Program EVALPLOT
(Version 2015-2)
by
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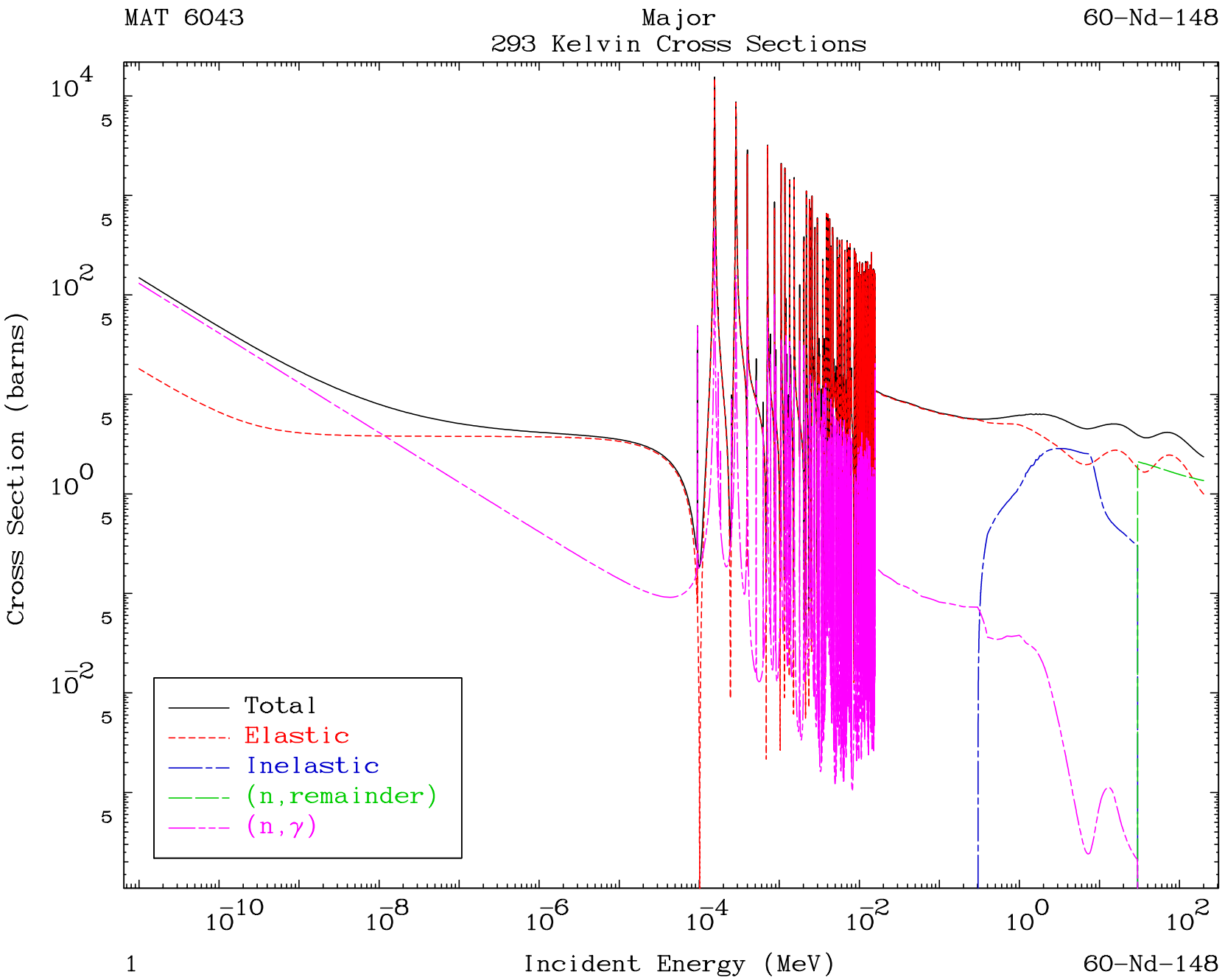
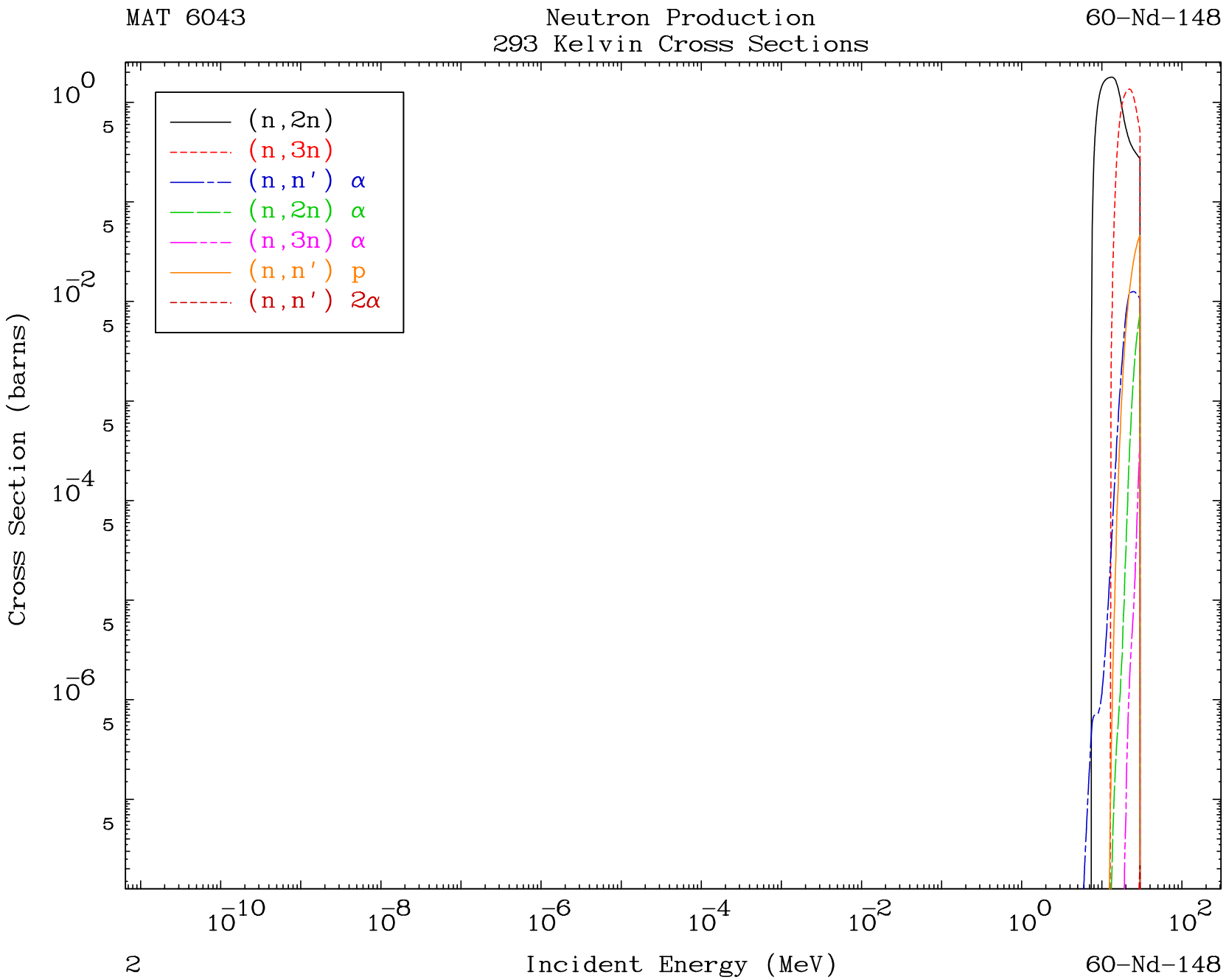
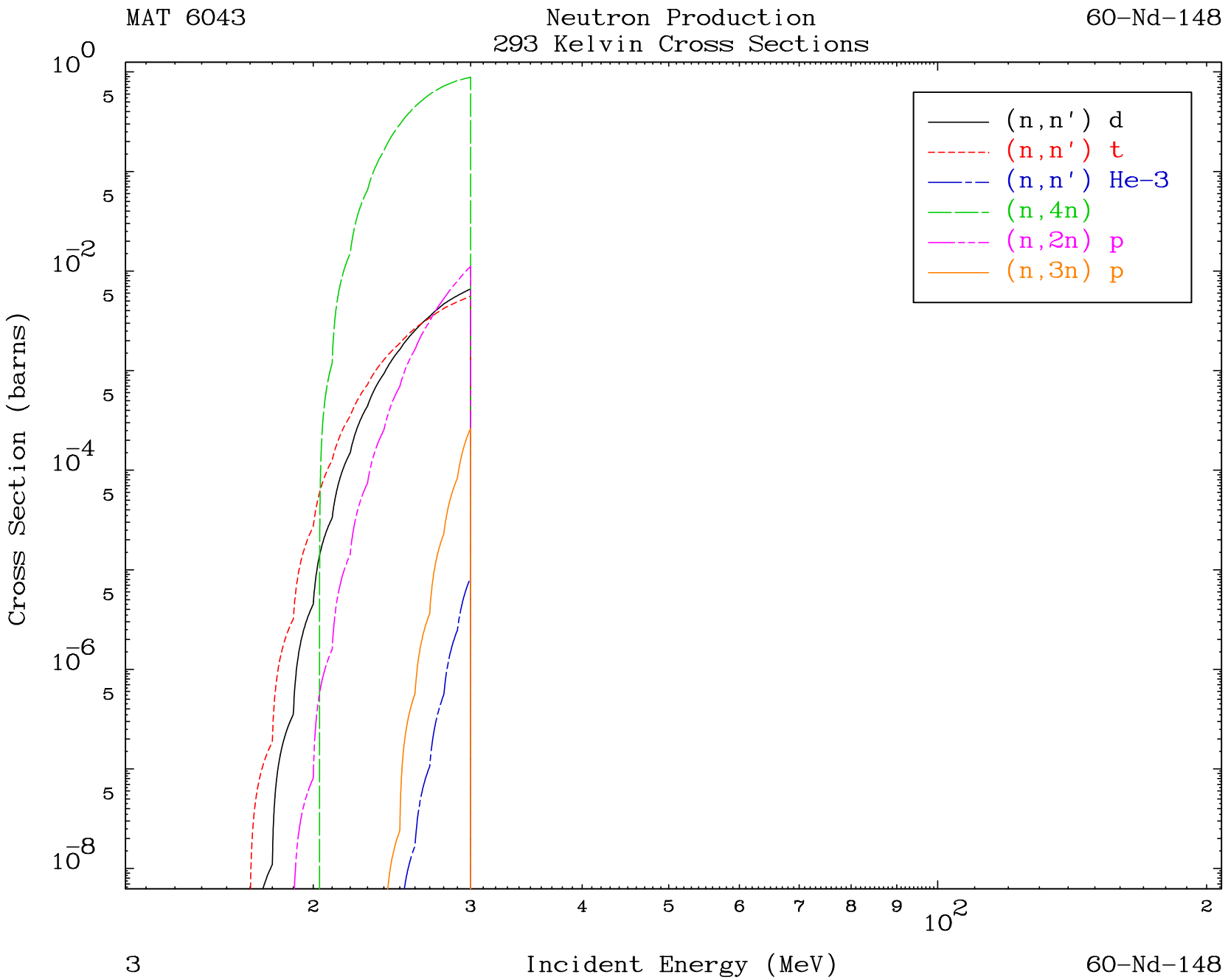
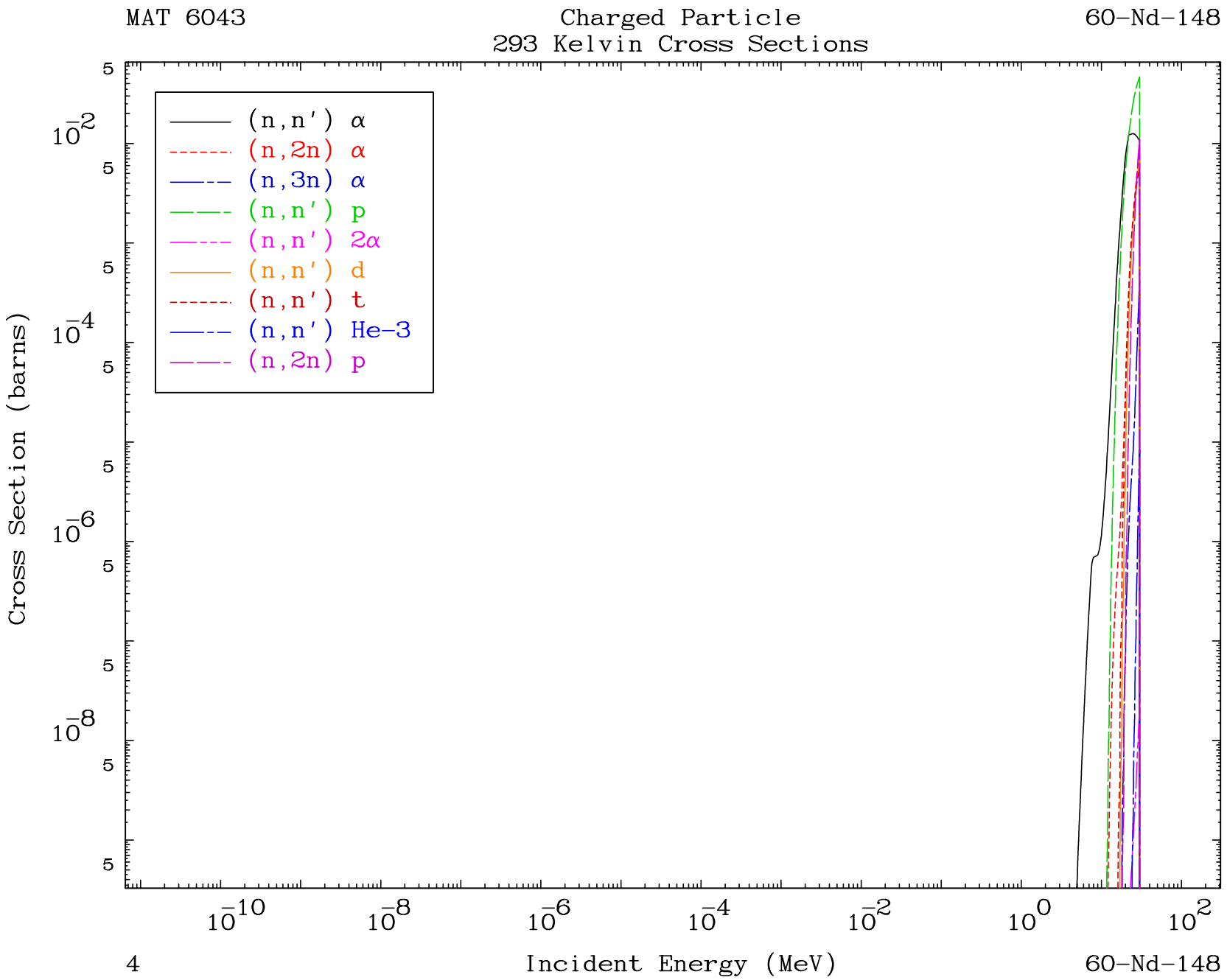
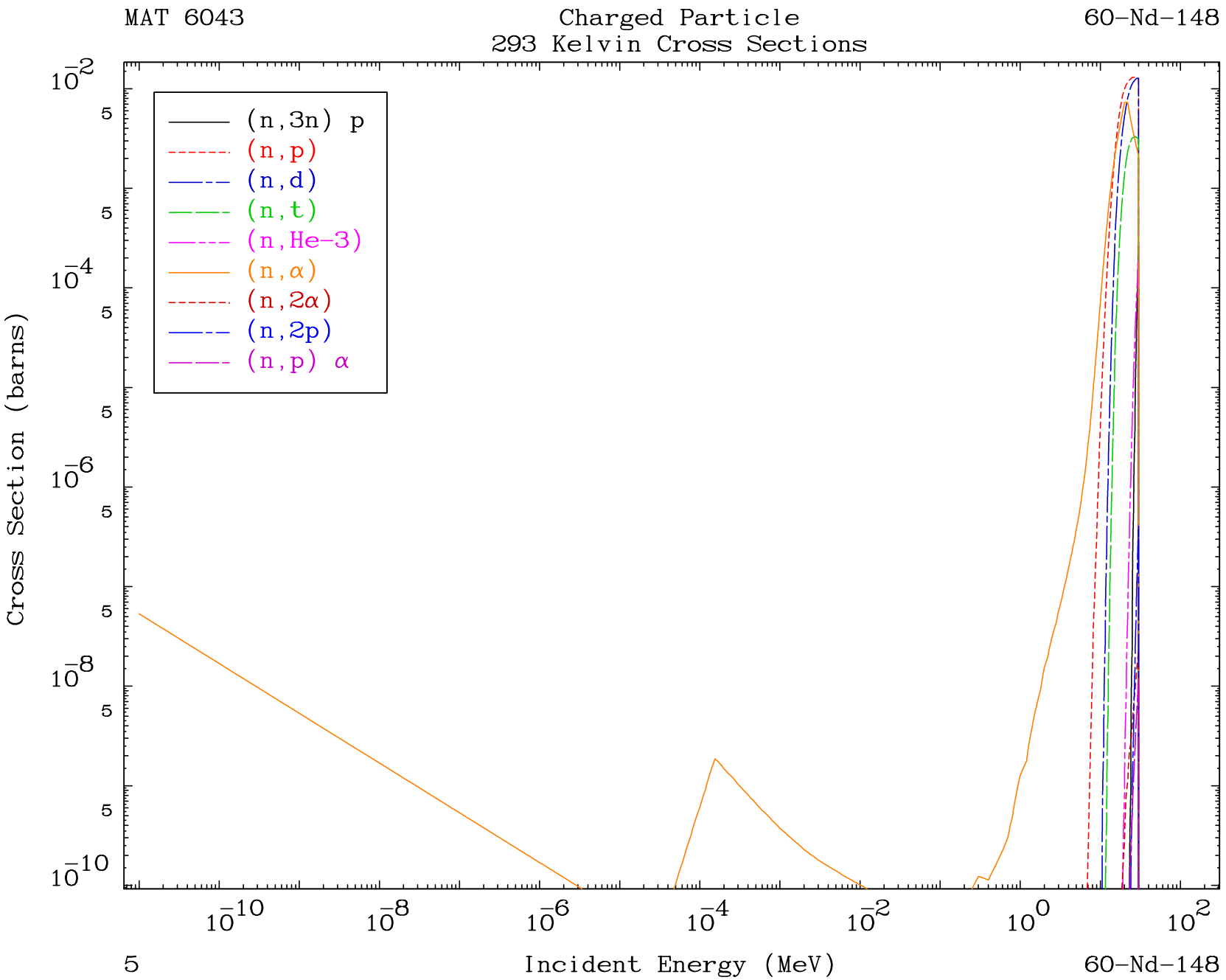
Press Mouse Button to Start

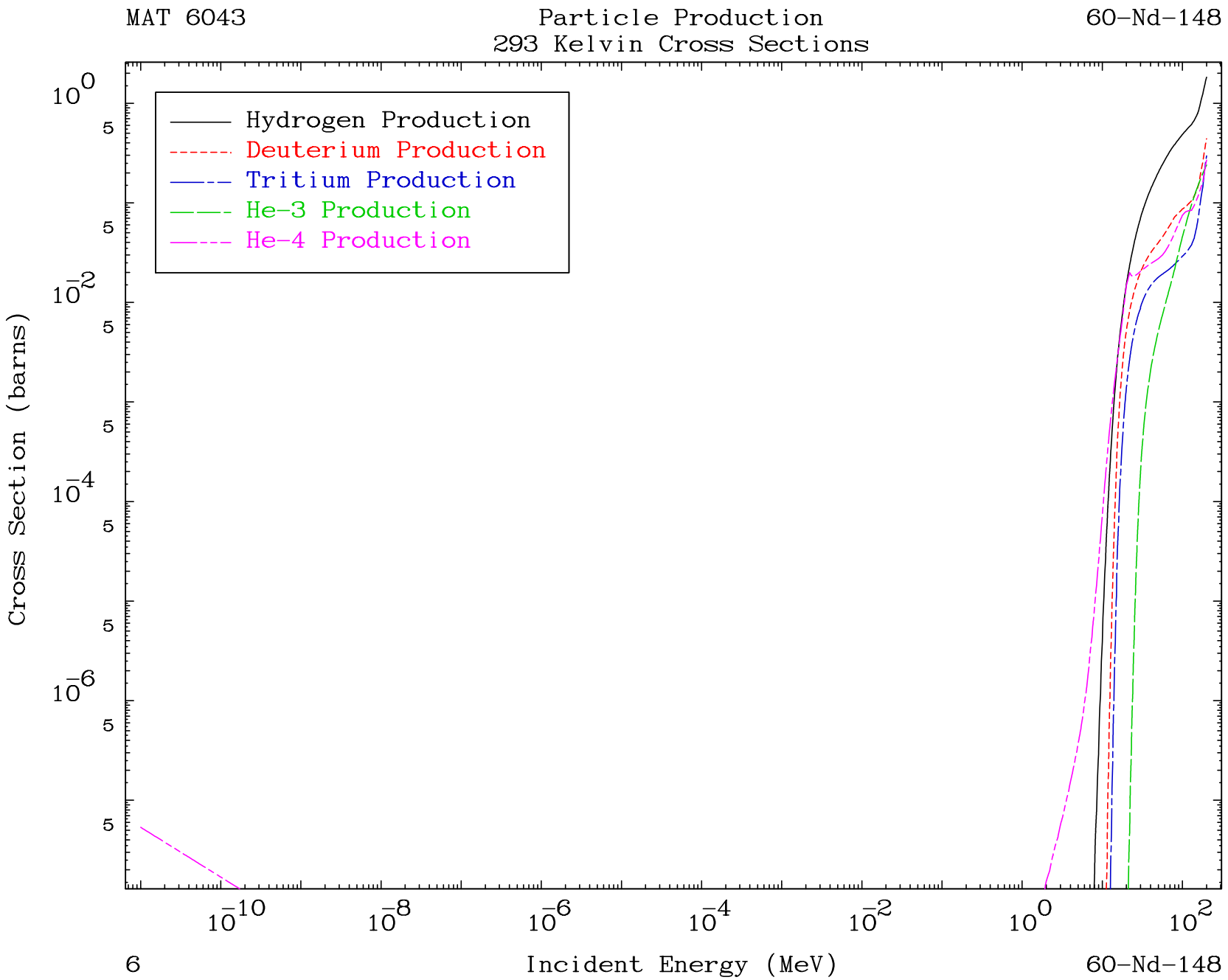

MAT 6043
Major
60-Nd-148
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
60-Nd-148
1
Total
Elastic
Inelastic
(n,remainder)
(n,γ)

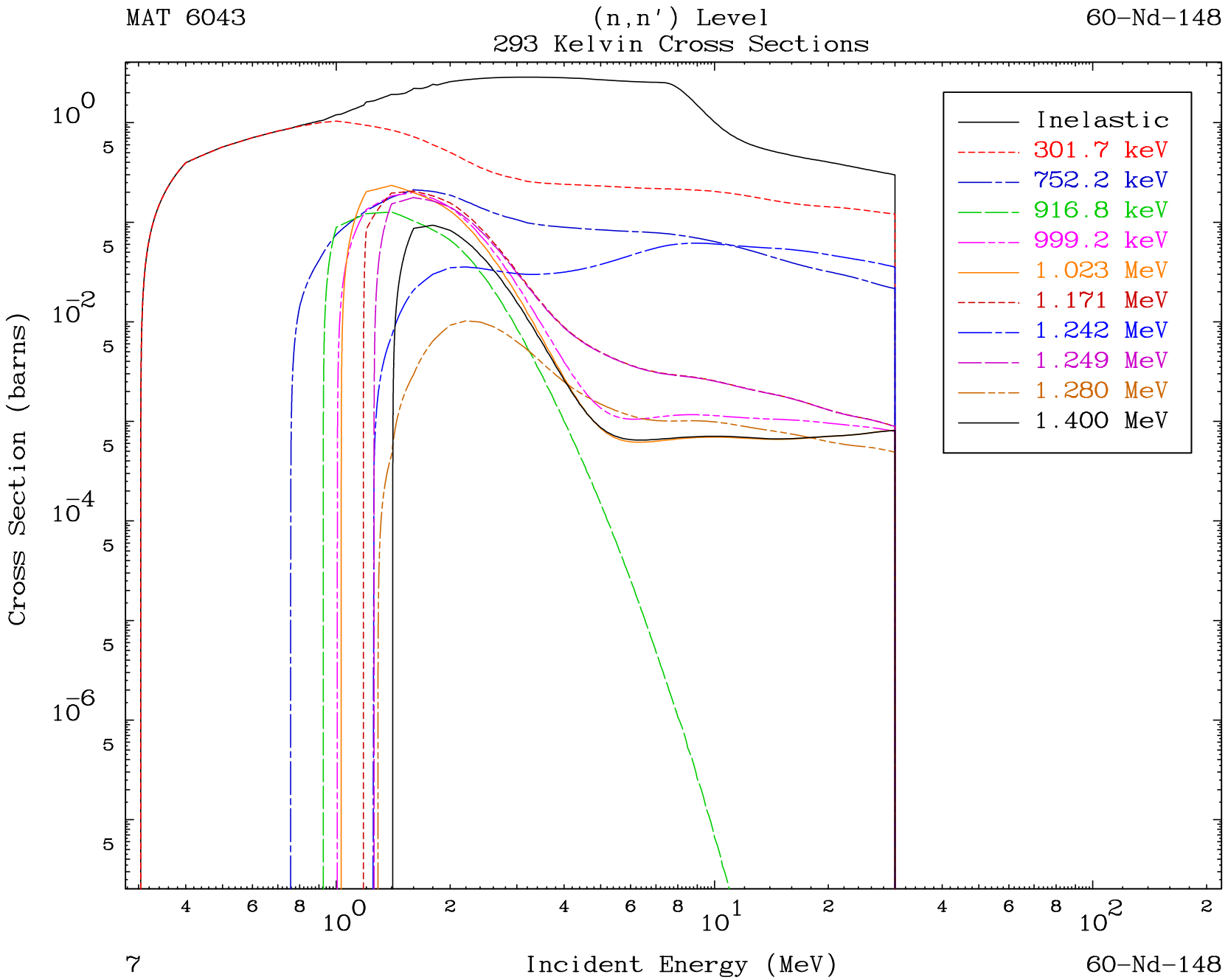

MAT 6043
Neutron Production
293 Kelvin Cross Sections
60-Nd-148
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
2
60-Nd-148

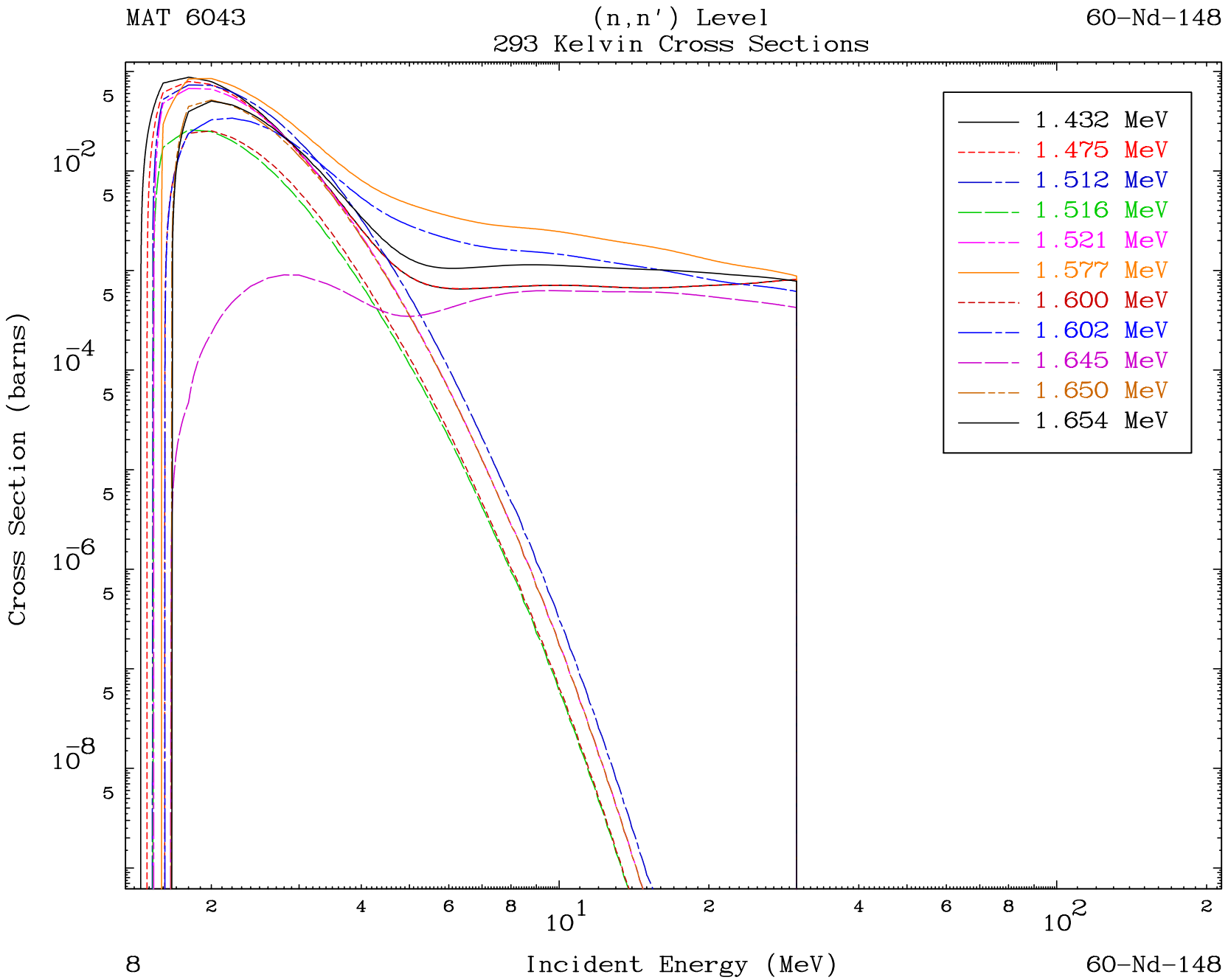

MAT 6043
Neutron Production
293 Kelvin Cross Sections
60-Nd-148
Cross Section (barns)
Incident Energy (MeV)
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
3
60-Nd-148

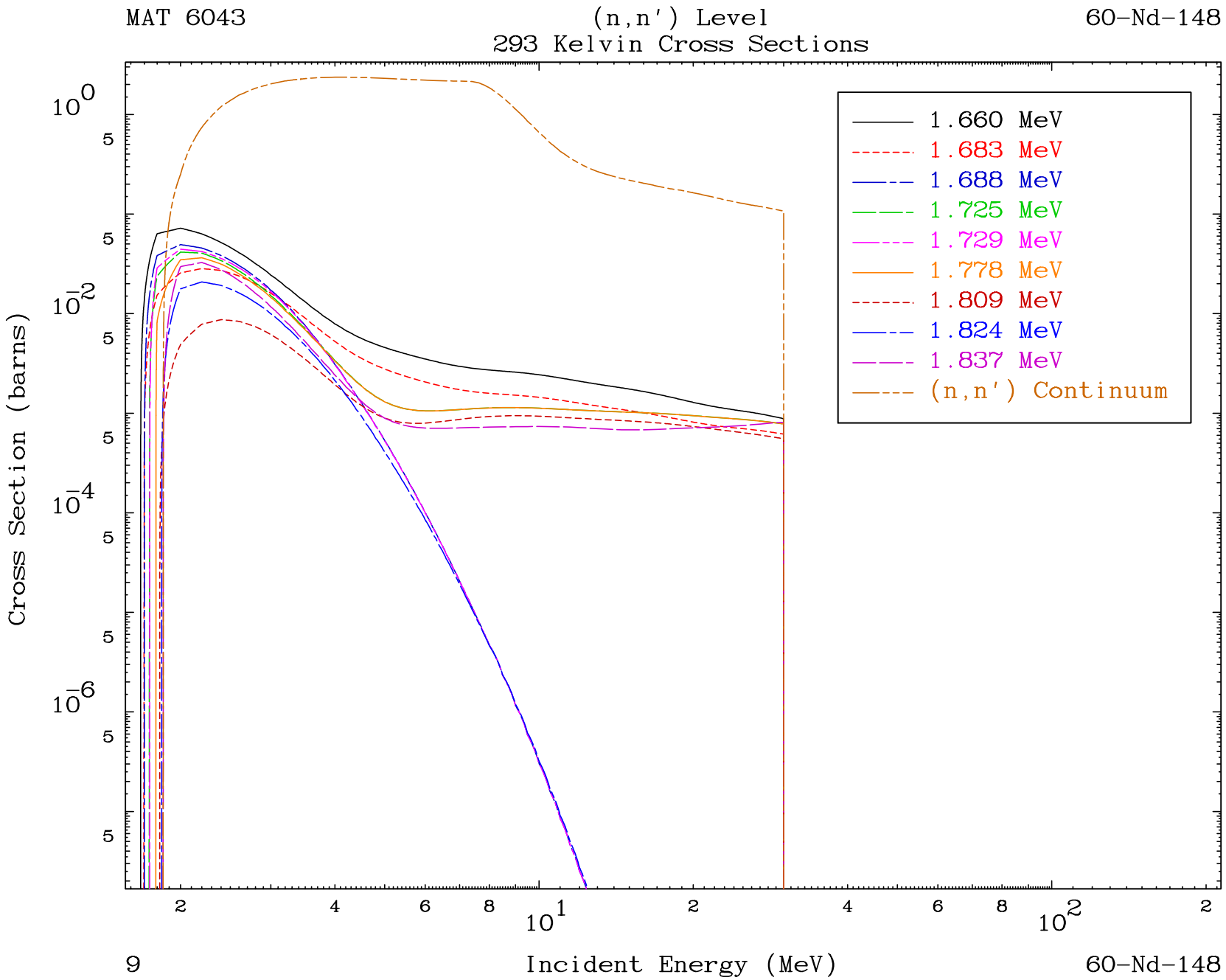

MAT 6043
Charged Particle
60-Nd-148
293 Kelvin Cross Sections
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
Cross Section (barns)
Incident Energy (MeV)
4
60-Nd-148

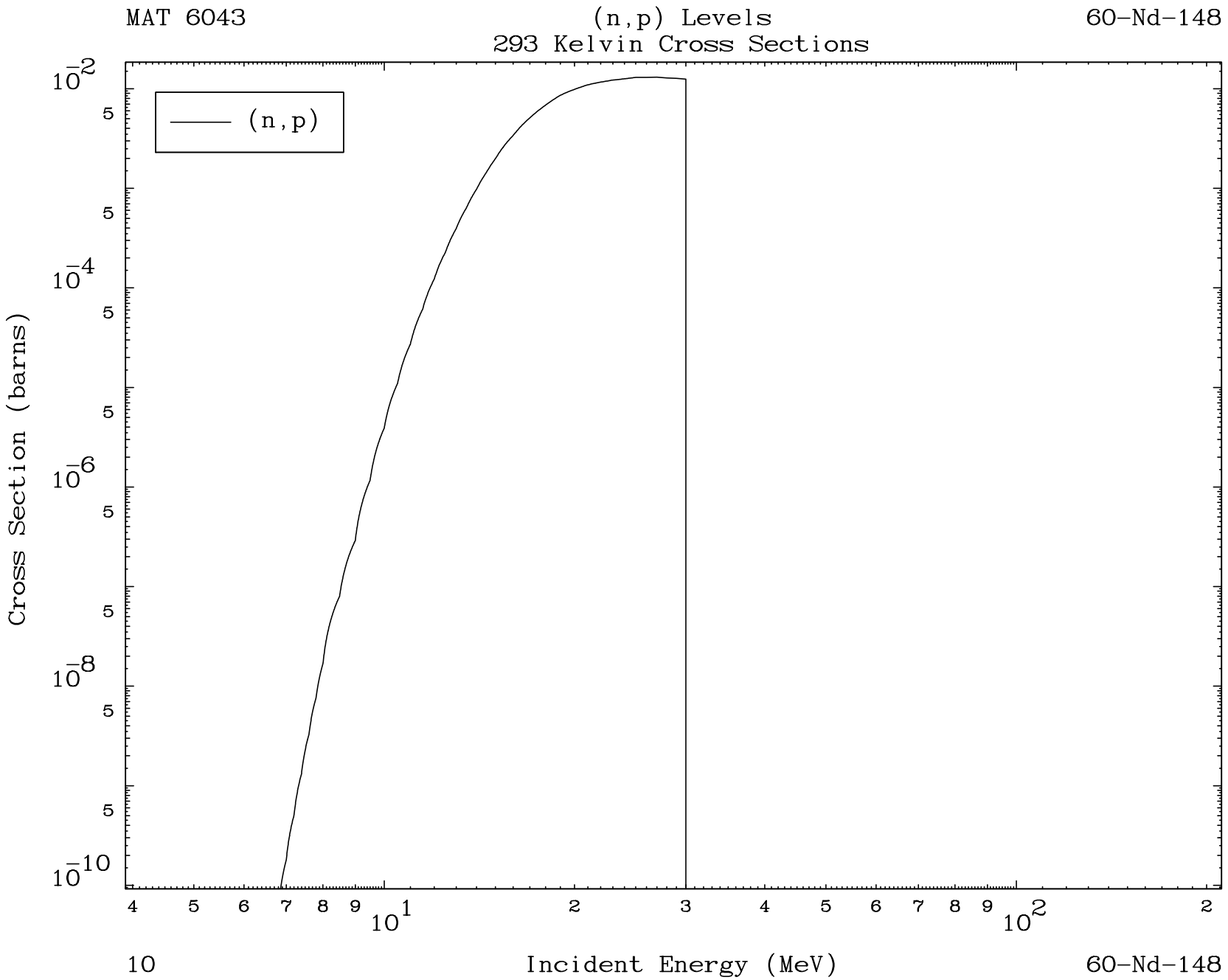

MAT 6043
Charged Particle
293 Kelvin Cross Sections
60-Nd-148
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
Cross Section (barns)
Incident Energy (MeV)
60-Nd-148
5

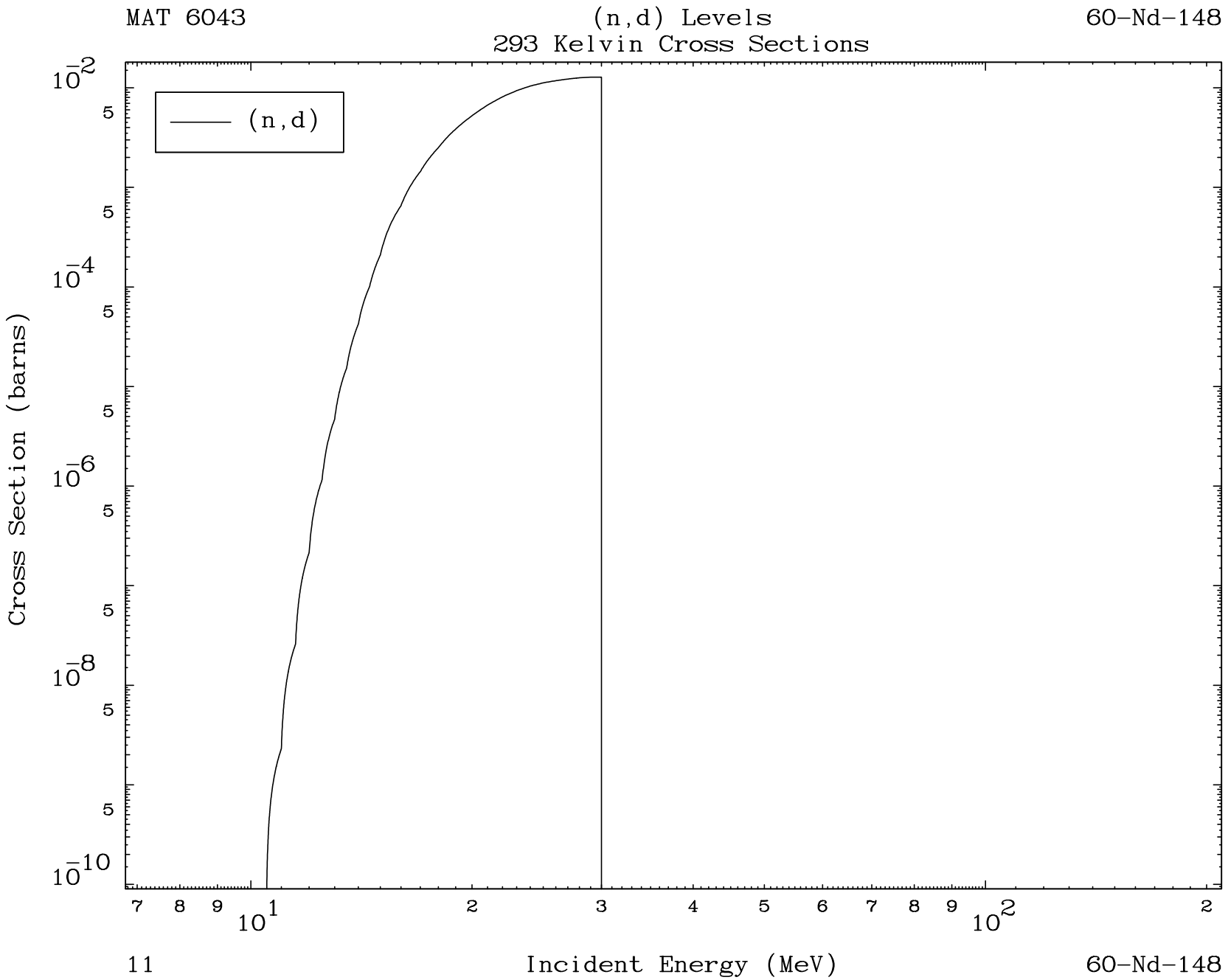

MAT 6043
Particle Production
293 Kelvin Cross Sections
60-Nd-148
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Cross Section (barns)
Incident Energy (MeV)
6
60-Nd-148

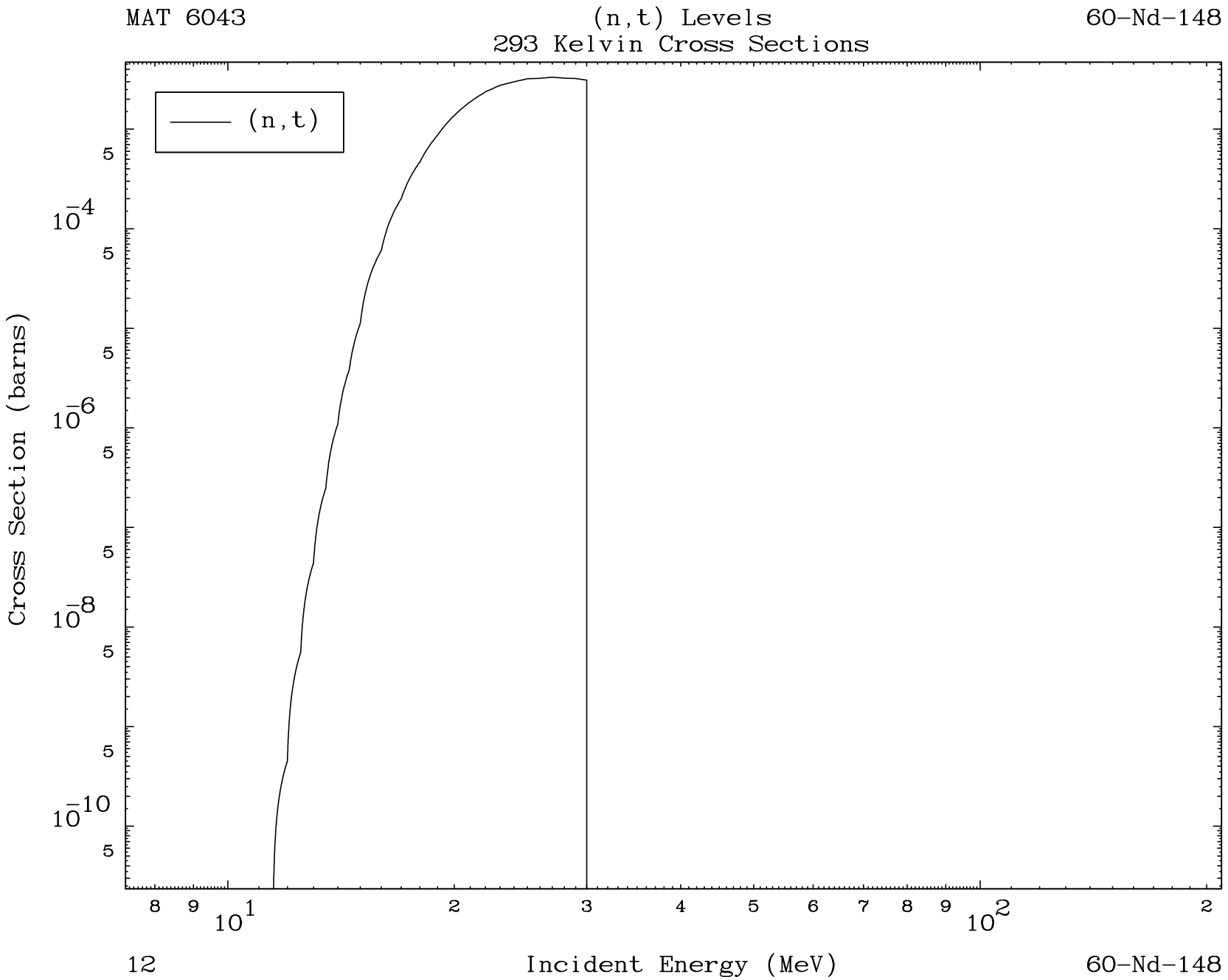

MAT 6043
(n,n') Level
293 Kelvin Cross Sections
60-Nd-148
Cross Section (barns)
Incident Energy (MeV)
Inelastic
301.7 keV
752.2 keV
916.8 keV
999.2 keV
1.023 MeV
1.171 MeV
1.242 MeV
1.249 MeV
1.280 MeV
1.400 MeV
7
60-Nd-148

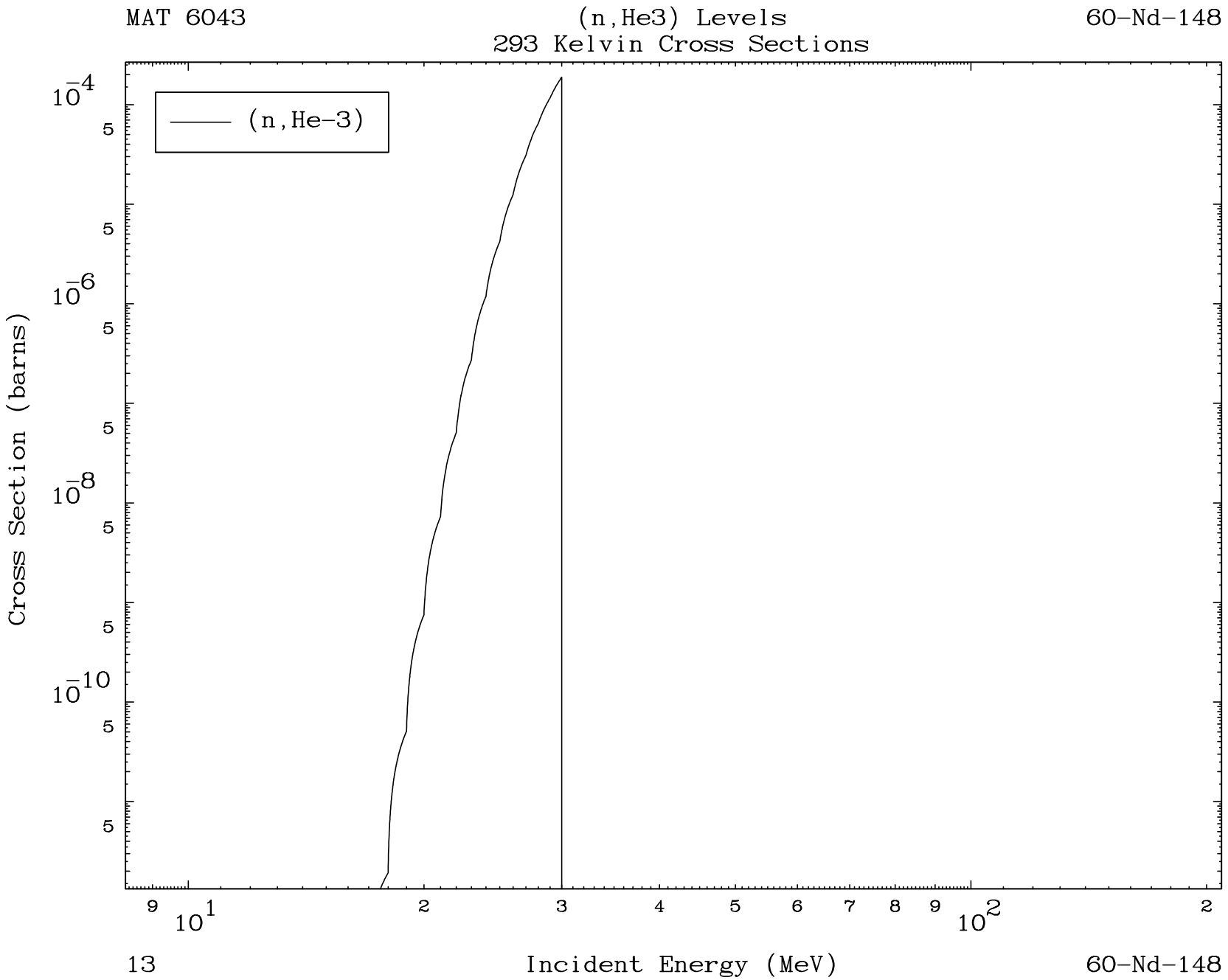

MAT 6043
(n,n') Level
293 Kelvin Cross Sections
60-Nd-148
Cross Section (barns)
Incident Energy (MeV)
1.432 MeV
1.475 MeV
1.512 MeV
1.516 MeV
1.521 MeV
1.577 MeV
1.600 MeV
1.602 MeV
1.645 MeV
1.650 MeV
1.654 MeV
8
60-Nd-148

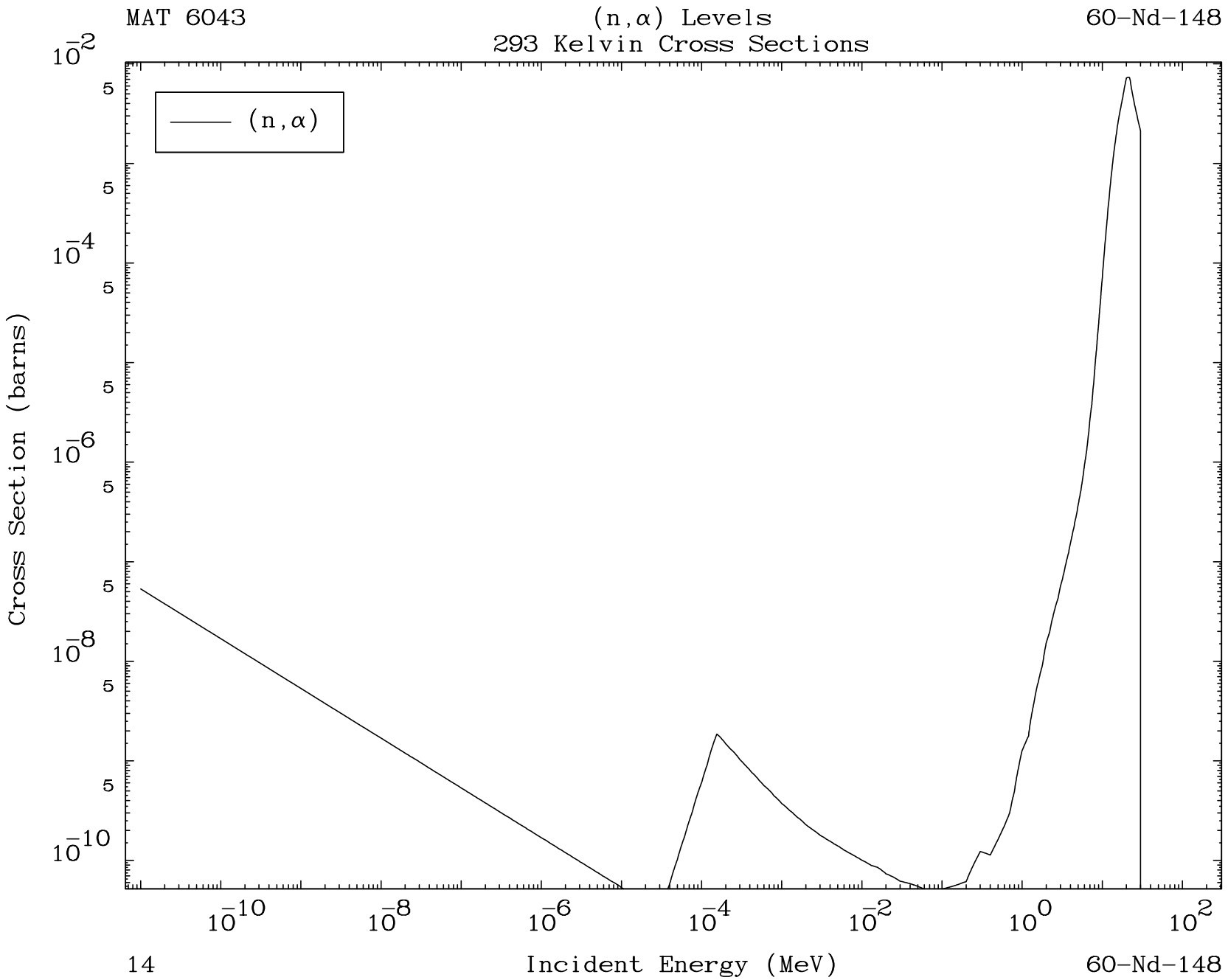

MAT 6043
(n,n') Level
293 Kelvin Cross Sections
60-Nd-148
Cross Section (barns)
Incident Energy (MeV)
1.660 MeV
1.683 MeV
1.688 MeV
1.725 MeV
1.729 MeV
1.778 MeV
1.809 MeV
1.824 MeV
1.837 MeV
(n,n') Continuum
9
60-Nd-148

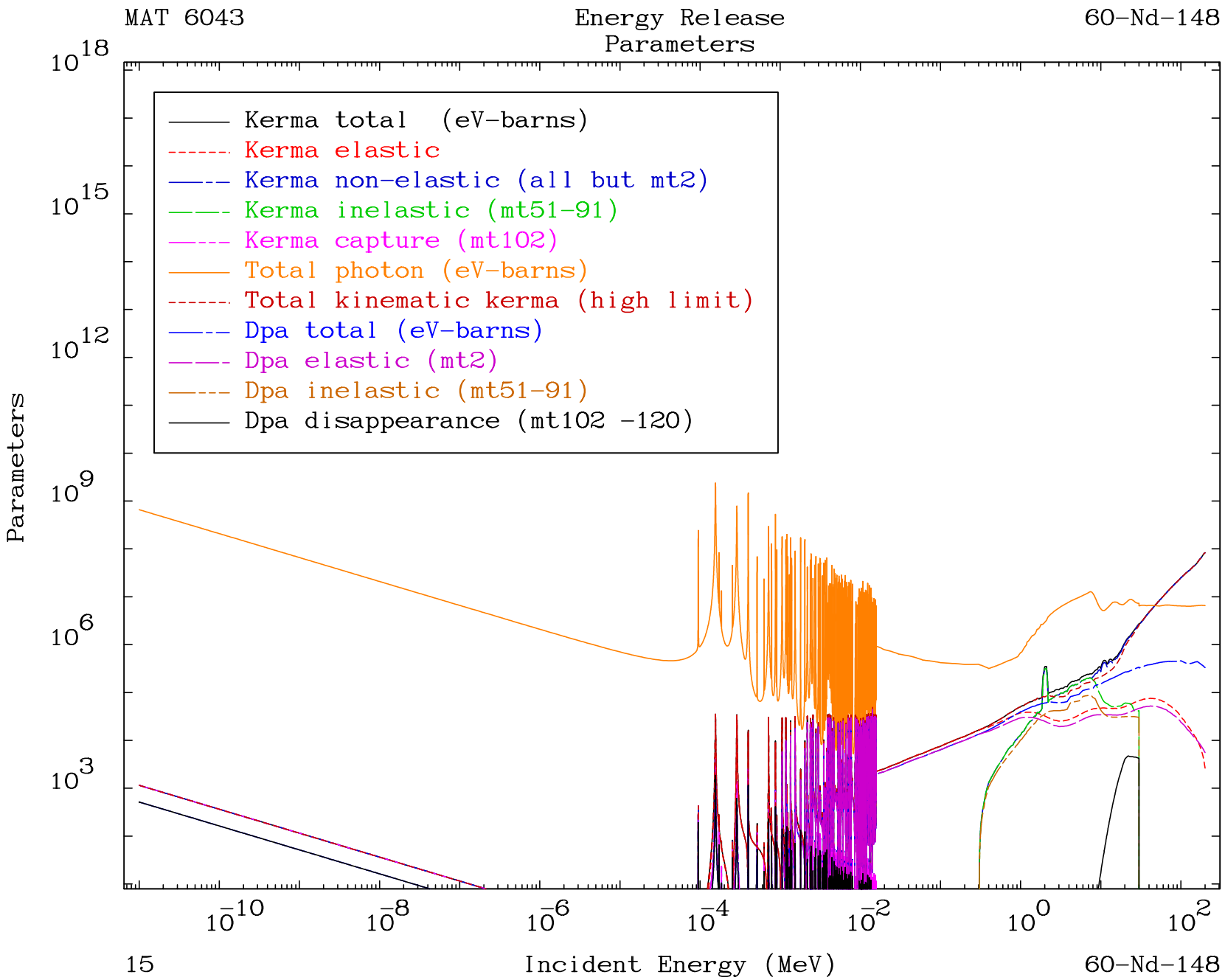

MAT 6043
(n,p) Levels
60-Nd-148
293 Kelvin Cross Sections
(n,p)
Cross Section (barns)
Incident Energy (MeV)
60-Nd-148

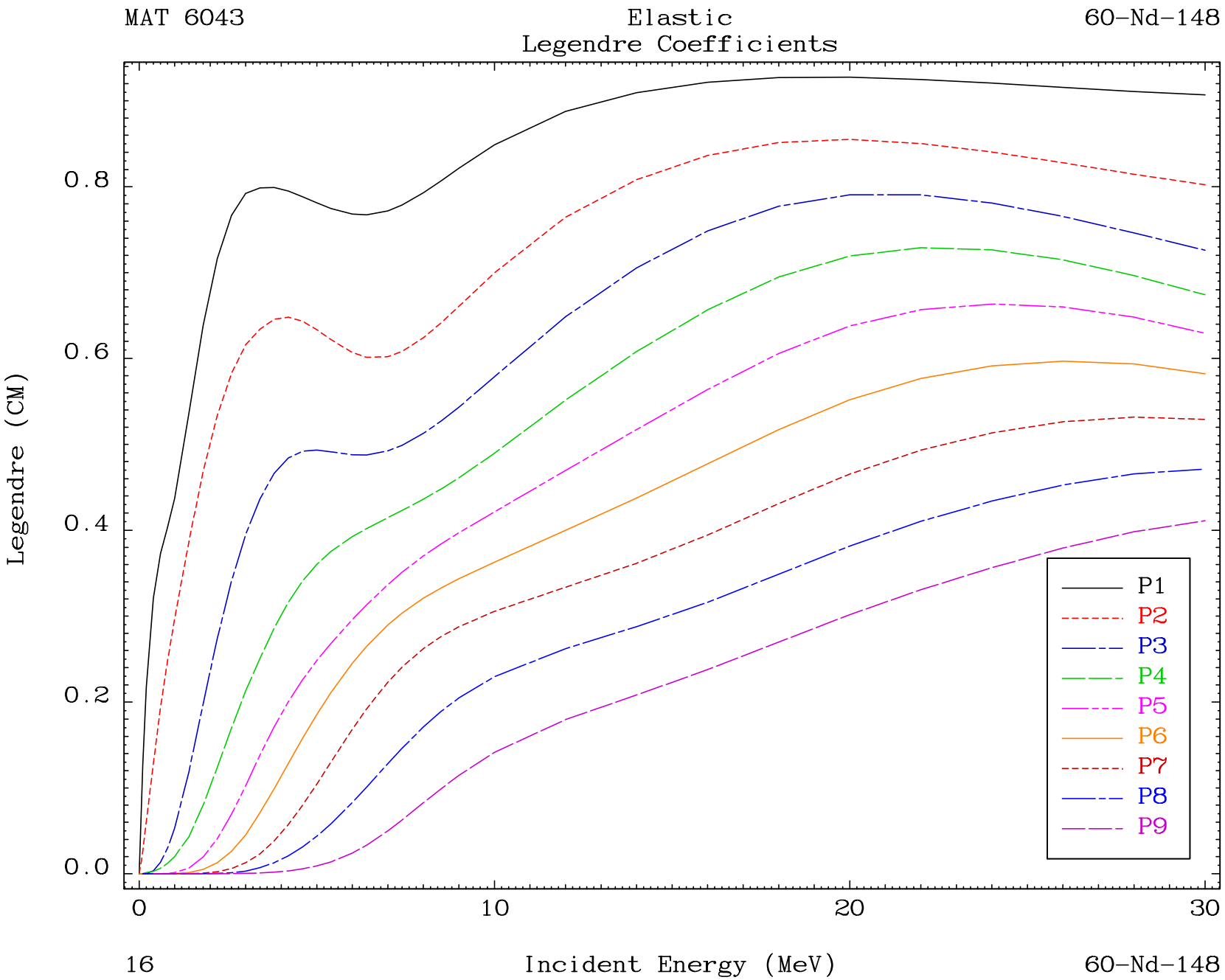

MAT 6043
(n,d) Levels
60-Nd-148
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
11
60-Nd-148

