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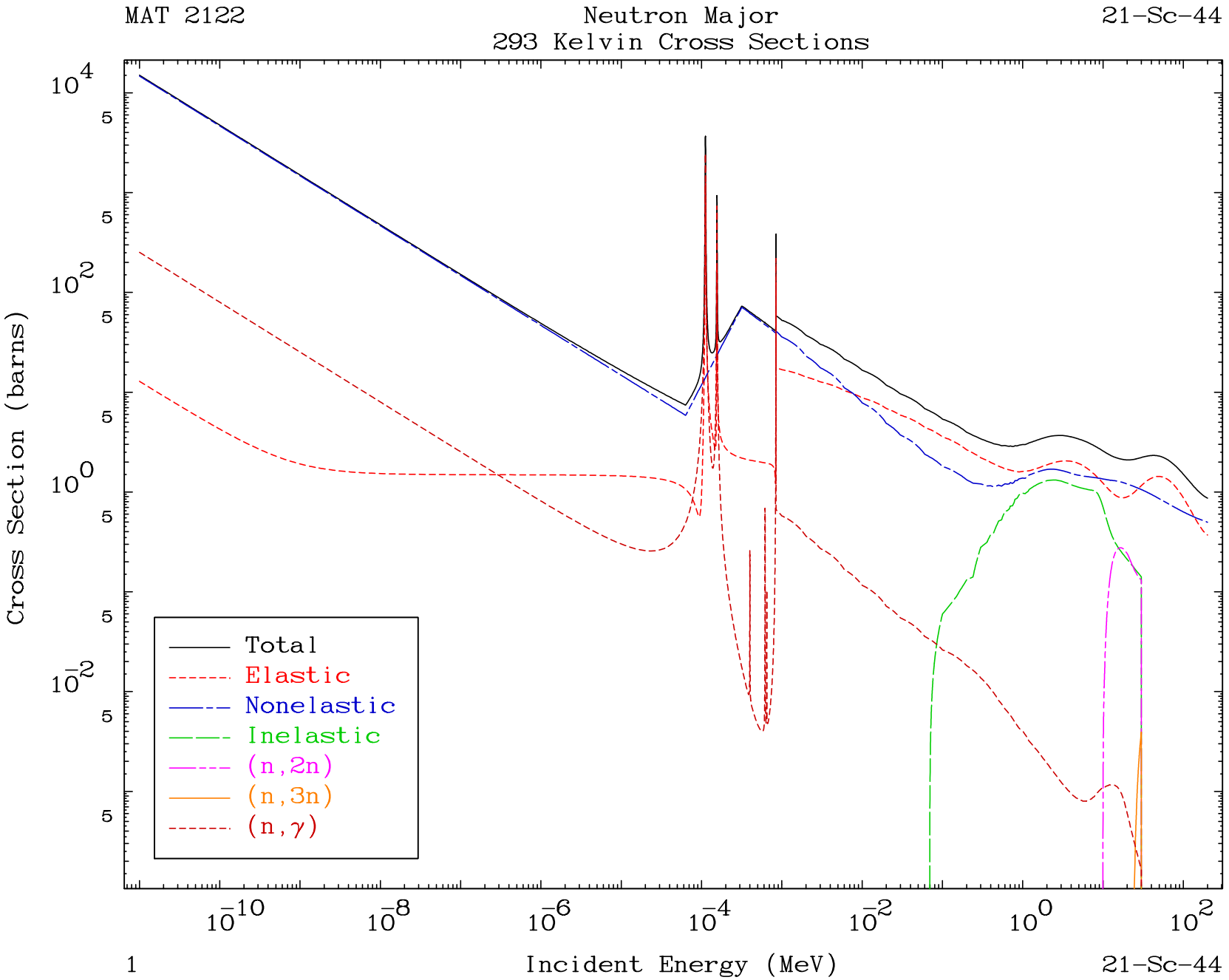
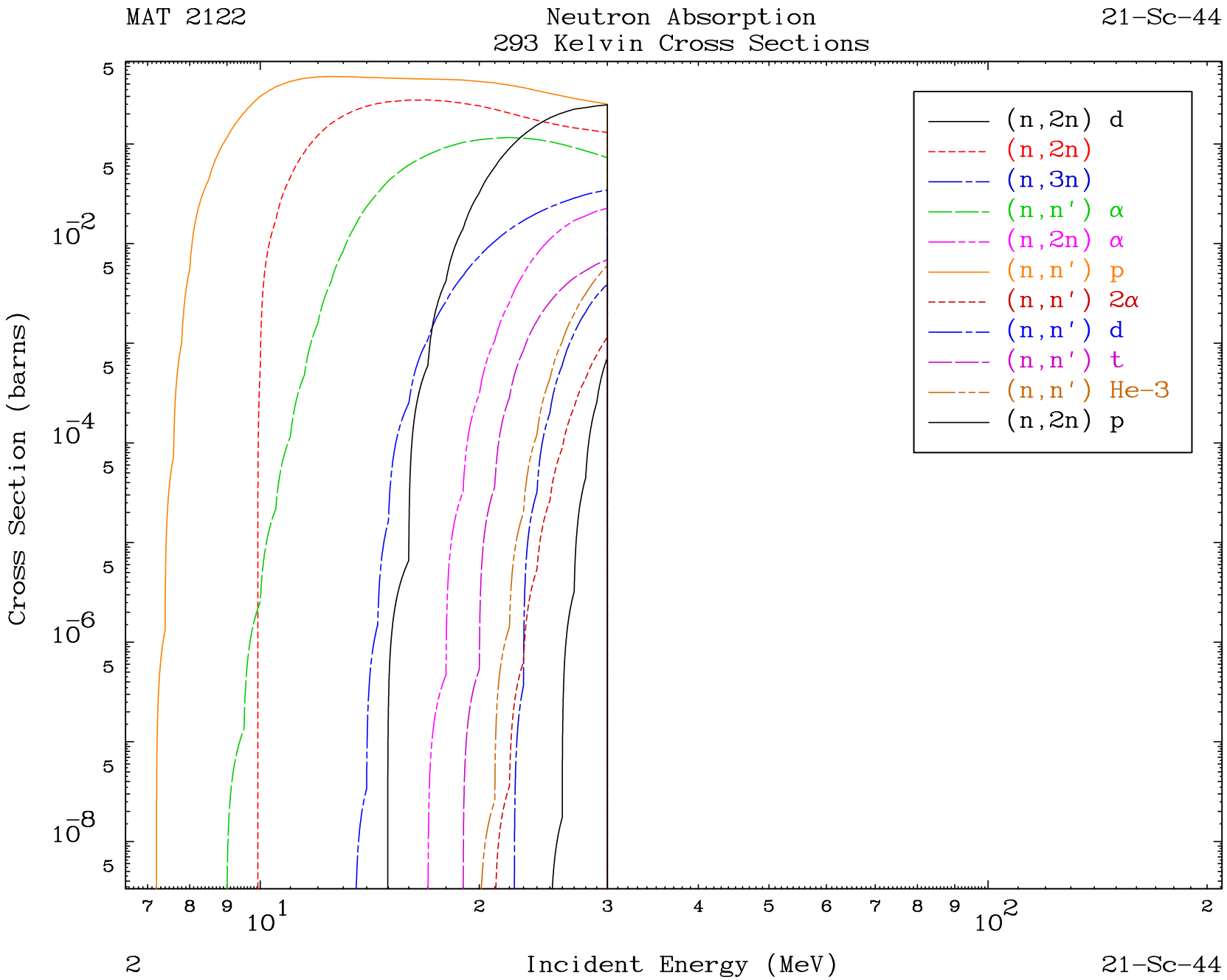
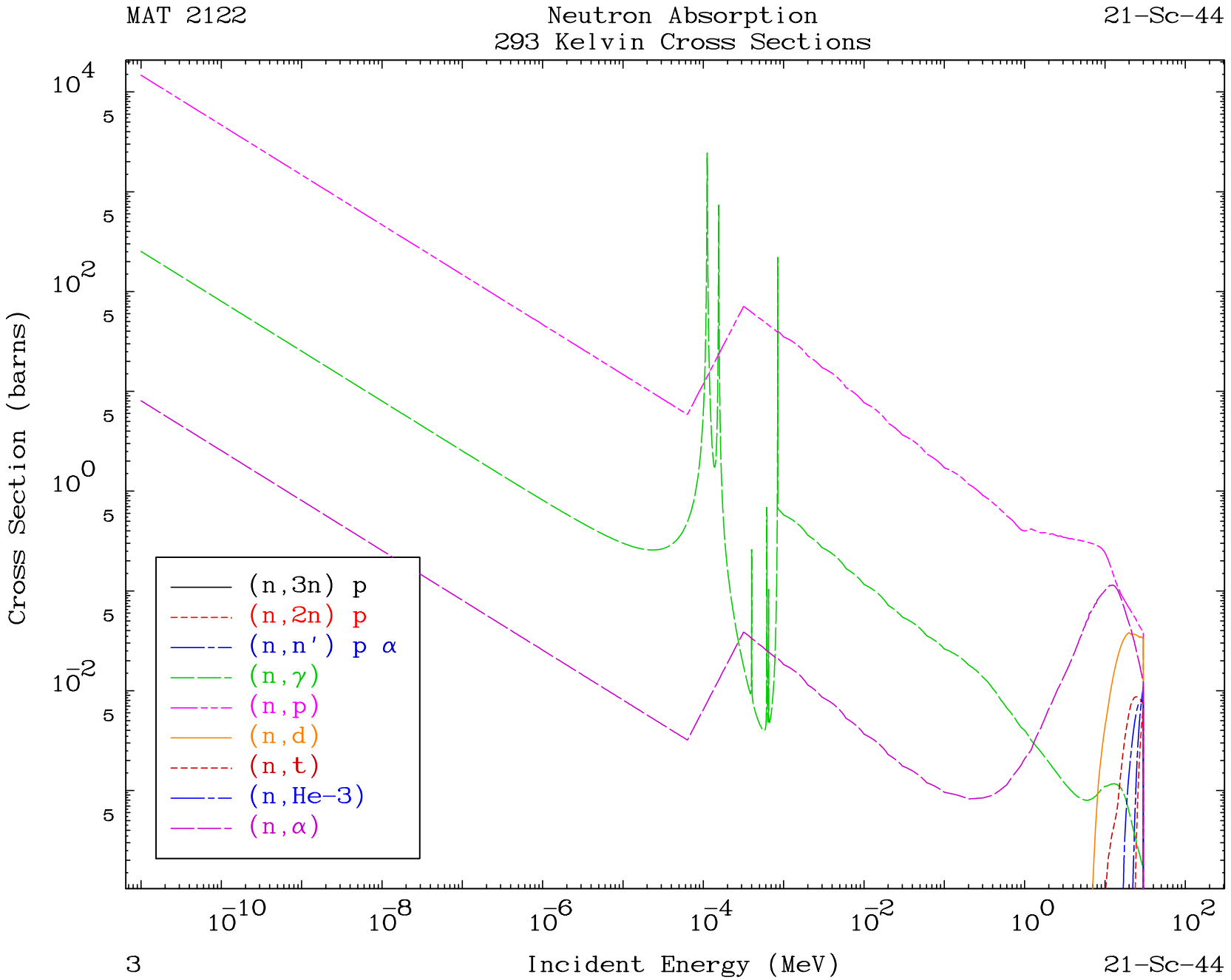
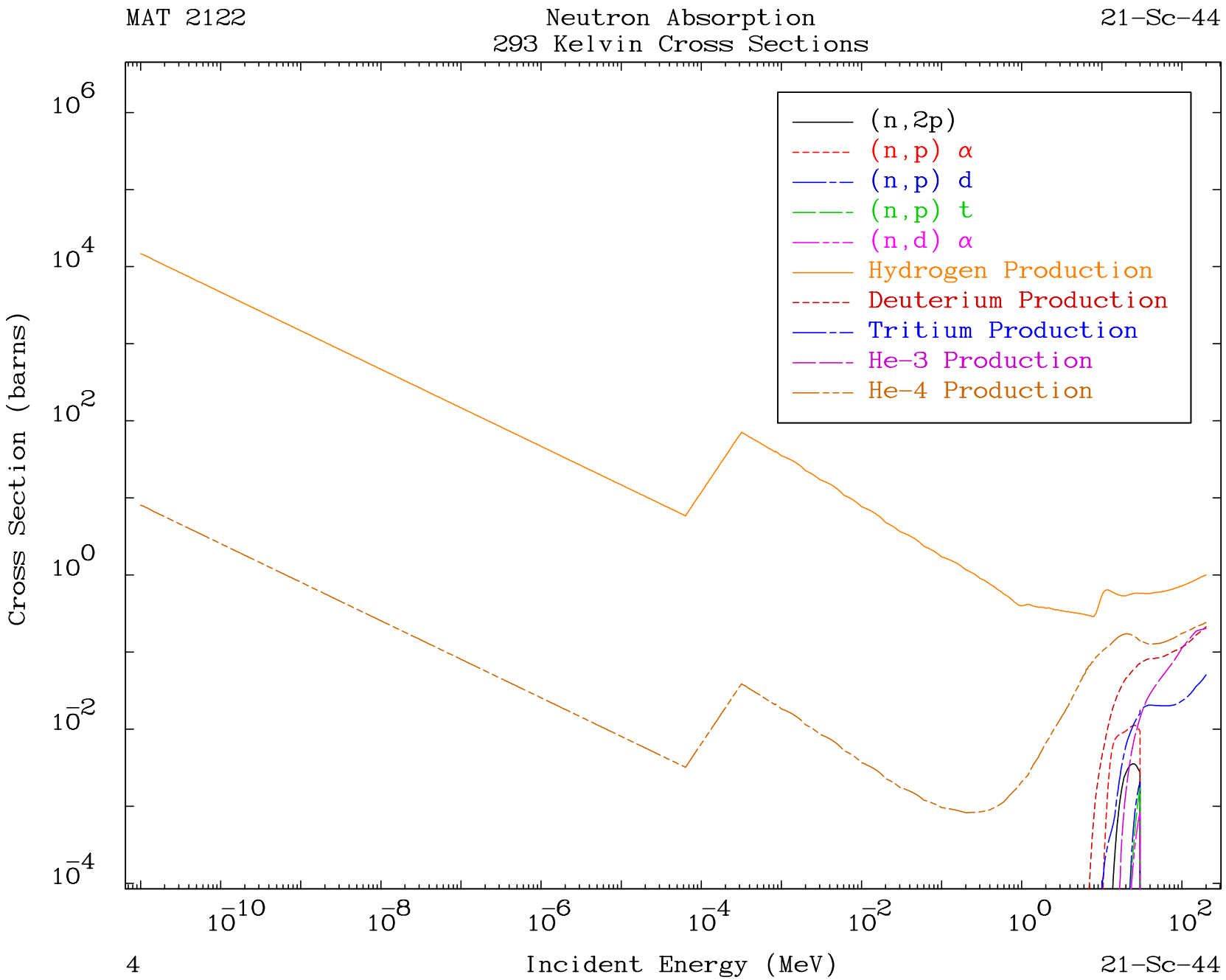
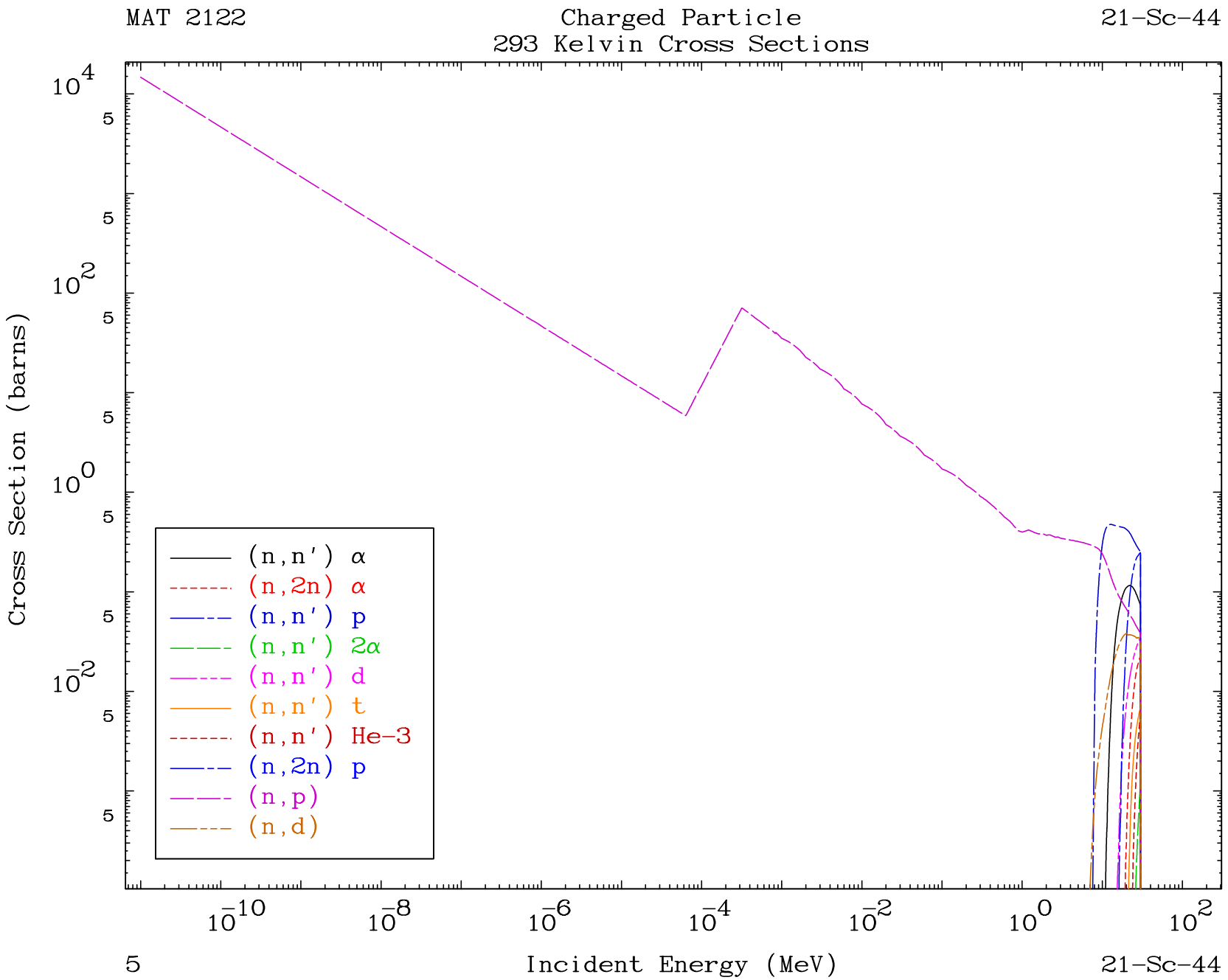
Press Mouse Button to Start

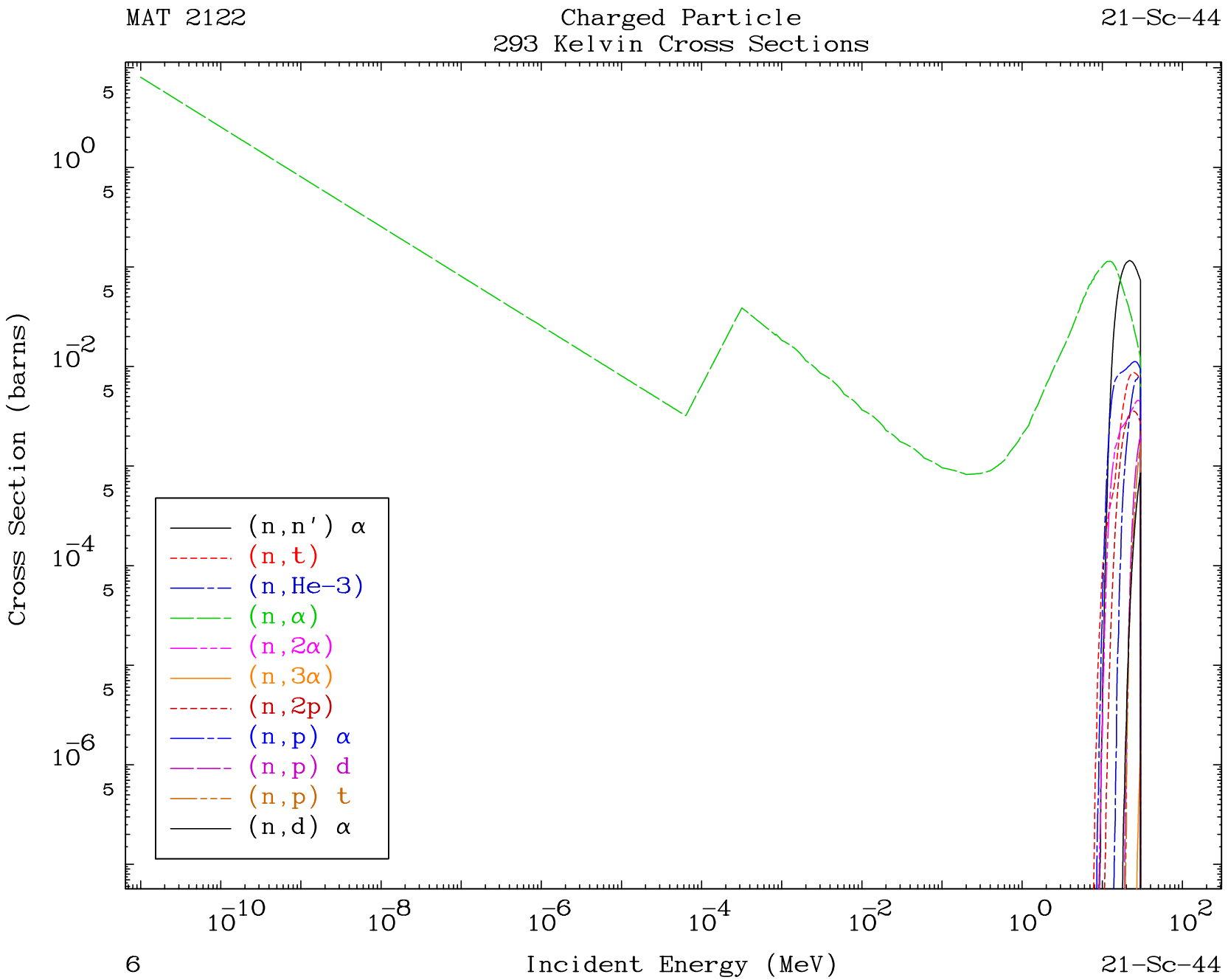

MAT 2122
Neutron Major
21-Sc-44
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,3n)
(n,γ)
1
21-Sc-44

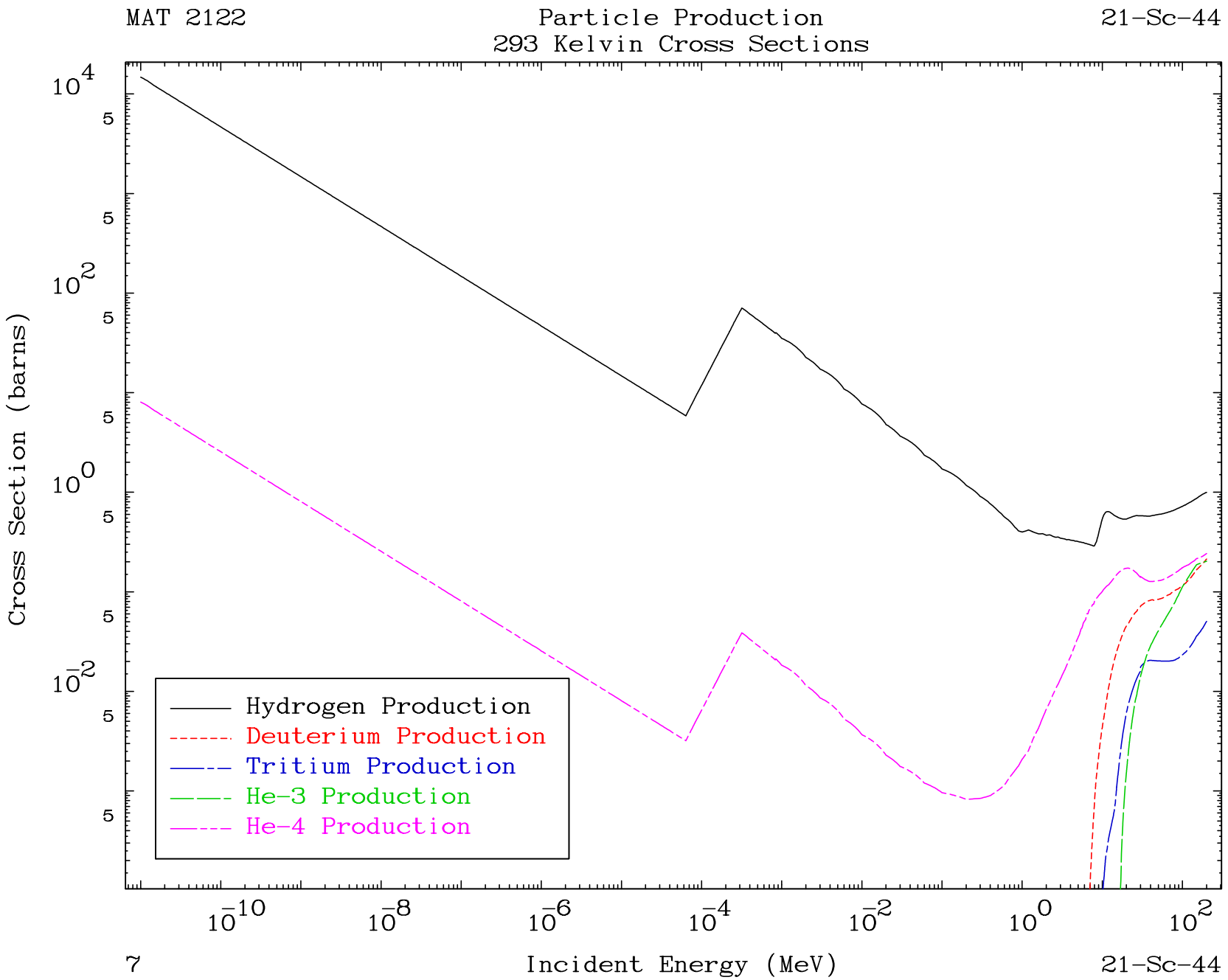

MAT 2122
Neutron Absorption
293 Kelvin Cross Sections
21-Sc-44
Cross Section (barns)
Incident Energy (MeV)
21-Sc-44
2
(n,2n) d
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p

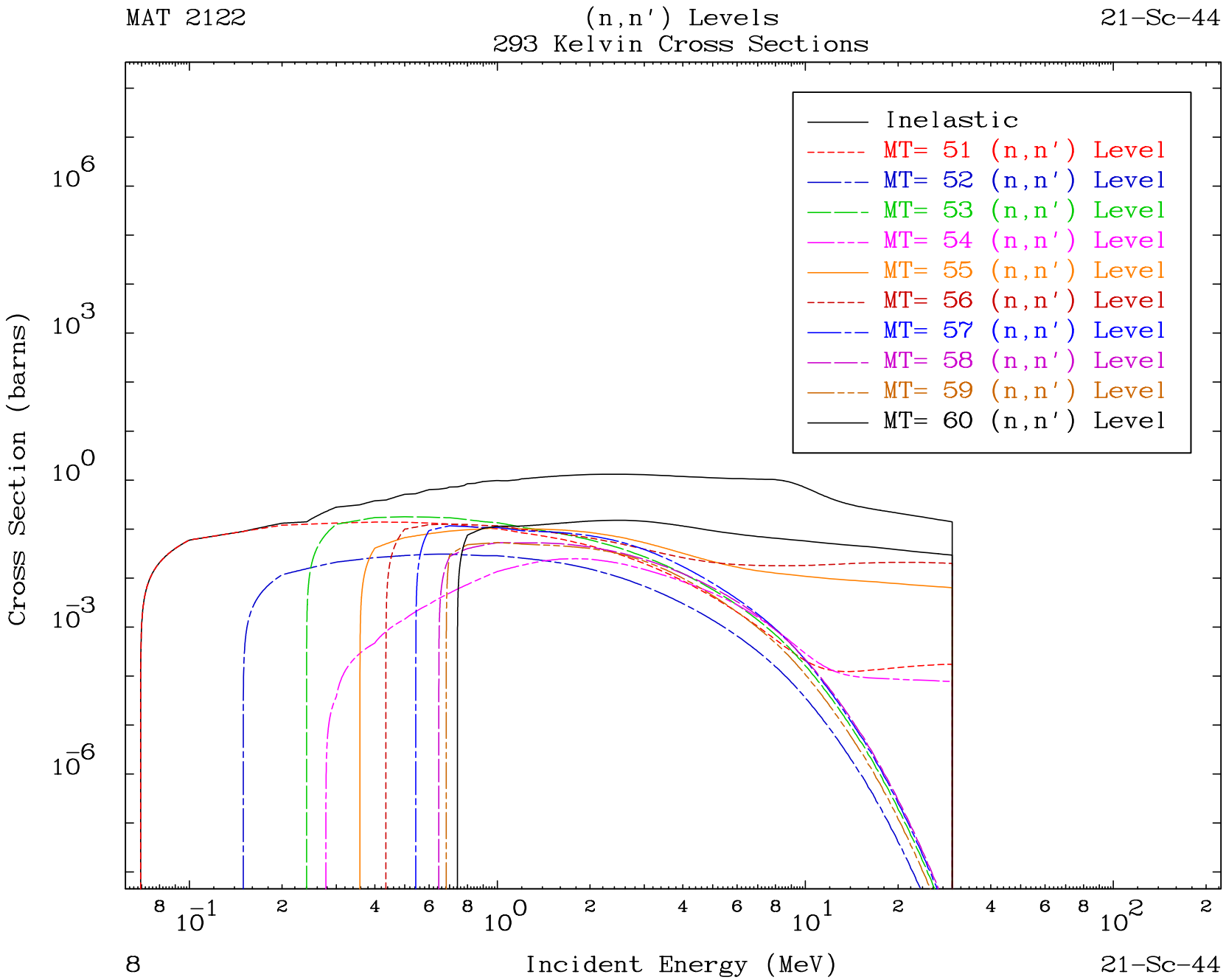

MAT 2122
Neutron Absorption
293 Kelvin Cross Sections
21-Sc-44
Cross Section (barns)
Incident Energy (MeV)
(n,3n) p
(n,2n) p
(n,n') p α
(n,γ)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
3
21-Sc-44

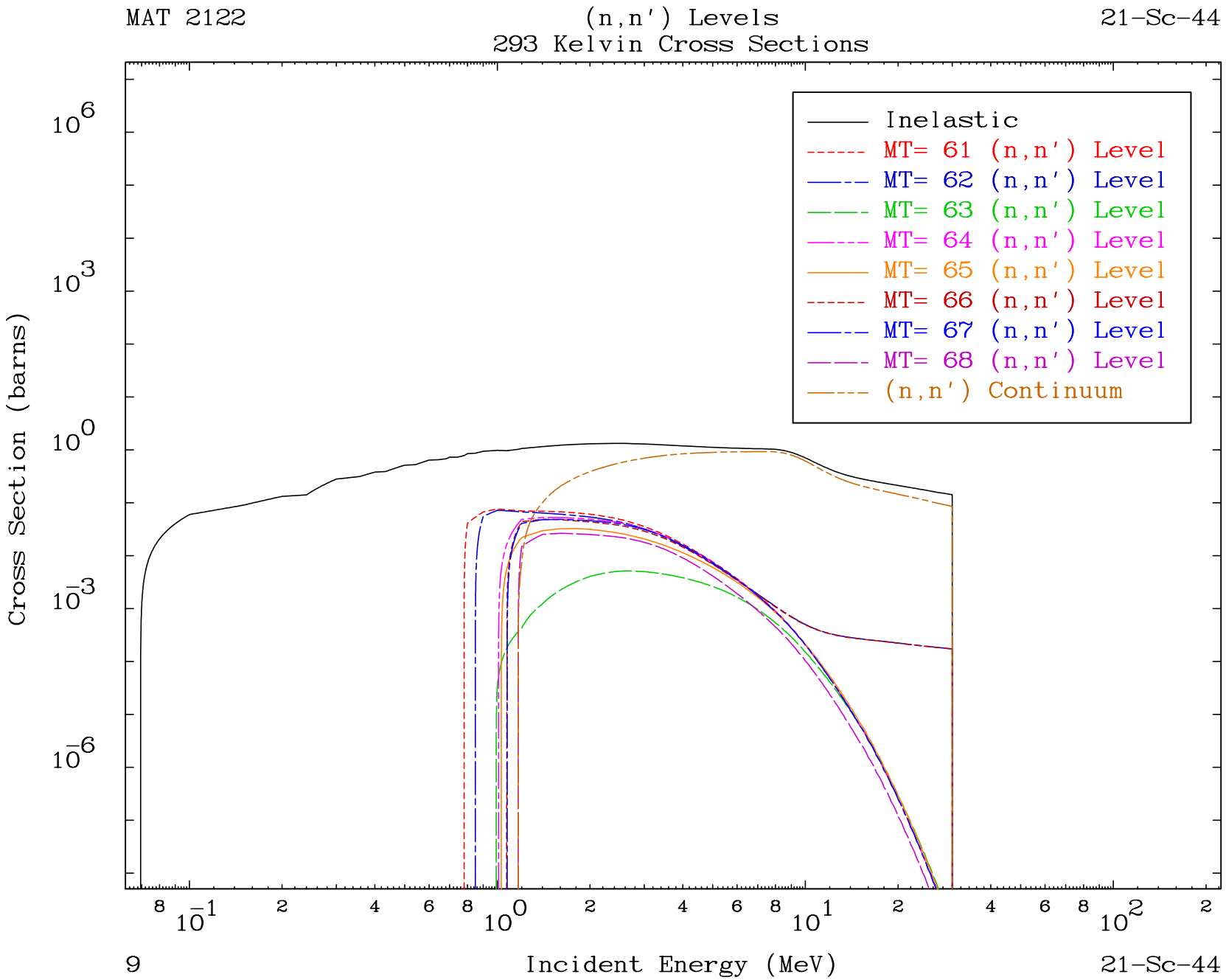

MAT 2122
Neutron Absorption
293 Kelvin Cross Sections
21-Sc-44
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
Cross Section (barns)
Incident Energy (MeV)
4
21-Sc-44

