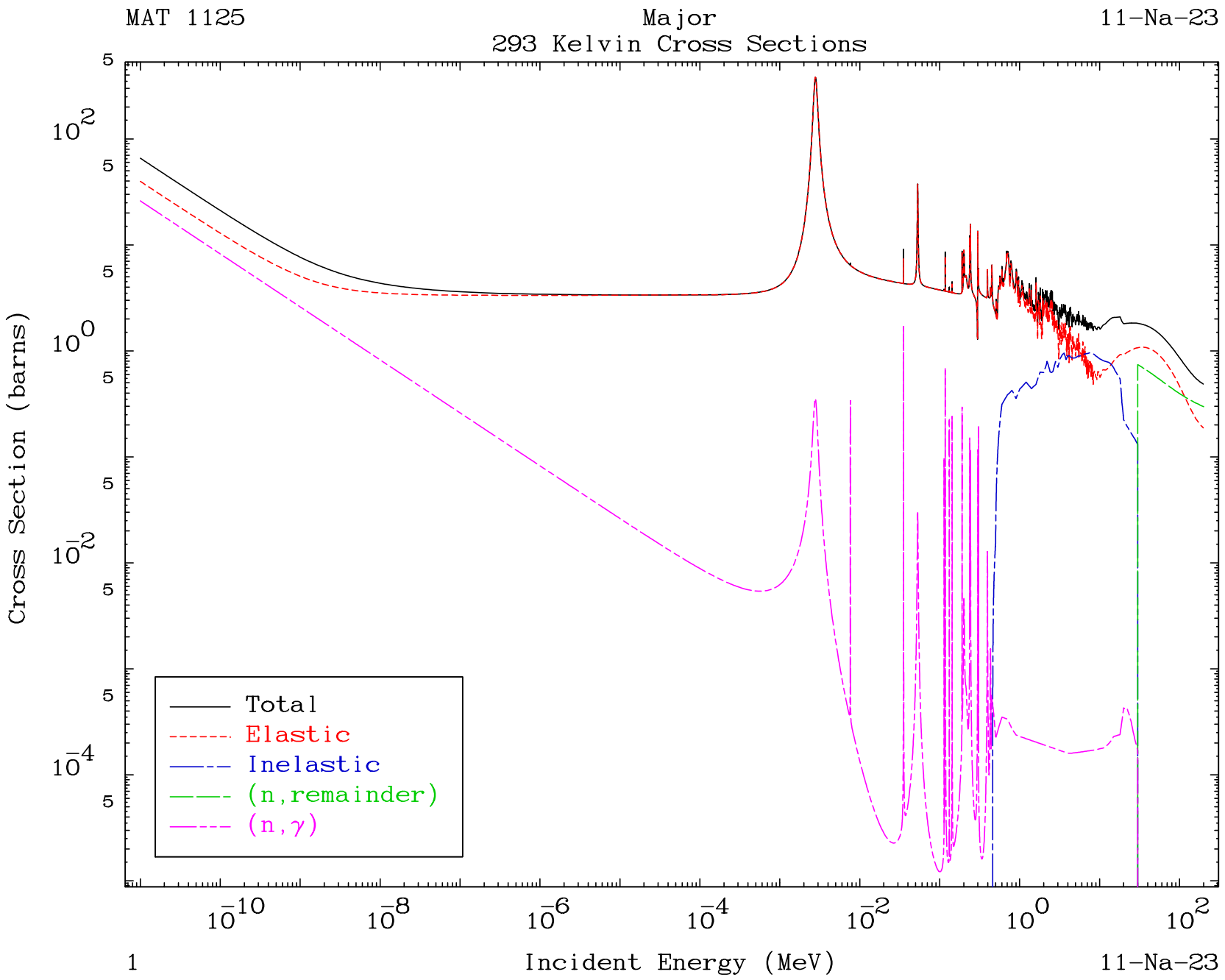
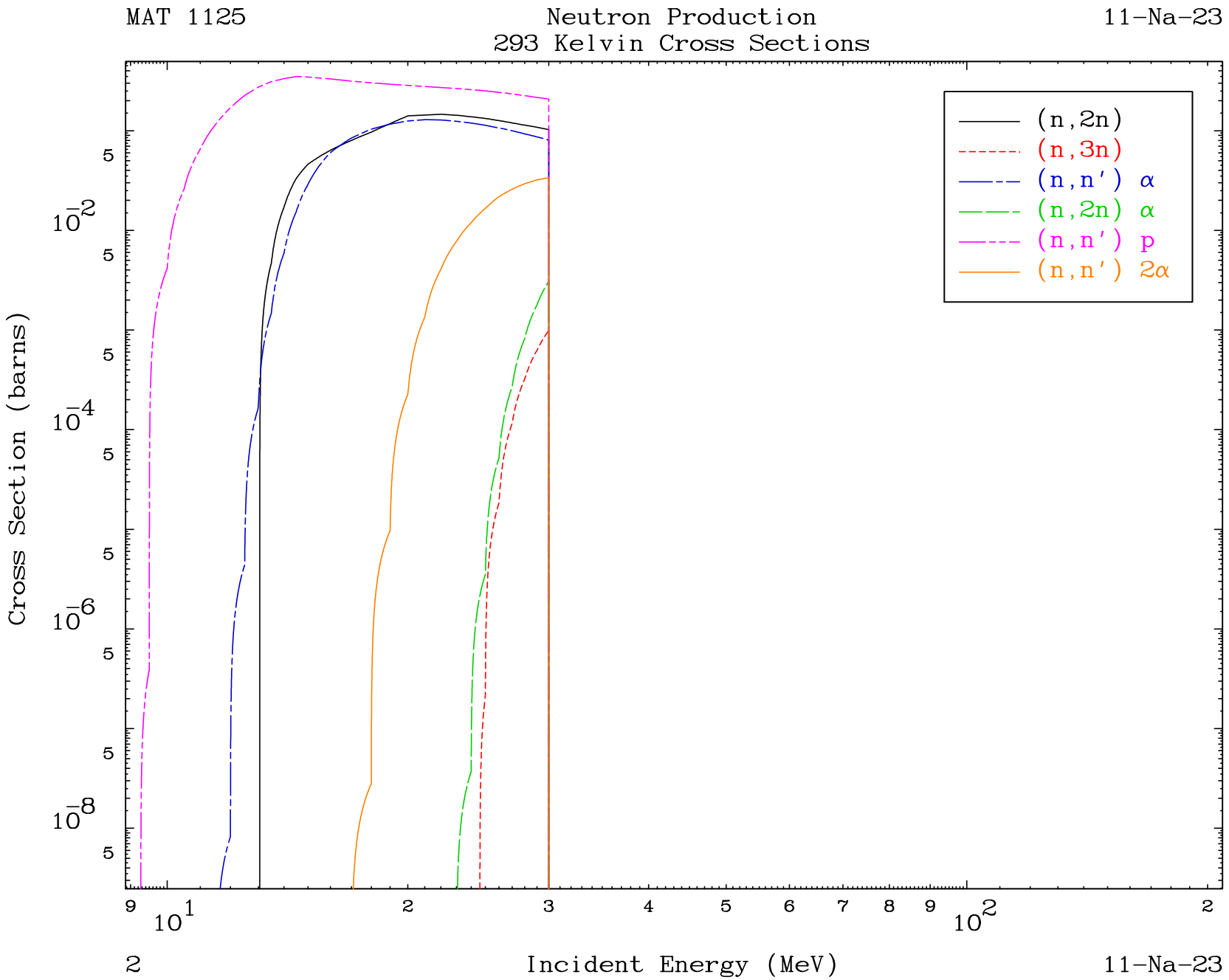
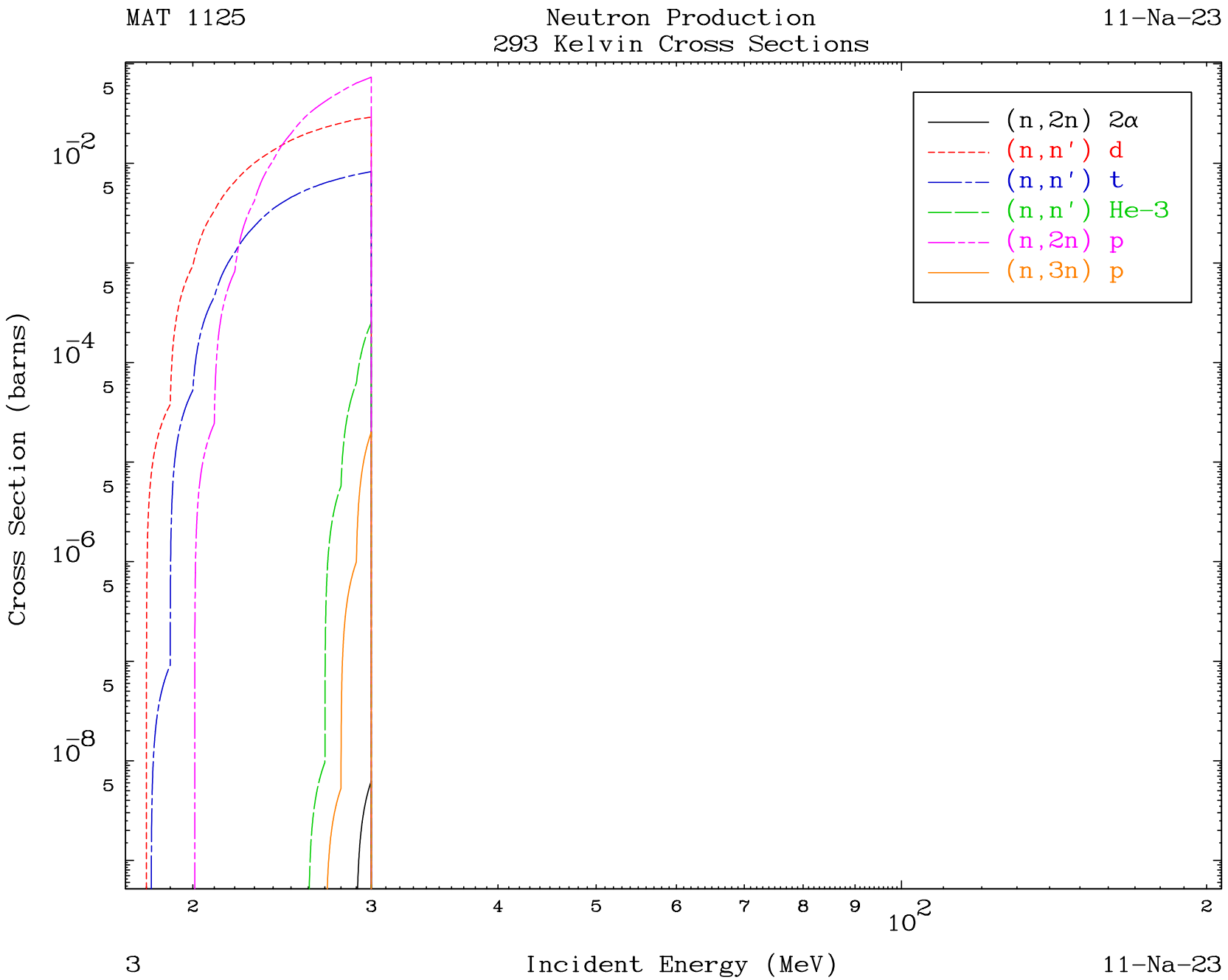
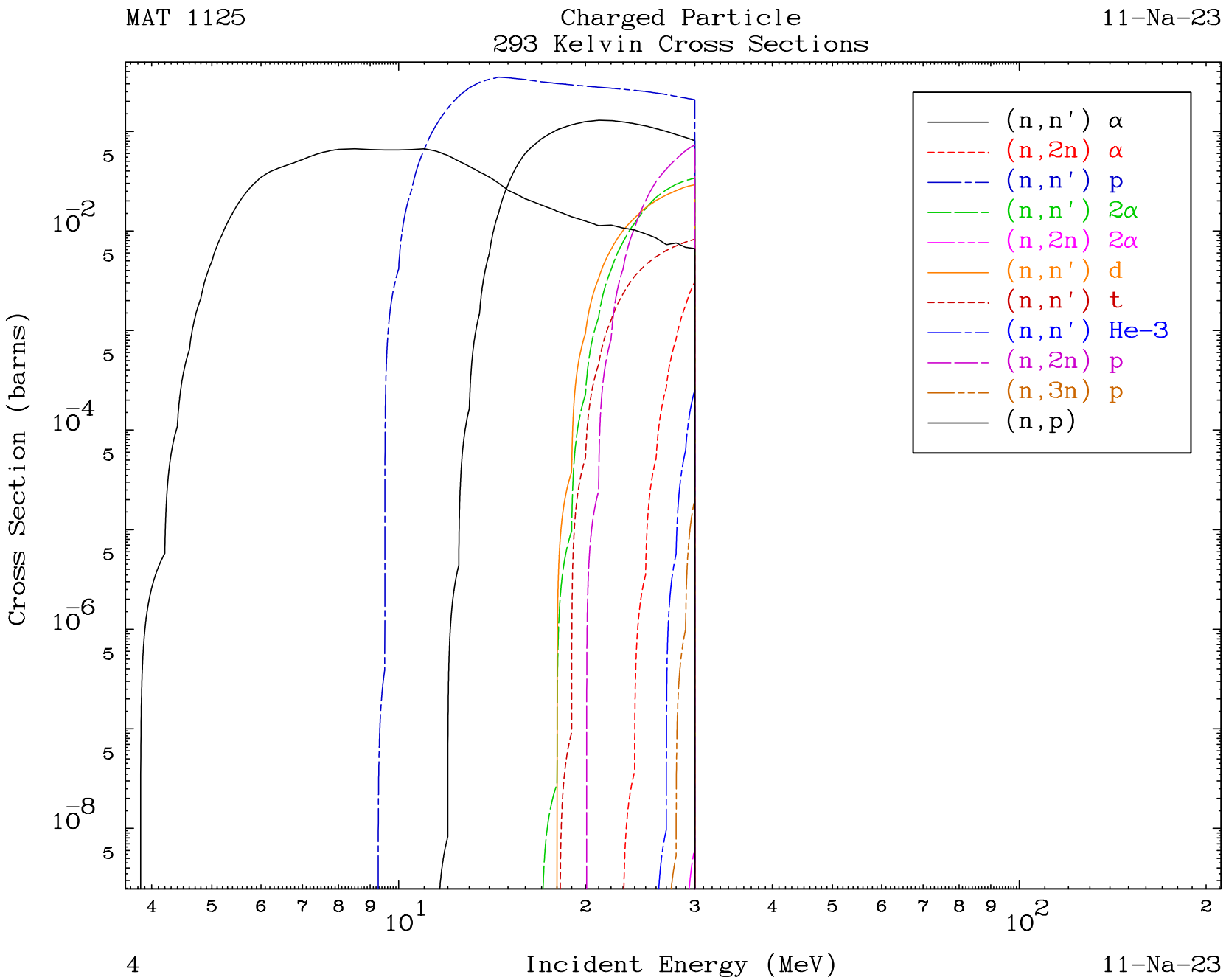
Program EVALPLOT
(Version 2015-2)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:home.comcast.net/~redcullen1

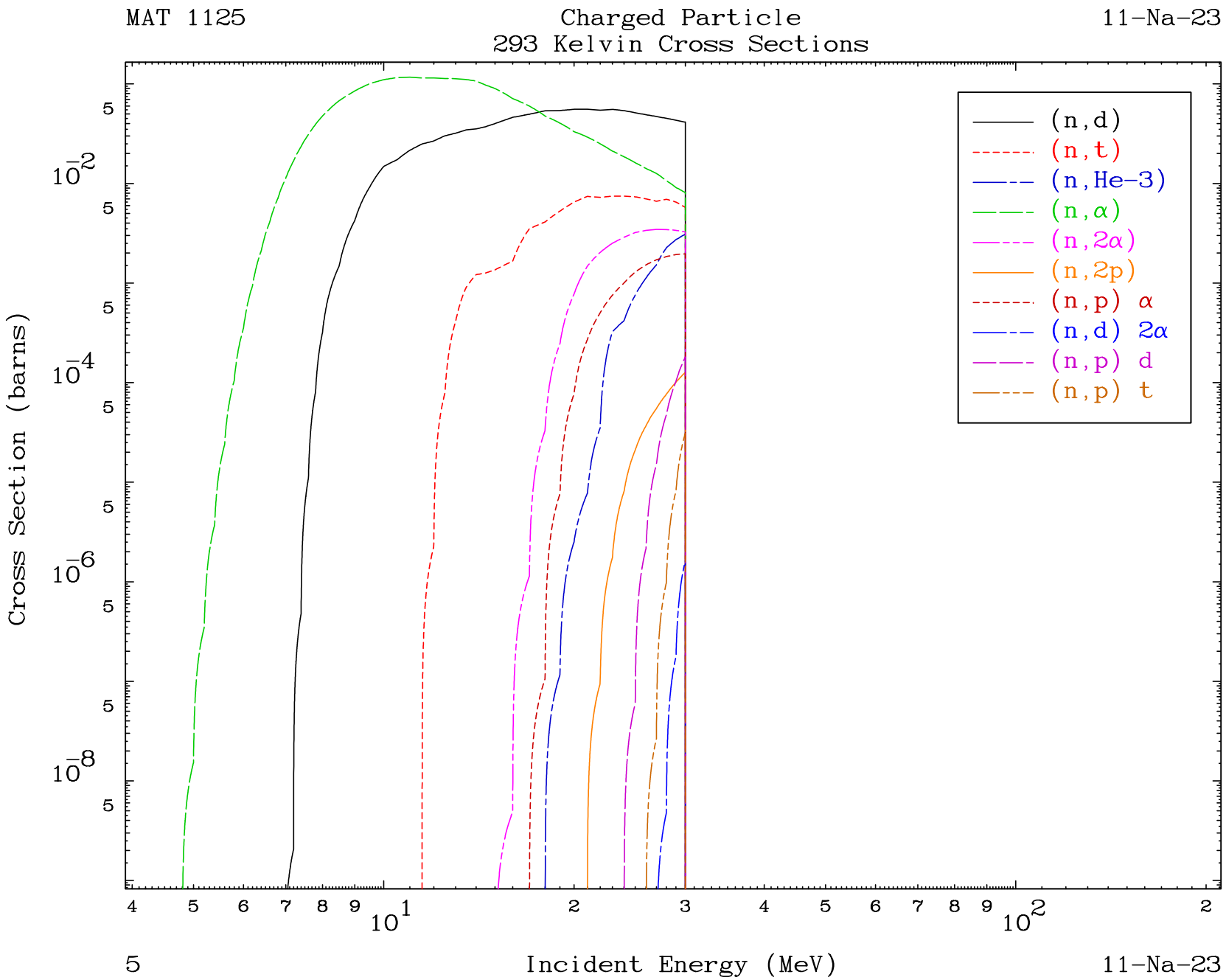
Press Mouse Button to Start

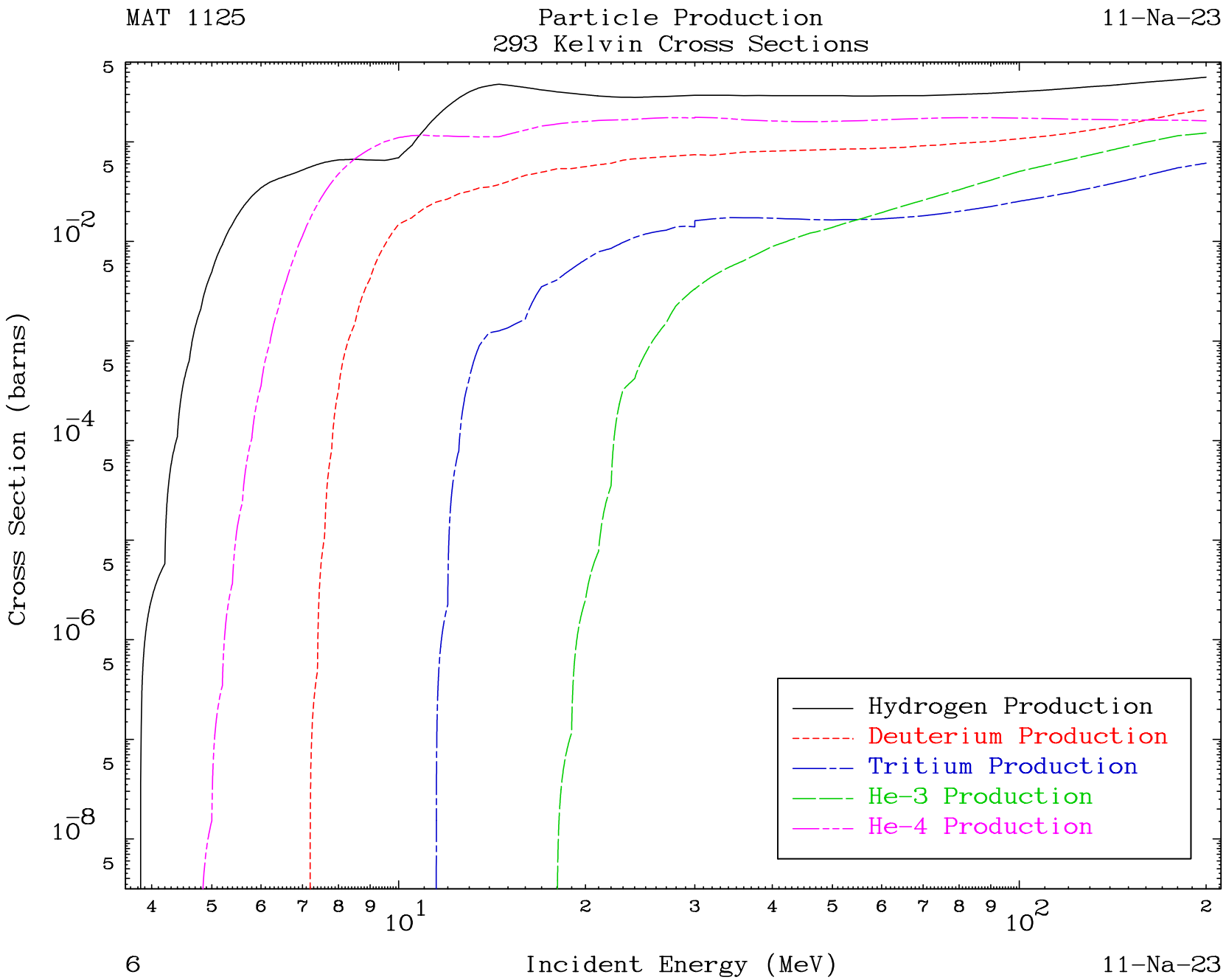

MAT 1125
Major
11-Na-23
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
11-Na-23

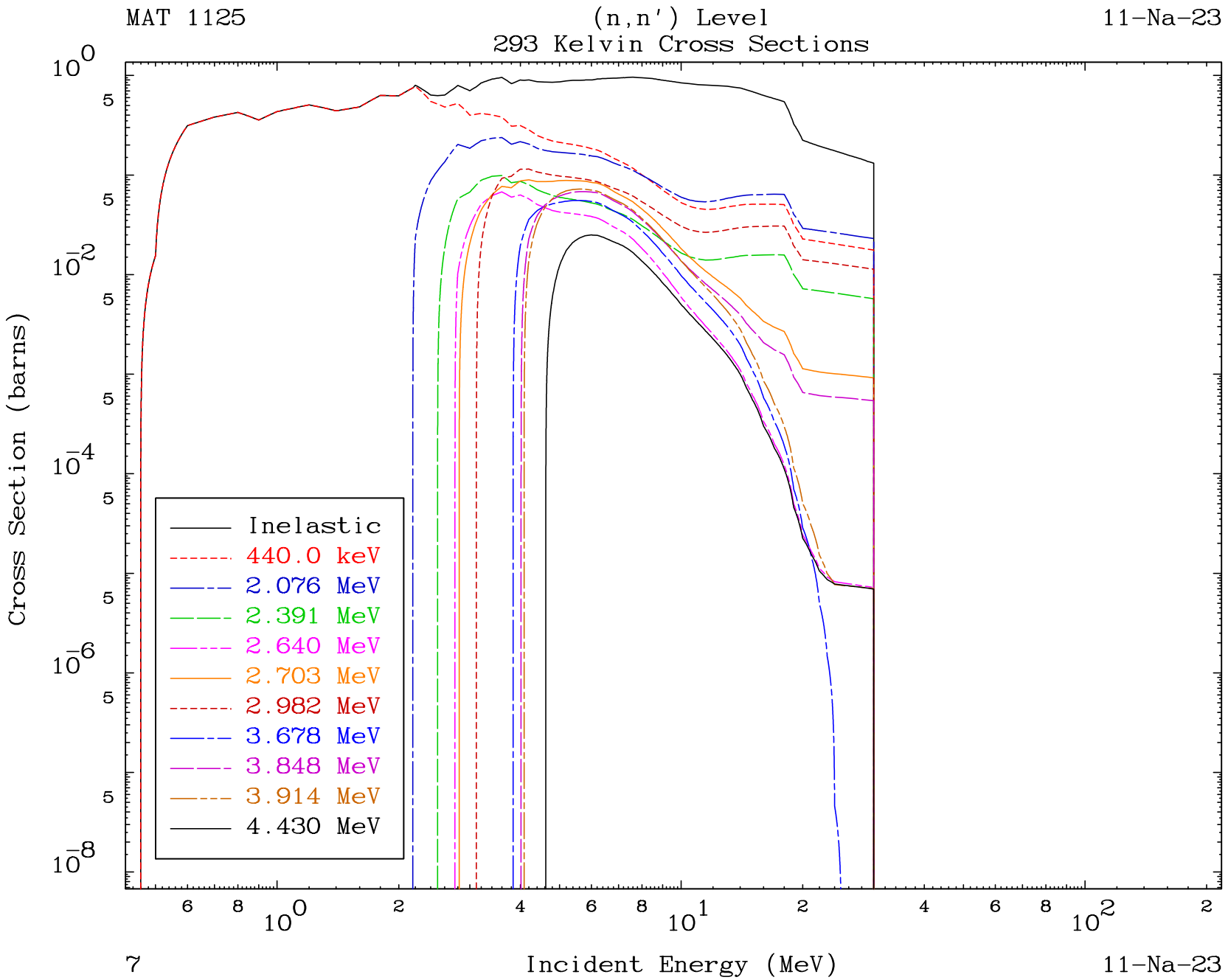

MAT 1125
Neutron Production
293 Kelvin Cross Sections
11-Na-23
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
11-Na-23
2

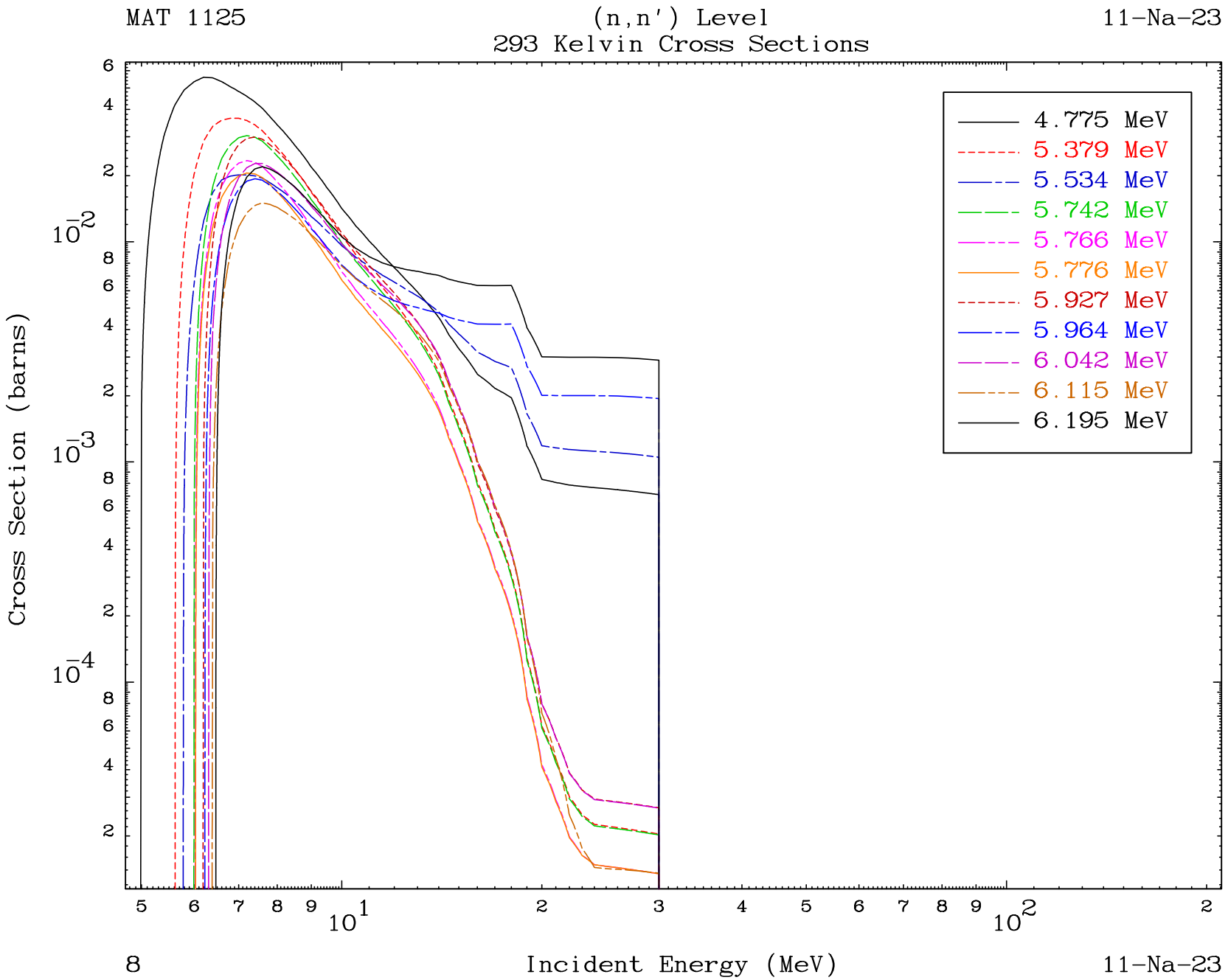

MAT 1125
Neutron Production
293 Kelvin Cross Sections
11-Na-23
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
3
4
5
6
7
8
9
10^2
2
3
Incident Energy (MeV)
11-Na-23

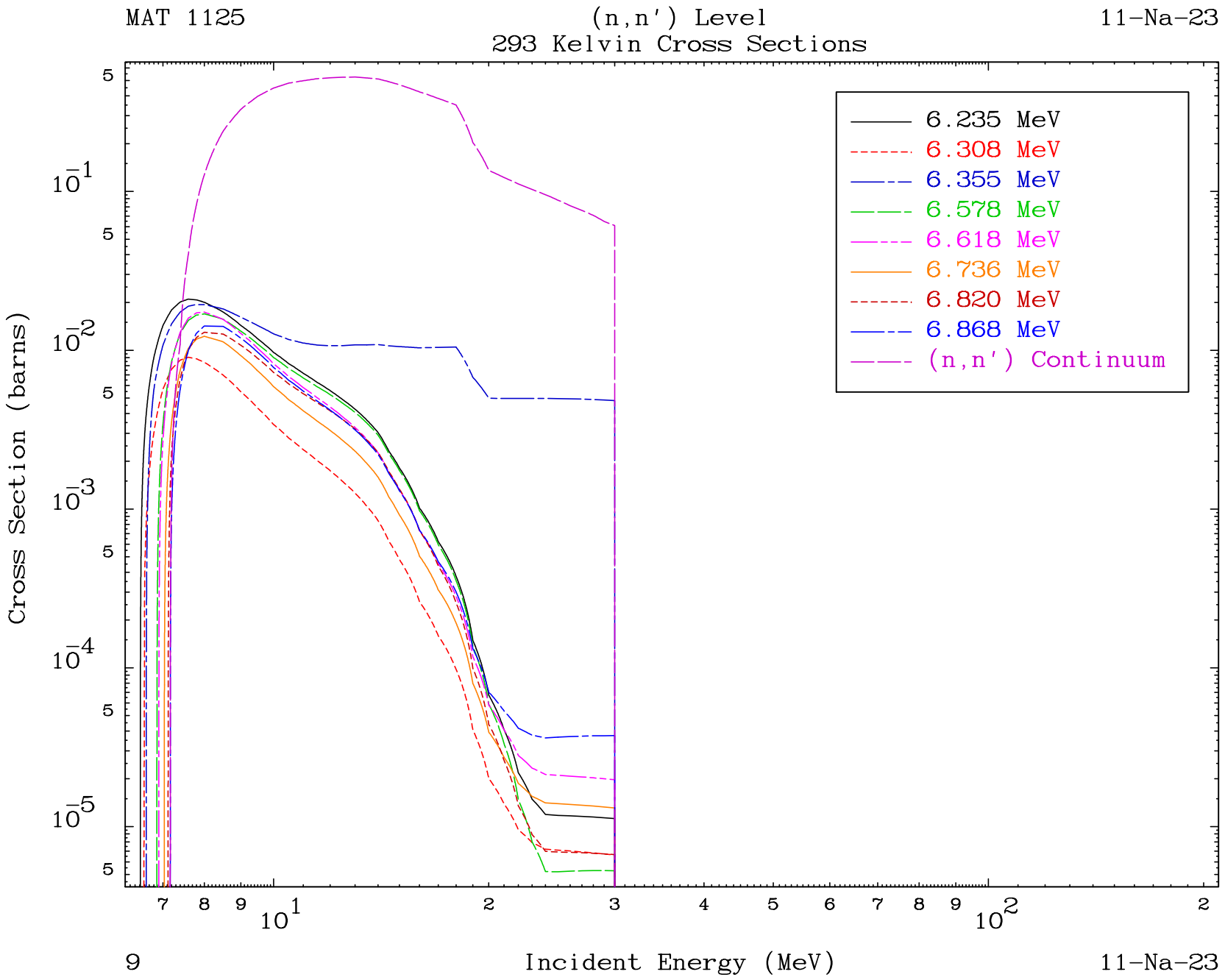

MAT 1125
Charged Particle
293 Kelvin Cross Sections
11-Na-23
Cross Section (barns)
Incident Energy (MeV)
4
11-Na-23
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
(n,p)

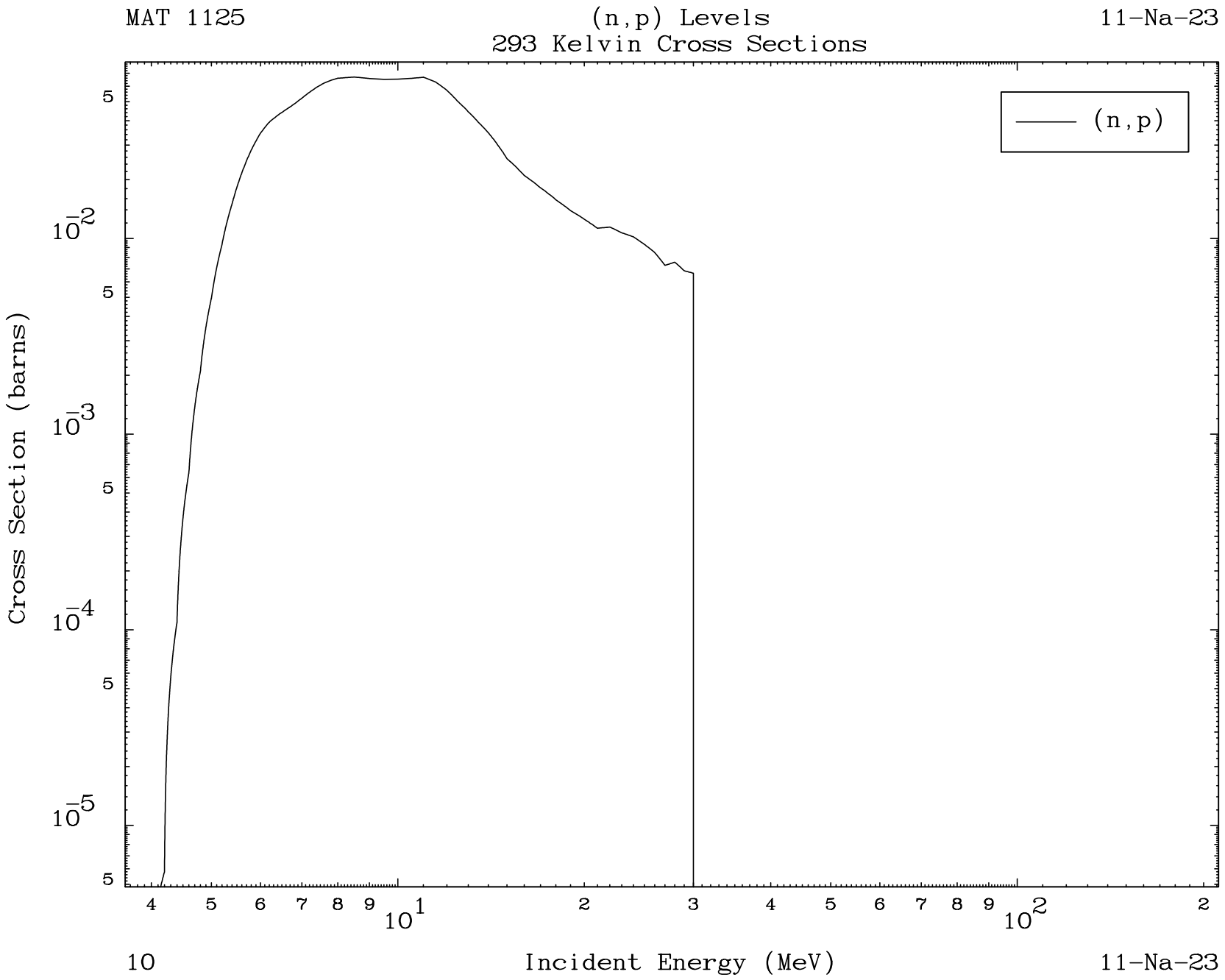

MAT 1125
Charged Particle
293 Kelvin Cross Sections
11-Na-23
Cross Section (barns)
Incident Energy (MeV)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,d) 2α
(n,p) d
(n,p) t

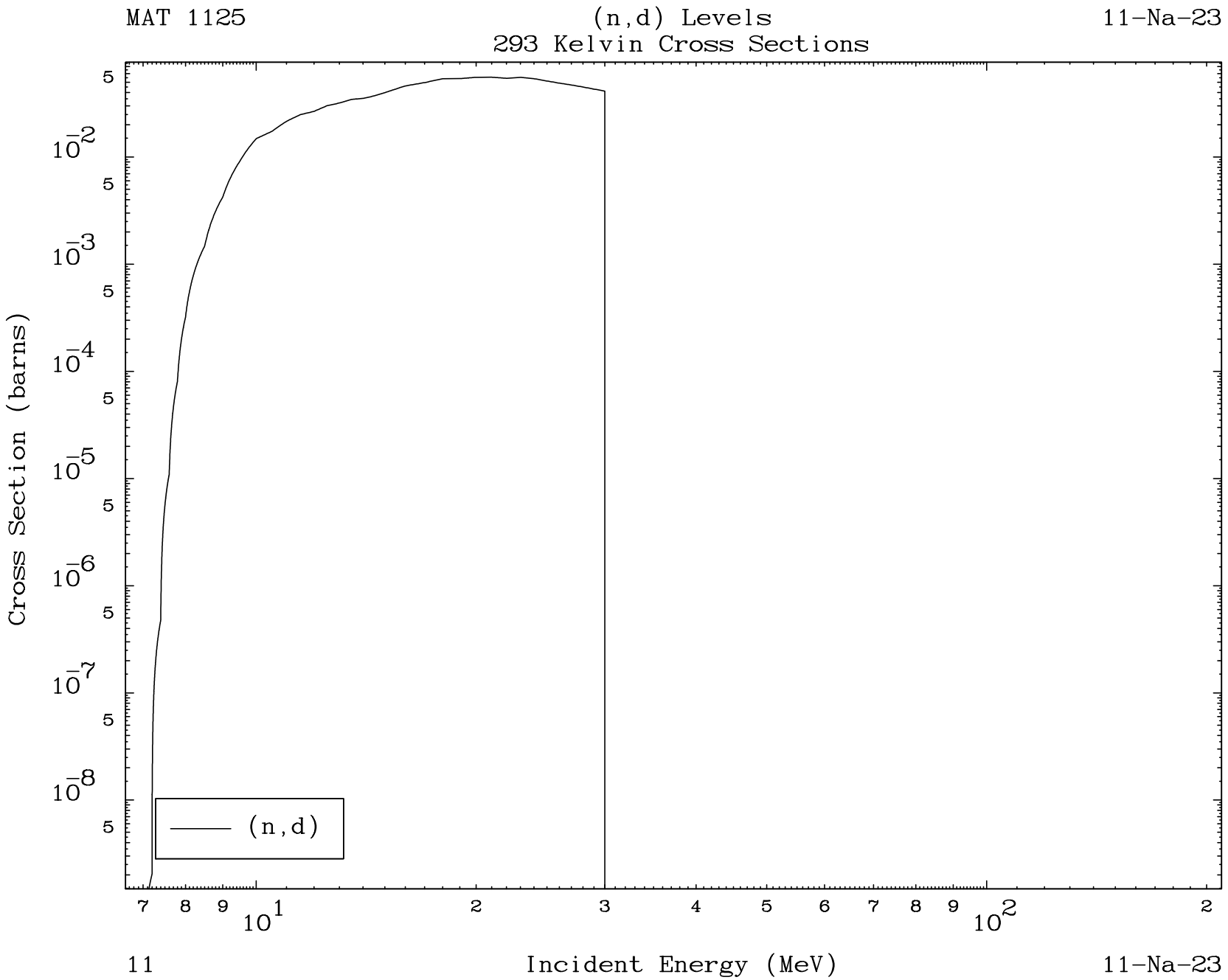

MAT 1125
Particle Production
293 Kelvin Cross Sections
11-Na-23
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
6
11-Na-23

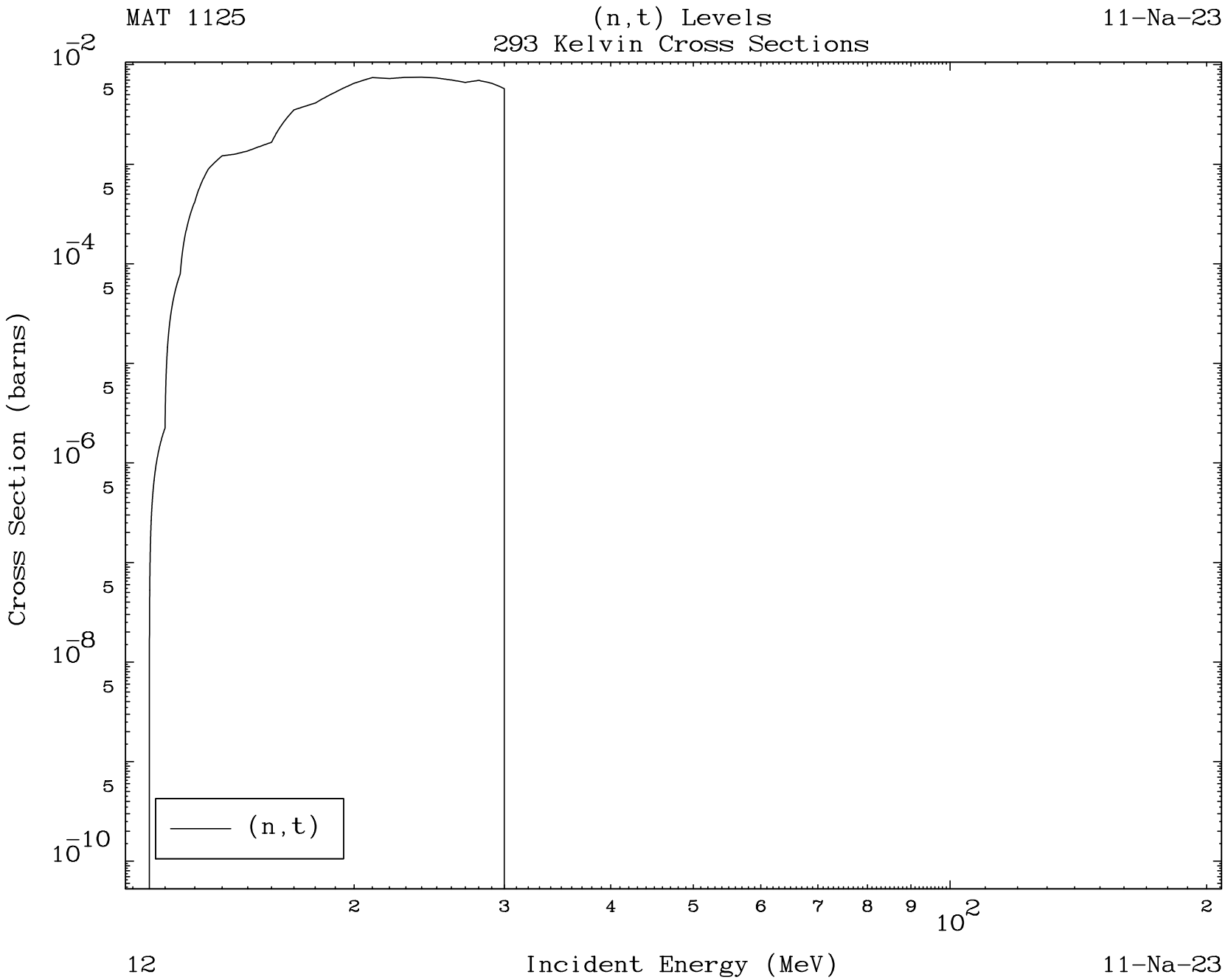

MAT 1125
(n,n') Level
293 Kelvin Cross Sections
11-Na-23
Cross Section (barns)
Incident Energy (MeV)
Inelastic
440.0 keV
2.076 MeV
2.391 MeV
2.640 MeV
2.703 MeV
2.982 MeV
3.678 MeV
3.848 MeV
3.914 MeV
4.430 MeV
7
11-Na-23

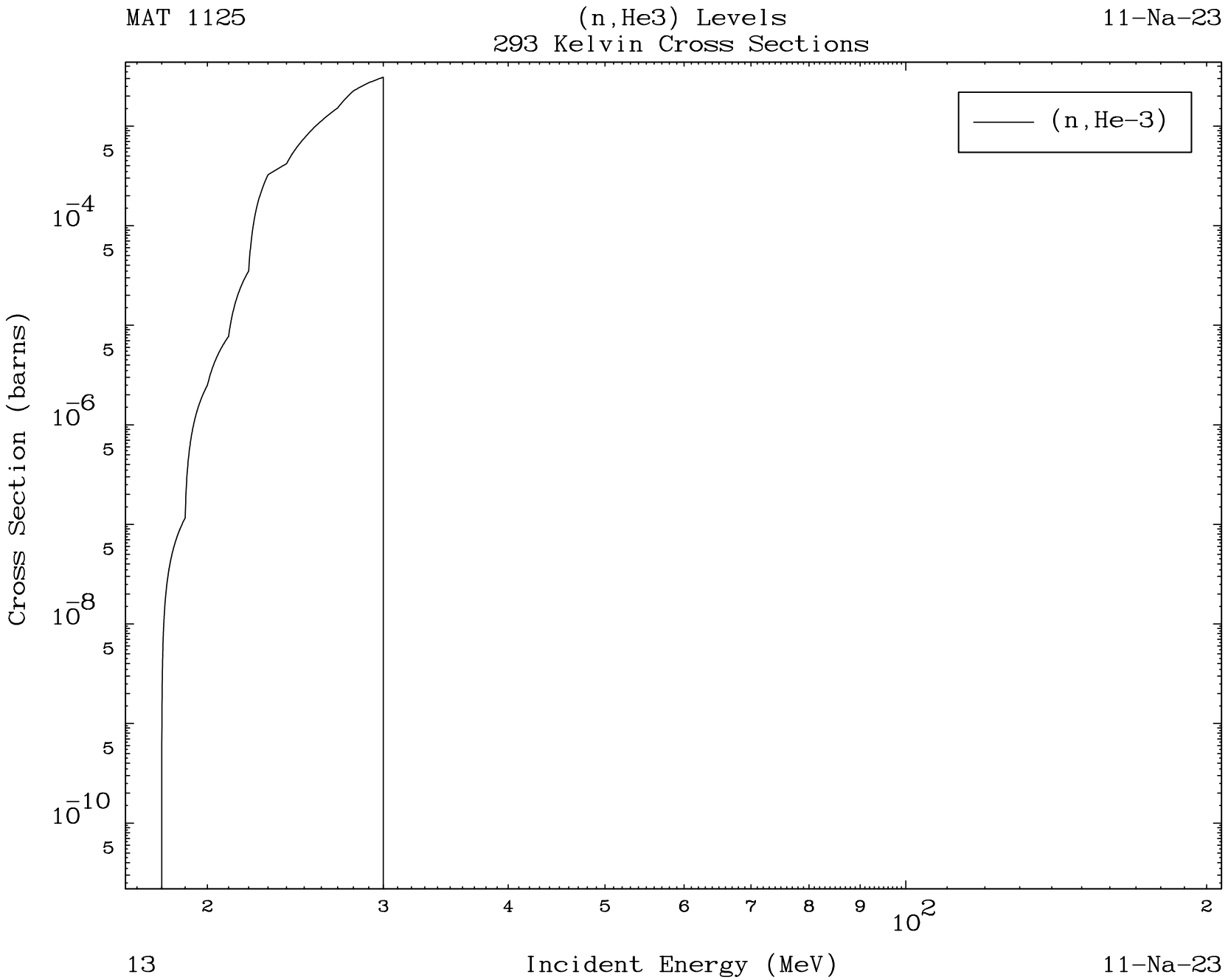

MAT 1125
(n,n') Level
293 Kelvin Cross Sections
11-Na-23
Cross Section (barns)
Incident Energy (MeV)
4.775 MeV
5.379 MeV
5.534 MeV
5.742 MeV
5.766 MeV
5.776 MeV
5.927 MeV
5.964 MeV
6.042 MeV
6.115 MeV
6.195 MeV
8
11-Na-23

