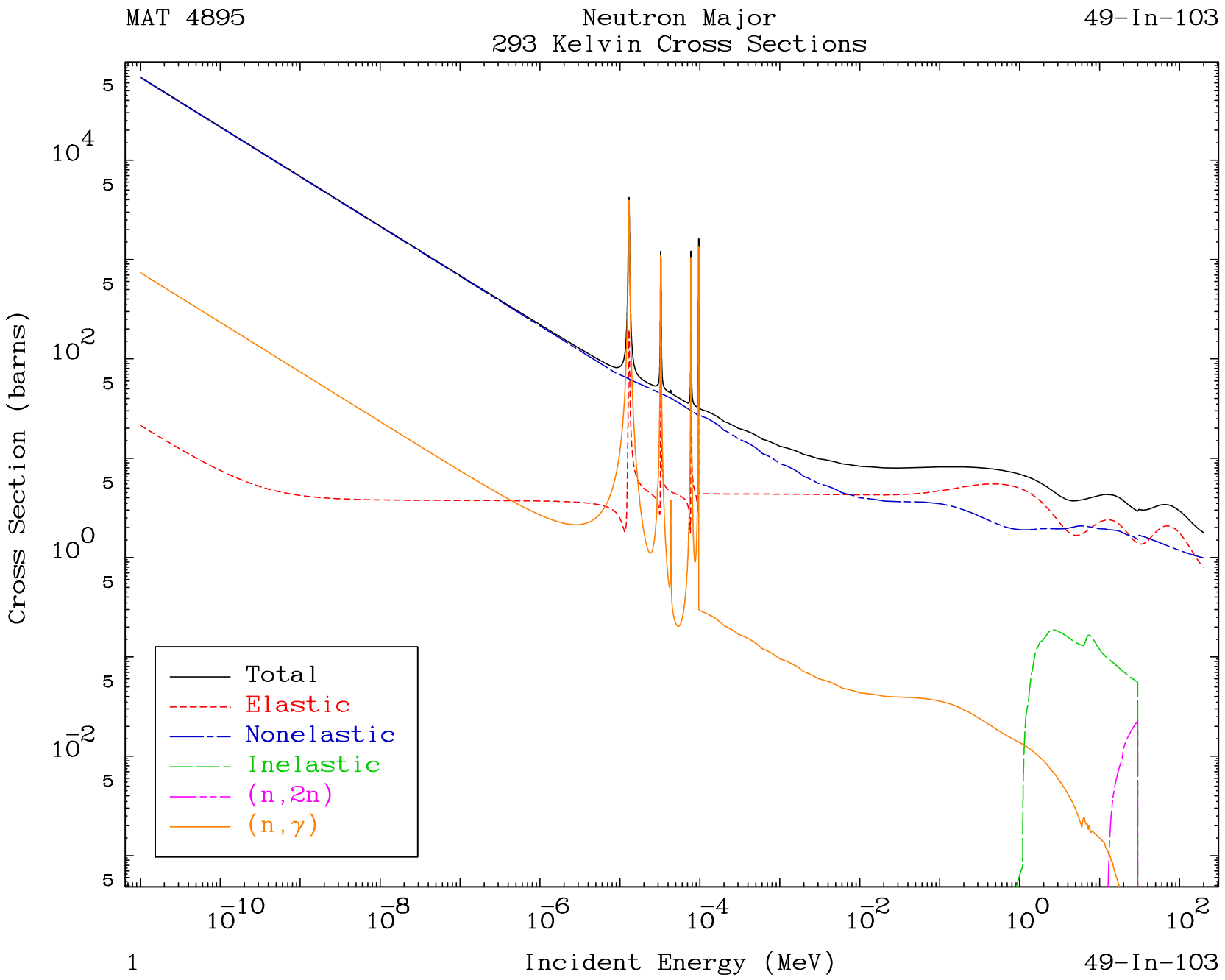
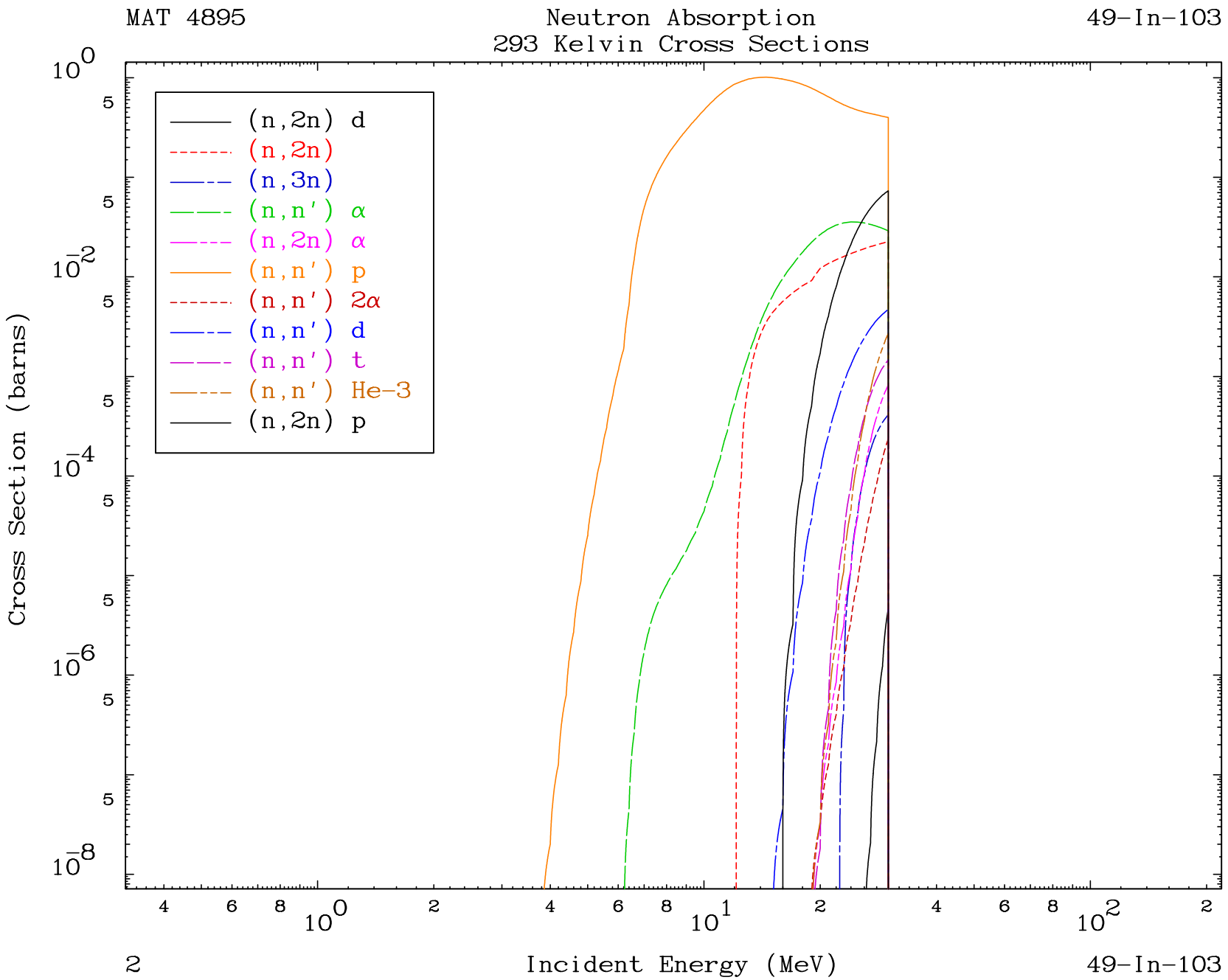
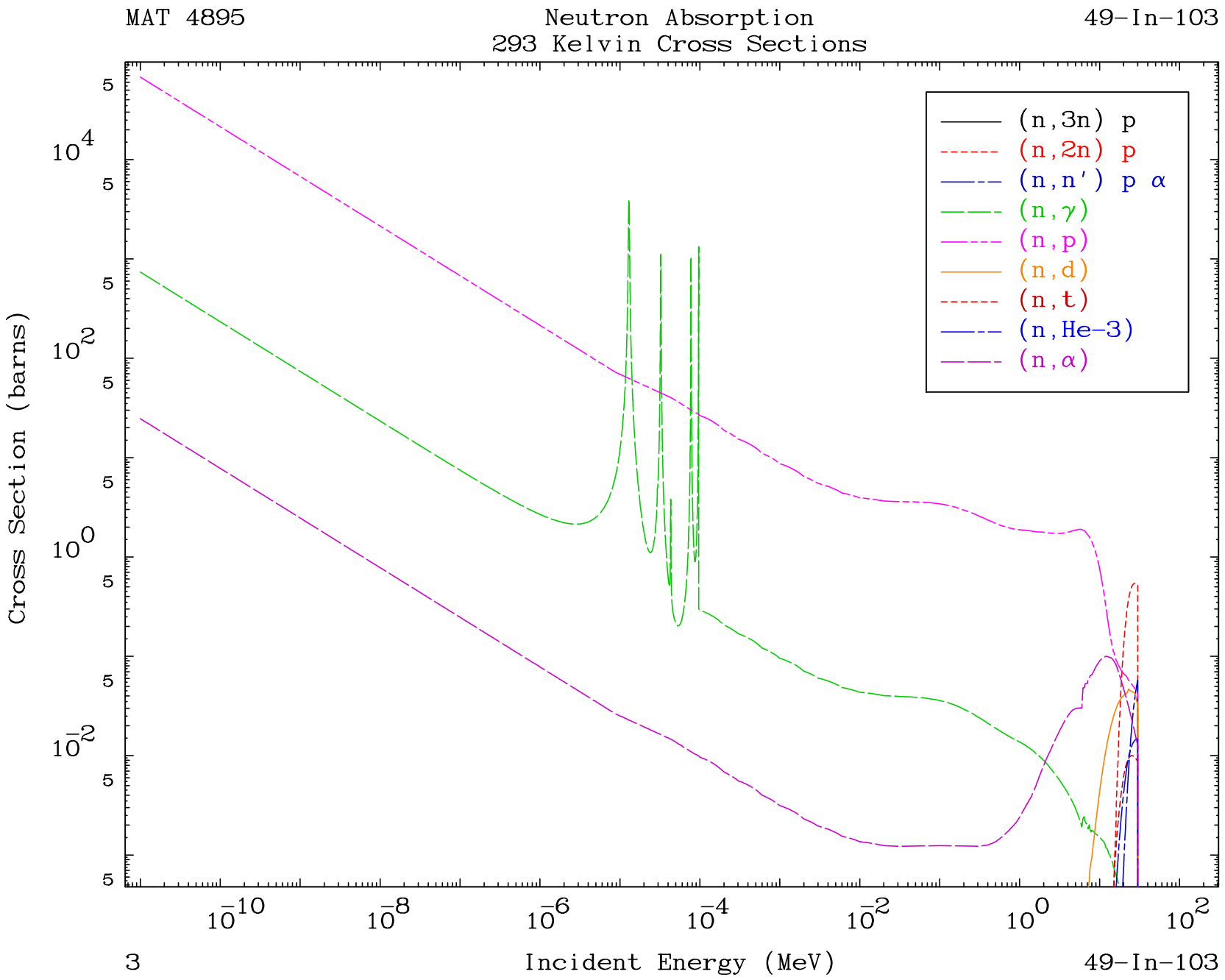
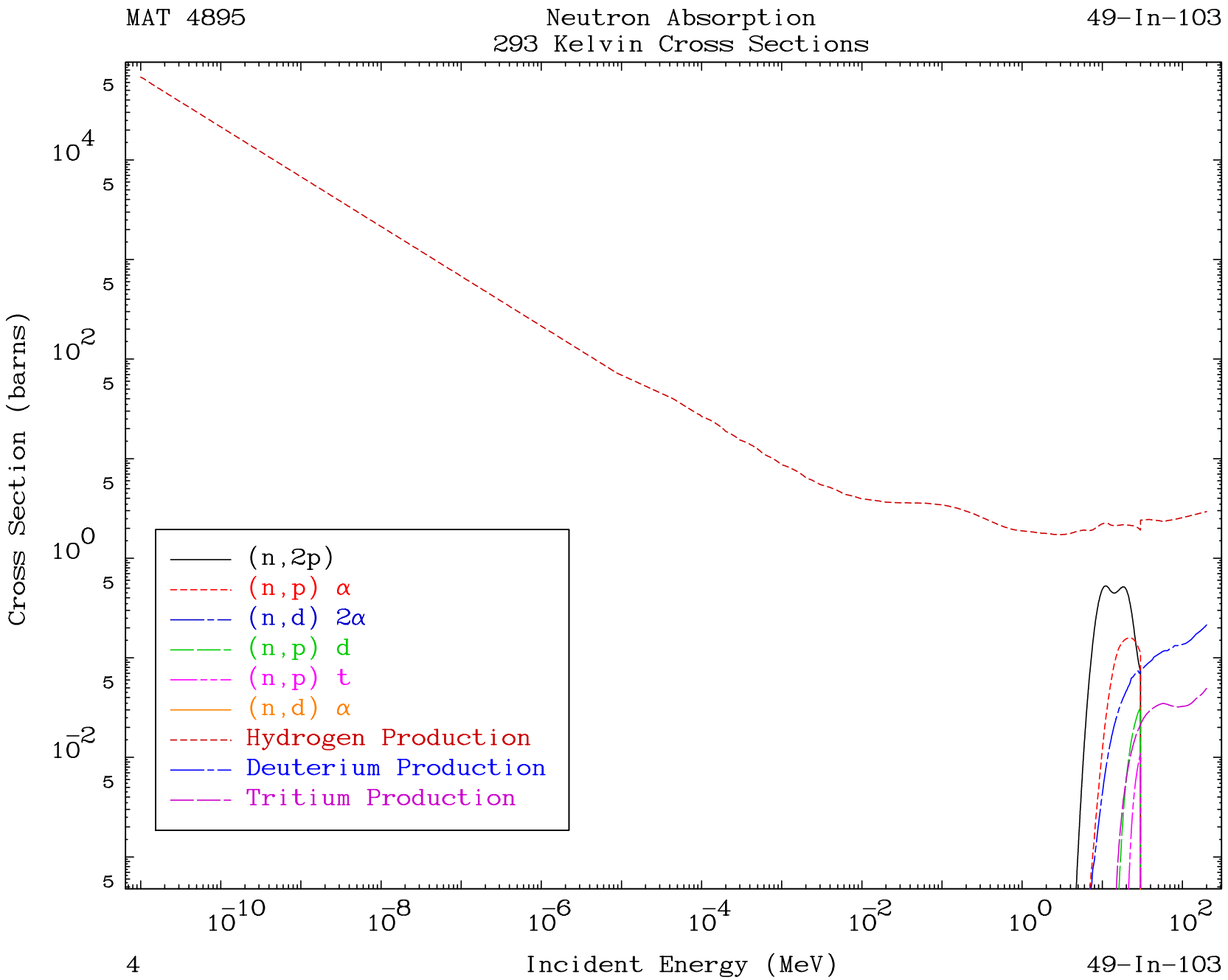
Program EVALPLOT
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