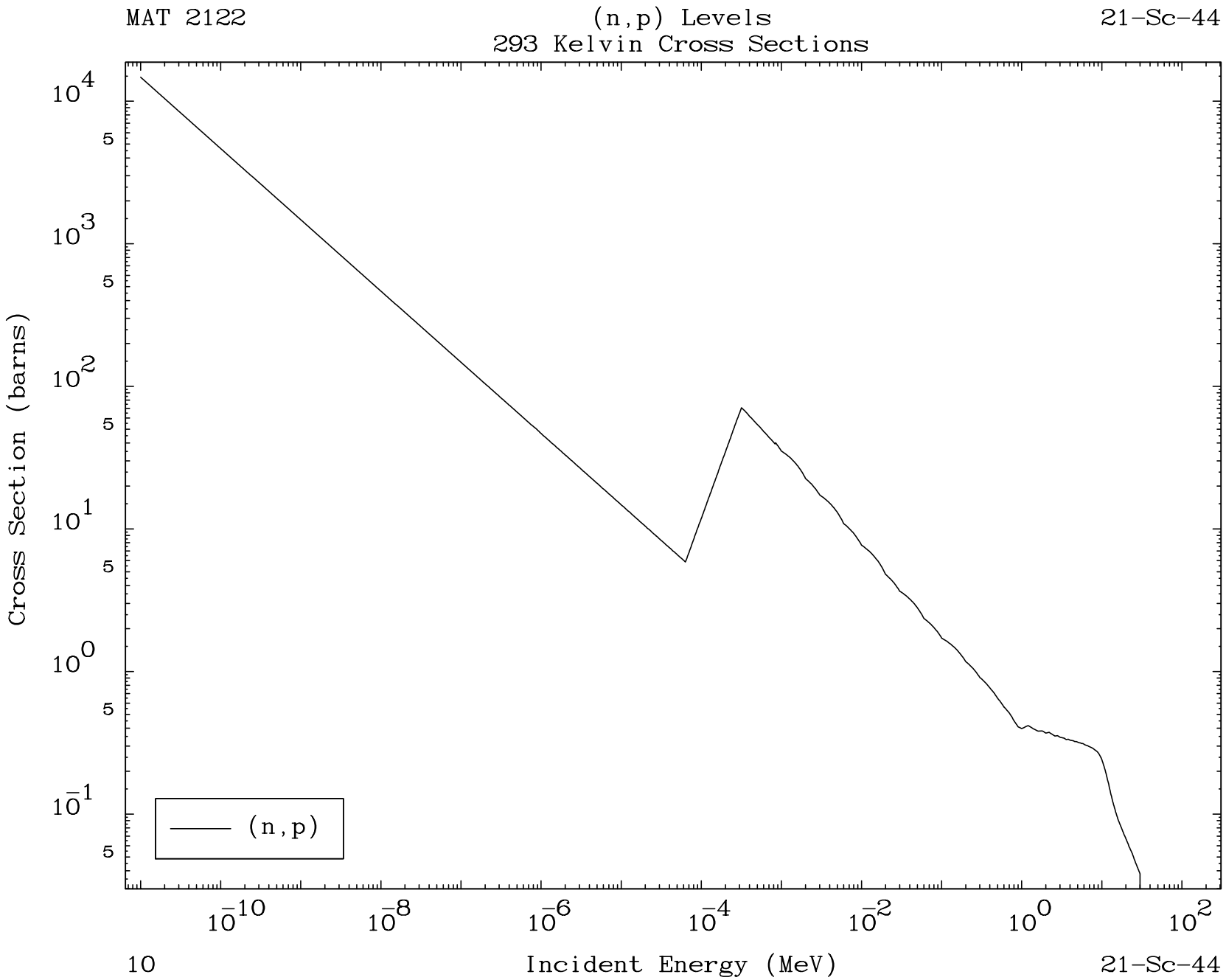

MAT 2122
Charged Particle
21-Sc-44
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
21-Sc-44
5
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,p)
(n,d)

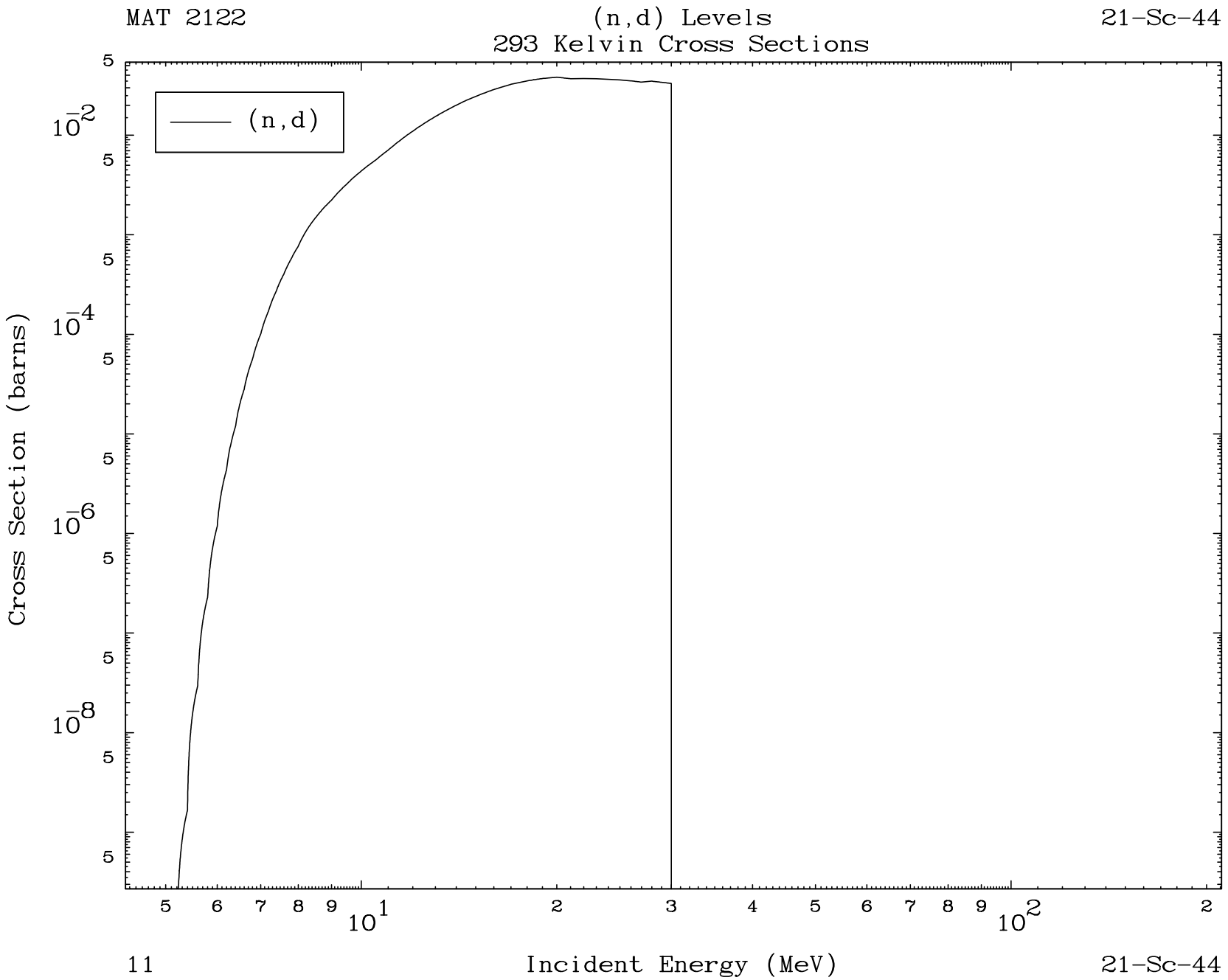

MAT 2122
Charged Particle
21-Sc-44
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,3α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α
6
21-Sc-44

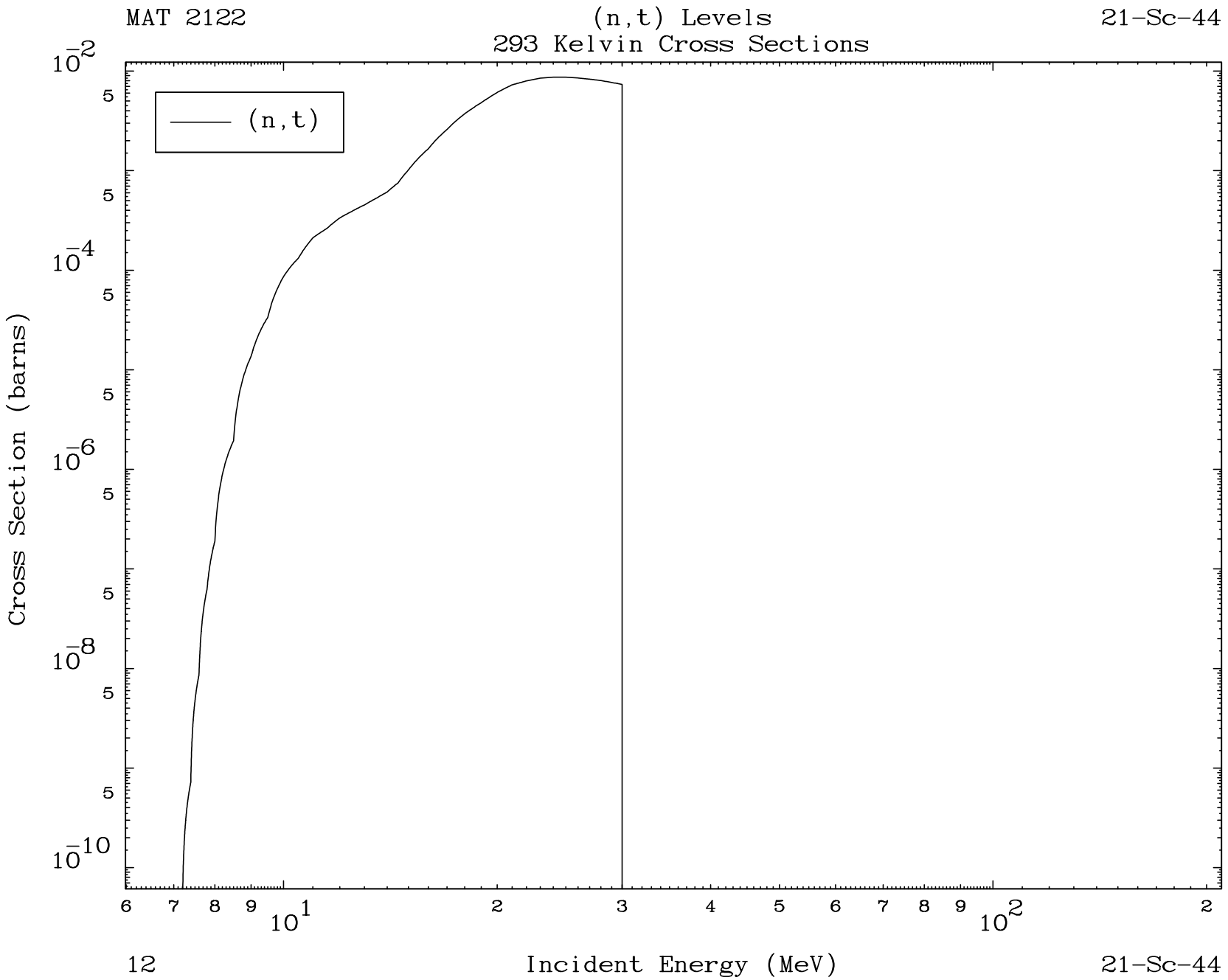

MAT 2122
Particle Production
293 Kelvin Cross Sections
21-Sc-44
Cross Section (barns)
10^4
5
10^2
5
10^0
5
10^-2
5
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
7
21-Sc-44

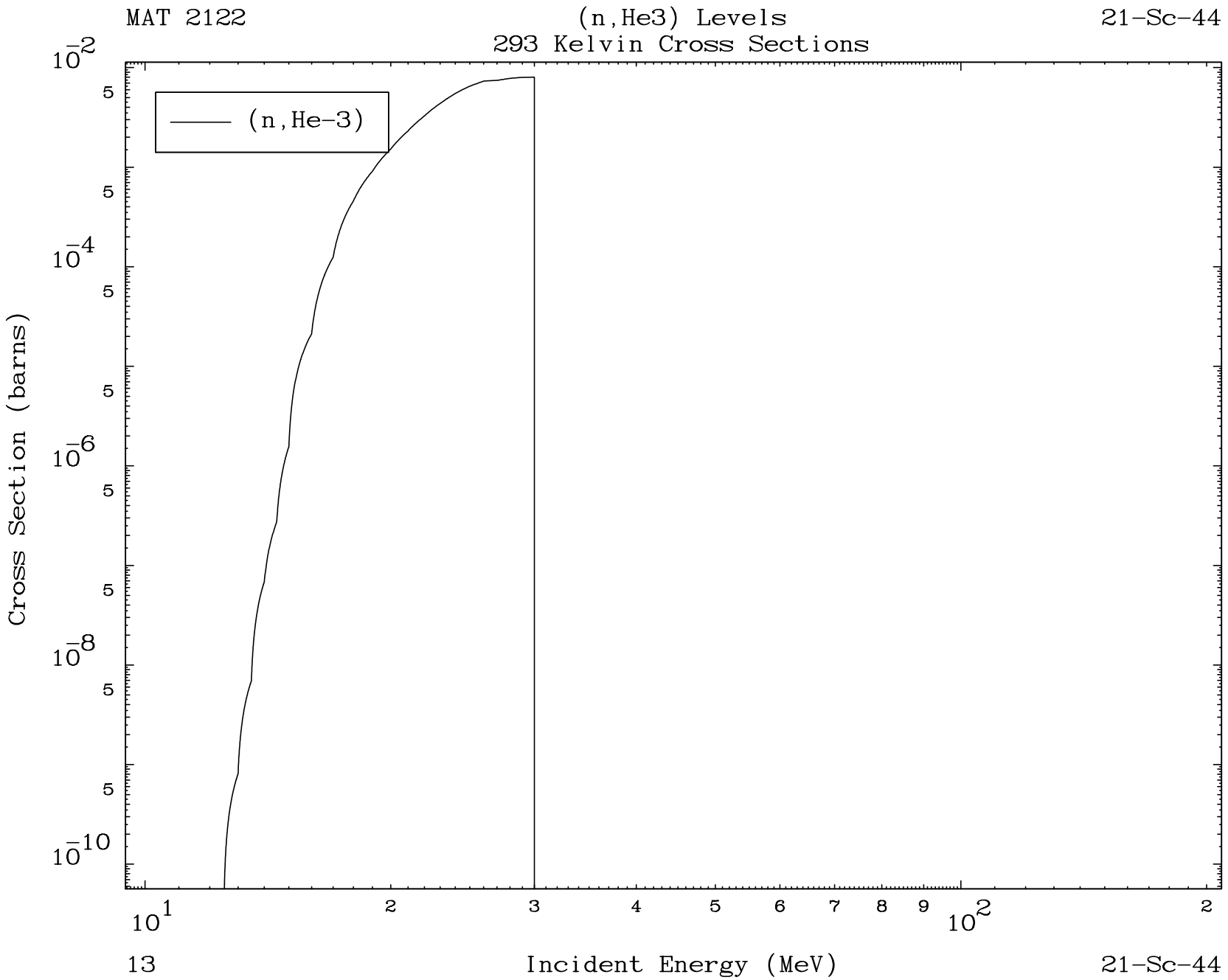

MAT 2122
(n,n') Levels
293 Kelvin Cross Sections
21-Sc-44
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
MT= 59 (n,n') Level
MT= 60 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
8
21-Sc-44

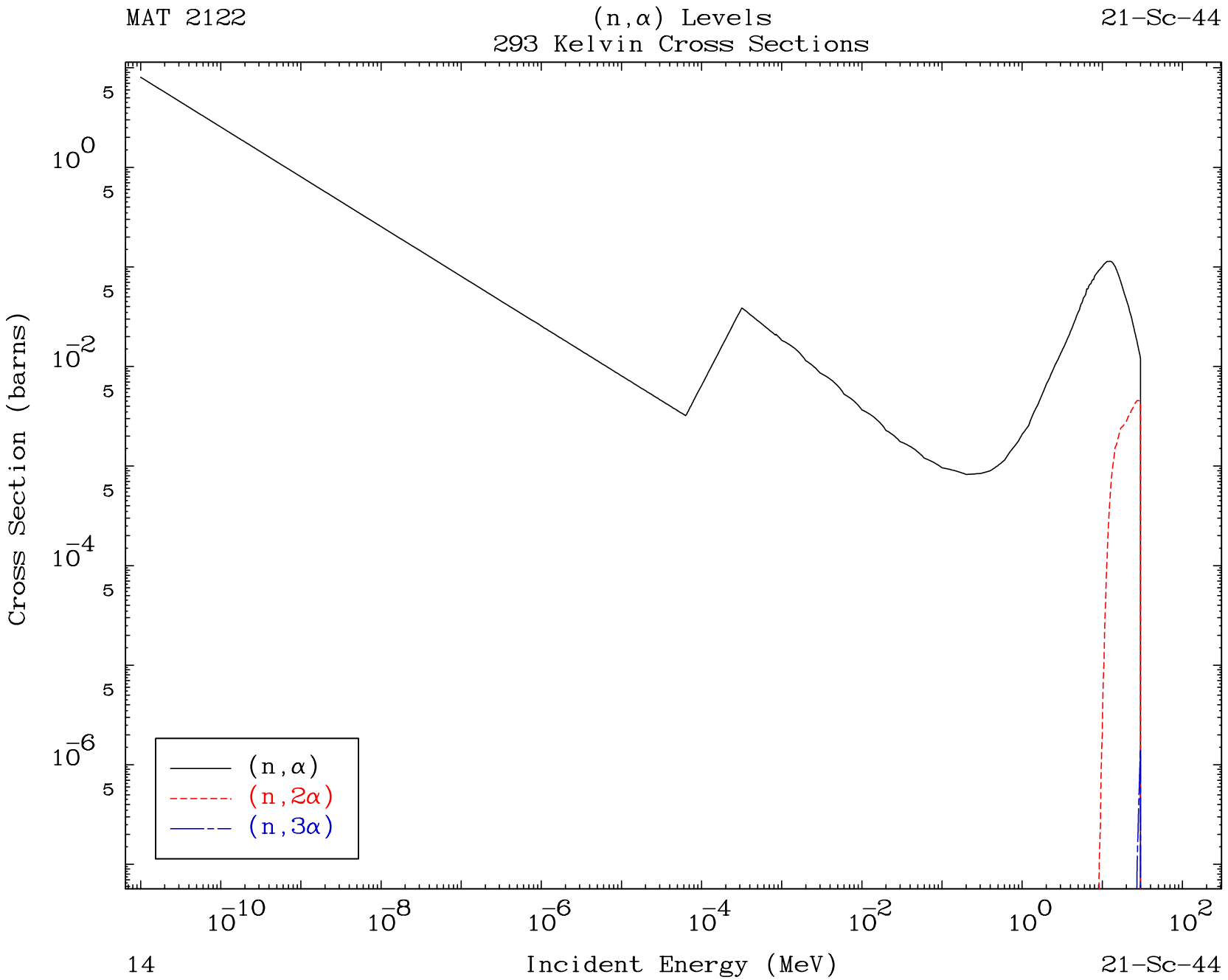

MAT 2122
(n,n') Levels
293 Kelvin Cross Sections
21-Sc-44
Inelastic
MT= 61 (n,n') Level
MT= 62 (n,n') Level
MT= 63 (n,n') Level
MT= 64 (n,n') Level
MT= 65 (n,n') Level
MT= 66 (n,n') Level
MT= 67 (n,n') Level
MT= 68 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
9
21-Sc-44

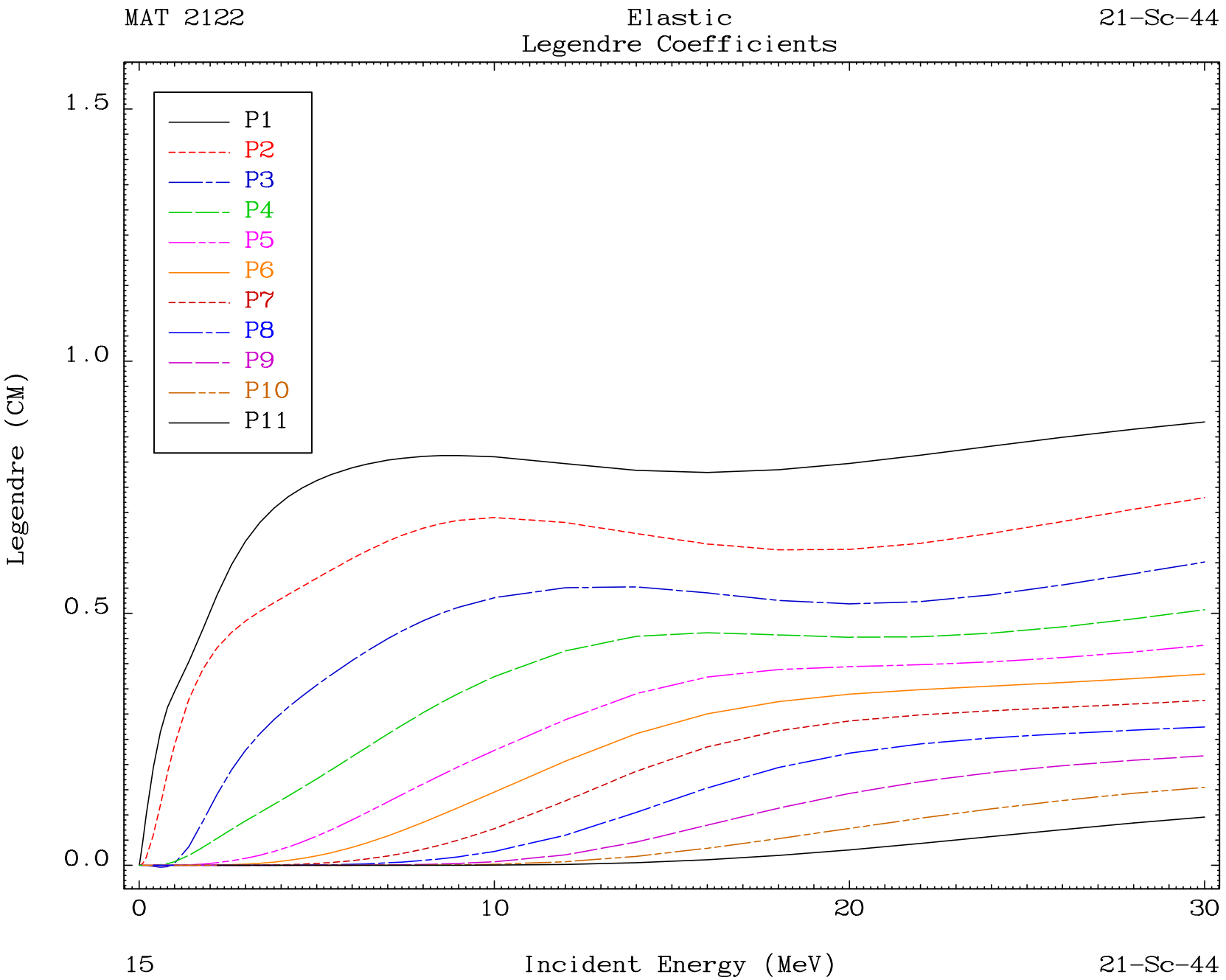

MAT 2122
(n,p) Levels
21-Sc-44
293 Kelvin Cross Sections
Cross Section (barns)
10^4
10^3
10^2
10^1
10^0
10^-1
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
10
Incident Energy (MeV)
21-Sc-44

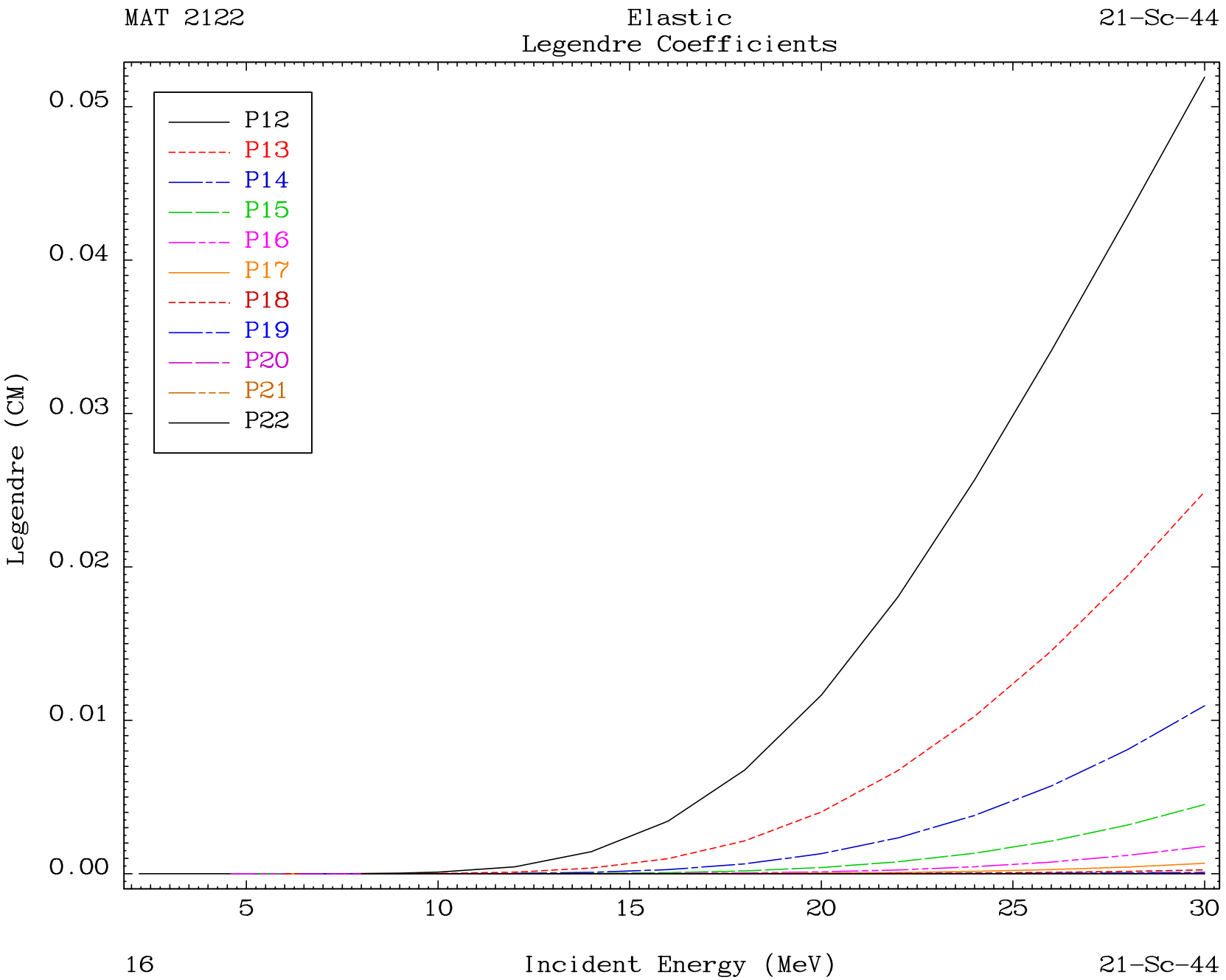

MAT 2122
(n,d) Levels
21-Sc-44
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
11
21-Sc-44

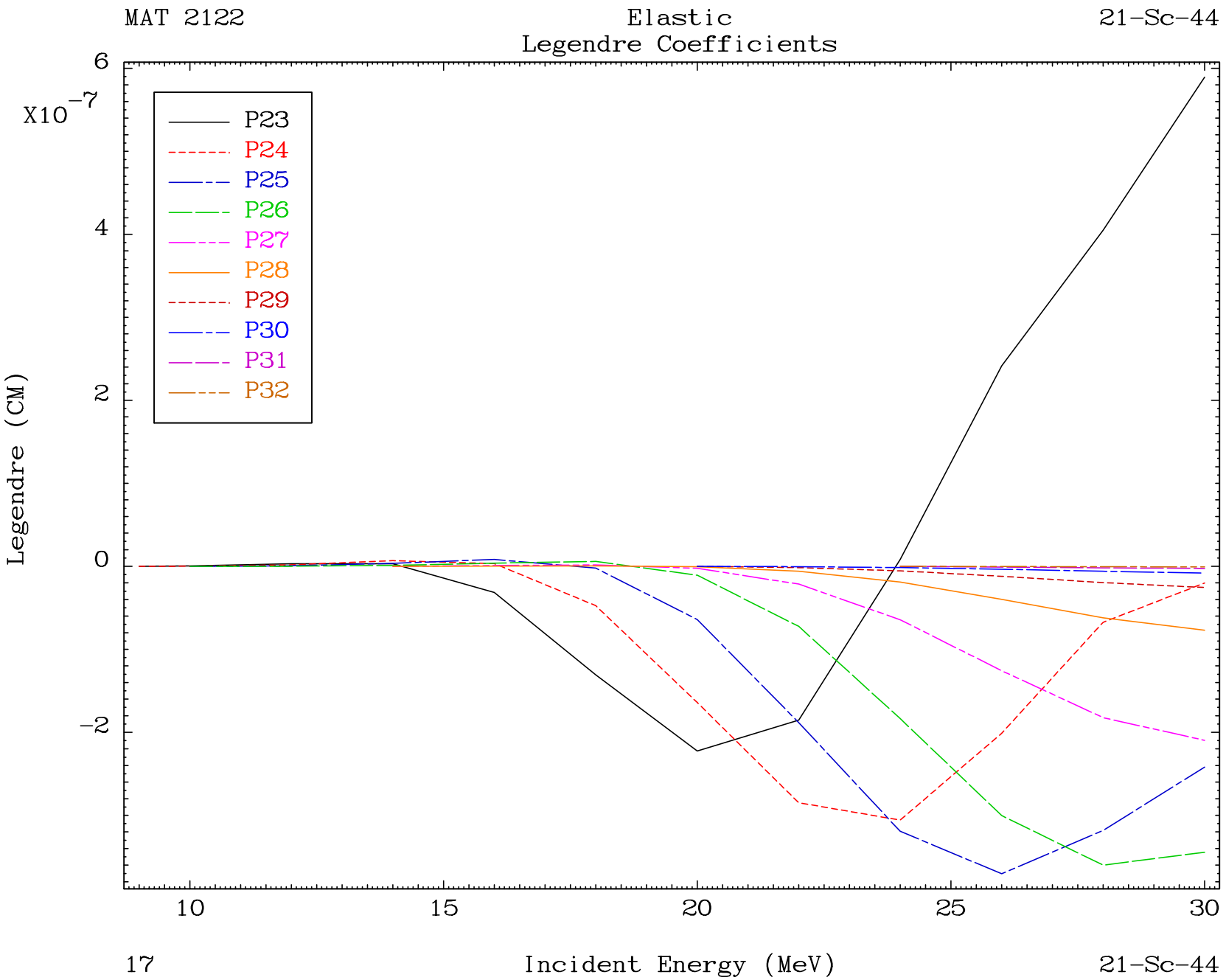

MAT 2122
(n,t) Levels
21-Sc-44
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
12
21-Sc-44

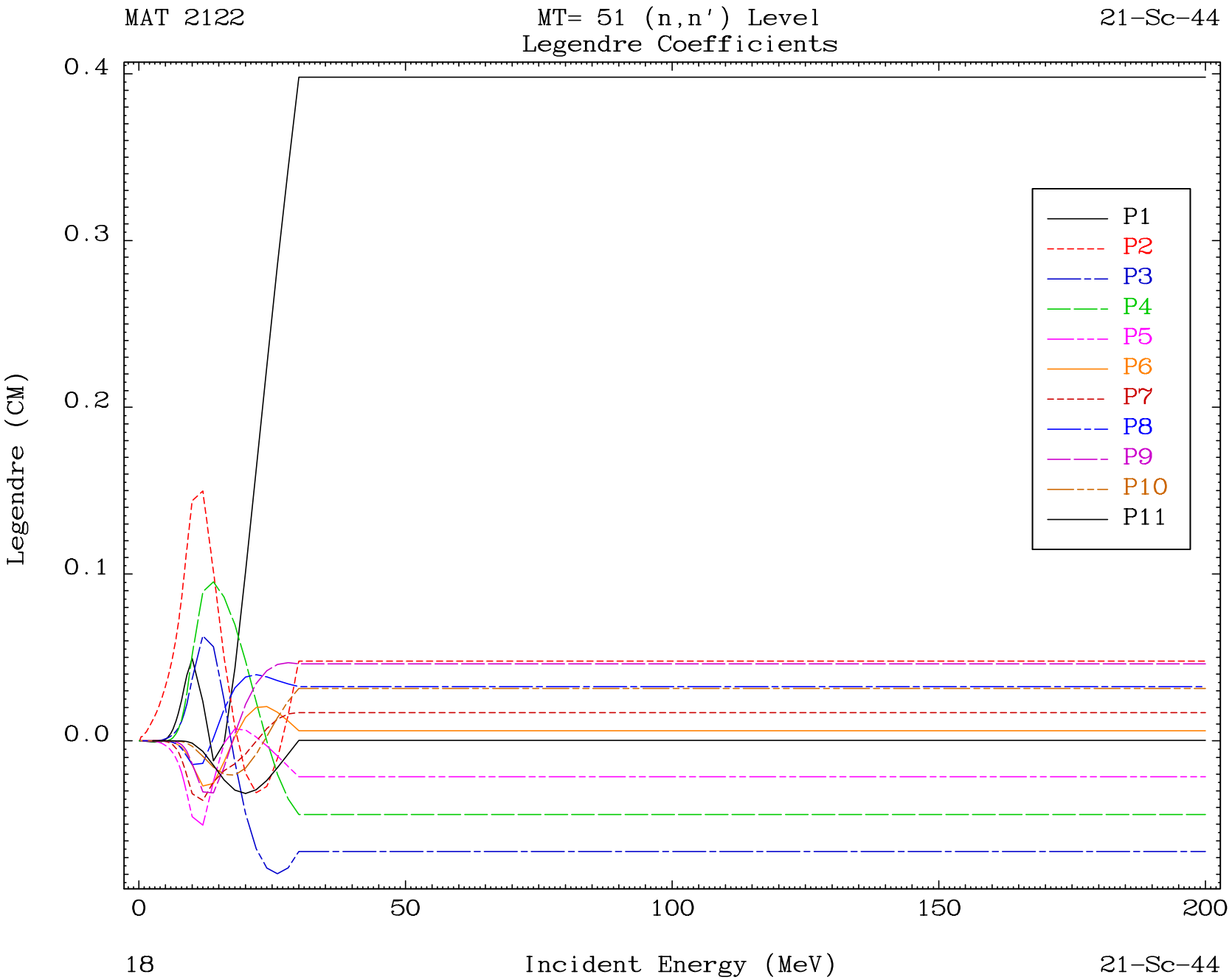

MAT 2122
(n,He3) Levels
21-Sc-44
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-2
5
10-4
5
10-6
5
10-8
5
10-10
5
10 1
2
3
4
5
6
7
8
9
10 2
2
Incident Energy (MeV)
13
21-Sc-44

