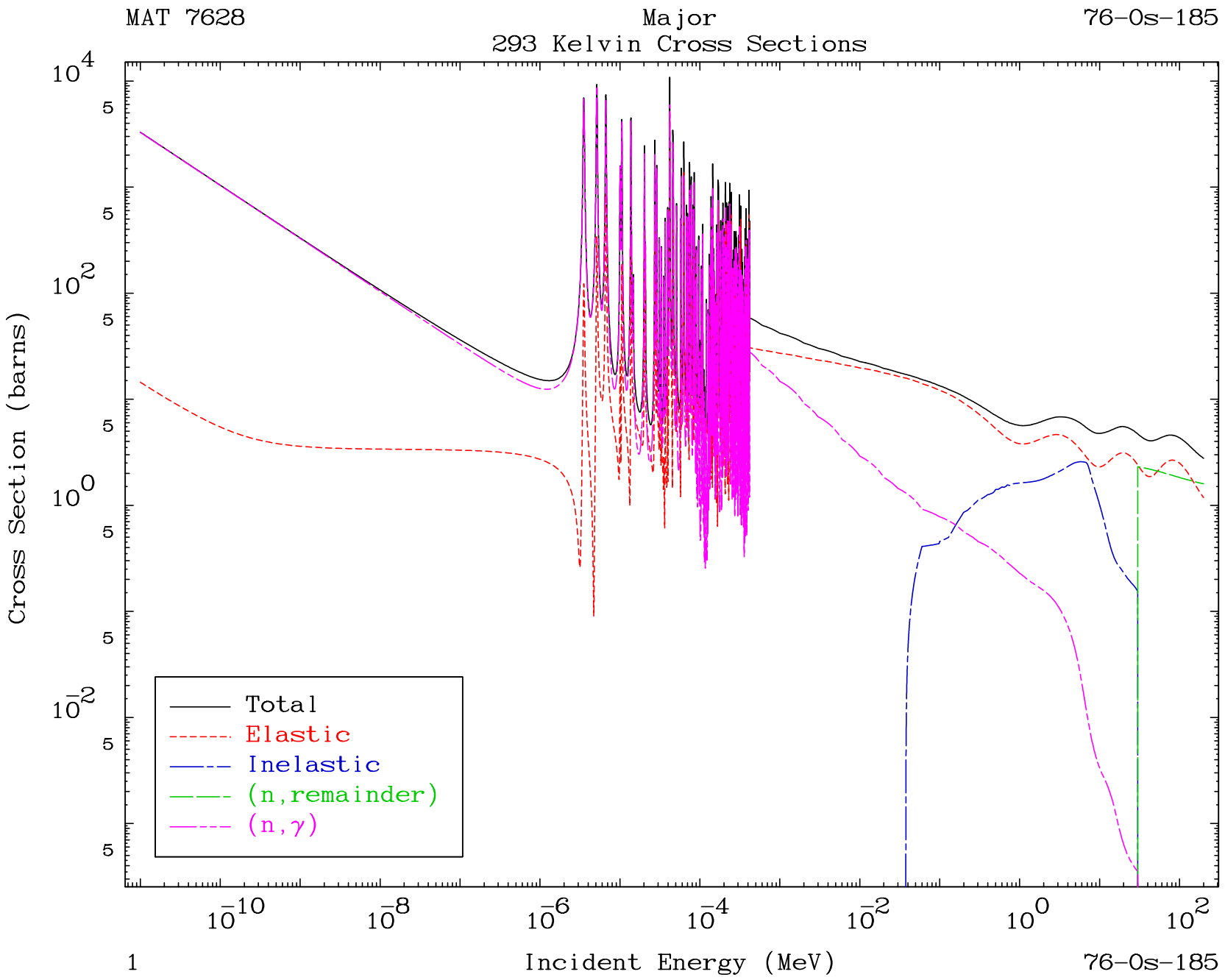
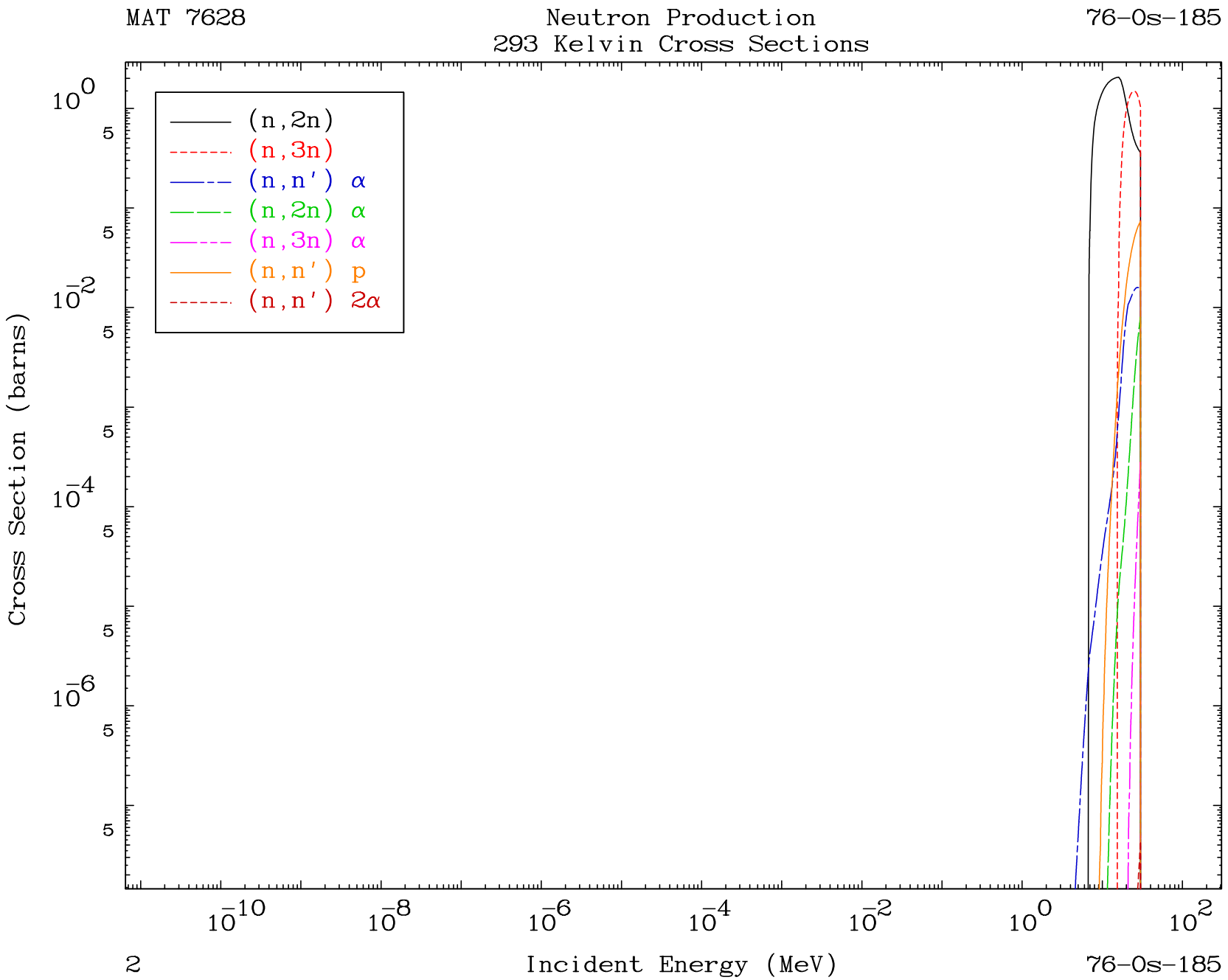
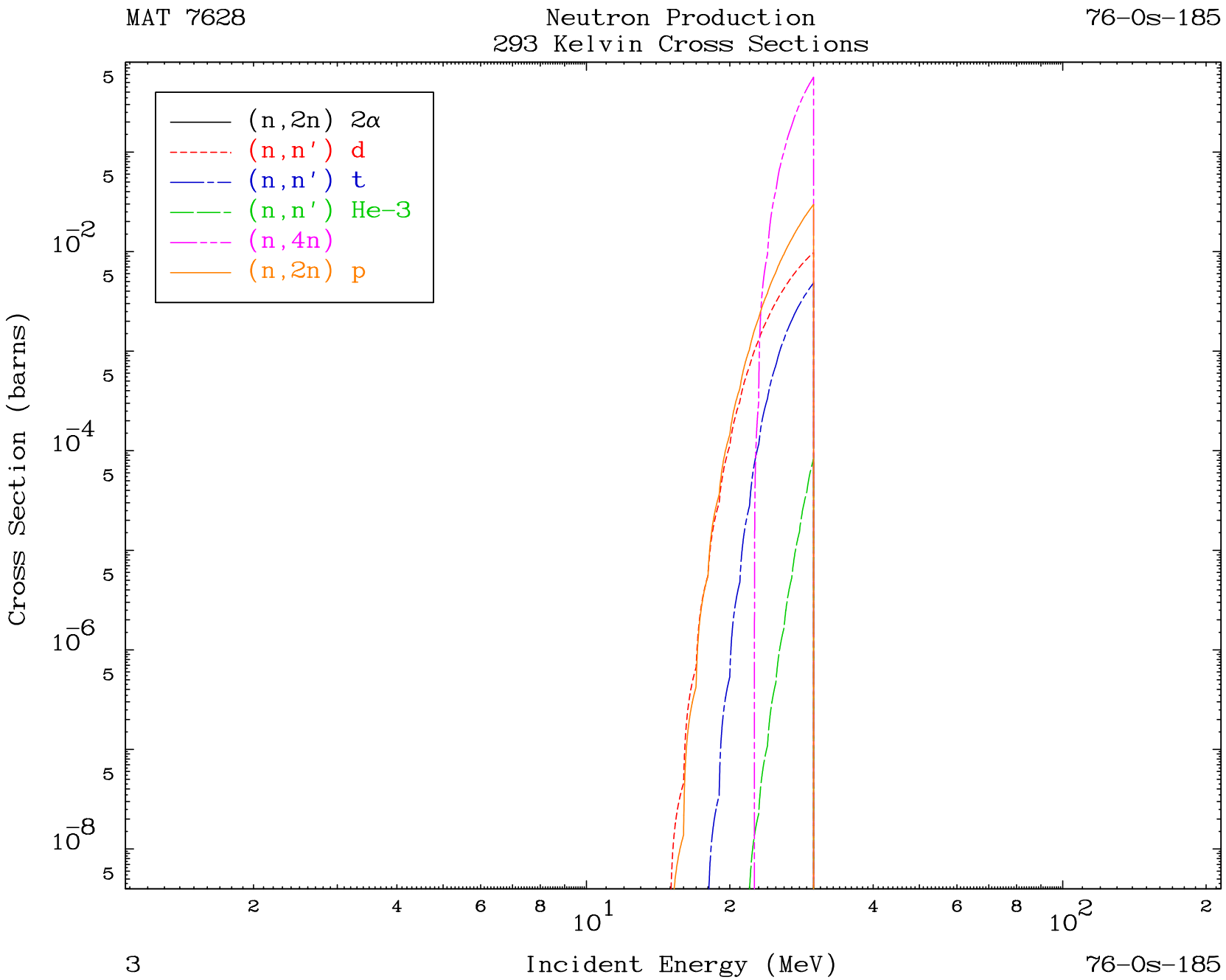
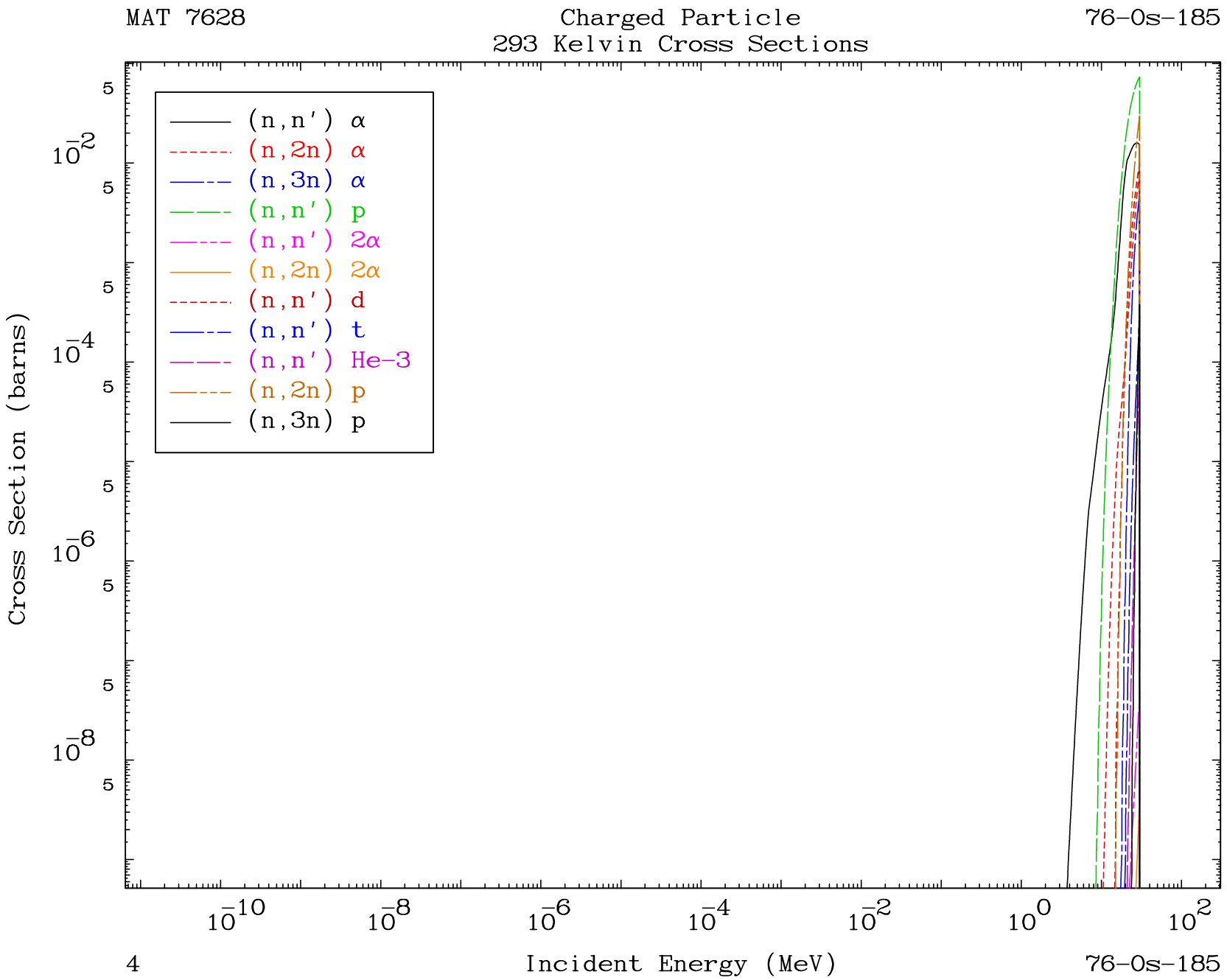
Program EVALPLOT
(Version 2015-2)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:home.comcast.net/~redcullen1

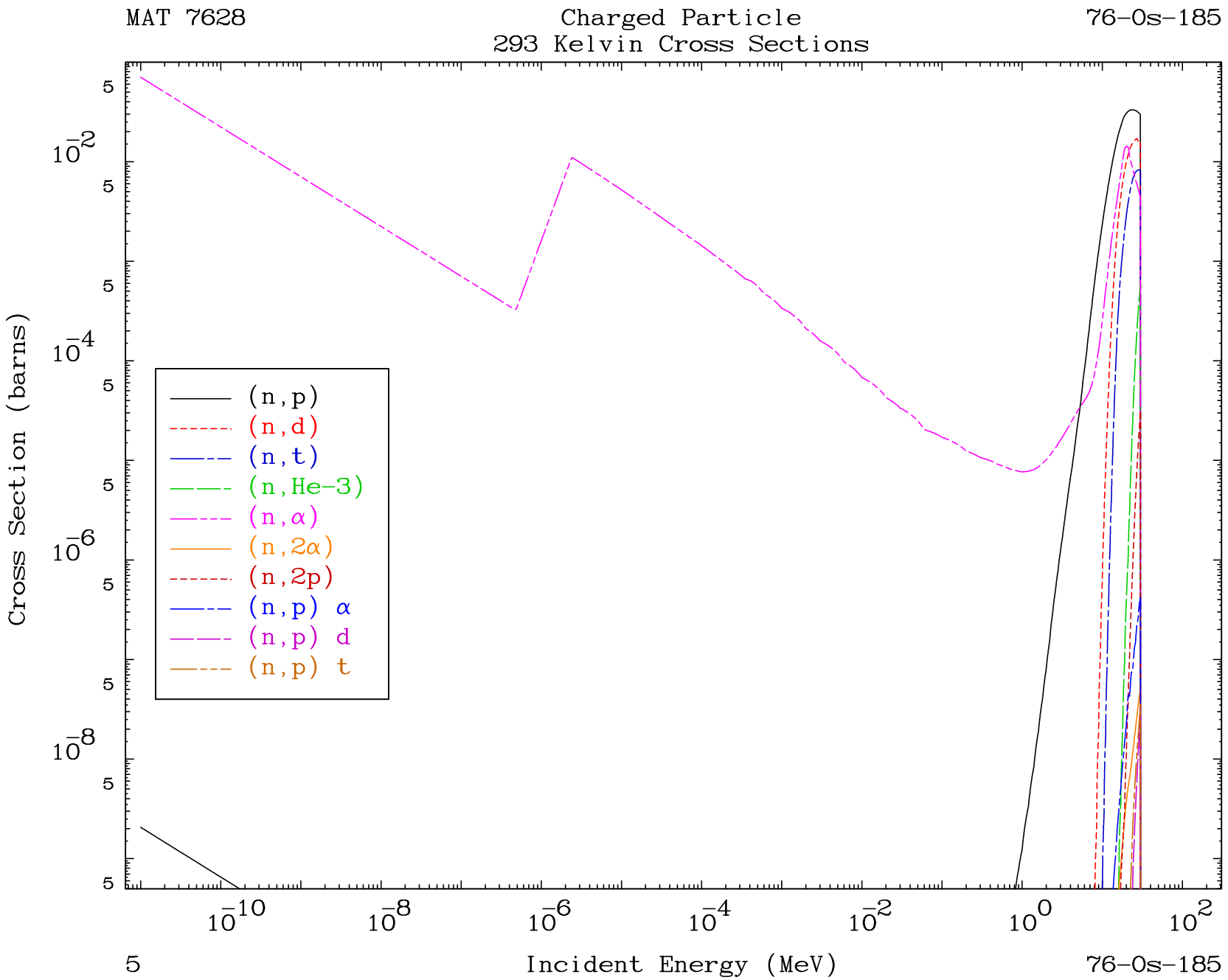
Press Mouse Button to Start

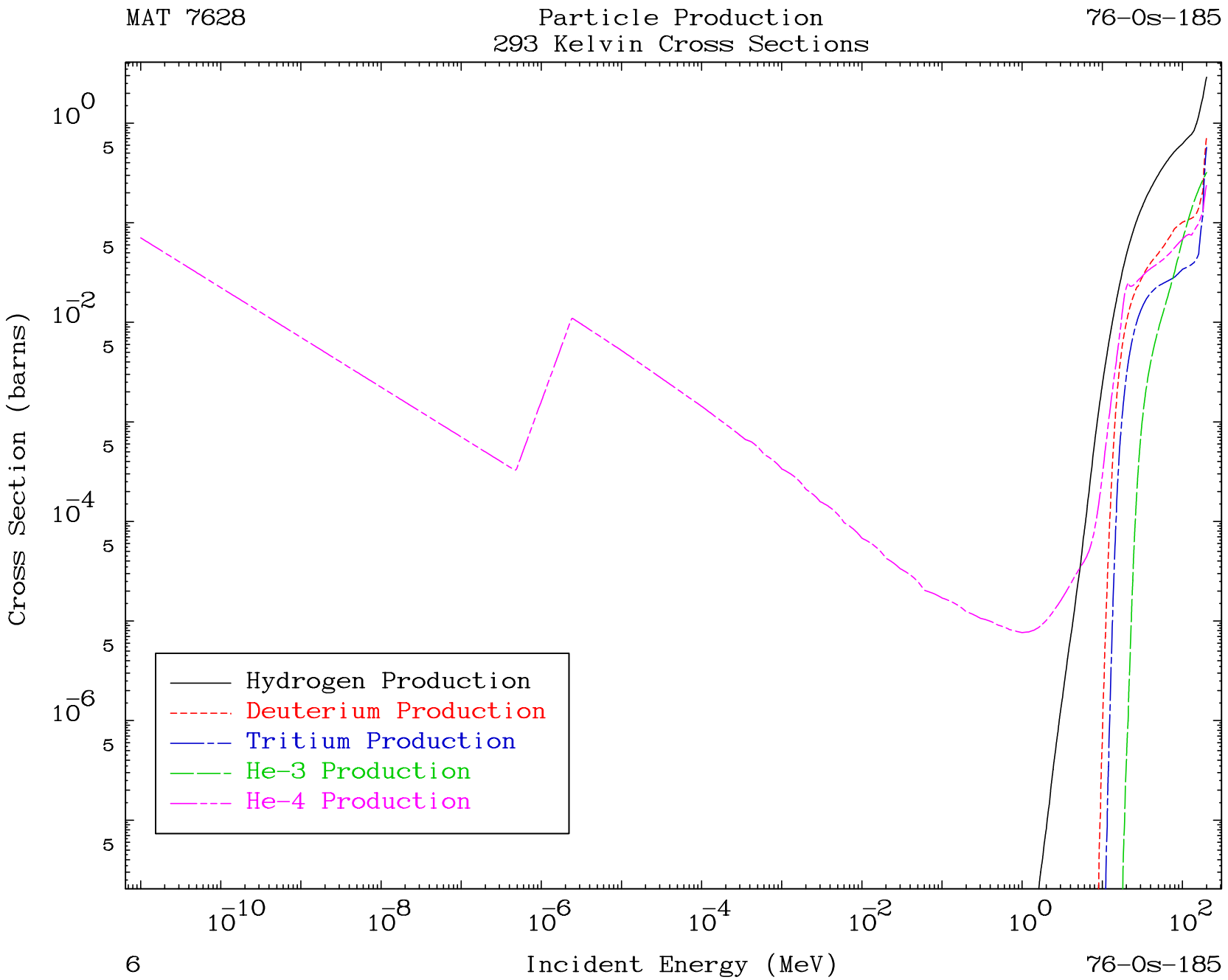

MAT 7628
Major
76-0s-185
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
76-0s-185

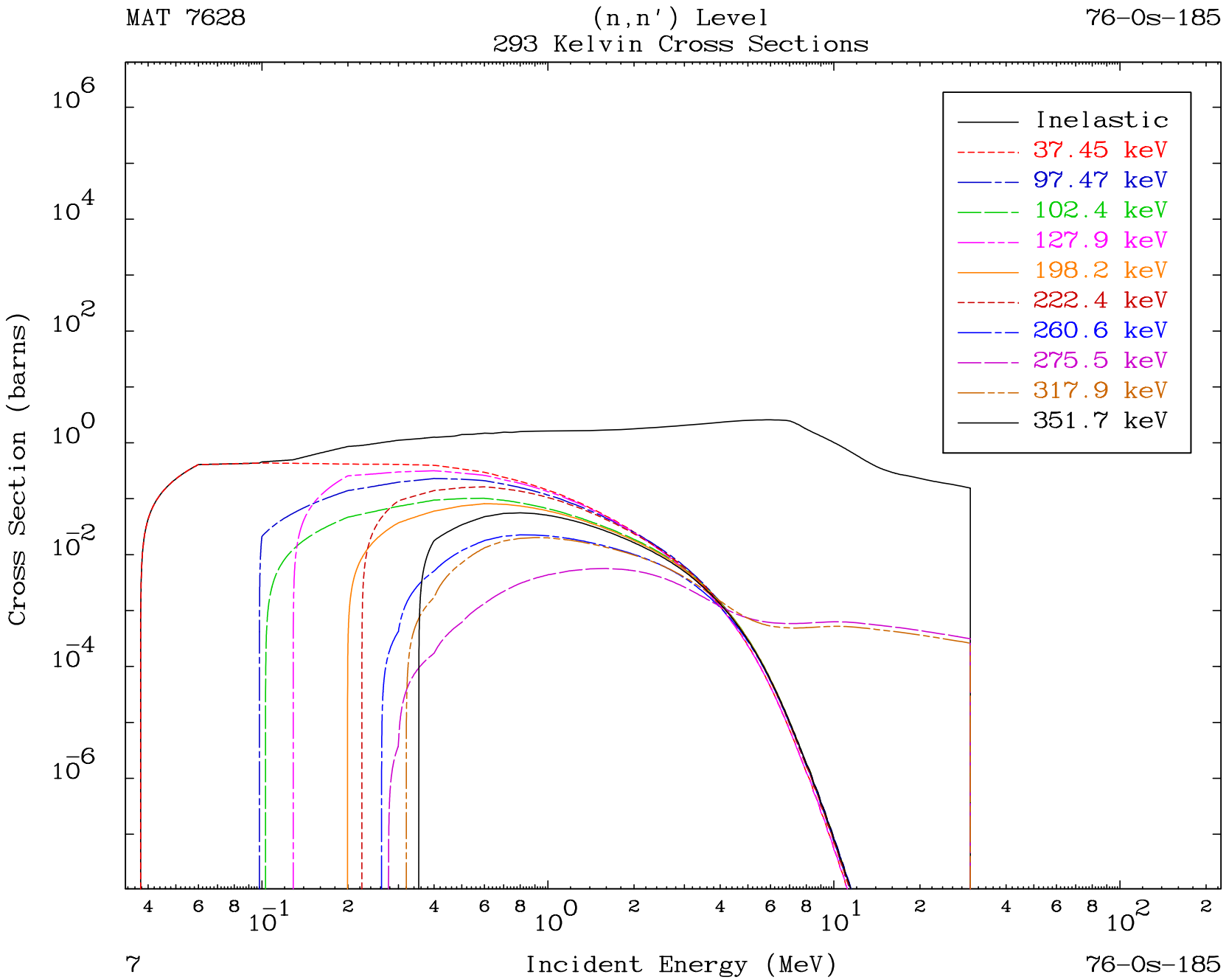

MAT 7628
Neutron Production
293 Kelvin Cross Sections
76-0s-185
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
2
76-0s-185

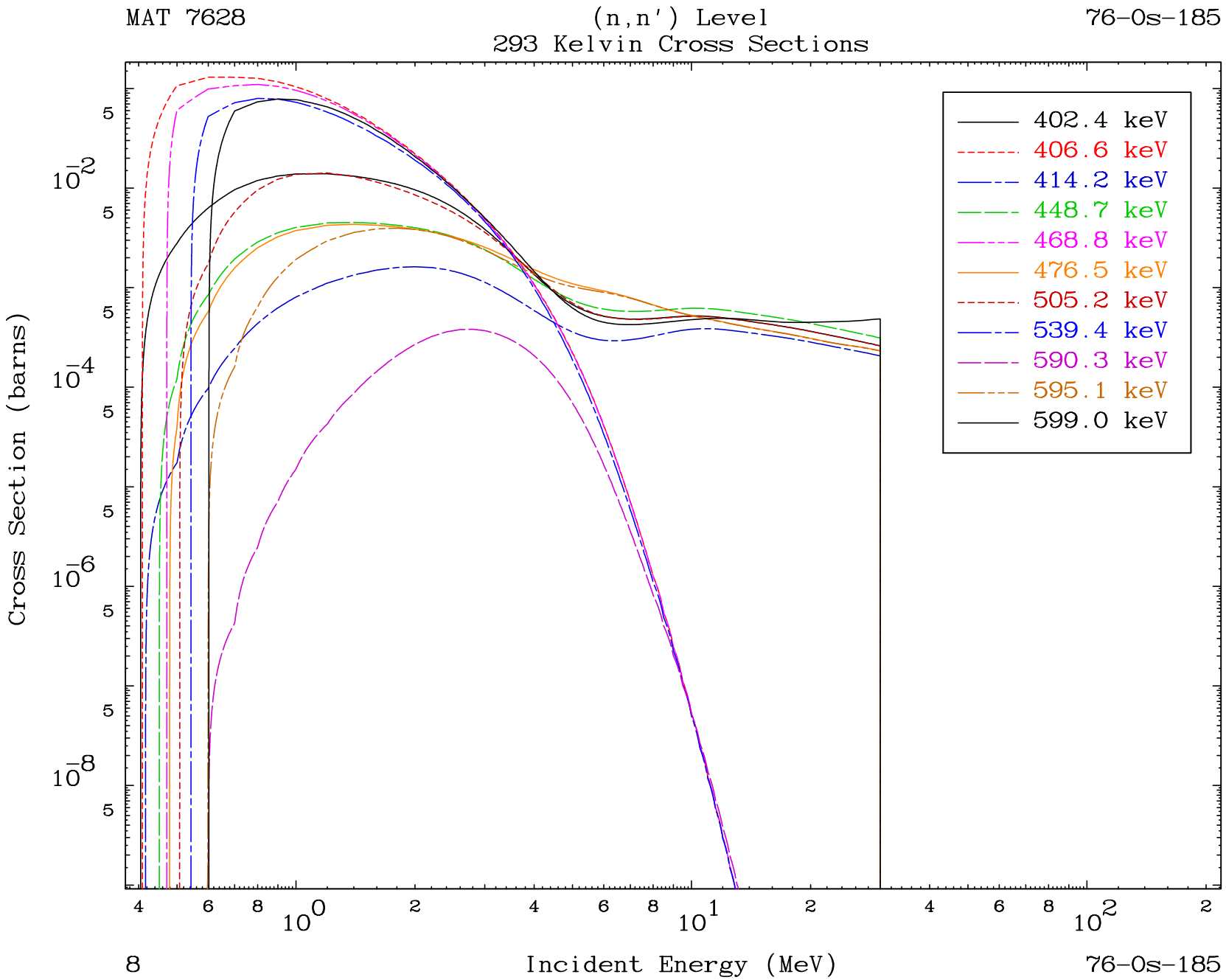

MAT 7628
Neutron Production
293 Kelvin Cross Sections
76-0s-185
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
Cross Section (barns)
Incident Energy (MeV)
3
76-0s-185

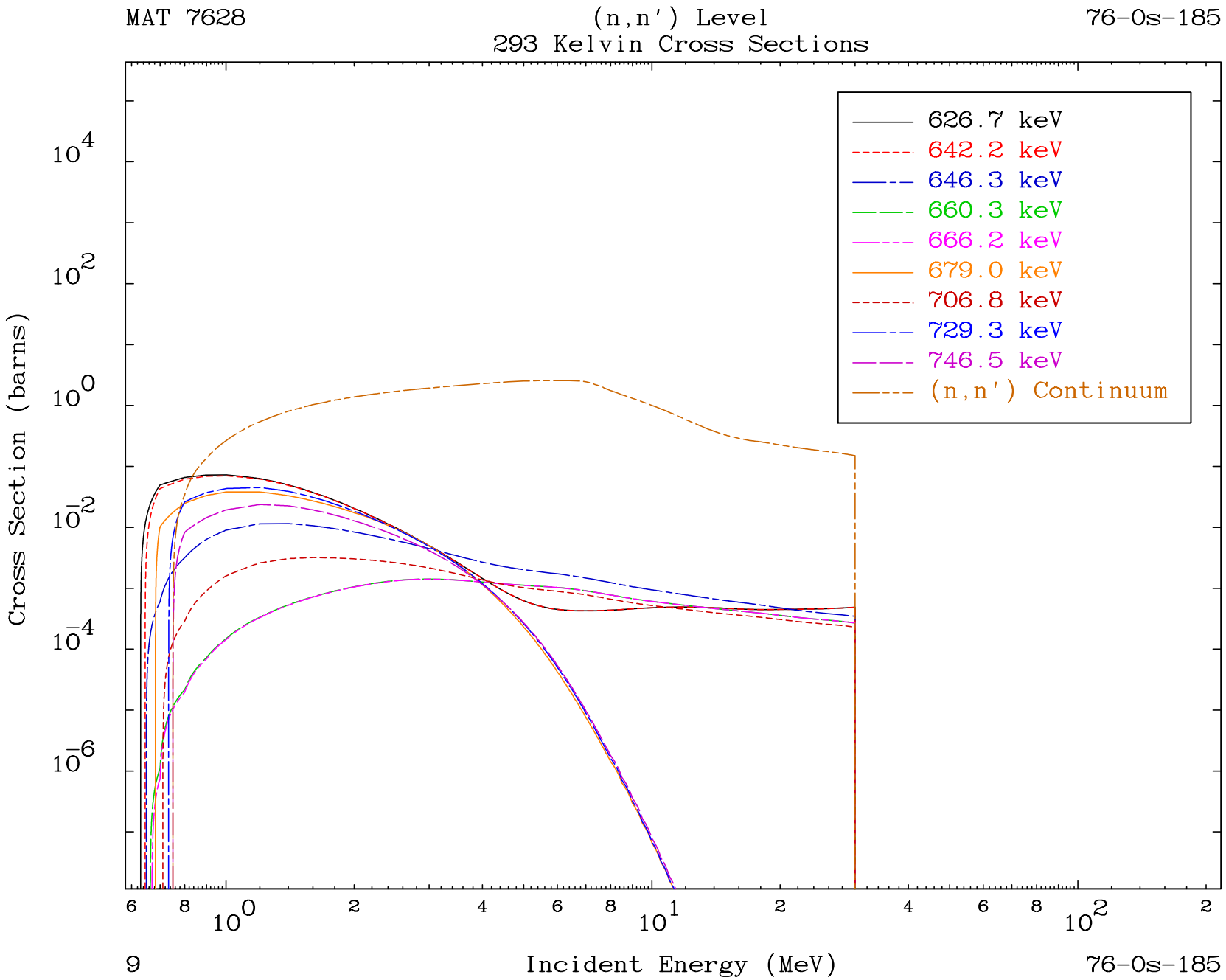

MAT 7628
Charged Particle
76-0s-185
293 Kelvin Cross Sections
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
4
76-0s-185

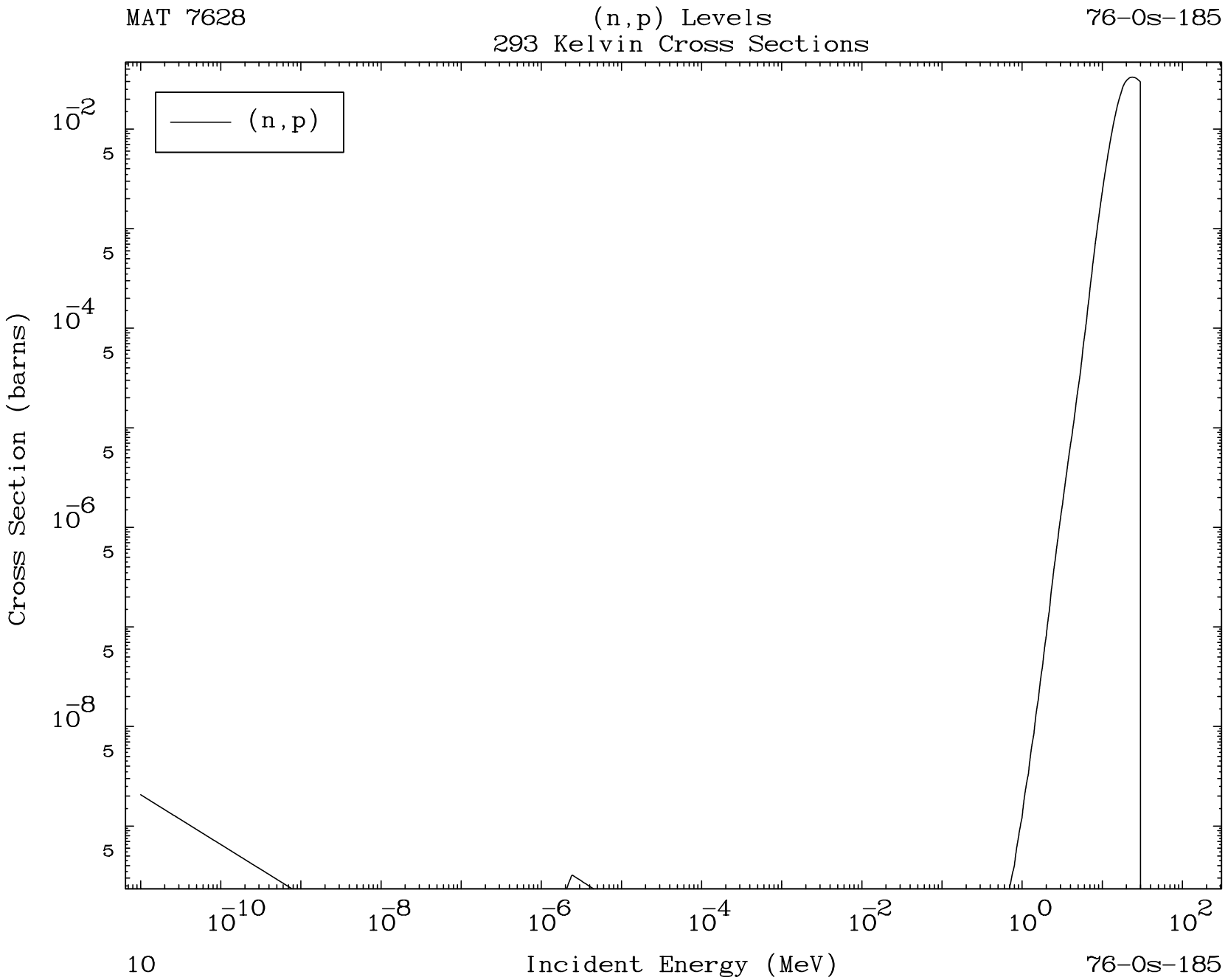

MAT 7628
Charged Particle
293 Kelvin Cross Sections
76-0s-185
Cross Section (barns)
Incident Energy (MeV)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t

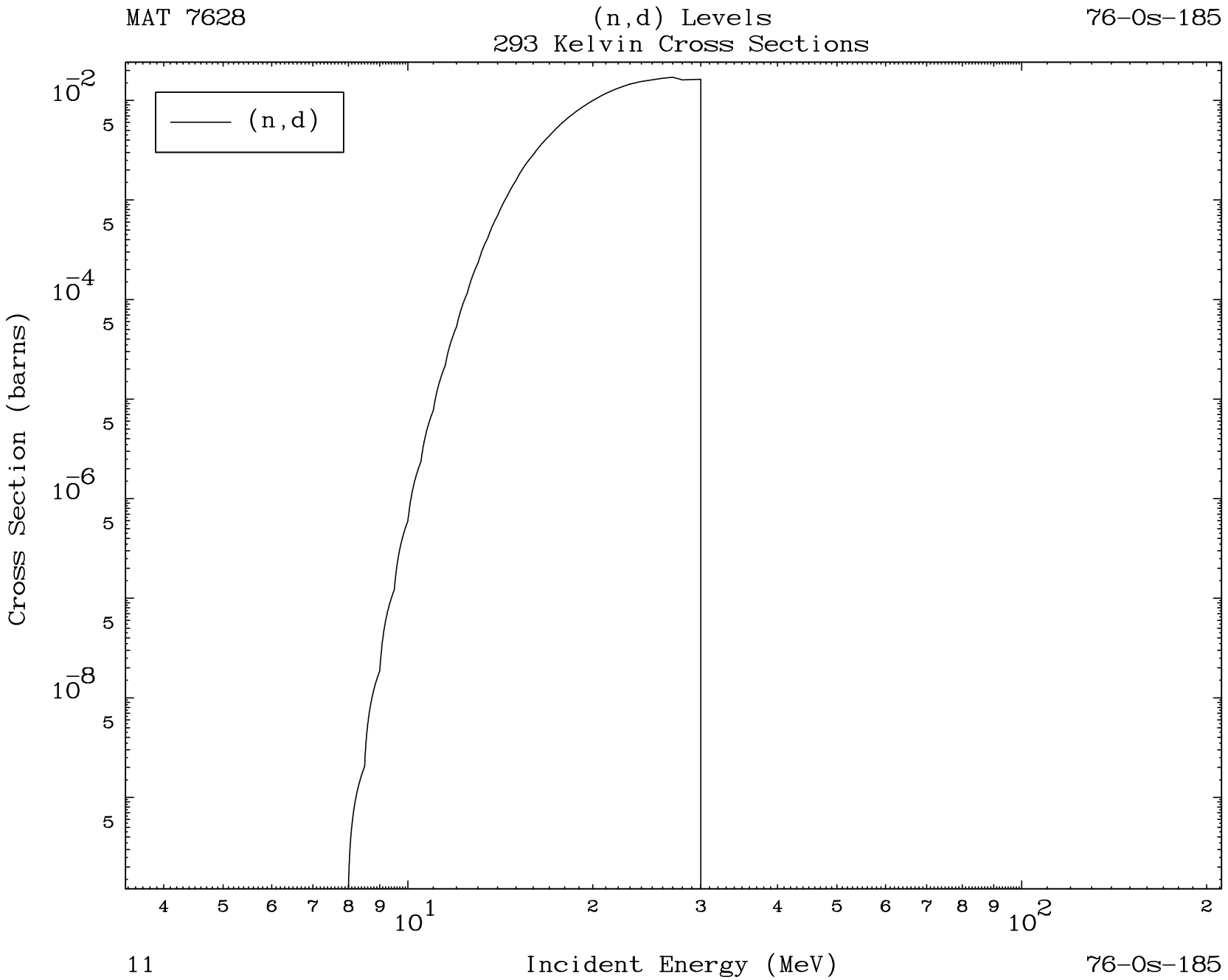

MAT 7628
Particle Production
293 Kelvin Cross Sections
76-0s-185
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
5
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
6
76-0s-185

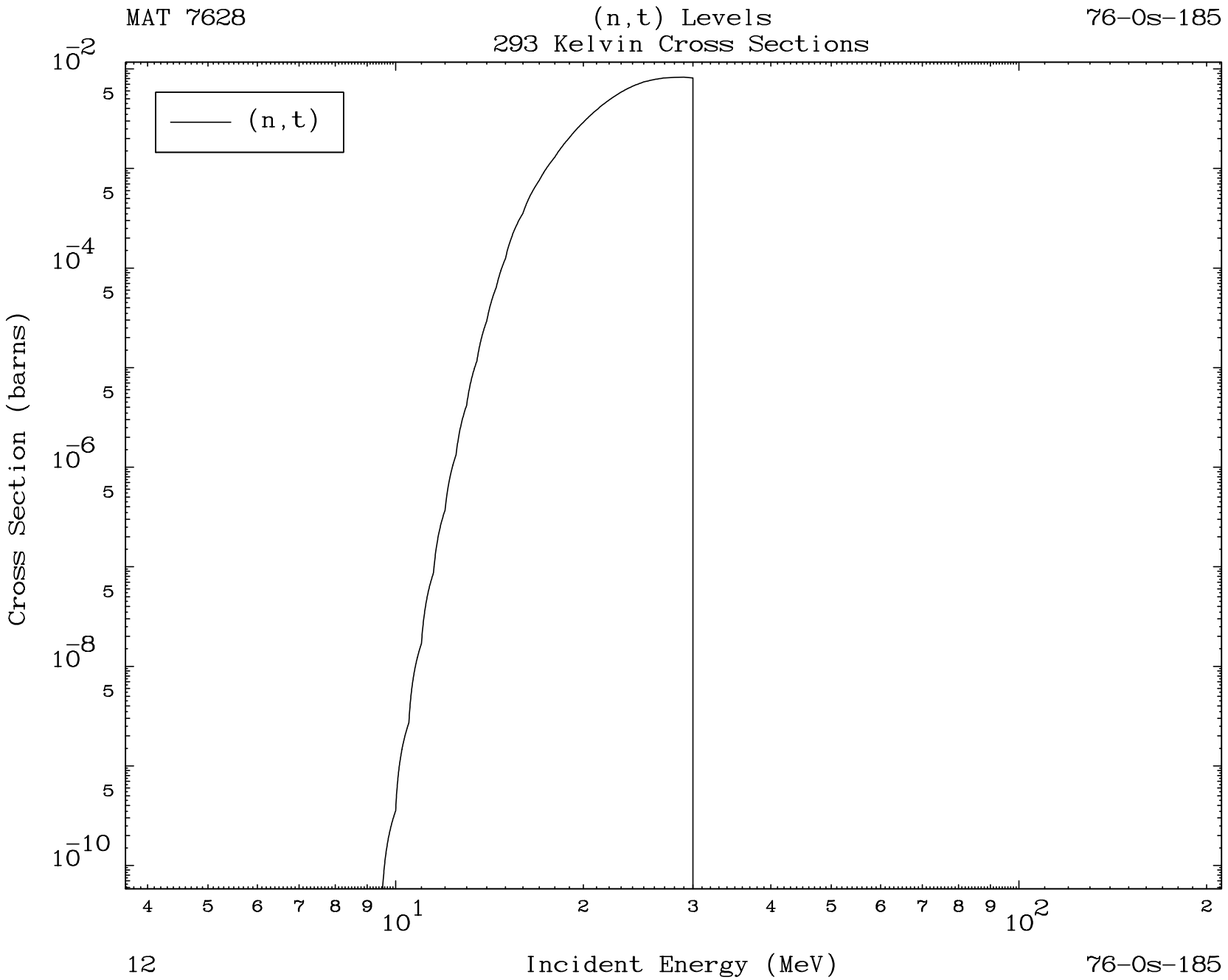

MAT 7628
(n,n') Level
293 Kelvin Cross Sections
76-0s-185
Cross Section (barns)
Incident Energy (MeV)
Inelastic
37.45 keV
97.47 keV
102.4 keV
127.9 keV
198.2 keV
222.4 keV
260.6 keV
275.5 keV
317.9 keV
351.7 keV
7
76-0s-185

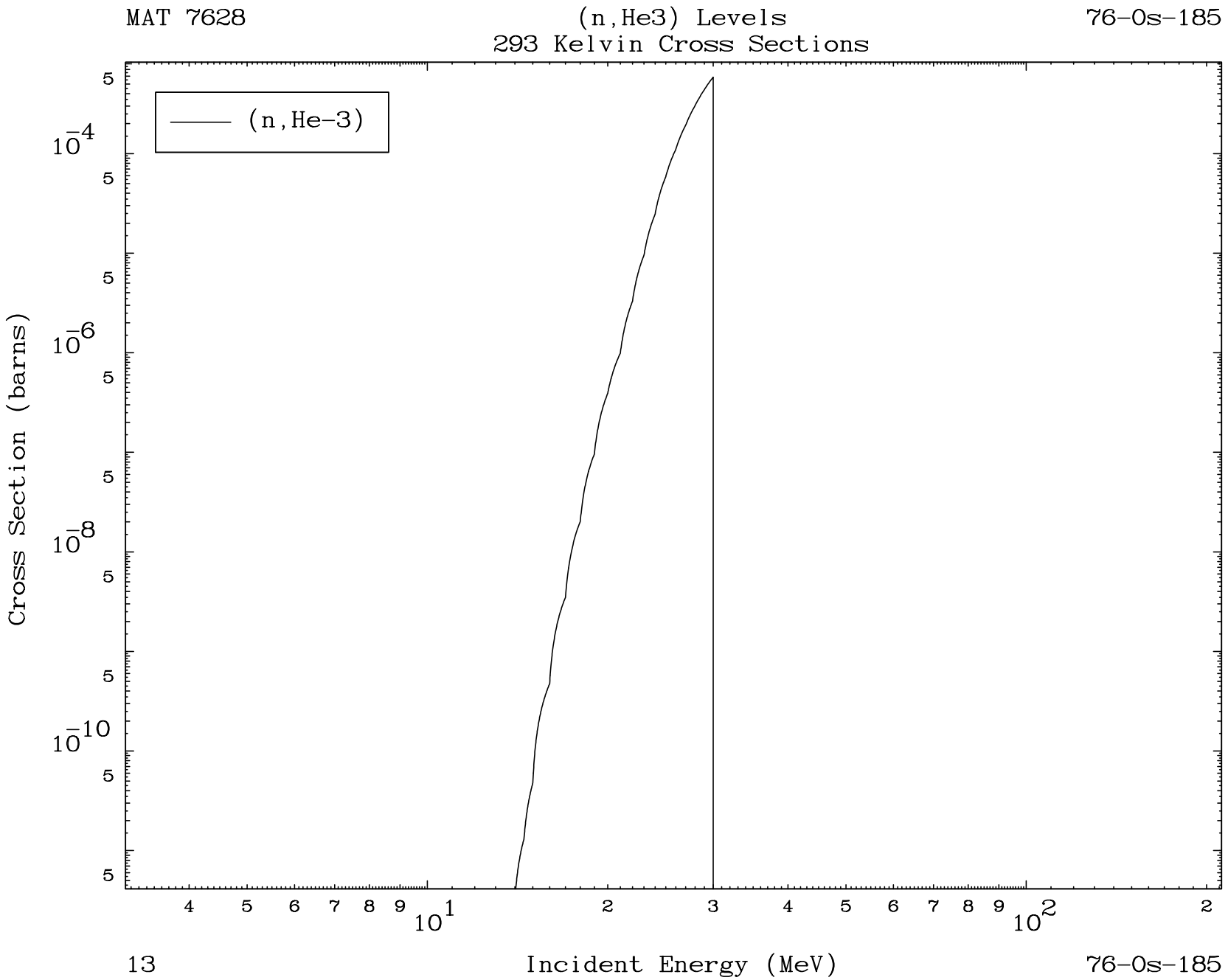

MAT 7628
(n,n') Level
293 Kelvin Cross Sections
76-0s-185
Cross Section (barns)
Incident Energy (MeV)
402.4 keV
406.6 keV
414.2 keV
448.7 keV
468.8 keV
476.5 keV
505.2 keV
539.4 keV
590.3 keV
595.1 keV
599.0 keV
8
76-0s-185

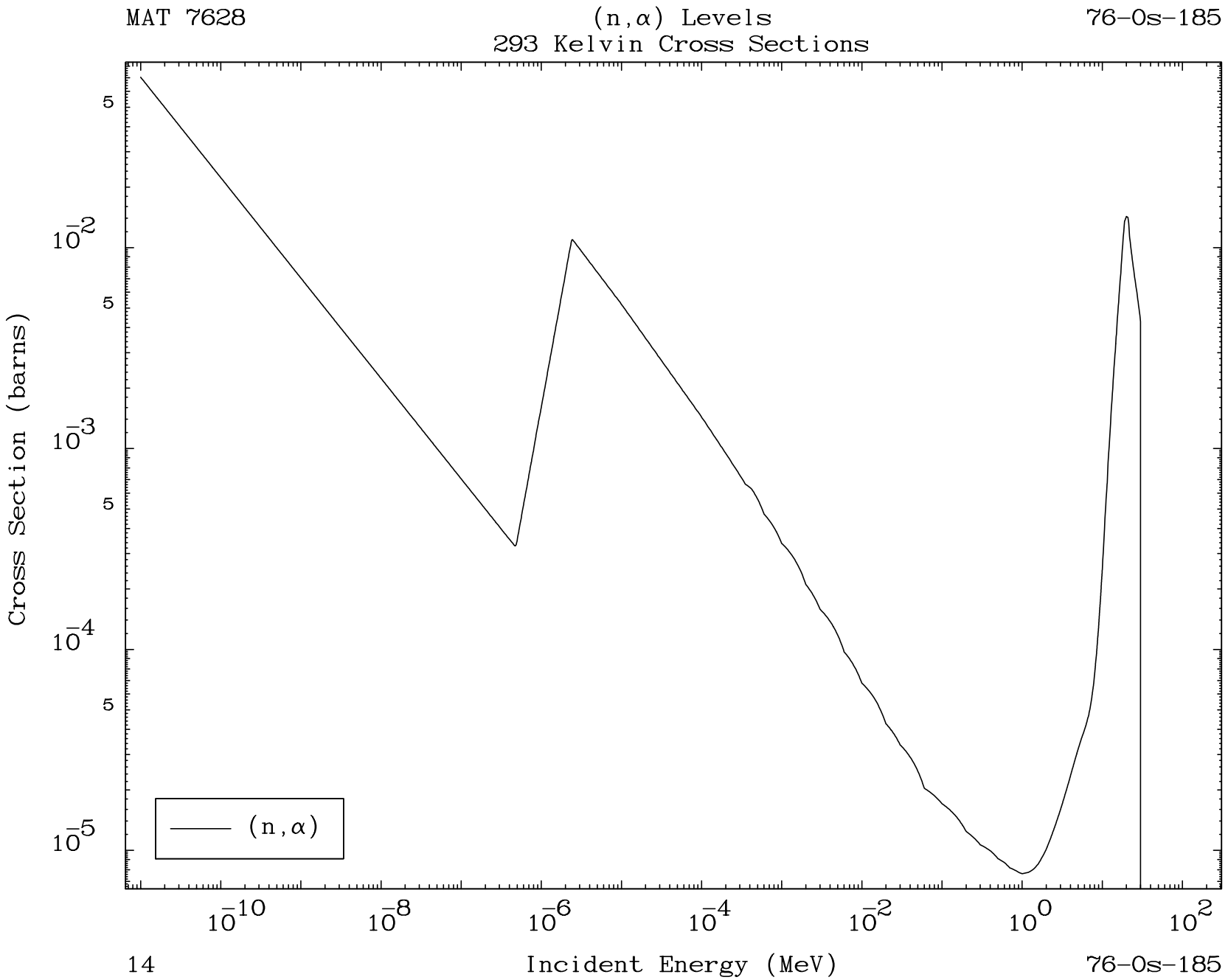

MAT 7628
(n,n') Level
293 Kelvin Cross Sections
76-0s-185
626.7 keV
642.2 keV
646.3 keV
660.3 keV
666.2 keV
679.0 keV
706.8 keV
729.3 keV
746.5 keV
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
9
76-0s-185

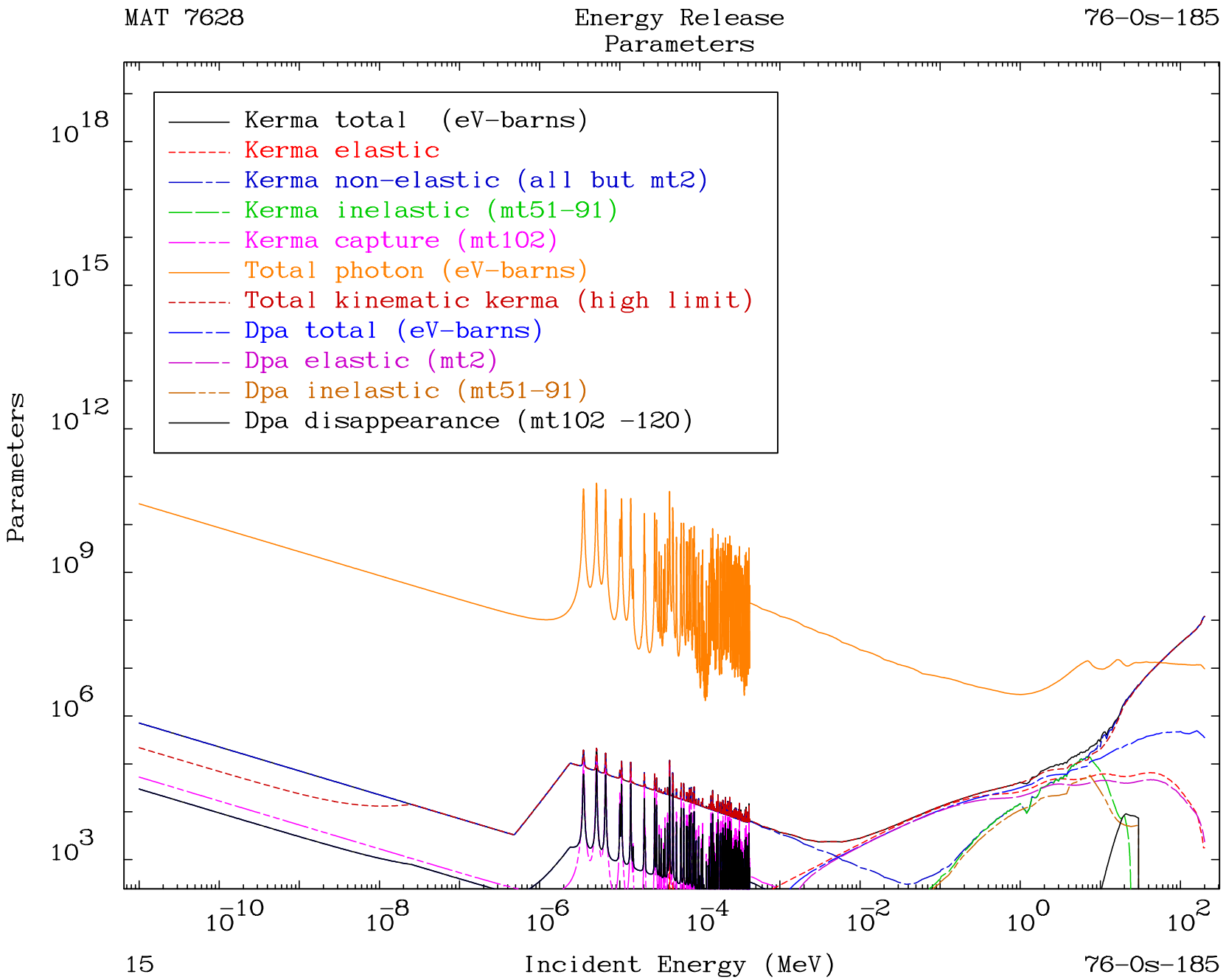

MAT 7628
(n,p) Levels
76-0s-185
293 Kelvin Cross Sections
(n,p)
Cross Section (barns)
Incident Energy (MeV)
76-0s-185

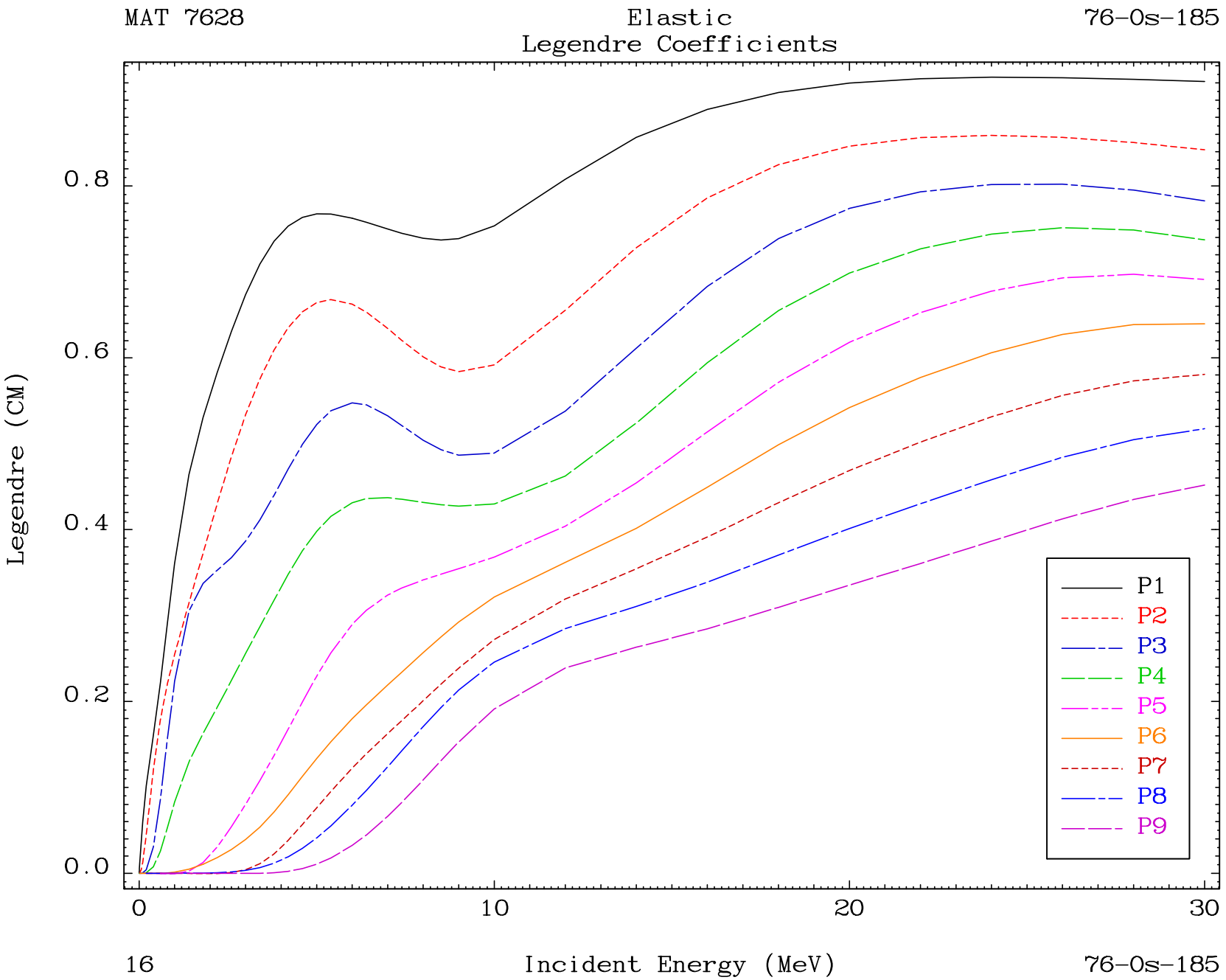

MAT 7628
(n,d) Levels
76-0s-185
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
11
76-0s-185

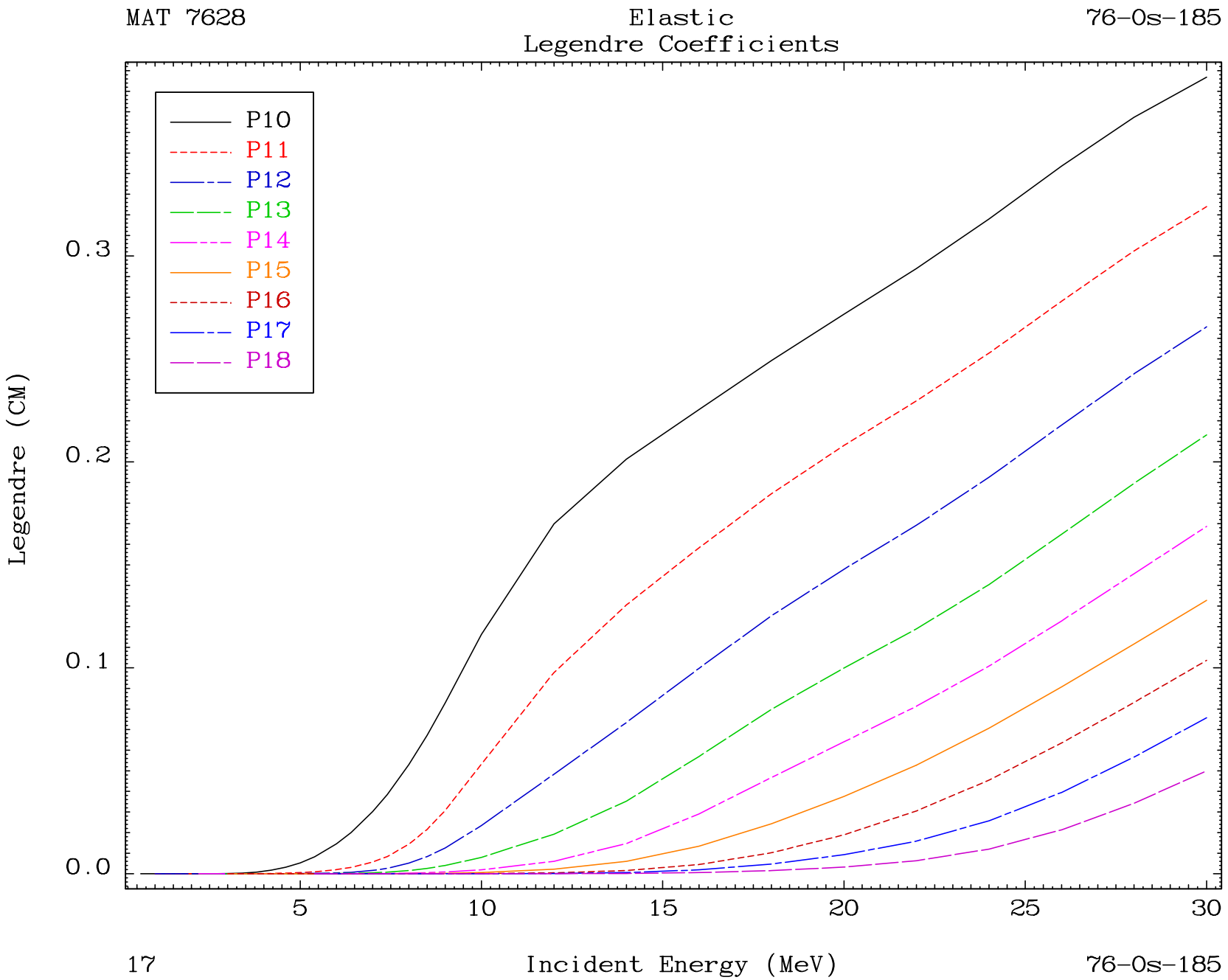

MAT 7628
(n,t) Levels
76-0s-185
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
12
76-0s-185

