Program EVALPLOT
(Version 2017-1)
by
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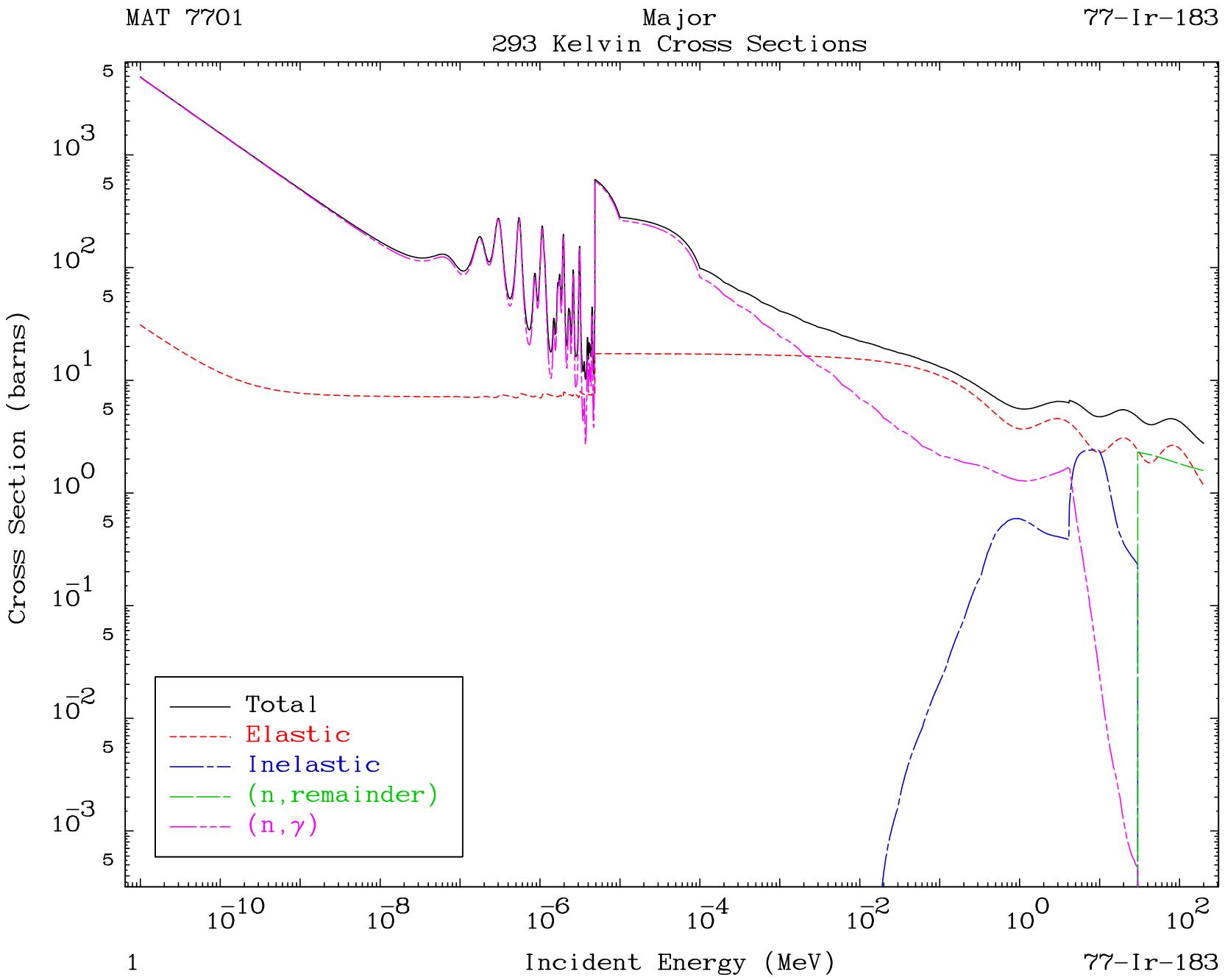
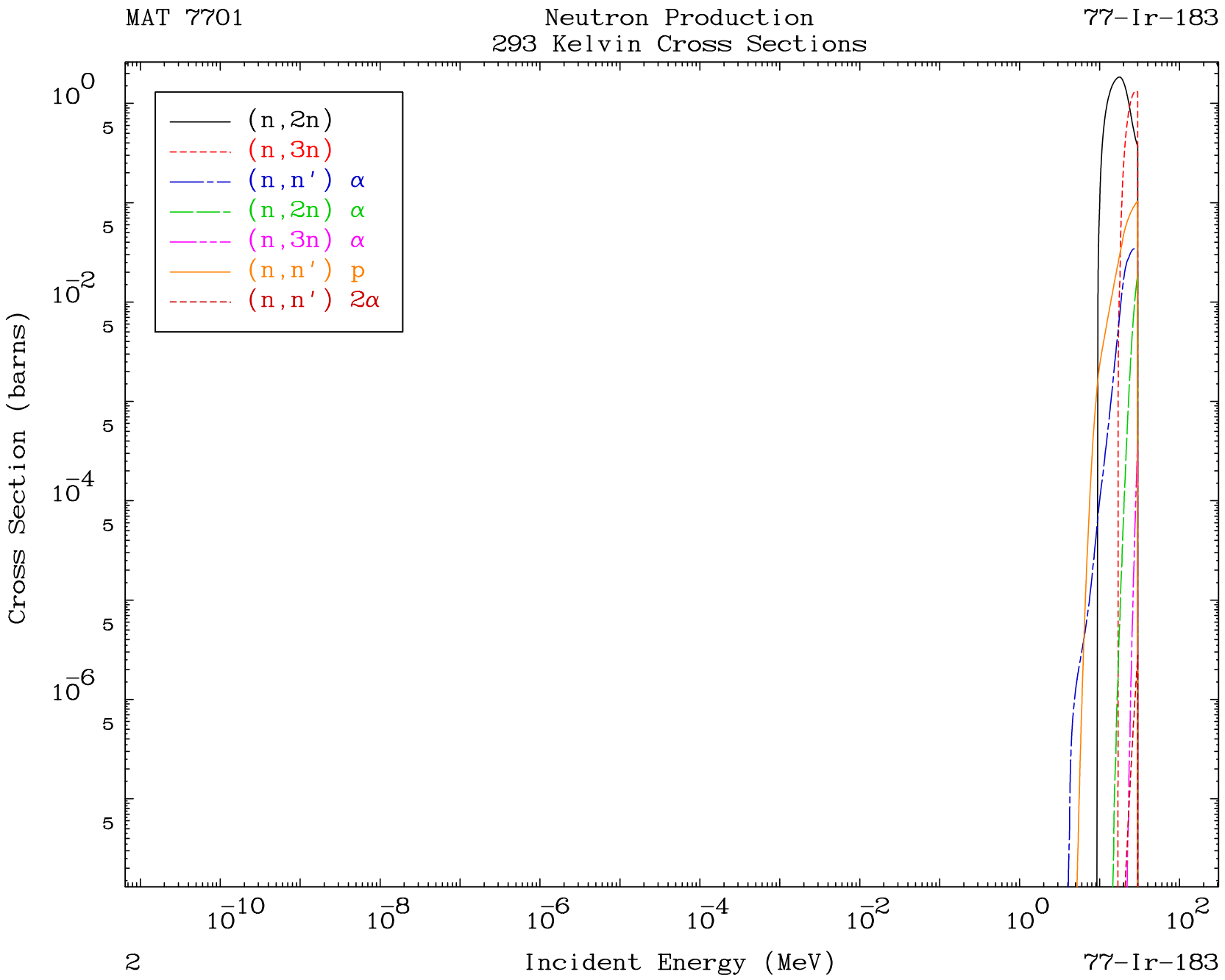
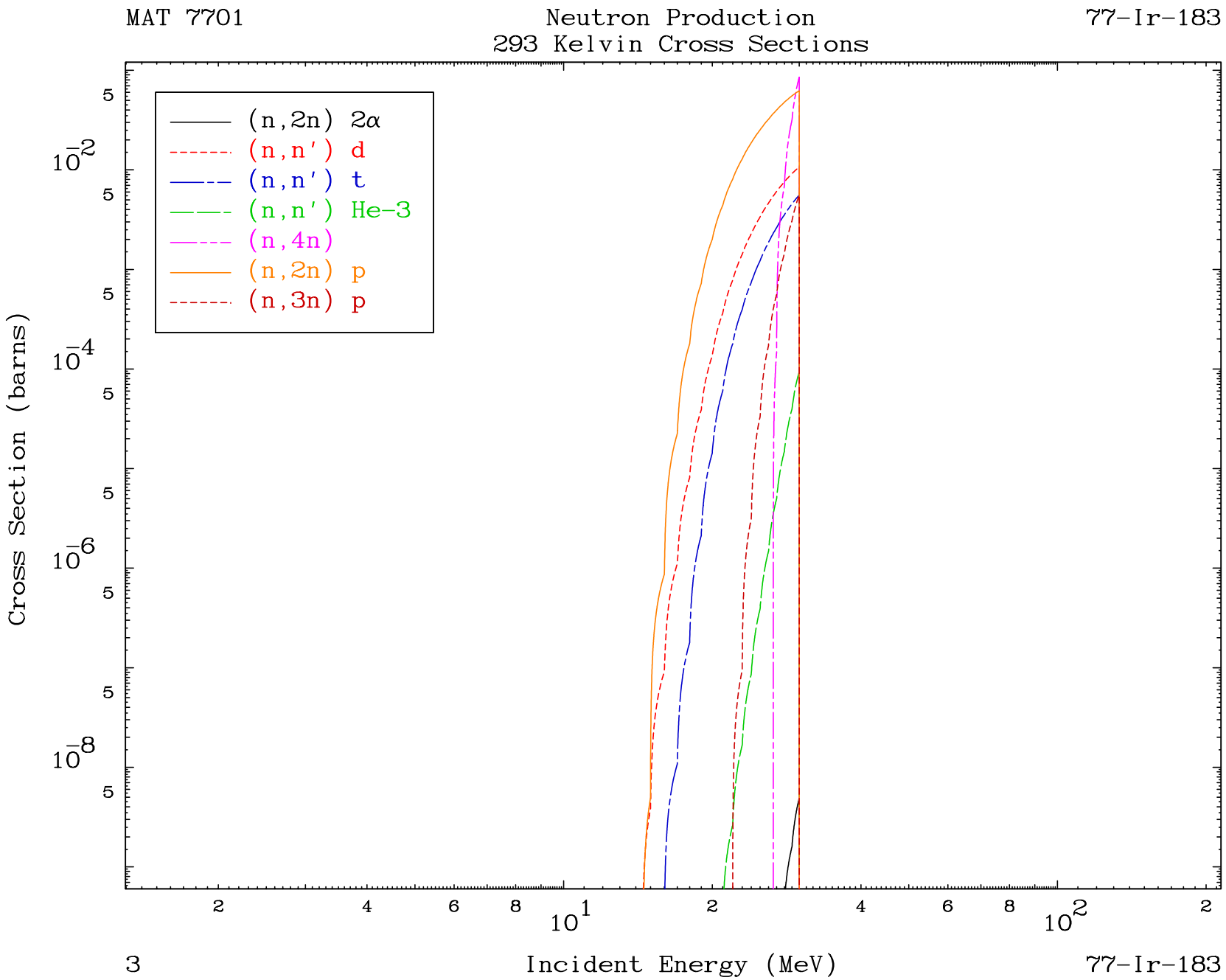
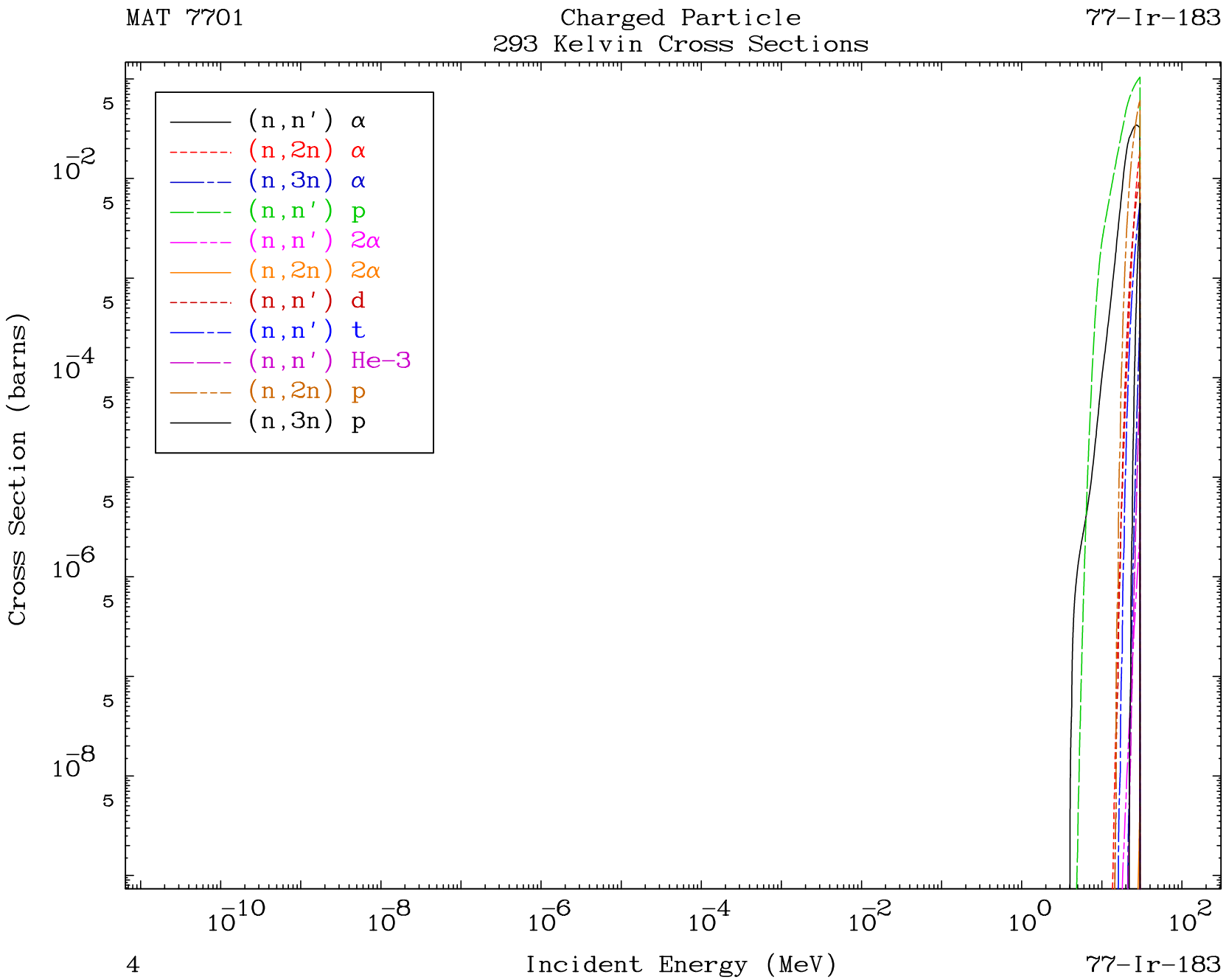
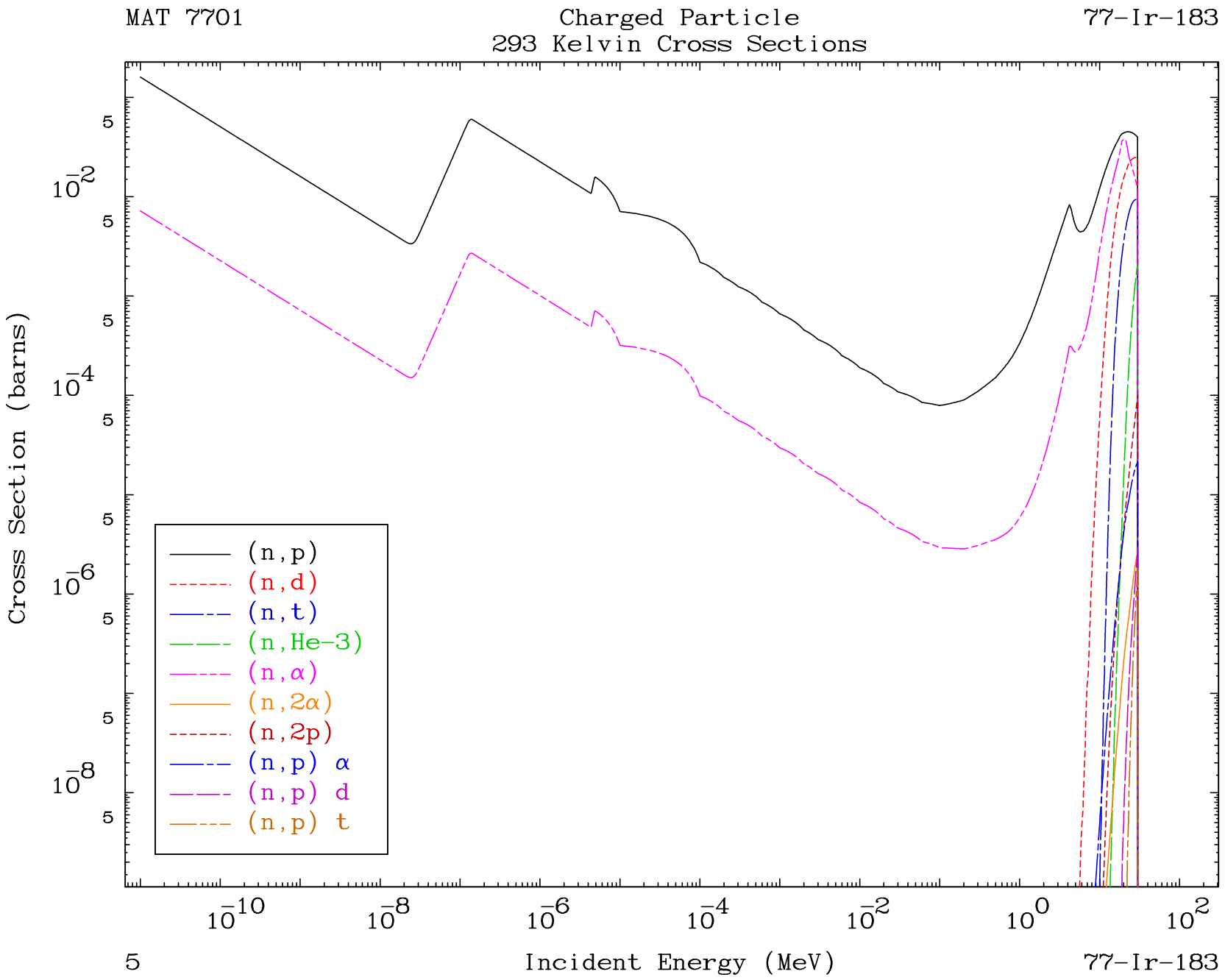
Press Mouse Button to Start

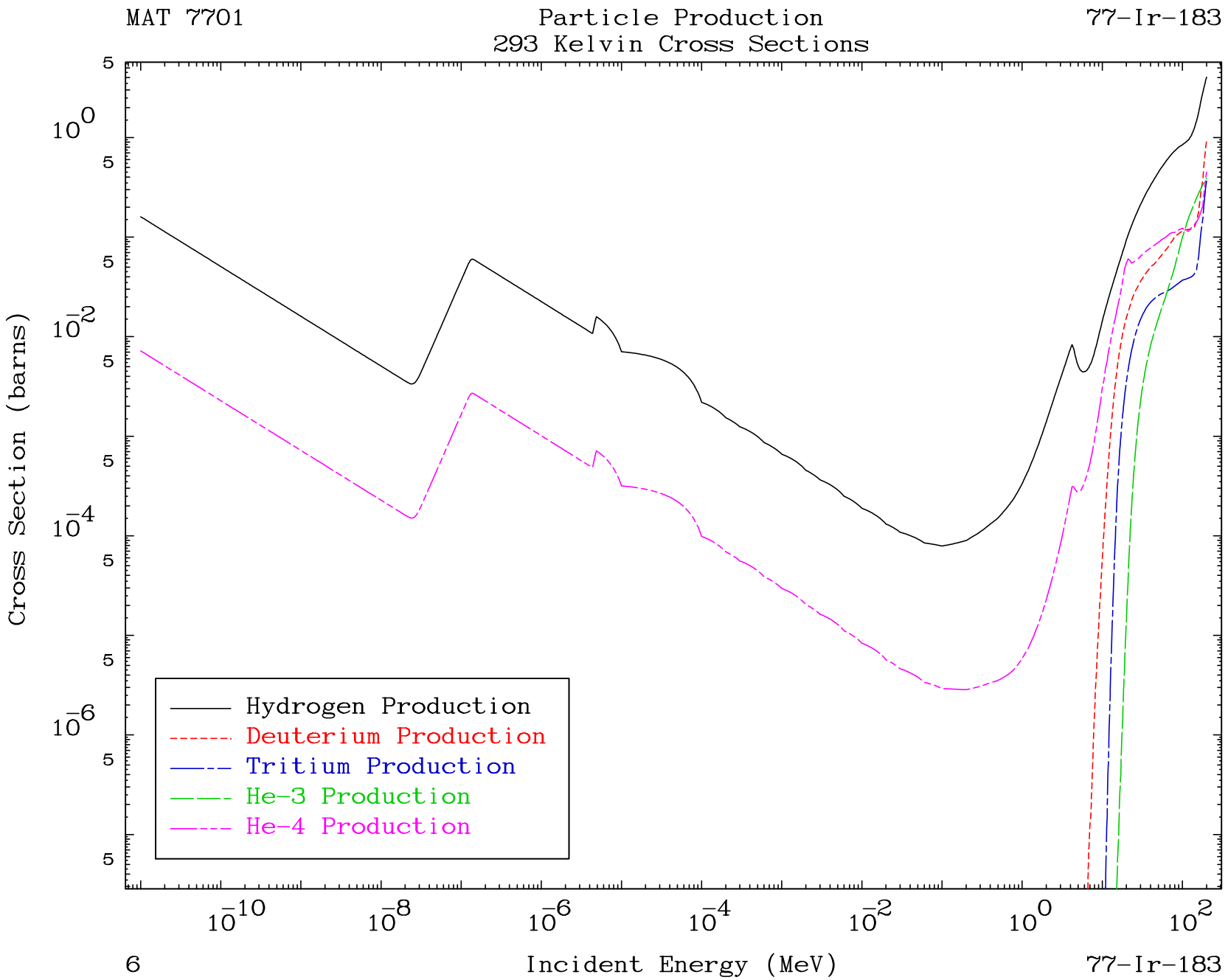

MAT 7701
Major
77-Ir-183
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
77-Ir-183

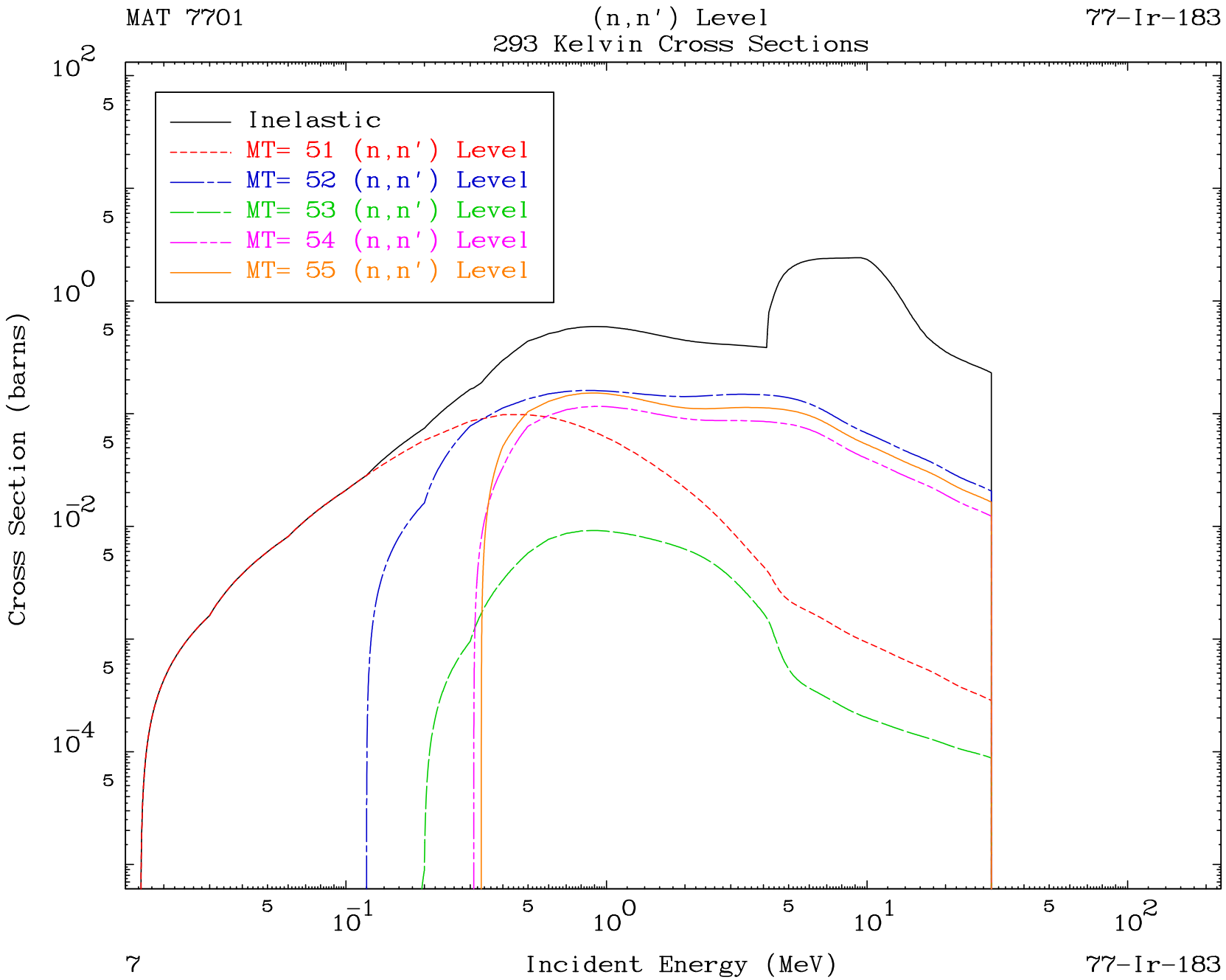

MAT 7701
Neutron Production
293 Kelvin Cross Sections
77-Ir-183
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
2
77-Ir-183

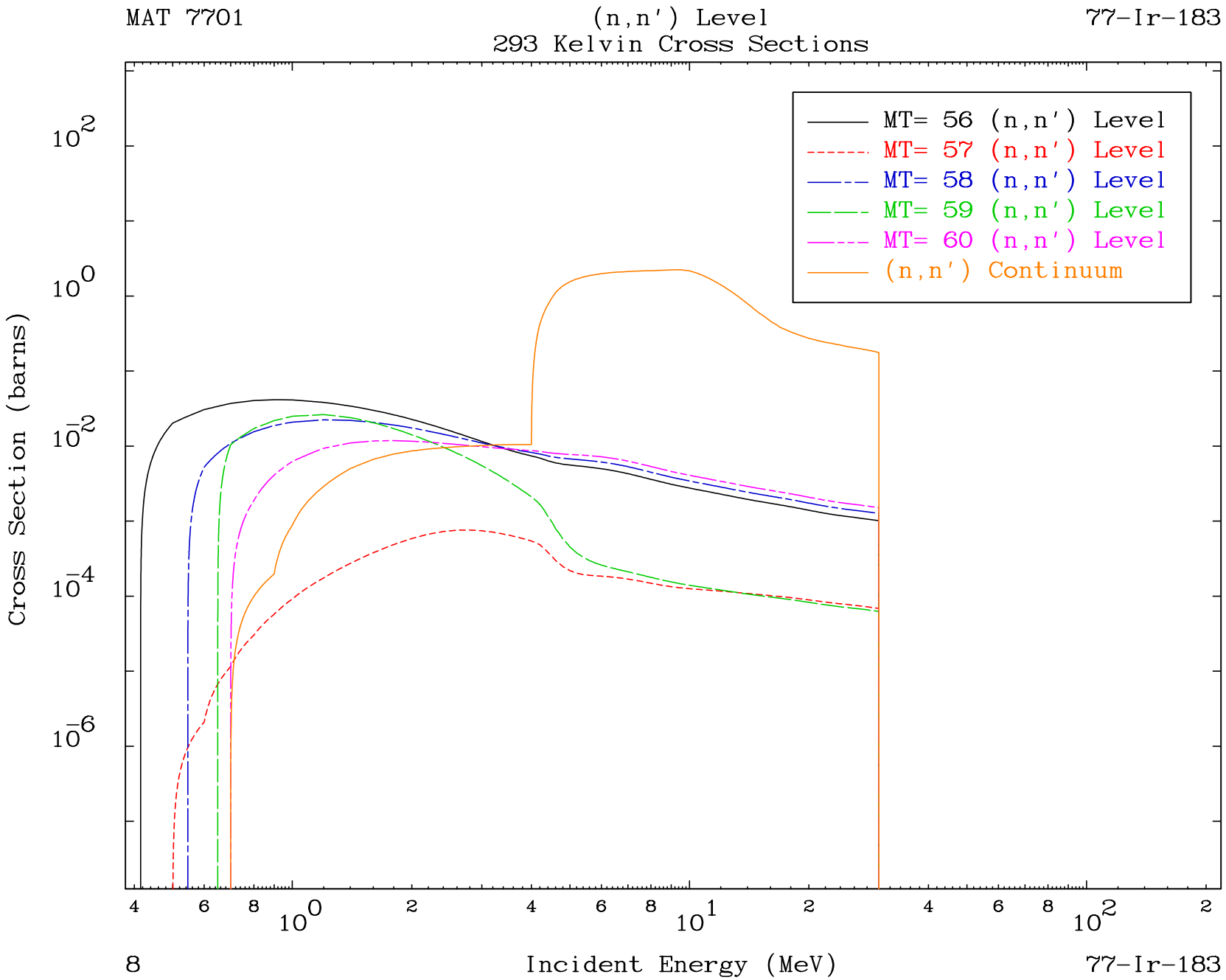

MAT 7701
Neutron Production
293 Kelvin Cross Sections
77-Ir-183
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
4
6
8
10 1
10 2
Incident Energy (MeV)
3
77-Ir-183

