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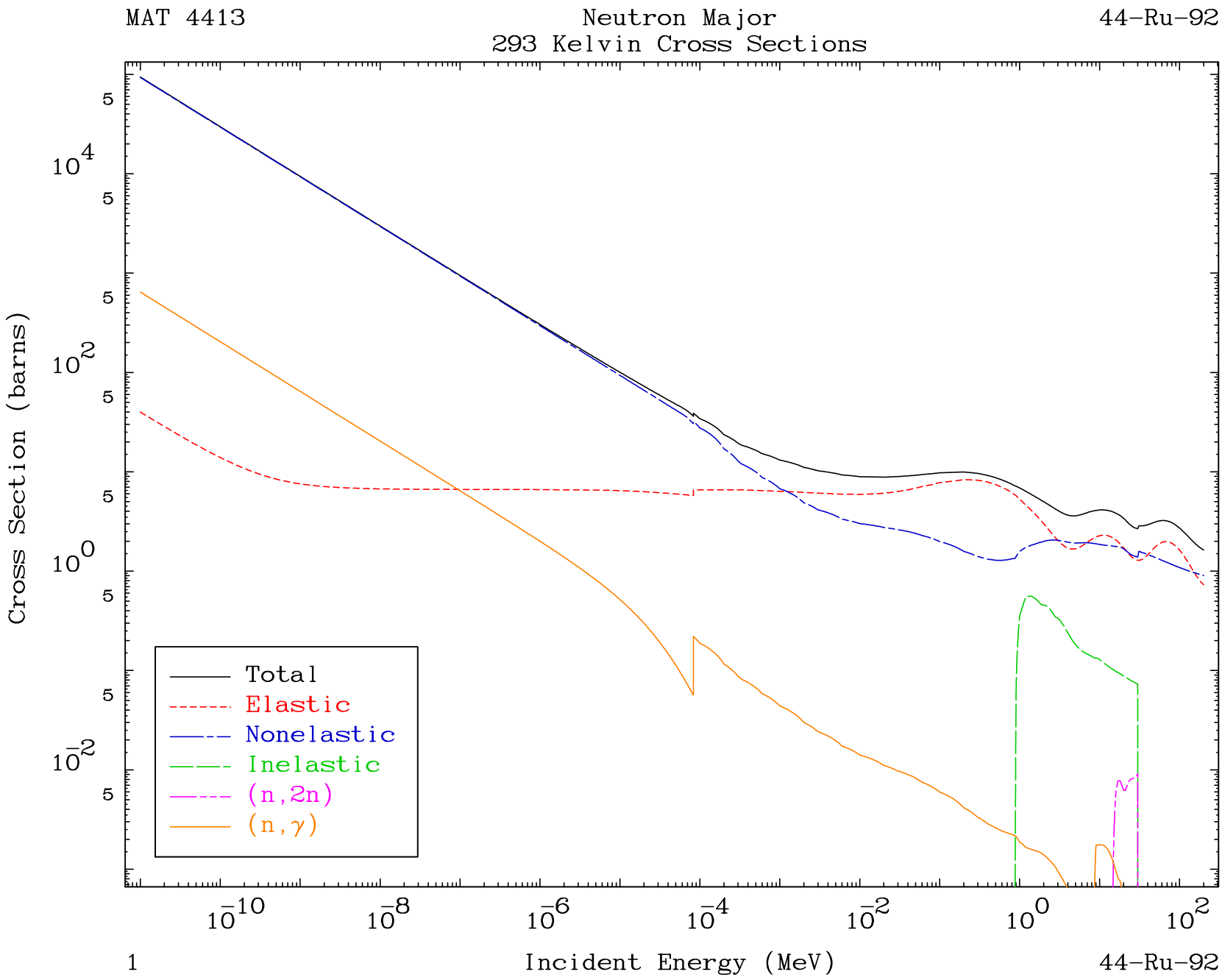
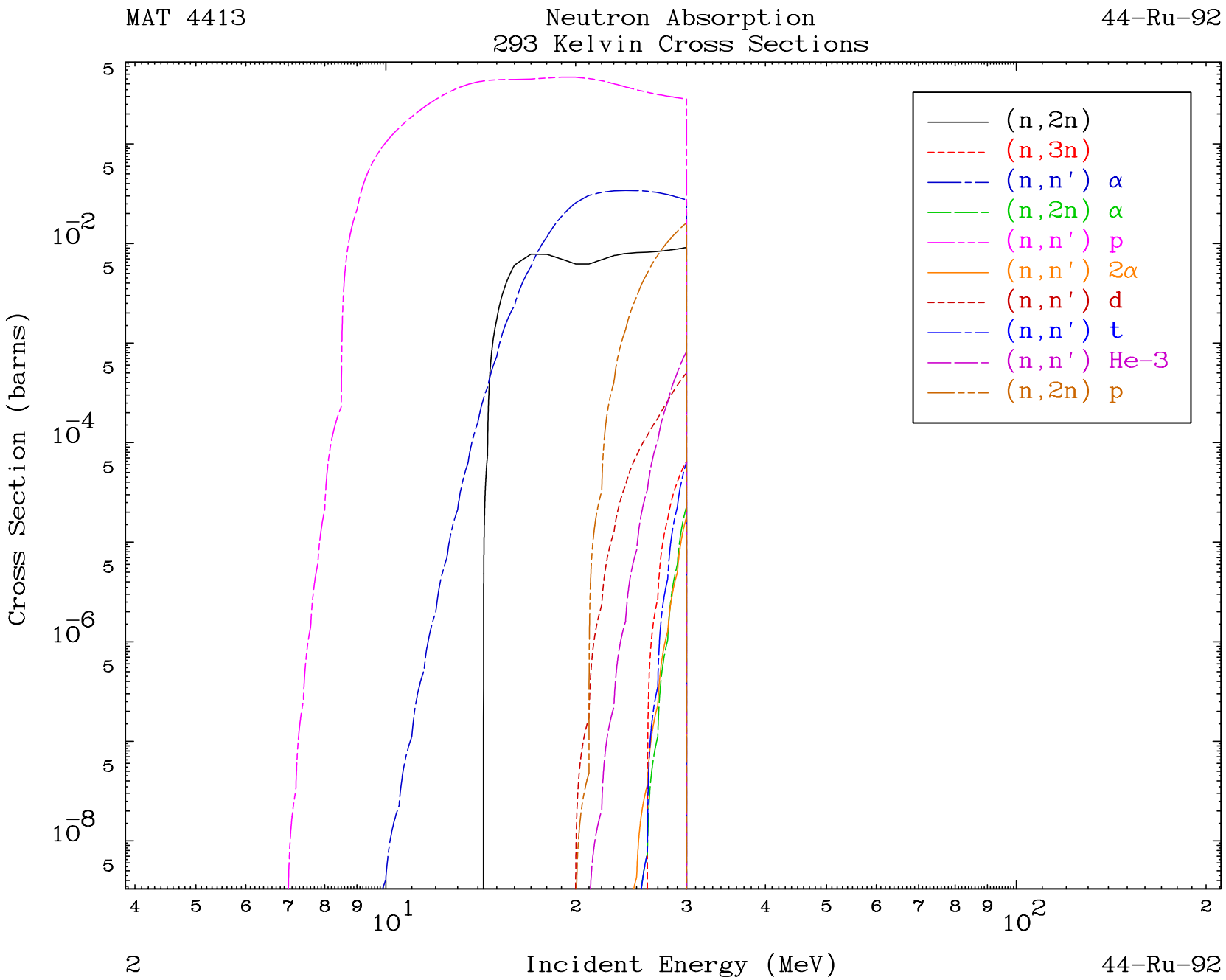
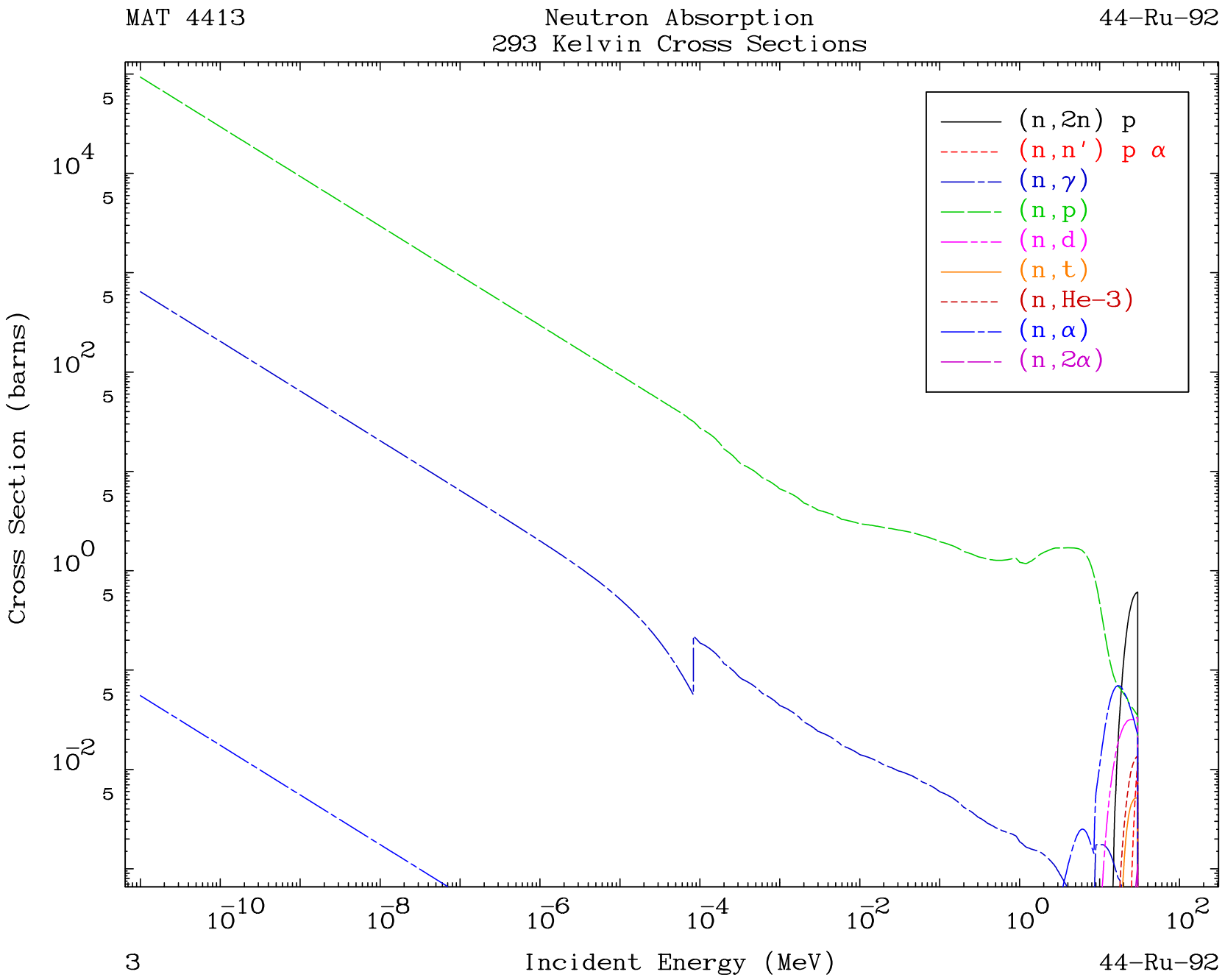
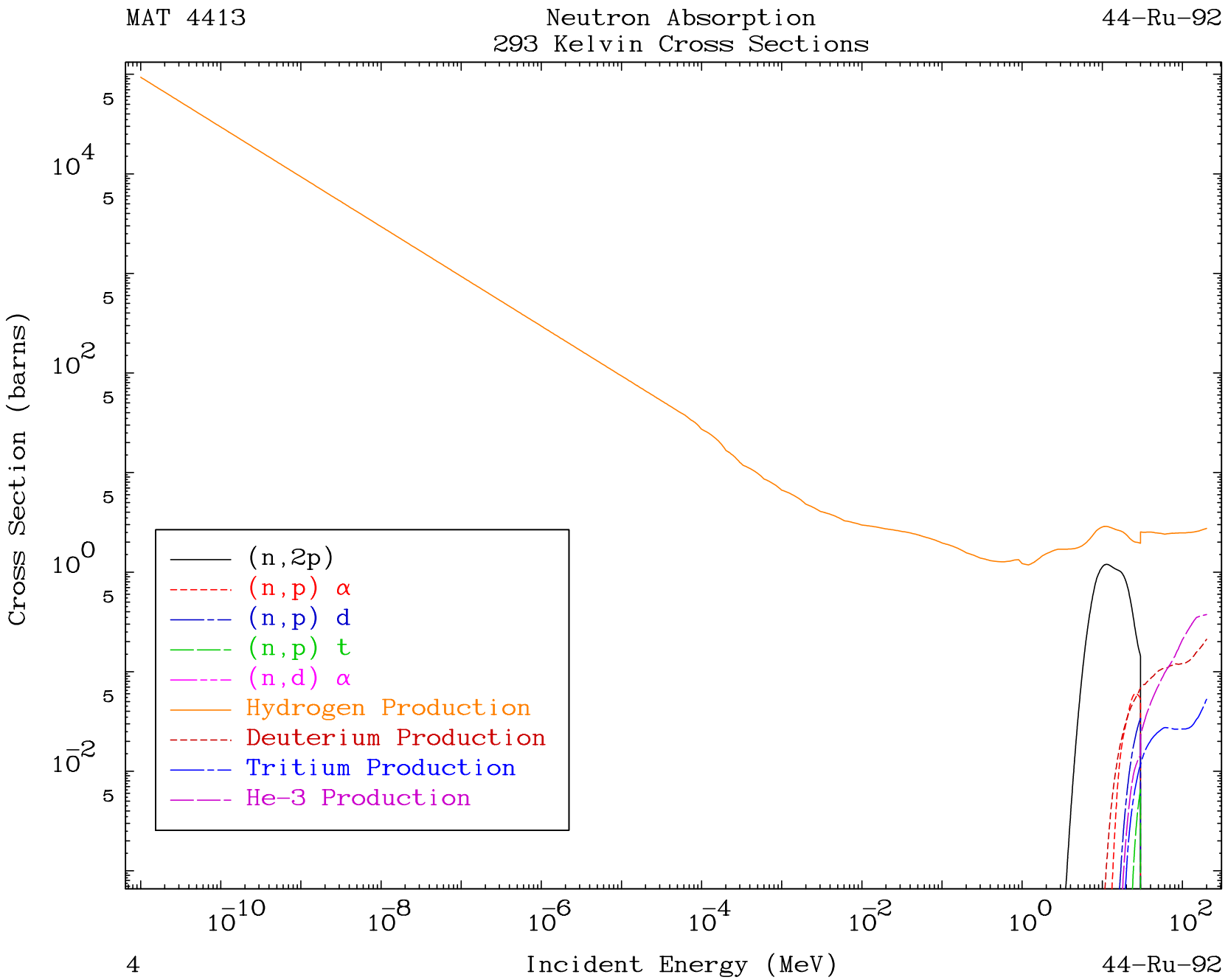
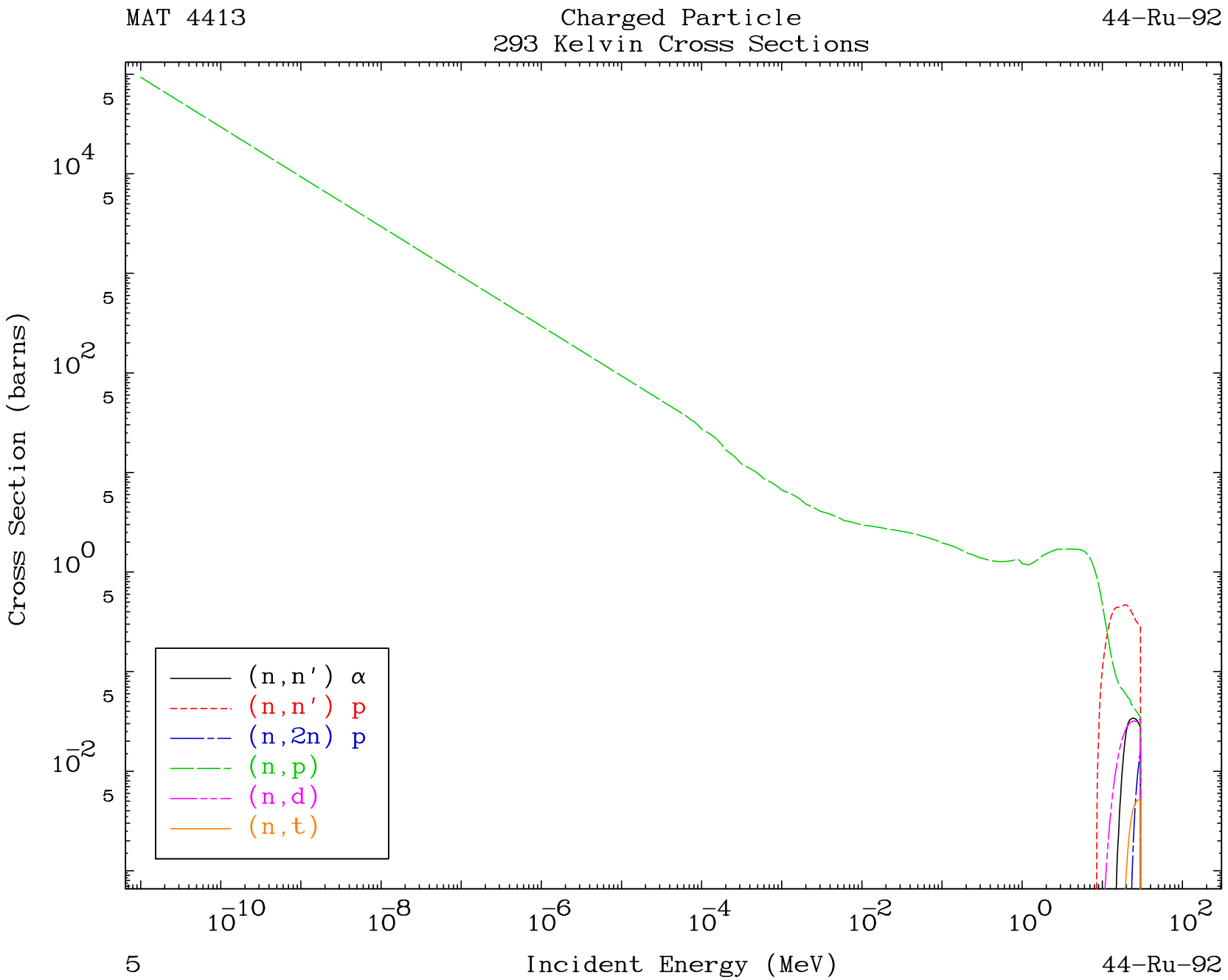
Press Mouse Button to Start

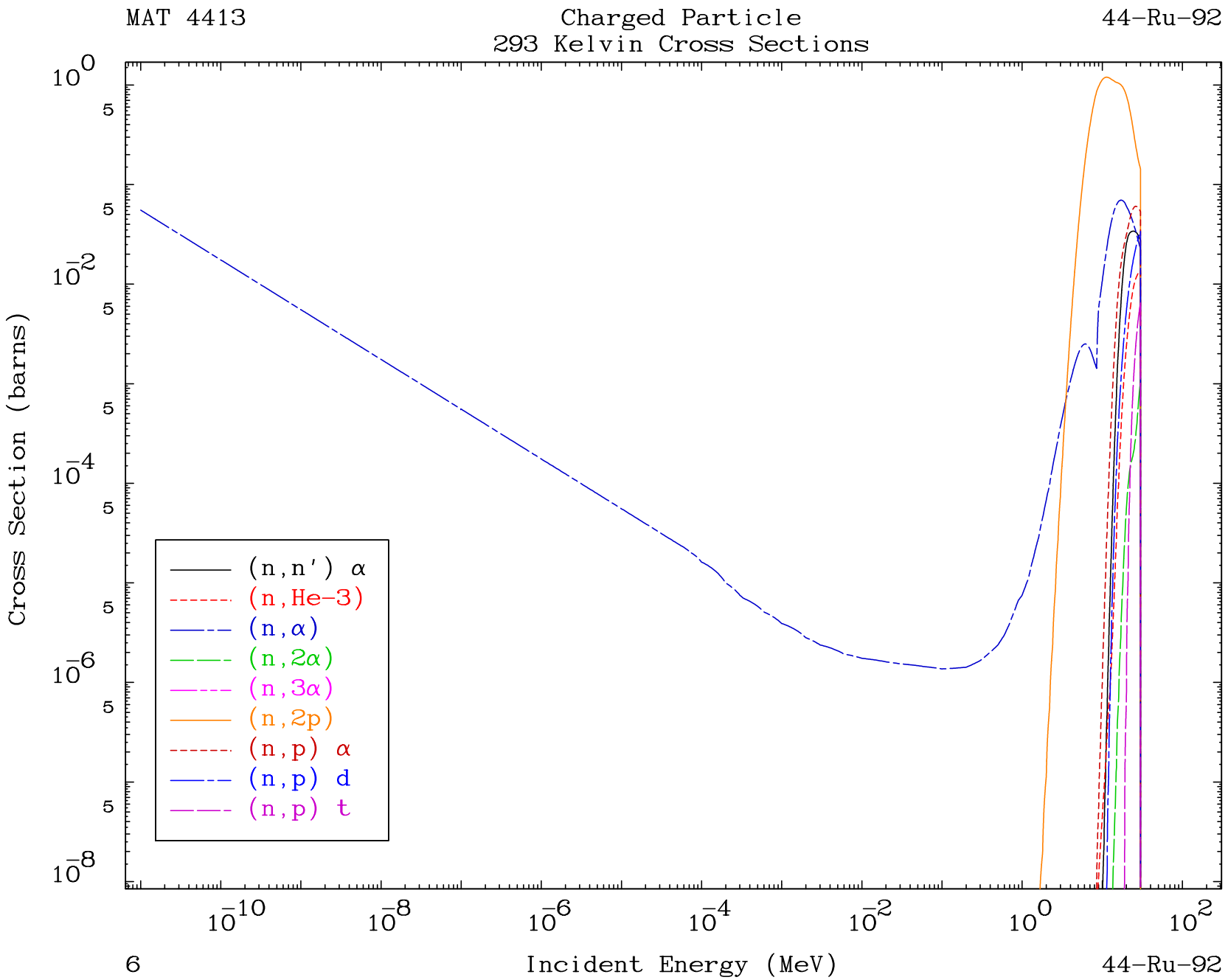

MAT 4413
Neutron Major
293 Kelvin Cross Sections
44-Ru-92
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,γ)
1
44-Ru-92

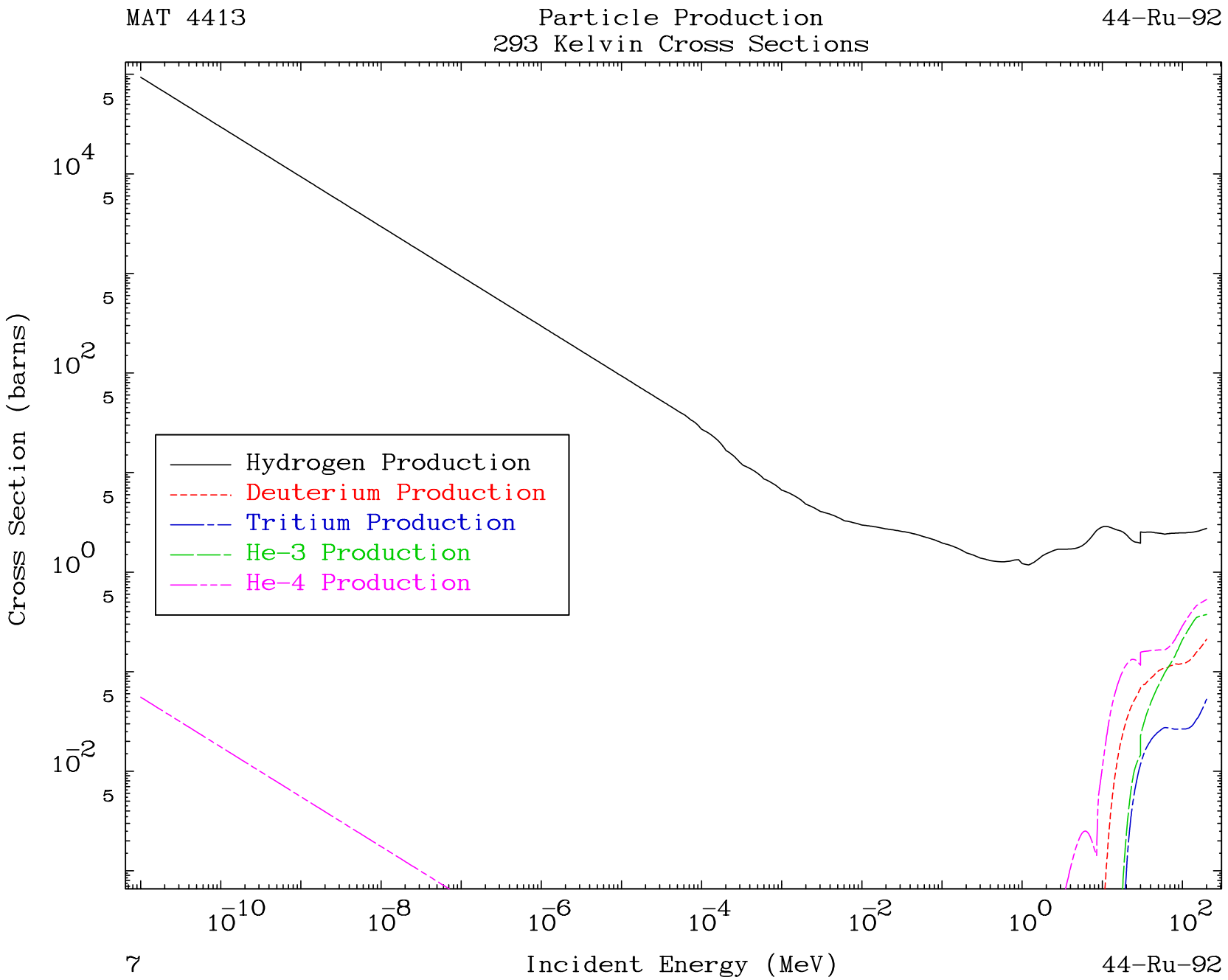

MAT 4413
Neutron Absorption
293 Kelvin Cross Sections
44-Ru-92
Cross Section (barns)
Incident Energy (MeV)
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p