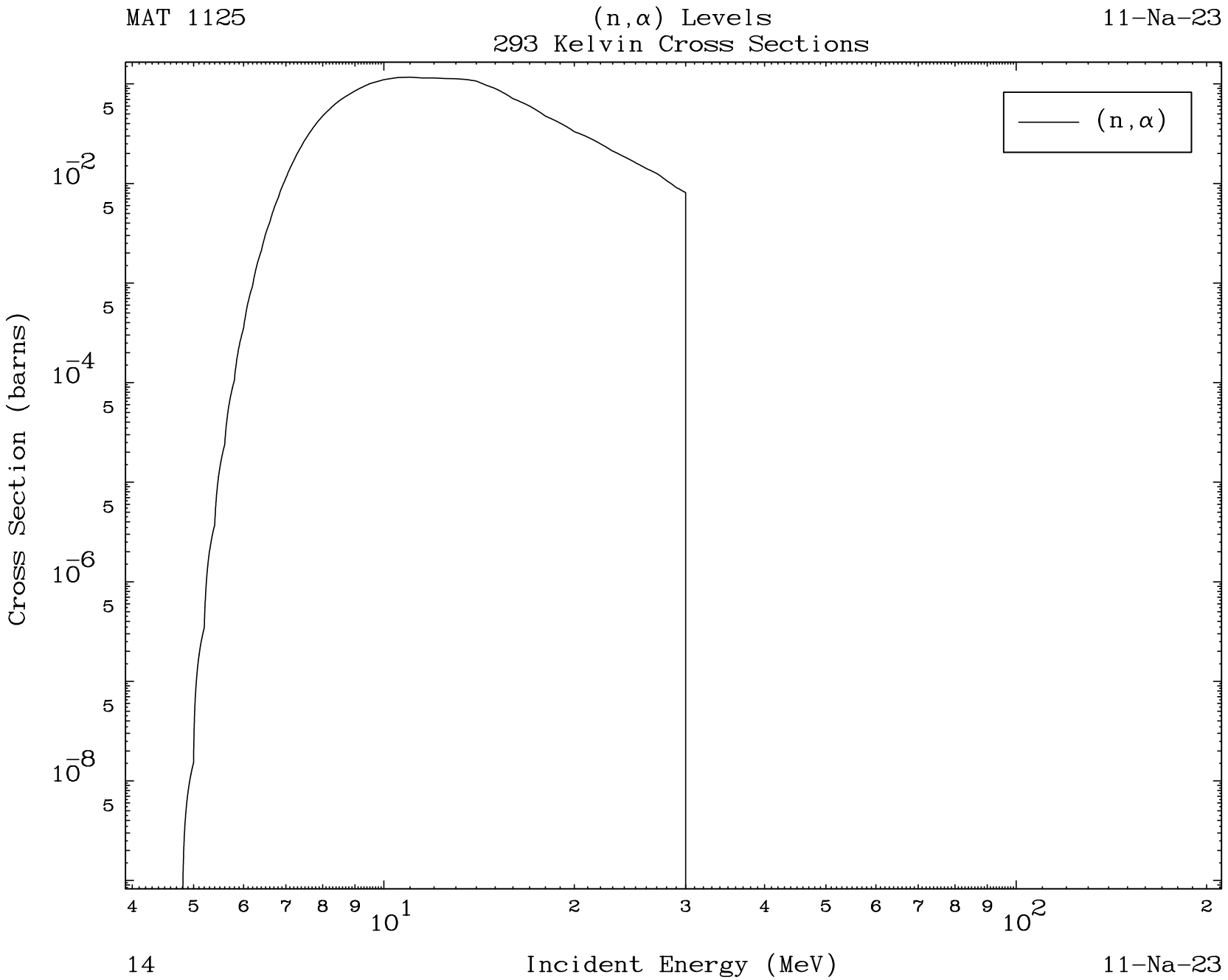

MAT 1125
(n,n') Level
293 Kelvin Cross Sections
11-Na-23
Cross Section (barns)
Incident Energy (MeV)
6.235 MeV
6.308 MeV
6.355 MeV
6.578 MeV
6.618 MeV
6.736 MeV
6.820 MeV
6.868 MeV
(n,n') Continuum
9
11-Na-23

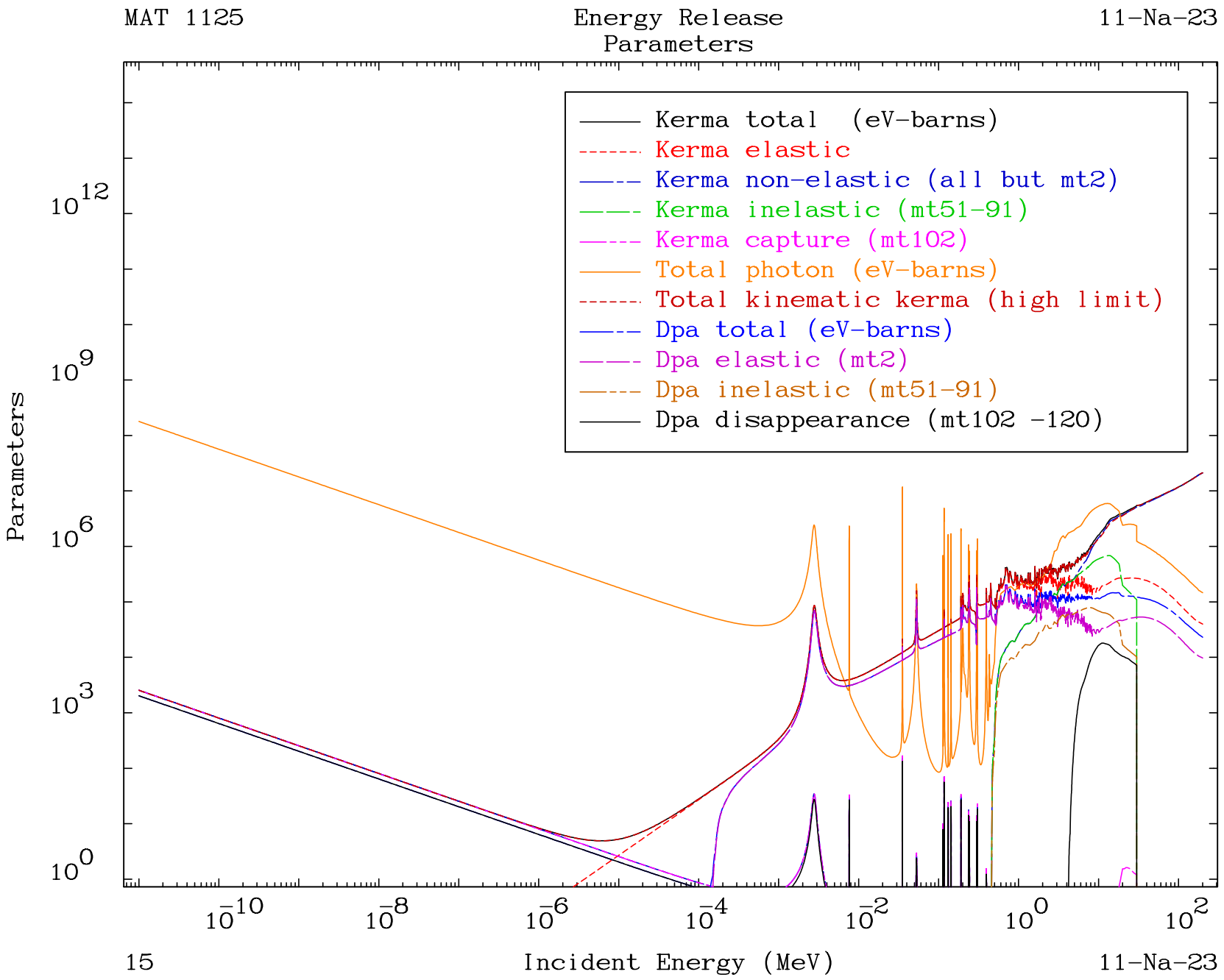

MAT 1125
(n,p) Levels
11-Na-23
293 Kelvin Cross Sections
(n,p)
Cross Section (barns)
Incident Energy (MeV)
10
11-Na-23

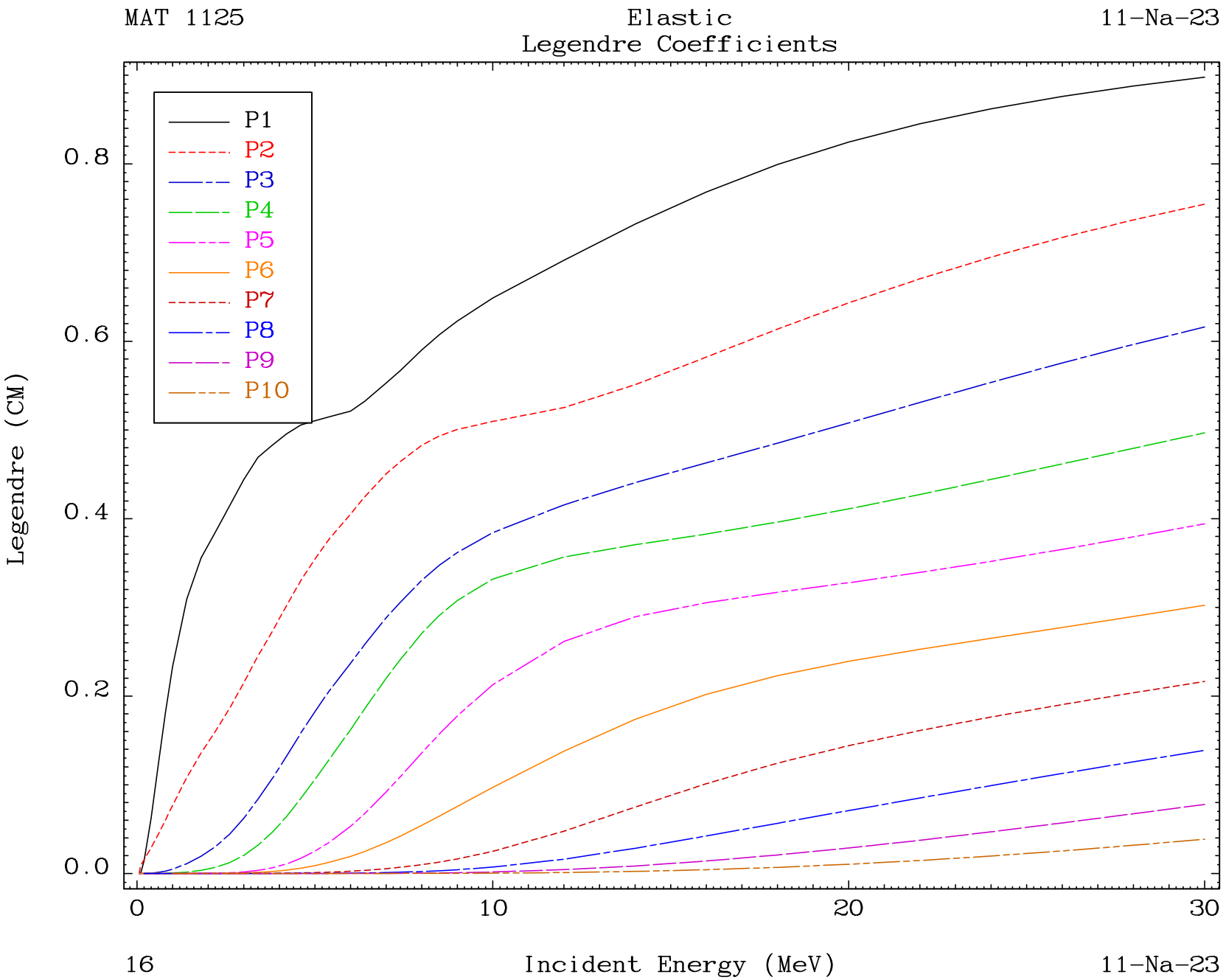

MAT 1125
(n,d) Levels
11-Na-23
293 Kelvin Cross Sections
Cross Section (barns)
10-2
10-3
10-4
10-5
10-6
10-7
10-8
(n,d)
7 8 9 10^1 2 3 4 5 6 7 8 9 10^2 2
11
Incident Energy (MeV)
11-Na-23

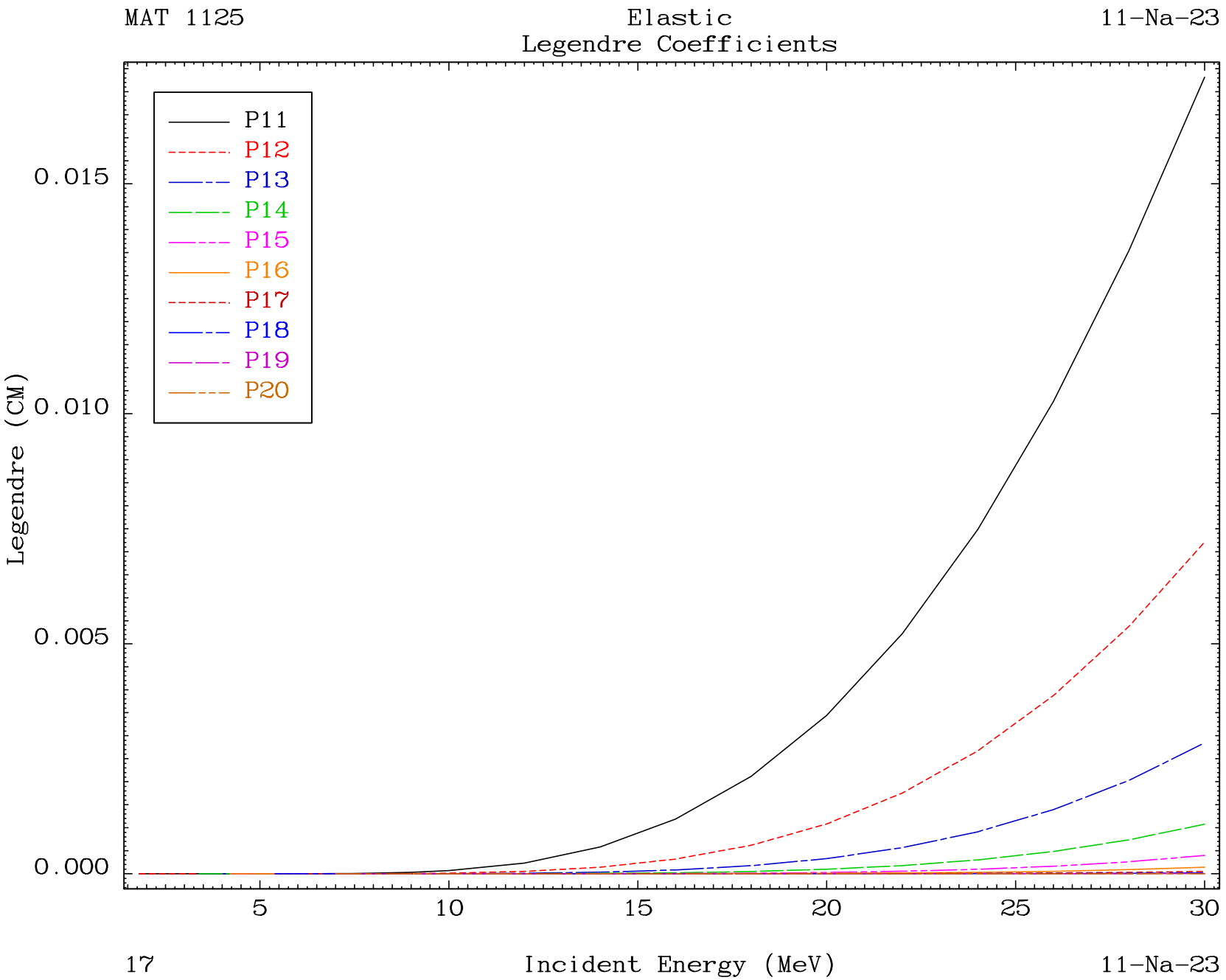

MAT 1125
(n,t) Levels
11-Na-23
293 Kelvin Cross Sections
Cross Section (barns)
10-2
5
10-4
5
10-6
5
10-8
5
10-10
5
(n,t)
2
3
4
5
6
7
8
9
10 2
2
12
Incident Energy (MeV)
11-Na-23

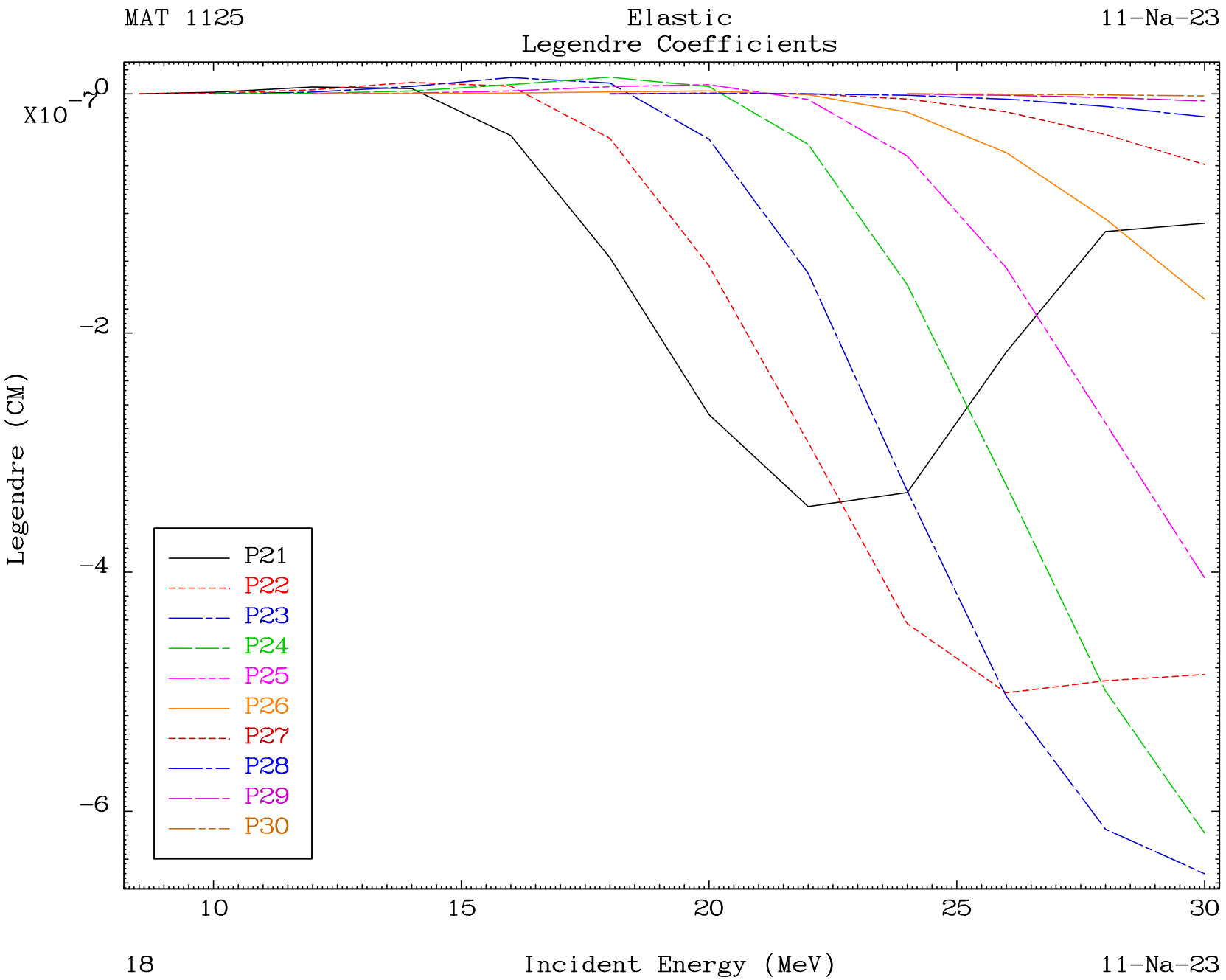

MAT 1125
(n,He3) Levels
11-Na-23
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-4
10-6
10-8
10-10
2
3
4
5
6
7
8
9
10 2
2
13
Incident Energy (MeV)
11-Na-23

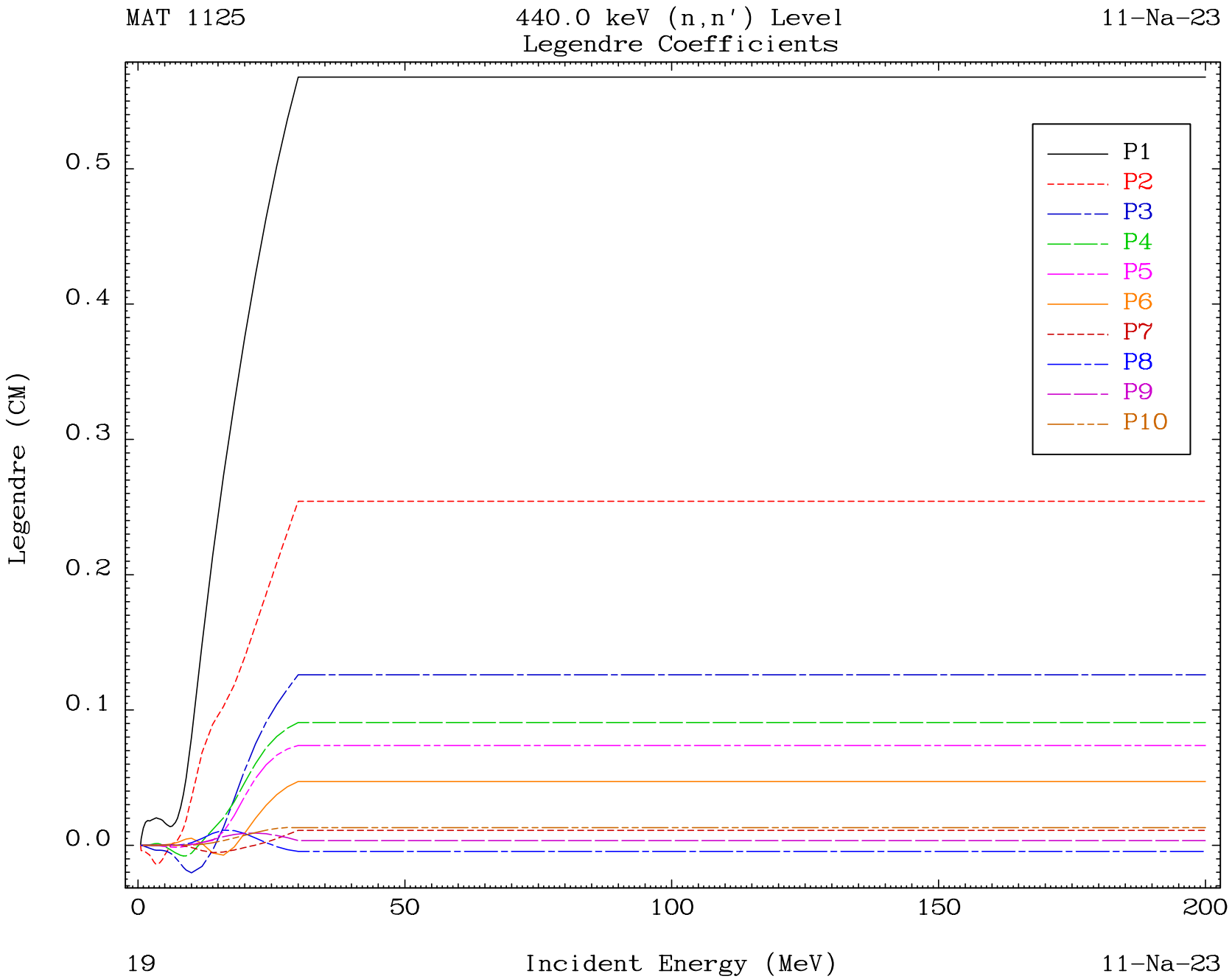

MAT 1125
(n,α) Levels
11-Na-23
293 Kelvin Cross Sections
(n,α)
Cross Section (barns)
10-2
10-4
10-6
10-8
4 5 6 7 8 9 10^1 2 3 4 5 6 7 8 9 10^2 2
Incident Energy (MeV)
14
11-Na-23

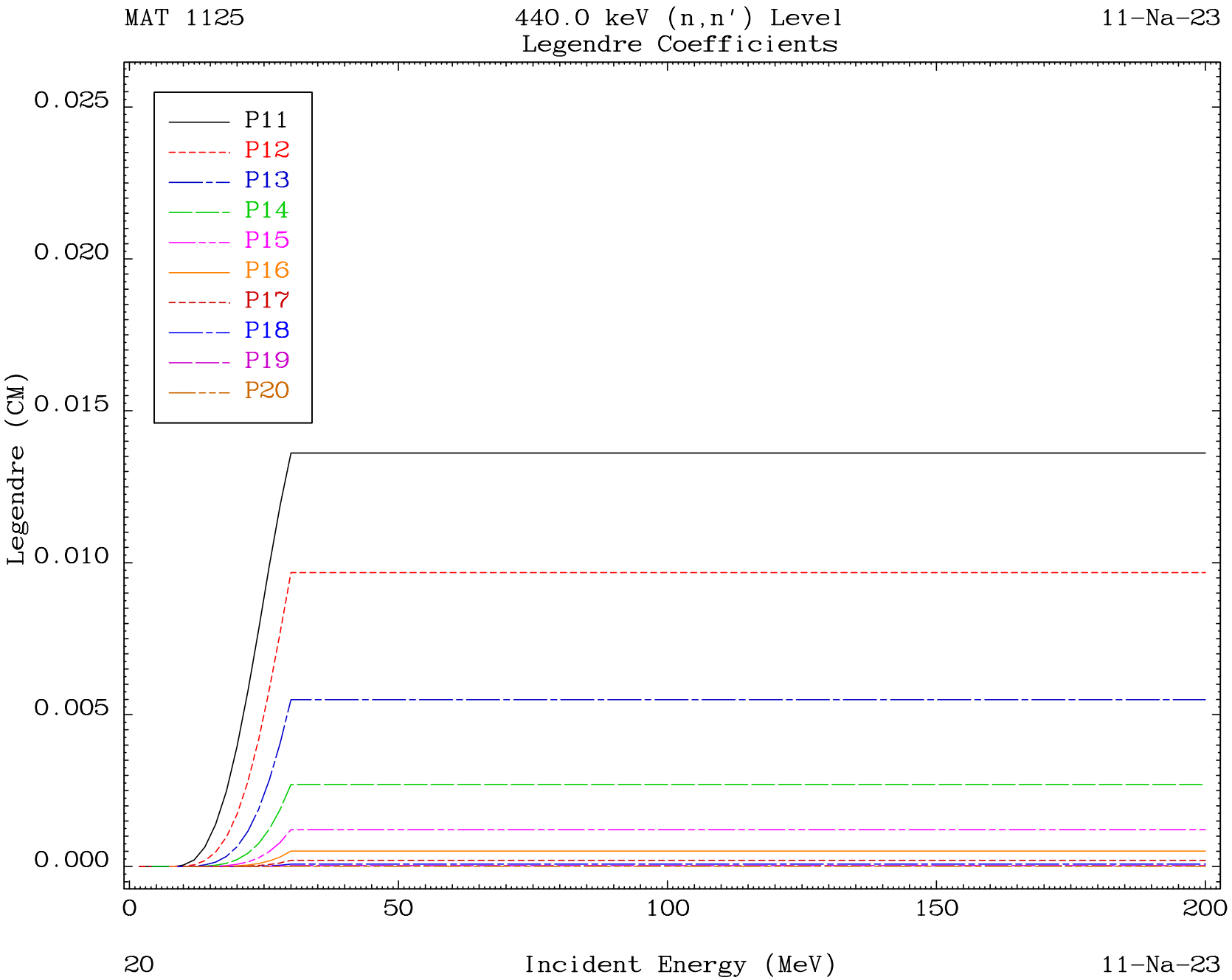

MAT 1125
Energy Release
Parameters
11-Na-23
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
10^12
10^9
10^6
10^3
10^0
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
15
Incident Energy (MeV)
11-Na-23

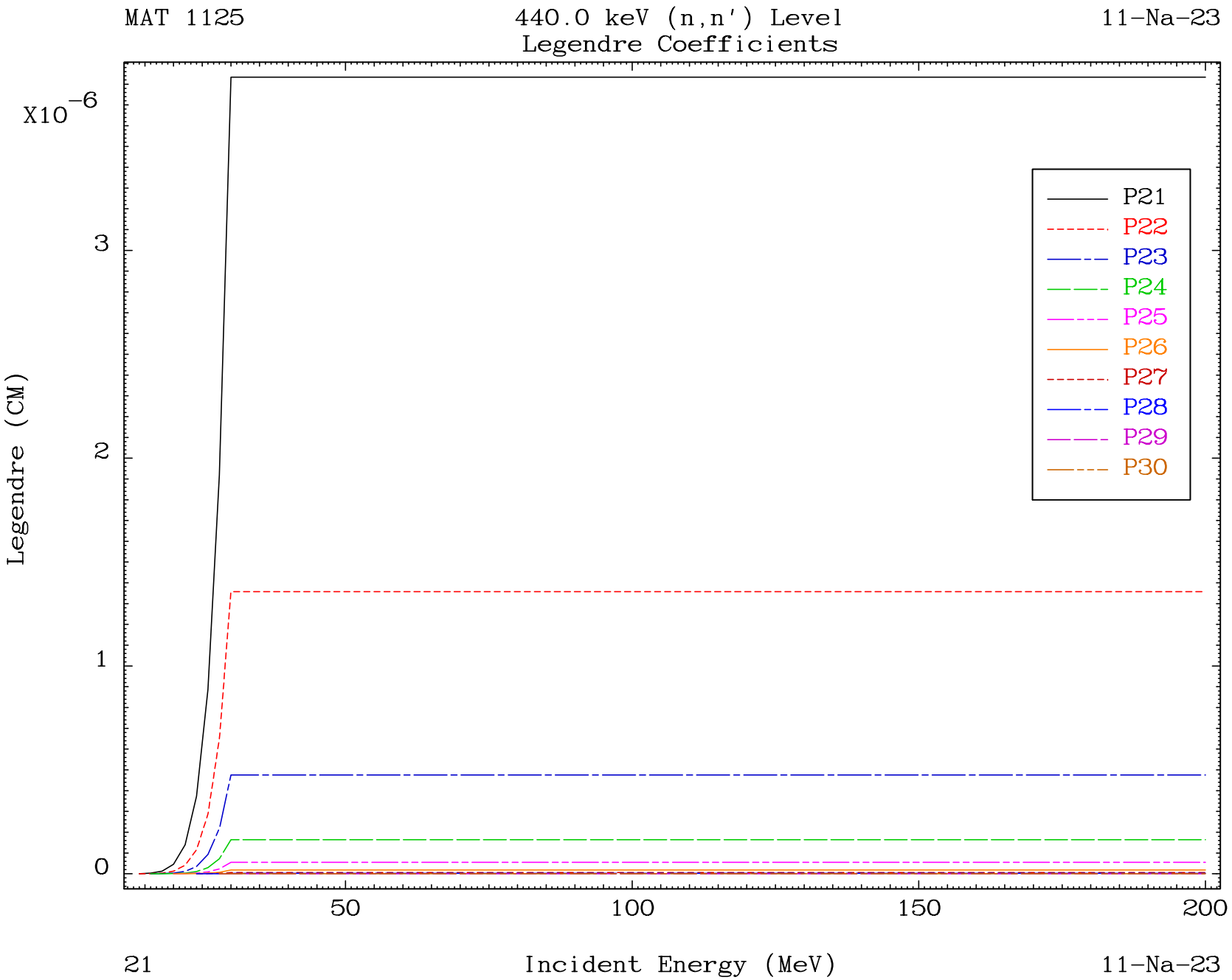

MAT 1125
Elastic
Legendre Coefficients
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
16
Incident Energy (MeV)
11-Na-23

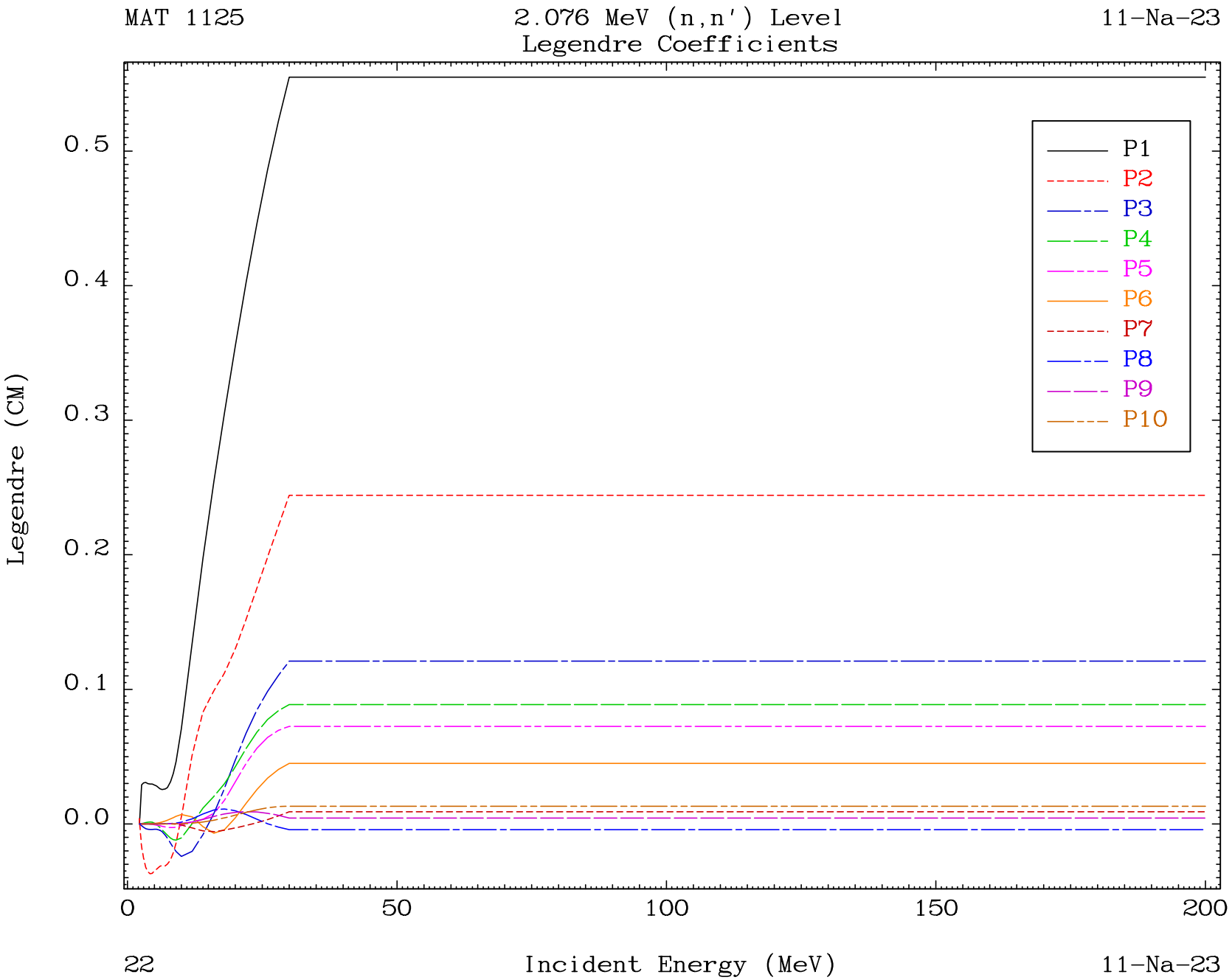

MAT 1125
Elastic
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
Legendre (CM)
0.015
0.010
0.005
0.000
5
10
15
20
25
30
17
Incident Energy (MeV)
11-Na-23

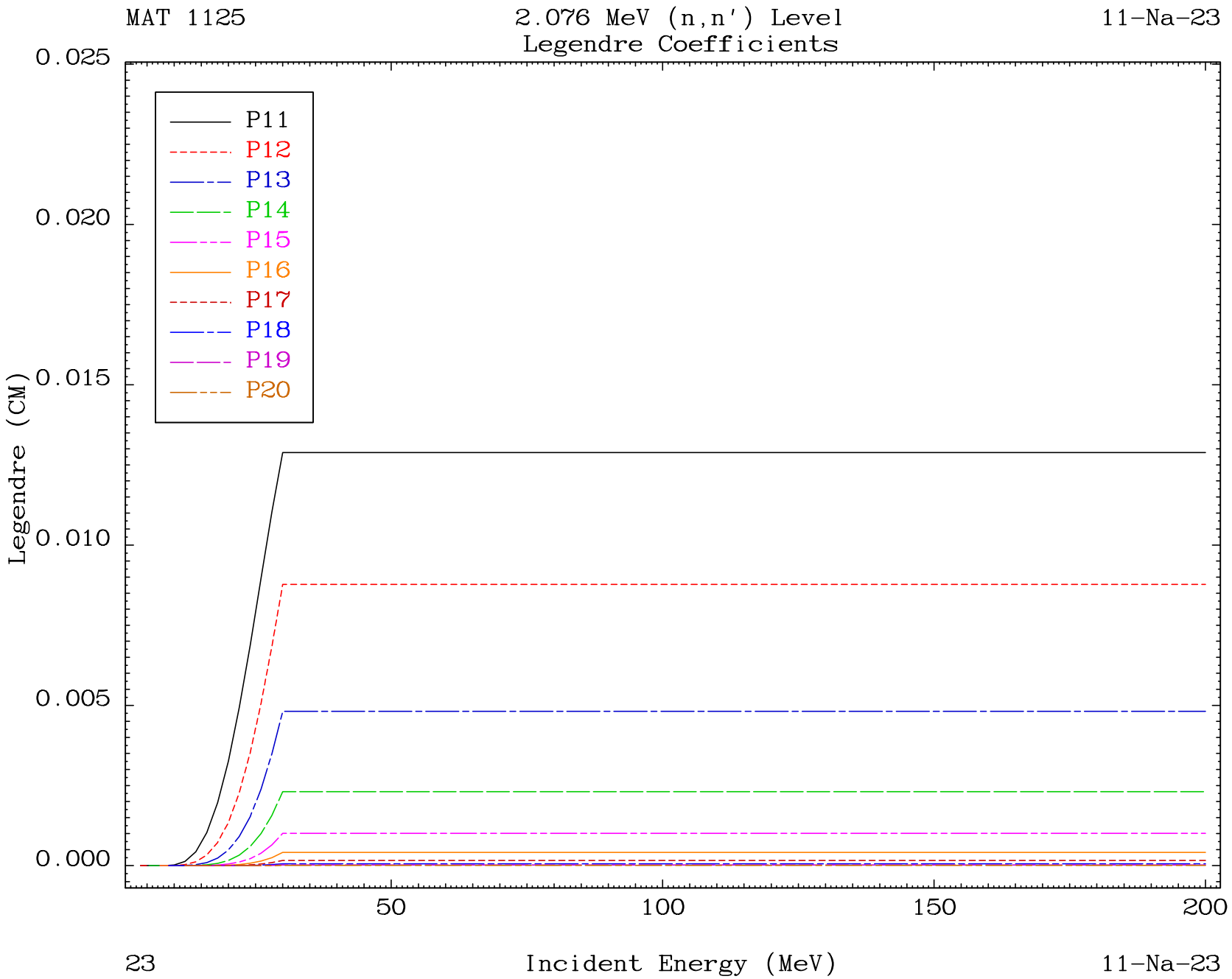

MAT 1125
Elastic
Legendre Coefficients
11-Na-23
X10^-2
0
-2
-4
-6
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
10
15
20
25
30
18
Incident Energy (MeV)
11-Na-23

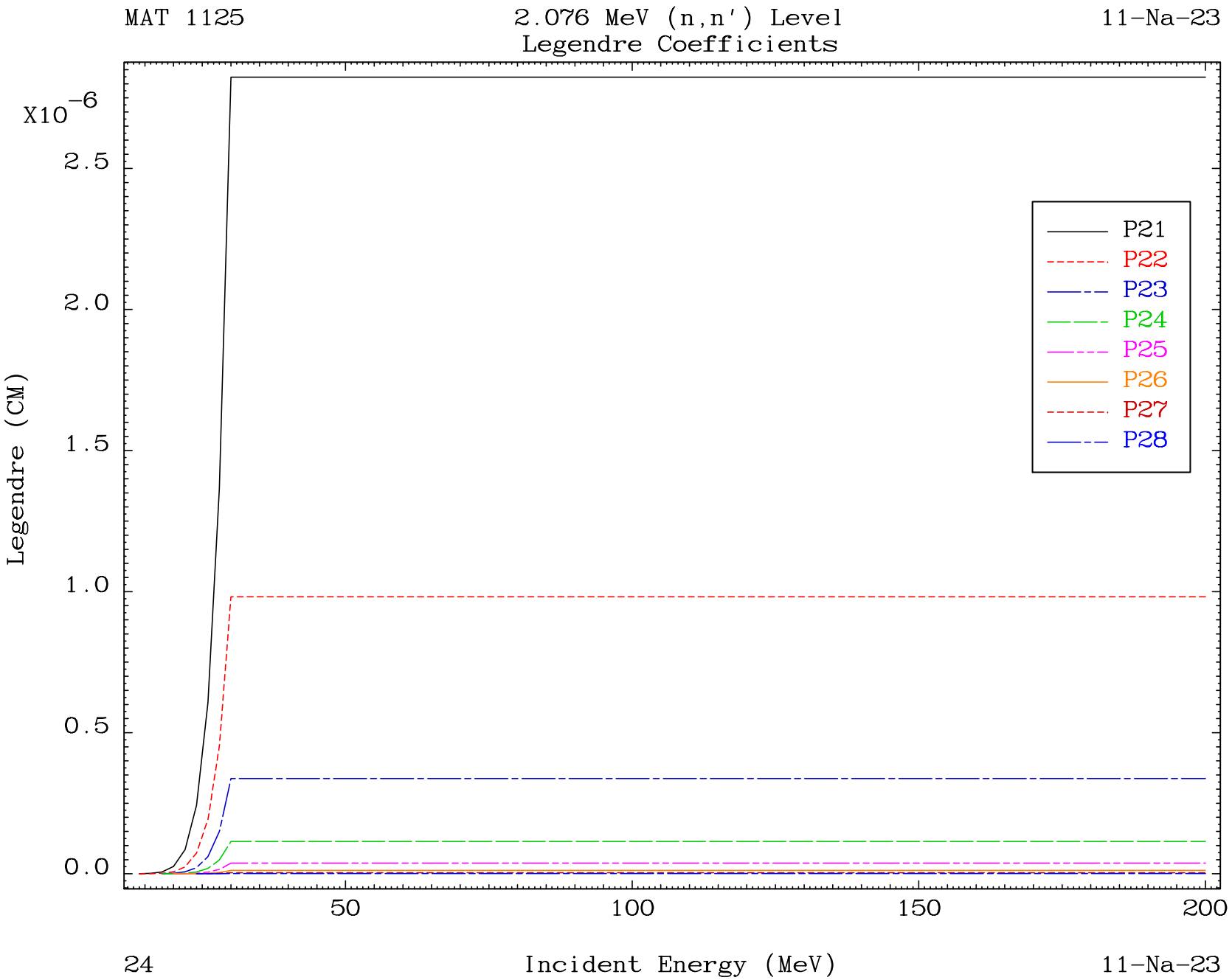

MAT 1125
440.0 keV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
19
Incident Energy (MeV)
11-Na-23

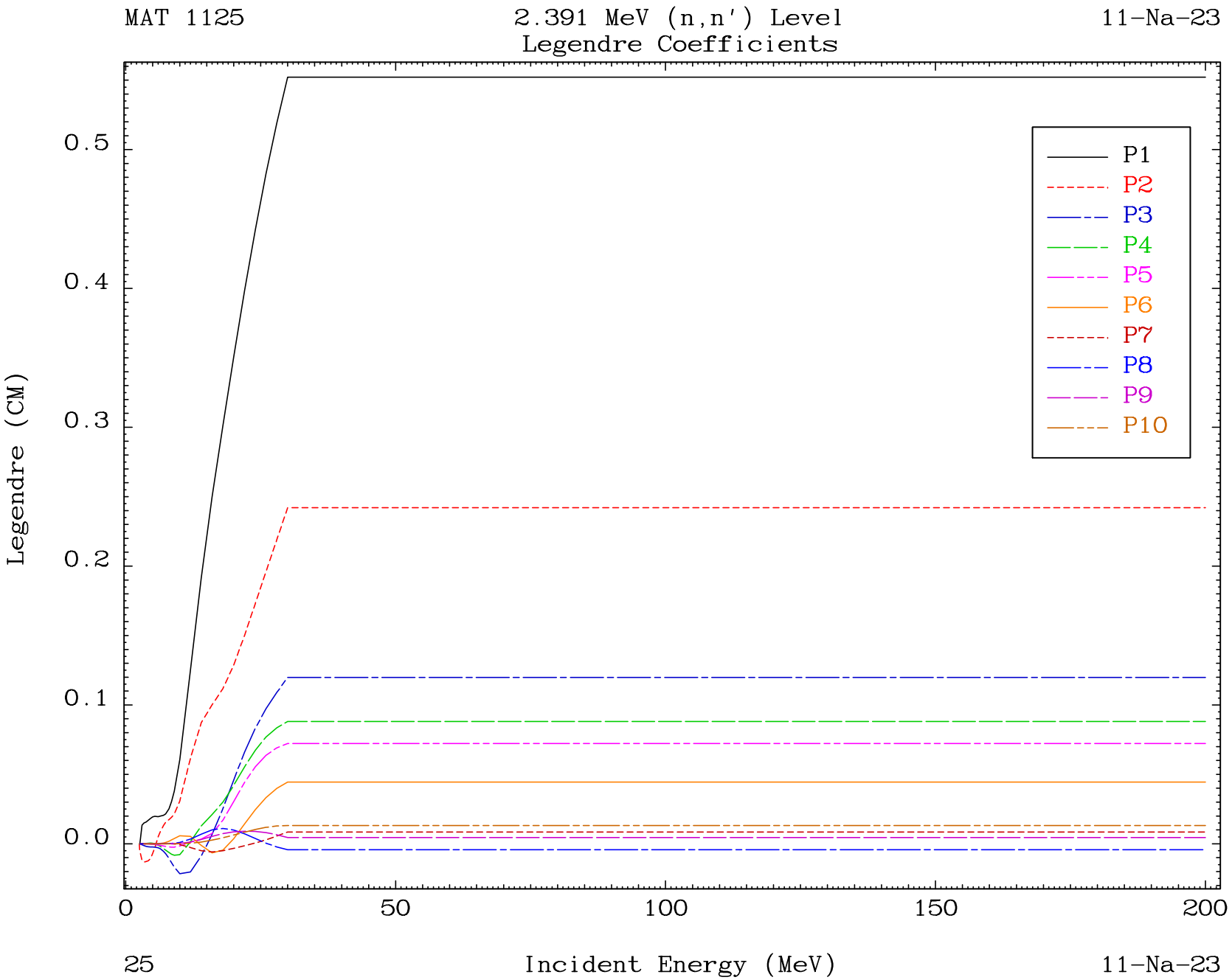

MAT 1125
440.0 keV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
Legendre (CM)
0.025
0.020
0.015
0.010
0.005
0.000
0
50
100
150
200
20
Incident Energy (MeV)
11-Na-23

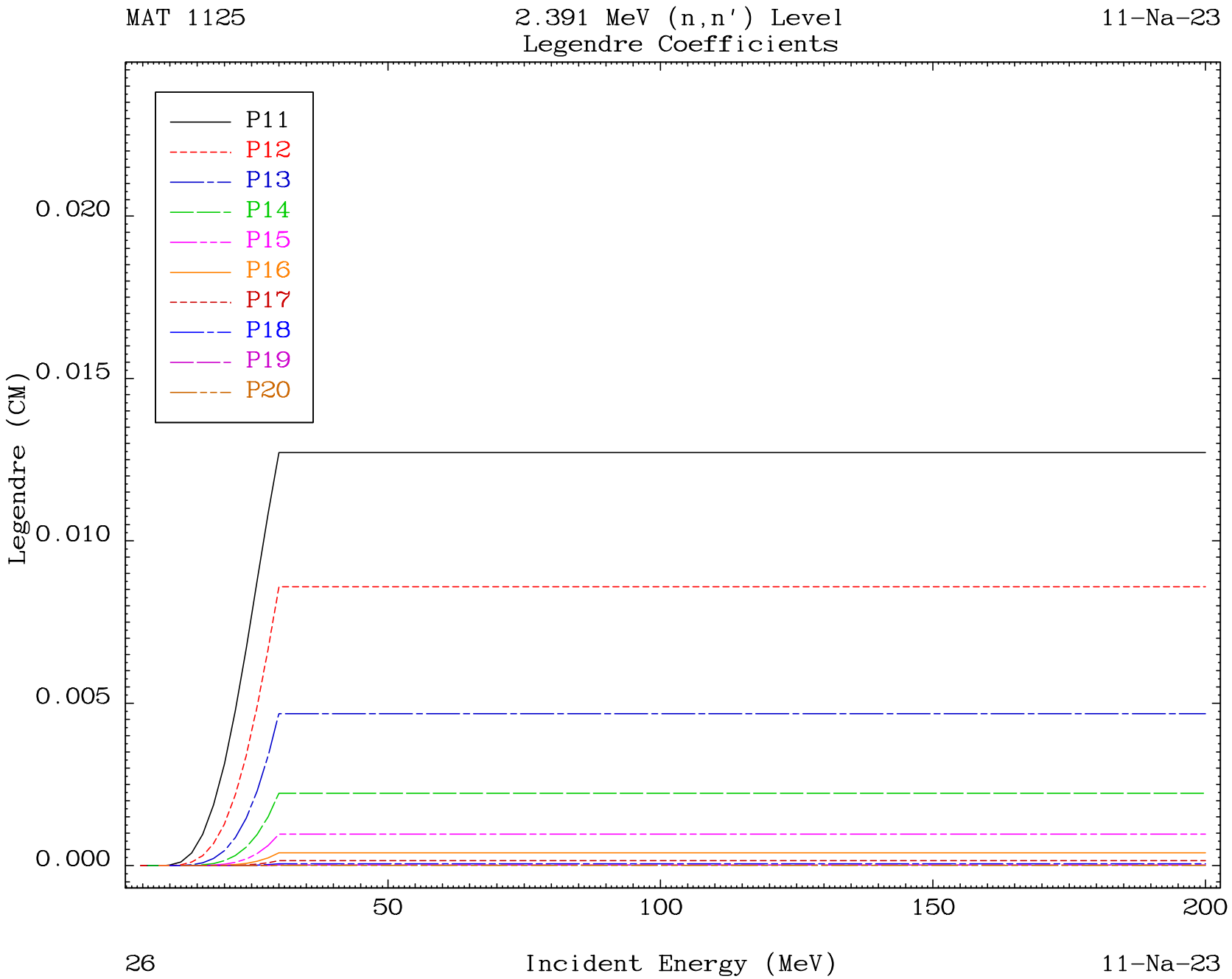

MAT 1125
440.0 keV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-6
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
21
Incident Energy (MeV)
11-Na-23

