Program EVALPLOT
(Version 2018-1)
by
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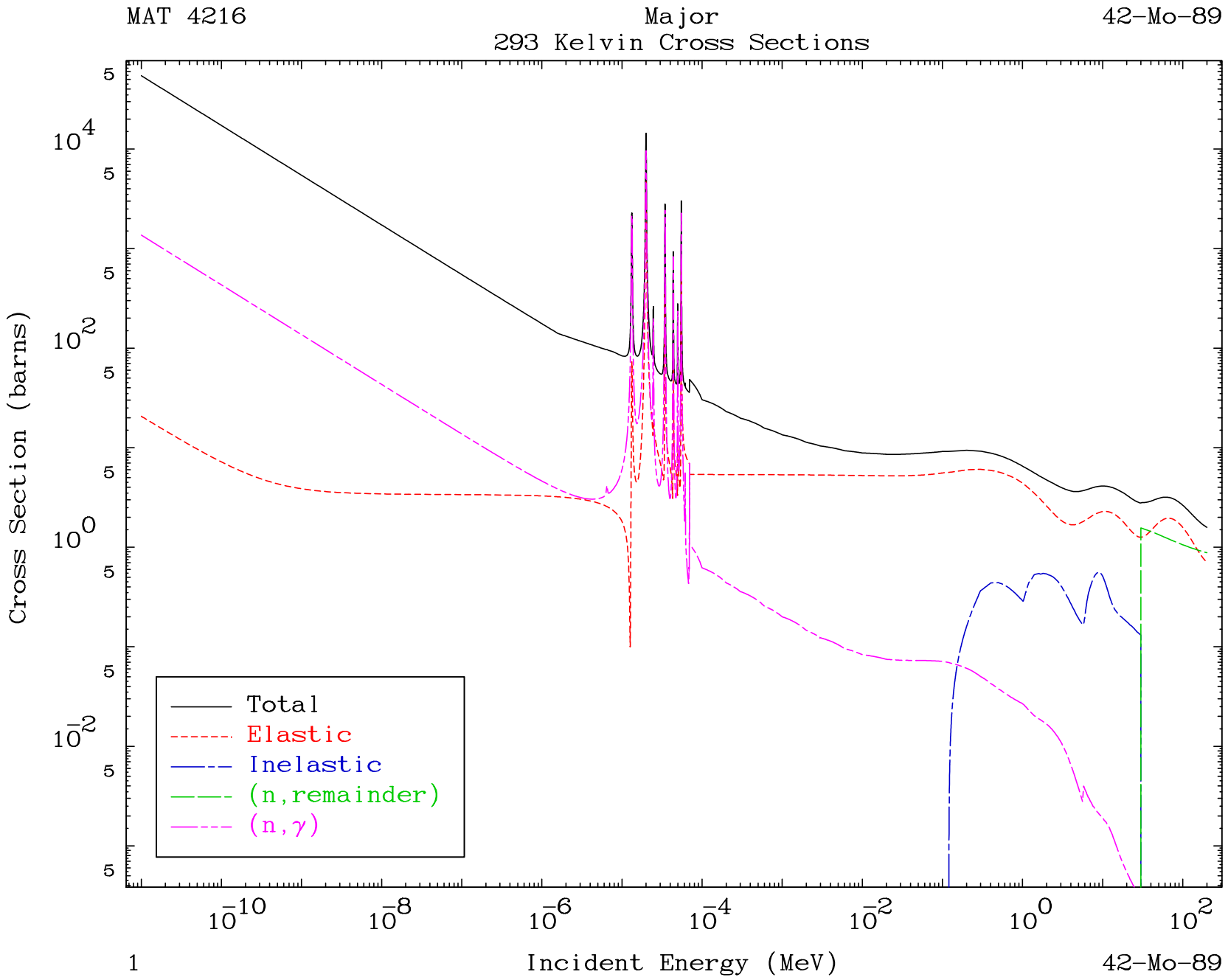
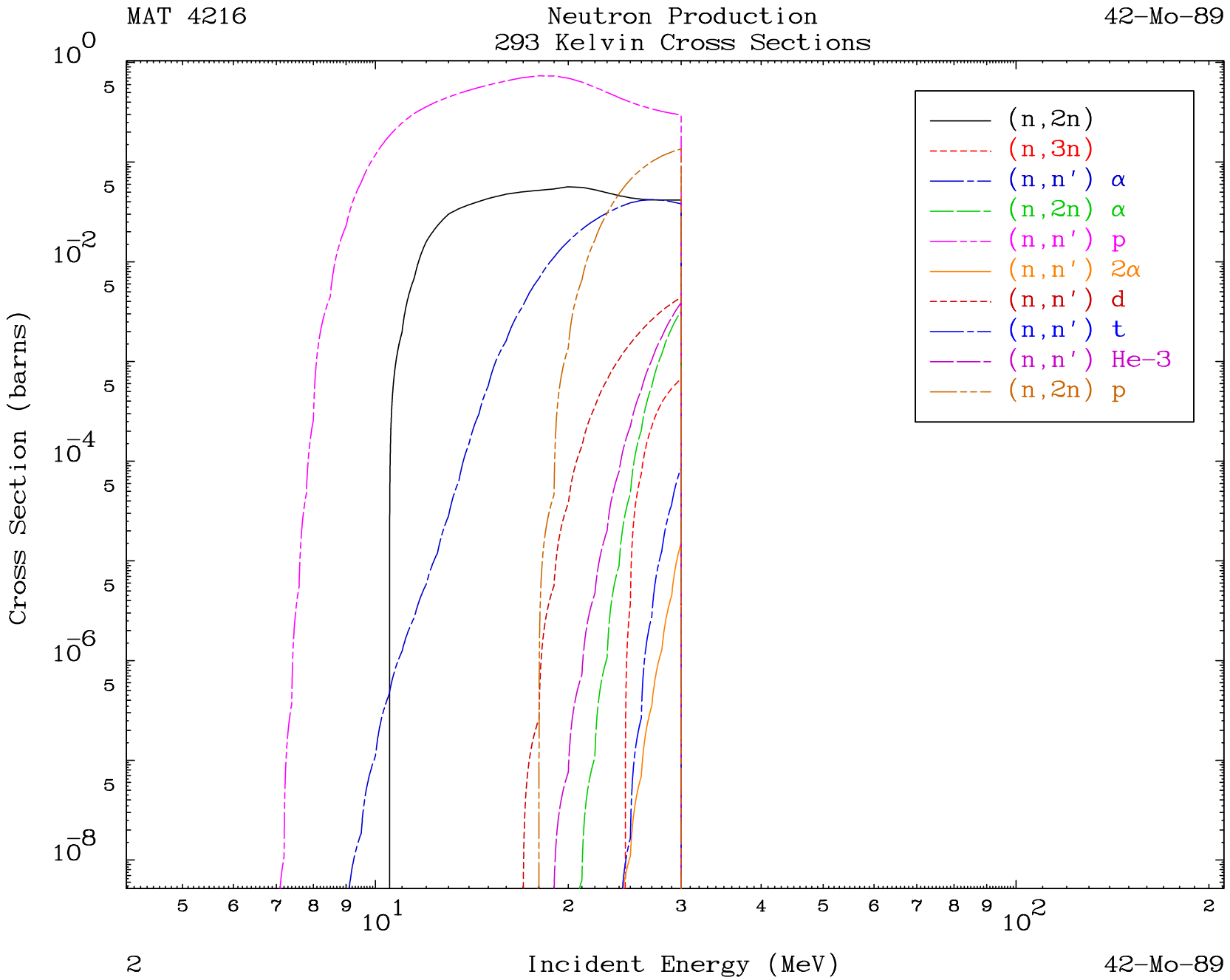
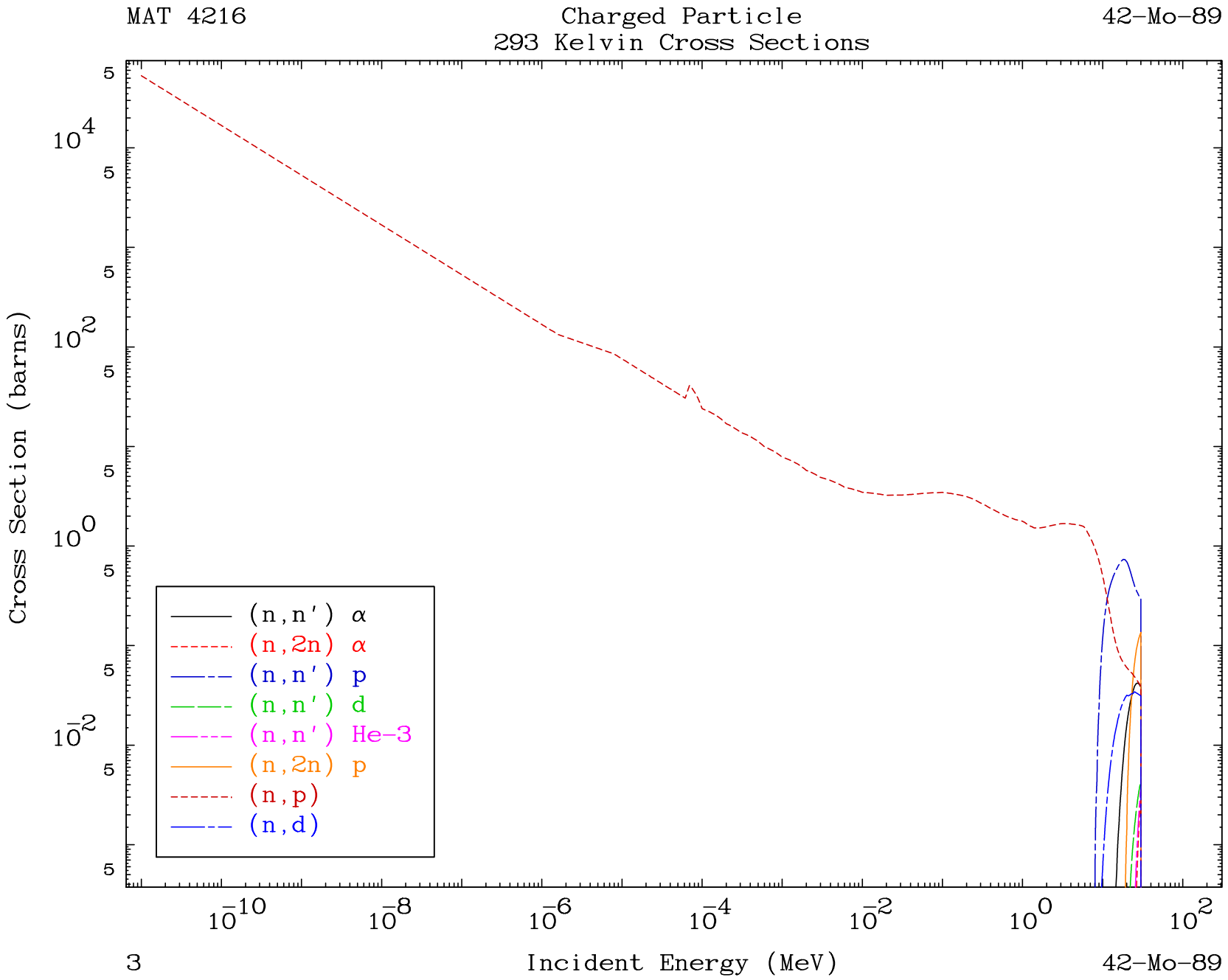
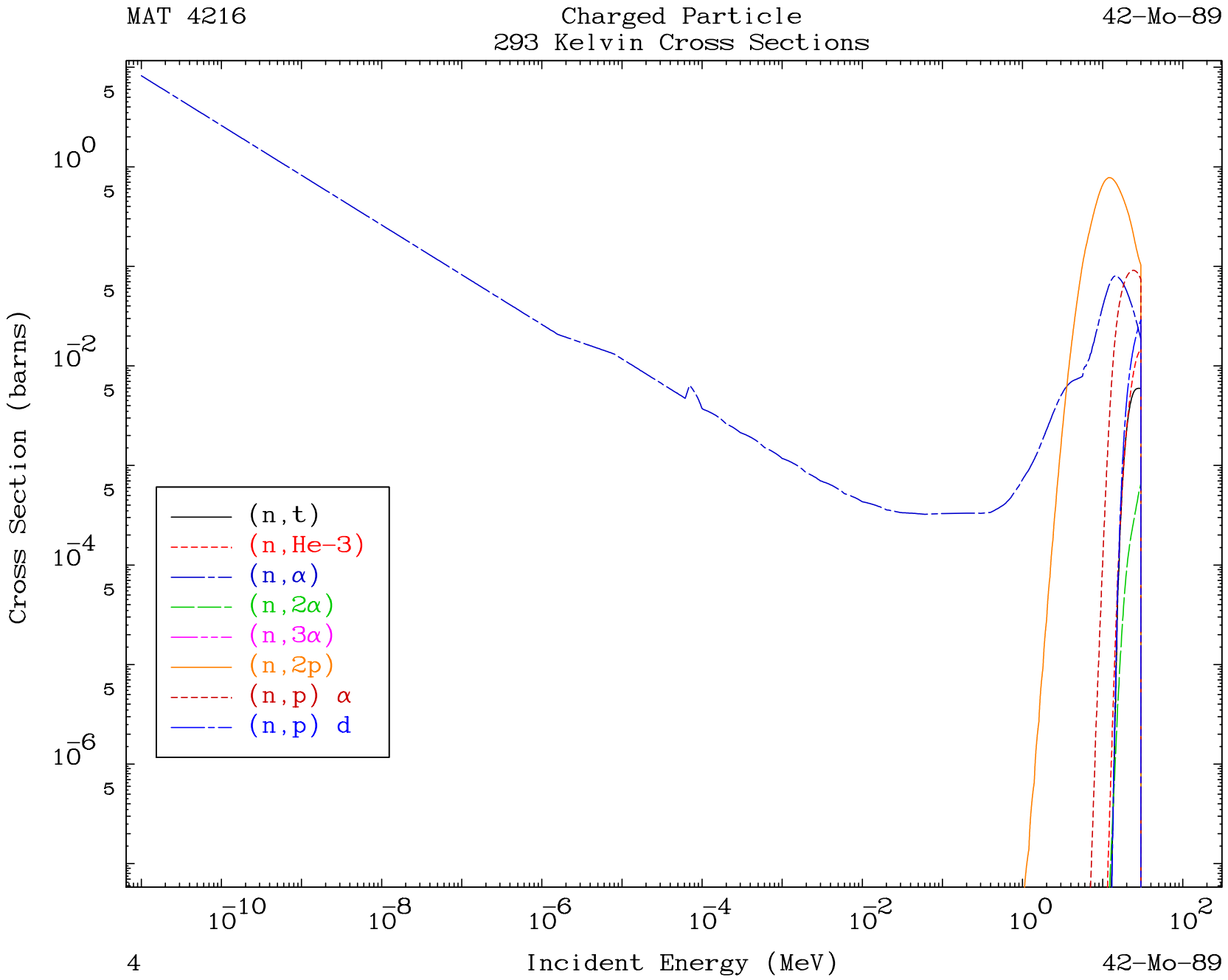
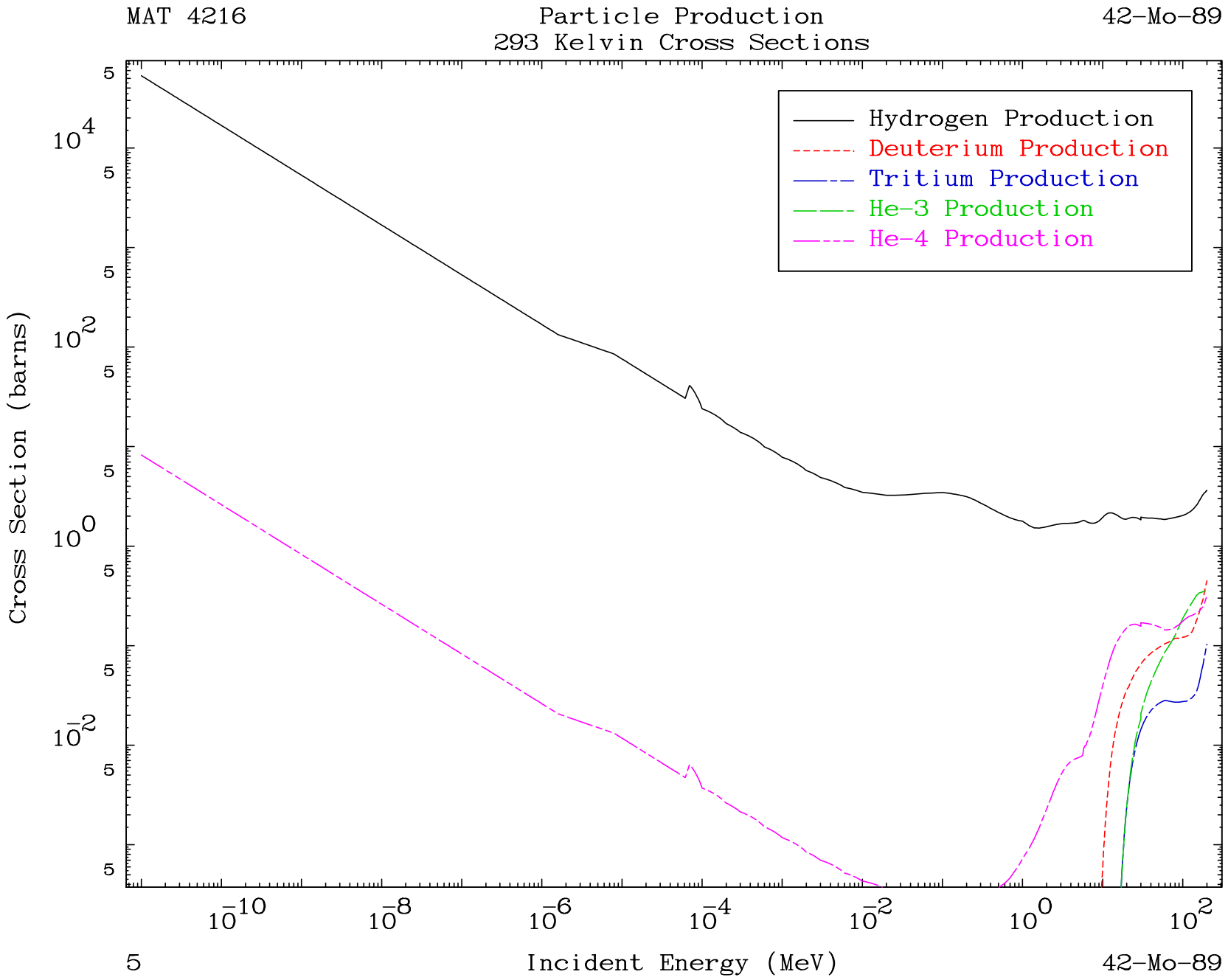
Press Mouse Button to Start

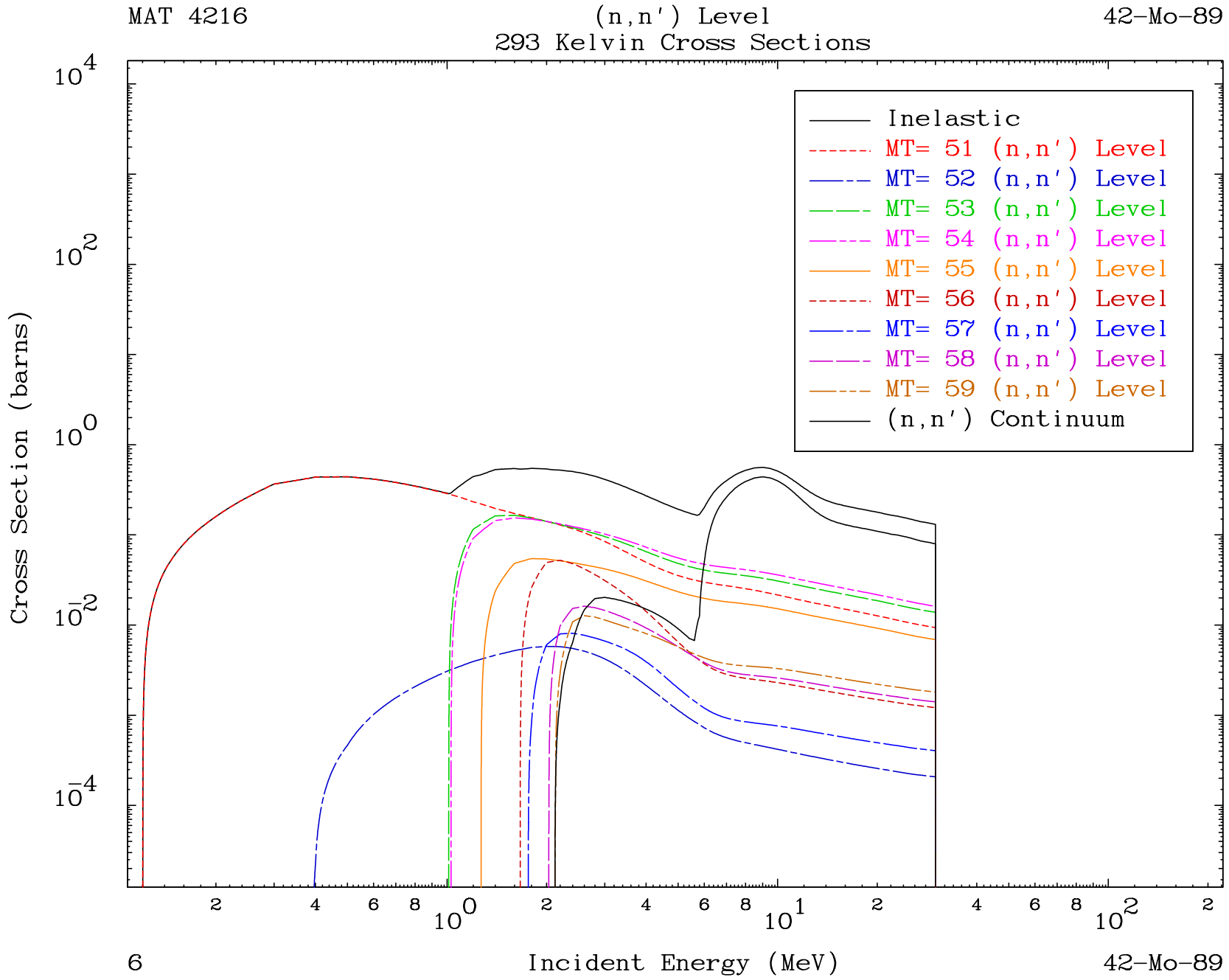

MAT 4216
Major
42-Mo-89
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
42-Mo-89

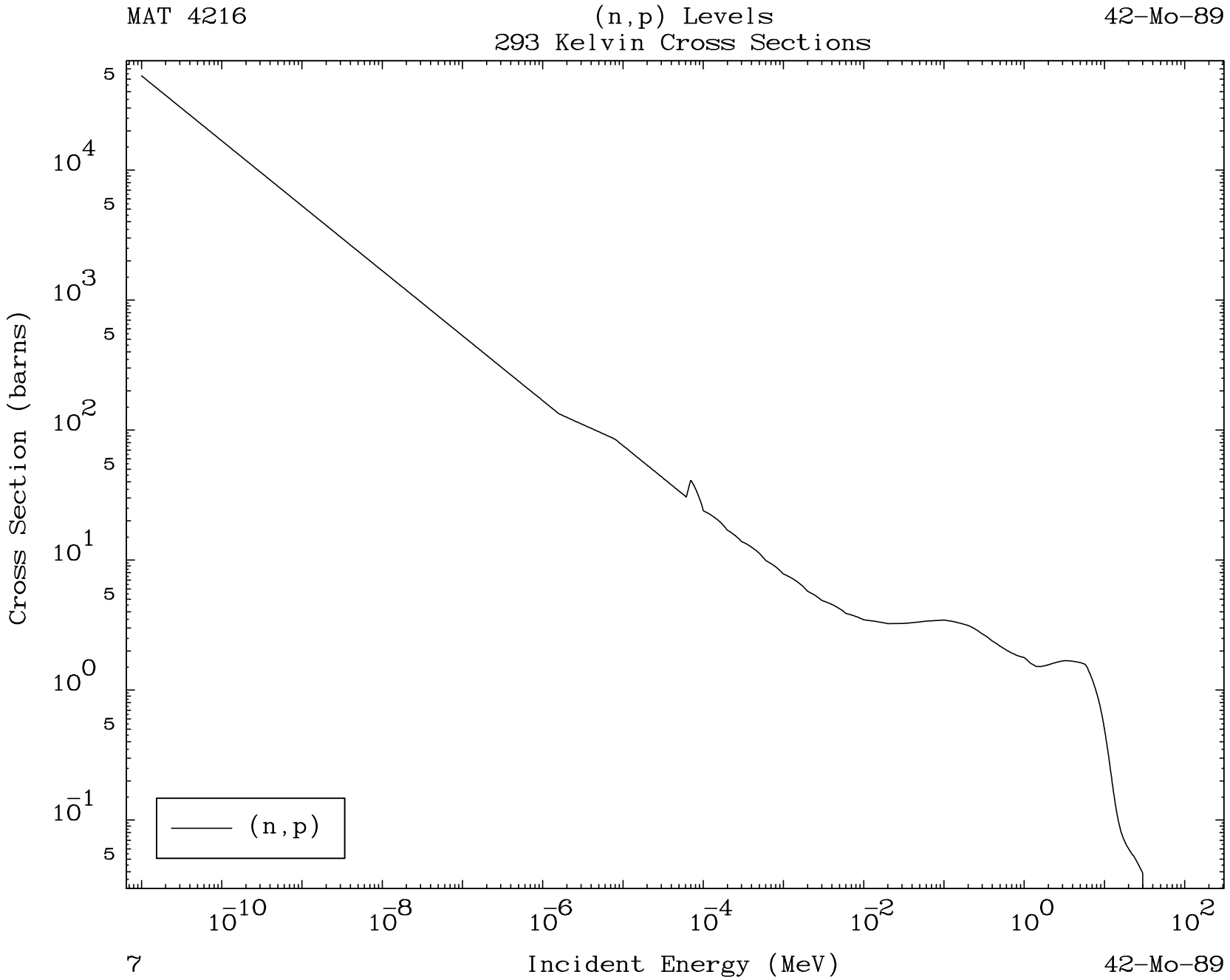

MAT 4216
Neutron Production
293 Kelvin Cross Sections
42-Mo-89
Cross Section (barns)
Incident Energy (MeV)
42-Mo-89
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p

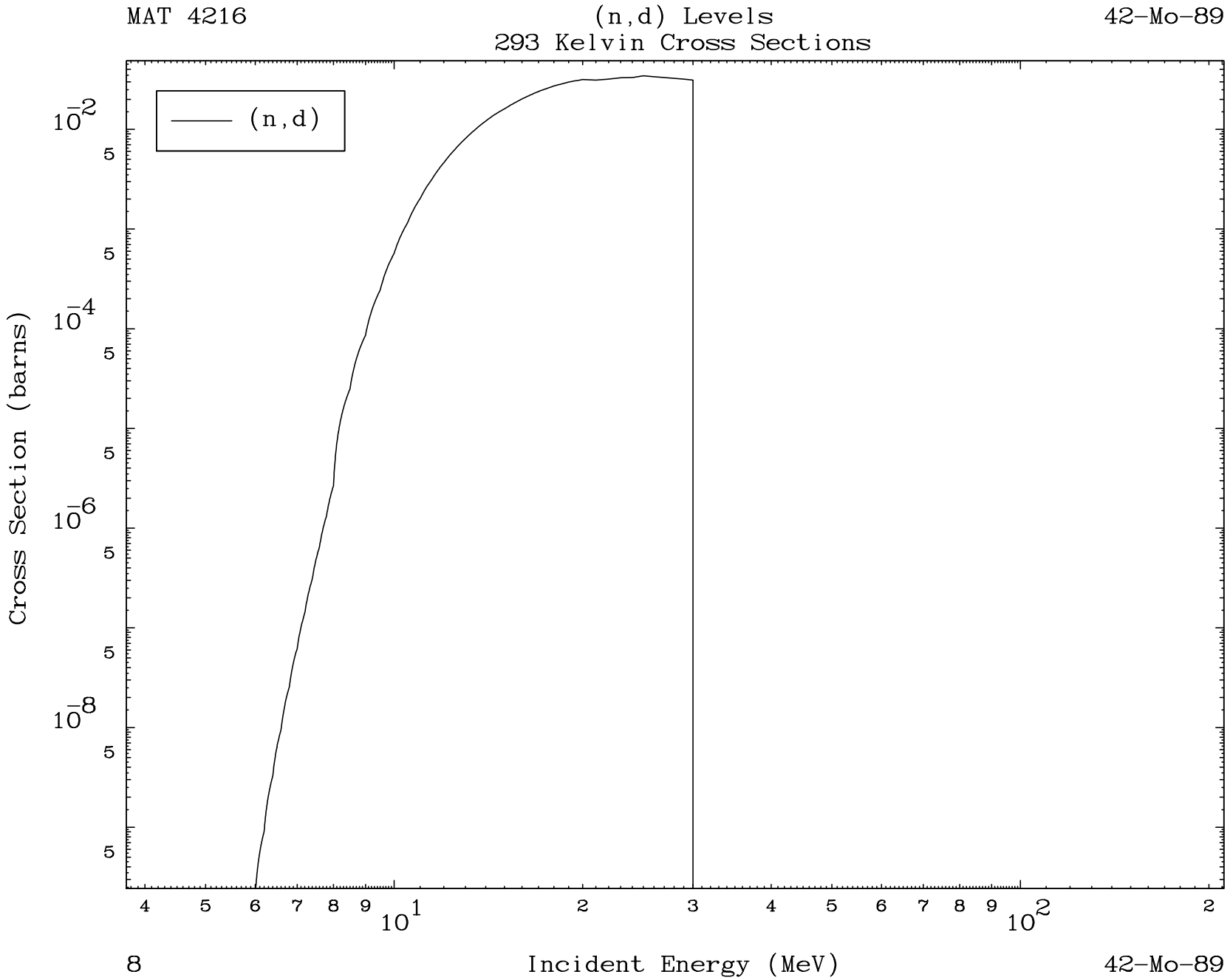

MAT 4216
Charged Particle
293 Kelvin Cross Sections
42-Mo-89
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,2n) α
(n,n') p
(n,n') d
(n,n') He-3
(n,2n) p
(n,p)
(n,d)
3
42-Mo-89

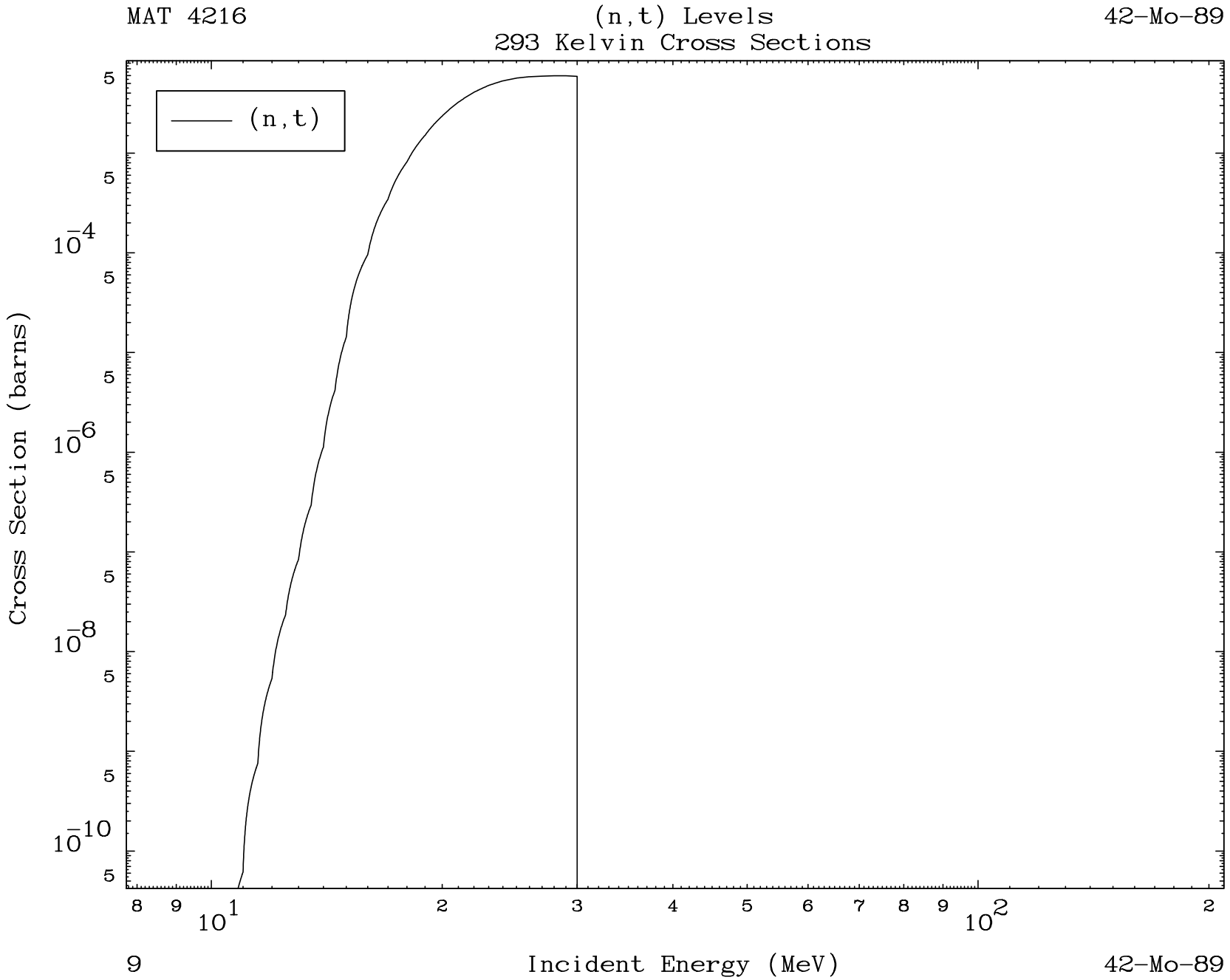

MAT 4216
Charged Particle
293 Kelvin Cross Sections
42-Mo-89
Cross Section (barns)
Incident Energy (MeV)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,3α)
(n,2p)
(n,p) α
(n,p) d
4
42-Mo-89