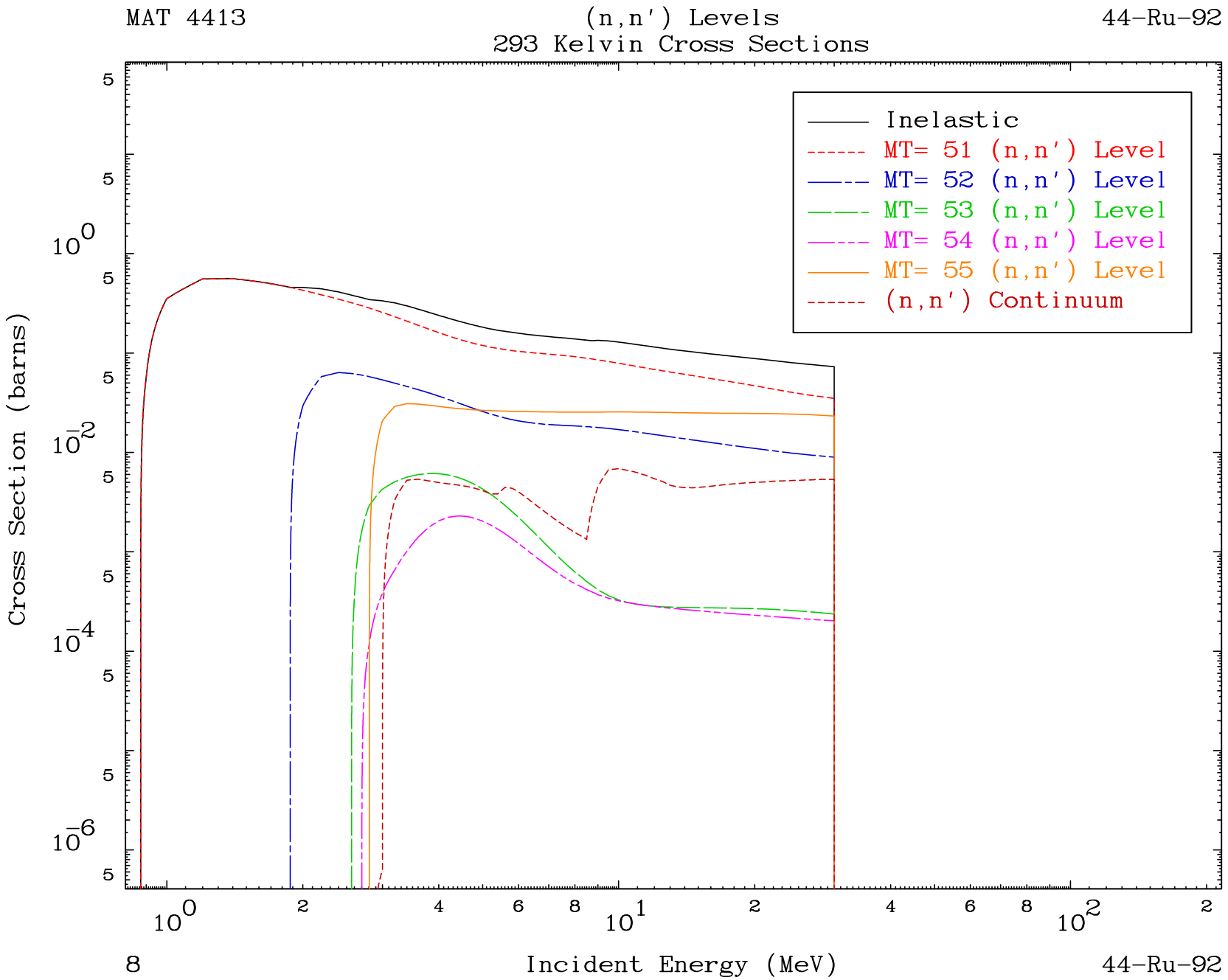

MAT 4413
Neutron Absorption
293 Kelvin Cross Sections
44-Ru-92
Cross Section (barns)
Incident Energy (MeV)
(n,2n) p
(n,n') p α
(n,γ)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
3
44-Ru-92

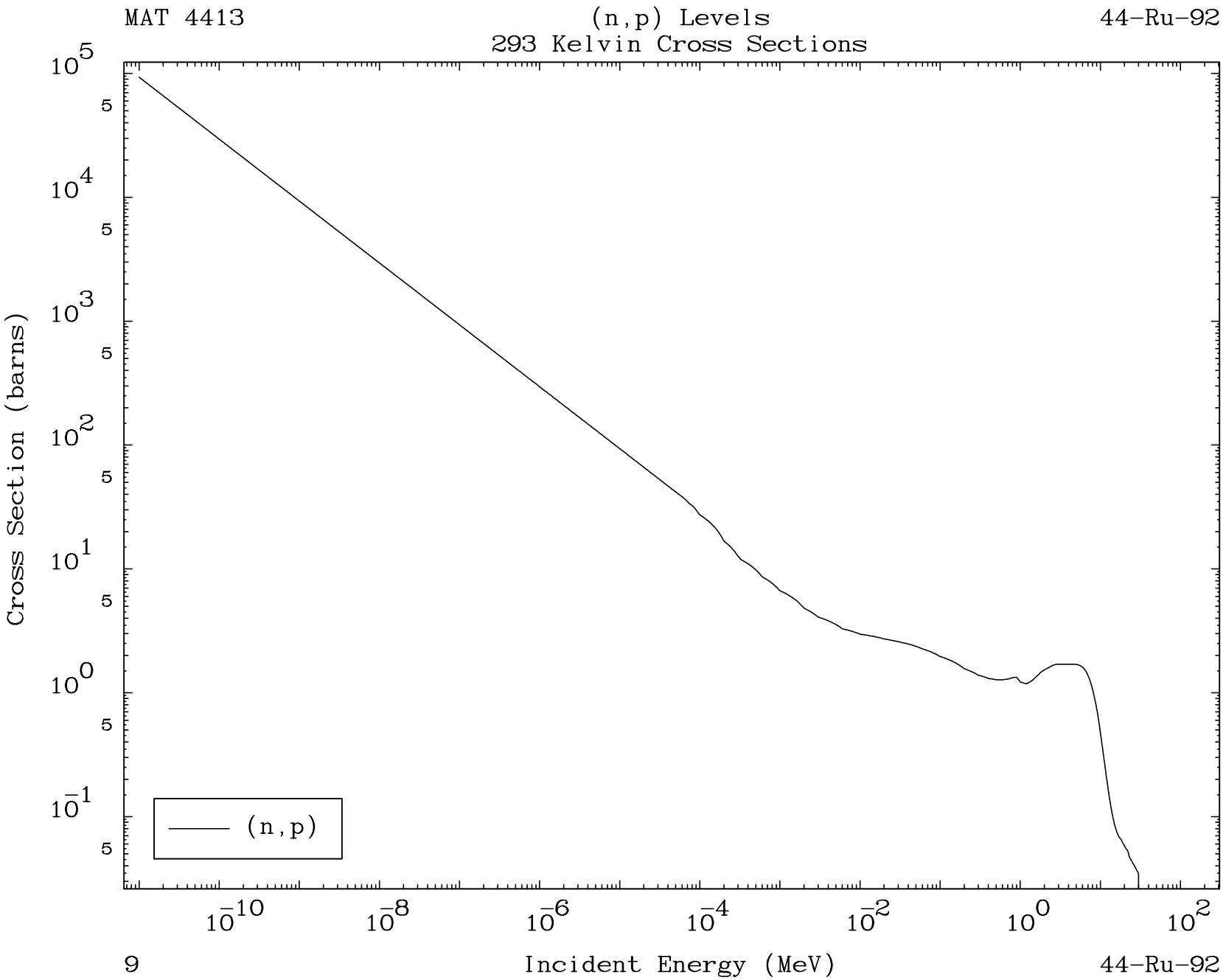

MAT 4413
Neutron Absorption
293 Kelvin Cross Sections
44-Ru-92
Cross Section (barns)
Incident Energy (MeV)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
4
44-Ru-92

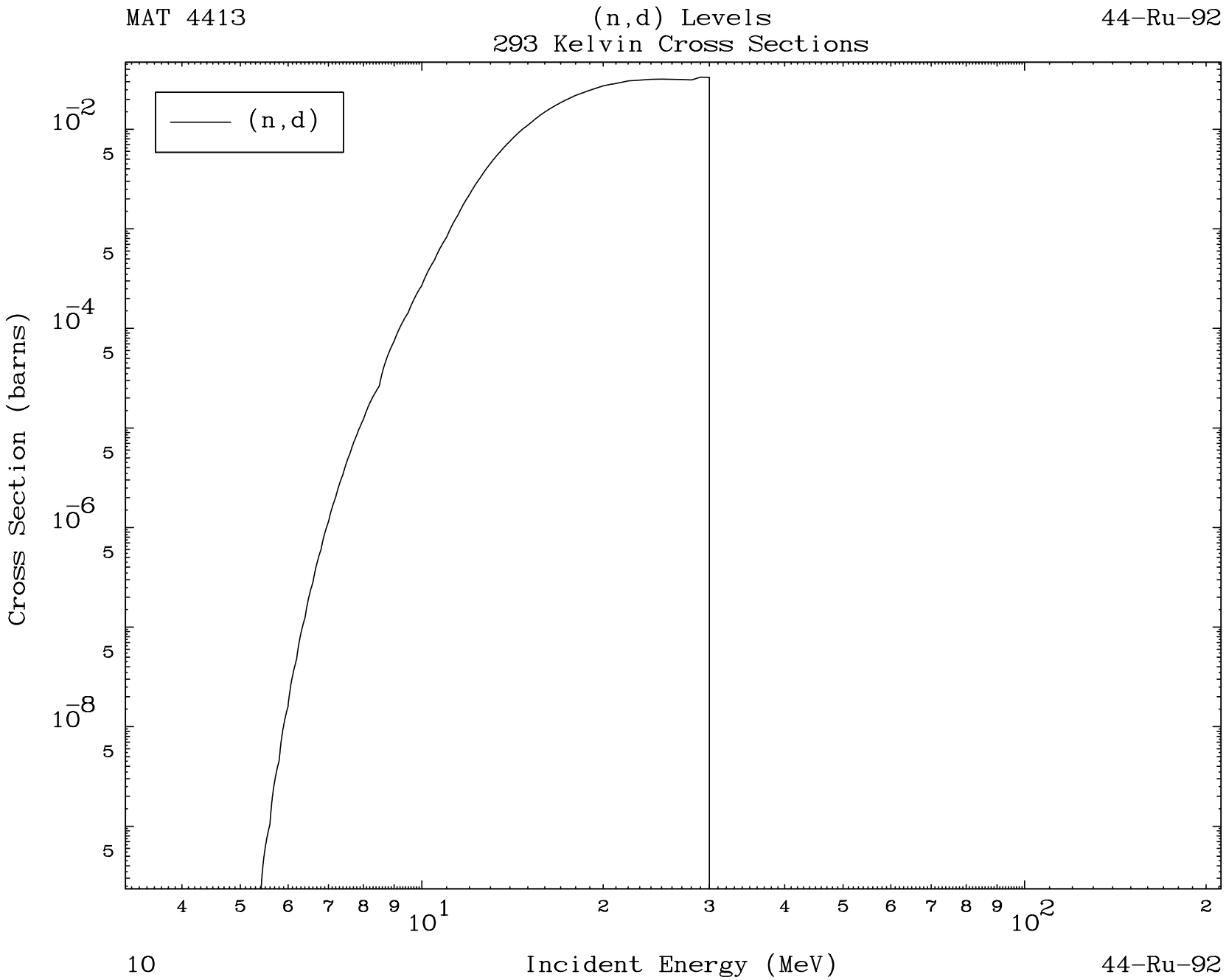

MAT 4413
Charged Particle
293 Kelvin Cross Sections
44-Ru-92
Cross Section (barns)
Incident Energy (MeV)
44-Ru-92
5
(n,n') α
(n,n') p
(n,2n) p
(n,p)
(n,d)
(n,t)

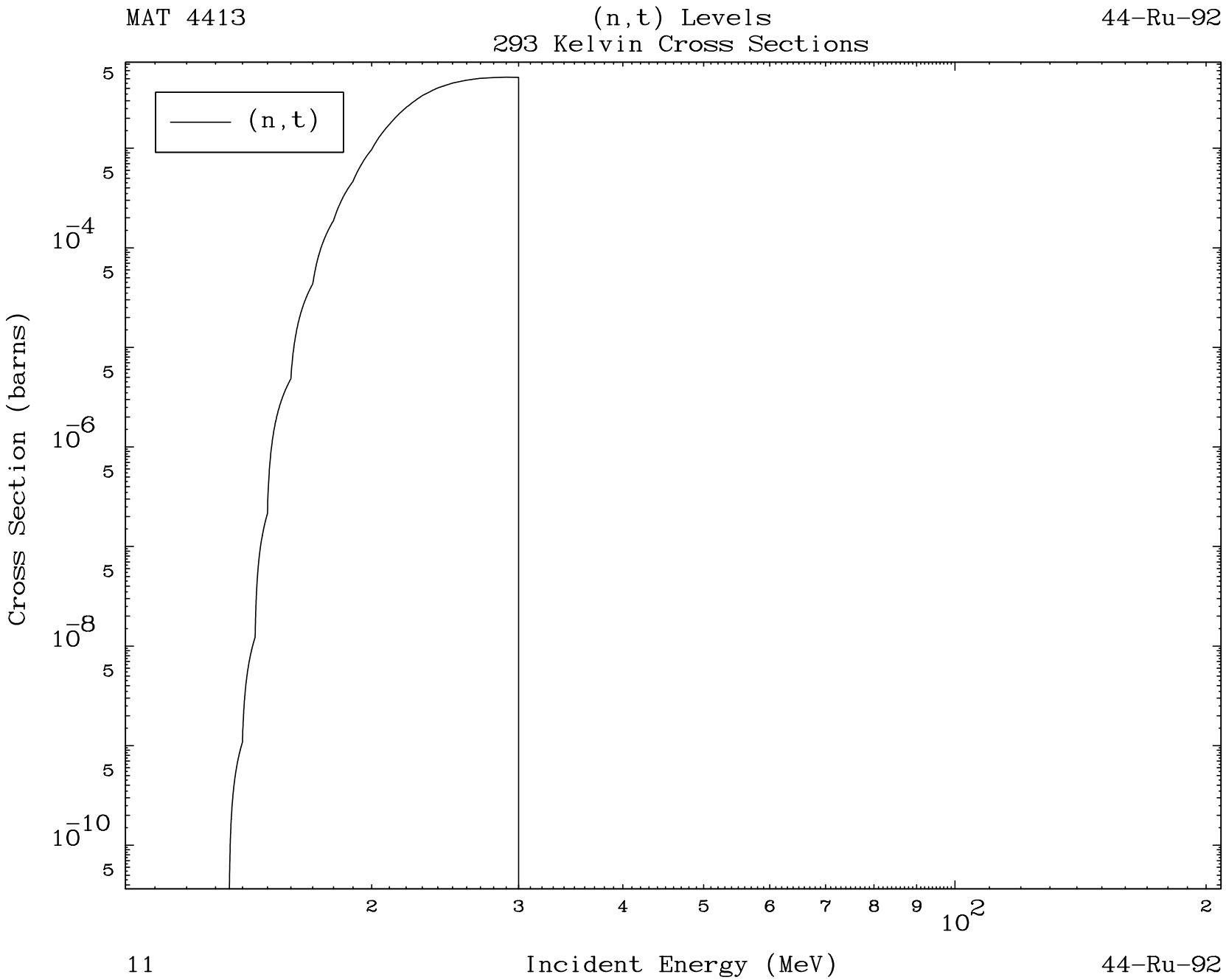

MAT 4413
Charged Particle
293 Kelvin Cross Sections
44-Ru-92
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,He-3)
(n,α)
(n,2α)
(n,3α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
6
44-Ru-92

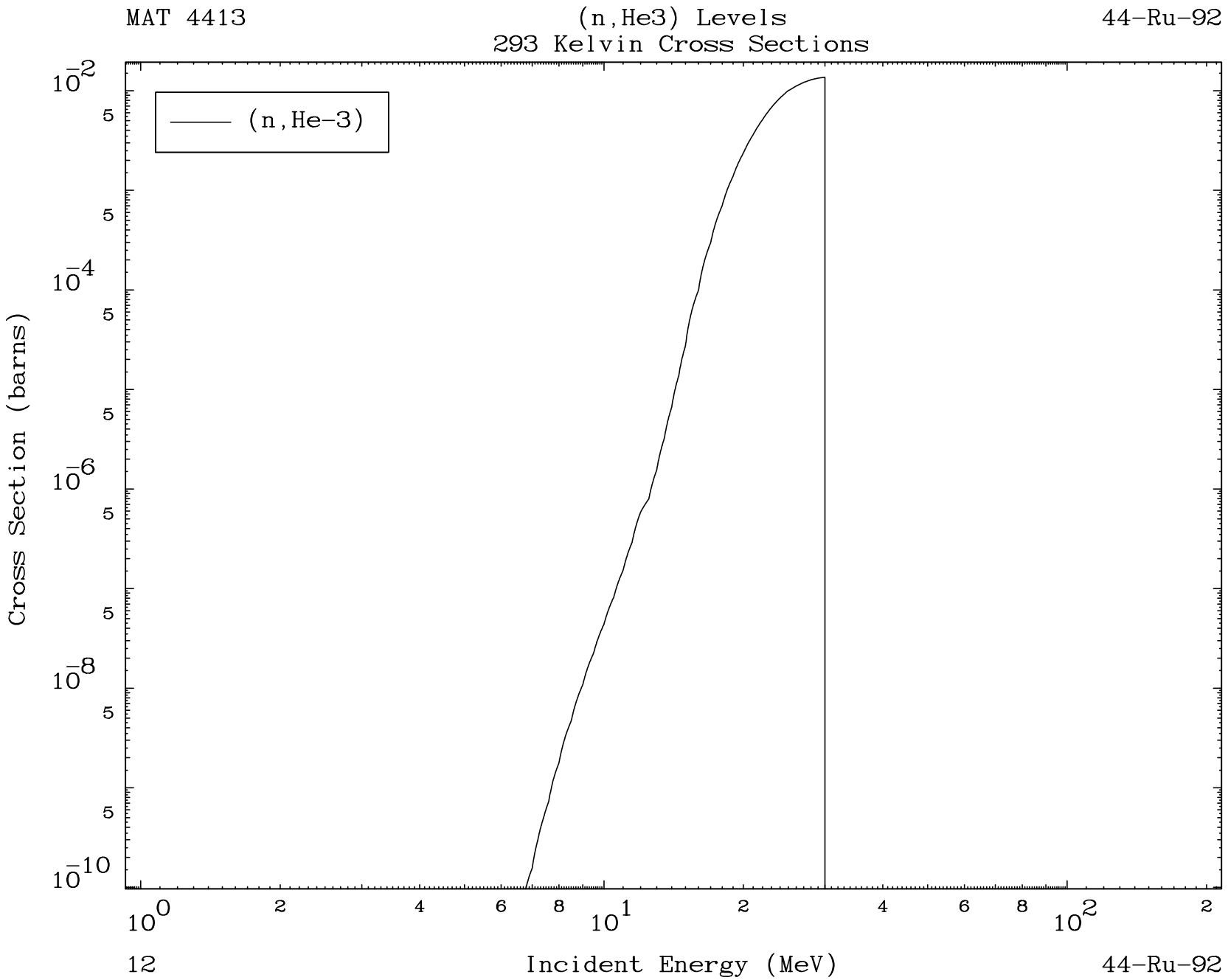

MAT 4413
Particle Production
293 Kelvin Cross Sections
44-Ru-92
Cross Section (barns)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Incident Energy (MeV)
7
44-Ru-92

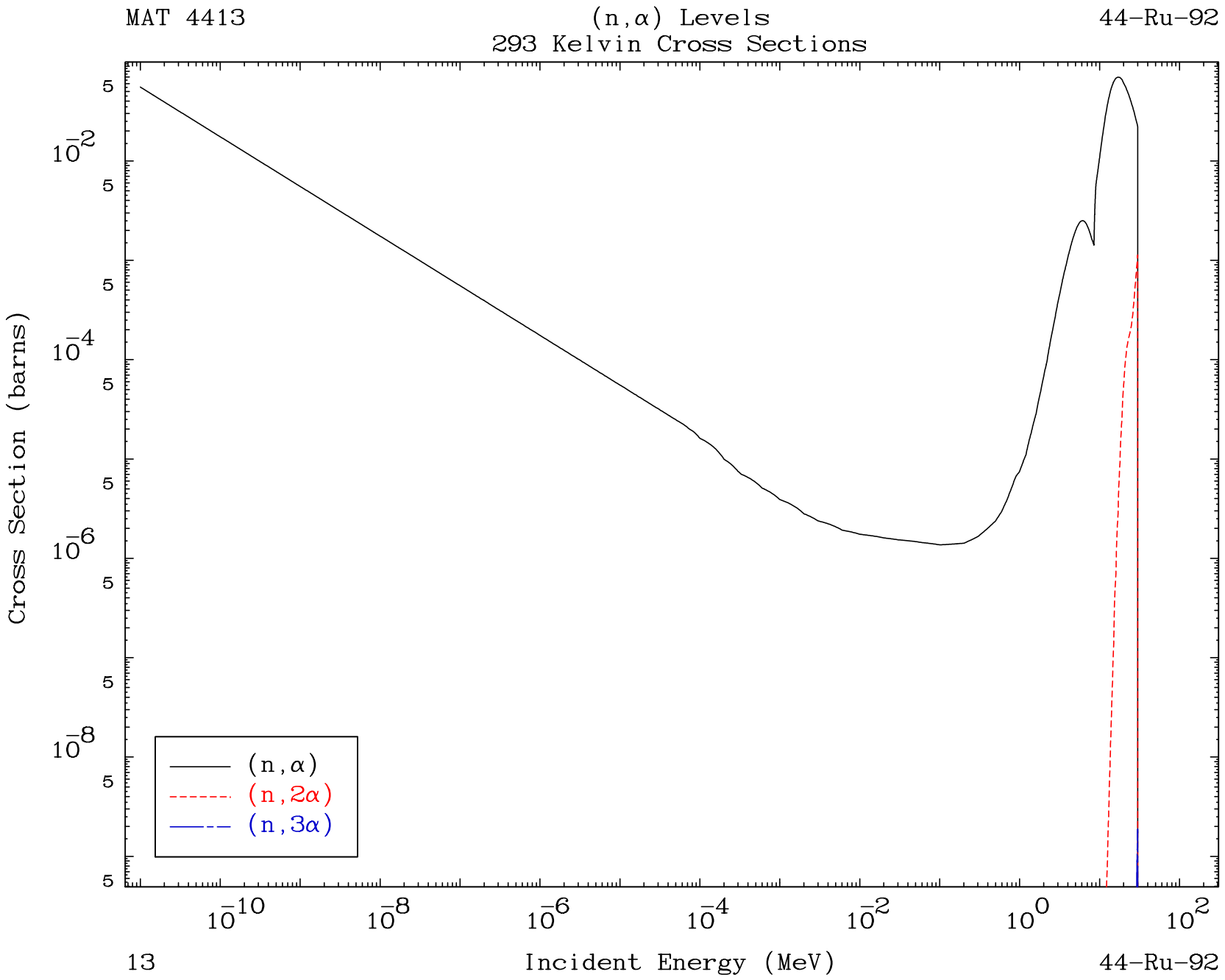

MAT 4413
(n,n') Levels
293 Kelvin Cross Sections
44-Ru-92
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
44-Ru-92
8

