Program EVALPLOT
(Version 2017-1)
by
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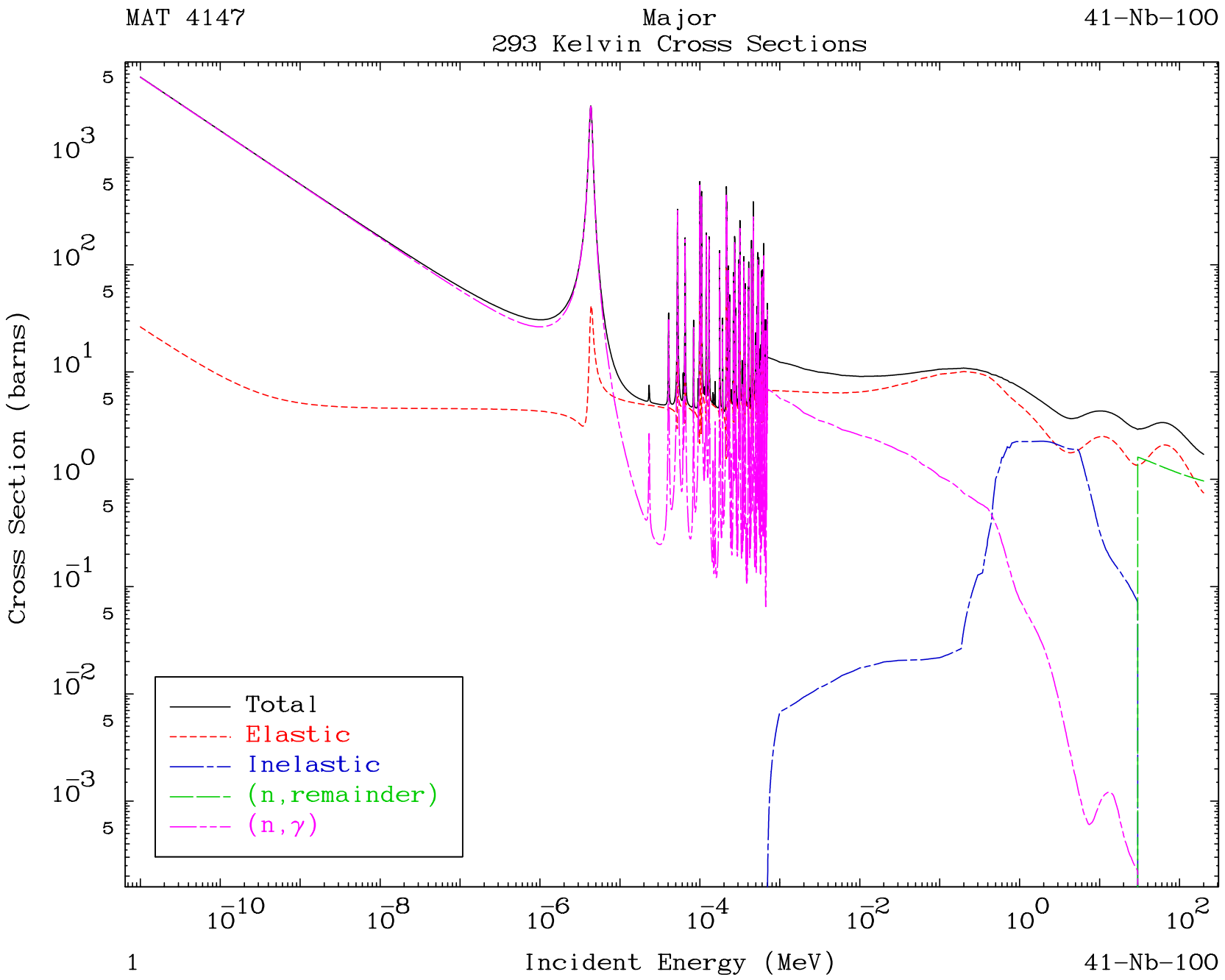
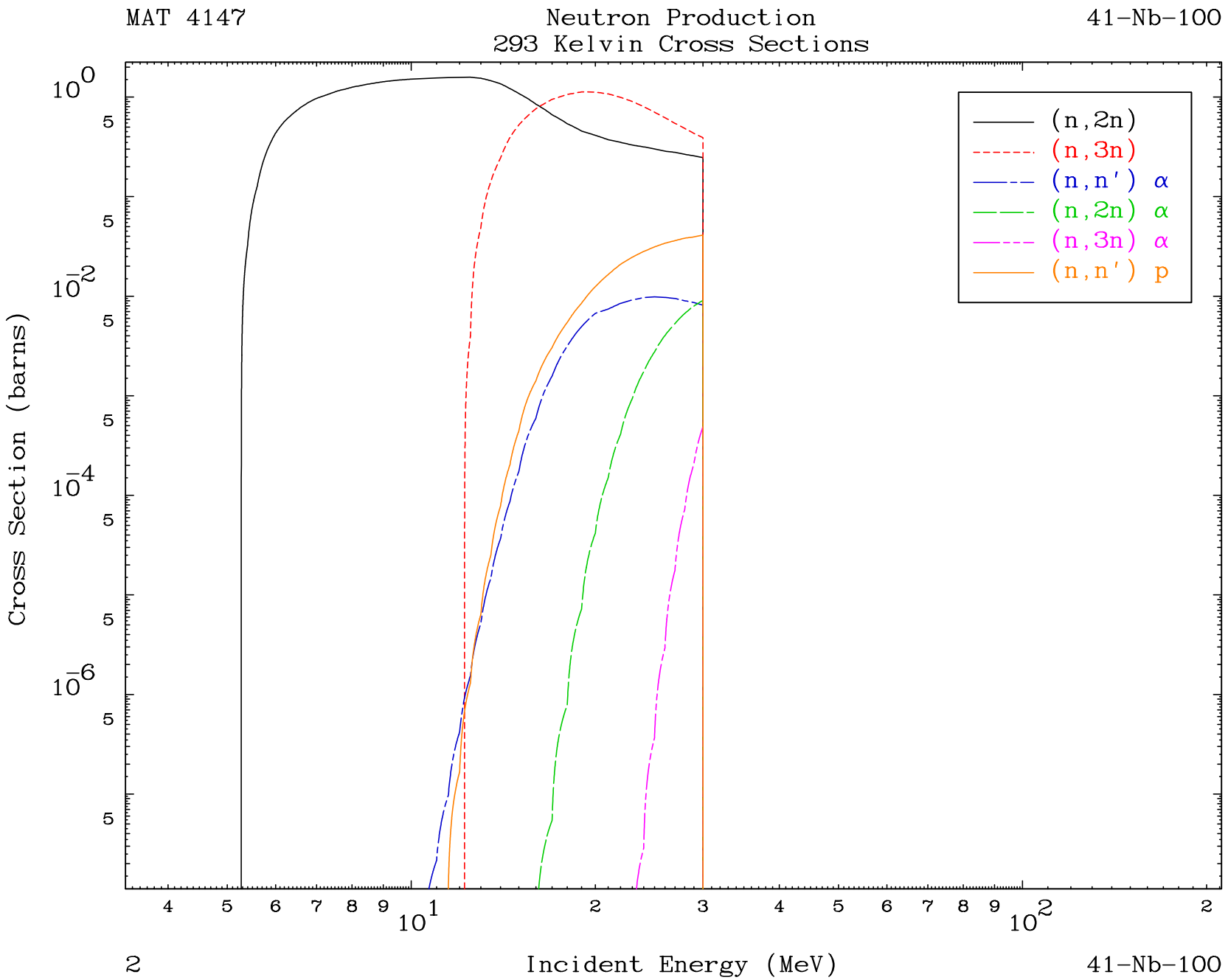
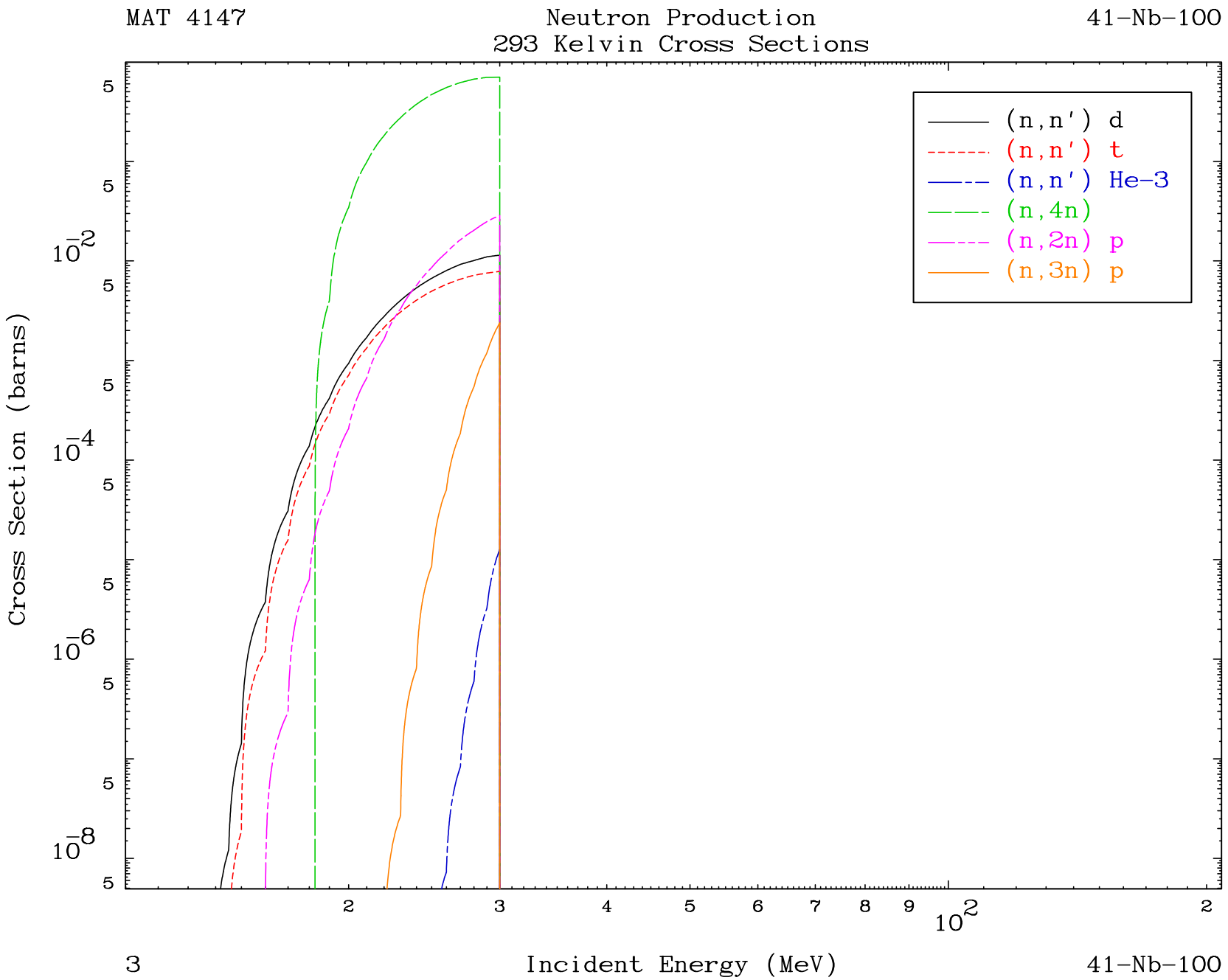
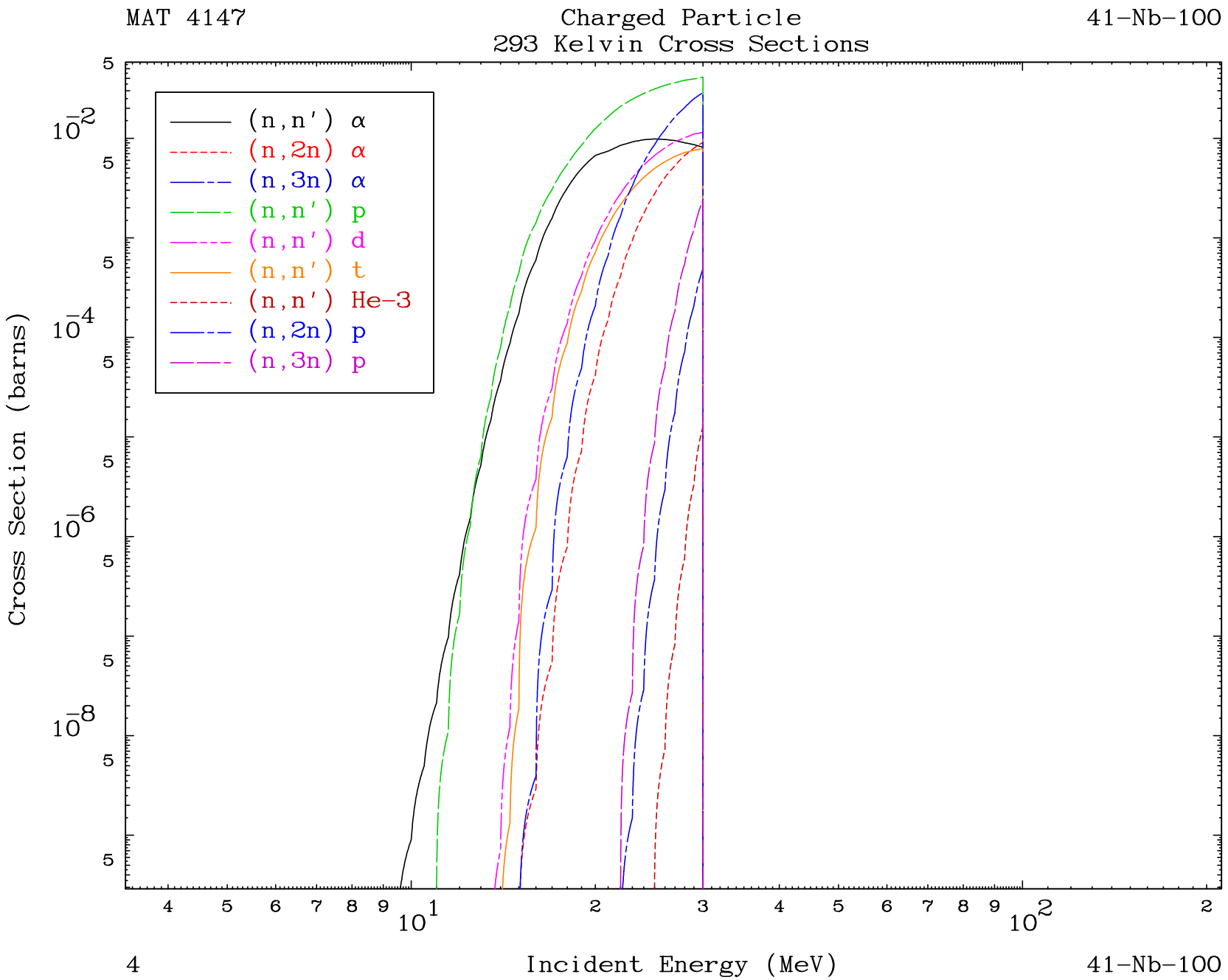
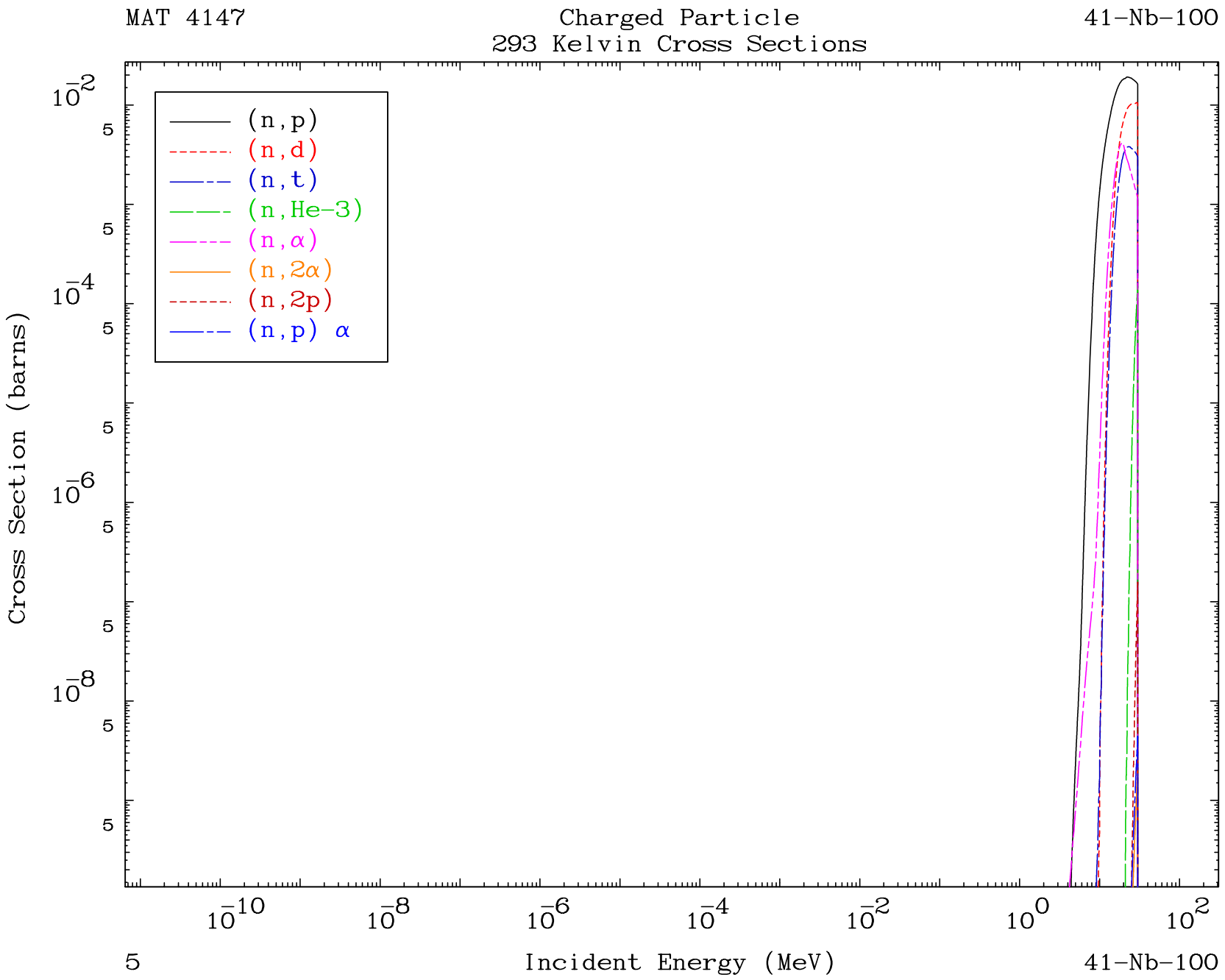
Press Mouse Button to Start

