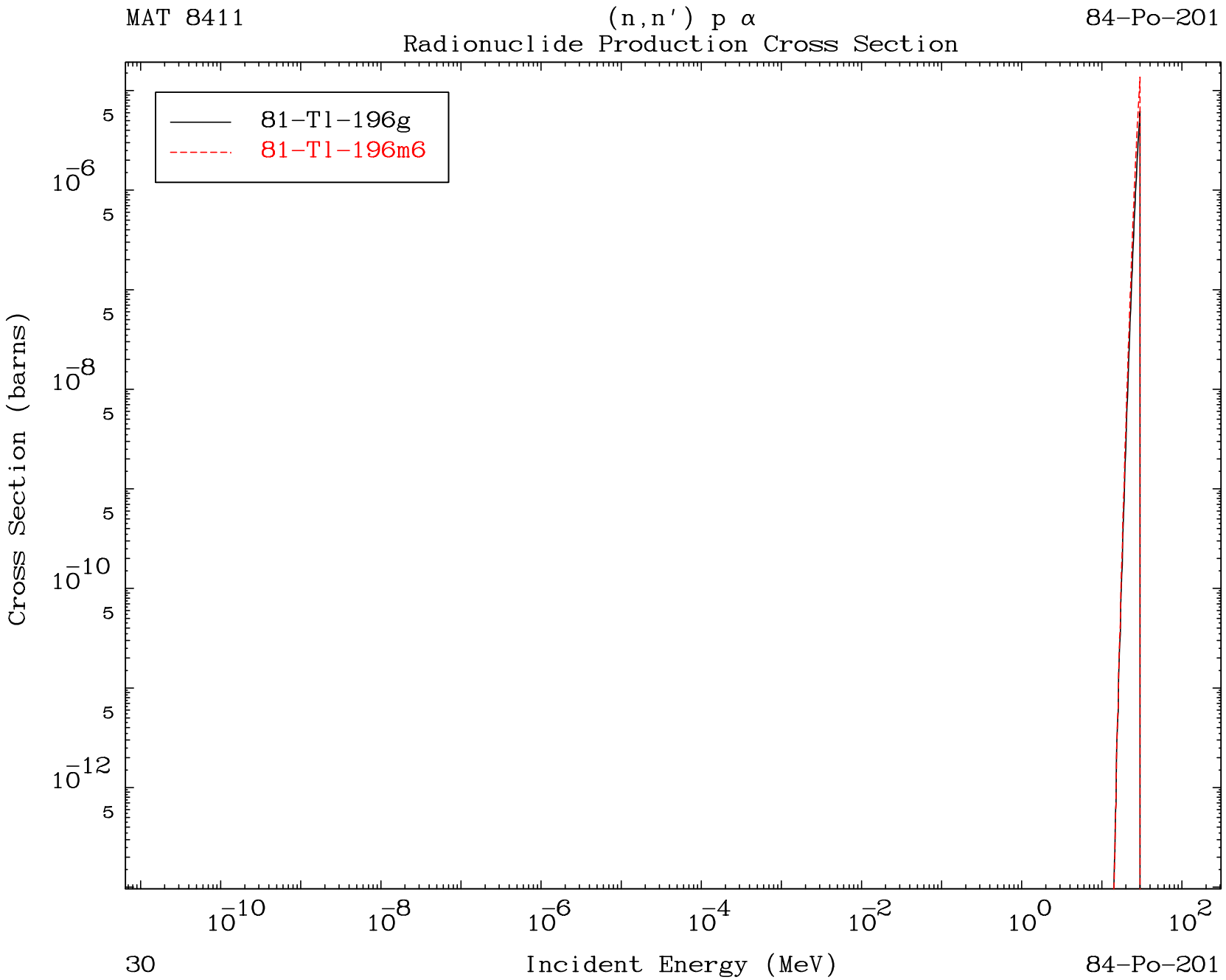

MAT 8411
(n,n') d
84-Po-201
Radionuclide Production Cross Section
83-Bi-199g
83-Bi-199m1
Cross Section (barns)
10-4
10-6
10-8
10-10
5
9
10 1
2
3
4
5
6
7
8
9
10 2
2
25
Incident Energy (MeV)
84-Po-201