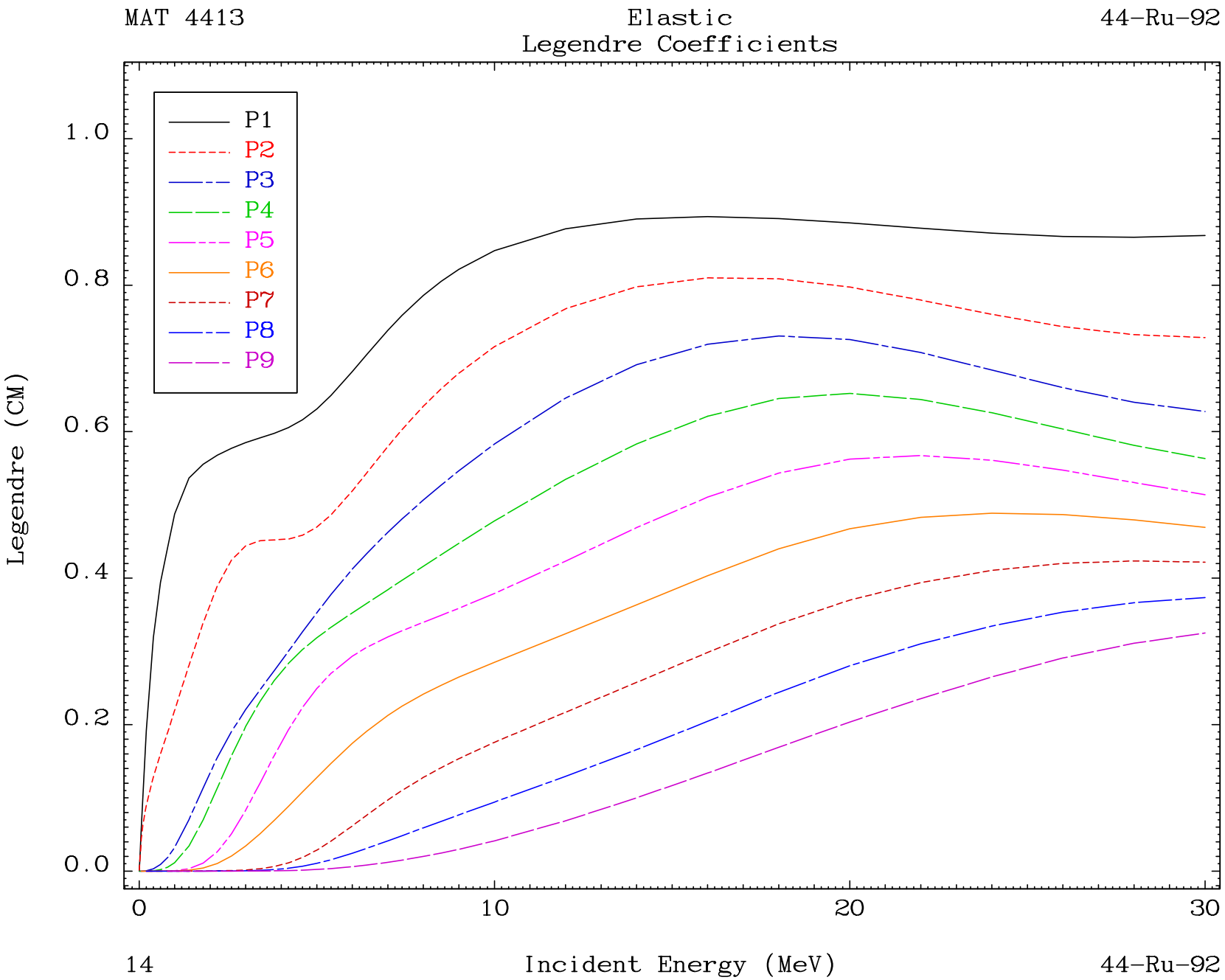

MAT 4413
(n,p) Levels
44-Ru-92
293 Kelvin Cross Sections
Cross Section (barns)
10^5
10^4
10^3
10^2
10^1
10^0
10^-1
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
9
44-Ru-92

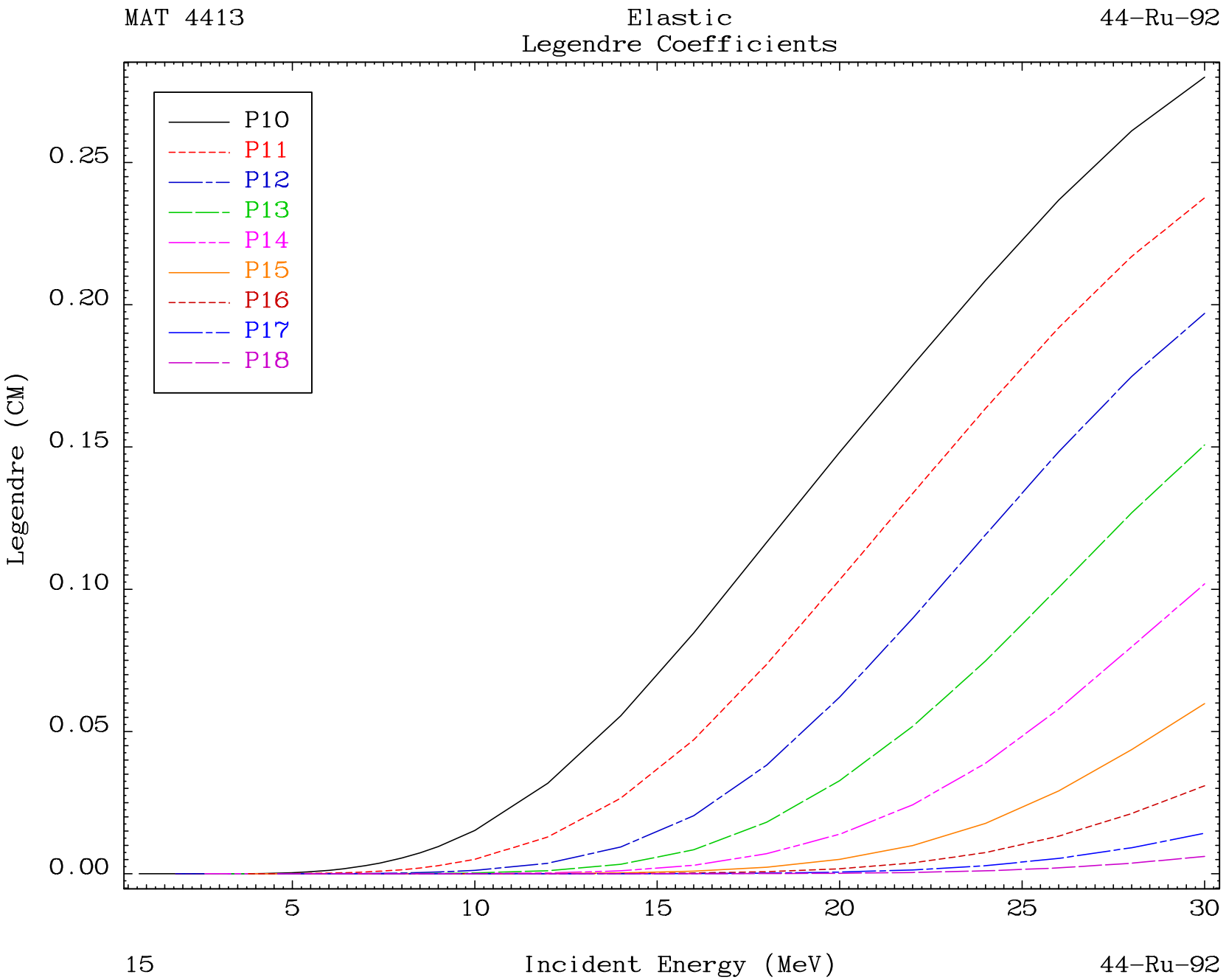

MAT 4413
(n,d) Levels
44-Ru-92
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
10
44-Ru-92

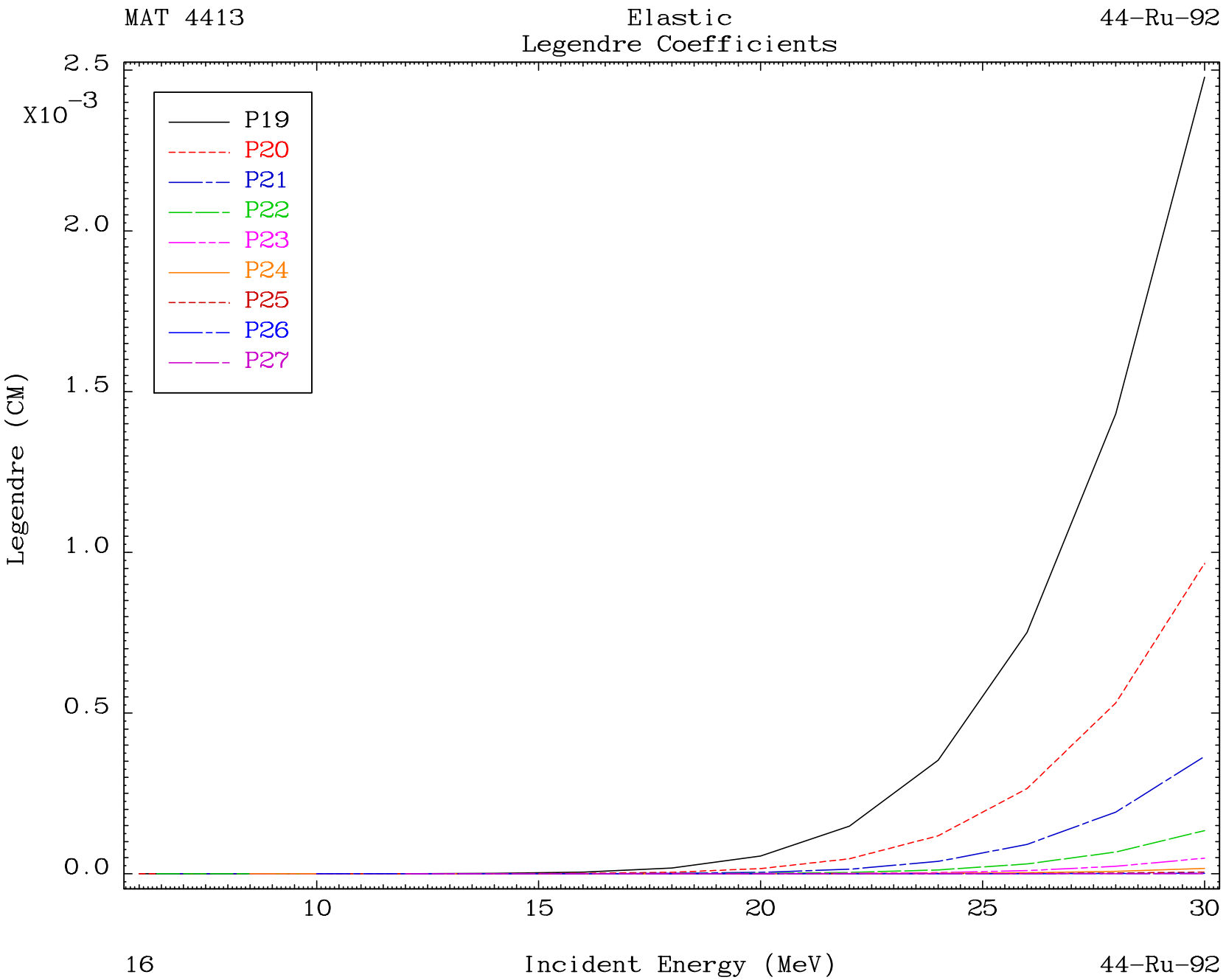

MAT 4413
(n,t) Levels
44-Ru-92
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
11
44-Ru-92

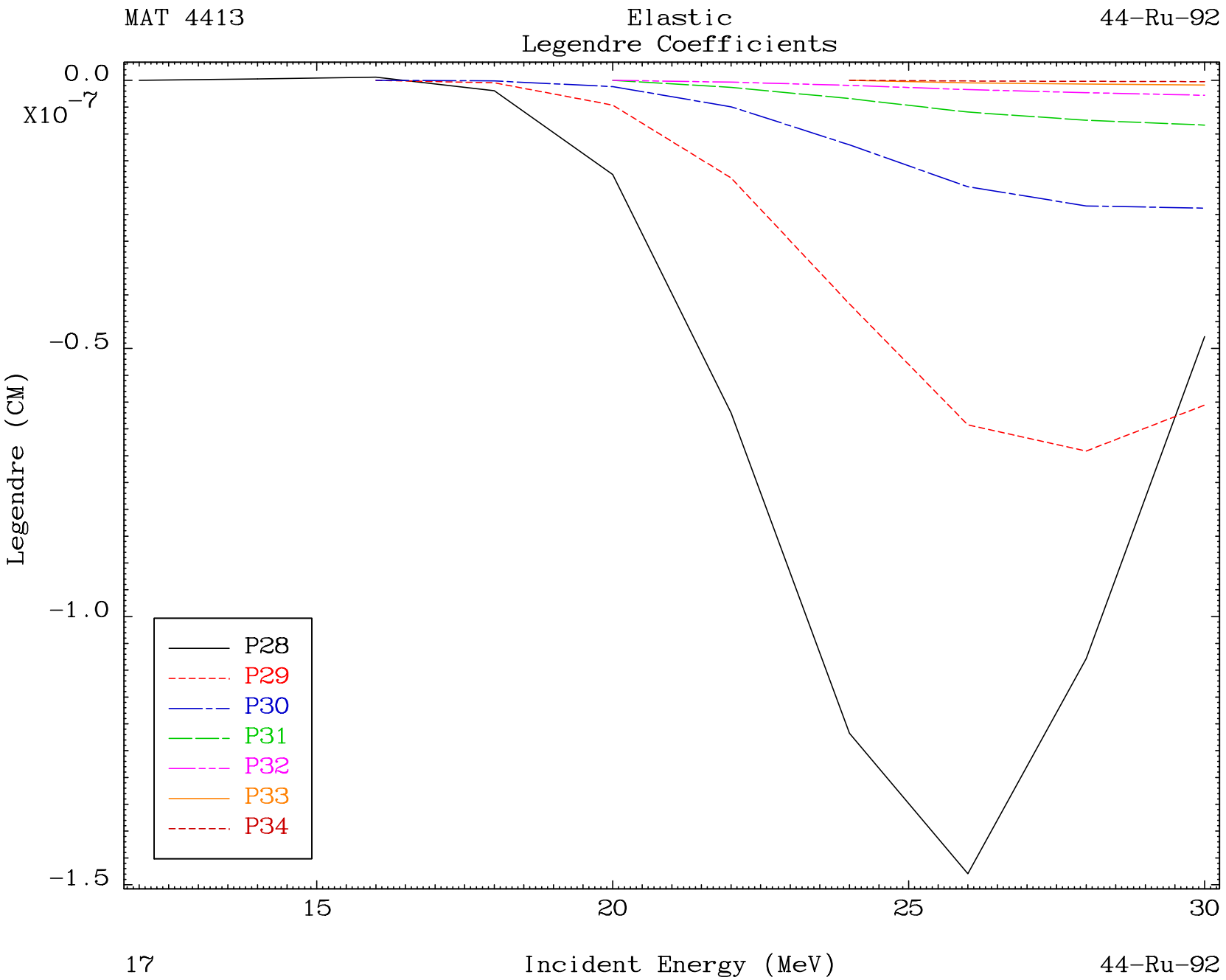

MAT 4413
(n,He3) Levels
44-Ru-92
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
10^-10
10^0
10^1
10^2
Incident Energy (MeV)
12
44-Ru-92

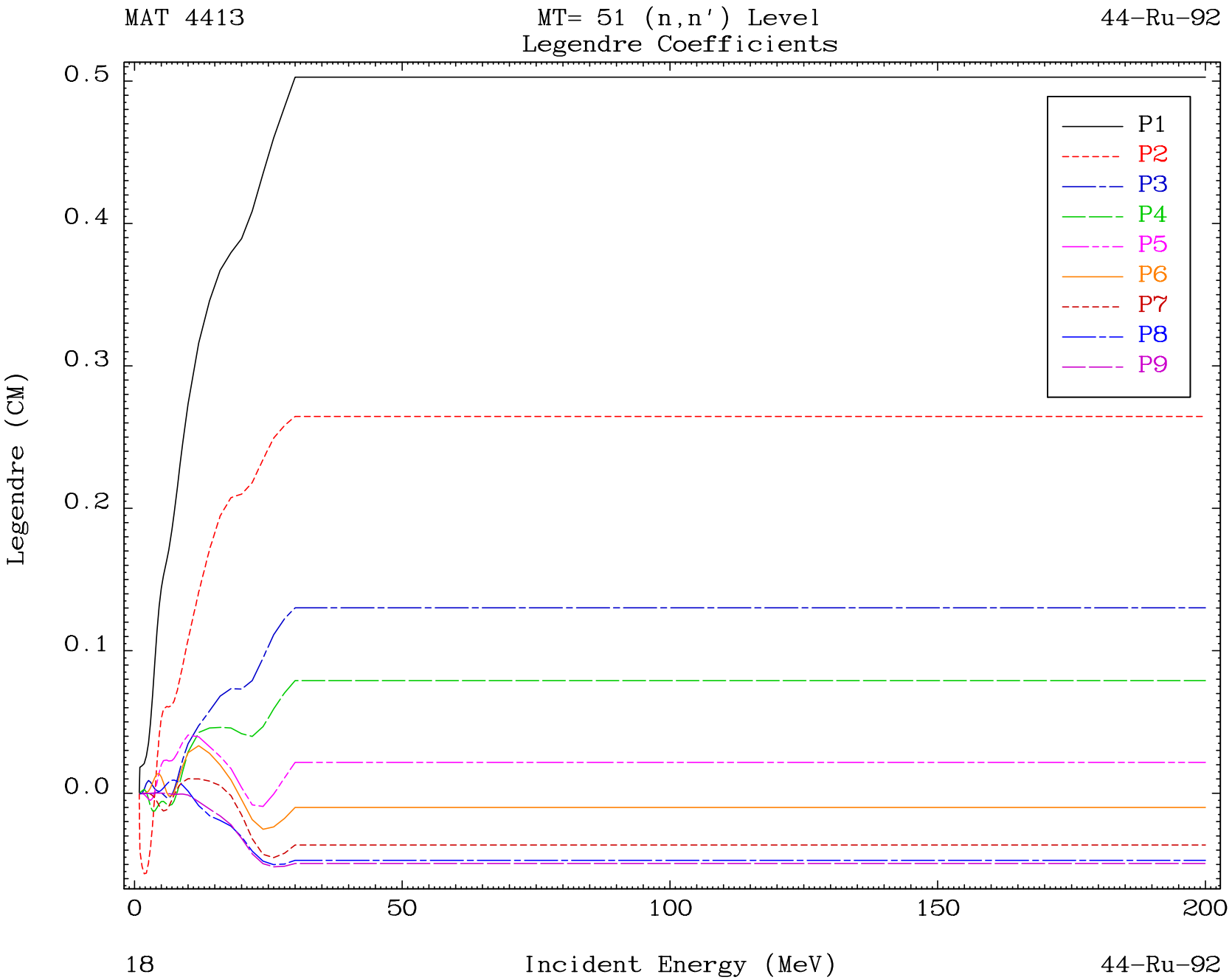

MAT 4413
(n,α) Levels
44-Ru-92
293 Kelvin Cross Sections
Cross Section (barns)
10-2
10-4
10-6
10-8
10-10
10-8
10-6
10-4
10-2
100
102
Incident Energy (MeV)
(n,α)
(n,2α)
(n,3α)
13
44-Ru-92

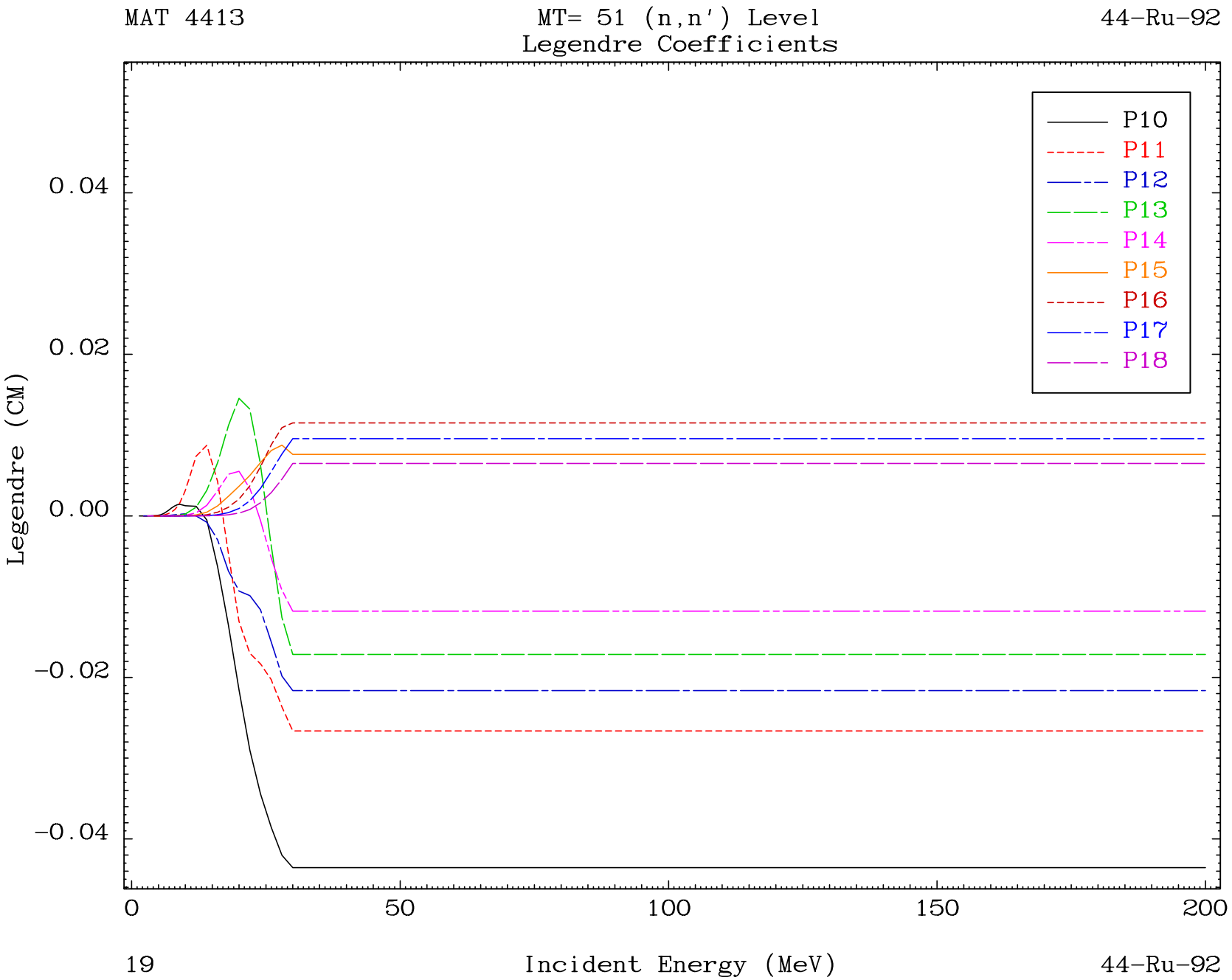

MAT 4413
Elastic
Legendre Coefficients
44-Ru-92
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
14
Incident Energy (MeV)
44-Ru-92

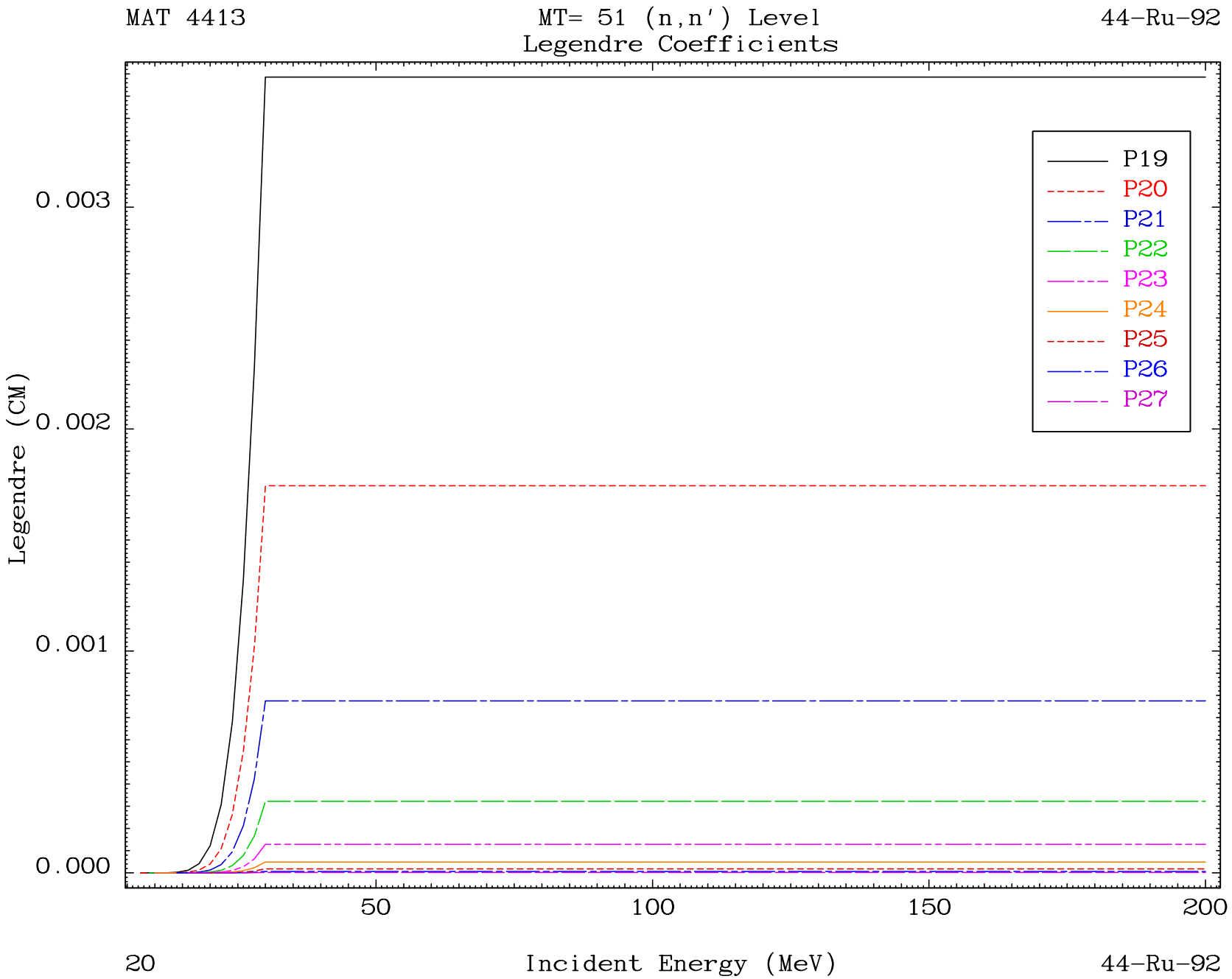

MAT 4413
Elastic
Legendre Coefficients
44-Ru-92
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.25
0.20
0.15
0.10
0.05
0.00
5
10
15
20
25
30
15
Incident Energy (MeV)
44-Ru-92

