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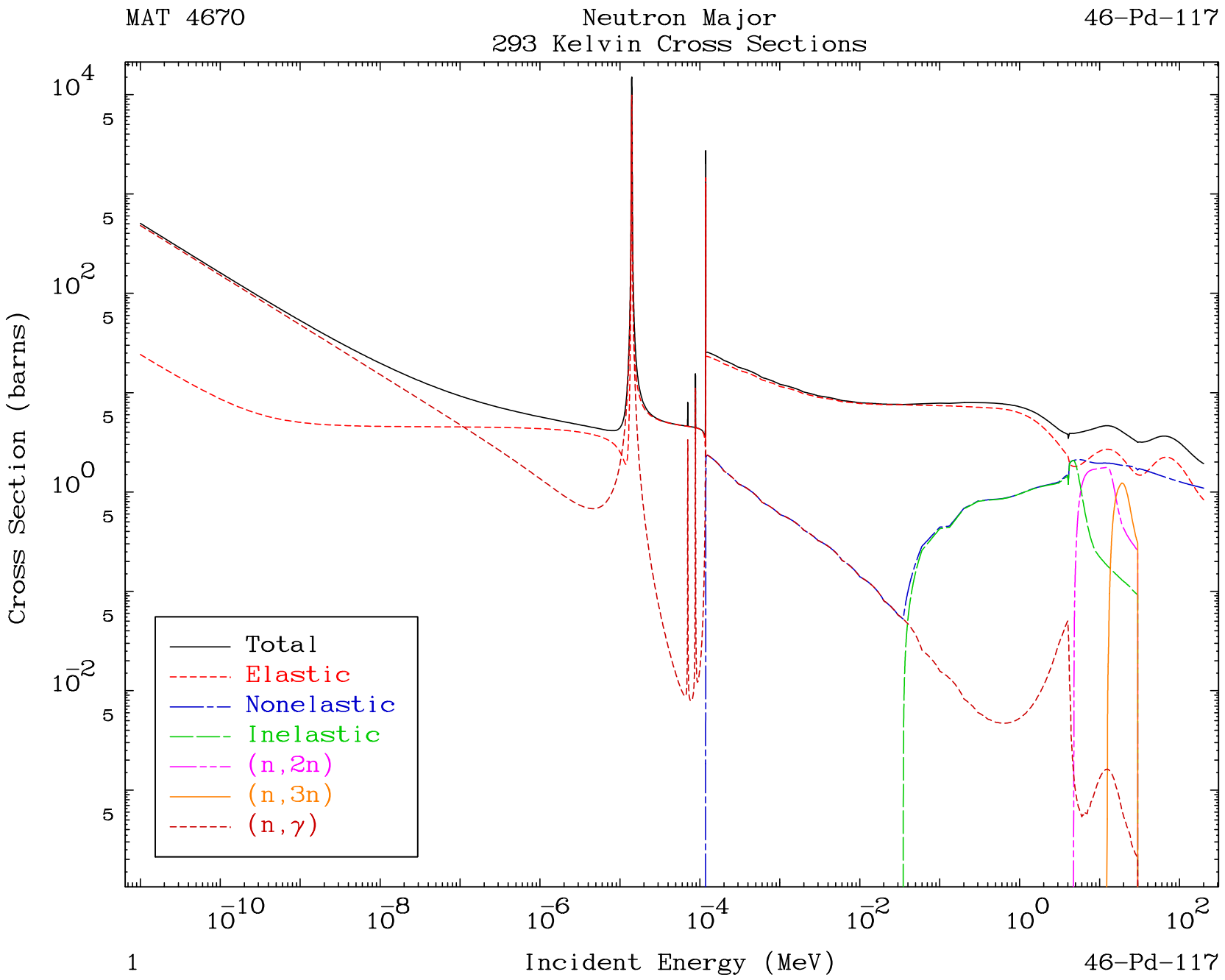
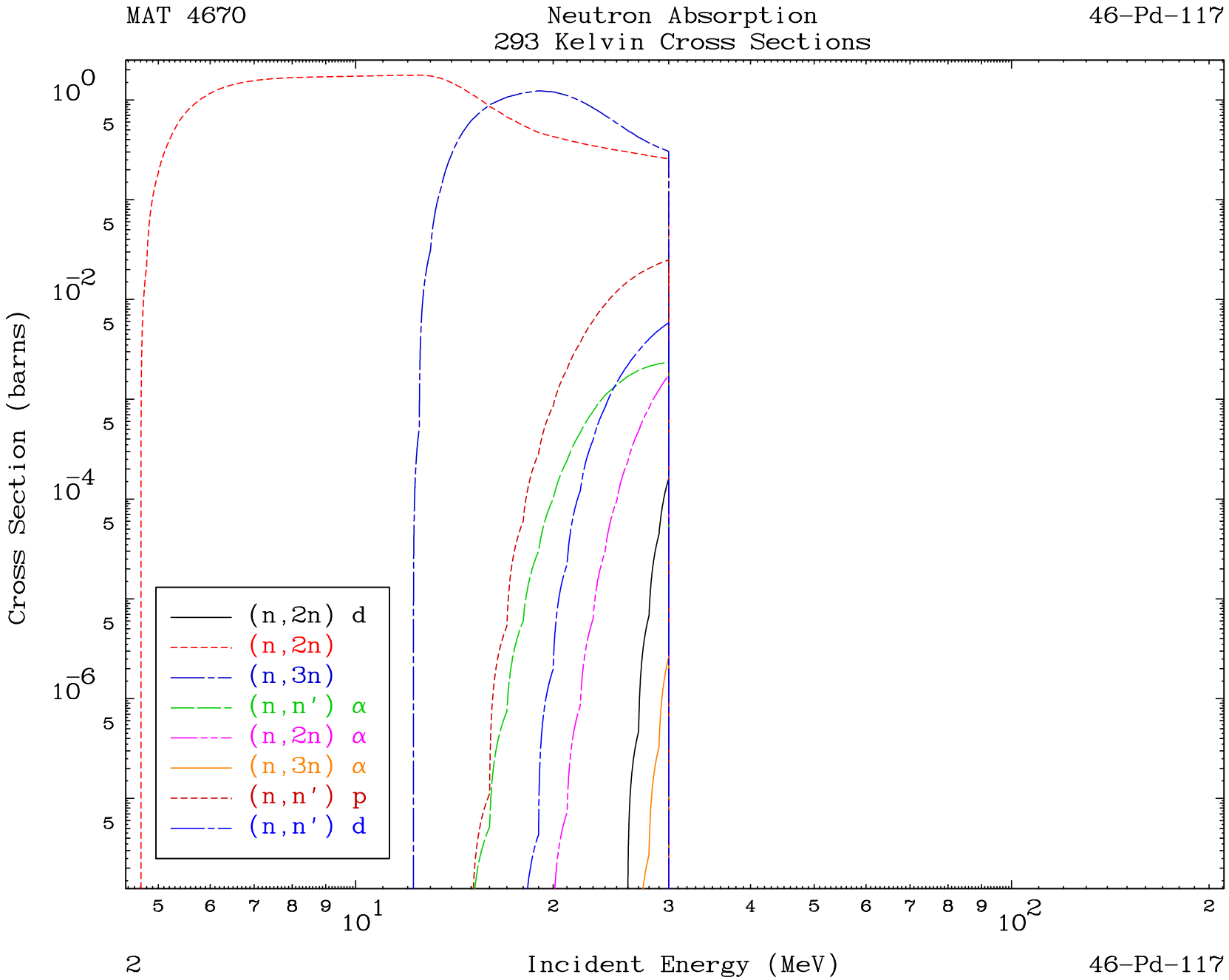
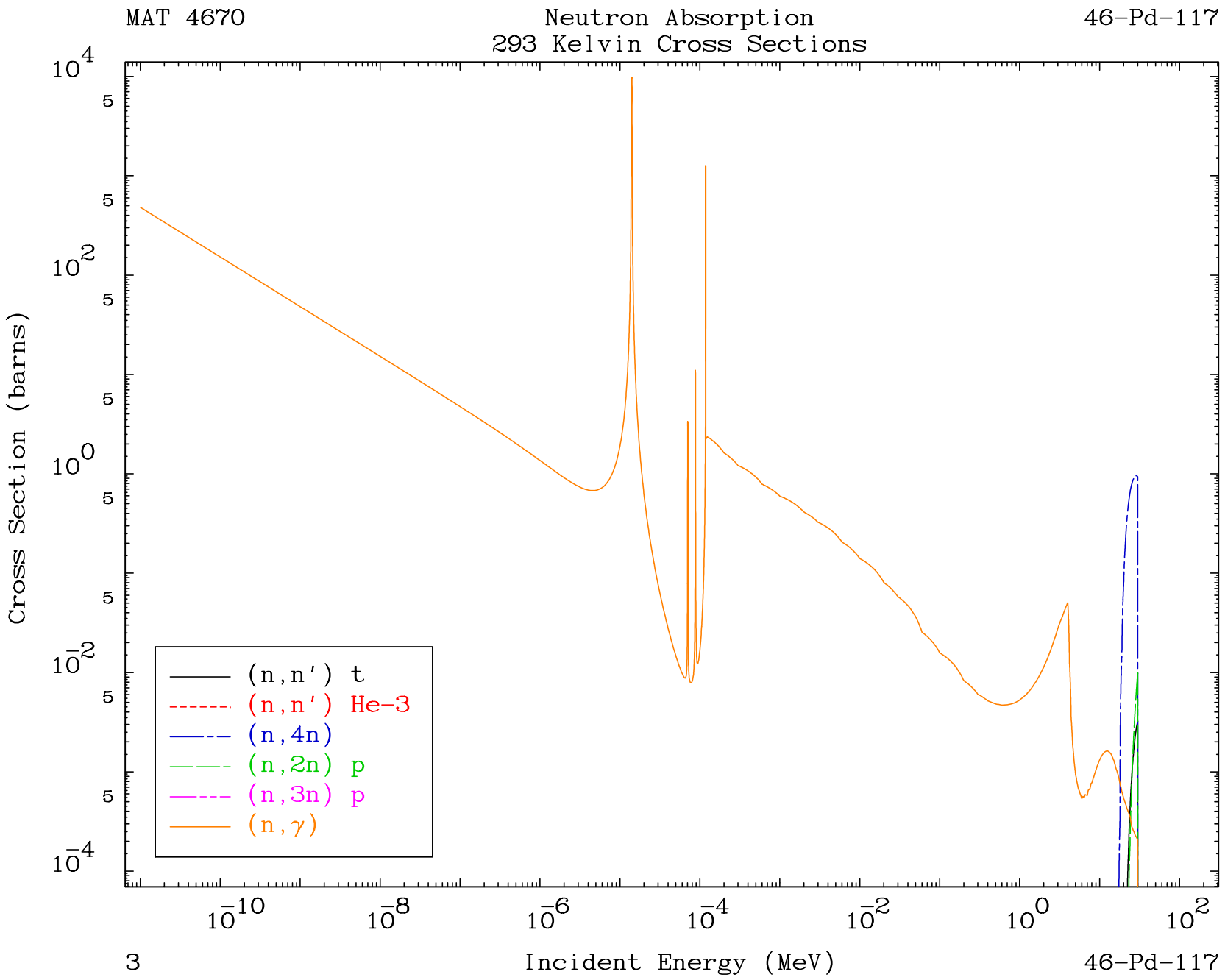
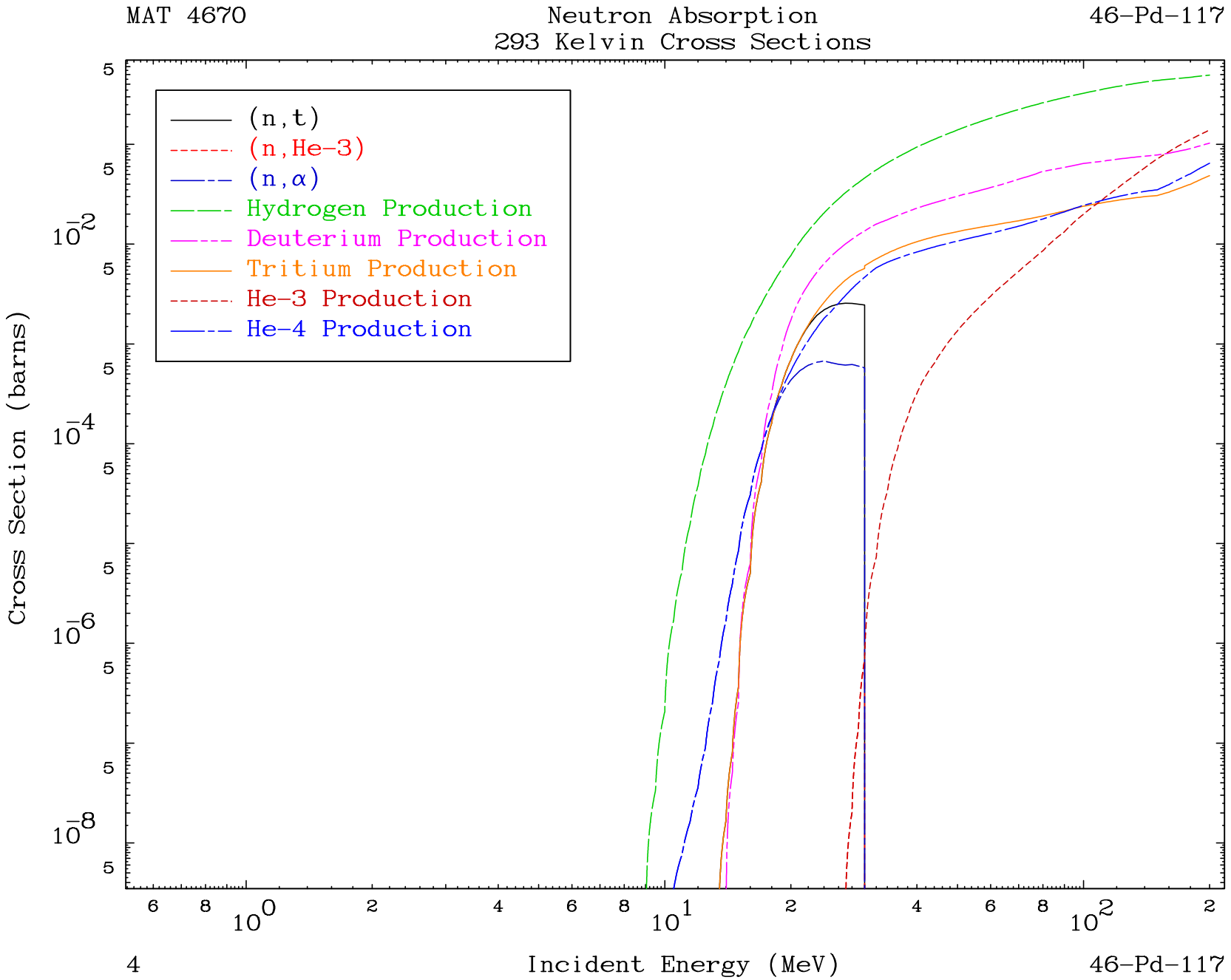
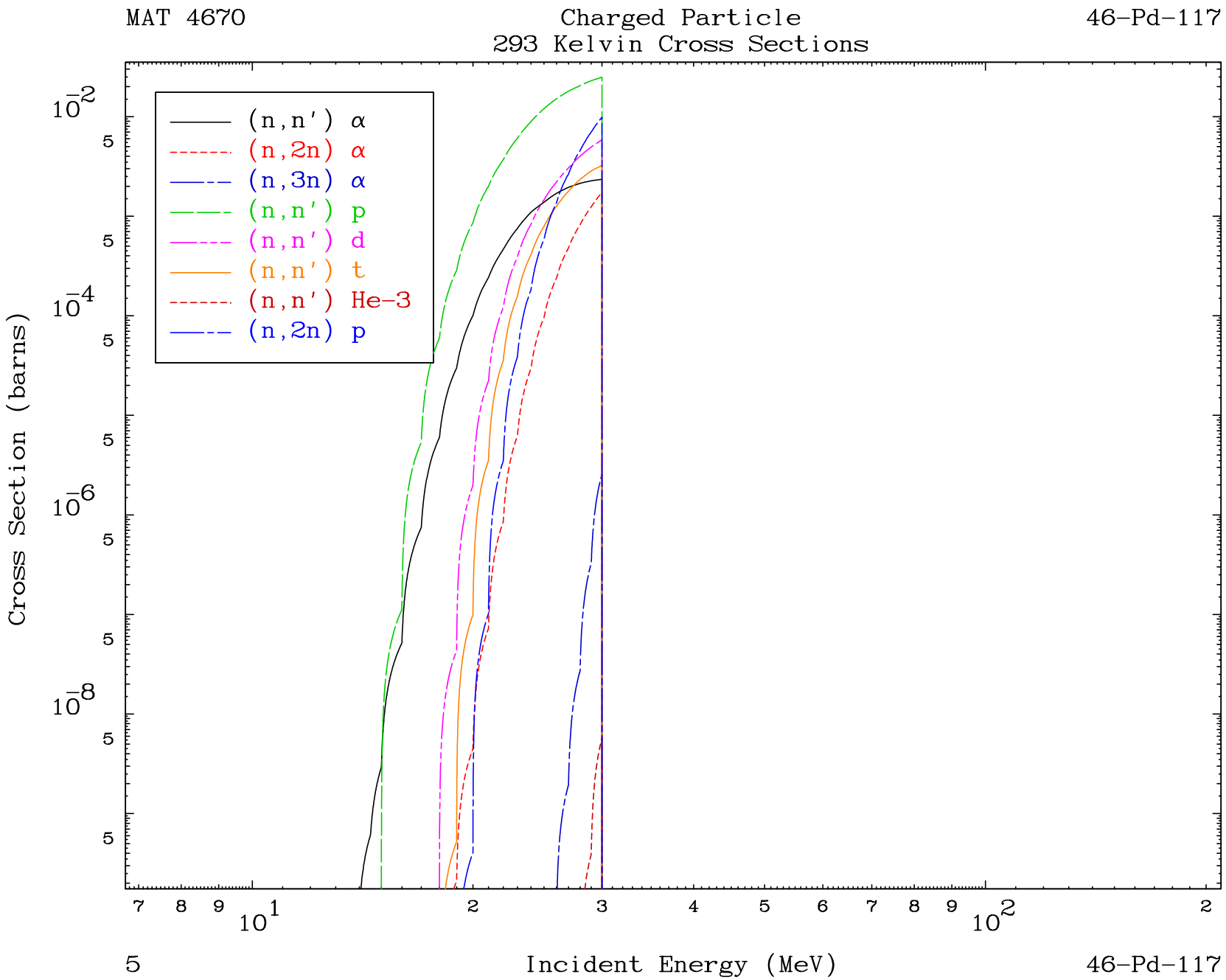
Press Mouse Button to Start

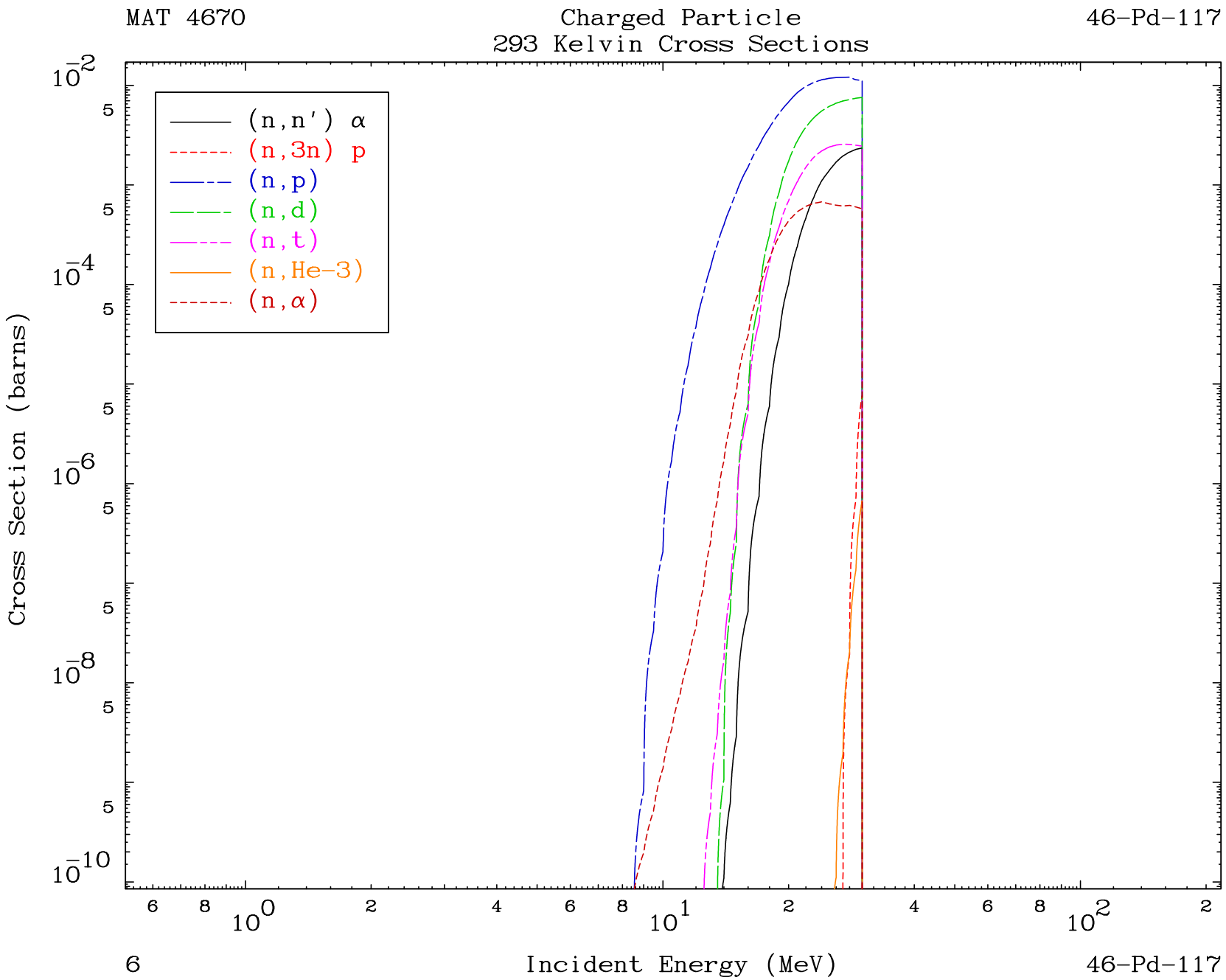

MAT 4670
Neutron Major
293 Kelvin Cross Sections
46-Pd-117
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,3n)
(n,γ)
46-Pd-117
1

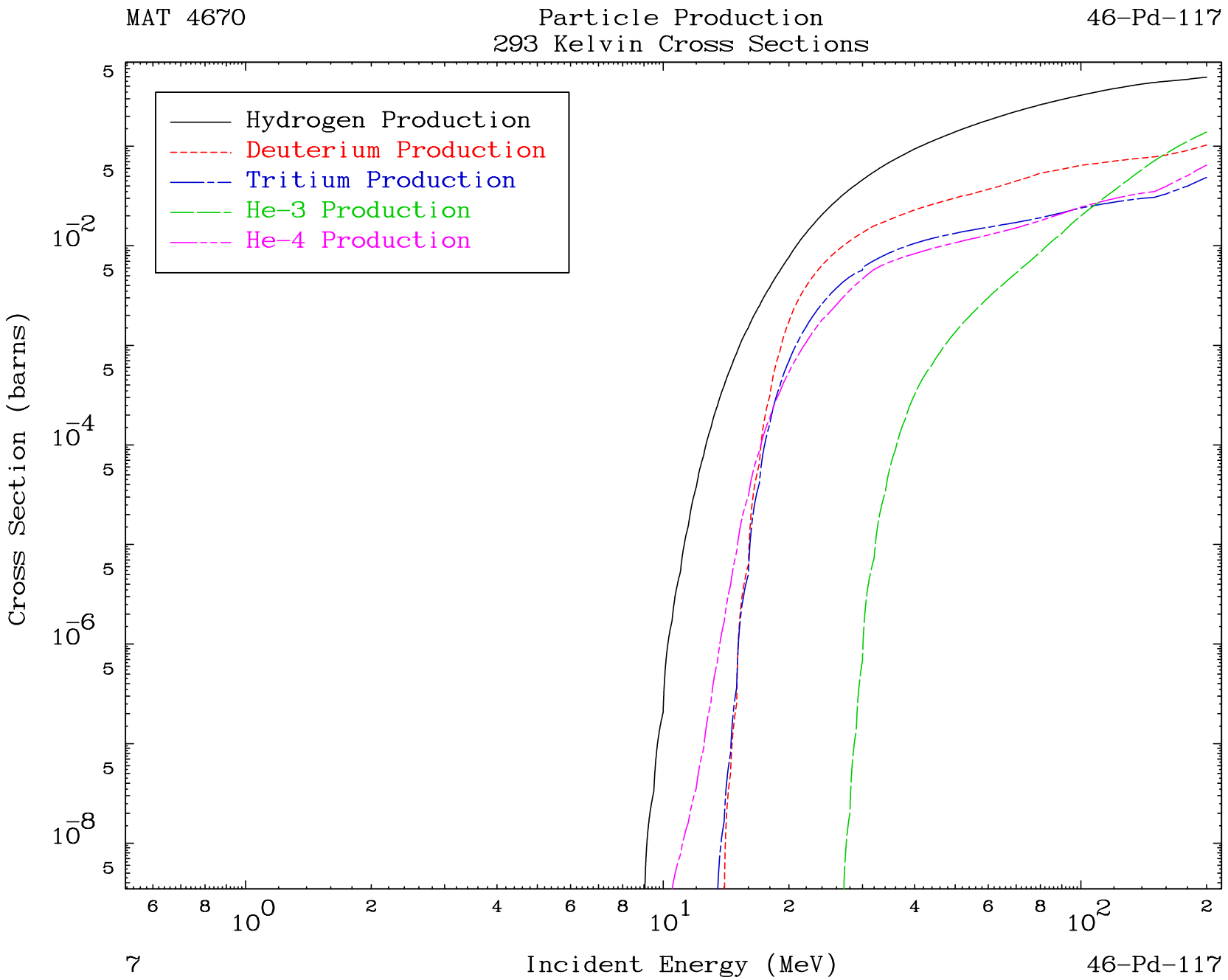

MAT 4670
Neutron Absorption
293 Kelvin Cross Sections
46-Pd-117
Cross Section (barns)
Incident Energy (MeV)
46-Pd-117
(n,2n) d
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') d

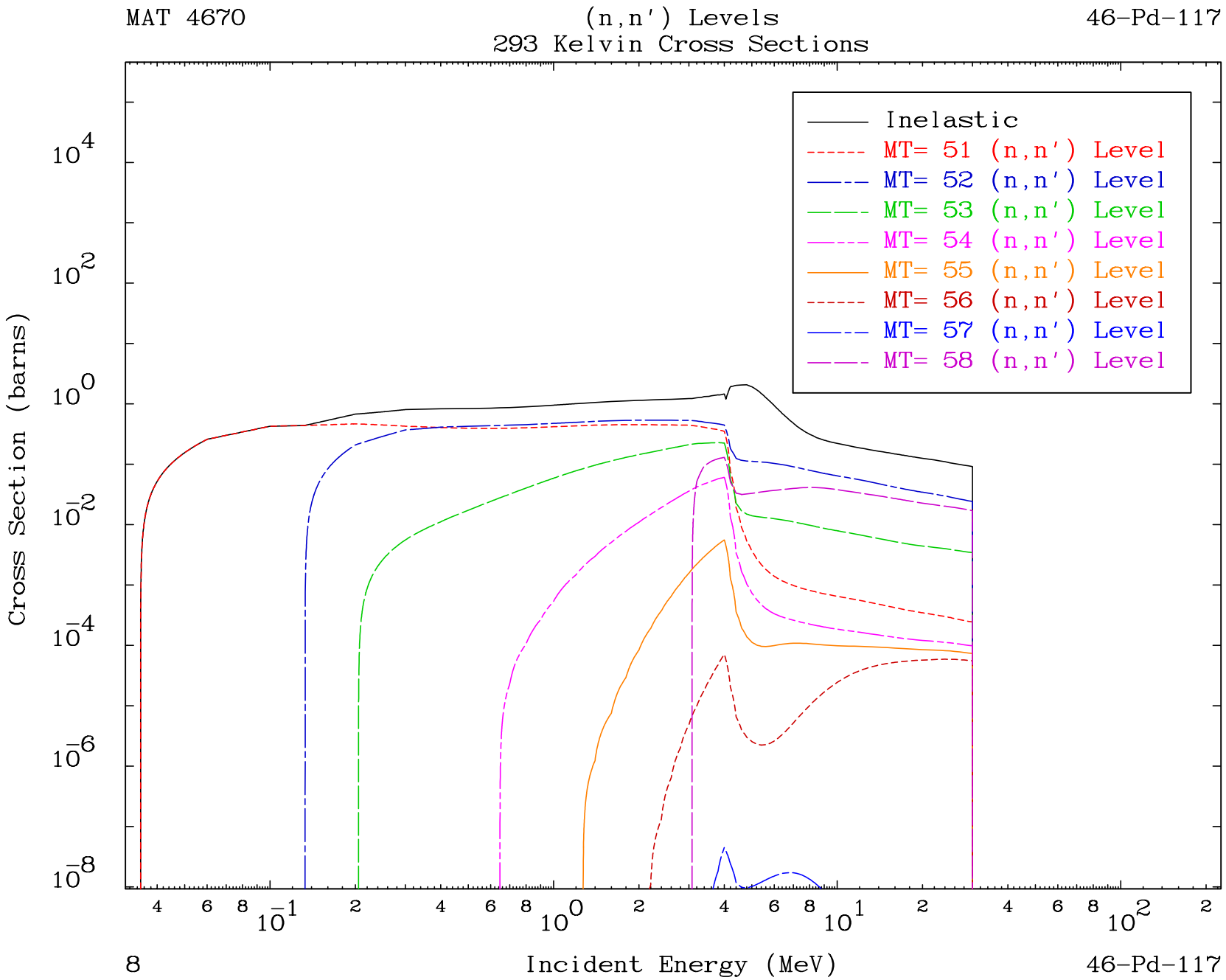

MAT 4670
Neutron Absorption
293 Kelvin Cross Sections
46-Pd-117
Cross Section (barns)
Incident Energy (MeV)
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
(n,γ)
3
46-Pd-117

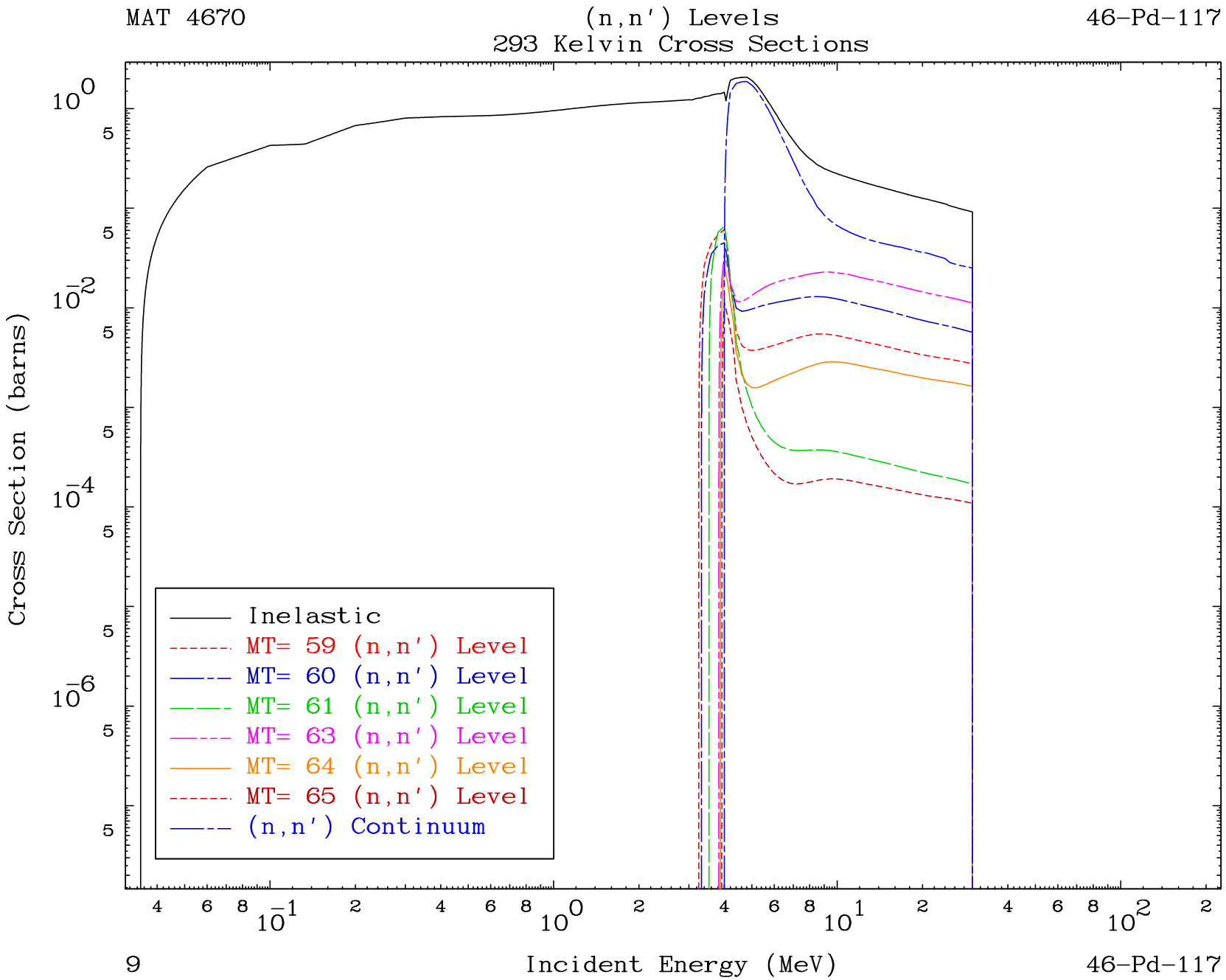

MAT 4670
Neutron Absorption
293 Kelvin Cross Sections
46-Pd-117
(n,t)
(n,He-3)
(n,α)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Cross Section (barns)
Incident Energy (MeV)
4
46-Pd-117

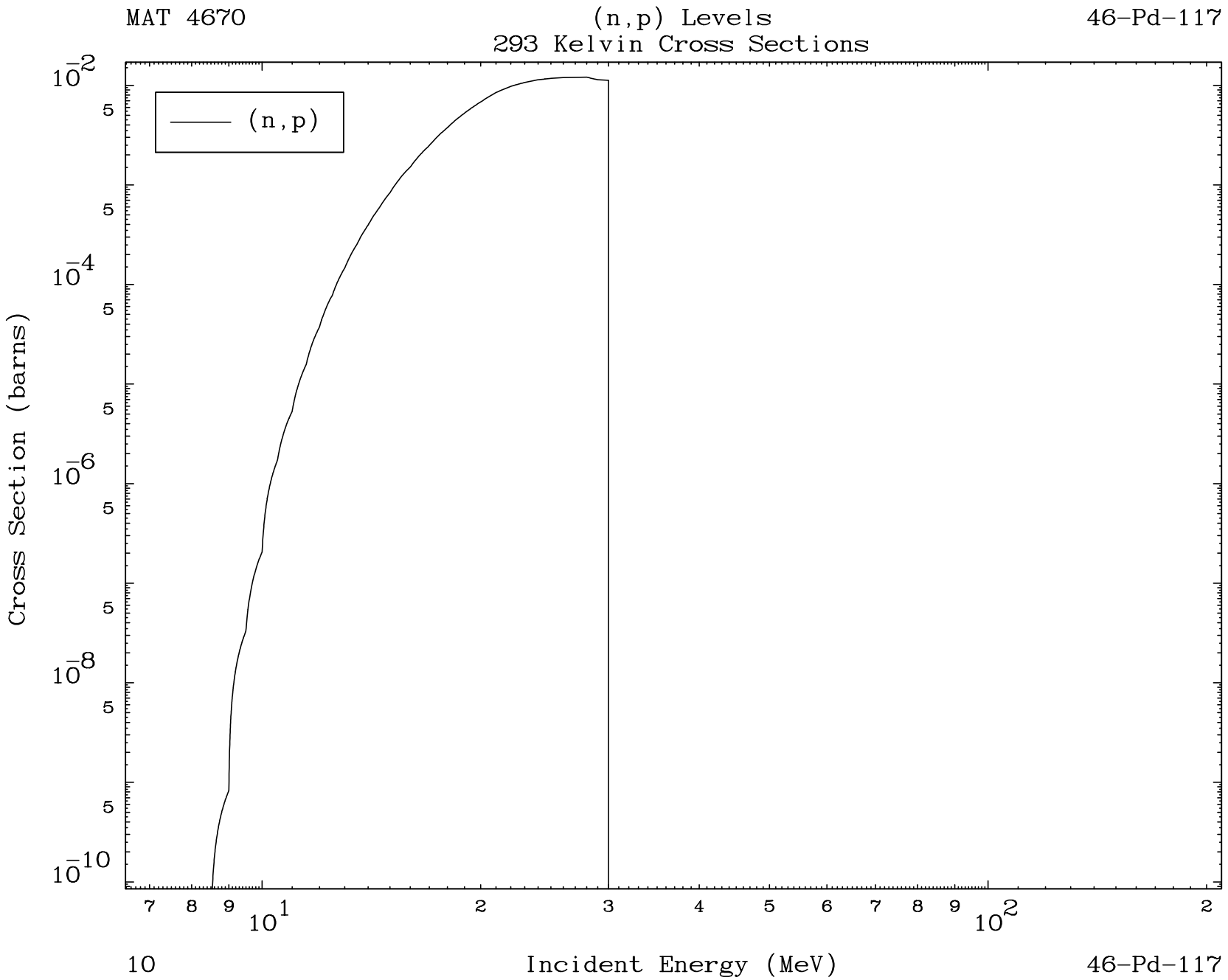

MAT 4670
Charged Particle
46-Pd-117
293 Kelvin Cross Sections
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
Cross Section (barns)
Incident Energy (MeV)
46-Pd-117
5