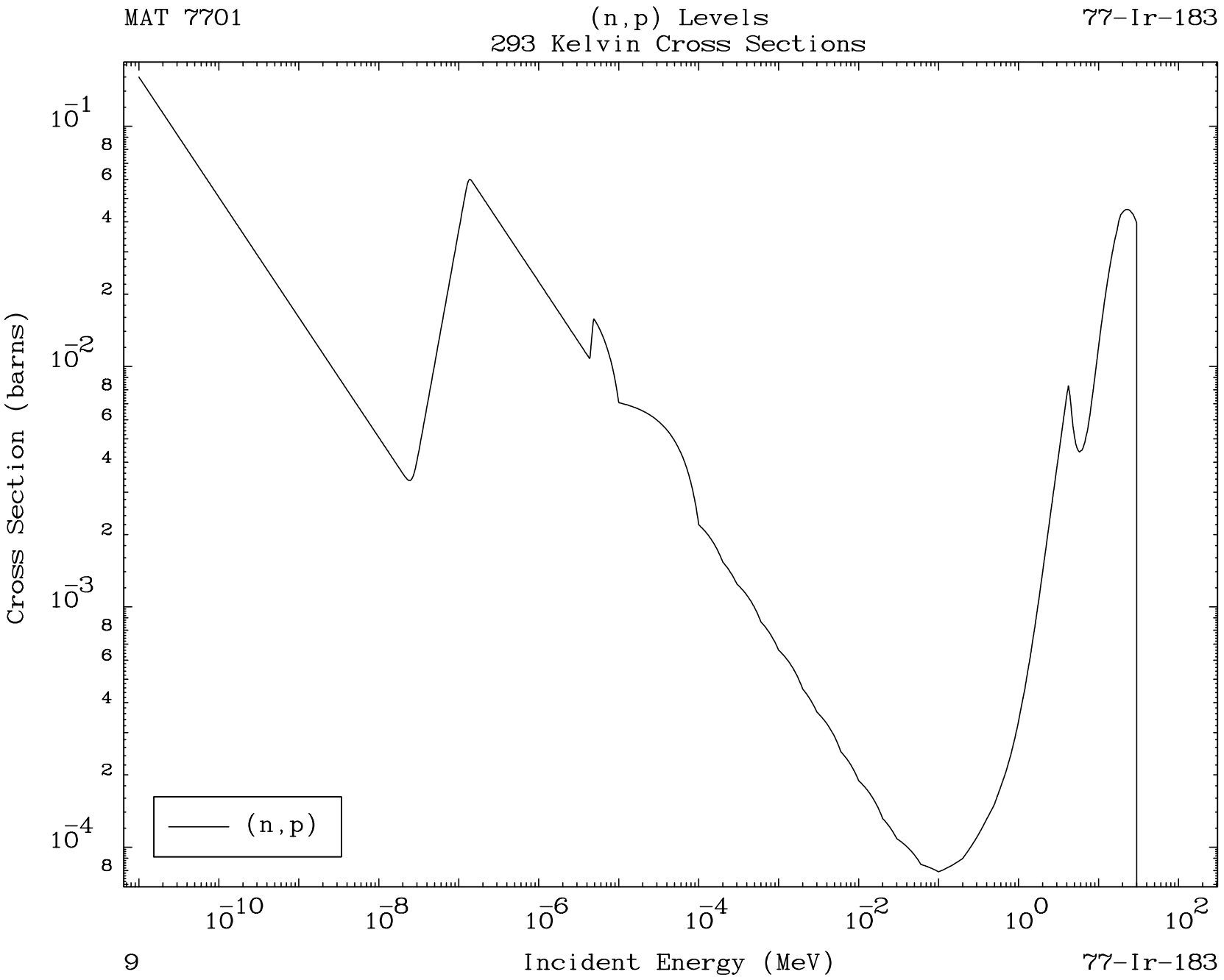

MAT 7701
Charged Particle
293 Kelvin Cross Sections
77-Ir-183
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
4
77-Ir-183

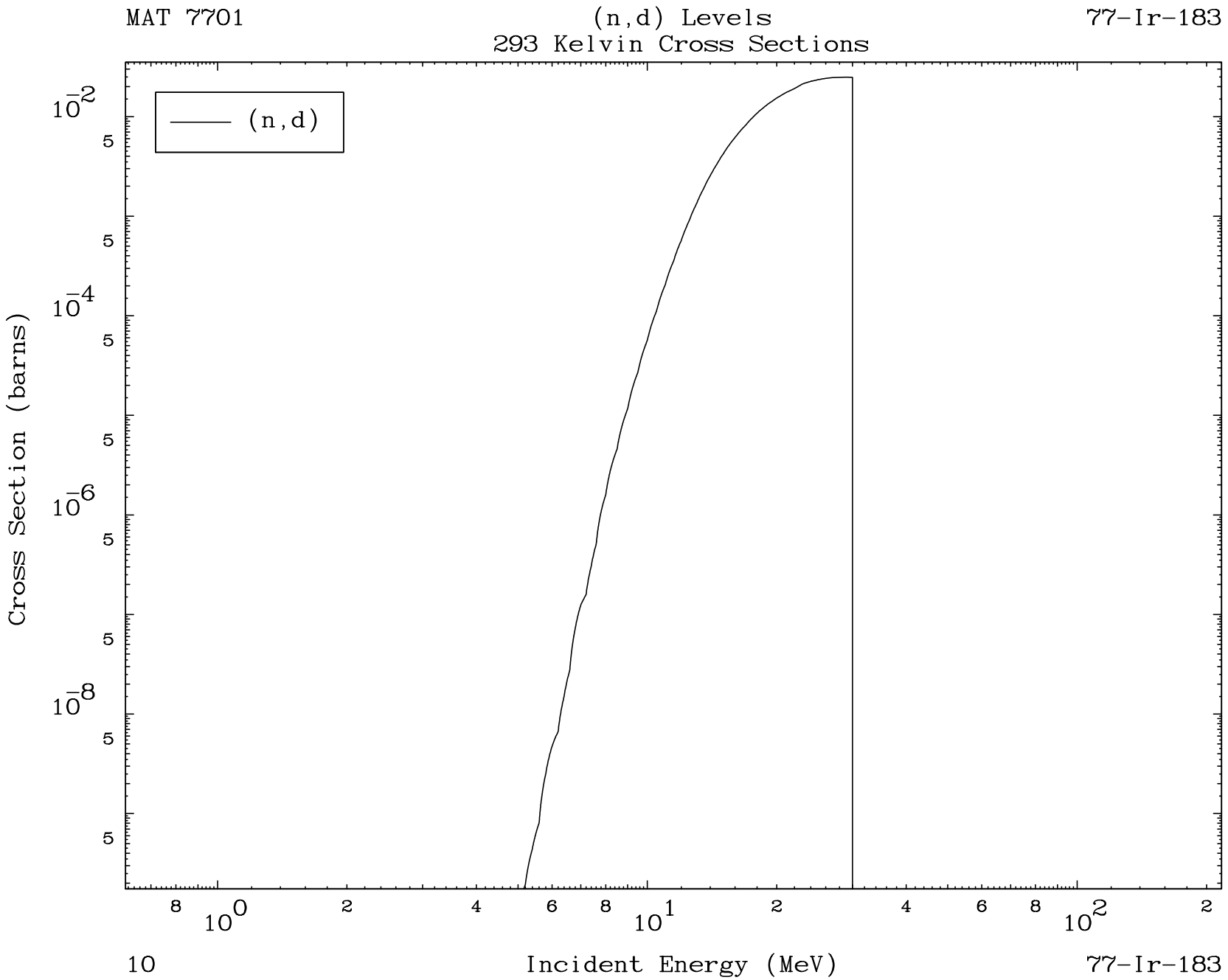

MAT 7701
Charged Particle
293 Kelvin Cross Sections
77-Ir-183
Cross Section (barns)
Incident Energy (MeV)
77-Ir-183
5
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t

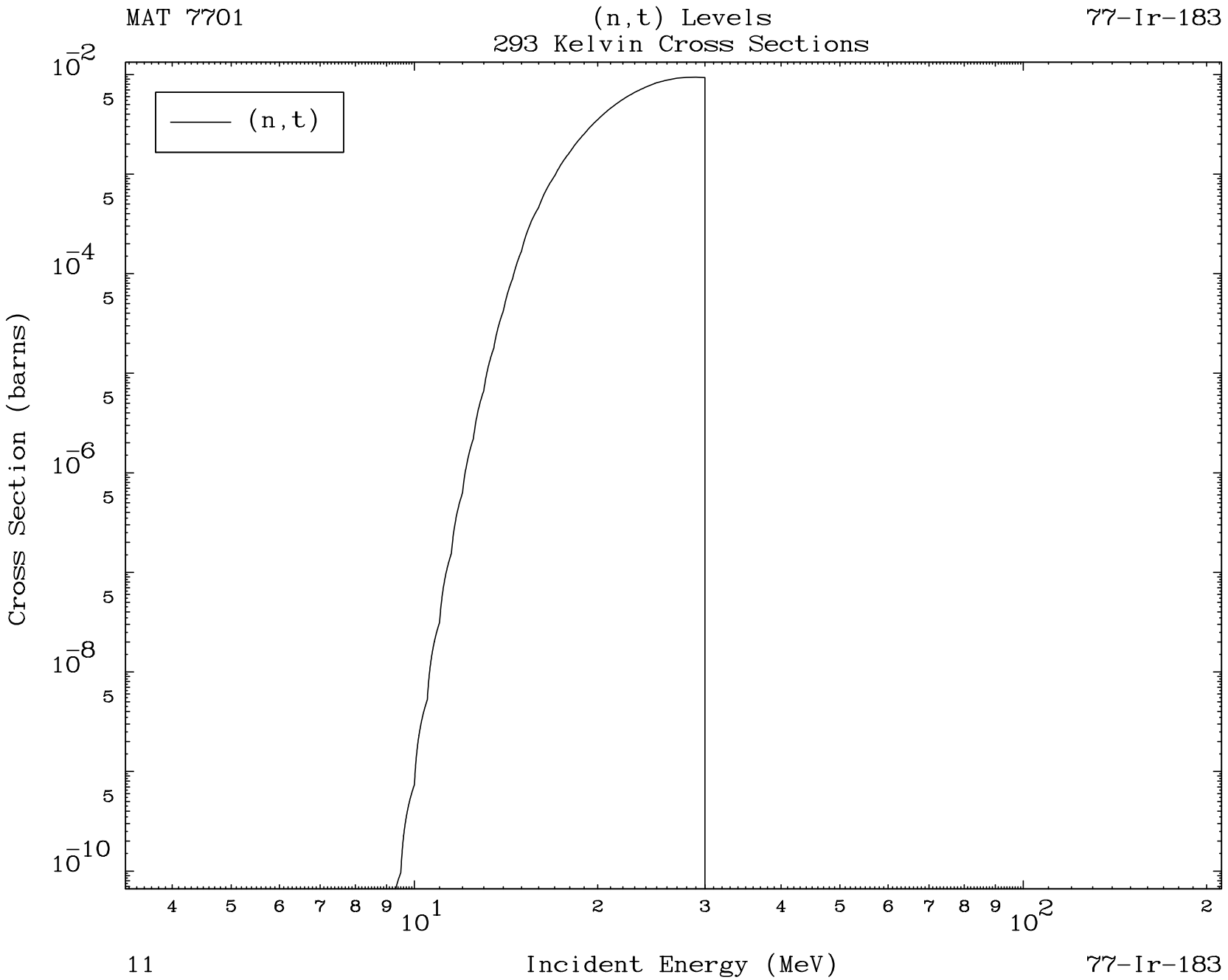

MAT 7701
Particle Production
293 Kelvin Cross Sections
77-Ir-183
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
6
77-Ir-183

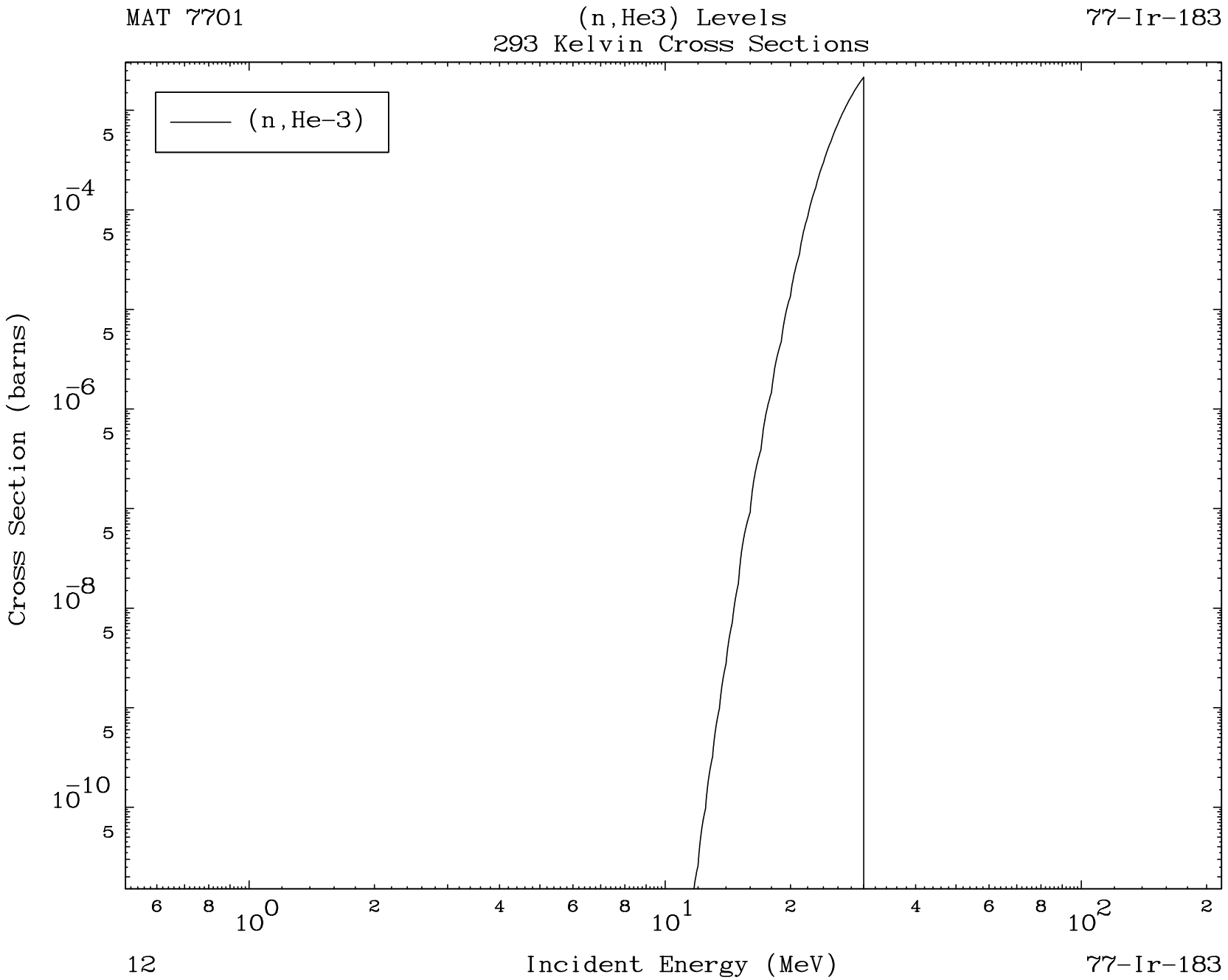

MAT 7701
(n,n') Level
77-Ir-183
293 Kelvin Cross Sections
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
7
77-Ir-183

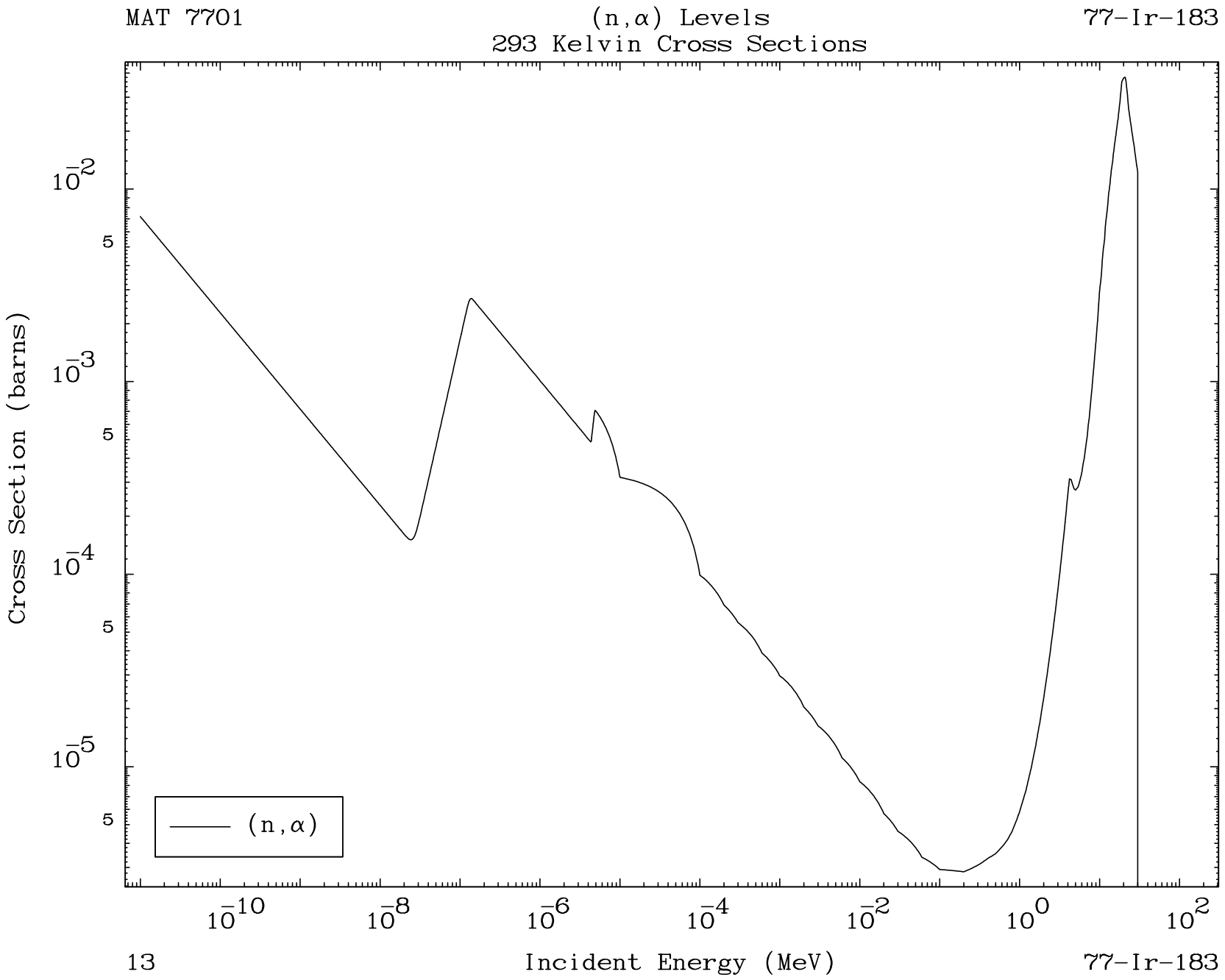

MAT 7701
(n,n') Level
293 Kelvin Cross Sections
77-Ir-183
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
MT= 59 (n,n') Level
MT= 60 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
8
77-Ir-183

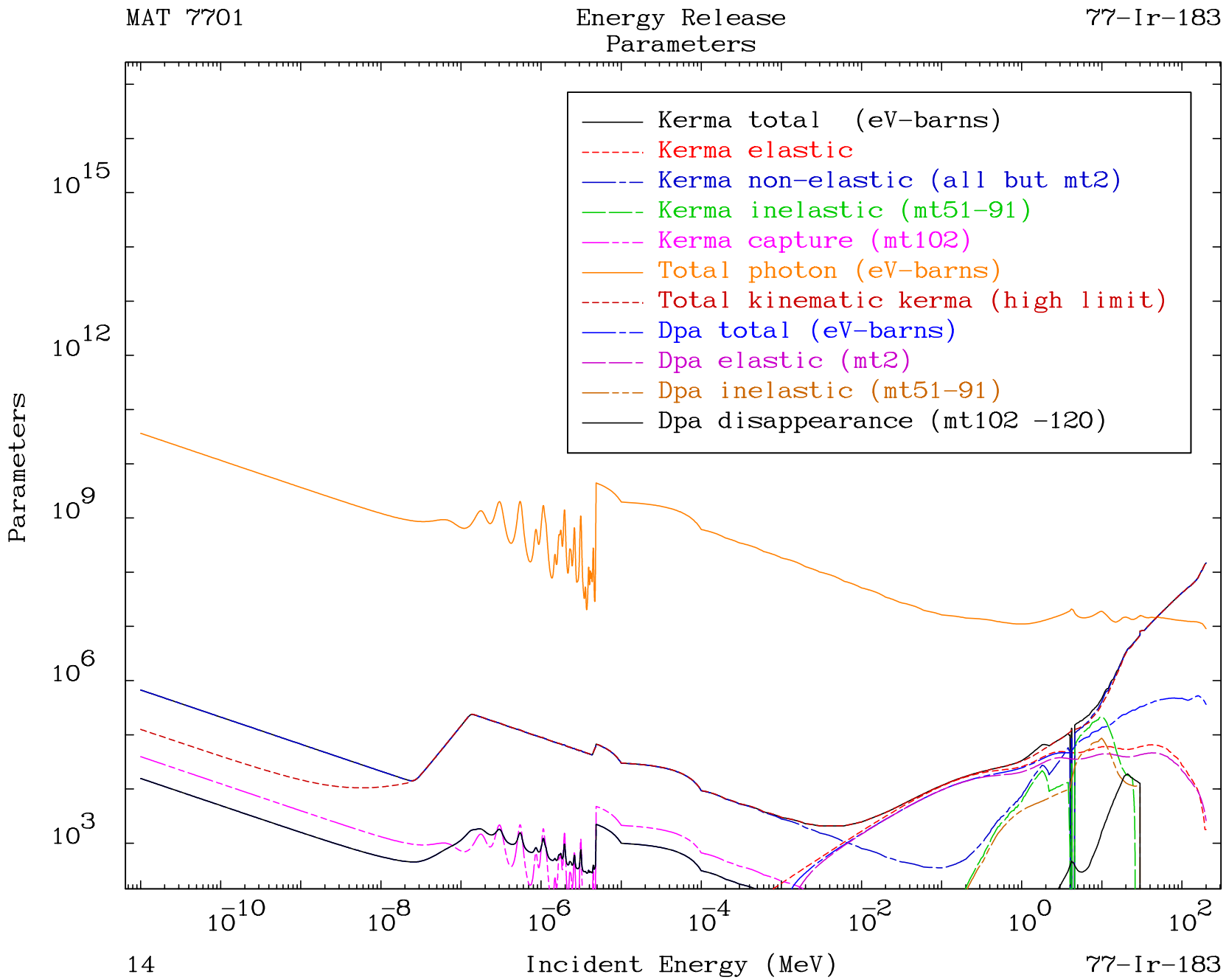

MAT 7701
(n,p) Levels
77-Ir-183
293 Kelvin Cross Sections
Cross Section (barns)
10-1
8
6
4
2
10-2
8
6
4
2
10-3
8
6
4
2
10-4
8
(n,p)
10-10
10-8
10-6
10-4
10-2
100
102
Incident Energy (MeV)
9
77-Ir-183

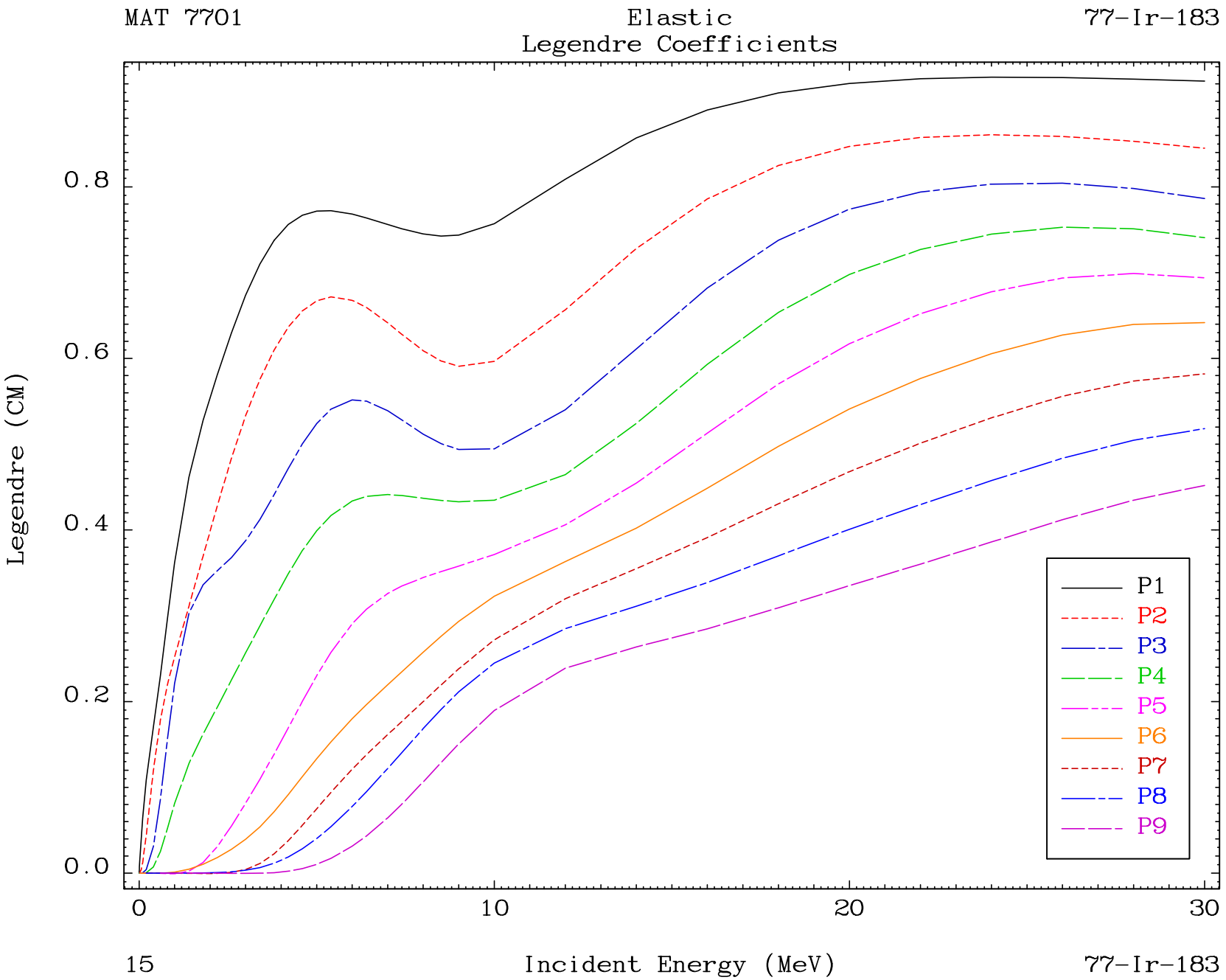

MAT 7701
(n,d) Levels
77-Ir-183
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
77-Ir-183

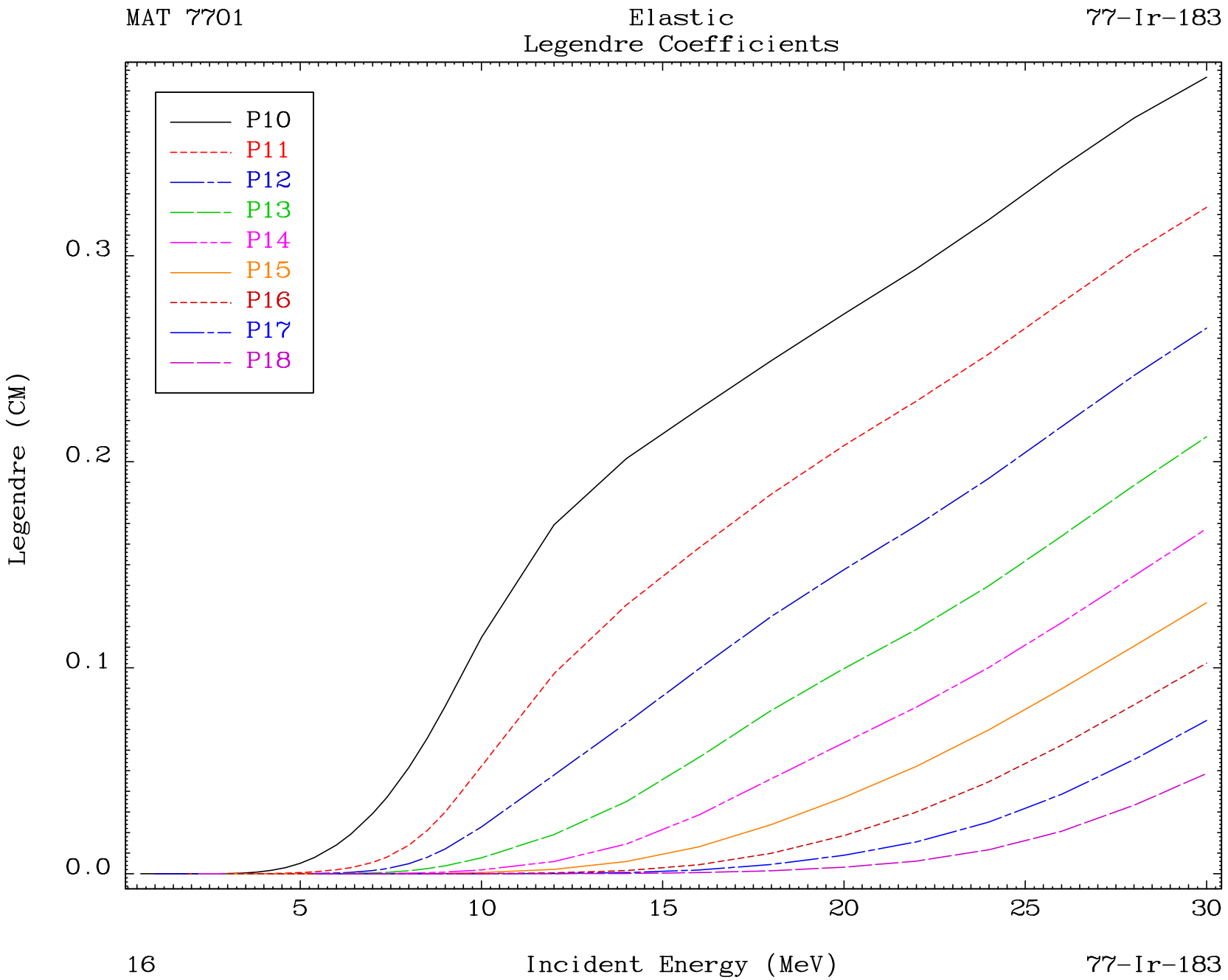

MAT 7701
(n,t) Levels
77-Ir-183
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
11
77-Ir-183

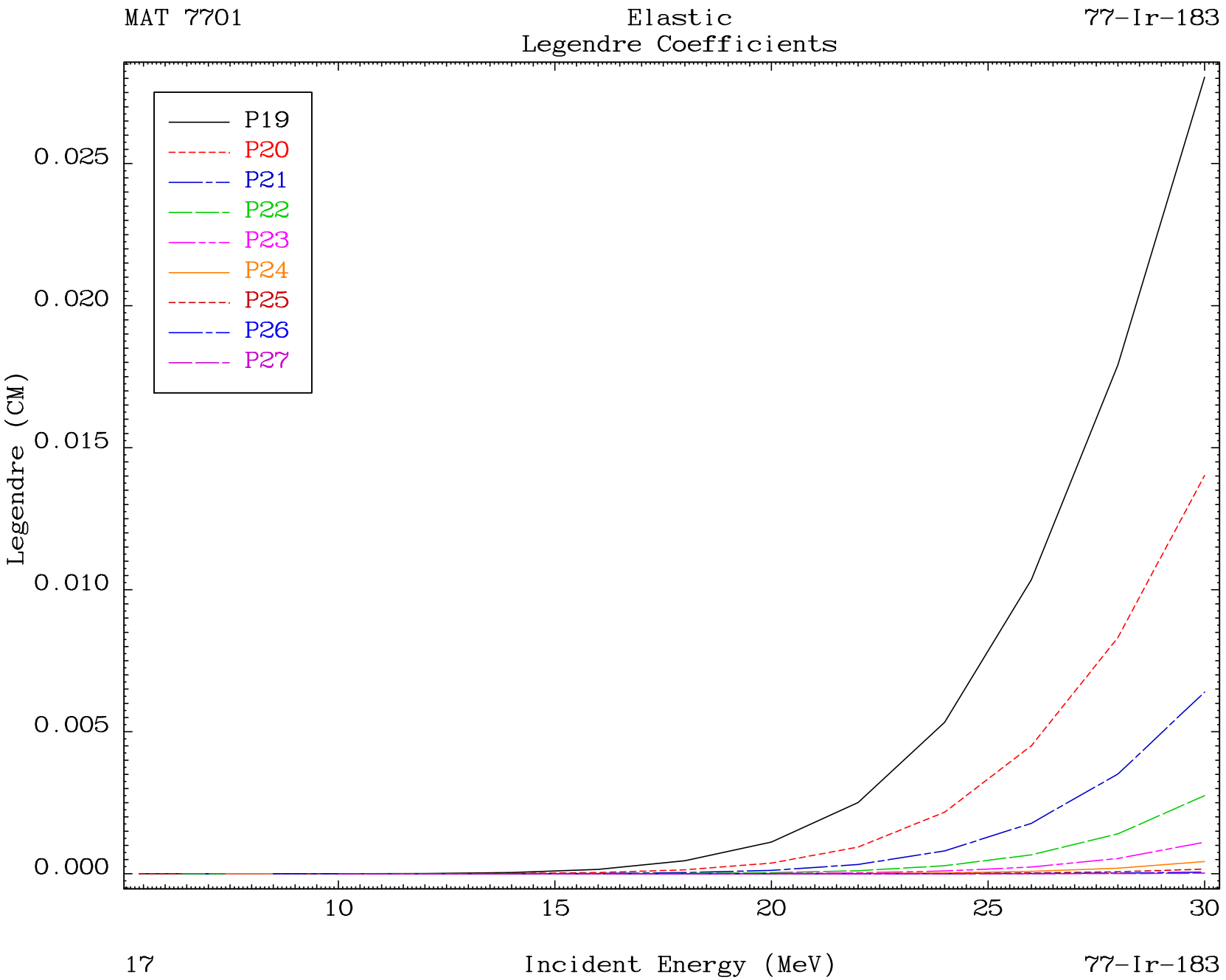

MAT 7701
(n,He3) Levels
77-Ir-183
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-4
10-6
10-8
10-10
100
101
102
Incident Energy (MeV)
12
77-Ir-183