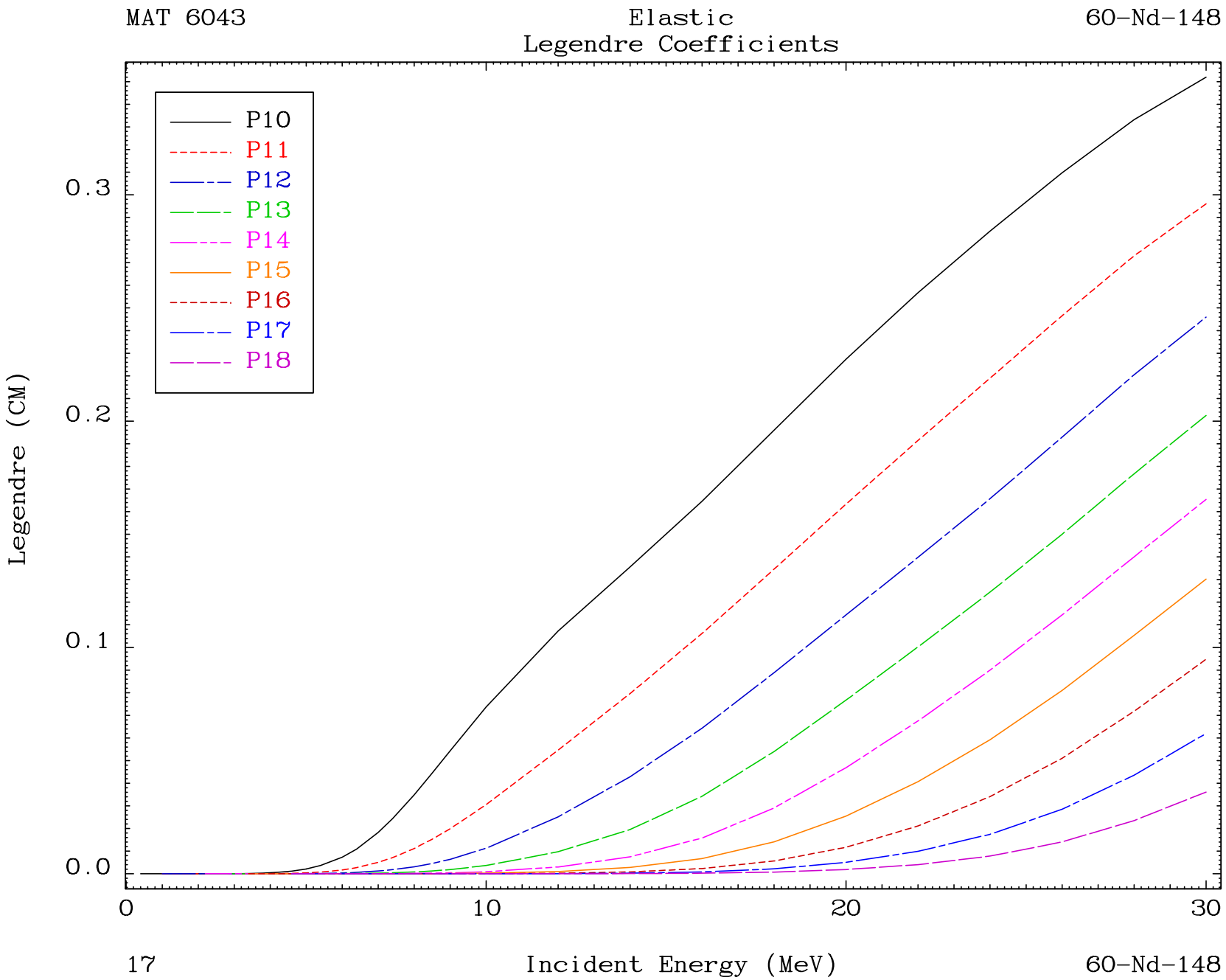

MAT 6043
(n,t) Levels
60-Nd-148
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
8 9 10^1 2 3 4 5 6 7 8 9 10^2 2
Incident Energy (MeV)
12
60-Nd-148

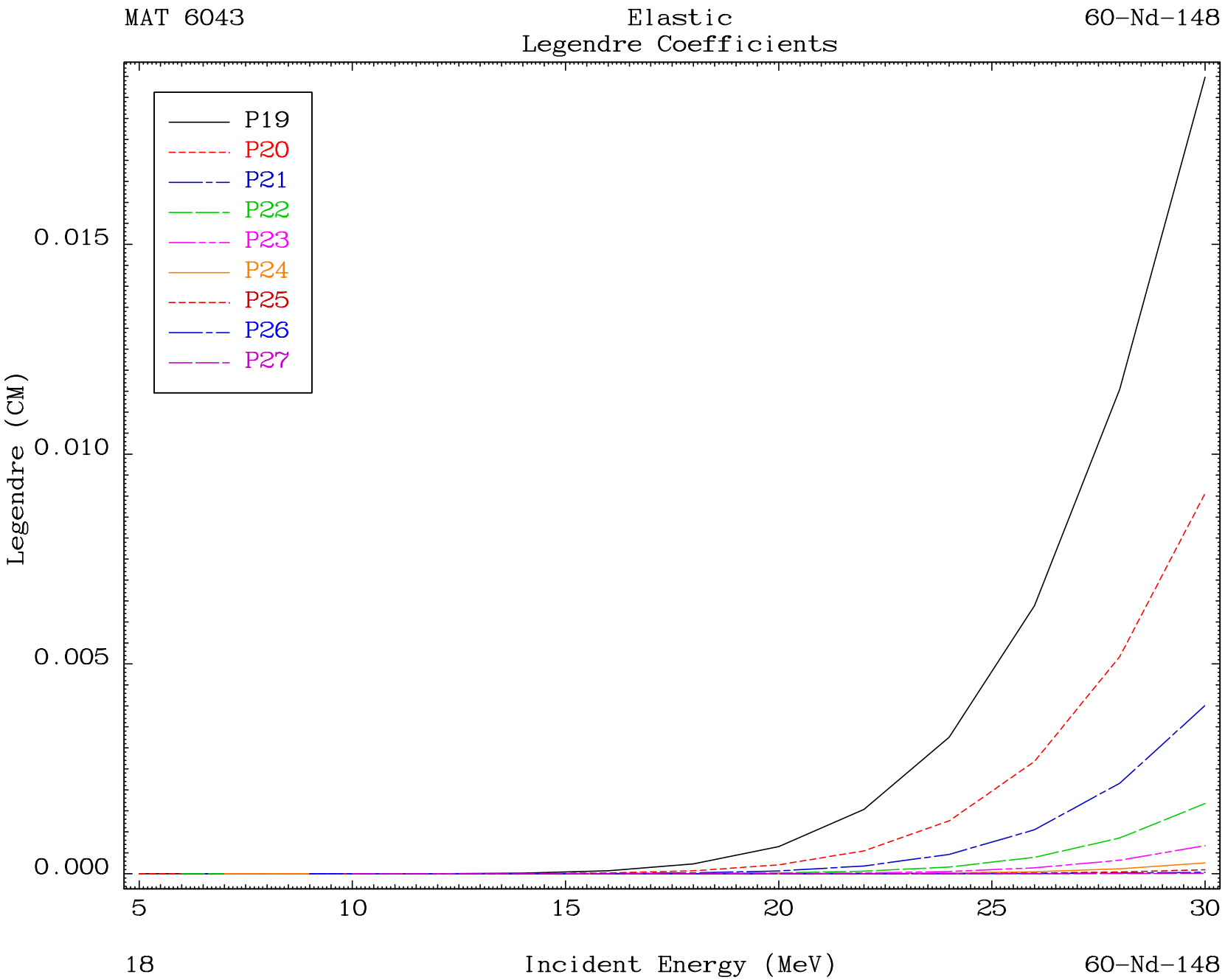

MAT 6043
(n,He3) Levels
60-Nd-148
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
9
10^1
2
3
4
5
6
7
8
9
10^2
2
13
Incident Energy (MeV)
60-Nd-148

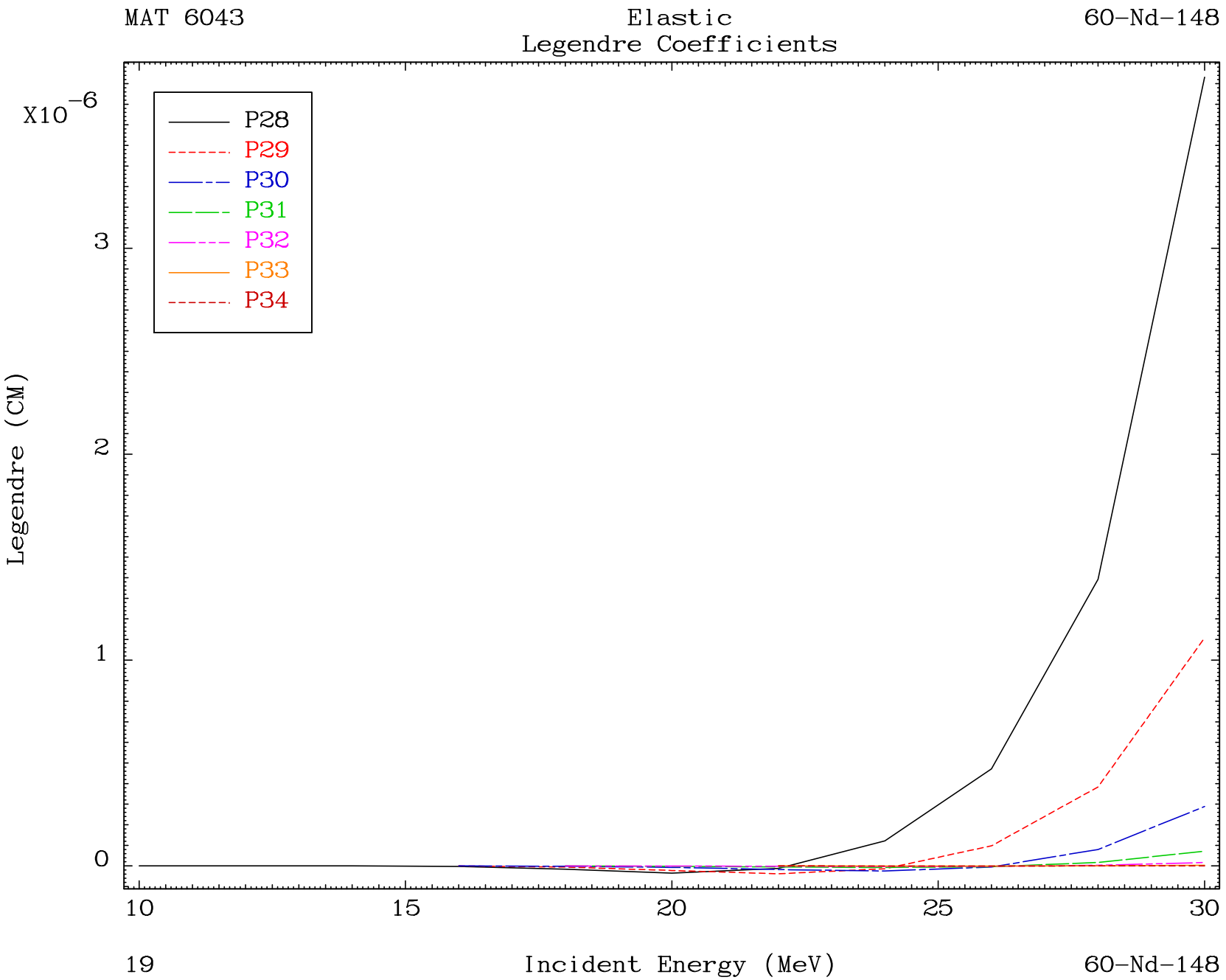

MAT 6043
(n,α) Levels
60-Nd-148
293 Kelvin Cross Sections
(n,α)
Cross Section (barns)
Incident Energy (MeV)
14
60-Nd-148

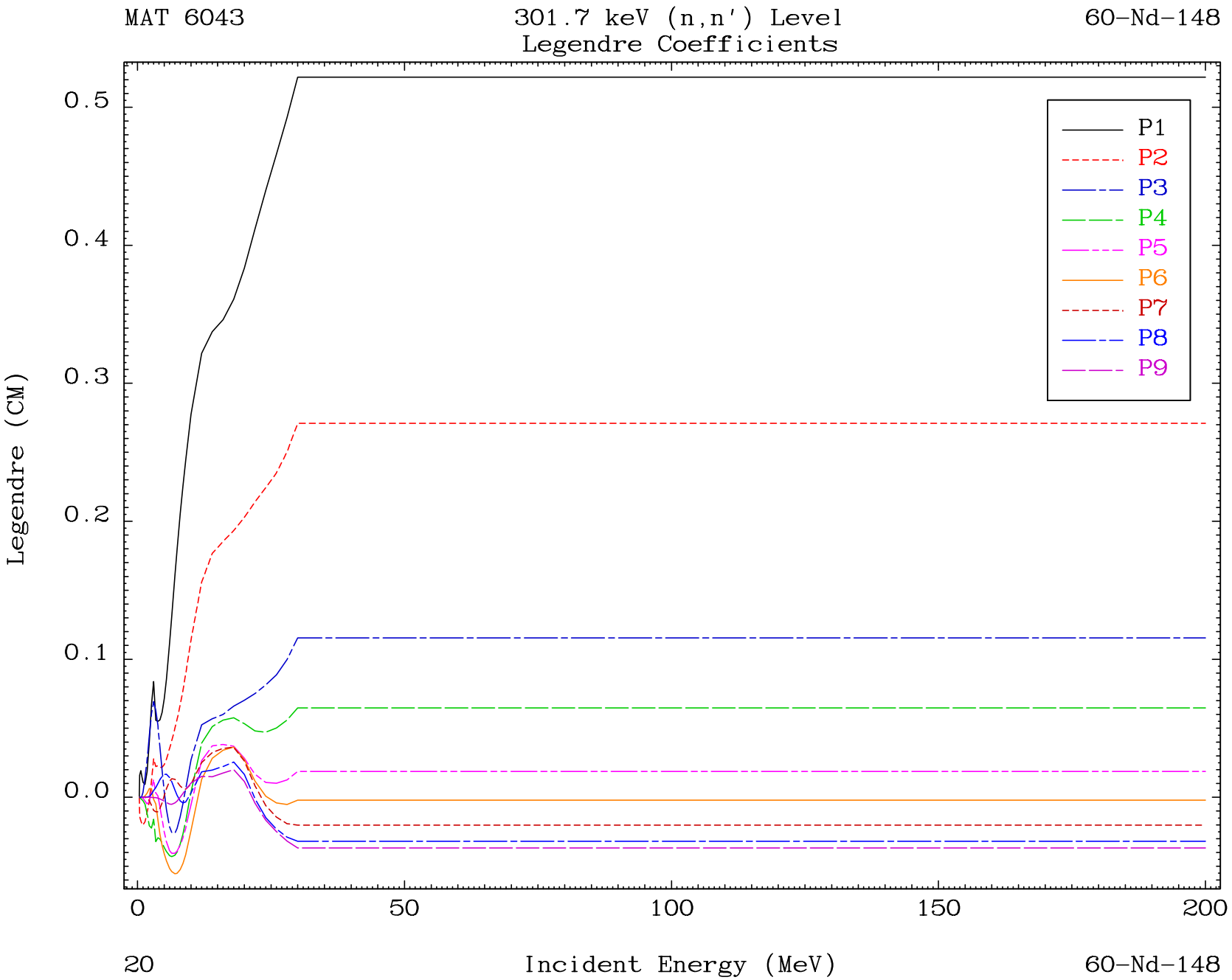

MAT 6043
Energy Release
Parameters
60-Nd-148
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
Incident Energy (MeV)
15
60-Nd-148

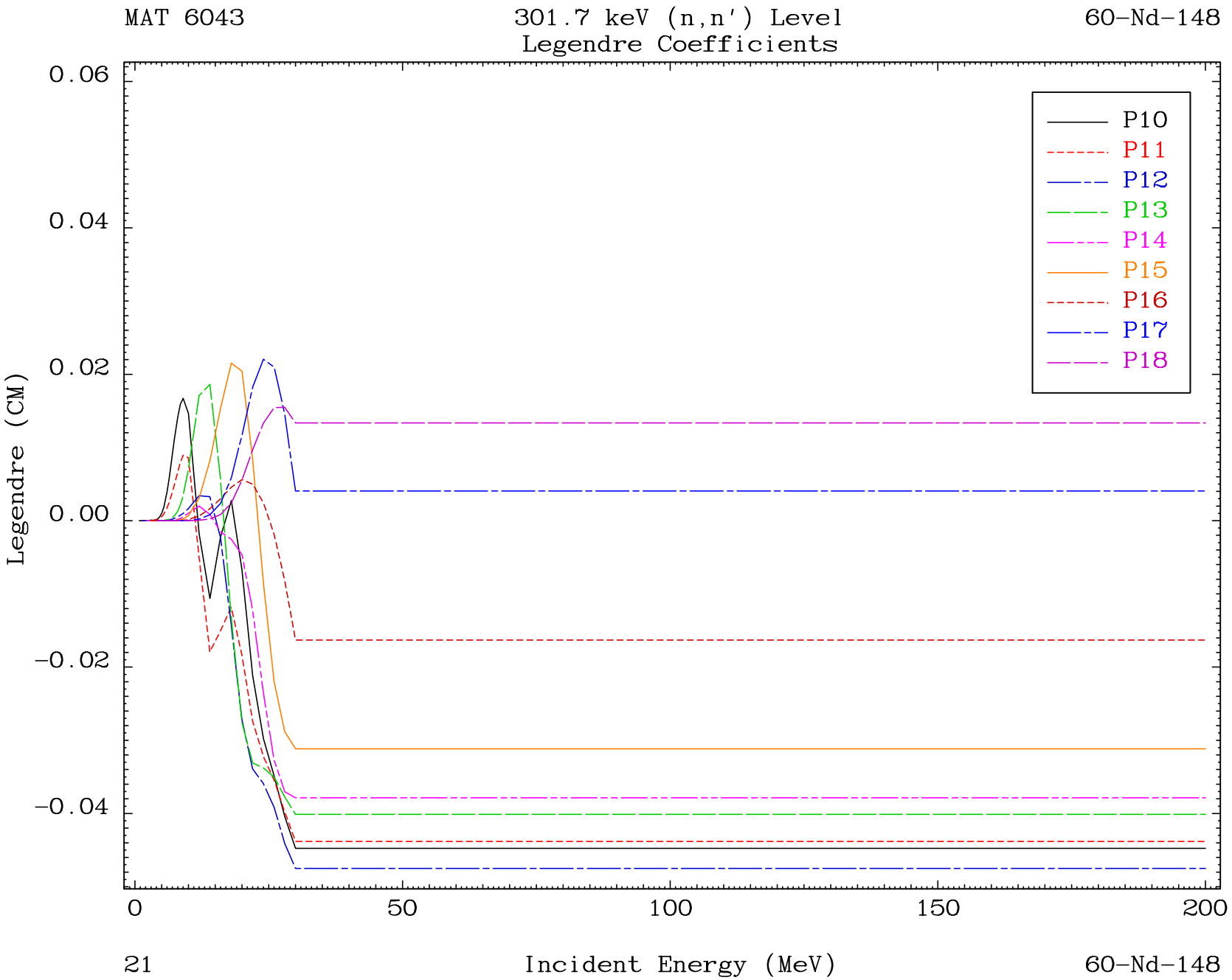

MAT 6043
Elastic
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
16
Incident Energy (MeV)
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9

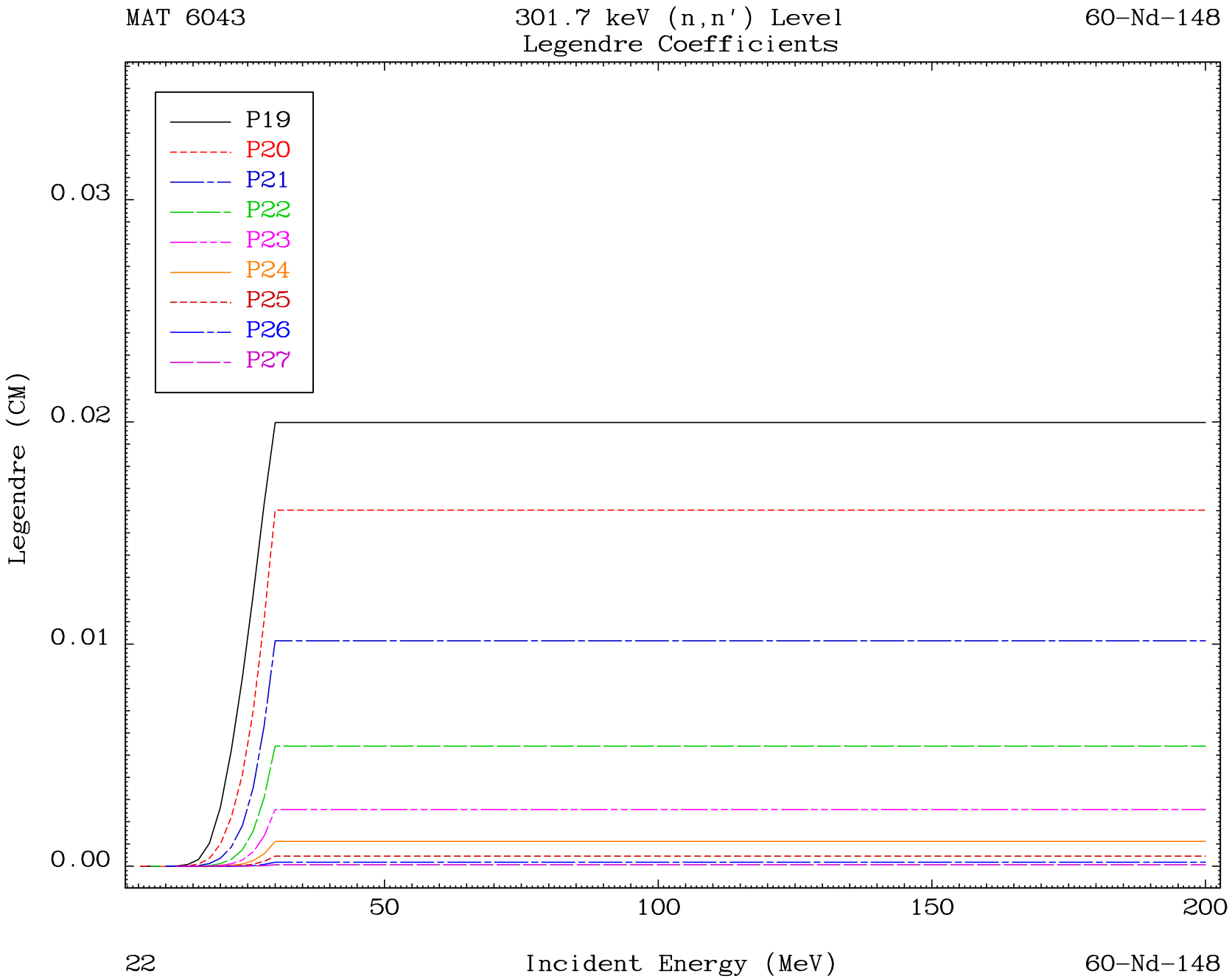

MAT 6043
Elastic
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.0
0.1
0.2
0.3
0
10
20
30
17
Incident Energy (MeV)
60-Nd-148

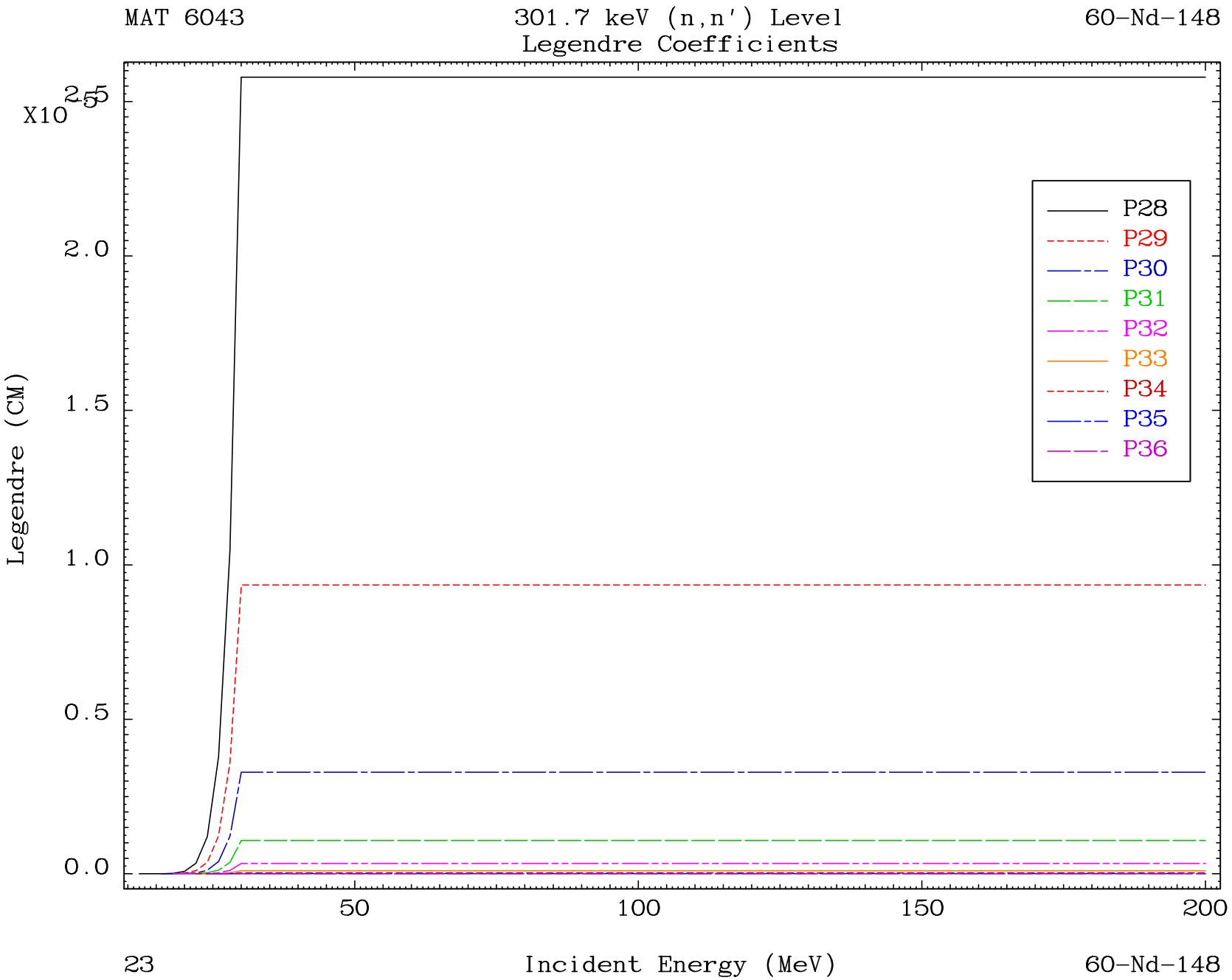

MAT 6043
Elastic
Legendre Coefficients
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
0.015
0.010
0.005
0.000
5
10
15
20
25
30
18
Incident Energy (MeV)
60-Nd-148

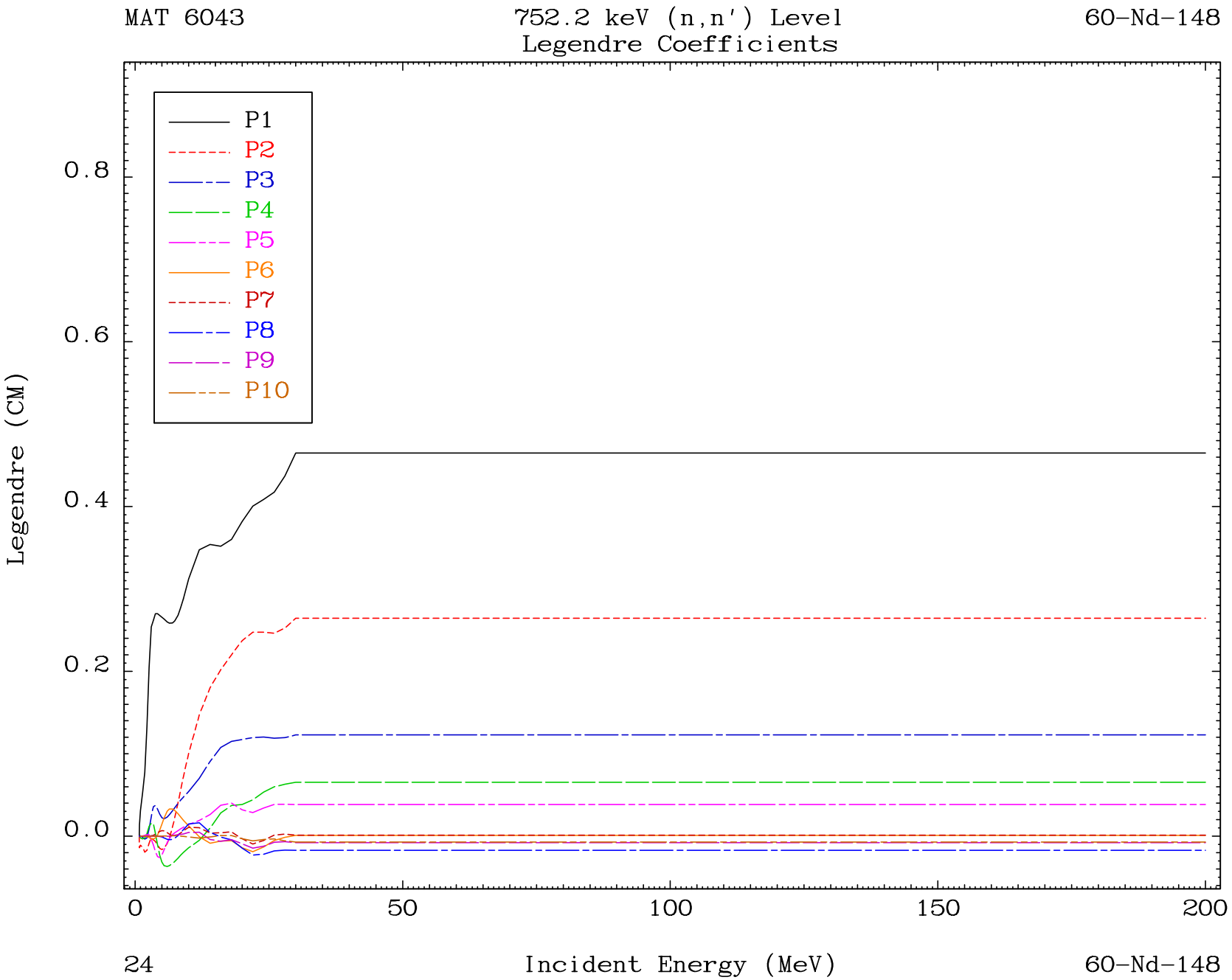

MAT 6043
Elastic
Legendre Coefficients
60-Nd-148
X10 −6
P28
P29
P30
P31
P32
P33
P34
Legendre (CM)
3
2
1
0
10
15
20
25
30
19
Incident Energy (MeV)
60-Nd-148

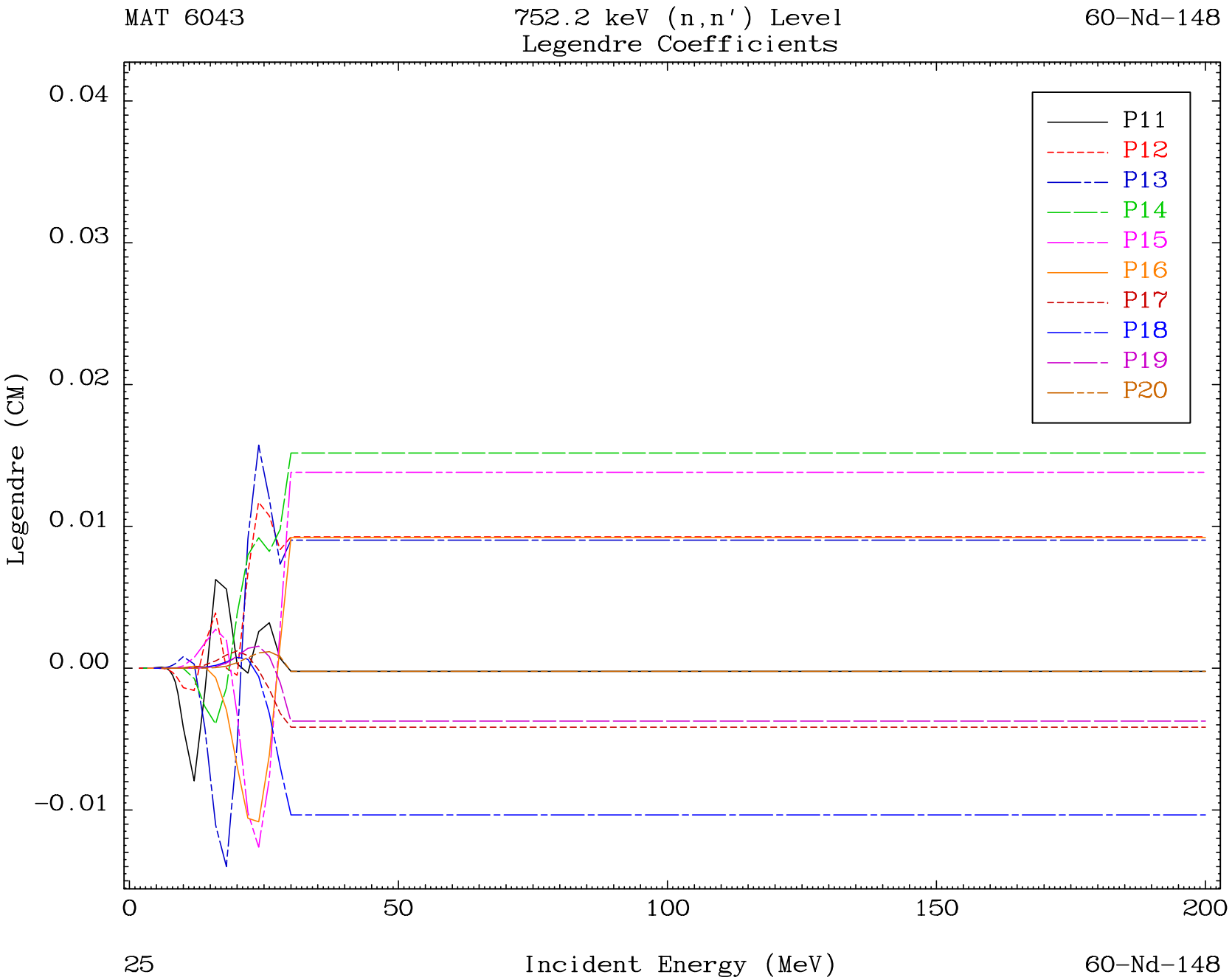

MAT 6043
301.7 keV (n,n') Level
Legendre Coefficients
60-Nd-148
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
20
Incident Energy (MeV)
60-Nd-148

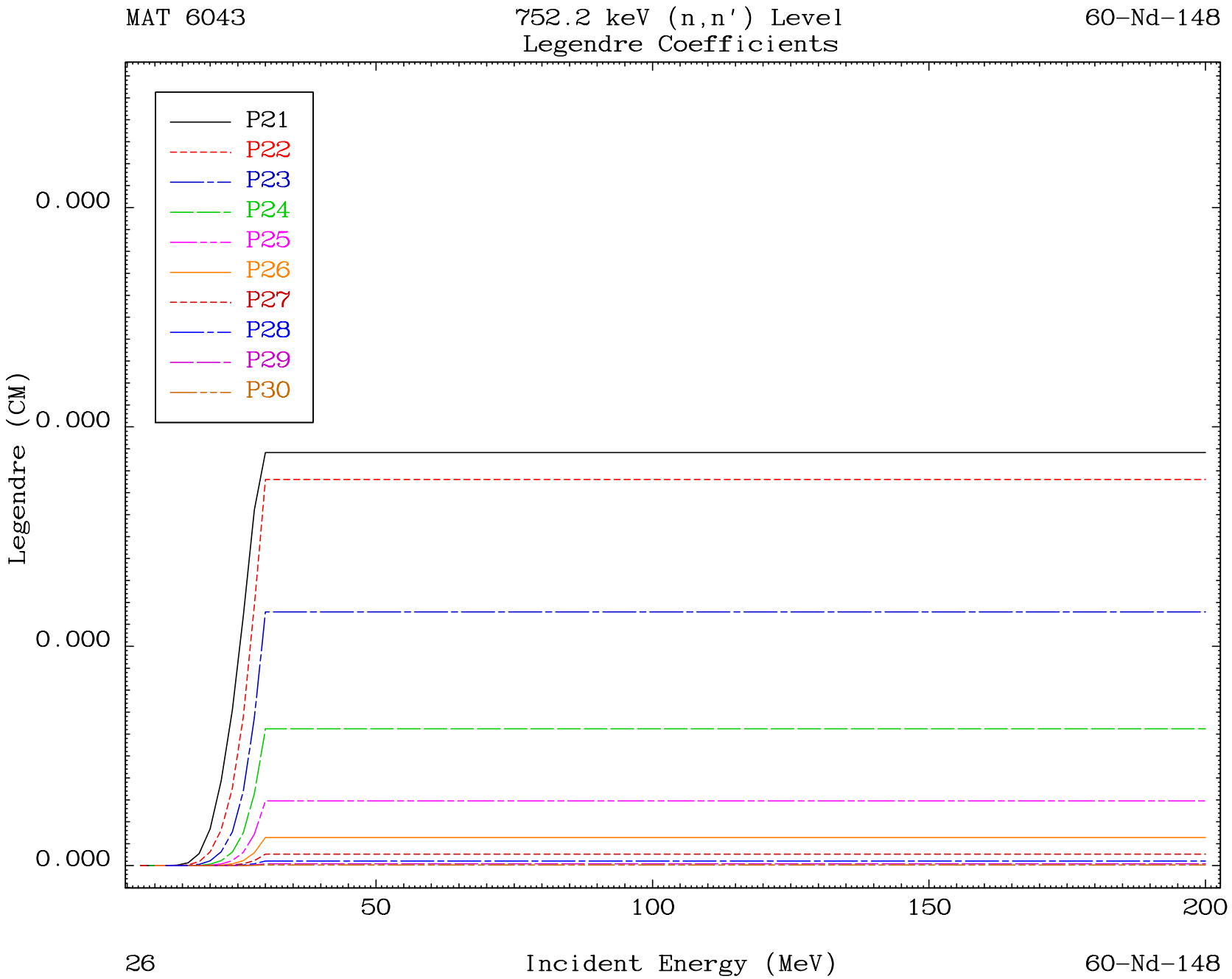

MAT 6043
301.7 keV (n,n') Level
Legendre Coefficients
60-Nd-148
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
21
Incident Energy (MeV)
60-Nd-148

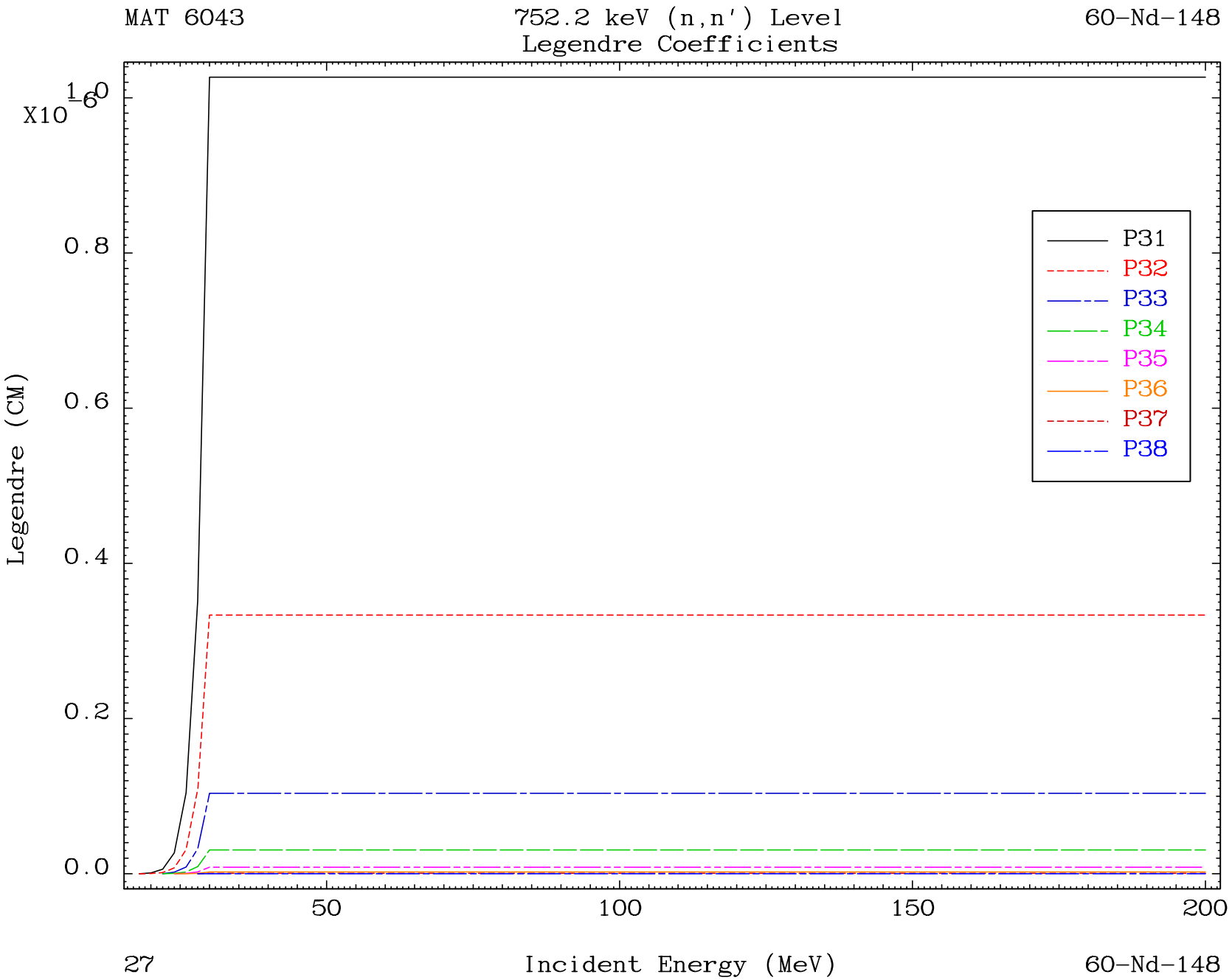

MAT 6043
301.7 keV (n,n') Level
Legendre Coefficients
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.03
0.02
0.01
0.00
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
60-Nd-148

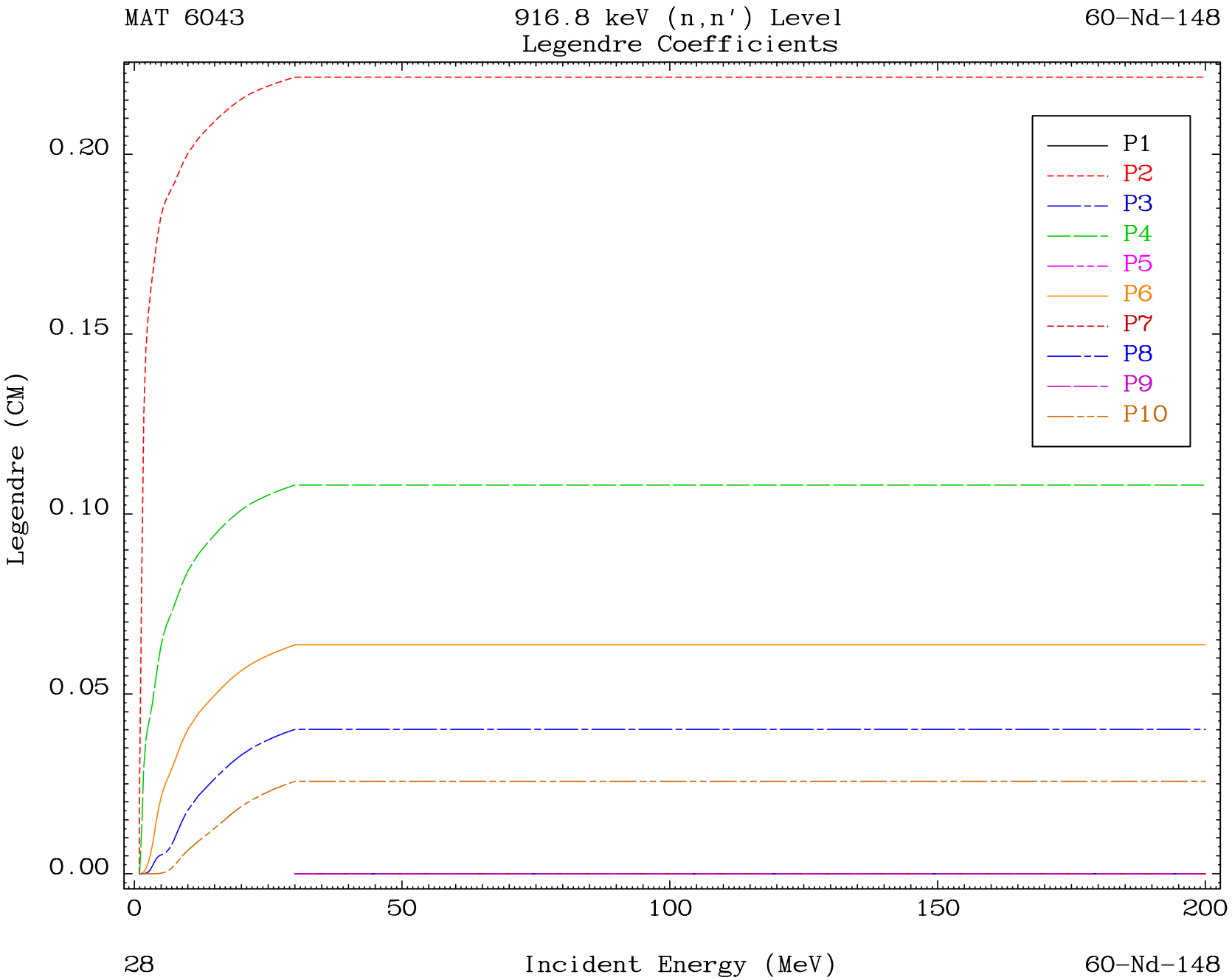

MAT 6043
301.7 keV (n,n') Level
Legendre Coefficients
60-Nd-148
X10
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
23
Incident Energy (MeV)
60-Nd-148

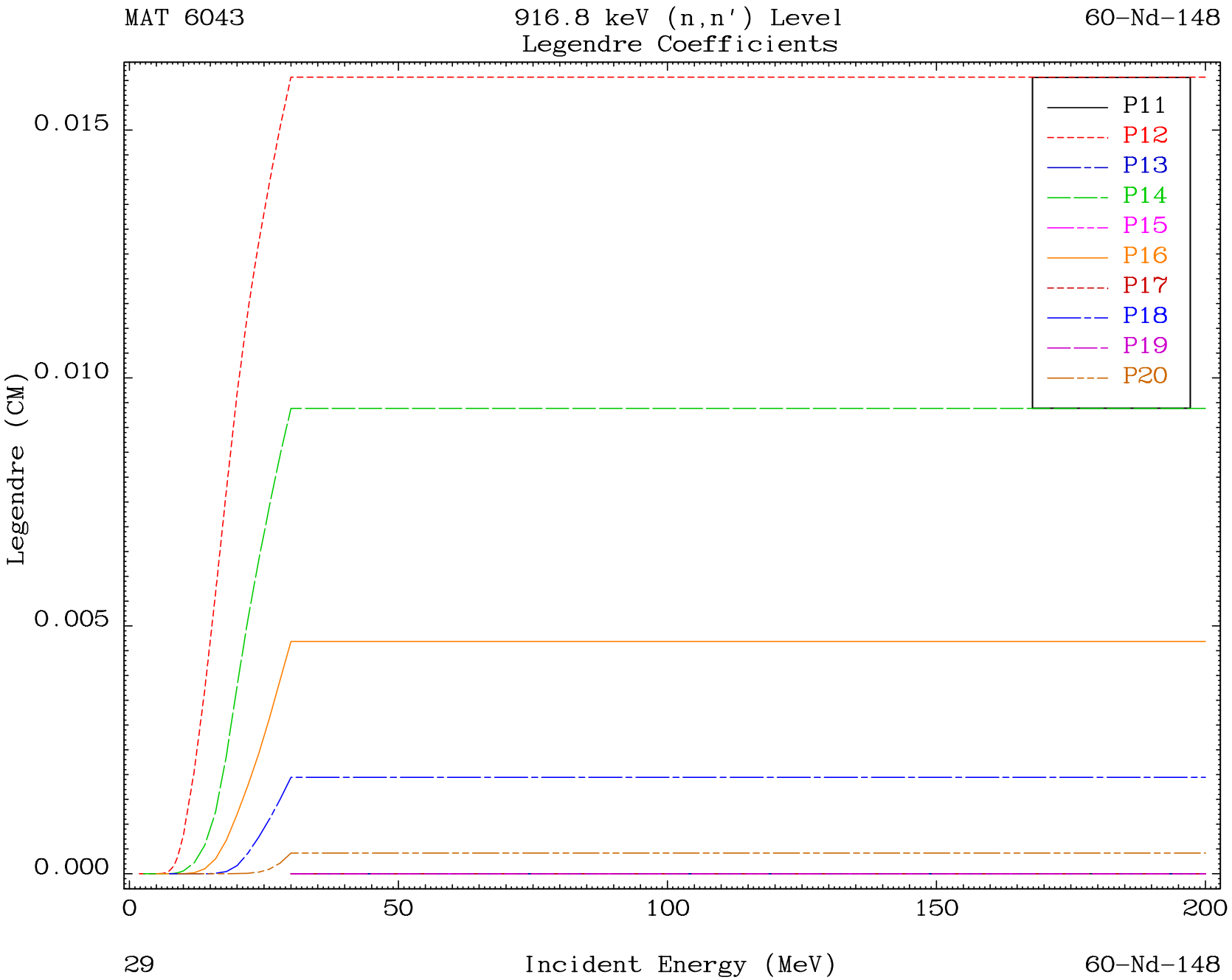

MAT 6043
752.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
24
Incident Energy (MeV)
60-Nd-148

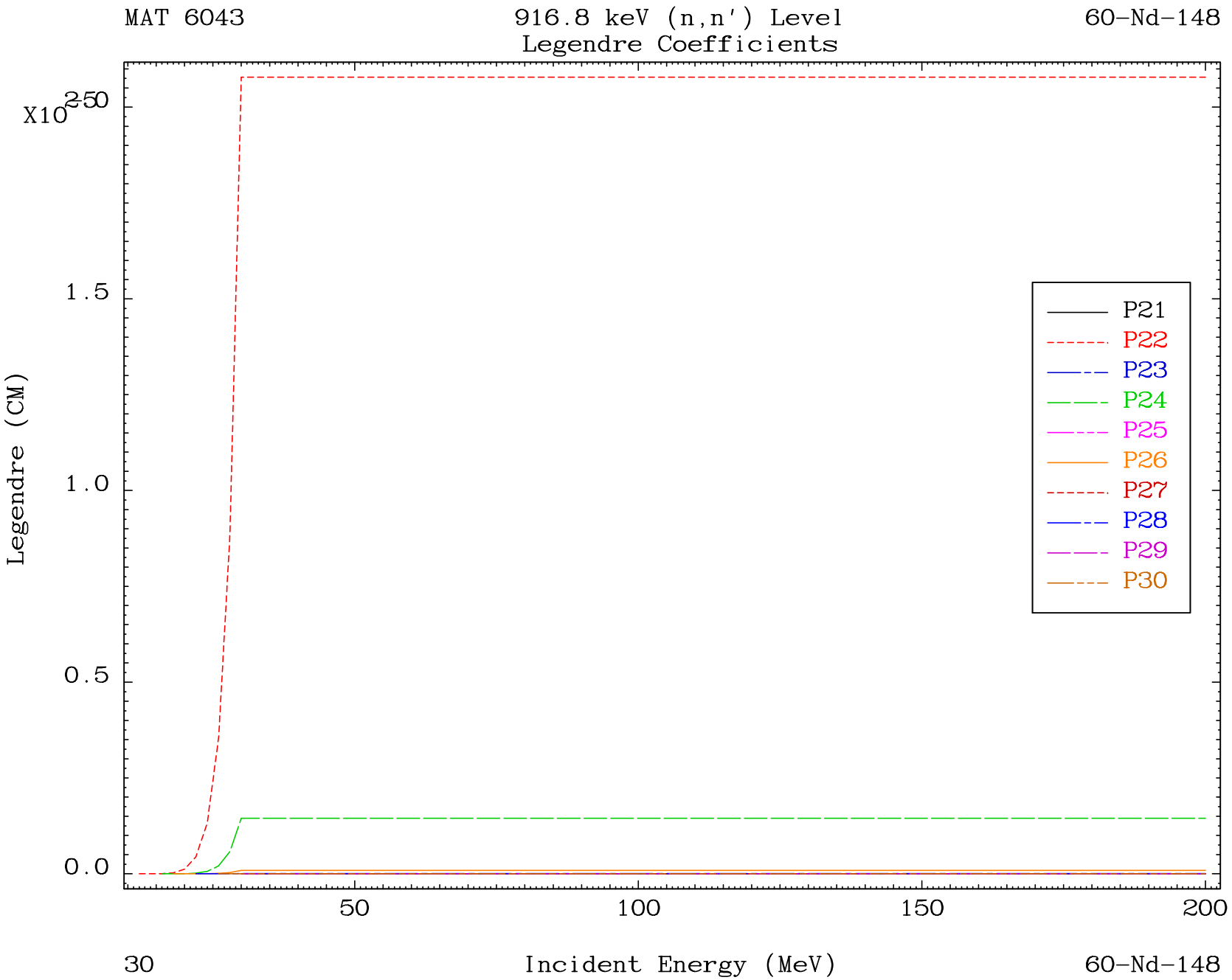

MAT 6043
752.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
25
Incident Energy (MeV)
60-Nd-148

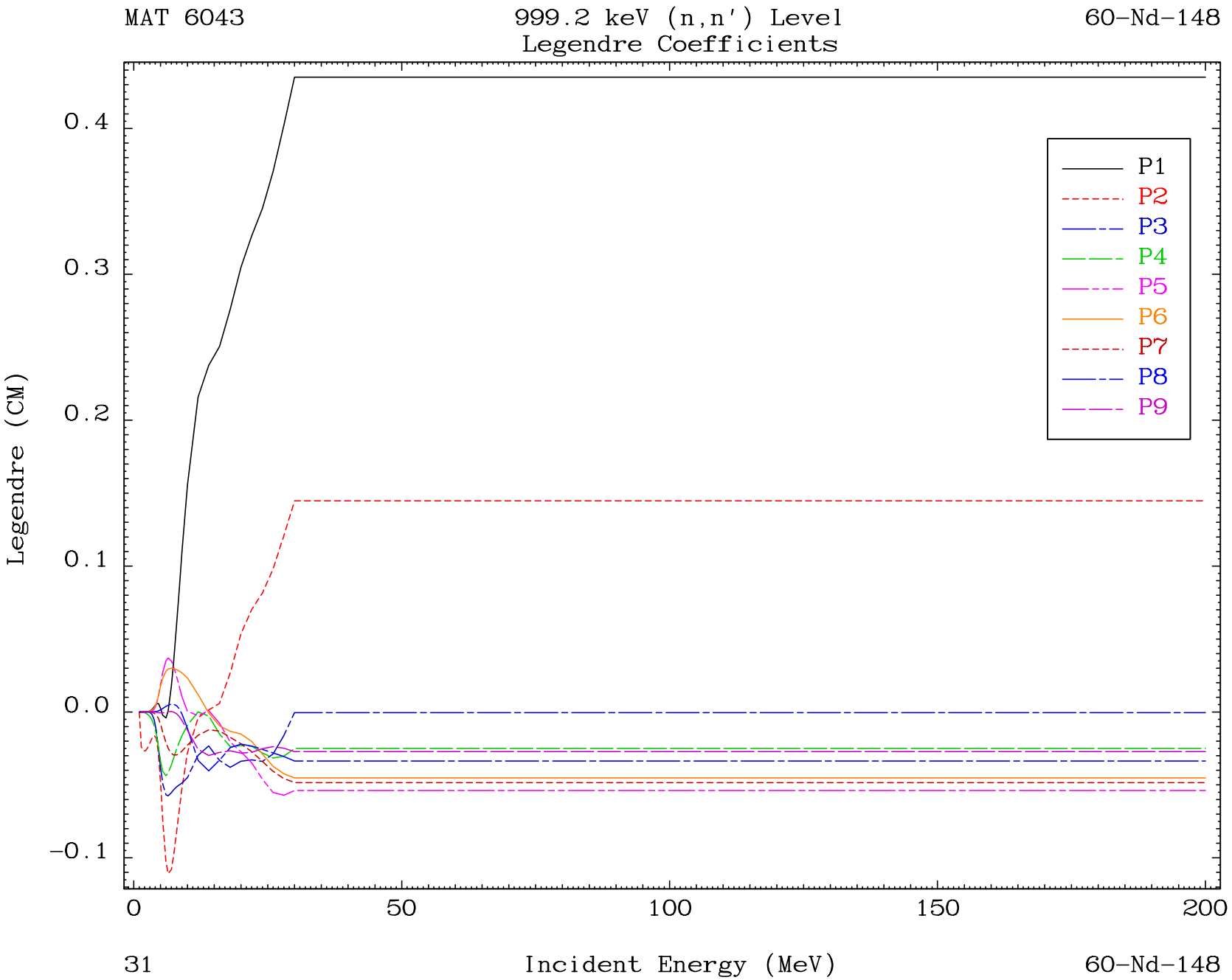

MAT 6043
752.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.000
0.000
0.000
0.000
Legendre (CM)
50
100
150
200
26
Incident Energy (MeV)
60-Nd-148

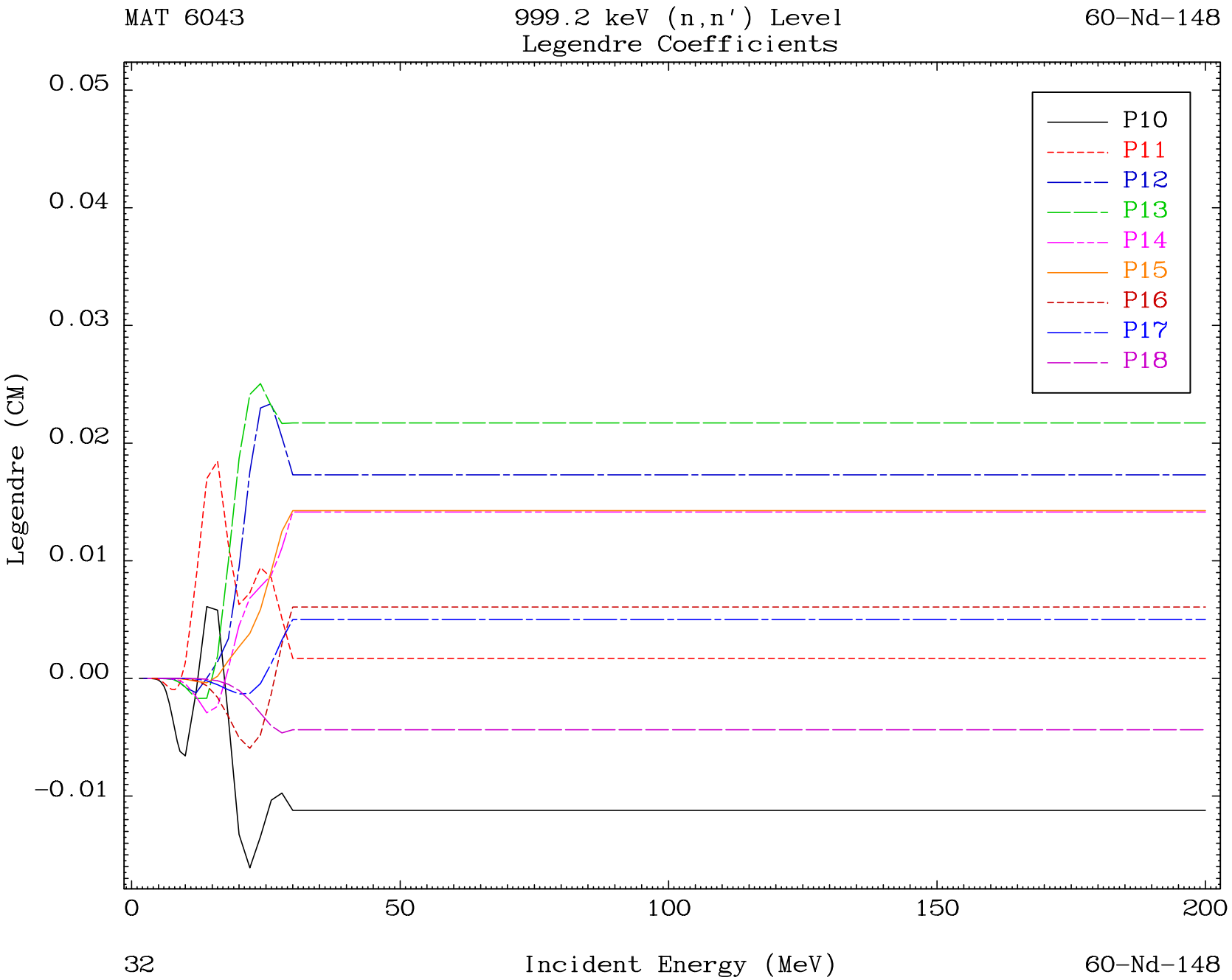

MAT 6043
752.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
X10 -6
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
27
Incident Energy (MeV)
60-Nd-148

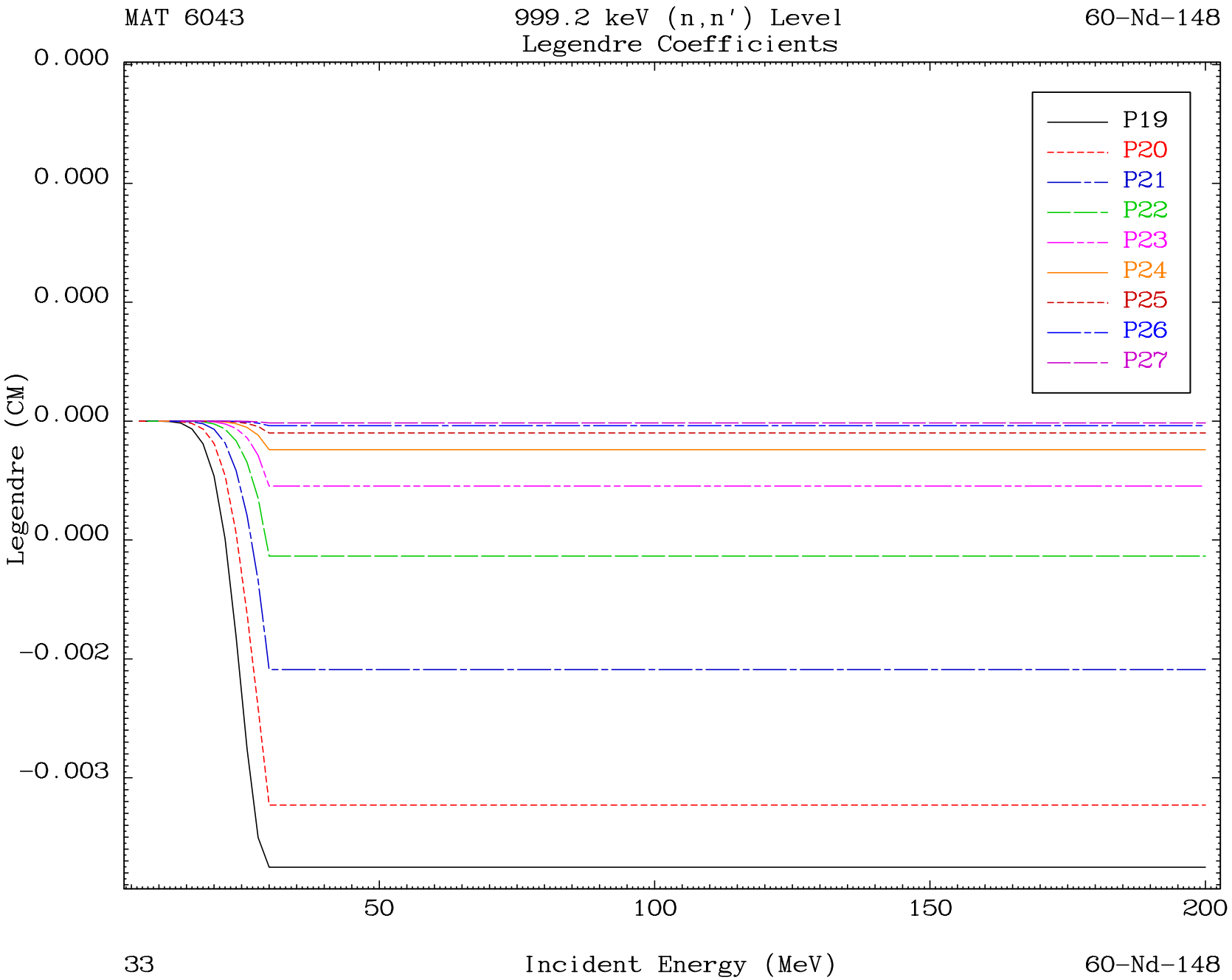

MAT 6043
916.8 keV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.20
0.15
0.10
0.05
0.00
0
50
100
150
200
Incident Energy (MeV)
28
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