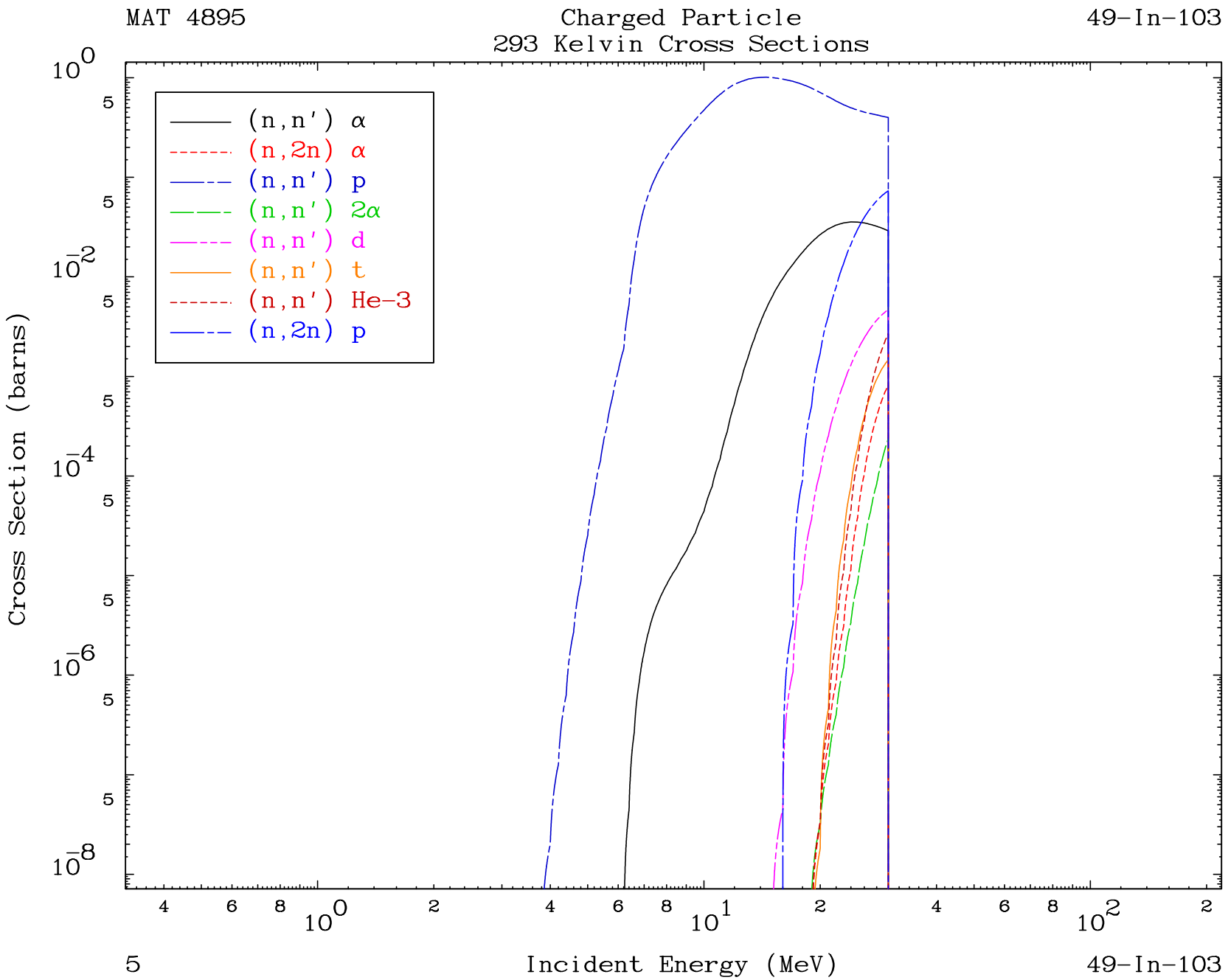
Press Mouse Button to Start

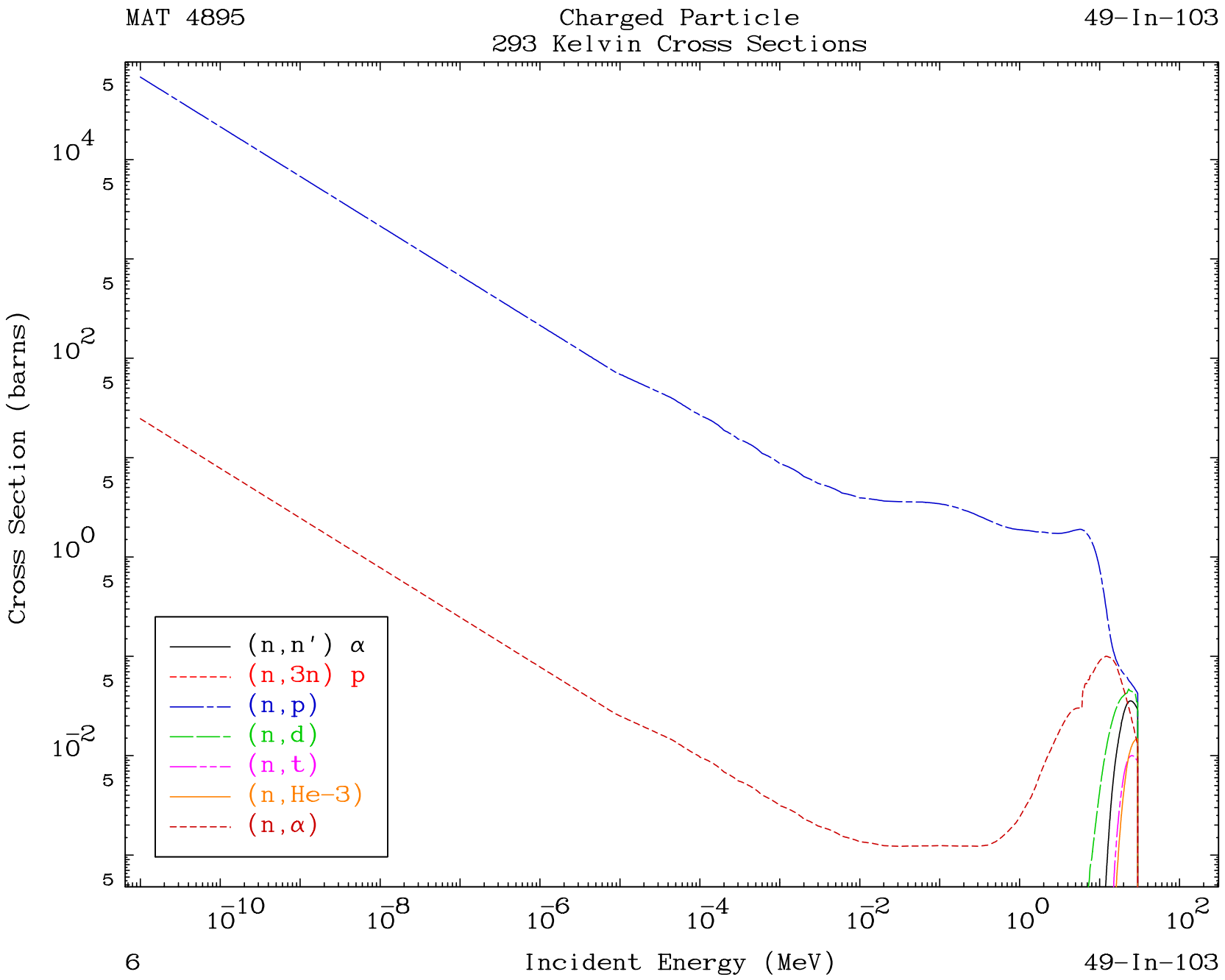

MAT 4895
Neutron Major
293 Kelvin Cross Sections
49-In-103
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,γ)
1
49-In-103

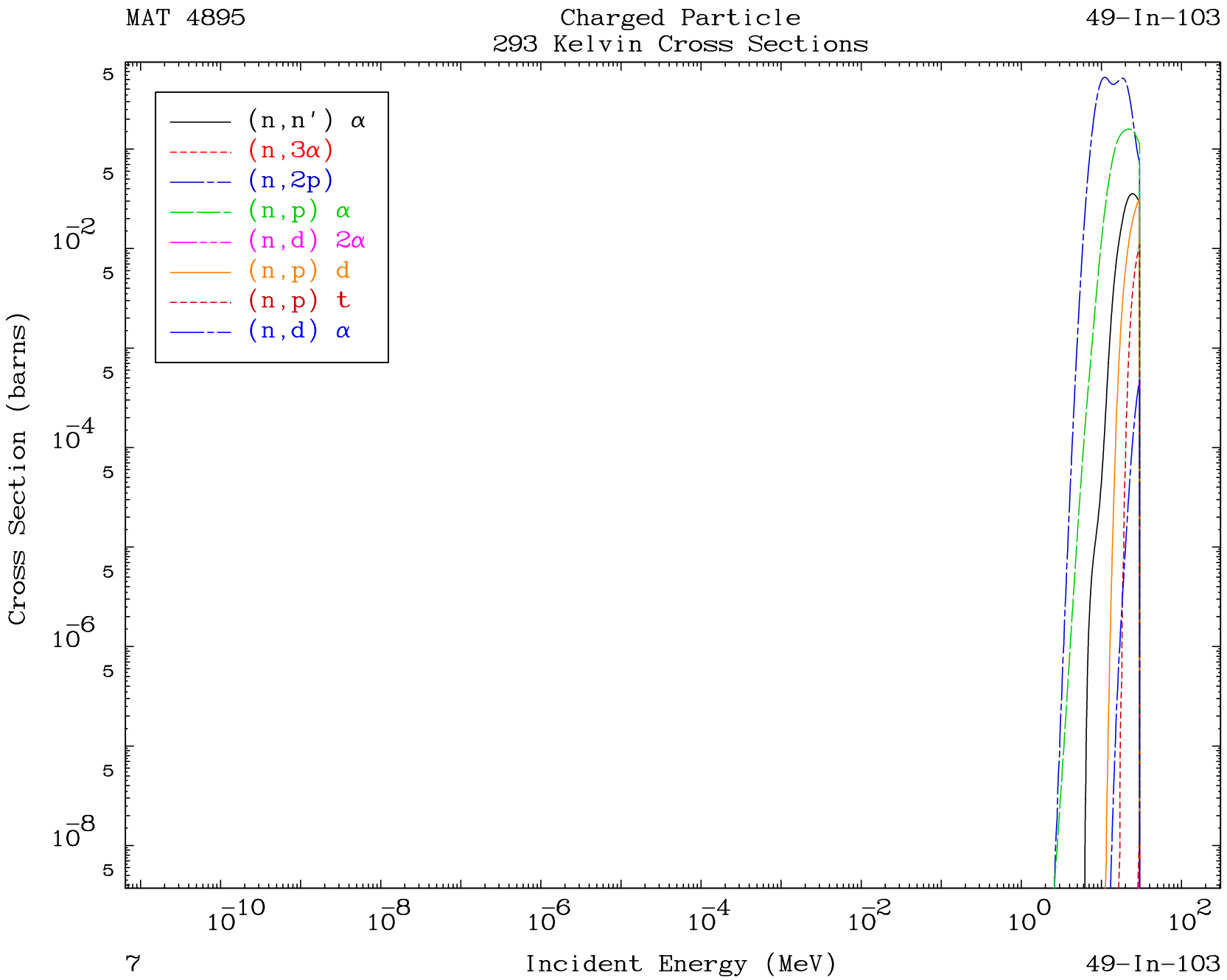

MAT 4895
Neutron Absorption
293 Kelvin Cross Sections
49-In-103
(n,2n) d
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
Cross Section (barns)
Incident Energy (MeV)
49-In-103
2

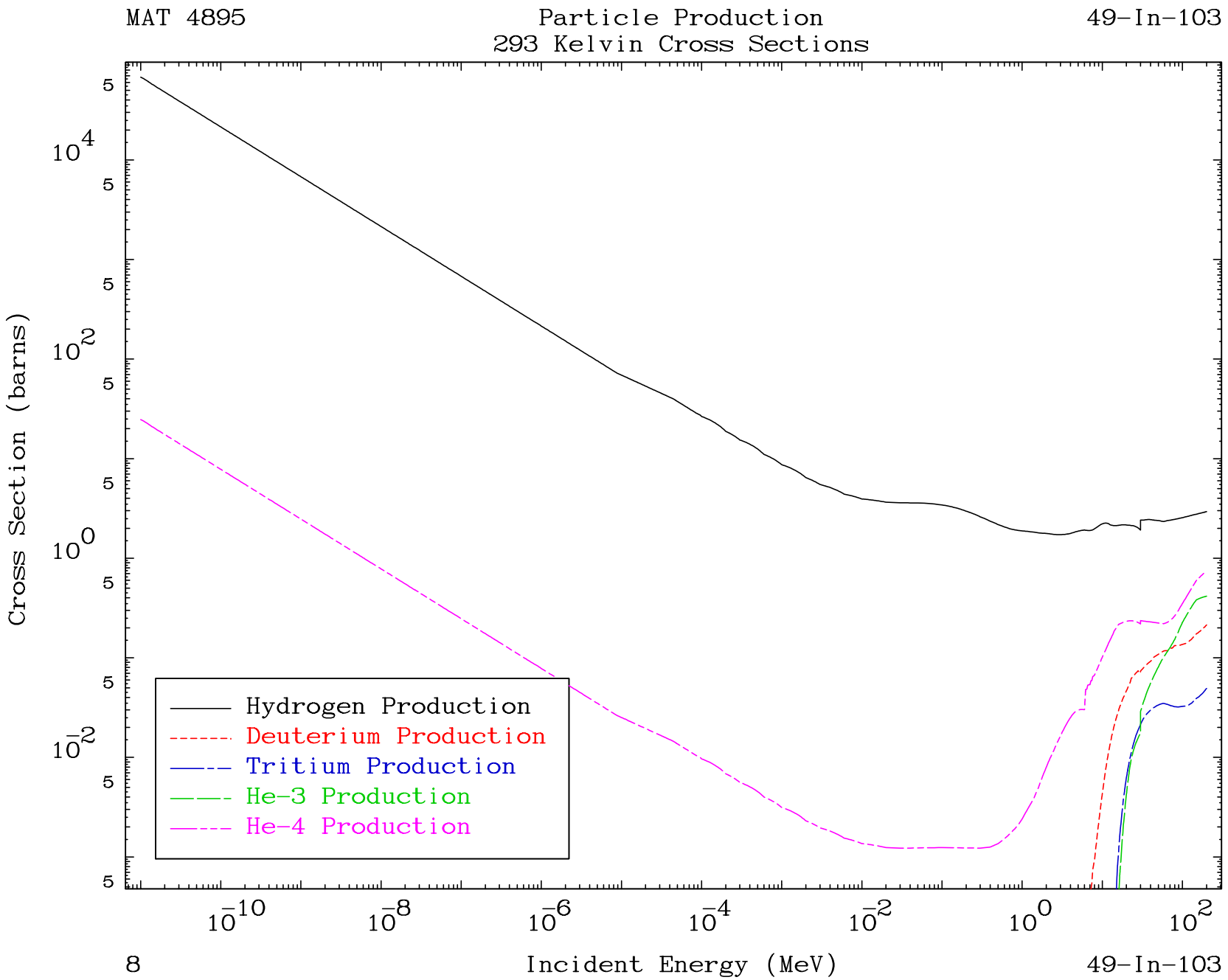

MAT 4895
Neutron Absorption
293 Kelvin Cross Sections
49-In-103
(n,3n) p
(n,2n) p
(n,n') p α
(n,γ)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
Cross Section (barns)
Incident Energy (MeV)
3
49-In-103

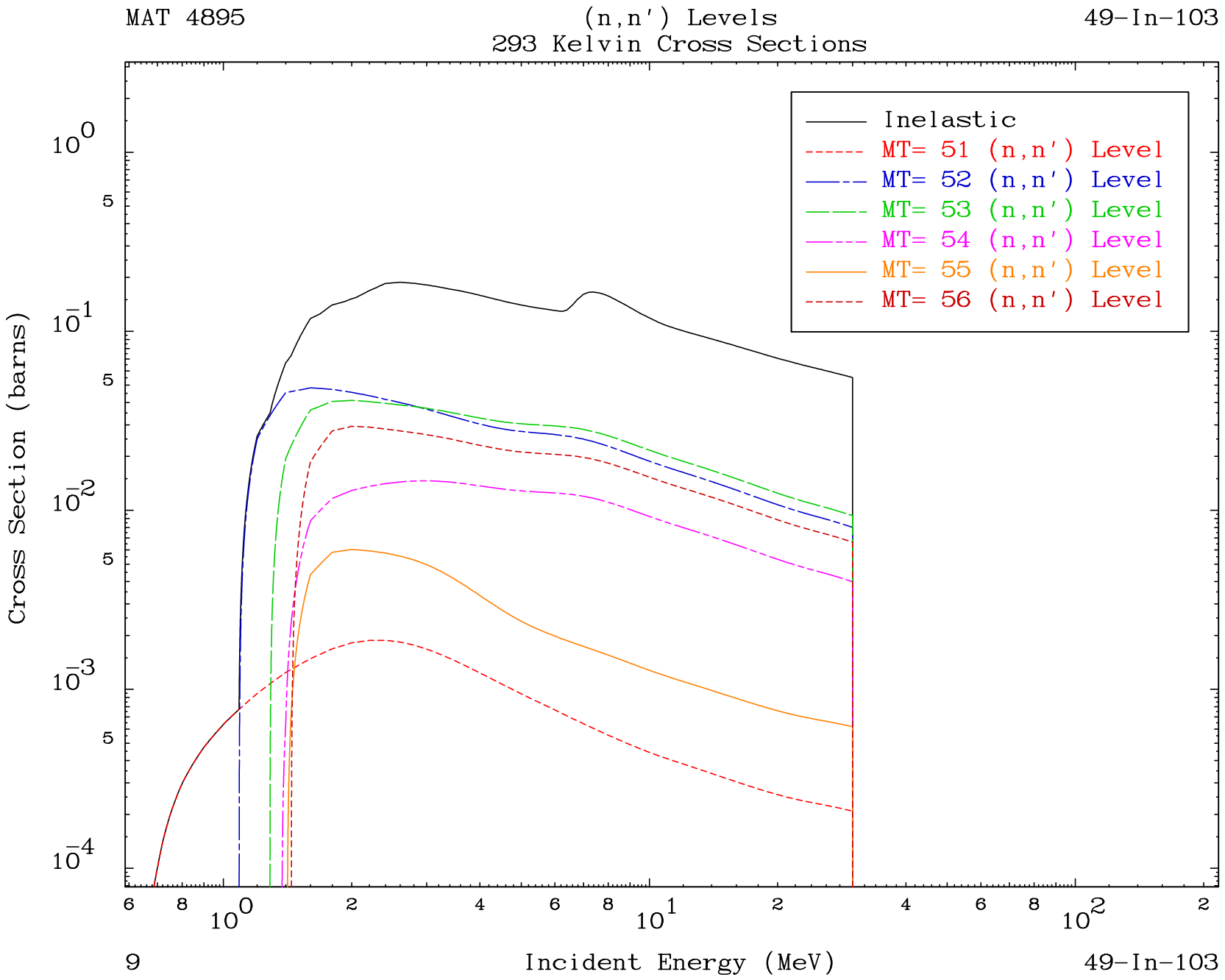

MAT 4895
Neutron Absorption
293 Kelvin Cross Sections
49-In-103
Cross Section (barns)
Incident Energy (MeV)
(n,2p)
(n,p) α
(n,d) 2α
(n,p) d
(n,p) t
(n,d) α
Hydrogen Production
Deuterium Production
Tritium Production
4
49-In-103

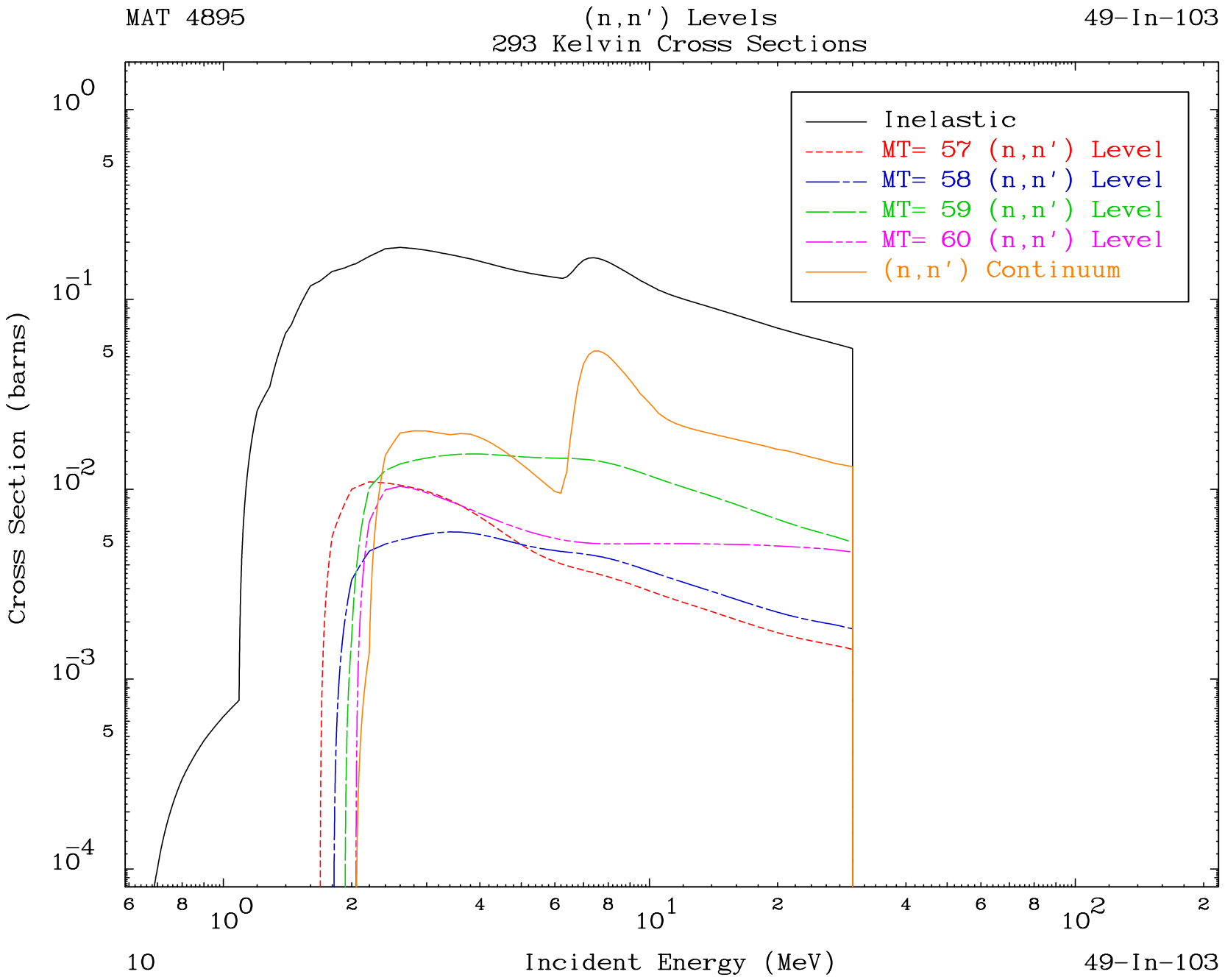

MAT 4895
Charged Particle
293 Kelvin Cross Sections
49-In-103
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
Cross Section (barns)
Incident Energy (MeV)
5
49-In-103