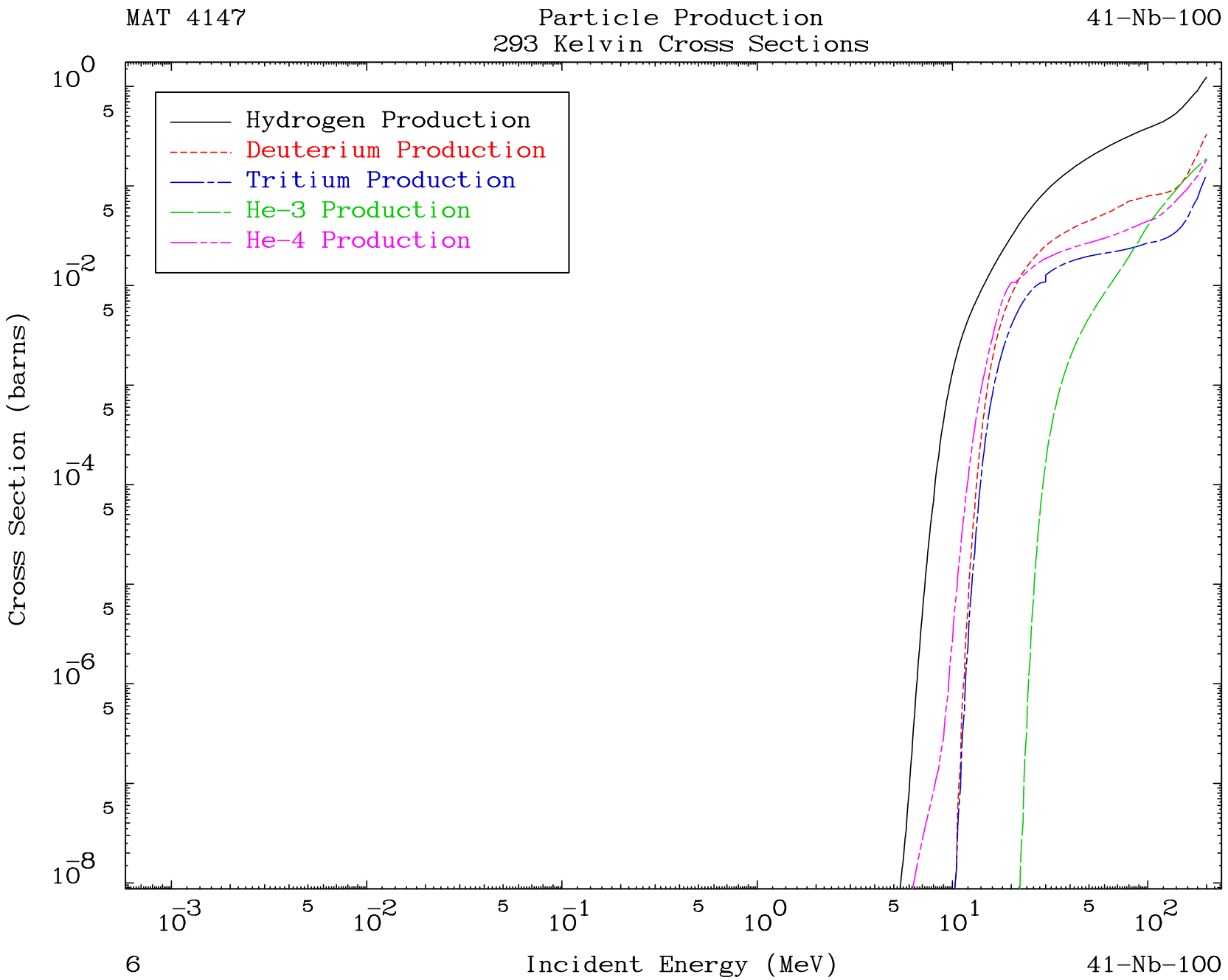

MAT 4147
Major
41-Nb-100
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
41-Nb-100
1
Total
Elastic
Inelastic
(n,remainder)
(n,γ)

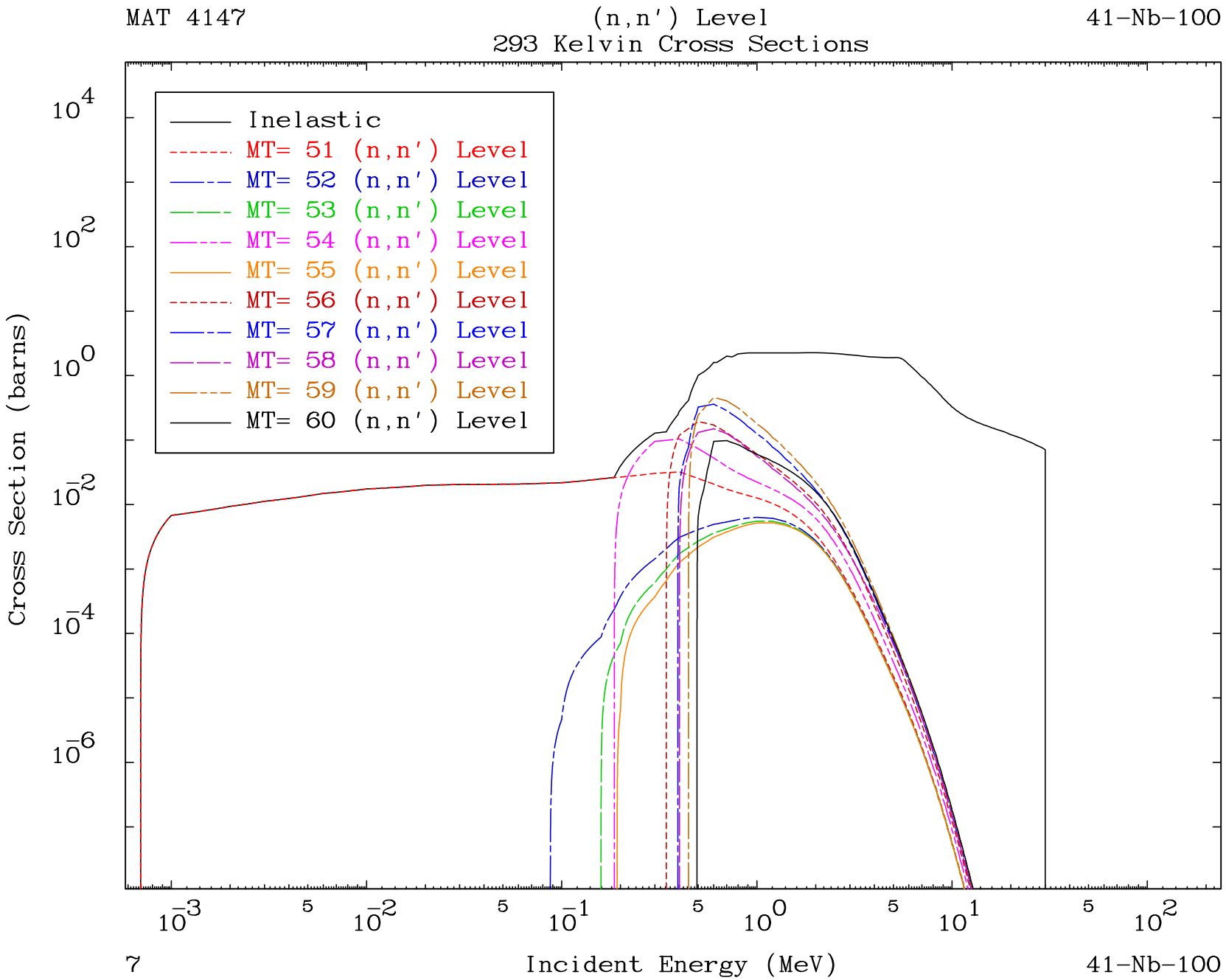

MAT 4147
Neutron Production
293 Kelvin Cross Sections
41-Nb-100
Cross Section (barns)
Incident Energy (MeV)
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p