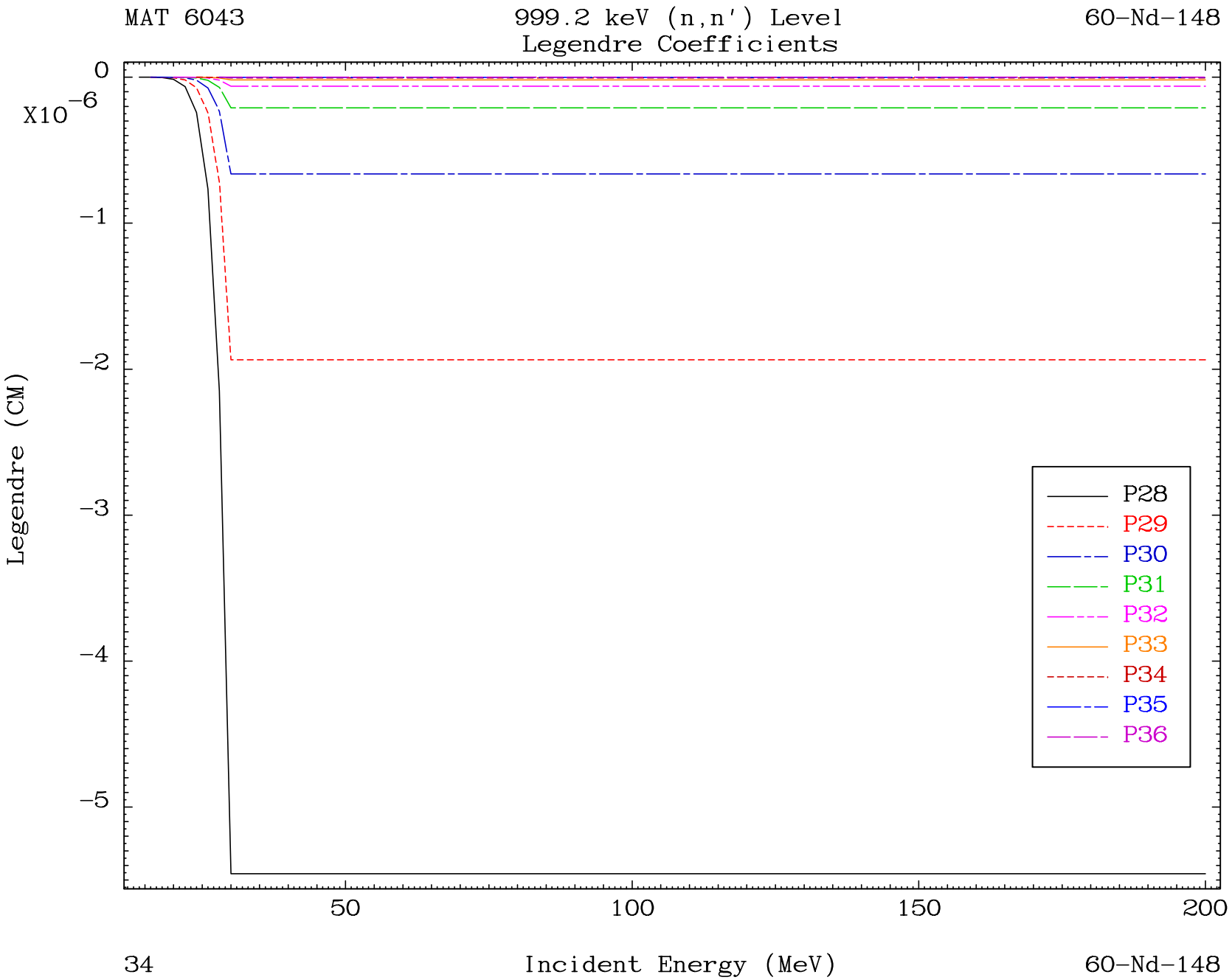

MAT 6043
916.8 keV (n,n') Level
Legendre Coefficients
60-Nd-148
0.015
0.010
0.005
0.000
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
29
Incident Energy (MeV)
60-Nd-148

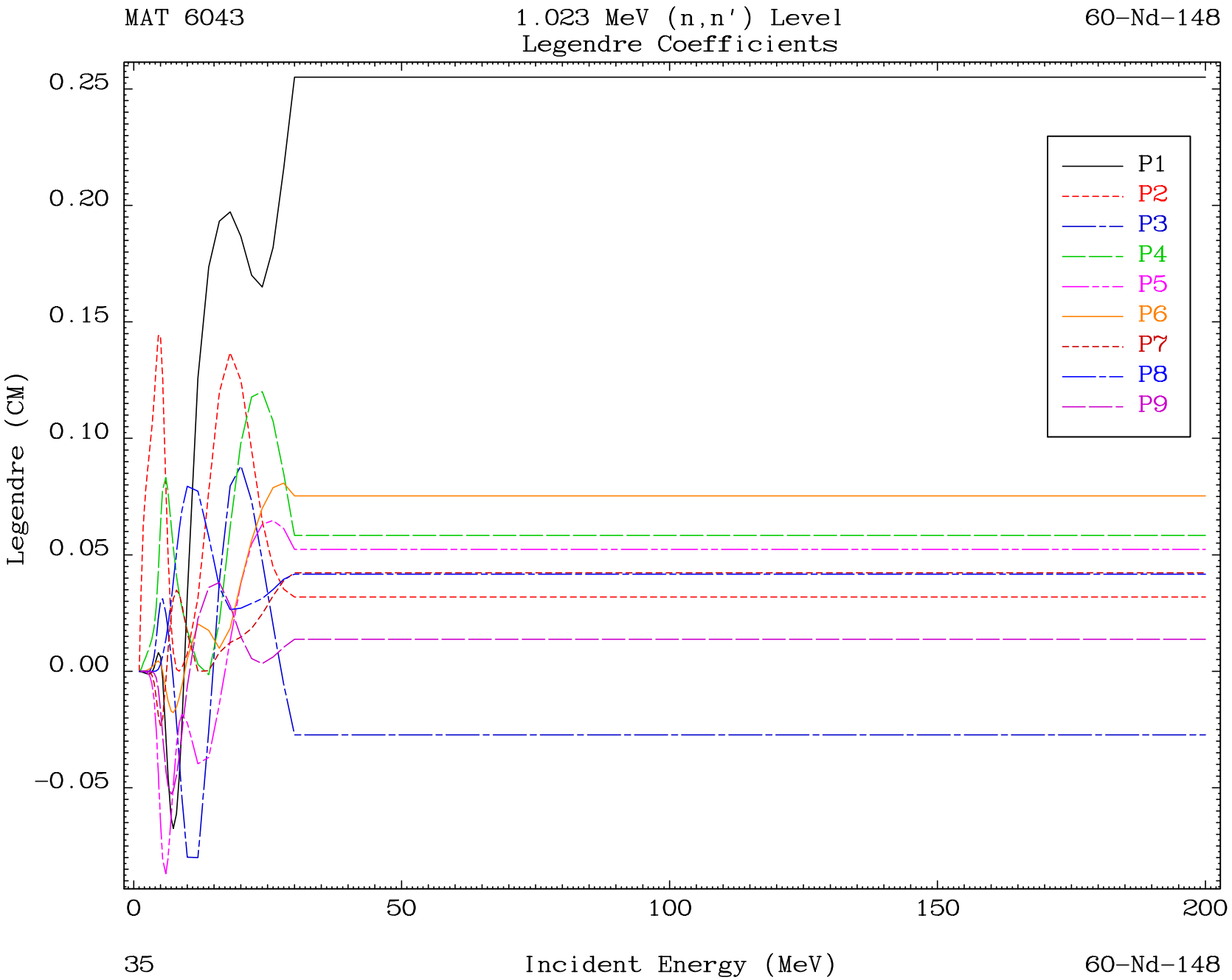

MAT 6043
916.8 keV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-2
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
30
Incident Energy (MeV)
60-Nd-148
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

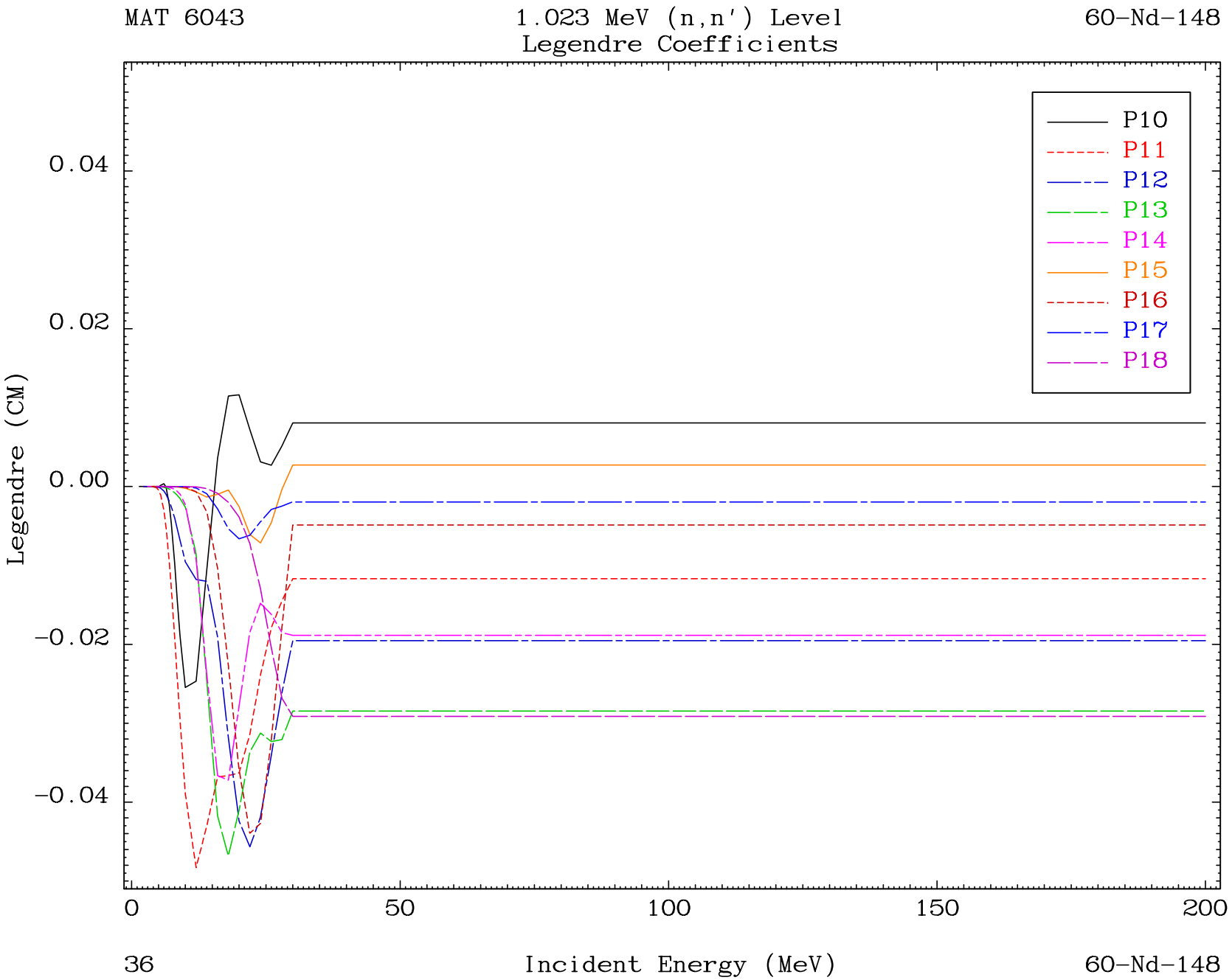

MAT 6043
999.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
31
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9

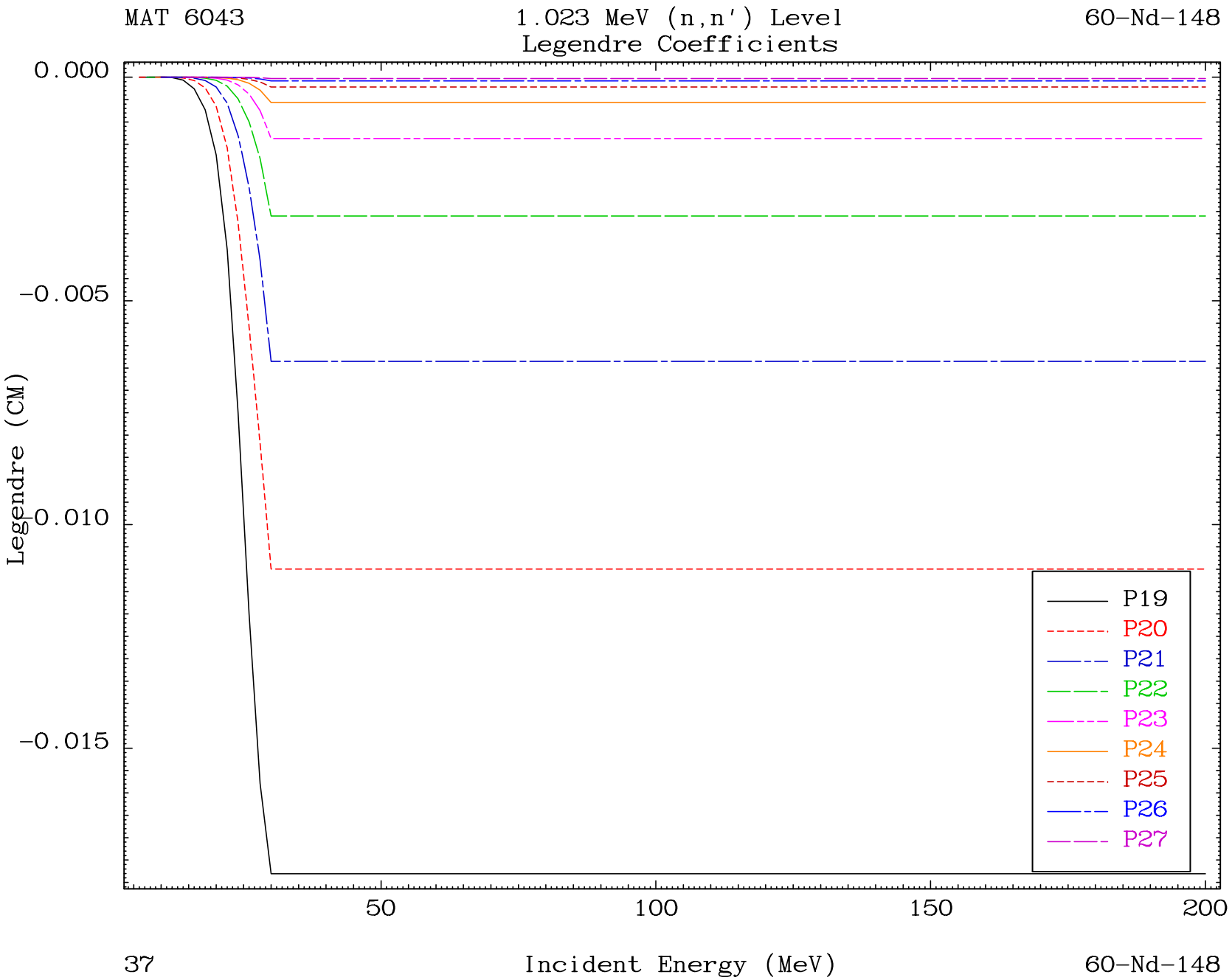

MAT 6043
999.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
32
Incident Energy (MeV)
60-Nd-148

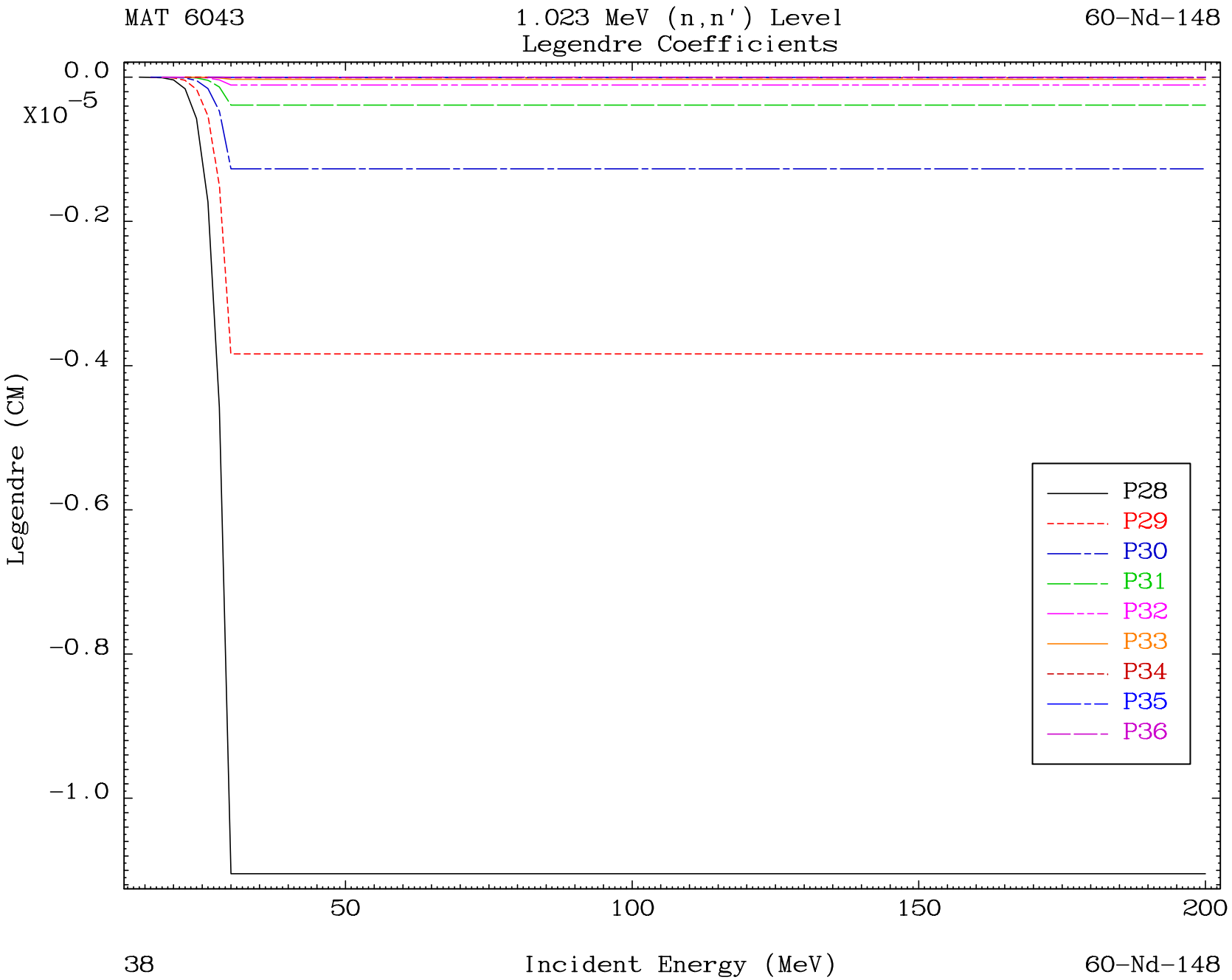

MAT 6043
999.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.000
0.000
-0.002
-0.003
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
33
Incident Energy (MeV)
60-Nd-148

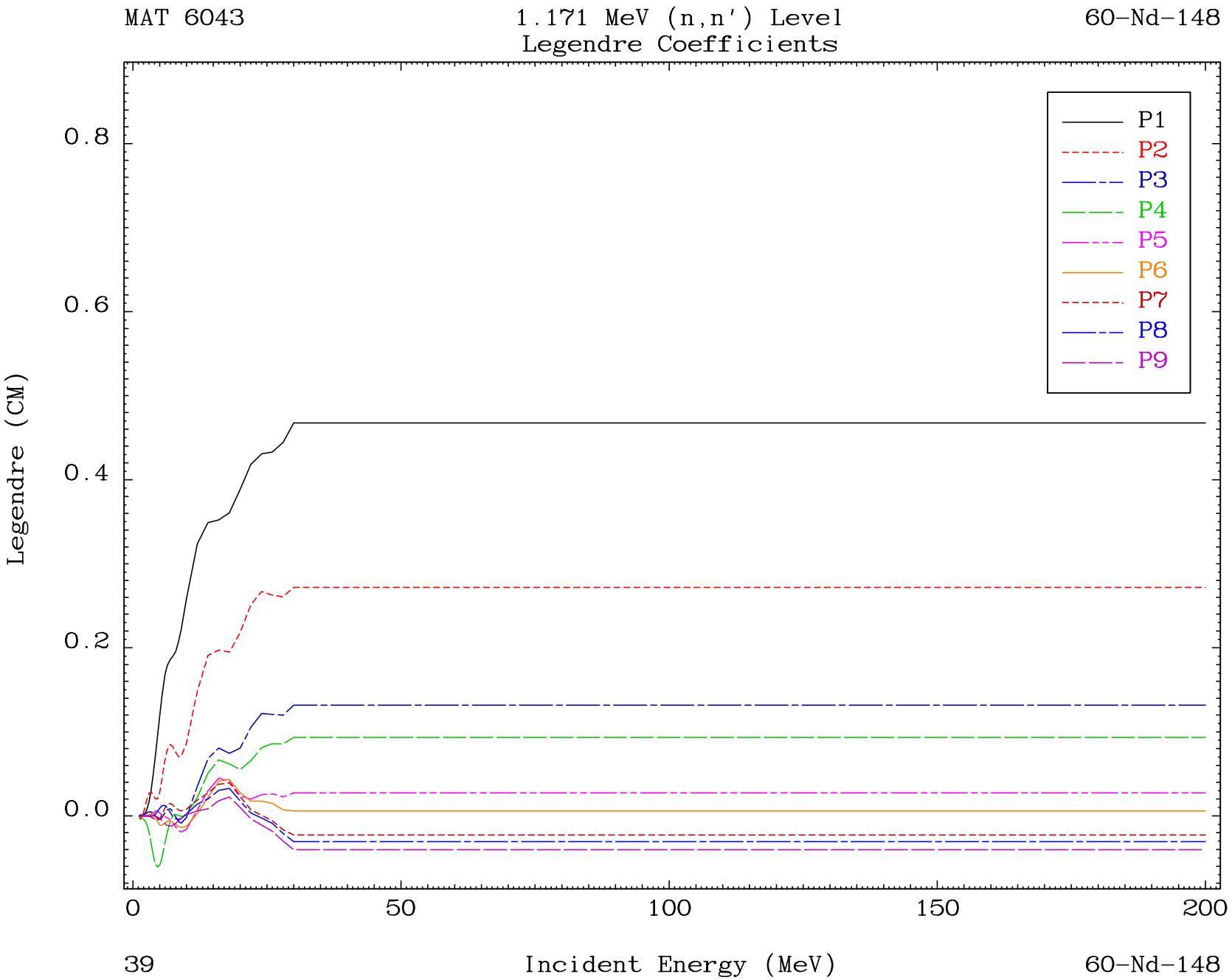

MAT 6043
999.2 keV (n,n') Level
Legendre Coefficients
60-Nd-148
0
X10^-6
-1
-2
-3
-4
-5
Legendre (CM)
50
100
150
200
34
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

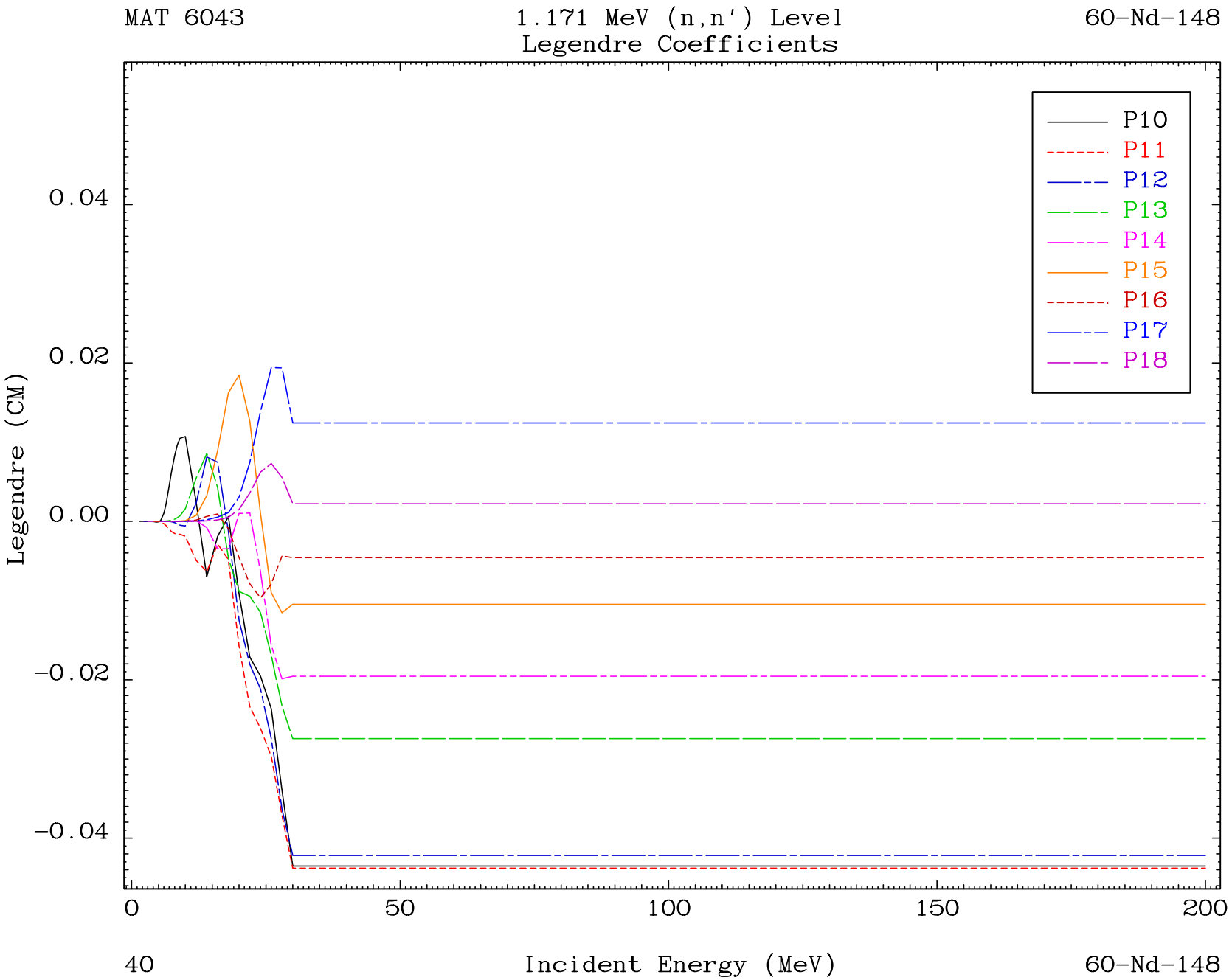

MAT 6043
1.023 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
35
Incident Energy (MeV)
60-Nd-148

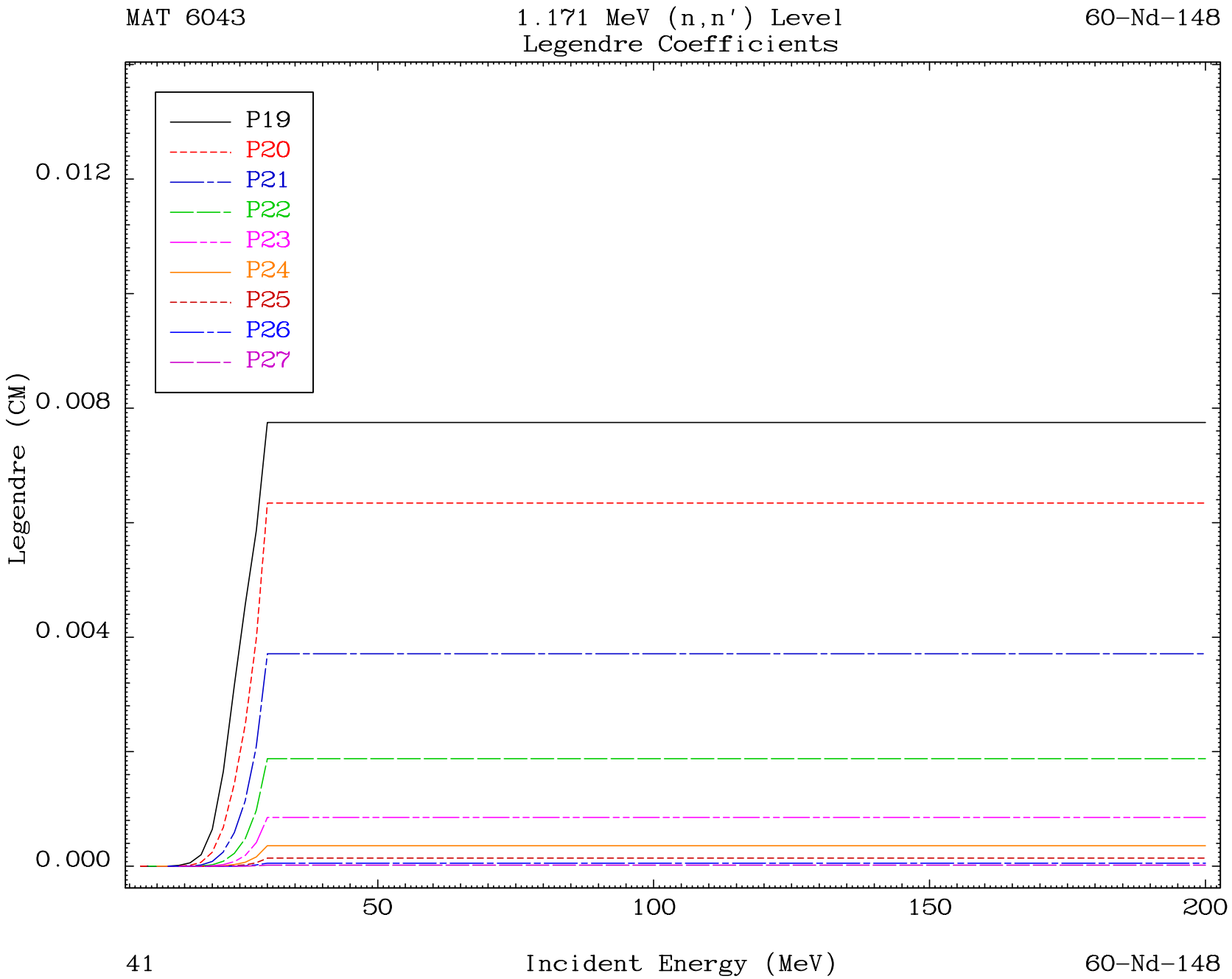

MAT 6043
1.023 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
36
Incident Energy (MeV)
60-Nd-148

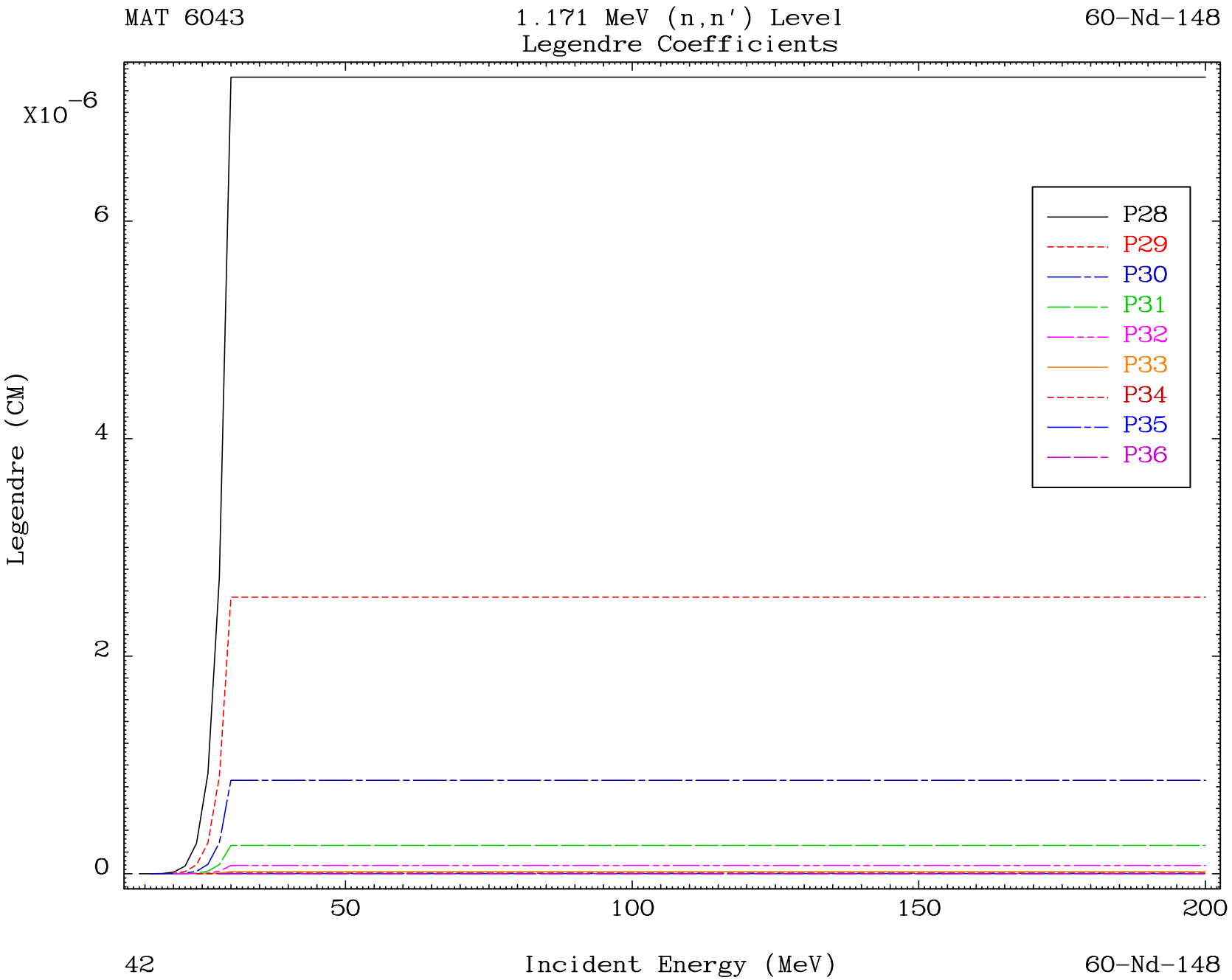

MAT 6043
1.023 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
37
Incident Energy (MeV)
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27

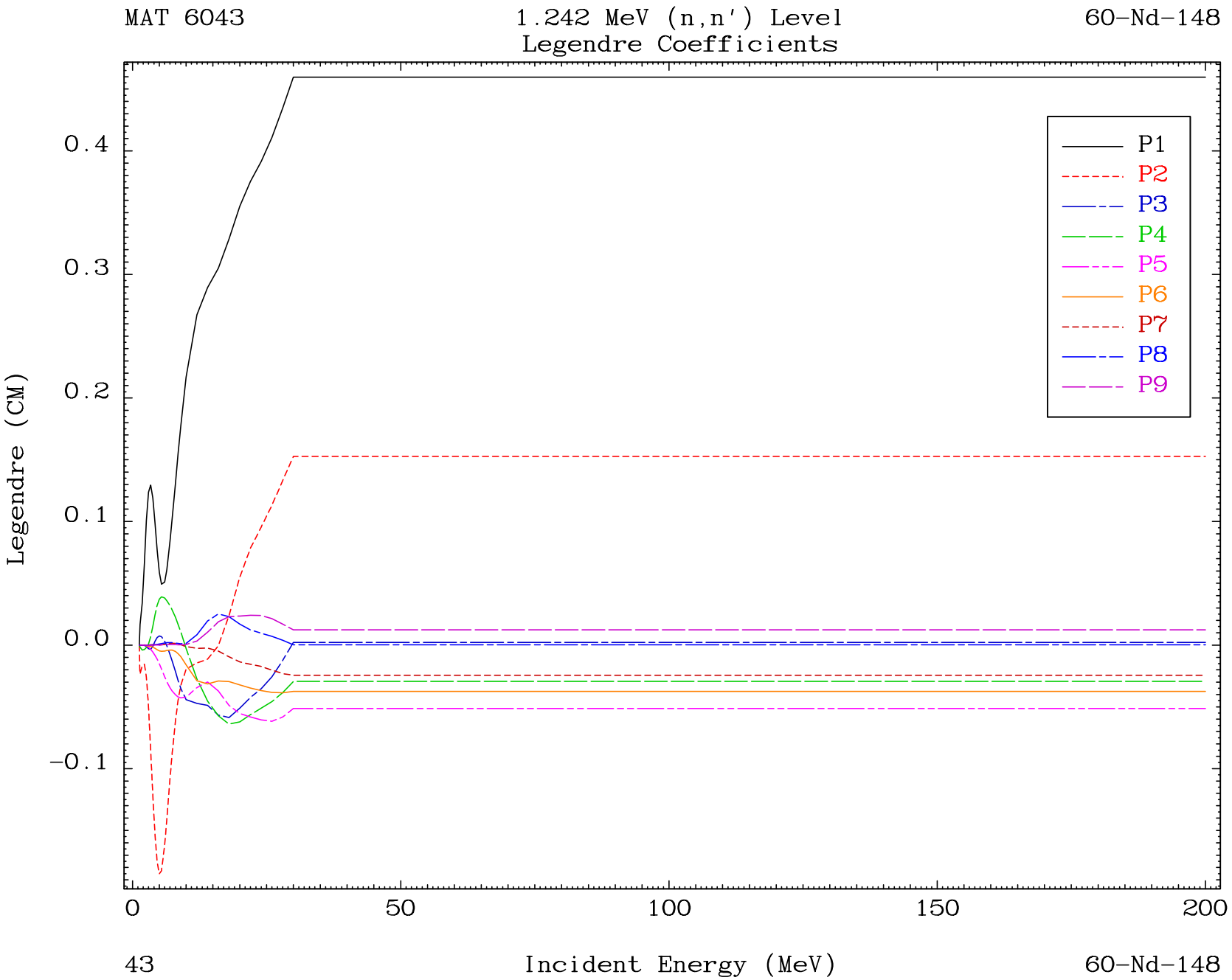

MAT 6043
1.023 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.0
X10^-5
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
50
100
150
200
38
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

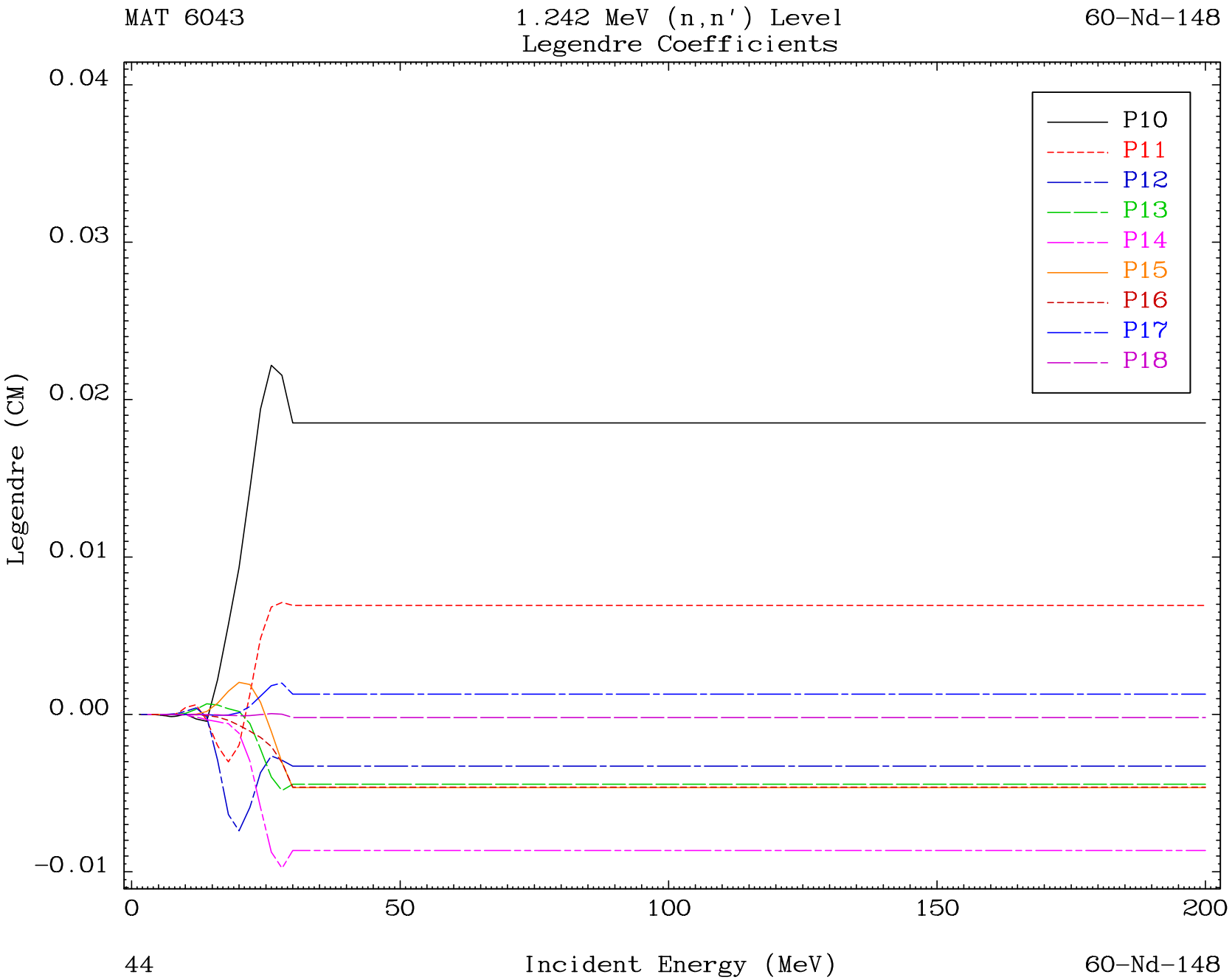

MAT 6043
1.171 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
39
Incident Energy (MeV)
60-Nd-148

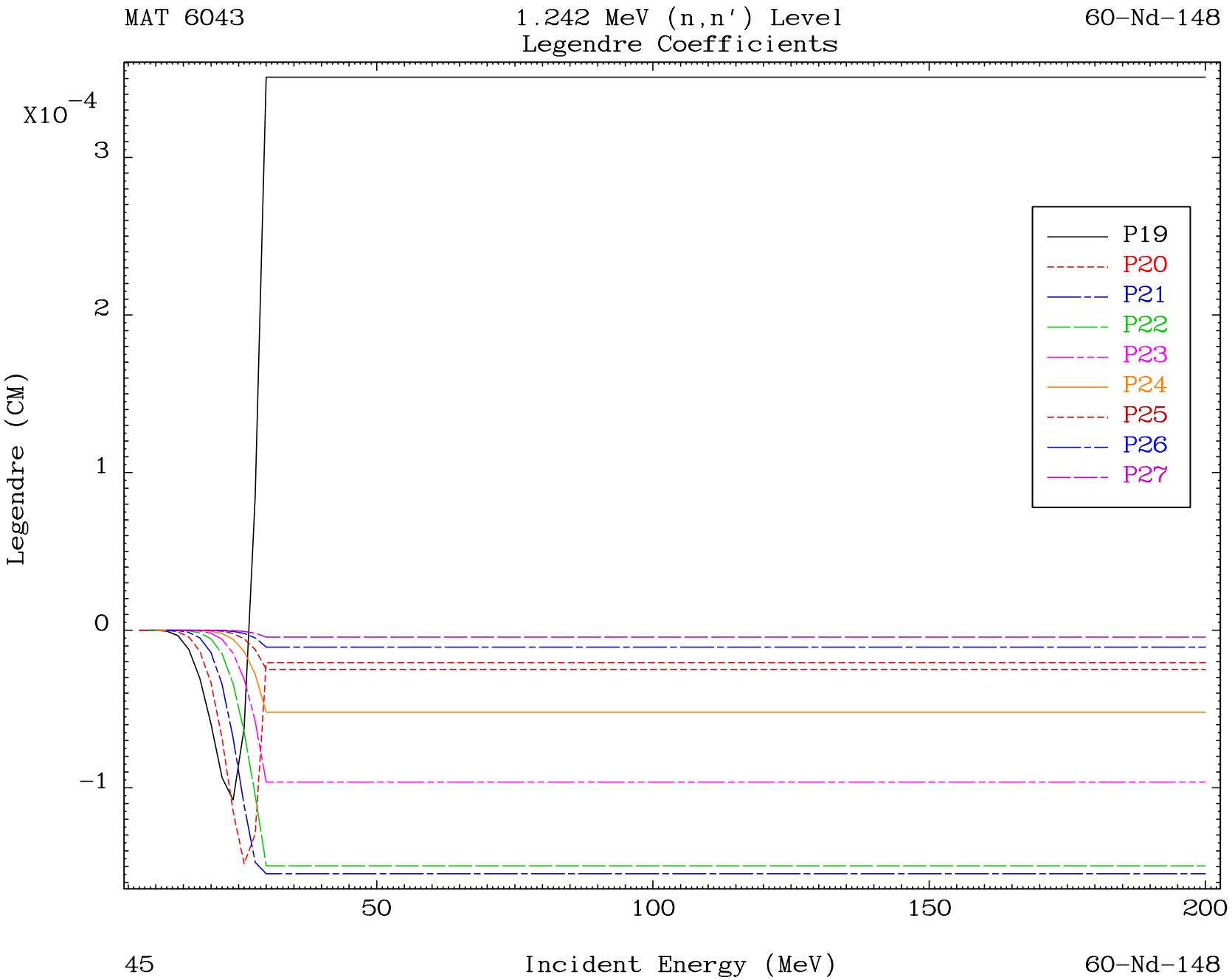

MAT 6043
1.171 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
40
Incident Energy (MeV)
60-Nd-148

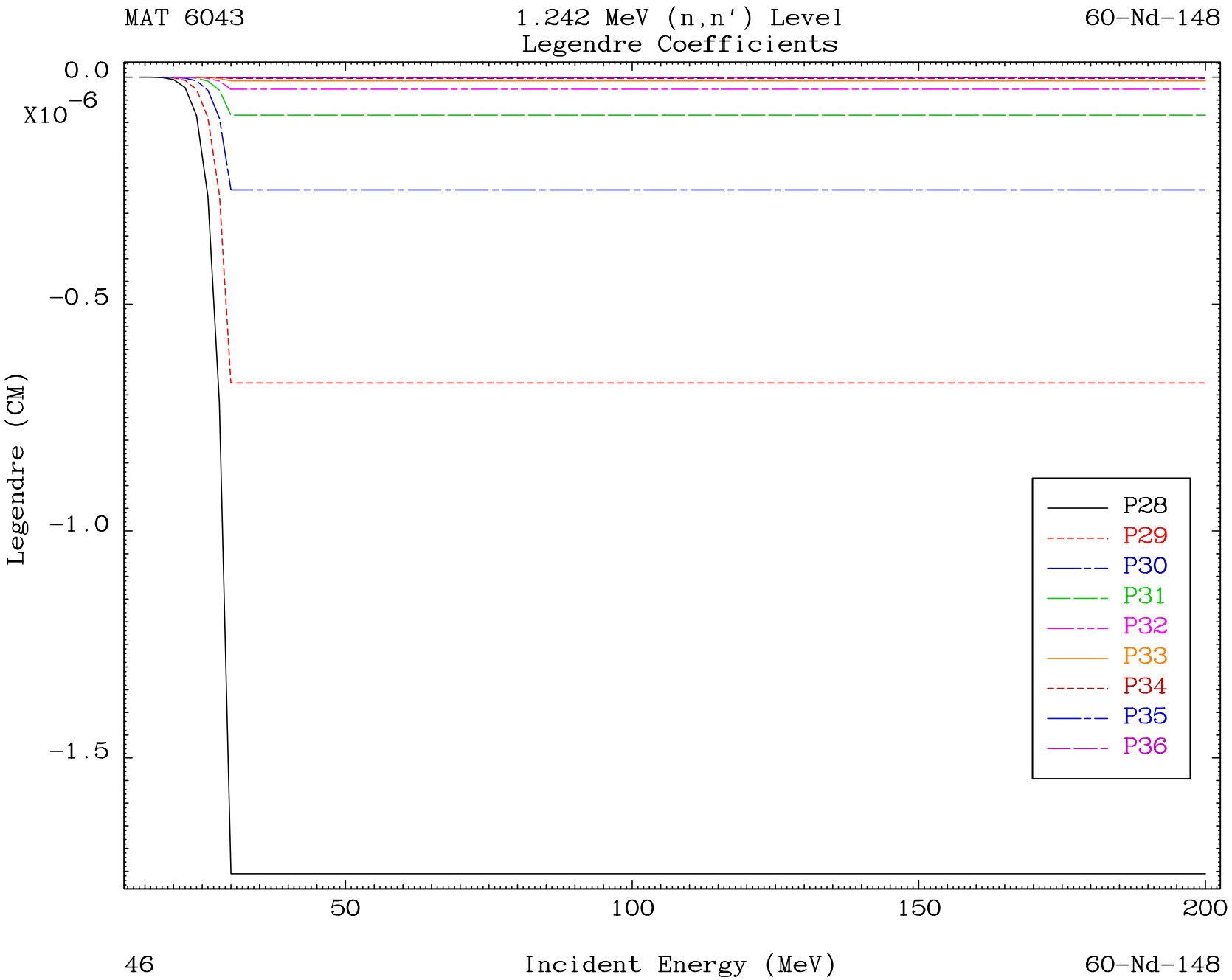

MAT 6043
1.171 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.012
0.008
0.004
0.000
Legendre (CM)
50
100
150
200
41
Incident Energy (MeV)
60-Nd-148

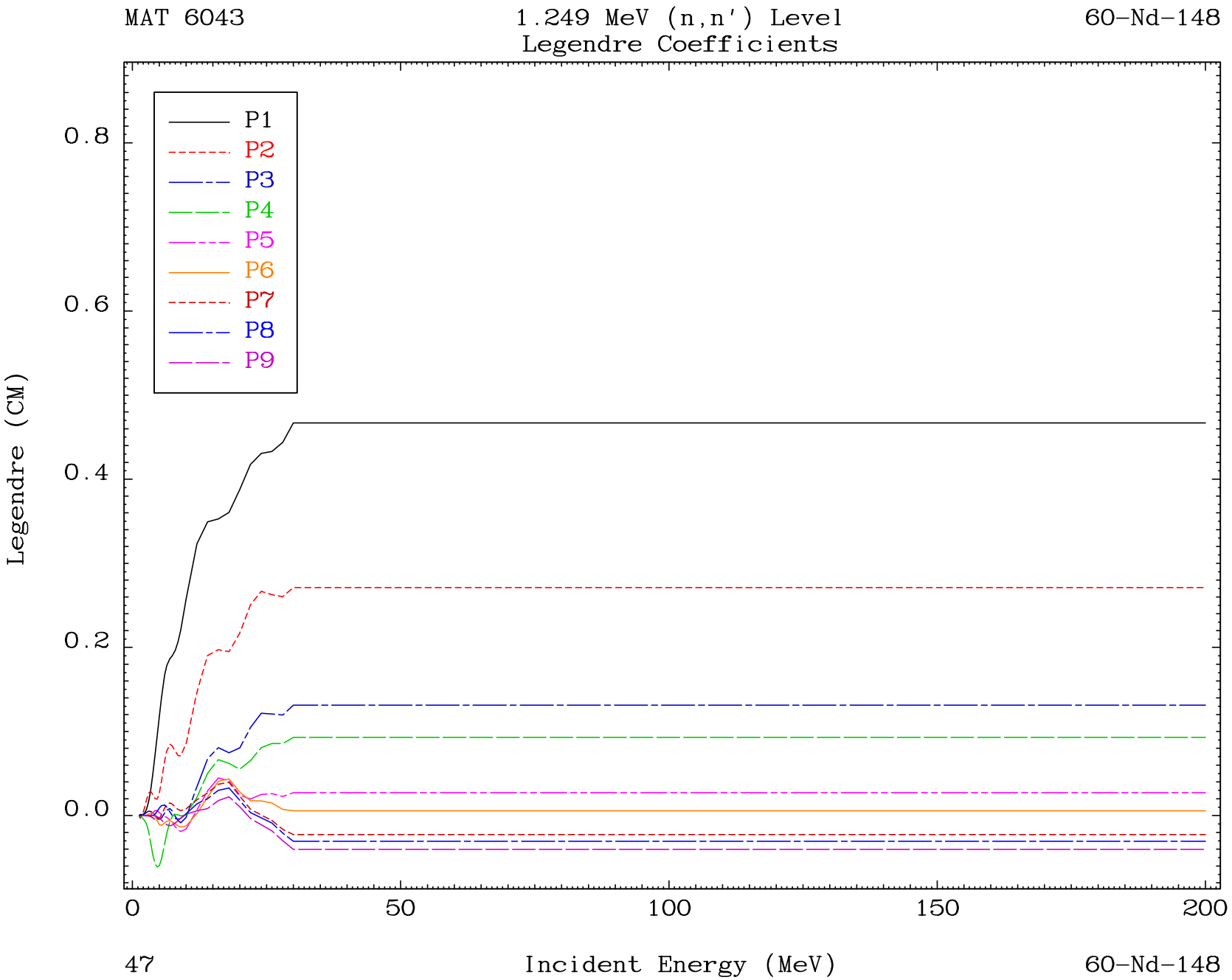

MAT 6043
1.171 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-6
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
42
Incident Energy (MeV)
60-Nd-148

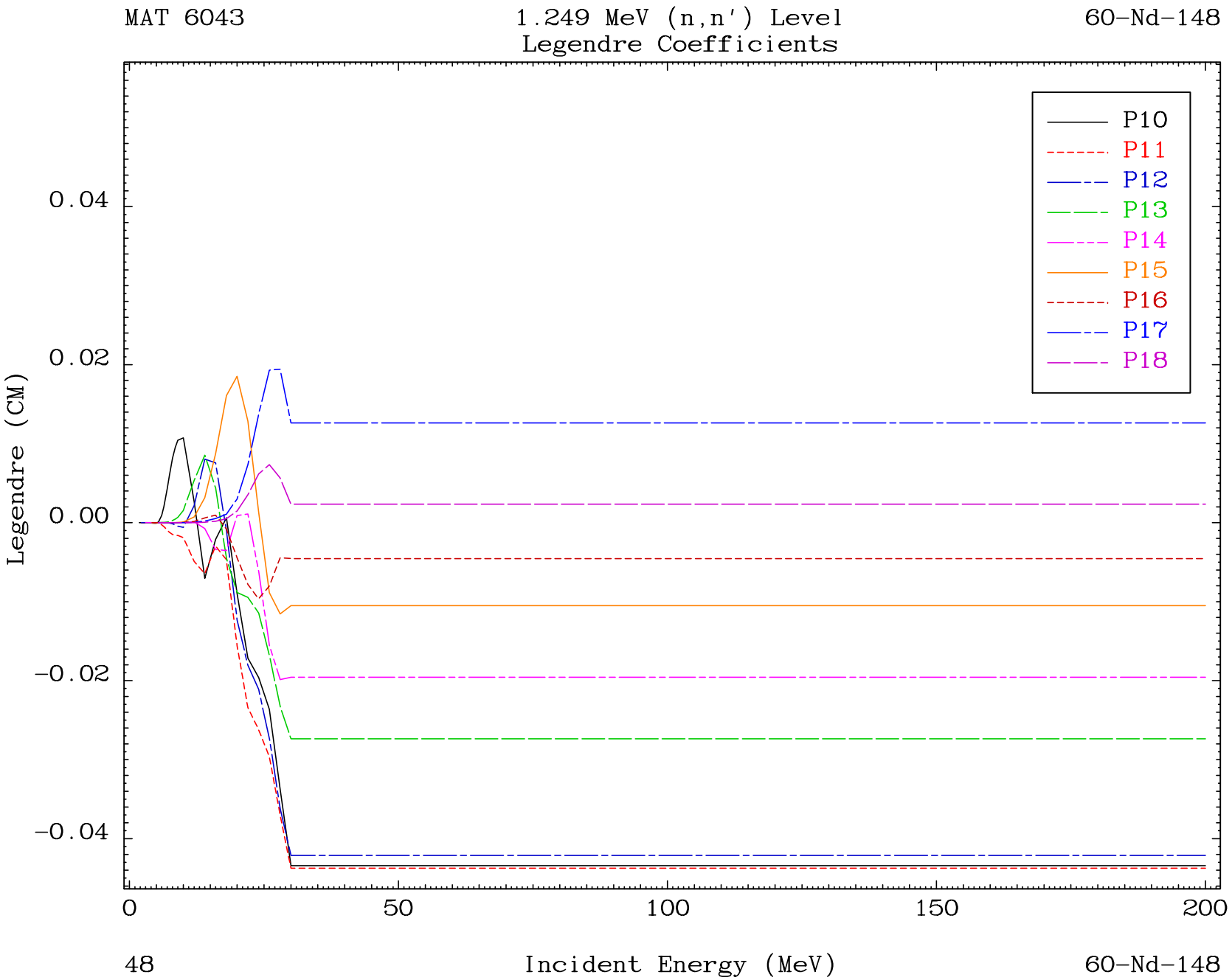

MAT 6043
1.242 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
43
Incident Energy (MeV)
60-Nd-148

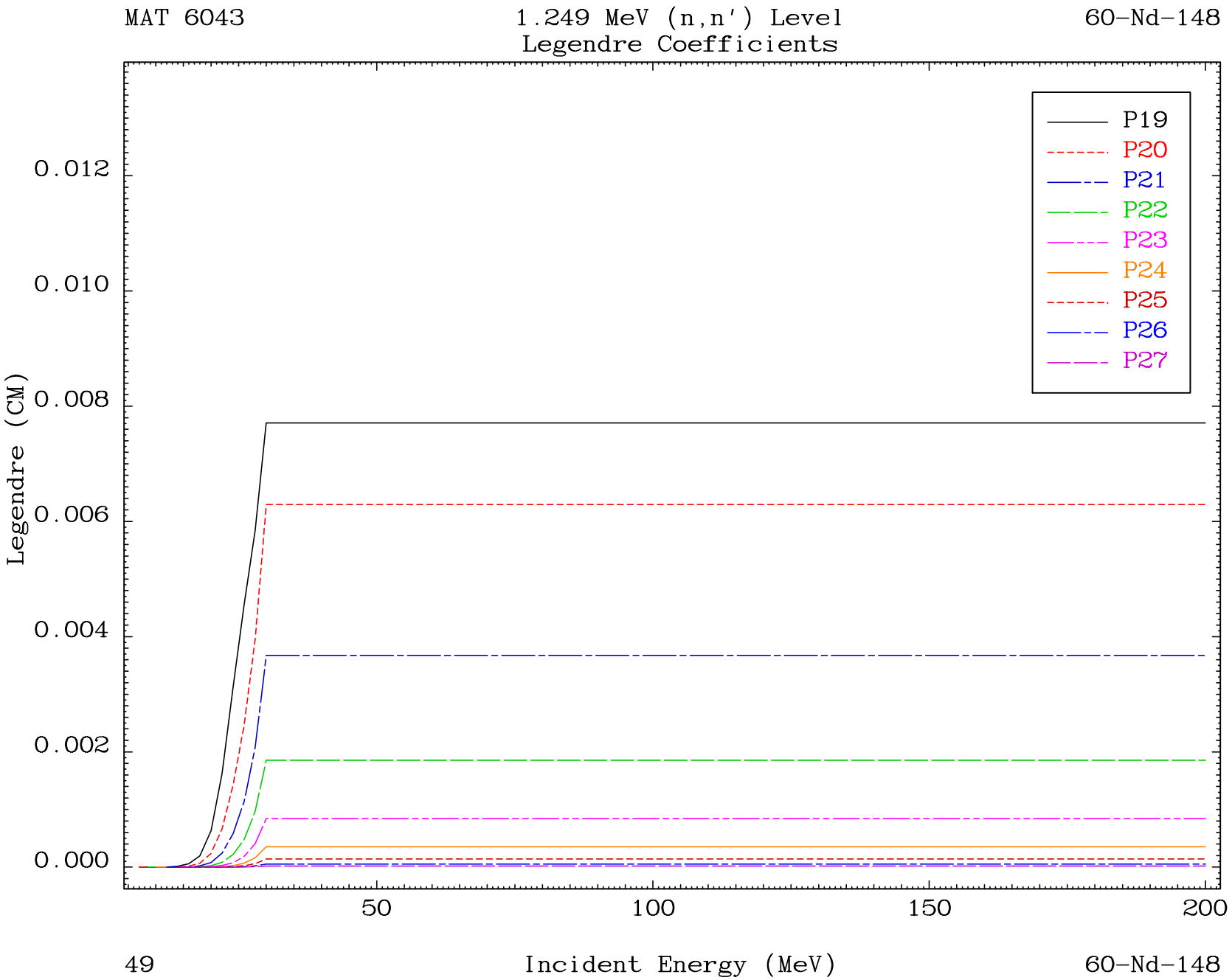

MAT 6043
1.242 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
44
Incident Energy (MeV)
60-Nd-148