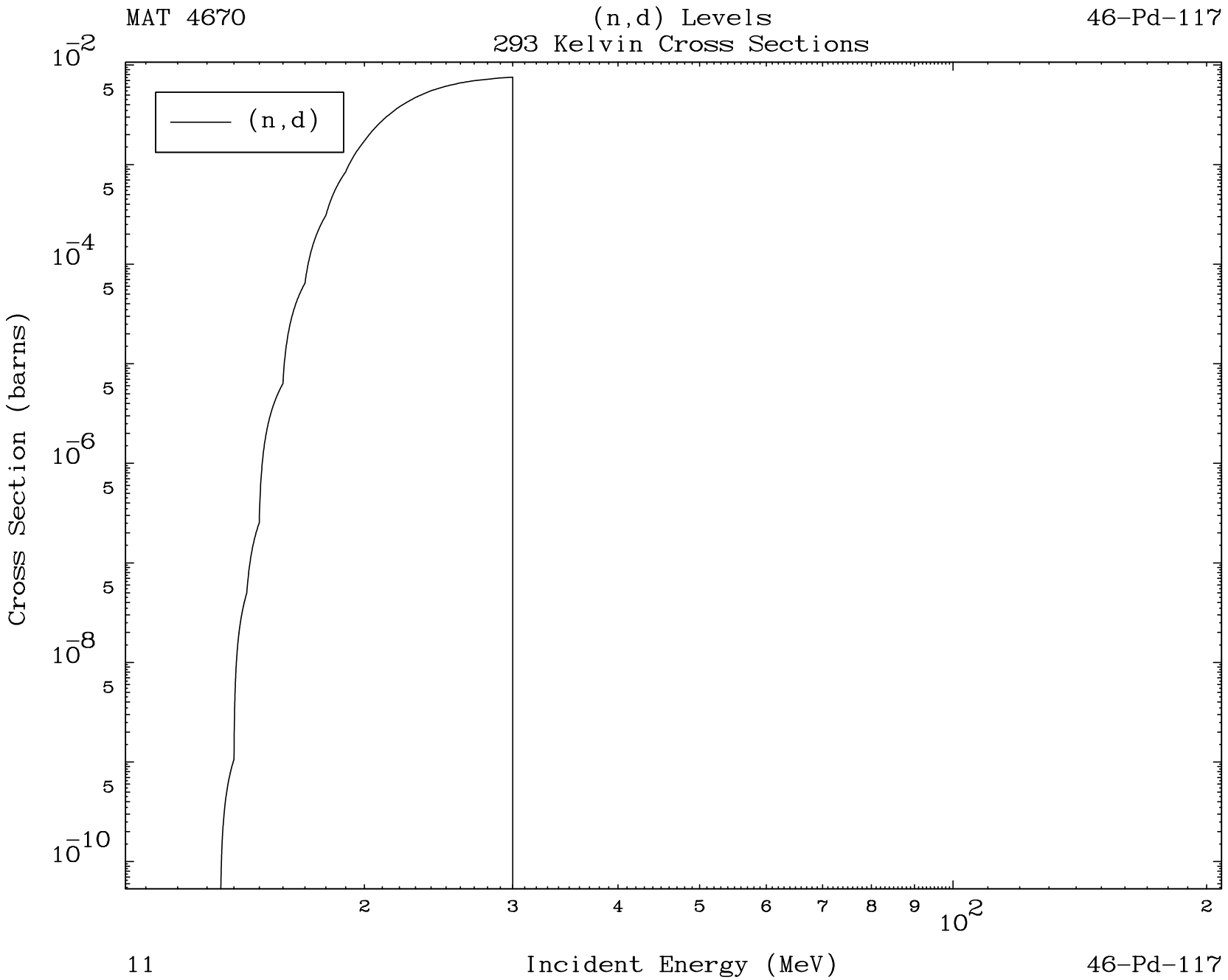

MAT 4670
Charged Particle
46-Pd-117
293 Kelvin Cross Sections
(n,n') α
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
Cross Section (barns)
Incident Energy (MeV)
46-Pd-117
6

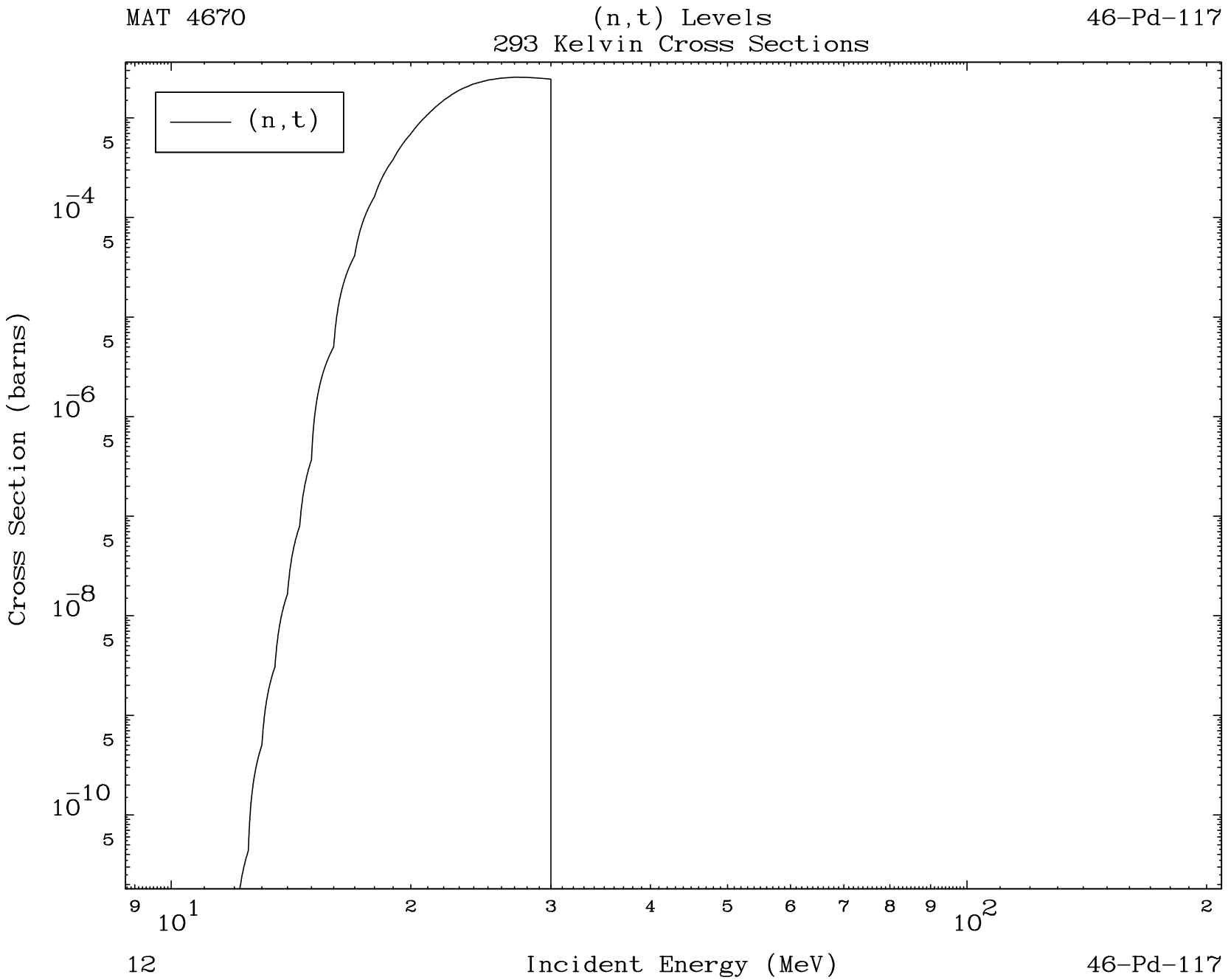

MAT 4670
Particle Production
293 Kelvin Cross Sections
46-Pd-117
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Cross Section (barns)
Incident Energy (MeV)
46-Pd-117
7

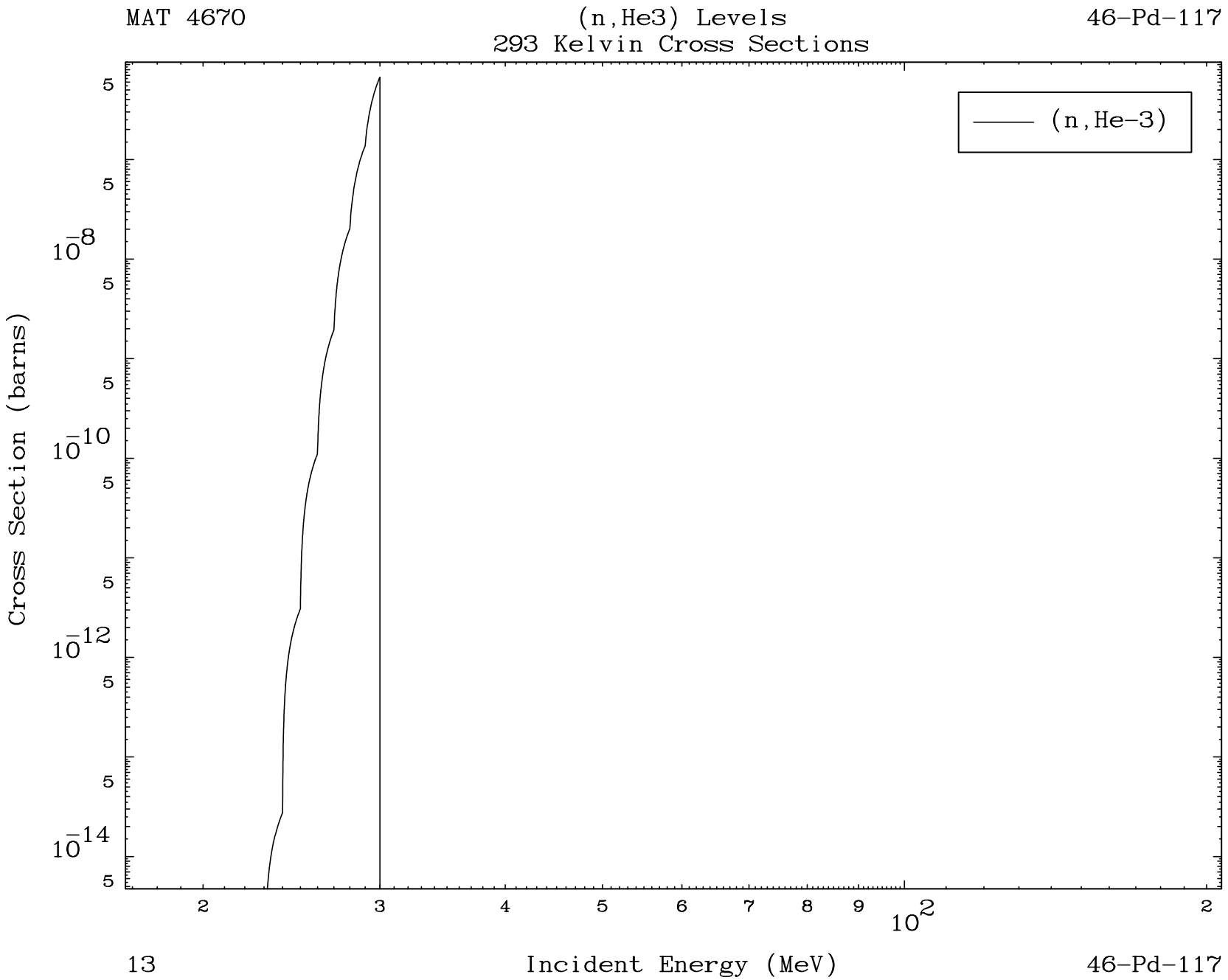

MAT 4670
(n,n') Levels
293 Kelvin Cross Sections
46-Pd-117
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
8
46-Pd-117

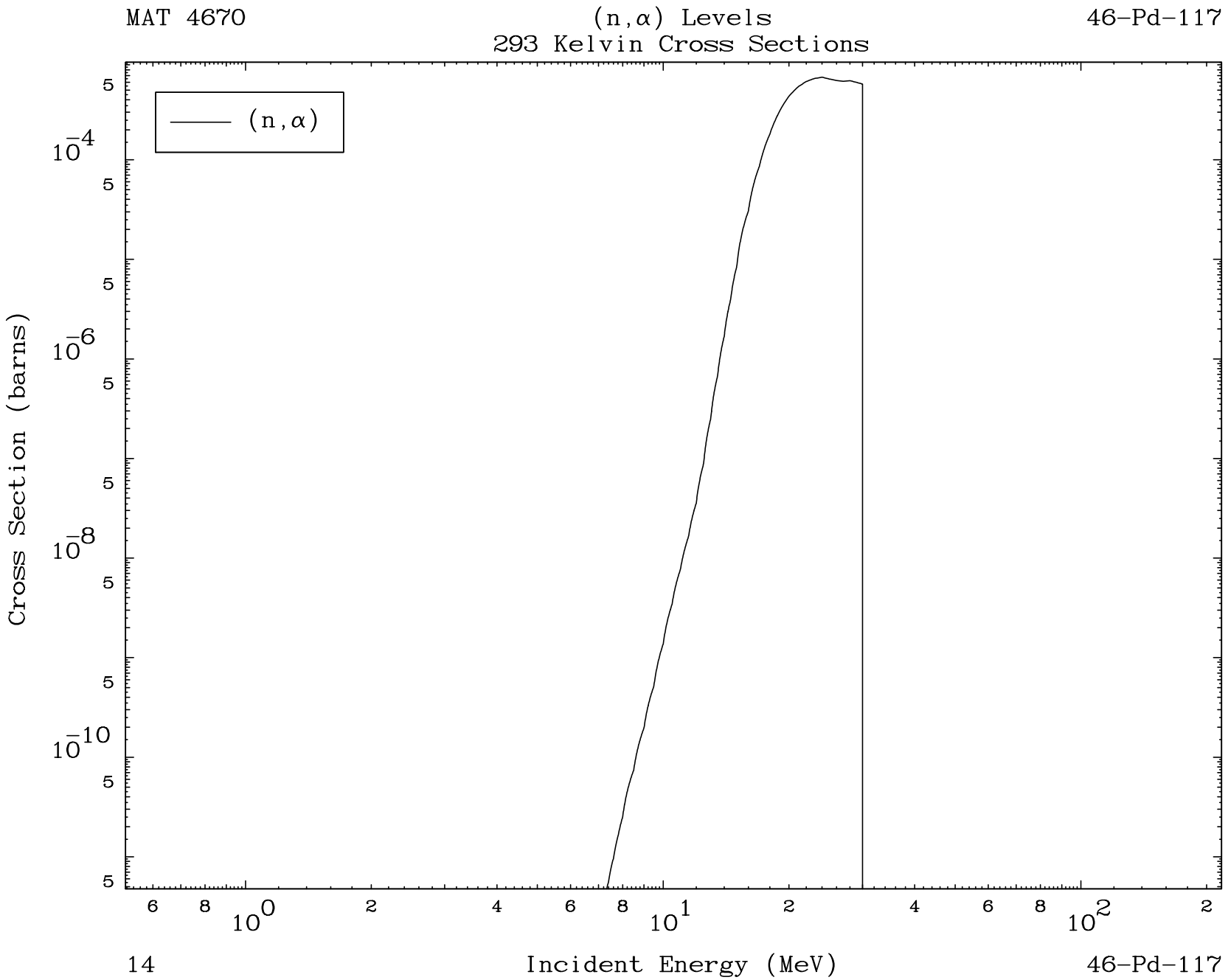

MAT 4670
(n,n') Levels
293 Kelvin Cross Sections
46-Pd-117
Cross Section (barns)
Incident Energy (MeV)
Inelastic
MT= 59 (n,n') Level
MT= 60 (n,n') Level
MT= 61 (n,n') Level
MT= 63 (n,n') Level
MT= 64 (n,n') Level
MT= 65 (n,n') Level
(n,n') Continuum
9
46-Pd-117

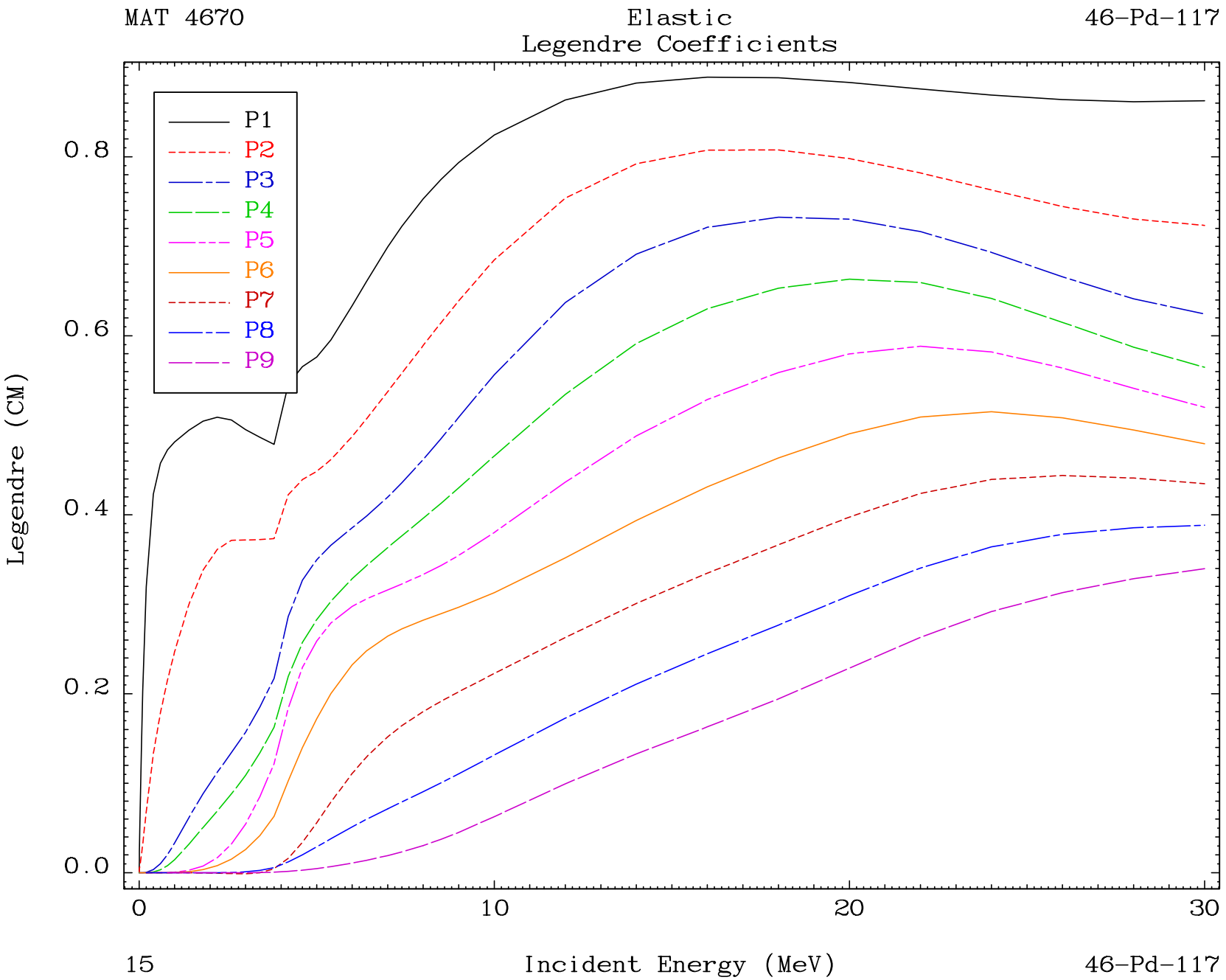

MAT 4670
(n,p) Levels
46-Pd-117
293 Kelvin Cross Sections
(n,p)
Cross Section (barns)
Incident Energy (MeV)
46-Pd-117

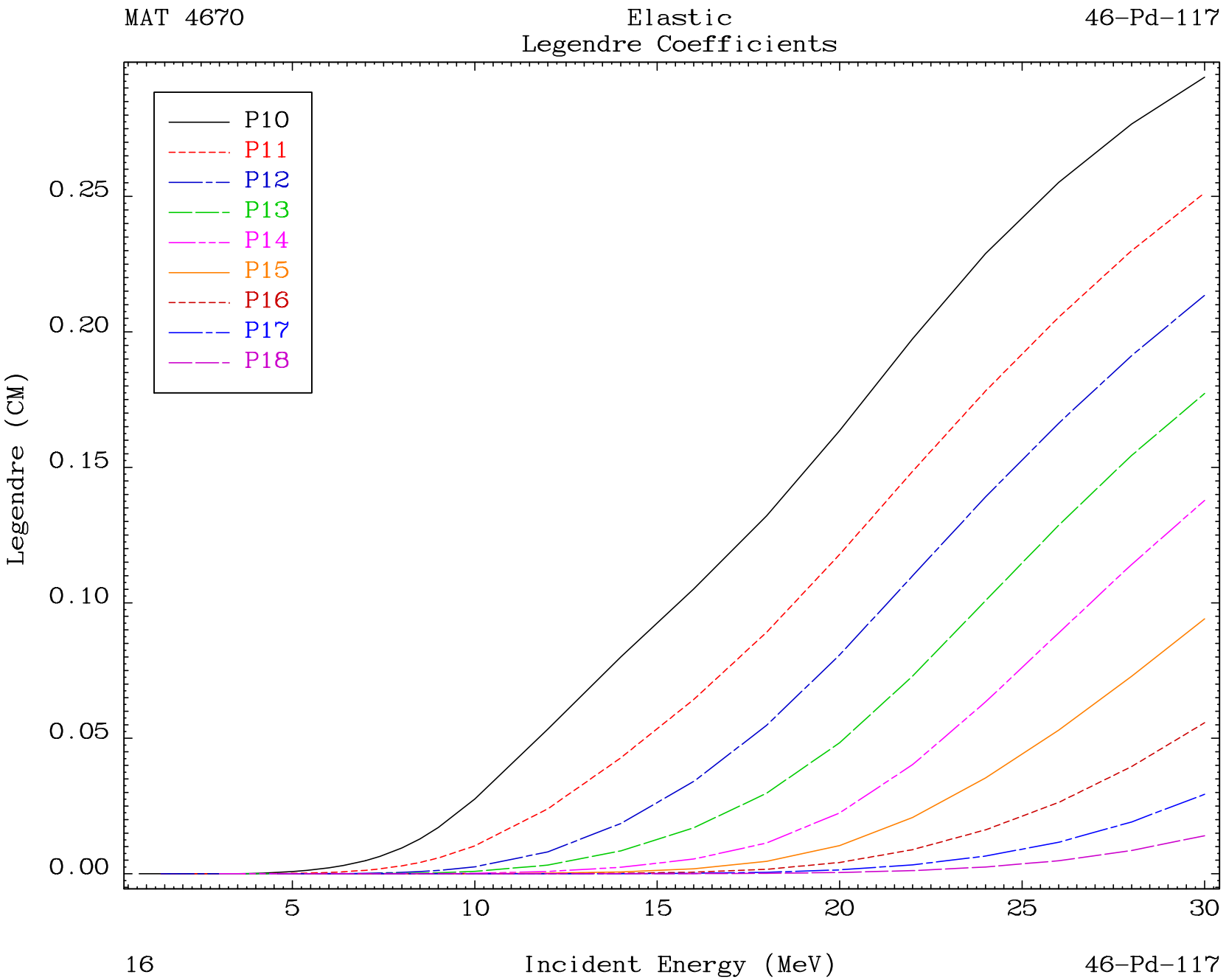

MAT 4670
(n,d) Levels
46-Pd-117
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
11
46-Pd-117

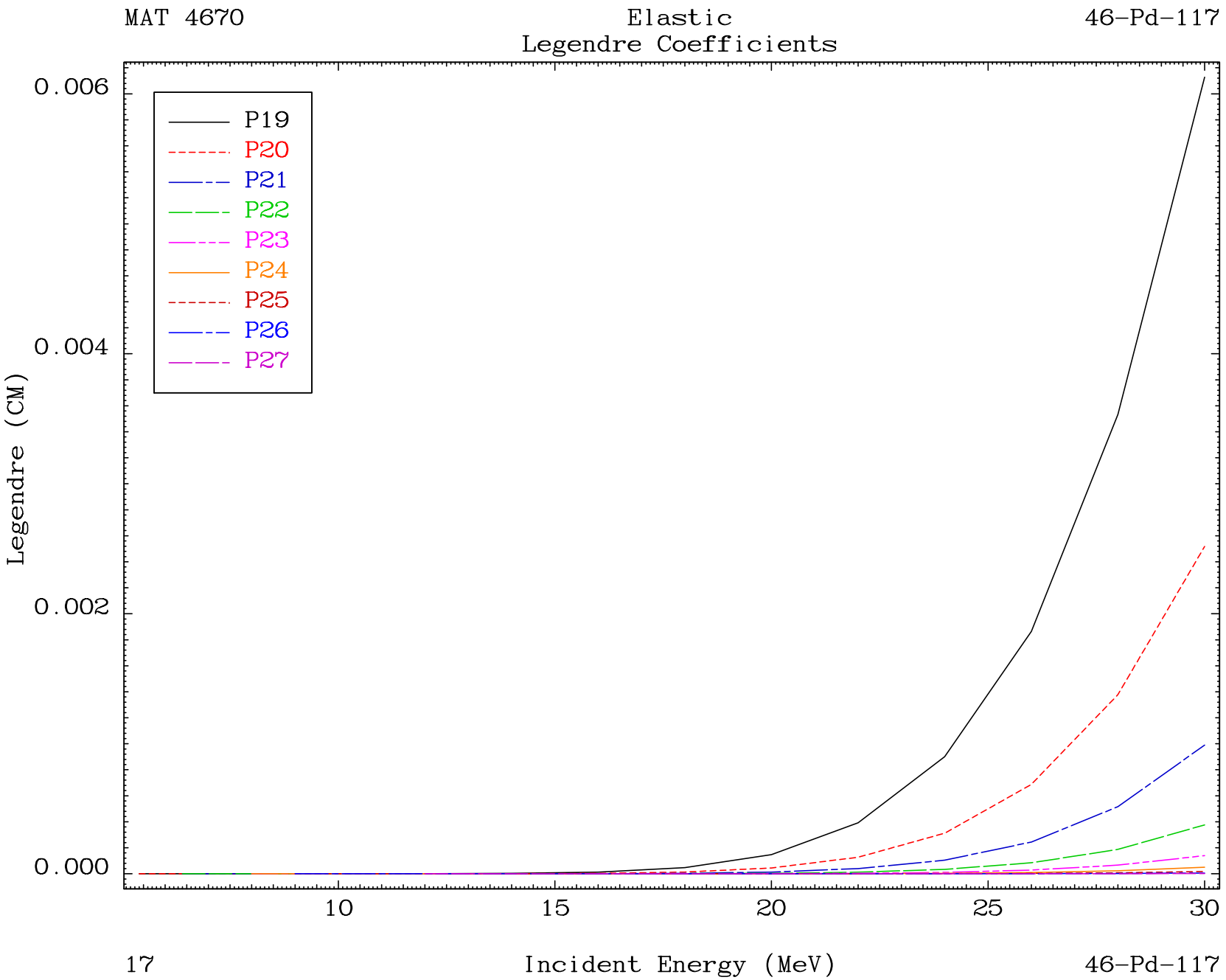

MAT 4670
(n,t) Levels
46-Pd-117
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10^1
10^2
Incident Energy (MeV)
12
46-Pd-117

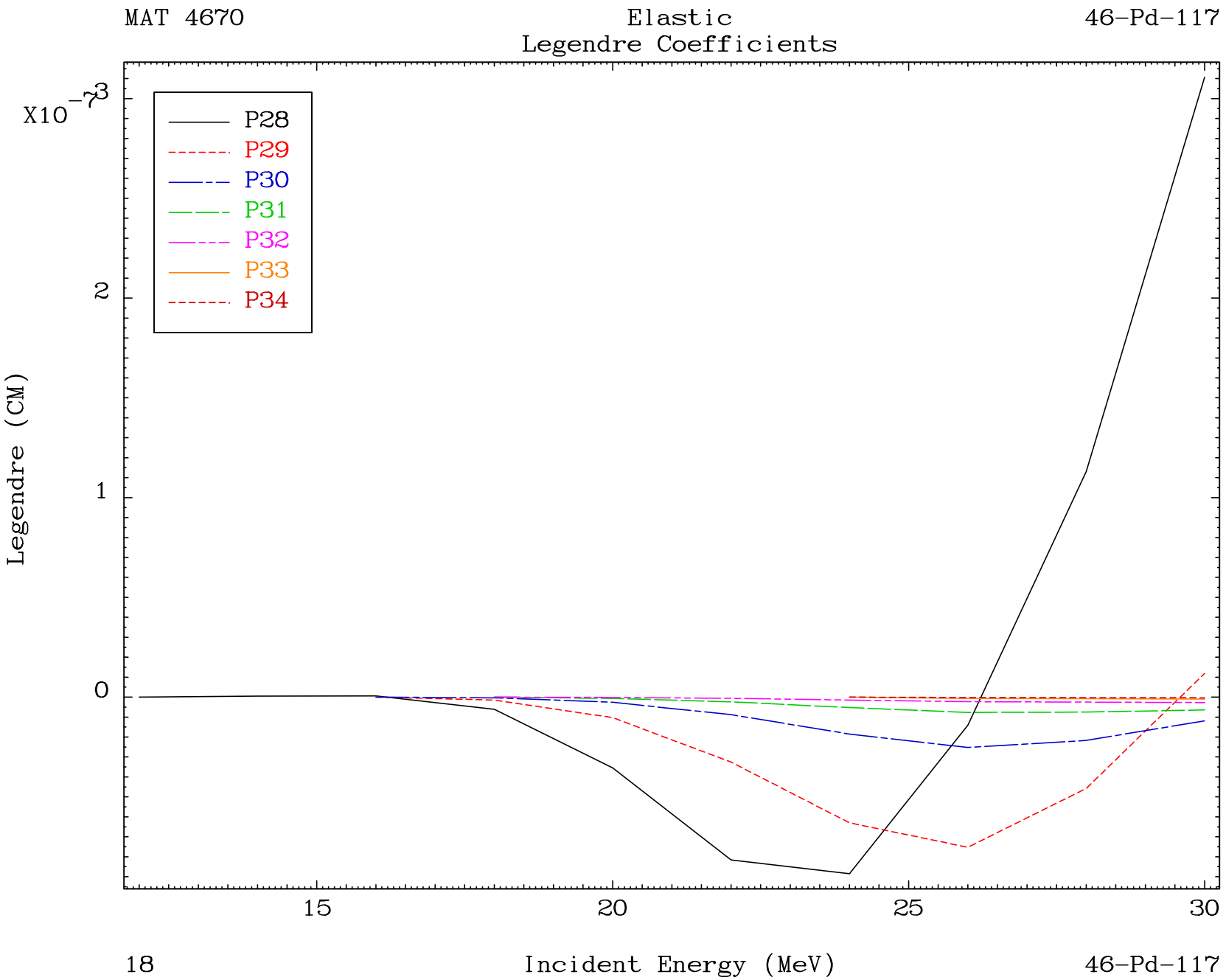

MAT 4670
(n,He3) Levels
46-Pd-117
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-8
10-10
10-12
10-14
5
2
3
4
5
6
7
8
9
10 2
2
13
Incident Energy (MeV)
46-Pd-117

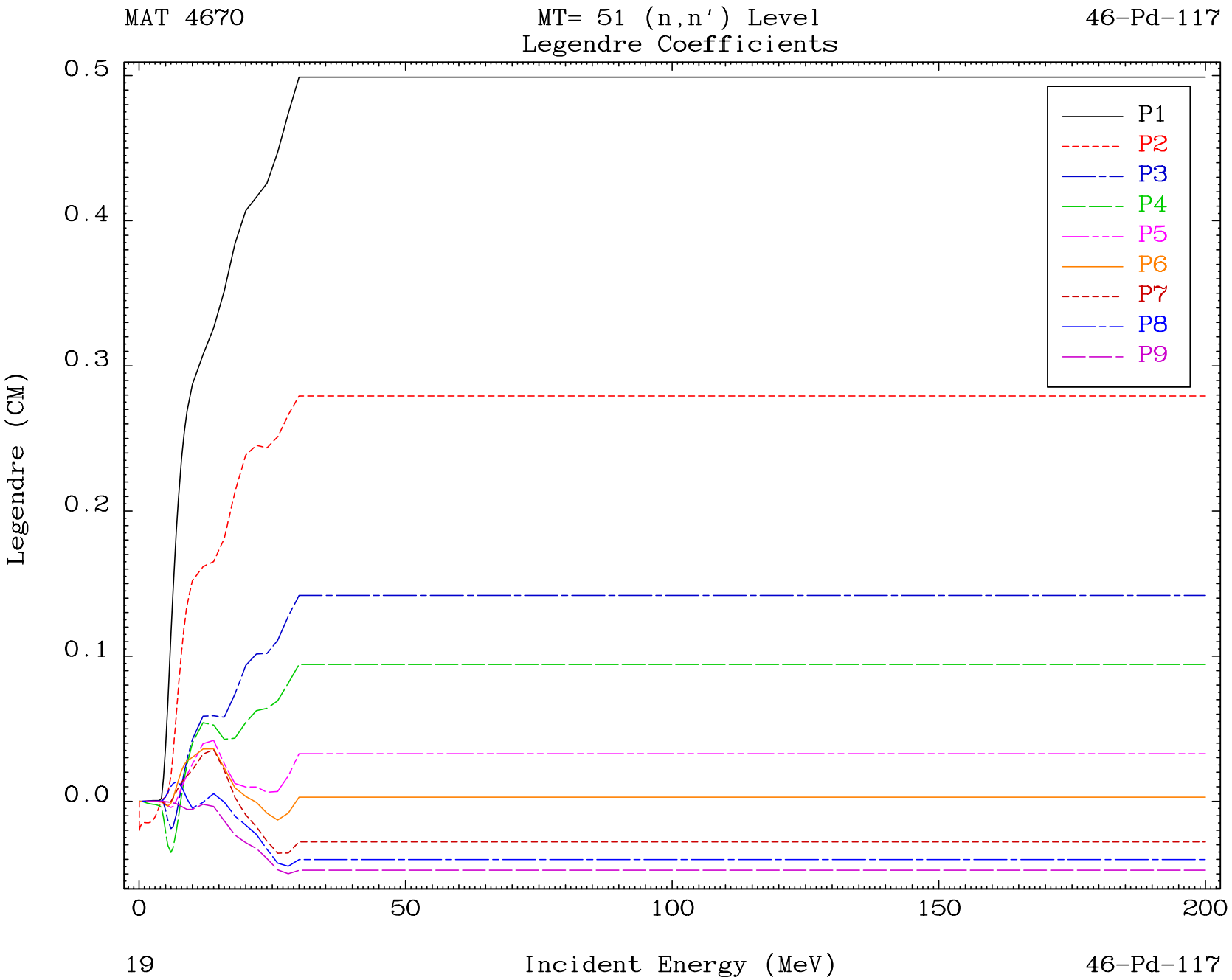

MAT 4670
(n,α) Levels
46-Pd-117
293 Kelvin Cross Sections
(n,α)
Cross Section (barns)
10-4
10-6
10-8
10-10
Incident Energy (MeV)
100
101
102
14
46-Pd-117

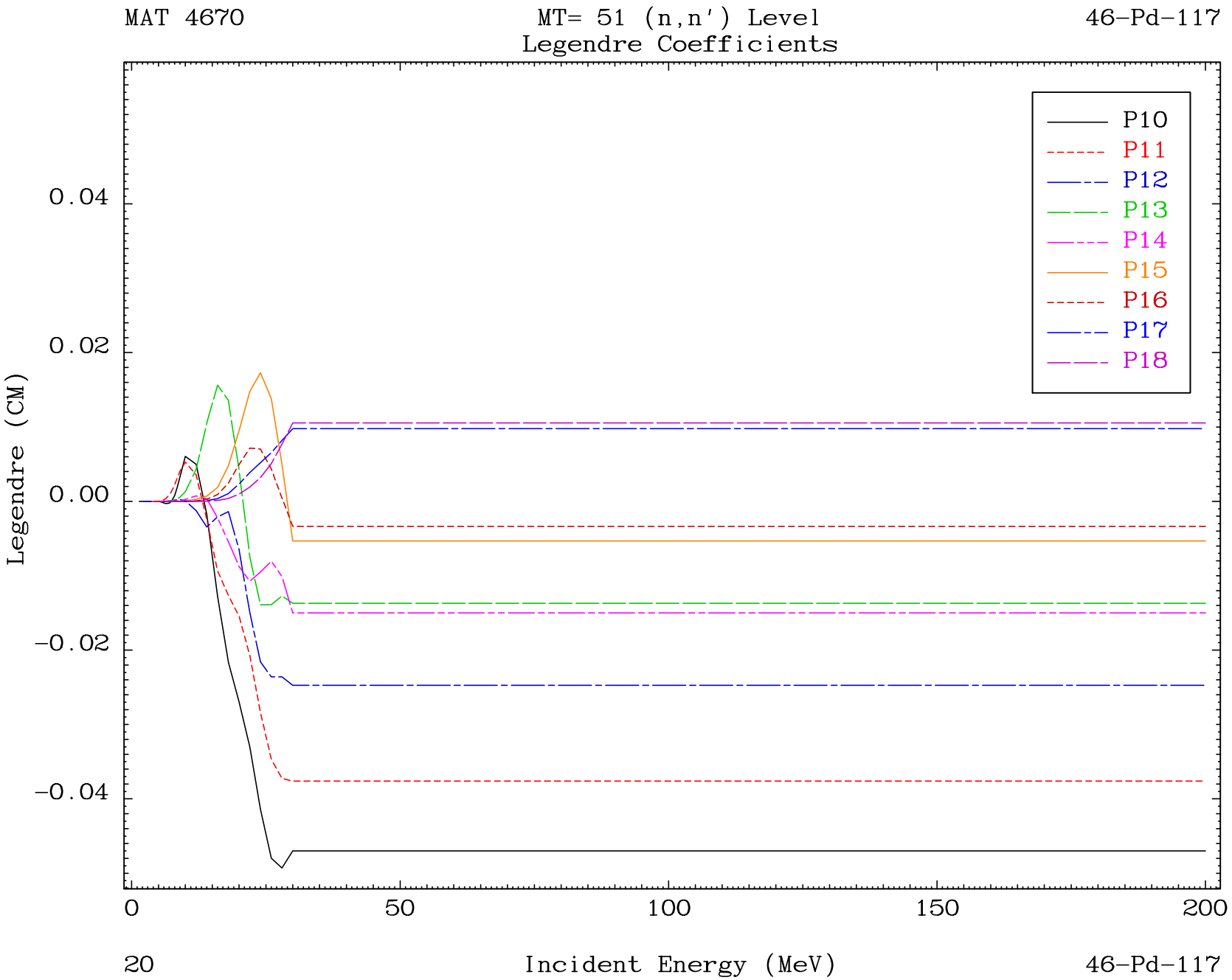

MAT 4670
Elastic
Legendre Coefficients
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
15
Incident Energy (MeV)
46-Pd-117