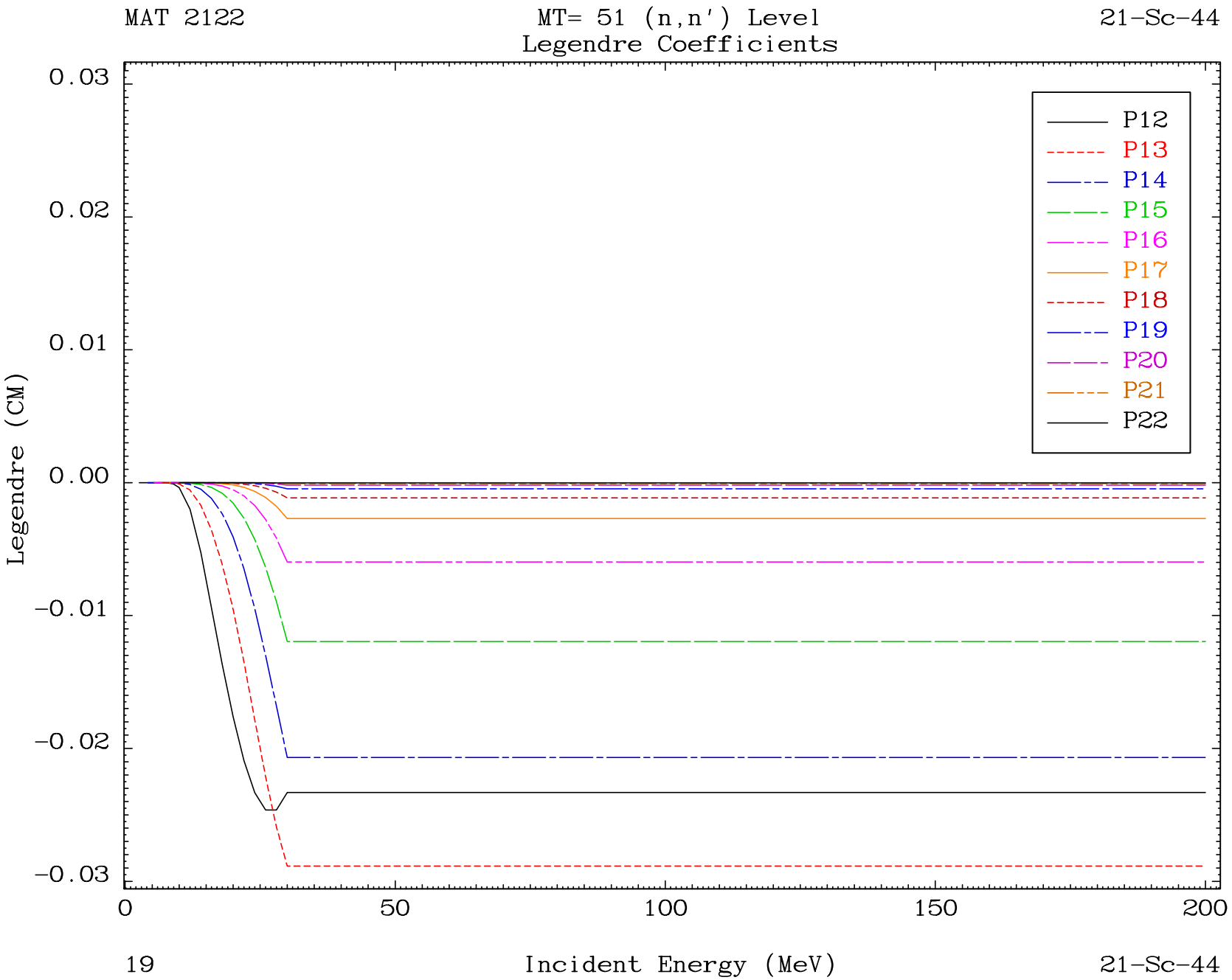

MAT 2122
(n,α) Levels
21-Sc-44
293 Kelvin Cross Sections
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
(n,α)
(n,2α)
(n,3α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
14
21-Sc-44

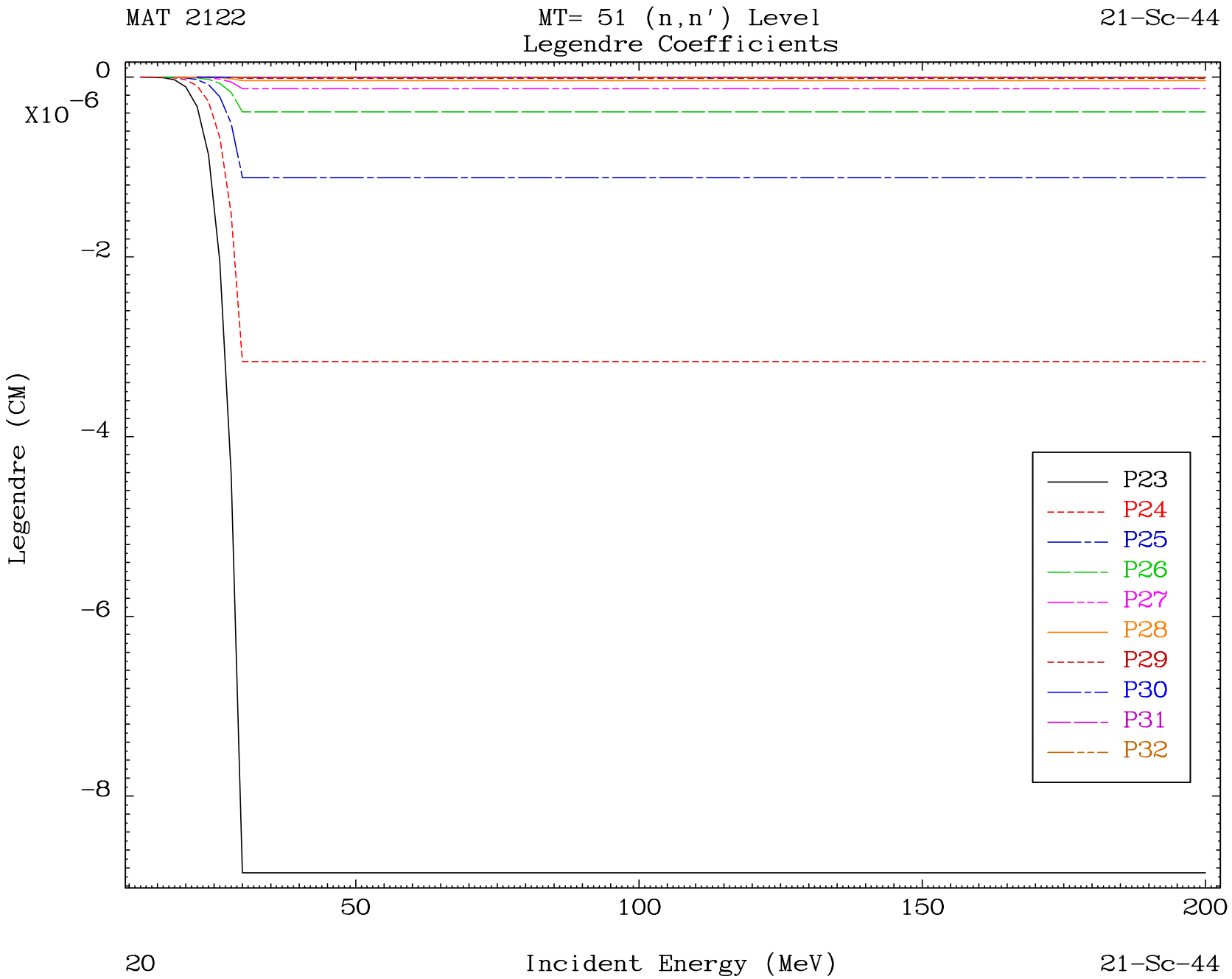

MAT 2122
Elastic
Legendre Coefficients
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
Legendre (CM)
1.5
1.0
0.5
0.0
0
10
20
30
15
Incident Energy (MeV)
21-Sc-44

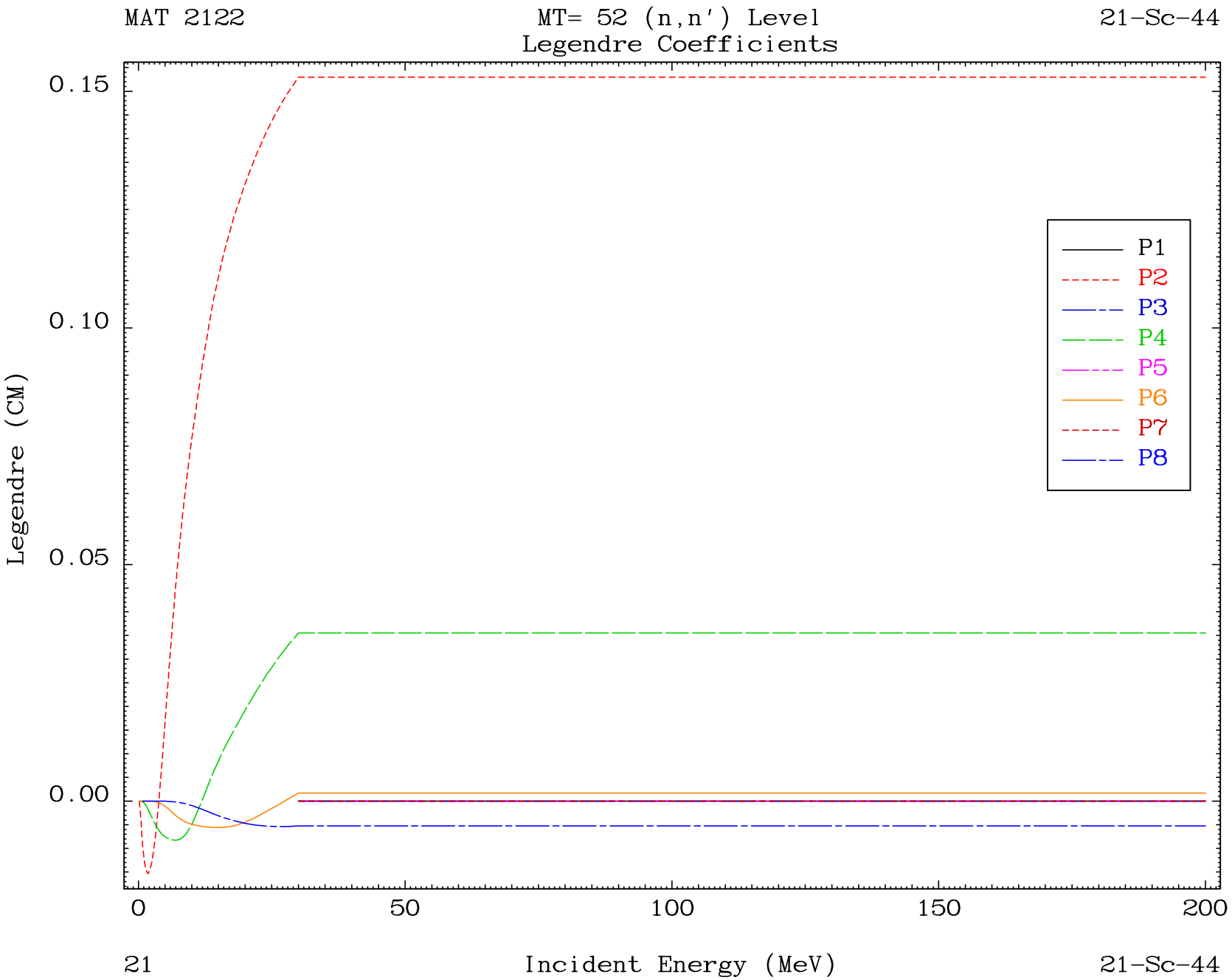

MAT 2122
Elastic
Legendre Coefficients
21-Sc-44
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
0.05
0.04
0.03
0.02
0.01
0.00
Legendre (CM)
5
10
15
20
25
30
16
Incident Energy (MeV)
21-Sc-44

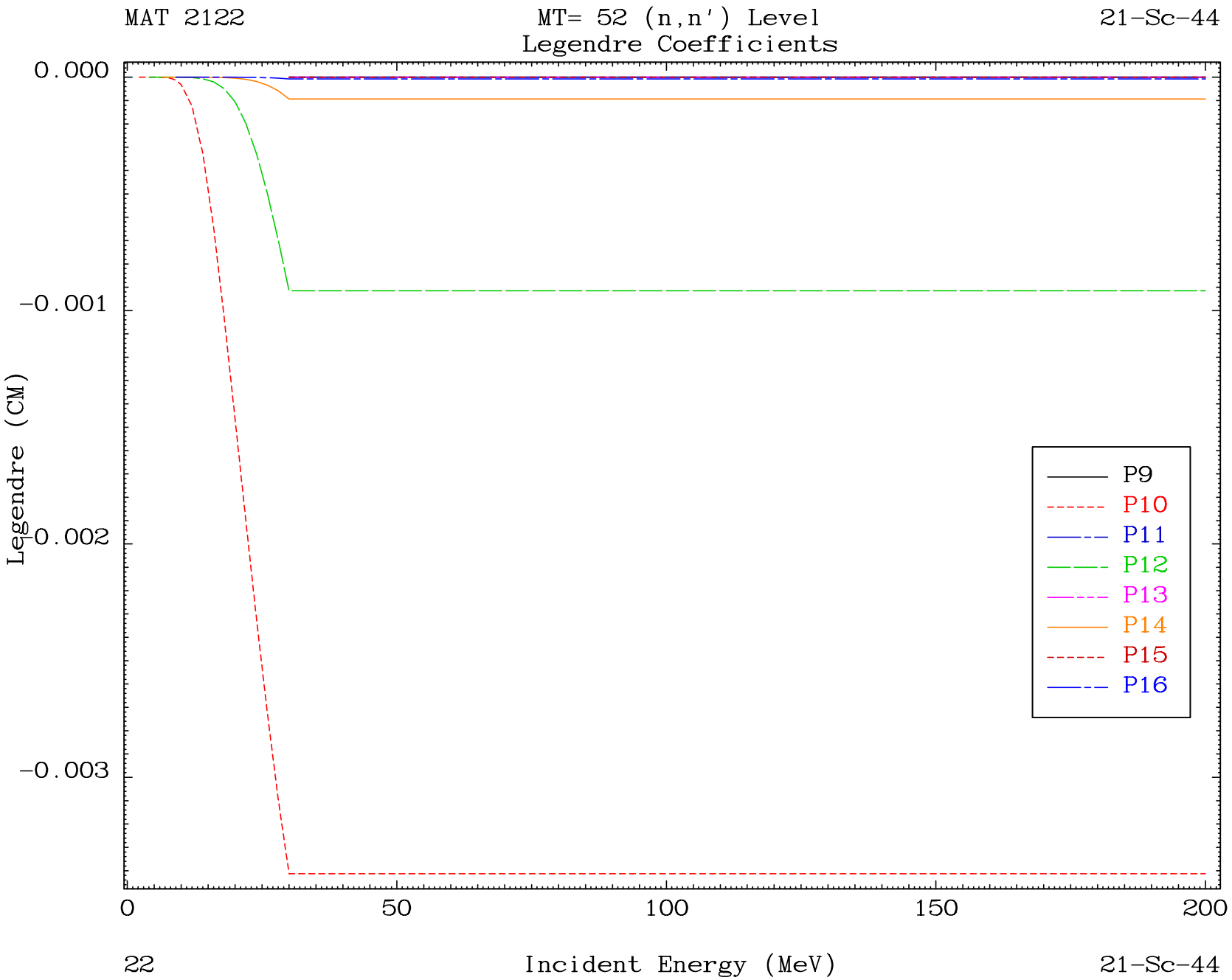

MAT 2122
Elastic
Legendre Coefficients
21-Sc-44
X10^-7
6
4
2
0
-2
Legendre (CM)
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32
10
15
20
25
30
17
Incident Energy (MeV)
21-Sc-44

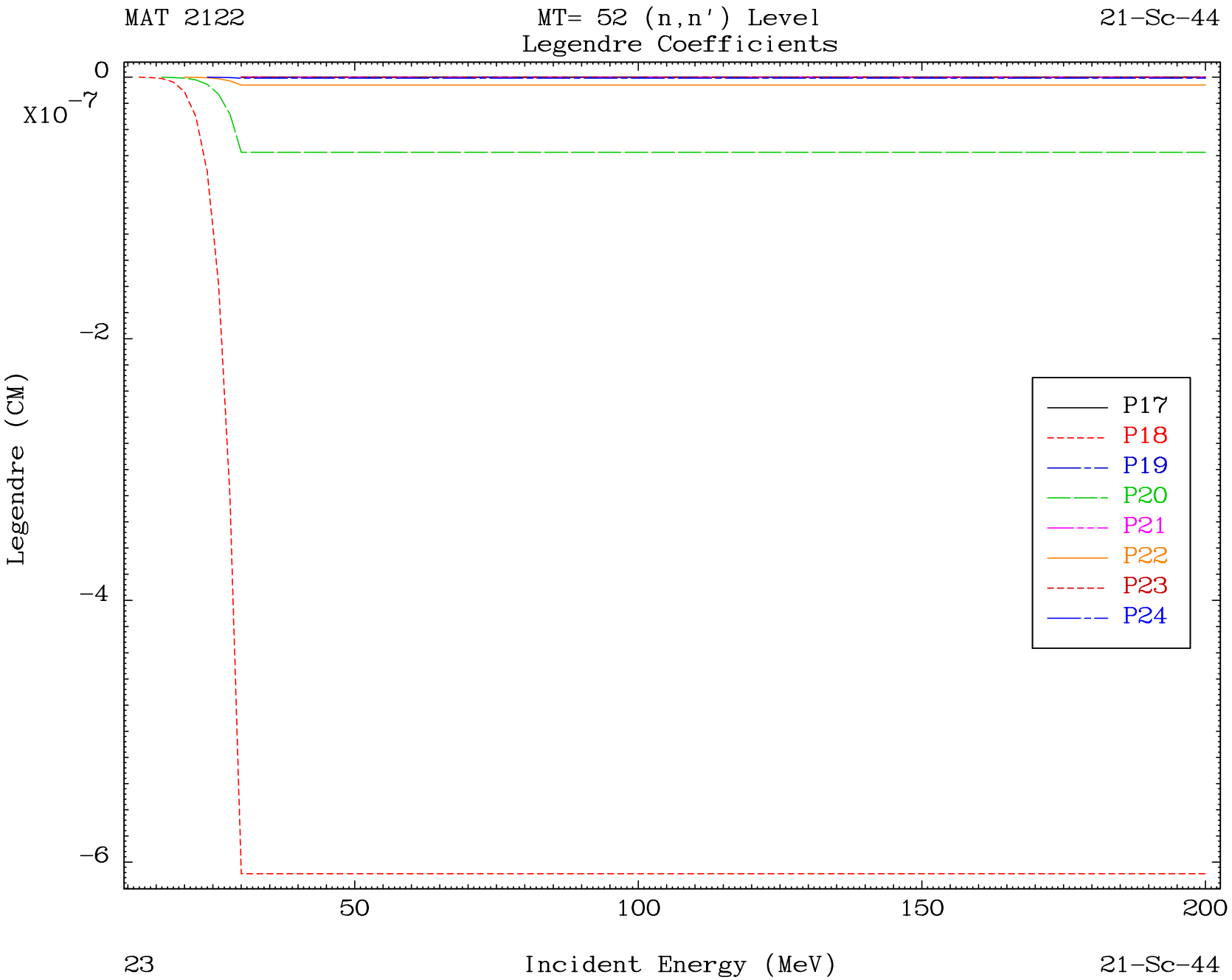

MAT 2122
MT= 51 (n,n') Level
Legendre Coefficients
21-Sc-44
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
0
50
100
150
200
18
Incident Energy (MeV)
21-Sc-44

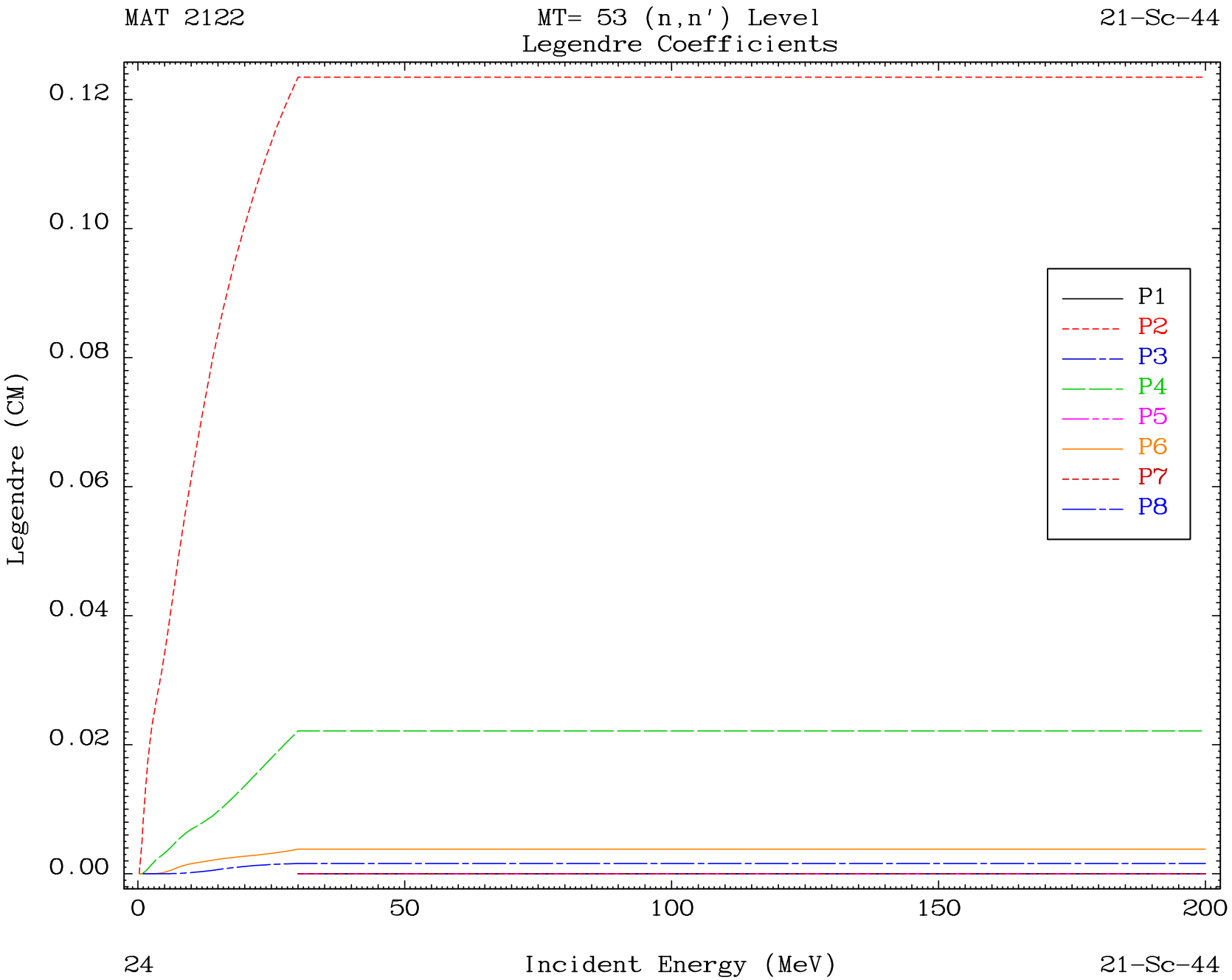

MAT 2122
MT= 51 (n,n') Level
Legendre Coefficients
21-Sc-44
0.03
0.02
0.01
0.00
-0.01
-0.02
-0.03
Legendre (CM)
0
50
100
150
200
Incident Energy (MeV)
19
21-Sc-44
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22

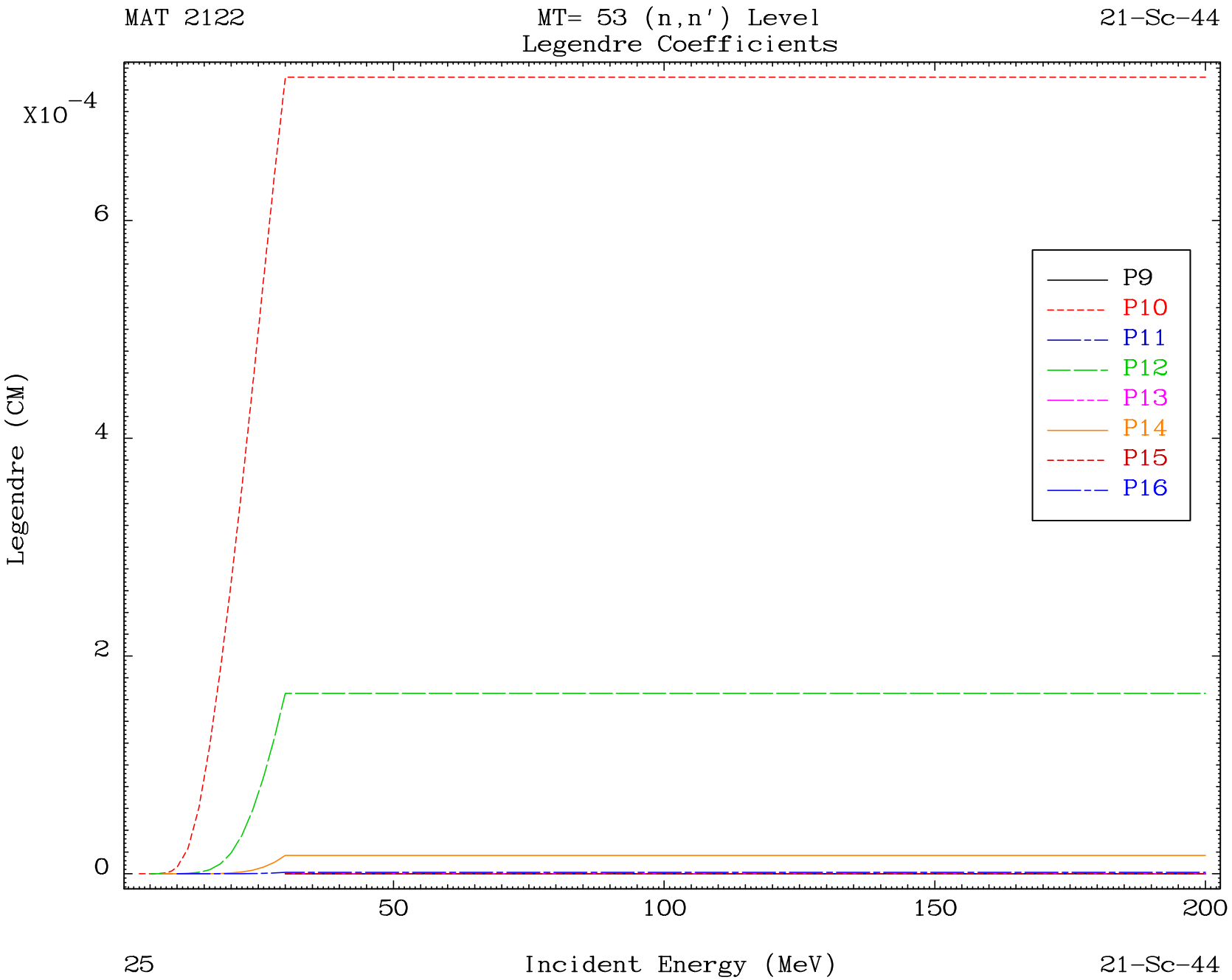

MAT 2122
MT= 51 (n,n') Level
Legendre Coefficients
21-Sc-44
0
X10 −6
−2
−4
−6
−8
Legendre (CM)
50
100
150
200
20
Incident Energy (MeV)
21-Sc-44
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32

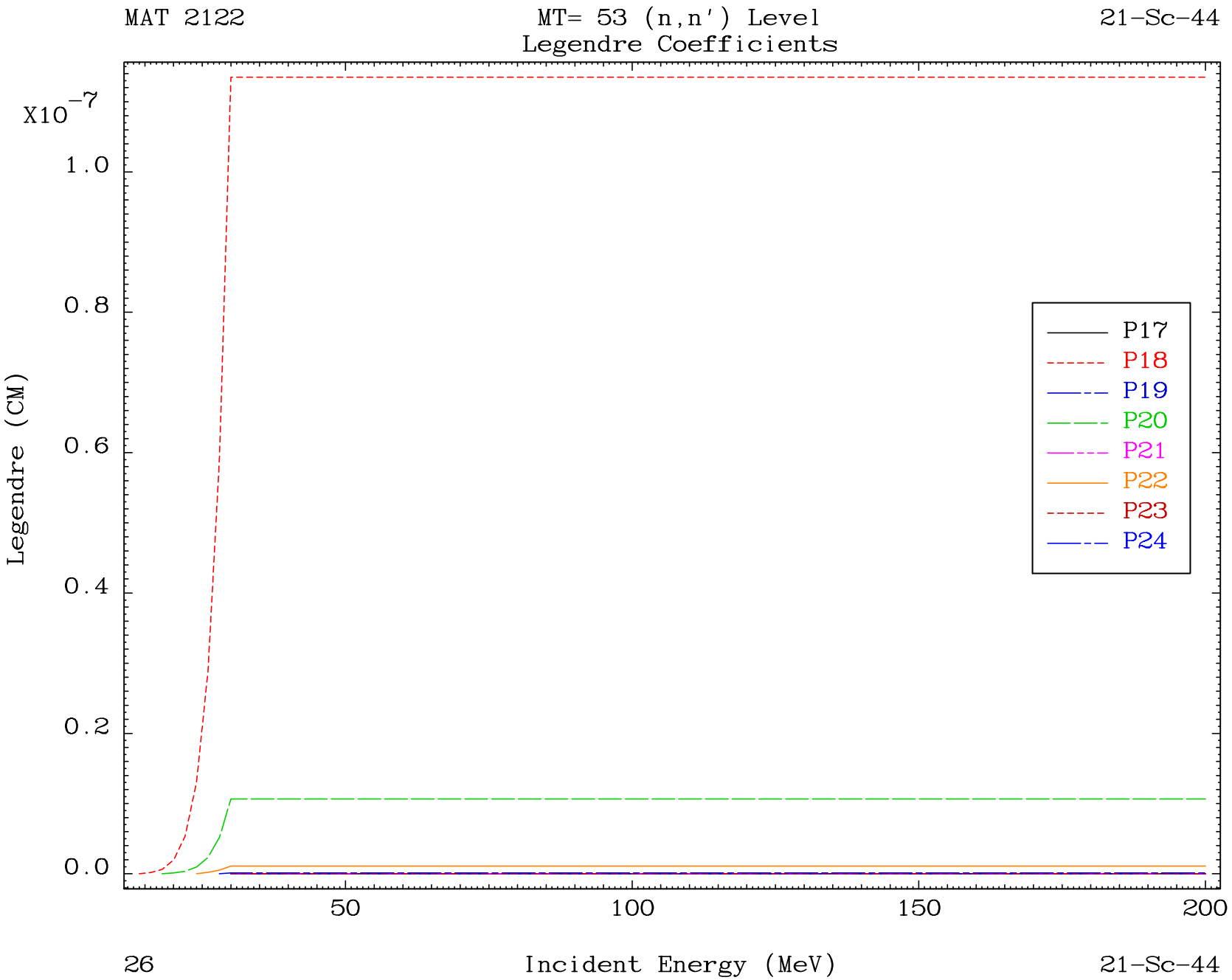

MAT 2122
MT= 52 (n,n') Level
Legendre Coefficients
21-Sc-44
0.15
0.10
0.05
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
0
50
100
150
200
21
Incident Energy (MeV)
21-Sc-44

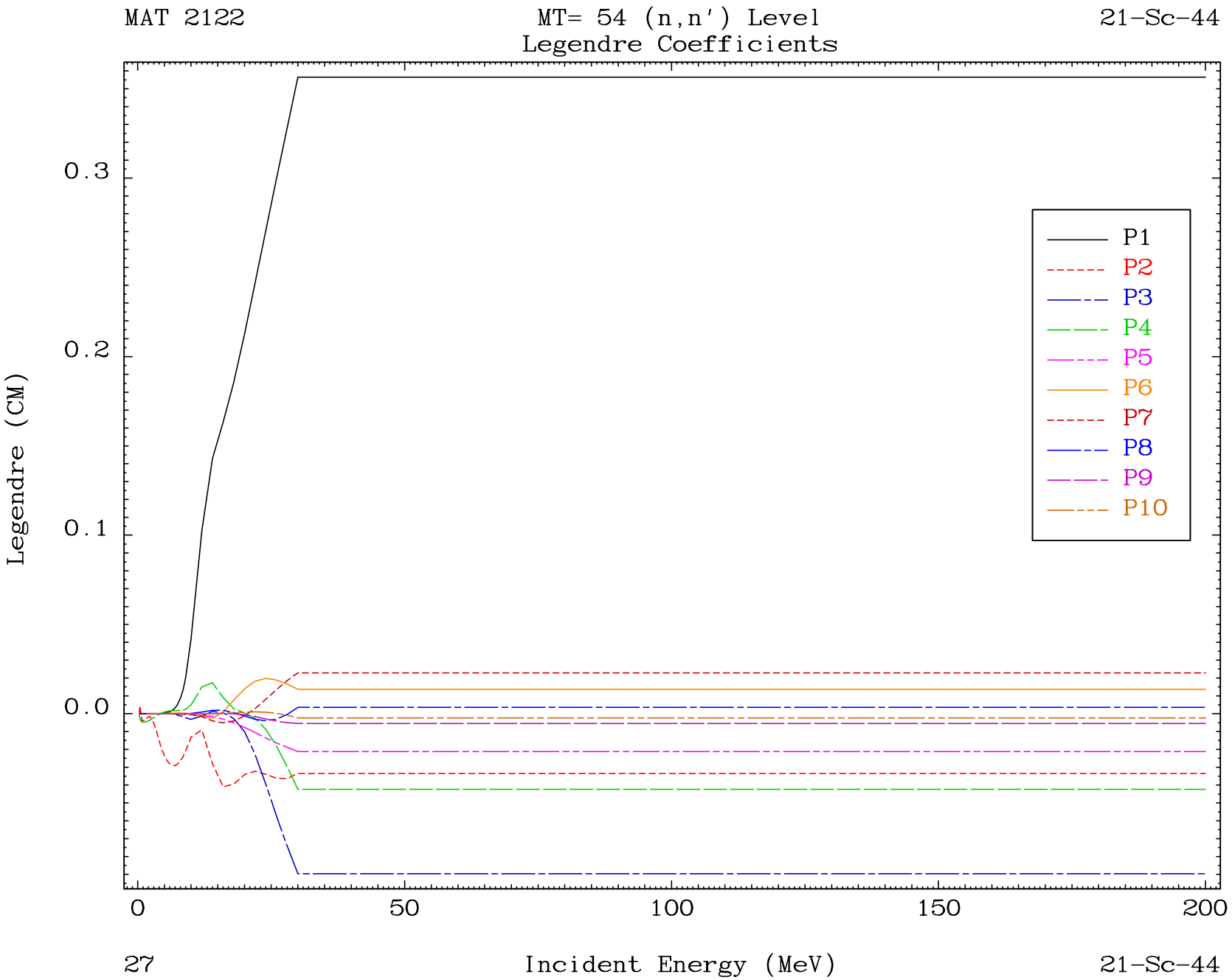

MAT 2122
MT= 52 (n,n') Level
Legendre Coefficients
21-Sc-44
0.000
-0.001
-0.002
-0.003
Legendre (CM)
0
50
100
150
200
Incident Energy (MeV)
22
21-Sc-44
P9
P10
P11
P12
P13
P14
P15
P16