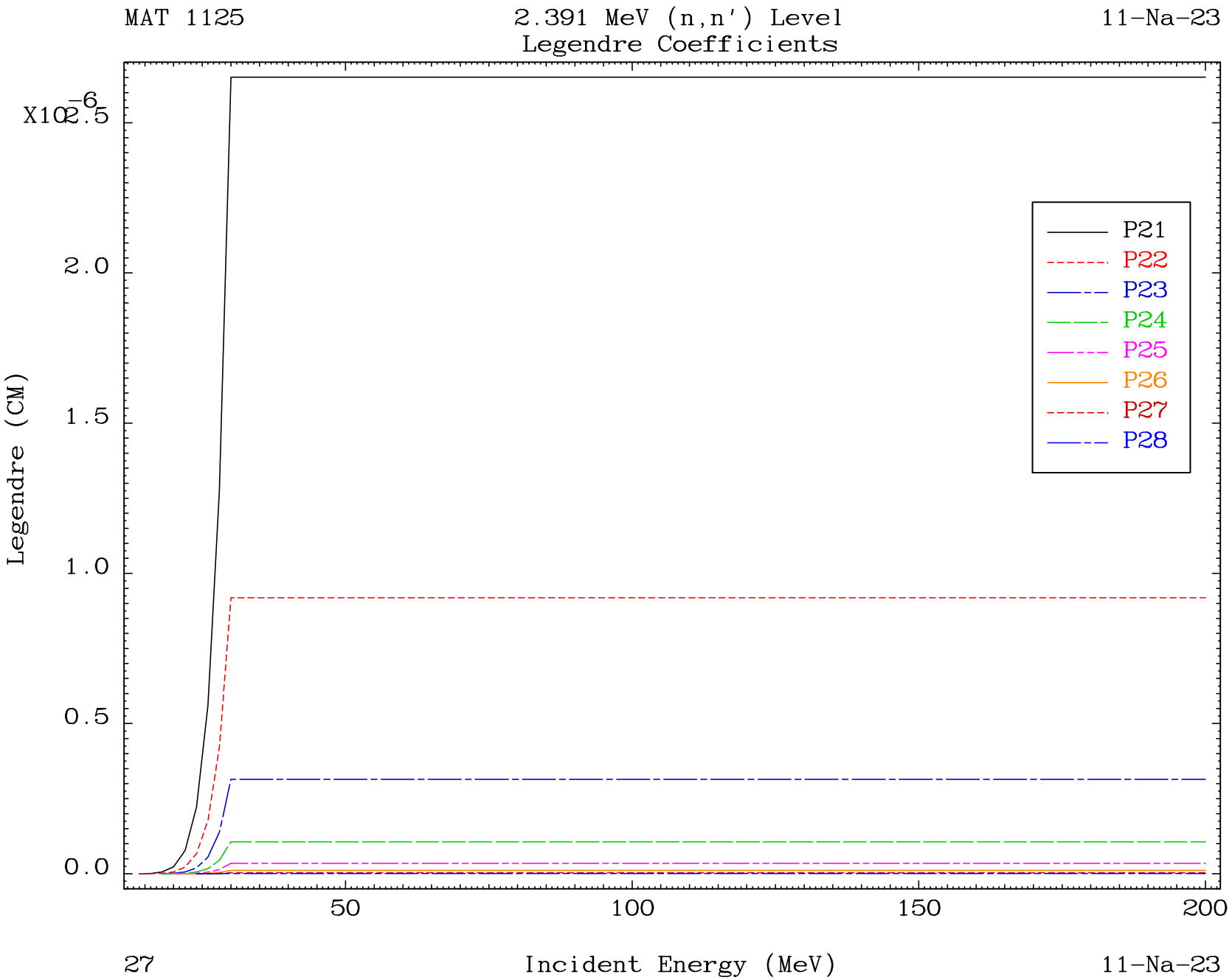

MAT 1125
2.076 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
22
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

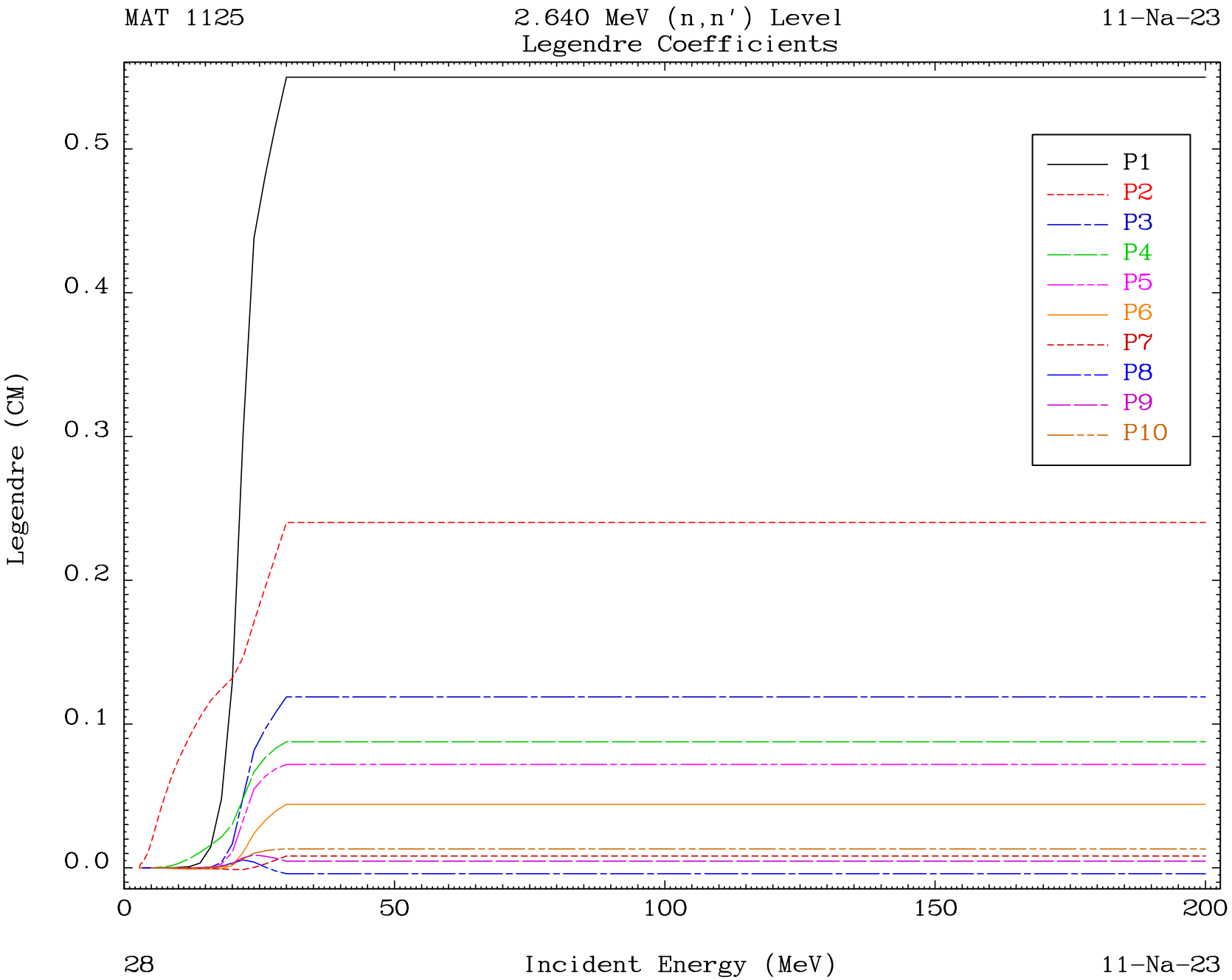

MAT 1125
2.076 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
Legendre (CM)
0.025
0.020
0.015
0.010
0.005
0.000
50
100
150
200
23
Incident Energy (MeV)
11-Na-23

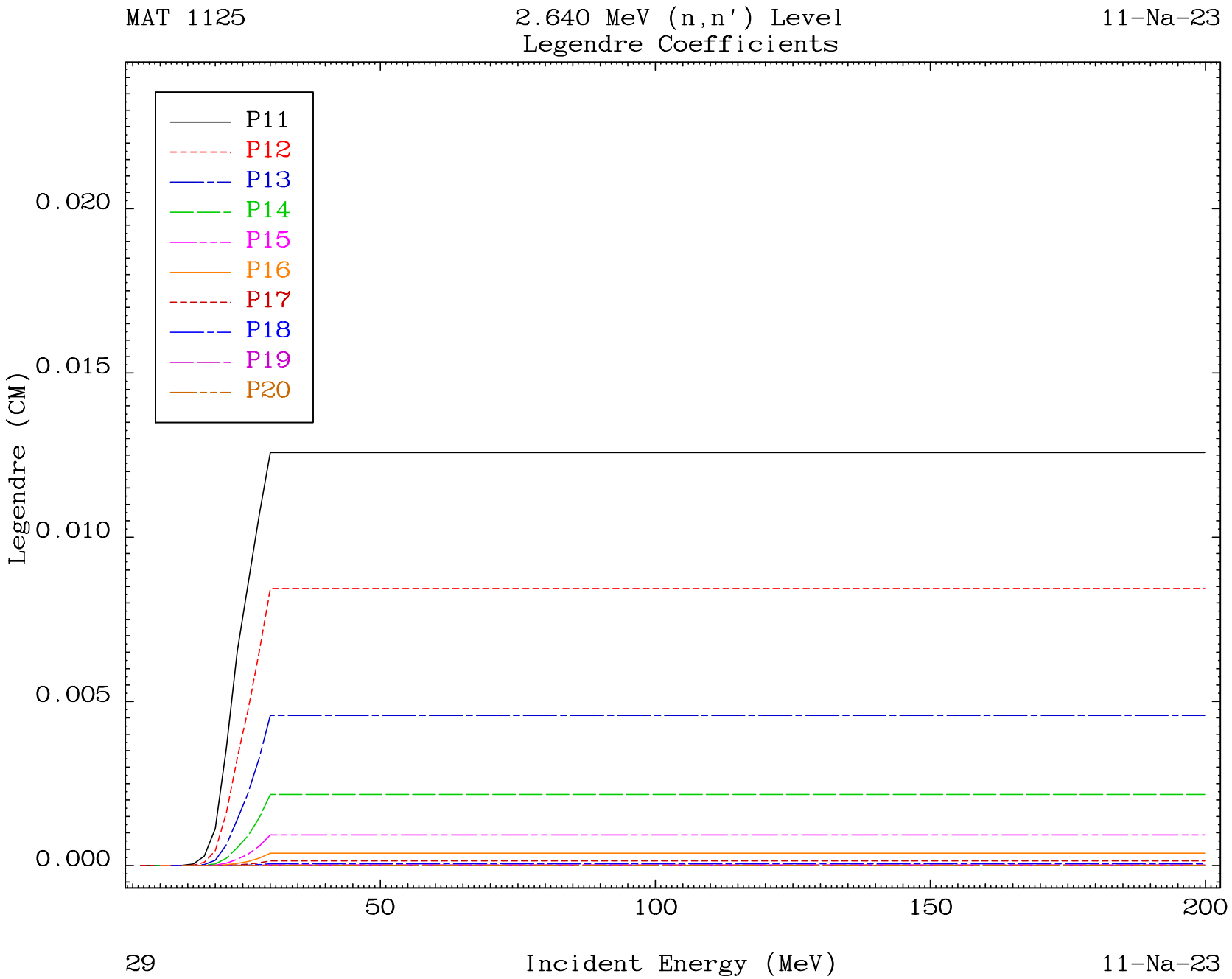

MAT 1125
2.076 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-6
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
24
Incident Energy (MeV)
11-Na-23

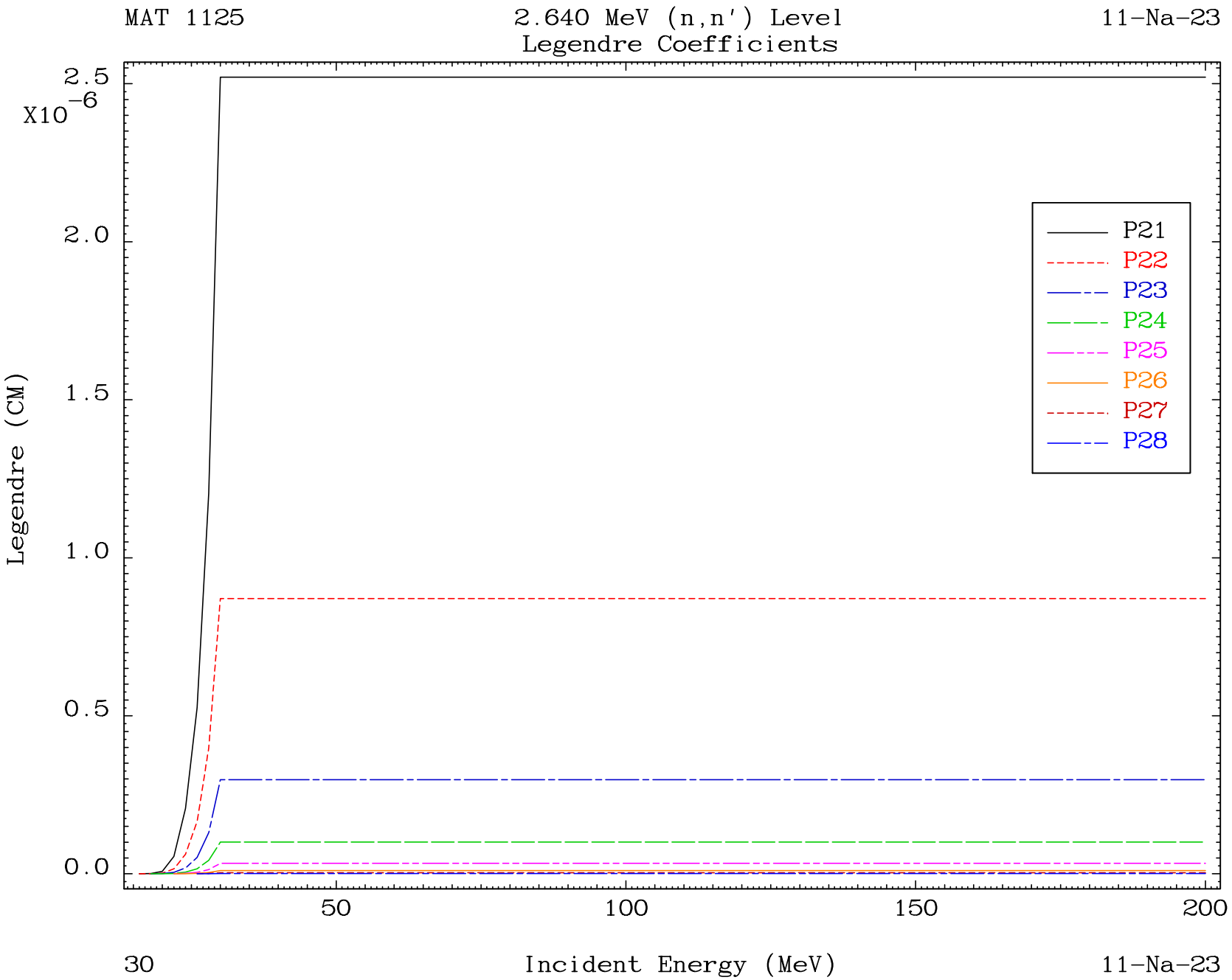

MAT 1125
2.391 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
25
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

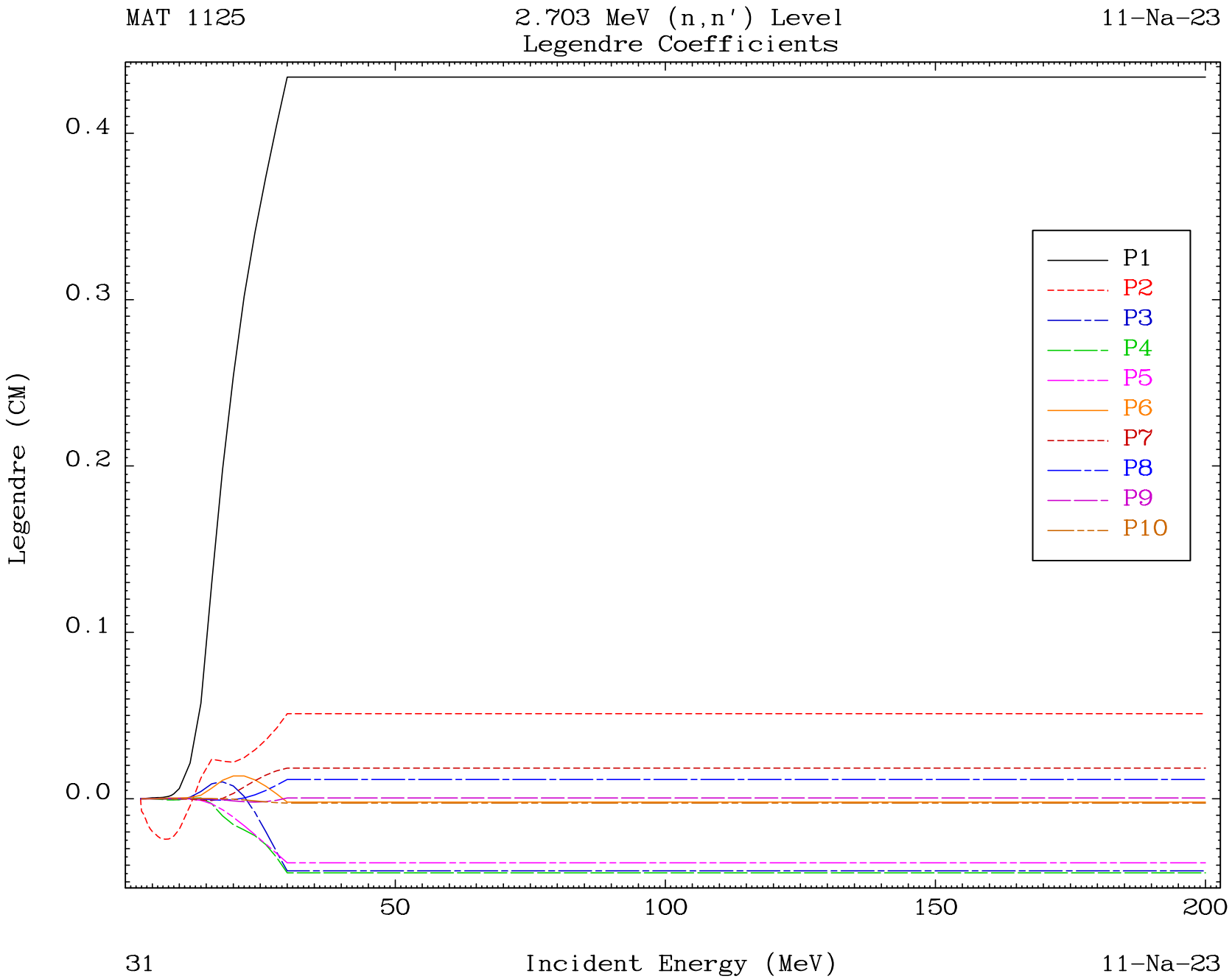

MAT 1125
2.391 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
26
Incident Energy (MeV)
11-Na-23

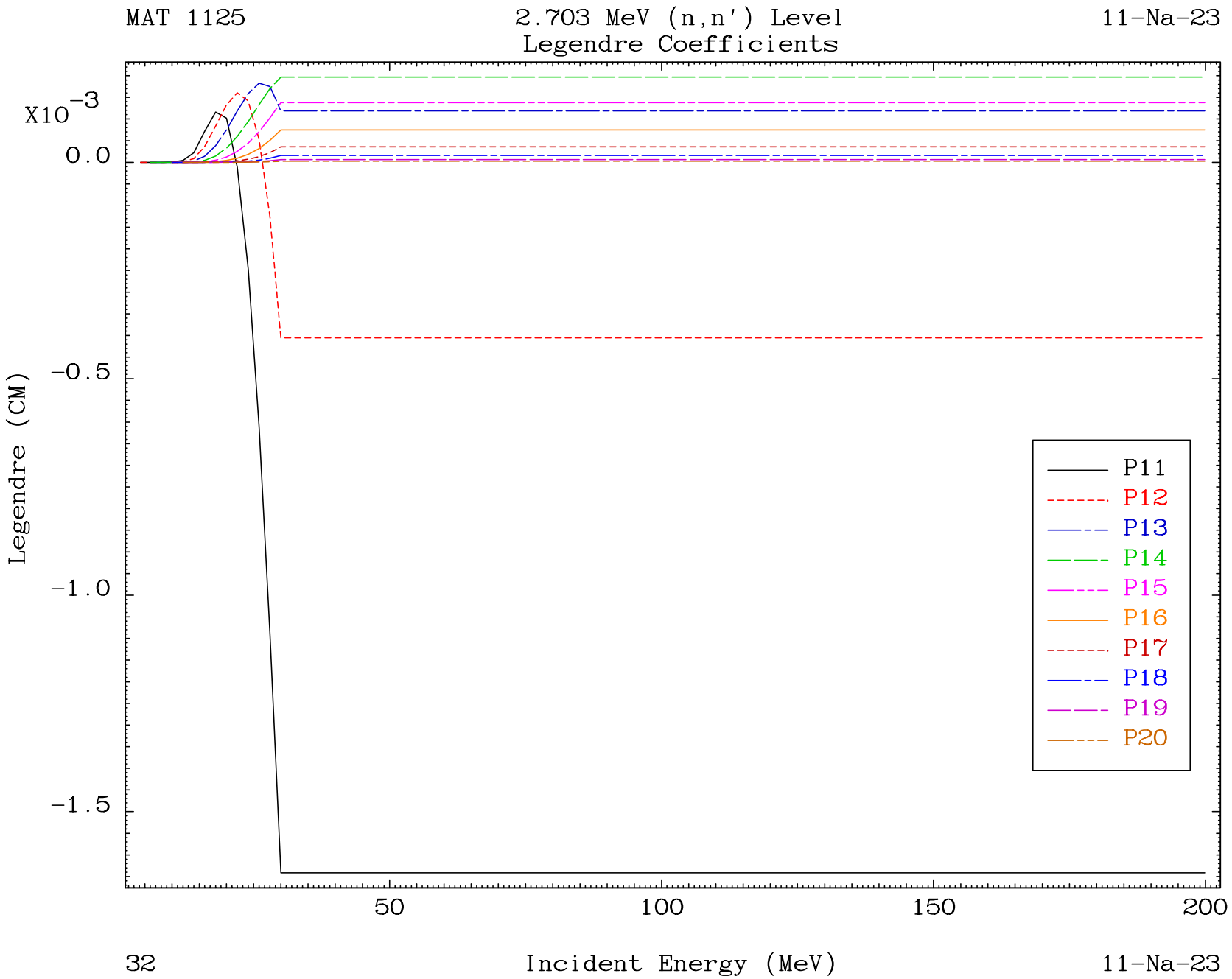

MAT 1125
2.391 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-6
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
27
Incident Energy (MeV)
11-Na-23

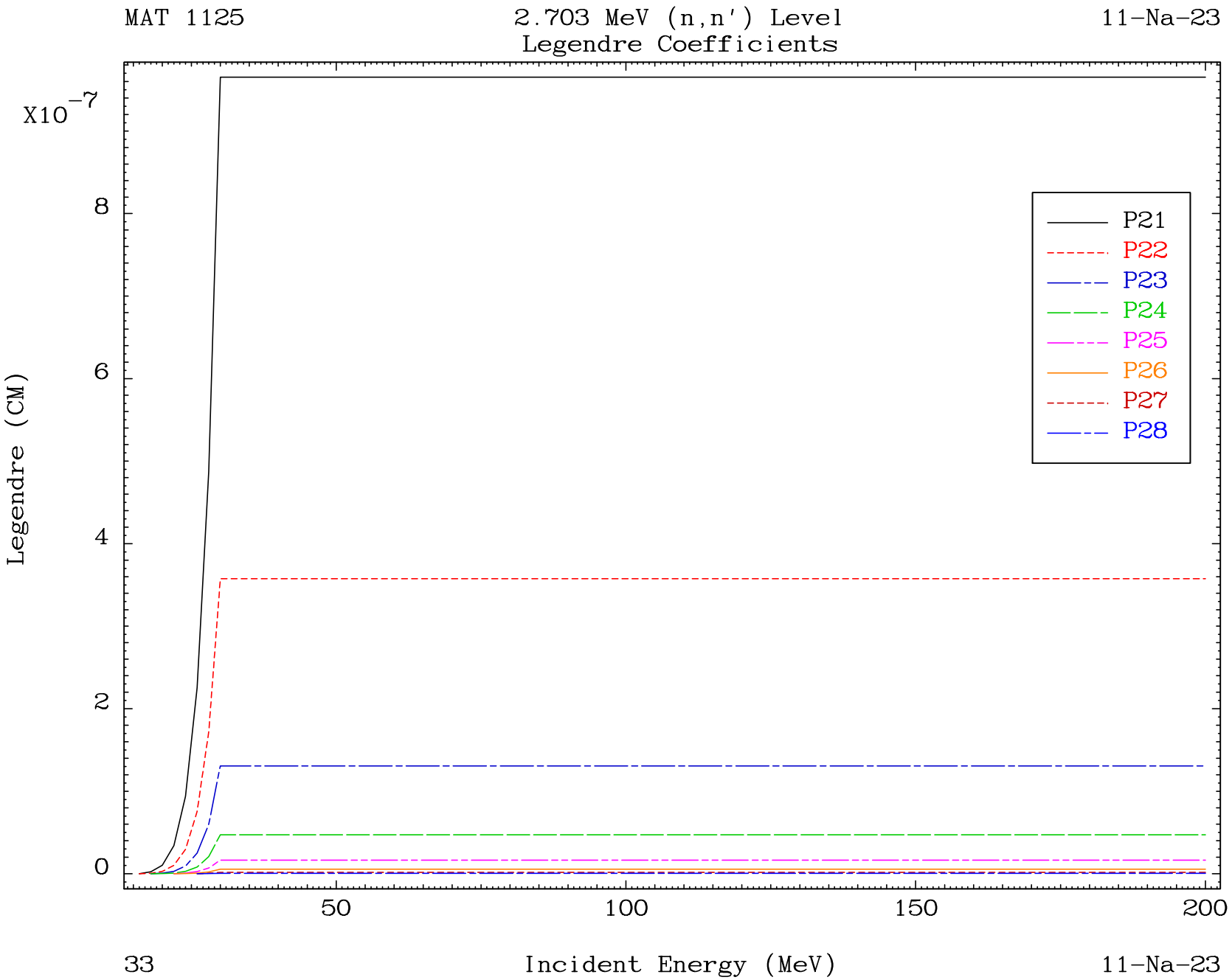

MAT 1125
2.640 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
28
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

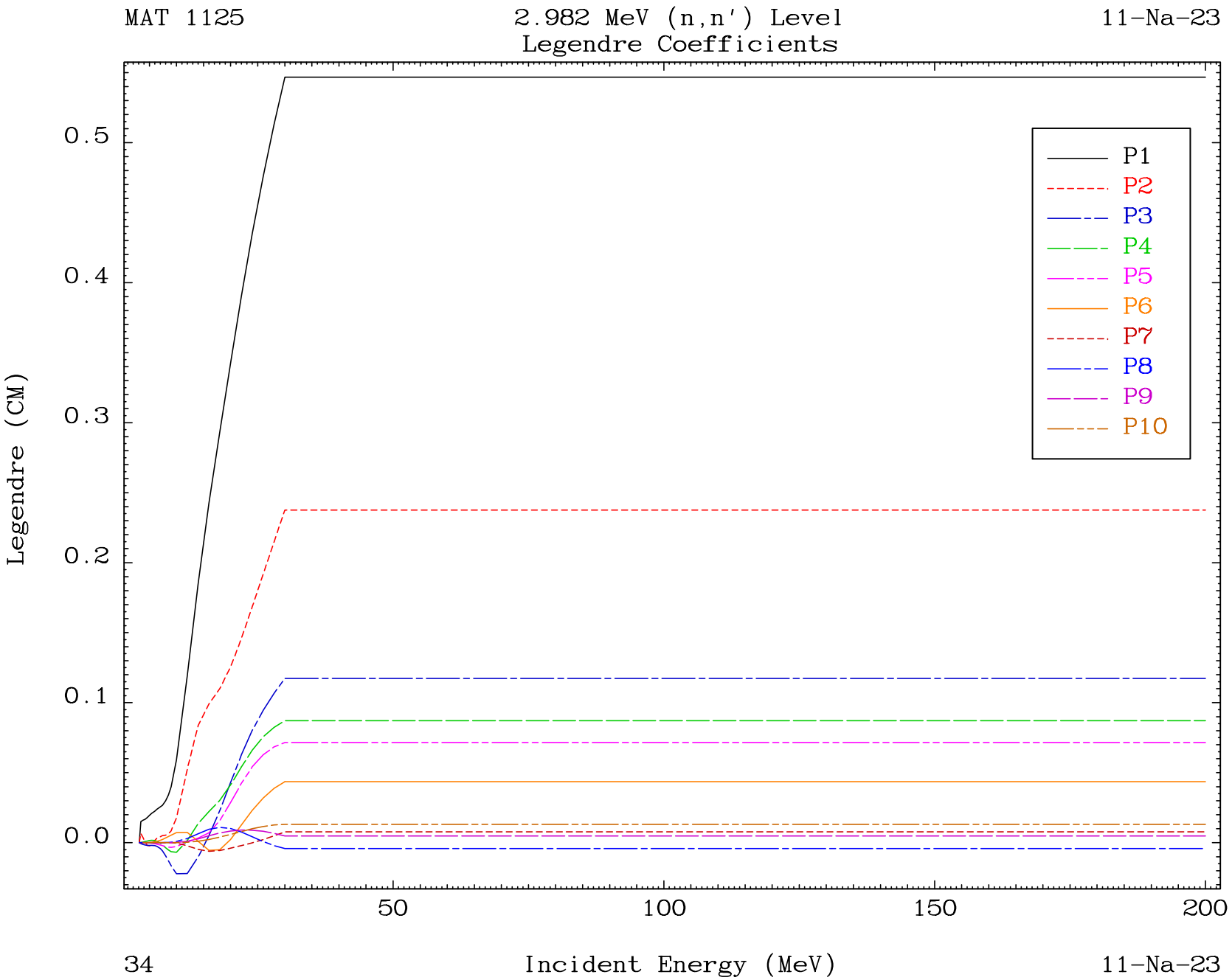

MAT 1125
2.640 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
29
Incident Energy (MeV)
11-Na-23

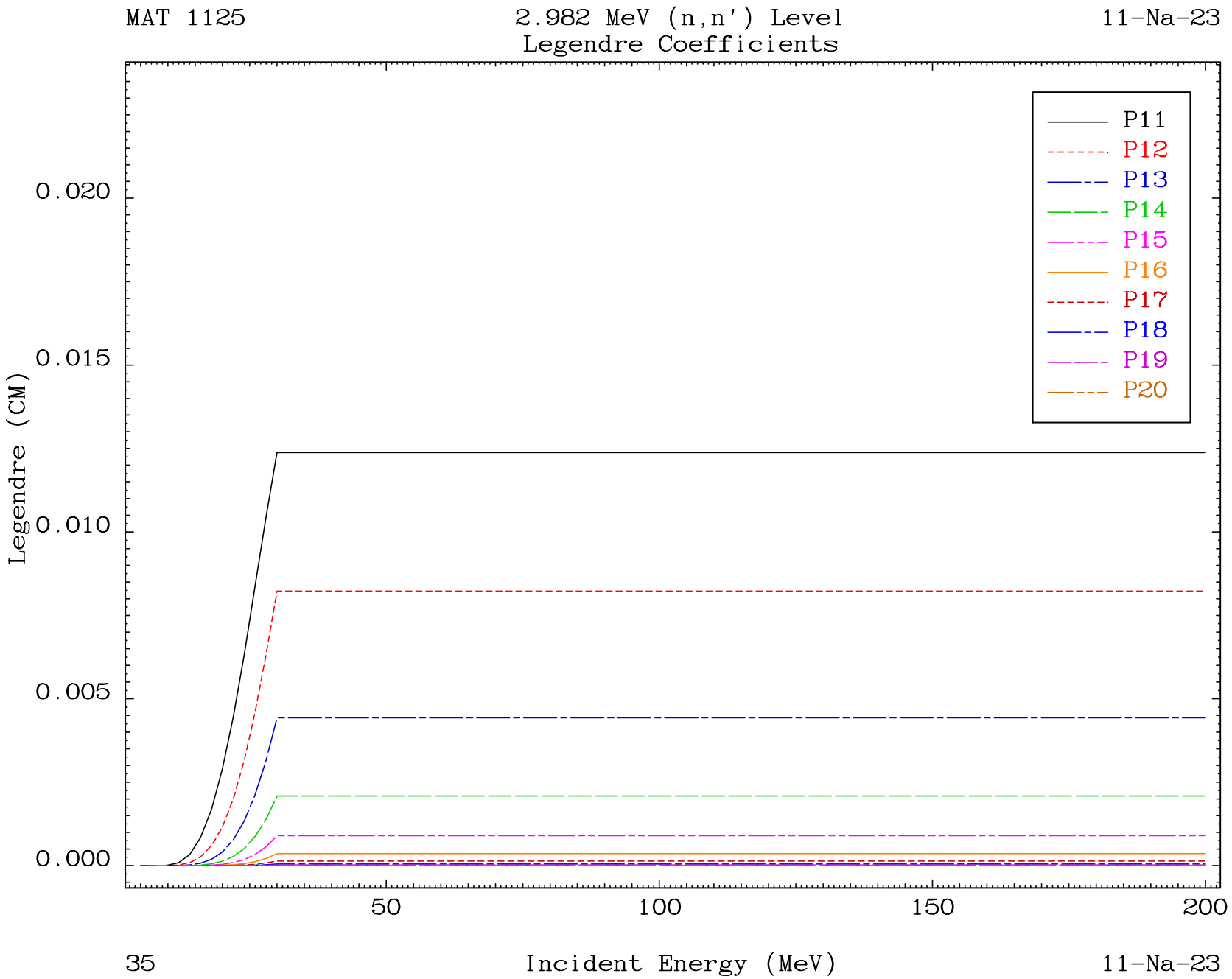

MAT 1125
2.640 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10 -6
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
30
50
100
150
200
Incident Energy (MeV)
11-Na-23

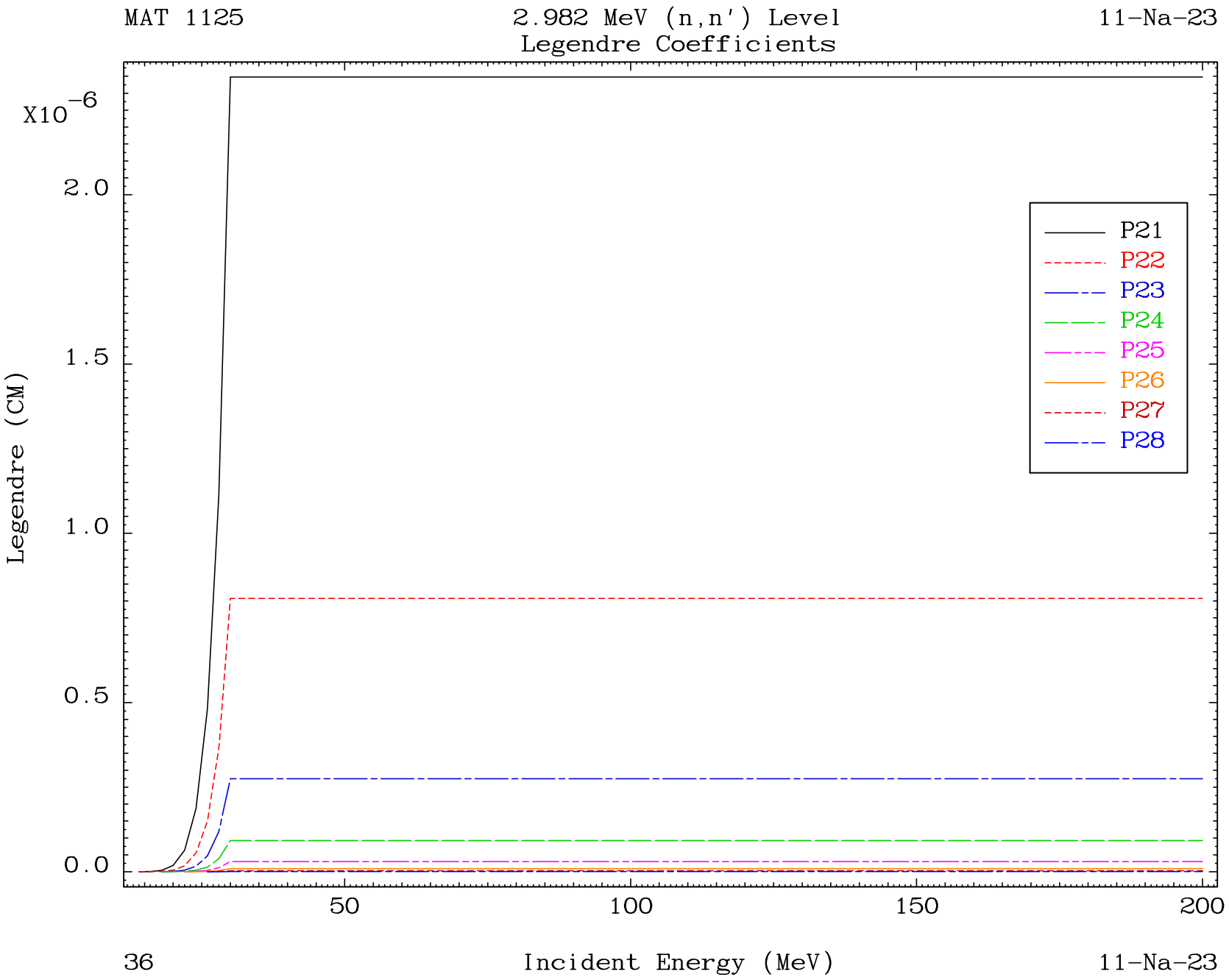

MAT 1125
2.703 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
Incident Energy (MeV)
31
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

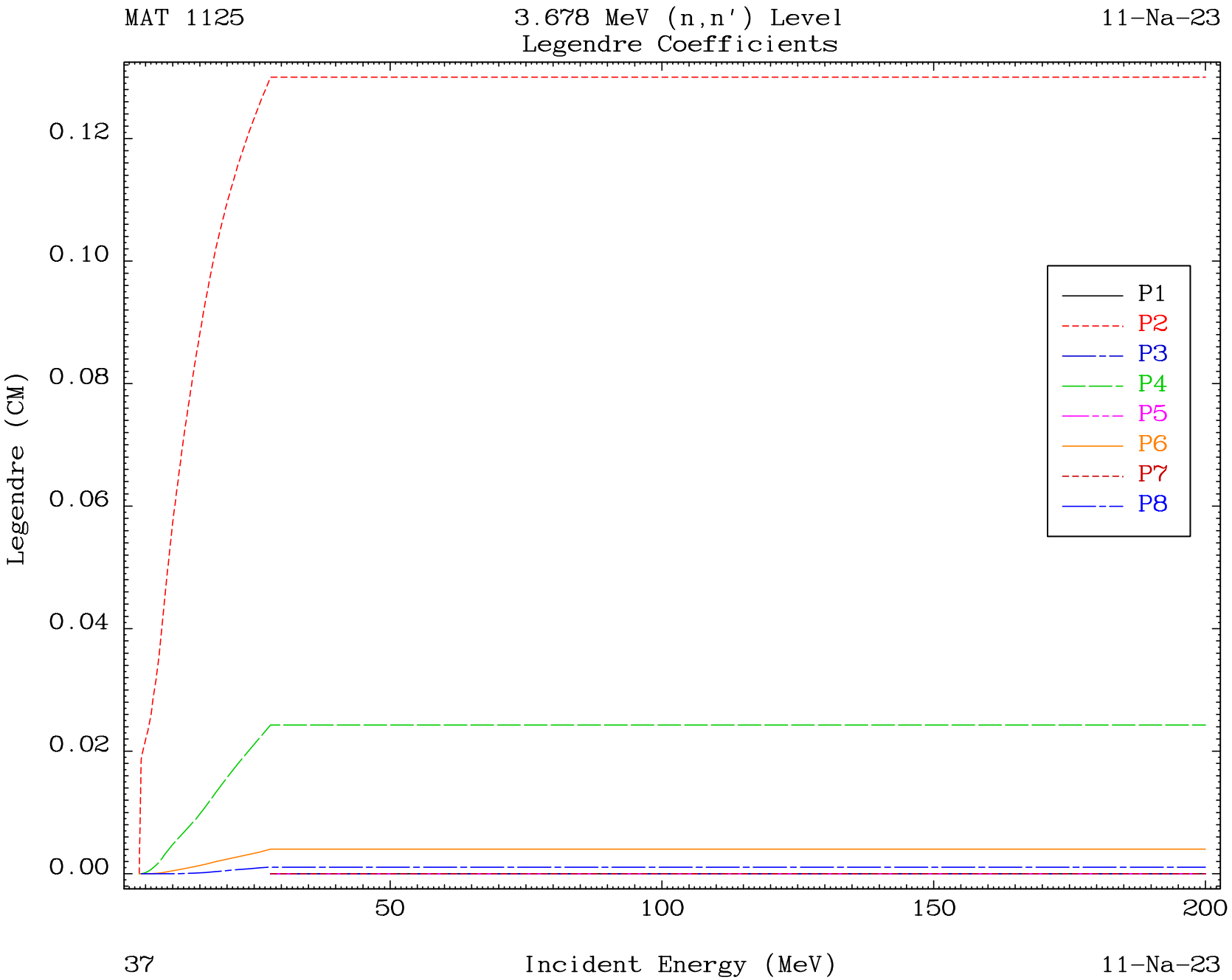

MAT 1125
2.703 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-3
0.0
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
32
Incident Energy (MeV)
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

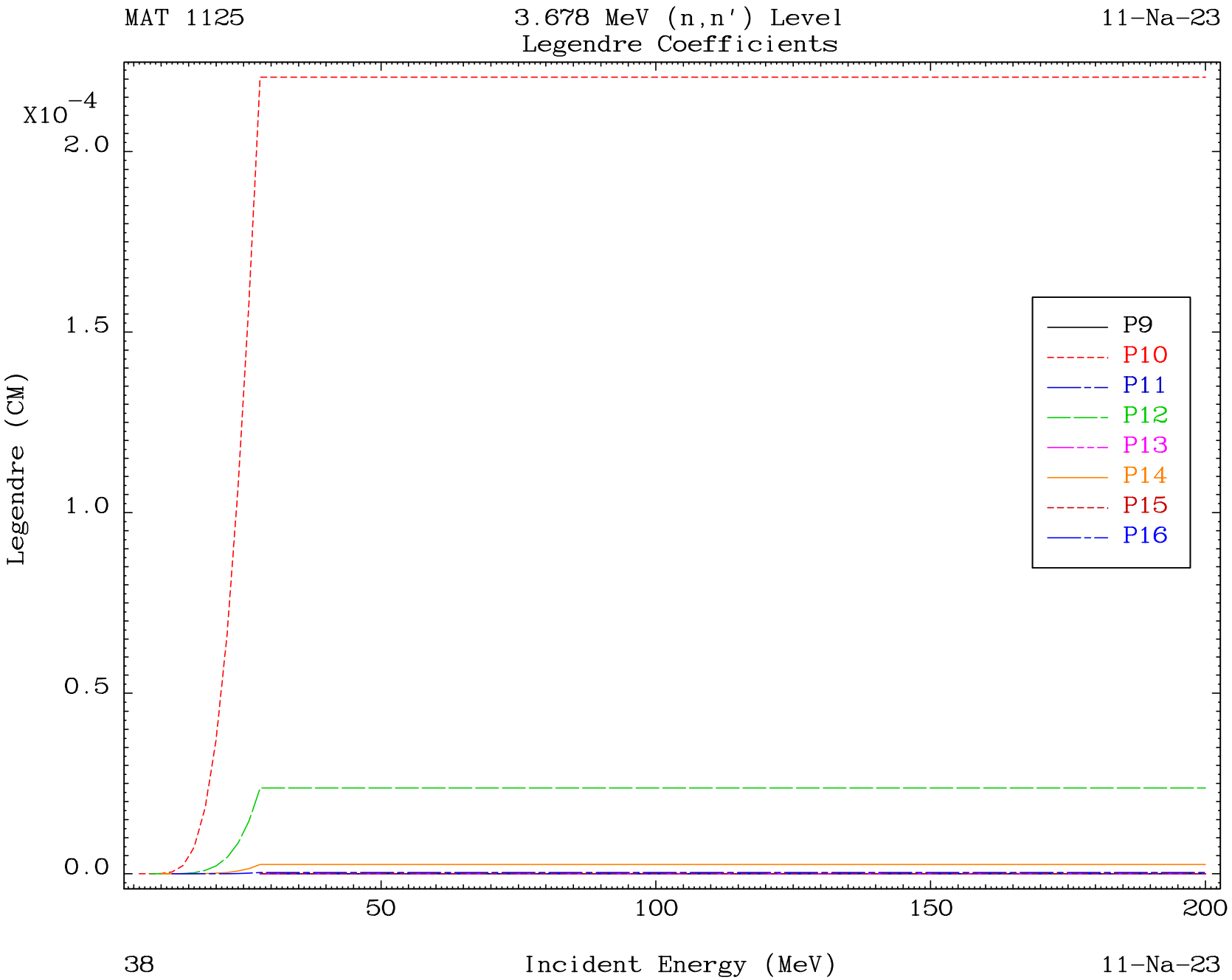

MAT 1125
2.703 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
8
6
4
2
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
33
Incident Energy (MeV)
11-Na-23

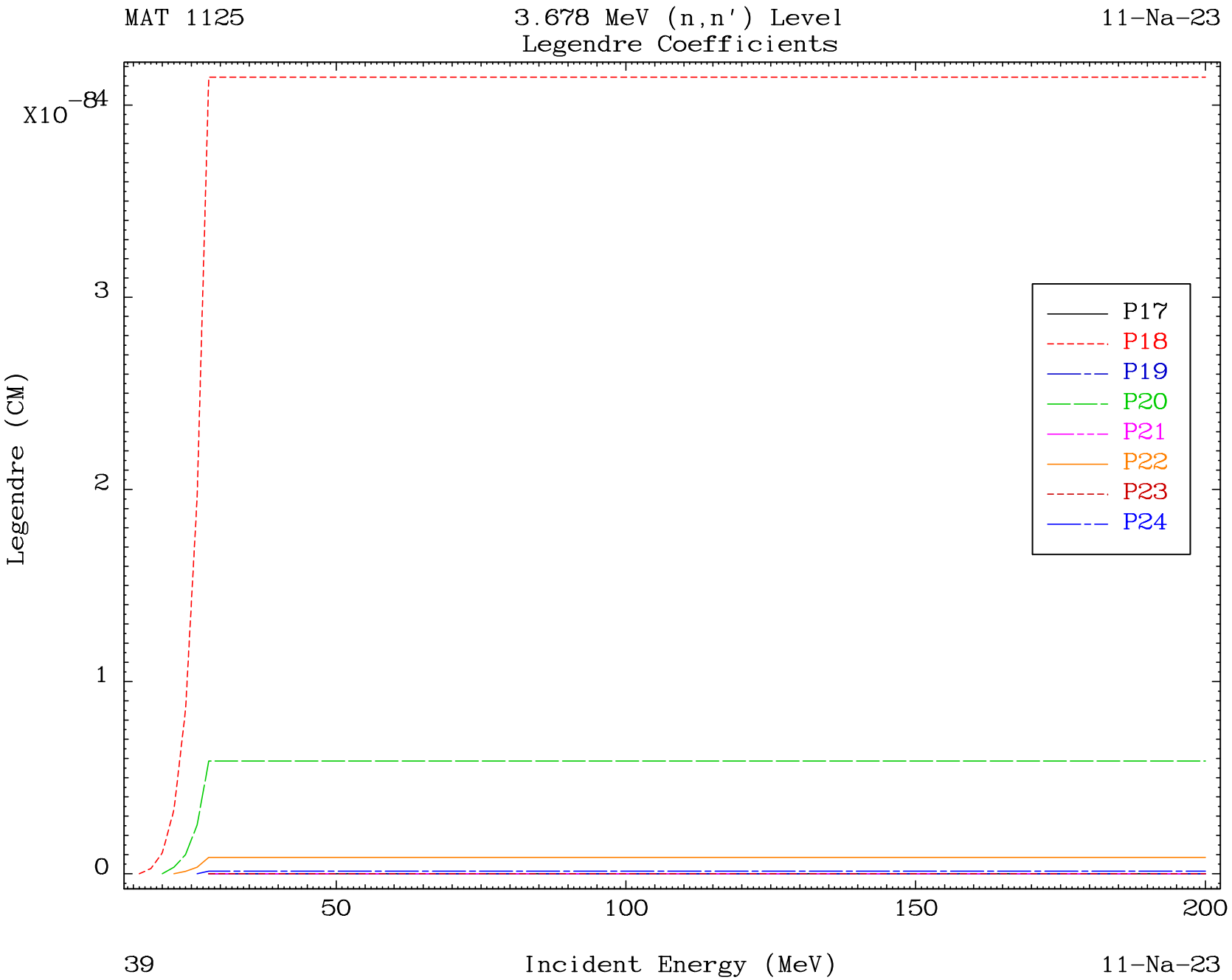

MAT 1125
2.982 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
34
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