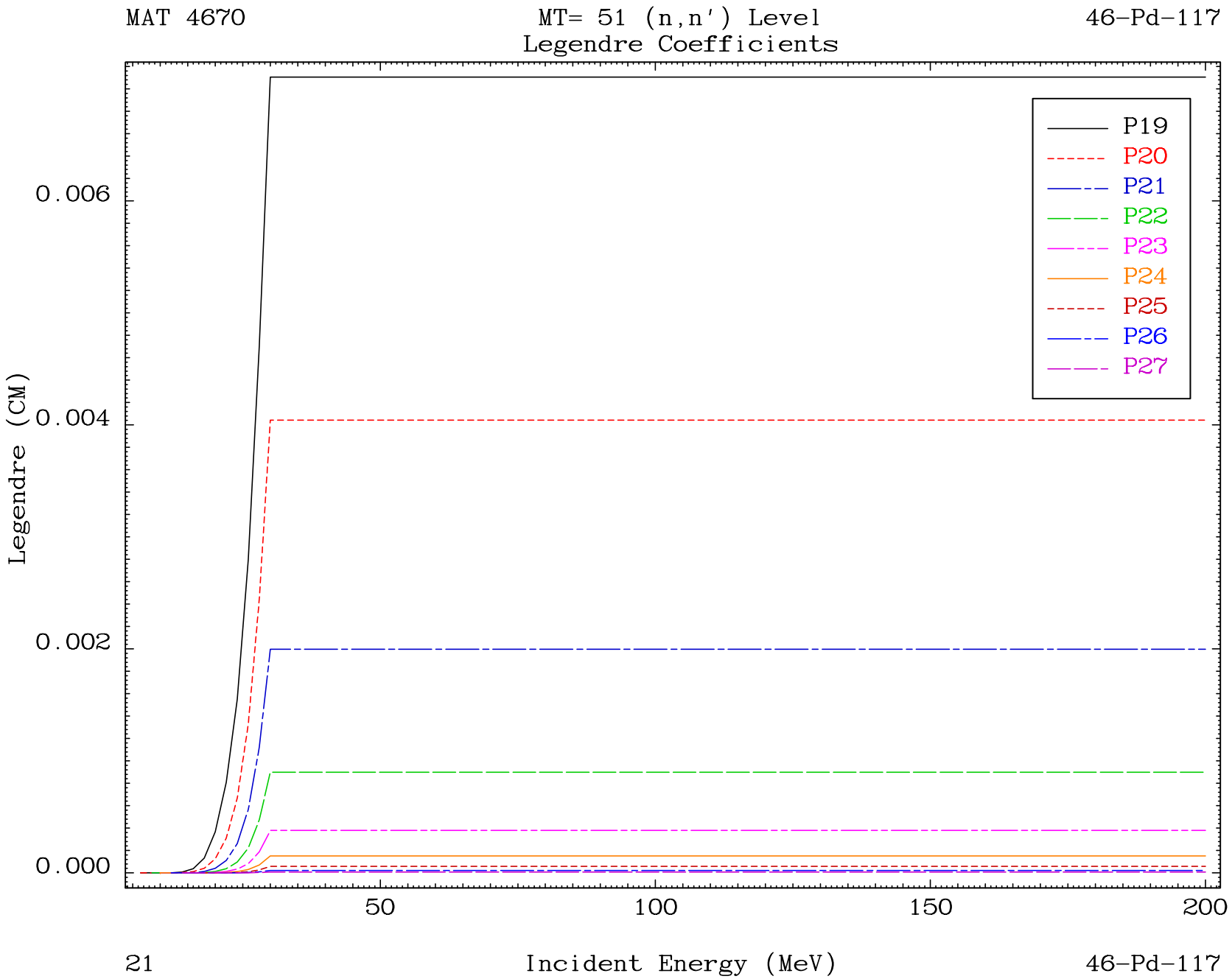

MAT 4670
Elastic
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.25
0.20
0.15
0.10
0.05
0.00
5
10
15
20
25
30
16
Incident Energy (MeV)
46-Pd-117

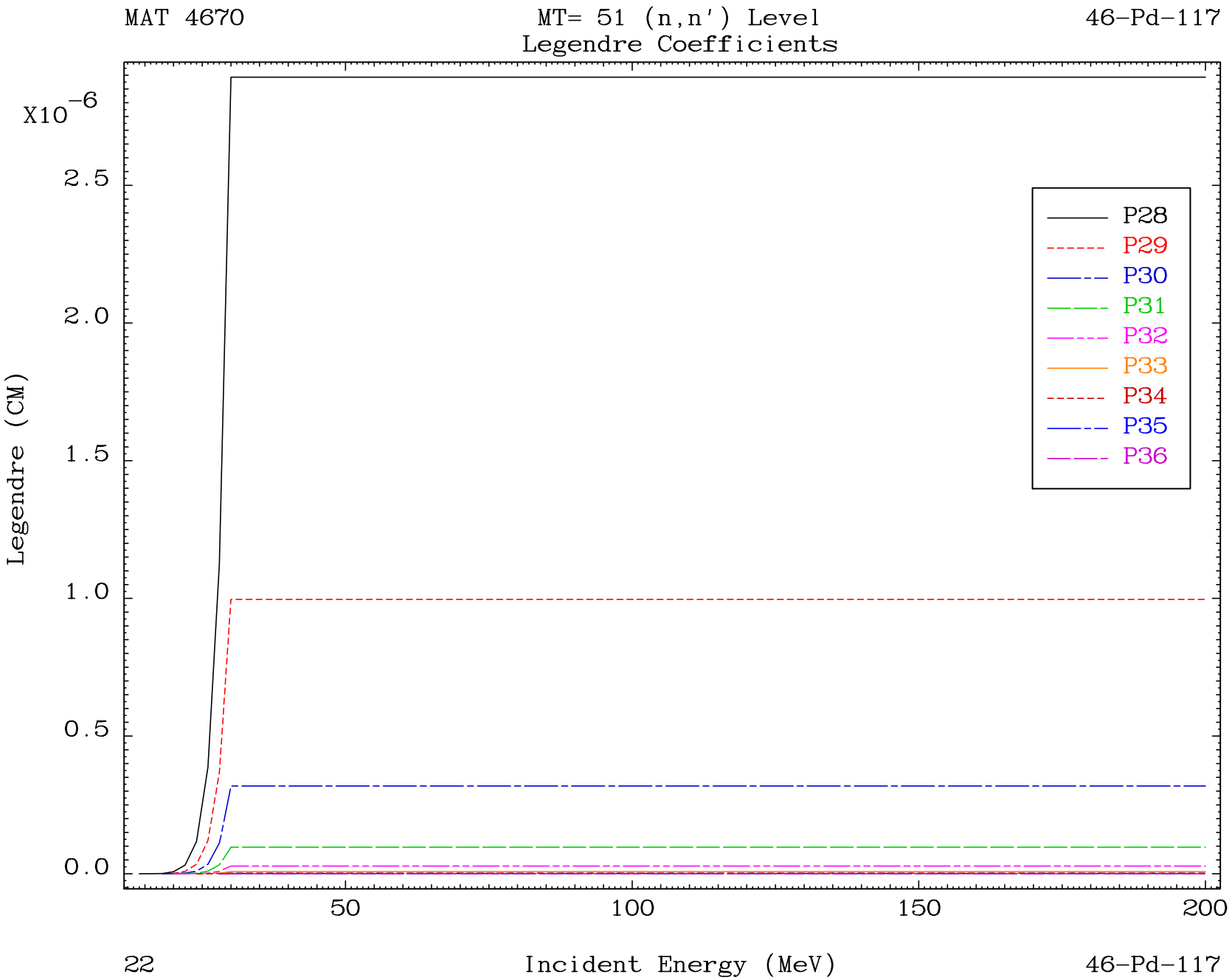

MAT 4670
Elastic
Legendre Coefficients
46-Pd-117
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.006
0.004
0.002
0.000
Legendre (CM)
10
15
20
25
30
17
Incident Energy (MeV)
46-Pd-117

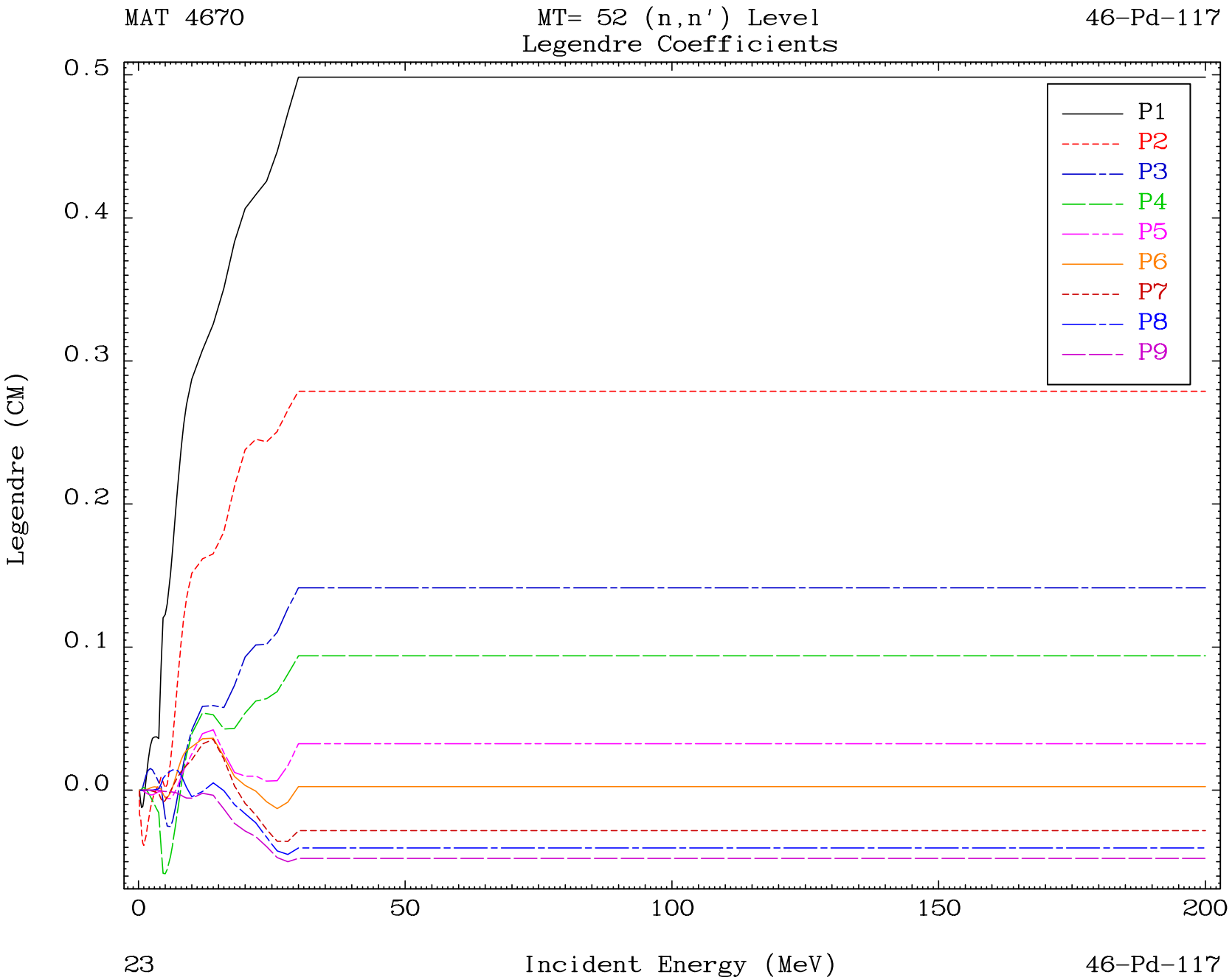

MAT 4670
Elastic
Legendre Coefficients
46-Pd-117
X10-3
P28
P29
P30
P31
P32
P33
P34
Legendre (CM)
2
1
0
15
20
25
30
18
Incident Energy (MeV)
46-Pd-117

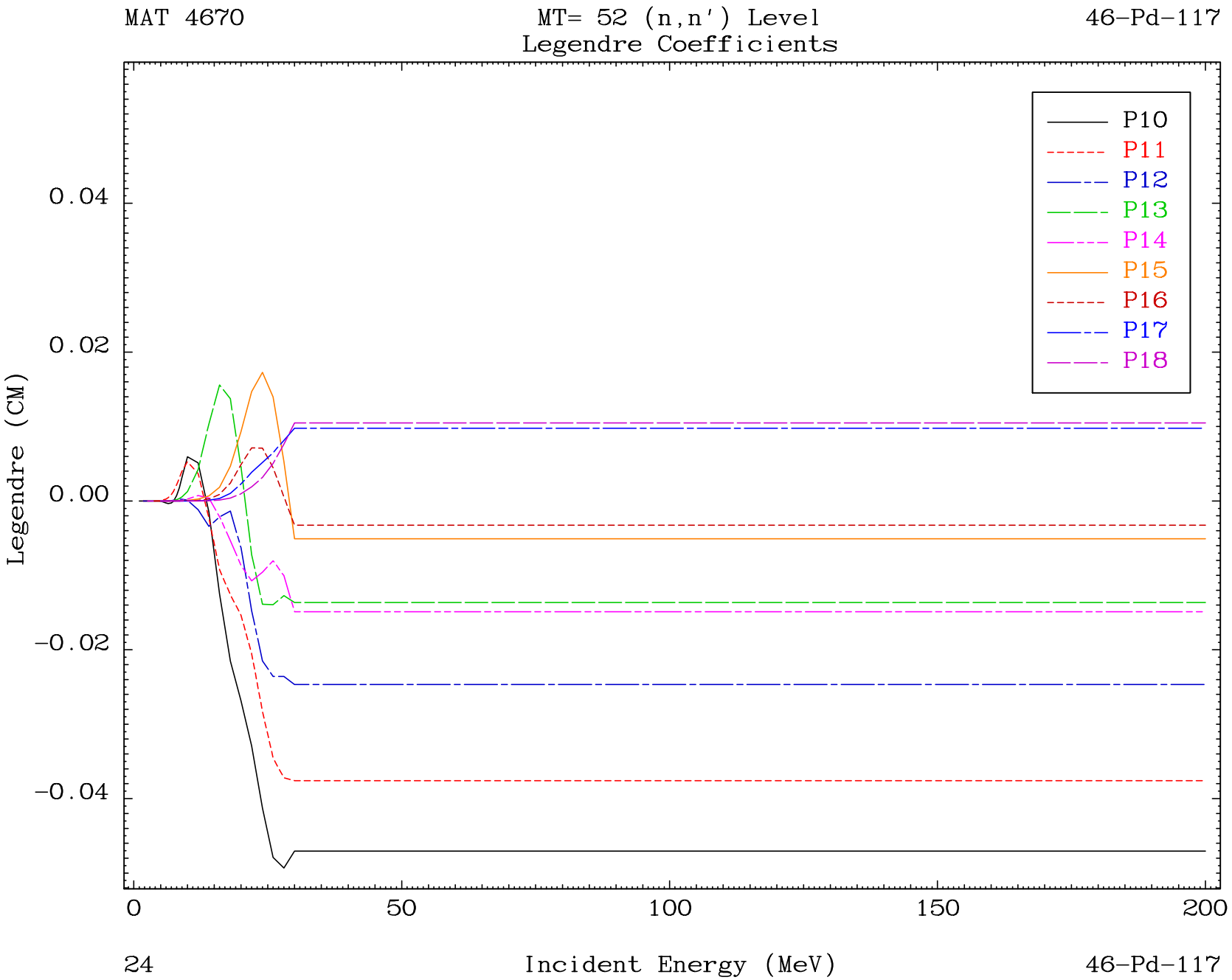

MAT 4670
MT= 51 (n,n') Level
Legendre Coefficients
46-Pd-117
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
19
Incident Energy (MeV)
46-Pd-117

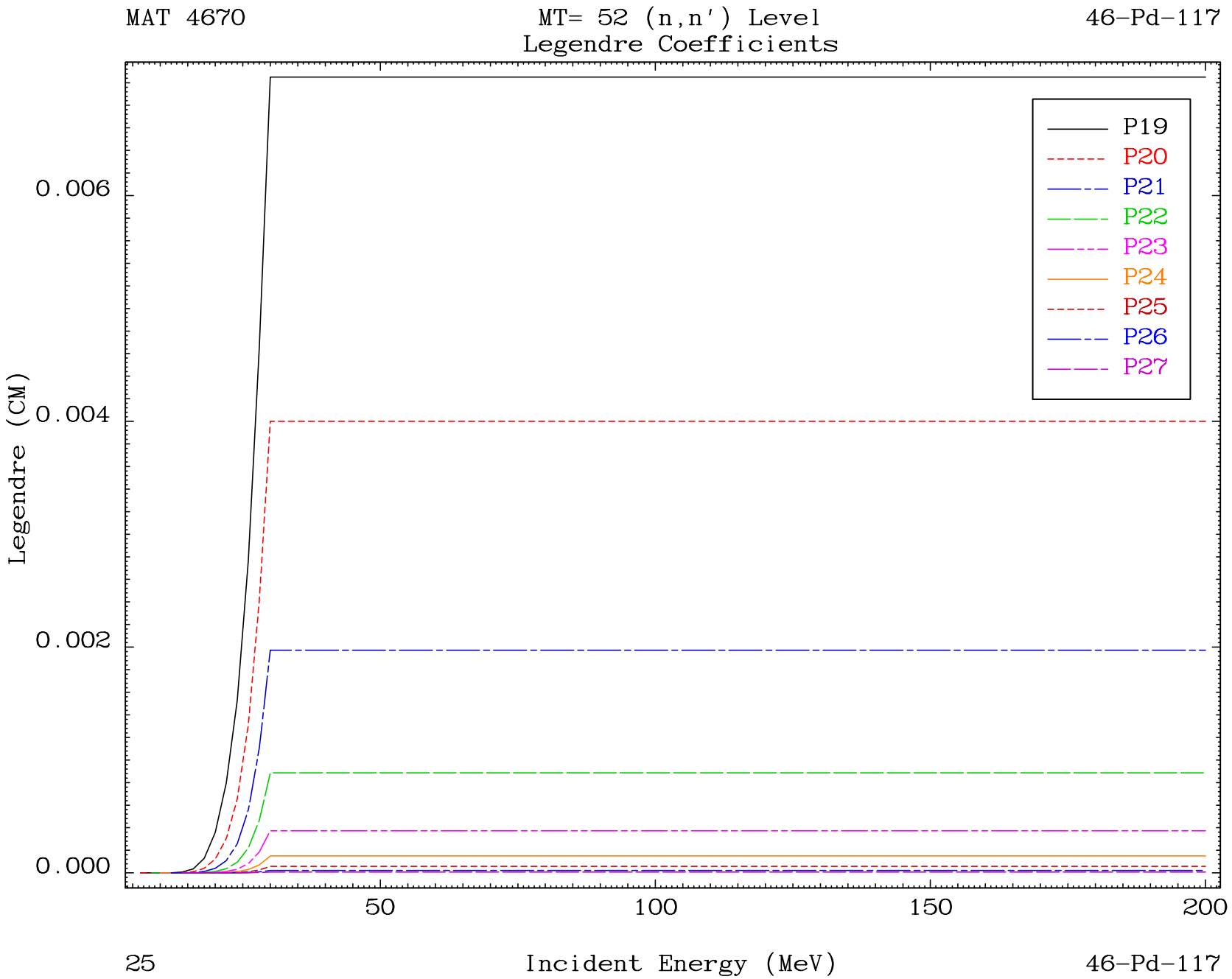

MAT 4670
MT= 51 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
20
Incident Energy (MeV)
46-Pd-117

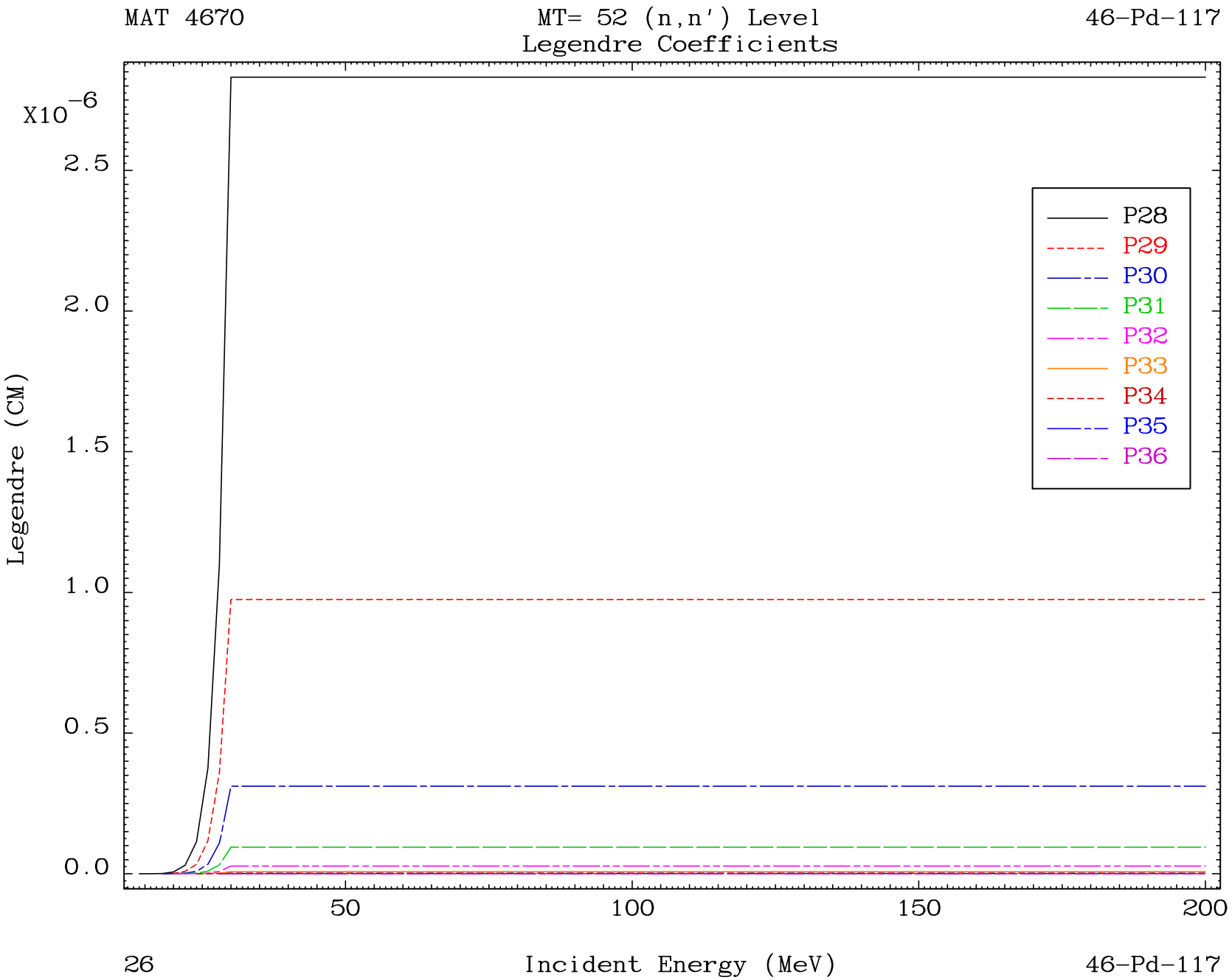

MAT 4670
MT= 51 (n,n') Level
Legendre Coefficients
46-Pd-117
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.006
0.004
0.002
0.000
Legendre (CM)
50
100
150
200
21
Incident Energy (MeV)
46-Pd-117

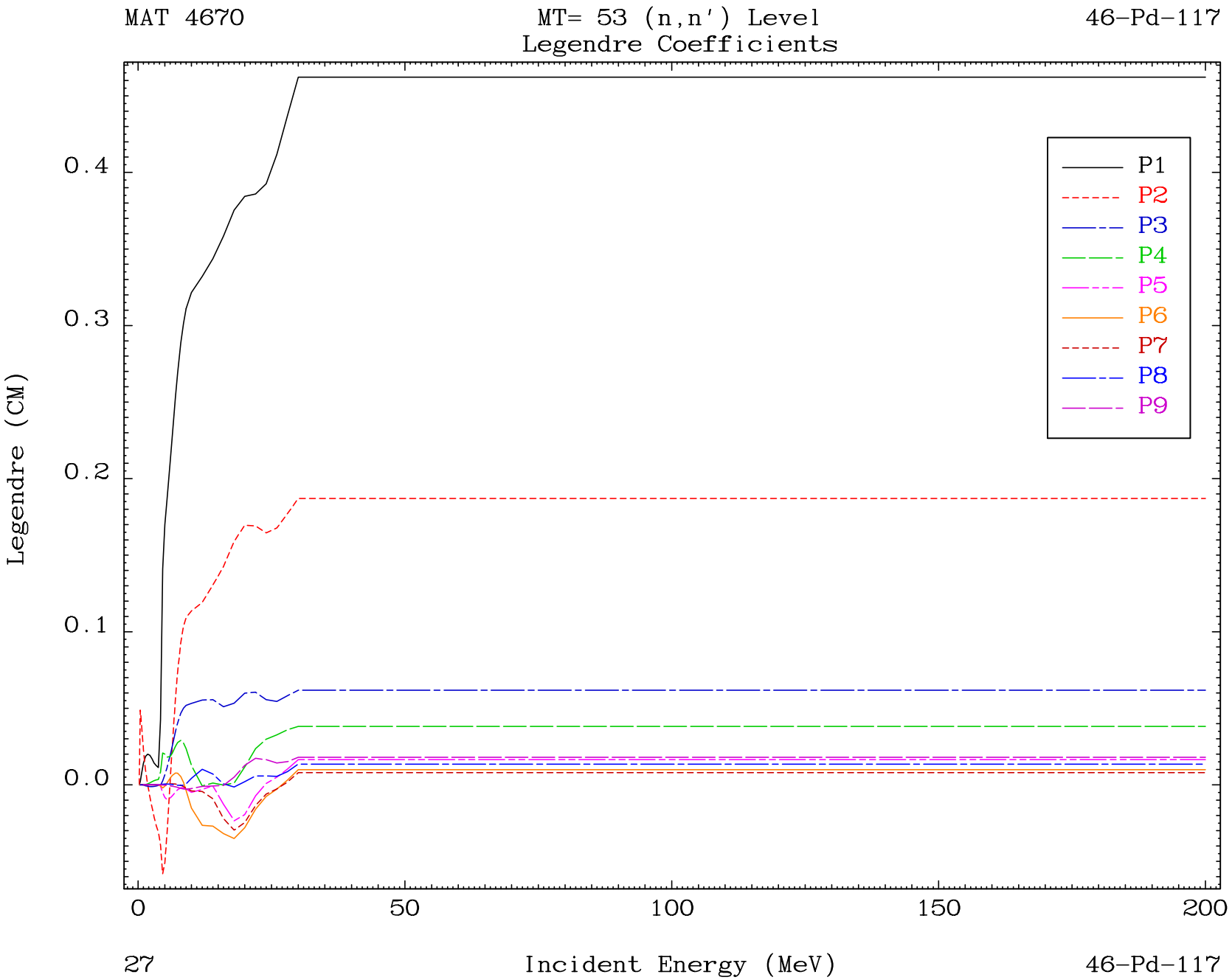

MAT 4670
MT= 51 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-6
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
22
Incident Energy (MeV)
46-Pd-117

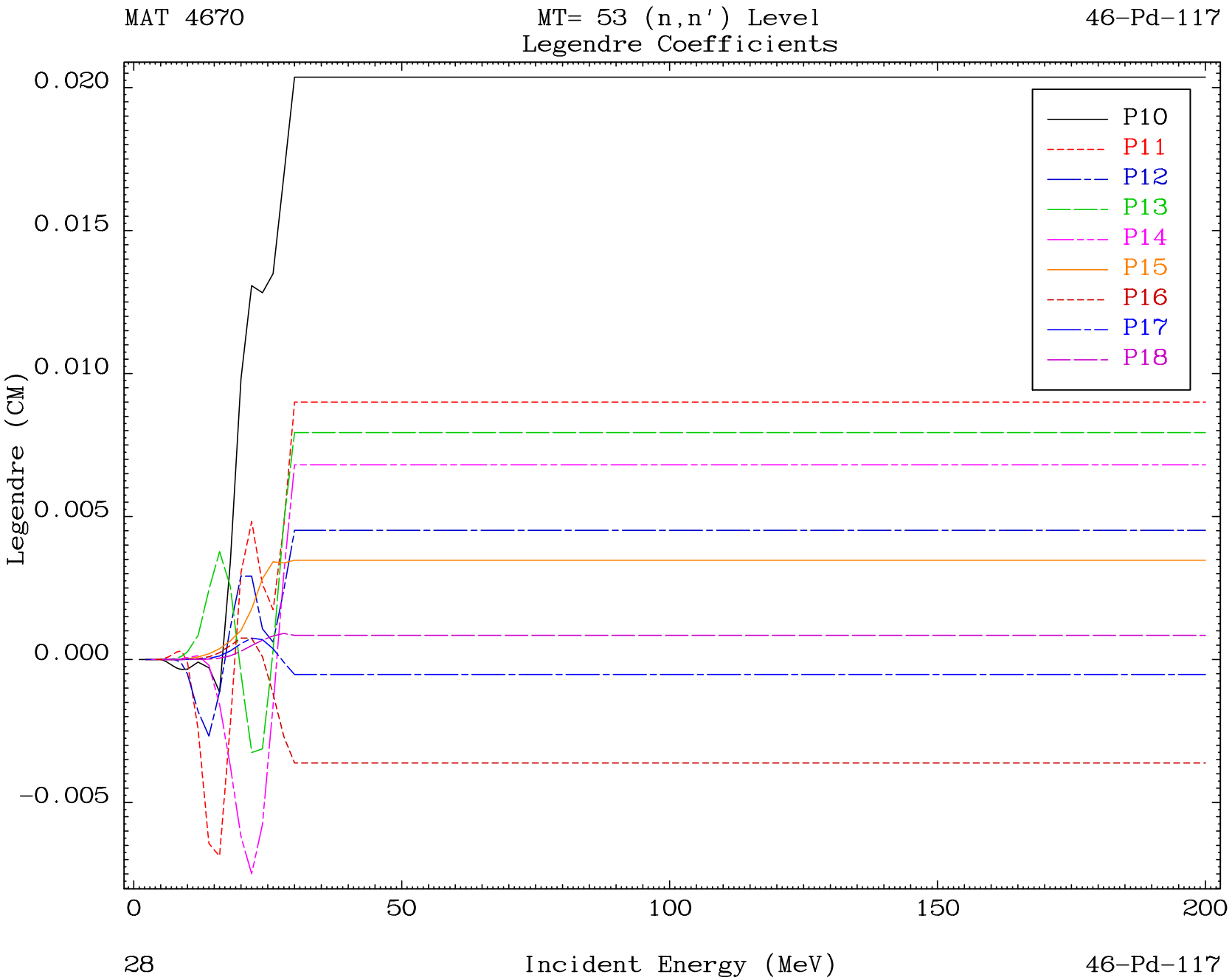

MAT 4670
MT= 52 (n,n') Level
Legendre Coefficients
46-Pd-117
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
23
Incident Energy (MeV)
46-Pd-117

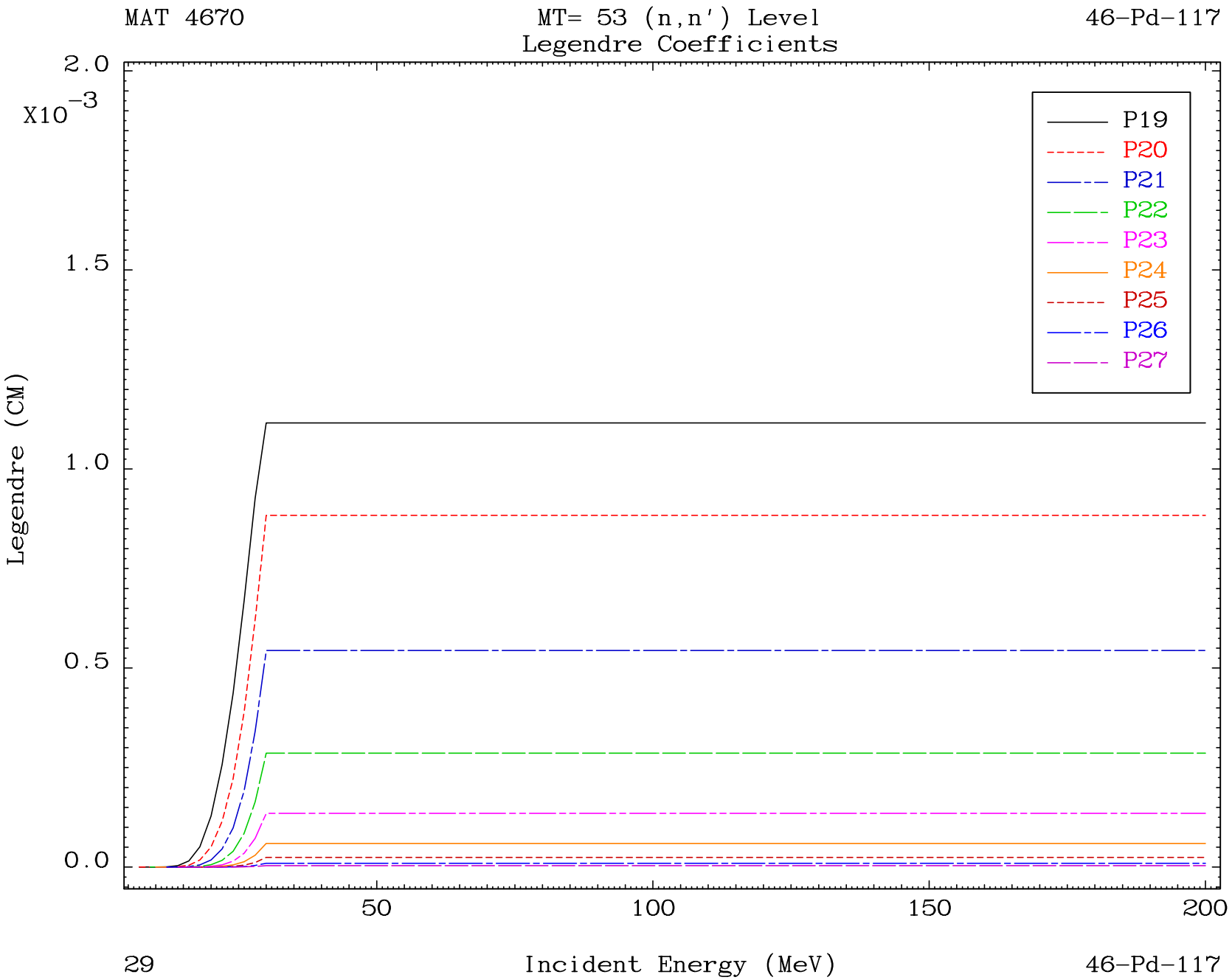

MAT 4670
MT= 52 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
24
Incident Energy (MeV)
46-Pd-117

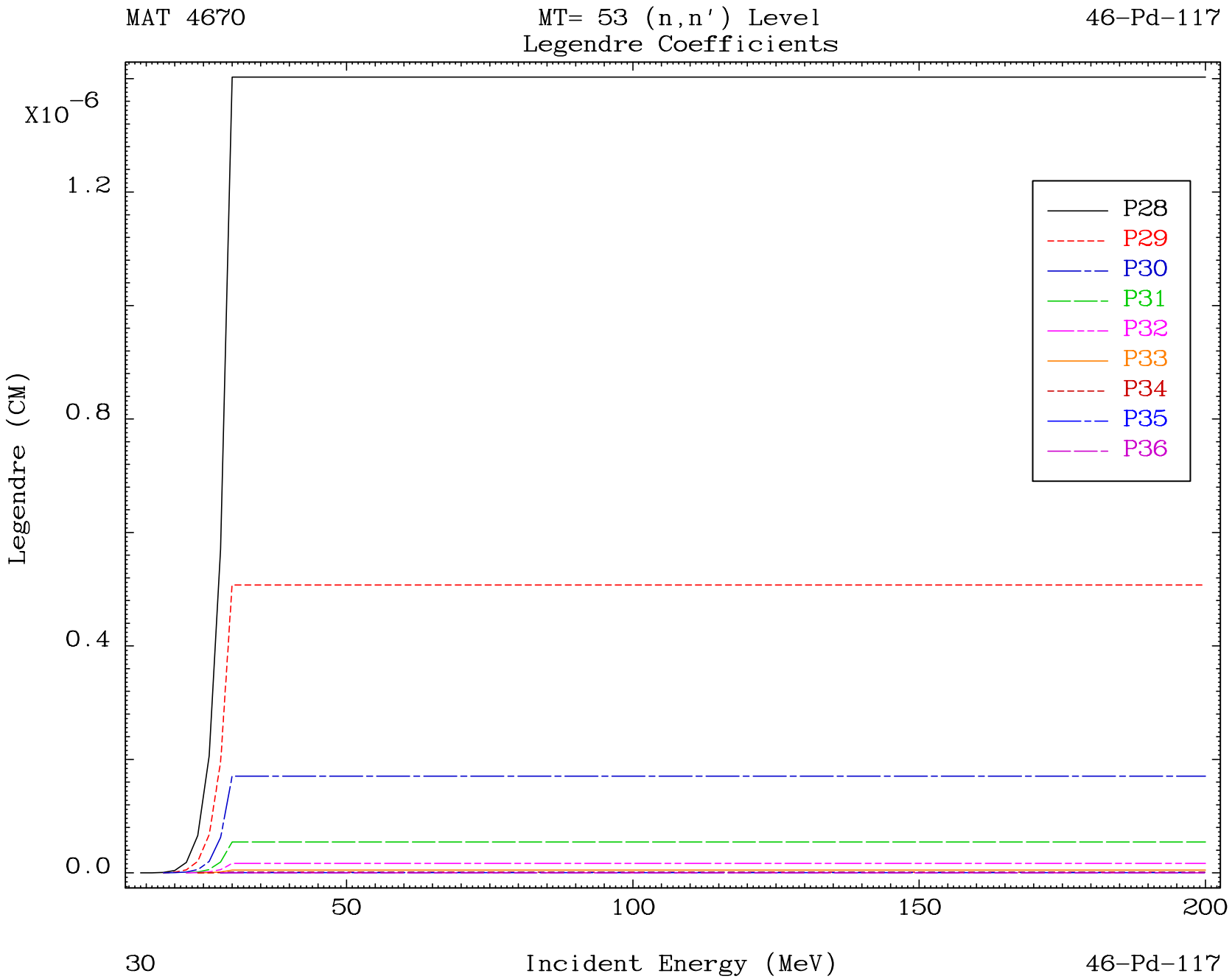

MAT 4670
MT= 52 (n,n') Level
Legendre Coefficients
46-Pd-117
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.006
0.004
0.002
0.000
Legendre (CM)
50
100
150
200
25
Incident Energy (MeV)
46-Pd-117