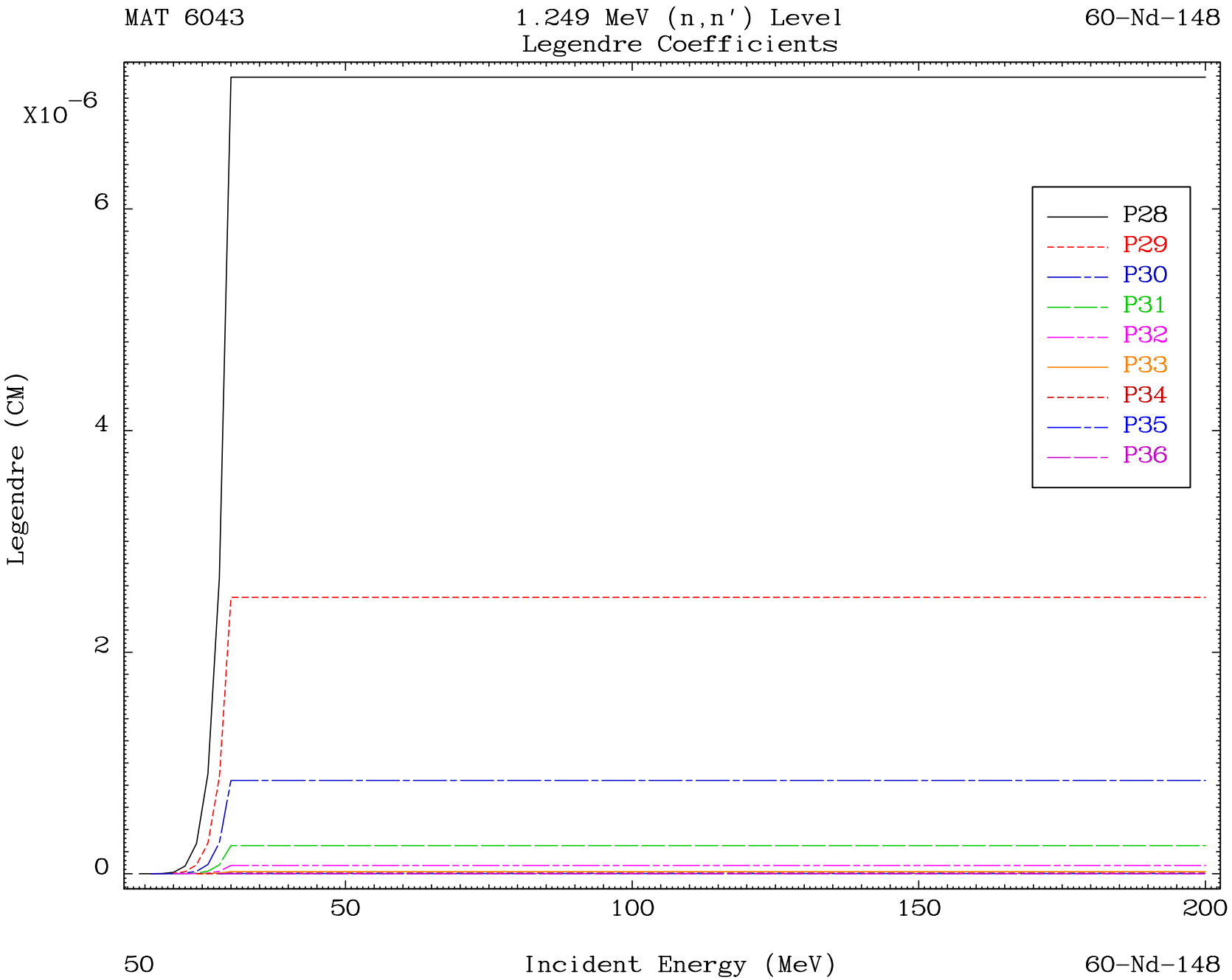

MAT 6043
1.242 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-4
3
2
1
0
-1
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
45
Incident Energy (MeV)
60-Nd-148

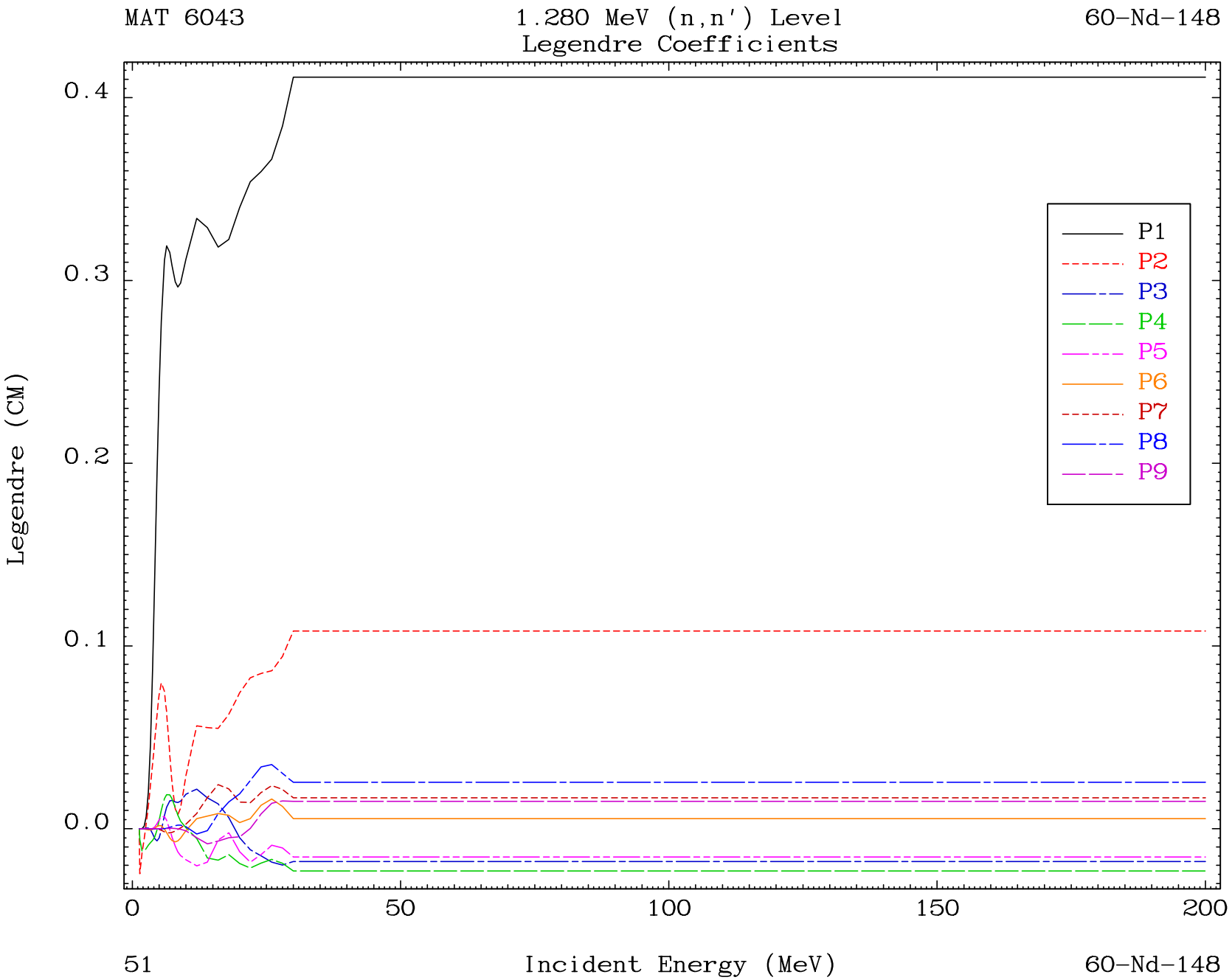

MAT 6043
1.242 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.0
X10^-6
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
46
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

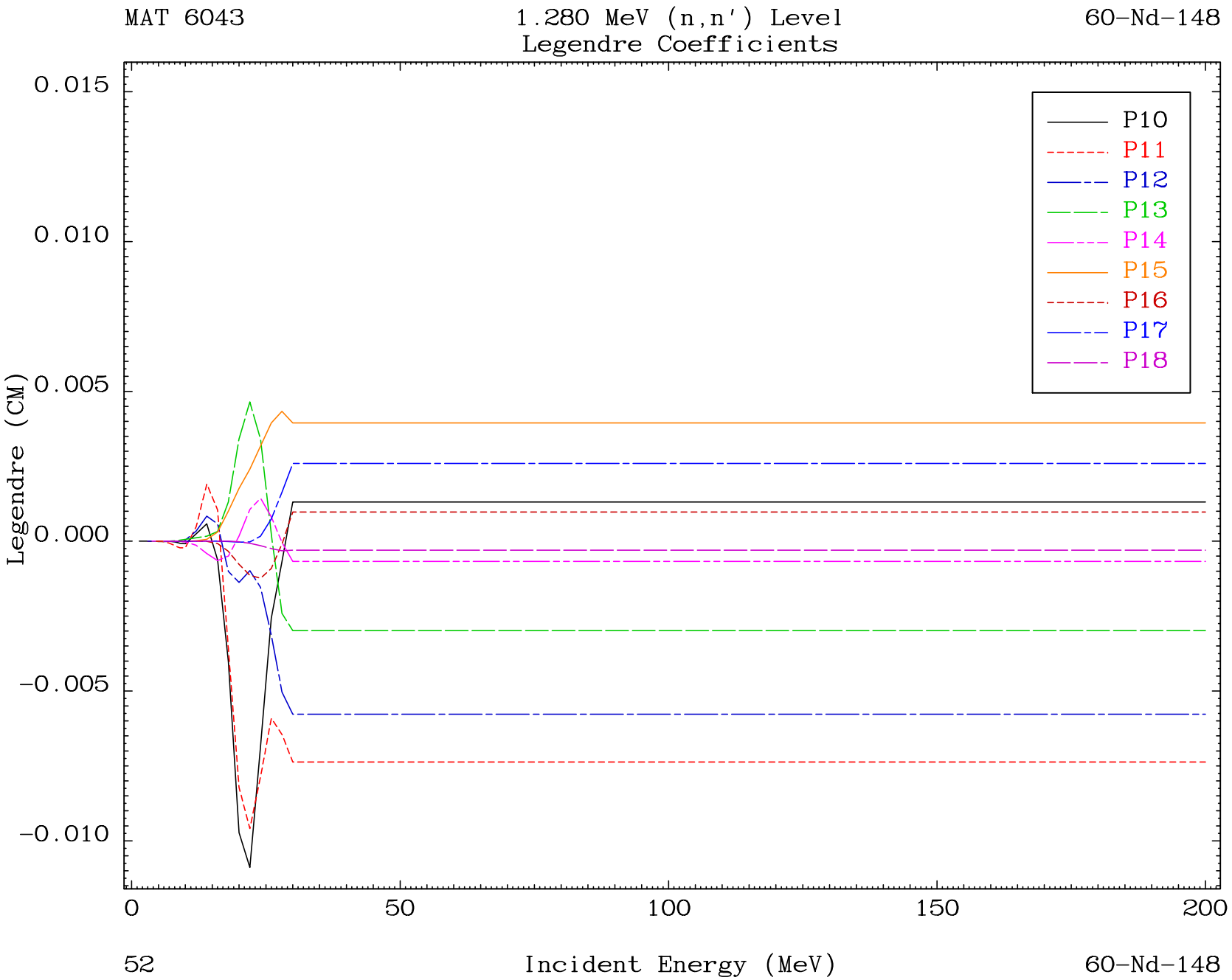

MAT 6043
1.249 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
47
Incident Energy (MeV)
60-Nd-148

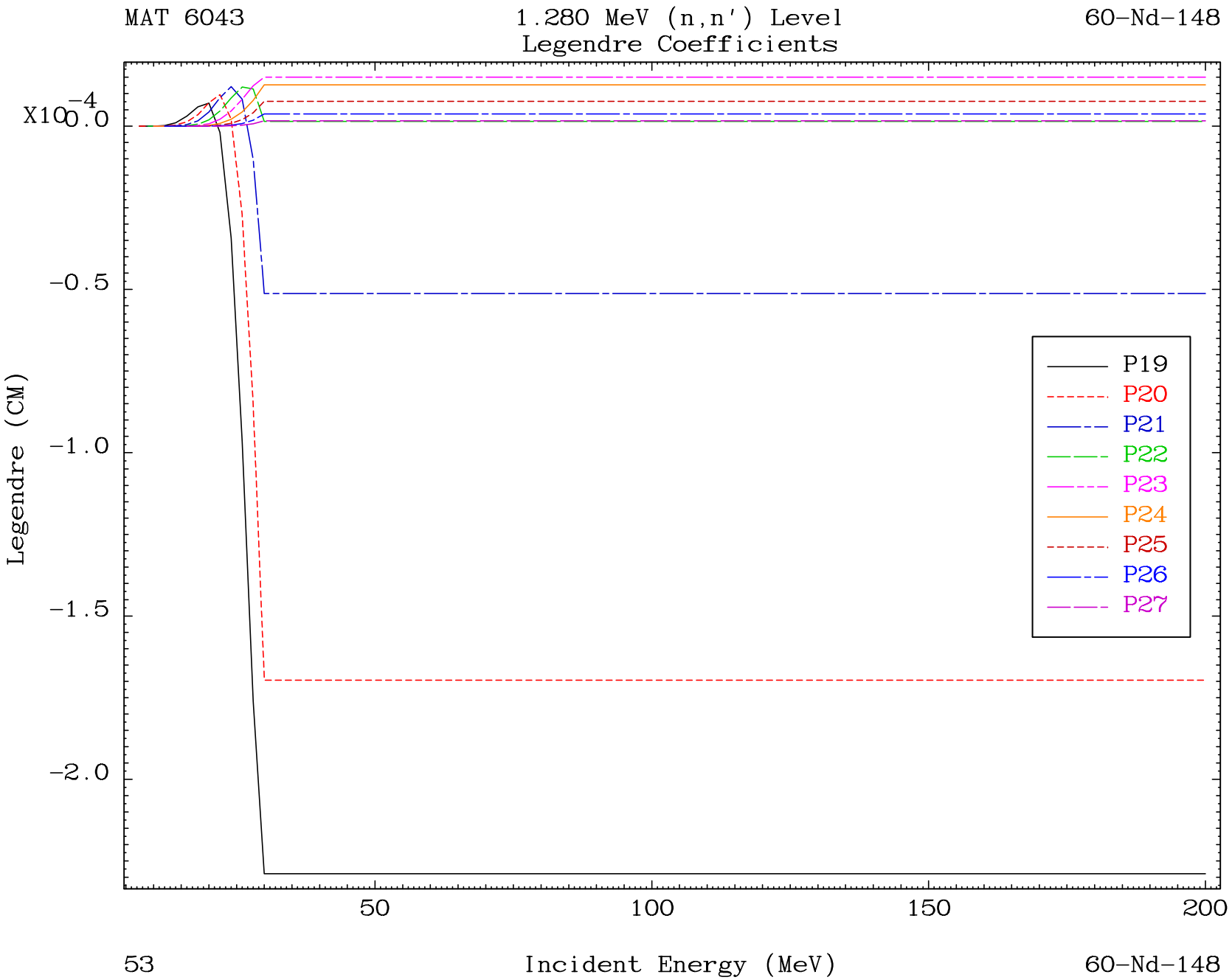

MAT 6043
1.249 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
48
Incident Energy (MeV)
60-Nd-148

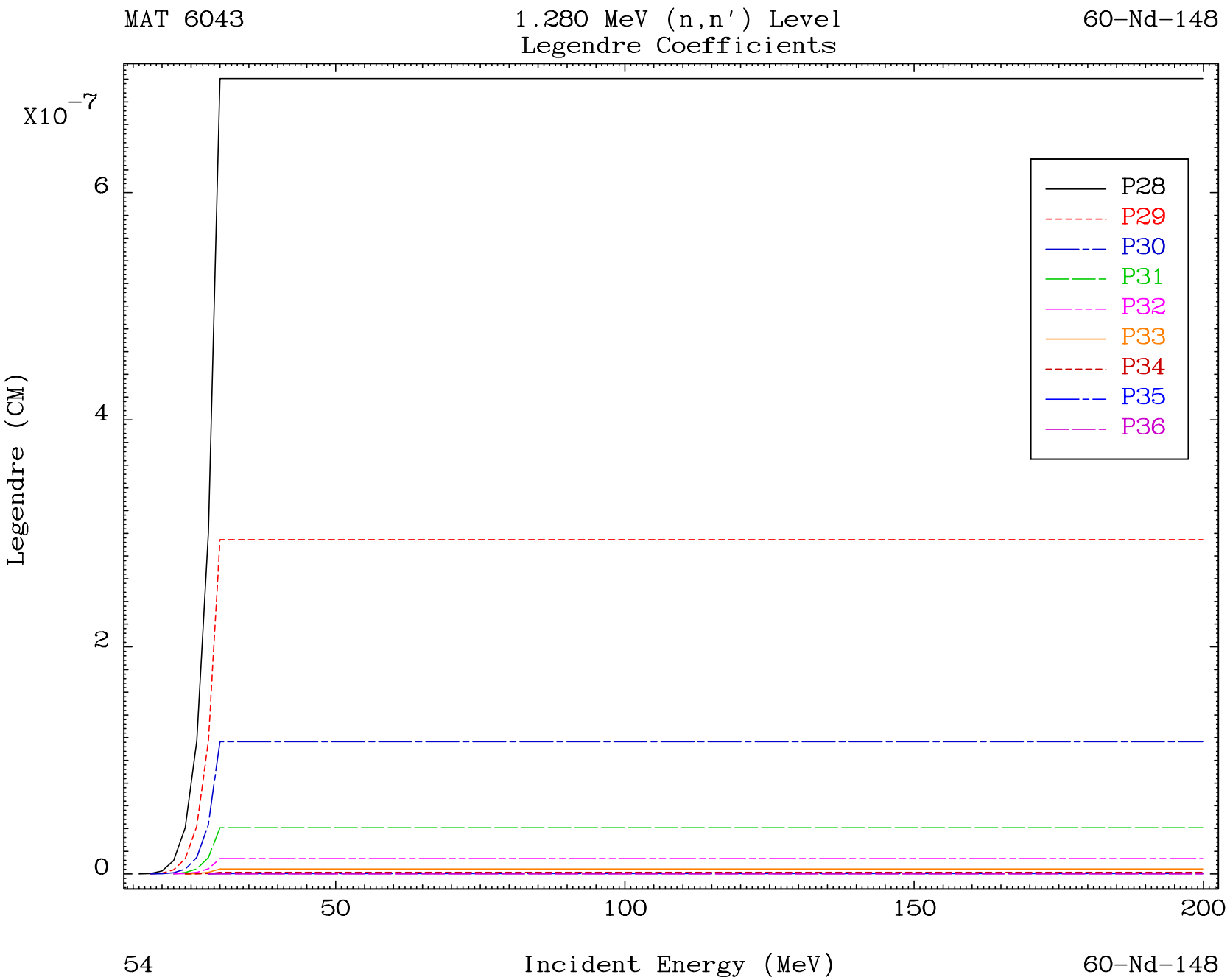

MAT 6043
1.249 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Legendre (CM)
50
100
150
200
49
Incident Energy (MeV)
60-Nd-148

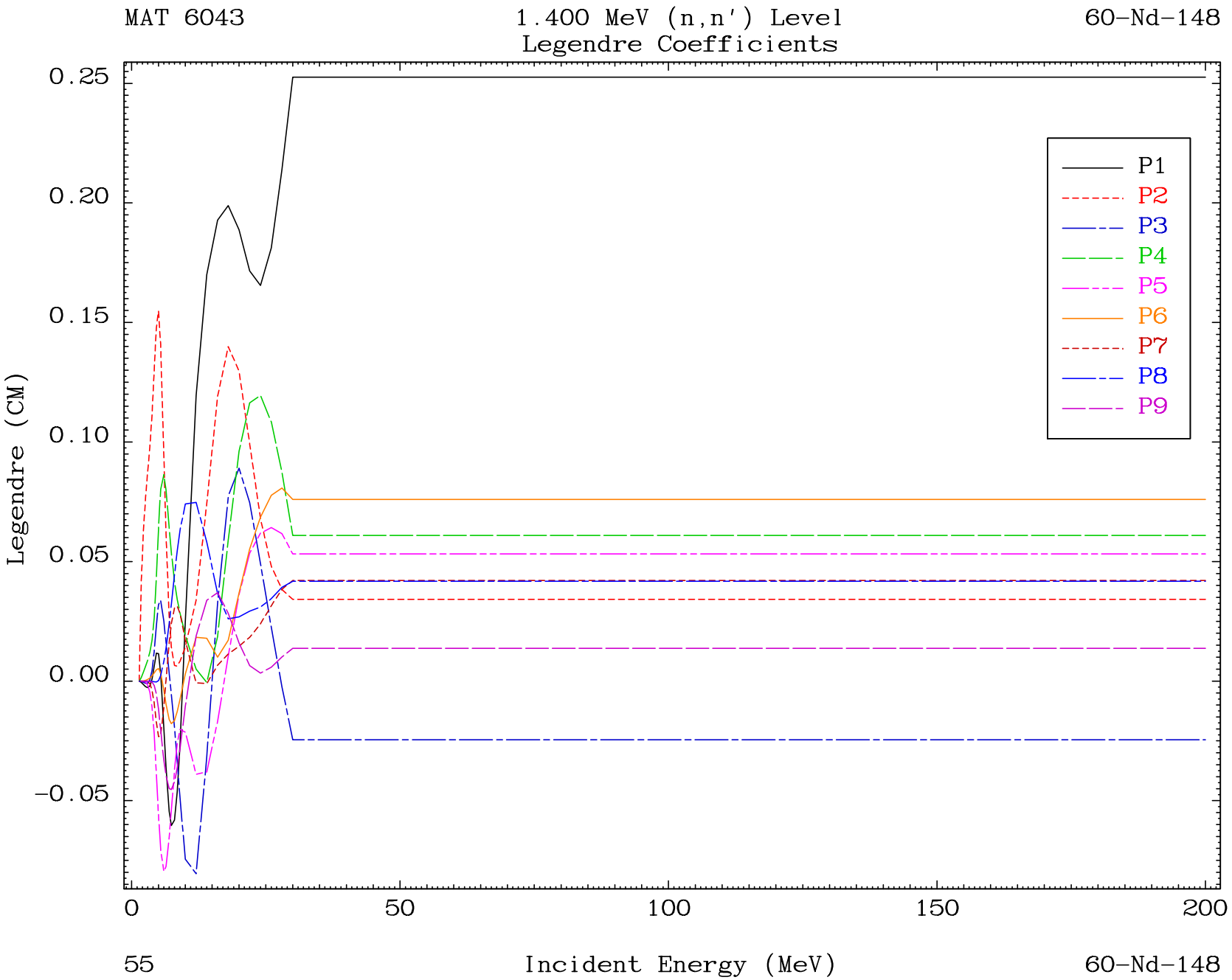

MAT 6043
1.249 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-6
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
50
Incident Energy (MeV)
60-Nd-148

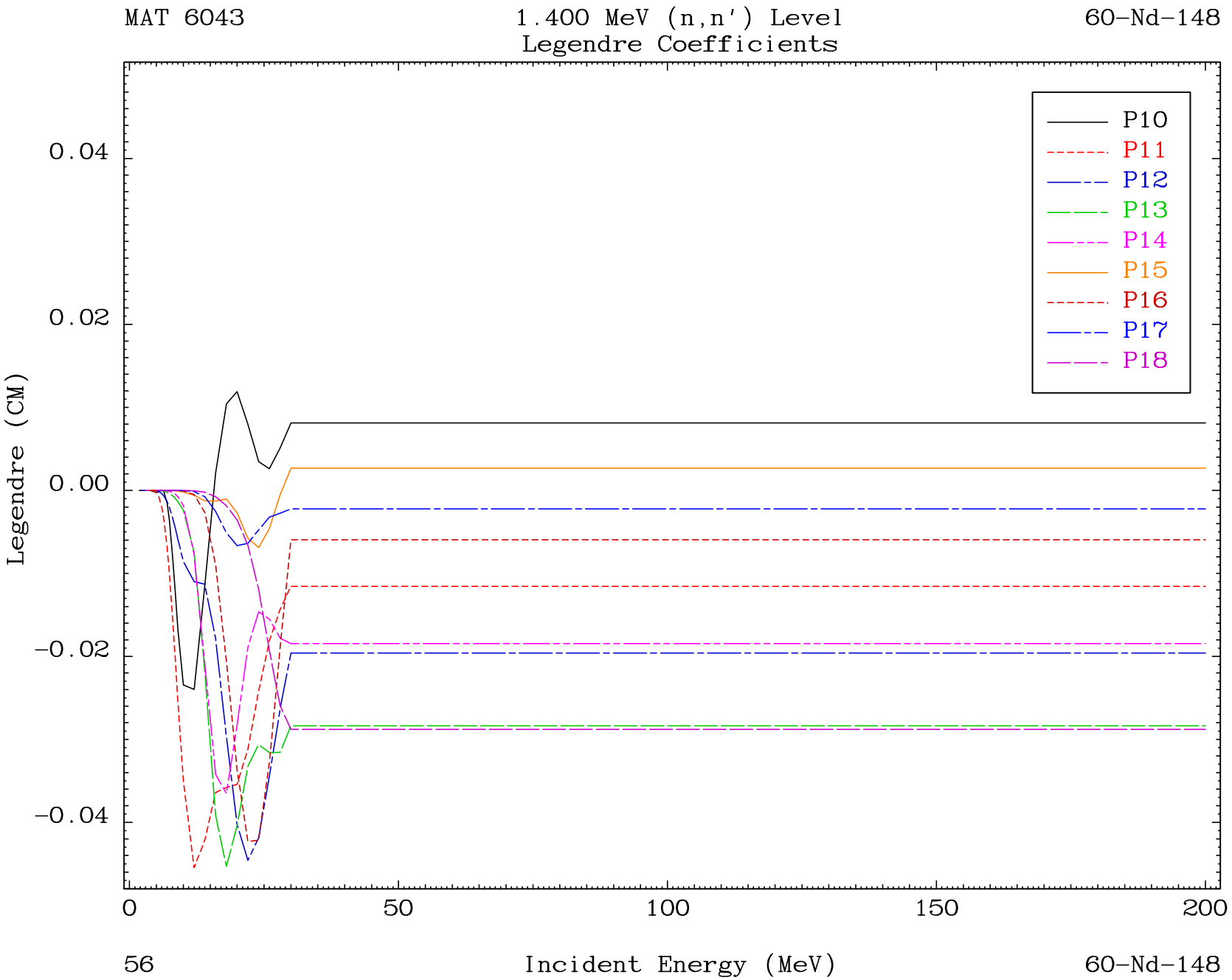

MAT 6043
1.280 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
51
Incident Energy (MeV)
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9

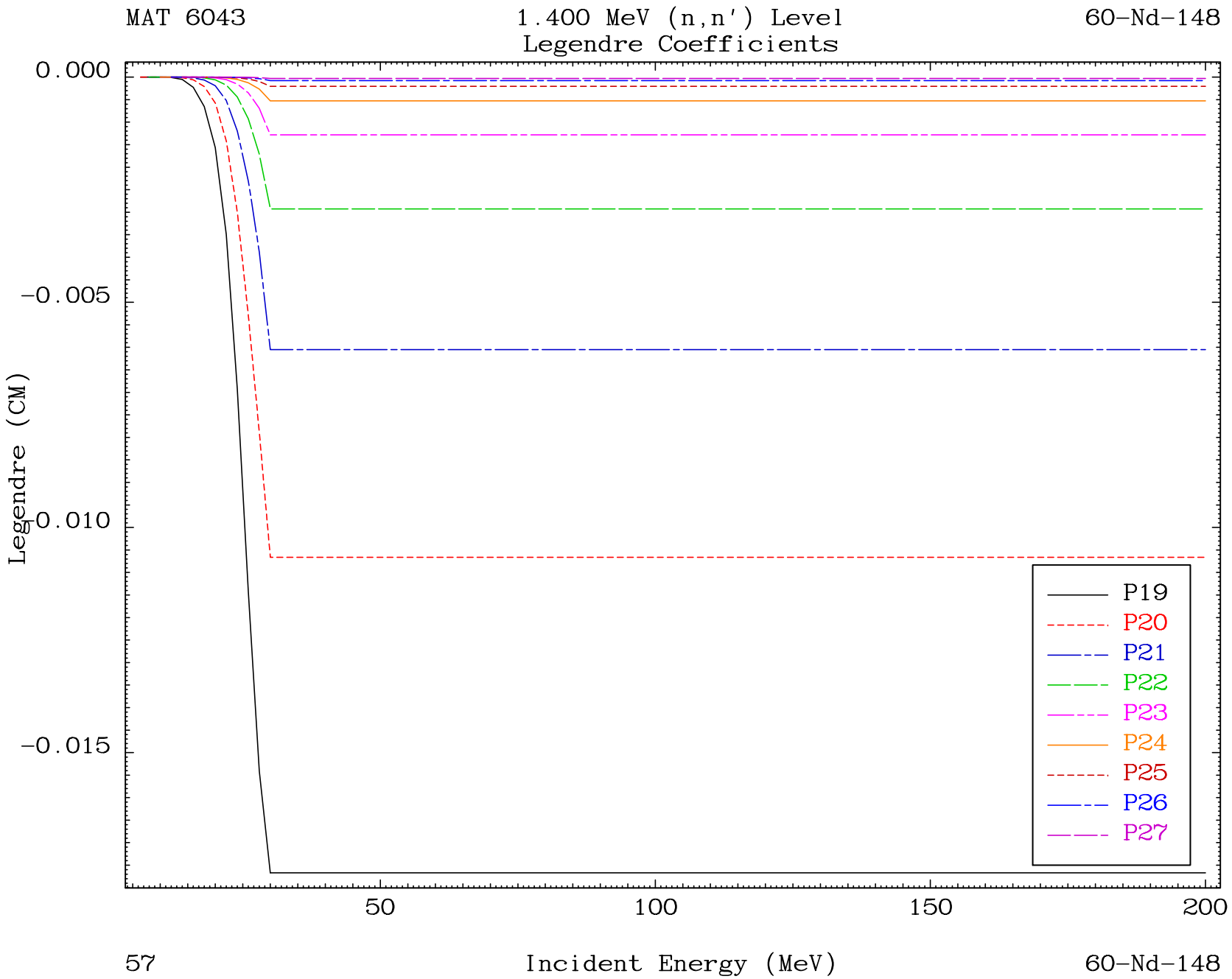

MAT 6043
1.280 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.015
0.010
0.005
0.000
-0.005
-0.010
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
52
Incident Energy (MeV)
60-Nd-148

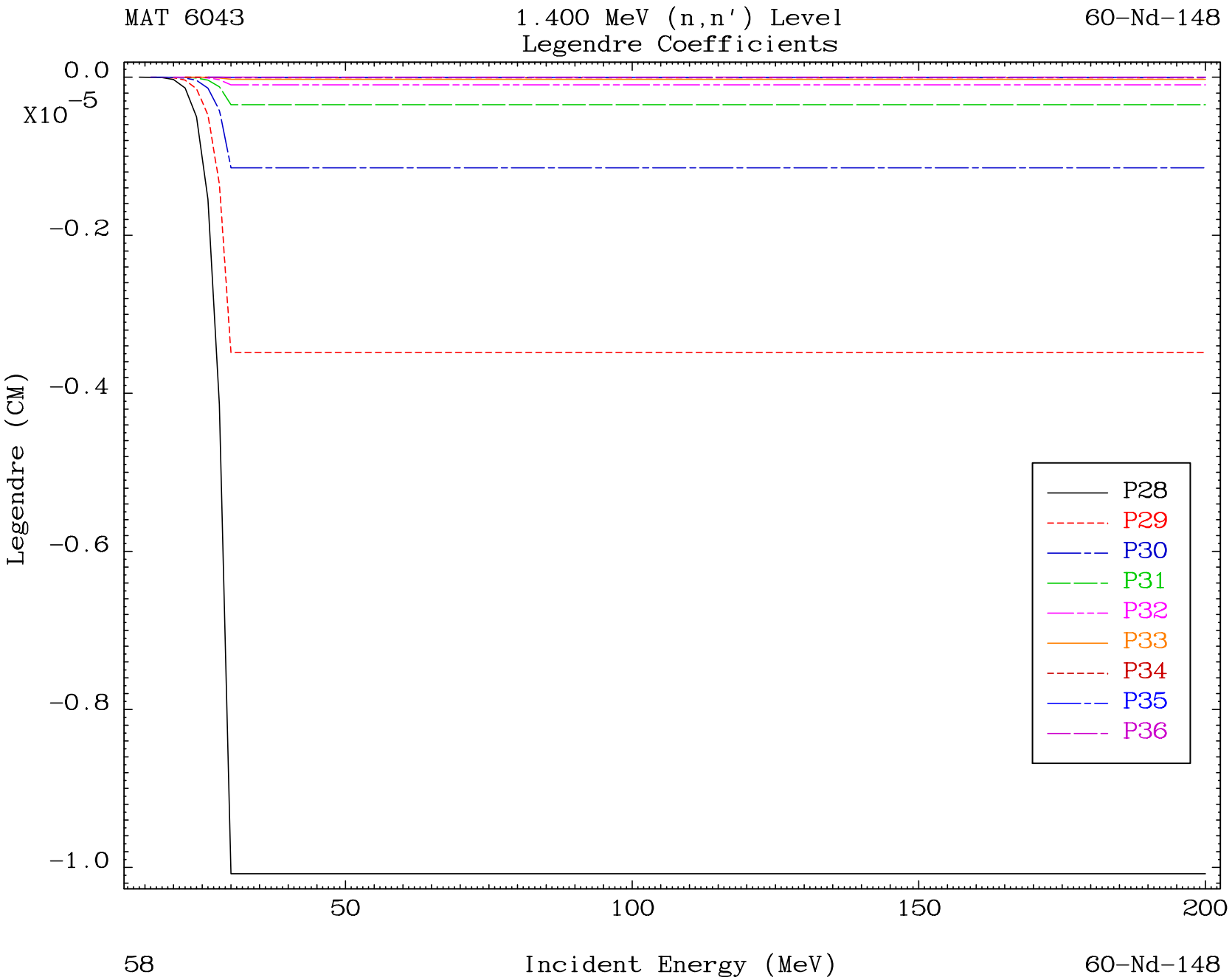

MAT 6043
1.280 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-4
0.0
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
53
Incident Energy (MeV)
60-Nd-148

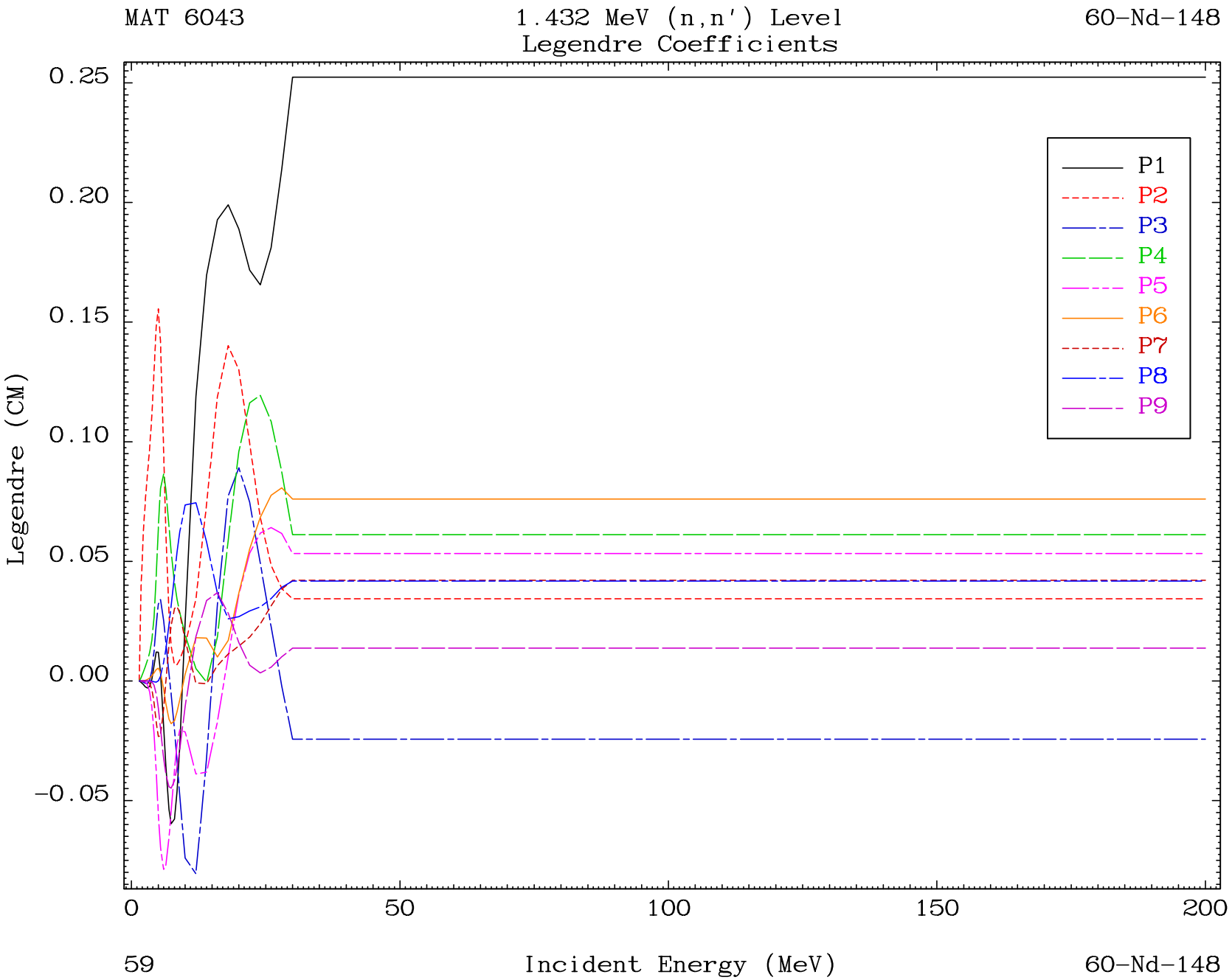

MAT 6043
1.280 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-7
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
54
Incident Energy (MeV)
60-Nd-148

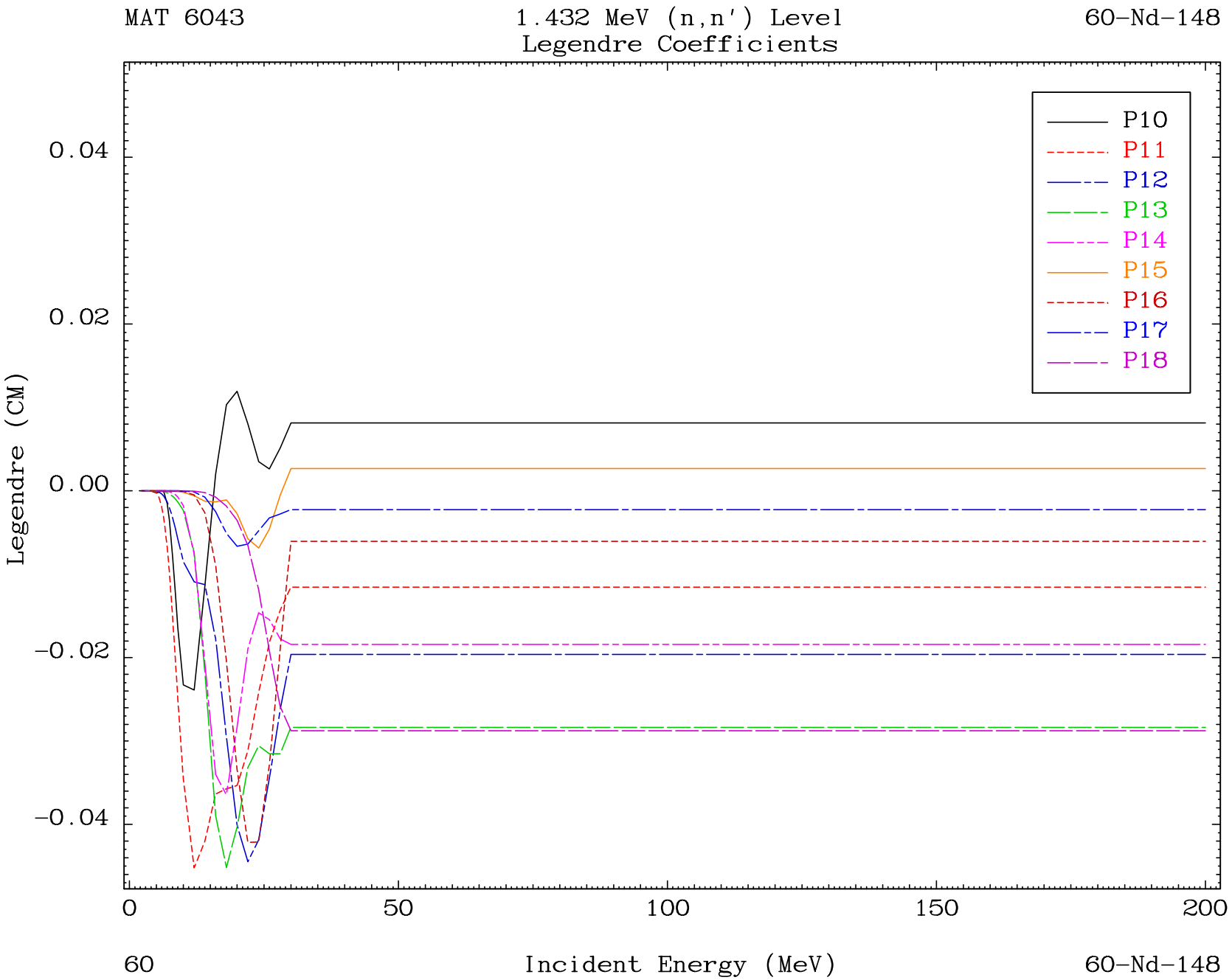

MAT 6043
1.400 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
55
Incident Energy (MeV)
60-Nd-148

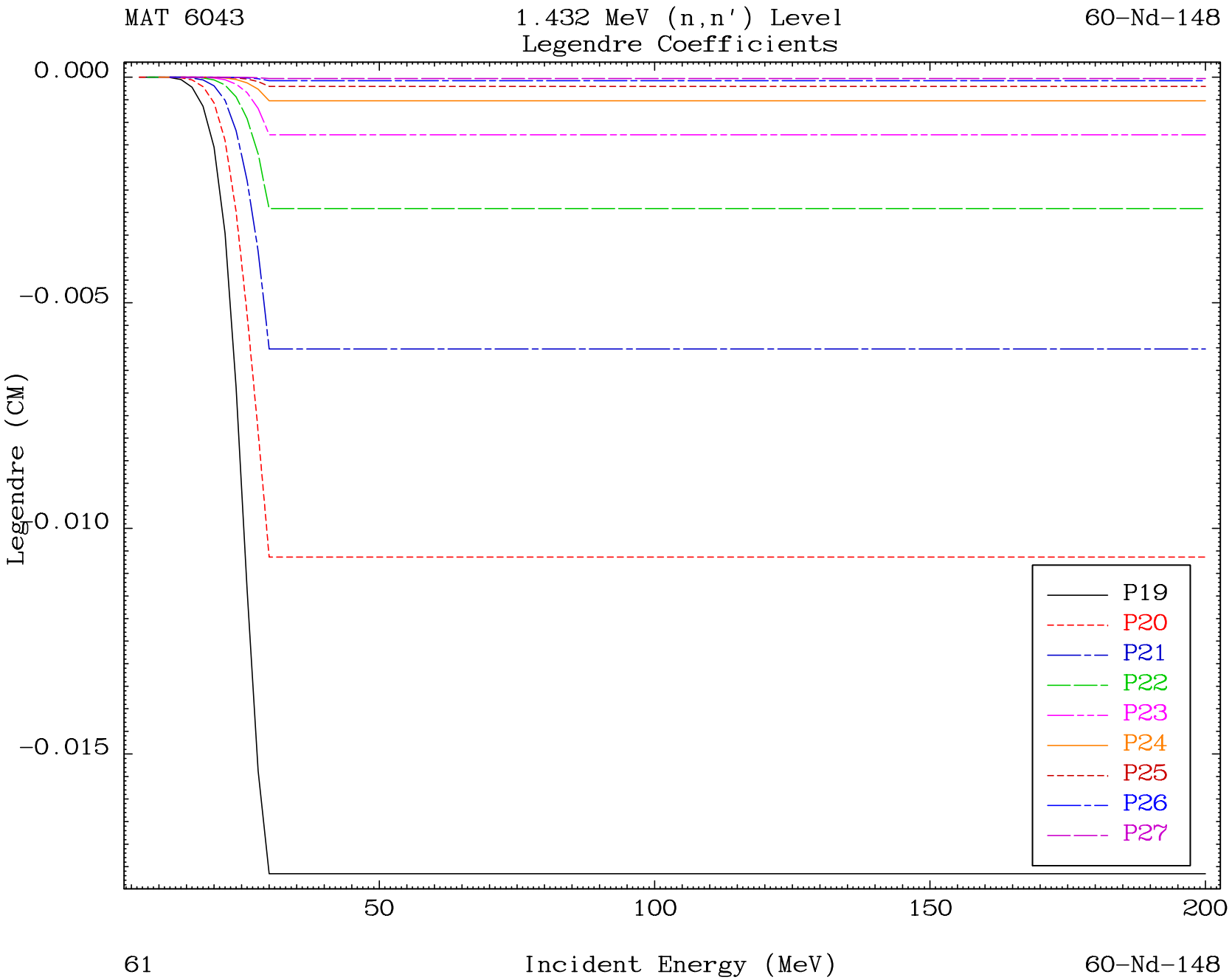

MAT 6043
1.400 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
56
Incident Energy (MeV)
60-Nd-148

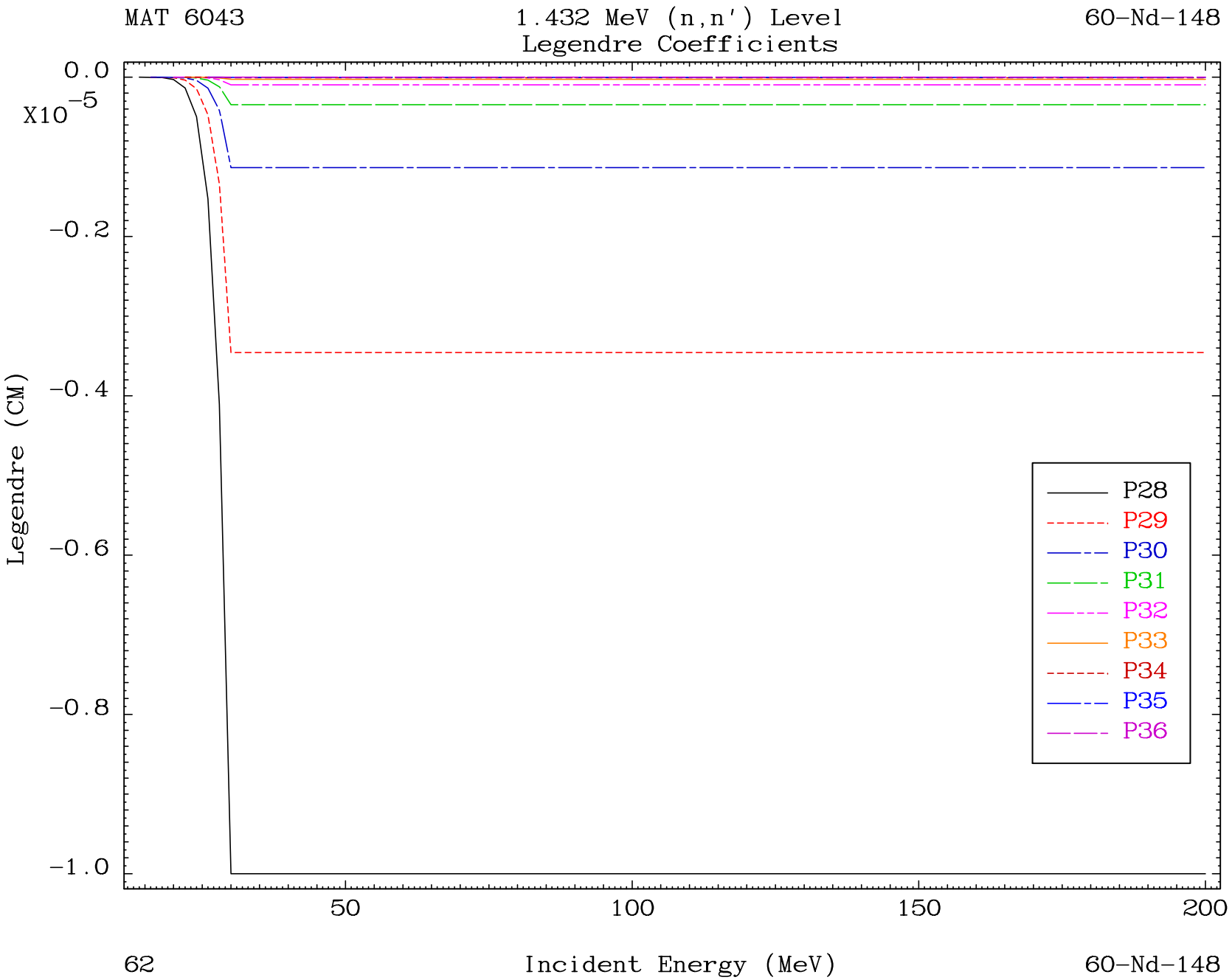

MAT 6043
1.400 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
57
Incident Energy (MeV)
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27

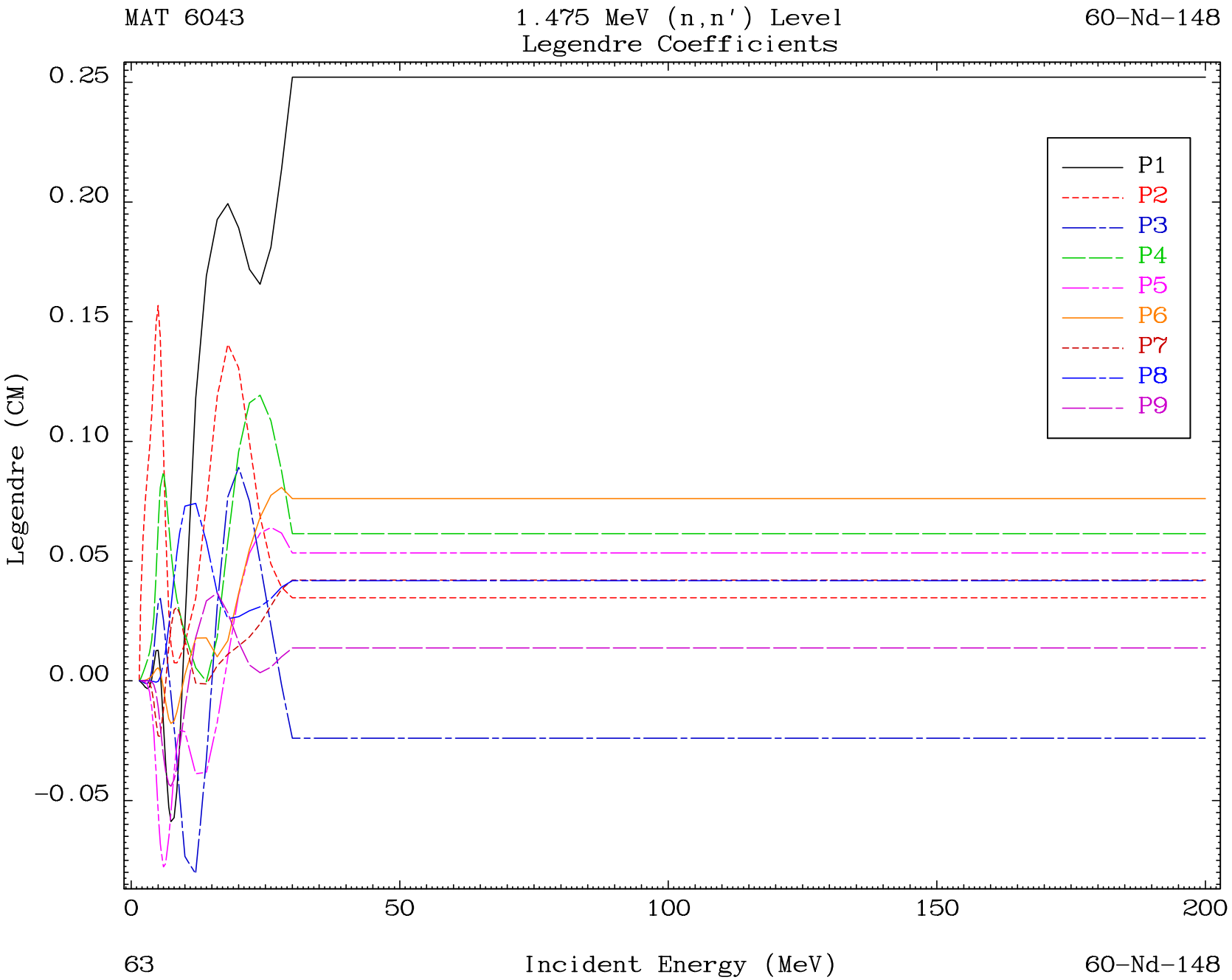

MAT 6043
1.400 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.0
X10^-5
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
50
100
150
200
58
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

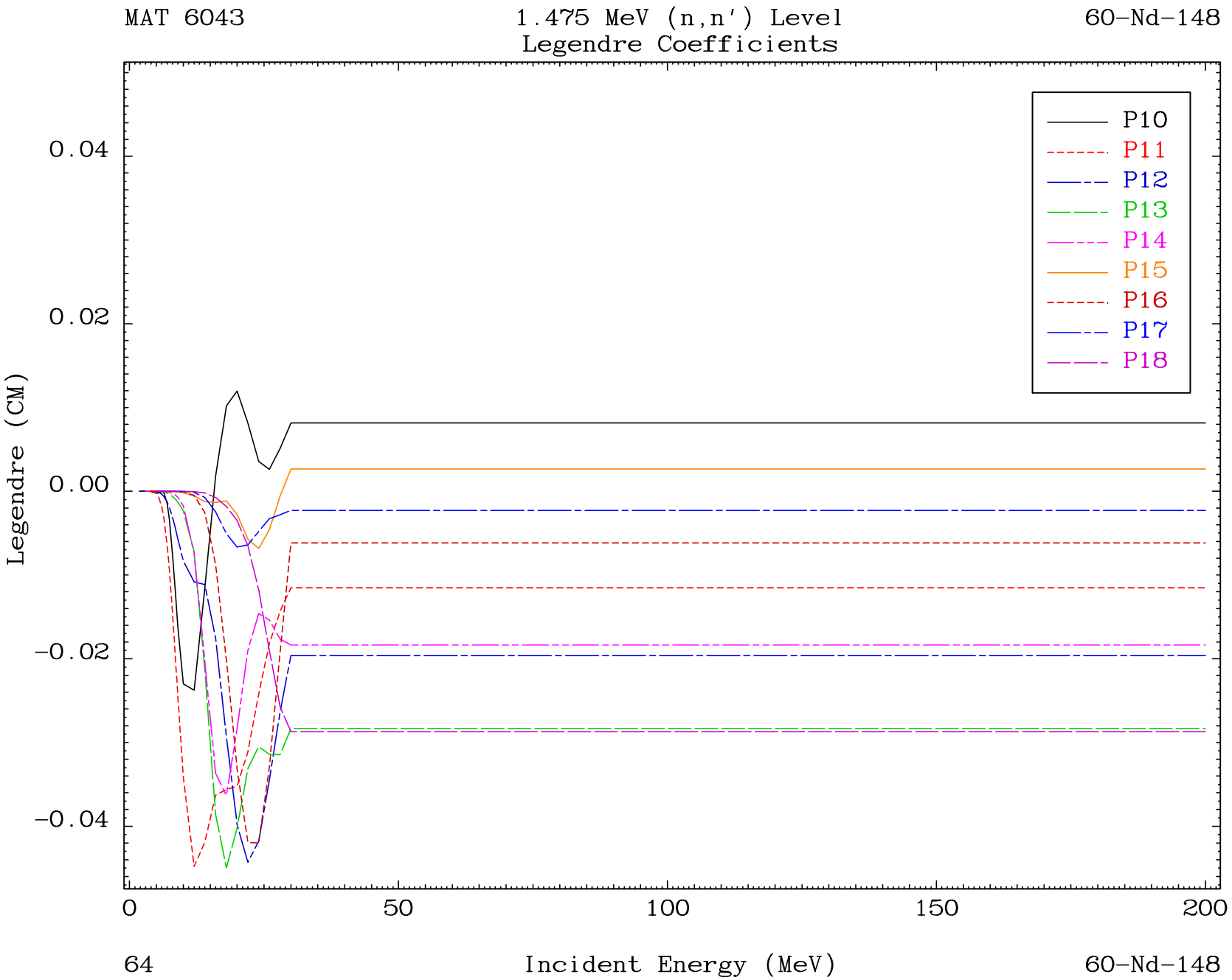

MAT 6043
1.432 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
59
Incident Energy (MeV)
60-Nd-148

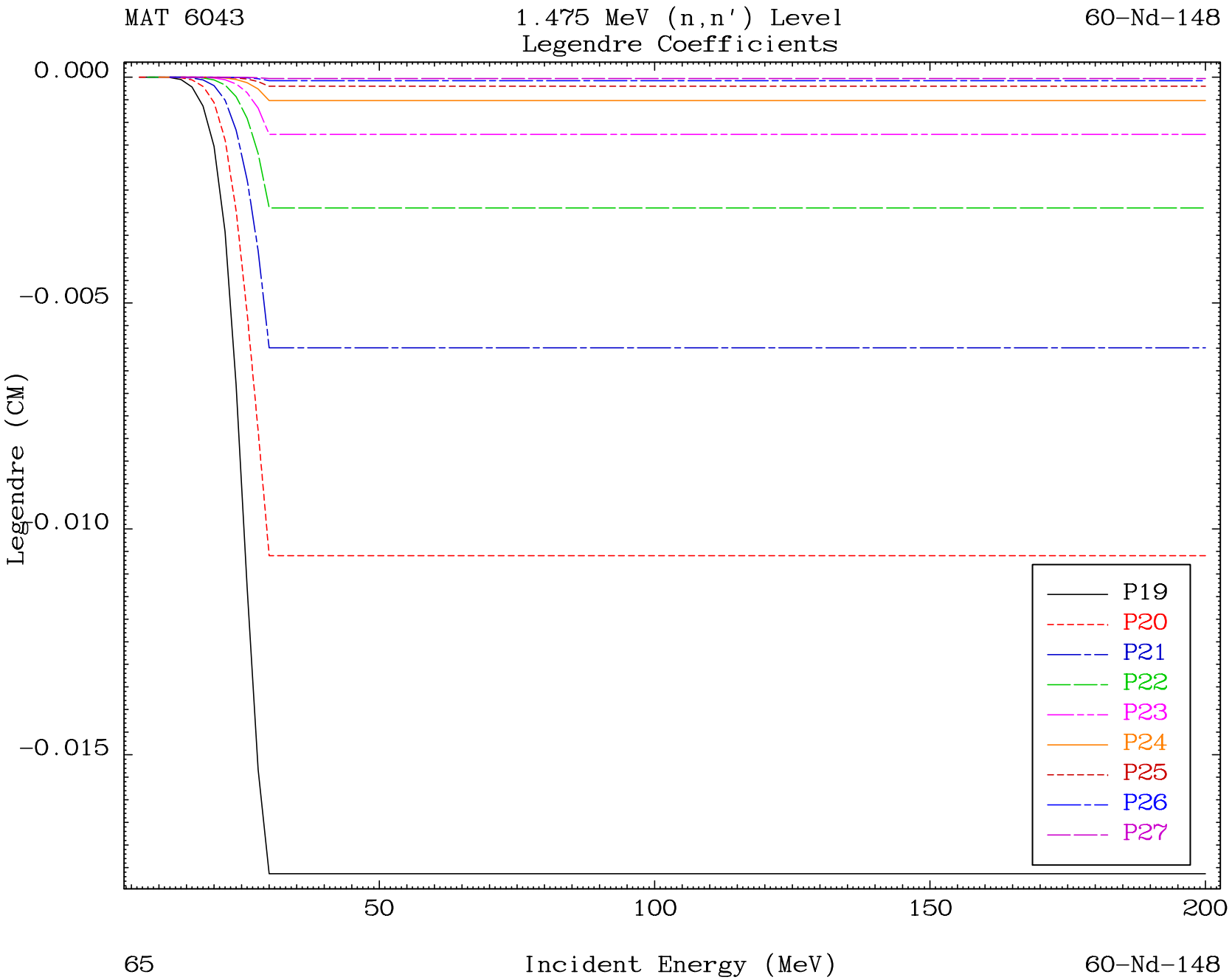

MAT 6043
1.432 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
60
Incident Energy (MeV)
60-Nd-148