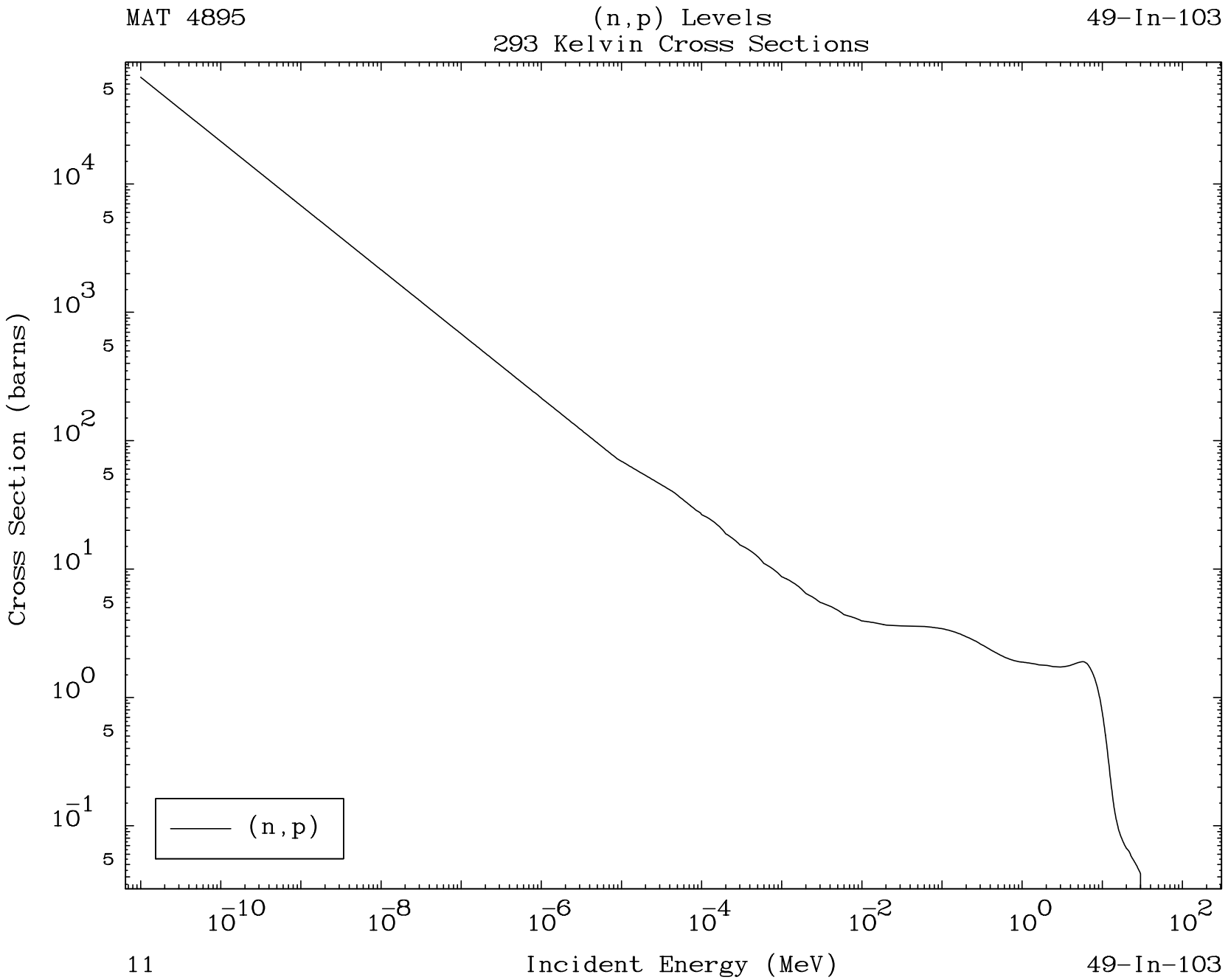

MAT 4895
Charged Particle
293 Kelvin Cross Sections
49-In-103
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
6
49-In-103

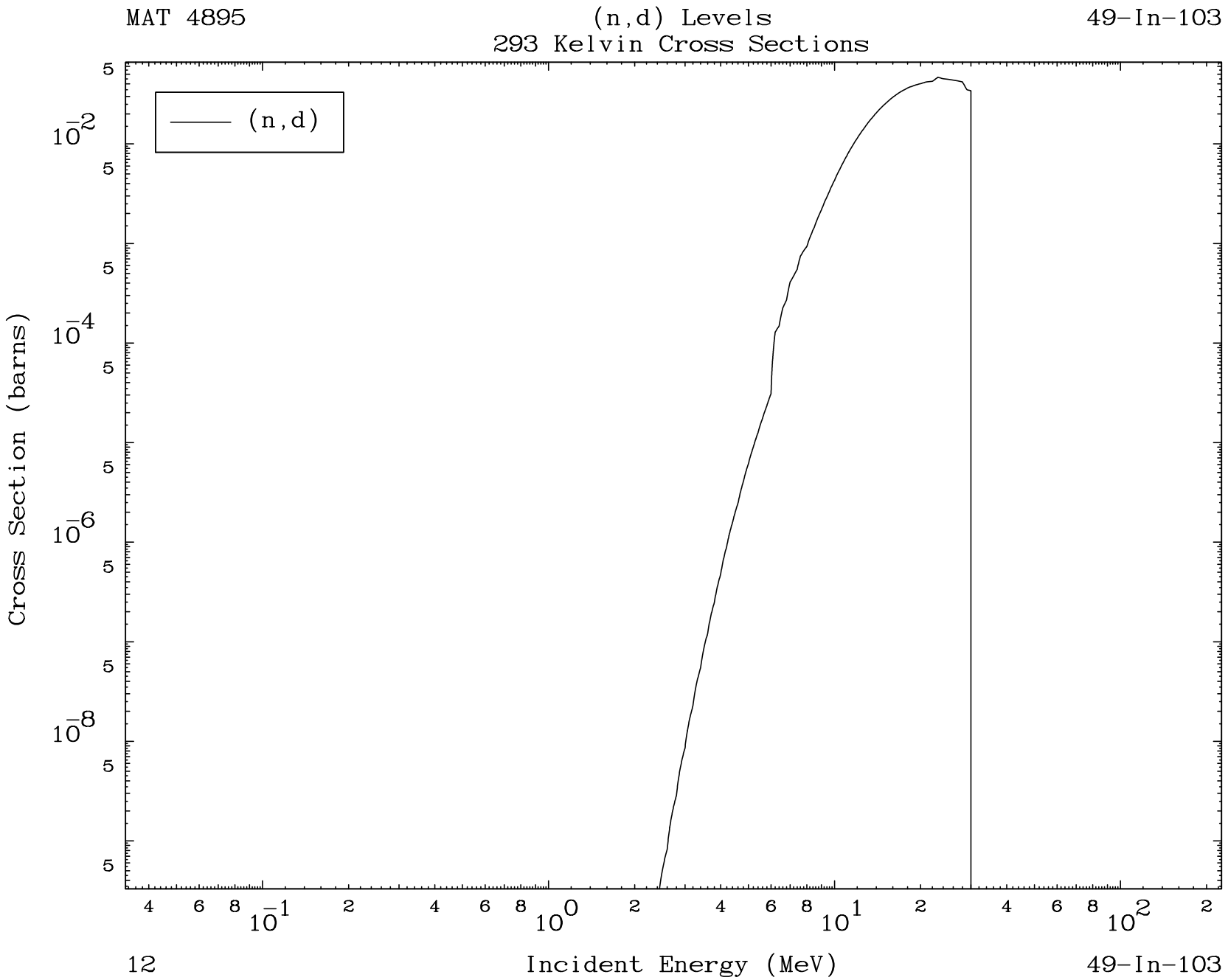

MAT 4895
Charged Particle
49-In-103
293 Kelvin Cross Sections
(n,n') α
(n,3α)
(n,2p)
(n,p) α
(n,d) 2α
(n,p) d
(n,p) t
(n,d) α
Cross Section (barns)
Incident Energy (MeV)
7
49-In-103

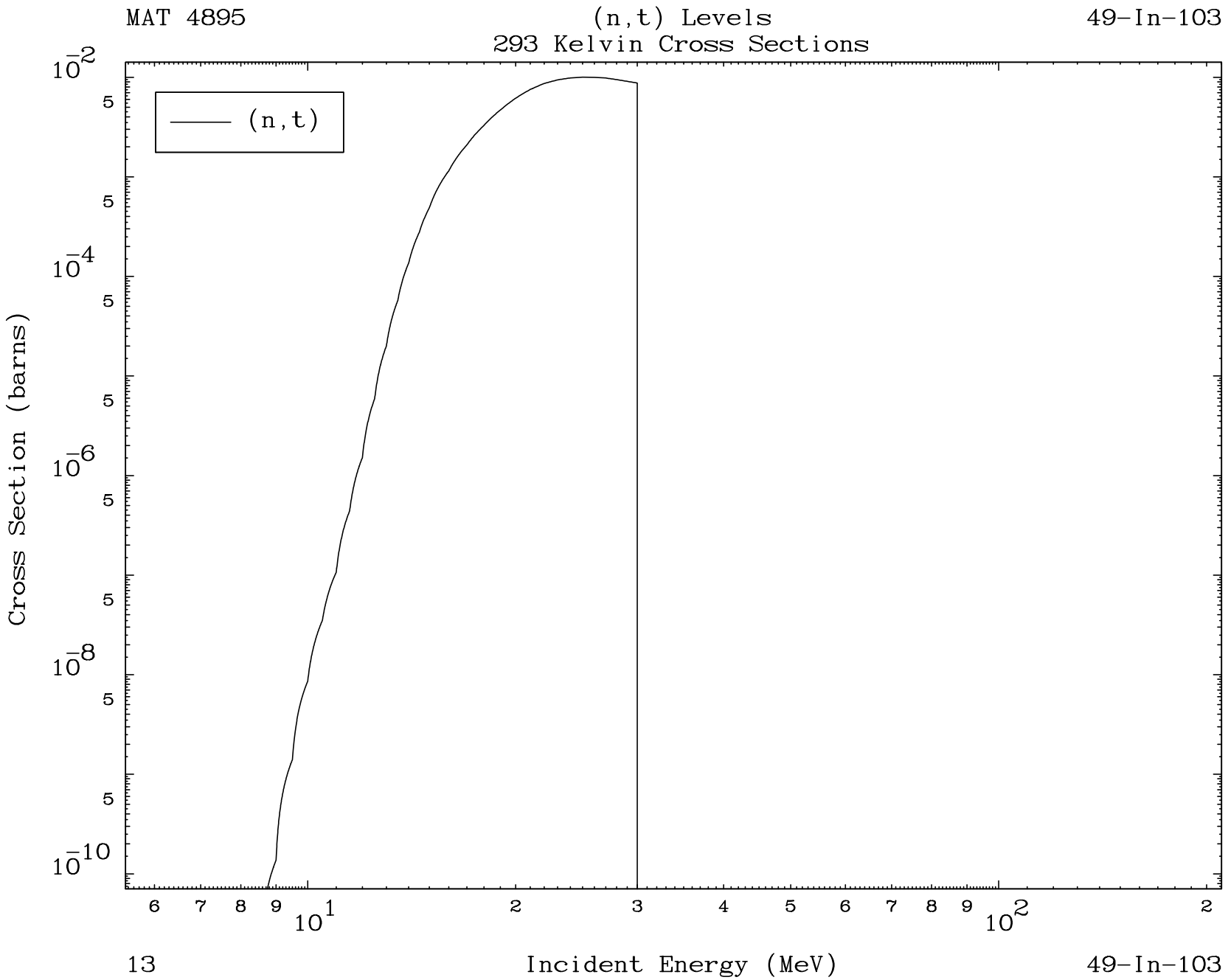

MAT 4895
Particle Production
293 Kelvin Cross Sections
49-In-103
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
8
49-In-103

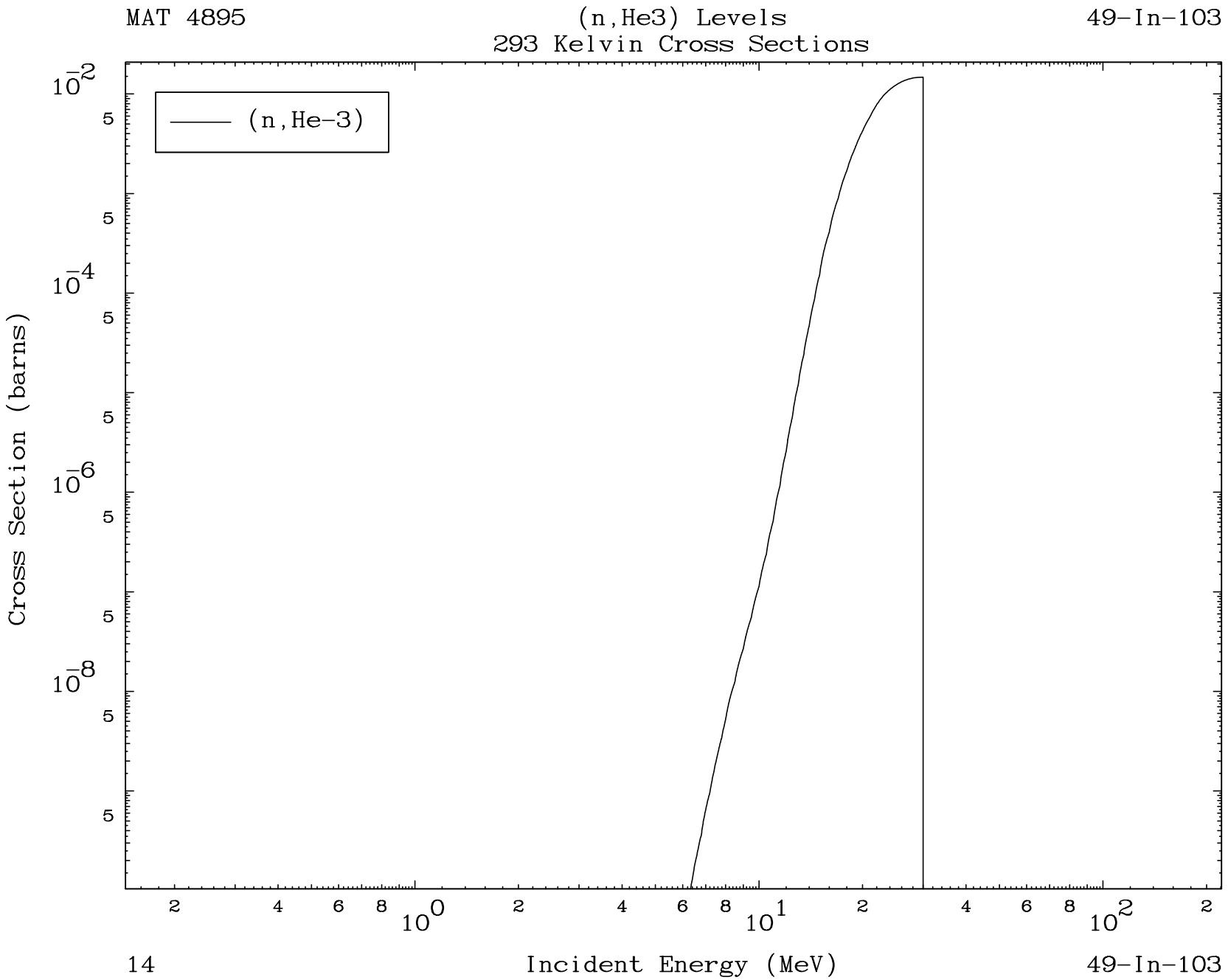

MAT 4895
(n,n') Levels
293 Kelvin Cross Sections
49-In-103
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
Cross Section (barns)
Incident Energy (MeV)
9
49-In-103

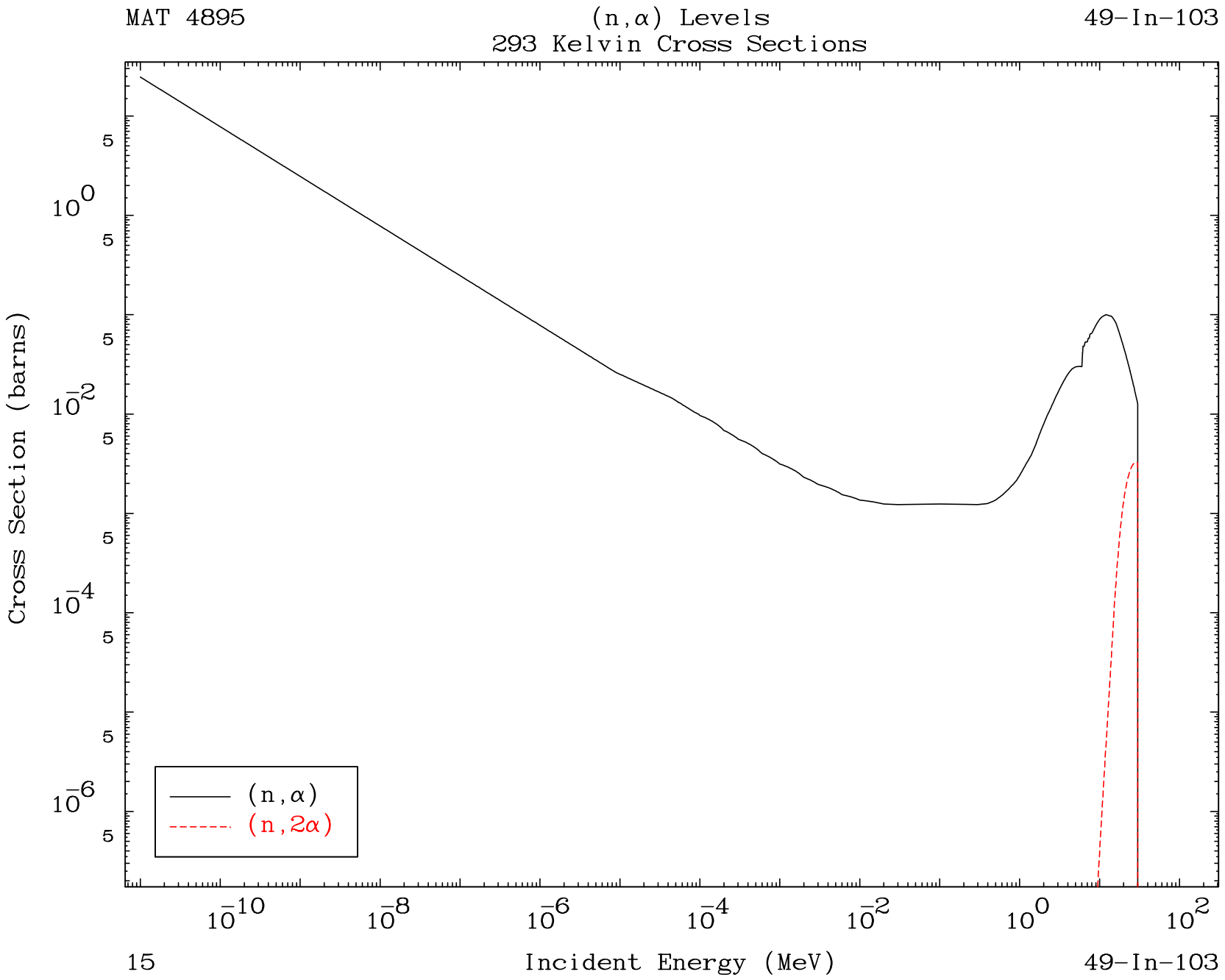

MAT 4895
(n,n') Levels
293 Kelvin Cross Sections
49-In-103
Inelastic
MT= 57 (n,n') Level
MT= 58 (n,n') Level
MT= 59 (n,n') Level
MT= 60 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
49-In-103