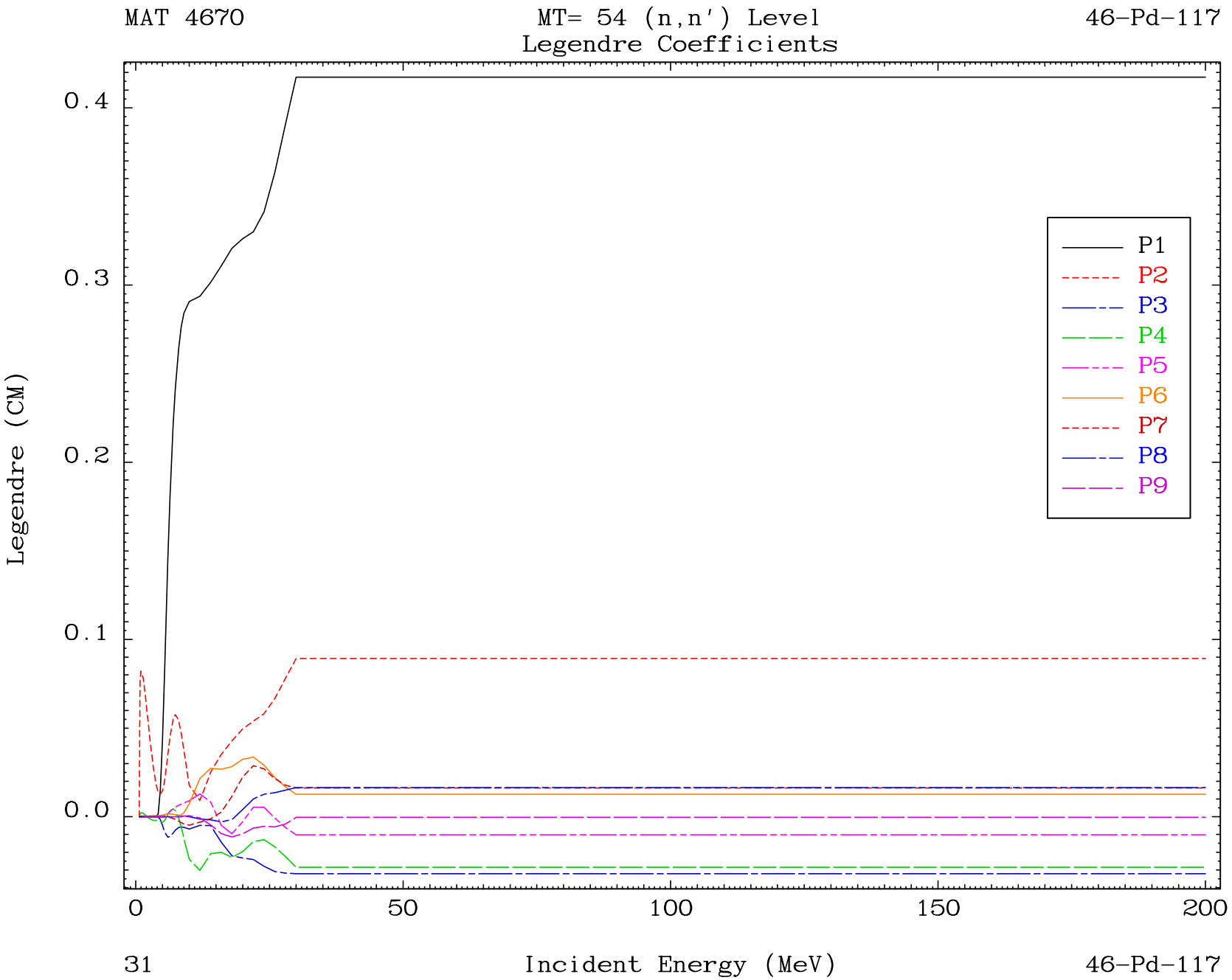

MAT 4670
MT= 52 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-6
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
26
Incident Energy (MeV)
46-Pd-117

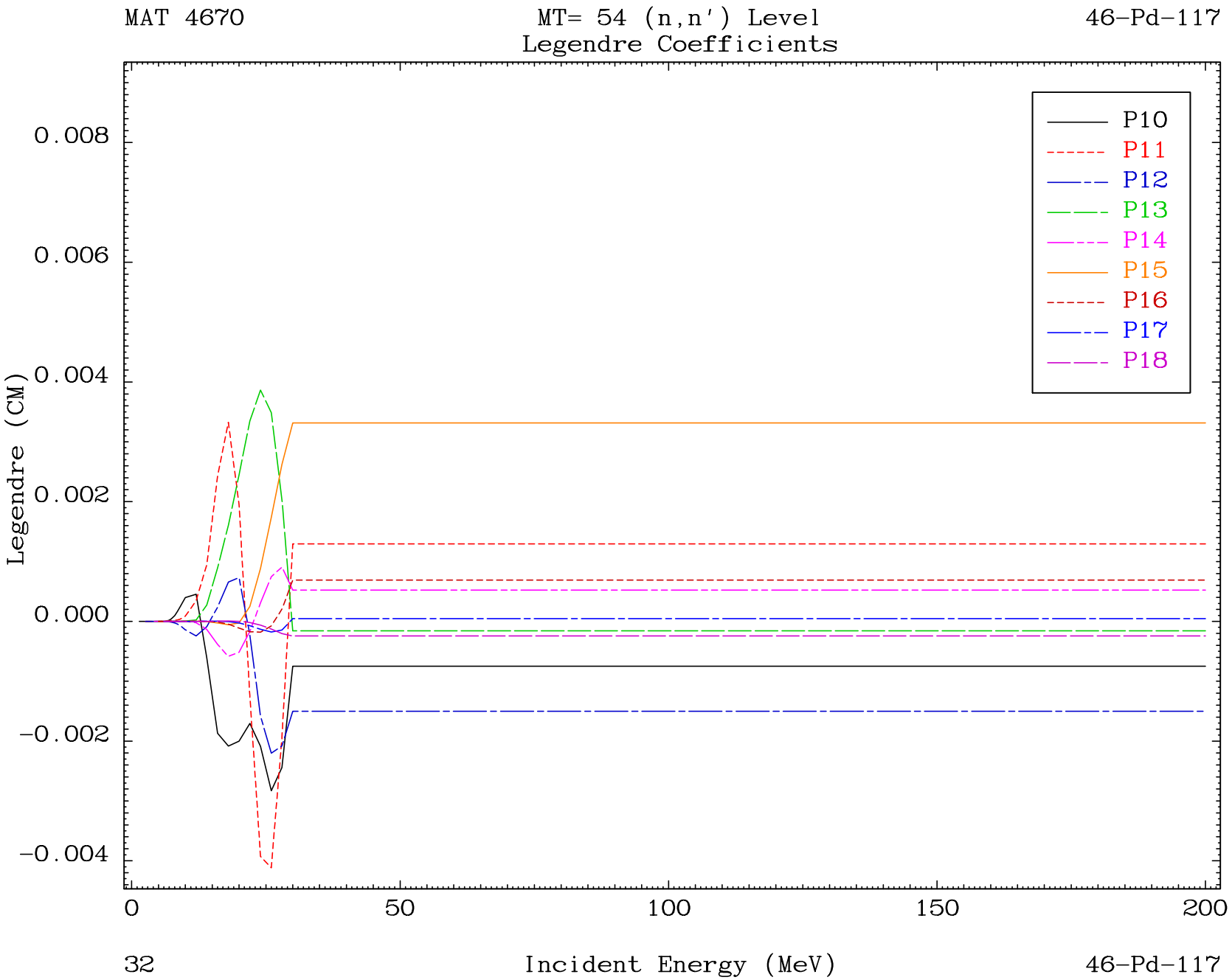

MAT 4670
MT= 53 (n,n') Level
Legendre Coefficients
46-Pd-117
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
27
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9

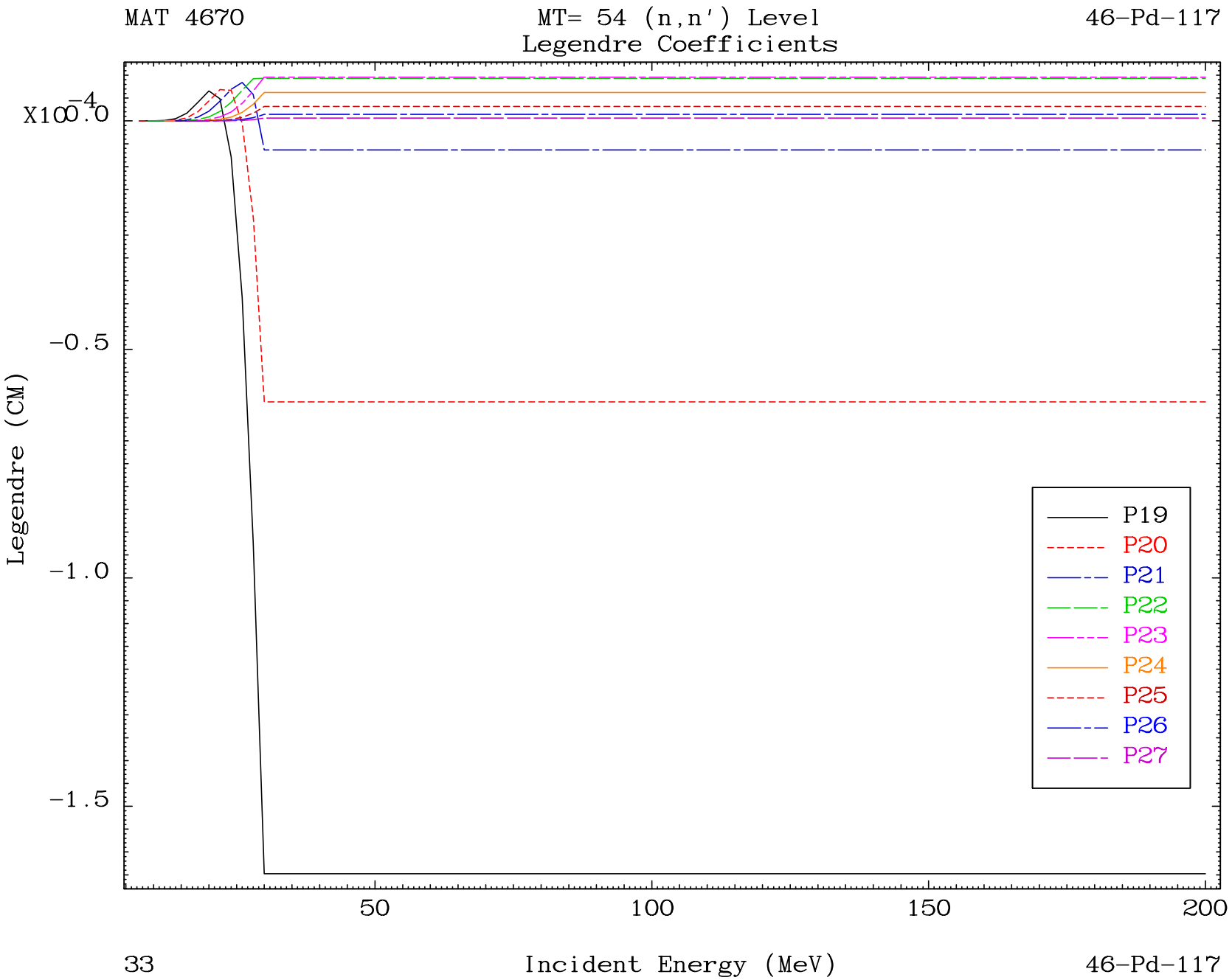

MAT 4670
MT= 53 (n,n') Level
Legendre Coefficients
46-Pd-117
0.020
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
28
Incident Energy (MeV)
46-Pd-117

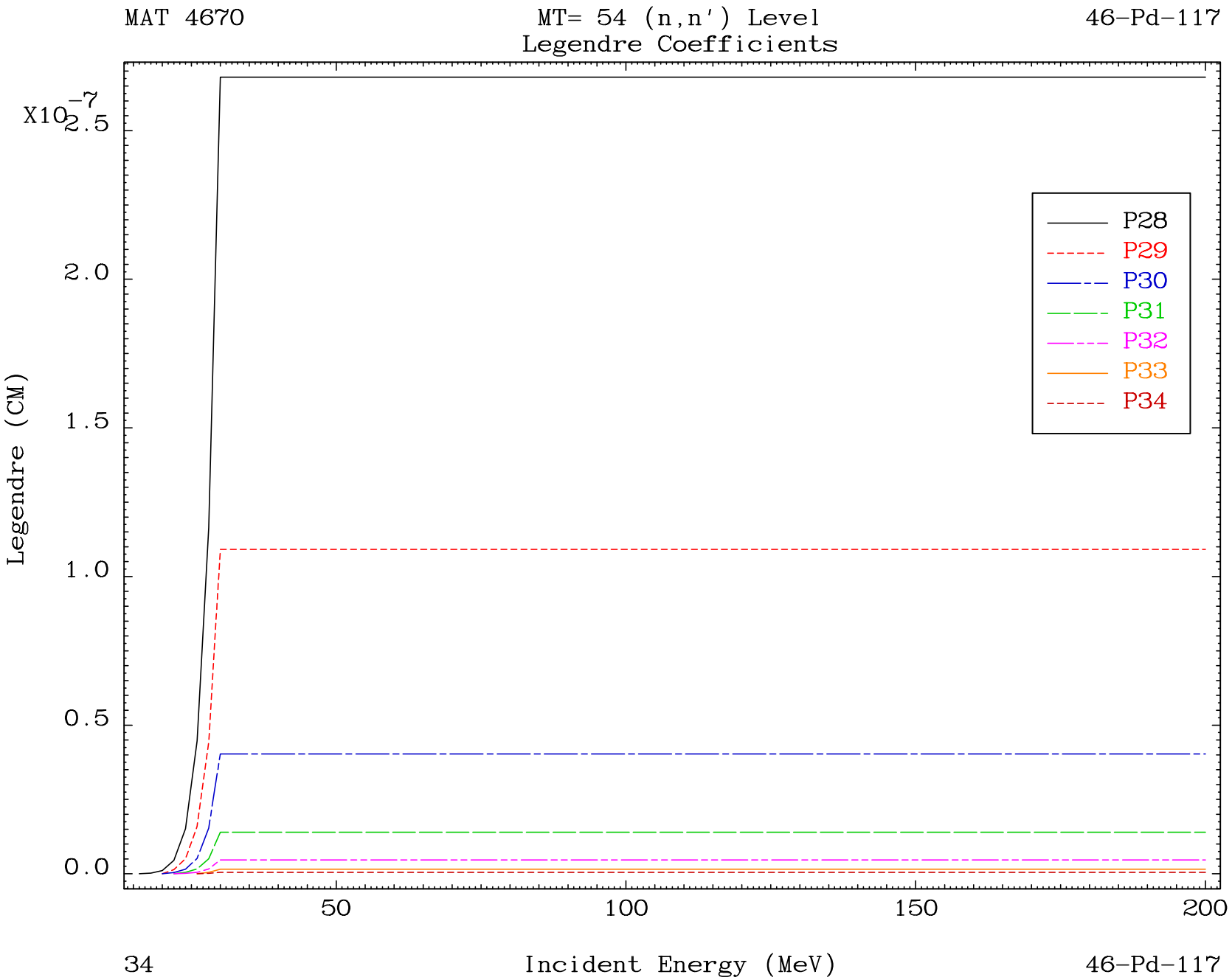

MAT 4670
MT= 53 (n,n') Level
Legendre Coefficients
46-Pd-117
2.0
X10^-3
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
29
Incident Energy (MeV)
46-Pd-117

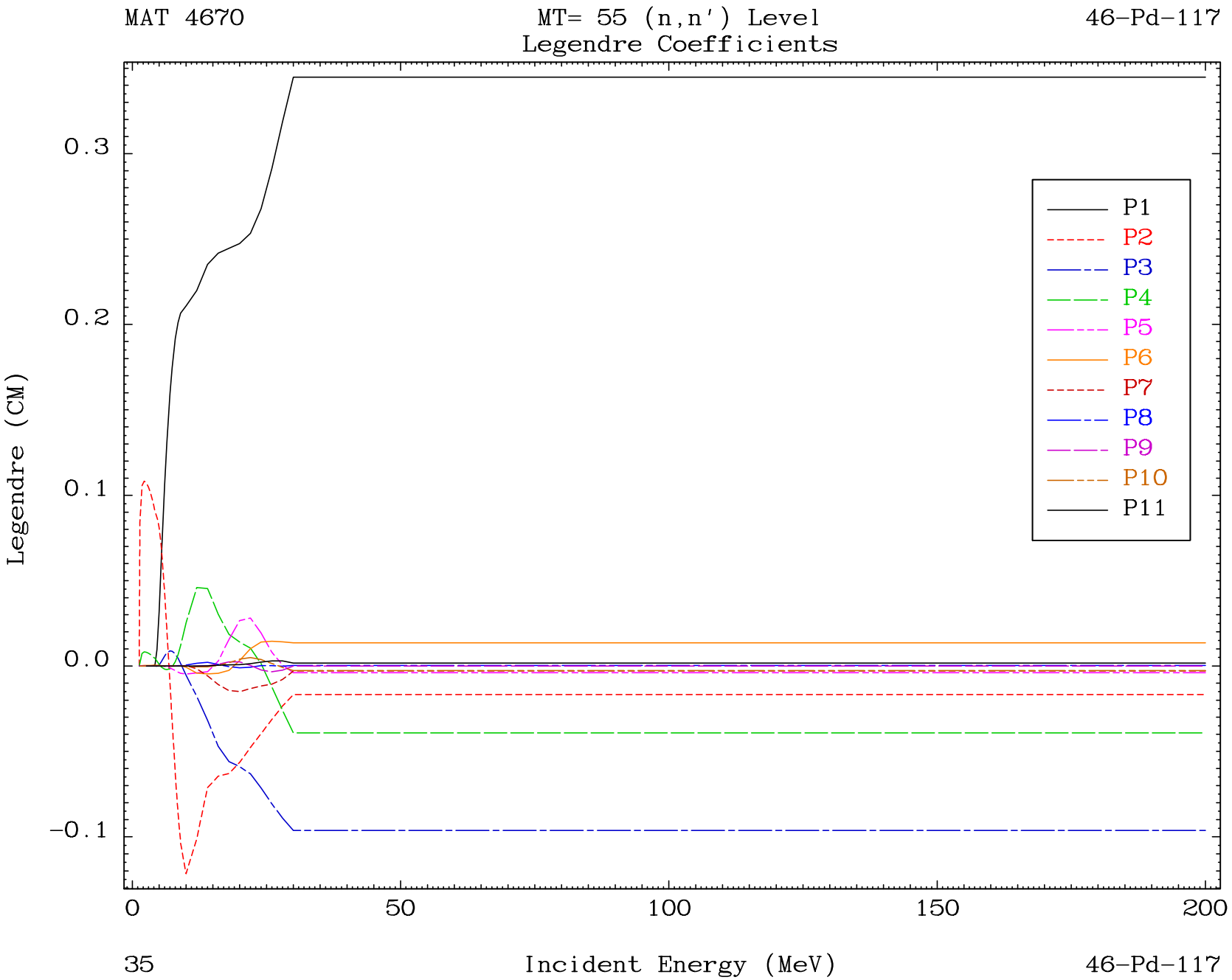

MAT 4670
MT= 53 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-6
1.2
0.8
0.4
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
30
Incident Energy (MeV)
46-Pd-117

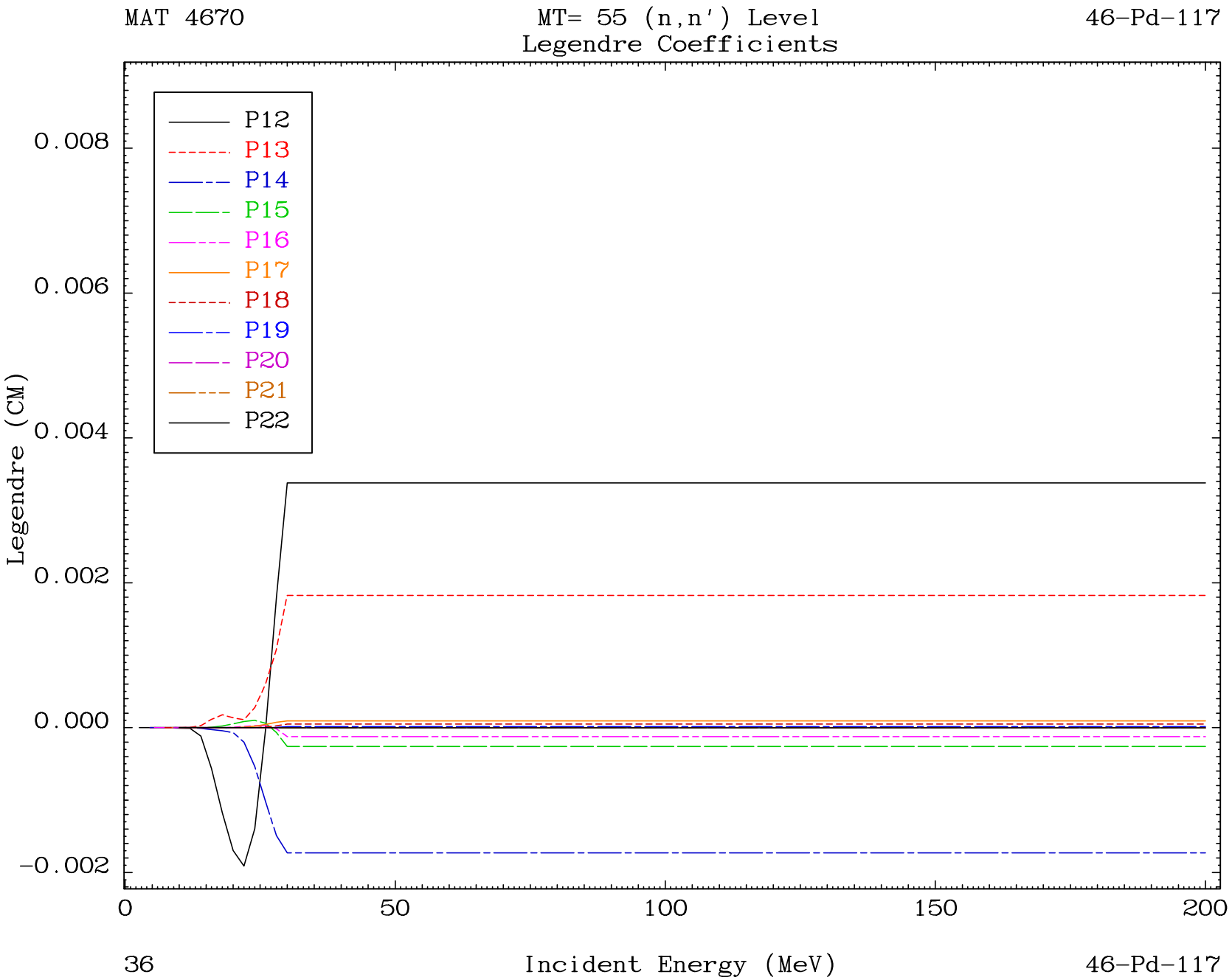

MAT 4670
MT= 54 (n,n') Level
Legendre Coefficients
46-Pd-117
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
31
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9

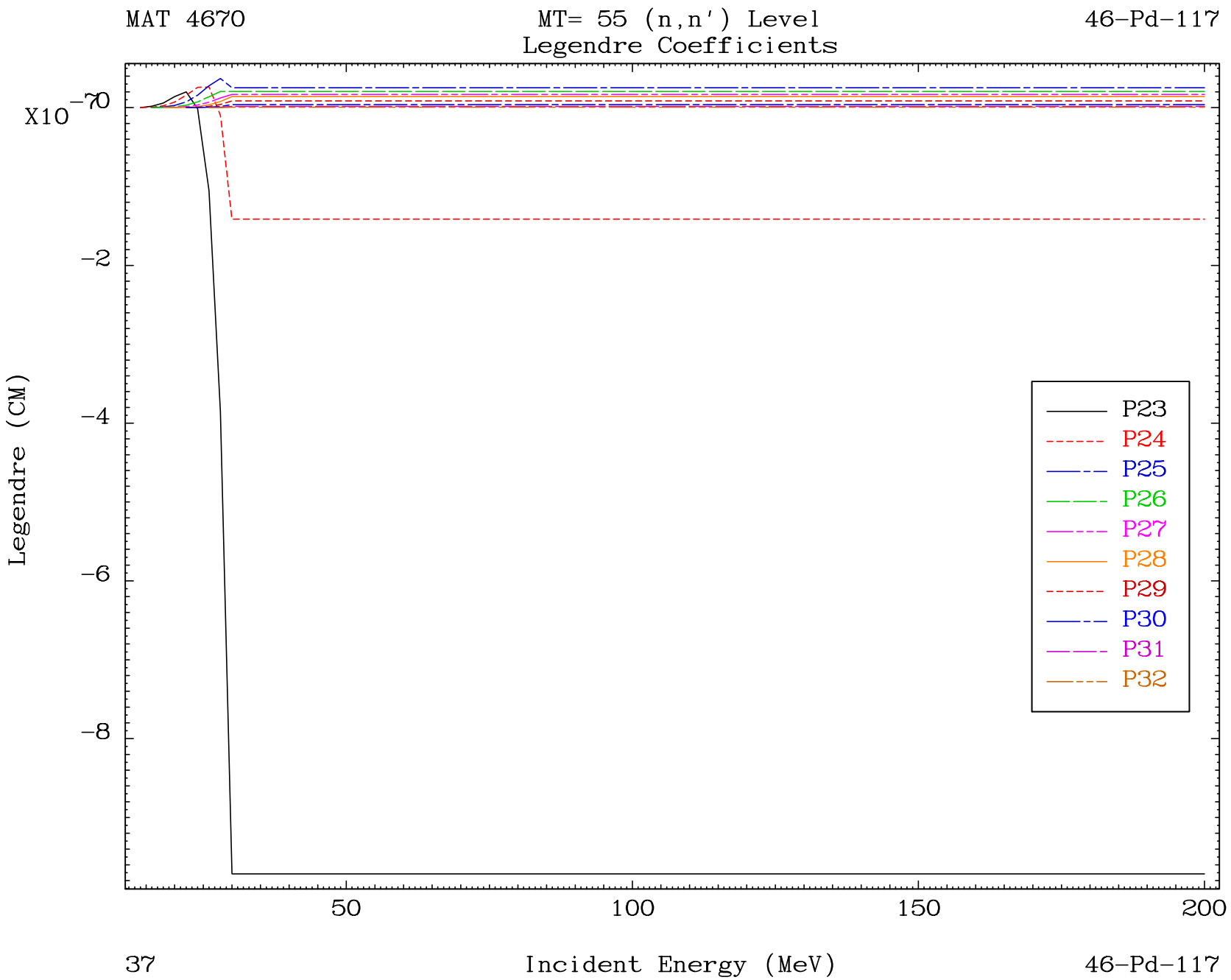

MAT 4670
MT= 54 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
Legendre (CM)
0
50
100
150
200
32
Incident Energy (MeV)
46-Pd-117

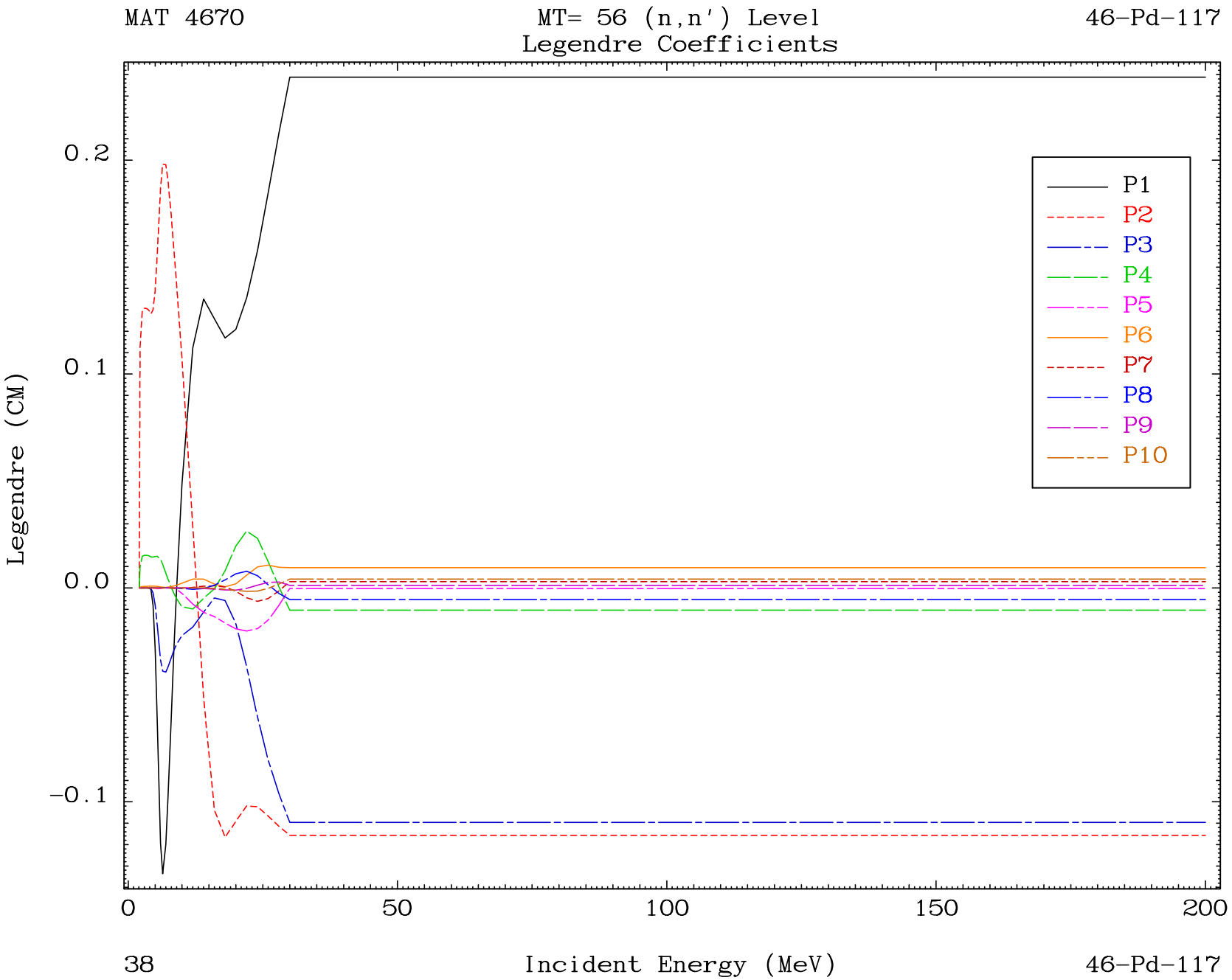

MAT 4670
MT= 54 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-4
0.0
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
33
Incident Energy (MeV)
46-Pd-117
P19
P20
P21
P22
P23
P24
P25
P26
P27

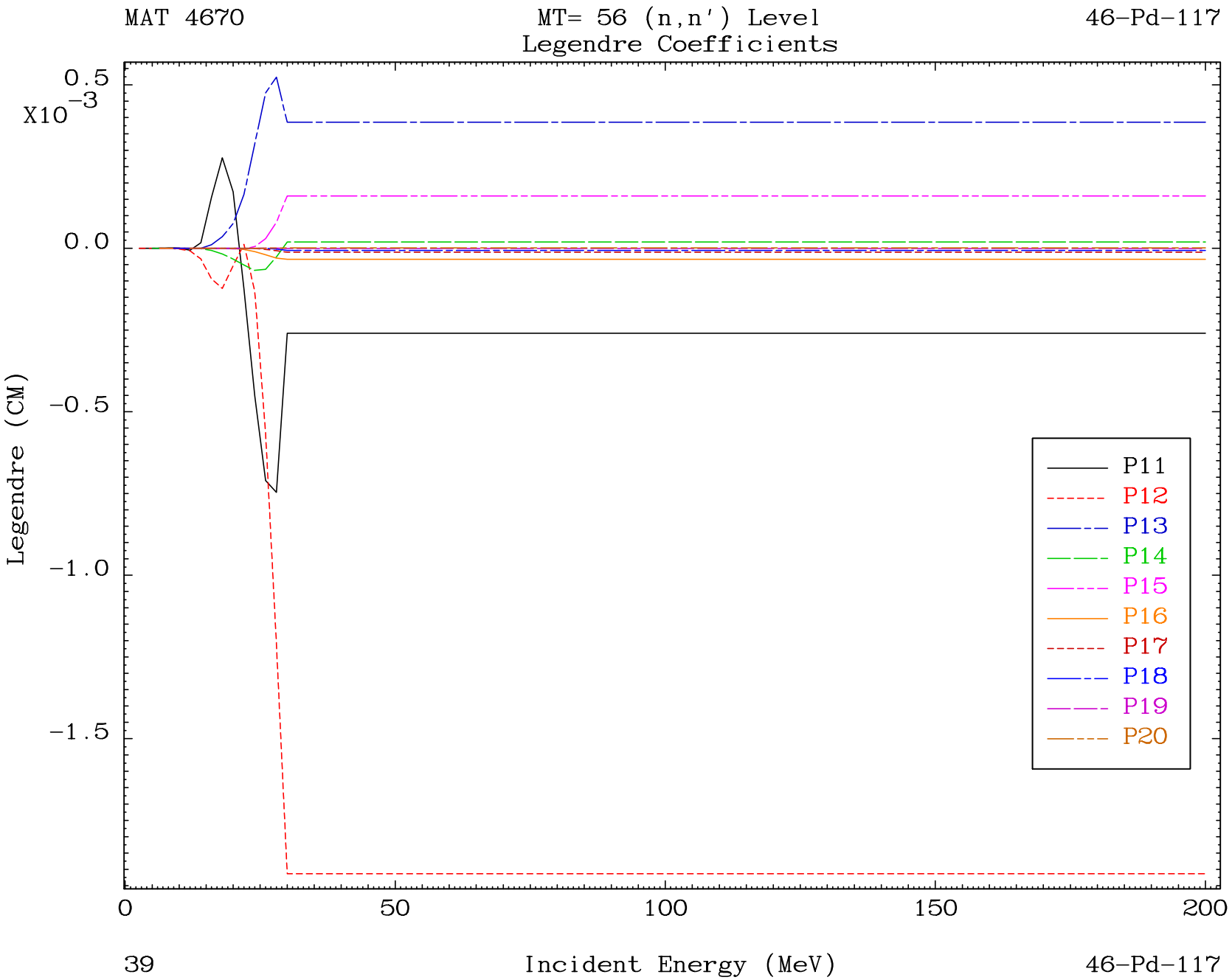

MAT 4670
MT= 54 (n,n') Level
Legendre Coefficients
46-Pd-117
X10-7
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
34
Incident Energy (MeV)
46-Pd-117

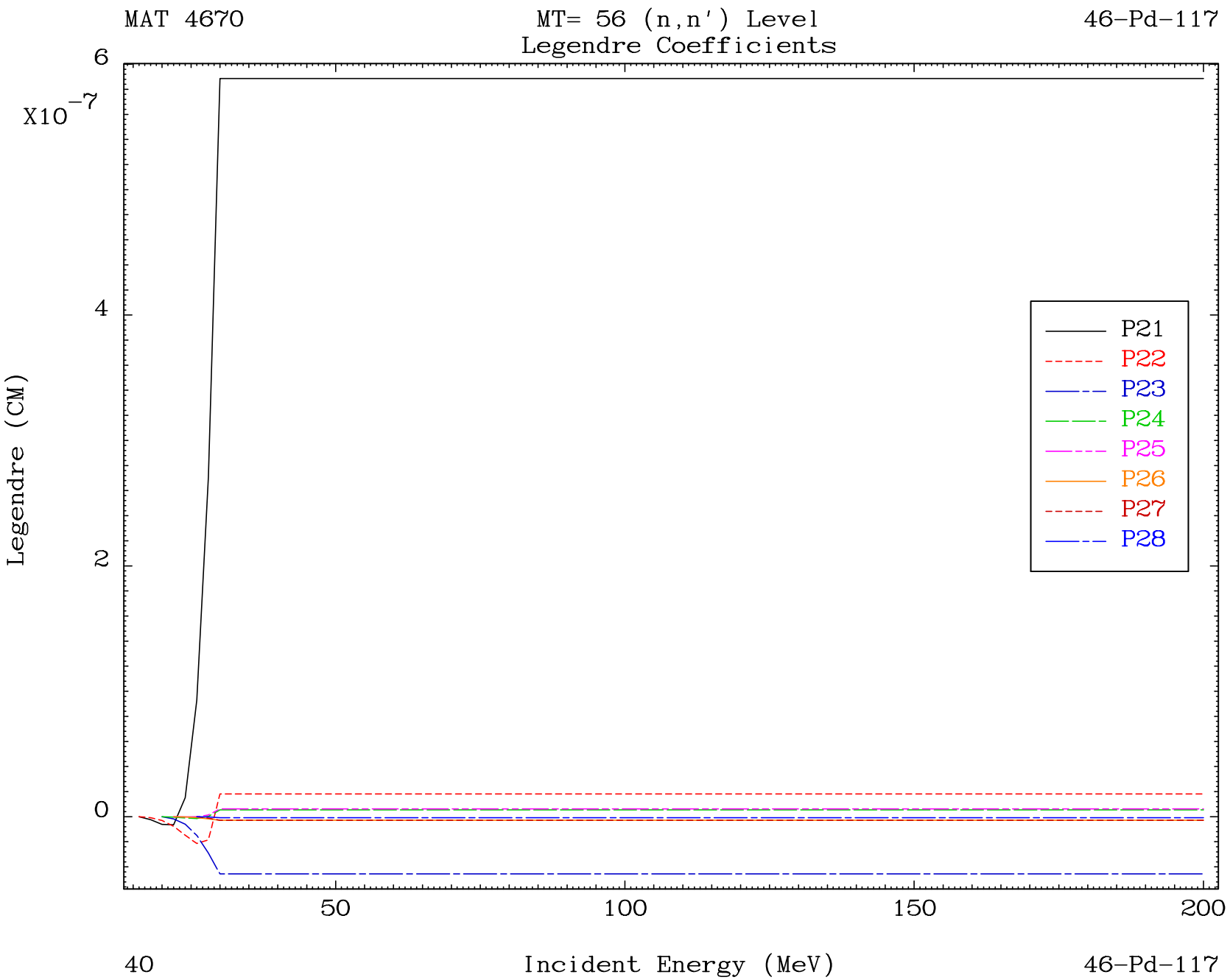

MAT 4670
MT= 55 (n,n') Level
Legendre Coefficients
46-Pd-117
Legendre (CM)
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
35
Incident Energy (MeV)
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11