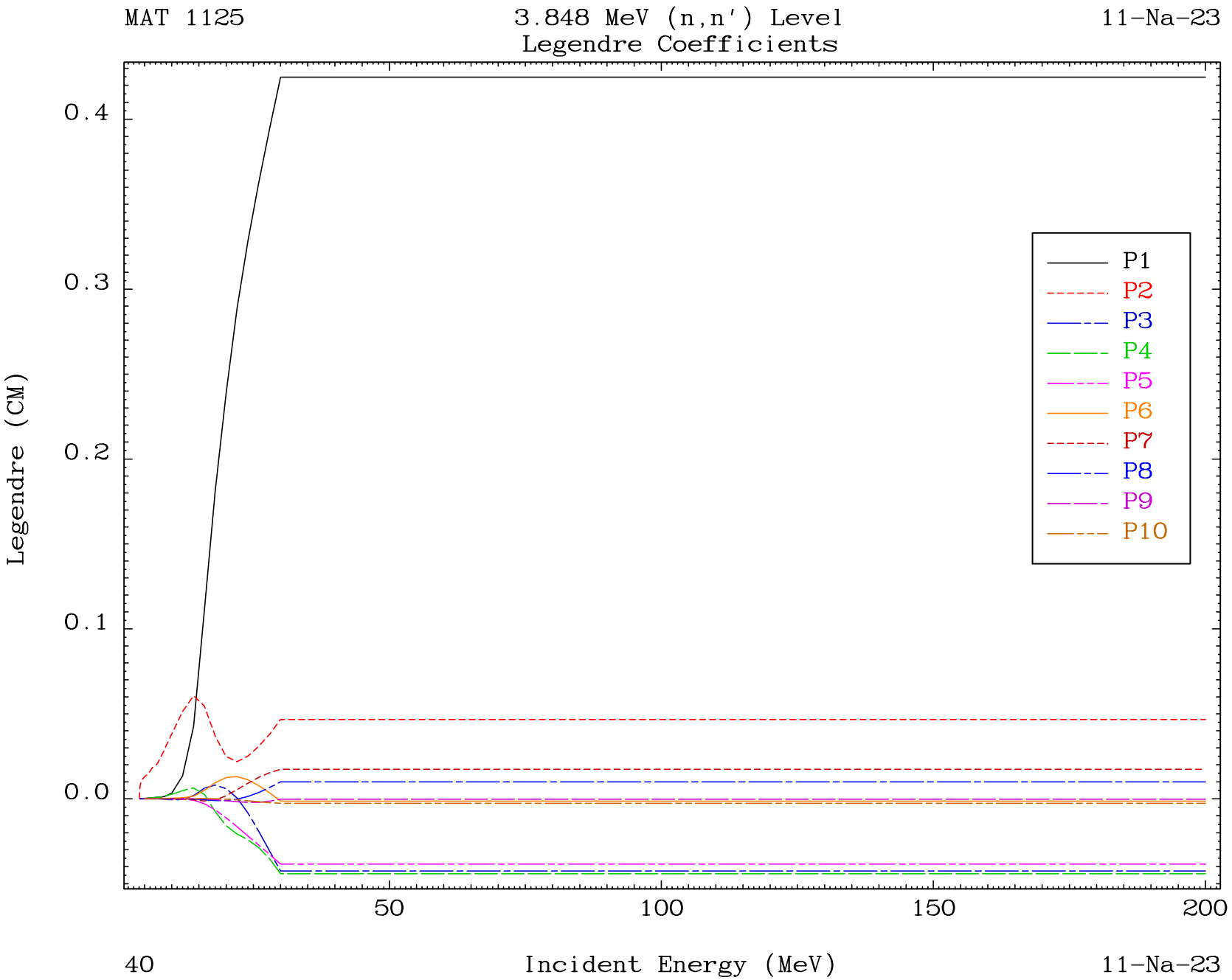

MAT 1125
2.982 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
35
Incident Energy (MeV)
11-Na-23

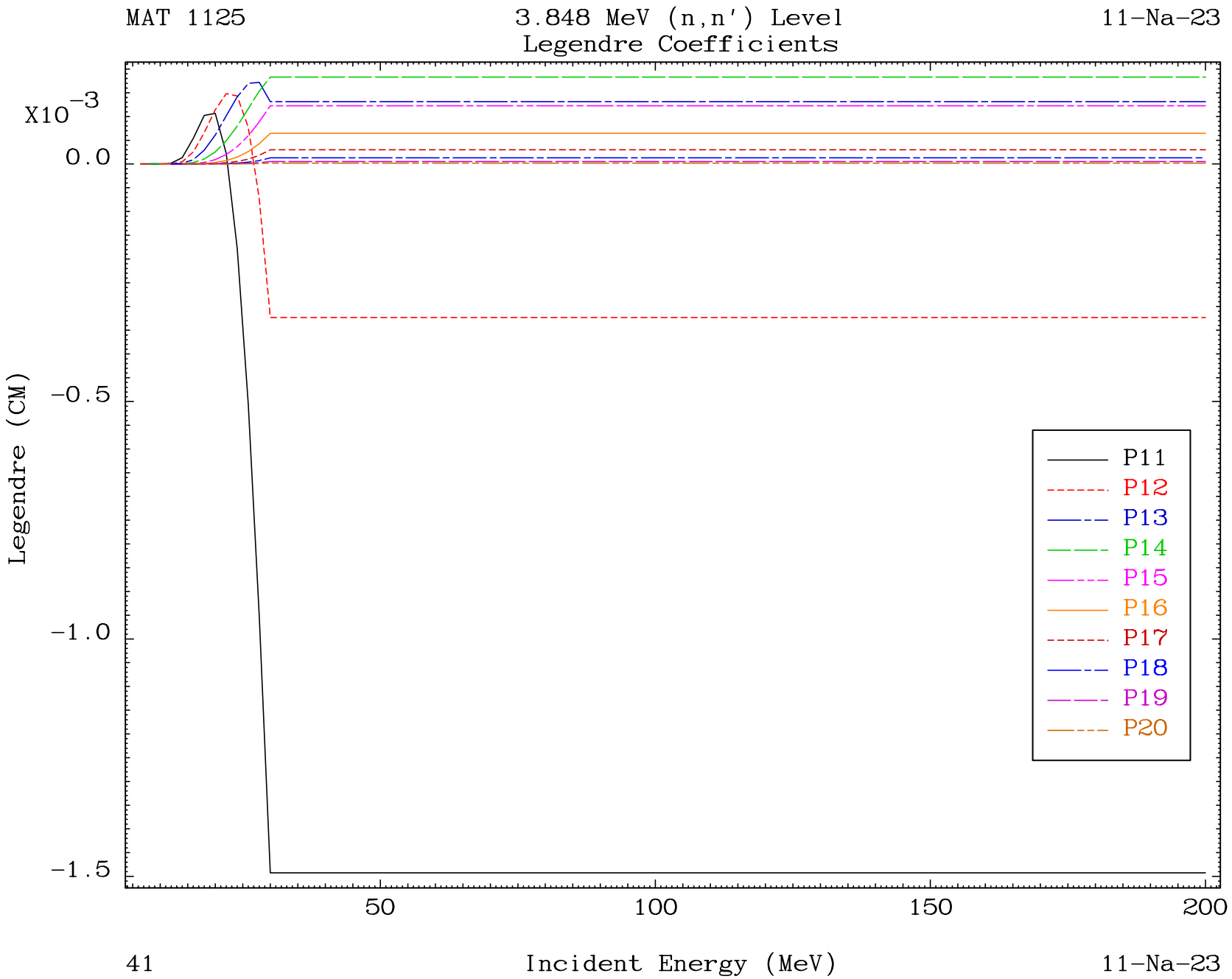

MAT 1125
2.982 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
36
Incident Energy (MeV)
11-Na-23

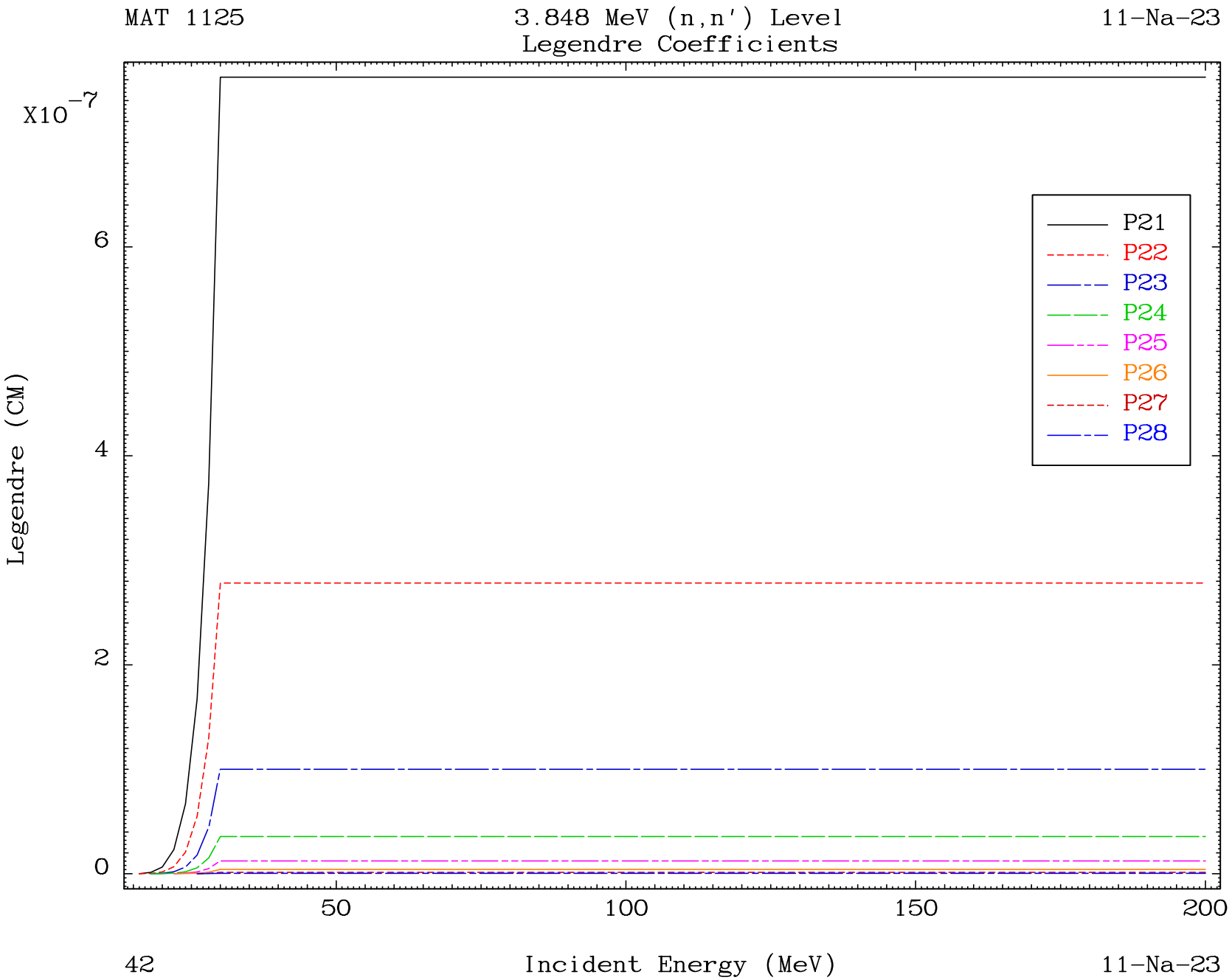

MAT 1125
3.678 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.12
0.10
0.08
0.06
0.04
0.02
0.00
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
37
Incident Energy (MeV)
11-Na-23

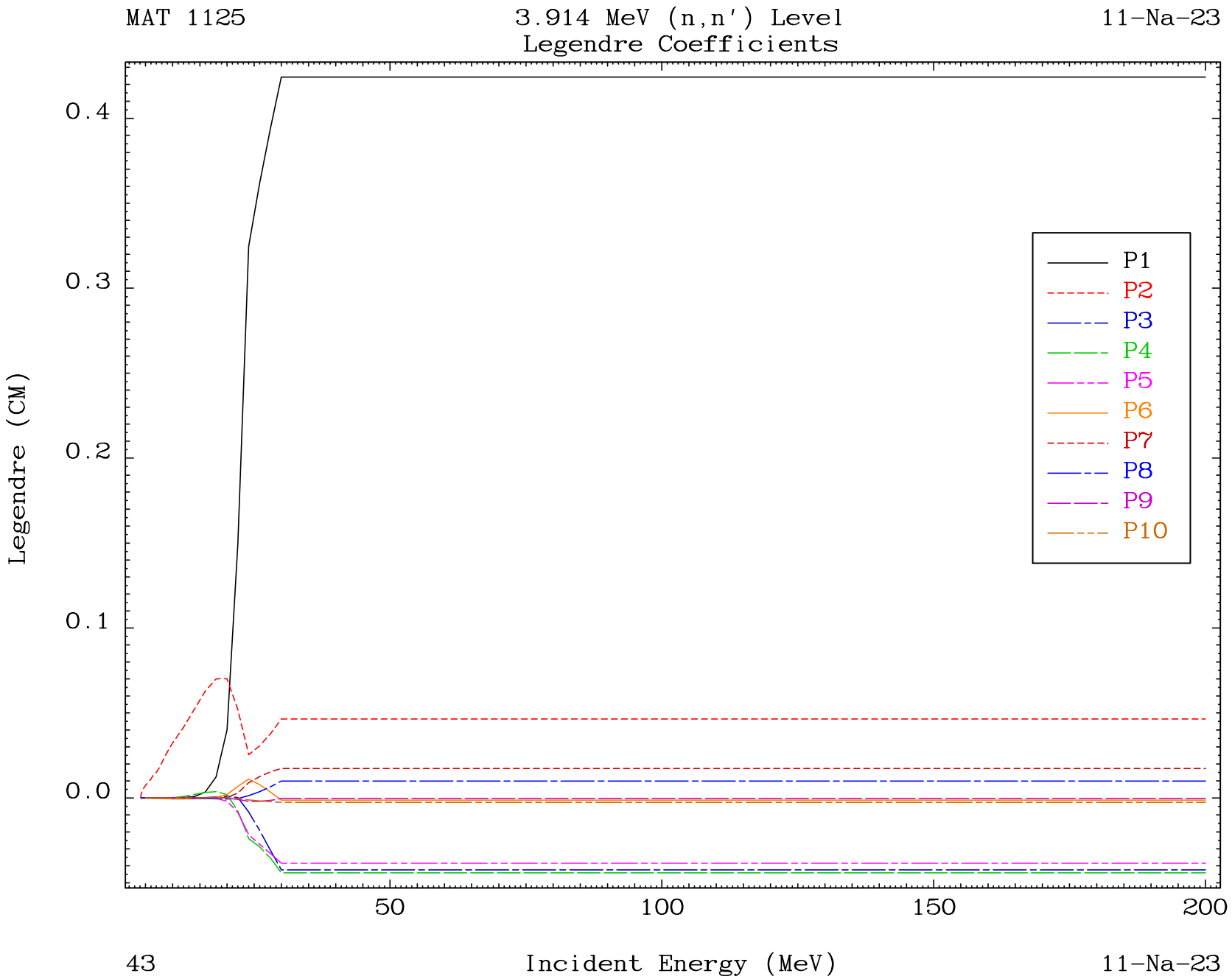

MAT 1125
3.678 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-4
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
50
100
150
200
38
Incident Energy (MeV)
11-Na-23

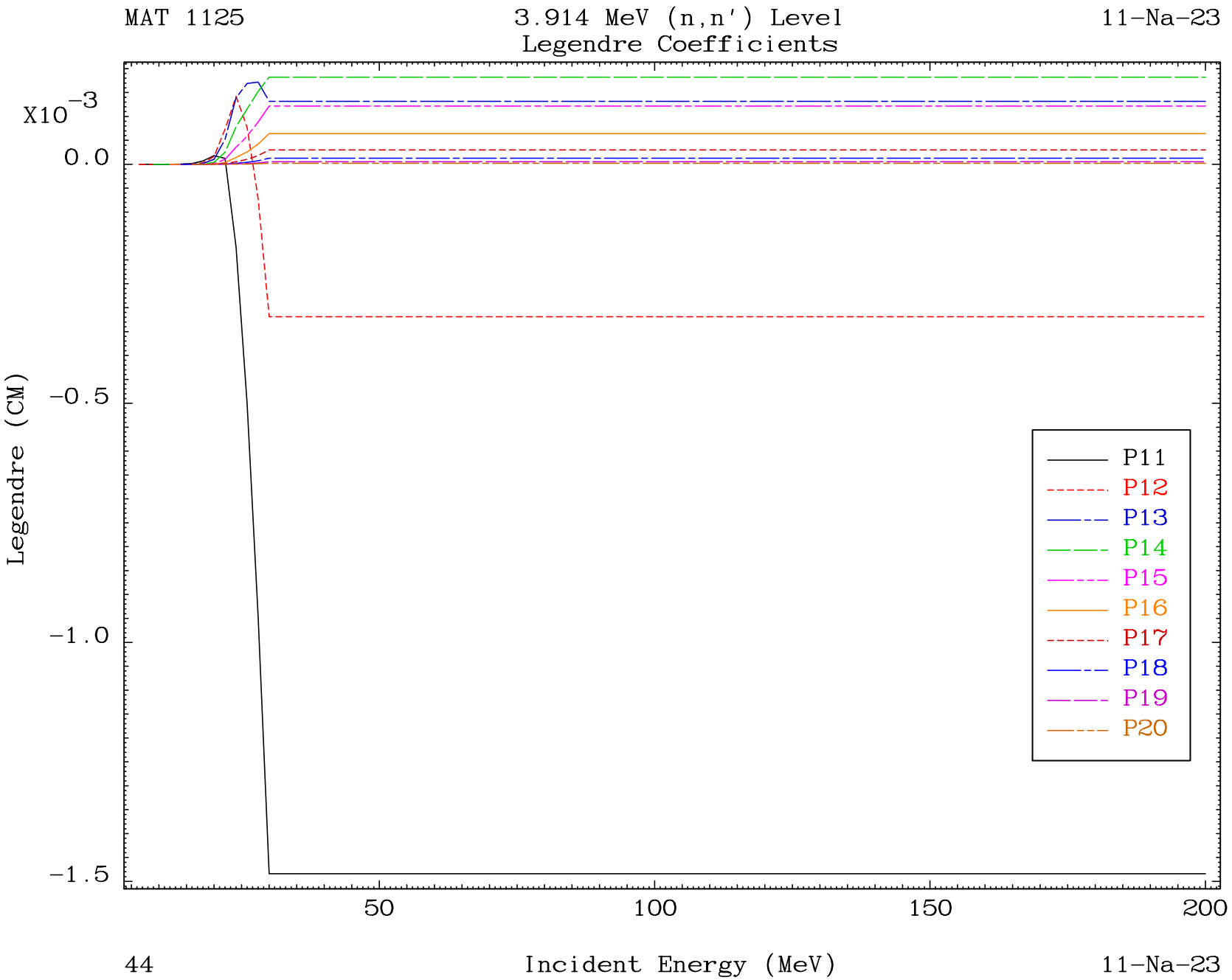

MAT 1125
3.678 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-84
3
2
1
0
Legendre (CM)
P17
P18
P19
P20
P21
P22
P23
P24
50
100
150
200
39
Incident Energy (MeV)
11-Na-23

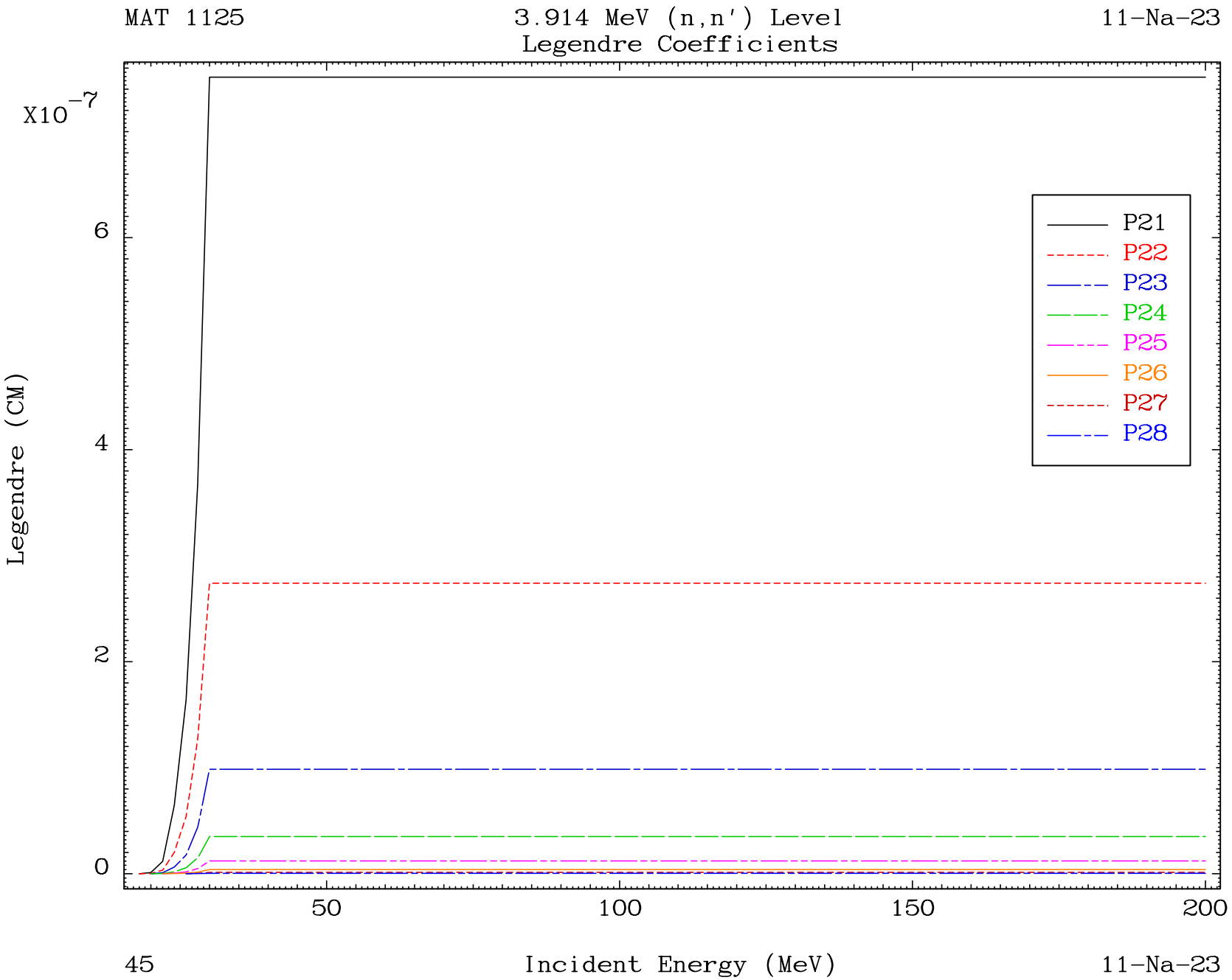

MAT 1125
3.848 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
40
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

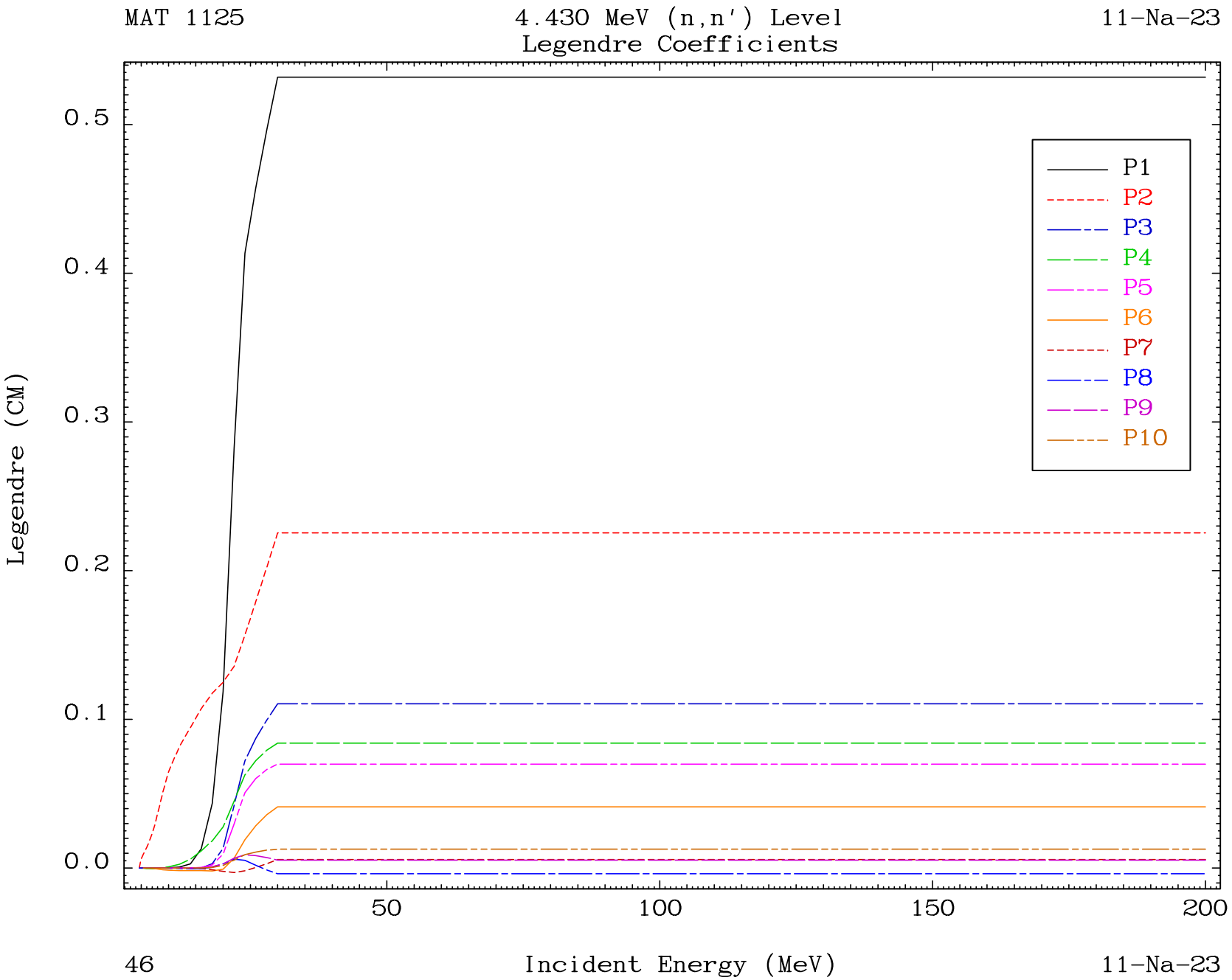

MAT 1125
3.848 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-3
0.0
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
41
Incident Energy (MeV)
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

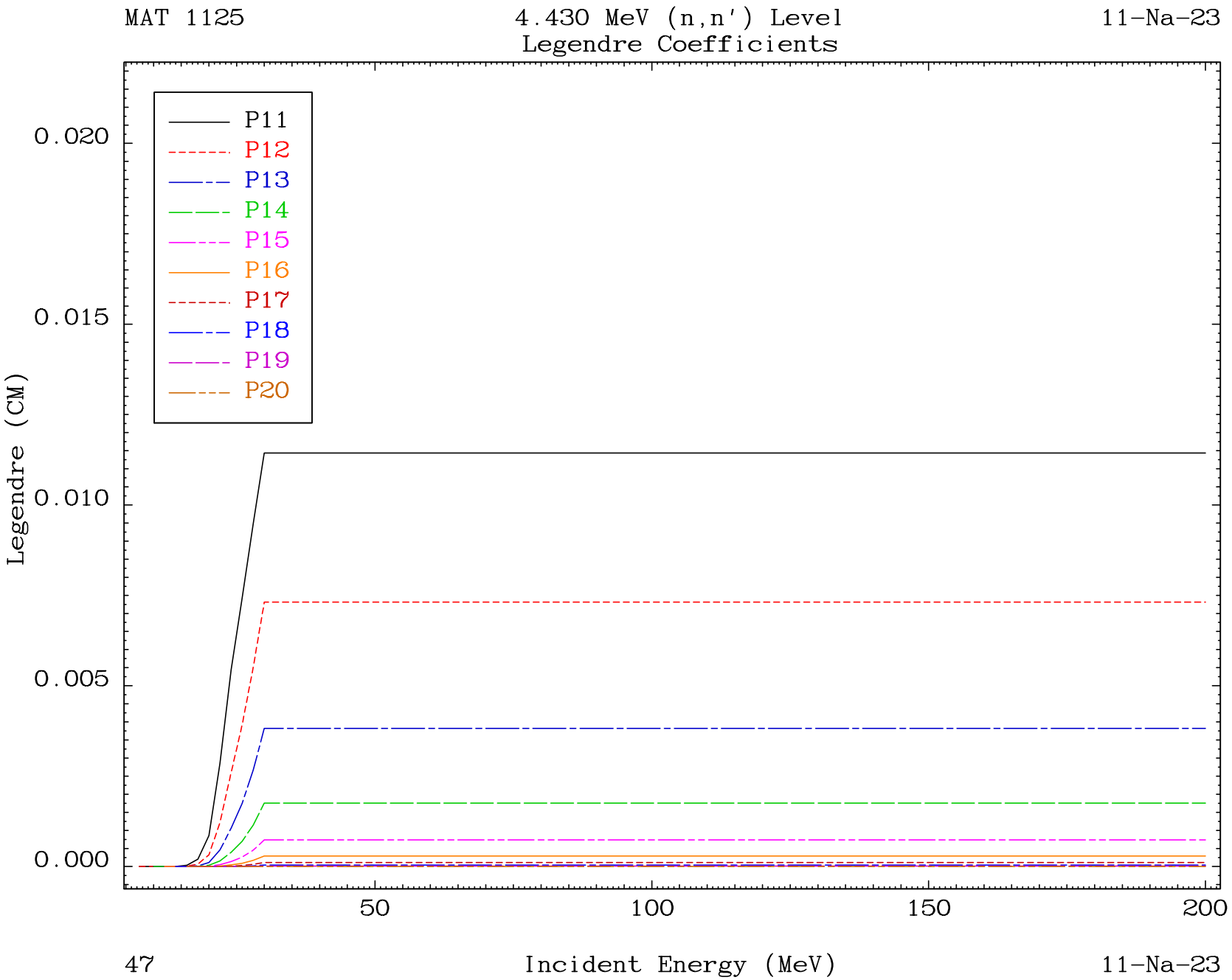

MAT 1125
3.848 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
6
4
2
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
42
Incident Energy (MeV)
11-Na-23

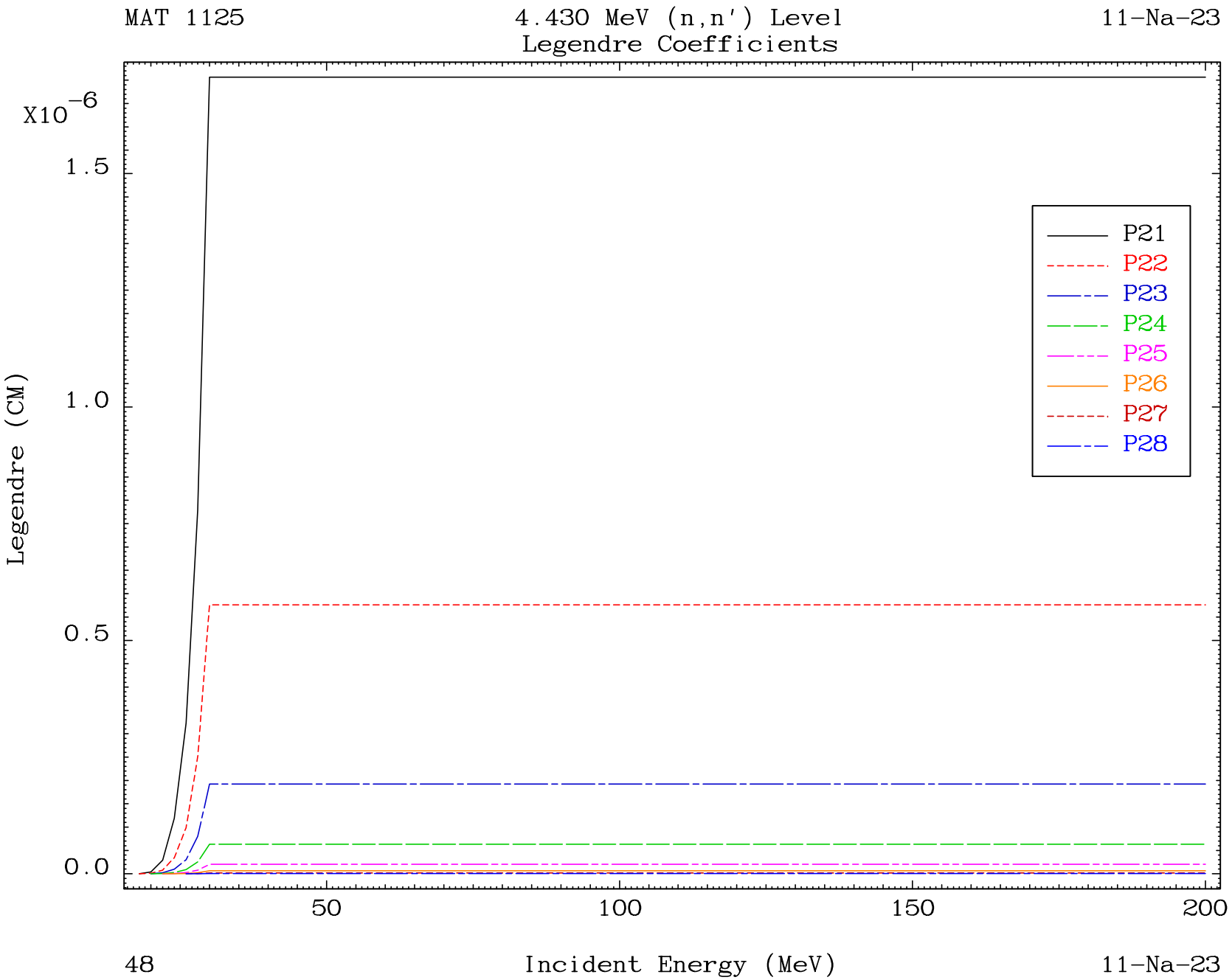

MAT 1125
3.914 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
Incident Energy (MeV)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
43
11-Na-23

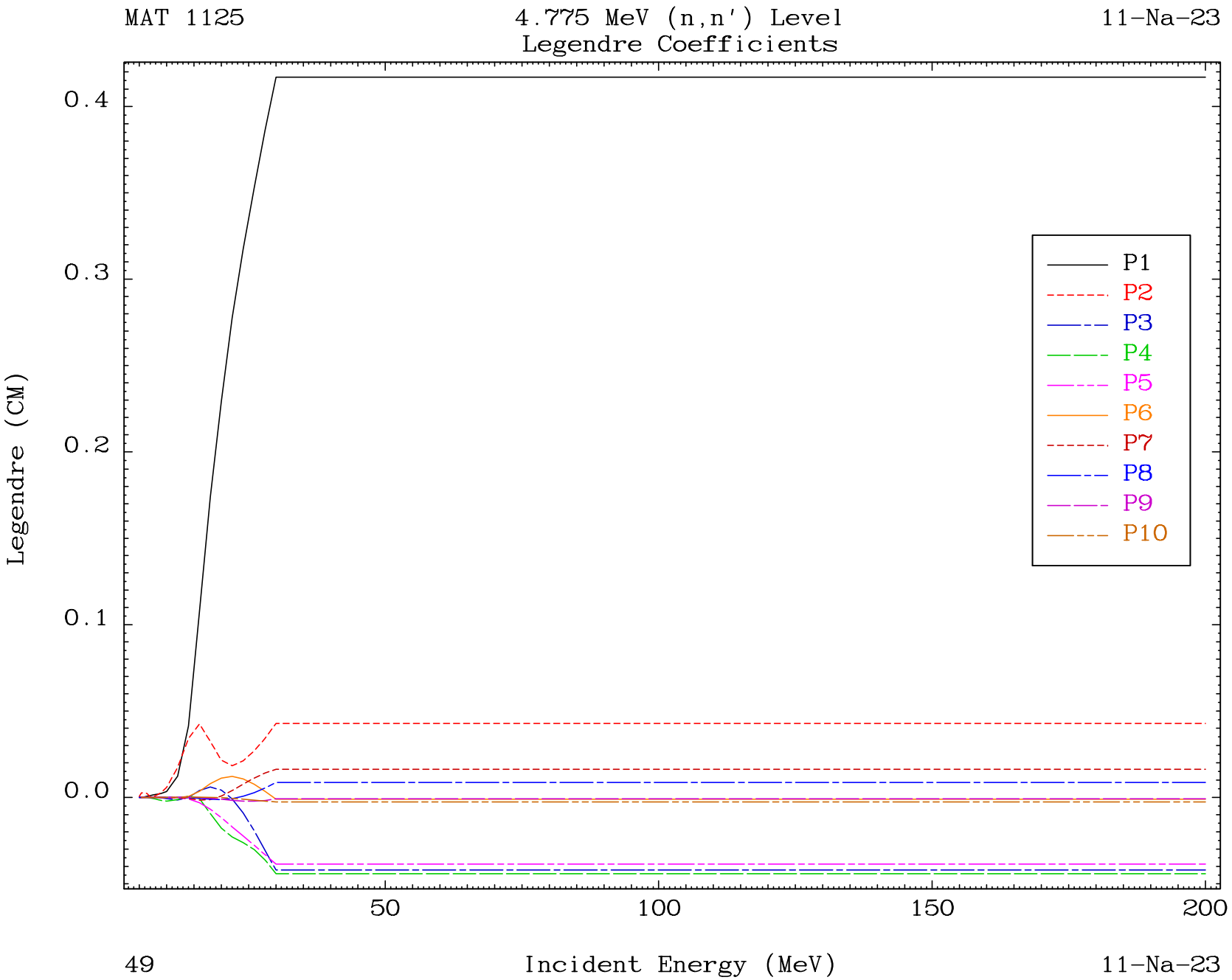

MAT 1125
3.914 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-3
0.0
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
44
Incident Energy (MeV)
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

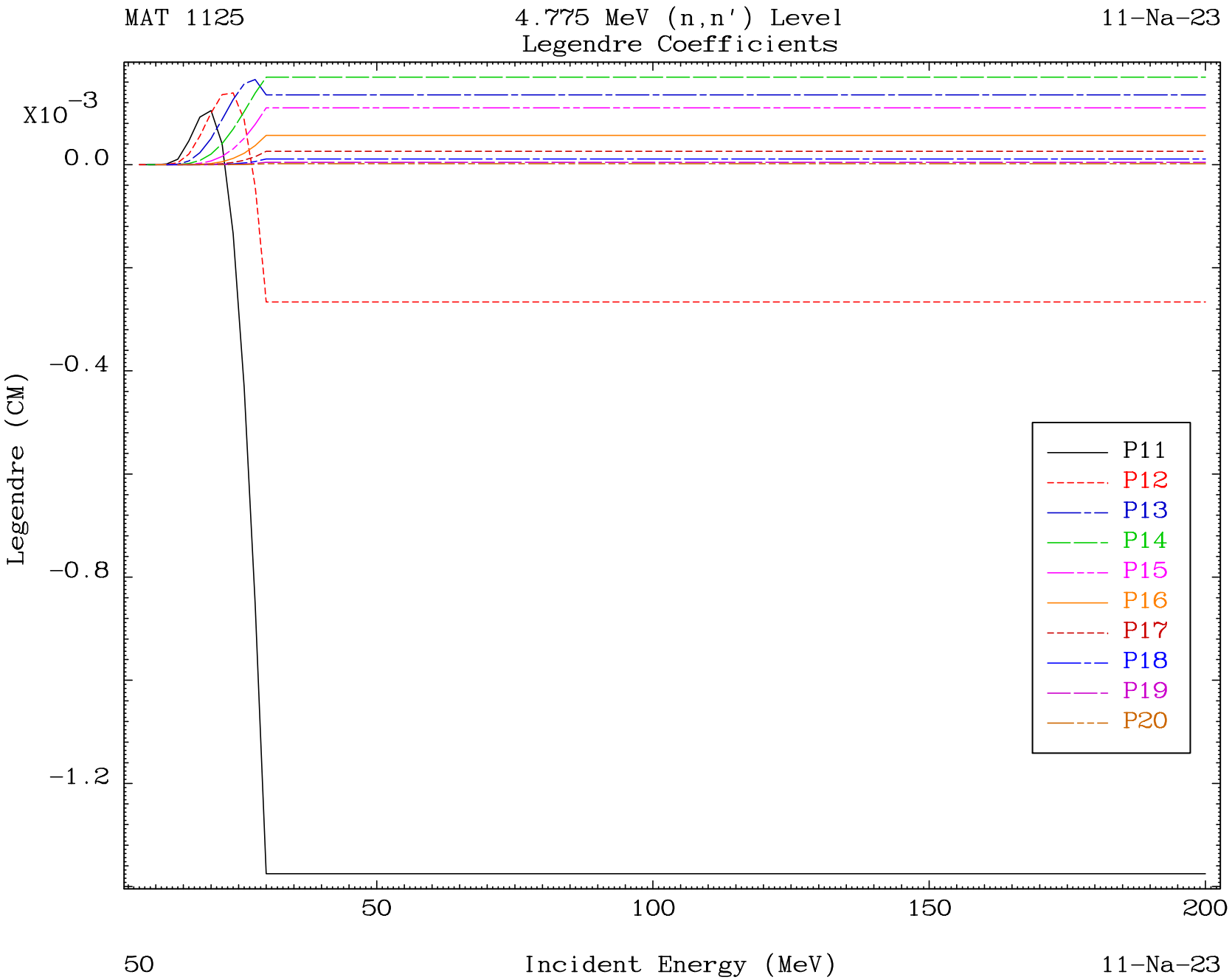

MAT 1125
3.914 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
6
4
2
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
45
Incident Energy (MeV)
11-Na-23

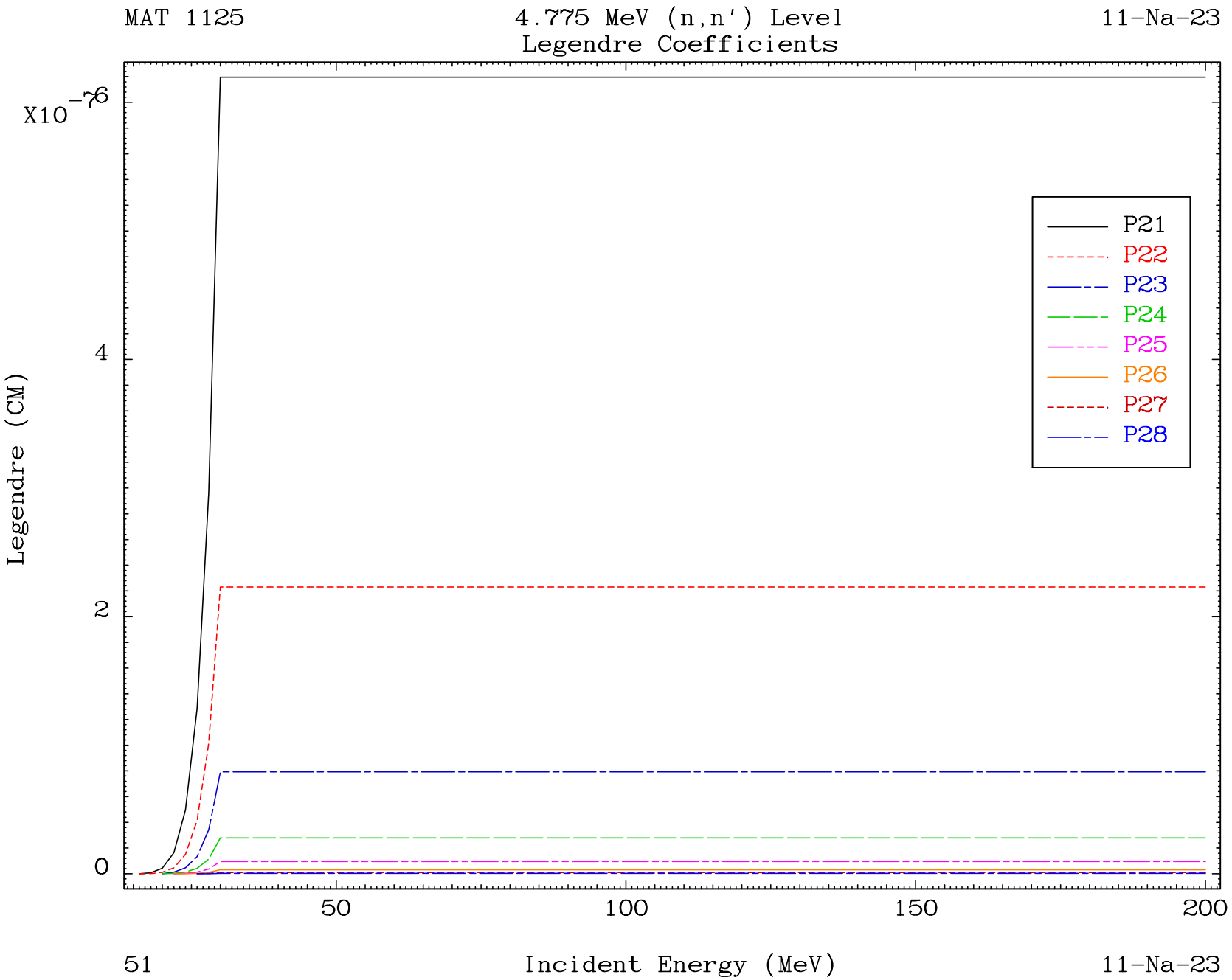

MAT 1125
4.430 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
Incident Energy (MeV)
46
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

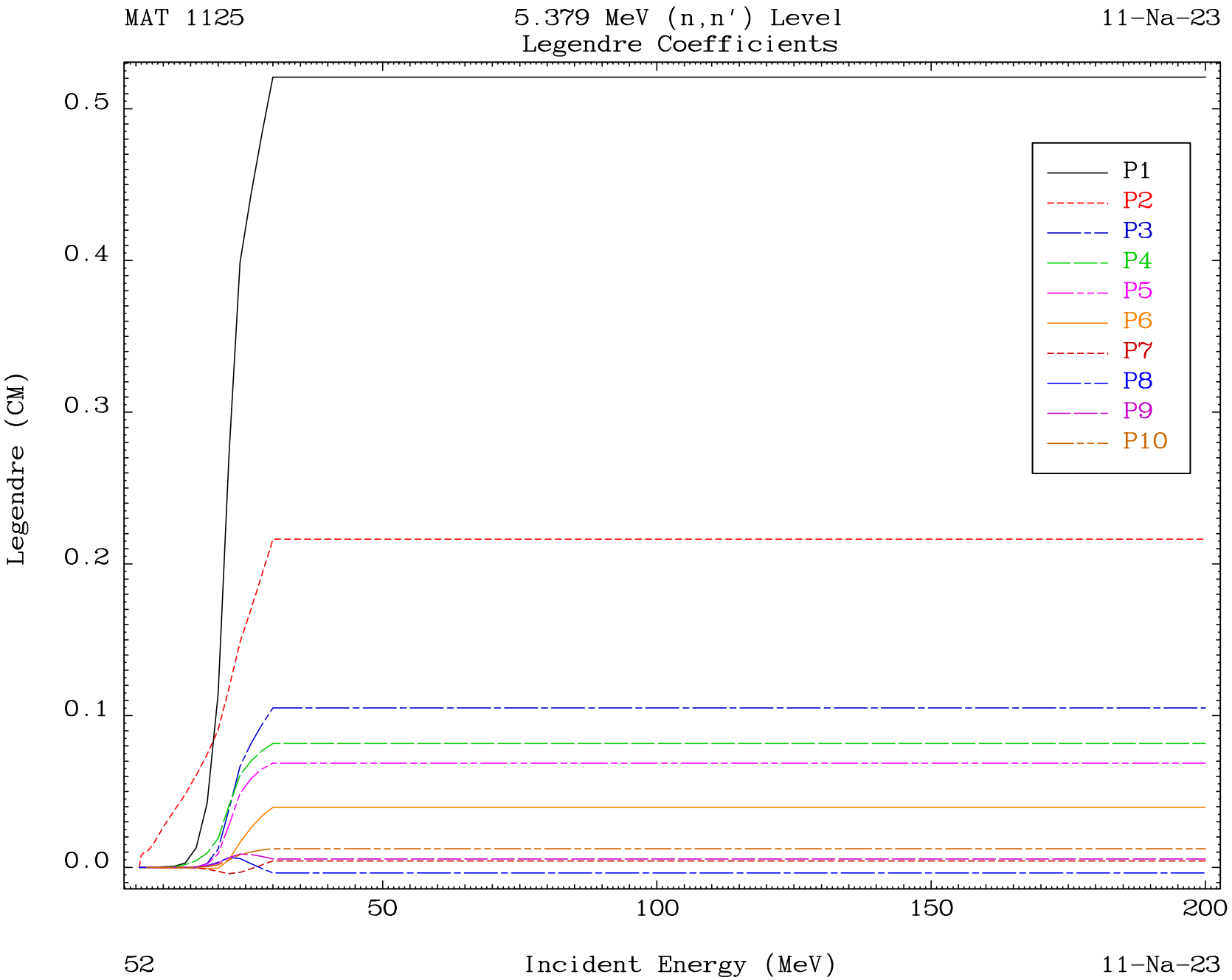

MAT 1125
4.430 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
47
Incident Energy (MeV)
11-Na-23