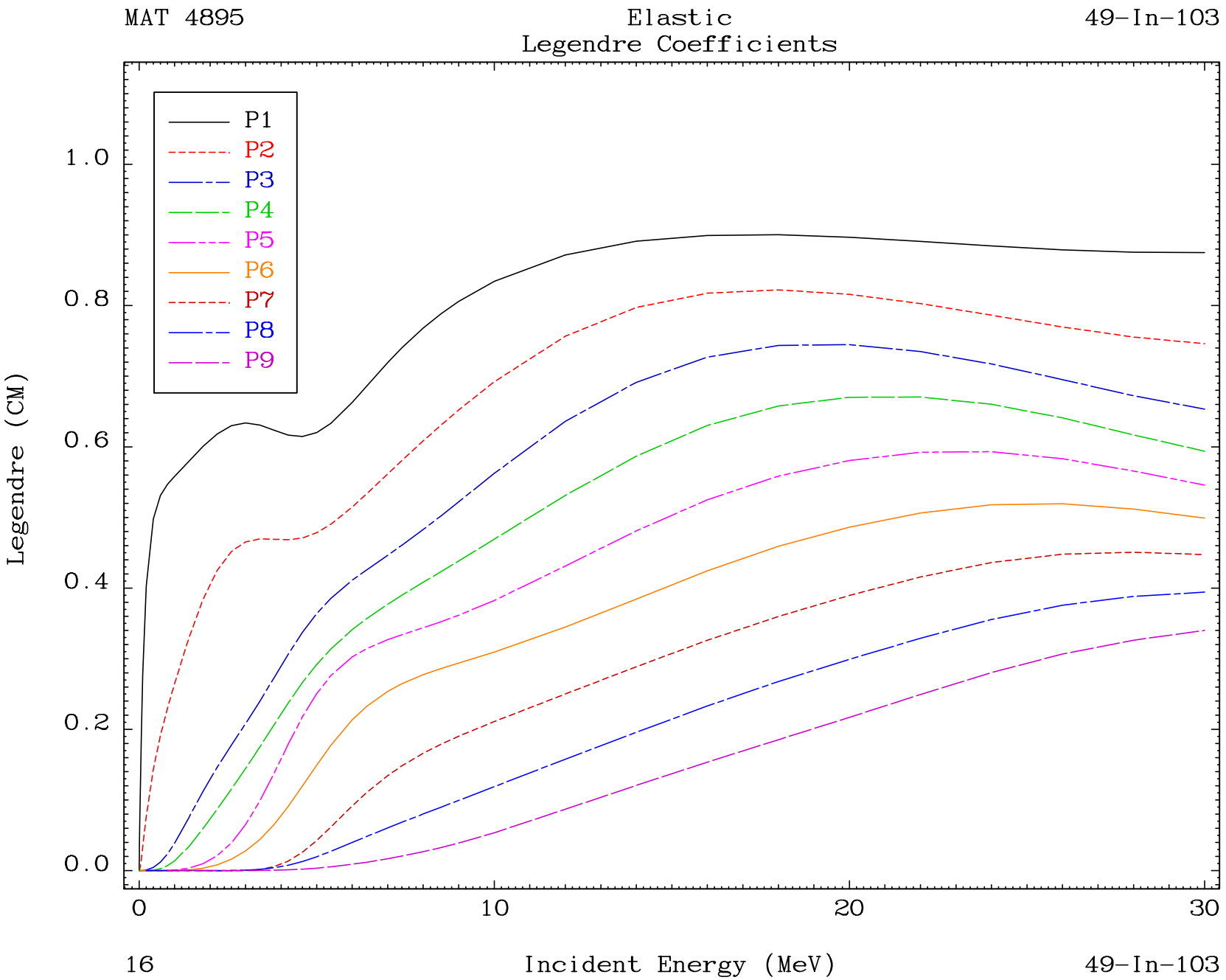

MAT 4895
(n,p) Levels
49-In-103
293 Kelvin Cross Sections
Cross Section (barns)
10^4
10^3
10^2
10^1
10^0
10^-1
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
11
Incident Energy (MeV)
49-In-103

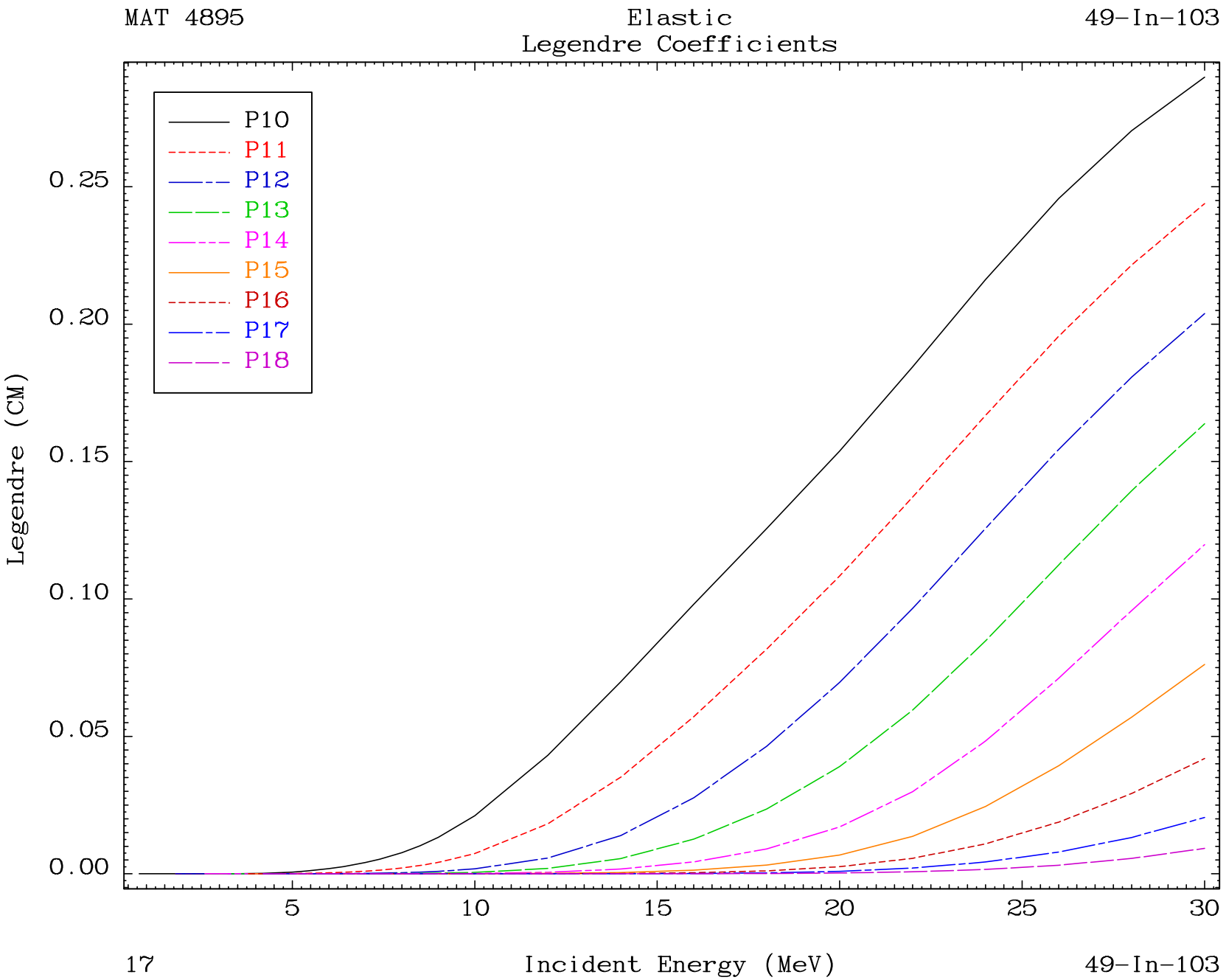

MAT 4895
(n,d) Levels
293 Kelvin Cross Sections
49-In-103
(n,d)
Cross Section (barns)
Incident Energy (MeV)
12
49-In-103

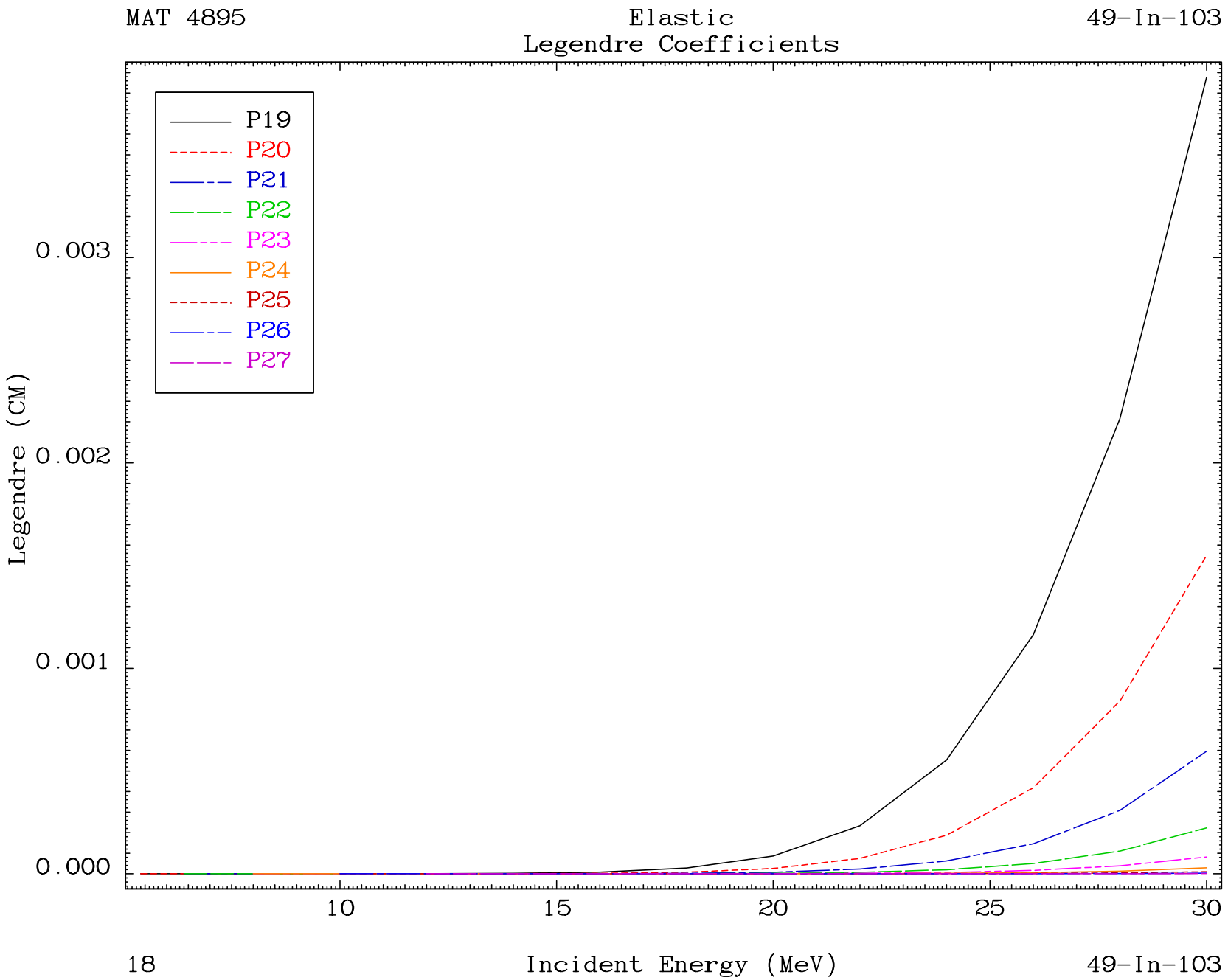

MAT 4895
(n,t) Levels
49-In-103
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
13
49-In-103

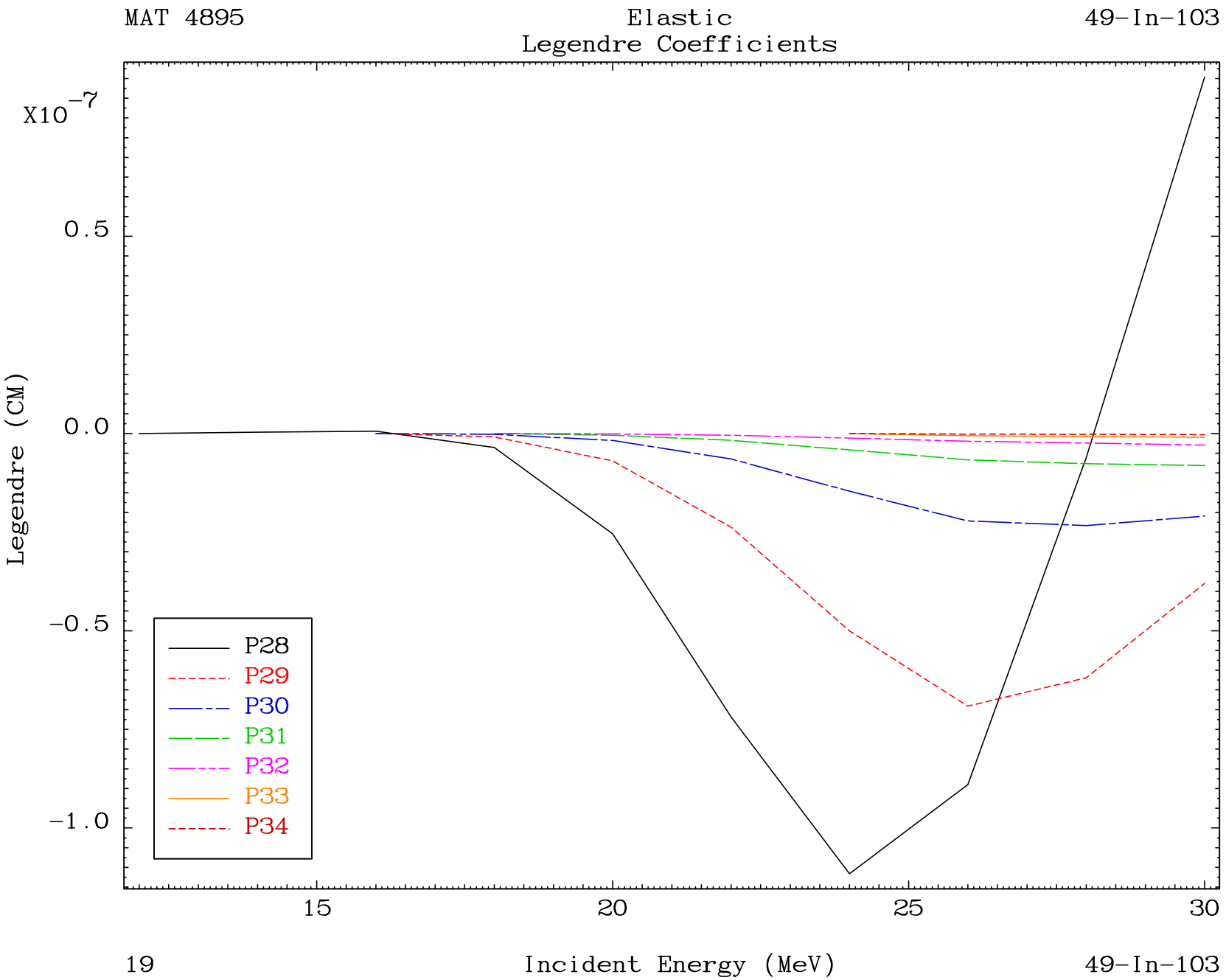

MAT 4895
(n,He3) Levels
49-In-103
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
4
6
8
100
101
102
14
Incident Energy (MeV)
49-In-103

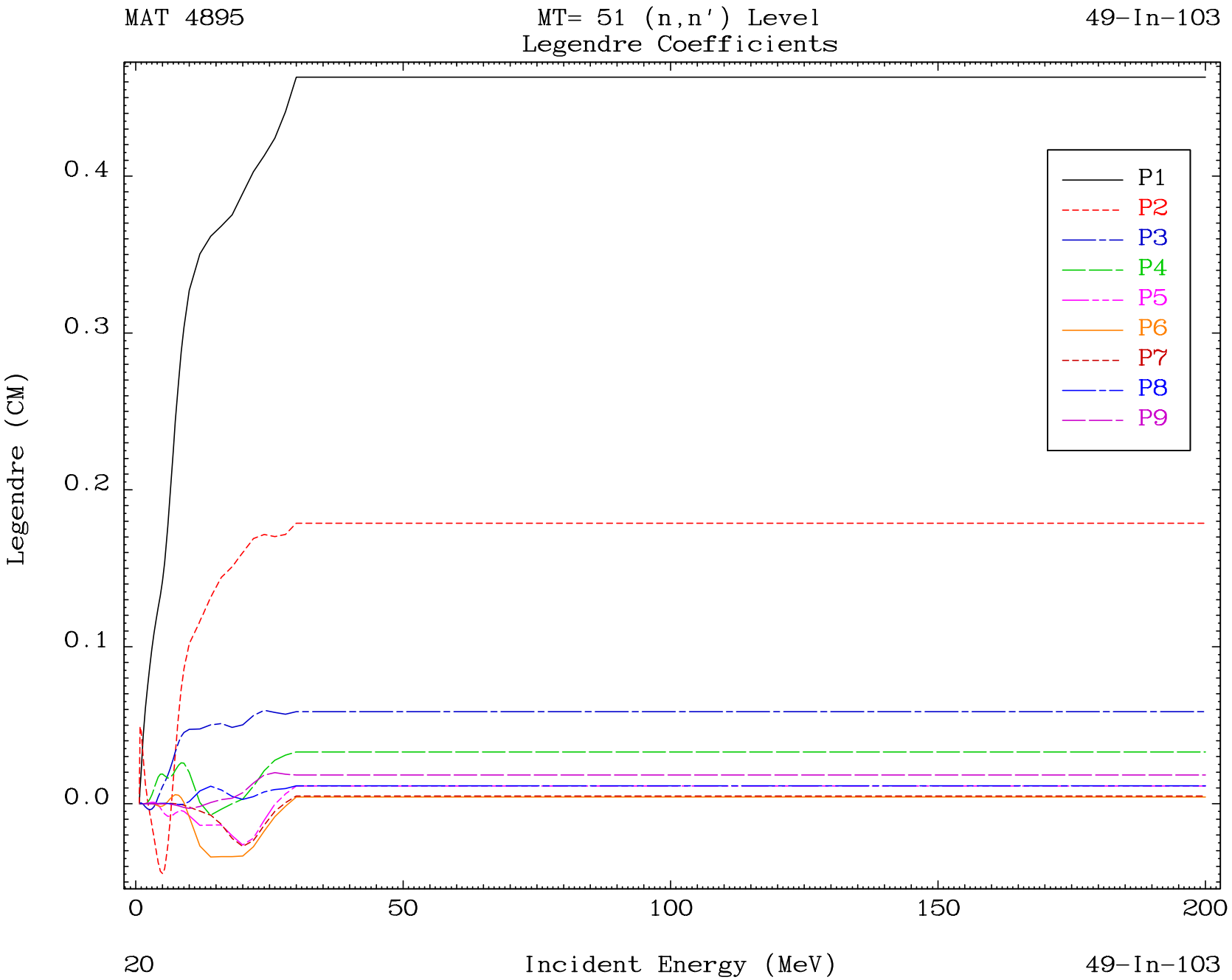

MAT 4895
(n,α) Levels
49-In-103
293 Kelvin Cross Sections
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
5
(n,α)
(n,2α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
15
49-In-103

