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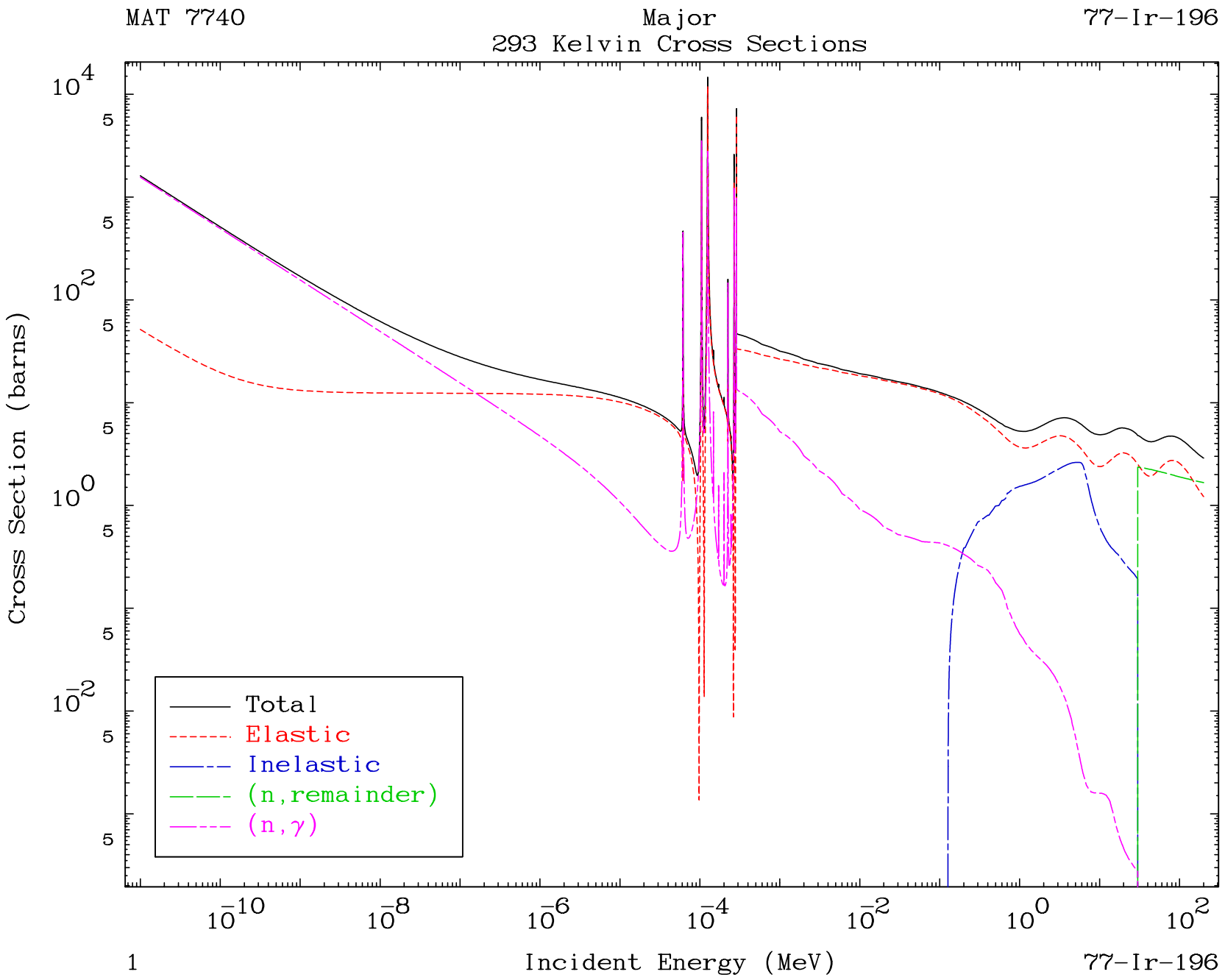
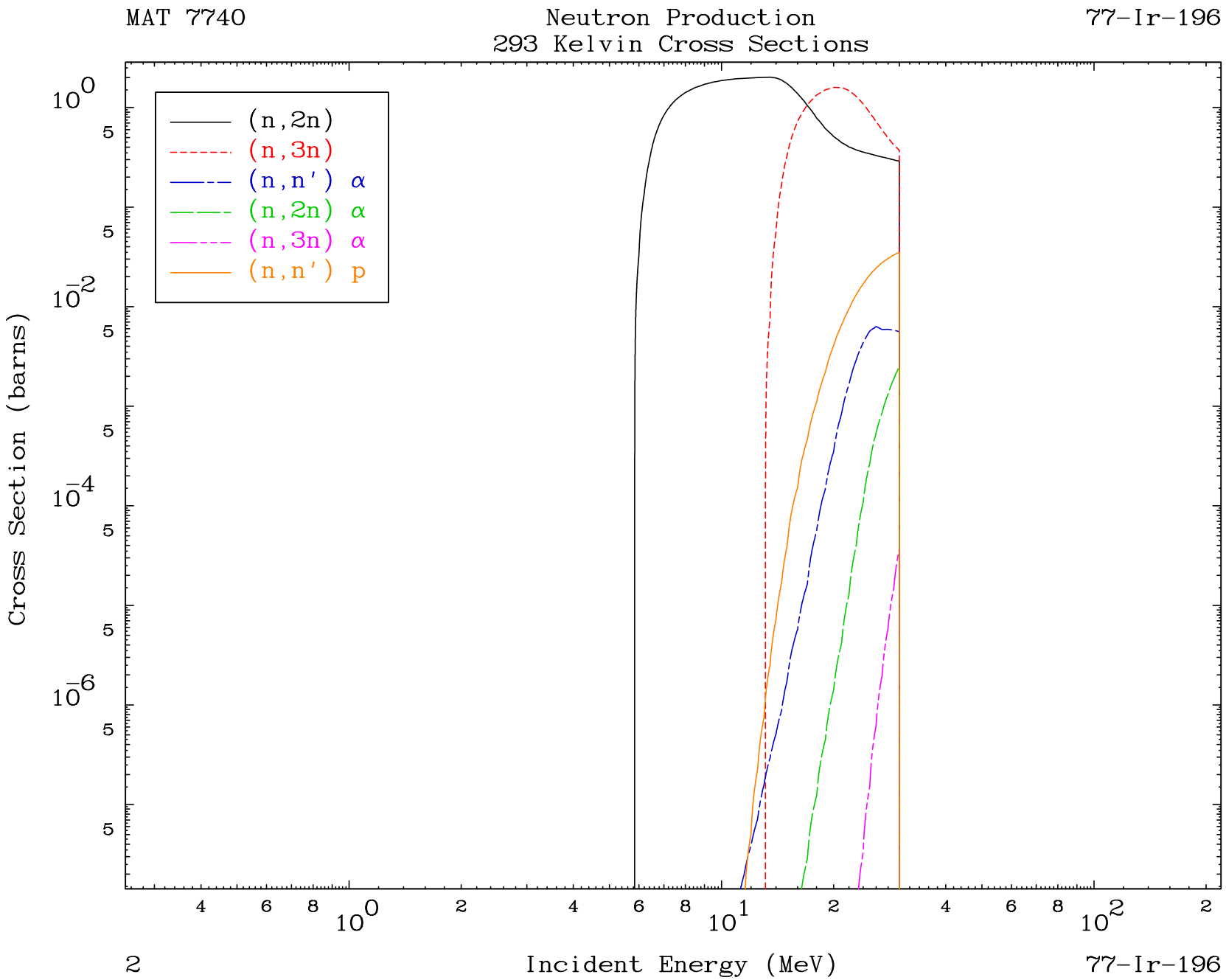
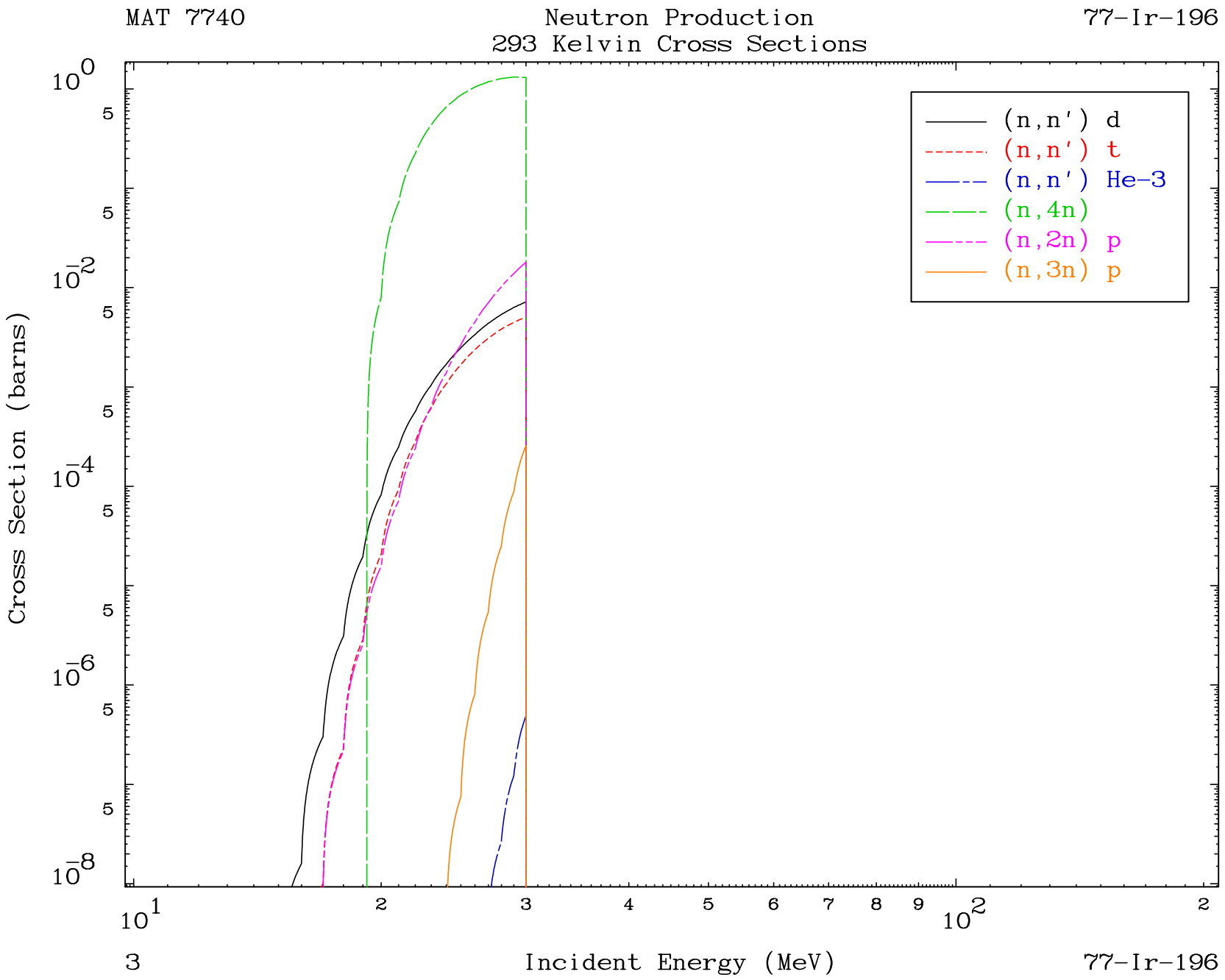
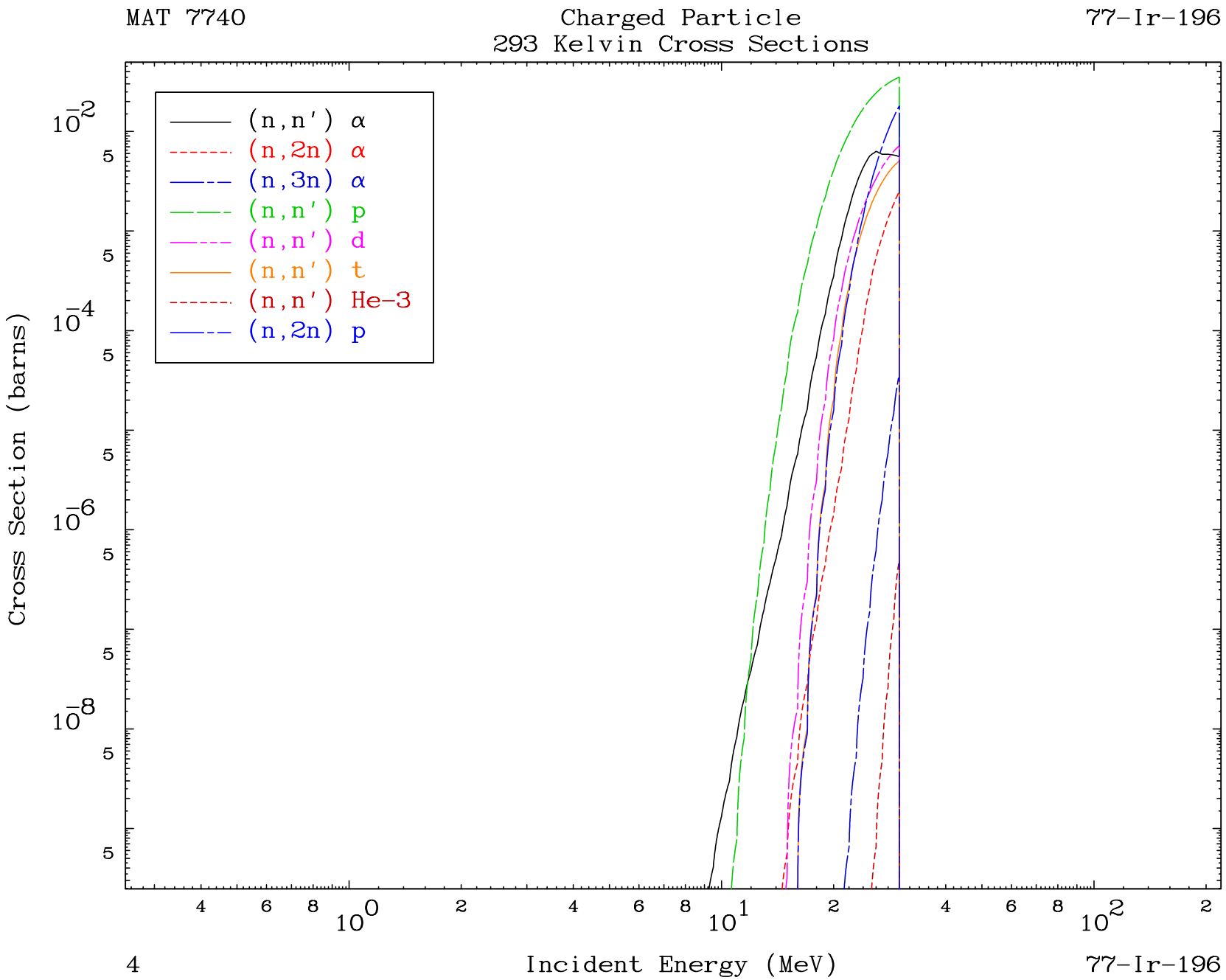
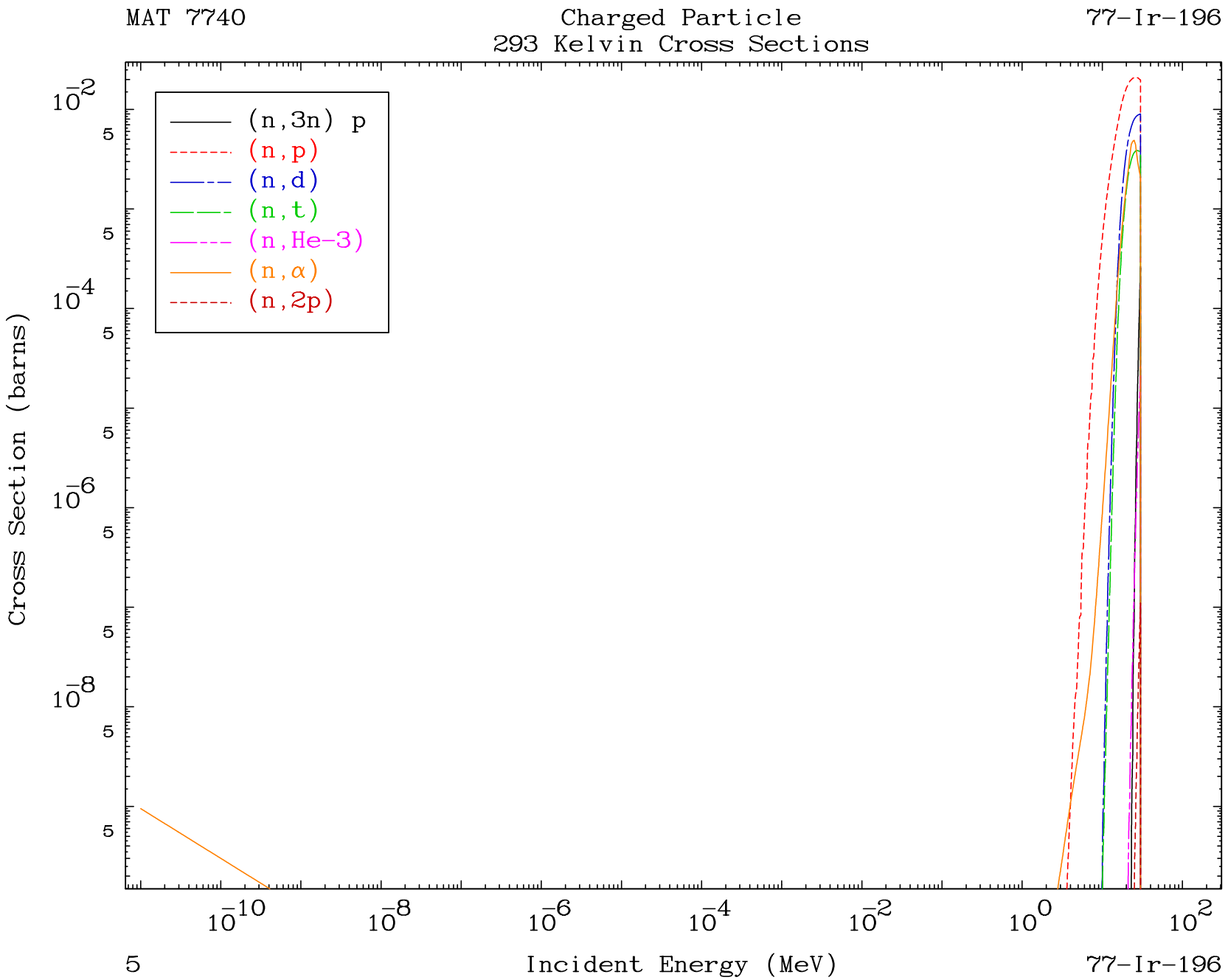
Press Mouse Button to Start

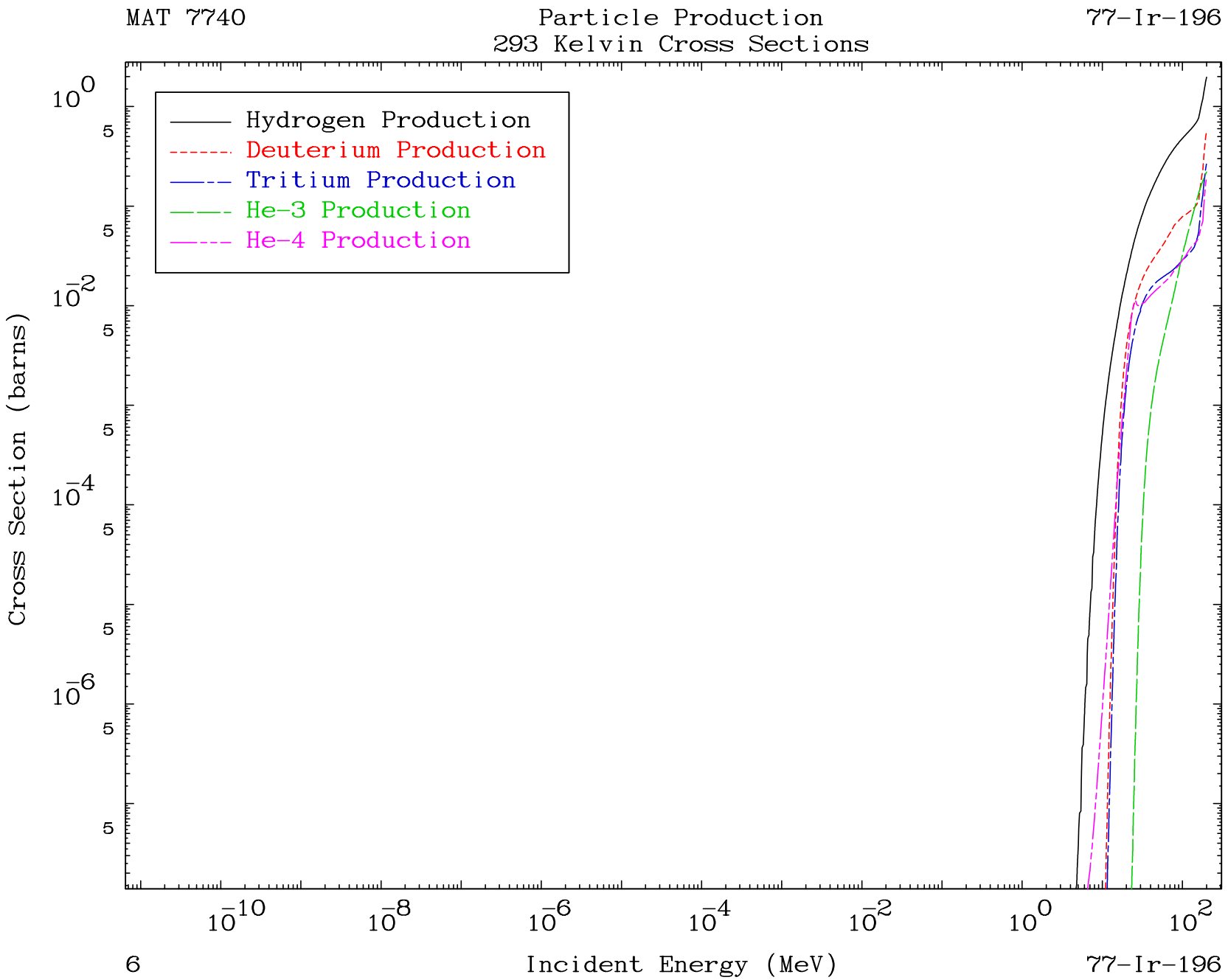

MAT 7740
Major
77-Ir-196
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
77-Ir-196

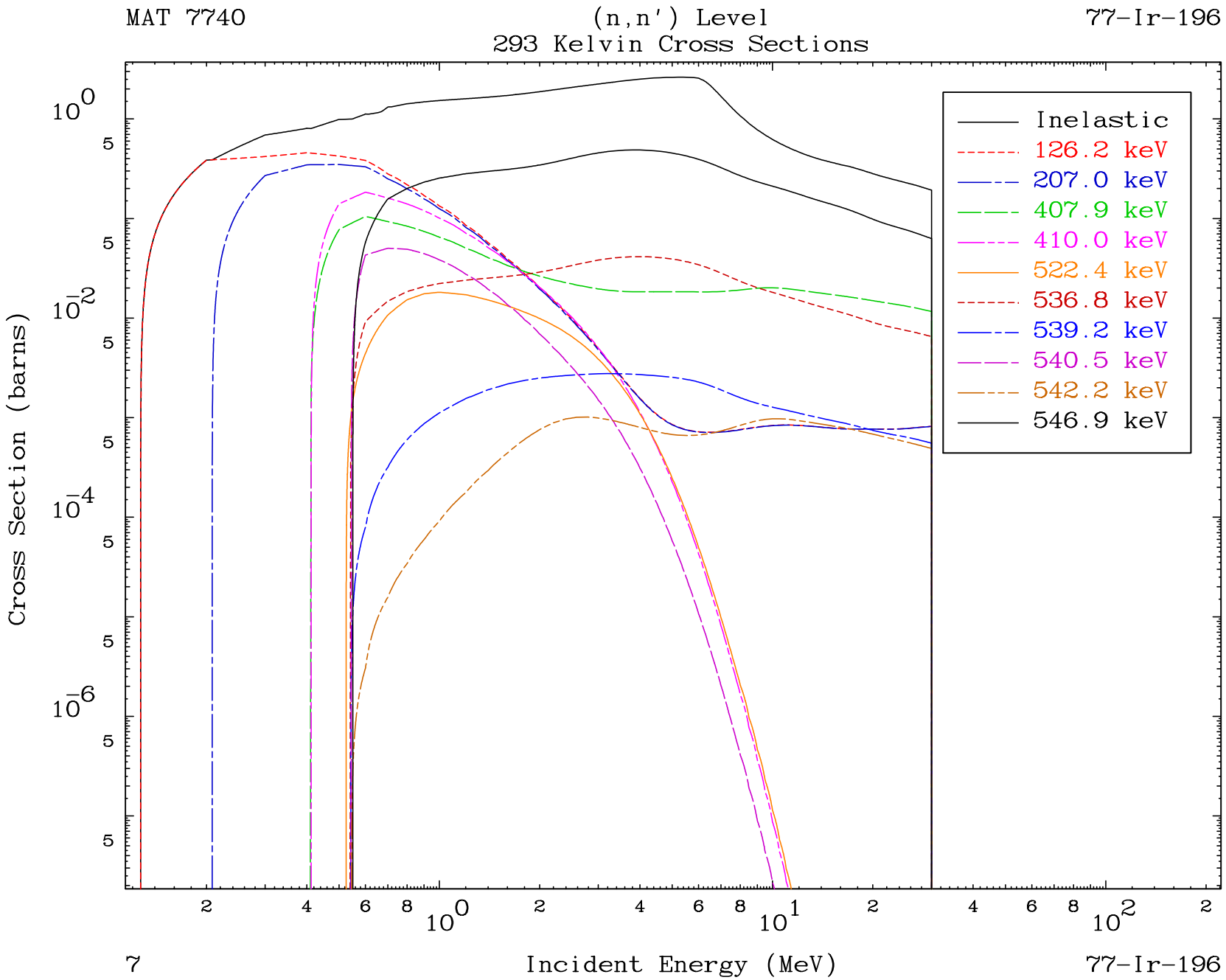

MAT 7740
Neutron Production
293 Kelvin Cross Sections
77-Ir-196
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
Cross Section (barns)
Incident Energy (MeV)
77-Ir-196
2

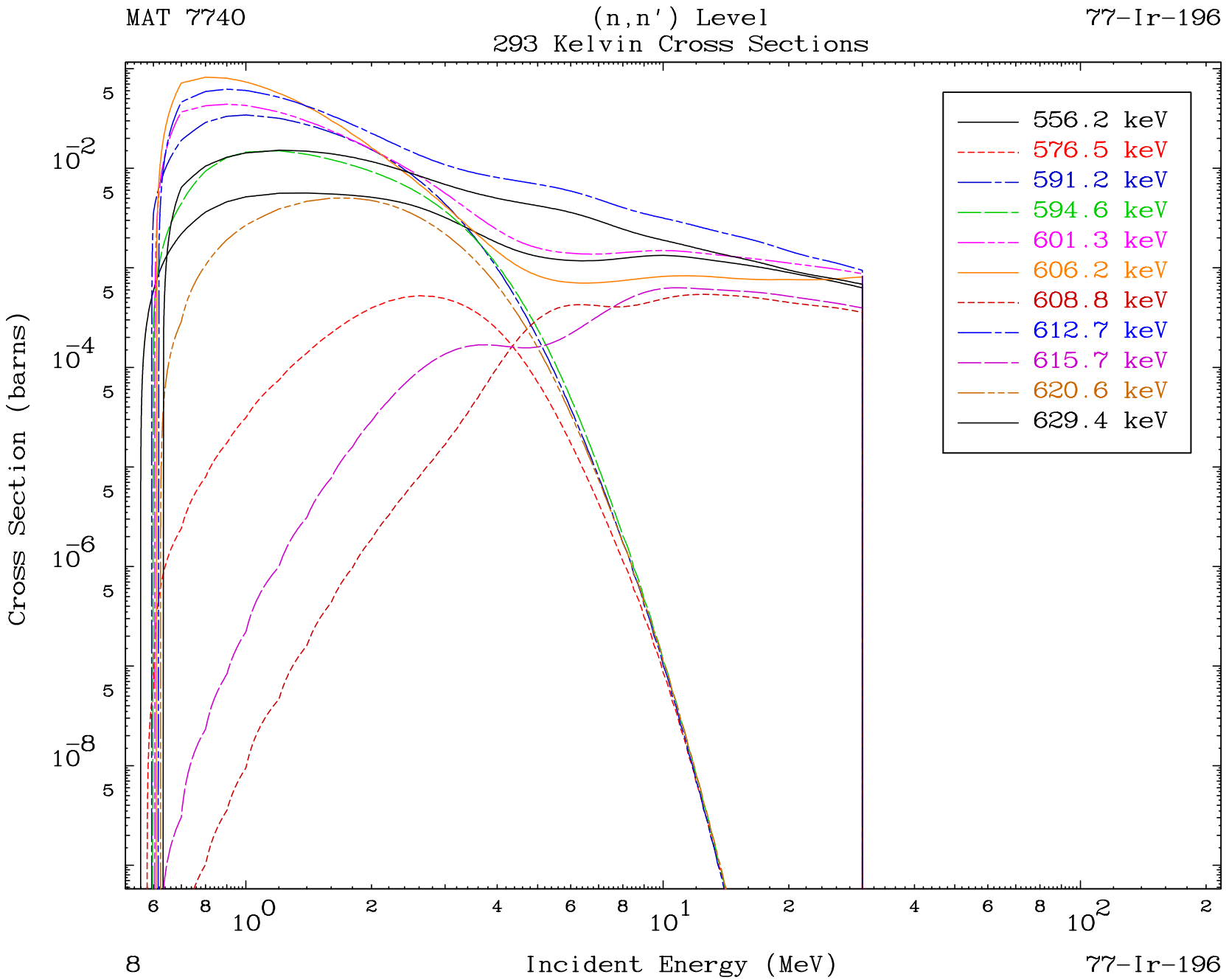

MAT 7740
Neutron Production
293 Kelvin Cross Sections
77-Ir-196
Cross Section (barns)
Incident Energy (MeV)
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
77-Ir-196
3

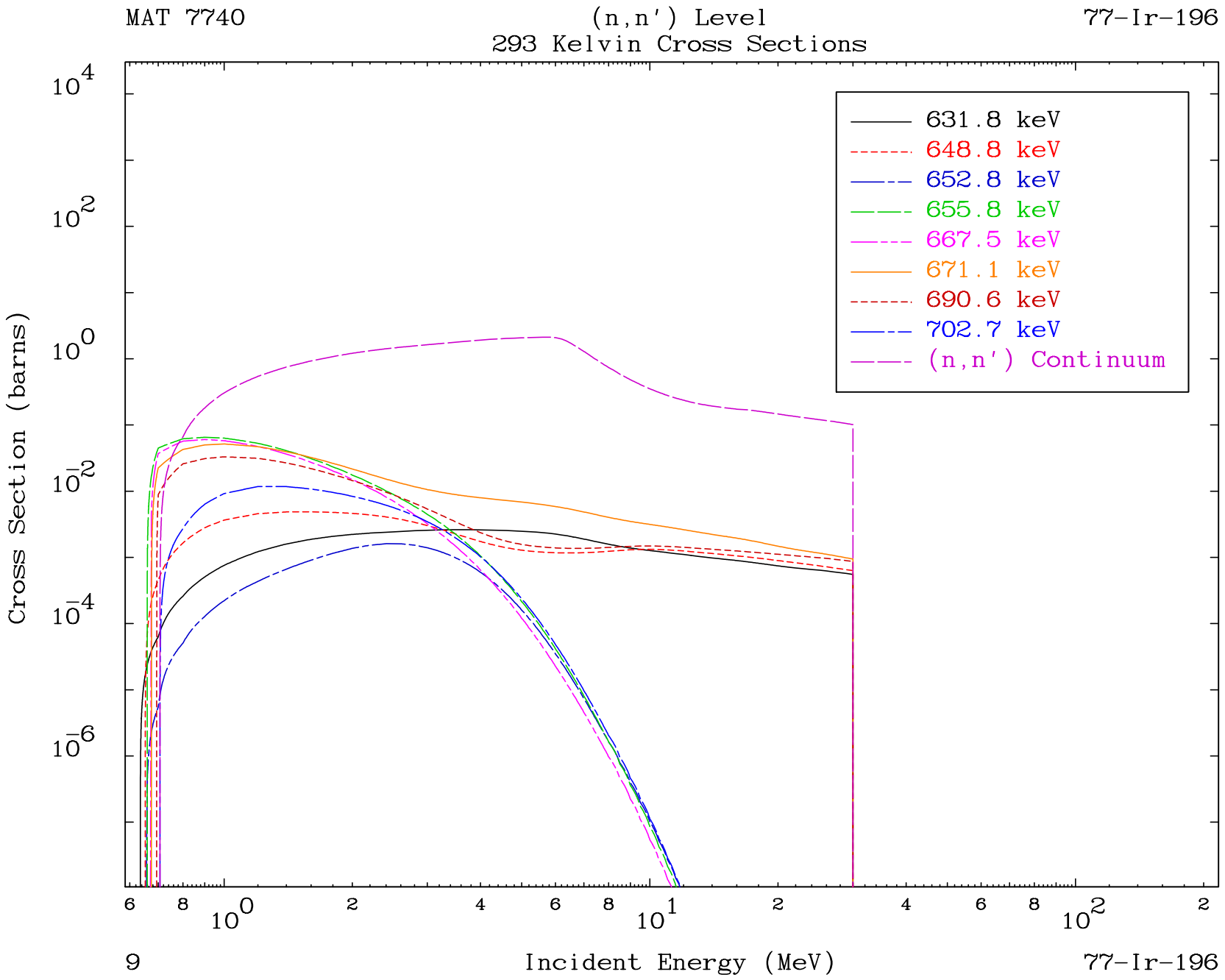

MAT 7740
Charged Particle
293 Kelvin Cross Sections
77-Ir-196
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
Cross Section (barns)
Incident Energy (MeV)
4
77-Ir-196

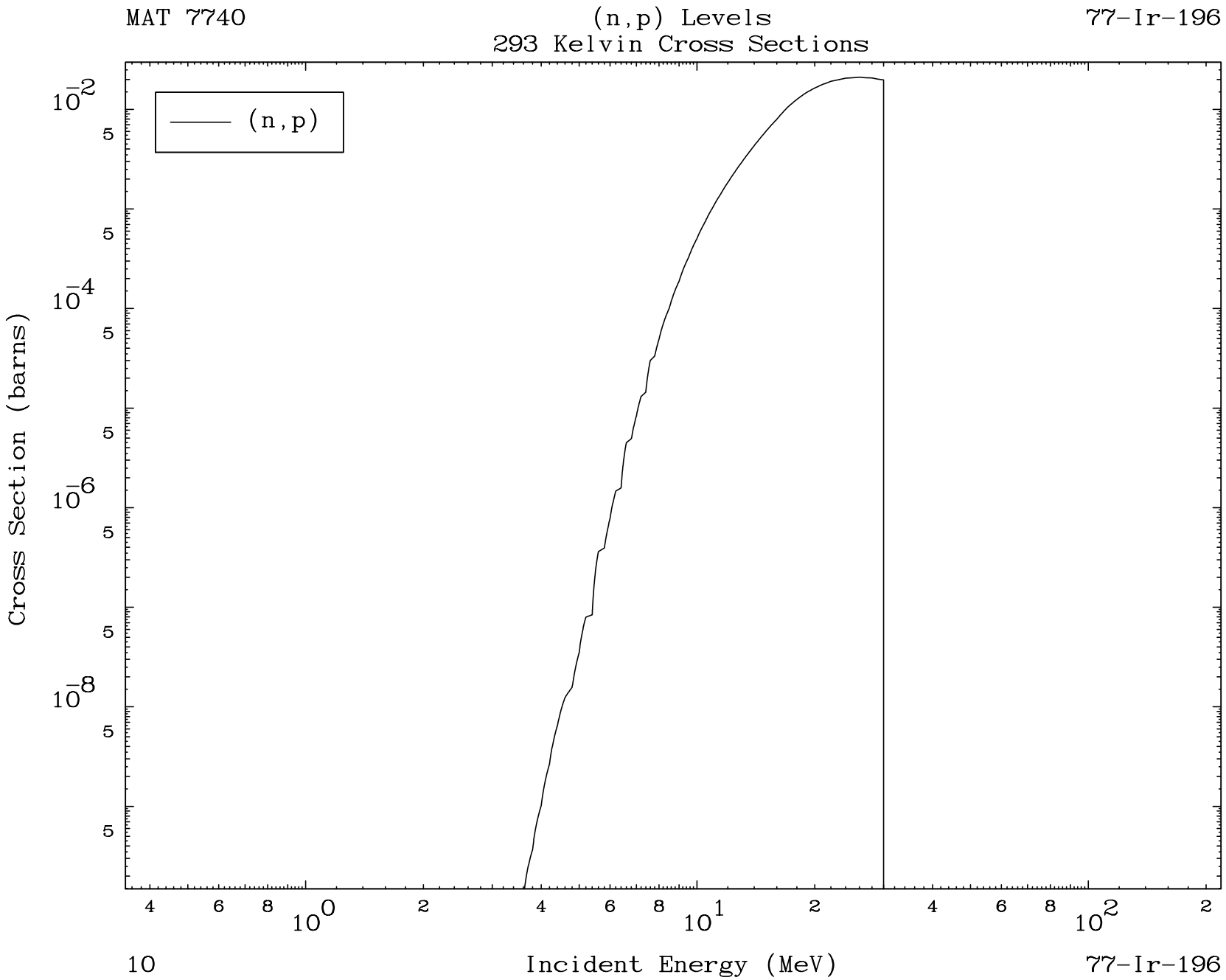

MAT 7740
Charged Particle
293 Kelvin Cross Sections
77-Ir-196
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2p)
Cross Section (barns)
Incident Energy (MeV)
77-Ir-196
5

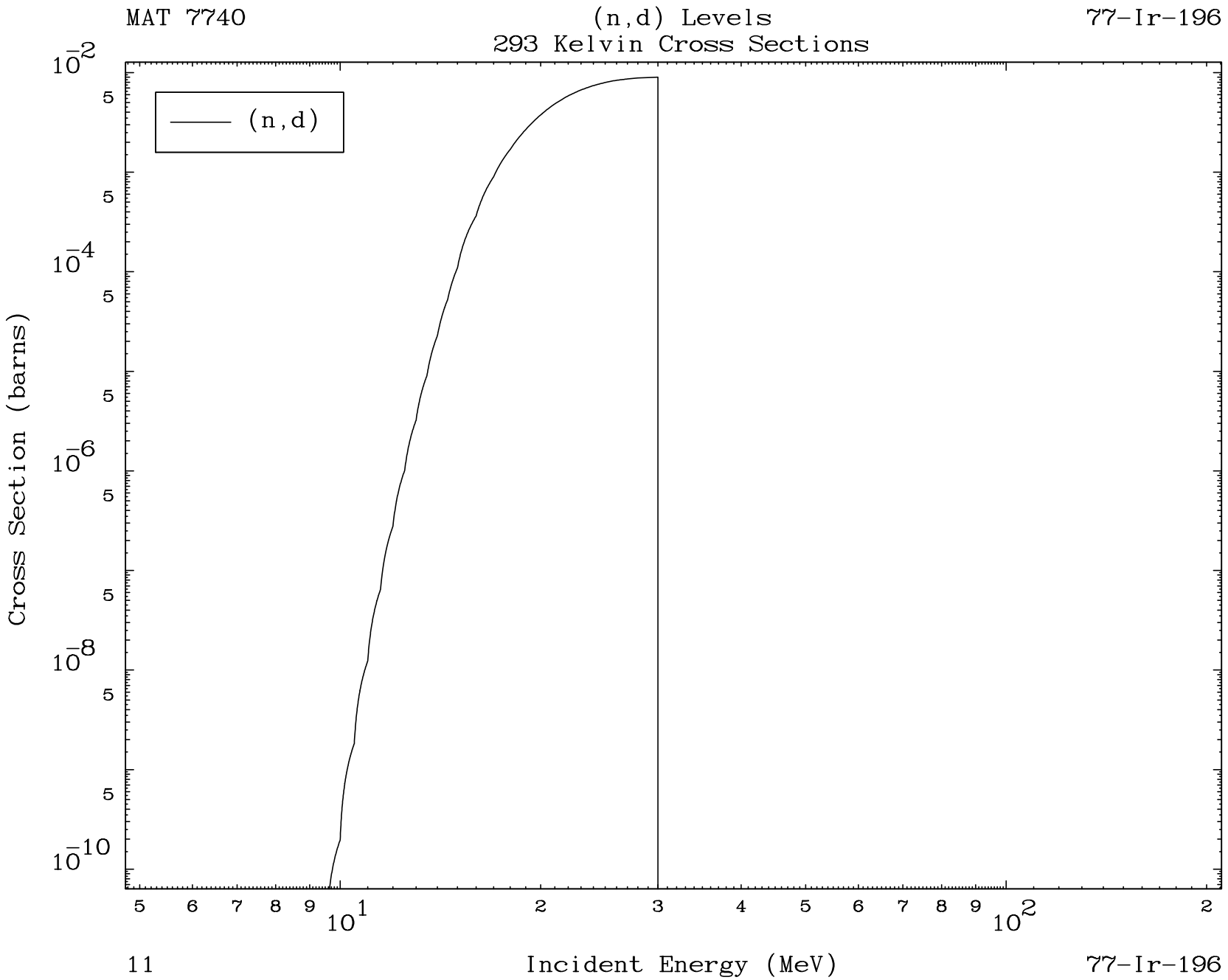

MAT 7740
Particle Production
293 Kelvin Cross Sections
77-Ir-196
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Cross Section (barns)
Incident Energy (MeV)
6
77-Ir-196

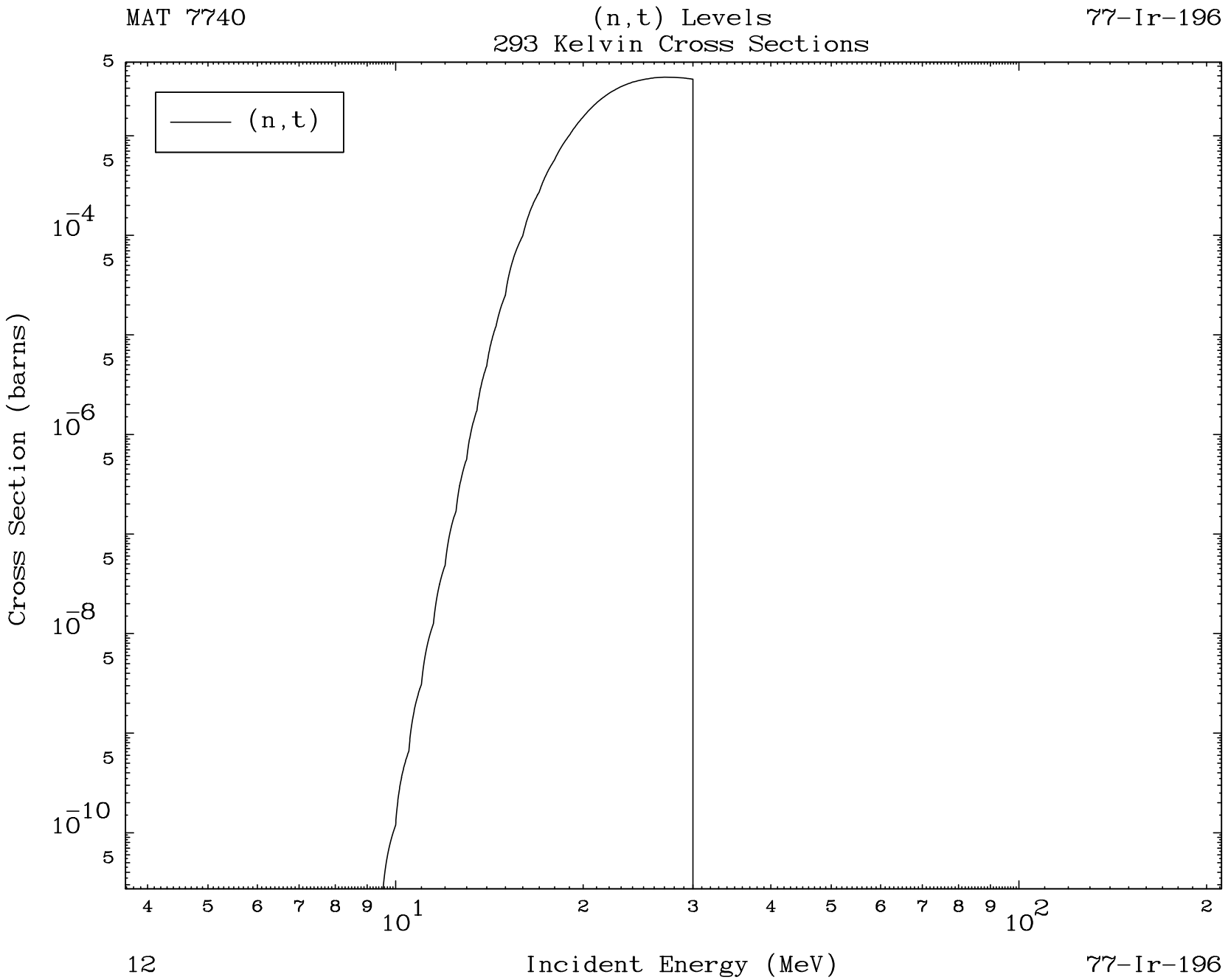

MAT 7740
(n,n') Level
293 Kelvin Cross Sections
77-Ir-196
Cross Section (barns)
Incident Energy (MeV)
Inelastic
126.2 keV
207.0 keV
407.9 keV
410.0 keV
522.4 keV
536.8 keV
539.2 keV
540.5 keV
542.2 keV
546.9 keV
7
77-Ir-196

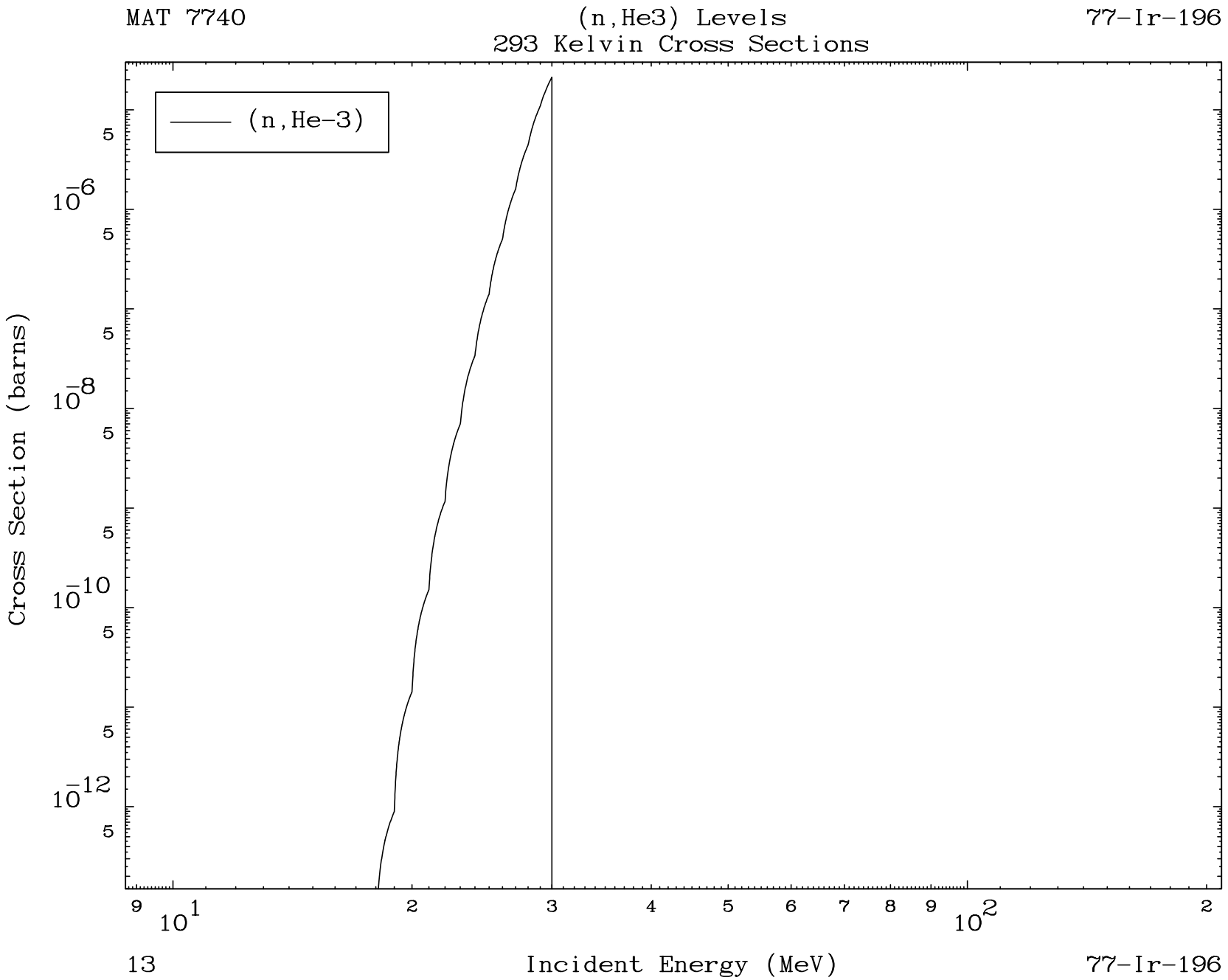

MAT 7740
(n,n') Level
293 Kelvin Cross Sections
77-Ir-196
Cross Section (barns)
Incident Energy (MeV)
556.2 keV
576.5 keV
591.2 keV
594.6 keV
601.3 keV
606.2 keV
608.8 keV
612.7 keV
615.7 keV
620.6 keV
629.4 keV
8
77-Ir-196

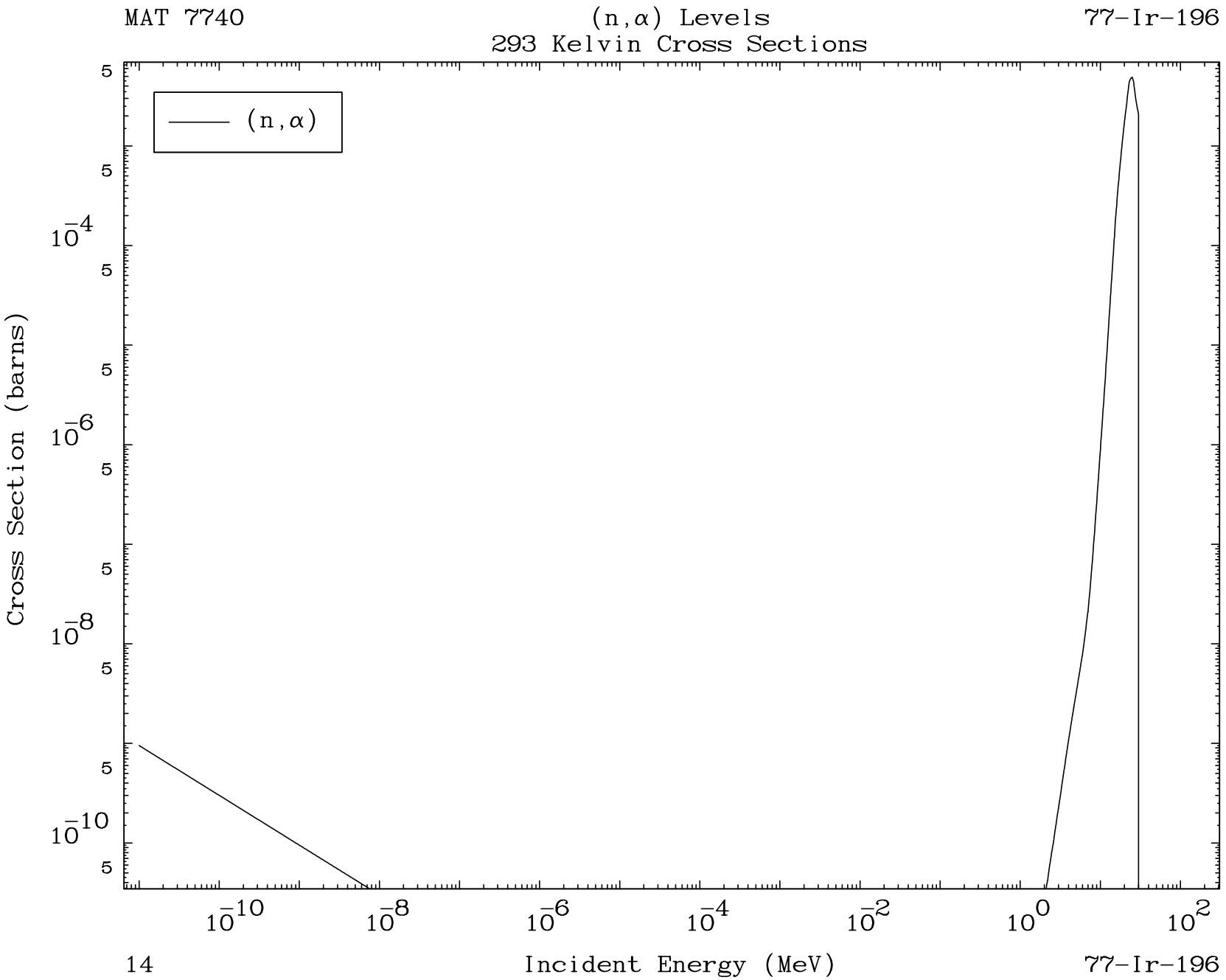

MAT 7740
(n,n') Level
293 Kelvin Cross Sections
77-Ir-196
631.8 keV
648.8 keV
652.8 keV
655.8 keV
667.5 keV
671.1 keV
690.6 keV
702.7 keV
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
9
77-Ir-196

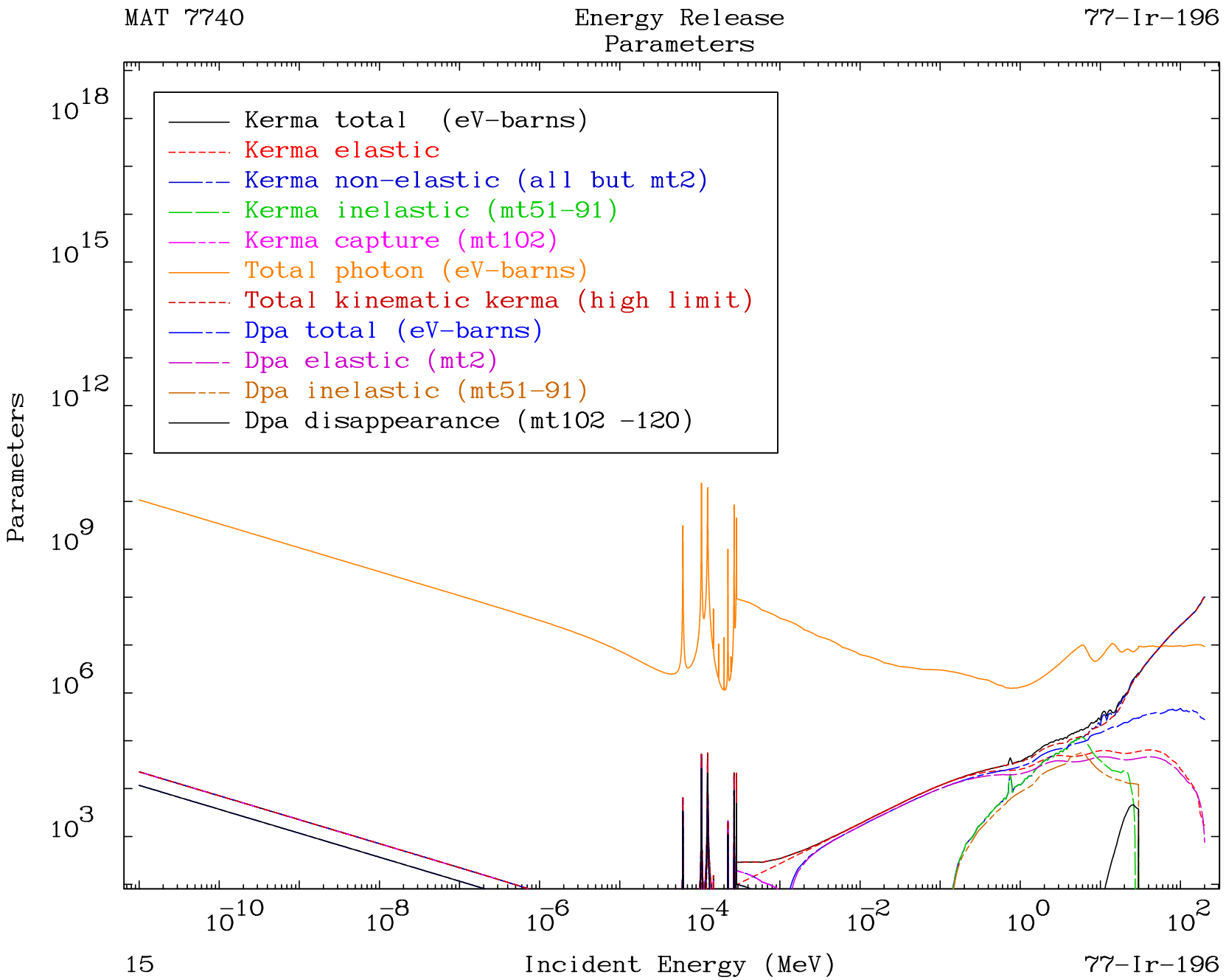

MAT 7740
(n,p) Levels
77-Ir-196
293 Kelvin Cross Sections
(n,p)
Cross Section (barns)
Incident Energy (MeV)
77-Ir-196

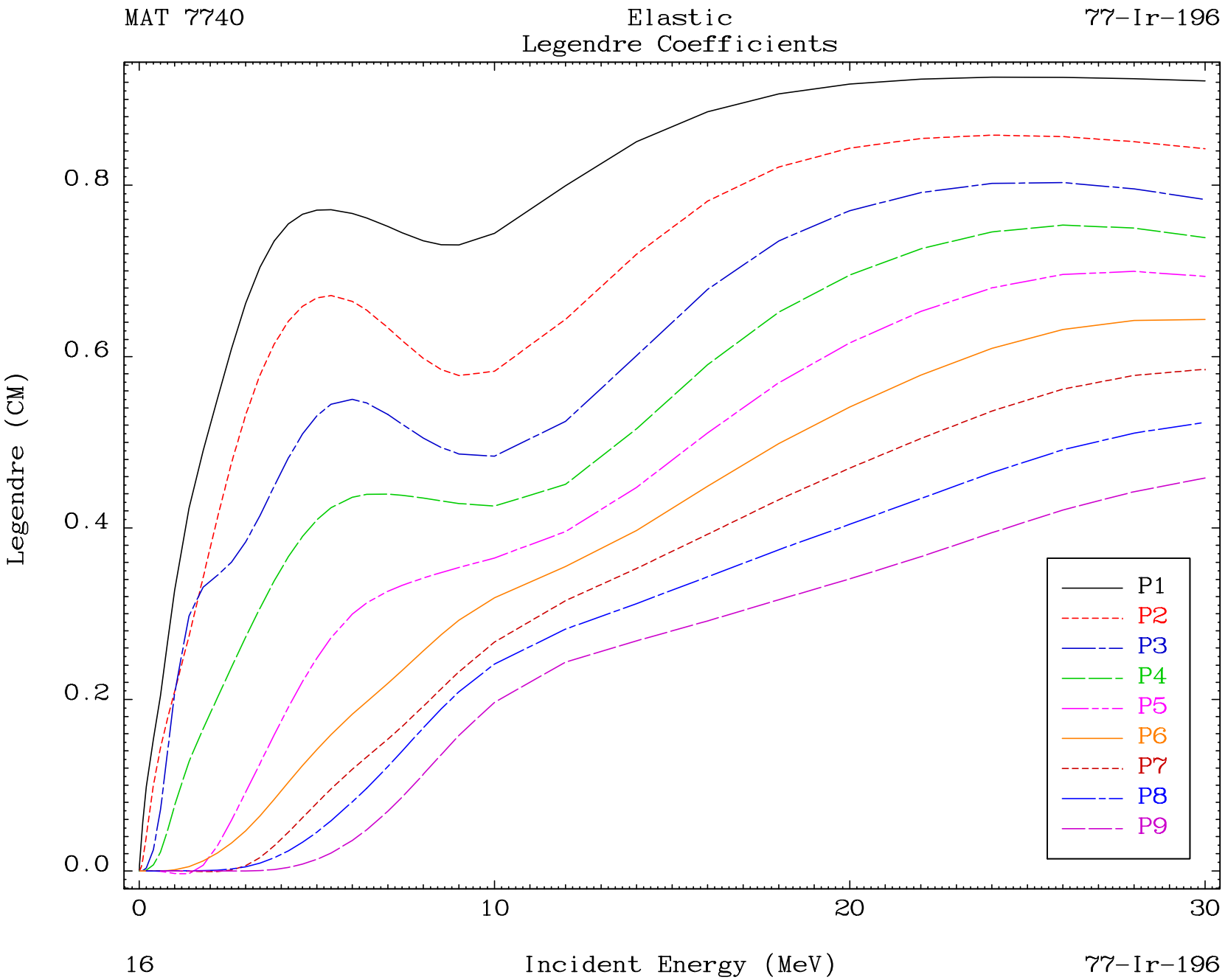

MAT 7740
(n,d) Levels
77-Ir-196
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
11
77-Ir-196