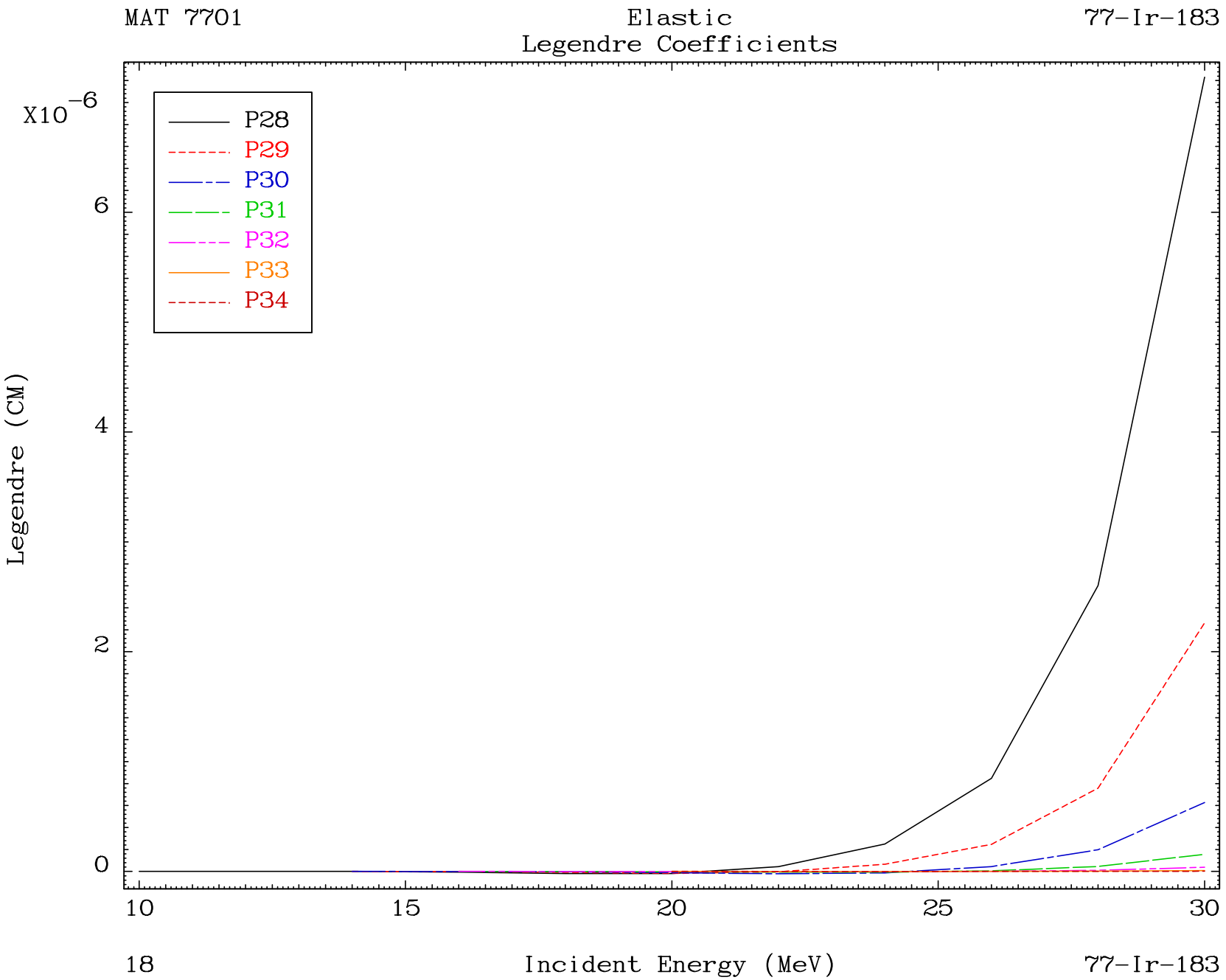

MAT 7701
(n,α) Levels
77-Ir-183
293 Kelvin Cross Sections
Cross Section (barns)
10-2
5
10-3
5
10-4
5
10-5
5
(n,α)
10-10
10-8
10-6
10-4
10-2
100
102
13
Incident Energy (MeV)
77-Ir-183

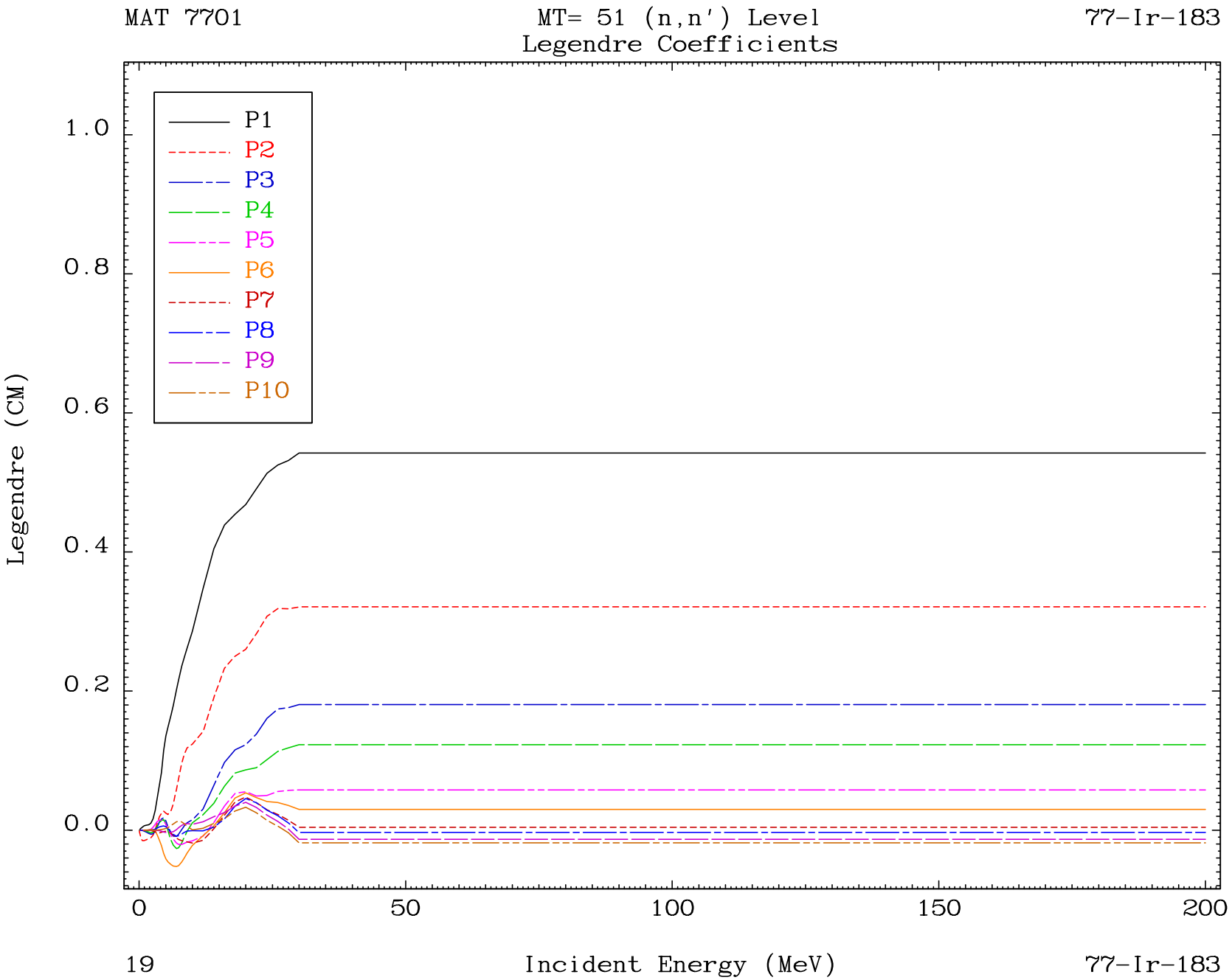

MAT 7701
Energy Release
Parameters
77-Ir-183
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
10^{15}
10^{12}
10^{9}
10^{6}
10^{3}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
10^{0}
10^{2}
14
Incident Energy (MeV)
77-Ir-183

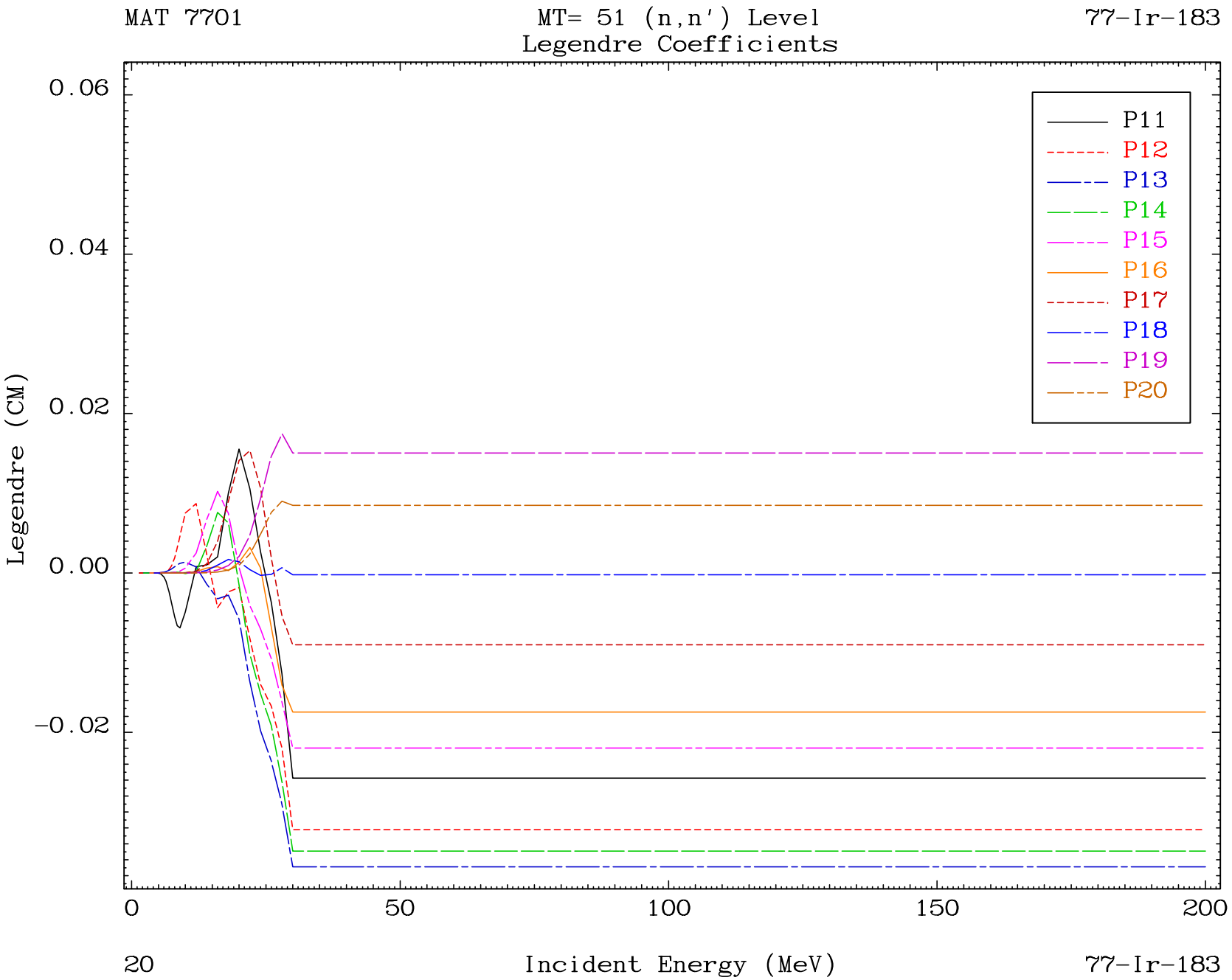

MAT 7701
Elastic
Legendre Coefficients
77-Ir-183
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
15
Incident Energy (MeV)
77-Ir-183
P1
P2
P3
P4
P5
P6
P7
P8
P9

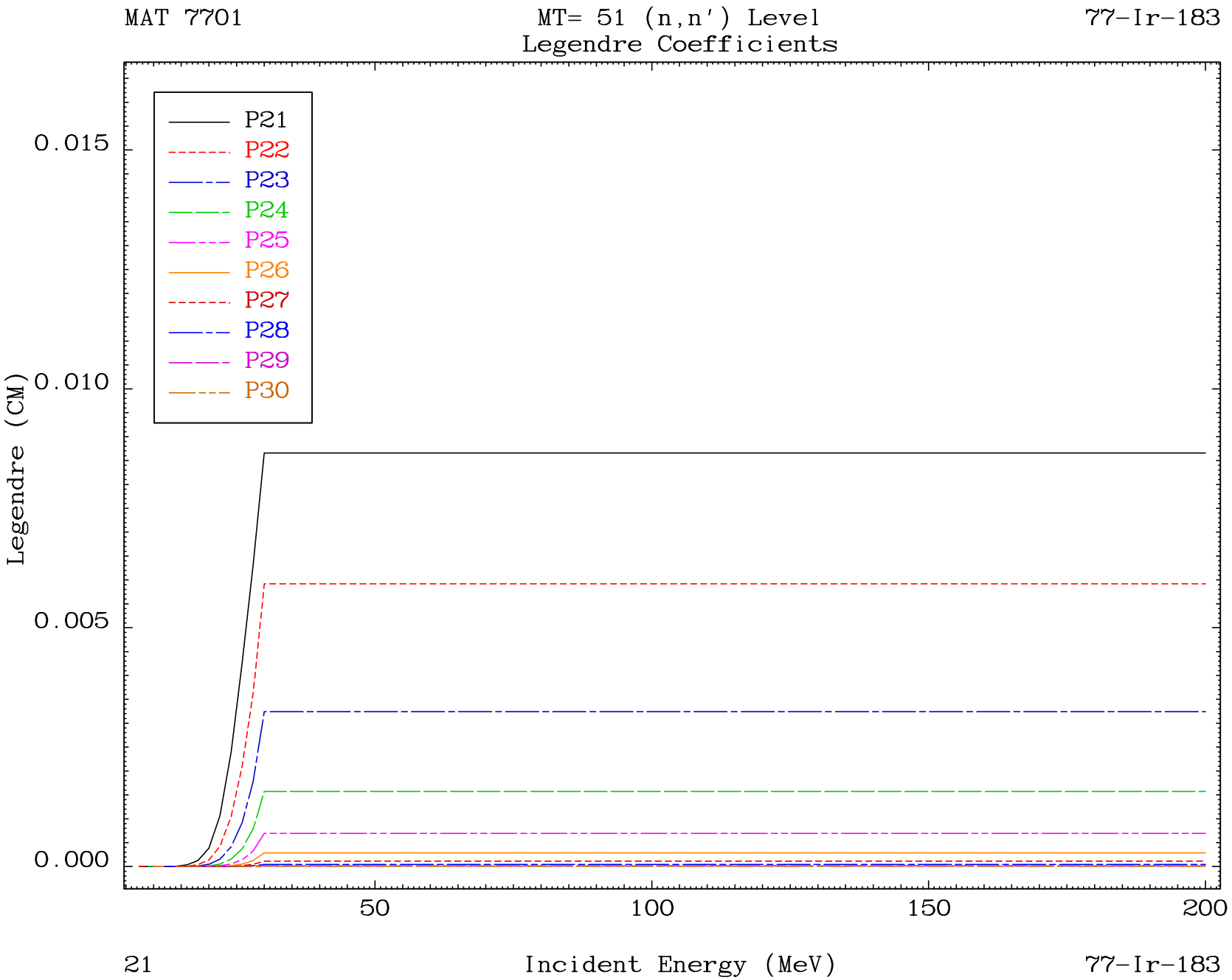

MAT 7701
Elastic
Legendre Coefficients
77-Ir-183
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.0
0.1
0.2
0.3
5
10
15
20
25
30
16
Incident Energy (MeV)
77-Ir-183

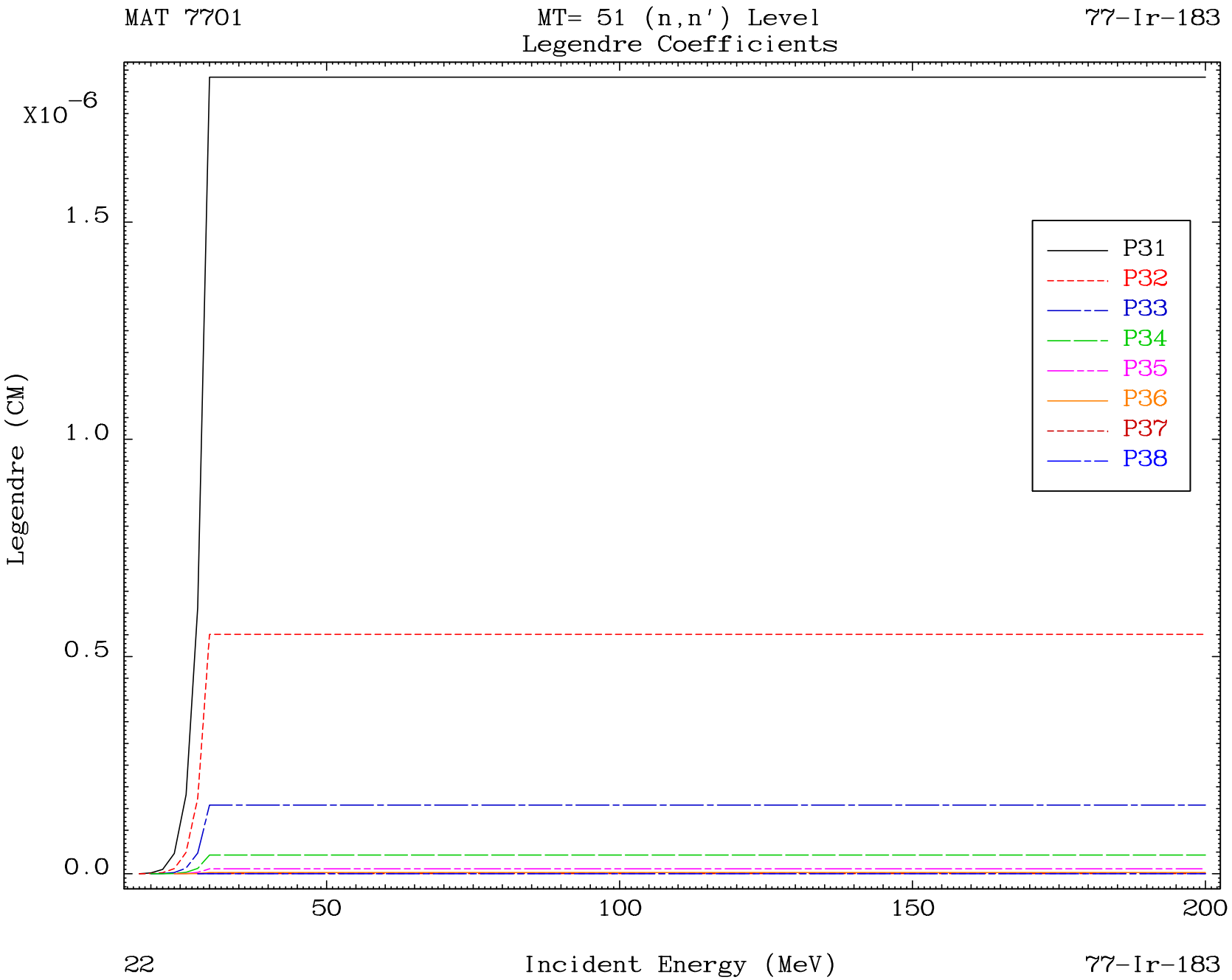

MAT 7701
Elastic
Legendre Coefficients
77-Ir-183
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.025
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
10
15
20
25
30
17
Incident Energy (MeV)
77-Ir-183

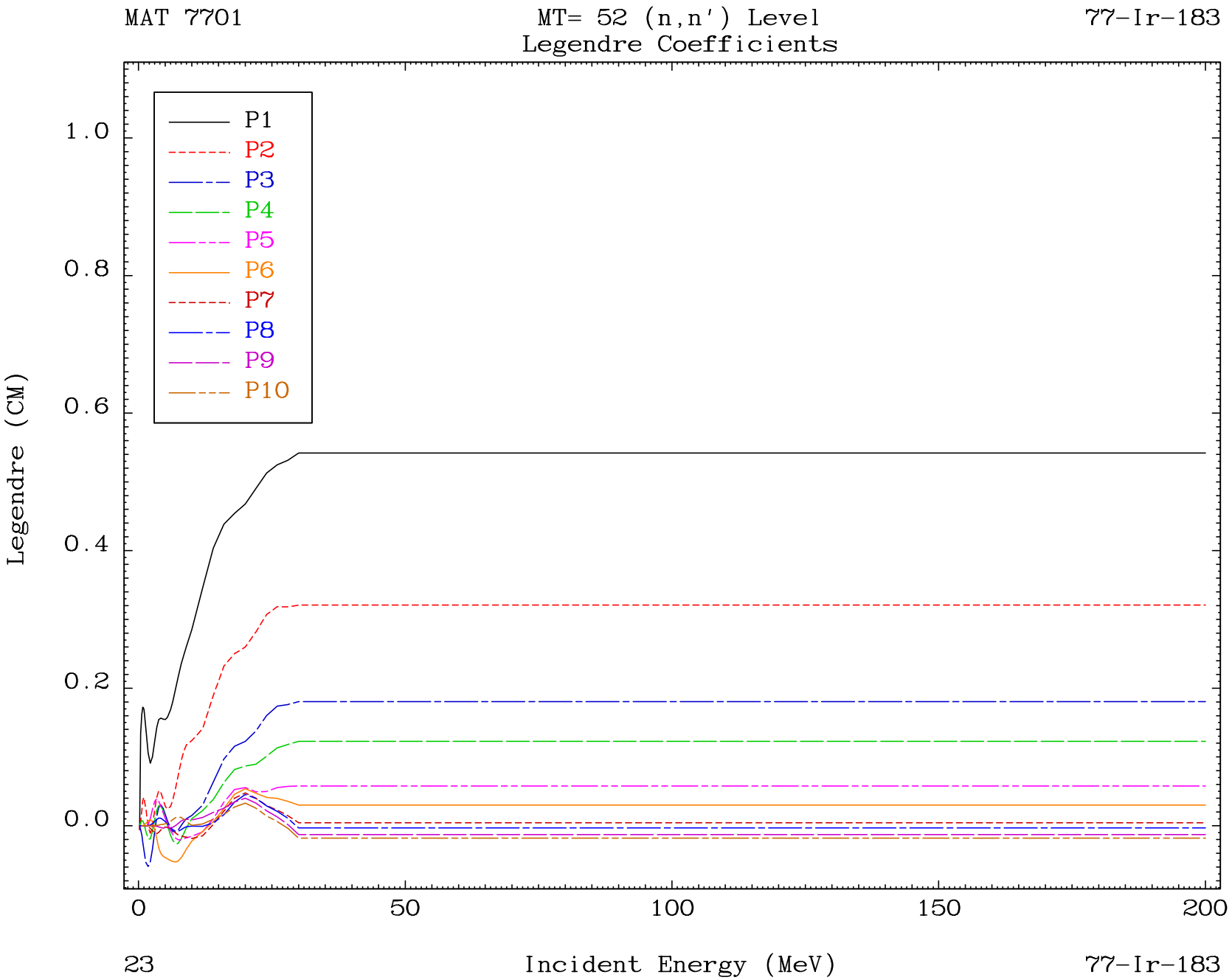

MAT 7701
Elastic
Legendre Coefficients
77-Ir-183
X10^{-6}
P28
P29
P30
P31
P32
P33
P34
Legendre (CM)
0
2
4
6
10
15
20
25
30
18
Incident Energy (MeV)
77-Ir-183

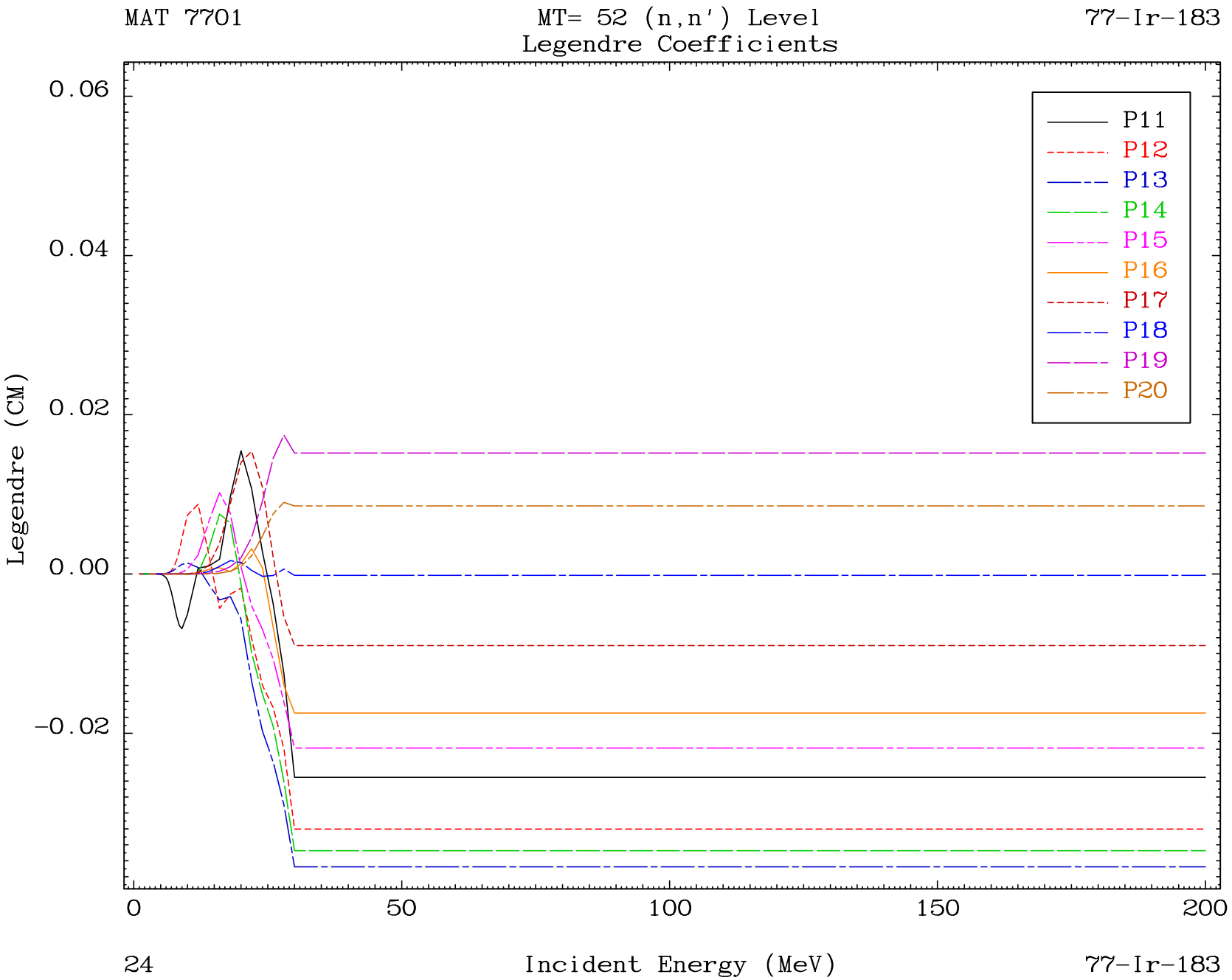

MAT 7701
MT= 51 (n,n') Level
Legendre Coefficients
77-Ir-183
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
19
Incident Energy (MeV)
77-Ir-183

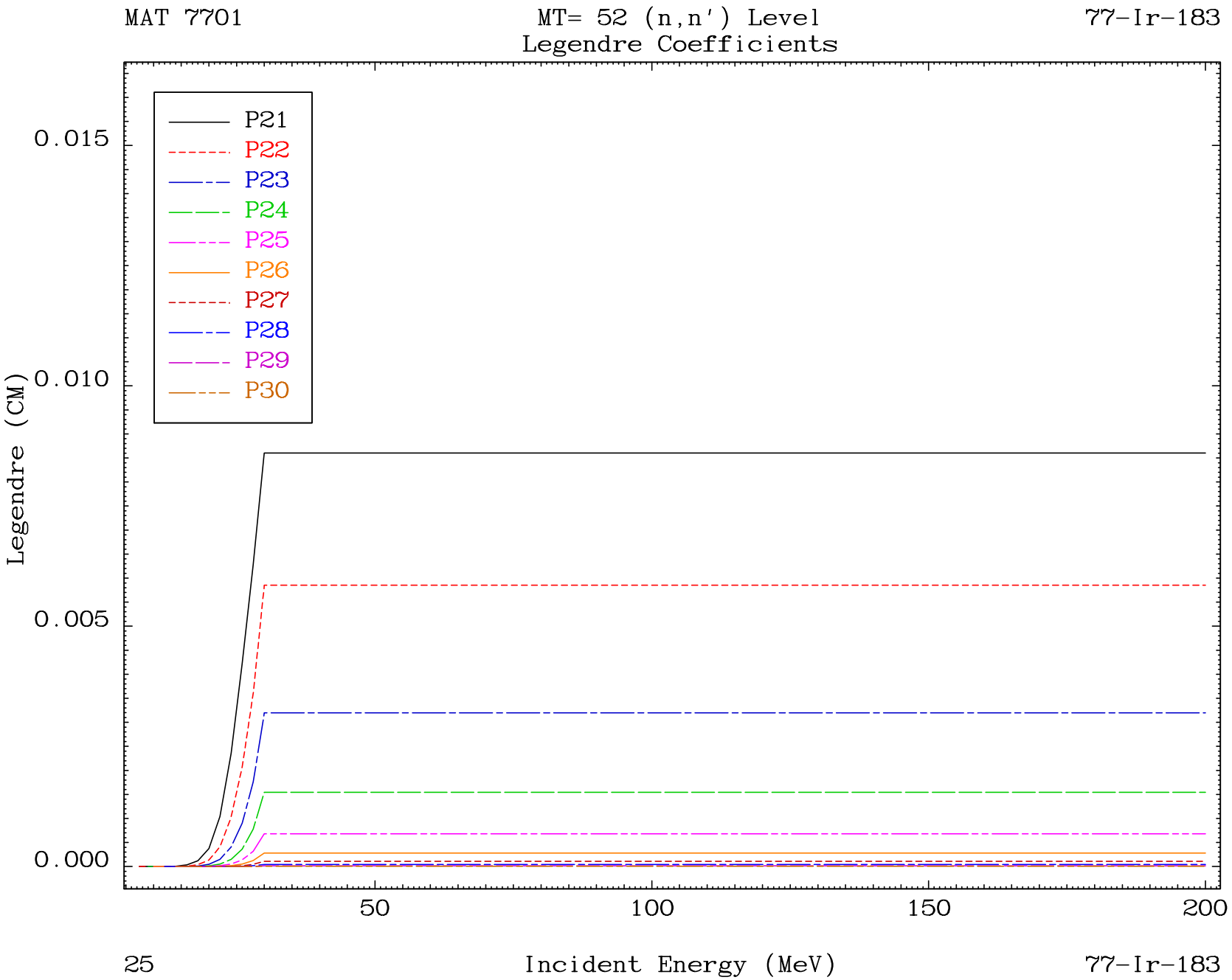

MAT 7701
MT= 51 (n,n') Level
Legendre Coefficients
77-Ir-183
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
20
Incident Energy (MeV)
77-Ir-183