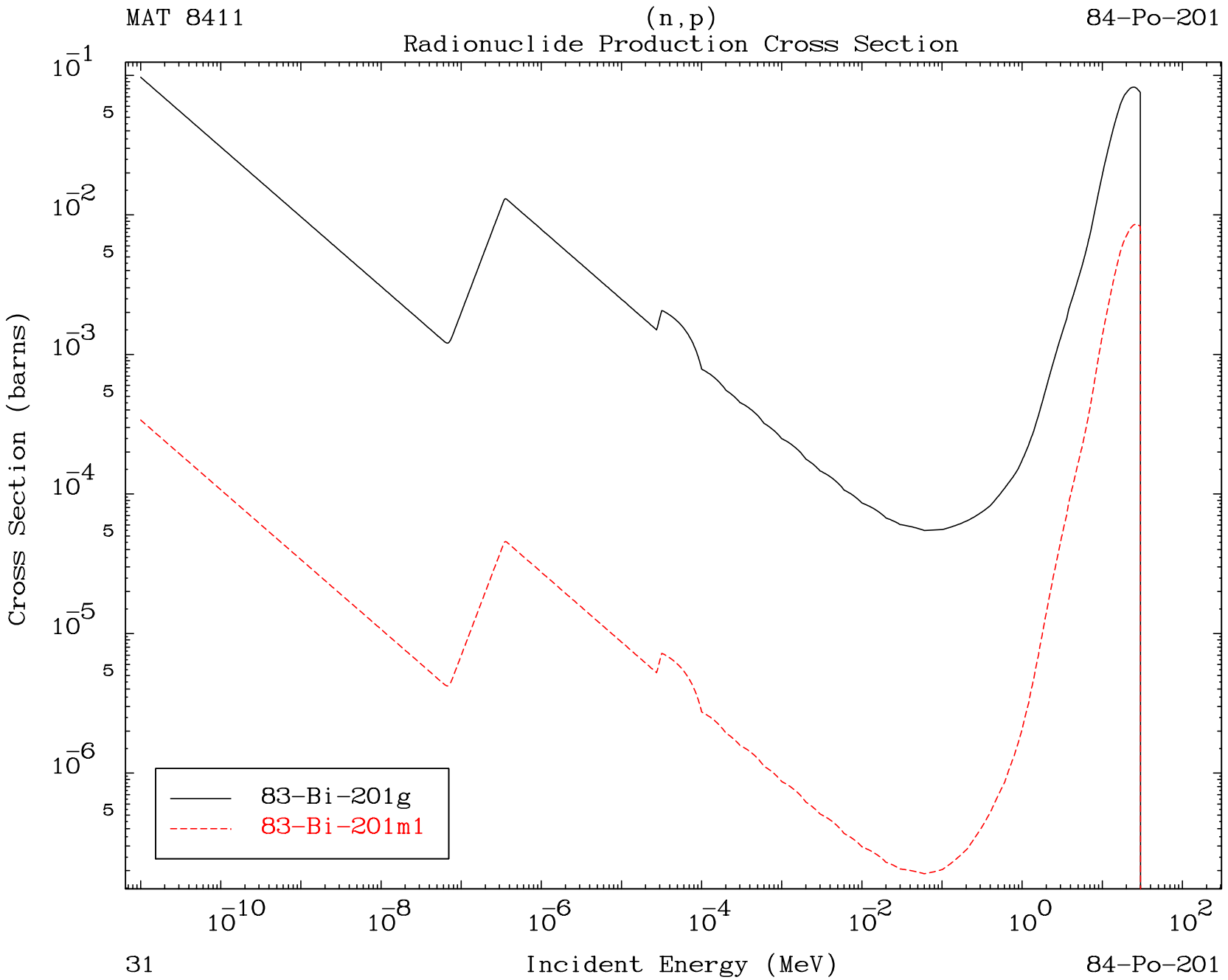

MAT 8411
(n,n') t
84-Po-201
Radionuclide Production Cross Section
83-Bi-198g
83-Bi-198m3
83-Bi-198m4
Cross Section (barns)
Incident Energy (MeV)
26
84-Po-201