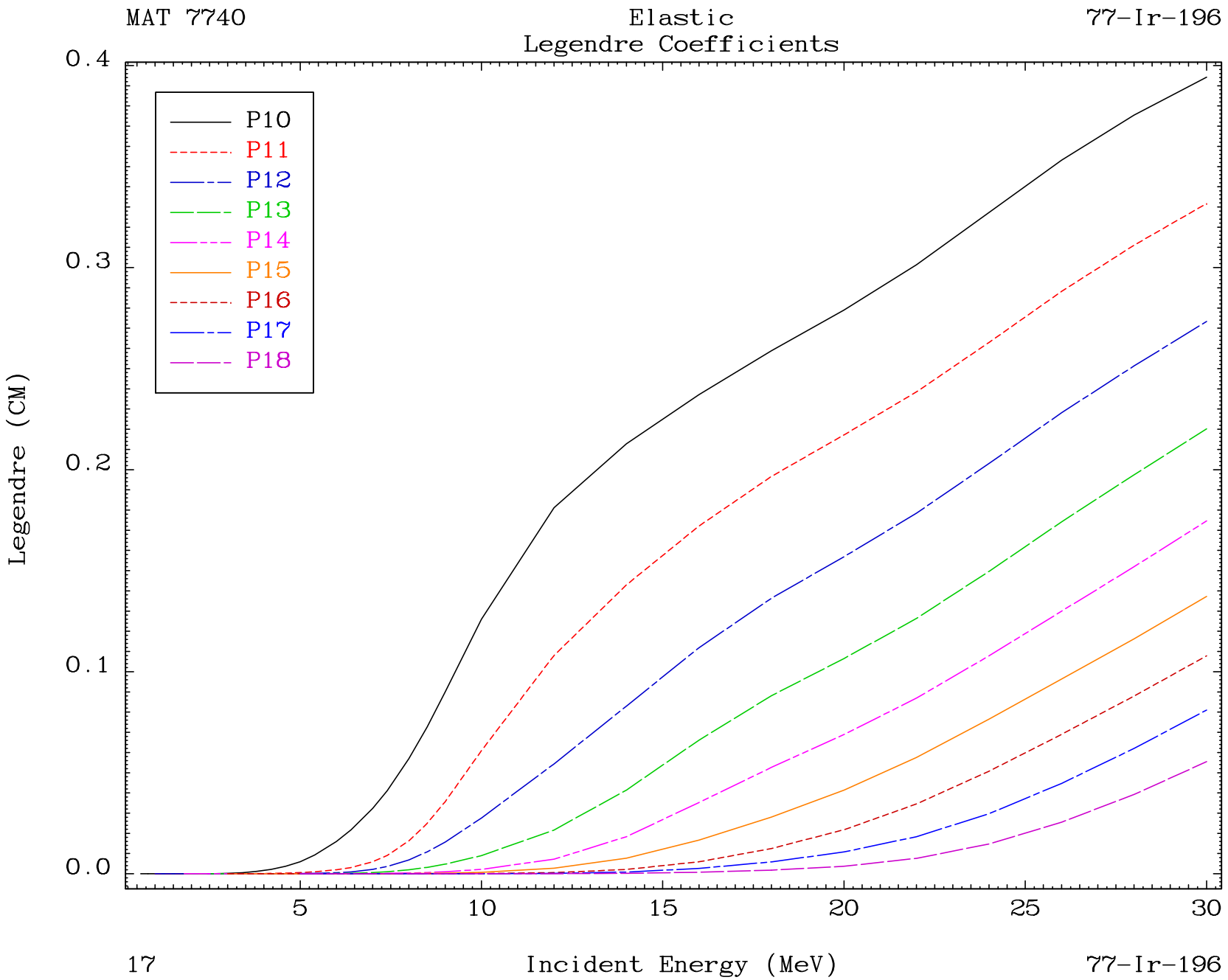

MAT 7740
(n,t) Levels
77-Ir-196
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
12
77-Ir-196

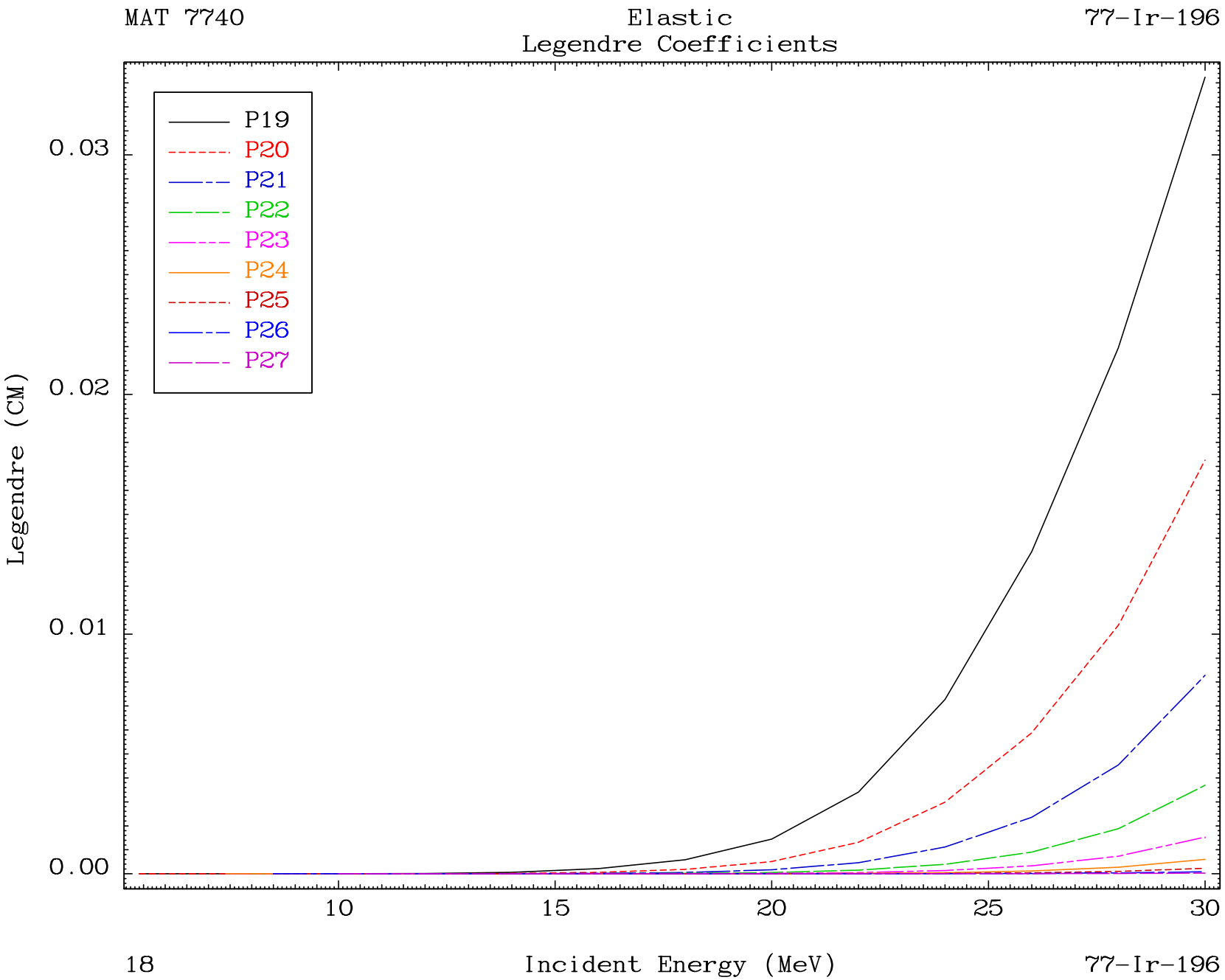

MAT 7740
(n,He3) Levels
77-Ir-196
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-6
10-8
10-10
10-12
5
9
10 1
2
3
4
5
6
7
8
9
10 2
2
13
Incident Energy (MeV)
77-Ir-196

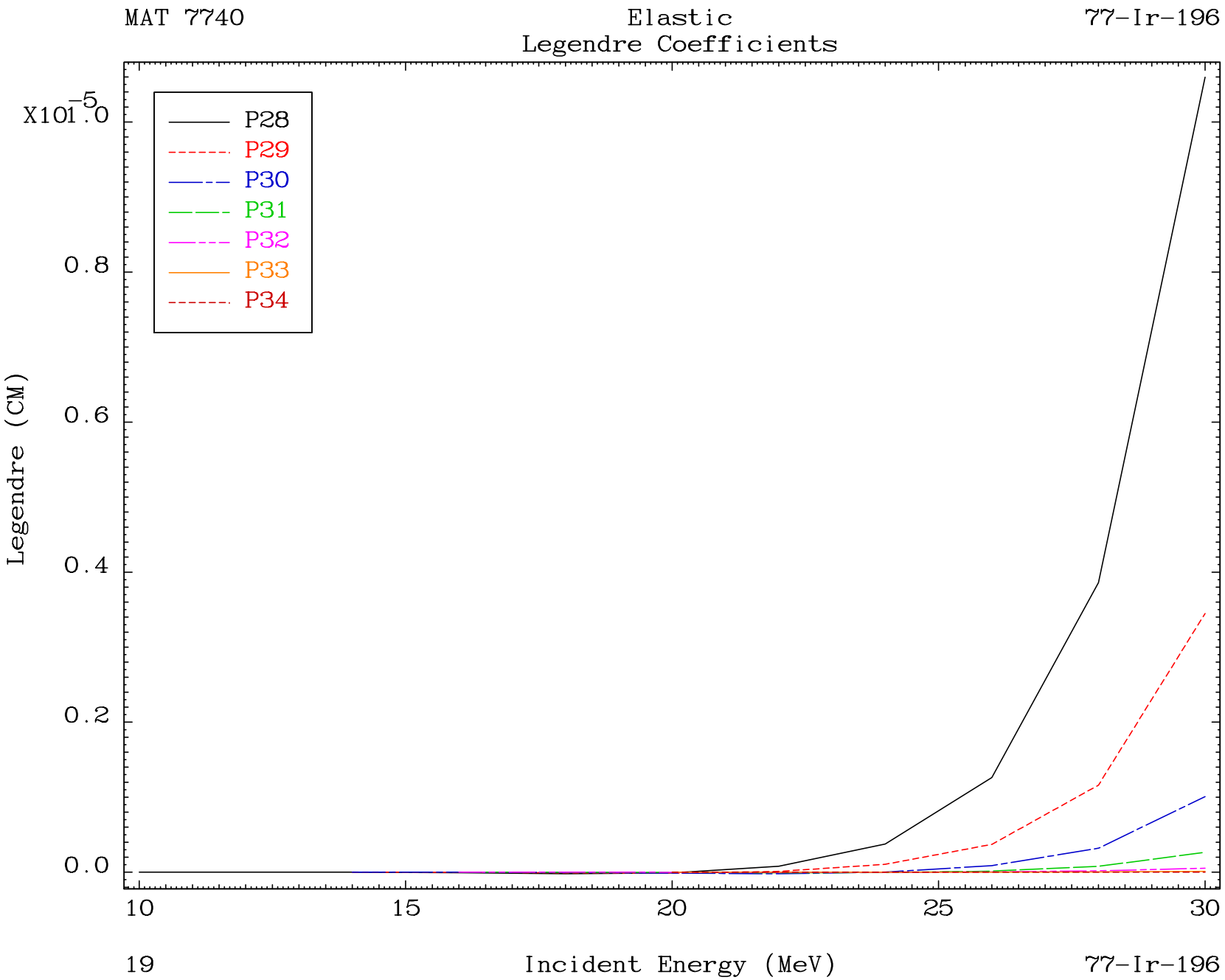

MAT 7740
(n,α) Levels
77-Ir-196
293 Kelvin Cross Sections
(n,α)
Cross Section (barns)
Incident Energy (MeV)
14
77-Ir-196

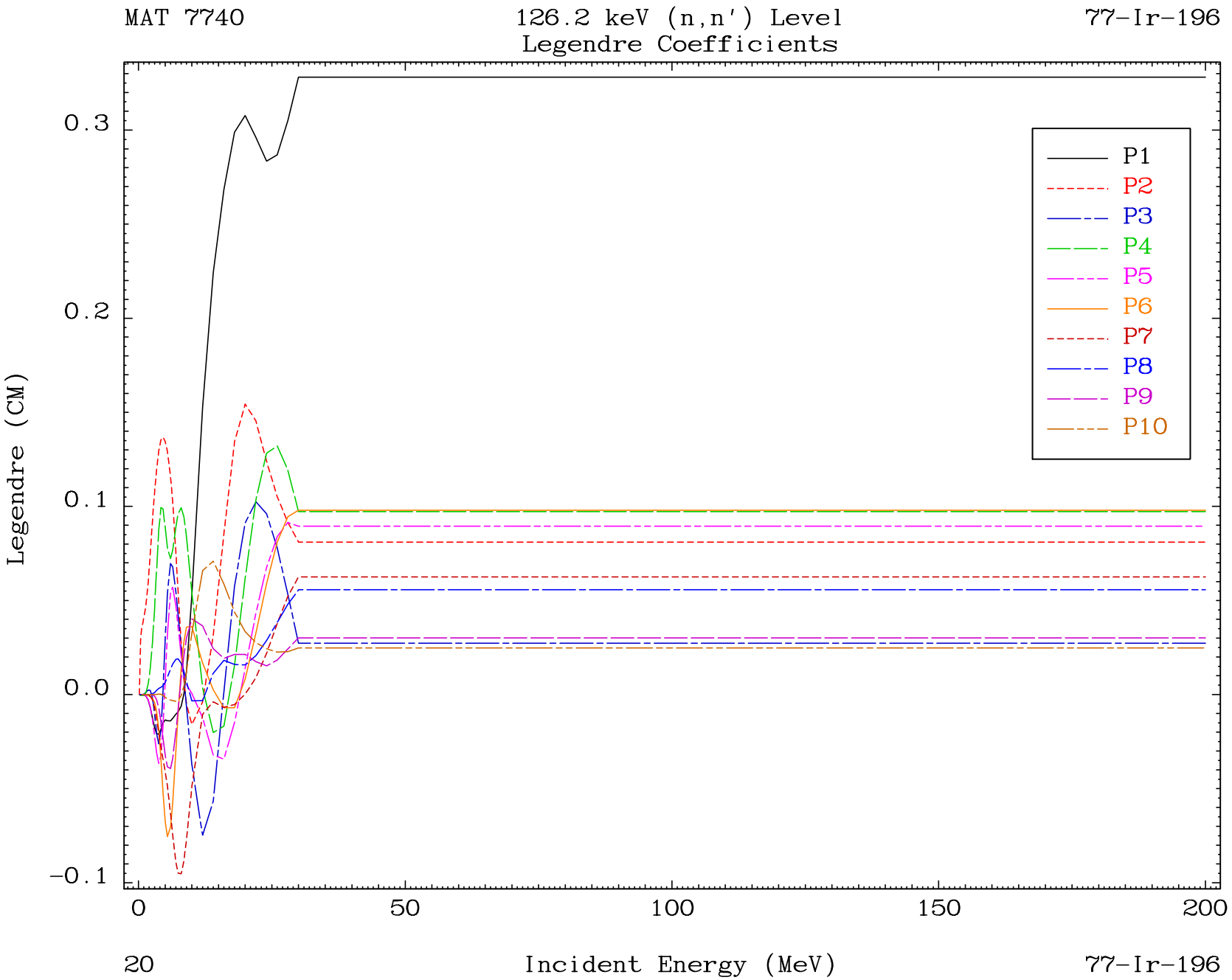

MAT 7740
Energy Release
Parameters
77-Ir-196
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
10^{18}
10^{15}
10^{12}
10^{9}
10^{6}
10^{3}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
10^{0}
10^{2}
Incident Energy (MeV)
15
77-Ir-196

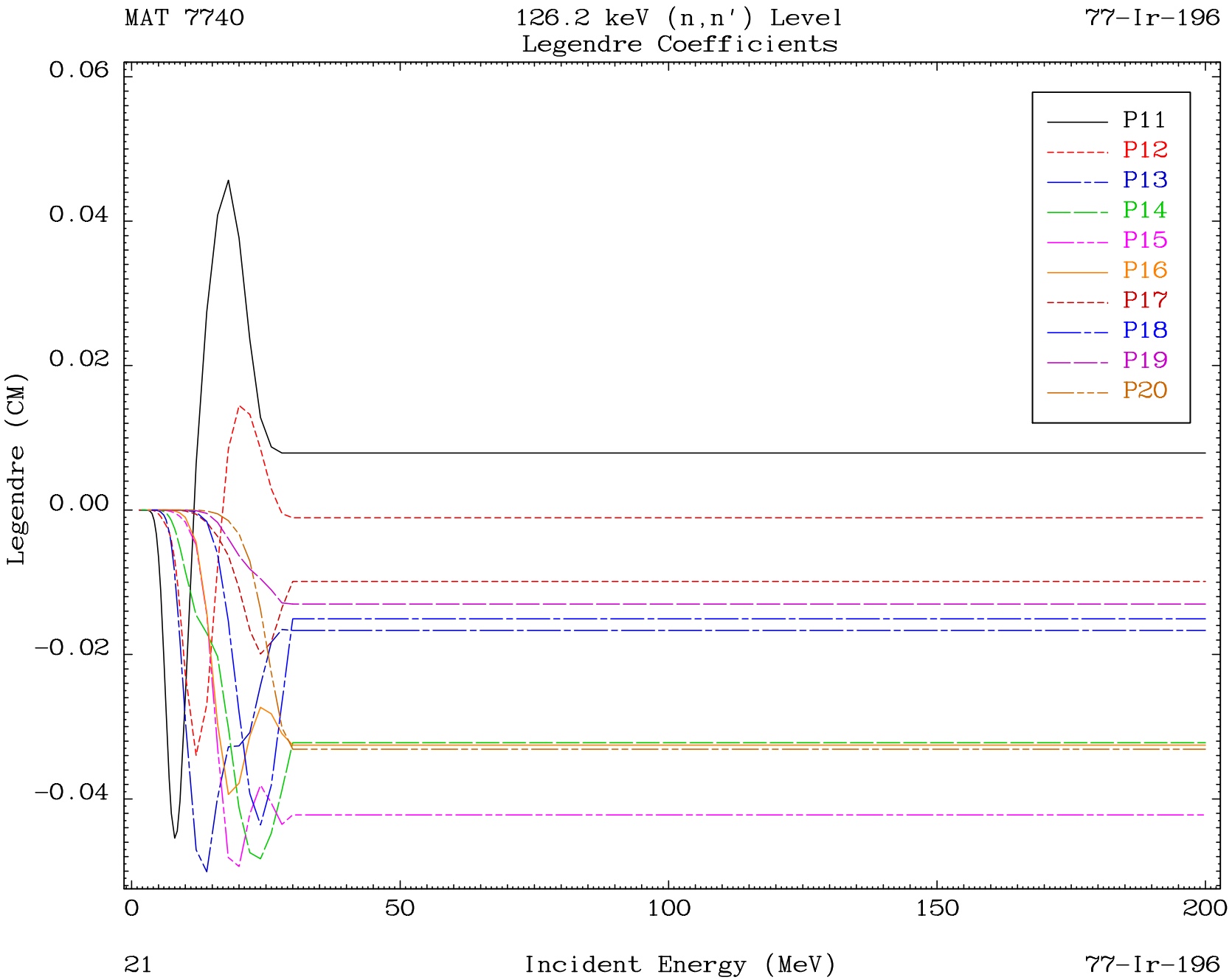

MAT 7740
Elastic
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
16
Incident Energy (MeV)
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9

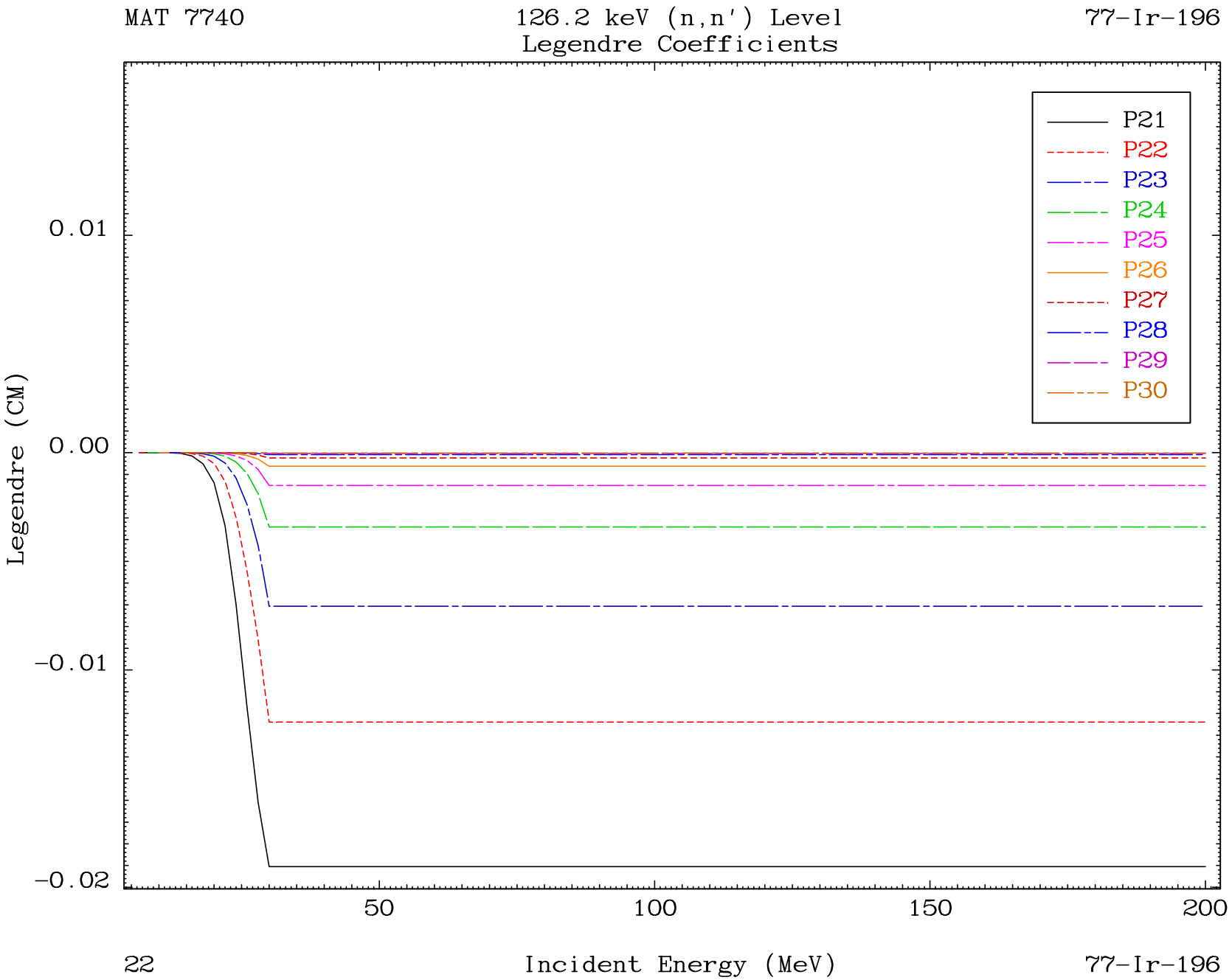

MAT 7740
Elastic
Legendre Coefficients
77-Ir-196
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
5
10
15
20
25
30
17
Incident Energy (MeV)
77-Ir-196

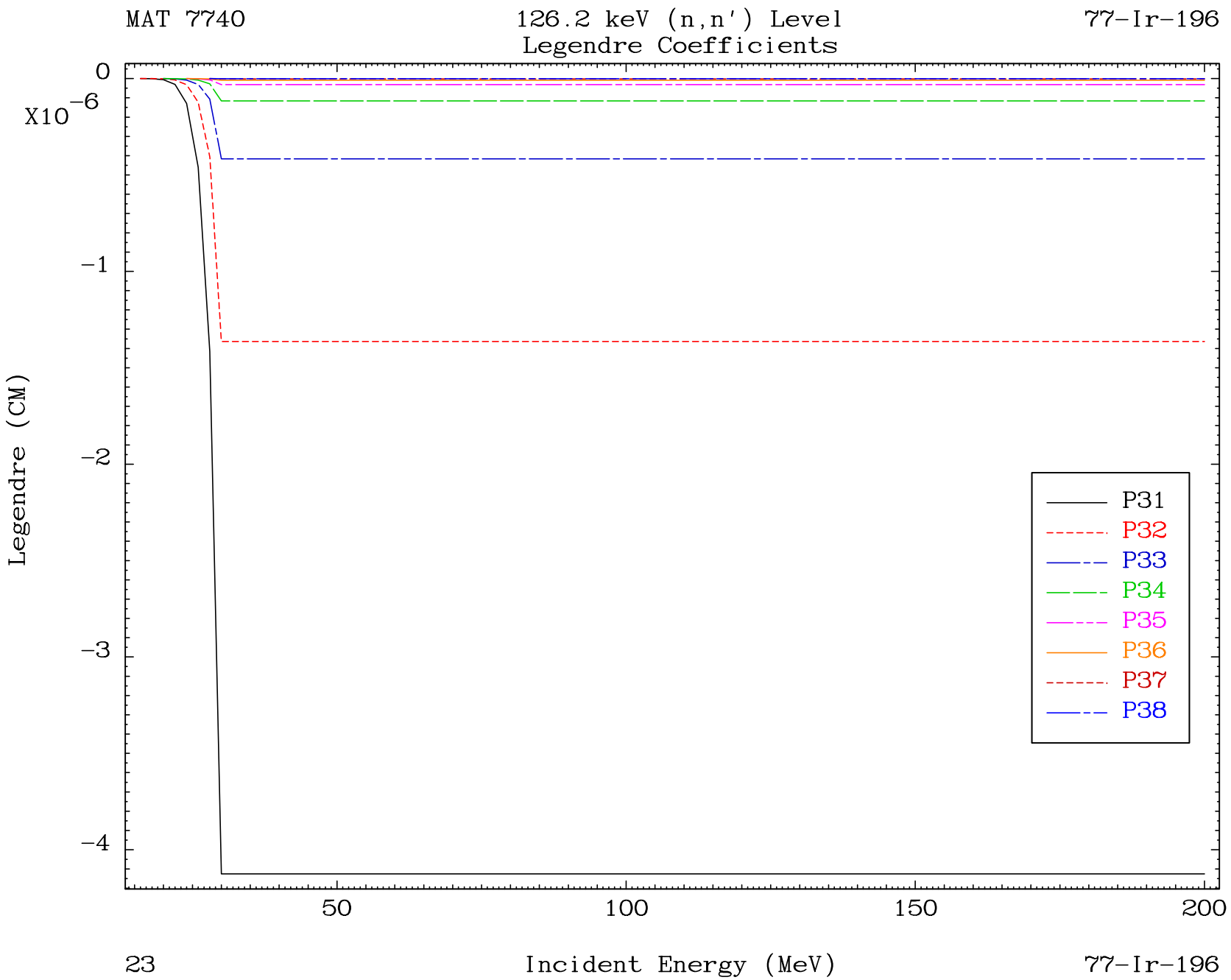

MAT 7740
Elastic
Legendre Coefficients
77-Ir-196
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.03
0.02
0.01
0.00
Legendre (CM)
10
15
20
25
30
18
Incident Energy (MeV)
77-Ir-196

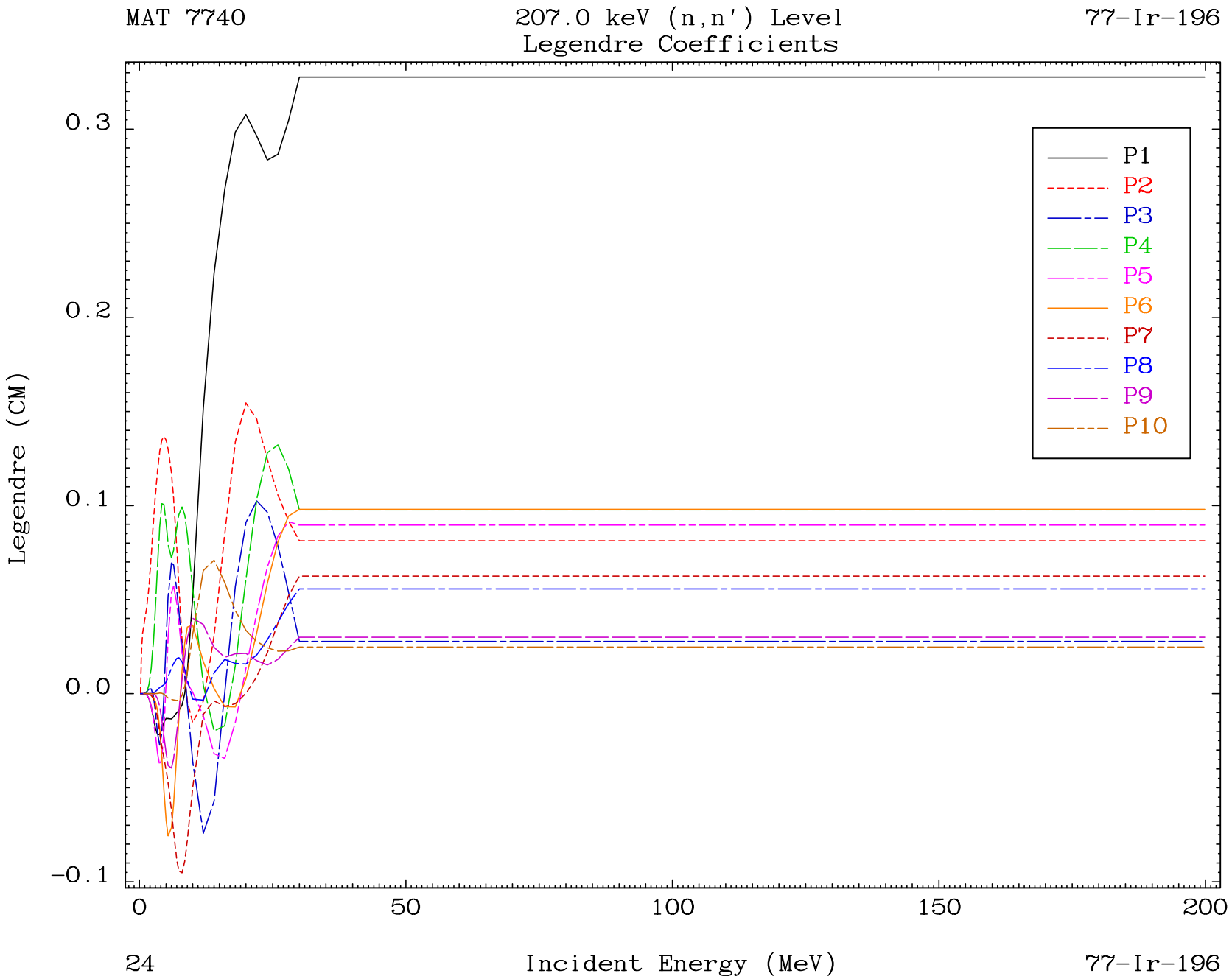

MAT 7740
Elastic
Legendre Coefficients
77-Ir-196
X10
-5
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
10
15
20
25
30
19
Incident Energy (MeV)
77-Ir-196

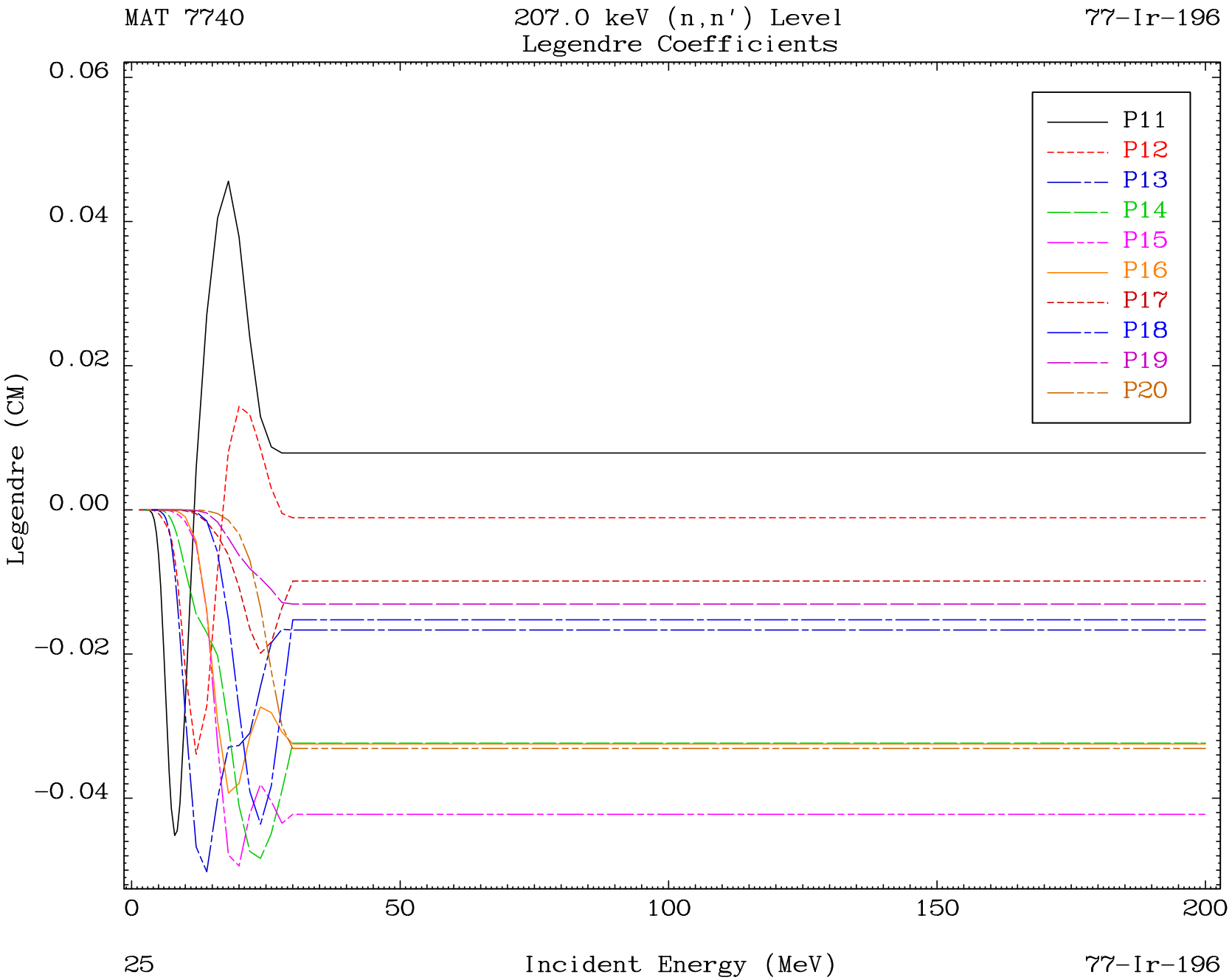

MAT 7740
126.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
20
Incident Energy (MeV)
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

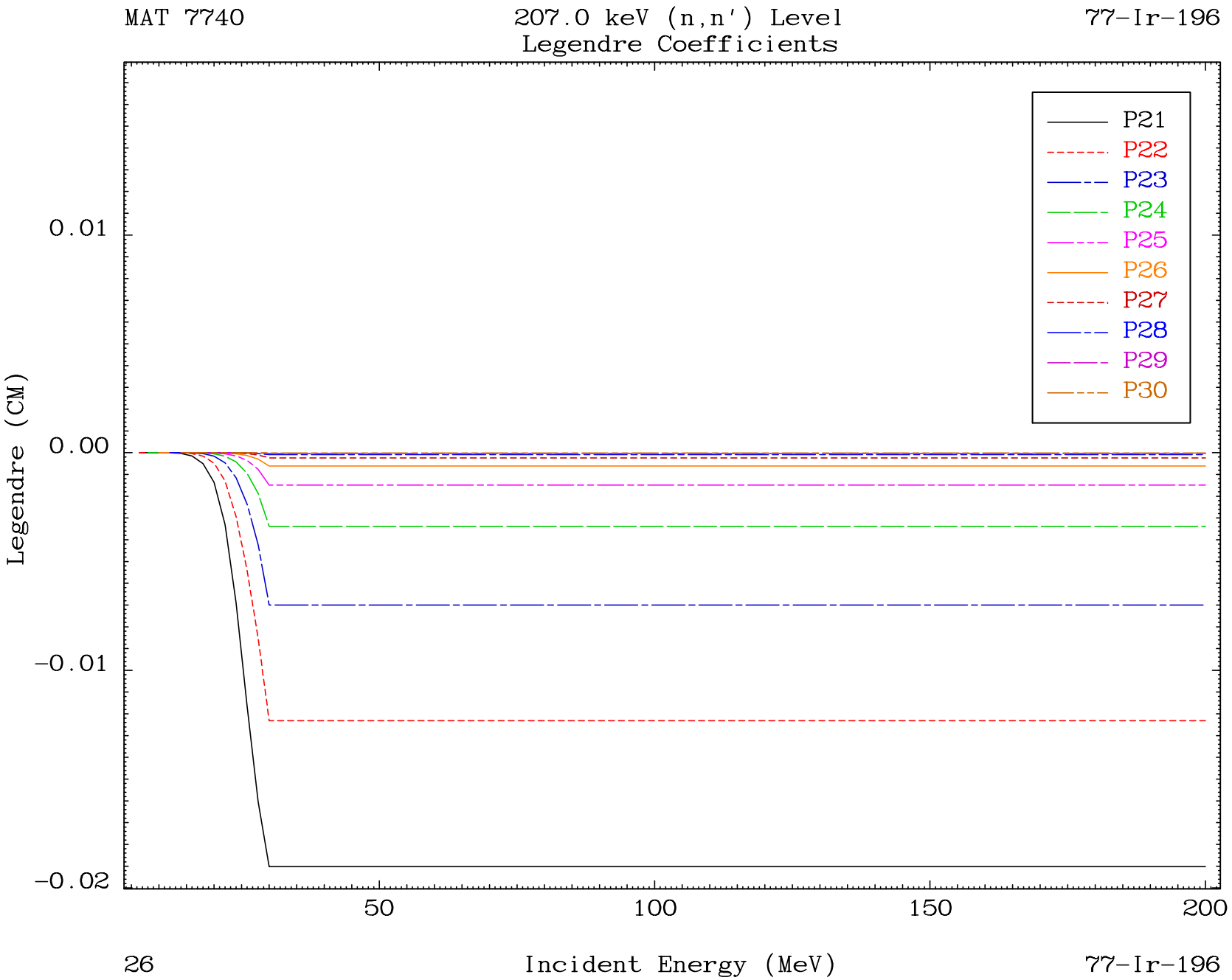

MAT 7740
126.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
21
Incident Energy (MeV)
77-Ir-196

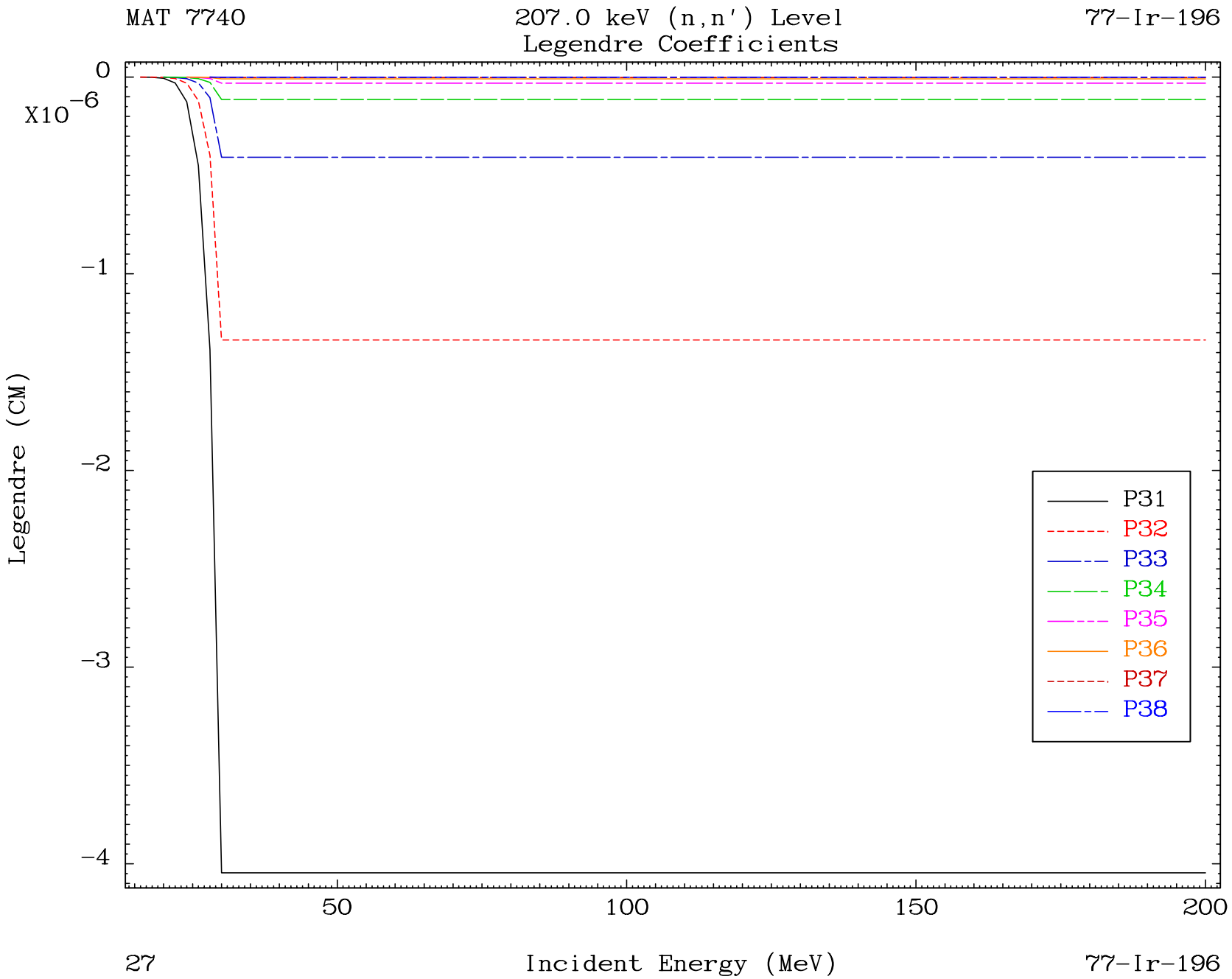

MAT 7740
126.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.01
0.00
-0.01
-0.02
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
77-Ir-196

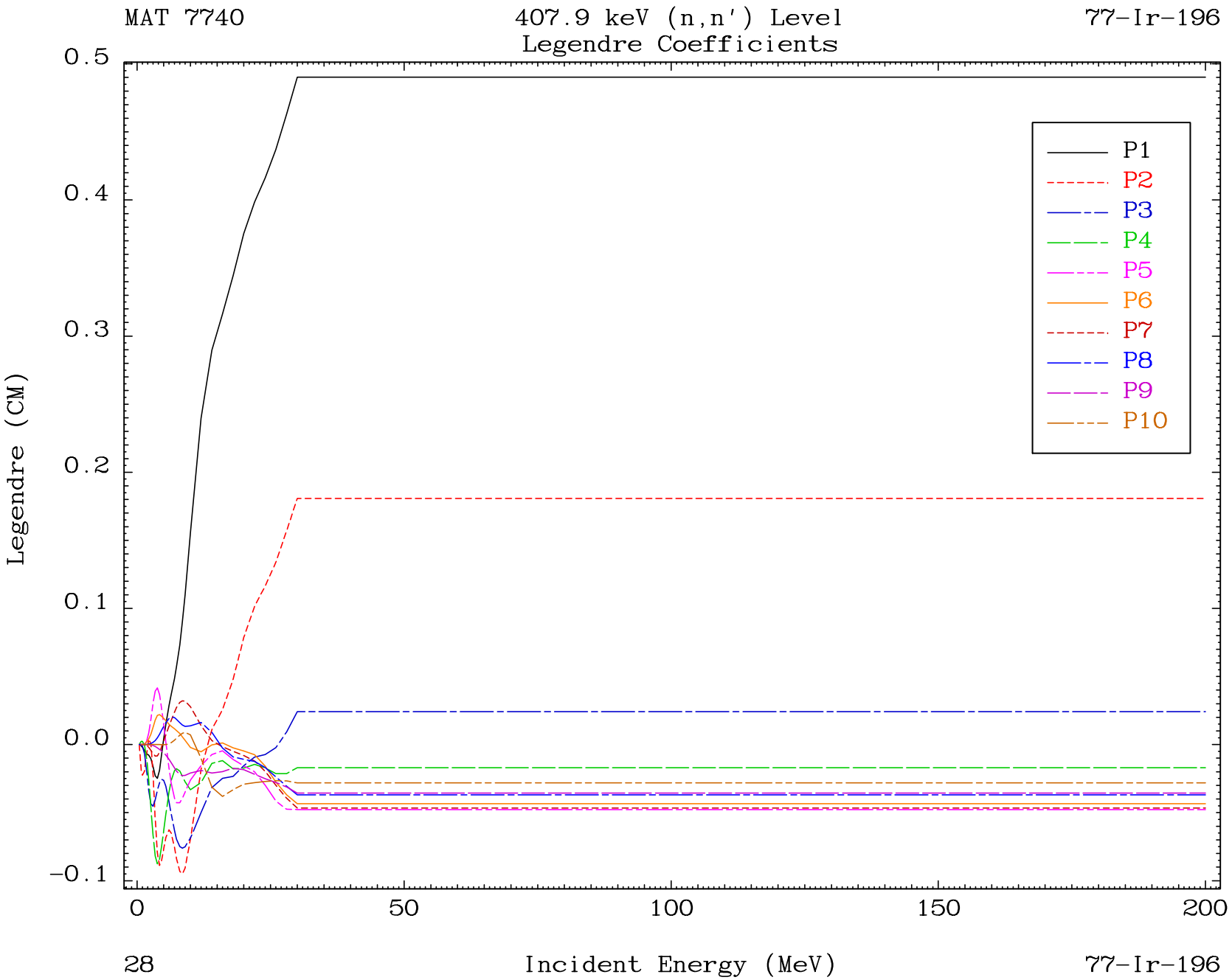

MAT 7740
126.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−1
−2
−3
−4
Legendre (CM)
50
100
150
200
23
Incident Energy (MeV)
77-Ir-196
P31
P32
P33
P34
P35
P36
P37
P38

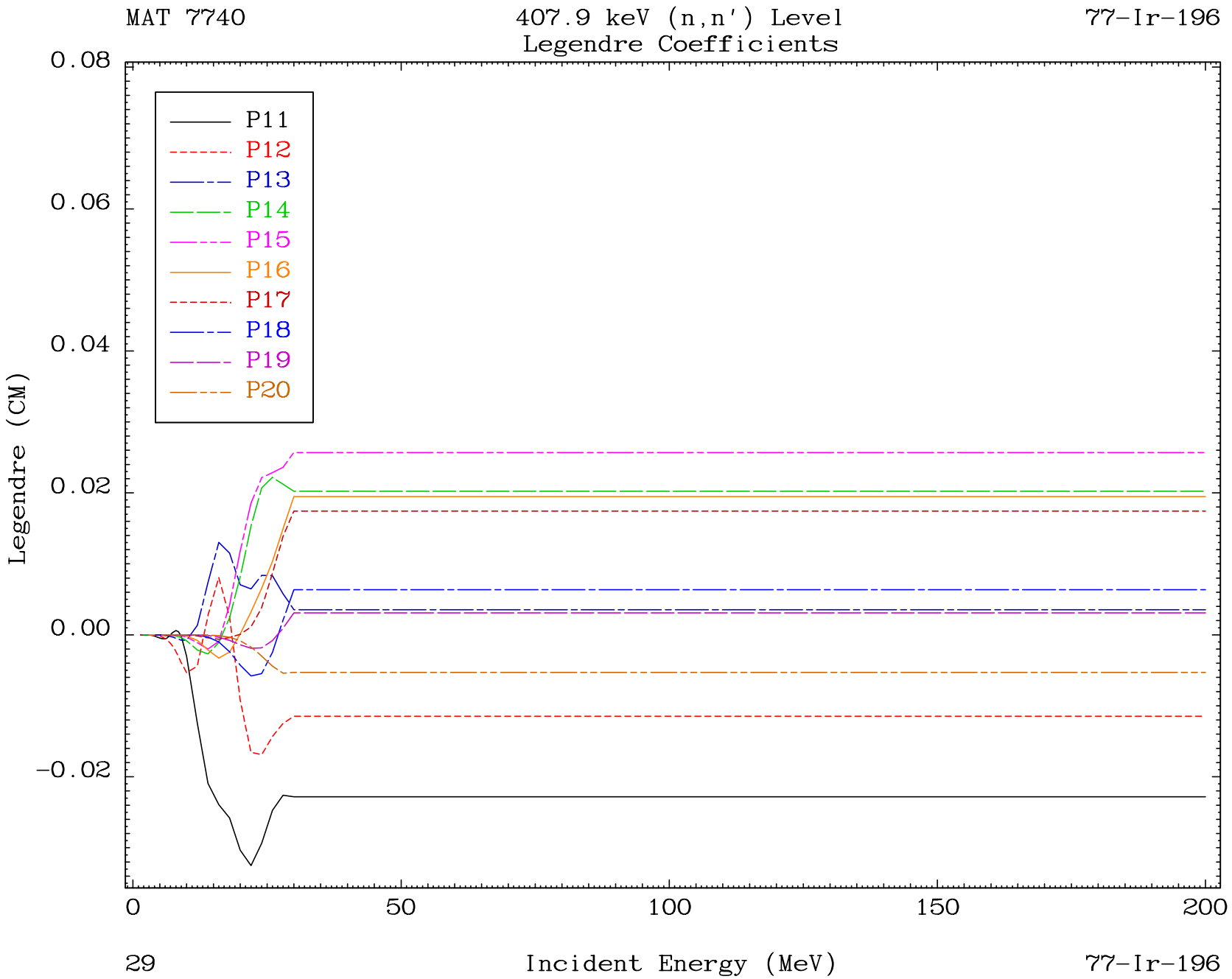

MAT 7740
207.0 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
24
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

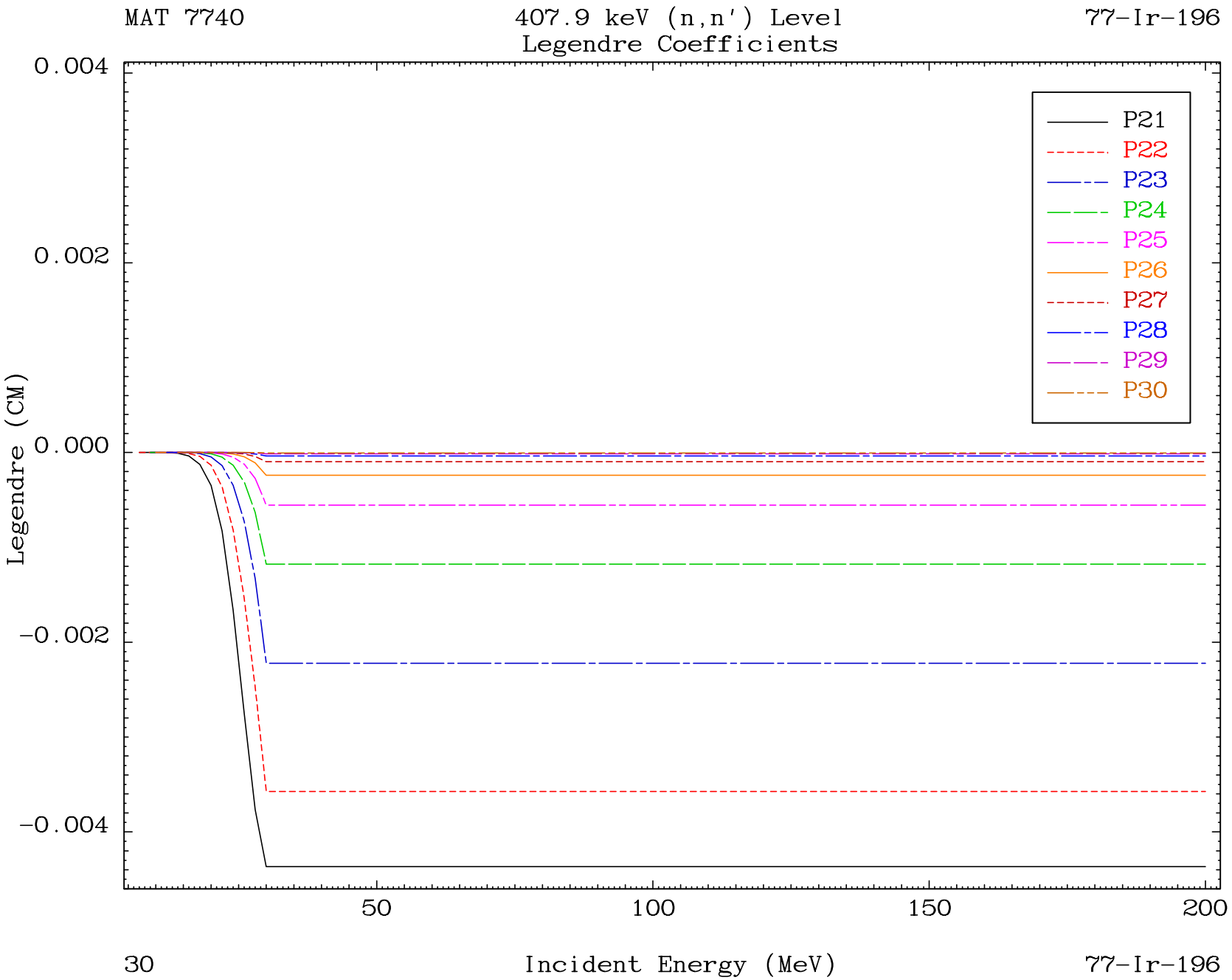

MAT 7740
207.0 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
25
Incident Energy (MeV)
77-Ir-196

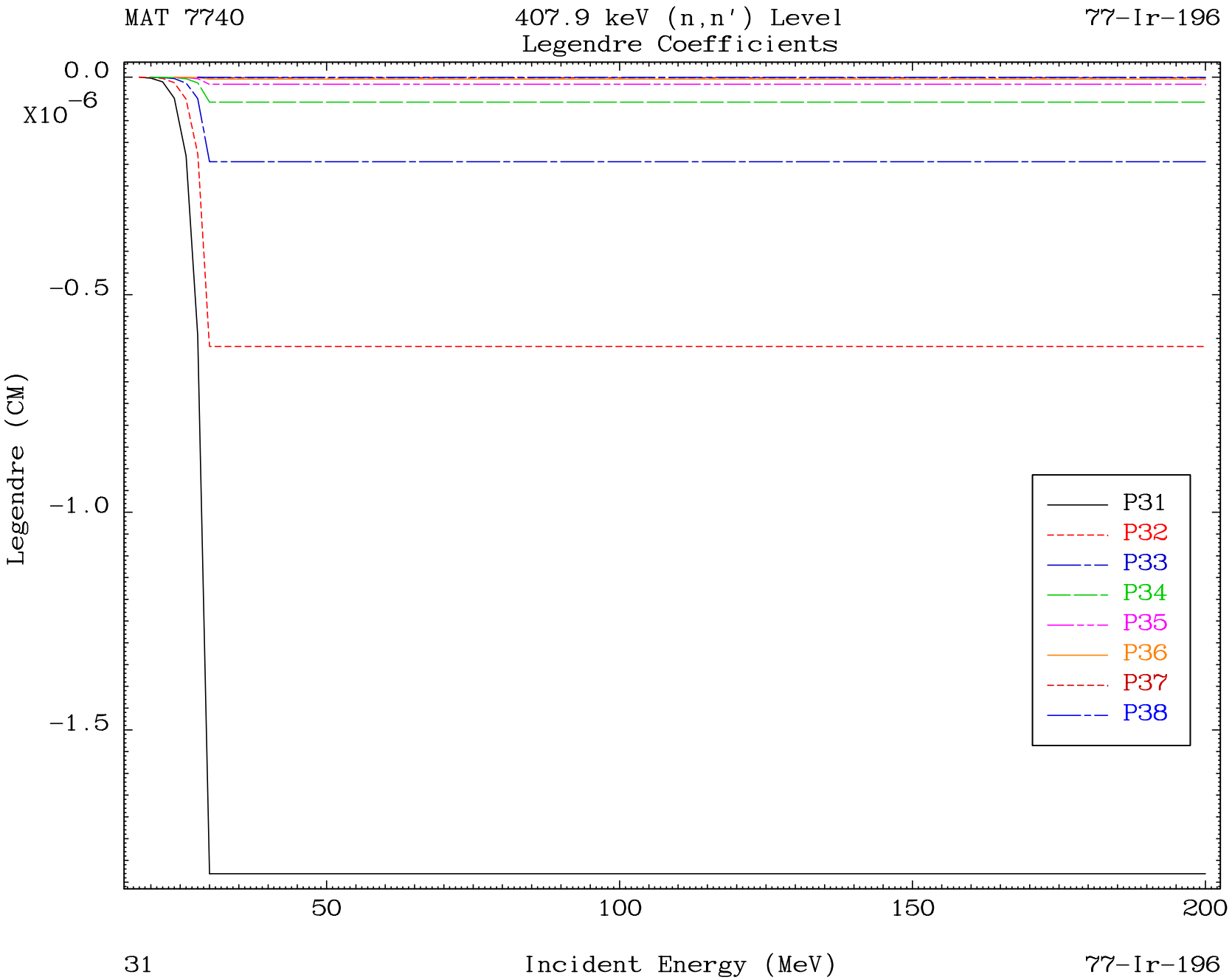

MAT 7740
207.0 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.01
0.00
-0.01
-0.02
Legendre (CM)
50
100
150
200
26
Incident Energy (MeV)
77-Ir-196

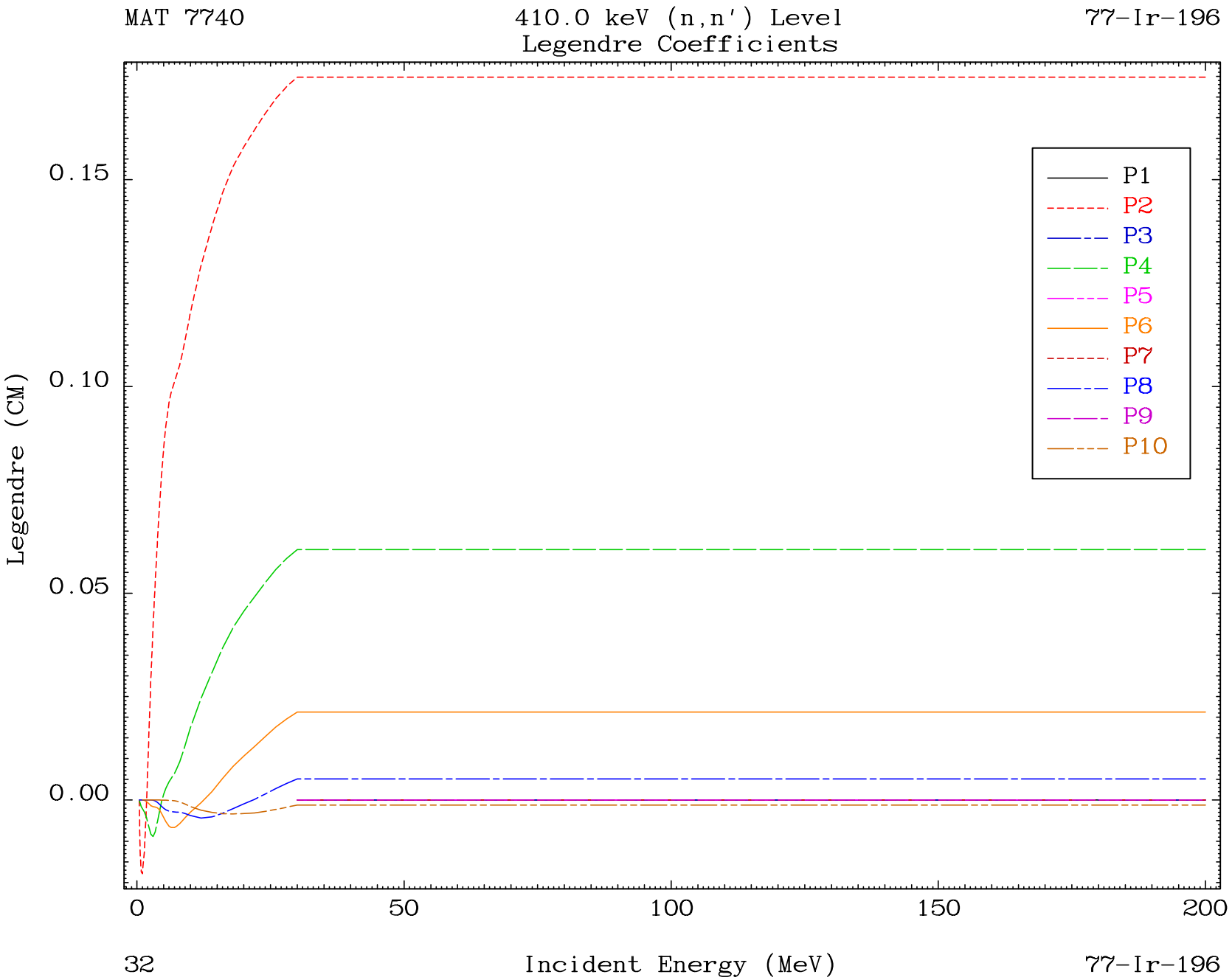

MAT 7740
207.0 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−1
−2
−3
−4
Legendre (CM)
50
100
150
200
27
Incident Energy (MeV)
77-Ir-196
P31
P32
P33
P34
P35
P36
P37
P38

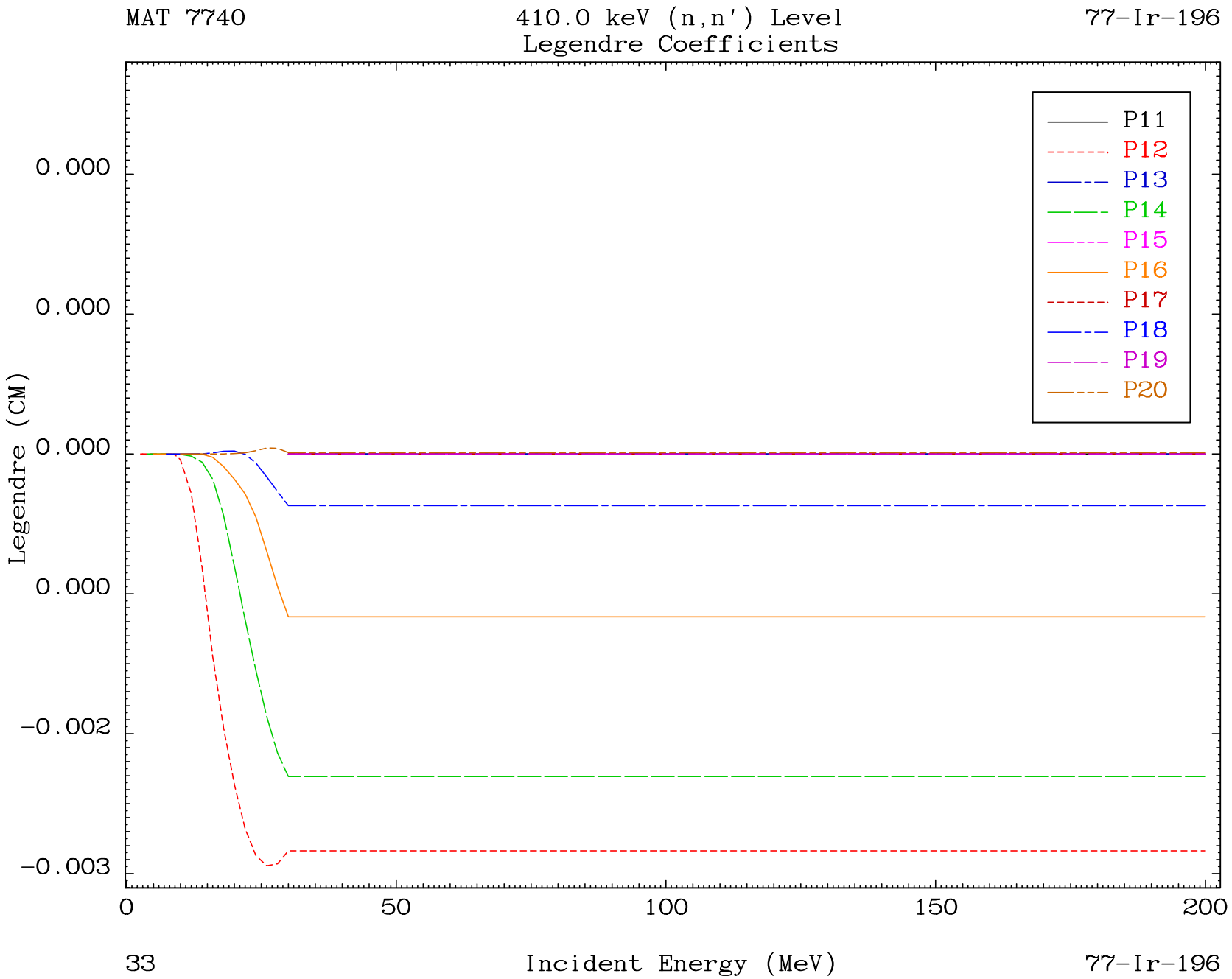

MAT 7740
407.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
28
Incident Energy (MeV)
77-Ir-196