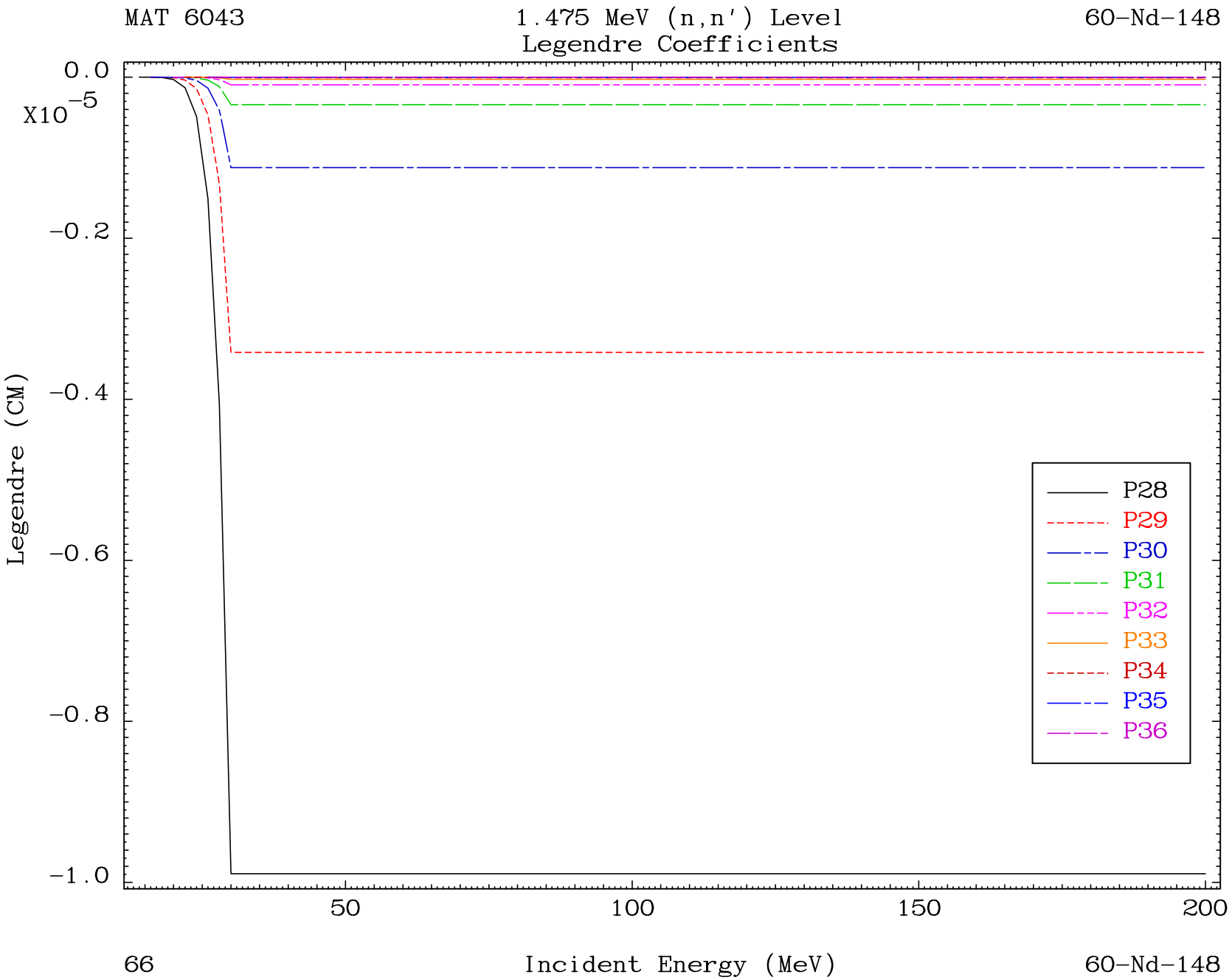

MAT 6043
1.432 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
61
Incident Energy (MeV)
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27

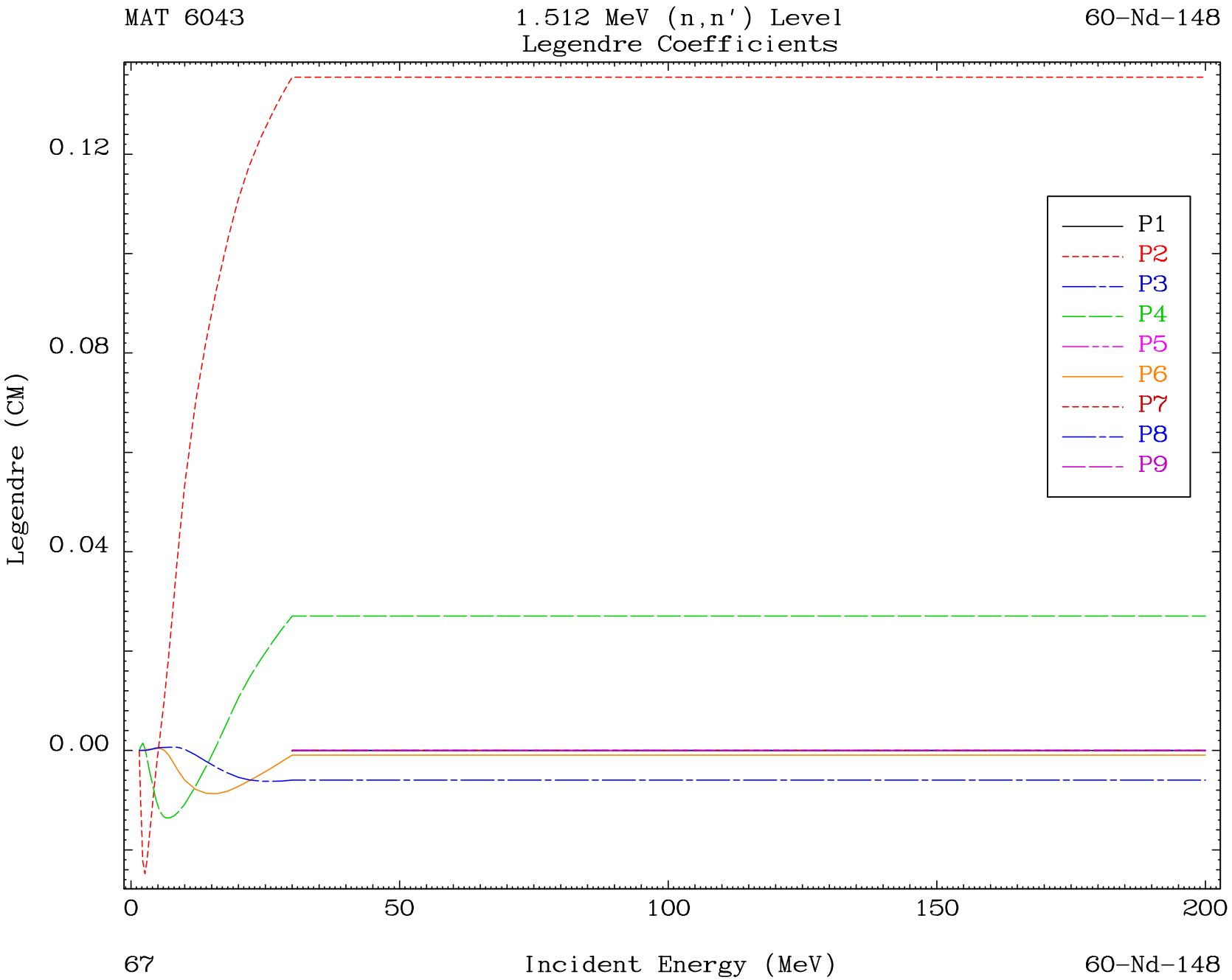

MAT 6043
1.432 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.0
X10-5
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
50
100
150
200
62
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

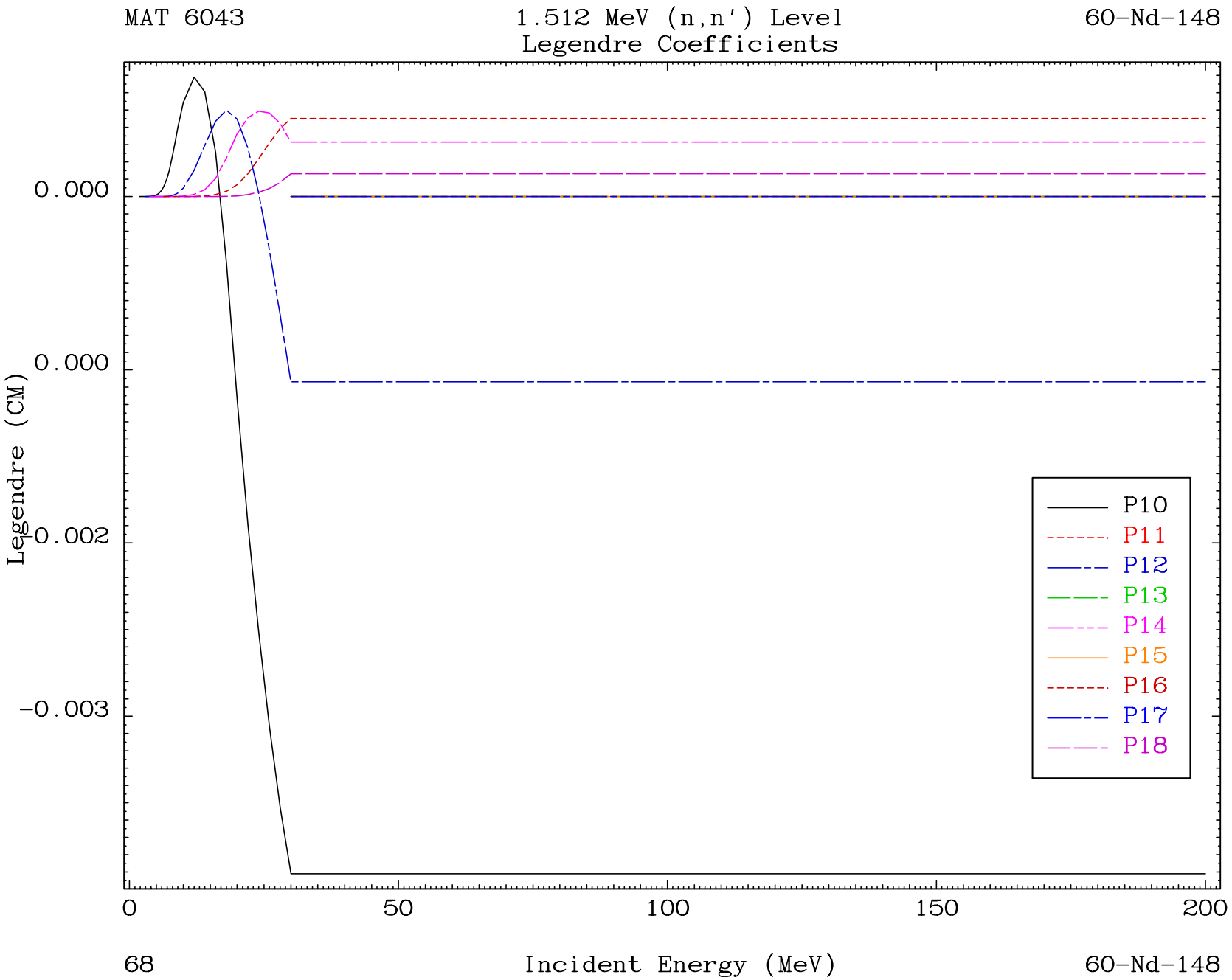

MAT 6043
1.475 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
63
Incident Energy (MeV)
60-Nd-148

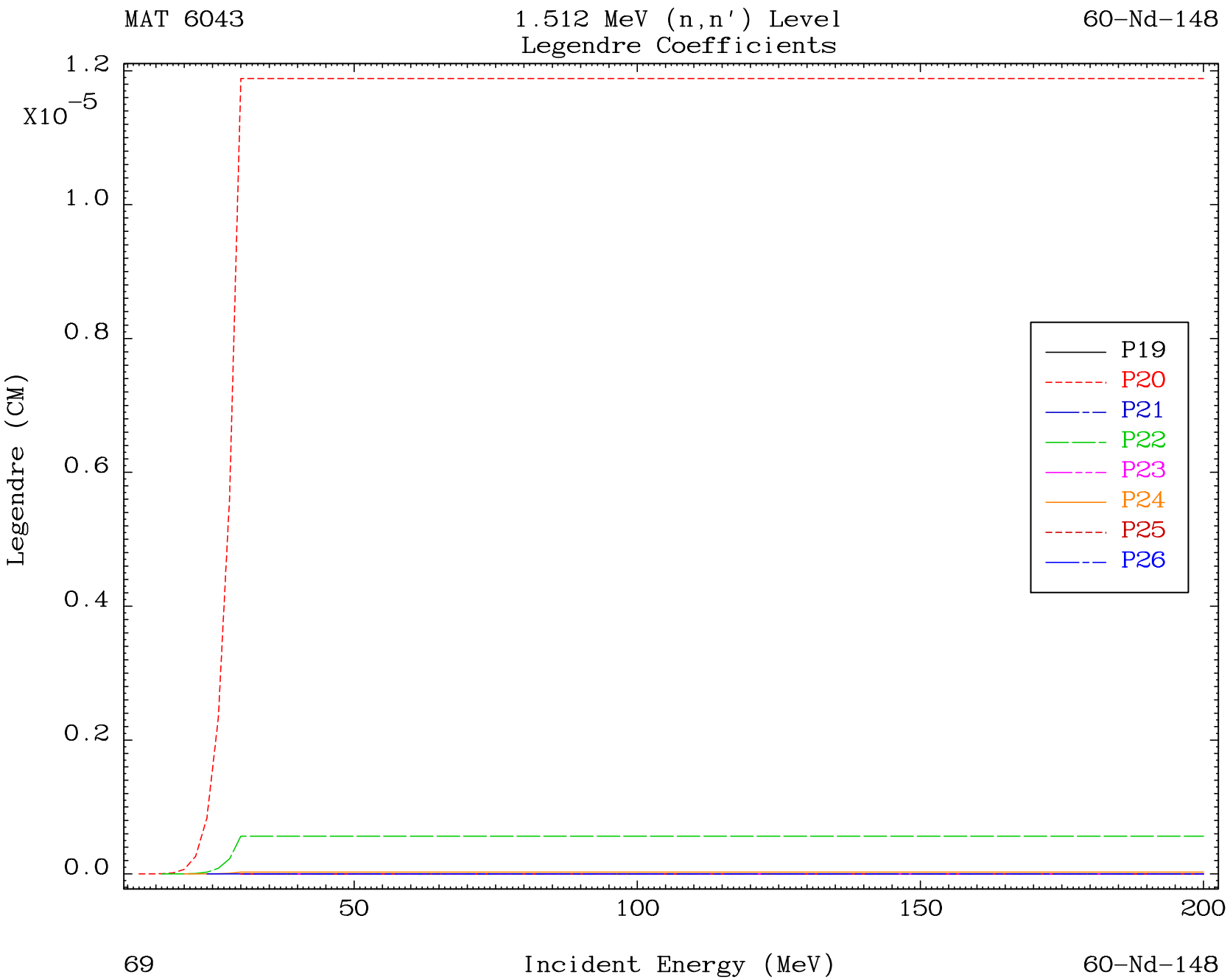

MAT 6043
1.475 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
64
Incident Energy (MeV)
60-Nd-148

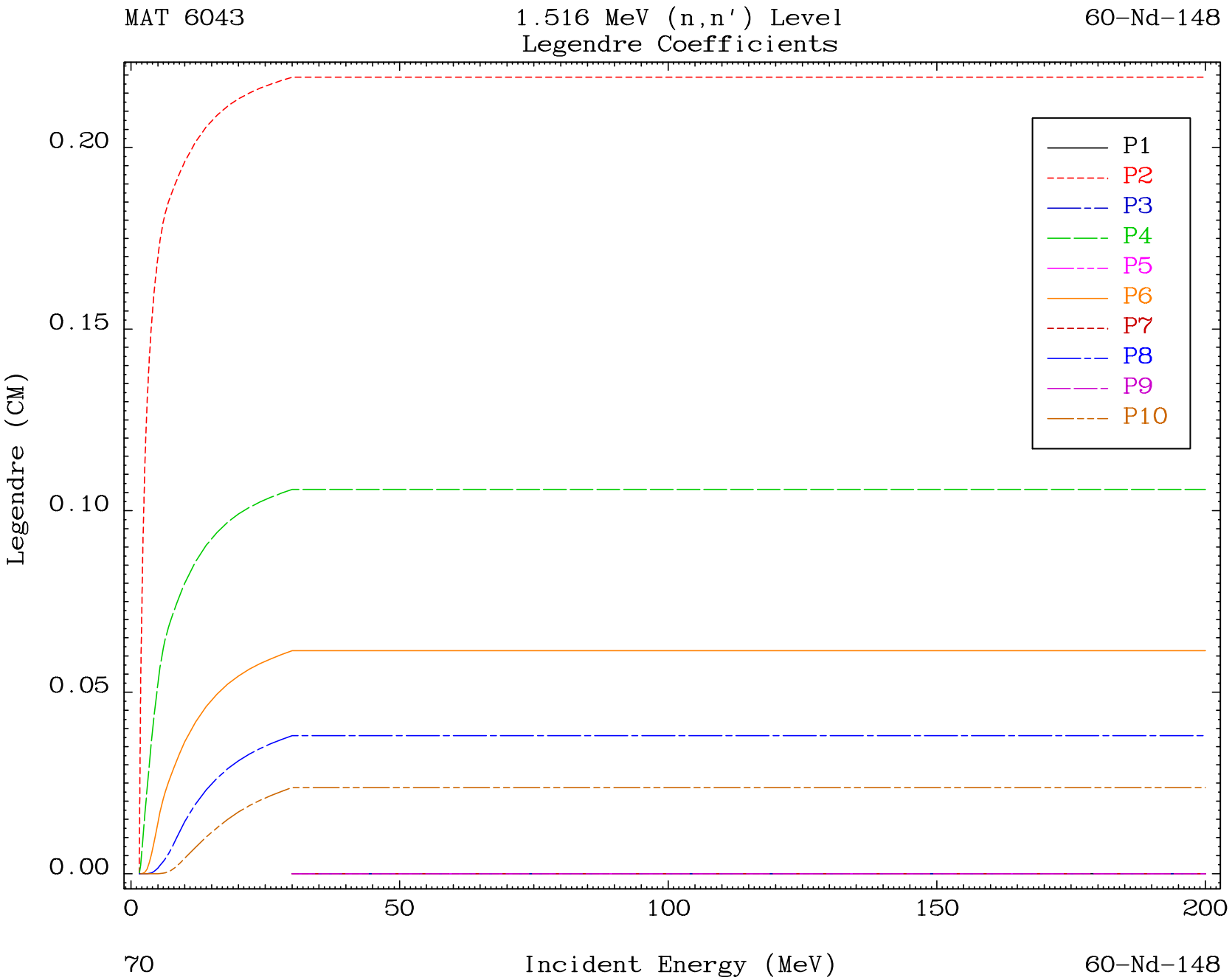

MAT 6043
1.475 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
65
Incident Energy (MeV)
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27

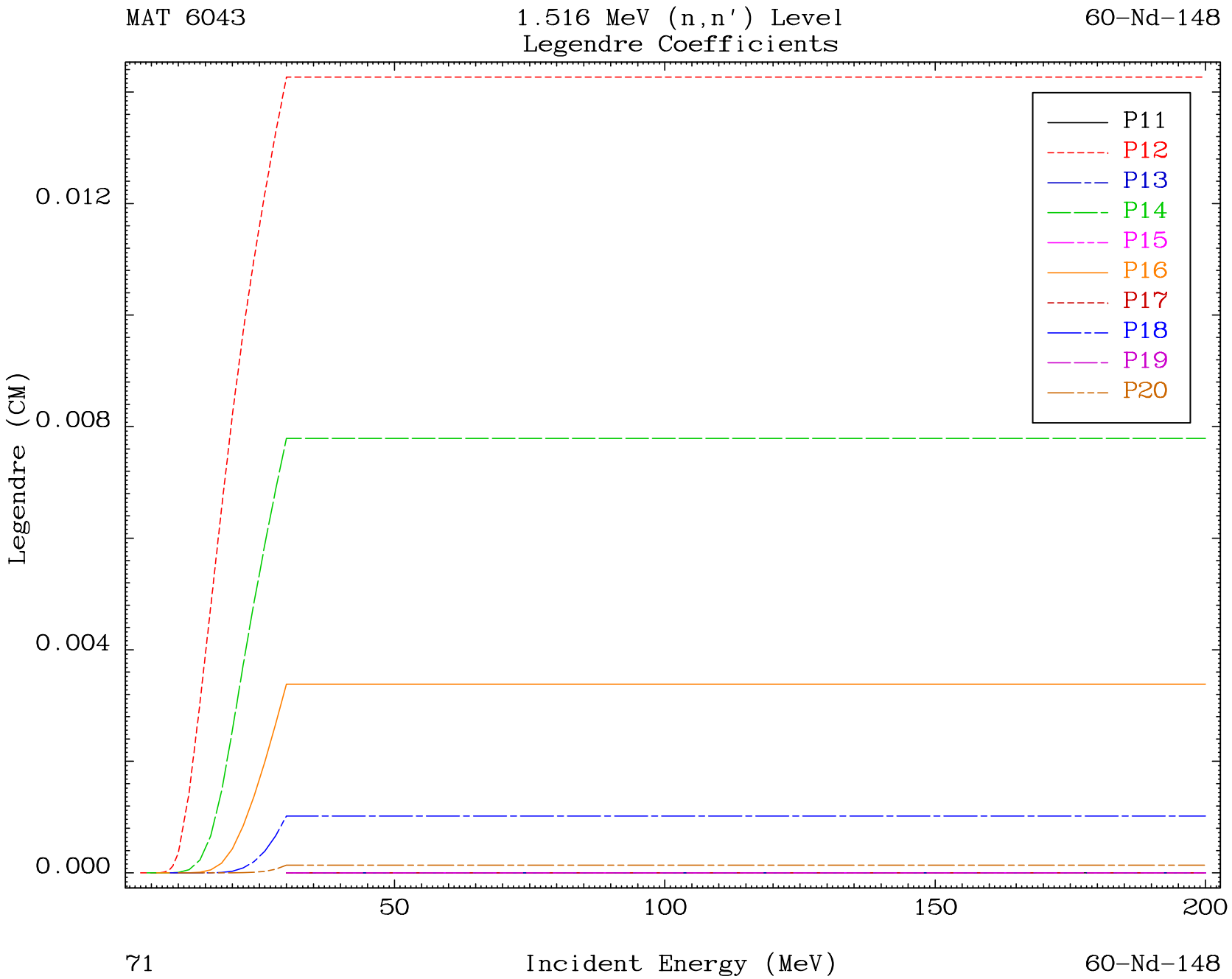

MAT 6043
1.475 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.0
X10^-5
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
50
100
150
200
66
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

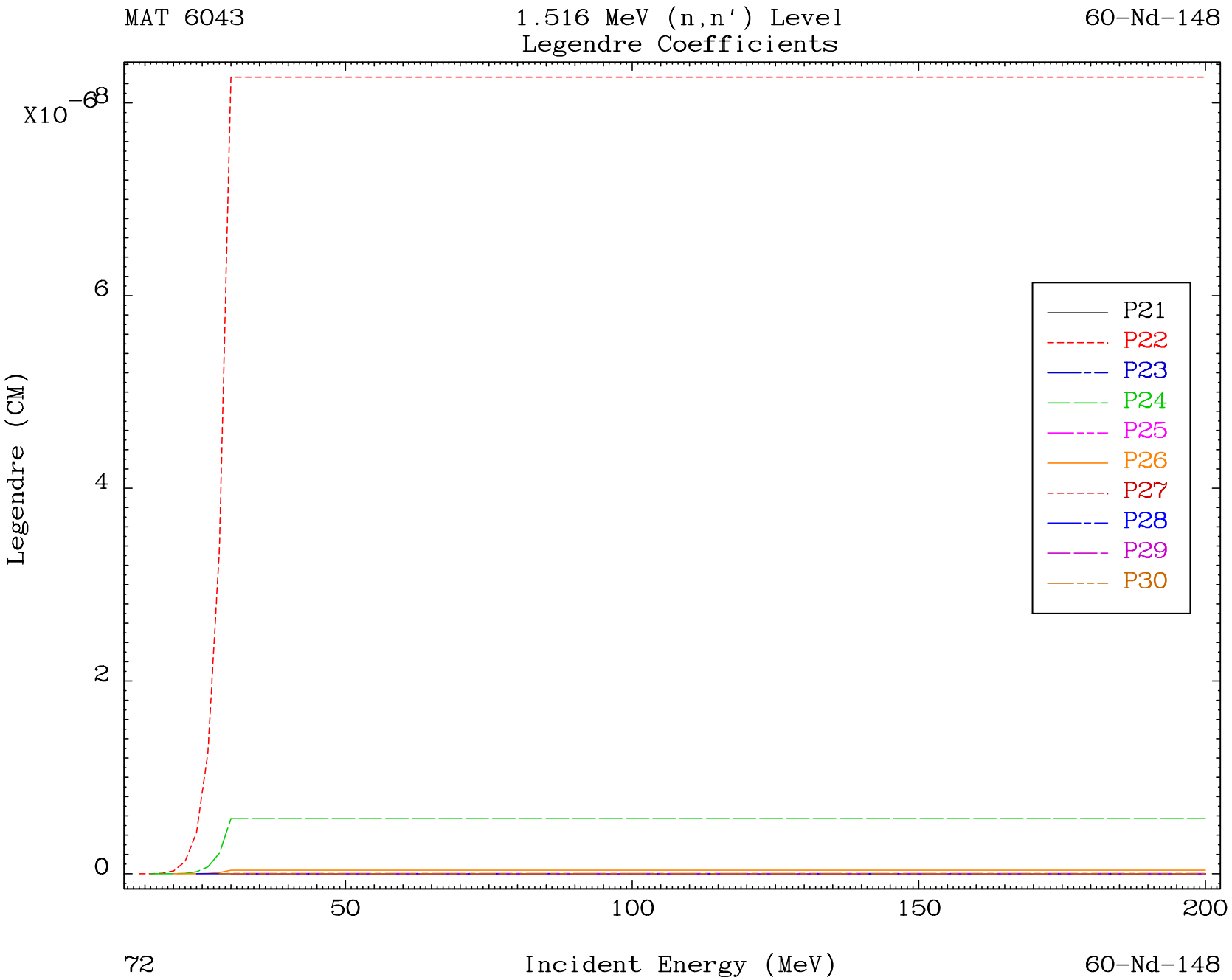

MAT 6043
1.512 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
67
Incident Energy (MeV)
60-Nd-148

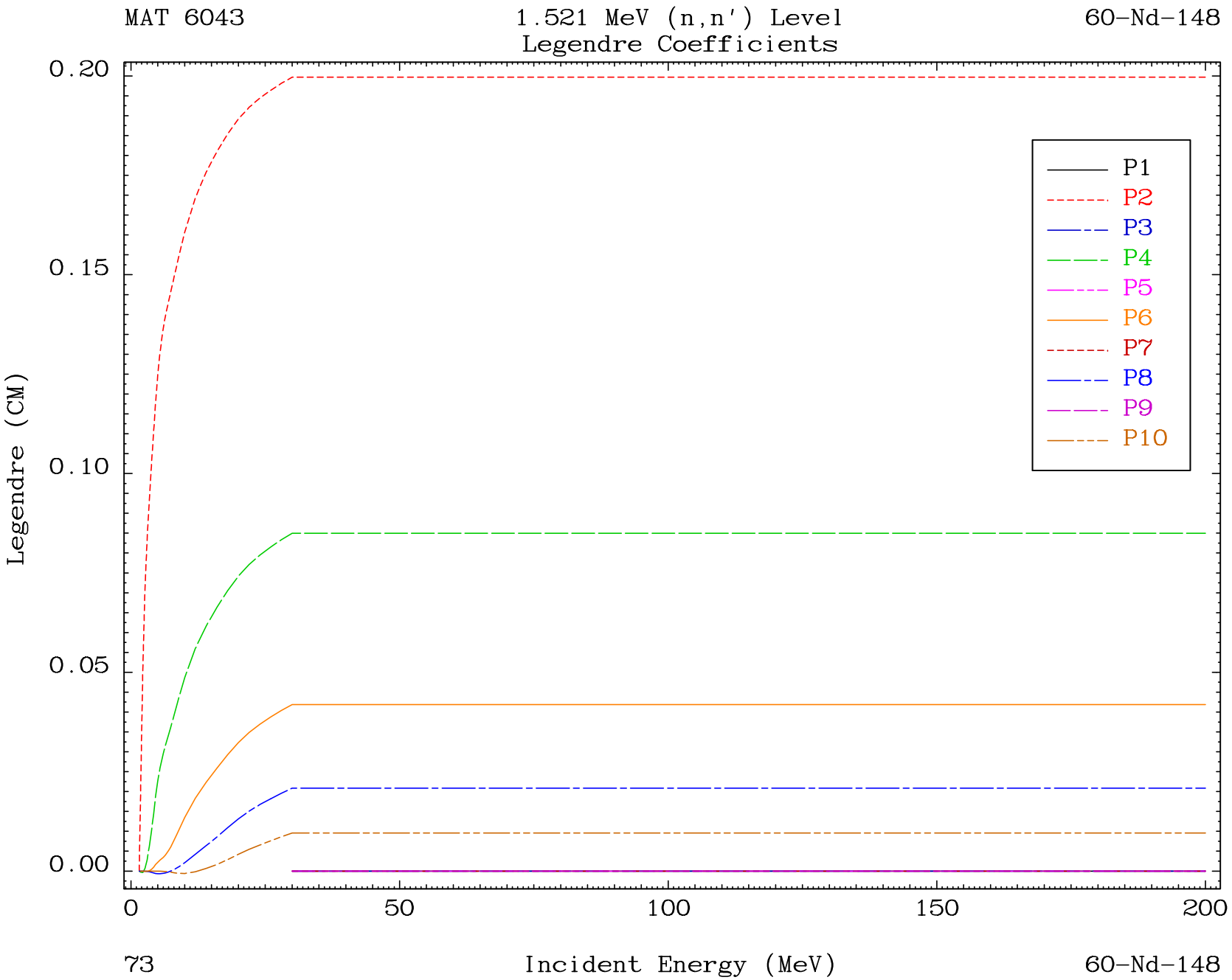

MAT 6043
1.512 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.002
-0.003
Legendre (CM)
0
50
100
150
200
68
Incident Energy (MeV)
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18

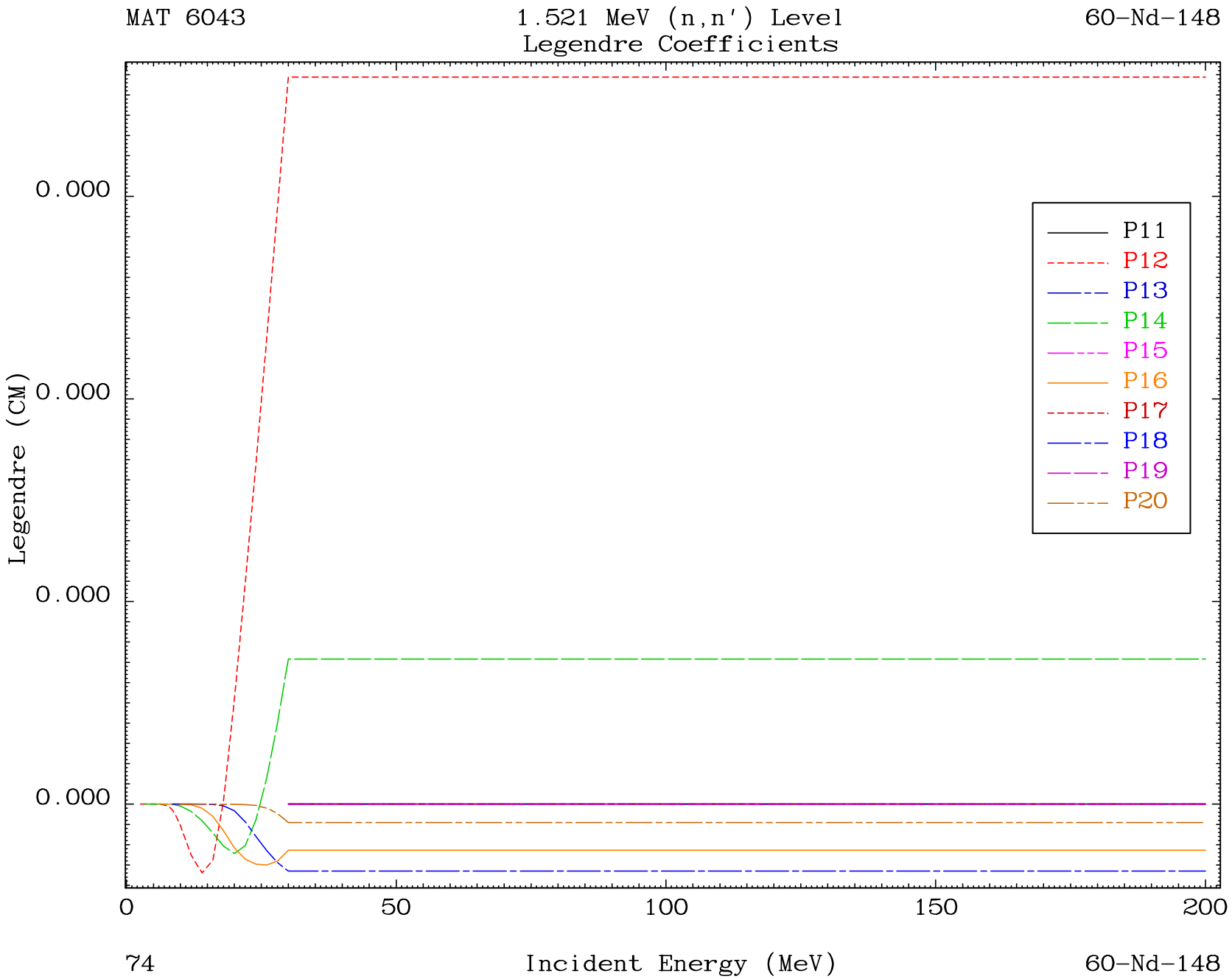

MAT 6043
1.512 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-5
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
50
100
150
200
69
Incident Energy (MeV)
60-Nd-148

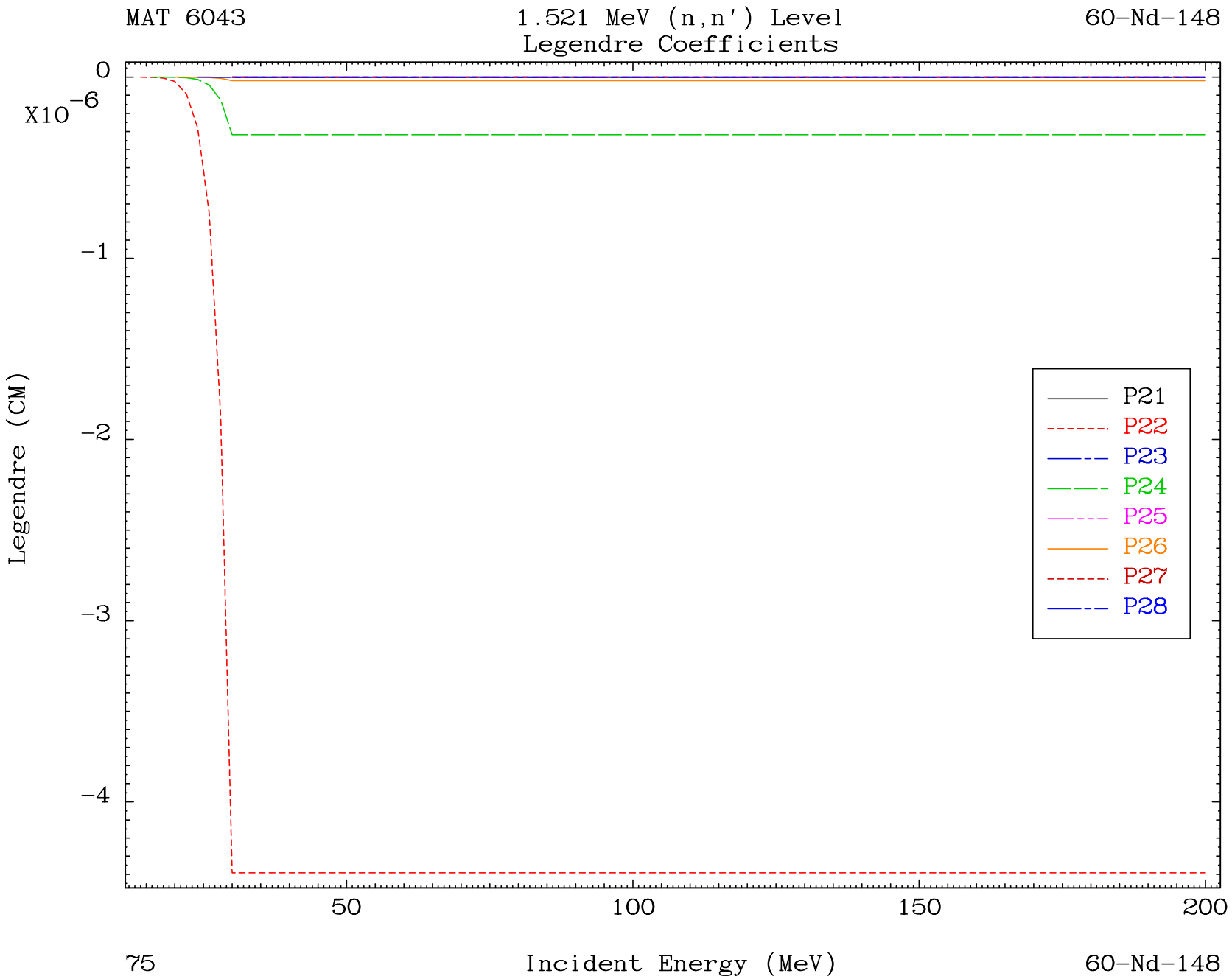

MAT 6043
1.516 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.20
0.15
0.10
0.05
0.00
0
50
100
150
200
70
Incident Energy (MeV)
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

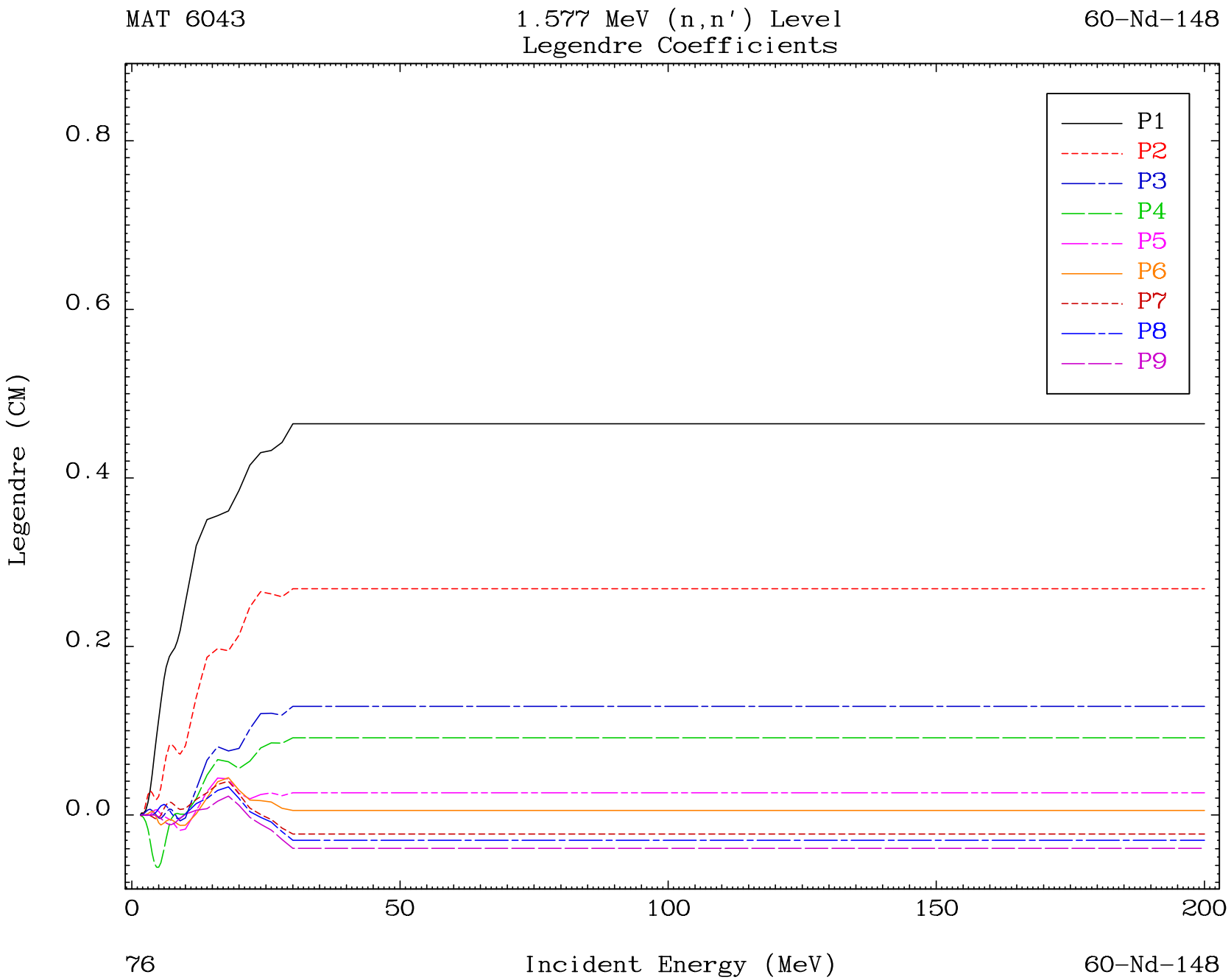

MAT 6043
1.516 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.012
0.008
0.004
0.000
Legendre (CM)
50
100
150
200
71
Incident Energy (MeV)
60-Nd-148

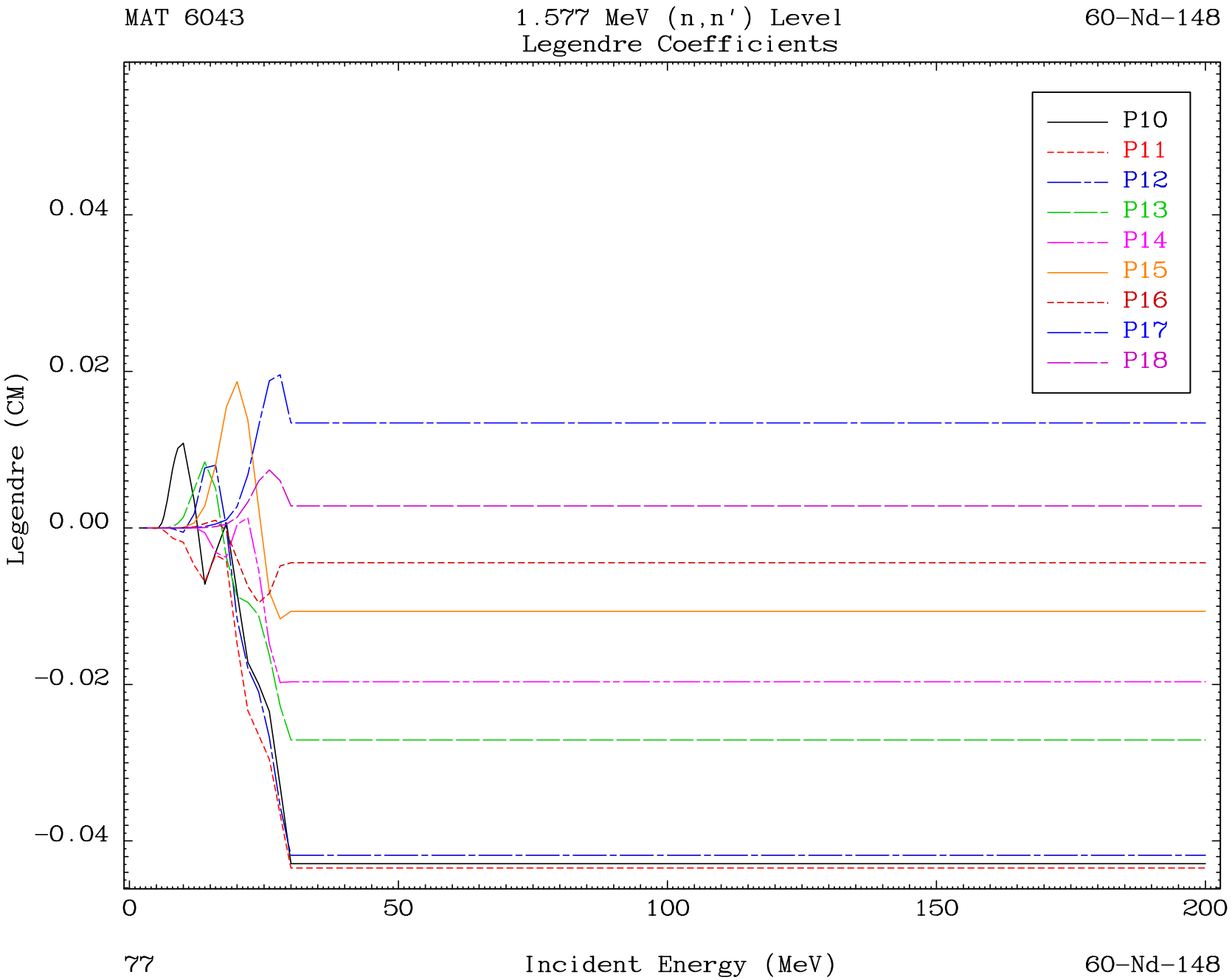

MAT 6043
1.516 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-6
8
6
4
2
0
Legendre (CM)
50
100
150
200
72
Incident Energy (MeV)
60-Nd-148
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

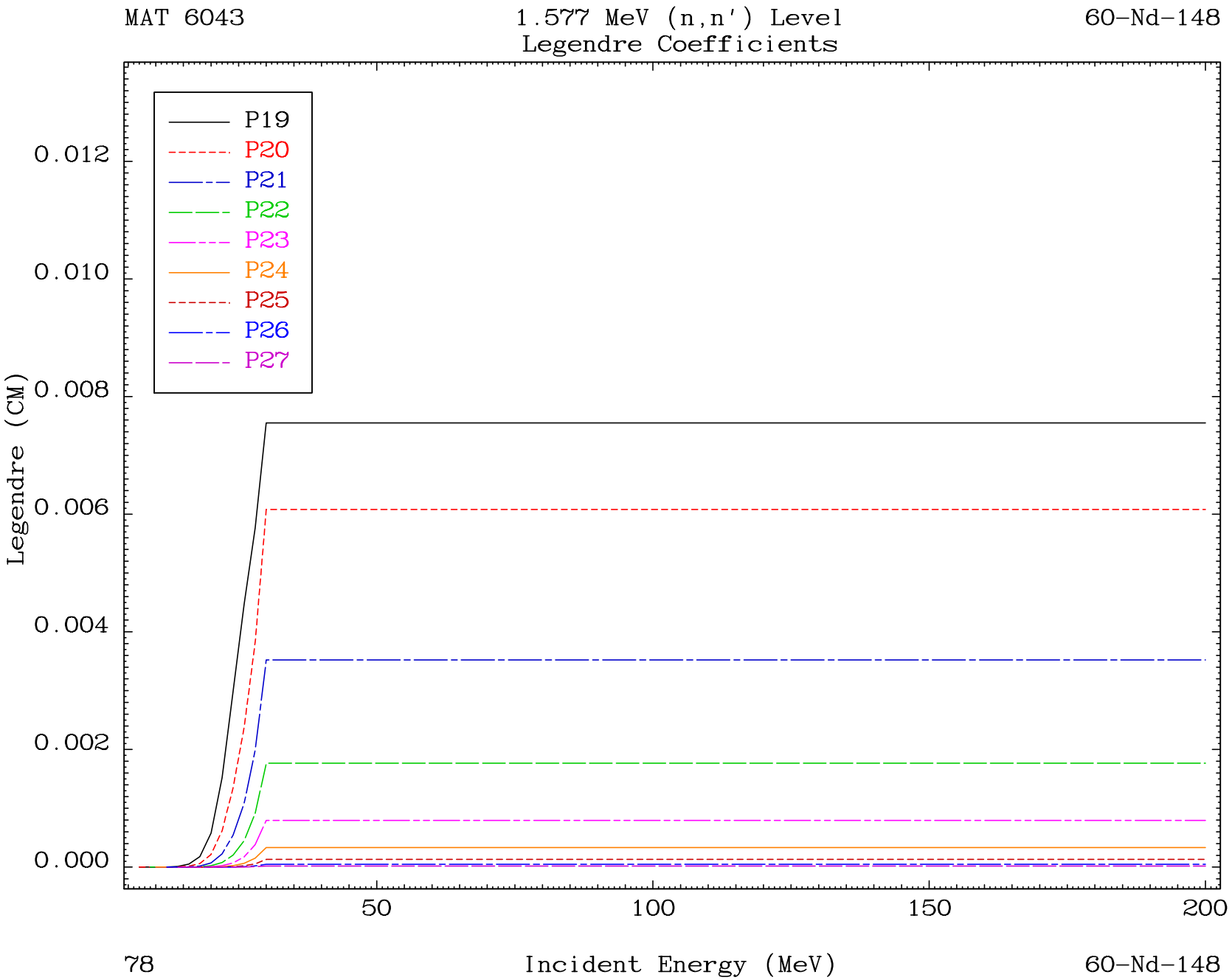

MAT 6043
1.521 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.20
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
73
Incident Energy (MeV)
60-Nd-148

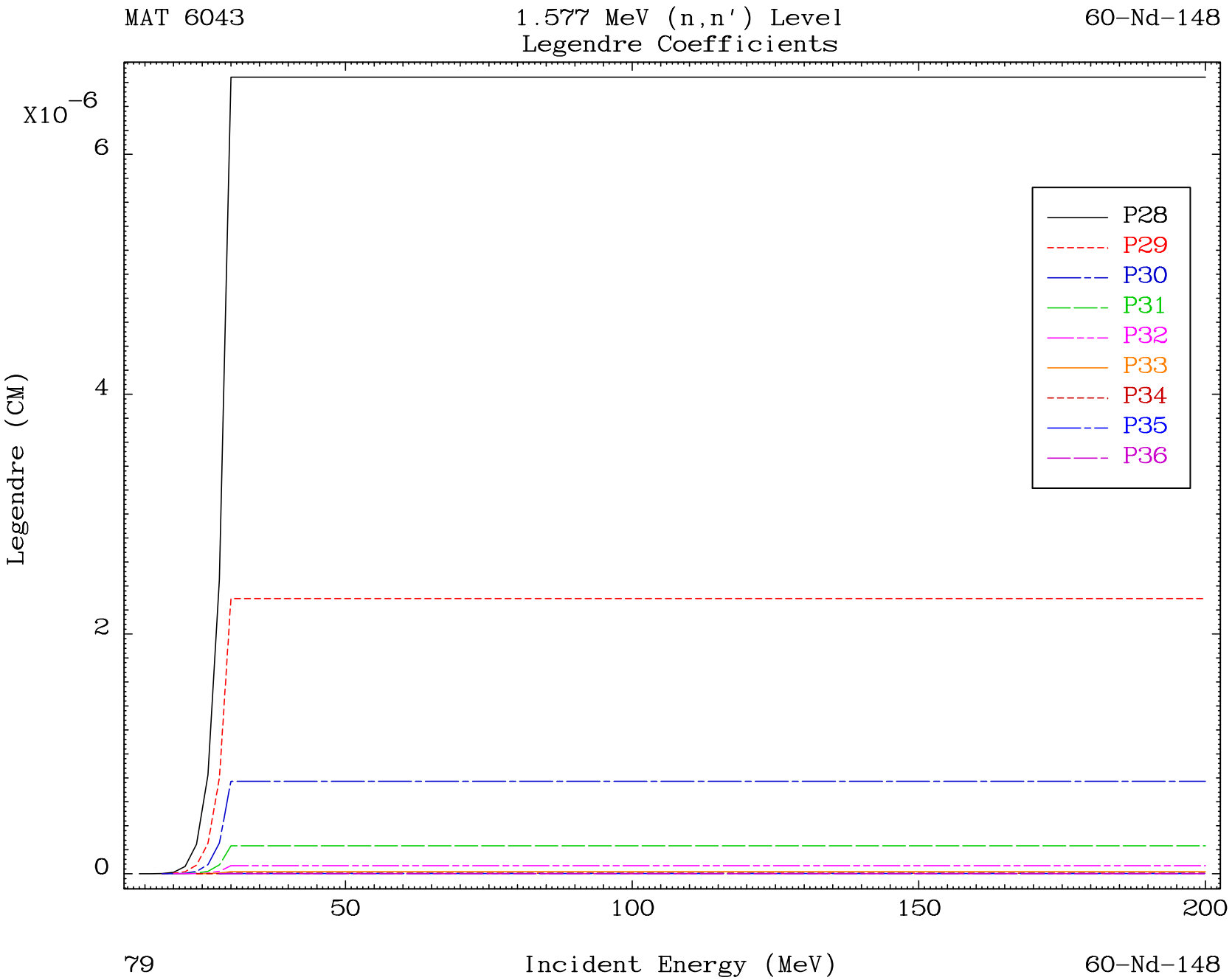

MAT 6043
1.521 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.000
0.000
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
74
Incident Energy (MeV)
60-Nd-148

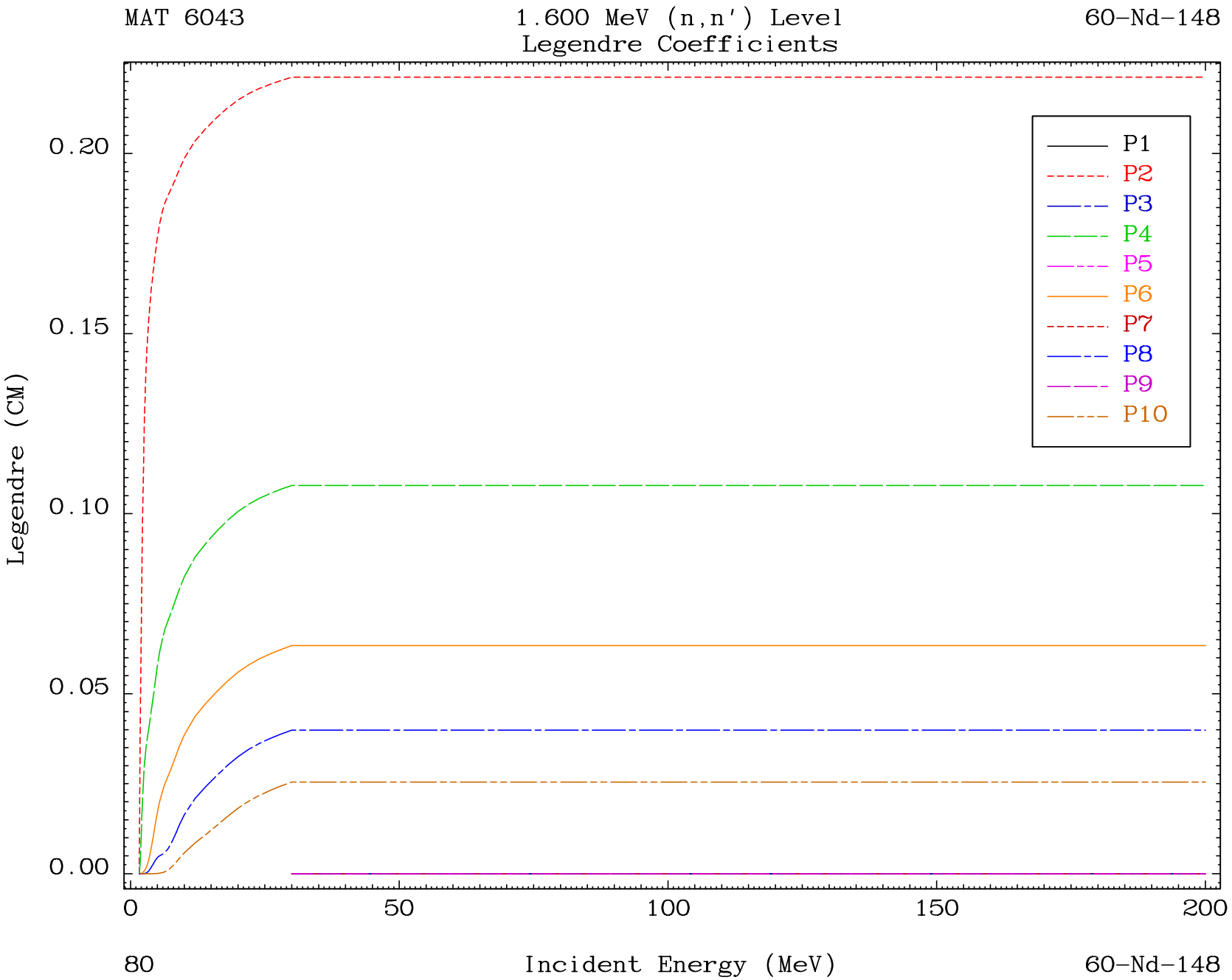

MAT 6043
1.521 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0
X10 −6
−1
−2
−3
−4
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
75
Incident Energy (MeV)
60-Nd-148

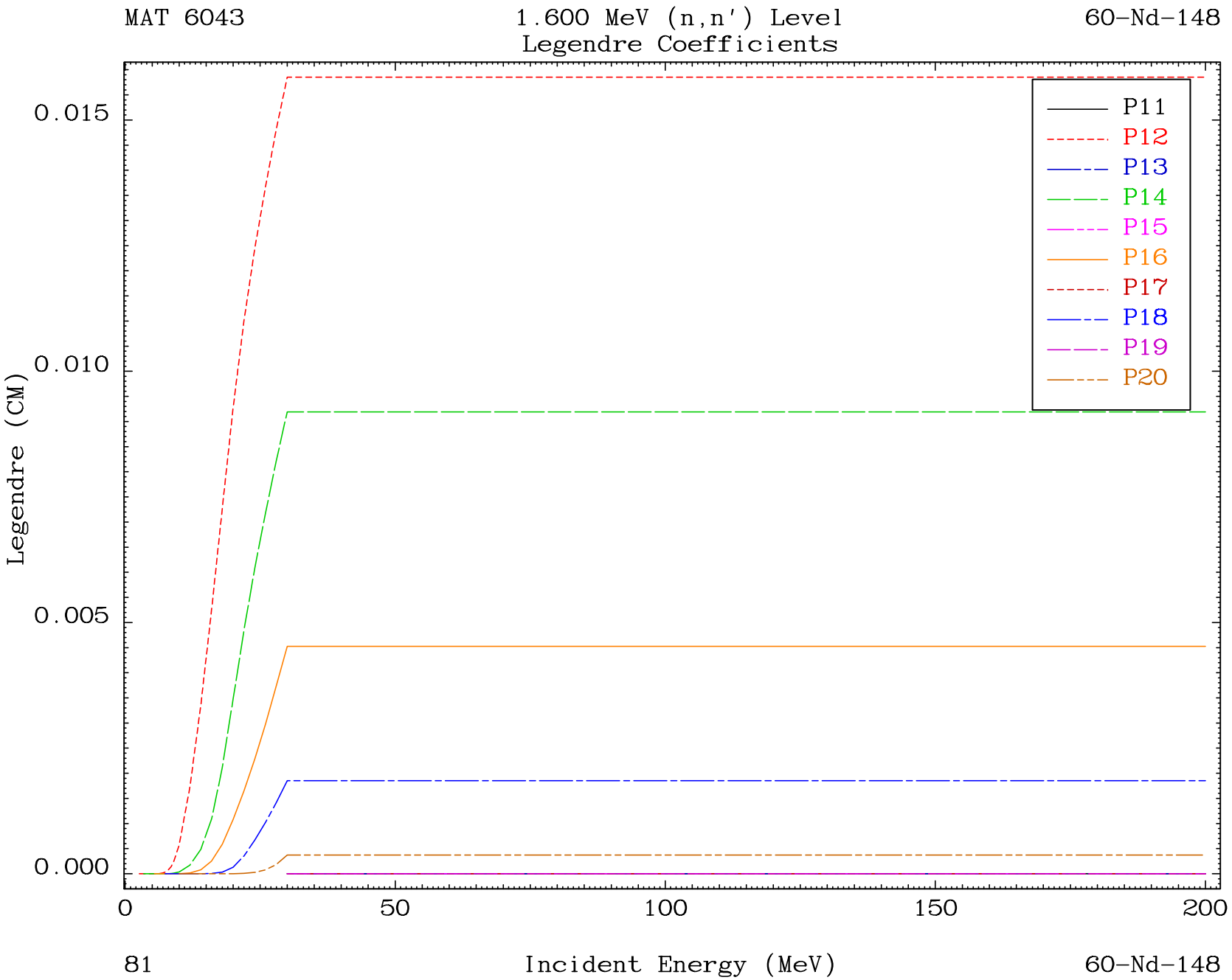

MAT 6043
1.577 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
76
Incident Energy (MeV)
60-Nd-148

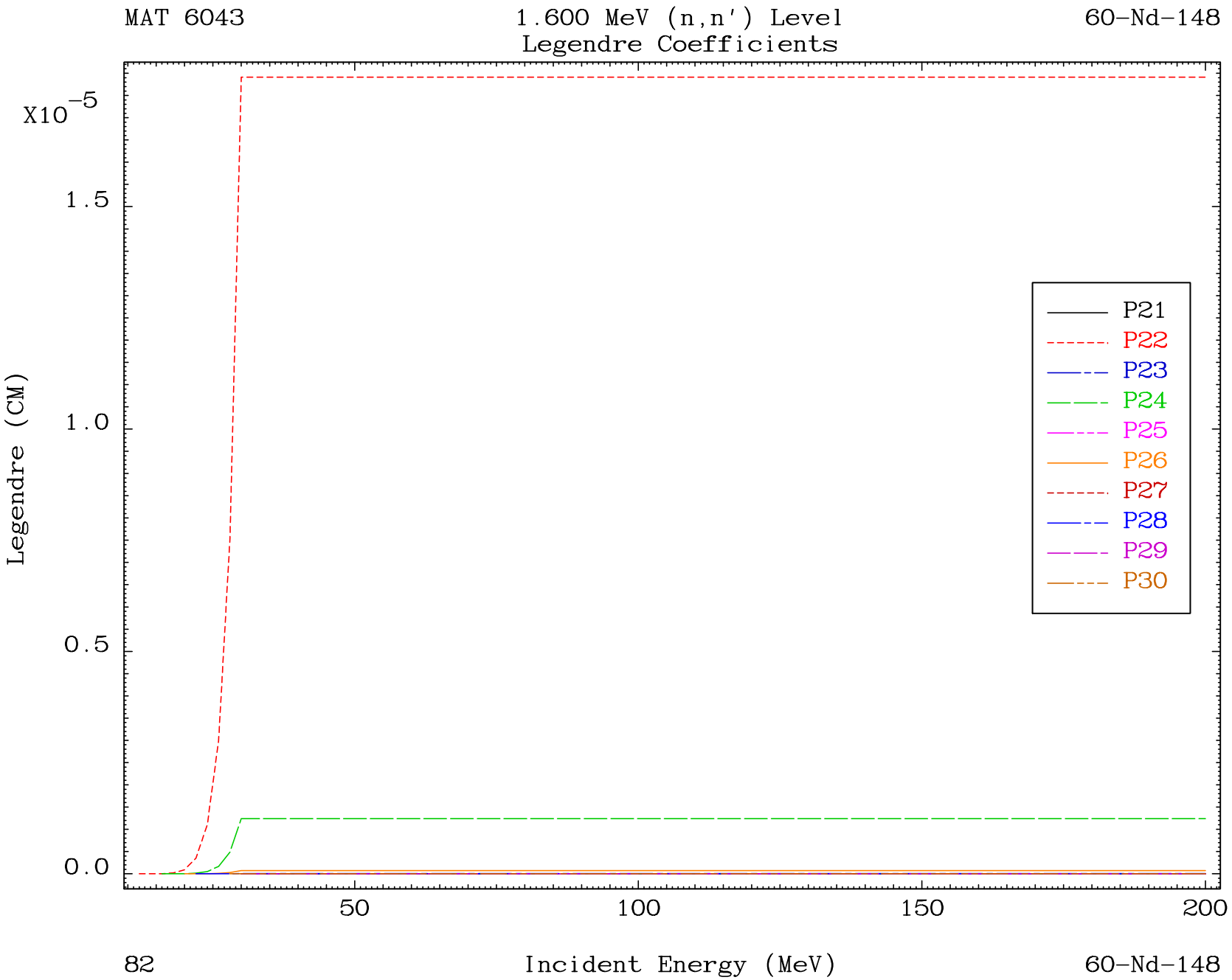

MAT 6043
1.577 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
77
Incident Energy (MeV)
60-Nd-148