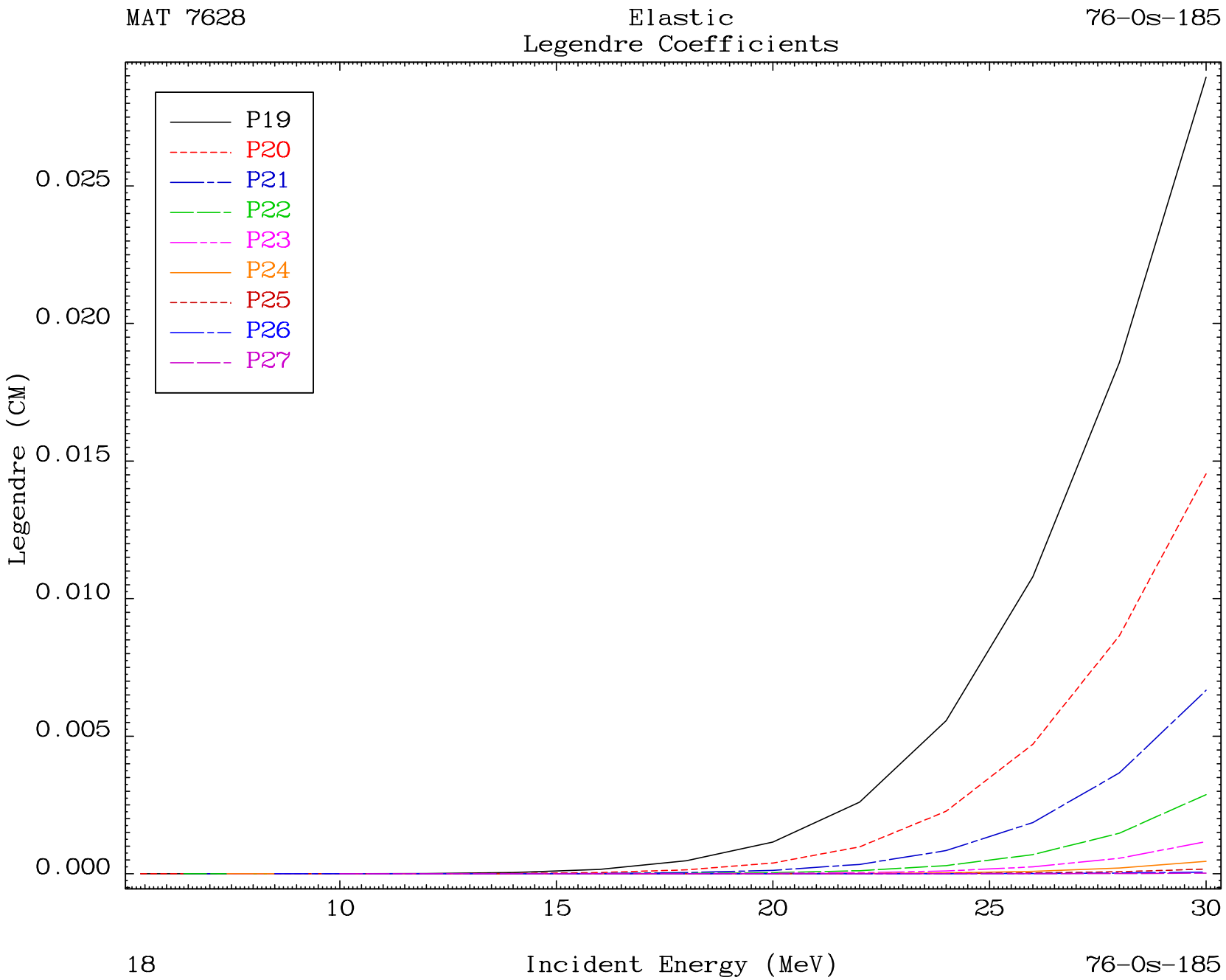

MAT 7628
(n,He3) Levels
76-0s-185
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
Incident Energy (MeV)
13
76-0s-185

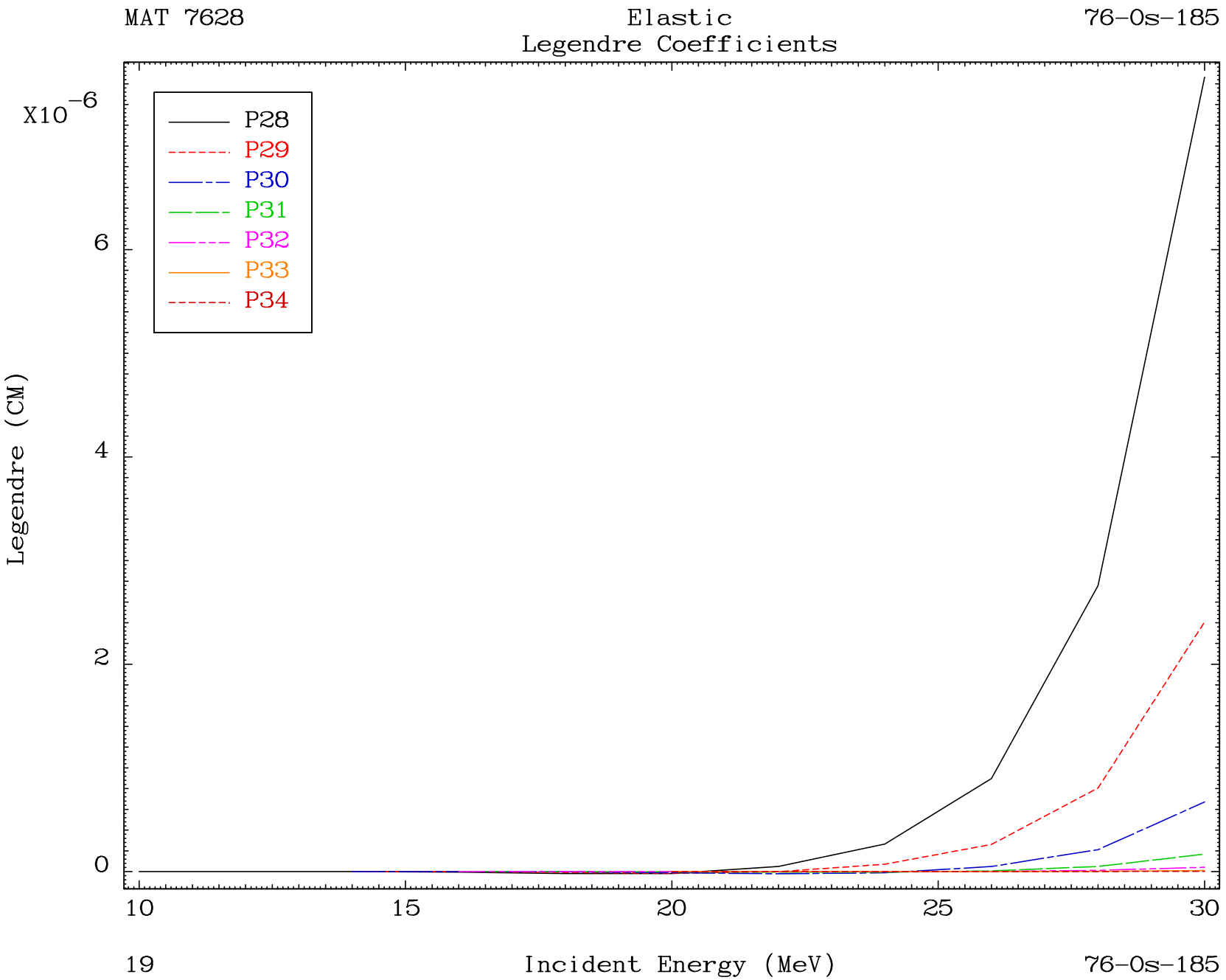

MAT 7628
(n,α) Levels
76-0s-185
293 Kelvin Cross Sections
Cross Section (barns)
5
10-2
5
10-3
5
10-4
5
10-5
(n,α)
10-10
10-8
10-6
10-4
10-2
100
102
14
Incident Energy (MeV)
76-0s-185

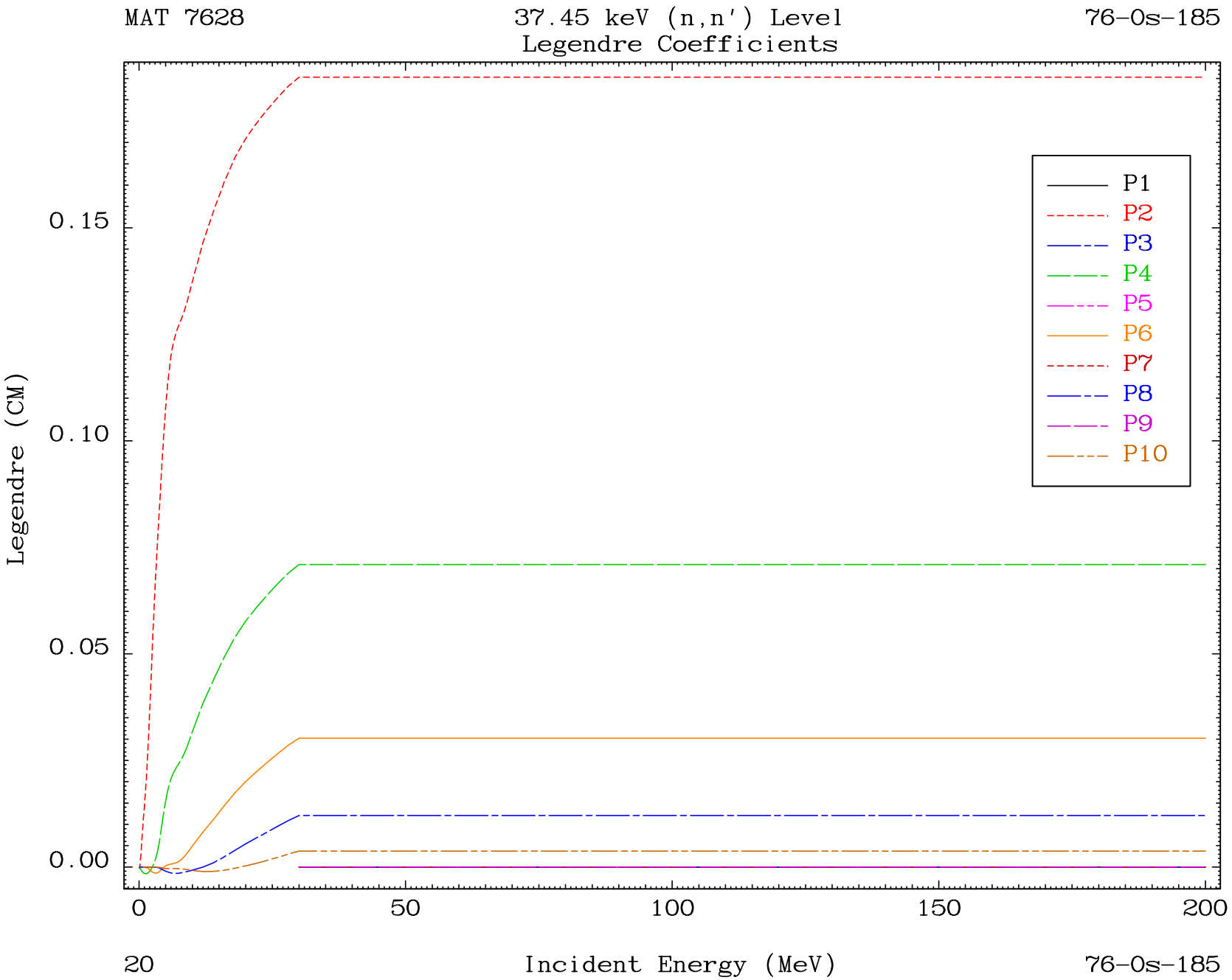

MAT 7628
Energy Release
Parameters
76-0s-185
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (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}
15
Incident Energy (MeV)
76-0s-185

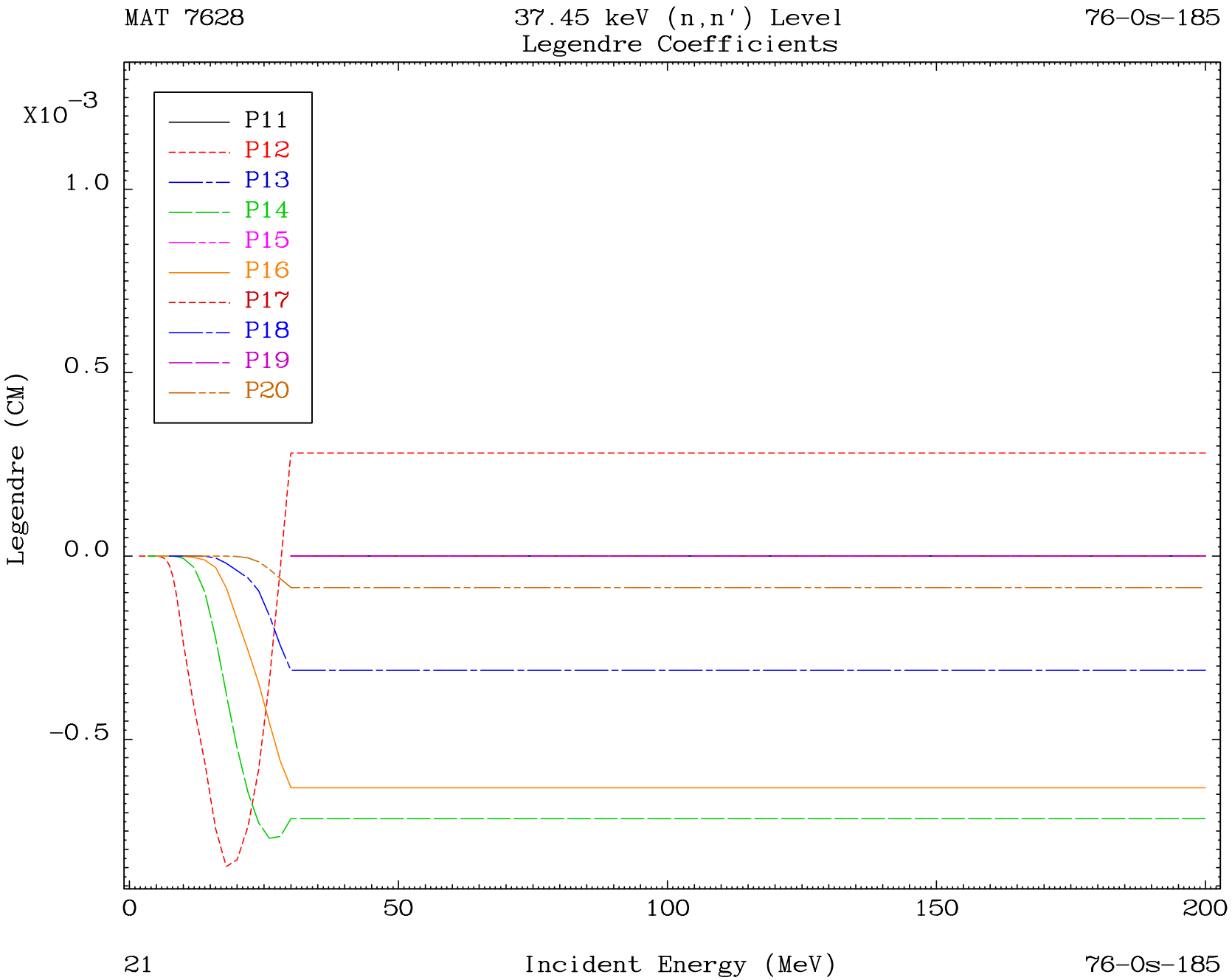

MAT 7628
Elastic
Legendre Coefficients
76-0s-185
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
16
Incident Energy (MeV)
76-0s-185
P1
P2
P3
P4
P5
P6
P7
P8
P9

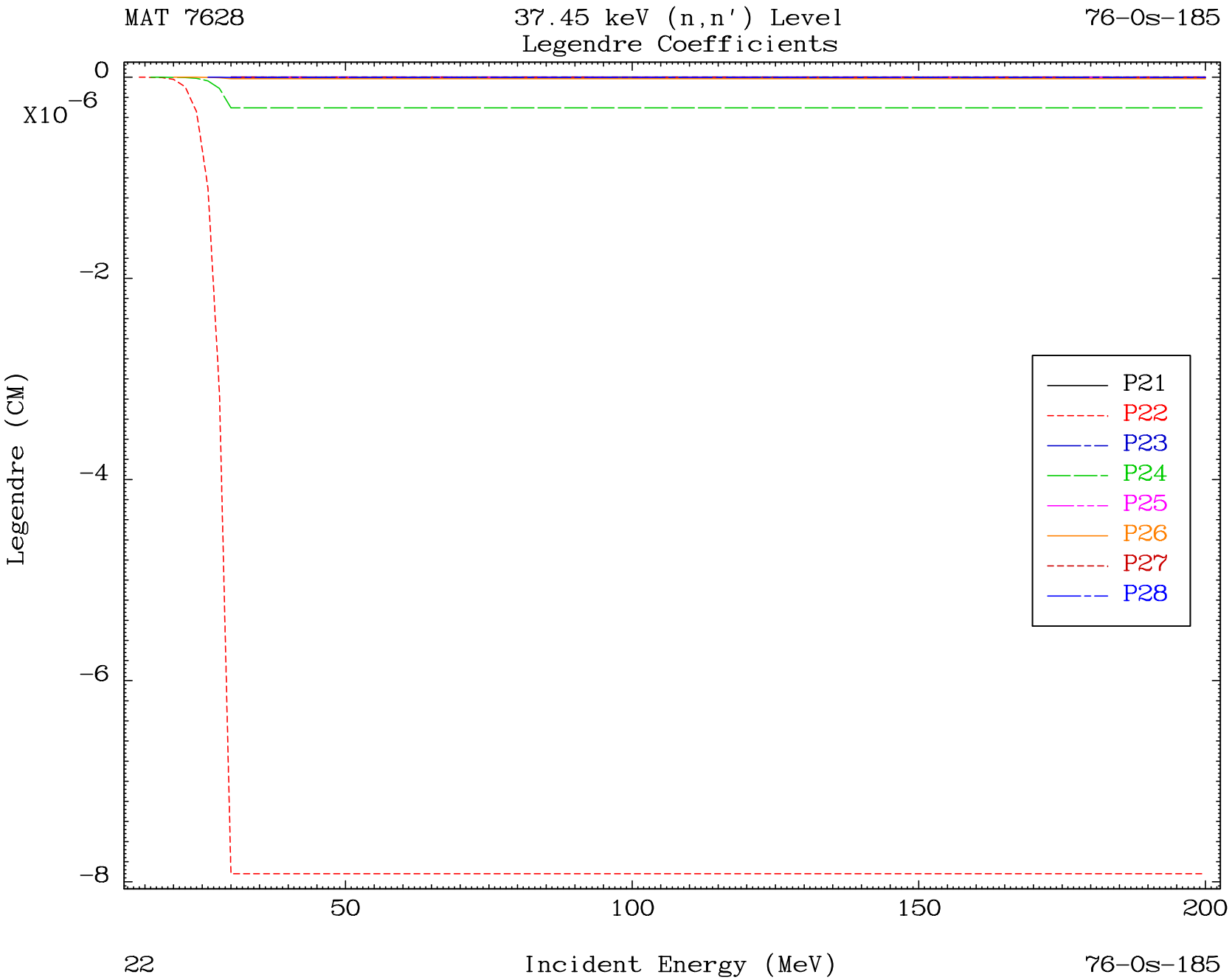

MAT 7628
Elastic
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.0
0.1
0.2
0.3
5
10
15
20
25
30
17
Incident Energy (MeV)
76-0s-185

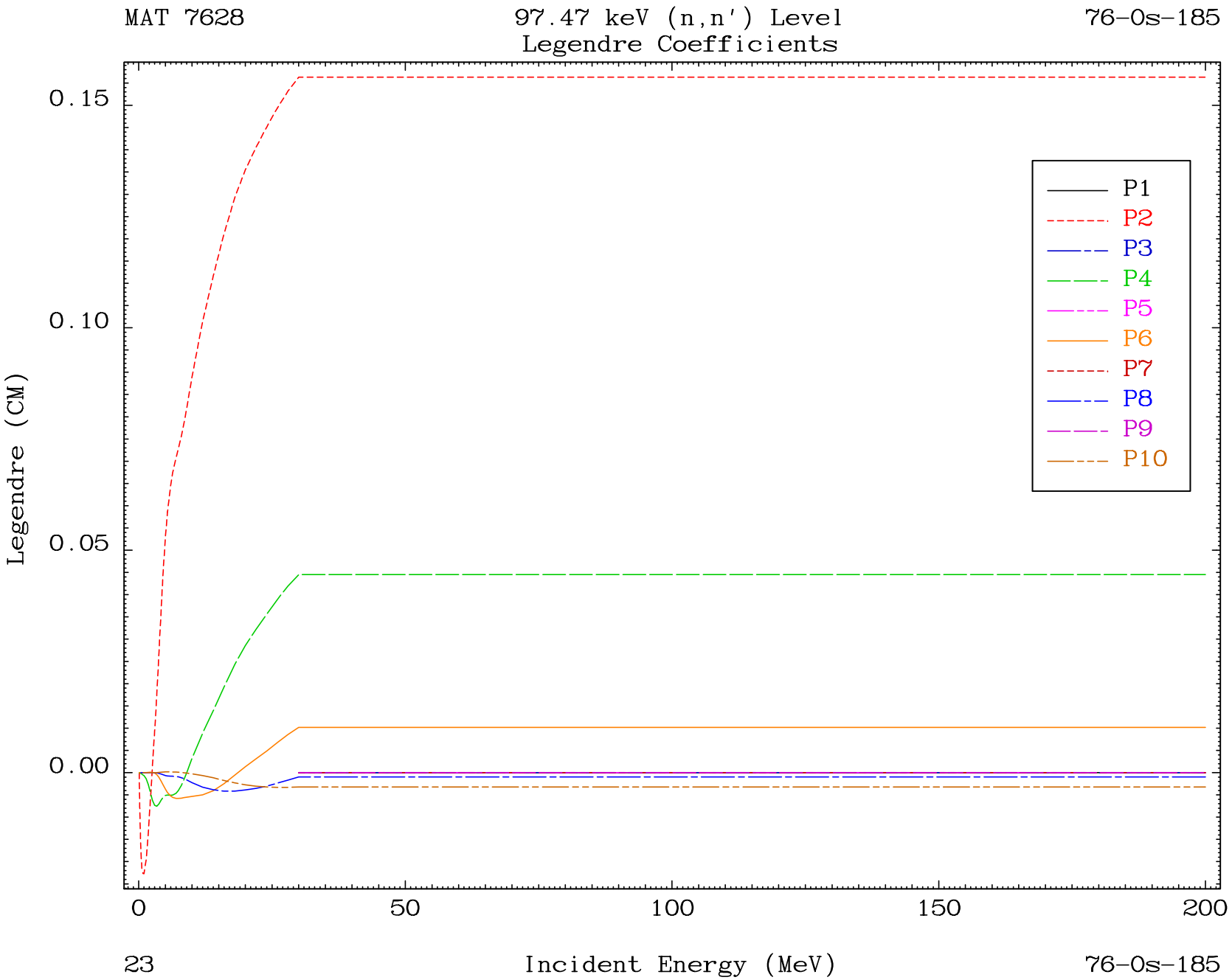

MAT 7628
Elastic
Legendre Coefficients
76-0s-185
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
0.025
0.020
0.015
0.010
0.005
0.000
10
15
20
25
30
18
Incident Energy (MeV)
76-0s-185

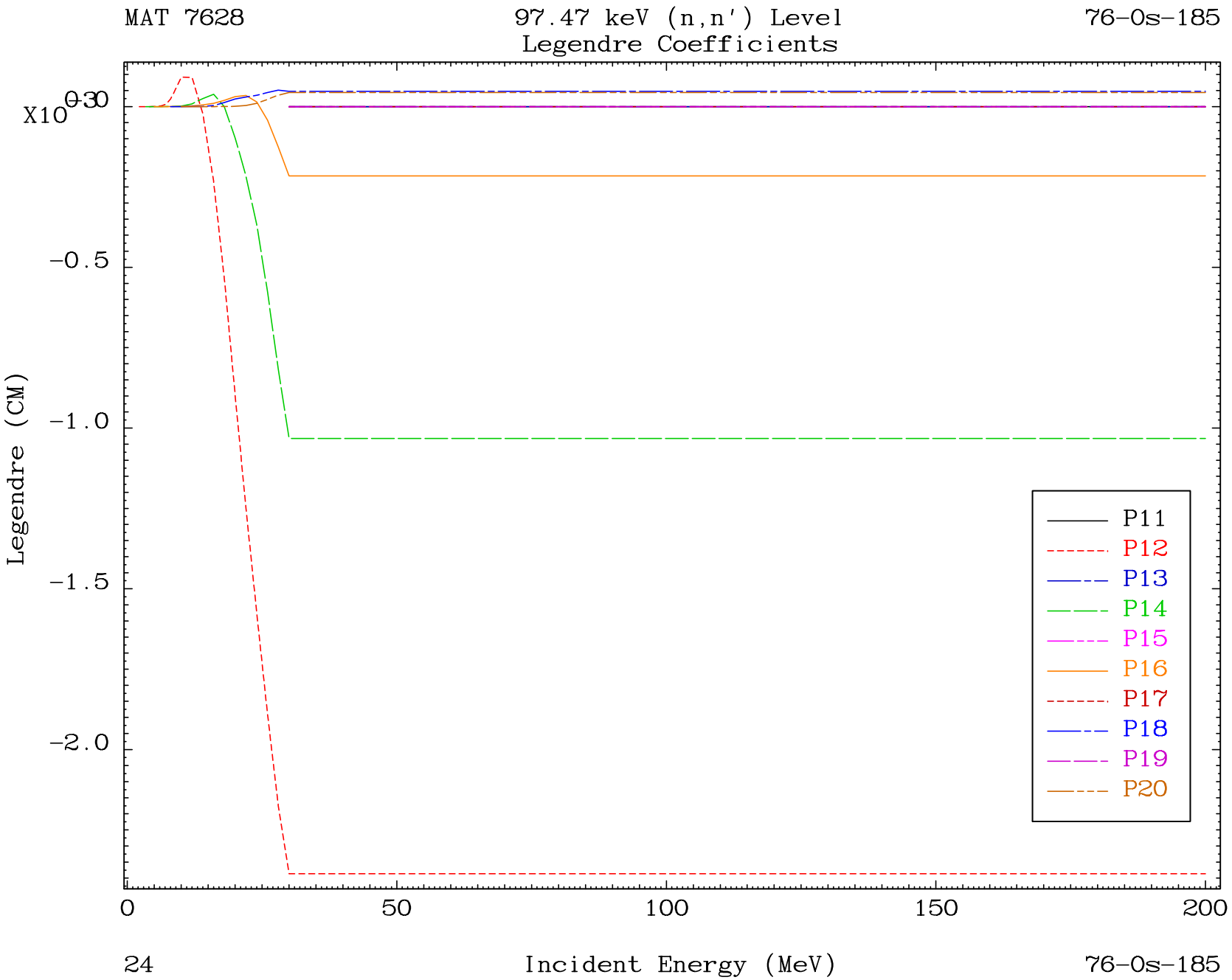

MAT 7628
Elastic
Legendre Coefficients
76-0s-185
X10 −6
P28
P29
P30
P31
P32
P33
P34
Legendre (CM)
6
4
2
0
10
15
20
25
30
19
Incident Energy (MeV)
76-0s-185

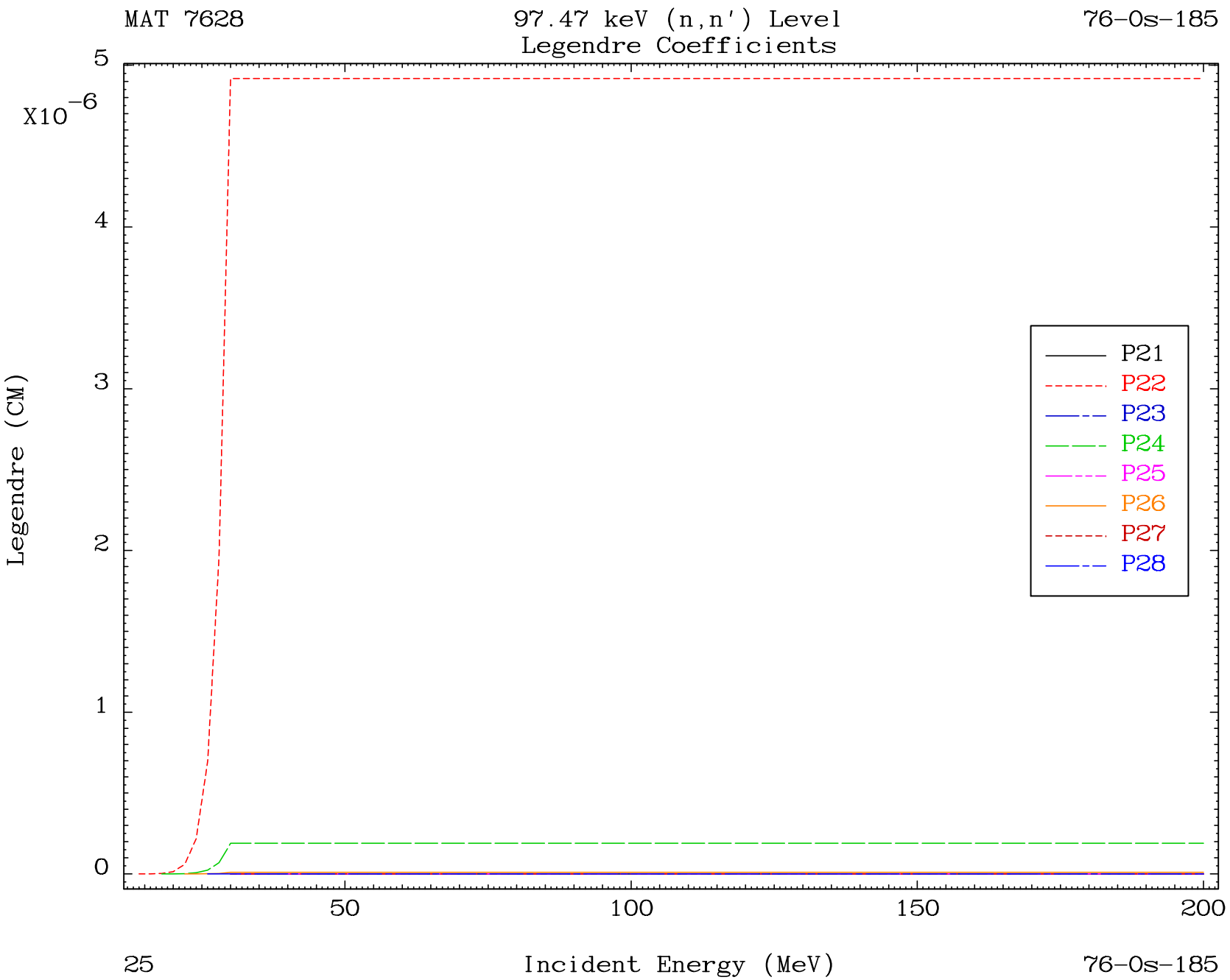

MAT 7628
37.45 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.15
0.10
0.05
0.00
0
50
100
150
200
20
Incident Energy (MeV)
76-0s-185
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

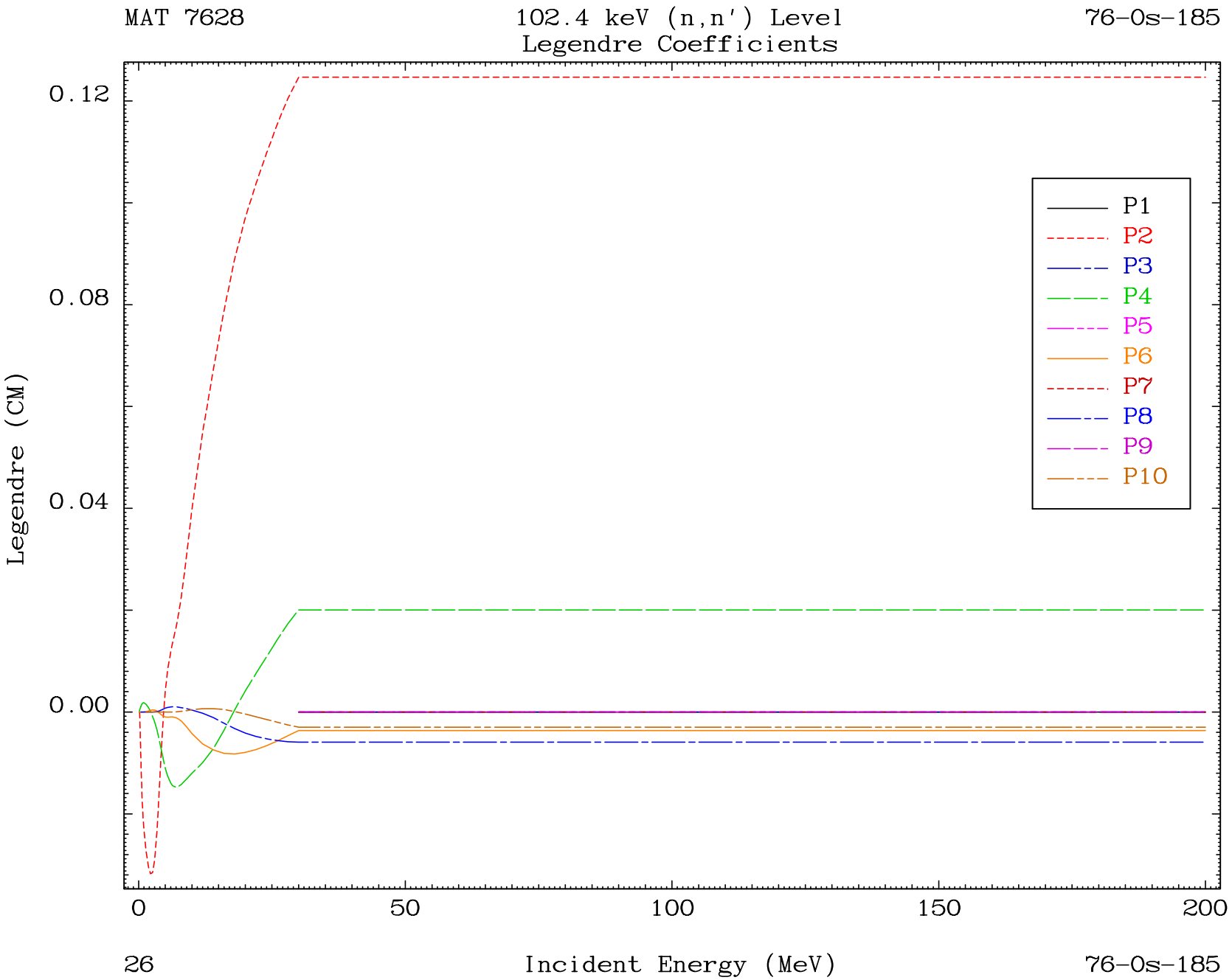

MAT 7628
37.45 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10-3
1.0
0.5
0.0
-0.5
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
21
Incident Energy (MeV)
76-0s-185

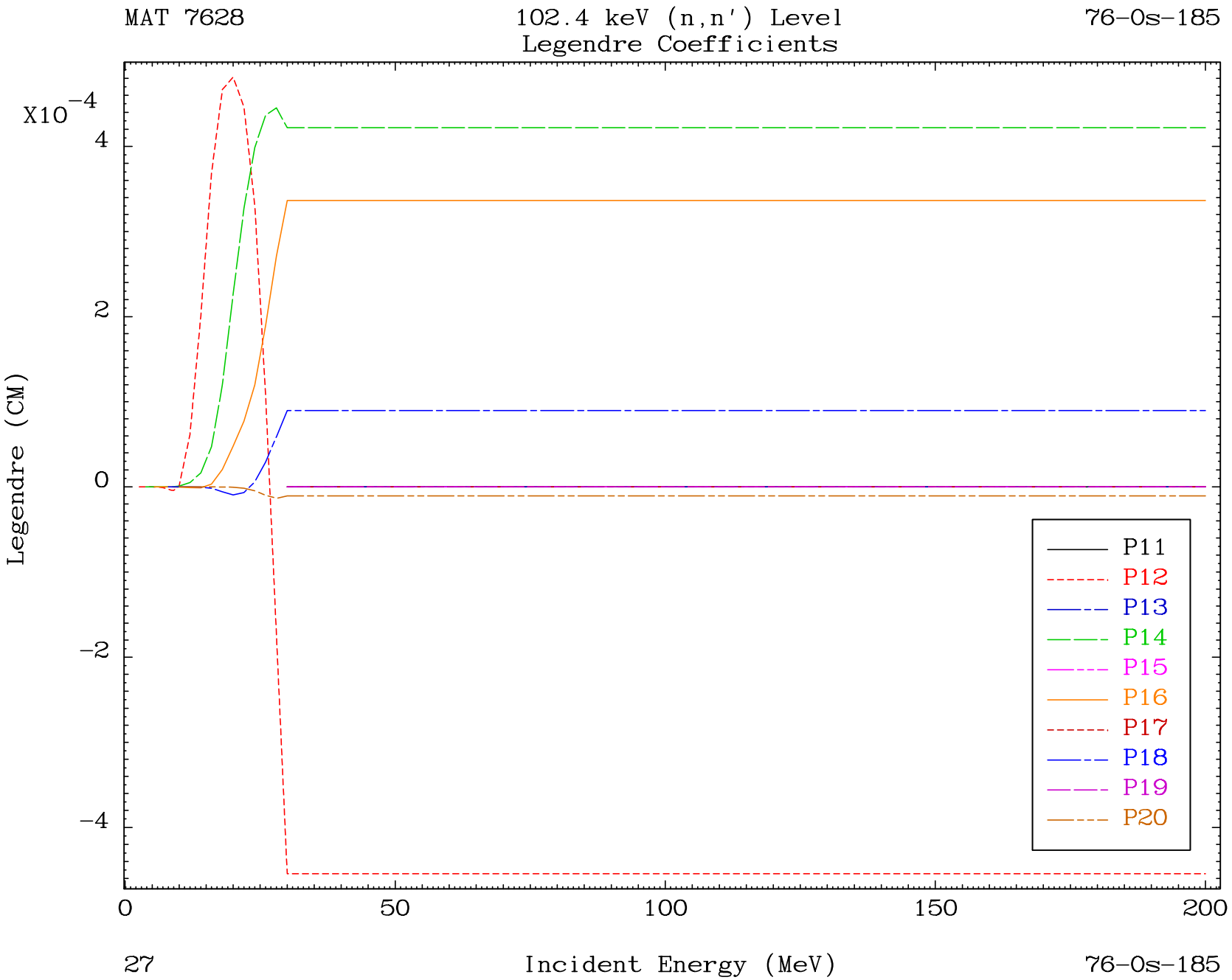

MAT 7628
37.45 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
76-0s-185
P21
P22
P23
P24
P25
P26
P27
P28

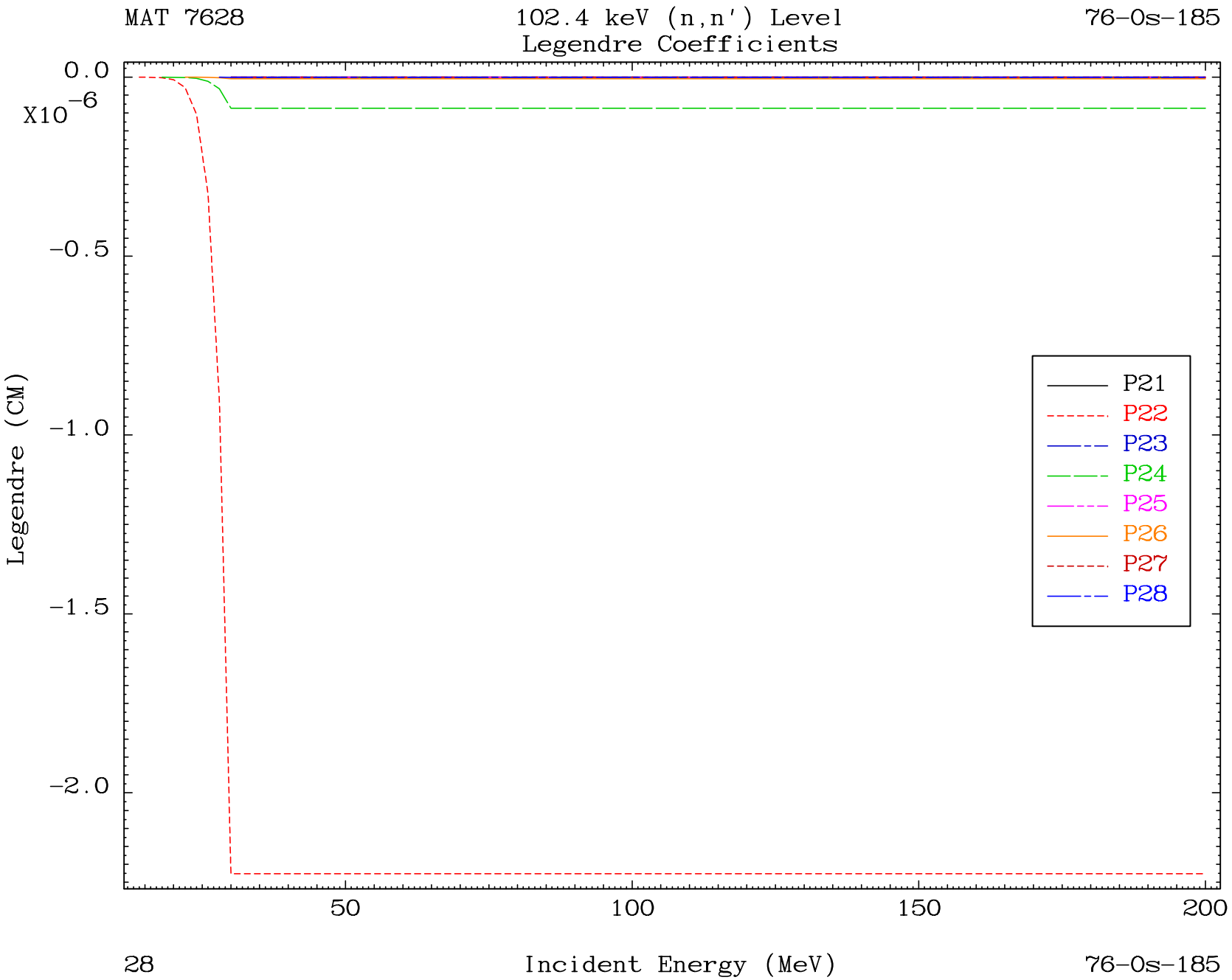

MAT 7628
97.47 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
23
Incident Energy (MeV)
76-0s-185

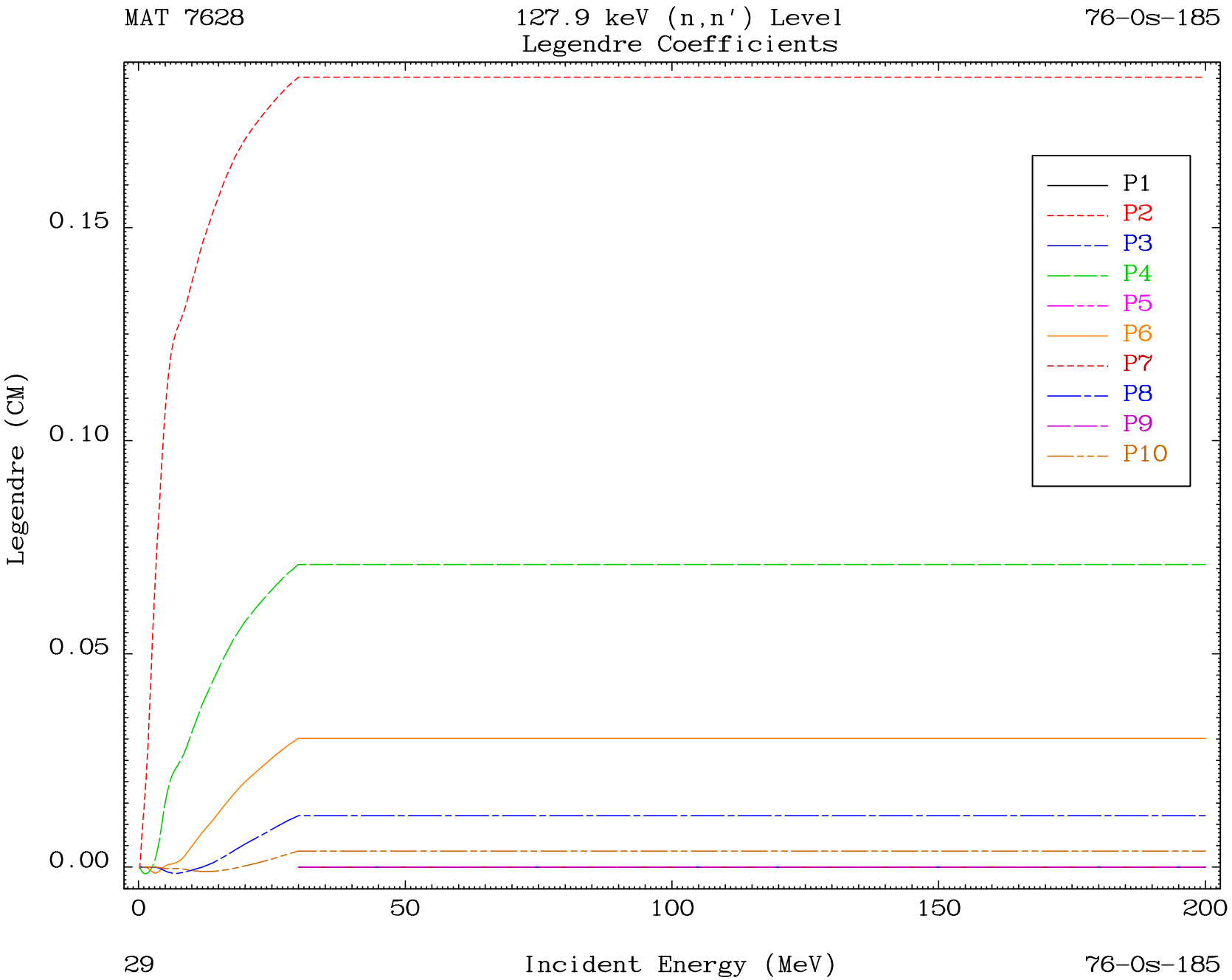

MAT 7628
97.47 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10-30
0.0
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
0
50
100
150
200
24
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

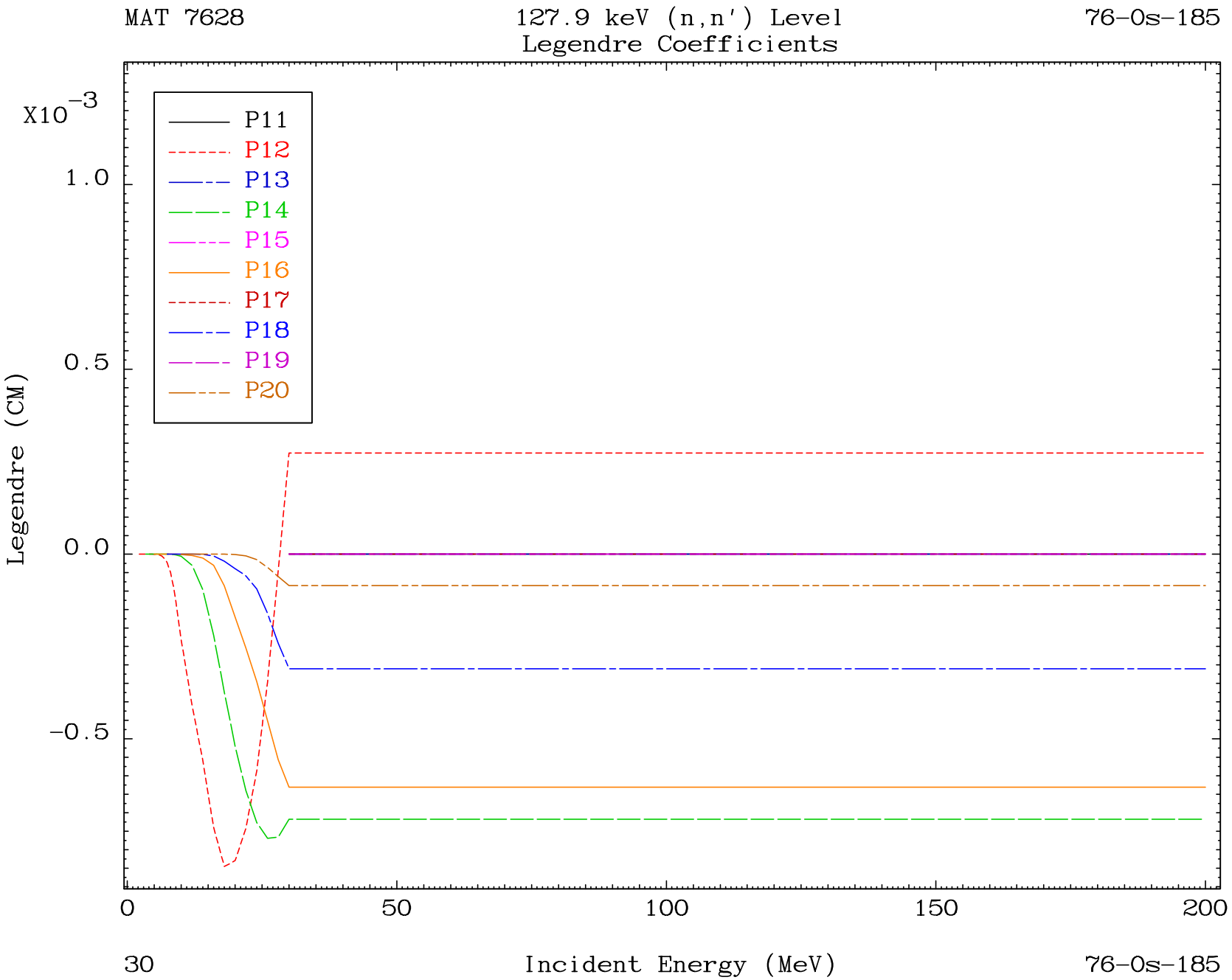

MAT 7628
97.47 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −6
5
4
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
25
50
100
150
200
Incident Energy (MeV)
76-0s-185

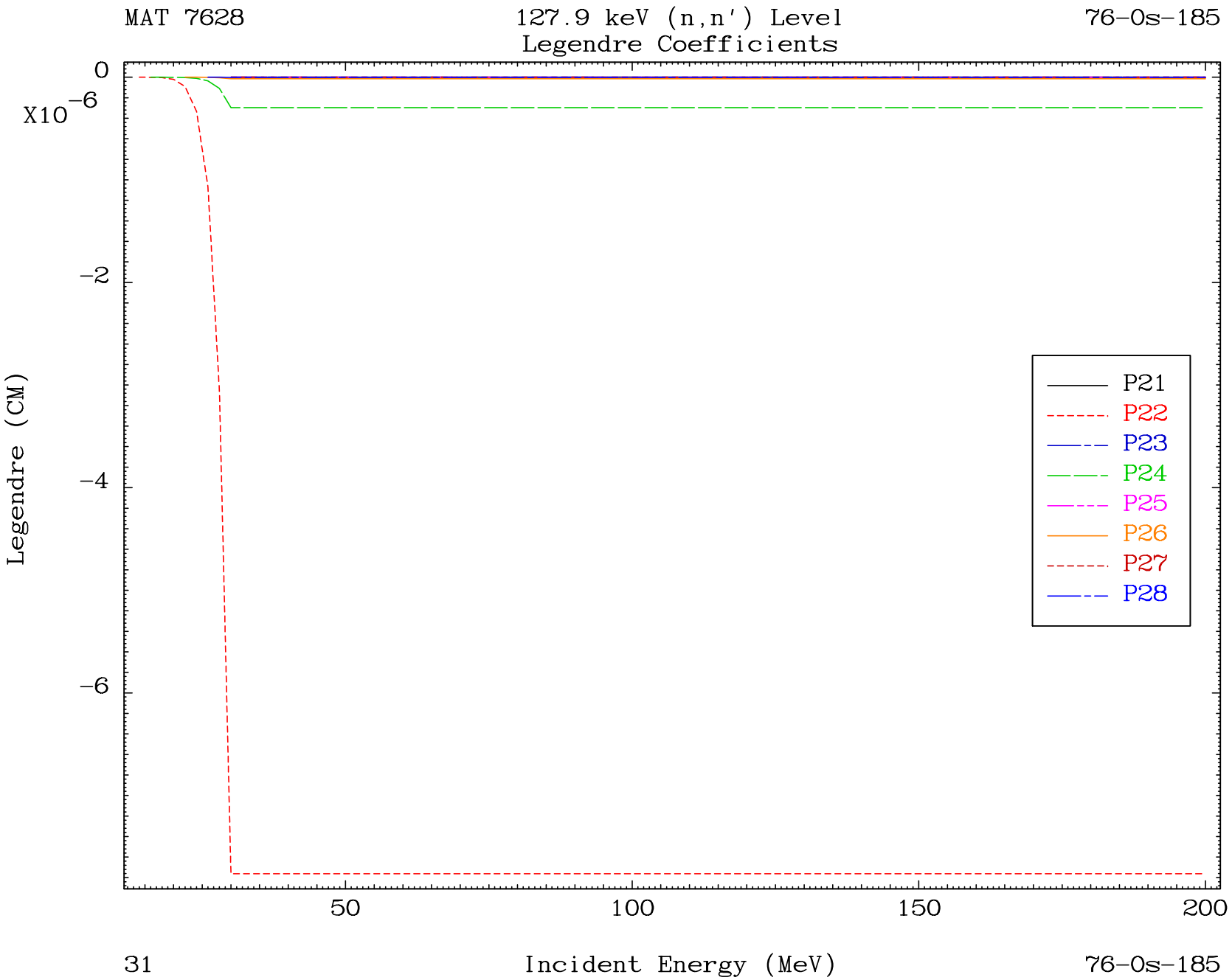

MAT 7628
102.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
26
Incident Energy (MeV)
76-0s-185

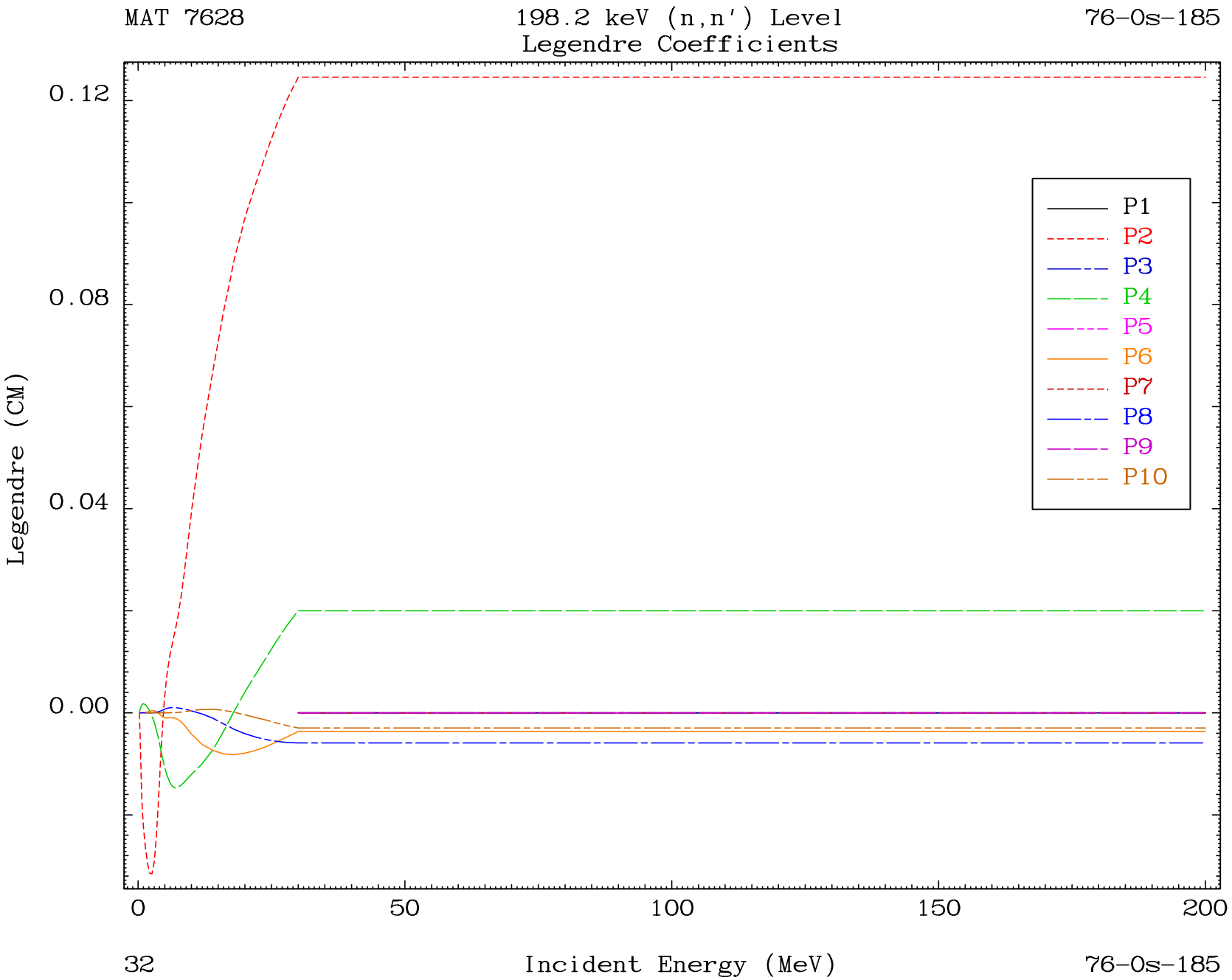

MAT 7628
102.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −4
4
2
0
−2
−4
Legendre (CM)
0
50
100
150
200
27
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

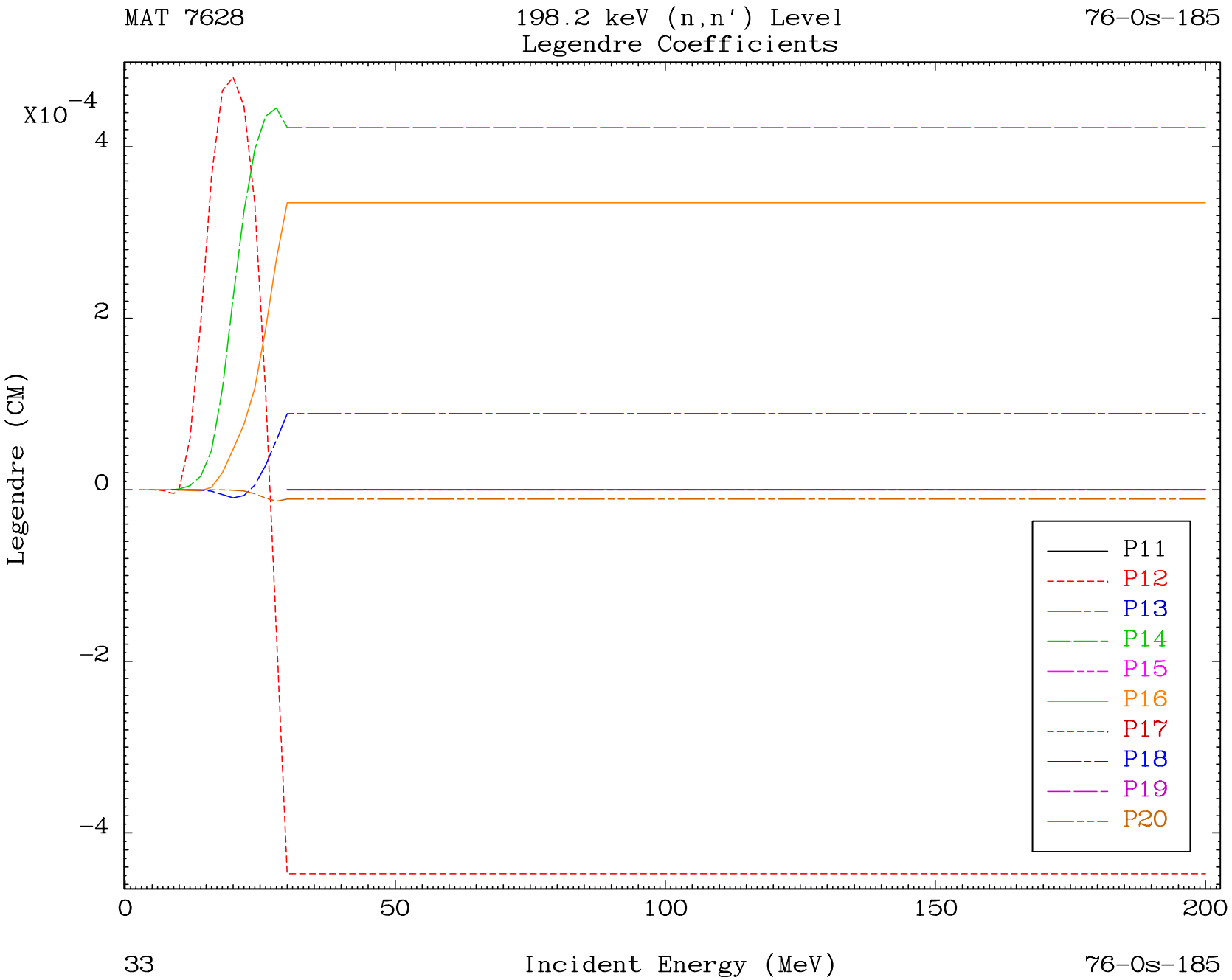

MAT 7628
102.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.0
X10^-6
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
28
Incident Energy (MeV)
76-0s-185

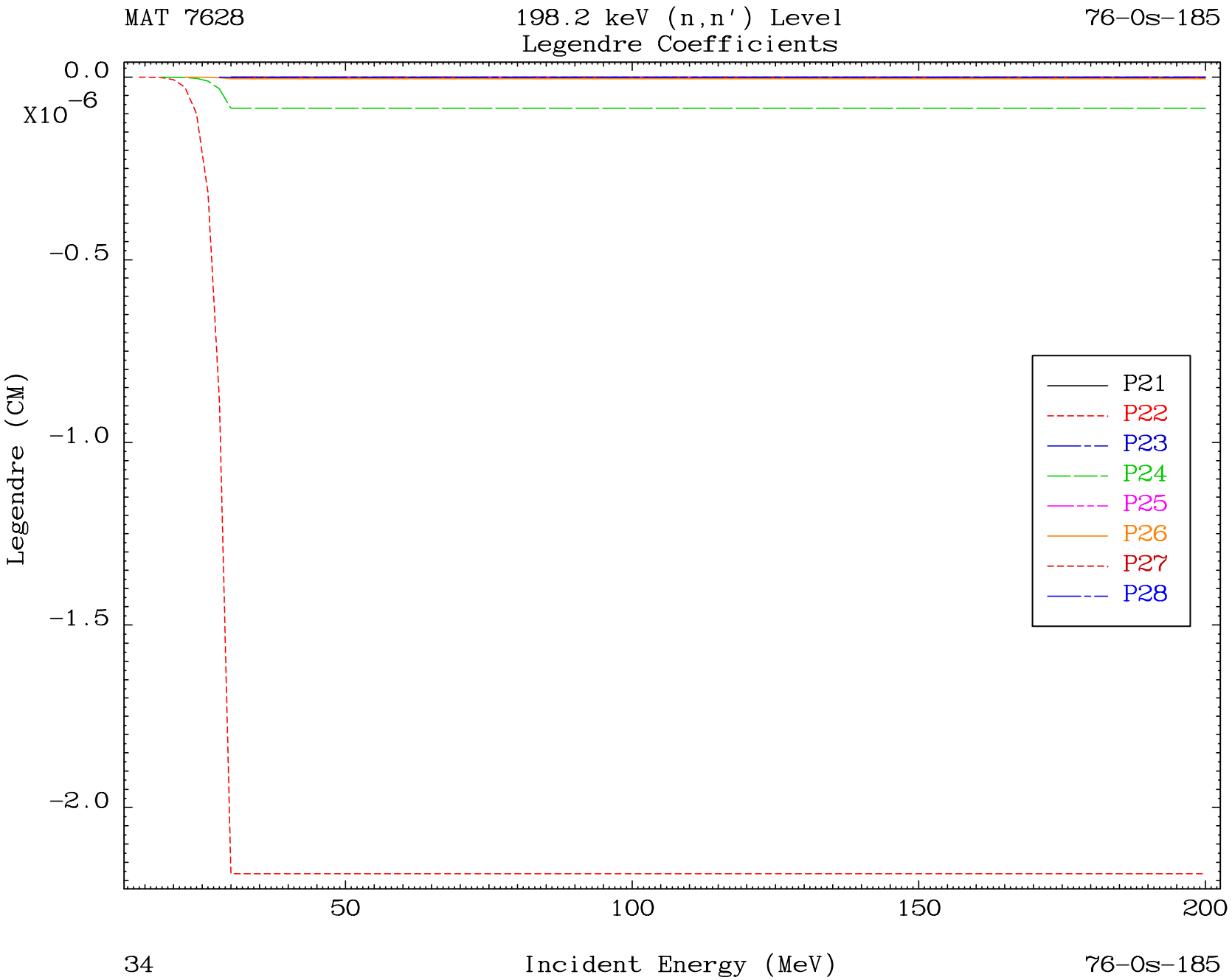

MAT 7628
127.9 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.15
0.10
0.05
0.00
0
50
100
150
200
Incident Energy (MeV)
29
76-0s-185
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

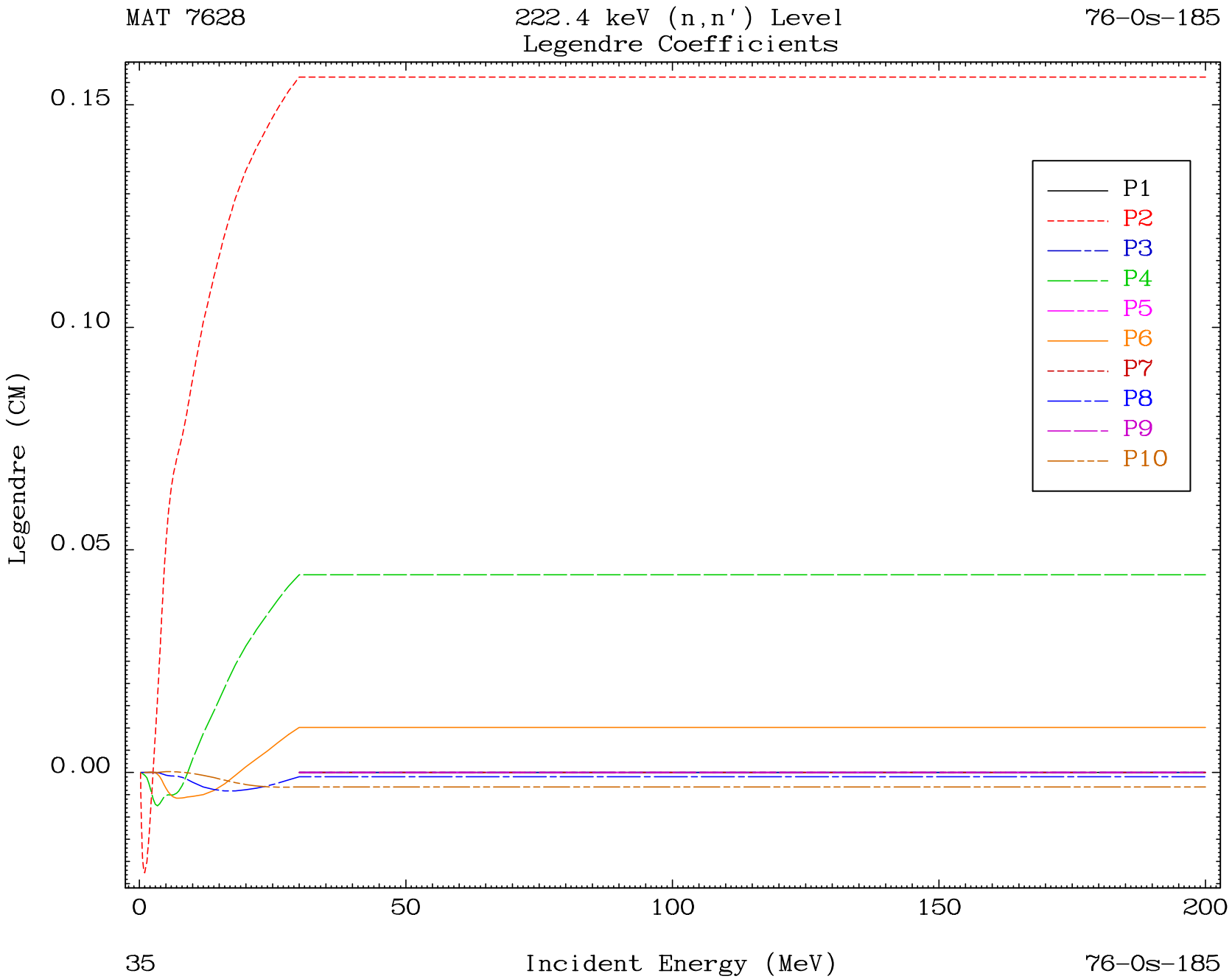

MAT 7628
127.9 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10-3
1.0
0.5
0.0
-0.5
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
30
Incident Energy (MeV)
76-0s-185