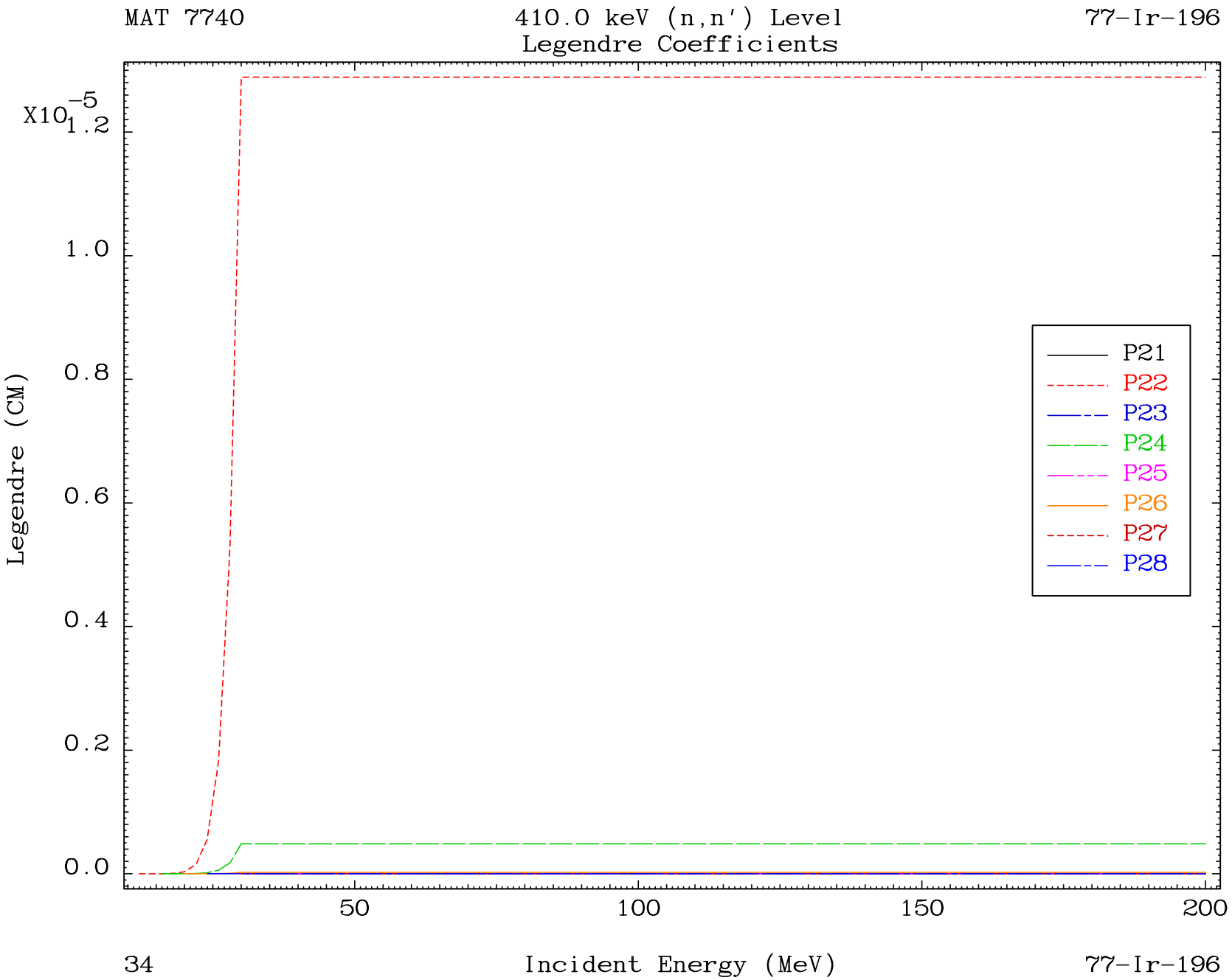

MAT 7740
407.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.08
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
0
50
100
150
200
29
Incident Energy (MeV)
77-Ir-196

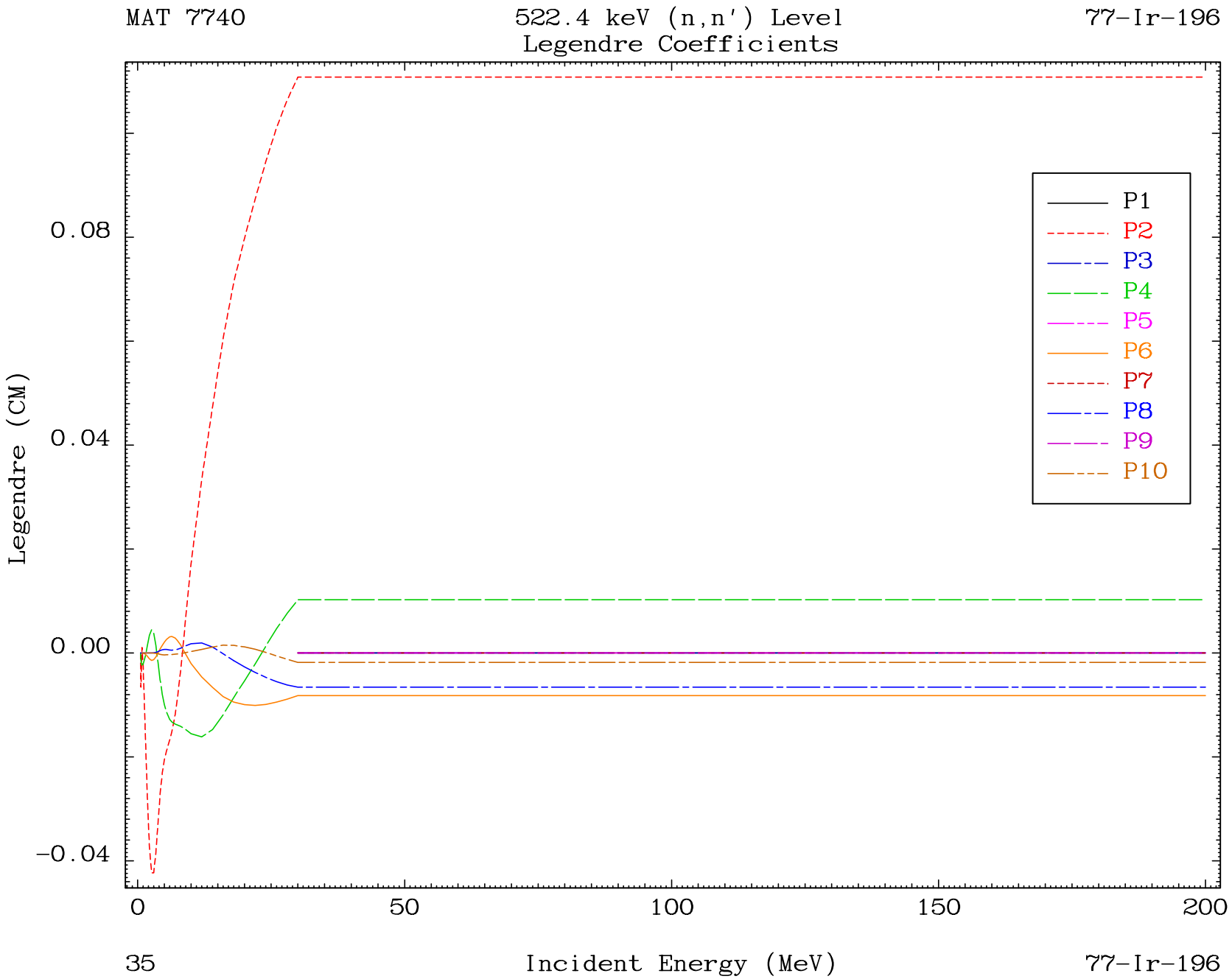

MAT 7740
407.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.004
0.002
0.000
-0.002
-0.004
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
30
50
100
150
200
Incident Energy (MeV)
77-Ir-196

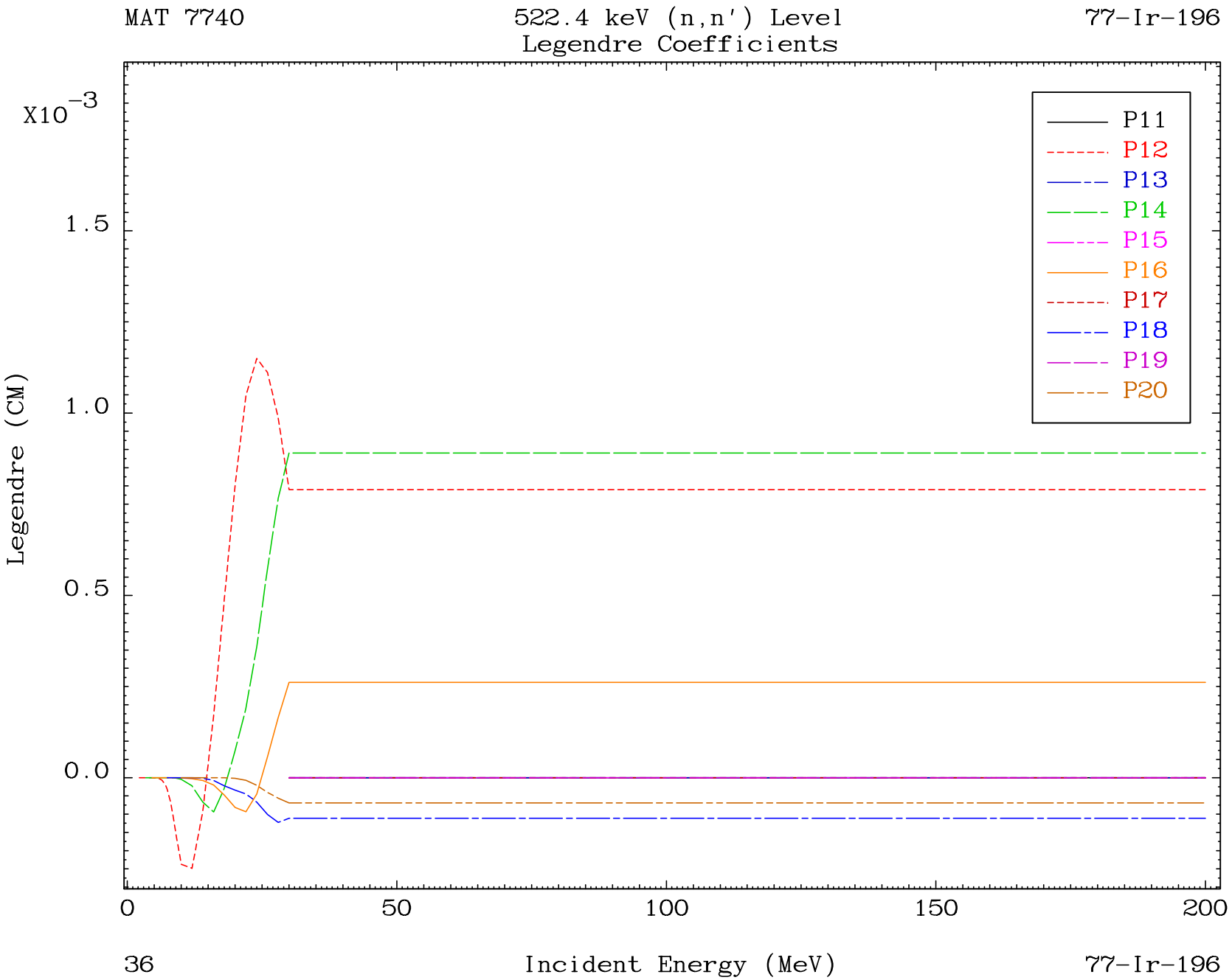

MAT 7740
407.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.0
X10^-6
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
31
Incident Energy (MeV)
77-Ir-196
P31
P32
P33
P34
P35
P36
P37
P38

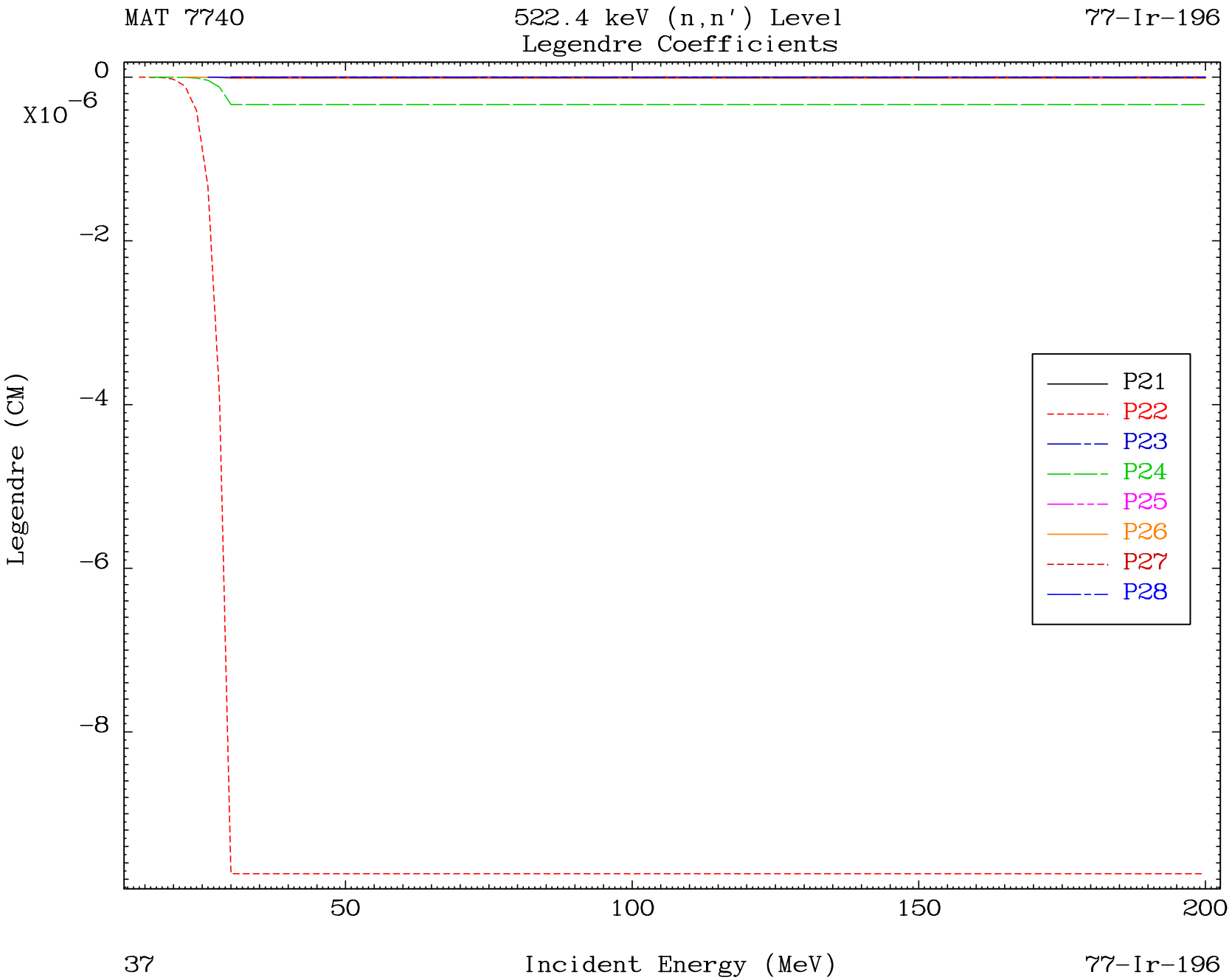

MAT 7740
410.0 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.15
0.10
0.05
0.00
0
50
100
150
200
32
Incident Energy (MeV)
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

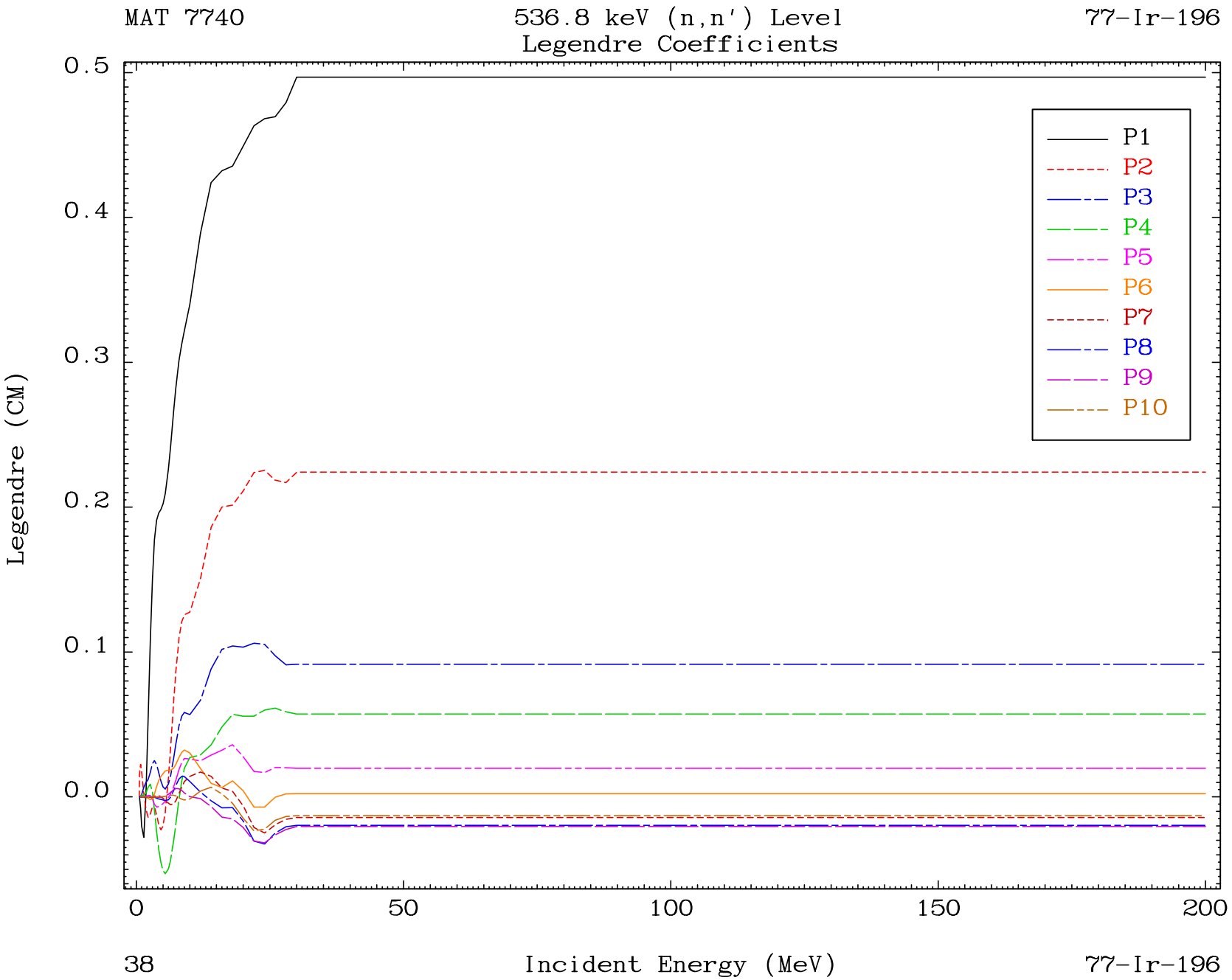

MAT 7740
410.0 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.000
0.000
0.000
0.000
-0.002
-0.003
Legendre (CM)
0
50
100
150
200
33
Incident Energy (MeV)
77-Ir-196

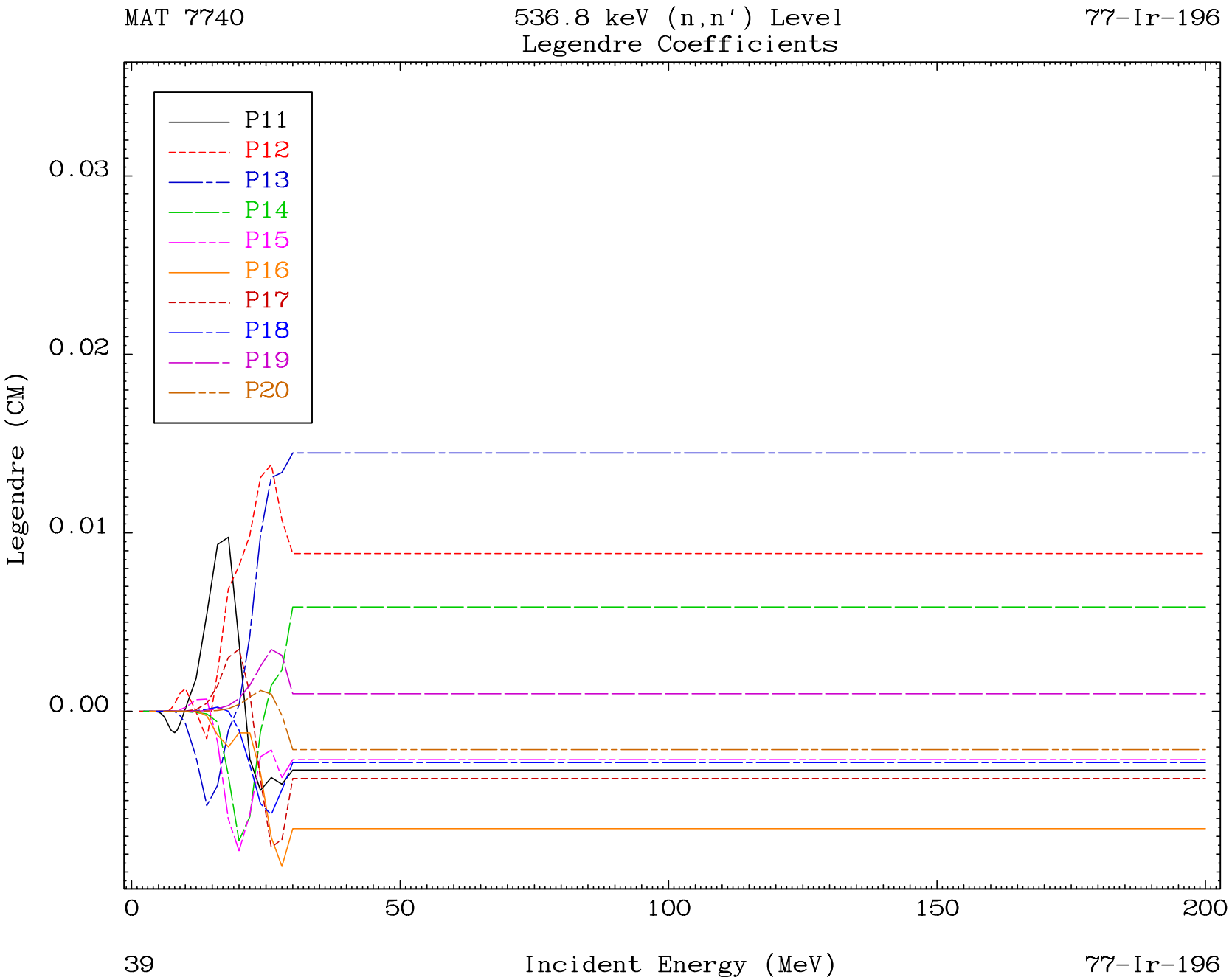

MAT 7740
410.0 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-5
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
34
Incident Energy (MeV)
77-Ir-196

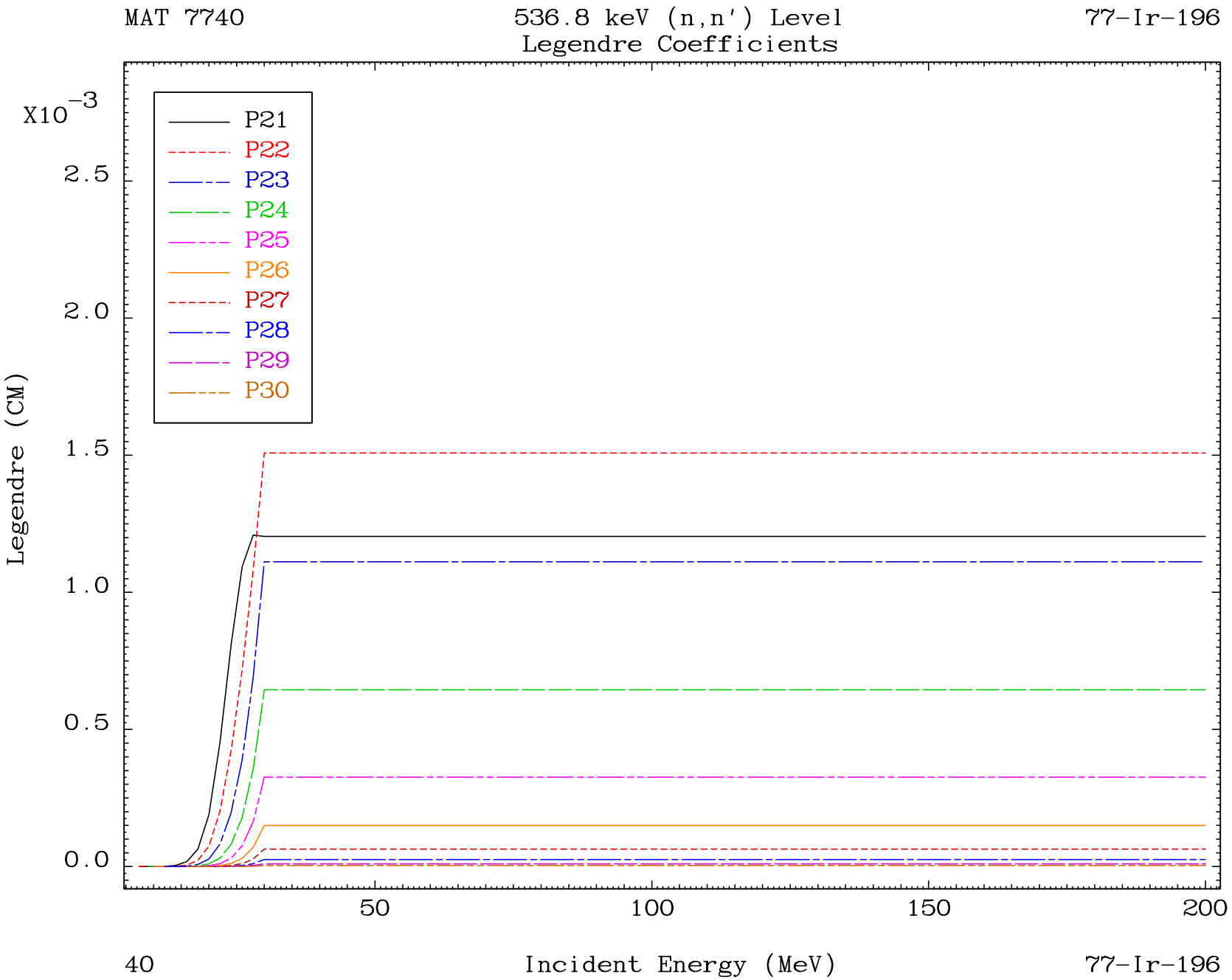

MAT 7740
522.4 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.08
0.04
0.00
-0.04
0
50
100
150
200
35
Incident Energy (MeV)
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

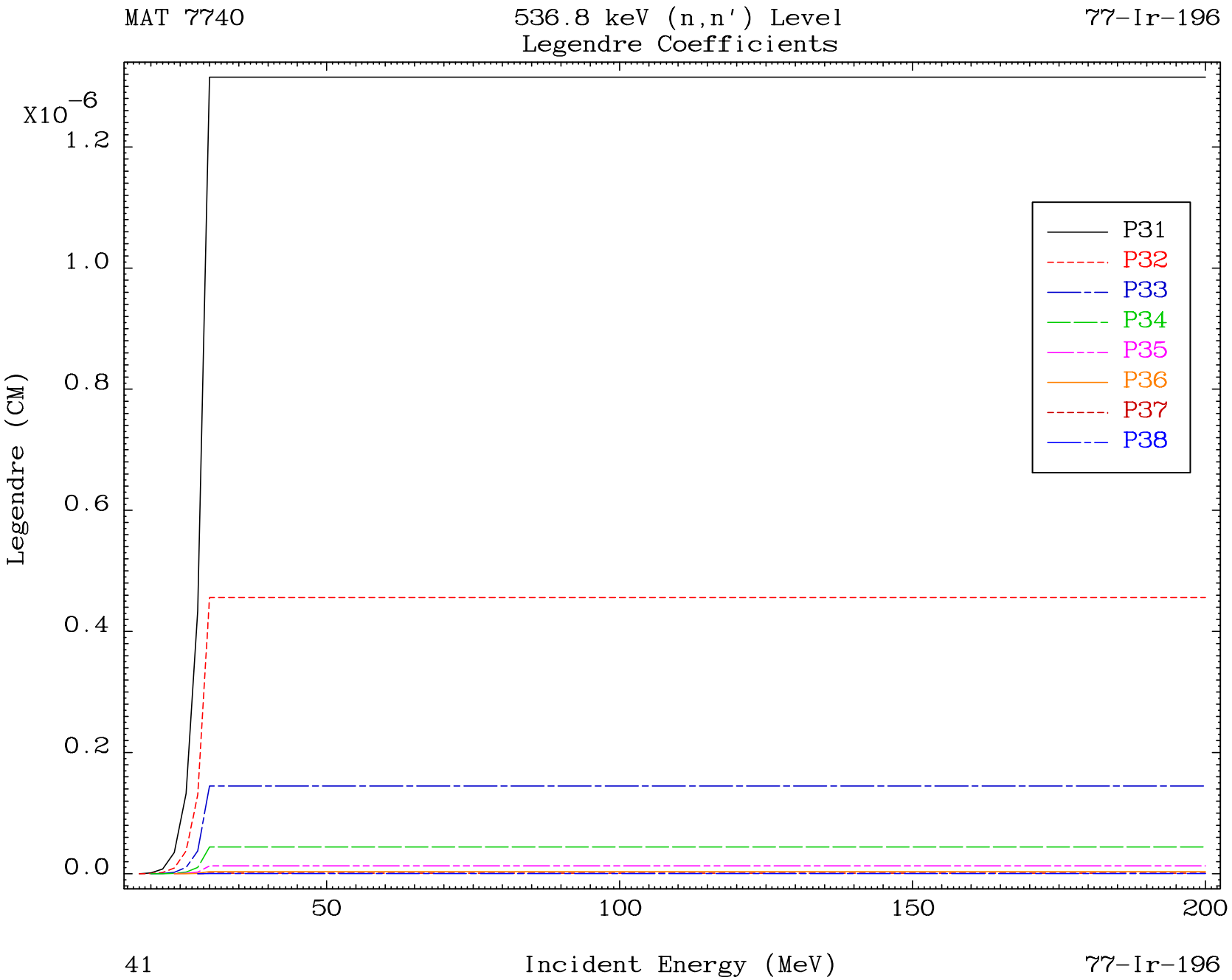

MAT 7740
522.4 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^{-3}
1.5
1.0
0.5
0.0
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
36
Incident Energy (MeV)
77-Ir-196

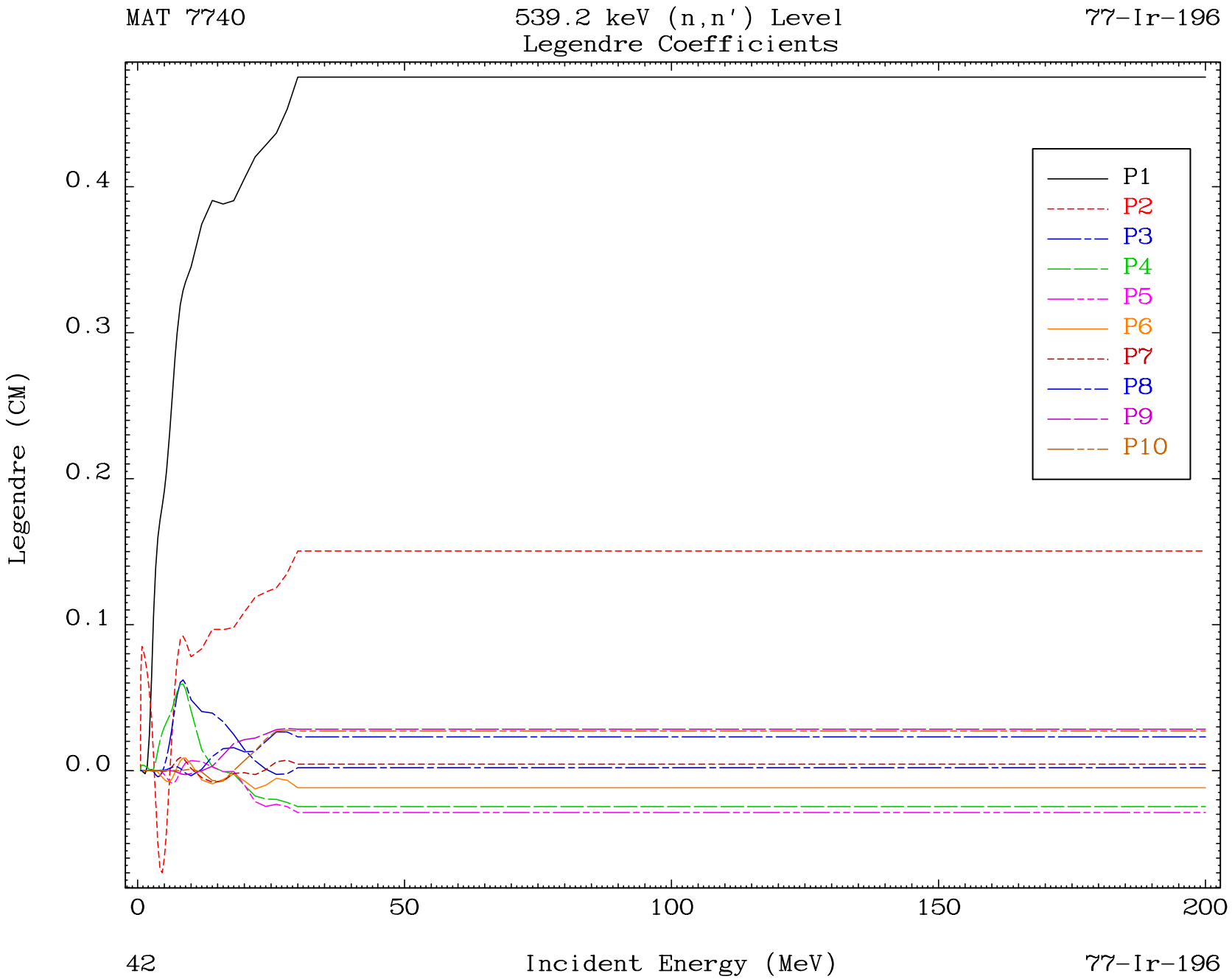

MAT 7740
522.4 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
37
Incident Energy (MeV)
77-Ir-196

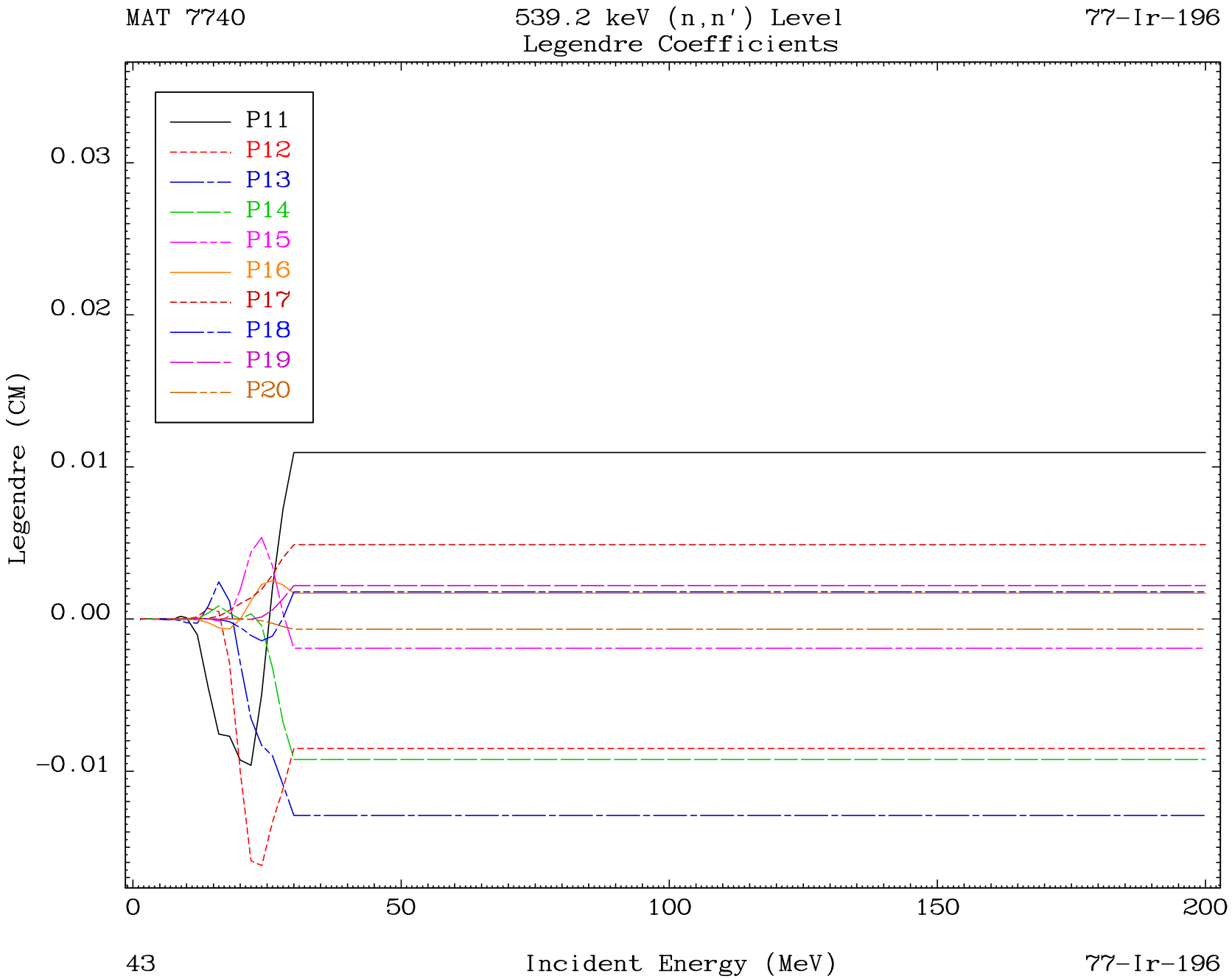

MAT 7740
536.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
38
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

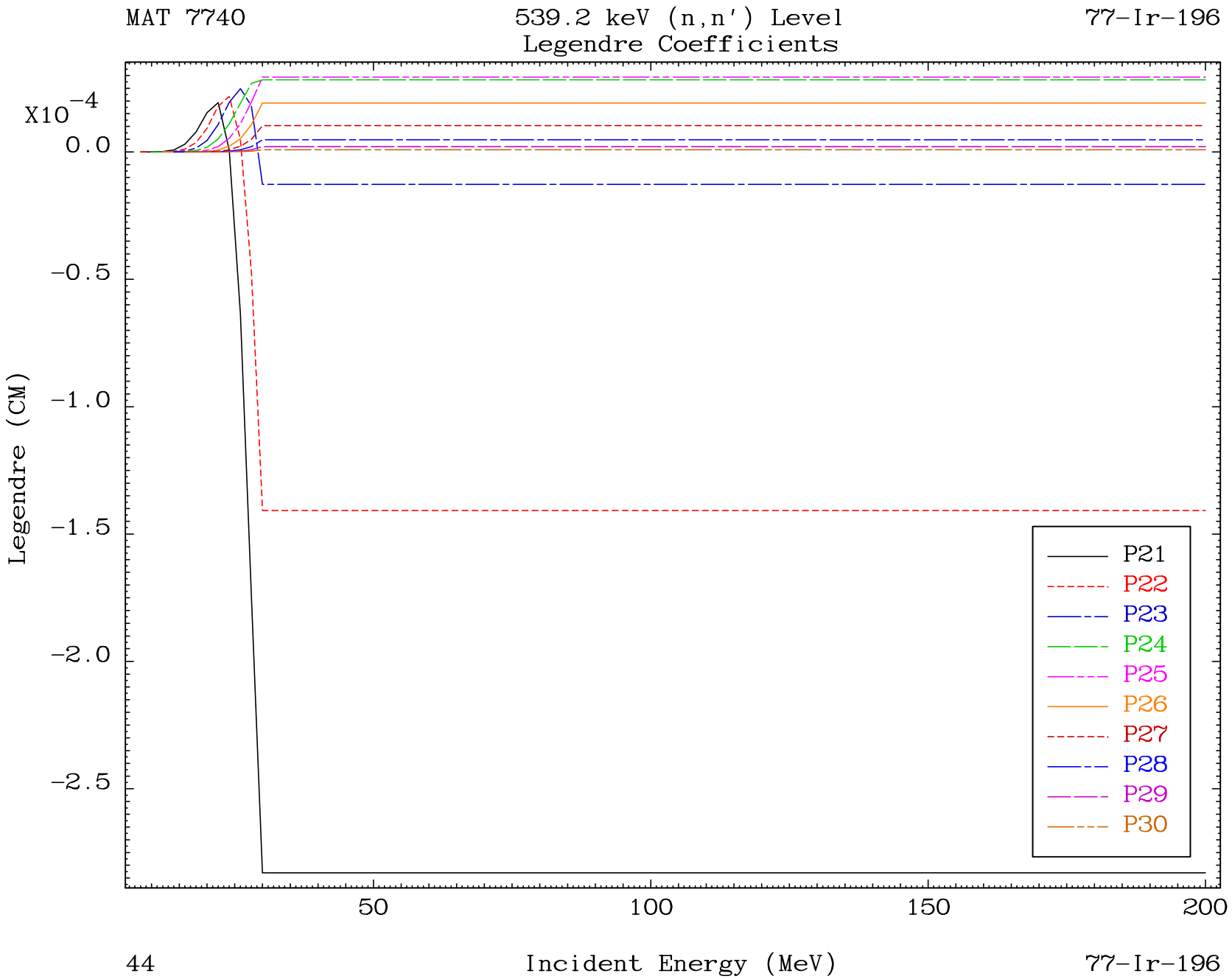

MAT 7740
536.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.03
0.02
0.01
0.00
Legendre (CM)
0
50
100
150
200
39
Incident Energy (MeV)
77-Ir-196

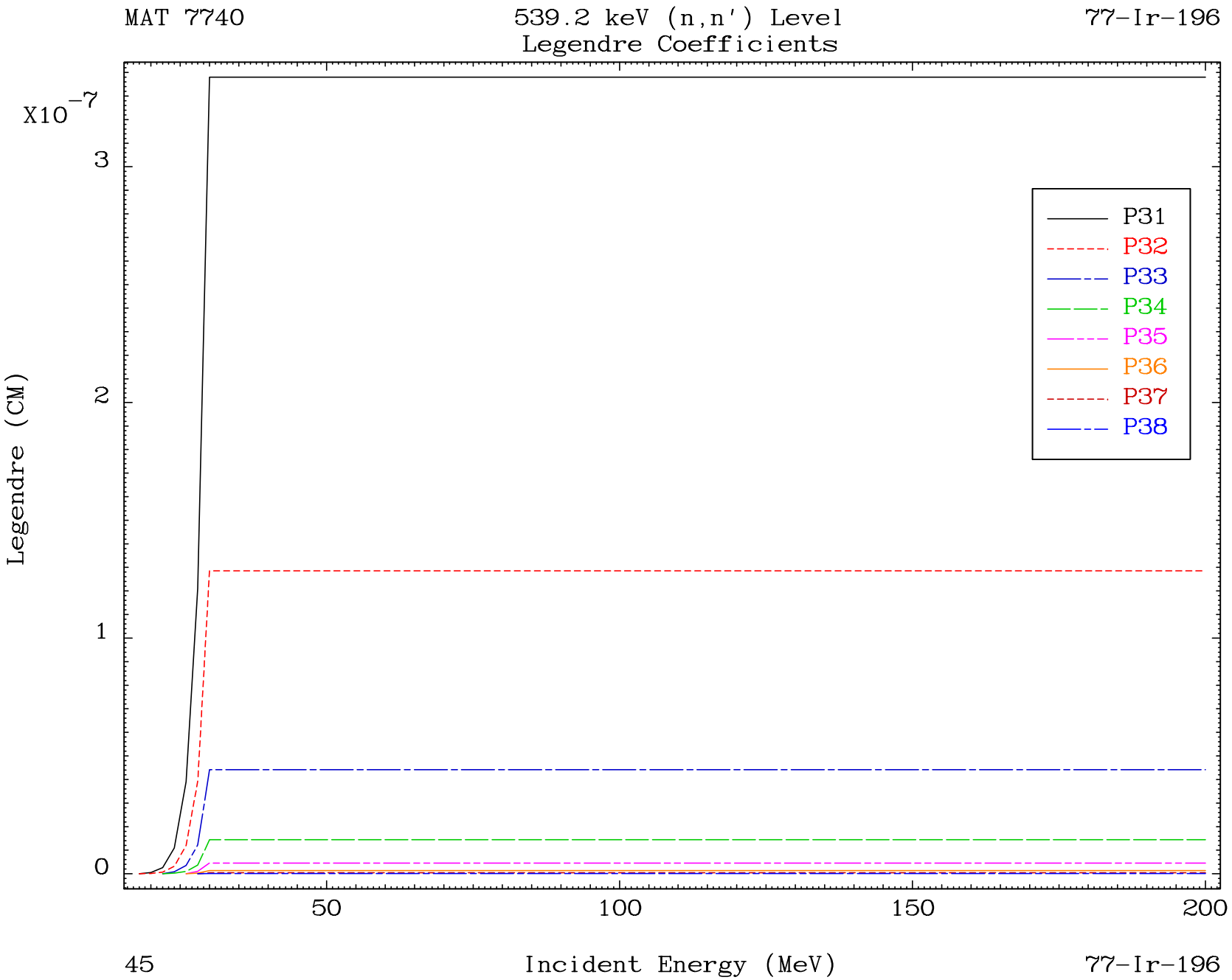

MAT 7740
536.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10-3
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
40
Incident Energy (MeV)
77-Ir-196

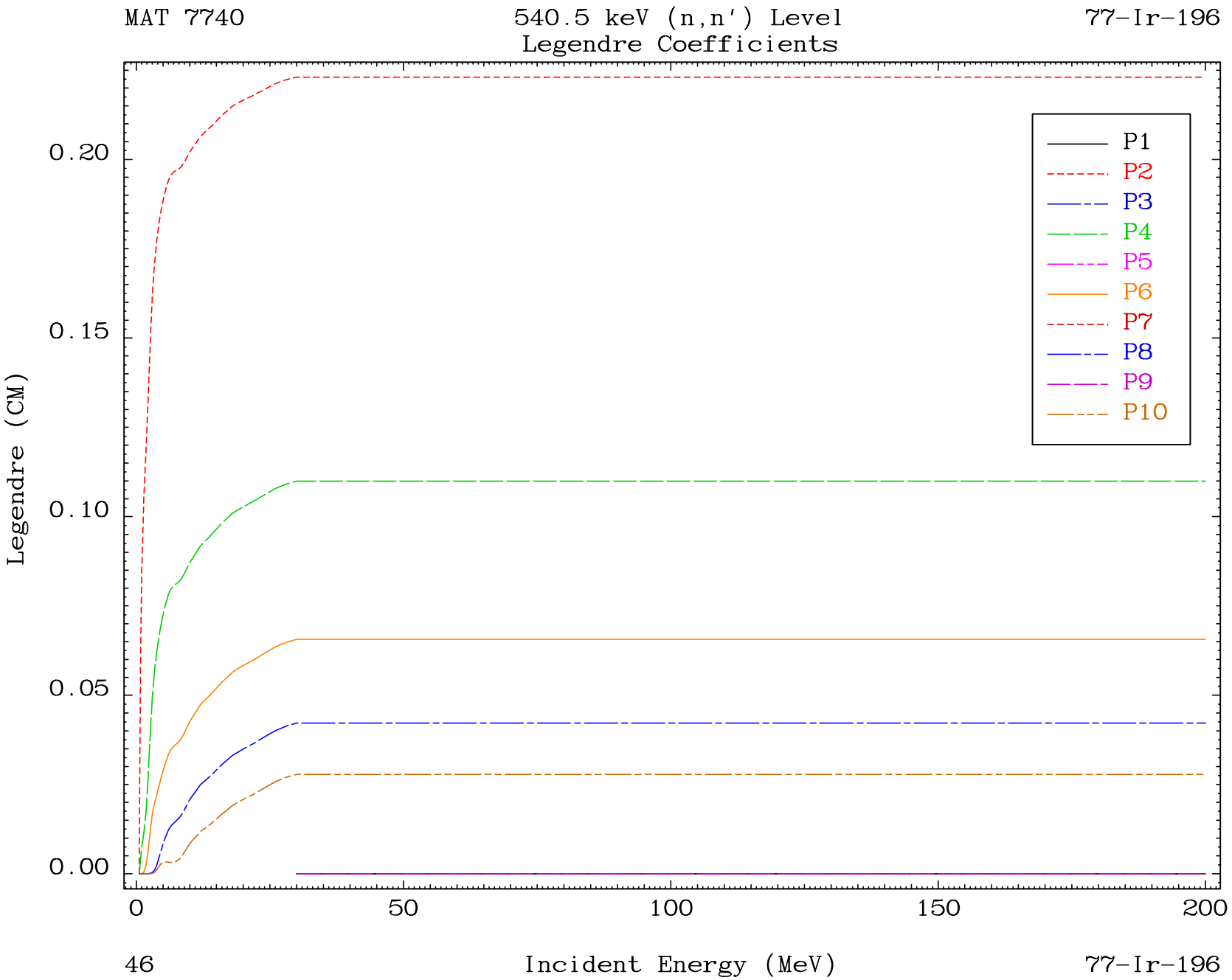

MAT 7740
536.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
41
Incident Energy (MeV)
77-Ir-196

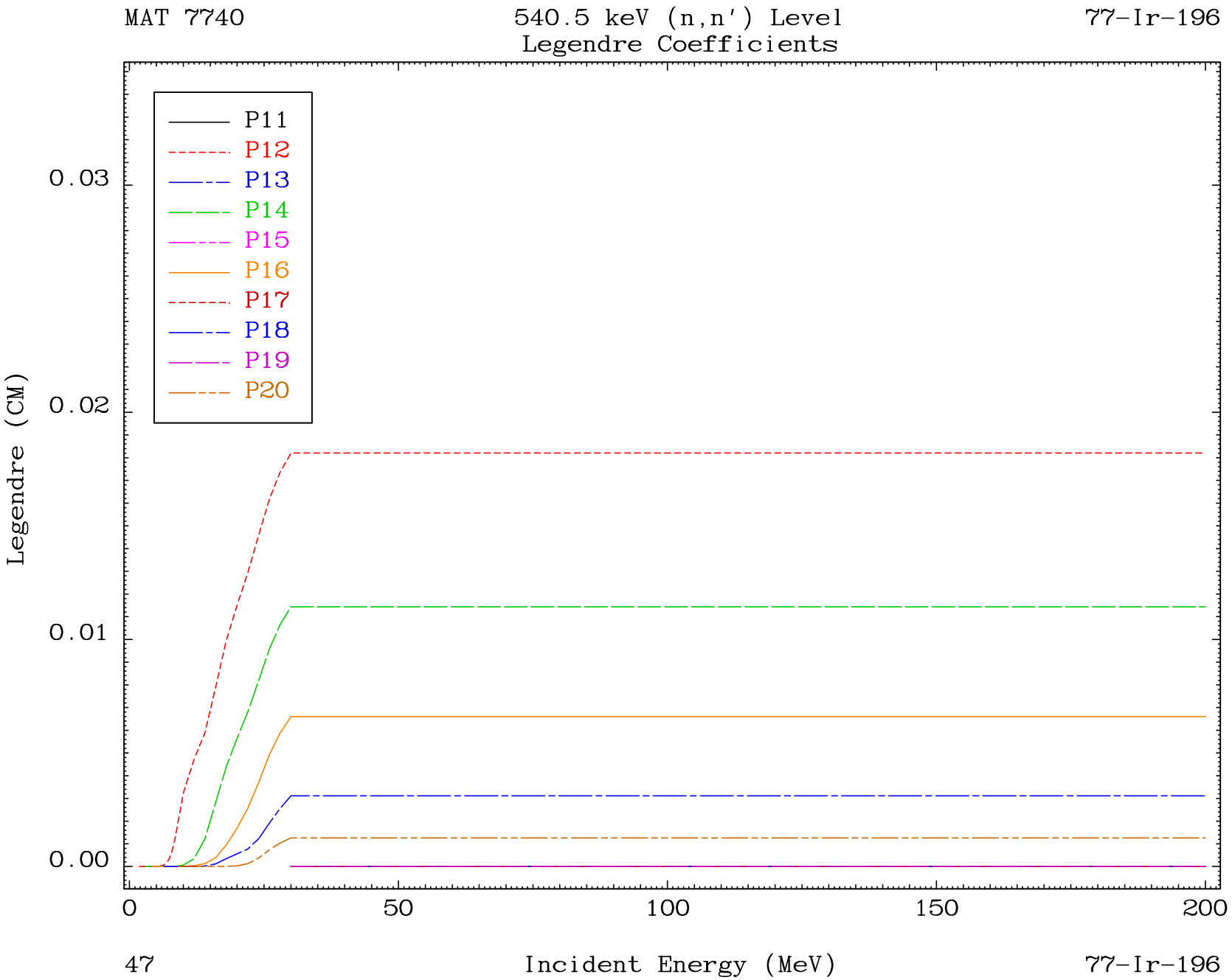

MAT 7740
539.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
42
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

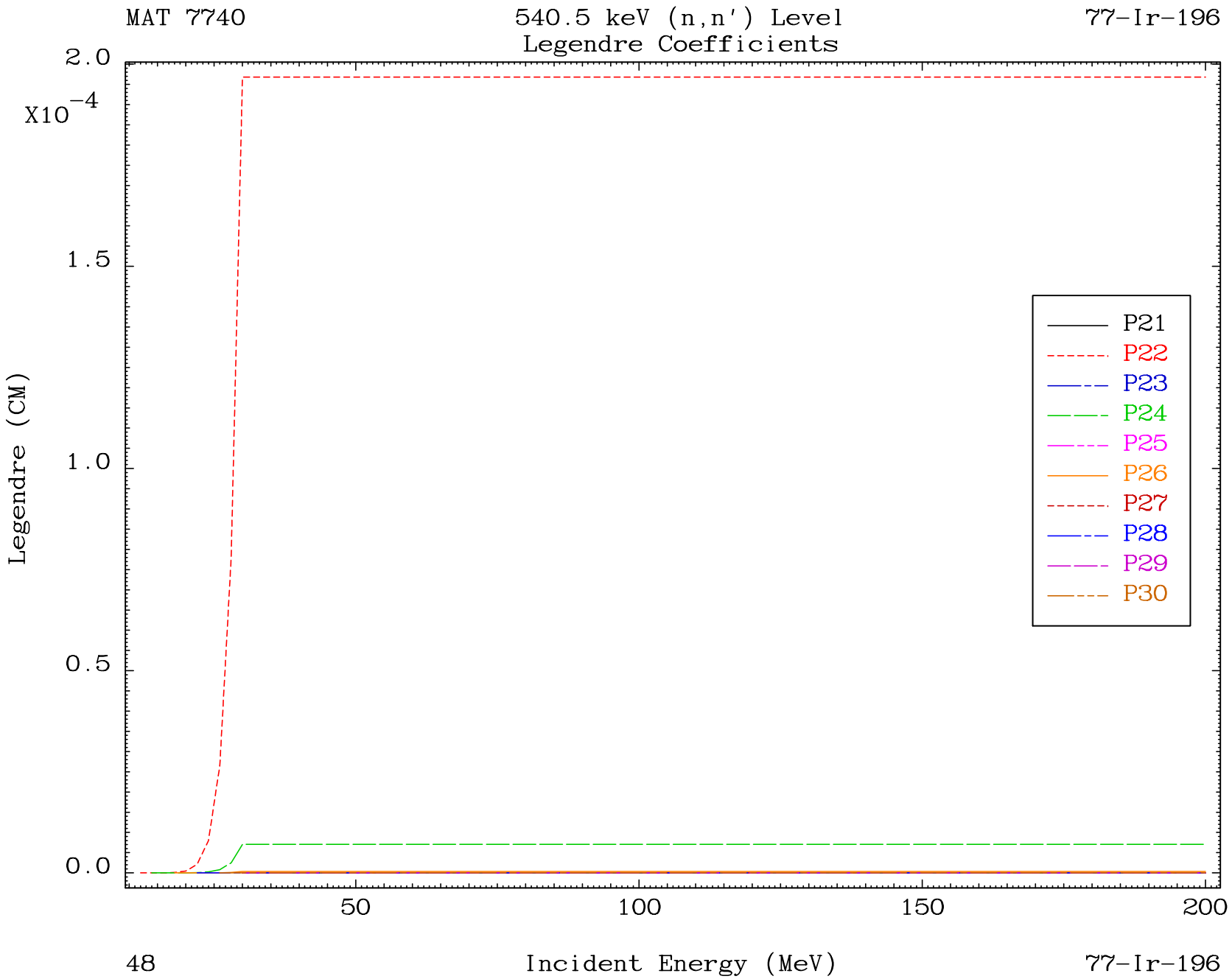

MAT 7740
539.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
43
Incident Energy (MeV)
77-Ir-196

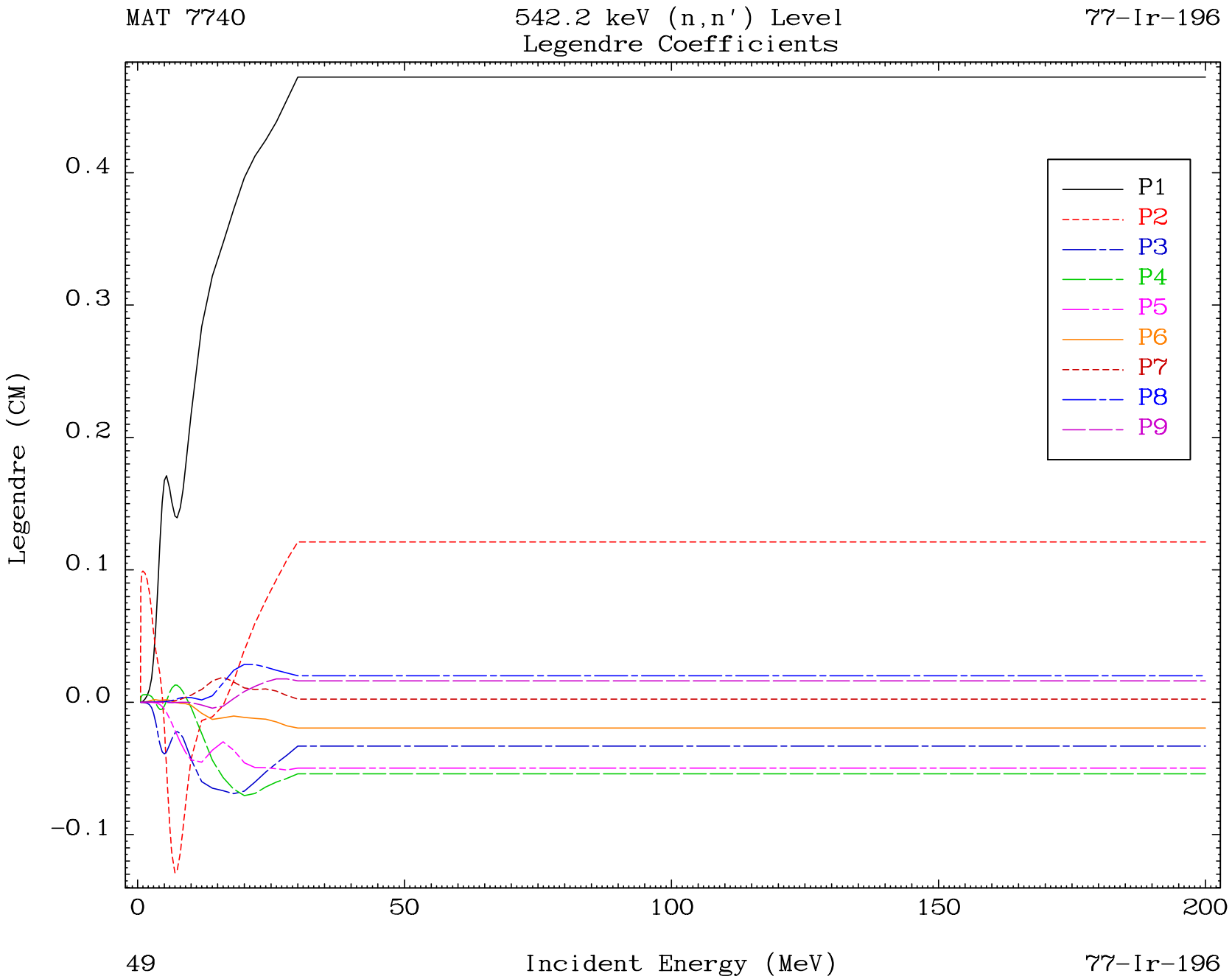

MAT 7740
539.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-4
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
Legendre (CM)
50
100
150
200
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
44
Incident Energy (MeV)
77-Ir-196

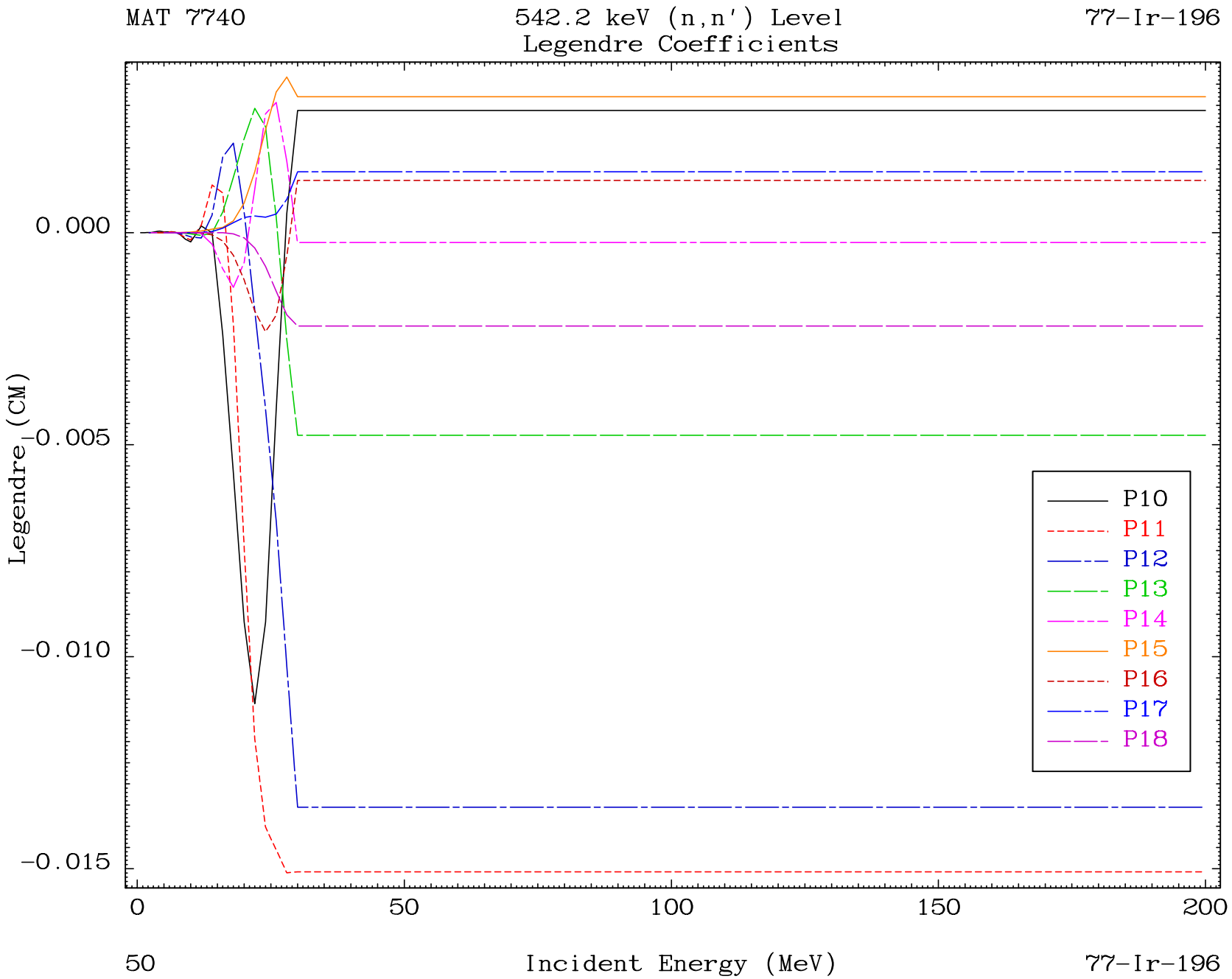

MAT 7740
539.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10-7
3
2
1
0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
45
Incident Energy (MeV)
77-Ir-196