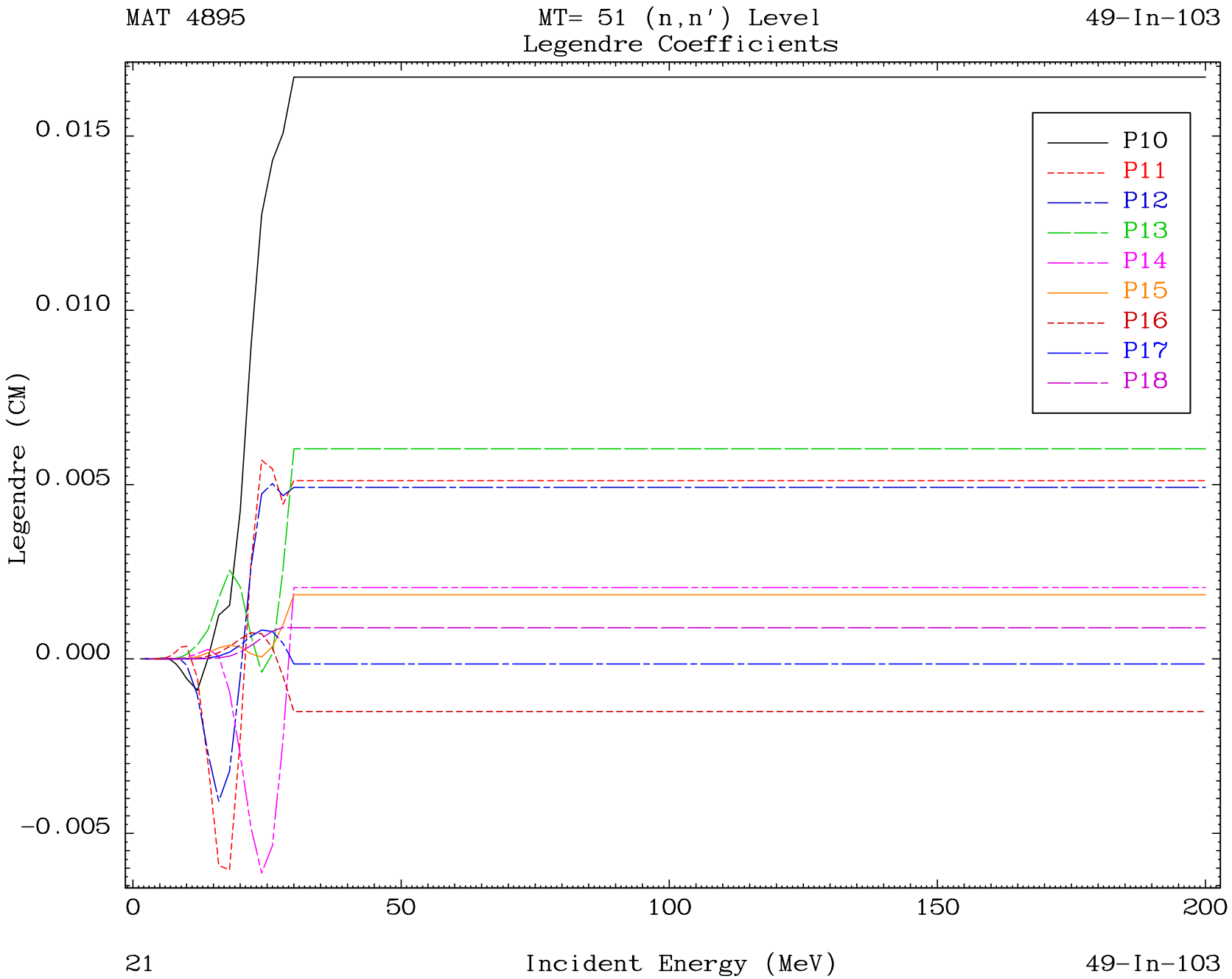

MAT 4895
Elastic
Legendre Coefficients
49-In-103
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
16
Incident Energy (MeV)
49-In-103

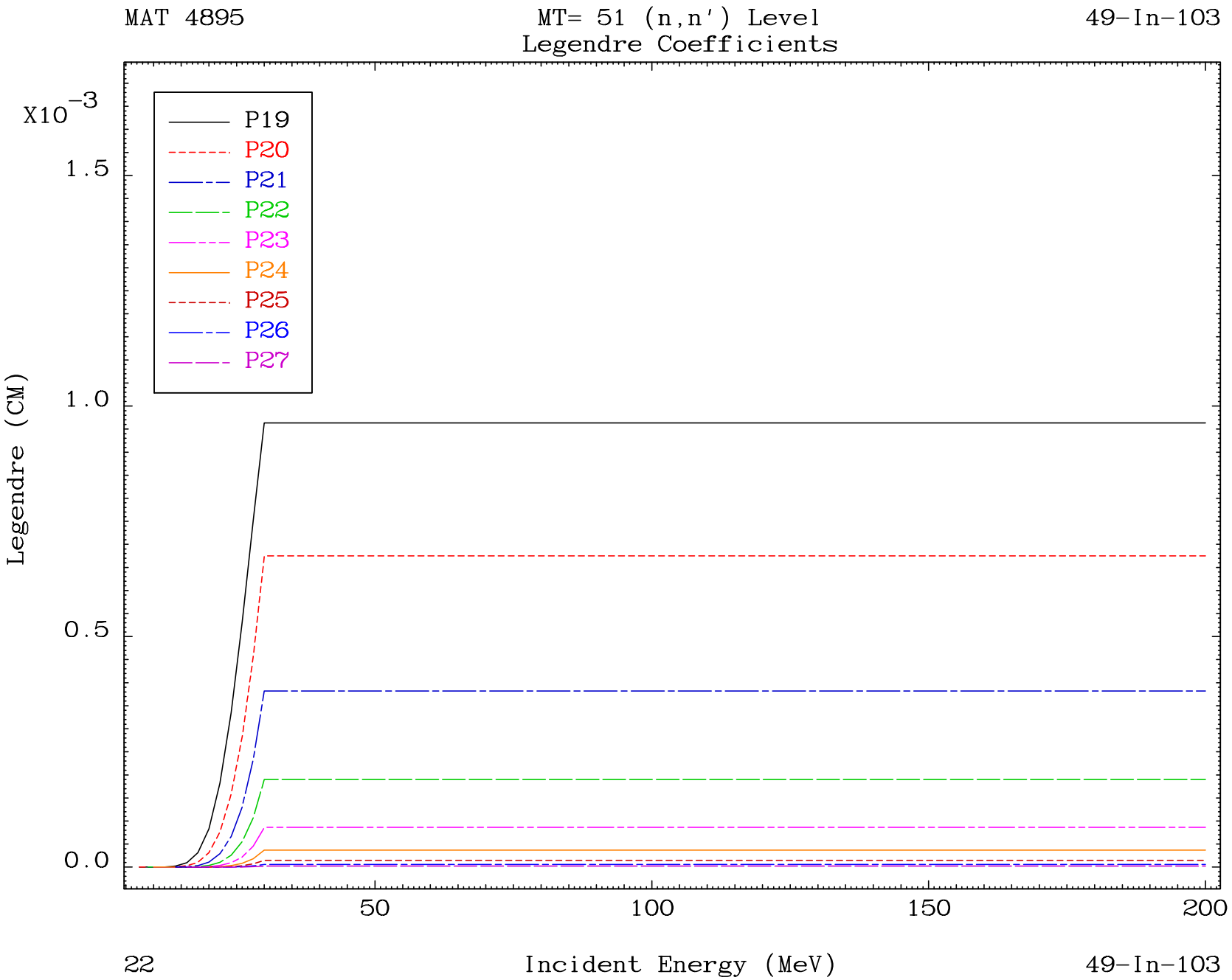

MAT 4895
Elastic
Legendre Coefficients
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.25
0.20
0.15
0.10
0.05
0.00
Legendre (CM)
5
10
15
20
25
30
17
Incident Energy (MeV)
49-In-103

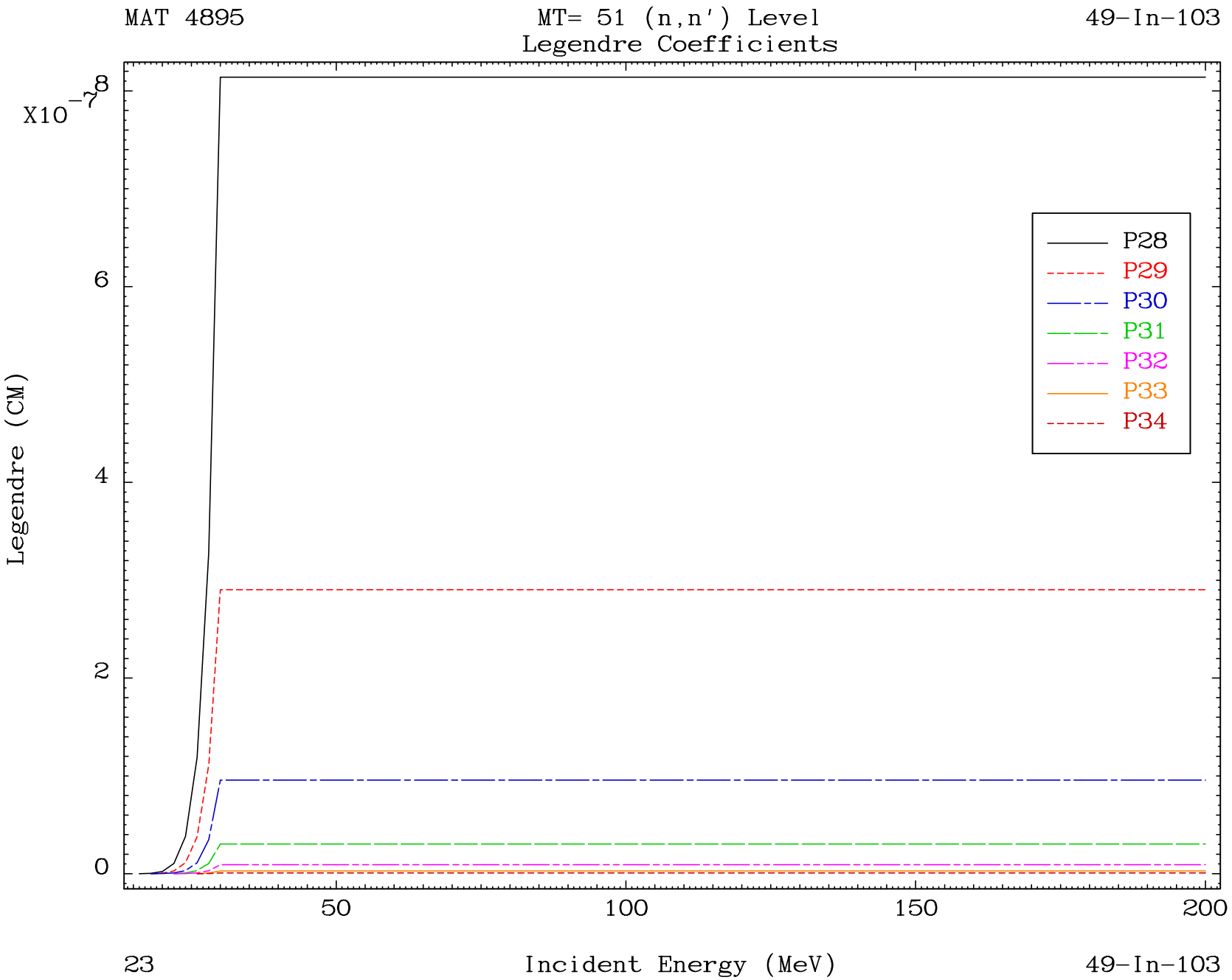

MAT 4895
Elastic
Legendre Coefficients
49-In-103
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.003
0.002
0.001
0.000
Legendre (CM)
10
15
20
25
30
18
Incident Energy (MeV)
49-In-103

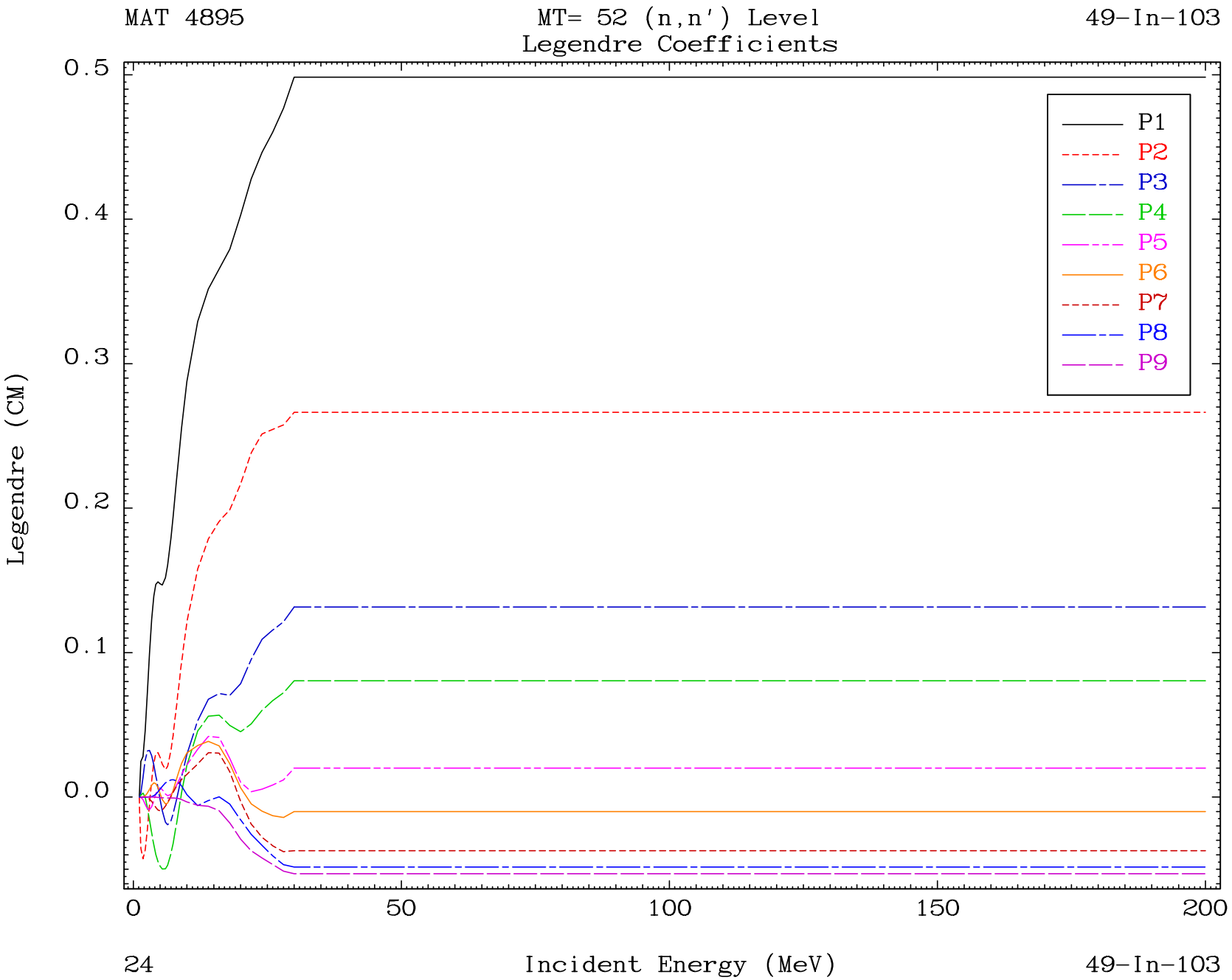

MAT 4895
Elastic
Legendre Coefficients
49-In-103
X10^-7
0.5
0.0
-0.5
-1.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
15
20
25
30
19
Incident Energy (MeV)
49-In-103

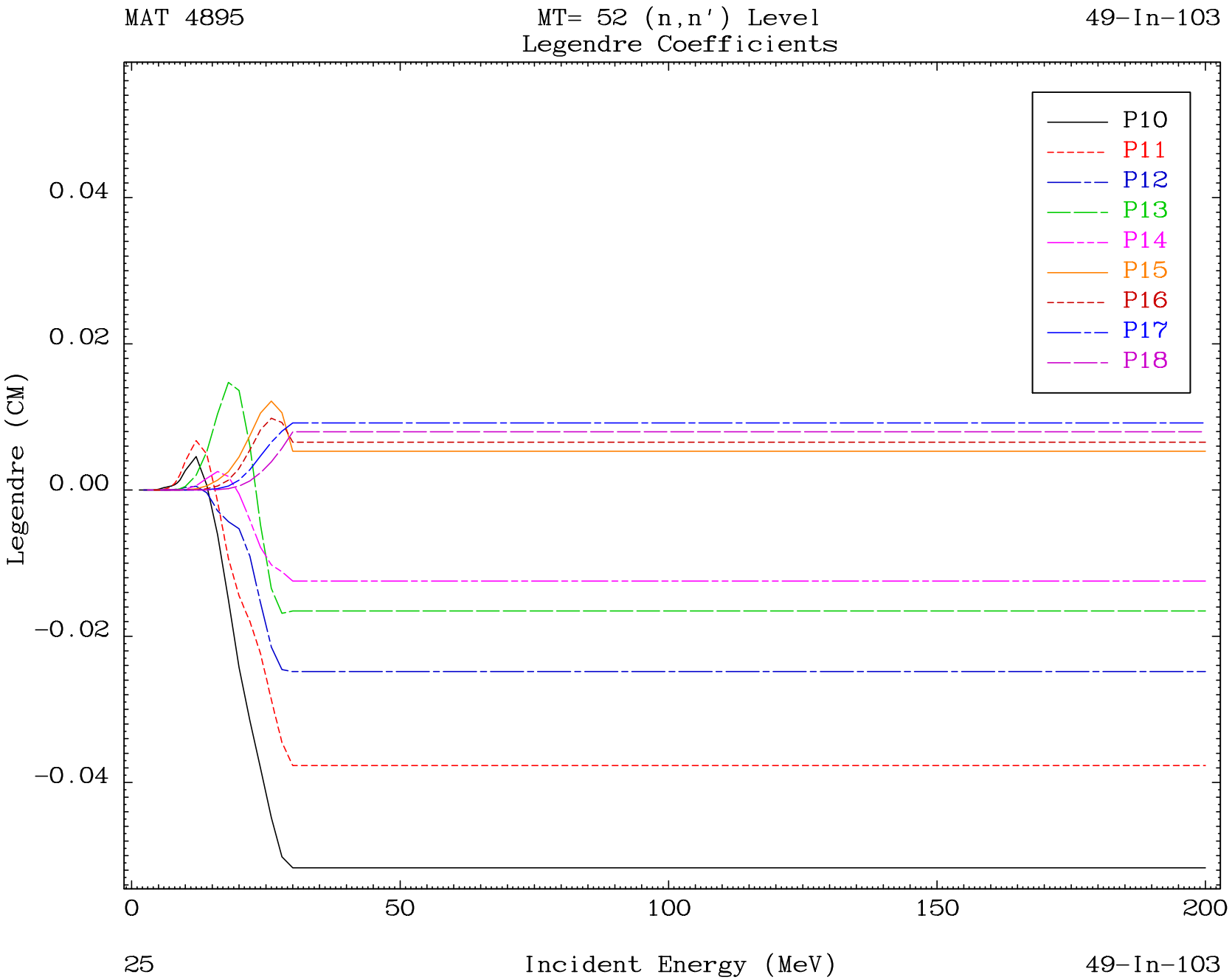

MAT 4895
MT= 51 (n,n') Level
Legendre Coefficients
49-In-103
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
20
Incident Energy (MeV)
49-In-103
P1
P2
P3
P4
P5
P6
P7
P8
P9