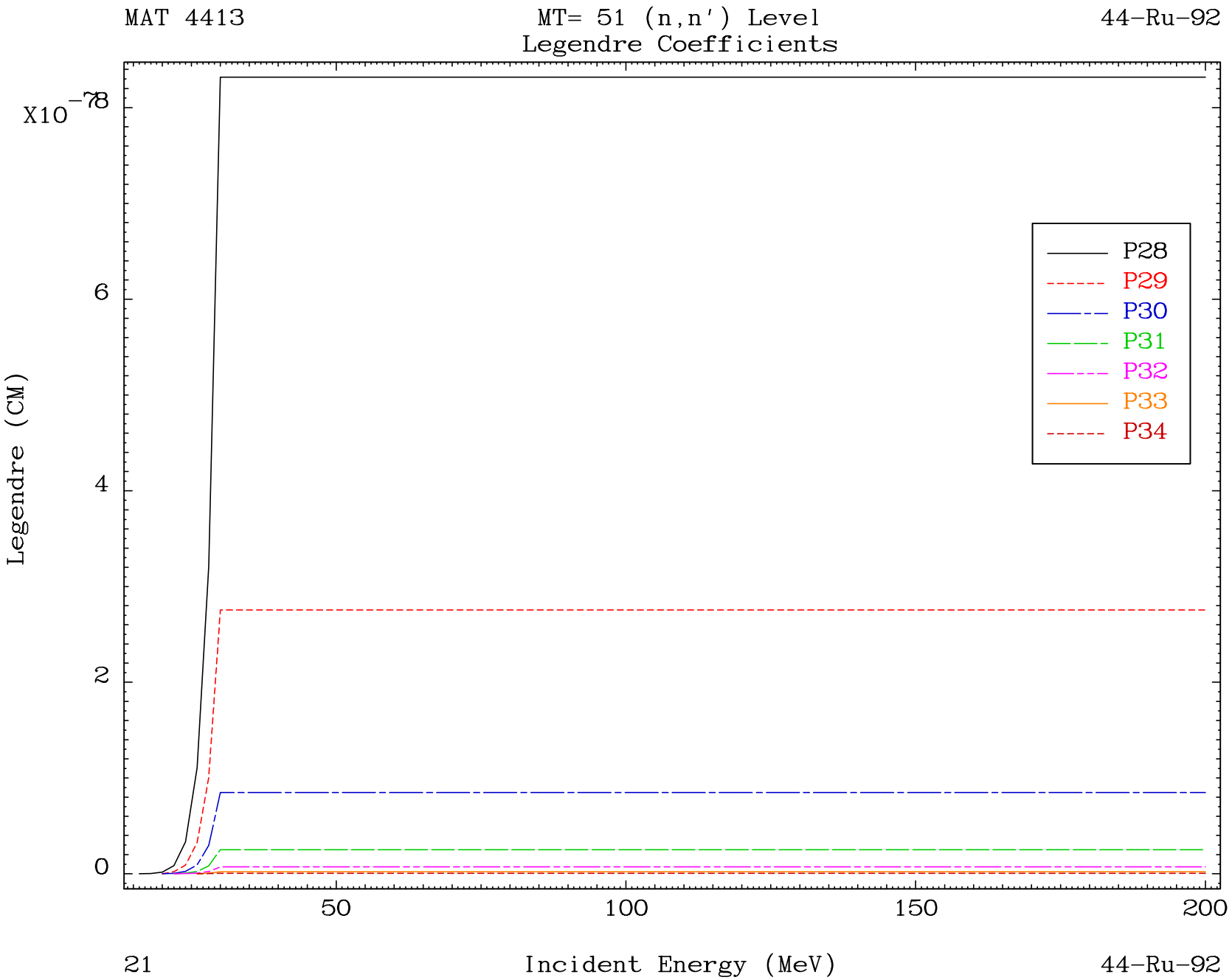

MAT 4413
Elastic
Legendre Coefficients
44-Ru-92
X10 -3
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
10
15
20
25
30
16
Incident Energy (MeV)
44-Ru-92

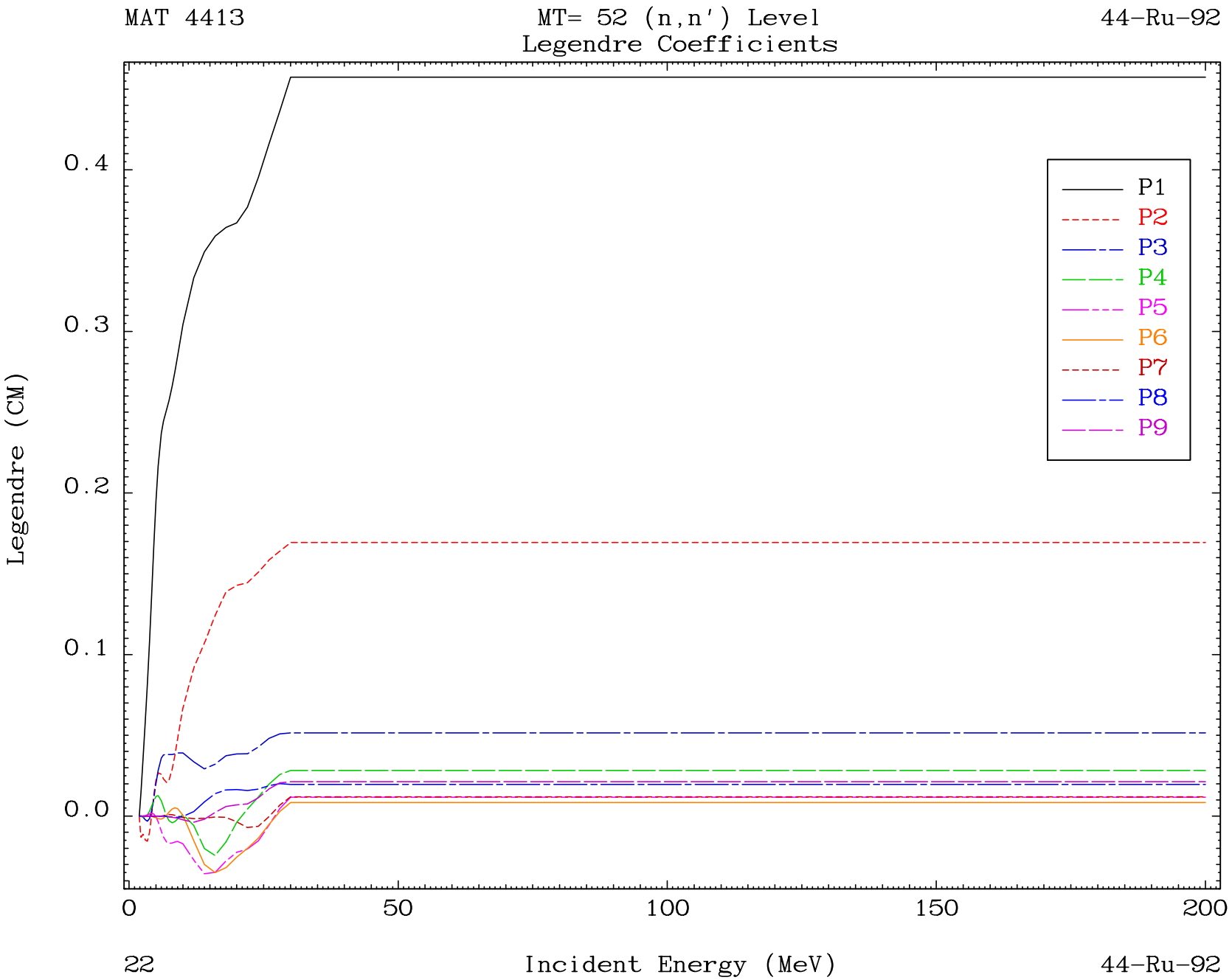

MAT 4413
Elastic
Legendre Coefficients
44-Ru-92
0.0
X10^-7
-0.5
-1.0
-1.5
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
15
20
25
30
17
Incident Energy (MeV)
44-Ru-92

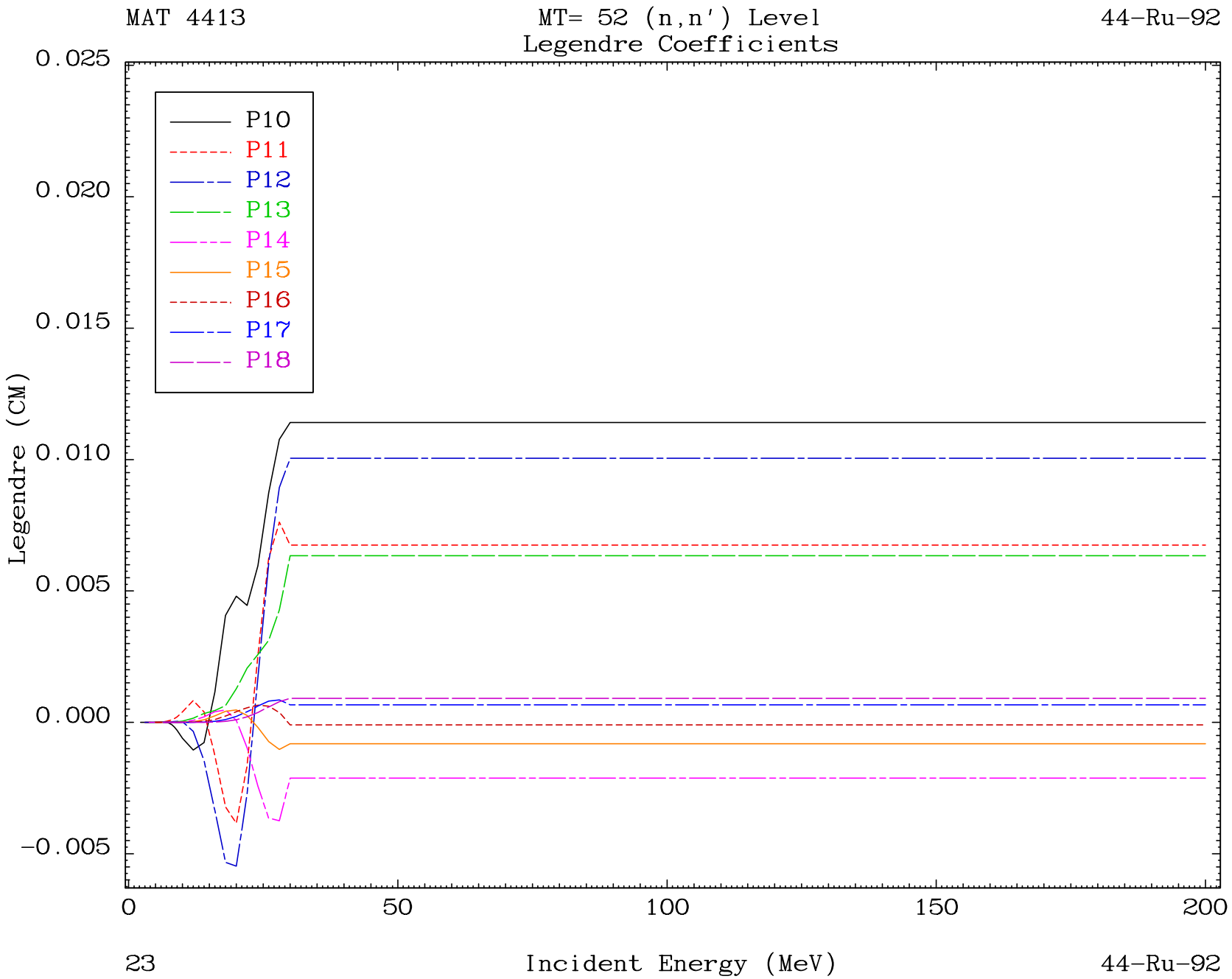

MAT 4413
MT= 51 (n,n') Level
Legendre Coefficients
44-Ru-92
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
18
Incident Energy (MeV)
44-Ru-92

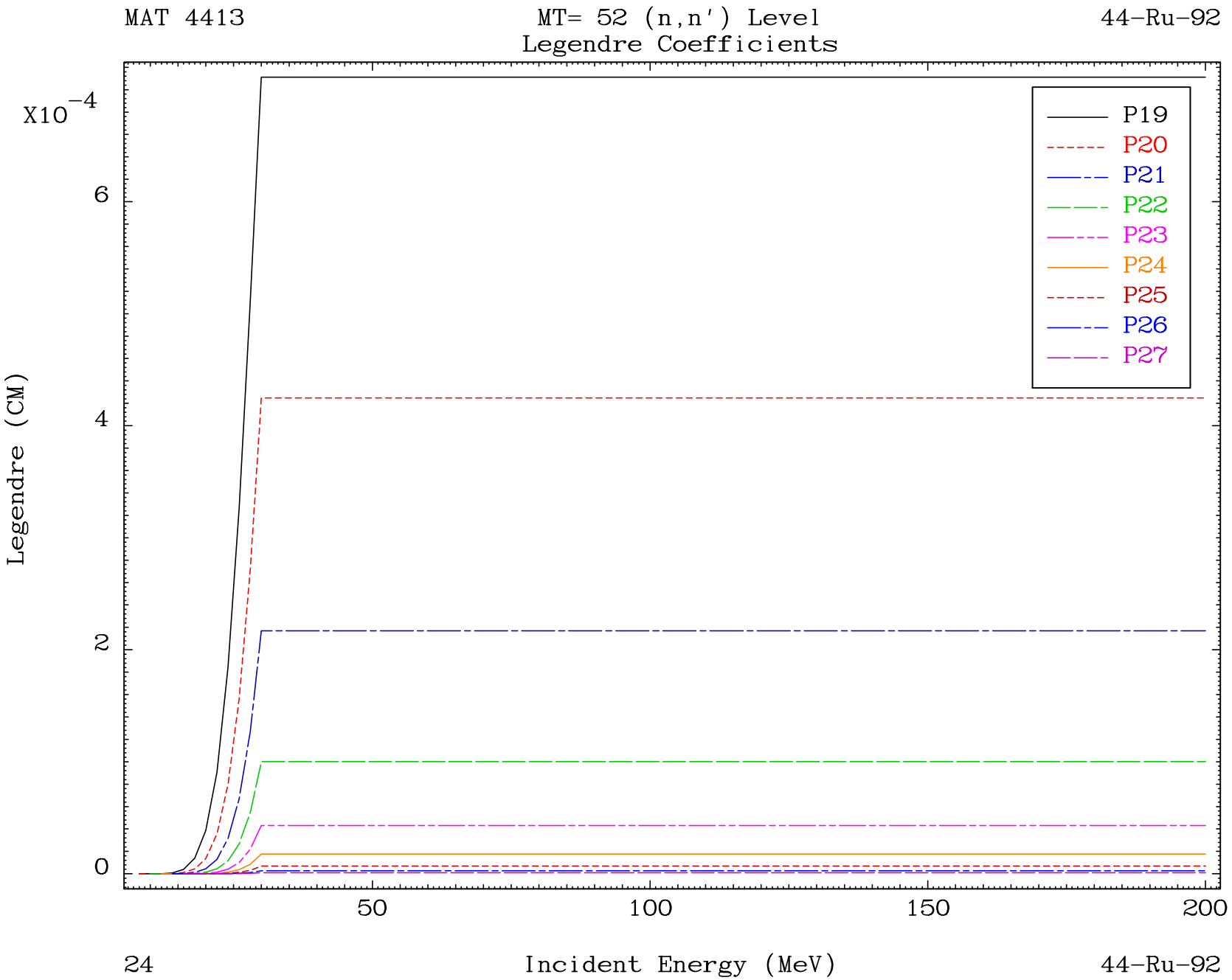

MAT 4413
MT= 51 (n,n') Level
Legendre Coefficients
44-Ru-92
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
19
Incident Energy (MeV)
44-Ru-92

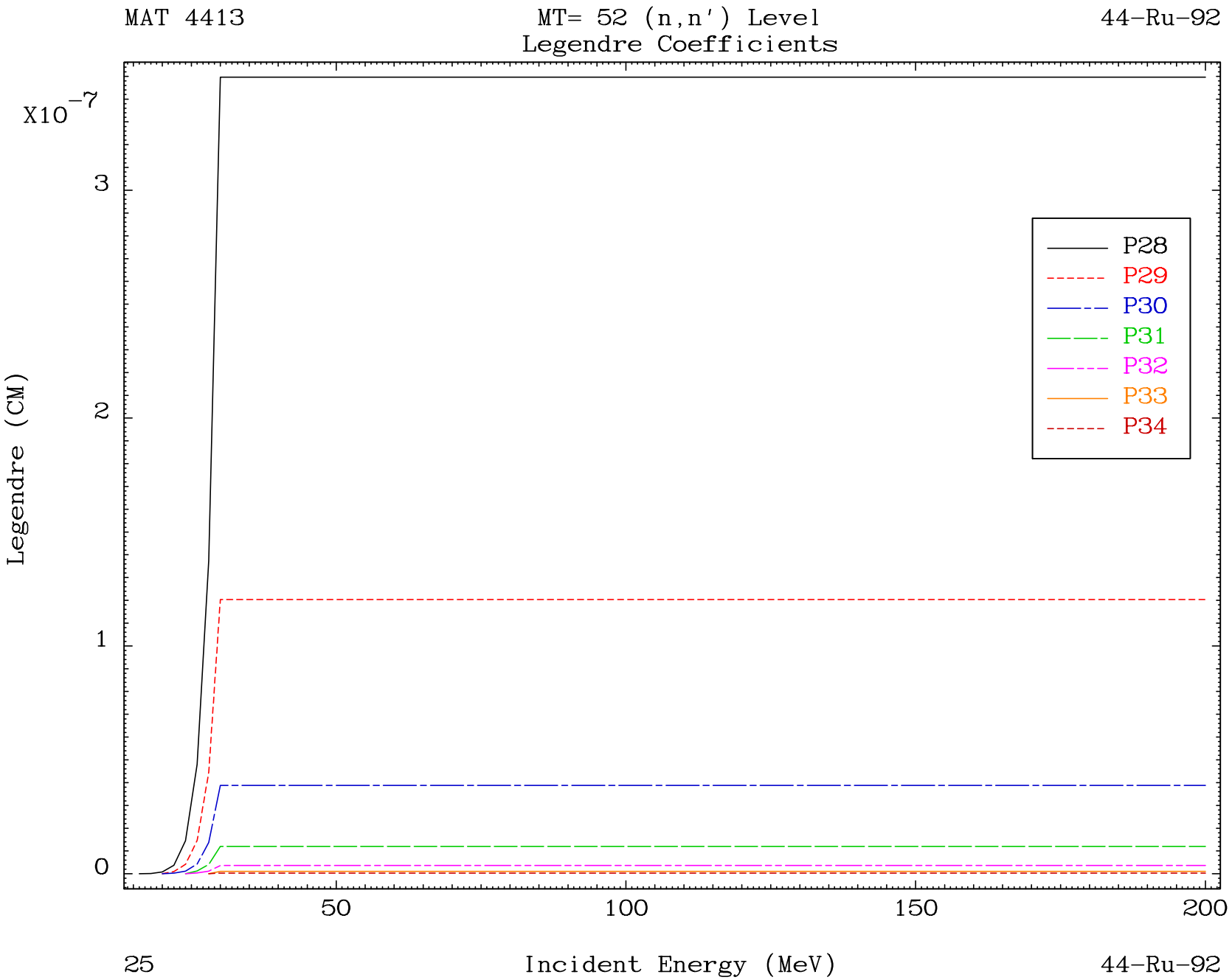

MAT 4413
MT= 51 (n,n') Level
Legendre Coefficients
44-Ru-92
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.003
0.002
0.001
0.000
Legendre (CM)
50
100
150
200
20
Incident Energy (MeV)
44-Ru-92

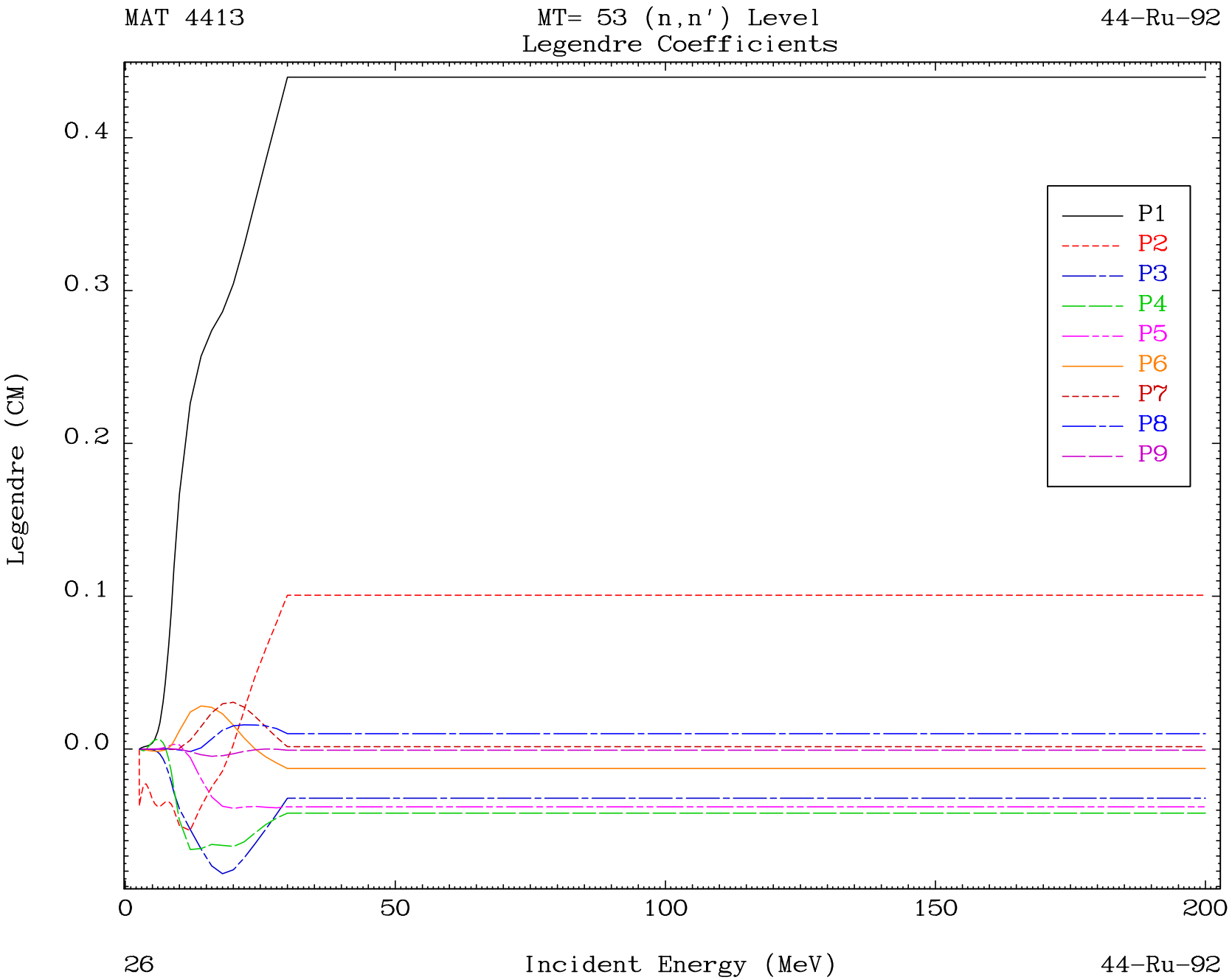

MAT 4413
MT= 51 (n,n') Level
Legendre Coefficients
44-Ru-92
X10^-78
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
21
Incident Energy (MeV)
44-Ru-92