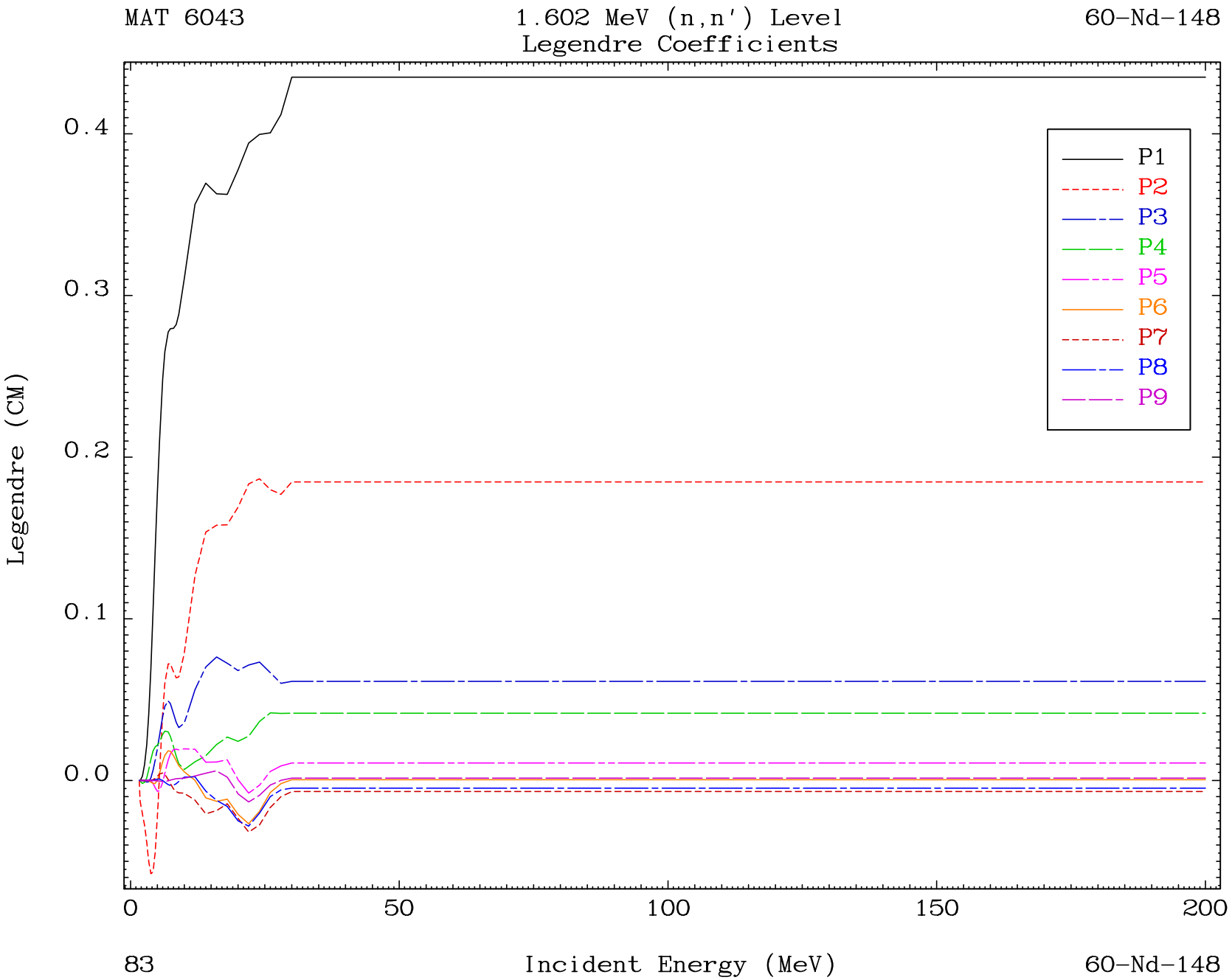

MAT 6043
1.577 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Legendre (CM)
50
100
150
200
78
Incident Energy (MeV)
60-Nd-148

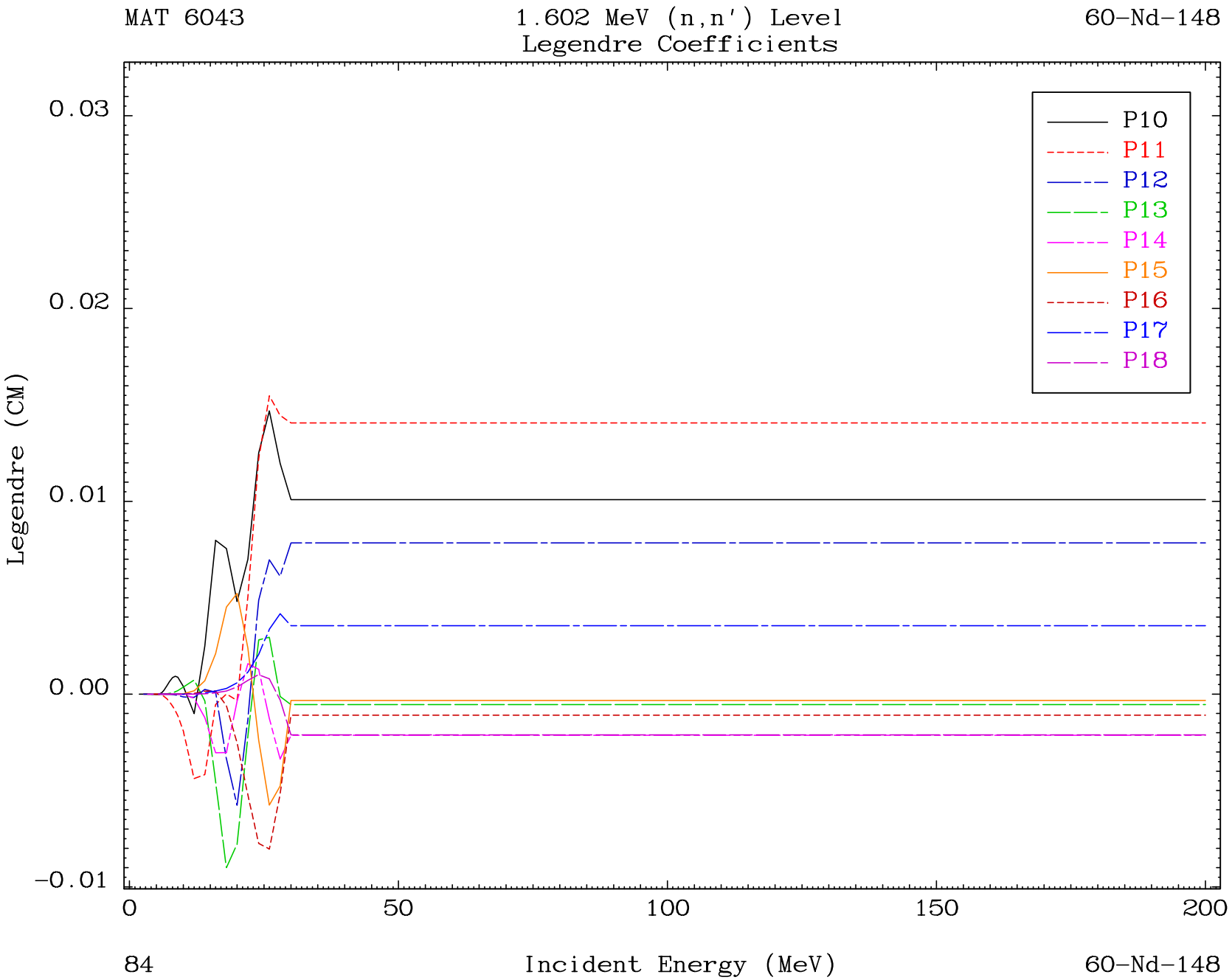

MAT 6043
1.577 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-6
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
79
Incident Energy (MeV)
60-Nd-148

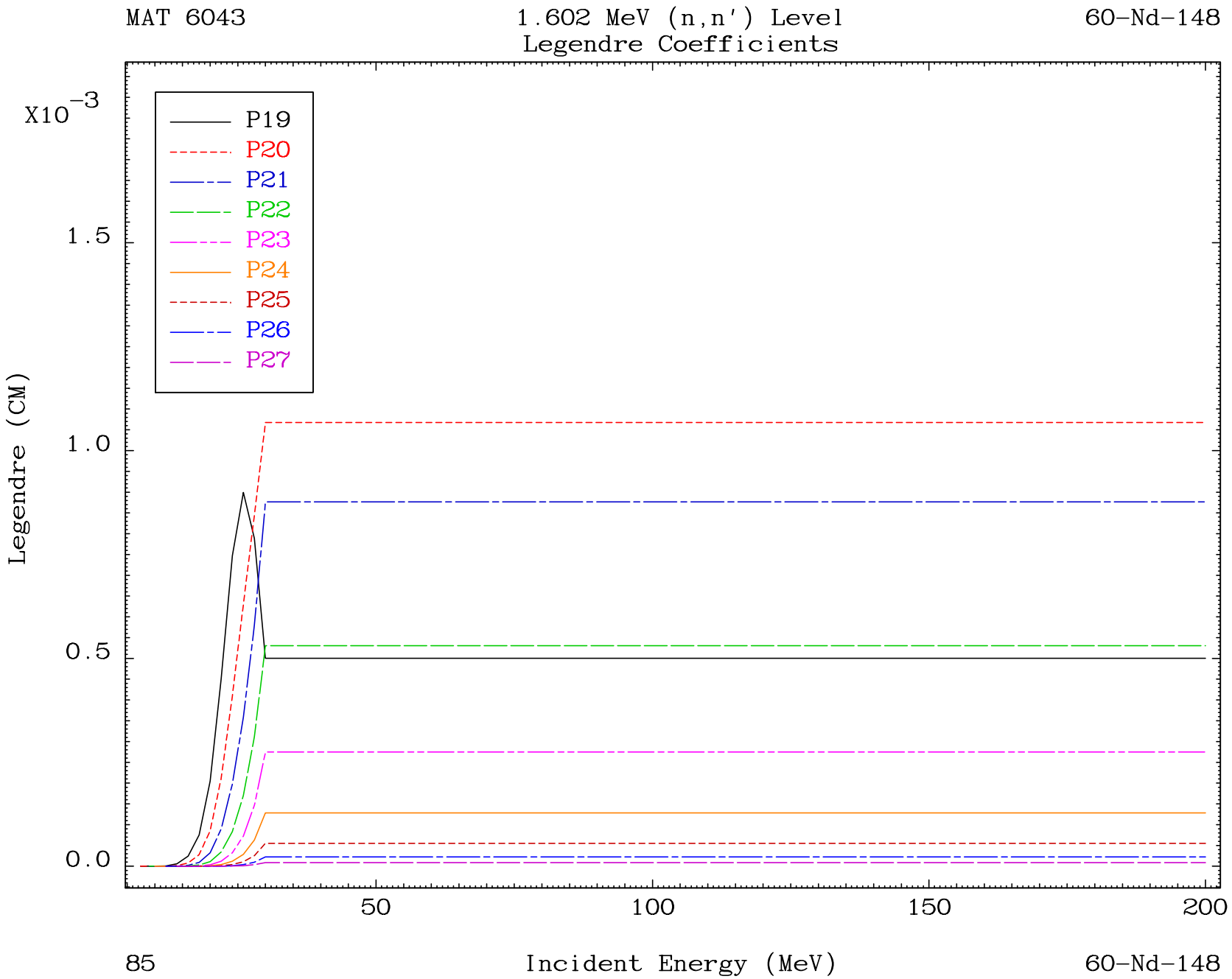

MAT 6043
1.600 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.20
0.15
0.10
0.05
0.00
0
50
100
150
200
80
Incident Energy (MeV)
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

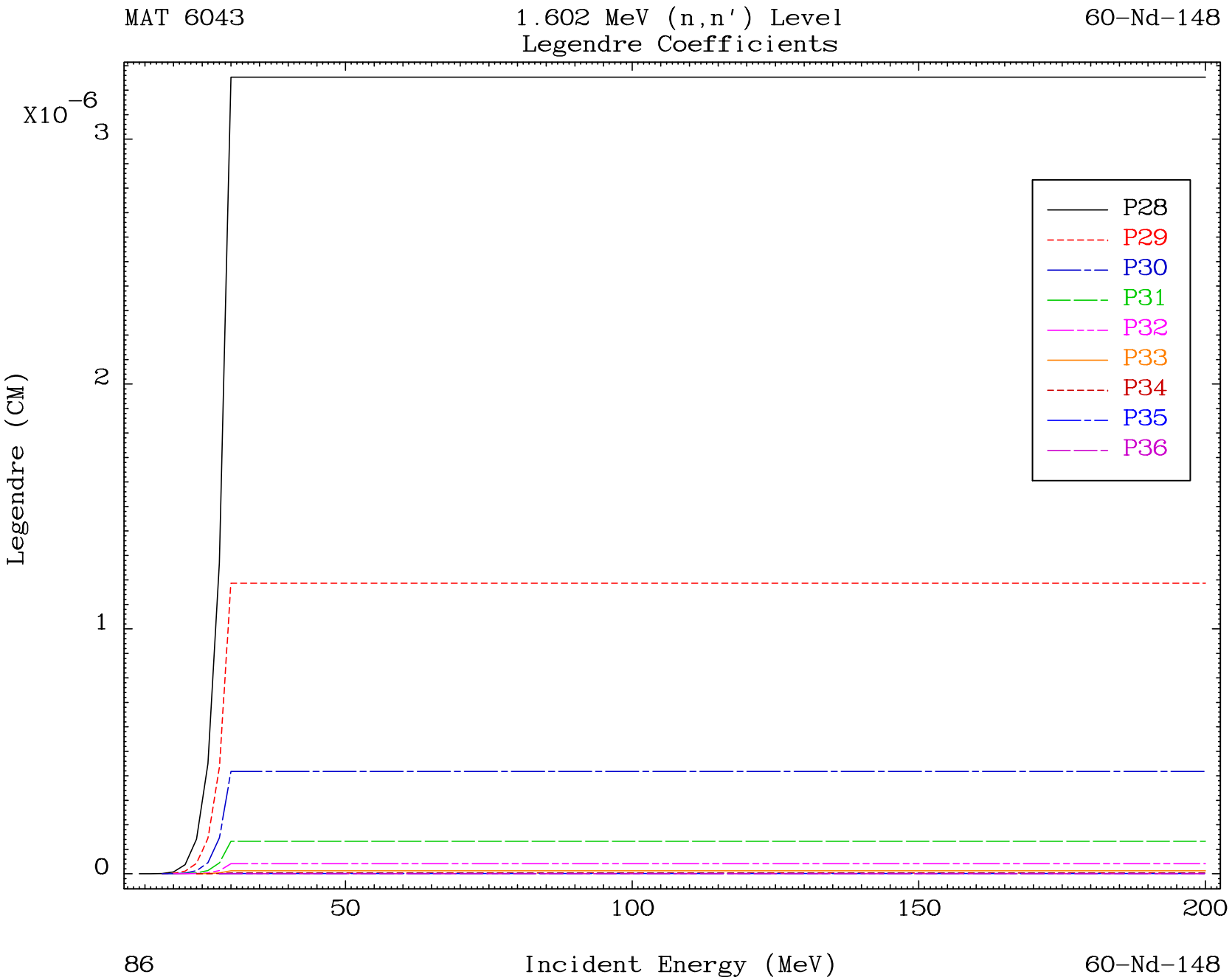

MAT 6043
1.600 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.015
0.010
0.005
0.000
Legendre (CM)
0
50
100
150
200
81
Incident Energy (MeV)
60-Nd-148
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

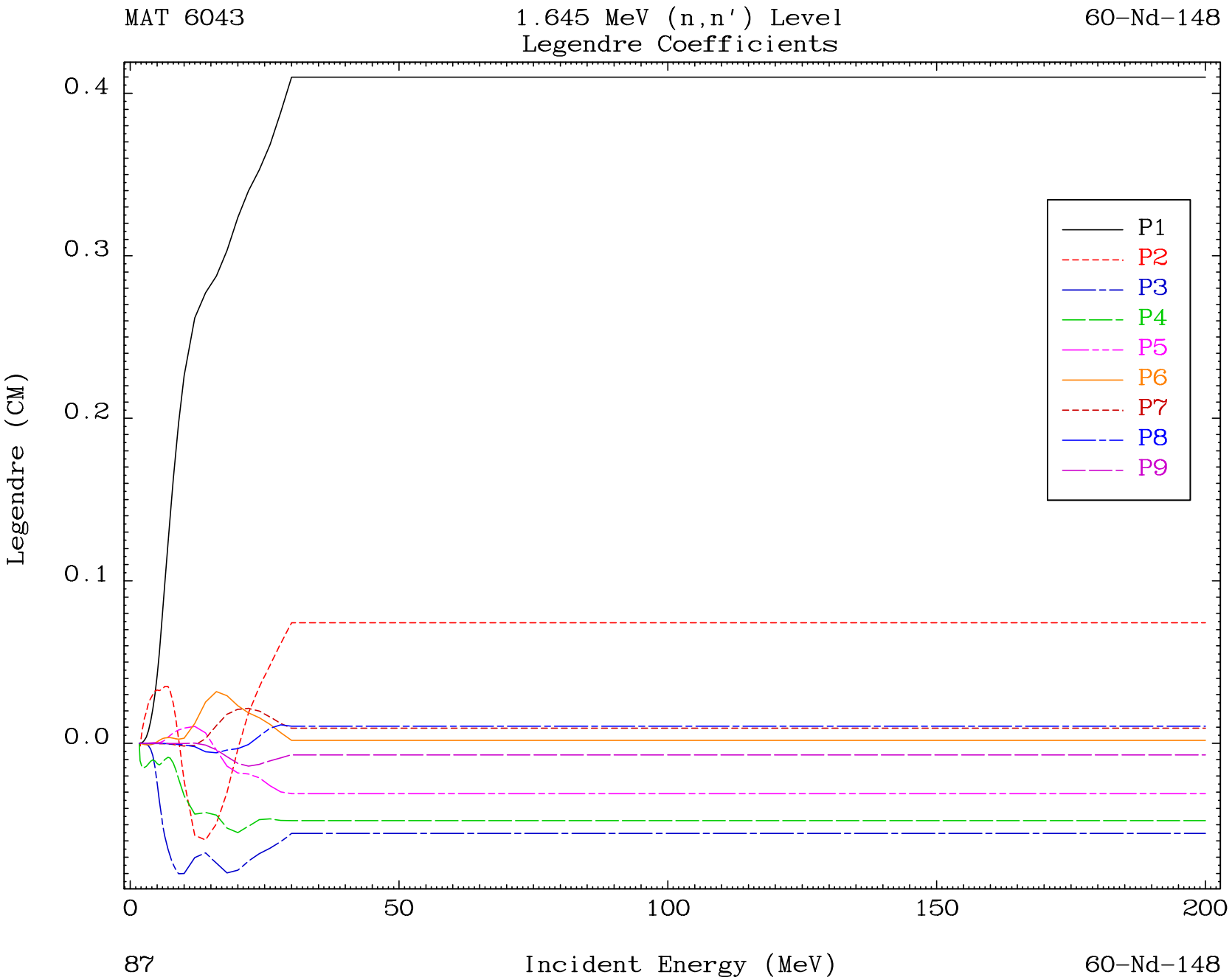

MAT 6043
1.600 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-5
1.5
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
82
Incident Energy (MeV)
60-Nd-148
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

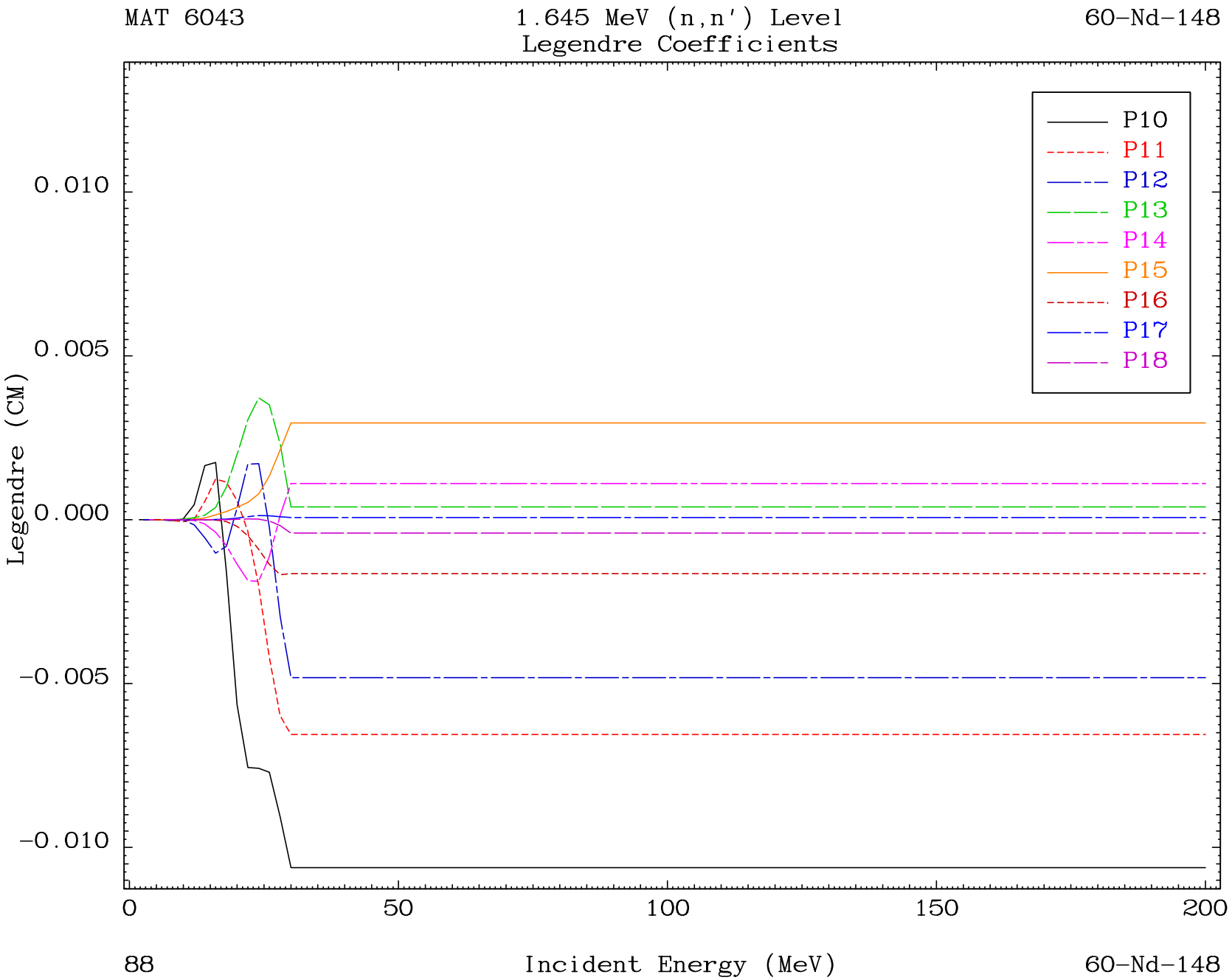

MAT 6043
1.602 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
83
Incident Energy (MeV)
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9

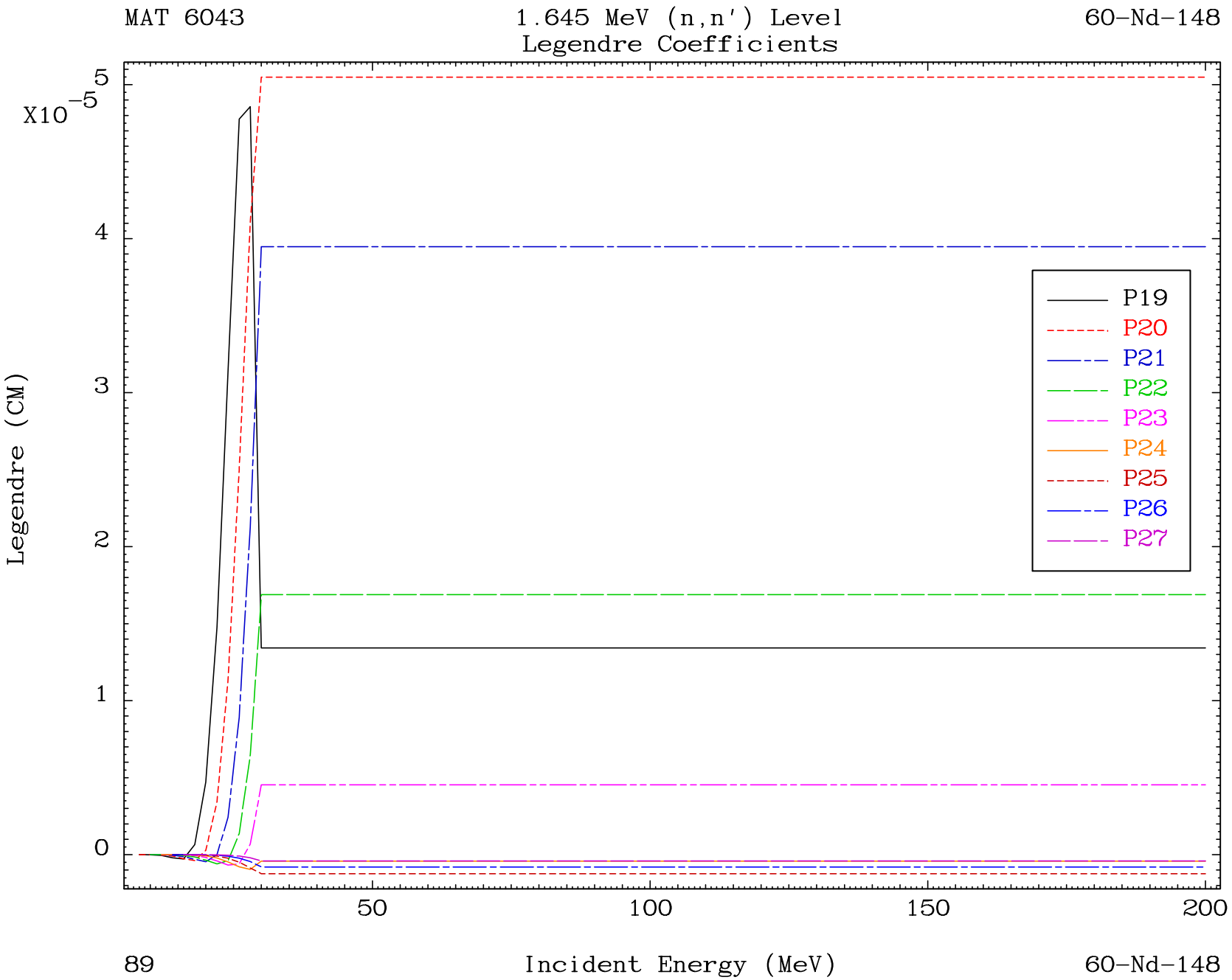

MAT 6043
1.602 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
Incident Energy (MeV)
84
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18

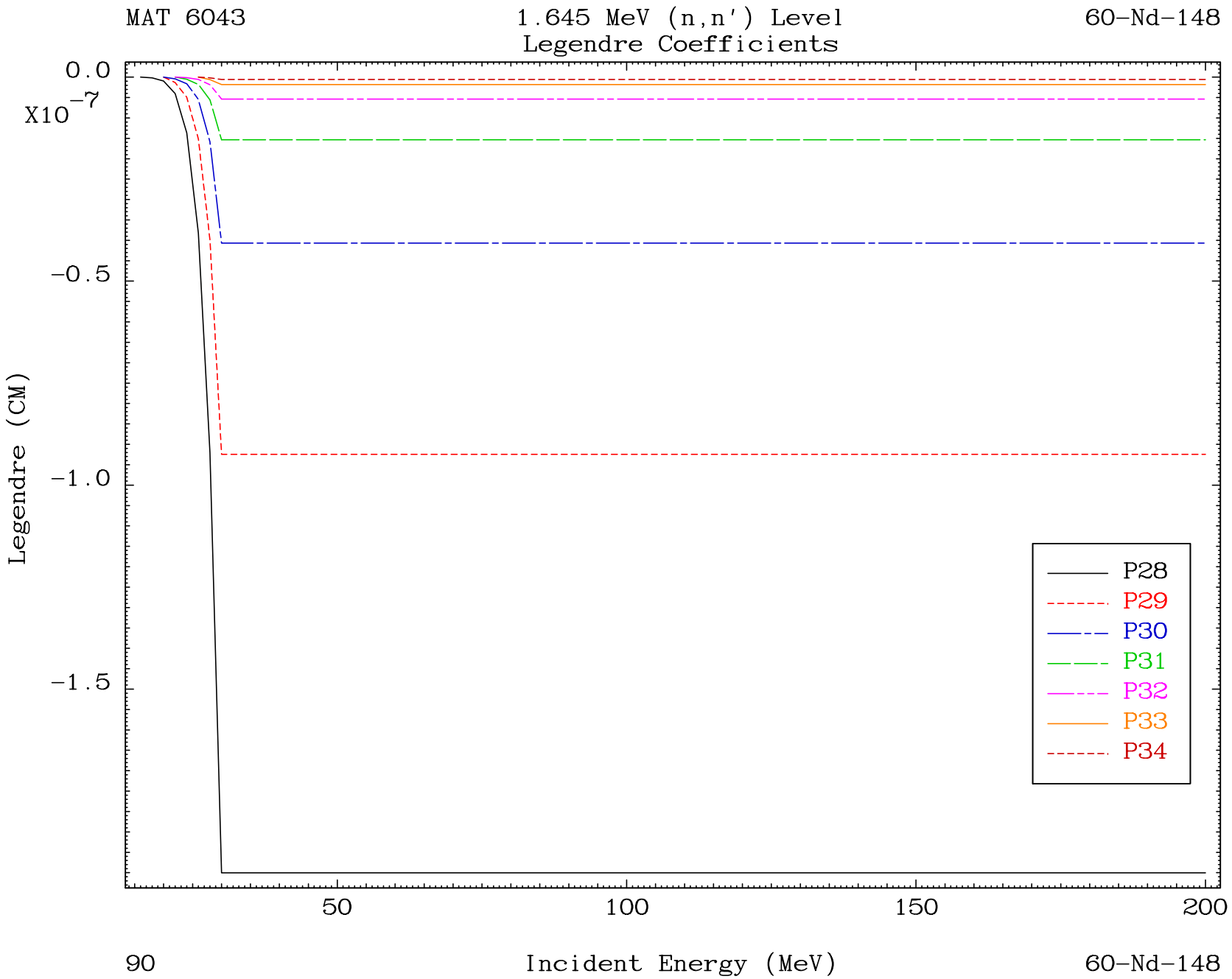

MAT 6043
1.602 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-3
P19
P20
P21
P22
P23
P24
P25
P26
P27
1.5
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
85
Incident Energy (MeV)
60-Nd-148

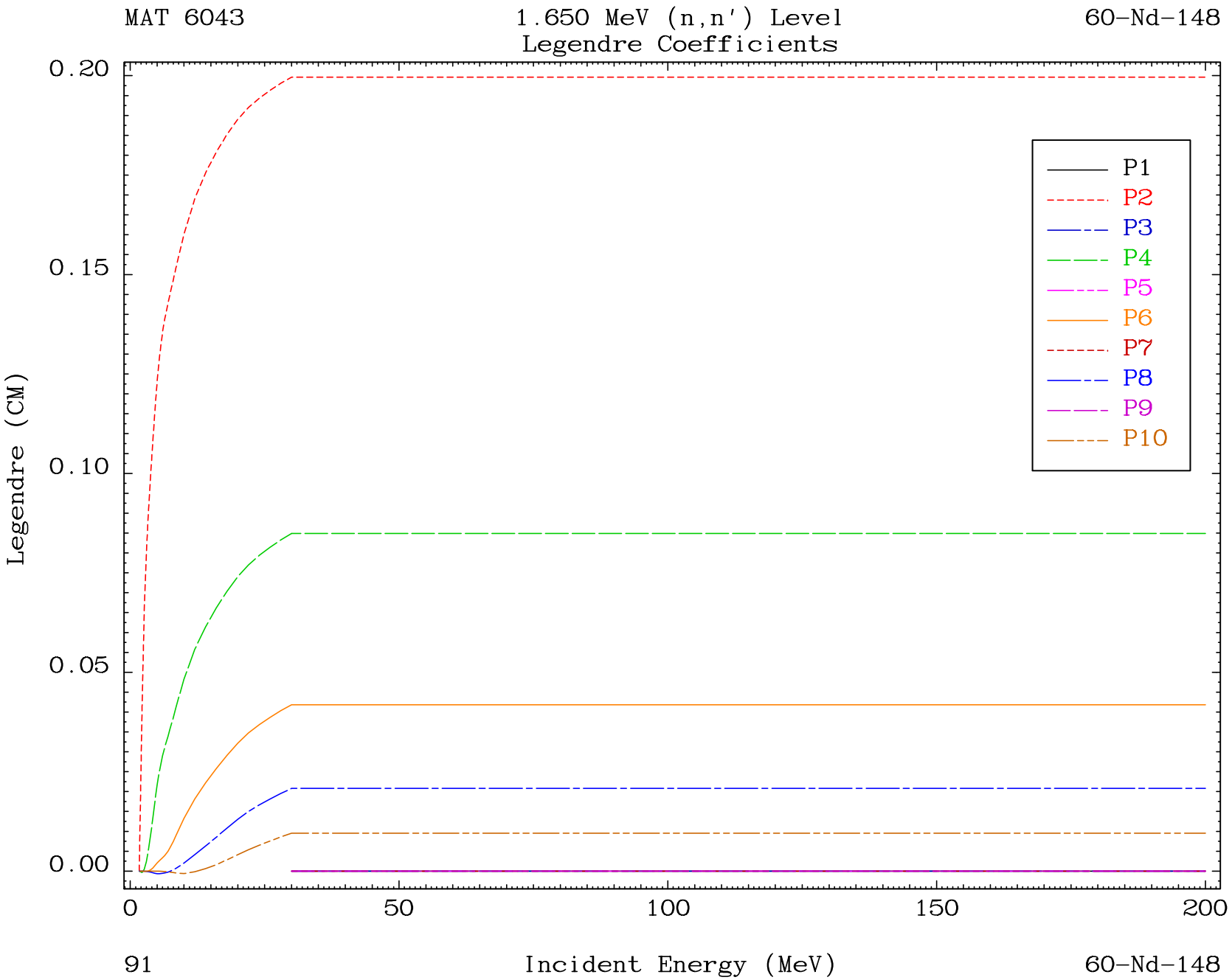

MAT 6043
1.602 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10 -6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
86
Incident Energy (MeV)
60-Nd-148

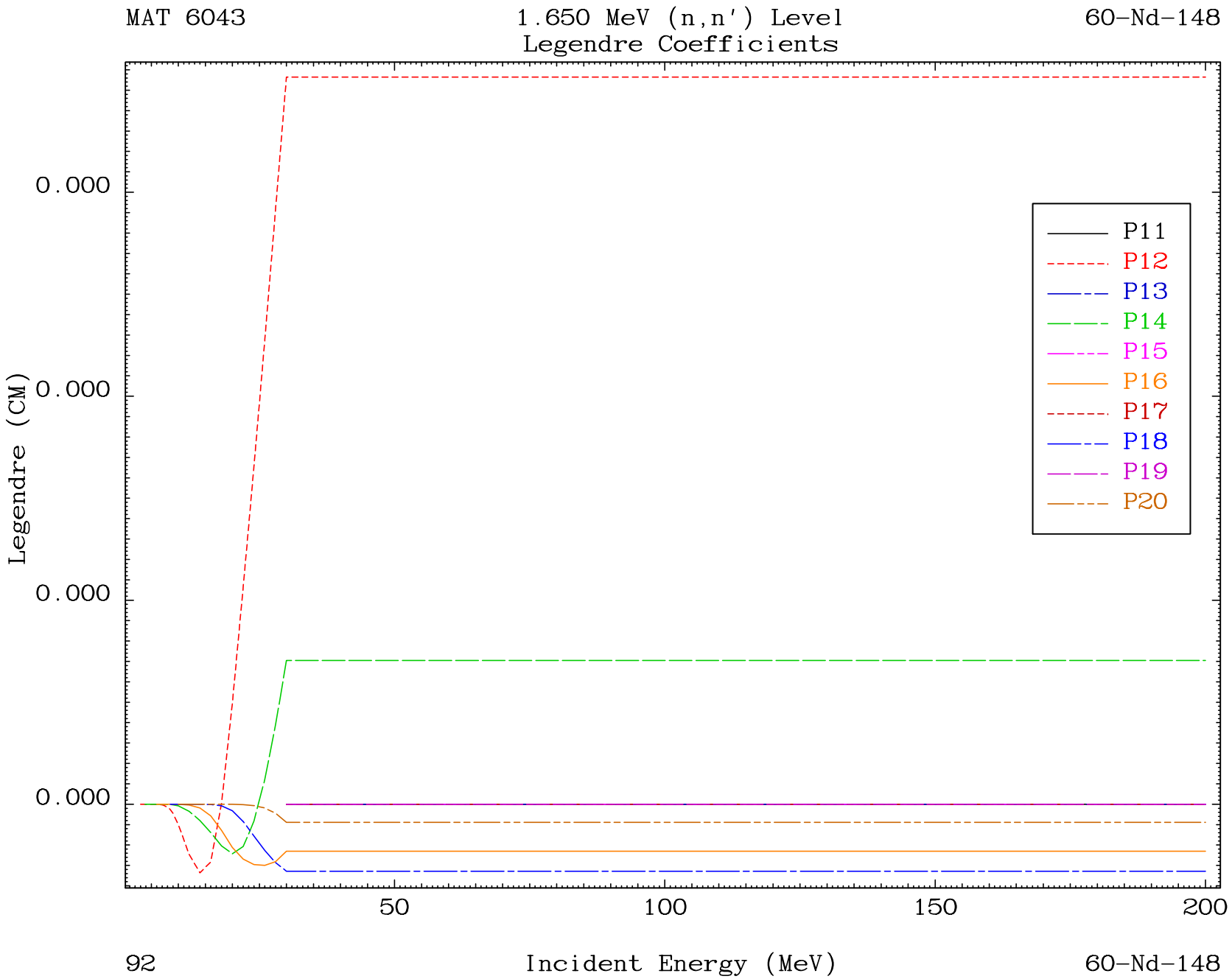

MAT 6043
1.645 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
87
Incident Energy (MeV)
60-Nd-148

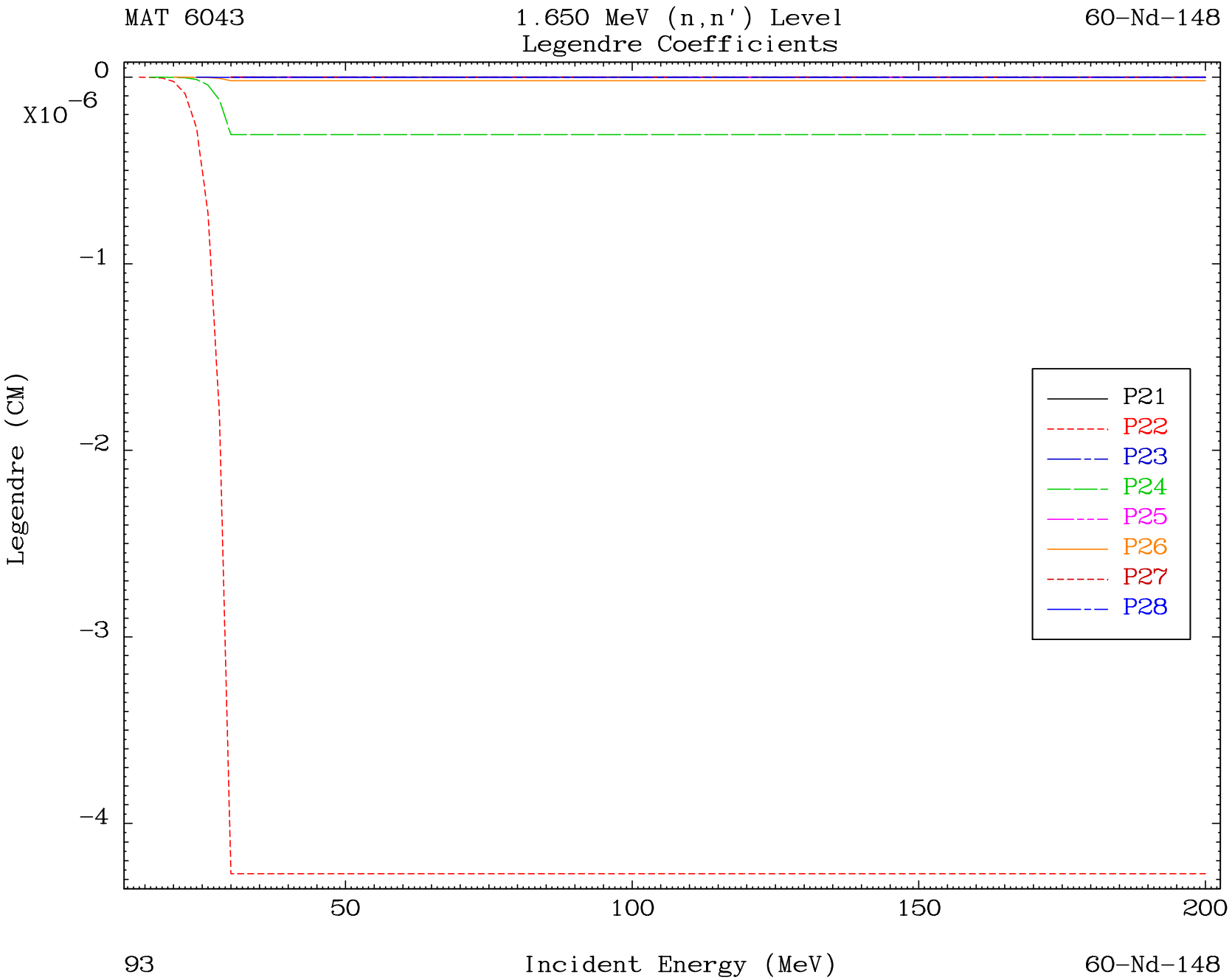

MAT 6043
1.645 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.010
0.005
0.000
-0.005
-0.010
Legendre (CM)
0
50
100
150
200
88
Incident Energy (MeV)
60-Nd-148

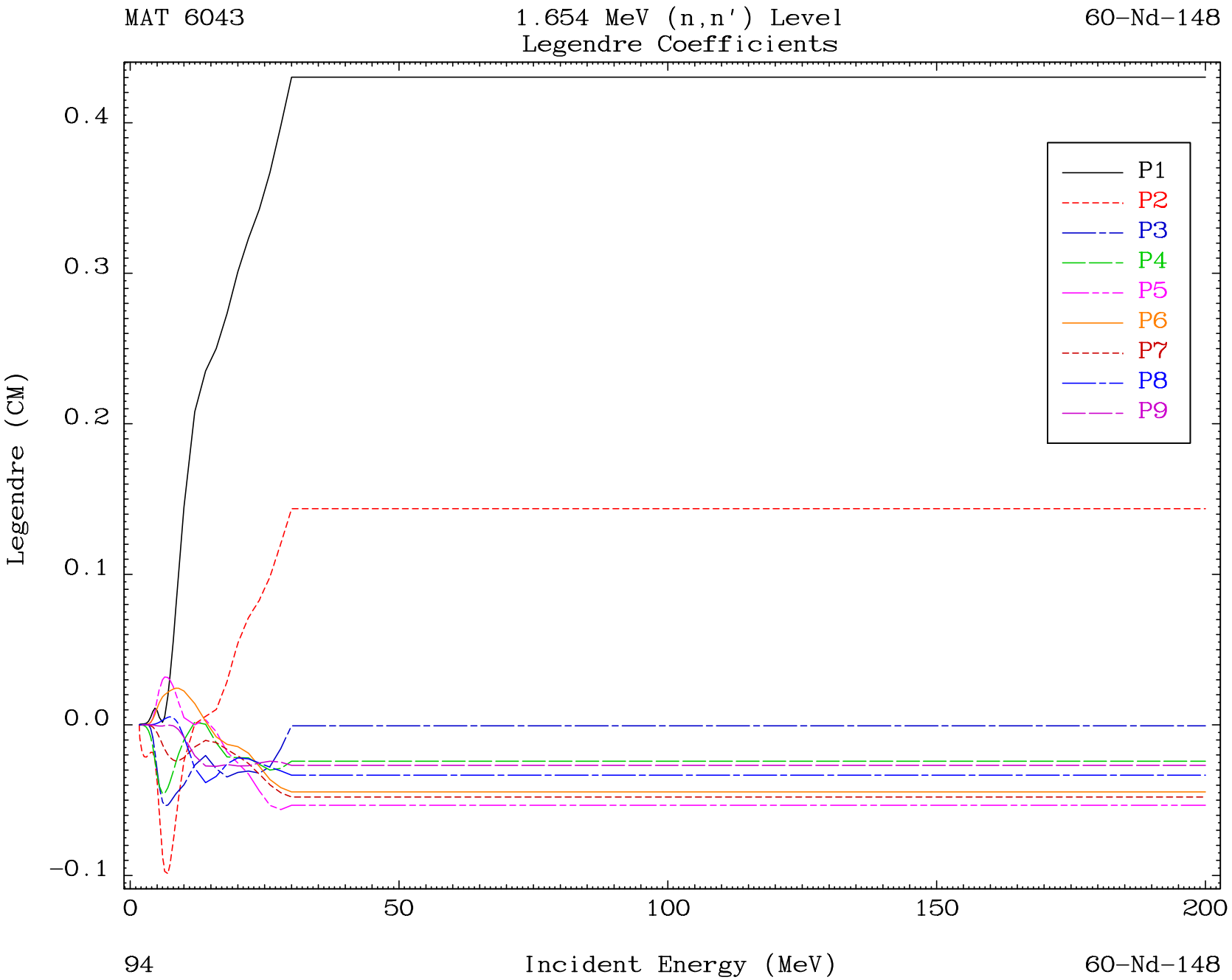

MAT 6043
1.645 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10 -5
5
4
3
2
1
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
89
Incident Energy (MeV)
60-Nd-148

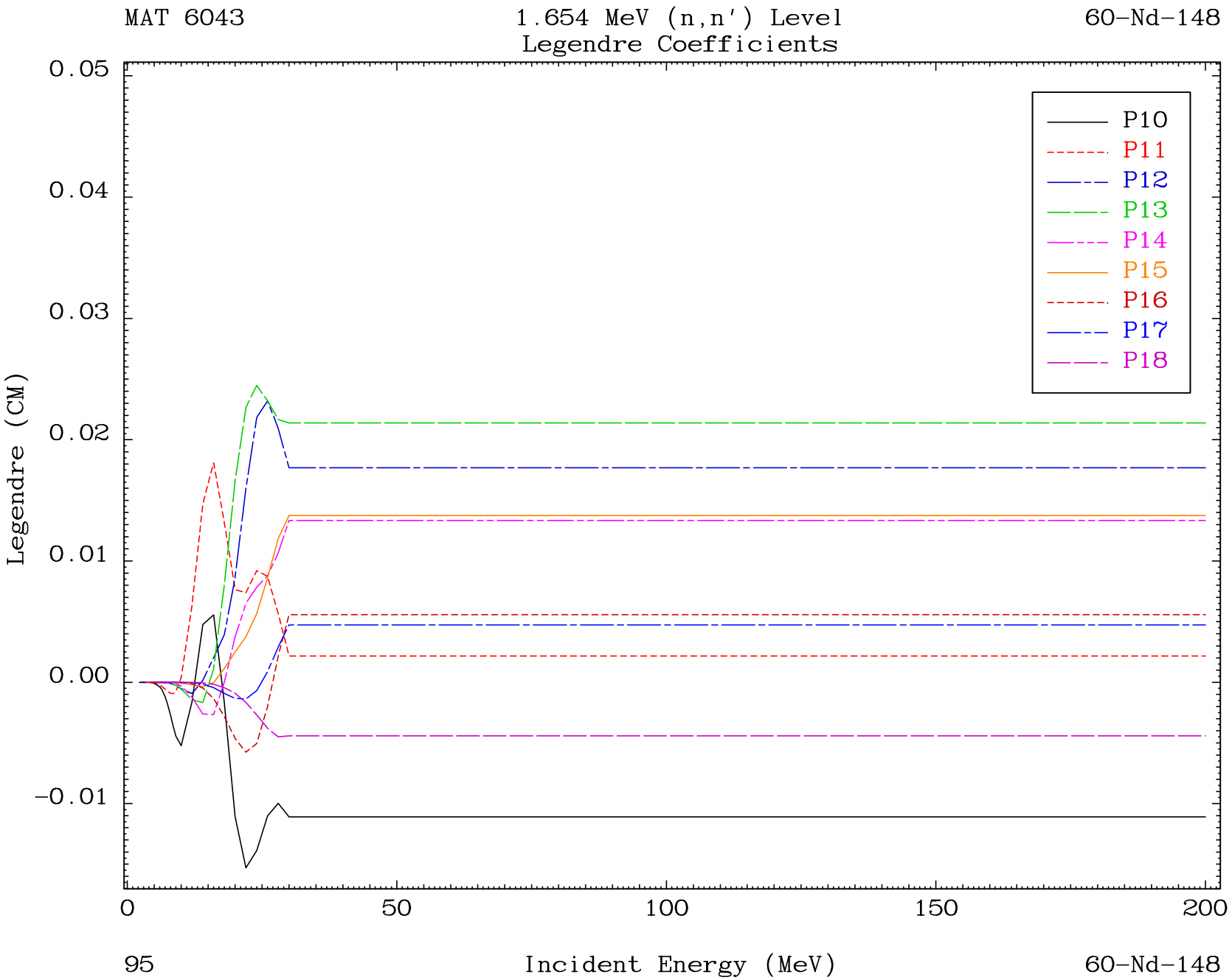

MAT 6043
1.645 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.0
X10^-7
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
90
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34

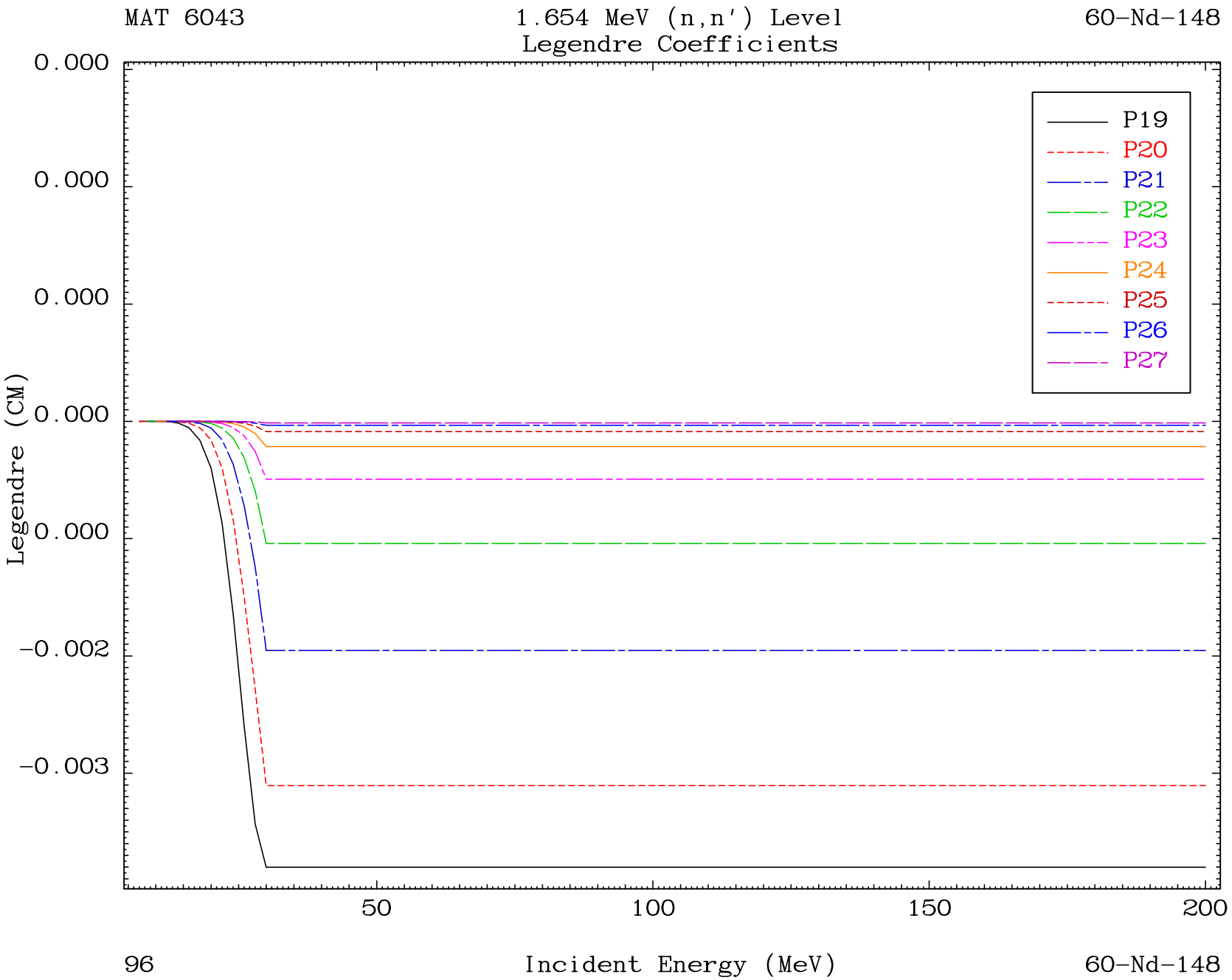

MAT 6043
1.650 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.20
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
91
Incident Energy (MeV)
60-Nd-148

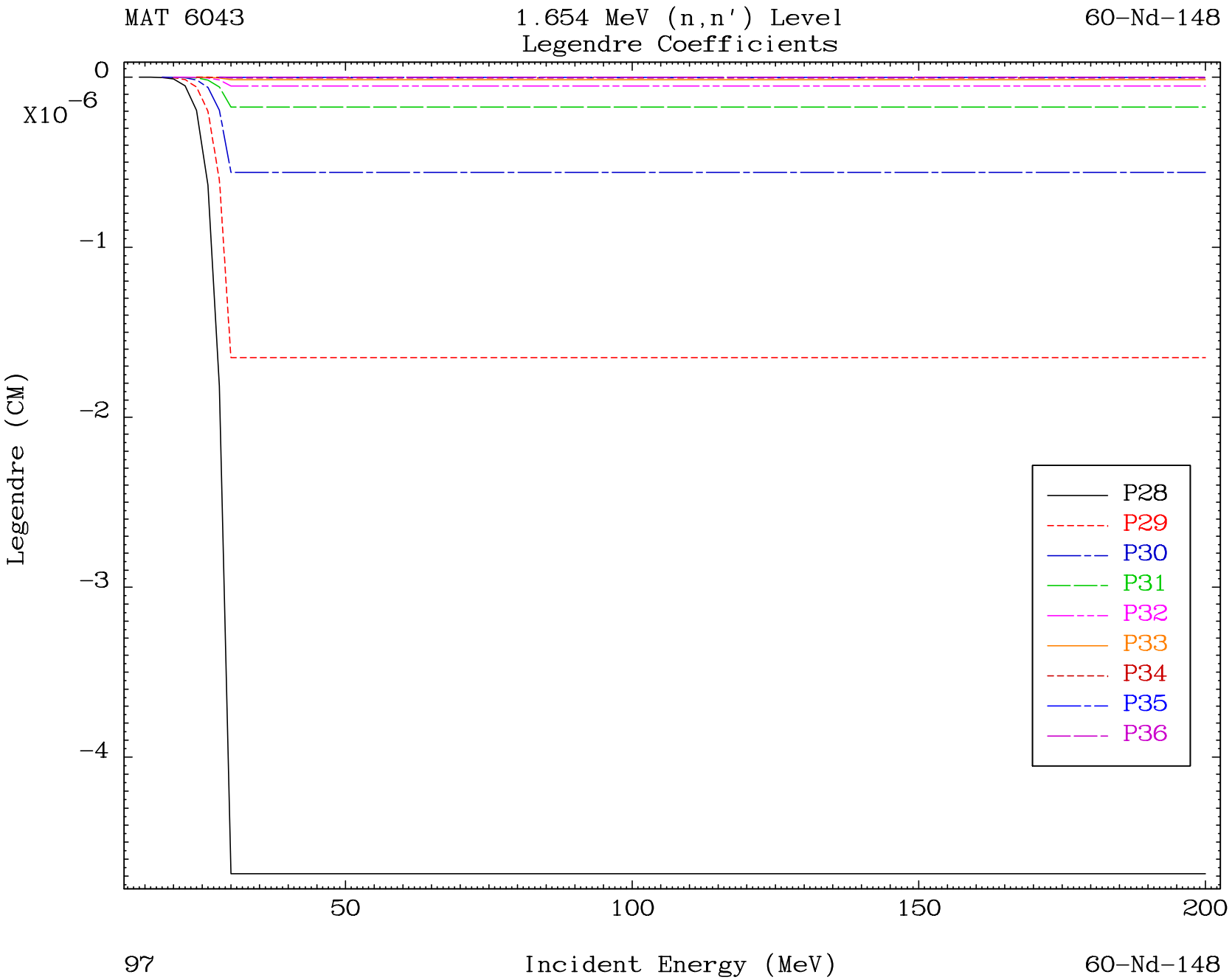

MAT 6043
1.650 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.000
0.000
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
50
100
150
200
92
Incident Energy (MeV)
60-Nd-148

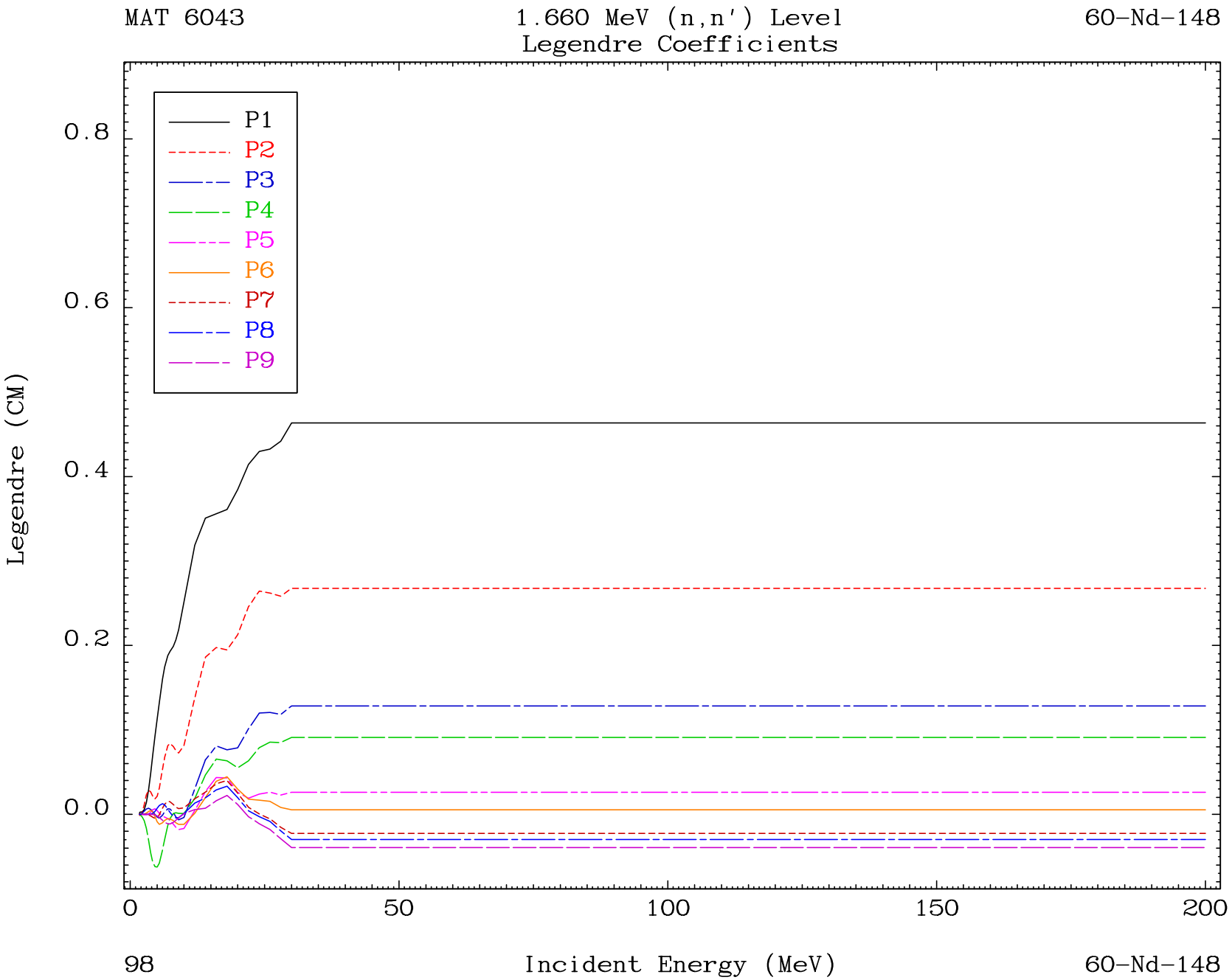

MAT 6043
1.650 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0
X10^-6
-1
-2
-3
-4
Legendre (CM)
50
100
150
200
93
Incident Energy (MeV)
60-Nd-148
P21
P22
P23
P24
P25
P26
P27
P28