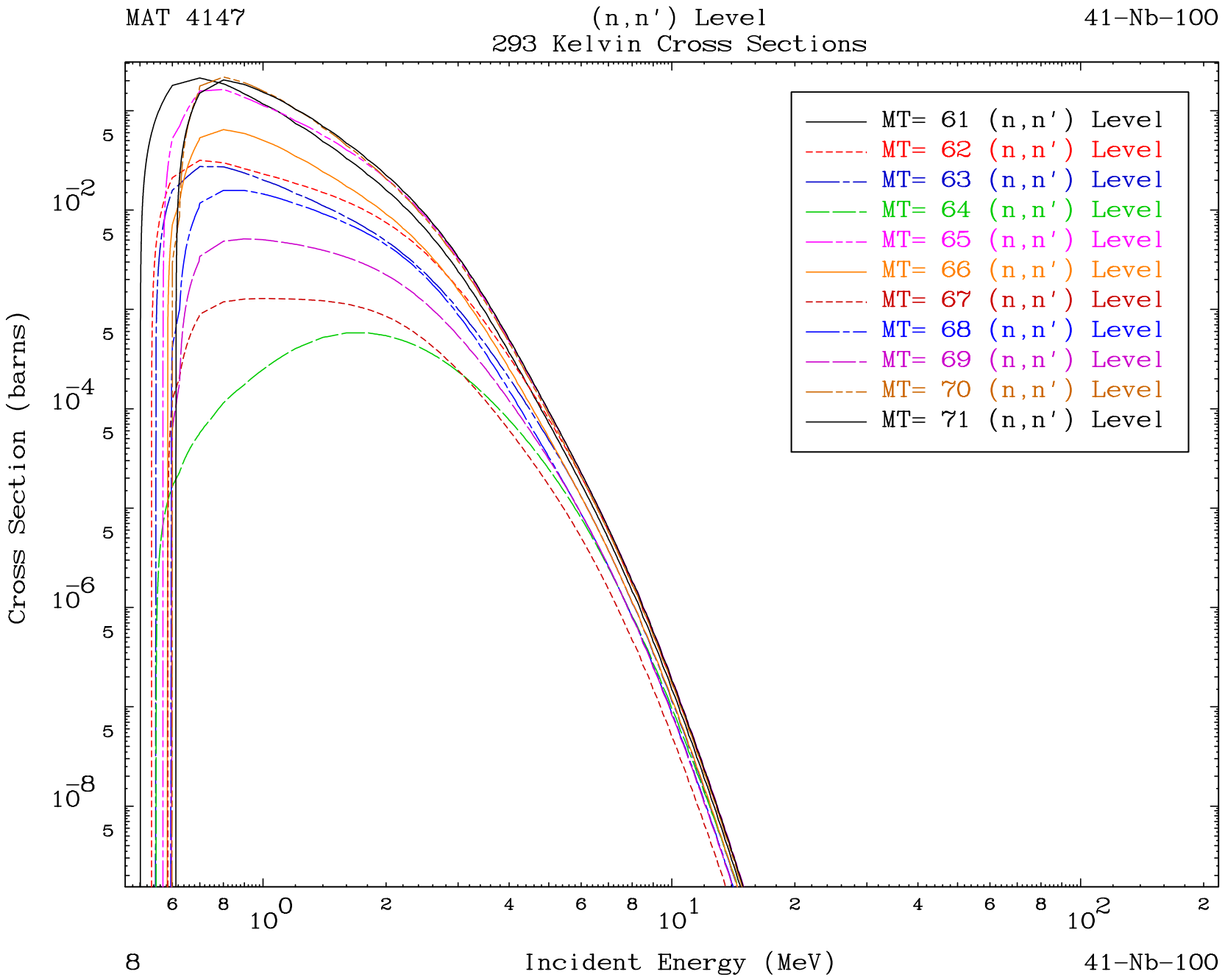

MAT 4147
Neutron Production
293 Kelvin Cross Sections
41-Nb-100
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
3
41-Nb-100

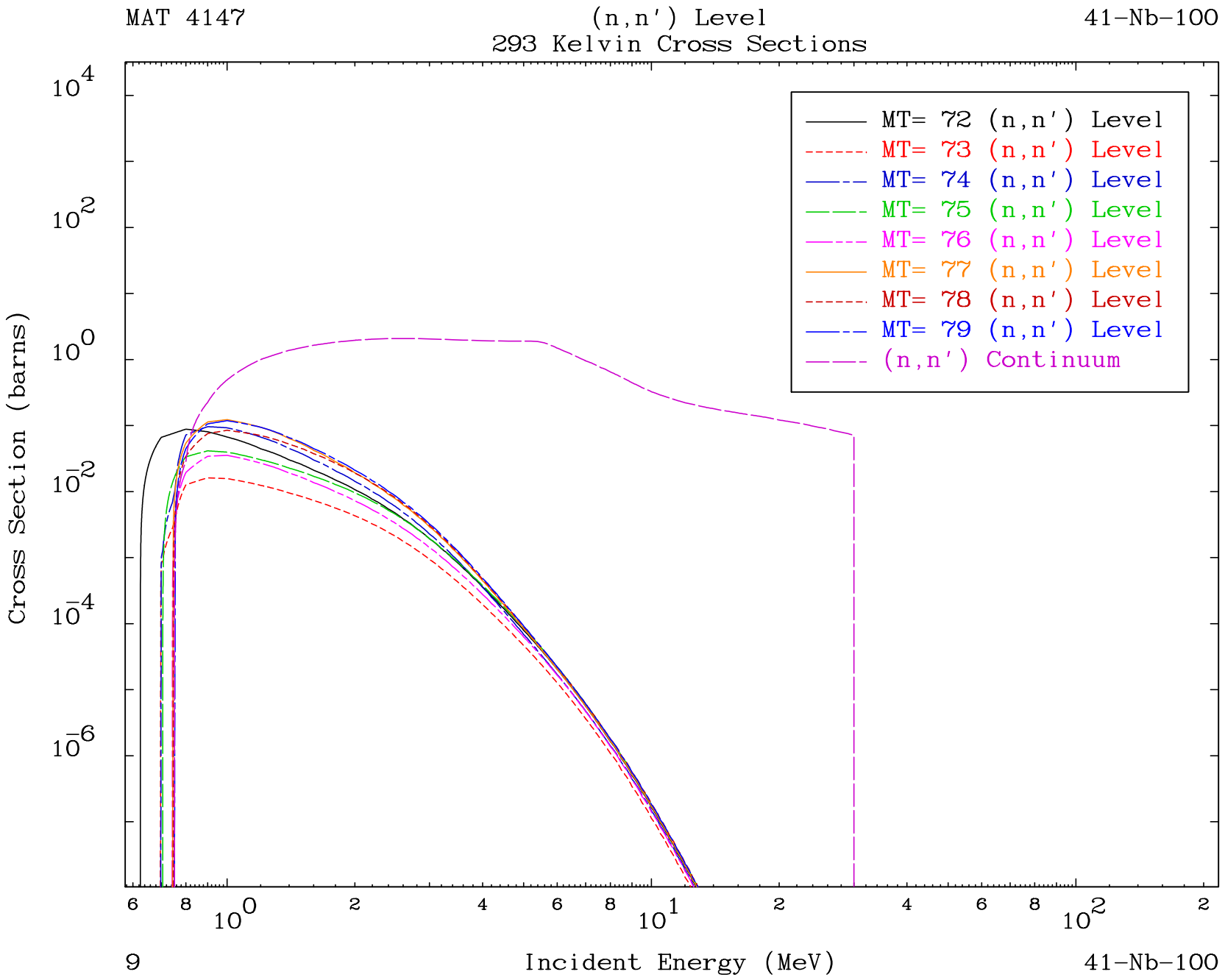

MAT 4147
Charged Particle
41-Nb-100
293 Kelvin Cross Sections
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
41-Nb-100
4

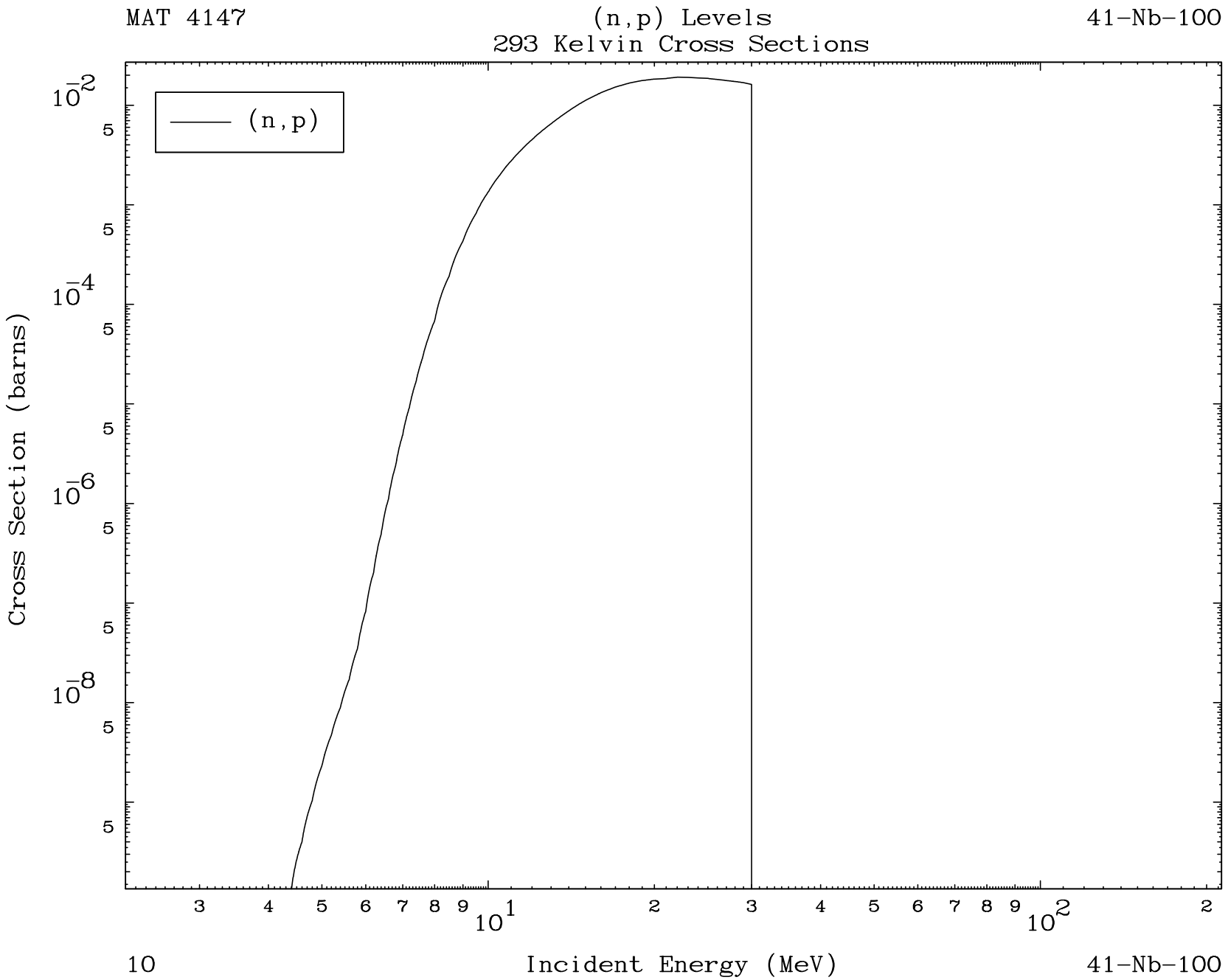

MAT 4147
Charged Particle
41-Nb-100
293 Kelvin Cross Sections
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
Cross Section (barns)
Incident Energy (MeV)
41-Nb-100
5