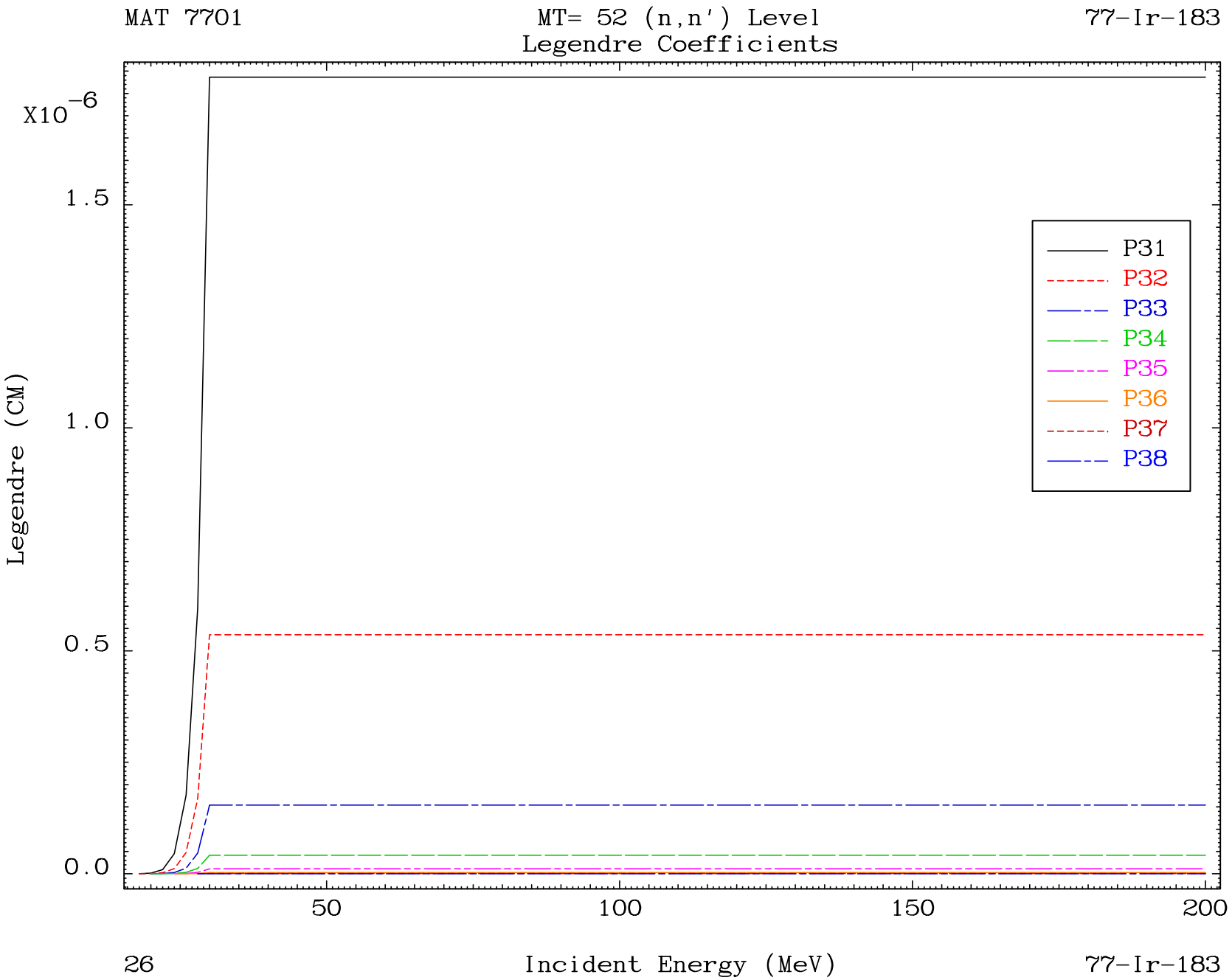

MAT 7701
MT= 51 (n,n') Level
Legendre Coefficients
77-Ir-183
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
21
Incident Energy (MeV)
77-Ir-183

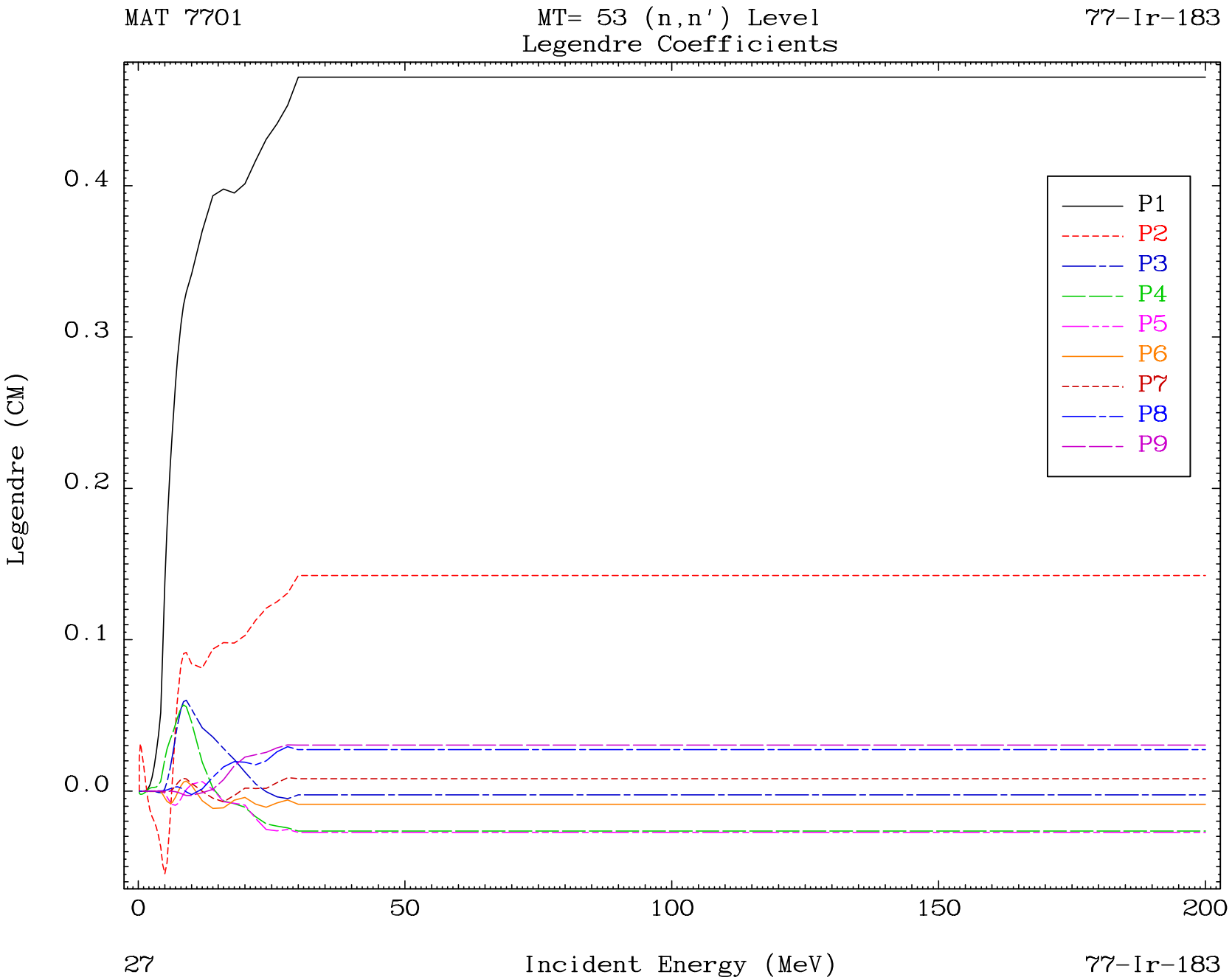

MAT 7701
MT= 51 (n,n') Level
Legendre Coefficients
77-Ir-183
X10−6
1.5
1.0
0.5
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
22
Incident Energy (MeV)
77-Ir-183

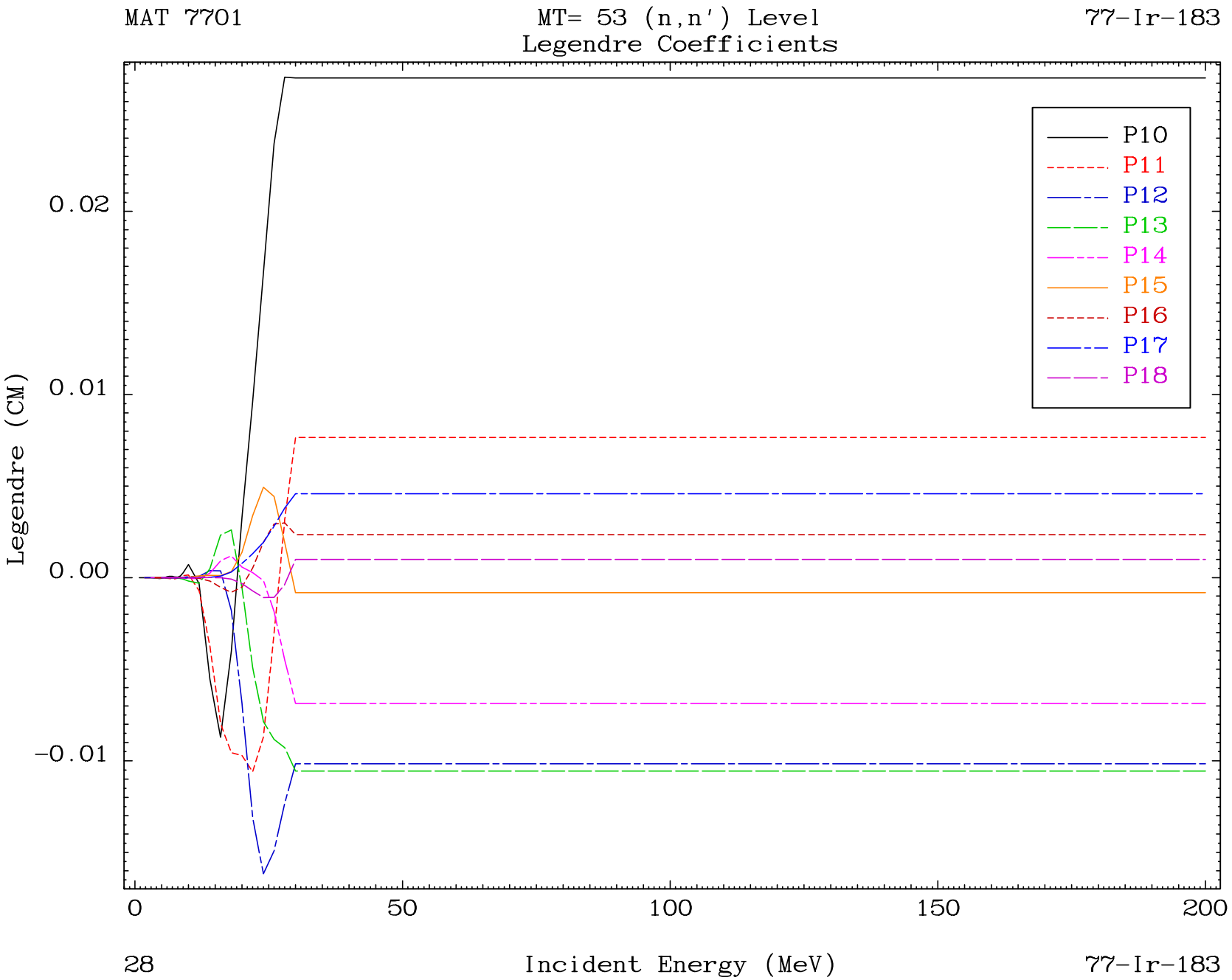

MAT 7701
MT= 52 (n,n') Level
Legendre Coefficients
77-Ir-183
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
0
50
100
150
200
23
Incident Energy (MeV)
77-Ir-183

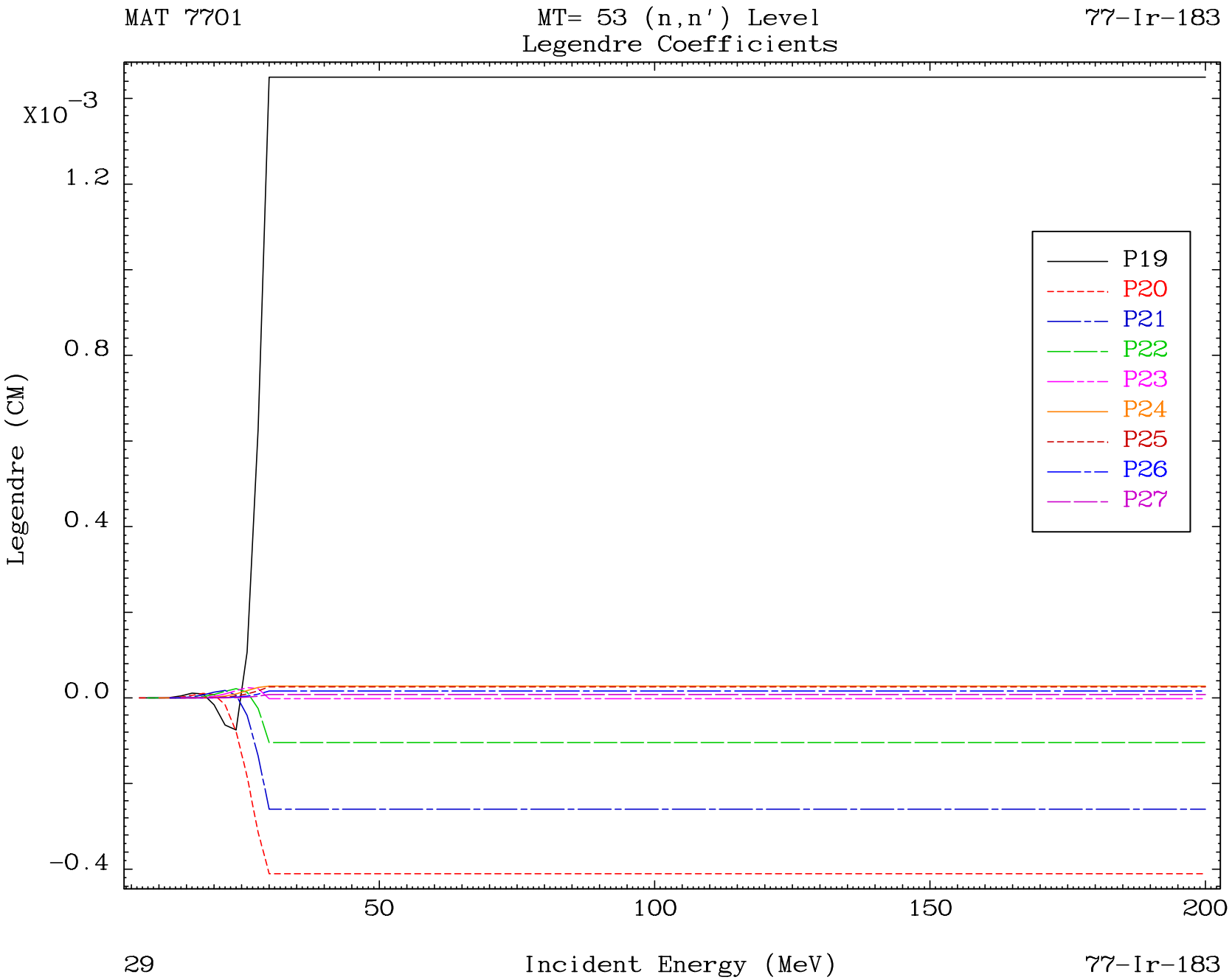

MAT 7701
MT= 52 (n,n') Level
Legendre Coefficients
77-Ir-183
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
24
Incident Energy (MeV)
77-Ir-183

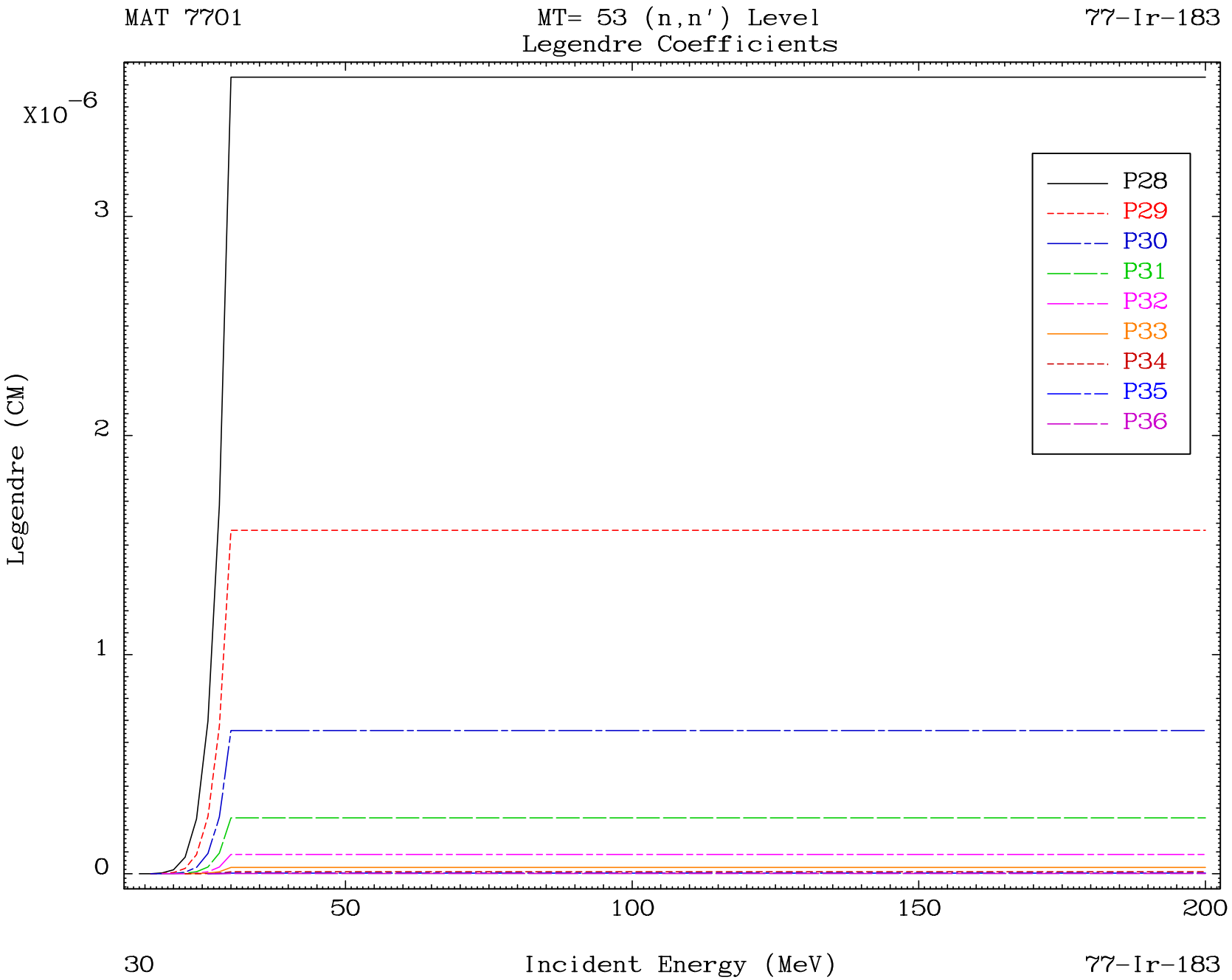

MAT 7701
MT= 52 (n,n') Level
Legendre Coefficients
77-Ir-183
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
25
Incident Energy (MeV)
77-Ir-183

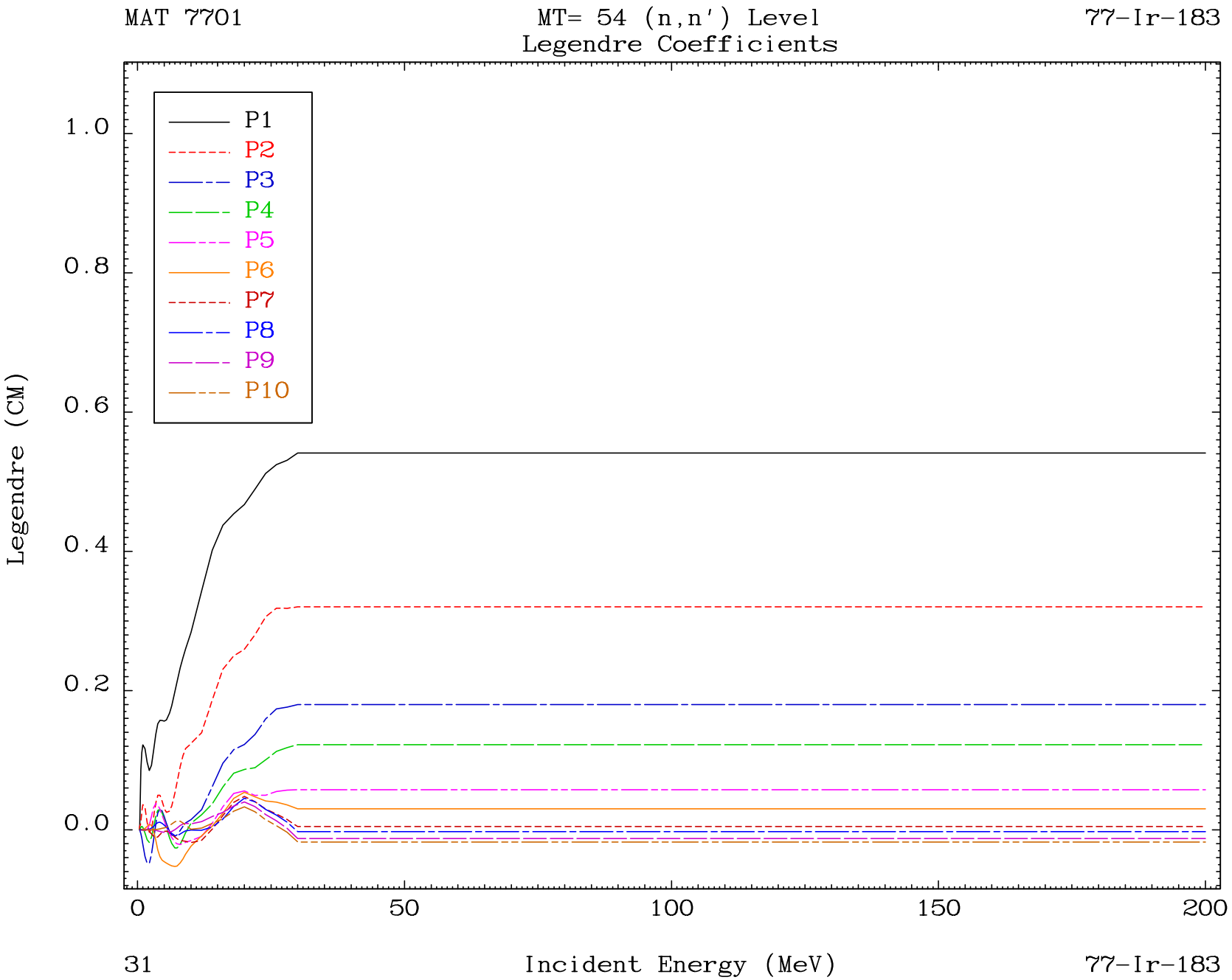

MAT 7701
MT= 52 (n,n') Level
Legendre Coefficients
77-Ir-183
X10 −6
1.5
1.0
0.5
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
26
Incident Energy (MeV)
77-Ir-183

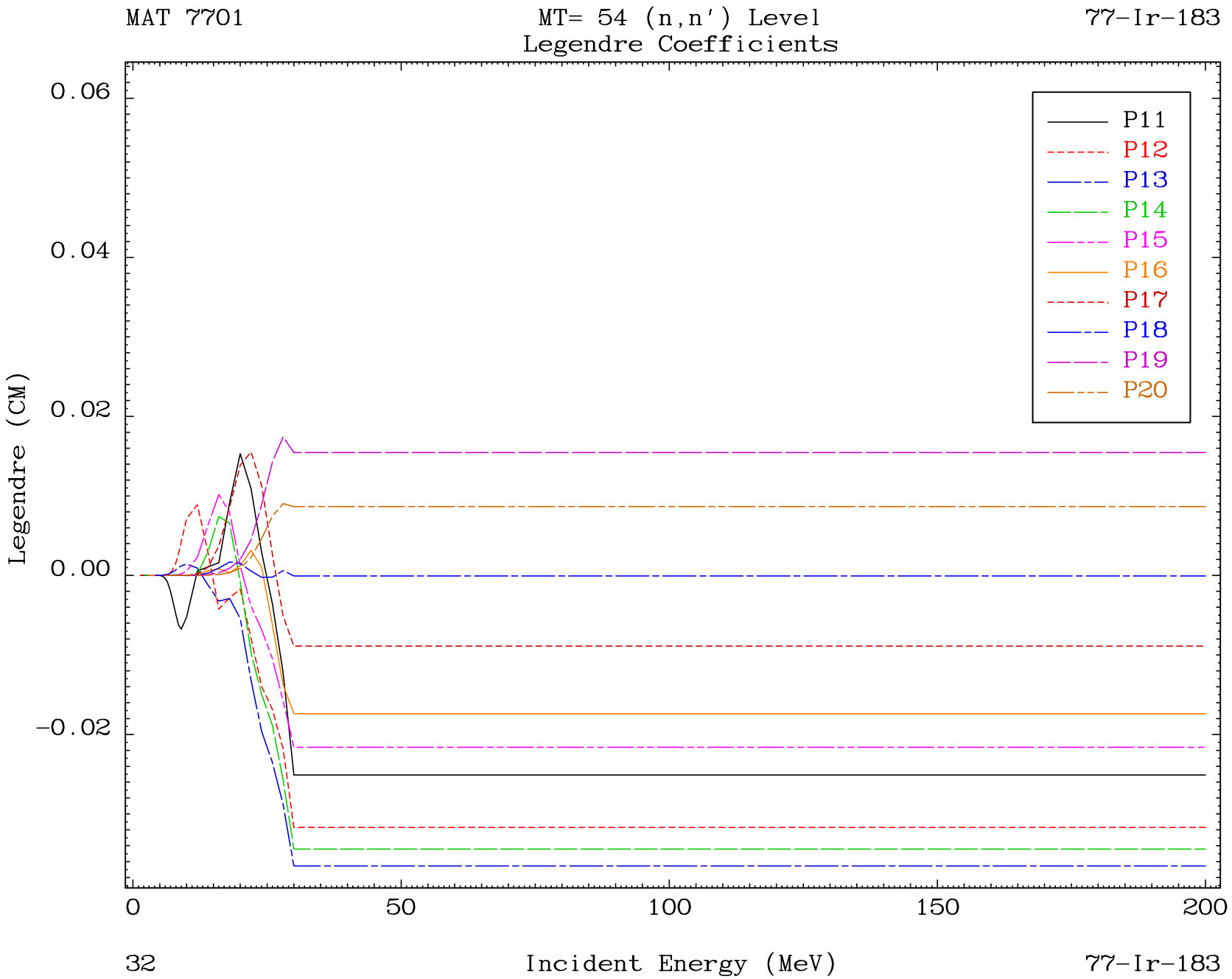

MAT 7701
MT= 53 (n,n') Level
Legendre Coefficients
77-Ir-183
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
27
Incident Energy (MeV)
77-Ir-183

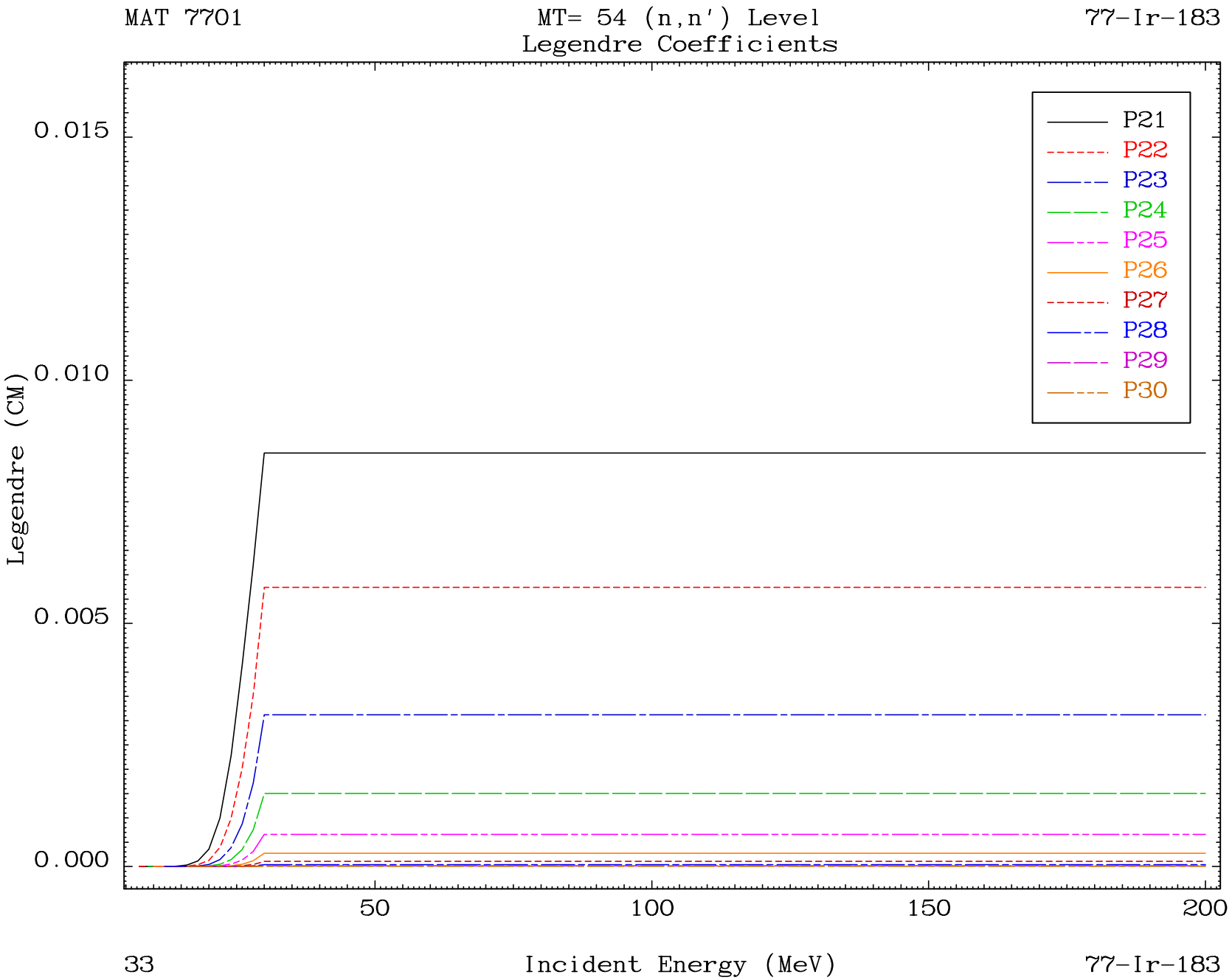

MAT 7701
MT= 53 (n,n') Level
Legendre Coefficients
77-Ir-183
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
28
Incident Energy (MeV)
77-Ir-183