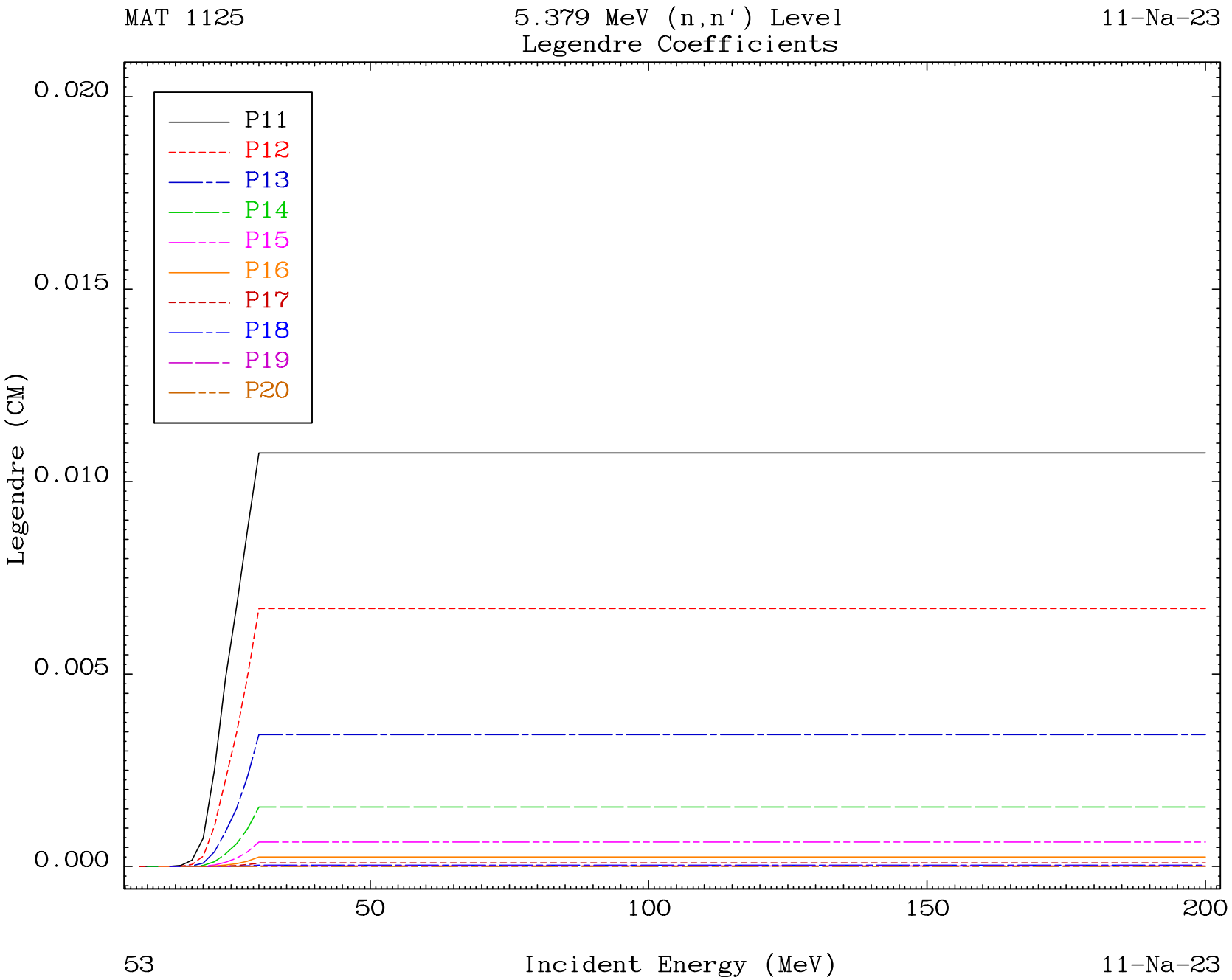

MAT 1125
4.430 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-6
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
48
Incident Energy (MeV)
11-Na-23

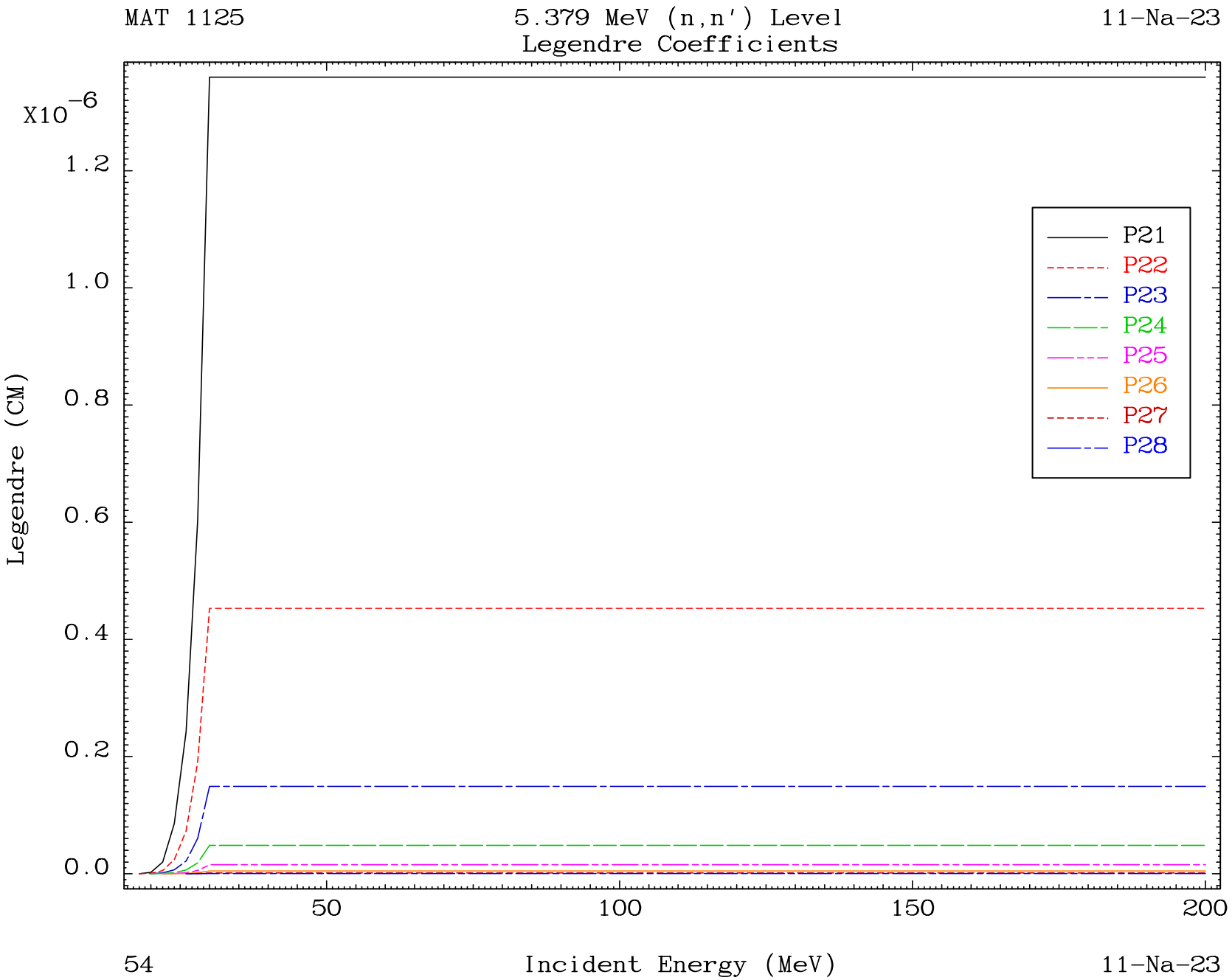

MAT 1125
4.775 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
49
Incident Energy (MeV)
11-Na-23

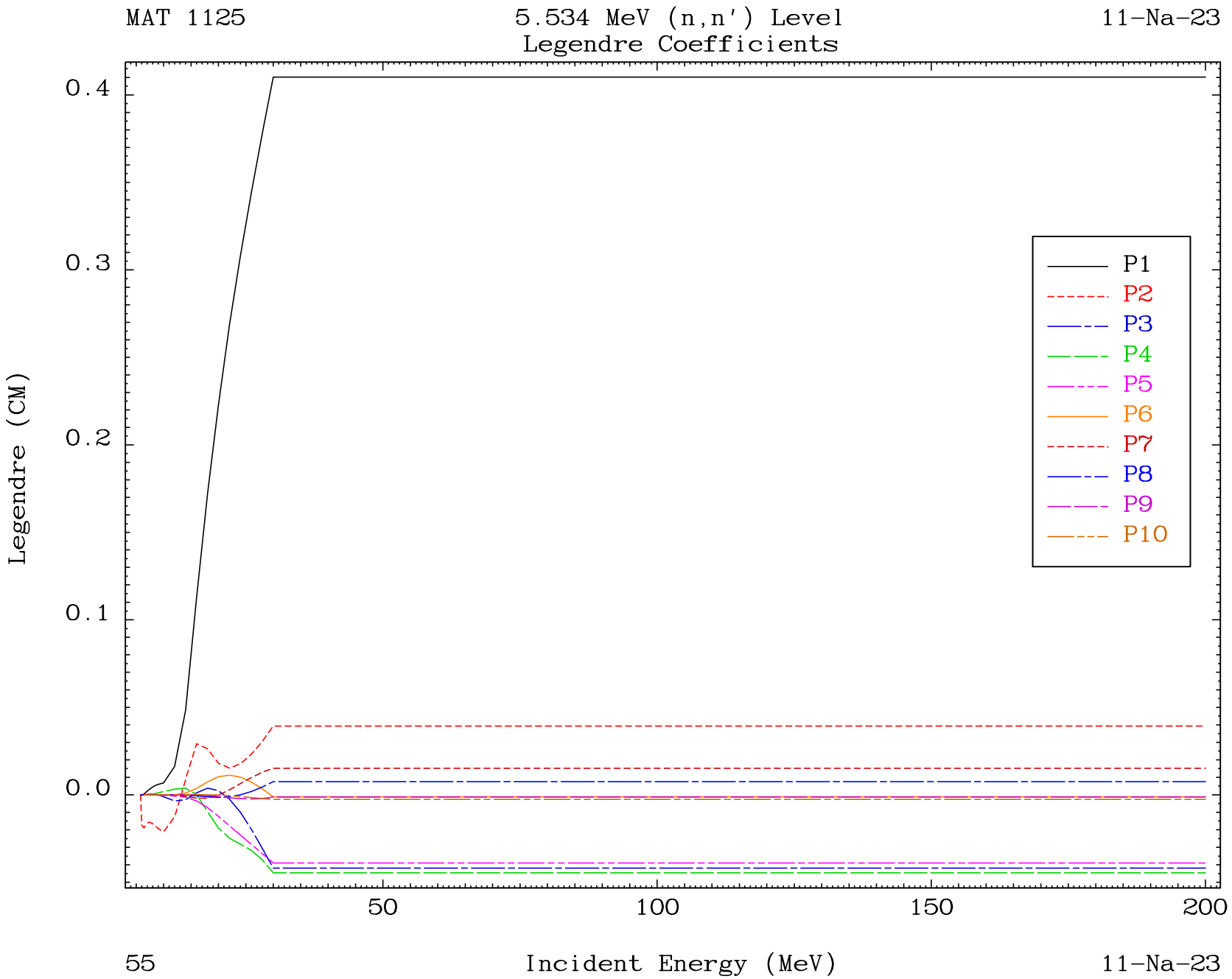

MAT 1125
4.775 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-3
0.0
-0.4
-0.8
-1.2
Legendre (CM)
50
100
150
200
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
50
Incident Energy (MeV)
11-Na-23

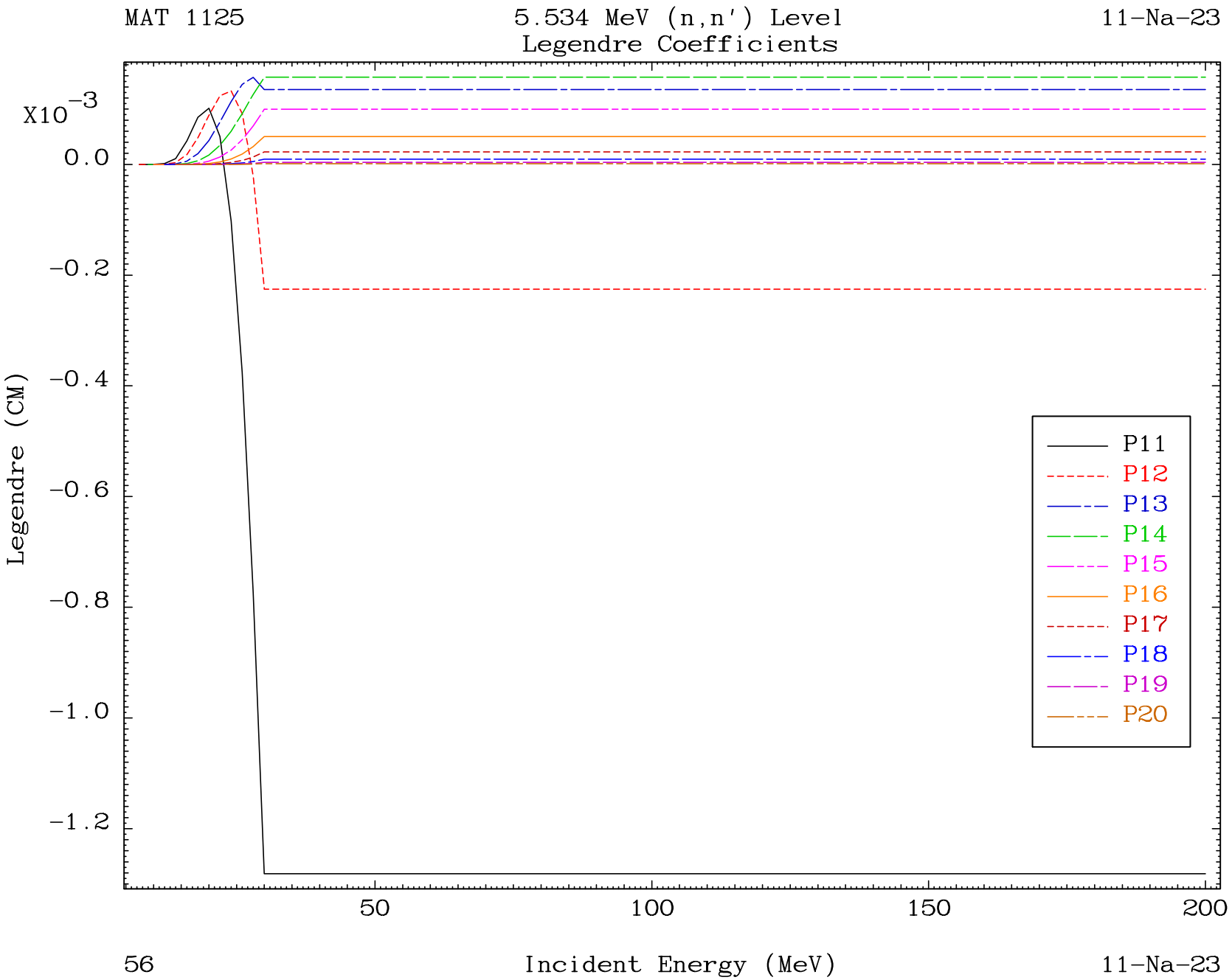

MAT 1125
4.775 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-6
4
2
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
51
Incident Energy (MeV)
11-Na-23

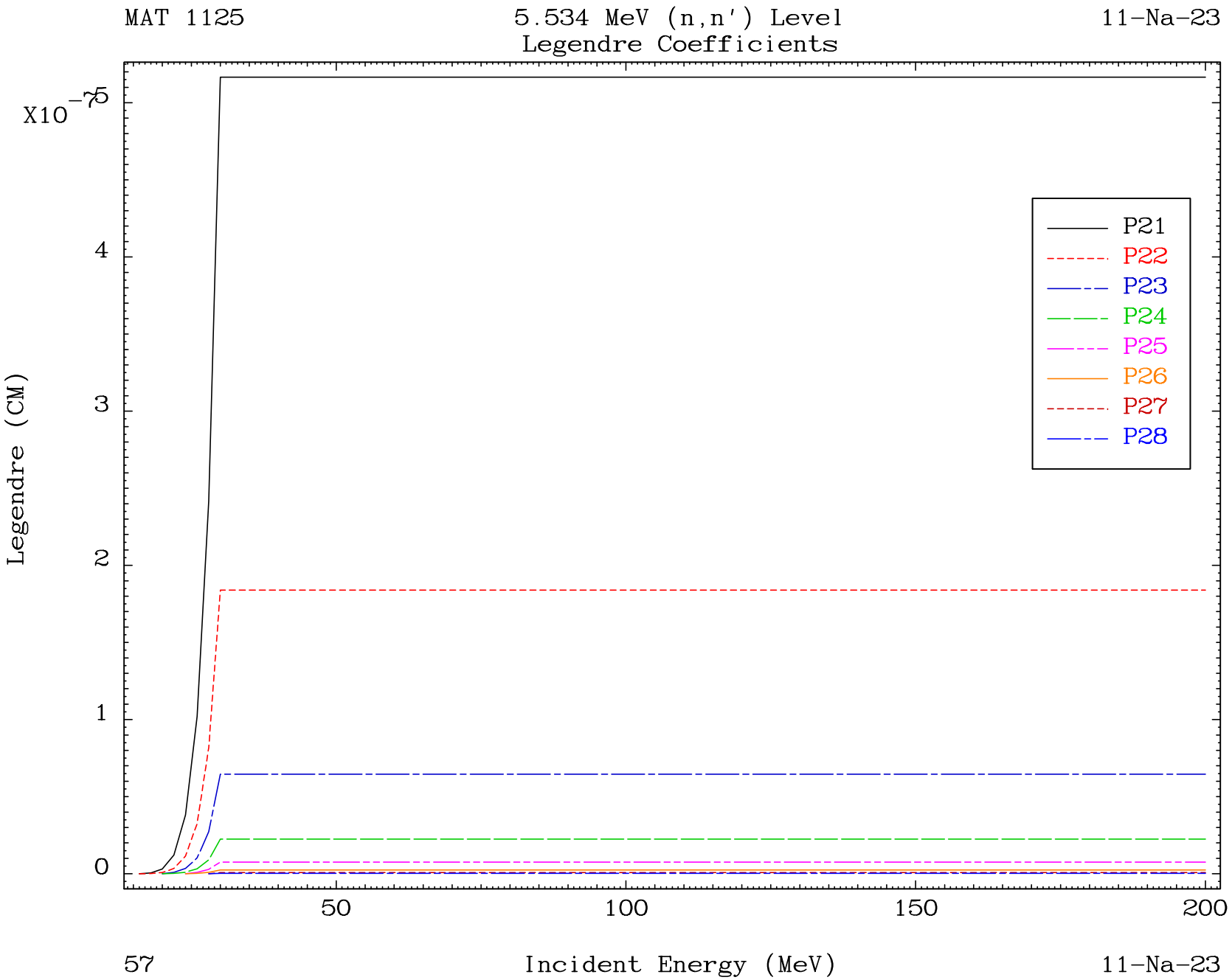

MAT 1125
5.379 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
Incident Energy (MeV)
52
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

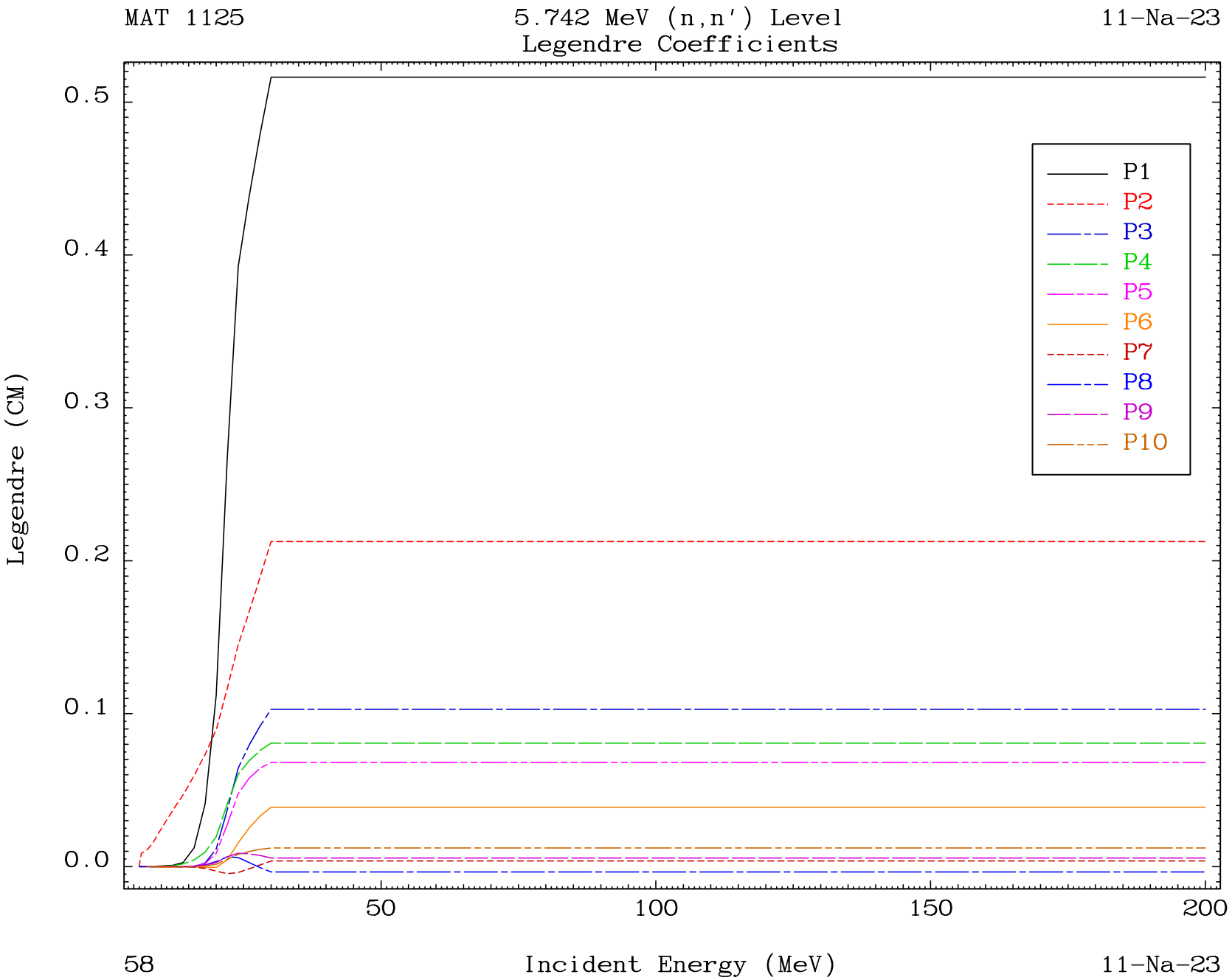

MAT 1125
5.379 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
53
Incident Energy (MeV)
11-Na-23

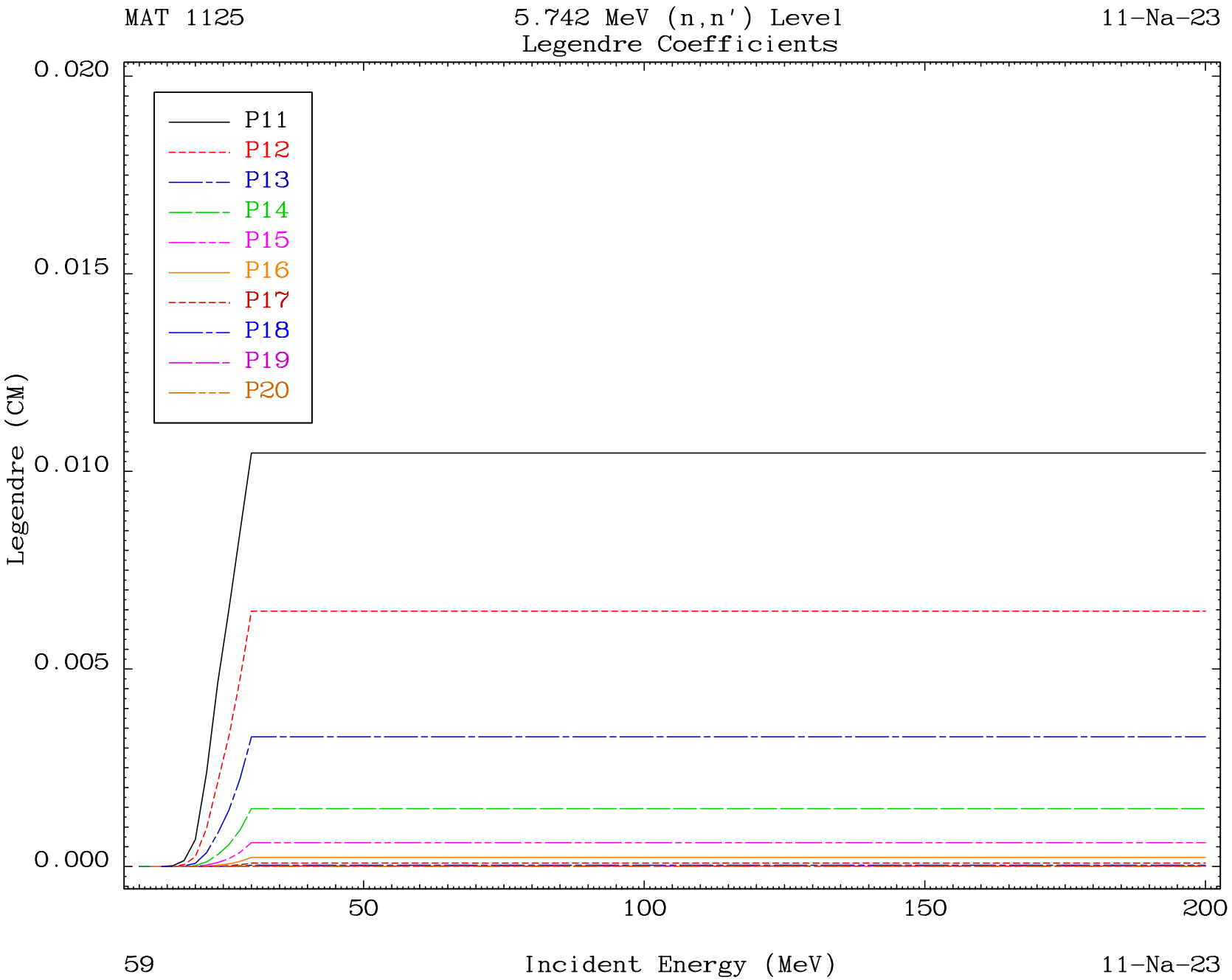

MAT 1125
5.379 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
54
Incident Energy (MeV)
11-Na-23

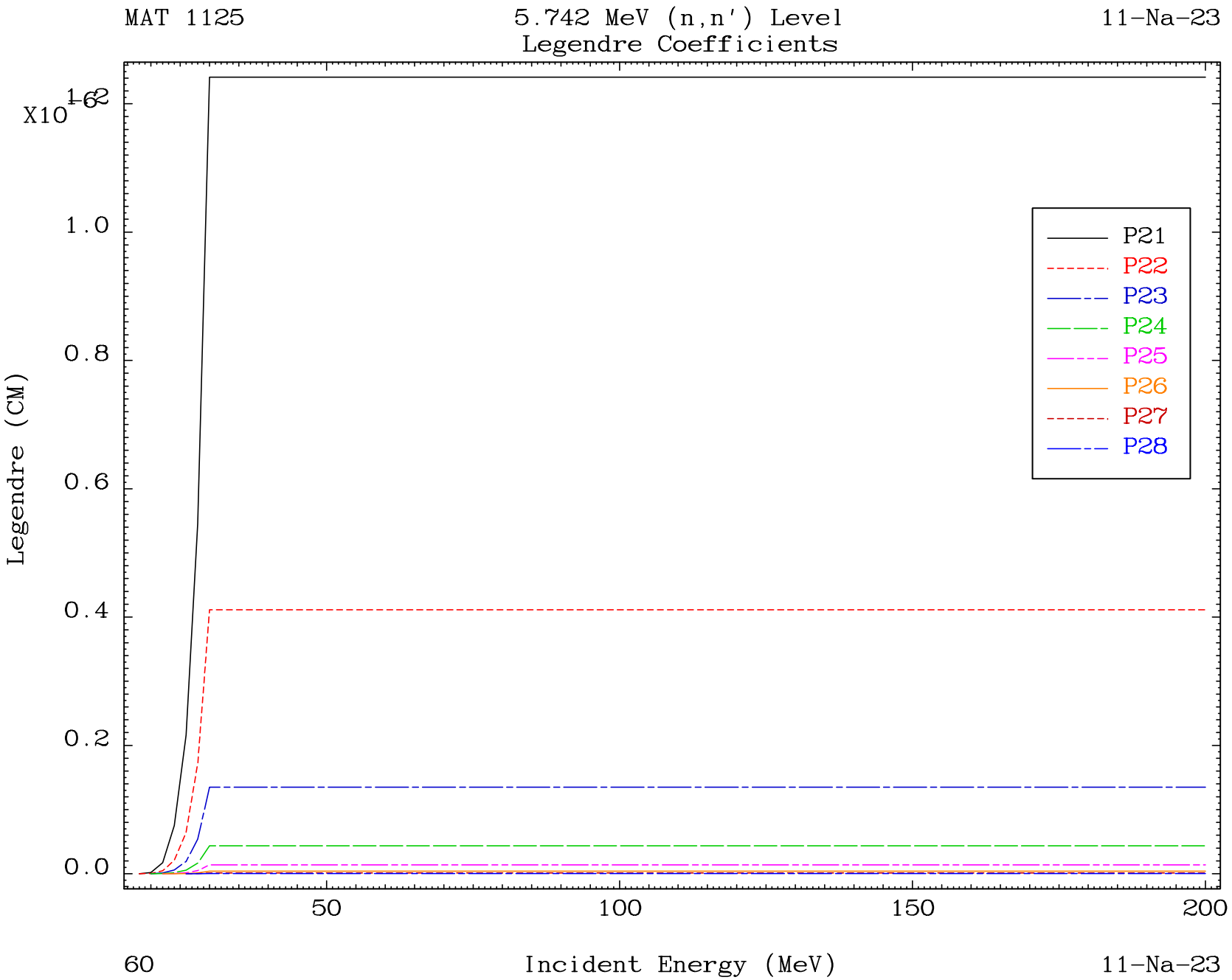

MAT 1125
5.534 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
55
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

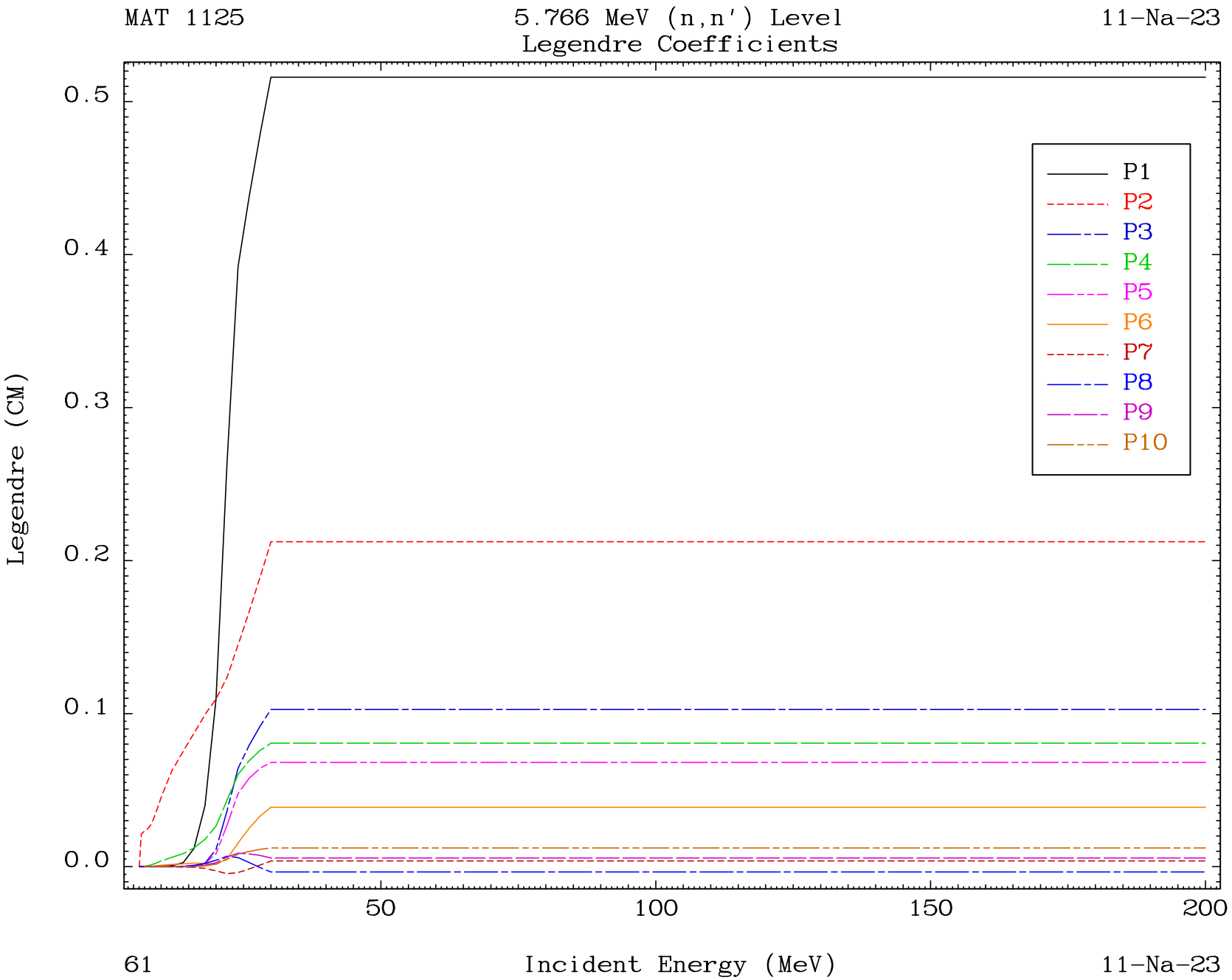

MAT 1125
5.534 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-3
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
Legendre (CM)
50
100
150
200
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
56
Incident Energy (MeV)
11-Na-23

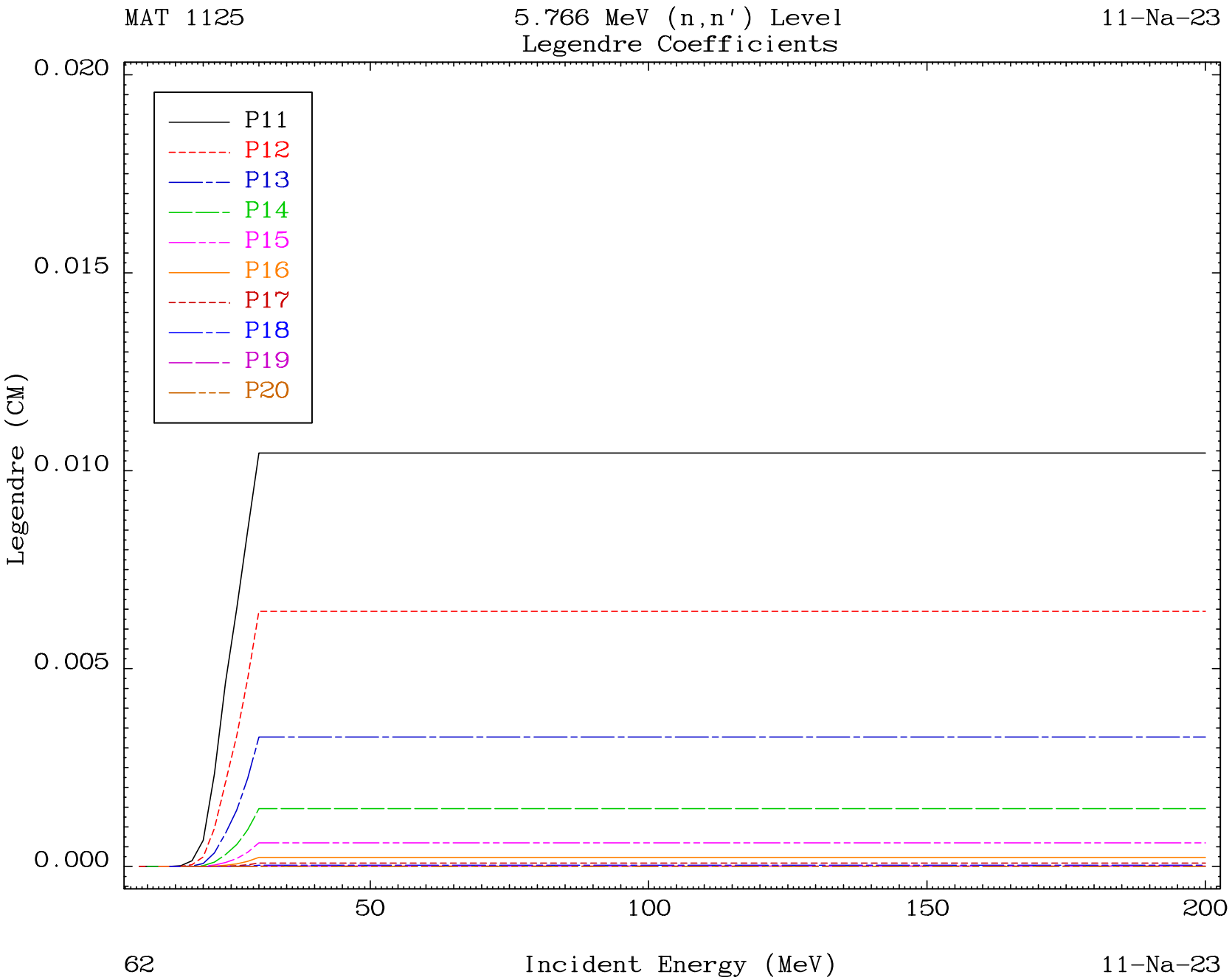

MAT 1125
5.534 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-5
4
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
57
Incident Energy (MeV)
11-Na-23

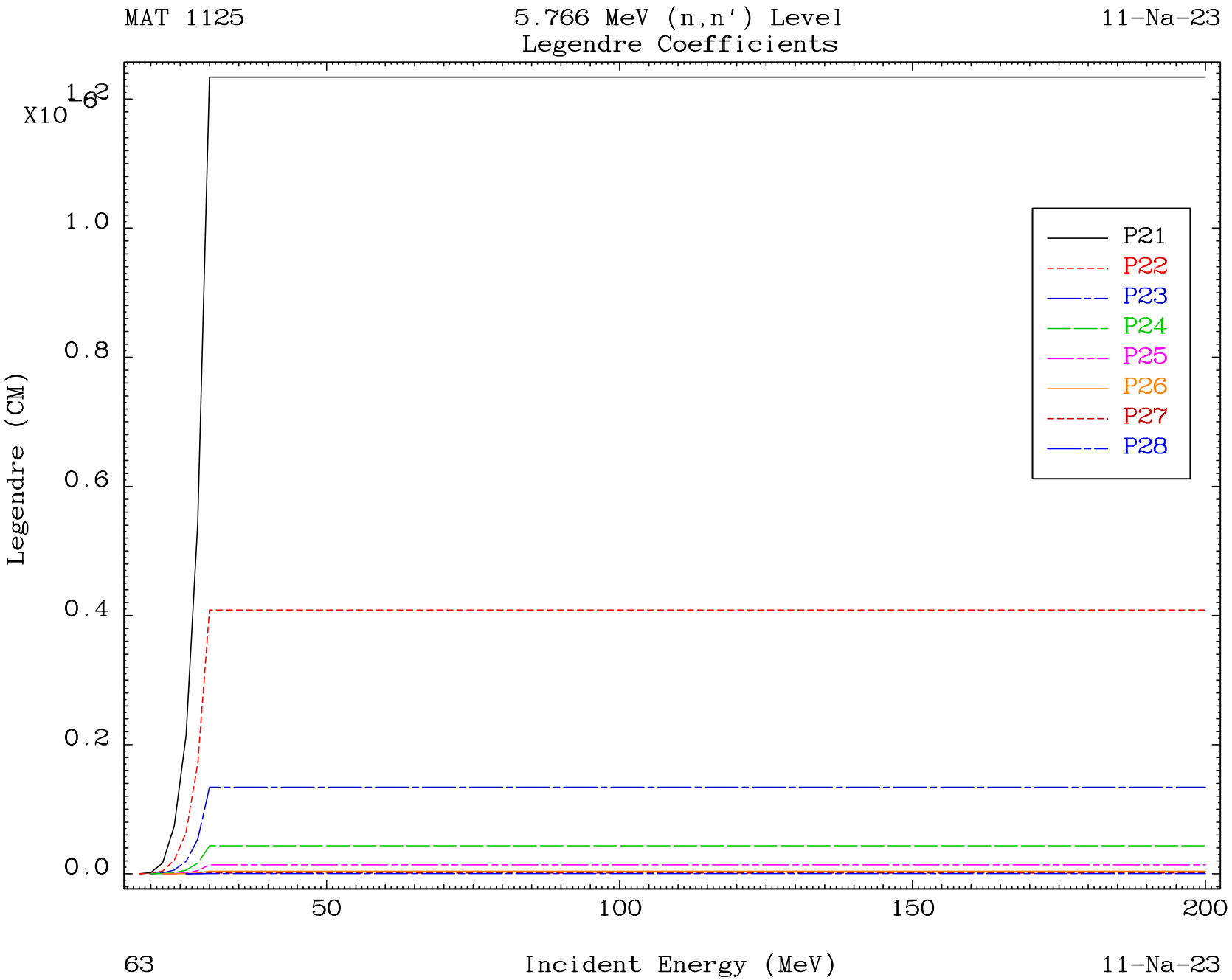

MAT 1125
5.742 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
Incident Energy (MeV)
58
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

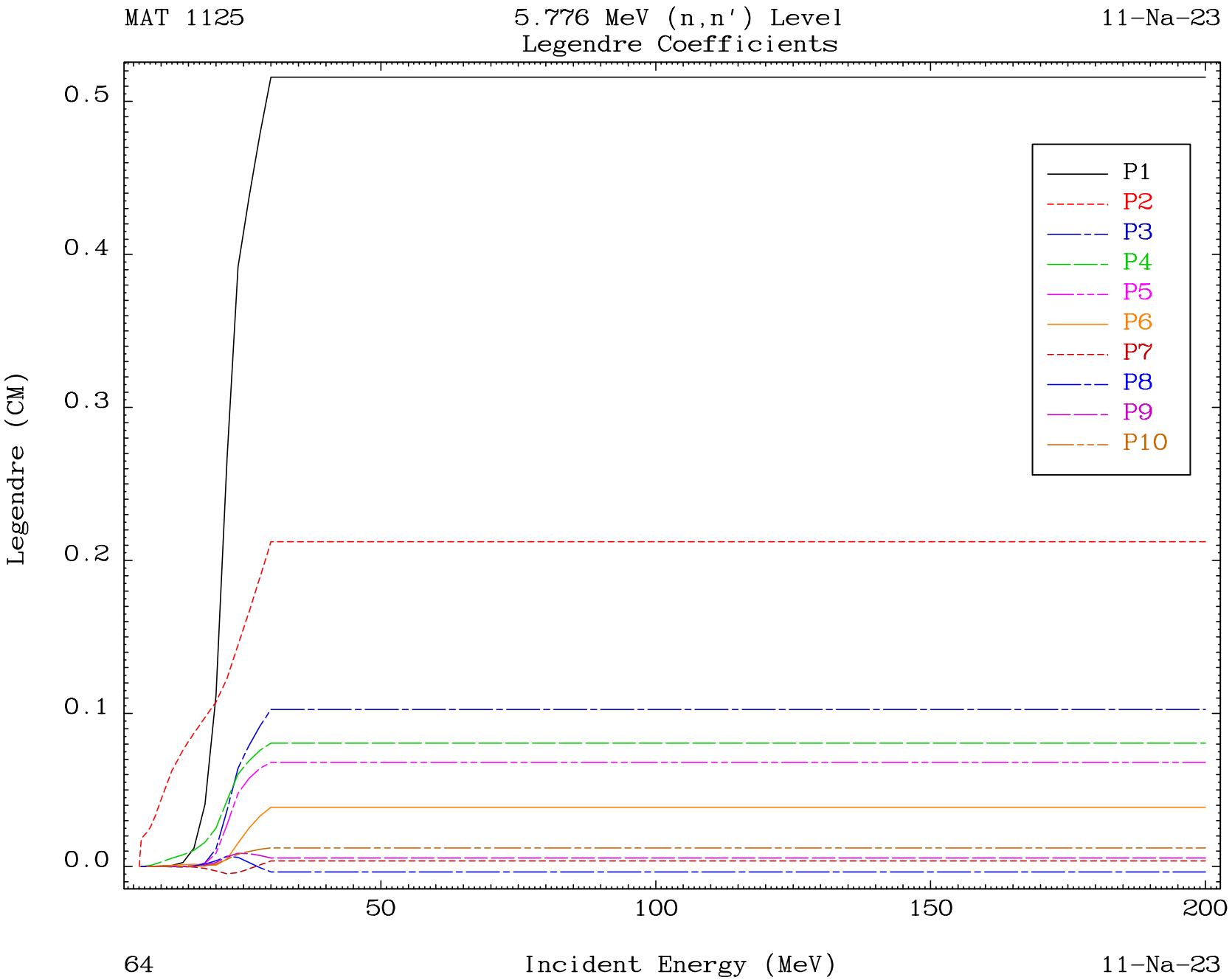

MAT 1125
5.742 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
59
Incident Energy (MeV)
11-Na-23

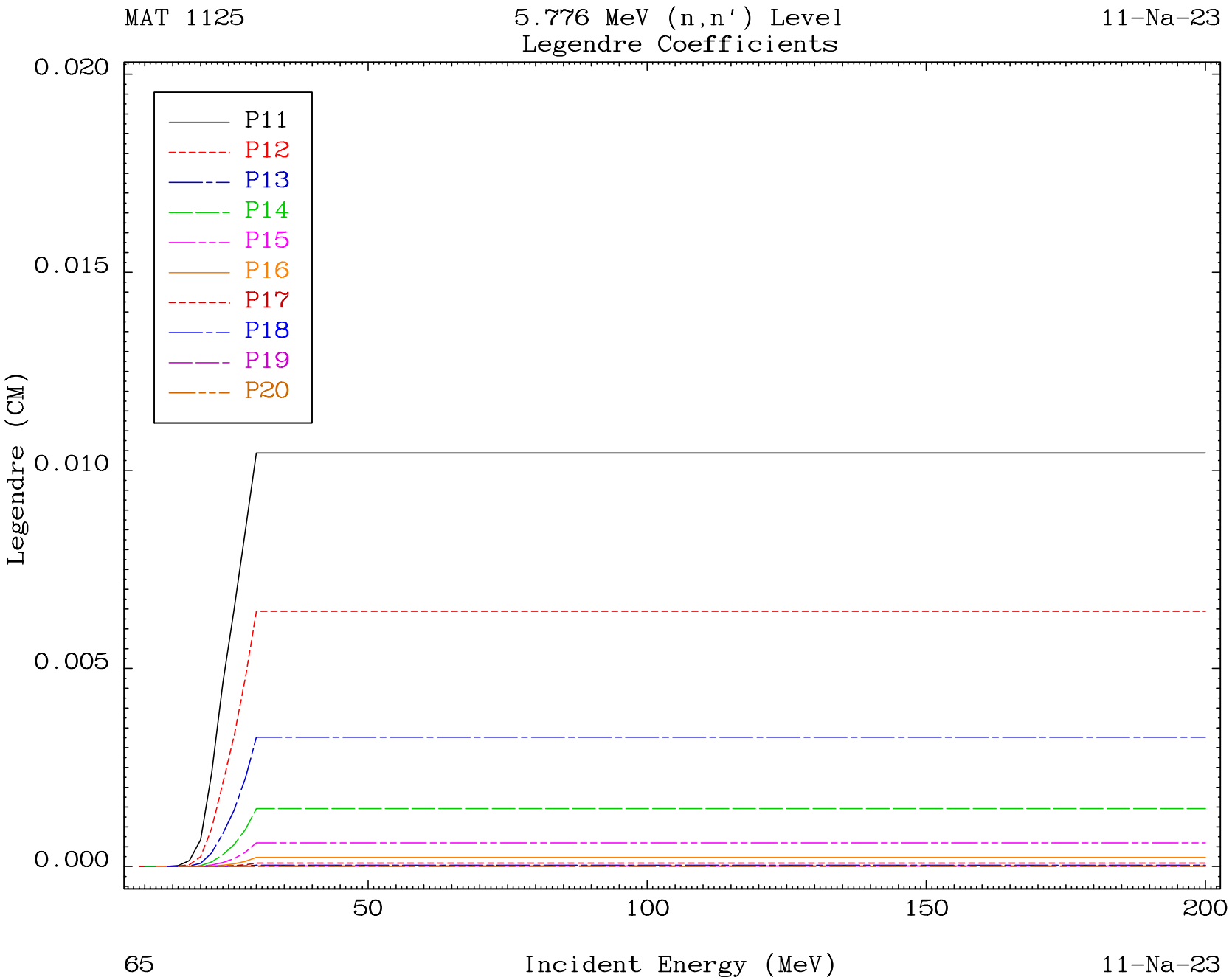

MAT 1125
5.742 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-02
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
60
Incident Energy (MeV)
11-Na-23

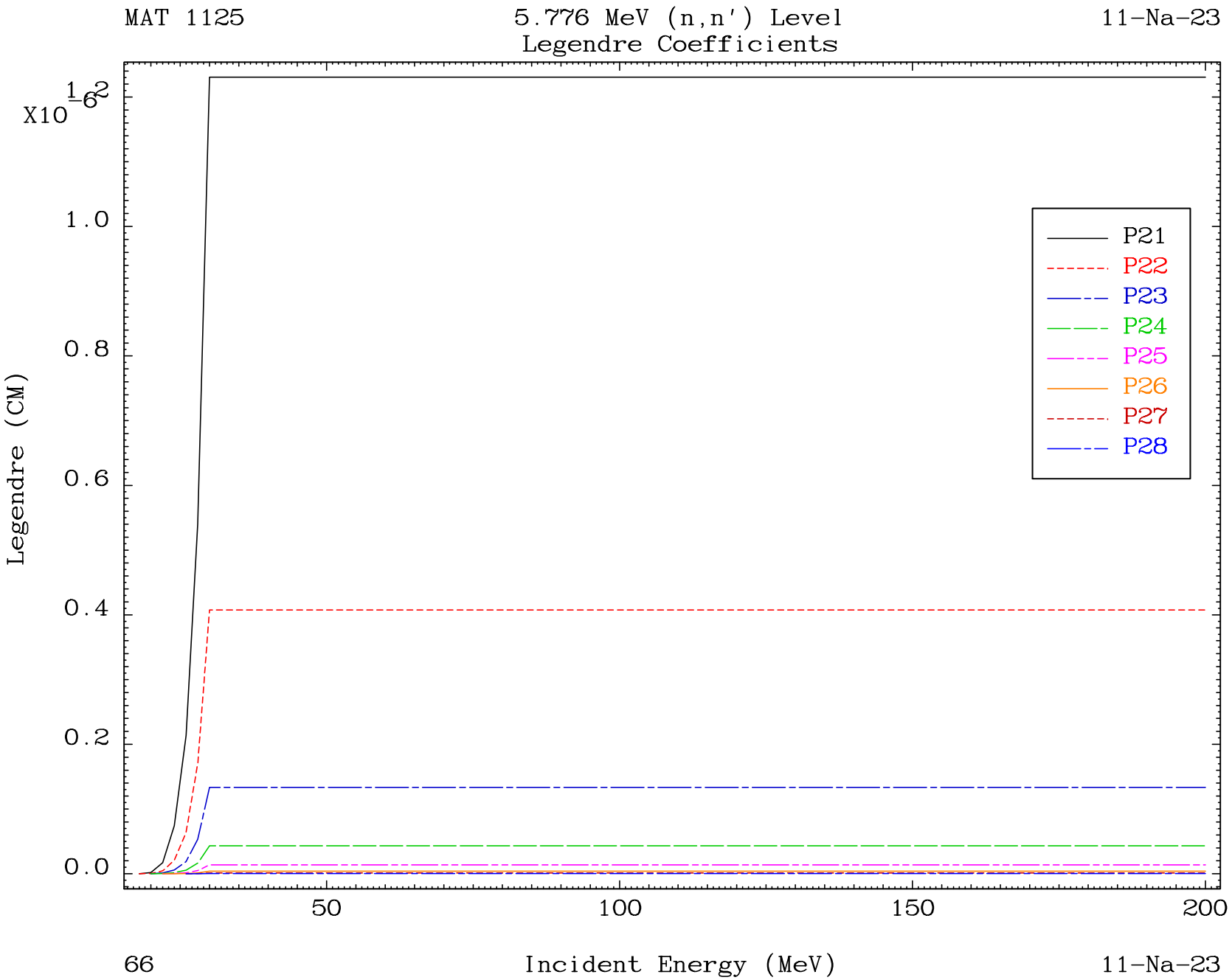

MAT 1125
5.766 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
61
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