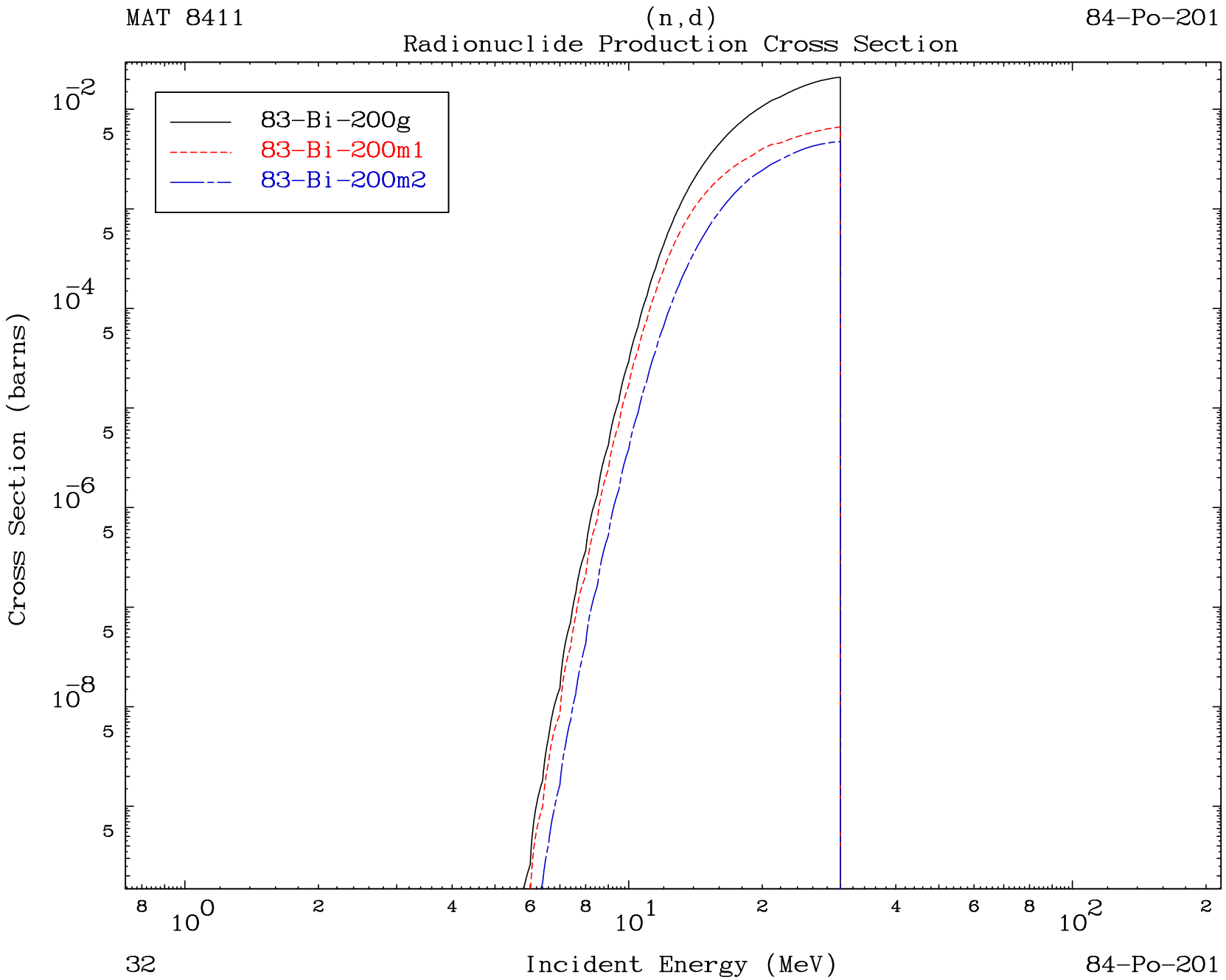

MAT 8411
(n,2n) p
84-Po-201
Radionuclide Production Cross Section
83-Bi-199g
83-Bi-199m1
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
3
4
5
6
7
8
9
10 2
2
27
Incident Energy (MeV)
84-Po-201