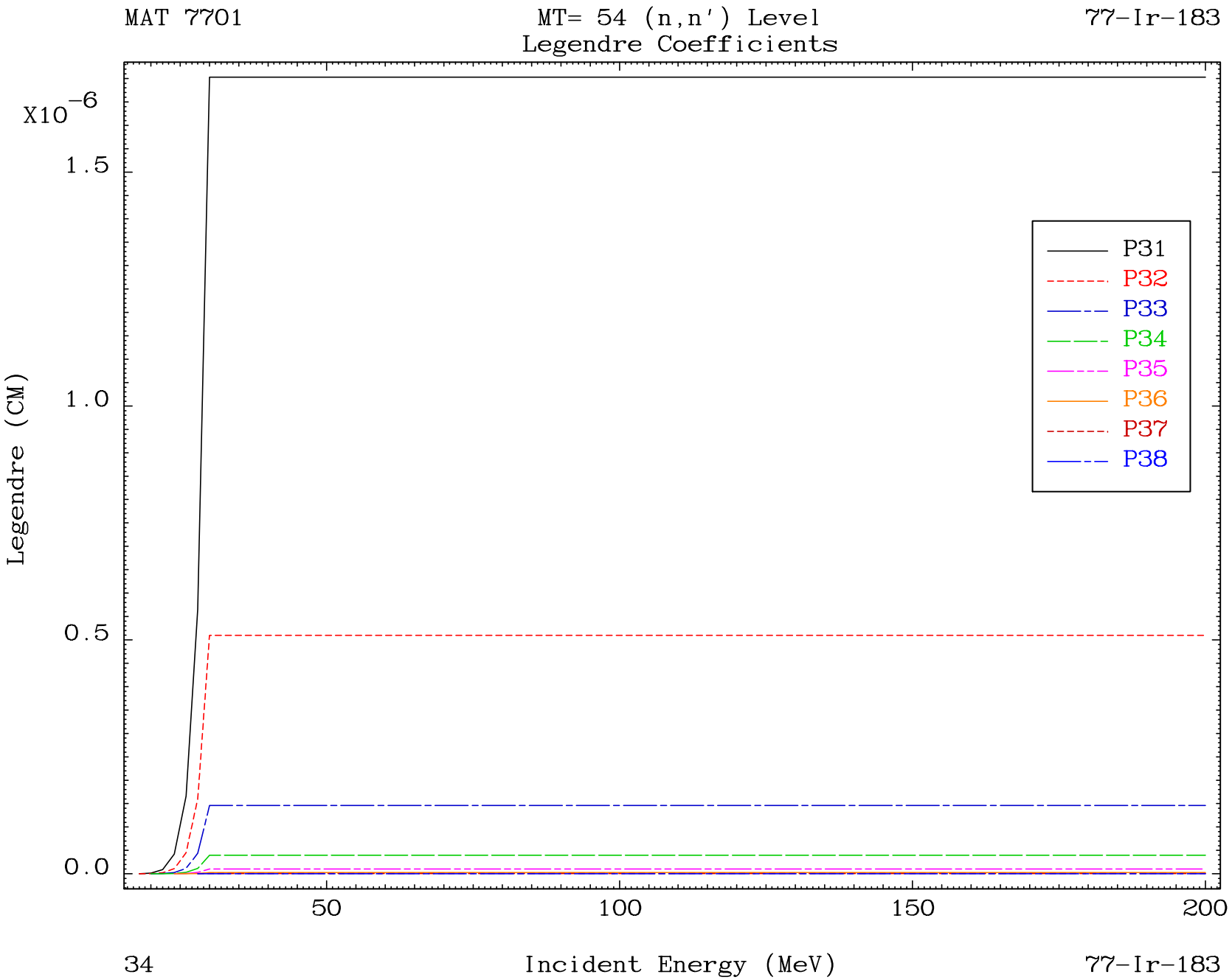

MAT 7701
MT= 53 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-3
1.2
0.8
0.4
0.0
-0.4
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
29
Incident Energy (MeV)
77-Ir-183

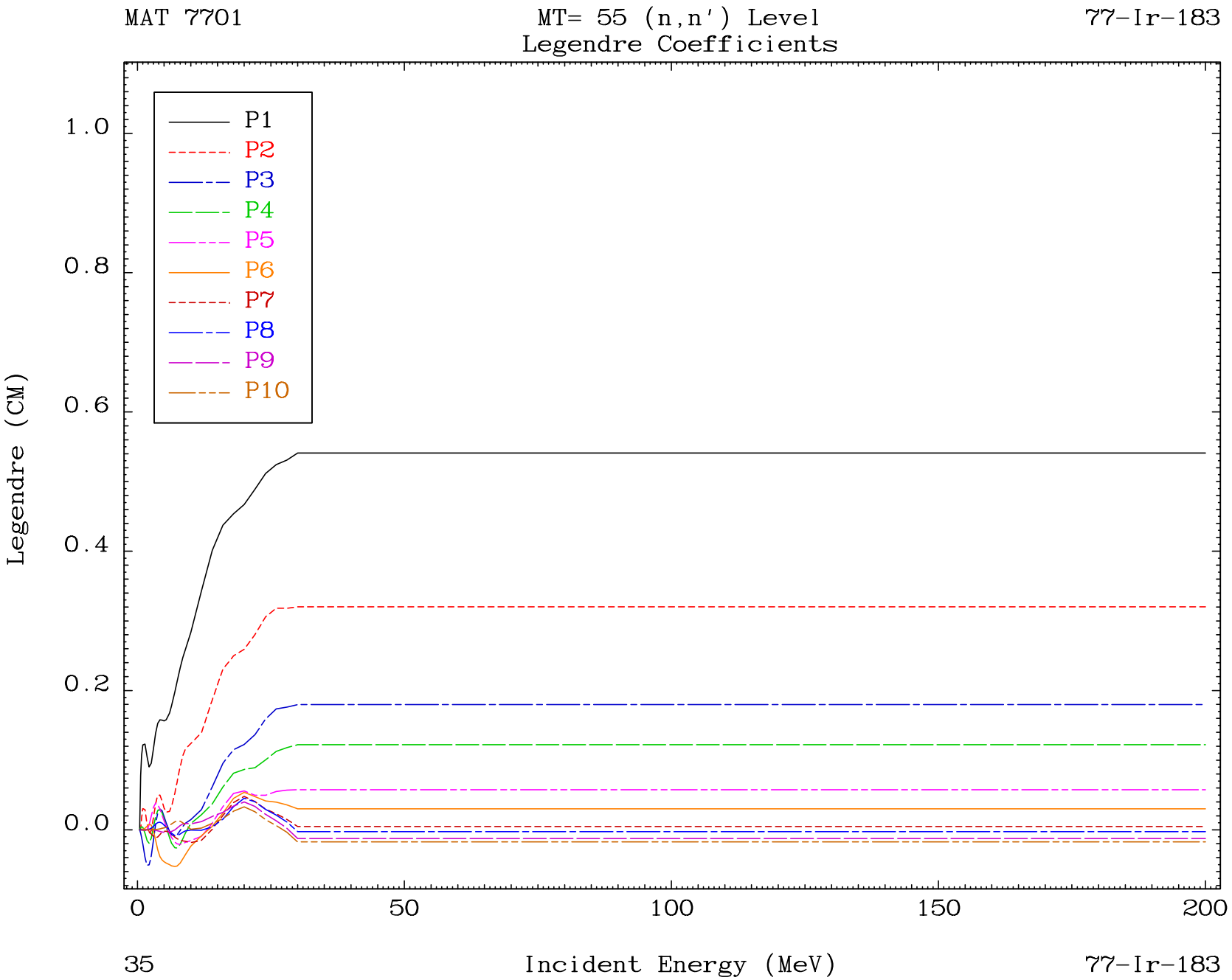

MAT 7701
MT= 53 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
30
Incident Energy (MeV)
77-Ir-183

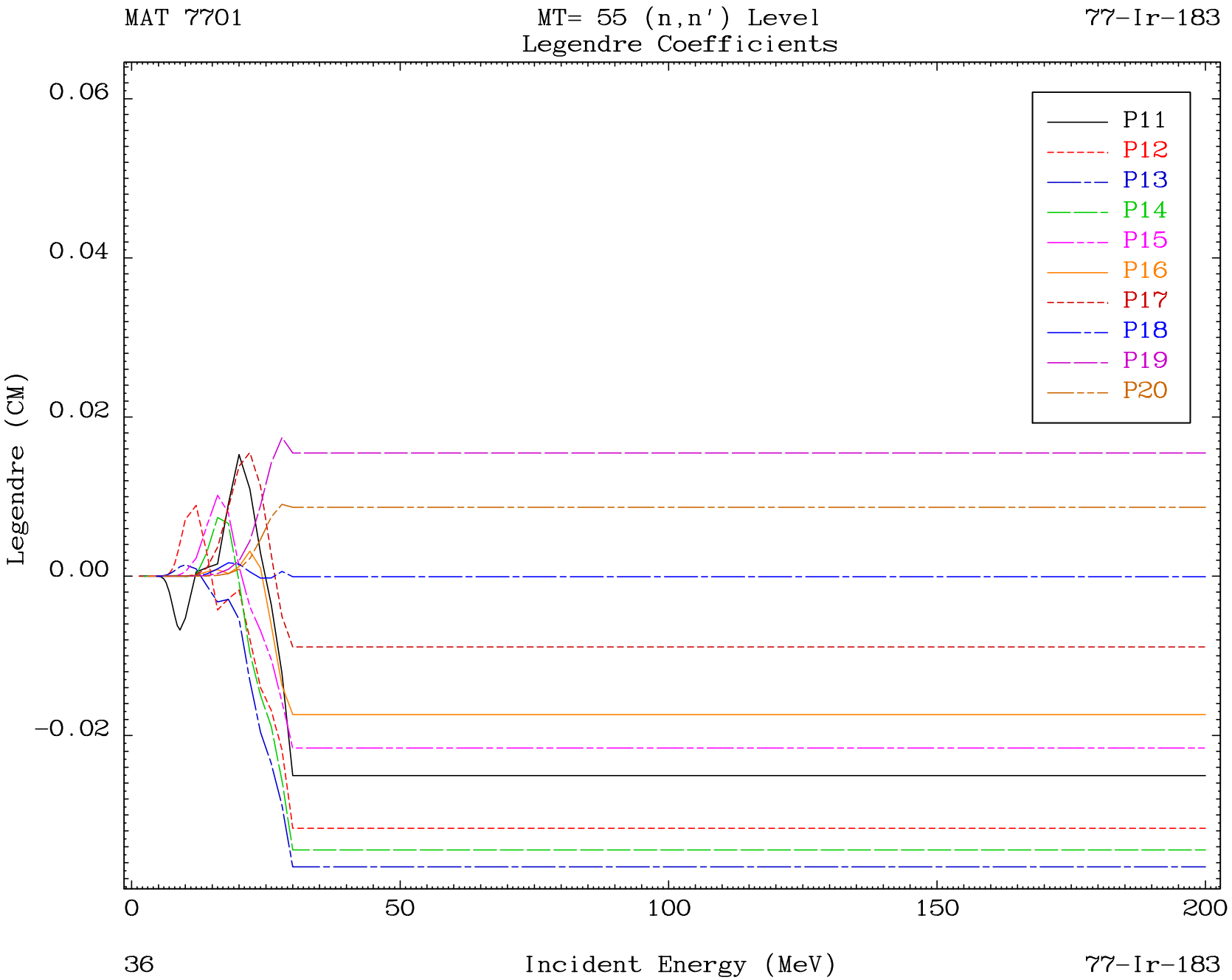

MAT 7701
MT= 54 (n,n') Level
Legendre Coefficients
77-Ir-183
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
0
50
100
150
200
31
Incident Energy (MeV)
77-Ir-183

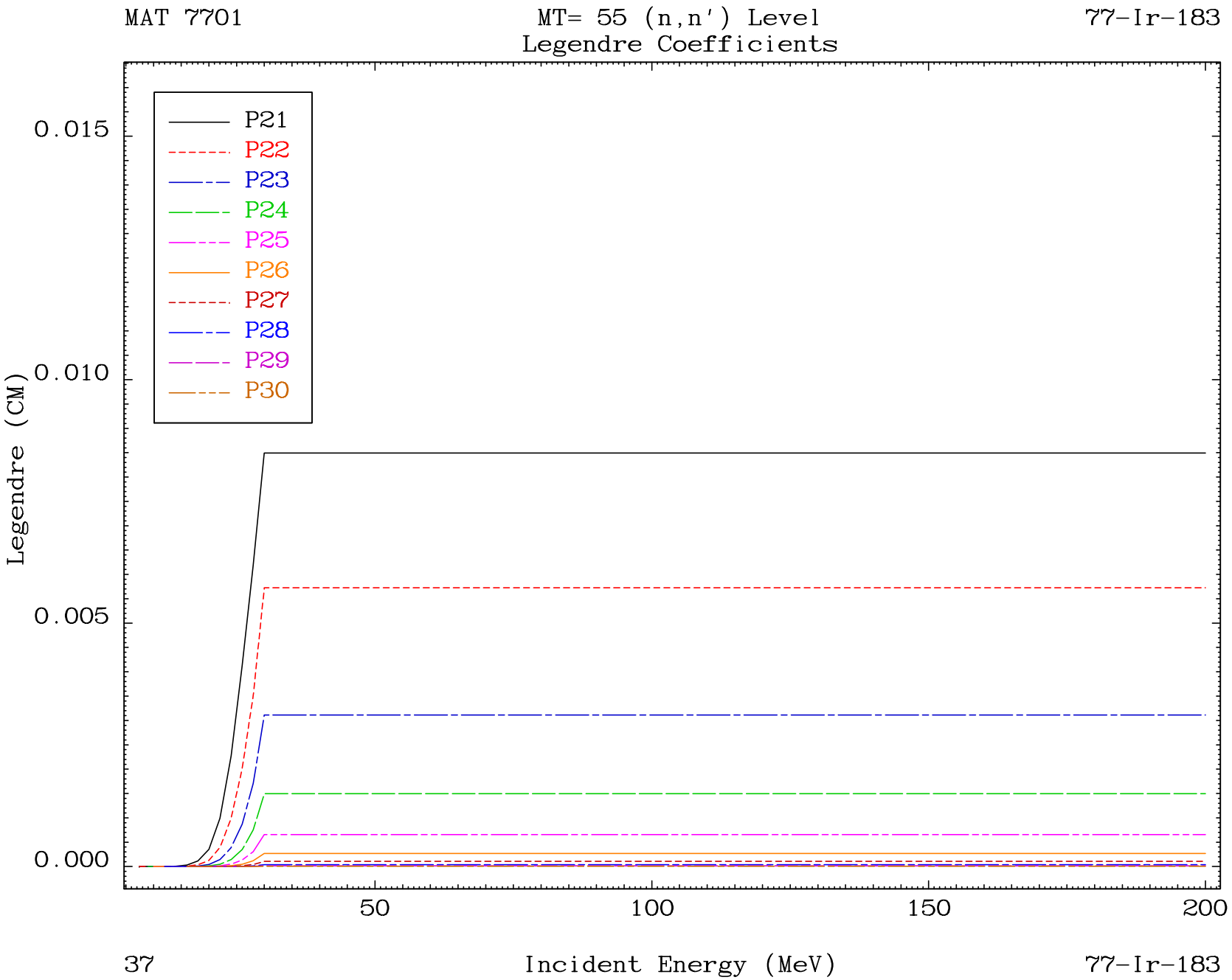

MAT 7701
MT= 54 (n,n') Level
Legendre Coefficients
77-Ir-183
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
32
Incident Energy (MeV)
77-Ir-183

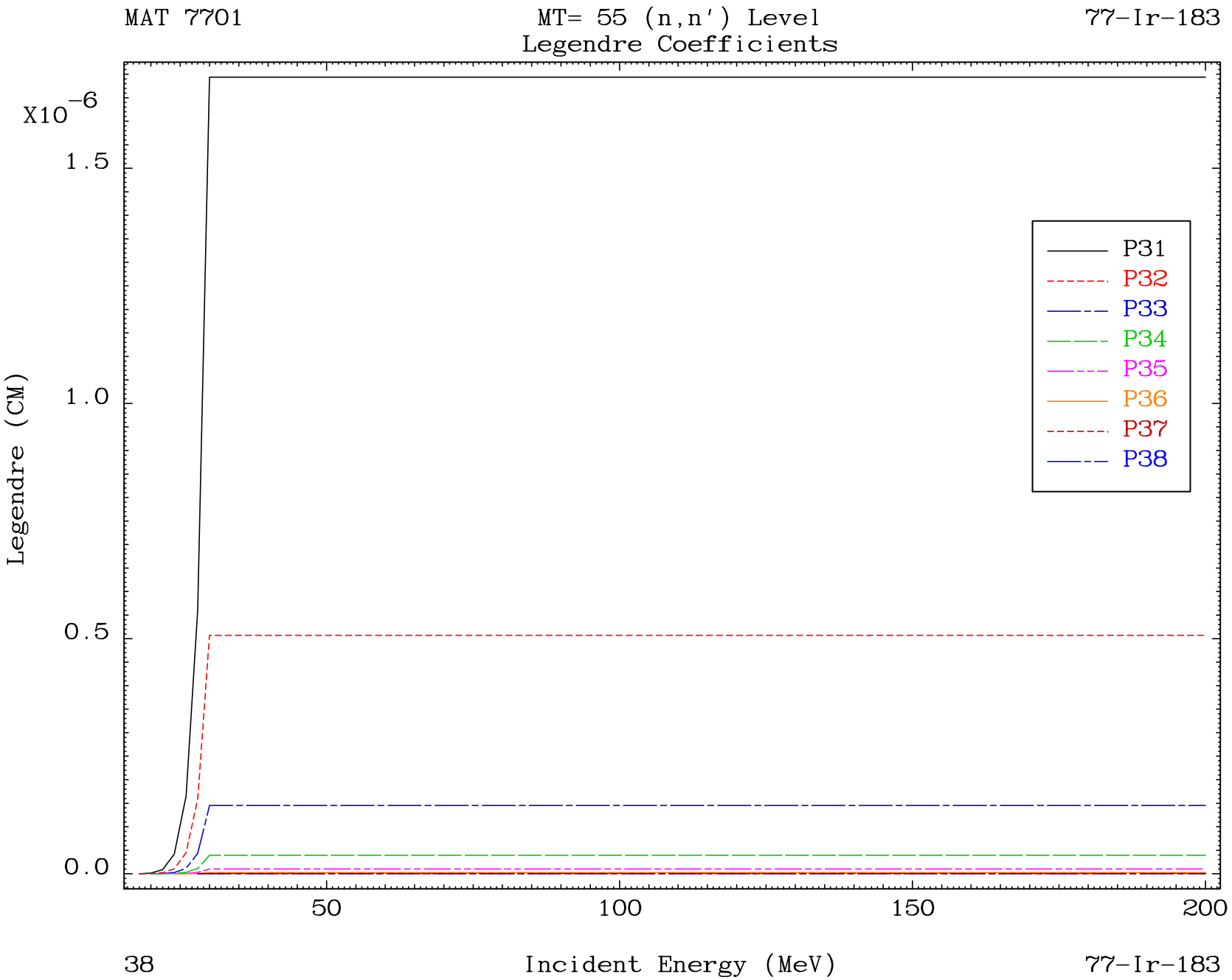

MAT 7701
MT= 54 (n,n') Level
Legendre Coefficients
77-Ir-183
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
33
Incident Energy (MeV)
77-Ir-183

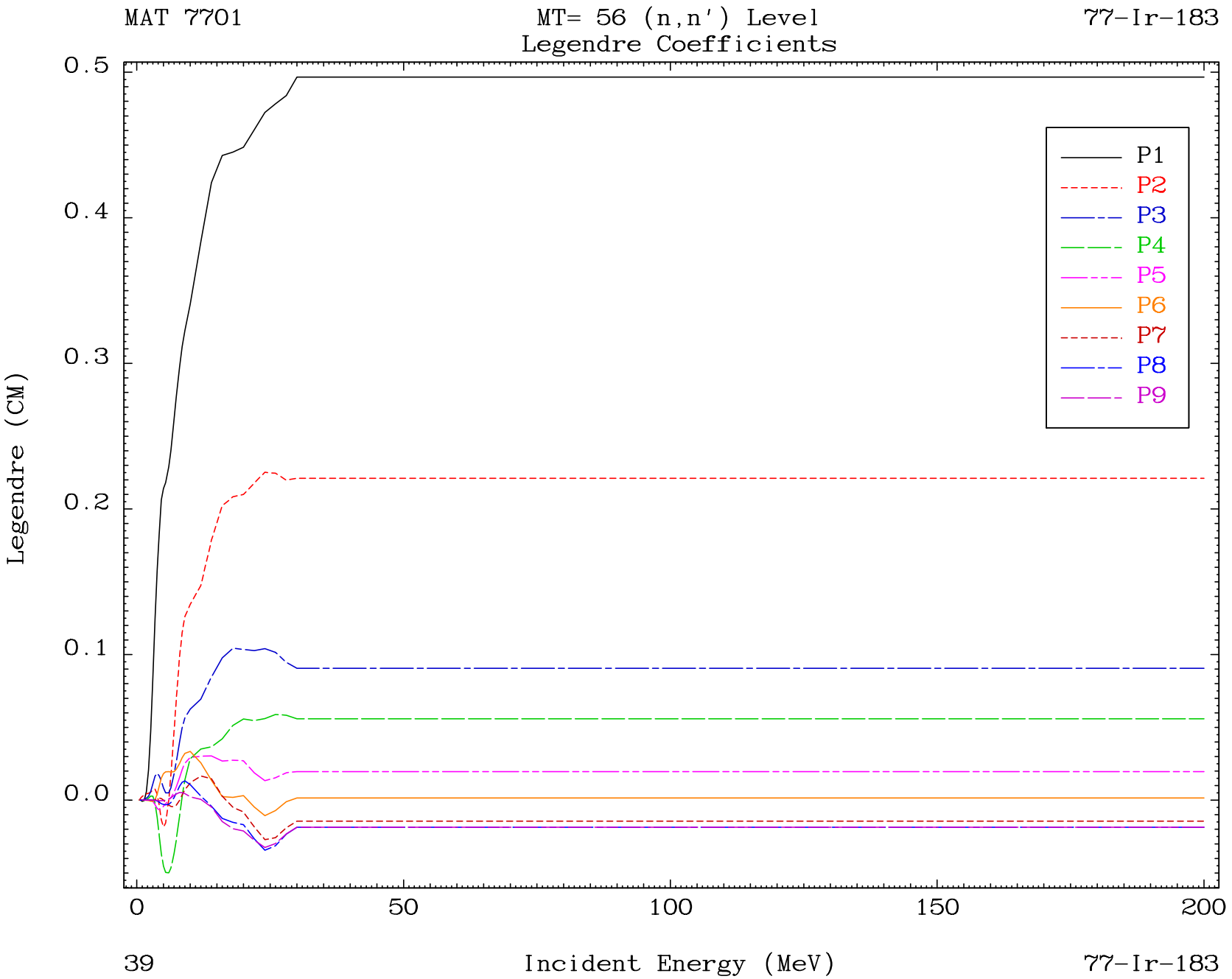

MAT 7701
MT= 54 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-6
1.5
1.0
0.5
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
34
Incident Energy (MeV)
77-Ir-183

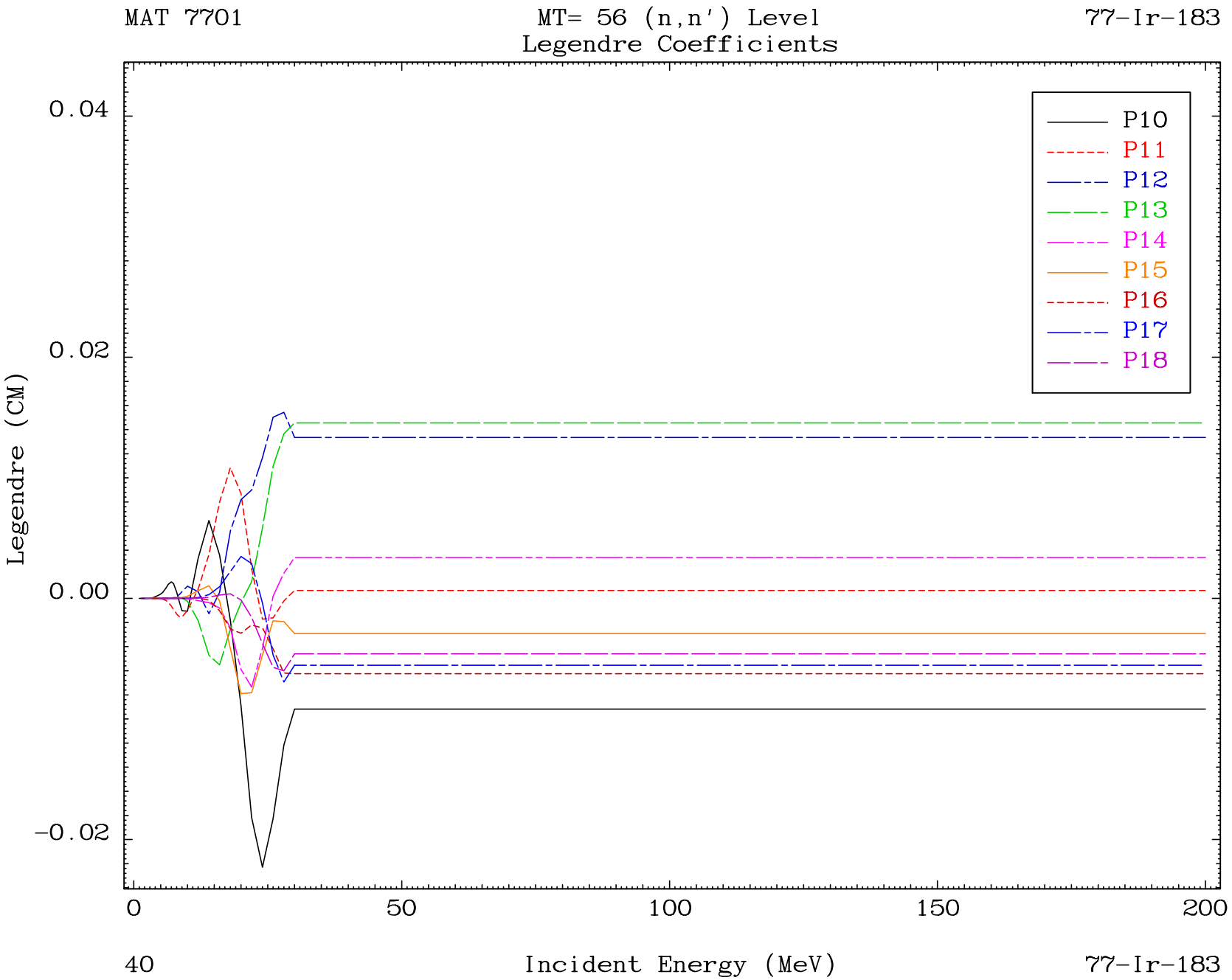

MAT 7701
MT= 55 (n,n') Level
Legendre Coefficients
77-Ir-183
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
35
Incident Energy (MeV)
77-Ir-183

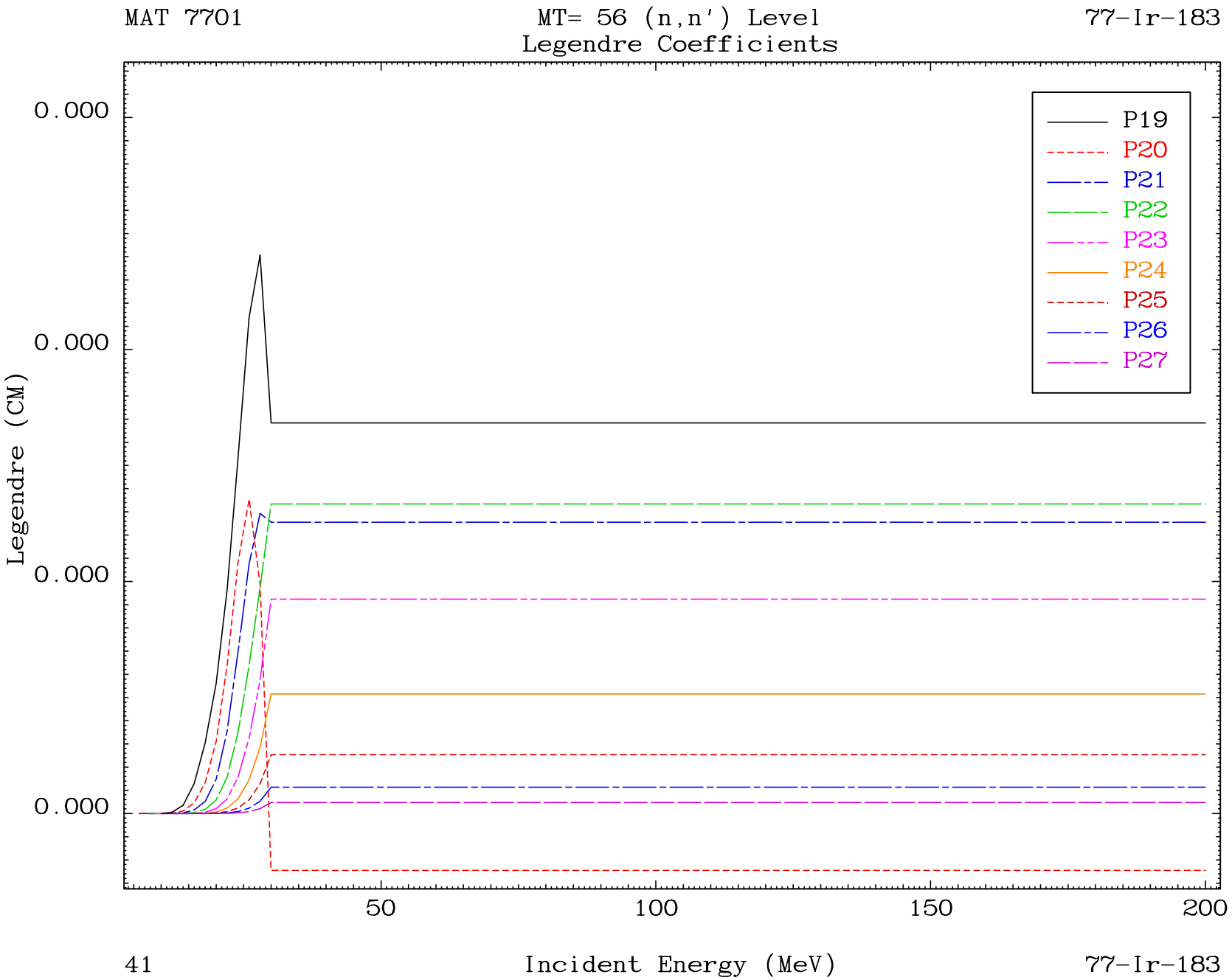

MAT 7701
MT= 55 (n,n') Level
Legendre Coefficients
77-Ir-183
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0
50
100
150
200
36
Incident Energy (MeV)
77-Ir-183