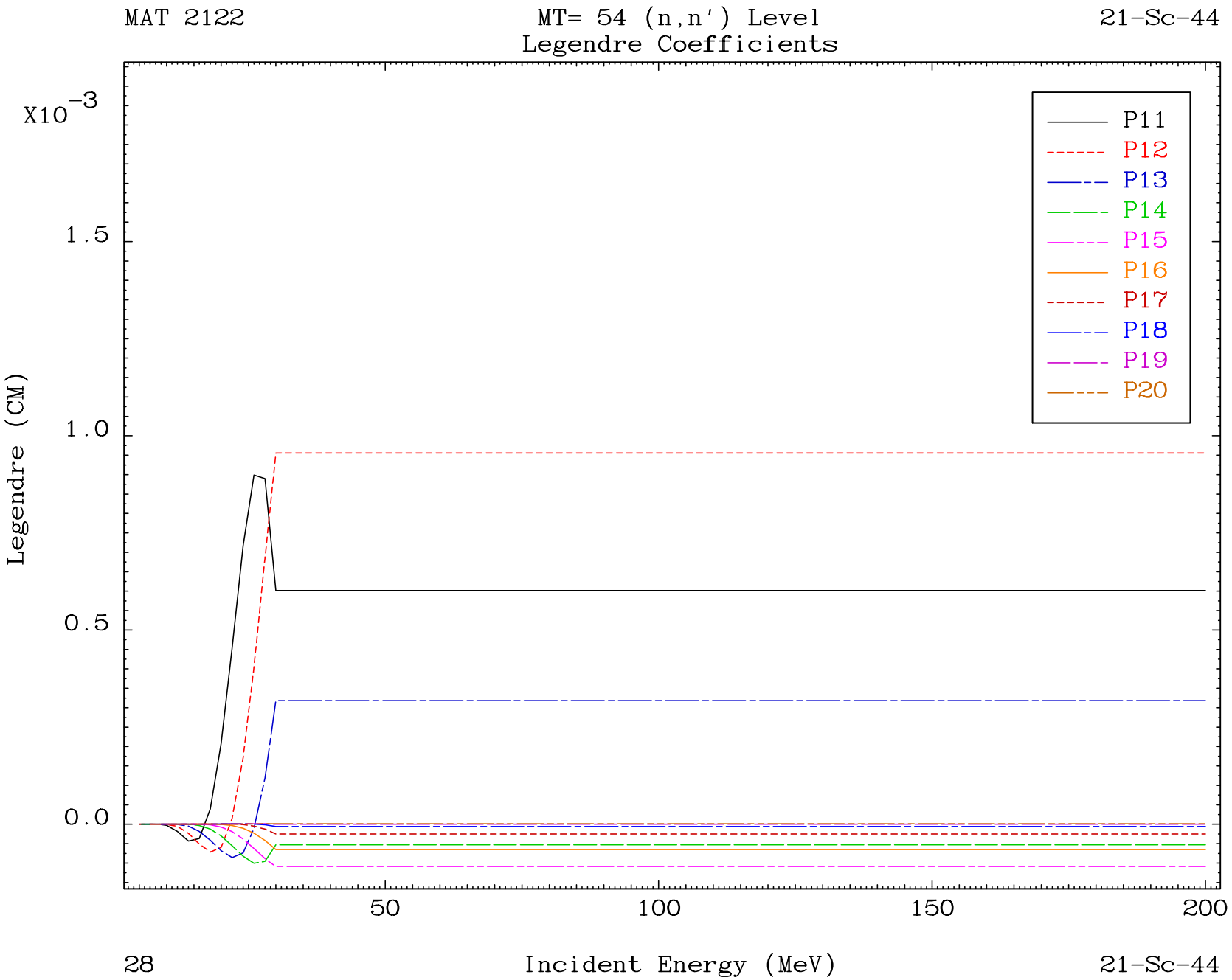

MAT 2122
MT= 52 (n,n') Level
Legendre Coefficients
21-Sc-44
0
X10^-7
-2
-4
-6
Legendre (CM)
50
100
150
200
P17
P18
P19
P20
P21
P22
P23
P24
23
Incident Energy (MeV)
21-Sc-44

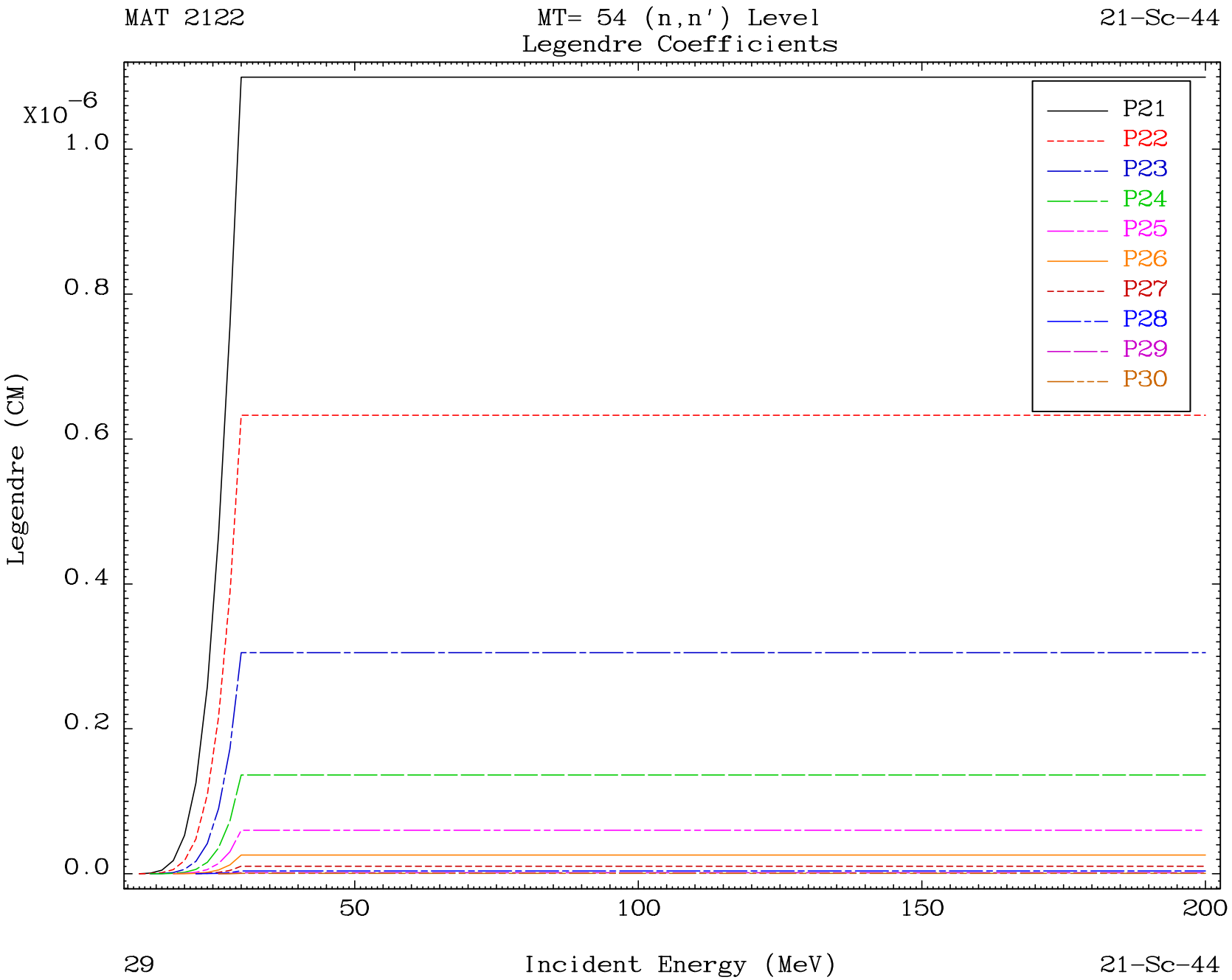

MAT 2122
MT= 53 (n,n') Level
Legendre Coefficients
21-Sc-44
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
0
50
100
150
200
24
Incident Energy (MeV)
21-Sc-44

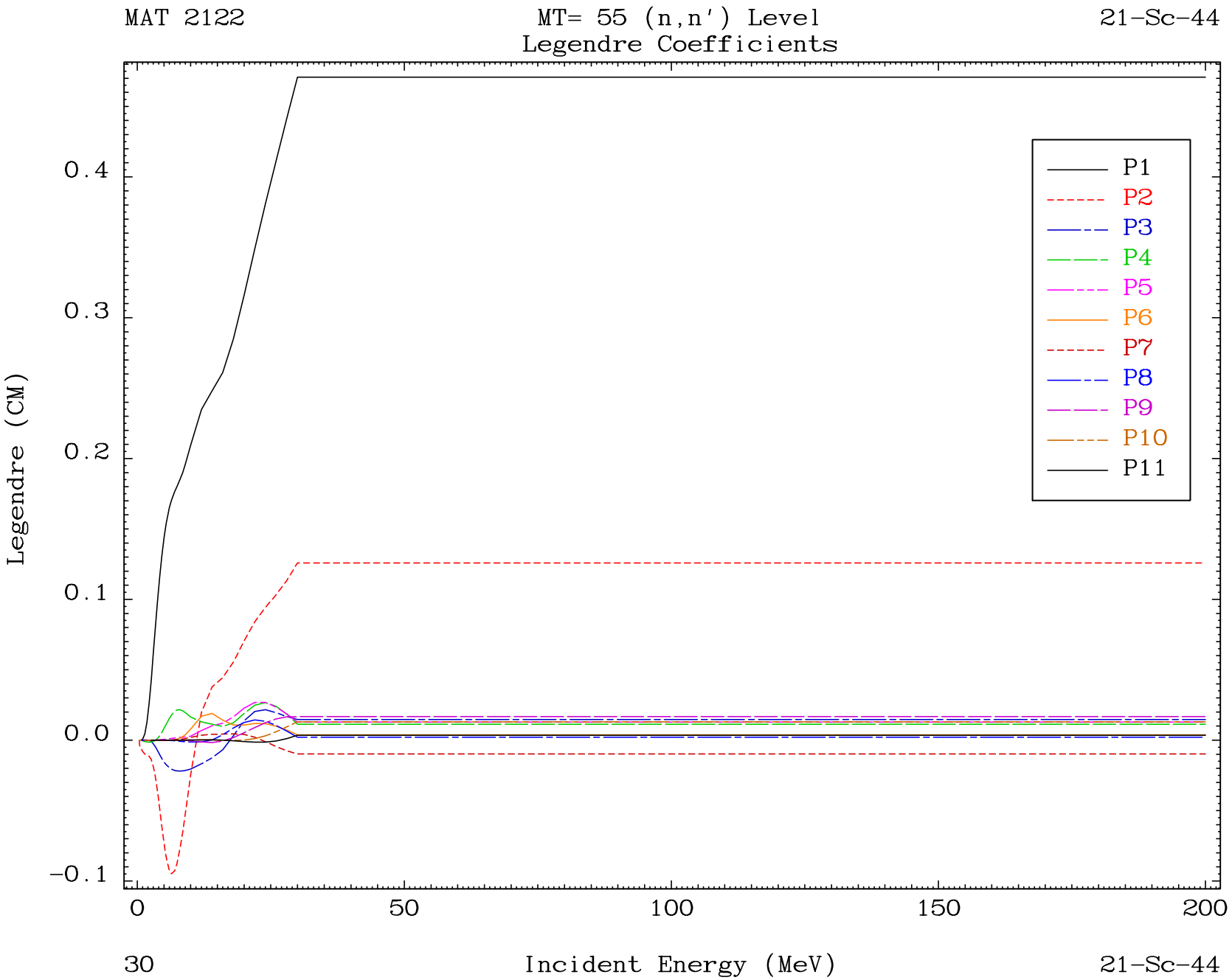

MAT 2122
MT= 53 (n,n') Level
Legendre Coefficients
21-Sc-44
X10^-4
6
4
2
0
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
50
100
150
200
25
Incident Energy (MeV)
21-Sc-44

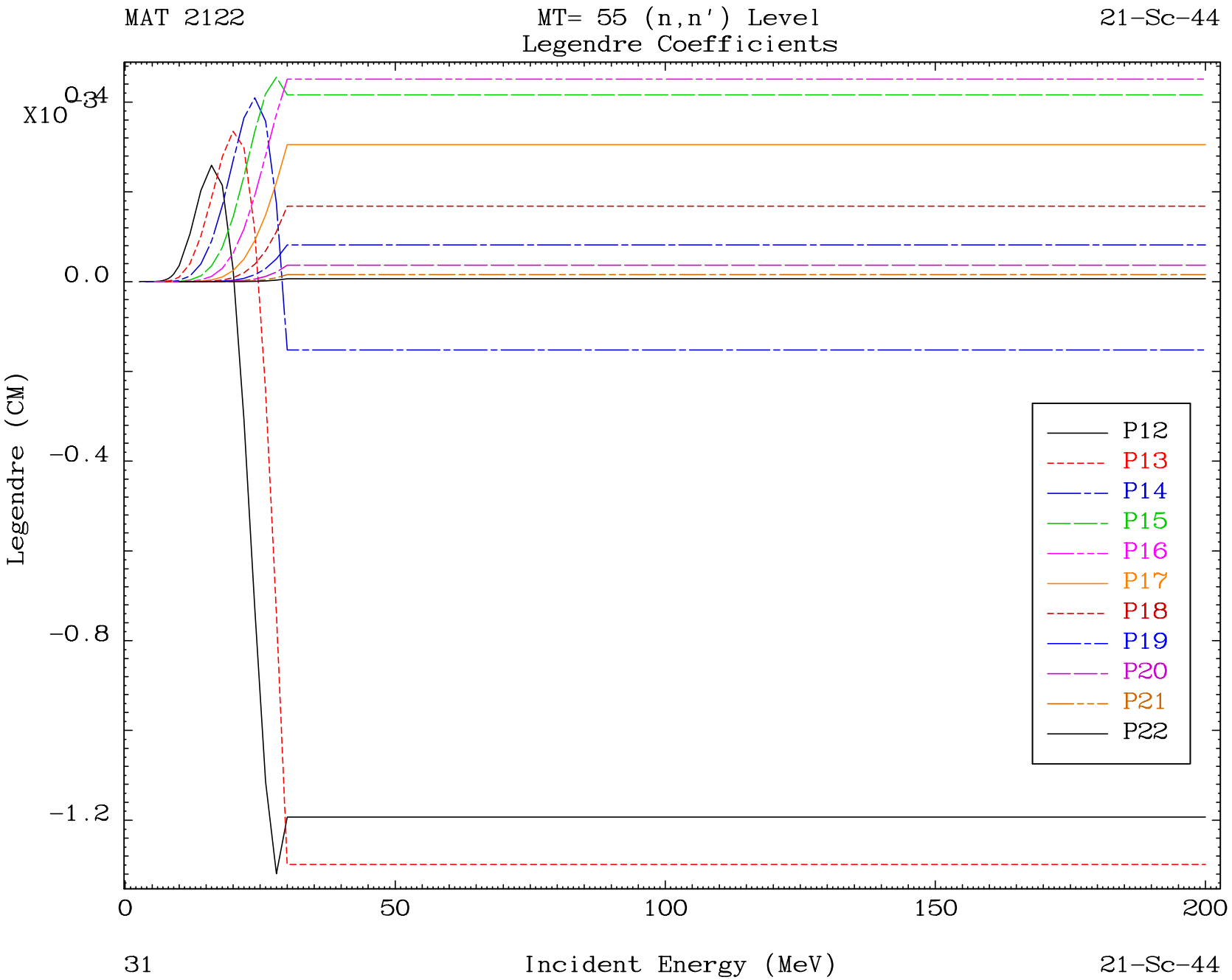

MAT 2122
MT= 53 (n,n') Level
Legendre Coefficients
21-Sc-44
X10-7
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
P17
P18
P19
P20
P21
P22
P23
P24
26
Incident Energy (MeV)
21-Sc-44

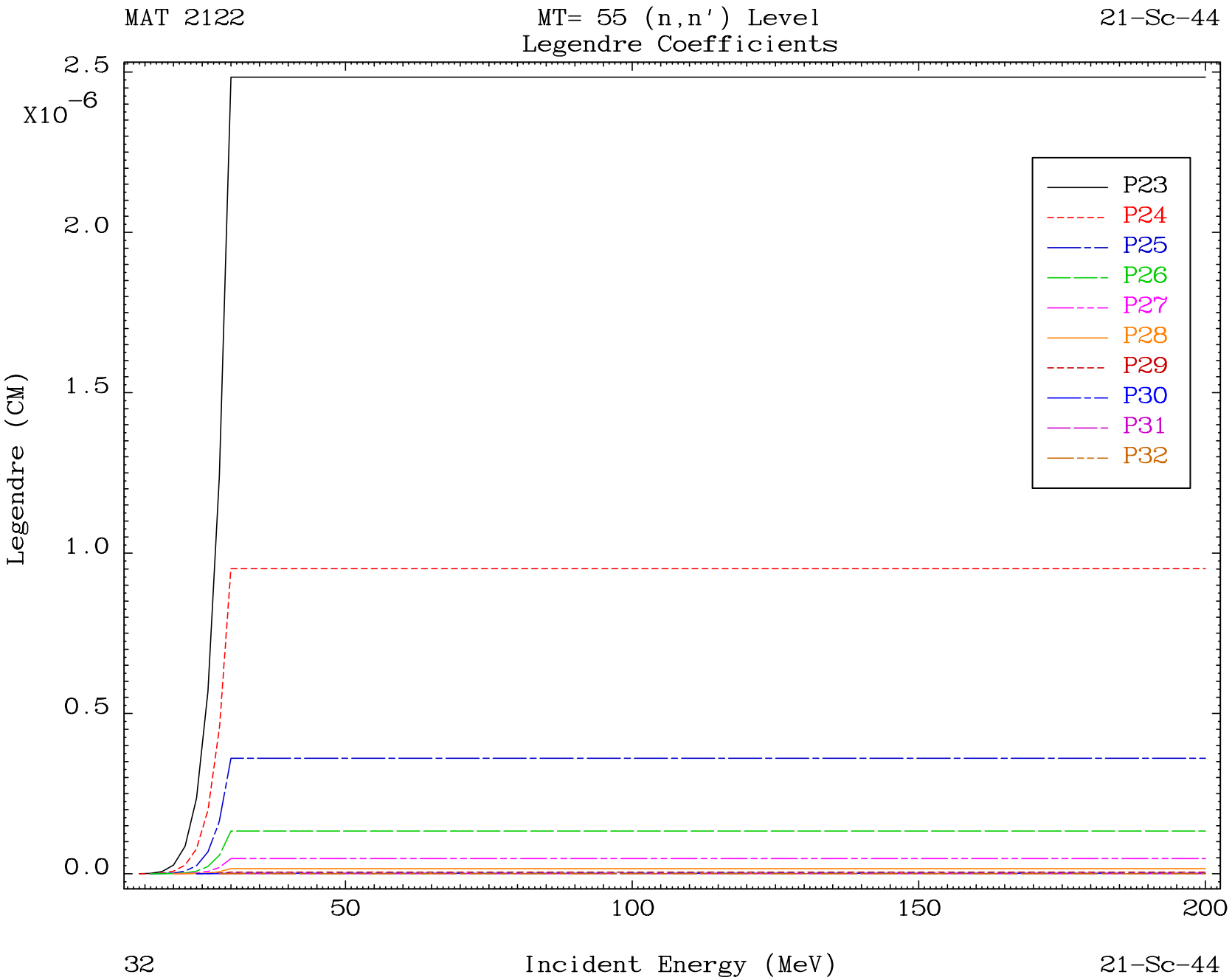

MAT 2122
MT= 54 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
27
Incident Energy (MeV)
21-Sc-44

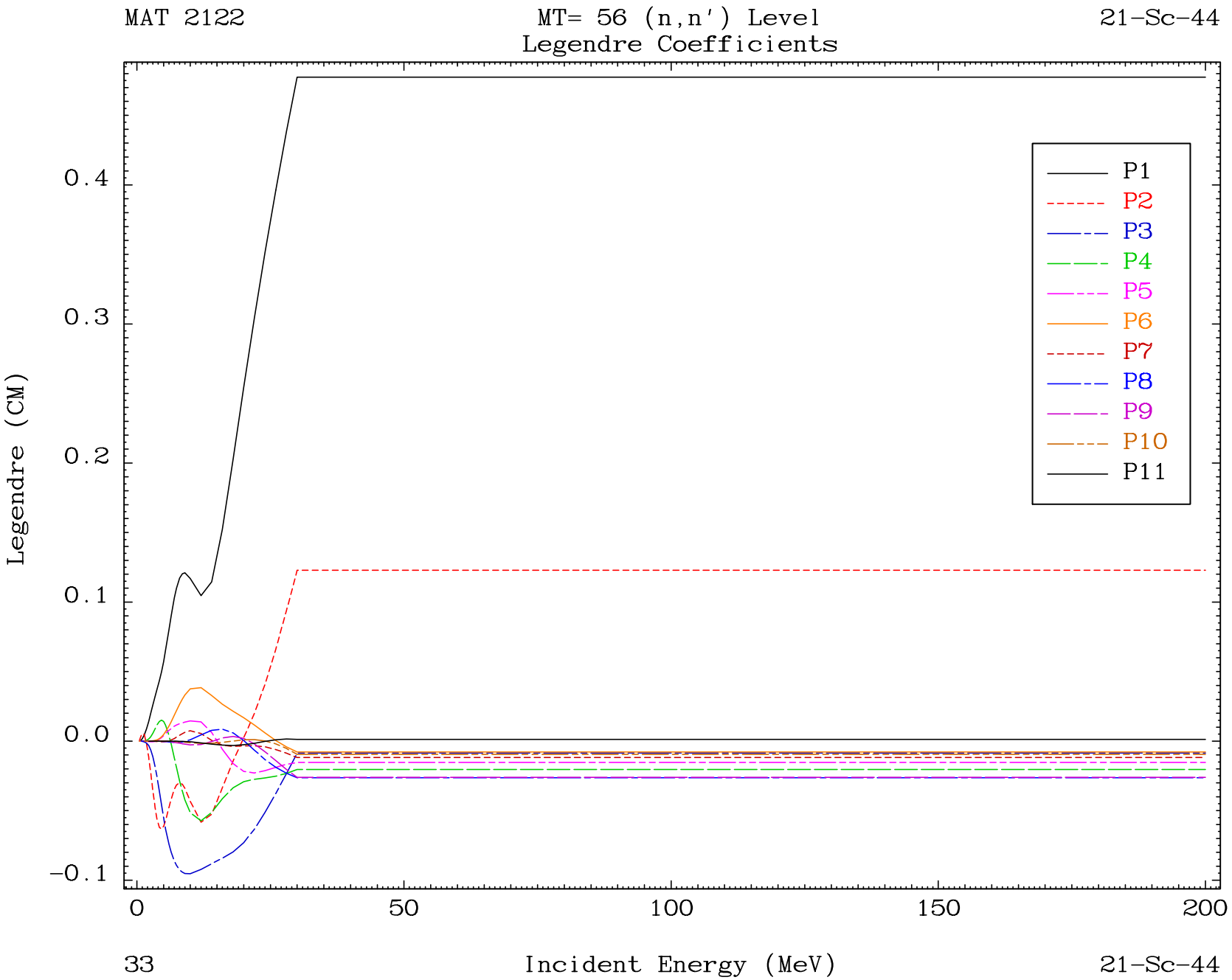

MAT 2122
MT= 54 (n,n') Level
Legendre Coefficients
21-Sc-44
X10-3
1.5
1.0
0.5
0.0
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
50
100
150
200
28
Incident Energy (MeV)
21-Sc-44

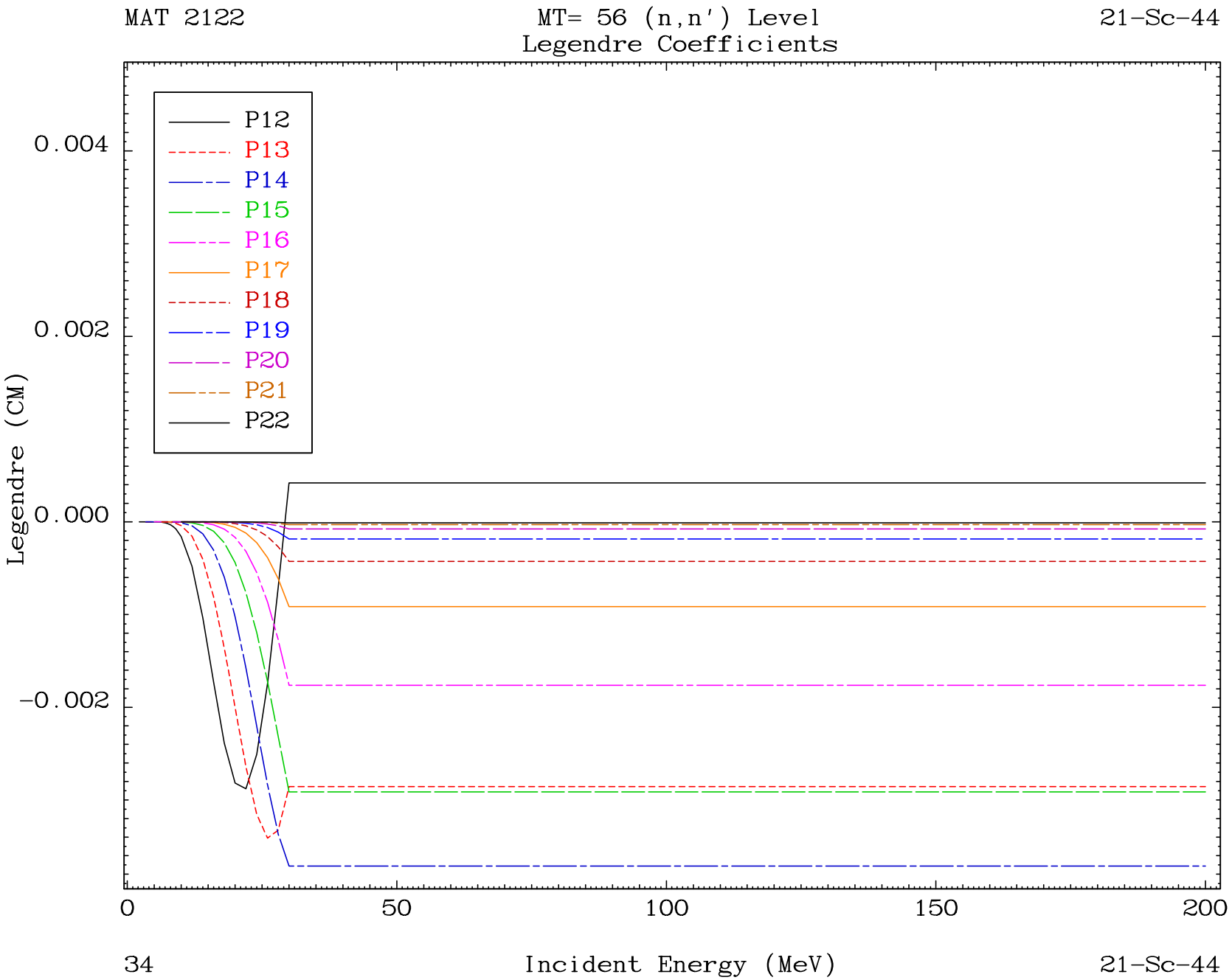

MAT 2122
MT= 54 (n,n') Level
Legendre Coefficients
21-Sc-44
X10^-6
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
29
Incident Energy (MeV)
21-Sc-44

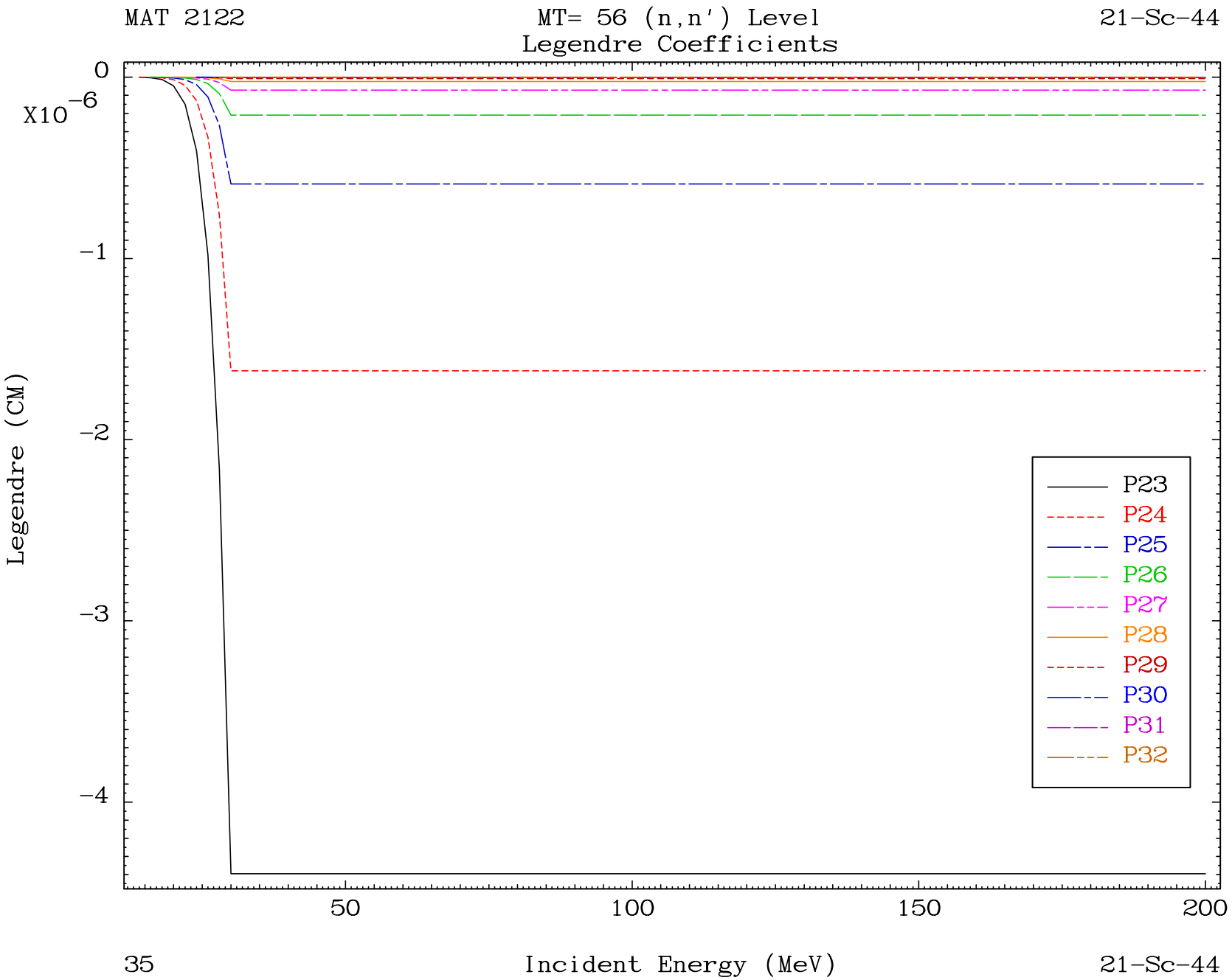

MAT 2122
MT= 55 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
30
Incident Energy (MeV)
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11

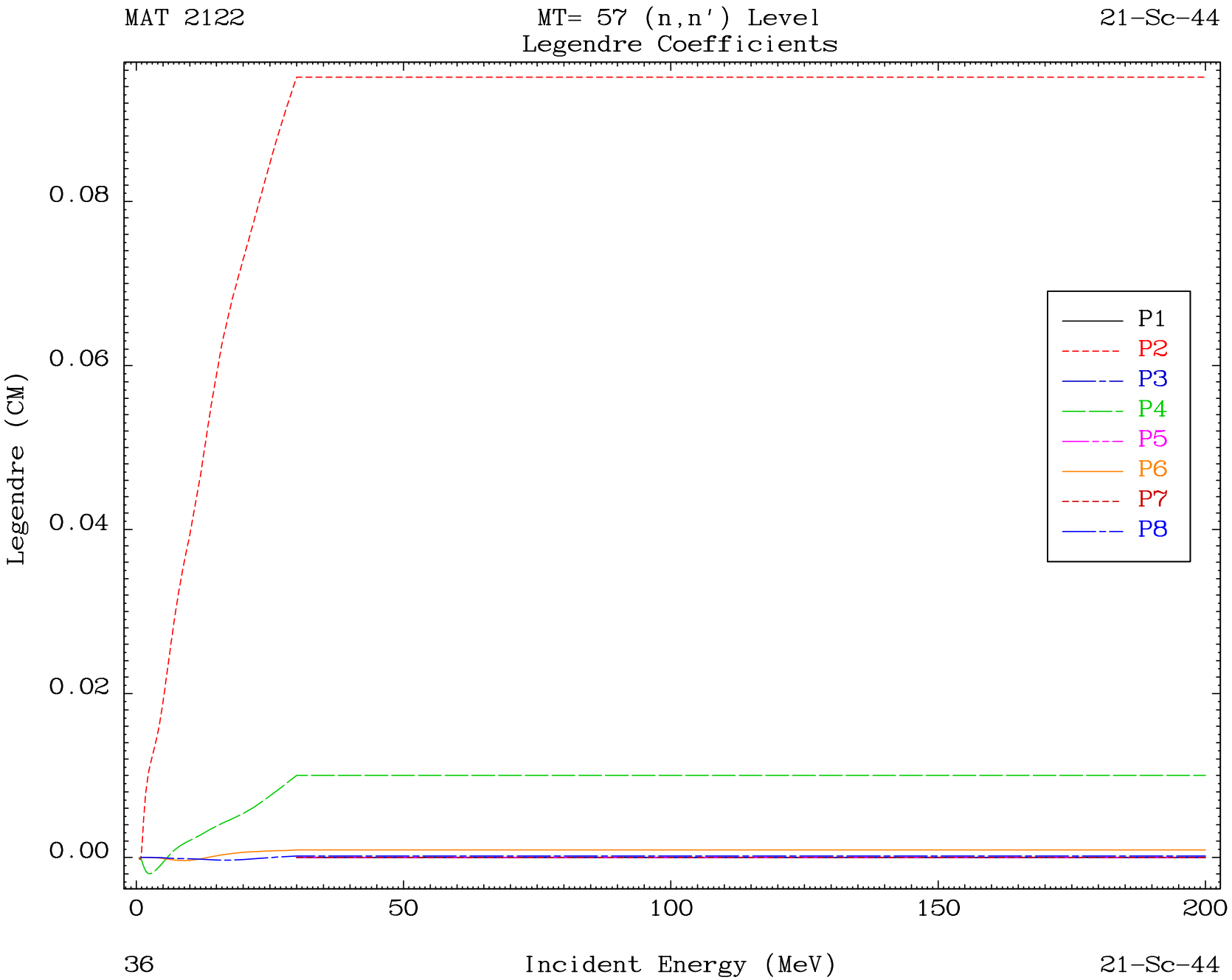

MAT 2122
MT= 55 (n,n') Level
Legendre Coefficients
21-Sc-44
X10^-34
0.0
-0.4
-0.8
-1.2
Legendre (CM)
0
50
100
150
200
Incident Energy (MeV)
31
21-Sc-44
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22