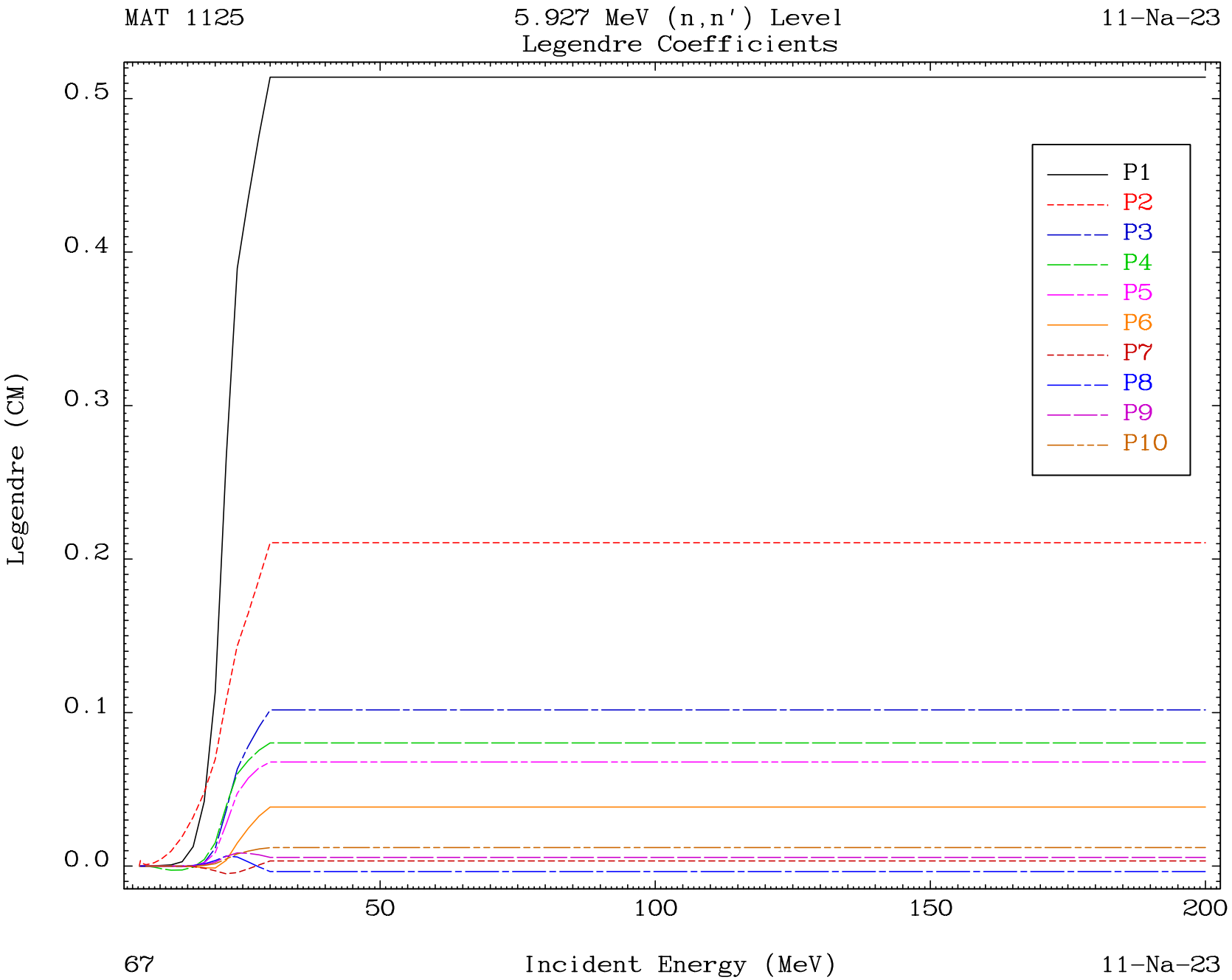

MAT 1125
5.766 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
62
Incident Energy (MeV)
11-Na-23

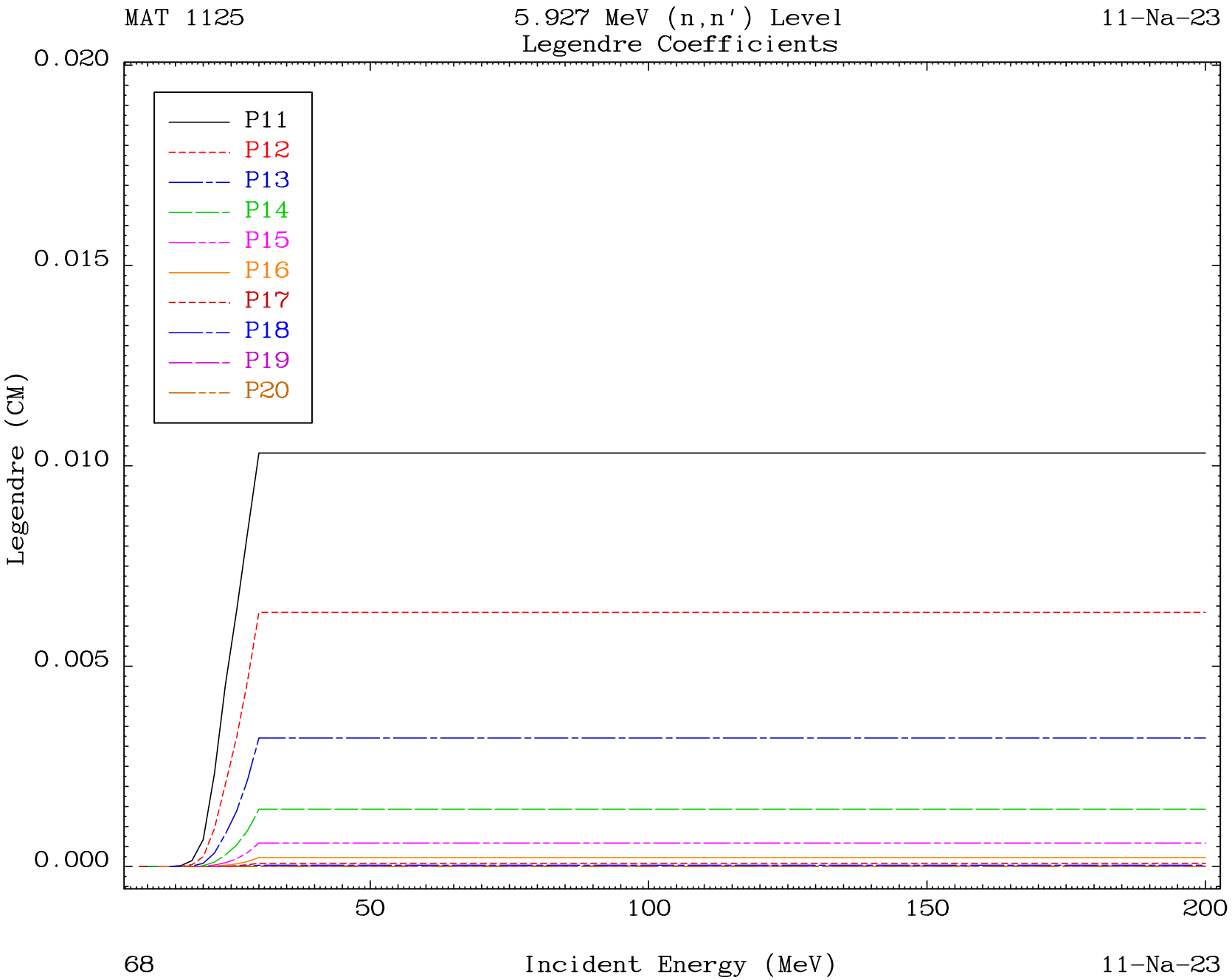

MAT 1125
5.766 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10 -2
1.6
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
63
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28

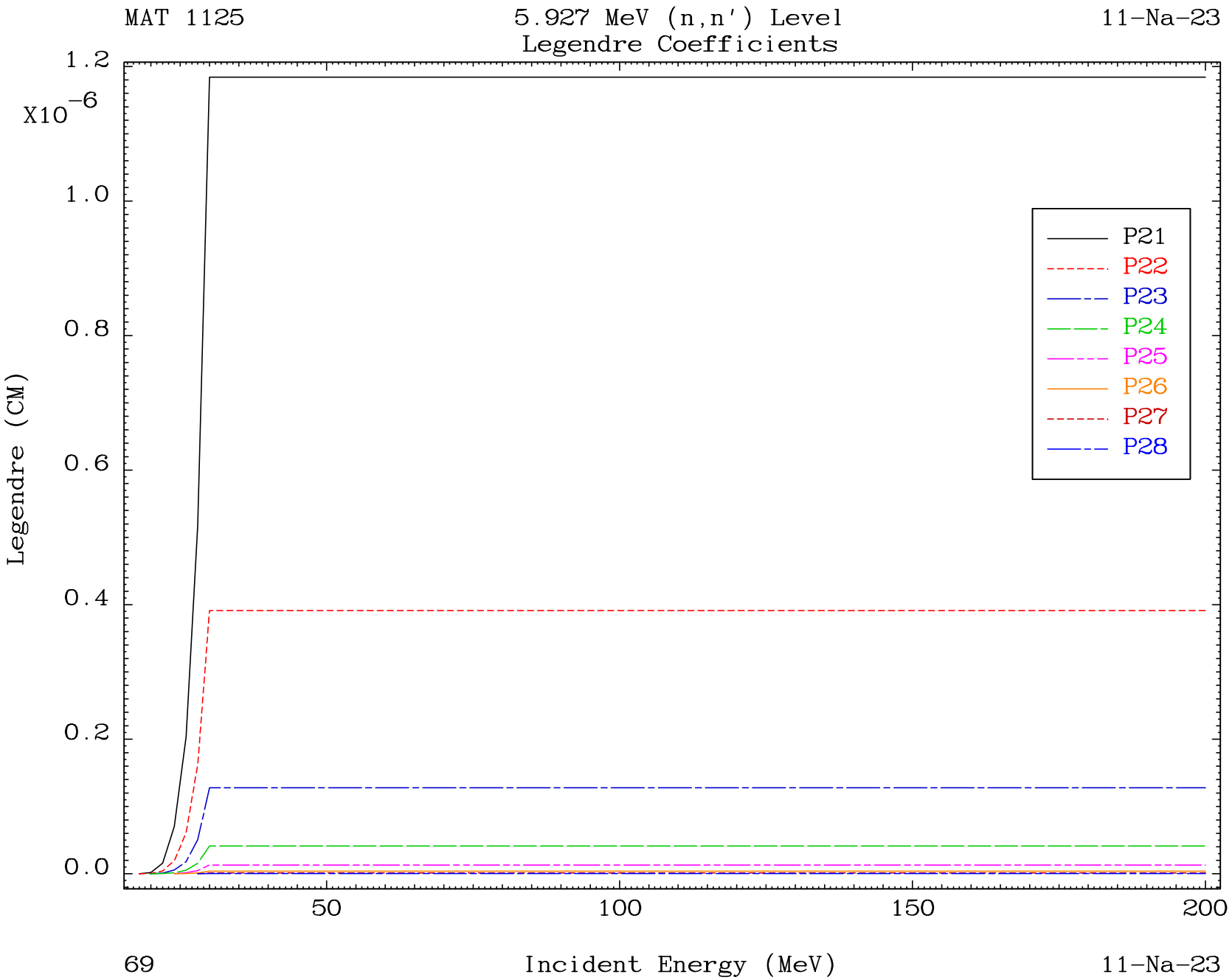

MAT 1125
5.776 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
64
Incident Energy (MeV)
11-Na-23

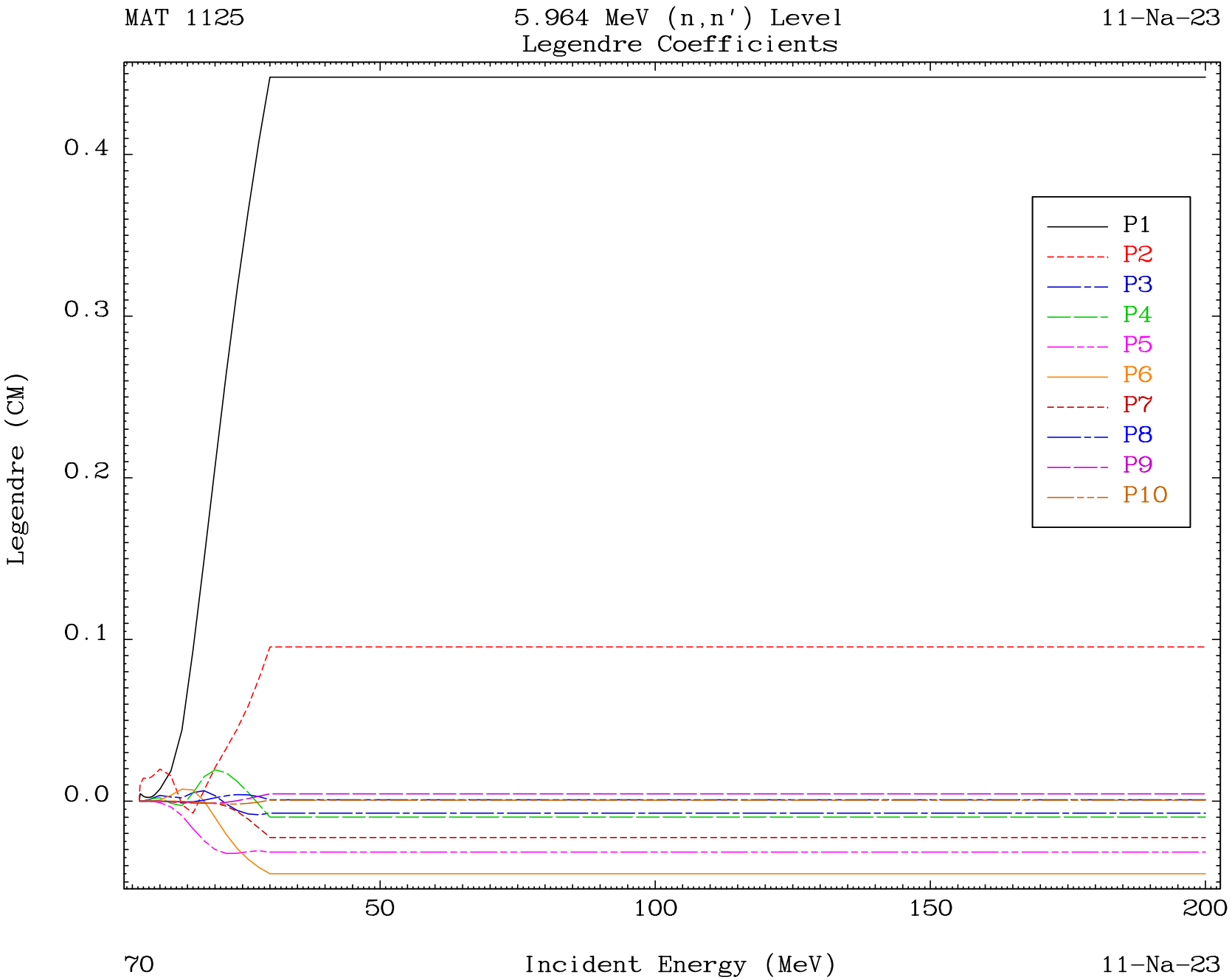

MAT 1125
5.776 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
65
Incident Energy (MeV)
11-Na-23

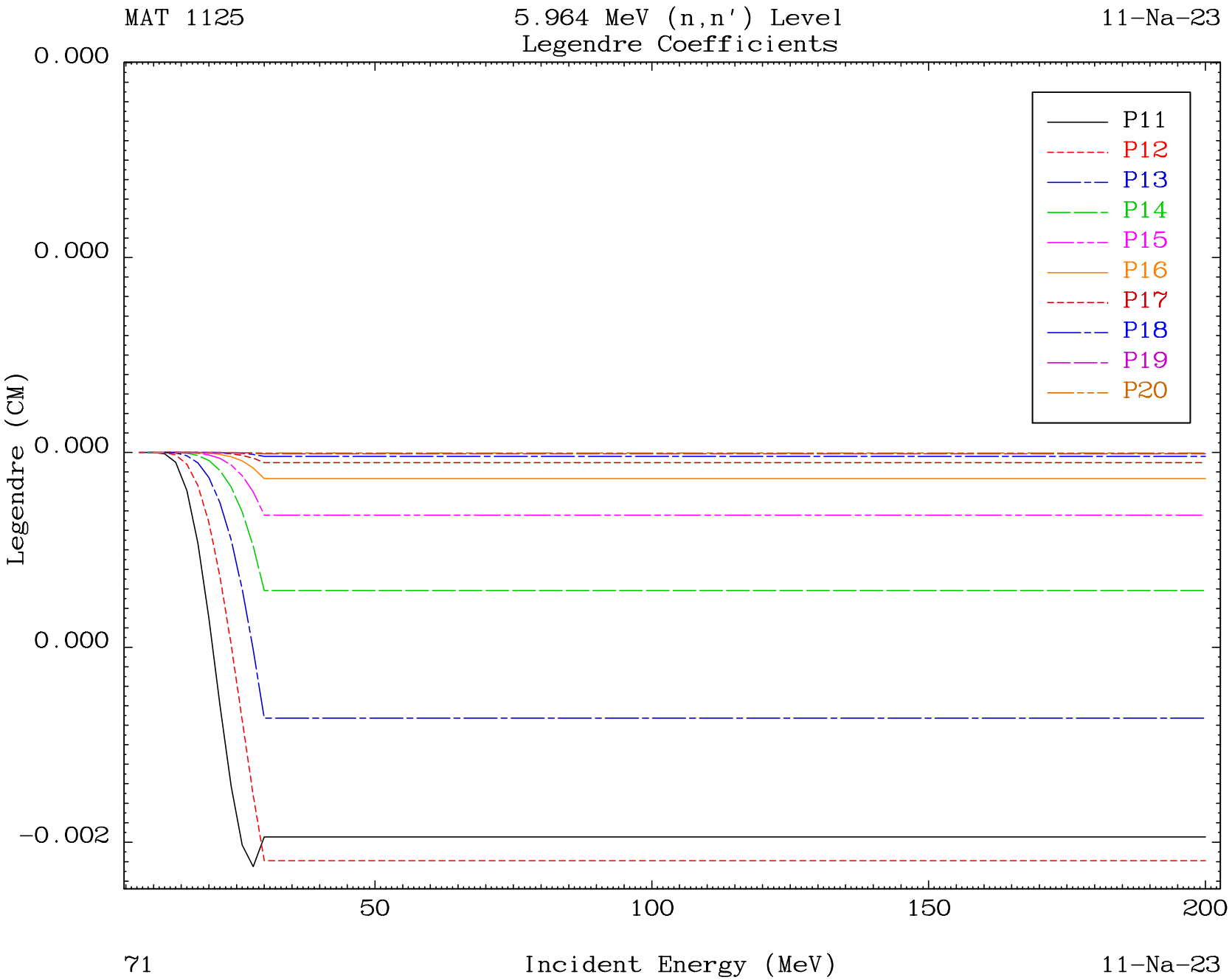

MAT 1125
5.776 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
66
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28

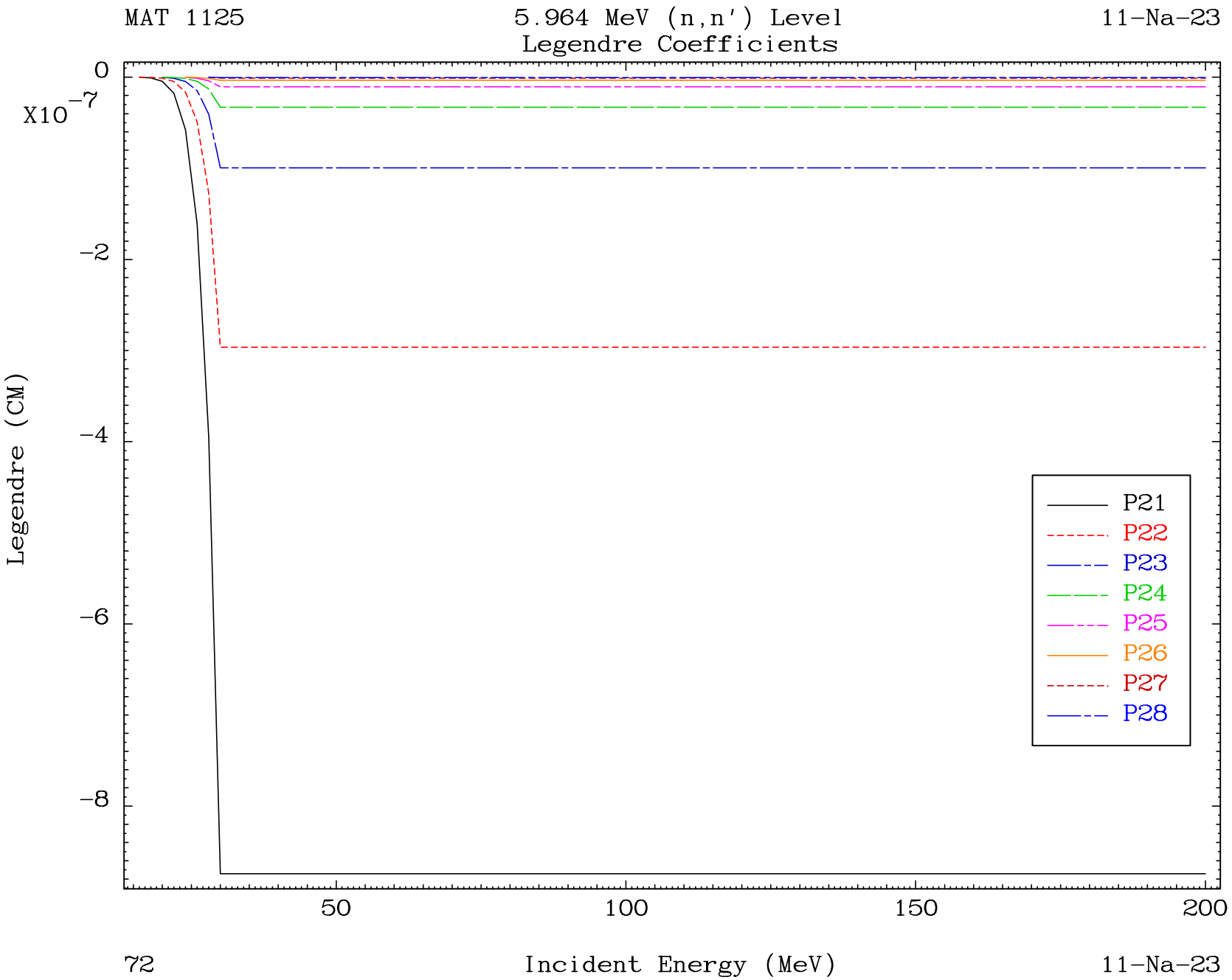

MAT 1125
5.927 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
67
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

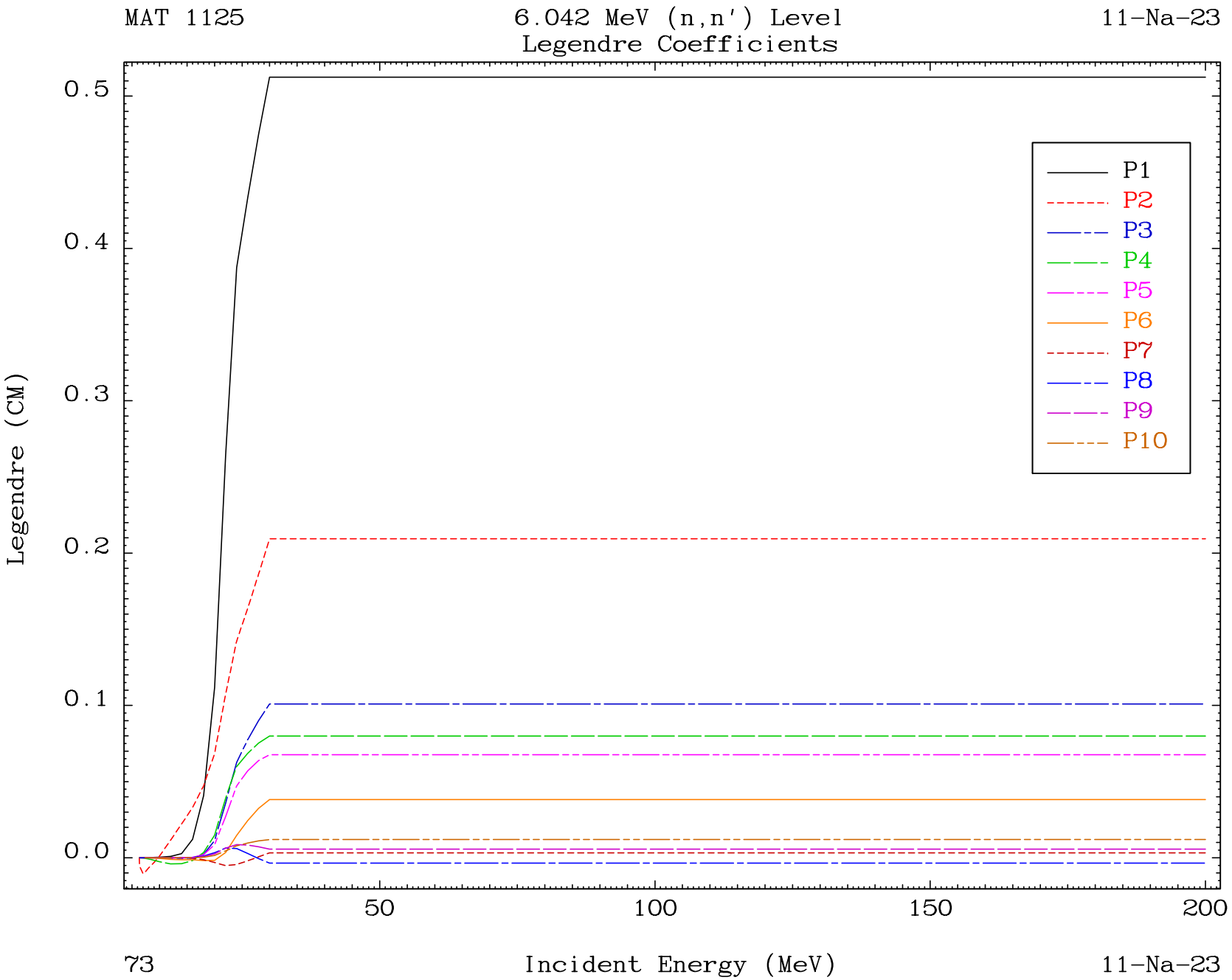

MAT 1125
5.927 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
68
Incident Energy (MeV)
11-Na-23

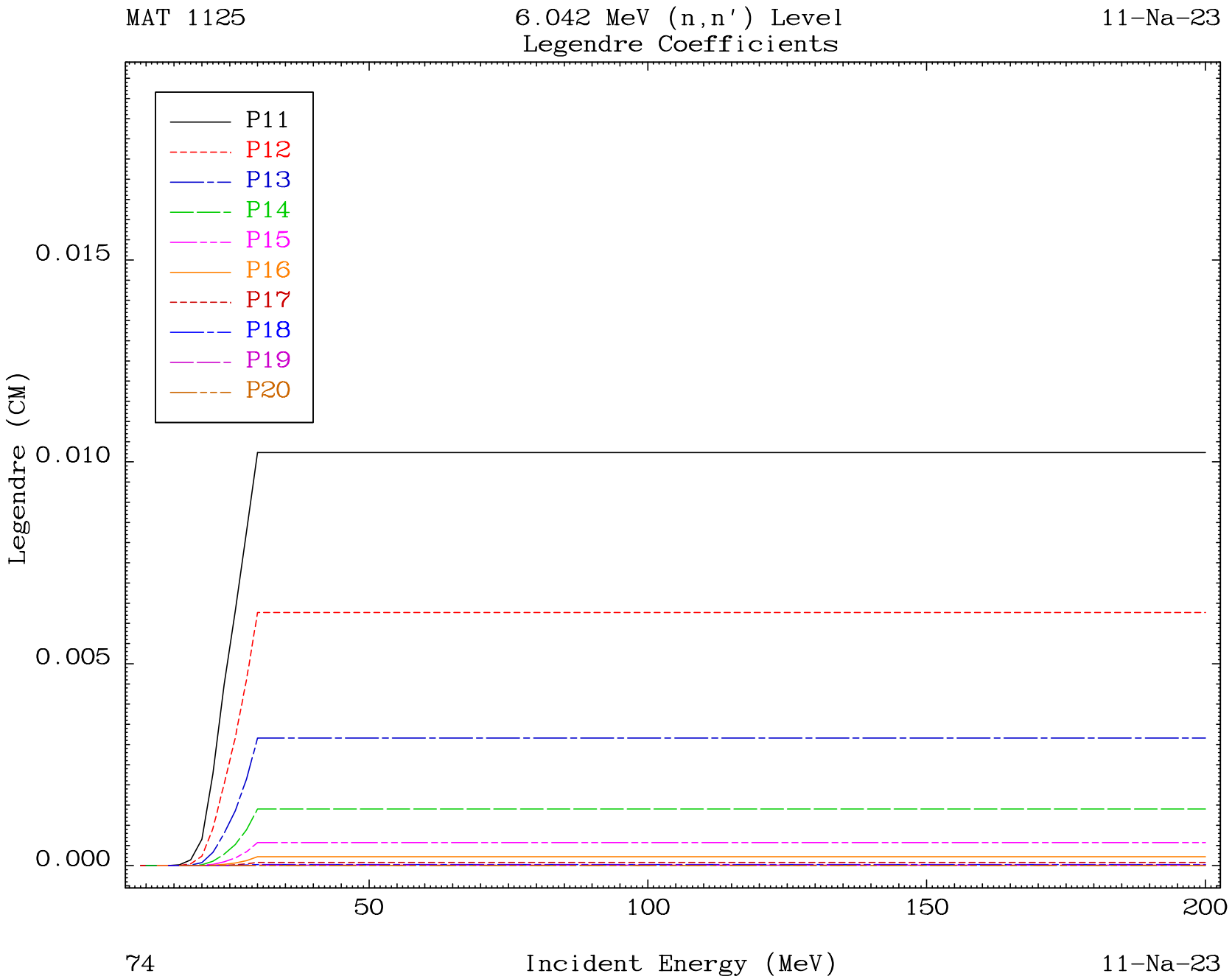

MAT 1125
5.927 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
69
Incident Energy (MeV)
11-Na-23

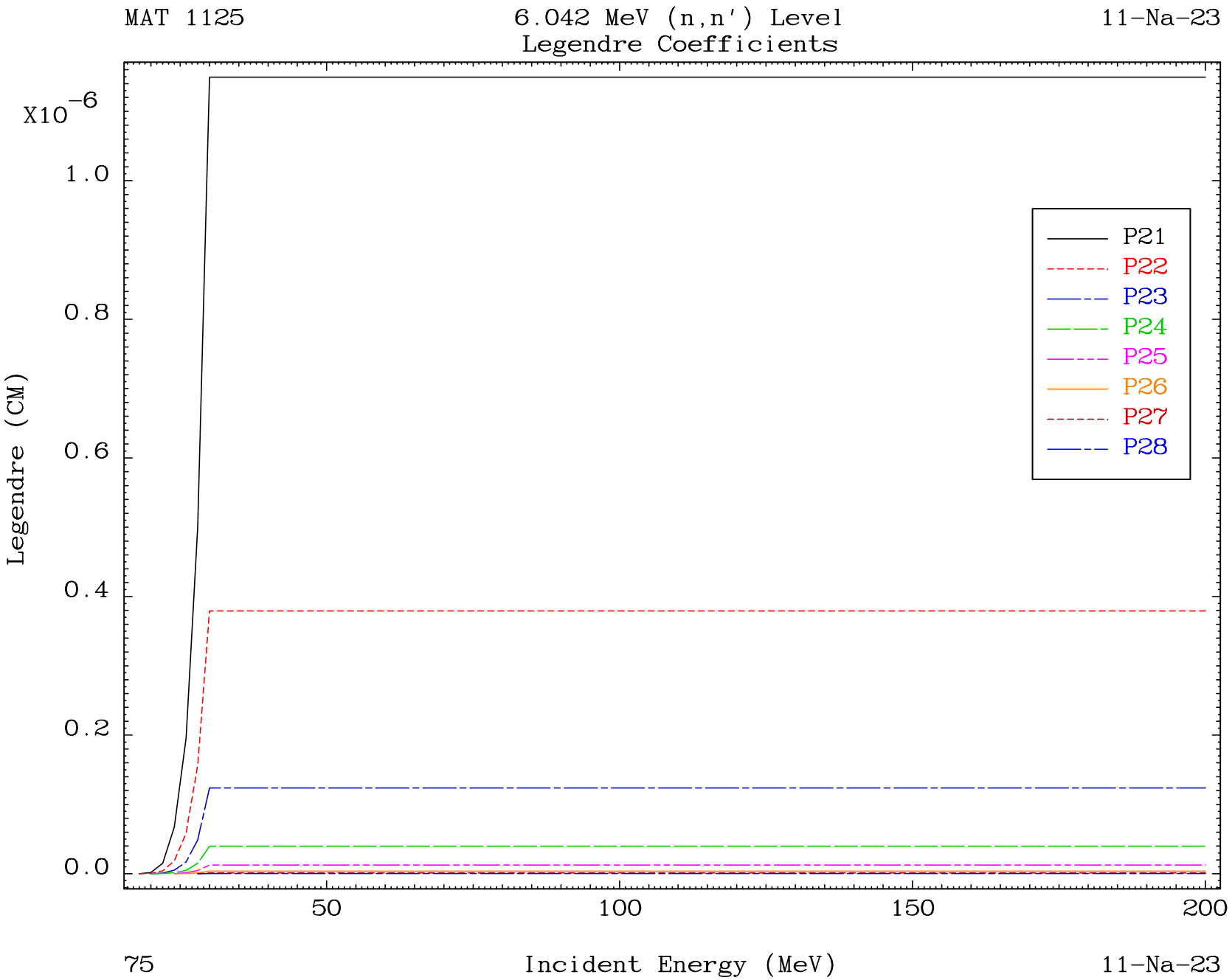

MAT 1125
5.964 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
50
100
150
200
70
Incident Energy (MeV)
11-Na-23

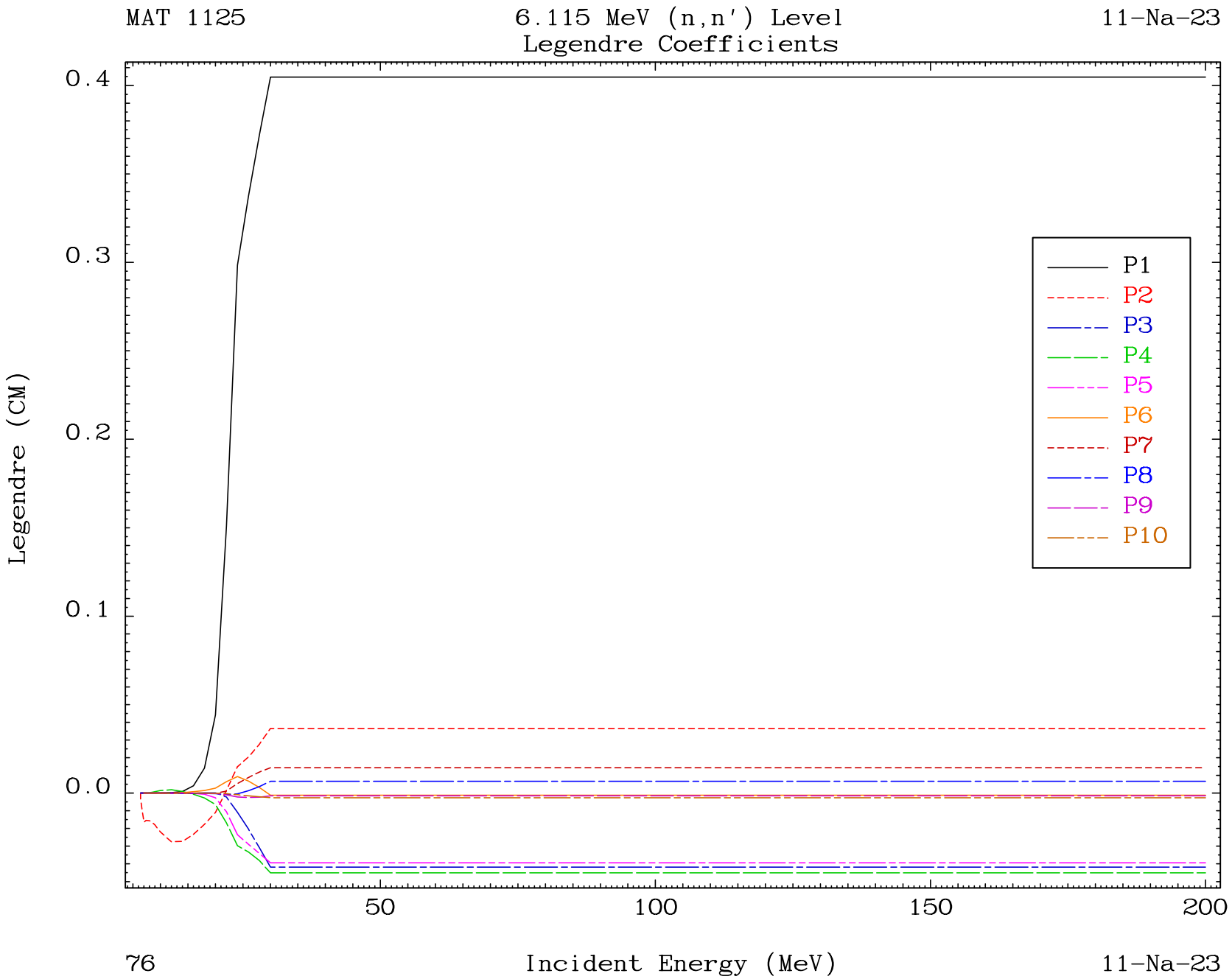

MAT 1125
5.964 MeV (n,n') Level
Legendre Coefficients
11-Na-23
0.000
0.000
0.000
0.000
-0.002
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
50
100
150
200
71
Incident Energy (MeV)
11-Na-23

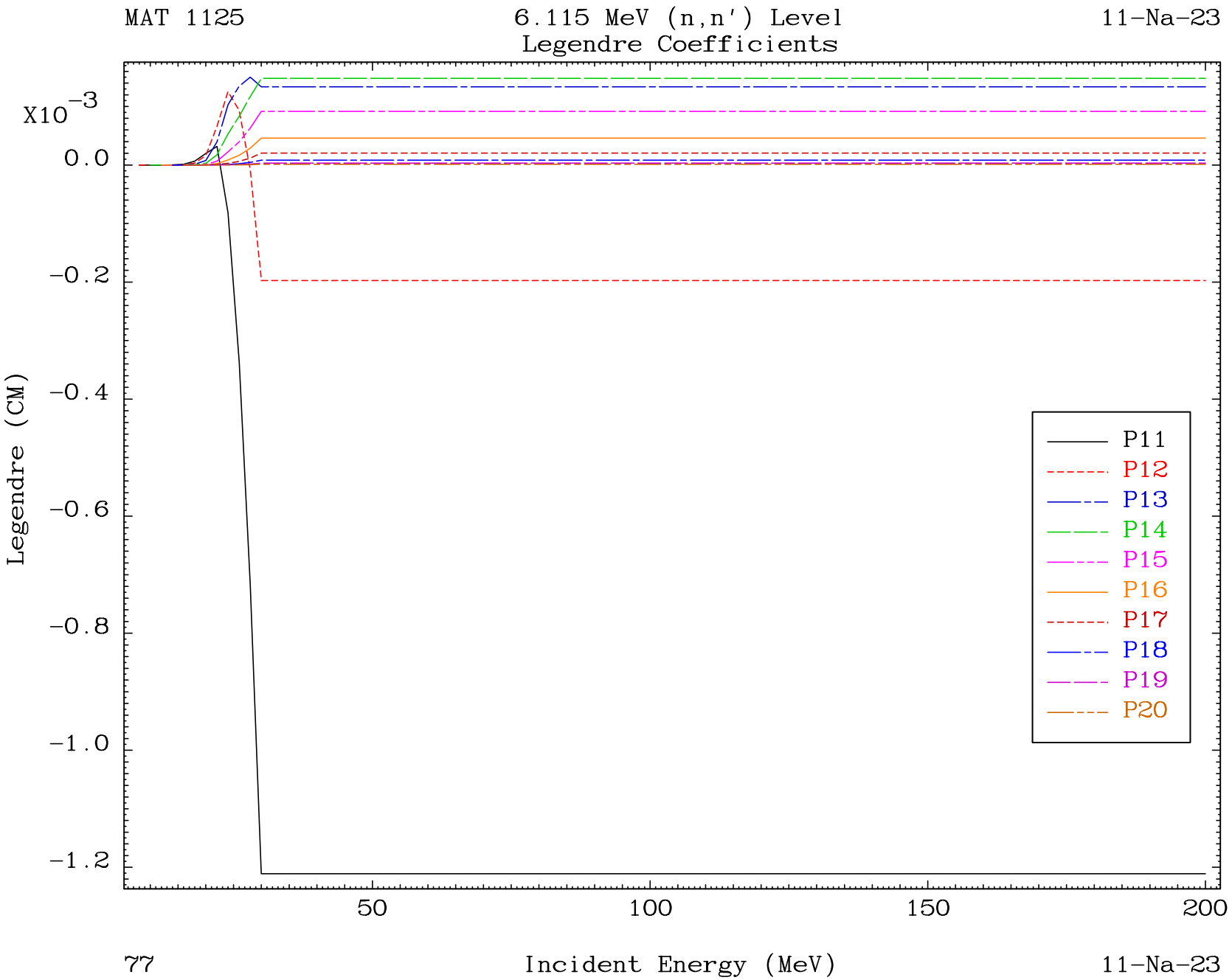

MAT 1125
5.964 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
0
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
72
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28

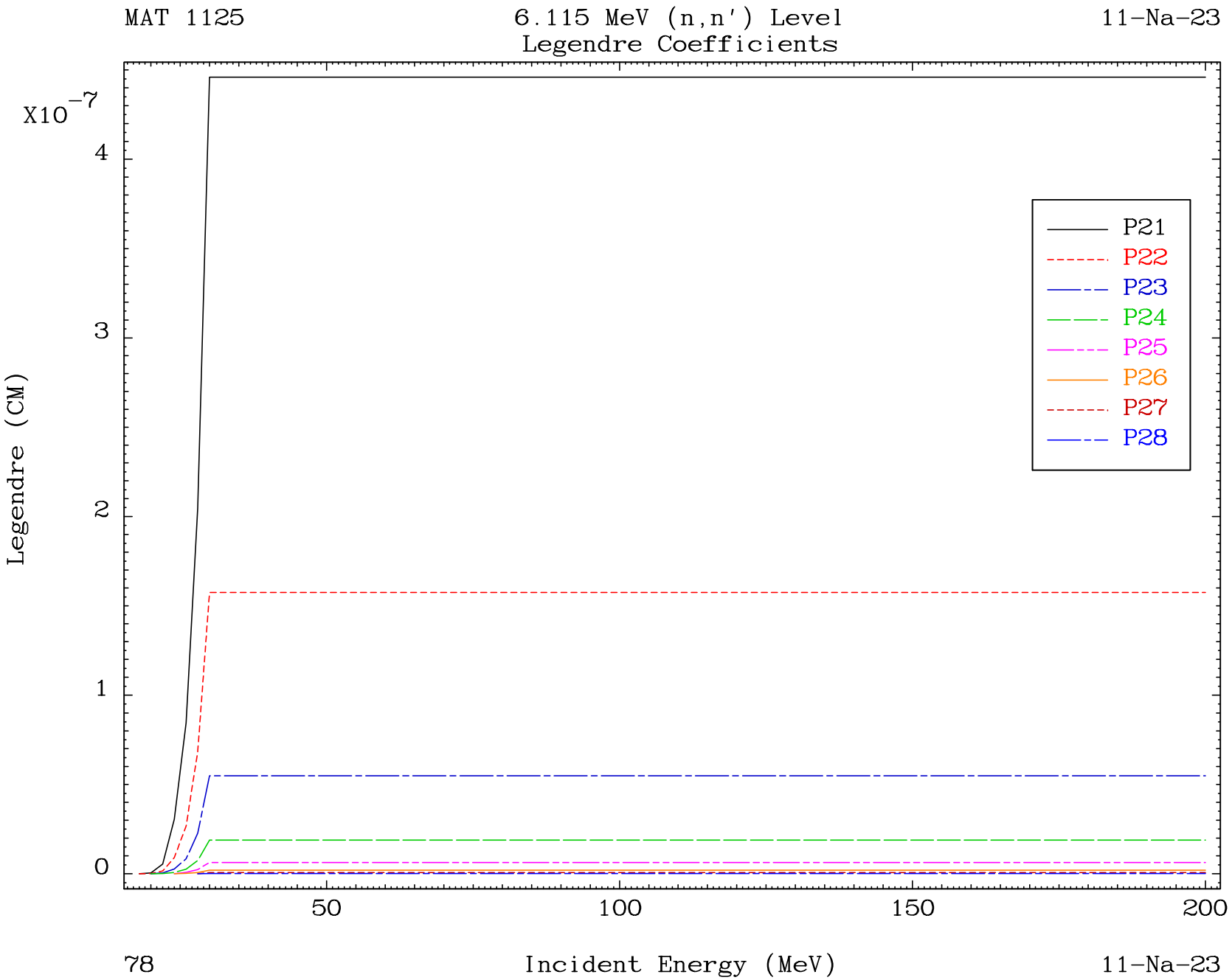

MAT 1125
6.042 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
Incident Energy (MeV)
73
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

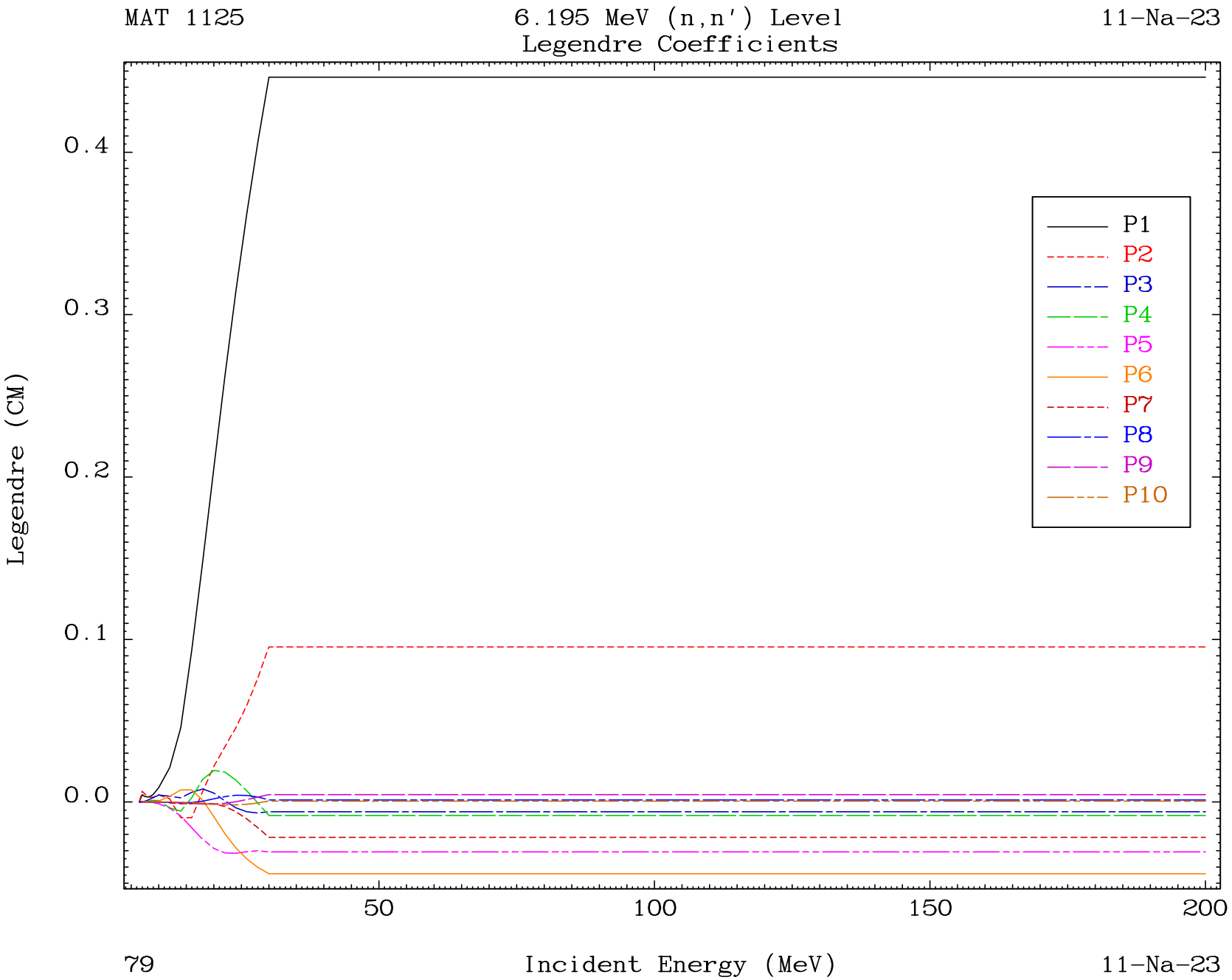

MAT 1125
6.042 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
74
Incident Energy (MeV)
11-Na-23