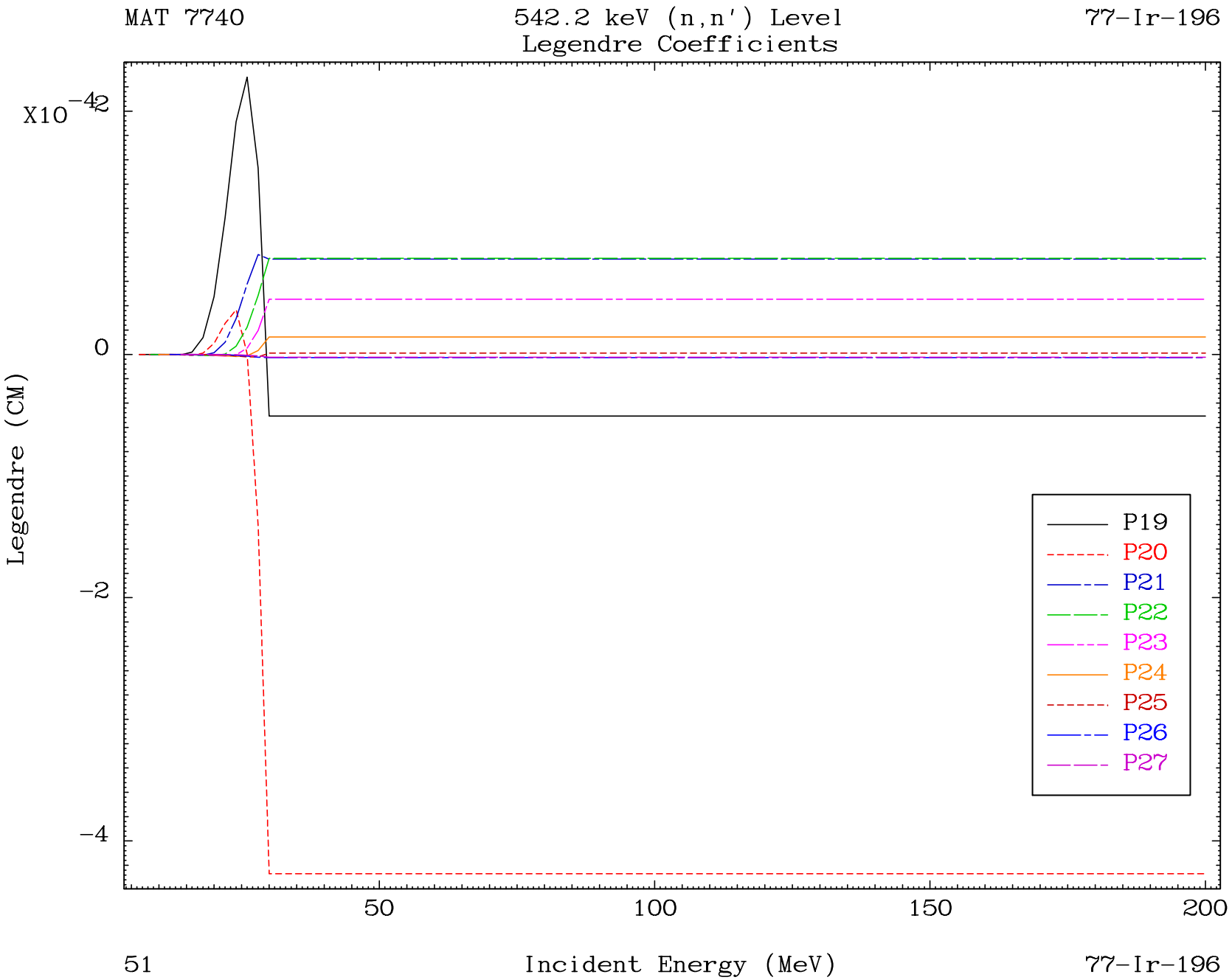

MAT 7740
540.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0.20
0.15
0.10
0.05
0.00
Legendre (CM)
0
50
100
150
200
46
Incident Energy (MeV)
77-Ir-196

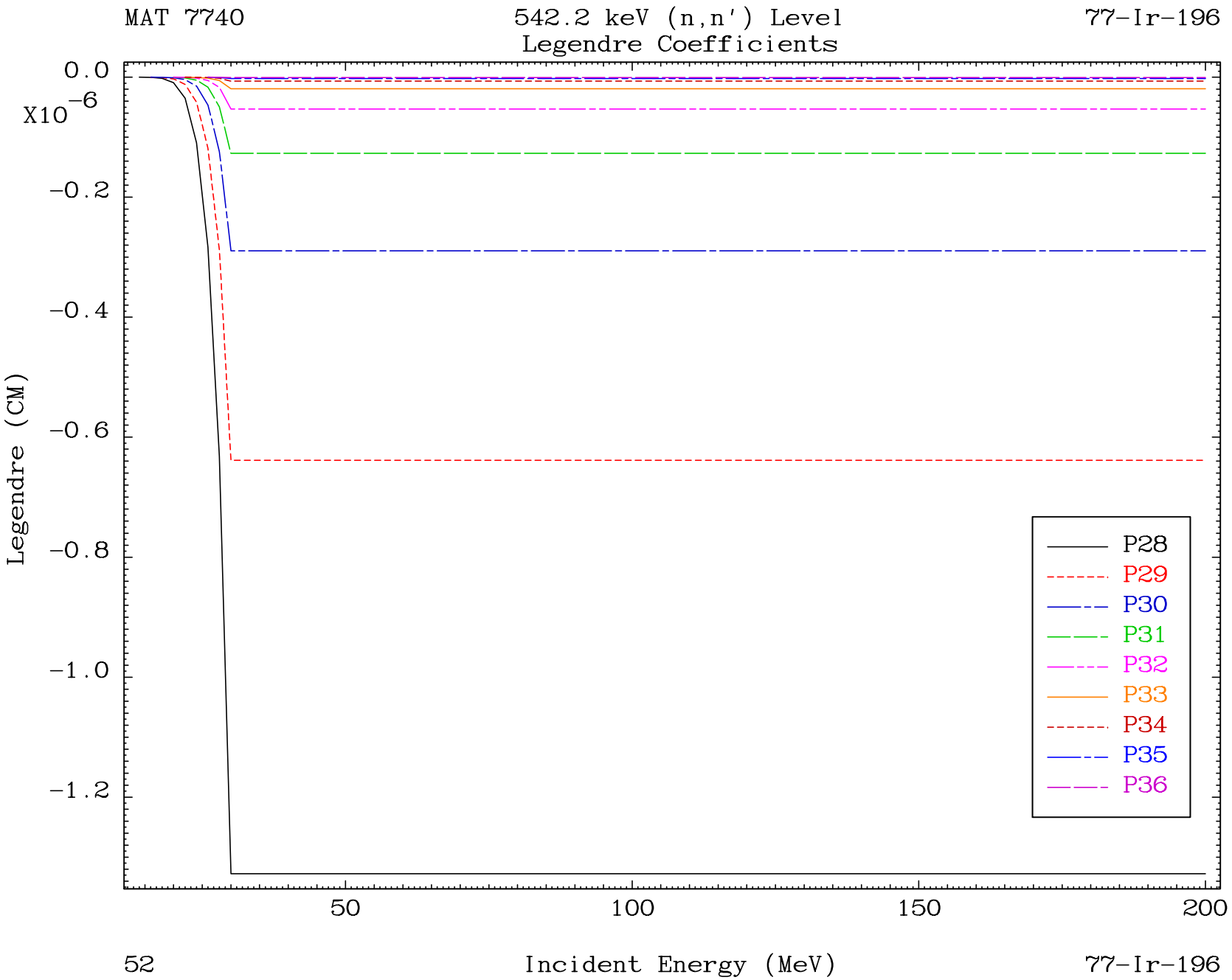

MAT 7740
540.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.03
0.02
0.01
0.00
Legendre (CM)
0
50
100
150
200
47
Incident Energy (MeV)
77-Ir-196

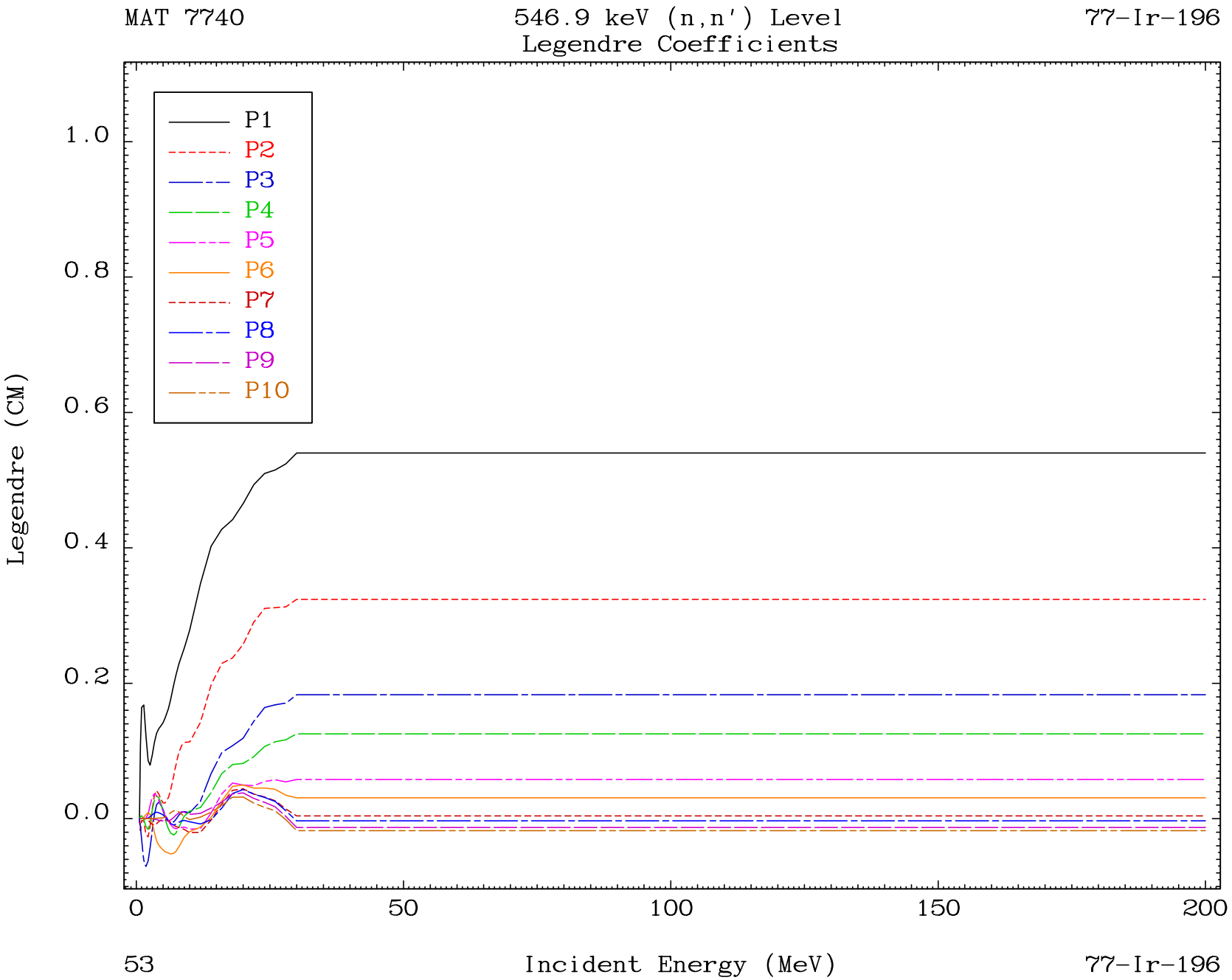

MAT 7740
540.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
2.0
X10^-4
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
48
Incident Energy (MeV)
77-Ir-196

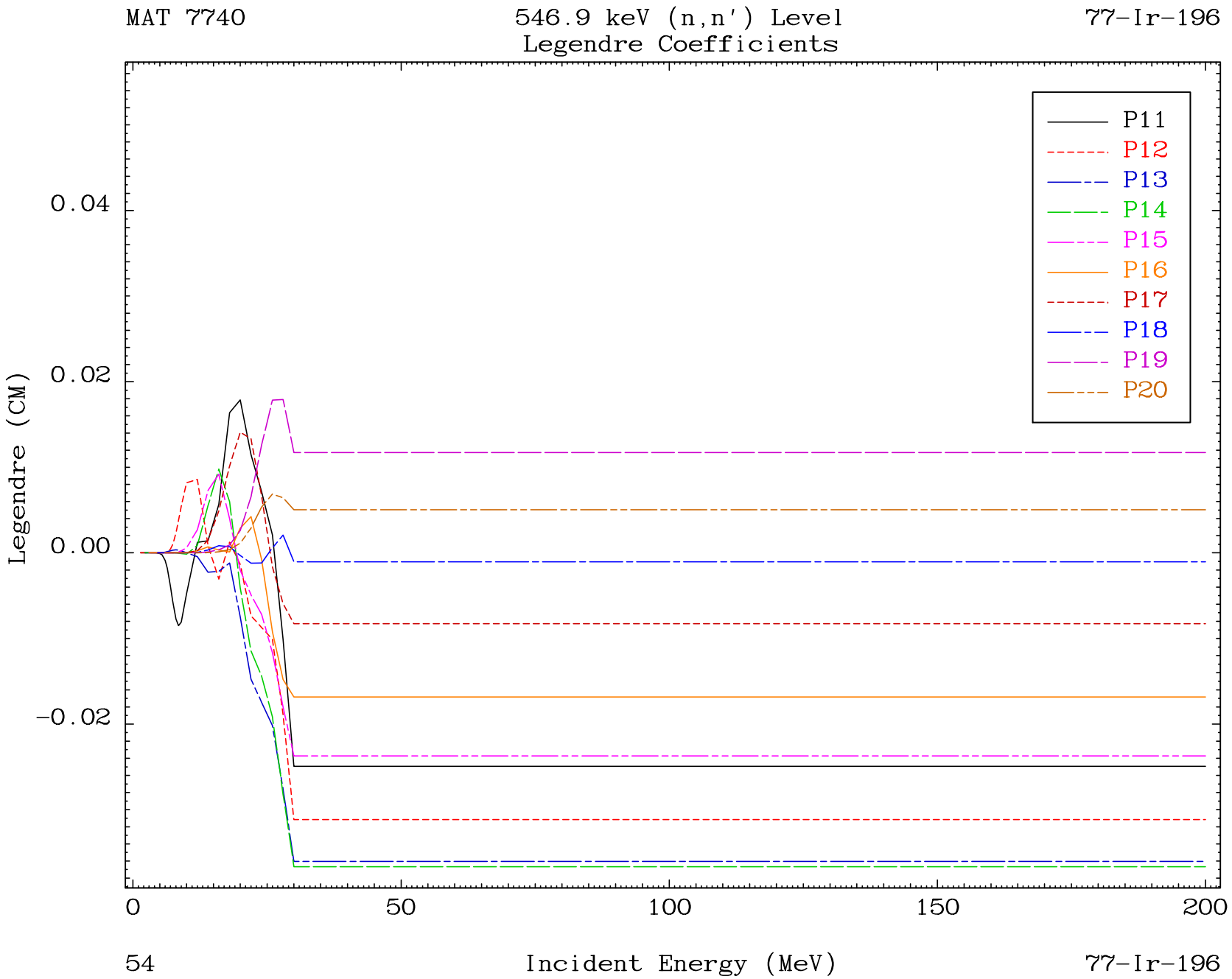

MAT 7740
542.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
49
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9

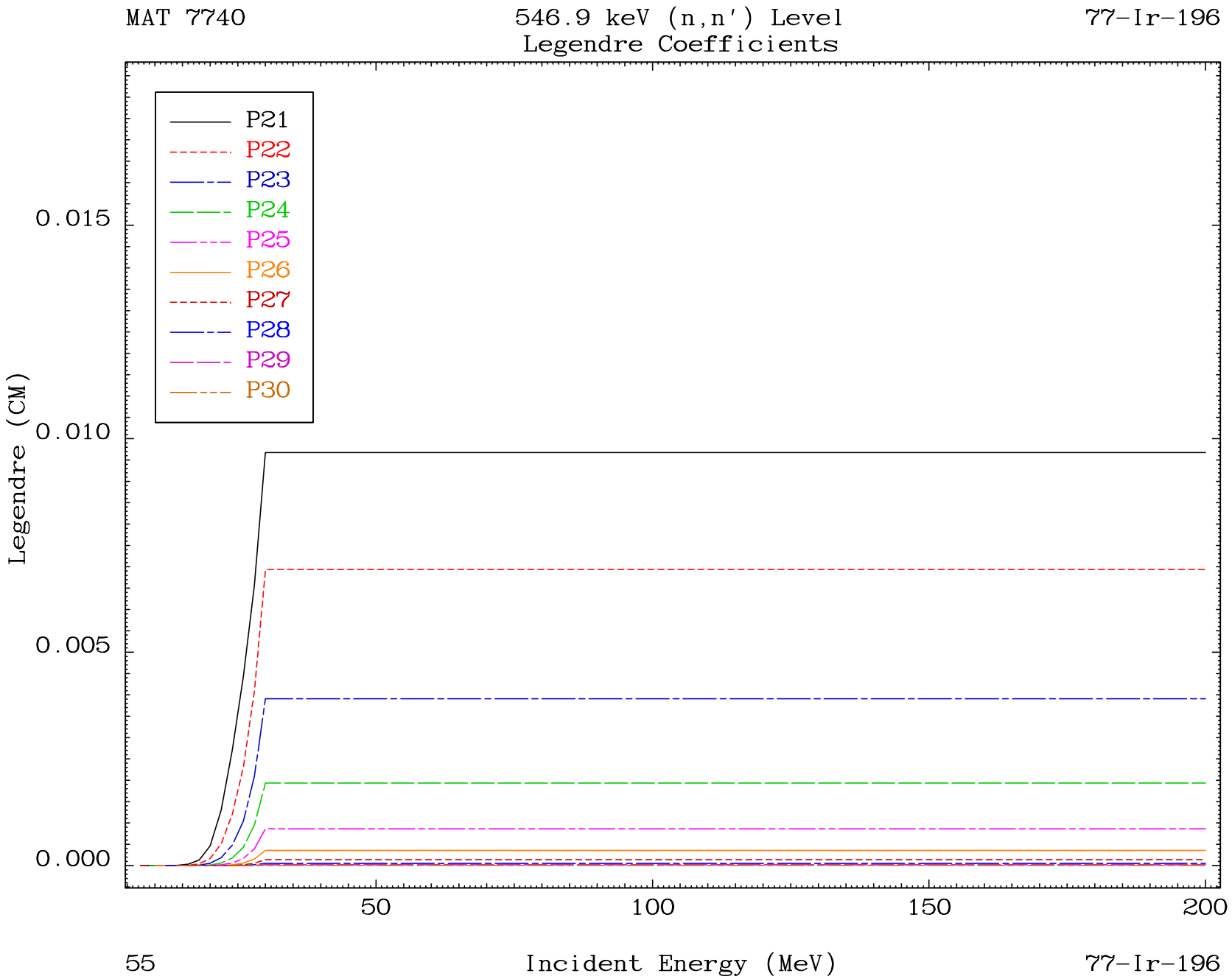

MAT 7740
542.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.000
−0.005
−0.010
−0.015
Legendre$_l$ (CM)
0
50
100
150
200
50
Incident Energy (MeV)
77-Ir-196
P10
P11
P12
P13
P14
P15
P16
P17
P18

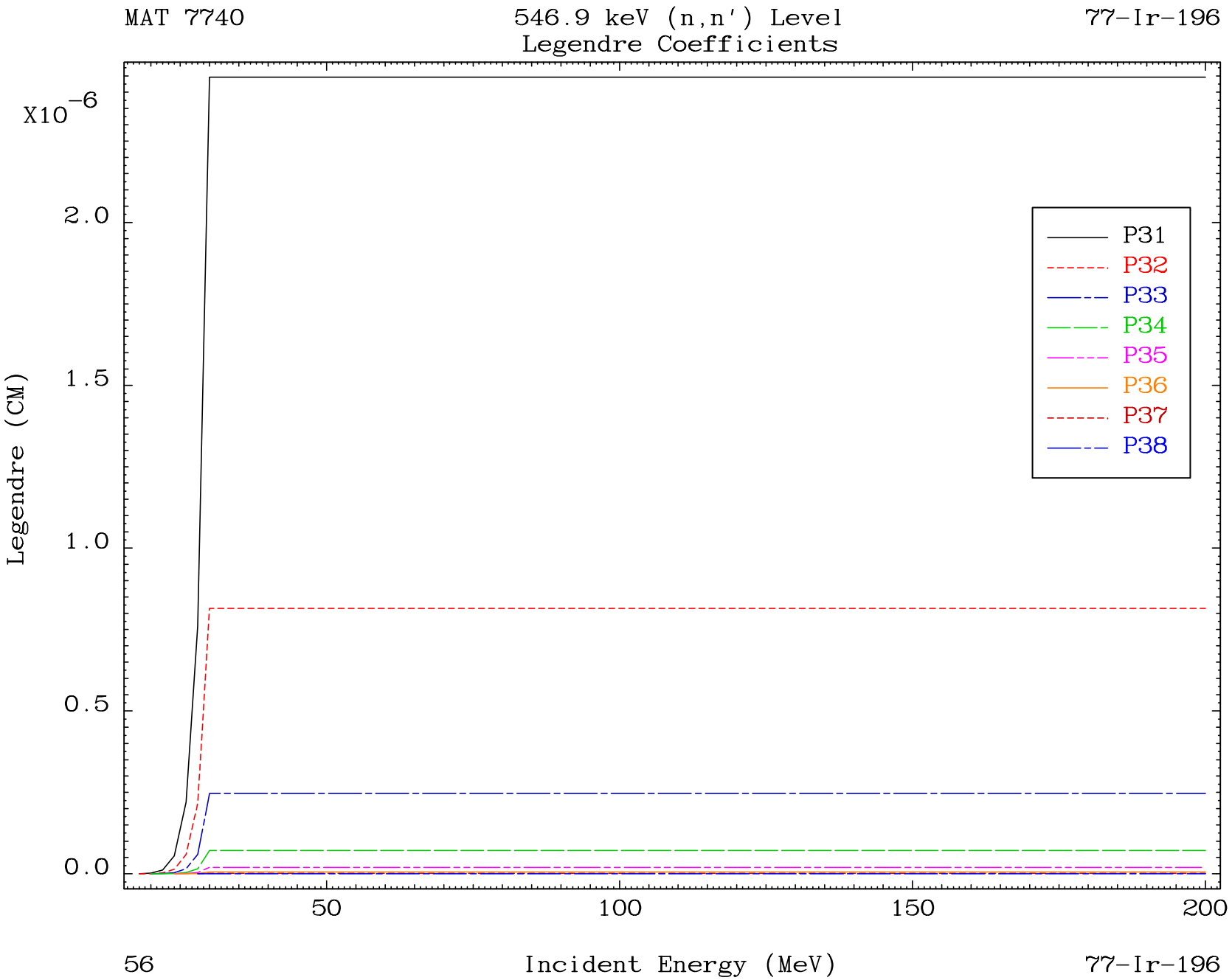

MAT 7740
542.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-42
0
-2
-4
Legendre (CM)
50
100
150
200
51
Incident Energy (MeV)
77-Ir-196
P19
P20
P21
P22
P23
P24
P25
P26
P27

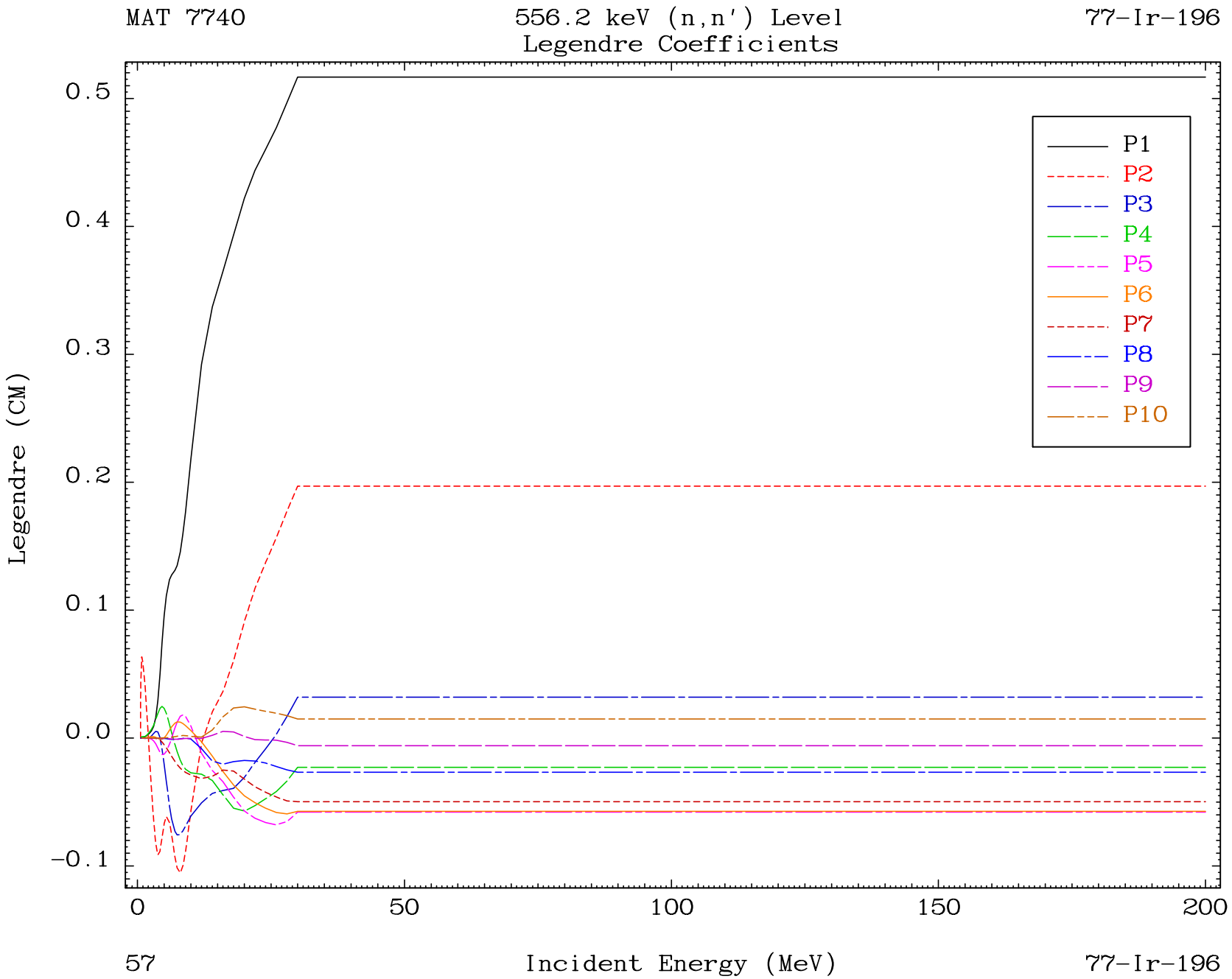

MAT 7740
542.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.0
X10^-6
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
Legendre (CM)
50
100
150
200
52
Incident Energy (MeV)
77-Ir-196
P28
P29
P30
P31
P32
P33
P34
P35
P36

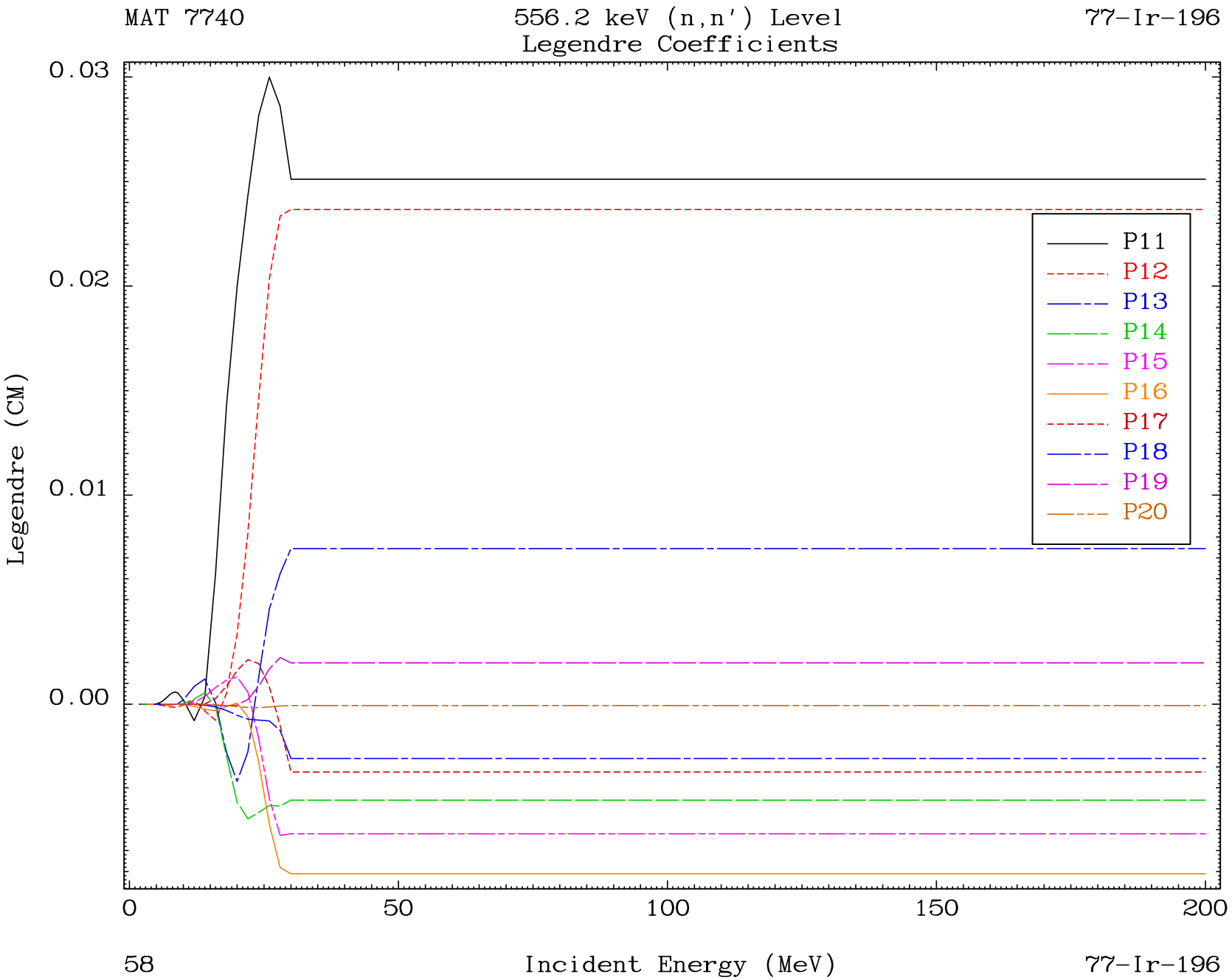

MAT 7740
546.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
53
Incident Energy (MeV)
77-Ir-196

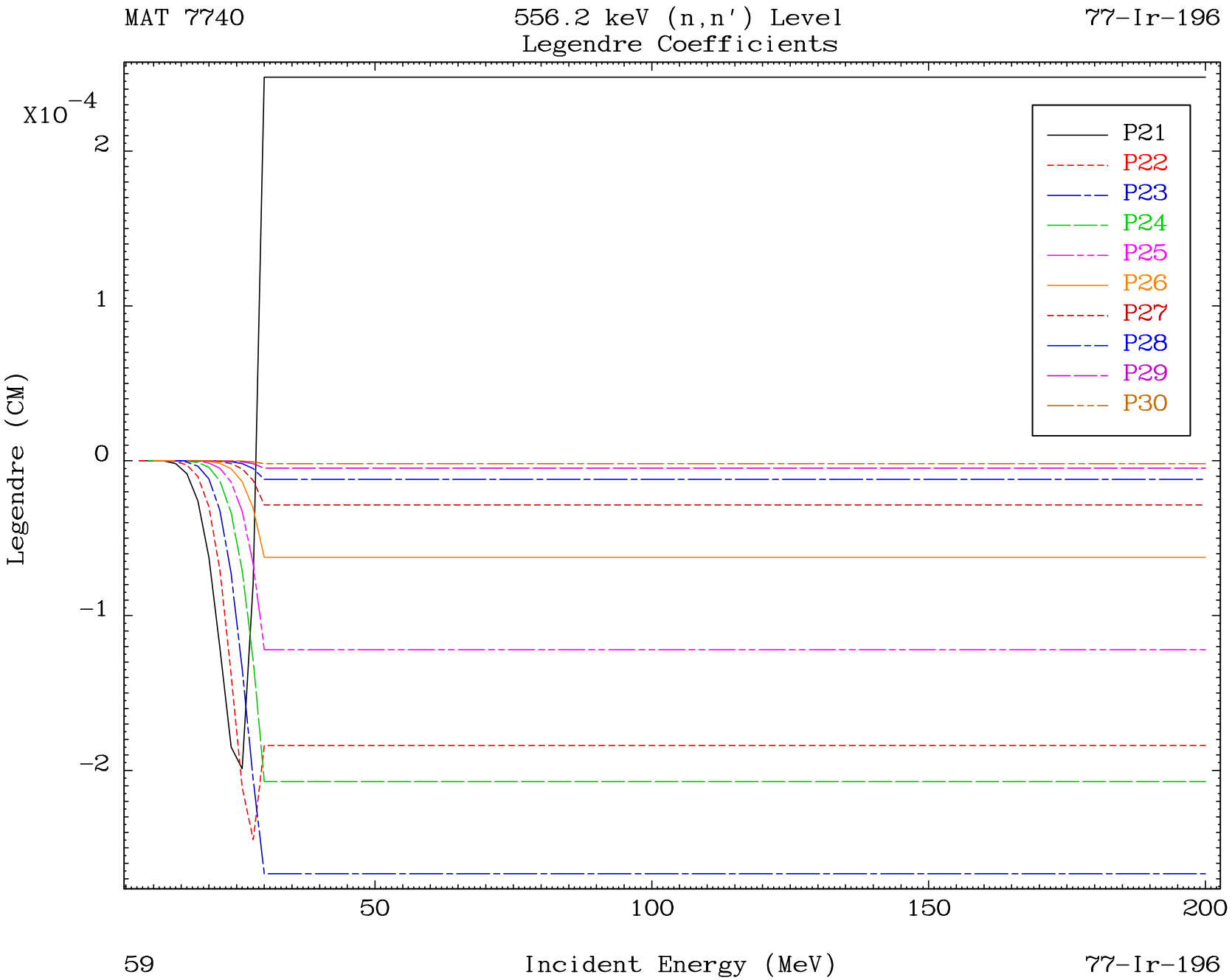

MAT 7740
546.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.04
0.02
0.00
-0.02
Legendre (CM)
0
50
100
150
200
54
Incident Energy (MeV)
77-Ir-196

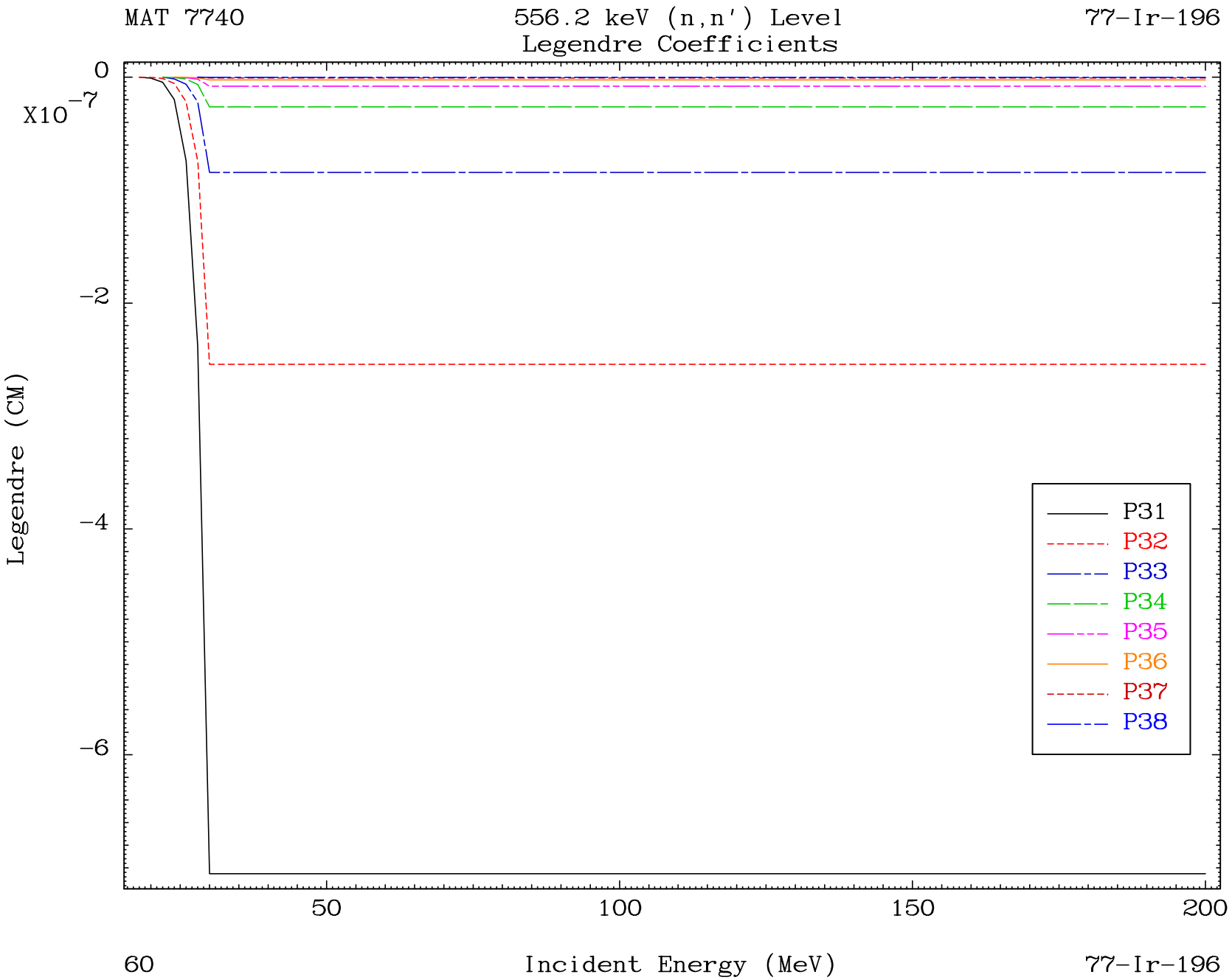

MAT 7740
546.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
55
Incident Energy (MeV)
77-Ir-196

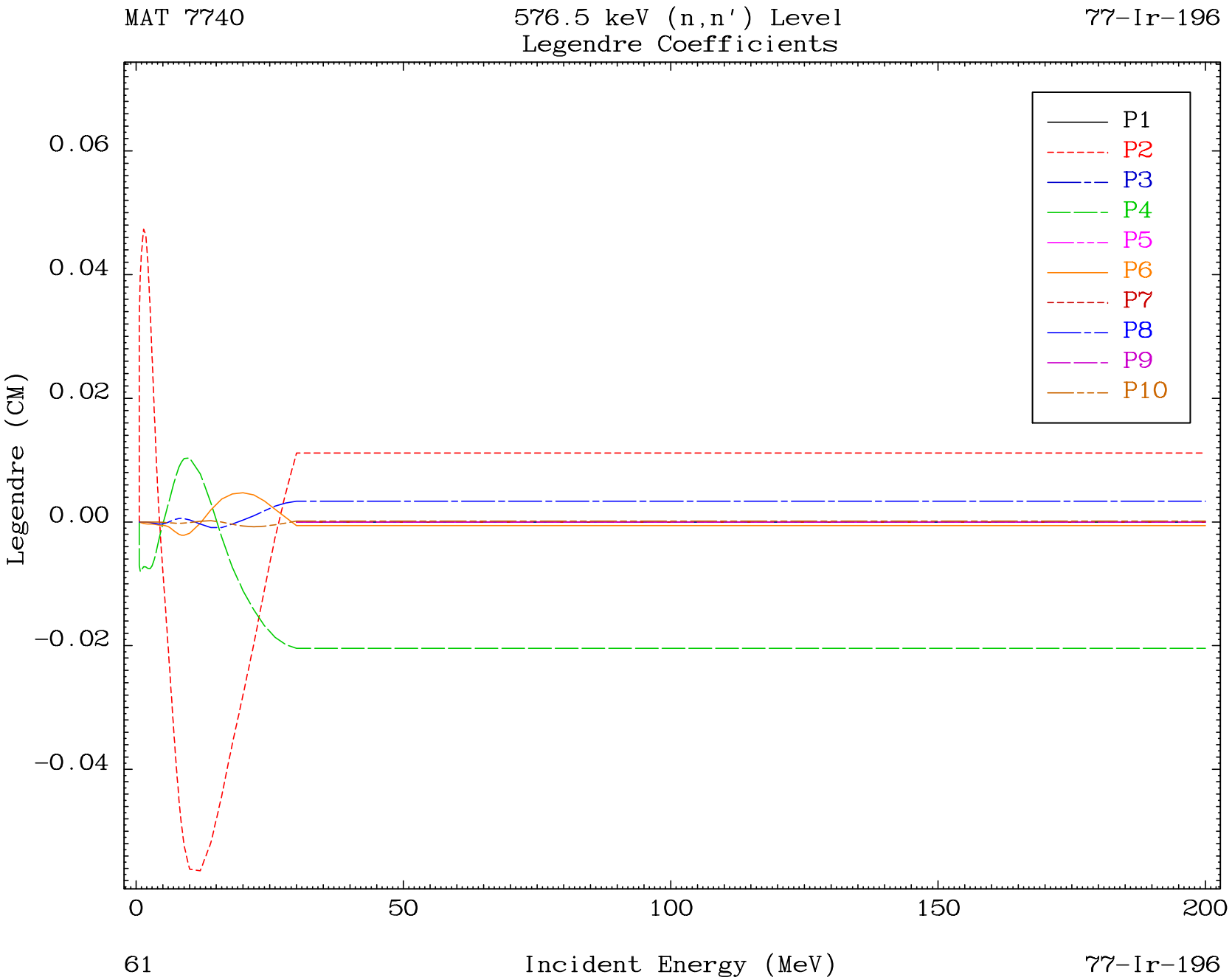

MAT 7740
546.9 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^{-6}
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
56
Incident Energy (MeV)
77-Ir-196

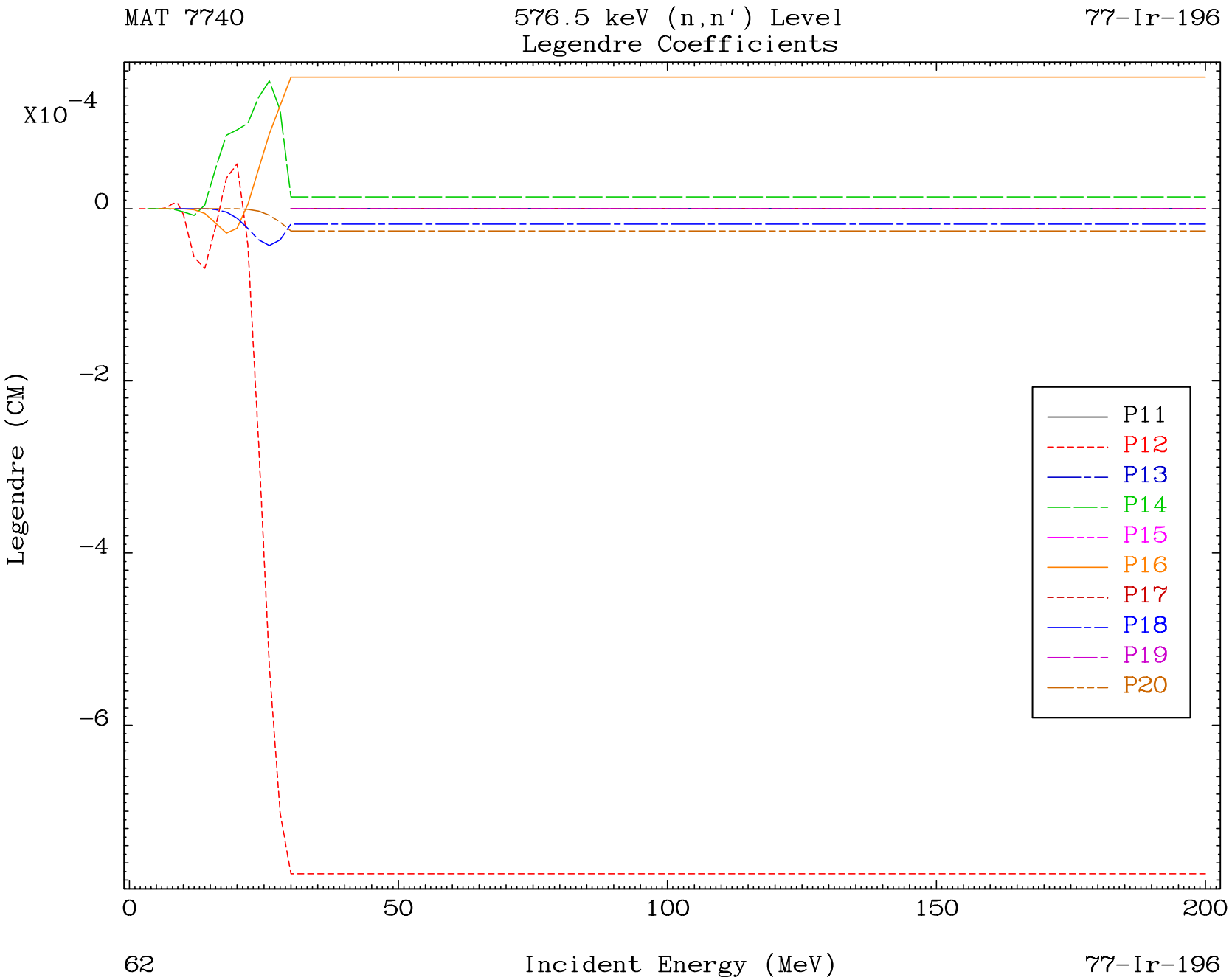

MAT 7740
556.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
57
Incident Energy (MeV)
77-Ir-196

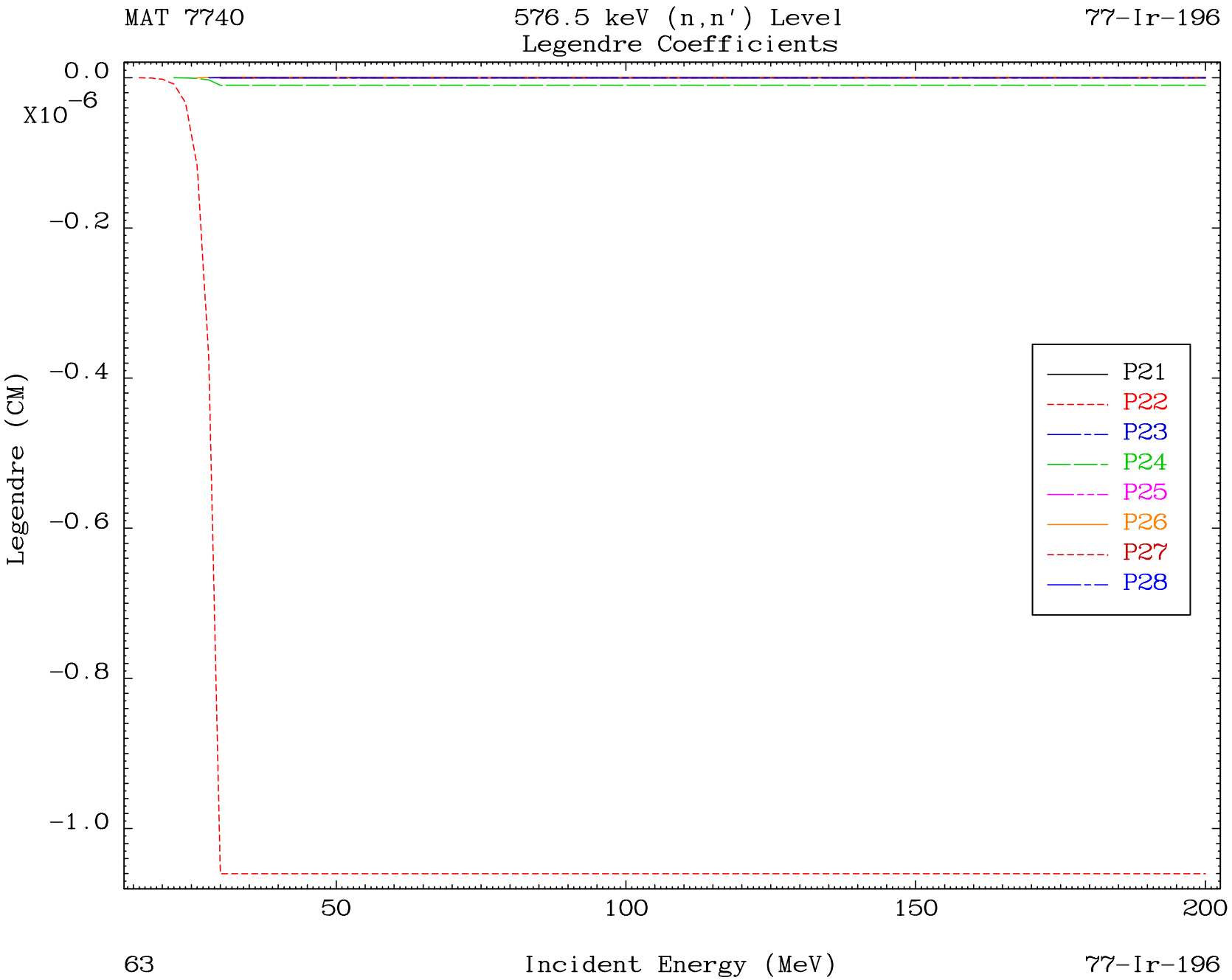

MAT 7740
556.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.03
0.02
0.01
0.00
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
58
Incident Energy (MeV)
77-Ir-196

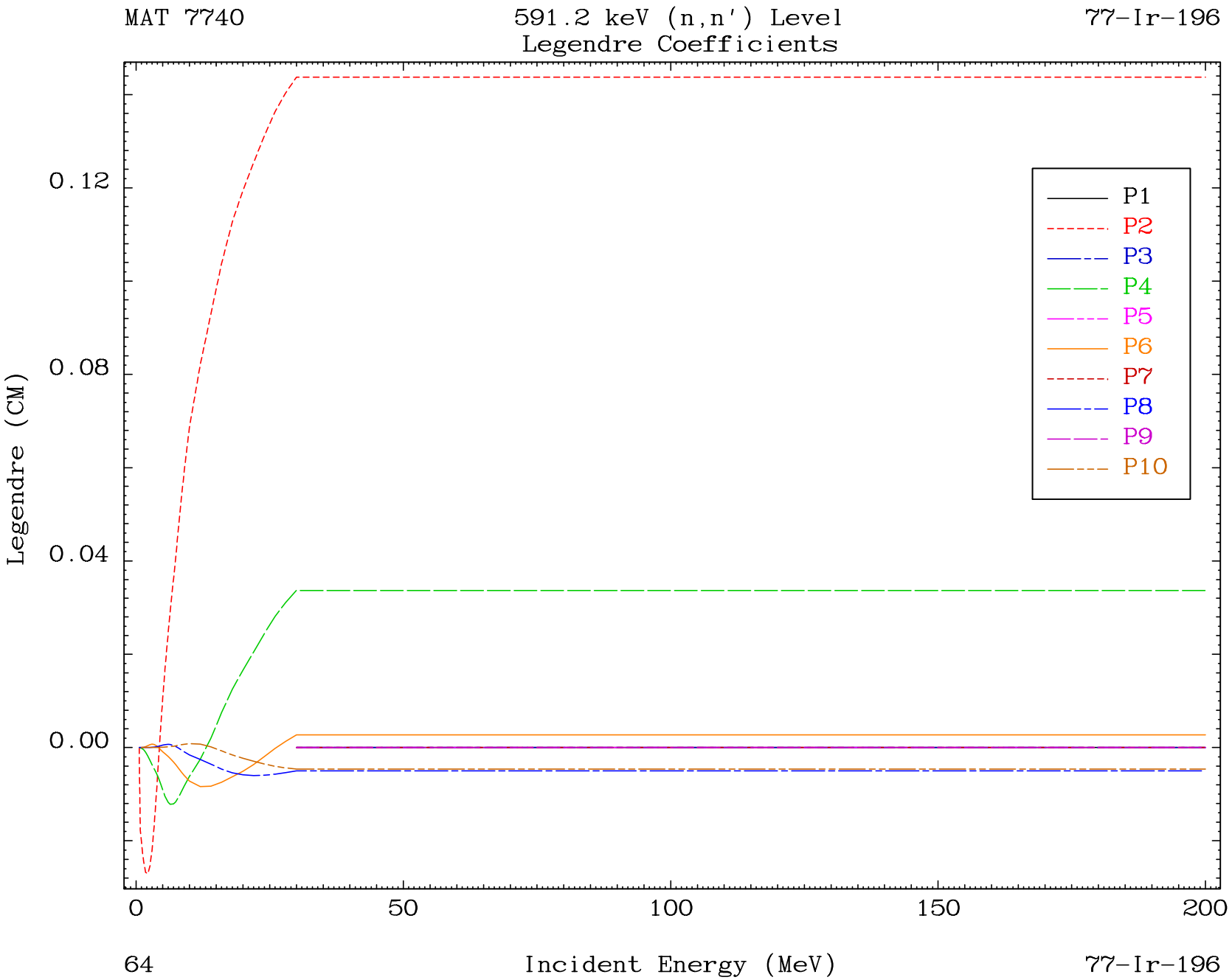

MAT 7740
556.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10 −4
2
1
0
−1
−2
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
59
Incident Energy (MeV)
77-Ir-196

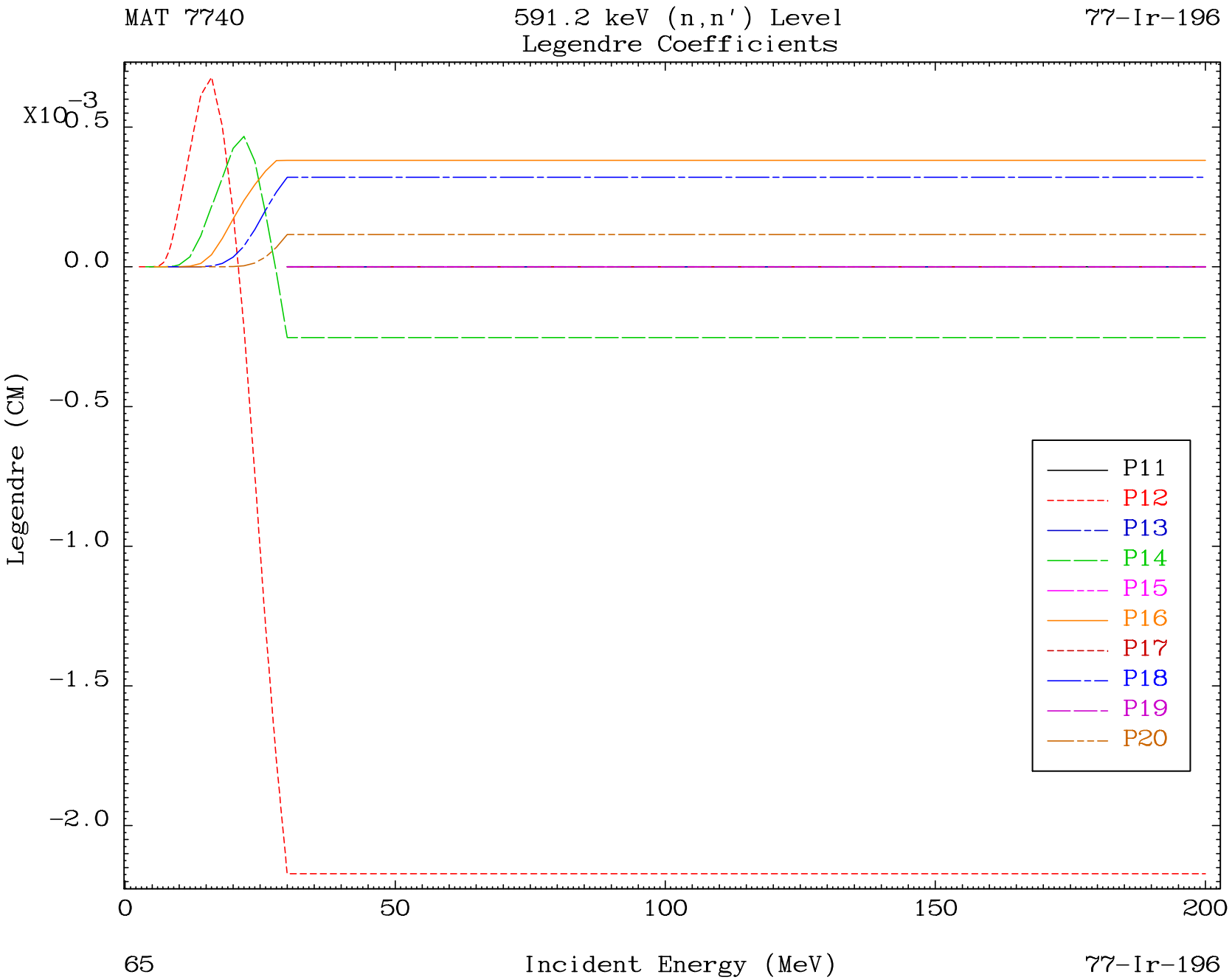

MAT 7740
556.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10-7
-2
-4
-6
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
60
Incident Energy (MeV)
77-Ir-196

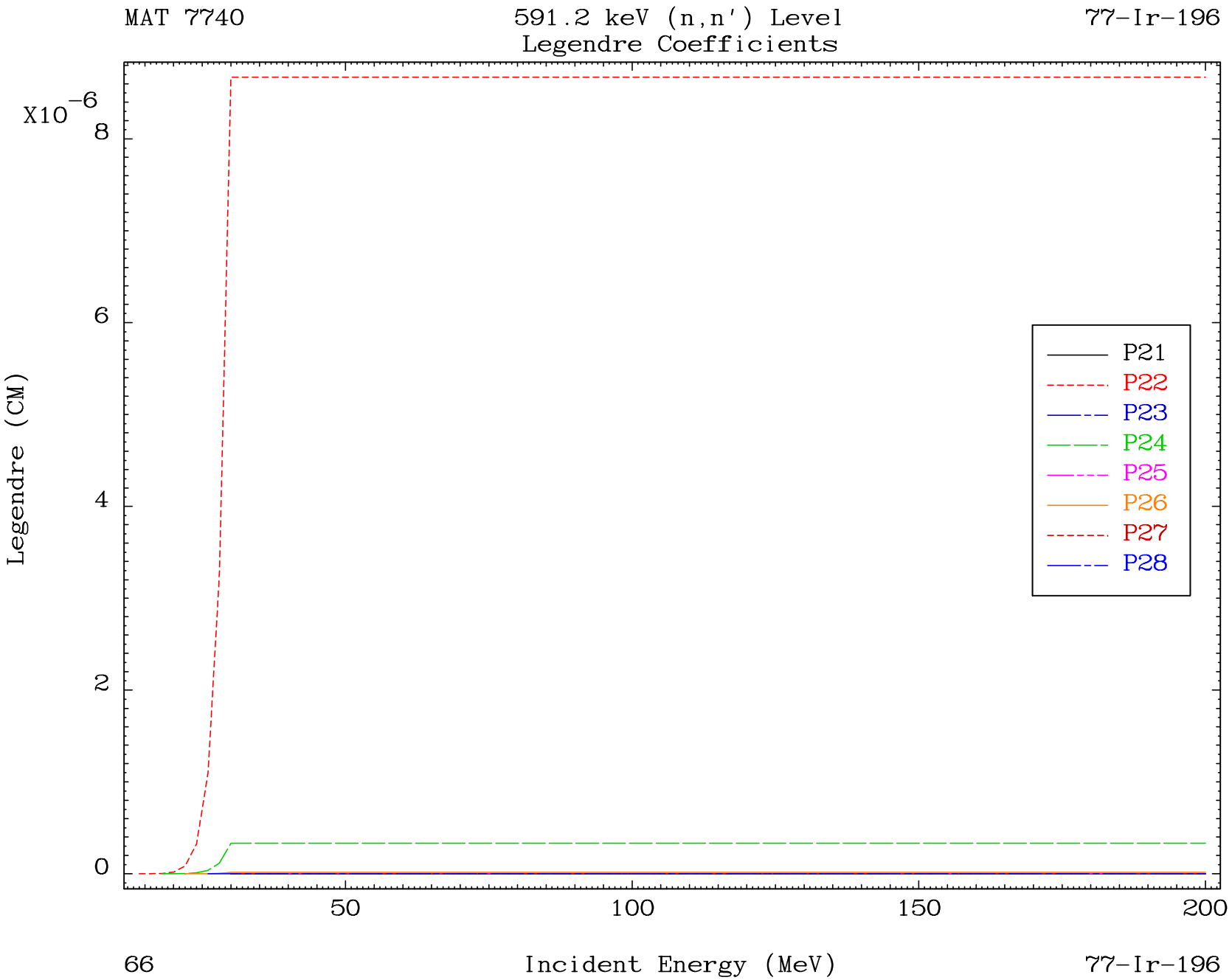

MAT 7740
576.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
61
Incident Energy (MeV)
77-Ir-196