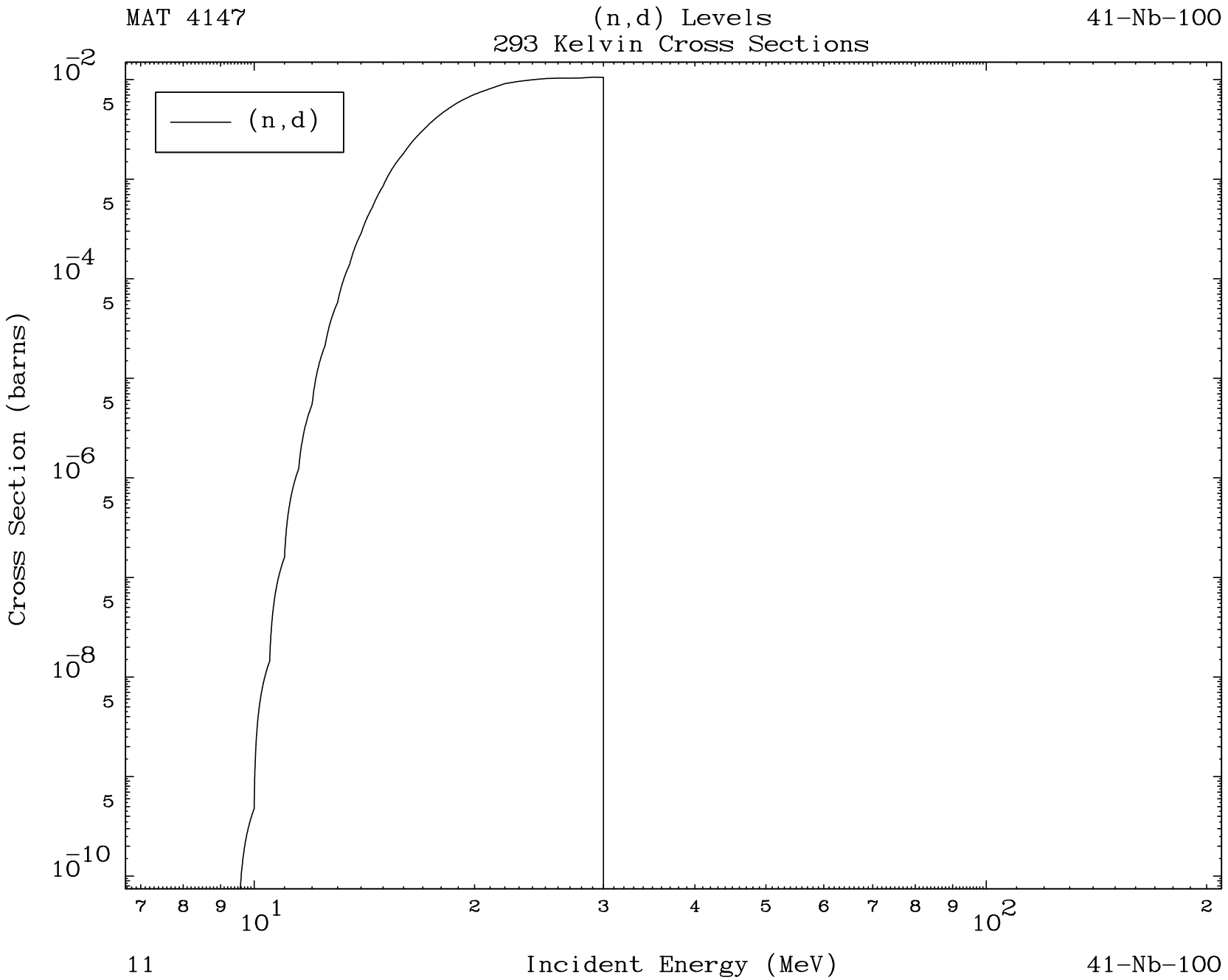

MAT 4147
Particle Production
41-Nb-100
293 Kelvin Cross Sections
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Cross Section (barns)
Incident Energy (MeV)
41-Nb-100
6

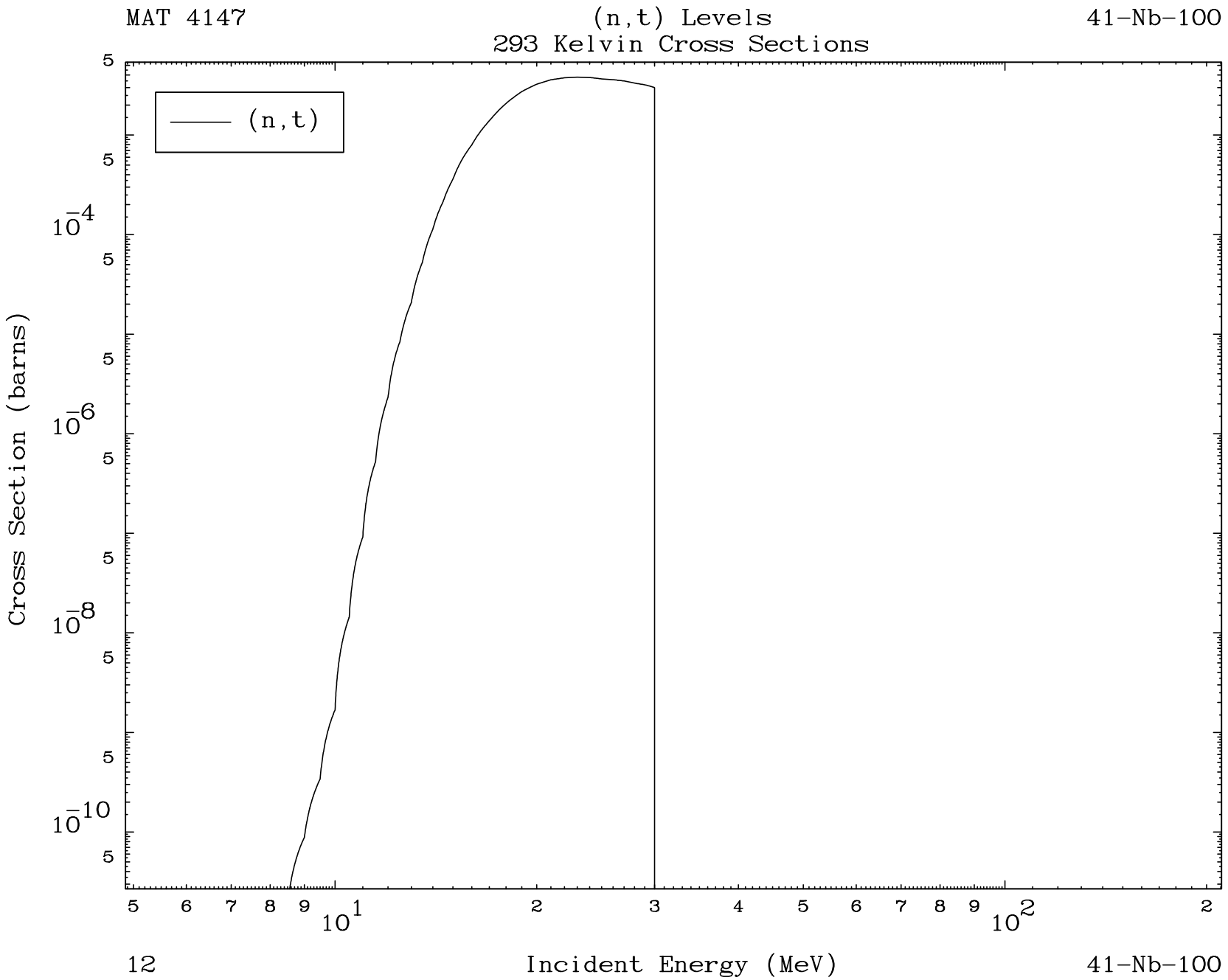

MAT 4147
(n,n') Level
41-Nb-100
293 Kelvin Cross Sections
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
MT= 59 (n,n') Level
MT= 60 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
7
41-Nb-100

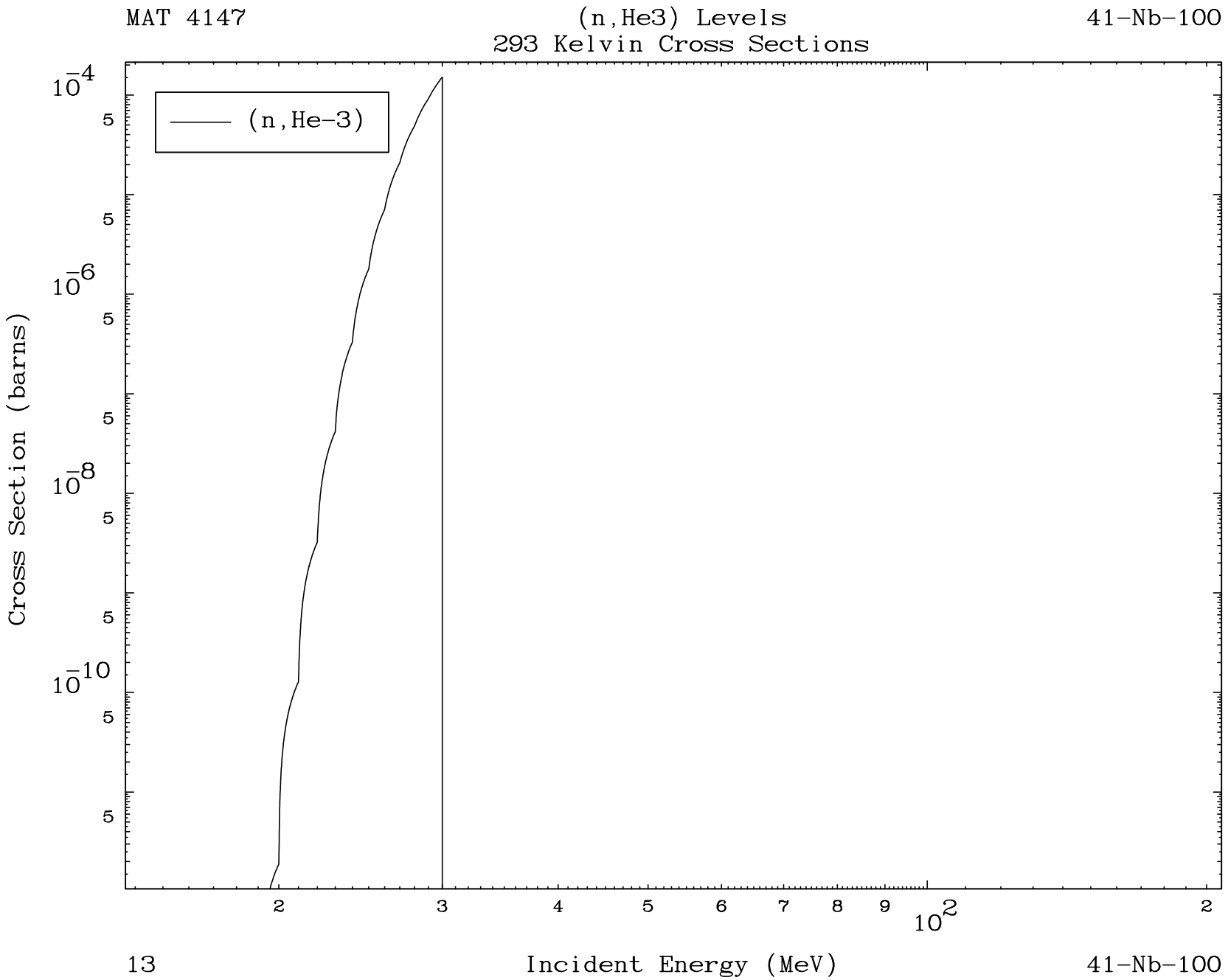

MAT 4147
(n,n') Level
293 Kelvin Cross Sections
41-Nb-100
MT= 61 (n,n') Level
MT= 62 (n,n') Level
MT= 63 (n,n') Level
MT= 64 (n,n') Level
MT= 65 (n,n') Level
MT= 66 (n,n') Level
MT= 67 (n,n') Level
MT= 68 (n,n') Level
MT= 69 (n,n') Level
MT= 70 (n,n') Level
MT= 71 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
8
41-Nb-100