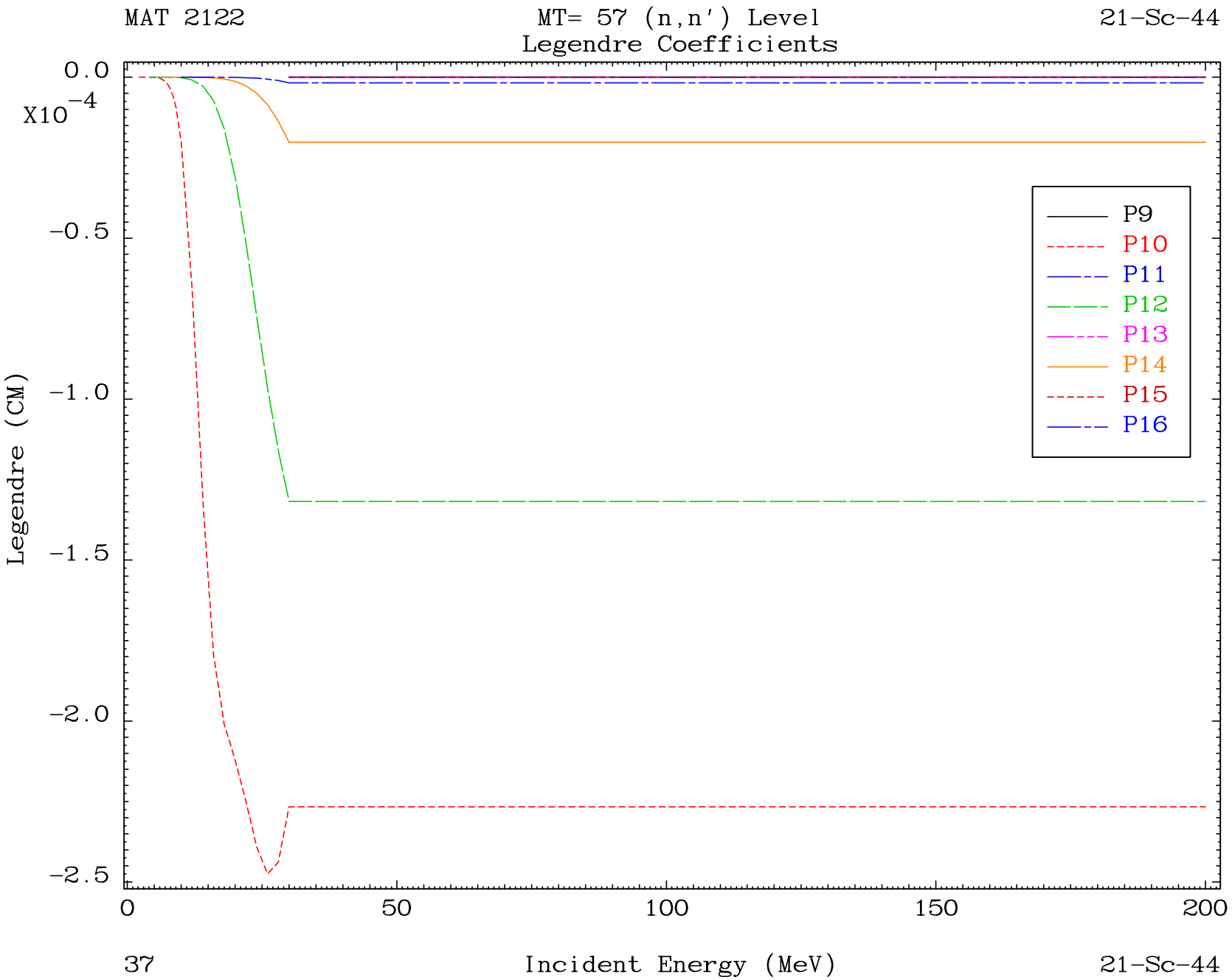

MAT 2122
MT= 55 (n,n') Level
Legendre Coefficients
21-Sc-44
X10 −6
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
32
Incident Energy (MeV)
21-Sc-44
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32

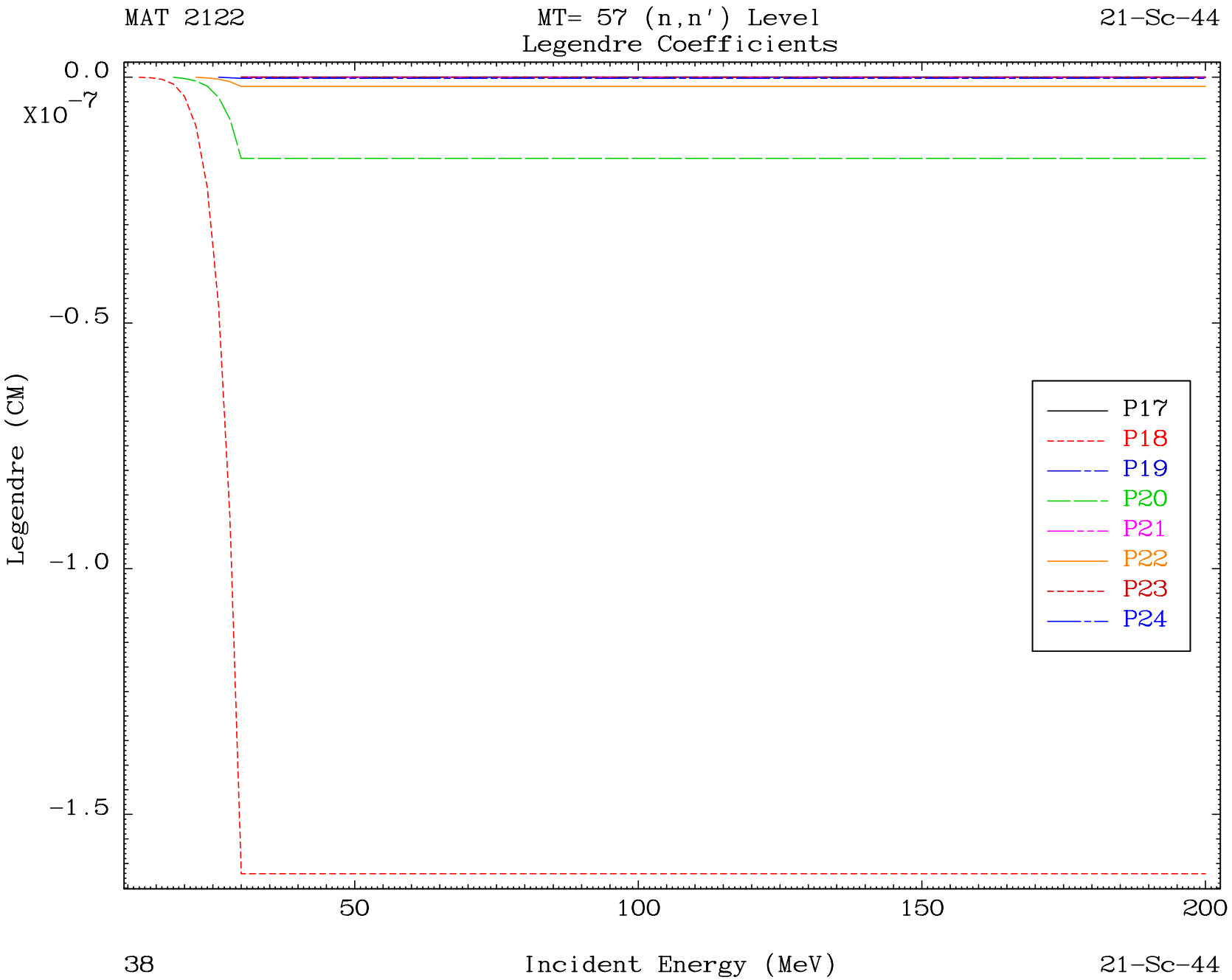

MAT 2122
MT= 56 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
33
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11

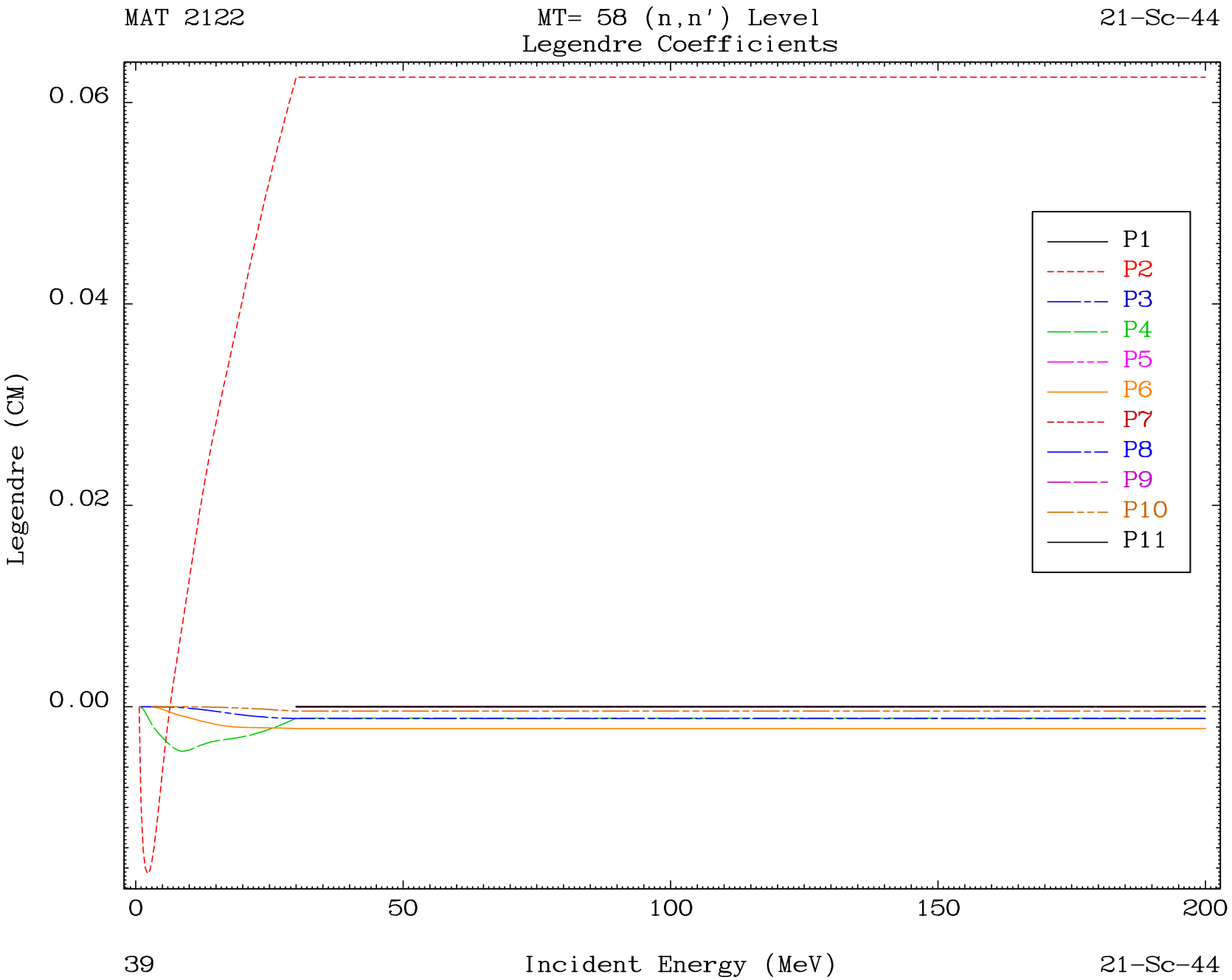

MAT 2122
MT= 56 (n,n') Level
Legendre Coefficients
21-Sc-44
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
0.004
0.002
0.000
-0.002
Legendre (CM)
0
50
100
150
200
34
Incident Energy (MeV)
21-Sc-44

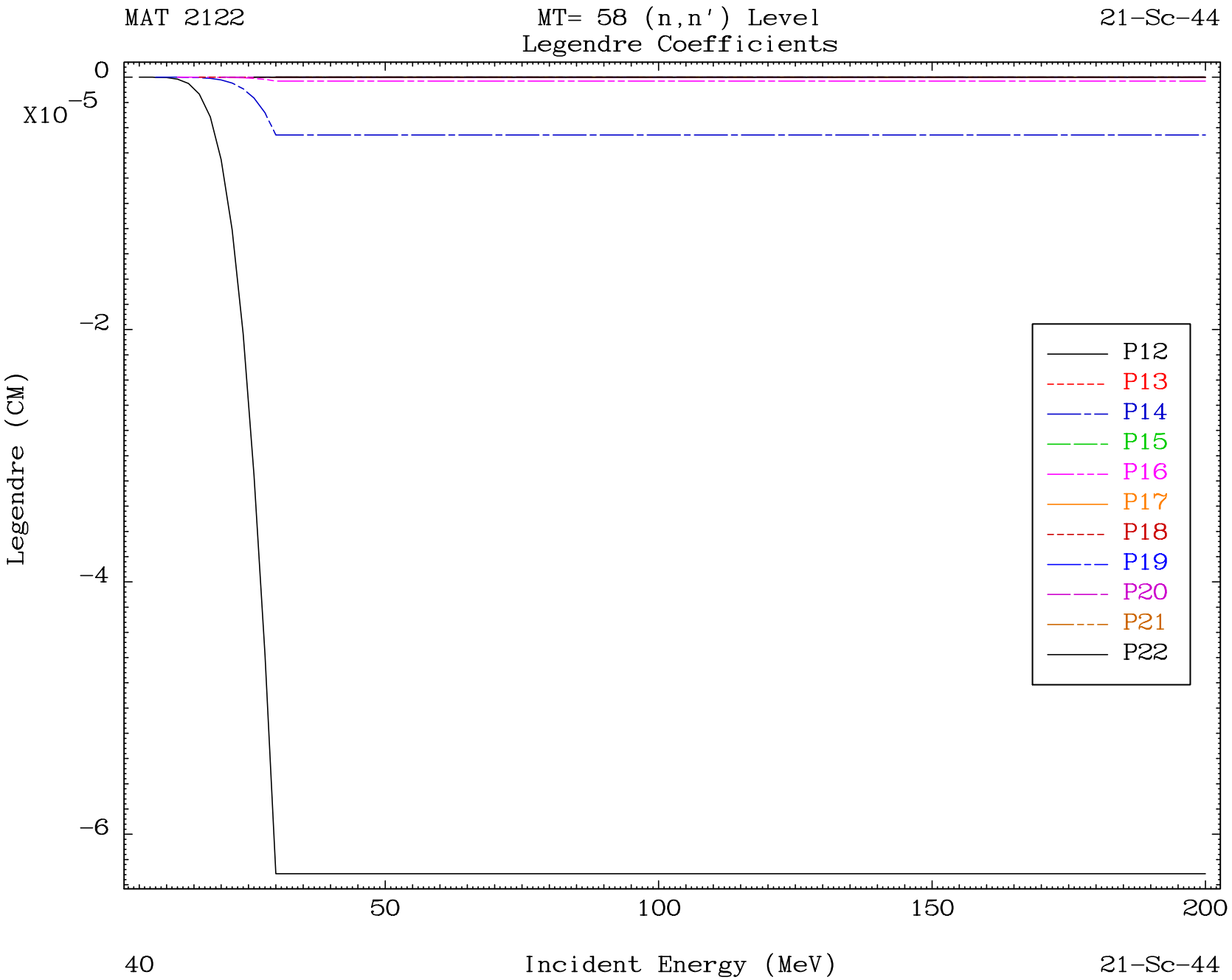

MAT 2122
MT= 56 (n,n') Level
Legendre Coefficients
21-Sc-44
0
X10^-6
-1
-2
-3
-4
Legendre (CM)
50
100
150
200
35
Incident Energy (MeV)
21-Sc-44
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32

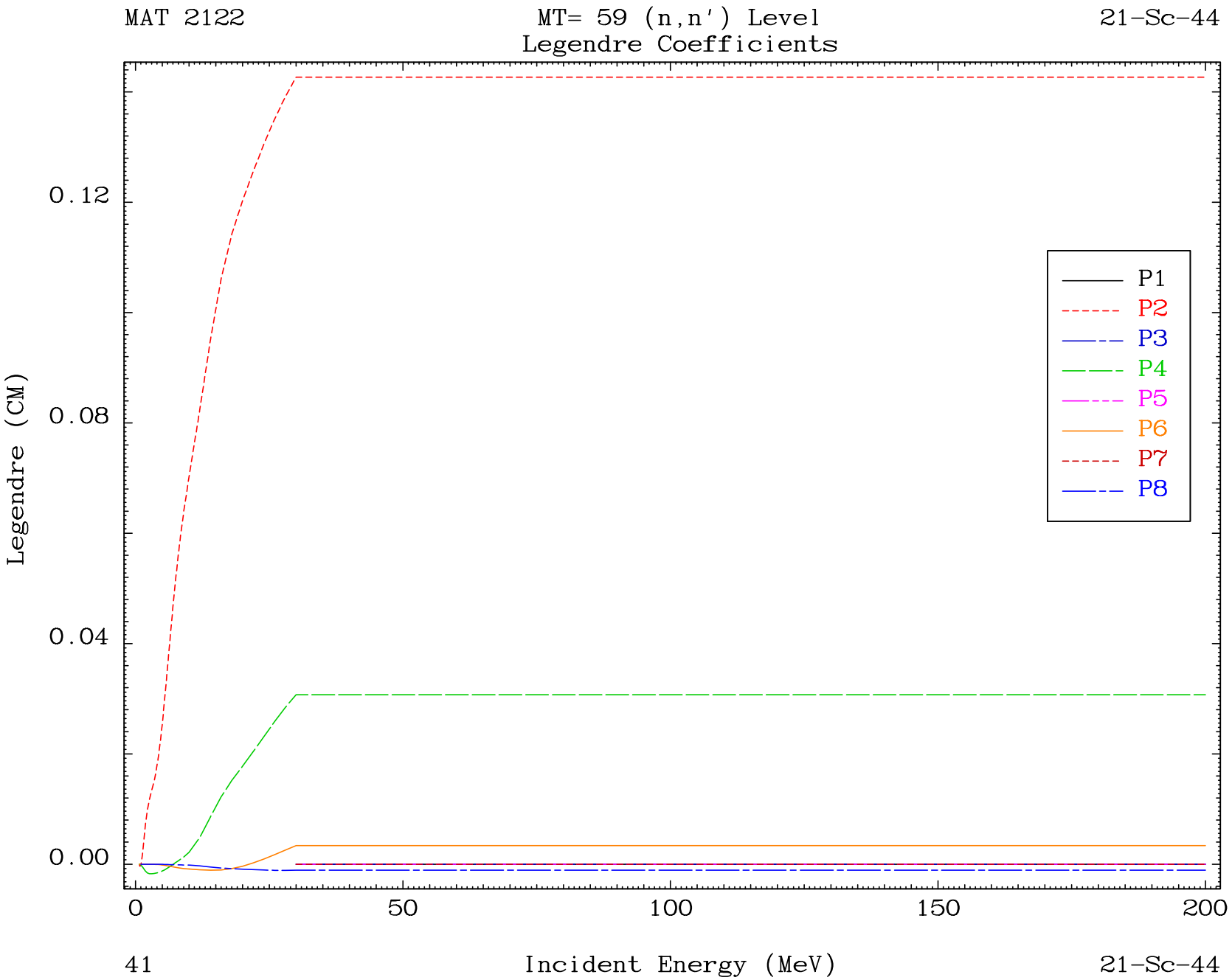

MAT 2122
MT= 57 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.08
0.06
0.04
0.02
0.00
0
50
100
150
200
Incident Energy (MeV)
36
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8

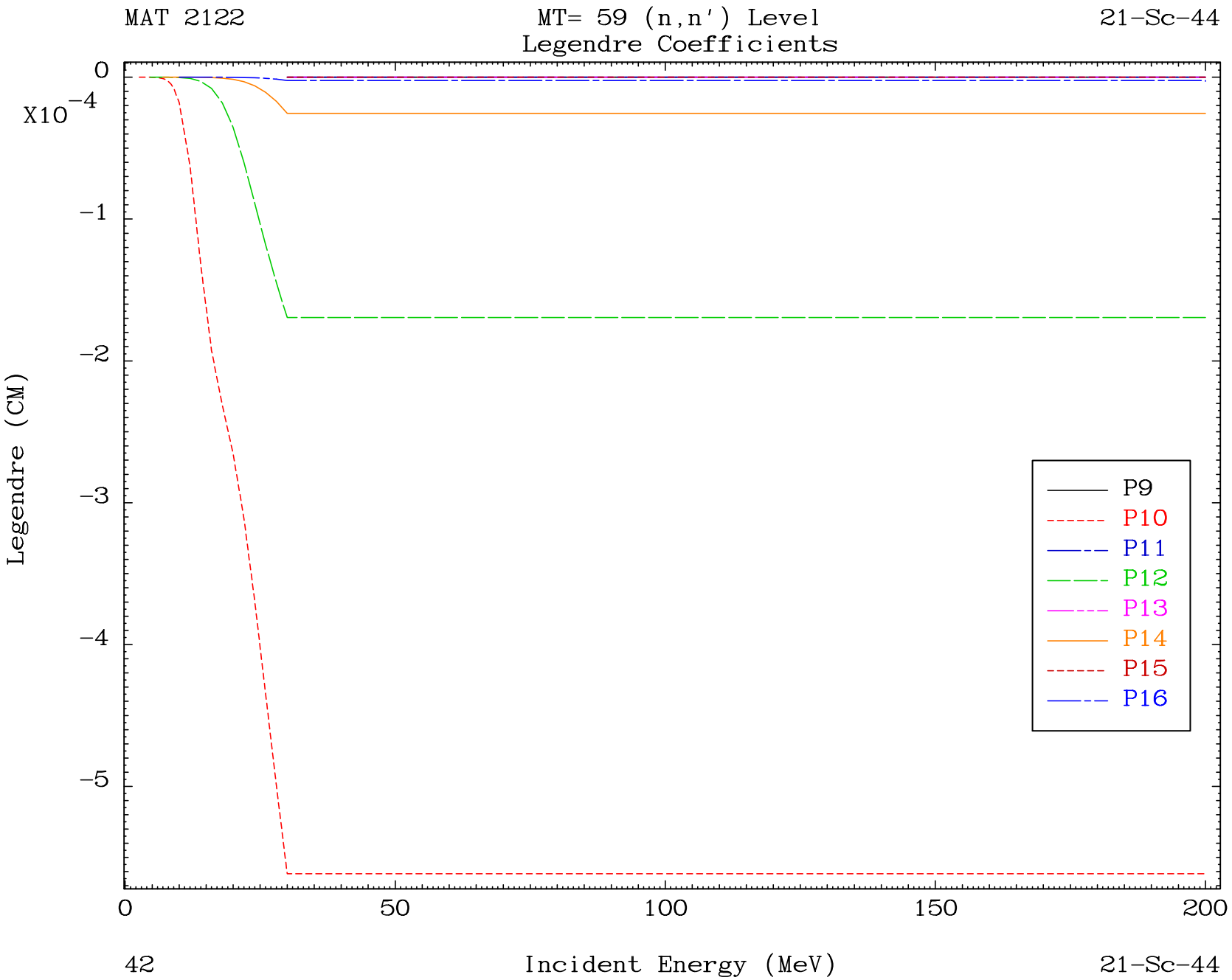

MAT 2122
MT= 57 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10^-4
-0.5
-1.0
-1.5
-2.0
-2.5
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
0
50
100
150
200
37
Incident Energy (MeV)
21-Sc-44

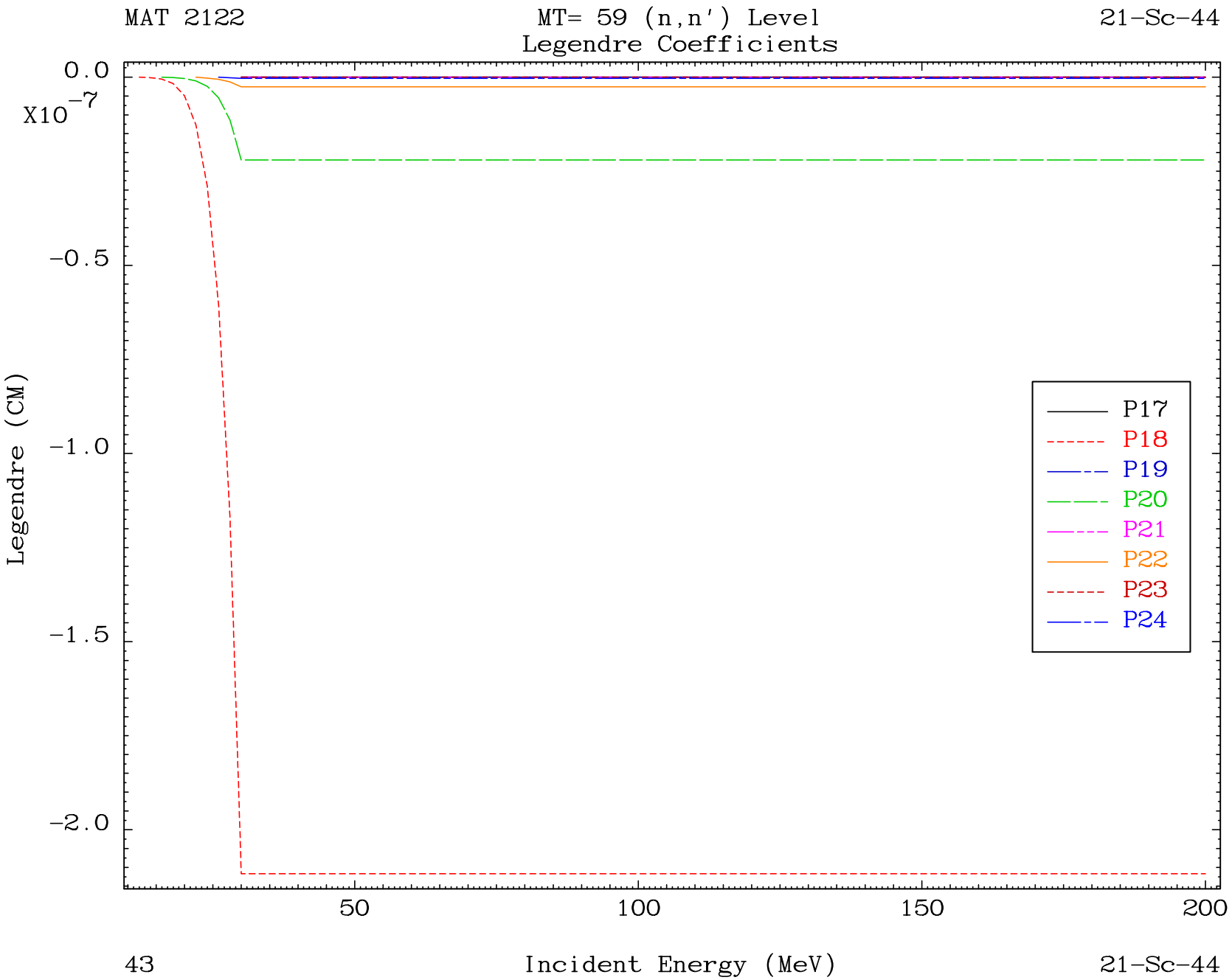

MAT 2122
MT= 57 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10-7
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
P17
P18
P19
P20
P21
P22
P23
P24
38
Incident Energy (MeV)
21-Sc-44

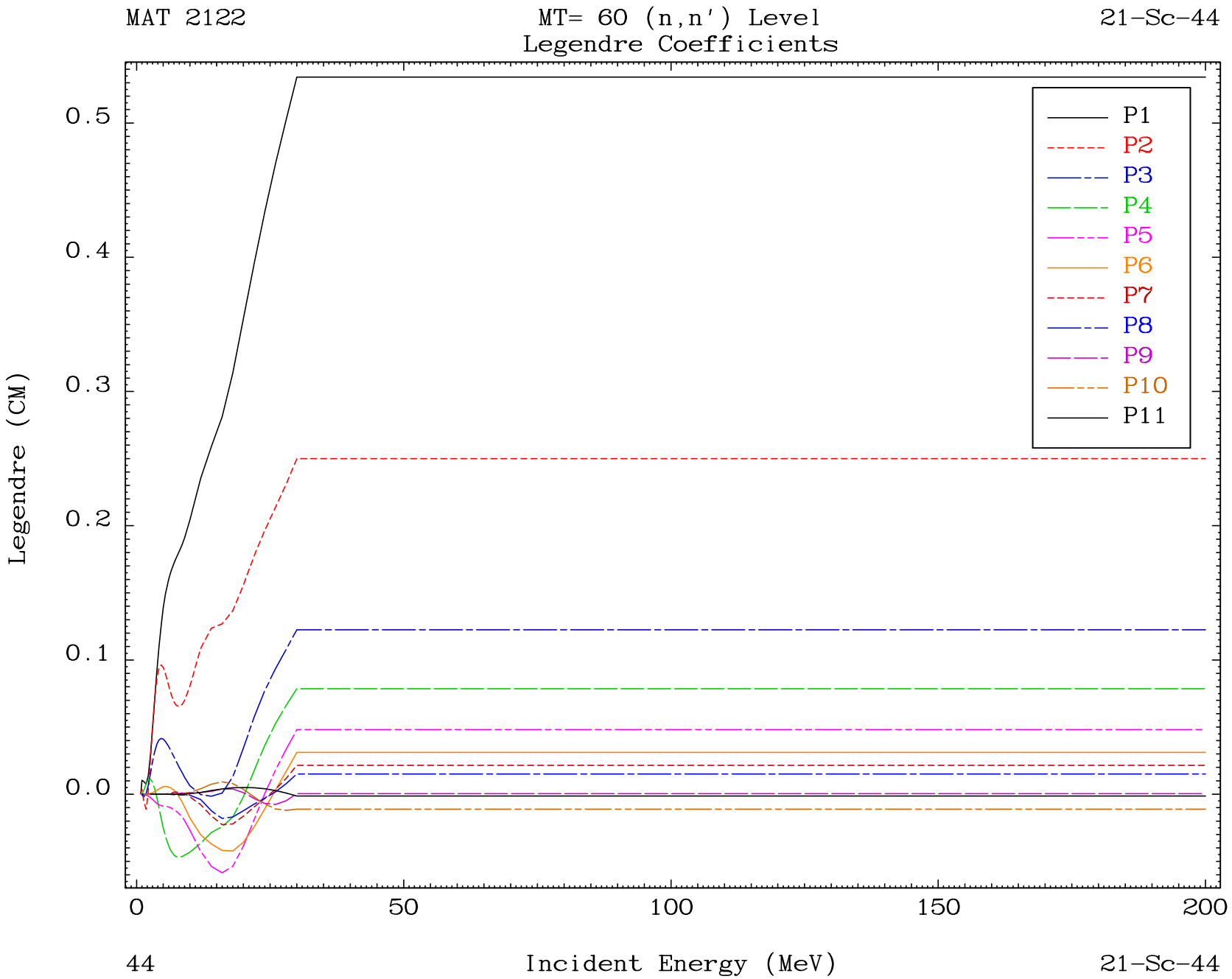

MAT 2122
MT= 58 (n,n') Level
Legendre Coefficients
21-Sc-44
0.06
0.04
0.02
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
0
50
100
150
200
39
Incident Energy (MeV)
21-Sc-44

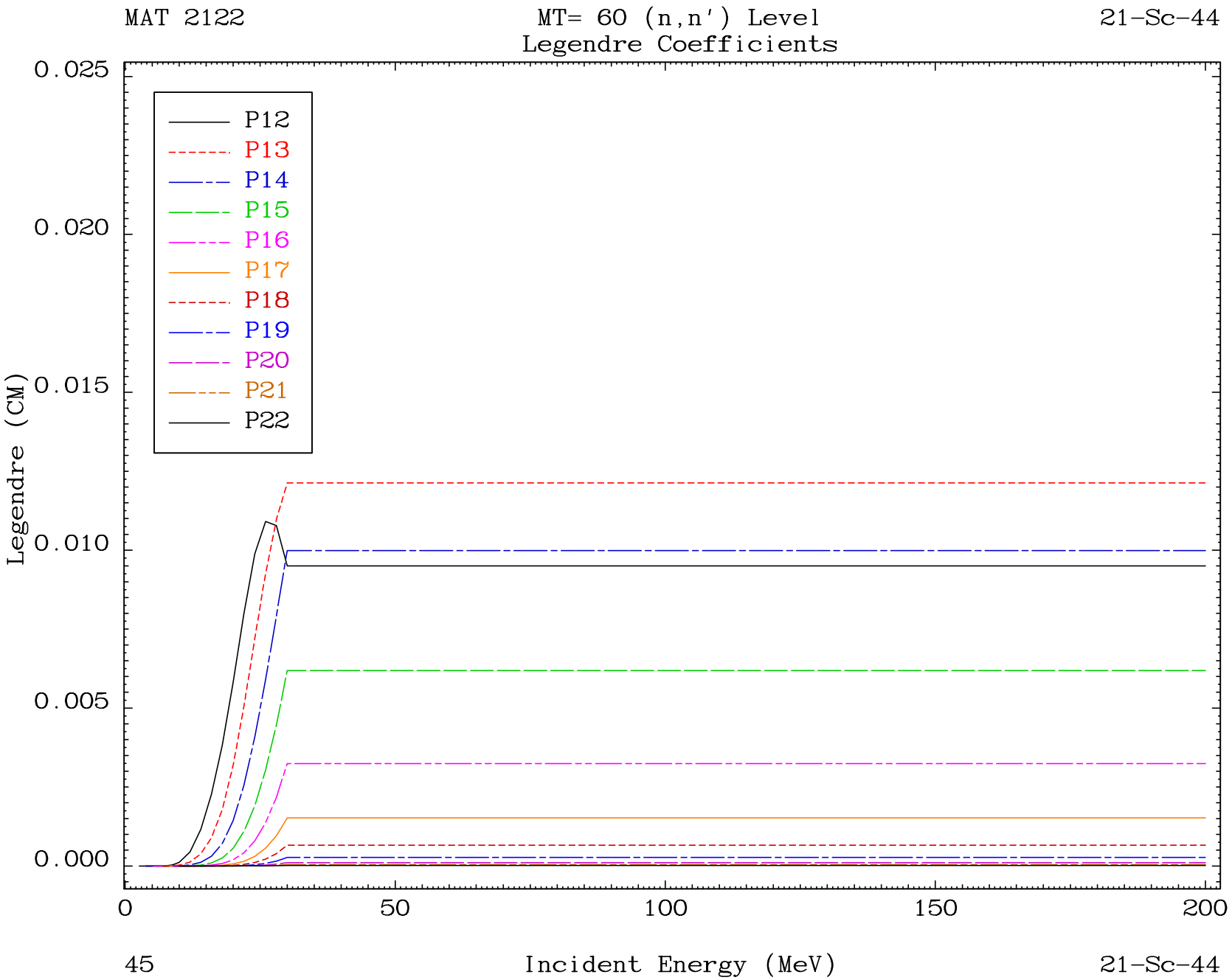

MAT 2122
MT= 58 (n,n') Level
Legendre Coefficients
21-Sc-44
0
X10^-5
-2
-4
-6
Legendre (CM)
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
40
50
100
150
200
Incident Energy (MeV)
21-Sc-44