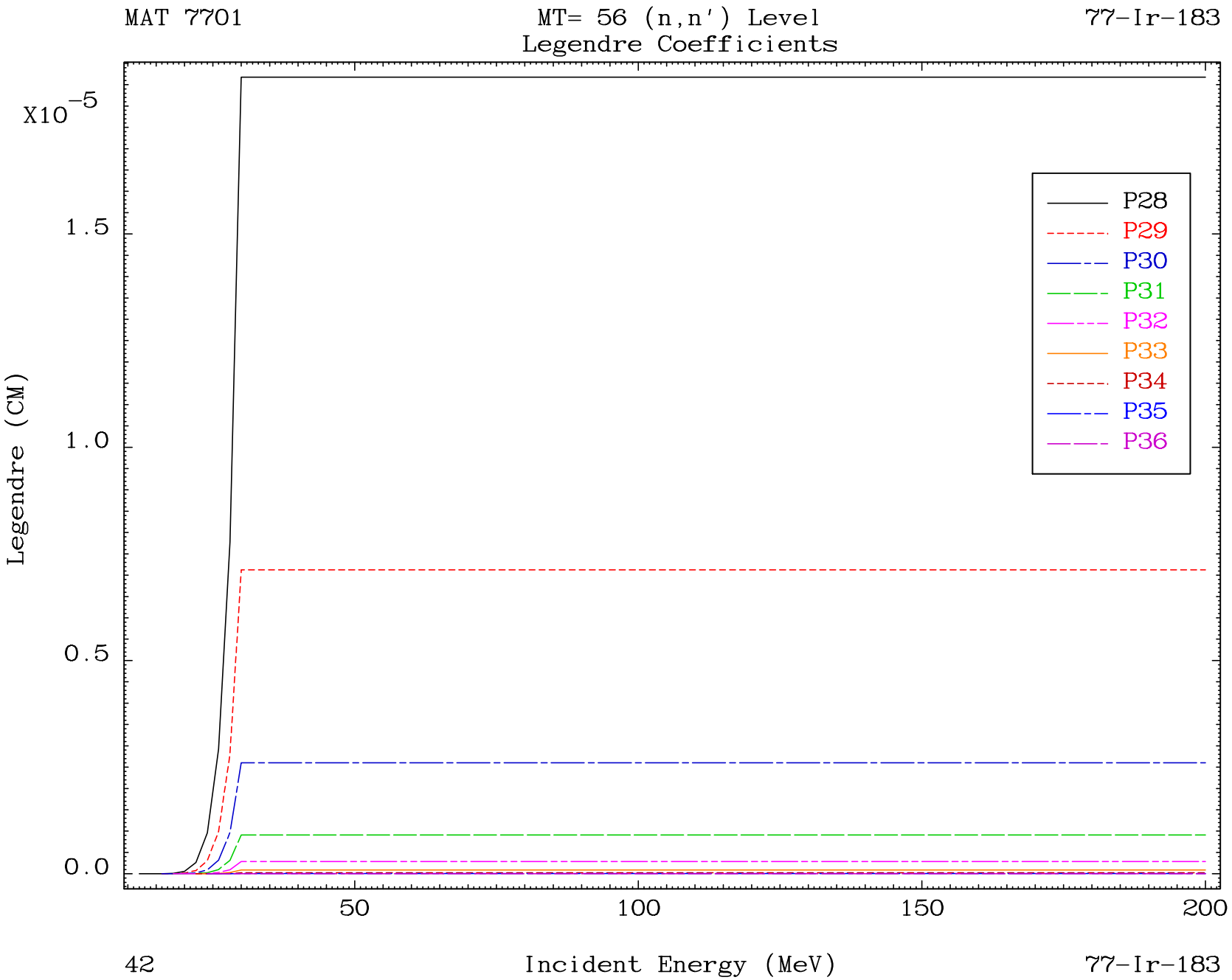

MAT 7701
MT= 55 (n,n') Level
Legendre Coefficients
77-Ir-183
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
37
Incident Energy (MeV)
77-Ir-183

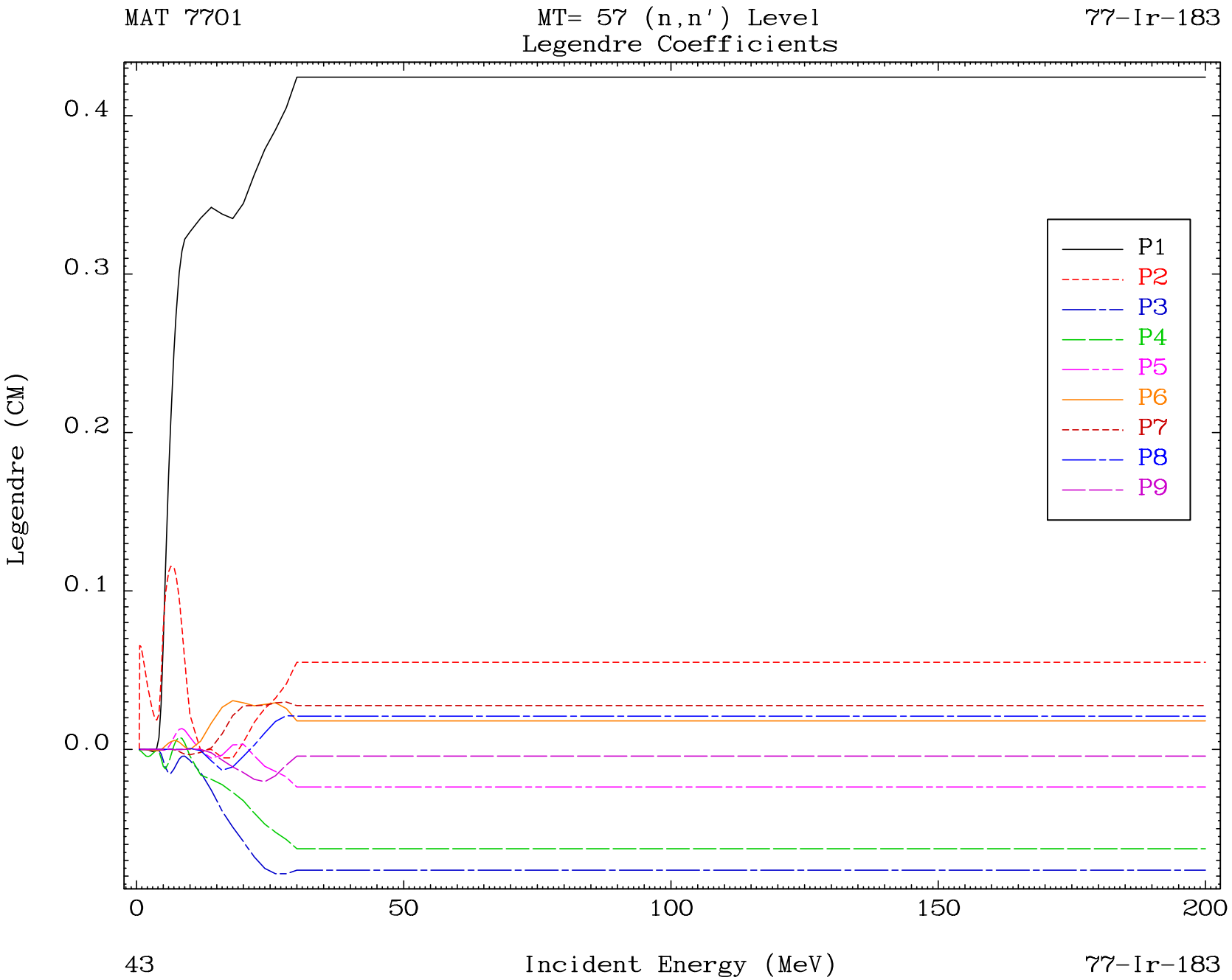

MAT 7701
MT= 55 (n,n') Level
Legendre Coefficients
77-Ir-183
X10−6
1.5
1.0
0.5
0.0
Legendre (CM)
P31
P32
P33
P34
P35
P36
P37
P38
50
100
150
200
38
Incident Energy (MeV)
77-Ir-183

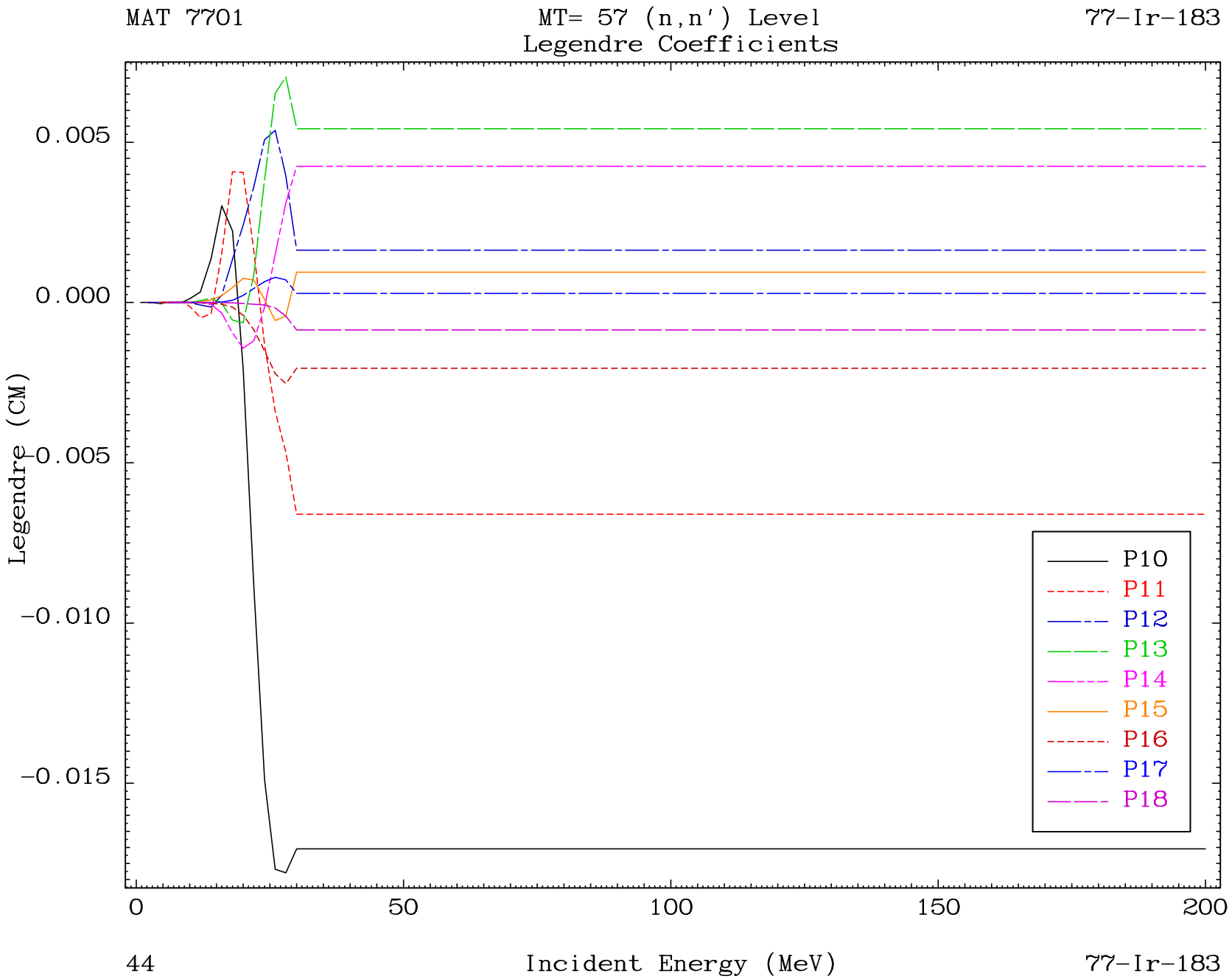

MAT 7701
MT= 56 (n,n') Level
Legendre Coefficients
77-Ir-183
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
39
Incident Energy (MeV)
77-Ir-183

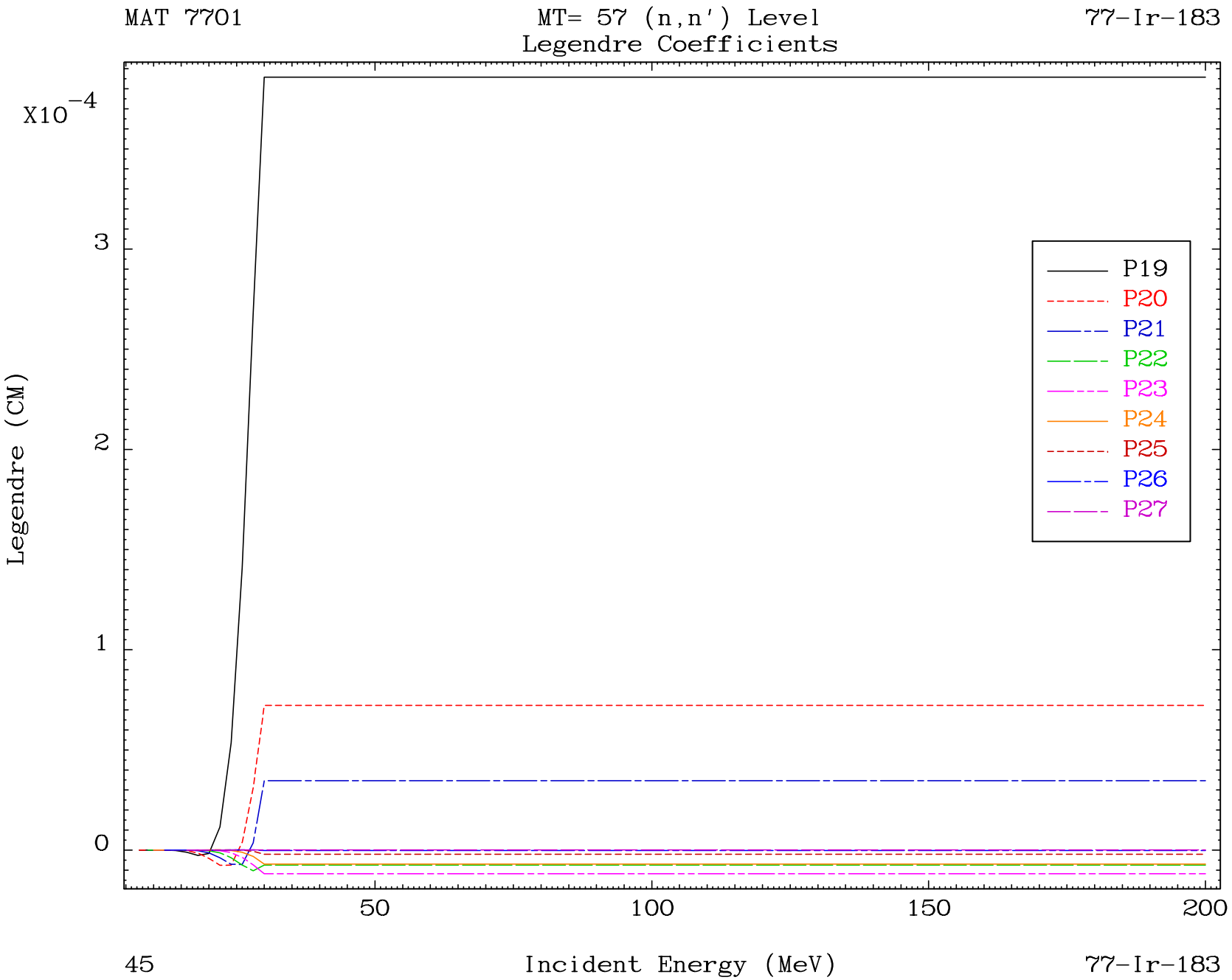

MAT 7701
MT= 56 (n,n') Level
Legendre Coefficients
77-Ir-183
0.04
0.02
0.00
-0.02
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
40
Incident Energy (MeV)
77-Ir-183

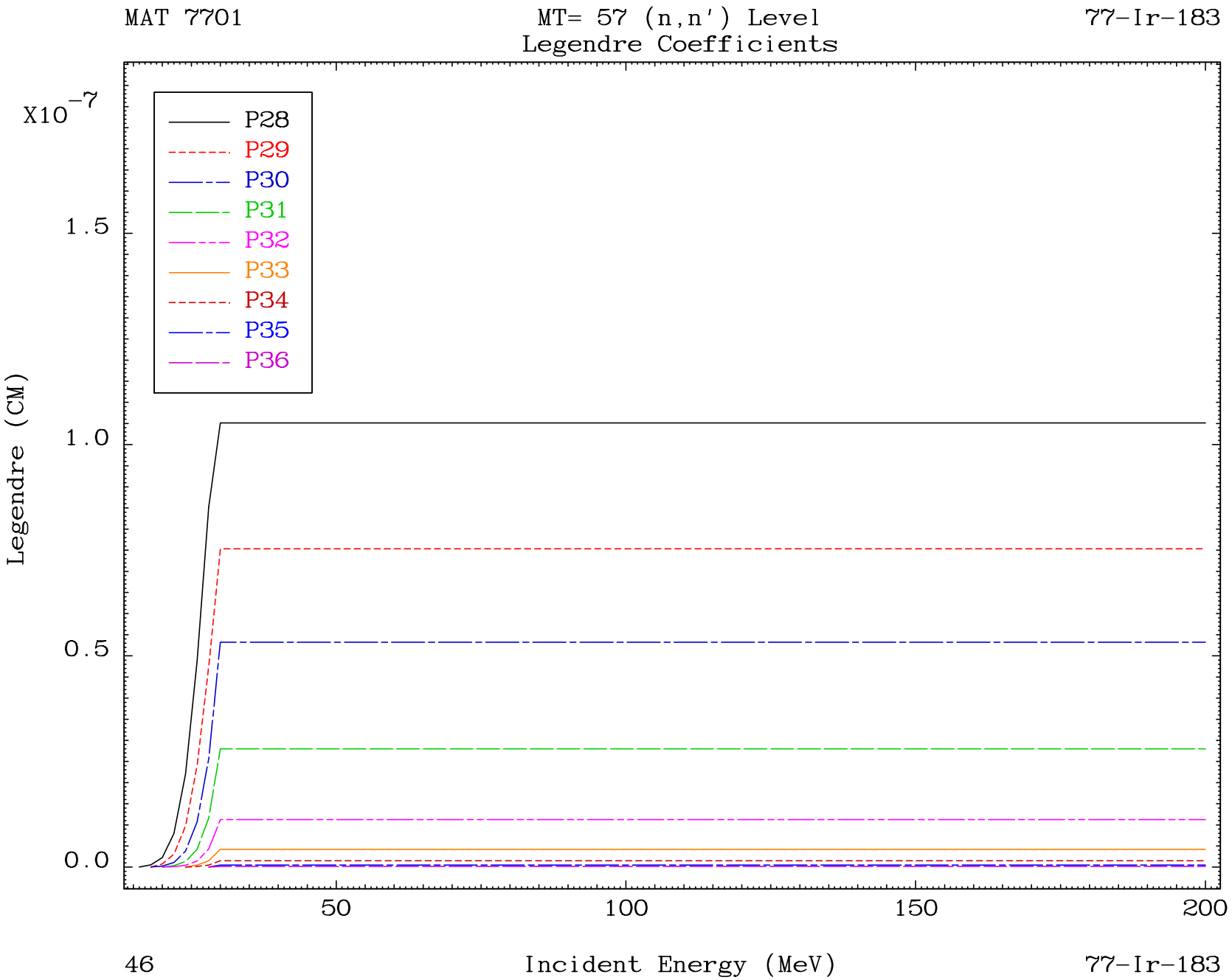

MAT 7701
MT= 56 (n,n') Level
Legendre Coefficients
77-Ir-183
0.000
0.000
0.000
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
41
Incident Energy (MeV)
77-Ir-183

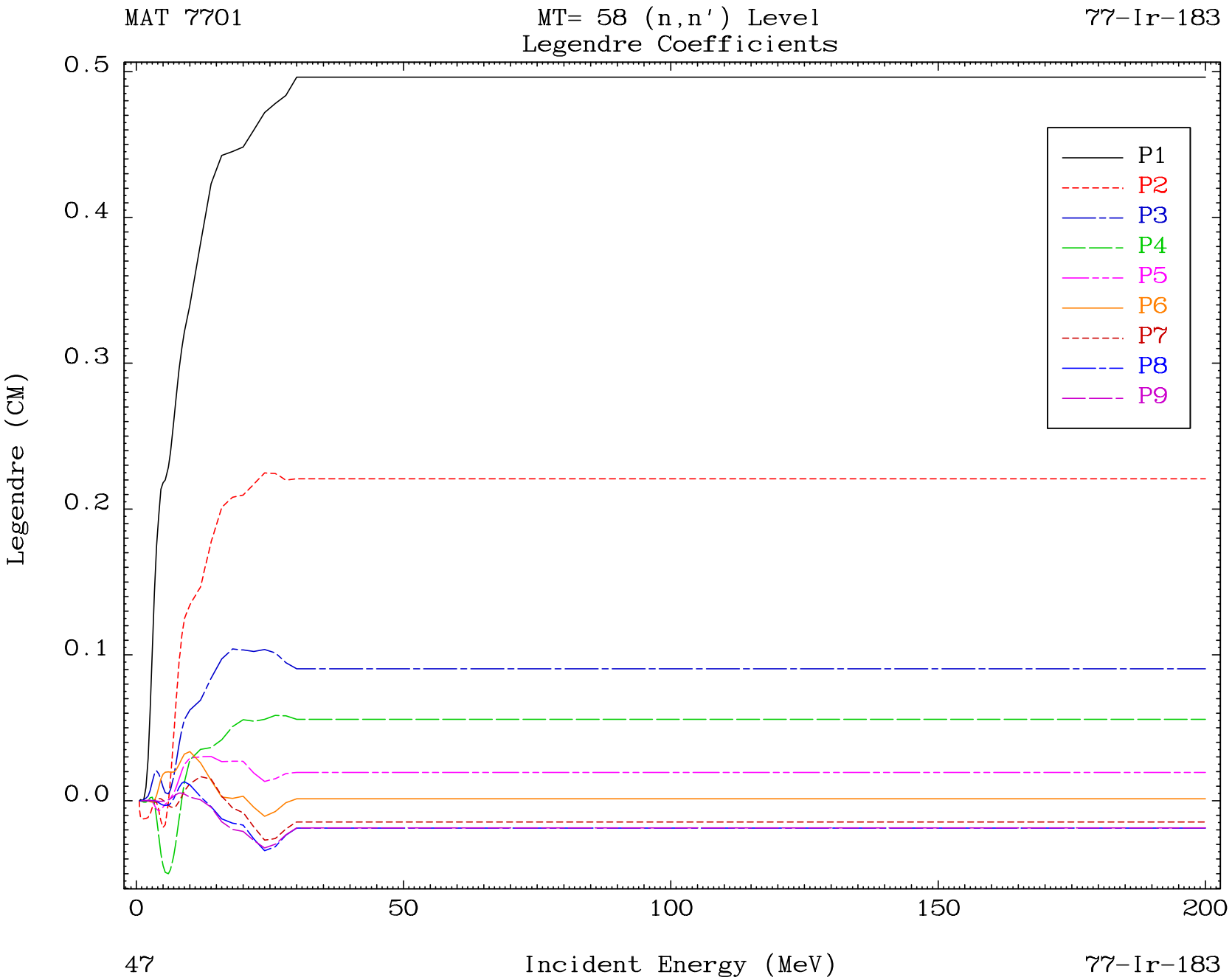

MAT 7701
MT= 56 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-5
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
42
Incident Energy (MeV)
77-Ir-183

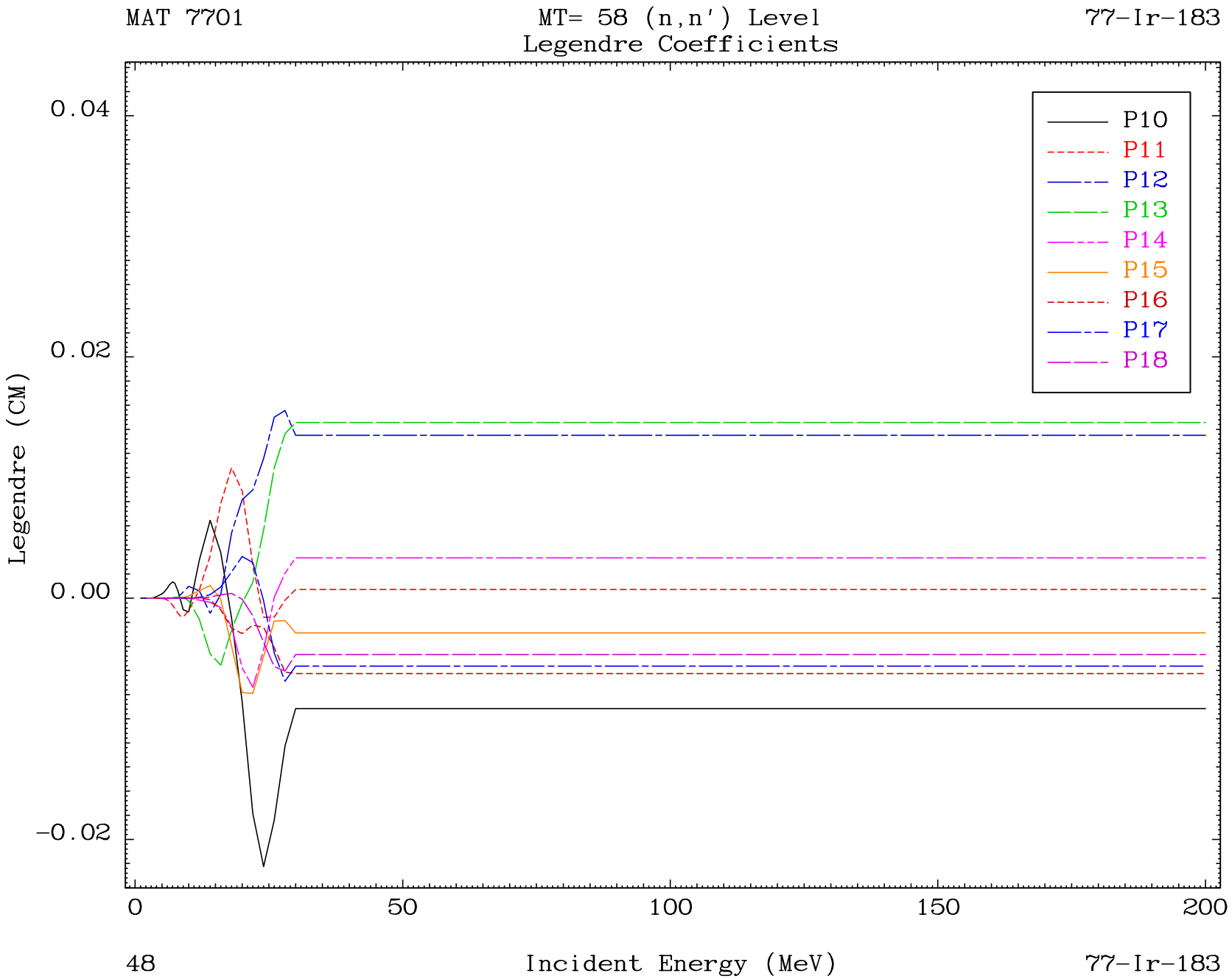

MAT 7701
MT= 57 (n,n') Level
Legendre Coefficients
77-Ir-183
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
43
77-Ir-183
P1
P2
P3
P4
P5
P6
P7
P8
P9

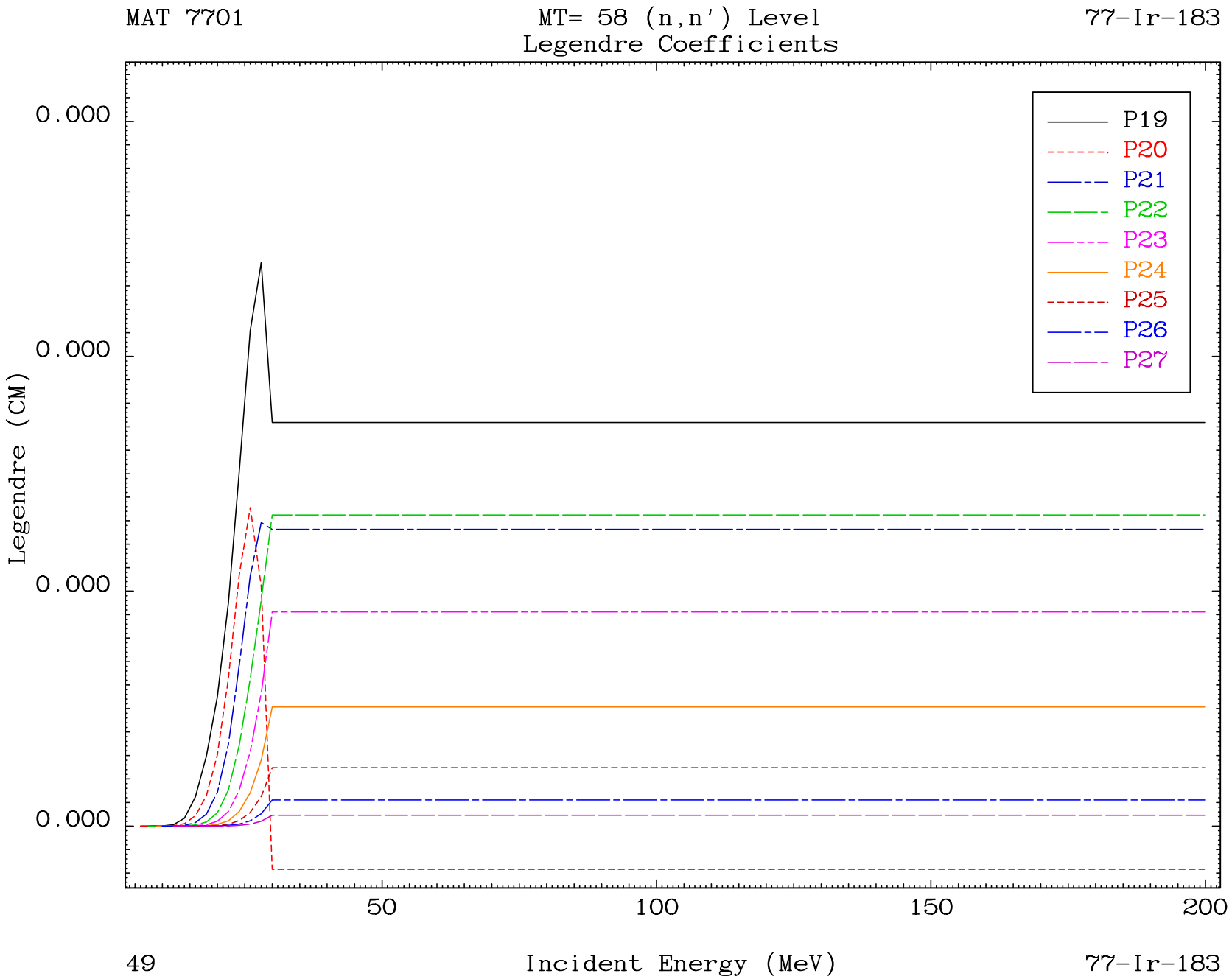

MAT 7701
MT= 57 (n,n') Level
Legendre Coefficients
77-Ir-183
0.005
0.000
-0.005
-0.010
-0.015
Legendre (CM)
0
50
100
150
200
44
Incident Energy (MeV)
77-Ir-183
P10
P11
P12
P13
P14
P15
P16
P17
P18