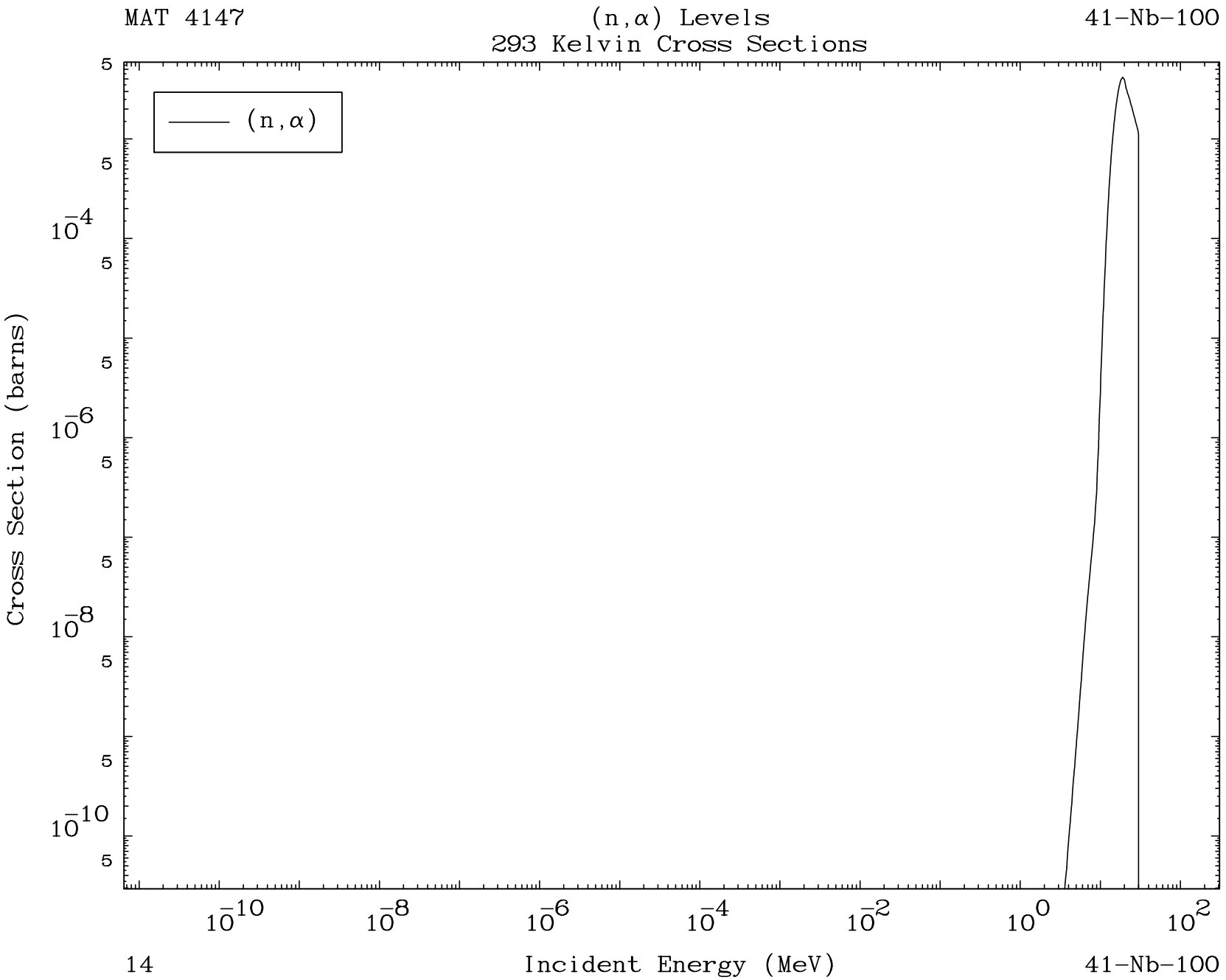

MAT 4147
(n,n') Level
293 Kelvin Cross Sections
41-Nb-100
MT= 72 (n,n') Level
MT= 73 (n,n') Level
MT= 74 (n,n') Level
MT= 75 (n,n') Level
MT= 76 (n,n') Level
MT= 77 (n,n') Level
MT= 78 (n,n') Level
MT= 79 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
9
41-Nb-100

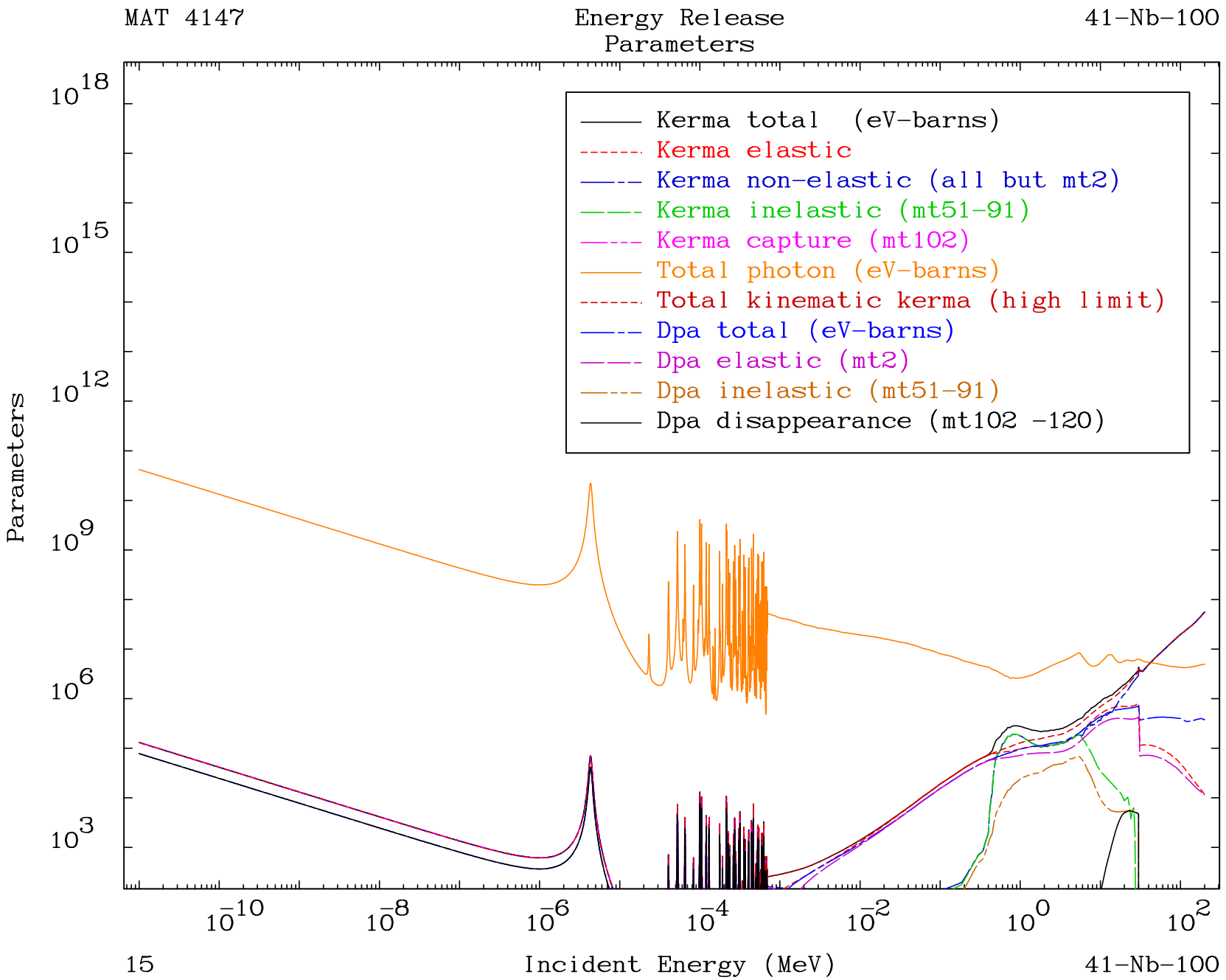

MAT 4147
(n,p) Levels
41-Nb-100
293 Kelvin Cross Sections
(n,p)
Cross Section (barns)
Incident Energy (MeV)
41-Nb-100
10

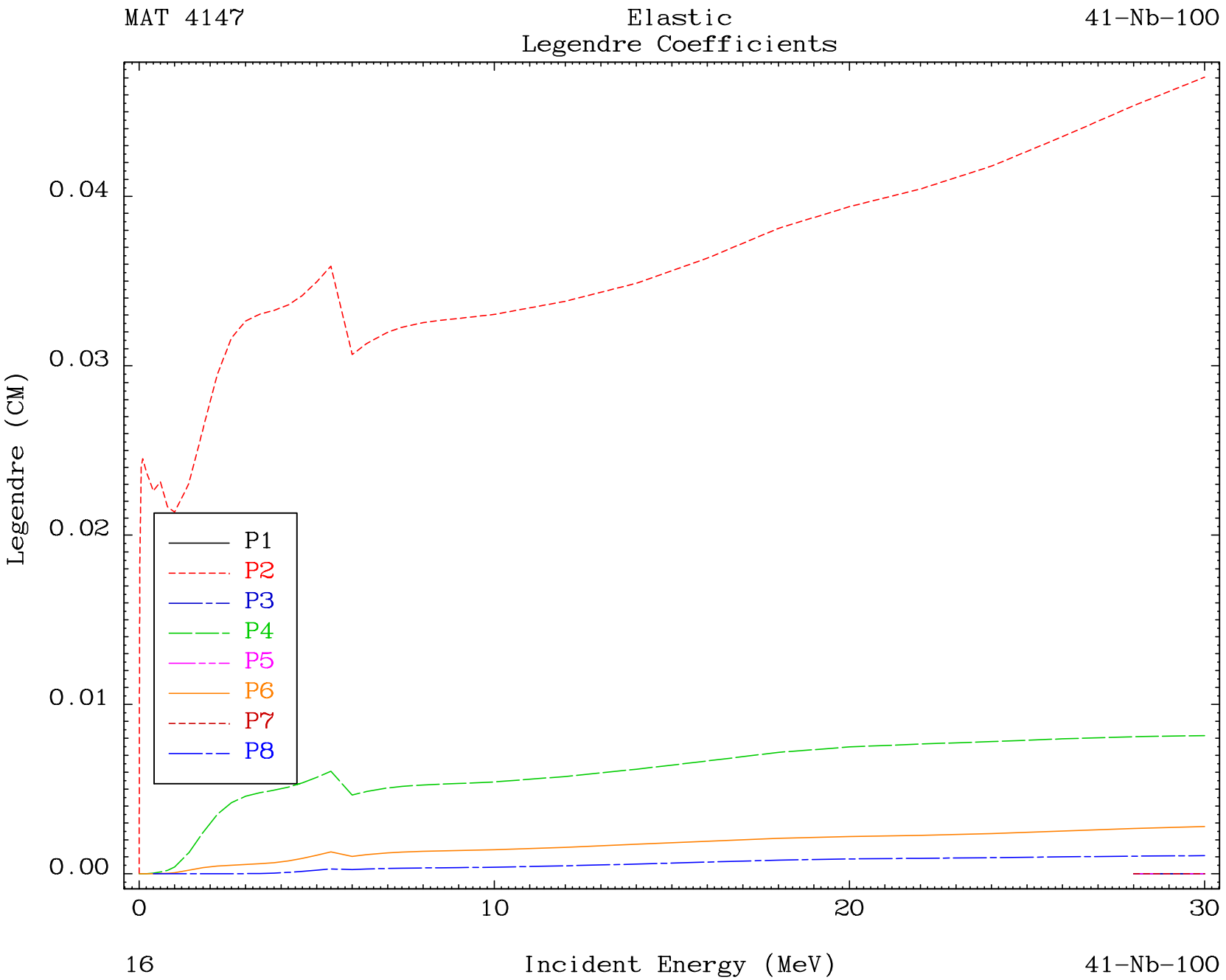

MAT 4147
(n,d) Levels
41-Nb-100
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
11
41-Nb-100

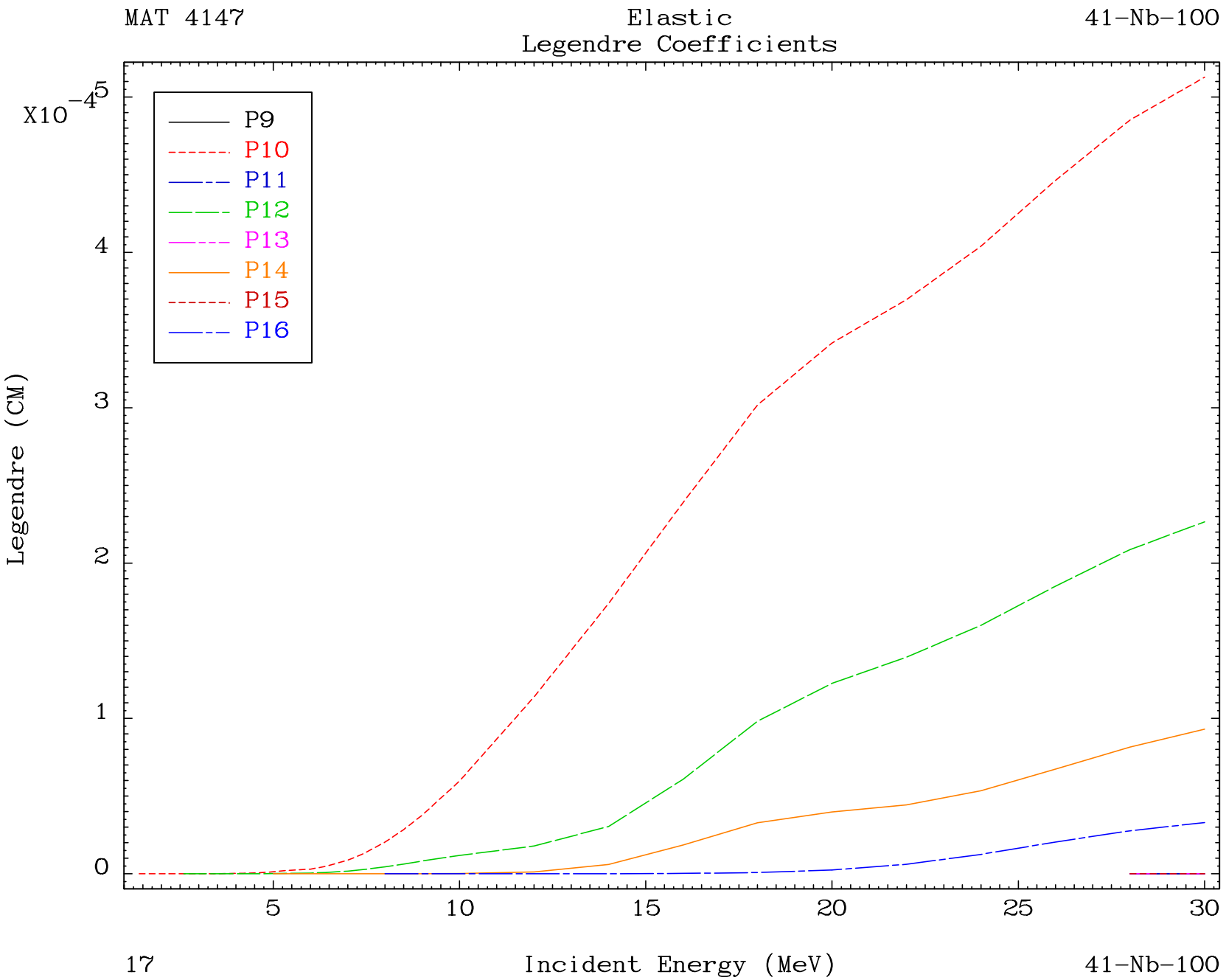

MAT 4147
(n,t) Levels
41-Nb-100
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
12
41-Nb-100