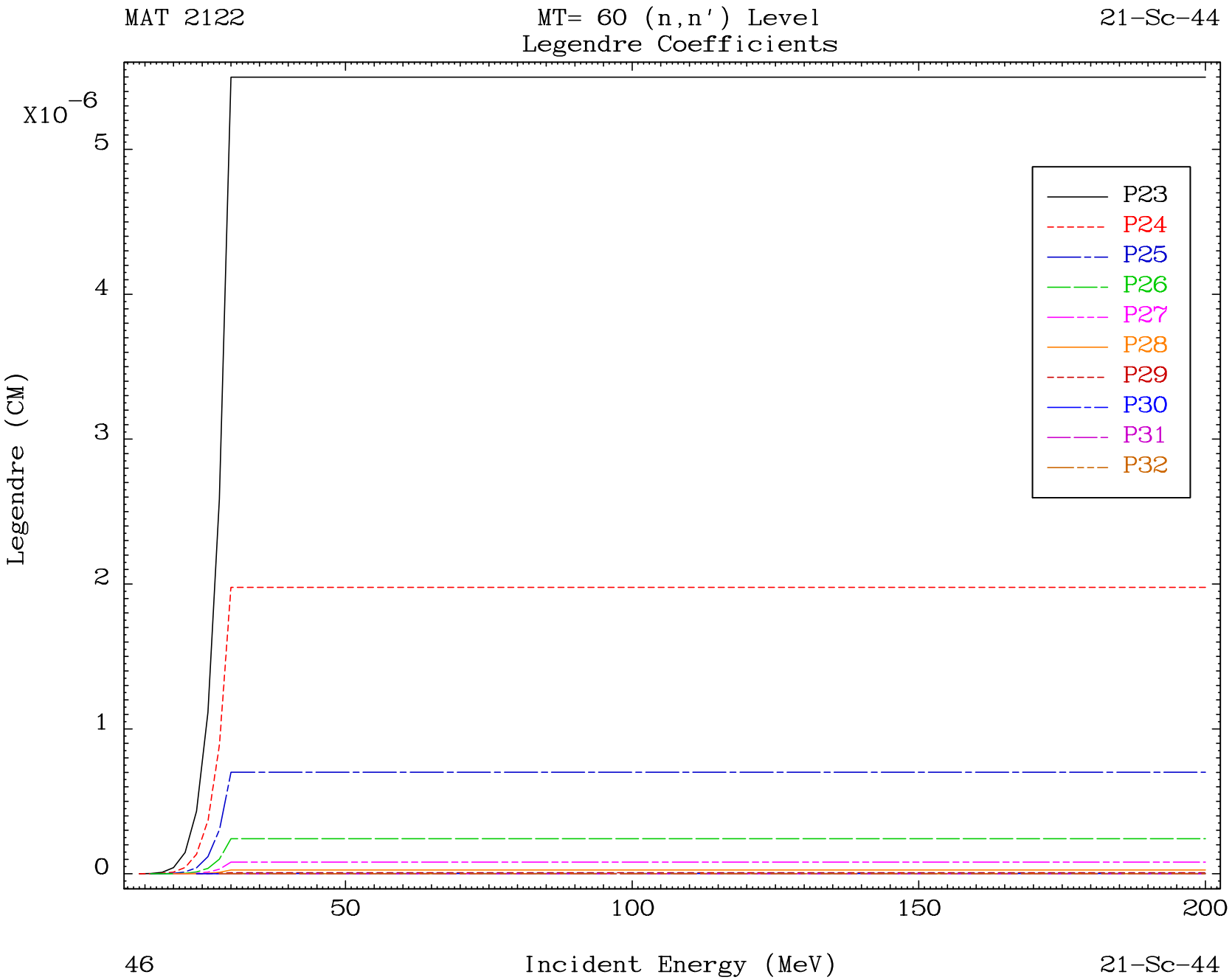

MAT 2122
MT= 59 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.12
0.08
0.04
0.00
0
50
100
150
200
Incident Energy (MeV)
41
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8

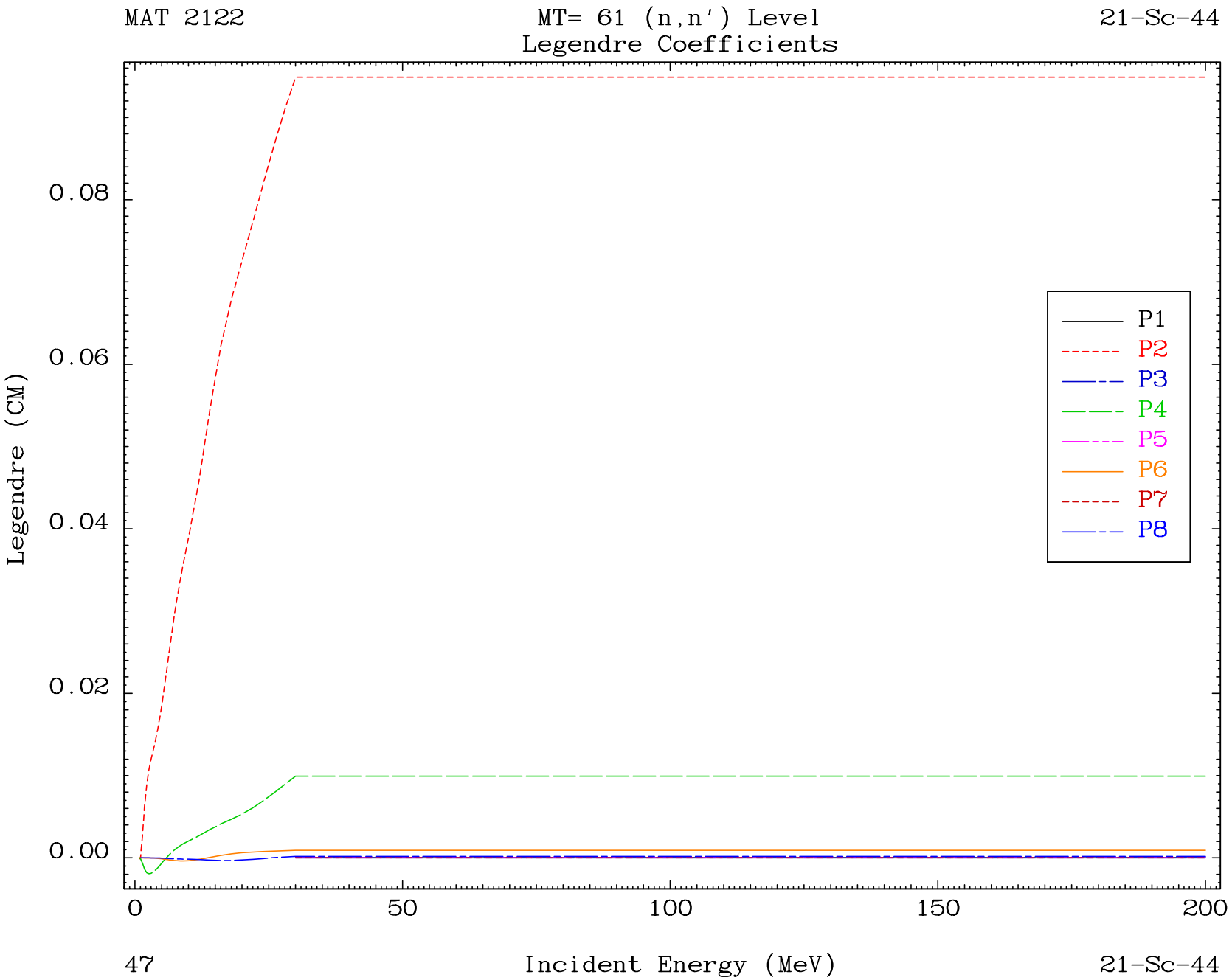

MAT 2122
MT= 59 (n,n') Level
Legendre Coefficients
21-Sc-44
X10^-4
0
-1
-2
-3
-4
-5
Legendre (CM)
0
50
100
150
200
Incident Energy (MeV)
42
21-Sc-44
P9
P10
P11
P12
P13
P14
P15
P16

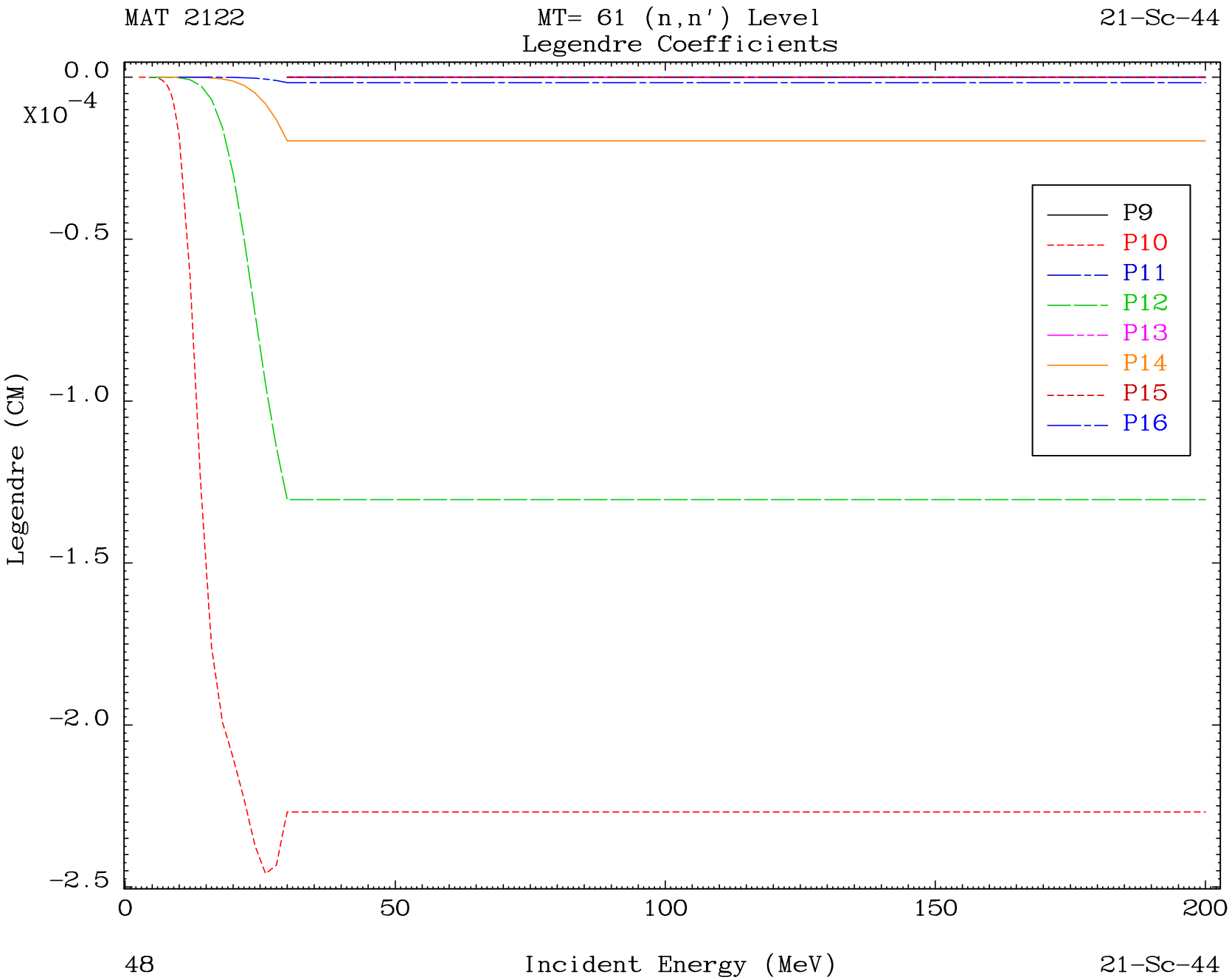

MAT 2122
MT= 59 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10^-7
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
50
100
150
200
P17
P18
P19
P20
P21
P22
P23
P24
43
Incident Energy (MeV)
21-Sc-44

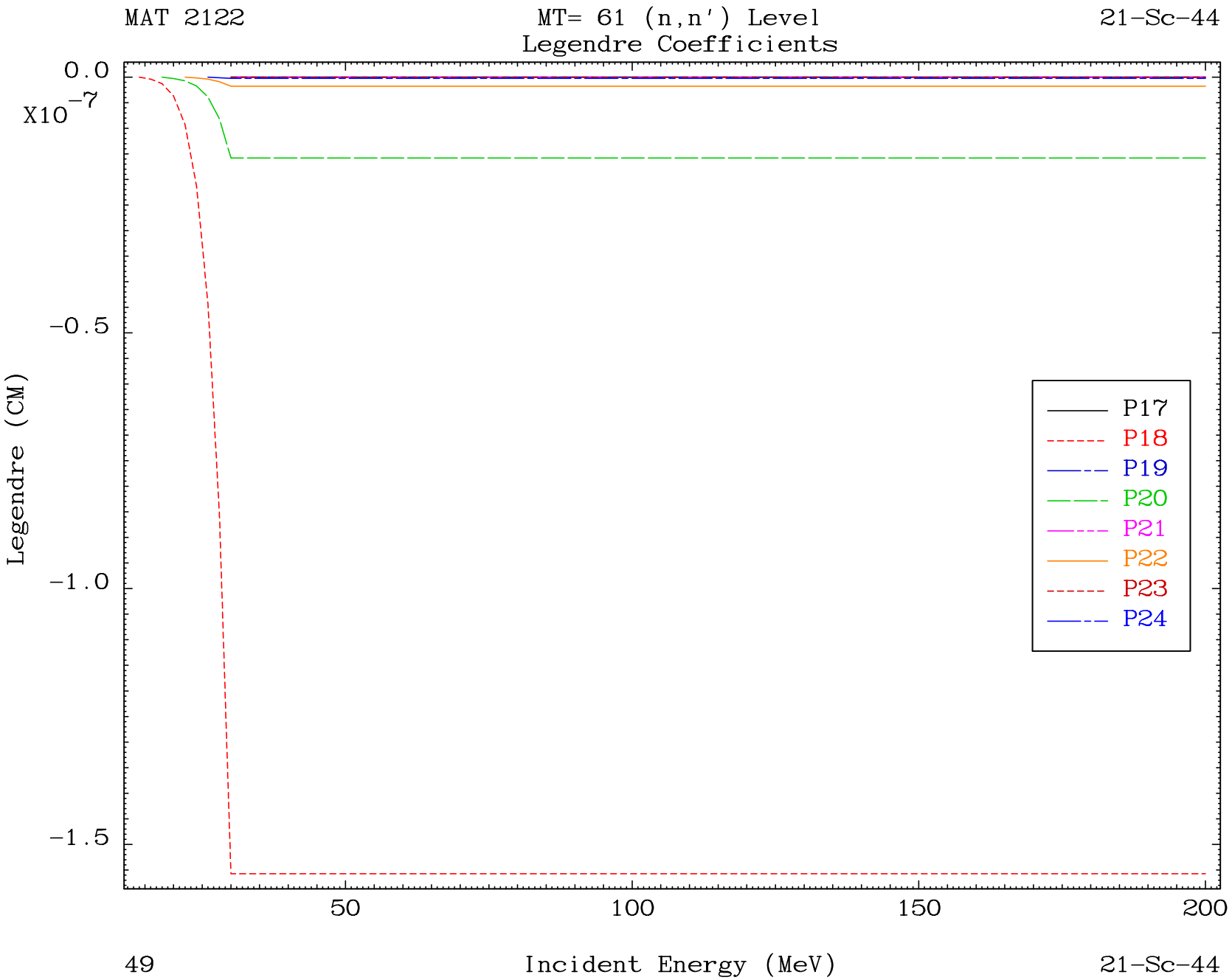

MAT 2122
MT= 60 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
44
Incident Energy (MeV)
21-Sc-44

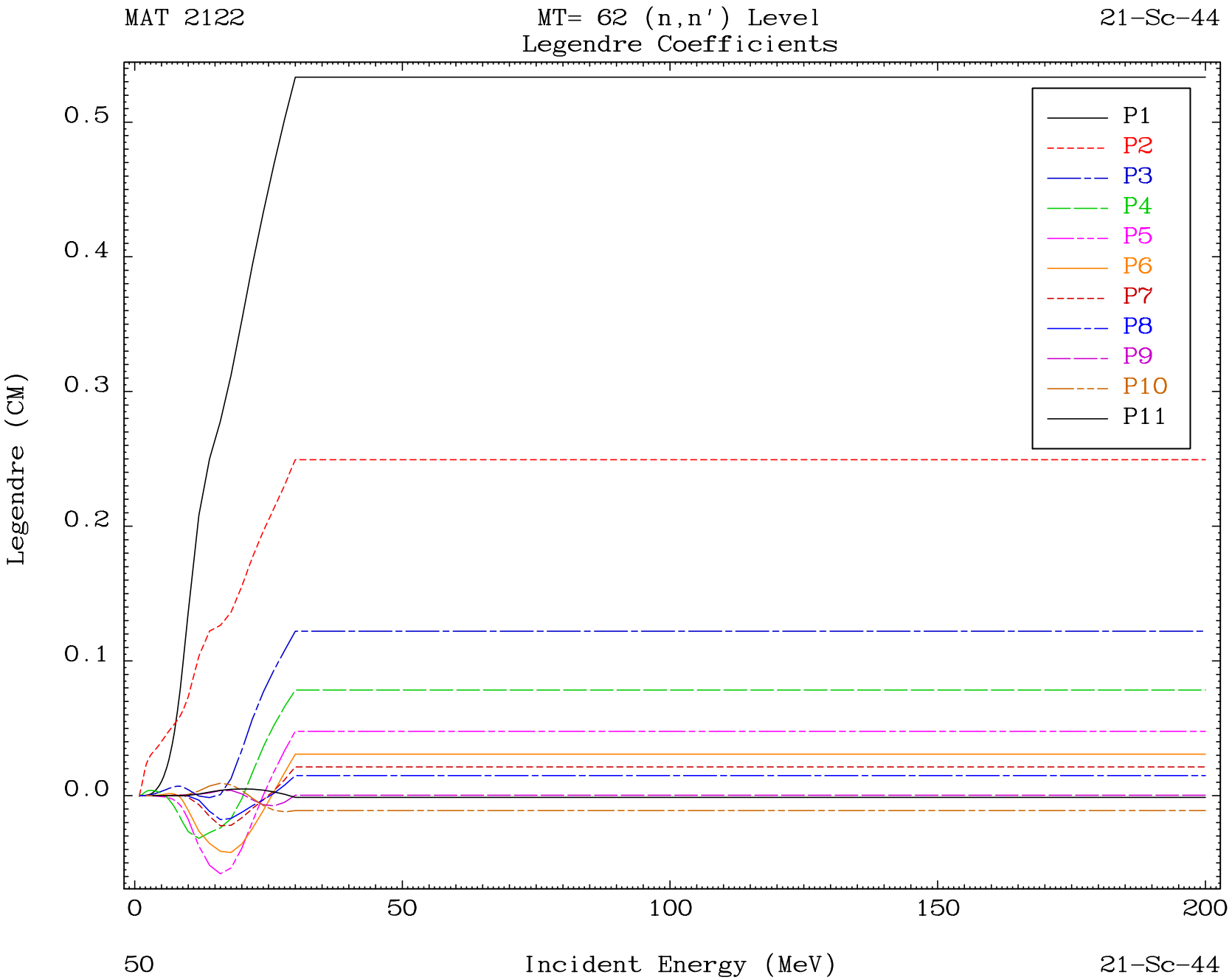

MAT 2122
MT= 60 (n,n') Level
Legendre Coefficients
21-Sc-44
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
0.025
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
0
50
100
150
200
45
Incident Energy (MeV)
21-Sc-44

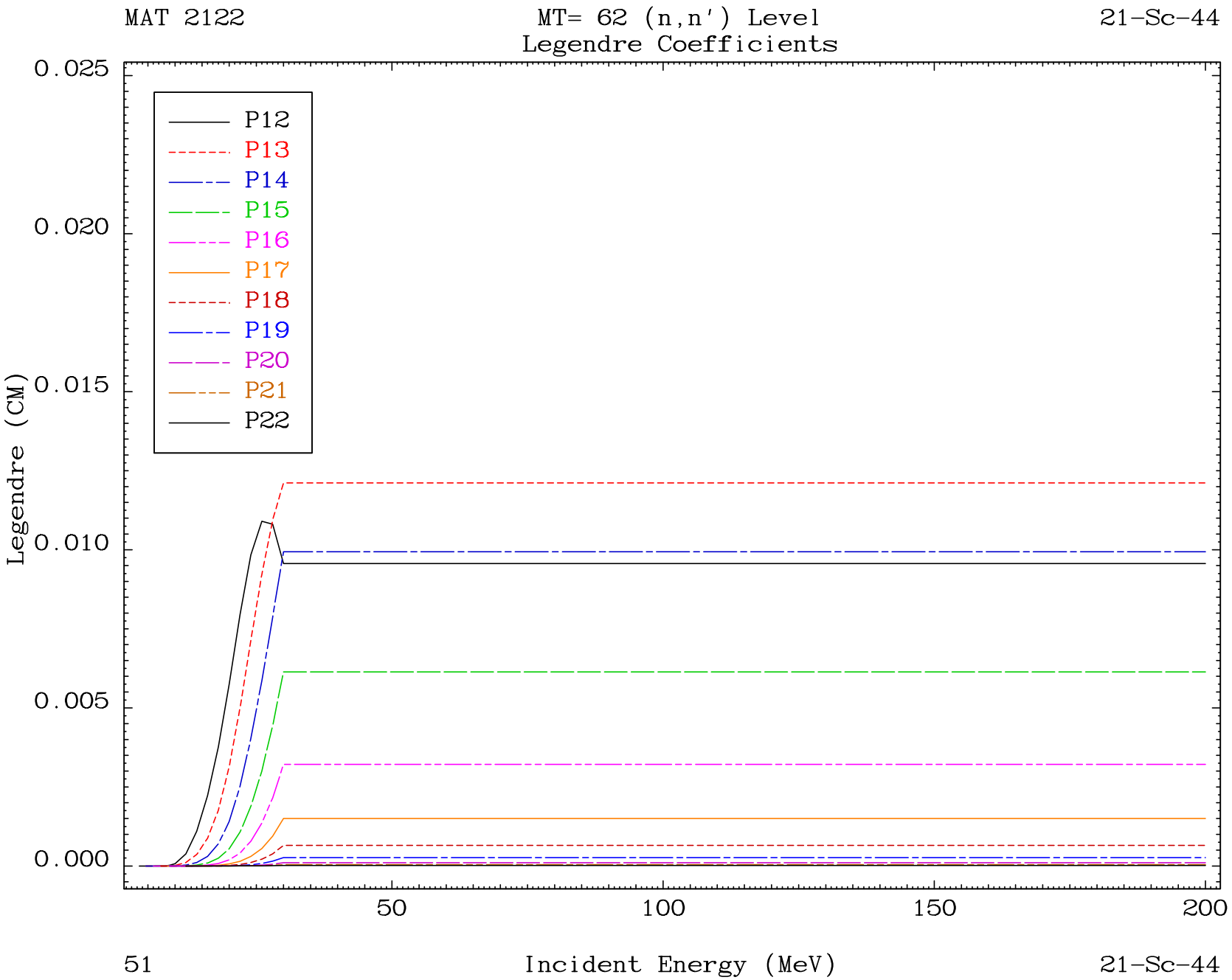

MAT 2122
MT= 60 (n,n') Level
Legendre Coefficients
21-Sc-44
X10^-6
5
4
3
2
1
0
Legendre (CM)
50
100
150
200
46
Incident Energy (MeV)
21-Sc-44
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32

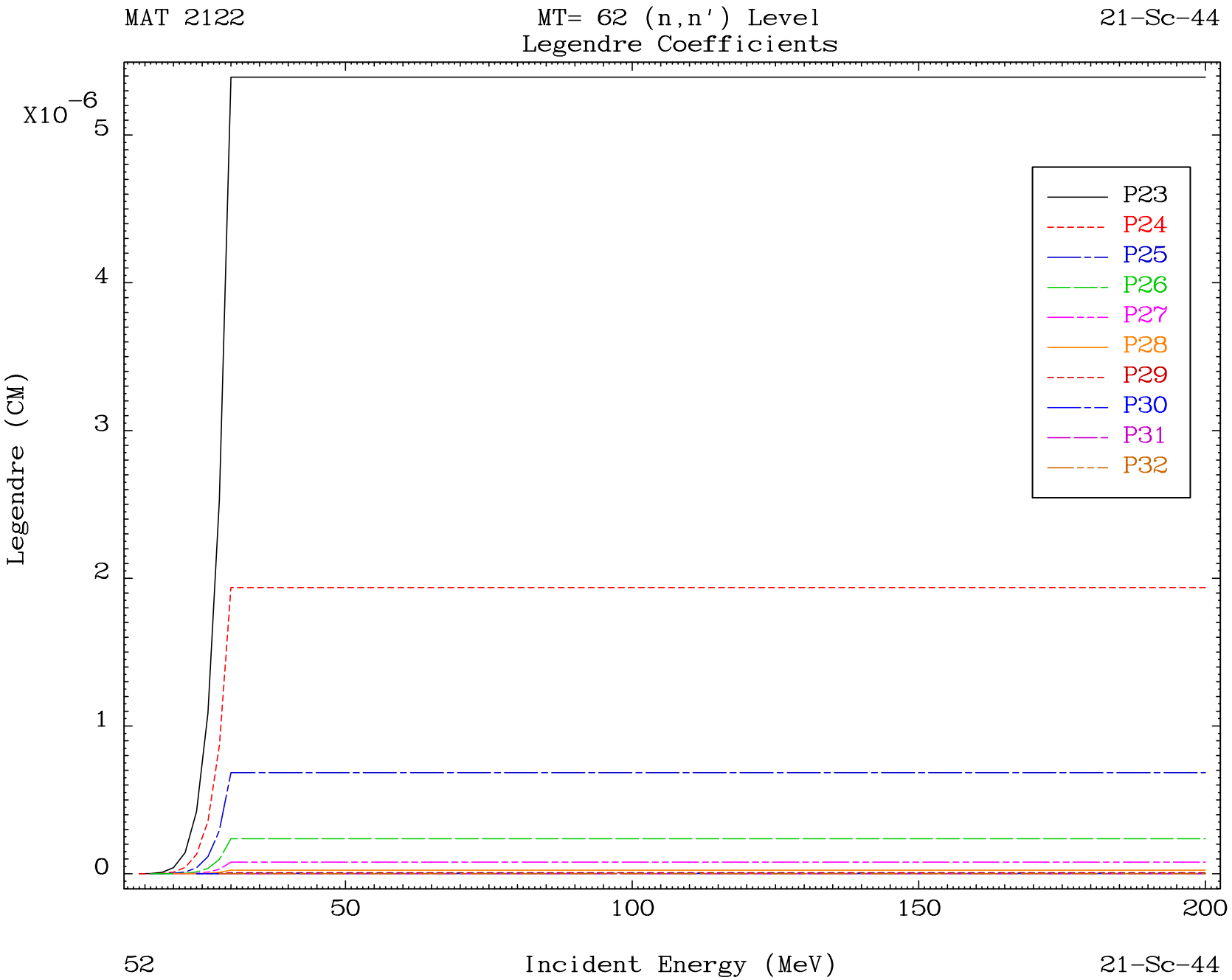

MAT 2122
MT= 61 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.08
0.06
0.04
0.02
0.00
0
50
100
150
200
Incident Energy (MeV)
47
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8

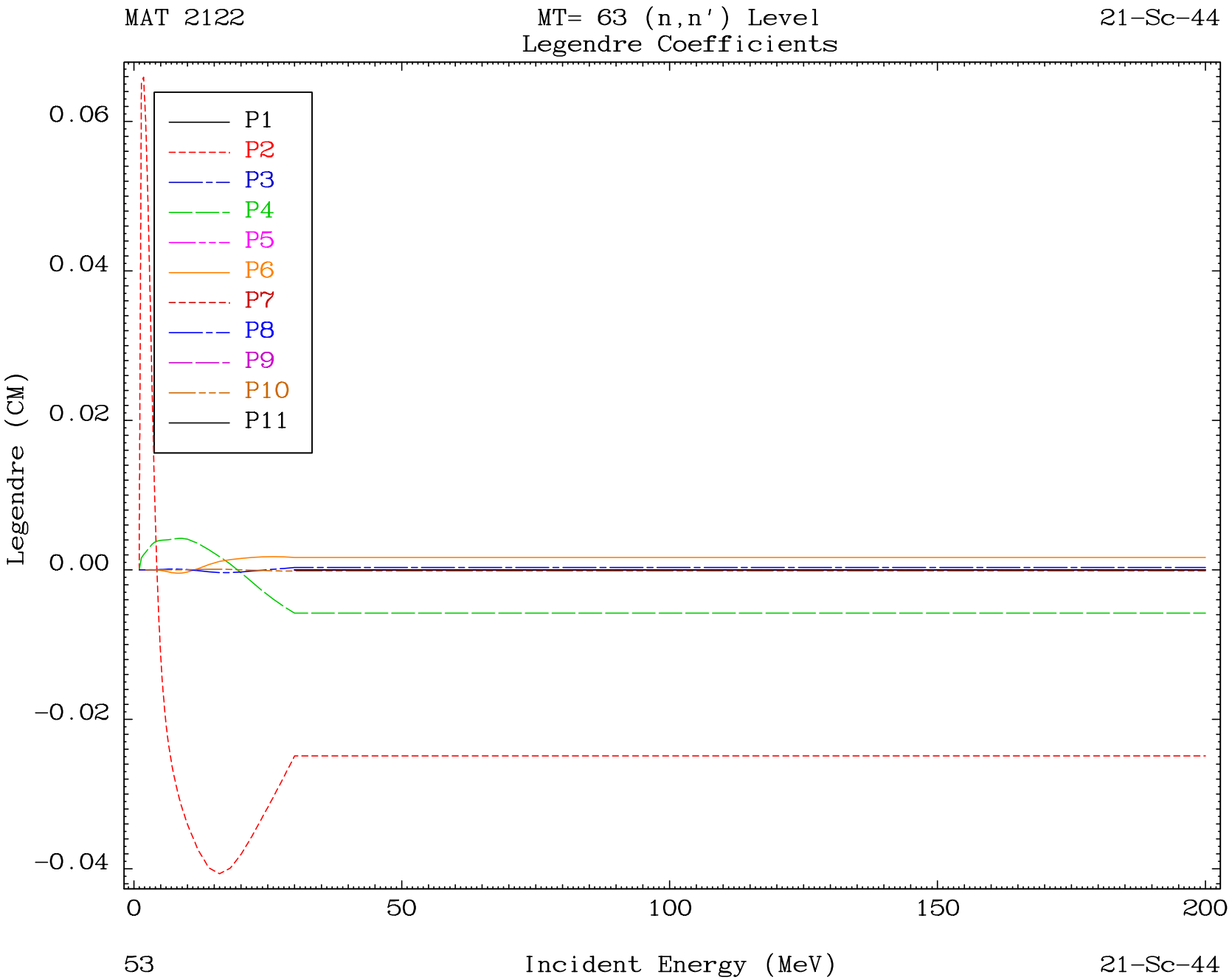

MAT 2122
MT= 61 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10^-4
-0.5
-1.0
-1.5
-2.0
-2.5
Legendre (CM)
0
50
100
150
200
48
Incident Energy (MeV)
21-Sc-44
P9
P10
P11
P12
P13
P14
P15
P16