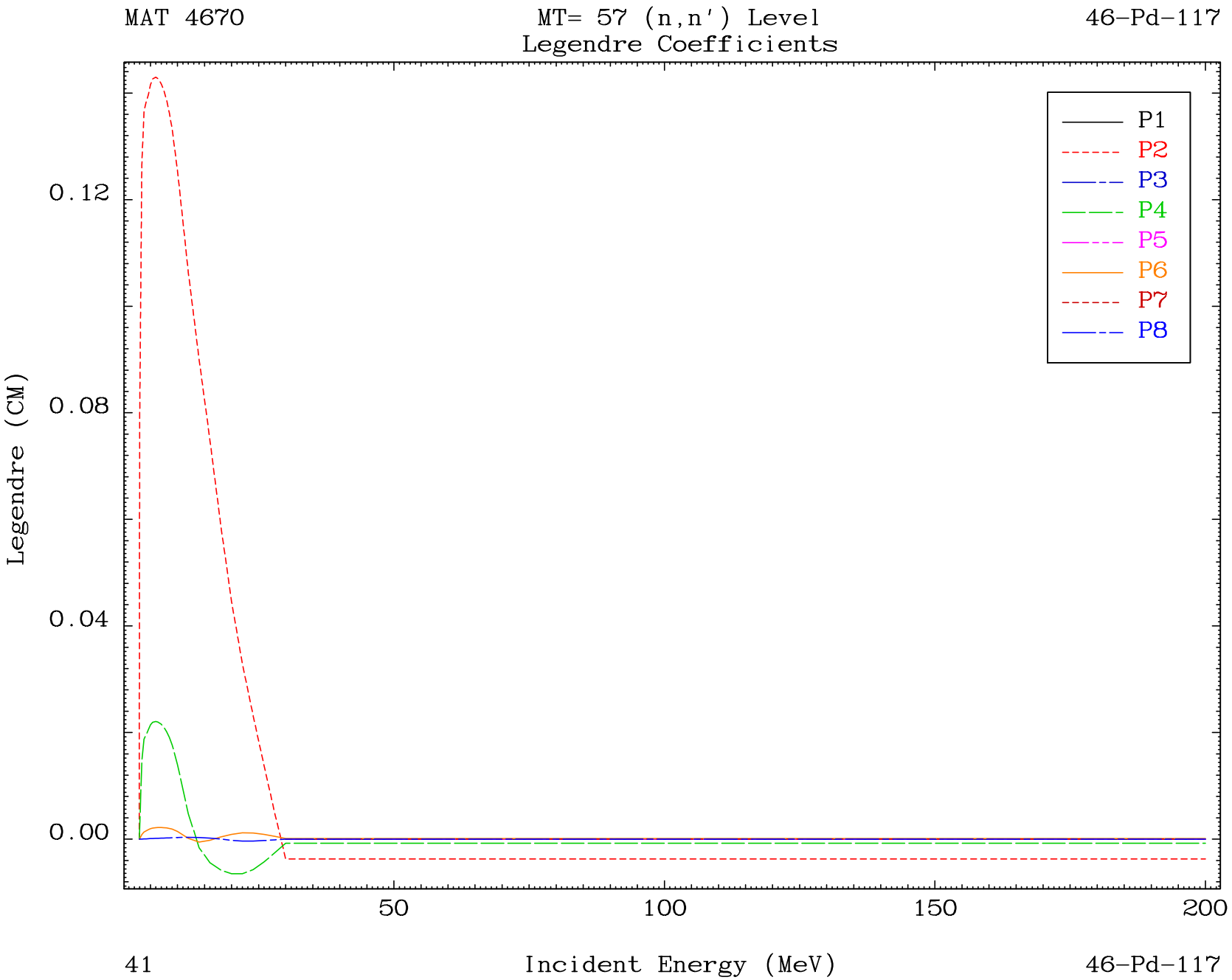

MAT 4670
MT= 55 (n,n') Level
Legendre Coefficients
46-Pd-117
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
0.008
0.006
0.004
0.002
0.000
-0.002
Legendre (CM)
0
50
100
150
200
36
Incident Energy (MeV)
46-Pd-117

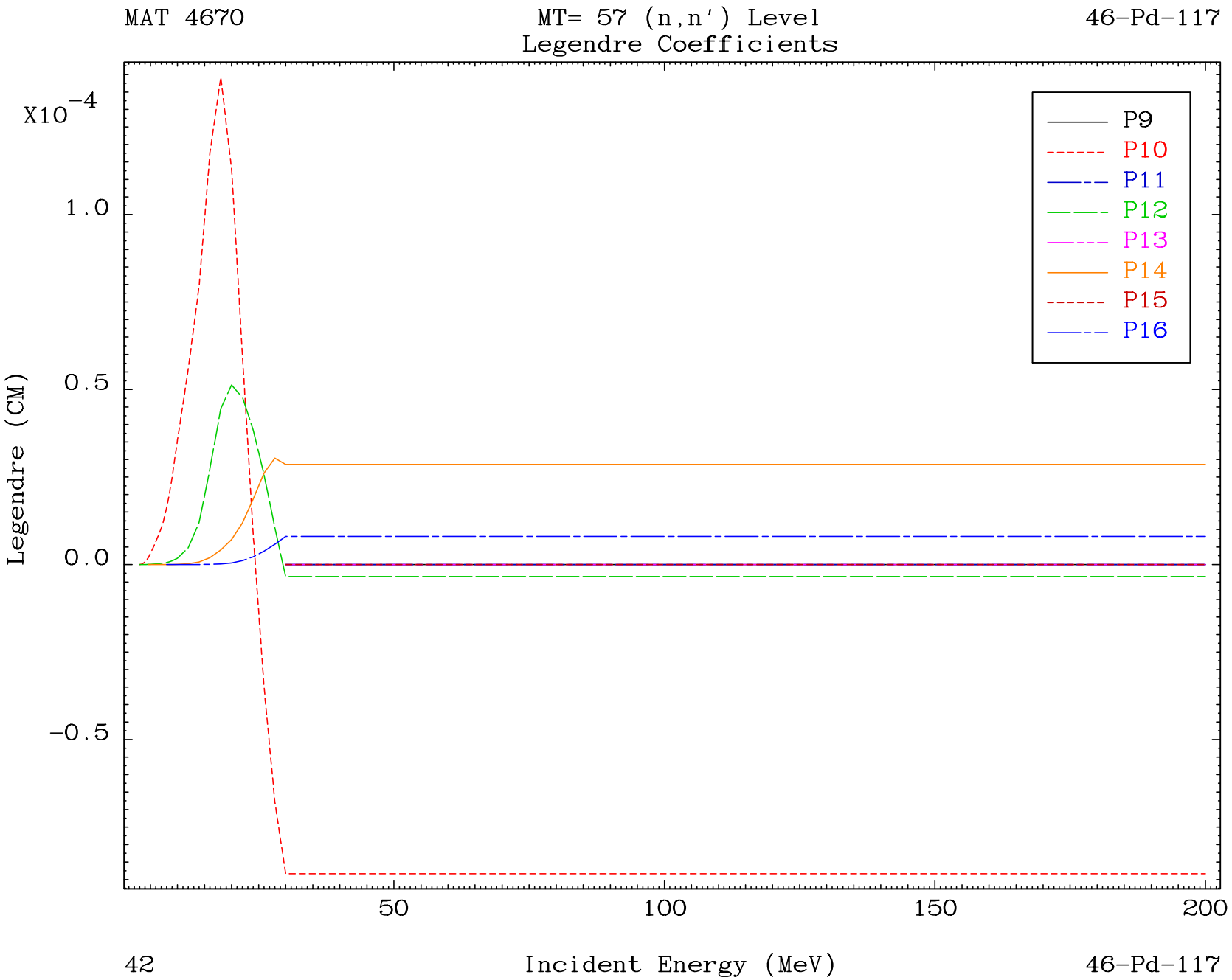

MAT 4670
MT= 55 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-0
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
37
Incident Energy (MeV)
46-Pd-117
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32

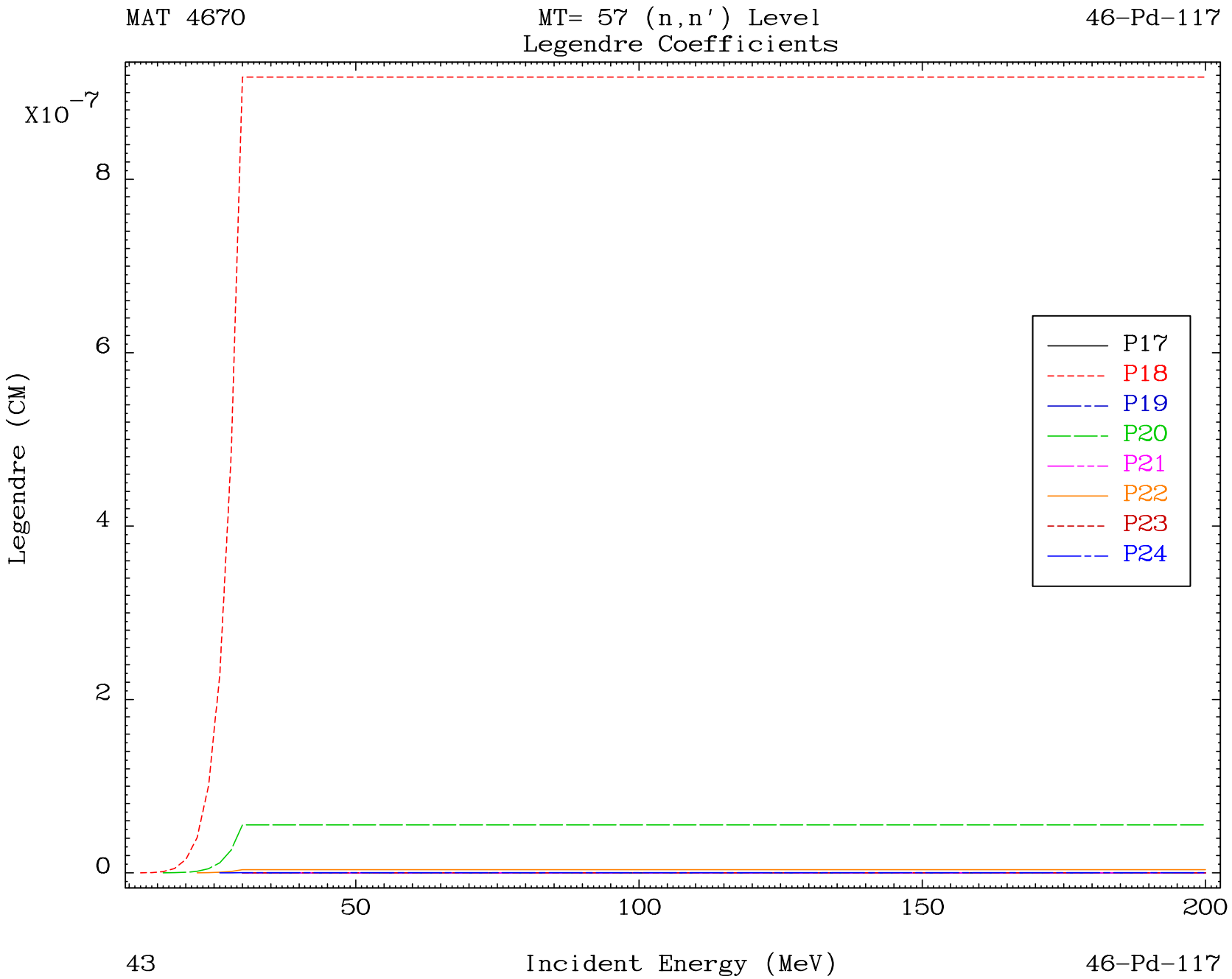

MAT 4670
MT= 56 (n,n') Level
Legendre Coefficients
46-Pd-117
0.2
0.1
0.0
-0.1
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
38
Incident Energy (MeV)
46-Pd-117

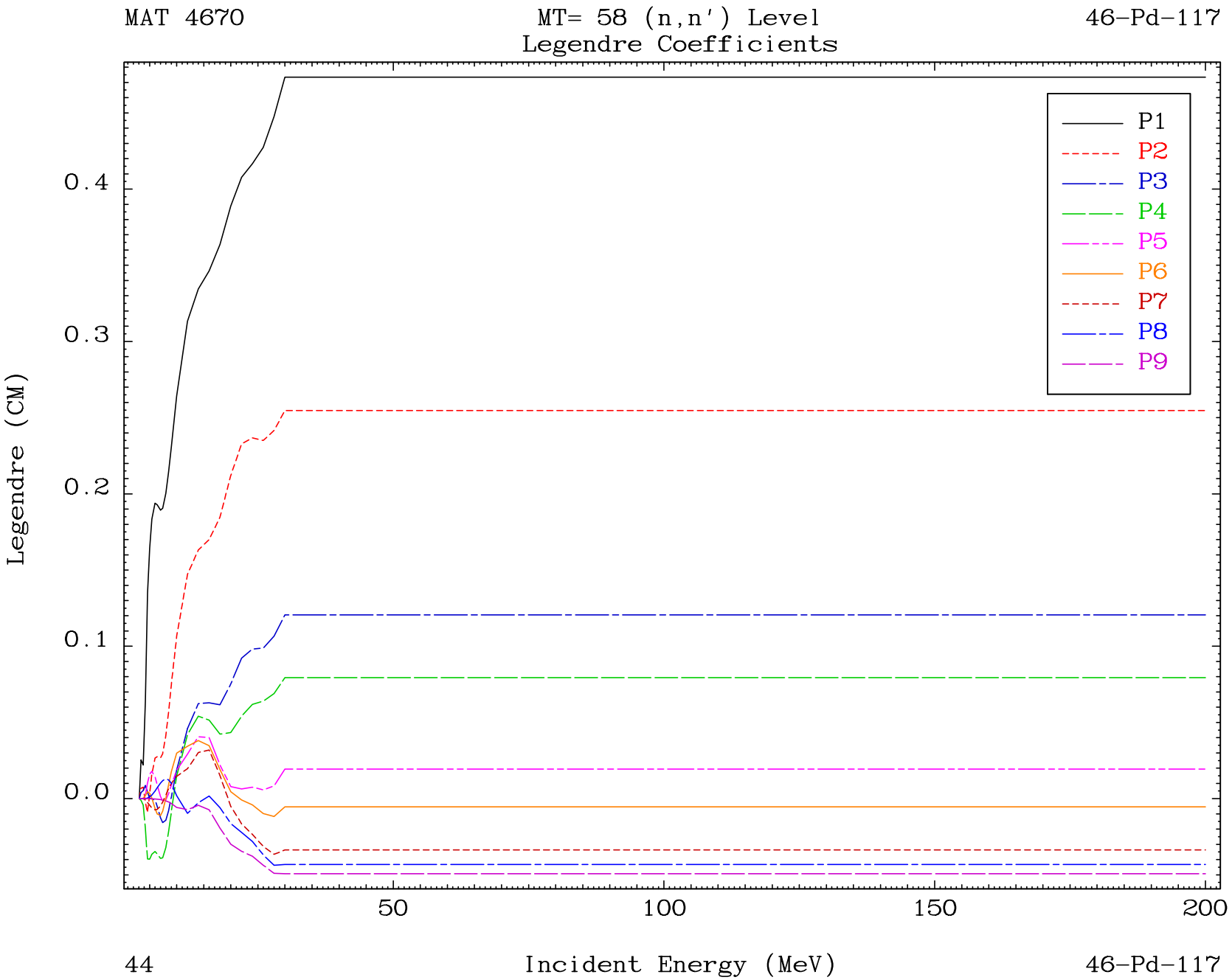

MAT 4670
MT= 56 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-3
0.5
0.0
-0.5
-1.0
-1.5
Legendre (CM)
0
50
100
150
200
39
Incident Energy (MeV)
46-Pd-117
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

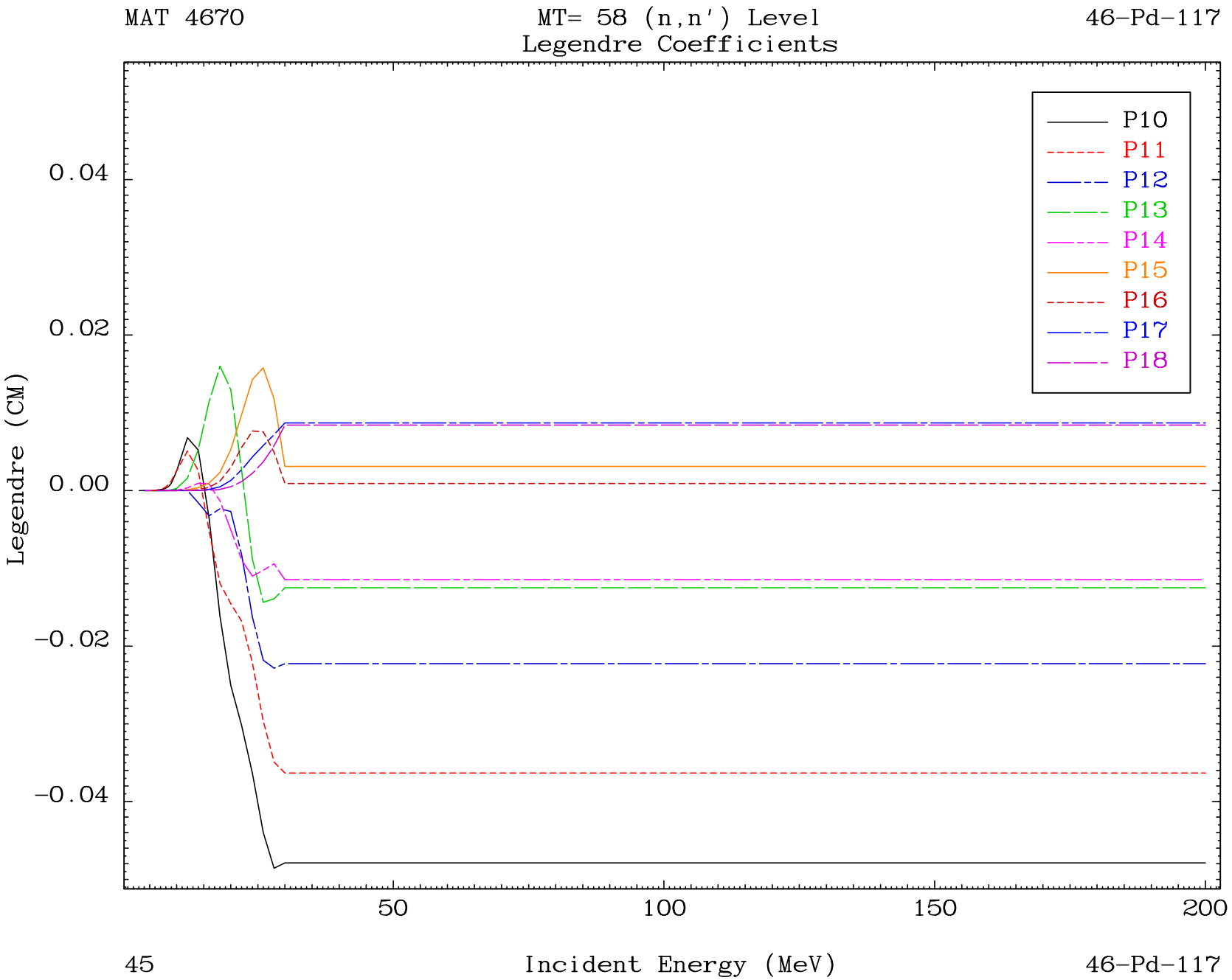

MAT 4670
MT= 56 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-7
6
4
2
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
40
50
100
150
200
Incident Energy (MeV)
46-Pd-117

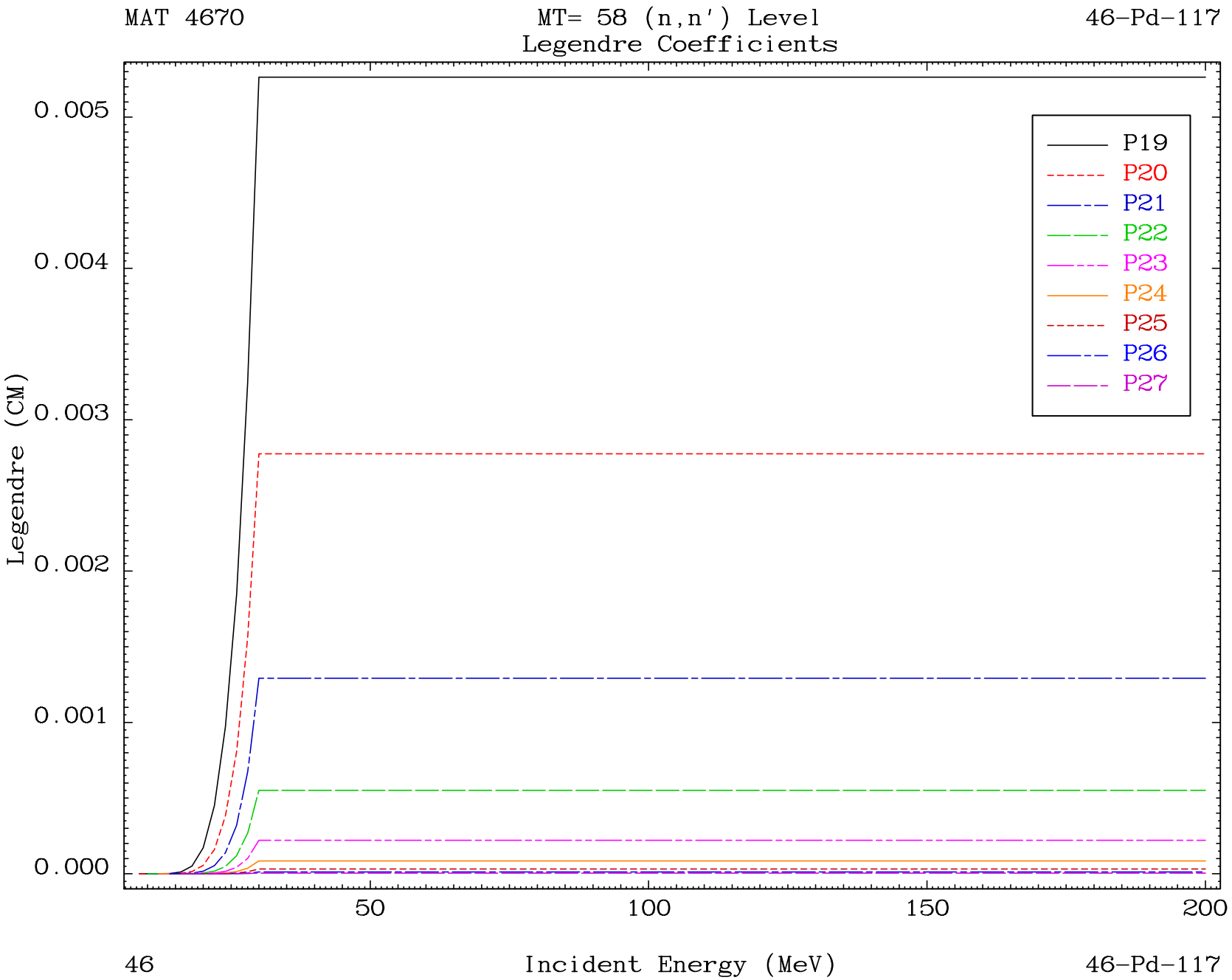

MAT 4670
MT= 57 (n,n') Level
Legendre Coefficients
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
0.12
0.08
0.04
0.00
Legendre (CM)
50
100
150
200
41
Incident Energy (MeV)
46-Pd-117

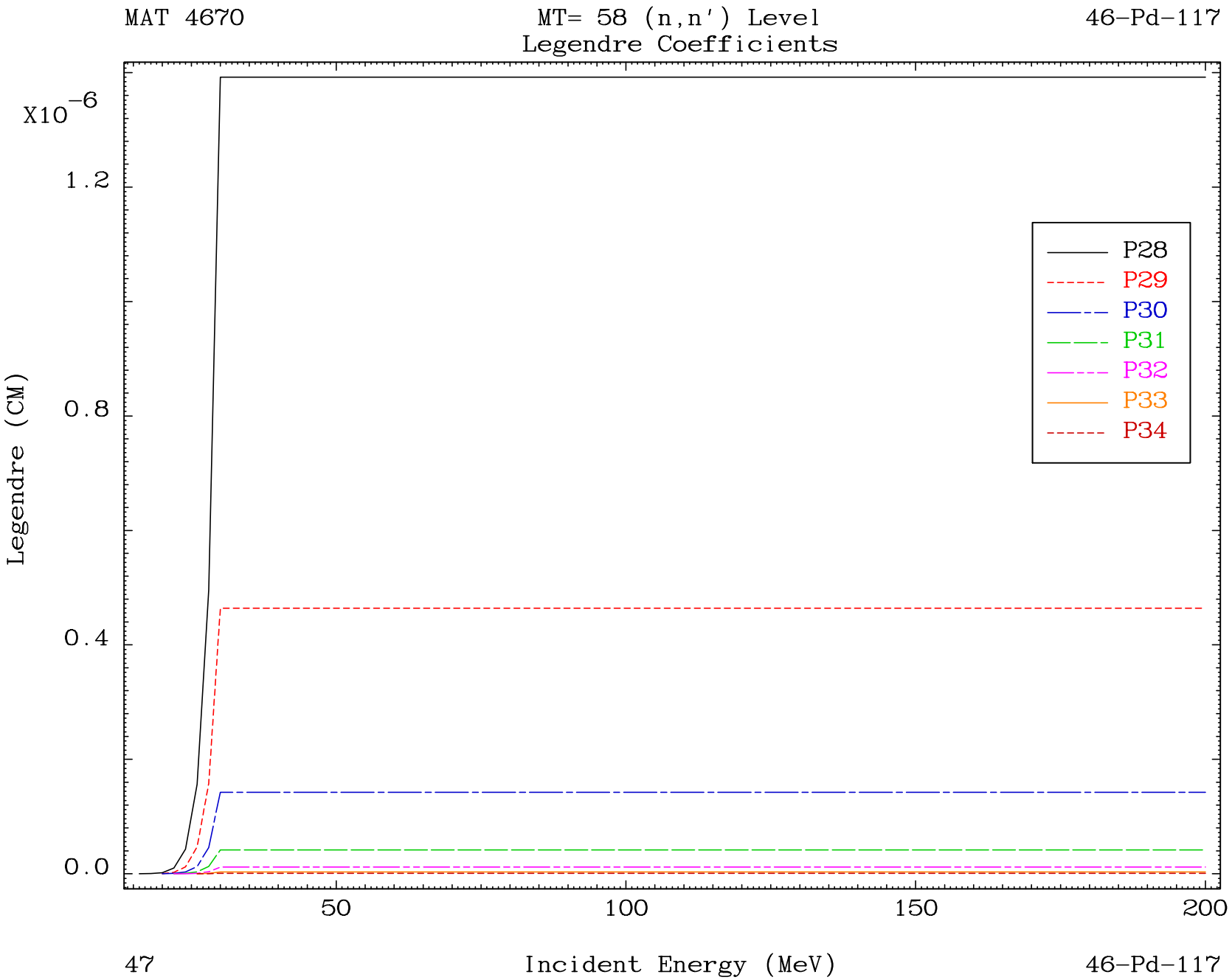

MAT 4670
MT= 57 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-4
1.0
0.5
0.0
-0.5
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
50
100
150
200
42
Incident Energy (MeV)
46-Pd-117

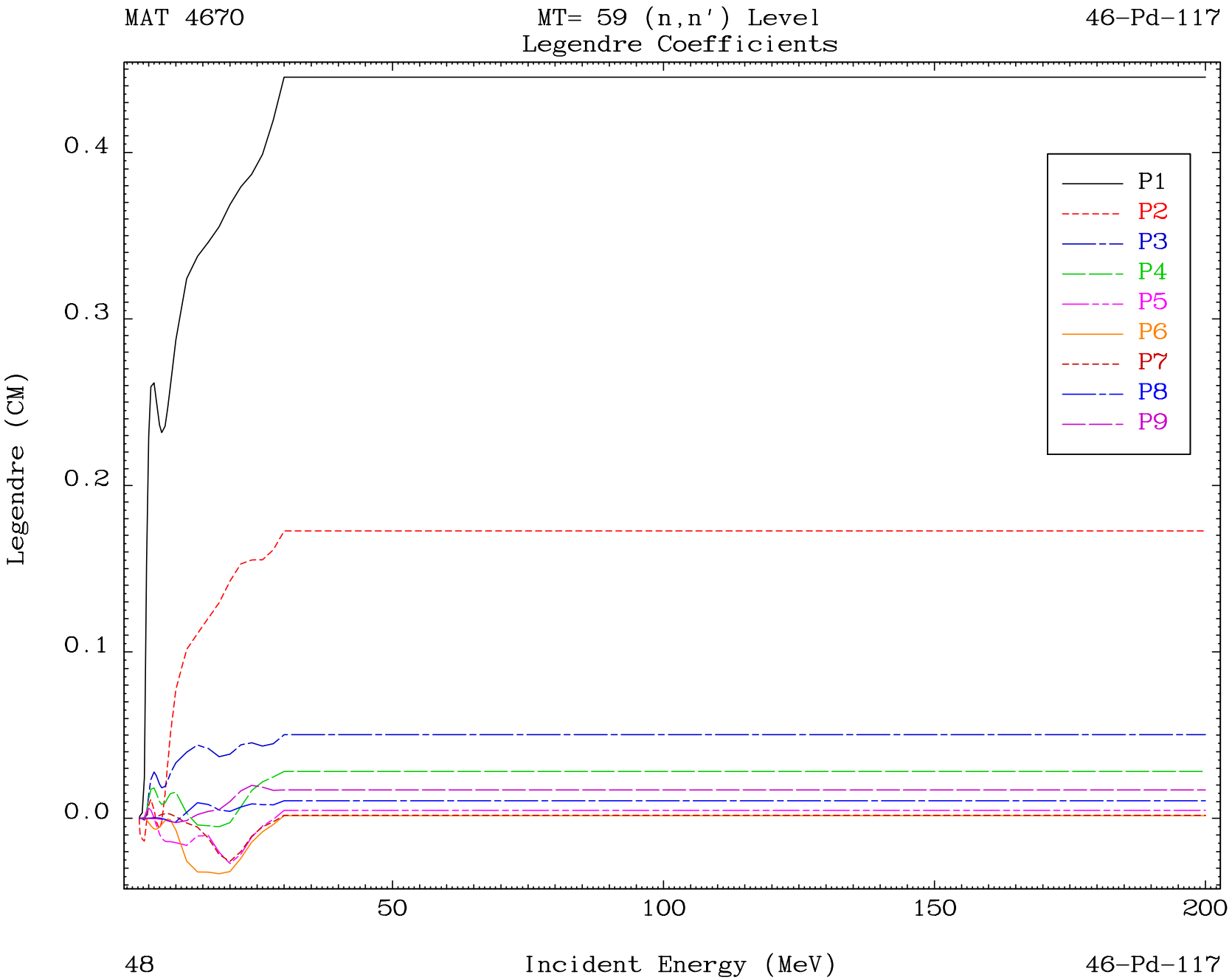

MAT 4670
MT= 57 (n,n') Level
Legendre Coefficients
46-Pd-117
X10-7
8
6
4
2
0
Legendre (CM)
P17
P18
P19
P20
P21
P22
P23
P24
50
100
150
200
43
Incident Energy (MeV)
46-Pd-117

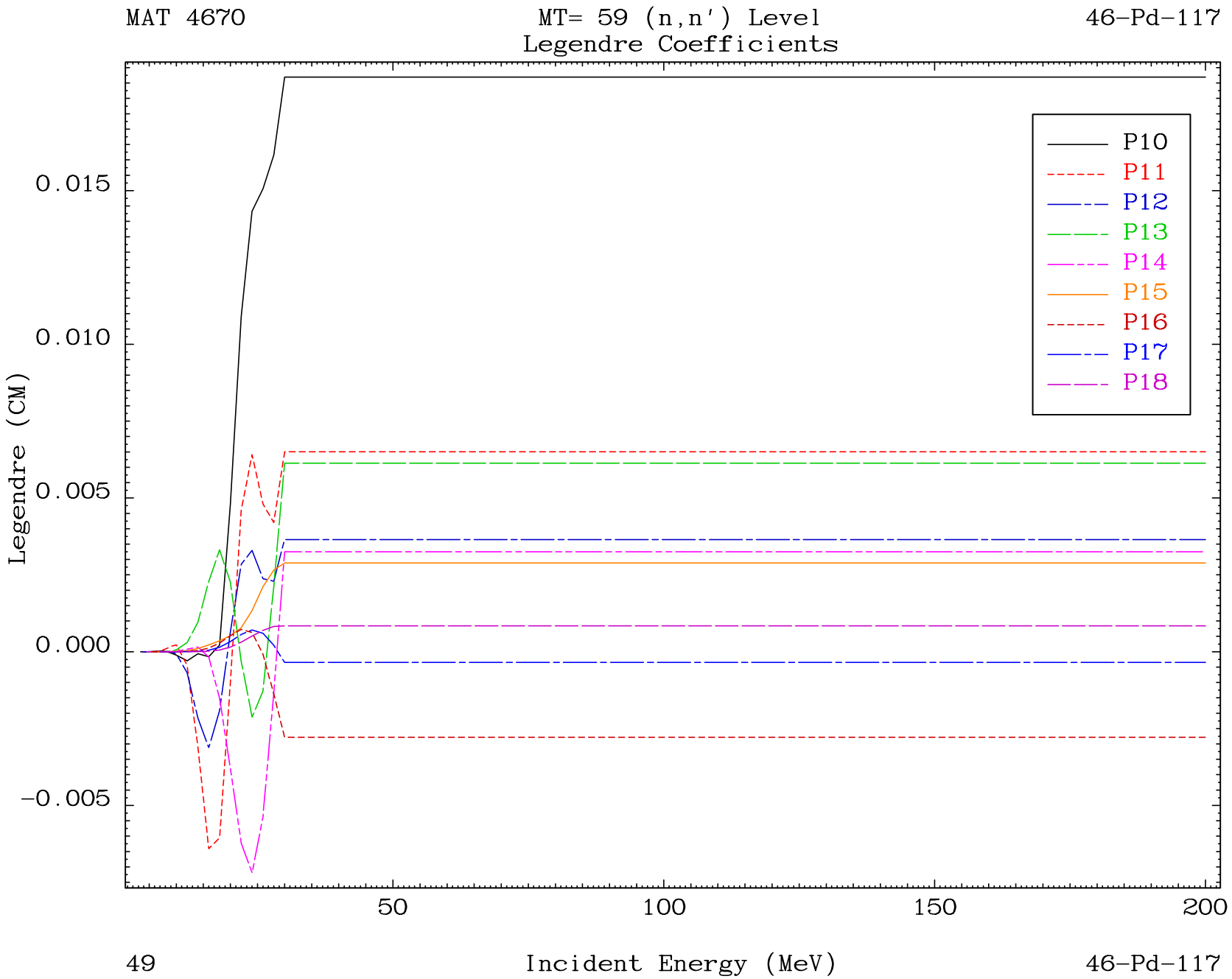

MAT 4670
MT= 58 (n,n') Level
Legendre Coefficients
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
44
Incident Energy (MeV)
46-Pd-117

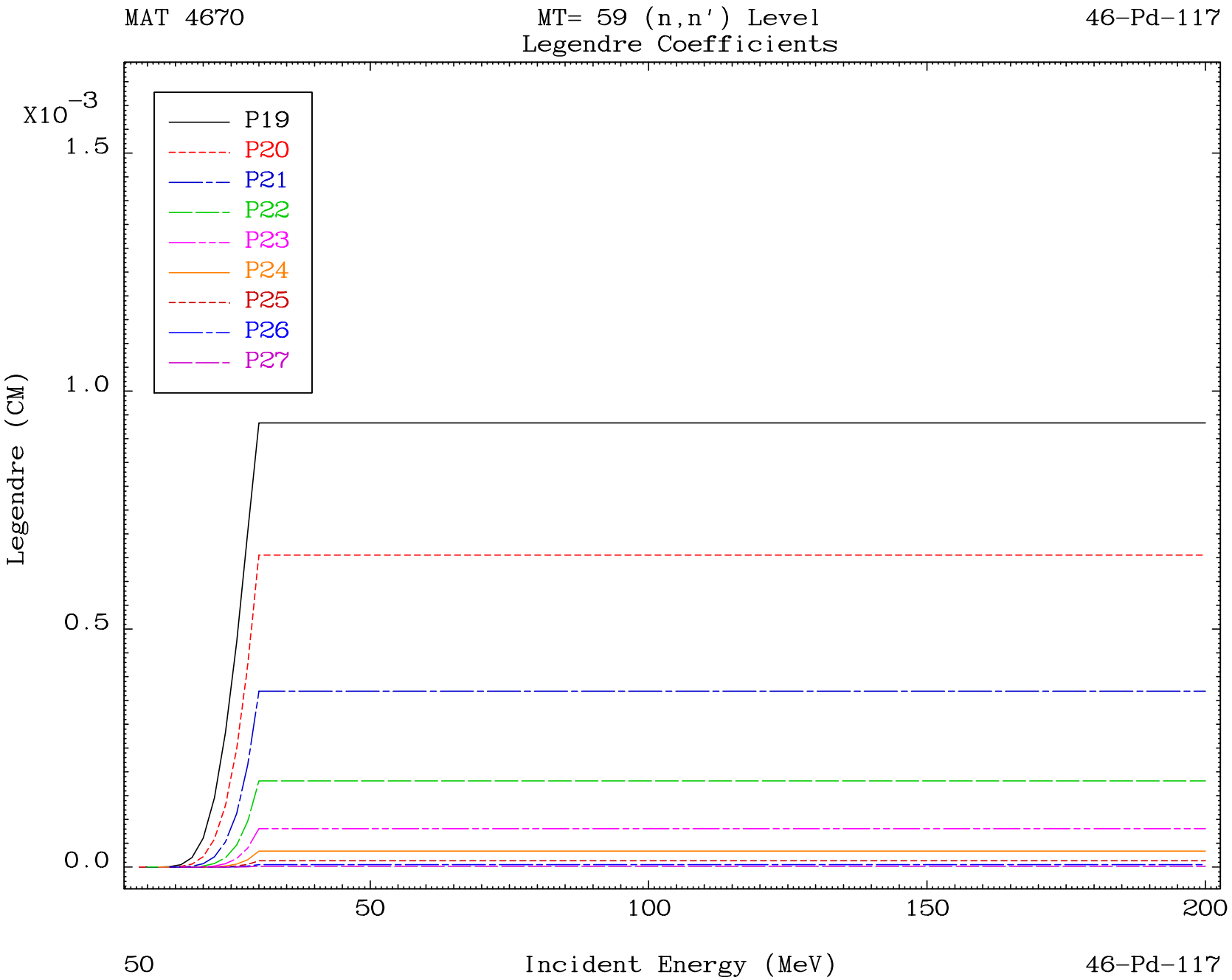

MAT 4670
MT= 58 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
50
100
150
200
45
Incident Energy (MeV)
46-Pd-117