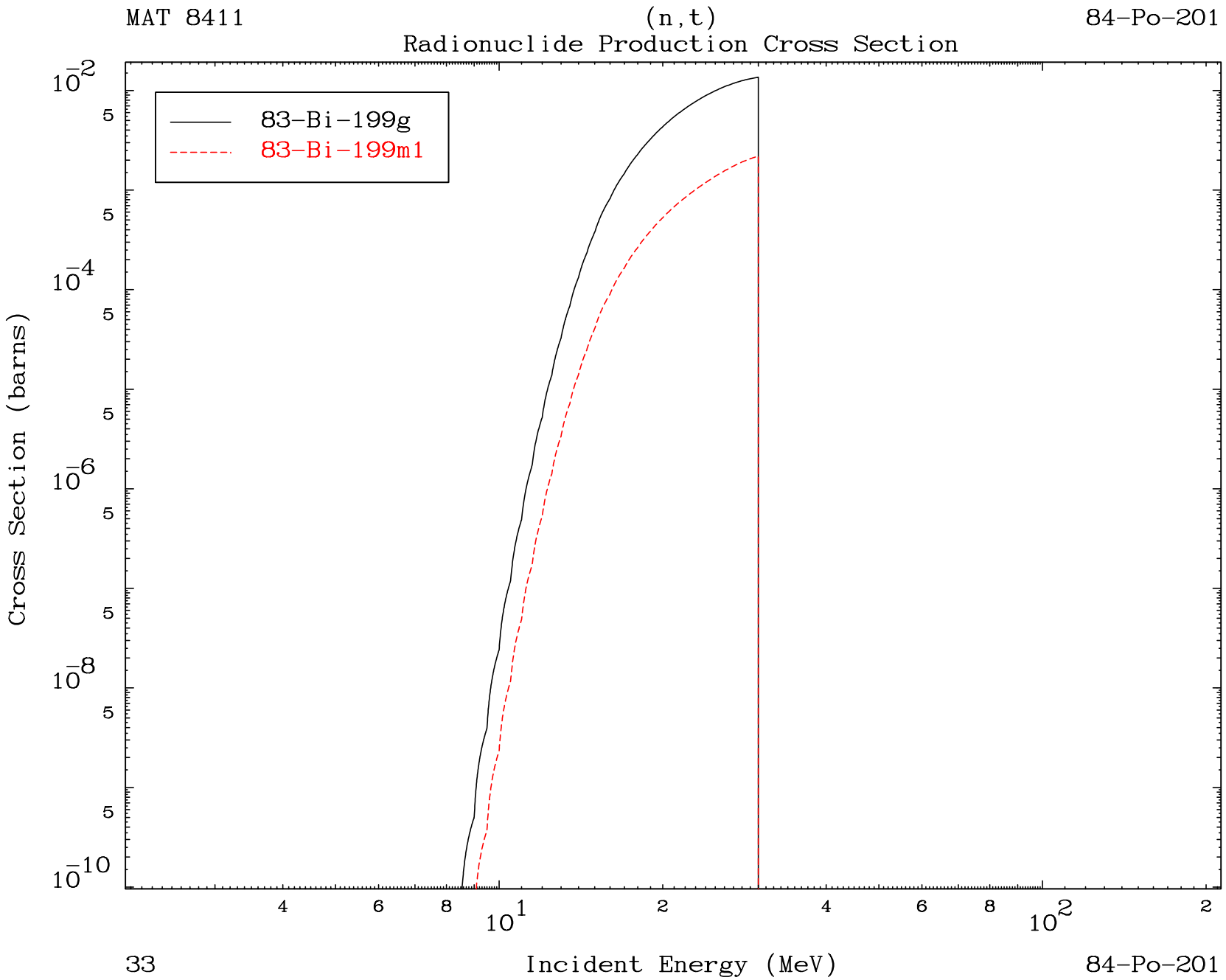

MAT 8411
(n,3n) p
84-Po-201
Radionuclide Production Cross Section
83-Bi-198g
83-Bi-198m3
83-Bi-198m4
Cross Section (barns)
Incident Energy (MeV)
28
84-Po-201