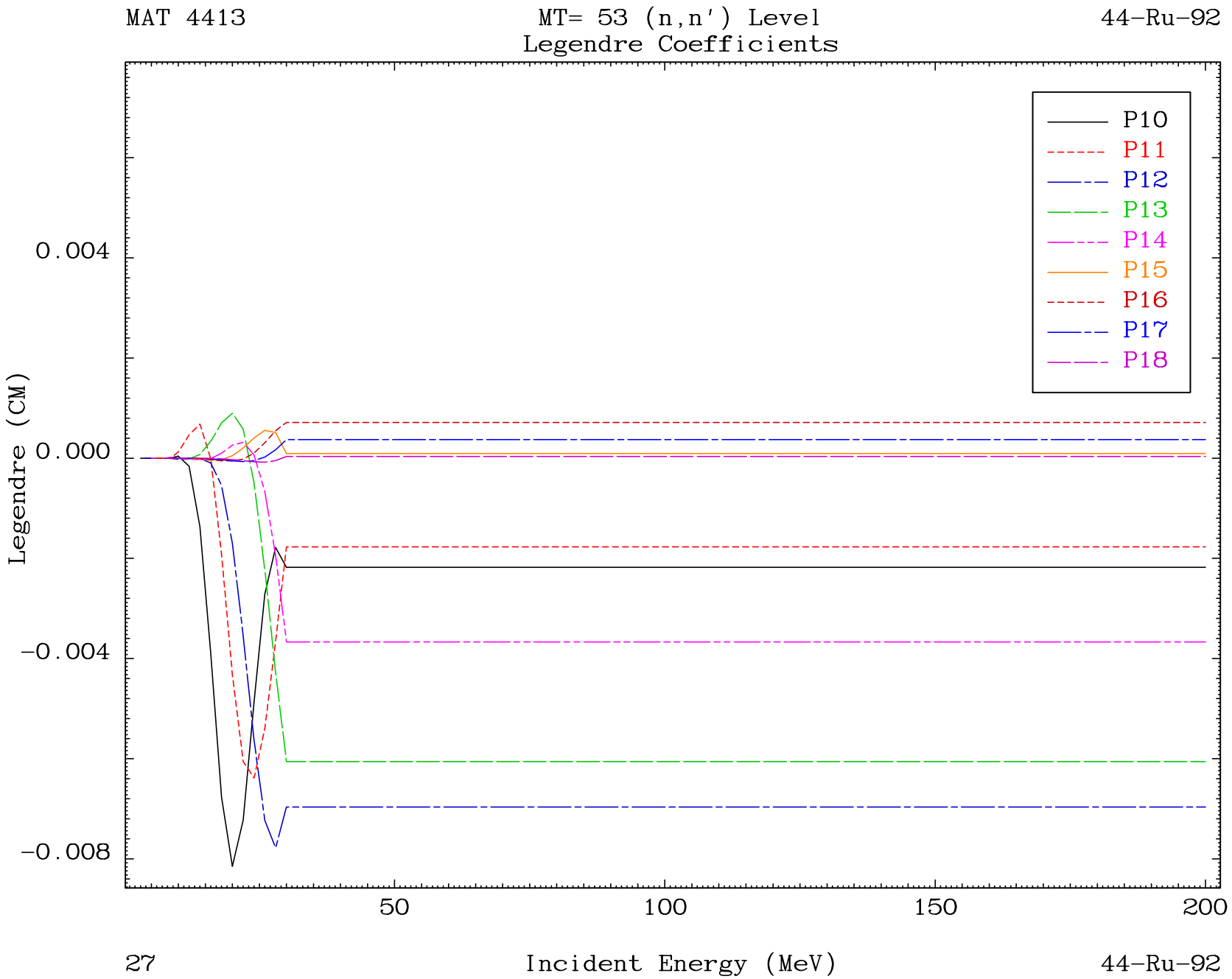

MAT 4413
MT= 52 (n,n') Level
Legendre Coefficients
44-Ru-92
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
22
Incident Energy (MeV)
44-Ru-92

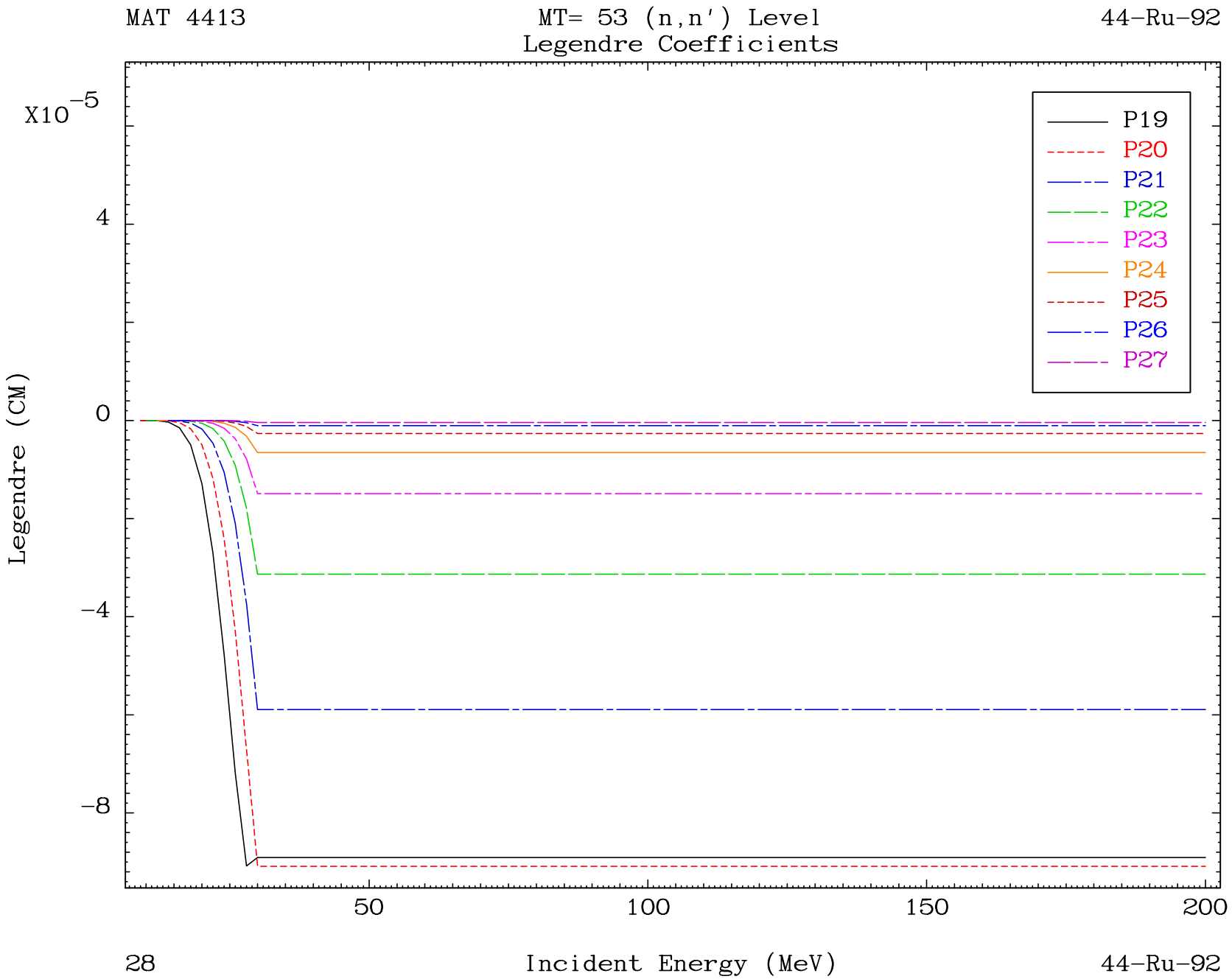

MAT 4413
MT= 52 (n,n') Level
Legendre Coefficients
44-Ru-92
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.025
0.020
0.015
0.010
0.005
0.000
-0.005
0
50
100
150
200
23
Incident Energy (MeV)
44-Ru-92

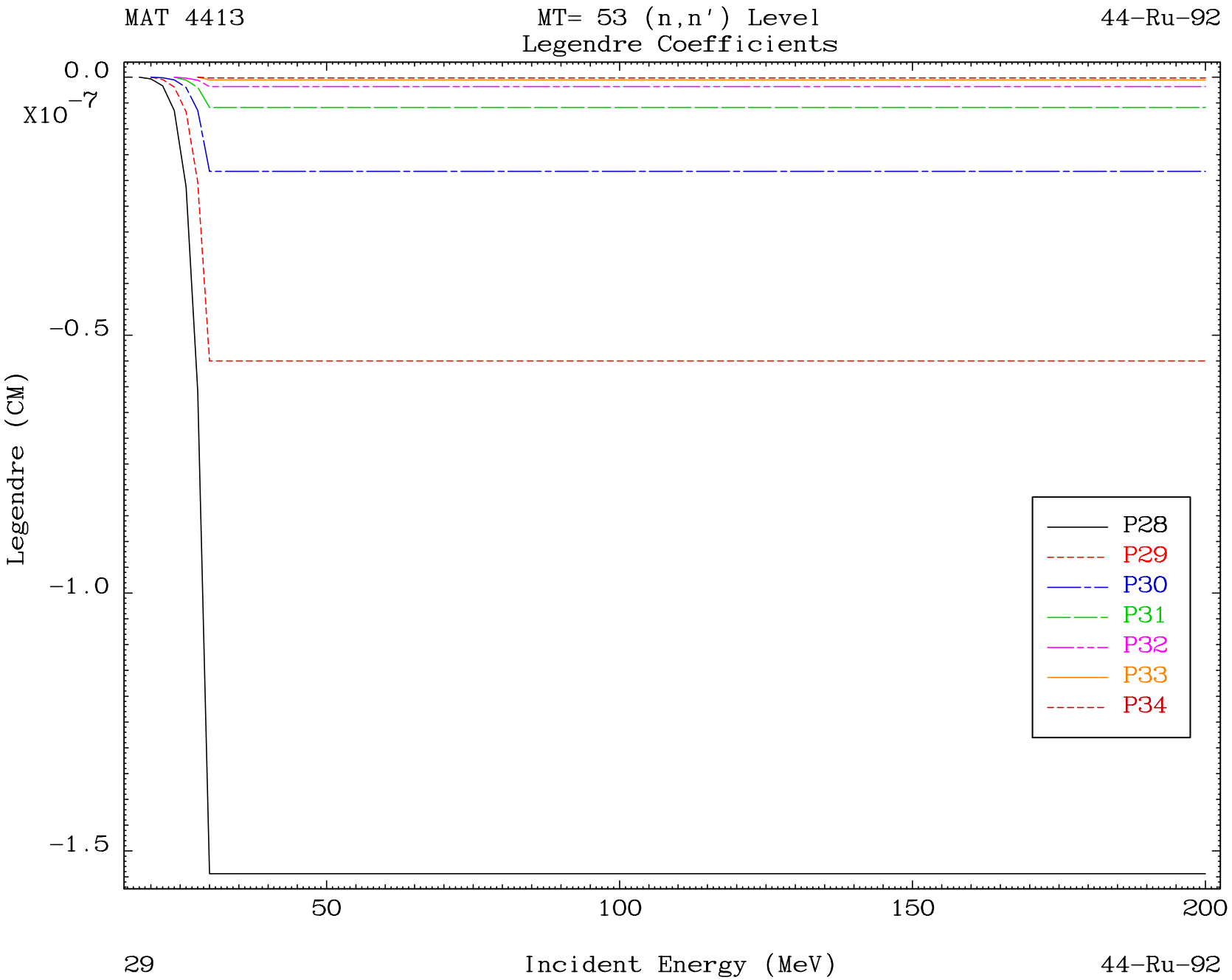

MAT 4413
MT= 52 (n,n') Level
Legendre Coefficients
44-Ru-92
X10^-4
6
4
2
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
24
Incident Energy (MeV)
44-Ru-92

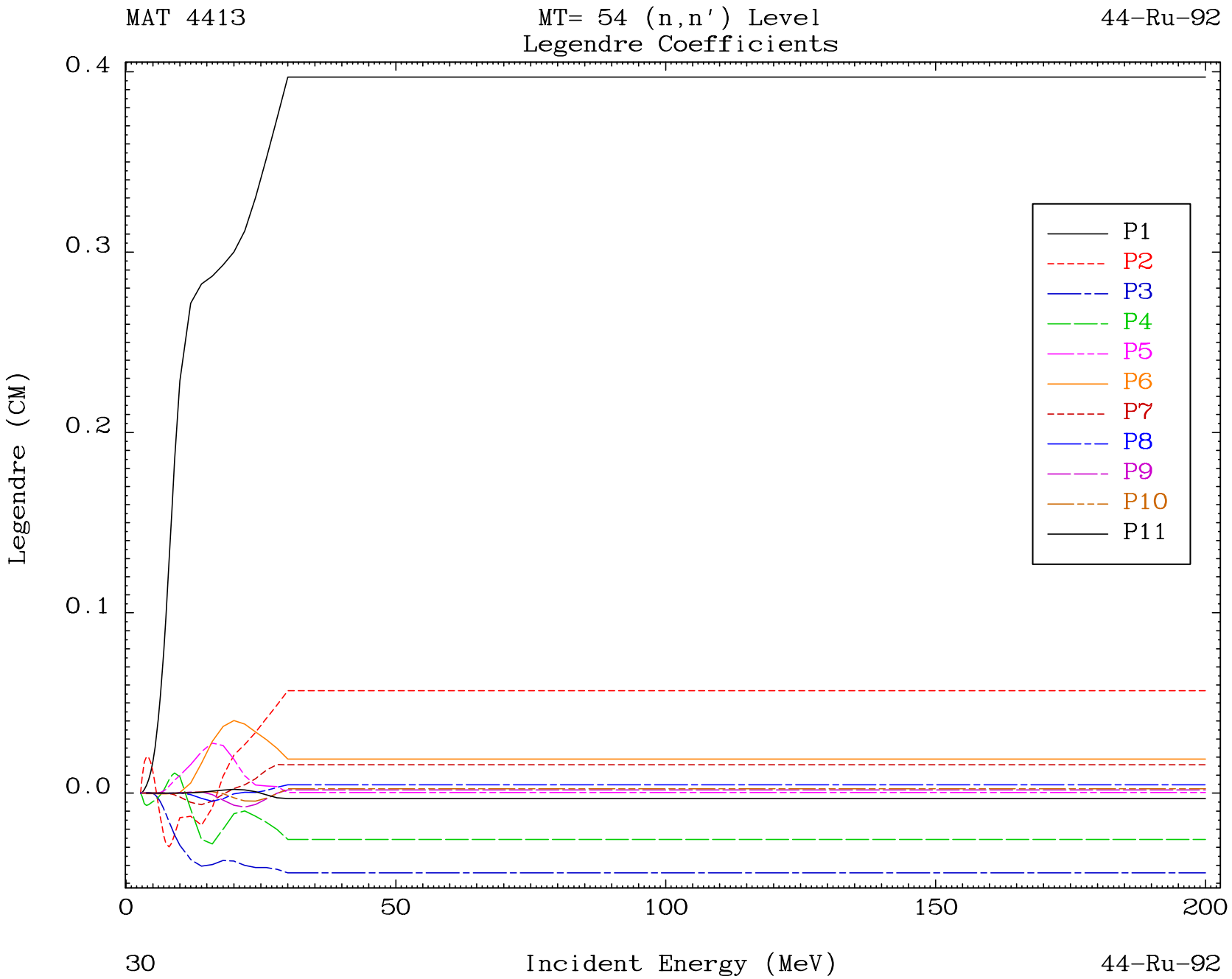

MAT 4413
MT= 52 (n,n') Level
Legendre Coefficients
44-Ru-92
X10-7
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
25
Incident Energy (MeV)
44-Ru-92

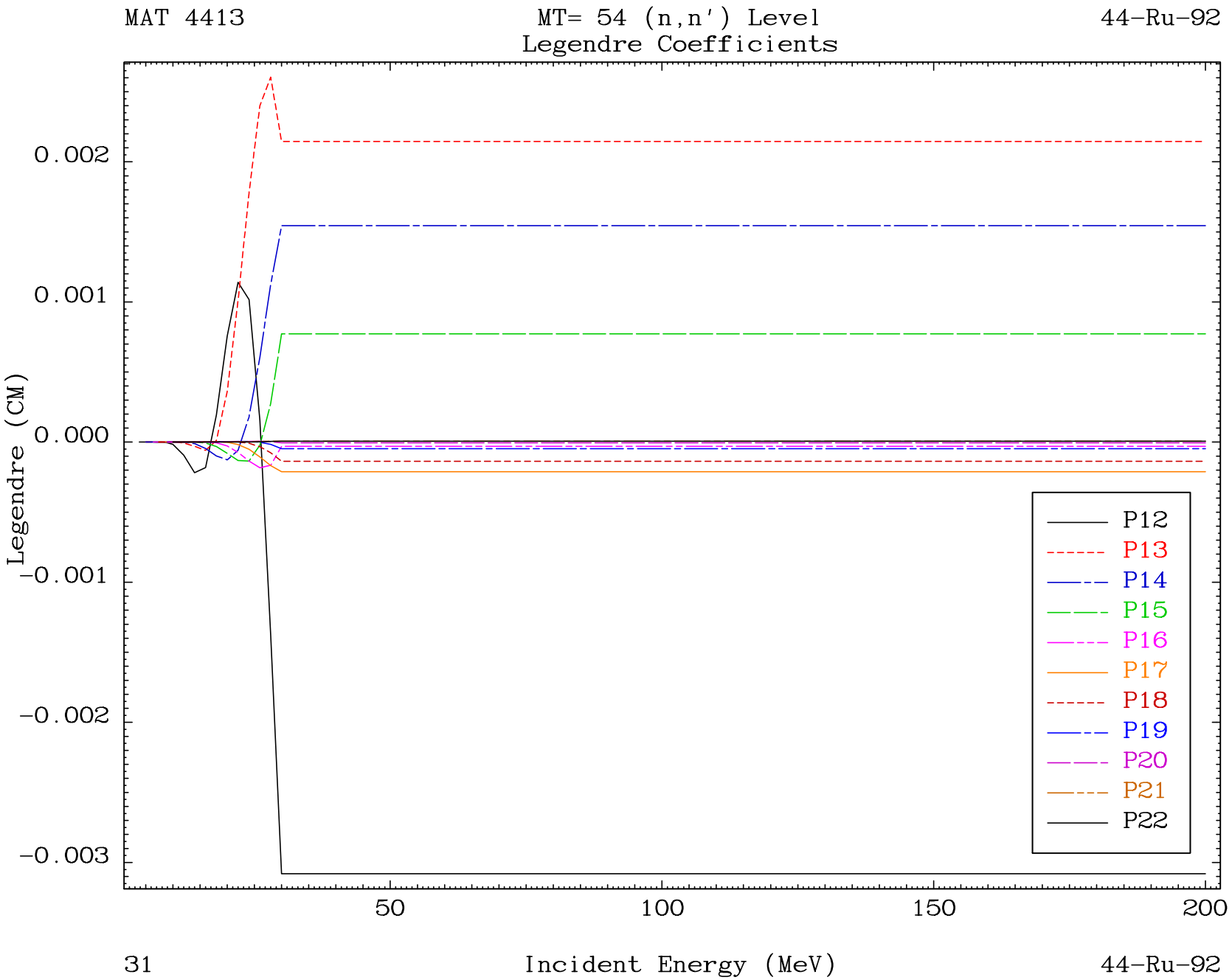

MAT 4413
MT= 53 (n,n') Level
Legendre Coefficients
44-Ru-92
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
26
44-Ru-92
P1
P2
P3
P4
P5
P6
P7
P8
P9

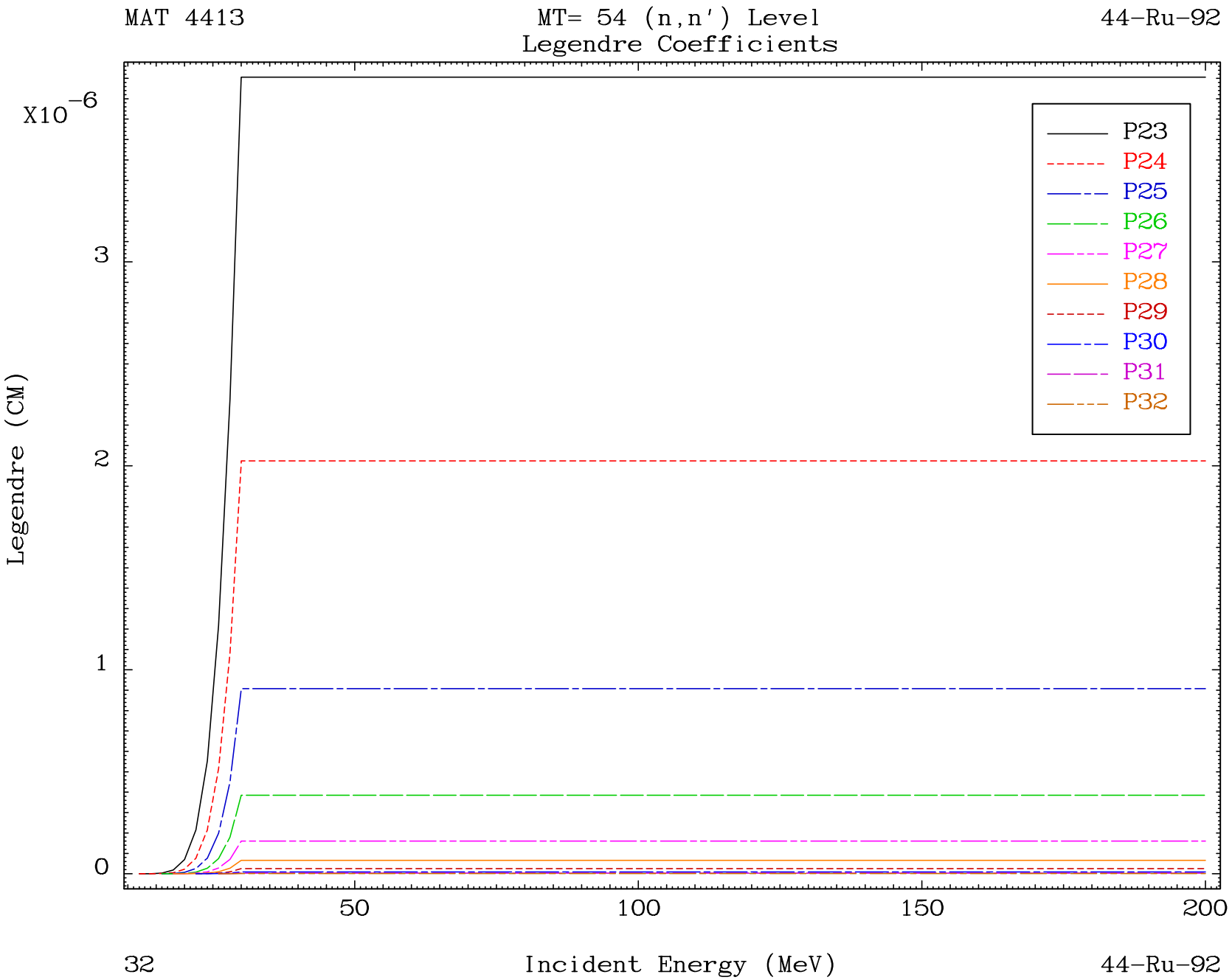

MAT 4413
MT= 53 (n,n') Level
Legendre Coefficients
44-Ru-92
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.004
0.000
-0.004
-0.008
Legendre (CM)
50
100
150
200
27
Incident Energy (MeV)
44-Ru-92

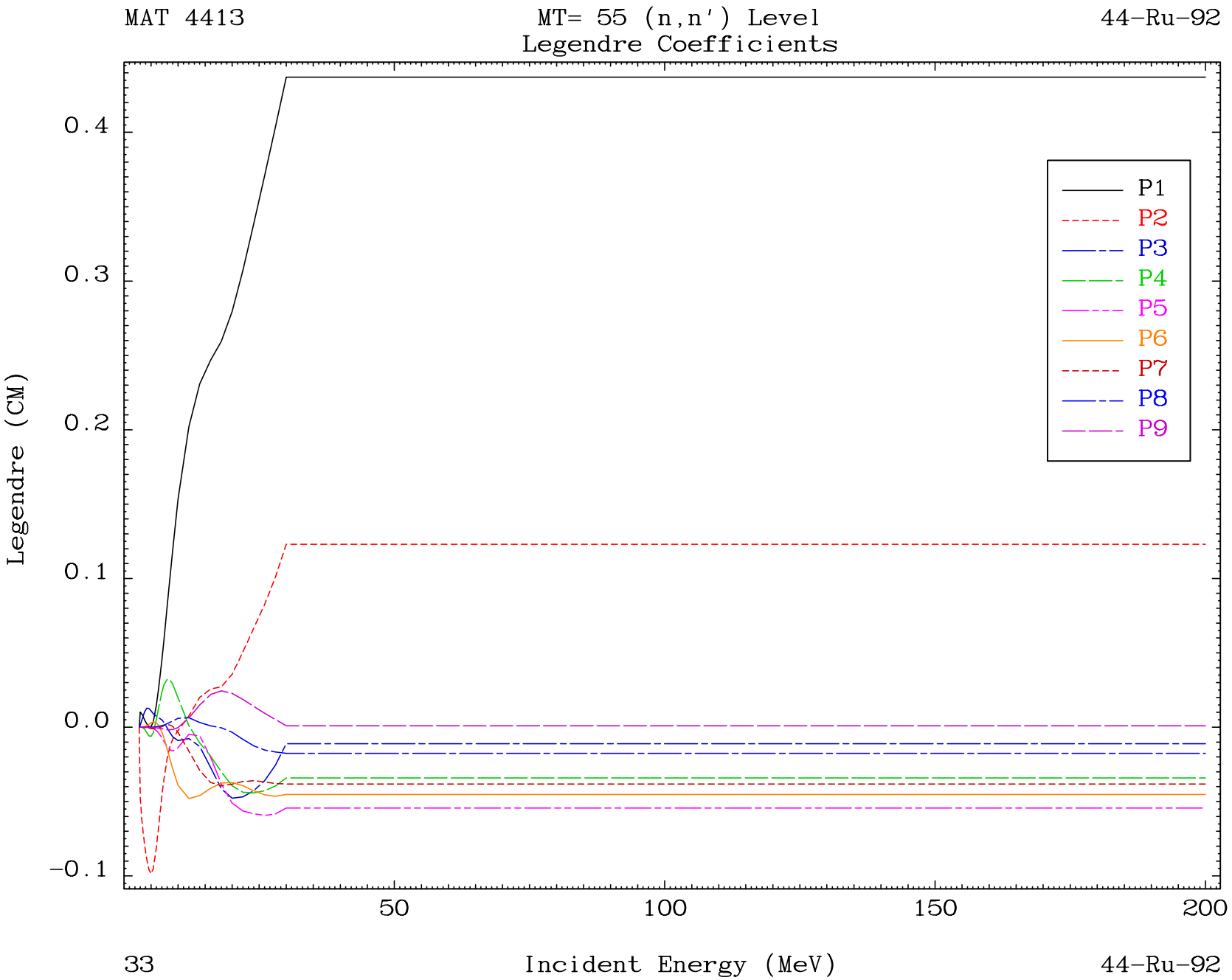

MAT 4413
MT= 53 (n,n') Level
Legendre Coefficients
44-Ru-92
X10 -5
4
0
-4
-8
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
28
Incident Energy (MeV)
44-Ru-92