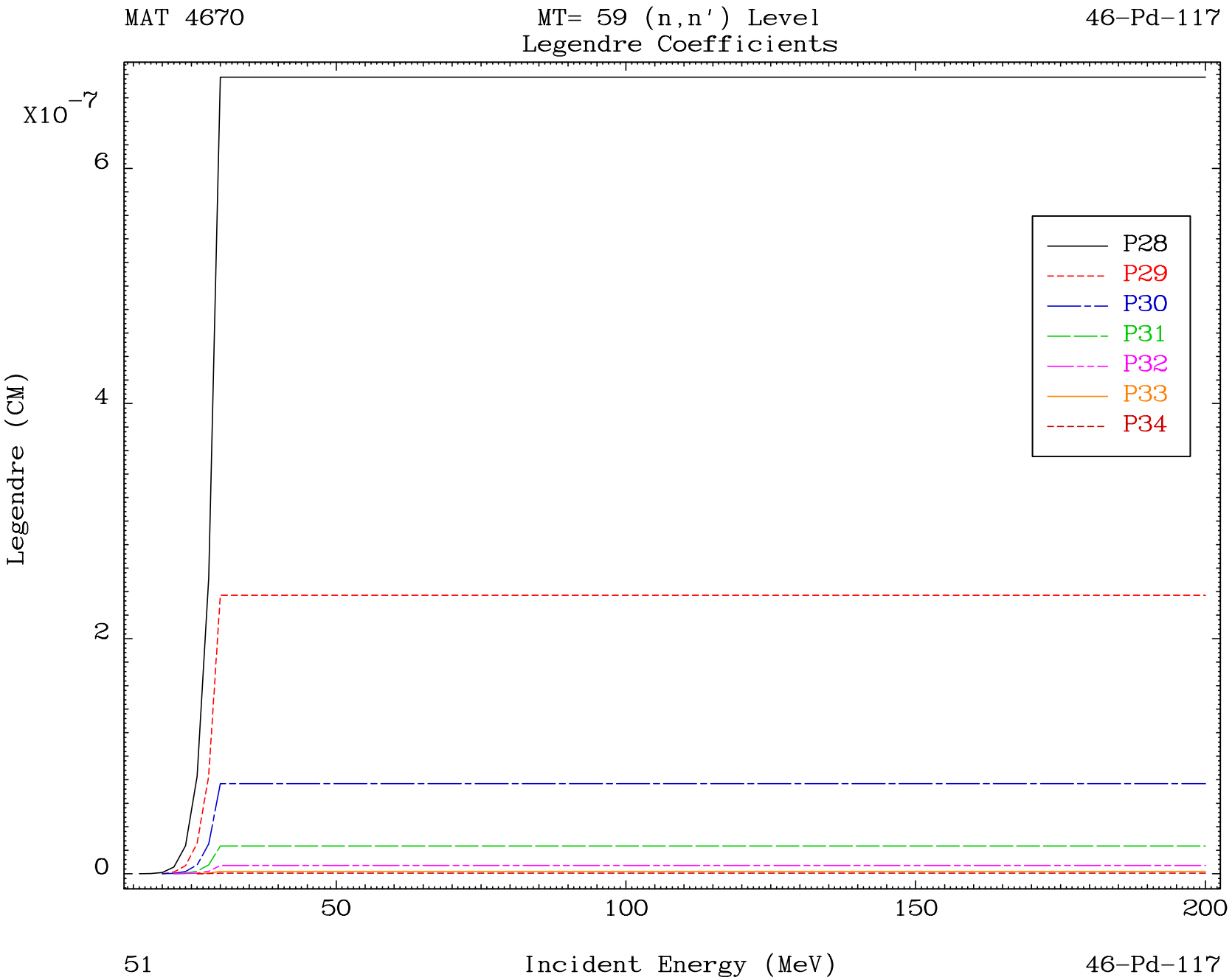

MAT 4670
MT= 58 (n,n') Level
Legendre Coefficients
46-Pd-117
0.005
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
46
Incident Energy (MeV)
46-Pd-117

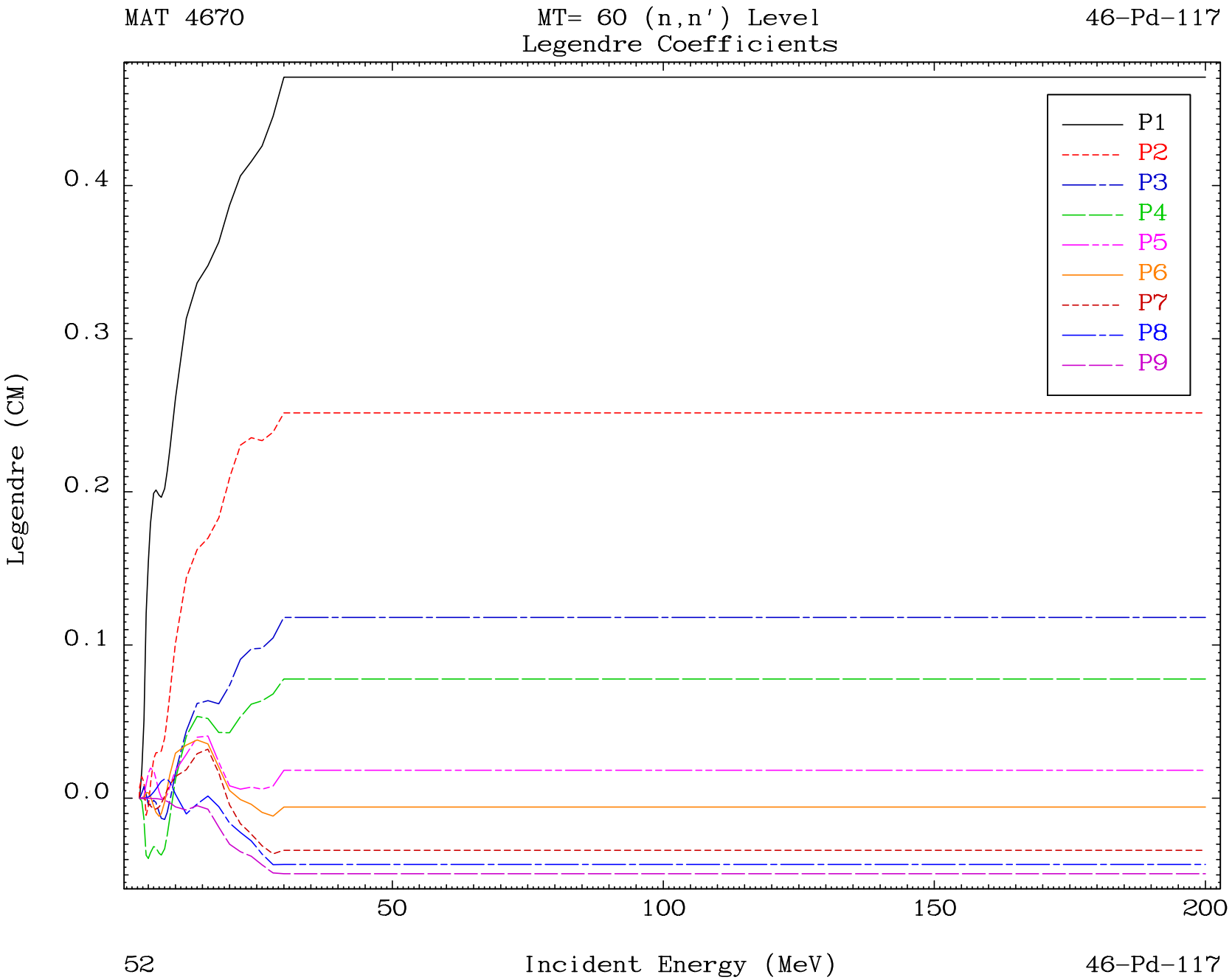

MAT 4670
MT= 58 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-6
1.2
0.8
0.4
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
47
Incident Energy (MeV)
46-Pd-117

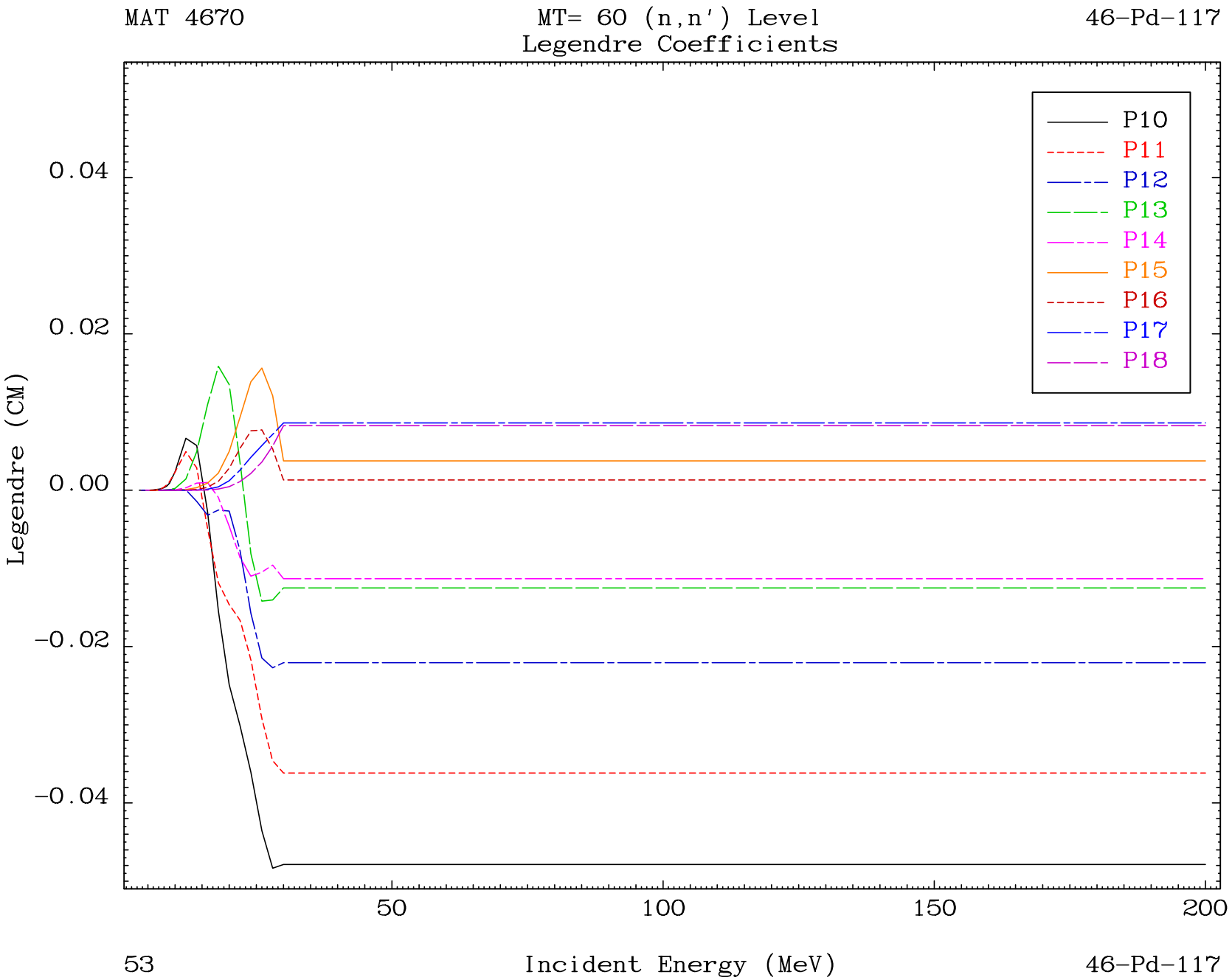

MAT 4670
MT= 59 (n,n') Level
Legendre Coefficients
46-Pd-117
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
48
Incident Energy (MeV)
46-Pd-117

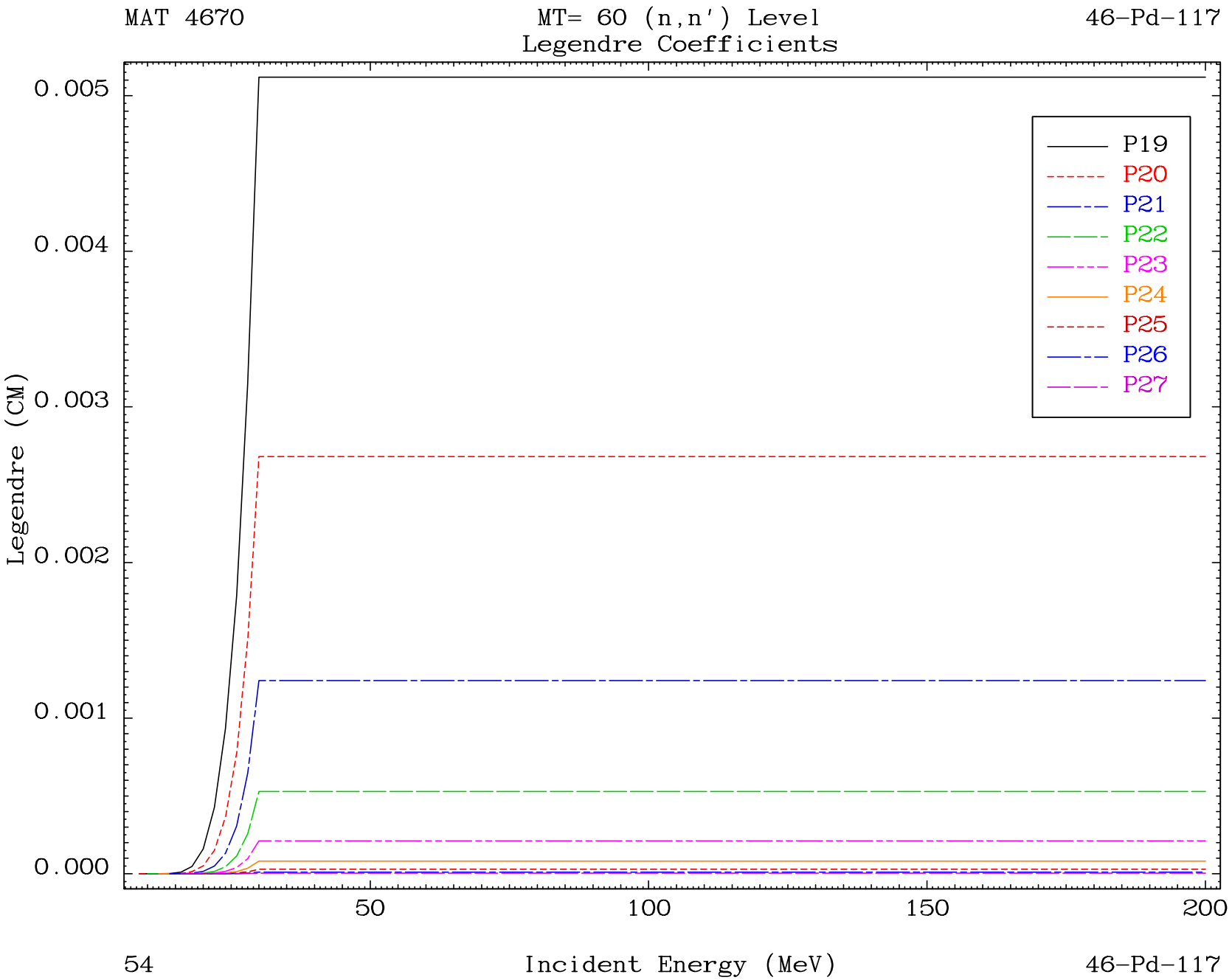

MAT 4670
MT= 59 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
50
100
150
200
49
Incident Energy (MeV)
46-Pd-117

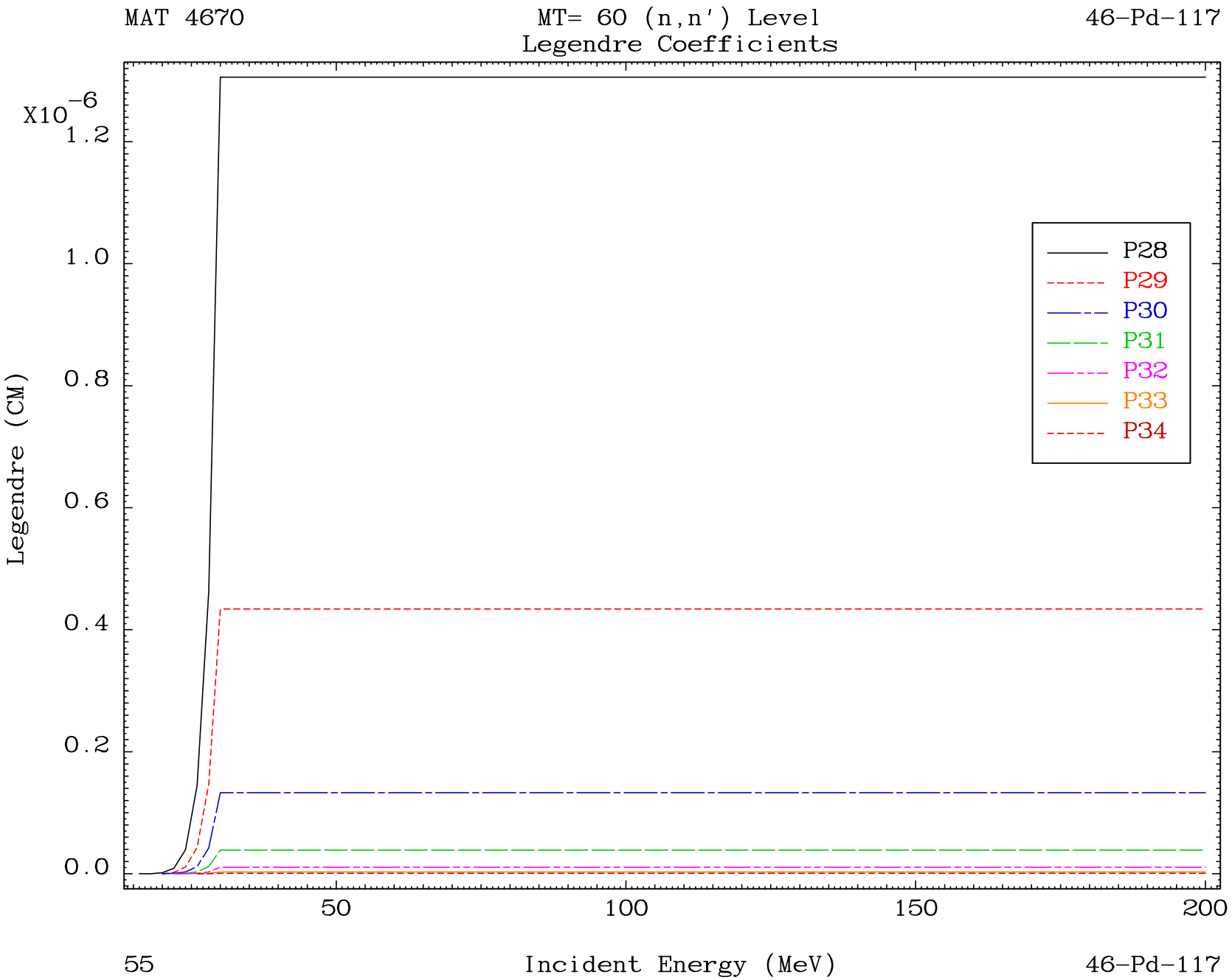

MAT 4670
MT= 59 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-3
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
50
Incident Energy (MeV)
46-Pd-117

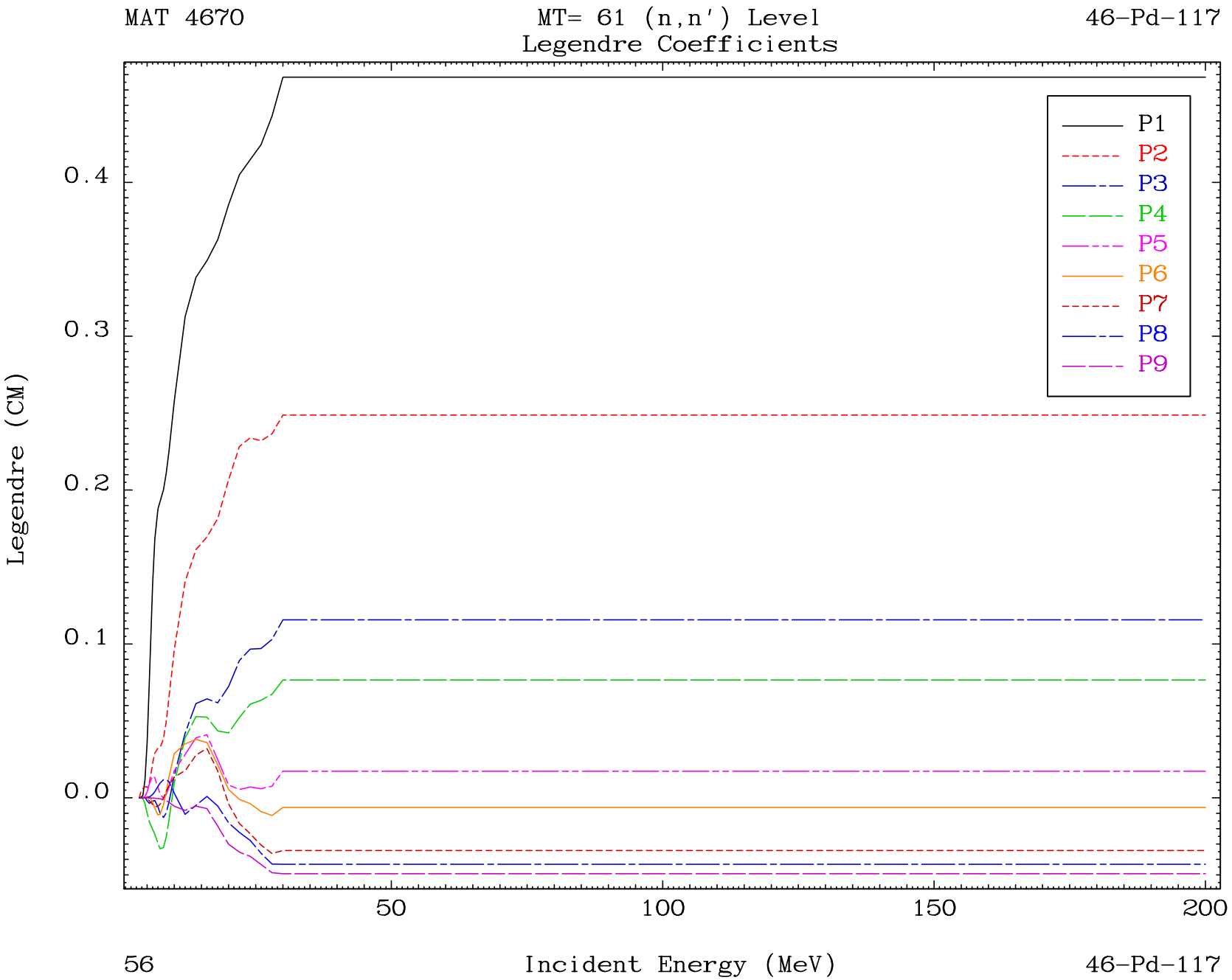

MAT 4670
MT= 59 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-7
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
51
Incident Energy (MeV)
46-Pd-117

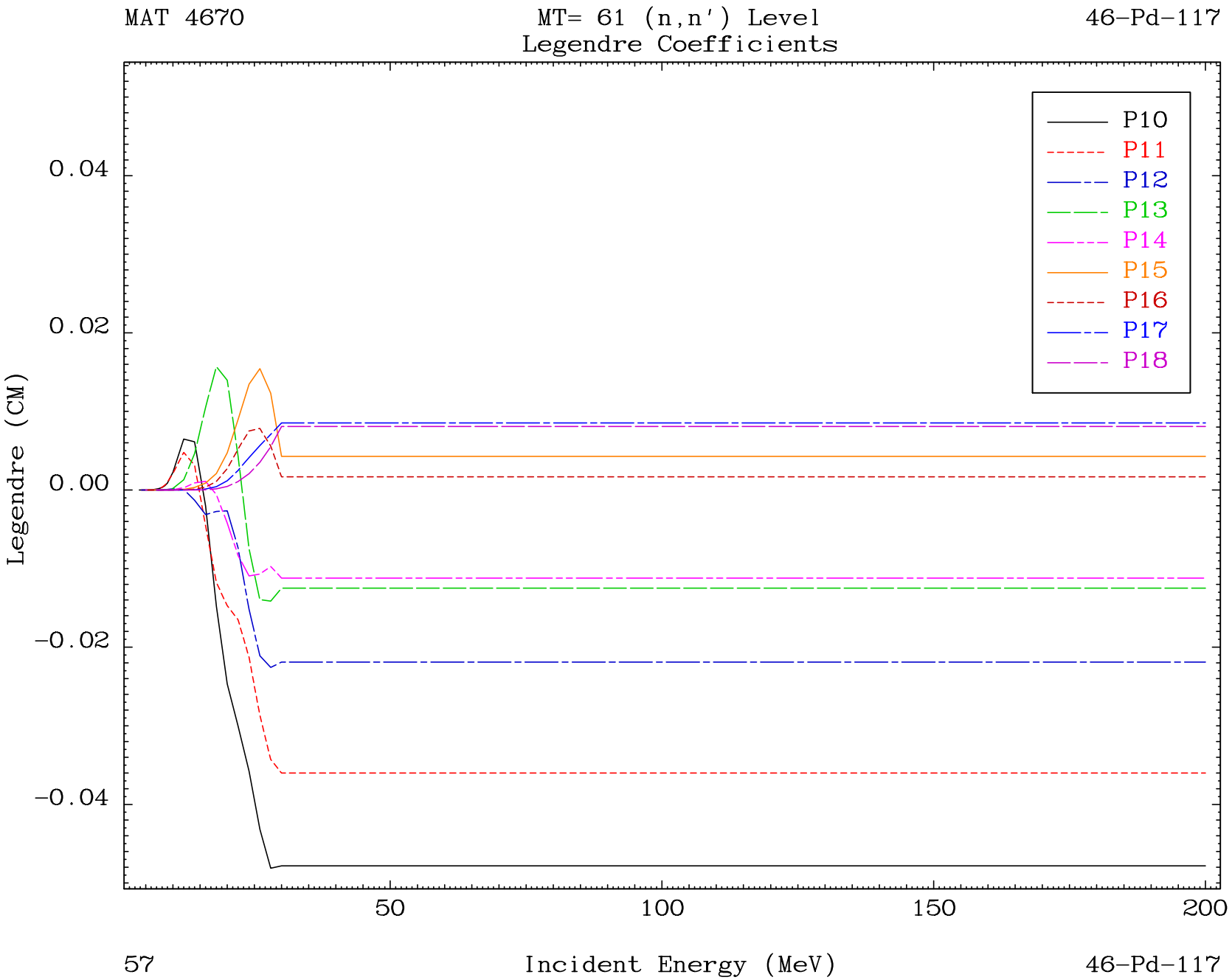

MAT 4670
MT= 60 (n,n') Level
Legendre Coefficients
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
52
Incident Energy (MeV)
46-Pd-117

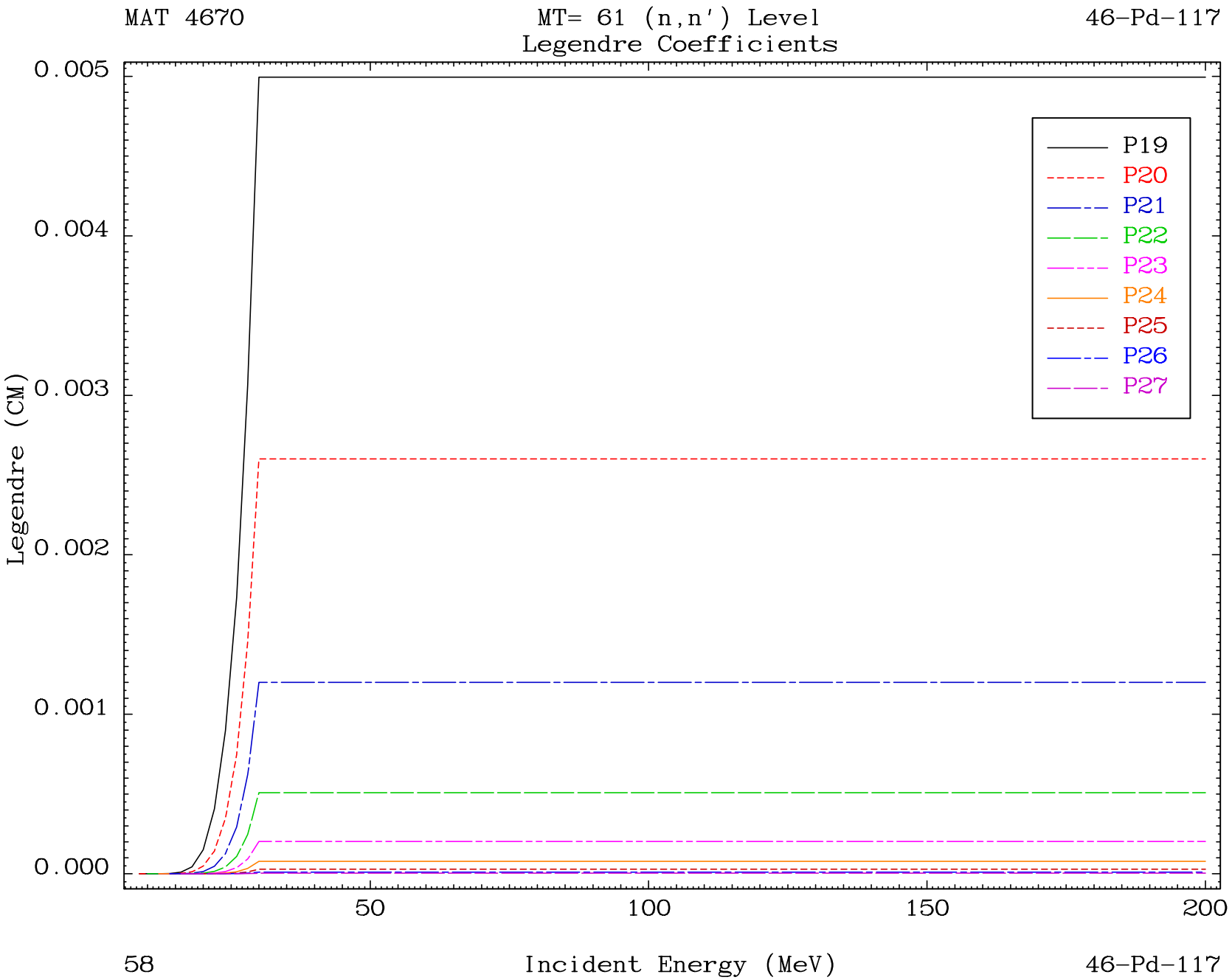

MAT 4670
MT= 60 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
50
100
150
200
53
Incident Energy (MeV)
46-Pd-117

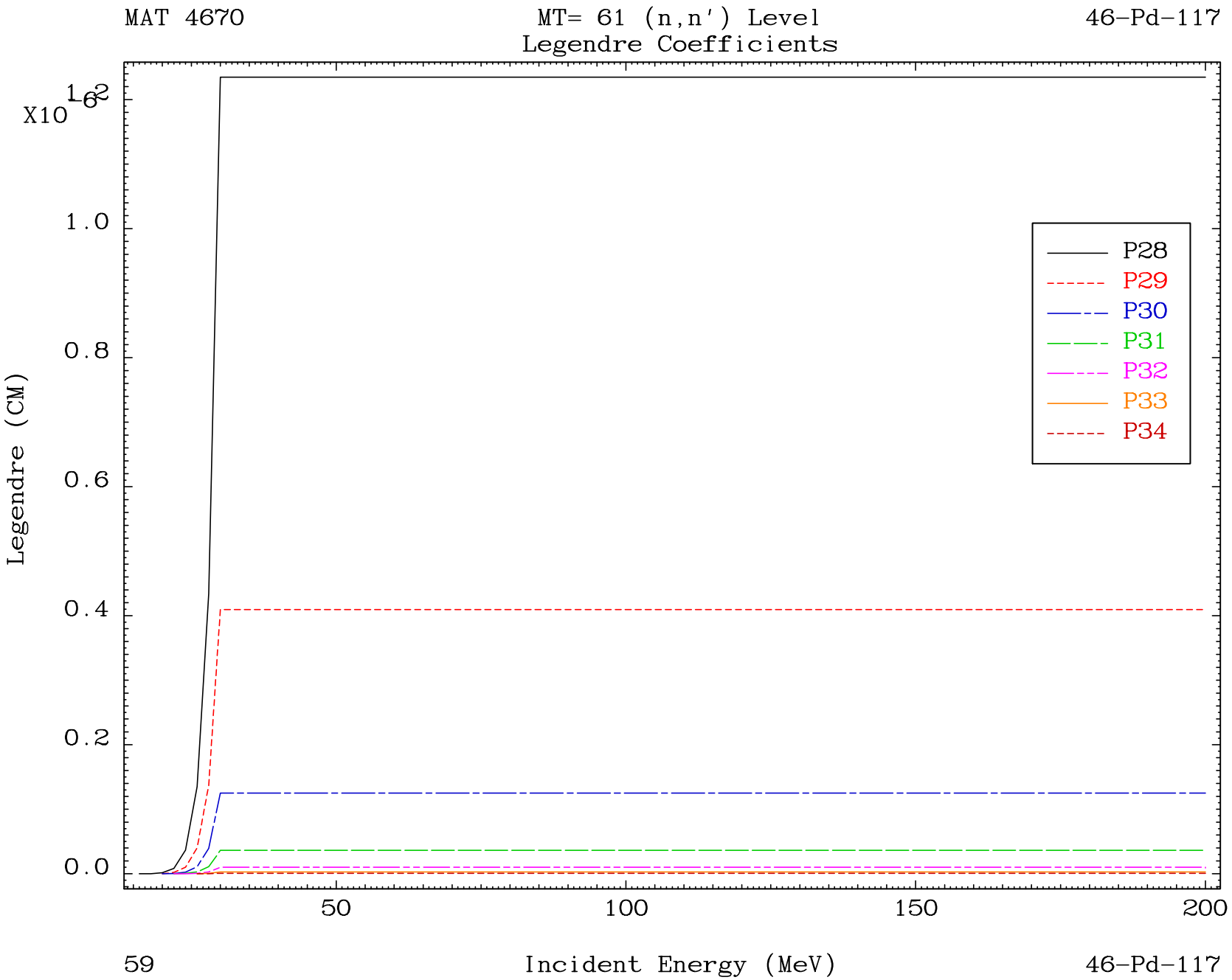

MAT 4670
MT= 60 (n,n') Level
Legendre Coefficients
46-Pd-117
0.005
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
50
100
150
200
54
Incident Energy (MeV)
46-Pd-117
P19
P20
P21
P22
P23
P24
P25
P26
P27

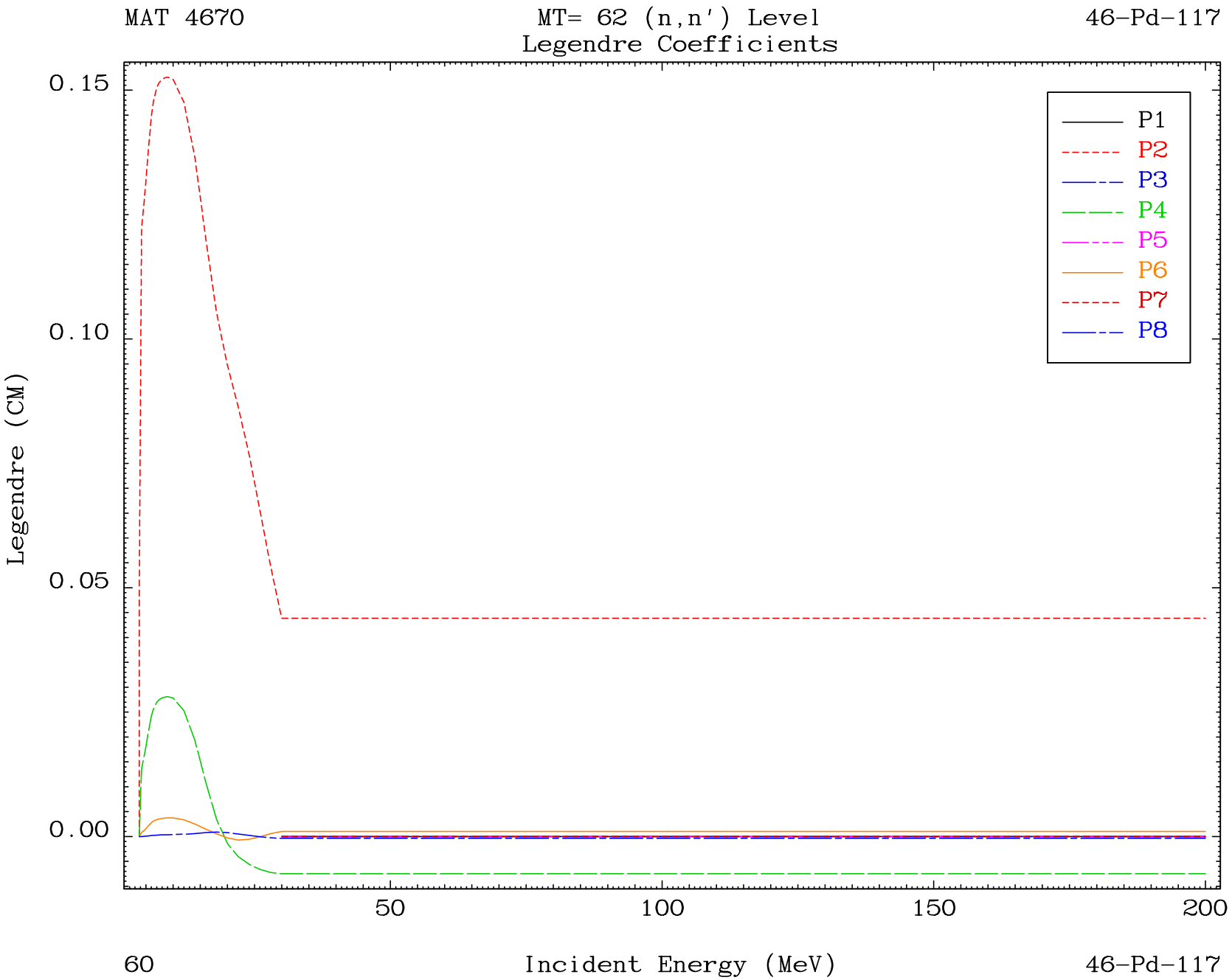

MAT 4670
MT= 60 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
55
Incident Energy (MeV)
46-Pd-117