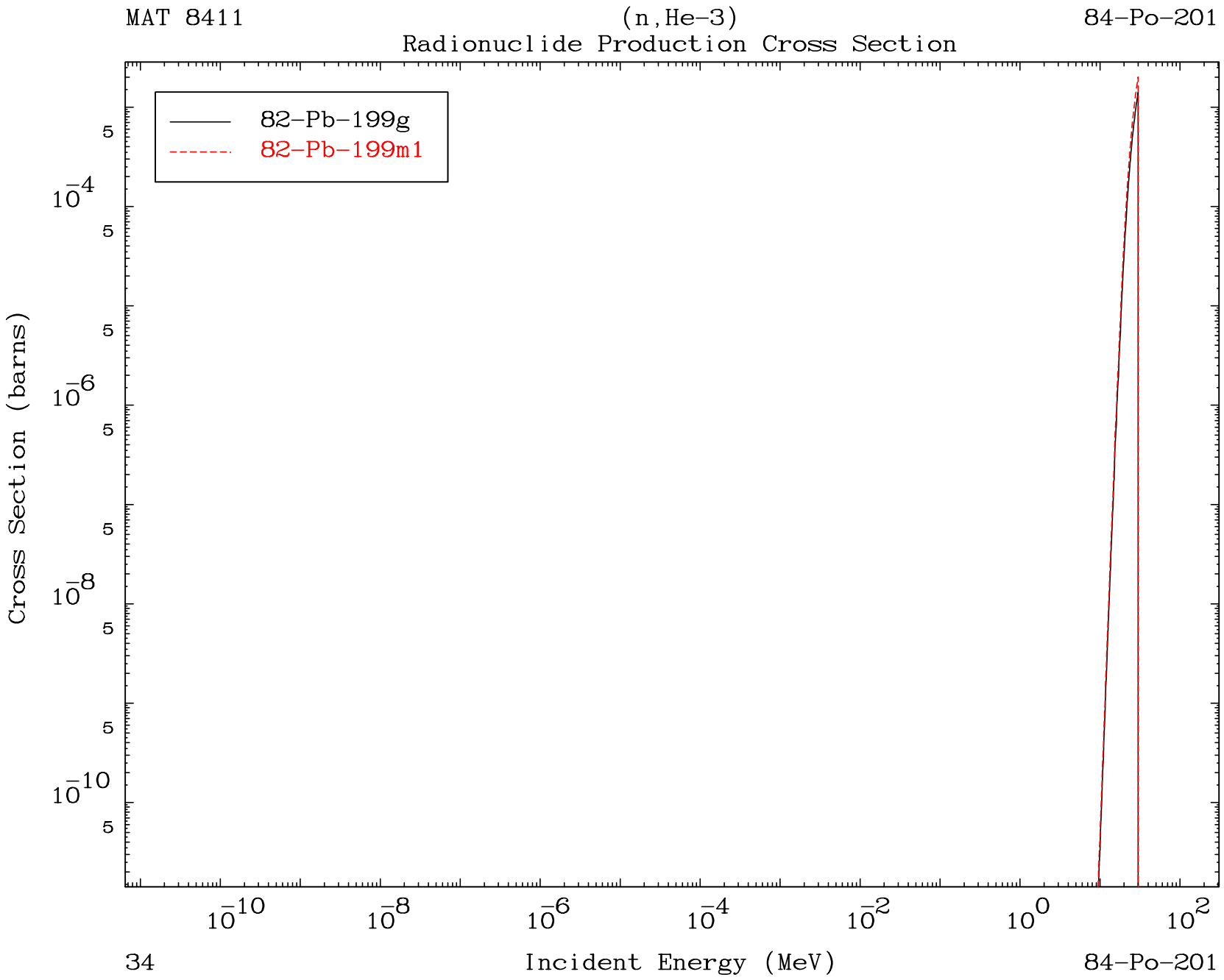

MAT 8411
(n,2n) p
84-Po-201
Radionuclide Production Cross Section
82-Pb-199g
82-Pb-199m1
Cross Section (barns)
Incident Energy (MeV)
29
84-Po-201