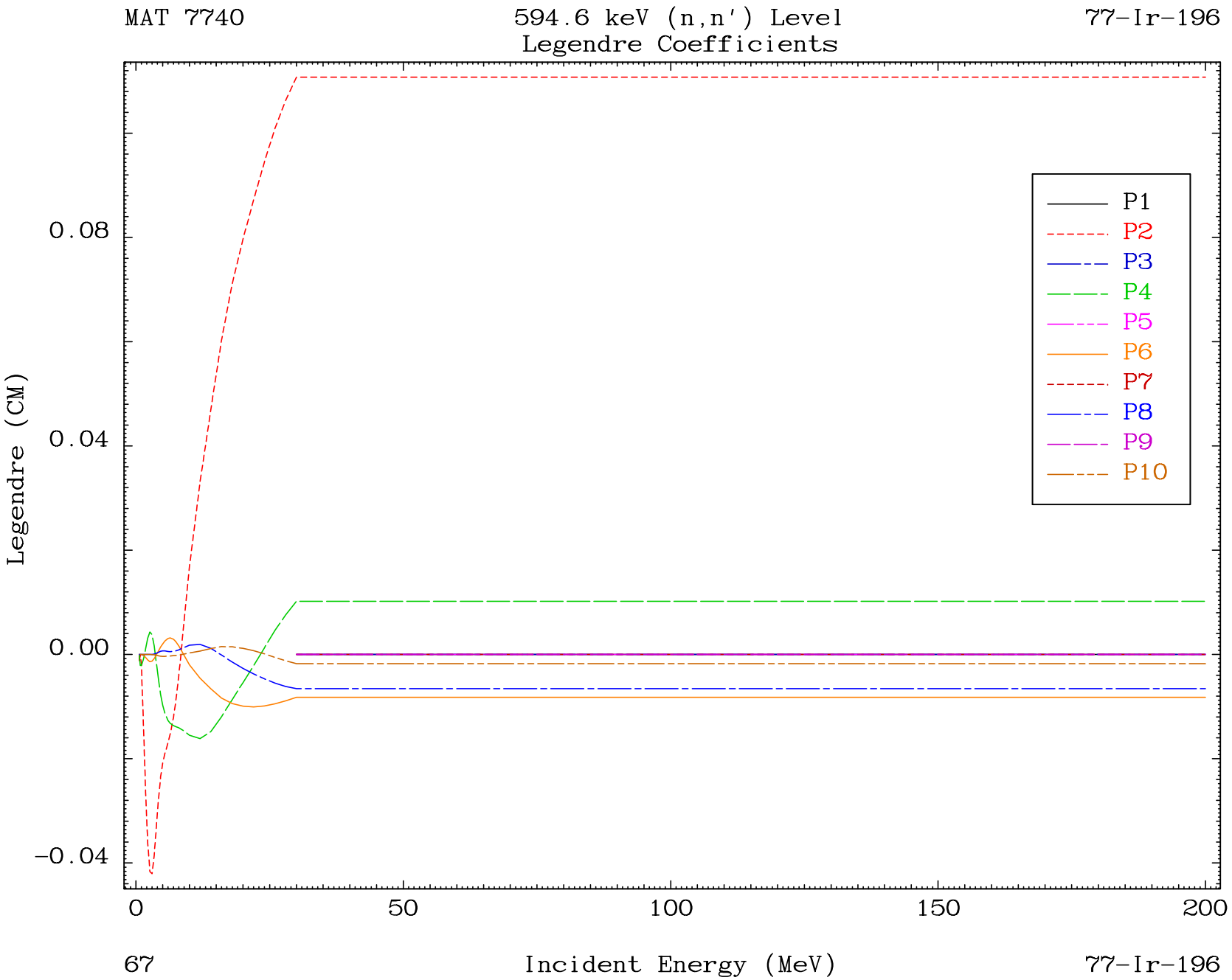

MAT 7740
576.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-4
0
-2
-4
-6
Legendre (CM)
0
50
100
150
200
62
Incident Energy (MeV)
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

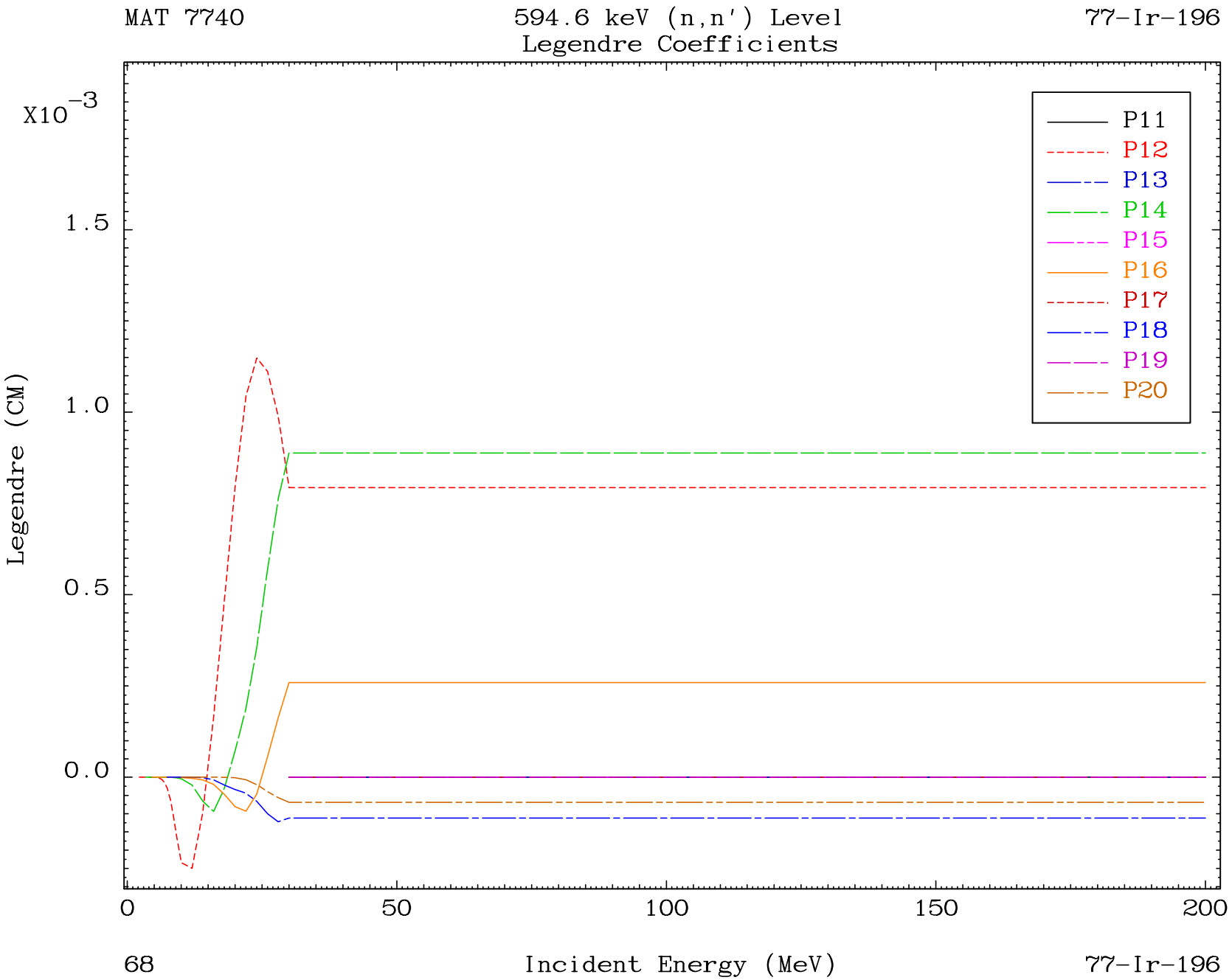

MAT 7740
576.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.0
X10^-6
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
63
Incident Energy (MeV)
77-Ir-196

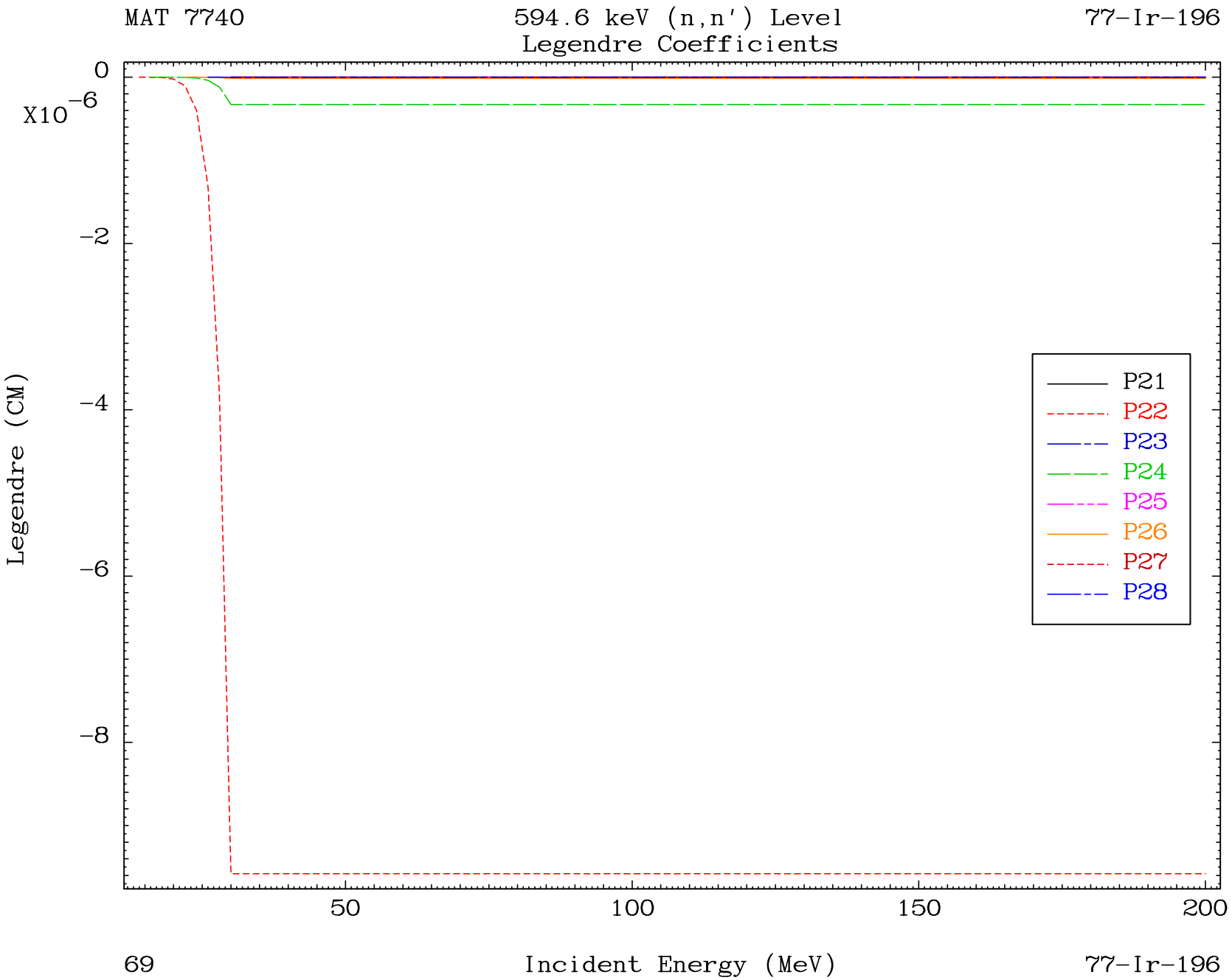

MAT 7740
591.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
64
Incident Energy (MeV)
77-Ir-196

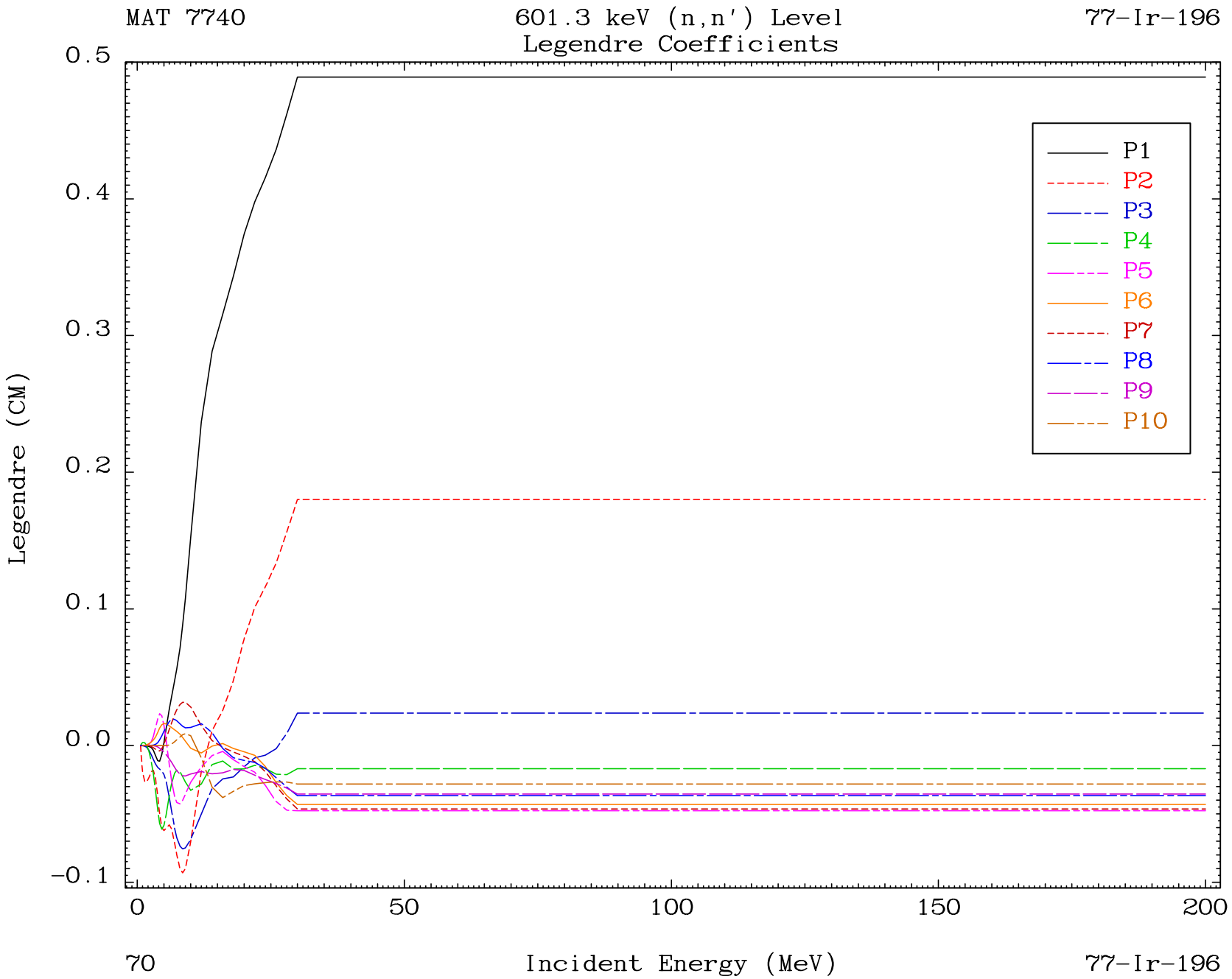

MAT 7740
591.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10-3
0.5
0.0
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
0
50
100
150
200
65
Incident Energy (MeV)
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

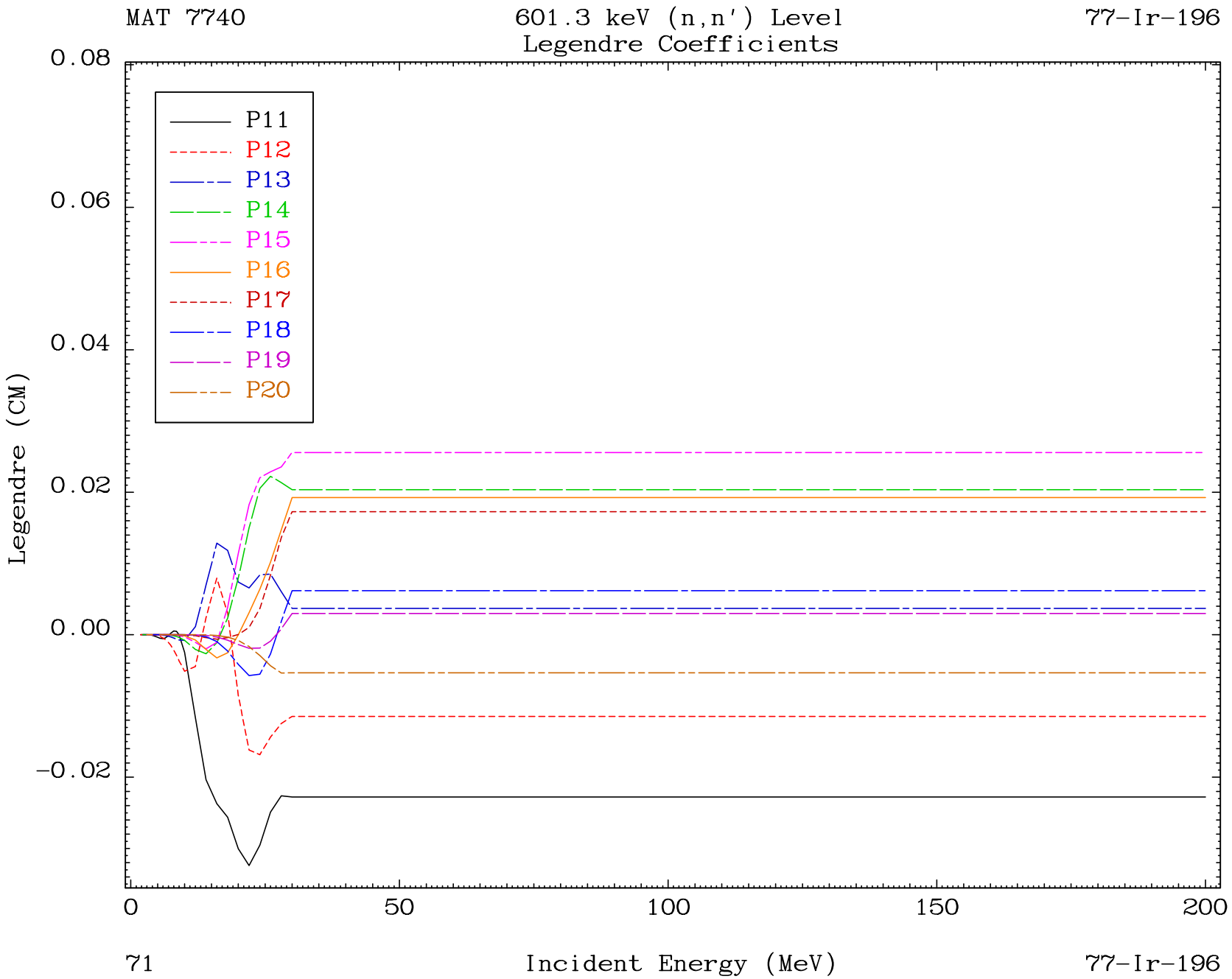

MAT 7740
591.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10 −6
8
6
4
2
0
Legendre (CM)
50
100
150
200
66
Incident Energy (MeV)
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28

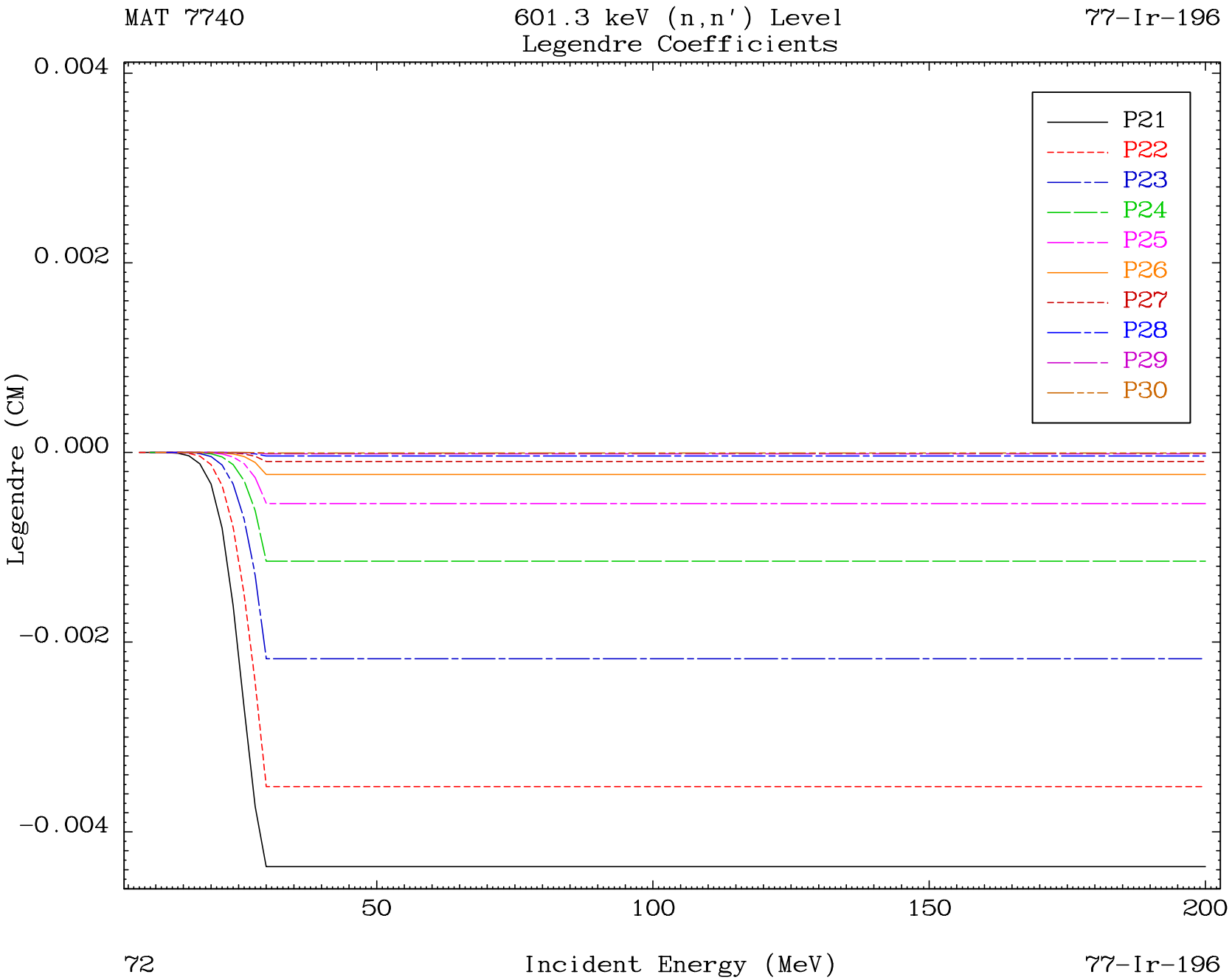

MAT 7740
594.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.08
0.04
0.00
-0.04
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
67
Incident Energy (MeV)
77-Ir-196

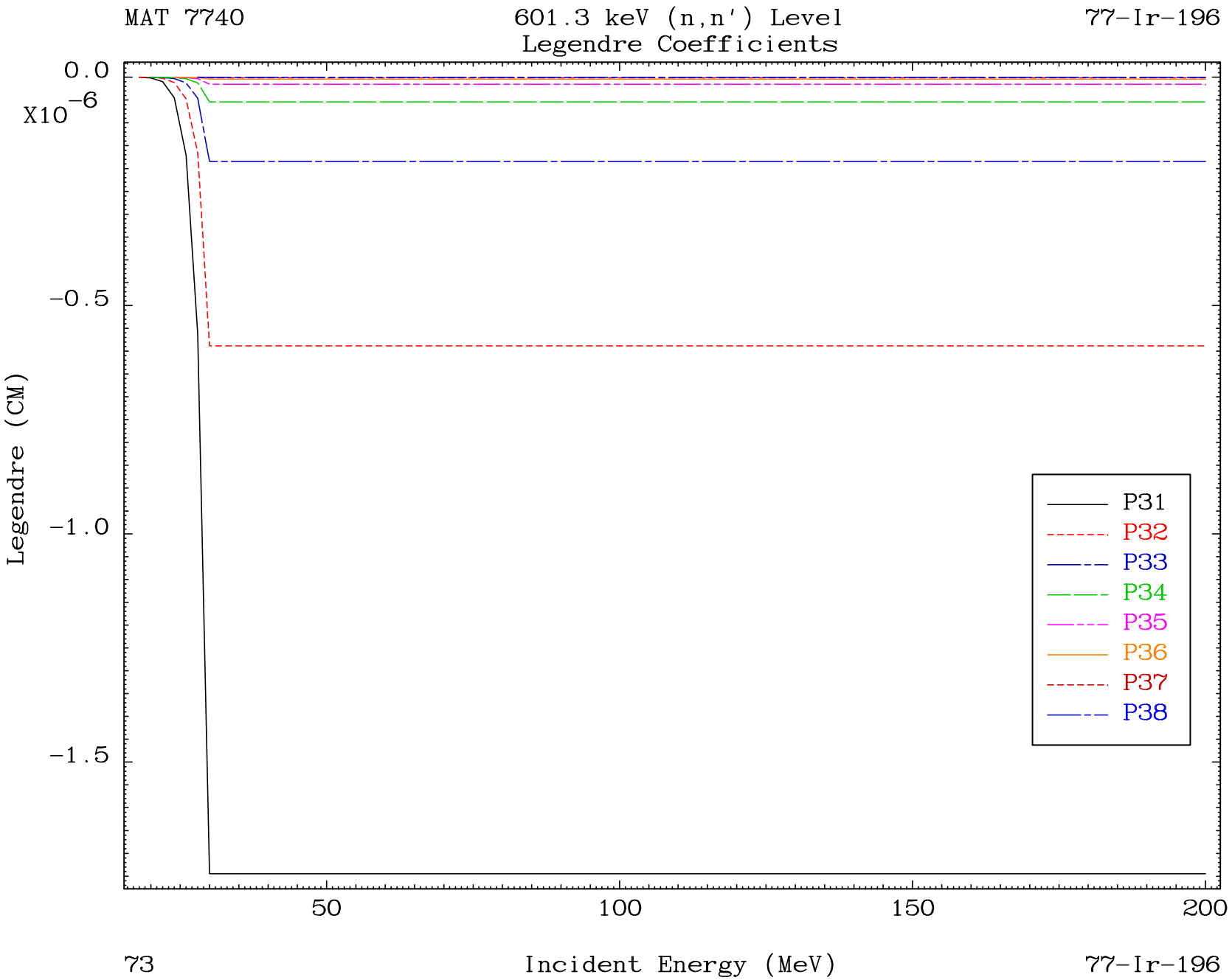

MAT 7740
594.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^{-3}
1.5
1.0
0.5
0.0
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
68
Incident Energy (MeV)
77-Ir-196

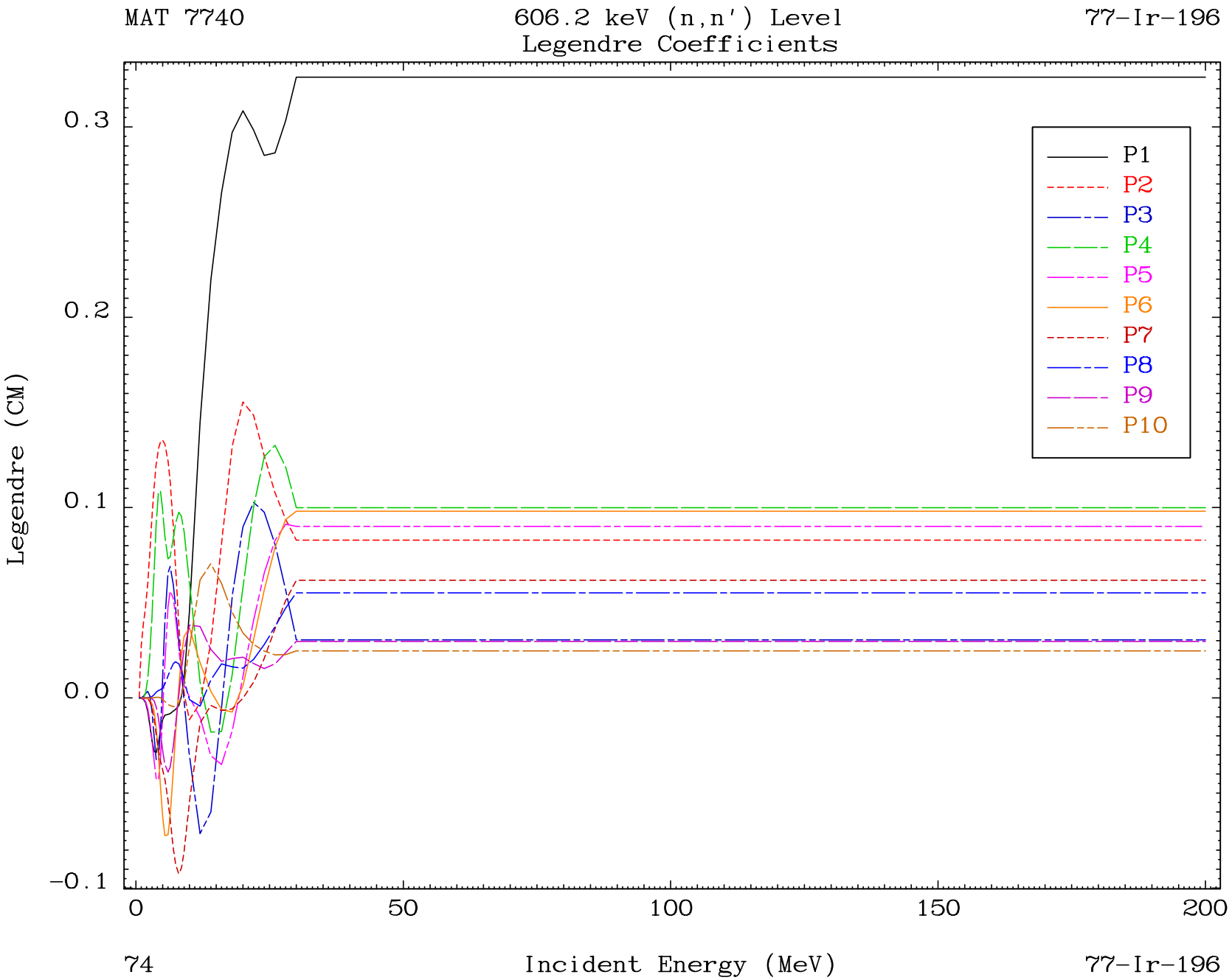

MAT 7740
594.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
69
Incident Energy (MeV)
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28

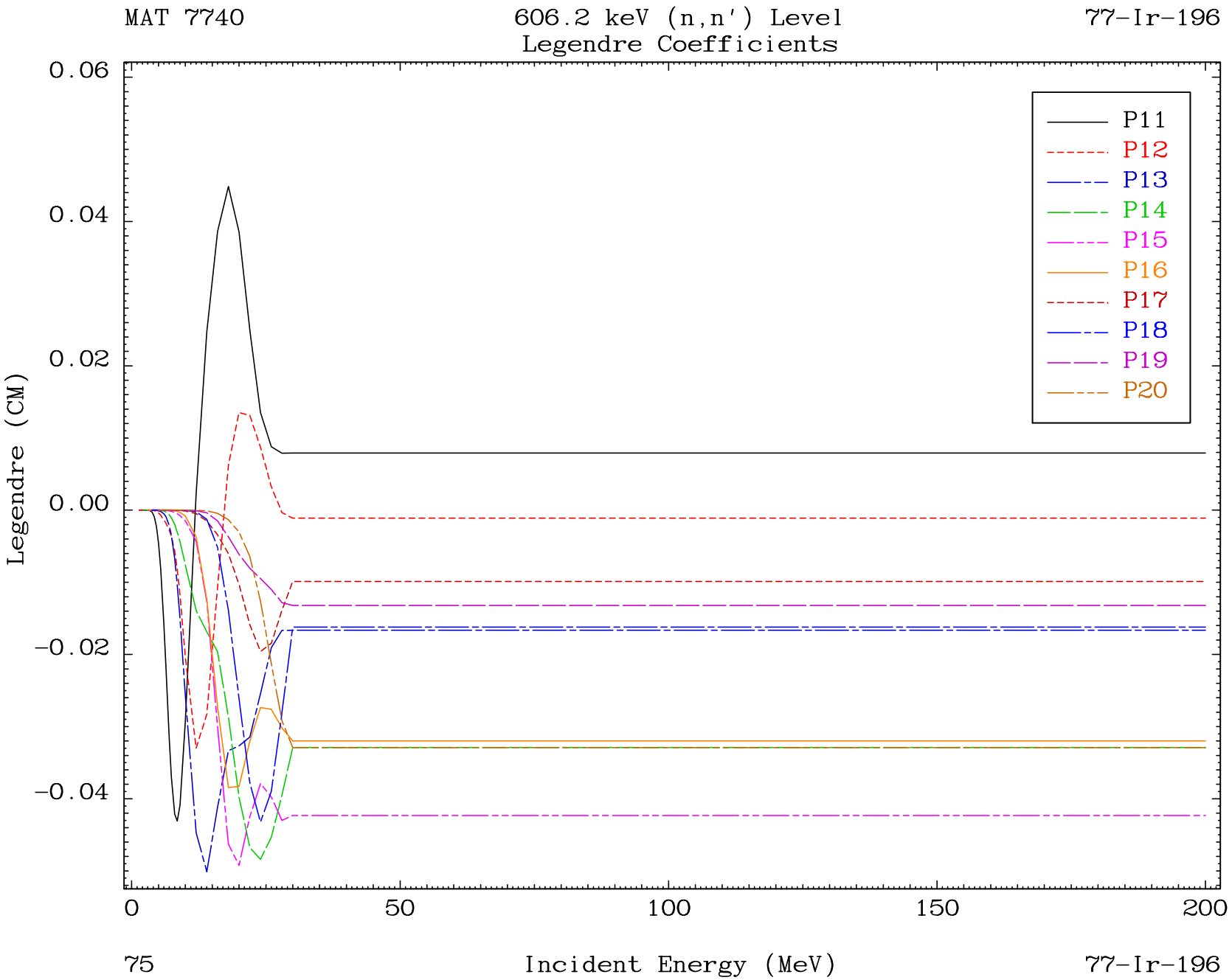

MAT 7740
601.3 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
70
Incident Energy (MeV)
77-Ir-196

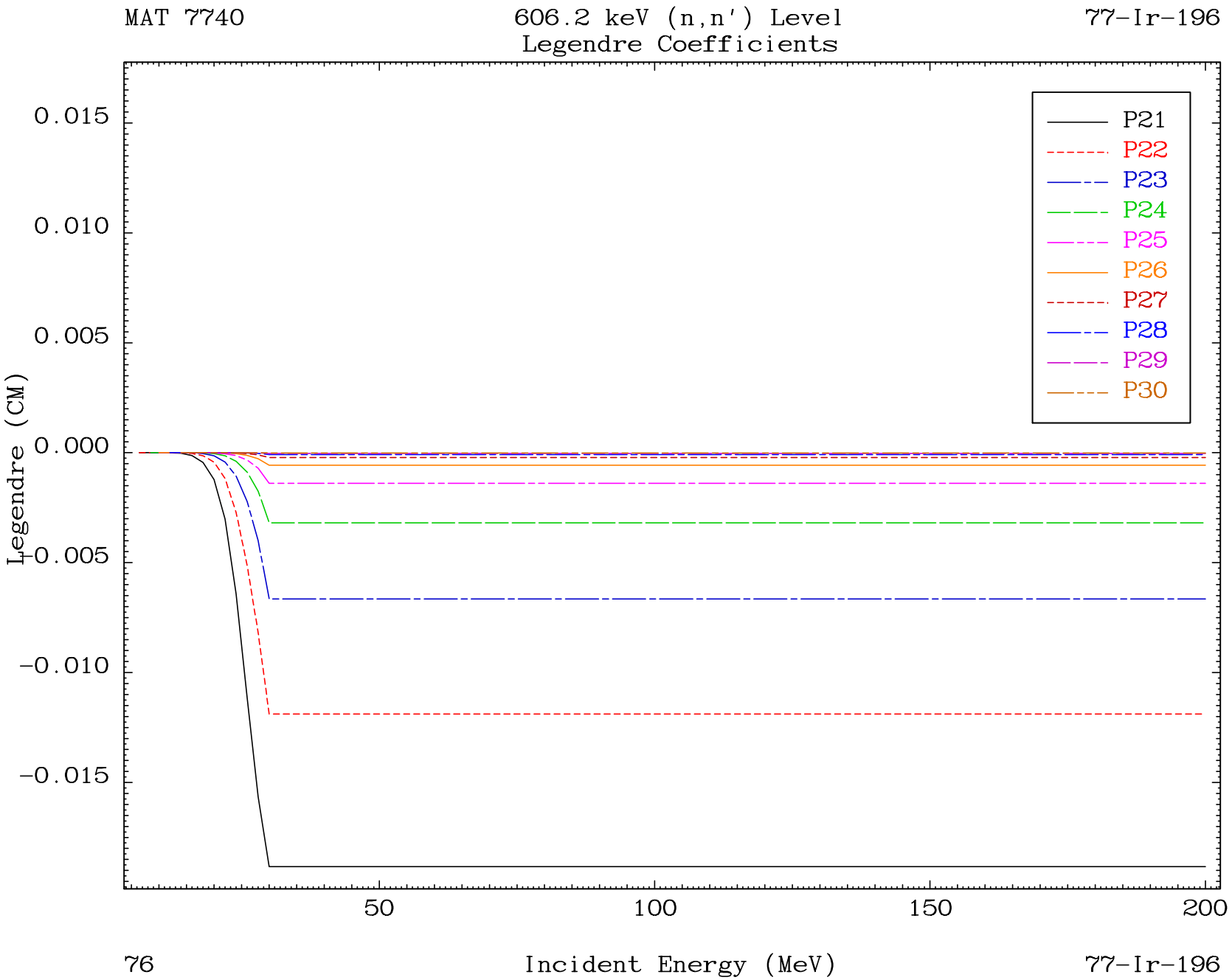

MAT 7740
601.3 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.08
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
0
50
100
150
200
71
Incident Energy (MeV)
77-Ir-196

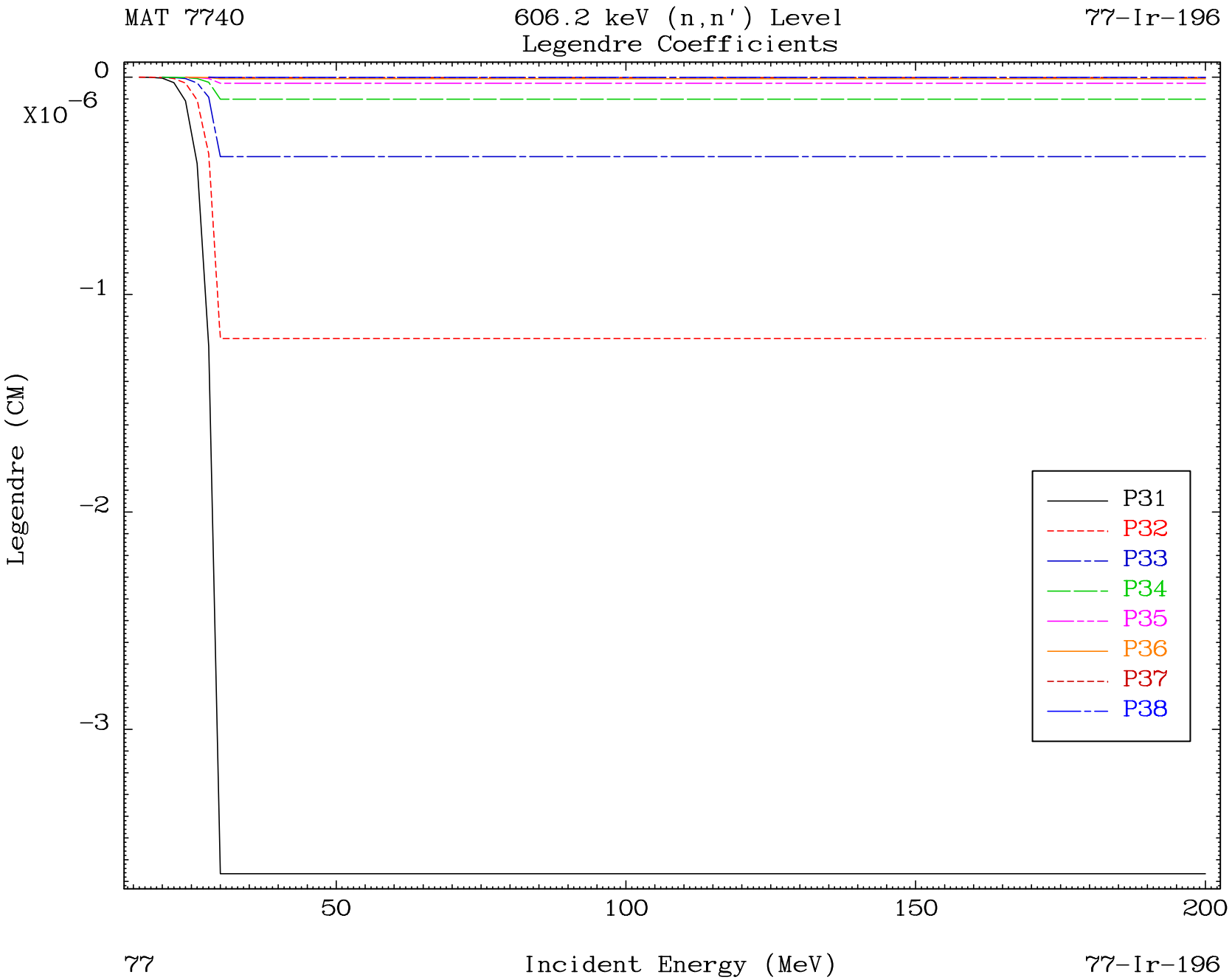

MAT 7740
601.3 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.004
0.002
0.000
-0.002
-0.004
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
72
Incident Energy (MeV)
77-Ir-196

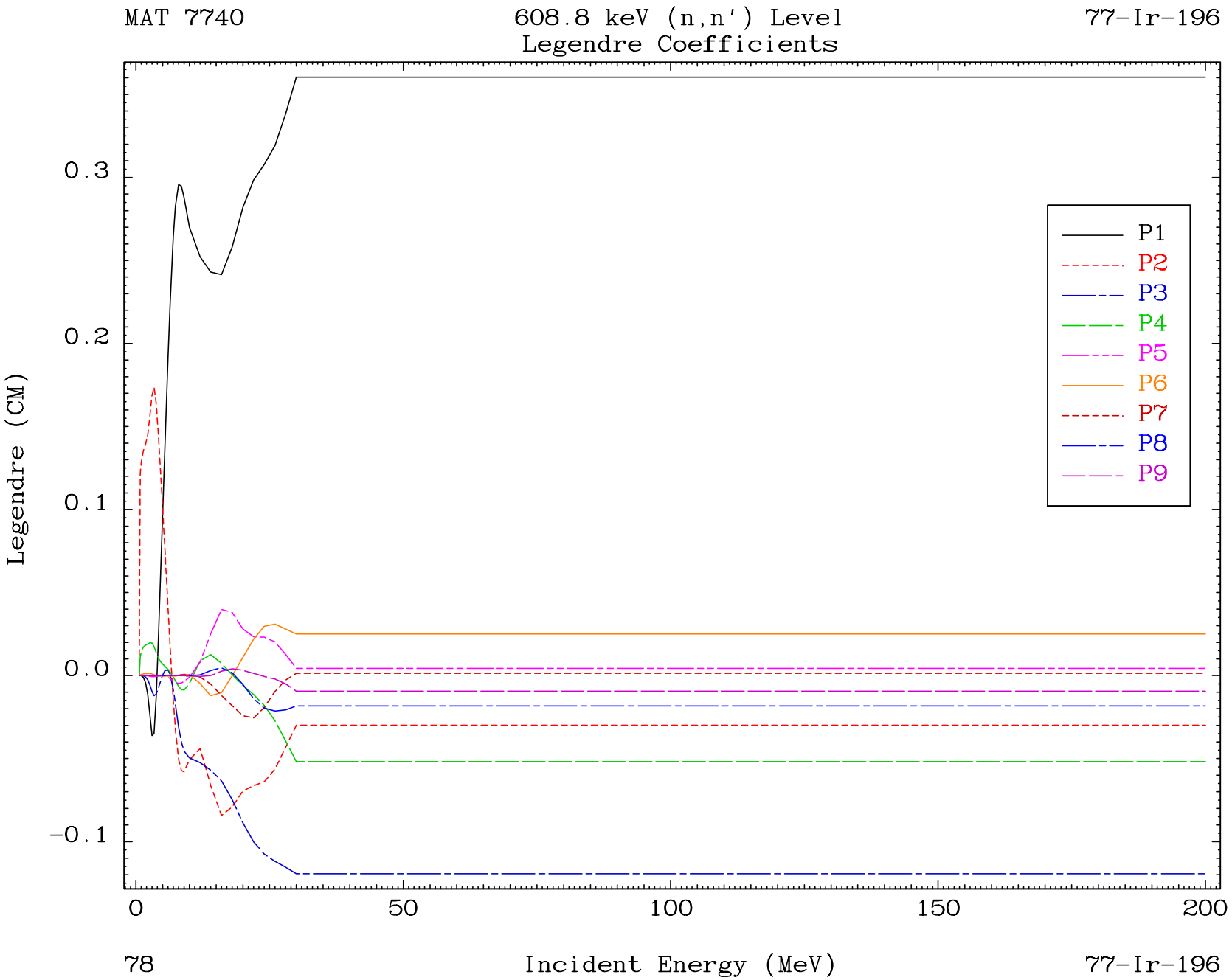

MAT 7740
601.3 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.0
X10^-6
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
73
Incident Energy (MeV)
77-Ir-196
P31
P32
P33
P34
P35
P36
P37
P38

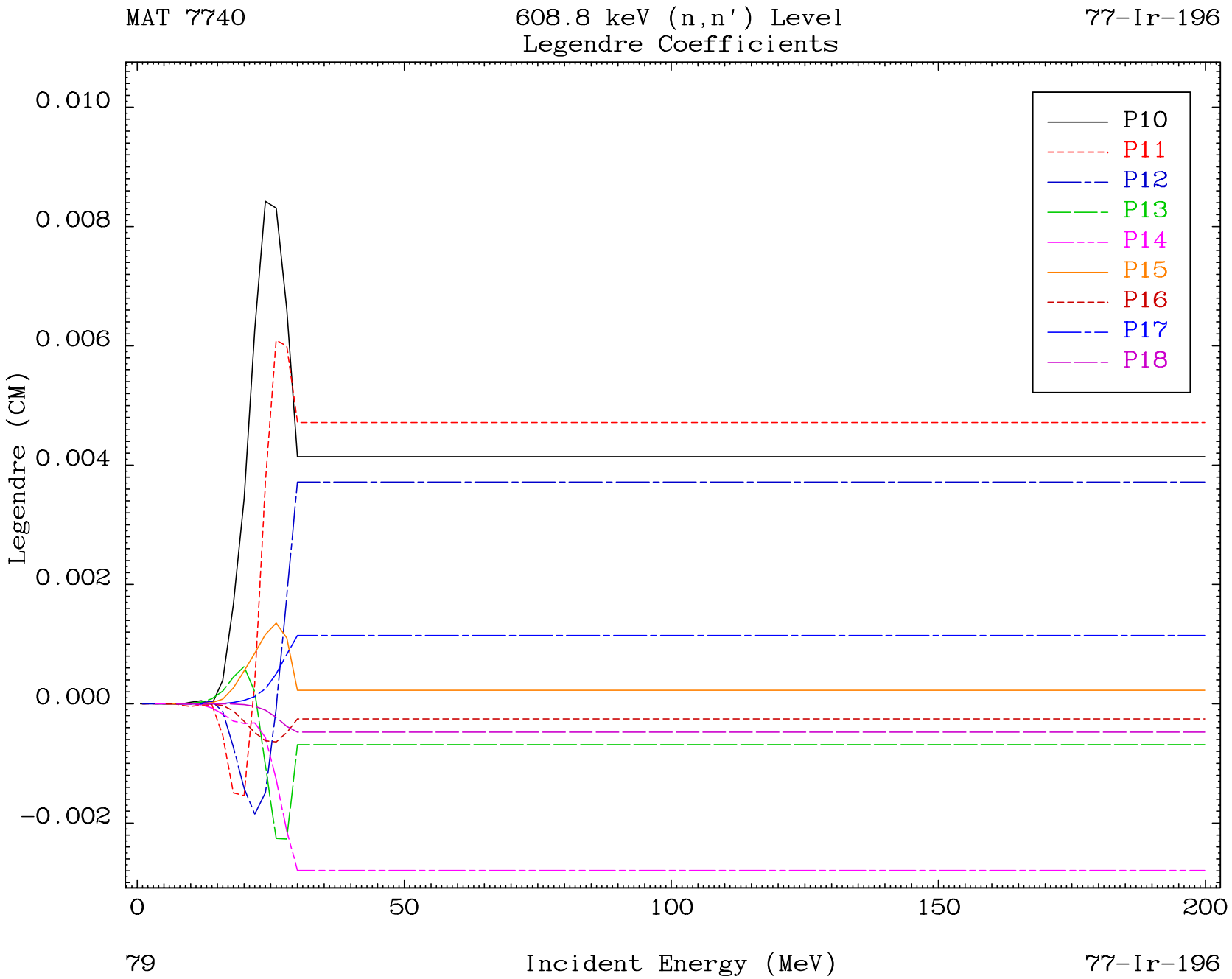

MAT 7740
606.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
74
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

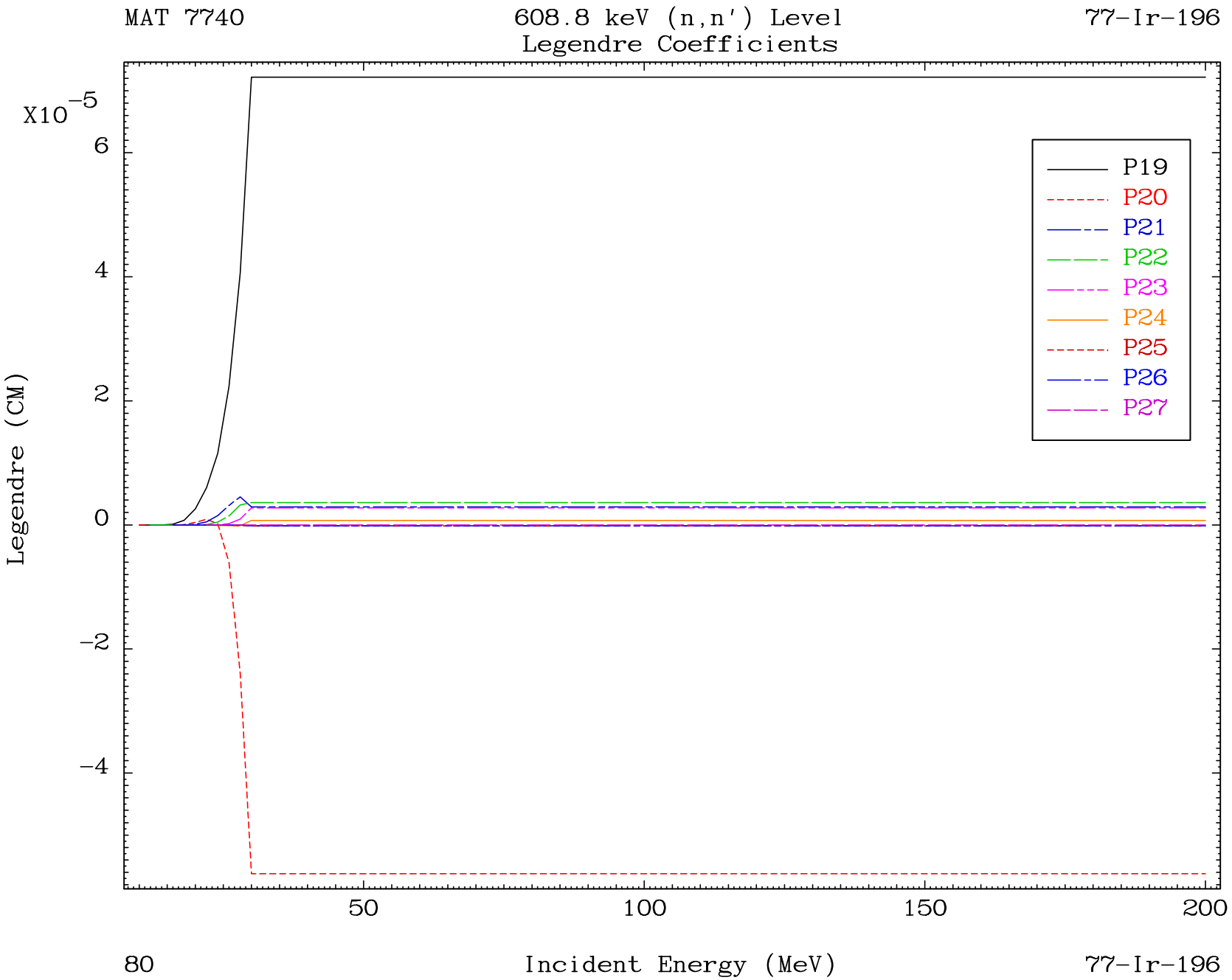

MAT 7740
606.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
75
Incident Energy (MeV)
77-Ir-196

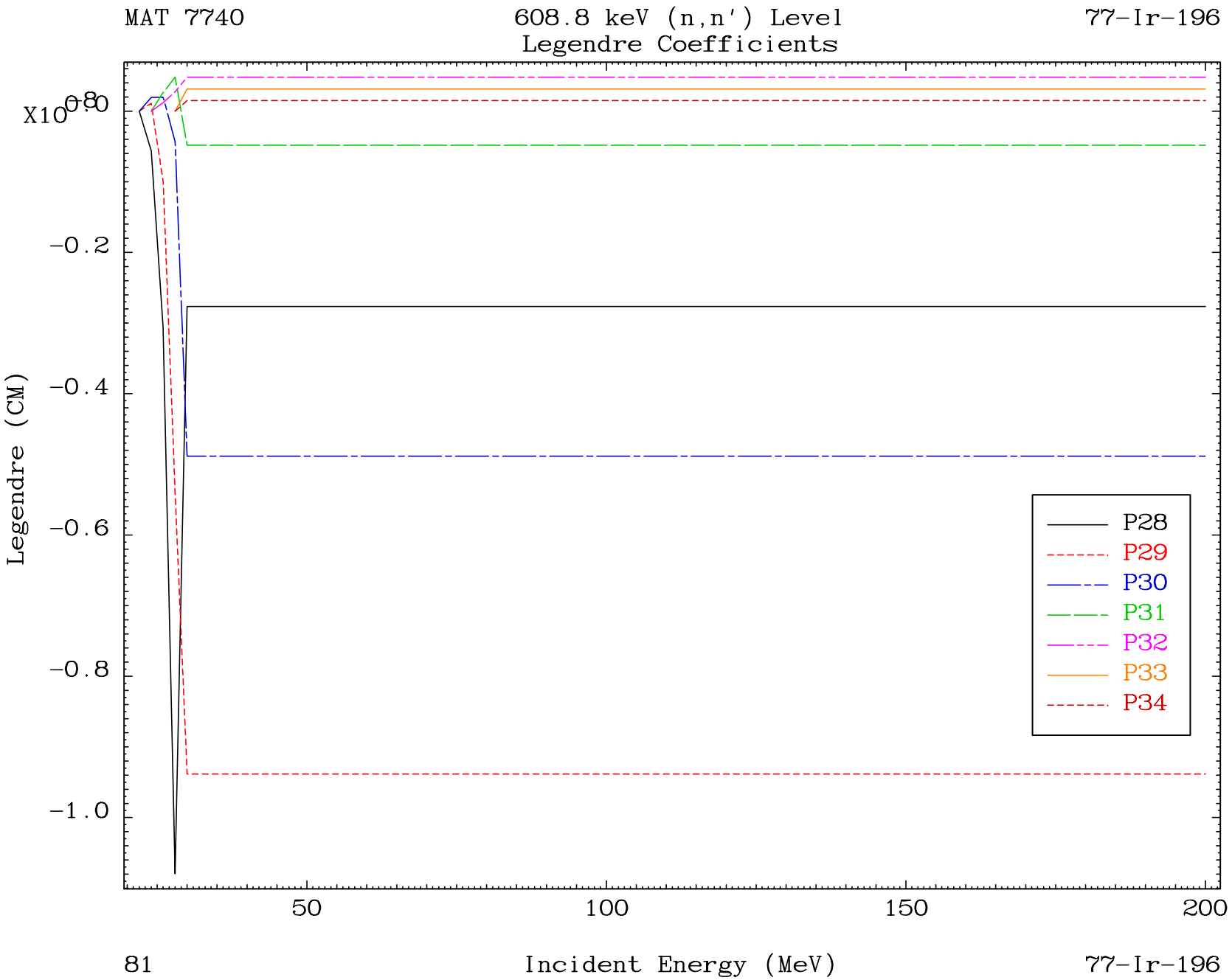

MAT 7740
606.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
76
Incident Energy (MeV)
77-Ir-196

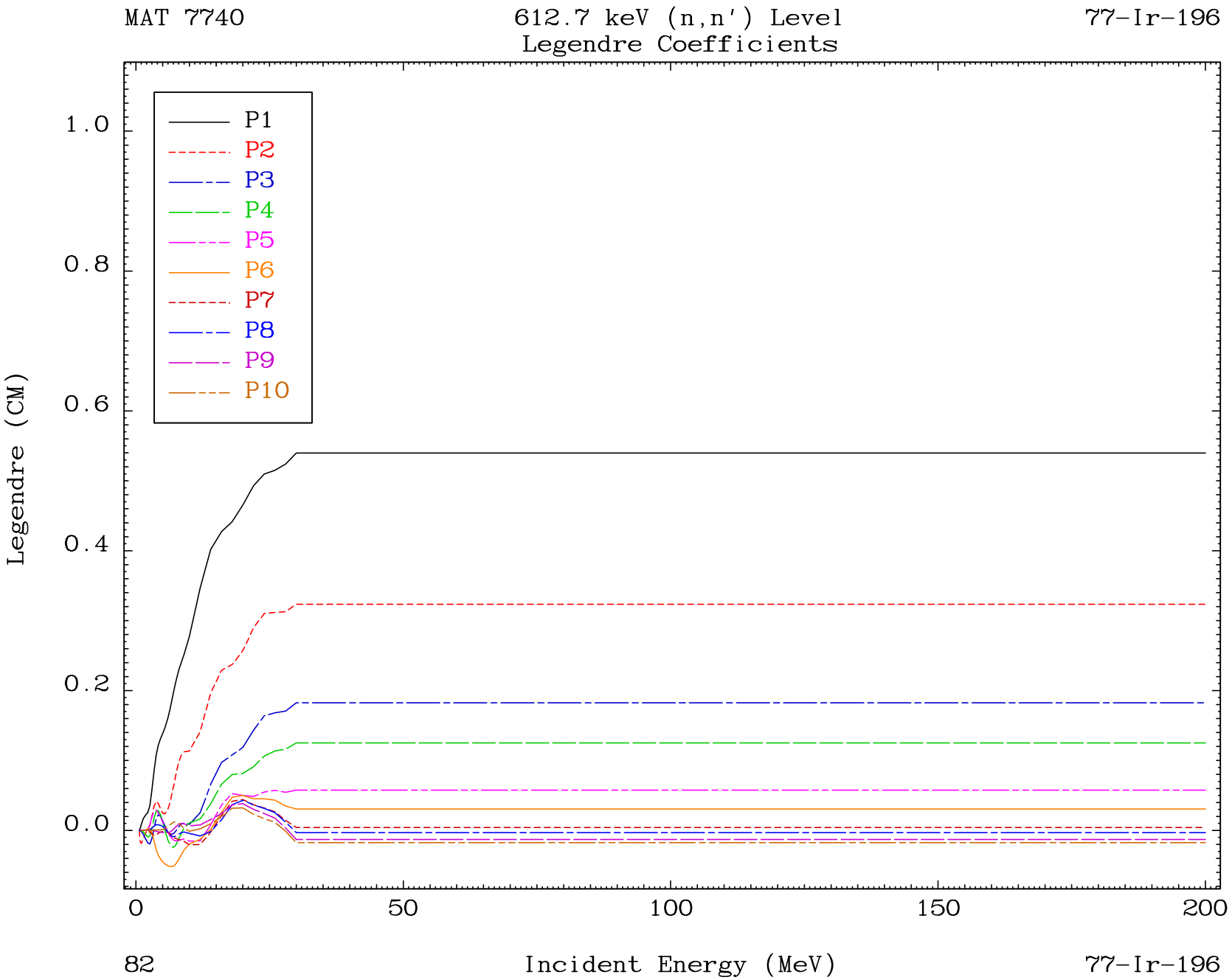

MAT 7740
606.2 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−1
−2
−3
Legendre (CM)
50
100
150
200
77
Incident Energy (MeV)
77-Ir-196
P31
P32
P33
P34
P35
P36
P37
P38

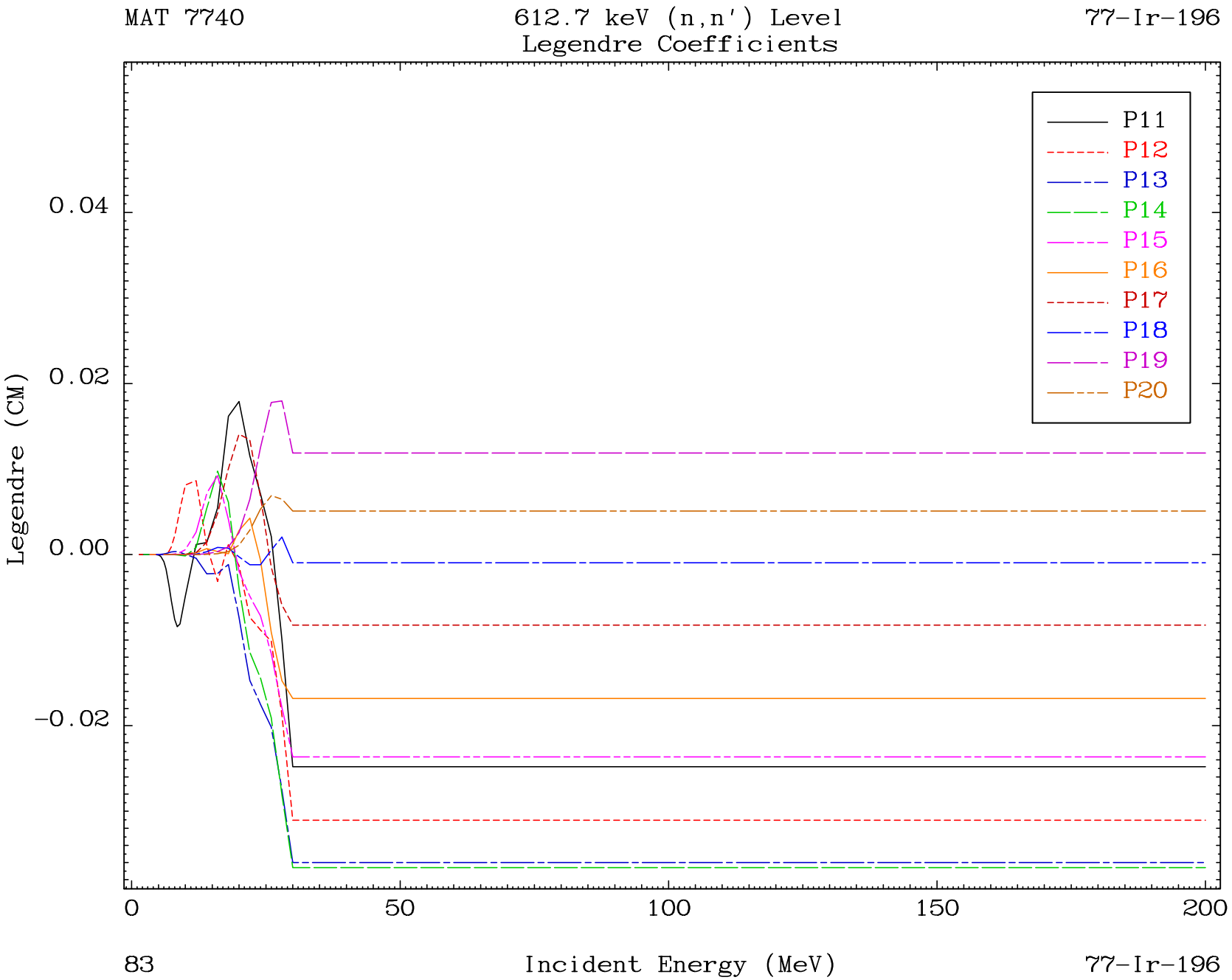

MAT 7740
608.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
78
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9