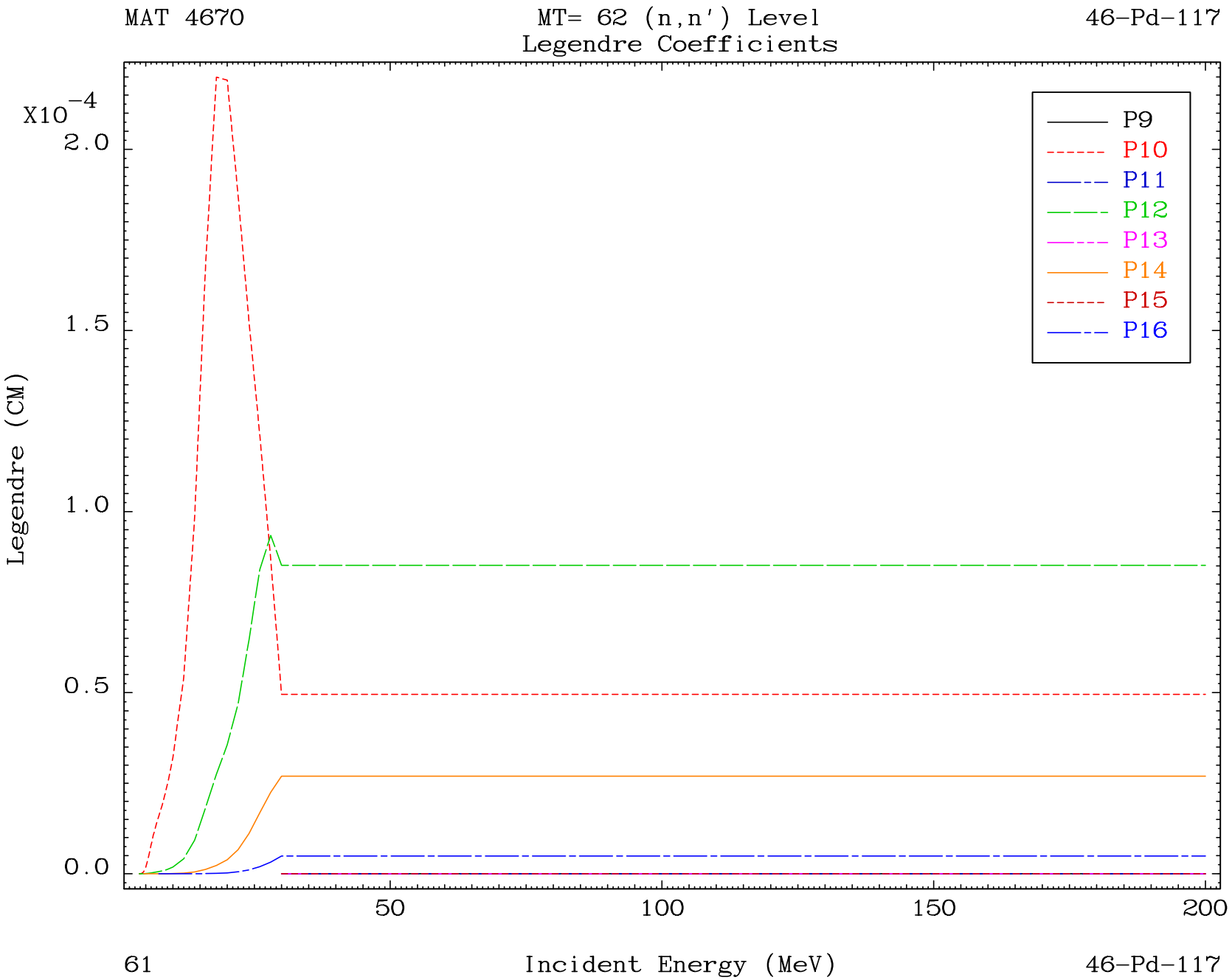

MAT 4670
MT= 61 (n,n') Level
Legendre Coefficients
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
56
Incident Energy (MeV)
46-Pd-117

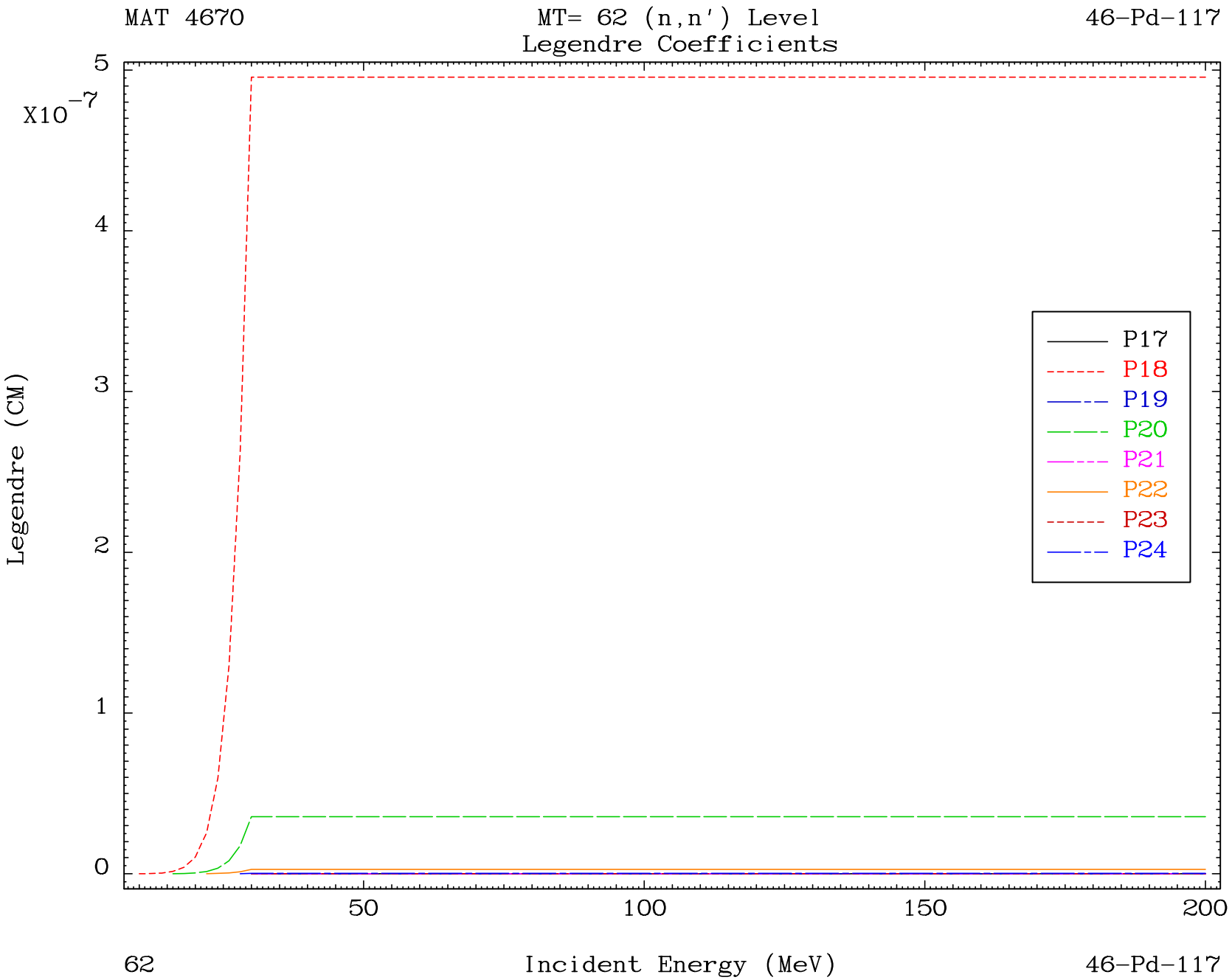

MAT 4670
MT= 61 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
50
100
150
200
57
Incident Energy (MeV)
46-Pd-117

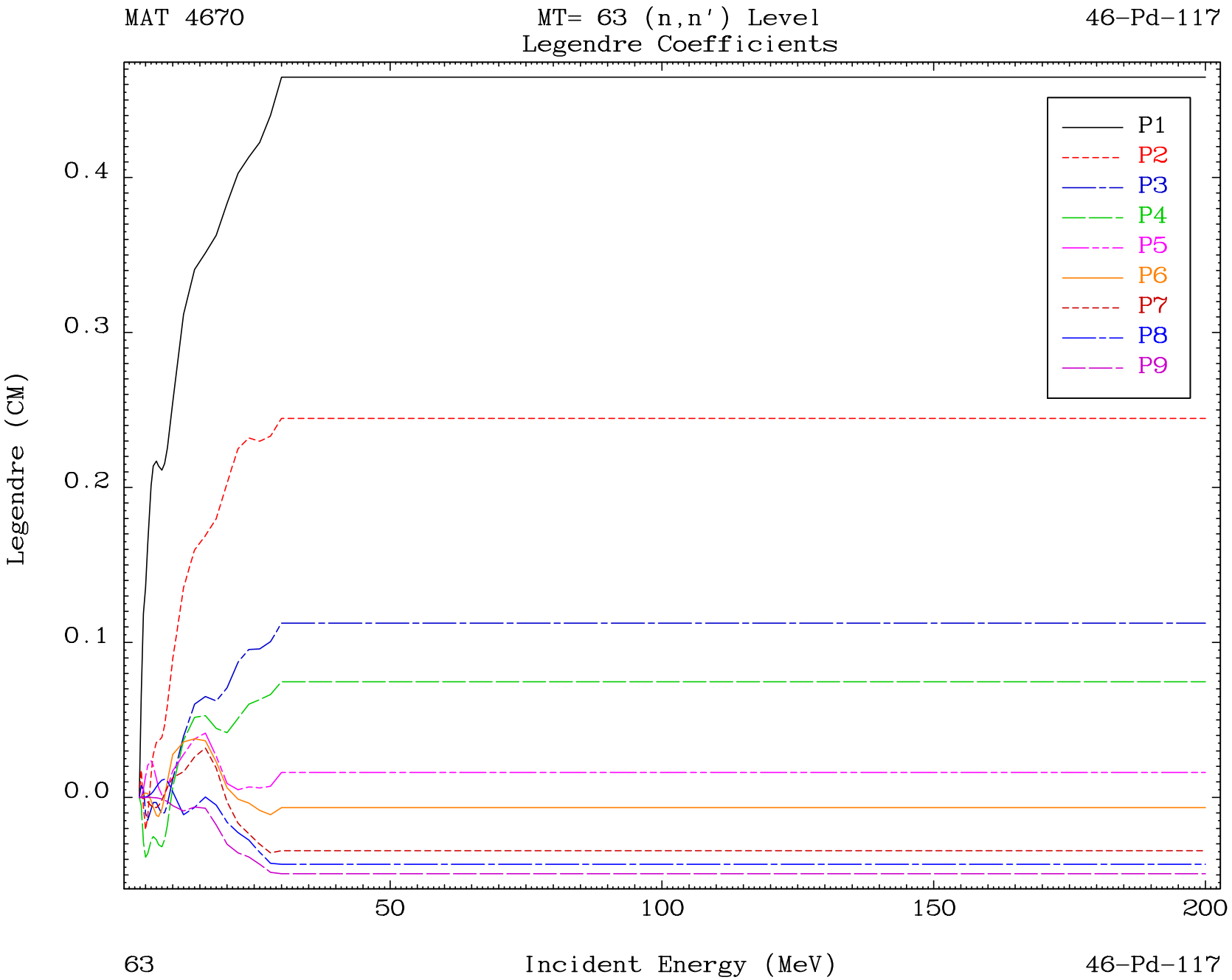

MAT 4670
MT= 61 (n,n') Level
Legendre Coefficients
46-Pd-117
0.005
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
58
Incident Energy (MeV)
46-Pd-117

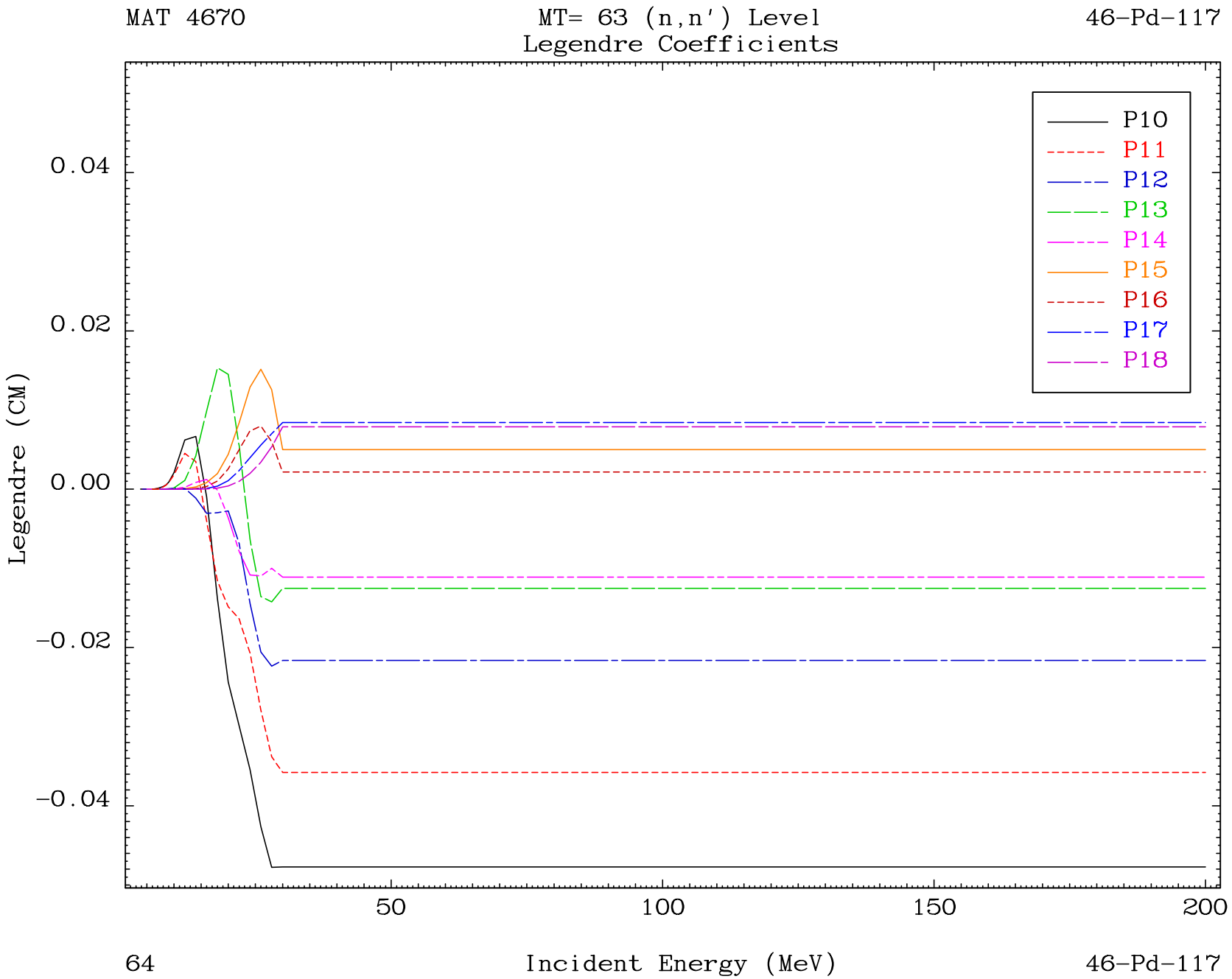

MAT 4670
MT= 61 (n,n') Level
Legendre Coefficients
46-Pd-117
X10 -2
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
59
Incident Energy (MeV)
46-Pd-117

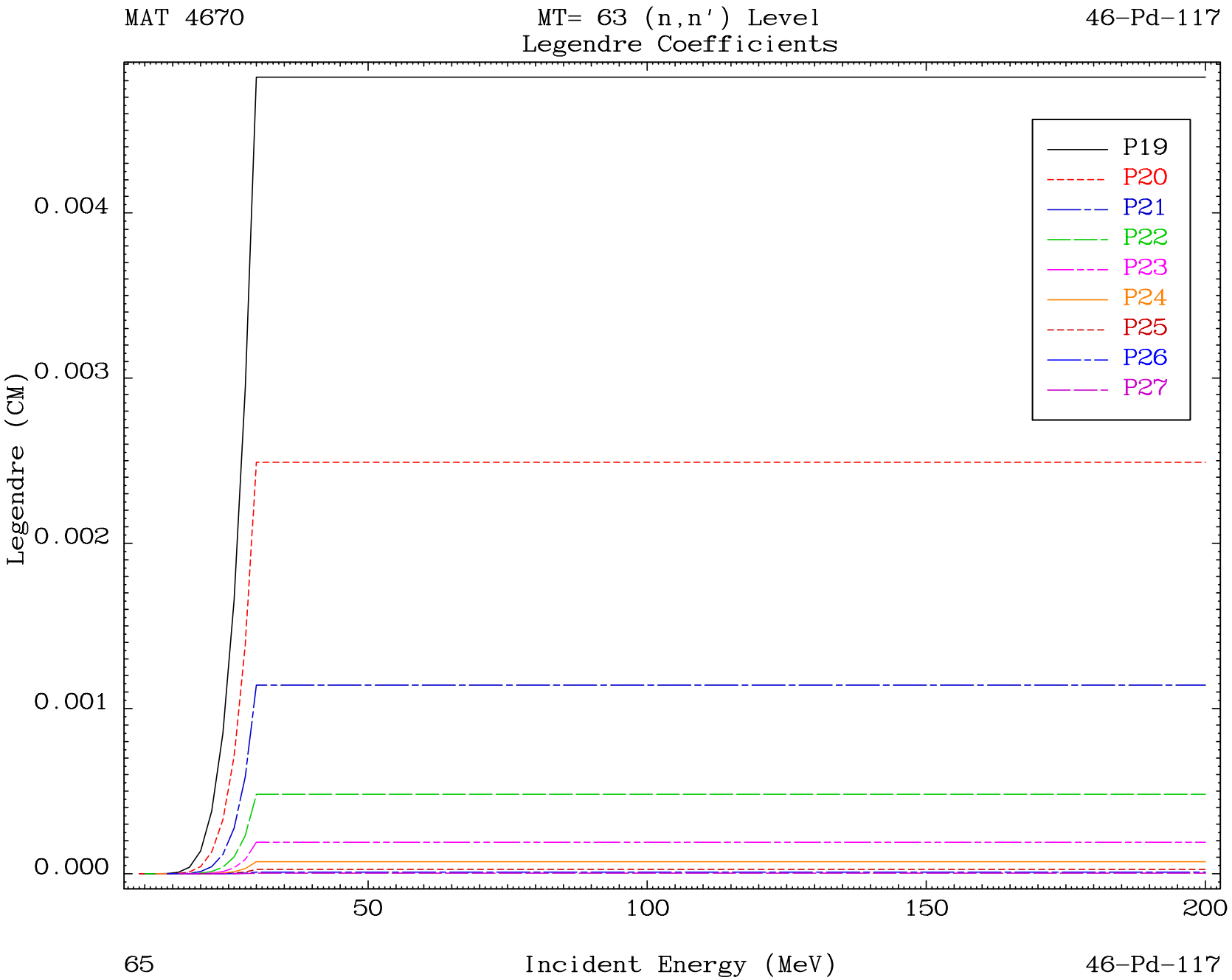

MAT 4670
MT= 62 (n,n') Level
Legendre Coefficients
46-Pd-117
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
50
100
150
200
60
Incident Energy (MeV)
46-Pd-117

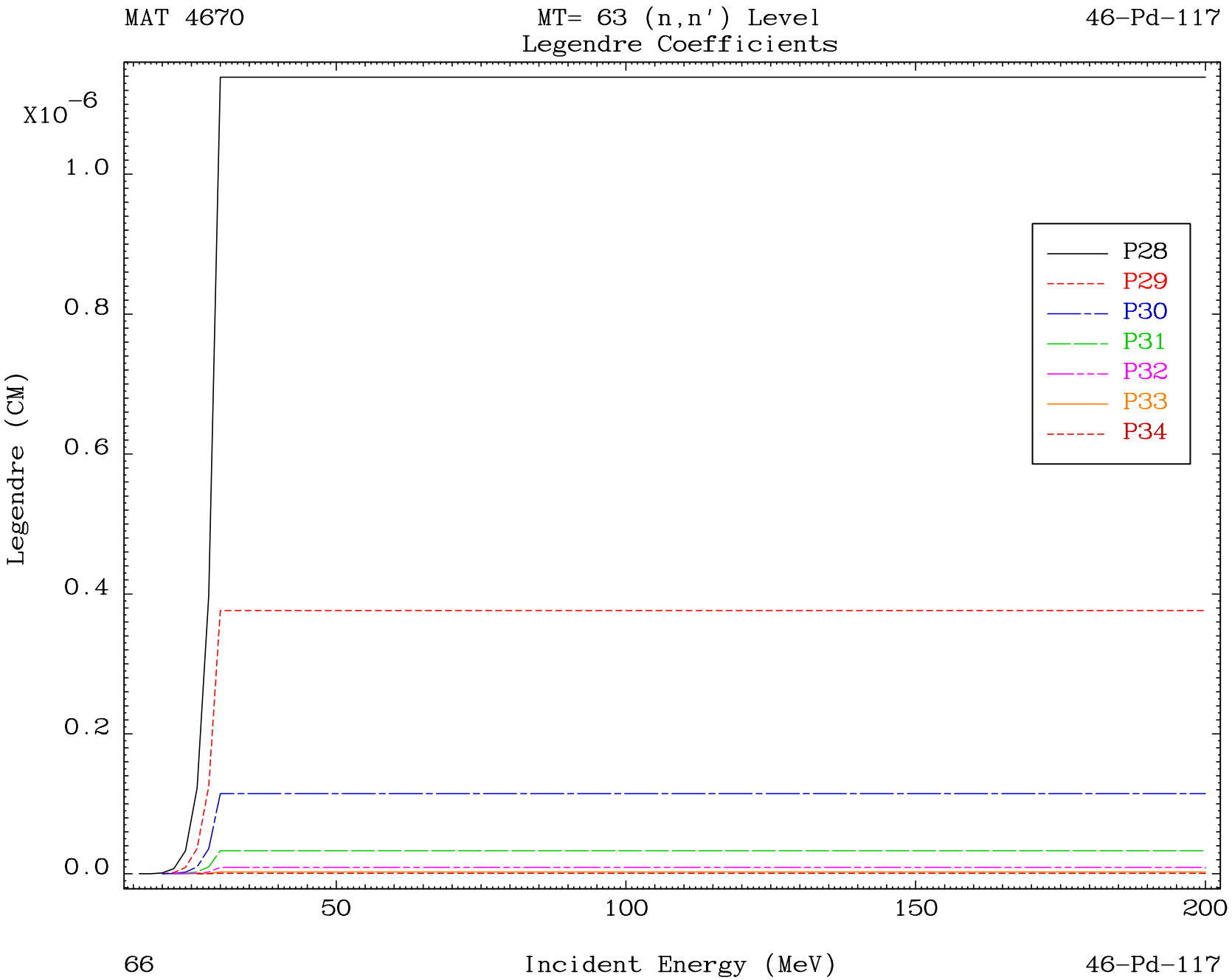

MAT 4670
MT= 62 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-4
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
50
100
150
200
61
Incident Energy (MeV)
46-Pd-117

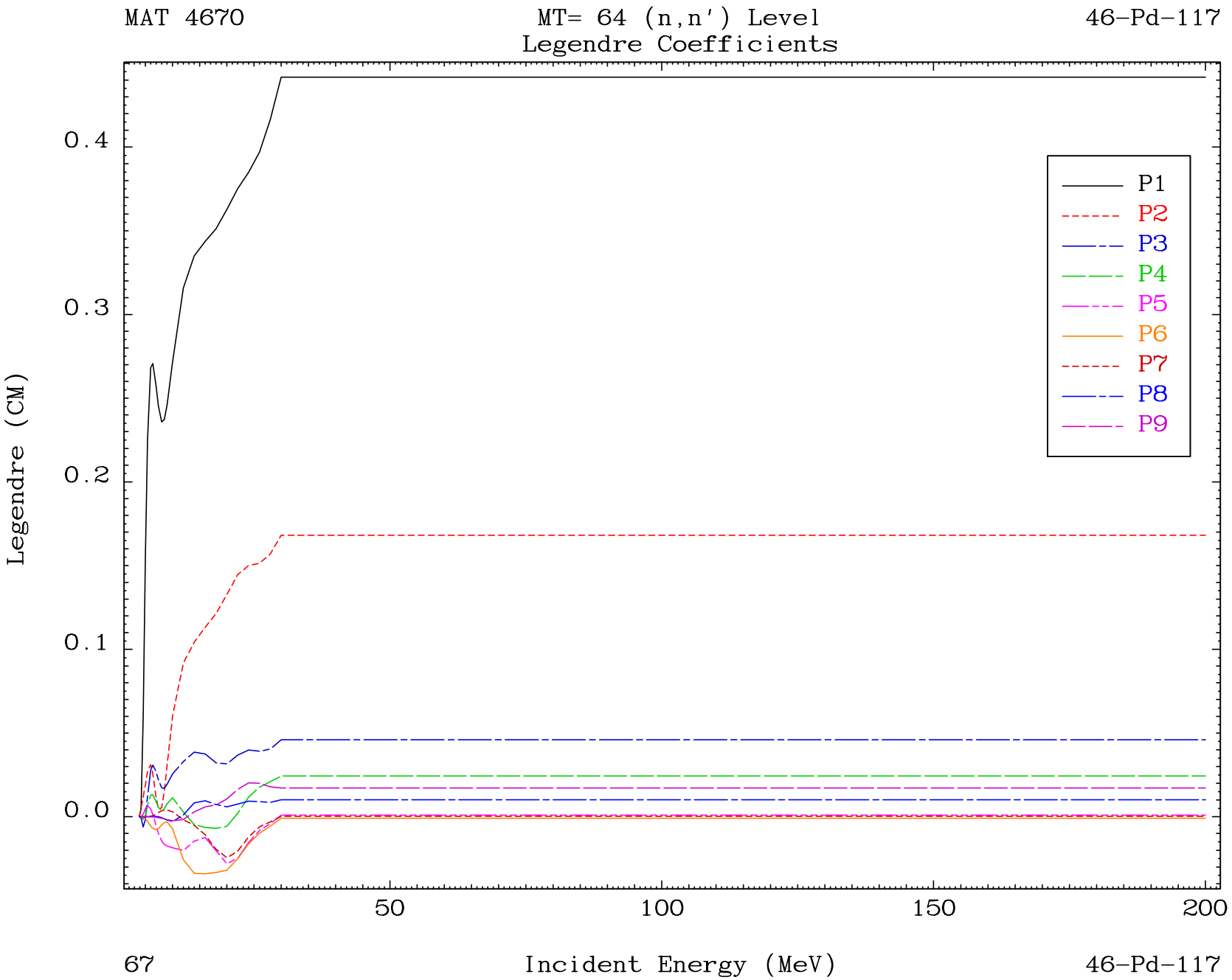

MAT 4670
MT= 62 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-7
5
4
3
2
1
0
Legendre (CM)
50
100
150
200
62
Incident Energy (MeV)
46-Pd-117
P17
P18
P19
P20
P21
P22
P23
P24

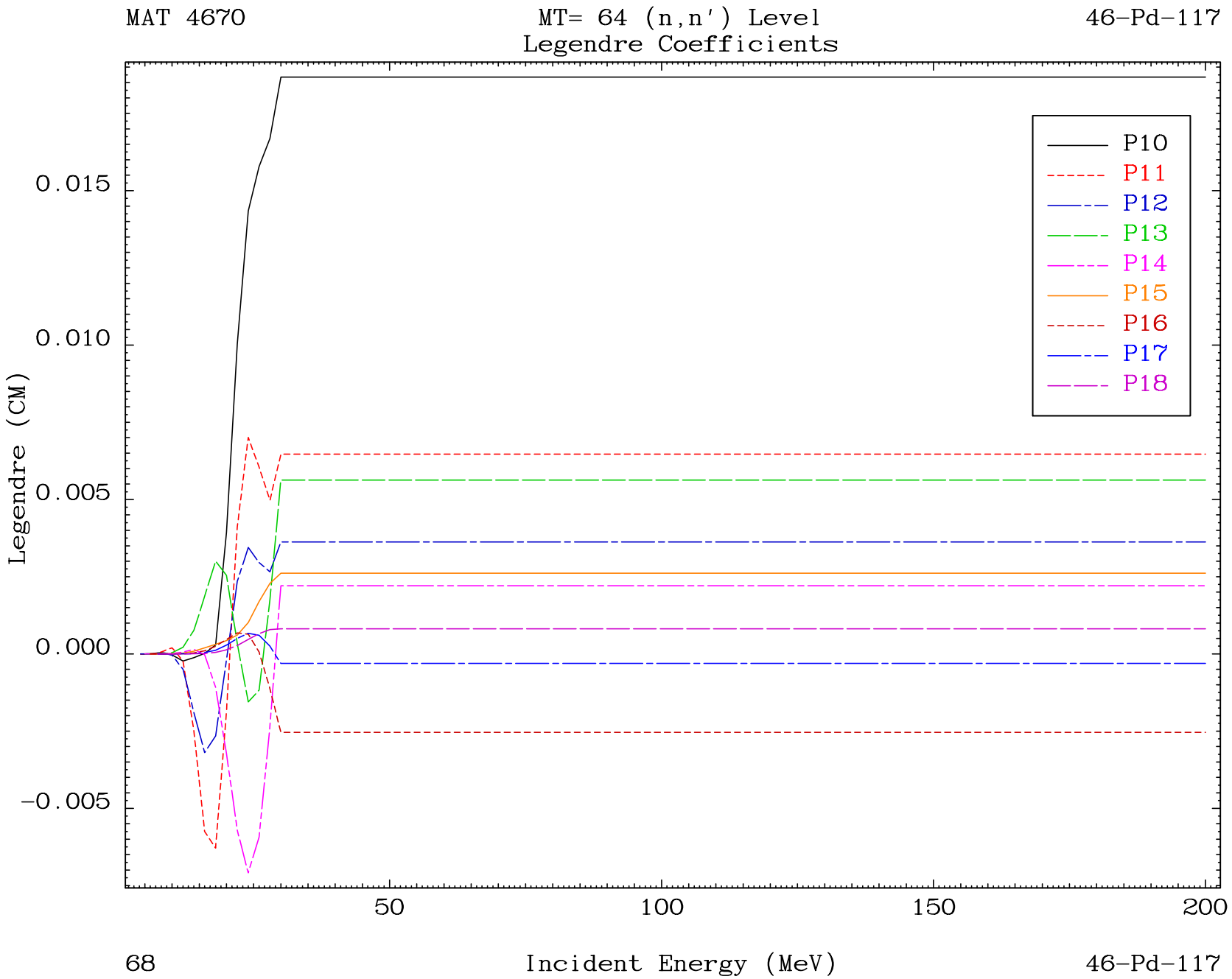

MAT 4670
MT= 63 (n,n') Level
Legendre Coefficients
46-Pd-117
P1
P2
P3
P4
P5
P6
P7
P8
P9
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
50
100
150
200
63
Incident Energy (MeV)
46-Pd-117

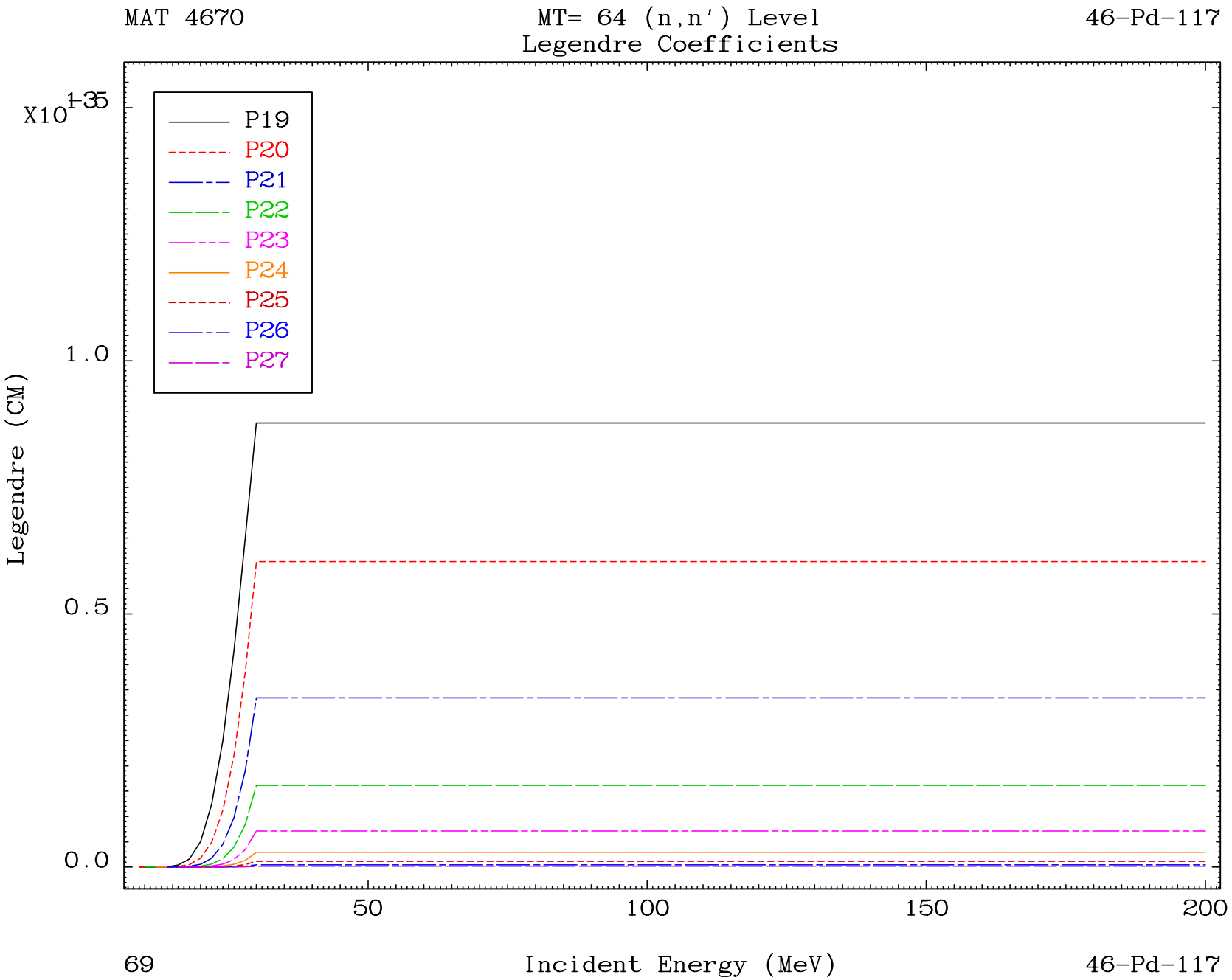

MAT 4670
MT= 63 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
50
100
150
200
64
Incident Energy (MeV)
46-Pd-117

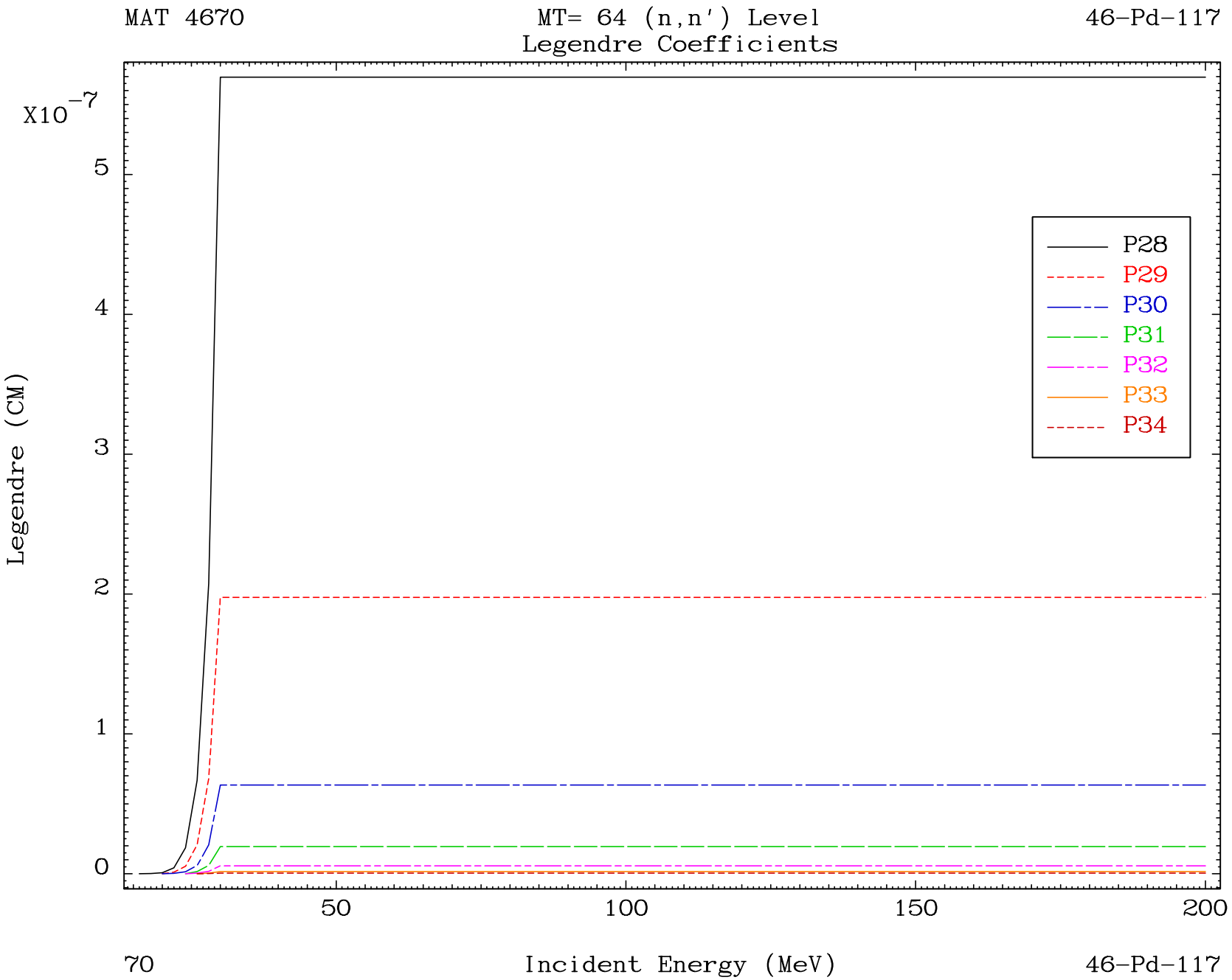

MAT 4670
MT= 63 (n,n') Level
Legendre Coefficients
46-Pd-117
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
50
100
150
200
65
Incident Energy (MeV)
46-Pd-117