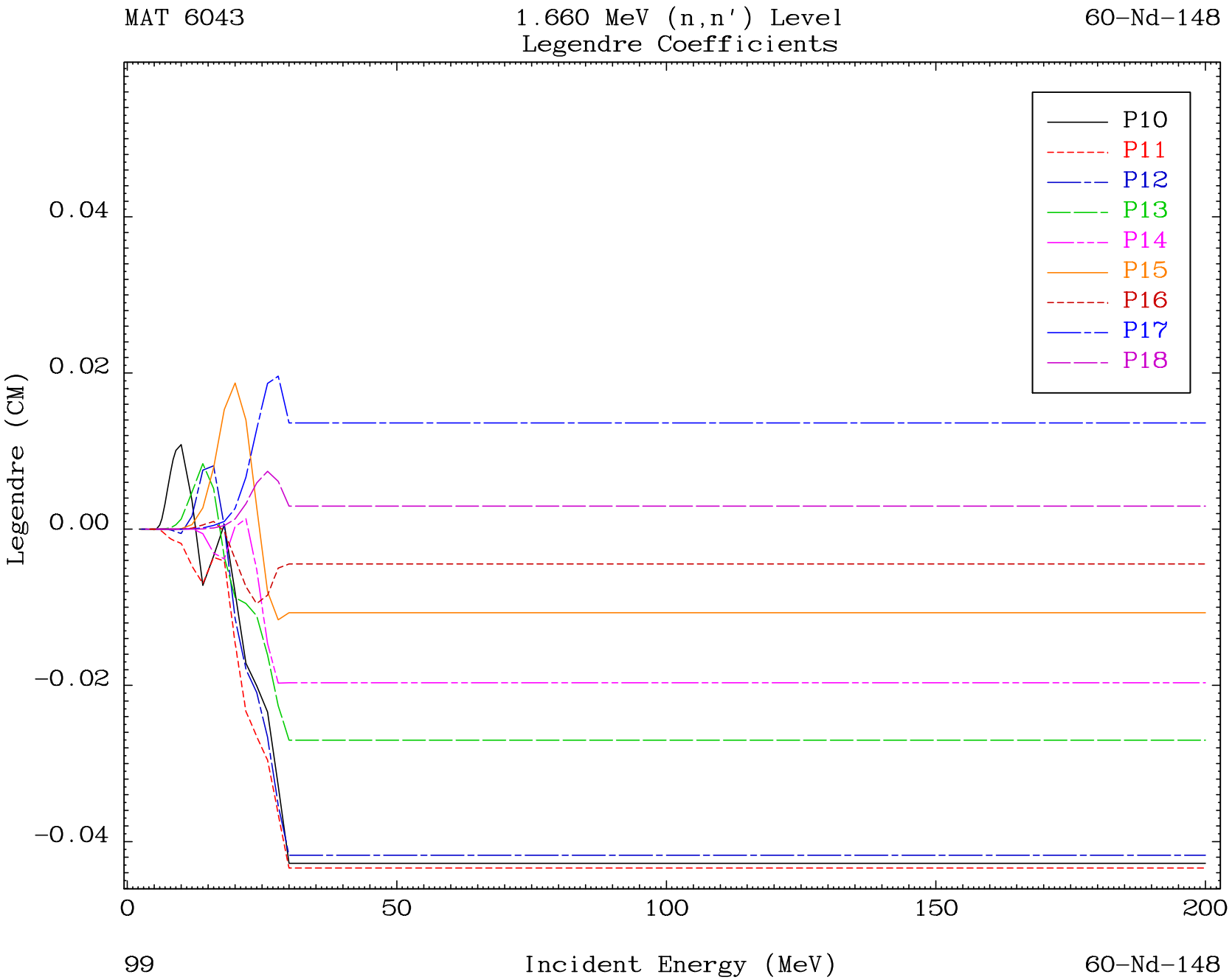

MAT 6043
1.654 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
94
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9

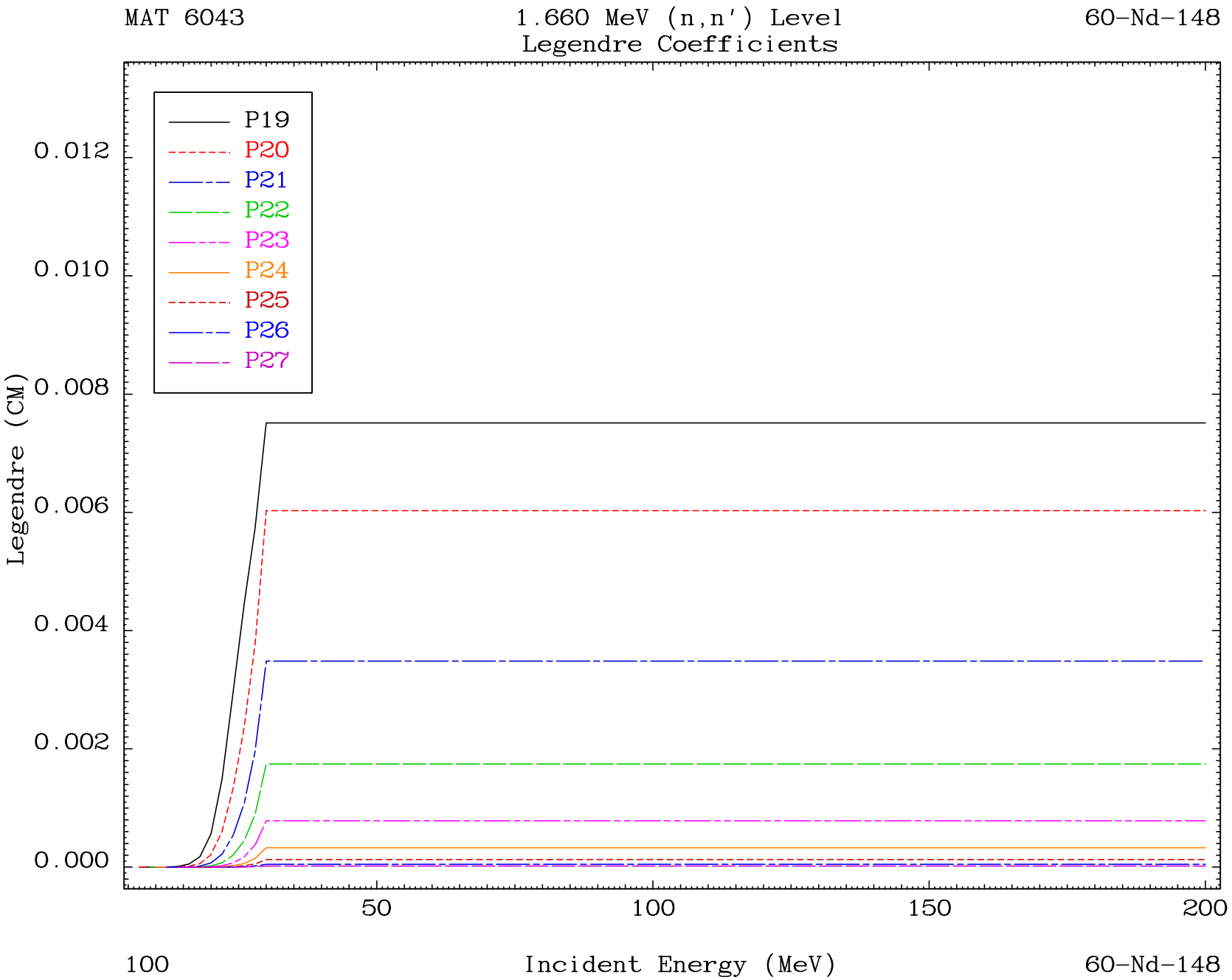

MAT 6043
1.654 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
95
Incident Energy (MeV)
60-Nd-148

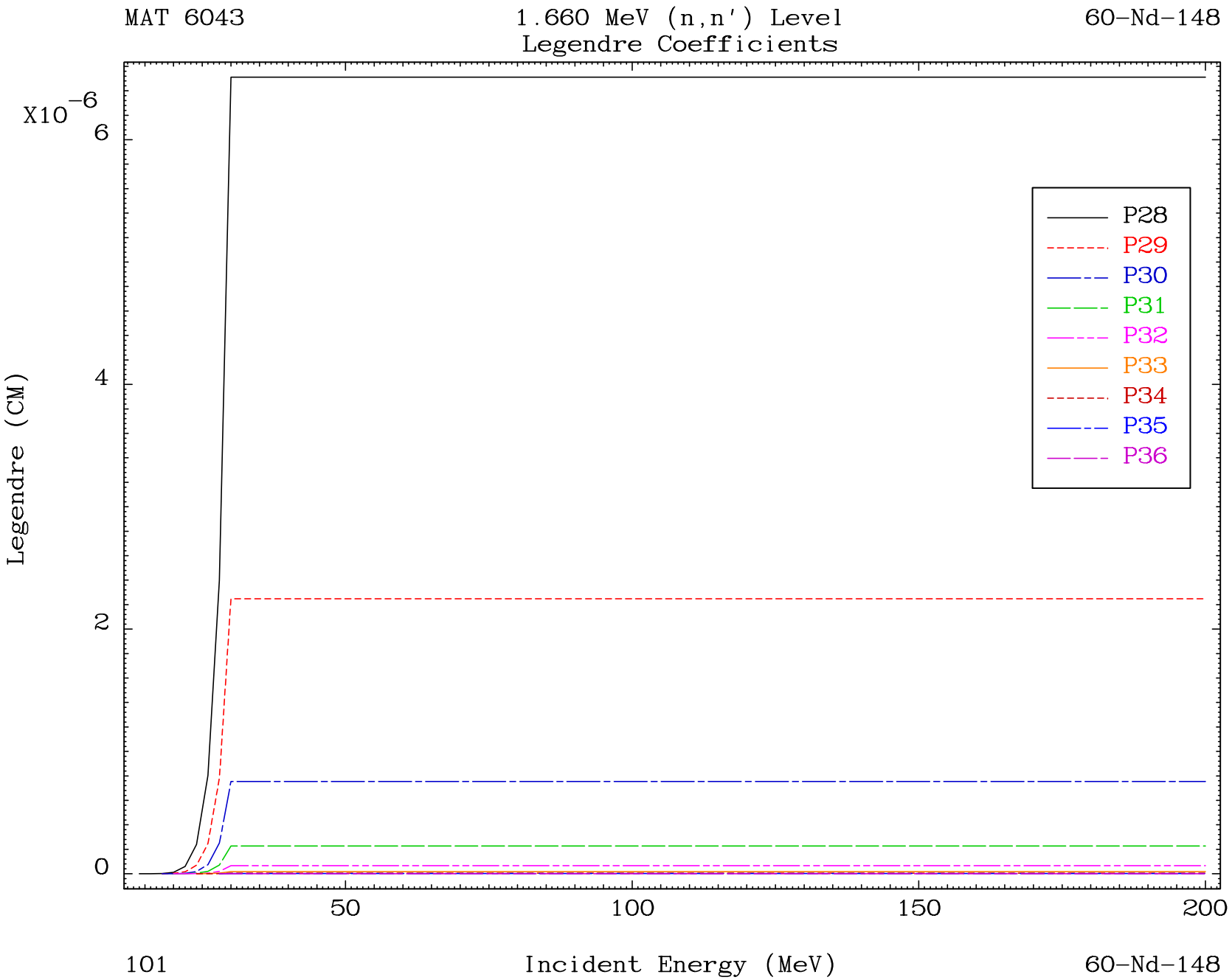

MAT 6043
1.654 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.000
0.000
-0.002
-0.003
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
96
Incident Energy (MeV)
60-Nd-148

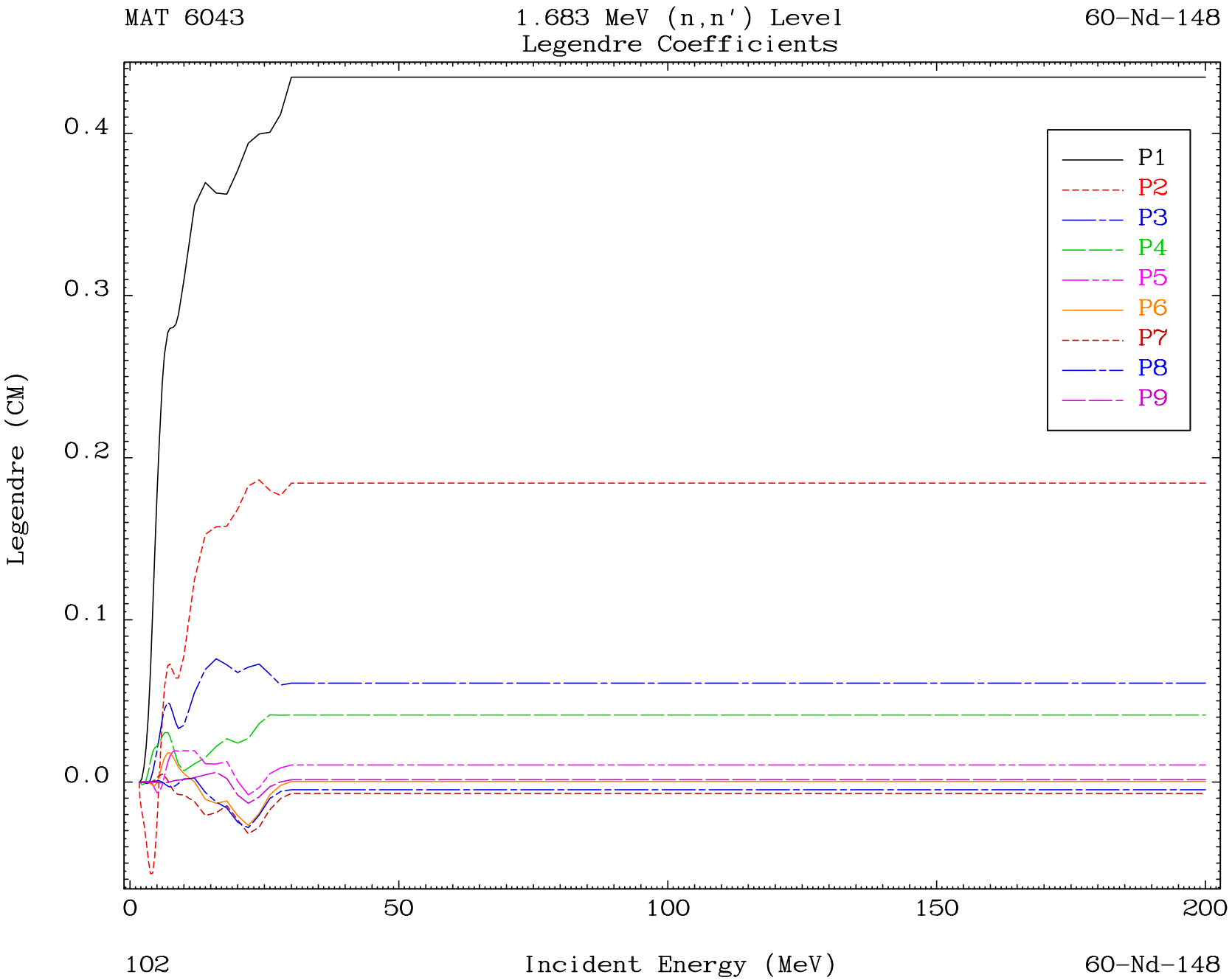

MAT 6043
1.654 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0
X10 −6
−1
−2
−3
−4
Legendre (CM)
50
100
150
200
97
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

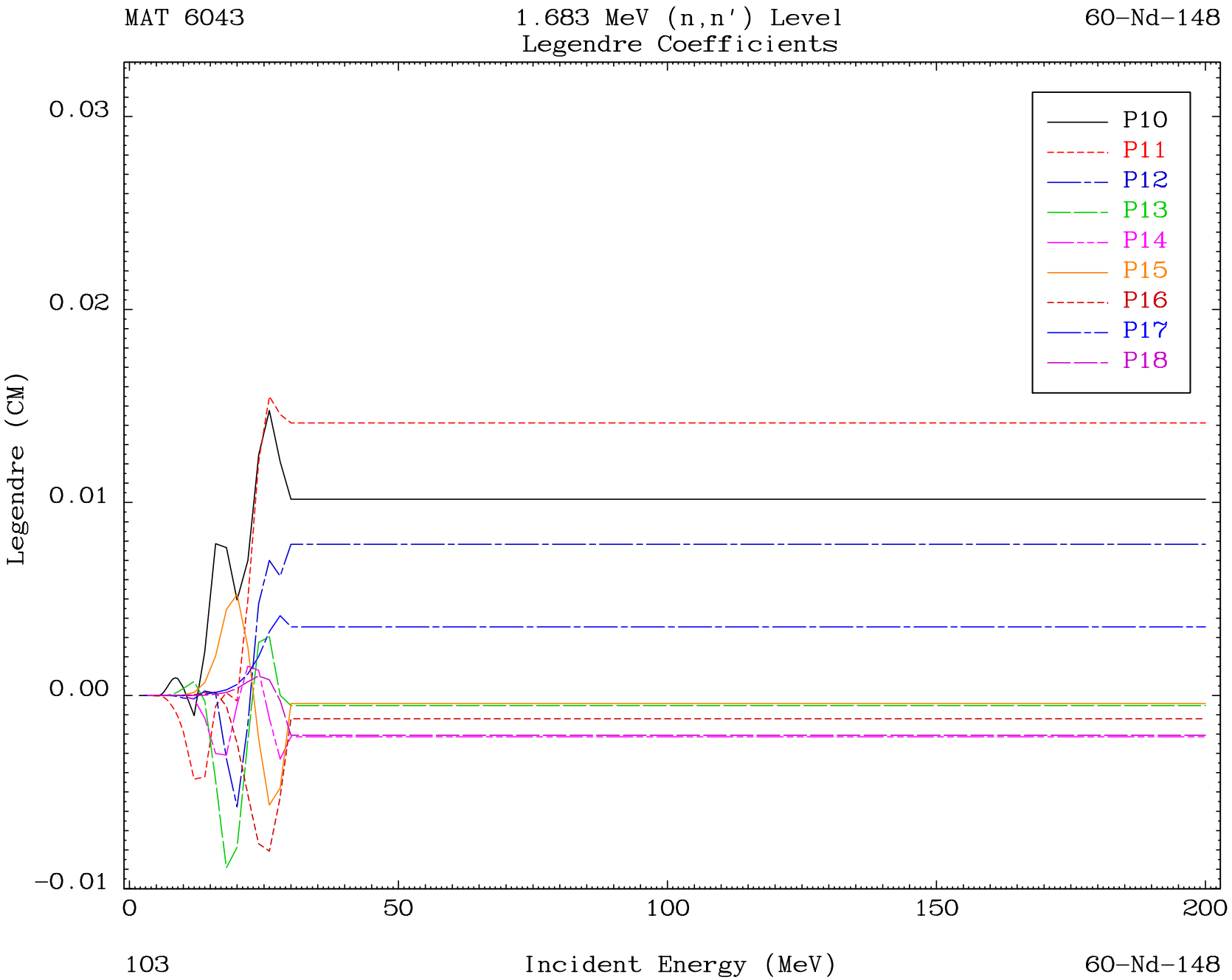

MAT 6043
1.660 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
98
Incident Energy (MeV)
60-Nd-148

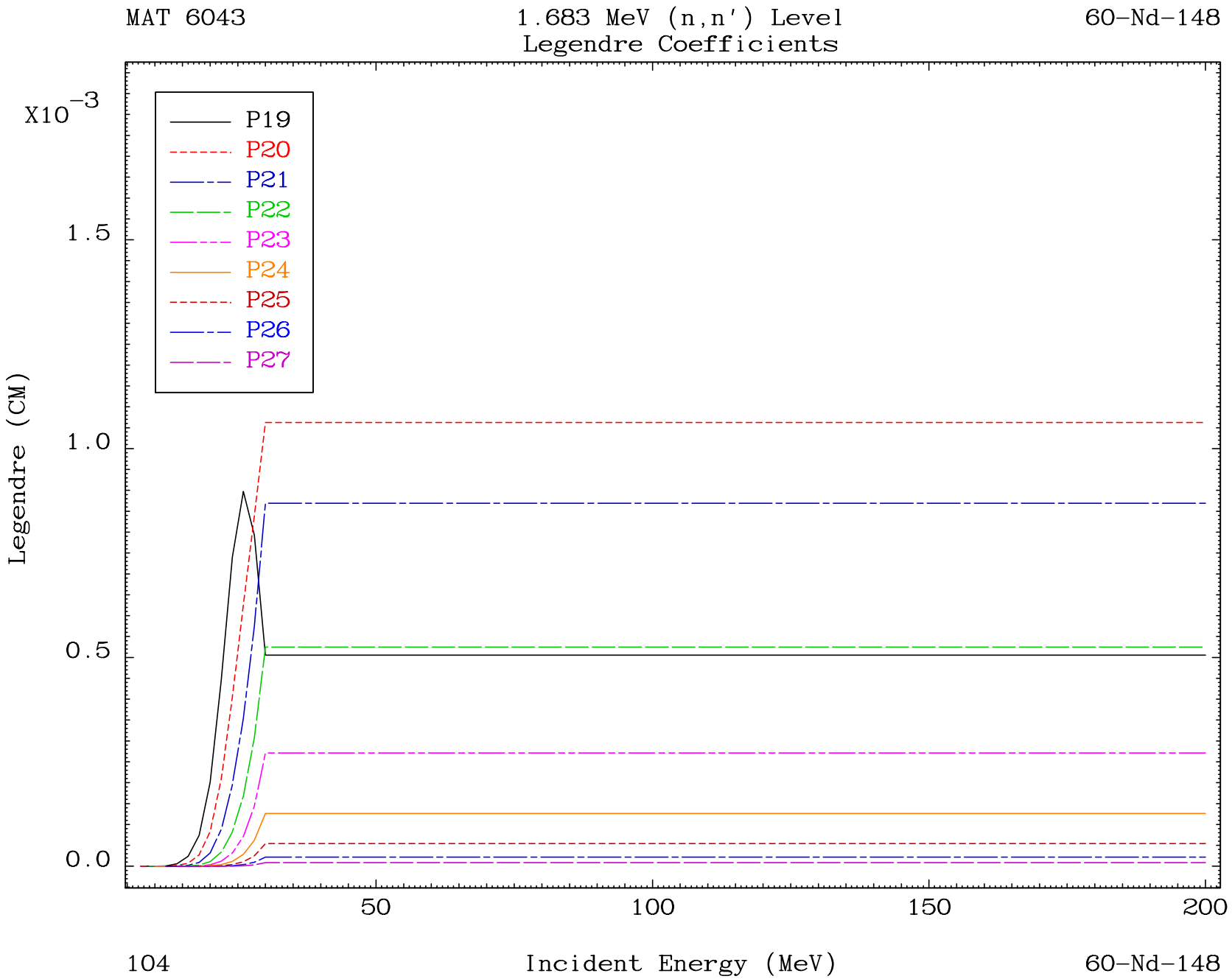

MAT 6043
1.660 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
99
Incident Energy (MeV)
60-Nd-148

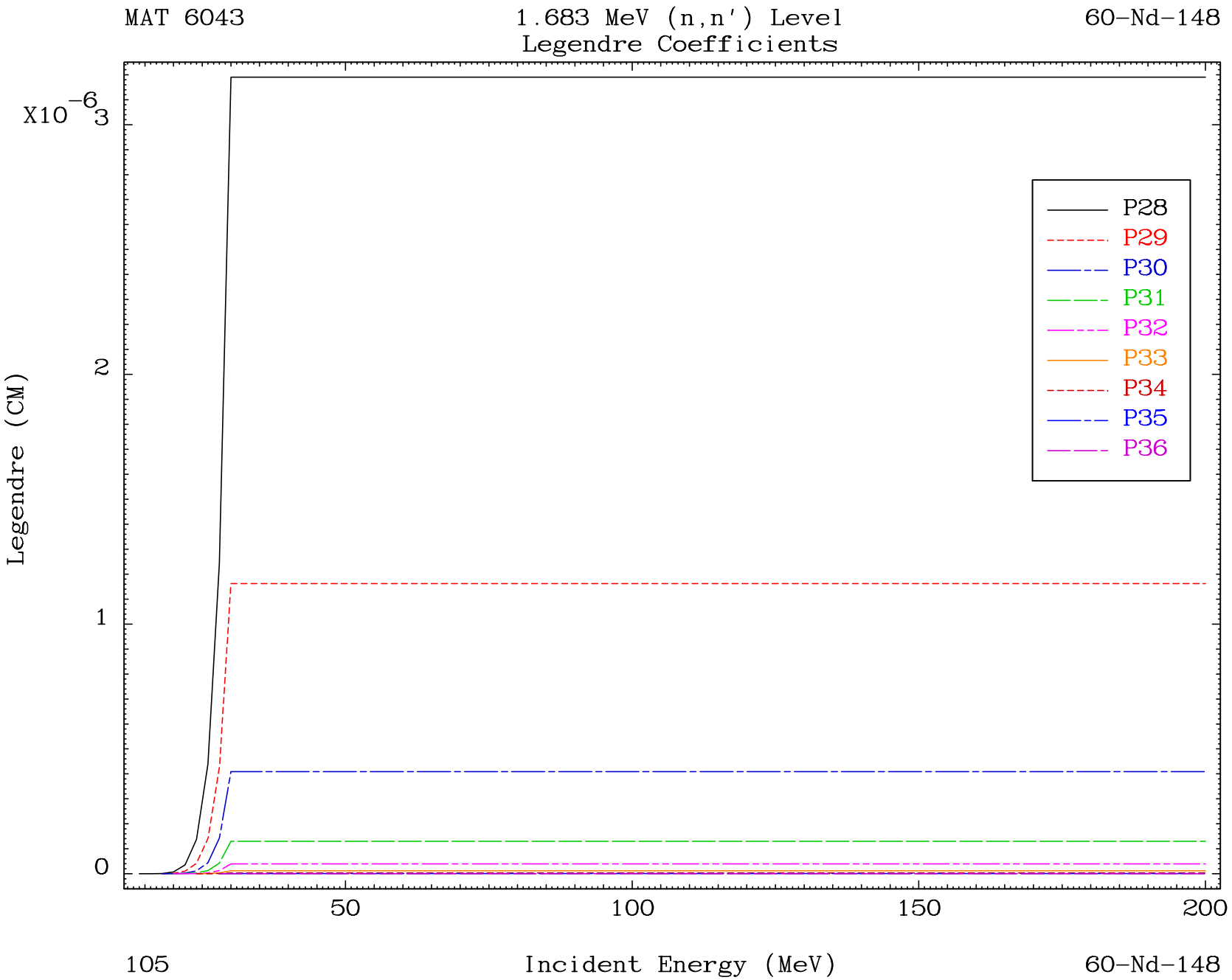

MAT 6043
1.660 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Legendre (CM)
50
100
150
200
100
Incident Energy (MeV)
60-Nd-148

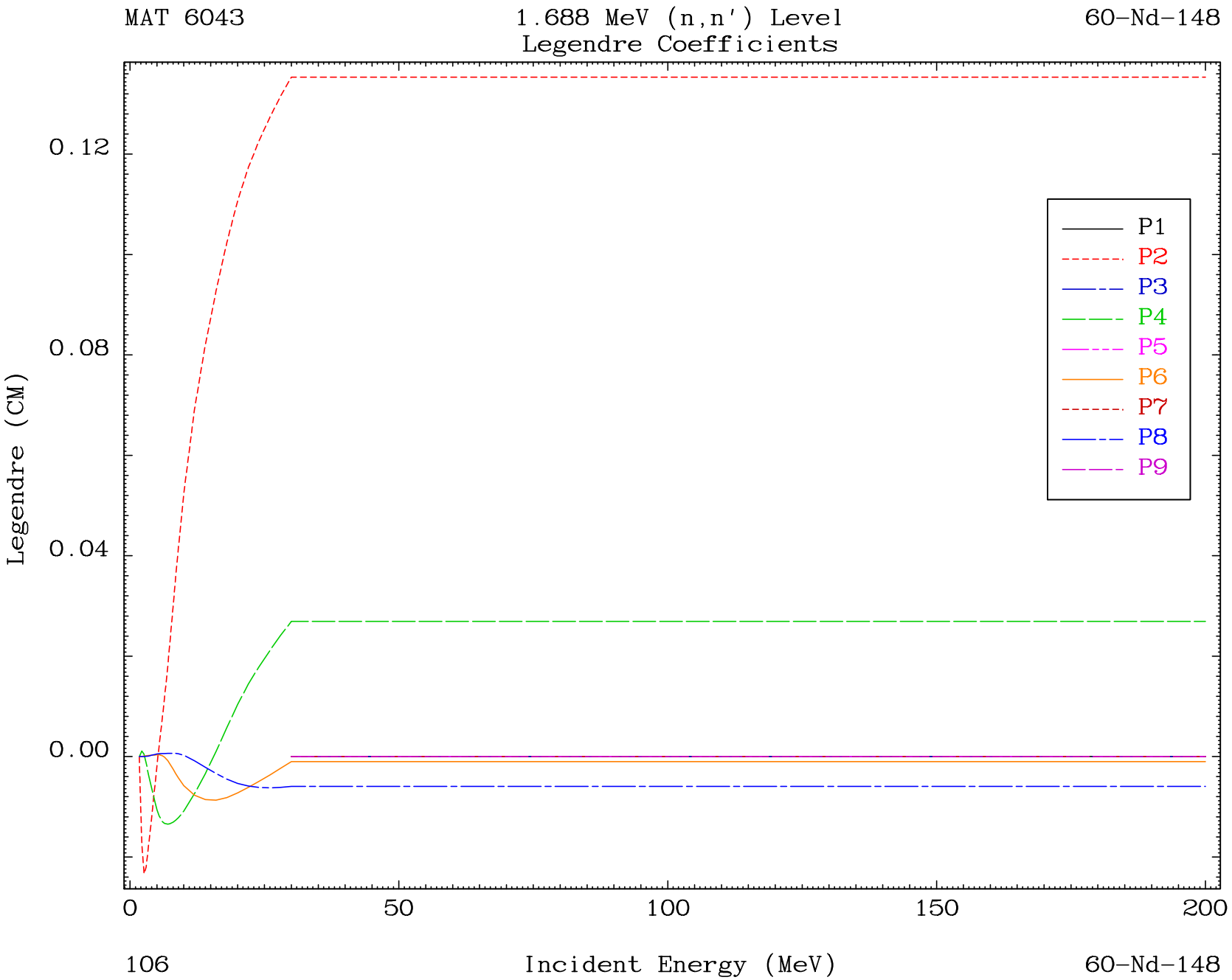

MAT 6043
1.660 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10 −6
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
101
Incident Energy (MeV)
60-Nd-148

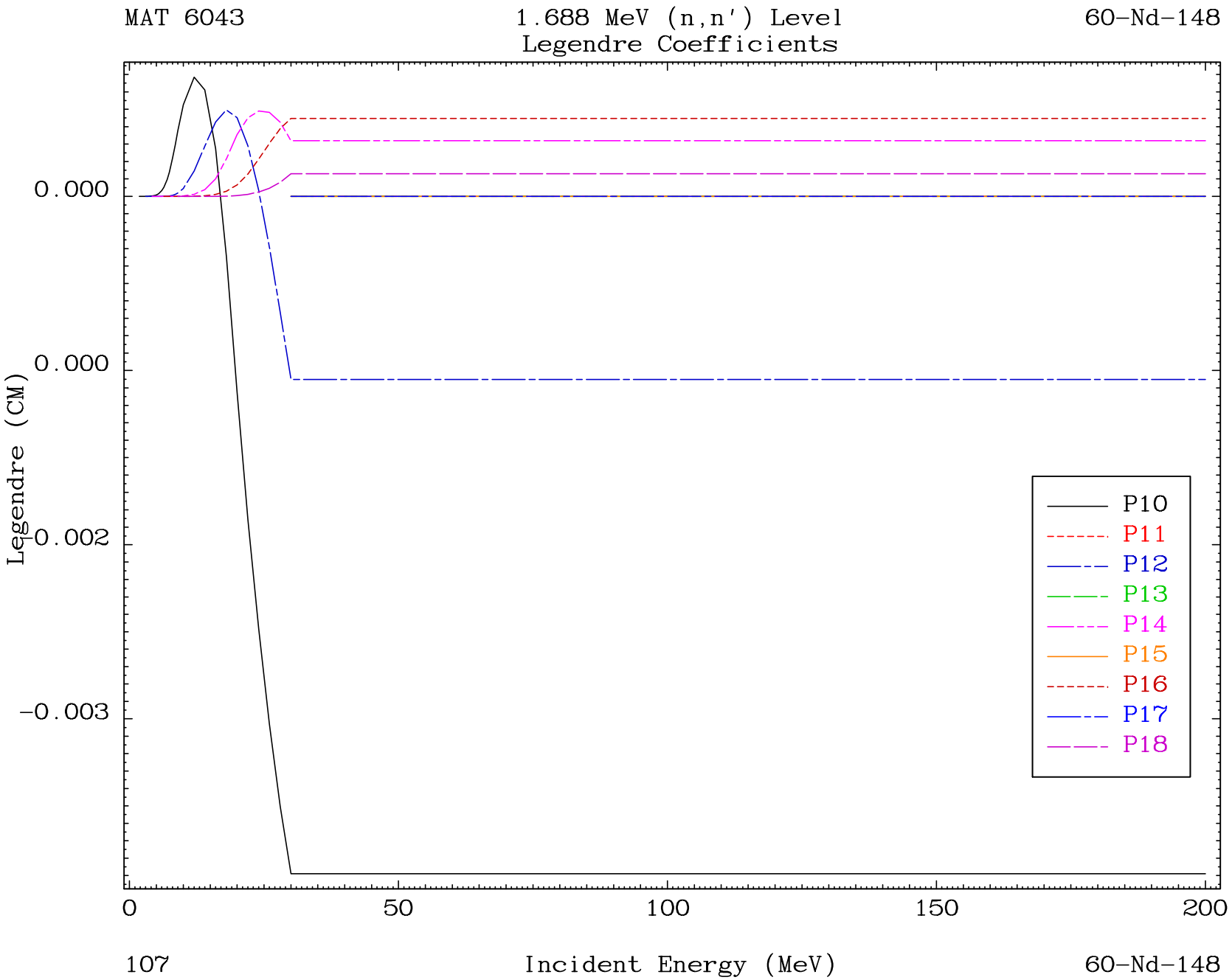

MAT 6043
1.683 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
102
Incident Energy (MeV)
60-Nd-148

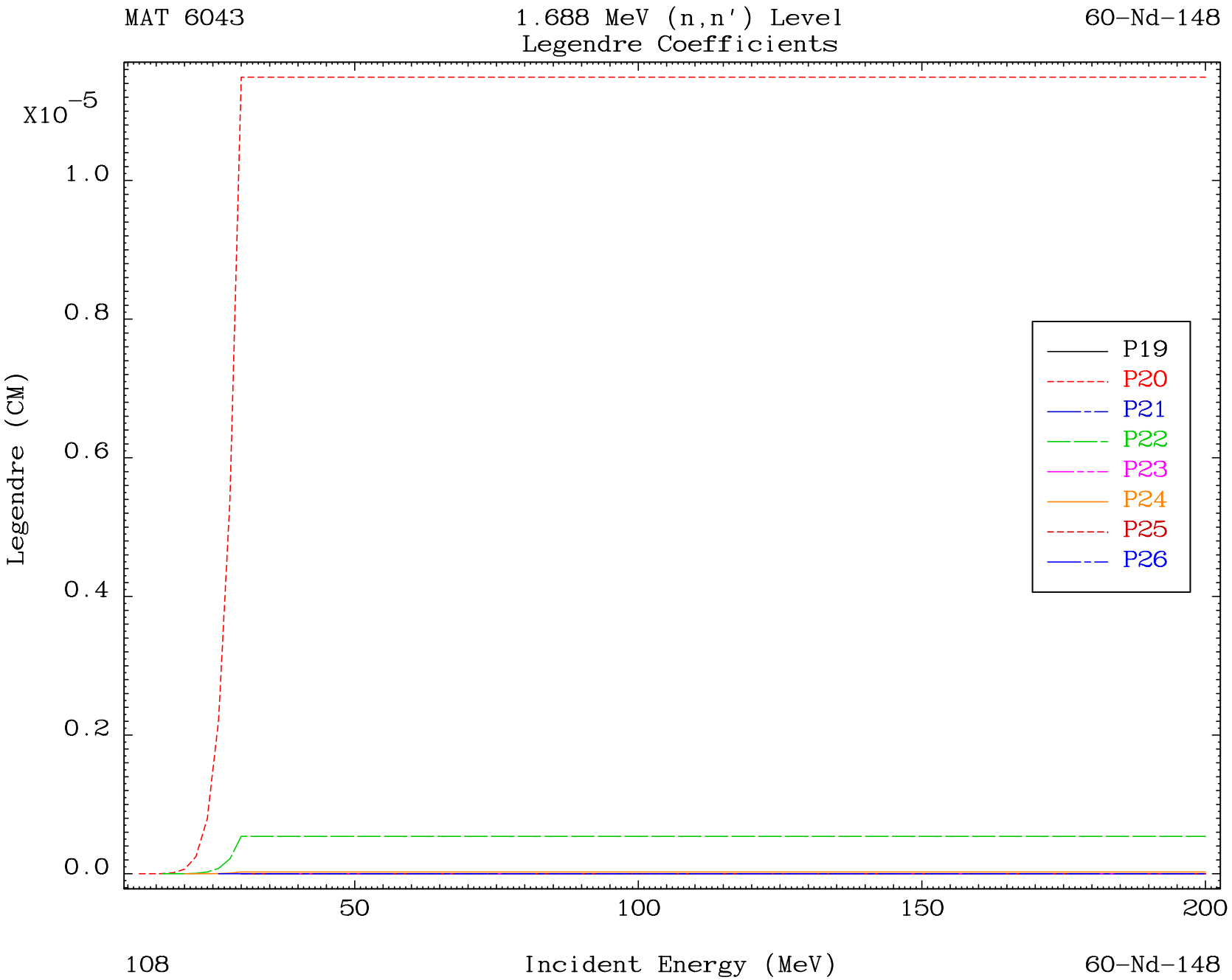

MAT 6043
1.683 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
103
Incident Energy (MeV)
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18

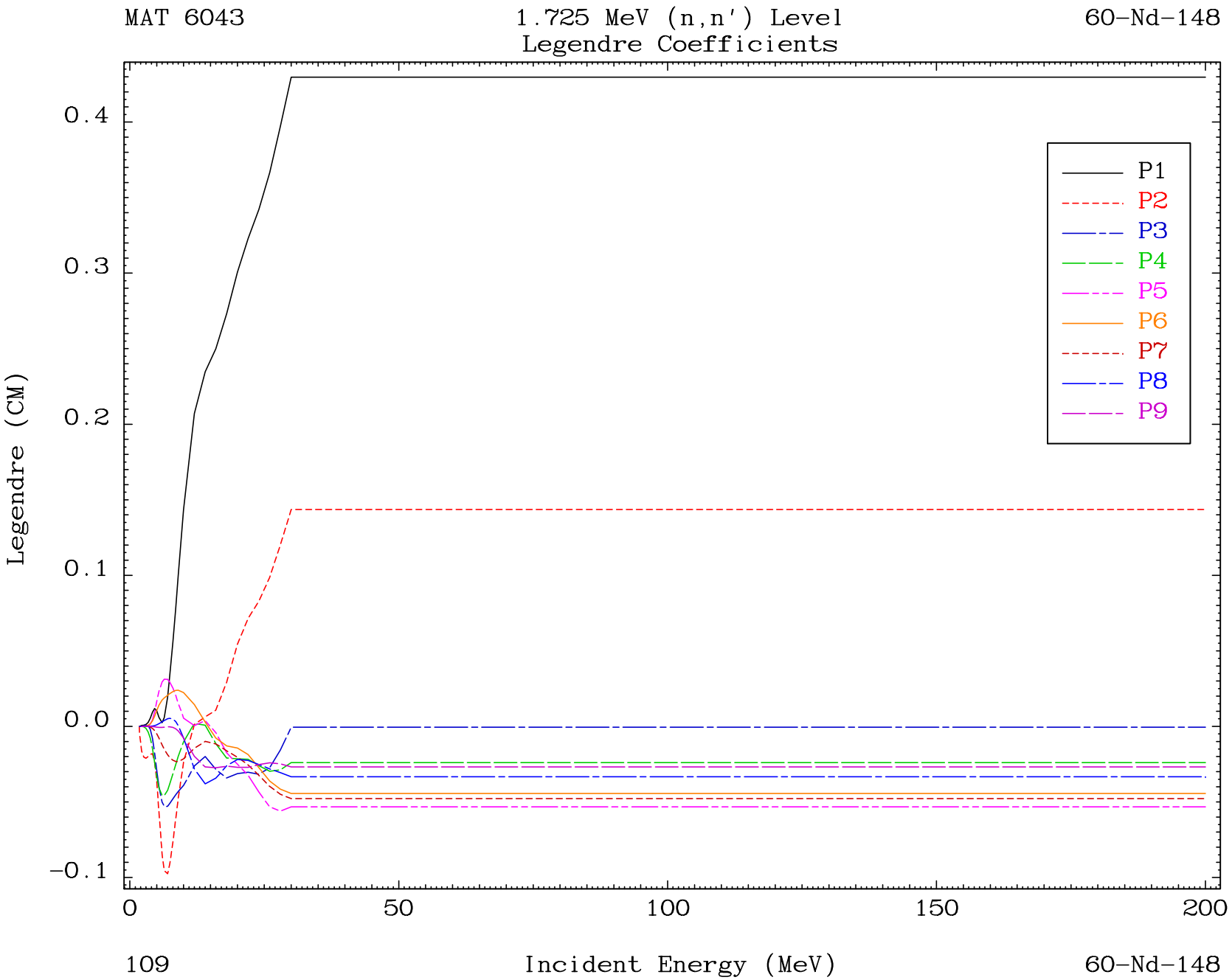

MAT 6043
1.683 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-3
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
1.5
1.0
0.5
0.0
50
100
150
200
104
Incident Energy (MeV)
60-Nd-148

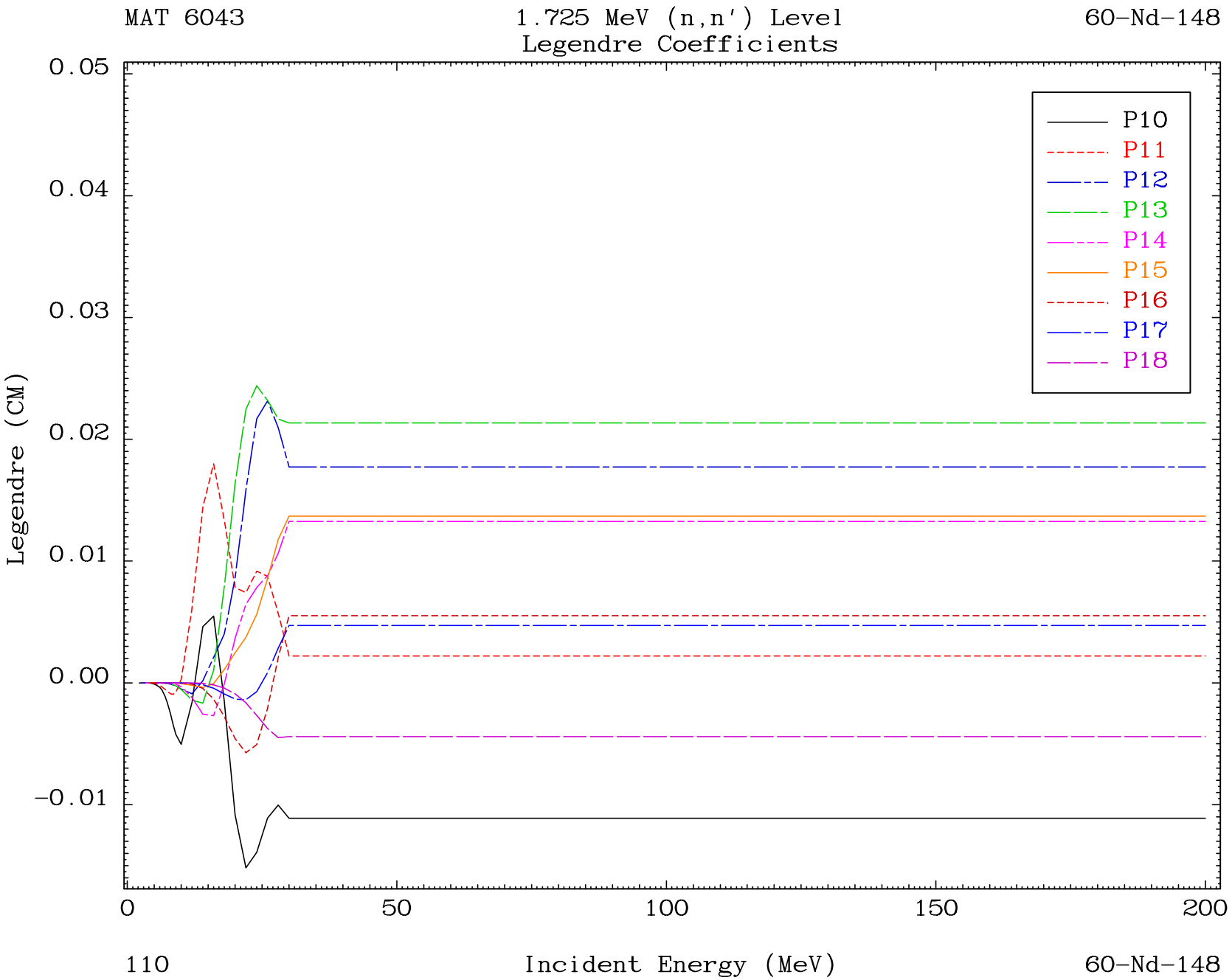

MAT 6043
1.683 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10 -6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
105
Incident Energy (MeV)
60-Nd-148

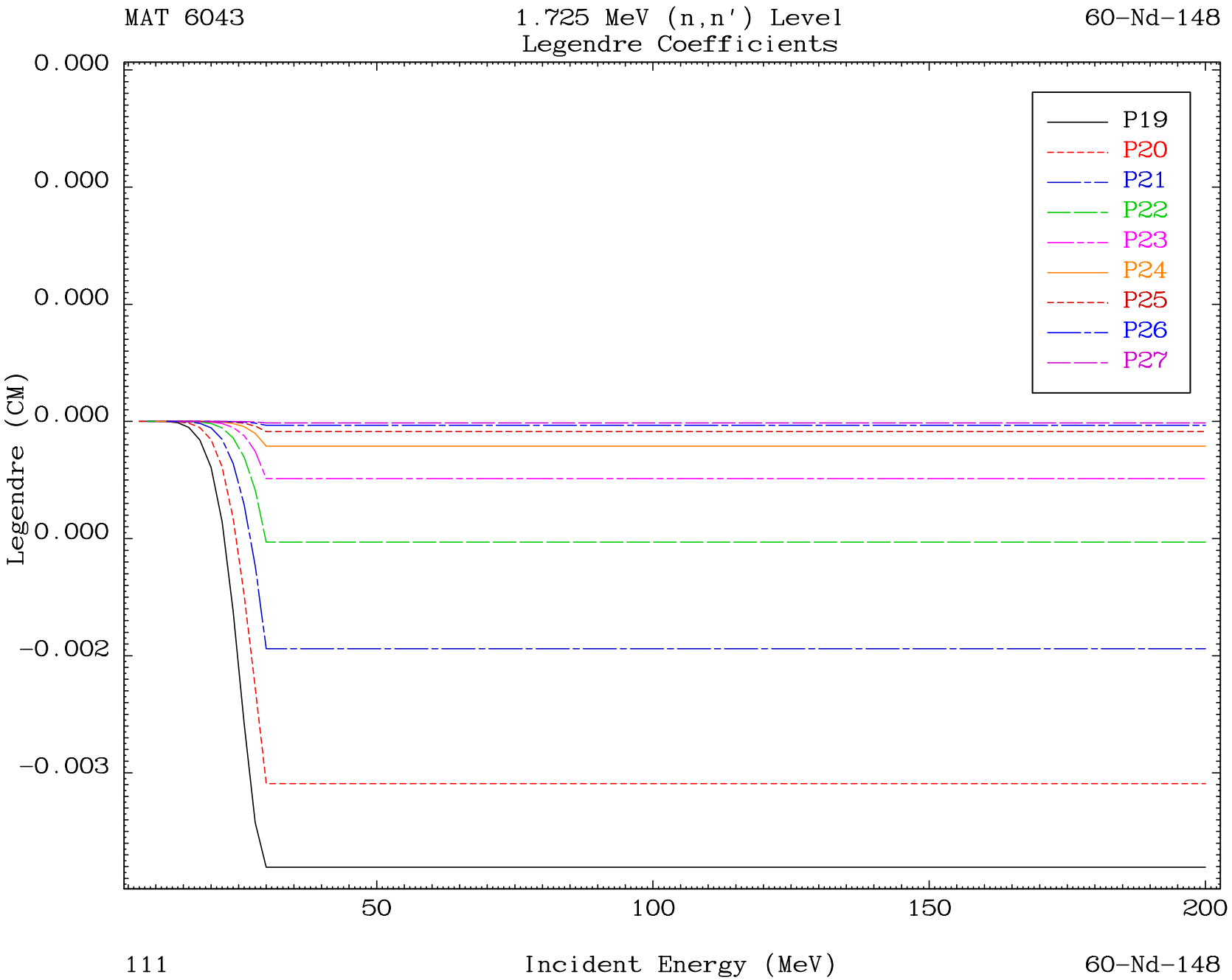

MAT 6043
1.688 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
106
Incident Energy (MeV)
60-Nd-148

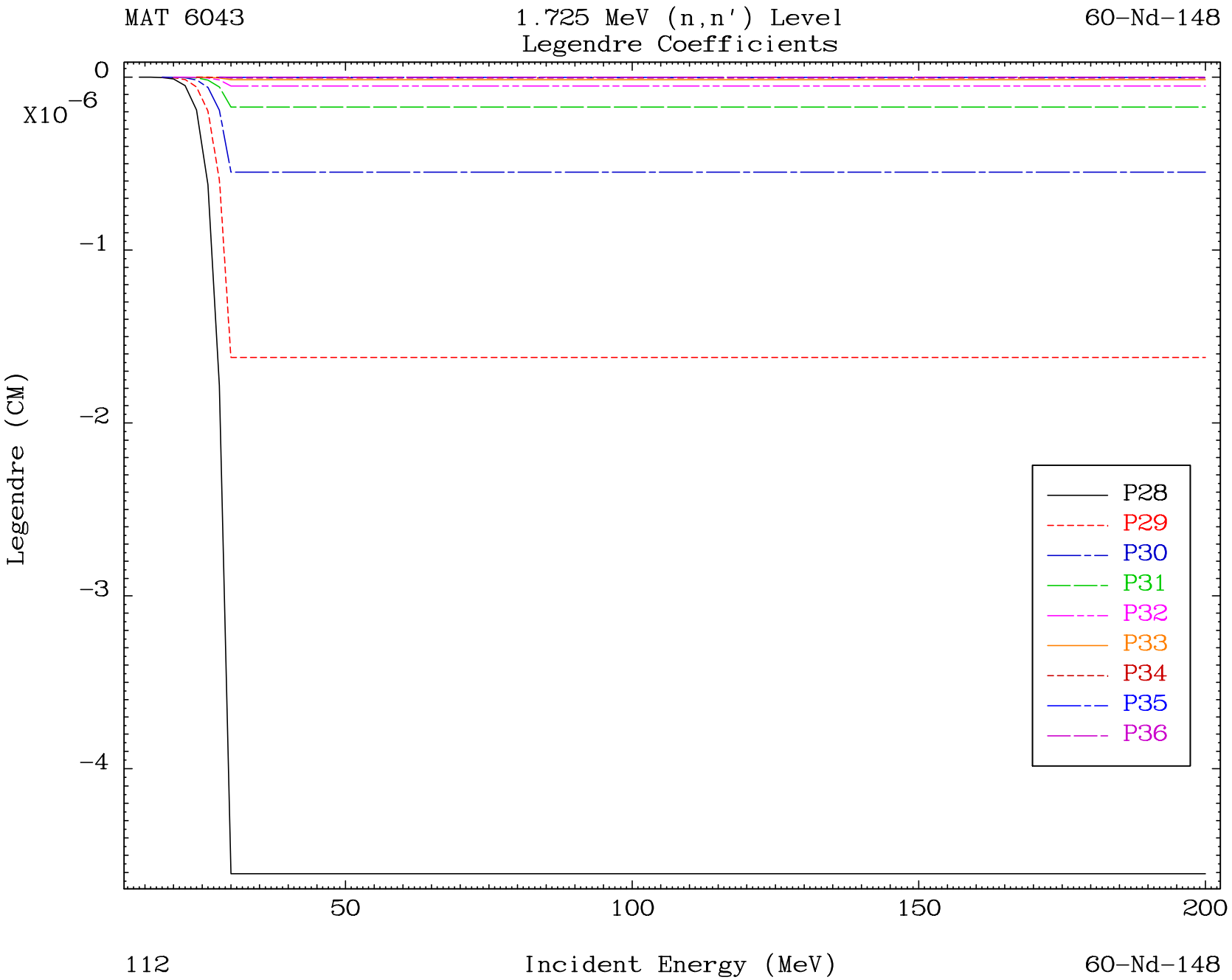

MAT 6043
1.688 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.002
-0.003
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
107
Incident Energy (MeV)
60-Nd-148

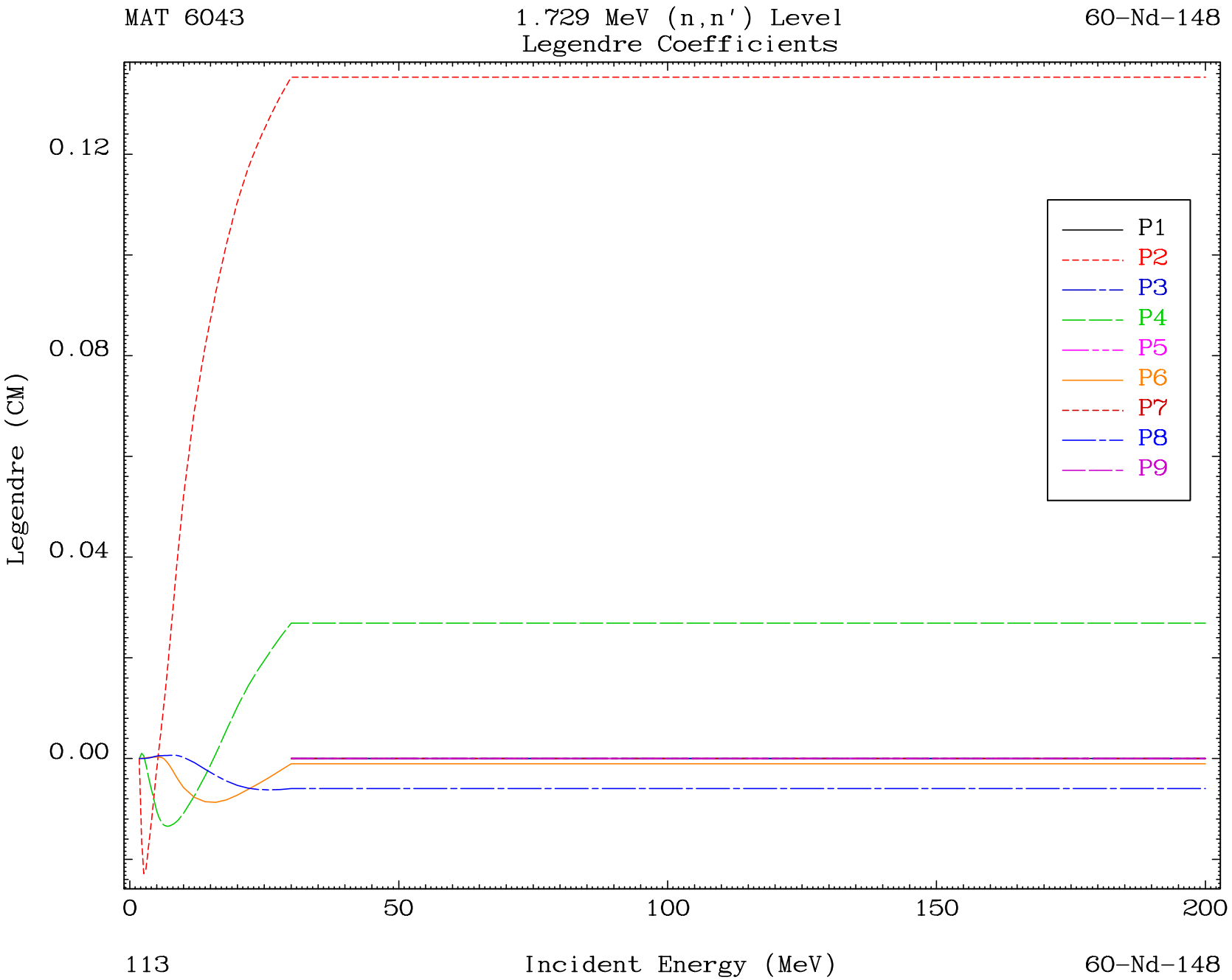

MAT 6043
1.688 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-5
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
50
100
150
200
108
Incident Energy (MeV)
60-Nd-148

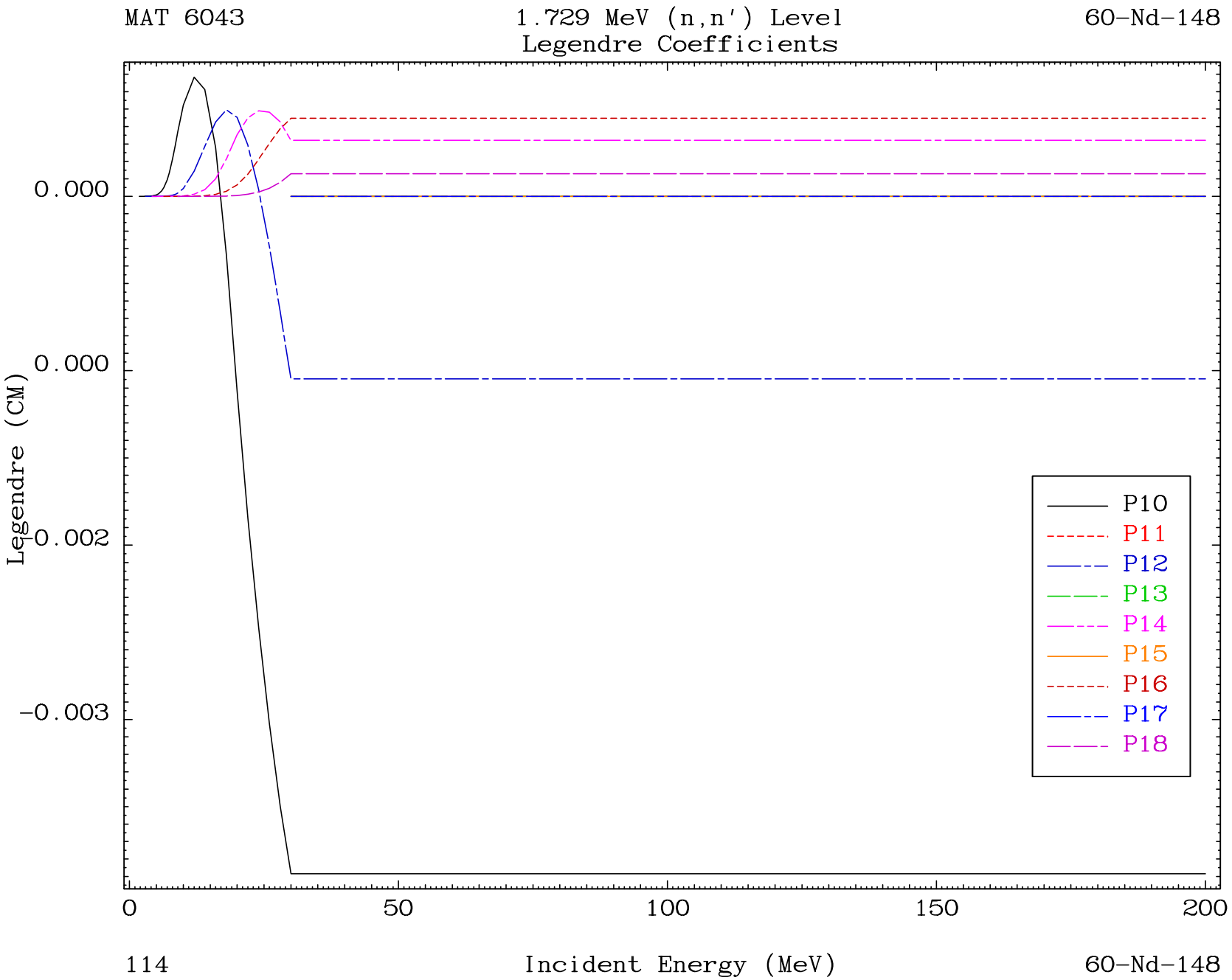

MAT 6043
1.725 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
109
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9

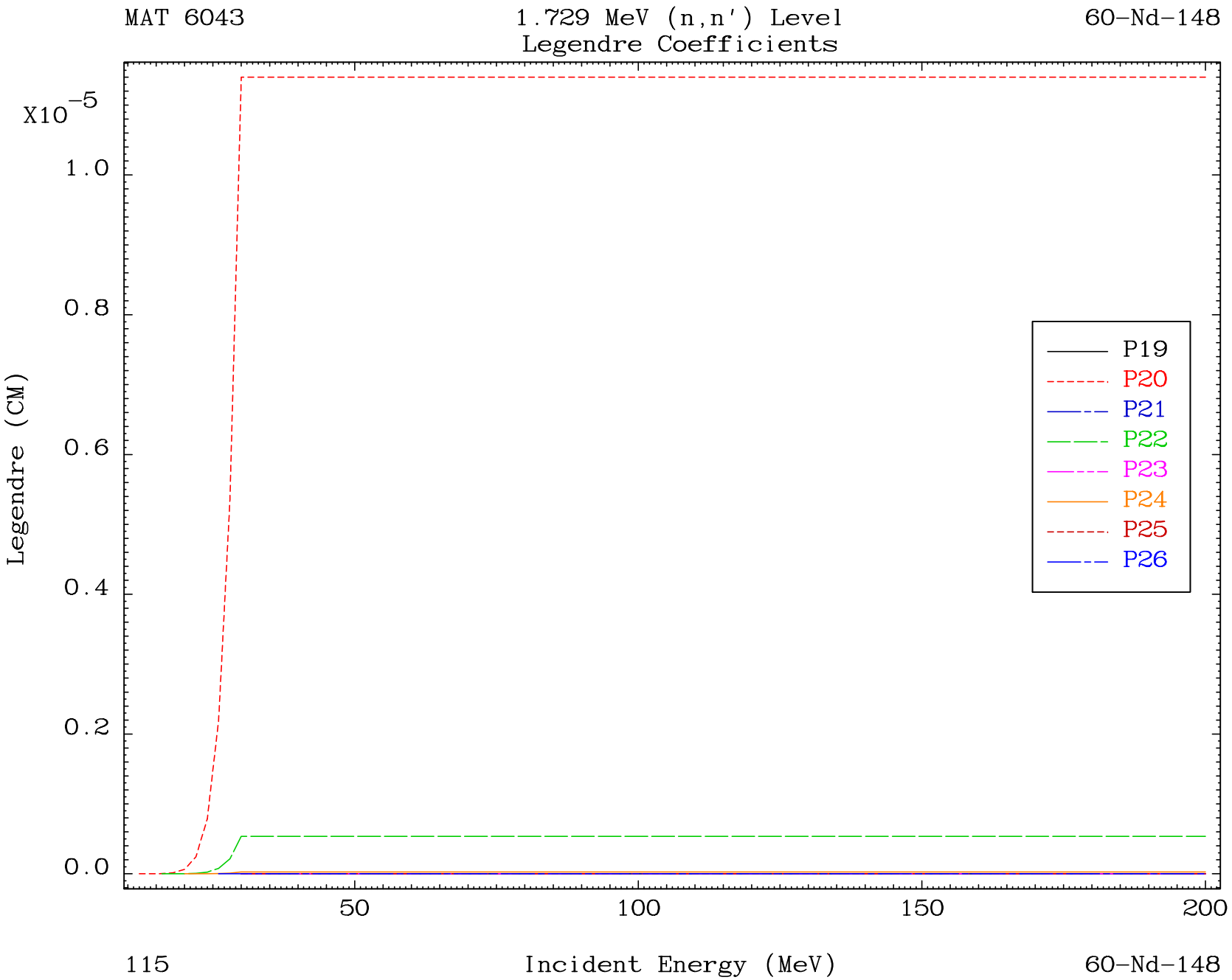

MAT 6043
1.725 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
110
Incident Energy (MeV)
60-Nd-148