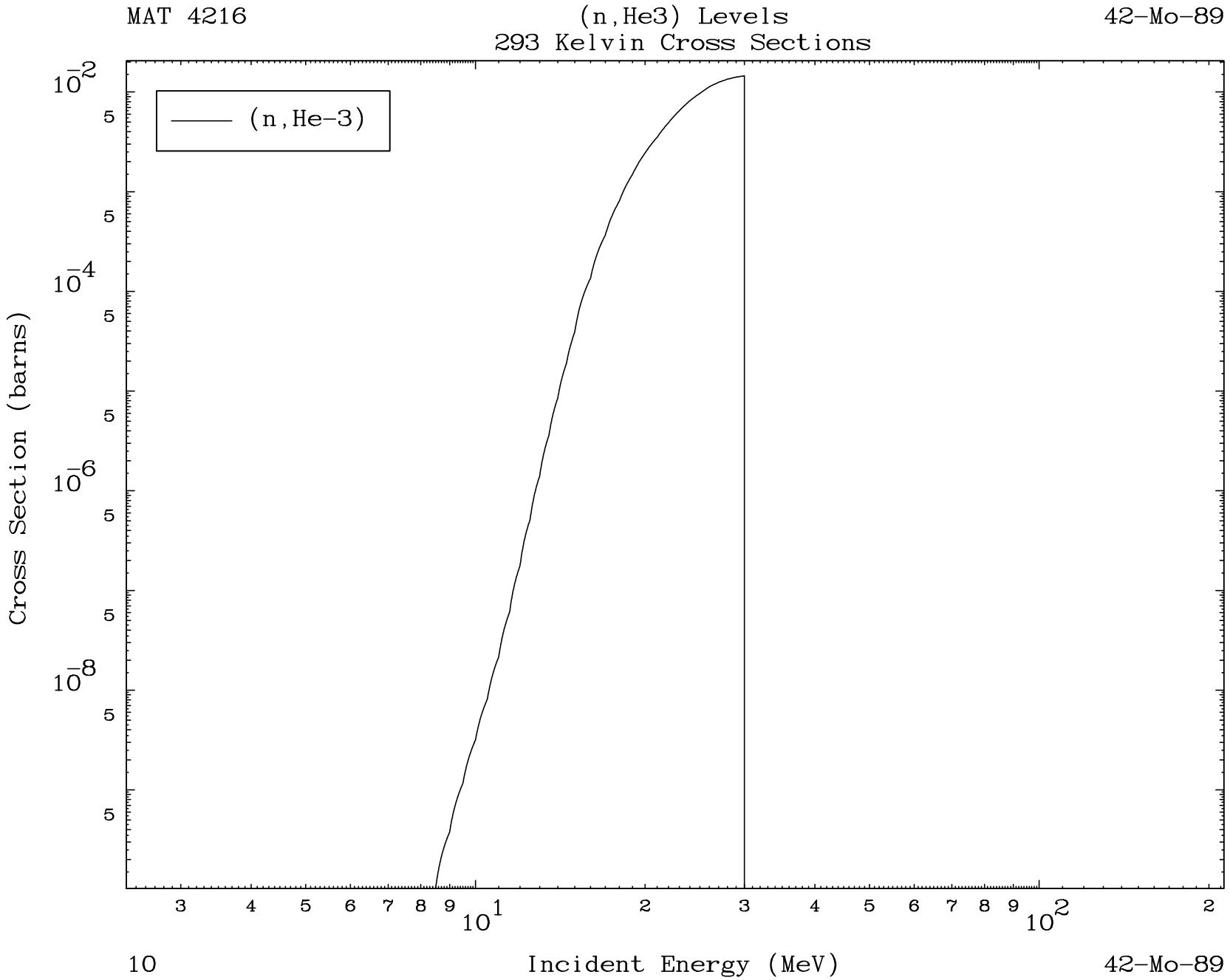

MAT 4216
Particle Production
293 Kelvin Cross Sections
42-Mo-89
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Cross Section (barns)
Incident Energy (MeV)
42-Mo-89

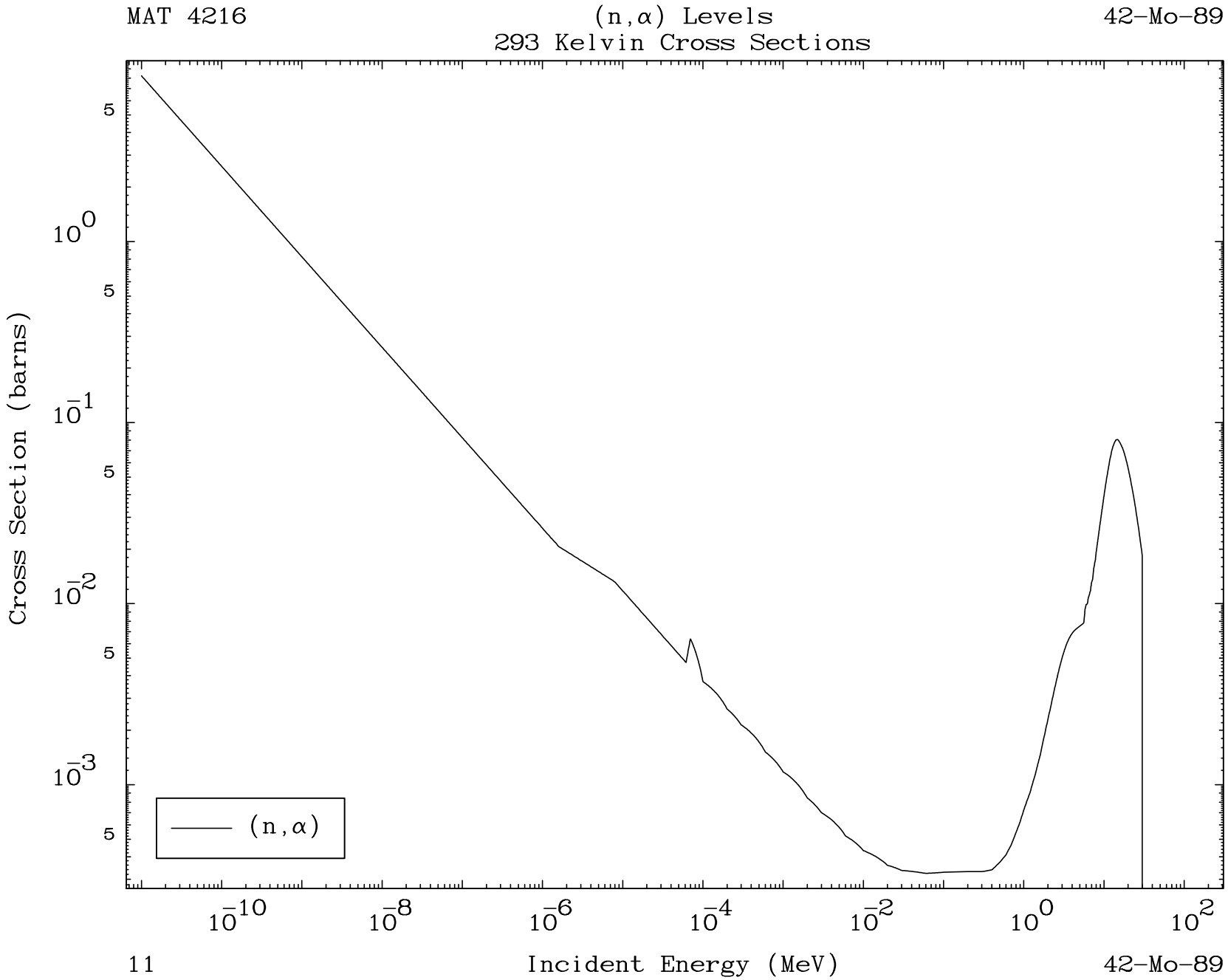

MAT 4216
(n,n') Level
293 Kelvin Cross Sections
42-Mo-89
Cross Section (barns)
Incident Energy (MeV)
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
MT= 59 (n,n') Level
(n,n') Continuum
6
42-Mo-89

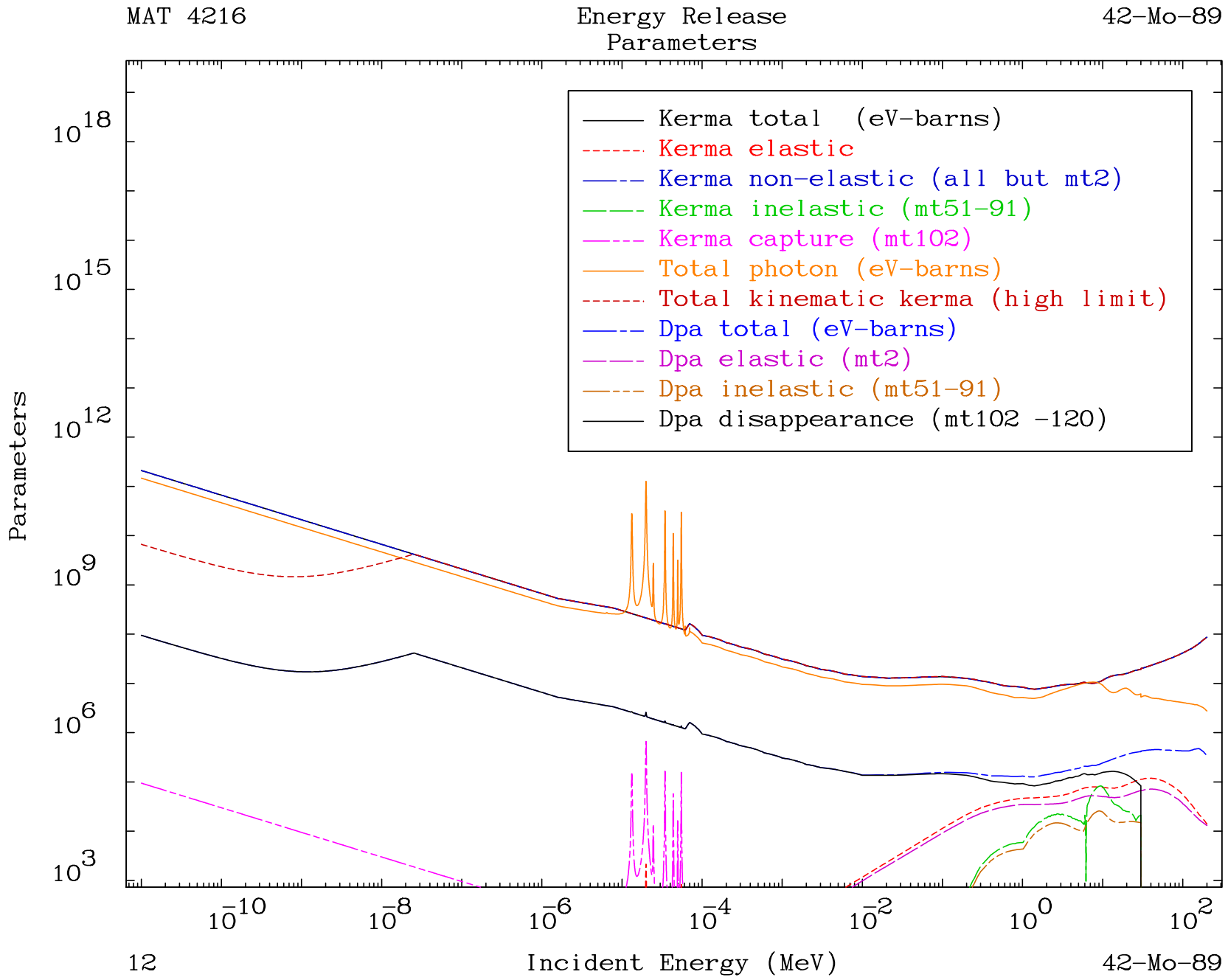

MAT 4216
(n,p) Levels
42-Mo-89
293 Kelvin Cross Sections
Cross Section (barns)
10^4
10^3
10^2
10^1
10^0
10^-1
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
7
42-Mo-89

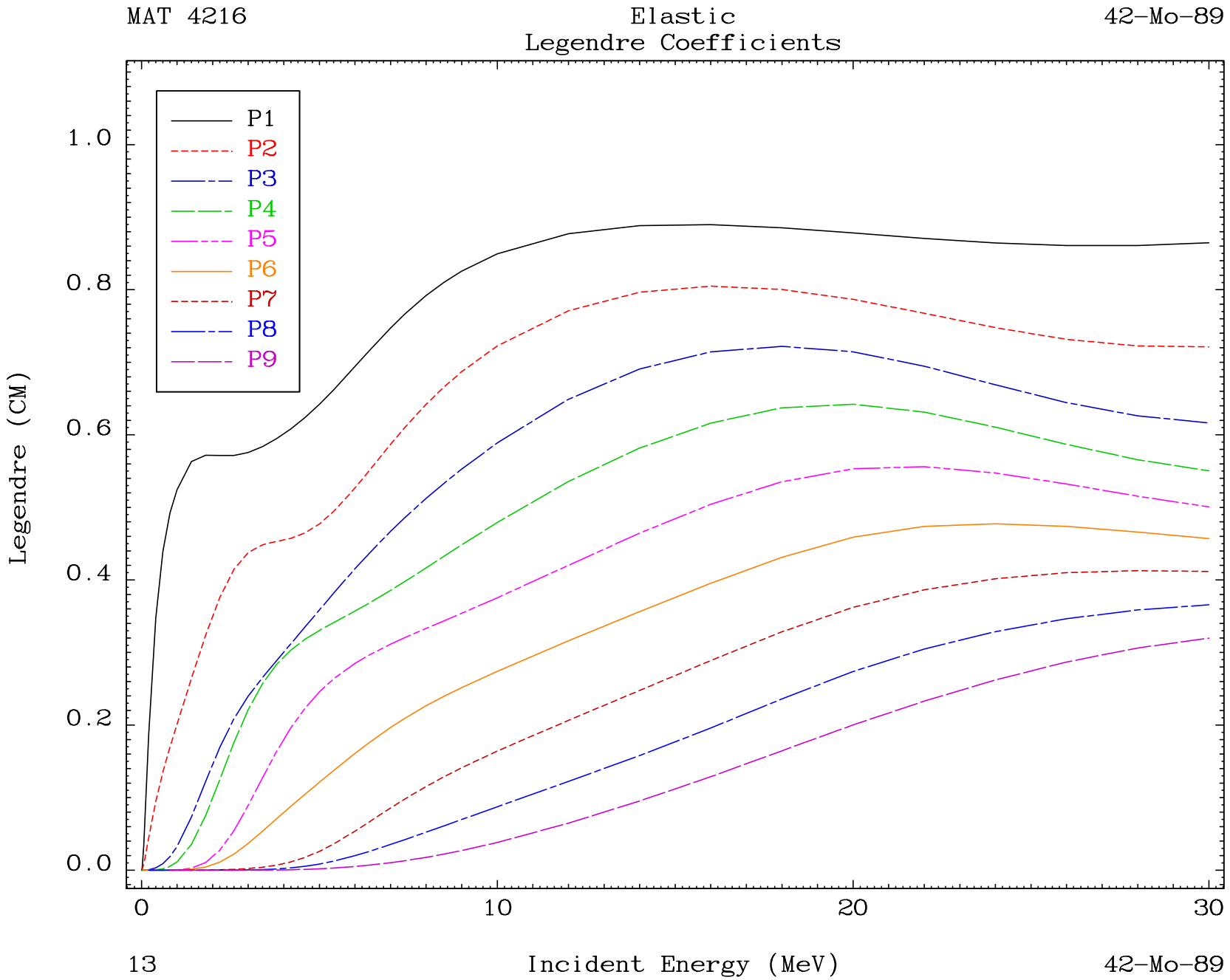

MAT 4216
(n,d) Levels
42-Mo-89
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
8
42-Mo-89

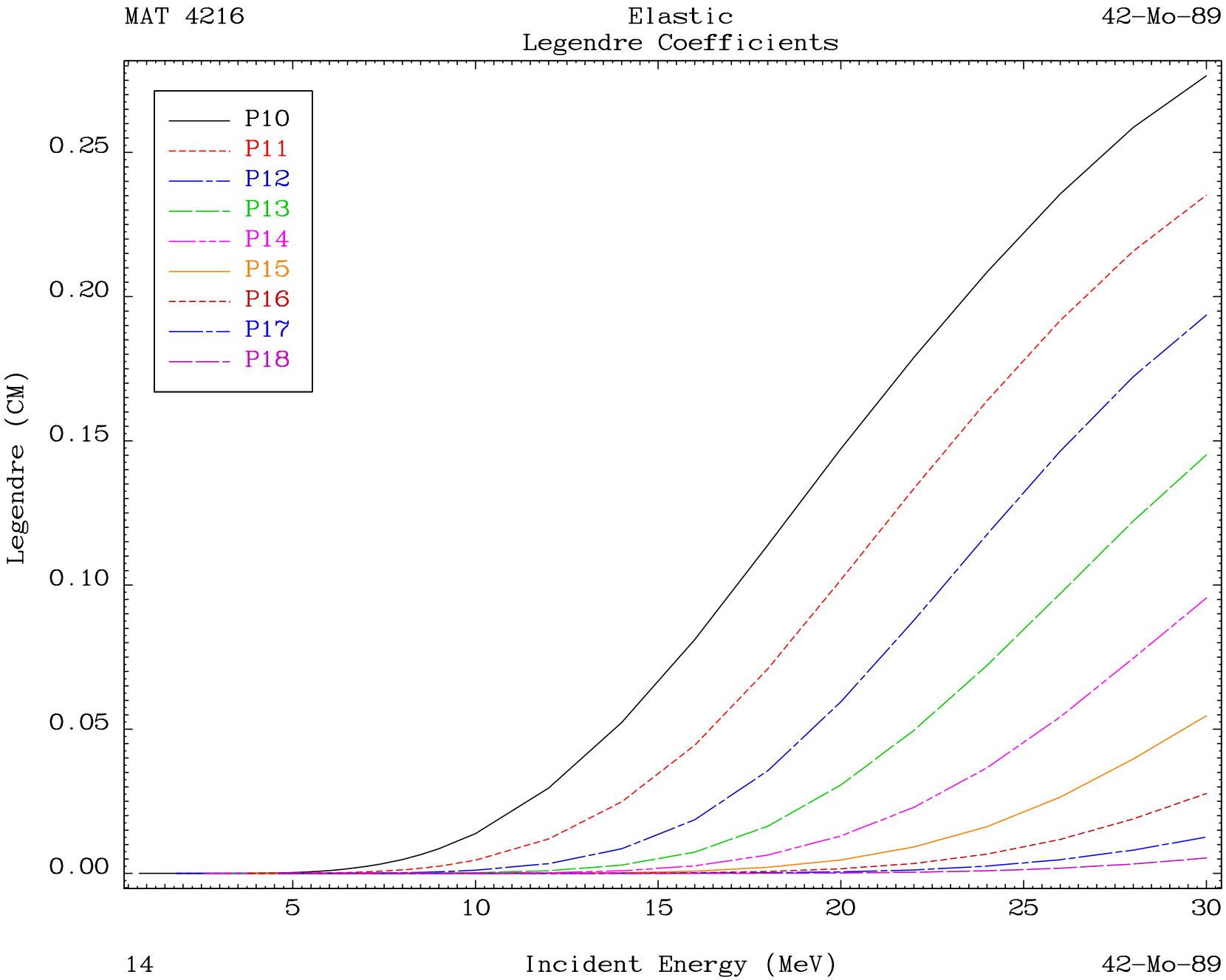

MAT 4216
(n,t) Levels
42-Mo-89
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
42-Mo-89
9

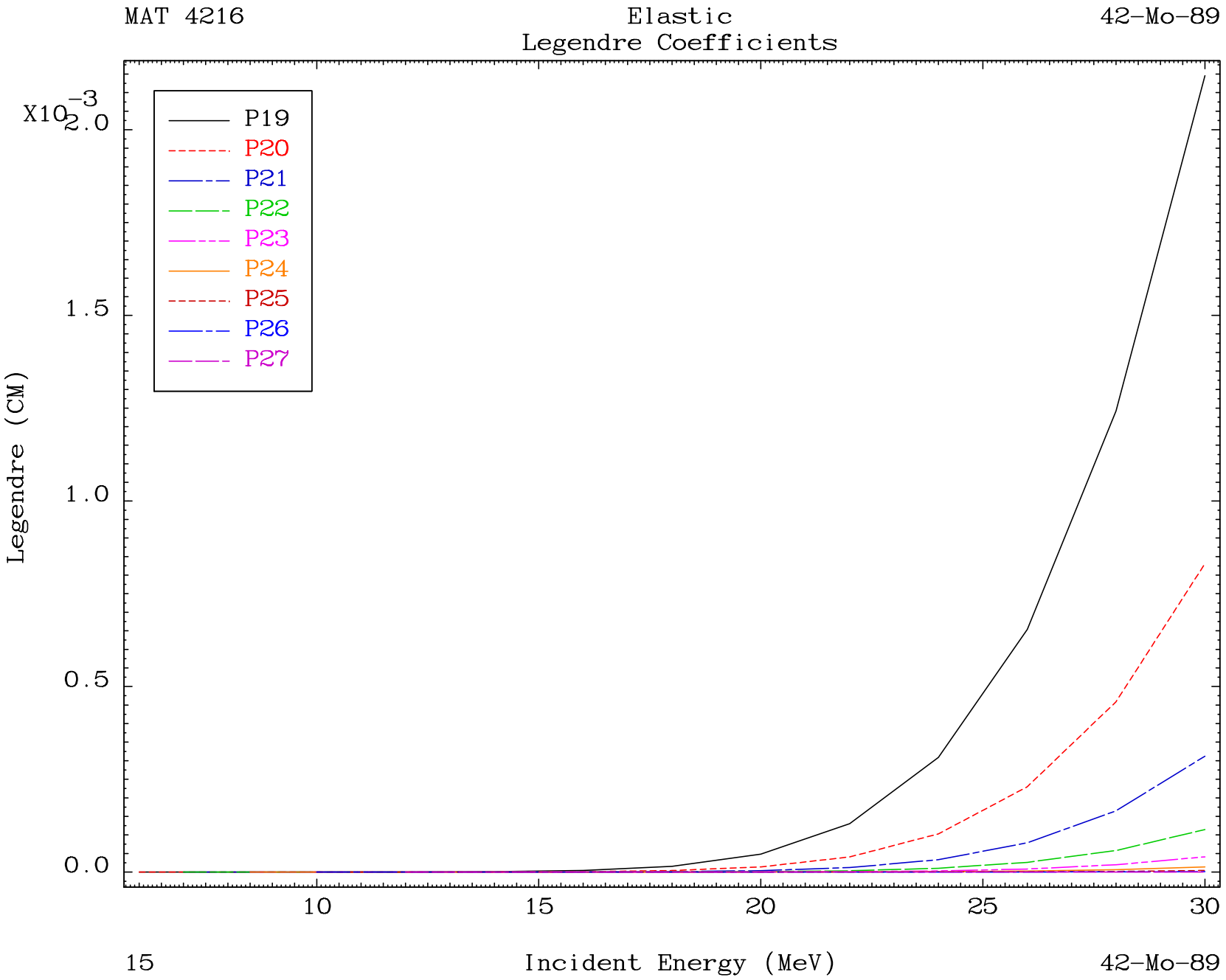

MAT 4216
(n,He3) Levels
42-Mo-89
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
Incident Energy (MeV)
10
42-Mo-89

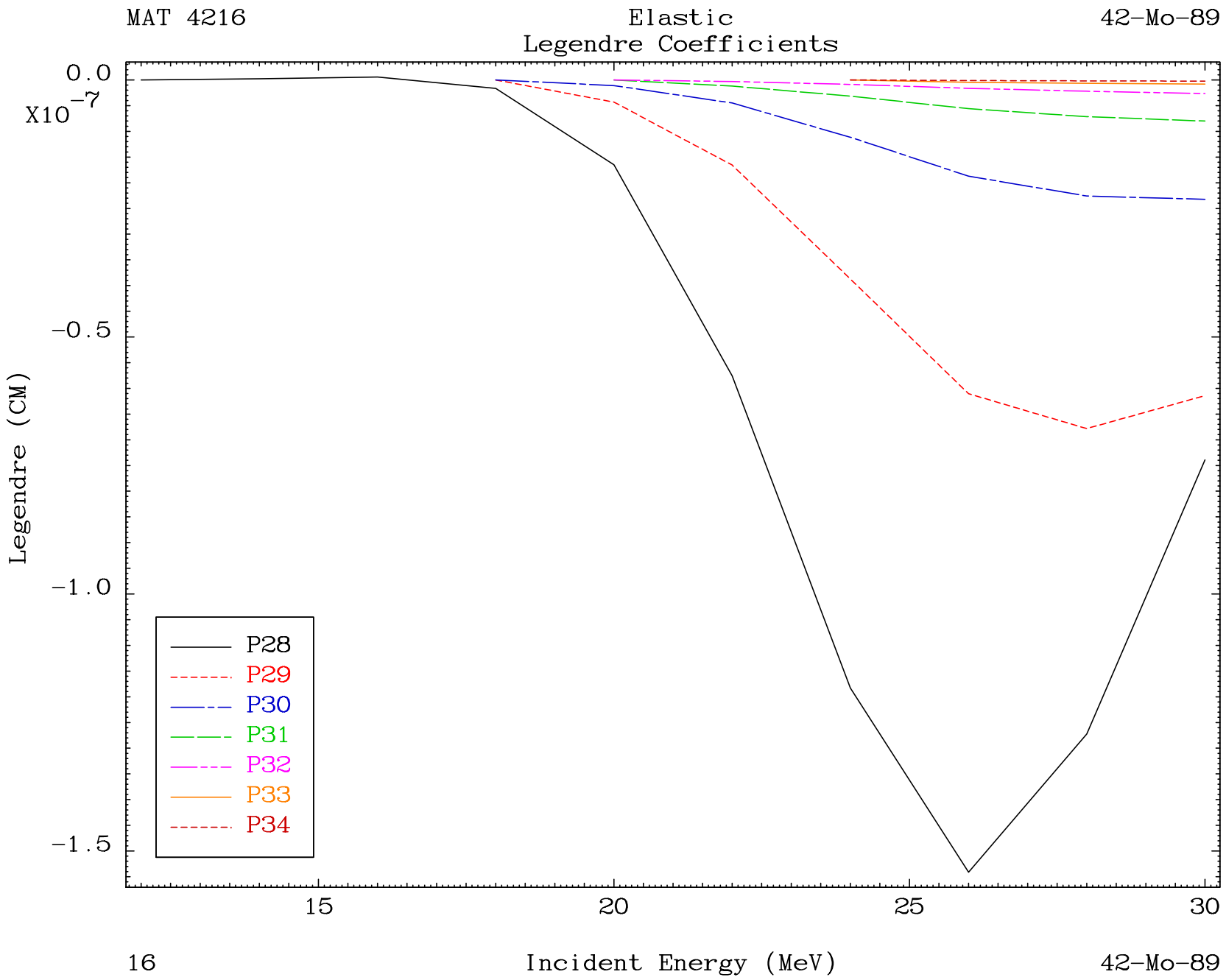

MAT 4216
(n,α) Levels
293 Kelvin Cross Sections
42-Mo-89
Cross Section (barns)
10^0
10^-1
10^-2
10^-3
5
(n,α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
11
42-Mo-89

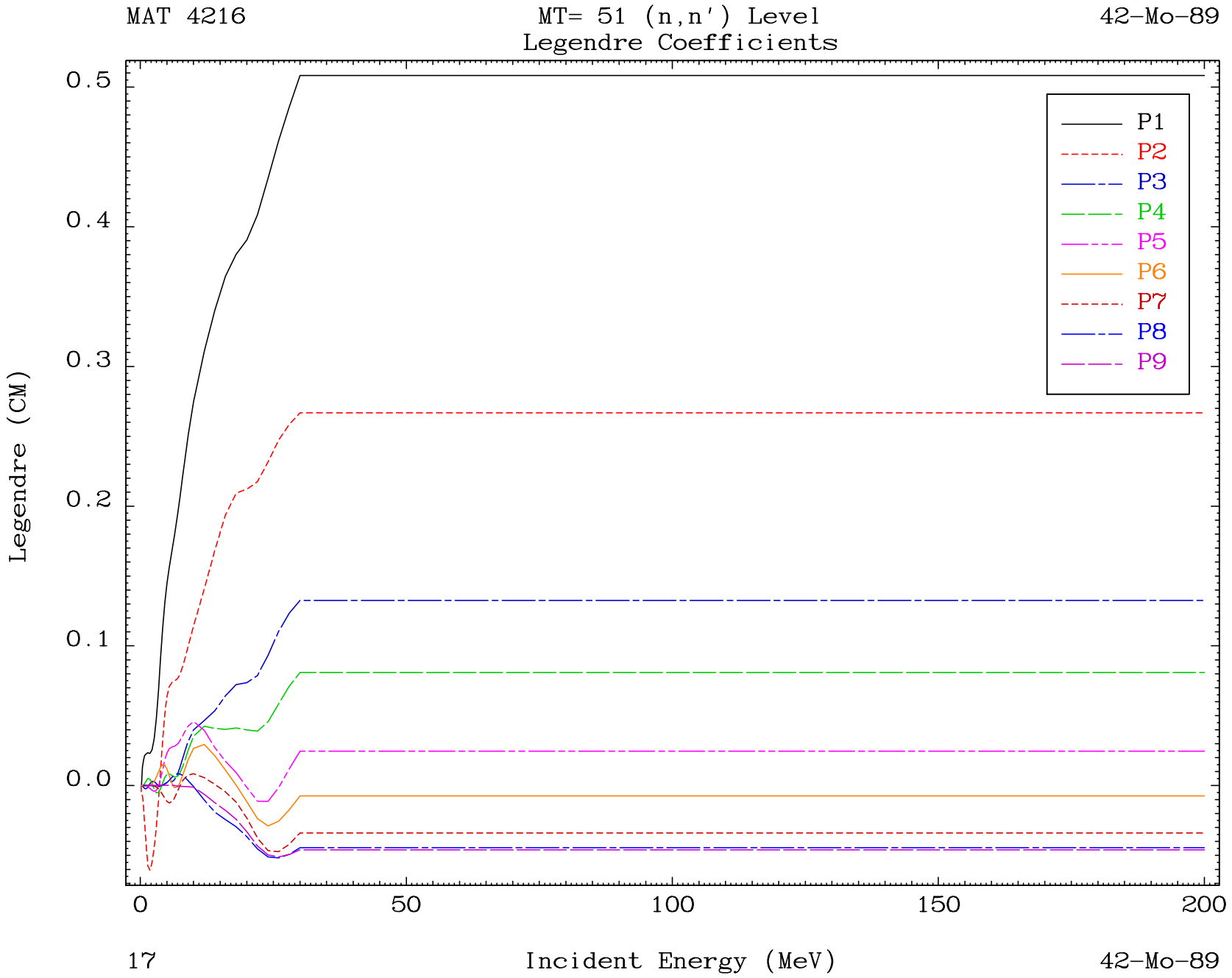

MAT 4216
Energy Release
Parameters
42-Mo-89
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (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
12
Incident Energy (MeV)
42-Mo-89