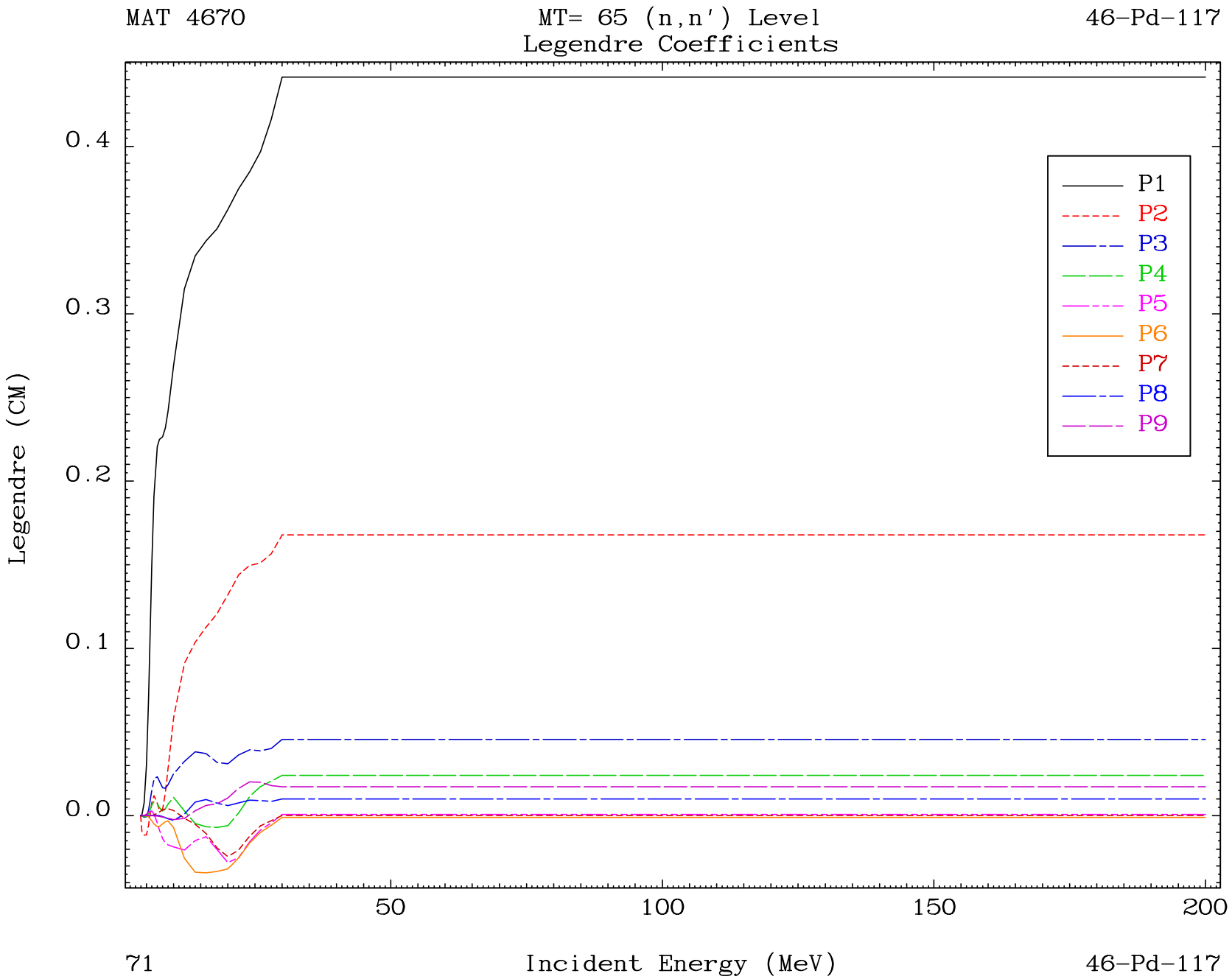

MAT 4670
MT= 63 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-6
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
66
Incident Energy (MeV)
46-Pd-117

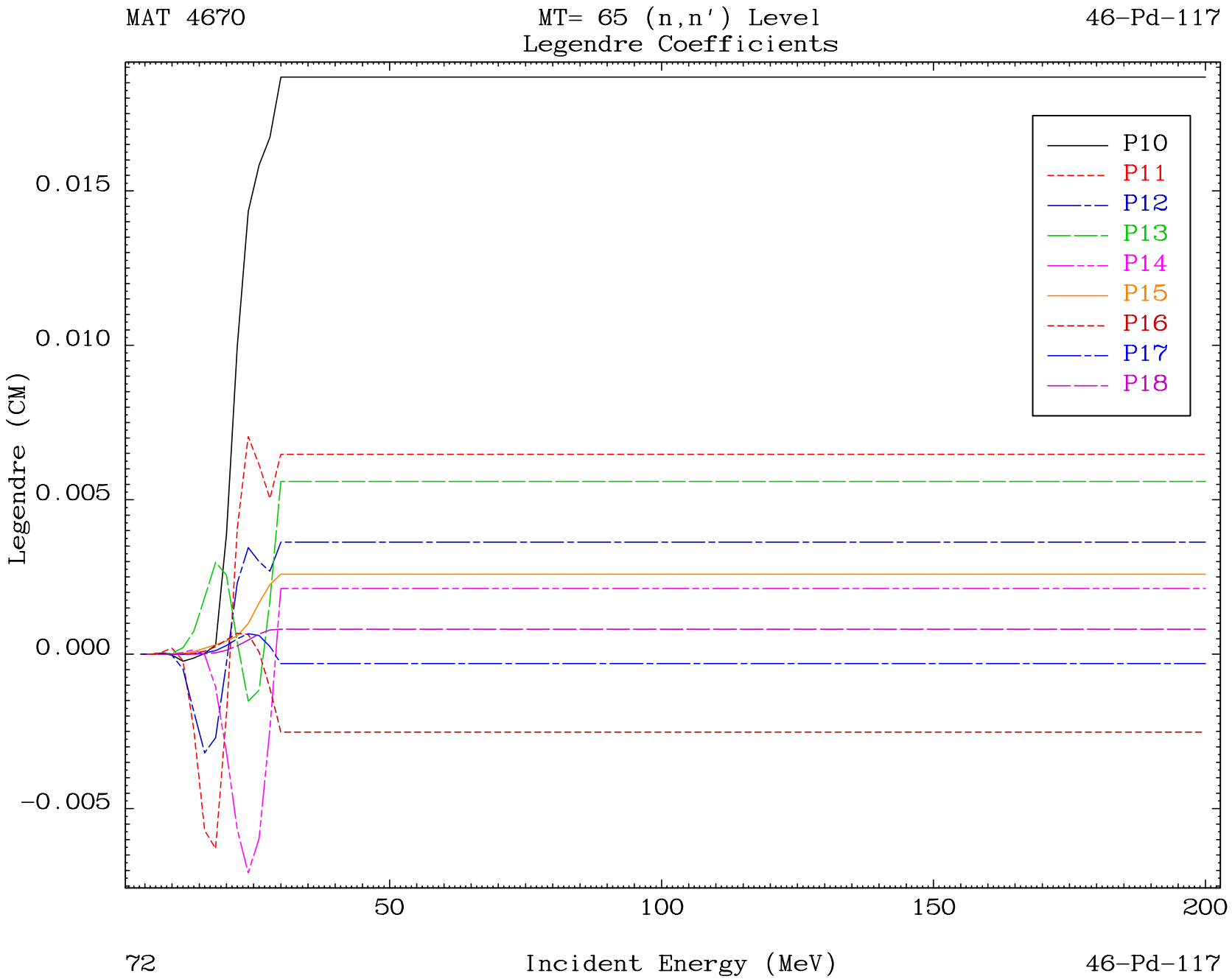

MAT 4670
MT= 64 (n,n') Level
Legendre Coefficients
46-Pd-117
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
67
Incident Energy (MeV)
46-Pd-117

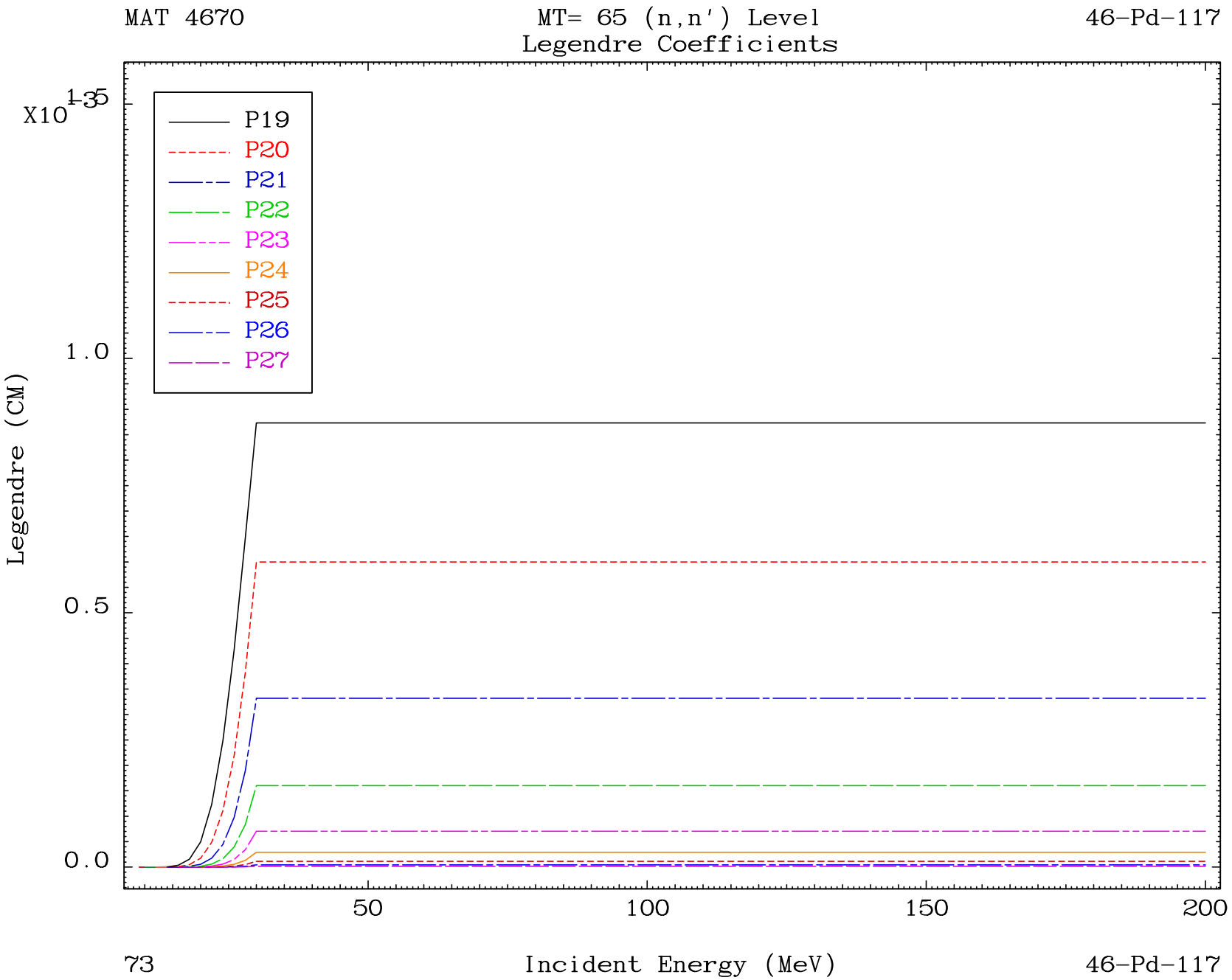

MAT 4670
MT= 64 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
50
100
150
200
68
Incident Energy (MeV)
46-Pd-117

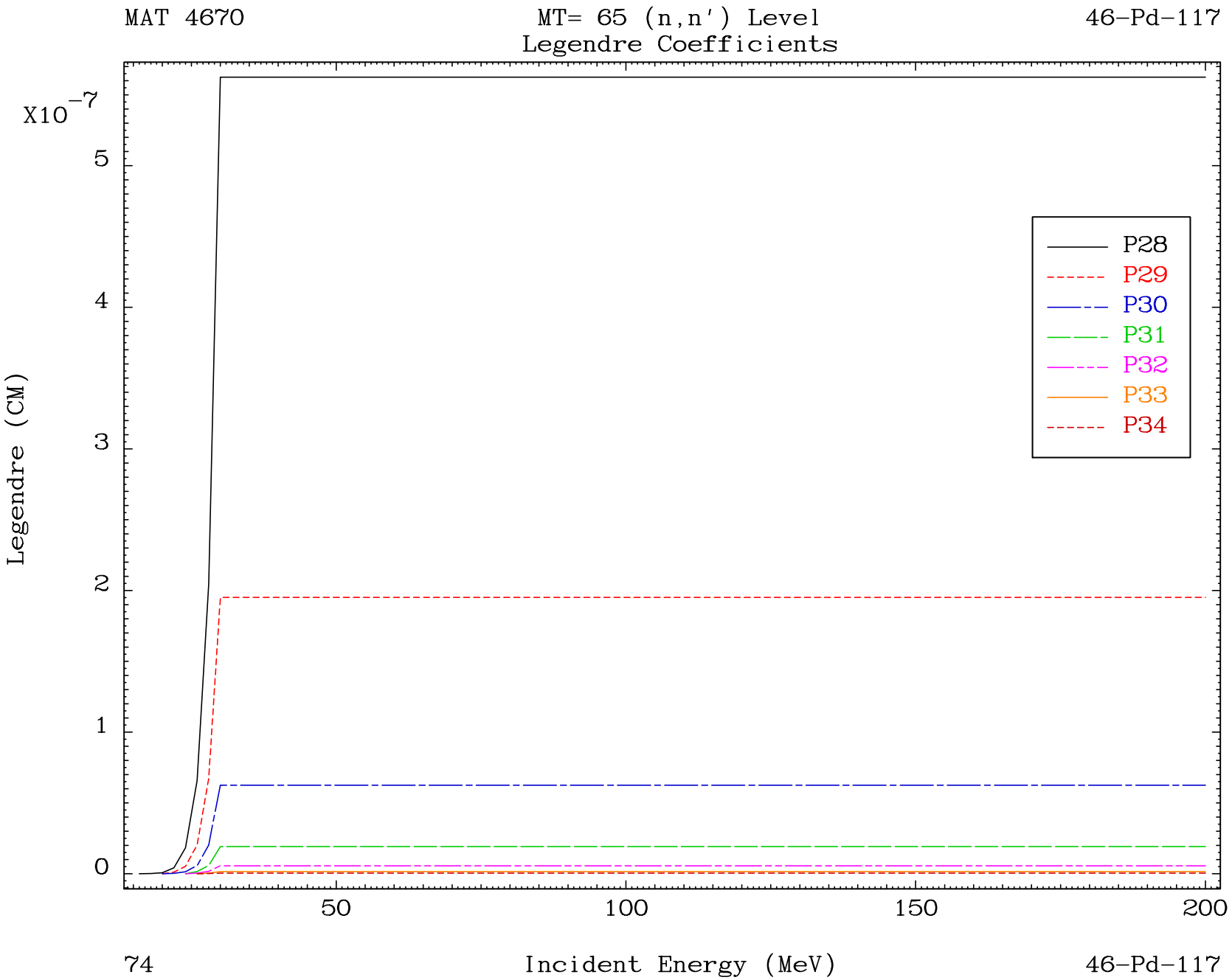

MAT 4670
MT= 64 (n,n') Level
Legendre Coefficients
46-Pd-117
X10+35
P19
P20
P21
P22
P23
P24
P25
P26
P27
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
69
Incident Energy (MeV)
46-Pd-117

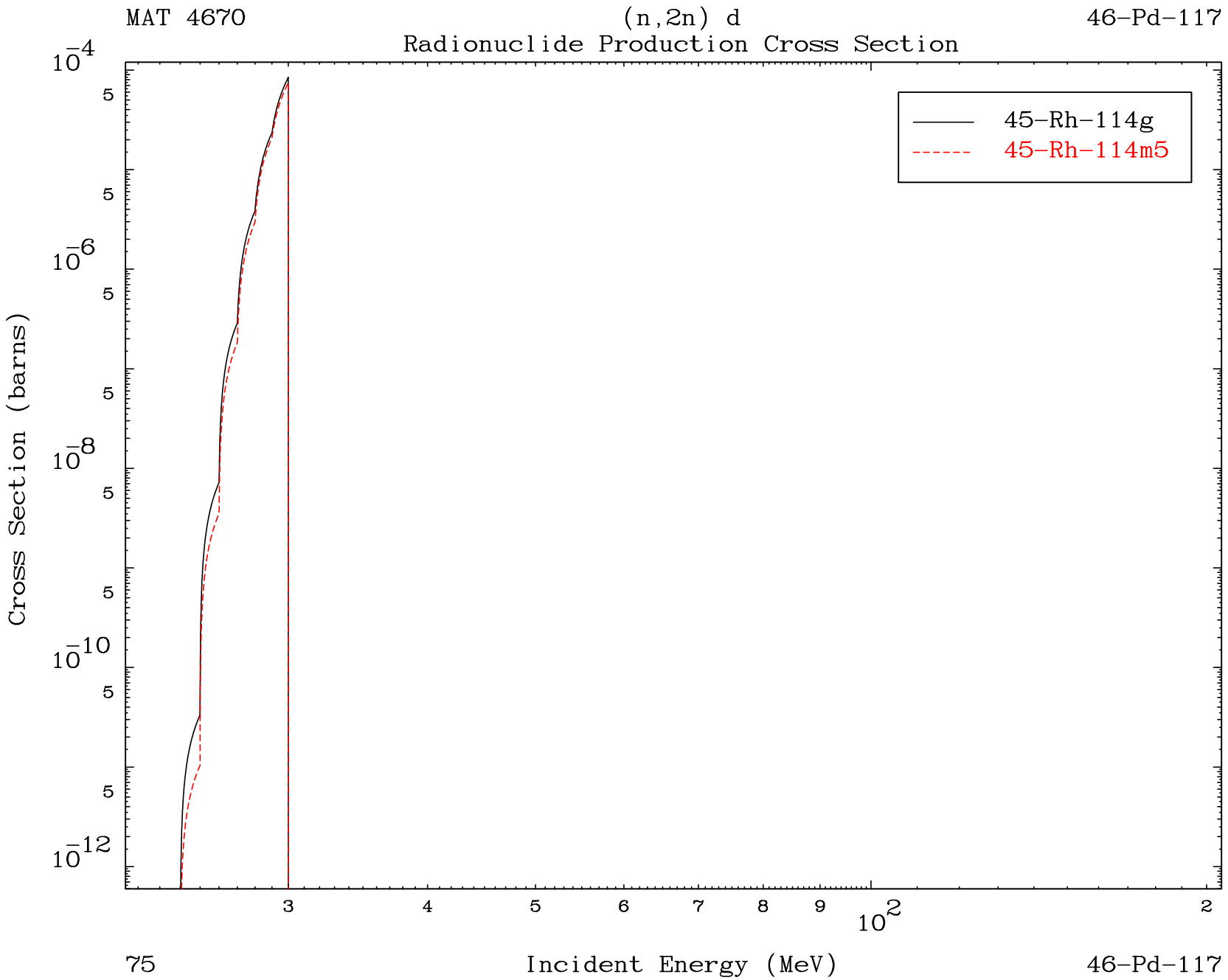

MAT 4670
MT= 64 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-7
5
4
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
70
Incident Energy (MeV)
46-Pd-117

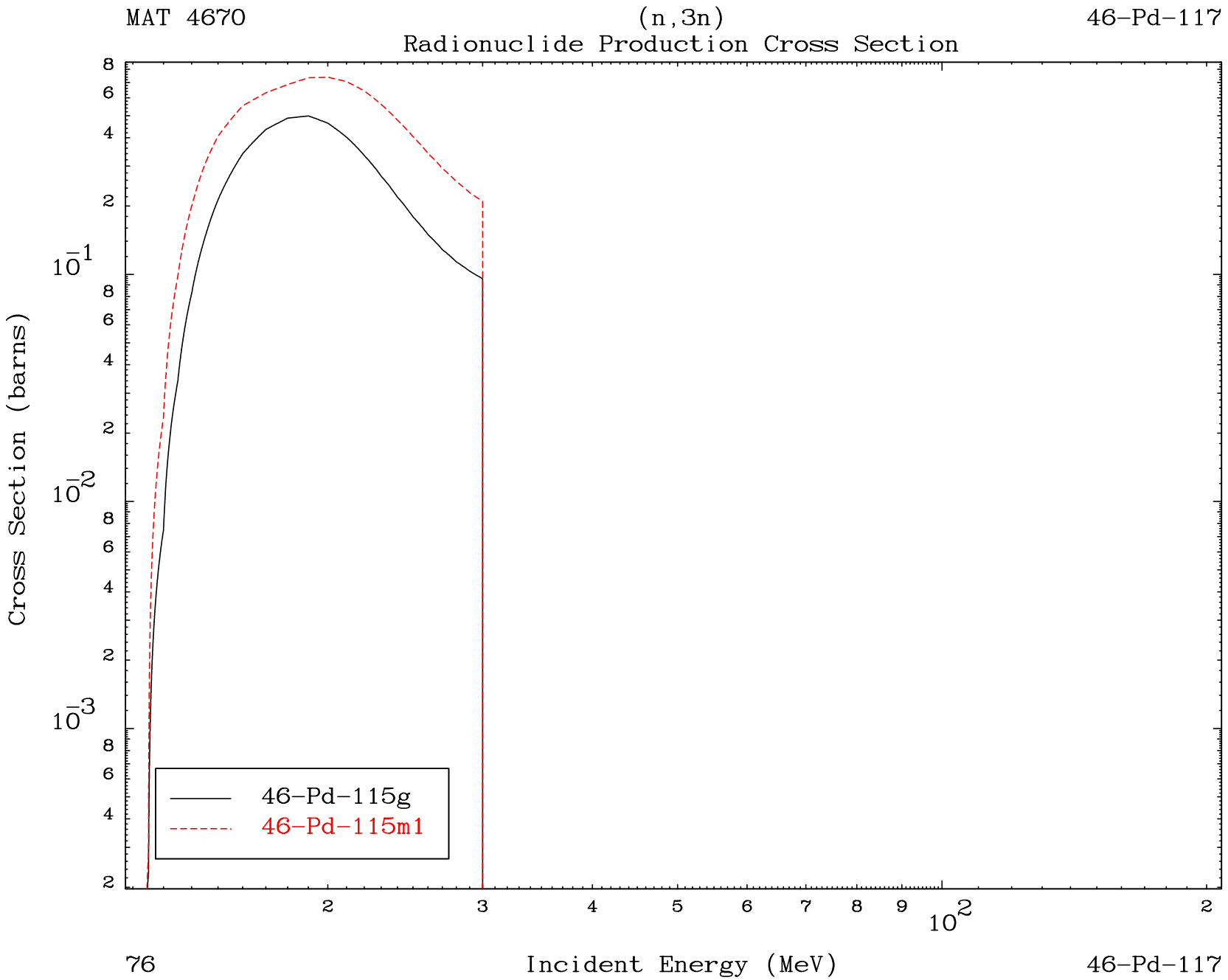

MAT 4670
MT= 65 (n,n') Level
Legendre Coefficients
46-Pd-117
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
71
Incident Energy (MeV)
46-Pd-117

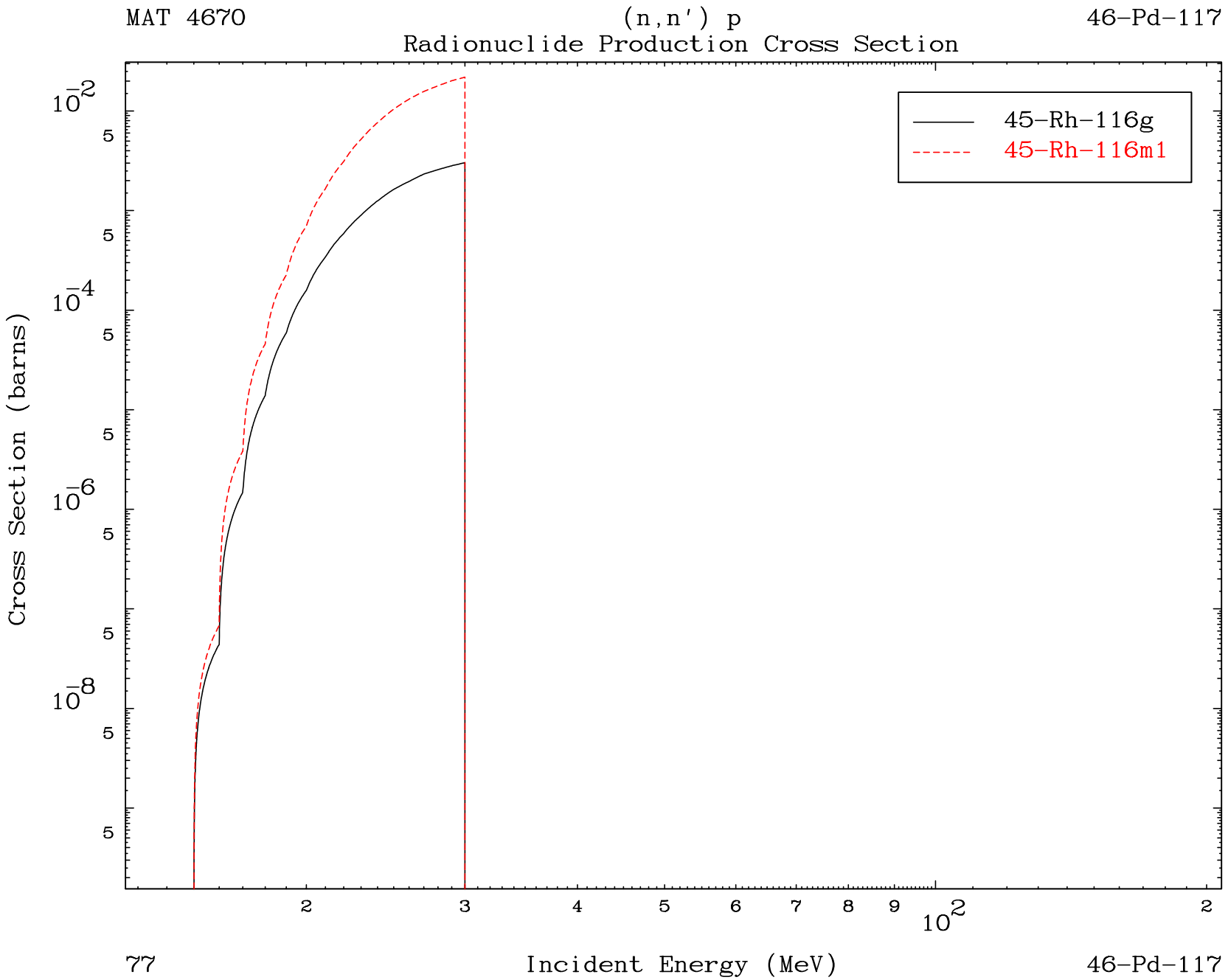

MAT 4670
MT= 65 (n,n') Level
Legendre Coefficients
46-Pd-117
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
50
100
150
200
72
Incident Energy (MeV)
46-Pd-117

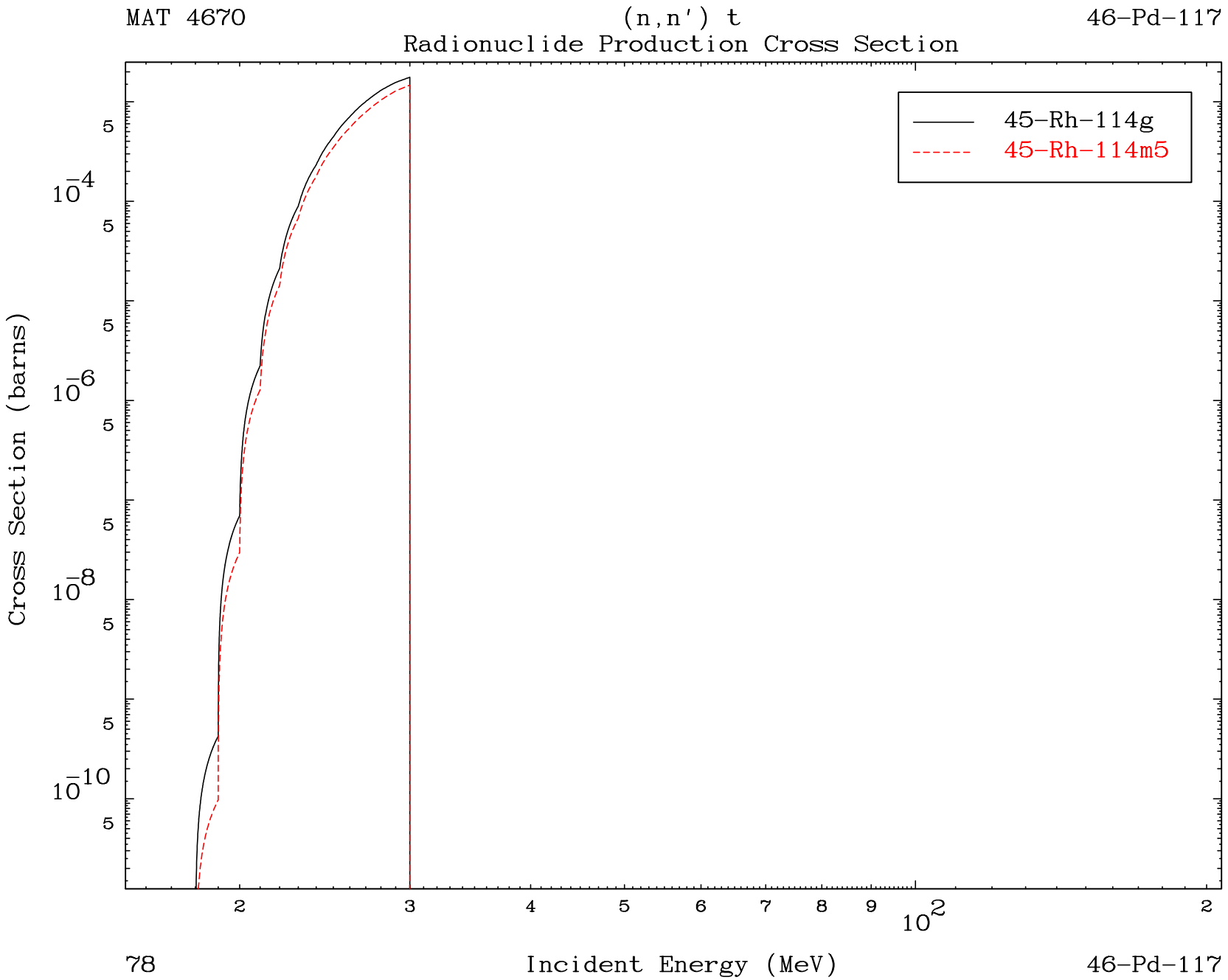

MAT 4670
MT= 65 (n,n') Level
Legendre Coefficients
46-Pd-117
X10-35
P19
P20
P21
P22
P23
P24
P25
P26
P27
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
73
Incident Energy (MeV)
46-Pd-117

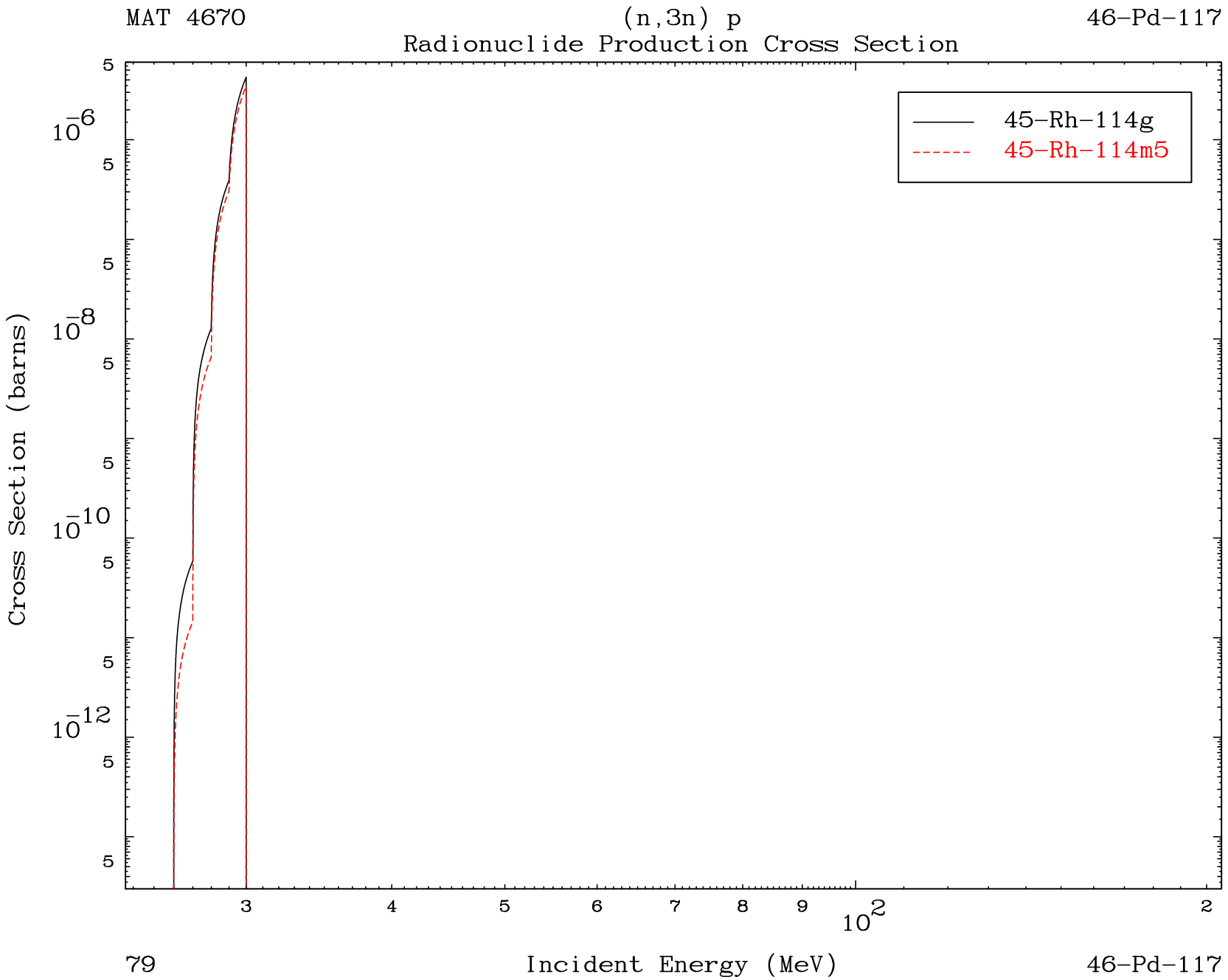

MAT 4670
MT= 65 (n,n') Level
Legendre Coefficients
46-Pd-117
X10^-7
5
4
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
74
Incident Energy (MeV)
46-Pd-117

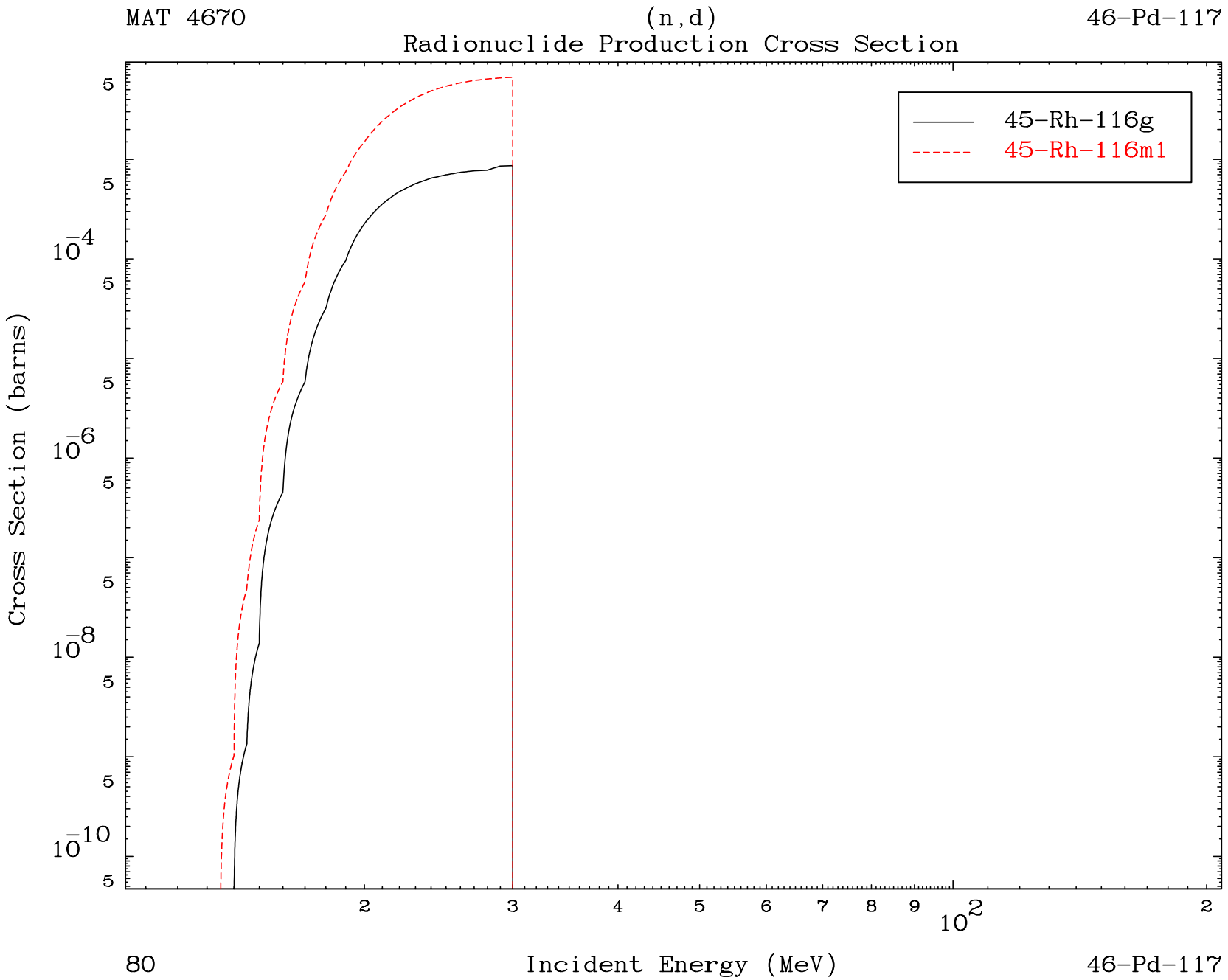

MAT 4670
(n,2n) d
46-Pd-117
Radionuclide Production Cross Section
45-Rh-114g
45-Rh-114m5
Cross Section (barns)
Incident Energy (MeV)
75
46-Pd-117


MAT 4670
(n,3n)
46-Pd-117
Radionuclide Production Cross Section
Cross Section (barns)
10^-1
10^-2
10^-3
8
6
4
2
2
3
4
5
6
7
8
9
10^2
2
46-Pd-115g
46-Pd-115m1
76
Incident Energy (MeV)
46-Pd-117


MAT 4670
(n,n') p
46-Pd-117
Radionuclide Production Cross Section
45-Rh-116g
45-Rh-116m1
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
3
4
5
6
7
8
9
10 2
2
77
Incident Energy (MeV)
46-Pd-117


MAT 4670
(n,n') t
46-Pd-117
Radionuclide Production Cross Section
45-Rh-114g
45-Rh-114m5
Cross Section (barns)
10-4
10-6
10-8
10-10
5
2
3
4
5
6
7
8
9
10 2
2
78
Incident Energy (MeV)
46-Pd-117


MAT 4670
(n,3n) p
46-Pd-117
Radionuclide Production Cross Section
45-Rh-114g
45-Rh-114m5
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
3
4
5
6
7
8
9
10^2
2
79
Incident Energy (MeV)
46-Pd-117


MAT 4670
(n,d)
46-Pd-117
Radionuclide Production Cross Section
45-Rh-116g
45-Rh-116m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
2
3
4
5
6
7
8
9
10^2
2
80
Incident Energy (MeV)
46-Pd-117