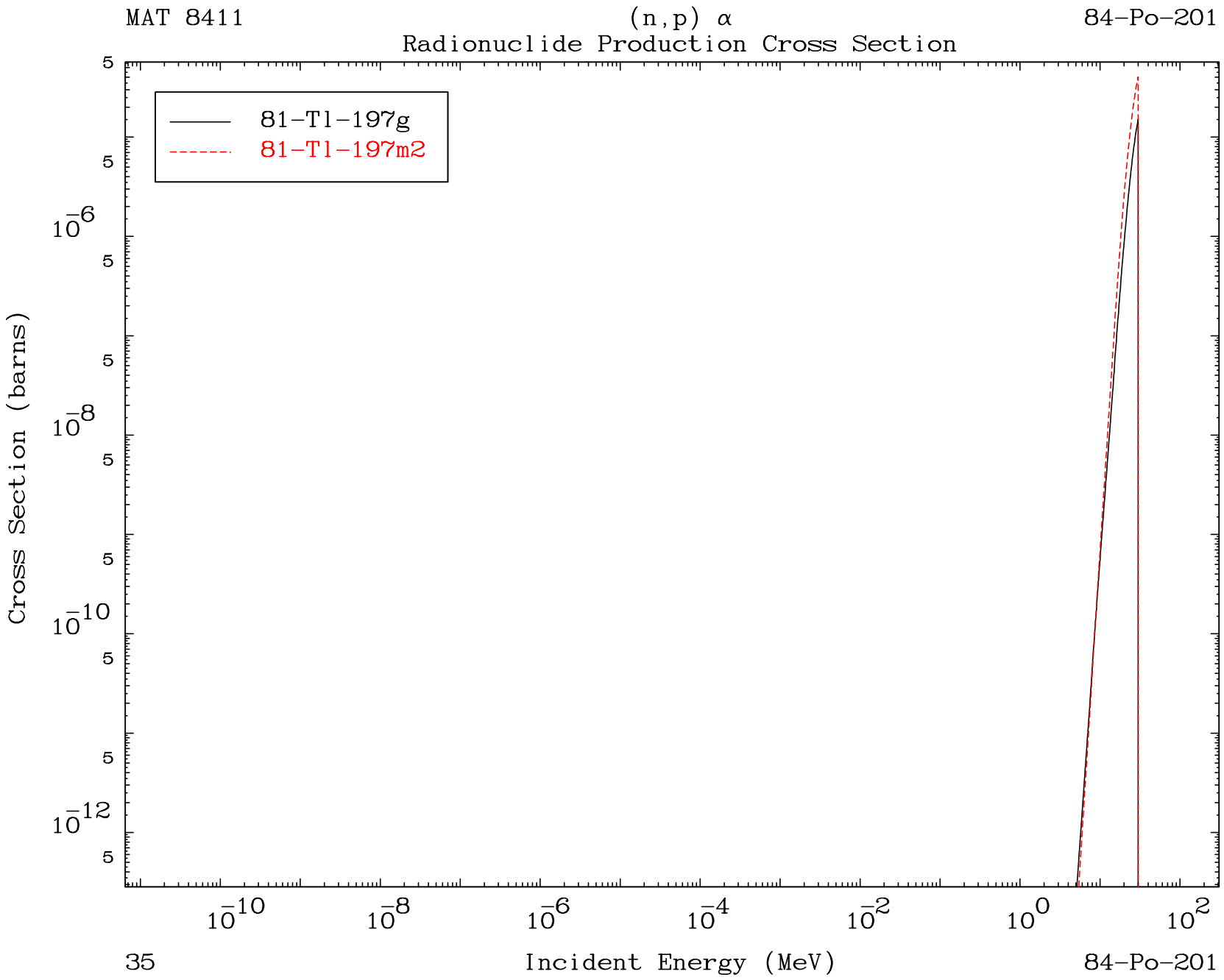

MAT 8411
(n,n') p α
84-Po-201
Radionuclide Production Cross Section
81-Tl-196g
81-Tl-196m6
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
30
Incident Energy (MeV)
84-Po-201