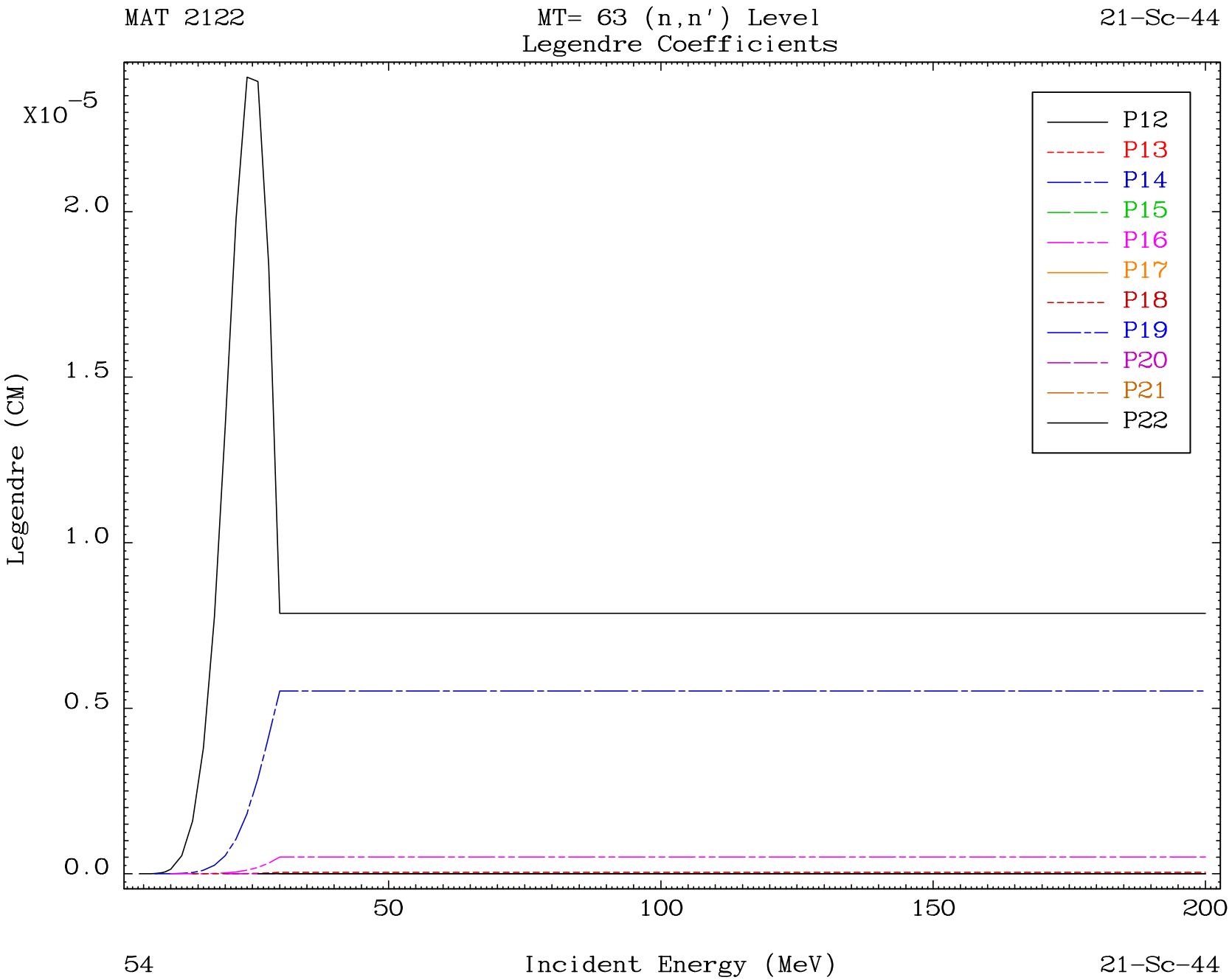

MAT 2122
MT= 61 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10^-7
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
P17
P18
P19
P20
P21
P22
P23
P24
49
Incident Energy (MeV)
21-Sc-44

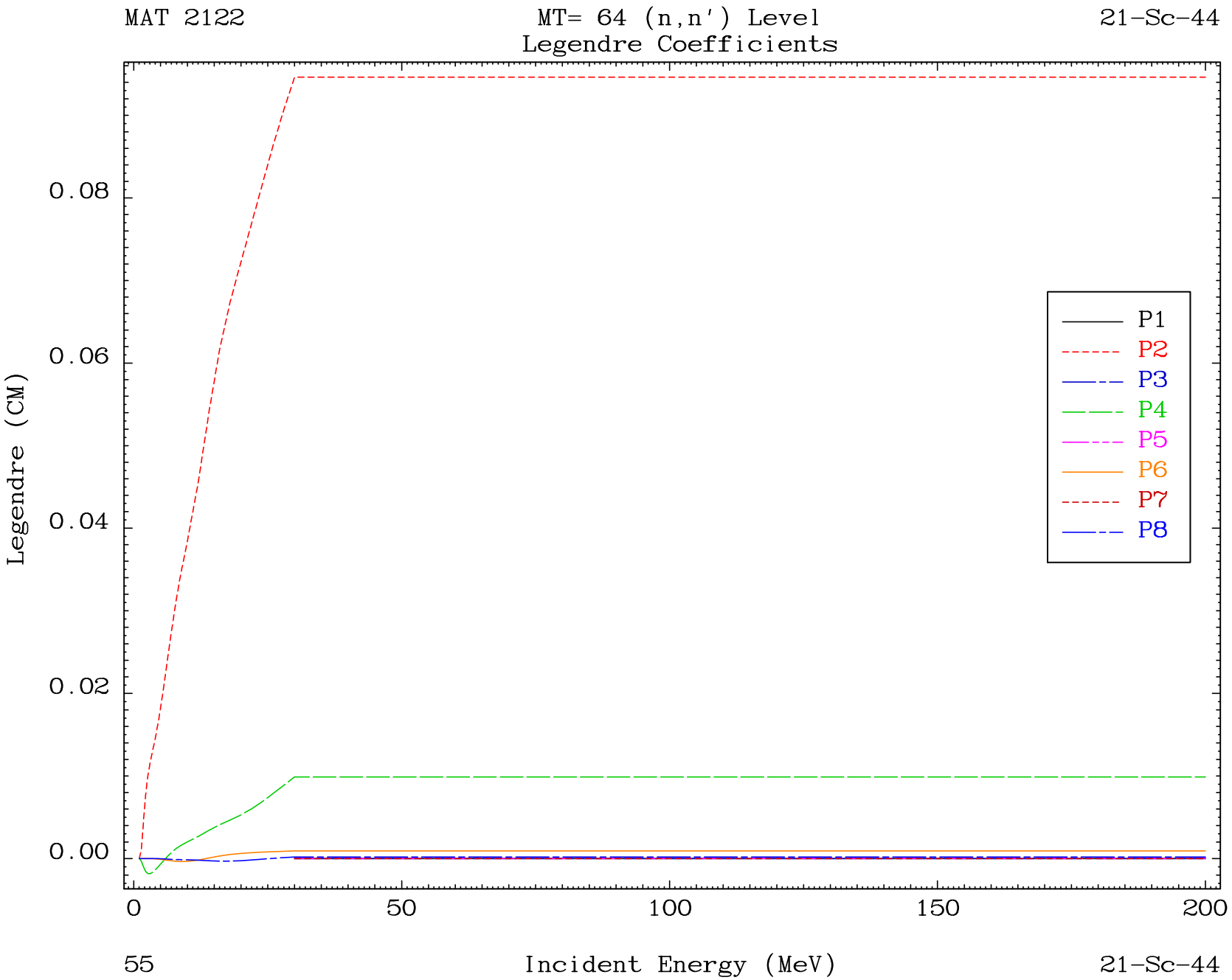

MAT 2122
MT= 62 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
50
Incident Energy (MeV)
21-Sc-44

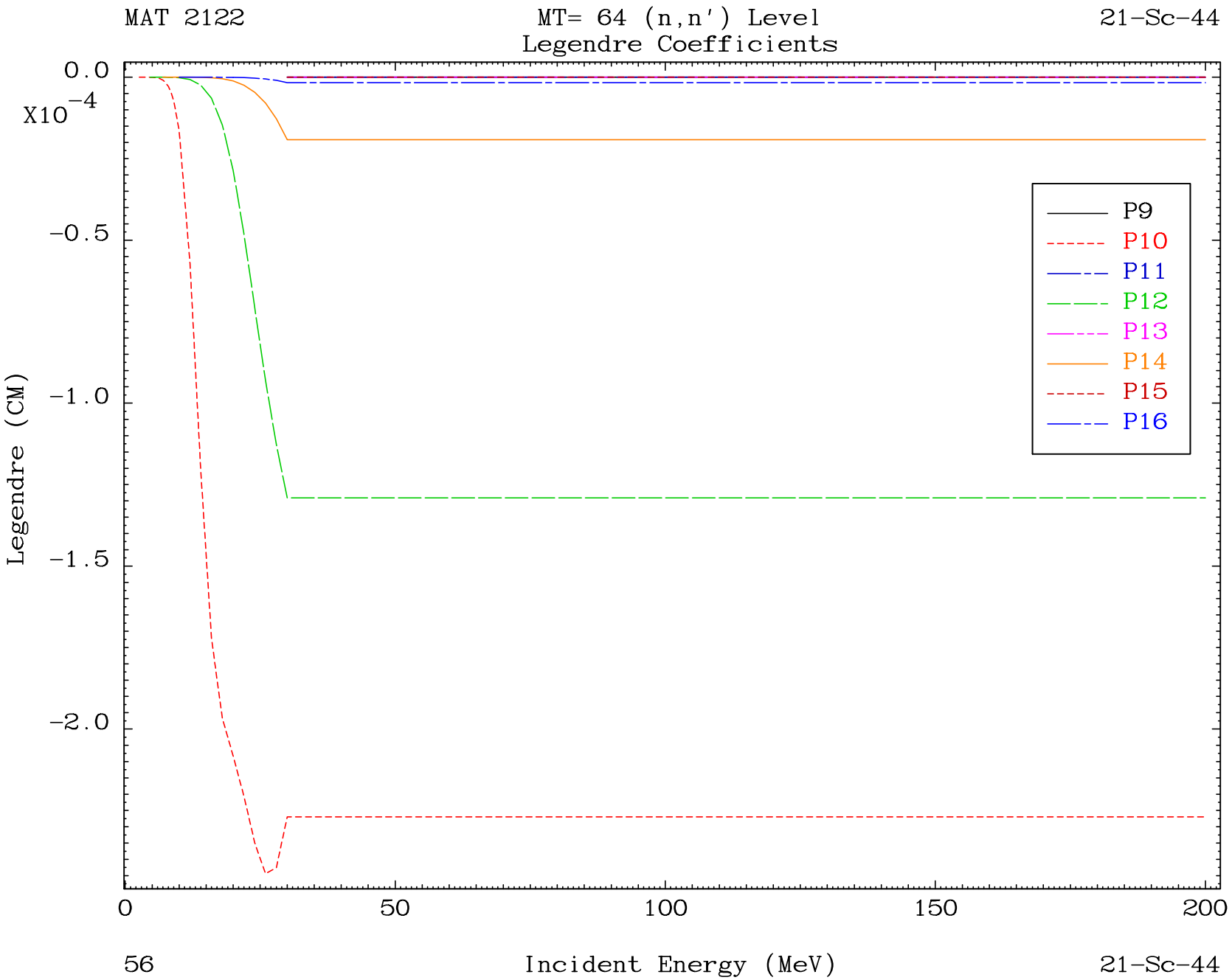

MAT 2122
MT= 62 (n,n') Level
Legendre Coefficients
21-Sc-44
0.025
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
50
100
150
200
51
Incident Energy (MeV)
21-Sc-44

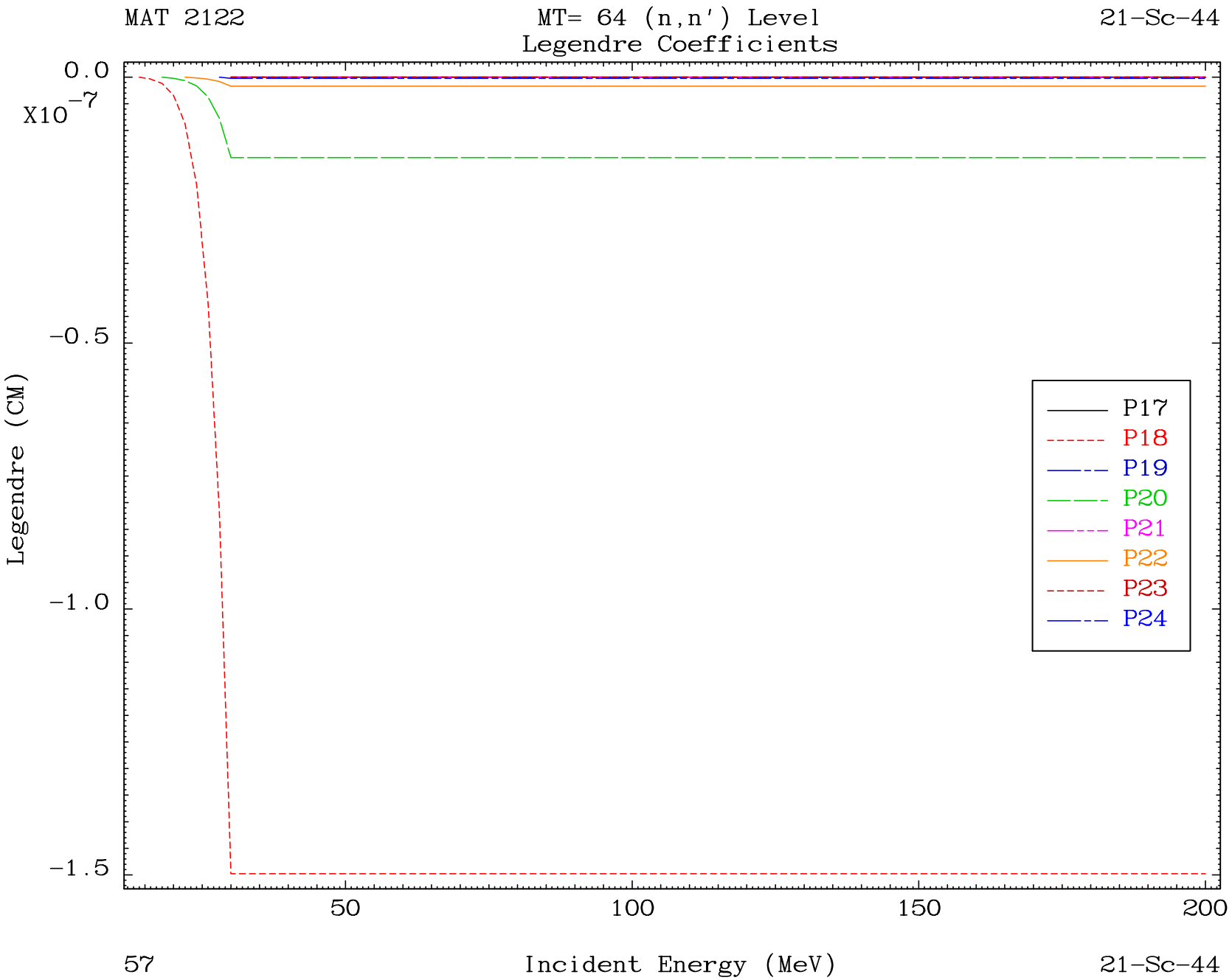

MAT 2122
MT= 62 (n,n') Level
Legendre Coefficients
21-Sc-44
X10 -6
5
4
3
2
1
0
Legendre (CM)
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32
50
100
150
200
52
Incident Energy (MeV)
21-Sc-44

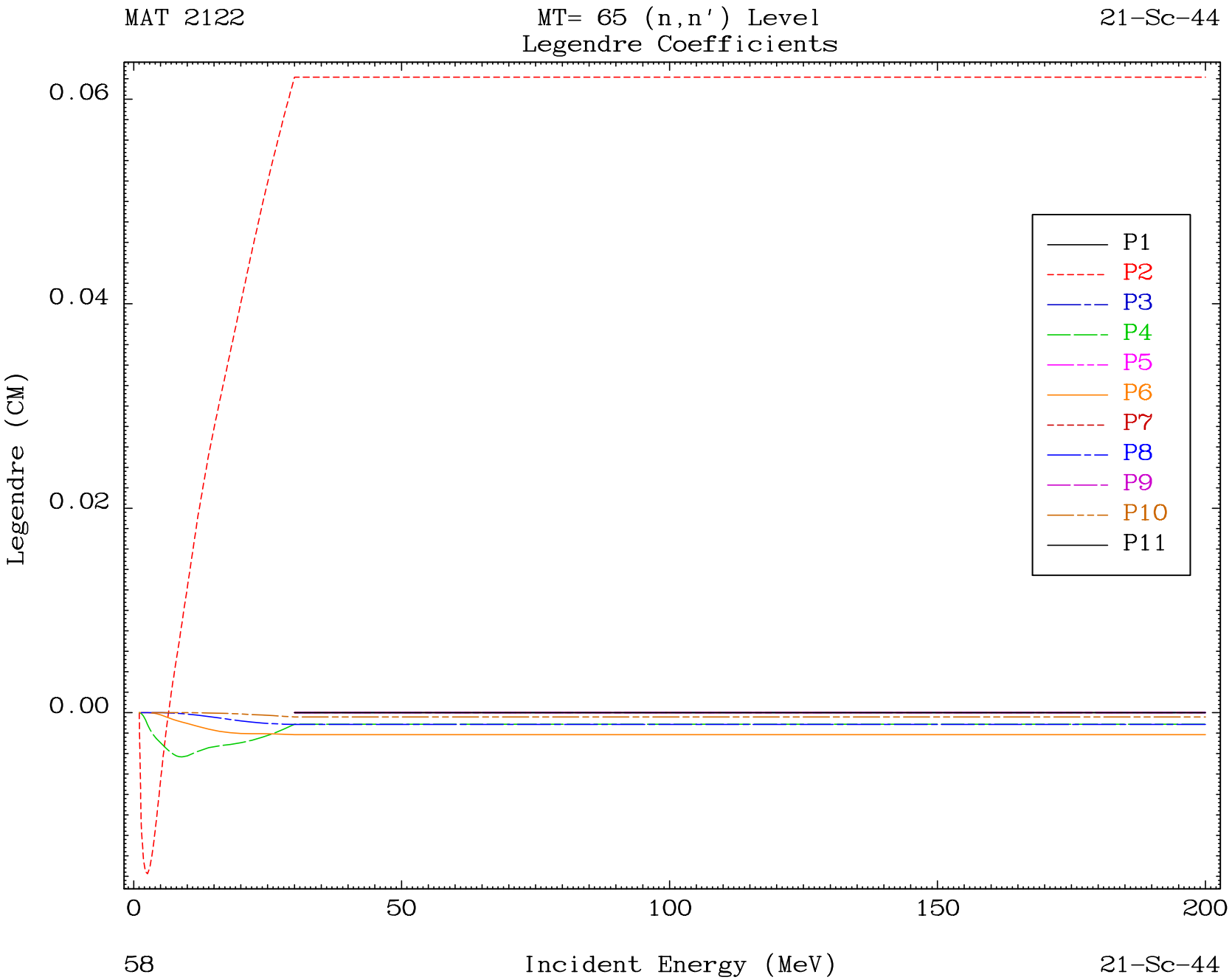

MAT 2122
MT= 63 (n,n') Level
Legendre Coefficients
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
53
Incident Energy (MeV)
21-Sc-44

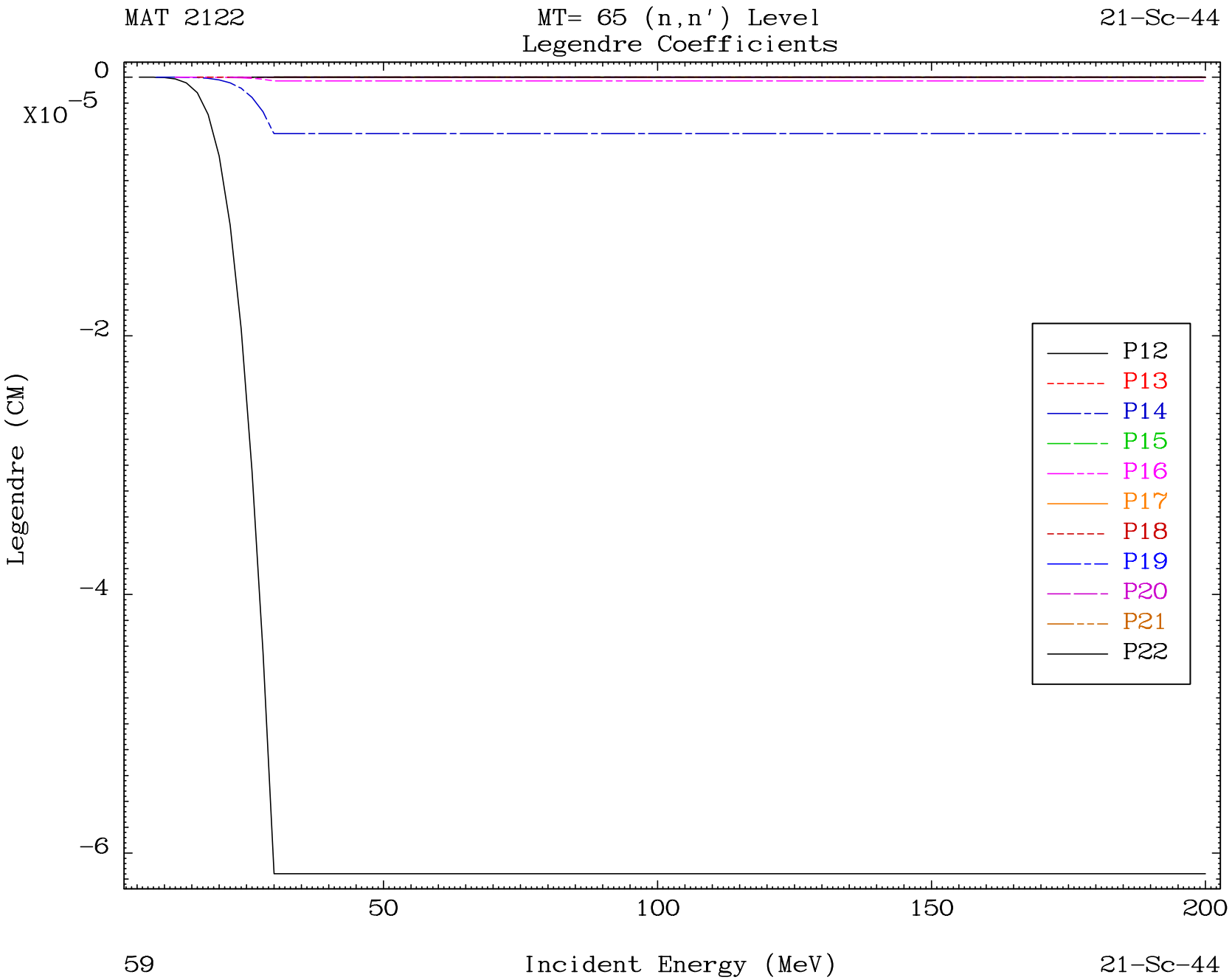

MAT 2122
MT= 63 (n,n') Level
Legendre Coefficients
21-Sc-44
X10-5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
50
100
150
200
54
Incident Energy (MeV)
21-Sc-44

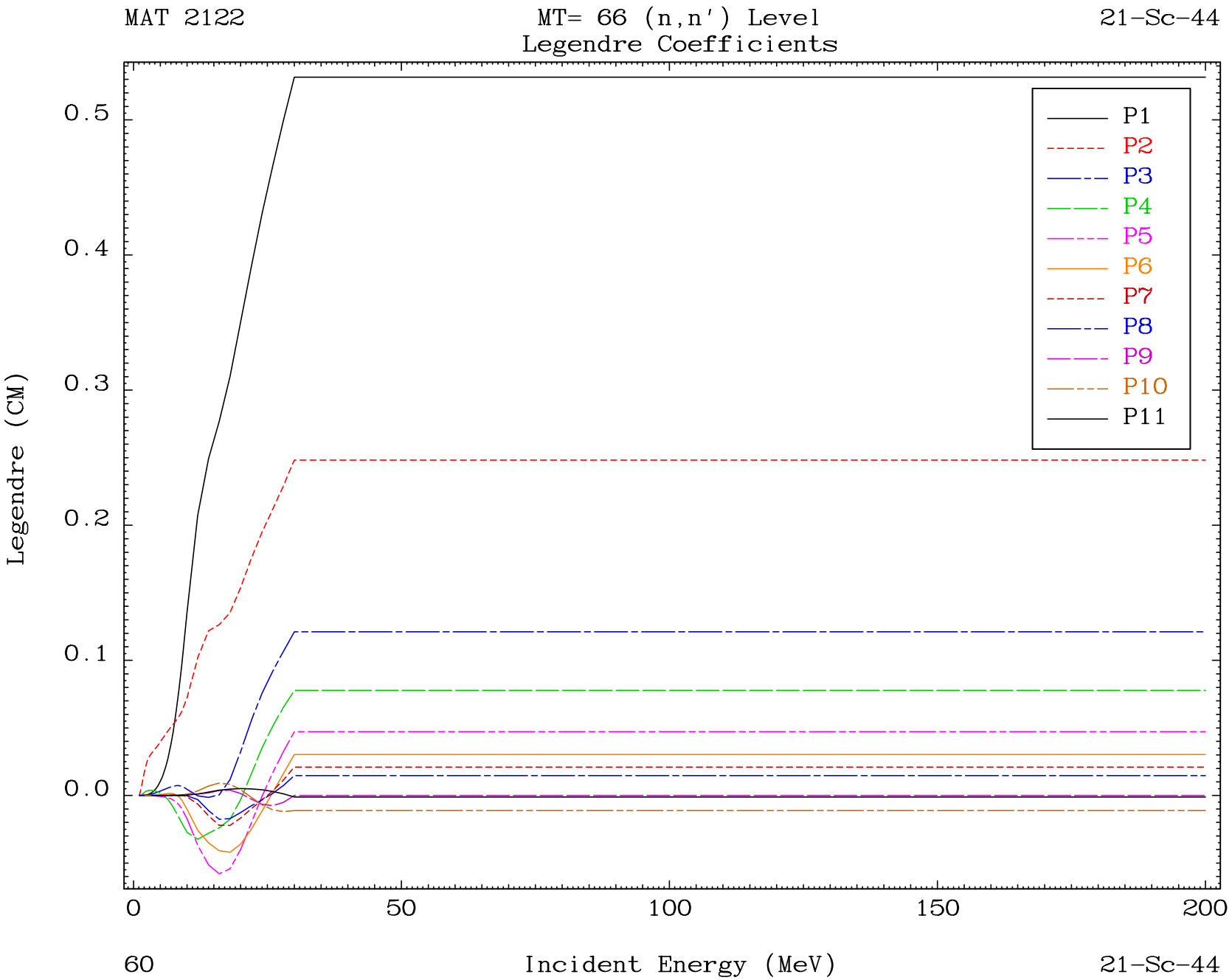

MAT 2122
MT= 64 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.08
0.06
0.04
0.02
0.00
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
55
Incident Energy (MeV)
21-Sc-44

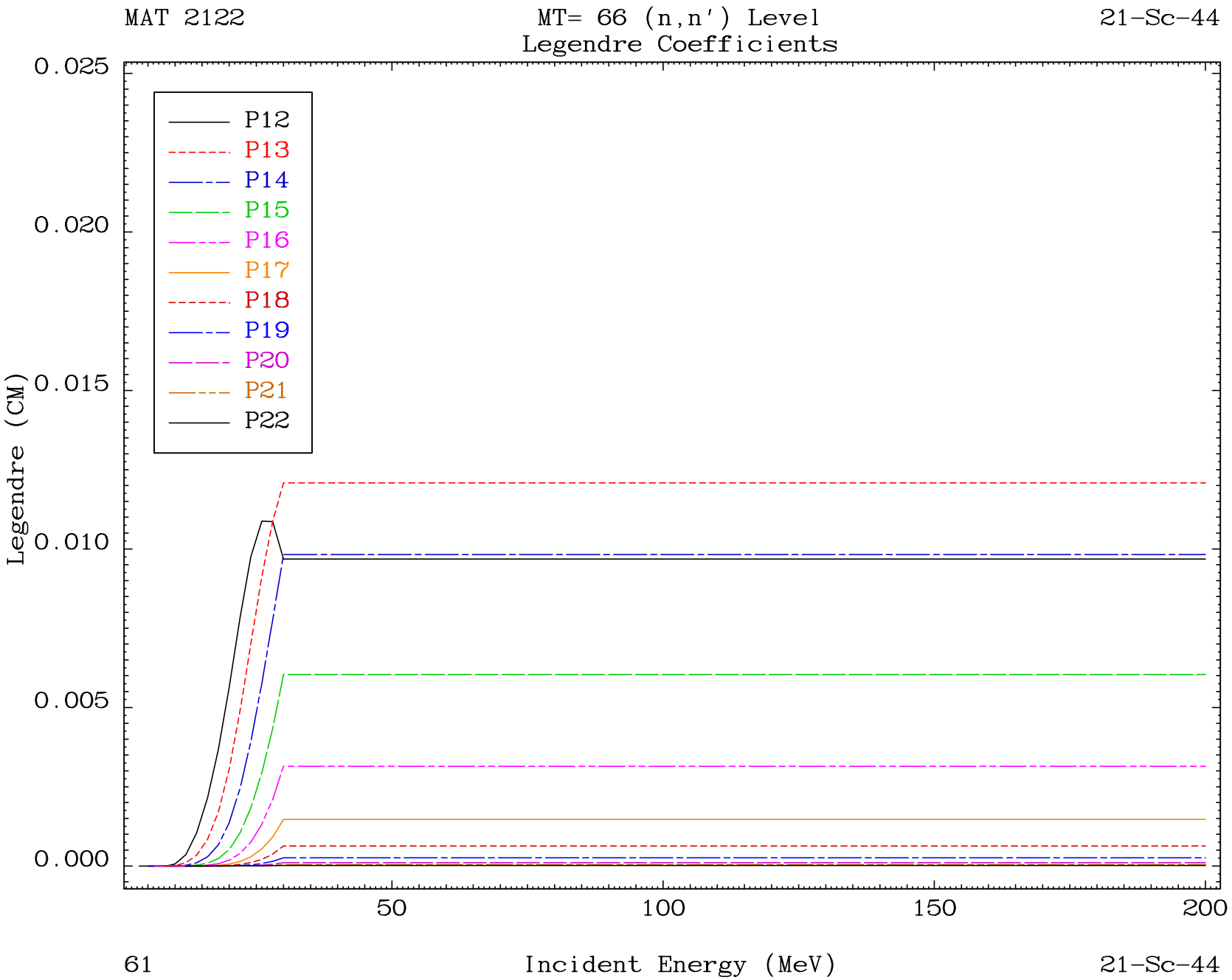

MAT 2122
MT= 64 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10^-4
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
0
50
100
150
200
56
Incident Energy (MeV)
21-Sc-44

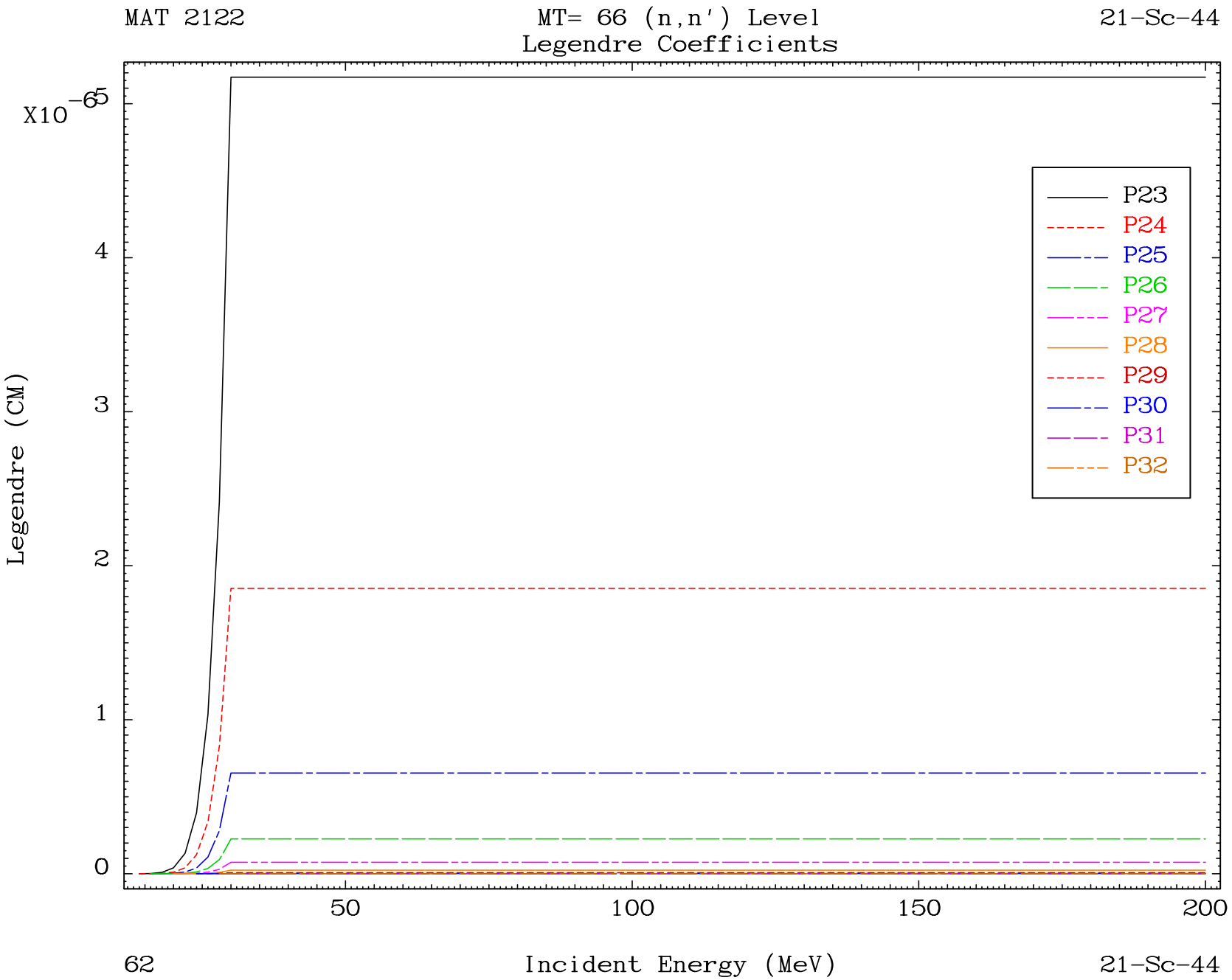

MAT 2122
MT= 64 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10^-7
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
57
Incident Energy (MeV)
21-Sc-44
P17
P18
P19
P20
P21
P22
P23
P24