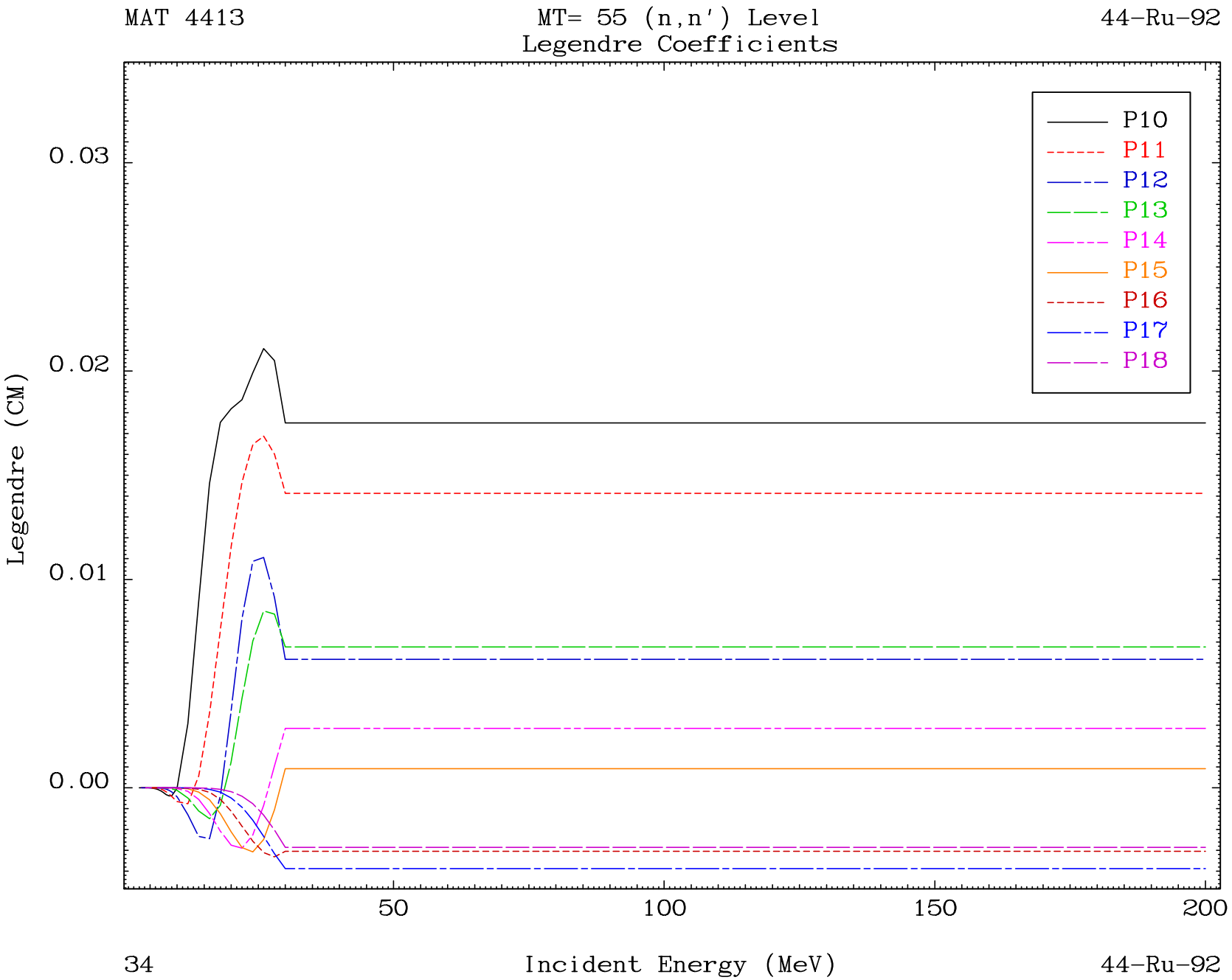

MAT 4413
MT= 53 (n,n') Level
Legendre Coefficients
44-Ru-92
0.0
X10^-7
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
29
Incident Energy (MeV)
44-Ru-92
P28
P29
P30
P31
P32
P33
P34

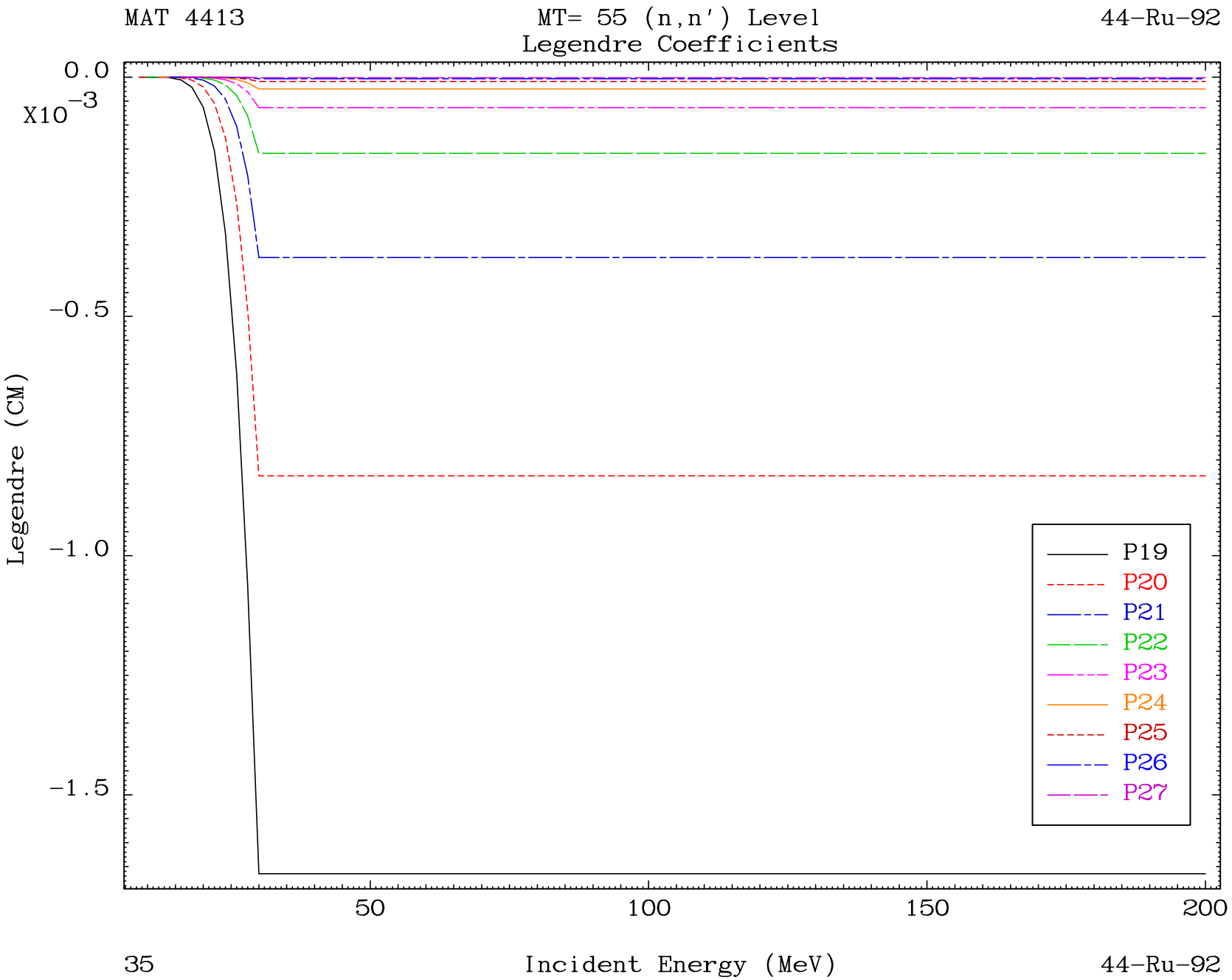

MAT 4413
MT= 54 (n,n') Level
Legendre Coefficients
44-Ru-92
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
0
50
100
150
200
30
Incident Energy (MeV)
44-Ru-92

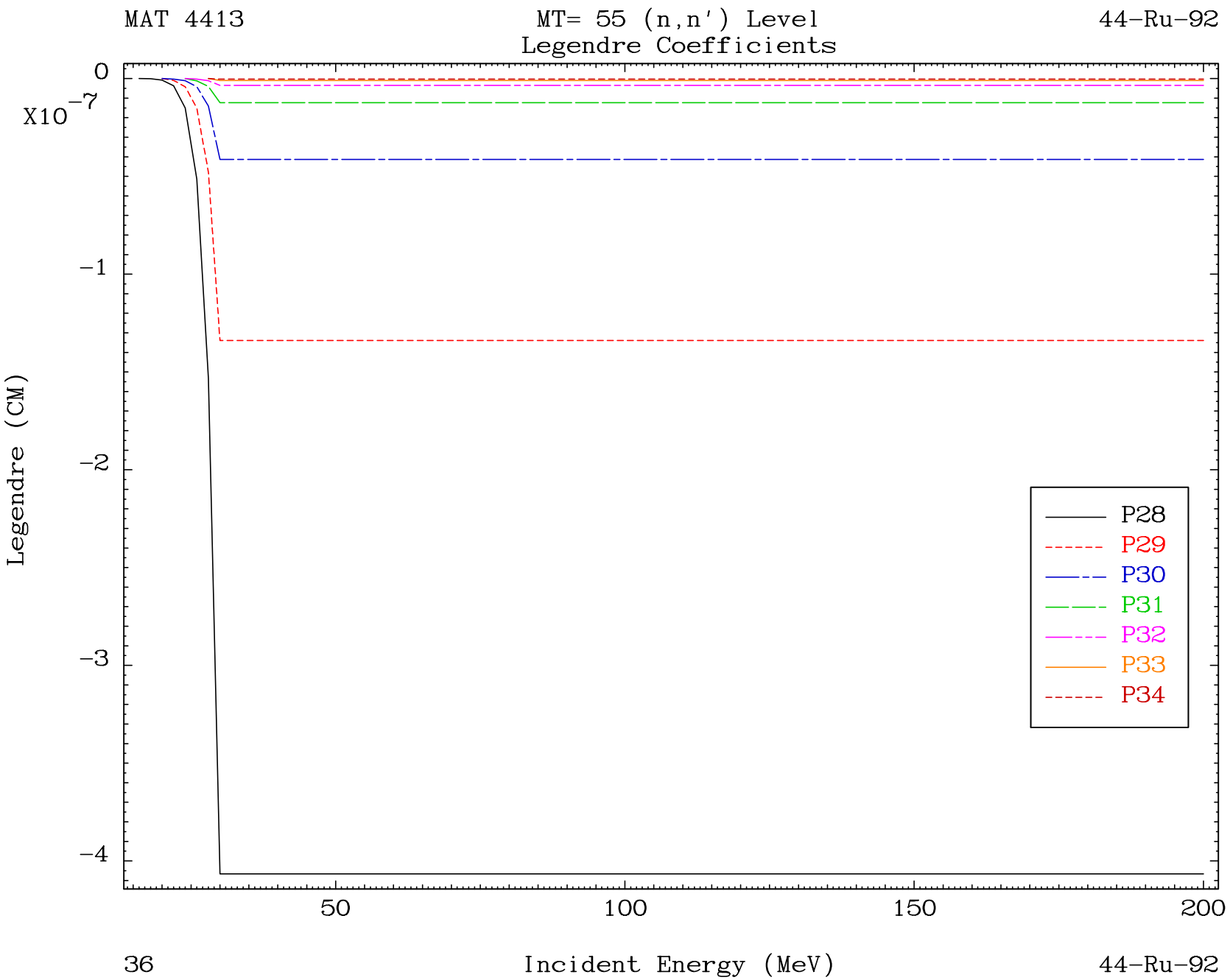

MAT 4413
MT= 54 (n,n') Level
Legendre Coefficients
44-Ru-92
0.002
0.001
0.000
-0.001
-0.002
-0.003
Legendre (CM)
50
100
150
200
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
31
Incident Energy (MeV)
44-Ru-92

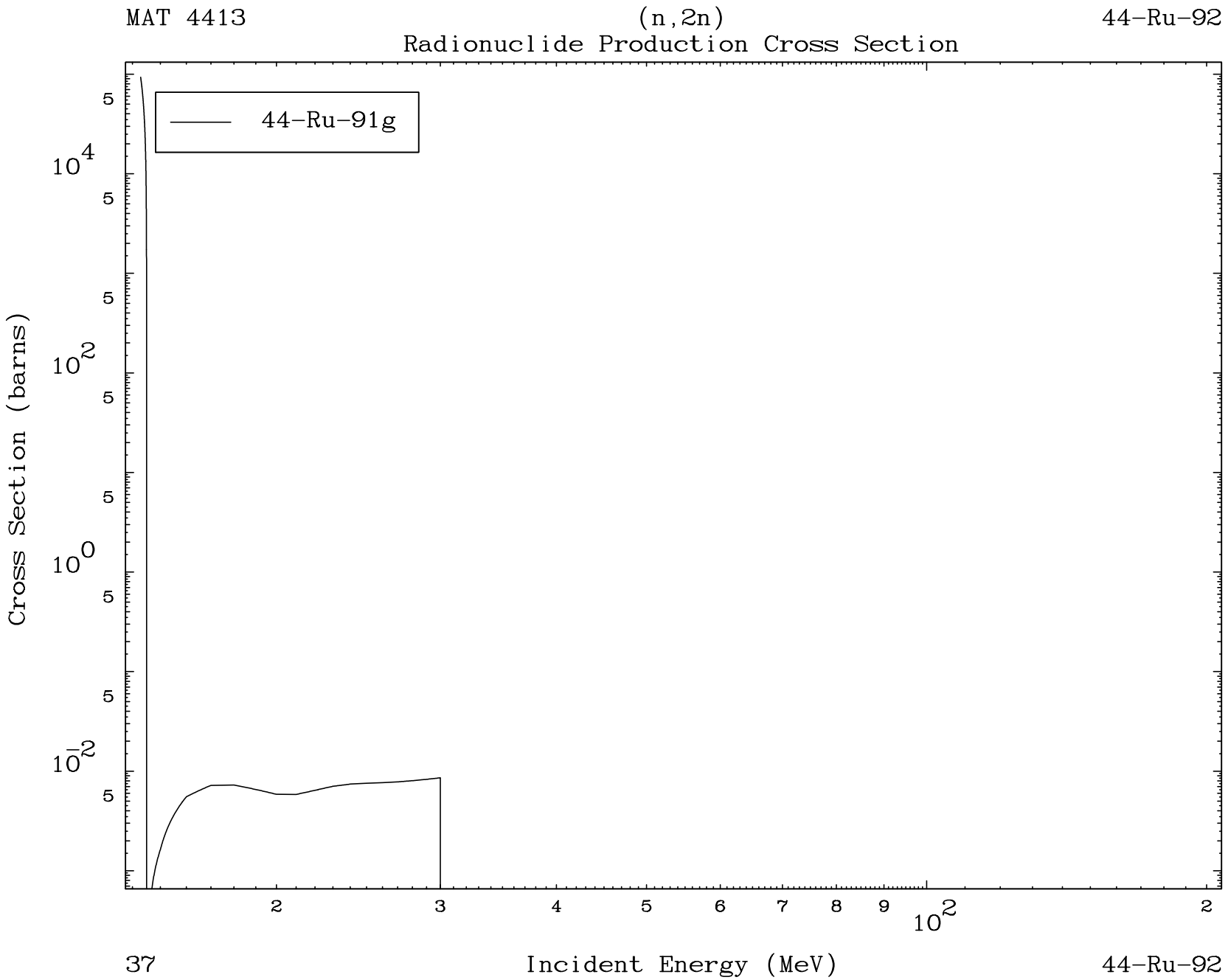

MAT 4413
MT= 54 (n,n') Level
Legendre Coefficients
44-Ru-92
X10^-6
3
2
1
0
Legendre (CM)
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32
50
100
150
200
32
Incident Energy (MeV)
44-Ru-92

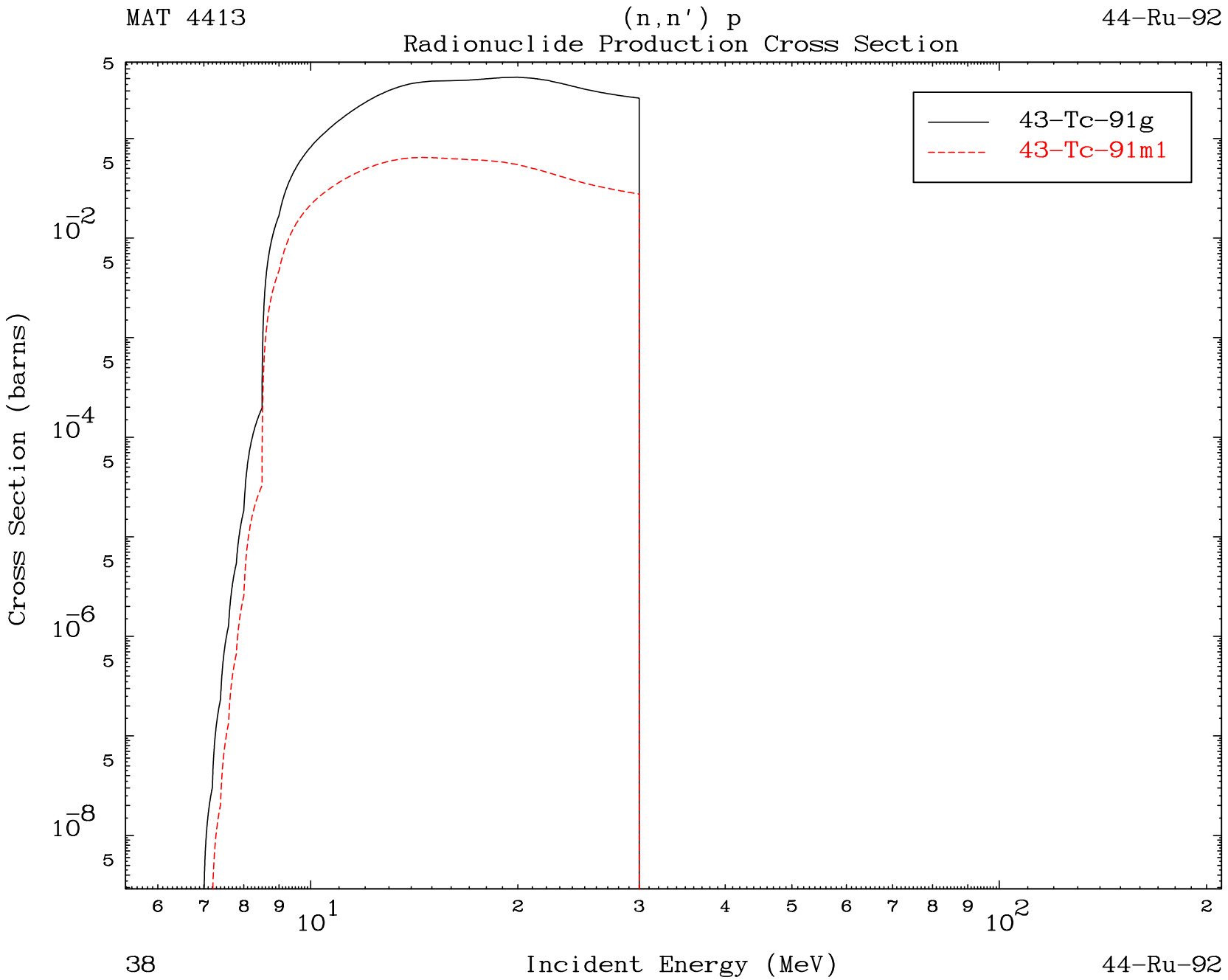

MAT 4413
MT= 55 (n,n') Level
Legendre Coefficients
44-Ru-92
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
33
Incident Energy (MeV)
44-Ru-92

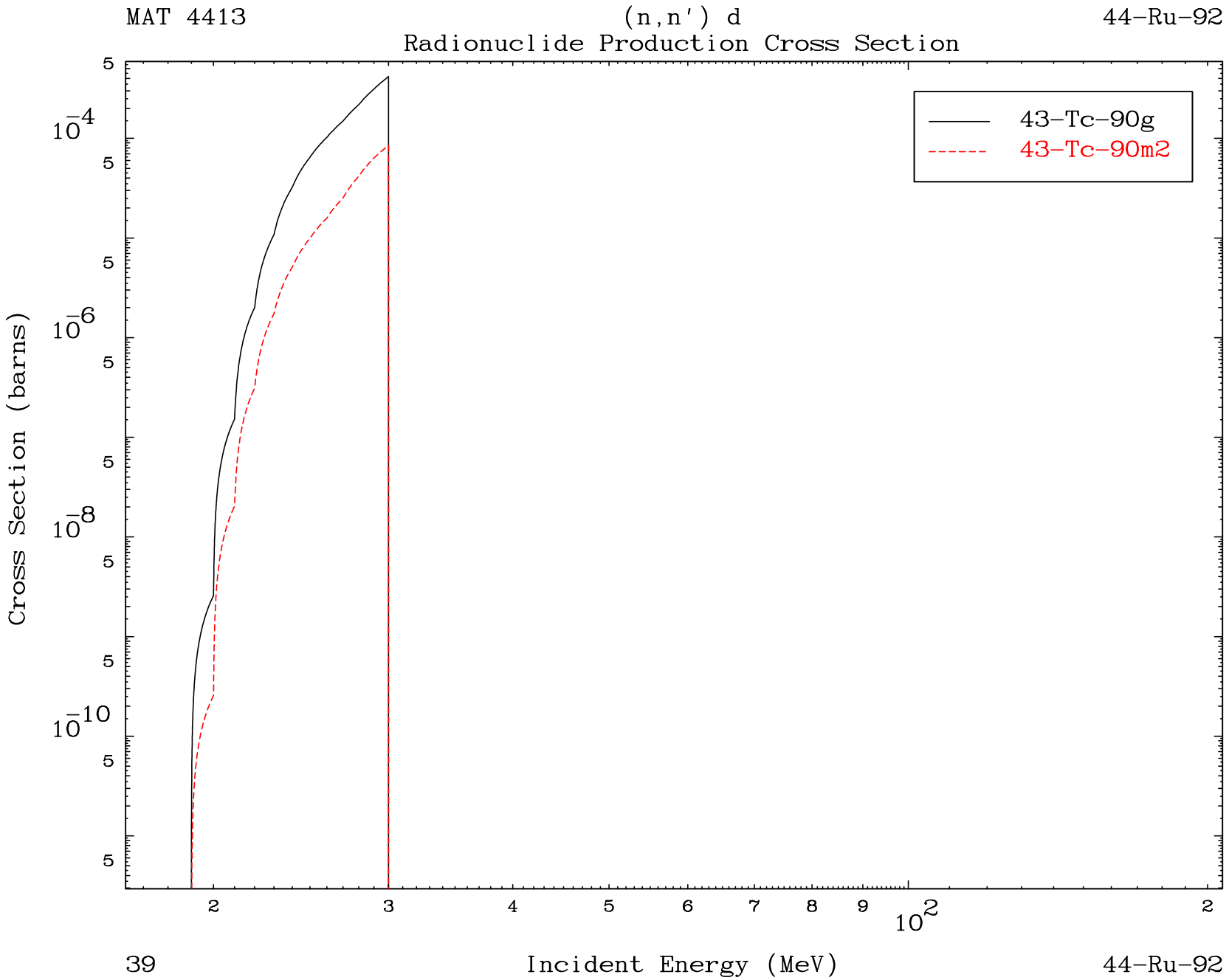

MAT 4413
MT= 55 (n,n') Level
Legendre Coefficients
44-Ru-92
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.03
0.02
0.01
0.00
Legendre (CM)
50
100
150
200
34
Incident Energy (MeV)
44-Ru-92