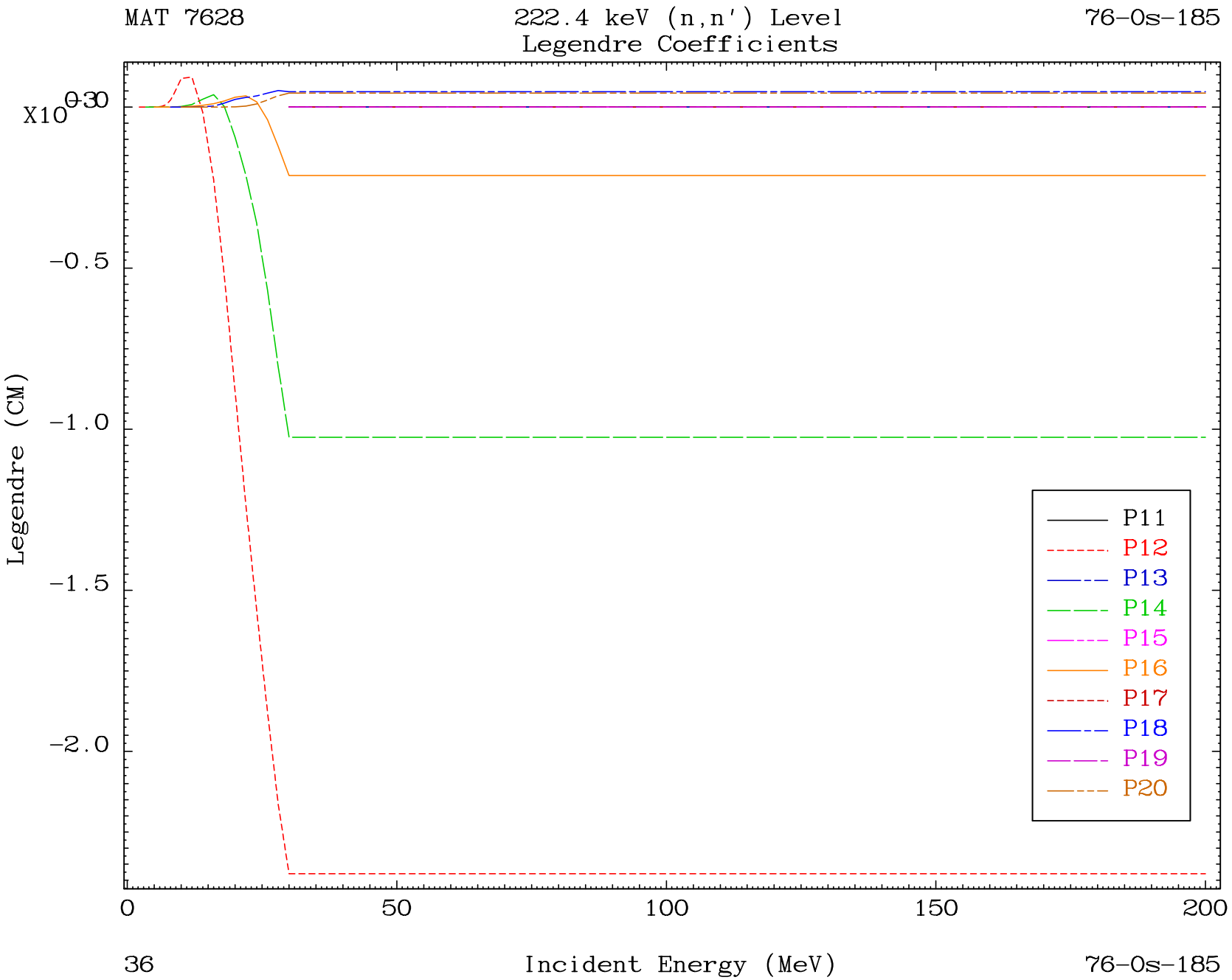

MAT 7628
127.9 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
Legendre (CM)
50
100
150
200
P21
P22
P23
P24
P25
P26
P27
P28
31
Incident Energy (MeV)
76-0s-185

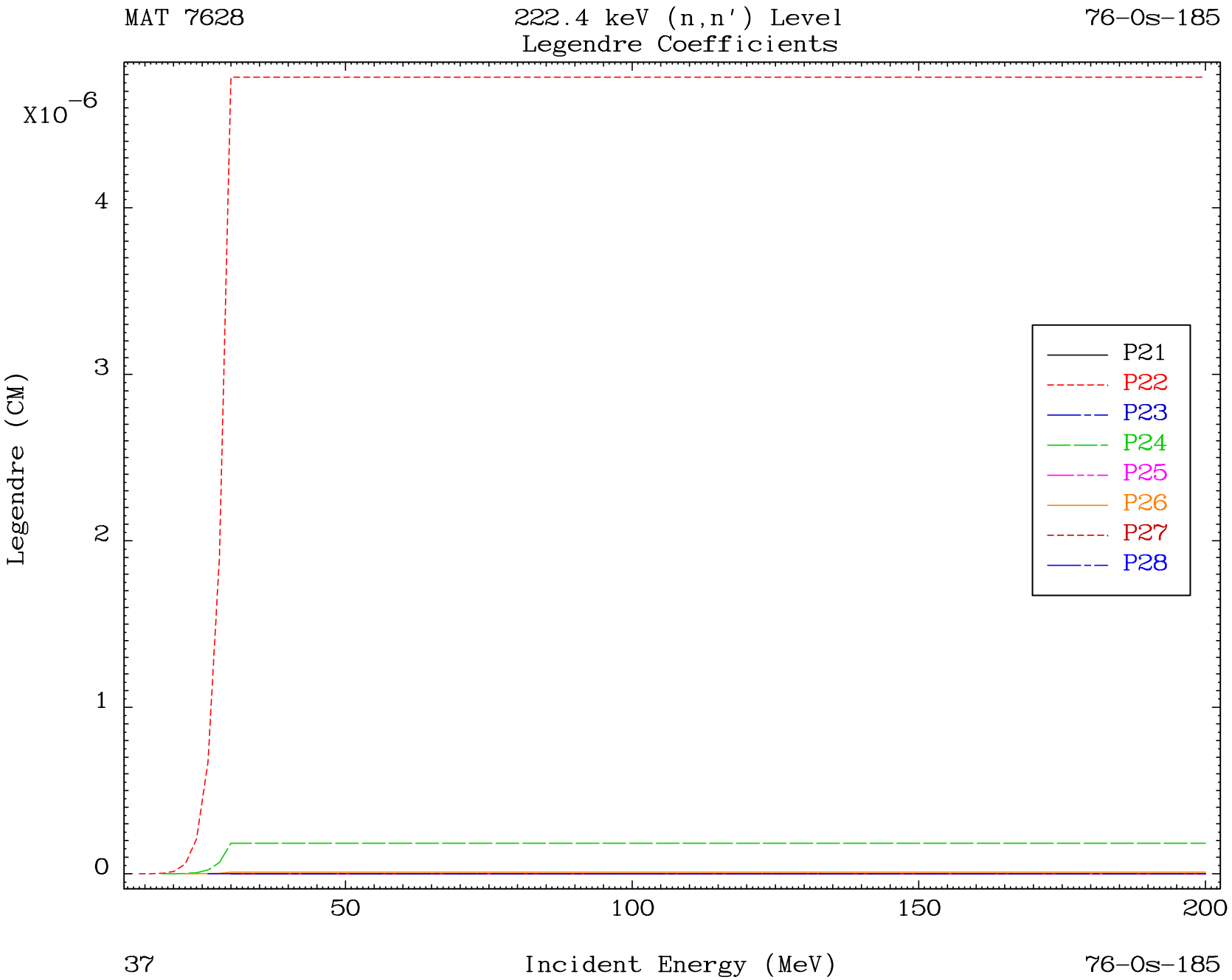

MAT 7628
198.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
32
Incident Energy (MeV)
76-0s-185

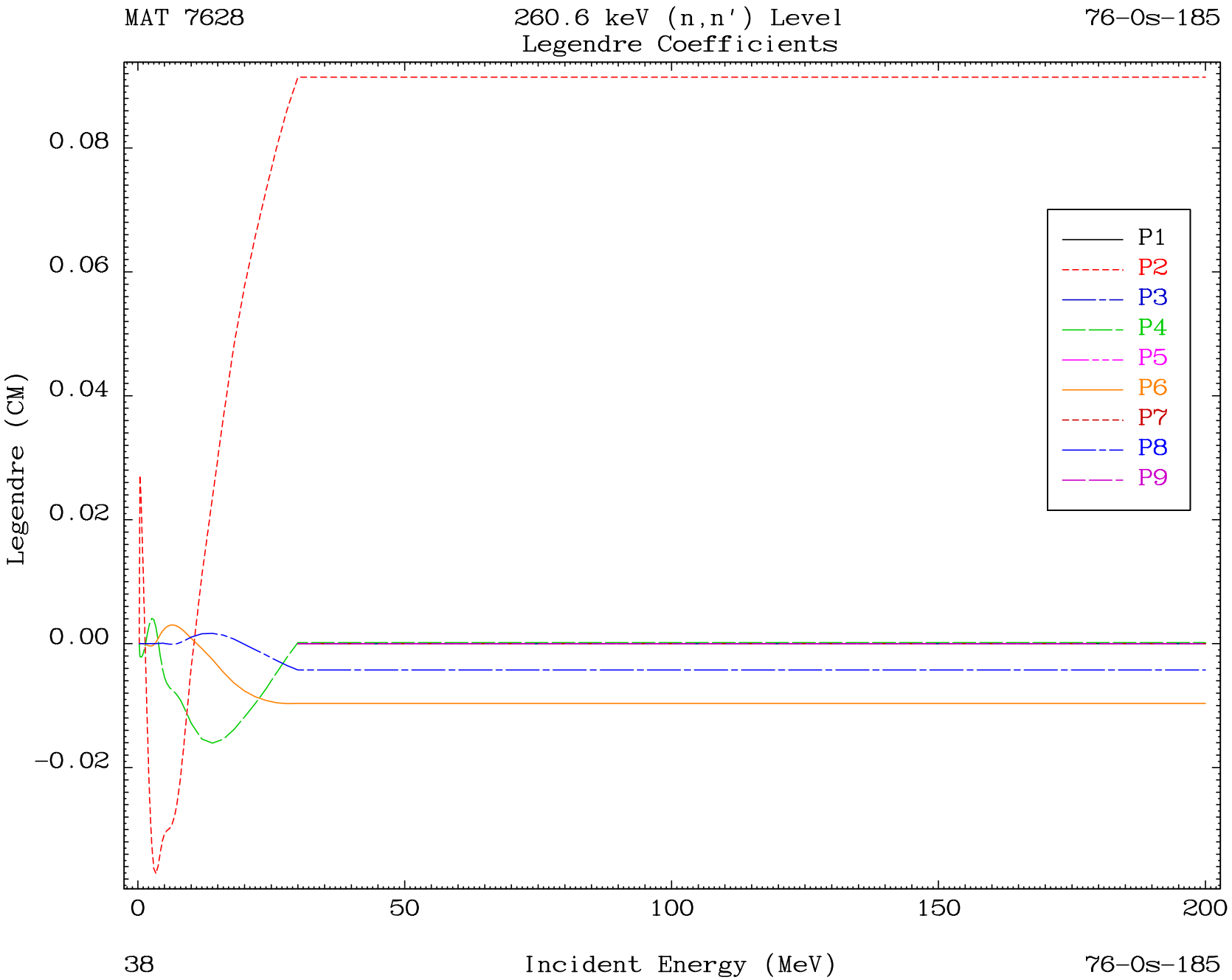

MAT 7628
198.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −4
4
2
0
−2
−4
Legendre (CM)
0
50
100
150
200
33
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

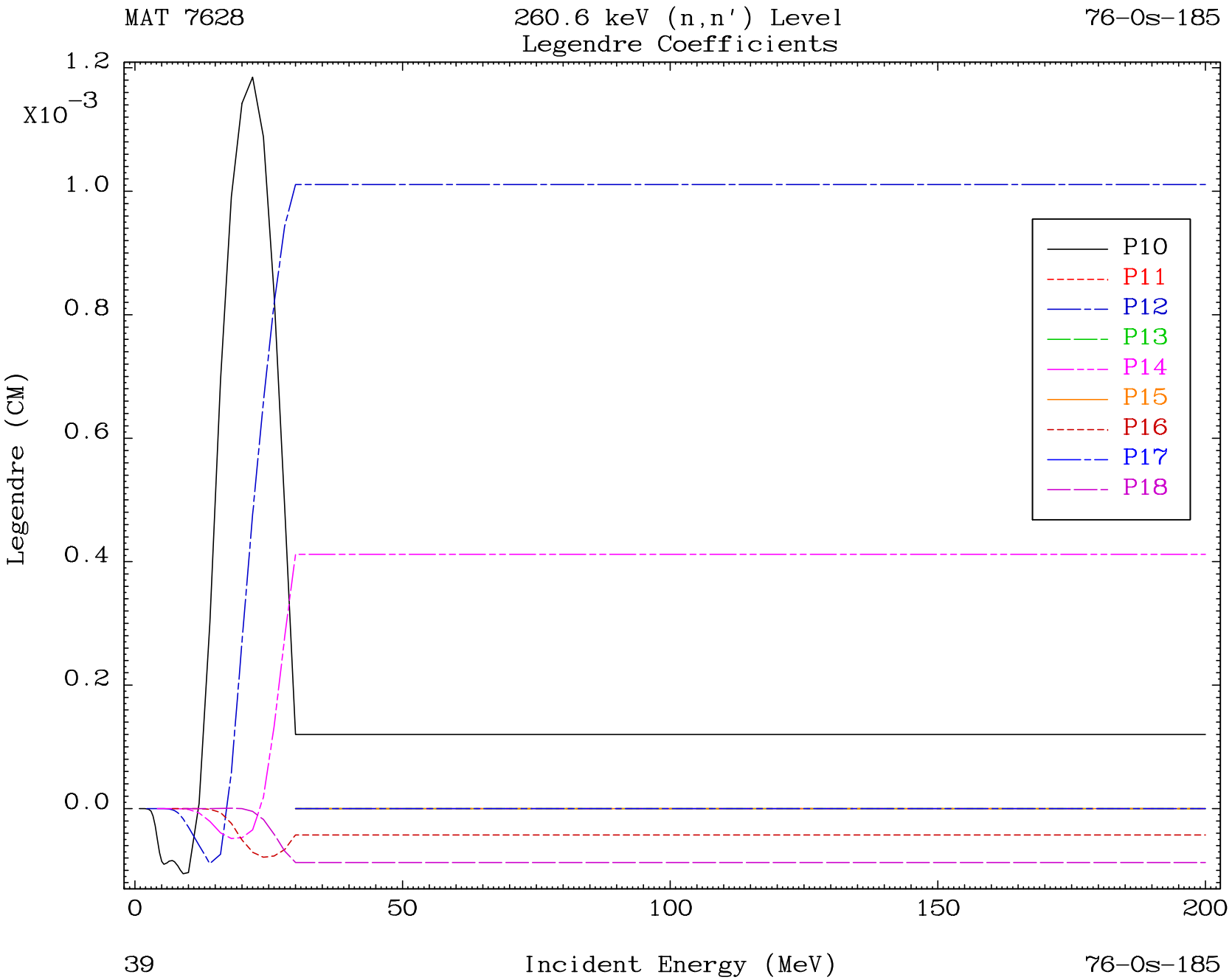

MAT 7628
198.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.0
X10 −6
−0.5
−1.0
−1.5
−2.0
Legendre (CM)
50
100
150
200
34
Incident Energy (MeV)
76-0s-185
P21
P22
P23
P24
P25
P26
P27
P28

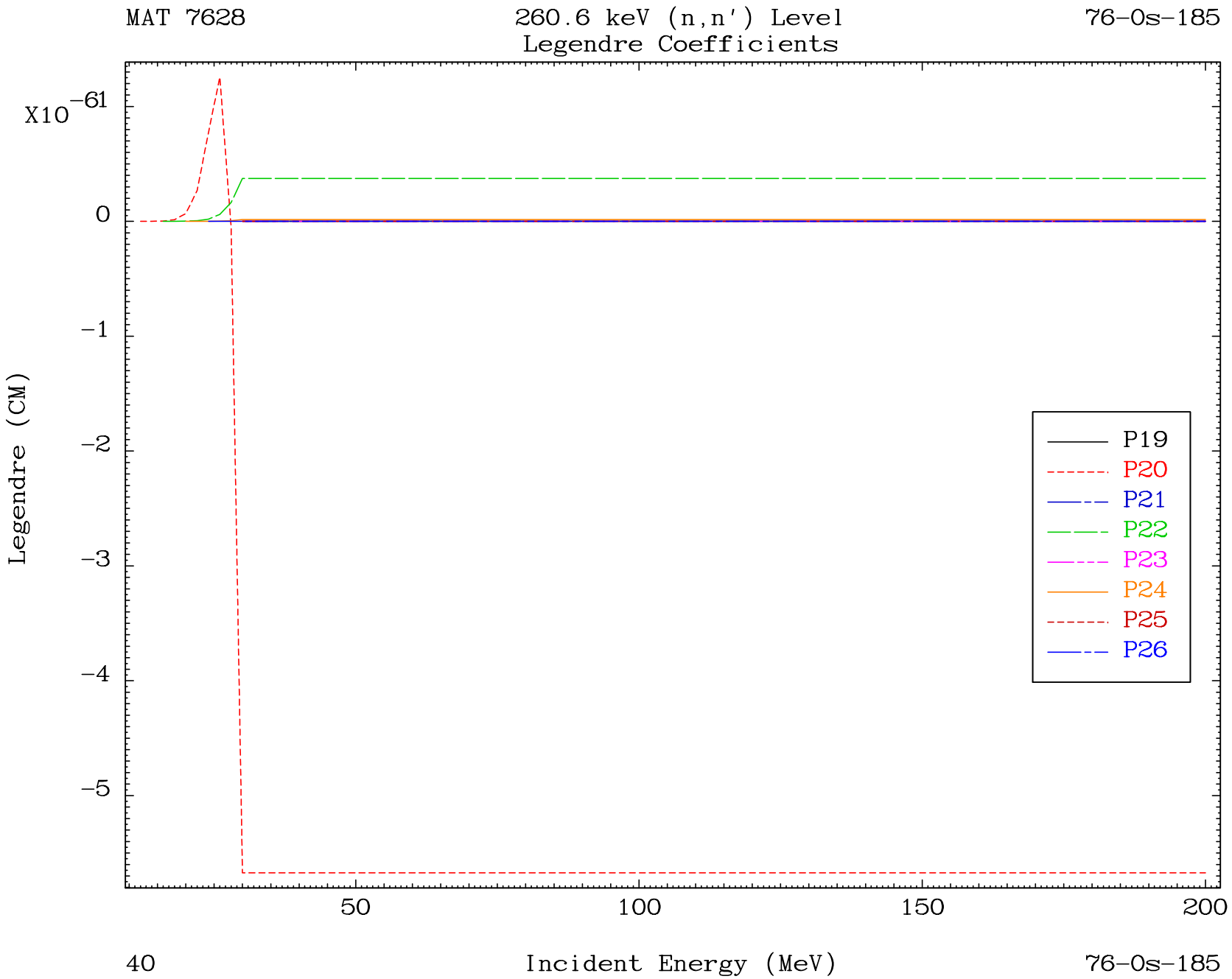

MAT 7628
222.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
35
Incident Energy (MeV)
76-0s-185

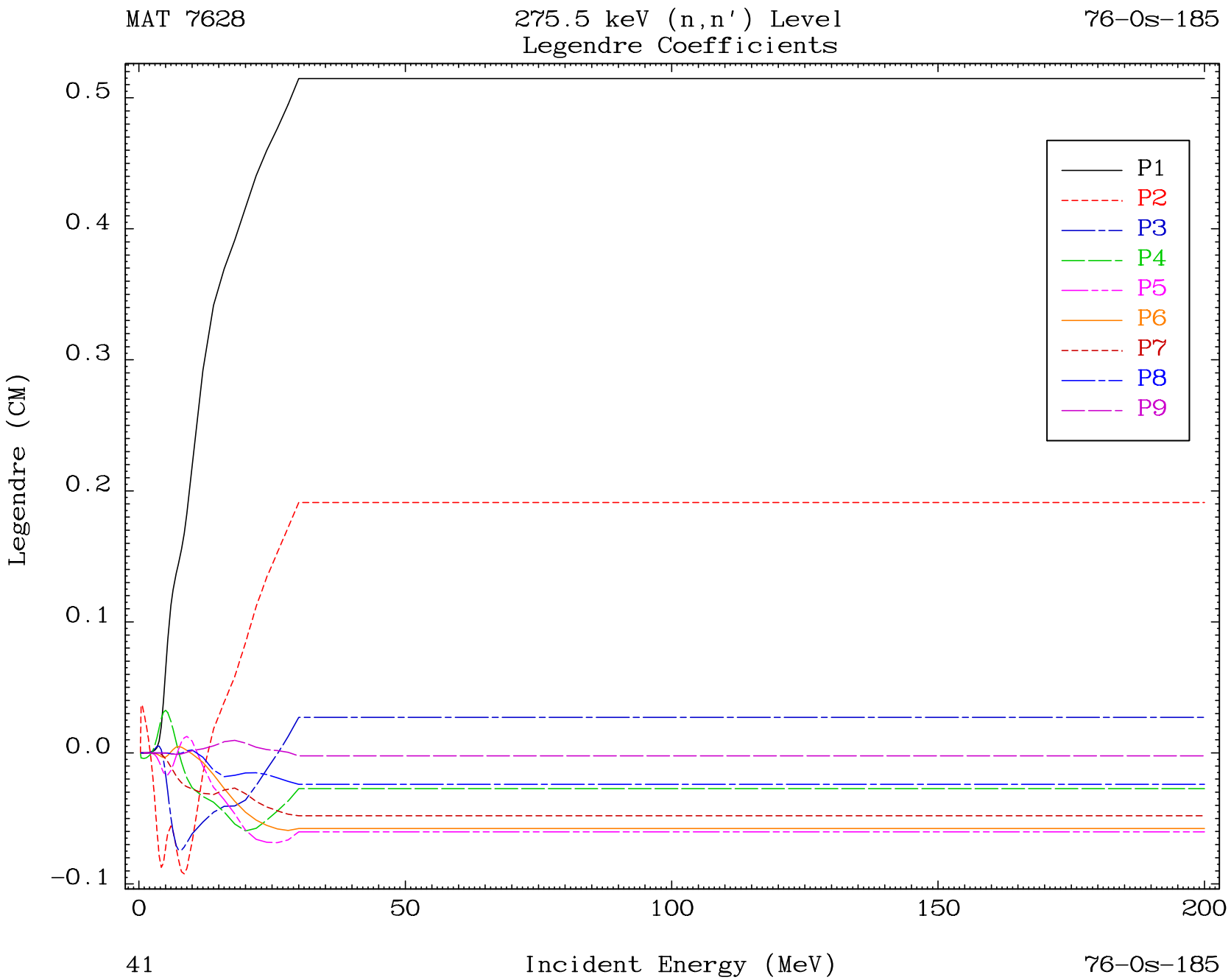

MAT 7628
222.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10-0
0.0
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
0
50
100
150
200
36
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

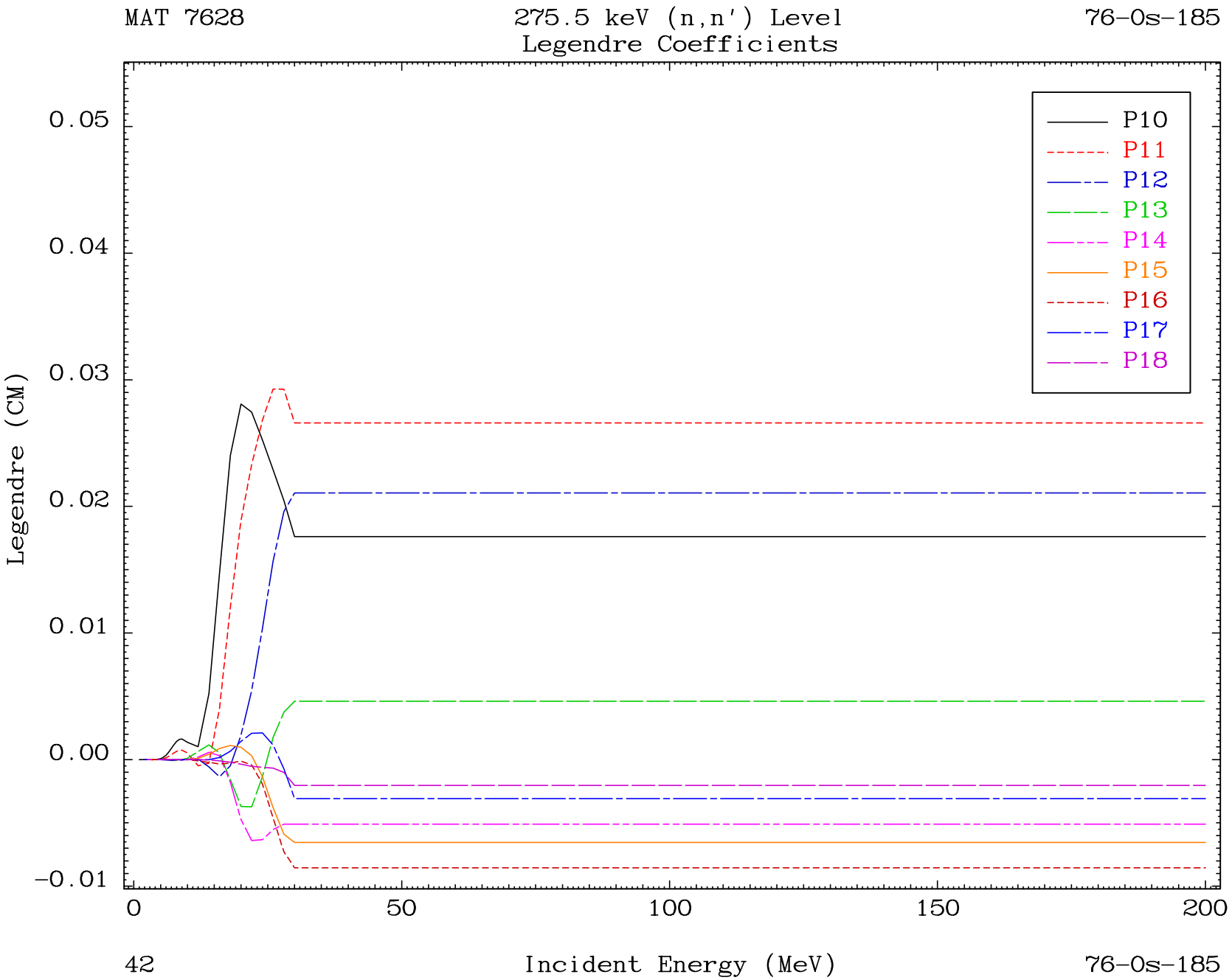

MAT 7628
222.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 -6
4
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
37
Incident Energy (MeV)
76-0s-185

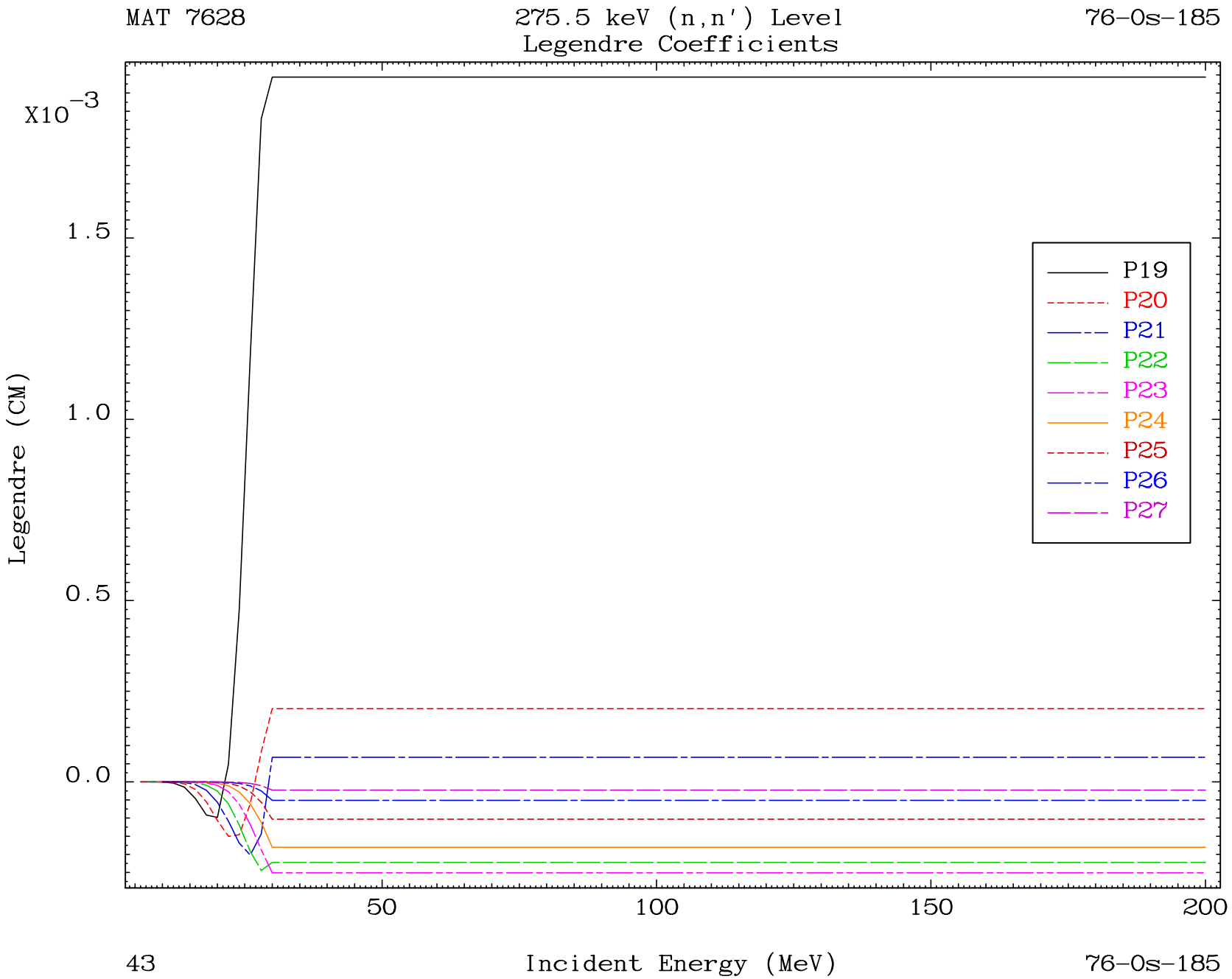

MAT 7628
260.6 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.08
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
38
Incident Energy (MeV)
76-0s-185

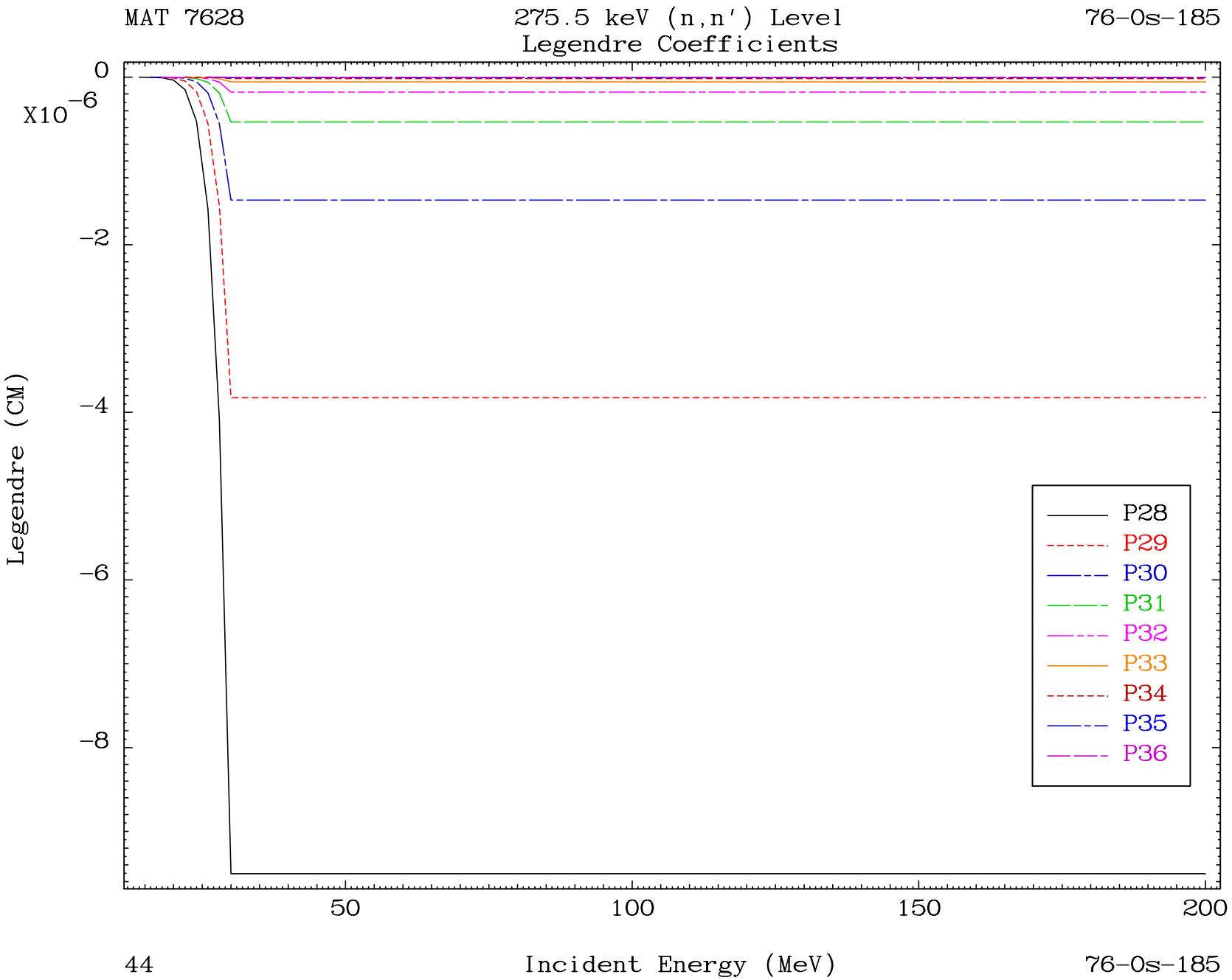

MAT 7628
260.6 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10−3
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
39
Incident Energy (MeV)
76-0s-185

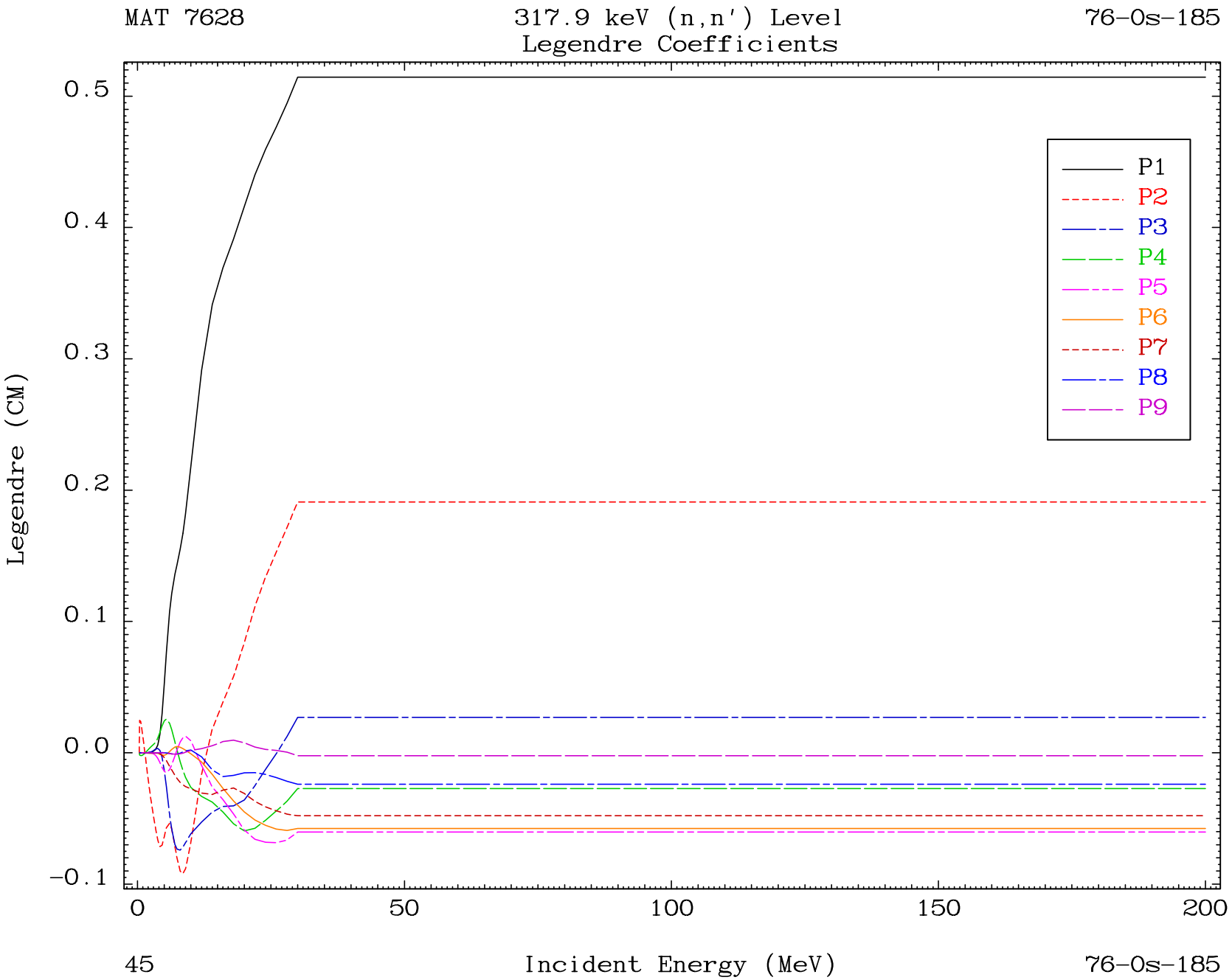

MAT 7628
260.6 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −61
0
−1
−2
−3
−4
−5
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
50
100
150
200
40
Incident Energy (MeV)
76-0s-185

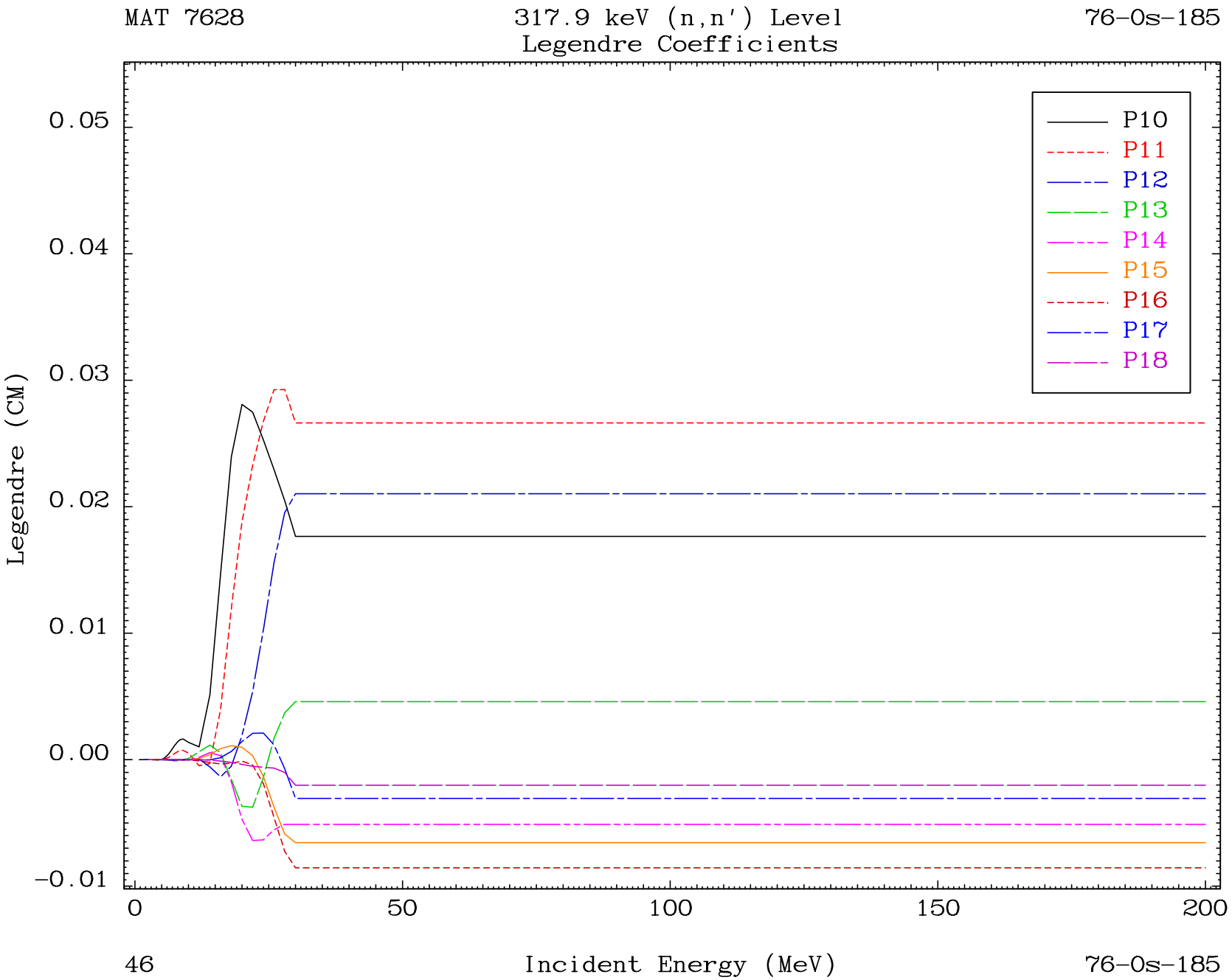

MAT 7628
275.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
41
76-0s-185
P1
P2
P3
P4
P5
P6
P7
P8
P9

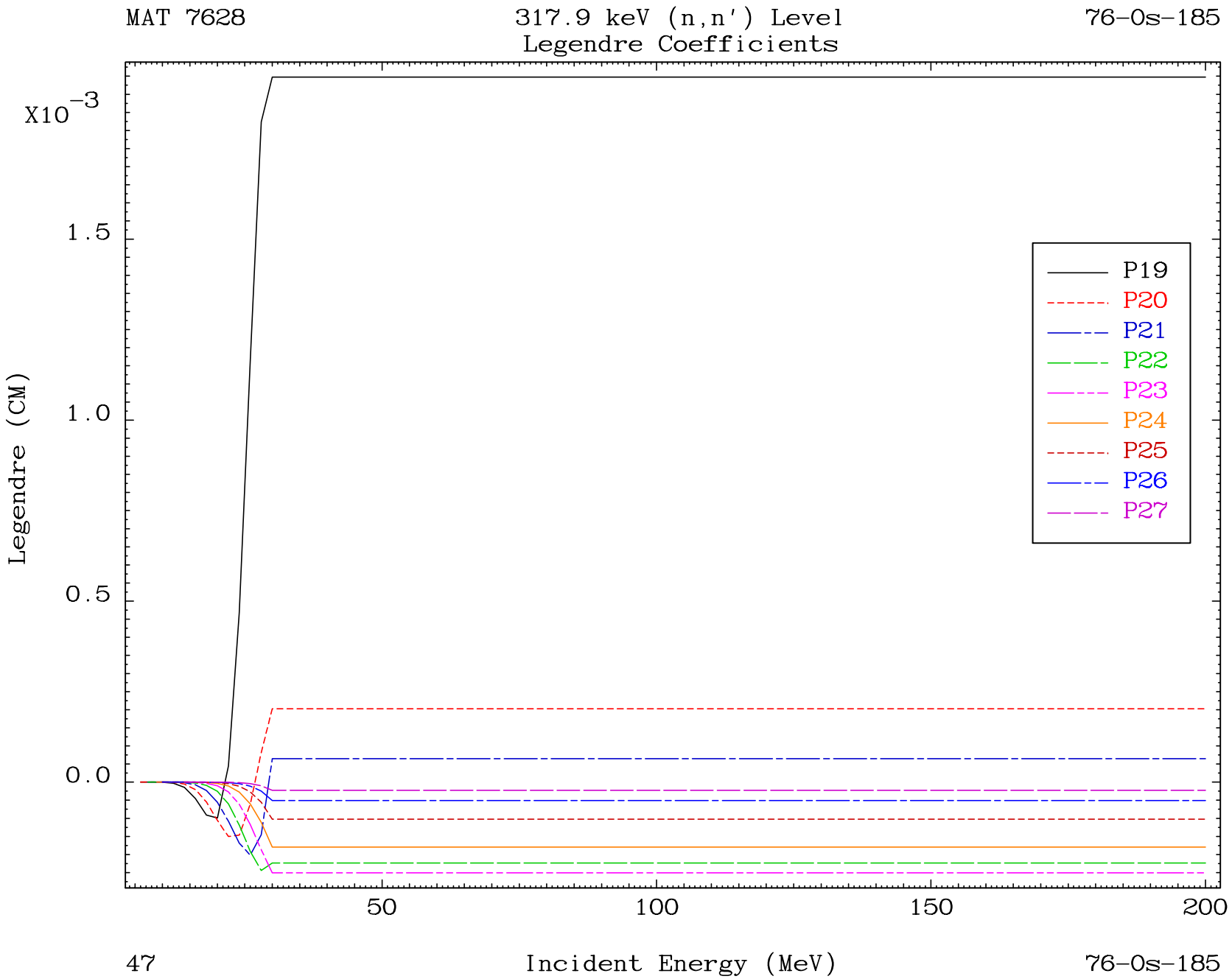

MAT 7628
275.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
42
Incident Energy (MeV)
76-0s-185

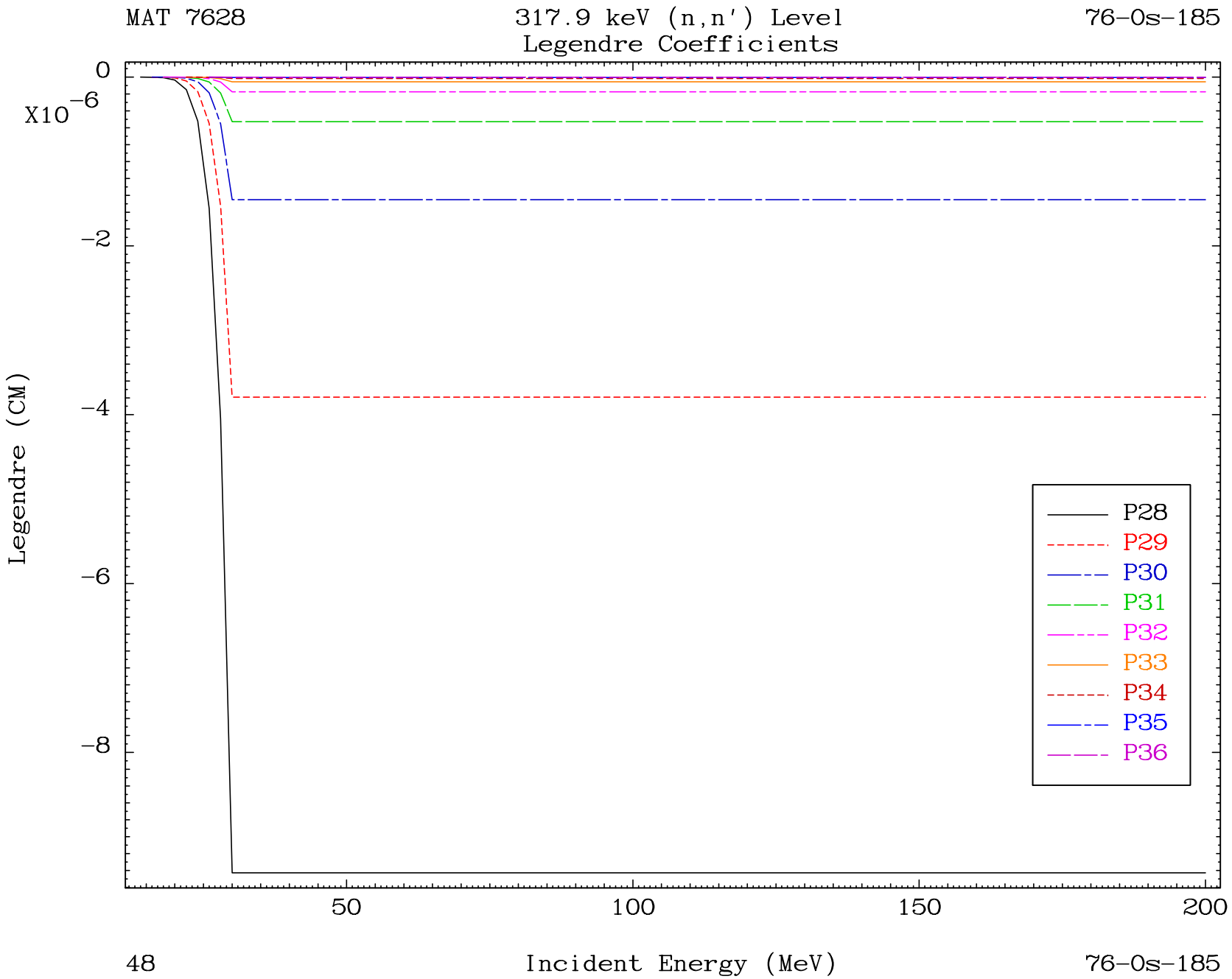

MAT 7628
275.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^{-3}
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
43
Incident Energy (MeV)
76-0s-185

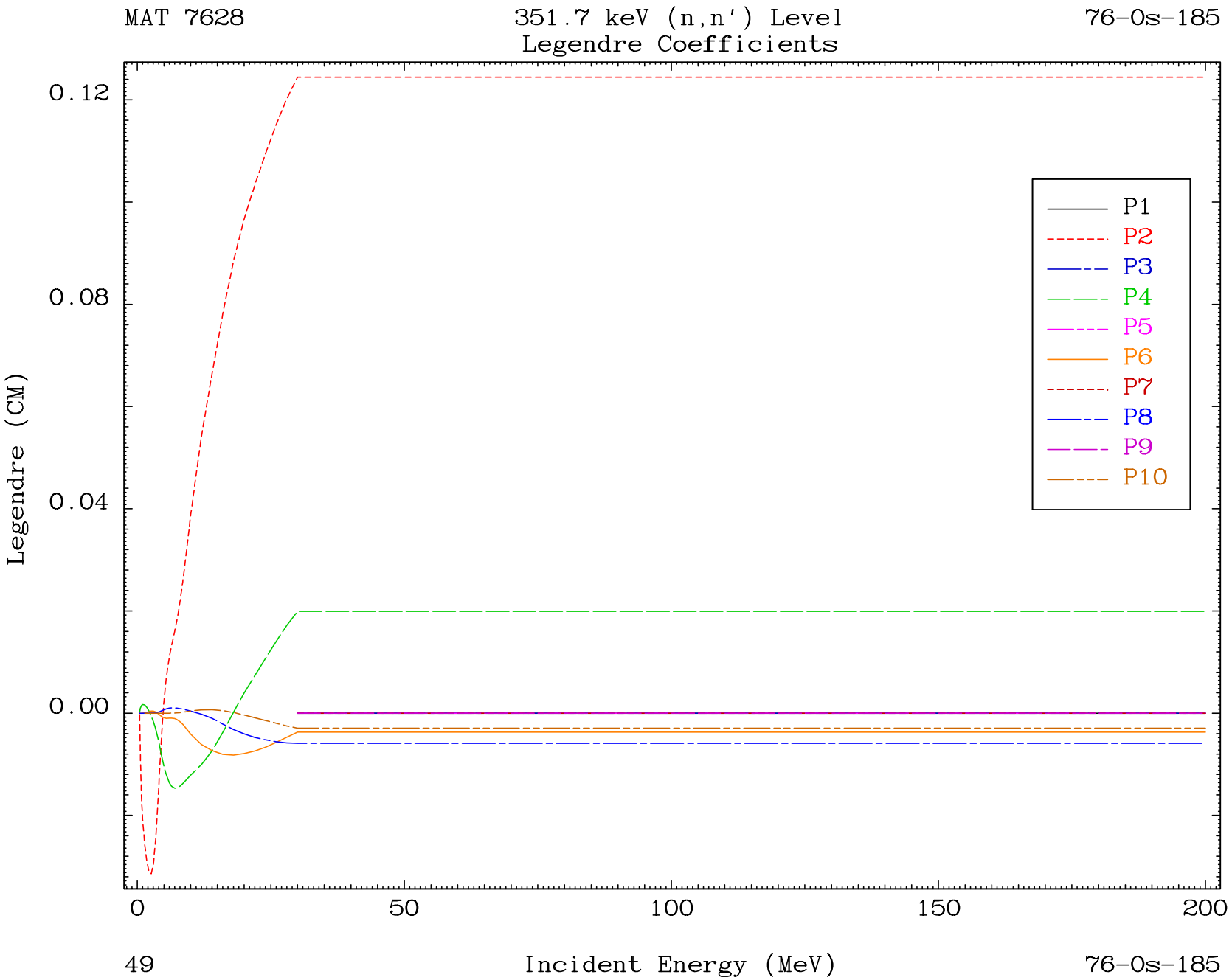

MAT 7628
275.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
44
Incident Energy (MeV)
76-0s-185
P28
P29
P30
P31
P32
P33
P34
P35
P36

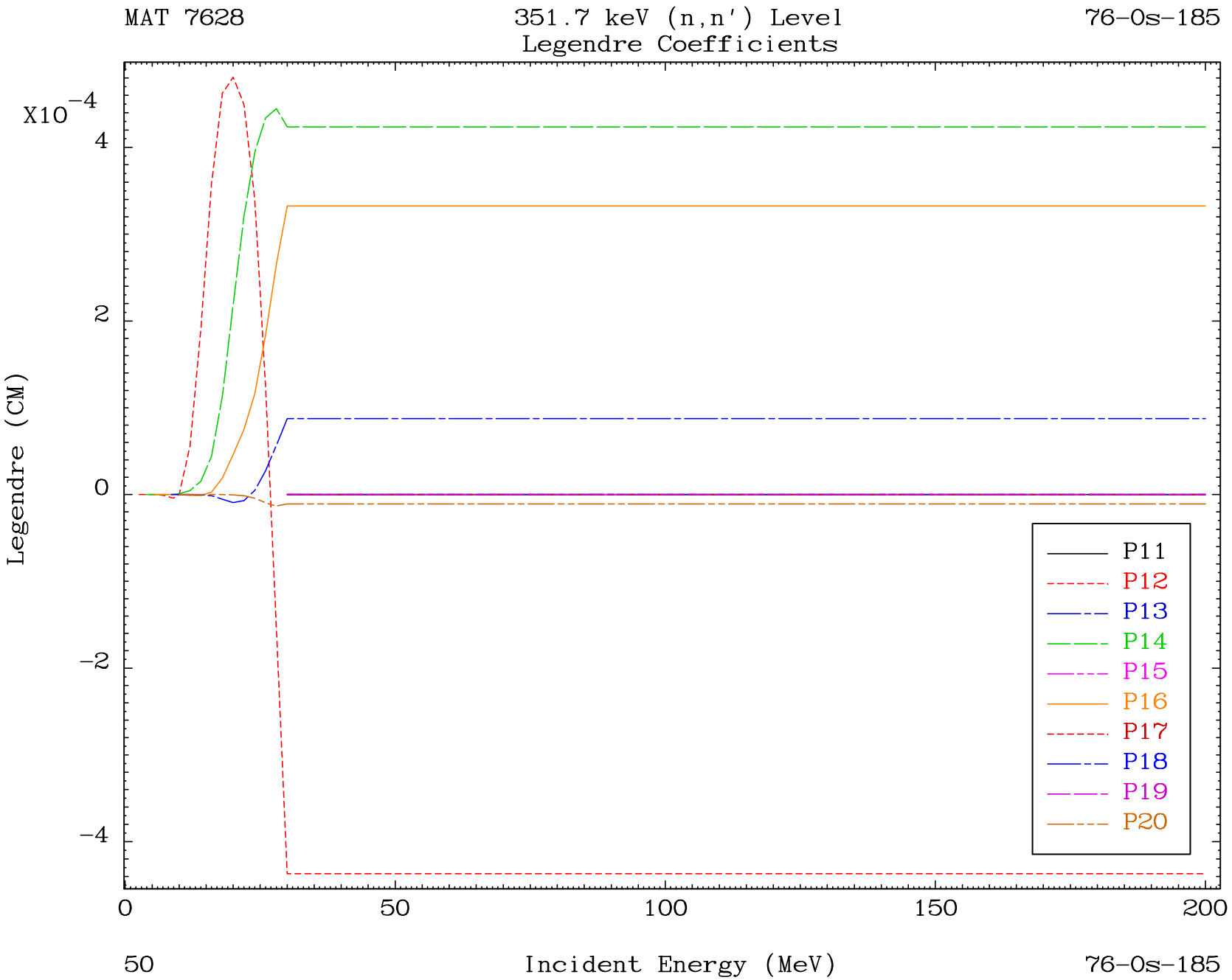

MAT 7628
317.9 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
45
Incident Energy (MeV)
76-0s-185

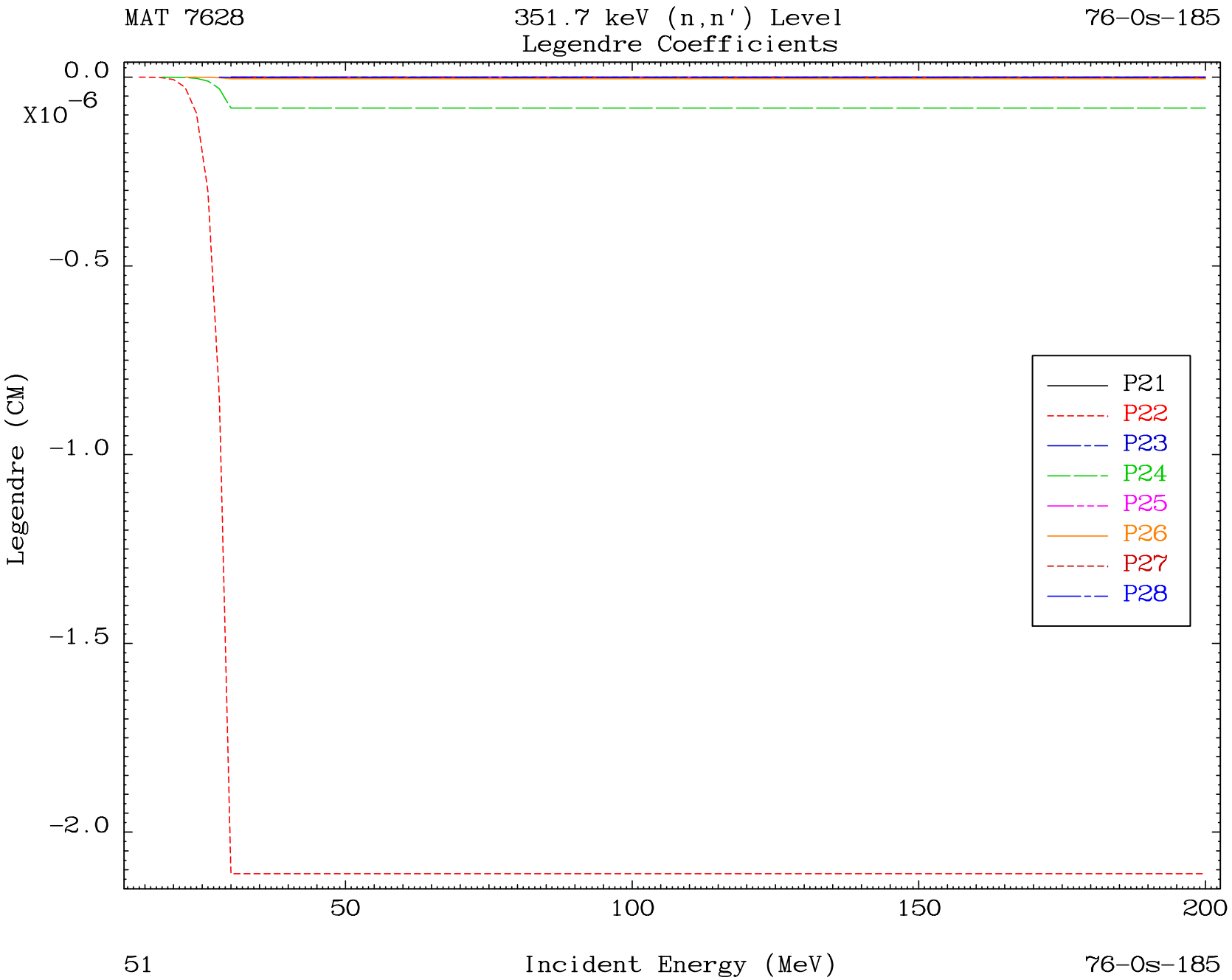

MAT 7628
317.9 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
46
Incident Energy (MeV)
76-0s-185

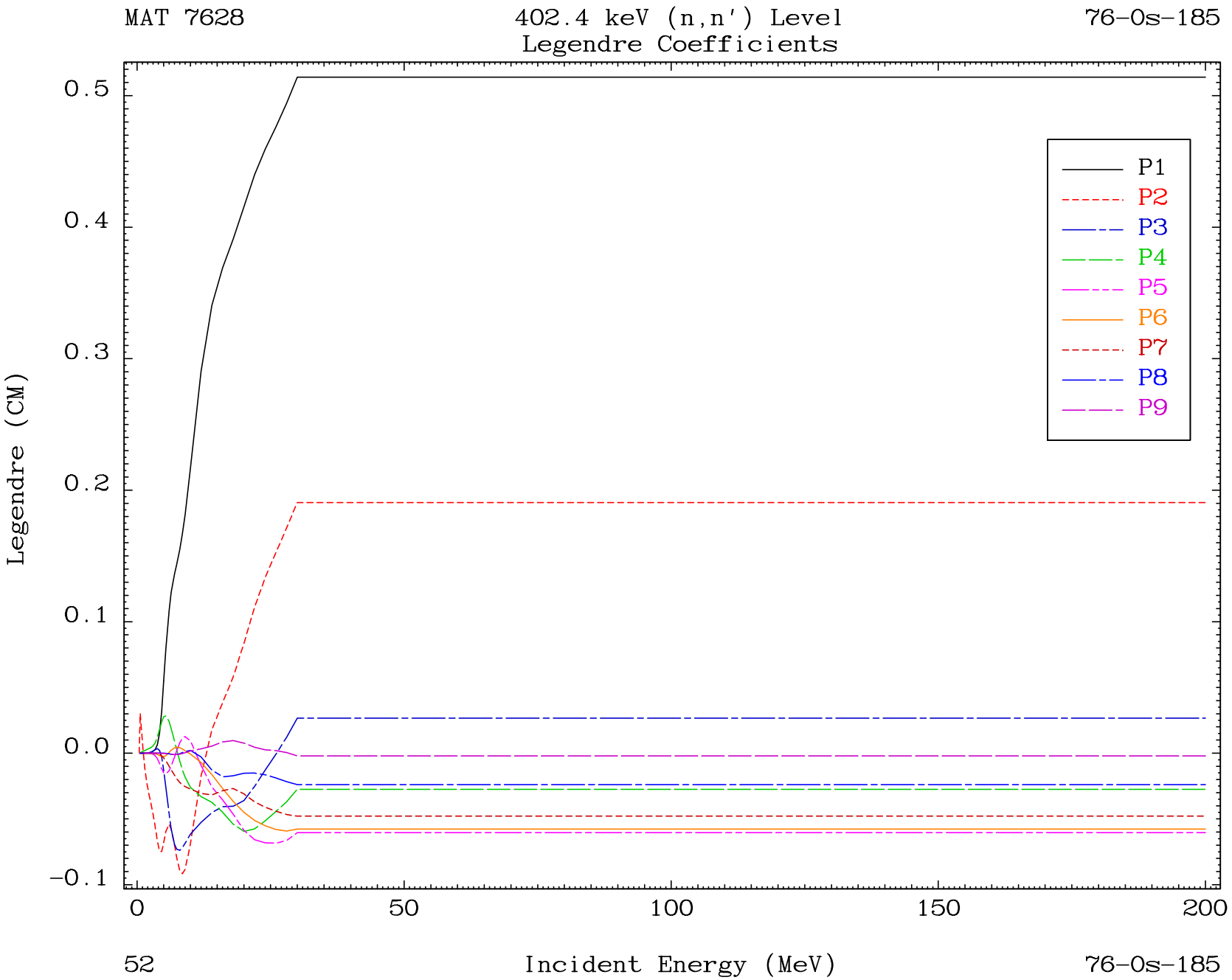

MAT 7628
317.9 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^{-3}
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
47
Incident Energy (MeV)
76-0s-185