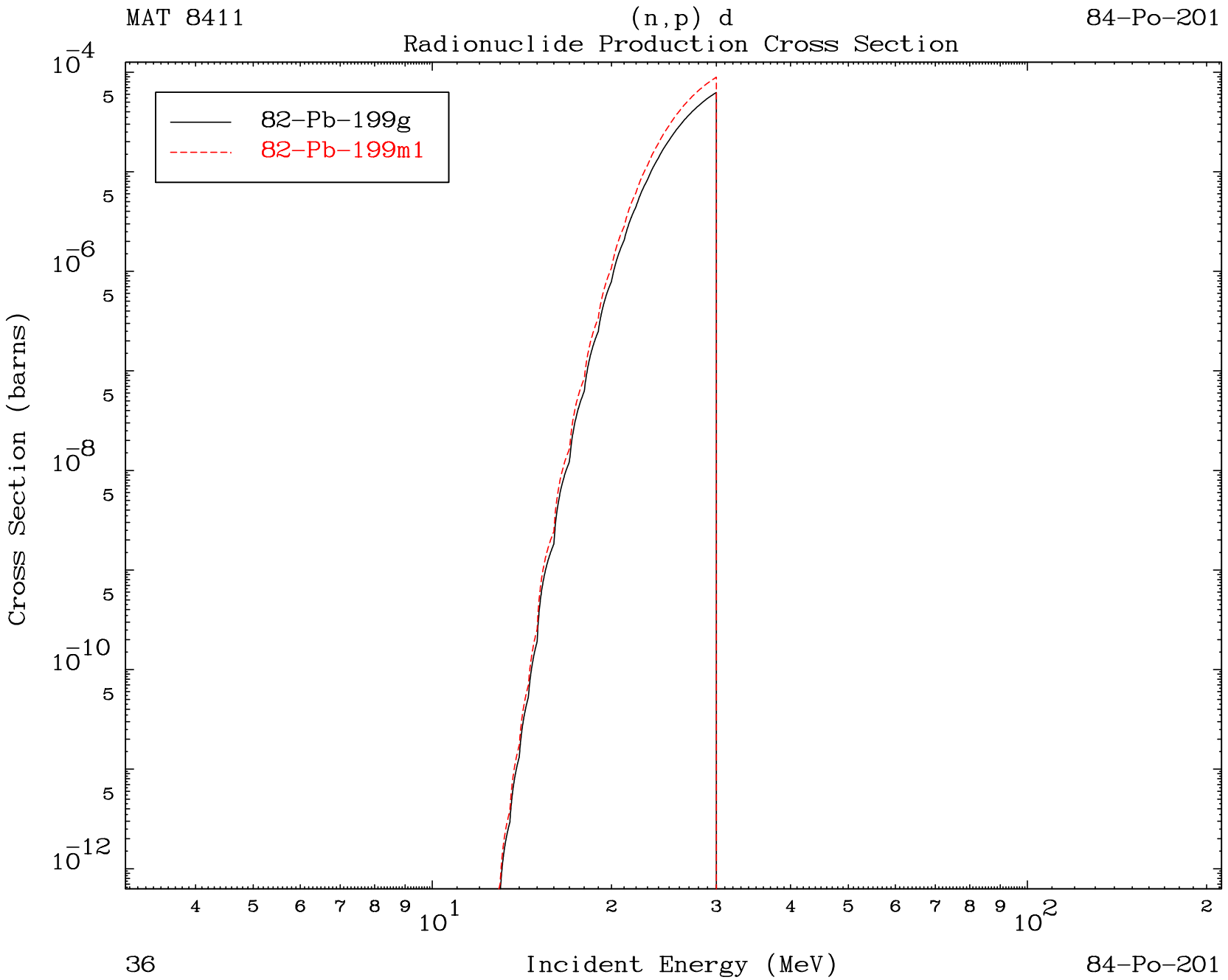

MAT 8411
(n,p)
84-Po-201
Radionuclide Production Cross Section
Cross Section (barns)
10-1
5
10-2
5
10-3
5
10-4
5
10-5
5
10-6
5
83-Bi-201g
83-Bi-201m1
10-10
10-8
10-6
10-4
10-2
100
102
31
Incident Energy (MeV)
84-Po-201