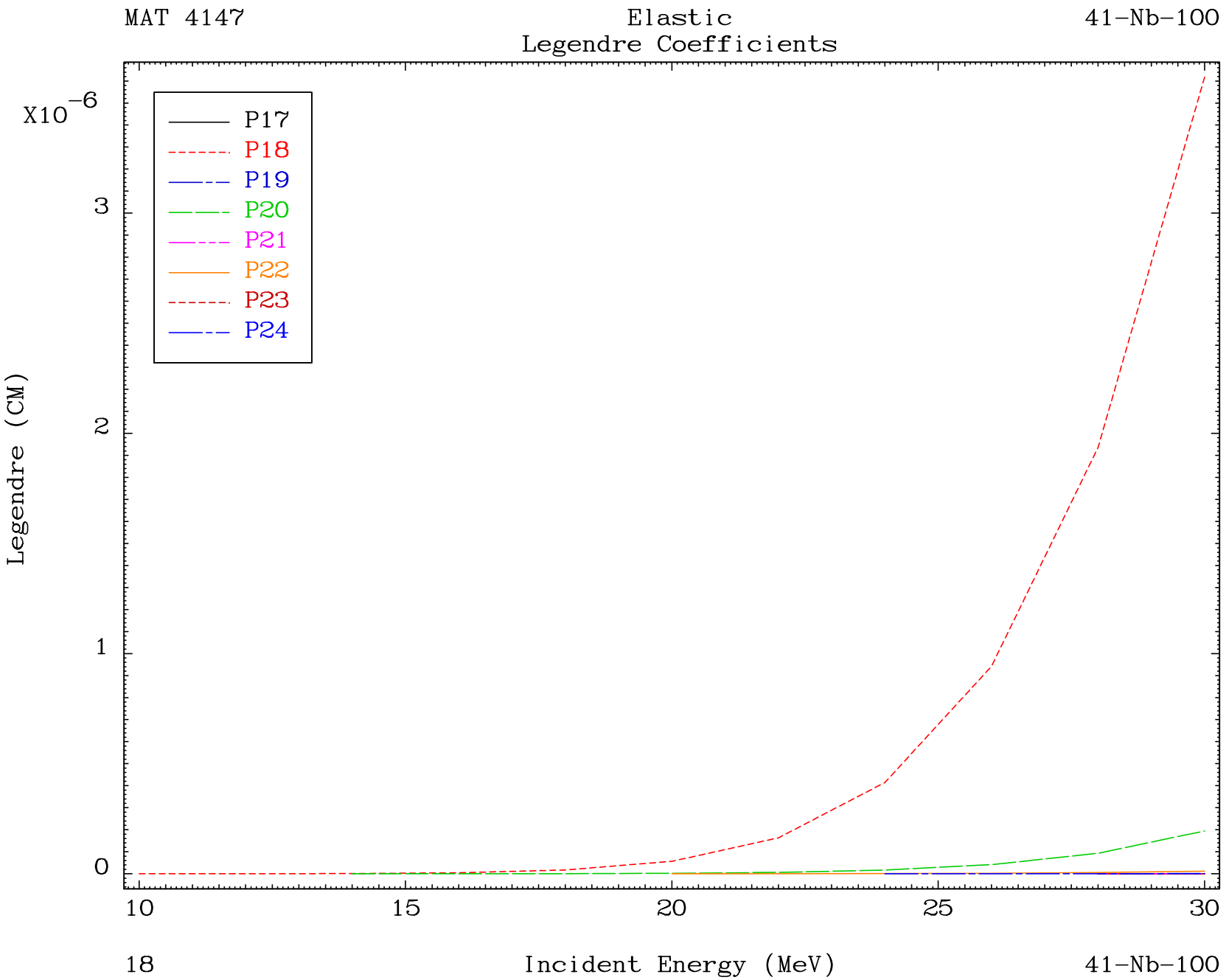

MAT 4147
(n,He3) Levels
41-Nb-100
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-4
5
10-6
5
10-8
5
10-10
5
5
2
3
4
5
6
7
8
9
10 2
2
13
Incident Energy (MeV)
41-Nb-100

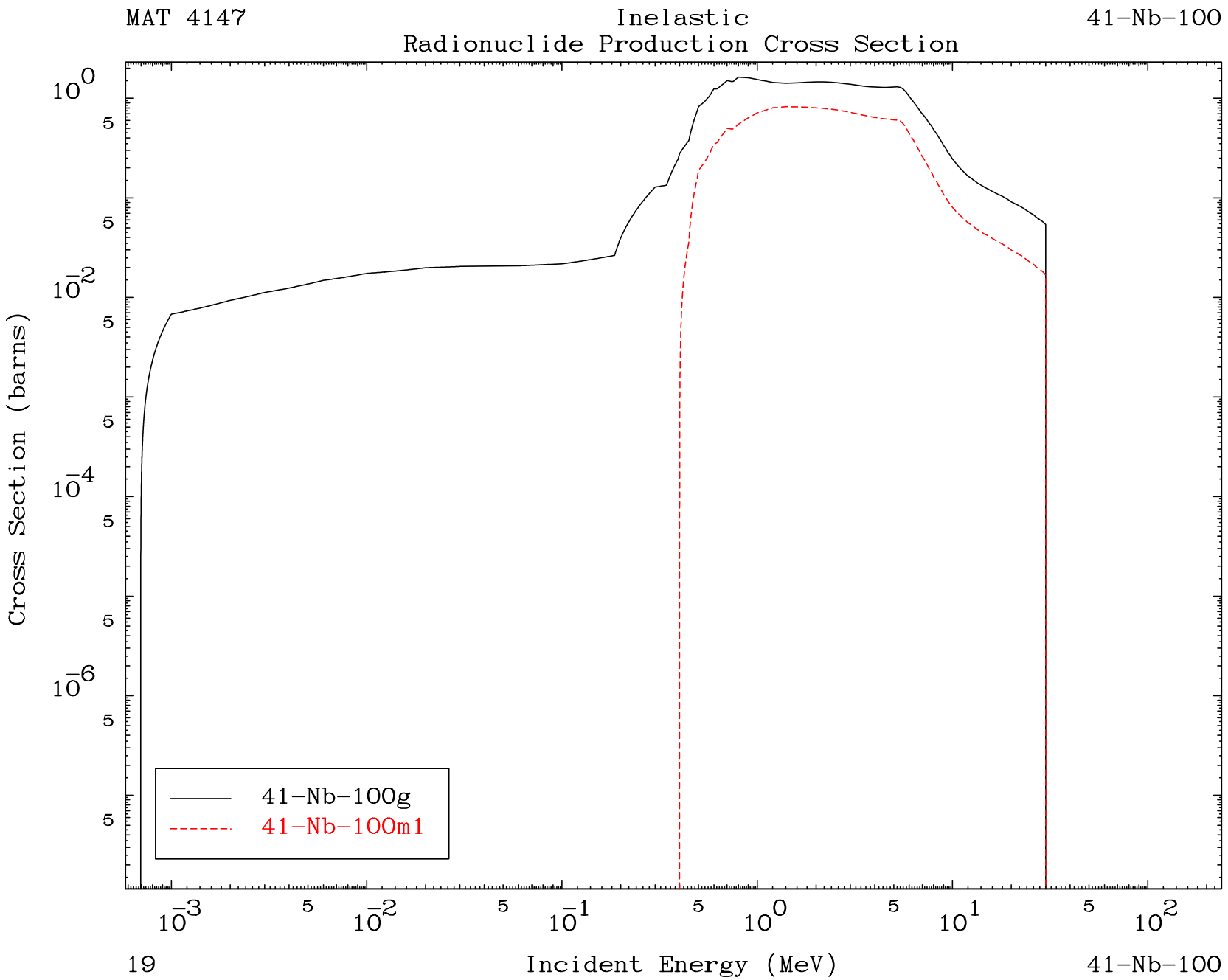

MAT 4147
(n,α) Levels
41-Nb-100
293 Kelvin Cross Sections
(n,α)
Cross Section (barns)
Incident Energy (MeV)
14
41-Nb-100

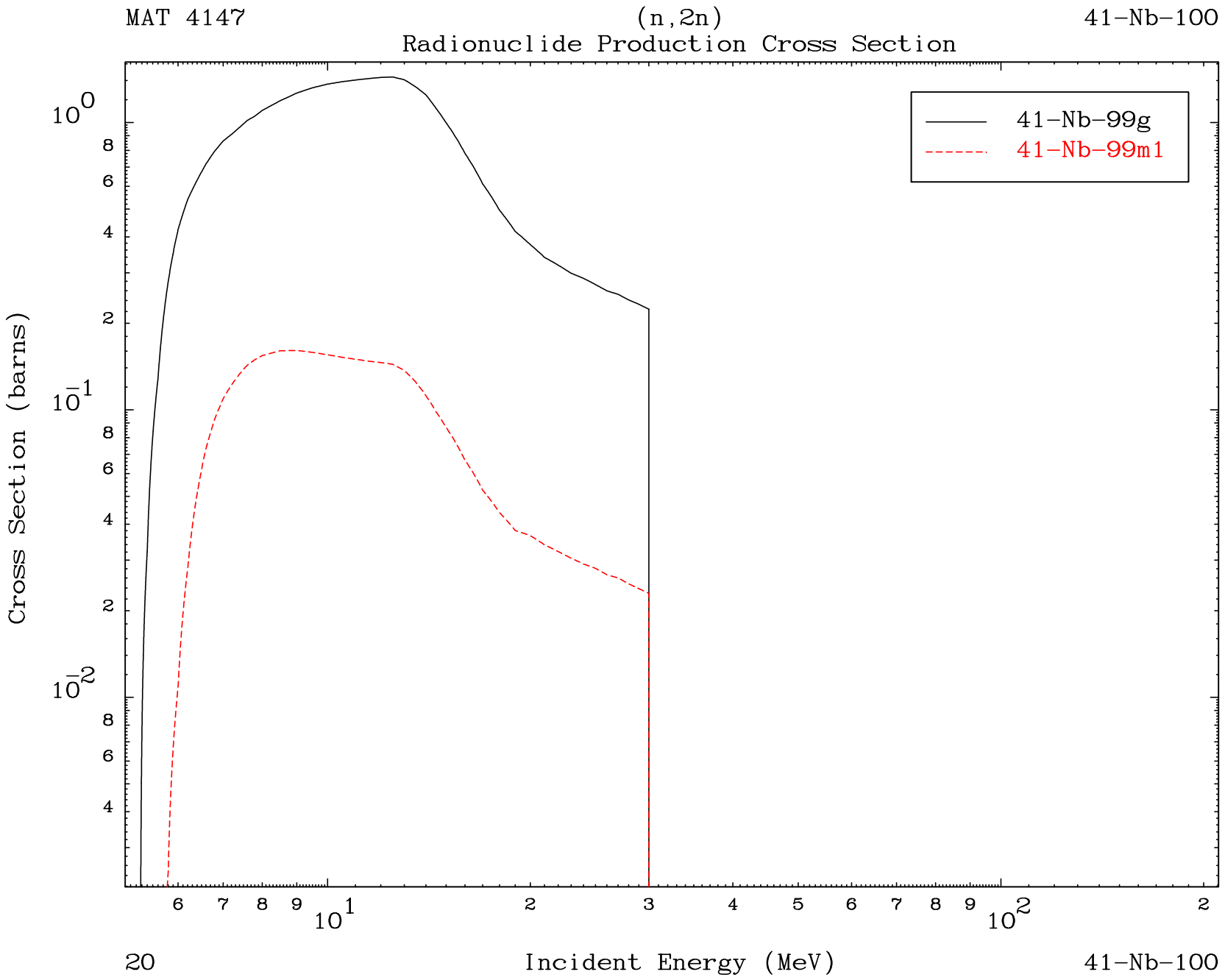

MAT 4147
Energy Release
Parameters
41-Nb-100
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
10^18
10^15
10^12
10^9
10^6
10^3
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
15
Incident Energy (MeV)
41-Nb-100