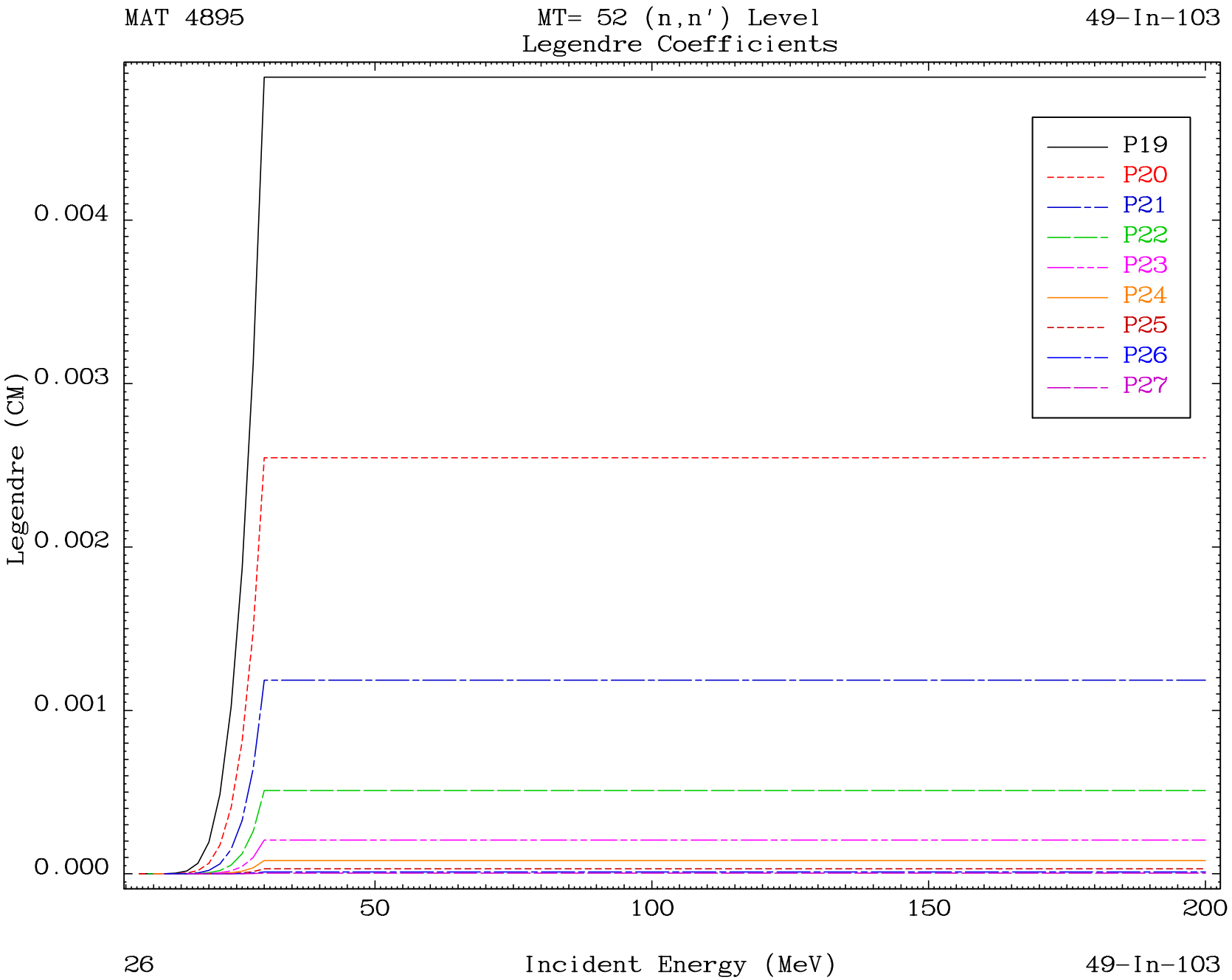

MAT 4895
MT= 51 (n,n') Level
Legendre Coefficients
49-In-103
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
0
50
100
150
200
21
Incident Energy (MeV)
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18

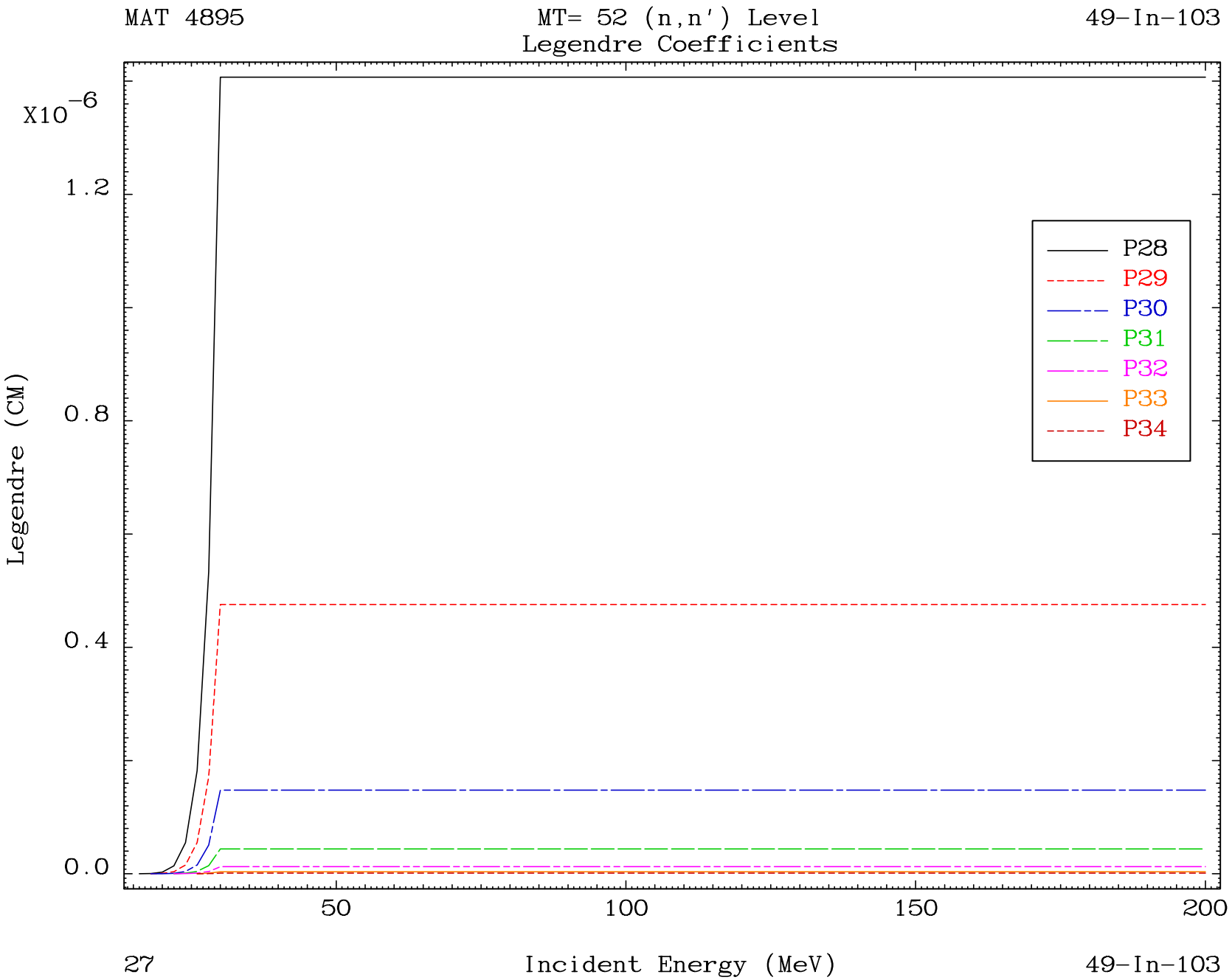

MAT 4895
MT= 51 (n,n') Level
Legendre Coefficients
49-In-103
X10^-3
1.5
1.0
0.5
0.0
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
49-In-103

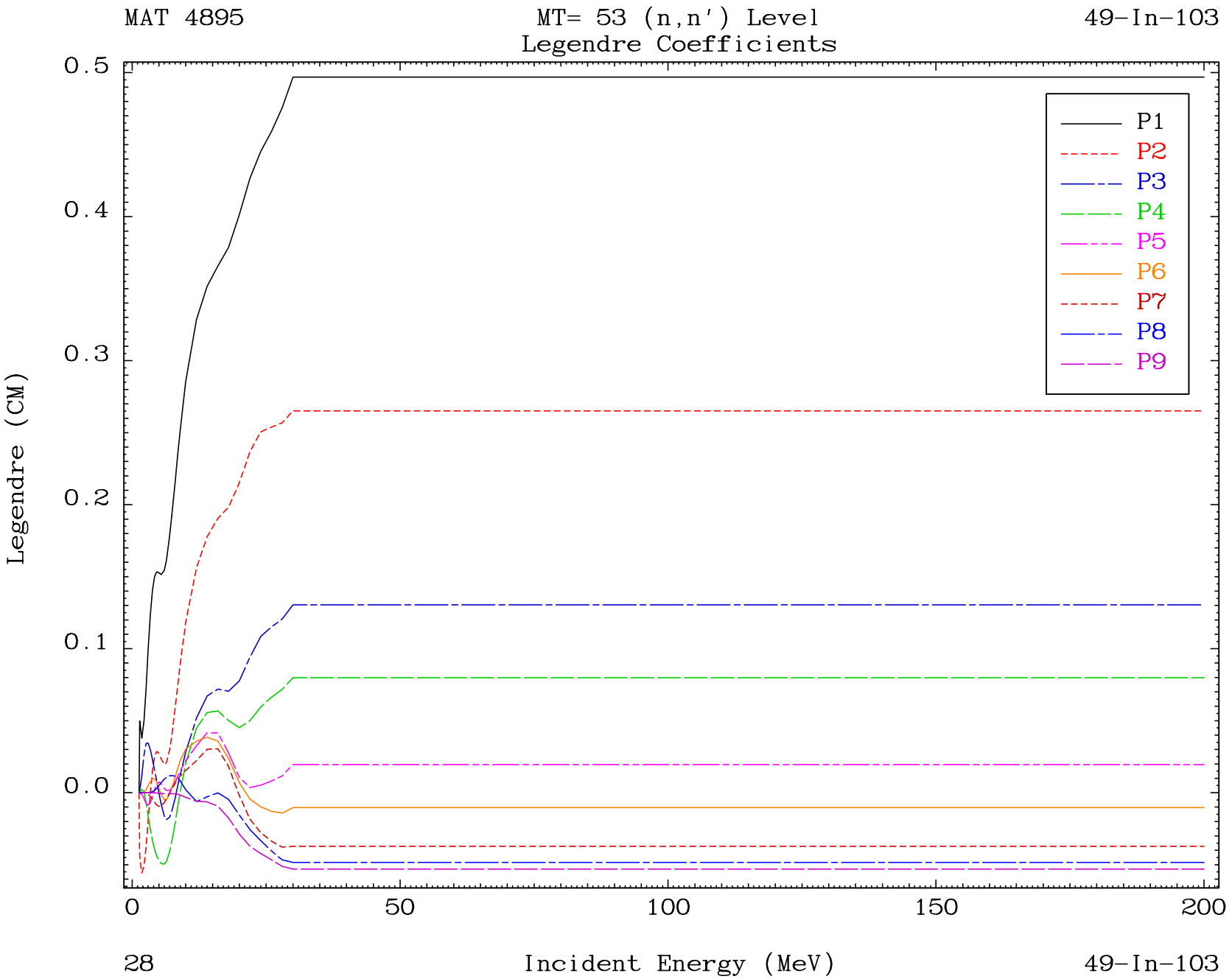

MAT 4895
MT= 51 (n,n') Level
Legendre Coefficients
49-In-103
X10-2
8
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
23
Incident Energy (MeV)
49-In-103

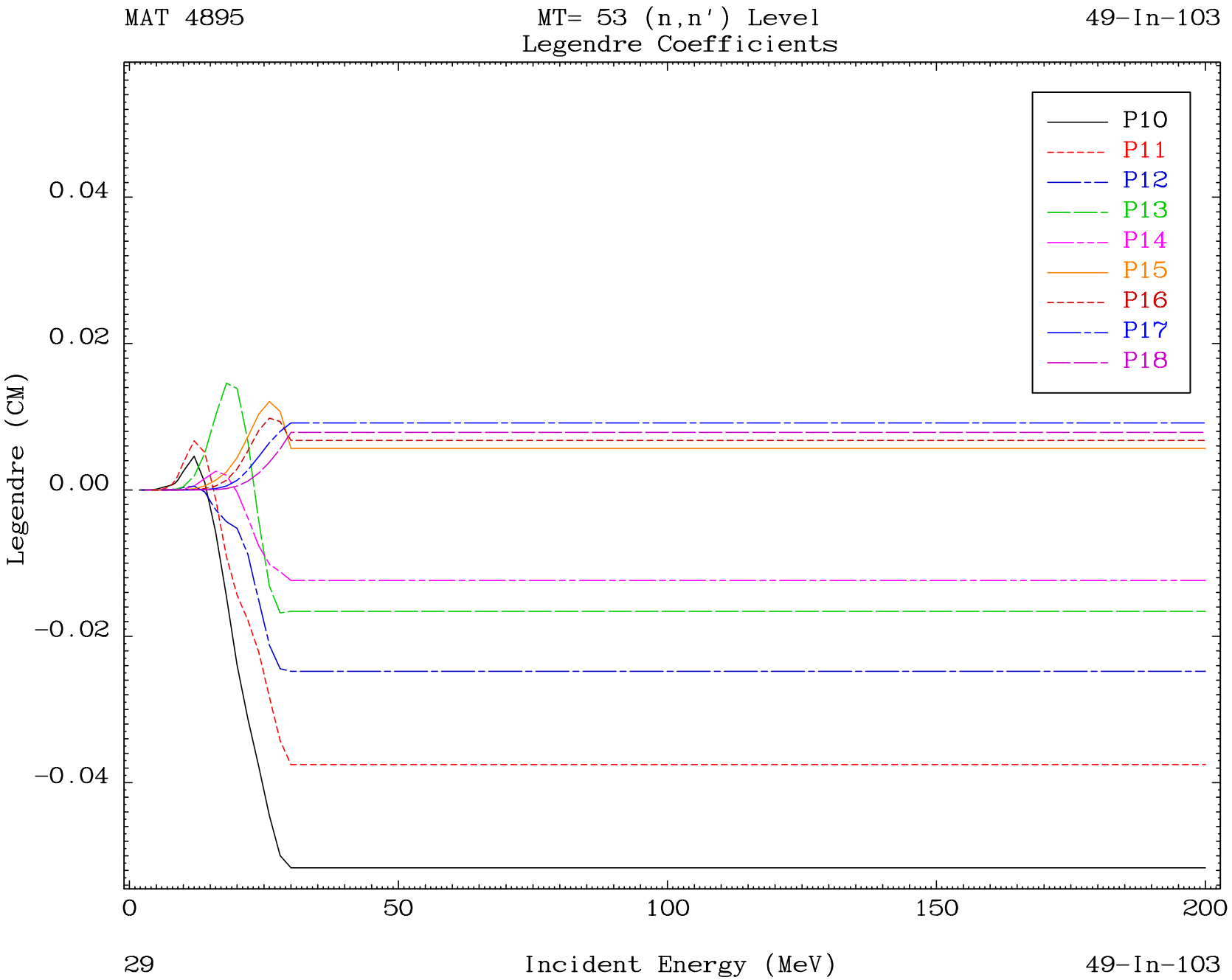

MAT 4895
MT= 52 (n,n') Level
Legendre Coefficients
49-In-103
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
24
Incident Energy (MeV)
49-In-103

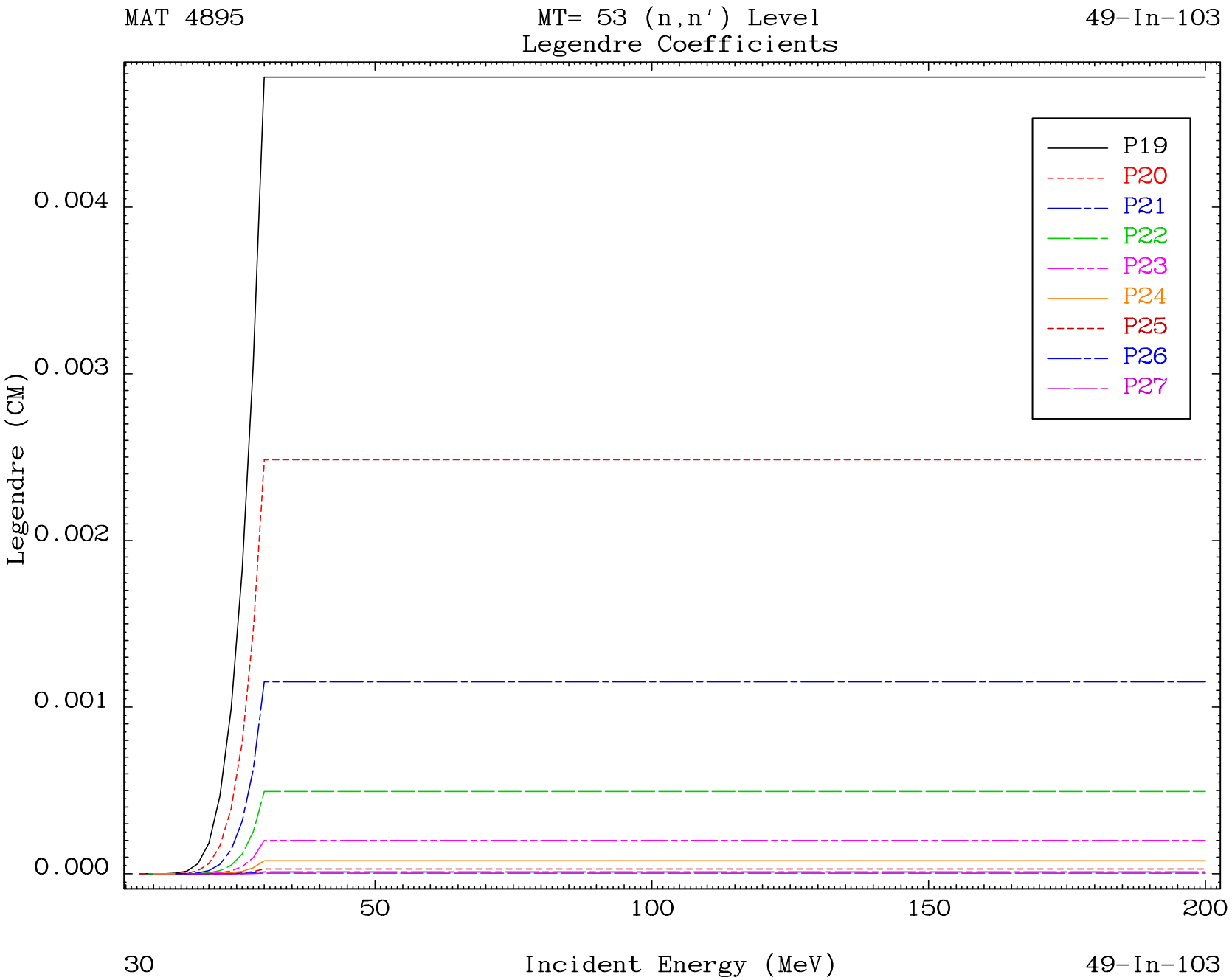

MAT 4895
MT= 52 (n,n') Level
Legendre Coefficients
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
25
Incident Energy (MeV)
49-In-103