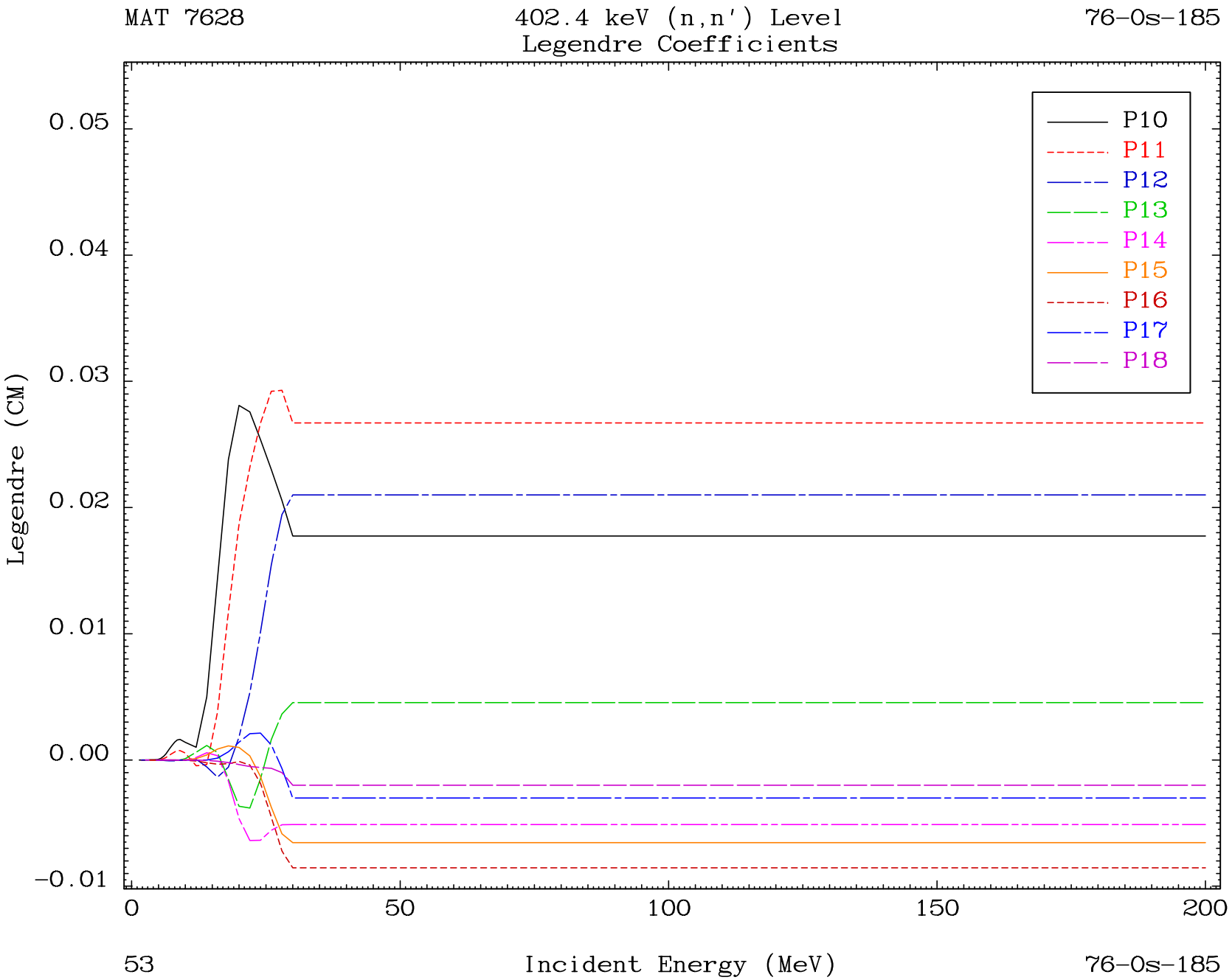

MAT 7628
317.9 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
48
Incident Energy (MeV)
76-0s-185
P28
P29
P30
P31
P32
P33
P34
P35
P36

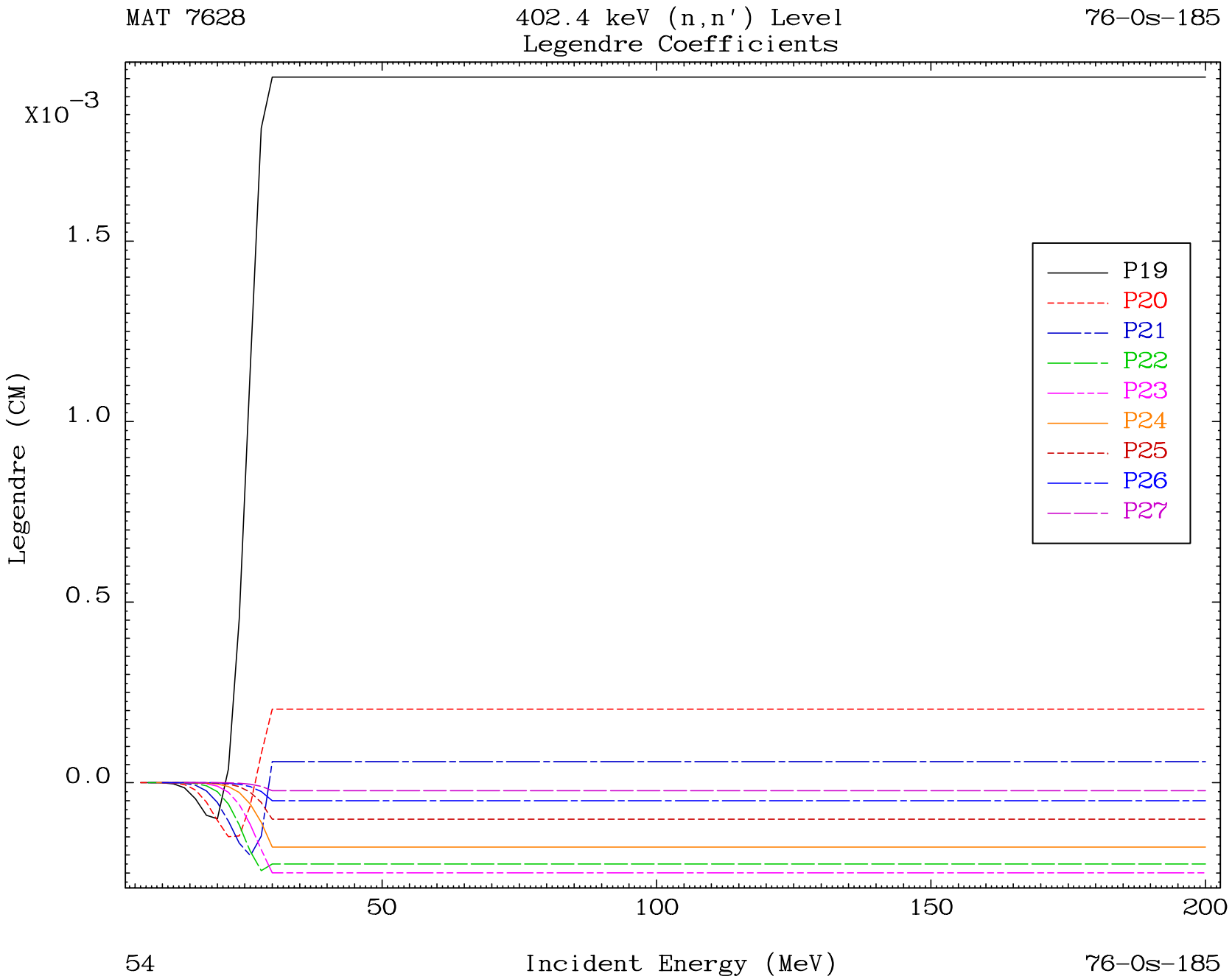

MAT 7628
351.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
49
Incident Energy (MeV)
76-0s-185

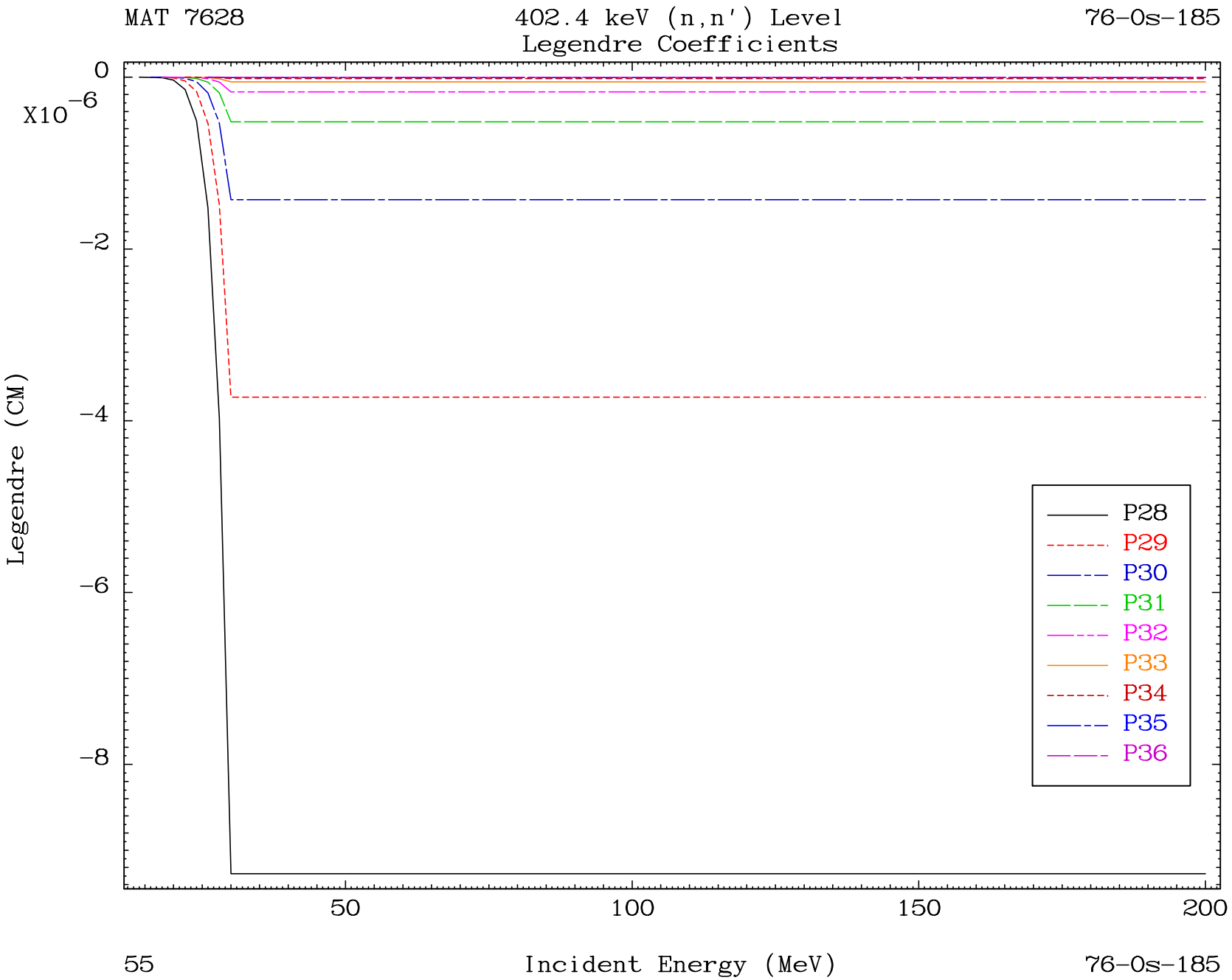

MAT 7628
351.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −4
4
2
0
−2
−4
Legendre (CM)
0
50
100
150
200
50
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

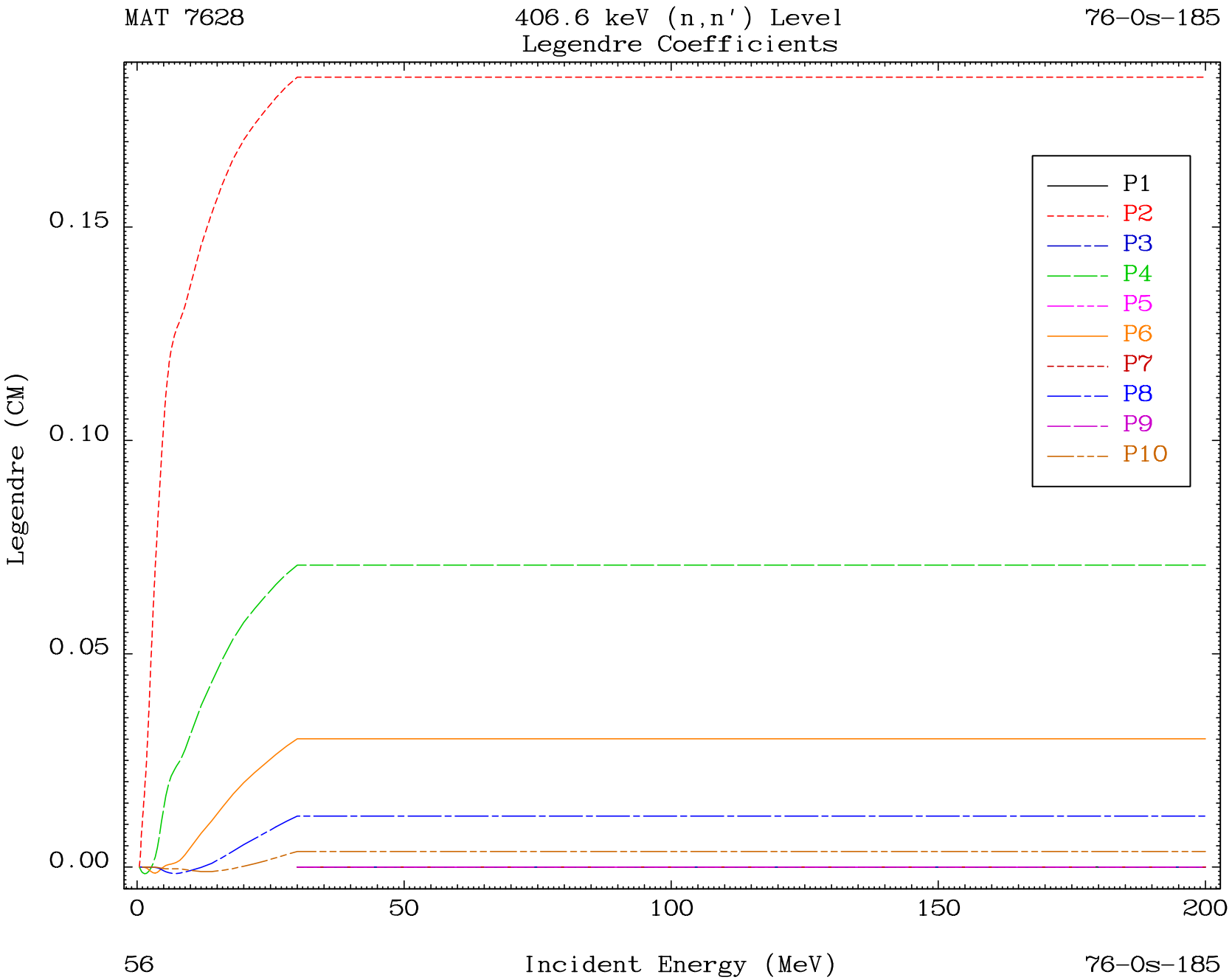

MAT 7628
351.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.0
X10^-6
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
50
100
150
200
51
Incident Energy (MeV)
76-0s-185
P21
P22
P23
P24
P25
P26
P27
P28

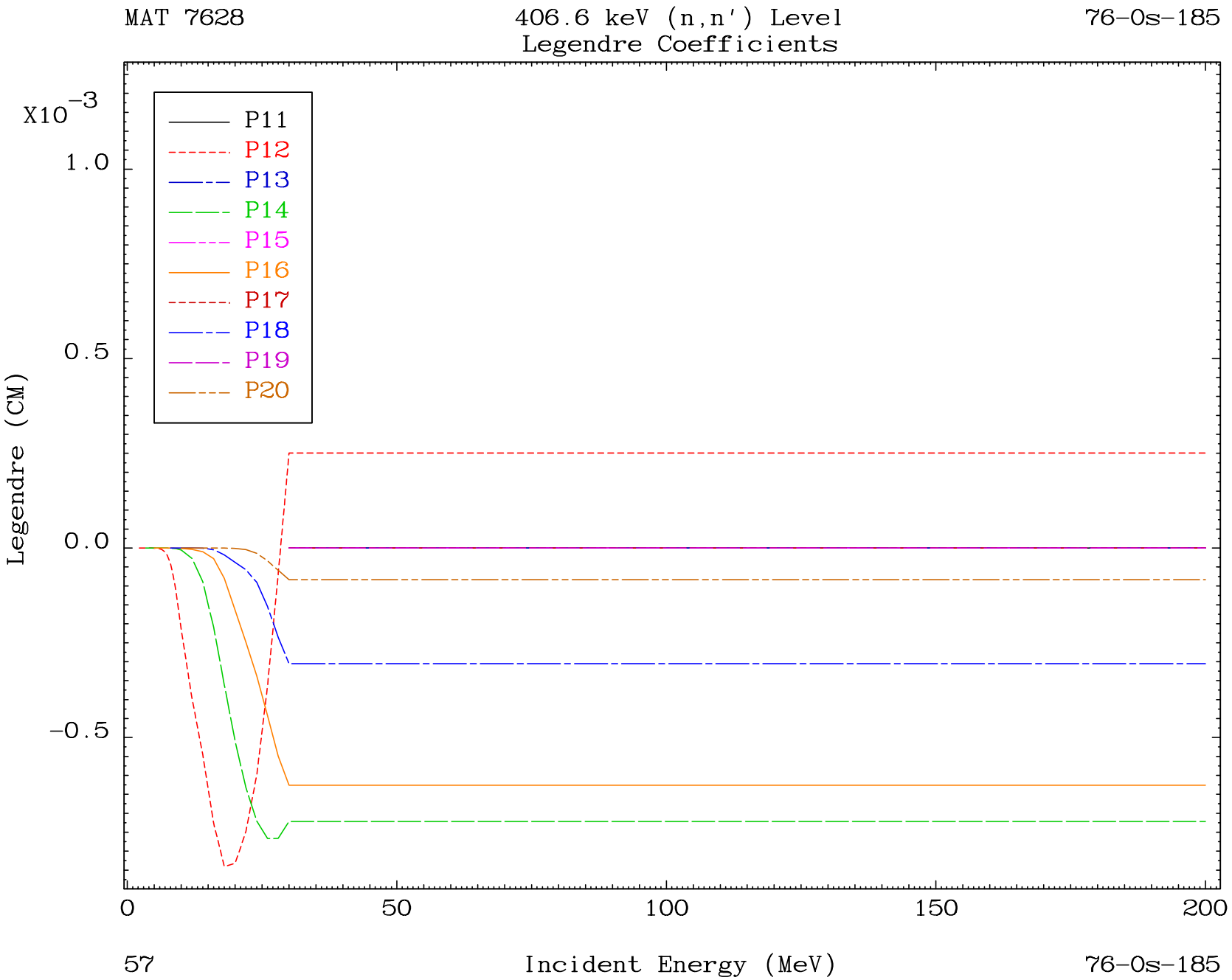

MAT 7628
402.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
52
Incident Energy (MeV)
76-0s-185

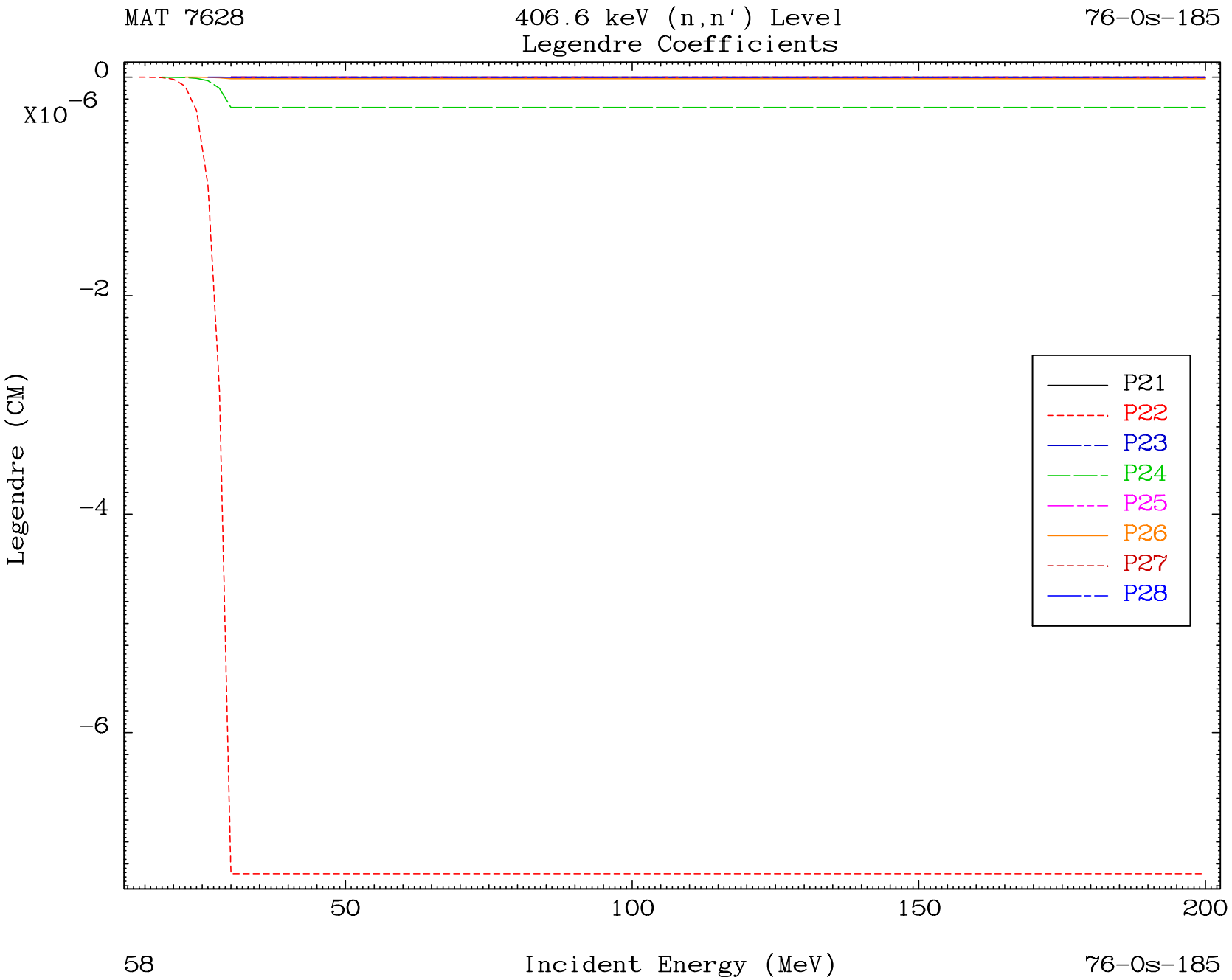

MAT 7628
402.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
53
Incident Energy (MeV)
76-0s-185

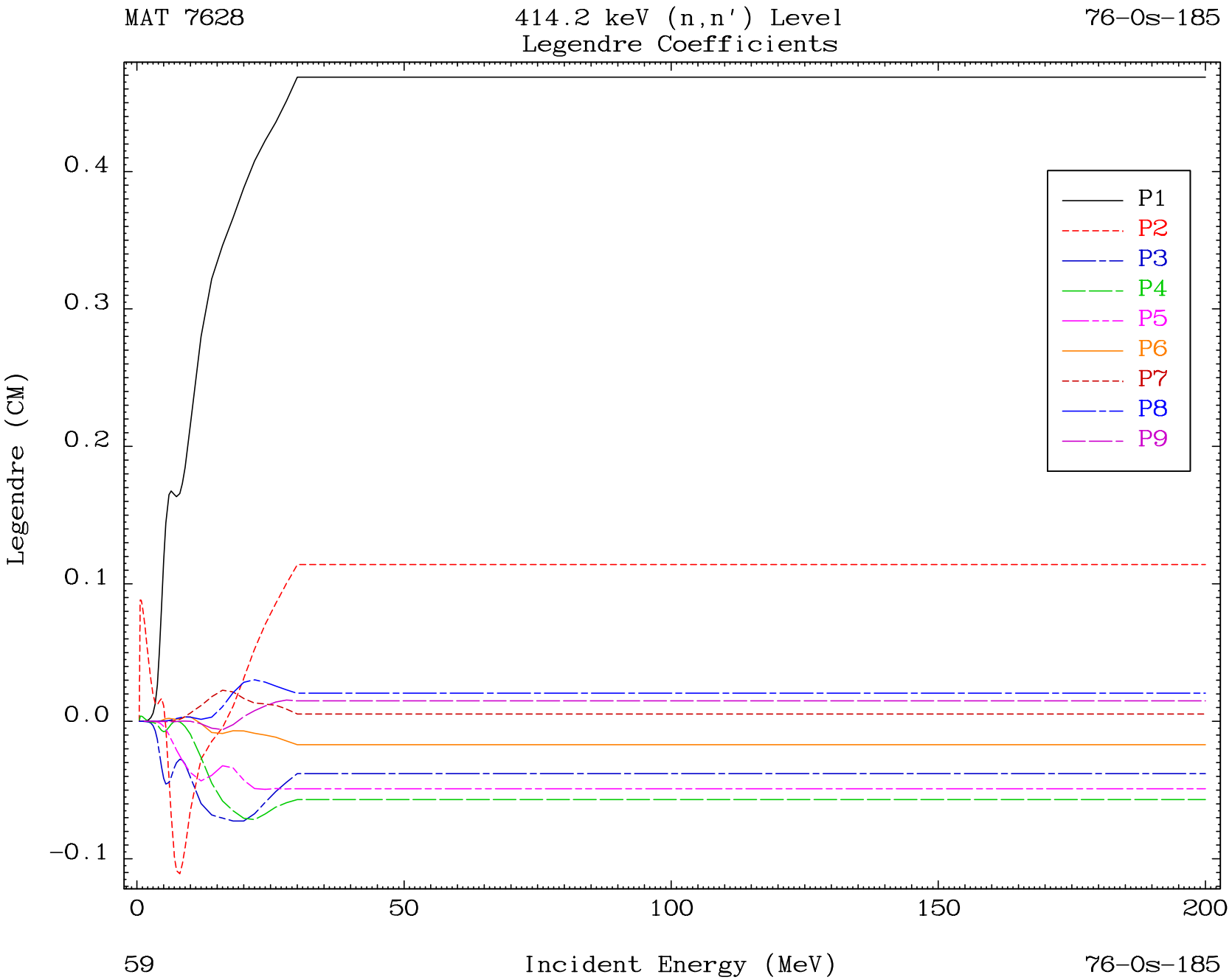

MAT 7628
402.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^{-3}
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
54
Incident Energy (MeV)
76-0s-185

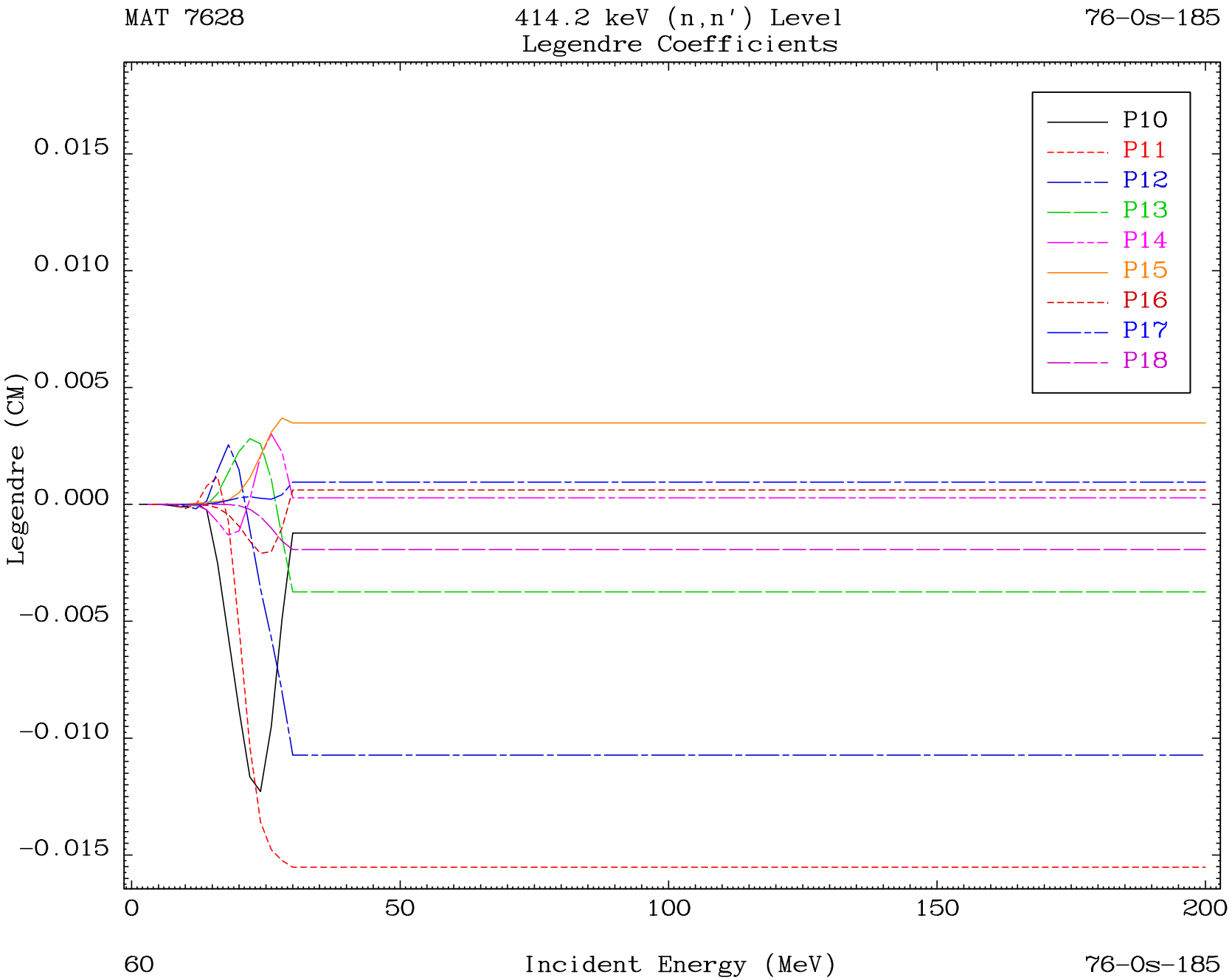

MAT 7628
402.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
55
Incident Energy (MeV)
76-0s-185
P28
P29
P30
P31
P32
P33
P34
P35
P36

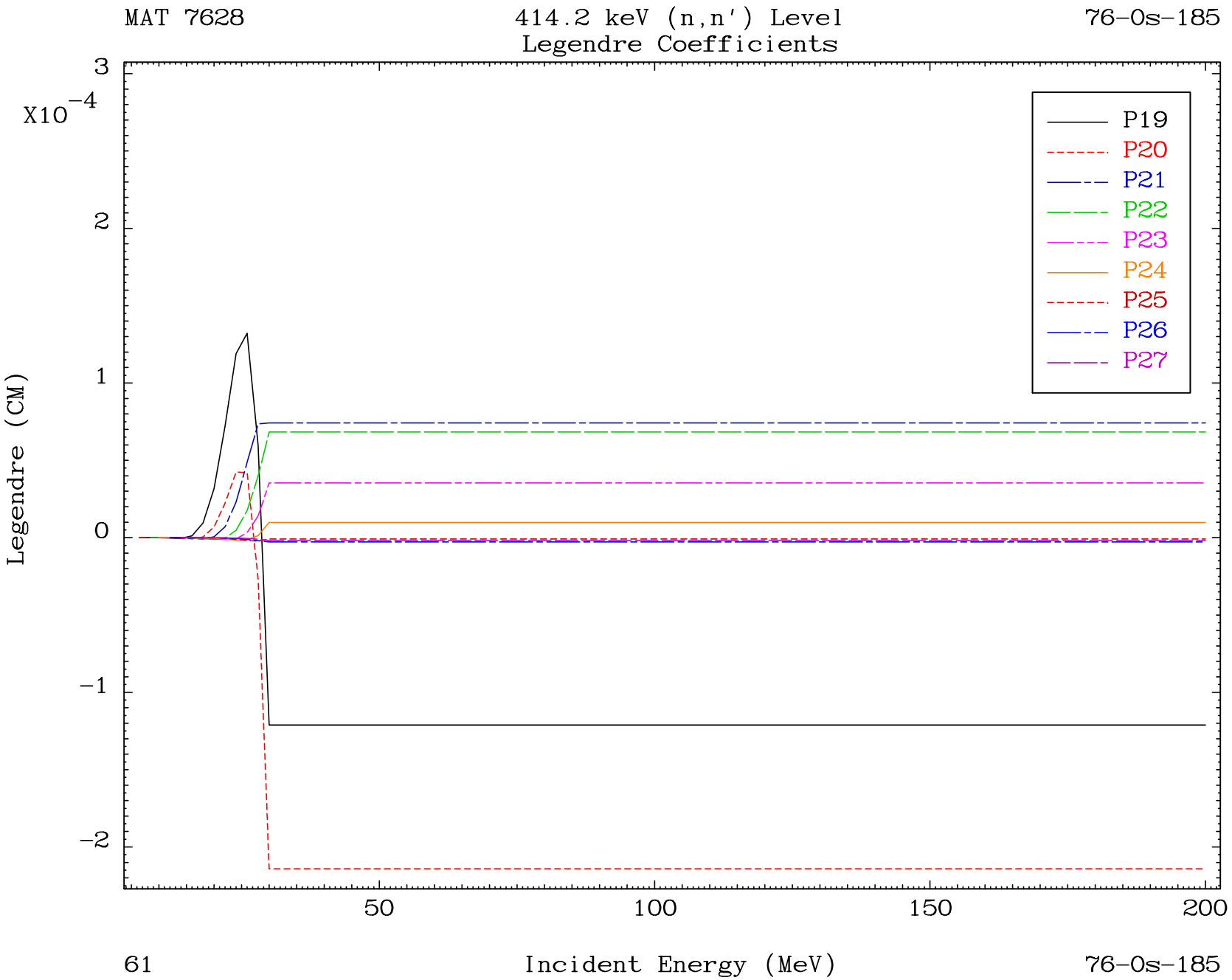

MAT 7628
406.6 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.15
0.10
0.05
0.00
0
50
100
150
200
56
Incident Energy (MeV)
76-0s-185
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

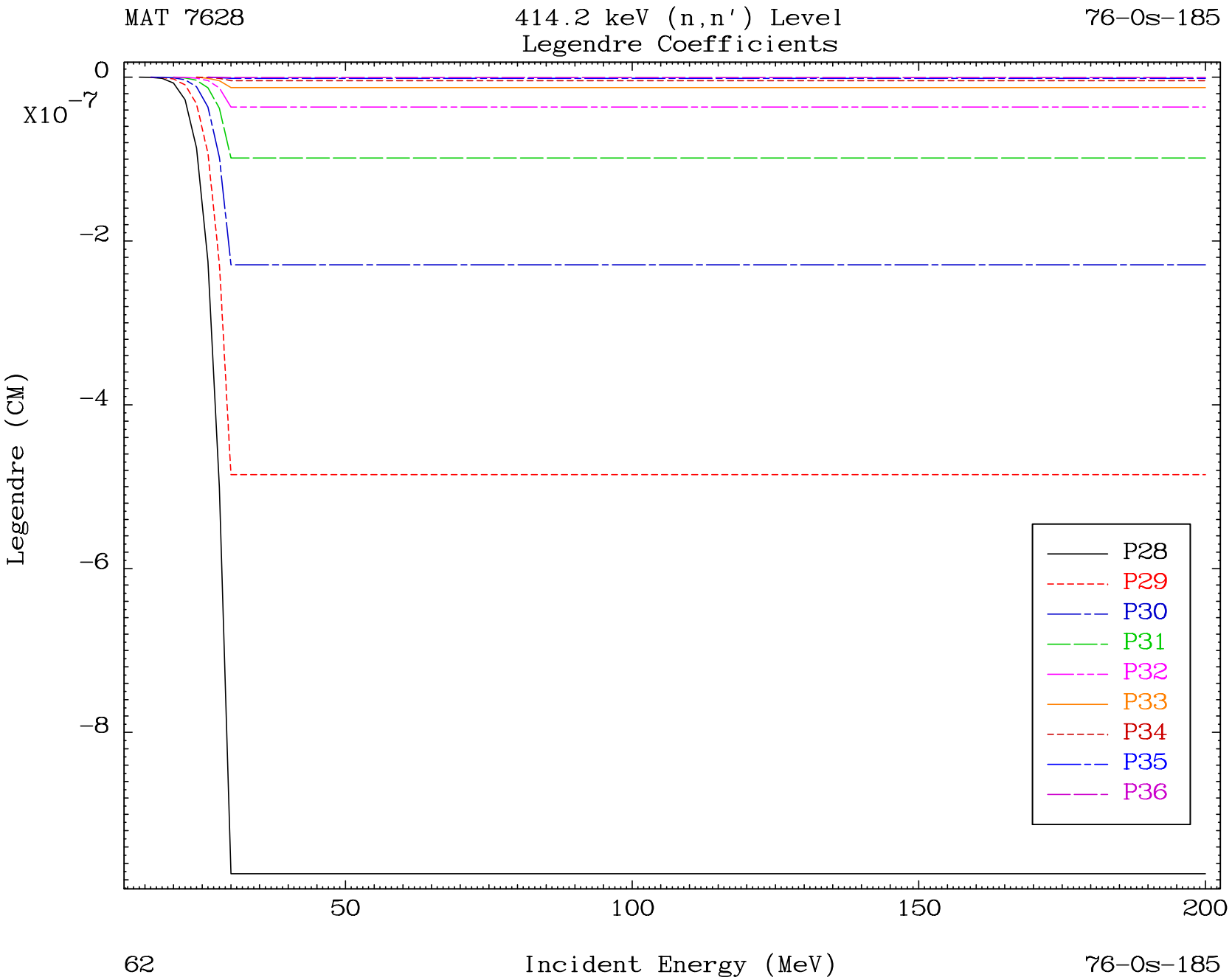

MAT 7628
406.6 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^{-3}
1.0
0.5
0.0
-0.5
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
57
Incident Energy (MeV)
76-0s-185

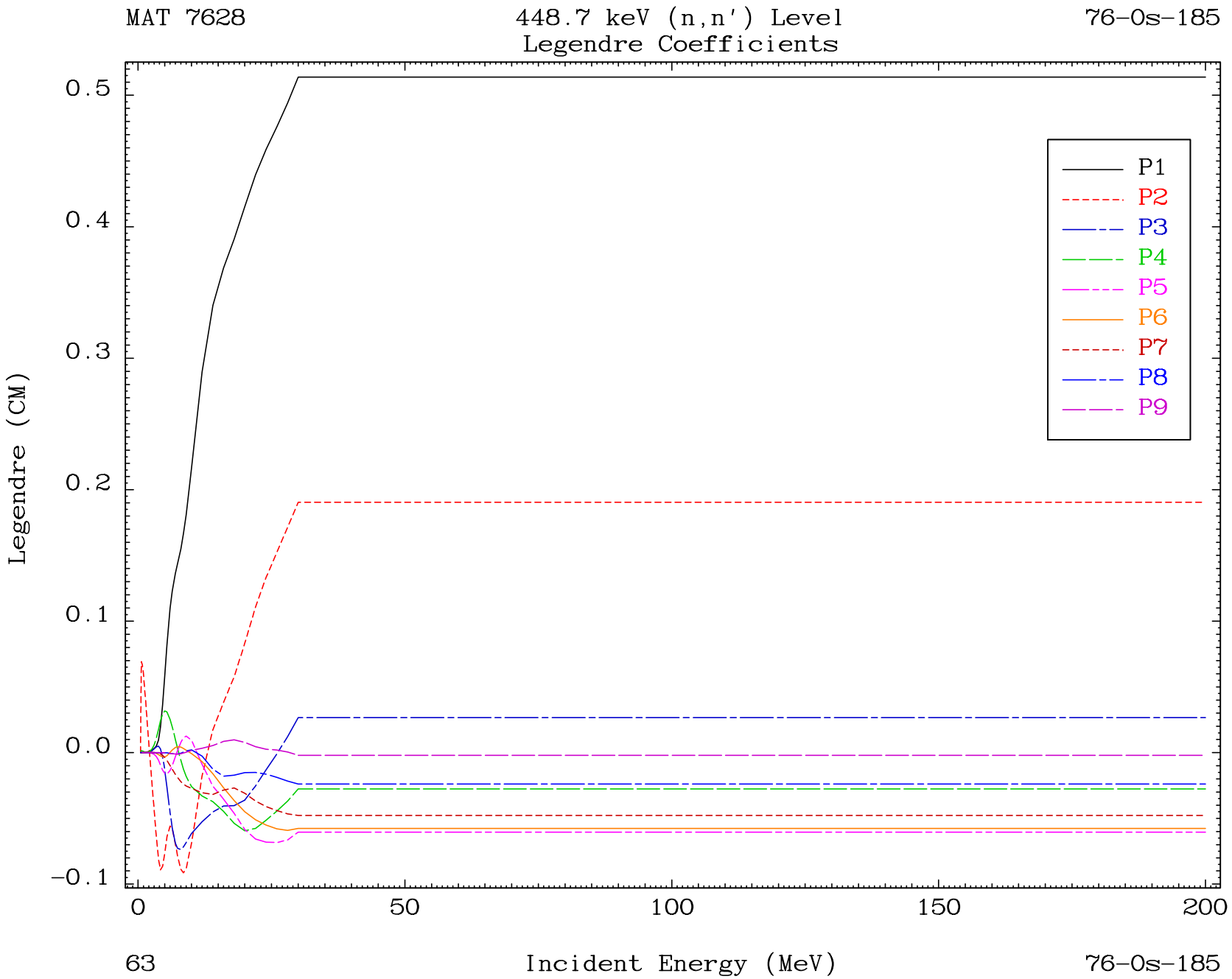

MAT 7628
406.6 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
58
Incident Energy (MeV)
76-0s-185

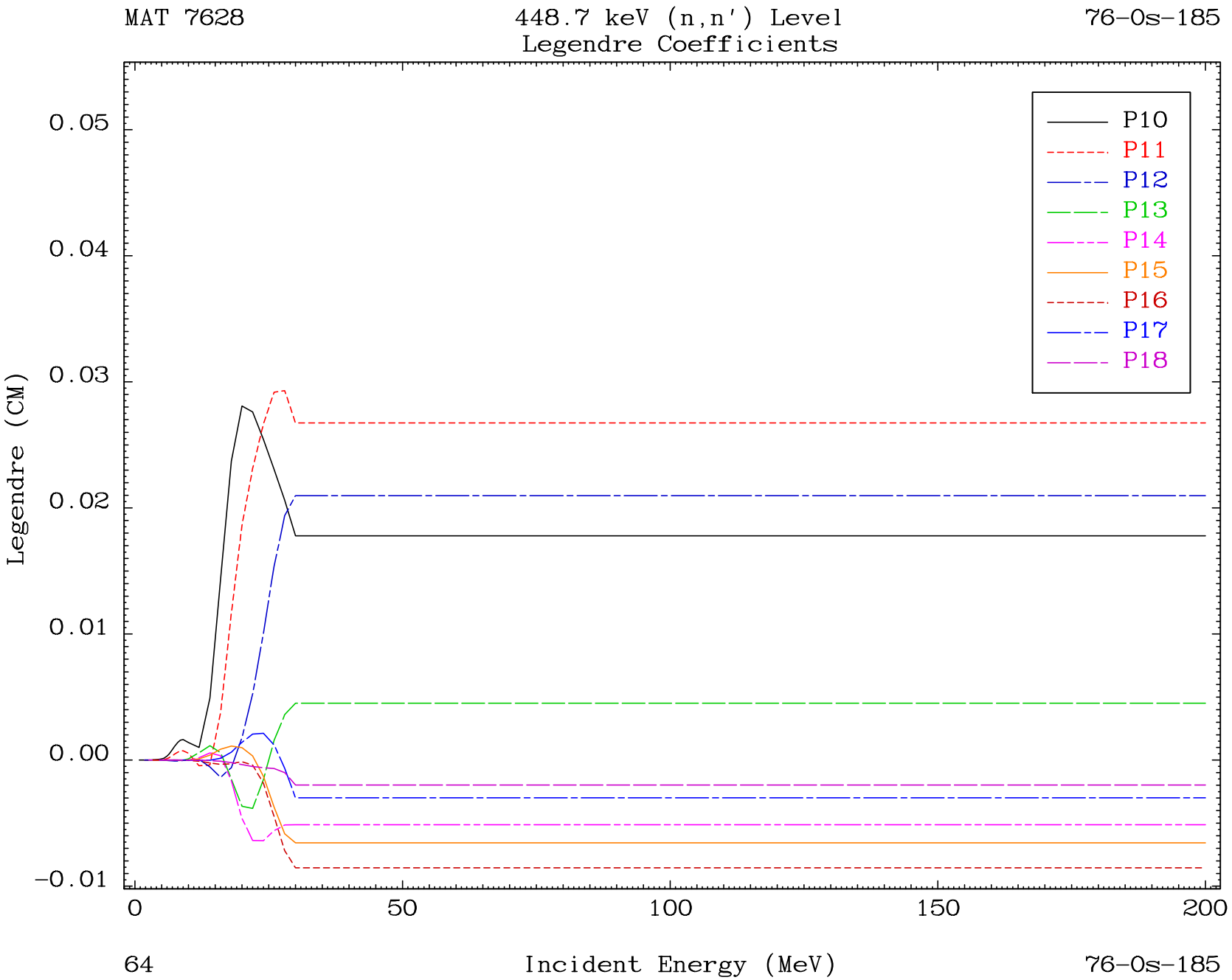

MAT 7628
414.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
59
Incident Energy (MeV)
76-0s-185

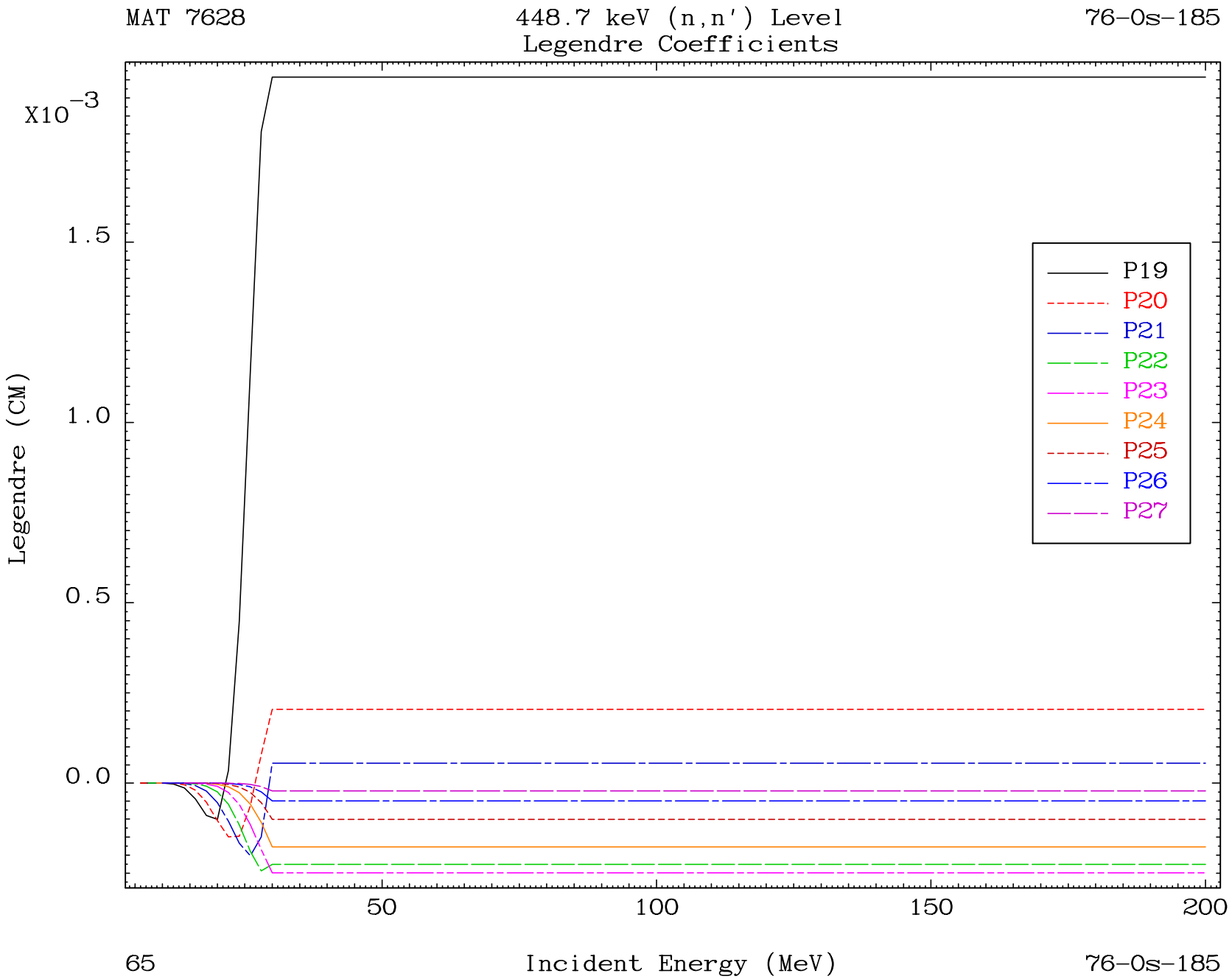

MAT 7628
414.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
Legendre (CM)
0
50
100
150
200
60
Incident Energy (MeV)
76-0s-185

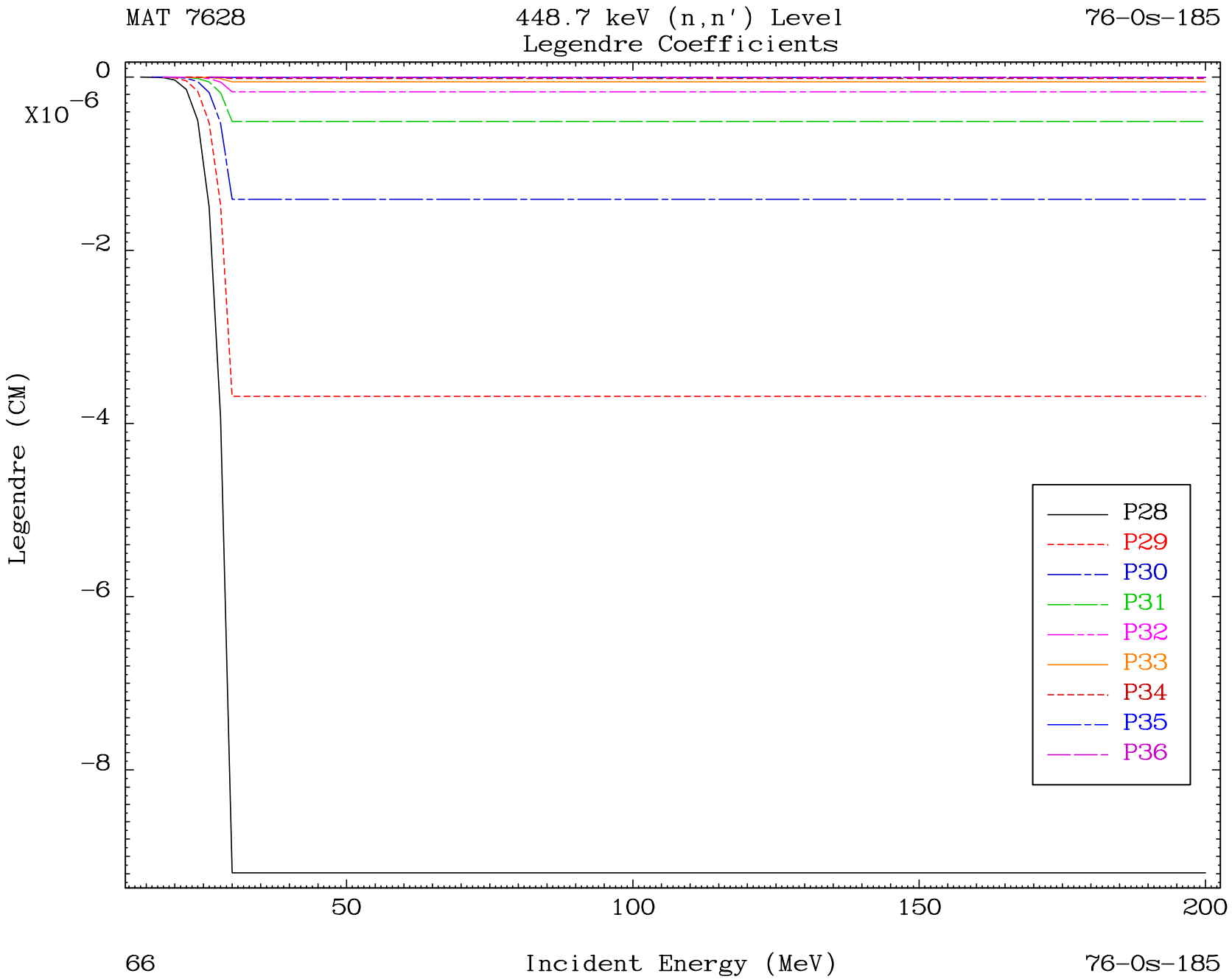

MAT 7628
414.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −4
3
2
1
0
−1
−2
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
61
Incident Energy (MeV)
76-0s-185

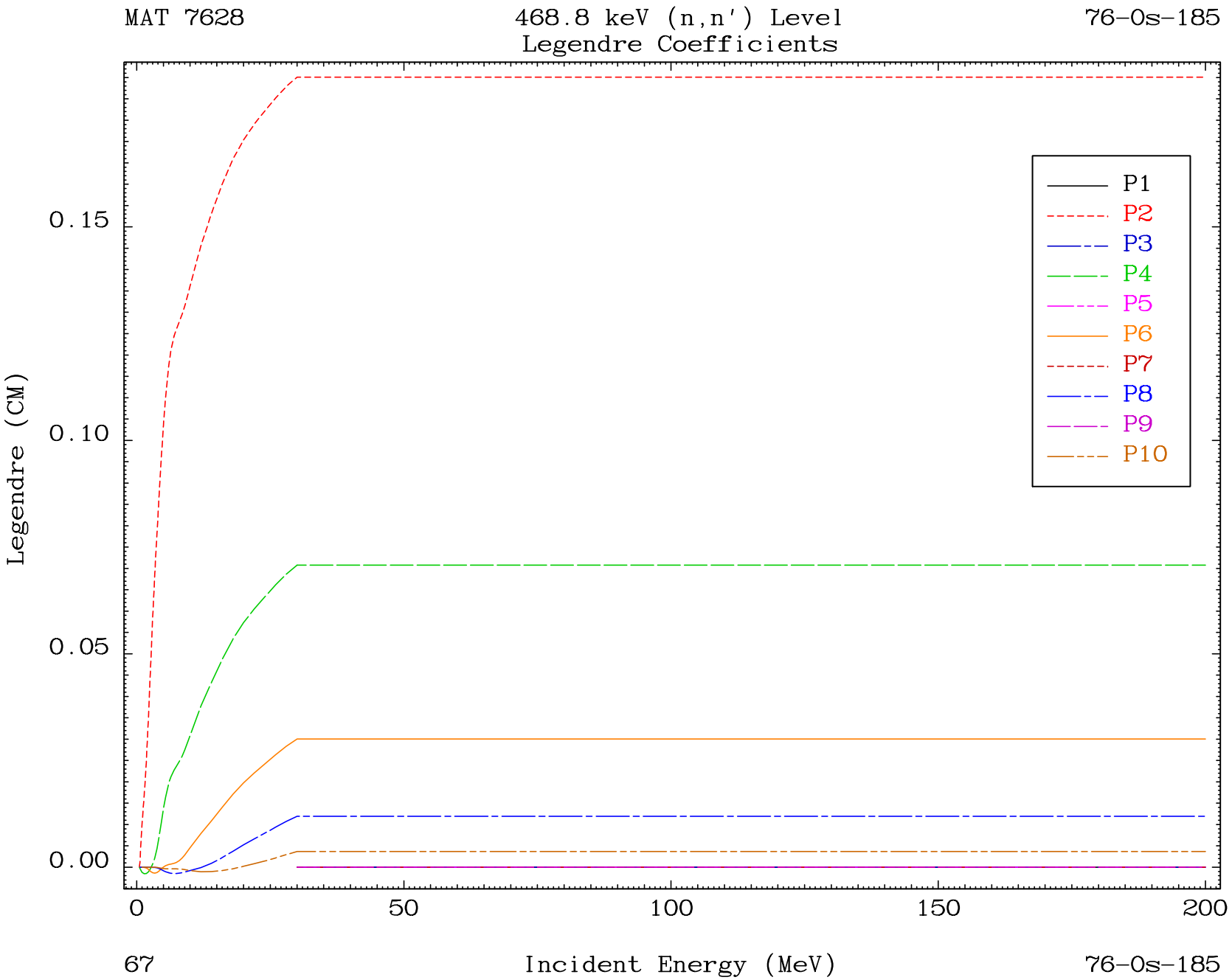

MAT 7628
414.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10-7
0
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
62
Incident Energy (MeV)
76-0s-185
P28
P29
P30
P31
P32
P33
P34
P35
P36

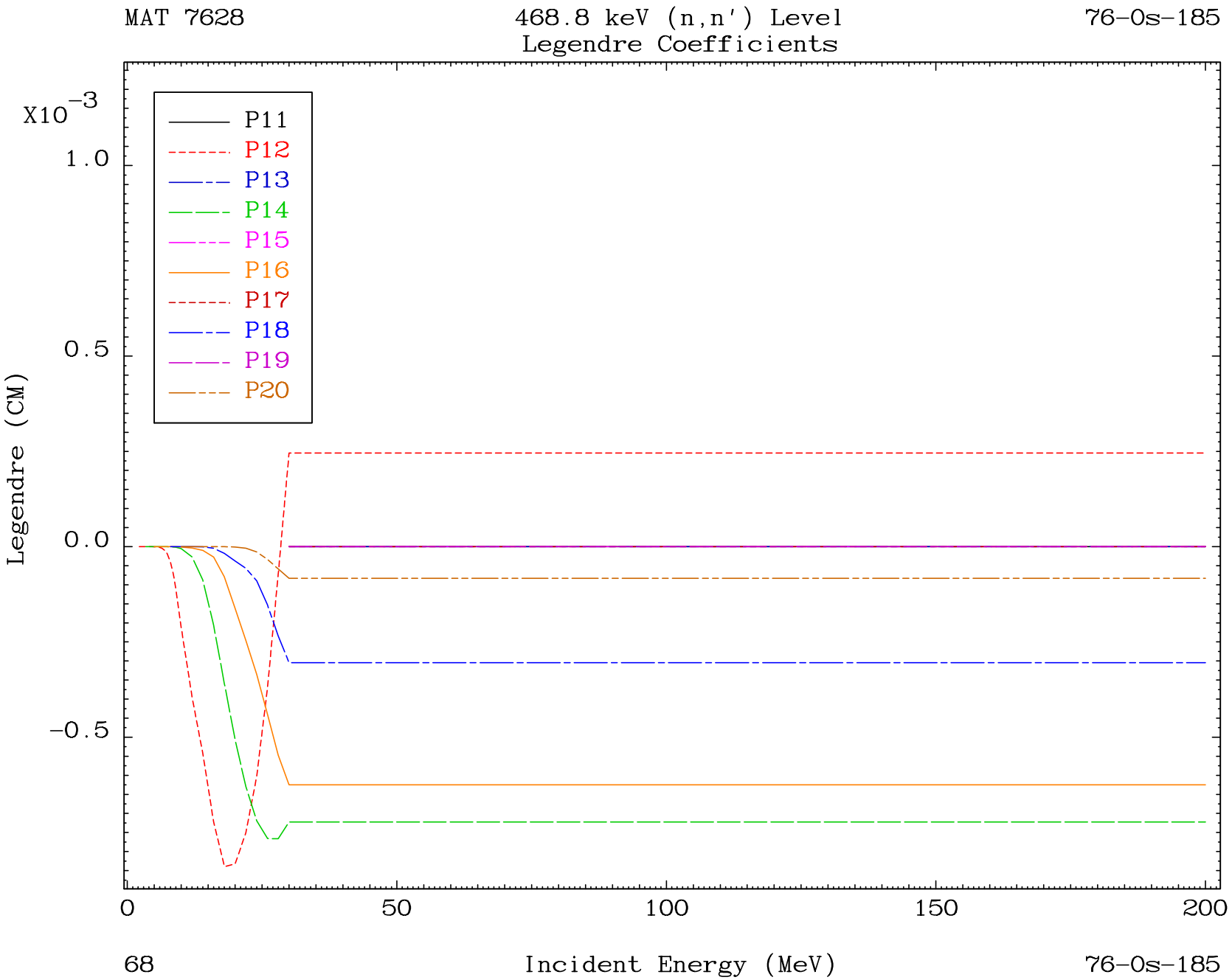

MAT 7628
448.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
63
Incident Energy (MeV)
76-0s-185

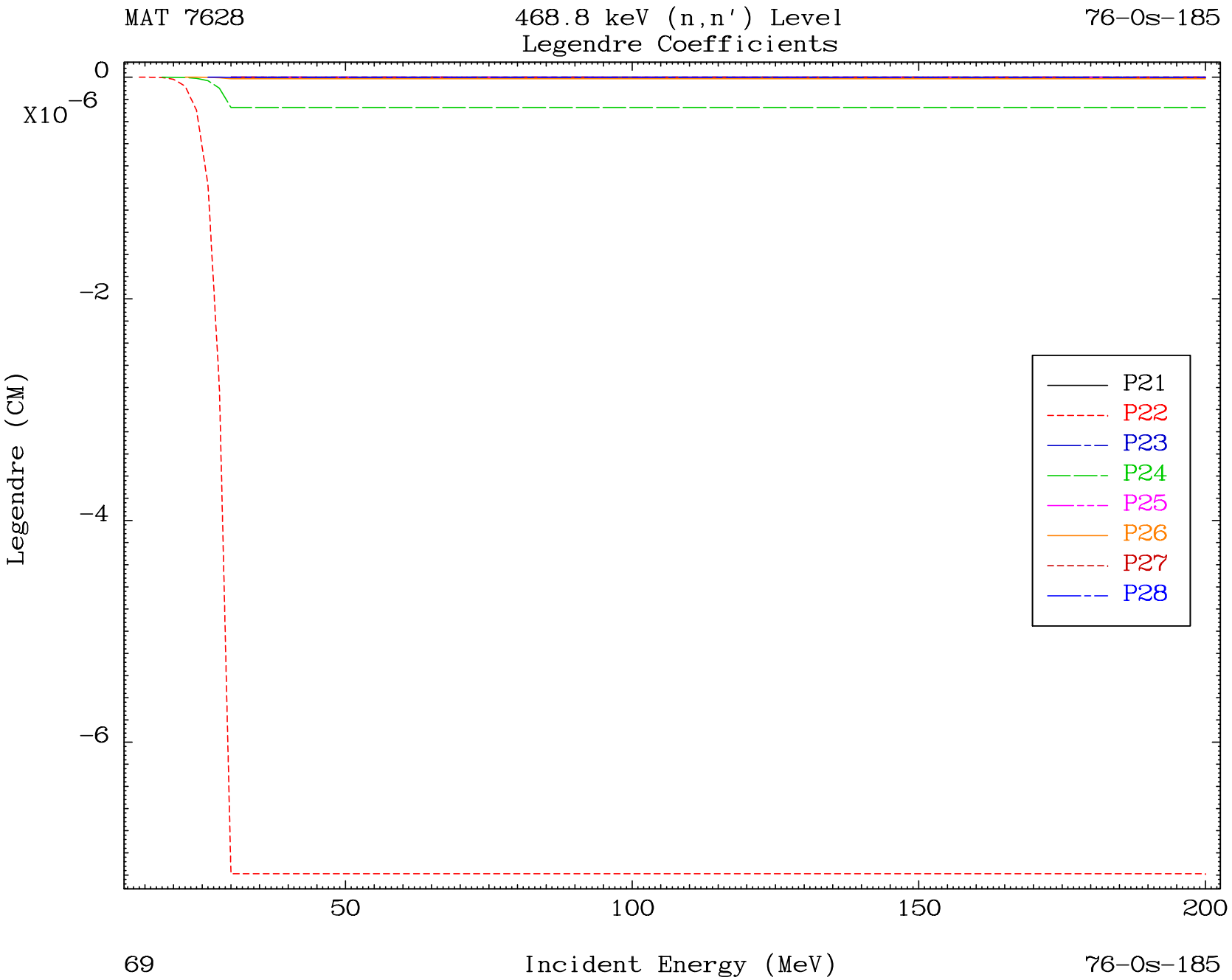

MAT 7628
448.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
64
Incident Energy (MeV)
76-0s-185

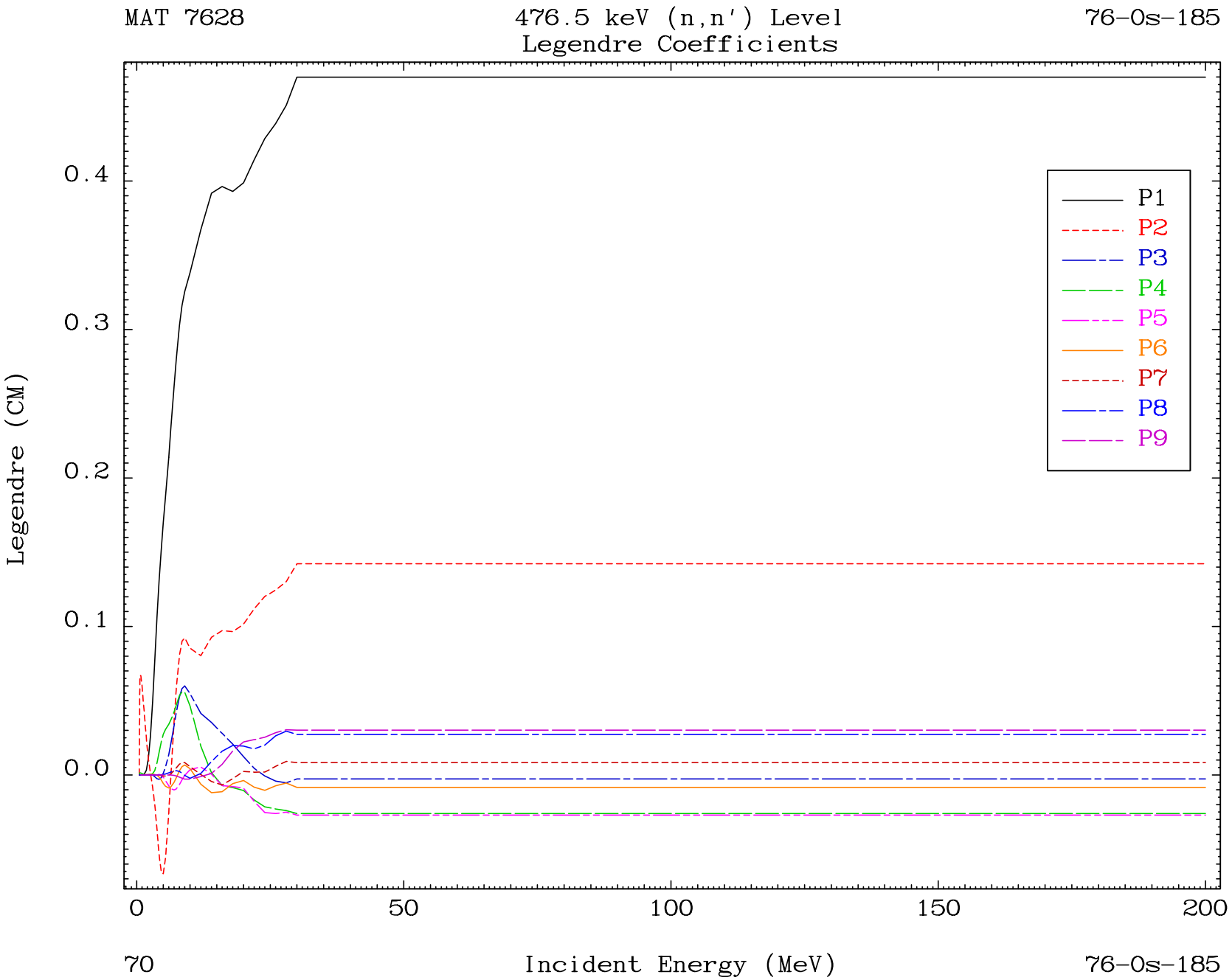

MAT 7628
448.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^{-3}
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
65
Incident Energy (MeV)
76-0s-185