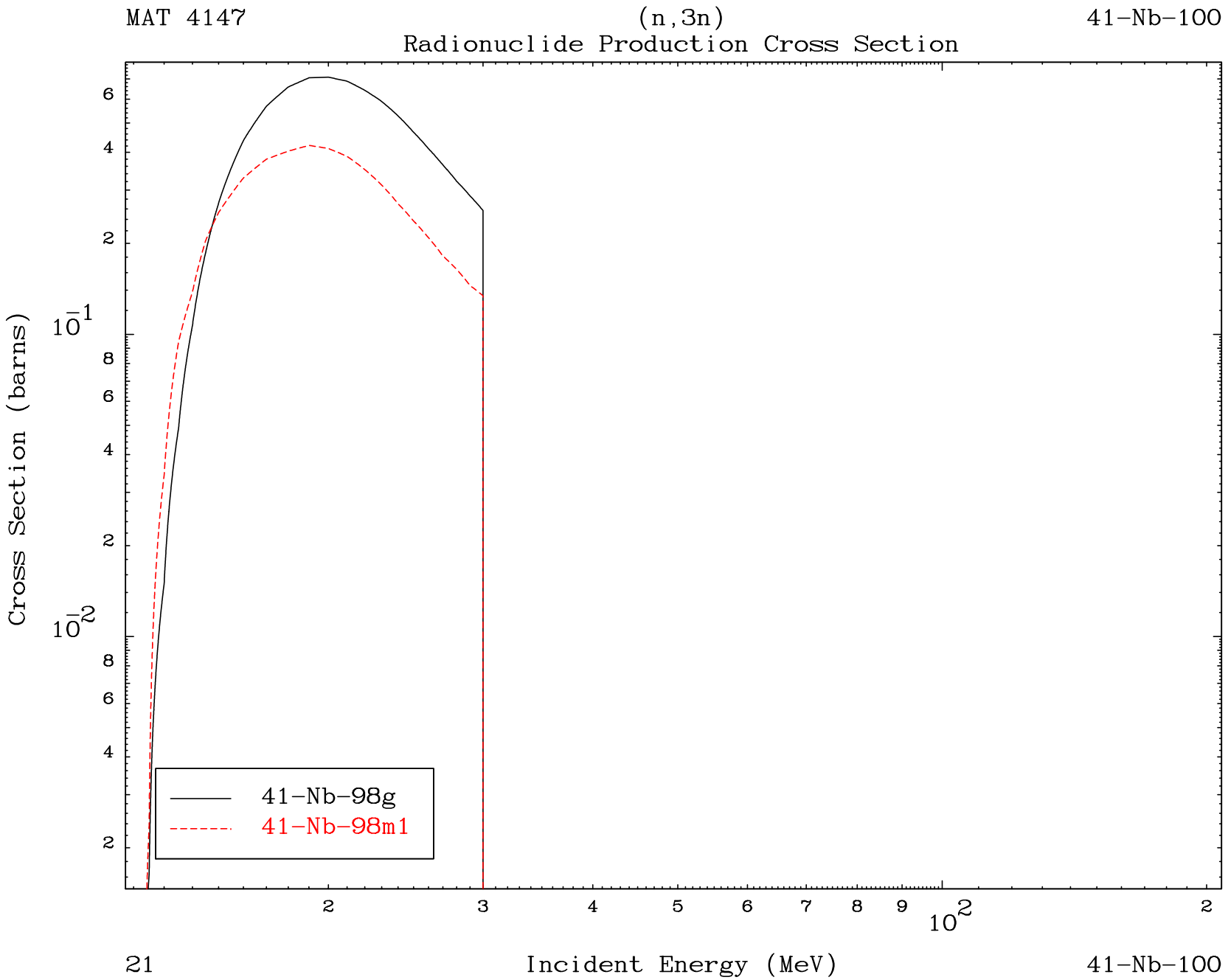

MAT 4147
Elastic
Legendre Coefficients
41-Nb-100
Legendre (CM)
0.04
0.03
0.02
0.01
0.00
P1
P2
P3
P4
P5
P6
P7
P8
0
10
20
30
16
Incident Energy (MeV)
41-Nb-100

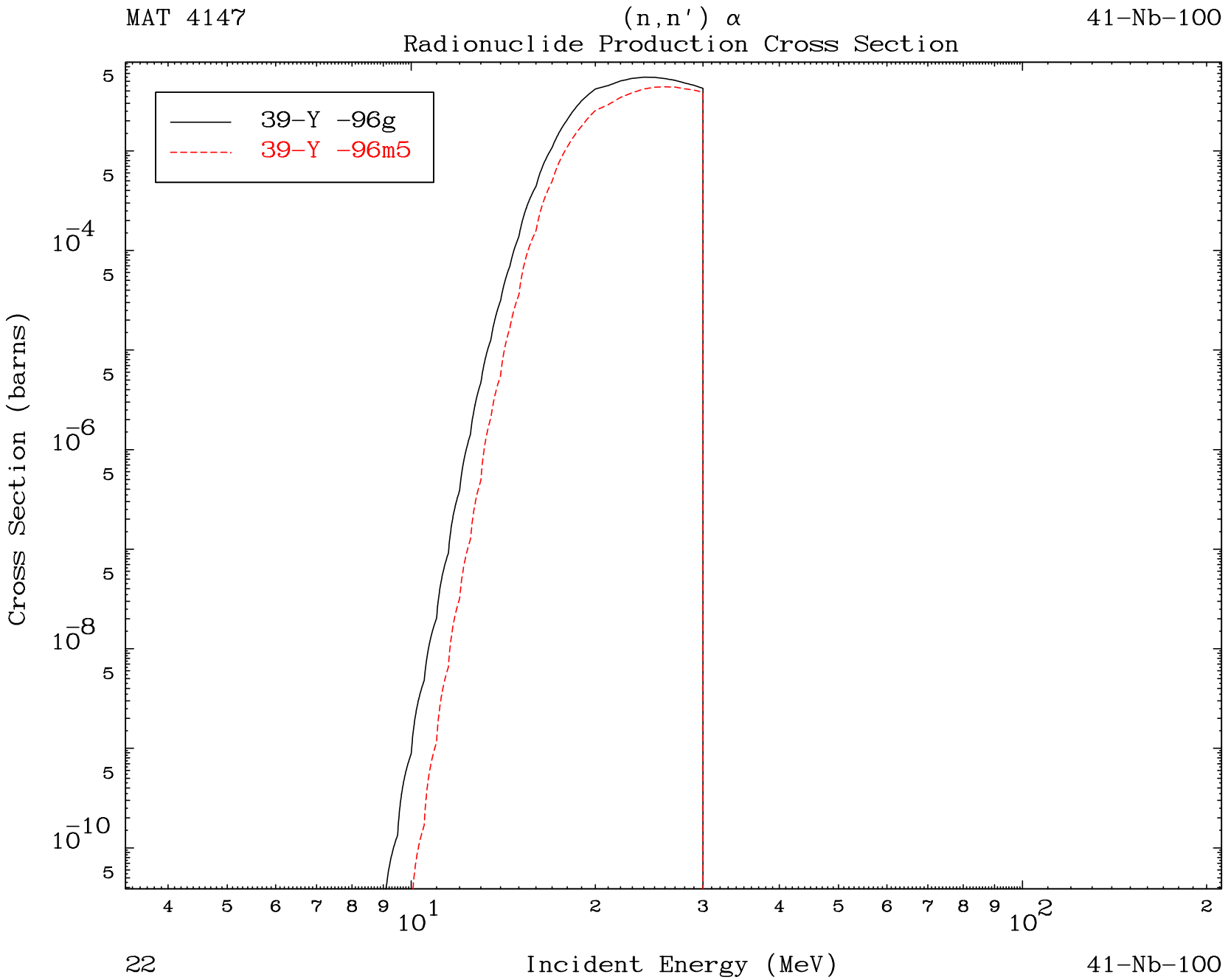

MAT 4147
Elastic
Legendre Coefficients
41-Nb-100
X10^-4
5
4
3
2
1
0
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
5
10
15
20
25
30
17
Incident Energy (MeV)
41-Nb-100

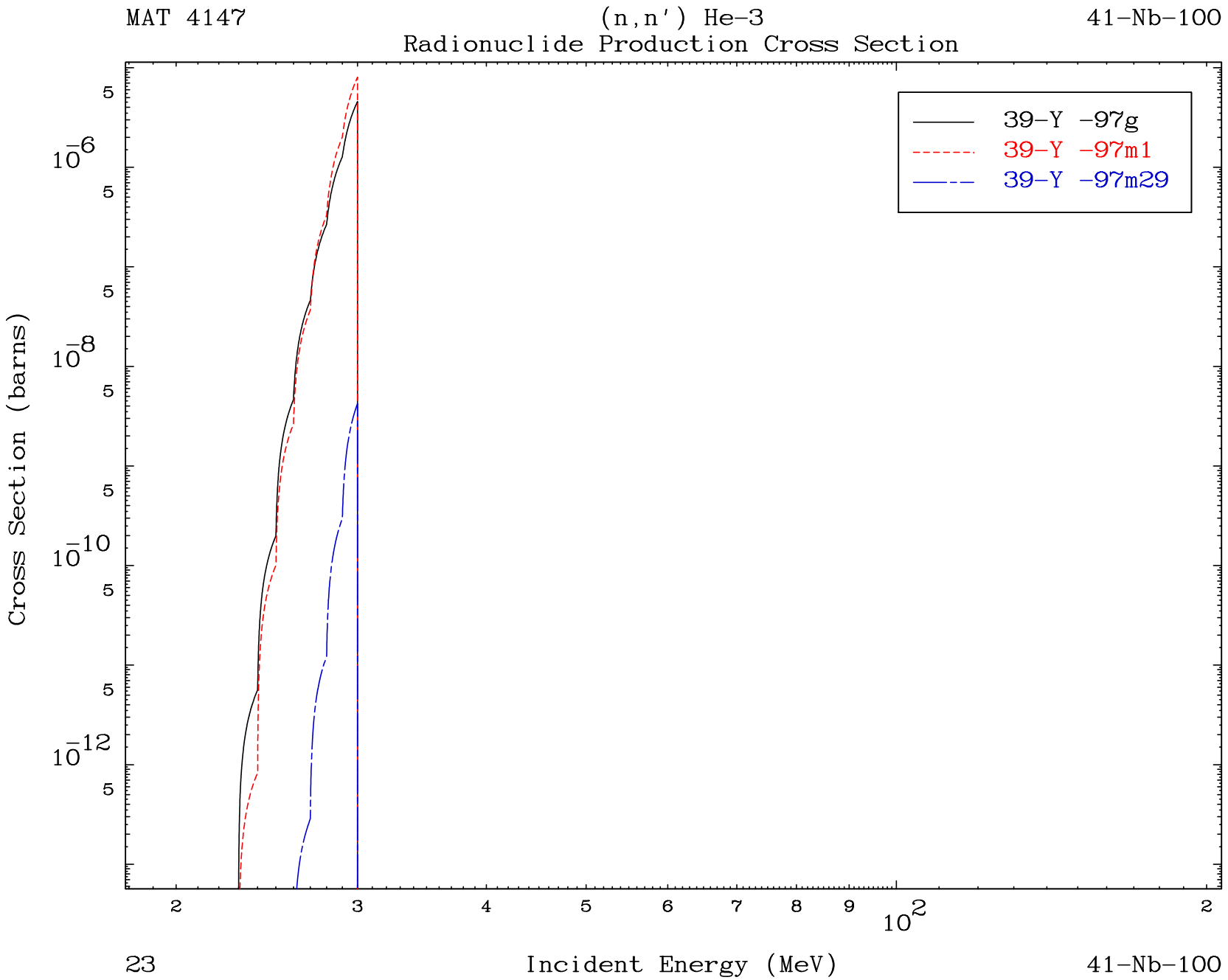

MAT 4147
Elastic
Legendre Coefficients
41-Nb-100
X10^-6
P17
P18
P19
P20
P21
P22
P23
P24
Legendre (CM)
3
2
1
0
10
15
20
25
30
18
Incident Energy (MeV)
41-Nb-100