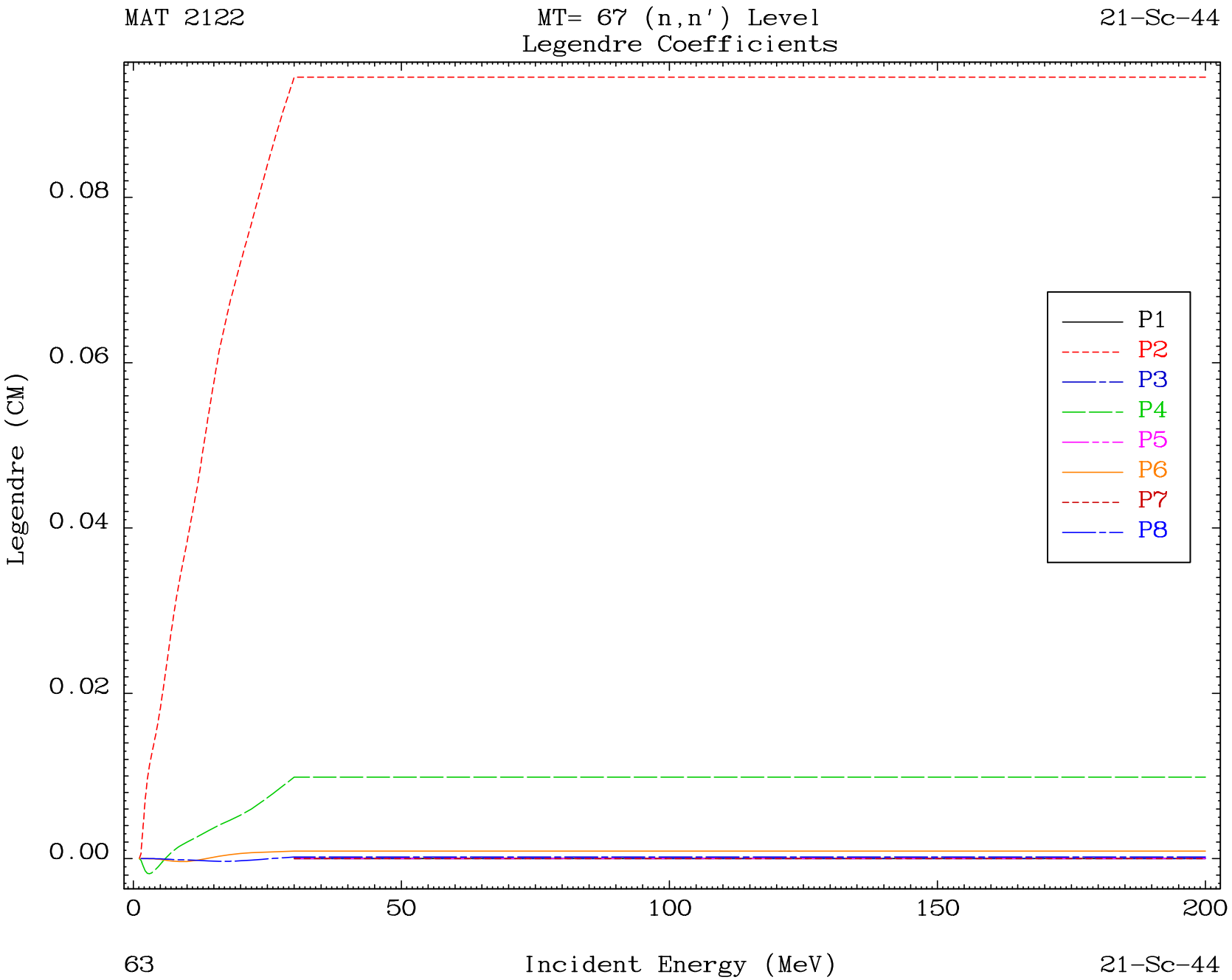

MAT 2122
MT= 65 (n,n') Level
Legendre Coefficients
21-Sc-44
0.06
0.04
0.02
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
0
50
100
150
200
58
Incident Energy (MeV)
21-Sc-44

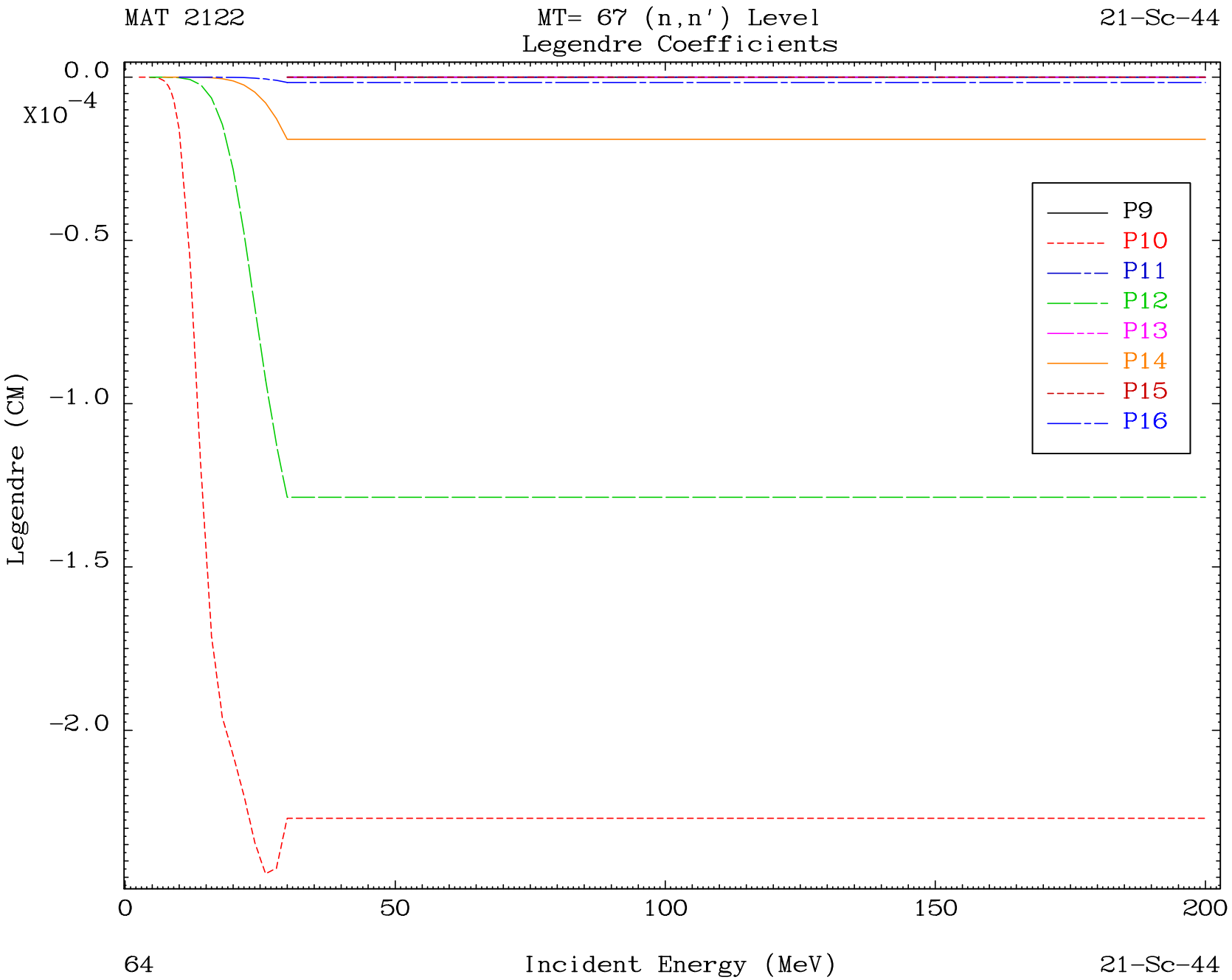

MAT 2122
MT= 65 (n,n') Level
Legendre Coefficients
21-Sc-44
0
X10^-5
-2
-4
-6
Legendre (CM)
50
100
150
200
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
59
Incident Energy (MeV)
21-Sc-44

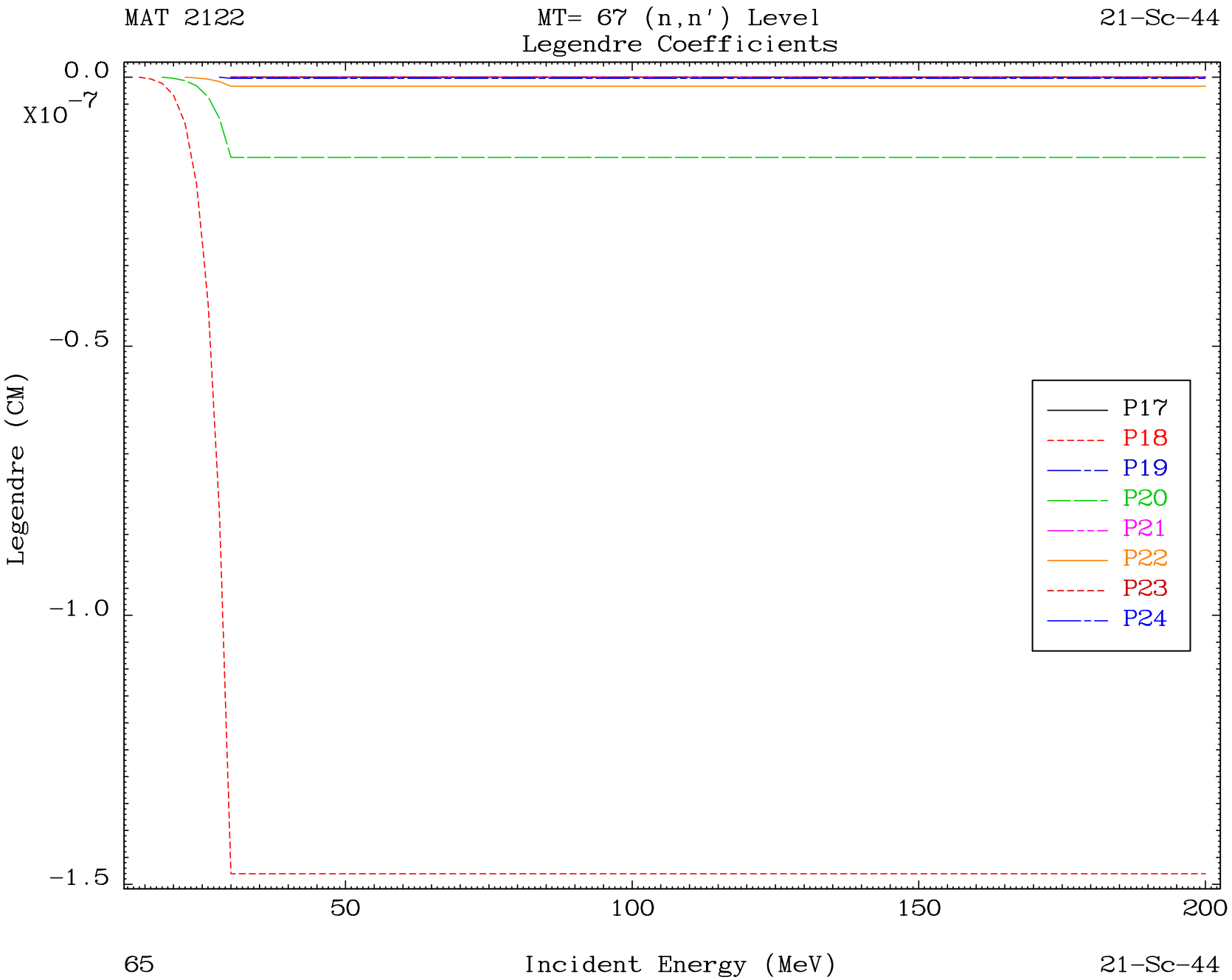

MAT 2122
MT= 66 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
60
Incident Energy (MeV)
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11

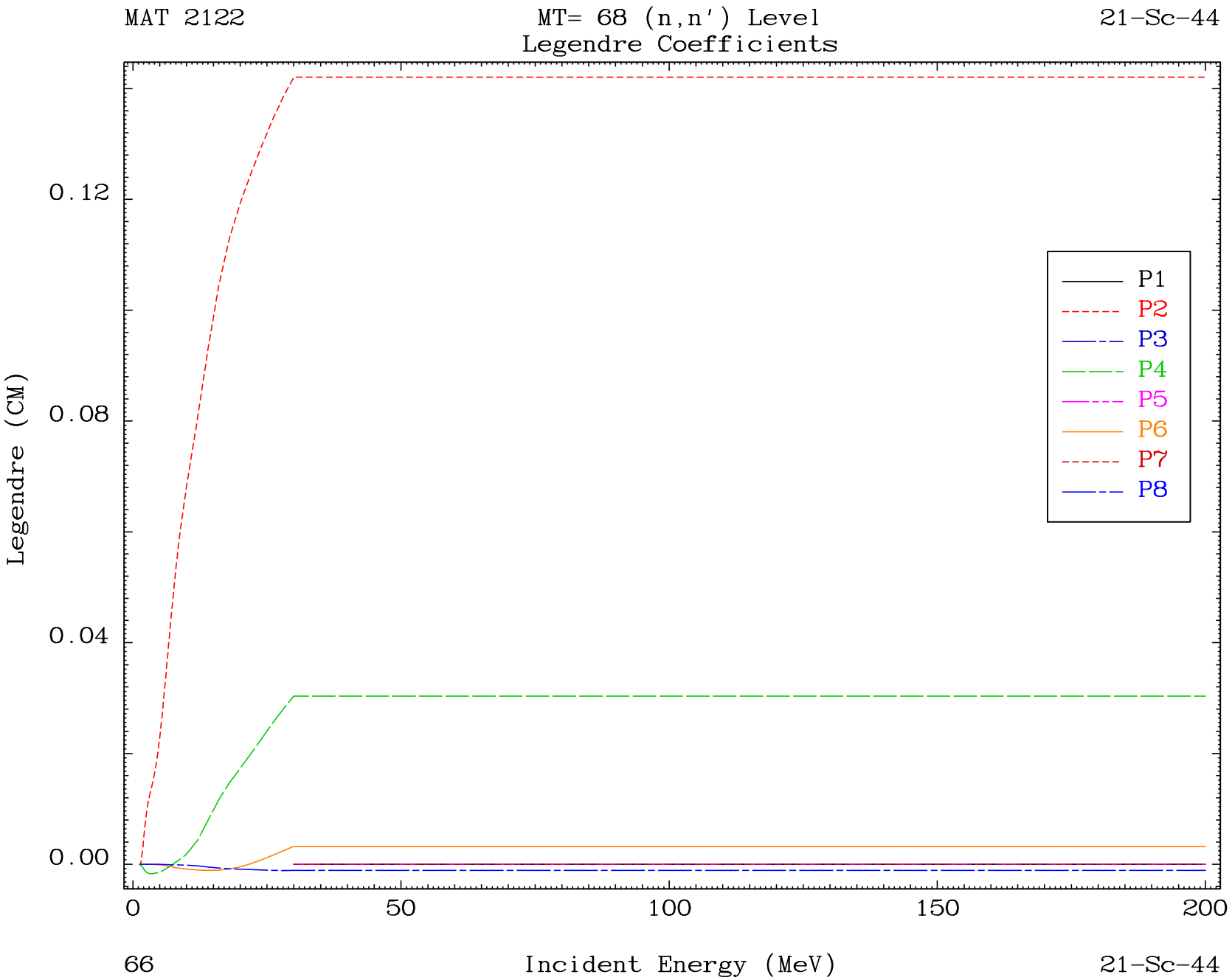

MAT 2122
MT= 66 (n,n') Level
Legendre Coefficients
21-Sc-44
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
0.025
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
61
Incident Energy (MeV)
21-Sc-44

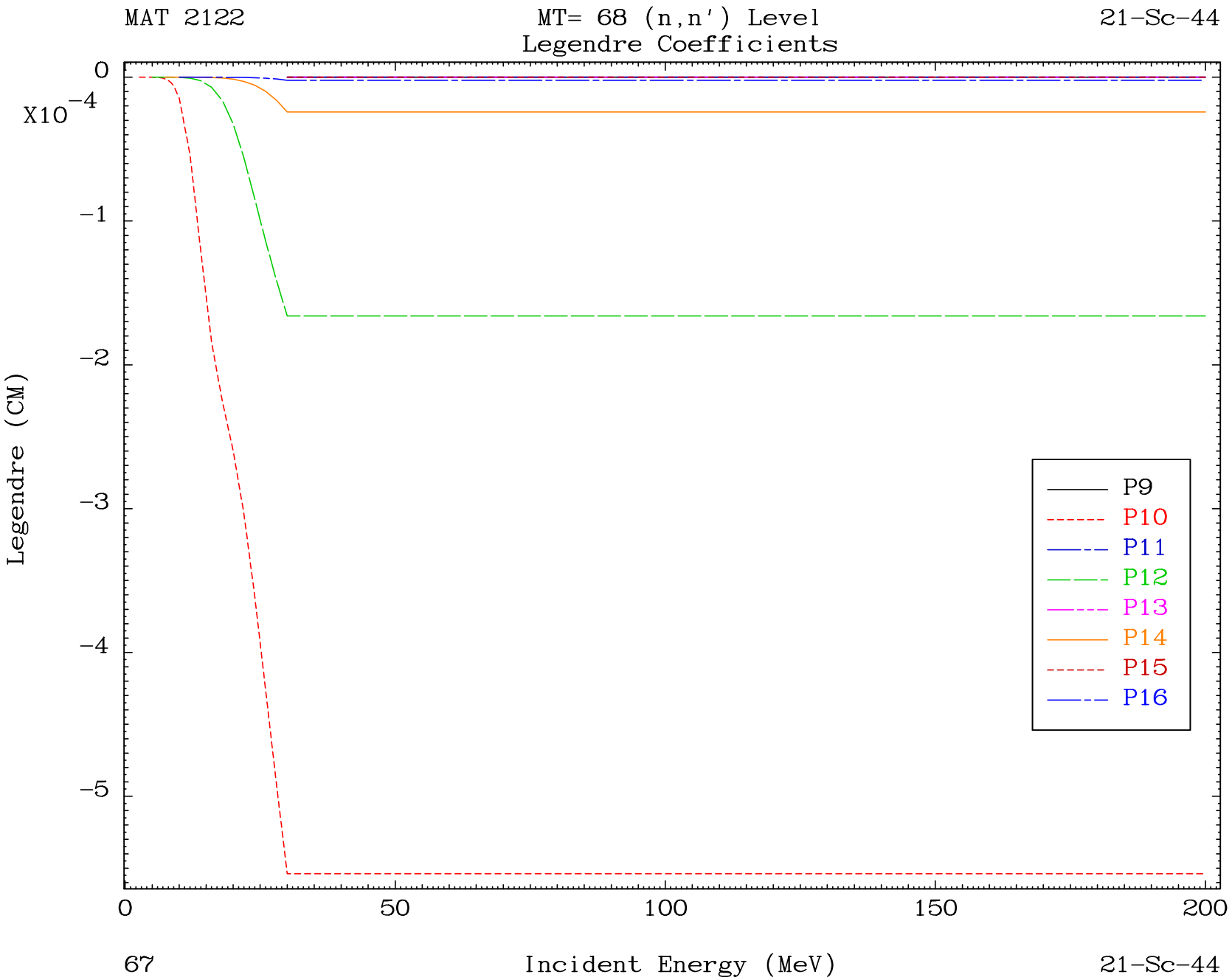

MAT 2122
MT= 66 (n,n') Level
Legendre Coefficients
21-Sc-44
X10 -6 5
4
3
2
1
0
Legendre (CM)
50
100
150
200
62
Incident Energy (MeV)
21-Sc-44
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32

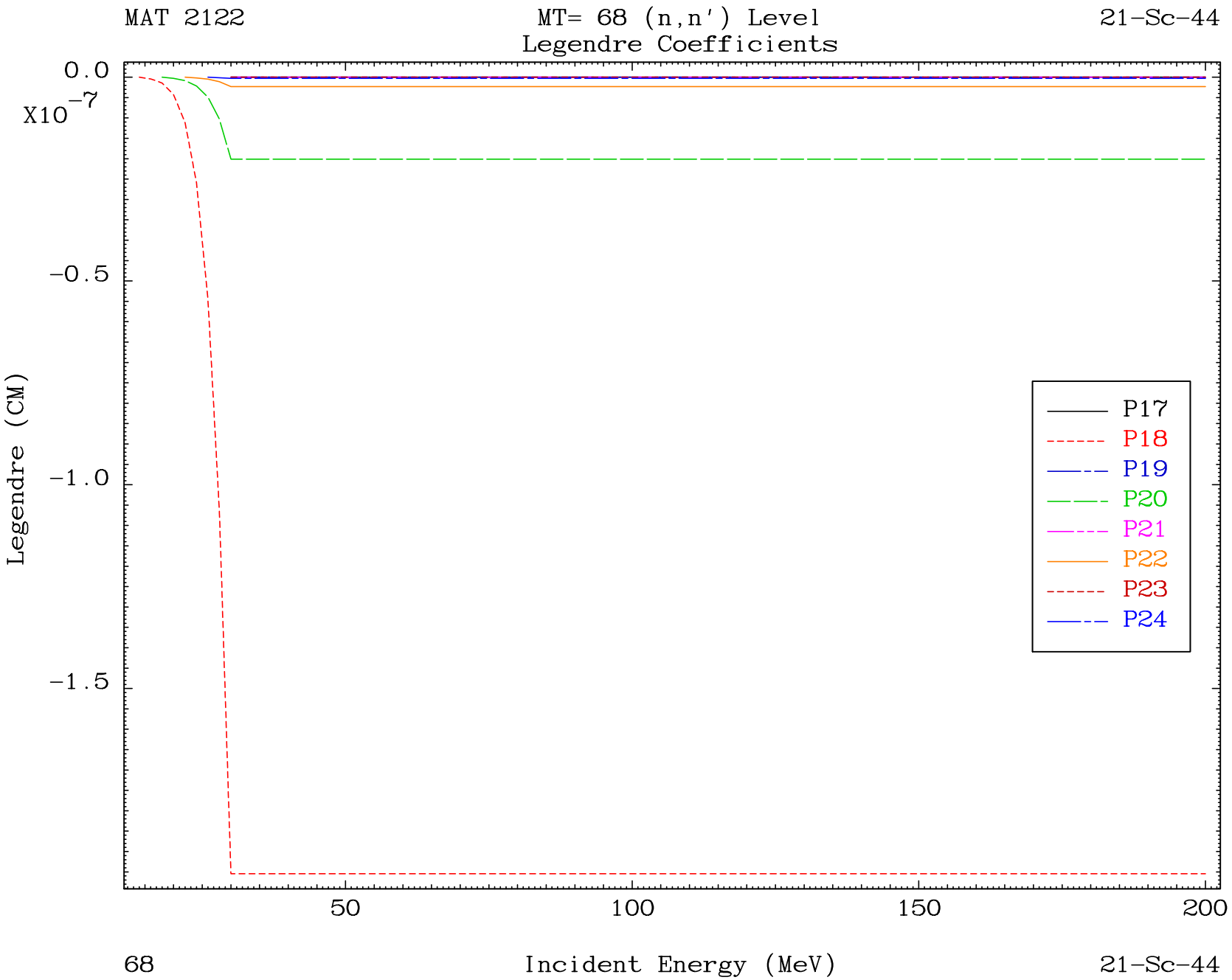

MAT 2122
MT= 67 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.08
0.06
0.04
0.02
0.00
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
63
Incident Energy (MeV)
21-Sc-44

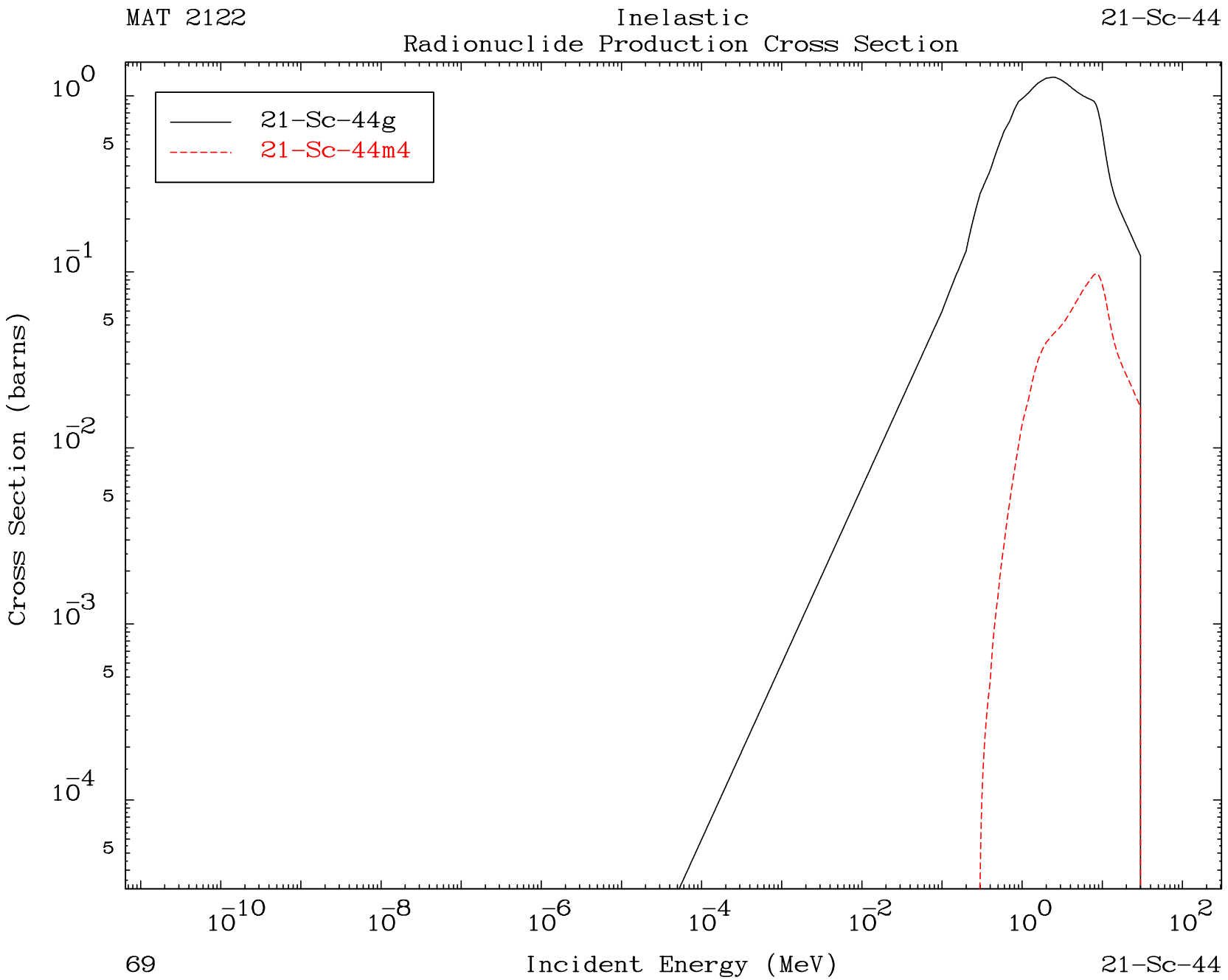

MAT 2122
MT= 67 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10^-4
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
P9
P10
P11
P12
P13
P14
P15
P16
0
50
100
150
200
64
Incident Energy (MeV)
21-Sc-44

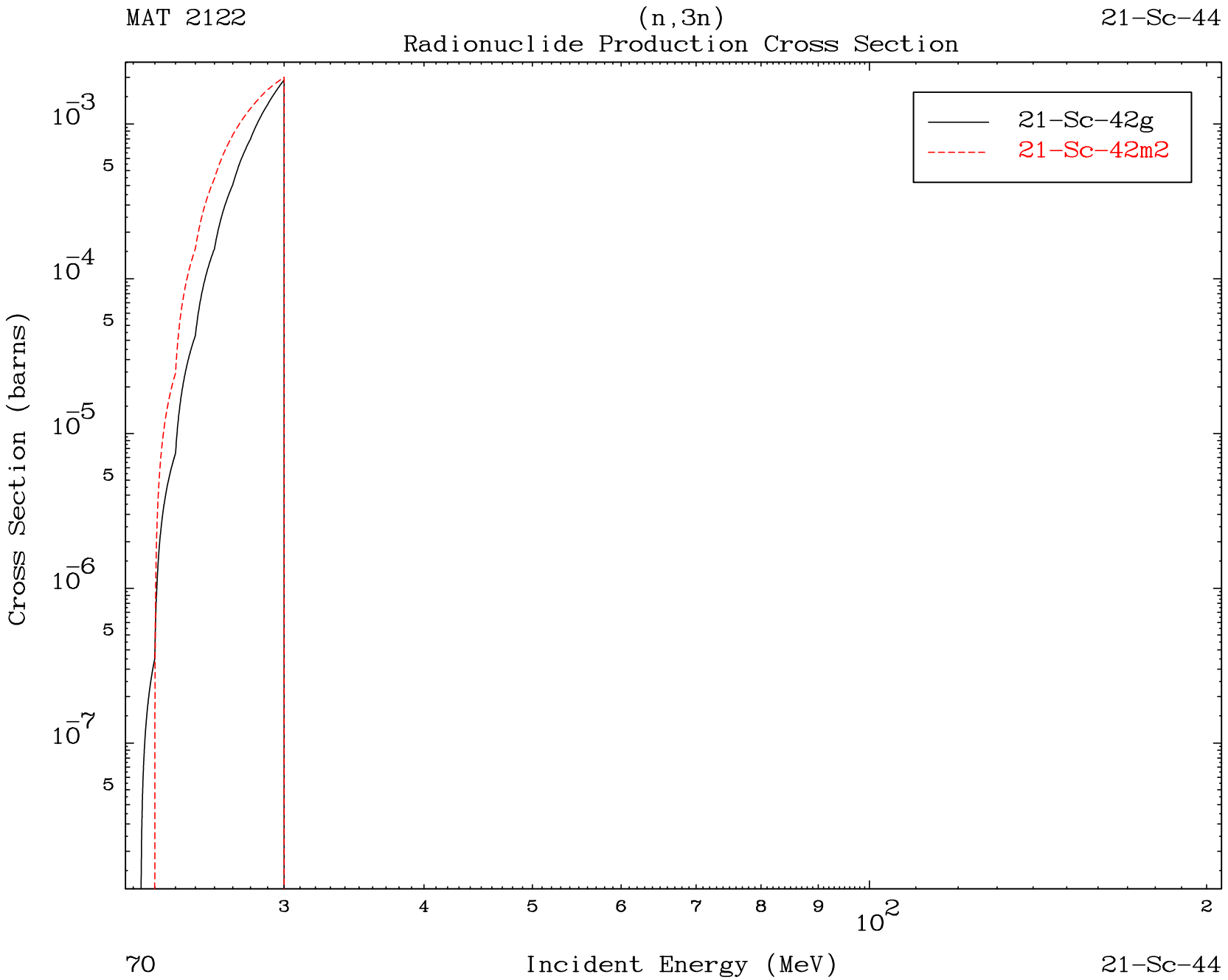

MAT 2122
MT= 67 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10-7
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
65
Incident Energy (MeV)
21-Sc-44
P17
P18
P19
P20
P21
P22
P23
P24

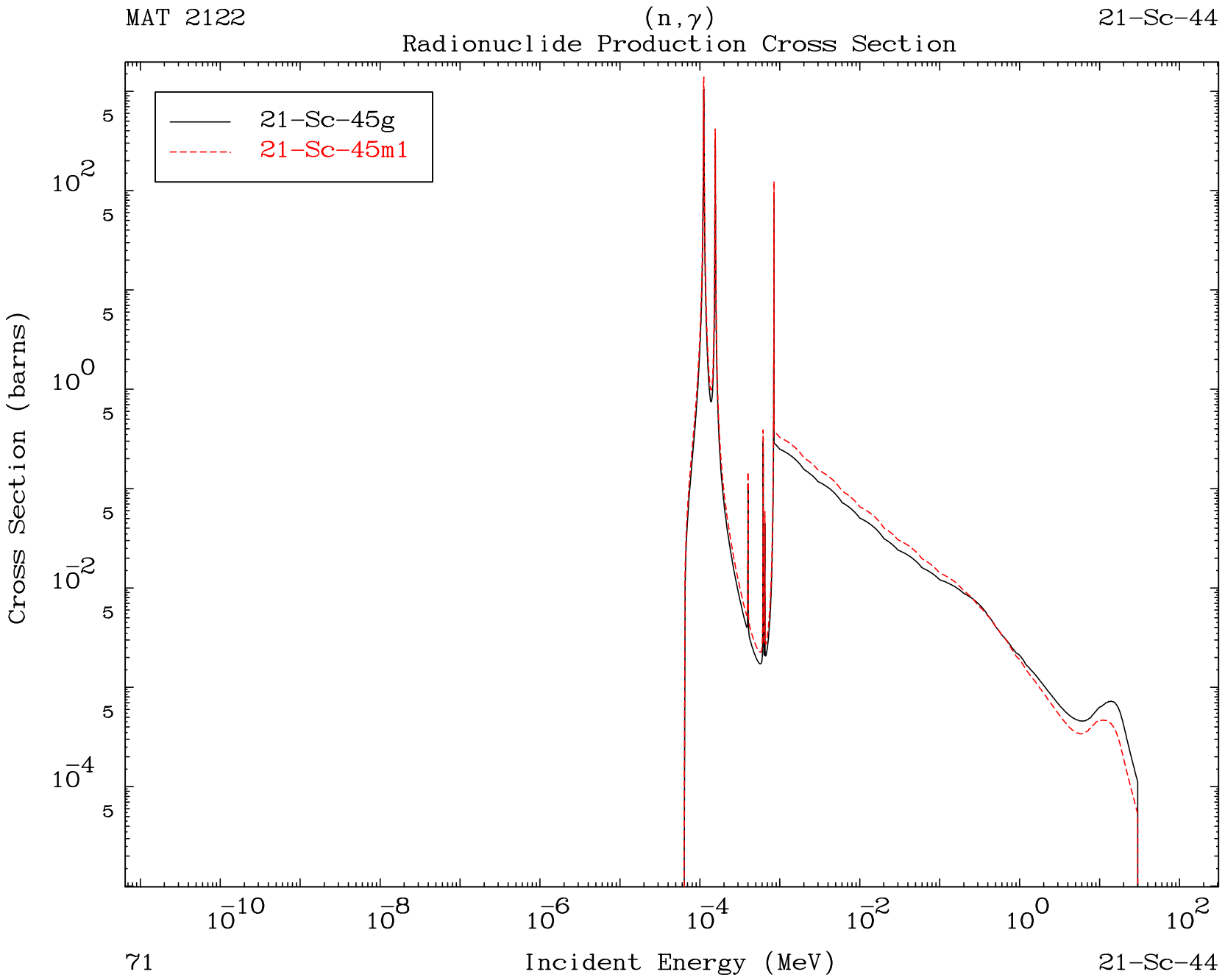

MAT 2122
MT= 68 (n,n') Level
Legendre Coefficients
21-Sc-44
Legendre (CM)
0.12
0.08
0.04
0.00
0
50
100
150
200
Incident Energy (MeV)
66
21-Sc-44
P1
P2
P3
P4
P5
P6
P7
P8


MAT 2122
MT= 68 (n,n') Level
Legendre Coefficients
21-Sc-44
X10^-4
0
-1
-2
-3
-4
-5
Legendre (CM)
0
50
100
150
200
Incident Energy (MeV)
67
21-Sc-44
P9
P10
P11
P12
P13
P14
P15
P16


MAT 2122
MT= 68 (n,n') Level
Legendre Coefficients
21-Sc-44
0.0
X10-7
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
68
Incident Energy (MeV)
21-Sc-44
P17
P18
P19
P20
P21
P22
P23
P24


MAT 2122
Inelastic
21-Sc-44
Radionuclide Production Cross Section
21-Sc-44g
21-Sc-44m4
Cross Section (barns)
Incident Energy (MeV)
69
21-Sc-44


MAT 2122
(n,3n)
21-Sc-44
Radionuclide Production Cross Section
21-Sc-42g
21-Sc-42m2
Cross Section (barns)
10-3
10-4
10-5
10-6
10-7
5
3
4
5
6
7
8
9
10 2
2
70
Incident Energy (MeV)
21-Sc-44


MAT 2122
(n,γ)
21-Sc-44
Radionuclide Production Cross Section
21-Sc-45g
21-Sc-45m1
Cross Section (barns)
Incident Energy (MeV)
71
21-Sc-44