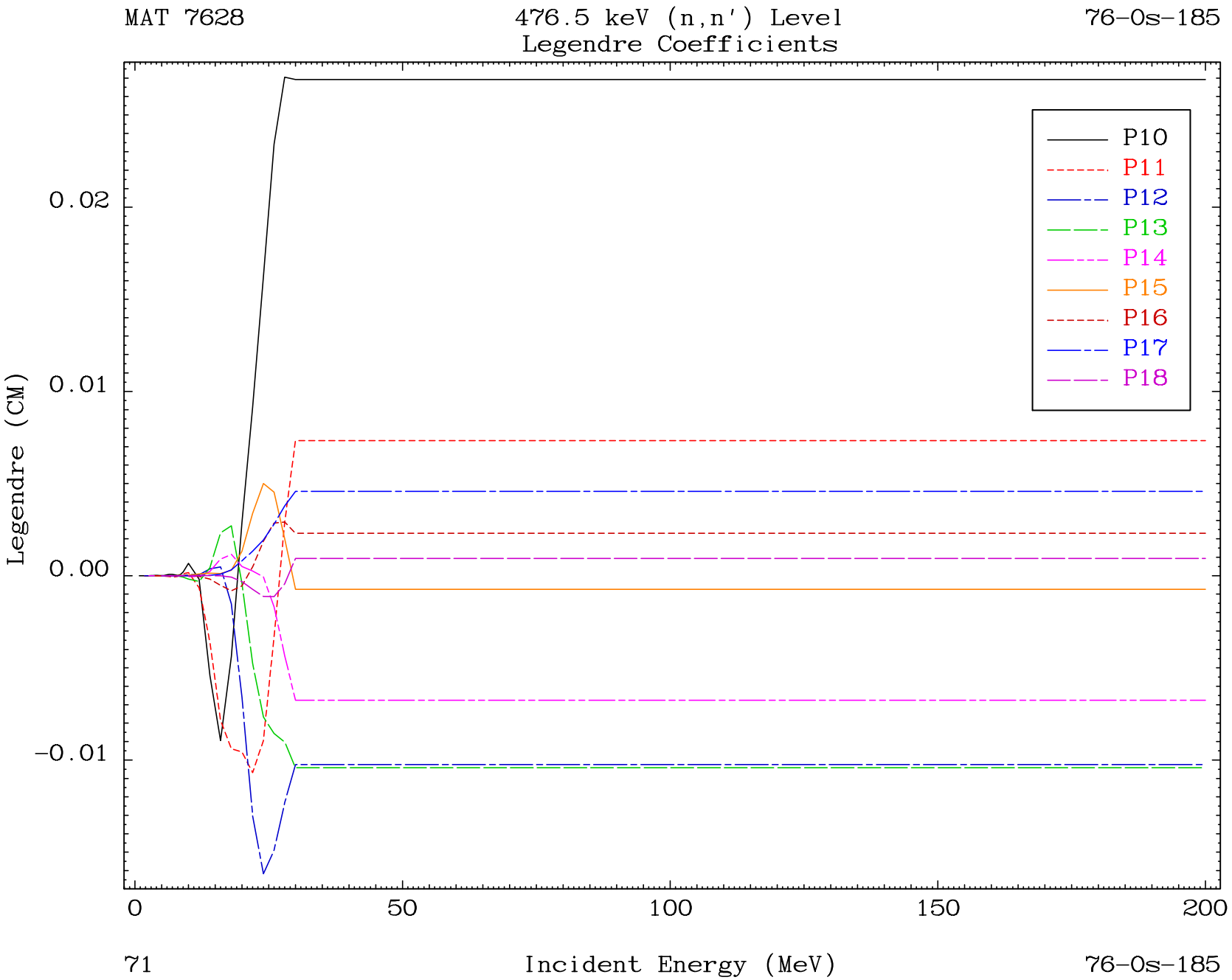

MAT 7628
448.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
66
Incident Energy (MeV)
76-0s-185
P28
P29
P30
P31
P32
P33
P34
P35
P36

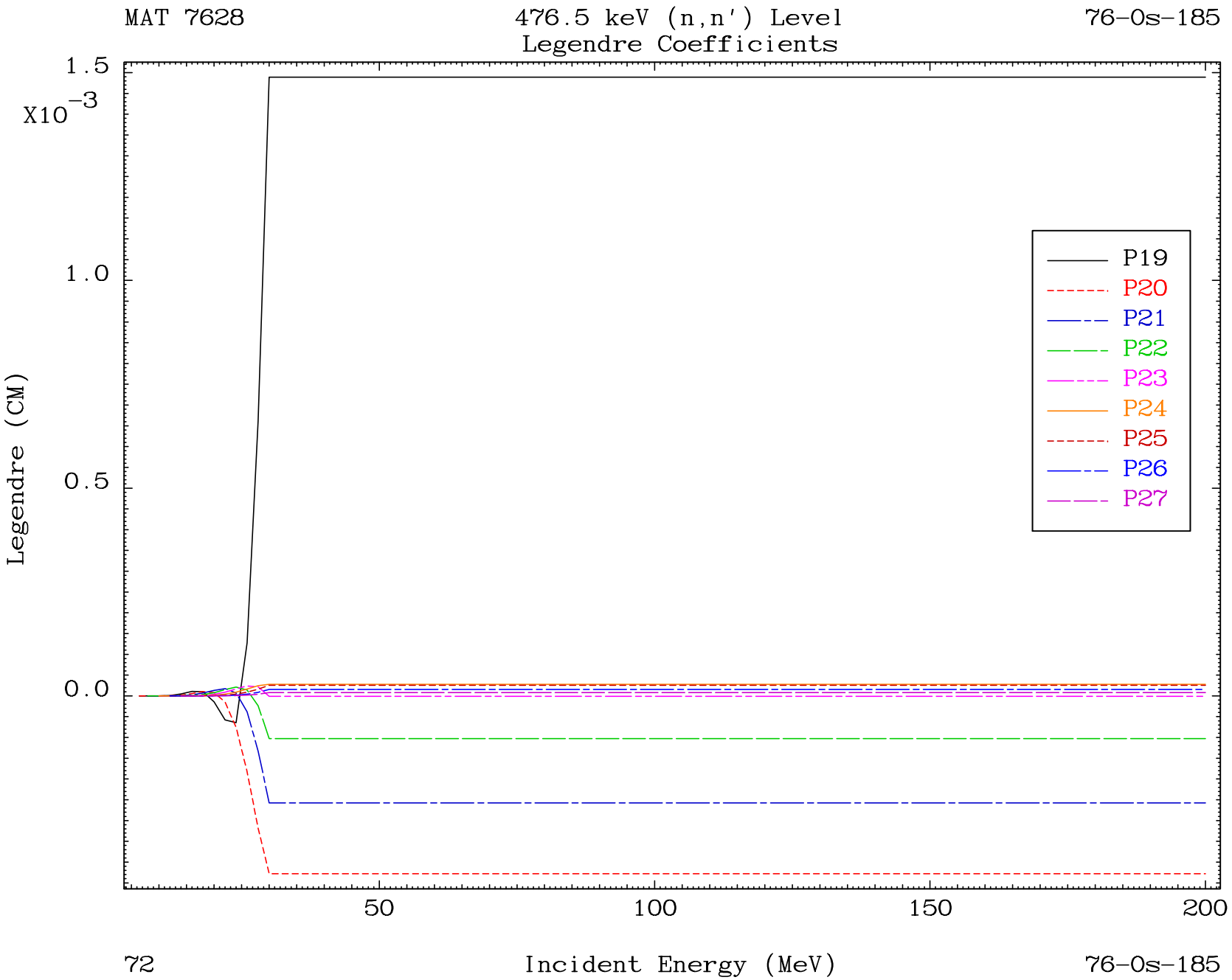

MAT 7628
468.8 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.15
0.10
0.05
0.00
0
50
100
150
200
67
Incident Energy (MeV)
76-0s-185
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

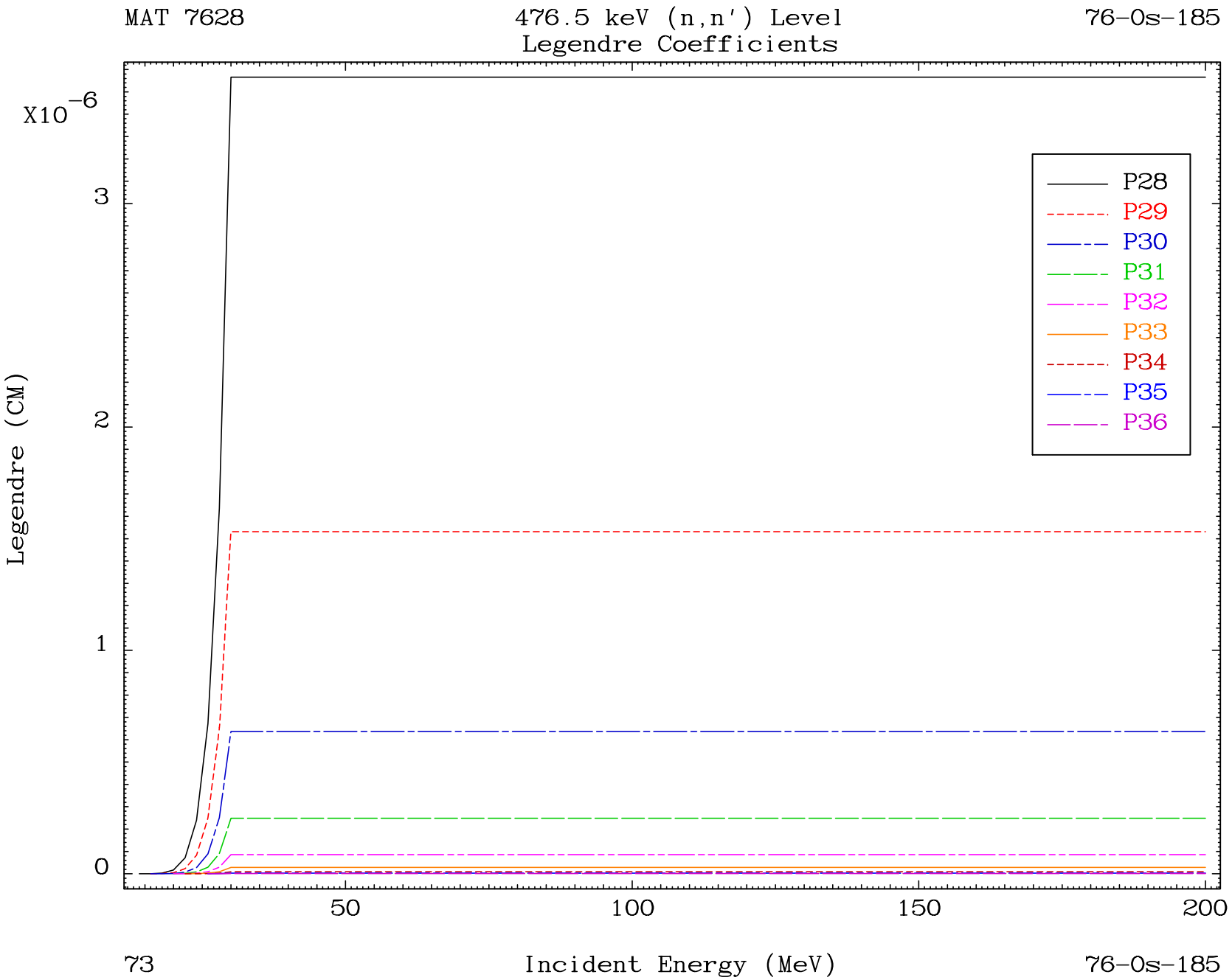

MAT 7628
468.8 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10-3
1.0
0.5
0.0
-0.5
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
68
Incident Energy (MeV)
76-0s-185

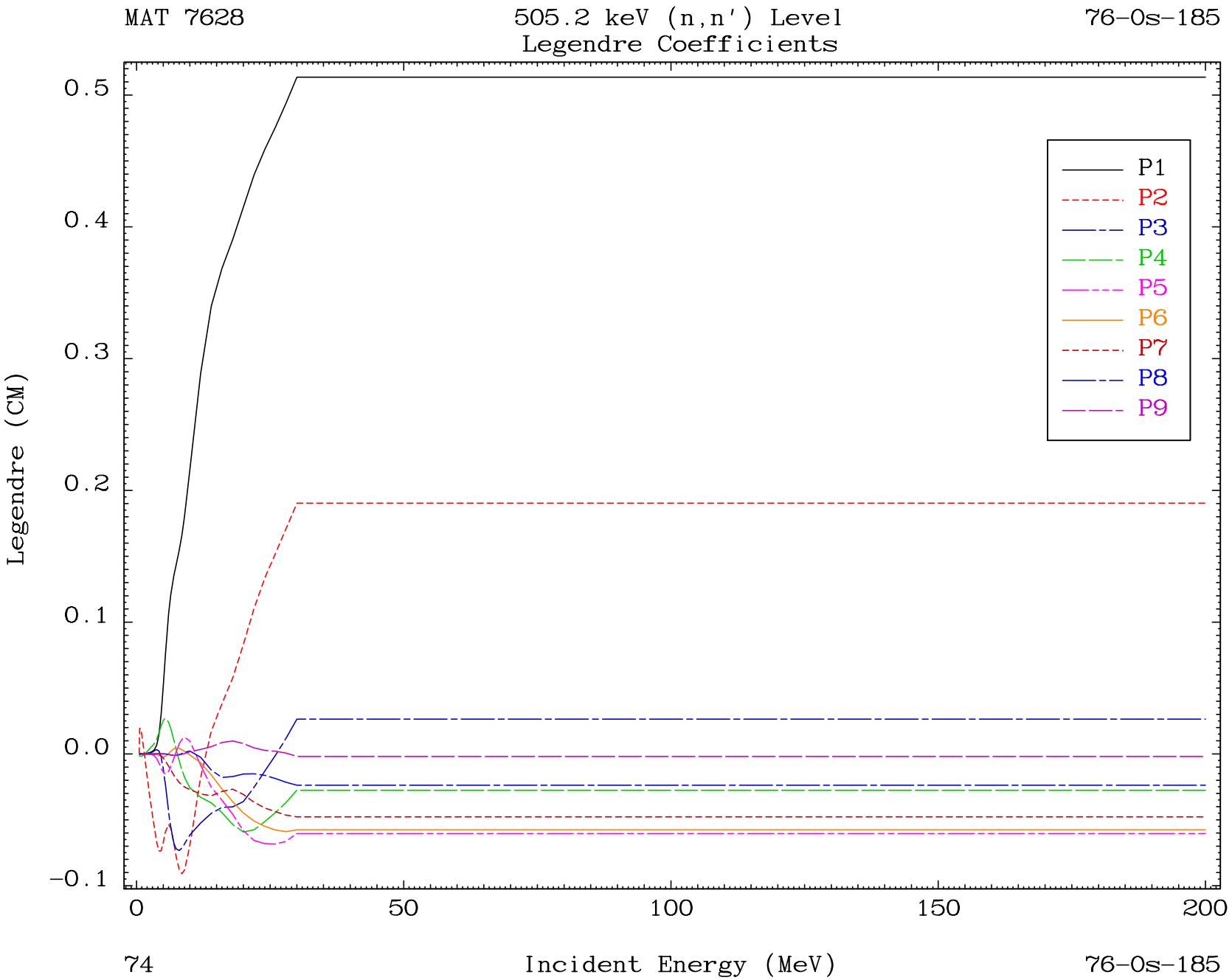

MAT 7628
468.8 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
Legendre (CM)
50
100
150
200
P21
P22
P23
P24
P25
P26
P27
P28
69
Incident Energy (MeV)
76-0s-185

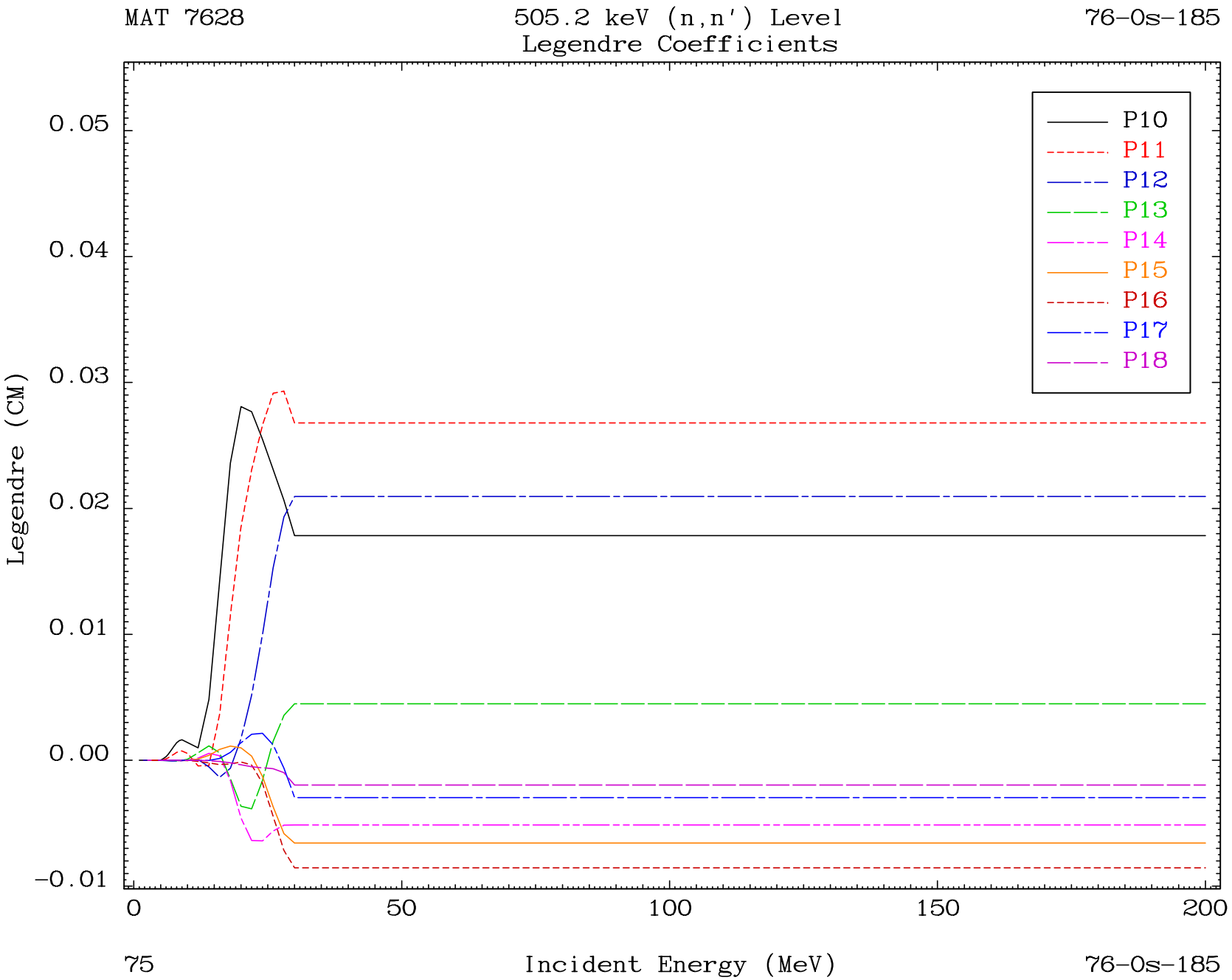

MAT 7628
476.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
70
Incident Energy (MeV)
76-0s-185

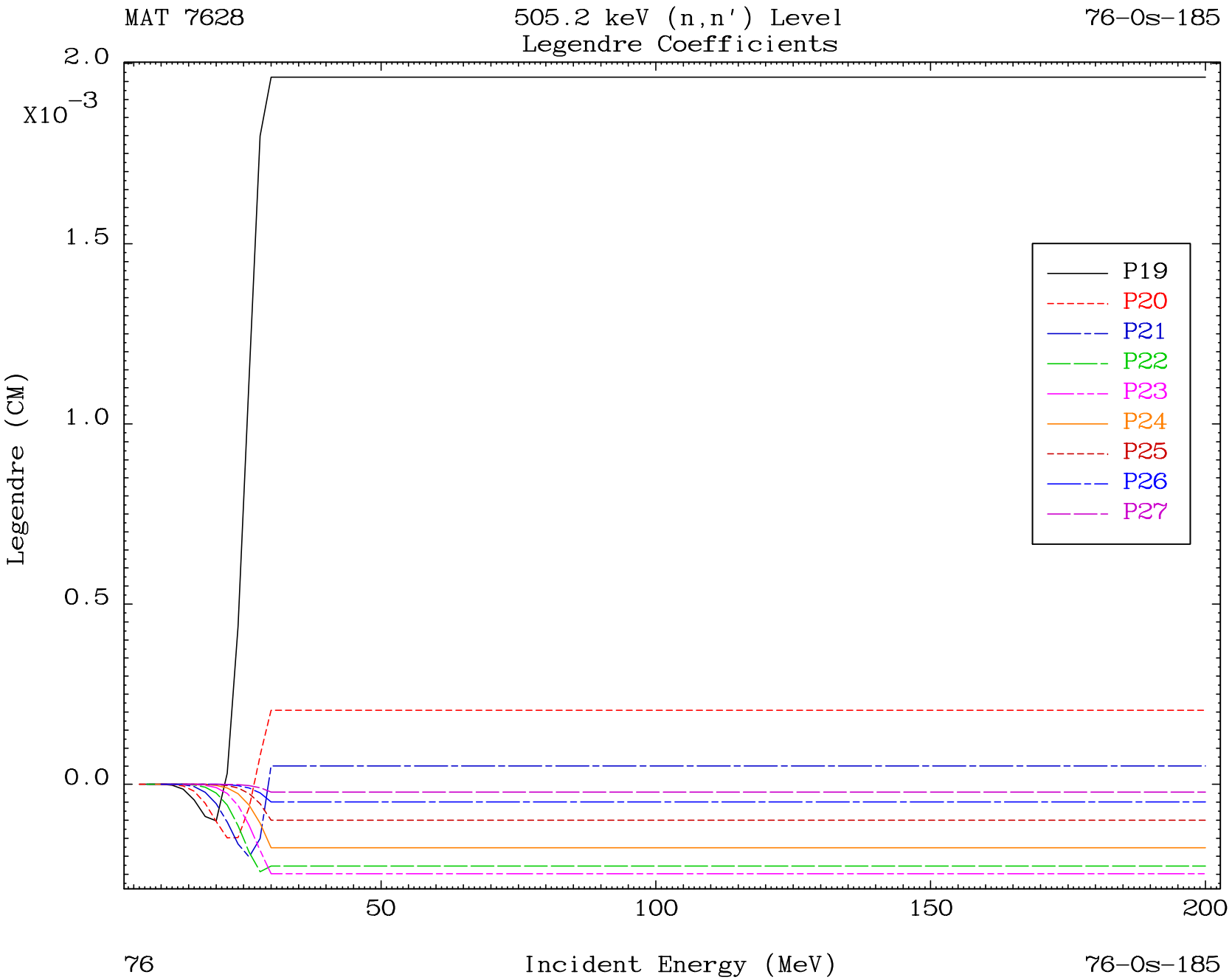

MAT 7628
476.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
71
Incident Energy (MeV)
76-0s-185

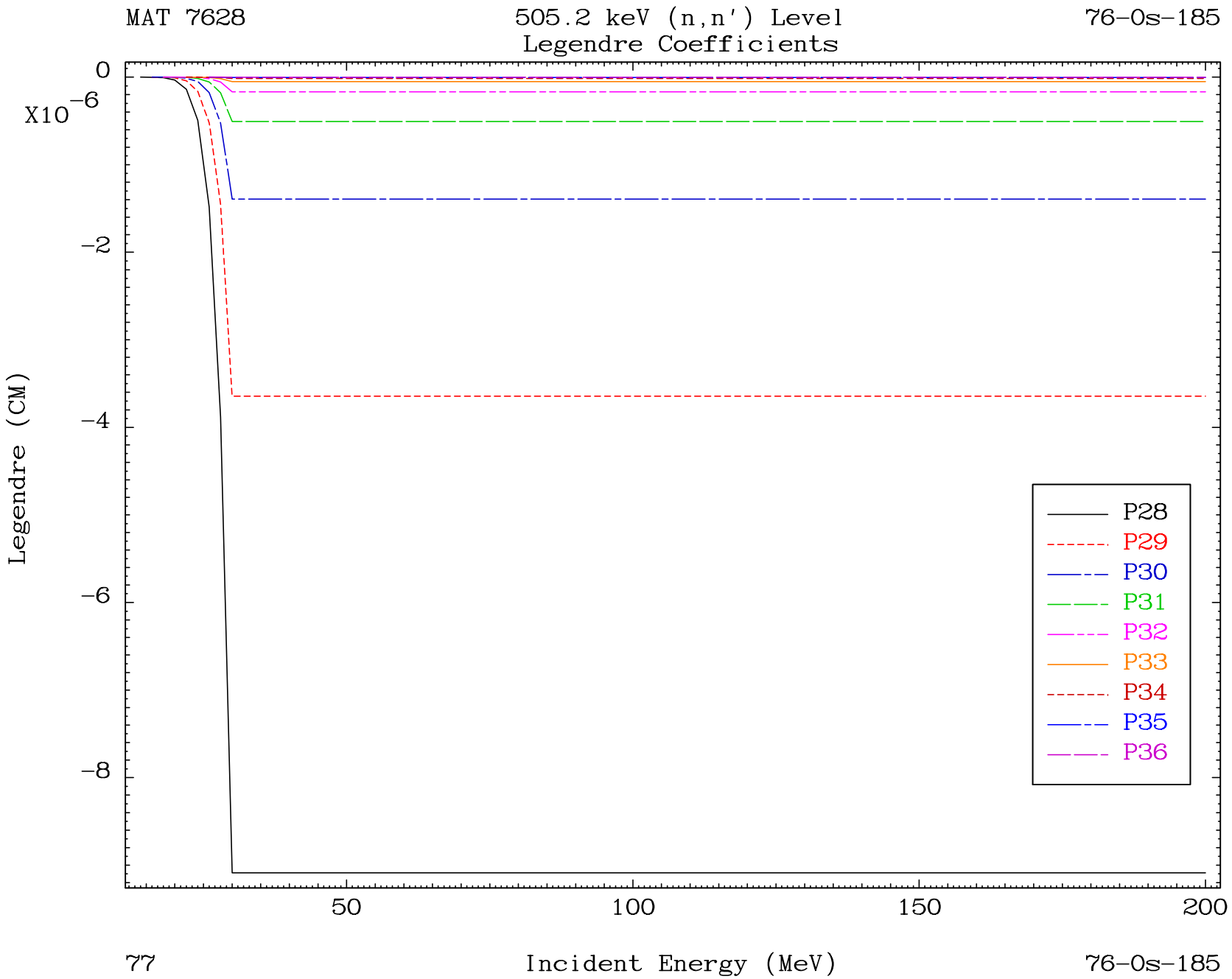

MAT 7628
476.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
1.5
X10^-3
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
72
Incident Energy (MeV)
76-0s-185

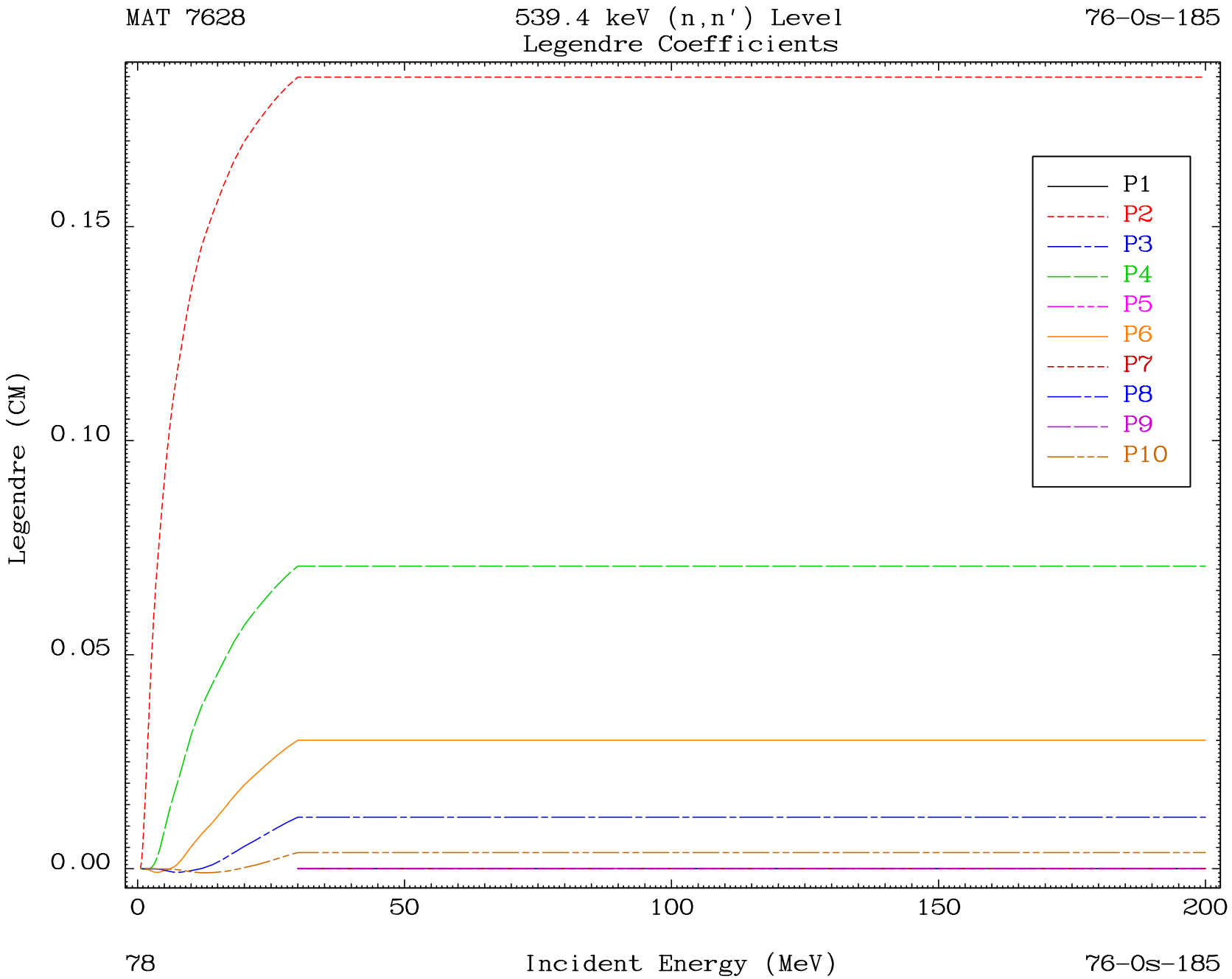

MAT 7628
476.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
73
Incident Energy (MeV)
76-0s-185

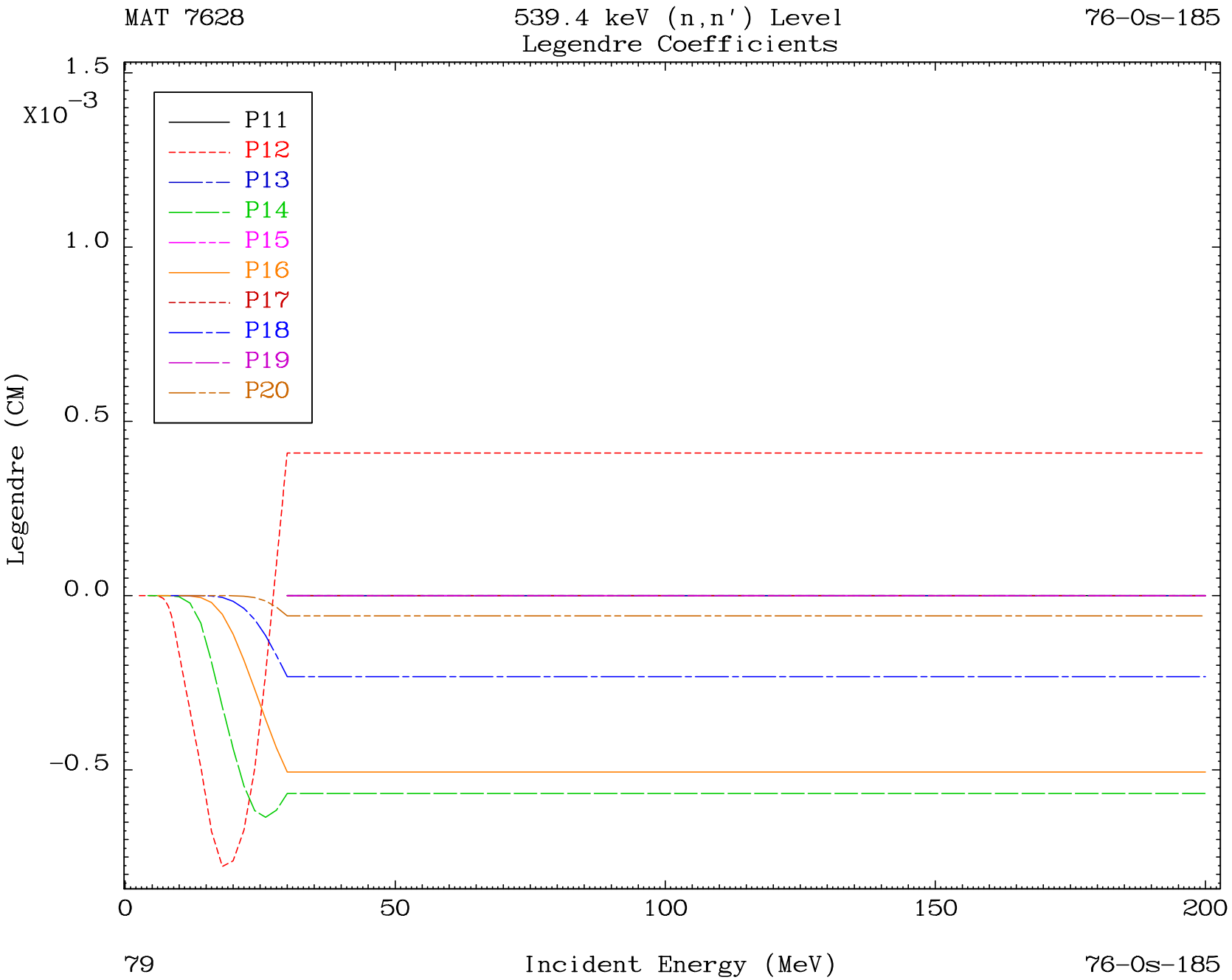

MAT 7628
505.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
74
Incident Energy (MeV)
76-0s-185

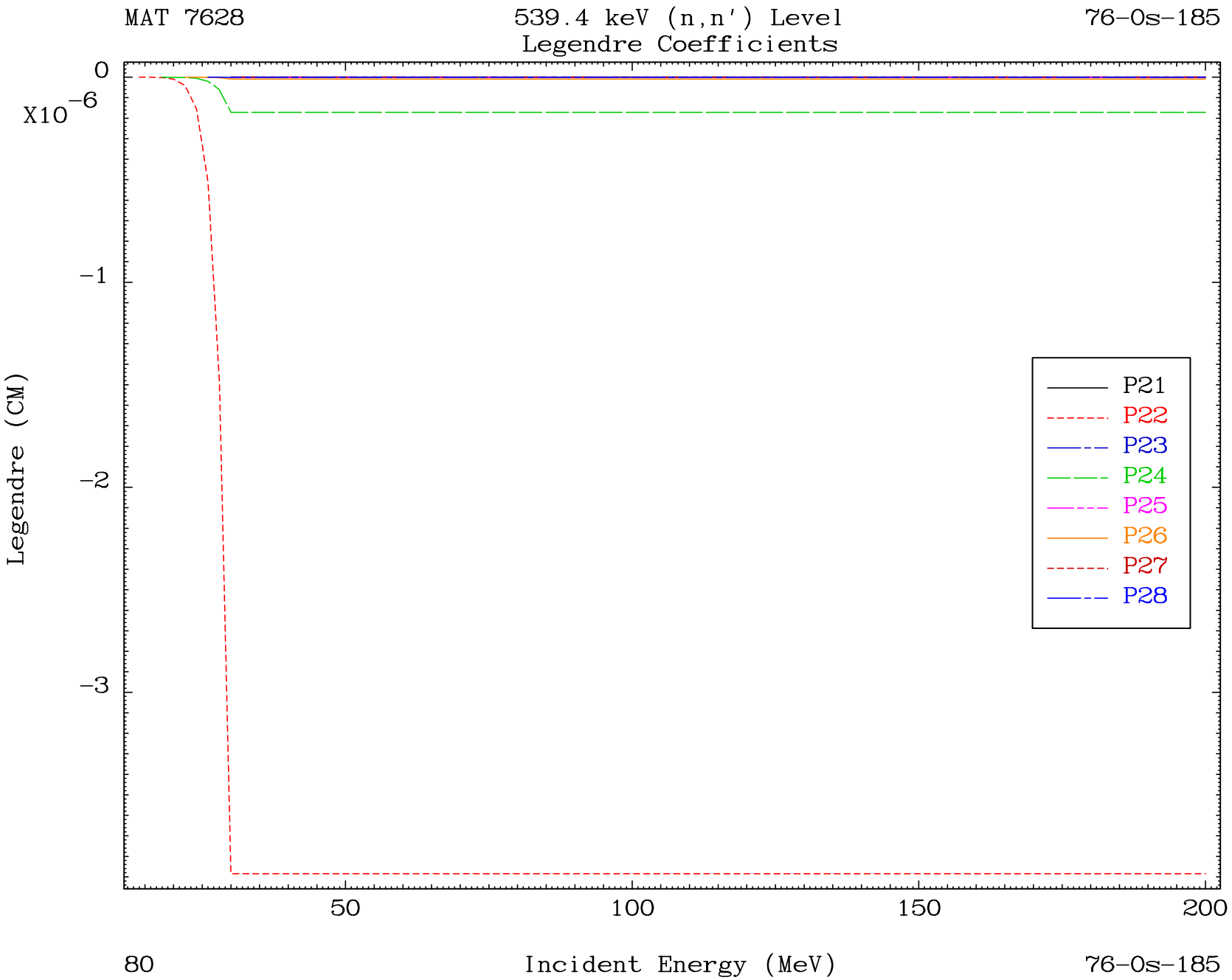

MAT 7628
505.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.05
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
75
Incident Energy (MeV)
76-0s-185

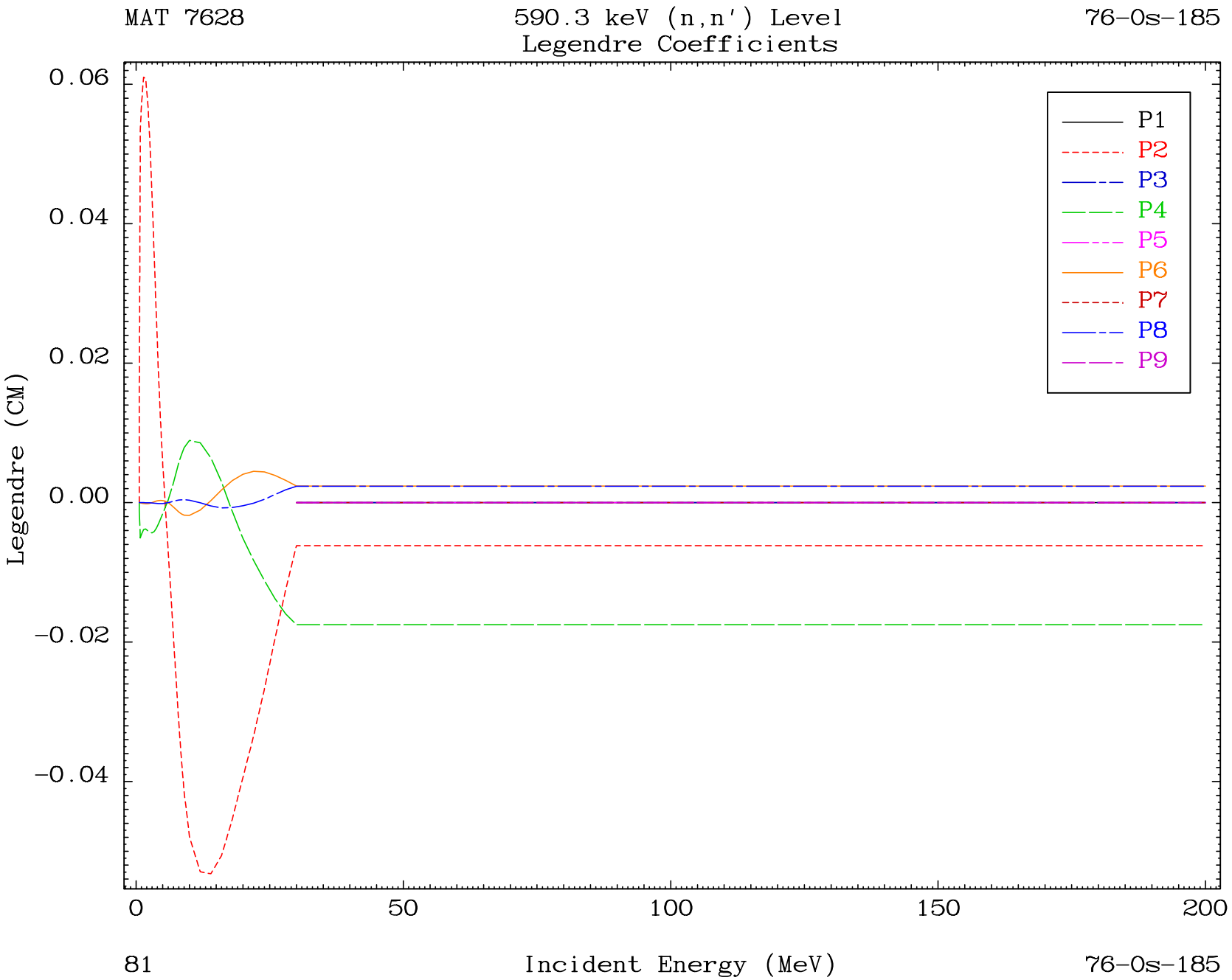

MAT 7628
505.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
2.0
X10^{-3}
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
76
Incident Energy (MeV)
76-0s-185

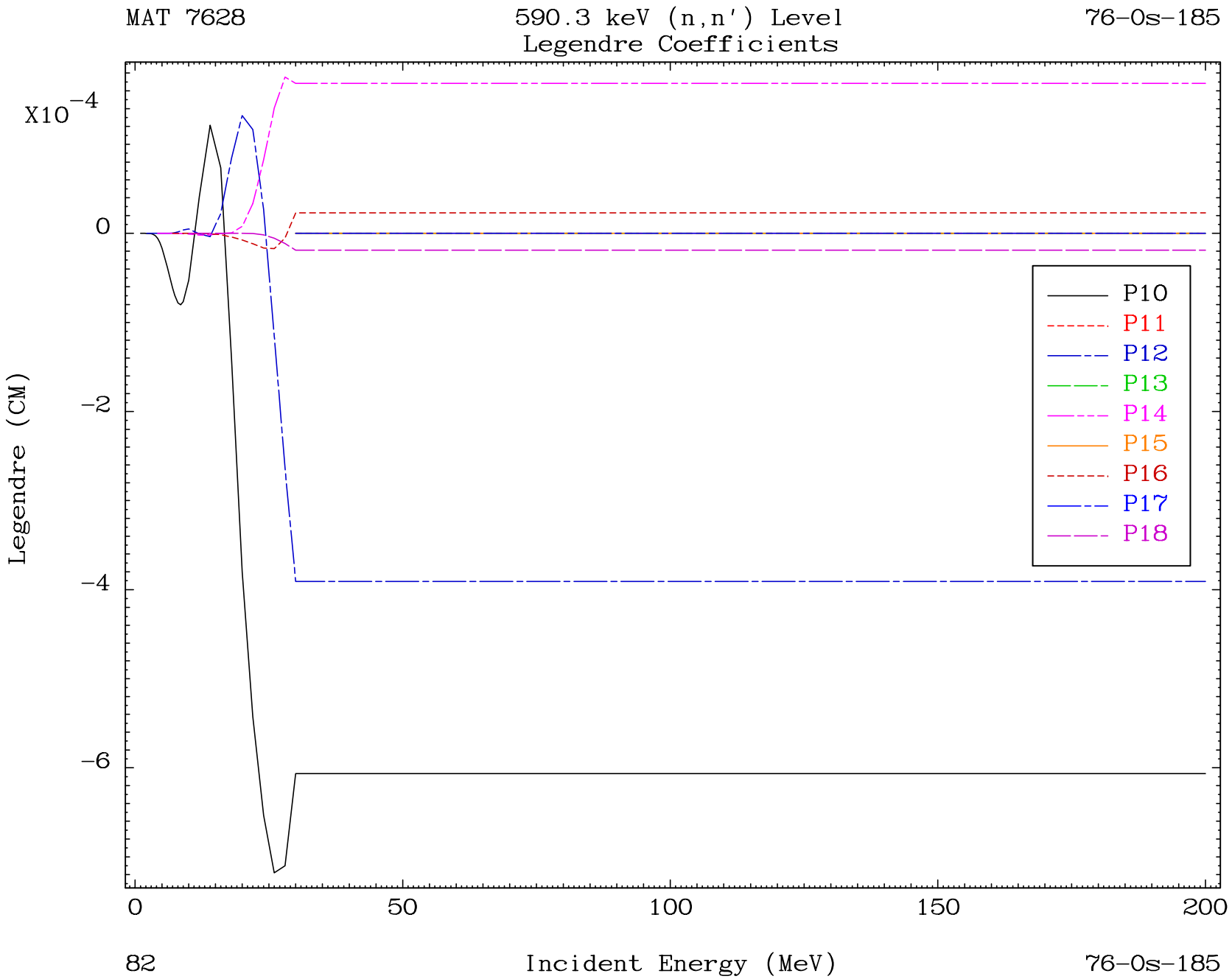

MAT 7628
505.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
77
Incident Energy (MeV)
76-0s-185
P28
P29
P30
P31
P32
P33
P34
P35
P36

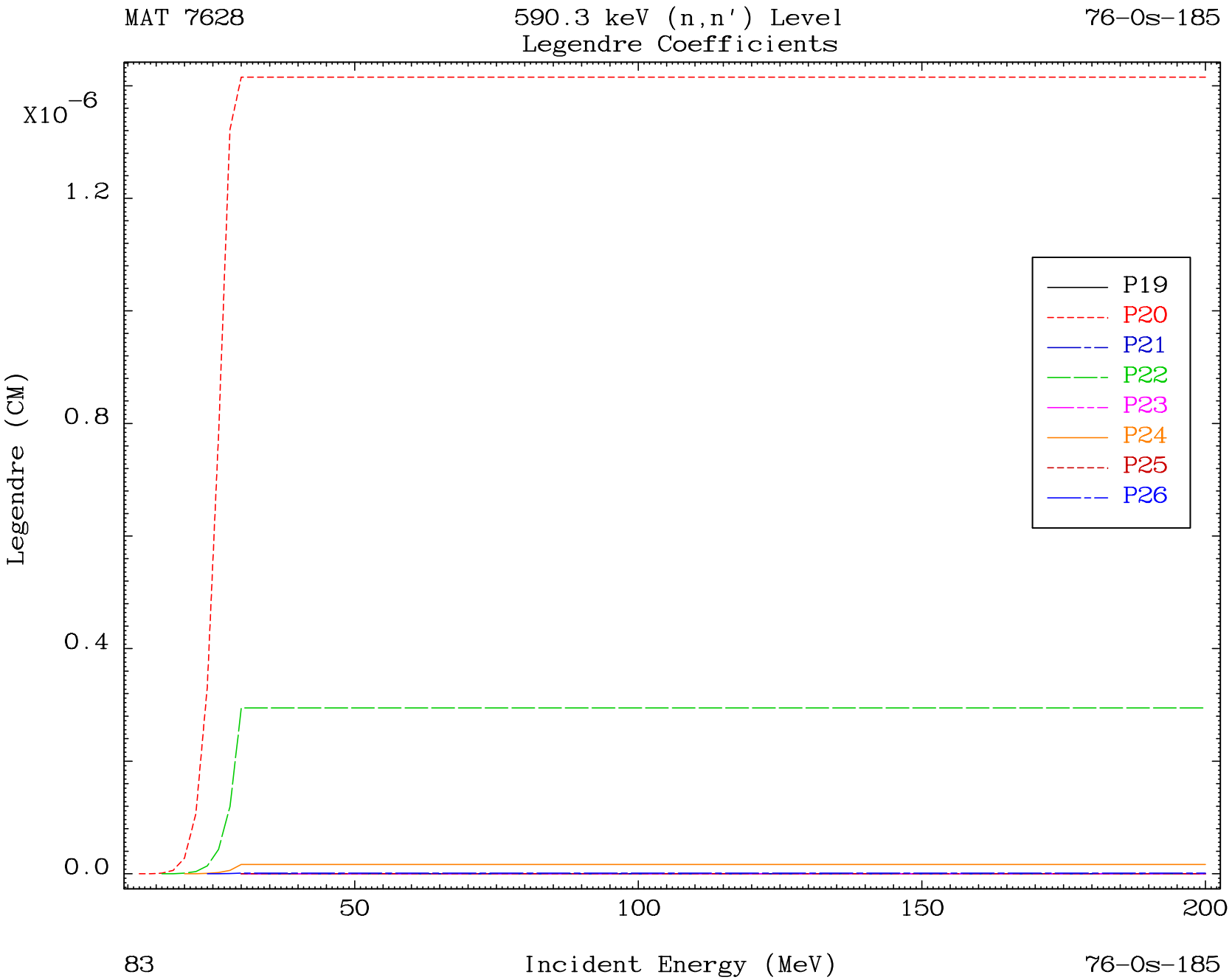

MAT 7628
539.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.15
0.10
0.05
0.00
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
78
Incident Energy (MeV)
76-0s-185

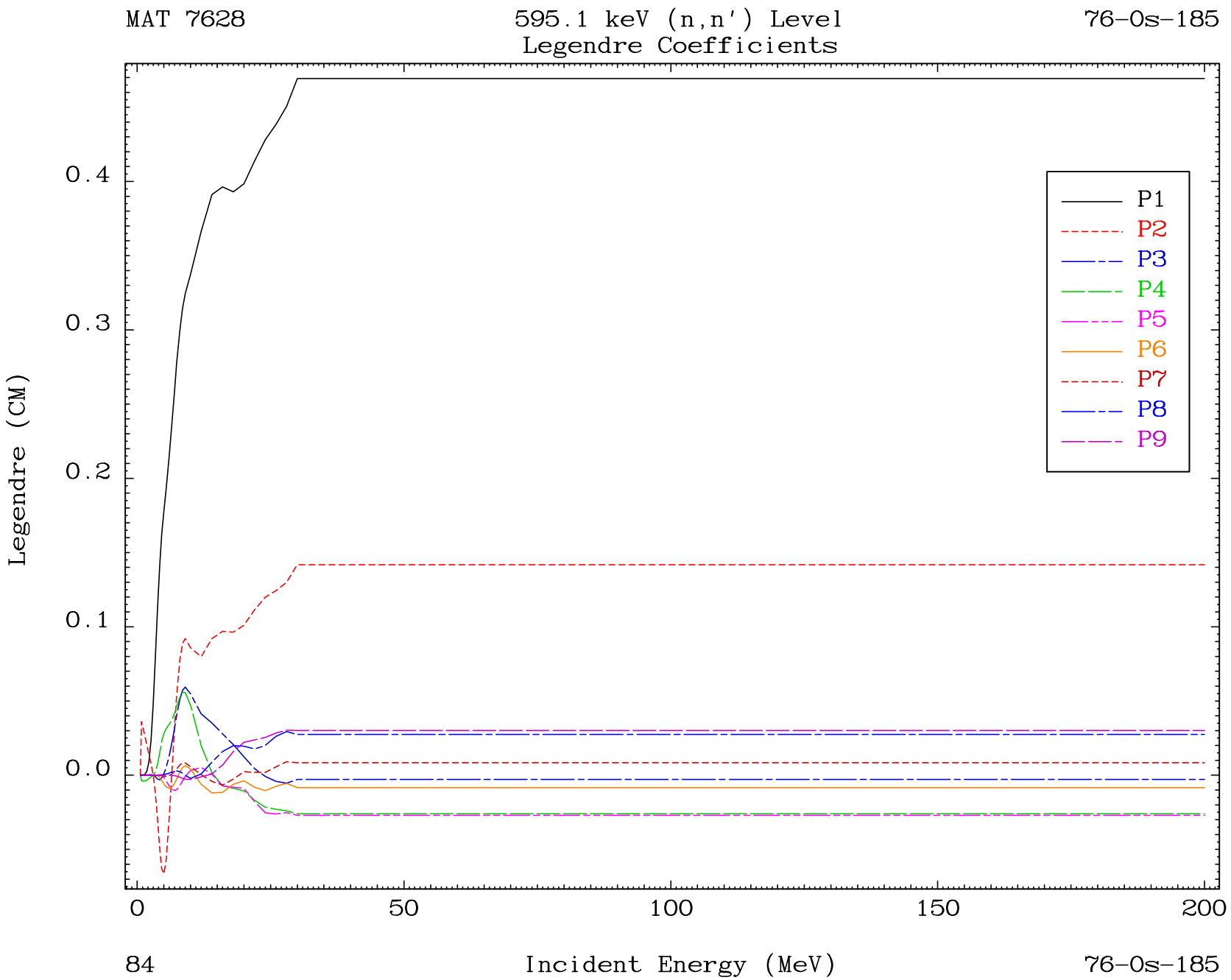

MAT 7628
539.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −3
1.5
1.0
0.5
0.0
−0.5
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
79
Incident Energy (MeV)
76-0s-185

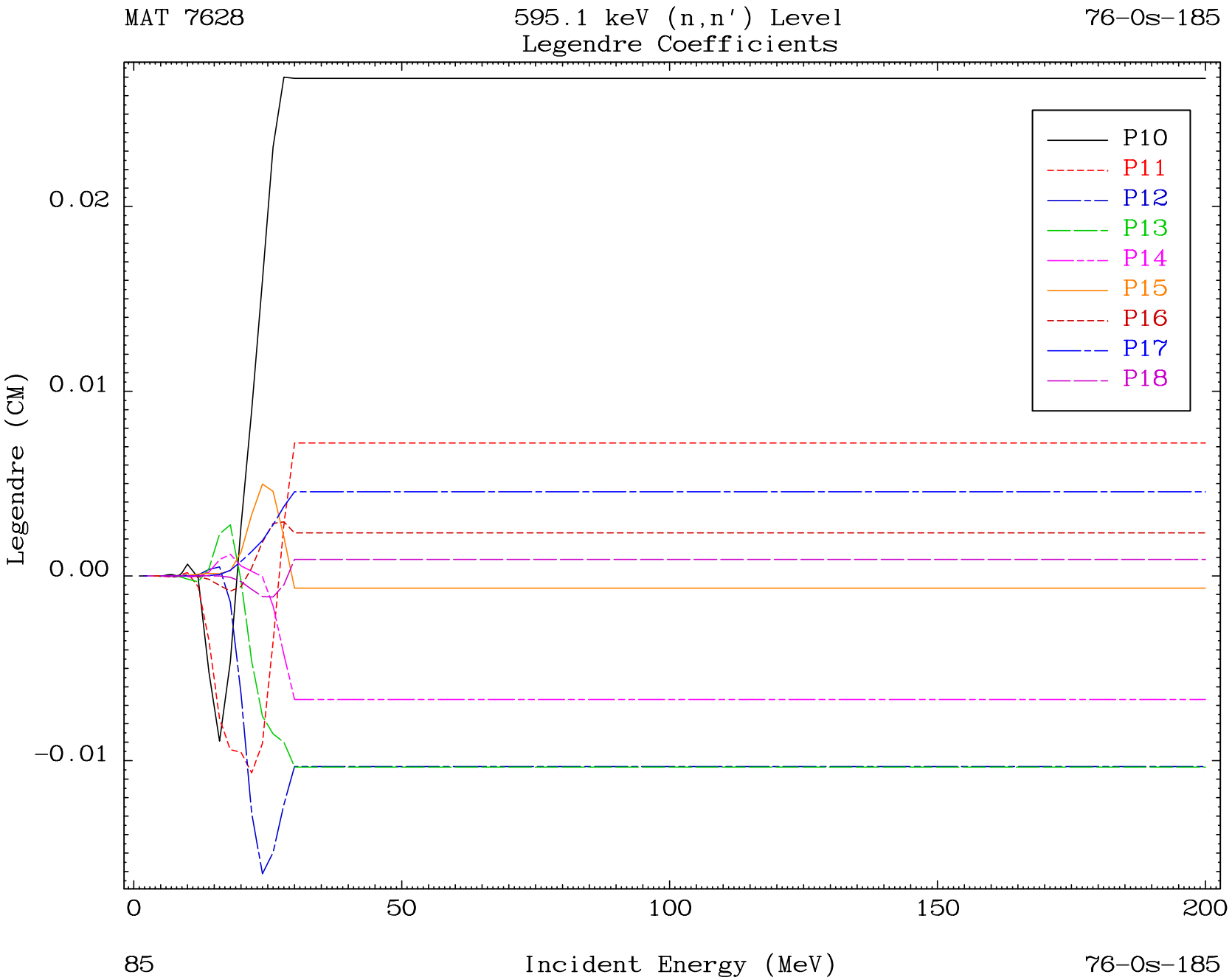

MAT 7628
539.4 keV (n,n') Level
Legendre Coefficients
76-0s-185
0
X10−6
−1
−2
−3
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
80
Incident Energy (MeV)
76-0s-185

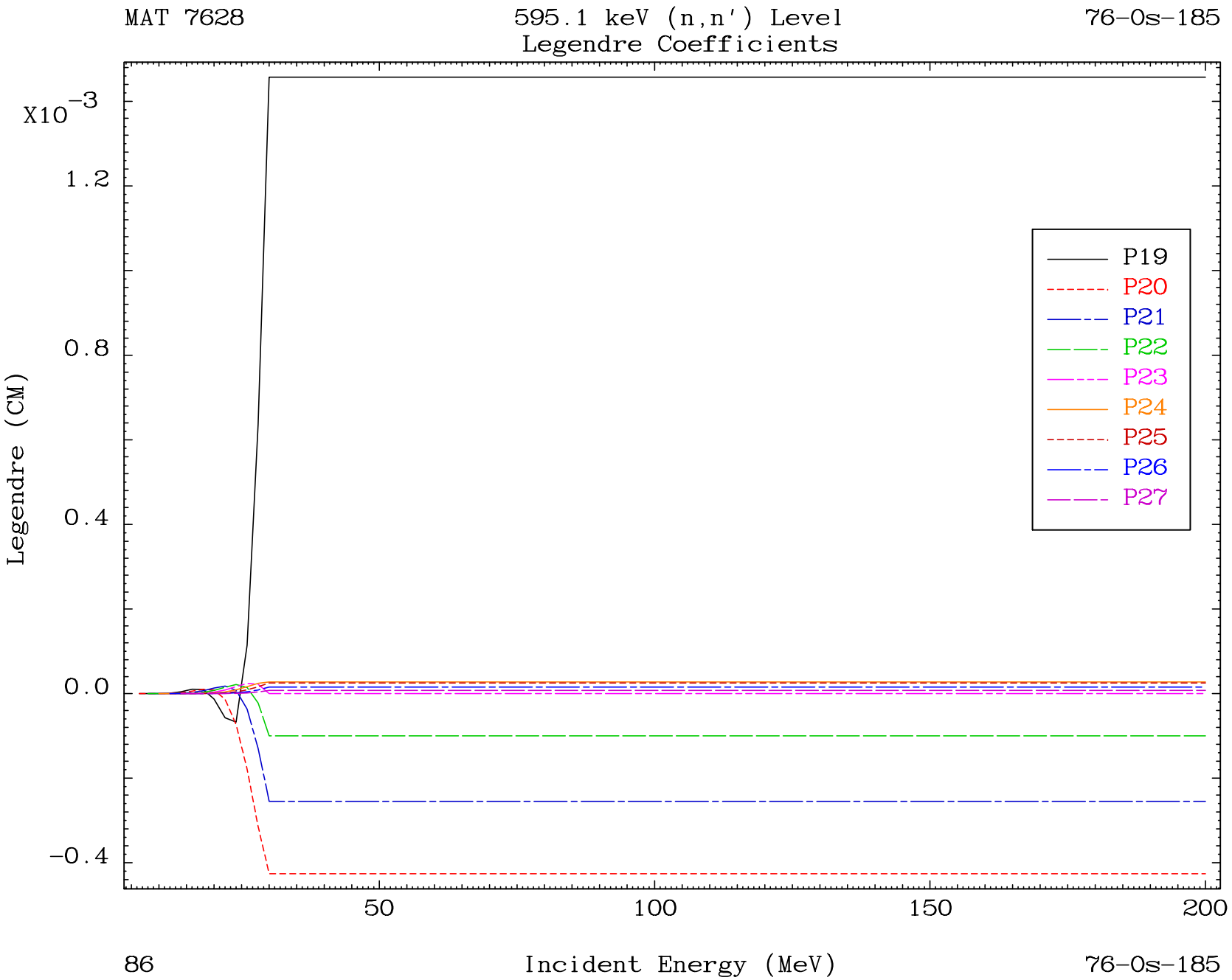

MAT 7628
590.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
81
Incident Energy (MeV)
76-0s-185

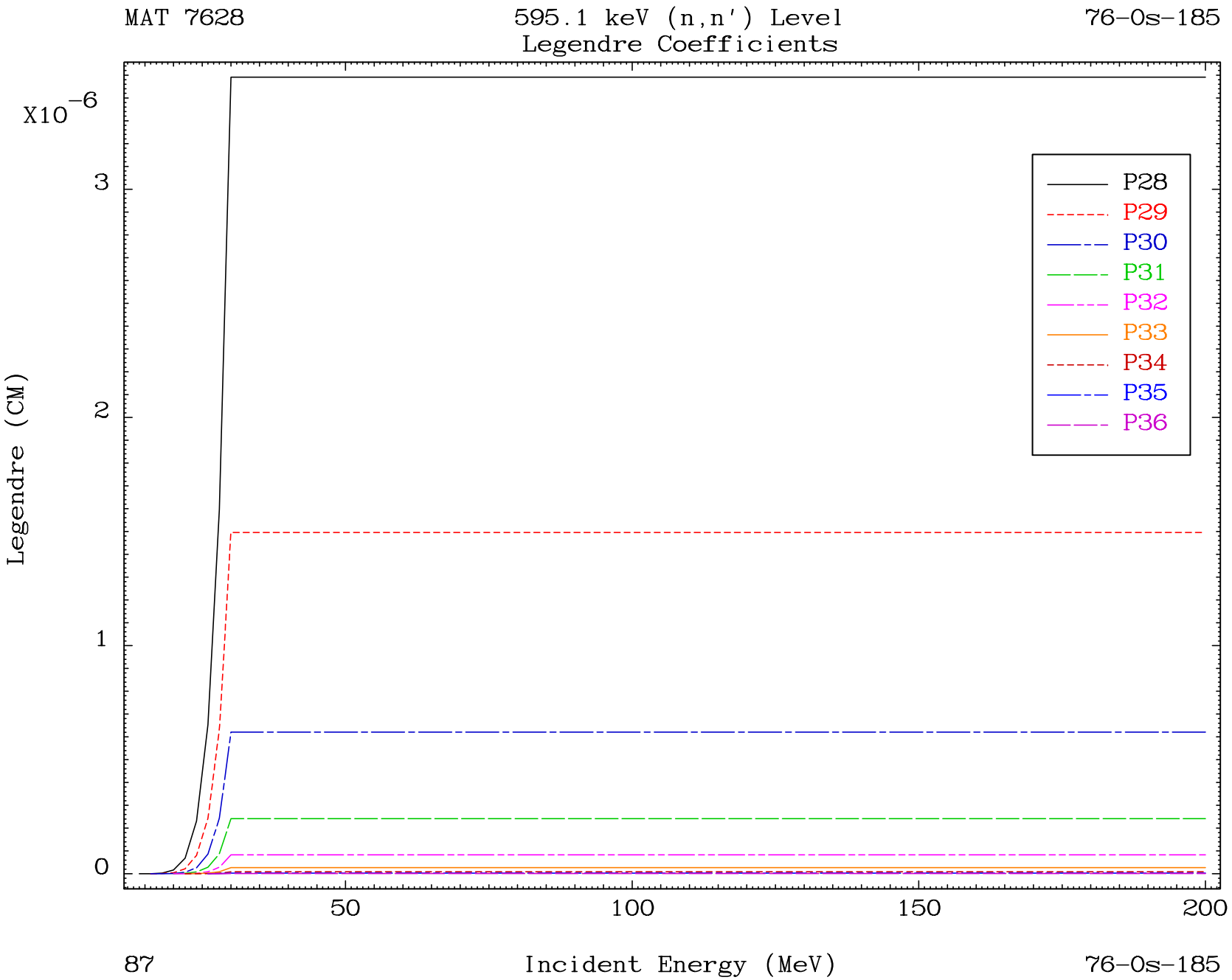

MAT 7628
590.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-4
0
-2
-4
-6
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
82
Incident Energy (MeV)
76-0s-185