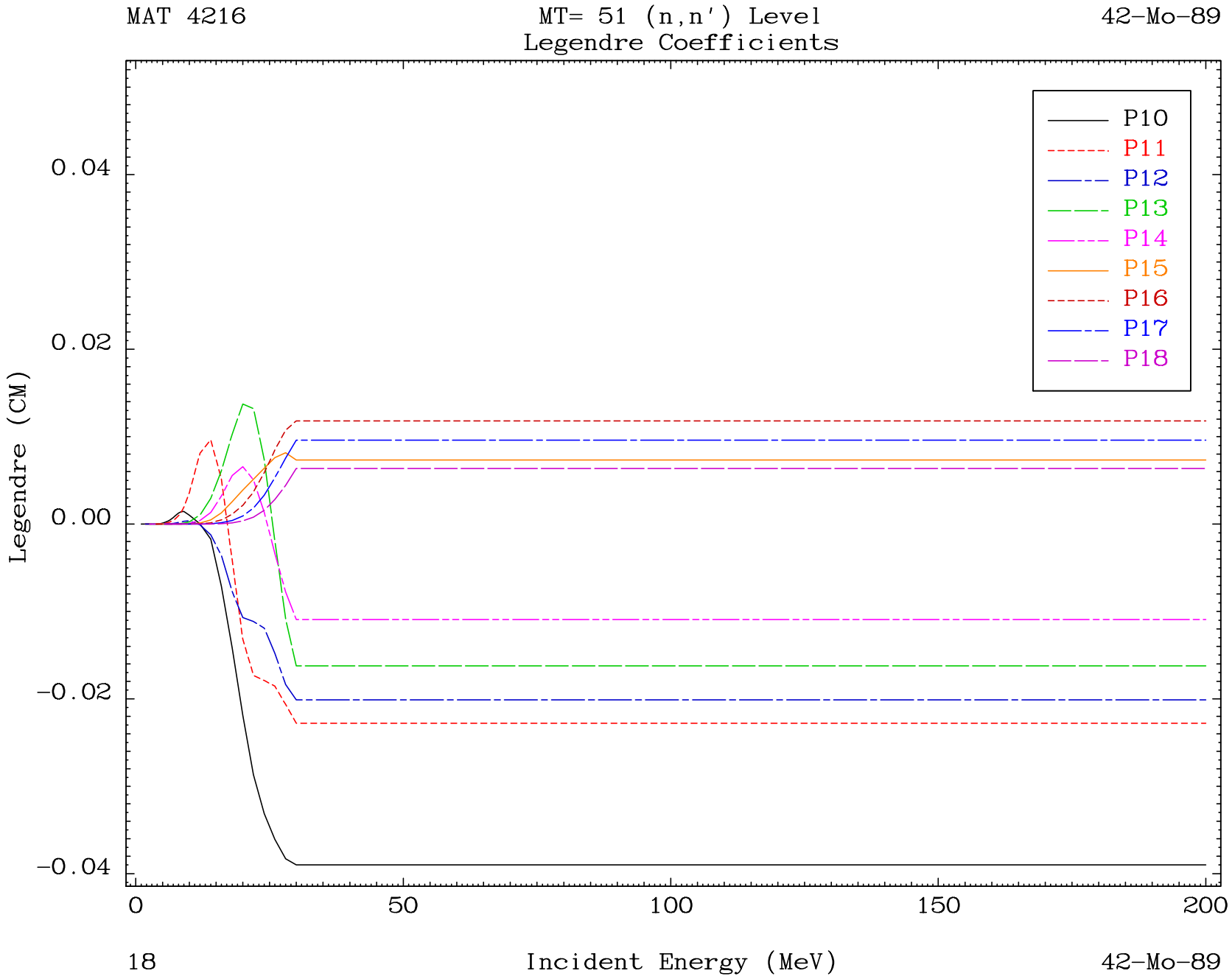

MAT 4216
Elastic
Legendre Coefficients
42-Mo-89
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
13
Incident Energy (MeV)
42-Mo-89

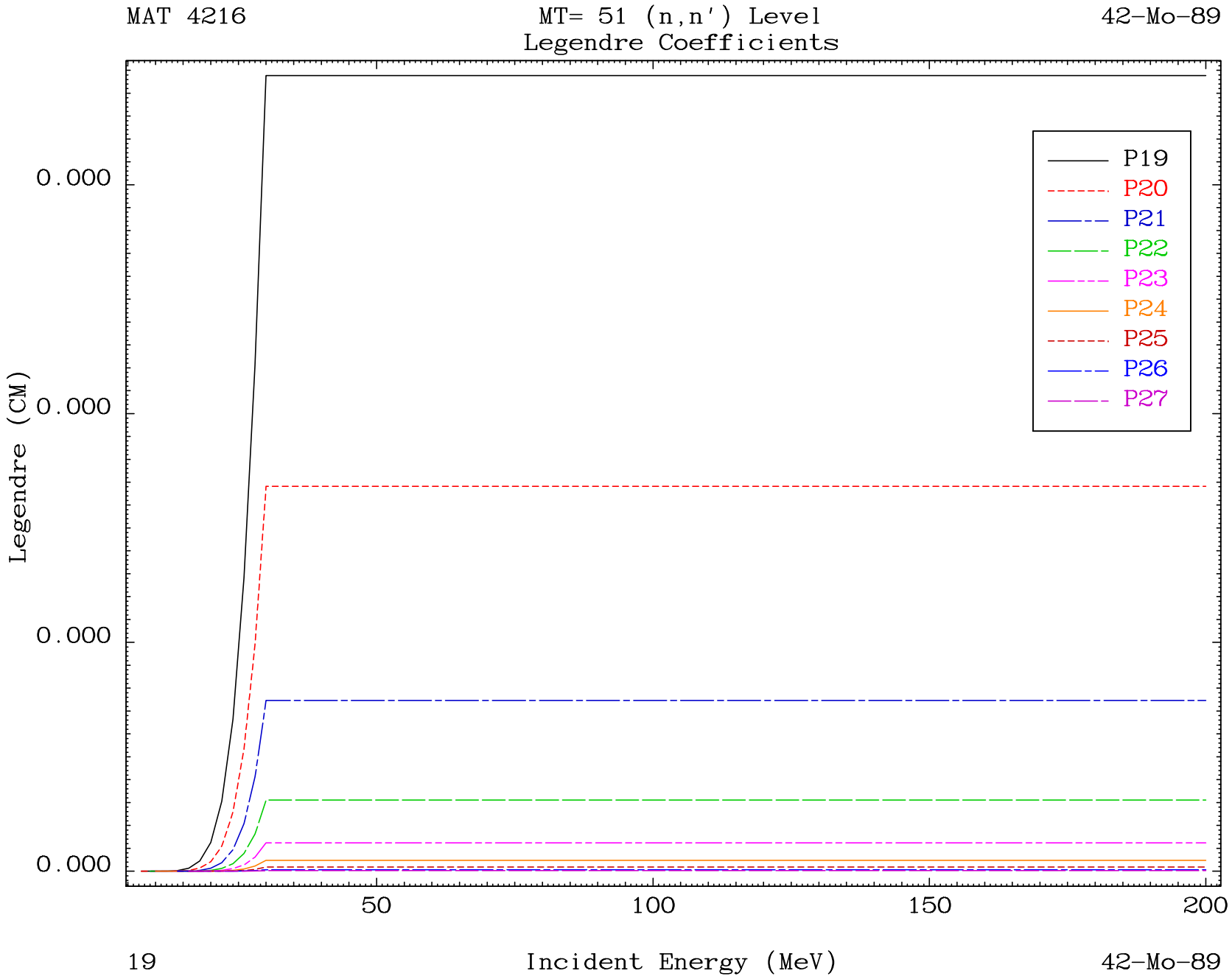

MAT 4216
Elastic
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.25
0.20
0.15
0.10
0.05
0.00
5
10
15
20
25
30
14
Incident Energy (MeV)
42-Mo-89

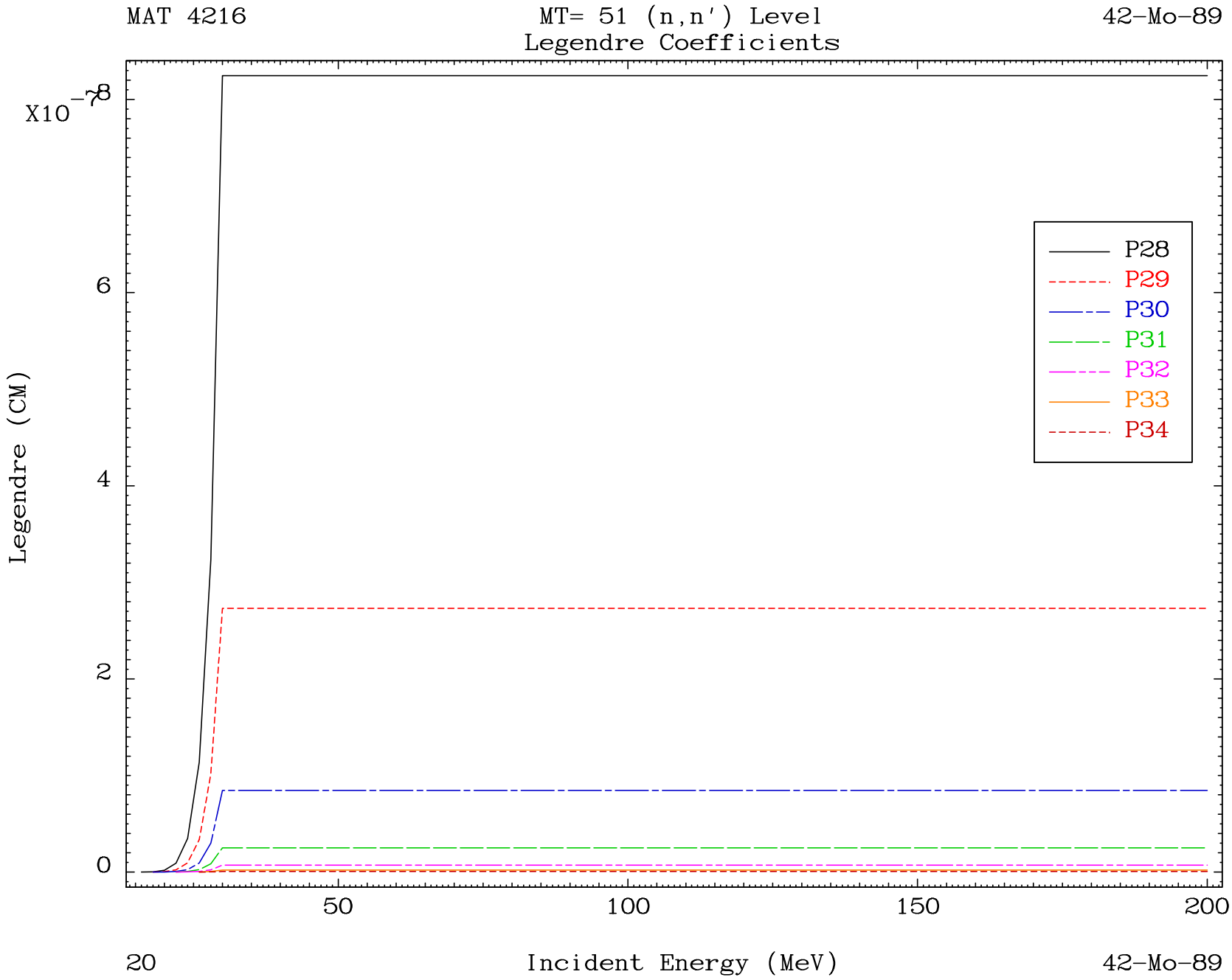

MAT 4216
Elastic
Legendre Coefficients
42-Mo-89
X10-3
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
10
15
20
25
30
15
Incident Energy (MeV)
42-Mo-89

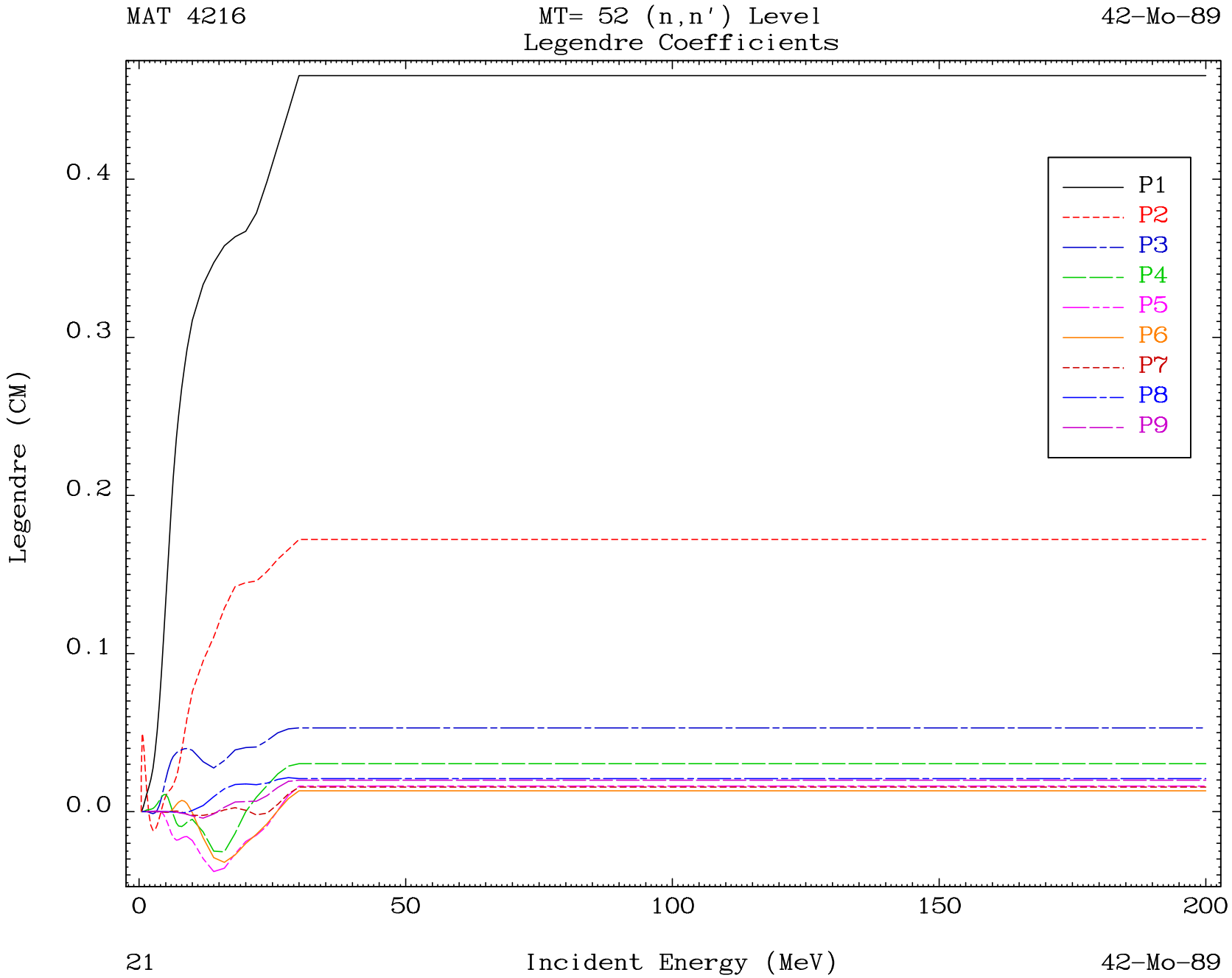

MAT 4216
Elastic
Legendre Coefficients
42-Mo-89
0.0
X10^-7
-0.5
-1.0
-1.5
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
15
20
25
30
16
Incident Energy (MeV)
42-Mo-89

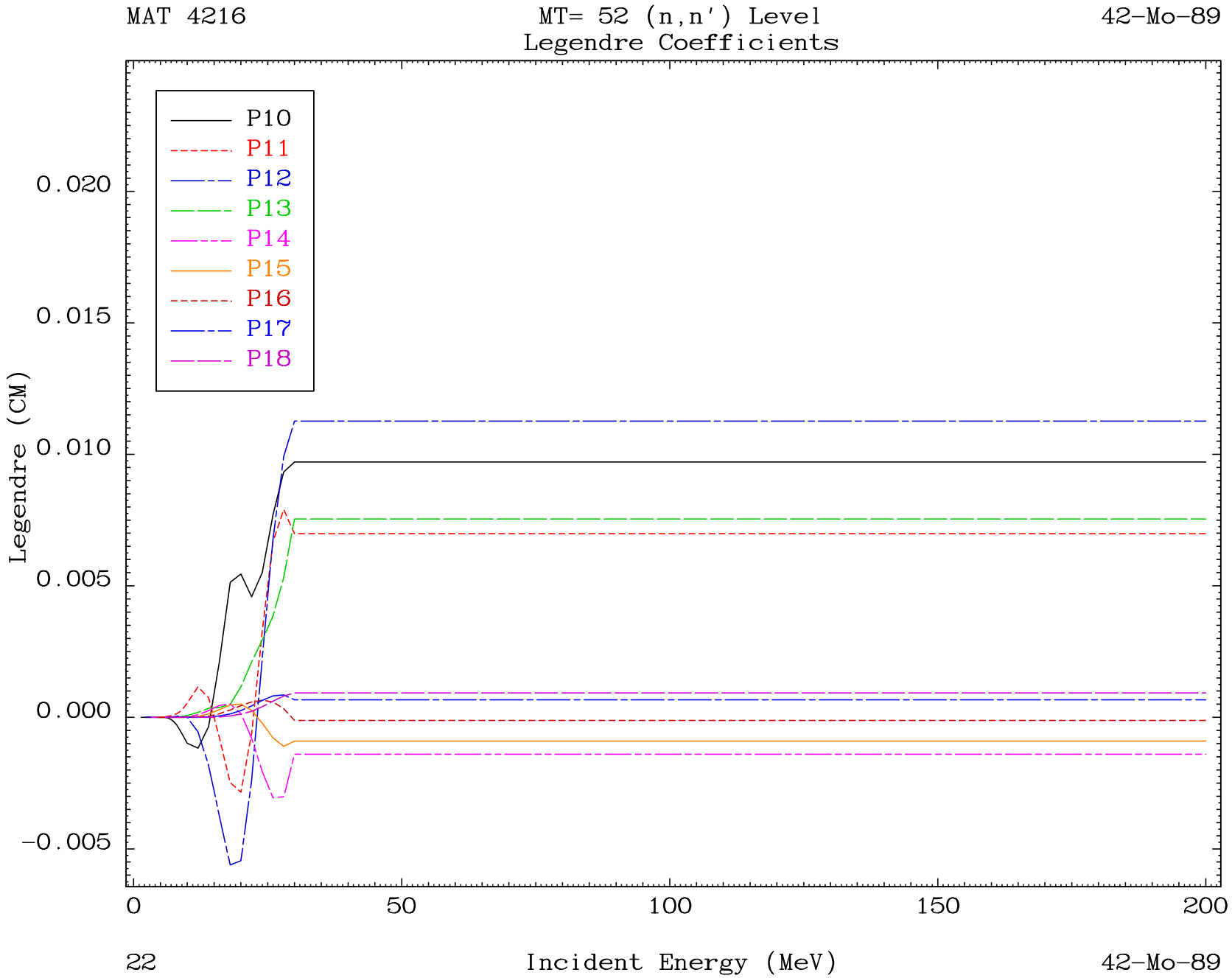

MAT 4216
MT= 51 (n,n') Level
Legendre Coefficients
42-Mo-89
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
17
Incident Energy (MeV)
42-Mo-89

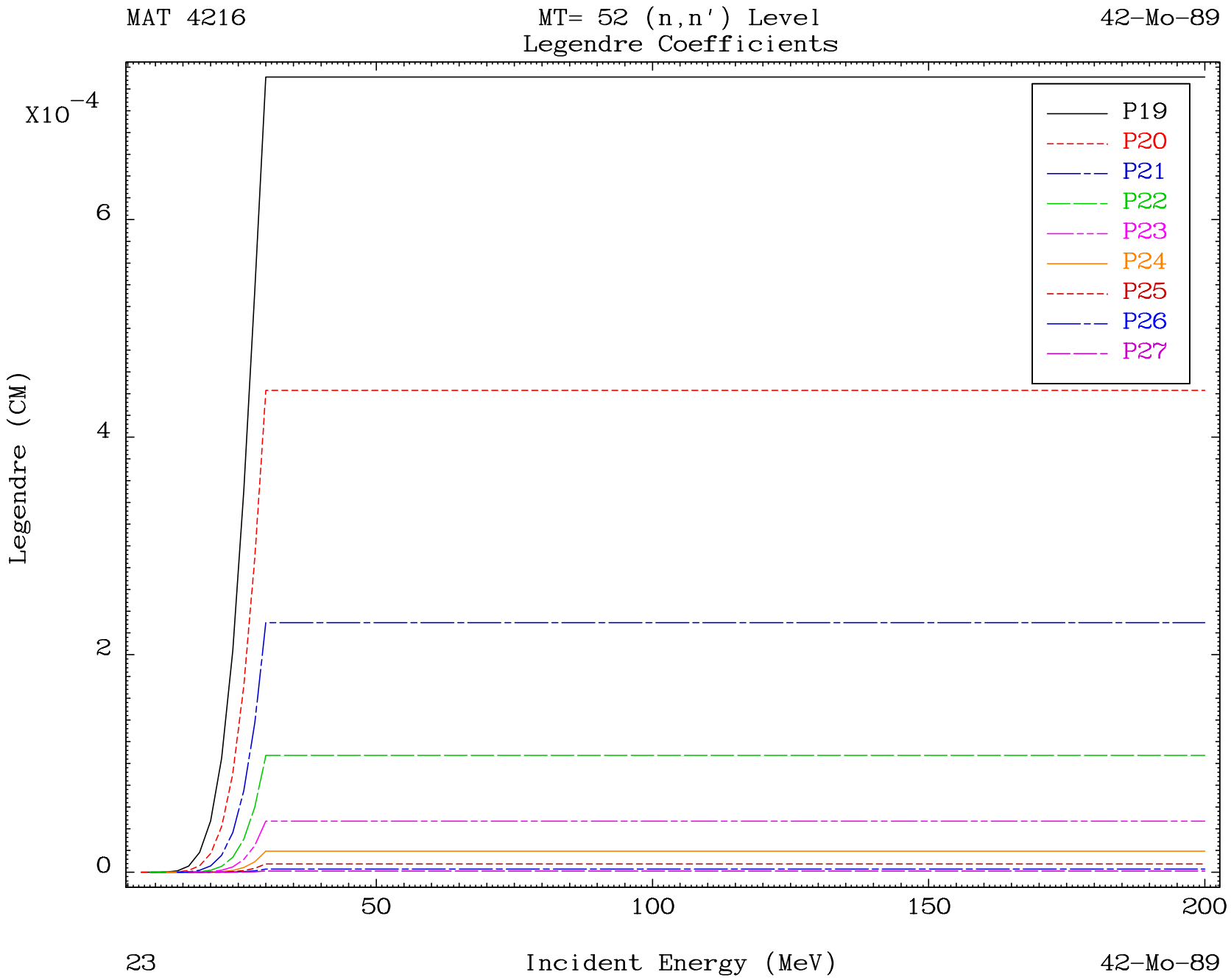

MAT 4216
MT= 51 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
18
Incident Energy (MeV)
42-Mo-89

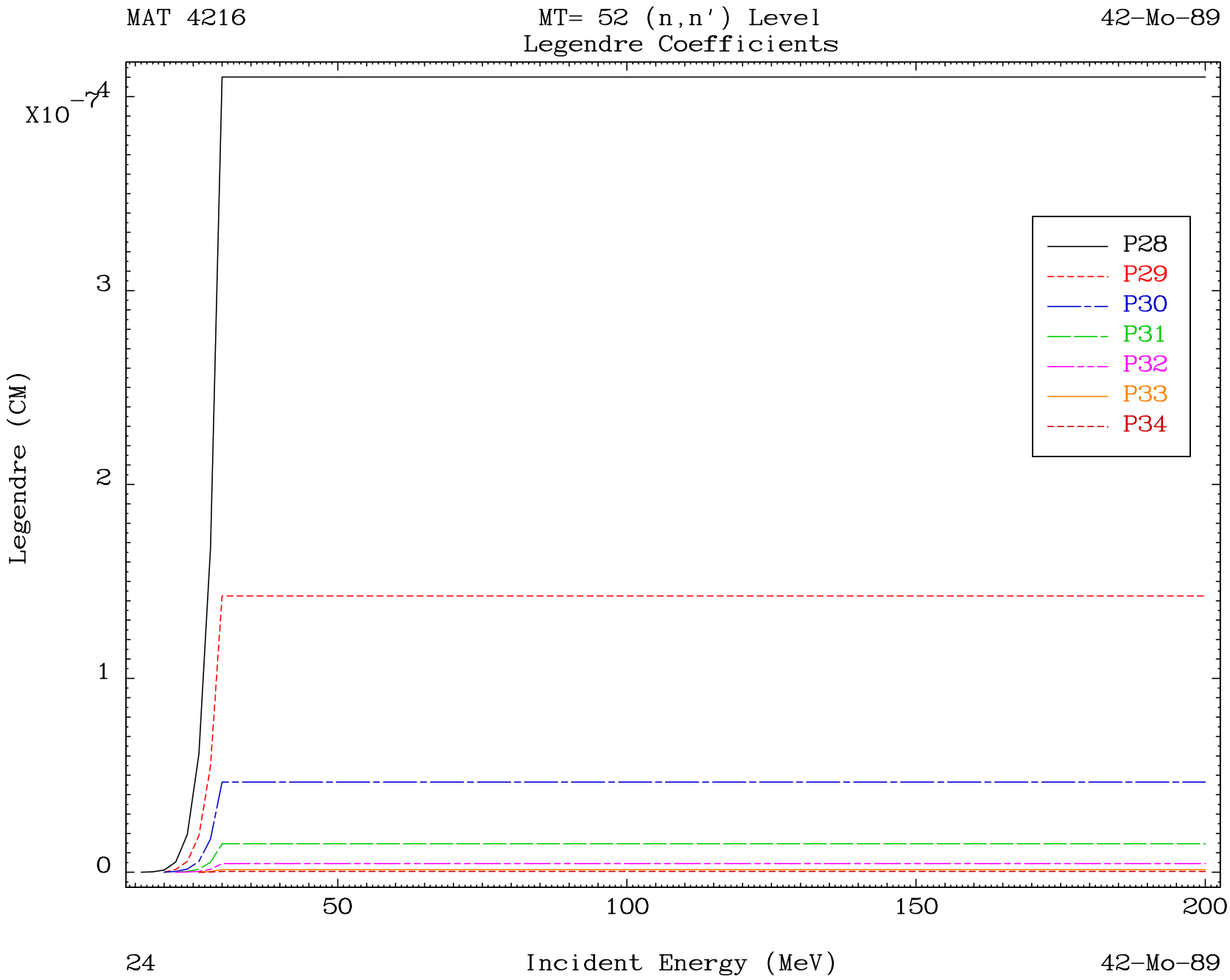

MAT 4216
MT= 51 (n,n') Level
Legendre Coefficients
42-Mo-89
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.000
0.000
0.000
0.000
Legendre (CM)
50
100
150
200
19
Incident Energy (MeV)
42-Mo-89

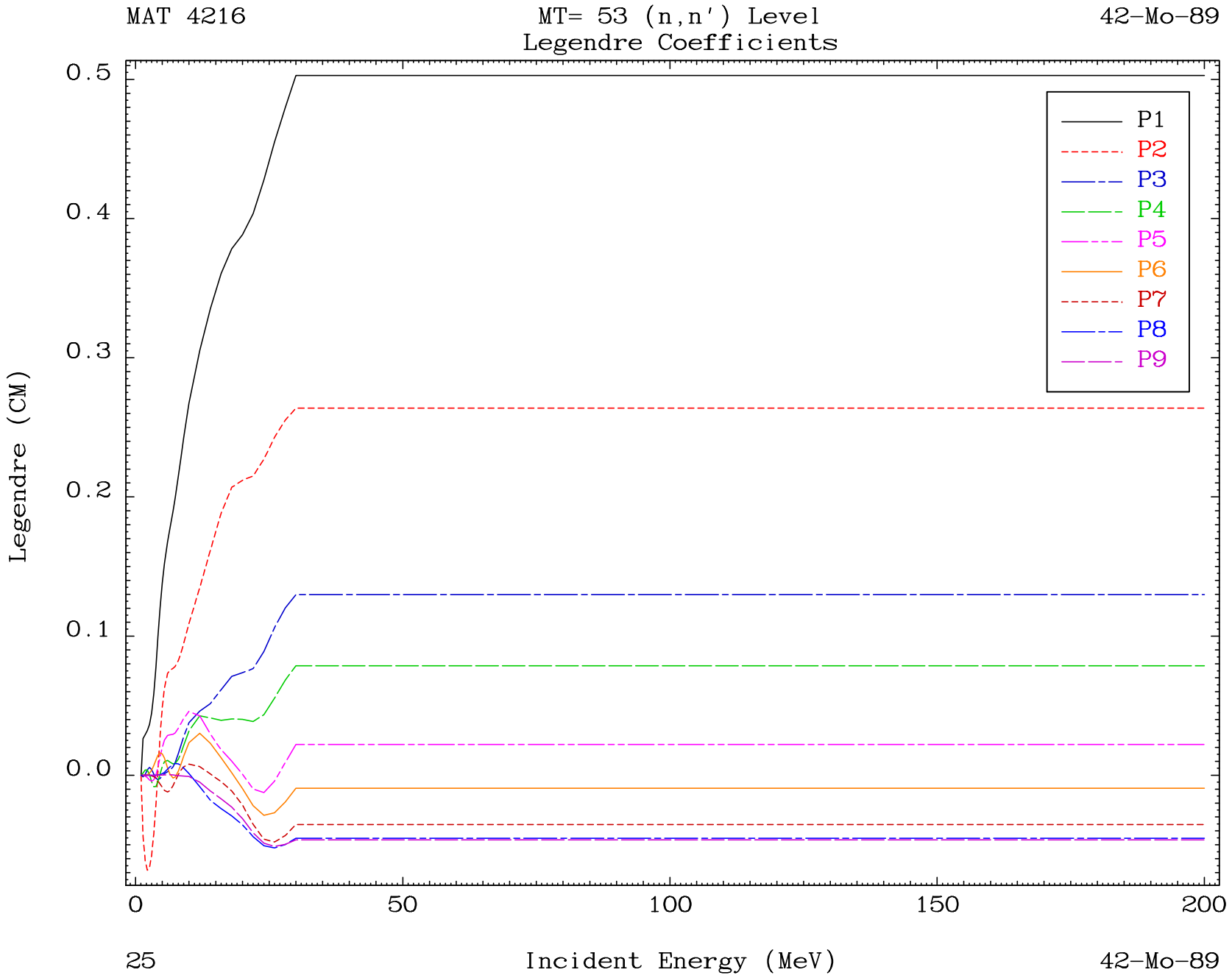

MAT 4216
MT= 51 (n,n') Level
Legendre Coefficients
42-Mo-89
X10-8
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
20
Incident Energy (MeV)
42-Mo-89