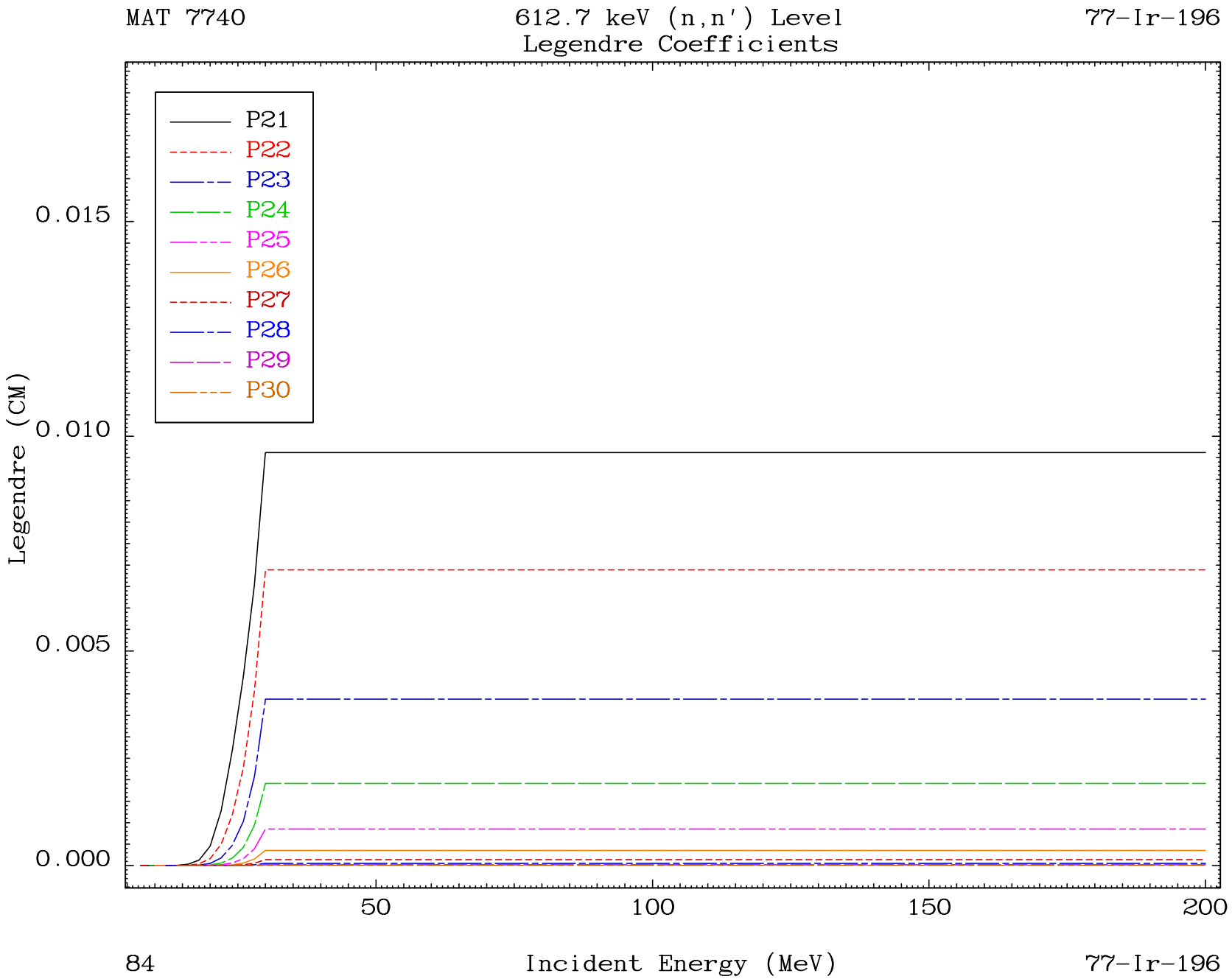

MAT 7740
608.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
79
Incident Energy (MeV)
77-Ir-196

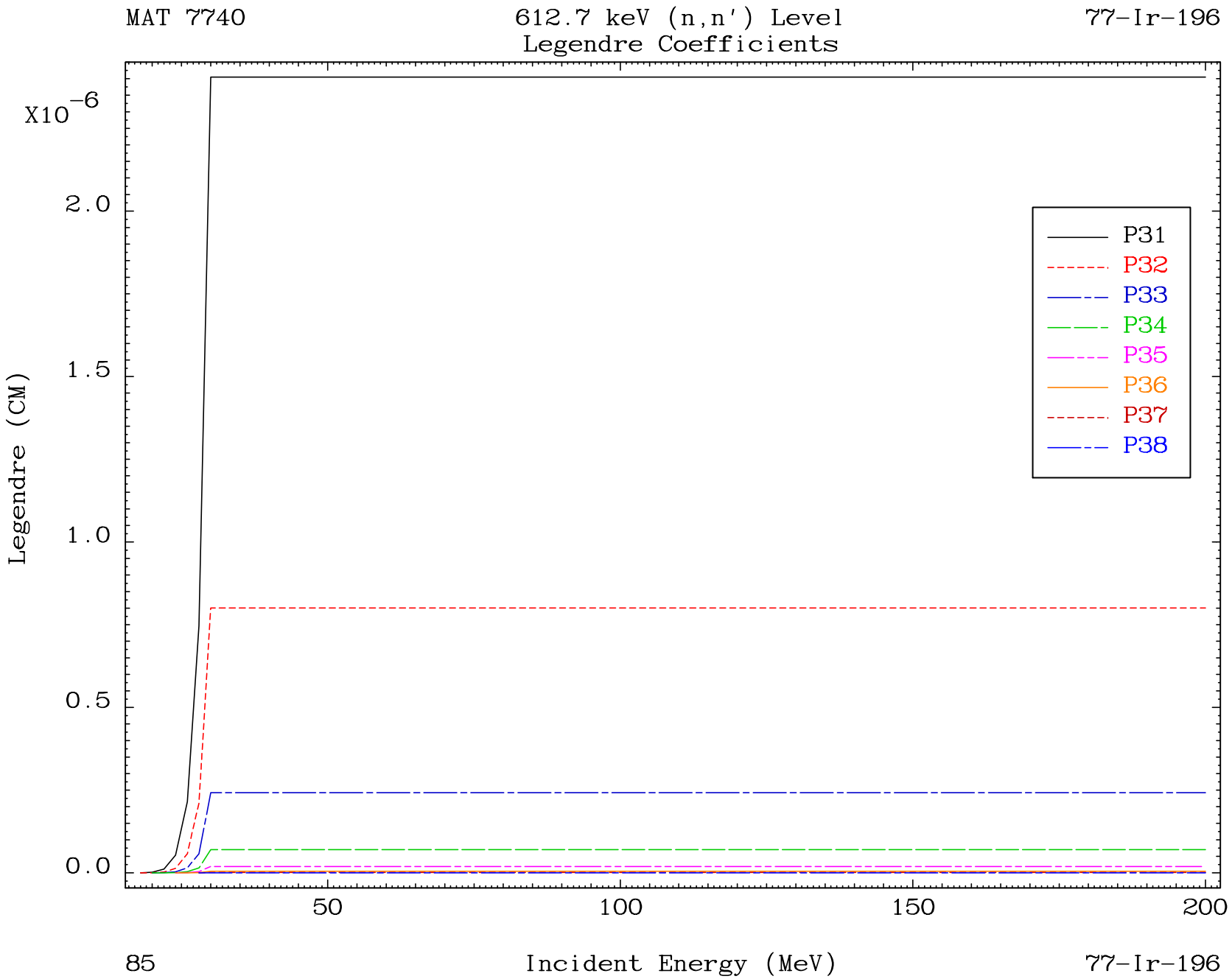

MAT 7740
608.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10 −5
6
4
2
0
−2
−4
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
80
Incident Energy (MeV)
77-Ir-196

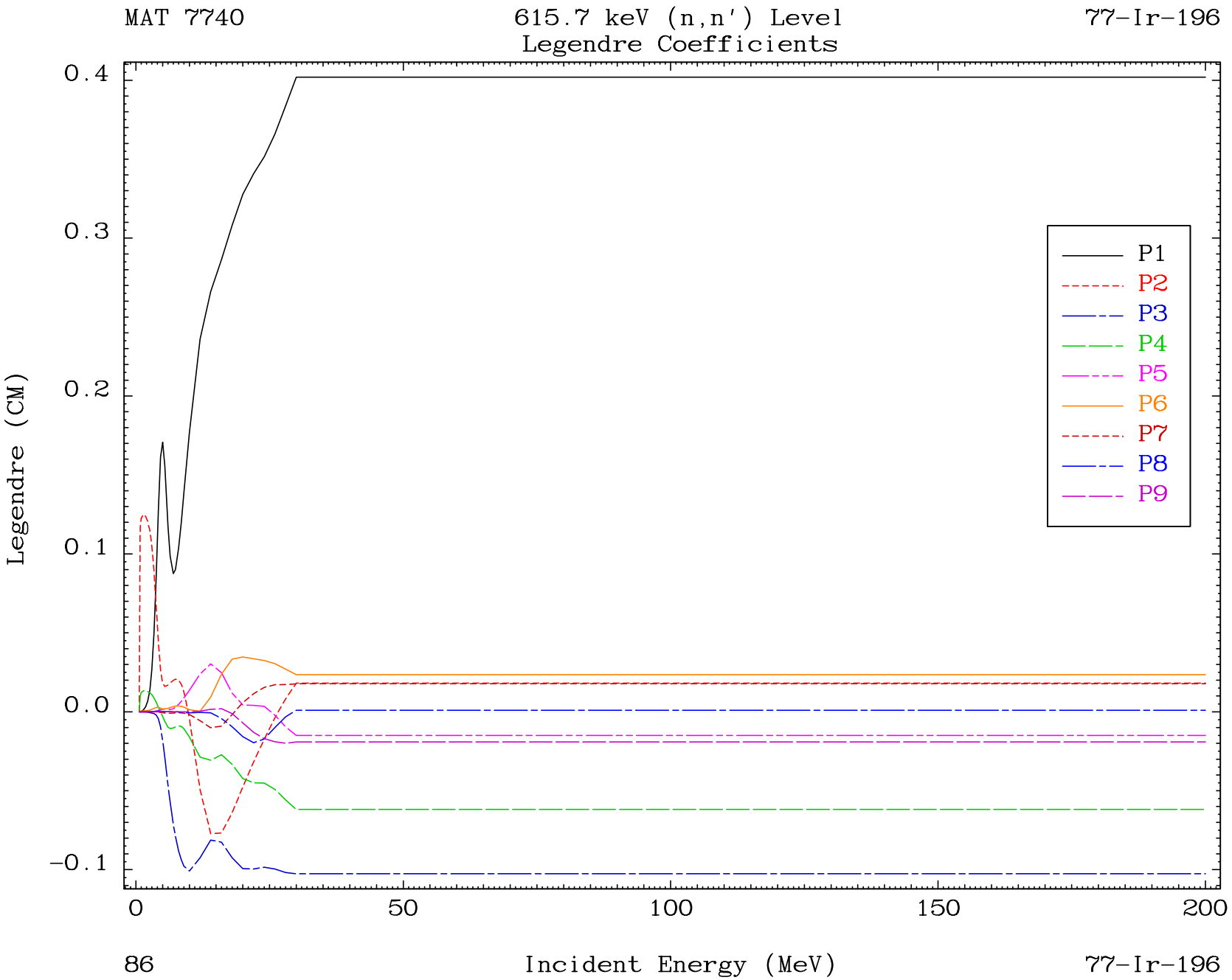

MAT 7740
608.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^0.0
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
50
100
150
200
81
Incident Energy (MeV)
77-Ir-196
P28
P29
P30
P31
P32
P33
P34

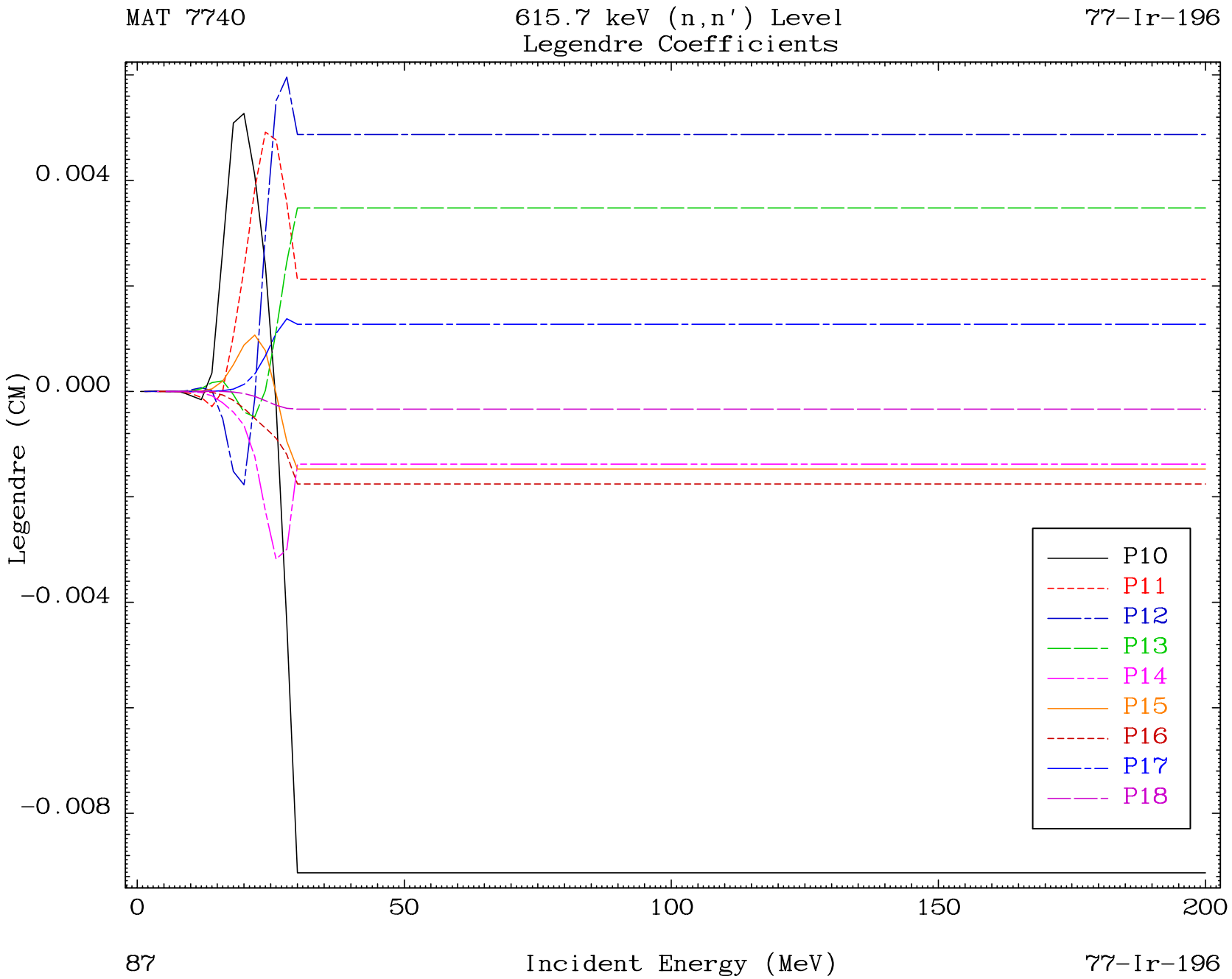

MAT 7740
612.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
82
Incident Energy (MeV)
77-Ir-196

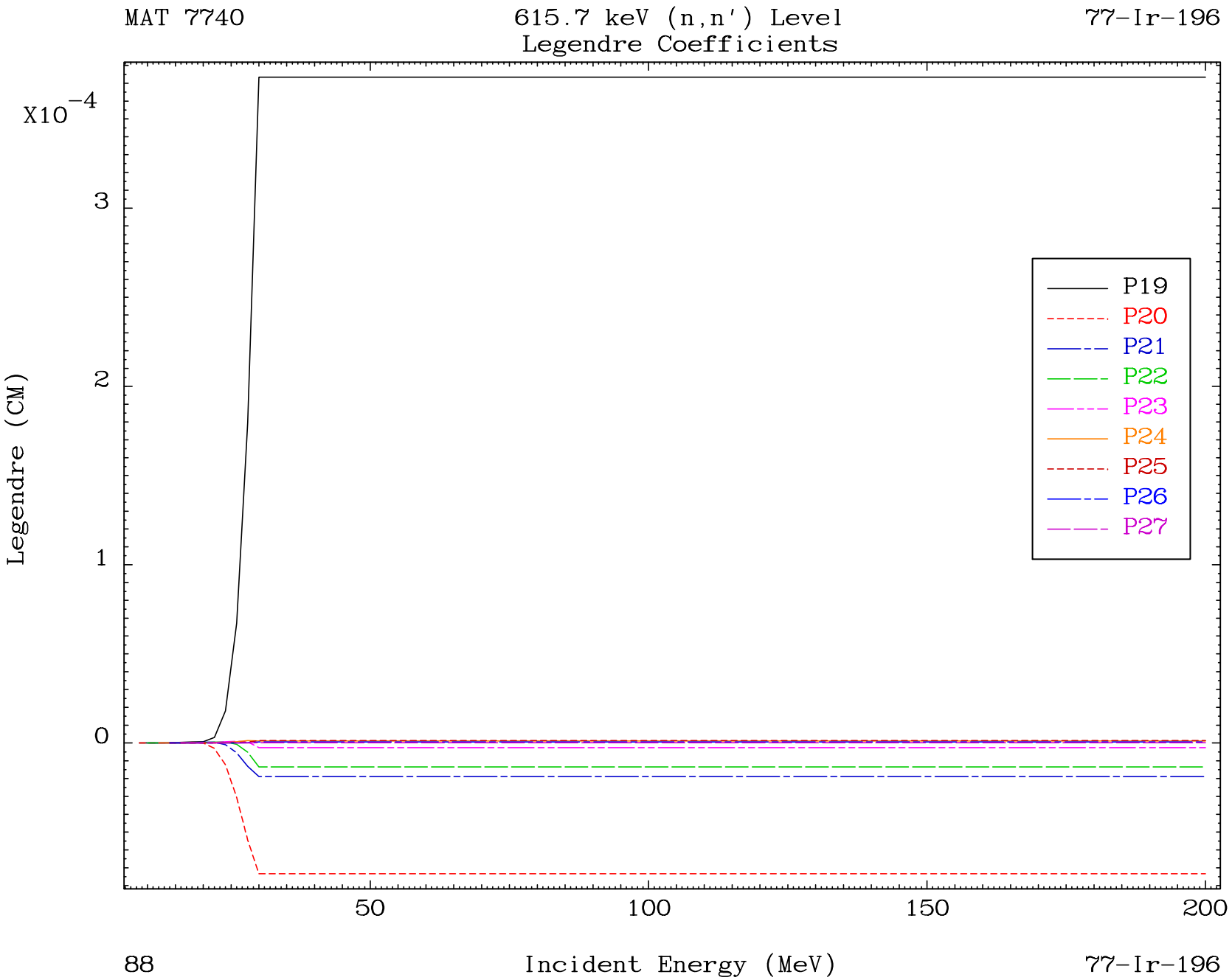

MAT 7740
612.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.04
0.02
0.00
-0.02
Legendre (CM)
0
50
100
150
200
83
Incident Energy (MeV)
77-Ir-196

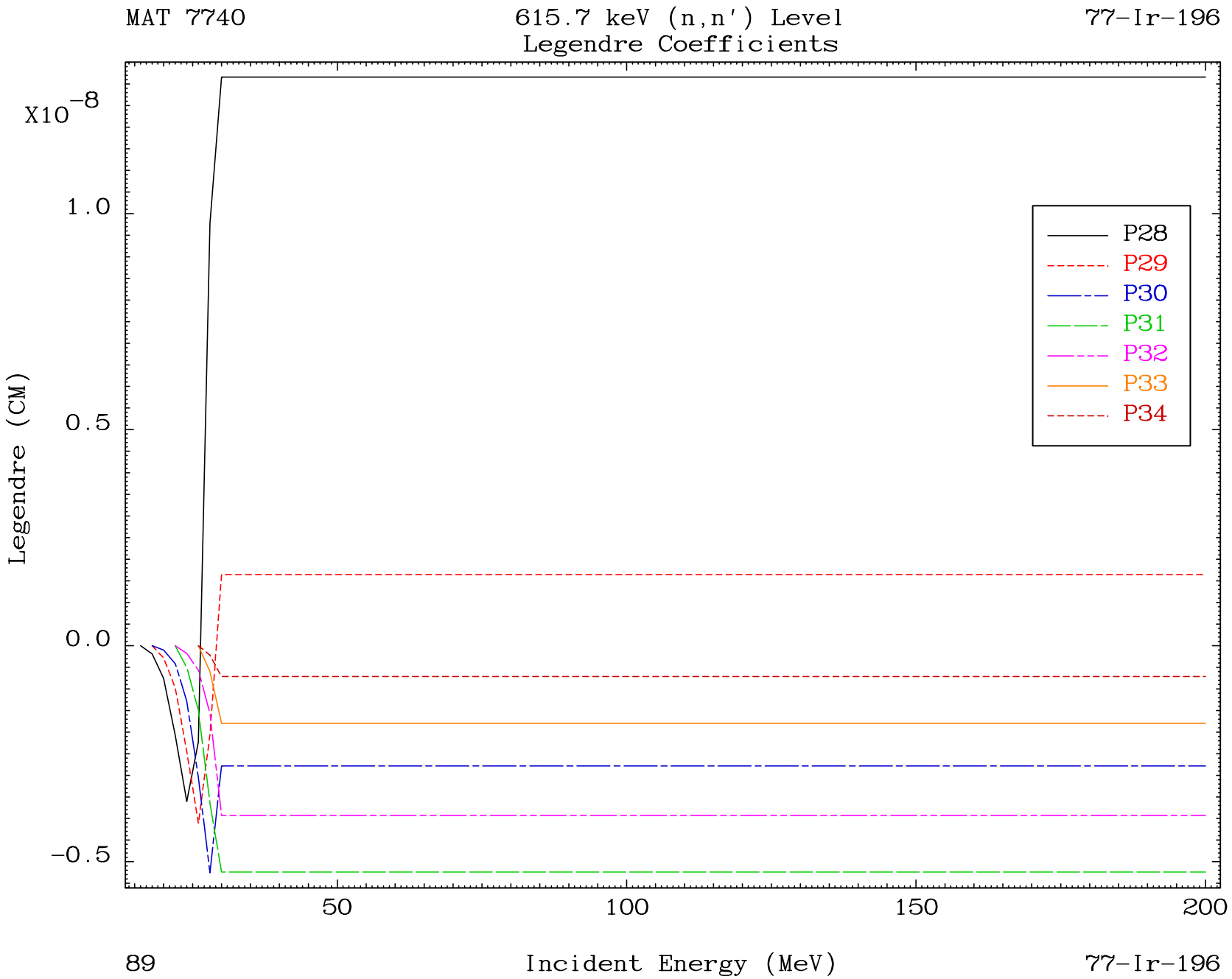

MAT 7740
612.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
84
Incident Energy (MeV)
77-Ir-196

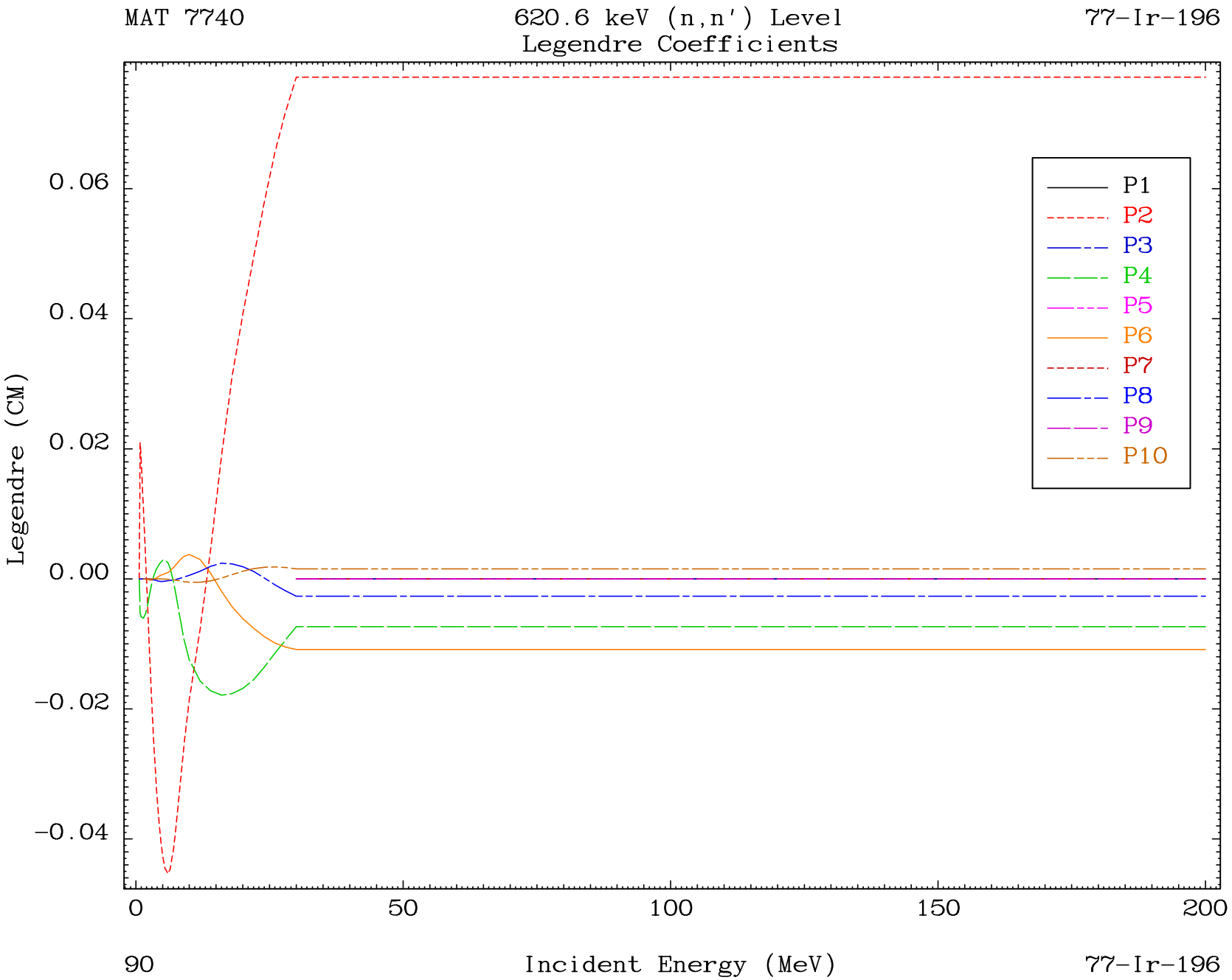

MAT 7740
612.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10 −6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
85
Incident Energy (MeV)
77-Ir-196

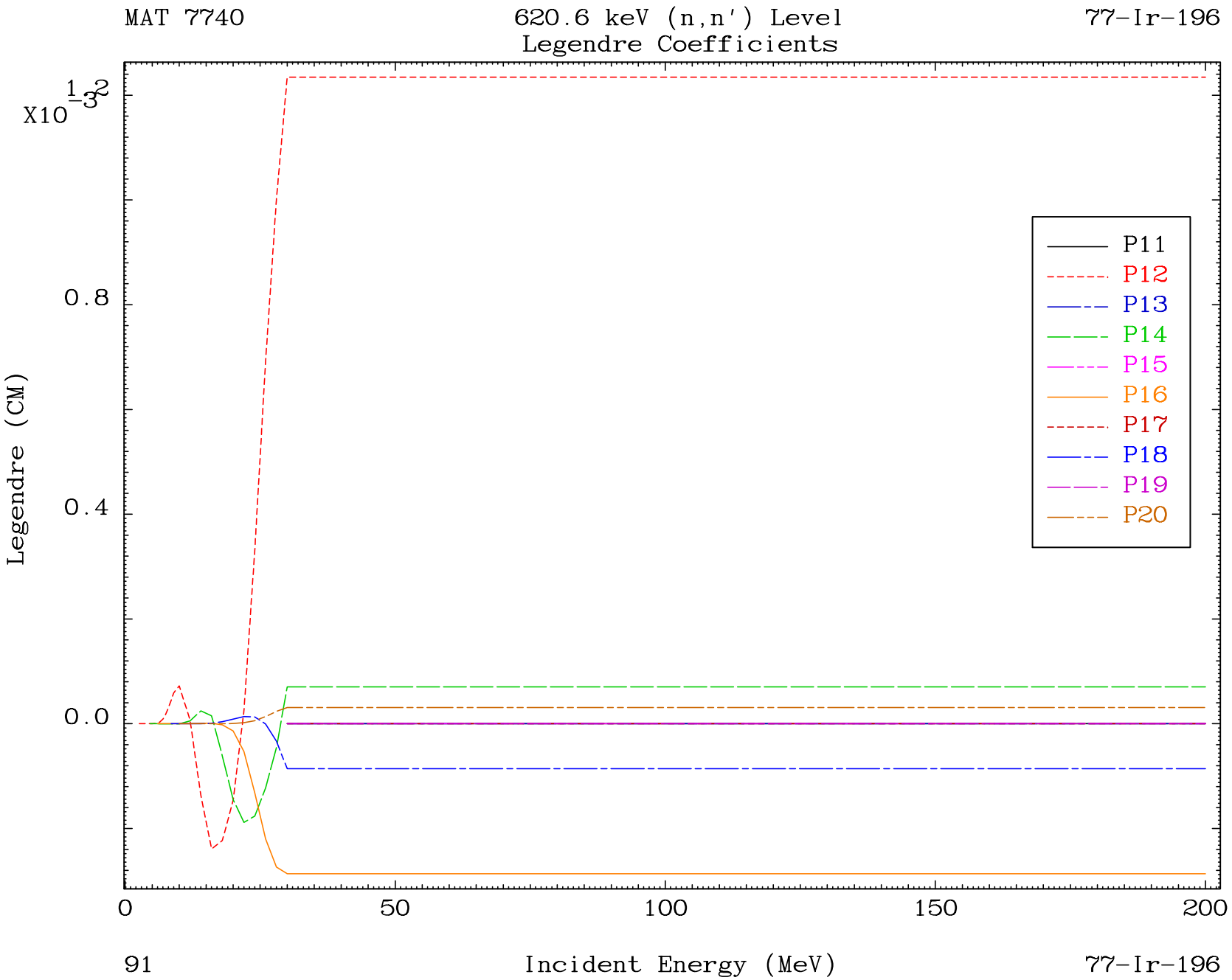

MAT 7740
615.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
86
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9

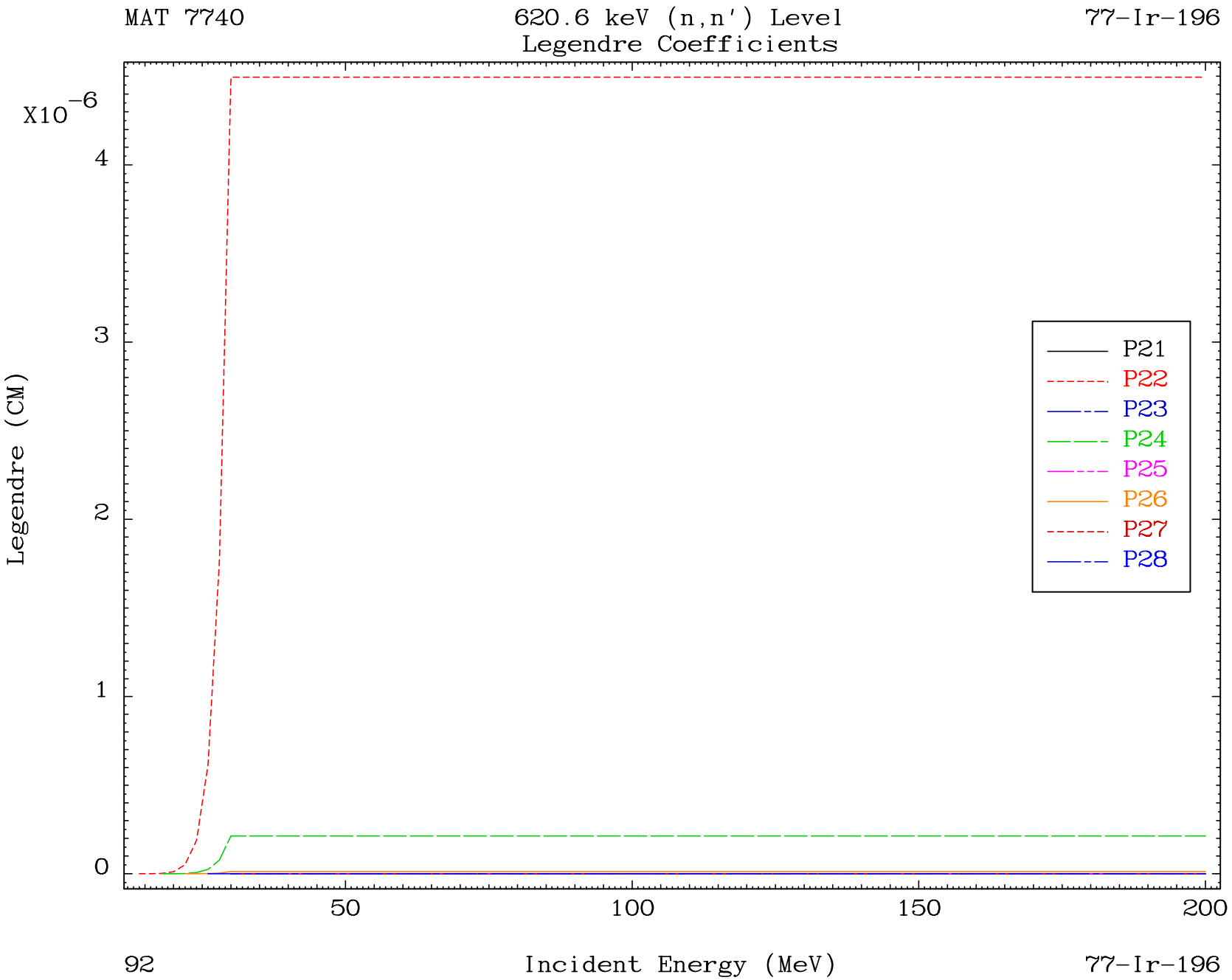

MAT 7740
615.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.004
0.000
-0.004
-0.008
Legendre (CM)
0
50
100
150
200
87
Incident Energy (MeV)
77-Ir-196
P10
P11
P12
P13
P14
P15
P16
P17
P18

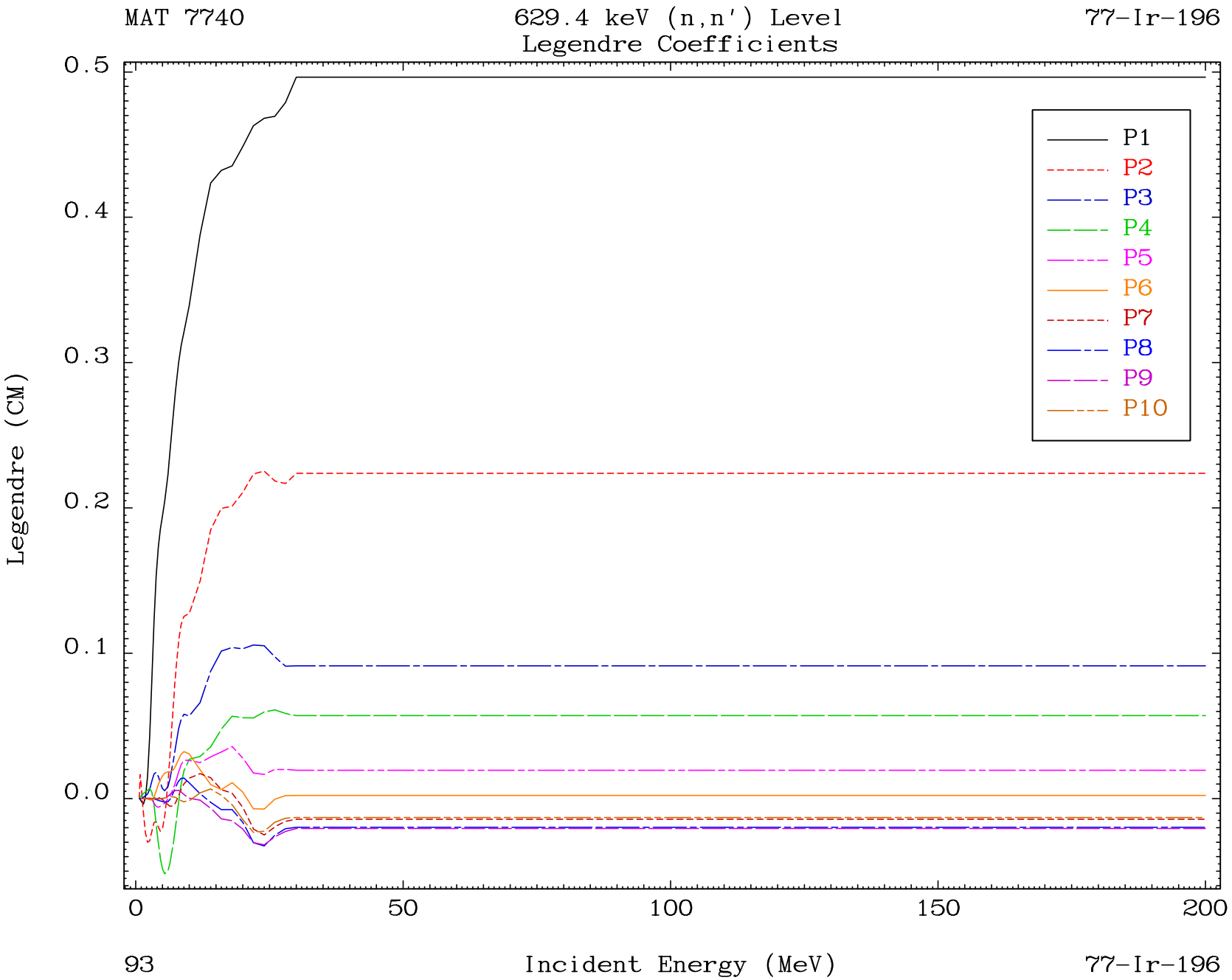

MAT 7740
615.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-4
3
2
1
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
88
Incident Energy (MeV)
77-Ir-196

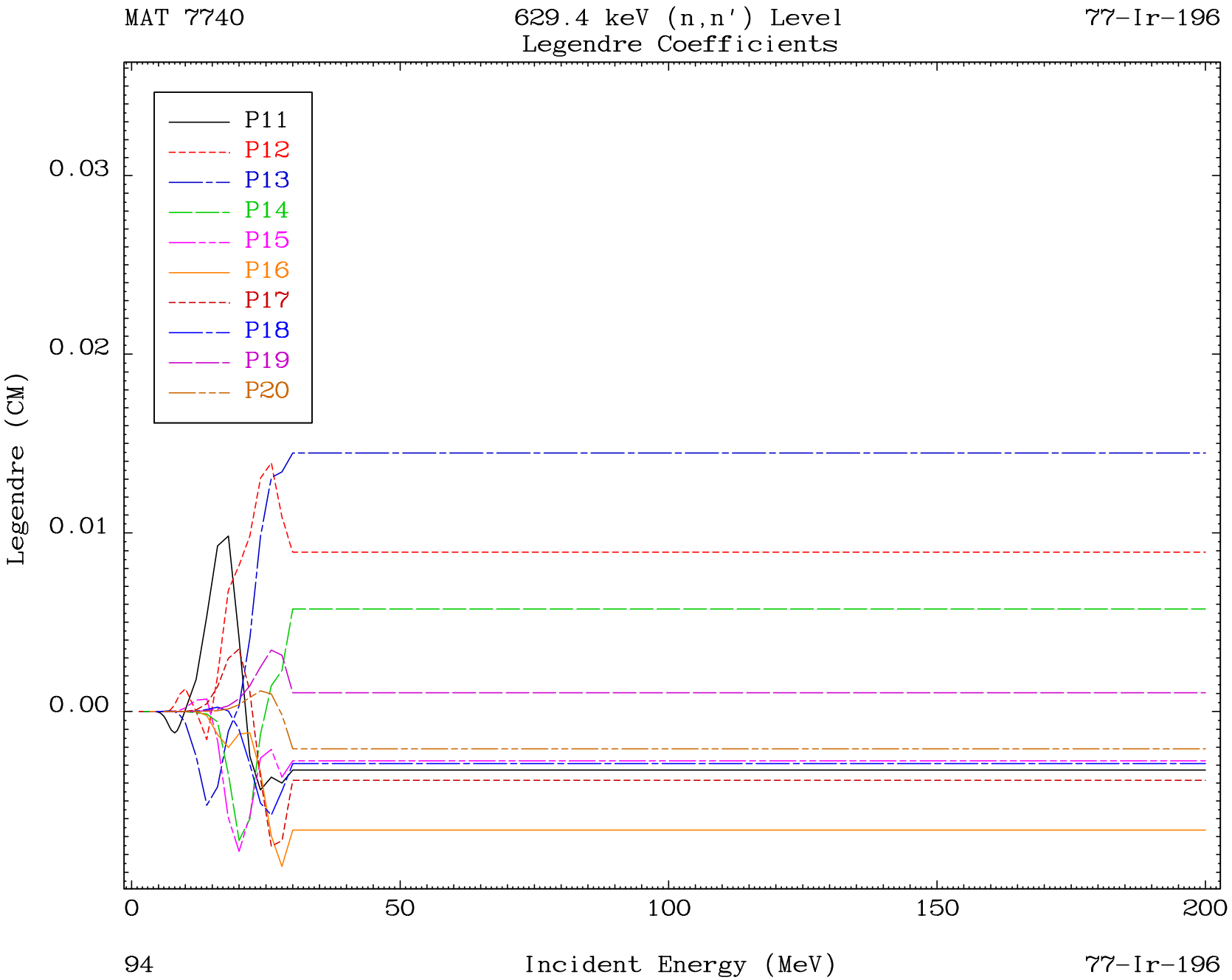

MAT 7740
615.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10−8
1.0
0.5
0.0
−0.5
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
89
Incident Energy (MeV)
77-Ir-196

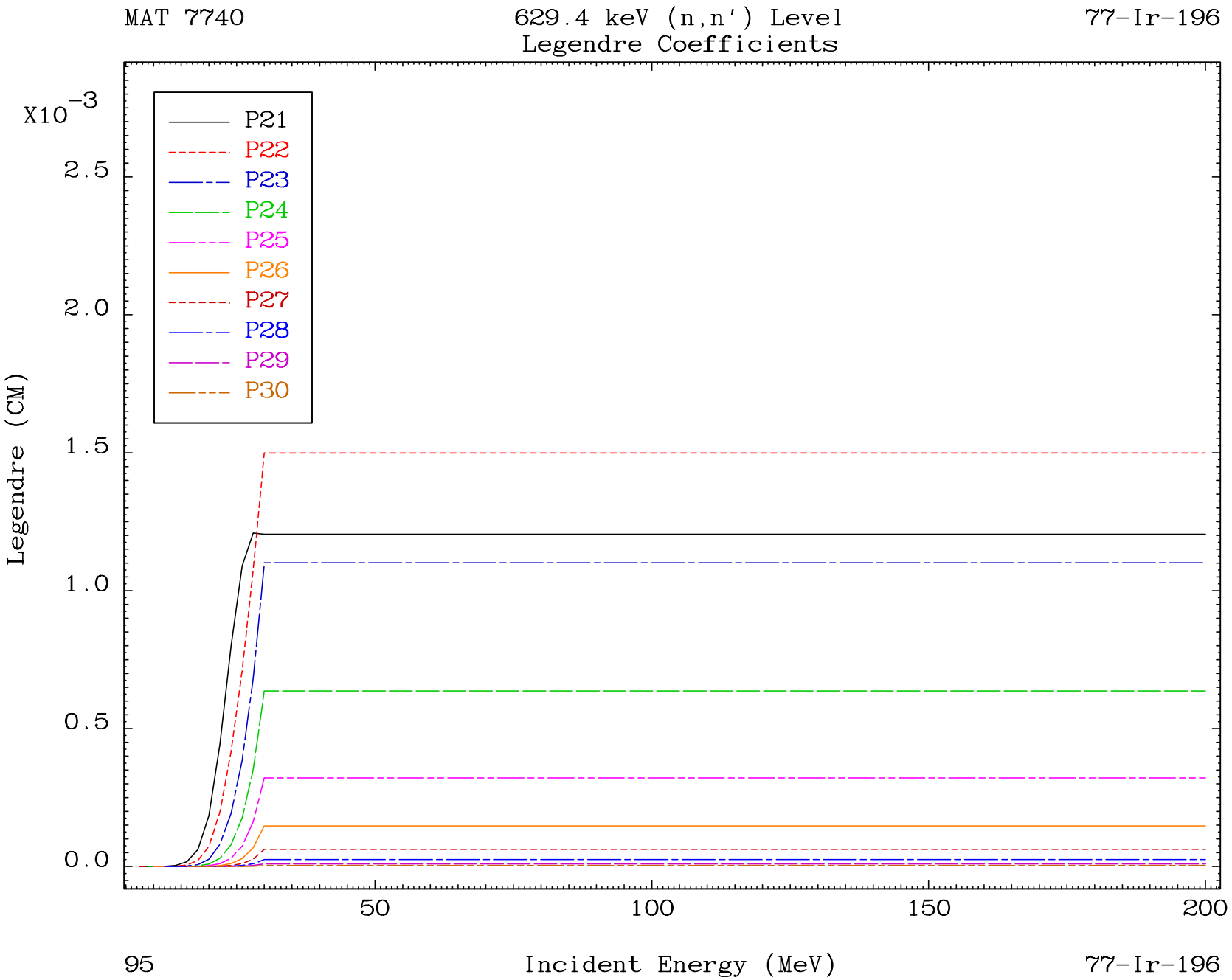

MAT 7740
620.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
90
Incident Energy (MeV)
77-Ir-196

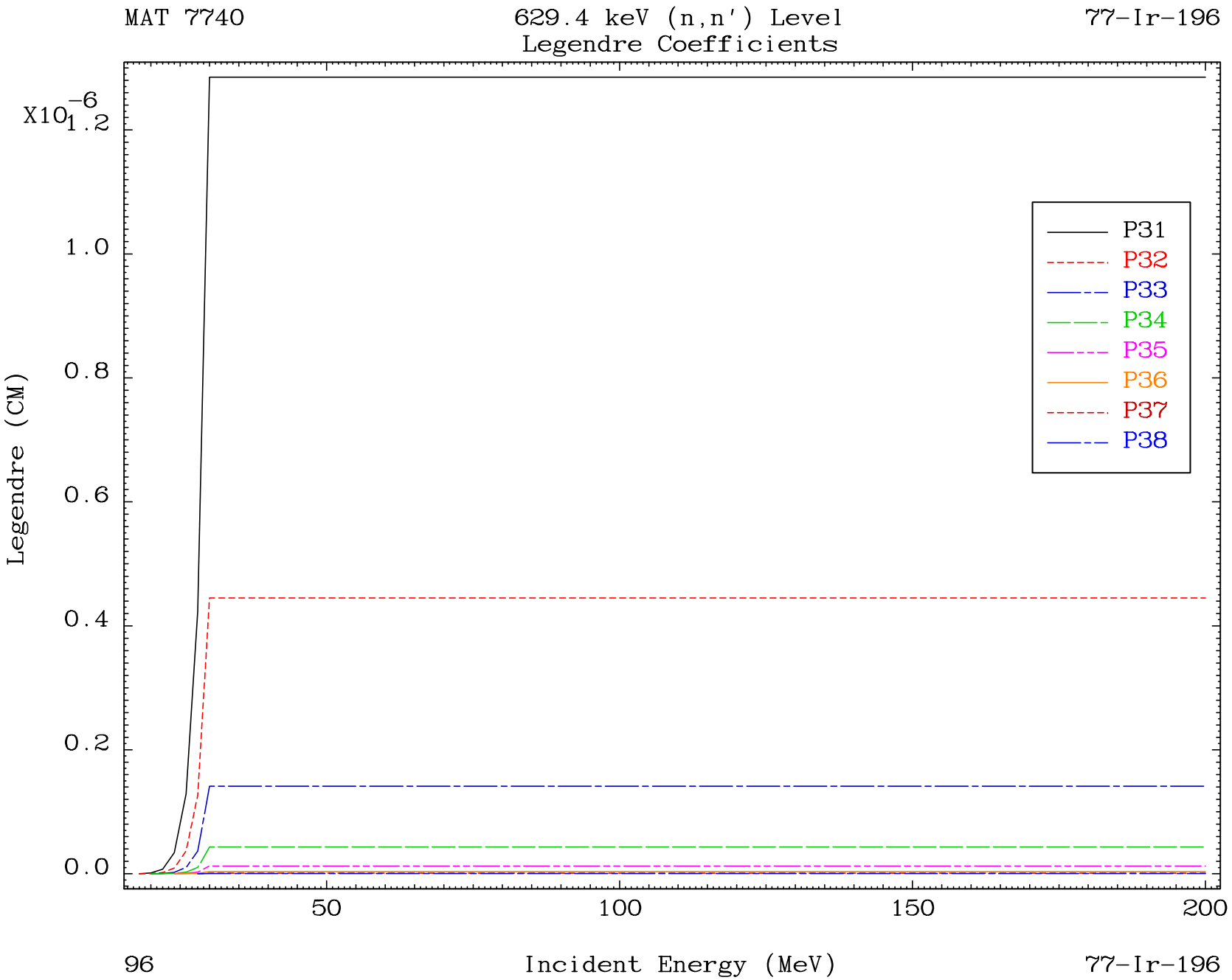

MAT 7740
620.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10-1
1.2
0.8
0.4
0.0
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
91
Incident Energy (MeV)
77-Ir-196

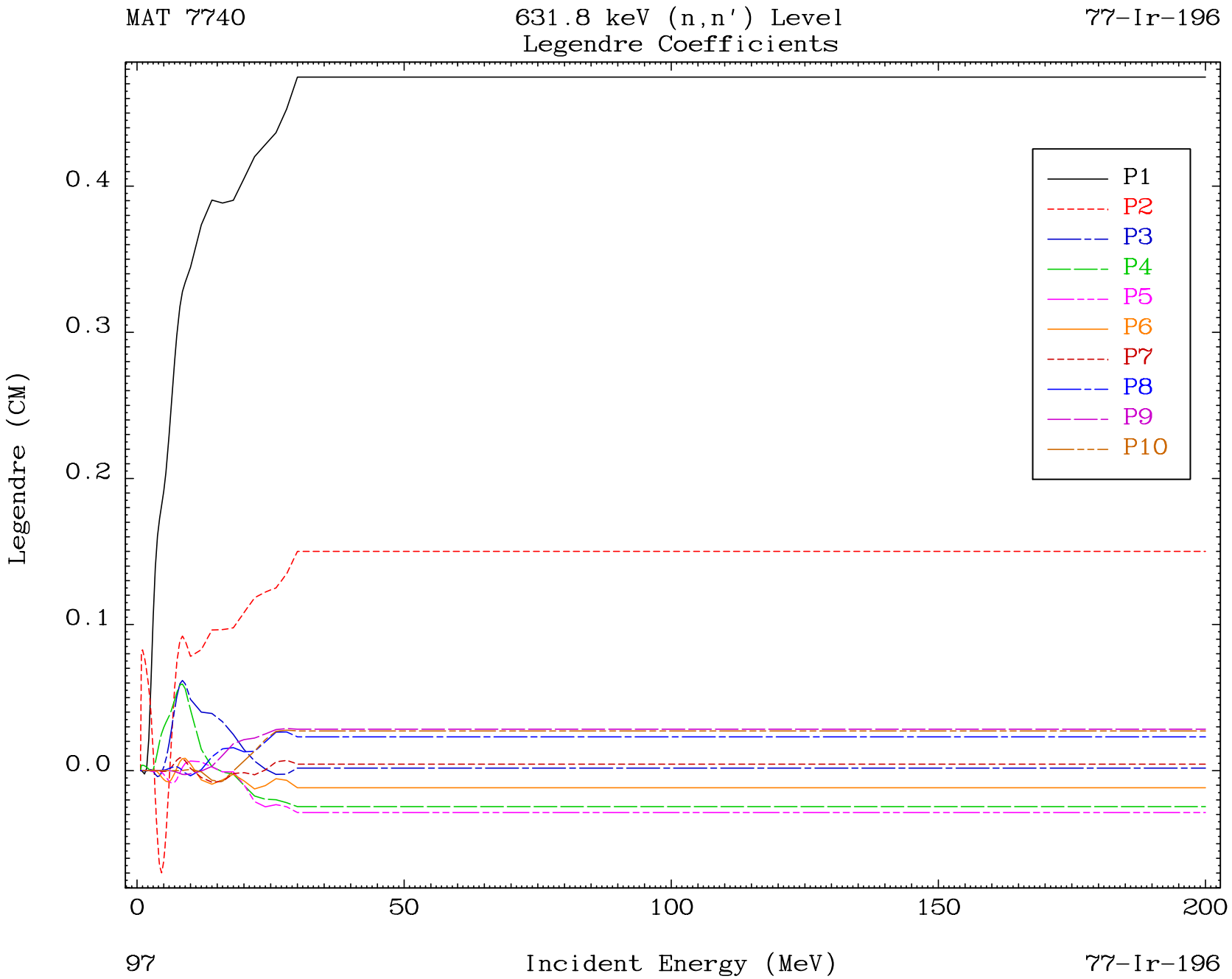

MAT 7740
620.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10 −6
4
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
92
Incident Energy (MeV)
77-Ir-196

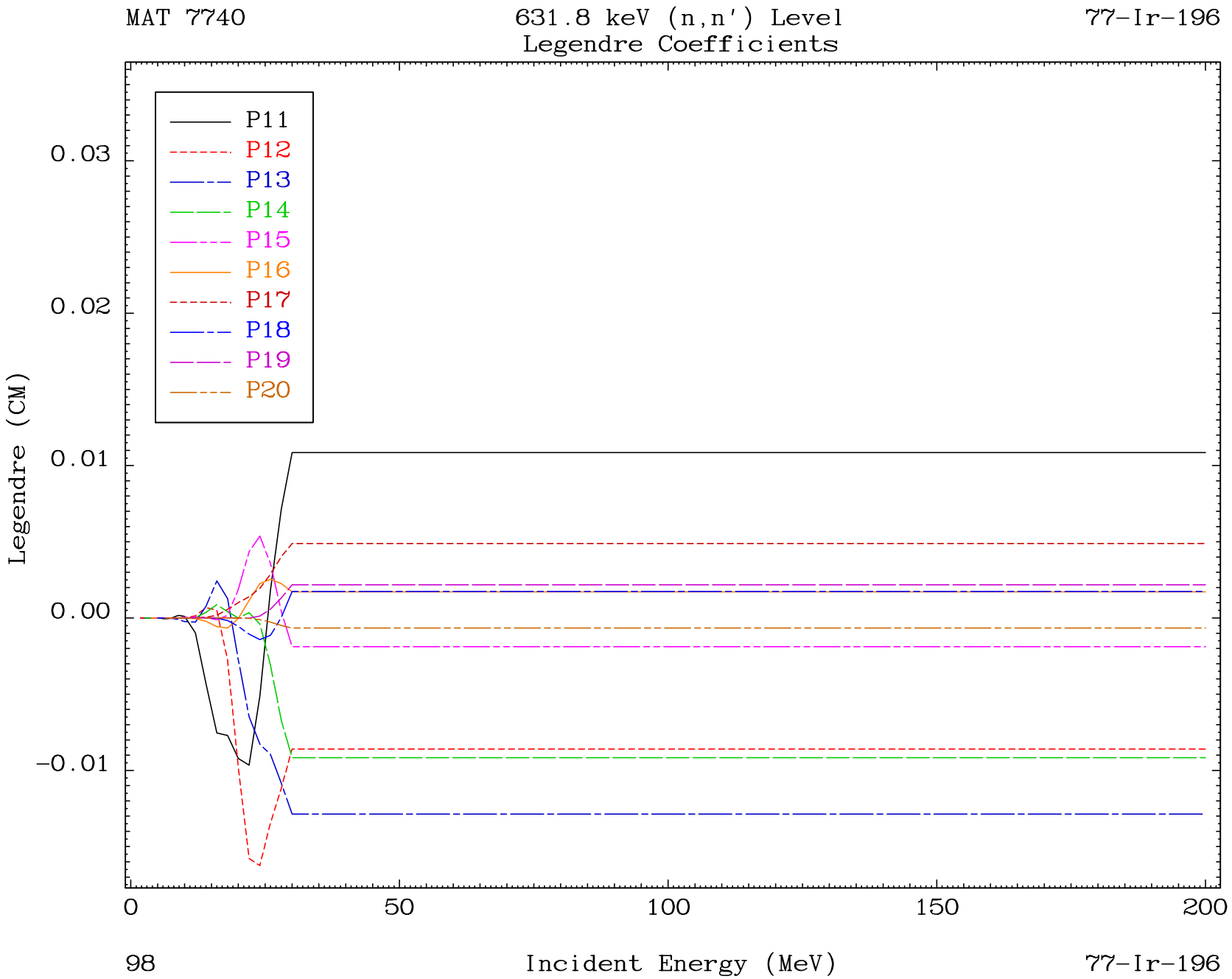

MAT 7740
629.4 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
93
Incident Energy (MeV)
77-Ir-196

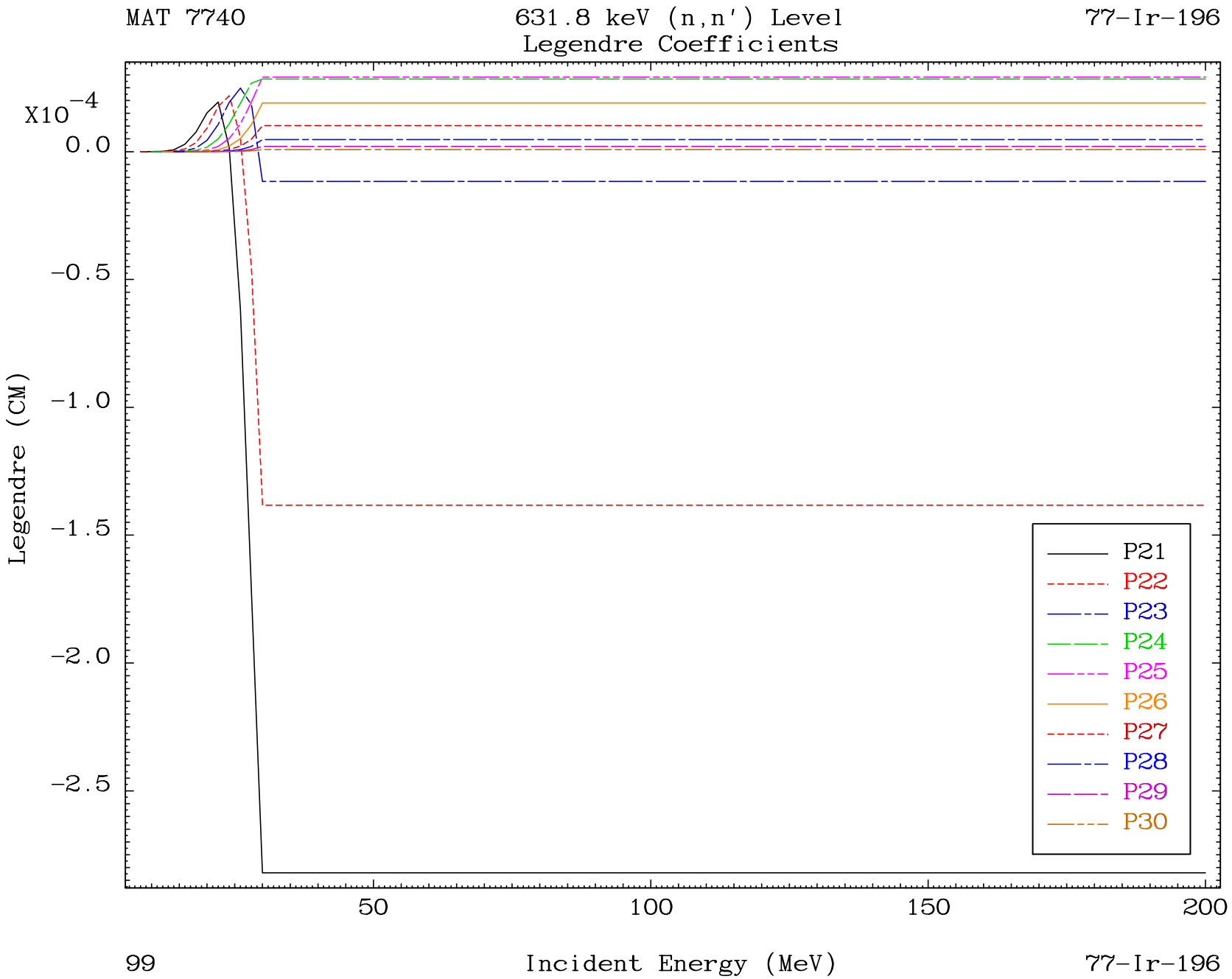

MAT 7740
629.4 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.03
0.02
0.01
0.00
Legendre (CM)
0
50
100
150
200
94
Incident Energy (MeV)
77-Ir-196