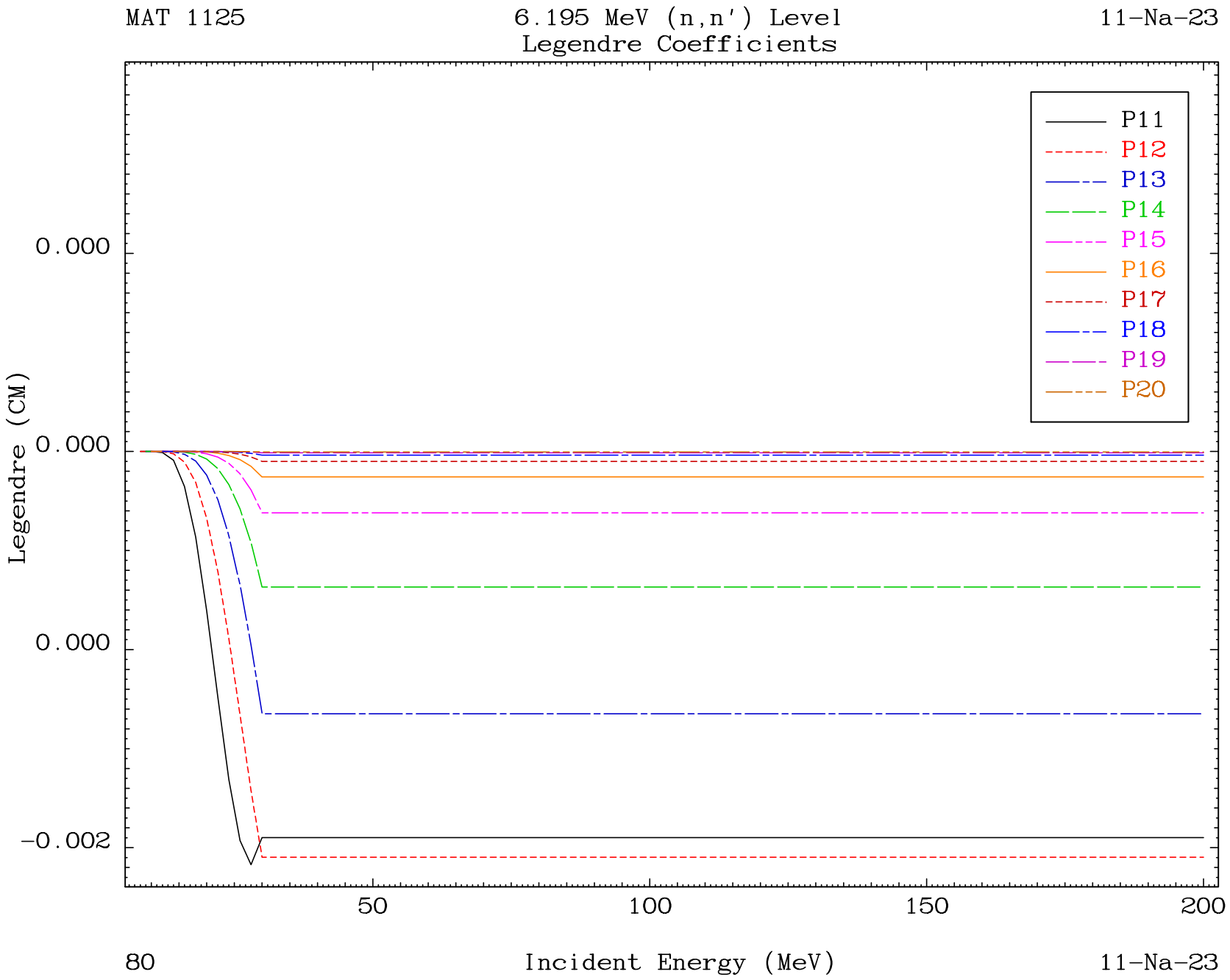

MAT 1125
6.042 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-6
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
75
Incident Energy (MeV)
11-Na-23

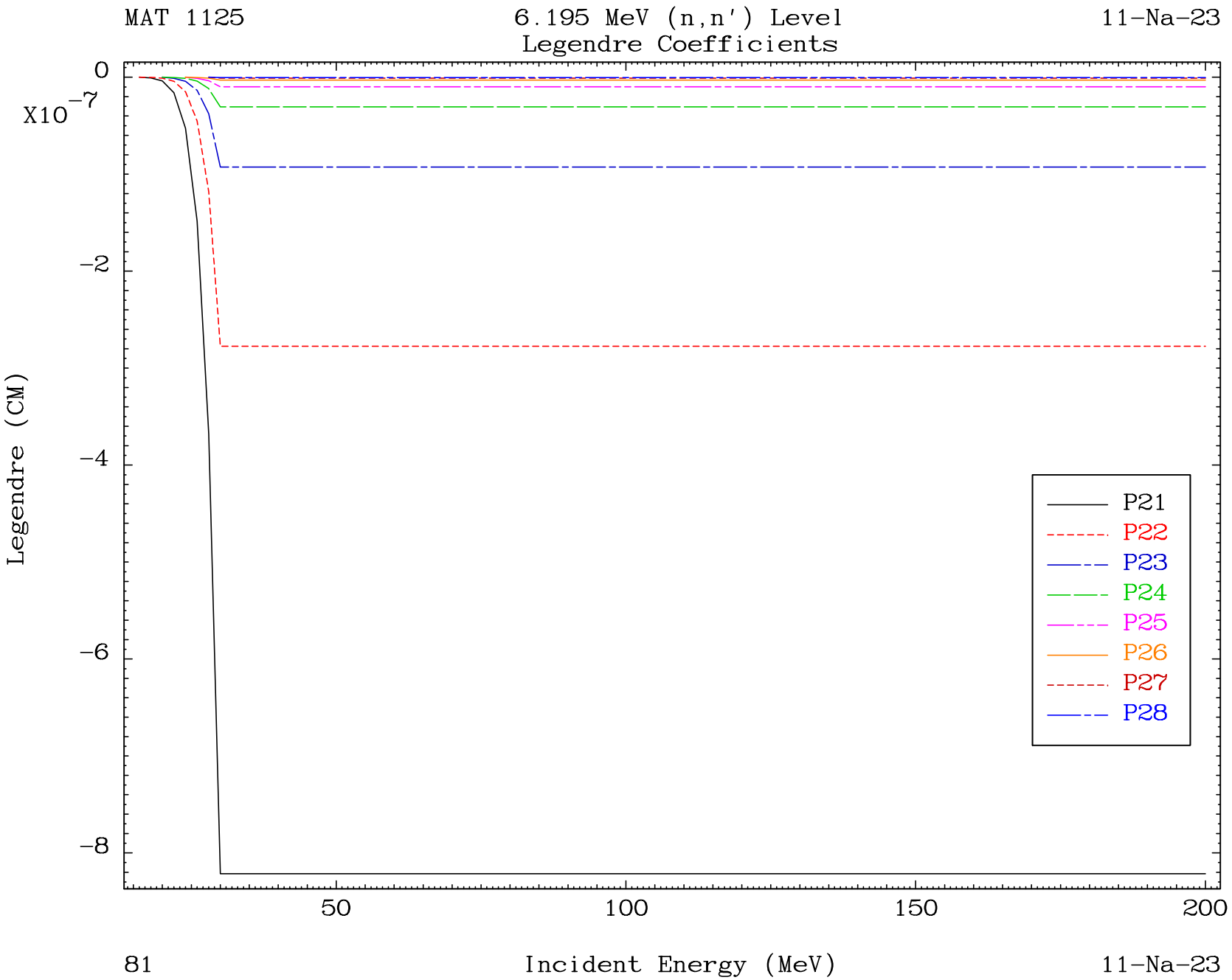

MAT 1125
6.115 MeV (n,n') Level
Legendre Coefficients
11-Na-23
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
50
100
150
200
76
Incident Energy (MeV)
11-Na-23

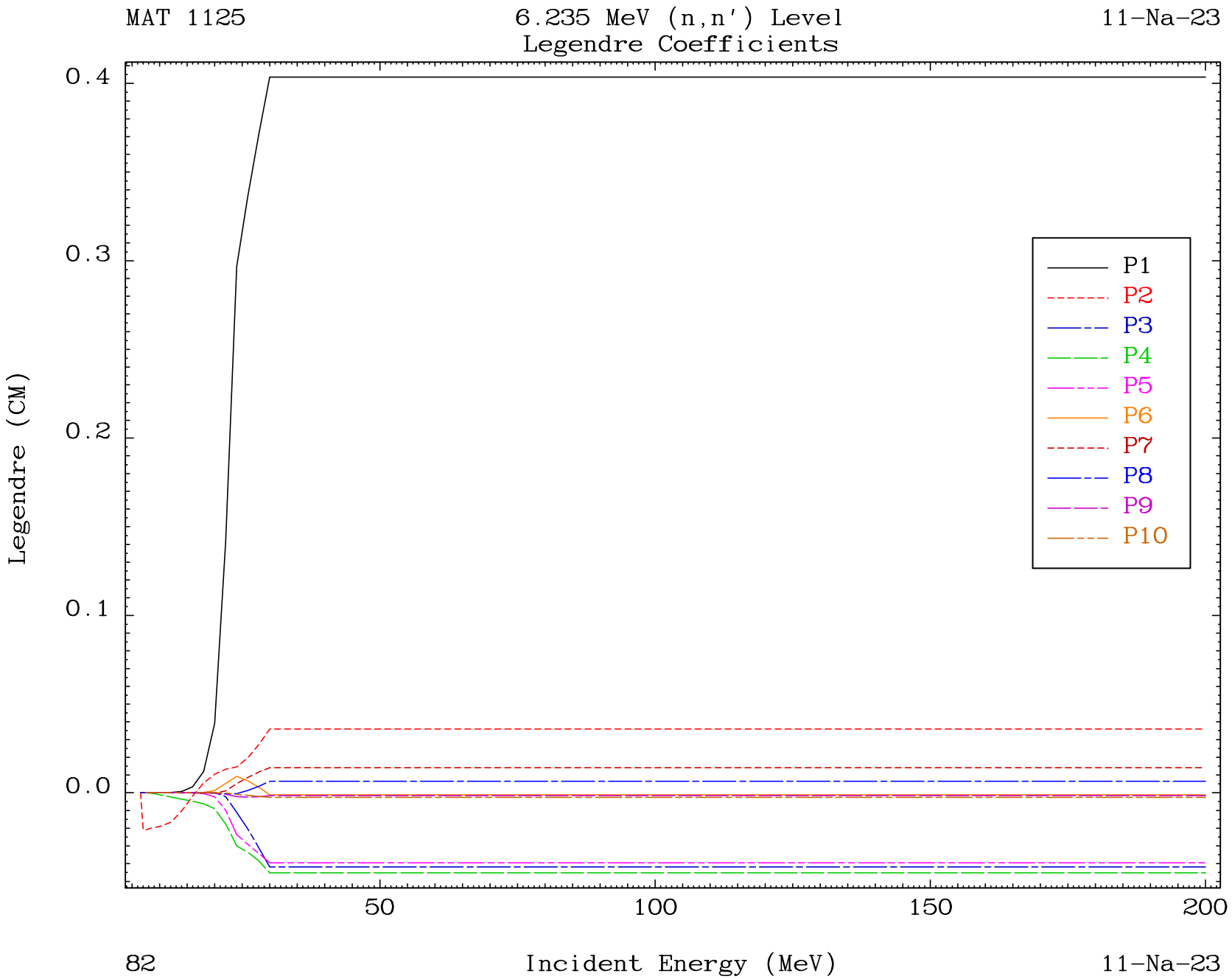

MAT 1125
6.115 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-3
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
Legendre (CM)
50
100
150
200
77
Incident Energy (MeV)
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

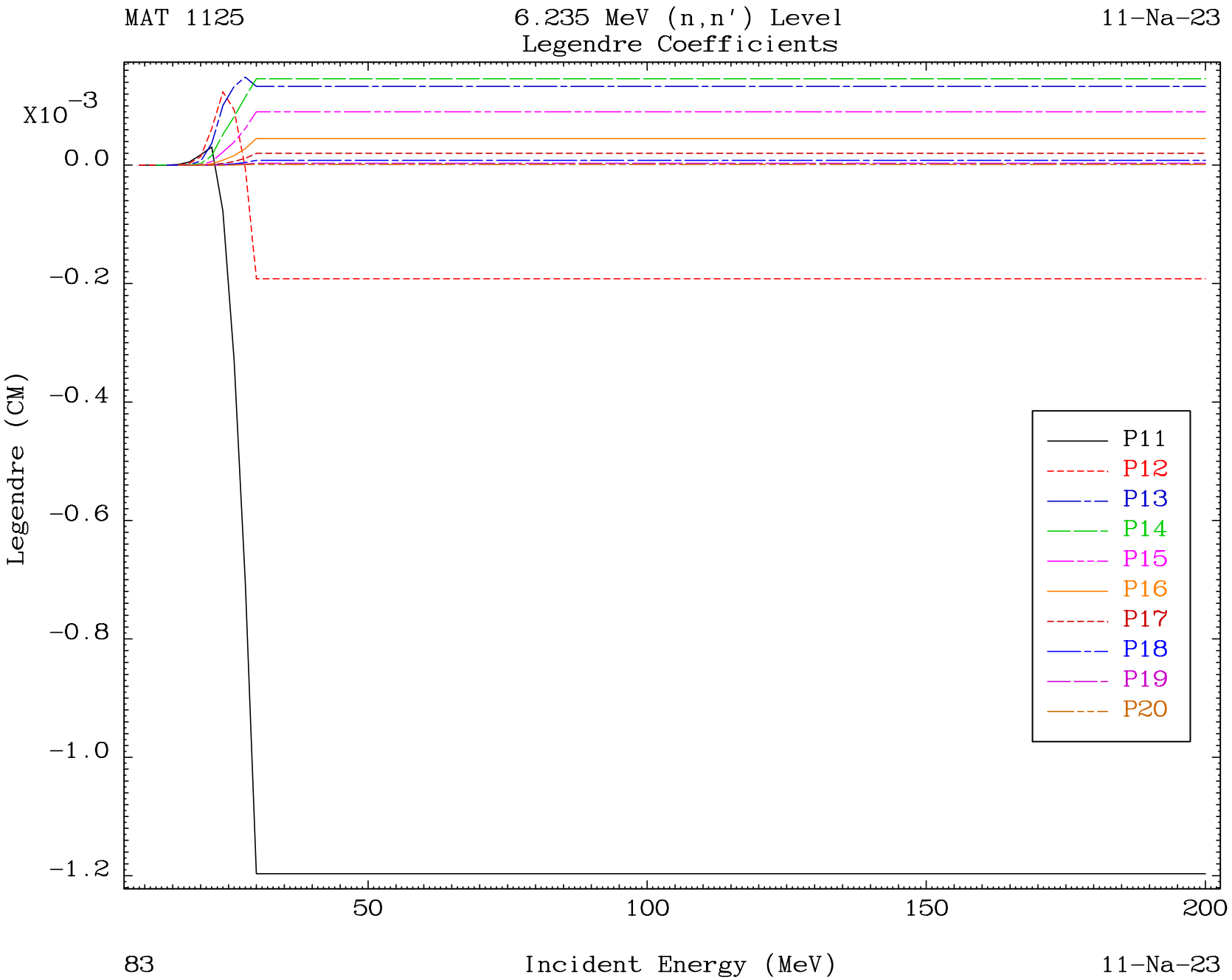

MAT 1125
6.115 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
4
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
78
Incident Energy (MeV)
11-Na-23

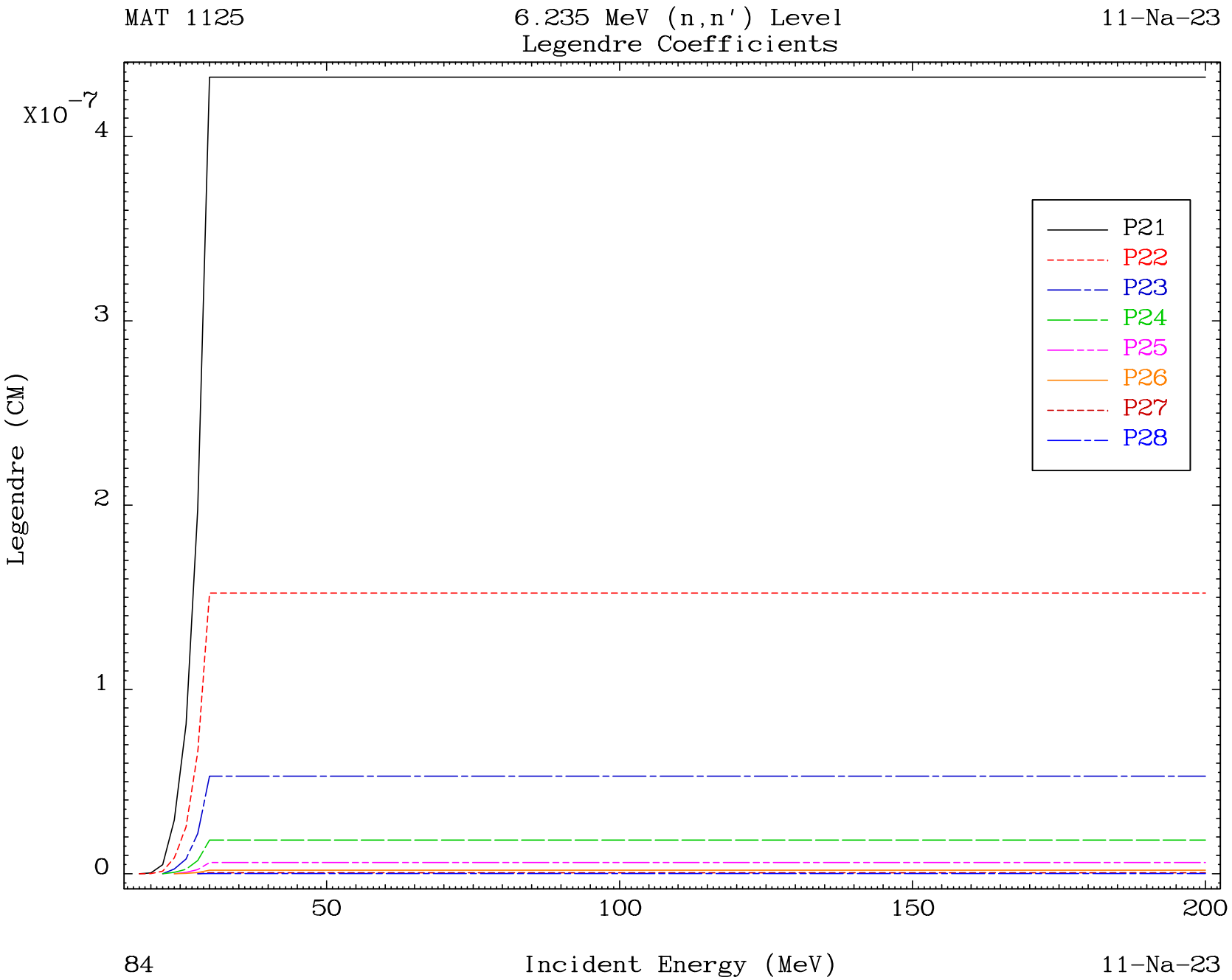

MAT 1125
6.195 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
79
Incident Energy (MeV)
11-Na-23

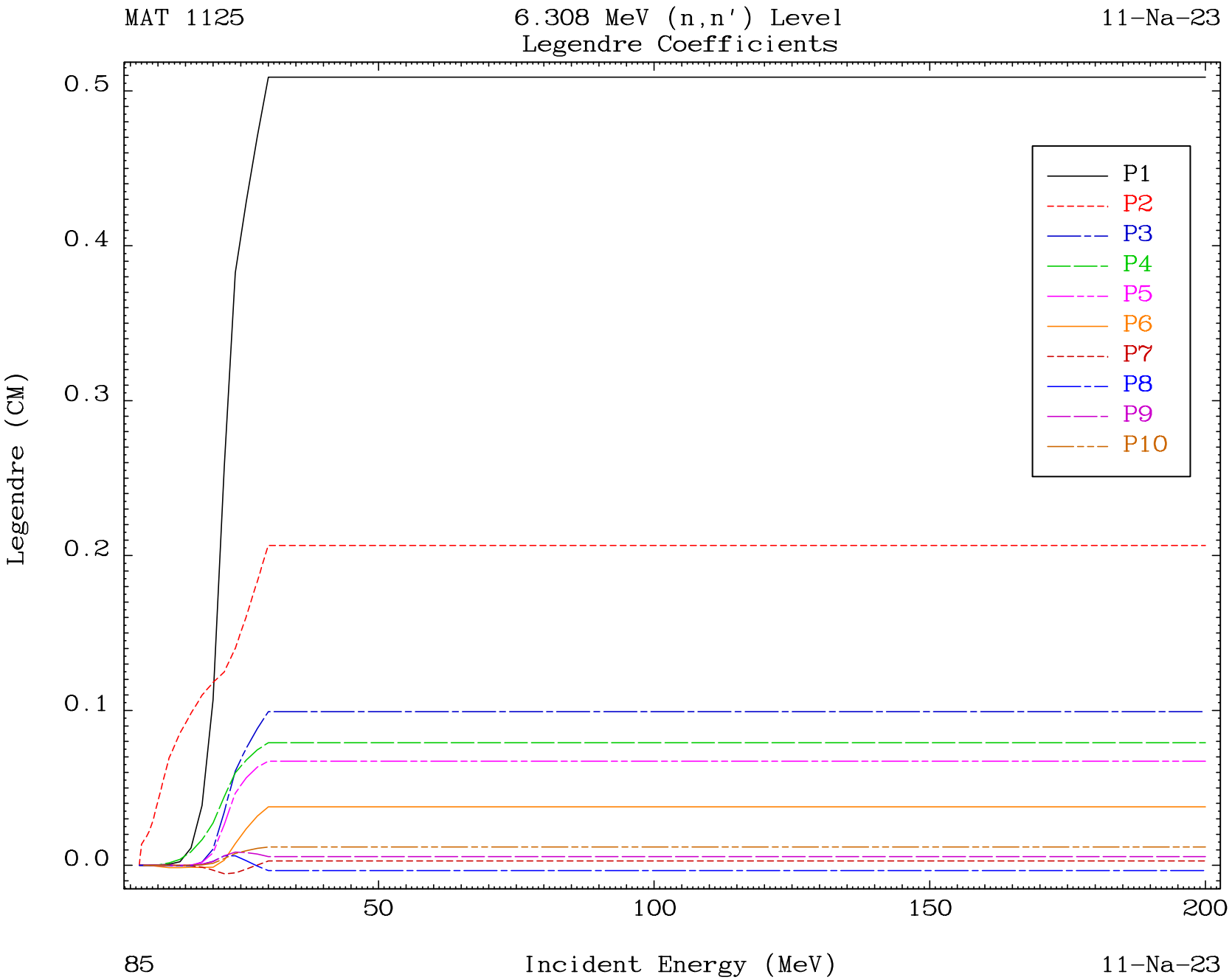

MAT 1125
6.195 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.000
0.000
0.000
-0.002
Legendre (CM)
50
100
150
200
80
Incident Energy (MeV)
11-Na-23

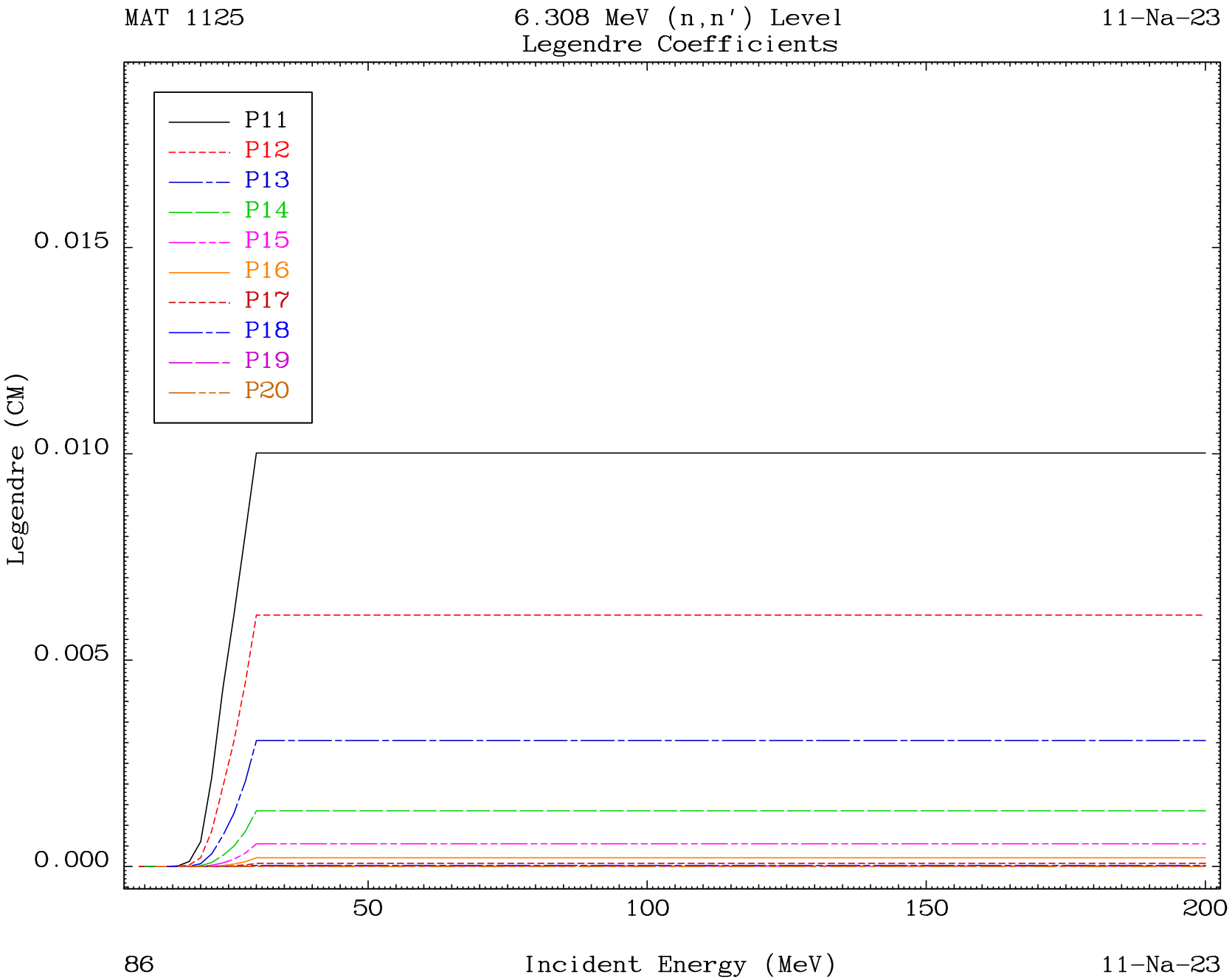

MAT 1125
6.195 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
0
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
81
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28

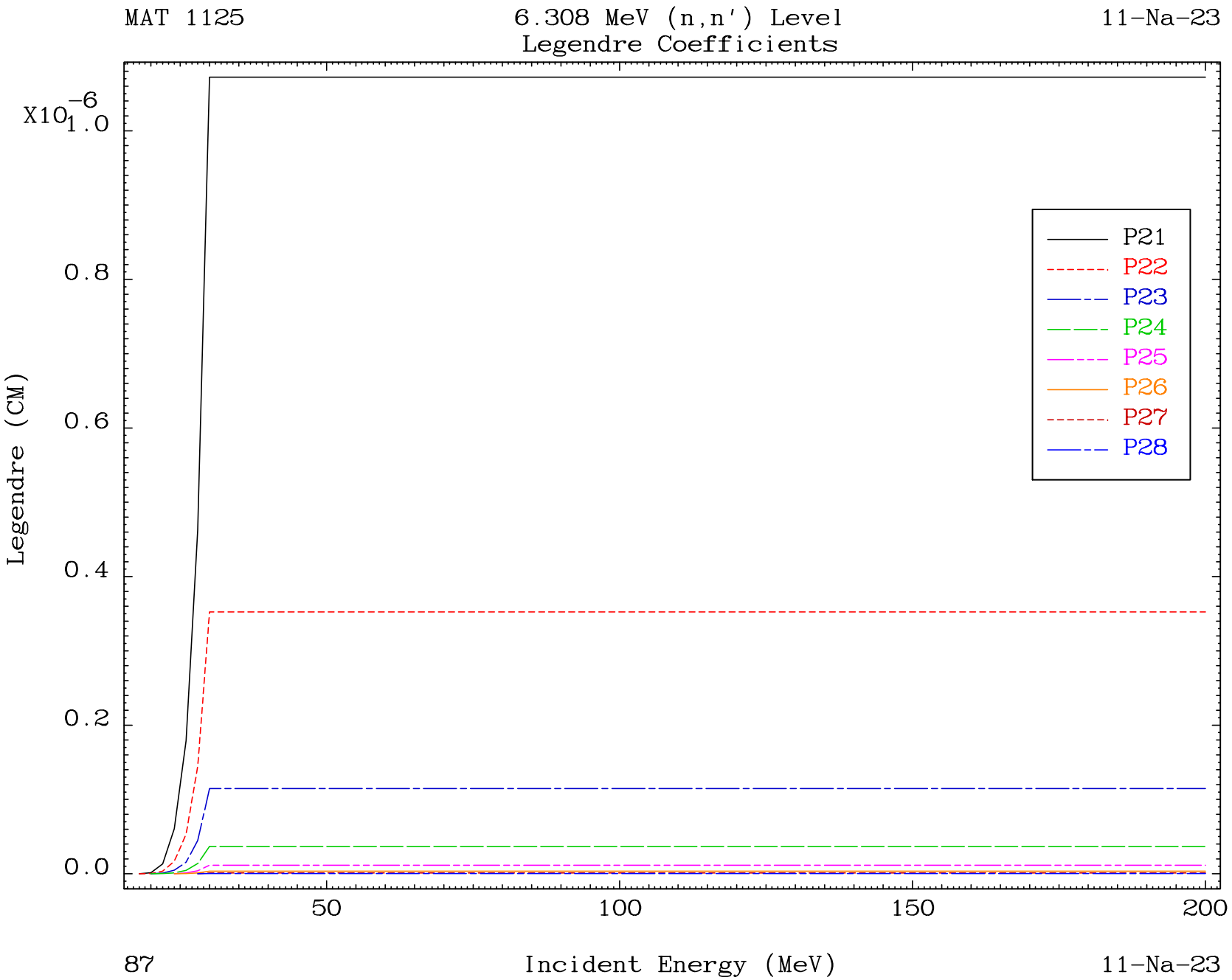

MAT 1125
6.235 MeV (n,n') Level
Legendre Coefficients
11-Na-23
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
50
100
150
200
82
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

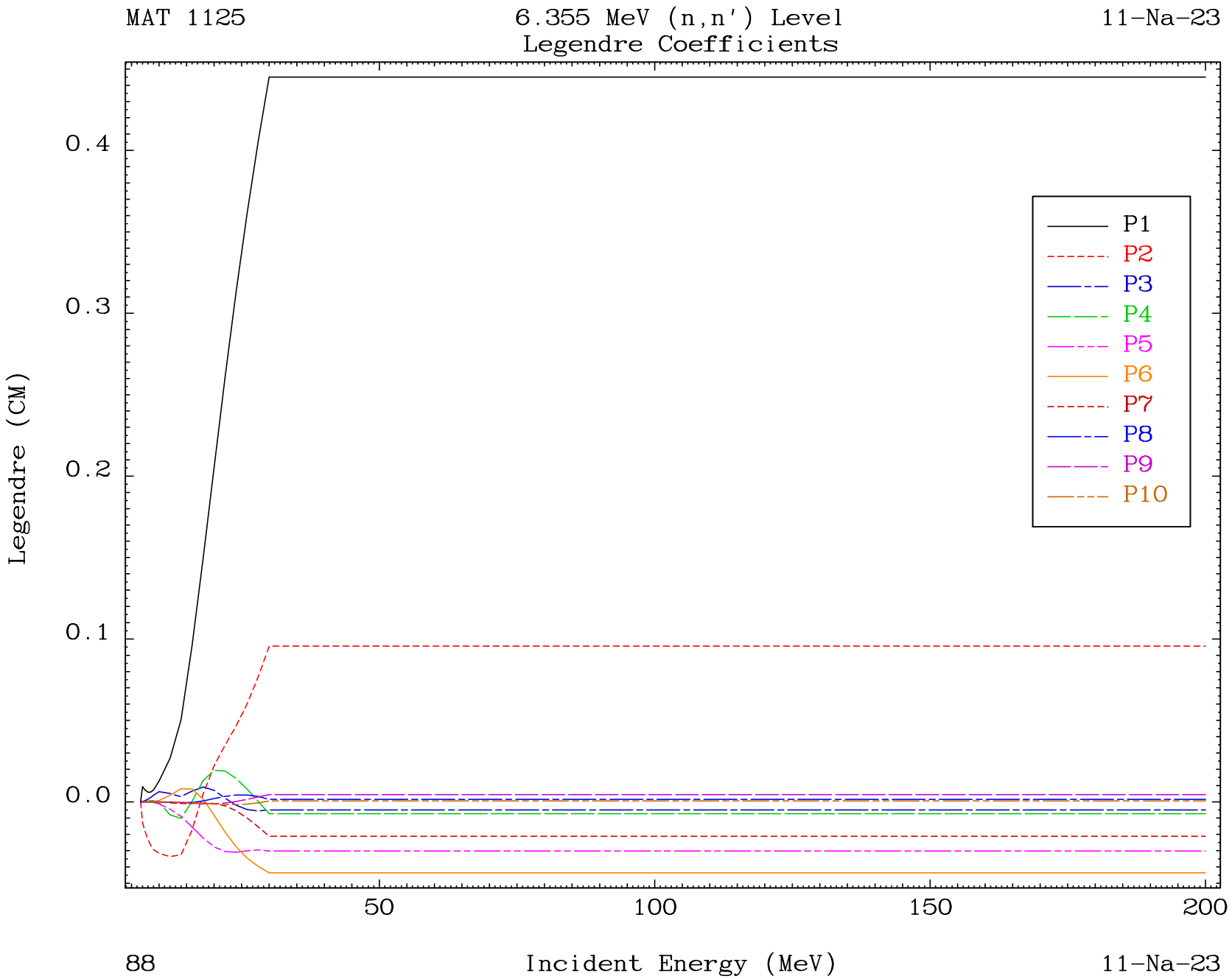

MAT 1125
6.235 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-3
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
Legendre (CM)
50
100
150
200
Incident Energy (MeV)
83
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

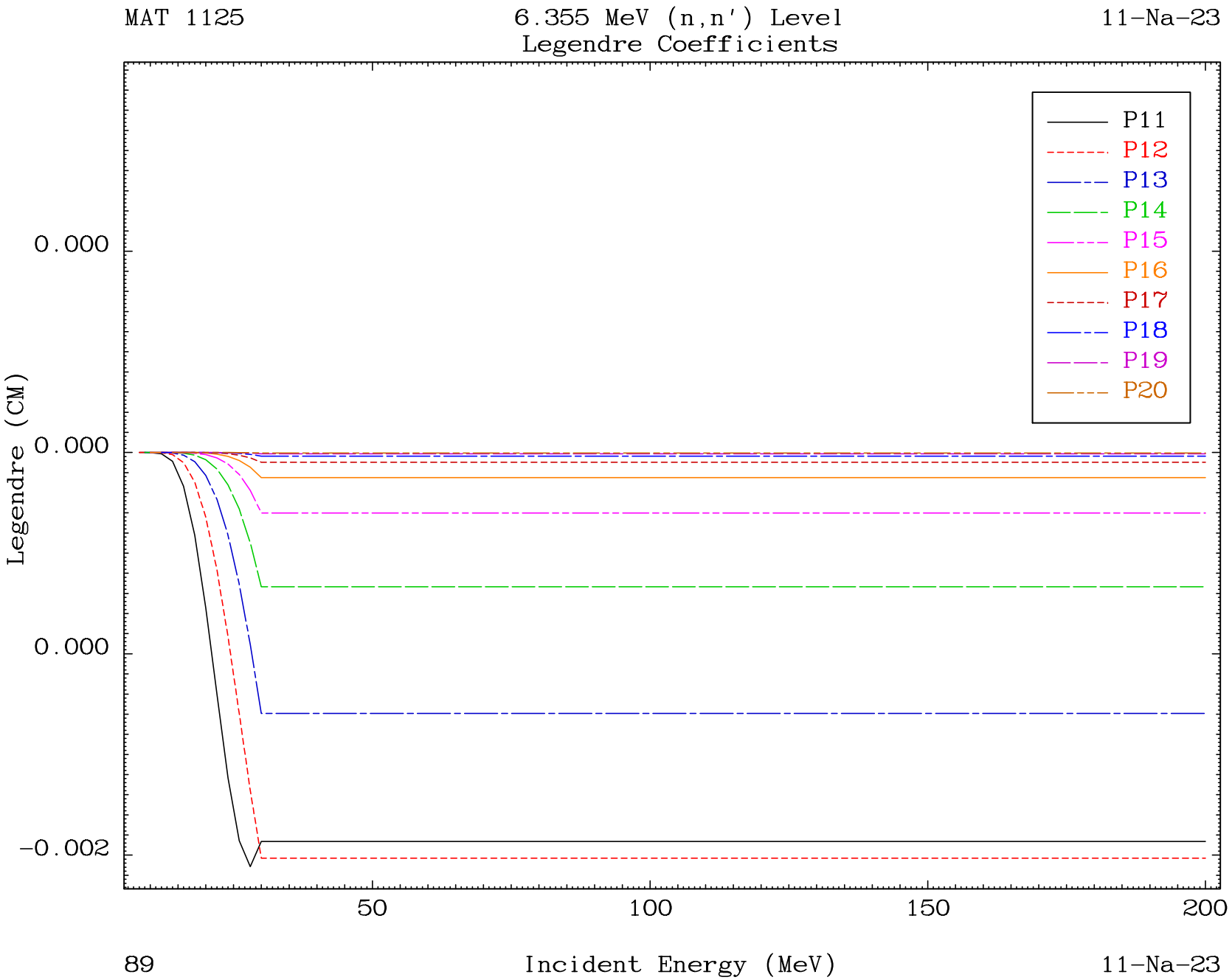

MAT 1125
6.235 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-7
4
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
84
Incident Energy (MeV)
11-Na-23

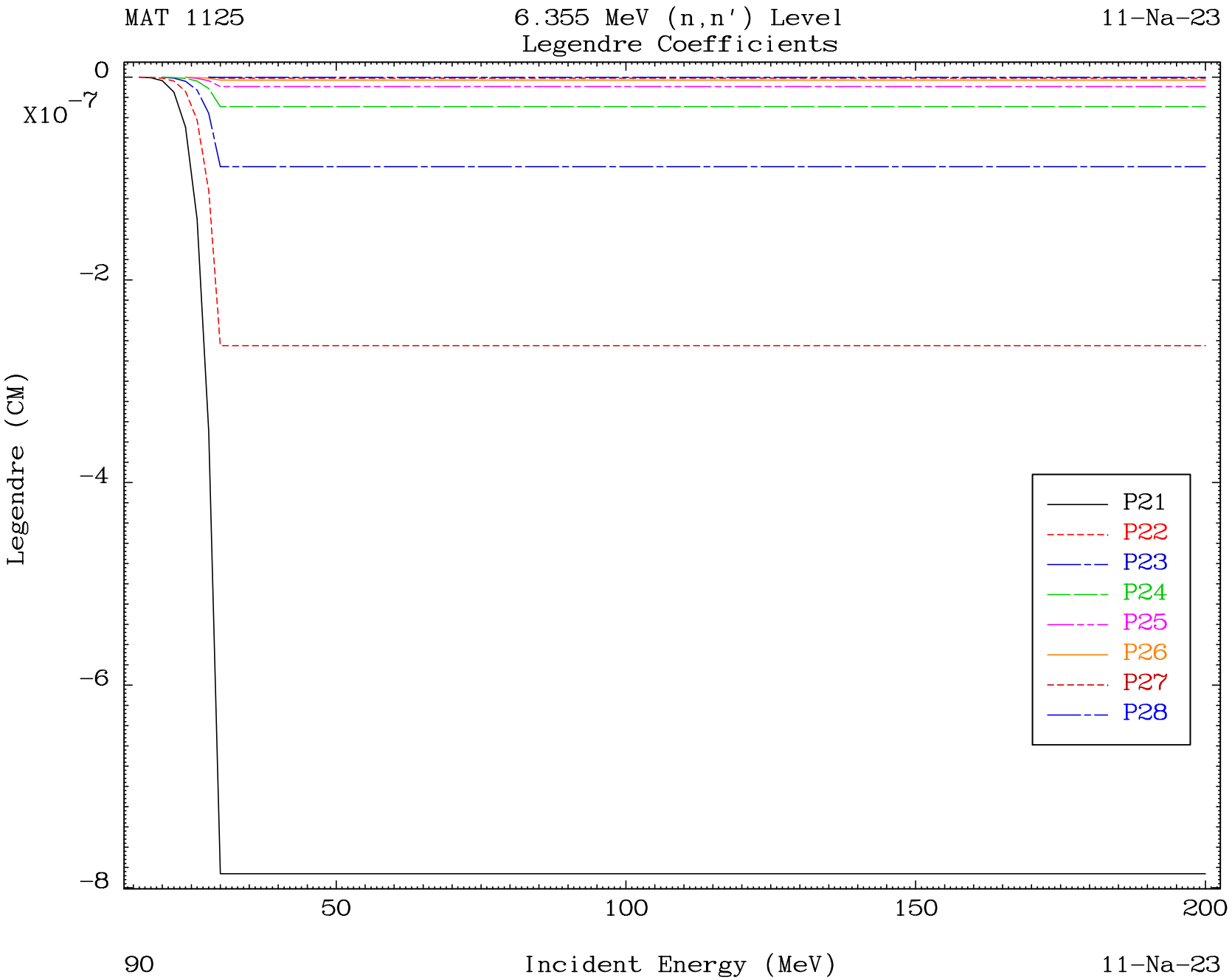

MAT 1125
6.308 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
85
Incident Energy (MeV)
11-Na-23

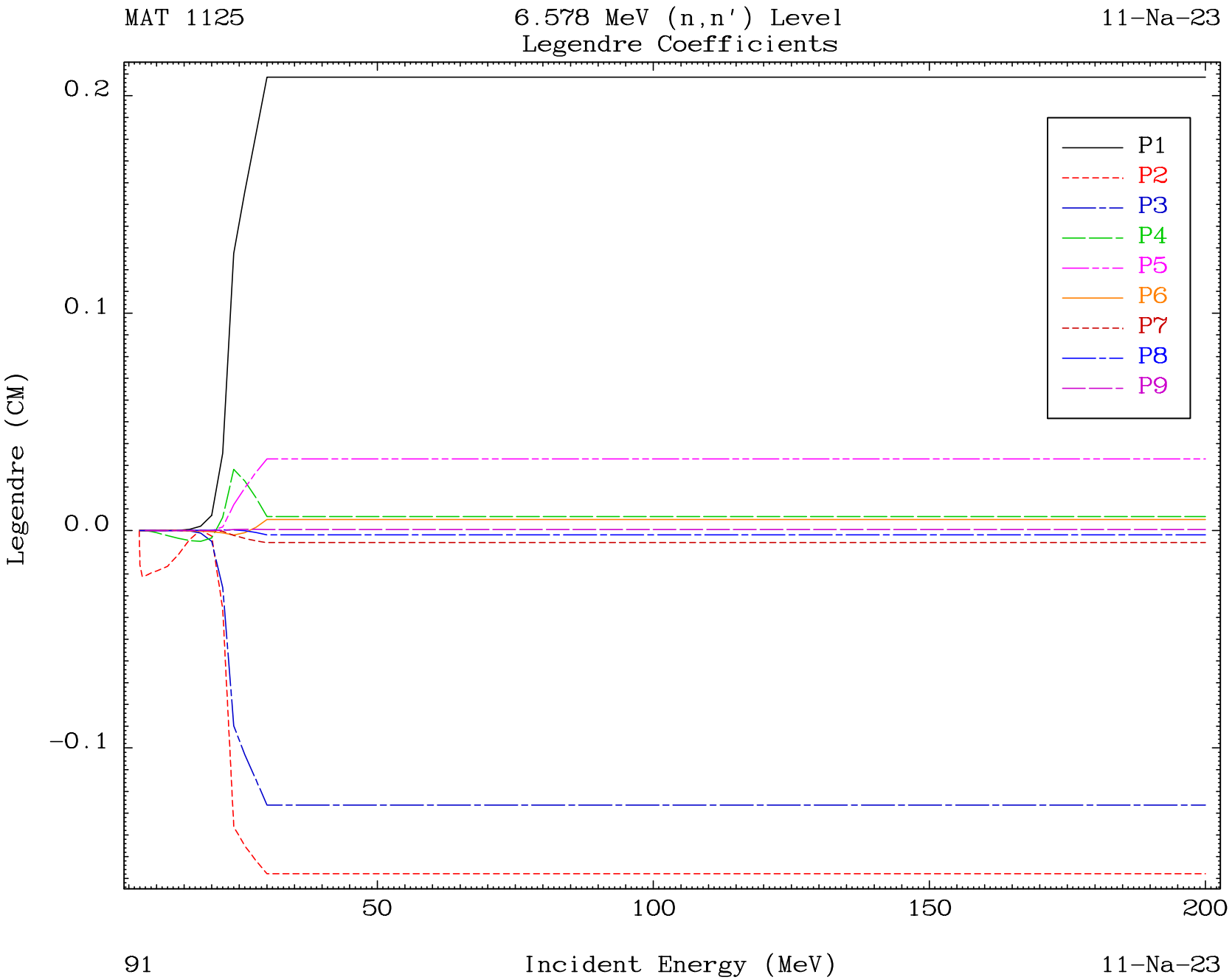

MAT 1125
6.308 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
86
Incident Energy (MeV)
11-Na-23

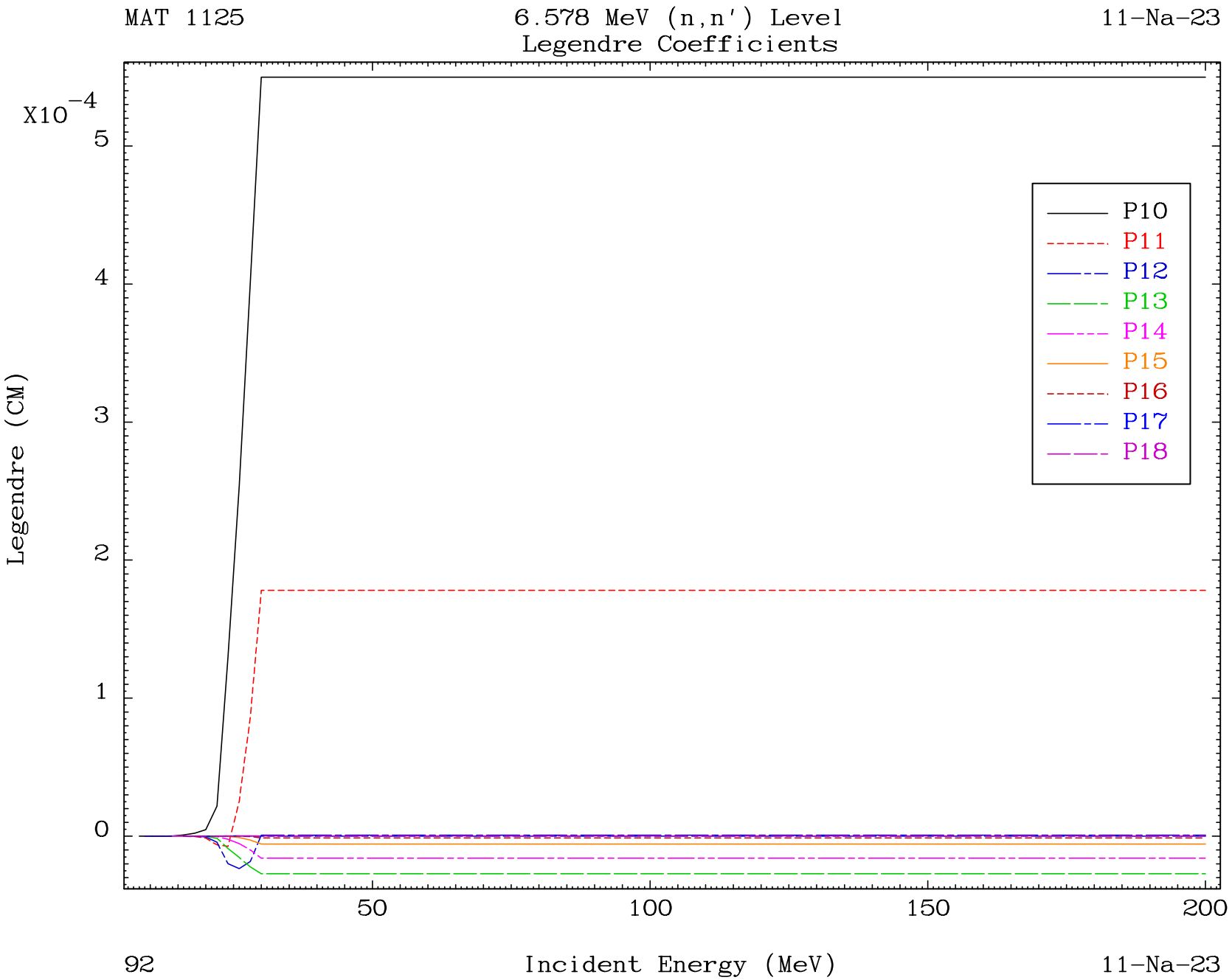

MAT 1125
6.308 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-6
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
87
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28