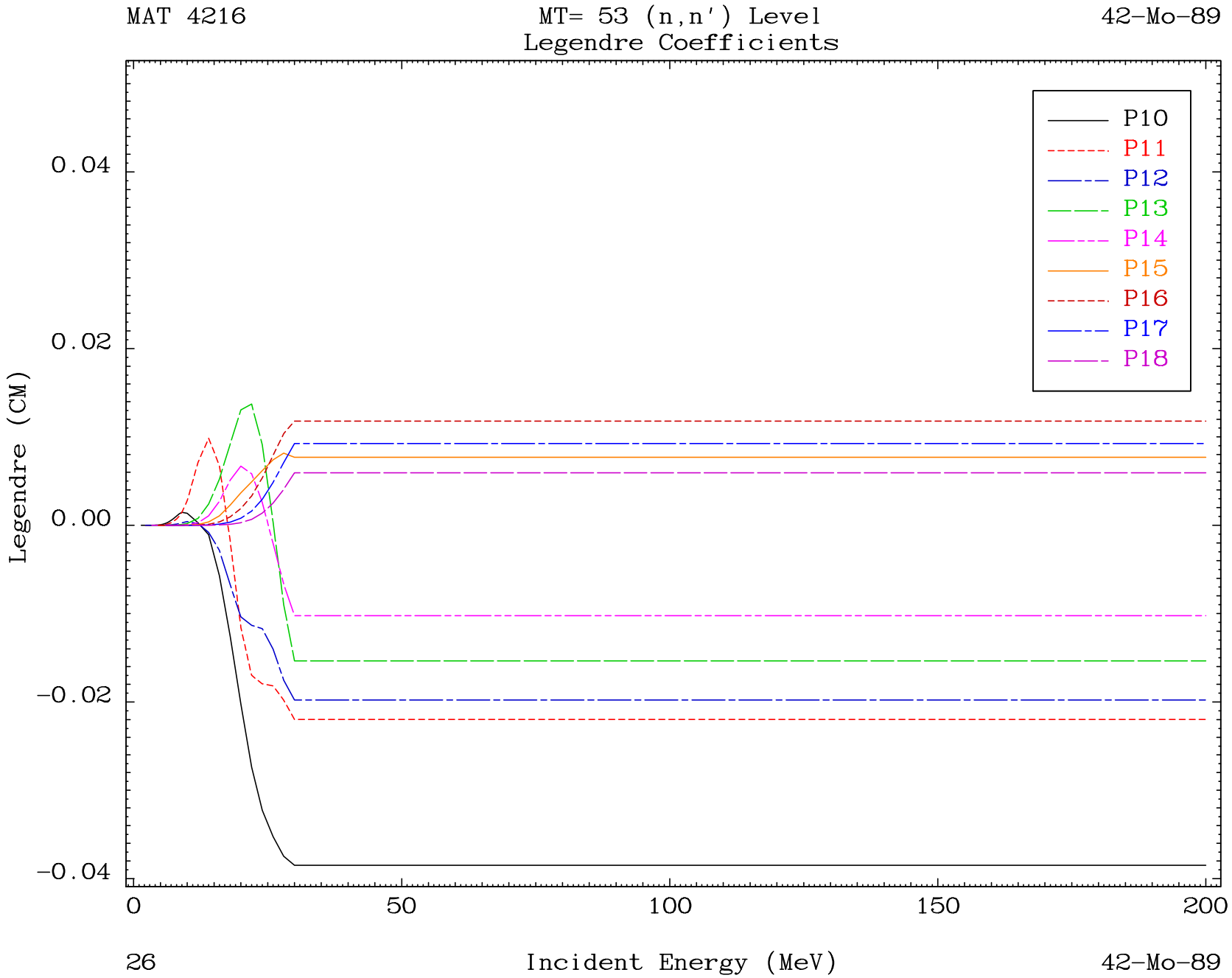

MAT 4216
MT= 52 (n,n') Level
Legendre Coefficients
42-Mo-89
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
21
Incident Energy (MeV)
42-Mo-89

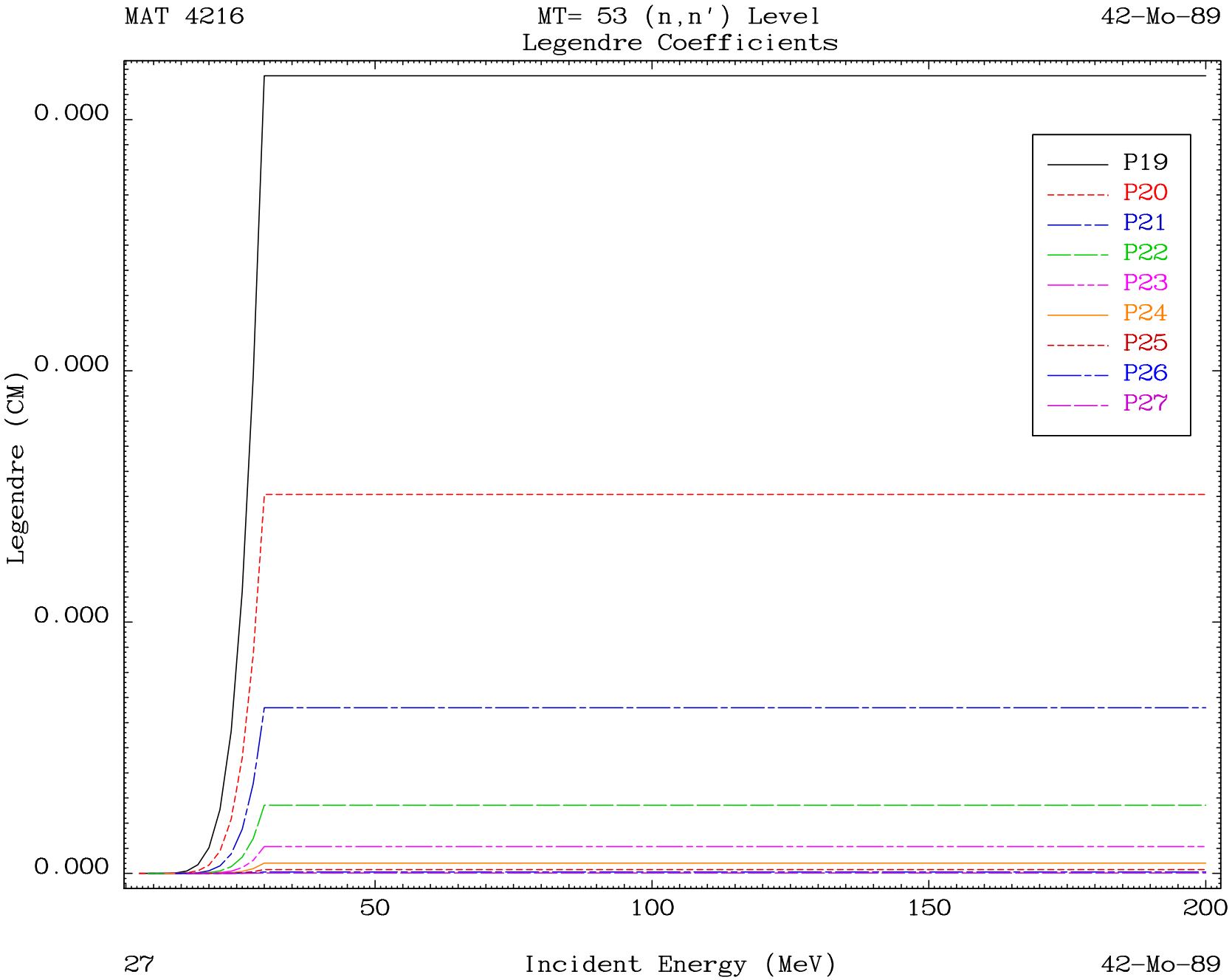

MAT 4216
MT= 52 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.020
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
0
50
100
150
200
22
Incident Energy (MeV)
42-Mo-89

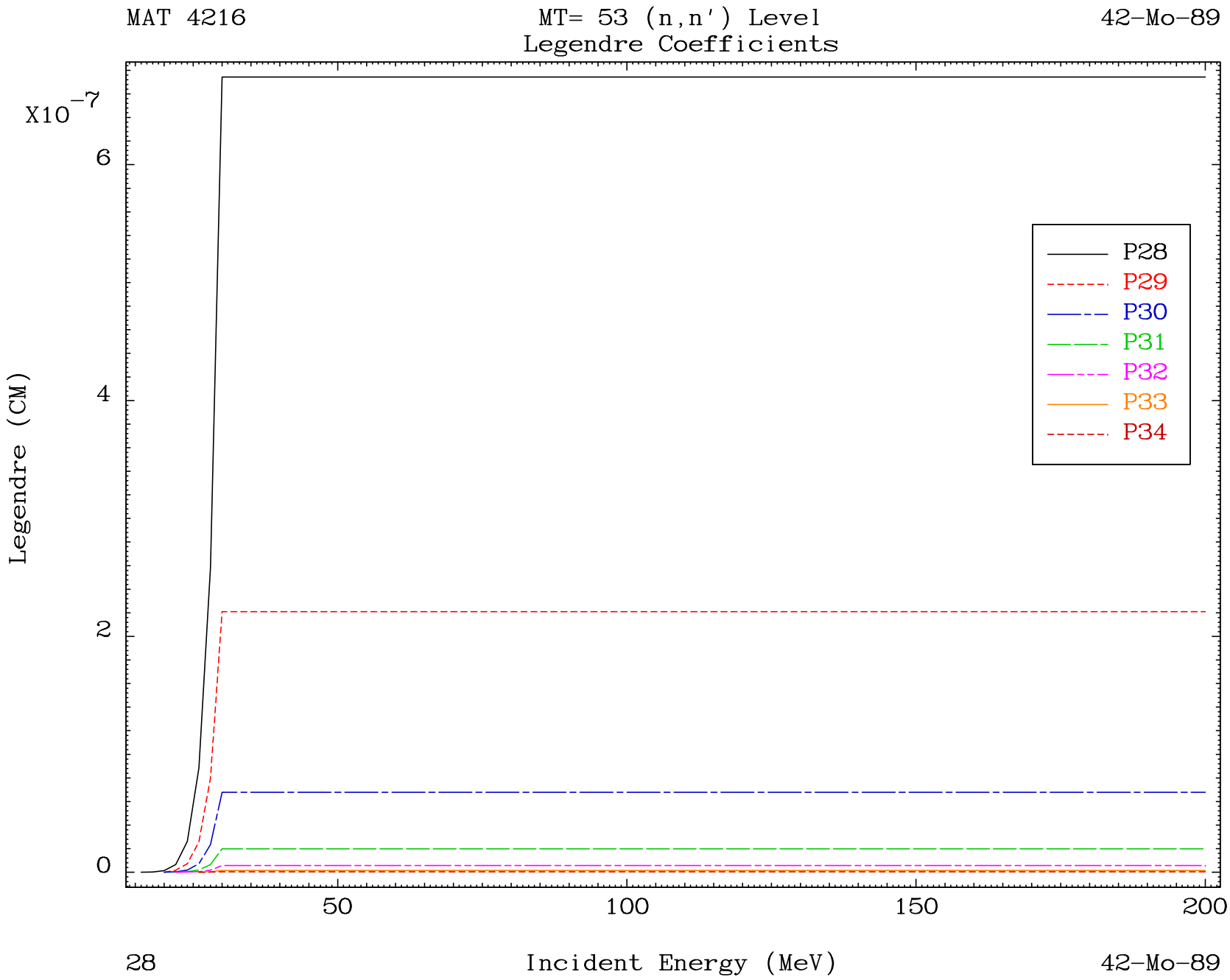

MAT 4216
MT= 52 (n,n') Level
Legendre Coefficients
42-Mo-89
X10^-4
6
4
2
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
23
Incident Energy (MeV)
42-Mo-89

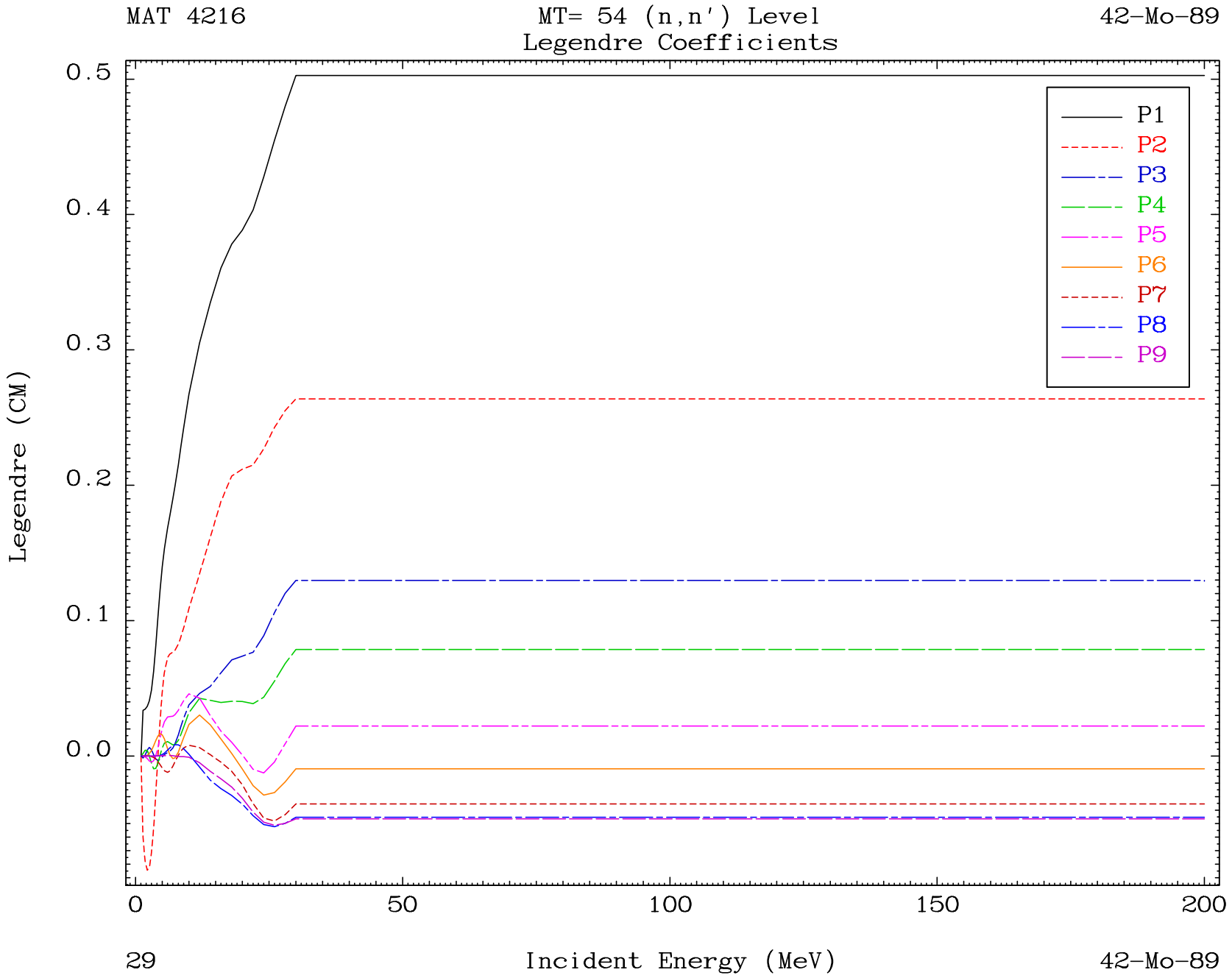

MAT 4216
MT= 52 (n,n') Level
Legendre Coefficients
42-Mo-89
X10-4
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
24
Incident Energy (MeV)
42-Mo-89

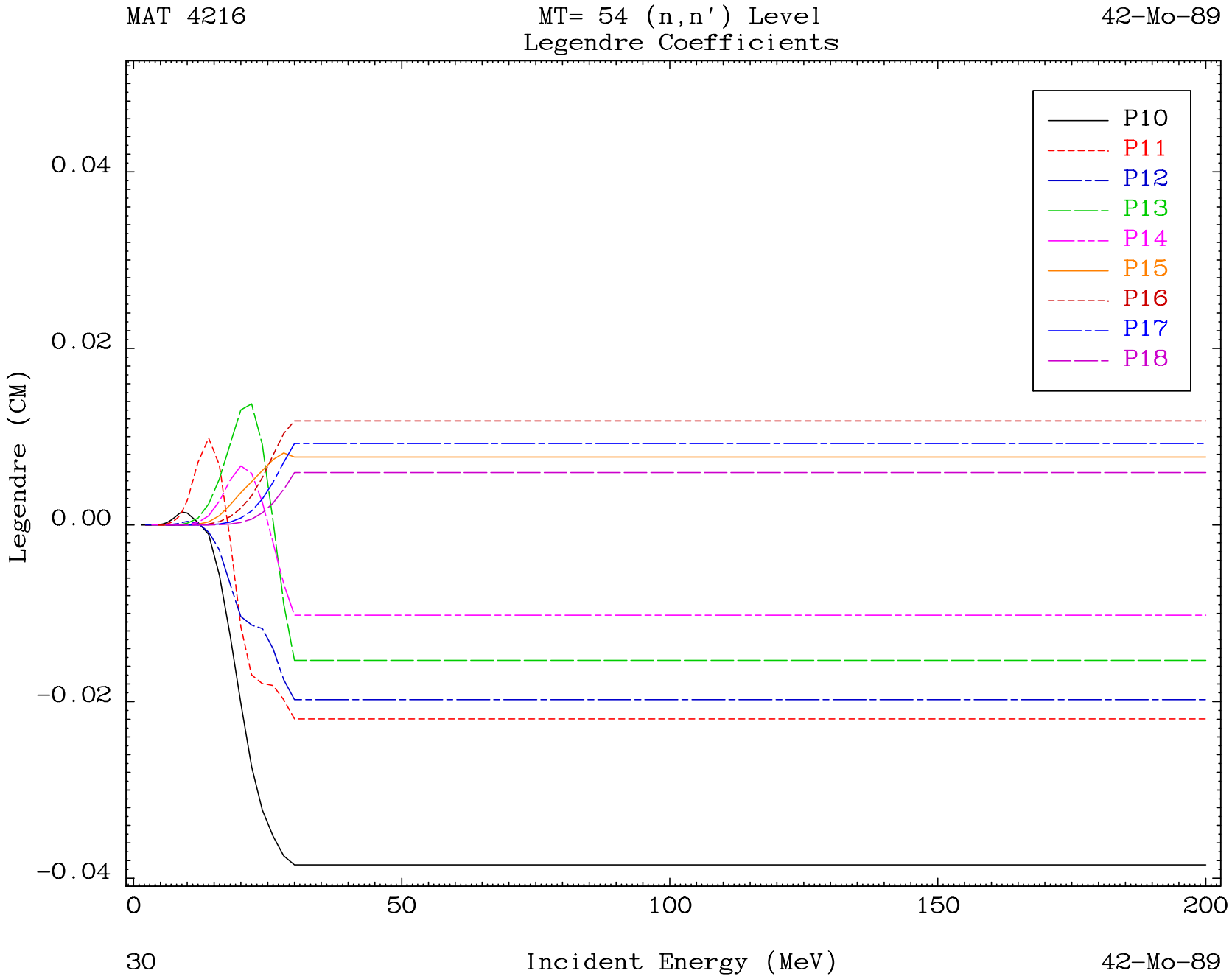

MAT 4216
MT= 53 (n,n') Level
Legendre Coefficients
42-Mo-89
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
25
Incident Energy (MeV)
42-Mo-89

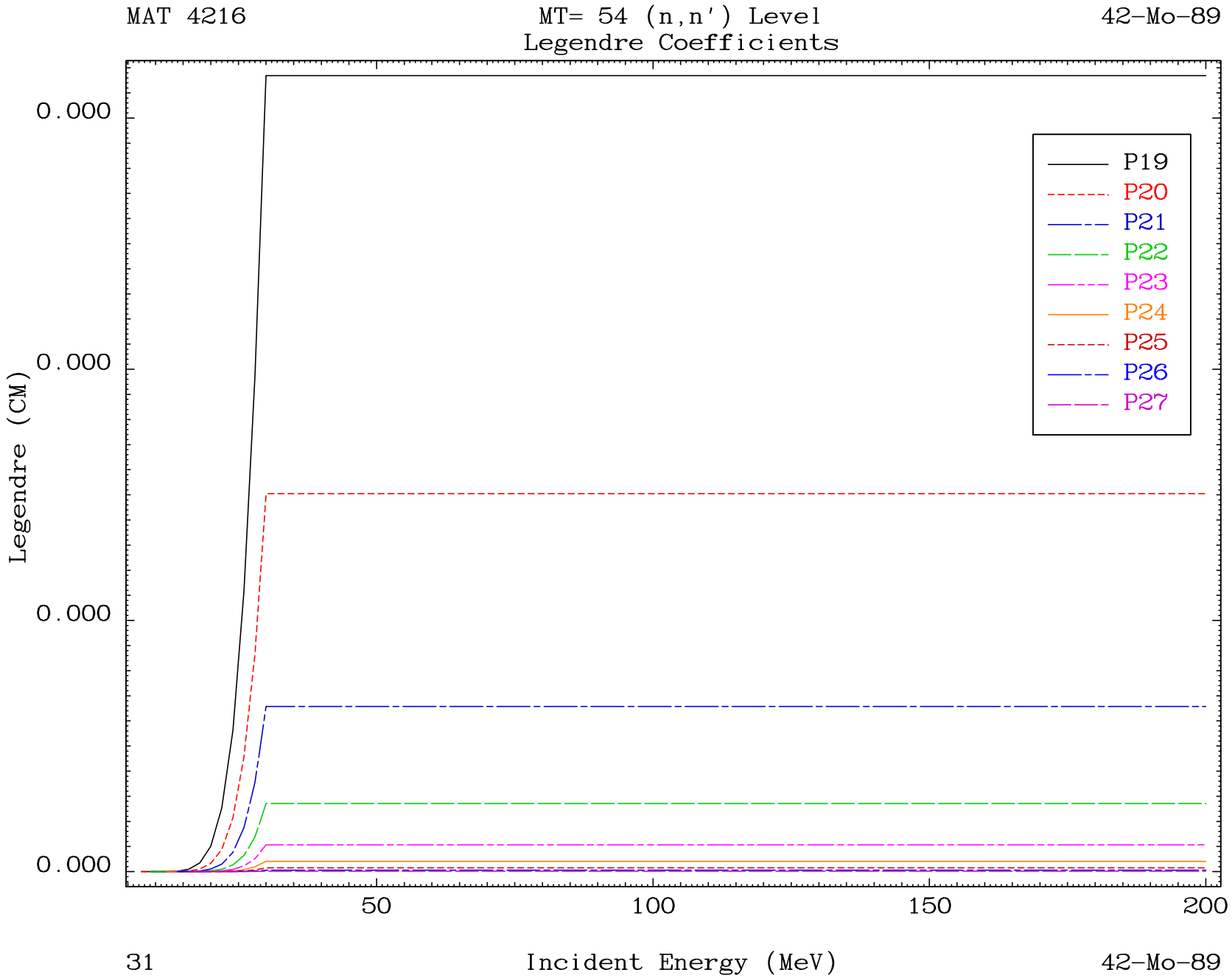

MAT 4216
MT= 53 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
26
Incident Energy (MeV)
42-Mo-89

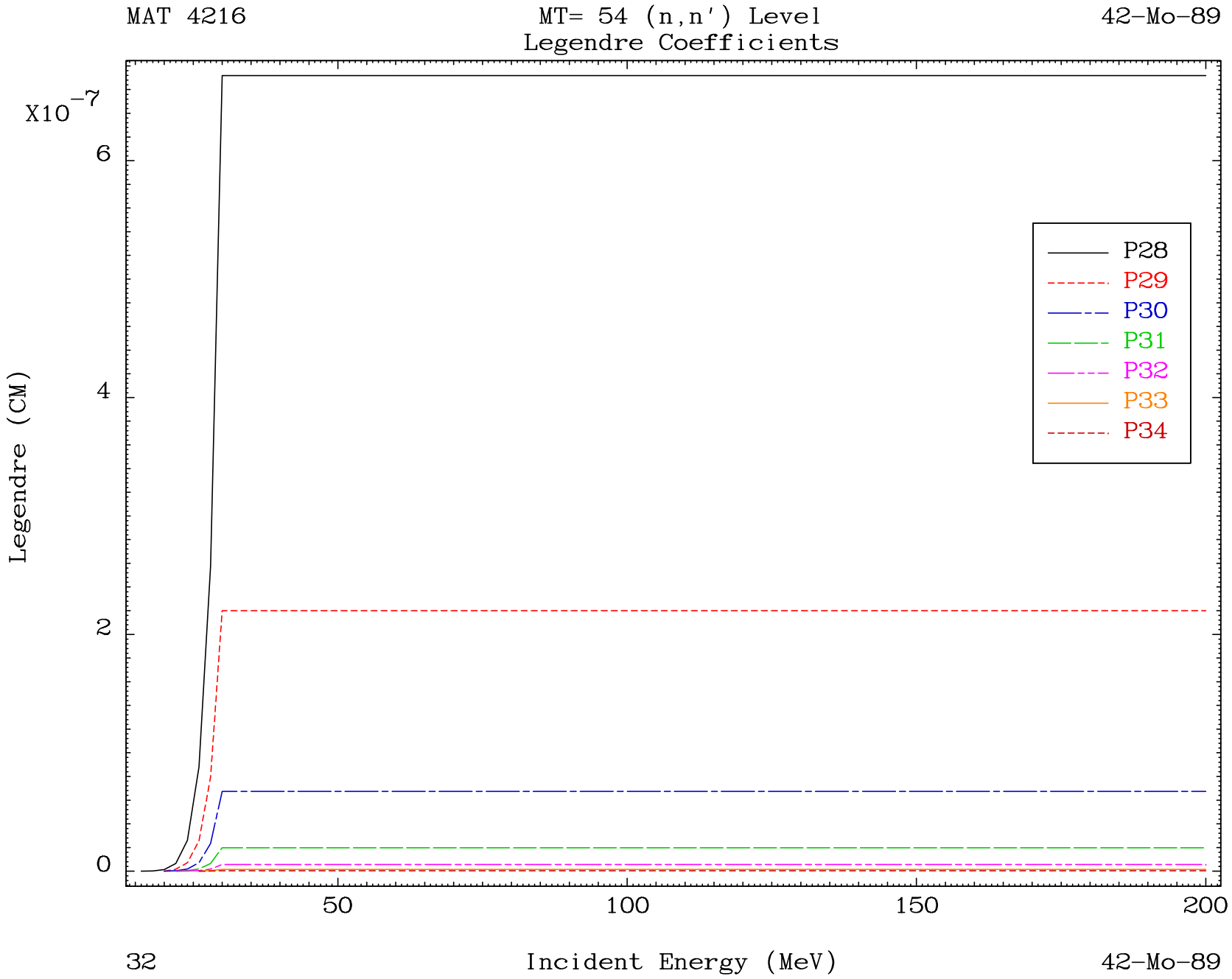

MAT 4216
MT= 53 (n,n') Level
Legendre Coefficients
42-Mo-89
0.000
0.000
0.000
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
27
Incident Energy (MeV)
42-Mo-89

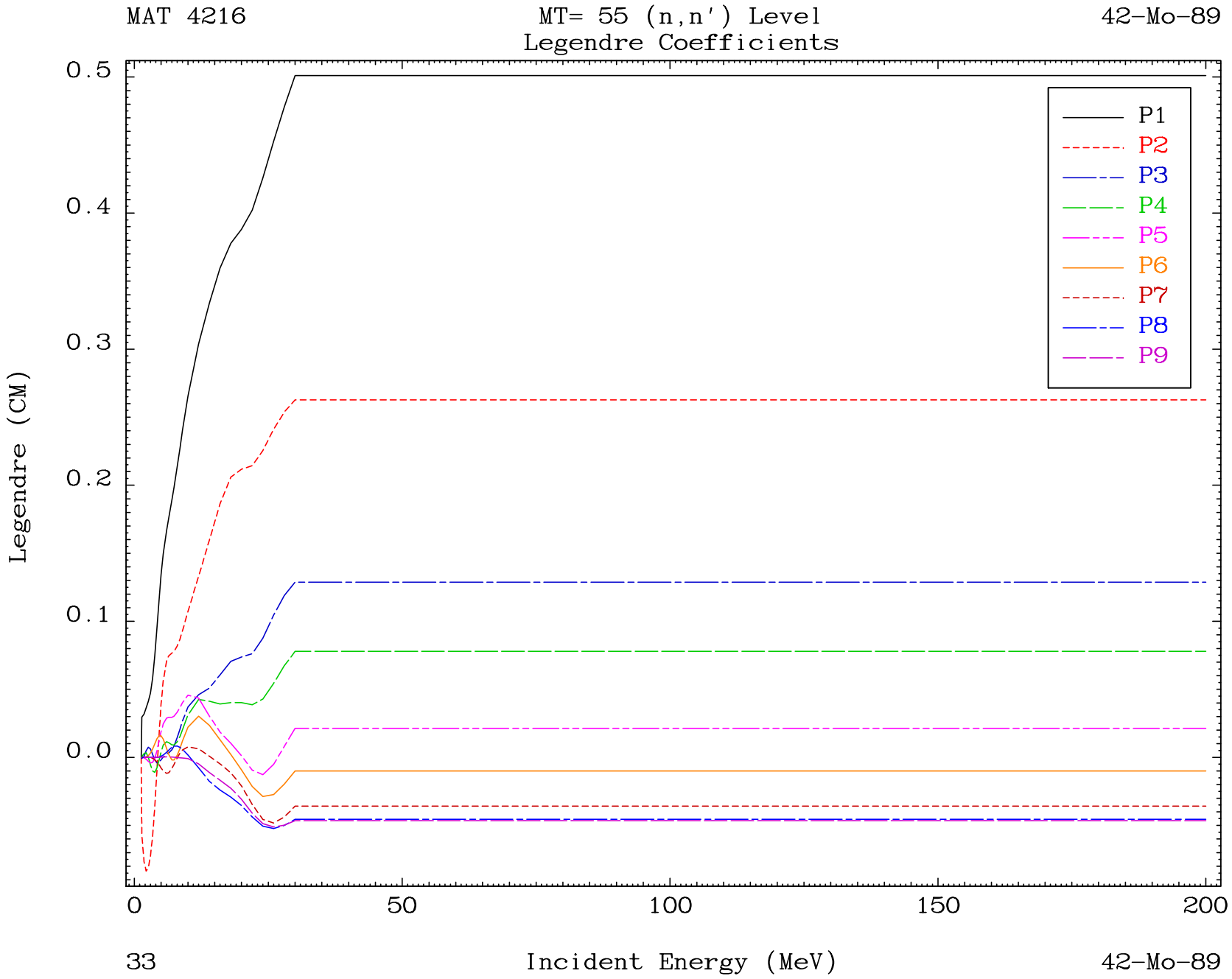

MAT 4216
MT= 53 (n,n') Level
Legendre Coefficients
42-Mo-89
X10^-7
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
28
Incident Energy (MeV)
42-Mo-89

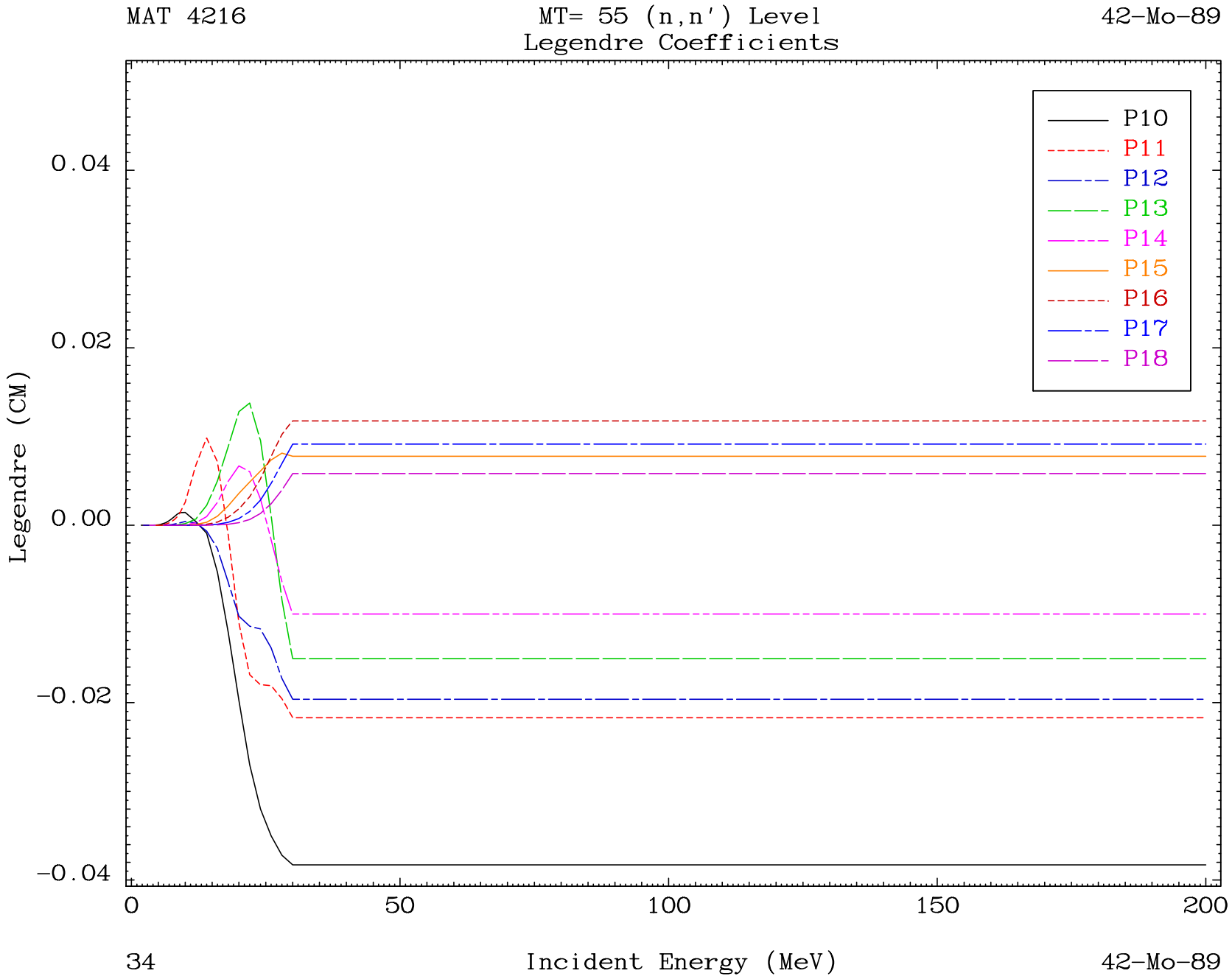

MAT 4216
MT= 54 (n,n') Level
Legendre Coefficients
42-Mo-89
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
29
Incident Energy (MeV)
42-Mo-89