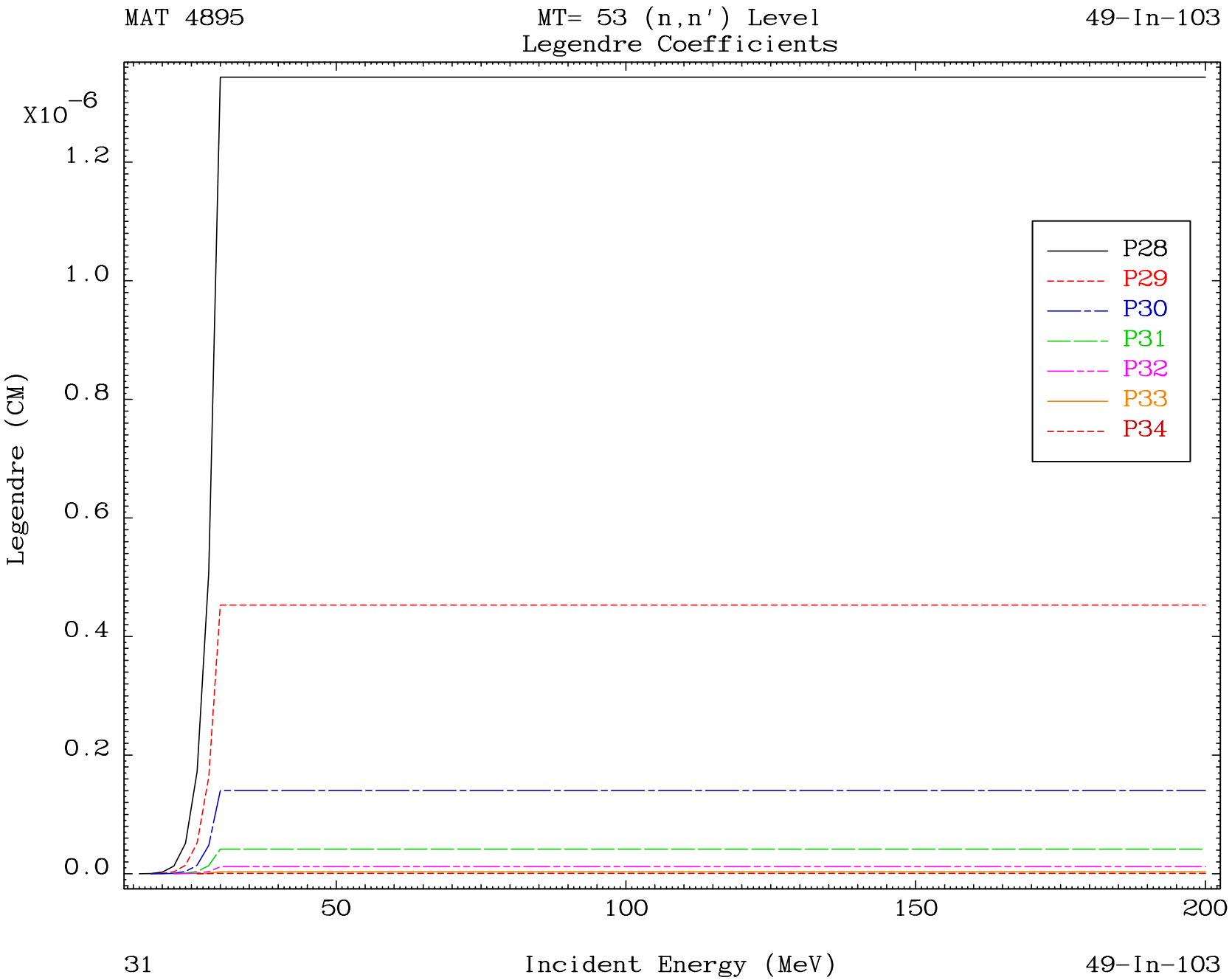

MAT 4895
MT= 52 (n,n') Level
Legendre Coefficients
49-In-103
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
50
100
150
200
26
Incident Energy (MeV)
49-In-103

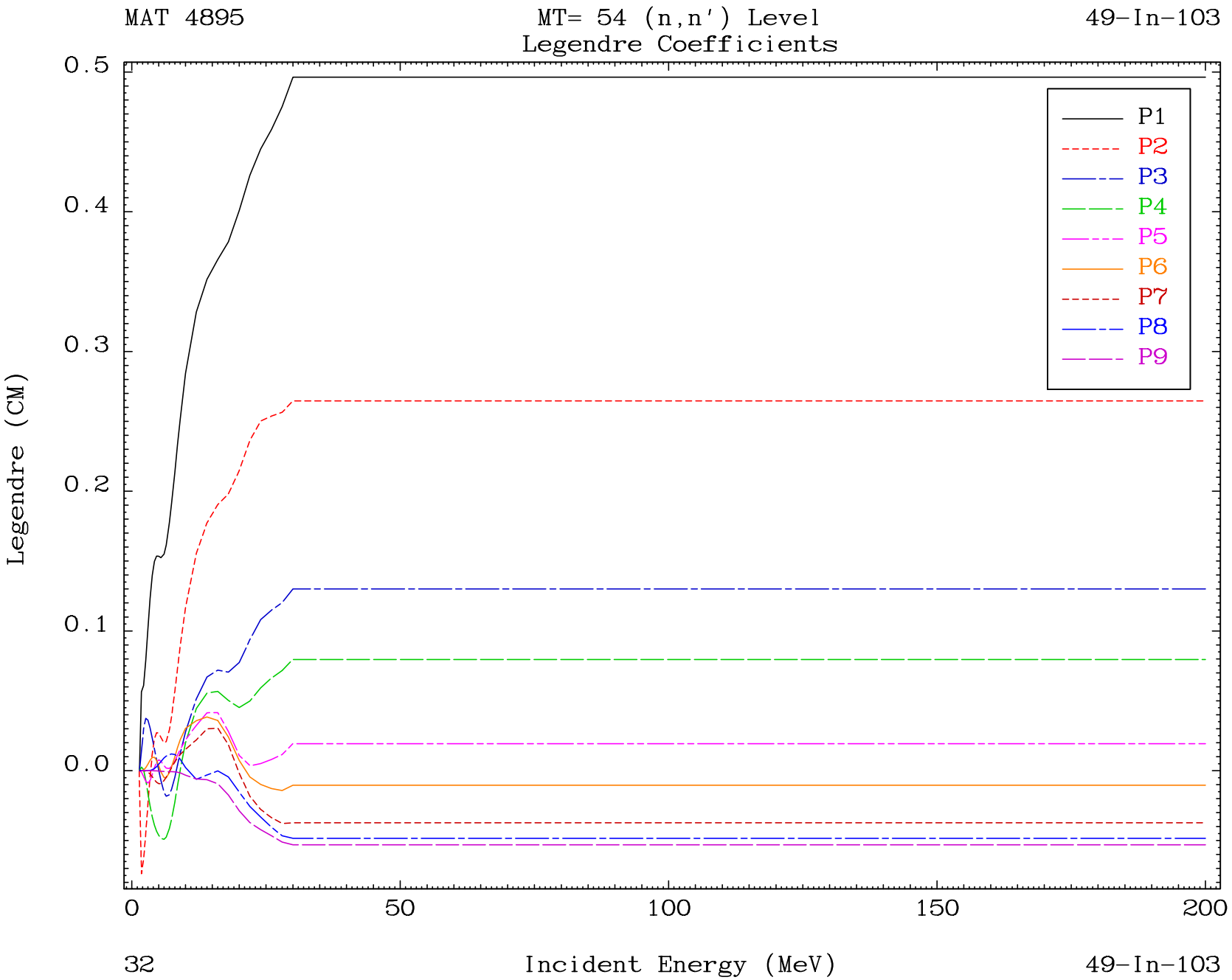

MAT 4895
MT= 52 (n,n') Level
Legendre Coefficients
49-In-103
X10^-6
1.2
0.8
0.4
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
27
Incident Energy (MeV)
49-In-103

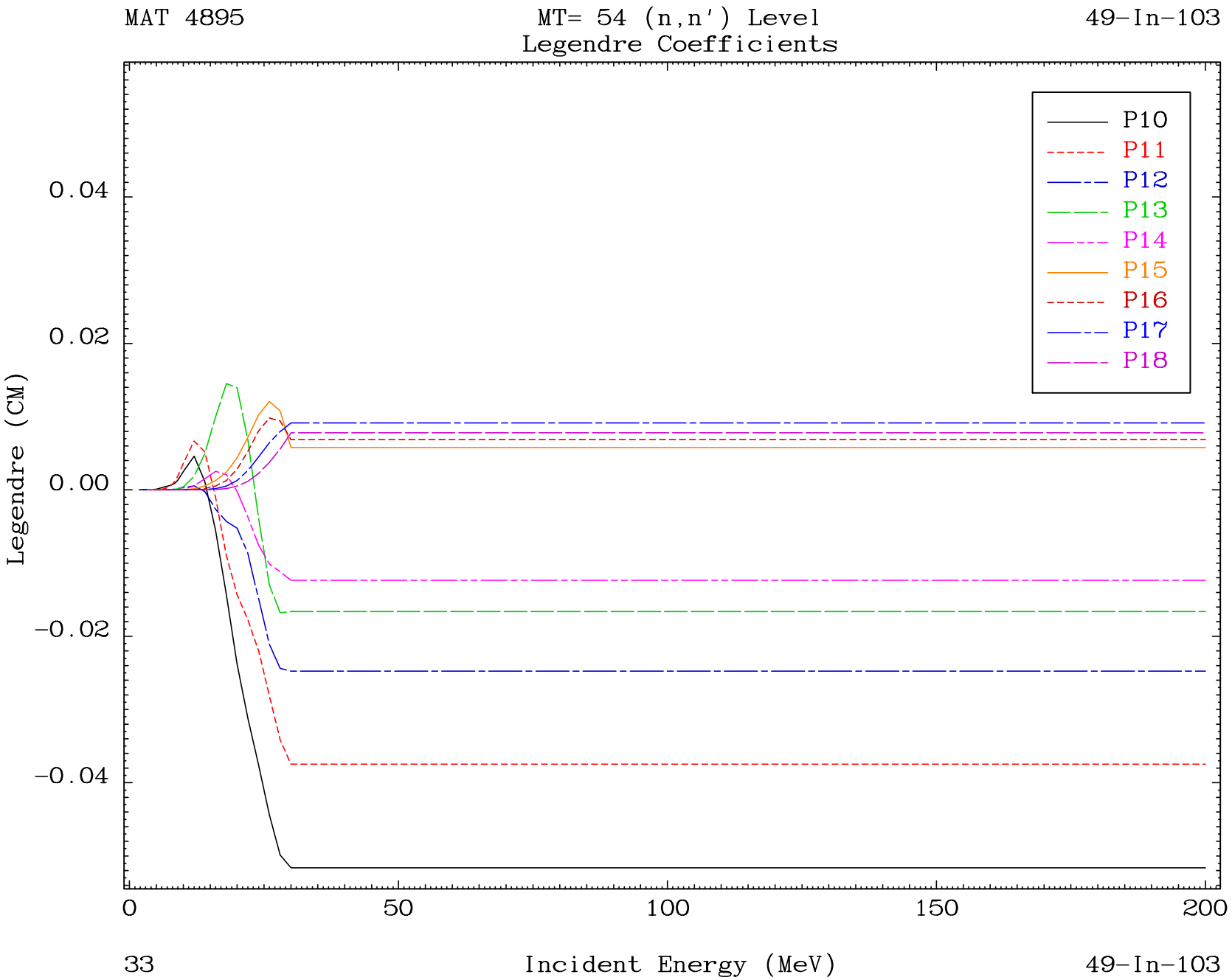

MAT 4895
MT= 53 (n,n') Level
Legendre Coefficients
49-In-103
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
28
Incident Energy (MeV)
49-In-103

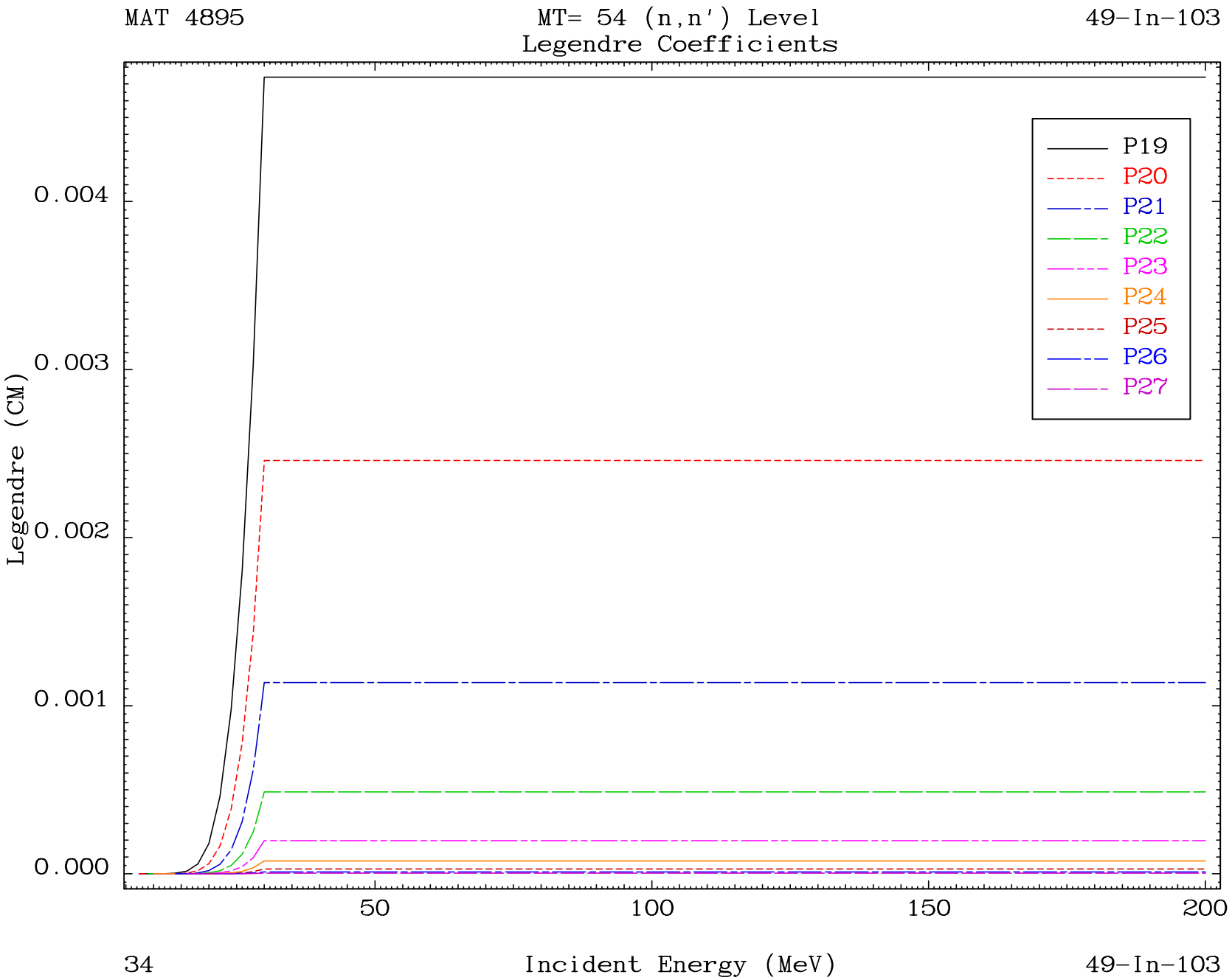

MAT 4895
MT= 53 (n,n') Level
Legendre Coefficients
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
29
Incident Energy (MeV)
49-In-103

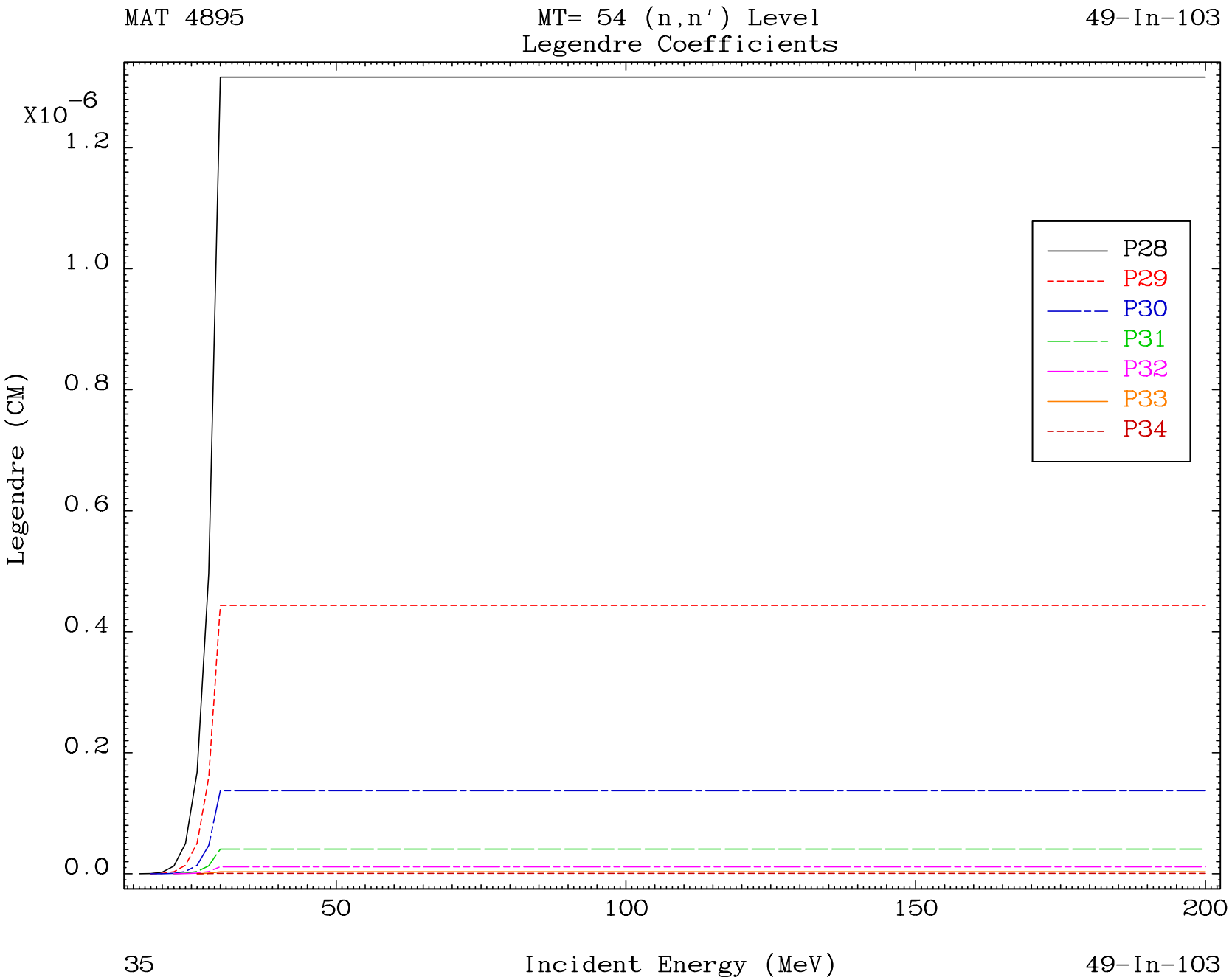

MAT 4895
MT= 53 (n,n') Level
Legendre Coefficients
49-In-103
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
30
50
100
150
200
Incident Energy (MeV)
49-In-103