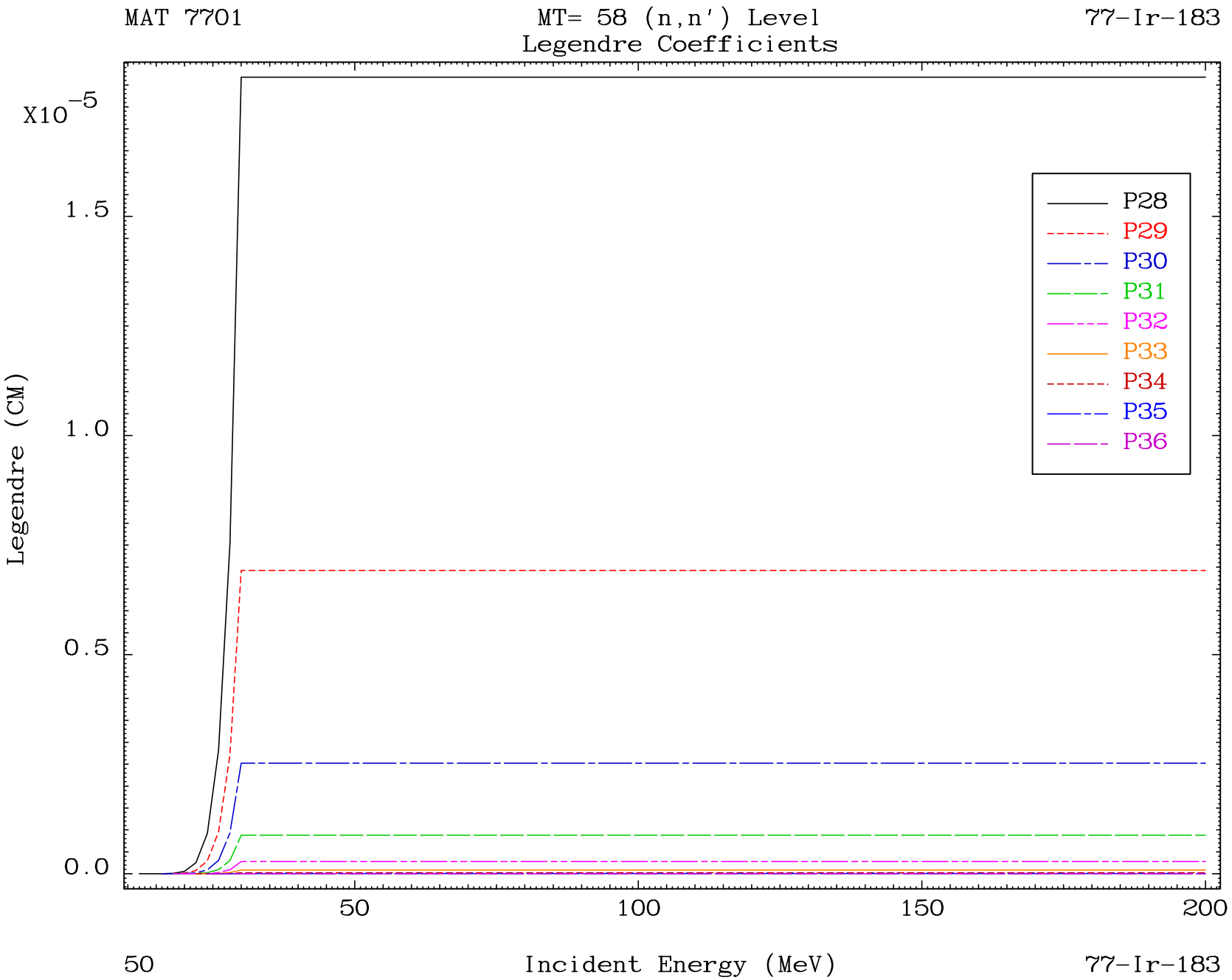

MAT 7701
MT= 57 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-4
3
2
1
0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
45
Incident Energy (MeV)
77-Ir-183

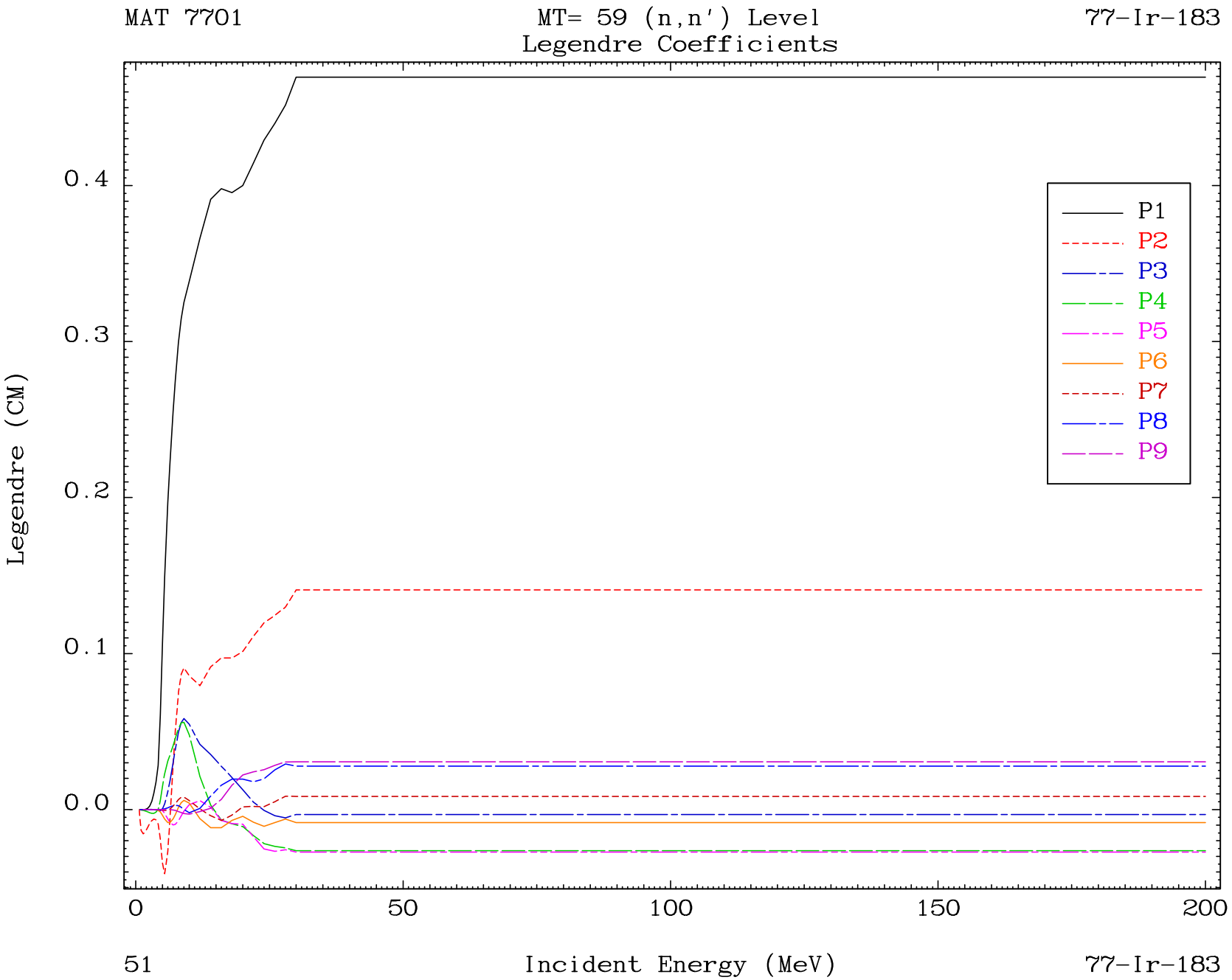

MAT 7701
MT= 57 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-7
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
46
Incident Energy (MeV)
77-Ir-183

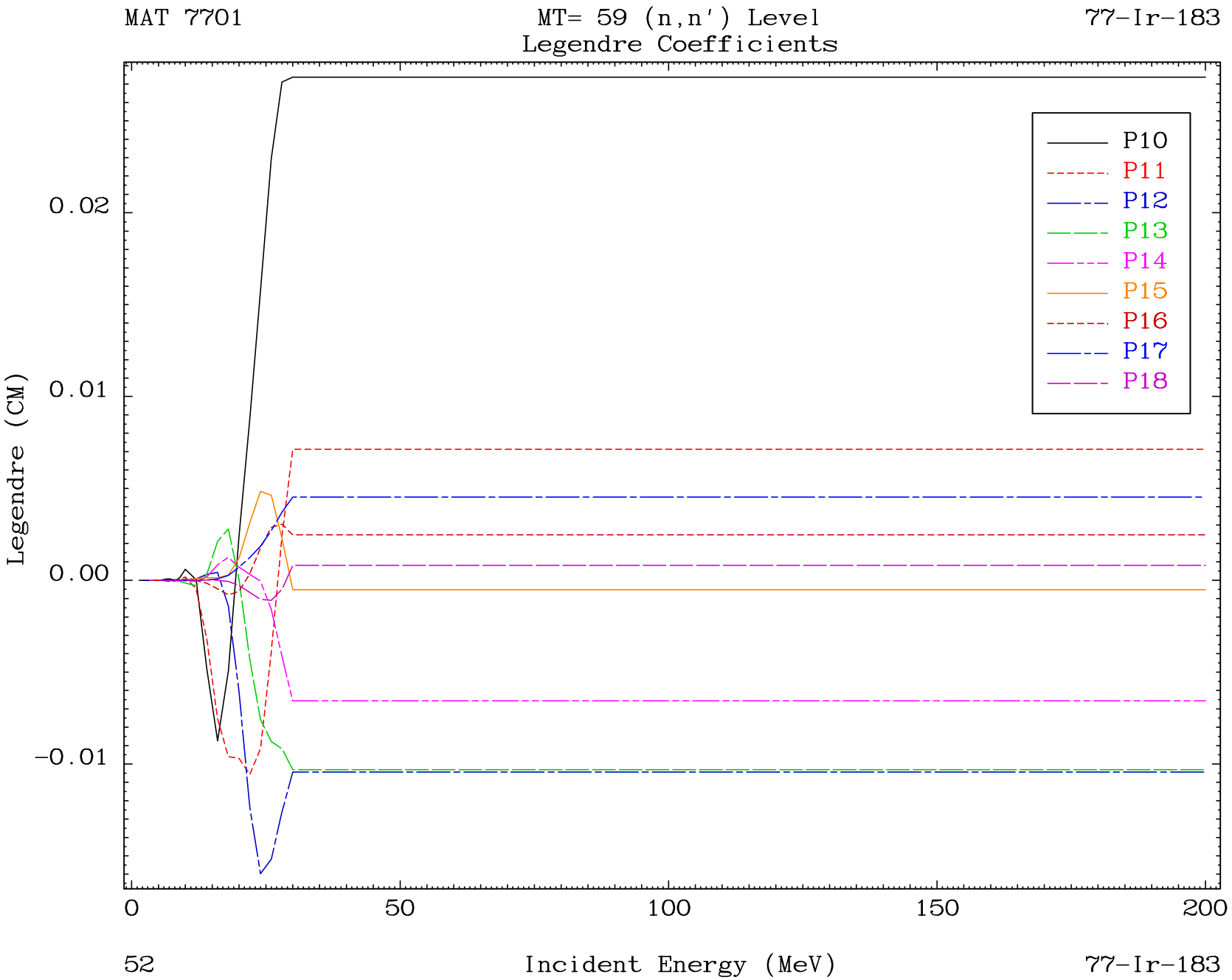

MAT 7701
MT= 58 (n,n') Level
Legendre Coefficients
77-Ir-183
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
47
Incident Energy (MeV)
77-Ir-183

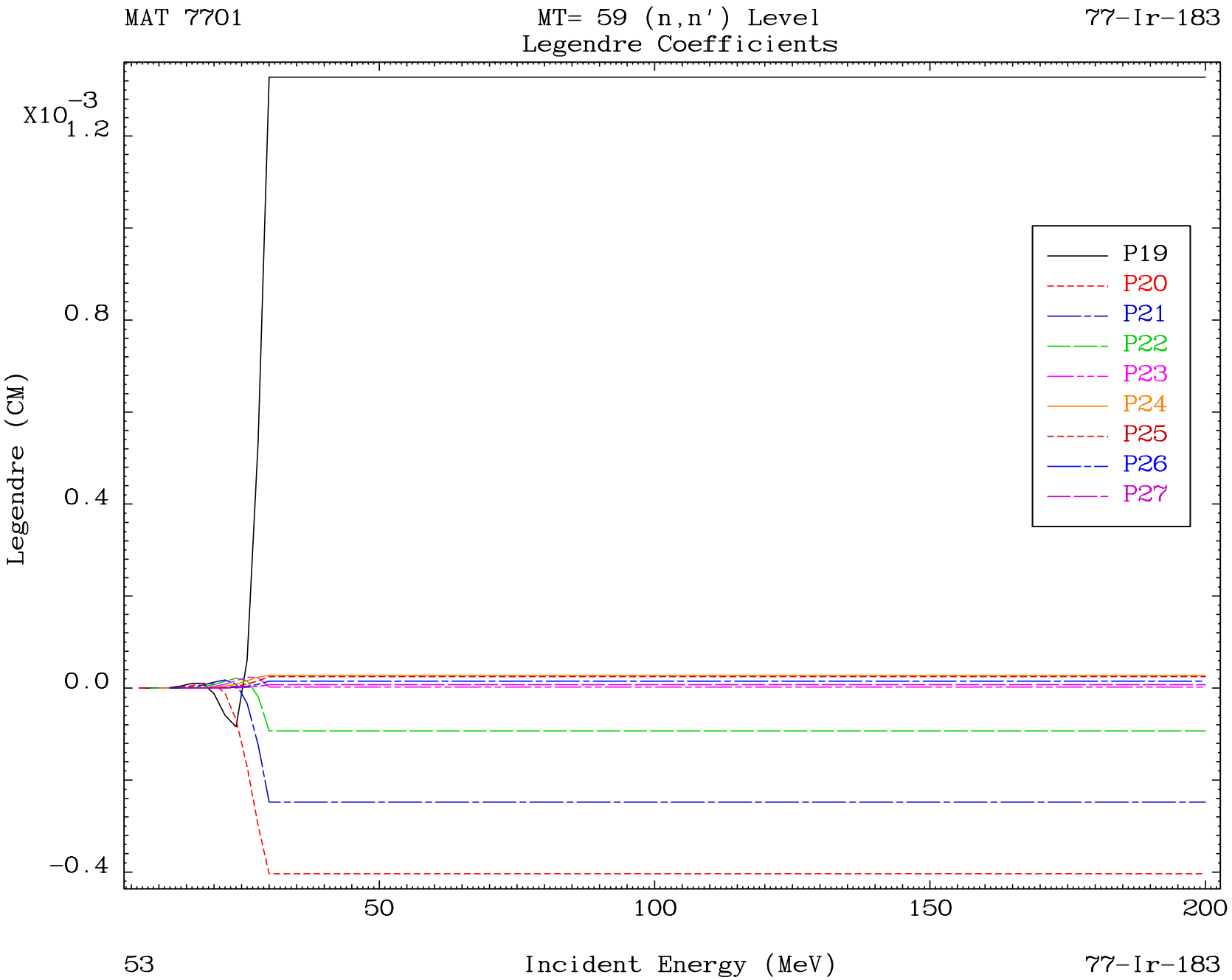

MAT 7701
MT= 58 (n,n') Level
Legendre Coefficients
77-Ir-183
0.04
0.02
0.00
-0.02
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
48
Incident Energy (MeV)
77-Ir-183

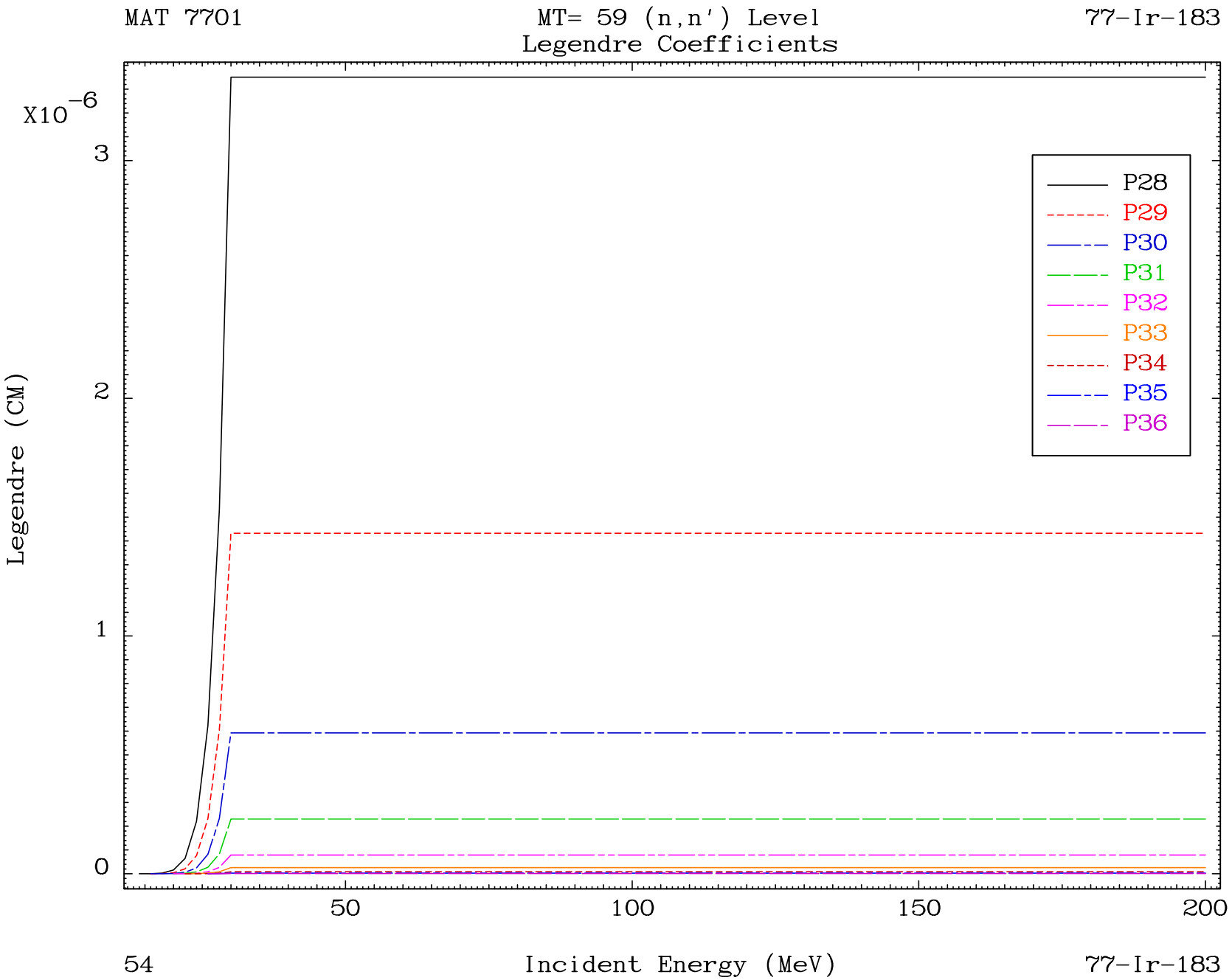

MAT 7701
MT= 58 (n,n') Level
Legendre Coefficients
77-Ir-183
0.000
0.000
0.000
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
49
Incident Energy (MeV)
77-Ir-183

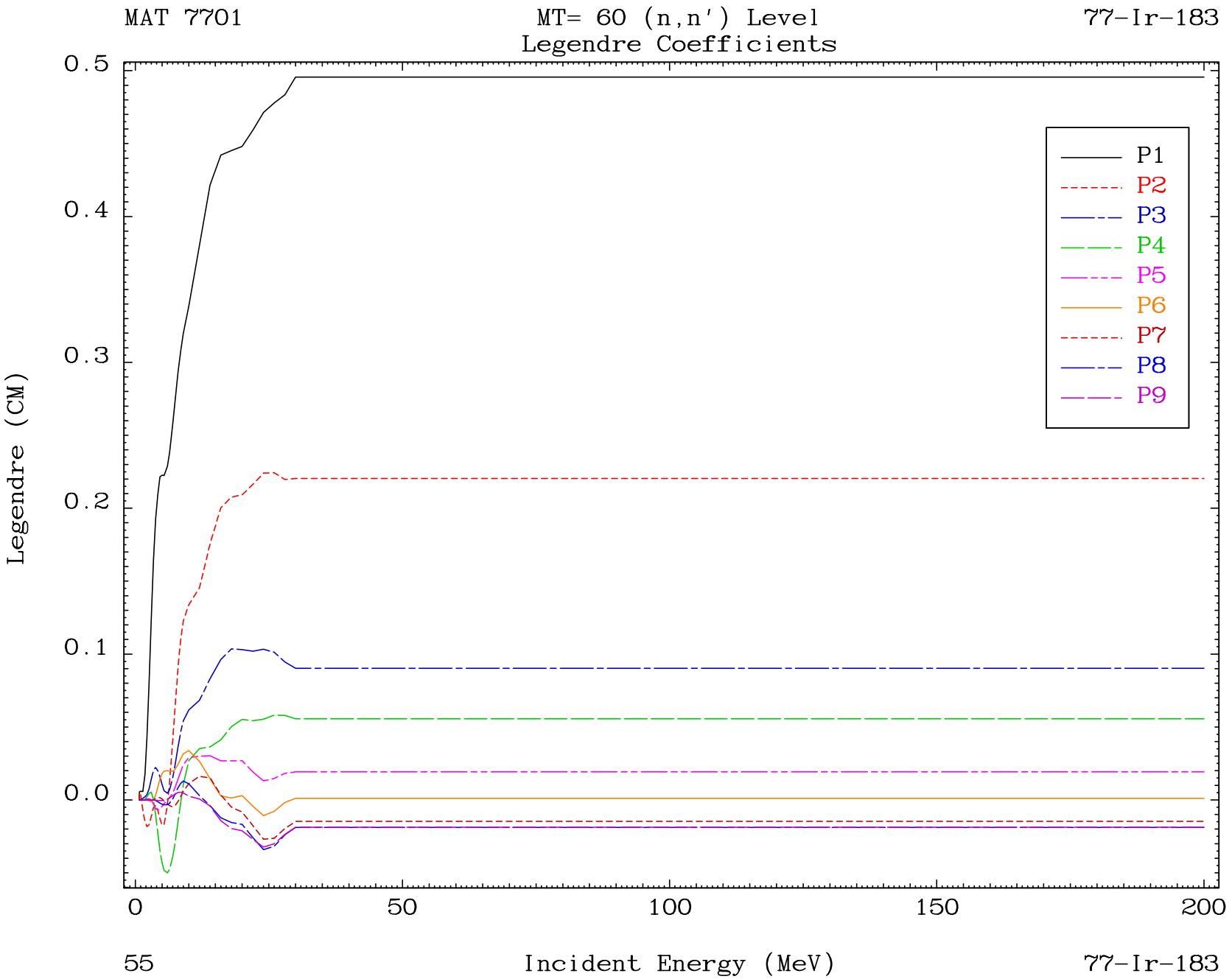

MAT 7701
MT= 58 (n,n') Level
Legendre Coefficients
77-Ir-183
X10-5
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
50
Incident Energy (MeV)
77-Ir-183

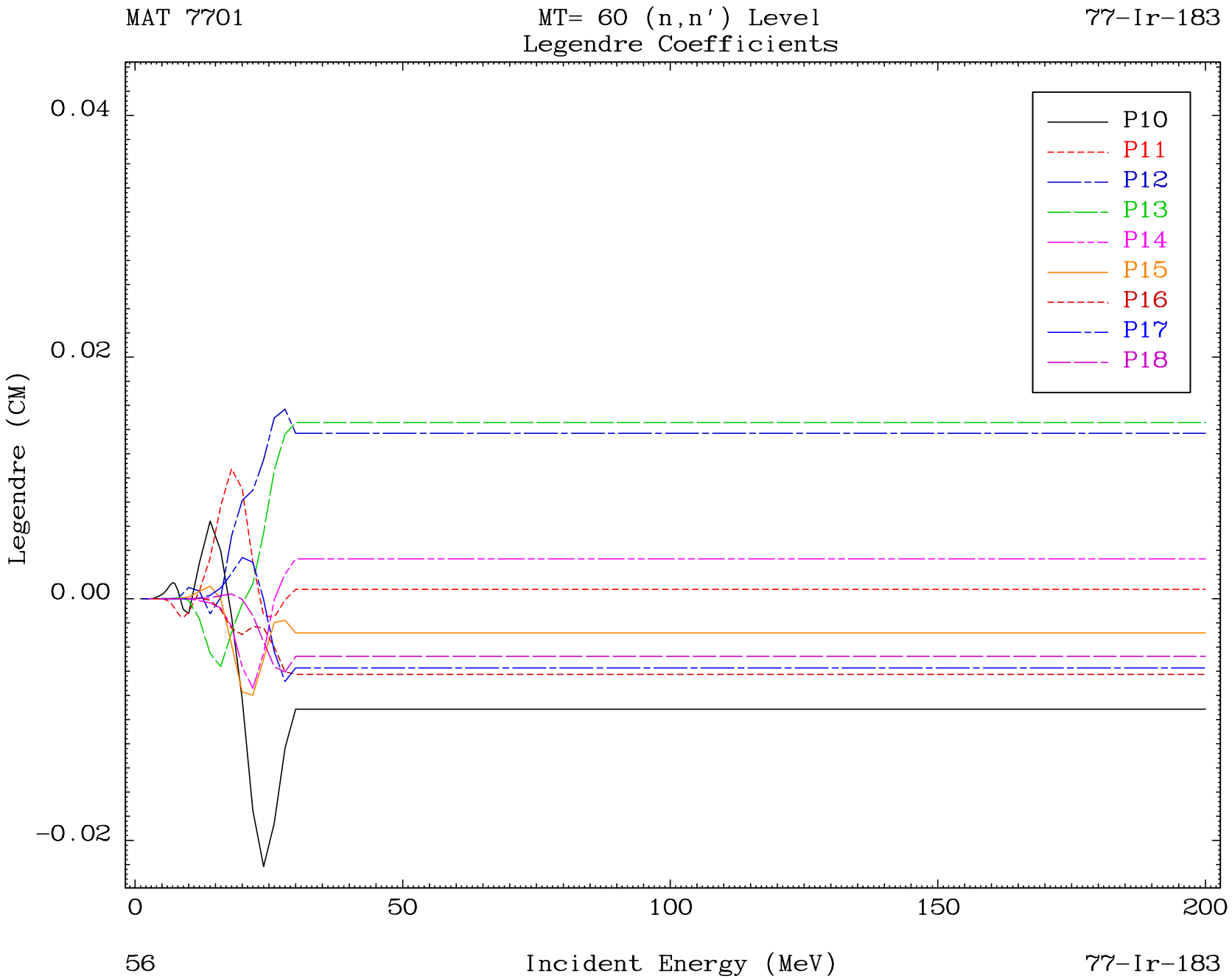

MAT 7701
MT= 59 (n,n') Level
Legendre Coefficients
77-Ir-183
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
51
Incident Energy (MeV)
77-Ir-183

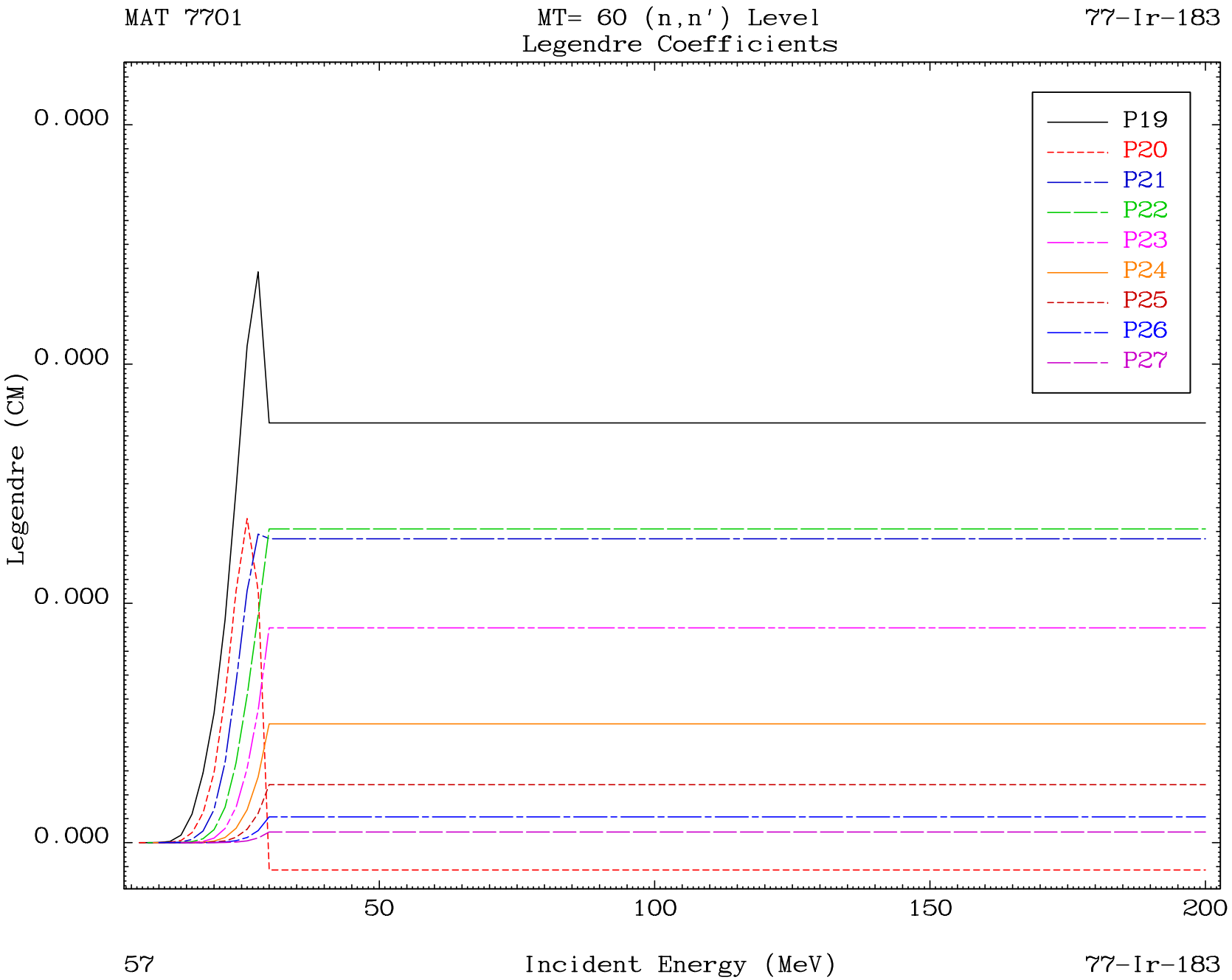

MAT 7701
MT= 59 (n,n') Level
Legendre Coefficients
77-Ir-183
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
52
Incident Energy (MeV)
77-Ir-183