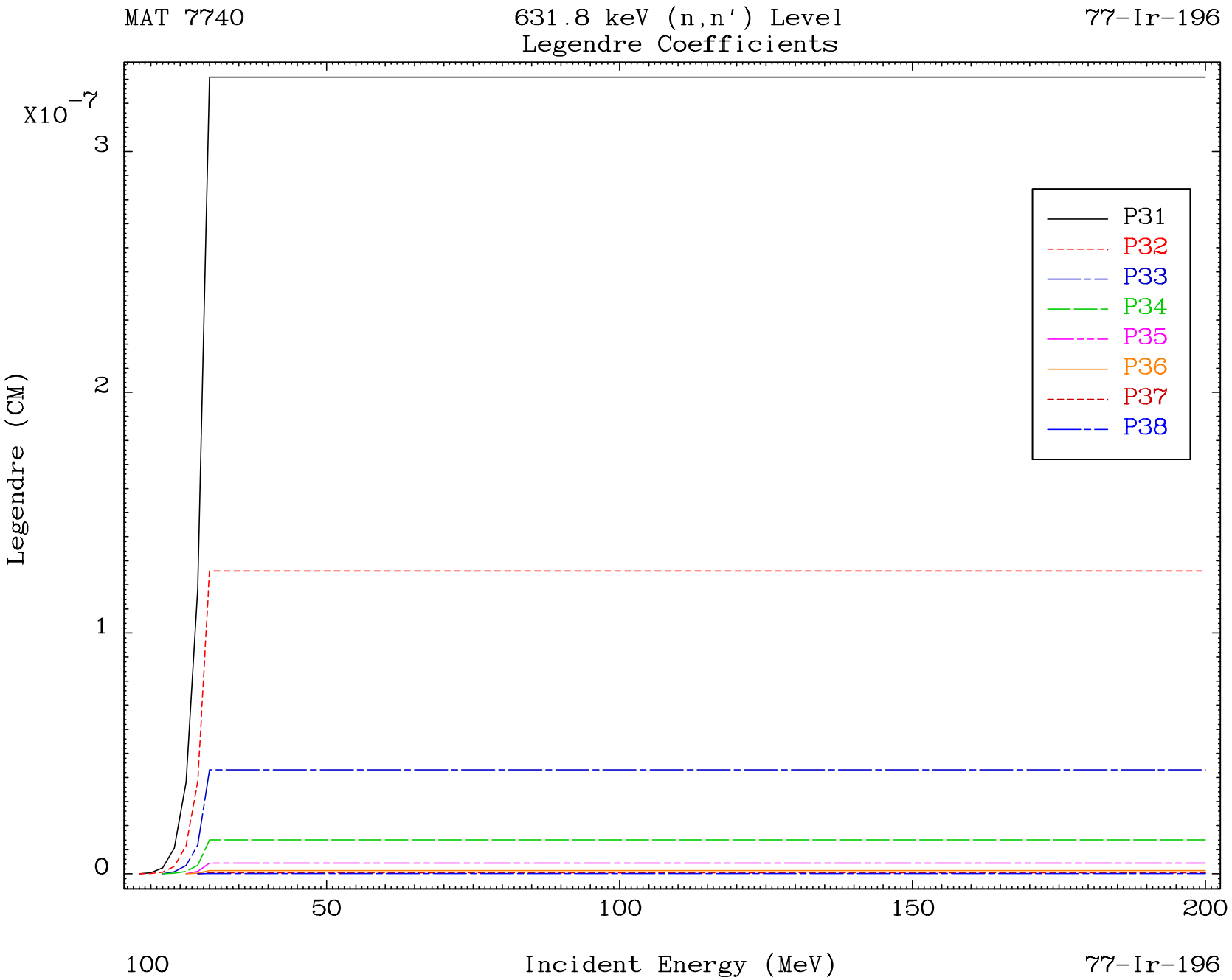

MAT 7740
629.4 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^{-3}
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
95
Incident Energy (MeV)
77-Ir-196

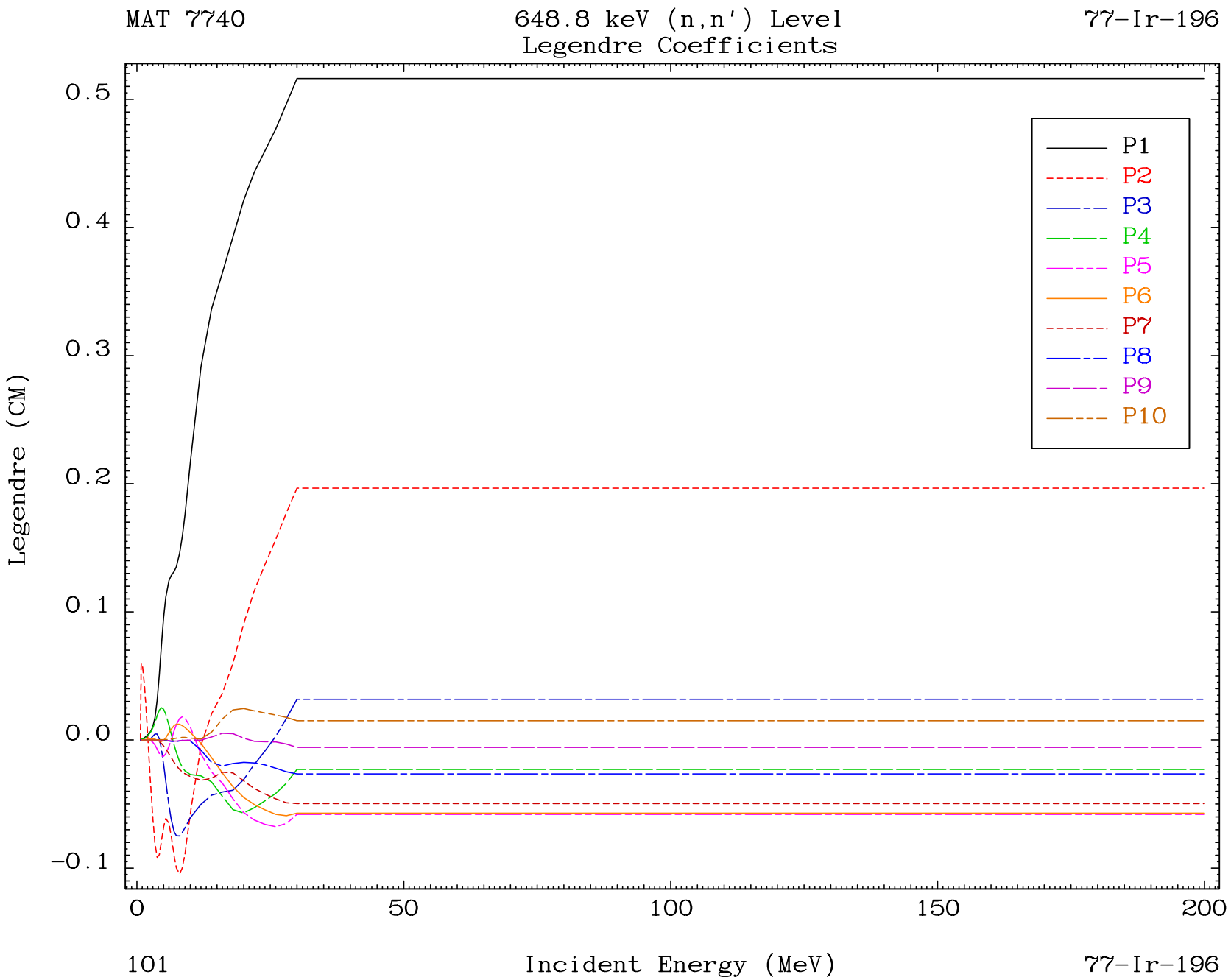

MAT 7740
629.4 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
96
Incident Energy (MeV)
77-Ir-196

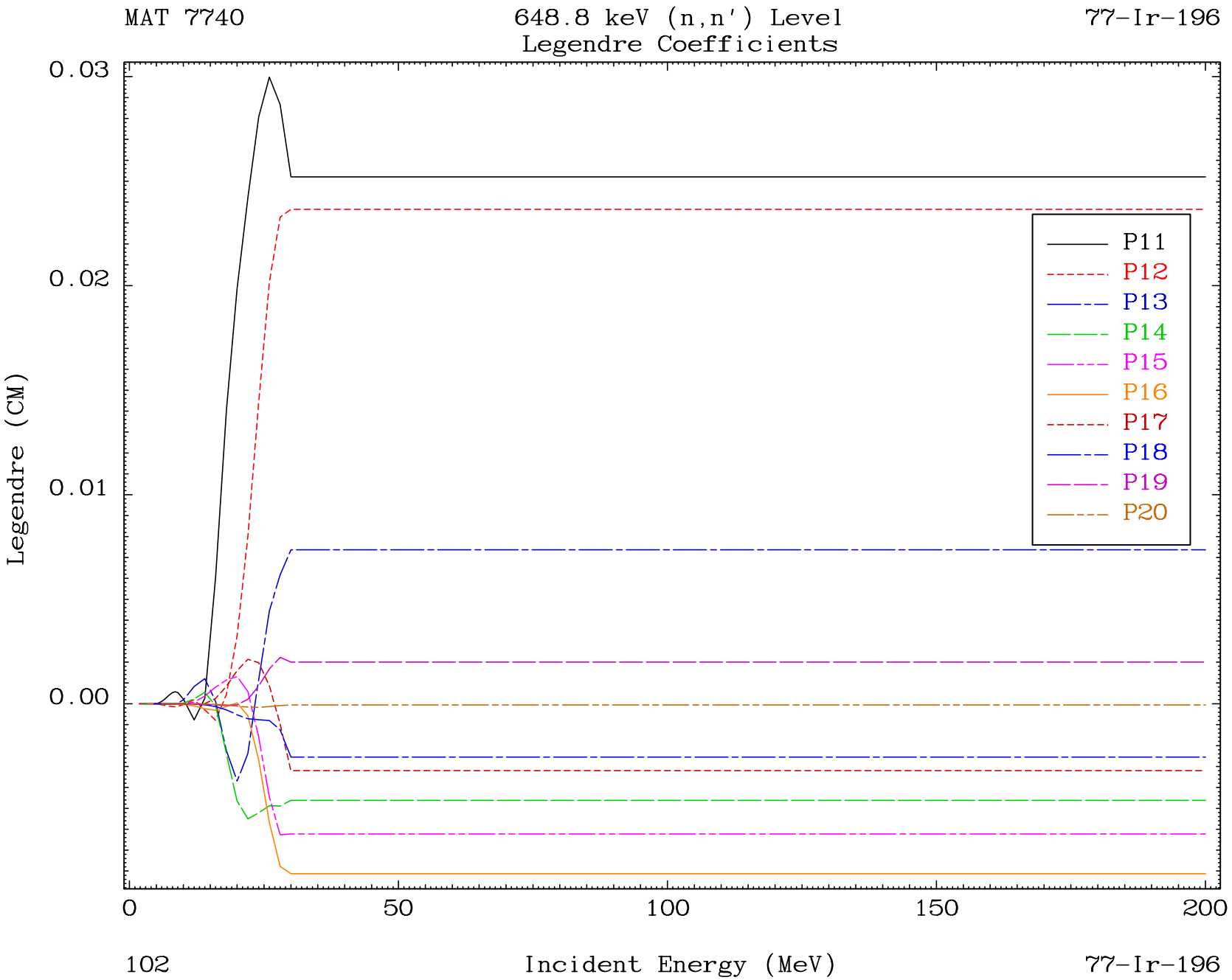

MAT 7740
631.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
97
Incident Energy (MeV)
77-Ir-196

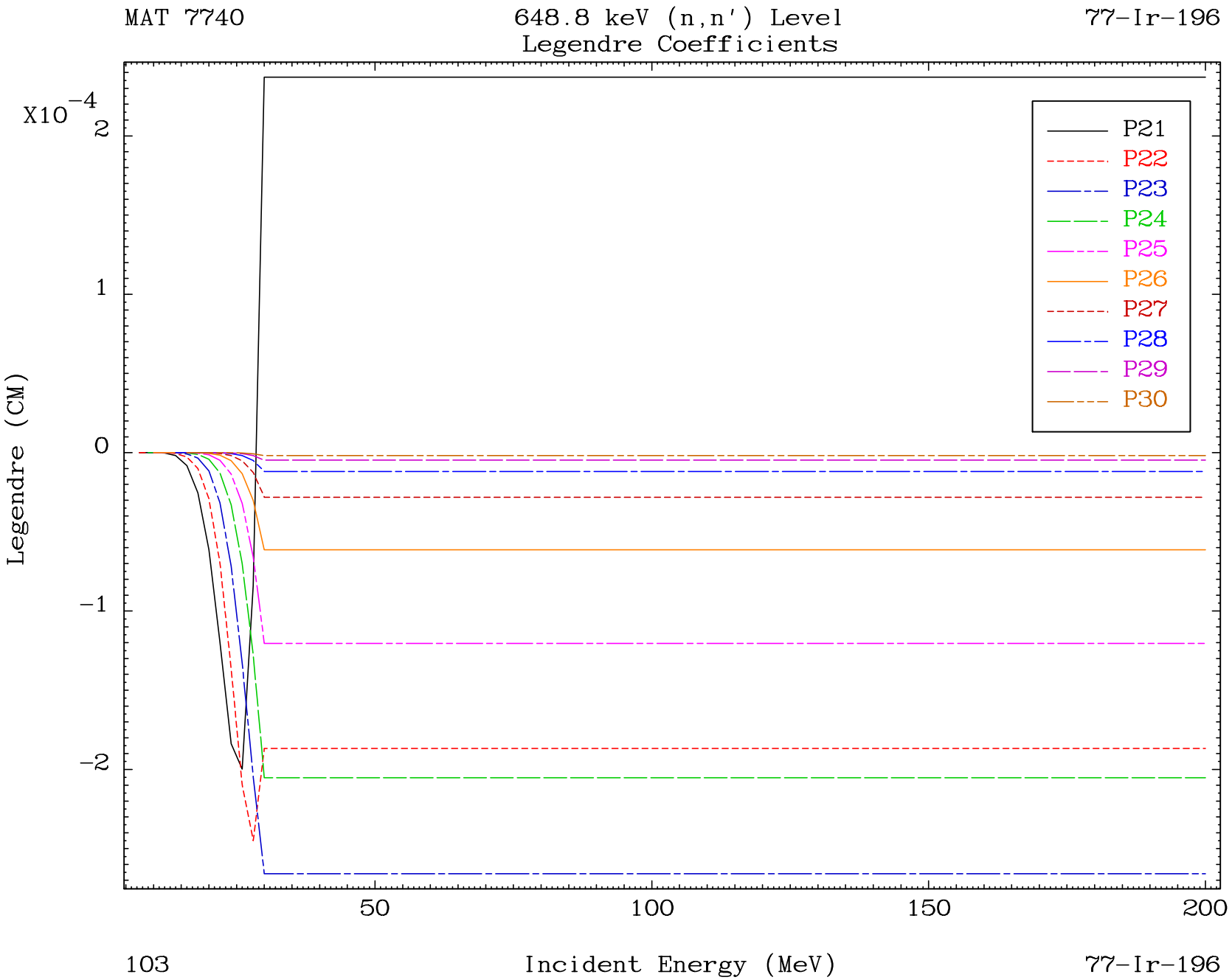

MAT 7740
631.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
98
Incident Energy (MeV)
77-Ir-196

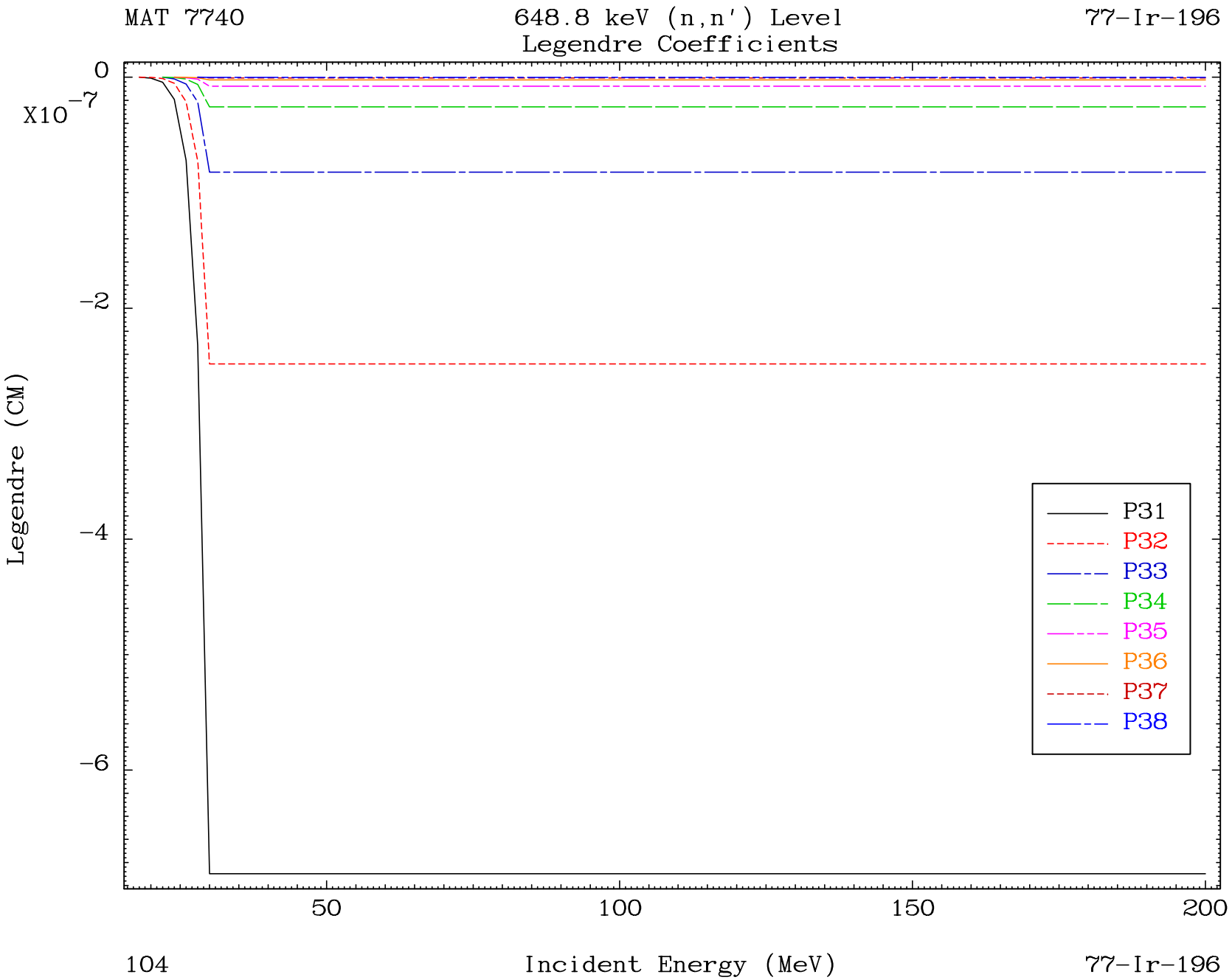

MAT 7740
631.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-4
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
Legendre (CM)
50
100
150
200
99
Incident Energy (MeV)
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

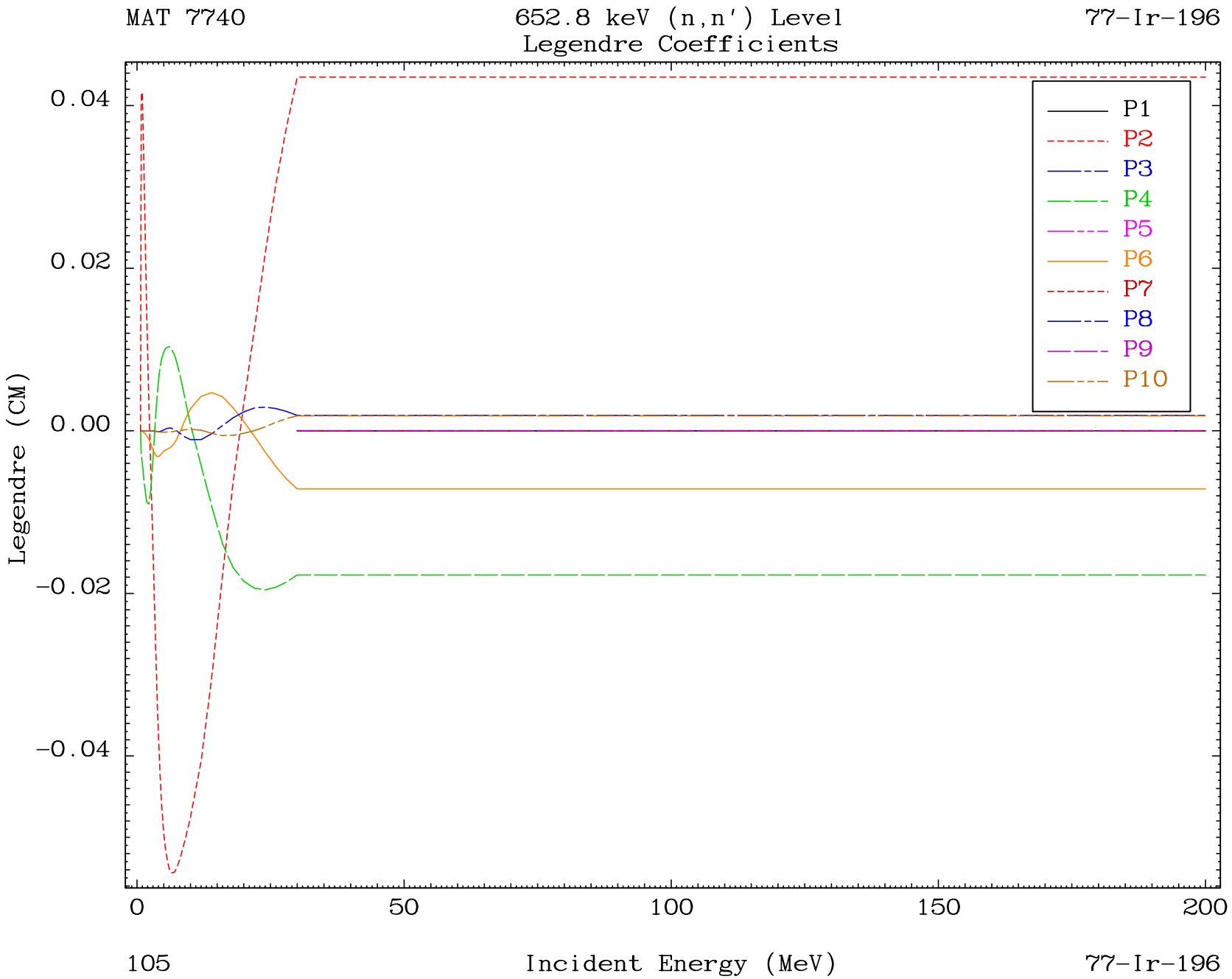

MAT 7740
631.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-7
3
2
1
0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
100
Incident Energy (MeV)
77-Ir-196

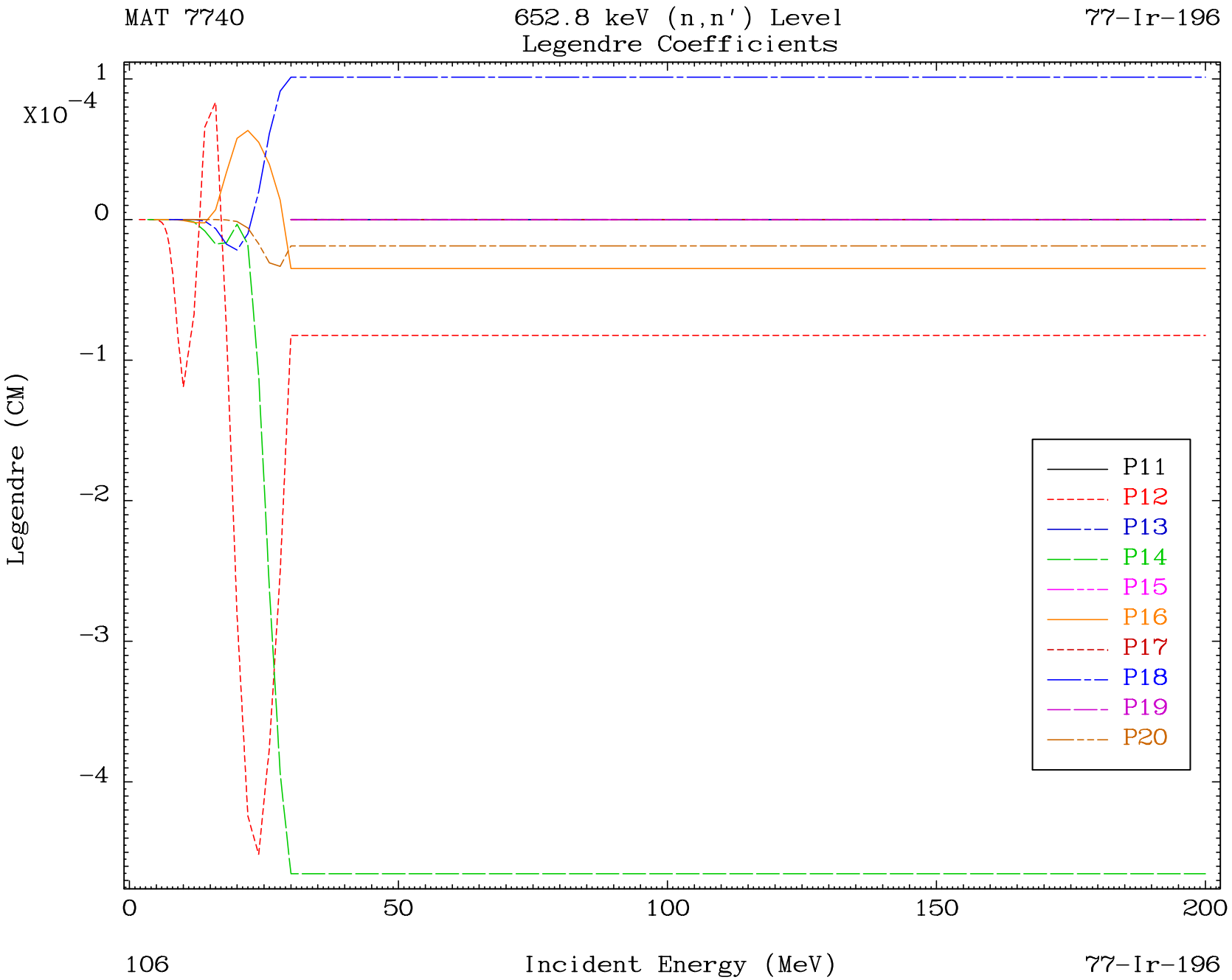

MAT 7740
648.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
101
Incident Energy (MeV)
77-Ir-196

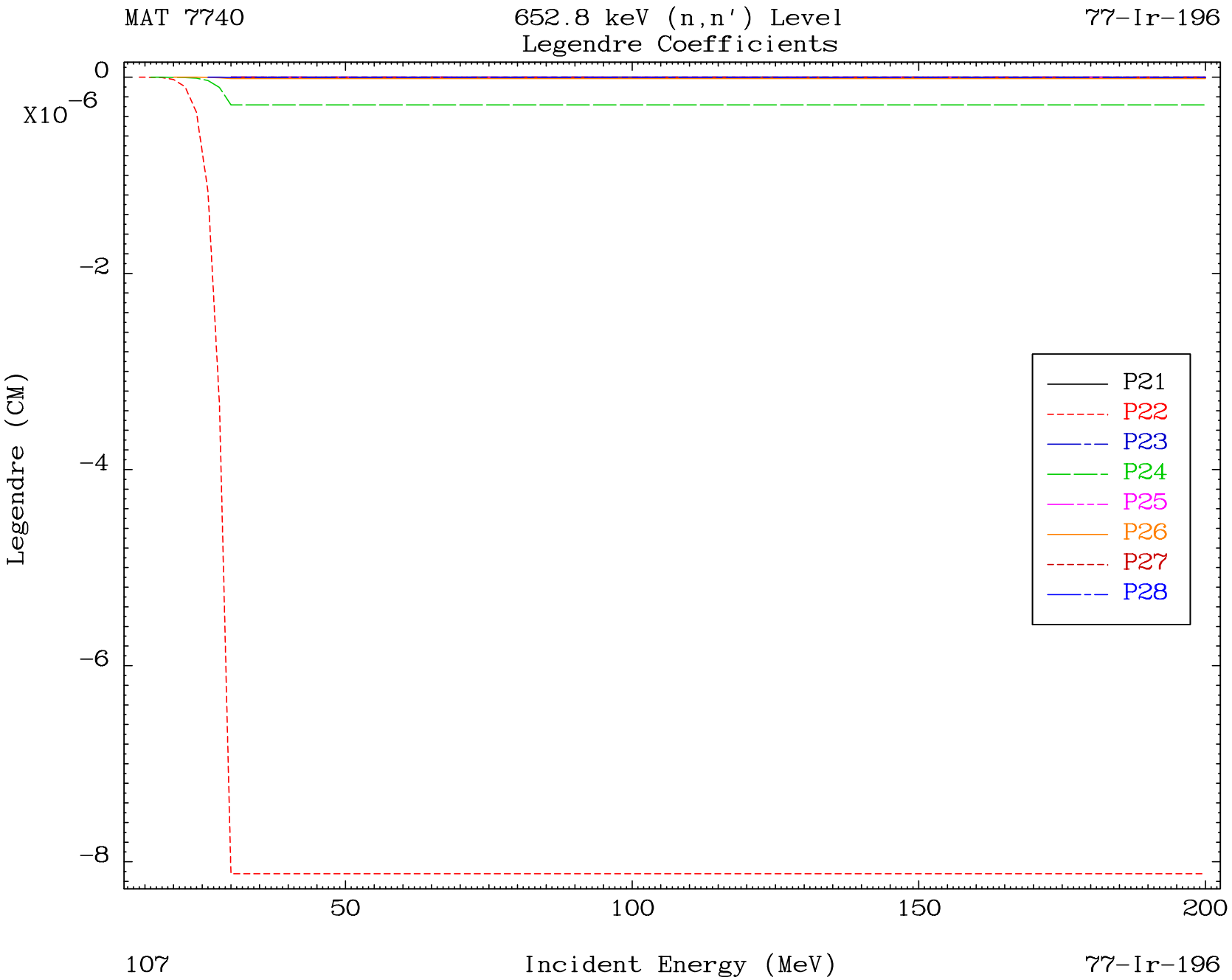

MAT 7740
648.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.03
0.02
0.01
0.00
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
102
Incident Energy (MeV)
77-Ir-196

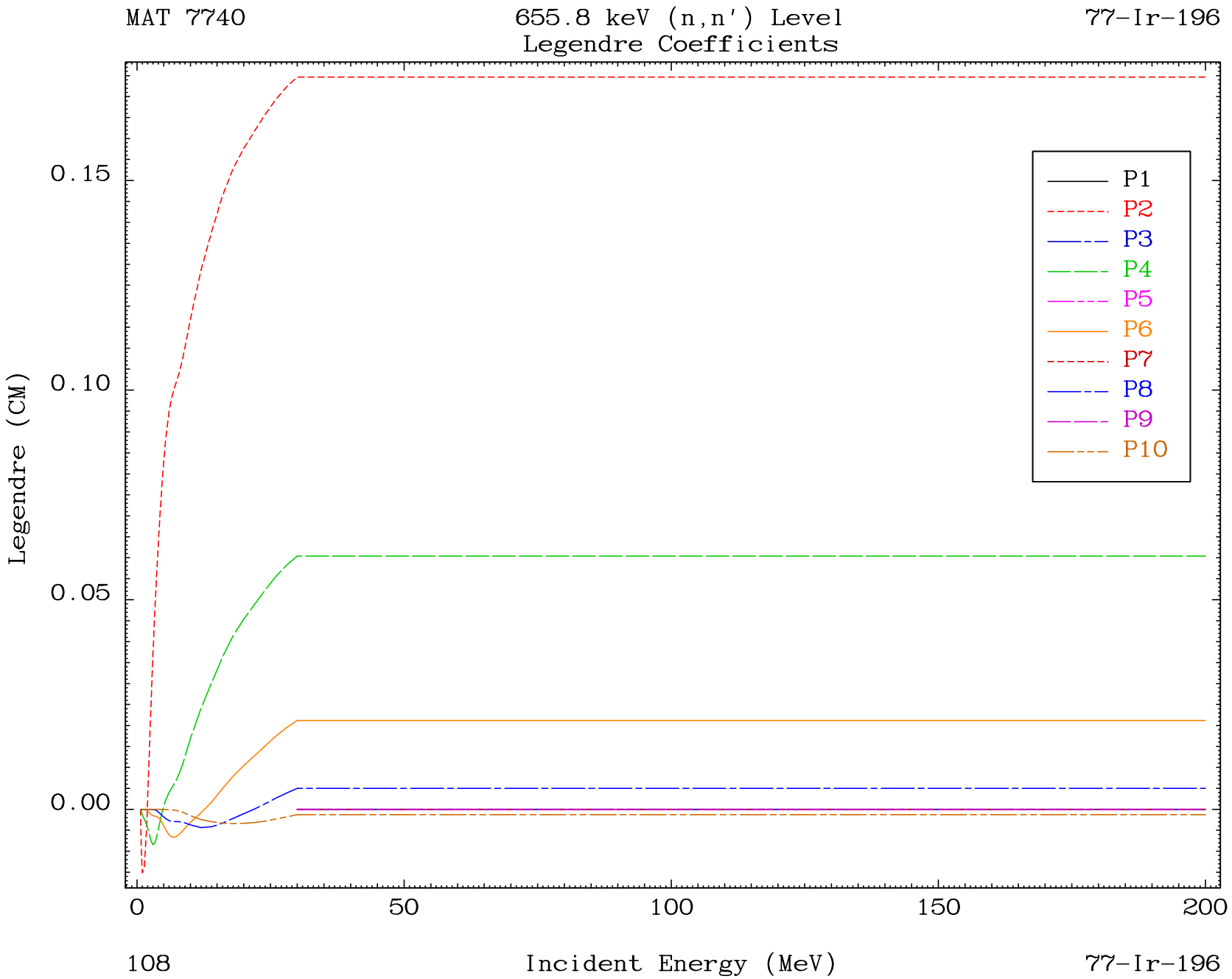

MAT 7740
648.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10 -4
2
1
0
-1
-2
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
103
Incident Energy (MeV)
77-Ir-196

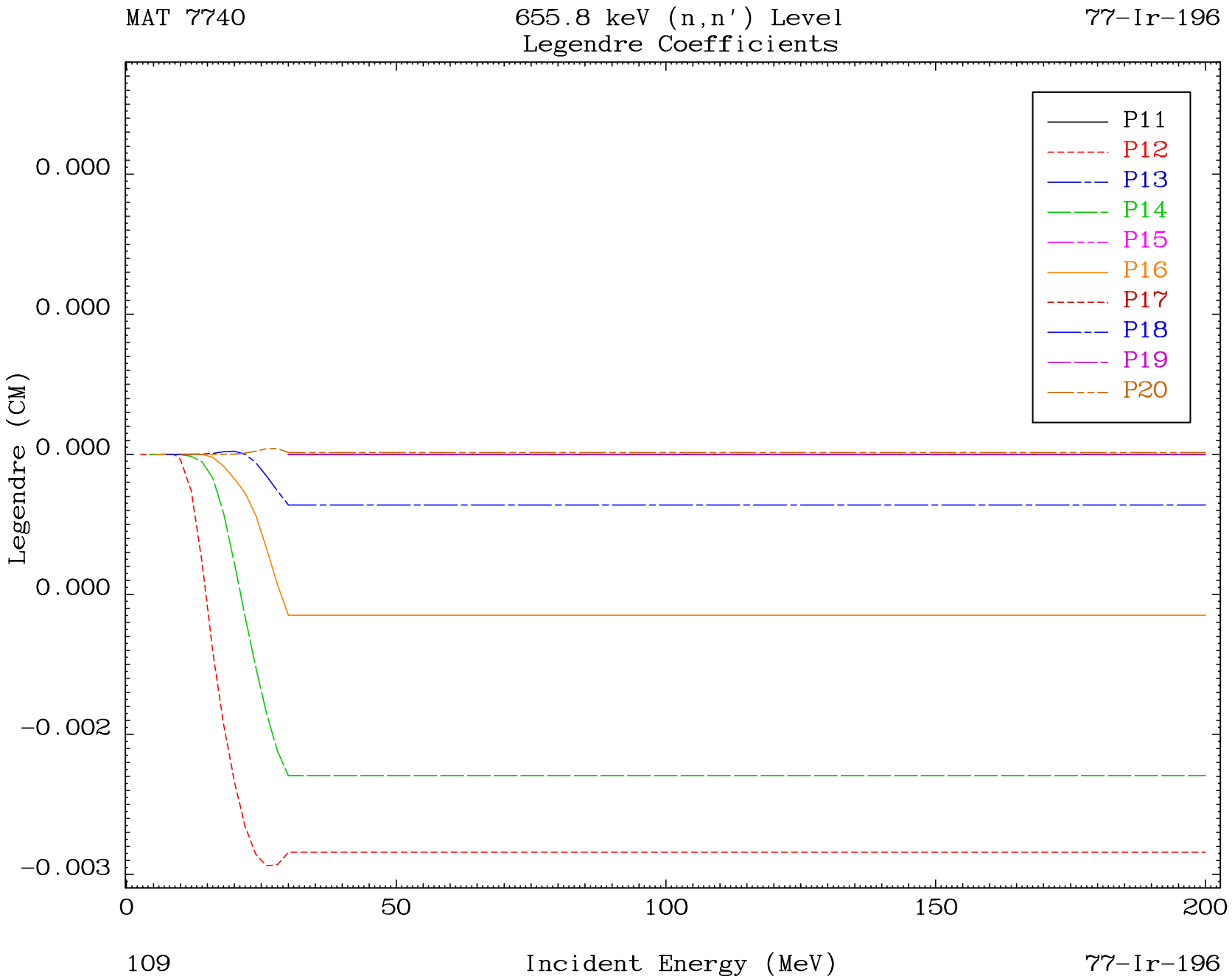

MAT 7740
648.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10-7
-2
-4
-6
Legendre (CM)
50
100
150
200
104
Incident Energy (MeV)
77-Ir-196
P31
P32
P33
P34
P35
P36
P37
P38

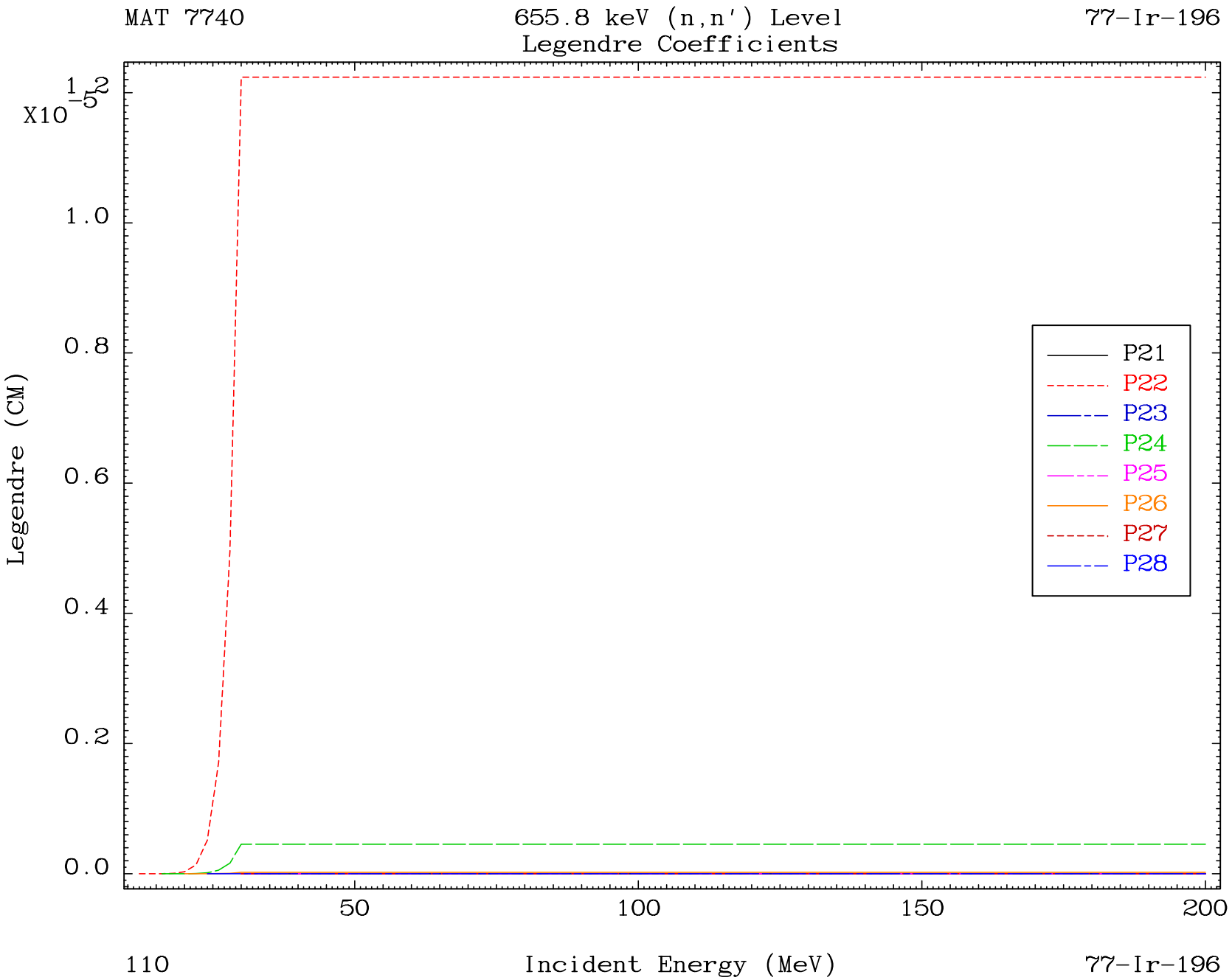

MAT 7740
652.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
105
Incident Energy (MeV)
77-Ir-196

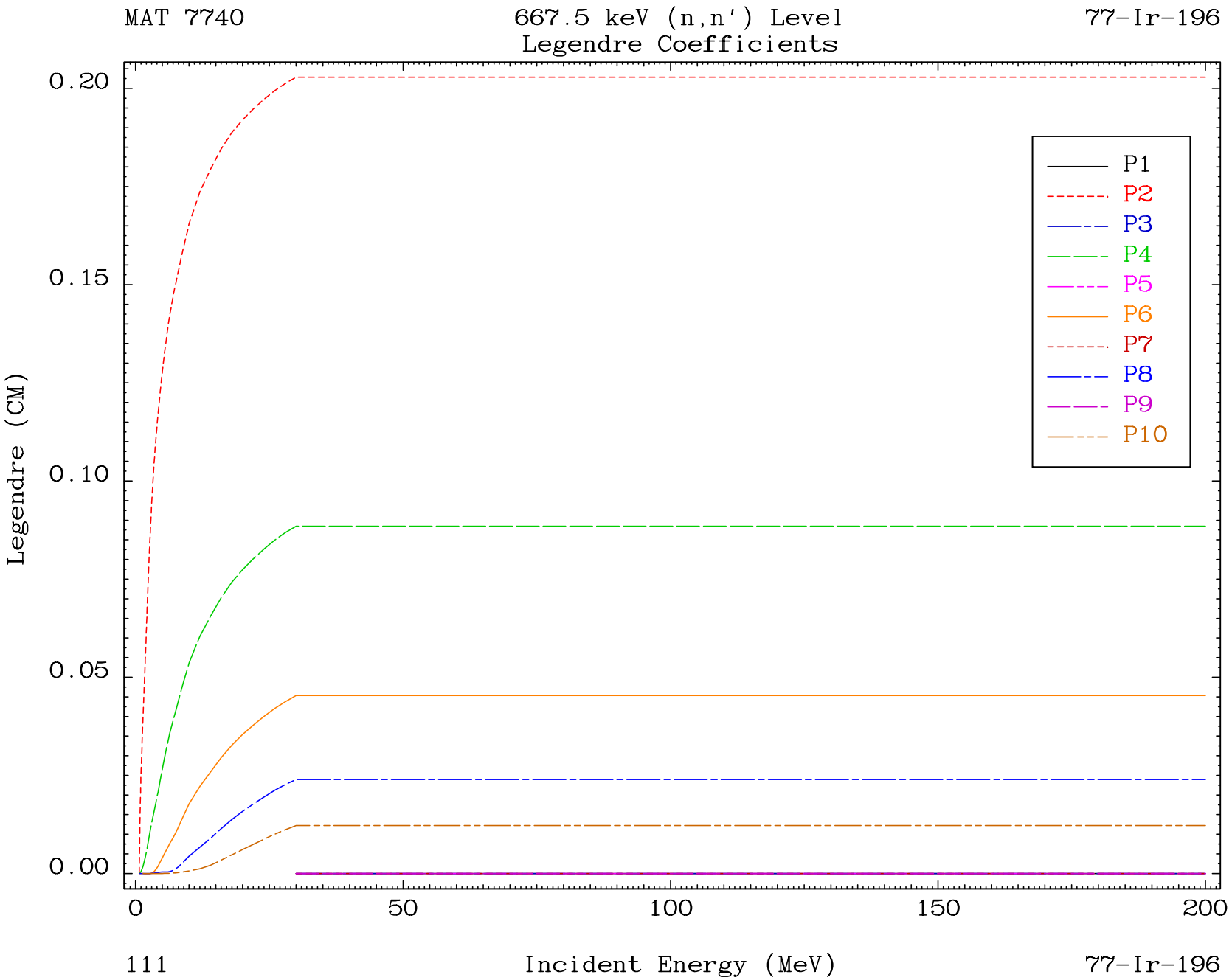

MAT 7740
652.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10 −4
1
0
−1
−2
−3
−4
Legendre (CM)
0
50
100
150
200
106
Incident Energy (MeV)
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

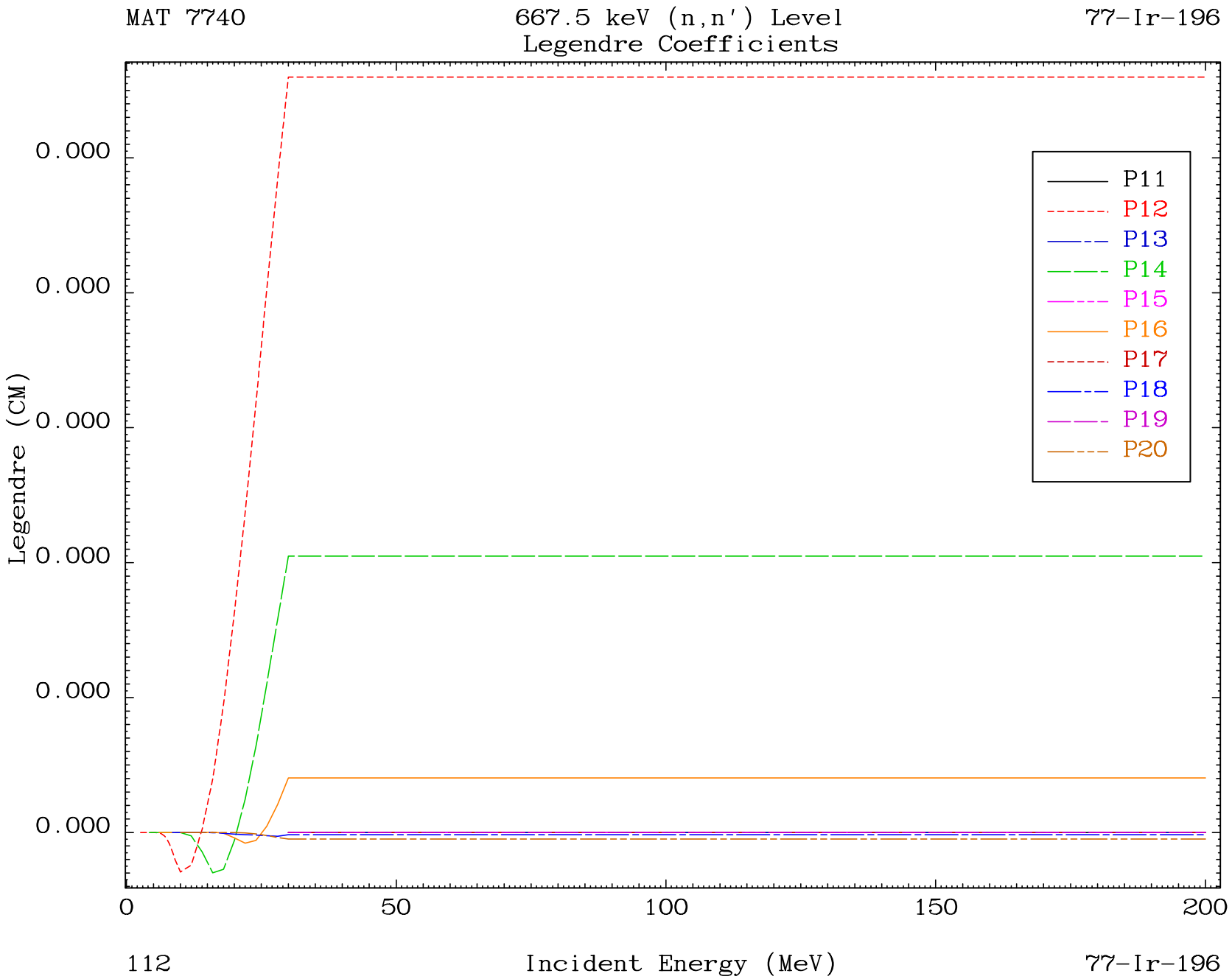

MAT 7740
652.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
107
Incident Energy (MeV)
77-Ir-196

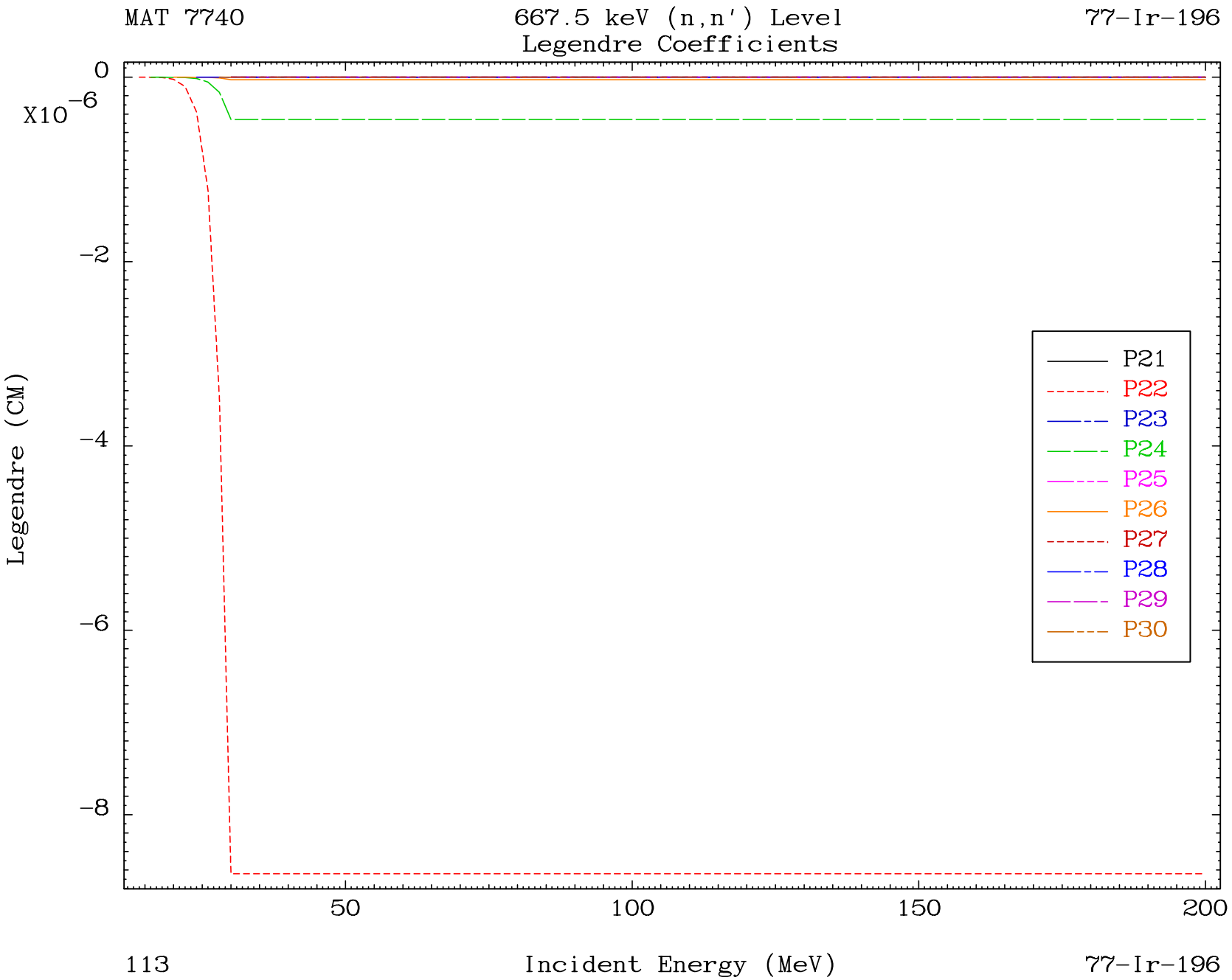

MAT 7740
655.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.15
0.10
0.05
0.00
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
108
Incident Energy (MeV)
77-Ir-196

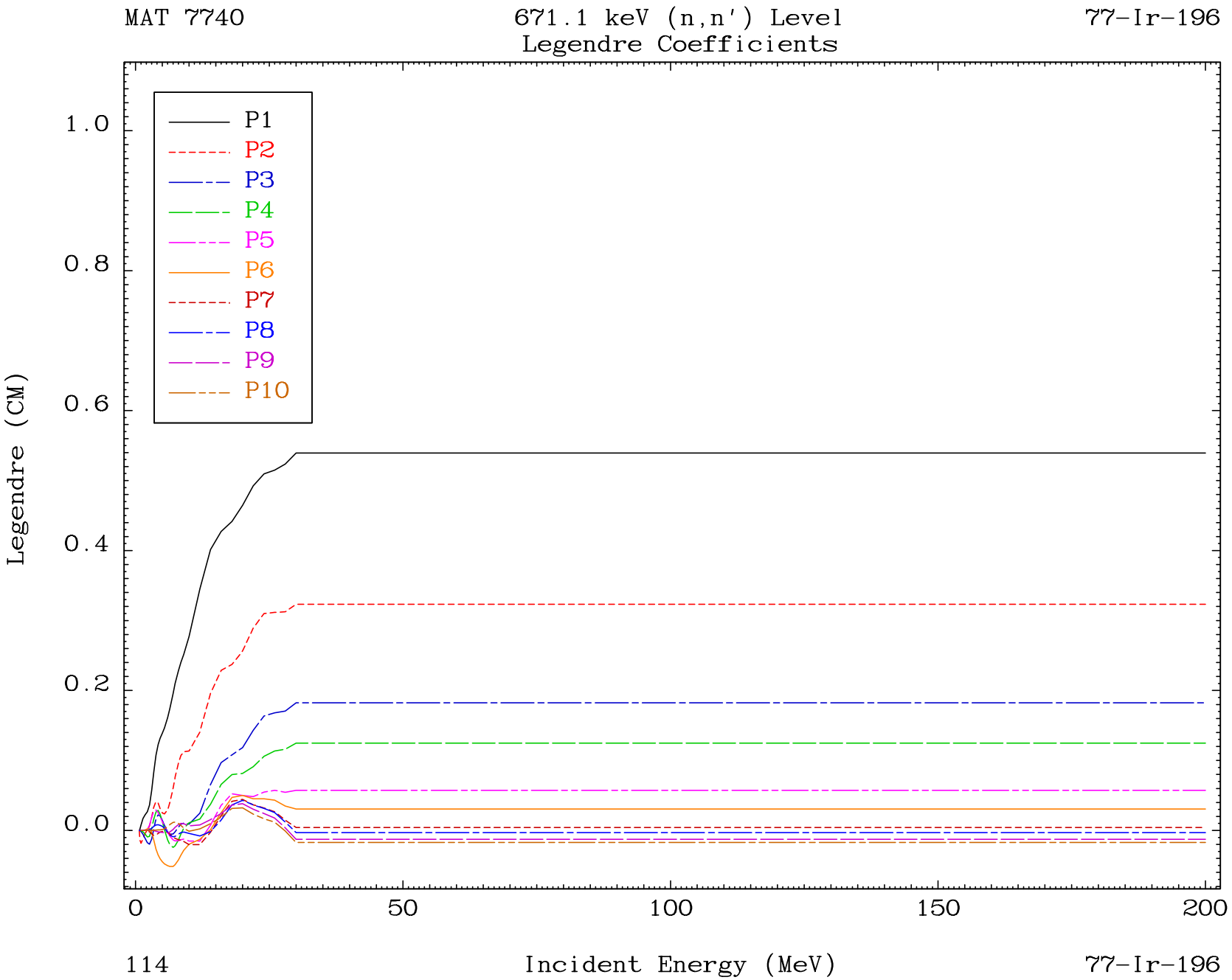

MAT 7740
655.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.000
0.000
0.000
0.000
-0.002
-0.003
Legendre (CM)
0
50
100
150
200
109
Incident Energy (MeV)
77-Ir-196

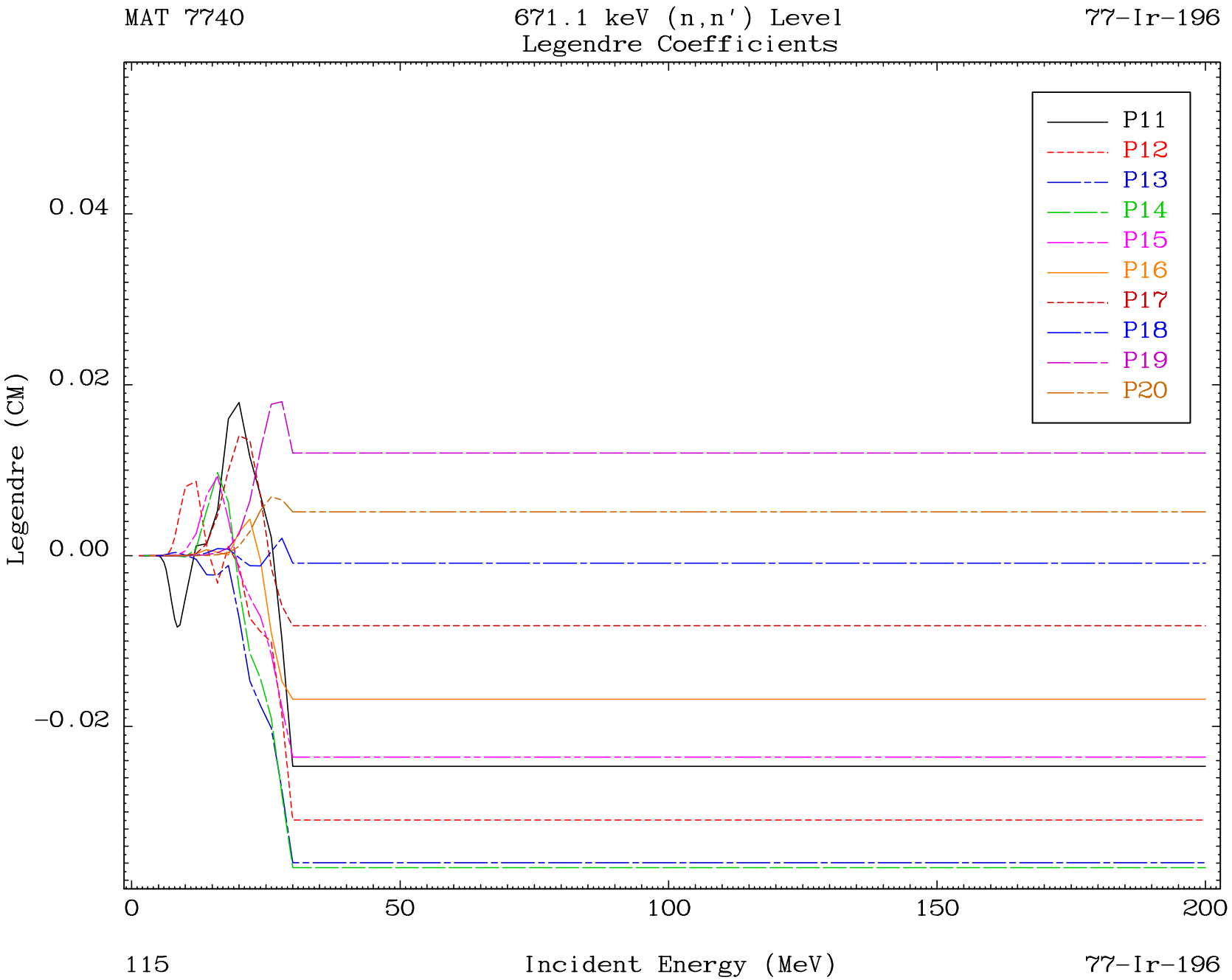

MAT 7740
655.8 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10-5
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
110
Incident Energy (MeV)
77-Ir-196

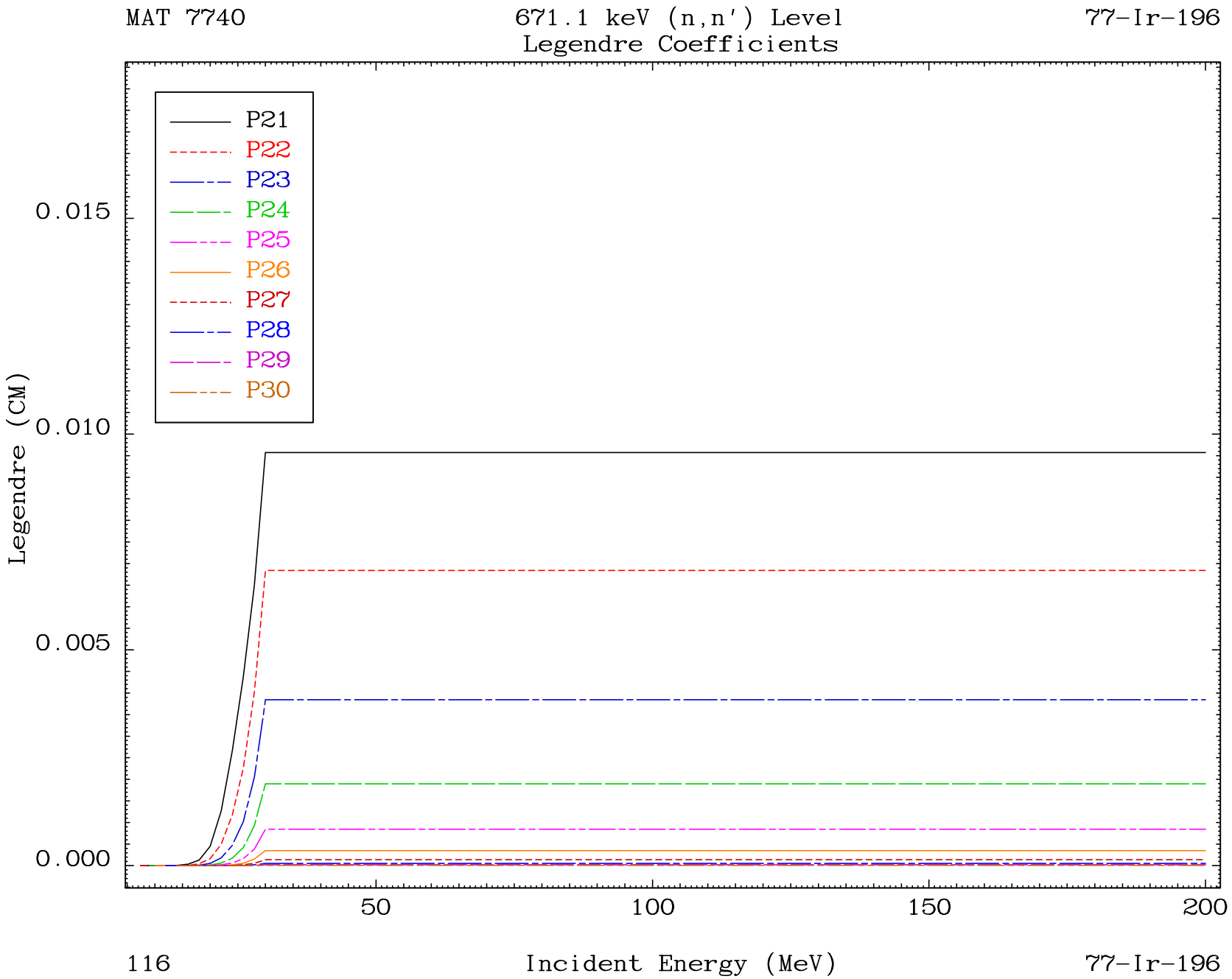

MAT 7740
667.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.20
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
111
Incident Energy (MeV)
77-Ir-196