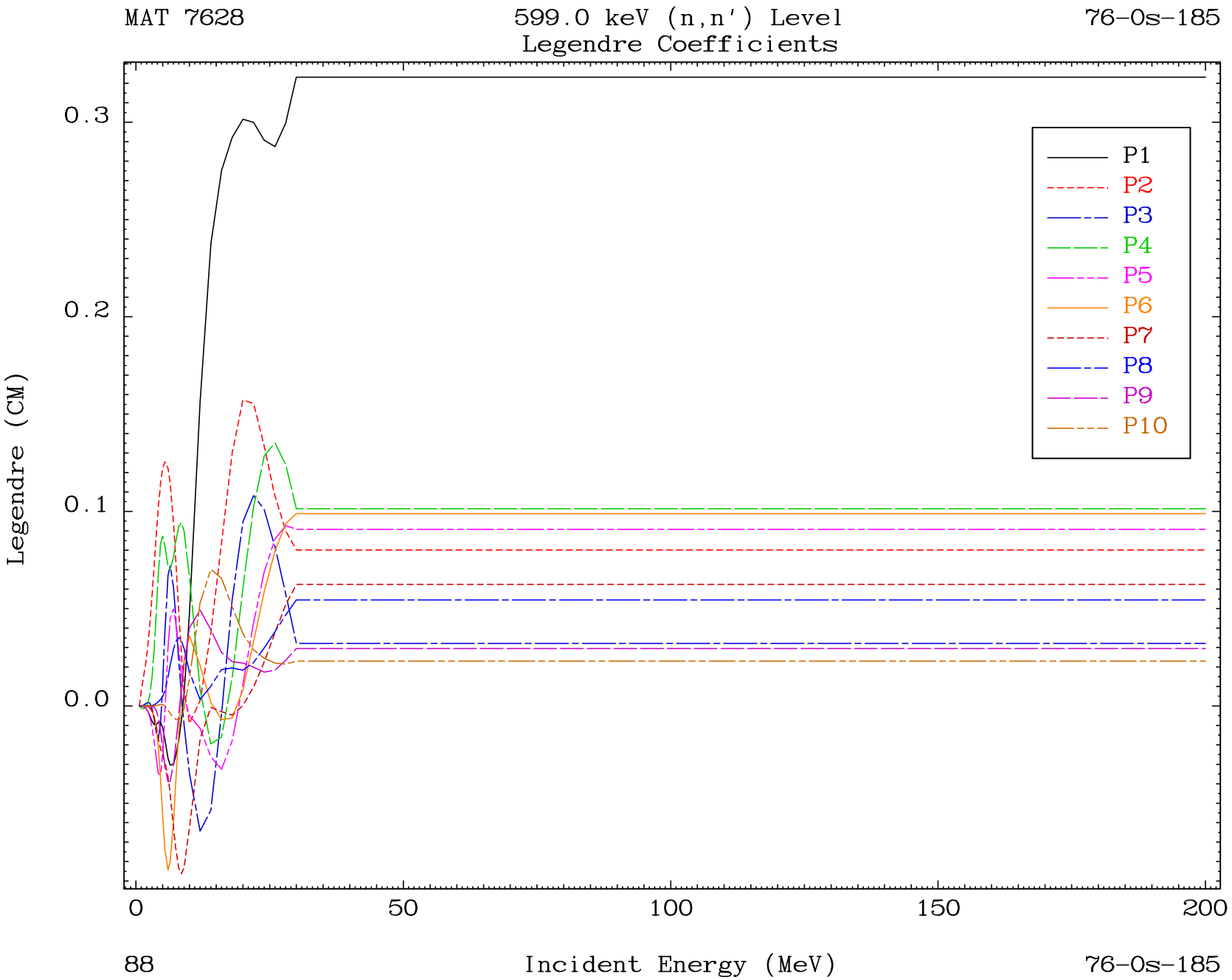

MAT 7628
590.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-6
1.2
0.8
0.4
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
50
100
150
200
83
Incident Energy (MeV)
76-0s-185

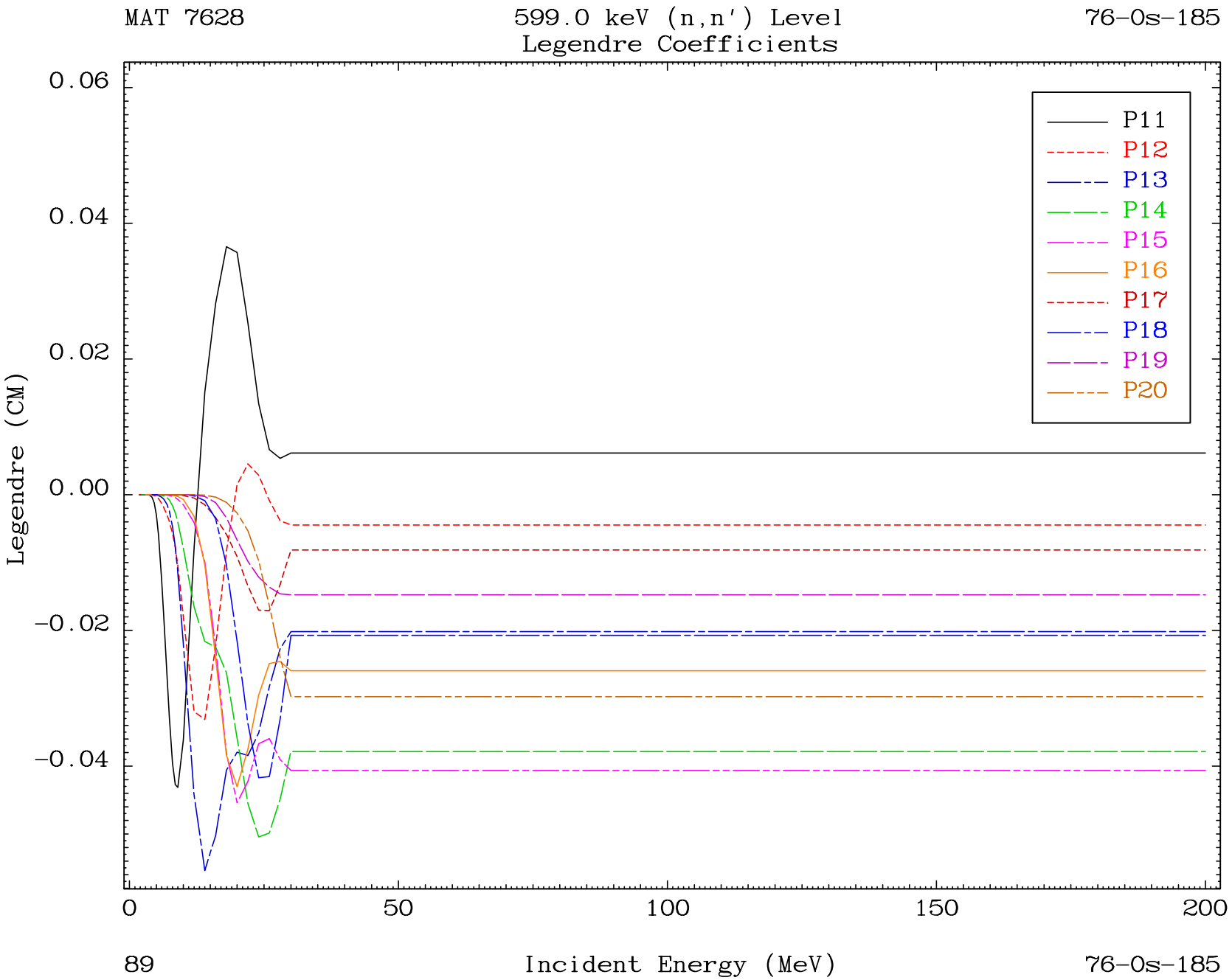

MAT 7628
595.1 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
84
Incident Energy (MeV)
76-0s-185

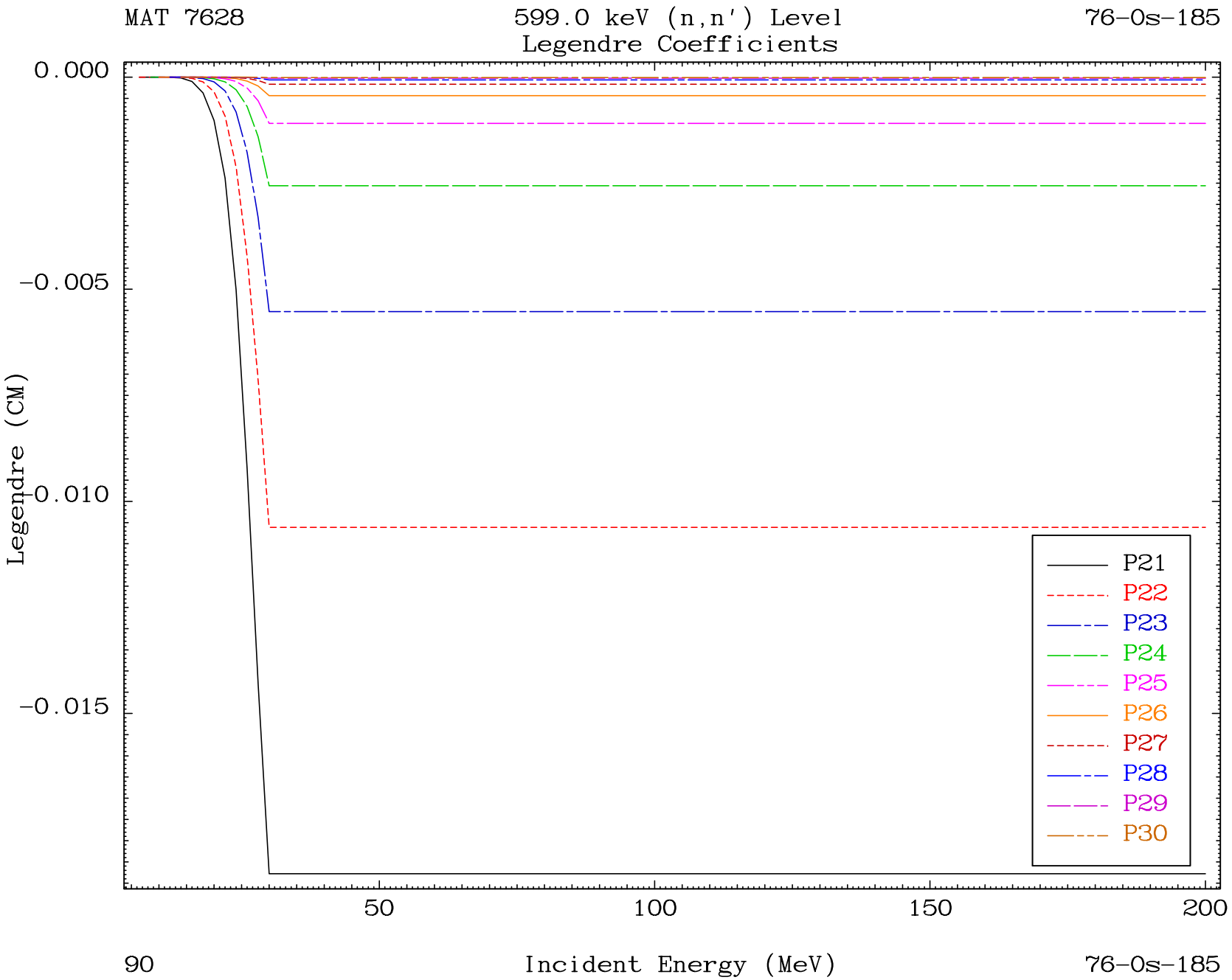

MAT 7628
595.1 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
85
Incident Energy (MeV)
76-0s-185

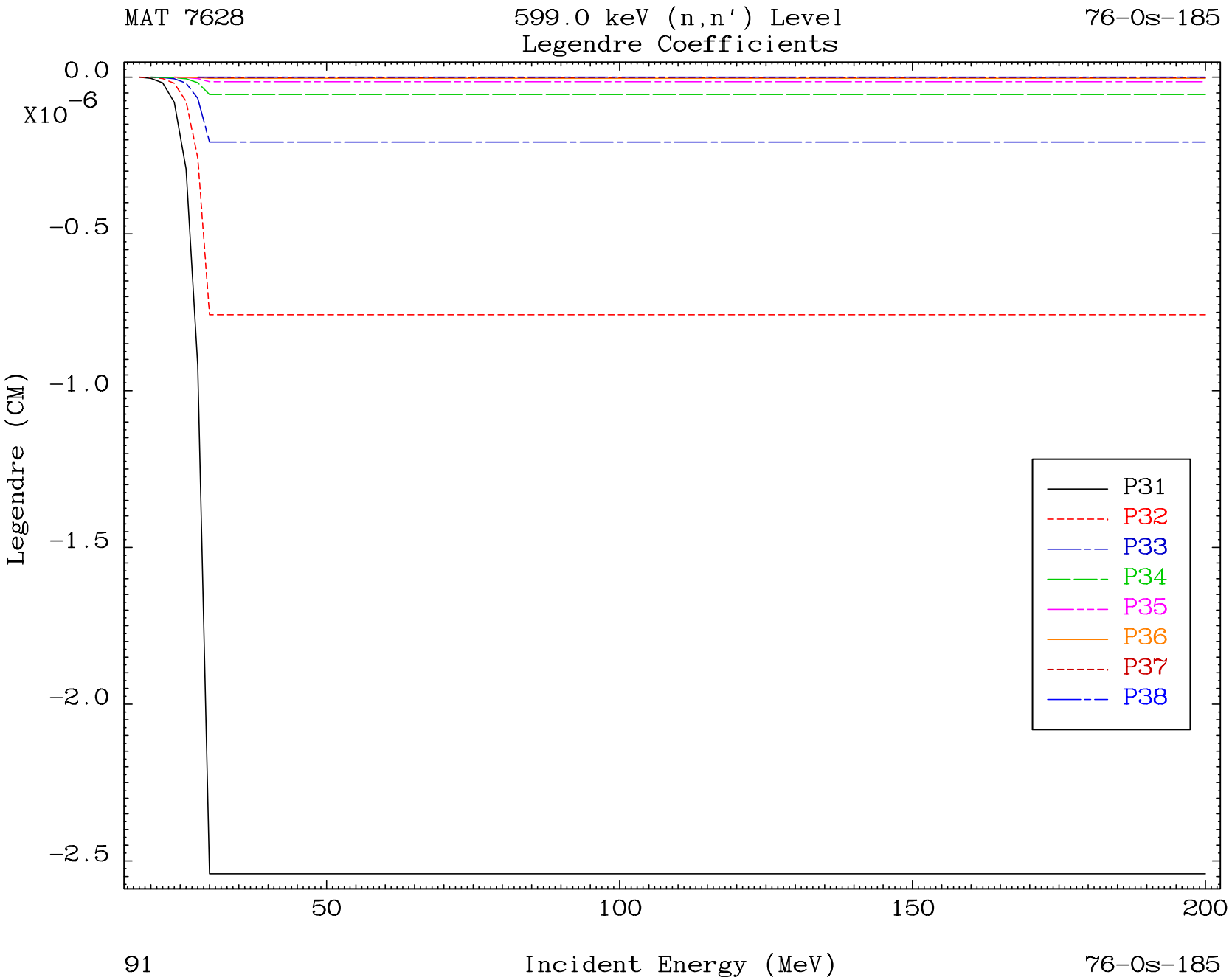

MAT 7628
595.1 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-3
1.2
0.8
0.4
0.0
-0.4
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
86
Incident Energy (MeV)
76-0s-185

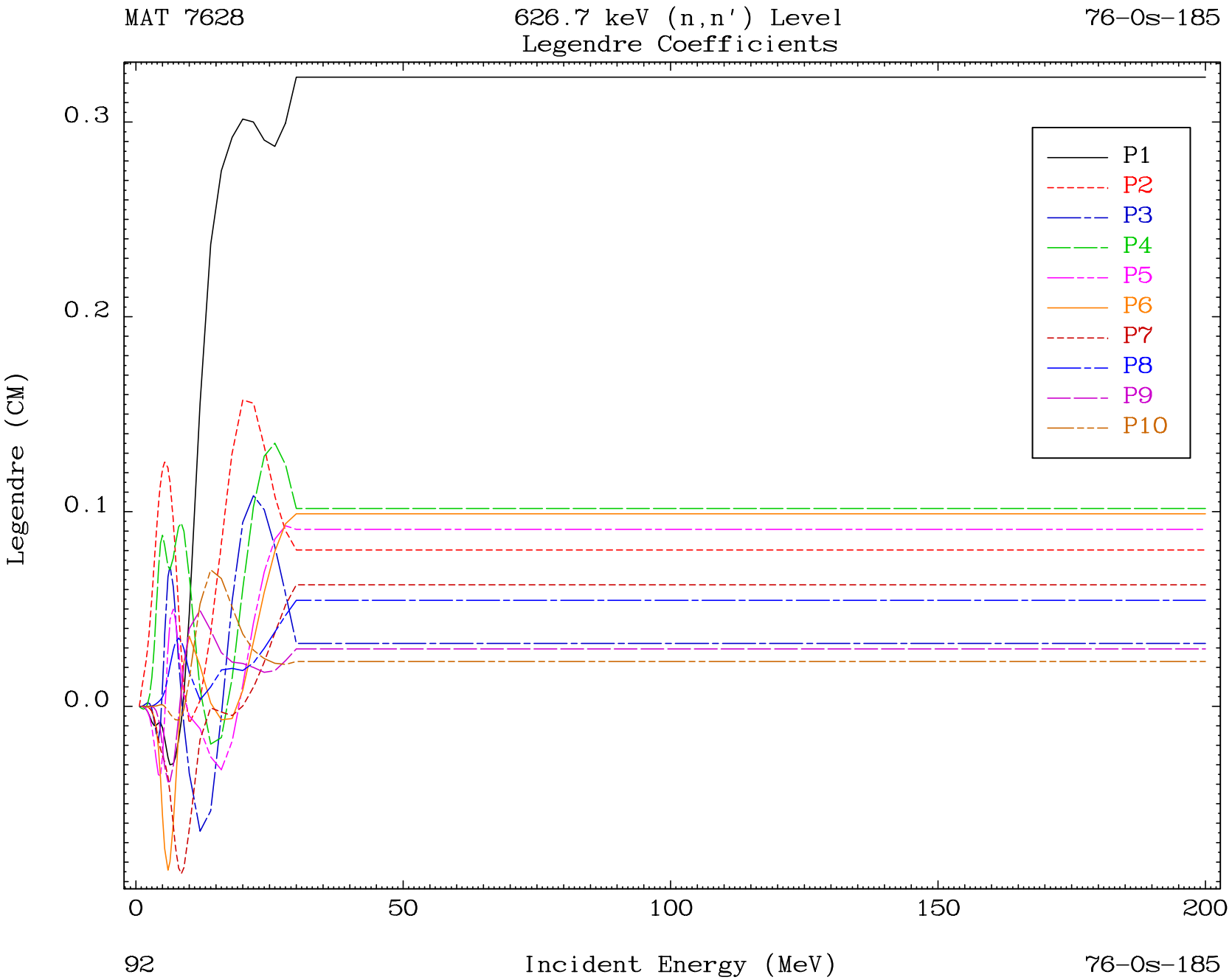

MAT 7628
595.1 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
87
Incident Energy (MeV)
76-0s-185

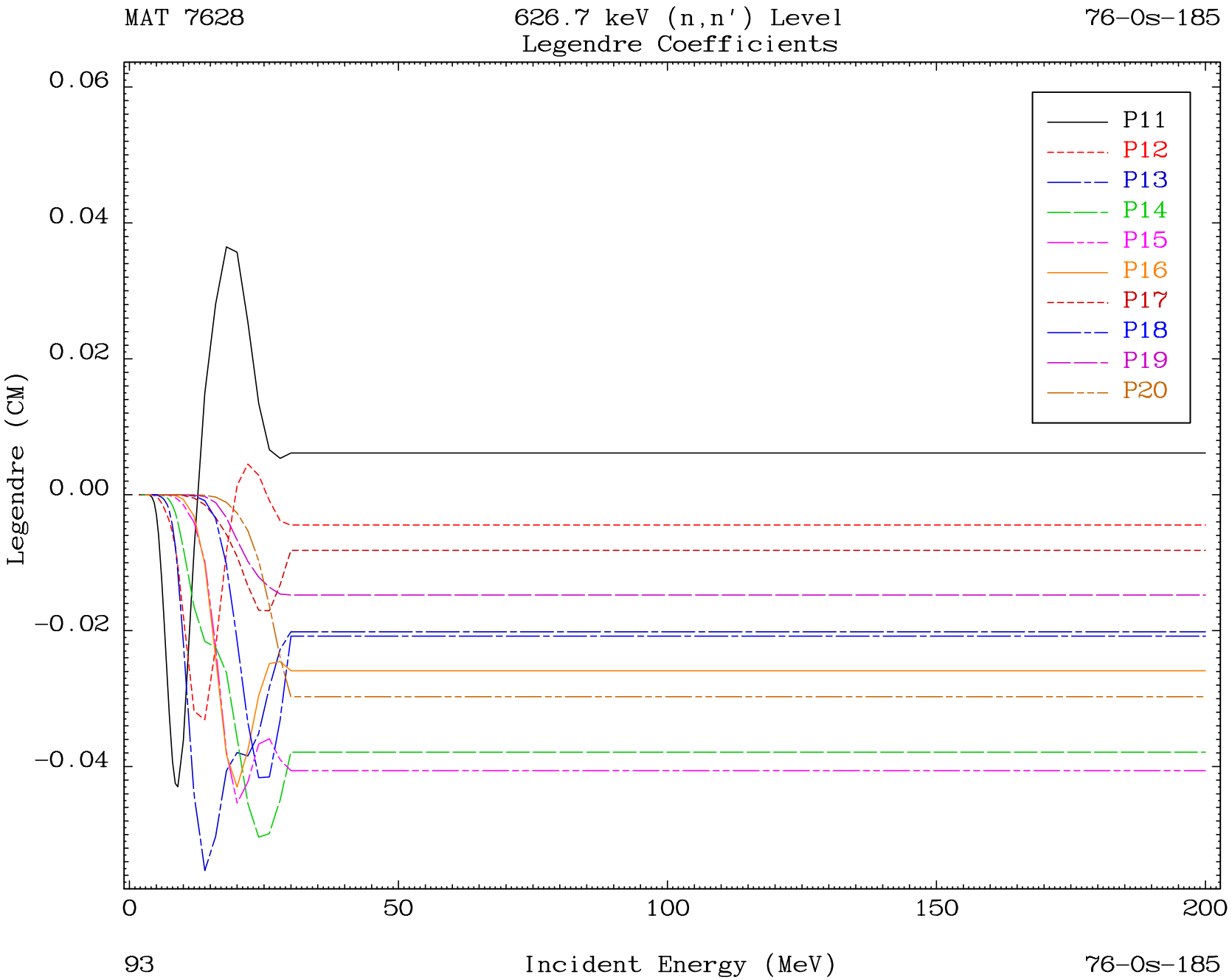

MAT 7628
599.0 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
88
Incident Energy (MeV)
76-0s-185

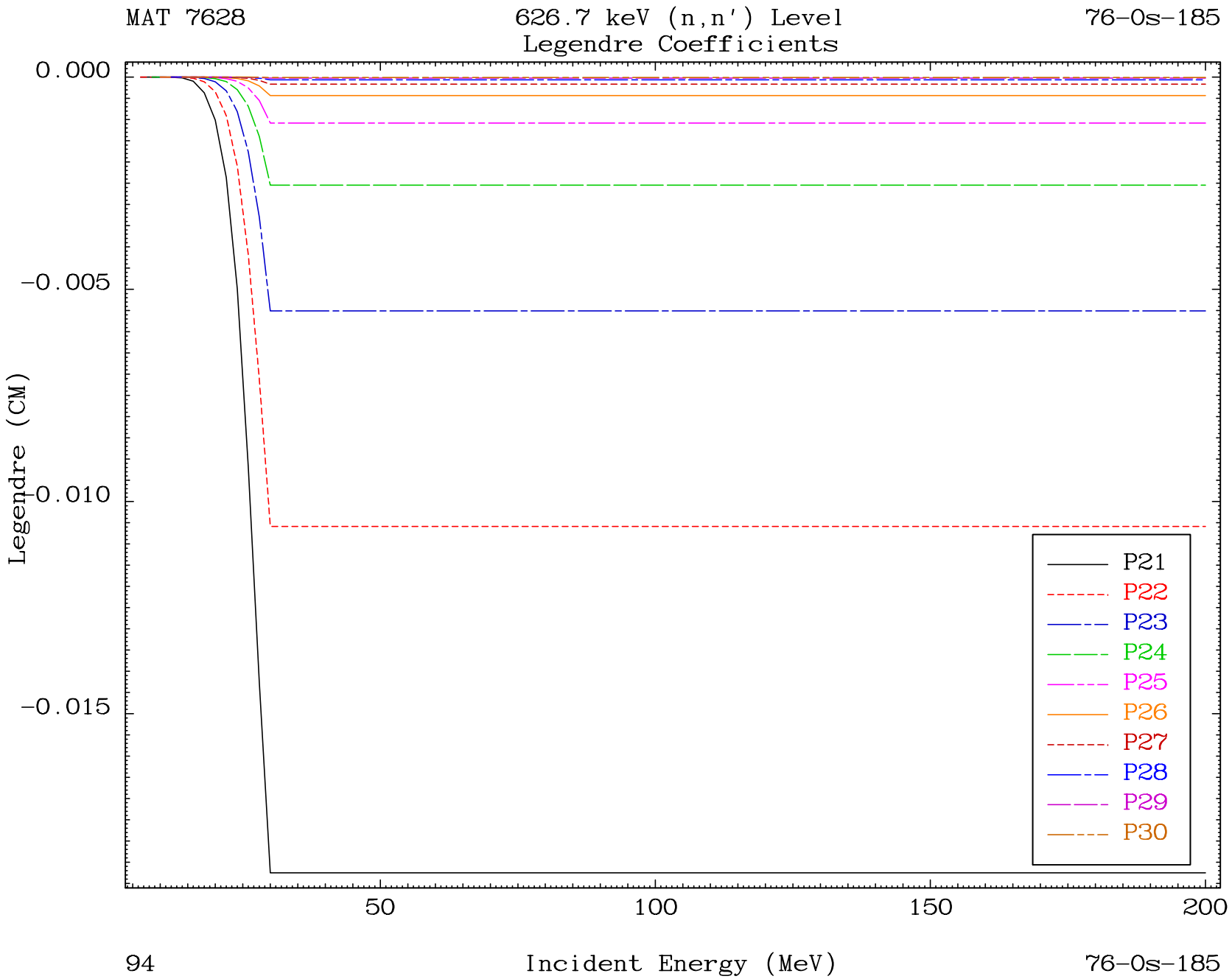

MAT 7628
599.0 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
89
Incident Energy (MeV)
76-0s-185

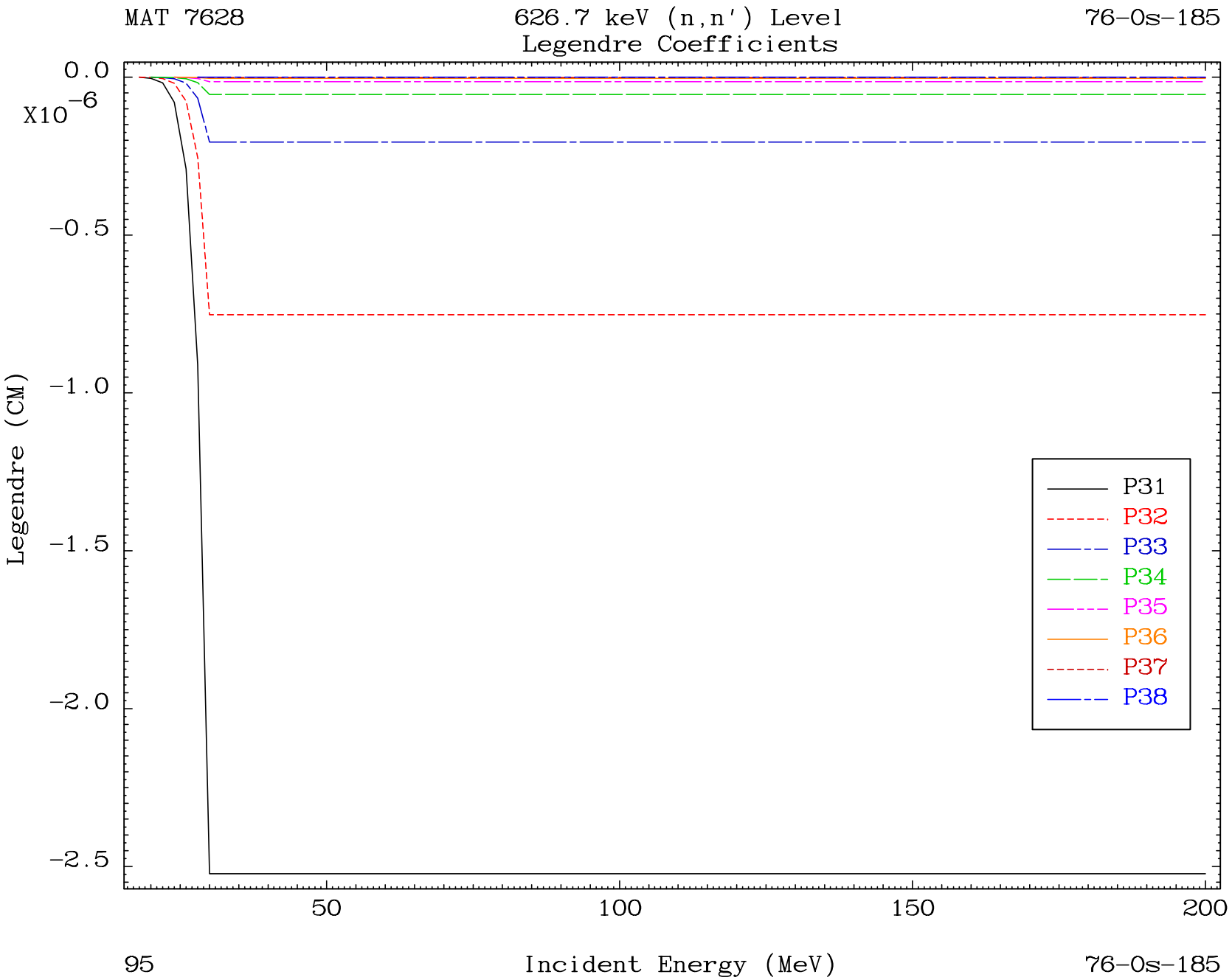

MAT 7628
599.0 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
90
Incident Energy (MeV)
76-0s-185
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

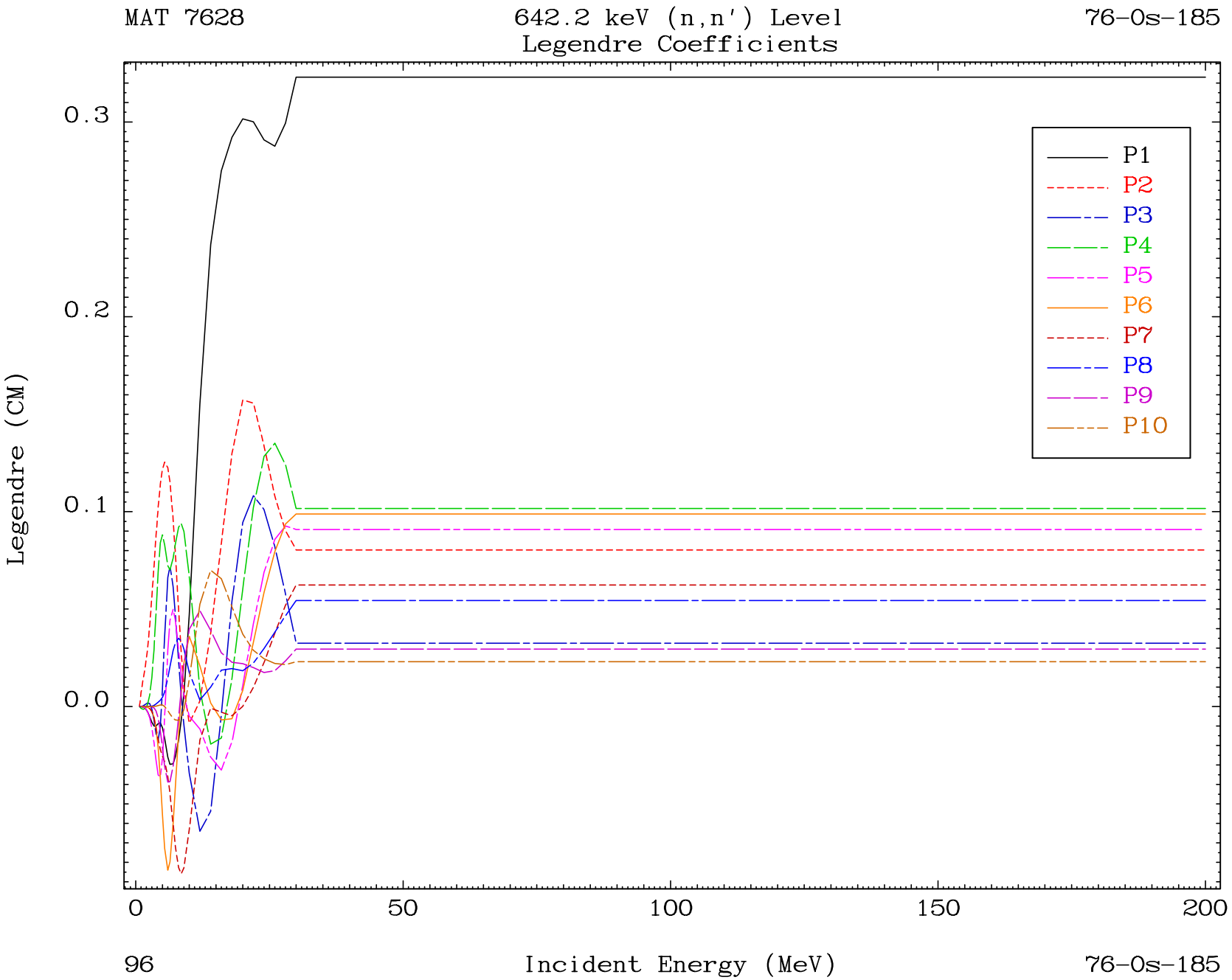

MAT 7628
599.0 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.0
X10 −6
−0.5
−1.0
−1.5
−2.0
−2.5
Legendre (CM)
50
100
150
200
91
Incident Energy (MeV)
76-0s-185
P31
P32
P33
P34
P35
P36
P37
P38

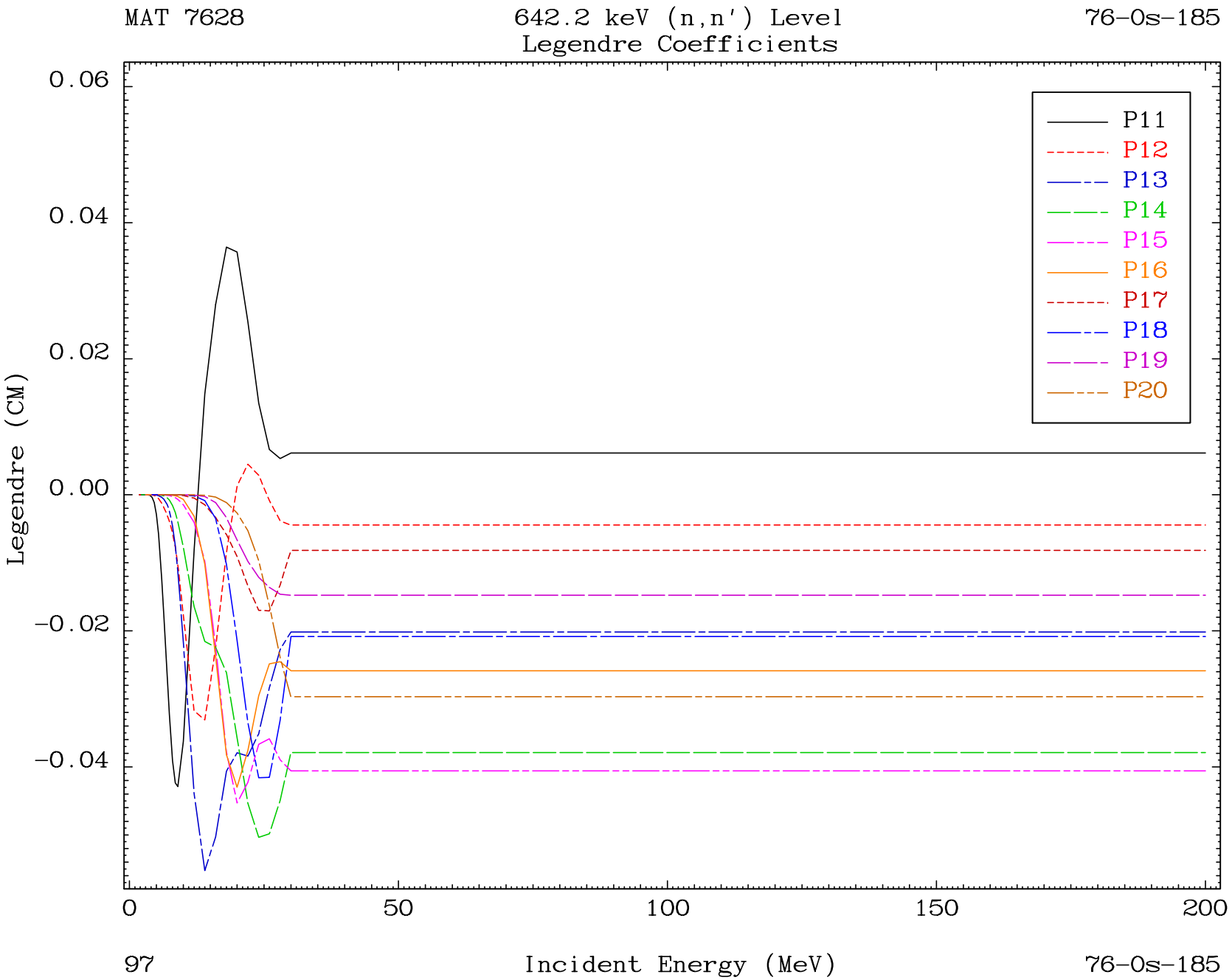

MAT 7628
626.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
92
Incident Energy (MeV)
76-0s-185

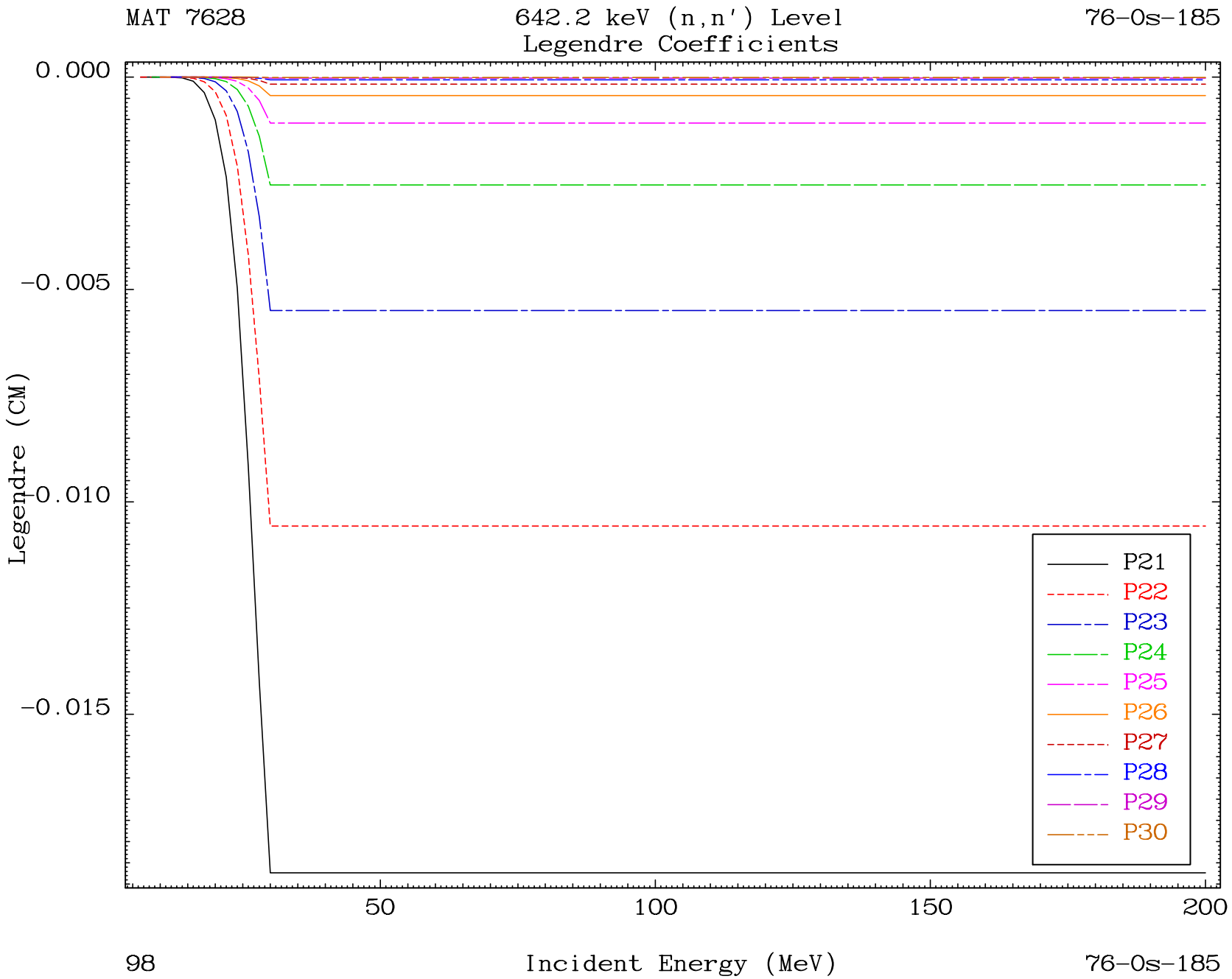

MAT 7628
626.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
93
Incident Energy (MeV)
76-0s-185

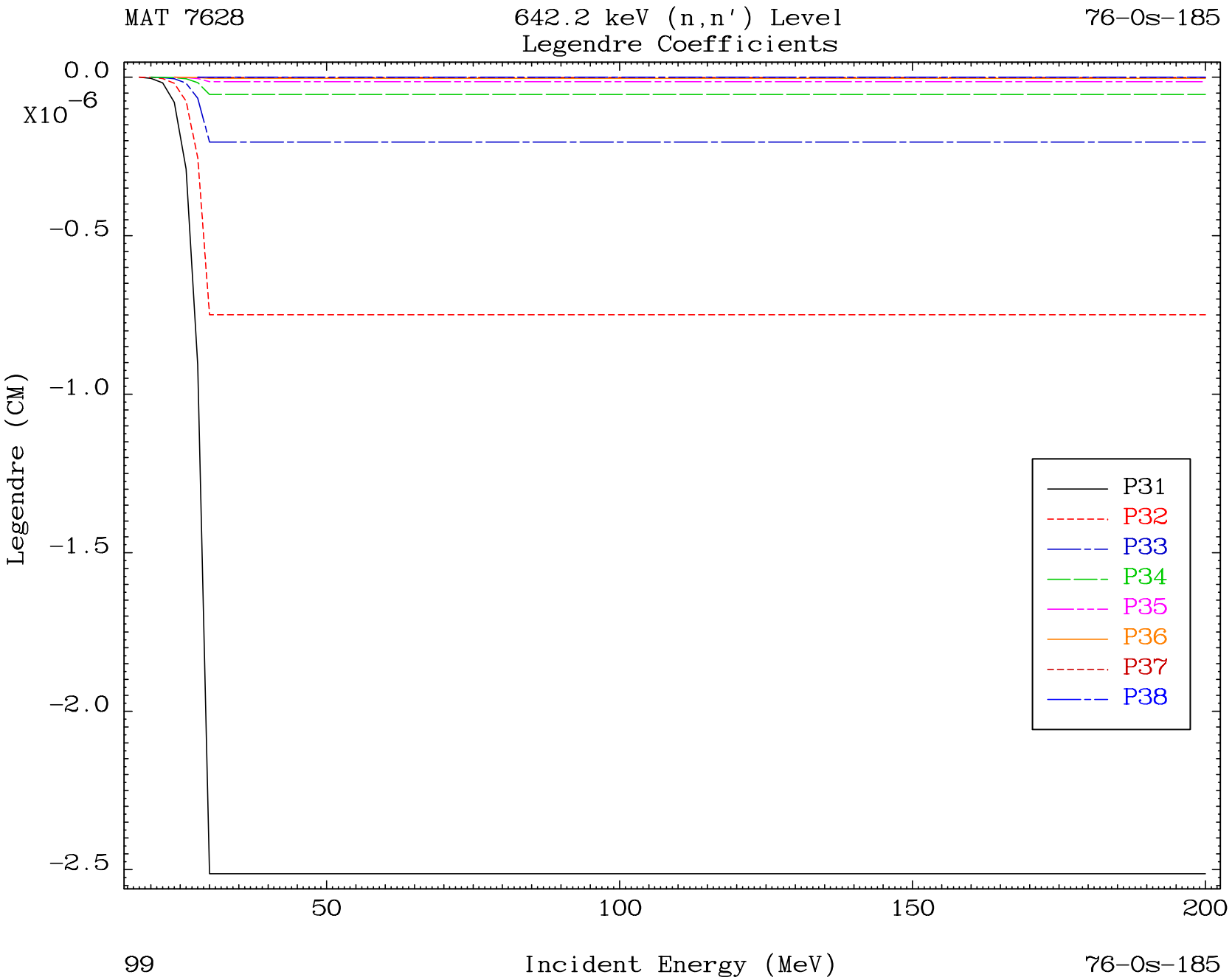

MAT 7628
626.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
94
Incident Energy (MeV)
76-0s-185
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

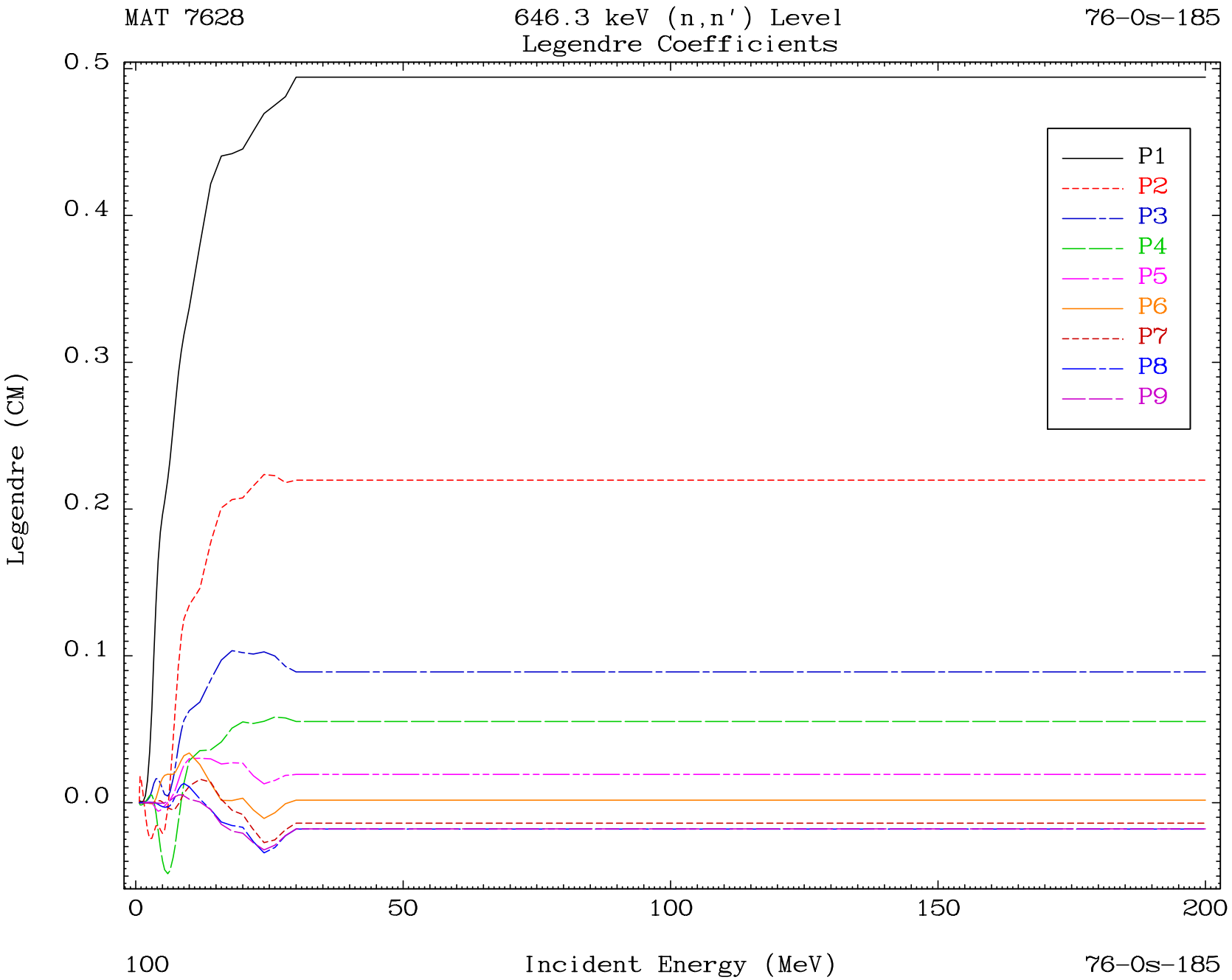

MAT 7628
626.7 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.0
X10 −6
−0.5
−1.0
−1.5
−2.0
−2.5
Legendre (CM)
50
100
150
200
95
Incident Energy (MeV)
76-0s-185
P31
P32
P33
P34
P35
P36
P37
P38

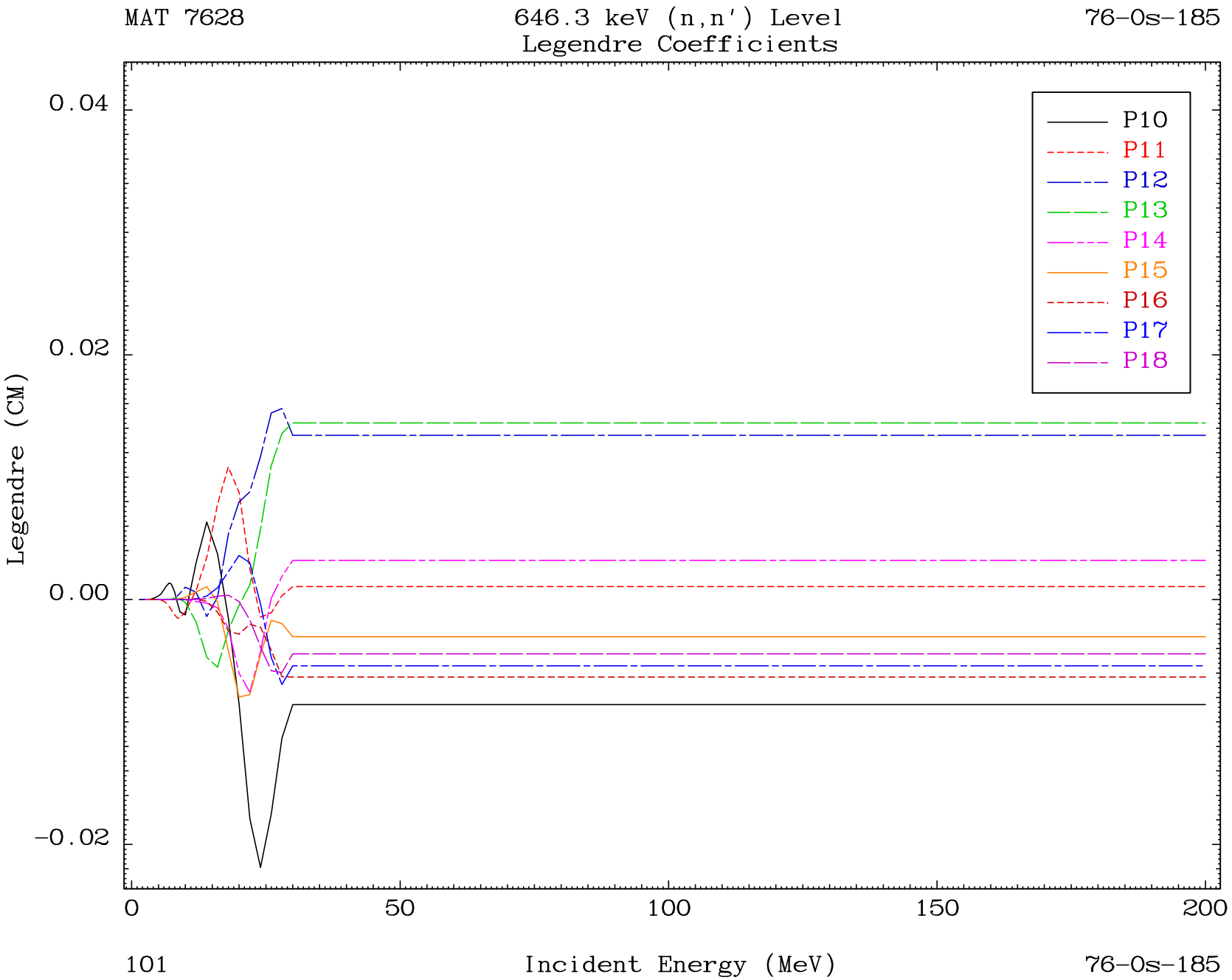

MAT 7628
642.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
96
Incident Energy (MeV)
76-0s-185

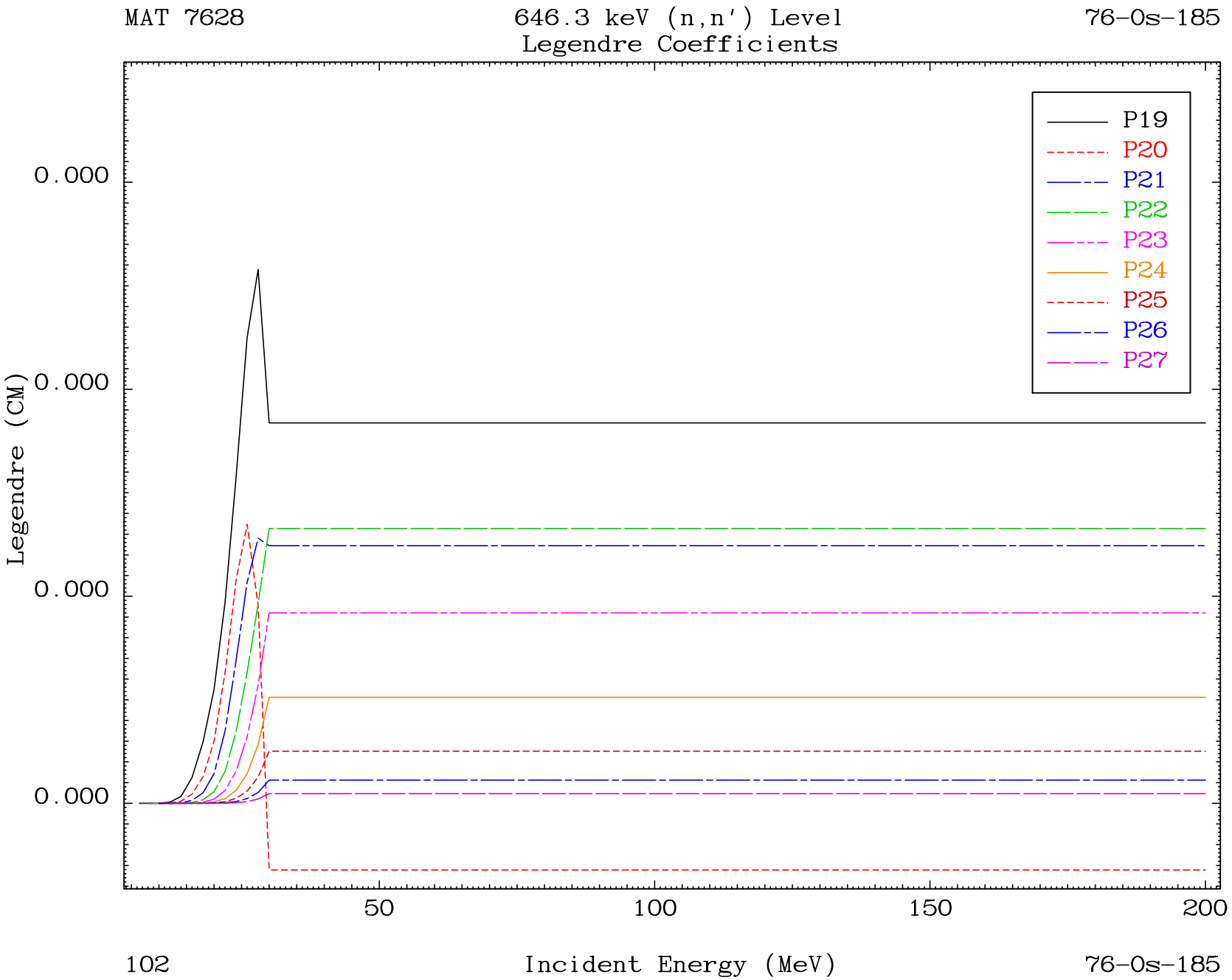

MAT 7628
642.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
97
Incident Energy (MeV)
76-0s-185

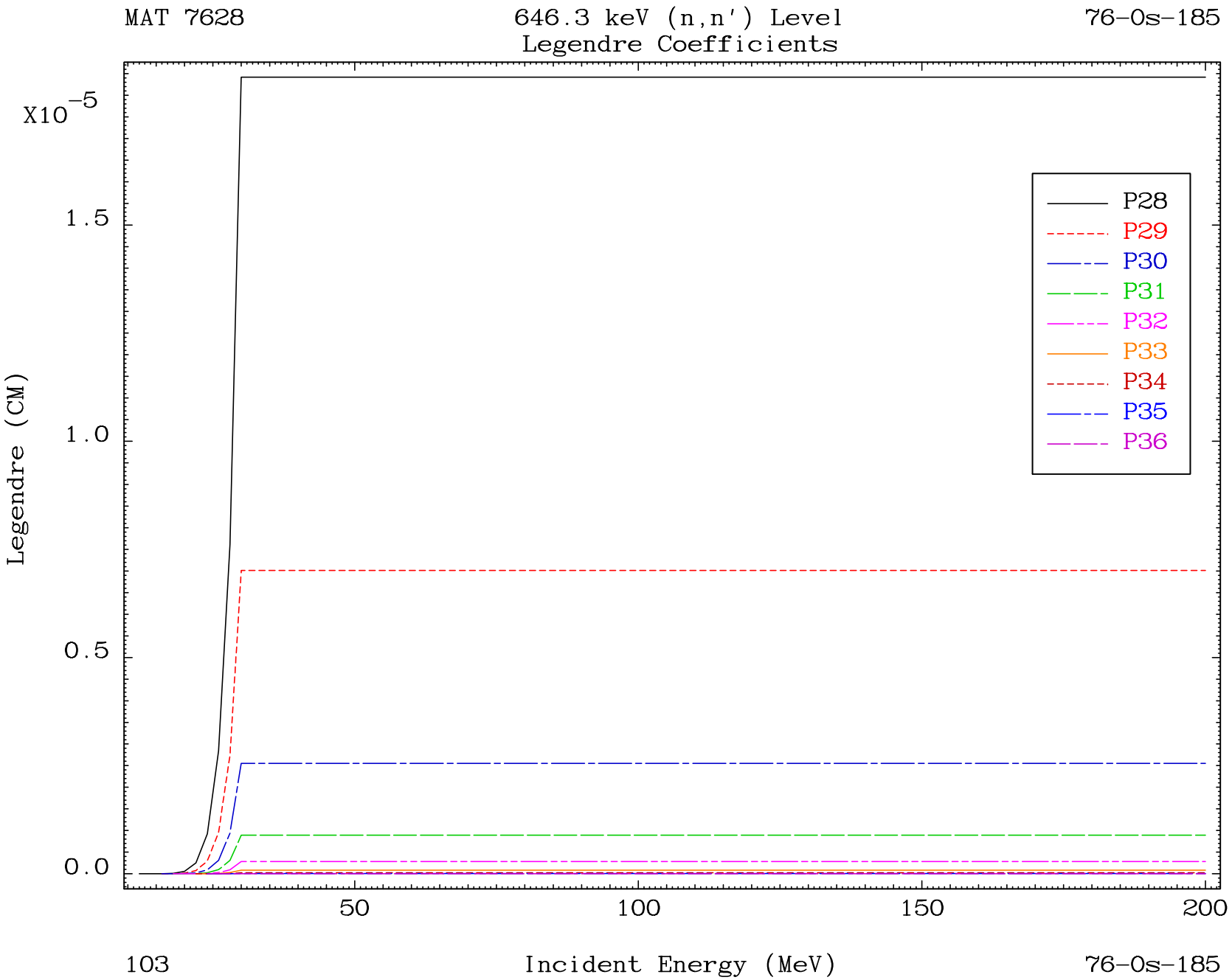

MAT 7628
642.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
98
Incident Energy (MeV)
76-0s-185
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

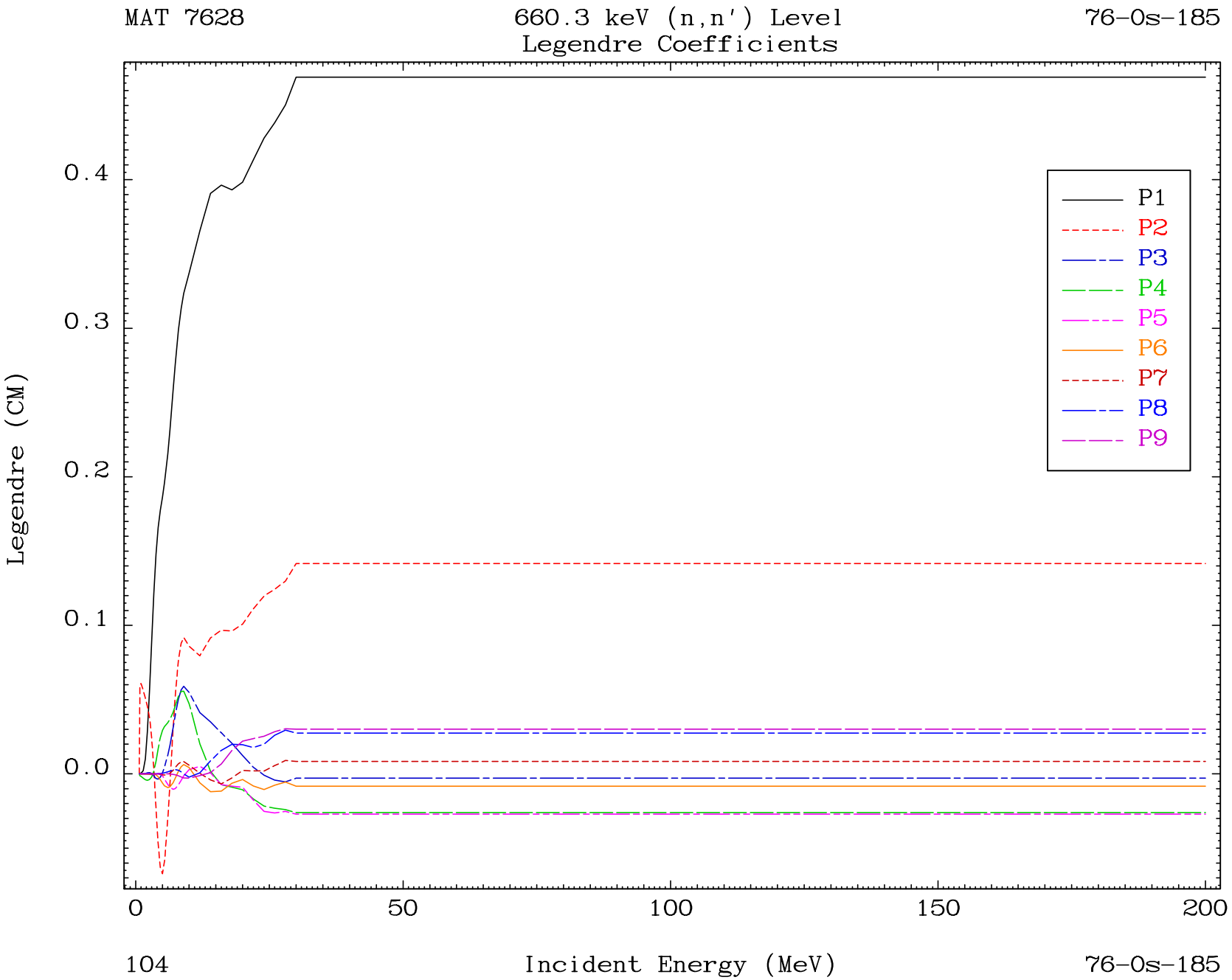

MAT 7628
642.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.0
X10^-6
-0.5
-1.0
-1.5
-2.0
-2.5
Legendre (CM)
50
100
150
200
99
Incident Energy (MeV)
76-0s-185
P31
P32
P33
P34
P35
P36
P37
P38

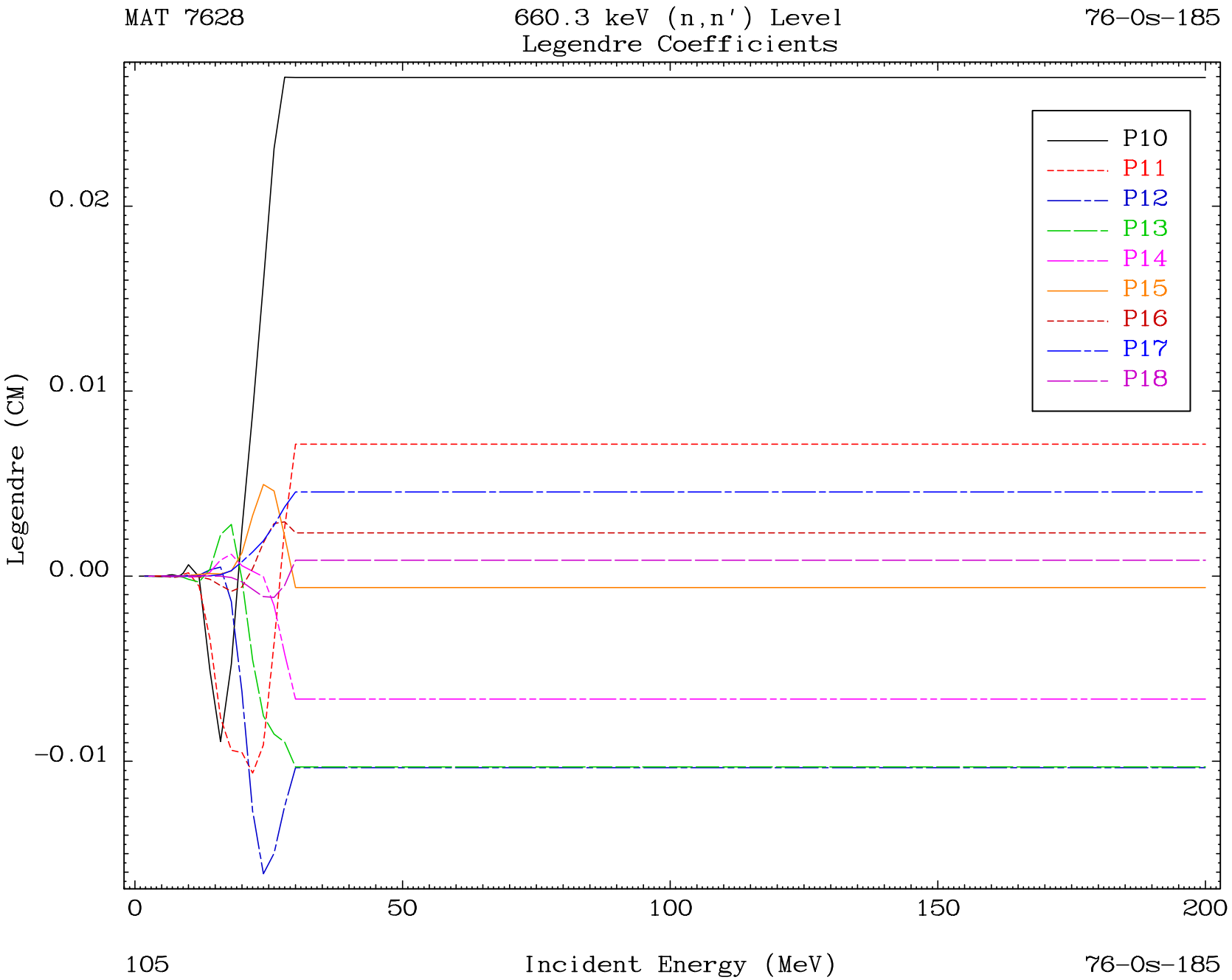

MAT 7628
646.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
100
Incident Energy (MeV)
76-0s-185