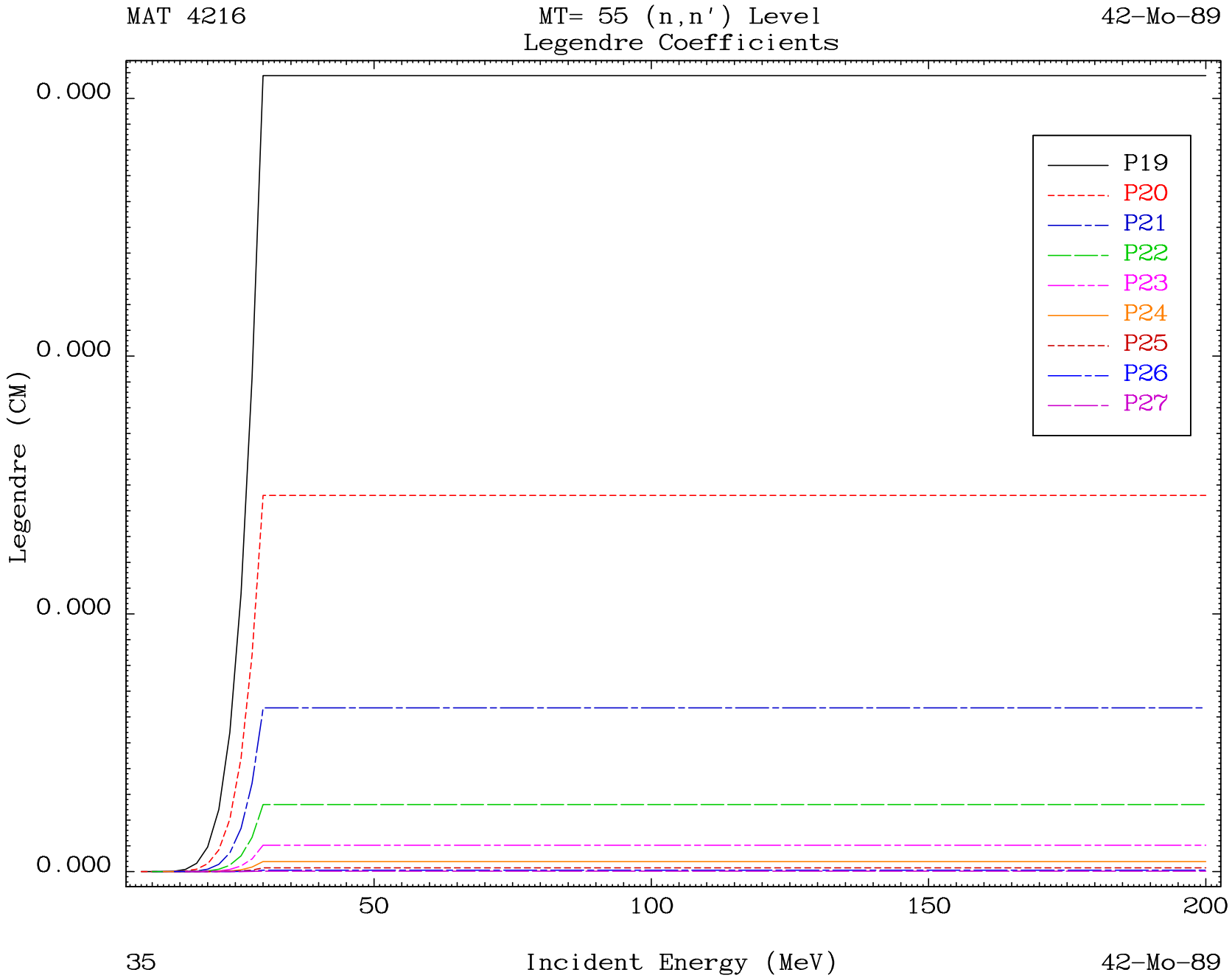

MAT 4216
MT= 54 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
30
Incident Energy (MeV)
42-Mo-89

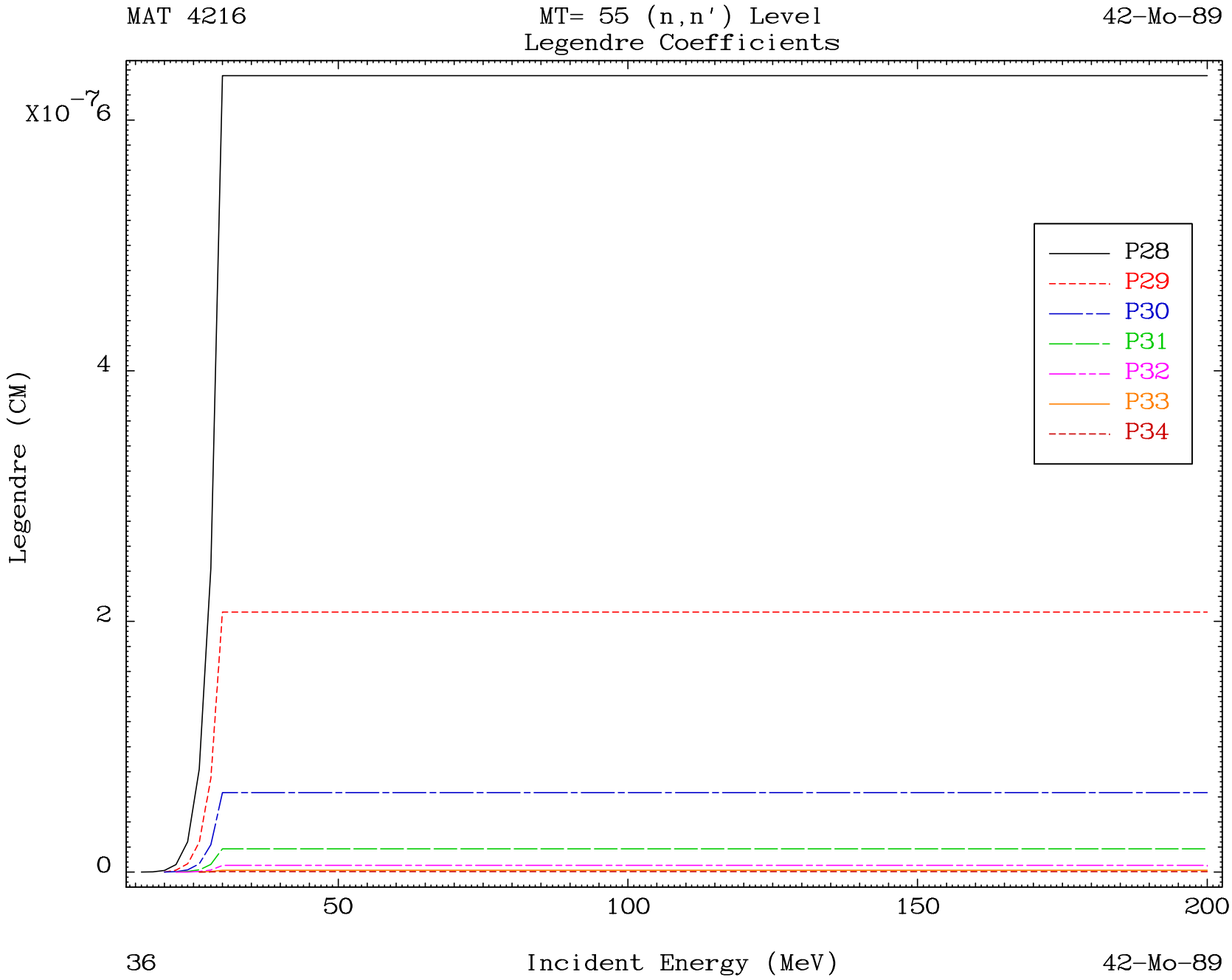

MAT 4216
MT= 54 (n,n') Level
Legendre Coefficients
42-Mo-89
0.000
0.000
0.000
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
31
Incident Energy (MeV)
42-Mo-89

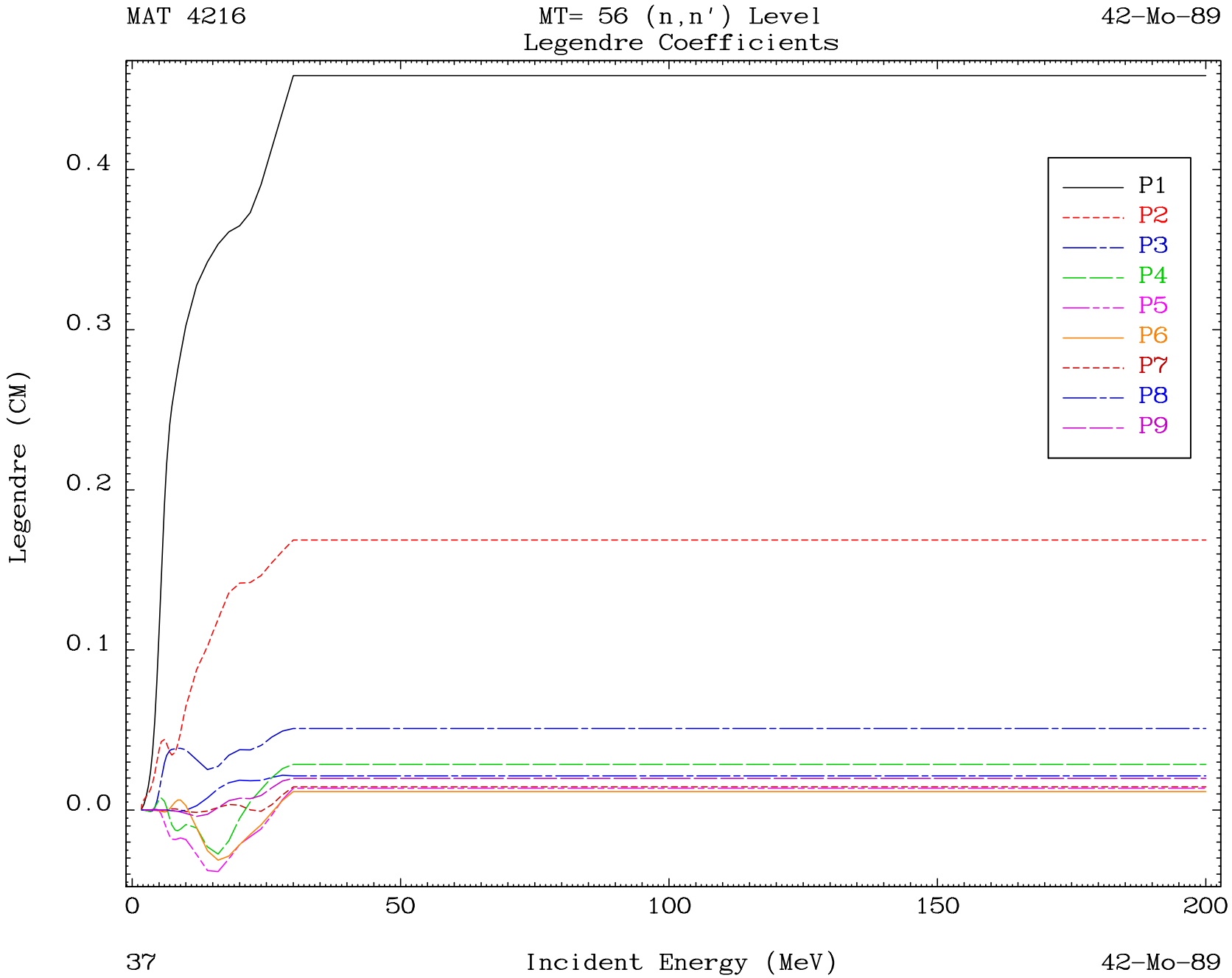

MAT 4216
MT= 54 (n,n') Level
Legendre Coefficients
42-Mo-89
X10^-7
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
32
Incident Energy (MeV)
42-Mo-89

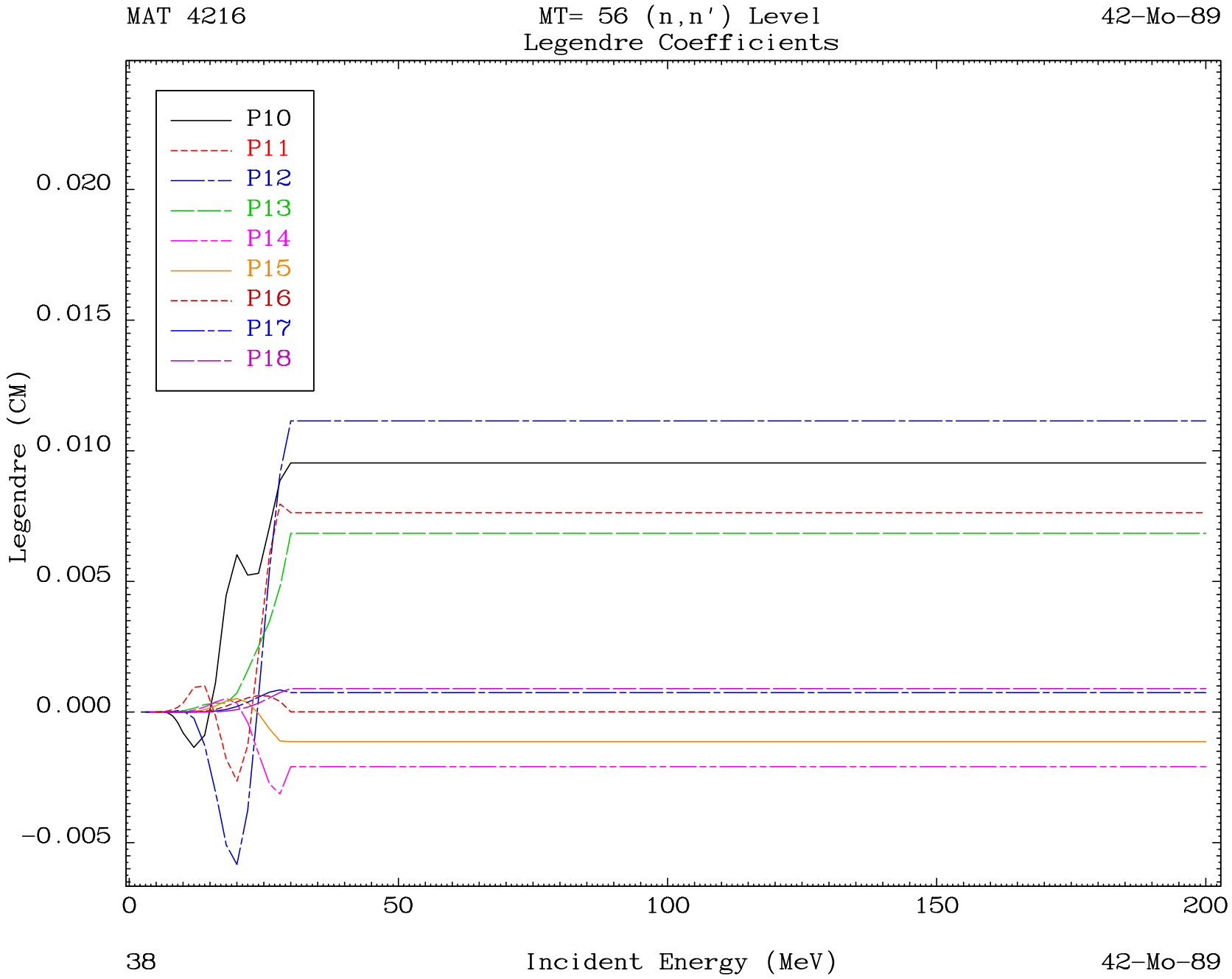

MAT 4216
MT= 55 (n,n') Level
Legendre Coefficients
42-Mo-89
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
33
Incident Energy (MeV)
42-Mo-89

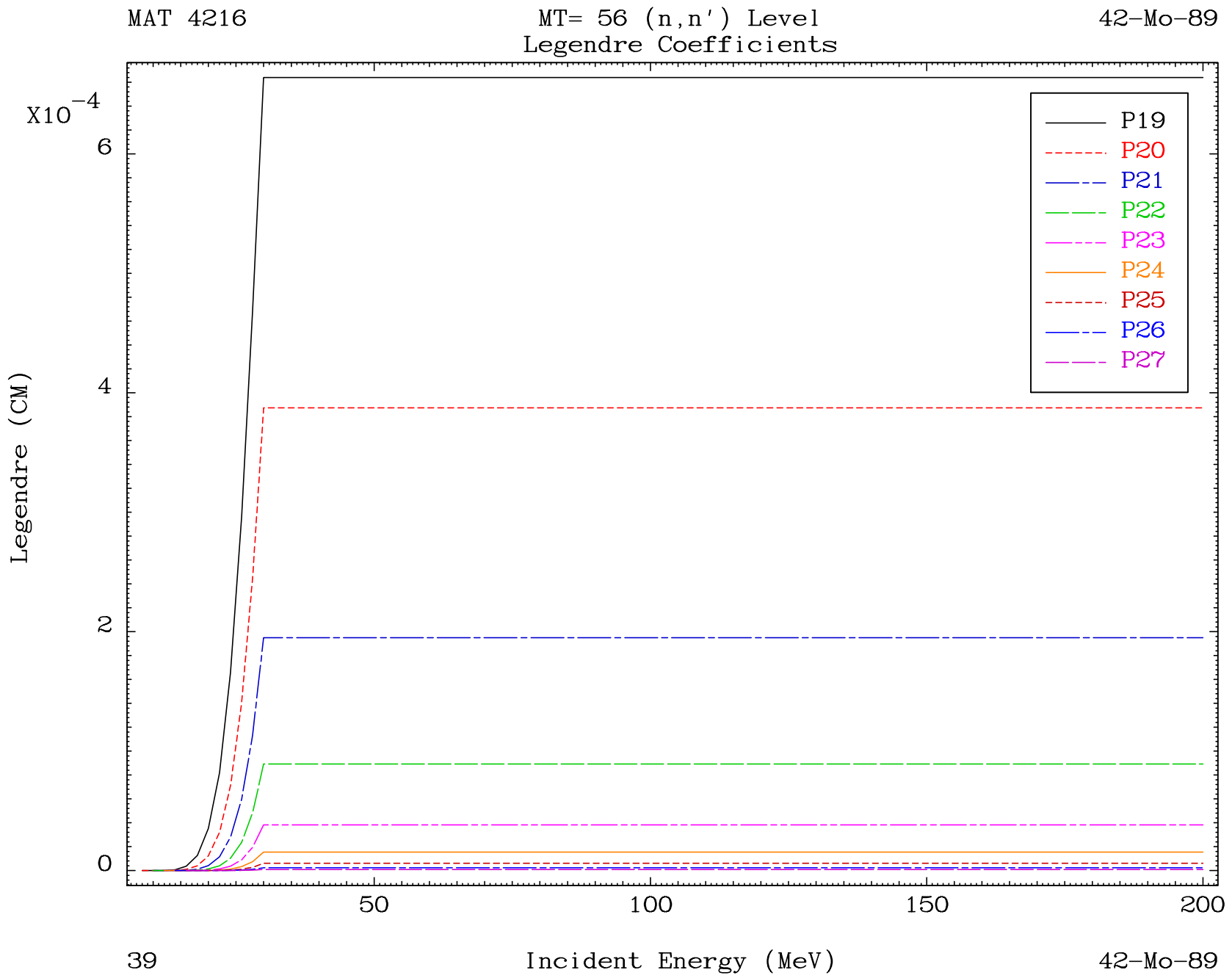

MAT 4216
MT= 55 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
34
Incident Energy (MeV)
42-Mo-89

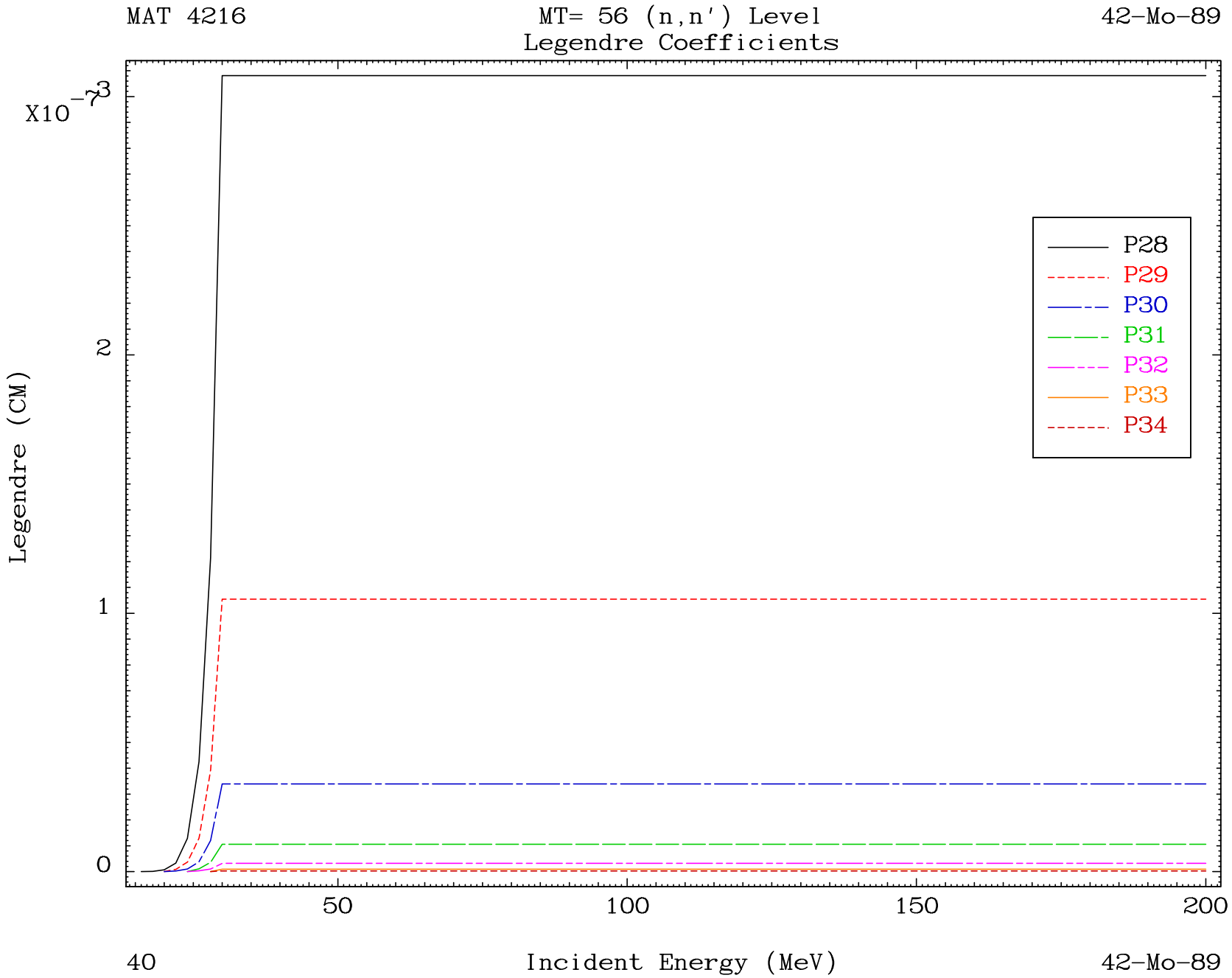

MAT 4216
MT= 55 (n,n') Level
Legendre Coefficients
42-Mo-89
0.000
0.000
0.000
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
35
Incident Energy (MeV)
42-Mo-89

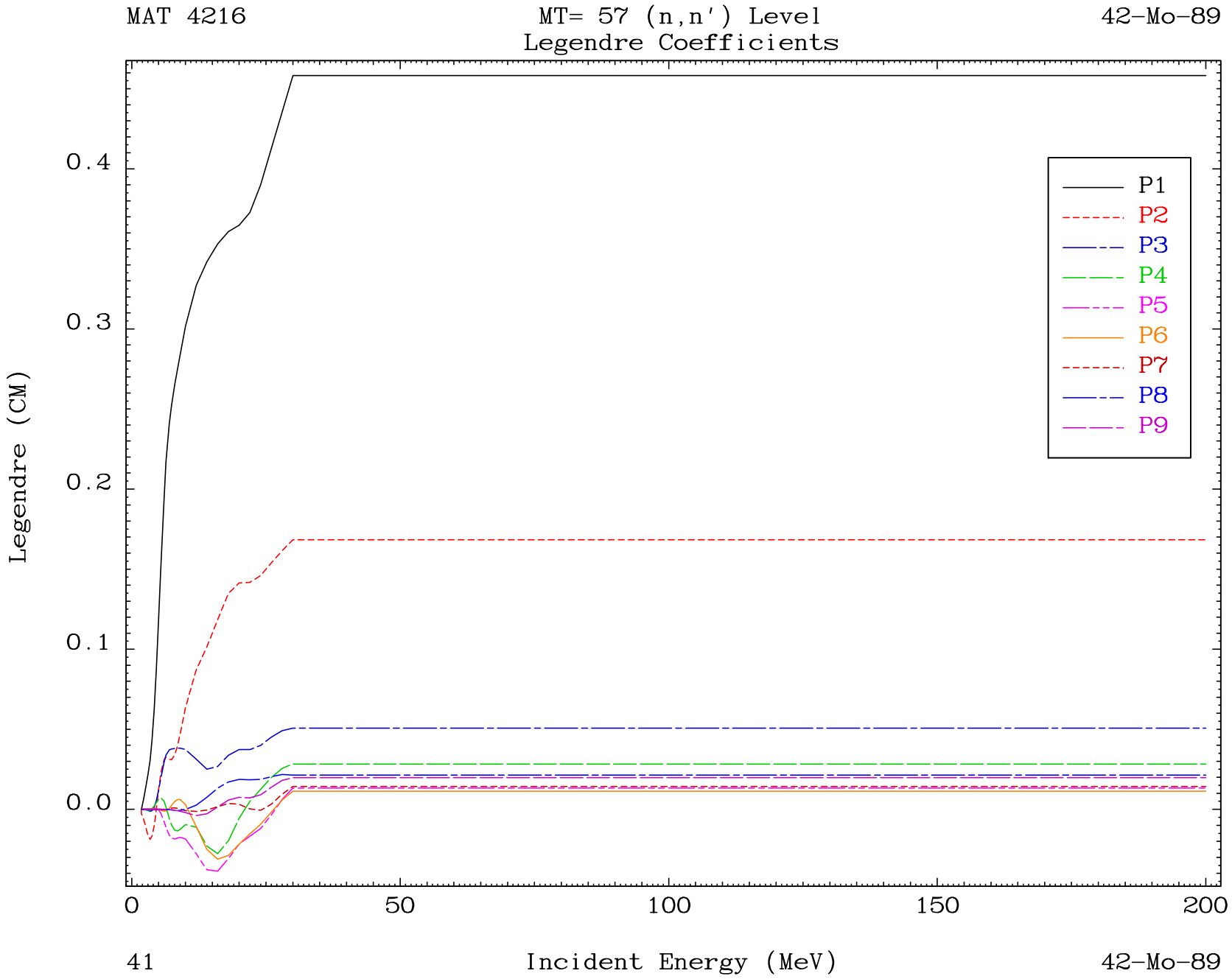

MAT 4216
MT= 55 (n,n') Level
Legendre Coefficients
42-Mo-89
X10^-7
6
4
2
0
Legendre (CM)
50
100
150
200
P28
P29
P30
P31
P32
P33
P34
36
Incident Energy (MeV)
42-Mo-89

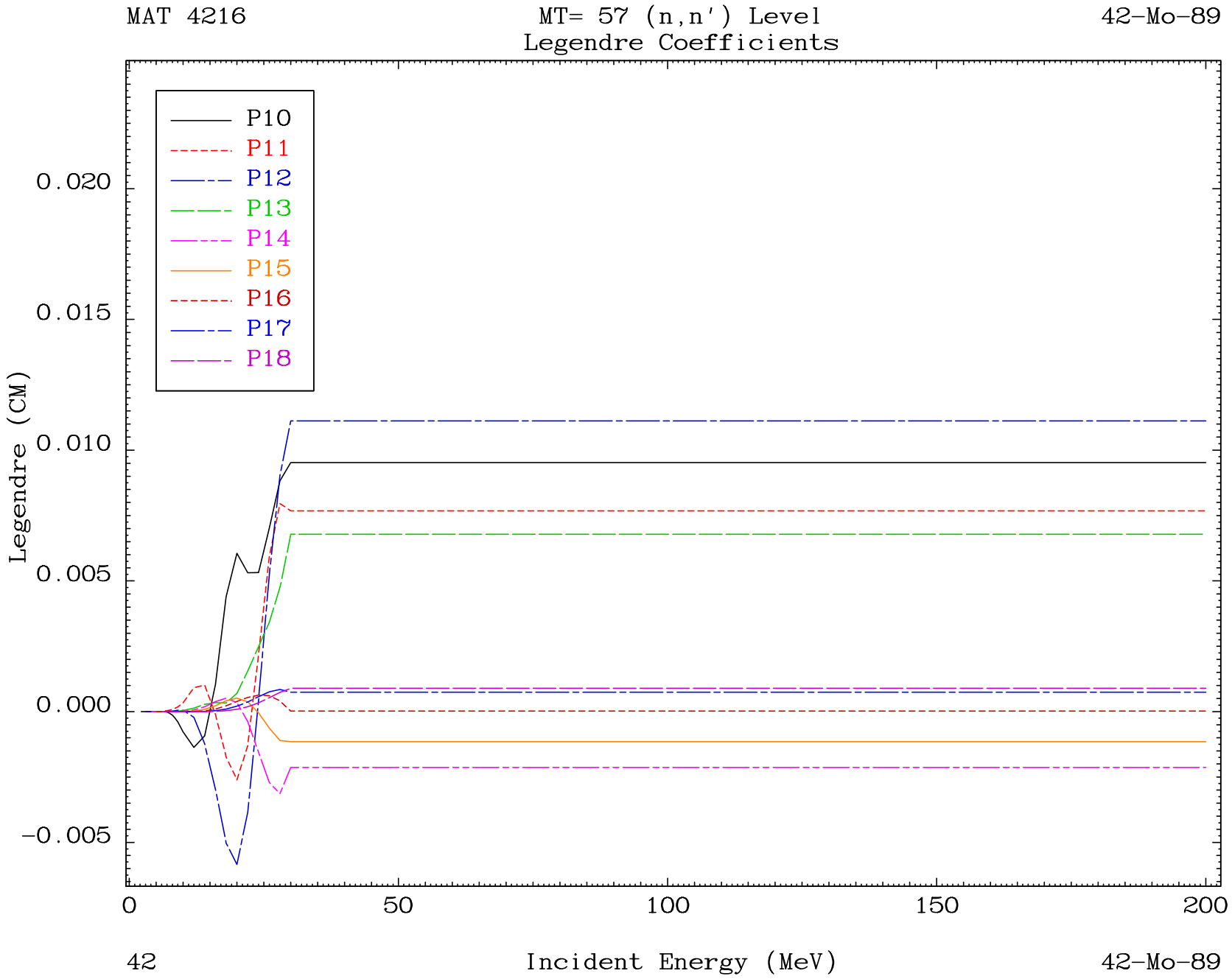

MAT 4216
MT= 56 (n,n') Level
Legendre Coefficients
42-Mo-89
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
37
Incident Energy (MeV)
42-Mo-89