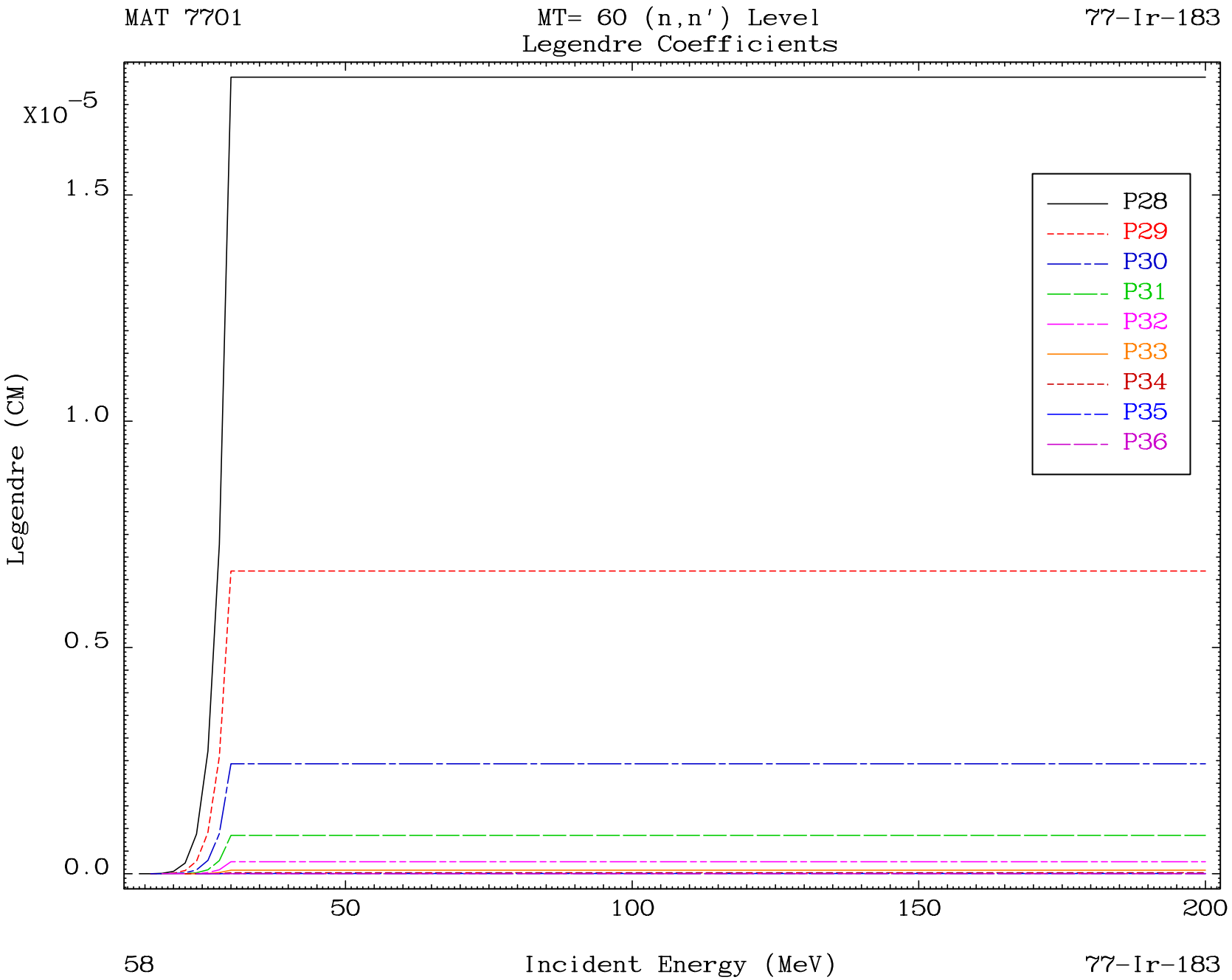

MAT 7701
MT= 59 (n,n') Level
Legendre Coefficients
77-Ir-183
X10-3
1.2
0.8
0.4
0.0
-0.4
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
53
Incident Energy (MeV)
77-Ir-183

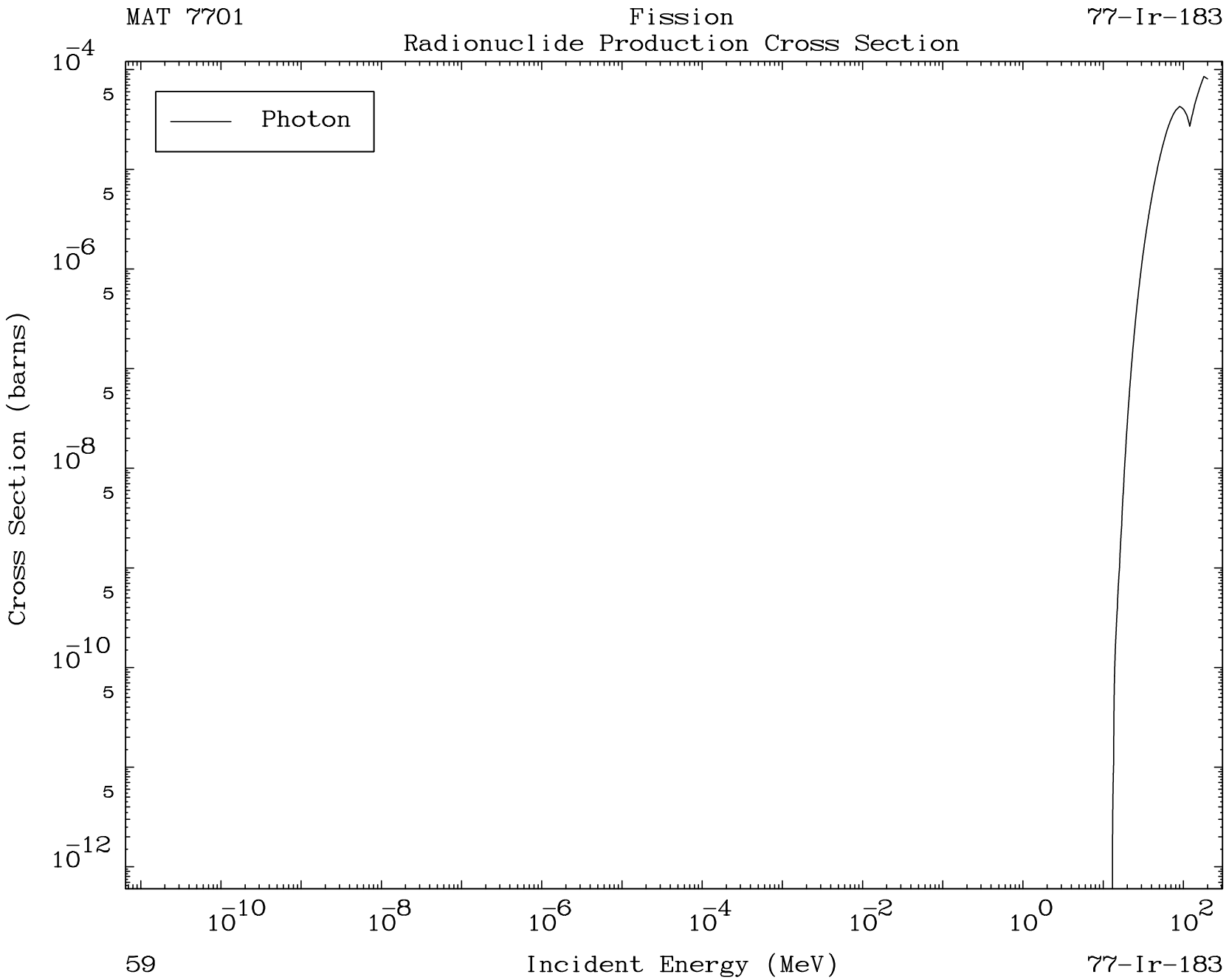

MAT 7701
MT= 59 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
54
Incident Energy (MeV)
77-Ir-183

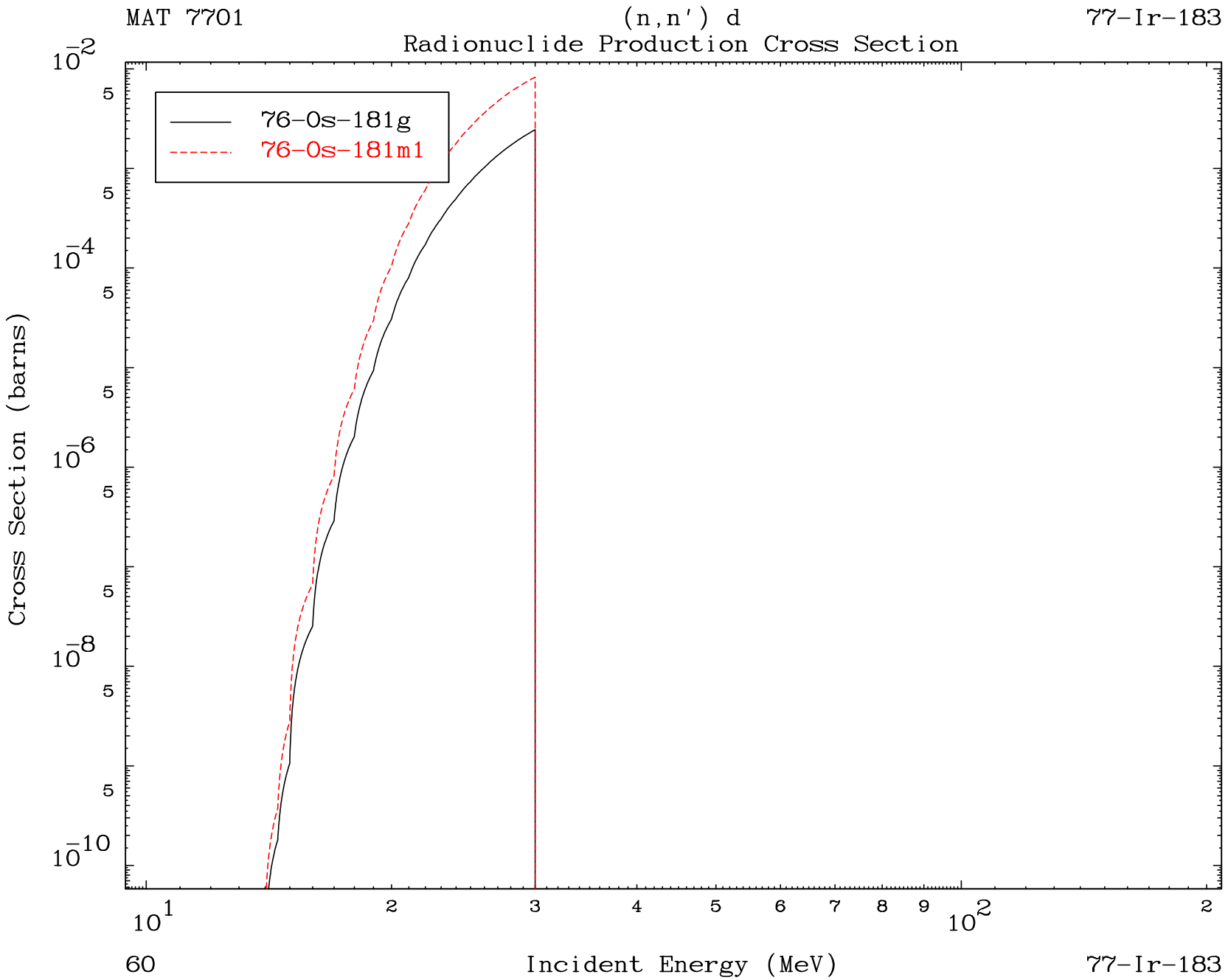

MAT 7701
MT= 60 (n,n') Level
Legendre Coefficients
77-Ir-183
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
55
Incident Energy (MeV)
77-Ir-183

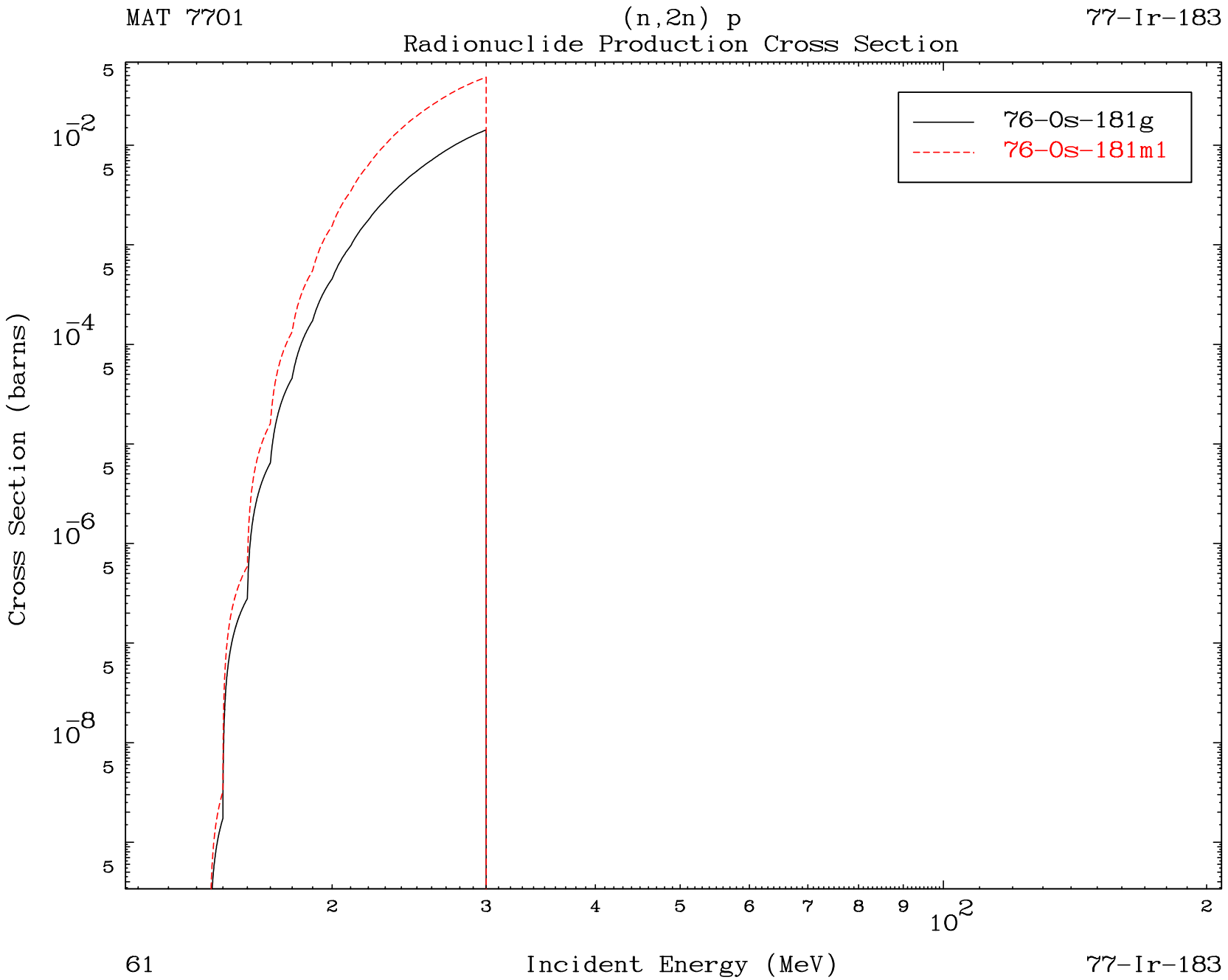

MAT 7701
MT= 60 (n,n') Level
Legendre Coefficients
77-Ir-183
0.04
0.02
0.00
-0.02
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
56
Incident Energy (MeV)
77-Ir-183

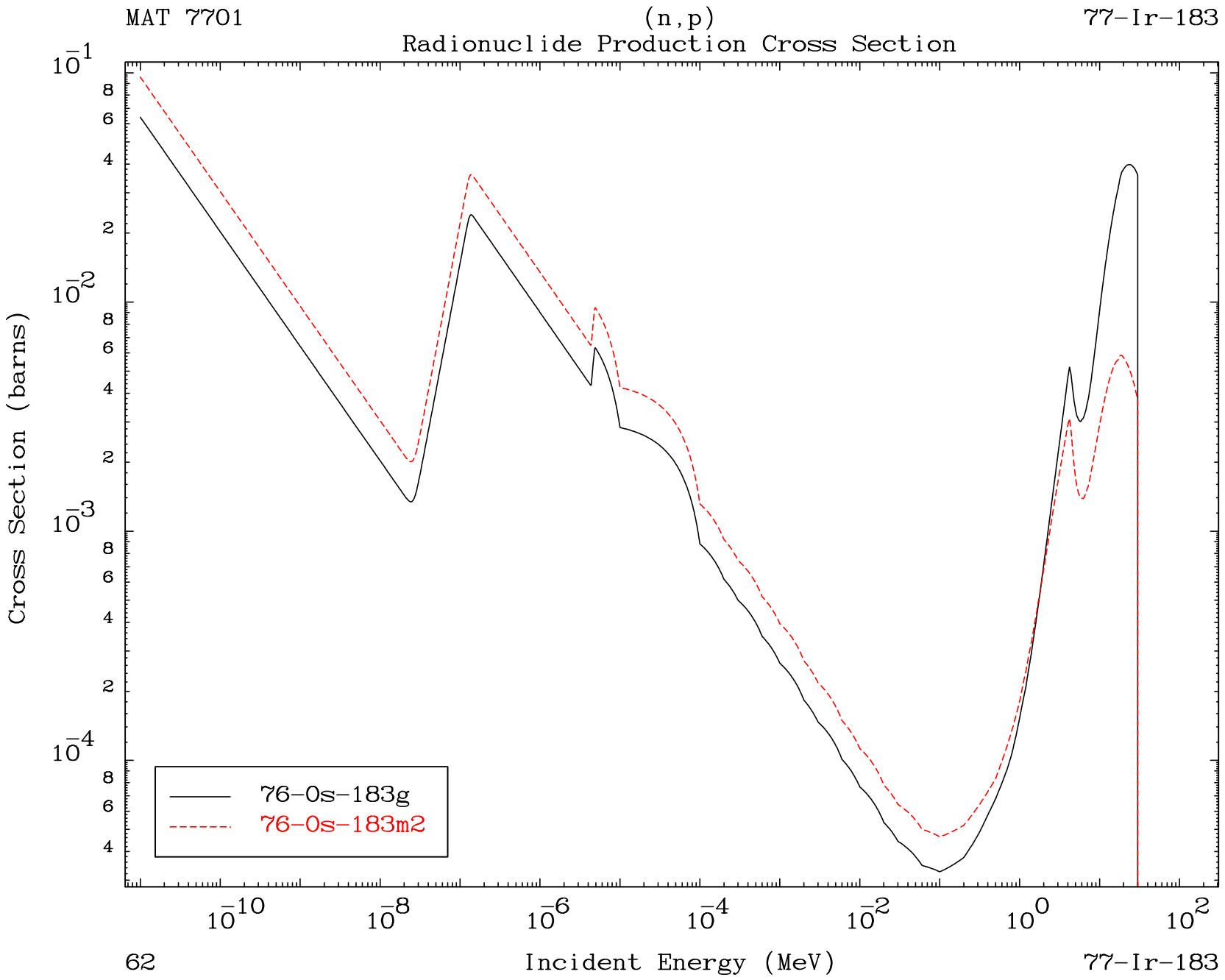

MAT 7701
MT= 60 (n,n') Level
Legendre Coefficients
77-Ir-183
0.000
0.000
0.000
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
57
Incident Energy (MeV)
77-Ir-183

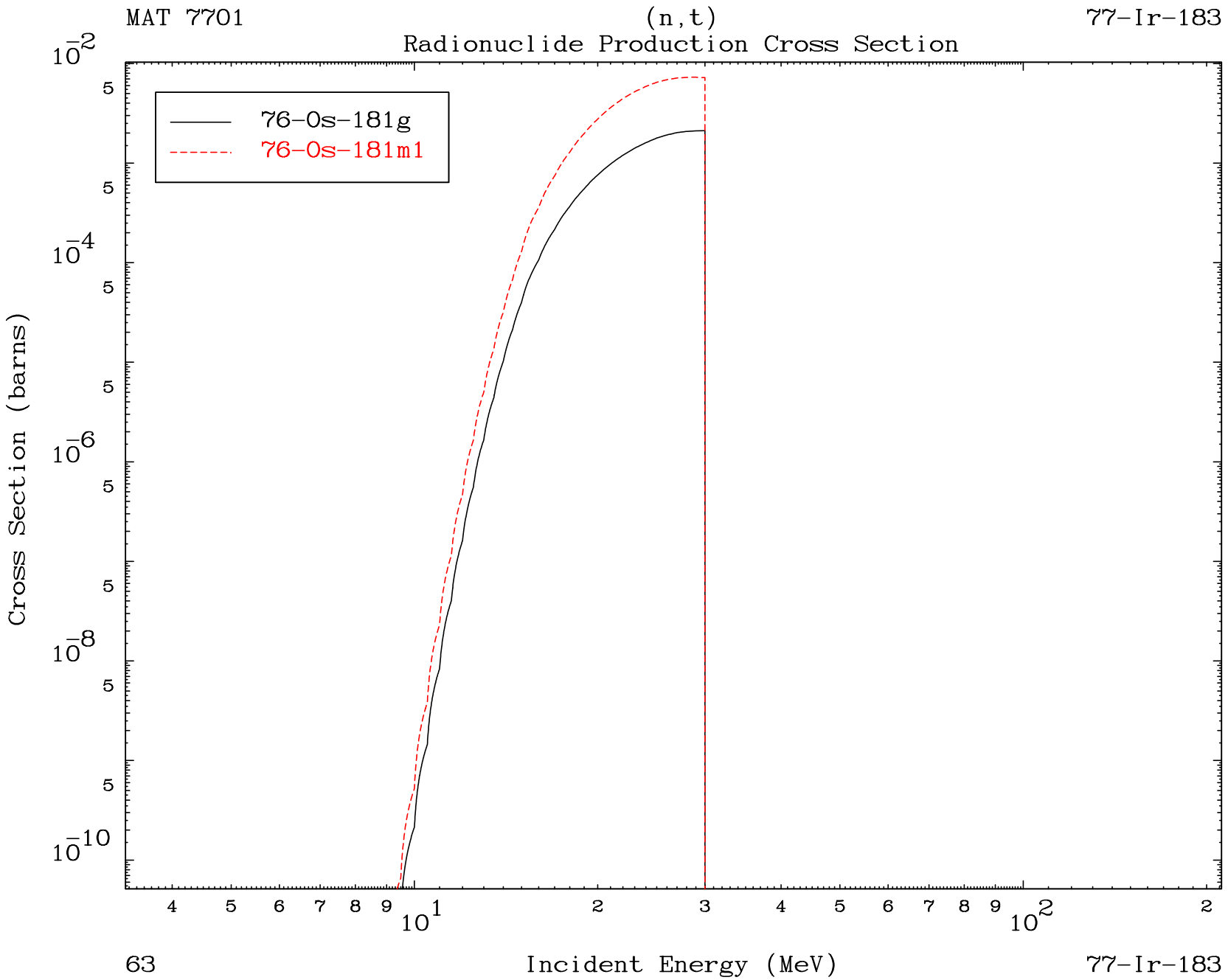

MAT 7701
MT= 60 (n,n') Level
Legendre Coefficients
77-Ir-183
X10^-5
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
58
Incident Energy (MeV)
77-Ir-183

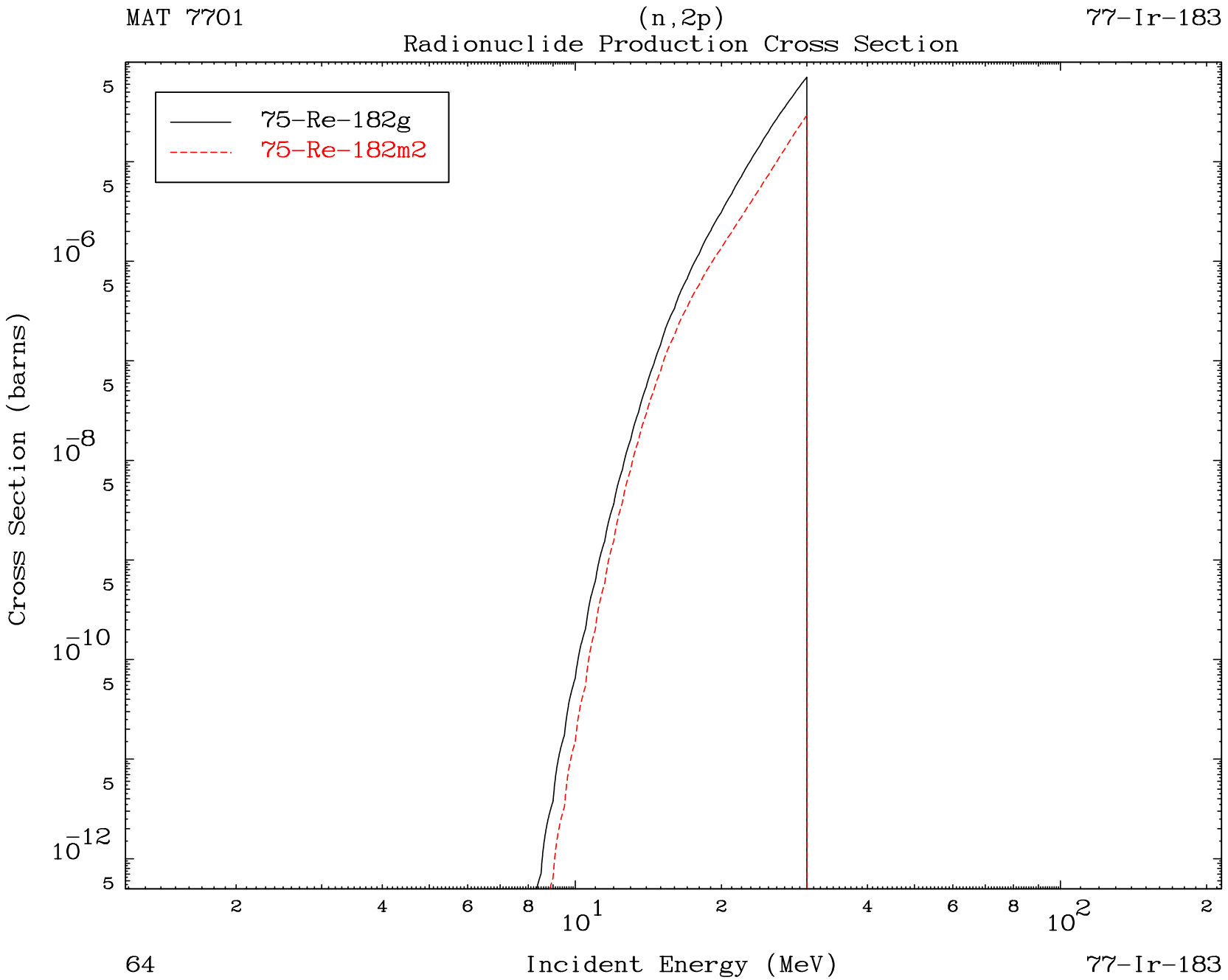

MAT 7701
Fission
77-Ir-183
Radionuclide Production Cross Section
Photon
Cross Section (barns)
Incident Energy (MeV)
59
77-Ir-183

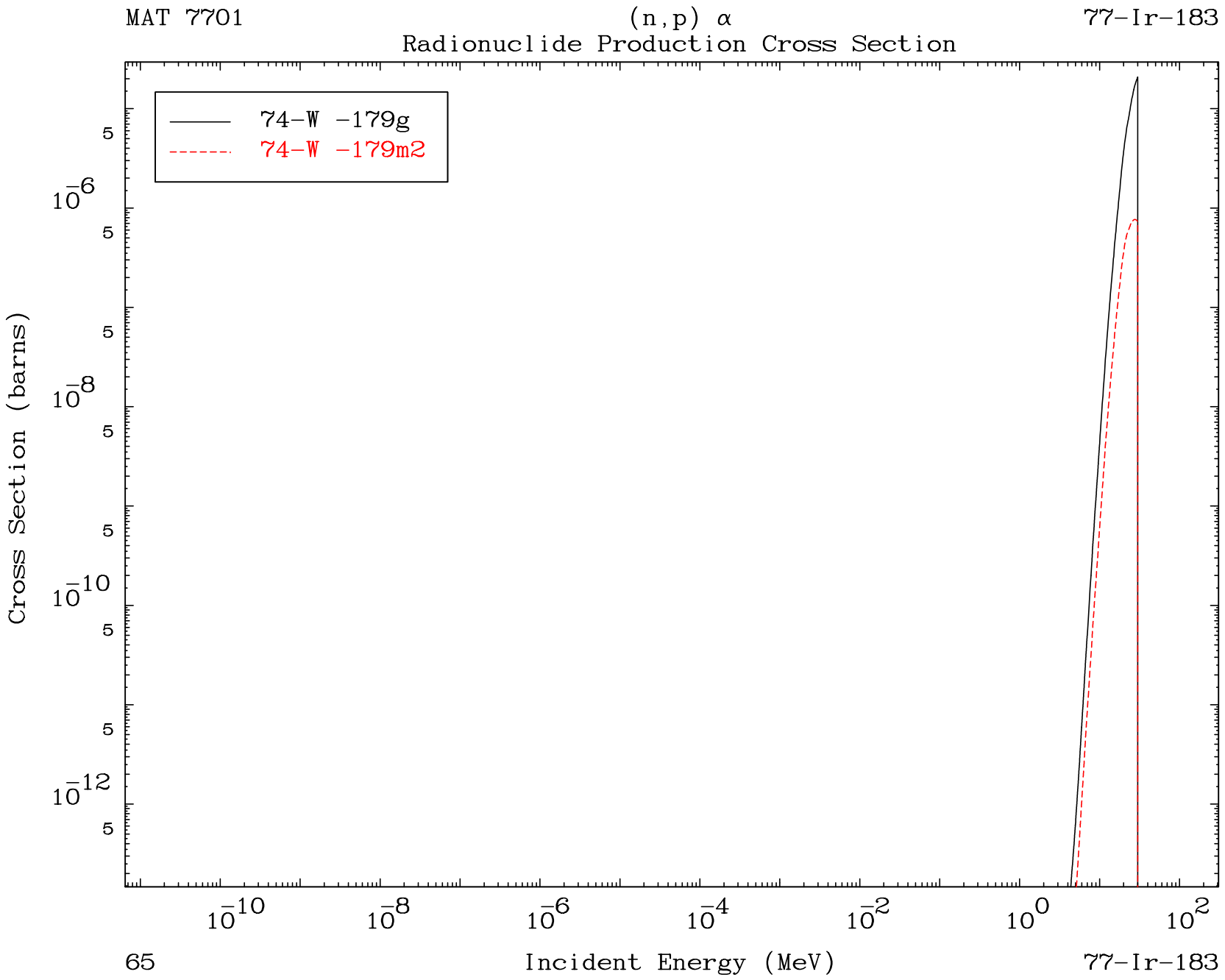

MAT 7701
(n,n') d
77-Ir-183
Radionuclide Production Cross Section
76-Os-181g
76-Os-181m1
Cross Section (barns)
Incident Energy (MeV)
60
77-Ir-183


MAT 7701
(n,2n) p
77-Ir-183
Radionuclide Production Cross Section
76-Os-181g
76-Os-181m1
Cross Section (barns)
Incident Energy (MeV)
61
77-Ir-183


MAT 7701
(n,p)
77-Ir-183
Radionuclide Production Cross Section
Cross Section (barns)
Incident Energy (MeV)
76-Os-183g
76-Os-183m2
62
77-Ir-183


MAT 7701
(n,t)
77-Ir-183
Radionuclide Production Cross Section
76-Os-181g
76-Os-181m1
Cross Section (barns)
Incident Energy (MeV)
63
77-Ir-183


MAT 7701
(n,2p)
77-Ir-183
Radionuclide Production Cross Section
75-Re-182g
75-Re-182m2
Cross Section (barns)
Incident Energy (MeV)
64
77-Ir-183


MAT 7701
(n,p) α
77-Ir-183
Radionuclide Production Cross Section
74-W -179g
74-W -179m2
Cross Section (barns)
Incident Energy (MeV)
65
77-Ir-183