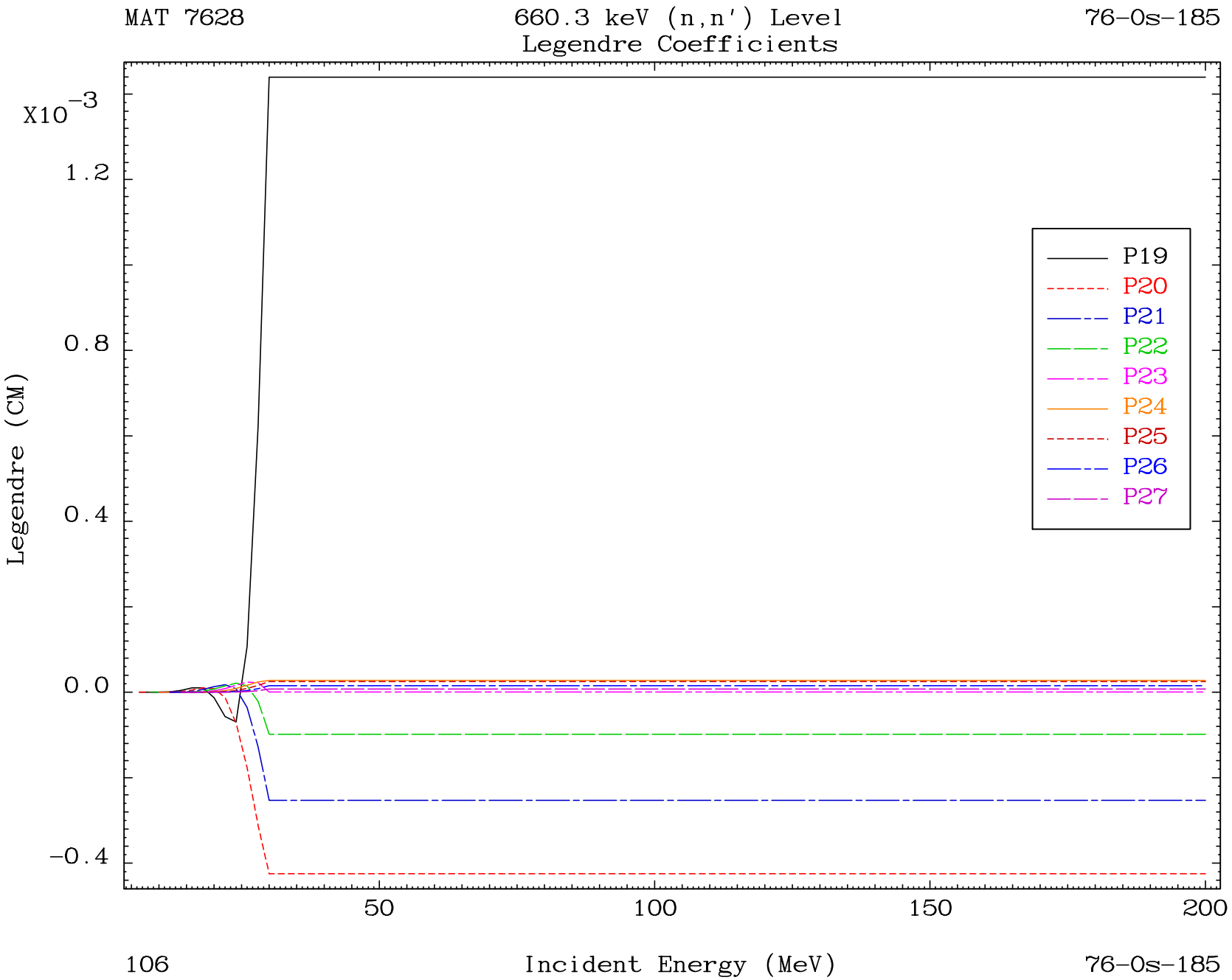

MAT 7628
646.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.04
0.02
0.00
-0.02
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
101
Incident Energy (MeV)
76-0s-185

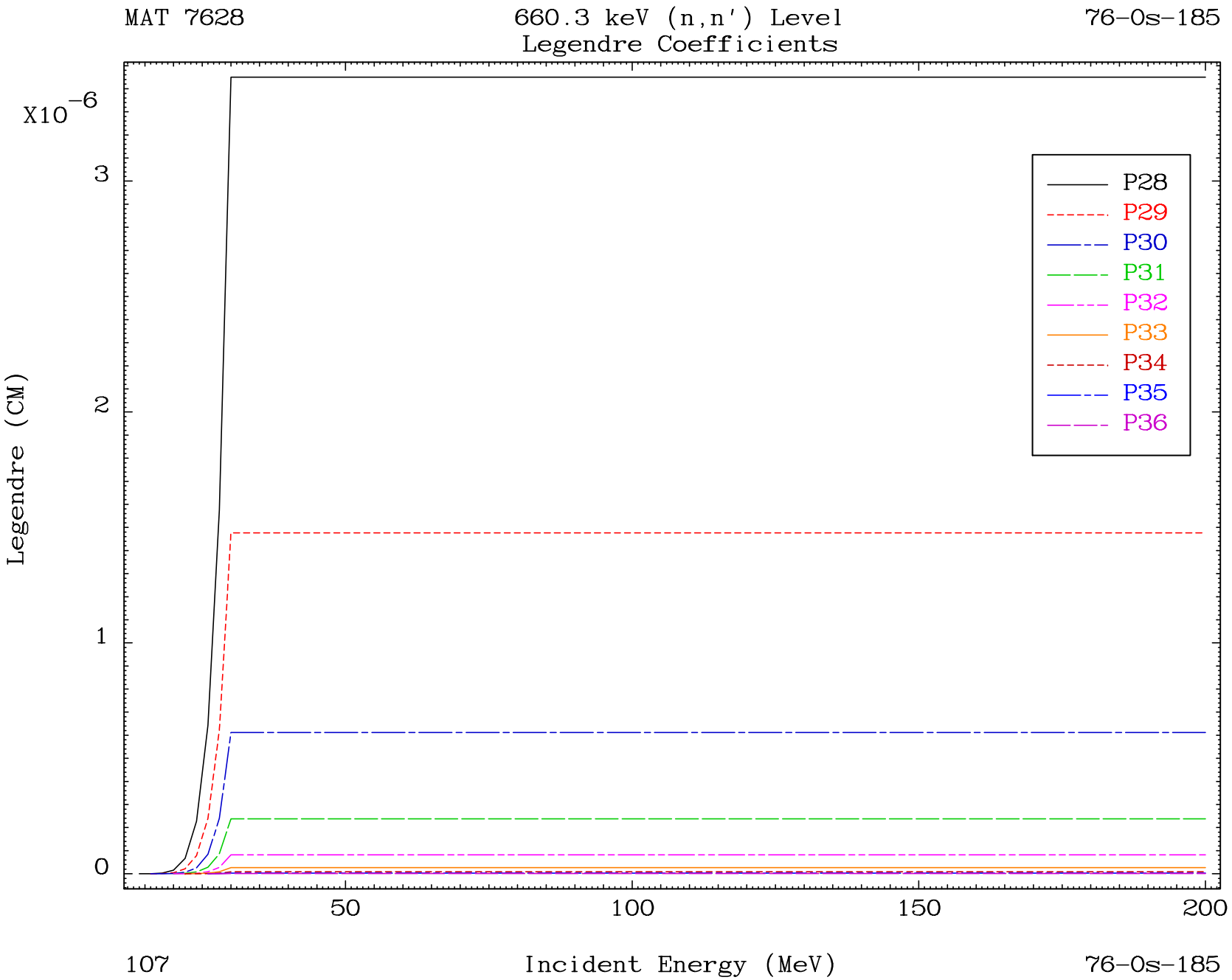

MAT 7628
646.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.000
0.000
0.000
Legendre (CM)
50
100
150
200
102
Incident Energy (MeV)
76-0s-185

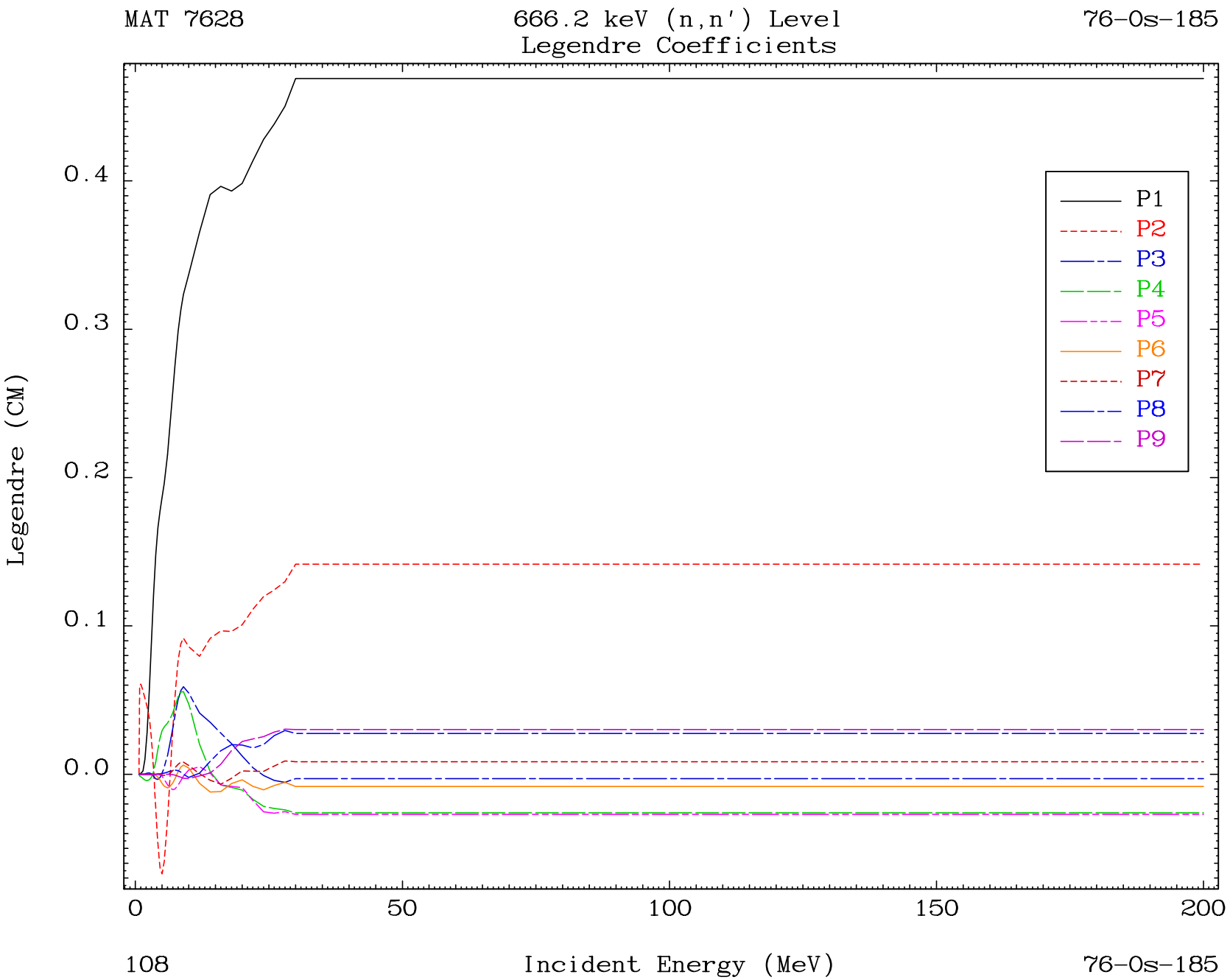

MAT 7628
646.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-5
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
103
Incident Energy (MeV)
76-0s-185

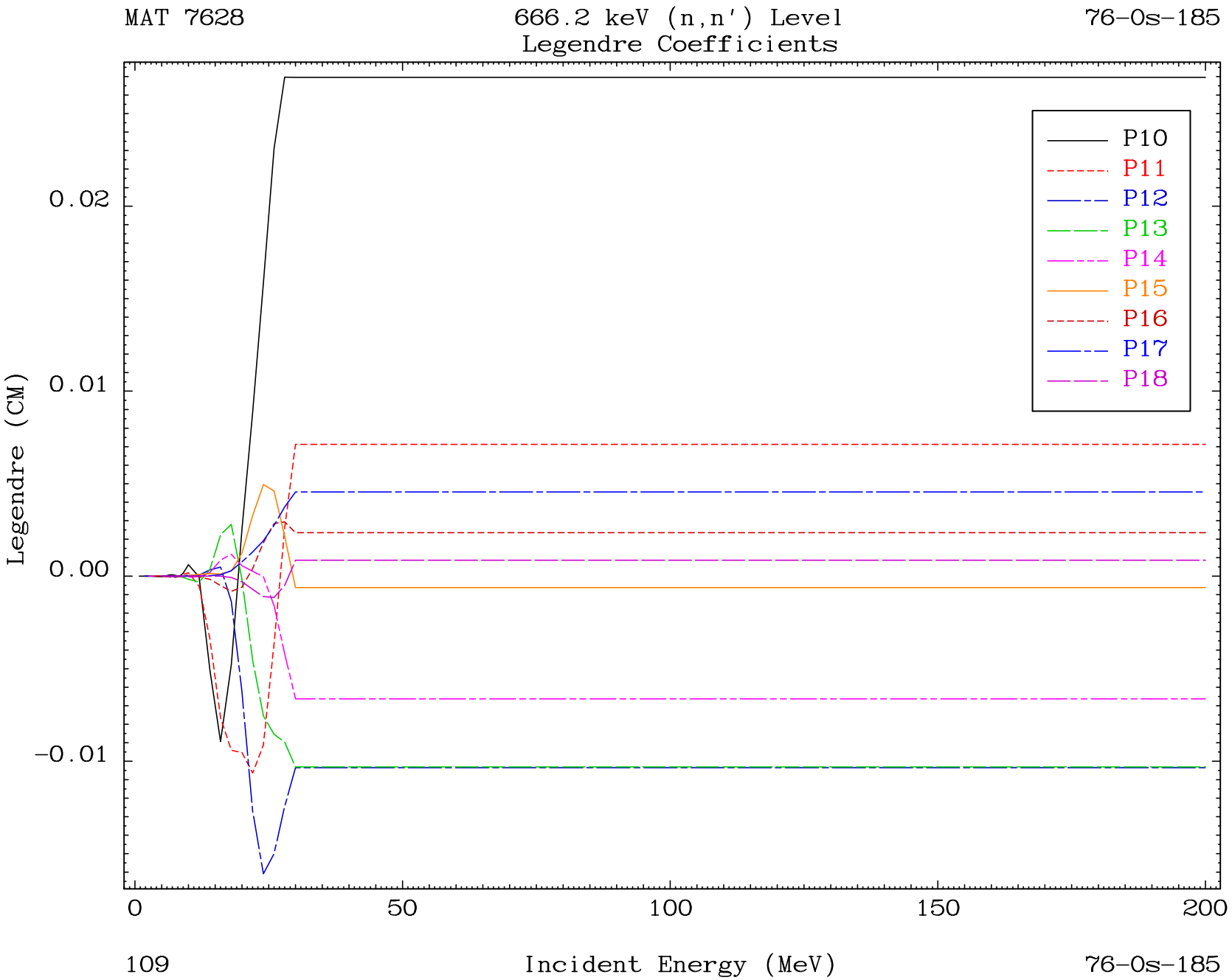

MAT 7628
660.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
104
Incident Energy (MeV)
76-0s-185

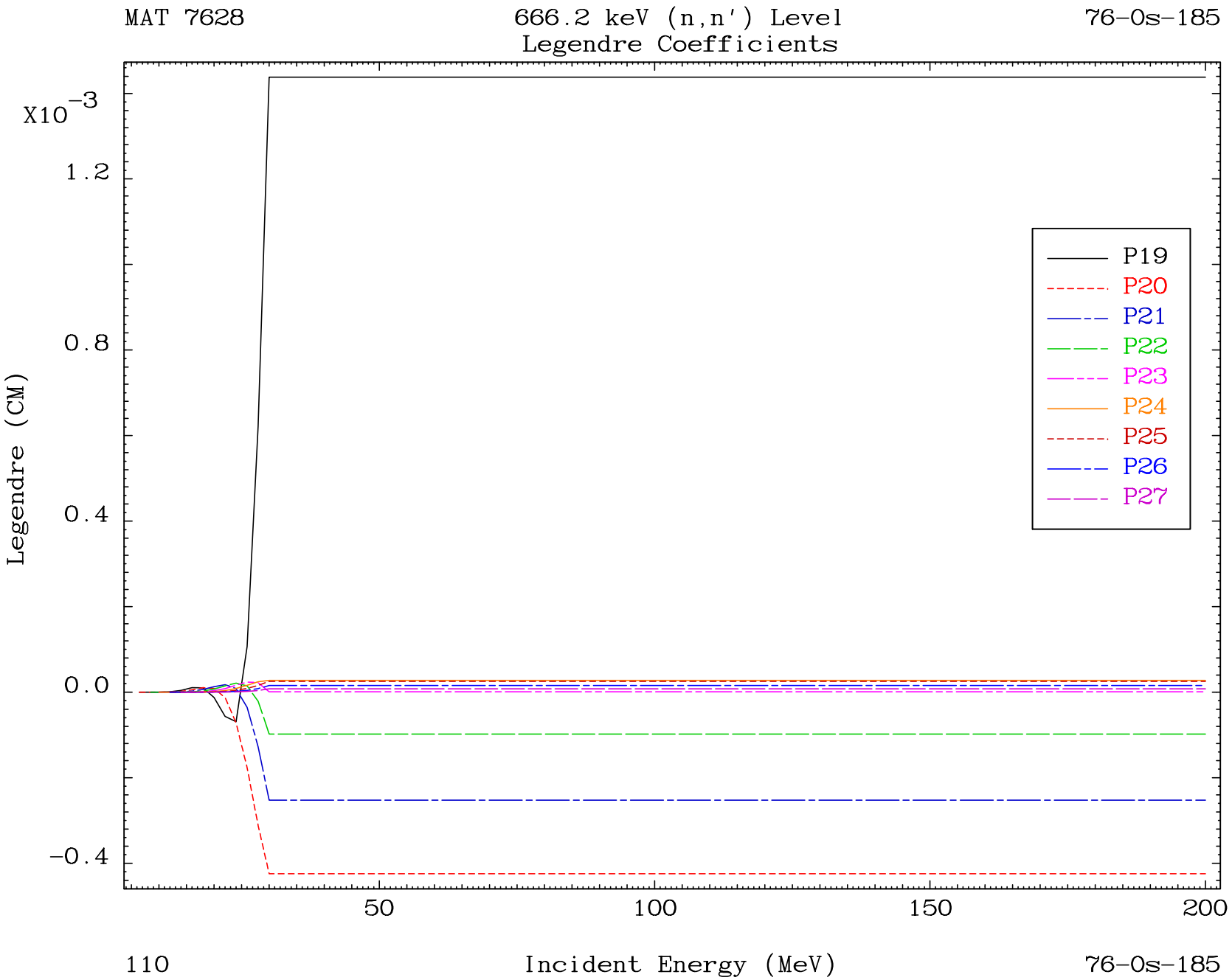

MAT 7628
660.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
105
Incident Energy (MeV)
76-0s-185

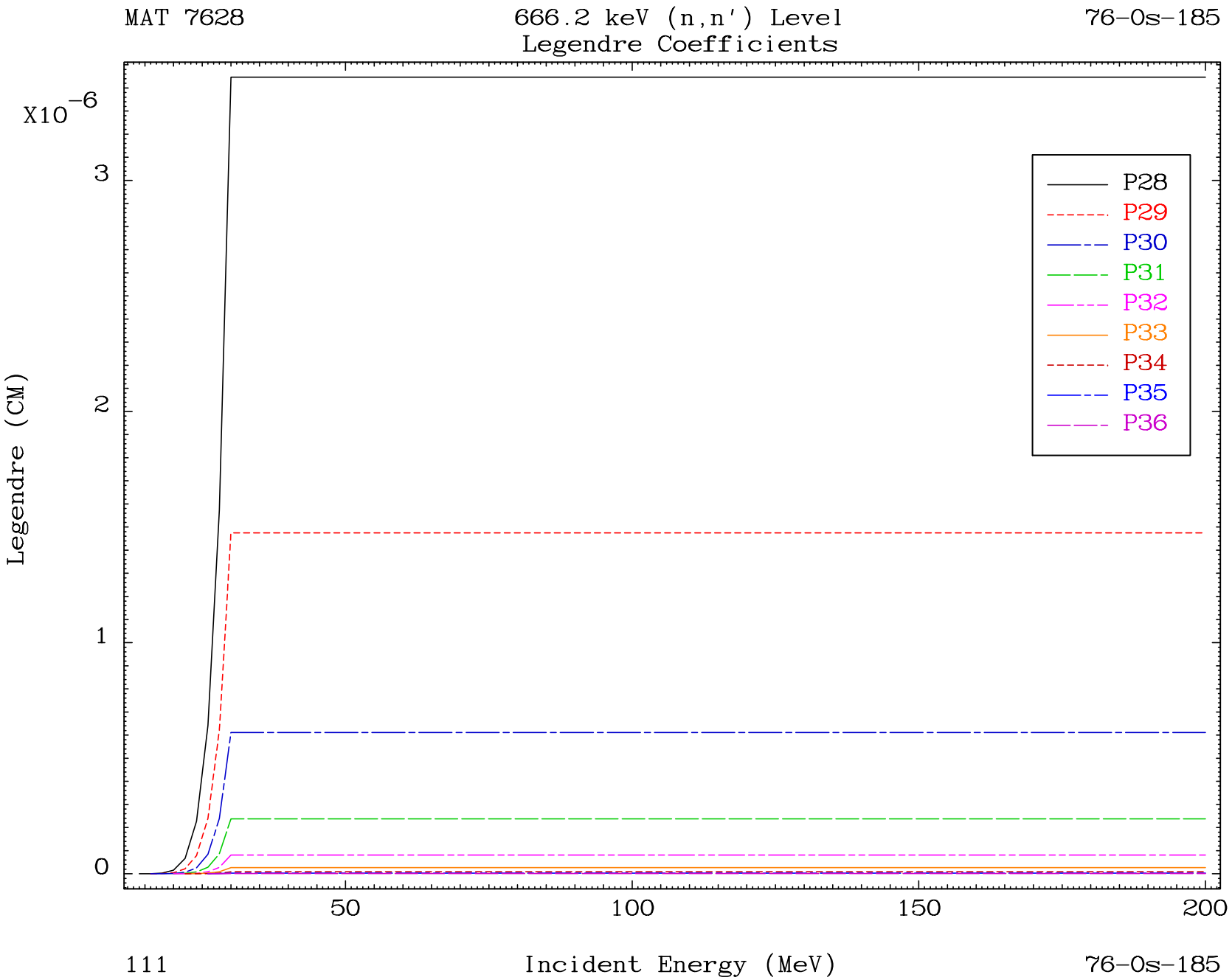

MAT 7628
660.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-3
1.2
0.8
0.4
0.0
-0.4
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
106
Incident Energy (MeV)
76-0s-185

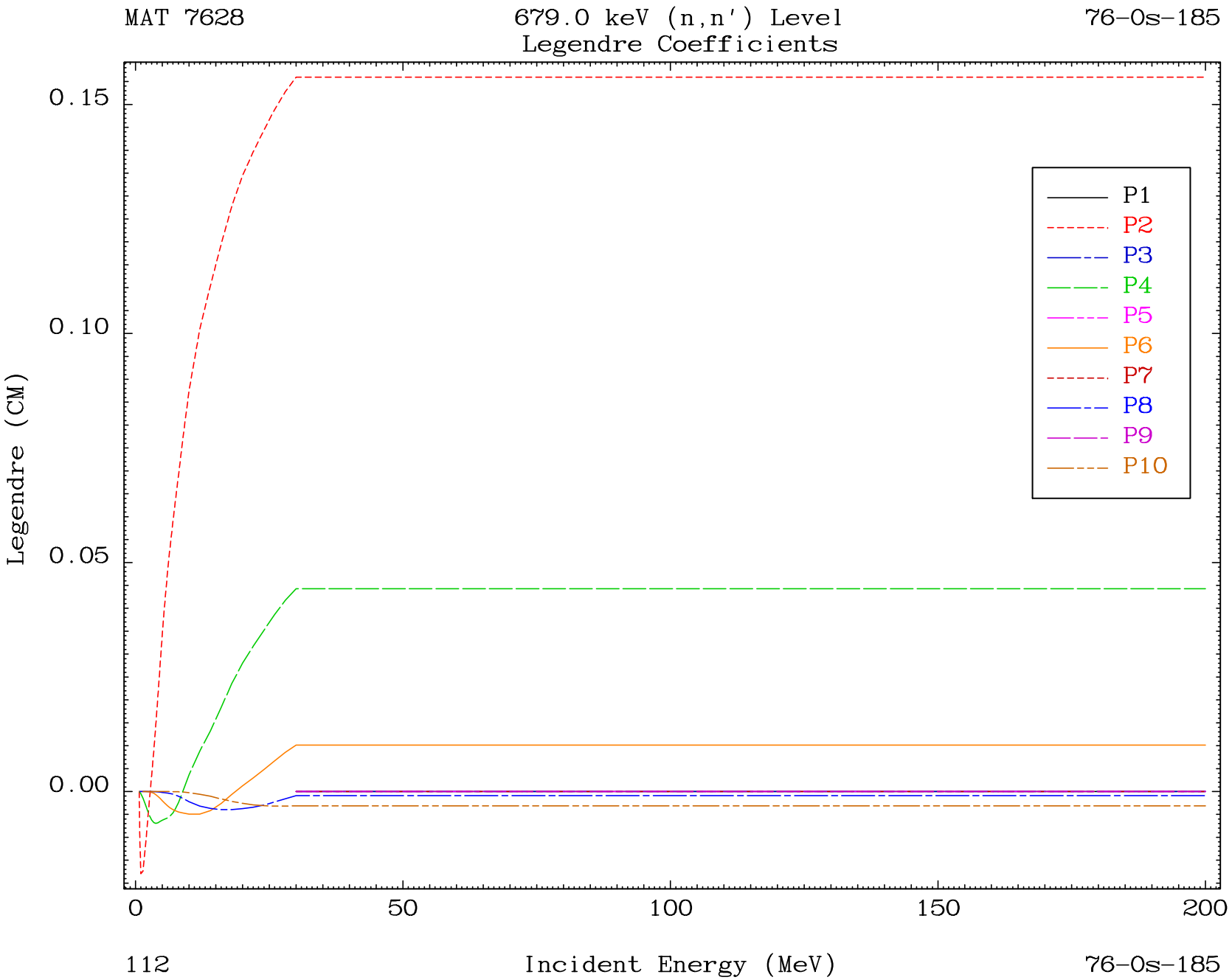

MAT 7628
660.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
107
Incident Energy (MeV)
76-0s-185

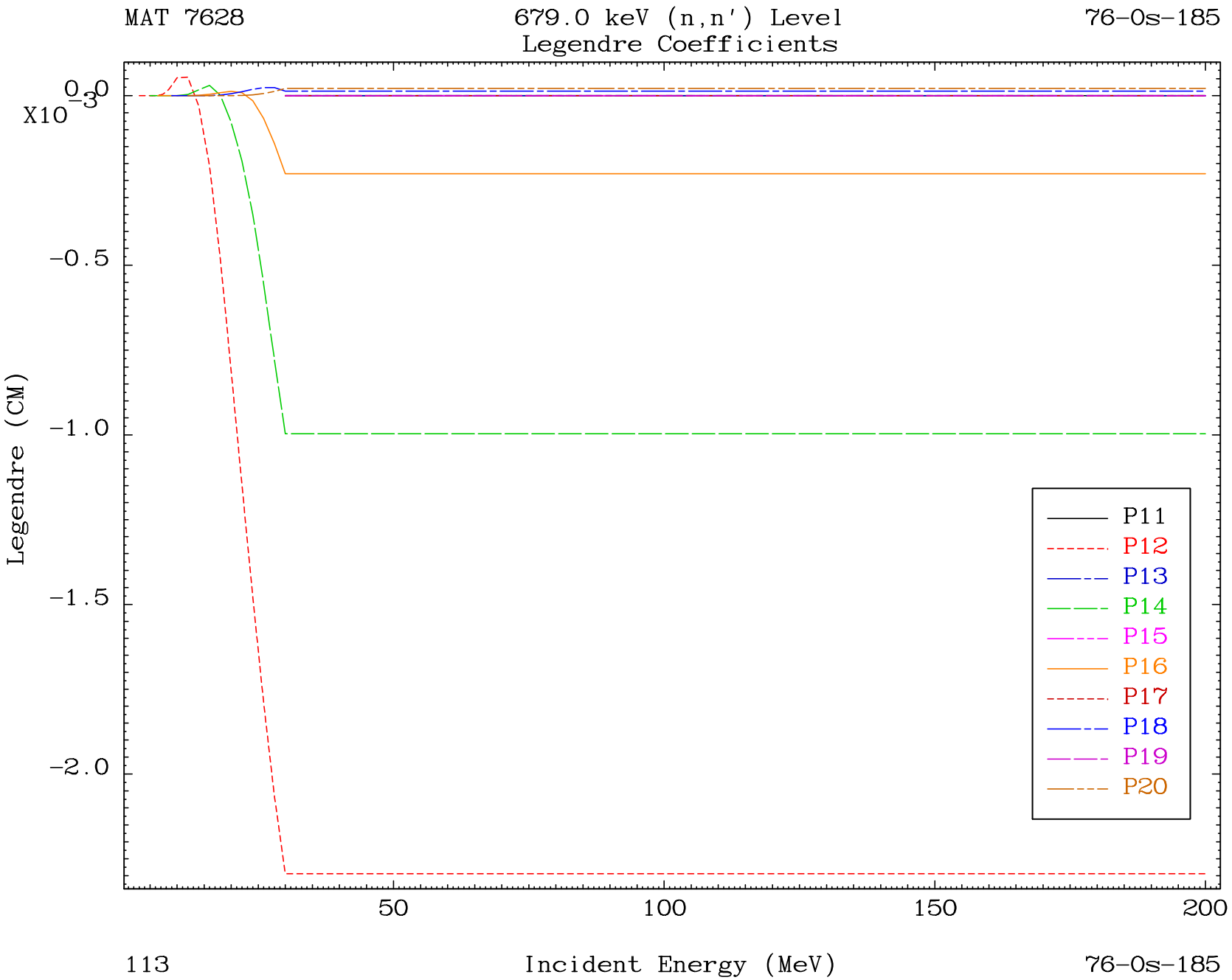

MAT 7628
666.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
108
Incident Energy (MeV)
76-0s-185

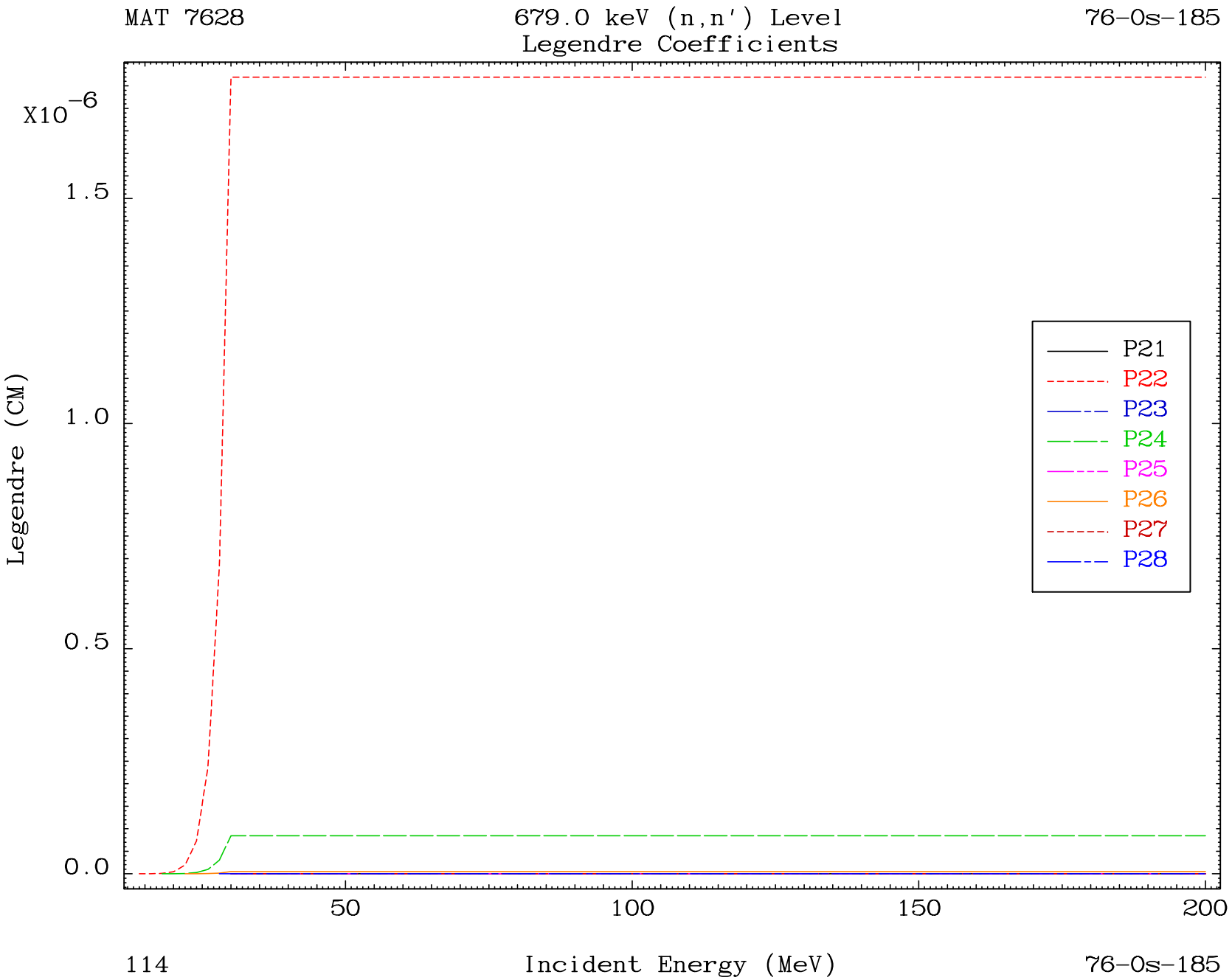

MAT 7628
666.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
109
Incident Energy (MeV)
76-0s-185

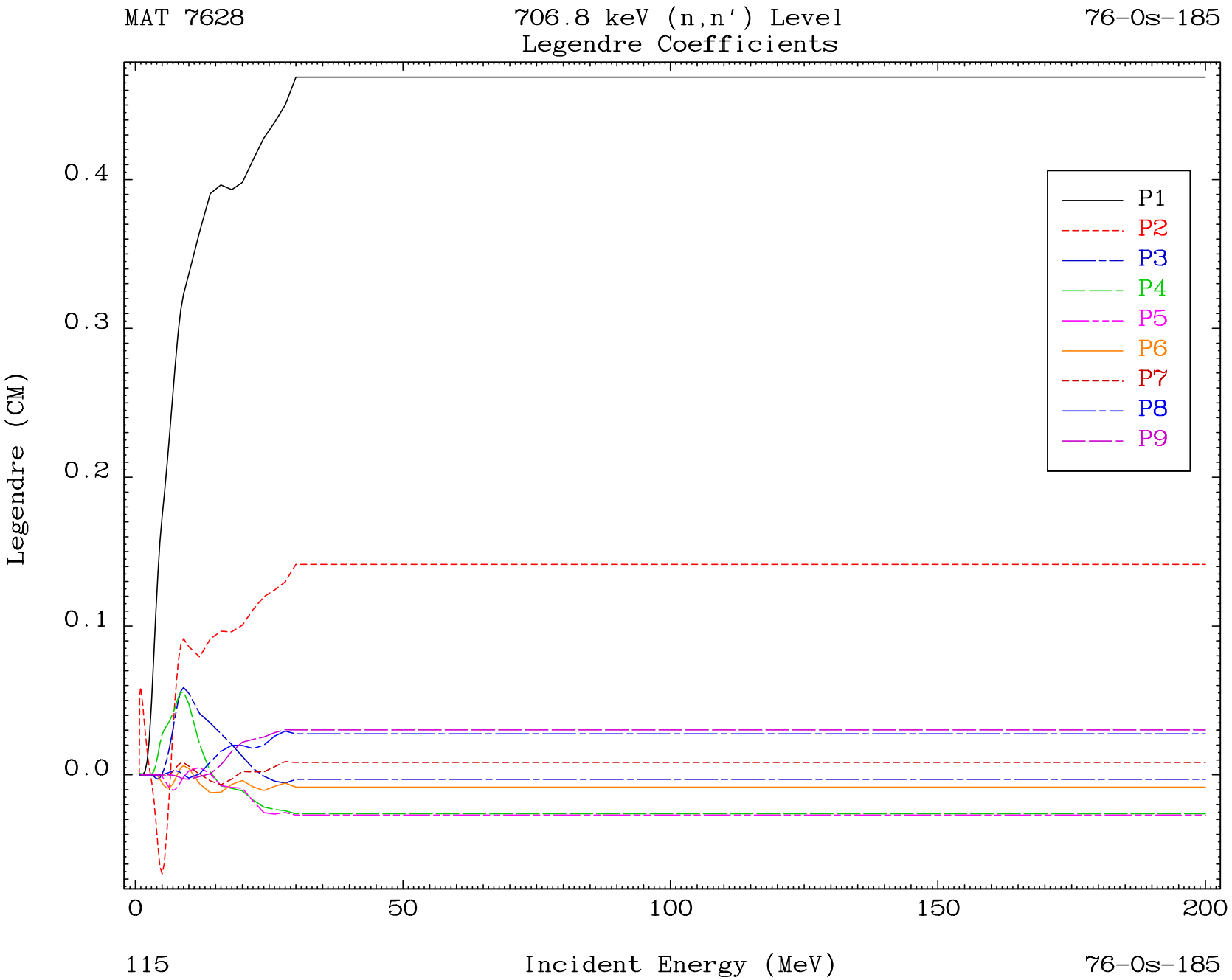

MAT 7628
666.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-3
1.2
0.8
0.4
0.0
-0.4
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
110
Incident Energy (MeV)
76-0s-185

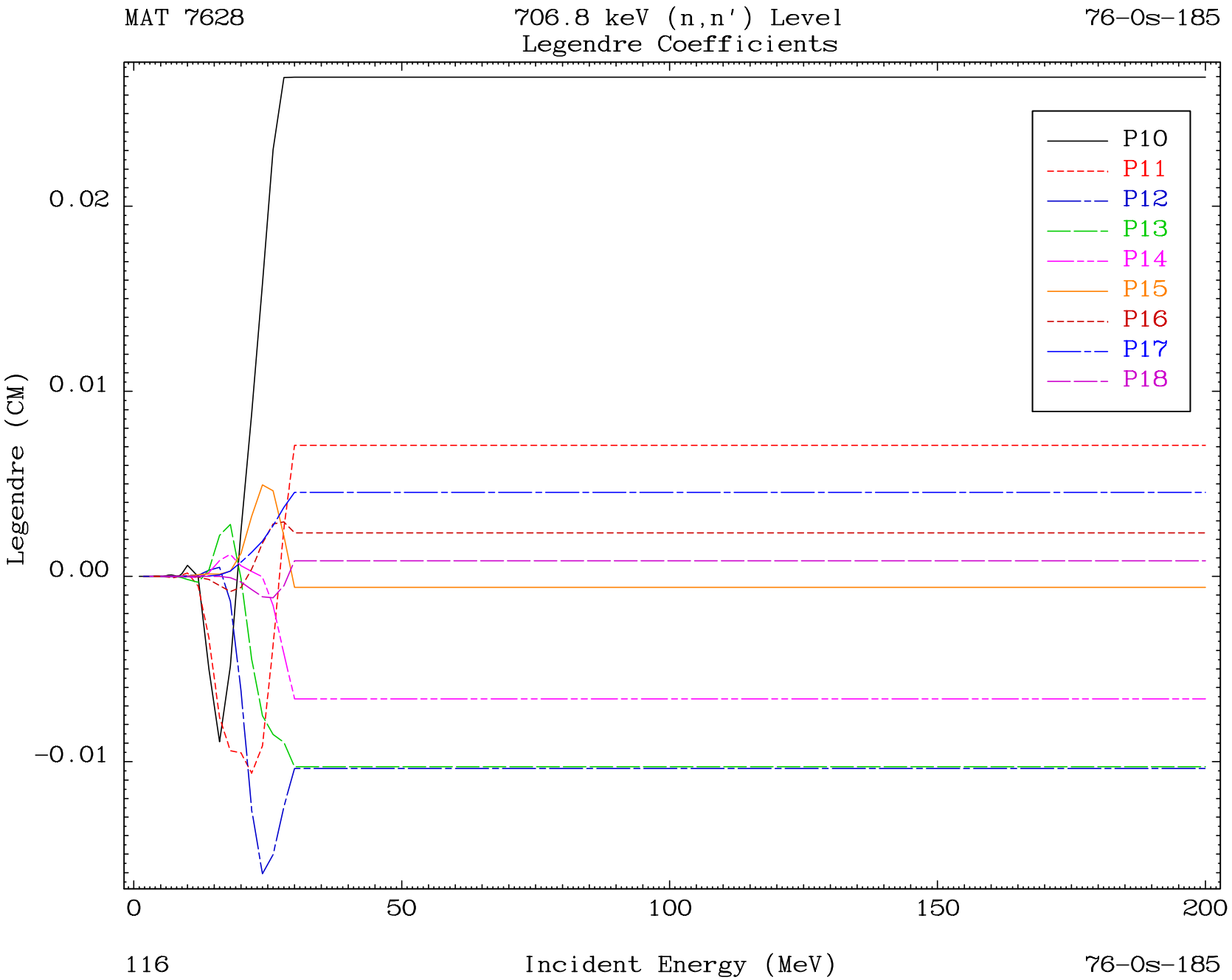

MAT 7628
666.2 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
111
Incident Energy (MeV)
76-0s-185

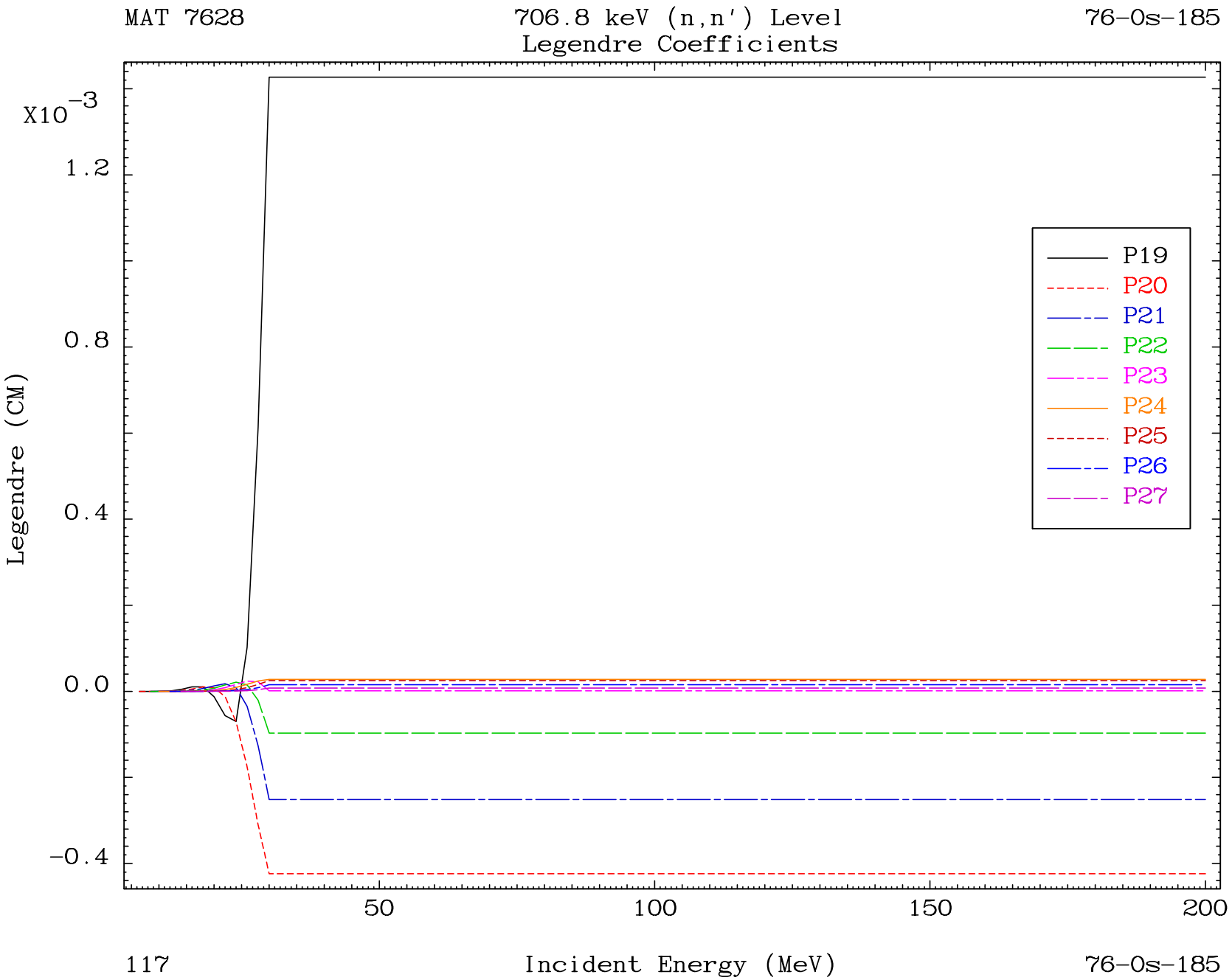

MAT 7628
679.0 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
112
Incident Energy (MeV)
76-0s-185

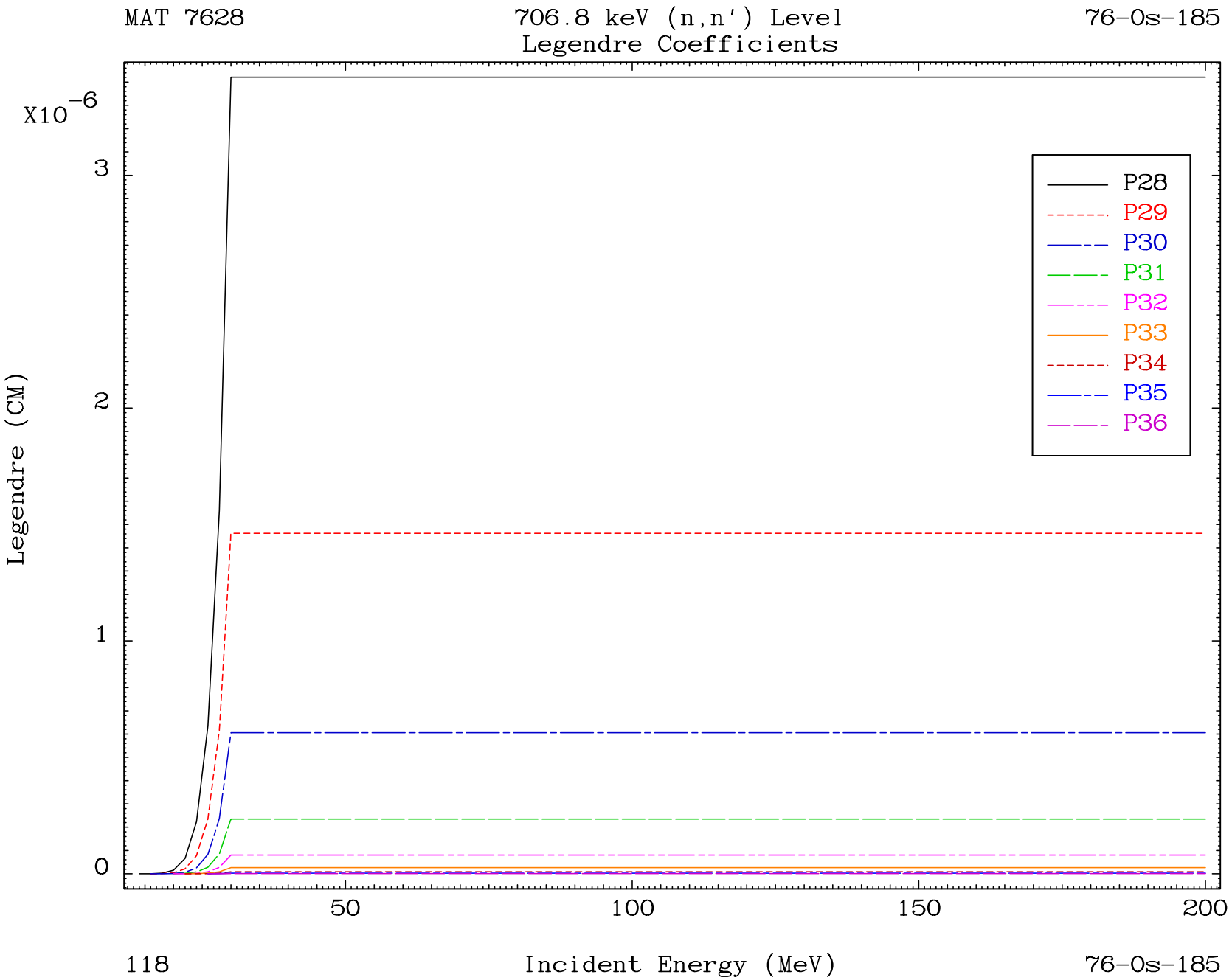

MAT 7628
679.0 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10-3
0.0
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
50
100
150
200
113
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

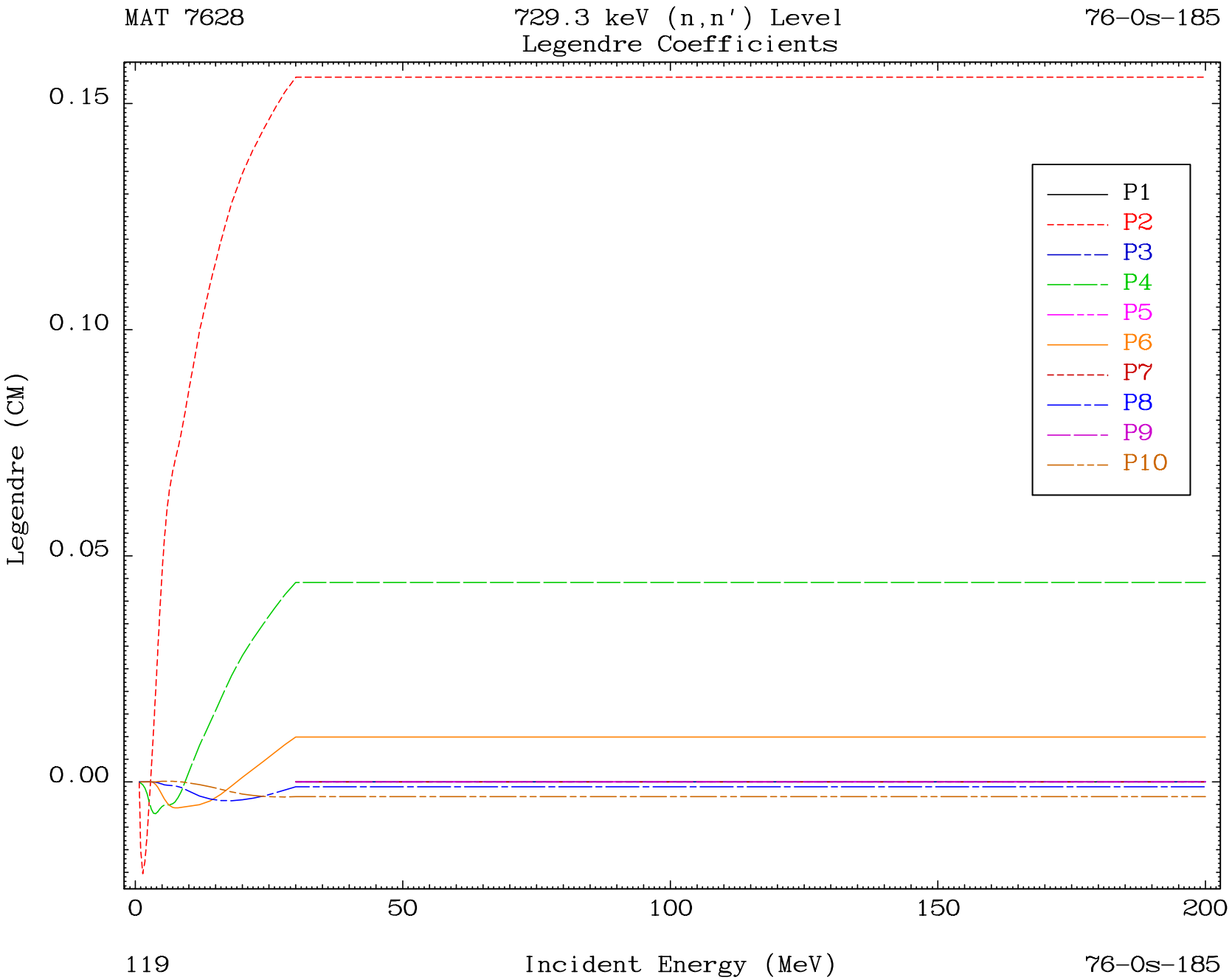

MAT 7628
679.0 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10−6
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
114
Incident Energy (MeV)
76-0s-185

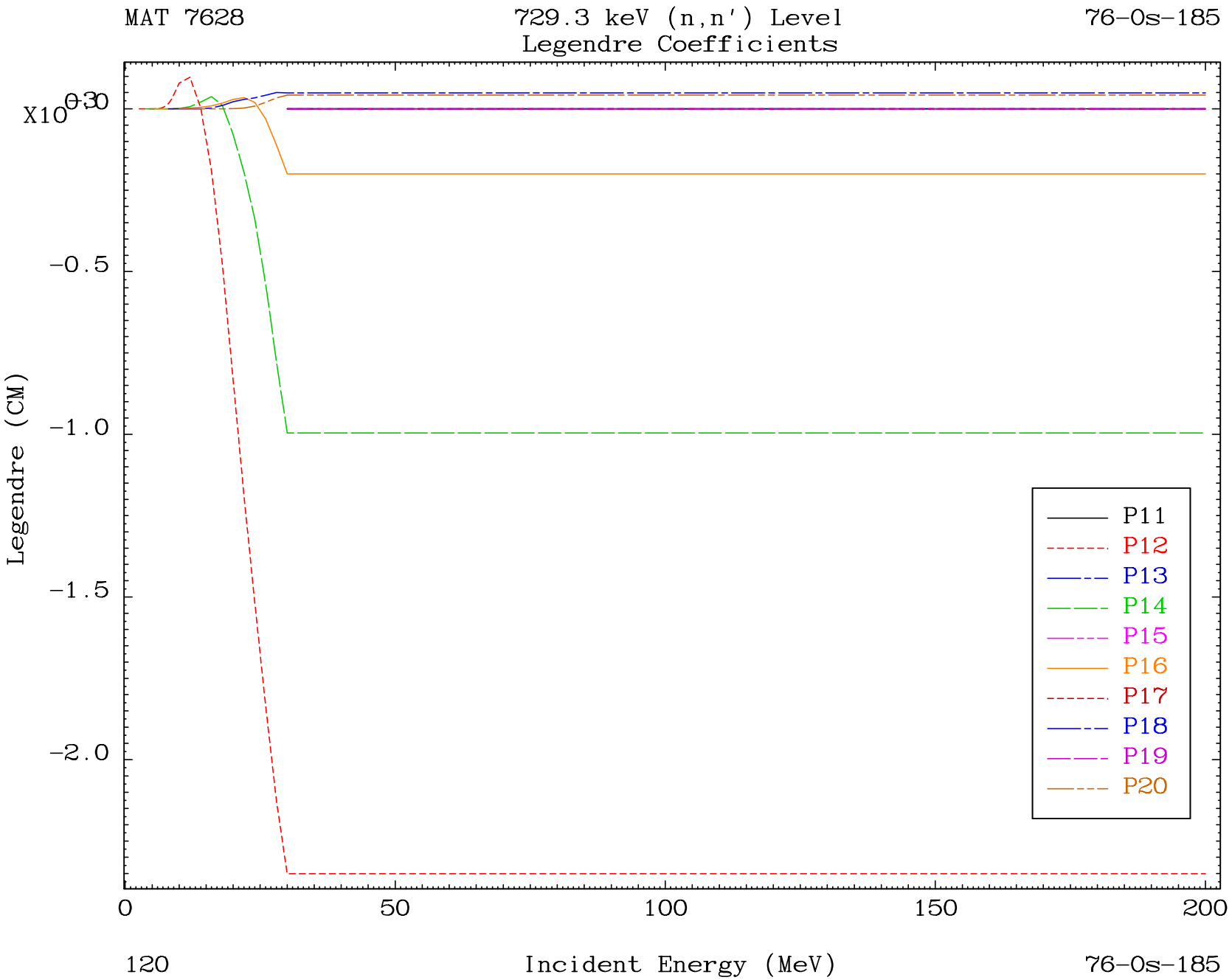

MAT 7628
706.8 keV (n,n') Level
Legendre Coefficients
76-0s-185
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
115
Incident Energy (MeV)
76-0s-185

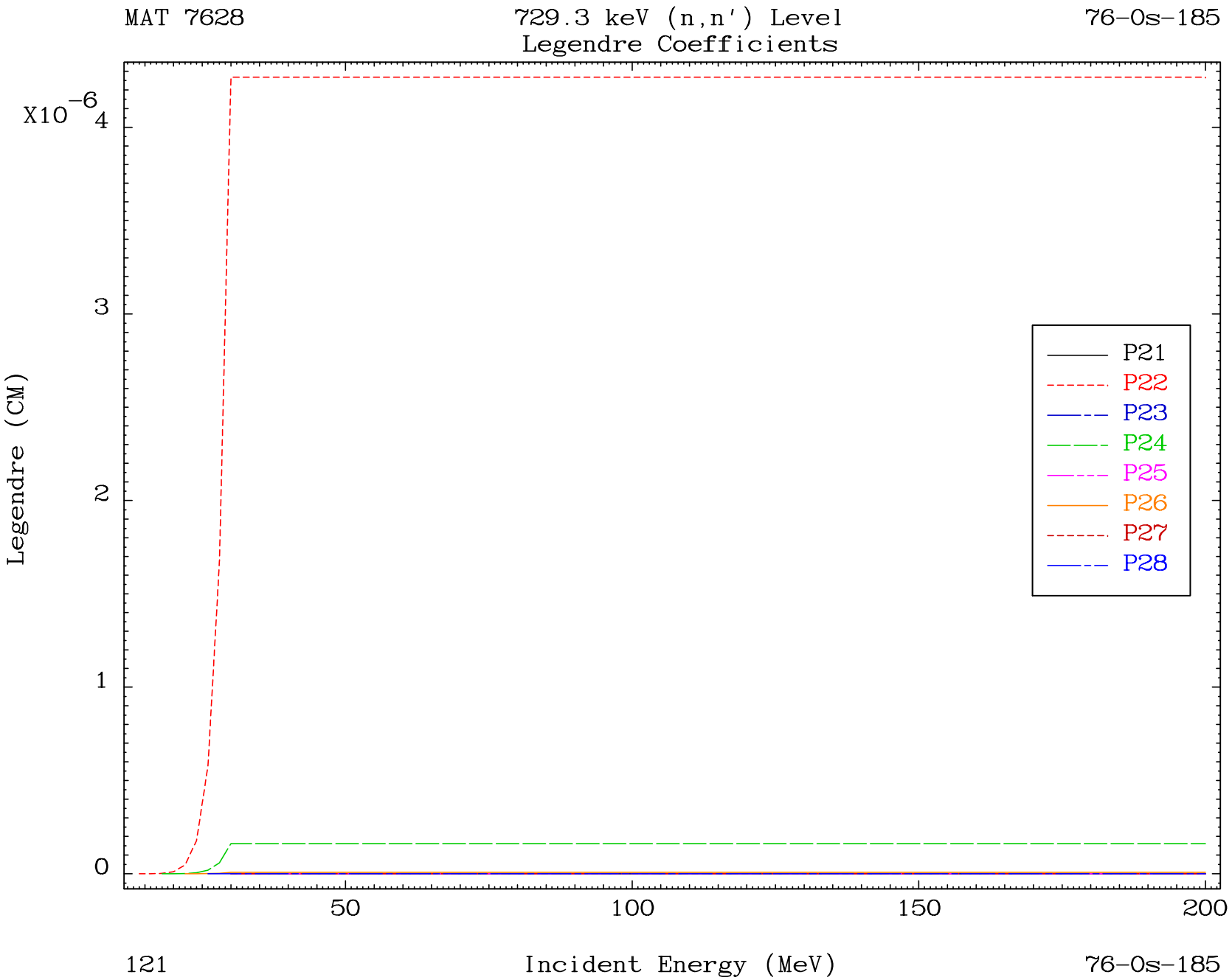

MAT 7628
706.8 keV (n,n') Level
Legendre Coefficients
76-0s-185
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
116
Incident Energy (MeV)
76-0s-185

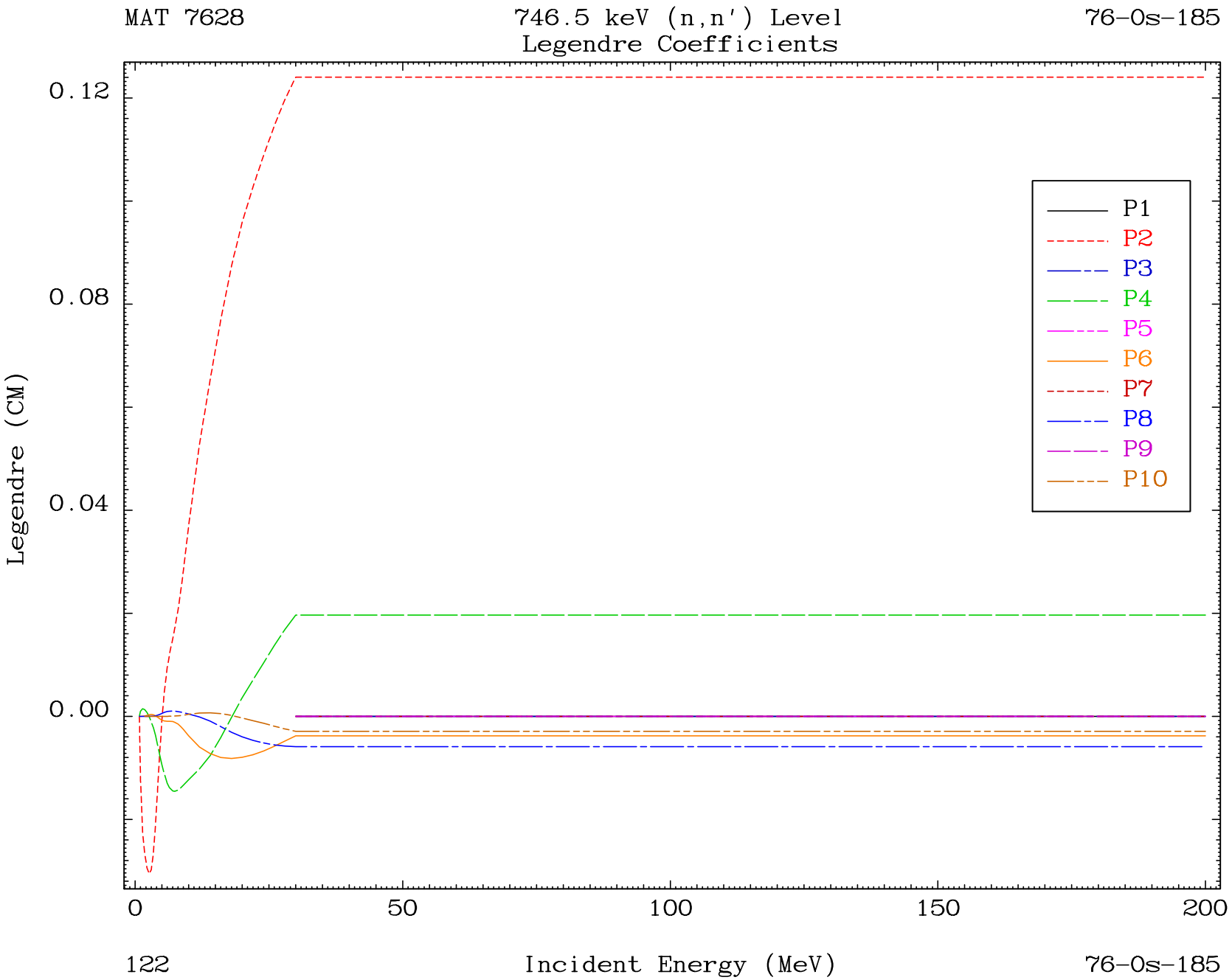

MAT 7628
706.8 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^{-3}
1.2
0.8
0.4
0.0
-0.4
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
117
Incident Energy (MeV)
76-0s-185