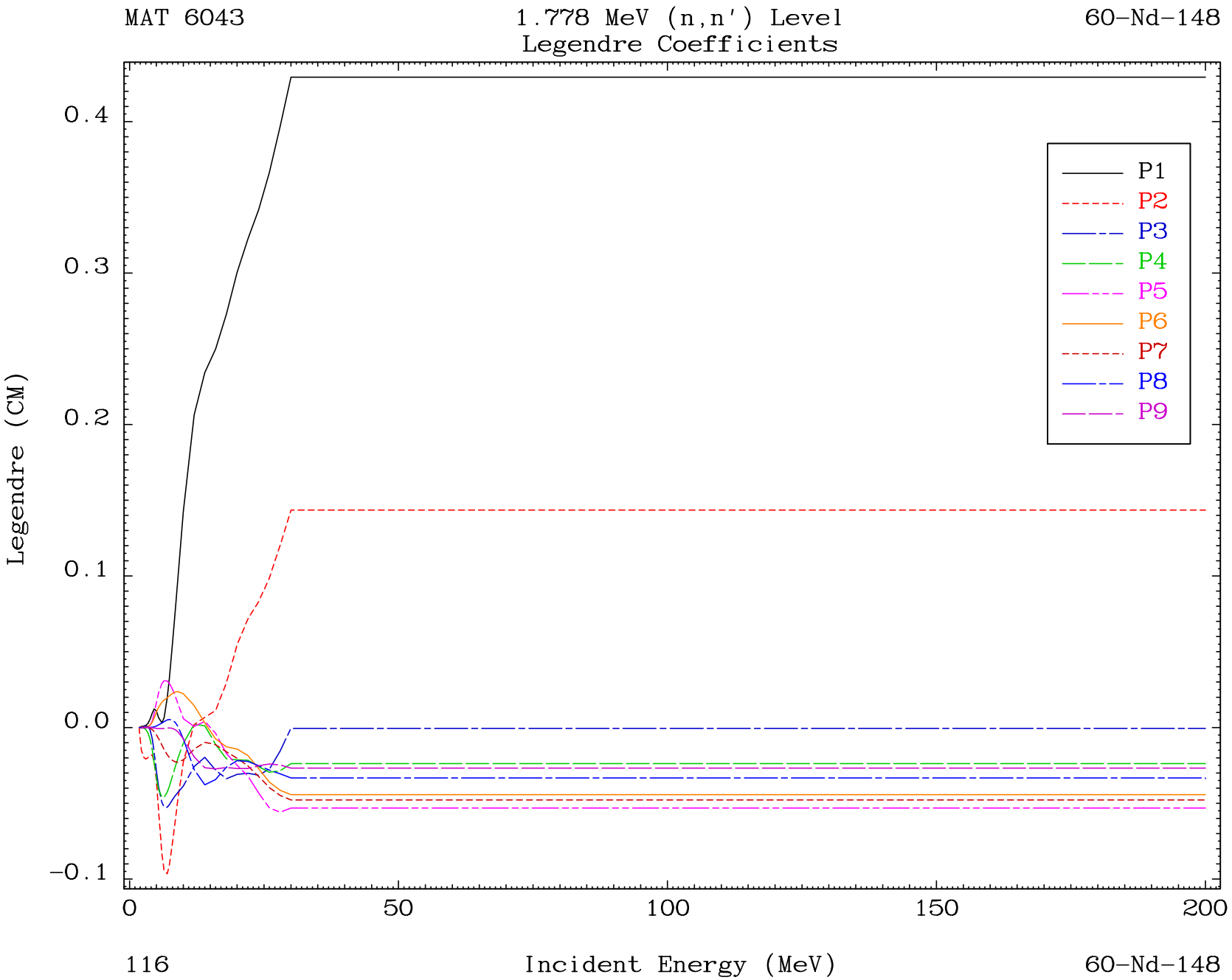

MAT 6043
1.725 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.000
0.000
−0.002
−0.003
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
111
Incident Energy (MeV)
60-Nd-148

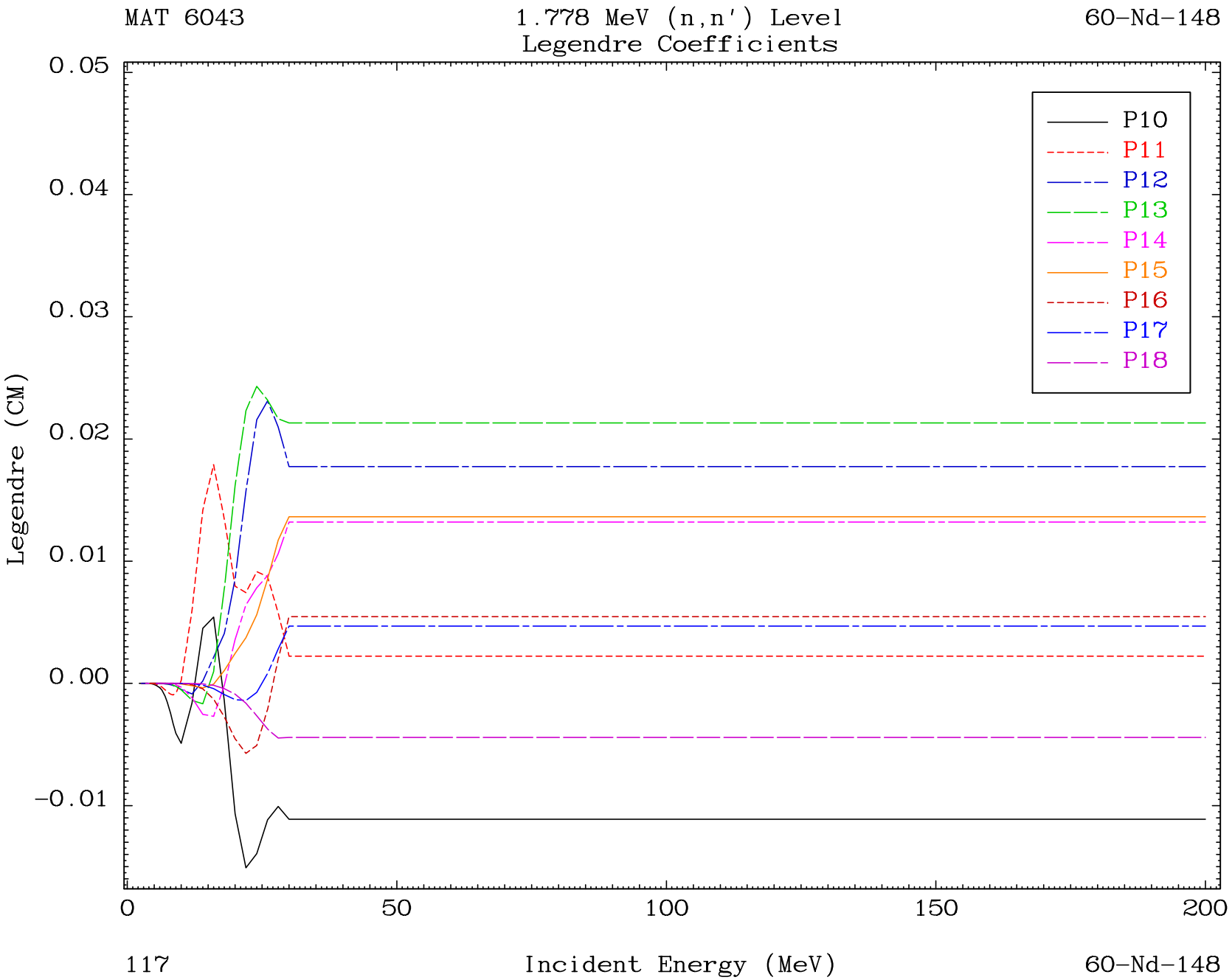

MAT 6043
1.725 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0
X10 −6
−1
−2
−3
−4
Legendre (CM)
50
100
150
200
112
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

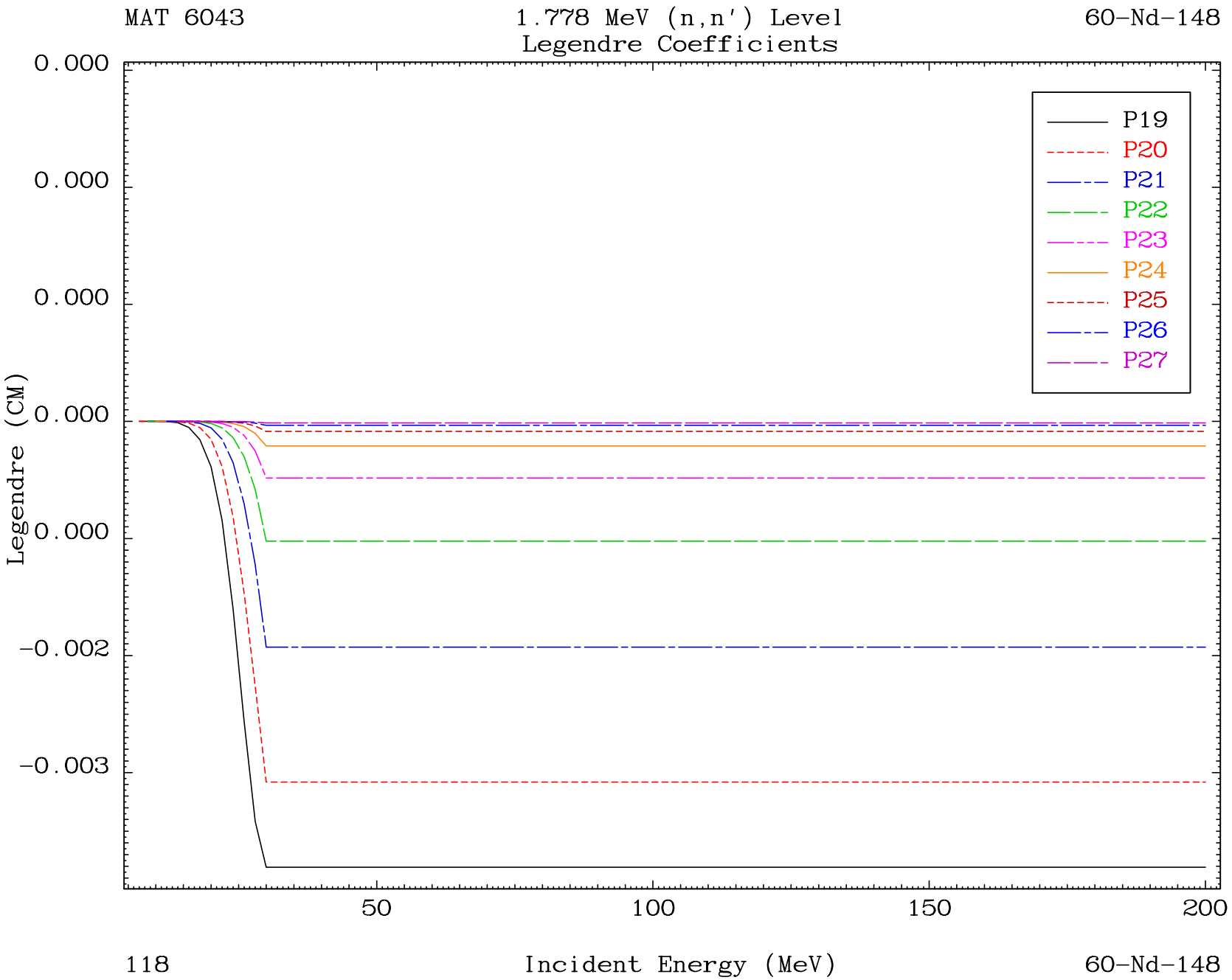

MAT 6043
1.729 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
113
Incident Energy (MeV)
60-Nd-148

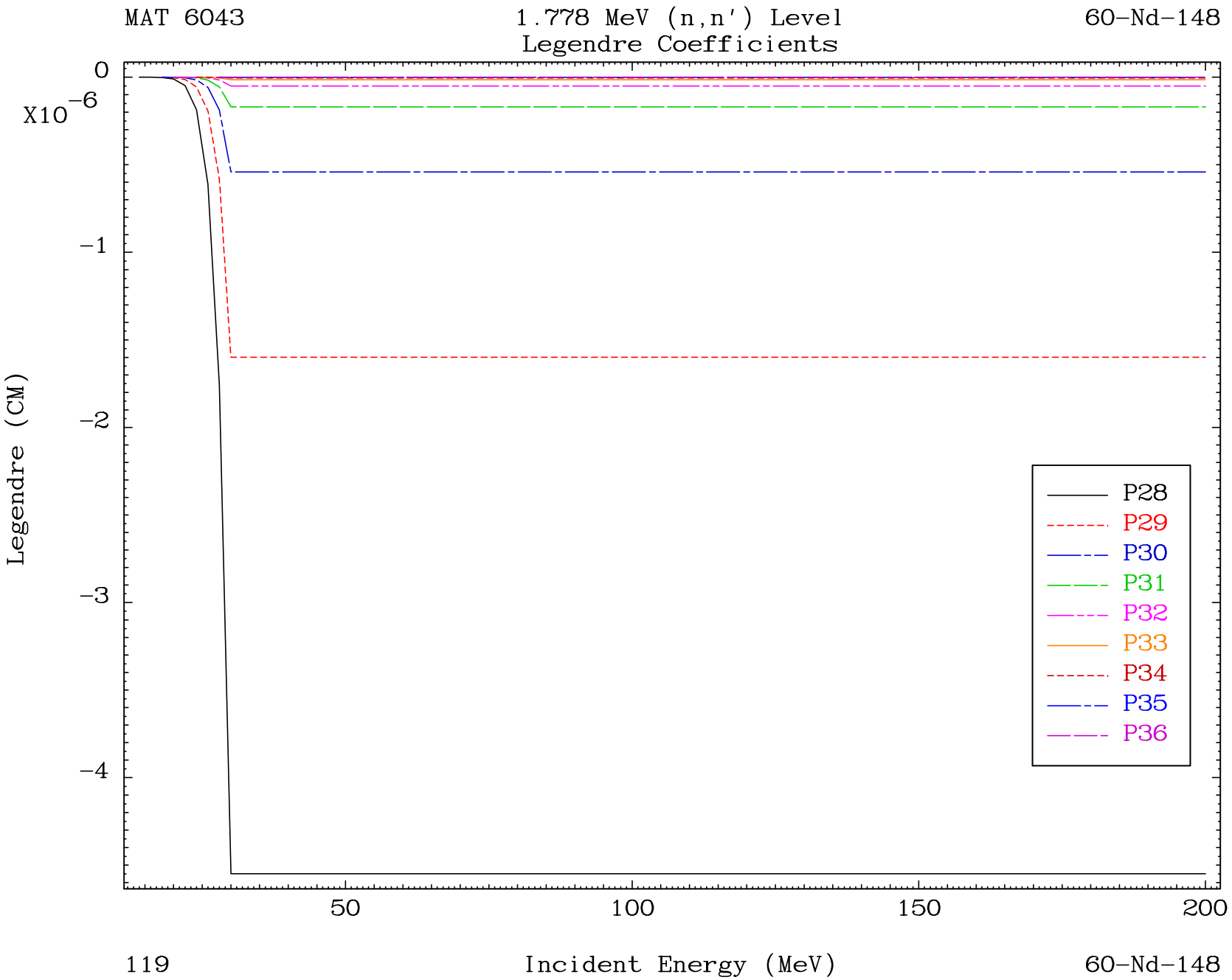

MAT 6043
1.729 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.002
-0.003
Legendre (CM)
0
50
100
150
200
114
Incident Energy (MeV)
60-Nd-148
P10
P11
P12
P13
P14
P15
P16
P17
P18

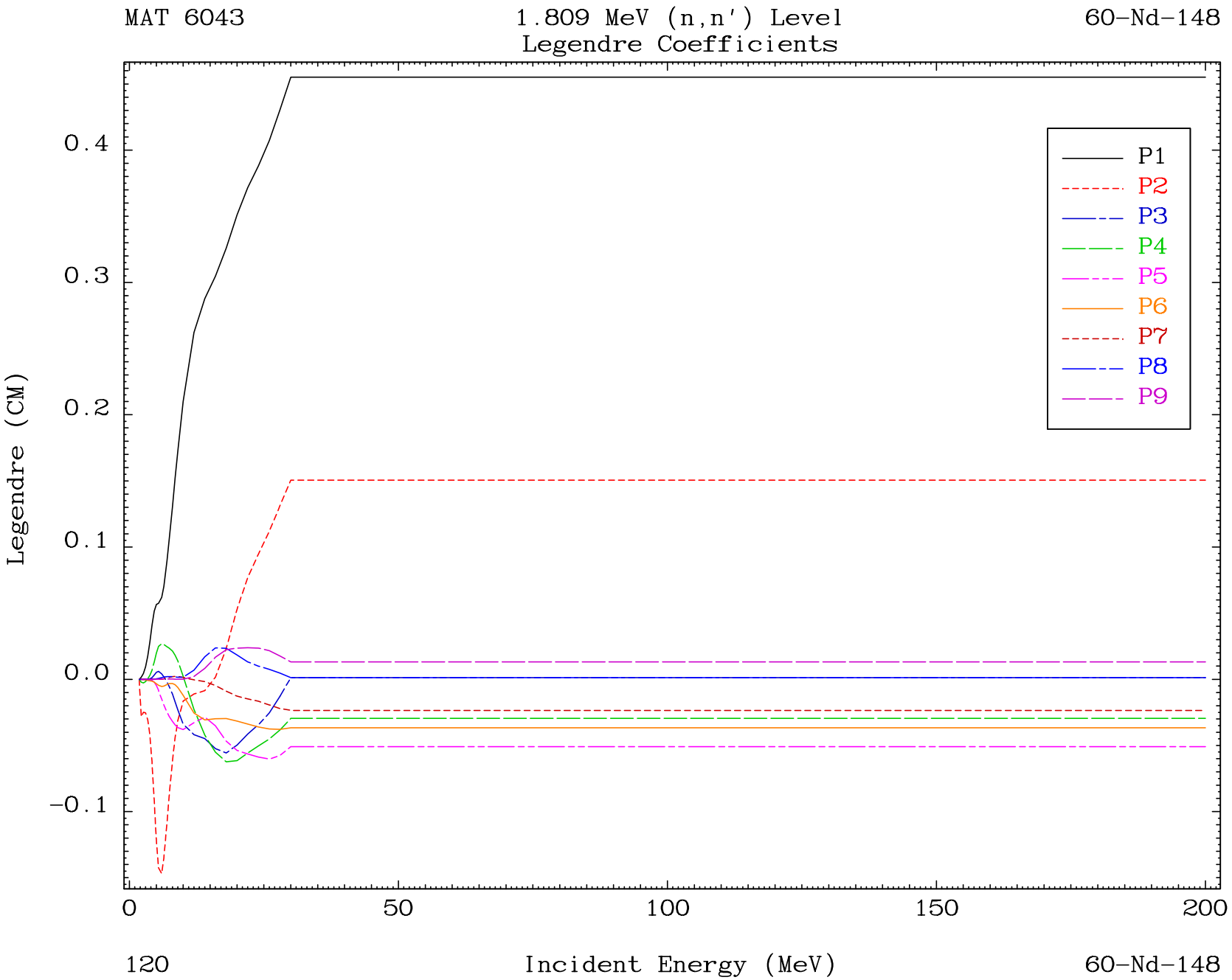

MAT 6043
1.729 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-5
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
50
100
150
200
115
Incident Energy (MeV)
60-Nd-148

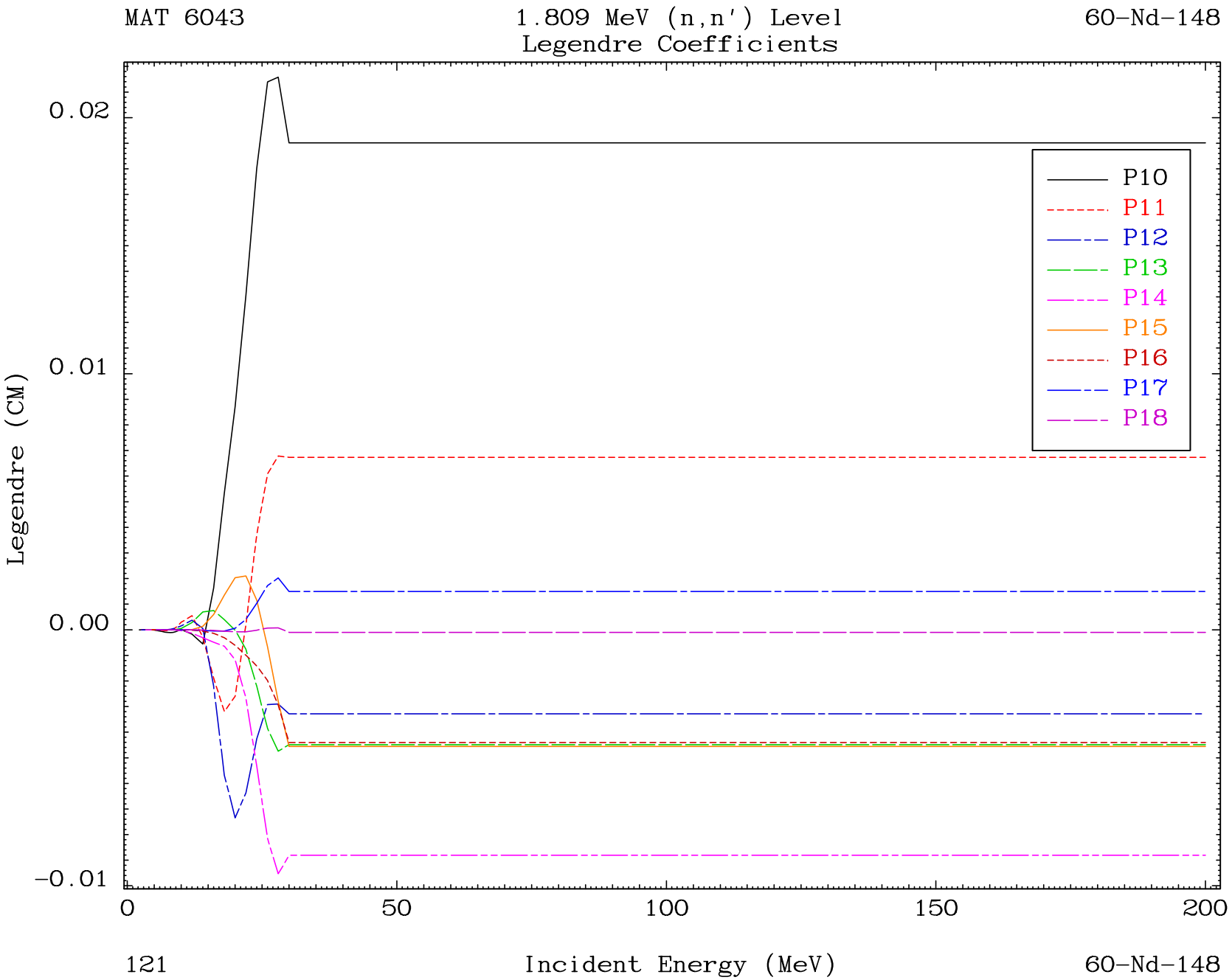

MAT 6043
1.778 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
116
Incident Energy (MeV)
60-Nd-148

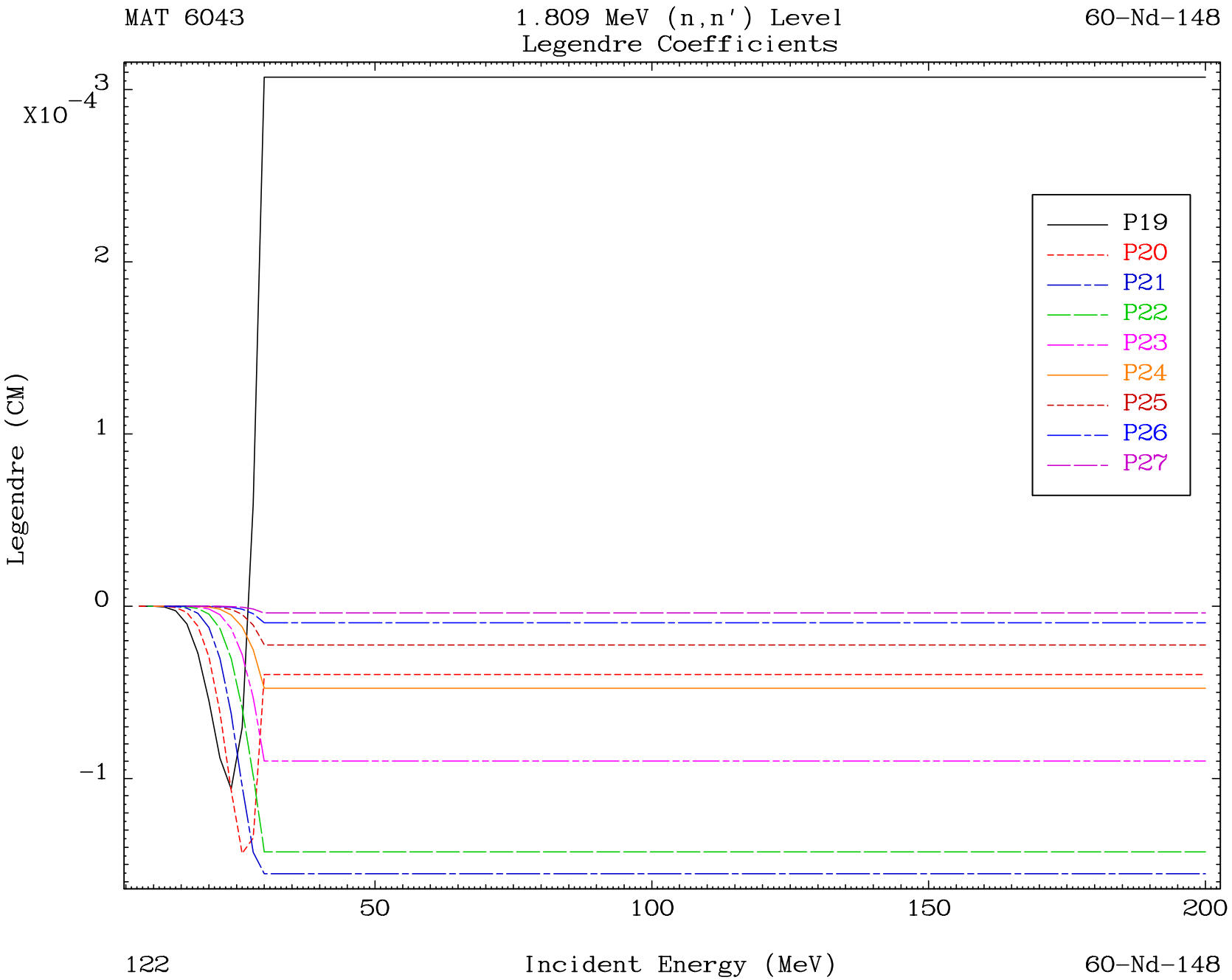

MAT 6043
1.778 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
117
Incident Energy (MeV)
60-Nd-148

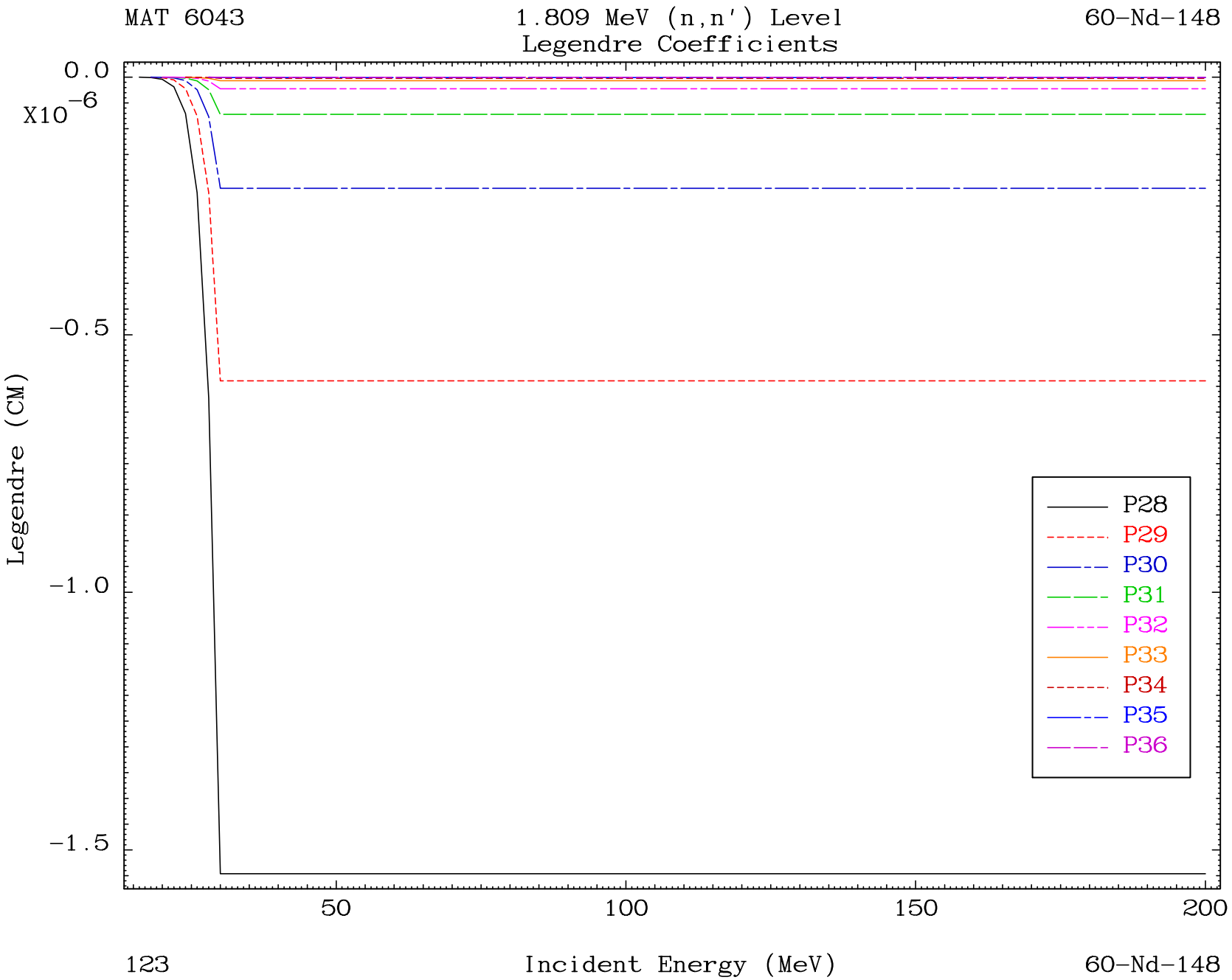

MAT 6043
1.778 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
0.000
0.000
0.000
-0.002
-0.003
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
118
Incident Energy (MeV)
60-Nd-148

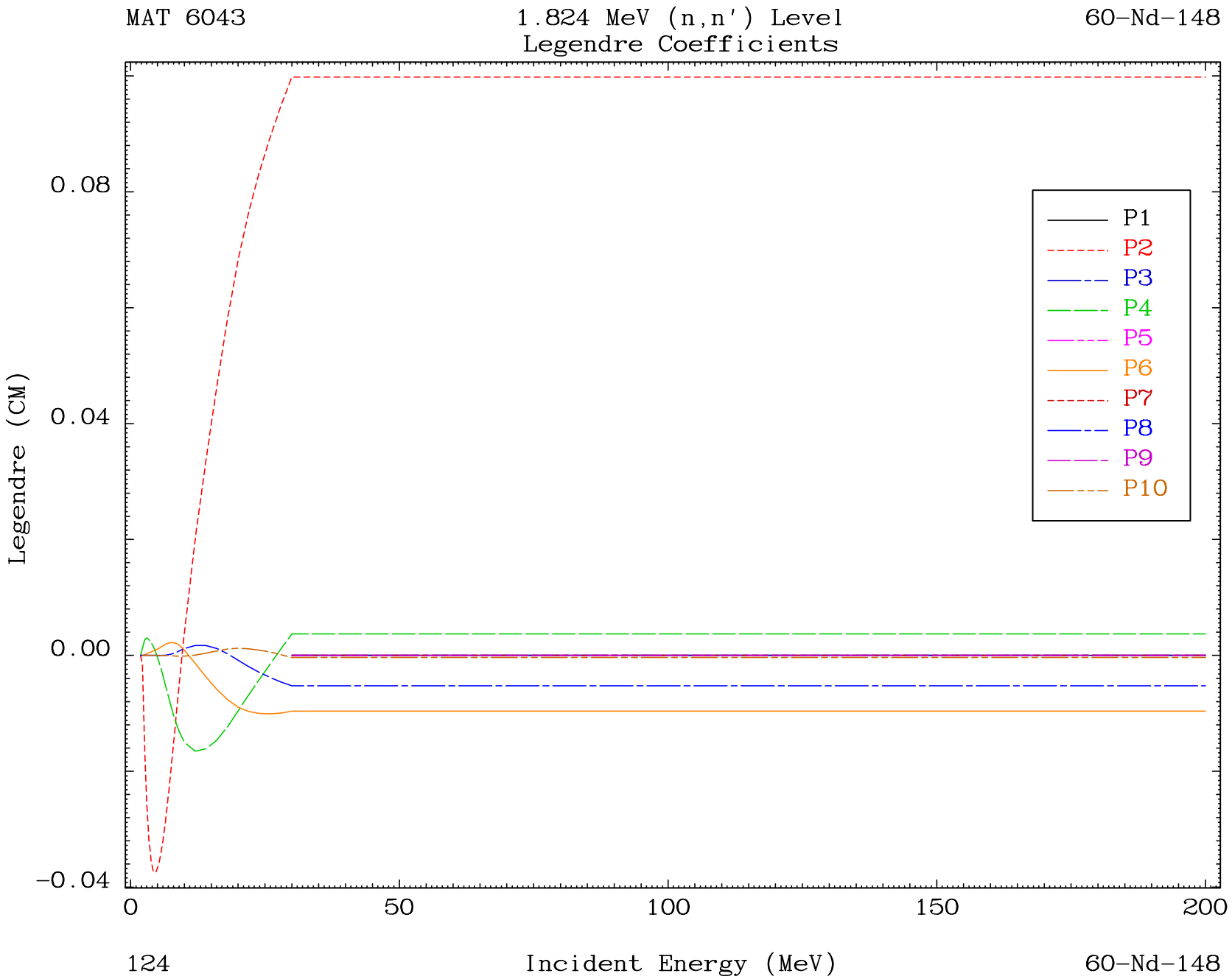

MAT 6043
1.778 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0
X10 −6
−1
−2
−3
−4
Legendre (CM)
50
100
150
200
119
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

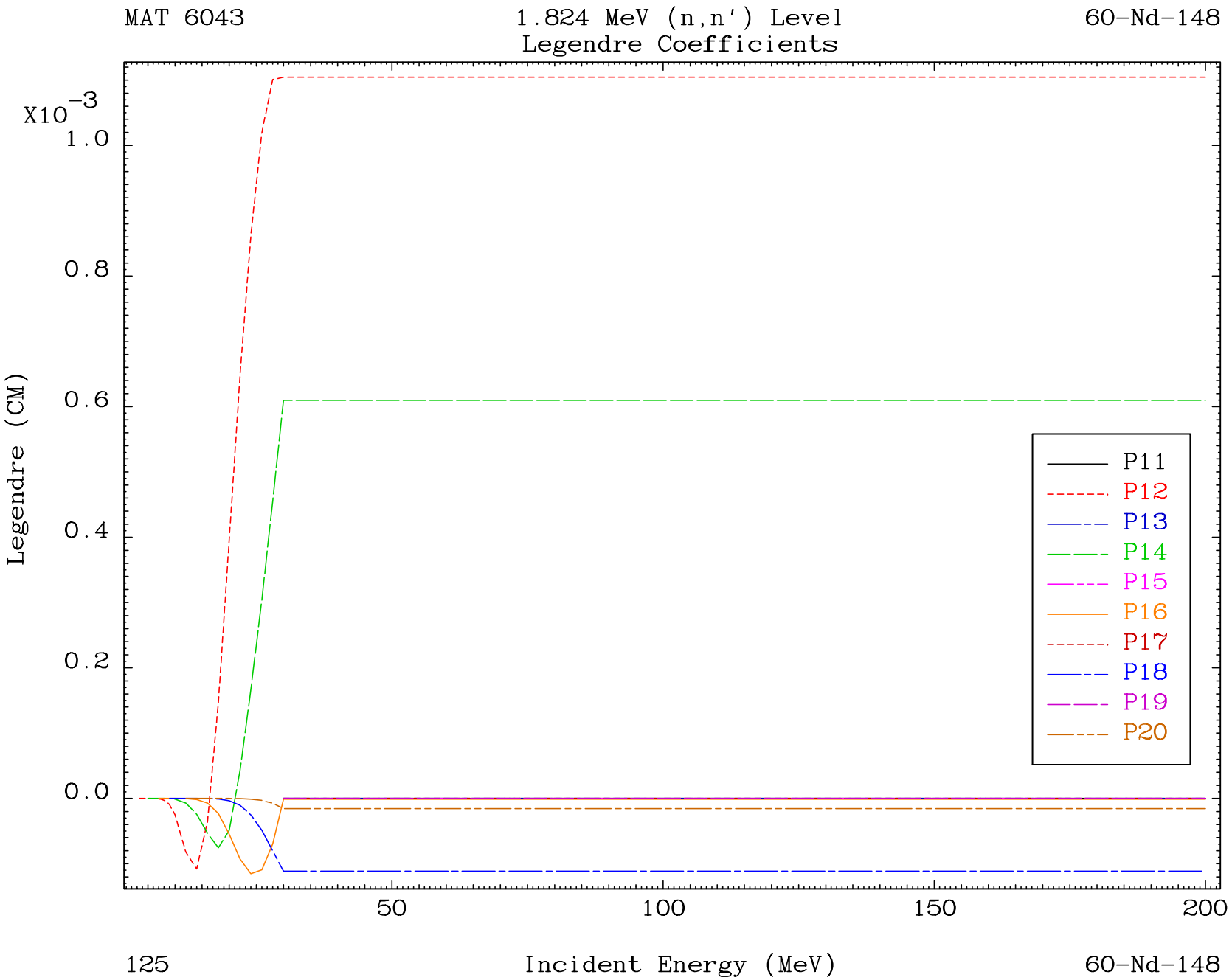

MAT 6043
1.809 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
120
Incident Energy (MeV)
60-Nd-148

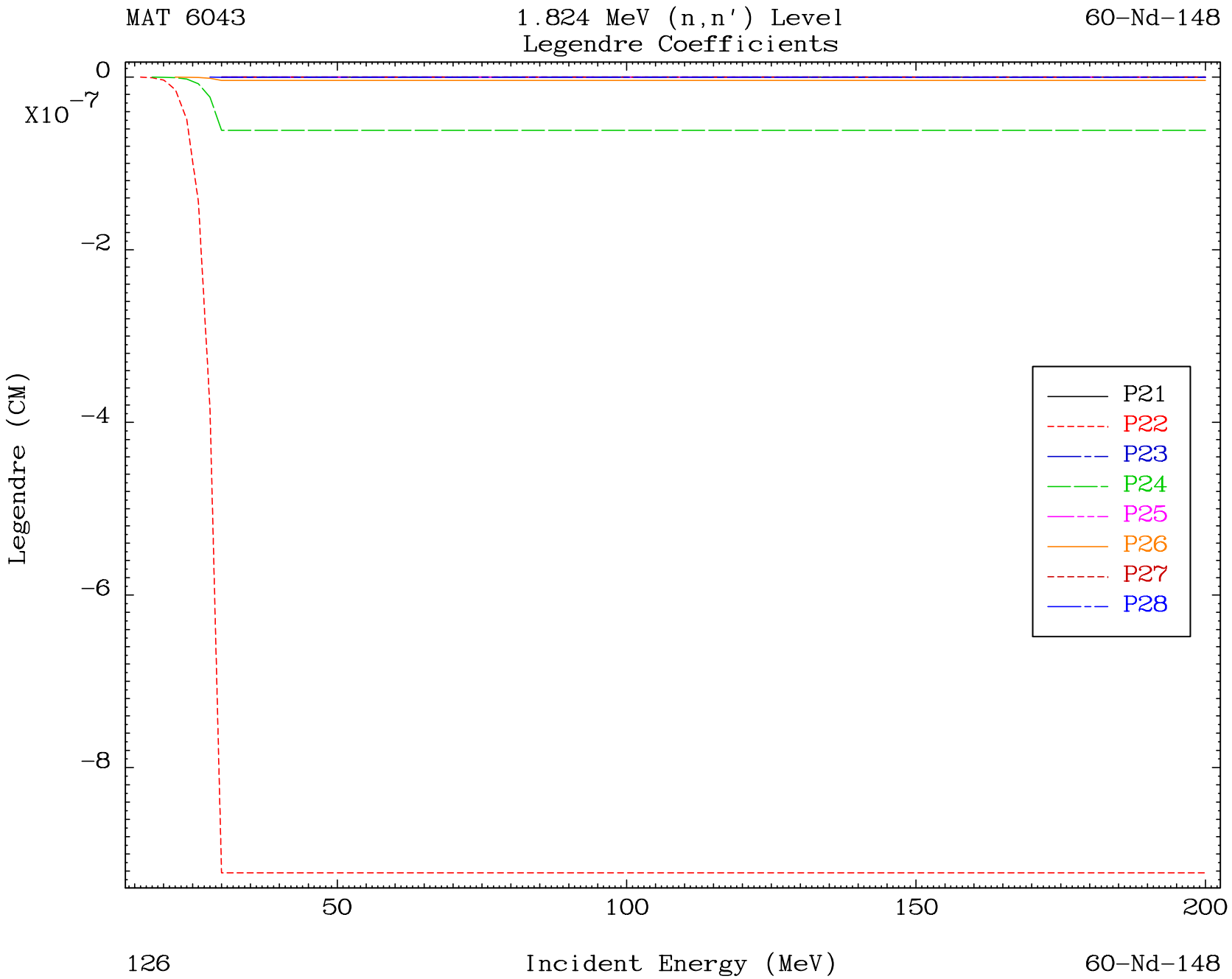

MAT 6043
1.809 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.02
0.01
0.00
-0.01
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
121
Incident Energy (MeV)
60-Nd-148

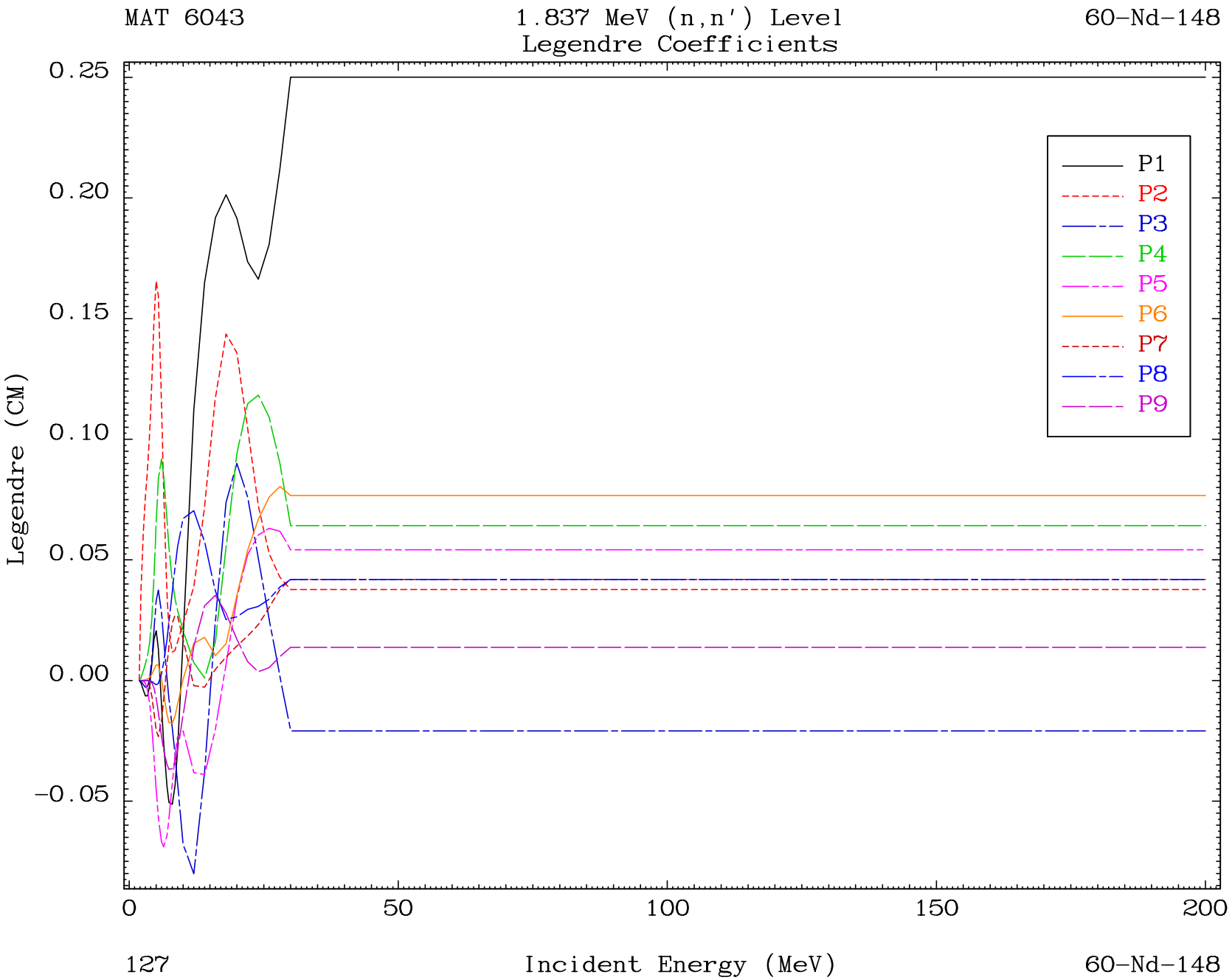

MAT 6043
1.809 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-4
3
2
1
0
-1
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
122
Incident Energy (MeV)
60-Nd-148

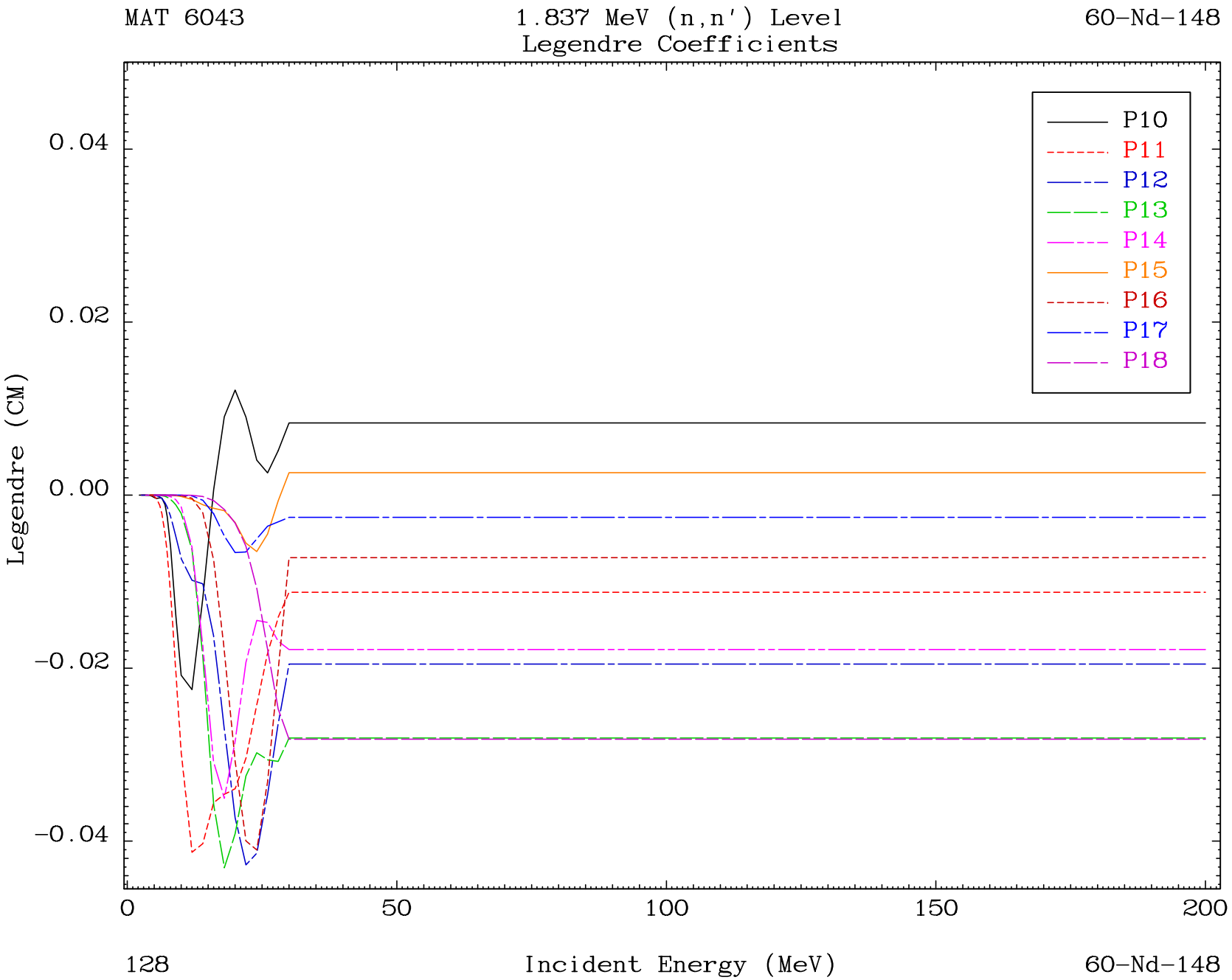

MAT 6043
1.809 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.0
X10^-6
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
123
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36

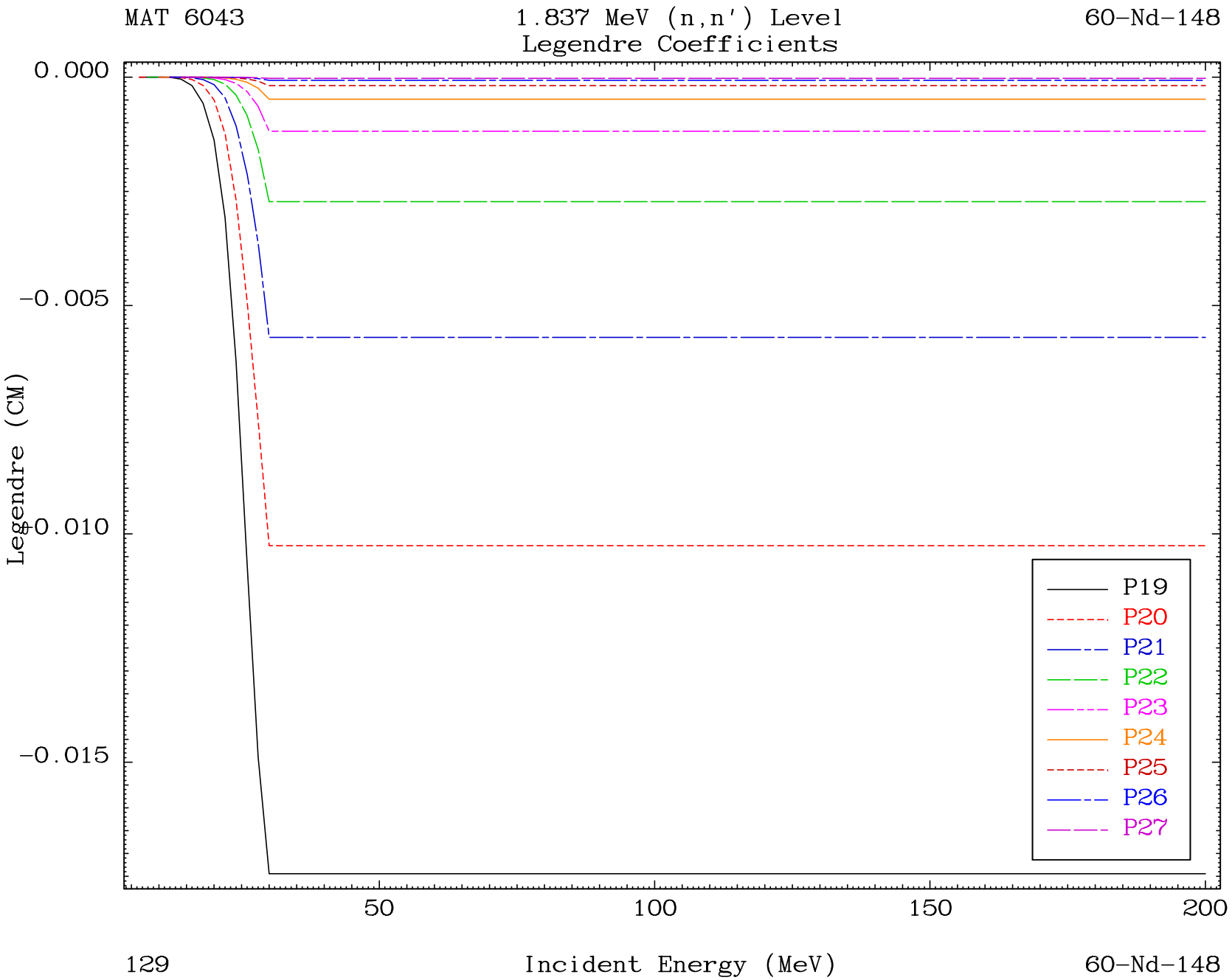

MAT 6043
1.824 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.08
0.04
0.00
-0.04
Legendre (CM)
0
50
100
150
200
124
Incident Energy (MeV)
60-Nd-148
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

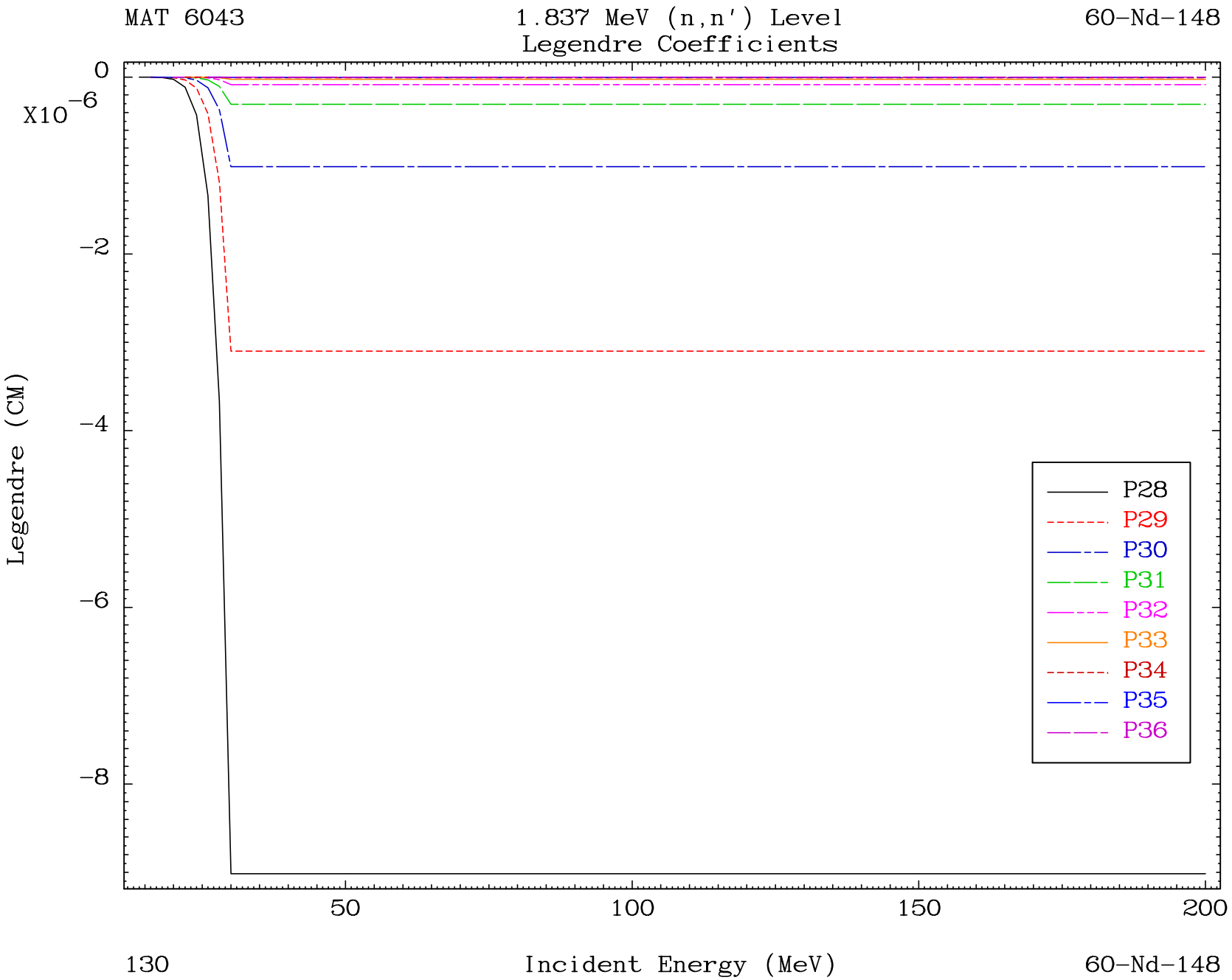

MAT 6043
1.824 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10^-3
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
125
Incident Energy (MeV)
60-Nd-148
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

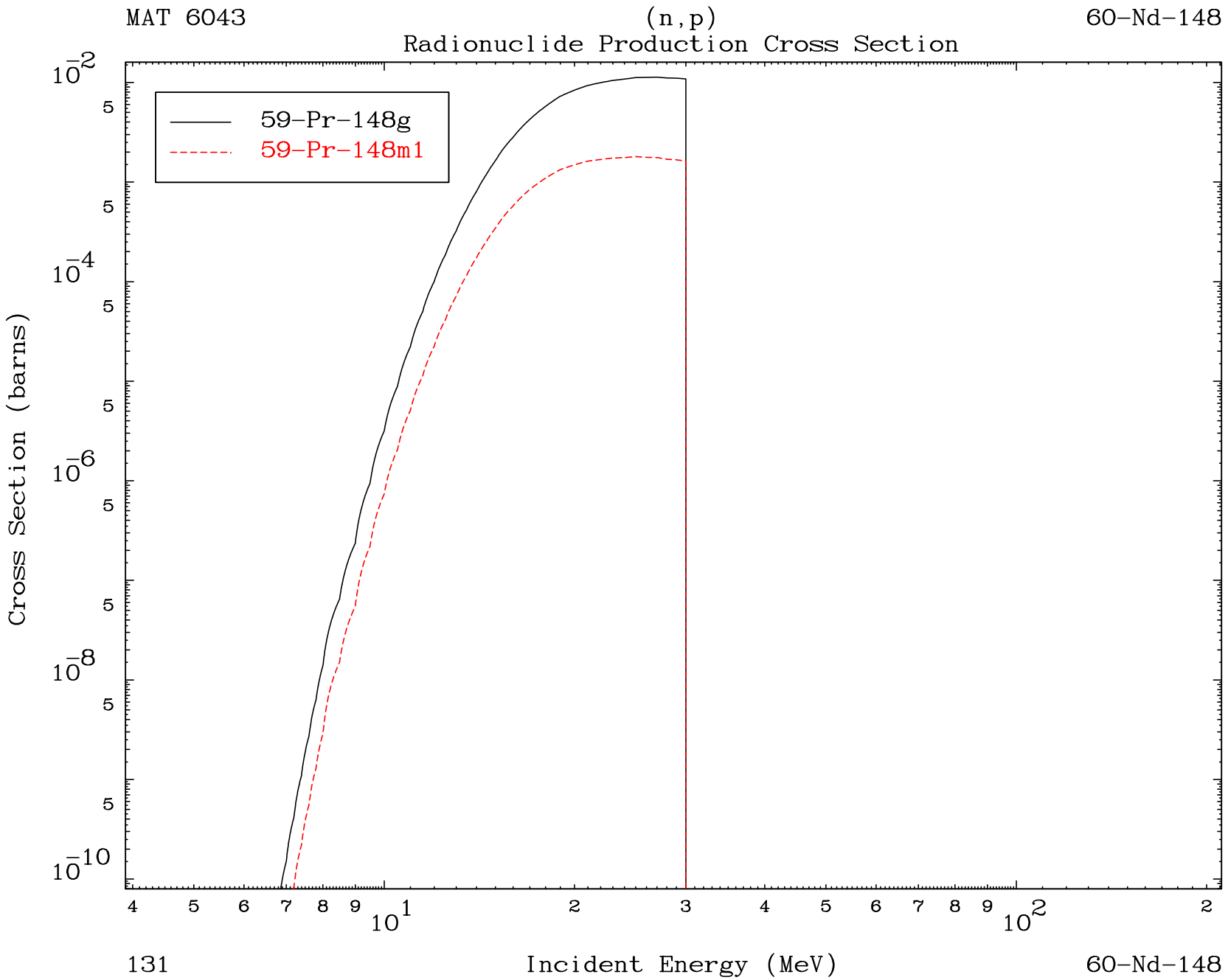

MAT 6043
1.824 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
X10-7
0
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
126
Incident Energy (MeV)
60-Nd-148
P21
P22
P23
P24
P25
P26
P27
P28


MAT 6043
1.837 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
127
Incident Energy (MeV)
60-Nd-148


MAT 6043
1.837 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
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
128
Incident Energy (MeV)
60-Nd-148


MAT 6043
1.837 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
129
Incident Energy (MeV)
60-Nd-148
P19
P20
P21
P22
P23
P24
P25
P26
P27


MAT 6043
1.837 MeV (n,n') Level
Legendre Coefficients
60-Nd-148
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
130
Incident Energy (MeV)
60-Nd-148
P28
P29
P30
P31
P32
P33
P34
P35
P36


MAT 6043
(n,p)
60-Nd-148
Radionuclide Production Cross Section
59-Pr-148g
59-Pr-148m1
Cross Section (barns)
Incident Energy (MeV)
131
60-Nd-148