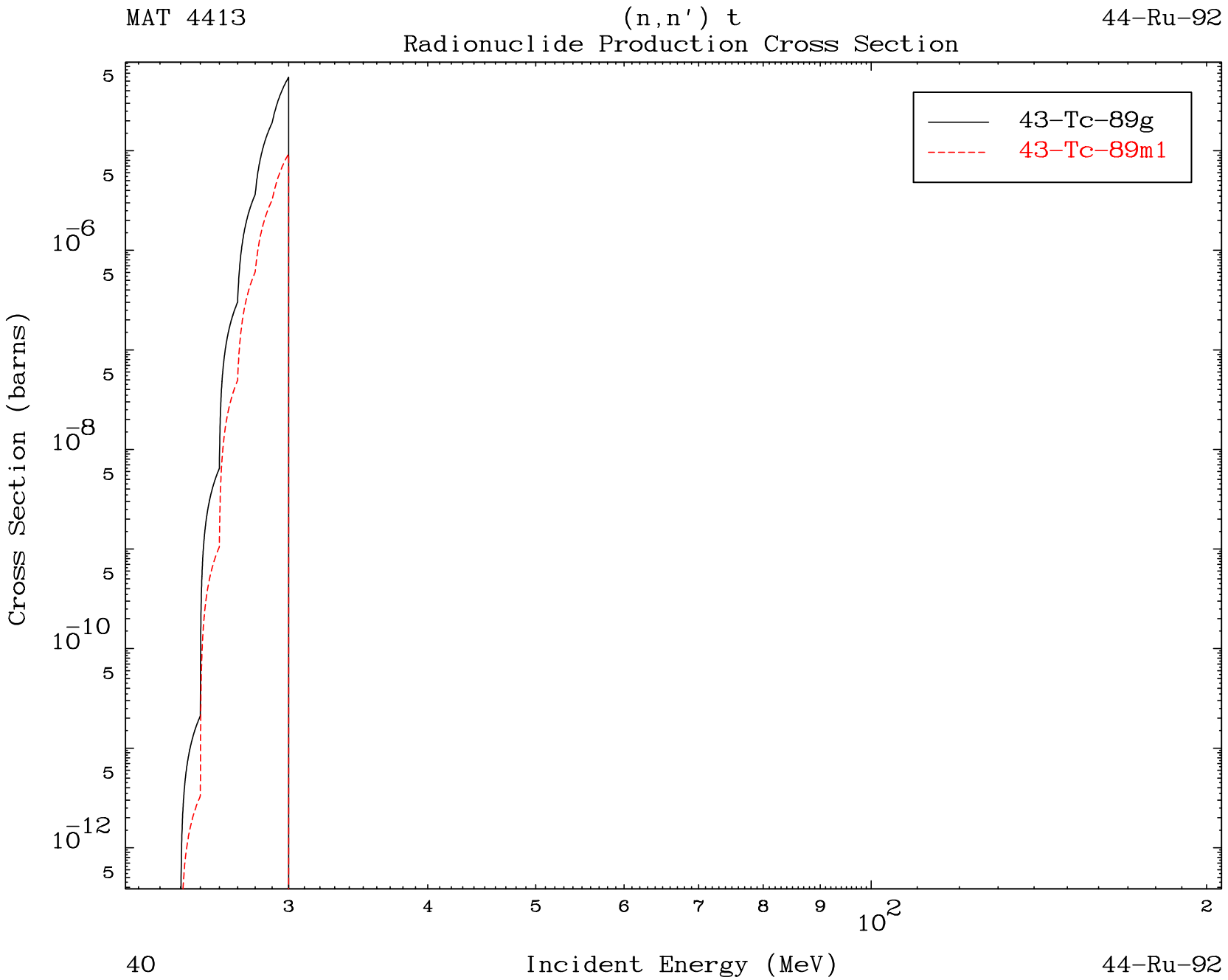

MAT 4413
MT= 55 (n,n') Level
Legendre Coefficients
44-Ru-92
0.0
X10^-3
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
35
Incident Energy (MeV)
44-Ru-92
P19
P20
P21
P22
P23
P24
P25
P26
P27

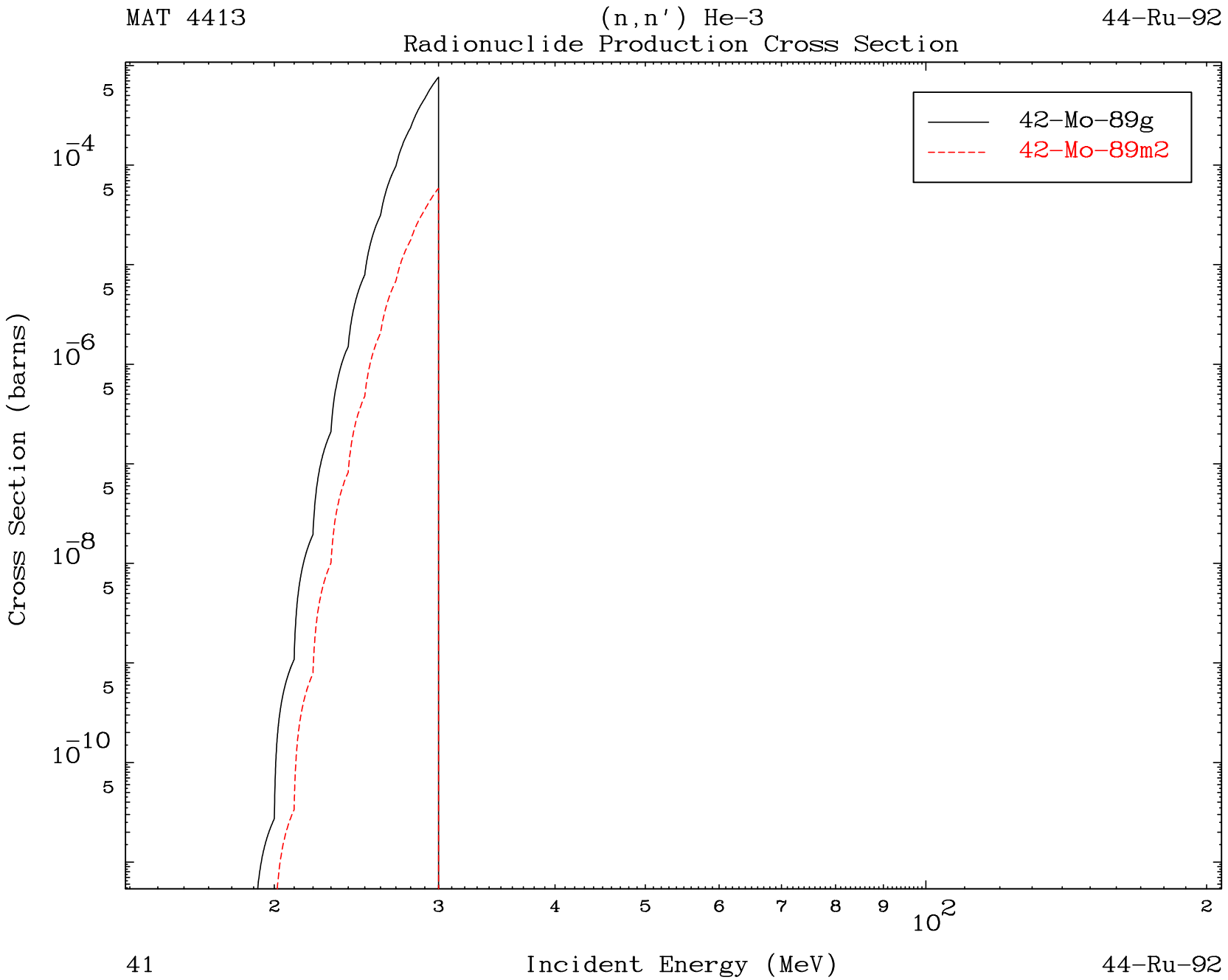

MAT 4413
MT= 55 (n,n') Level
Legendre Coefficients
44-Ru-92
X10-7
0
-1
-2
-3
-4
Legendre (CM)
50
100
150
200
36
Incident Energy (MeV)
44-Ru-92
P28
P29
P30
P31
P32
P33
P34

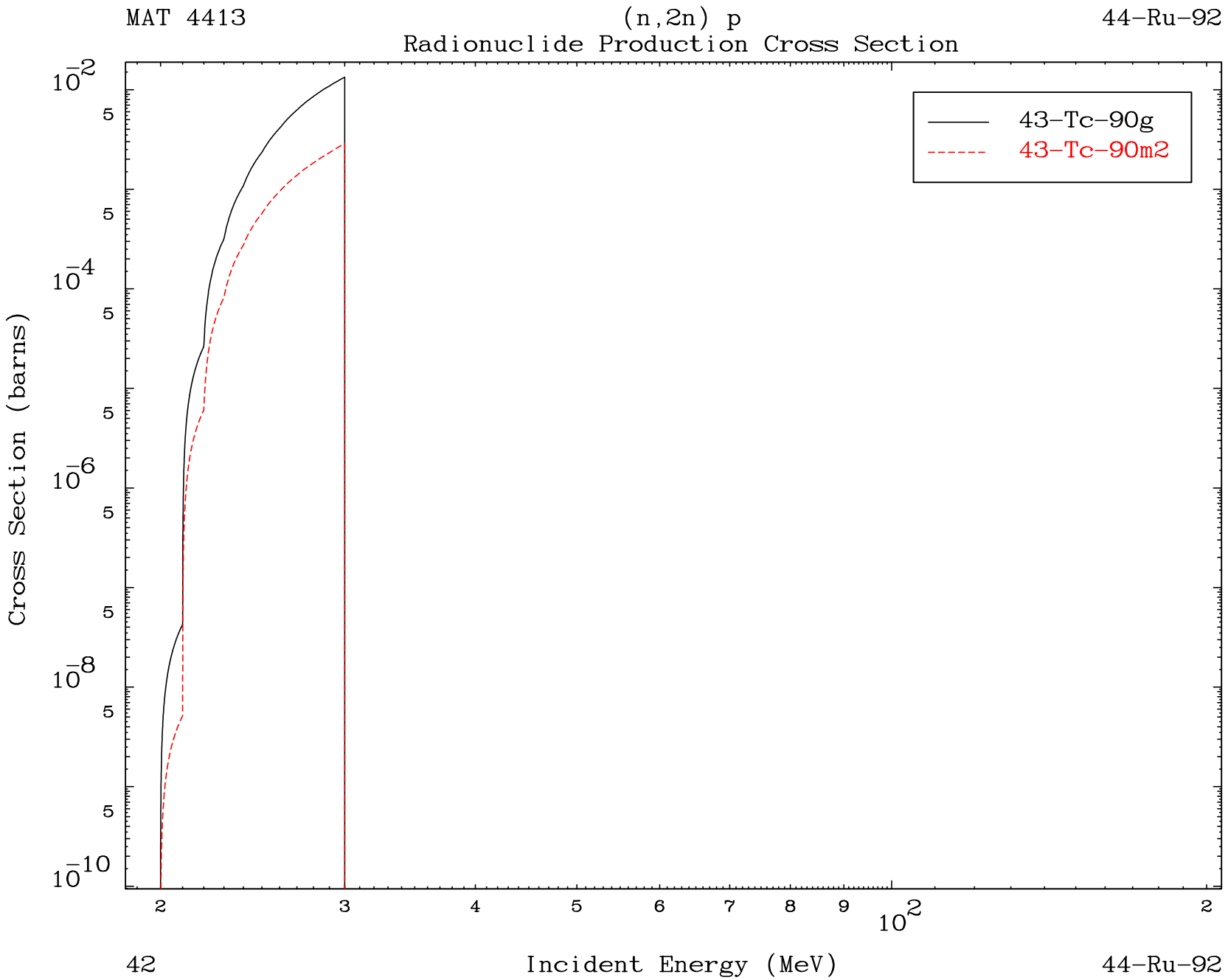

MAT 4413
(n,2n)
44-Ru-92
Radionuclide Production Cross Section
44-Ru-91g
Cross Section (barns)
10^4
10^2
10^0
10^-2
5
2
3
4
5
6
7
8
9
10^2
2
37
Incident Energy (MeV)
44-Ru-92

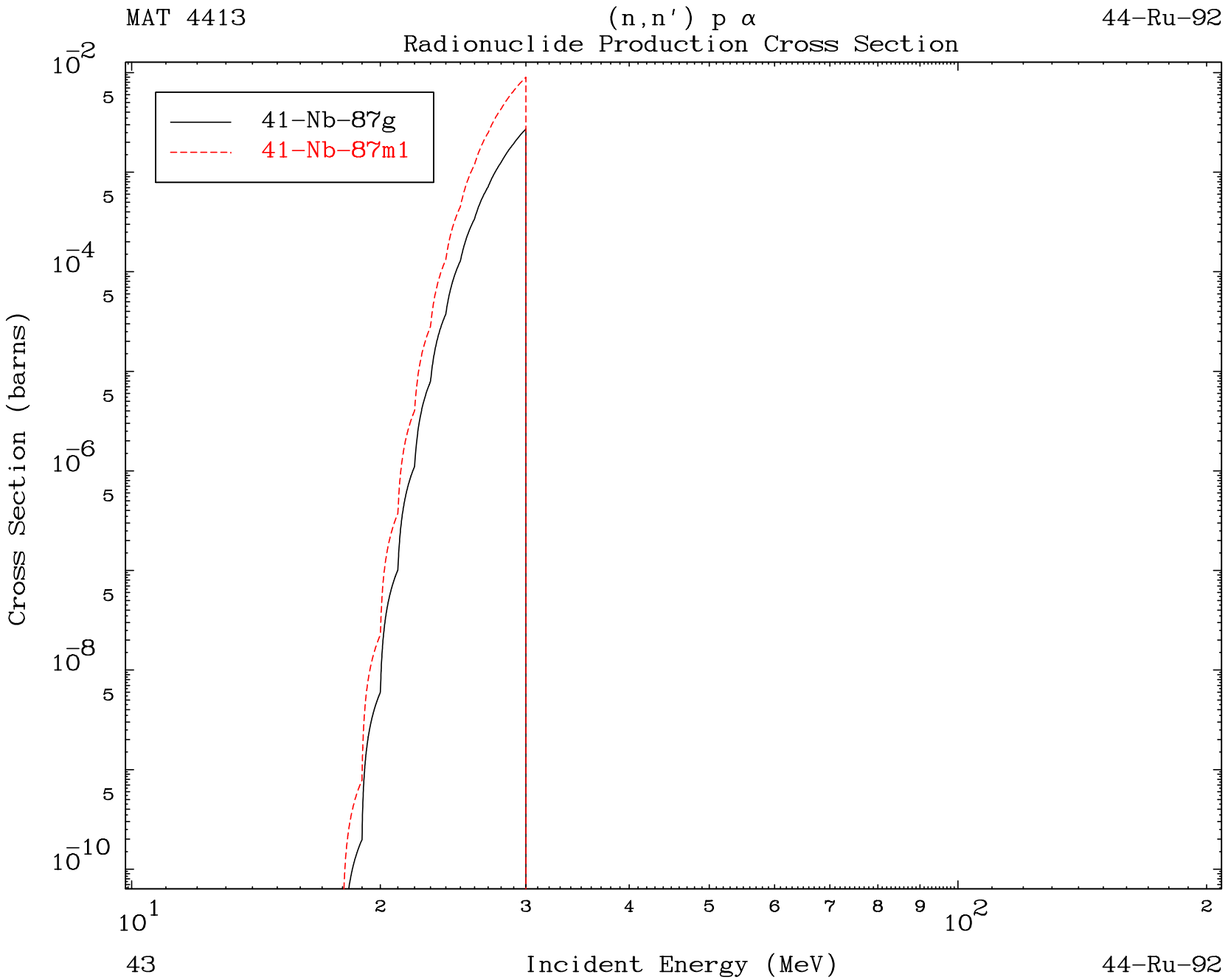

MAT 4413
(n,n') p
44-Ru-92
Radionuclide Production Cross Section
43-Tc-91g
43-Tc-91m1
Cross Section (barns)
Incident Energy (MeV)
38
44-Ru-92

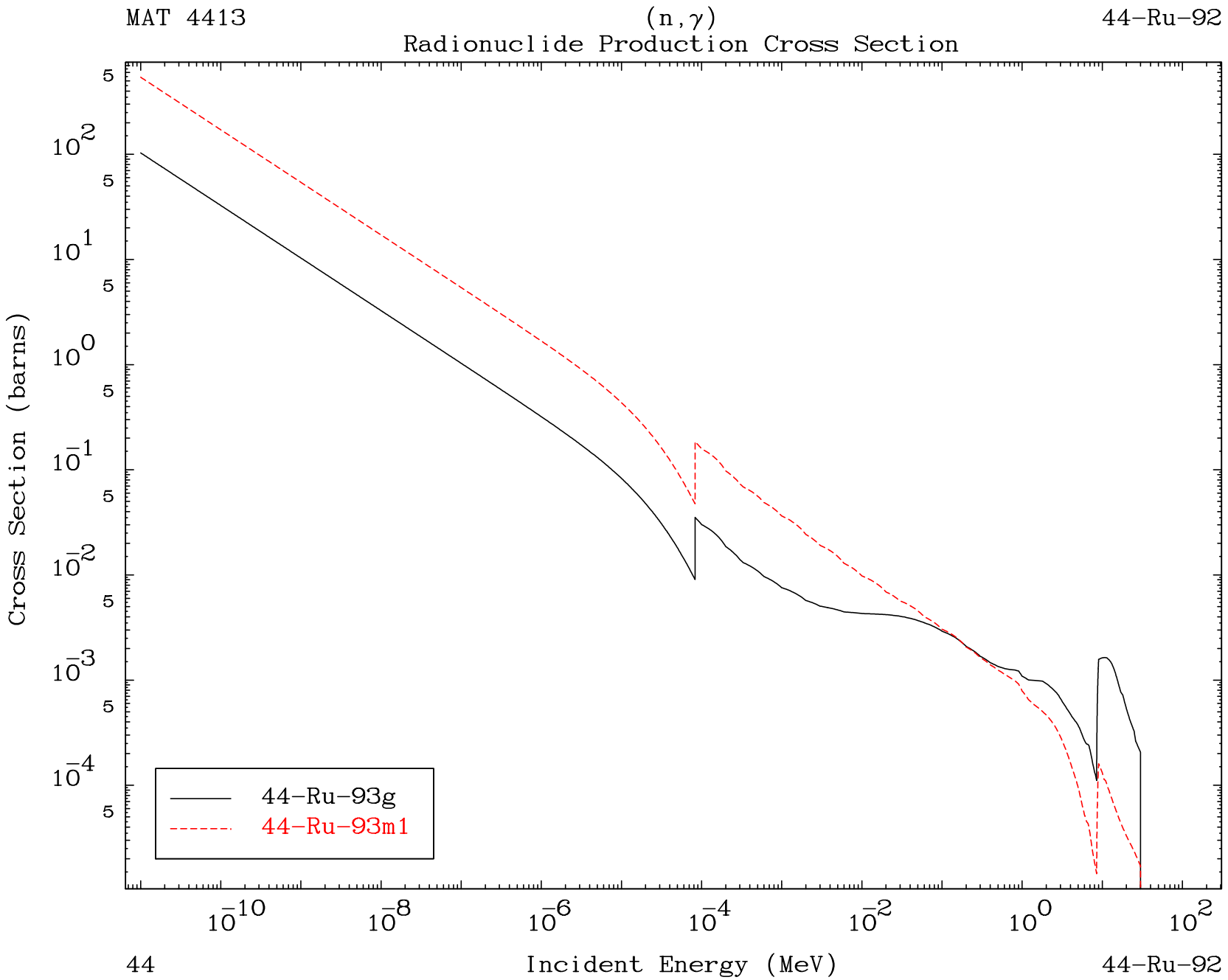

MAT 4413
(n,n') d
44-Ru-92
Radionuclide Production Cross Section
43-Tc-90g
43-Tc-90m2
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
Incident Energy (MeV)
10^2
39
44-Ru-92

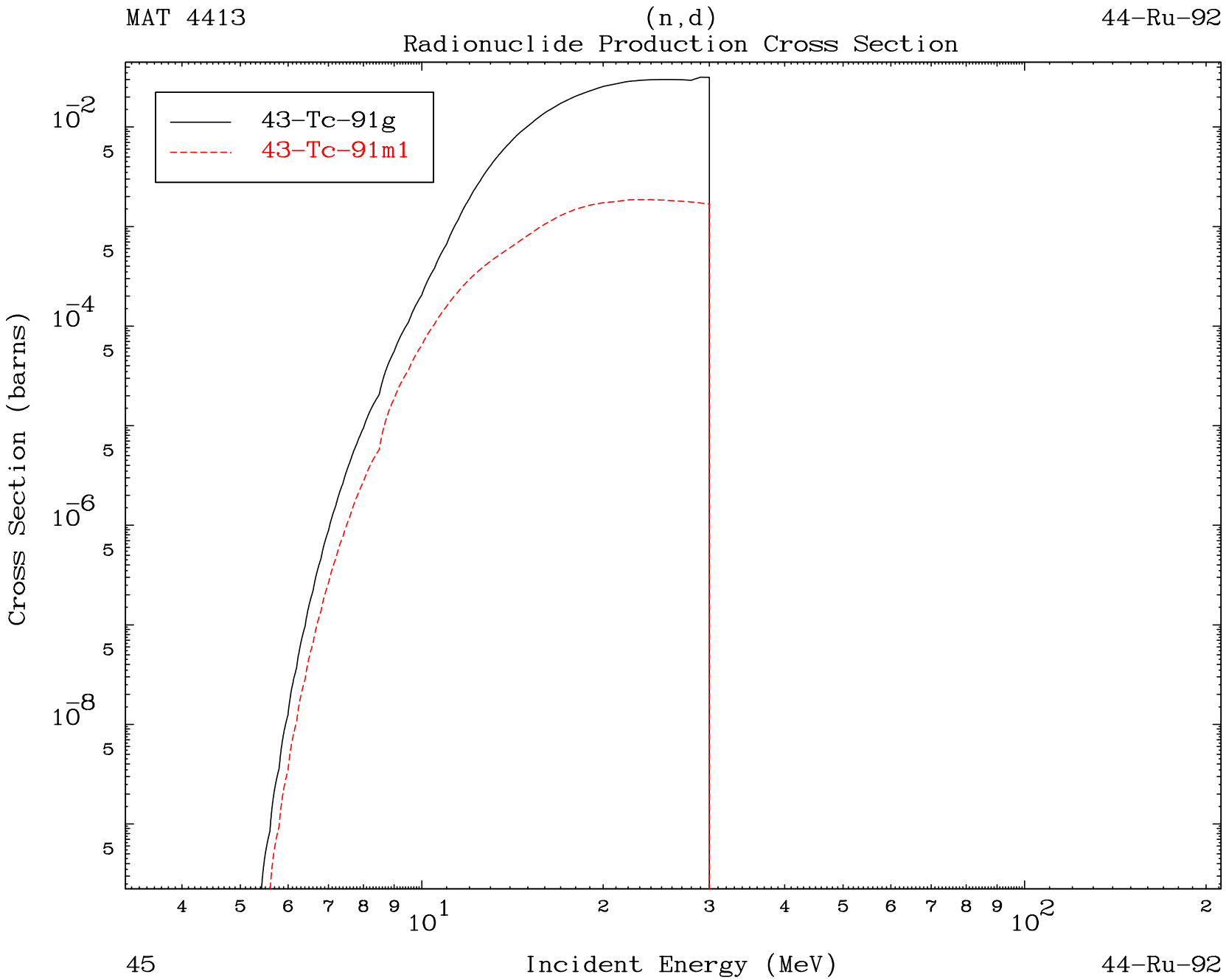

MAT 4413
(n,n') t
44-Ru-92
Radionuclide Production Cross Section
43-Tc-89g
43-Tc-89m1
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
3
4
5
6
7
8
9
10^2
2
40
Incident Energy (MeV)
44-Ru-92

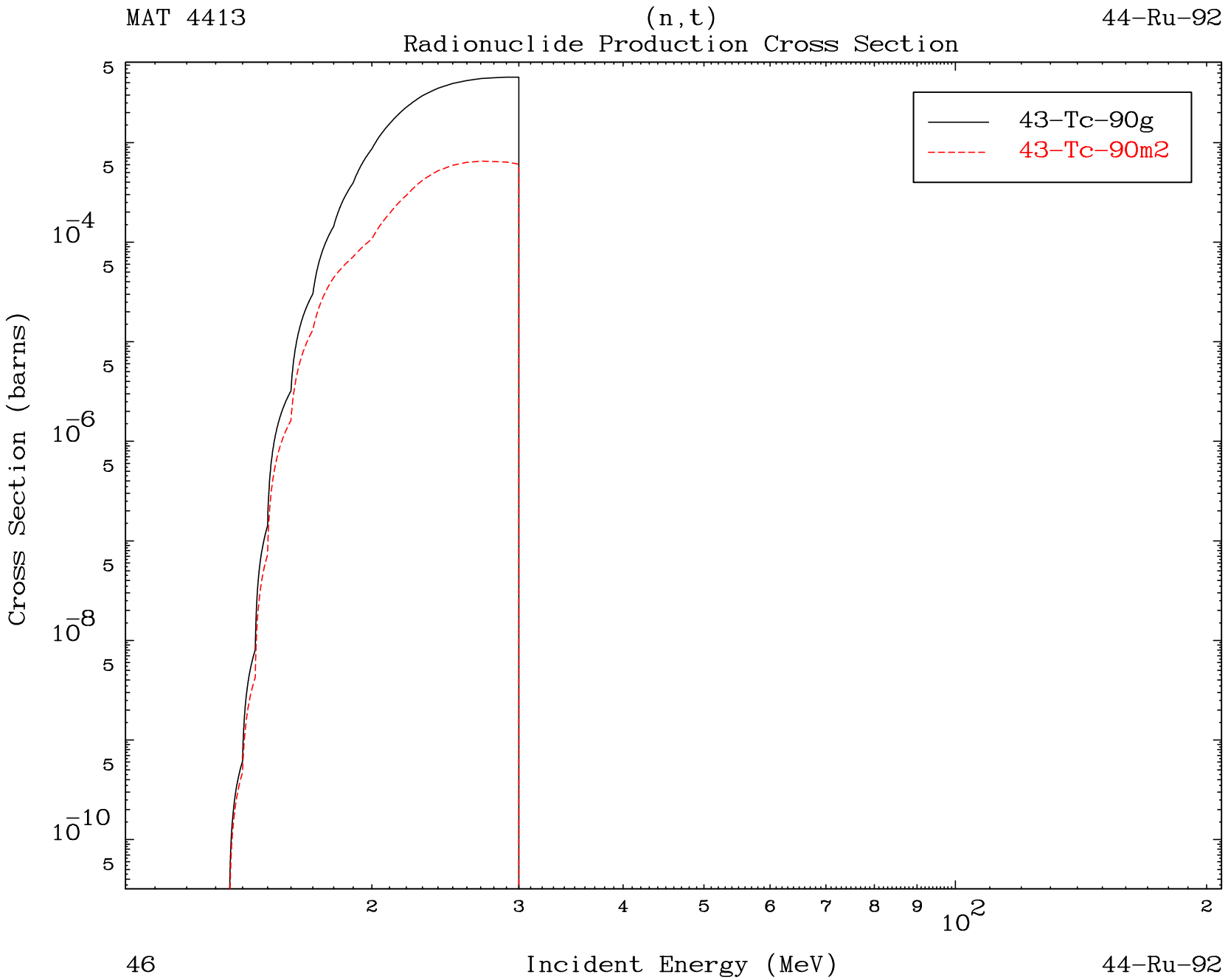

MAT 4413
(n,n') He-3
44-Ru-92
Radionuclide Production Cross Section
42-Mo-89g
42-Mo-89m2
Cross Section (barns)
10-4
10-6
10-8
10-10
Incident Energy (MeV)
10^2
41
44-Ru-92