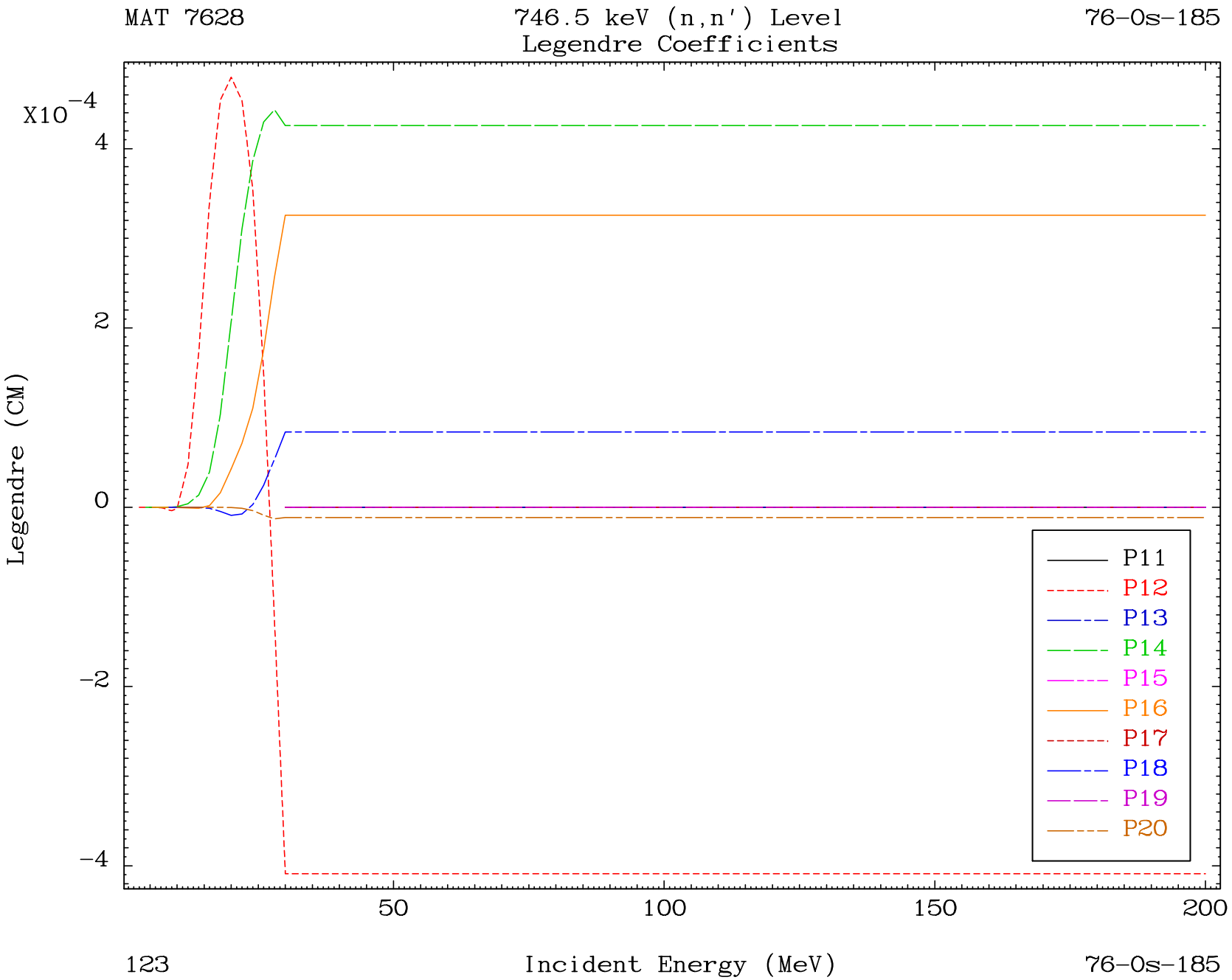

MAT 7628
706.8 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
118
Incident Energy (MeV)
76-0s-185

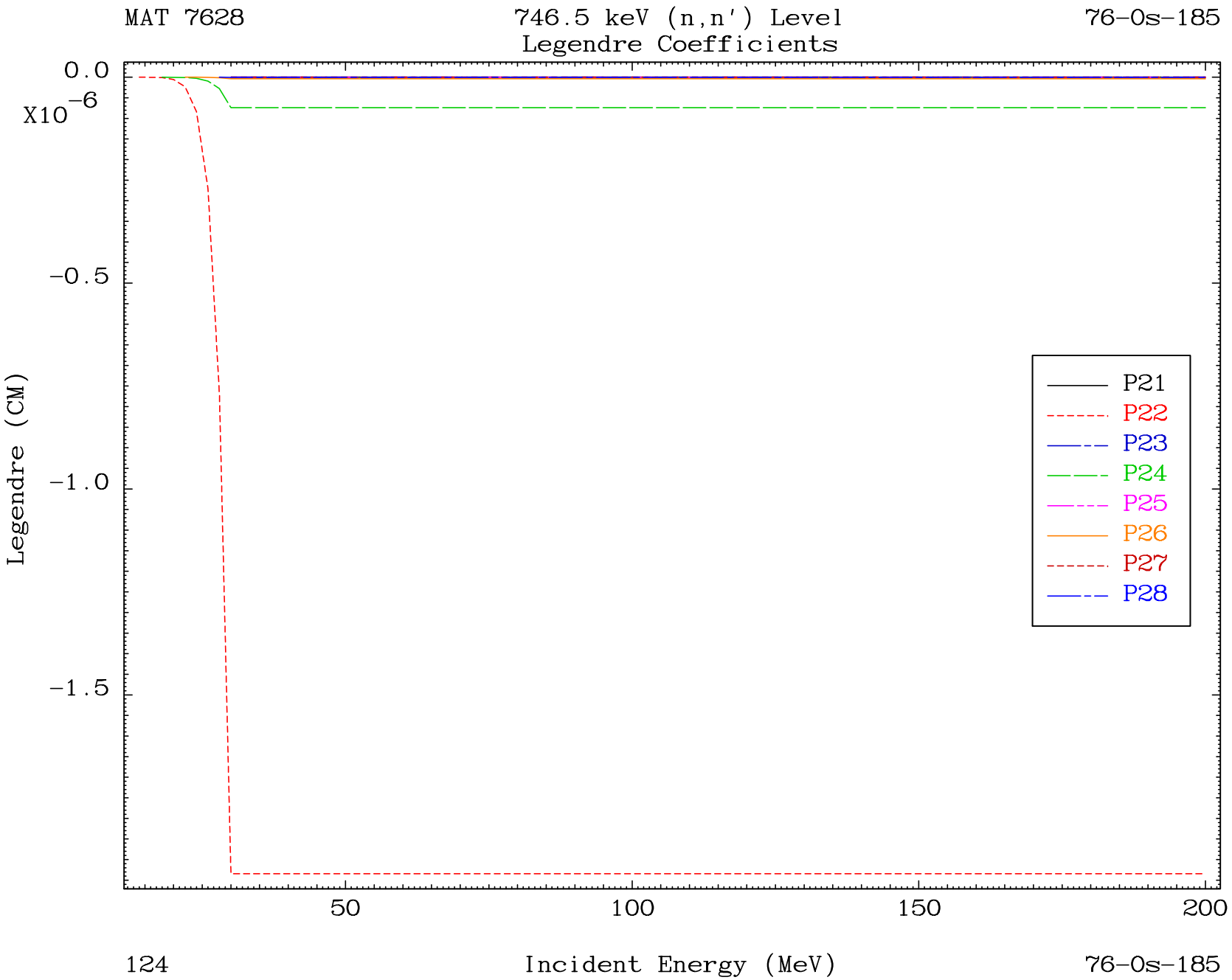

MAT 7628
729.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
119
Incident Energy (MeV)
76-0s-185

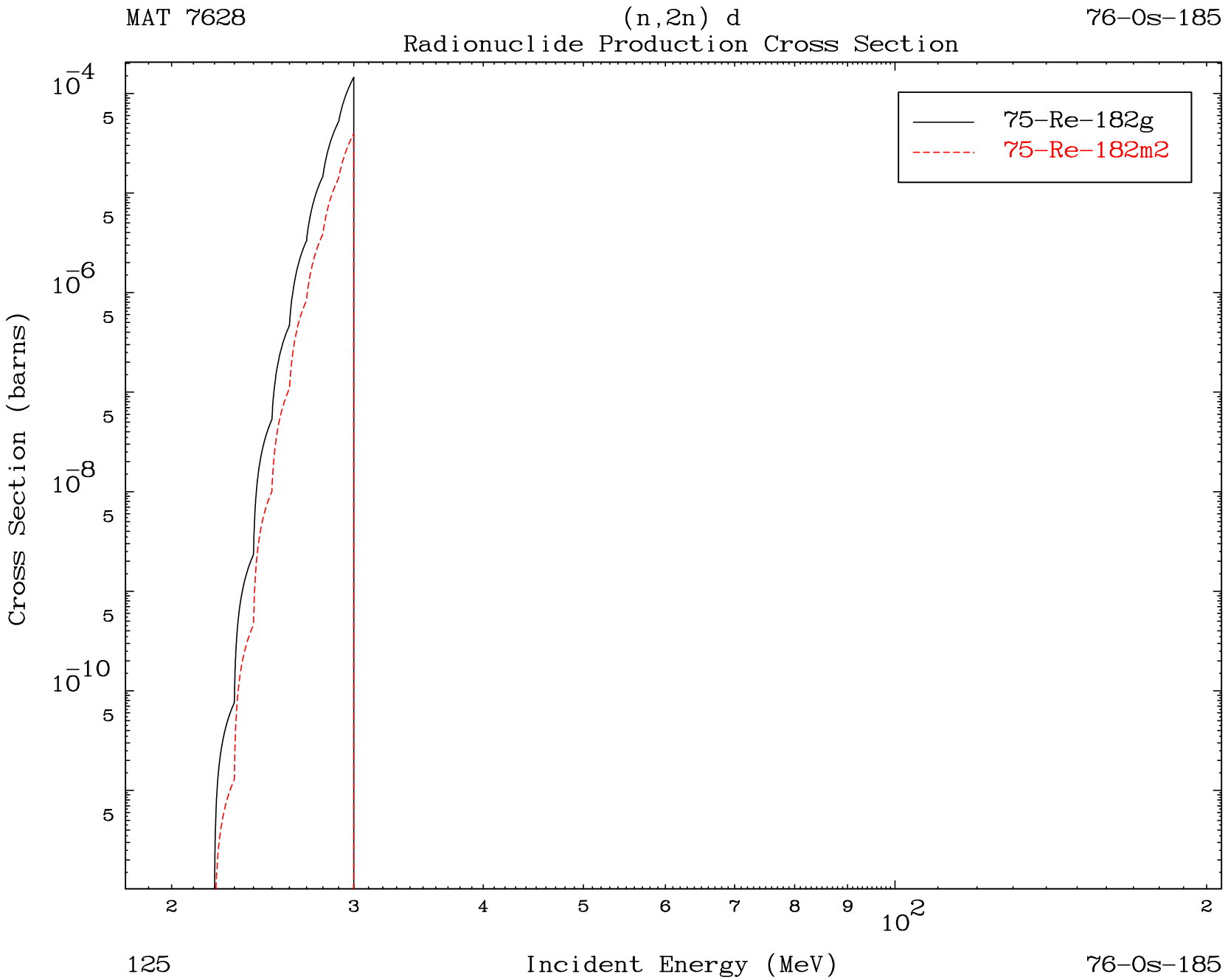

MAT 7628
729.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10^-3
0.0
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
0
50
100
150
200
120
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

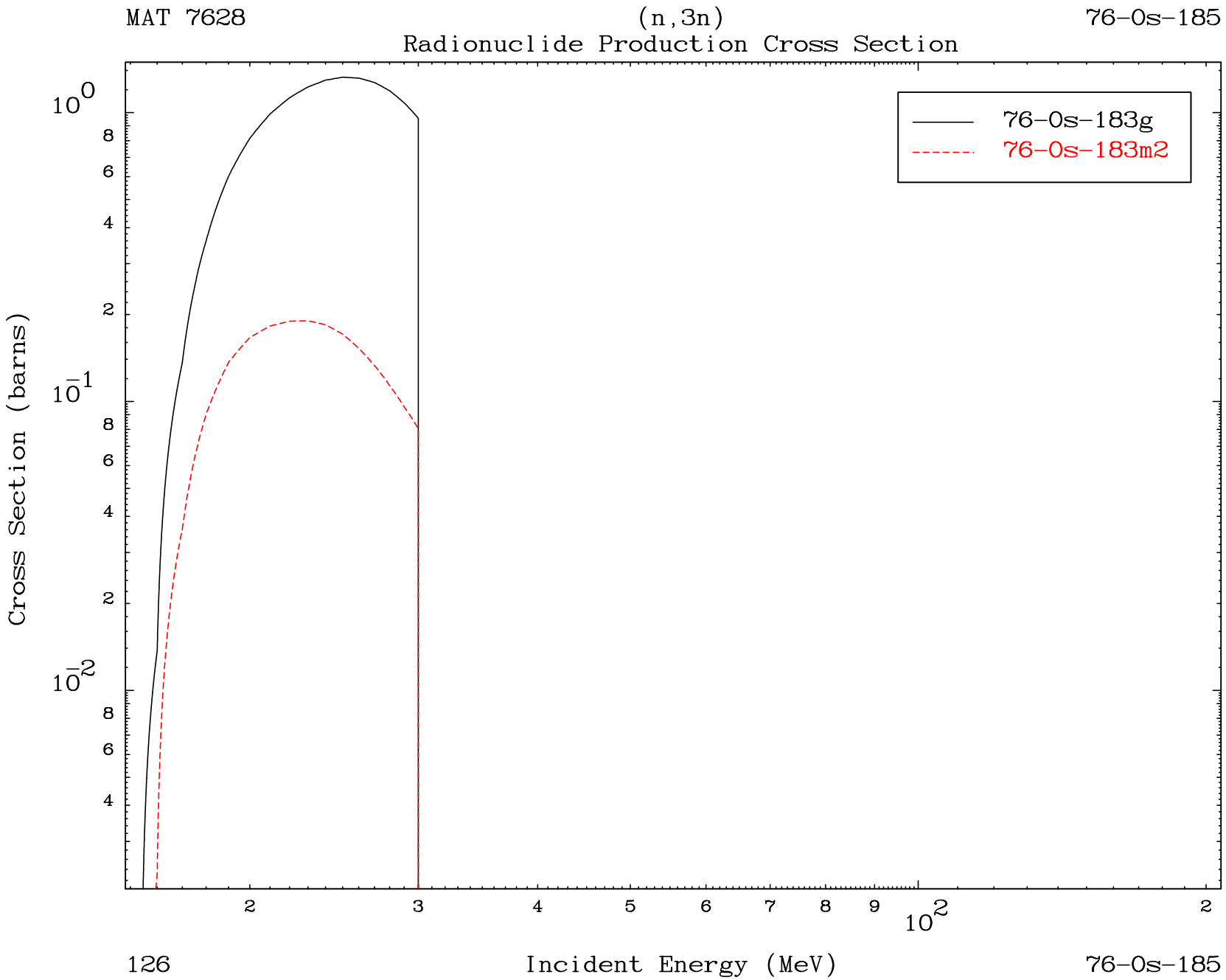

MAT 7628
729.3 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 -6
4
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
121
Incident Energy (MeV)
76-0s-185

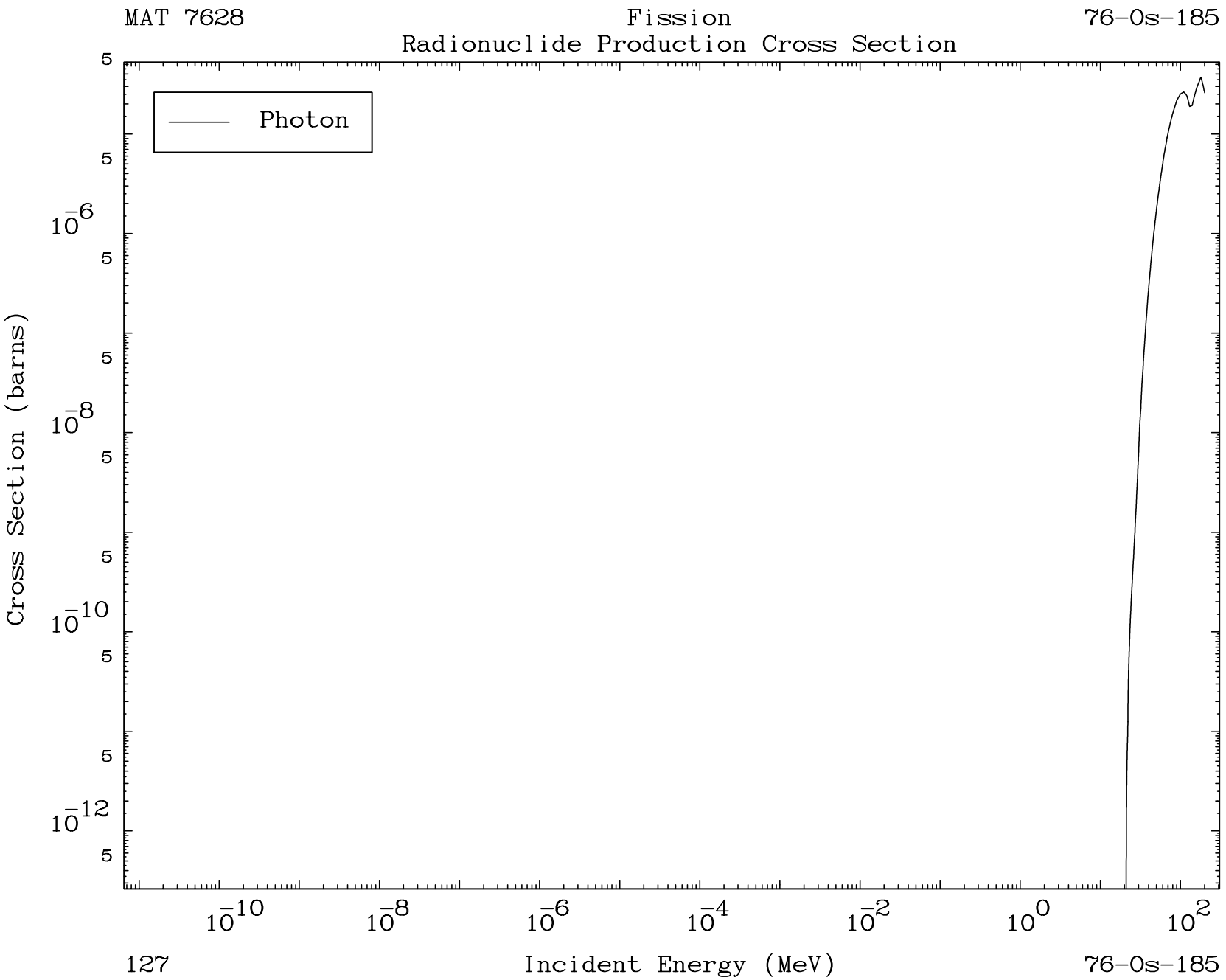

MAT 7628
746.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
0
50
100
150
200
122
Incident Energy (MeV)
76-0s-185

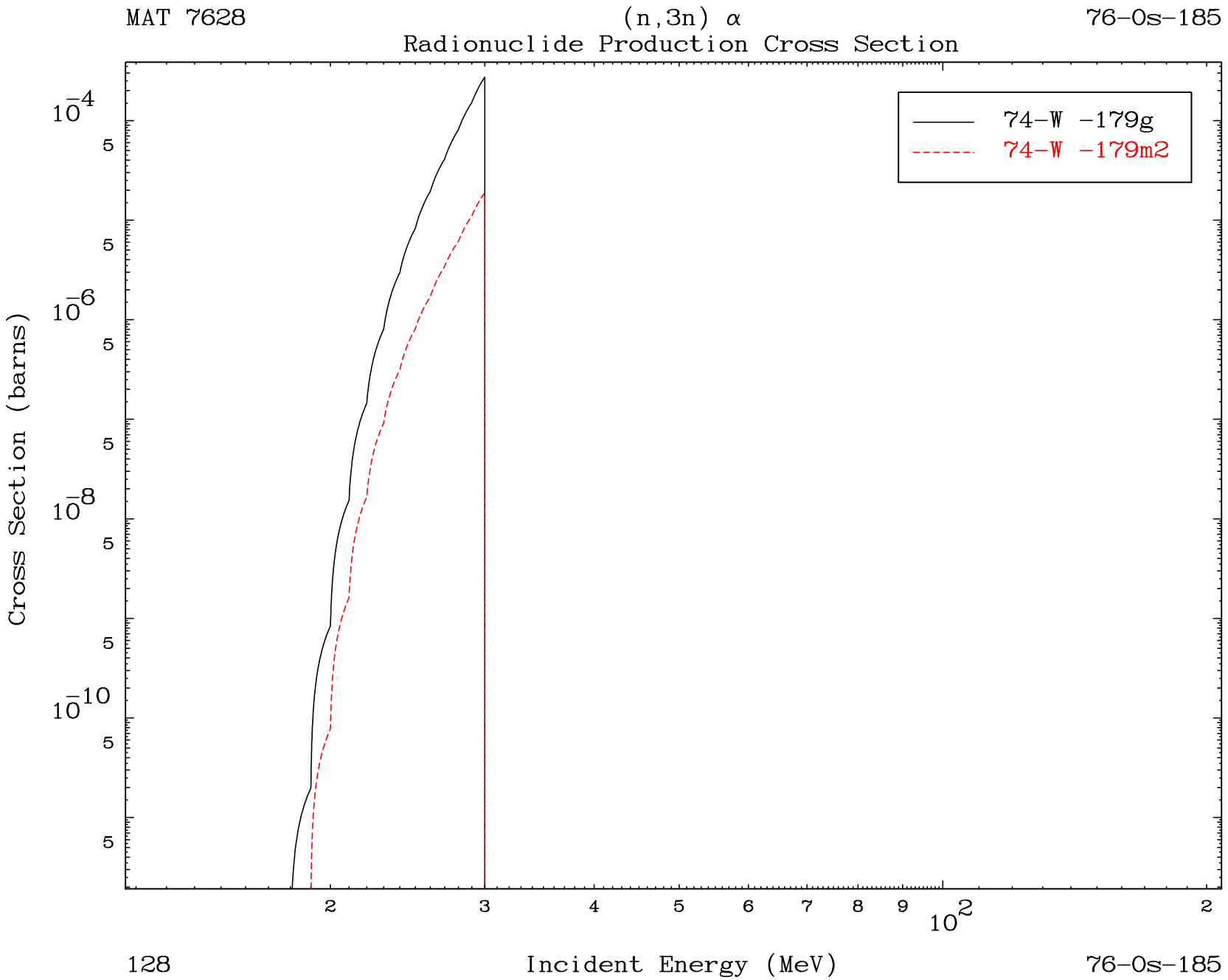

MAT 7628
746.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
X10 −4
4
2
0
−2
−4
Legendre (CM)
50
100
150
200
123
Incident Energy (MeV)
76-0s-185
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

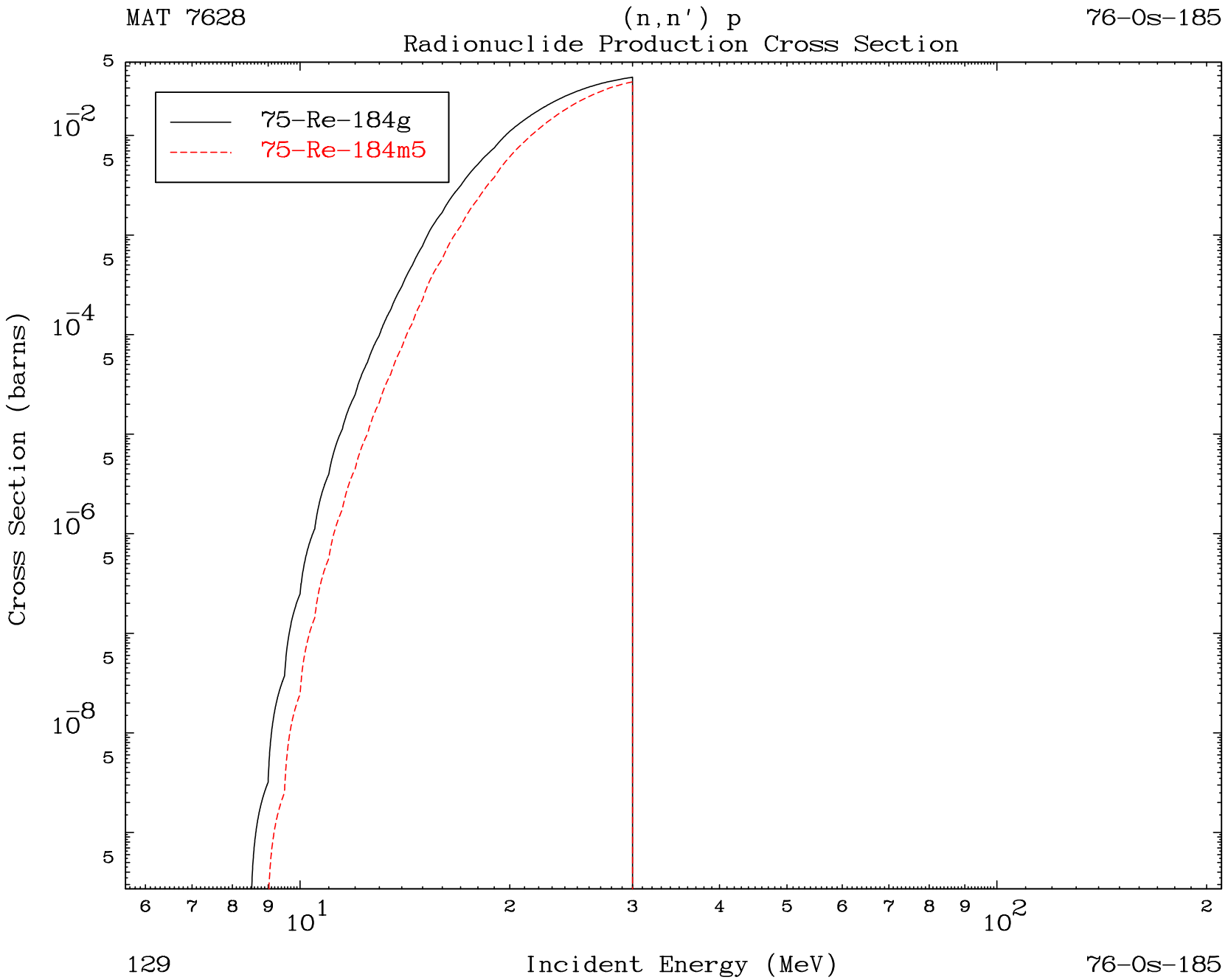

MAT 7628
746.5 keV (n,n') Level
Legendre Coefficients
76-0s-185
0.0
X10 −6
−0.5
−1.0
−1.5
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
124
Incident Energy (MeV)
76-0s-185

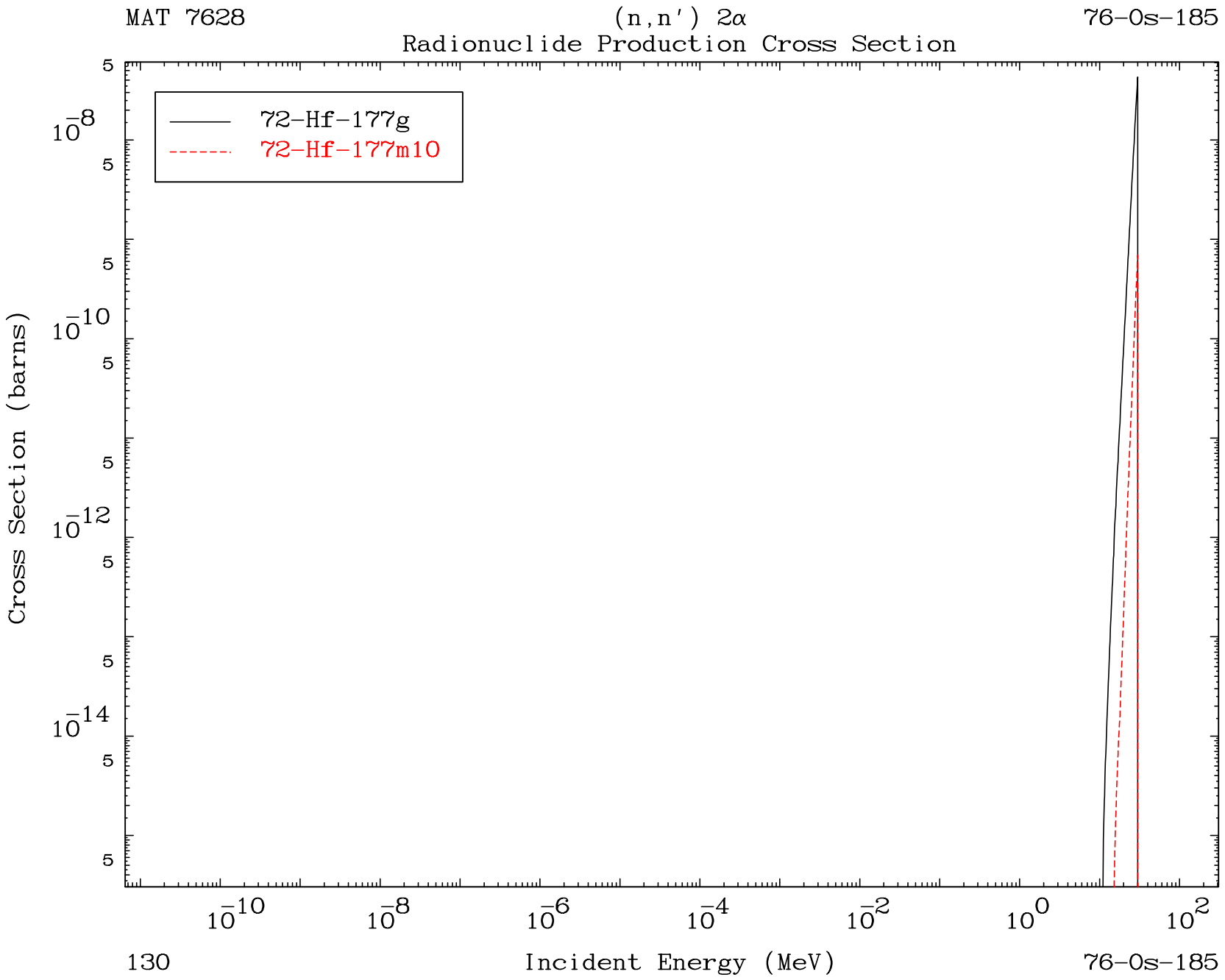

MAT 7628
(n,2n) d
76-Os-185
Radionuclide Production Cross Section
75-Re-182g
75-Re-182m2
Cross Section (barns)
Incident Energy (MeV)
125
76-Os-185

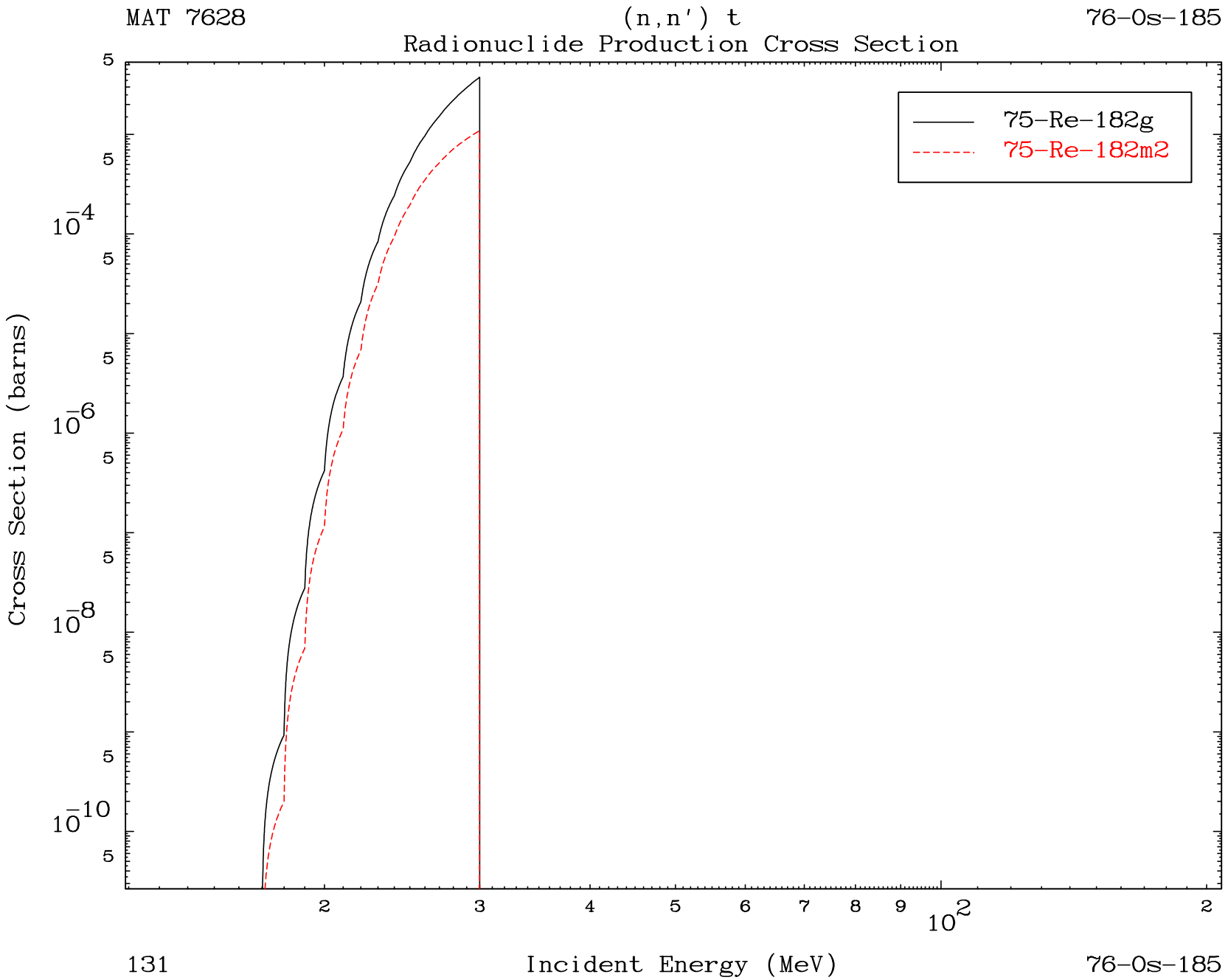

MAT 7628
(n,3n)
76-0s-185
Radionuclide Production Cross Section
76-0s-183g
76-0s-183m2
Cross Section (barns)
10^0
10^{-1}
10^{-2}
8
6
4
2
2
3
4
5
6
7
8
9
10^2
2
126
Incident Energy (MeV)
76-0s-185

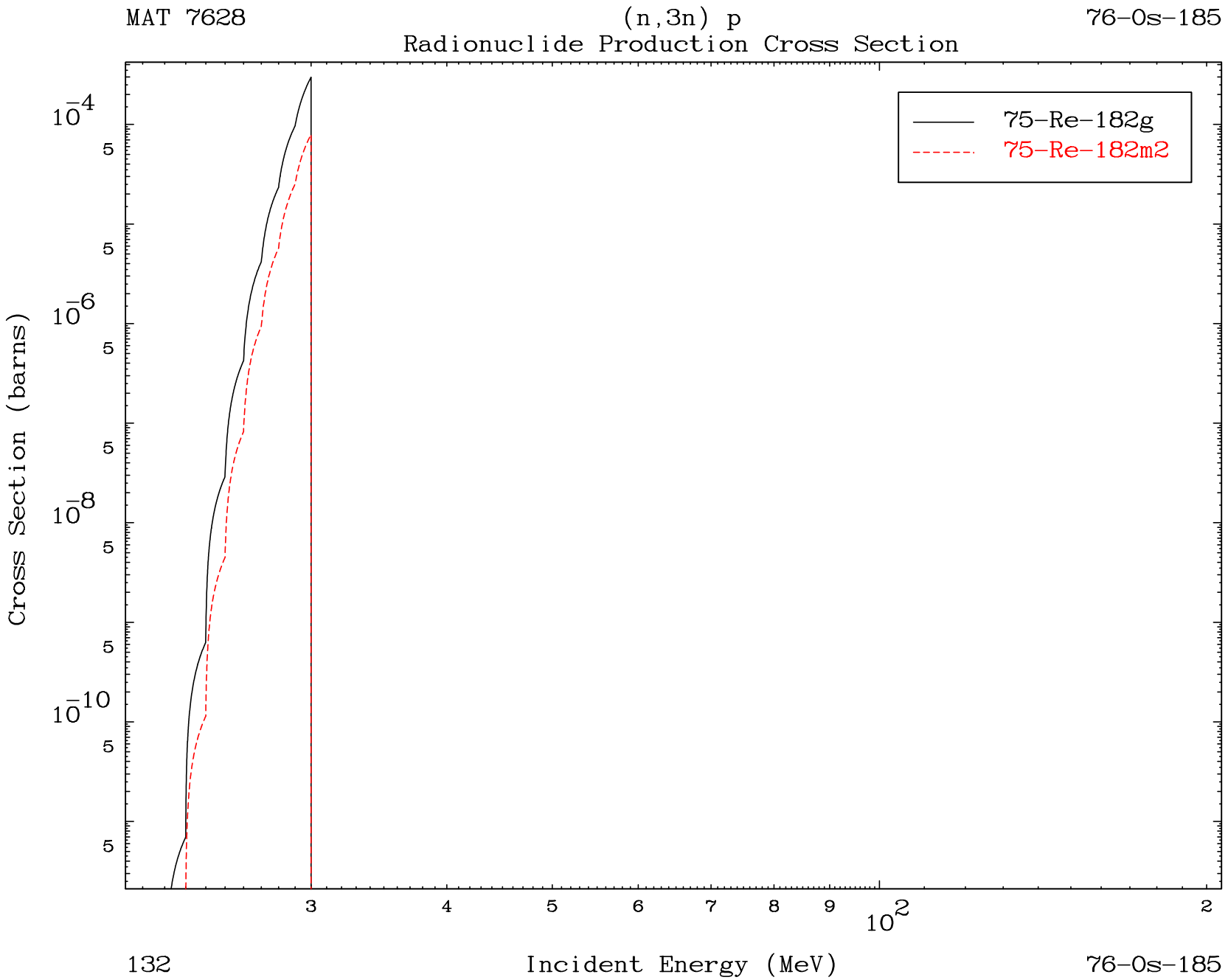

MAT 7628
Fission
76-0s-185
Radionuclide Production Cross Section
Photon
Cross Section (barns)
Incident Energy (MeV)
127
76-0s-185

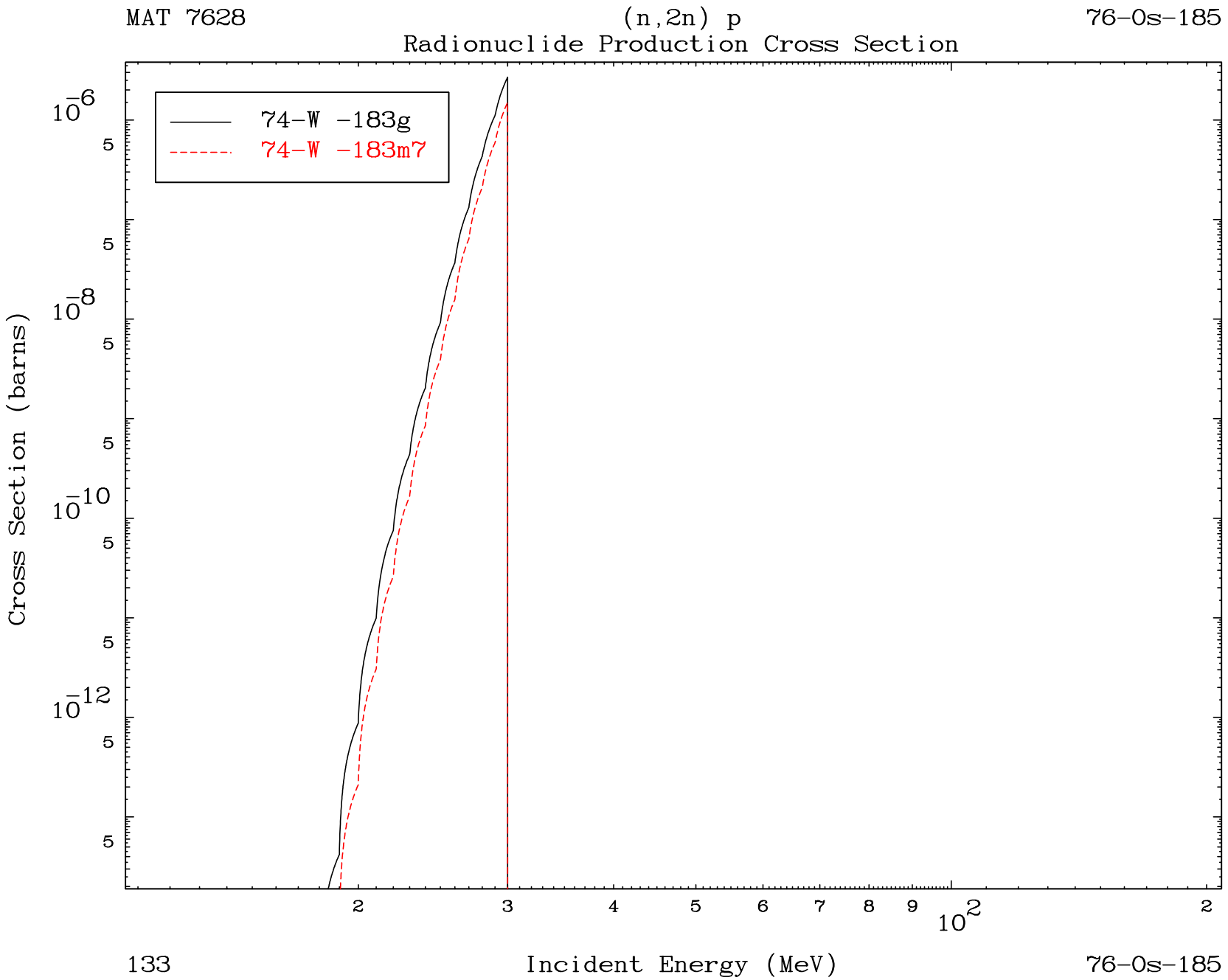

MAT 7628
(n,3n) α
76-0s-185
Radionuclide Production Cross Section
74-W -179g
74-W -179m2
Cross Section (barns)
10-4
10-6
10-8
10-10
5
2
3
4
5
6
7
8
9
10 2
2
128
Incident Energy (MeV)
76-0s-185

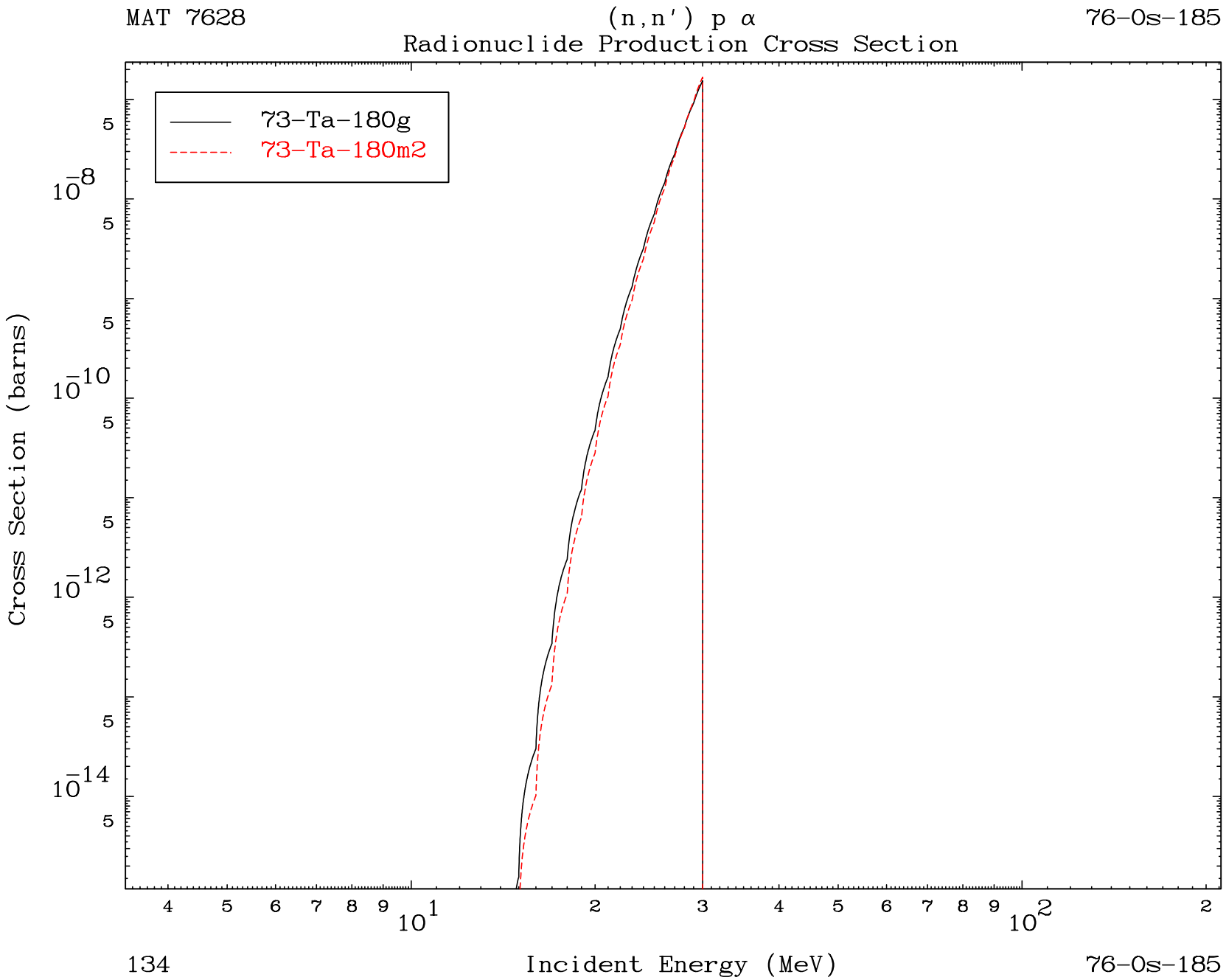

MAT 7628
(n,n') p
76-0s-185
Radionuclide Production Cross Section
75-Re-184g
75-Re-184m5
Cross Section (barns)
Incident Energy (MeV)
129
76-0s-185

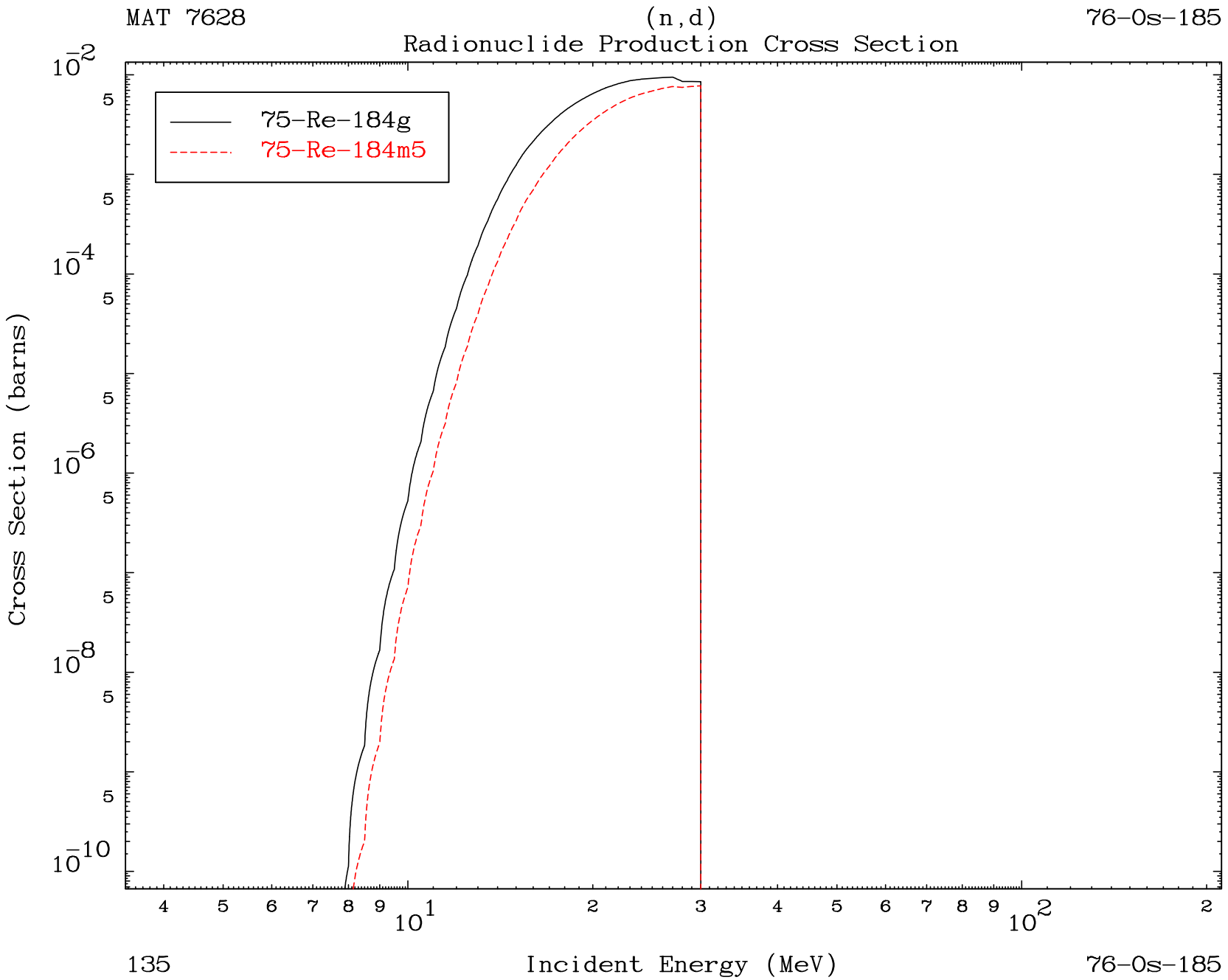

MAT 7628
(n,n') 2α
76-0s-185
Radionuclide Production Cross Section
72-Hf-177g
72-Hf-177m10
Cross Section (barns)
Incident Energy (MeV)
130
76-0s-185

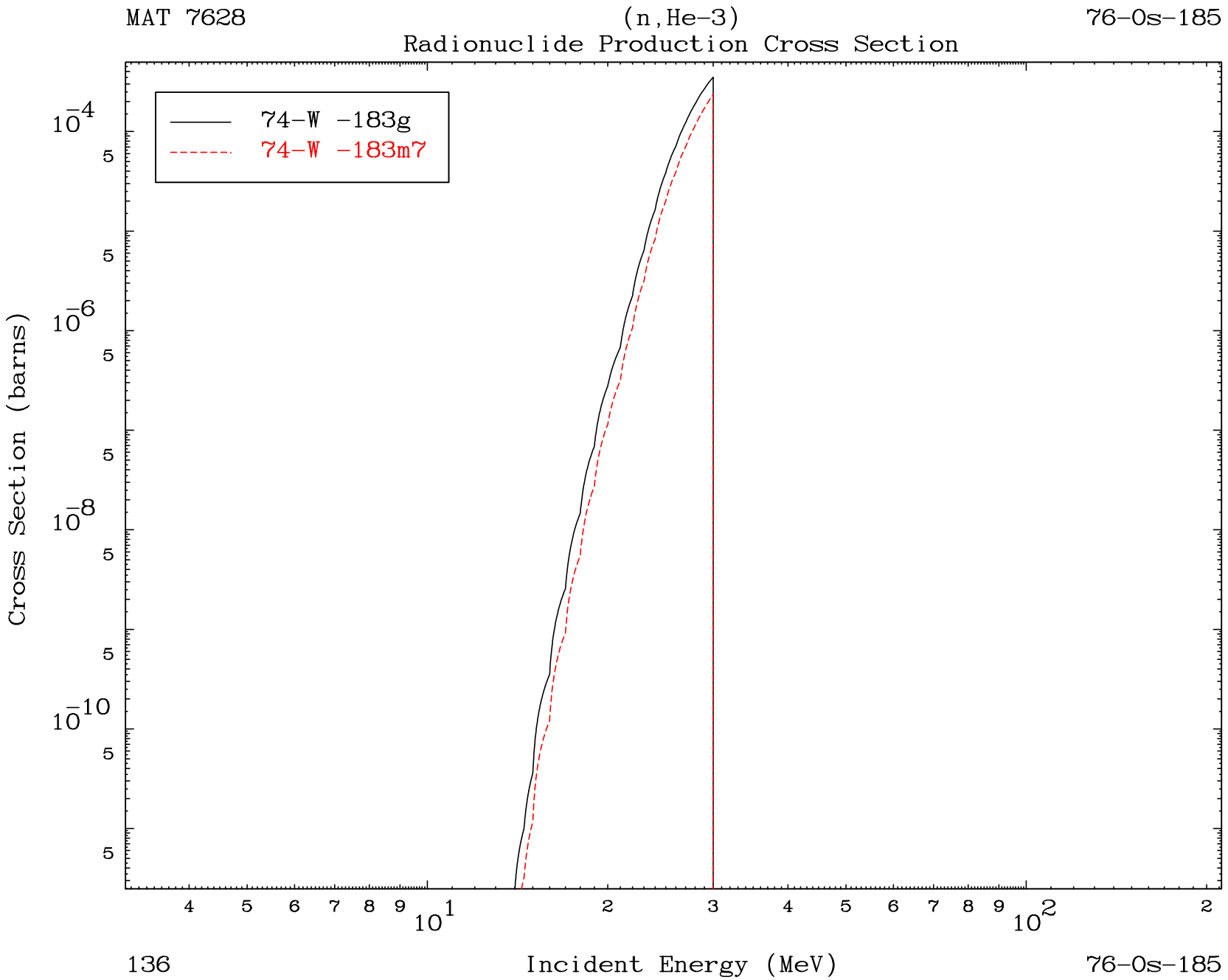

MAT 7628
(n,n') t
76-0s-185
Radionuclide Production Cross Section
75-Re-182g
75-Re-182m2
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
2
3
4
5
6
7
8
9
10^2
2
131
Incident Energy (MeV)
76-0s-185

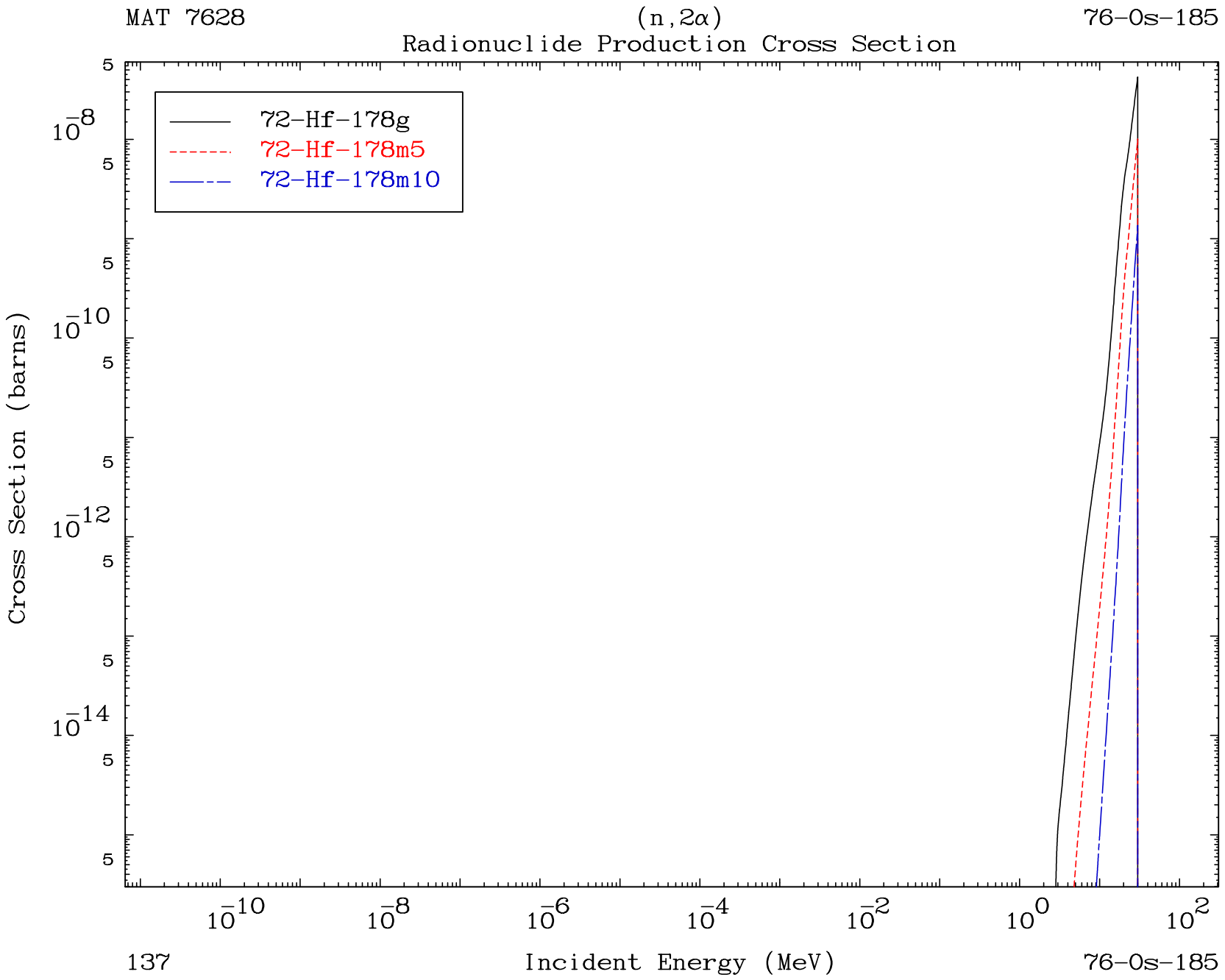

MAT 7628
(n,3n) p
76-0s-185
Radionuclide Production Cross Section
75-Re-182g
75-Re-182m2
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
3
4
5
6
7
8
9
10^2
2
132
Incident Energy (MeV)
76-0s-185

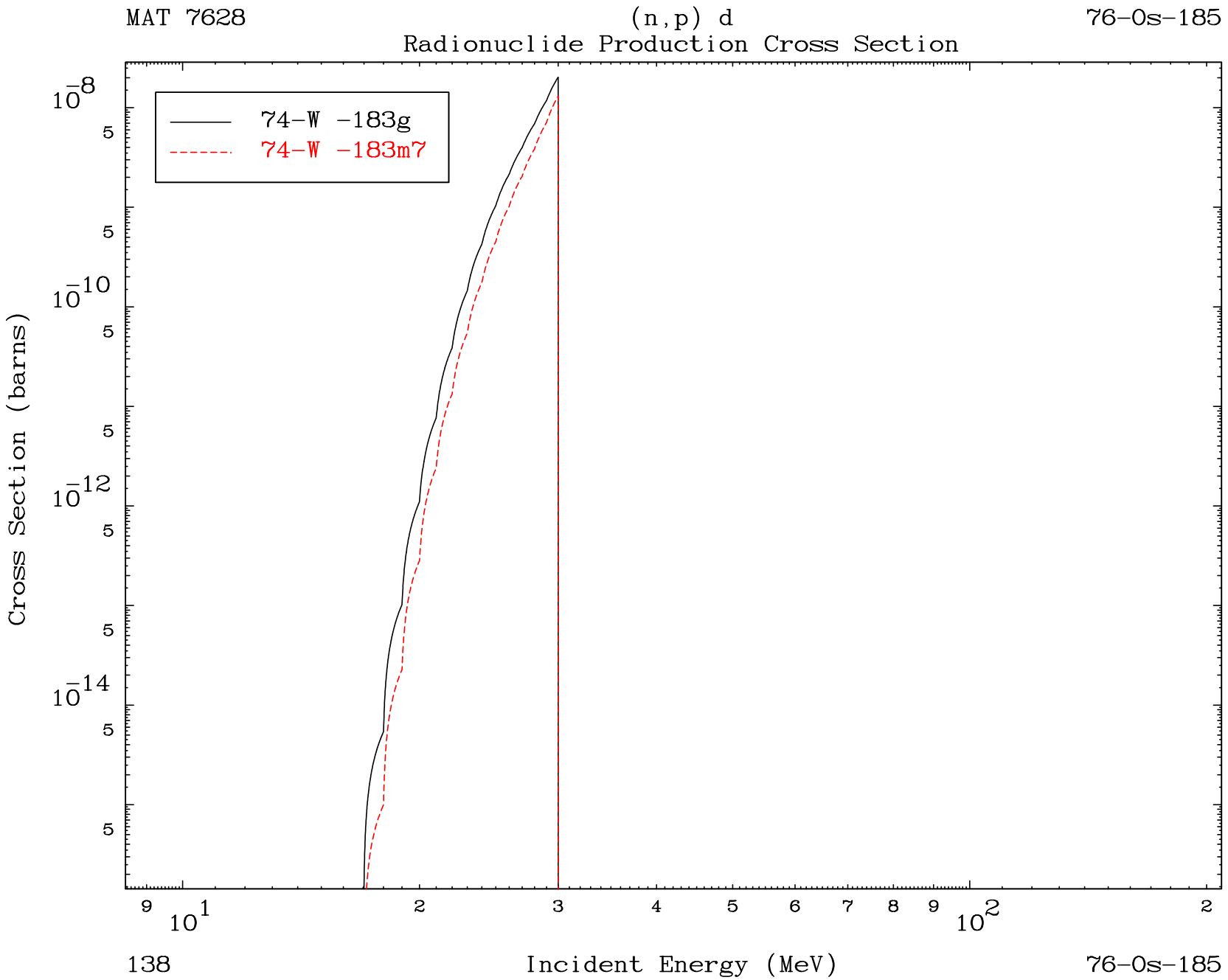

MAT 7628
(n,2n) p
76-0s-185
Radionuclide Production Cross Section
74-W -183g
74-W -183m7
Cross Section (barns)
10-6
10-8
10-10
10-12
5
2
3
4
5
6
7
8
9
10 2
2
133
Incident Energy (MeV)
76-0s-185

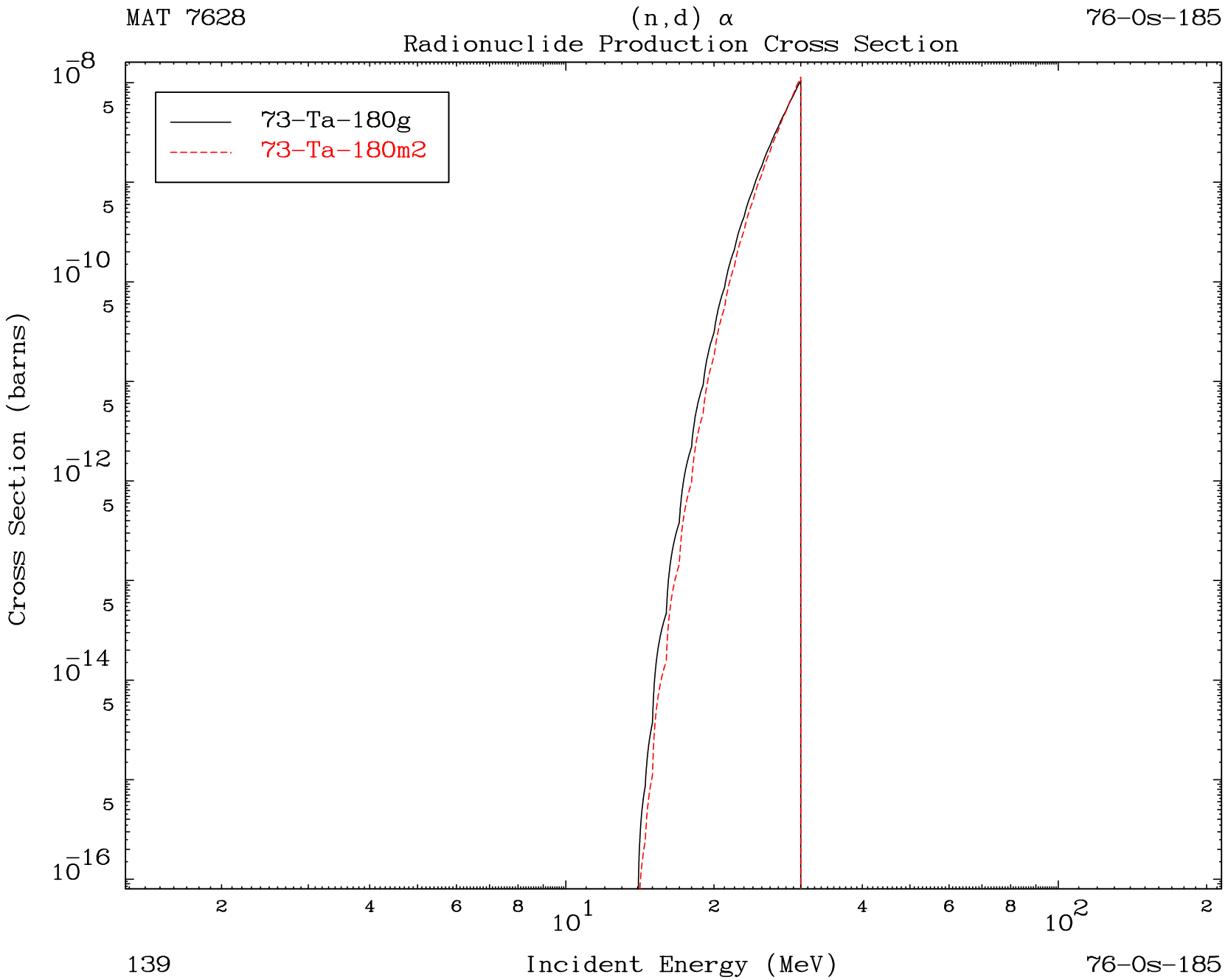

MAT 7628
(n,n') p α
76-0s-185
Radionuclide Production Cross Section
73-Ta-180g
73-Ta-180m2
Cross Section (barns)
10^-8
10^-10
10^-12
10^-14
5
4 5 6 7 8 9
10^1
2 3 4 5 6 7 8 9
10^2
2
134
Incident Energy (MeV)
76-0s-185


MAT 7628
(n,d)
76-0s-185
Radionuclide Production Cross Section
75-Re-184g
75-Re-184m5
Cross Section (barns)
Incident Energy (MeV)
135
76-0s-185


MAT 7628
(n,He-3)
76-0s-185
Radionuclide Production Cross Section
74-W -183g
74-W -183m7
Cross Section (barns)
Incident Energy (MeV)
136
76-0s-185


MAT 7628
(n,2α)
76-0s-185
Radionuclide Production Cross Section
72-Hf-178g
72-Hf-178m5
72-Hf-178m10
Cross Section (barns)
Incident Energy (MeV)
137
76-0s-185


MAT 7628
(n,p) d
76-0s-185
Radionuclide Production Cross Section
74-W -183g
74-W -183m7
Cross Section (barns)
10-8
10-10
10-12
10-14
5
9
10 1
2
3
4
5
6
7
8
9
10 2
2
138
Incident Energy (MeV)
76-0s-185


MAT 7628
(n,d) α
76-0s-185
Radionuclide Production Cross Section
73-Ta-180g
73-Ta-180m2
Cross Section (barns)
Incident Energy (MeV)
139
76-0s-185