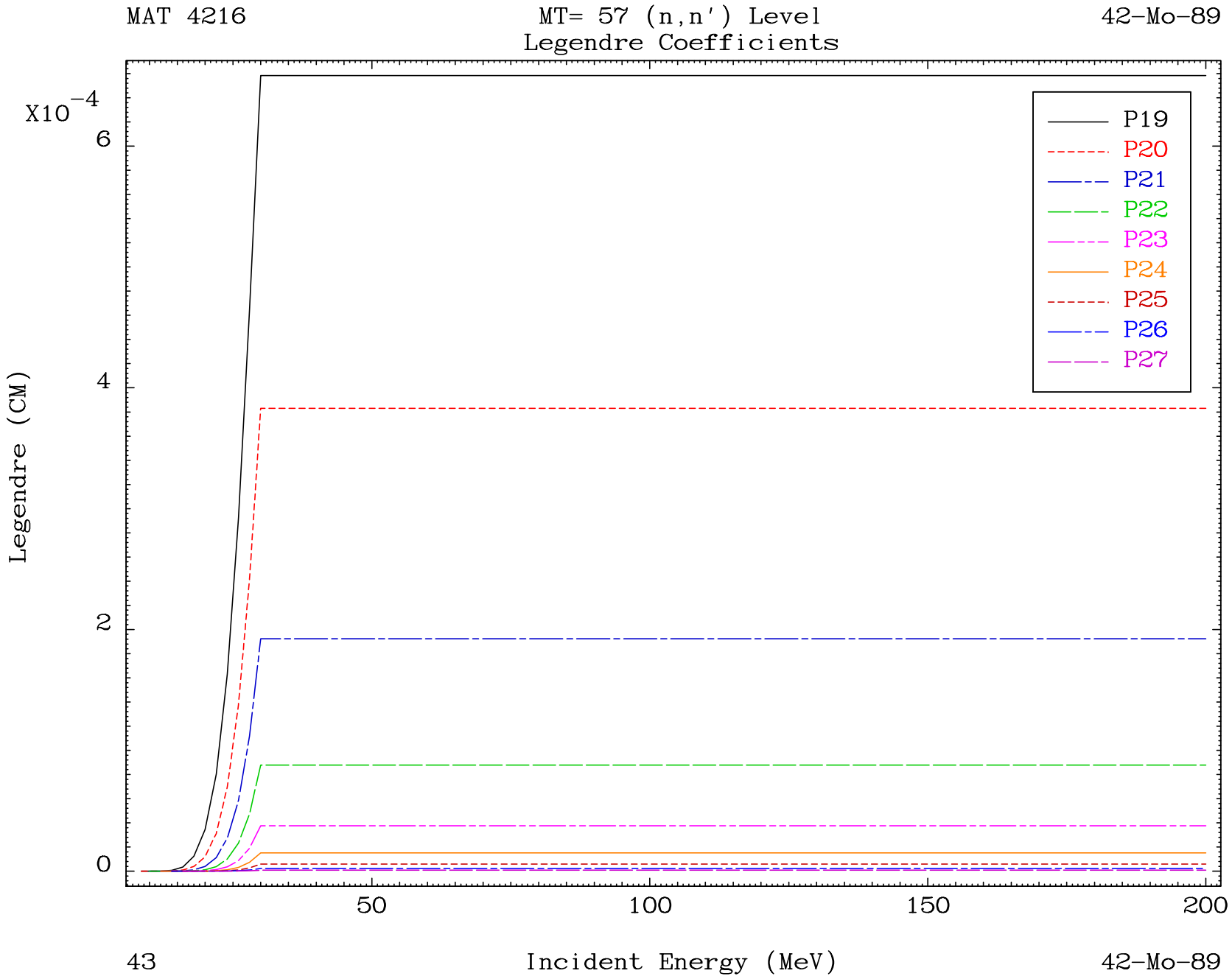

MAT 4216
MT= 56 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.020
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
0
50
100
150
200
38
Incident Energy (MeV)
42-Mo-89

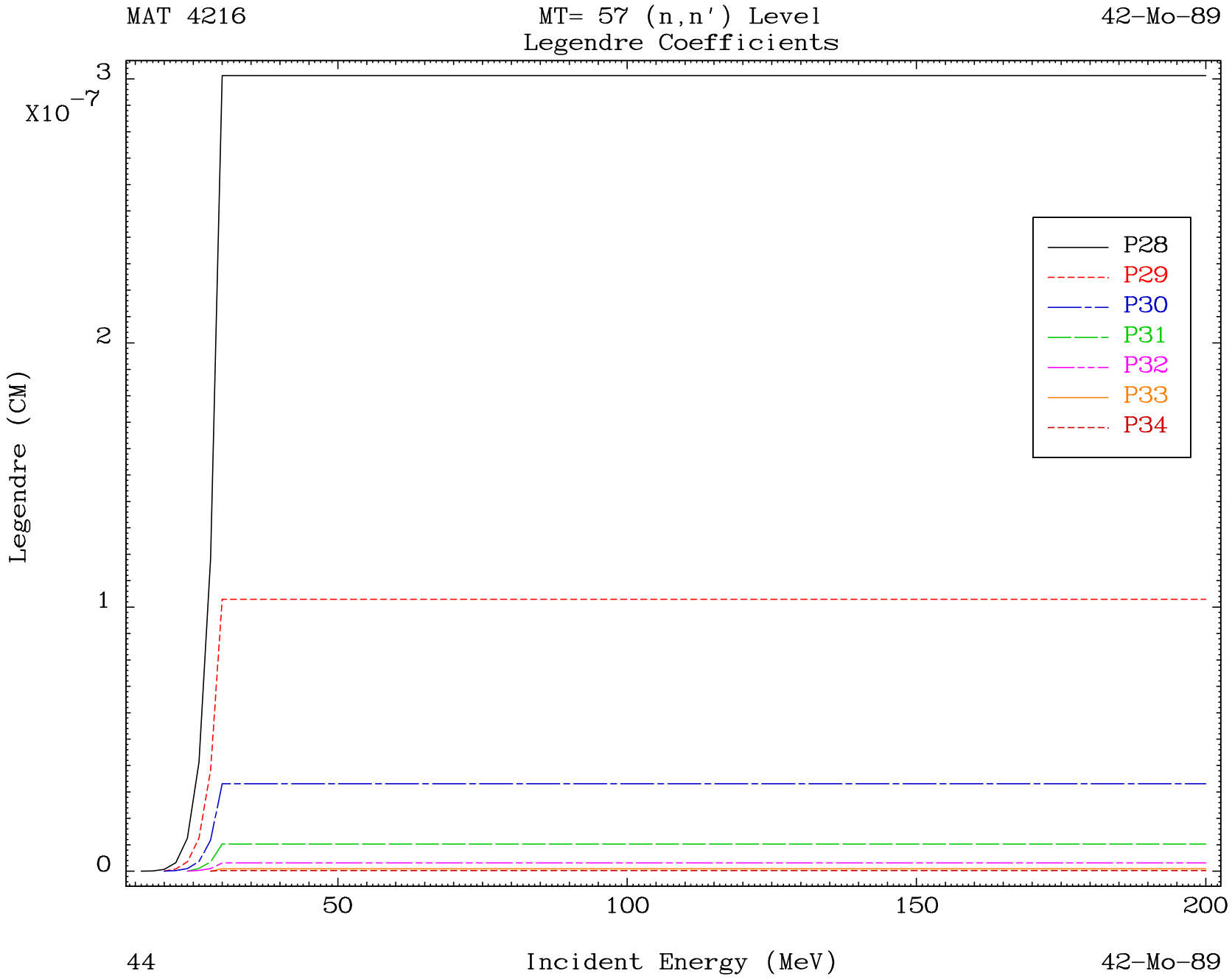

MAT 4216
MT= 56 (n,n') Level
Legendre Coefficients
42-Mo-89
X10^-4
6
4
2
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
39
Incident Energy (MeV)
42-Mo-89

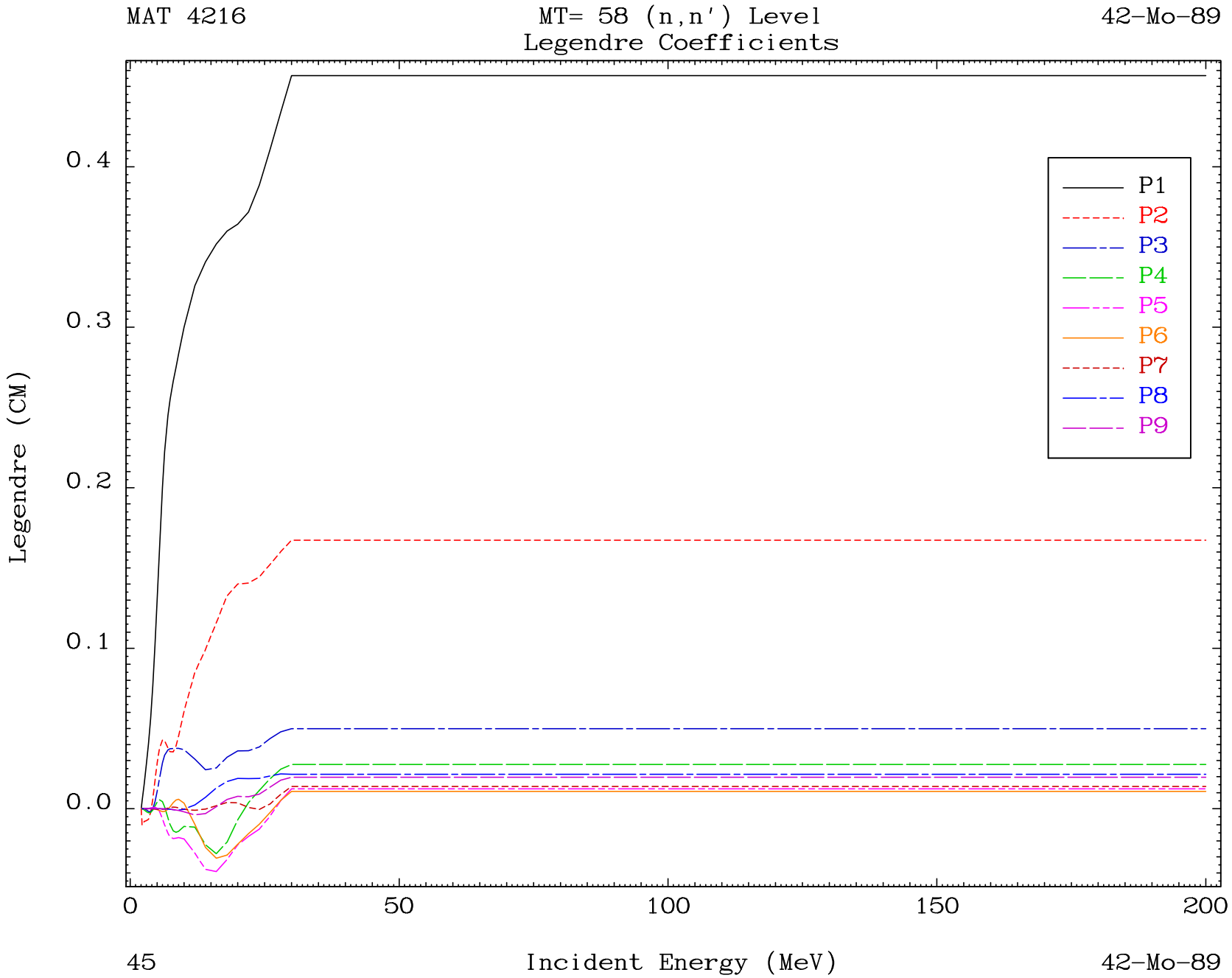

MAT 4216
MT= 56 (n,n') Level
Legendre Coefficients
42-Mo-89
X10-3
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
40
50
100
150
200
Incident Energy (MeV)
42-Mo-89

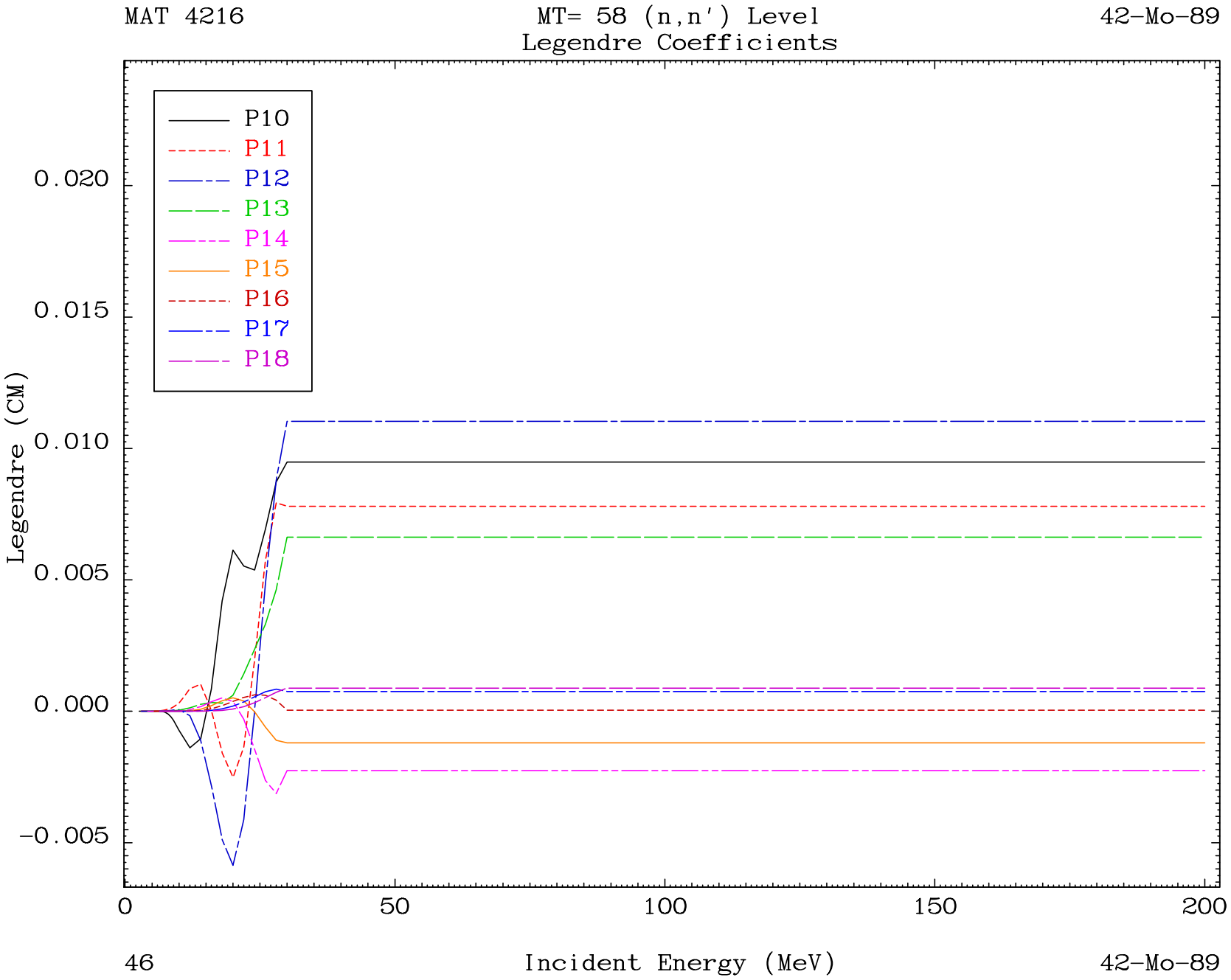

MAT 4216
MT= 57 (n,n') Level
Legendre Coefficients
42-Mo-89
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
41
Incident Energy (MeV)
42-Mo-89

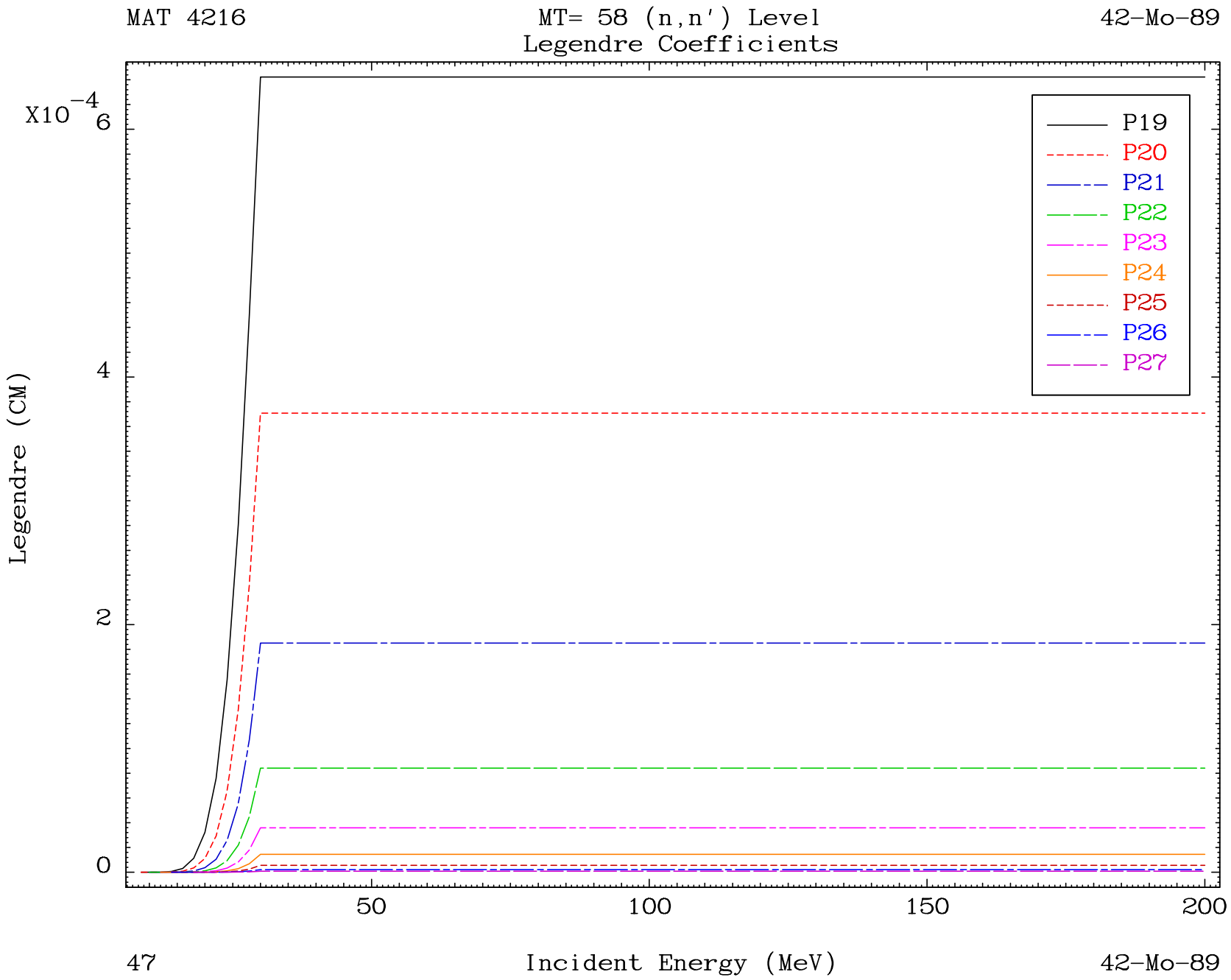

MAT 4216
MT= 57 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.020
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
0
50
100
150
200
42
Incident Energy (MeV)
42-Mo-89

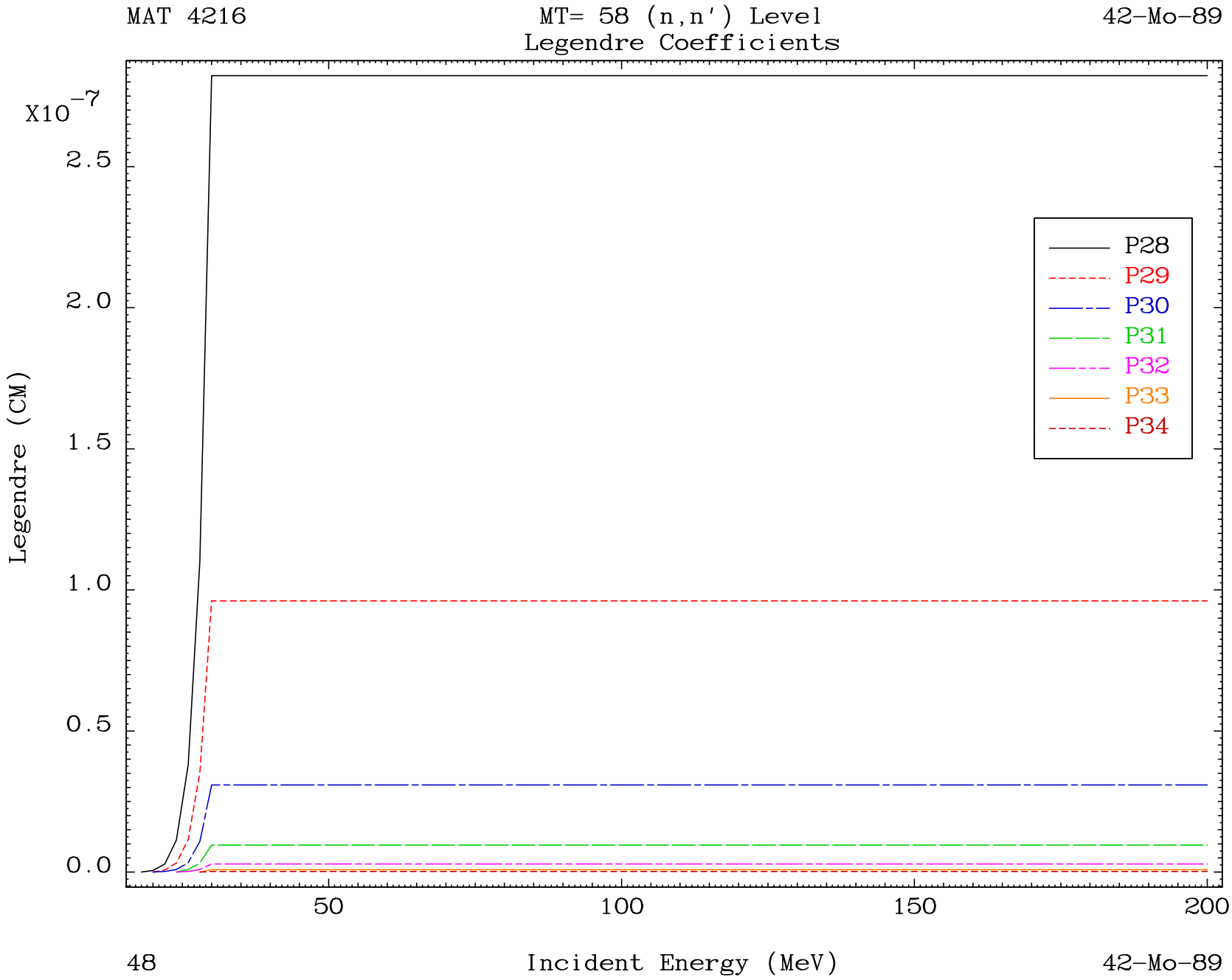

MAT 4216
MT= 57 (n,n') Level
Legendre Coefficients
42-Mo-89
X10^-4
6
4
2
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
43
Incident Energy (MeV)
42-Mo-89

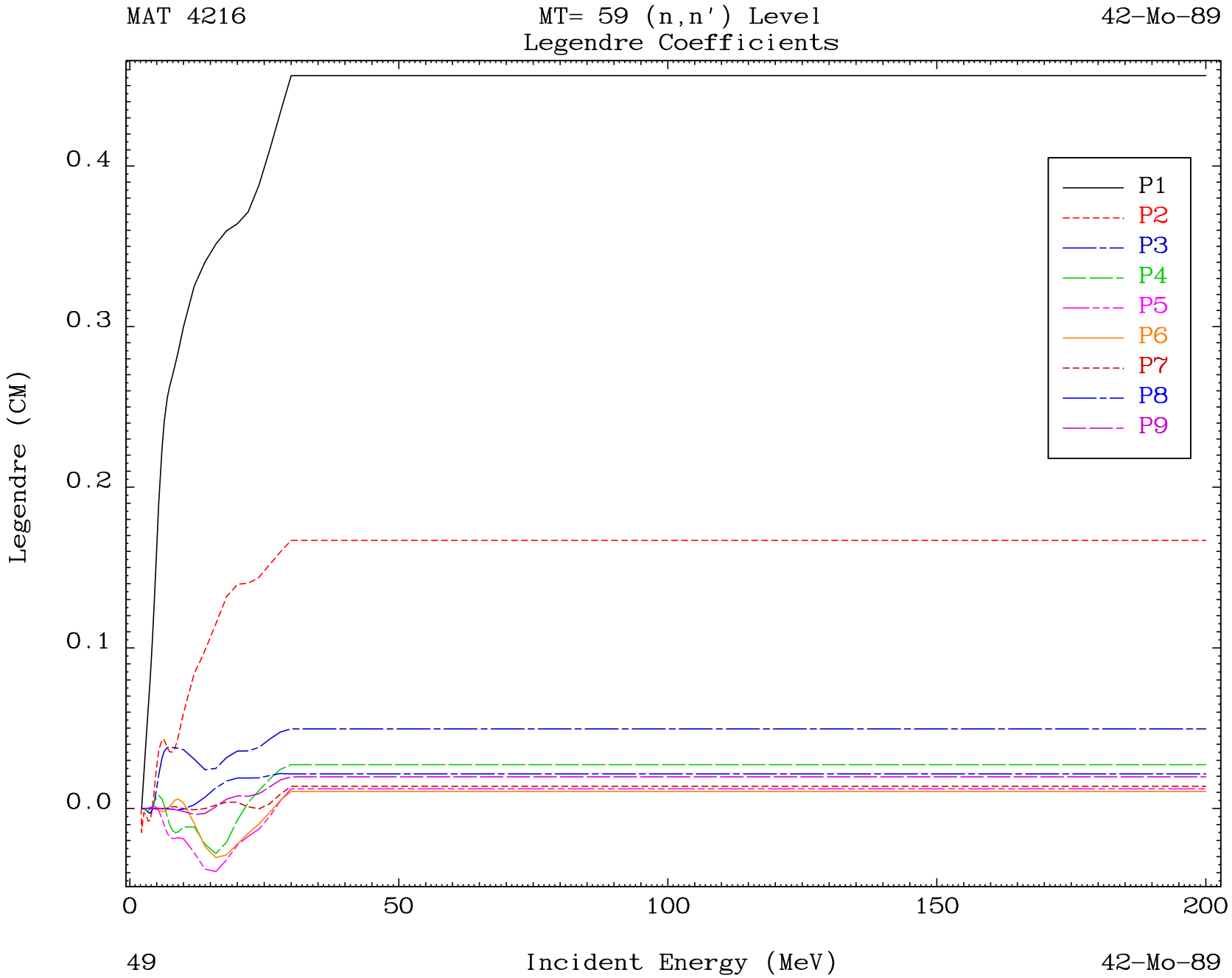

MAT 4216
MT= 57 (n,n') Level
Legendre Coefficients
42-Mo-89
X10 -7
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
44
Incident Energy (MeV)
42-Mo-89

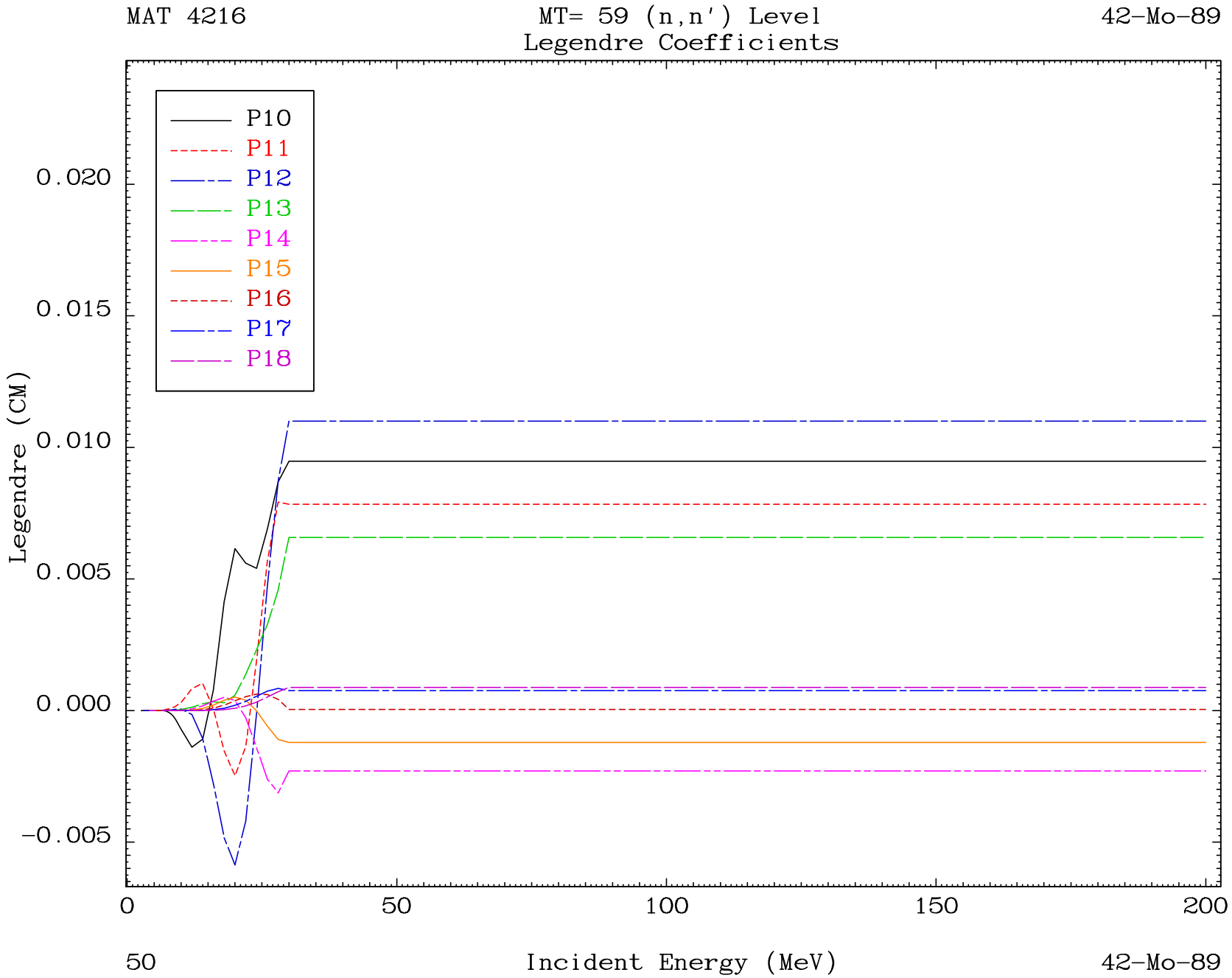

MAT 4216
MT= 58 (n,n') Level
Legendre Coefficients
42-Mo-89
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
45
Incident Energy (MeV)
42-Mo-89

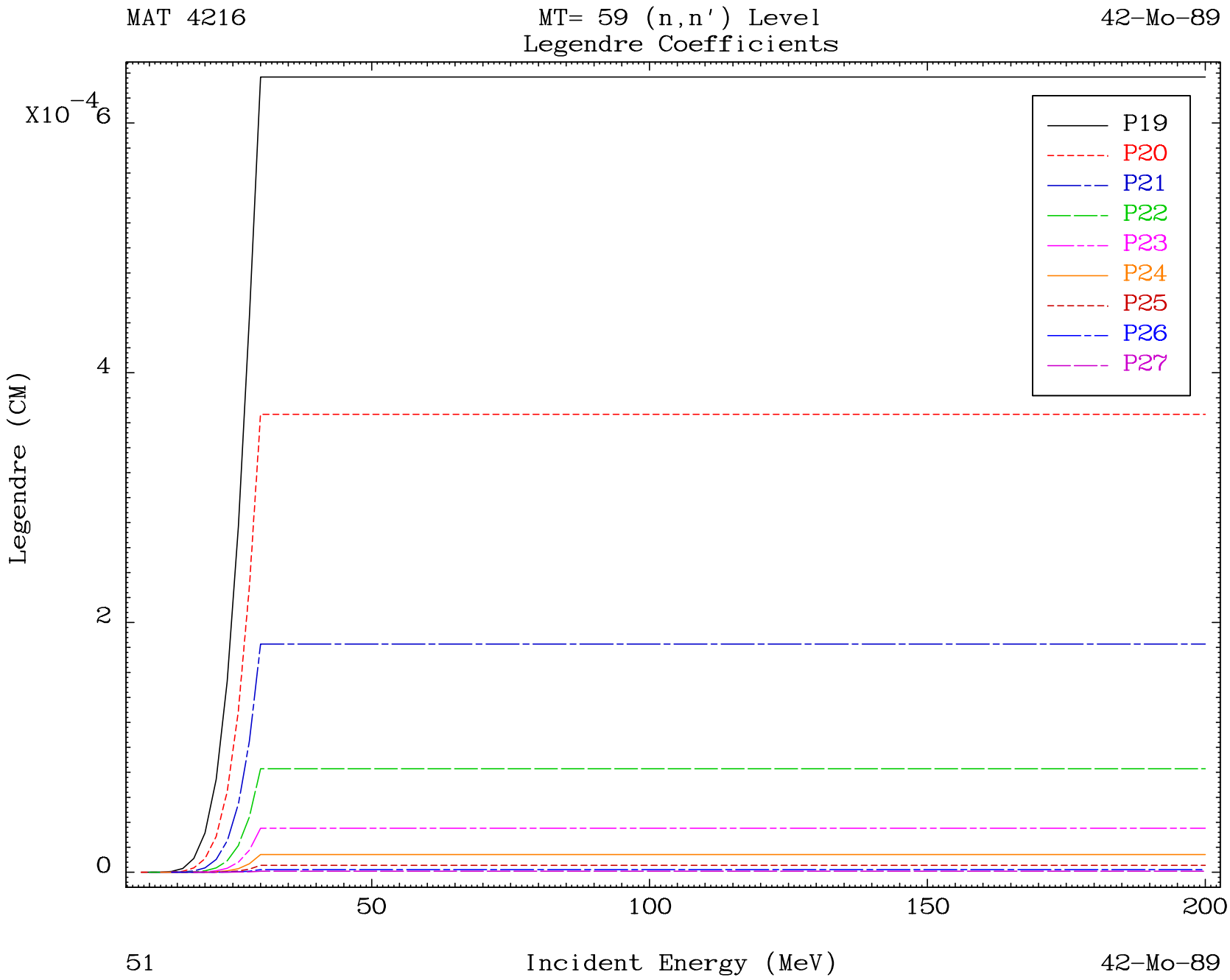

MAT 4216
MT= 58 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.020
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
0
50
100
150
200
46
Incident Energy (MeV)
42-Mo-89