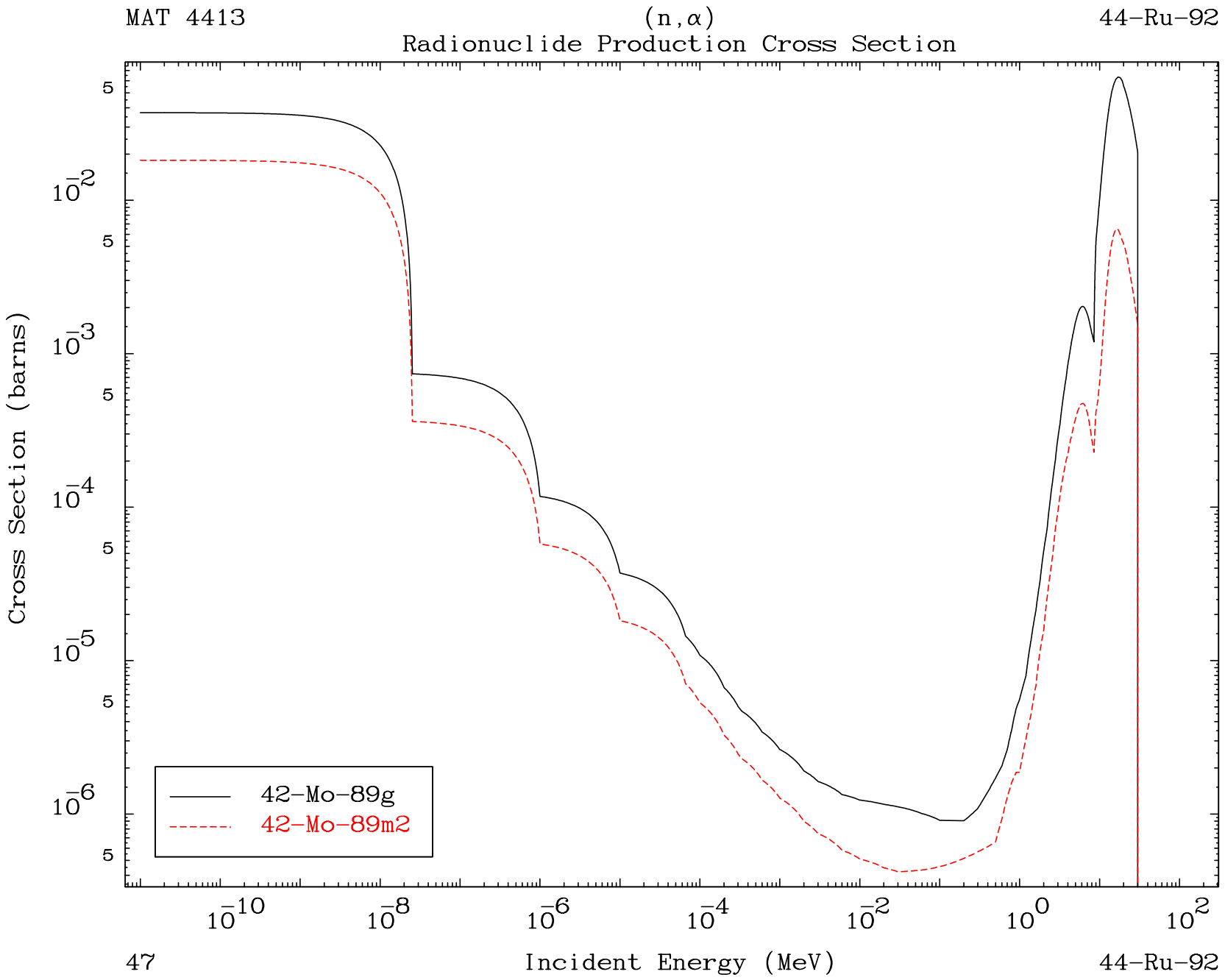

MAT 4413
(n,2n) p
44-Ru-92
Radionuclide Production Cross Section
43-Tc-90g
43-Tc-90m2
Cross Section (barns)
Incident Energy (MeV)
42
44-Ru-92

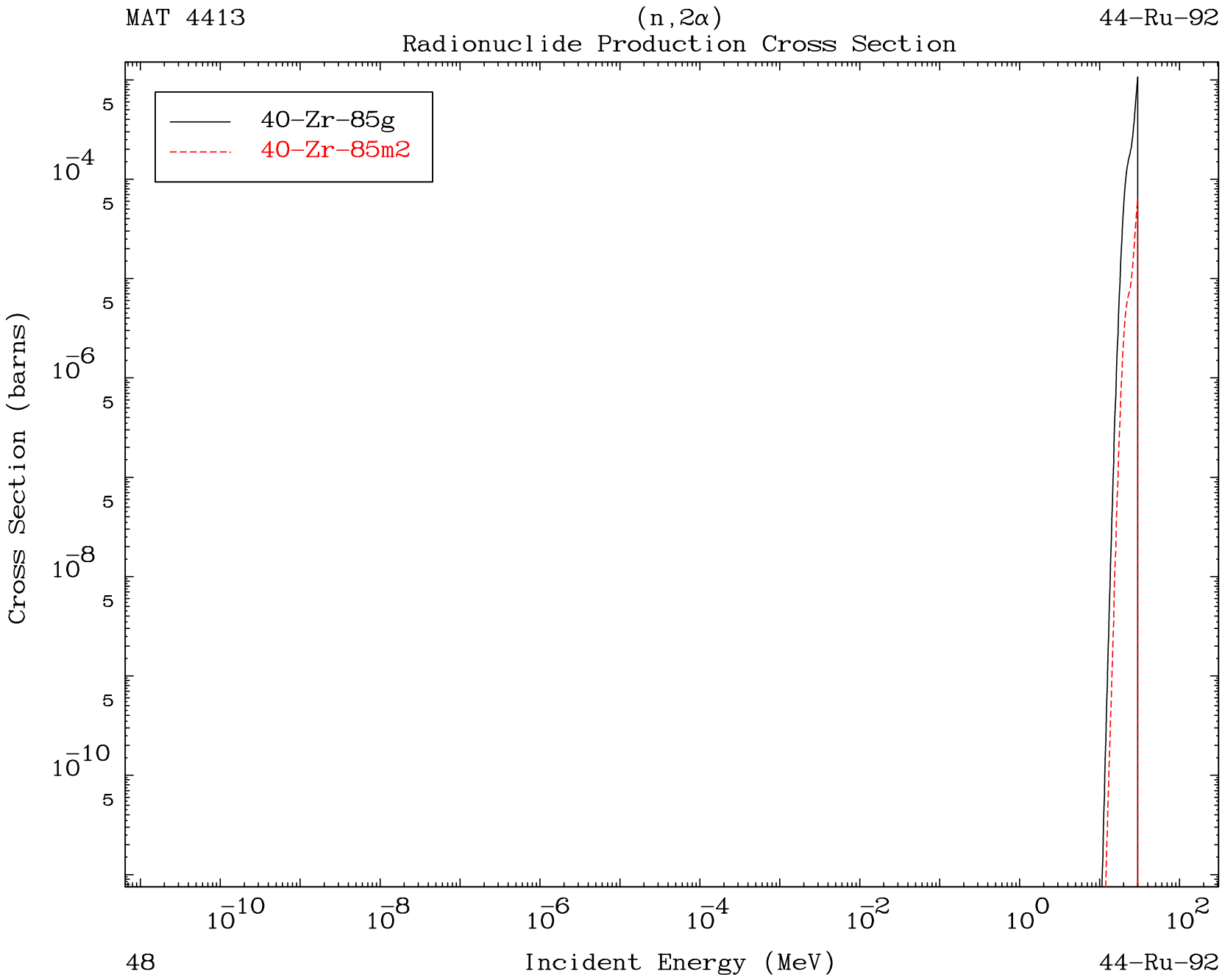

MAT 4413
(n,n') p α
44-Ru-92
Radionuclide Production Cross Section
41-Nb-87g
41-Nb-87m1
Cross Section (barns)
Incident Energy (MeV)
43
44-Ru-92

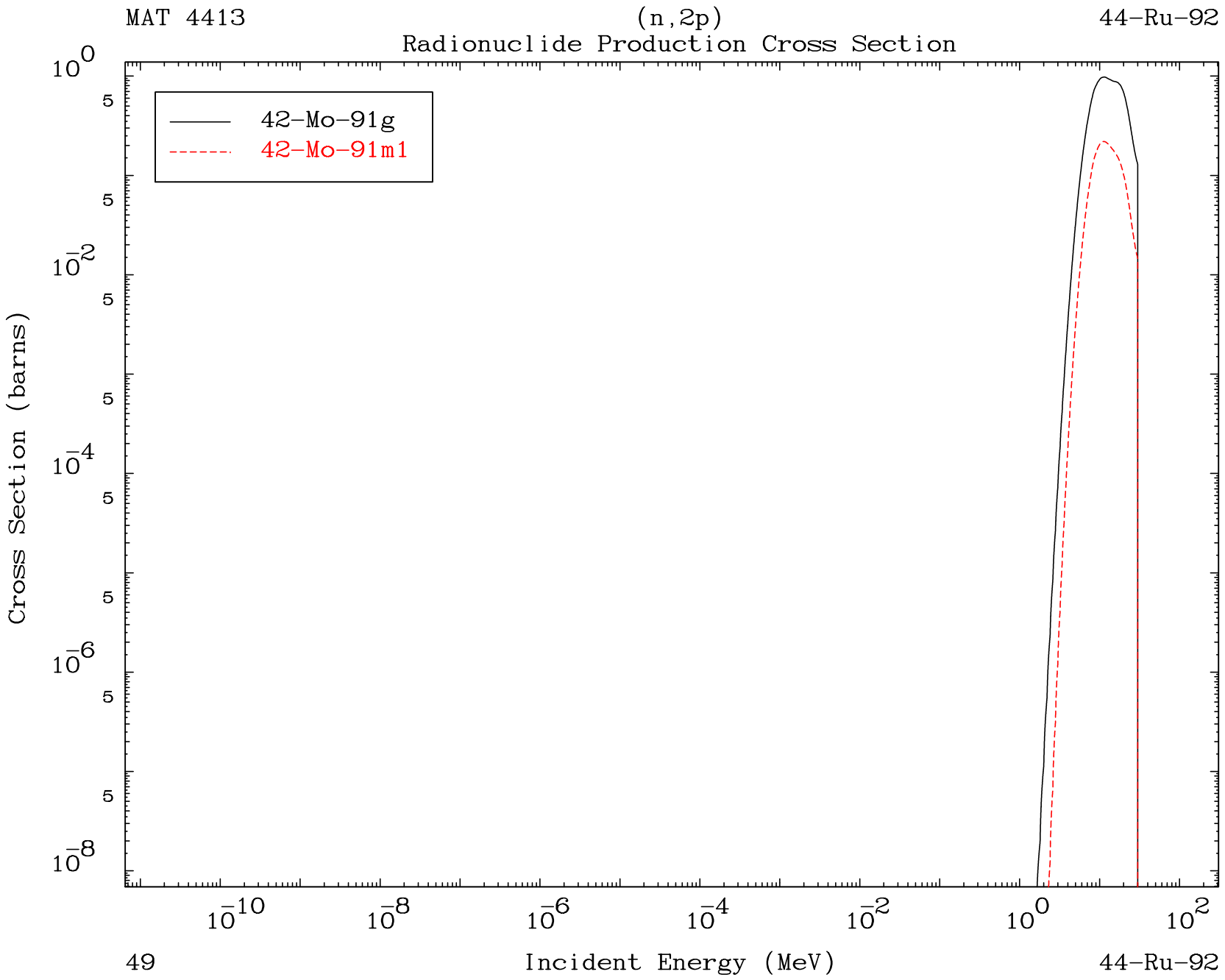

MAT 4413
(n,γ)
44-Ru-92
Radionuclide Production Cross Section
Cross Section (barns)
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-4
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
44-Ru-93g
44-Ru-93m1
44
Incident Energy (MeV)
44-Ru-92

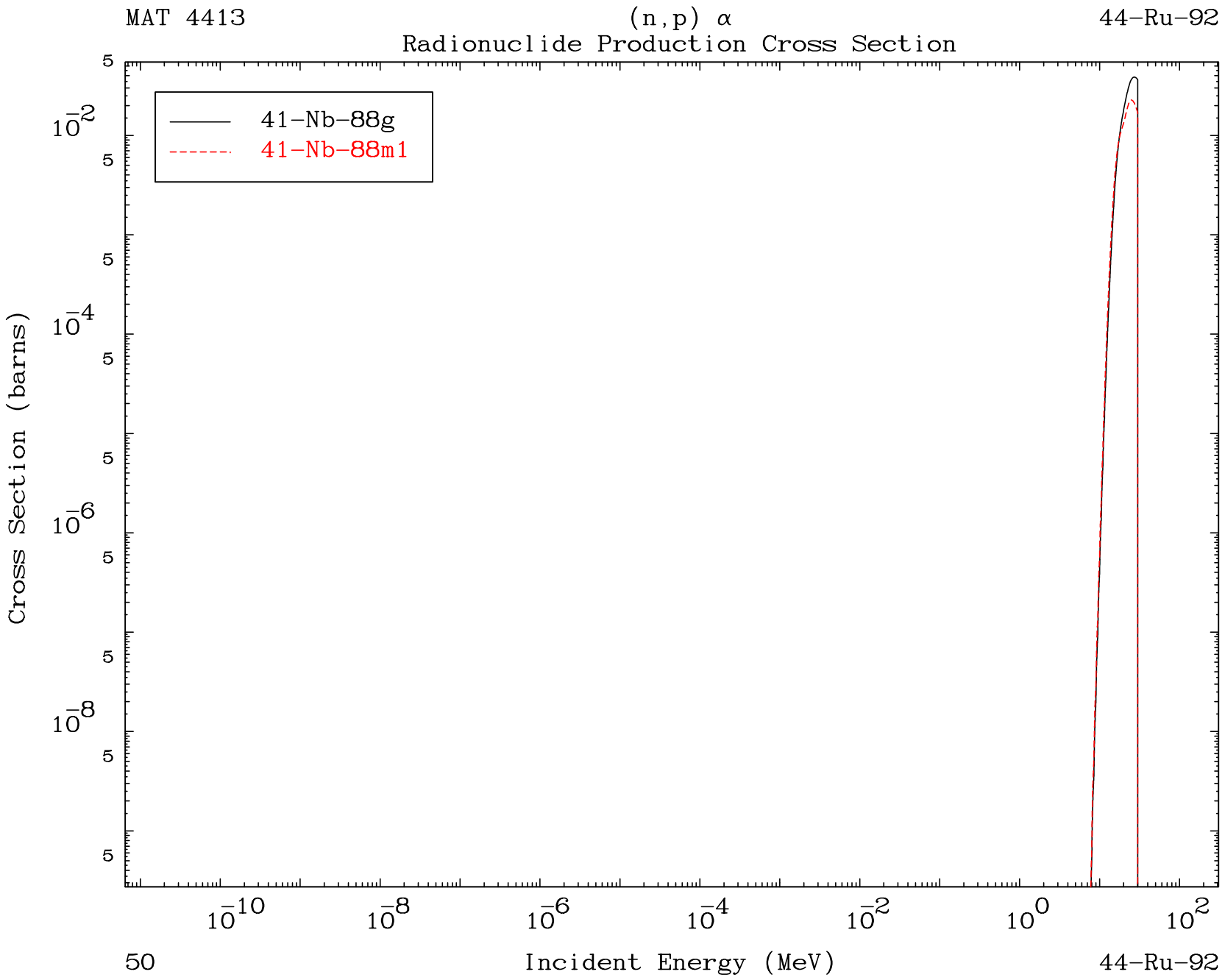

MAT 4413
(n,d)
44-Ru-92
Radionuclide Production Cross Section
43-Tc-91g
43-Tc-91m1
Cross Section (barns)
Incident Energy (MeV)
45
44-Ru-92

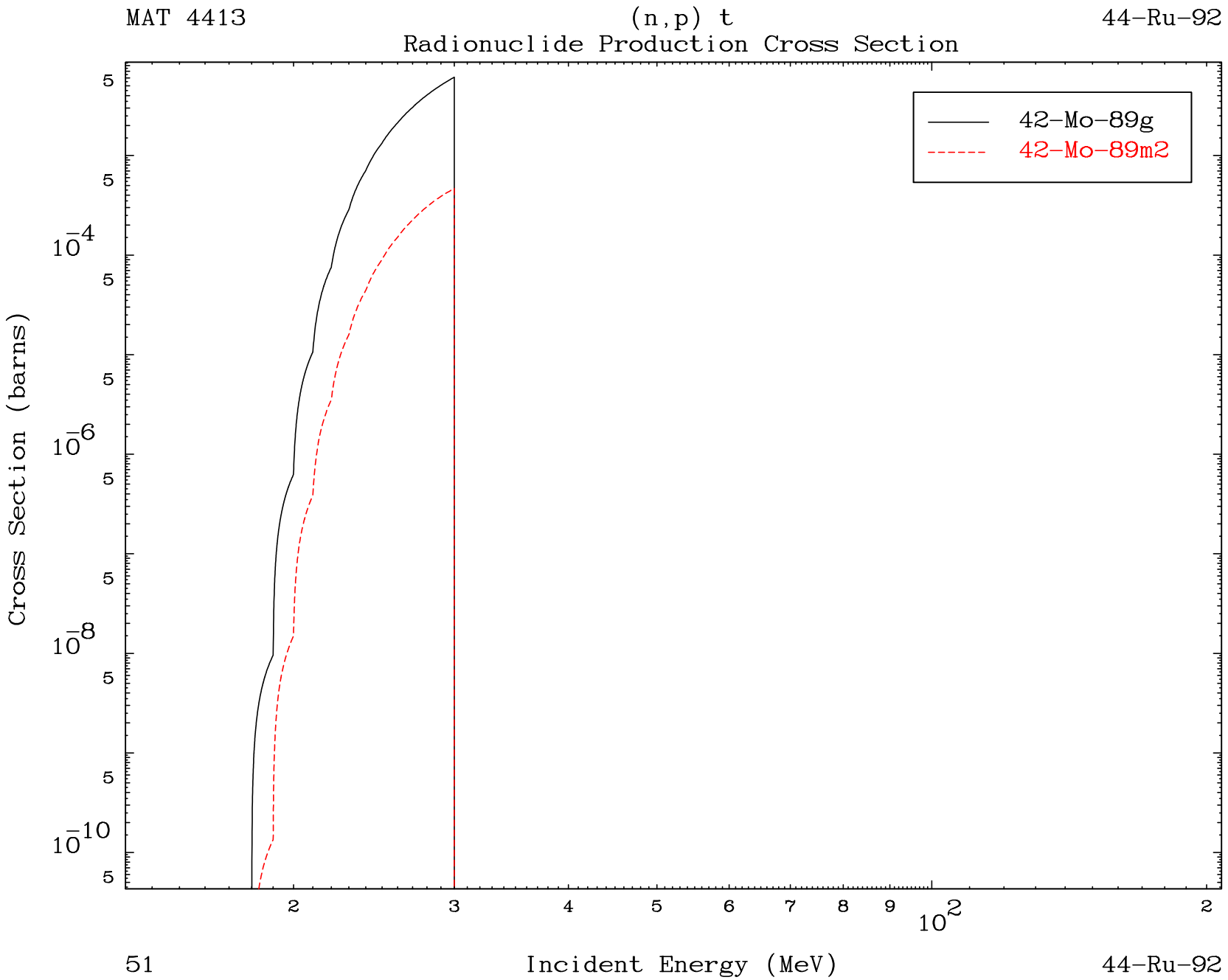

MAT 4413
(n,t)
44-Ru-92
Radionuclide Production Cross Section
43-Tc-90g
43-Tc-90m2
Cross Section (barns)
Incident Energy (MeV)
46
44-Ru-92

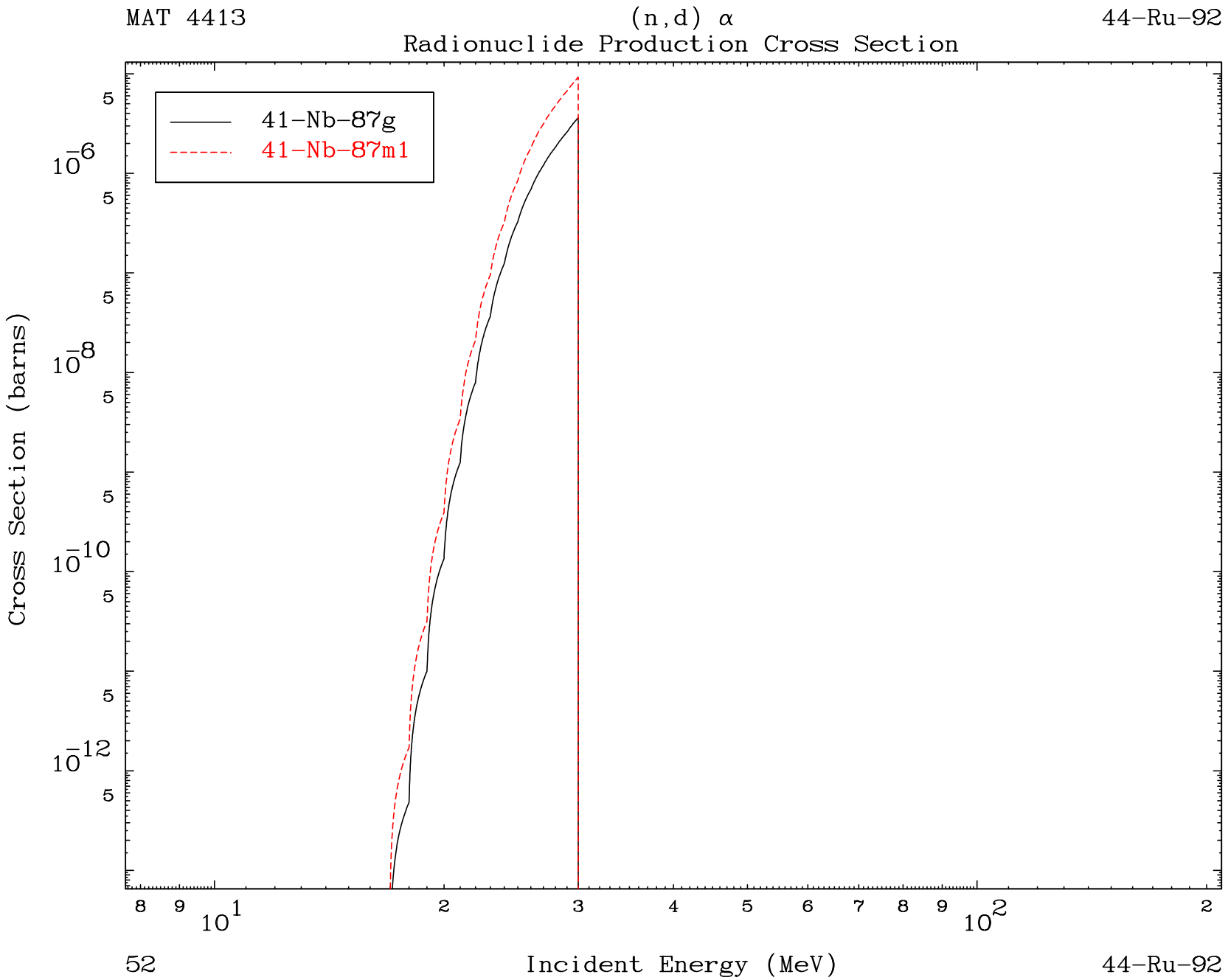

MAT 4413
(n,α)
44-Ru-92
Radionuclide Production Cross Section
Cross Section (barns)
5
10-2
5
10-3
5
10-4
5
10-5
5
10-6
5
42-Mo-89g
42-Mo-89m2
10-10
10-8
10-6
10-4
10-2
100
102
47
Incident Energy (MeV)
44-Ru-92


MAT 4413
(n,2α)
44-Ru-92
Radionuclide Production Cross Section
40-Zr-85g
40-Zr-85m2
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
48
Incident Energy (MeV)
44-Ru-92


MAT 4413
(n,2p)
44-Ru-92
Radionuclide Production Cross Section
42-Mo-91g
42-Mo-91m1
Cross Section (barns)
Incident Energy (MeV)
49
44-Ru-92


MAT 4413
(n,p) α
44-Ru-92
Radionuclide Production Cross Section
41-Nb-88g
41-Nb-88m1
Cross Section (barns)
Incident Energy (MeV)
50
44-Ru-92


MAT 4413
(n,p) t
44-Ru-92
Radionuclide Production Cross Section
42-Mo-89g
42-Mo-89m2
Cross Section (barns)
Incident Energy (MeV)
51
44-Ru-92


MAT 4413
(n,d) α
44-Ru-92
Radionuclide Production Cross Section
41-Nb-87g
41-Nb-87m1
Cross Section (barns)
Incident Energy (MeV)
52
44-Ru-92