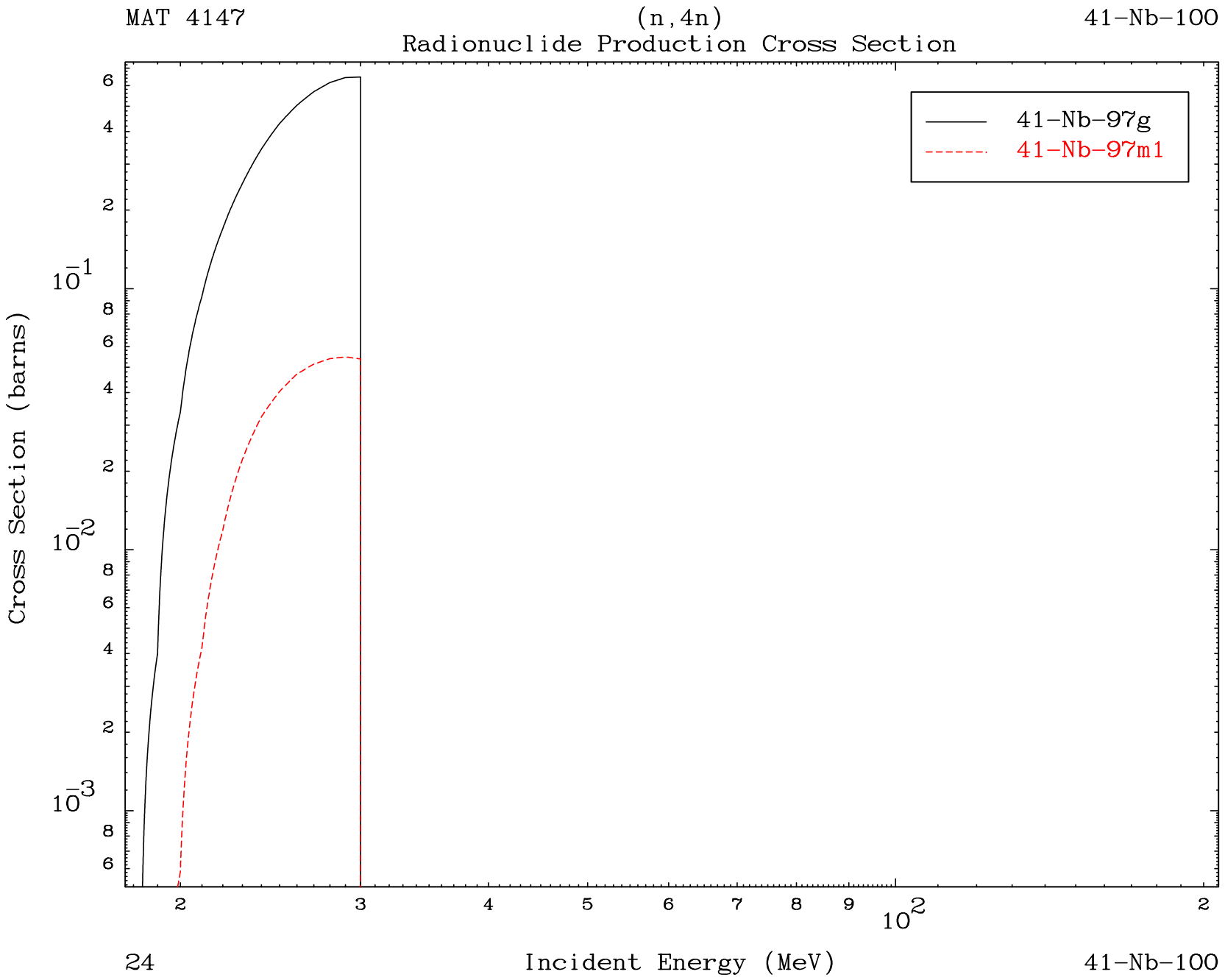

MAT 4147
Inelastic
41-Nb-100
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
41-Nb-100g
41-Nb-100m1
19
41-Nb-100

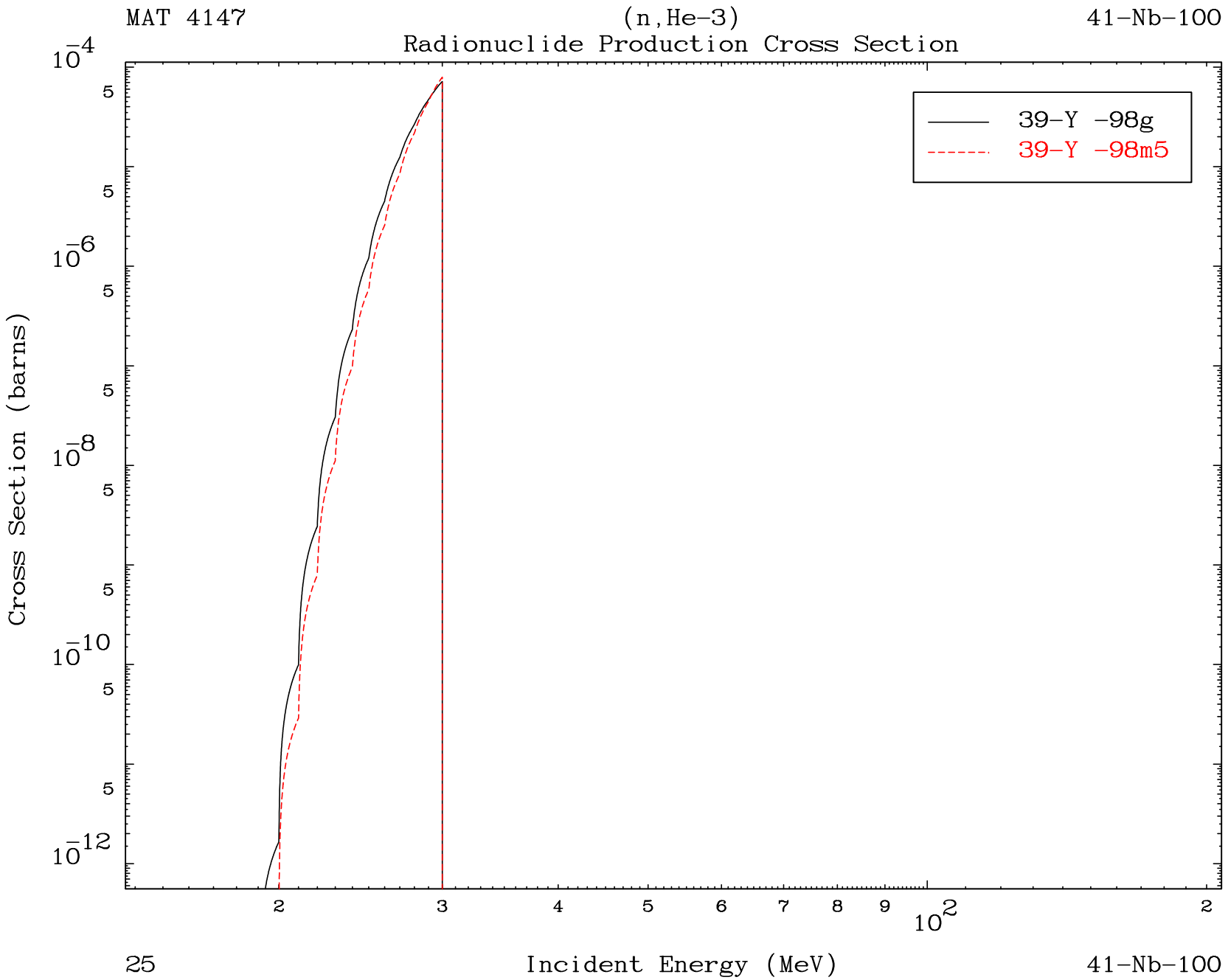

MAT 4147
(n,2n)
41-Nb-100
Radionuclide Production Cross Section
41-Nb-99g
41-Nb-99m1
Cross Section (barns)
Incident Energy (MeV)
20
41-Nb-100

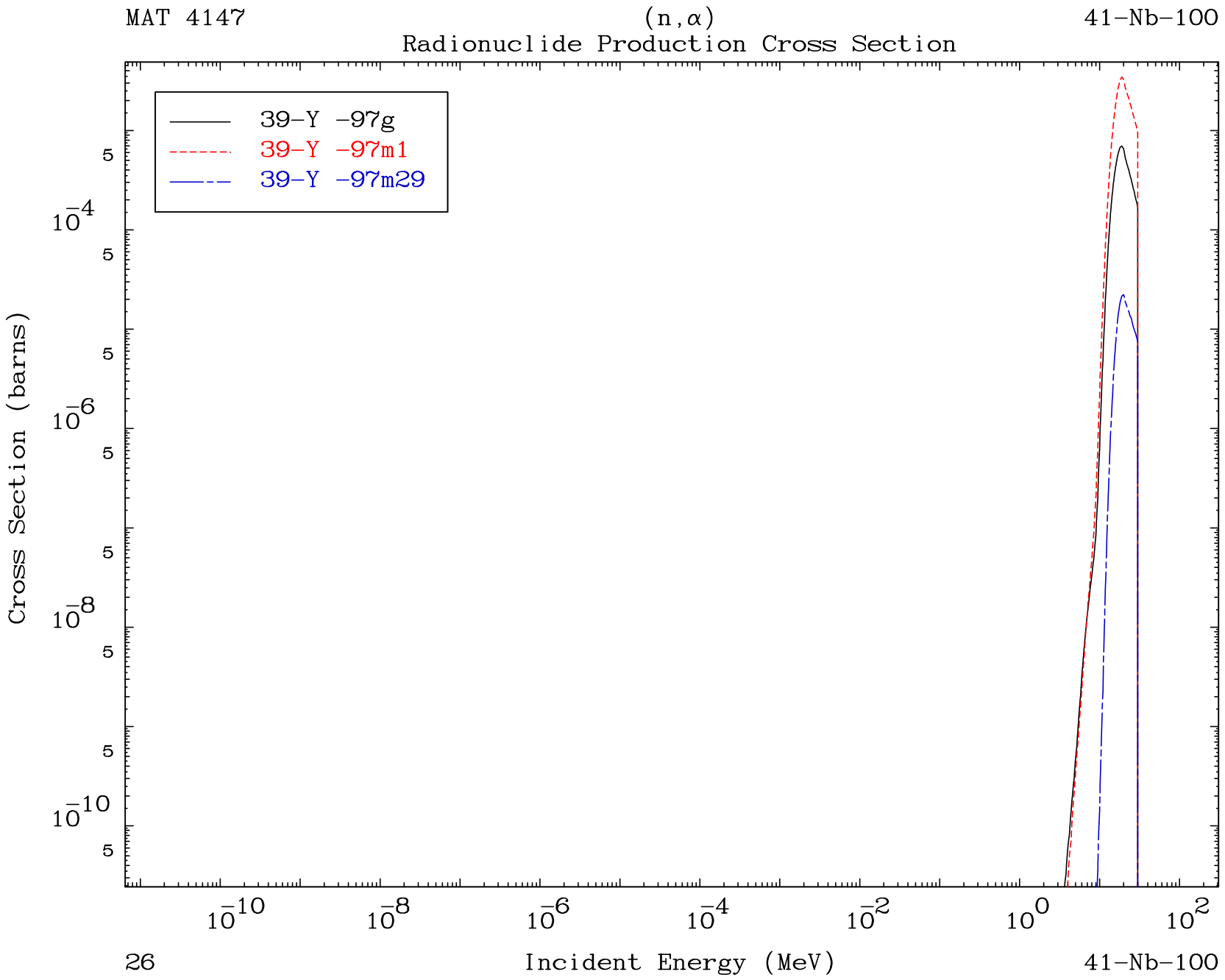

MAT 4147
(n,3n)
41-Nb-100
Radionuclide Production Cross Section
Cross Section (barns)
10^-1
10^-2
6
4
2
8
6
4
2
8
6
4
2
41-Nb-98g
41-Nb-98m1
2
3
4
5
6
7
8
9
10^2
2
21
Incident Energy (MeV)
41-Nb-100


MAT 4147
(n,n') α
41-Nb-100
Radionuclide Production Cross Section
39-Y -96g
39-Y -96m5
Cross Section (barns)
Incident Energy (MeV)
22
41-Nb-100


MAT 4147
(n,n') He-3
41-Nb-100
Radionuclide Production Cross Section
39-Y -97g
39-Y -97m1
39-Y -97m29
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
2
3
4
5
6
7
8
9
10^2
2
23
Incident Energy (MeV)
41-Nb-100


MAT 4147
(n,4n)
41-Nb-100
Radionuclide Production Cross Section
41-Nb-97g
41-Nb-97m1
Cross Section (barns)
Incident Energy (MeV)
24
41-Nb-100


MAT 4147
(n,He-3)
41-Nb-100
Radionuclide Production Cross Section
39-Y -98g
39-Y -98m5
Cross Section (barns)
Incident Energy (MeV)
25
41-Nb-100


MAT 4147
(n,α)
41-Nb-100
Radionuclide Production Cross Section
39-Y -97g
39-Y -97m1
39-Y -97m29
Cross Section (barns)
Incident Energy (MeV)
26
41-Nb-100