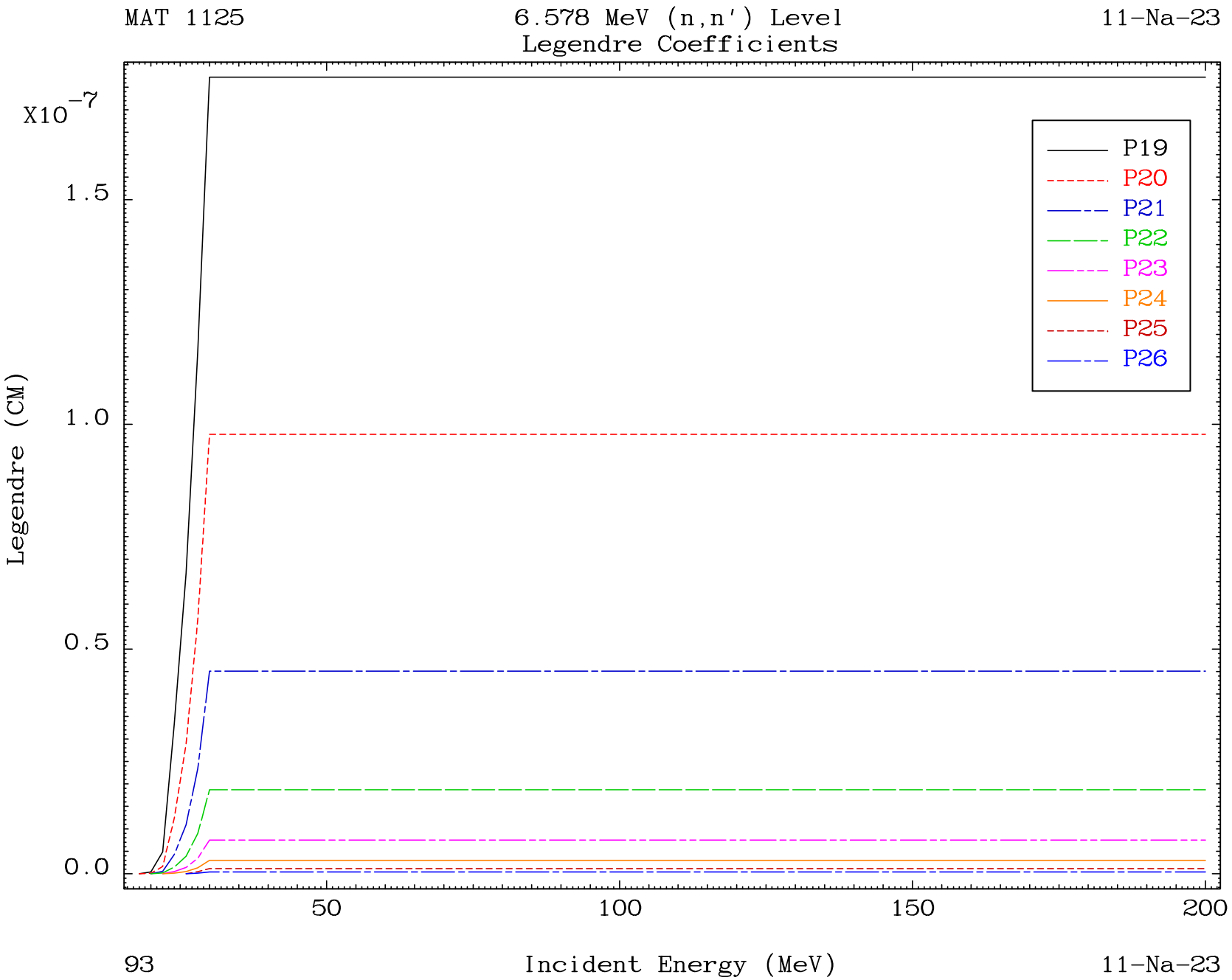

MAT 1125
6.355 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
88
Incident Energy (MeV)
11-Na-23

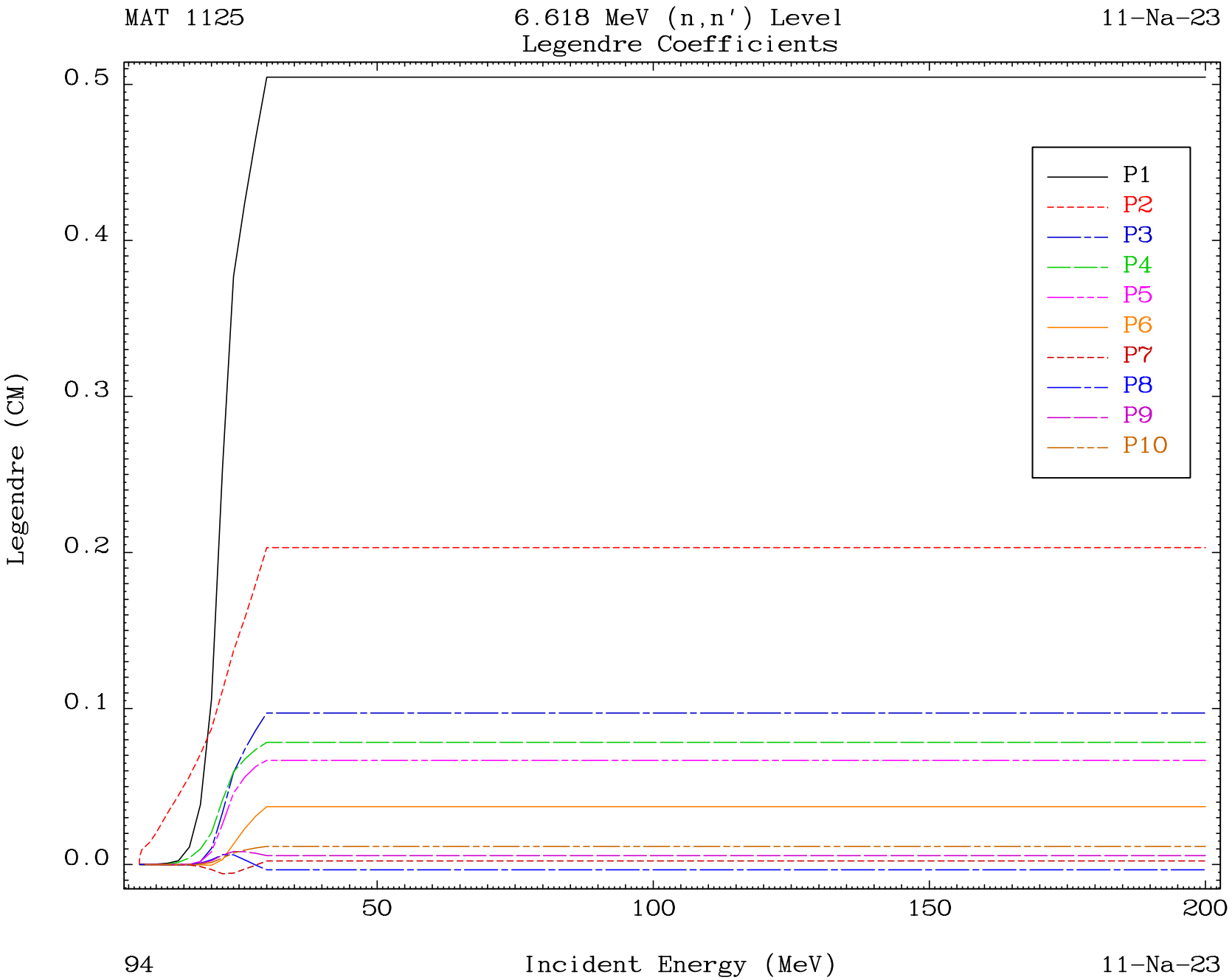

MAT 1125
6.355 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.000
0.000
0.000
-0.002
Legendre (CM)
50
100
150
200
89
Incident Energy (MeV)
11-Na-23

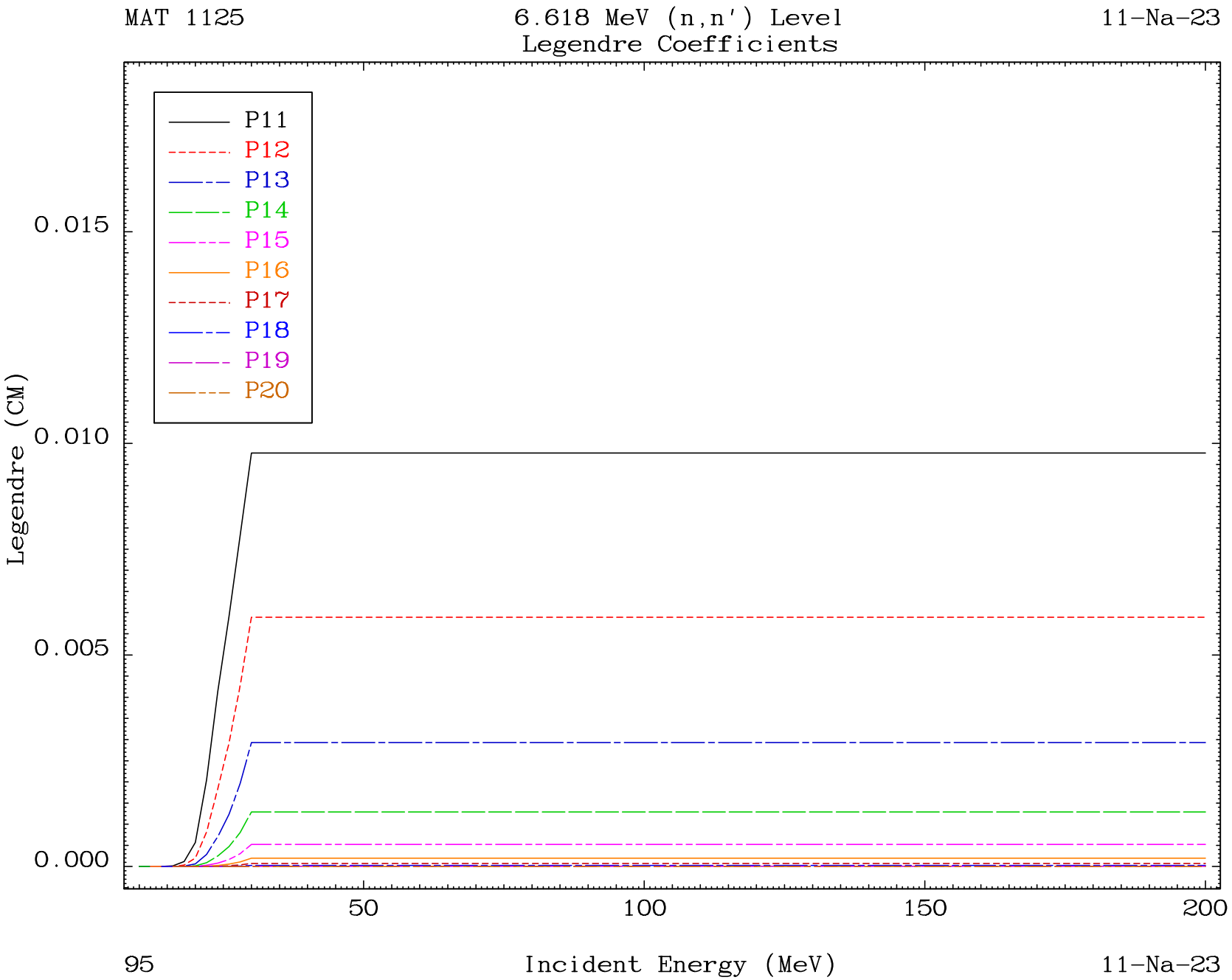

MAT 1125
6.355 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
0
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
90
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28

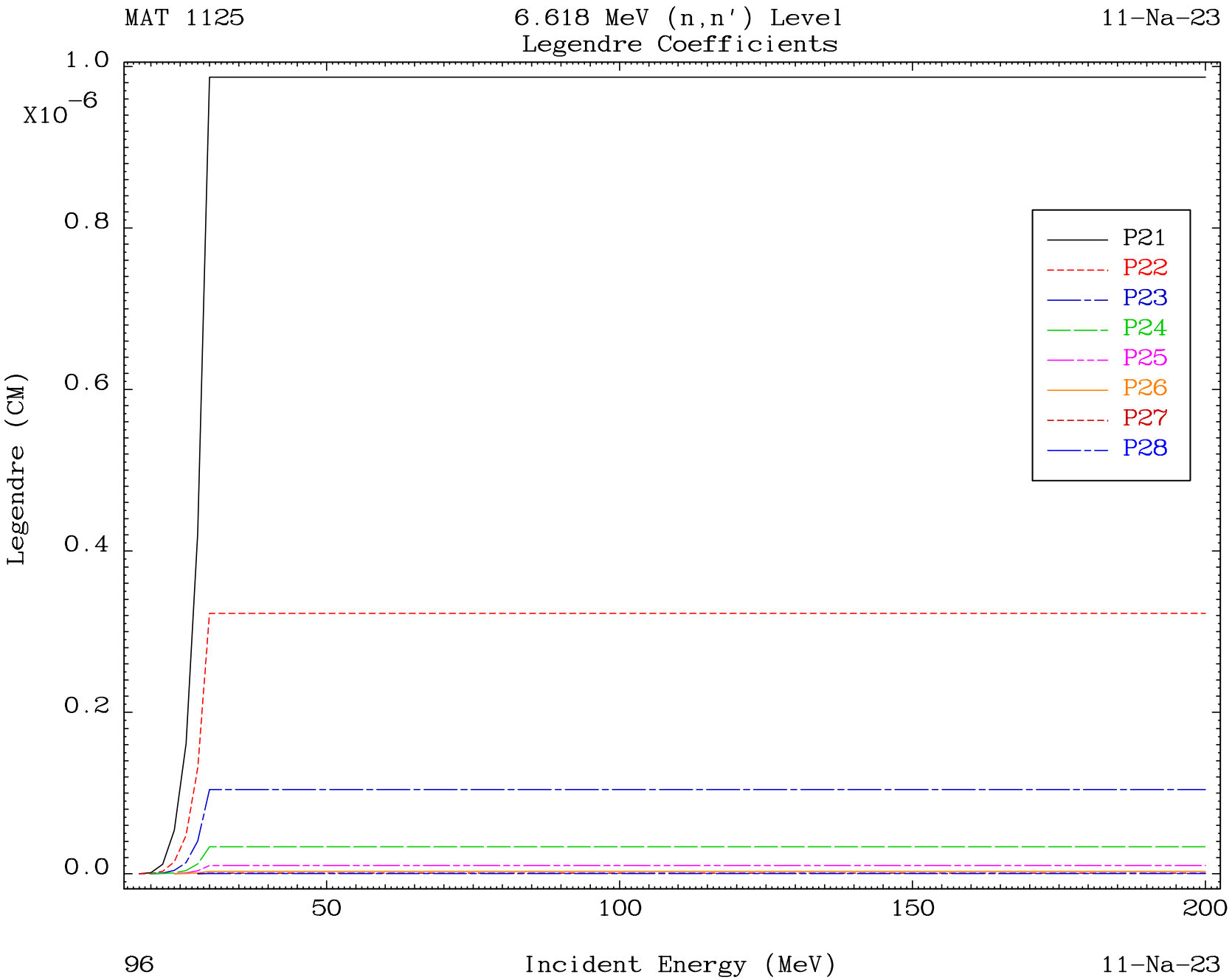

MAT 1125
6.578 MeV (n,n') Level
Legendre Coefficients
11-Na-23
0.2
0.1
0.0
-0.1
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
50
100
150
200
91
Incident Energy (MeV)
11-Na-23

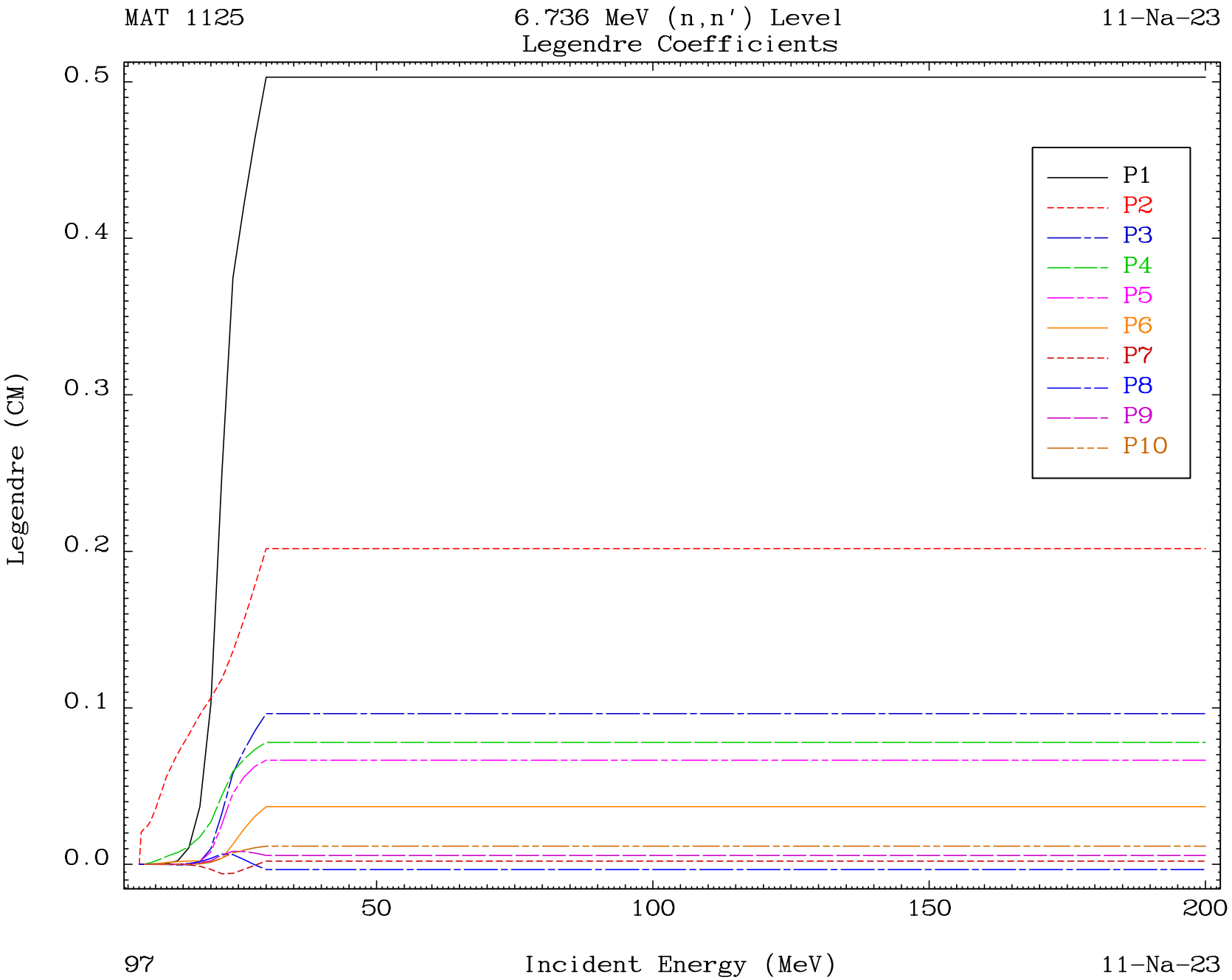

MAT 1125
6.578 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-4
5
4
3
2
1
0
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
50
100
150
200
92
Incident Energy (MeV)
11-Na-23

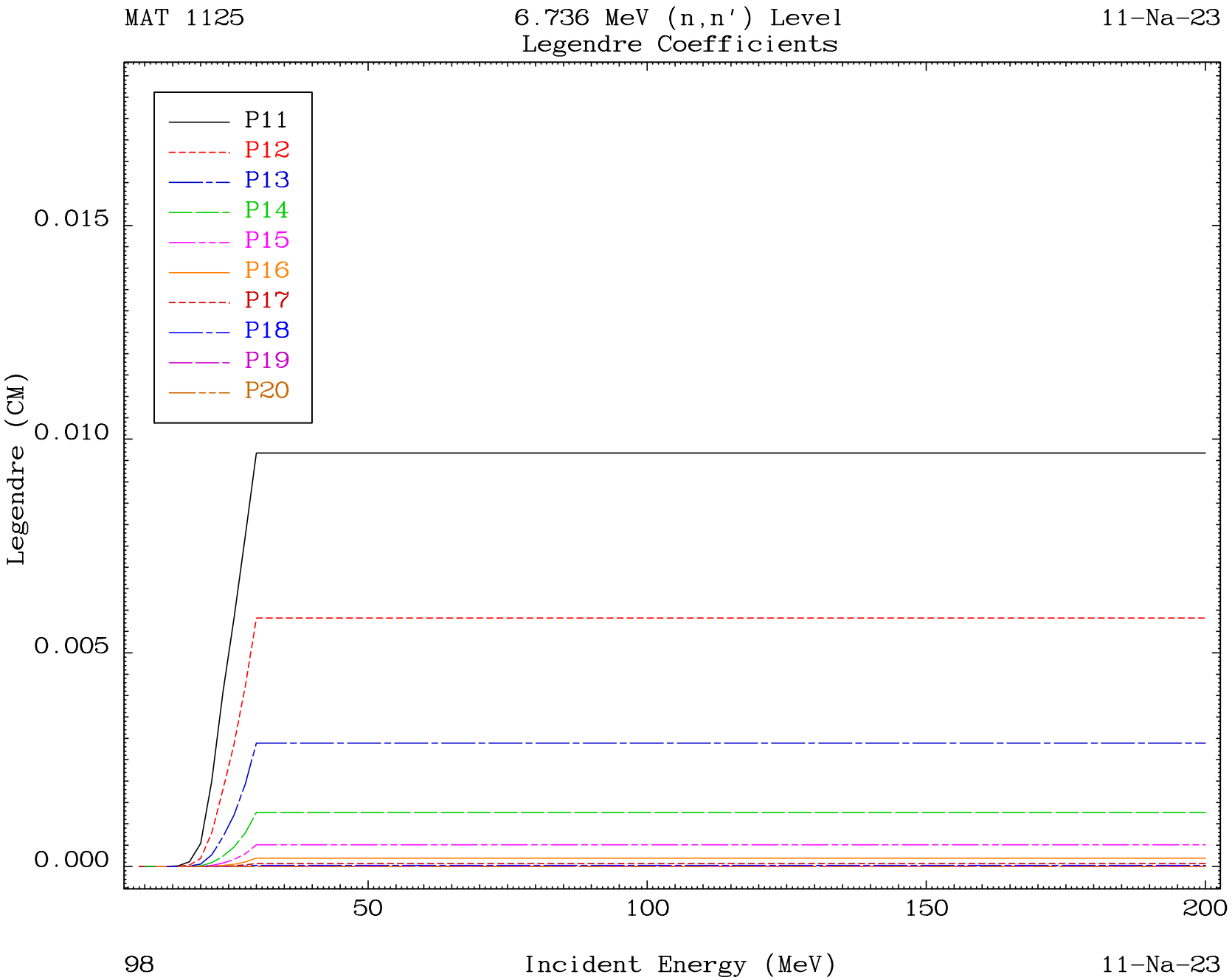

MAT 1125
6.578 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
50
100
150
200
93
Incident Energy (MeV)
11-Na-23

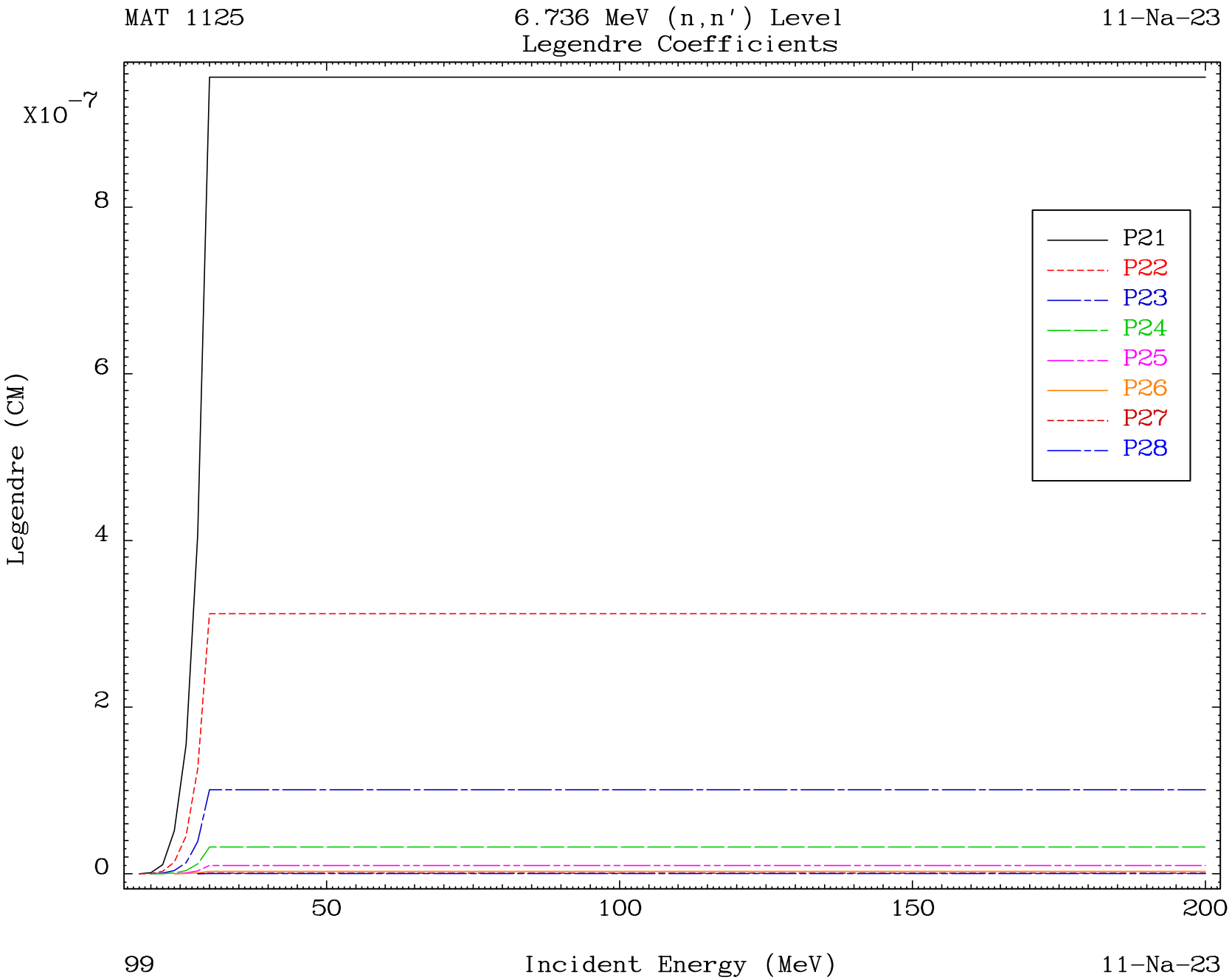

MAT 1125
6.618 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
94
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

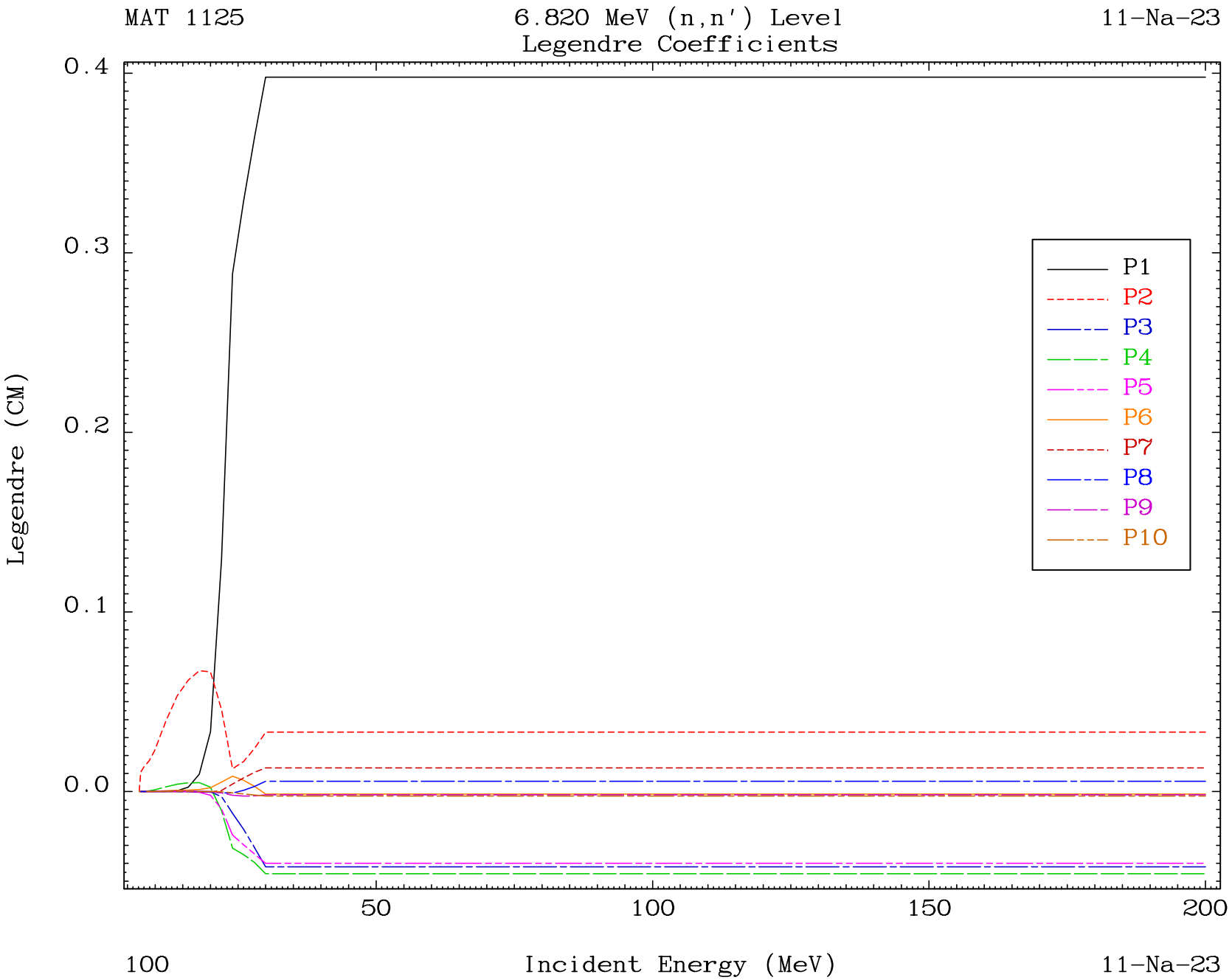

MAT 1125
6.618 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
95
Incident Energy (MeV)
11-Na-23

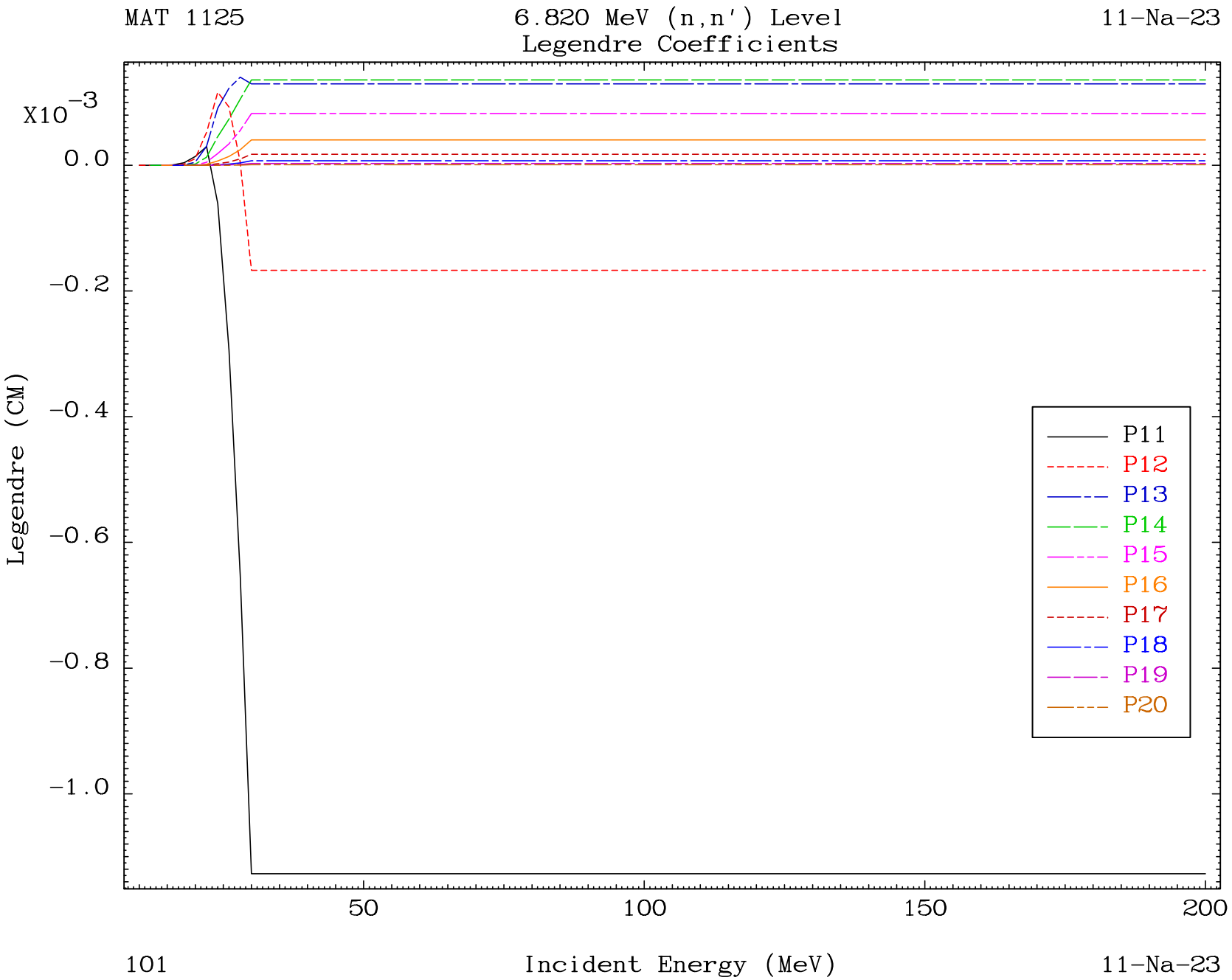

MAT 1125
6.618 MeV (n,n') Level
Legendre Coefficients
11-Na-23
1.0
X10−6
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
96
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28

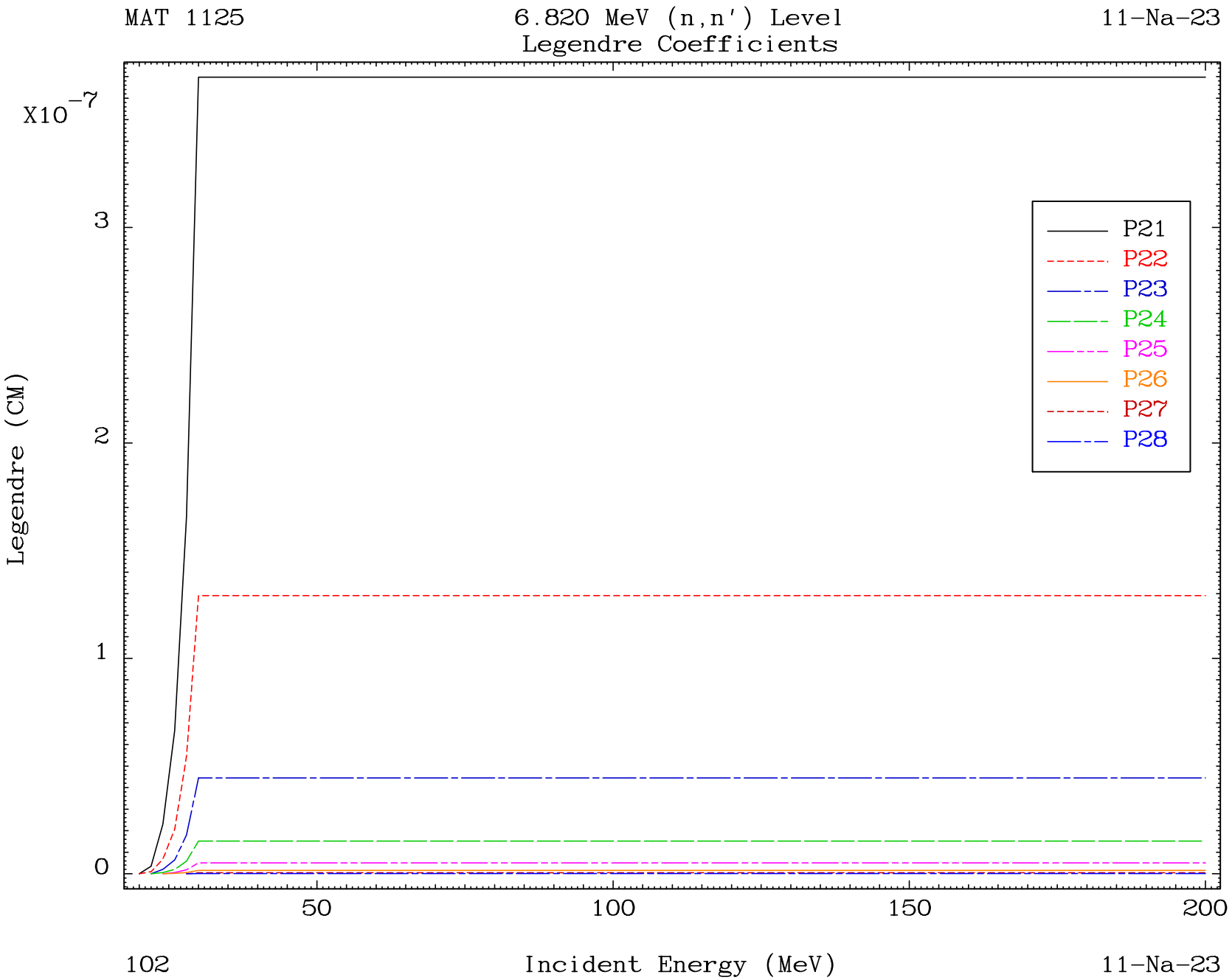

MAT 1125
6.736 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
50
100
150
200
97
Incident Energy (MeV)
11-Na-23
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

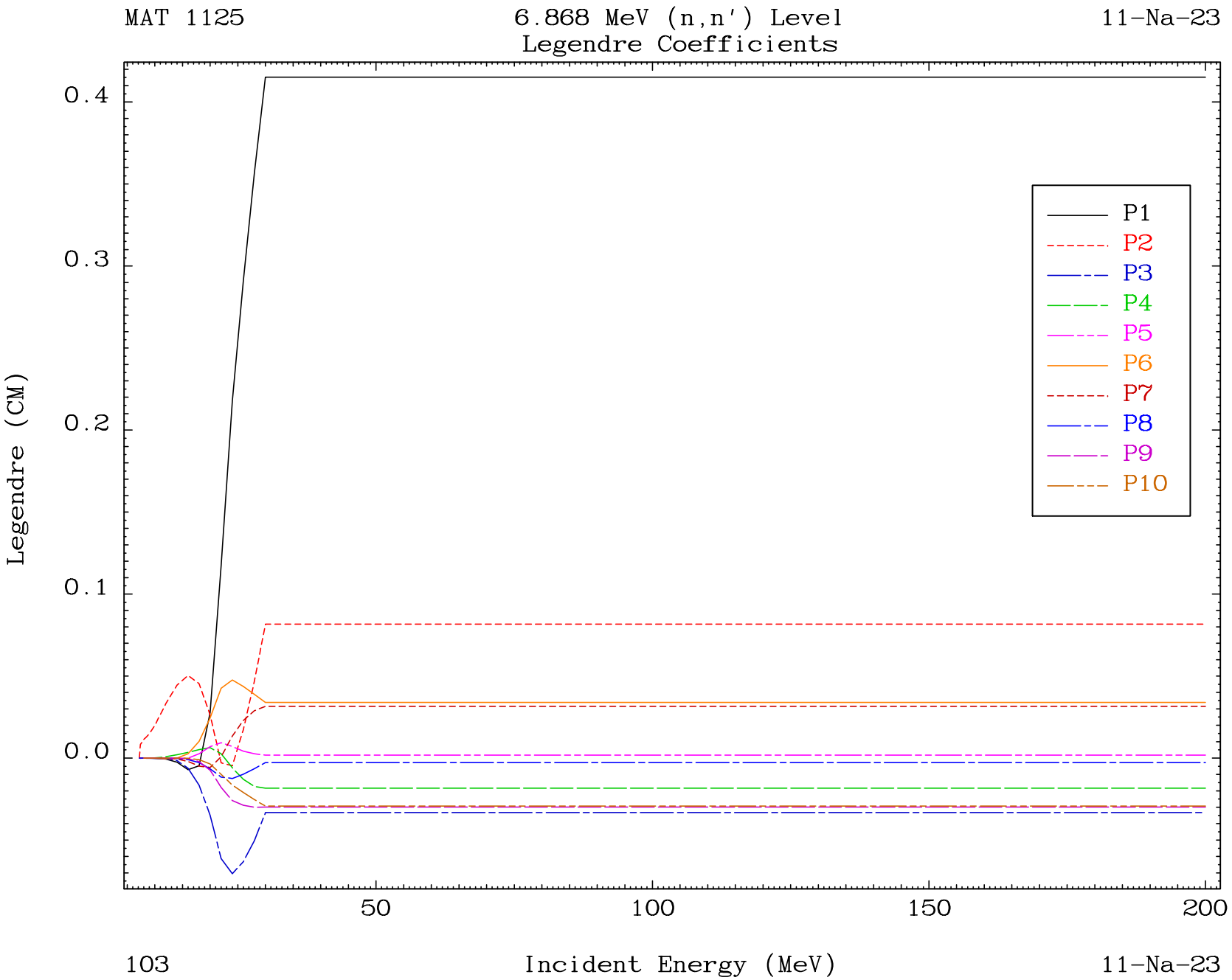

MAT 1125
6.736 MeV (n,n') Level
Legendre Coefficients
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
98
Incident Energy (MeV)
11-Na-23

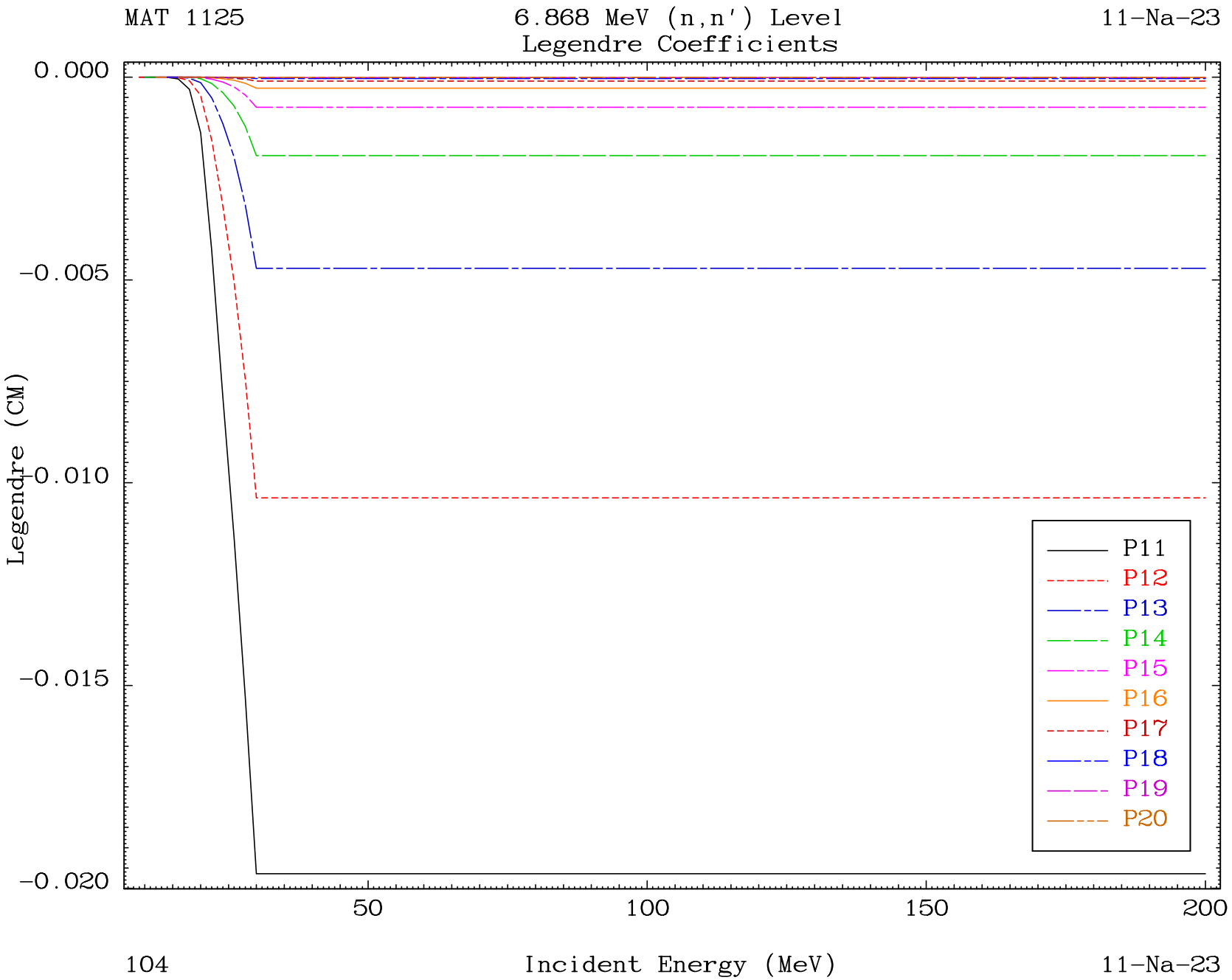

MAT 1125
6.736 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
8
6
4
2
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
99
Incident Energy (MeV)
11-Na-23

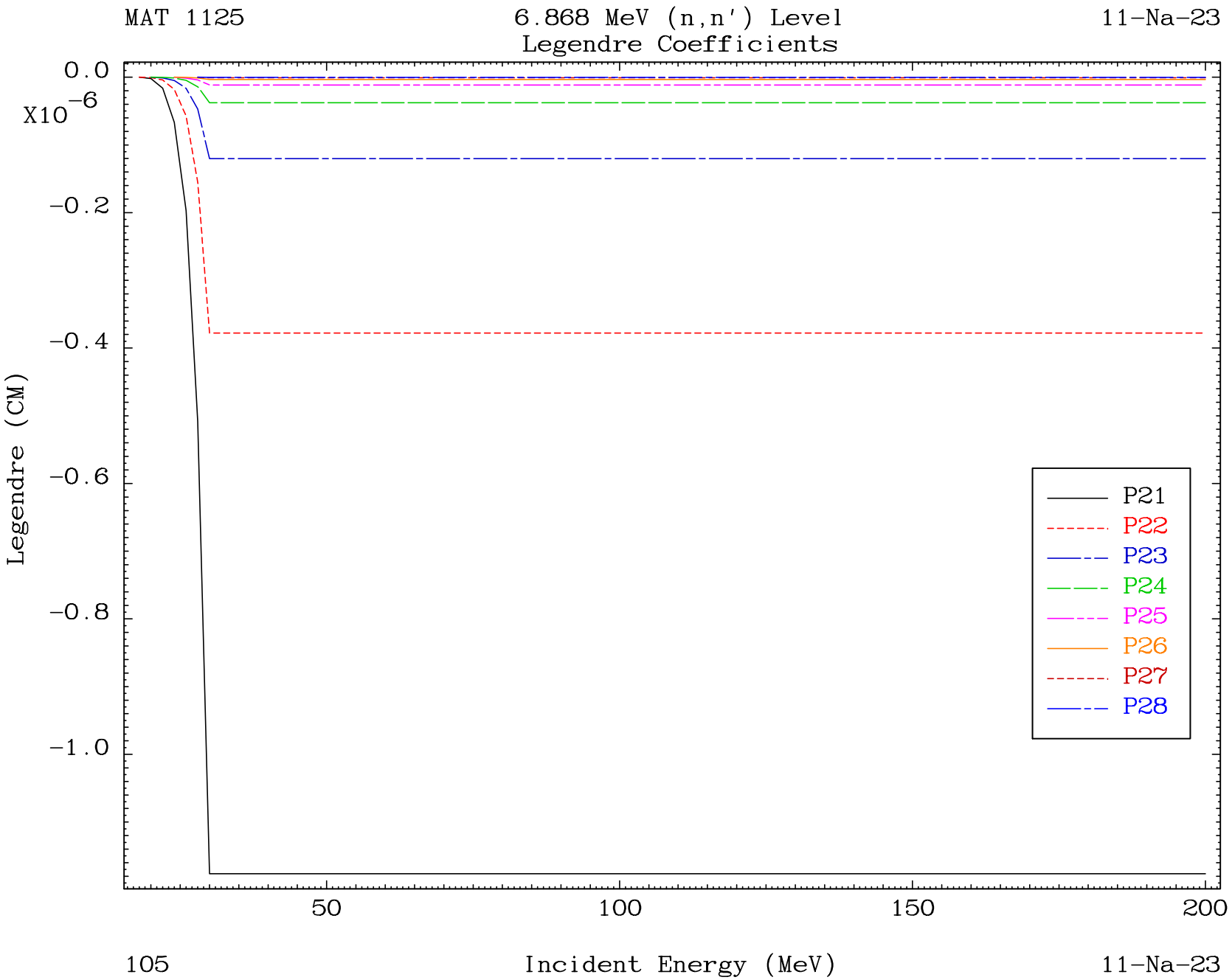

MAT 1125
6.820 MeV (n,n') Level
Legendre Coefficients
11-Na-23
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
50
100
150
200
100
Incident Energy (MeV)
11-Na-23


MAT 1125
6.820 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10^-3
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
50
100
150
200
101
Incident Energy (MeV)
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20


MAT 1125
6.820 MeV (n,n') Level
Legendre Coefficients
11-Na-23
X10-7
3
2
1
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
102
Incident Energy (MeV)
11-Na-23


MAT 1125
6.868 MeV (n,n') Level
Legendre Coefficients
11-Na-23
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
103
Incident Energy (MeV)
11-Na-23


MAT 1125
6.868 MeV (n,n') Level
Legendre Coefficients
11-Na-23
0.000
-0.005
-0.010
-0.015
-0.020
Legendre (CM)
50
100
150
200
104
Incident Energy (MeV)
11-Na-23
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20


MAT 1125
6.868 MeV (n,n') Level
Legendre Coefficients
11-Na-23
0.0
X10−6
−0.2
−0.4
−0.6
−0.8
−1.0
Legendre (CM)
50
100
150
200
105
Incident Energy (MeV)
11-Na-23
P21
P22
P23
P24
P25
P26
P27
P28