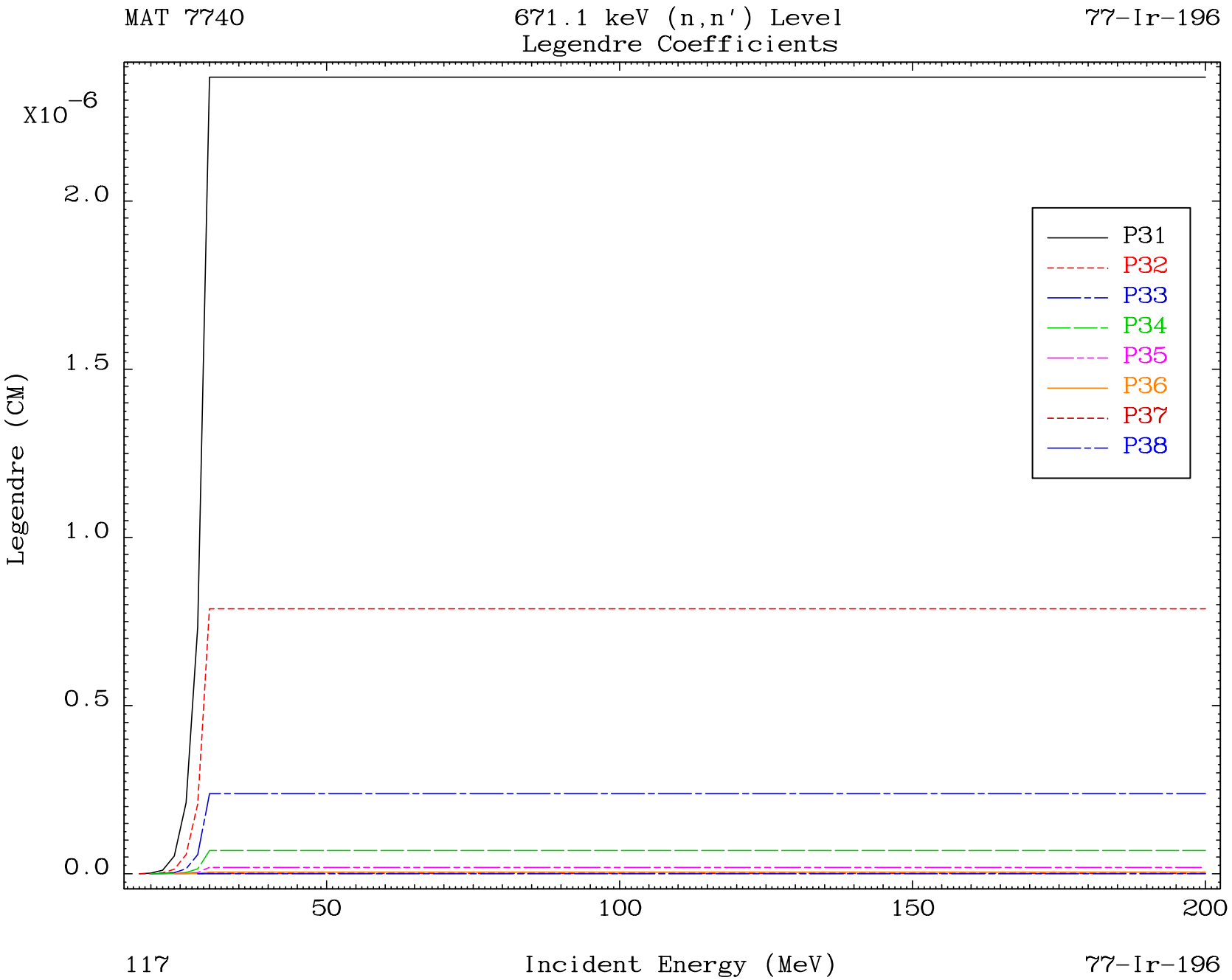

MAT 7740
667.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.000
0.000
0.000
0.000
0.000
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
112
Incident Energy (MeV)
77-Ir-196

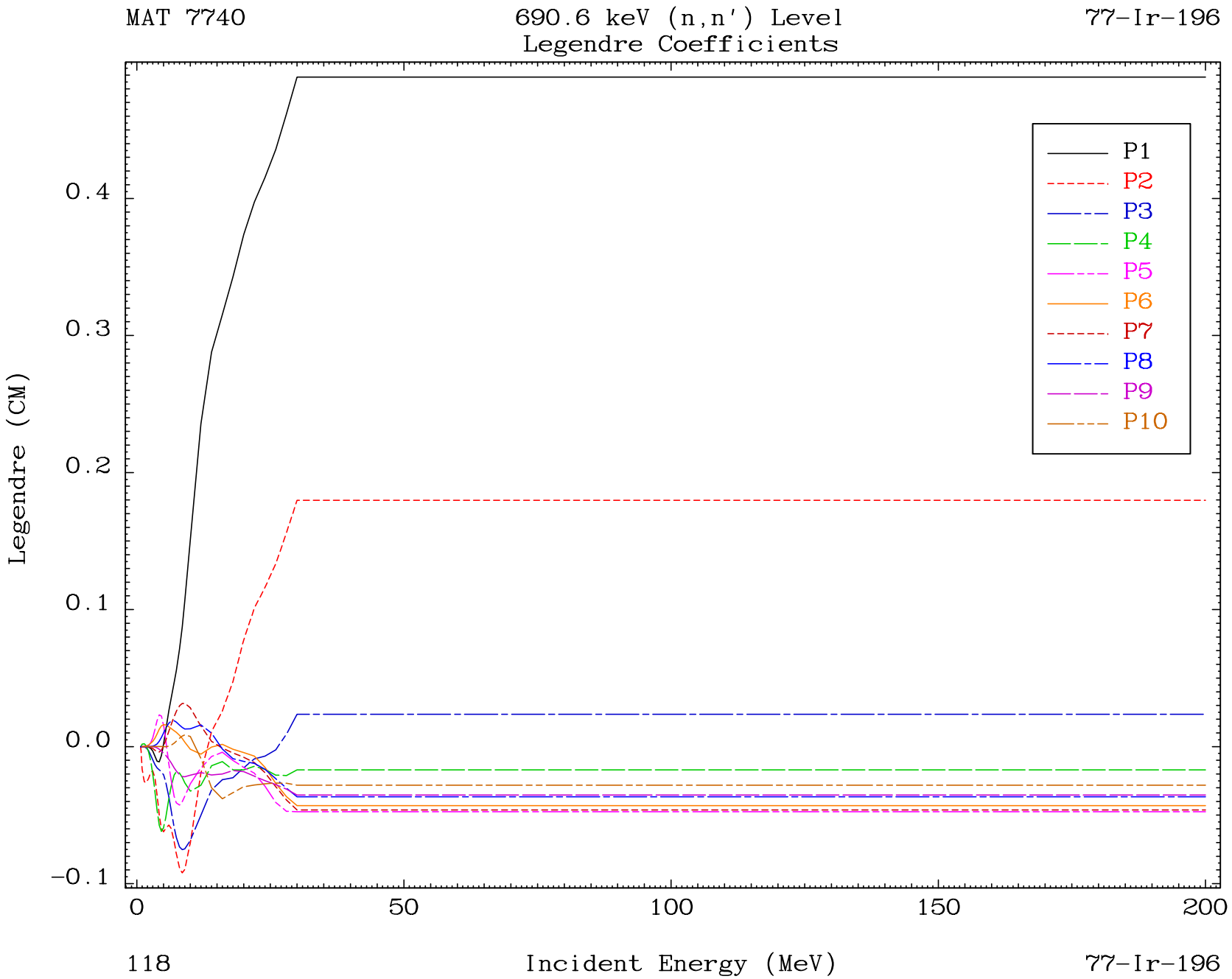

MAT 7740
667.5 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
113
Incident Energy (MeV)
77-Ir-196

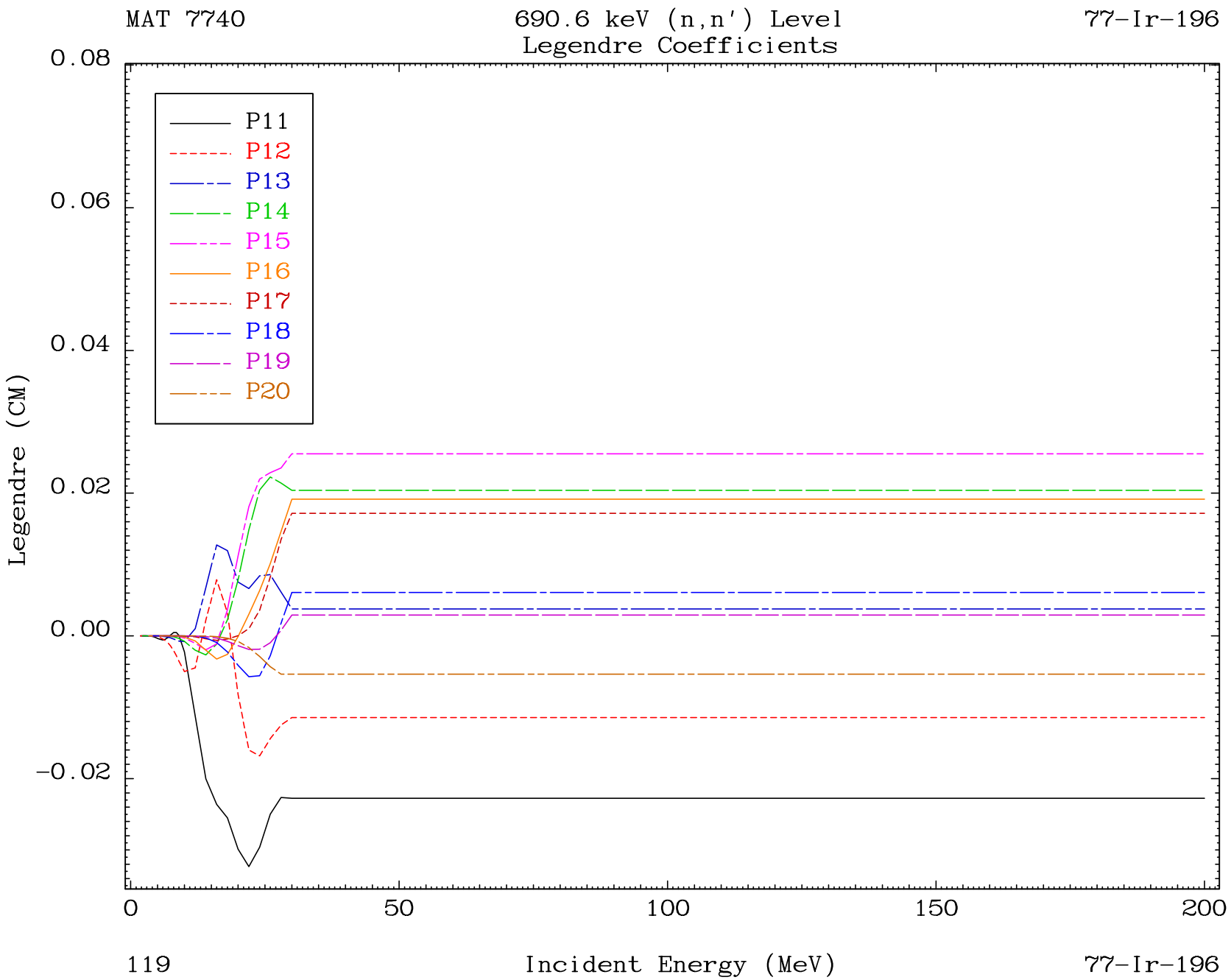

MAT 7740
671.1 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
114
Incident Energy (MeV)
77-Ir-196

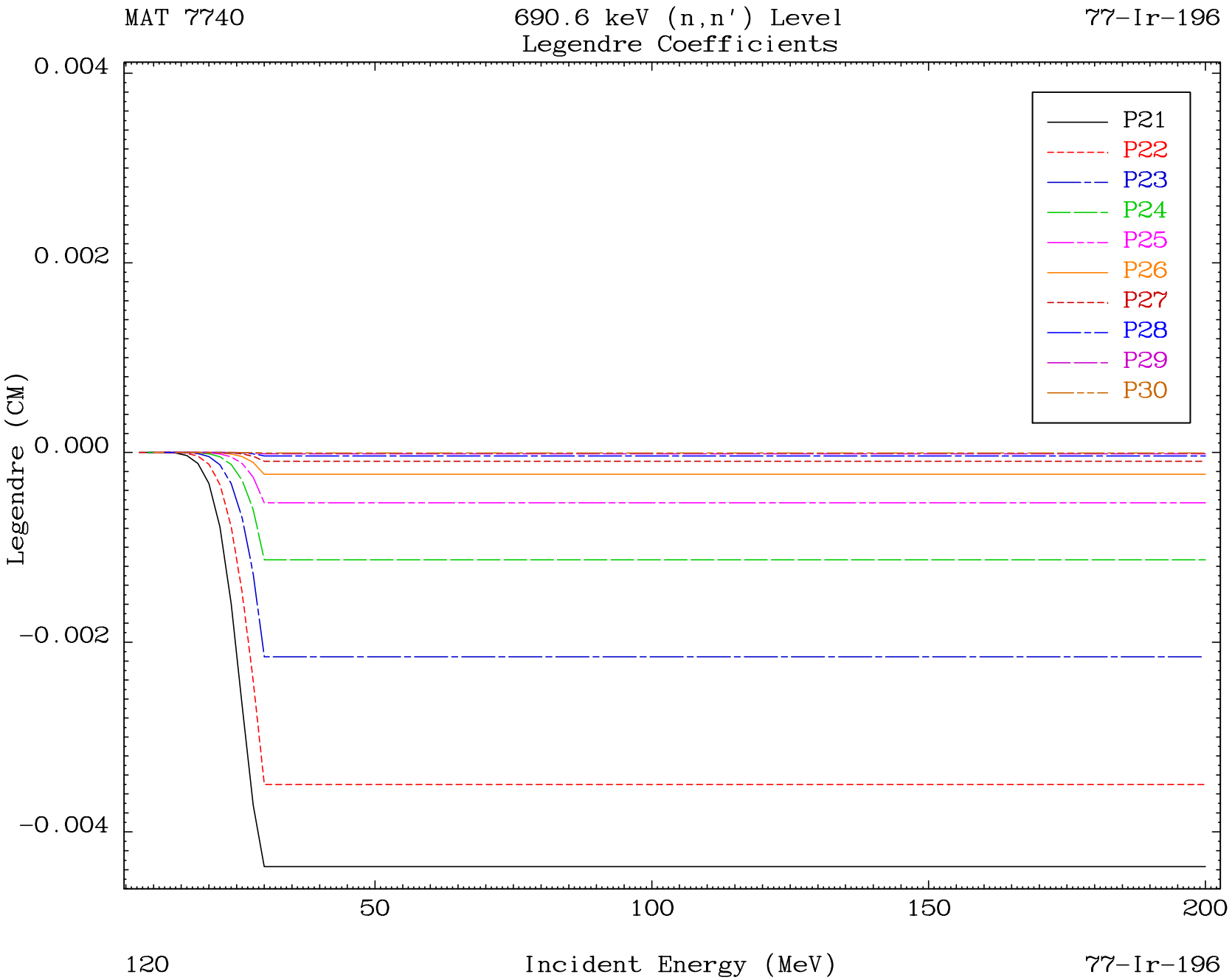

MAT 7740
671.1 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.04
0.02
0.00
-0.02
Legendre (CM)
0
50
100
150
200
115
Incident Energy (MeV)
77-Ir-196

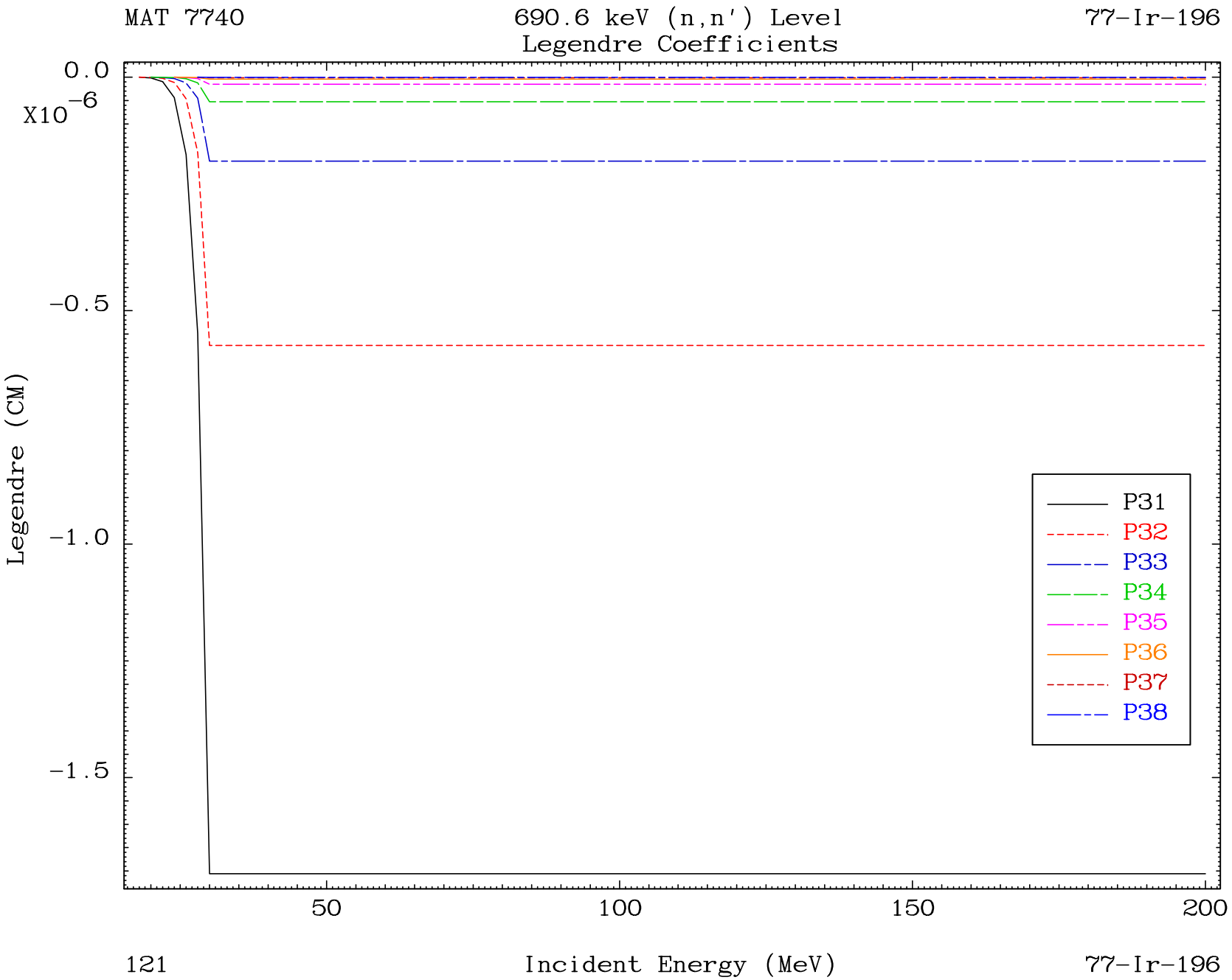

MAT 7740
671.1 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
116
Incident Energy (MeV)
77-Ir-196

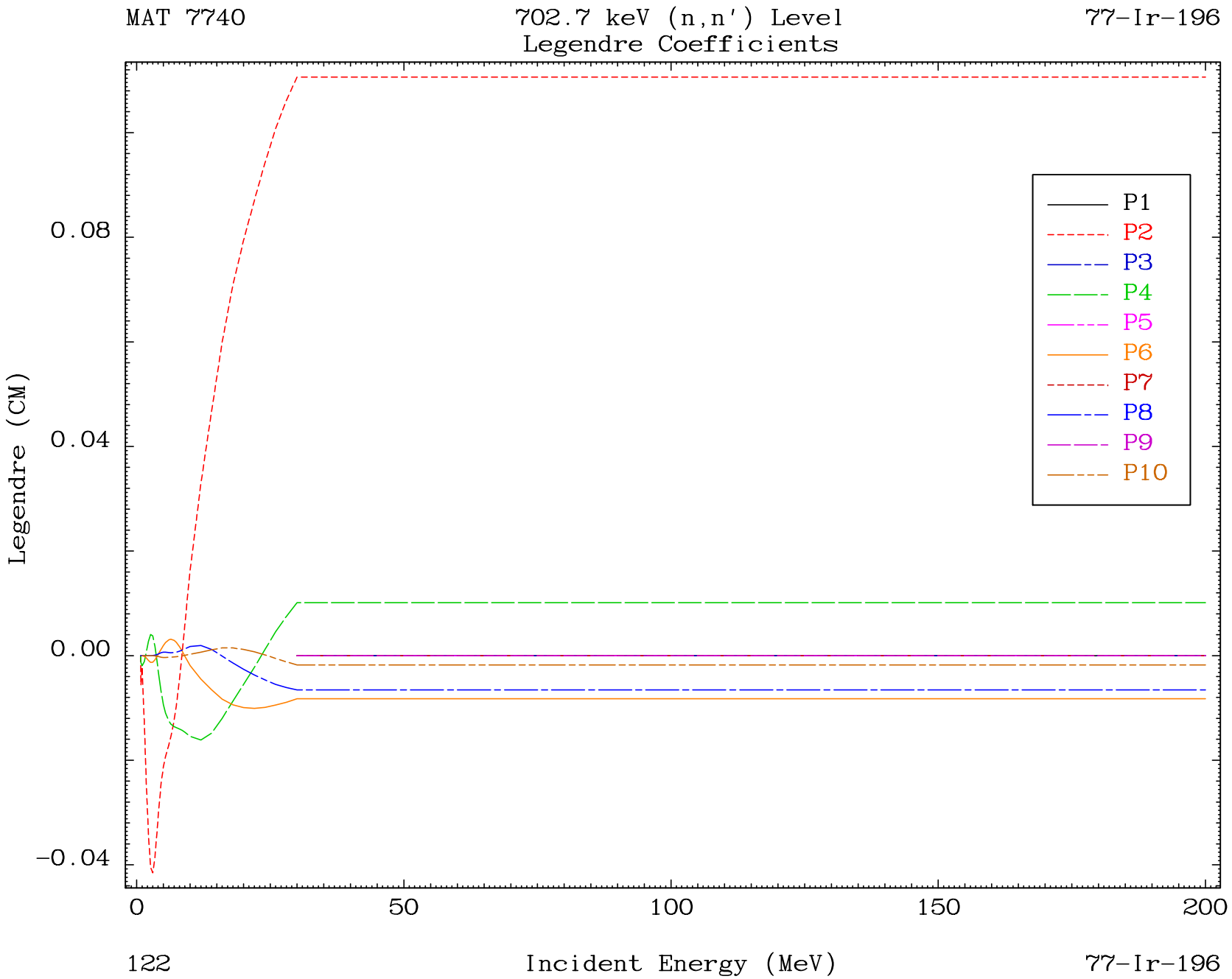

MAT 7740
671.1 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10−6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
117
Incident Energy (MeV)
77-Ir-196

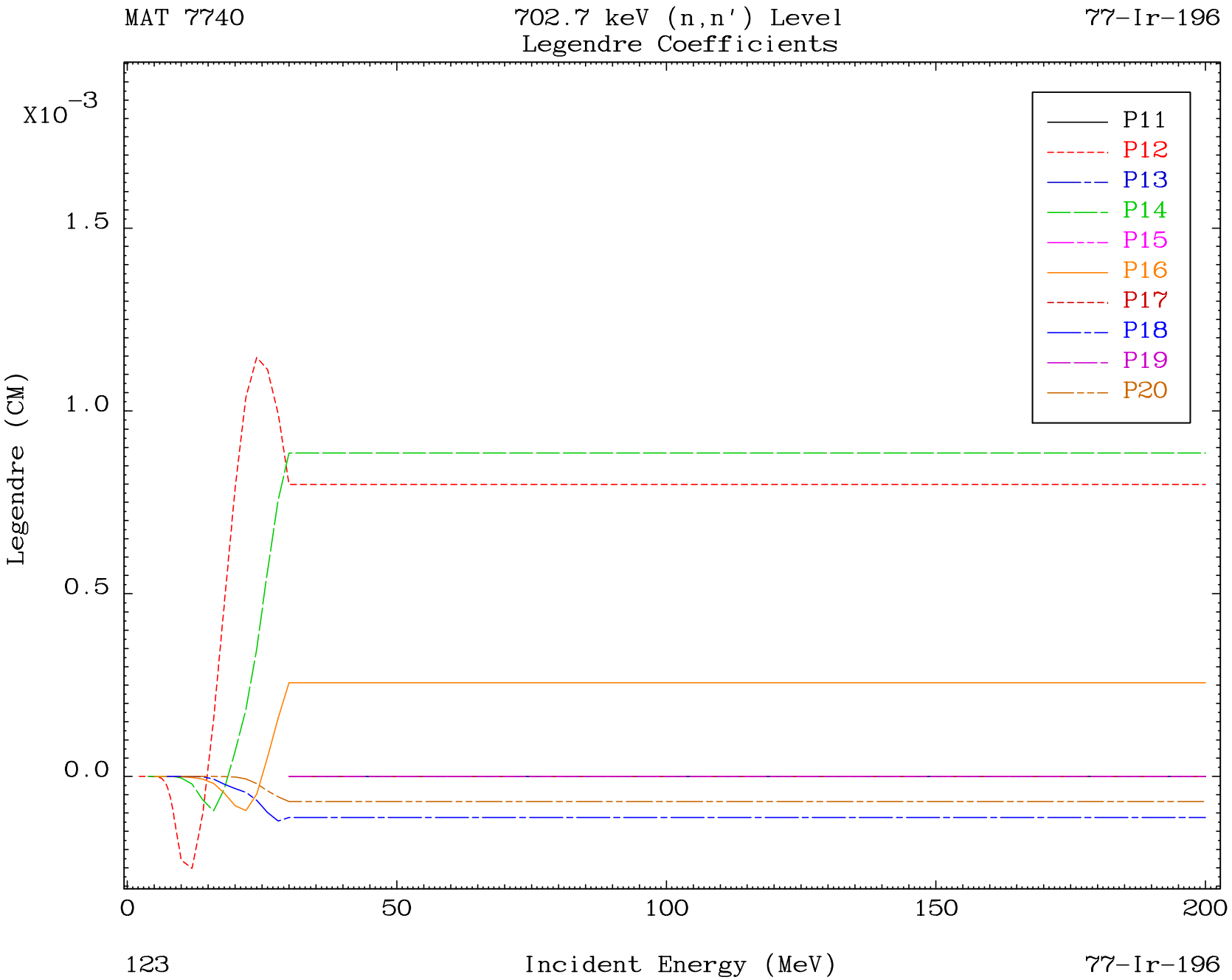

MAT 7740
690.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
118
Incident Energy (MeV)
77-Ir-196

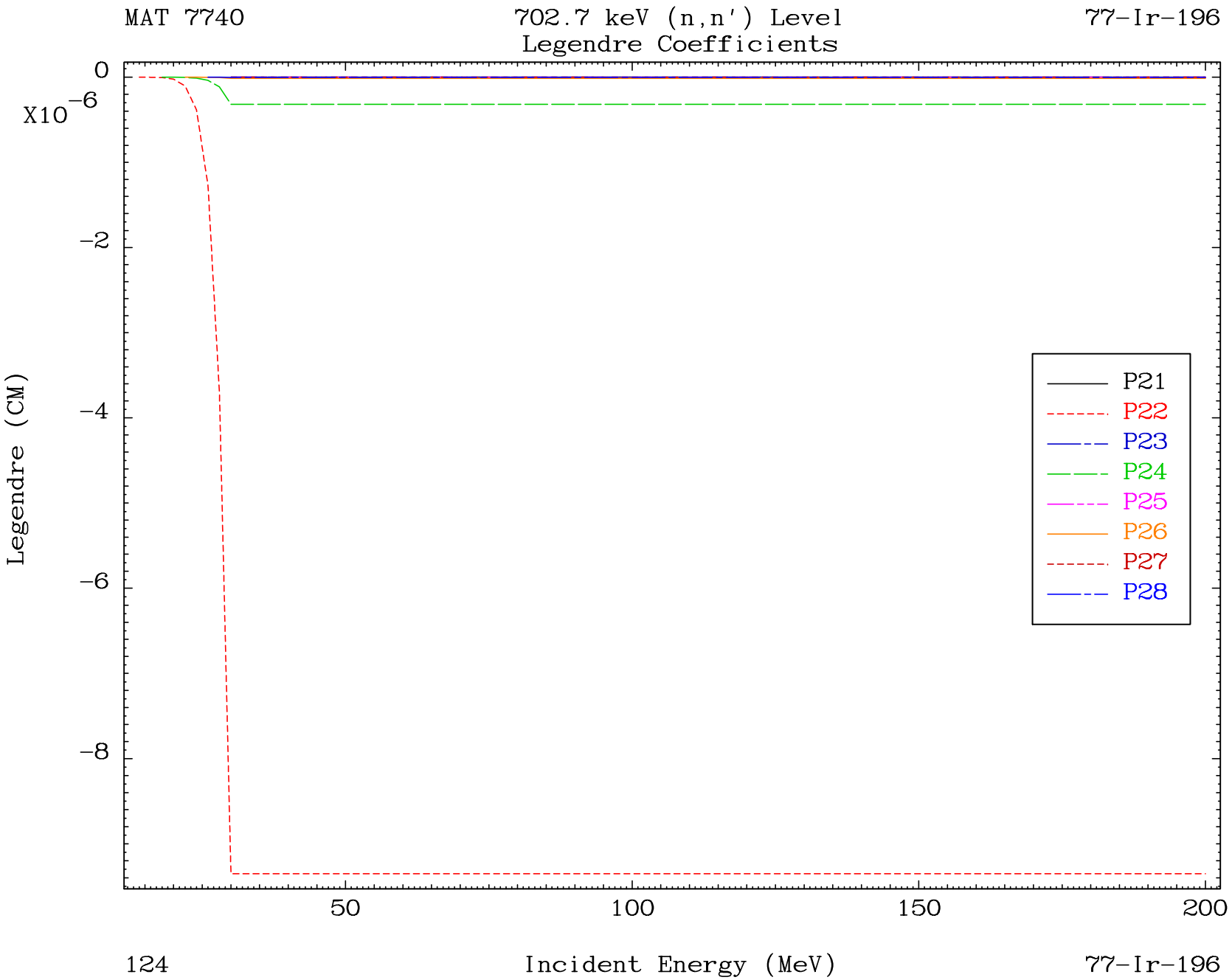

MAT 7740
690.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.08
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
0
50
100
150
200
119
Incident Energy (MeV)
77-Ir-196

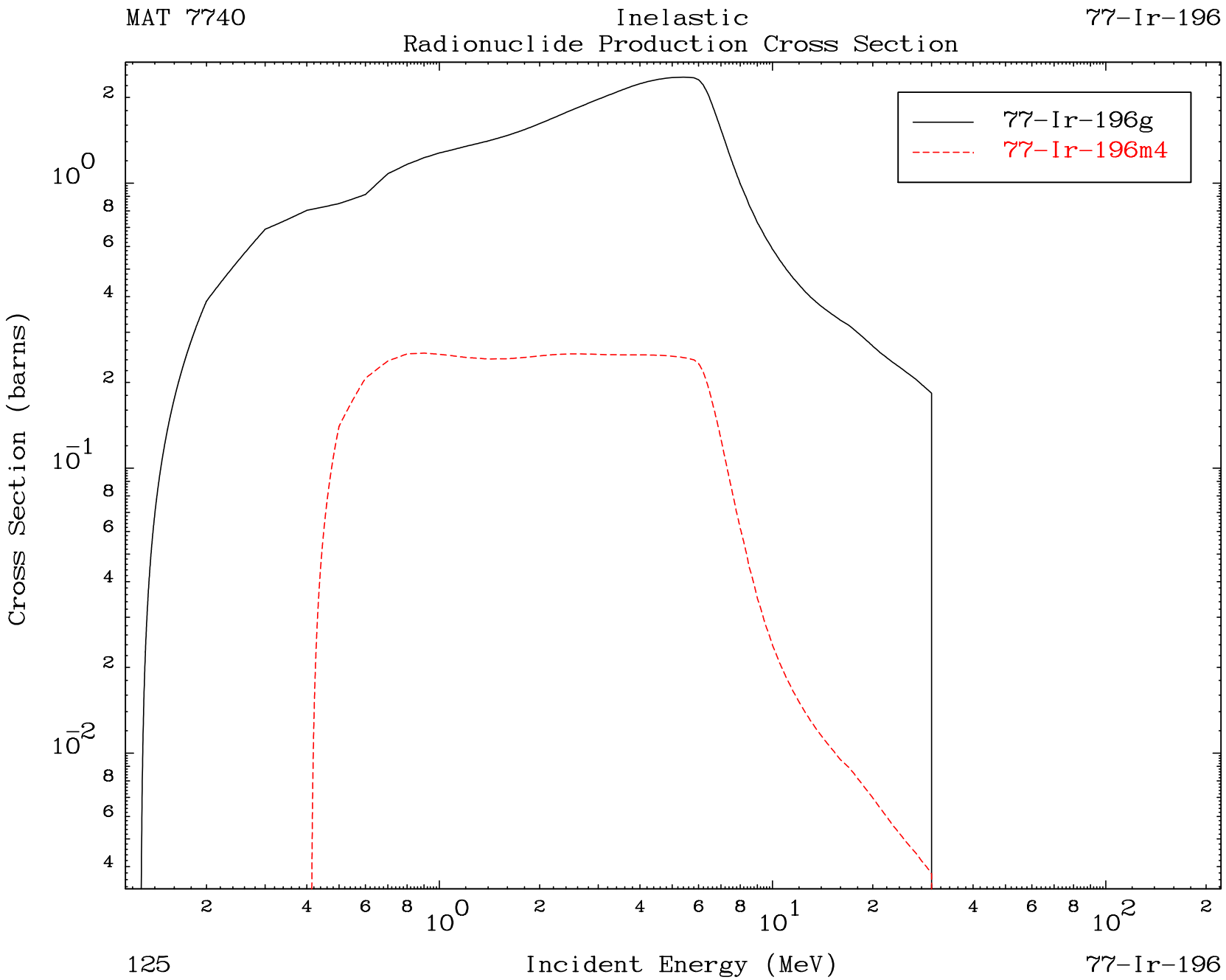

MAT 7740
690.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.004
0.002
0.000
-0.002
-0.004
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
120
50
100
150
200
Incident Energy (MeV)
77-Ir-196

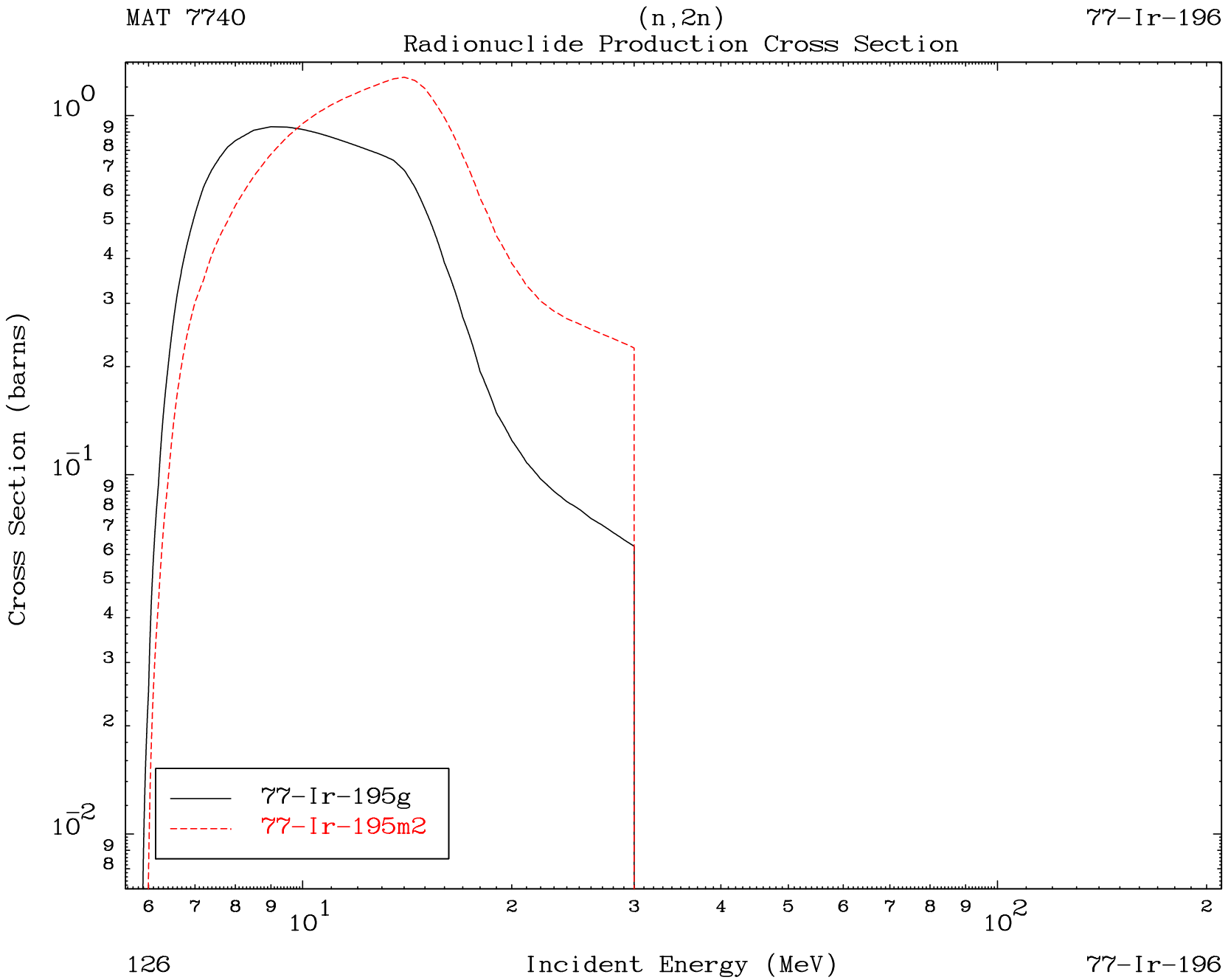

MAT 7740
690.6 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0.0
X10^-6
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
121
Incident Energy (MeV)
77-Ir-196
P31
P32
P33
P34
P35
P36
P37
P38

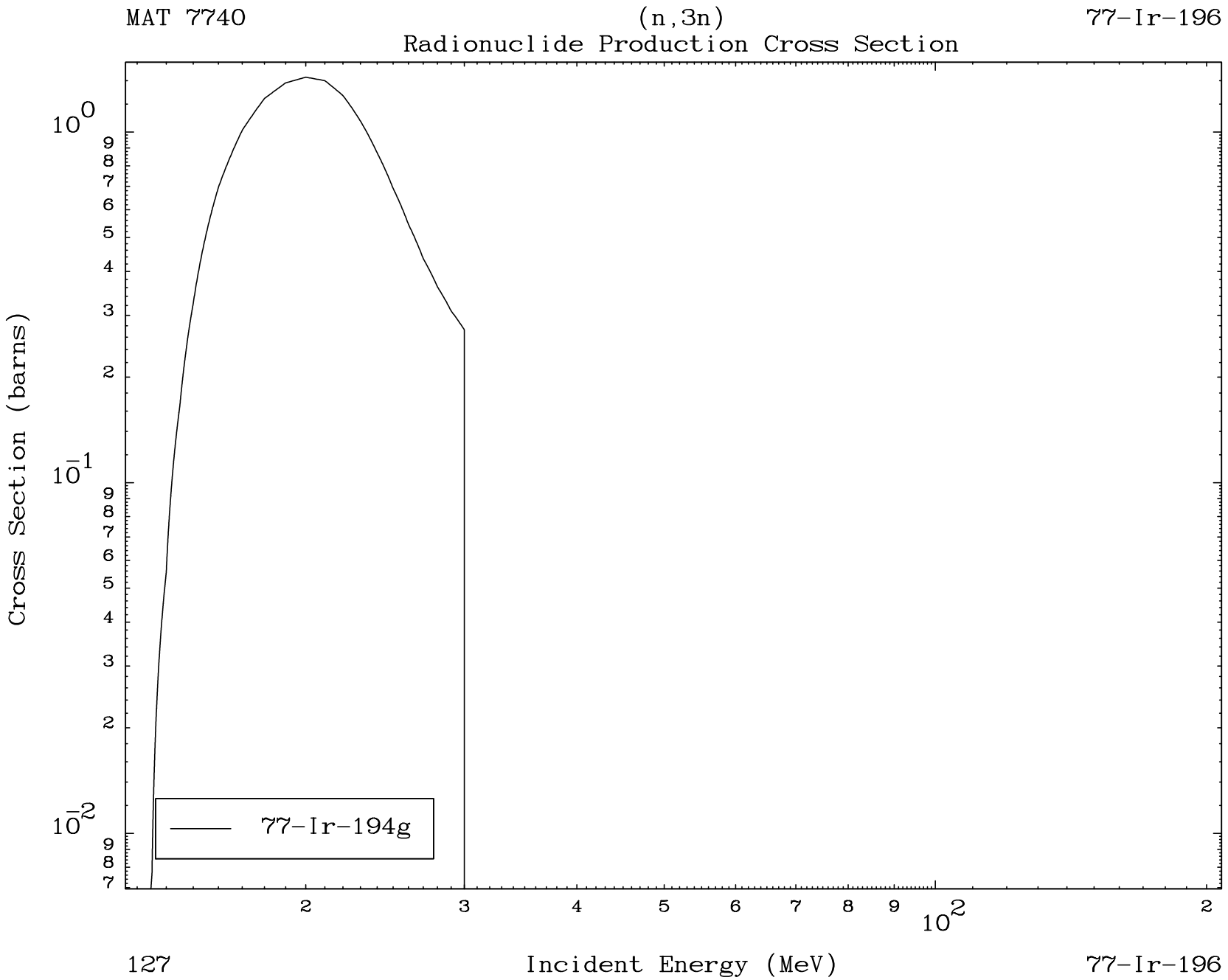

MAT 7740
702.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
Legendre (CM)
0.08
0.04
0.00
-0.04
0
50
100
150
200
122
Incident Energy (MeV)
77-Ir-196
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

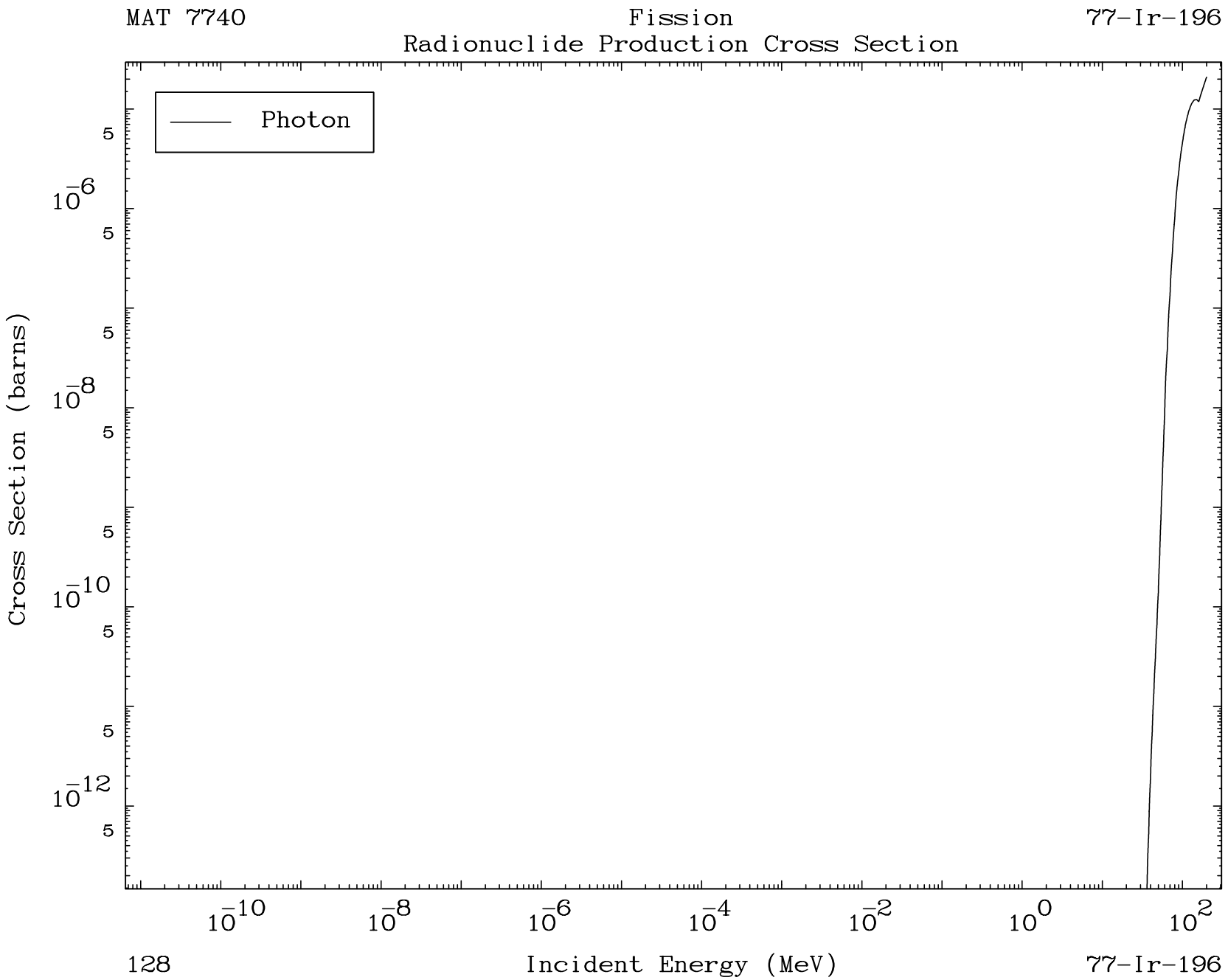

MAT 7740
702.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
X10^-3
1.5
1.0
0.5
0.0
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
123
Incident Energy (MeV)
77-Ir-196

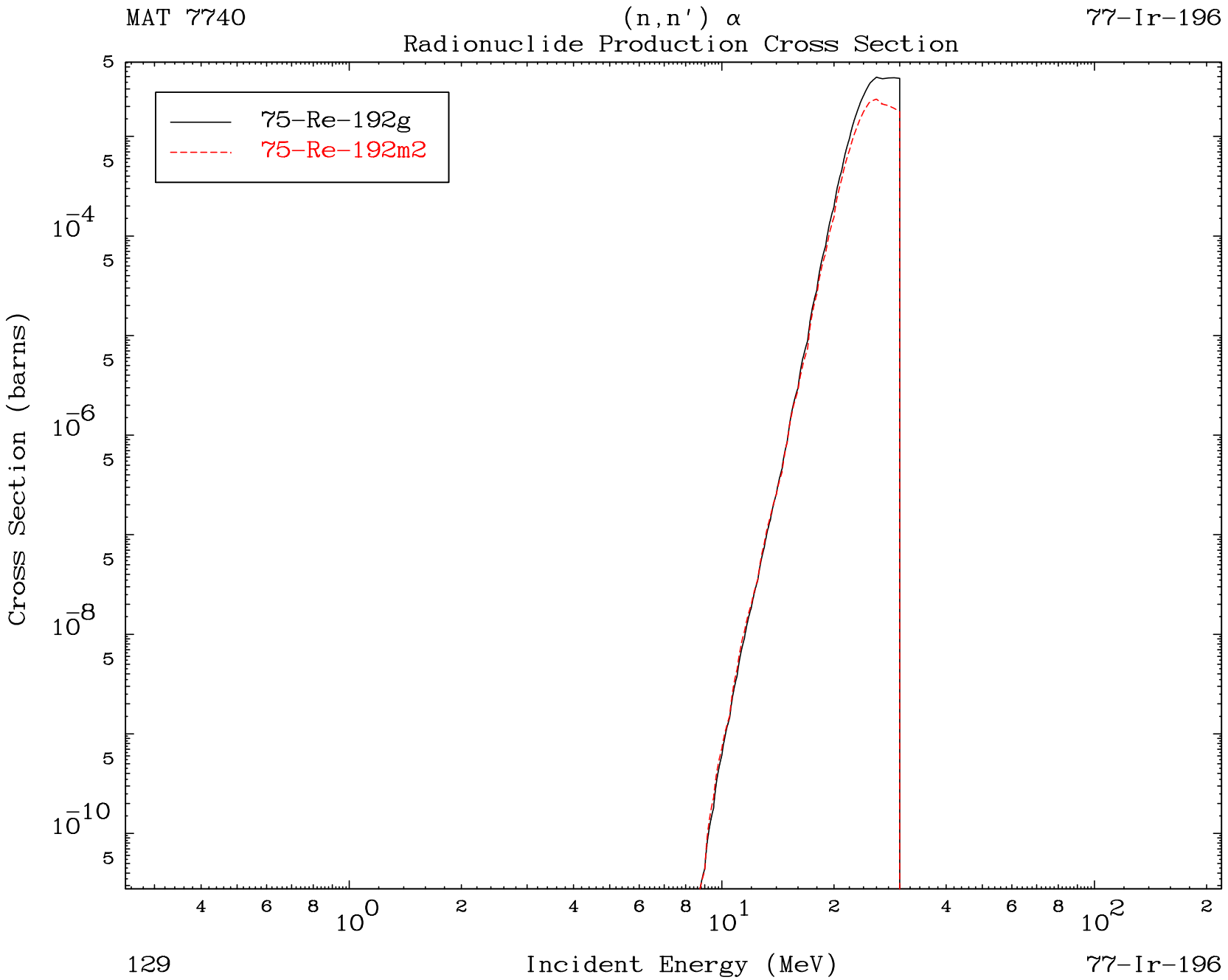

MAT 7740
702.7 keV (n,n') Level
Legendre Coefficients
77-Ir-196
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
124
Incident Energy (MeV)
77-Ir-196
P21
P22
P23
P24
P25
P26
P27
P28

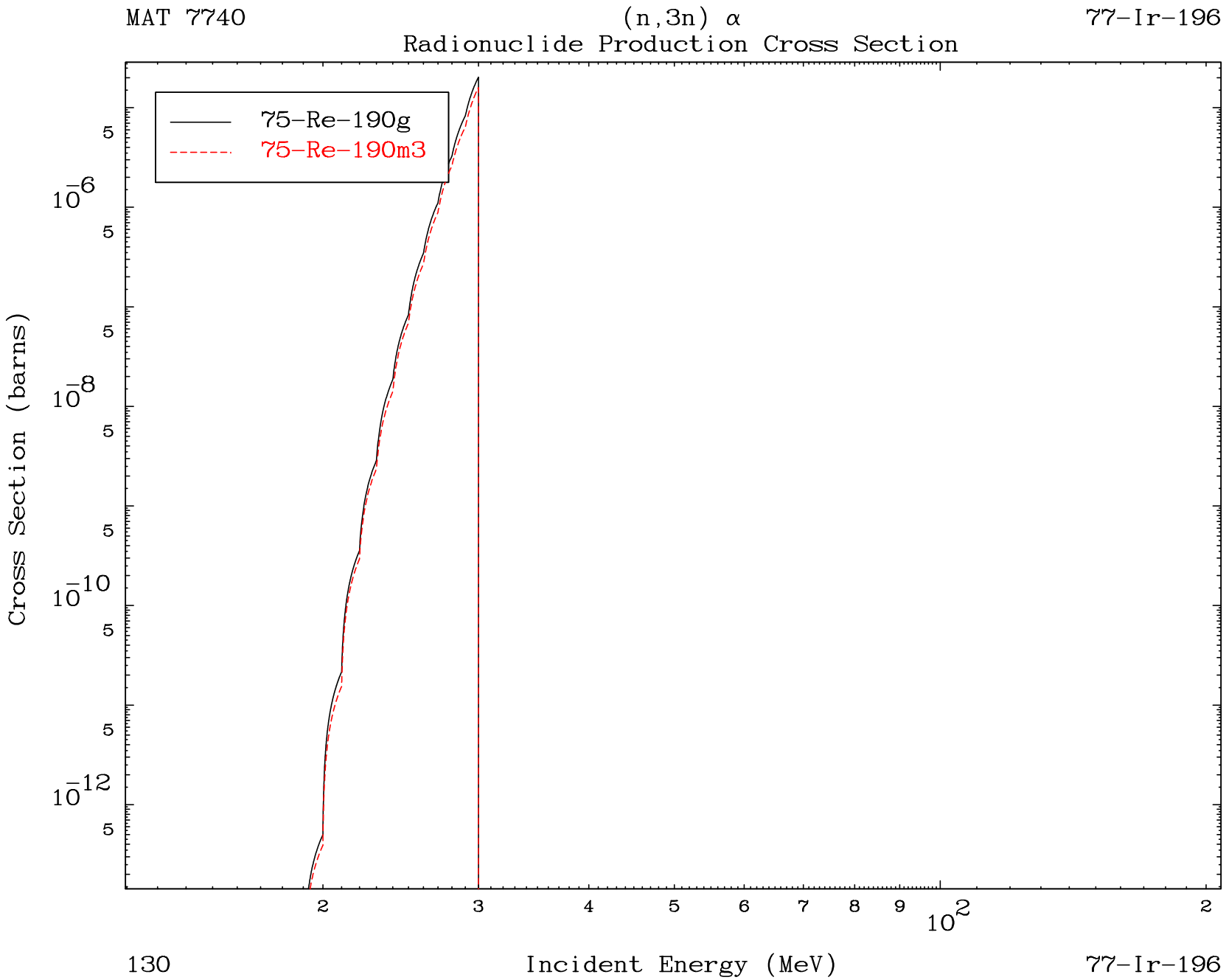

MAT 7740
Inelastic
77-Ir-196
Radionuclide Production Cross Section
77-Ir-196g
77-Ir-196m4
Cross Section (barns)
Incident Energy (MeV)
125
77-Ir-196

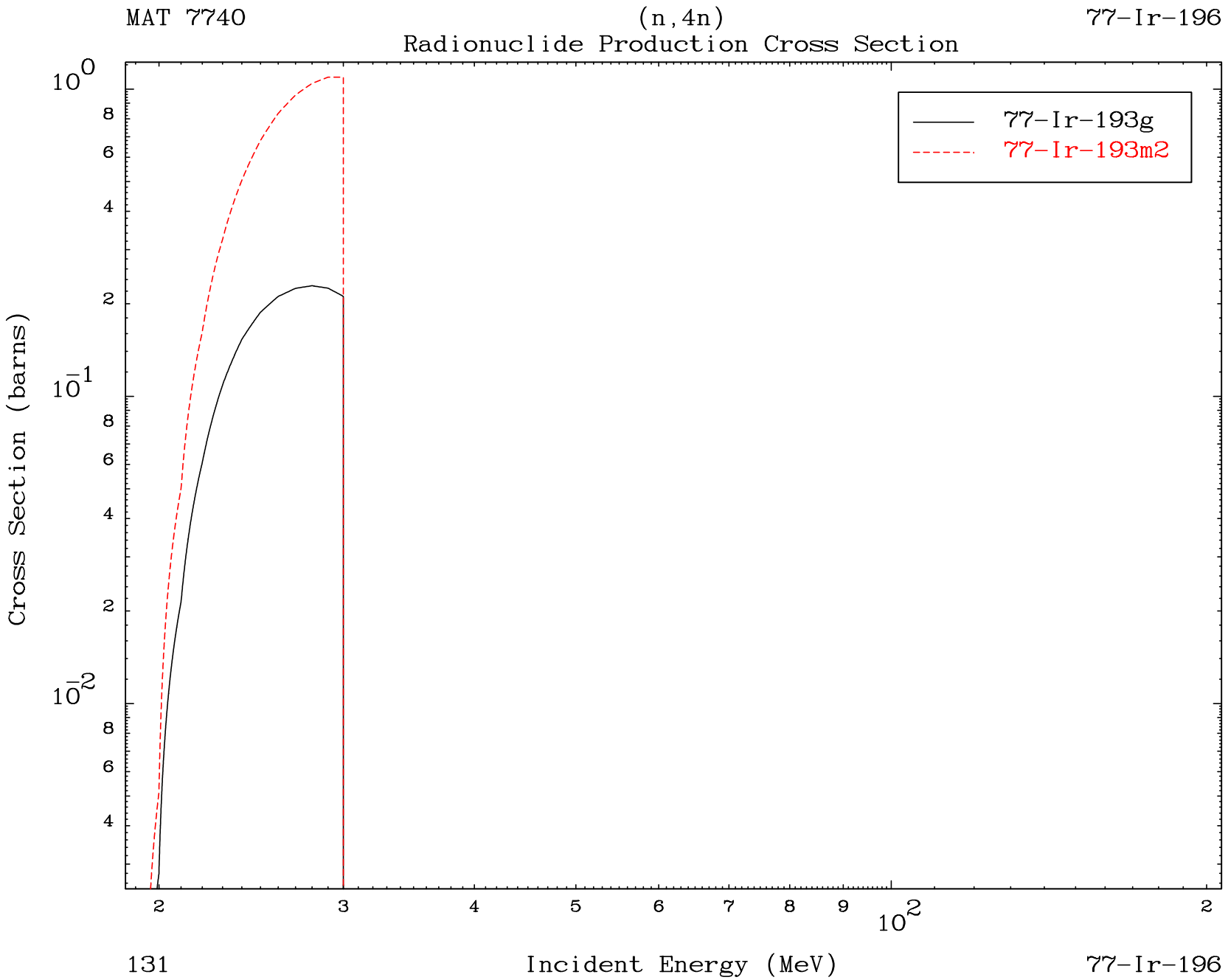

MAT 7740
(n,2n)
77-Ir-196
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
77-Ir-195g
77-Ir-195m2
126
77-Ir-196

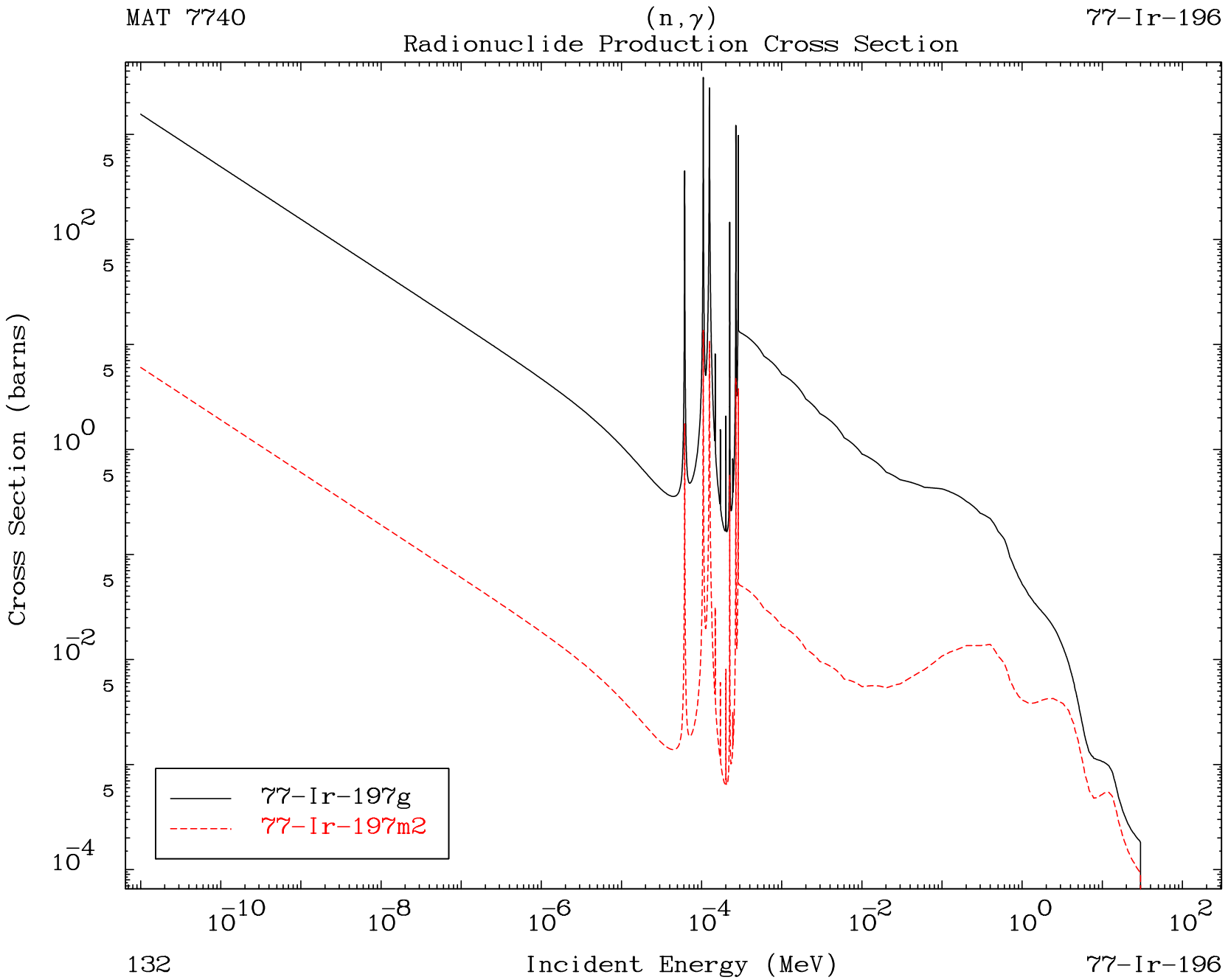

MAT 7740
(n,3n)
77-Ir-196
Radionuclide Production Cross Section
Cross Section (barns)
10^0
10^-1
10^-2
9
8
7
6
5
4
3
2
77-Ir-194g
2
3
4
5
6
7
8
9
10^2
2
127
Incident Energy (MeV)
77-Ir-196


MAT 7740
Fission
77-Ir-196
Radionuclide Production Cross Section
Photon
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
128
Incident Energy (MeV)
77-Ir-196


MAT 7740
(n,n') α
77-Ir-196
Radionuclide Production Cross Section
75-Re-192g
75-Re-192m2
Cross Section (barns)
Incident Energy (MeV)
129
77-Ir-196


MAT 7740
(n,3n) α
77-Ir-196
Radionuclide Production Cross Section
75-Re-190g
75-Re-190m3
Cross Section (barns)
10^-6
10^-8
10^-10
10^-12
5
2
3
4
5
6
7
8
9
10^2
2
130
Incident Energy (MeV)
77-Ir-196


MAT 7740
(n,4n)
77-Ir-196
Radionuclide Production Cross Section
77-Ir-193g
77-Ir-193m2
Cross Section (barns)
Incident Energy (MeV)
131
77-Ir-196


MAT 7740
(n,γ)
77-Ir-196
Radionuclide Production Cross Section
Cross Section (barns)
10^2
10^0
10^-2
10^-4
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
77-Ir-197g
77-Ir-197m2
132
Incident Energy (MeV)
77-Ir-196