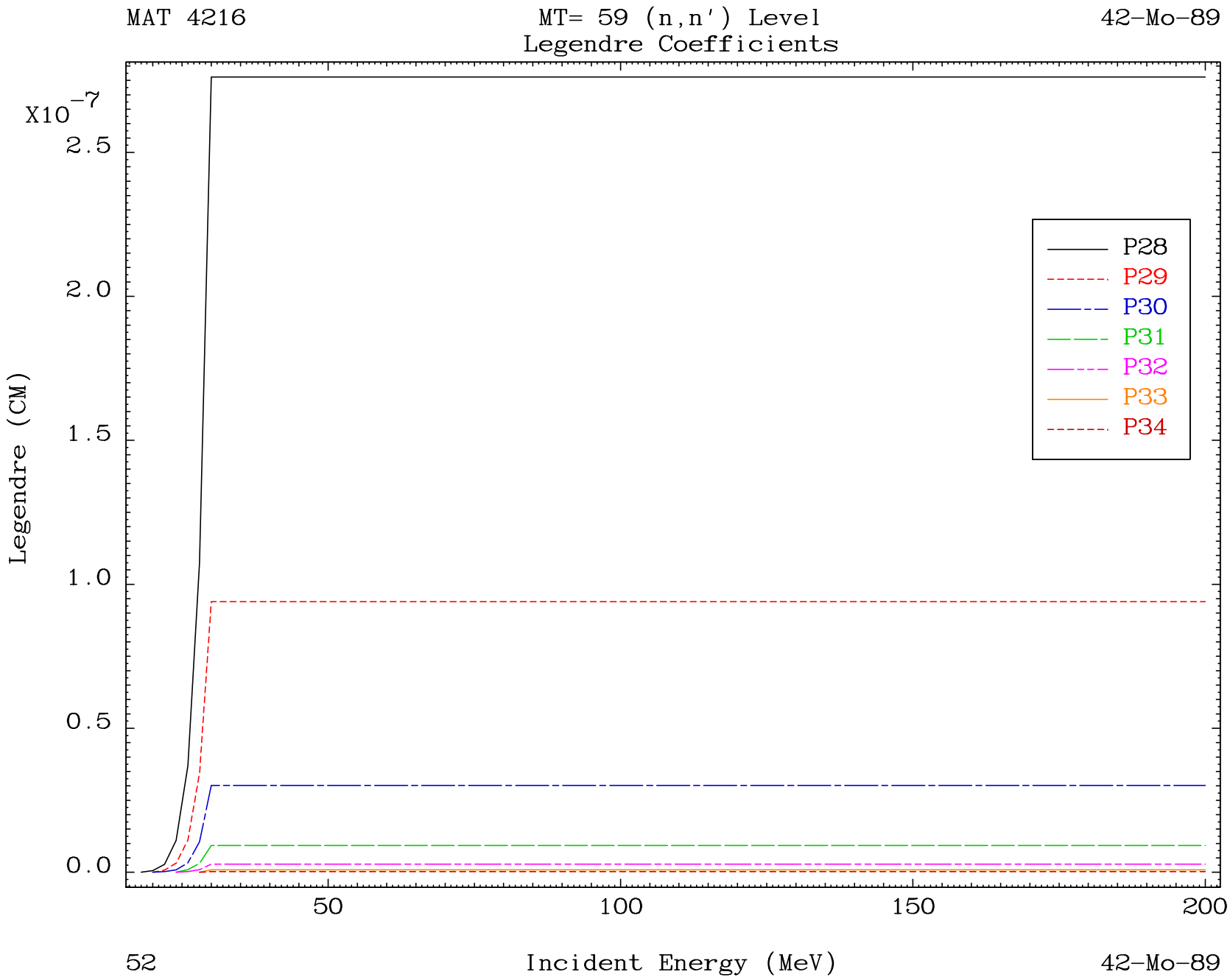

MAT 4216
MT= 58 (n,n') Level
Legendre Coefficients
42-Mo-89
X10 -4
6
4
2
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
47
Incident Energy (MeV)
42-Mo-89

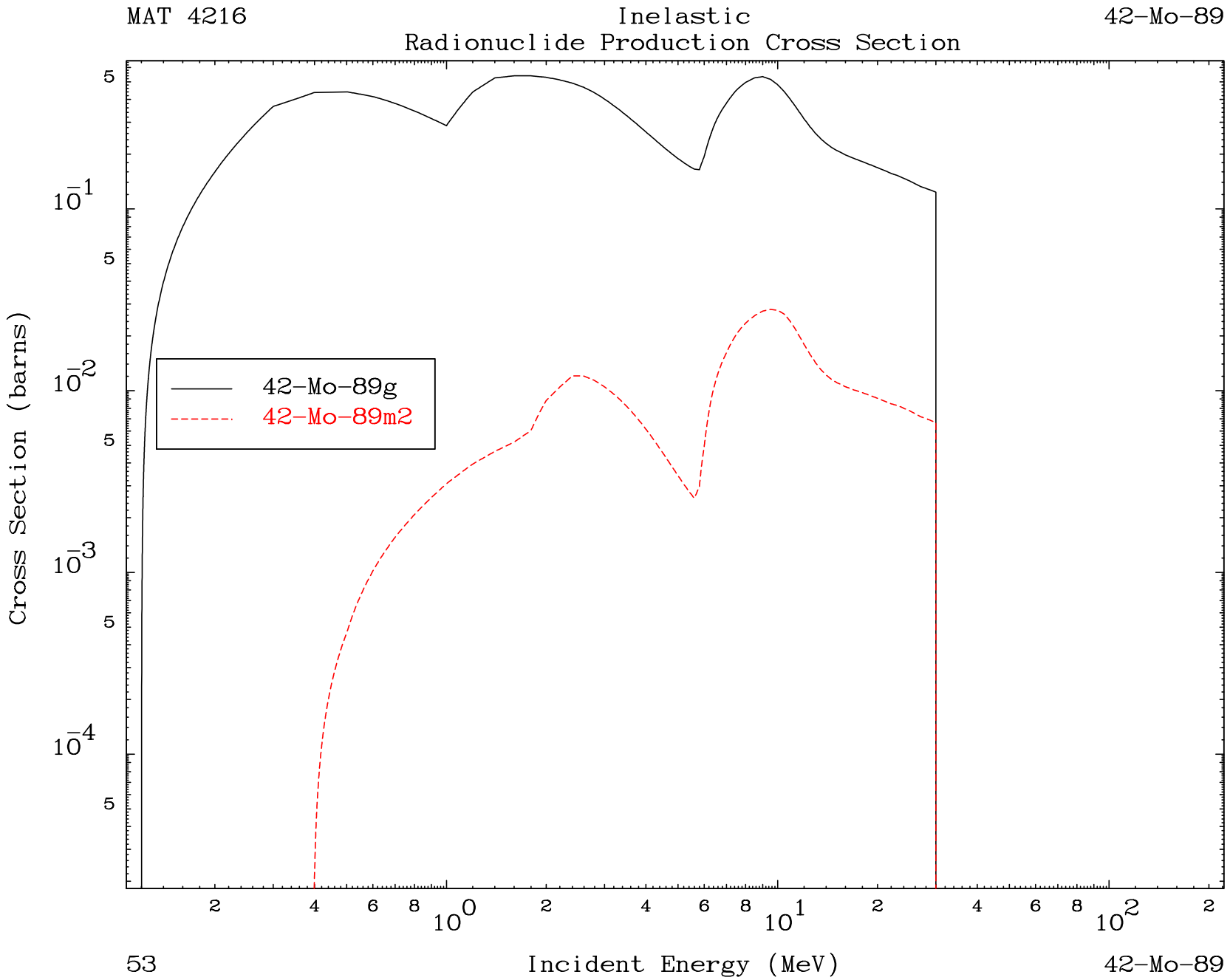

MAT 4216
MT= 58 (n,n') Level
Legendre Coefficients
42-Mo-89
X10-7
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
48
Incident Energy (MeV)
42-Mo-89

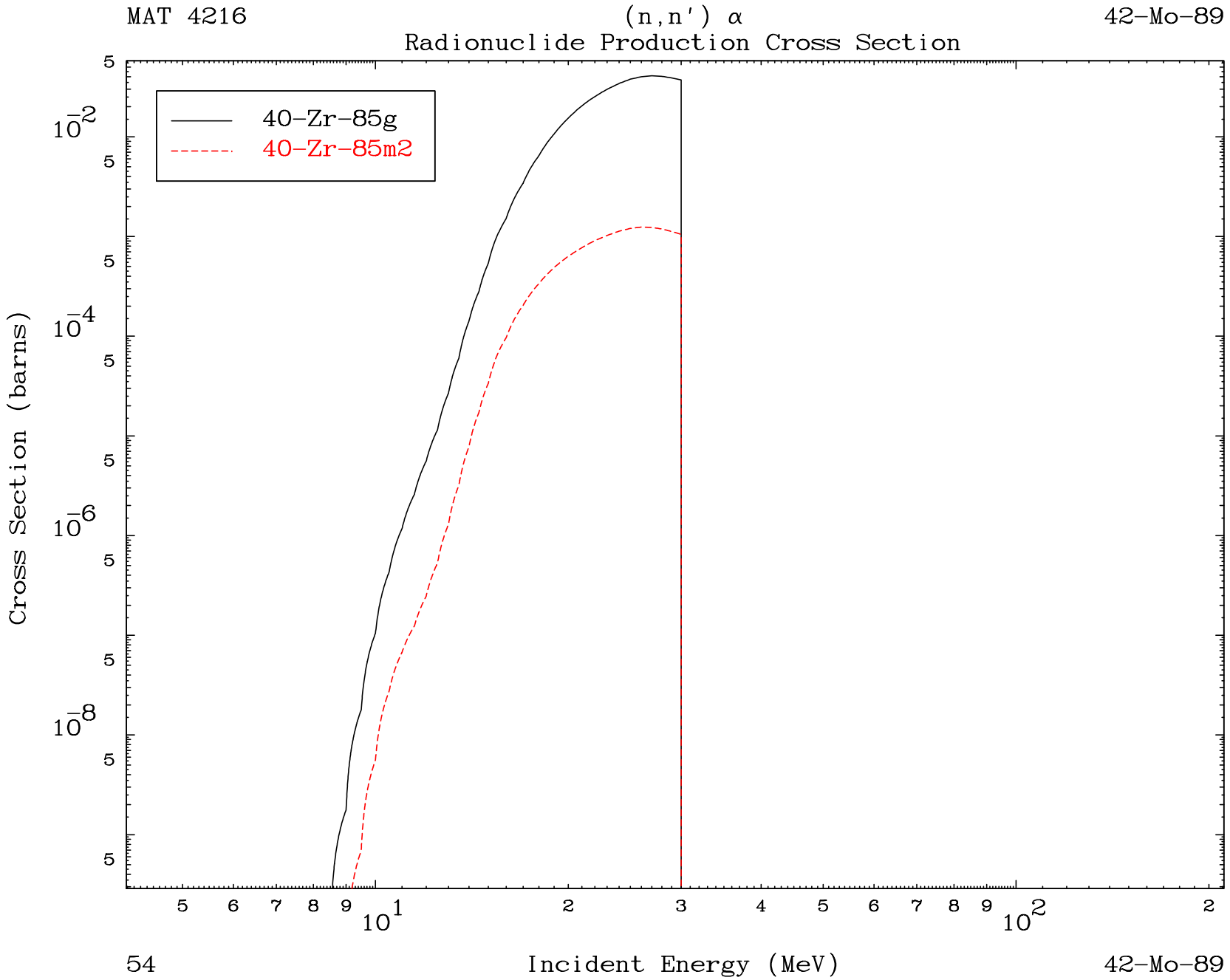

MAT 4216
MT= 59 (n,n') Level
Legendre Coefficients
42-Mo-89
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
49
Incident Energy (MeV)
42-Mo-89

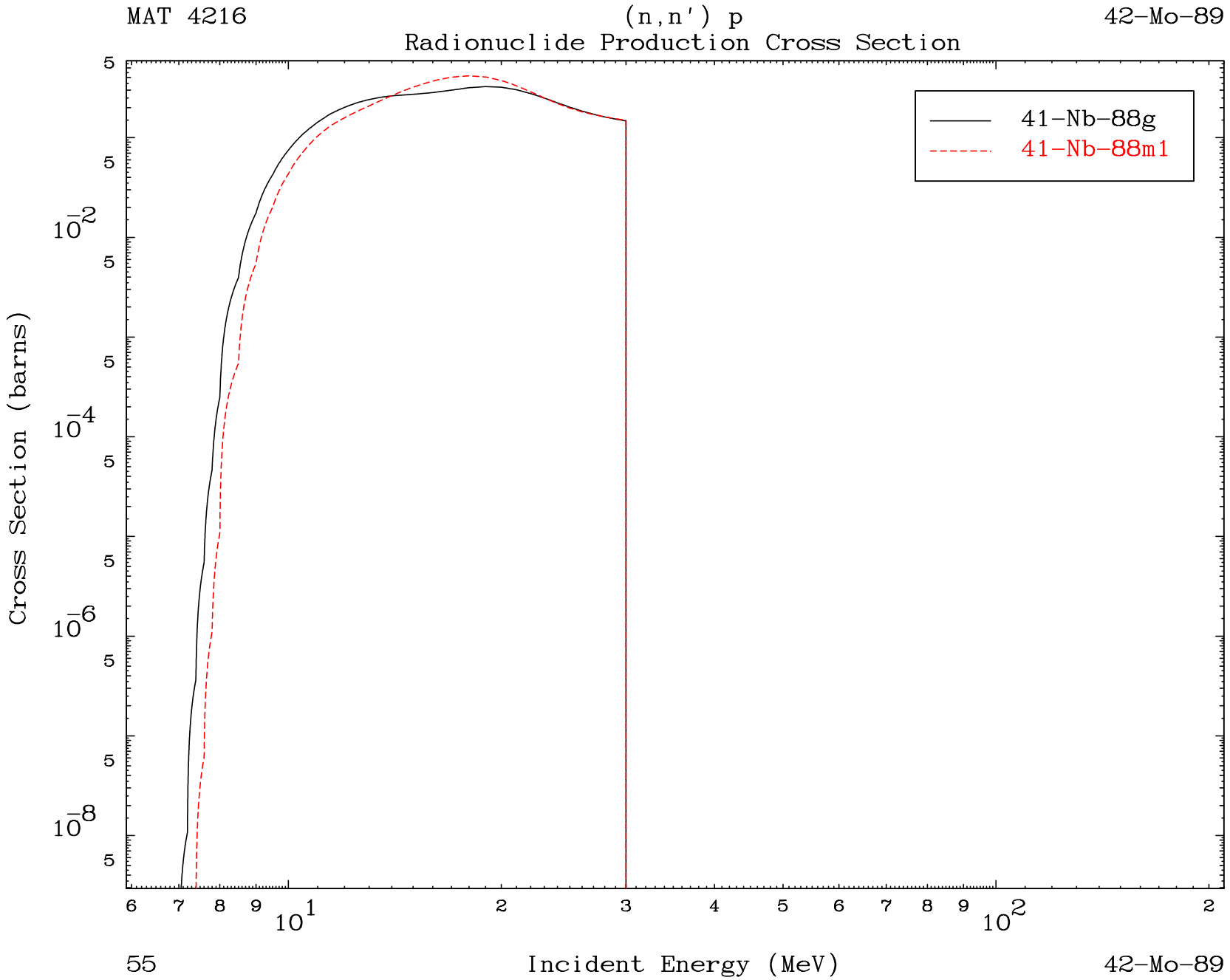

MAT 4216
MT= 59 (n,n') Level
Legendre Coefficients
42-Mo-89
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.020
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
0
50
100
150
200
50
Incident Energy (MeV)
42-Mo-89

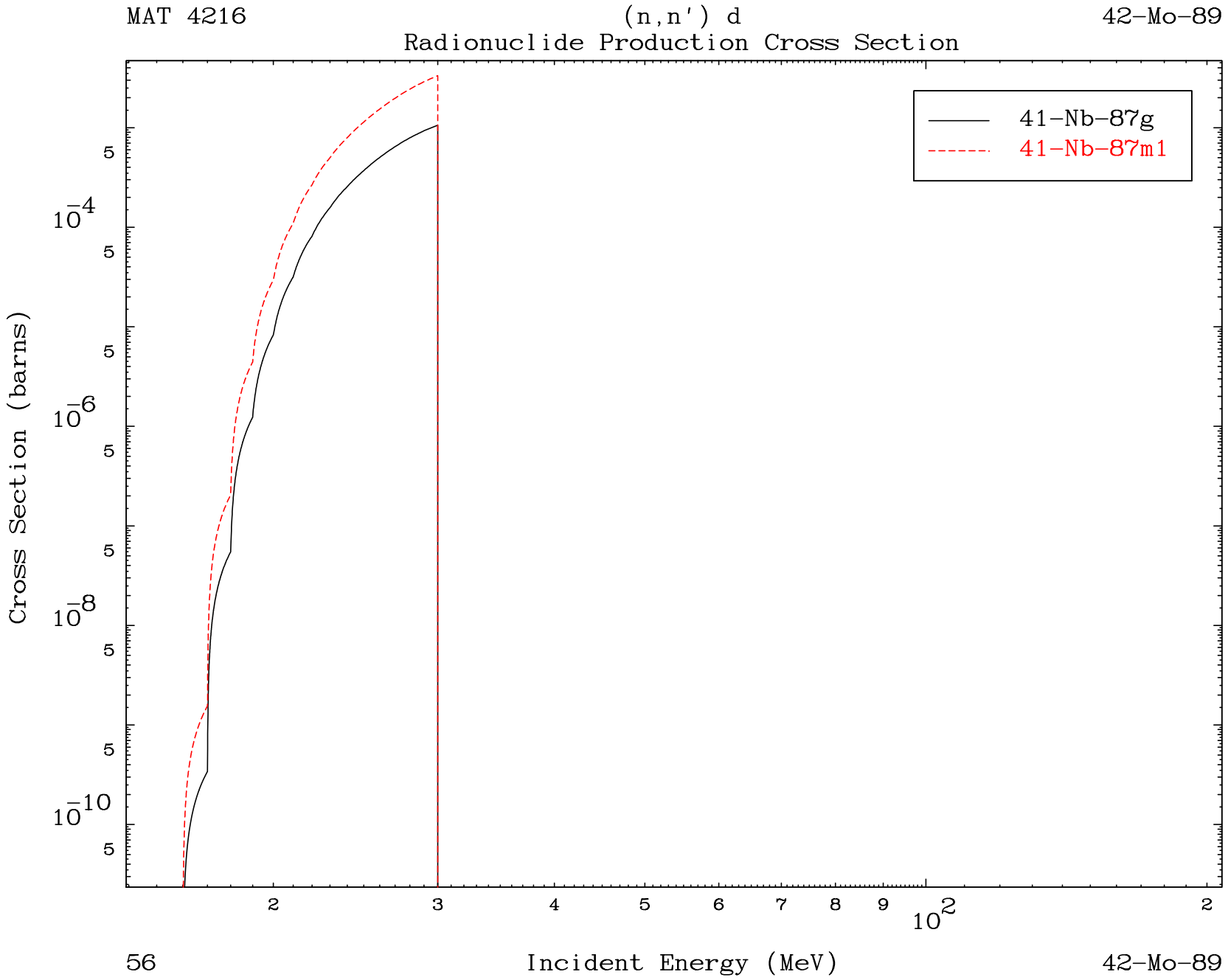

MAT 4216
MT= 59 (n,n') Level
Legendre Coefficients
42-Mo-89
X10 -4
6
4
2
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
51
Incident Energy (MeV)
42-Mo-89

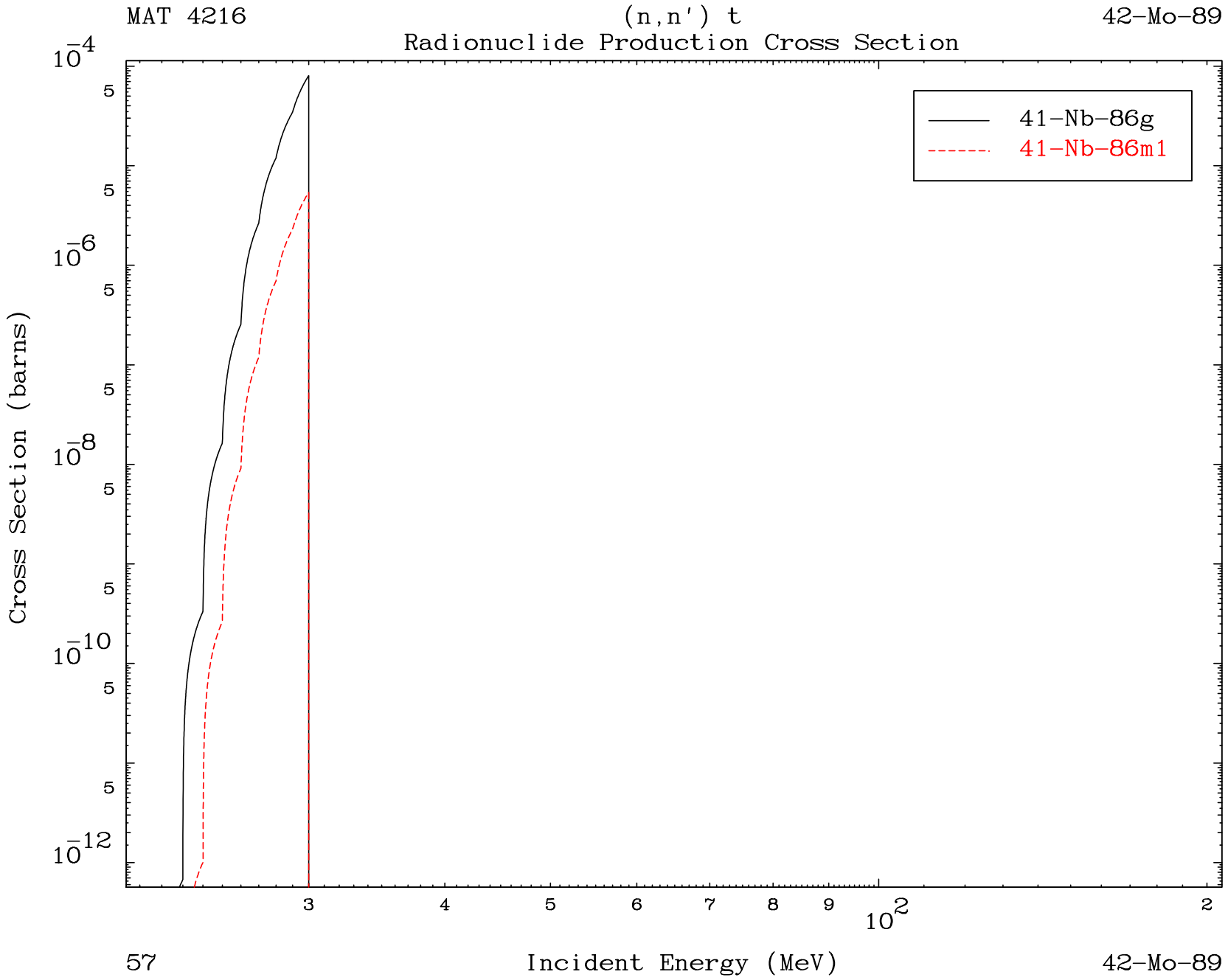

MAT 4216
MT= 59 (n,n') Level
Legendre Coefficients
42-Mo-89
X10-7
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
52
Incident Energy (MeV)
42-Mo-89

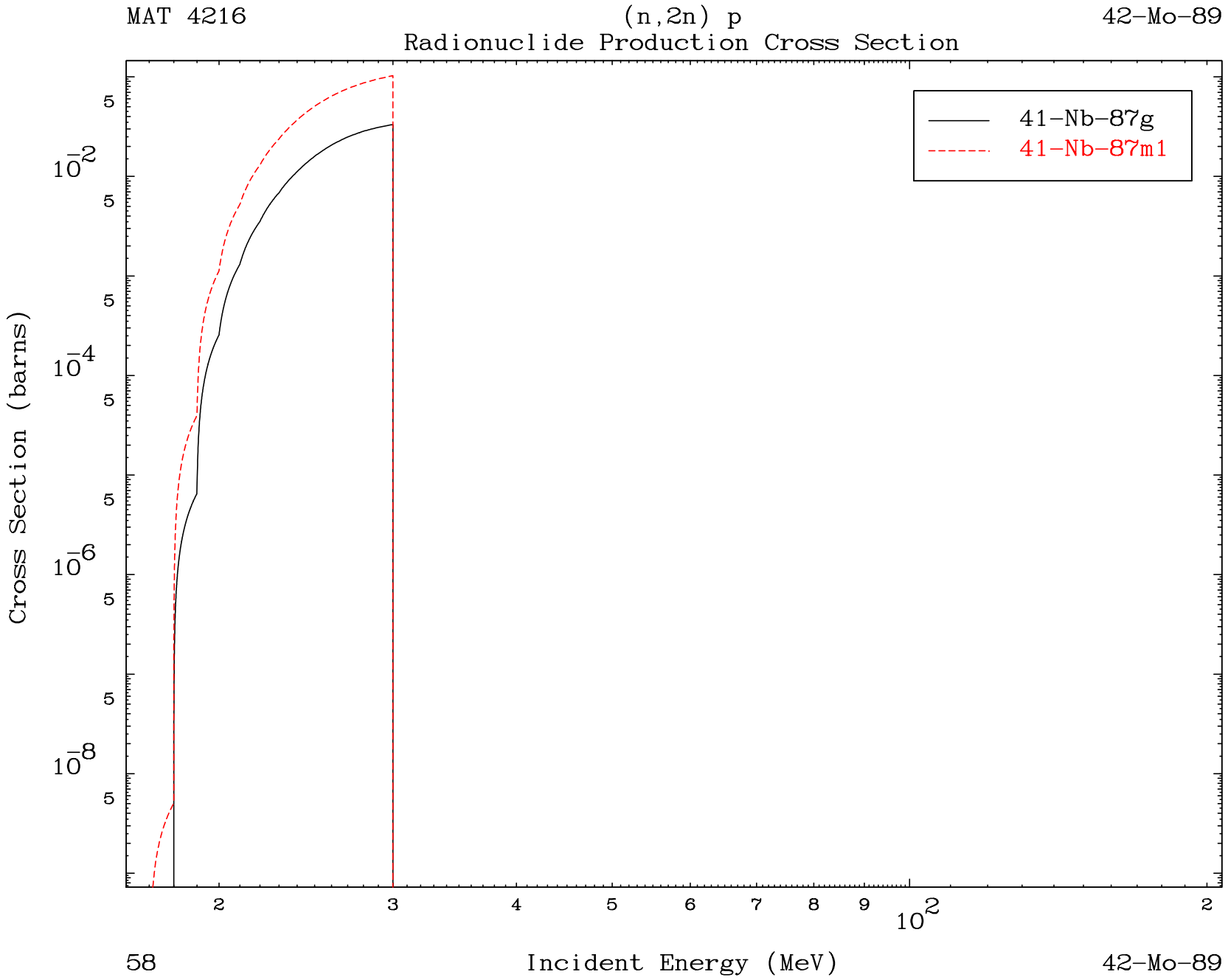

MAT 4216
Inelastic
42-Mo-89
Radionuclide Production Cross Section
Cross Section (barns)
5
10-1
5
10-2
5
10-3
5
10-4
5
42-Mo-89g
42-Mo-89m2
2
4
6
8
100
2
4
6
8
101
2
4
6
8
102
2
53
Incident Energy (MeV)
42-Mo-89

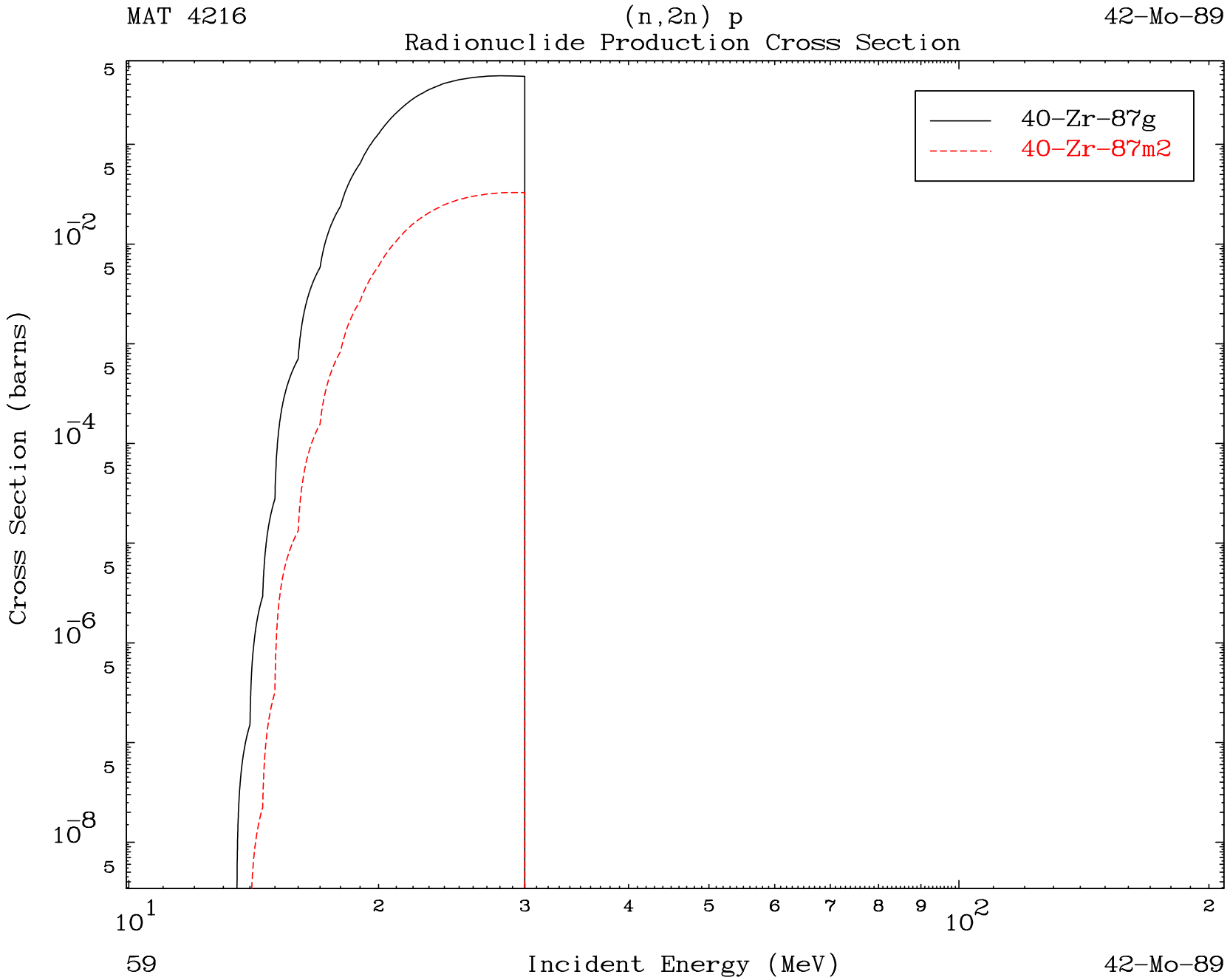

MAT 4216
(n,n') α
42-Mo-89
Radionuclide Production Cross Section
40-Zr-85g
40-Zr-85m2
Cross Section (barns)
Incident Energy (MeV)
54
42-Mo-89