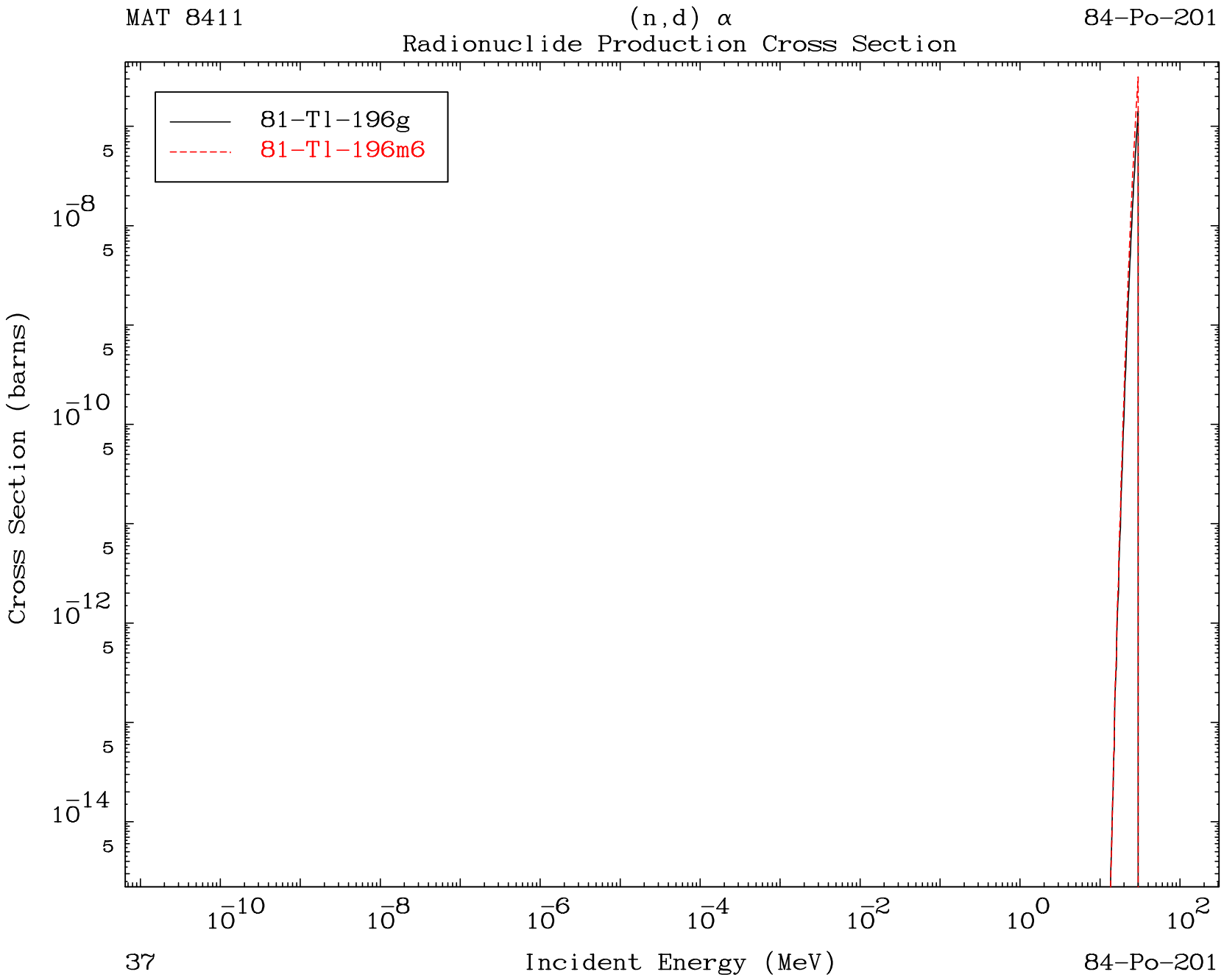

MAT 8411
(n,d)
84-Po-201
Radionuclide Production Cross Section
83-Bi-200g
83-Bi-200m1
83-Bi-200m2
Cross Section (barns)
Incident Energy (MeV)
32
84-Po-201


MAT 8411
(n,t)
84-Po-201
Radionuclide Production Cross Section
83-Bi-199g
83-Bi-199m1
Cross Section (barns)
Incident Energy (MeV)
33
84-Po-201


MAT 8411
(n,He-3)
84-Po-201
Radionuclide Production Cross Section
82-Pb-199g
82-Pb-199m1
Cross Section (barns)
Incident Energy (MeV)
34
84-Po-201


MAT 8411
(n,p) α
84-Po-201
Radionuclide Production Cross Section
81-Tl-197g
81-Tl-197m2
Cross Section (barns)
Incident Energy (MeV)
35
84-Po-201


MAT 8411
(n,p) d
84-Po-201
Radionuclide Production Cross Section
82-Pb-199g
82-Pb-199m1
Cross Section (barns)
Incident Energy (MeV)
36
84-Po-201


MAT 8411
(n,d) α
84-Po-201
Radionuclide Production Cross Section
81-Tl-196g
81-Tl-196m6
Cross Section (barns)
10-8
10-10
10-12
10-14
5
10-10
10-8
10-6
10-4
10-2
100
102
37
Incident Energy (MeV)
84-Po-201