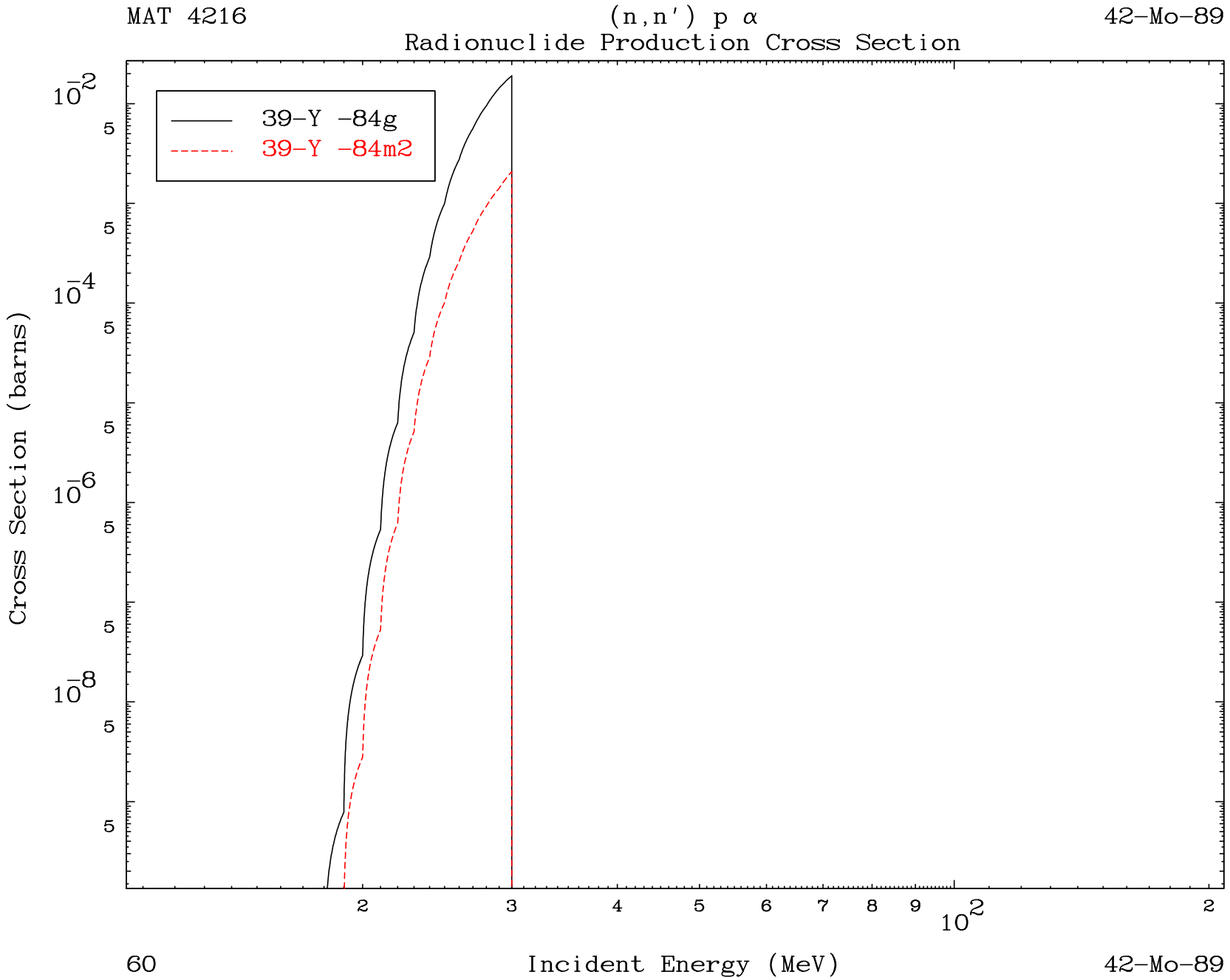

MAT 4216
(n,n') p
42-Mo-89
Radionuclide Production Cross Section
41-Nb-88g
41-Nb-88m1
Cross Section (barns)
Incident Energy (MeV)
55
42-Mo-89

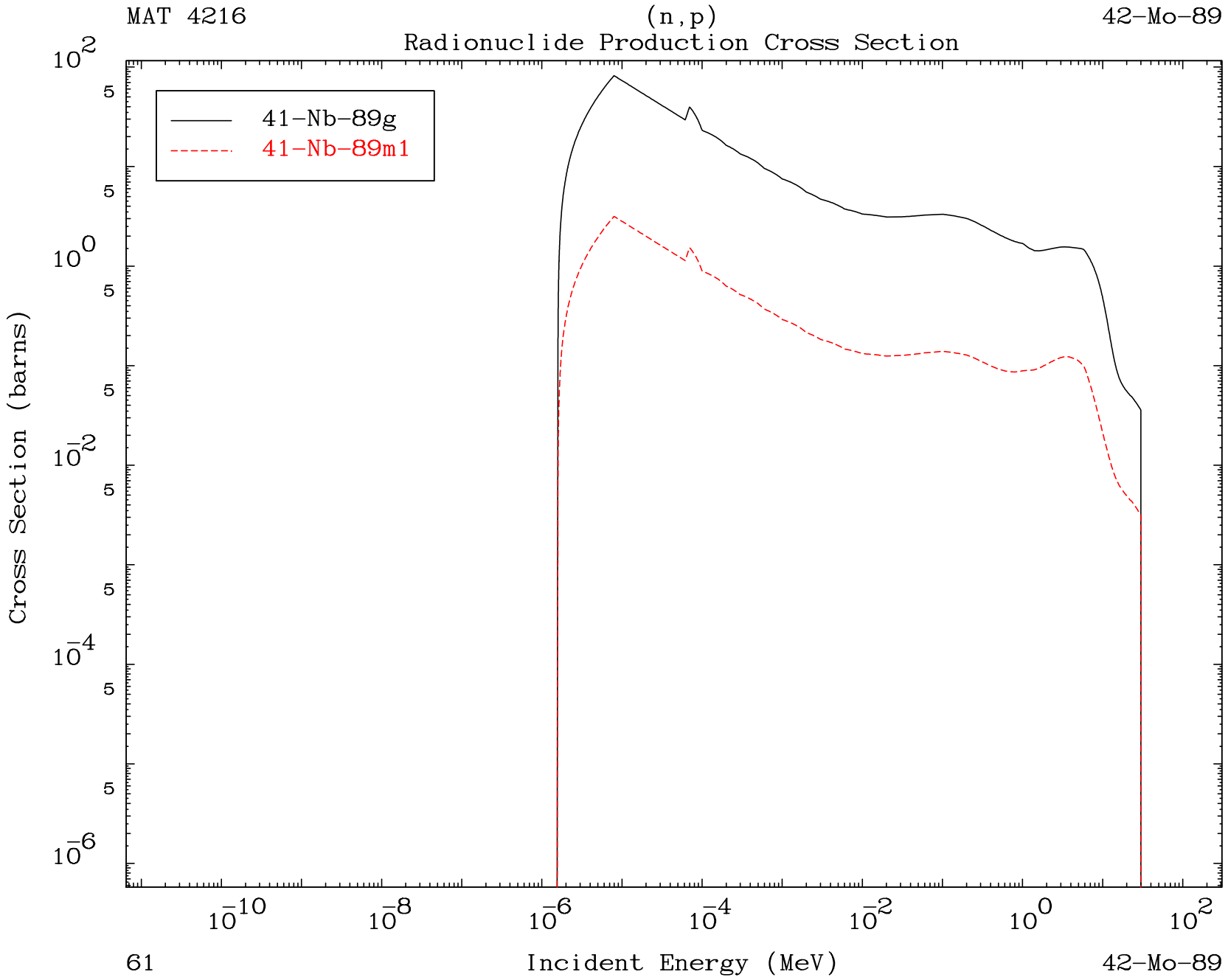

MAT 4216
(n,n') d
42-Mo-89
Radionuclide Production Cross Section
41-Nb-87g
41-Nb-87m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
2
3
4
5
6
7
8
9
10^2
2
56
Incident Energy (MeV)
42-Mo-89

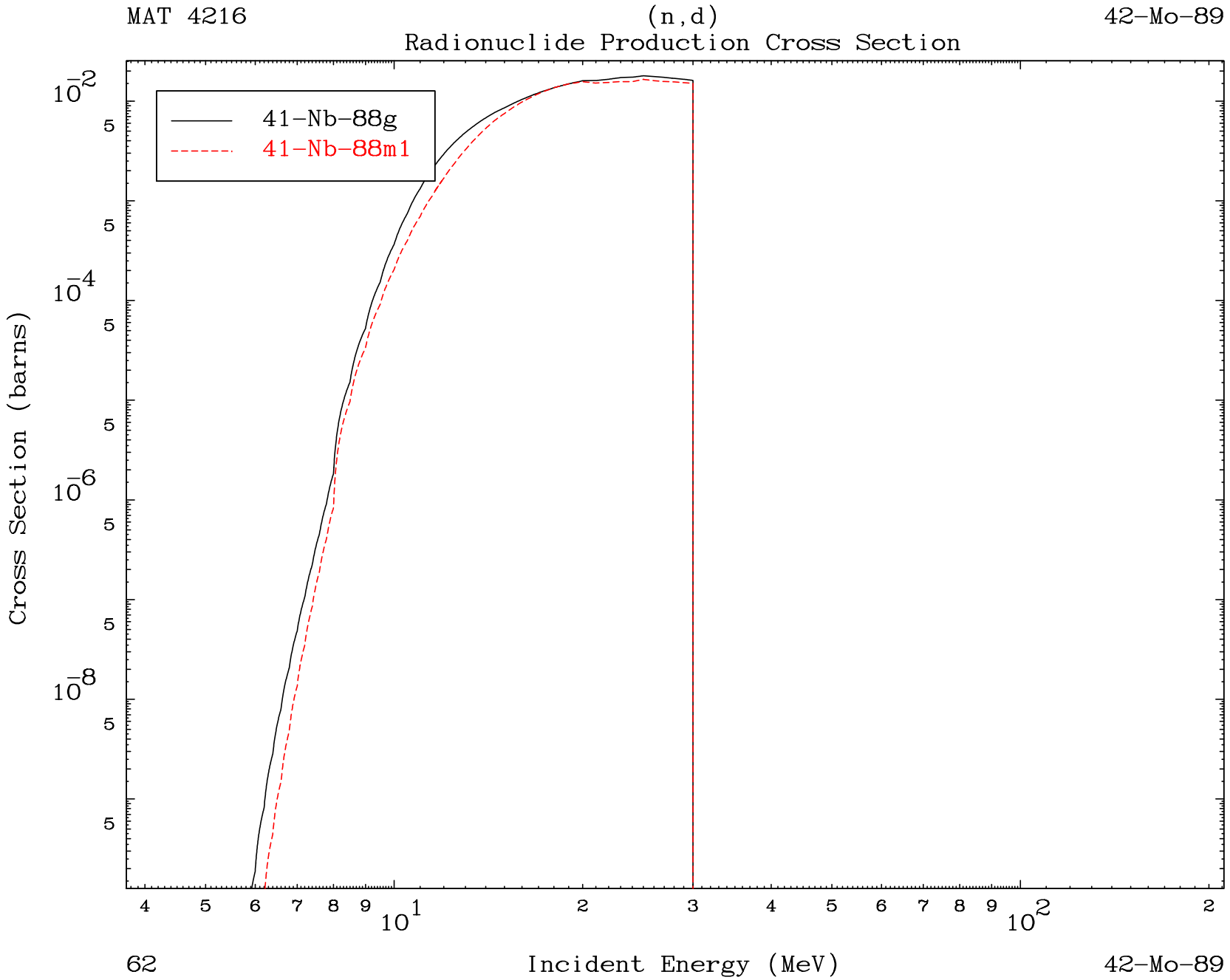

MAT 4216
(n,n') t
42-Mo-89
Radionuclide Production Cross Section
41-Nb-86g
41-Nb-86m1
Cross Section (barns)
10-4
10-6
10-8
10-10
10-12
5
3
4
5
6
7
8
9
10 2
2
57
Incident Energy (MeV)
42-Mo-89

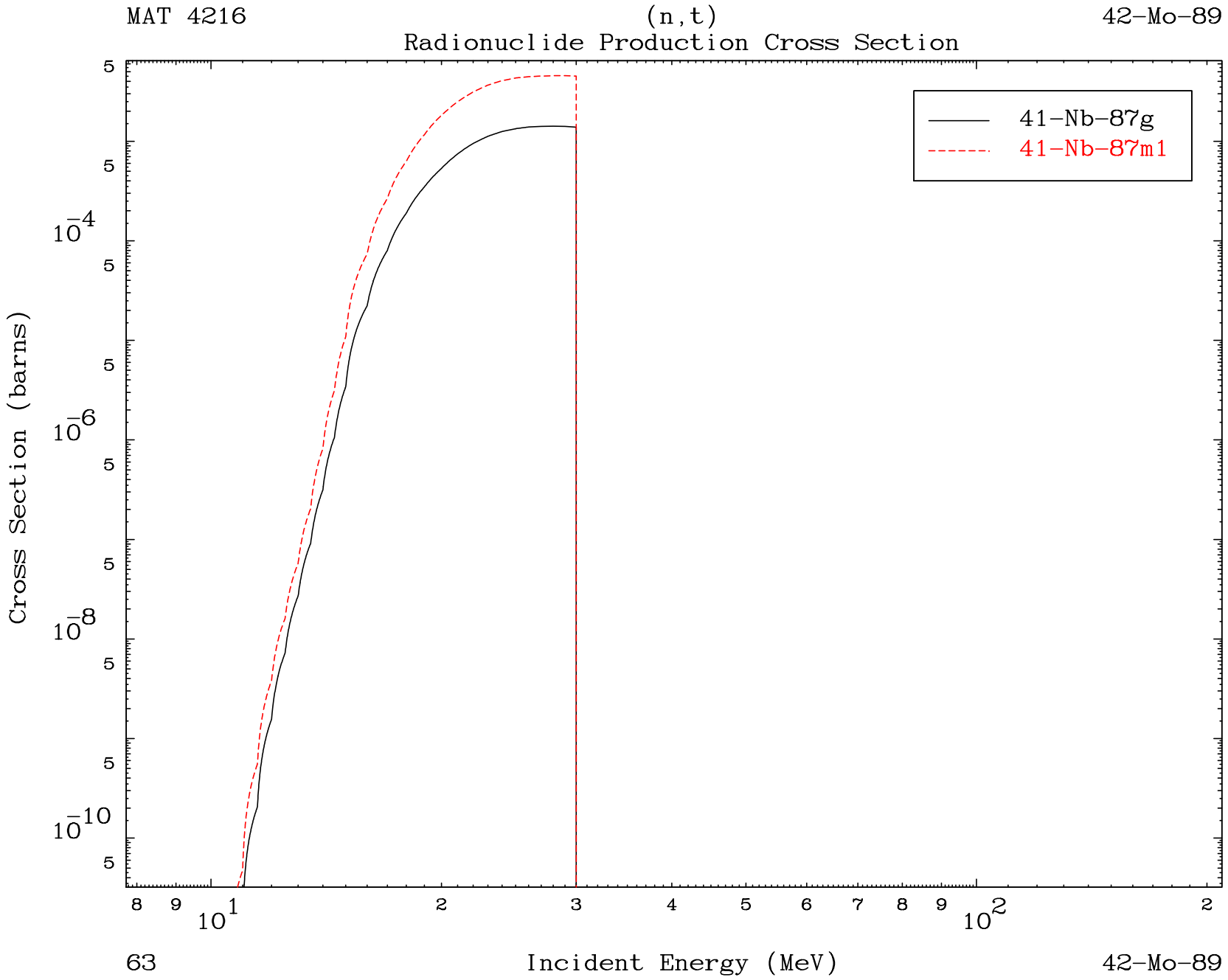

MAT 4216
(n,2n) p
42-Mo-89
Radionuclide Production Cross Section
41-Nb-87g
41-Nb-87m1
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
3
4
5
6
7
8
9
10 2
2
58
Incident Energy (MeV)
42-Mo-89

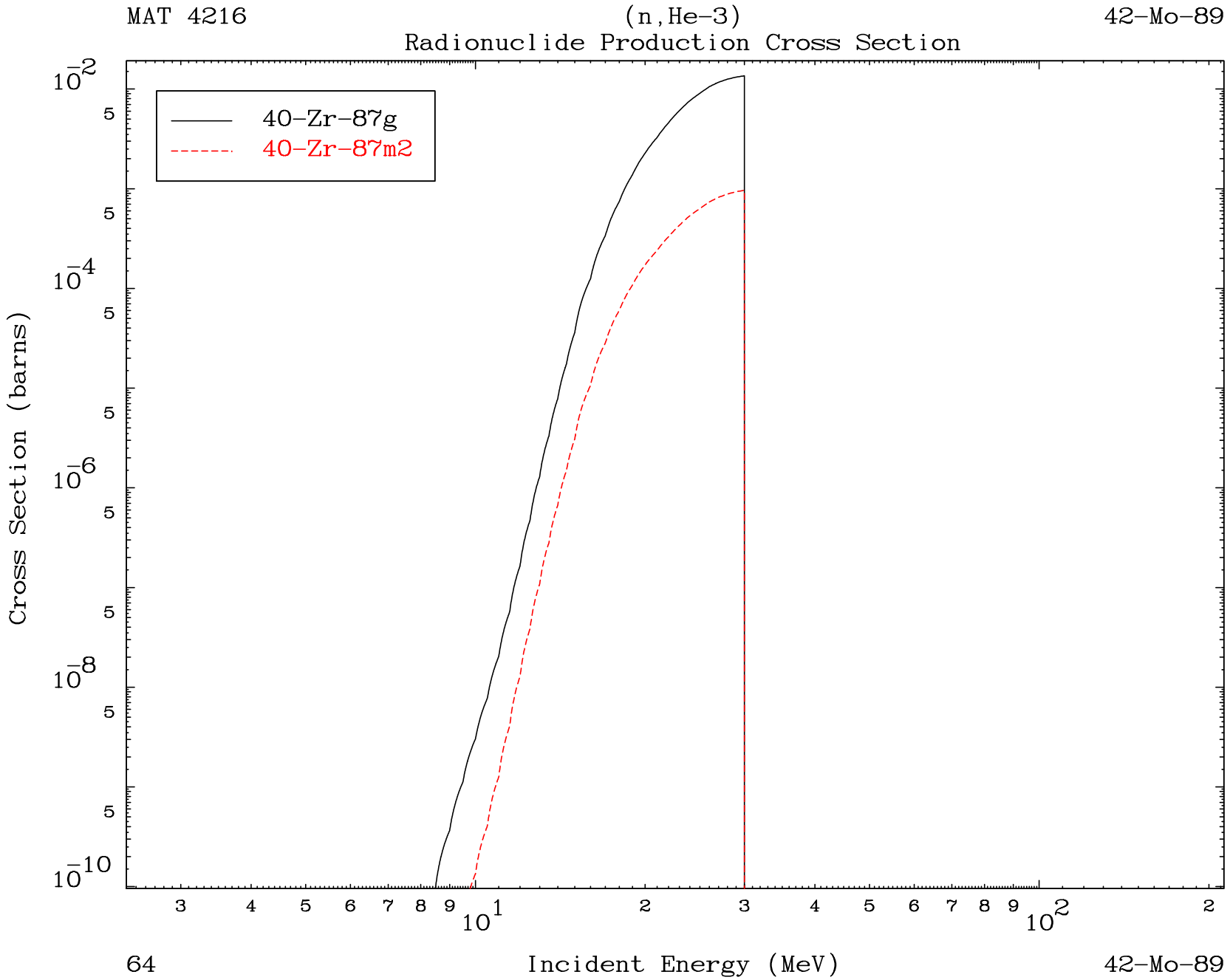

MAT 4216
(n,2n) p
42-Mo-89
Radionuclide Production Cross Section
40-Zr-87g
40-Zr-87m2
Cross Section (barns)
Incident Energy (MeV)
59
42-Mo-89

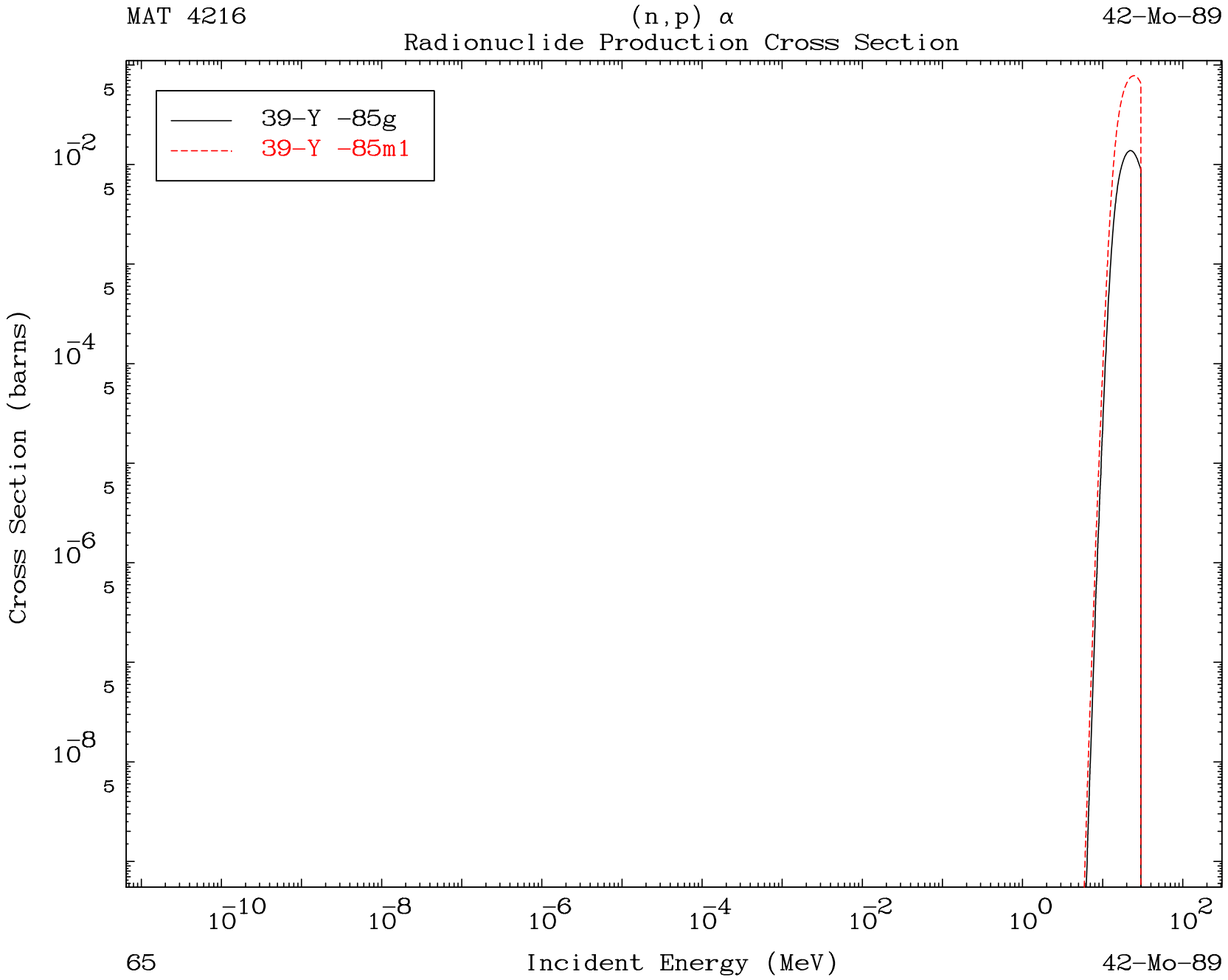

MAT 4216
(n,n') p α
42-Mo-89
Radionuclide Production Cross Section
39-Y -84g
39-Y -84m2
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
3
4
5
6
7
8
9
10 2
2
60
Incident Energy (MeV)
42-Mo-89

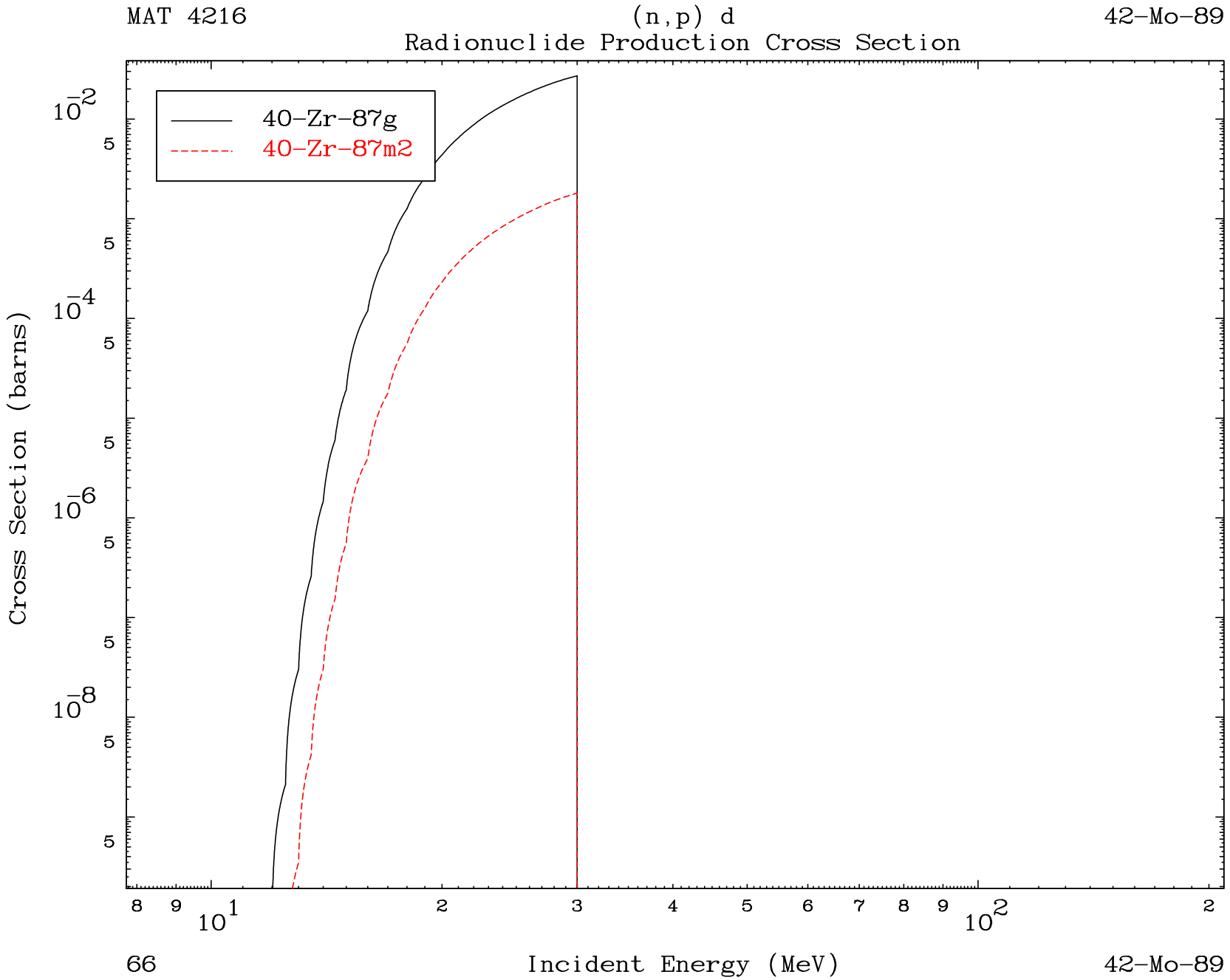

MAT 4216
(n,p)
42-Mo-89
Radionuclide Production Cross Section
41-Nb-89g
41-Nb-89m1
Cross Section (barns)
Incident Energy (MeV)
61
42-Mo-89

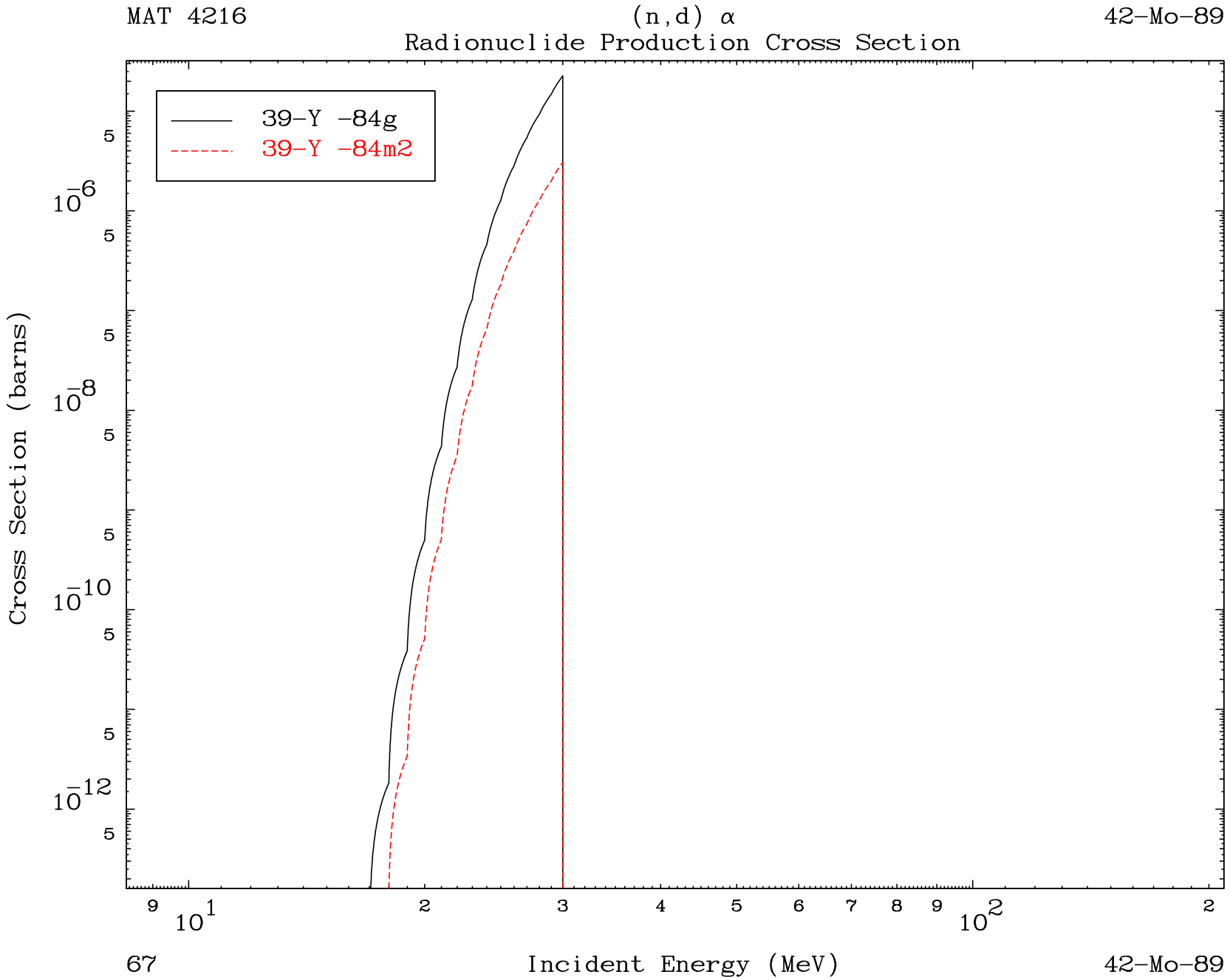

MAT 4216
(n,d)
42-Mo-89
Radionuclide Production Cross Section
41-Nb-88g
41-Nb-88m1
Cross Section (barns)
Incident Energy (MeV)
62
42-Mo-89


MAT 4216
(n,t)
42-Mo-89
Radionuclide Production Cross Section
41-Nb-87g
41-Nb-87m1
Cross Section (barns)
10-4
10-6
10-8
10-10
Incident Energy (MeV)
63
42-Mo-89


MAT 4216
(n,He-3)
42-Mo-89
Radionuclide Production Cross Section
40-Zr-87g
40-Zr-87m2
Cross Section (barns)
Incident Energy (MeV)
64
42-Mo-89


MAT 4216
(n,p) α
42-Mo-89
Radionuclide Production Cross Section
39-Y -85g
39-Y -85m1
Cross Section (barns)
Incident Energy (MeV)
65
42-Mo-89


MAT 4216
(n,p) d
42-Mo-89
Radionuclide Production Cross Section
40-Zr-87g
40-Zr-87m2
Cross Section (barns)
Incident Energy (MeV)
66
42-Mo-89


MAT 4216
(n,d) α
42-Mo-89
Radionuclide Production Cross Section
39-Y -84g
39-Y -84m2
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
9
10^1
2
3
4
5
6
7
8
9
10^2
2
67
Incident Energy (MeV)
42-Mo-89