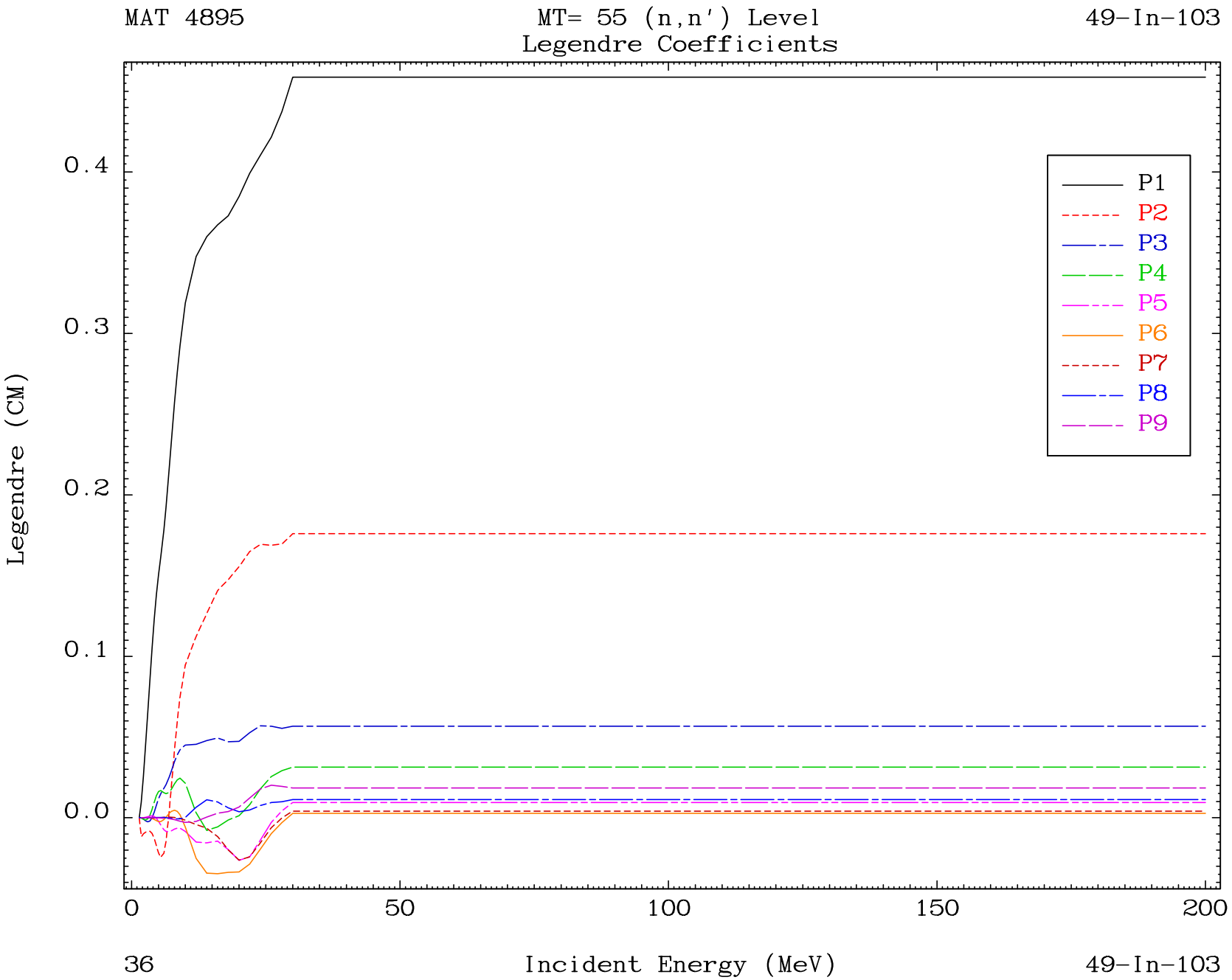

MAT 4895
MT= 53 (n,n') Level
Legendre Coefficients
49-In-103
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
31
Incident Energy (MeV)
49-In-103

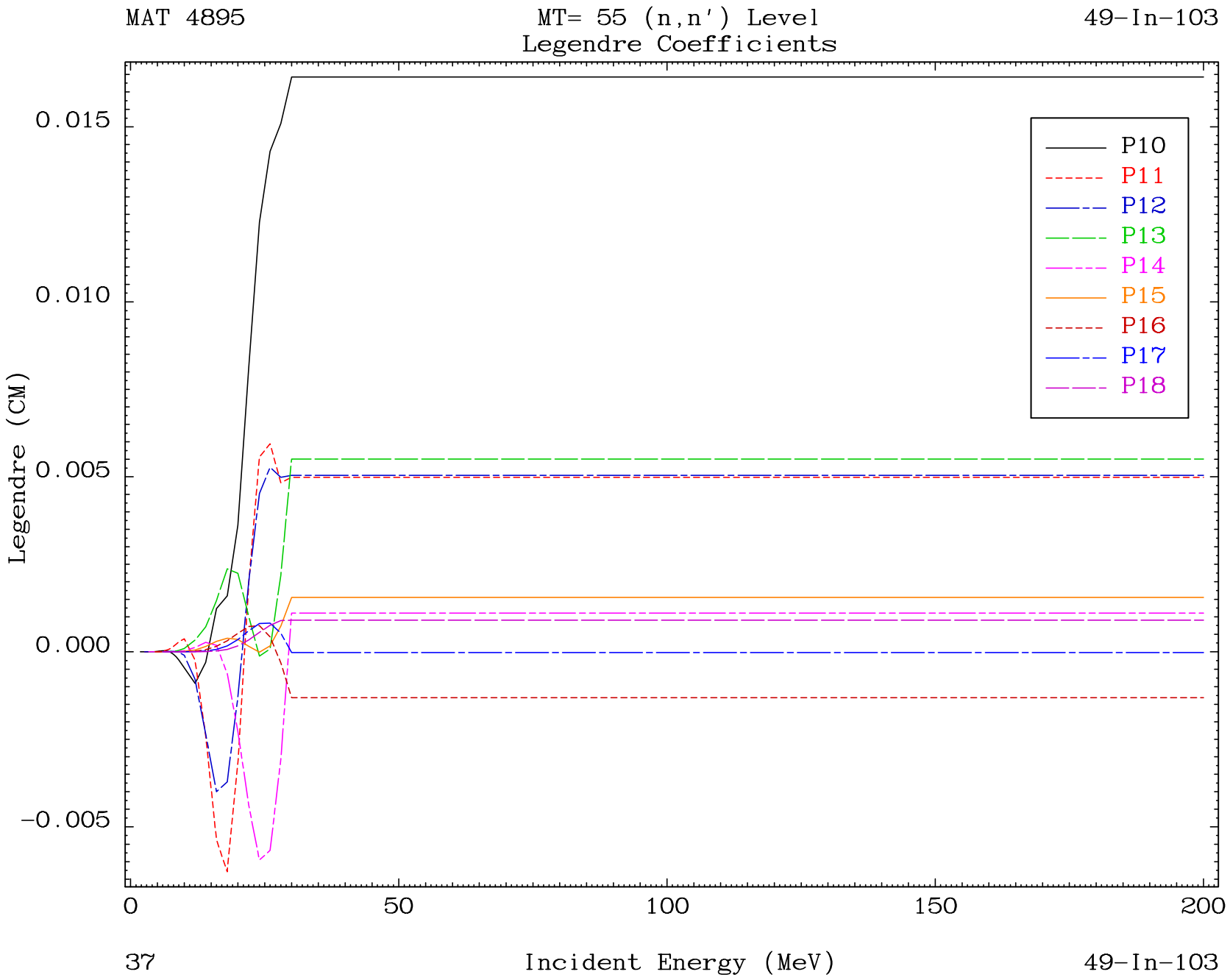

MAT 4895
MT= 54 (n,n') Level
Legendre Coefficients
49-In-103
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
32
Incident Energy (MeV)
49-In-103

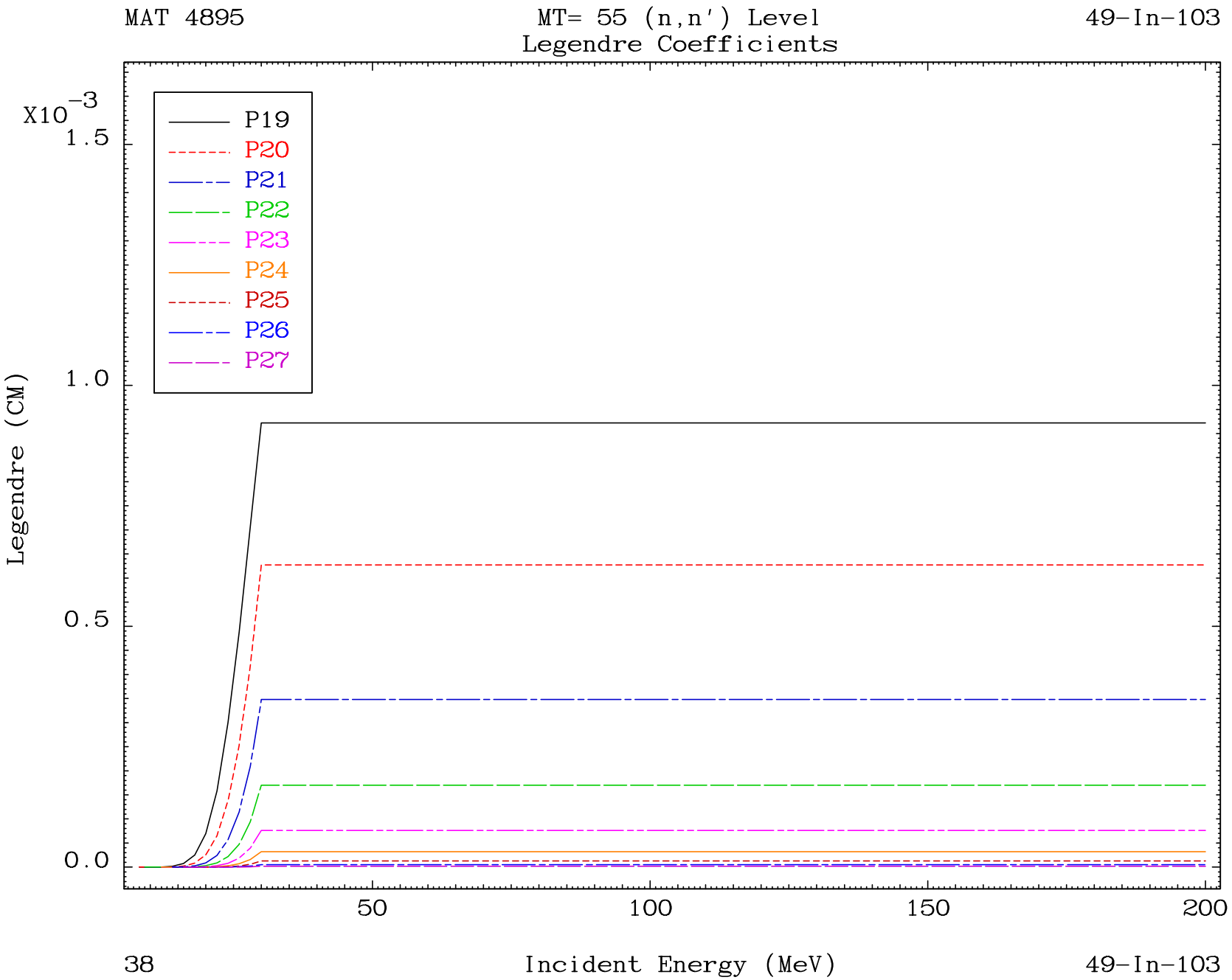

MAT 4895
MT= 54 (n,n') Level
Legendre Coefficients
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
33
Incident Energy (MeV)
49-In-103

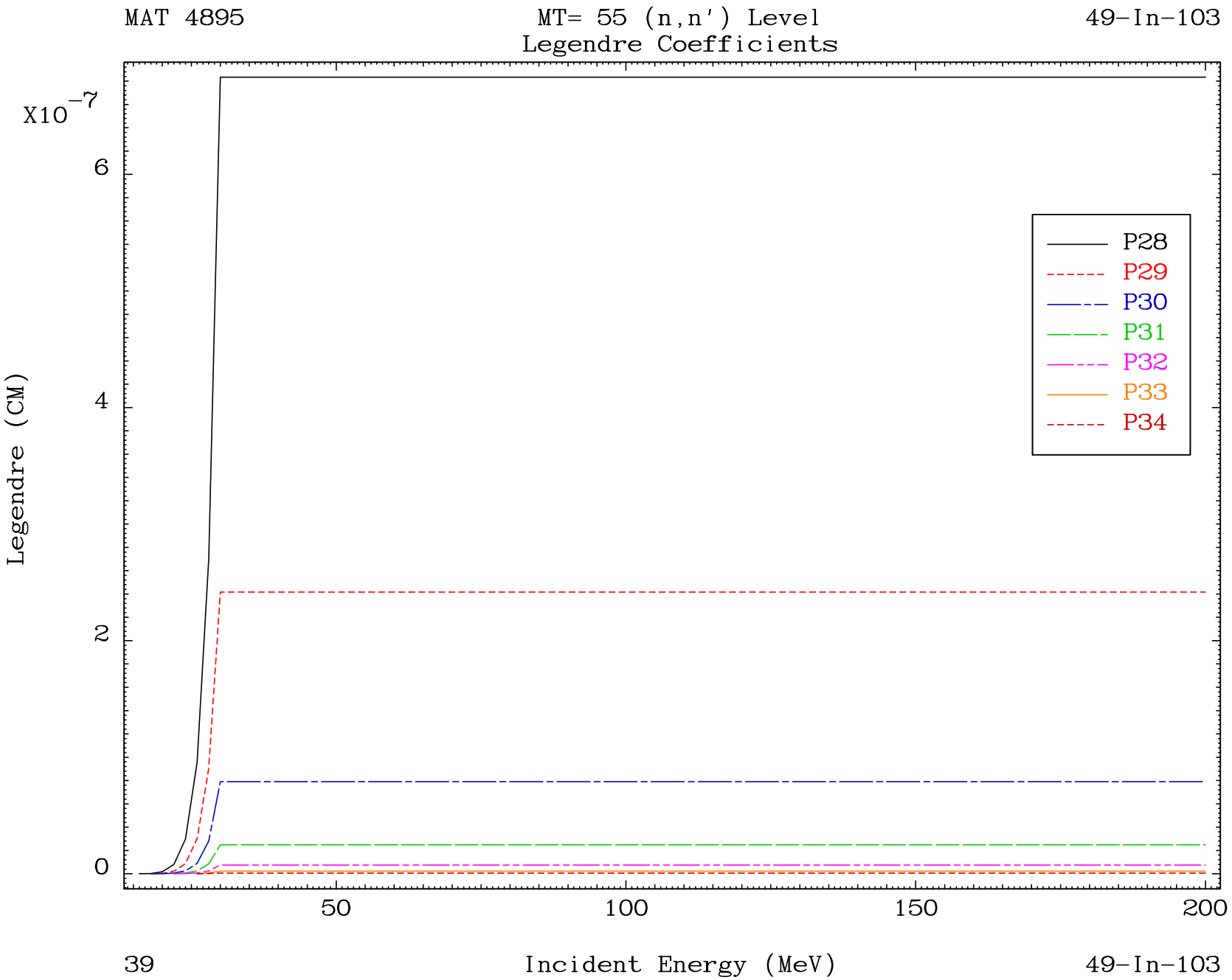

MAT 4895
MT= 54 (n,n') Level
Legendre Coefficients
49-In-103
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
50
100
150
200
34
Incident Energy (MeV)
49-In-103

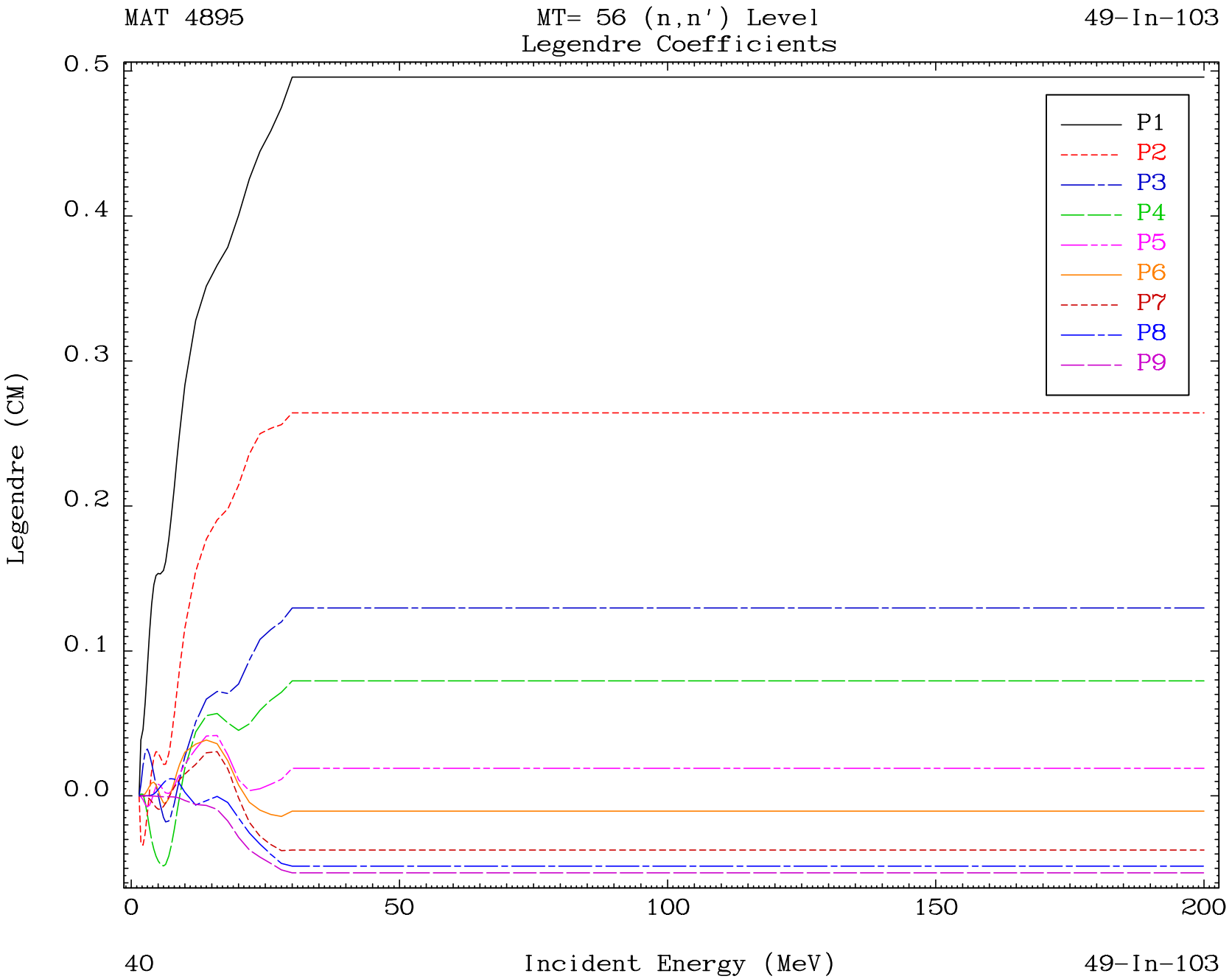

MAT 4895
MT= 54 (n,n') Level
Legendre Coefficients
49-In-103
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
35
Incident Energy (MeV)
49-In-103

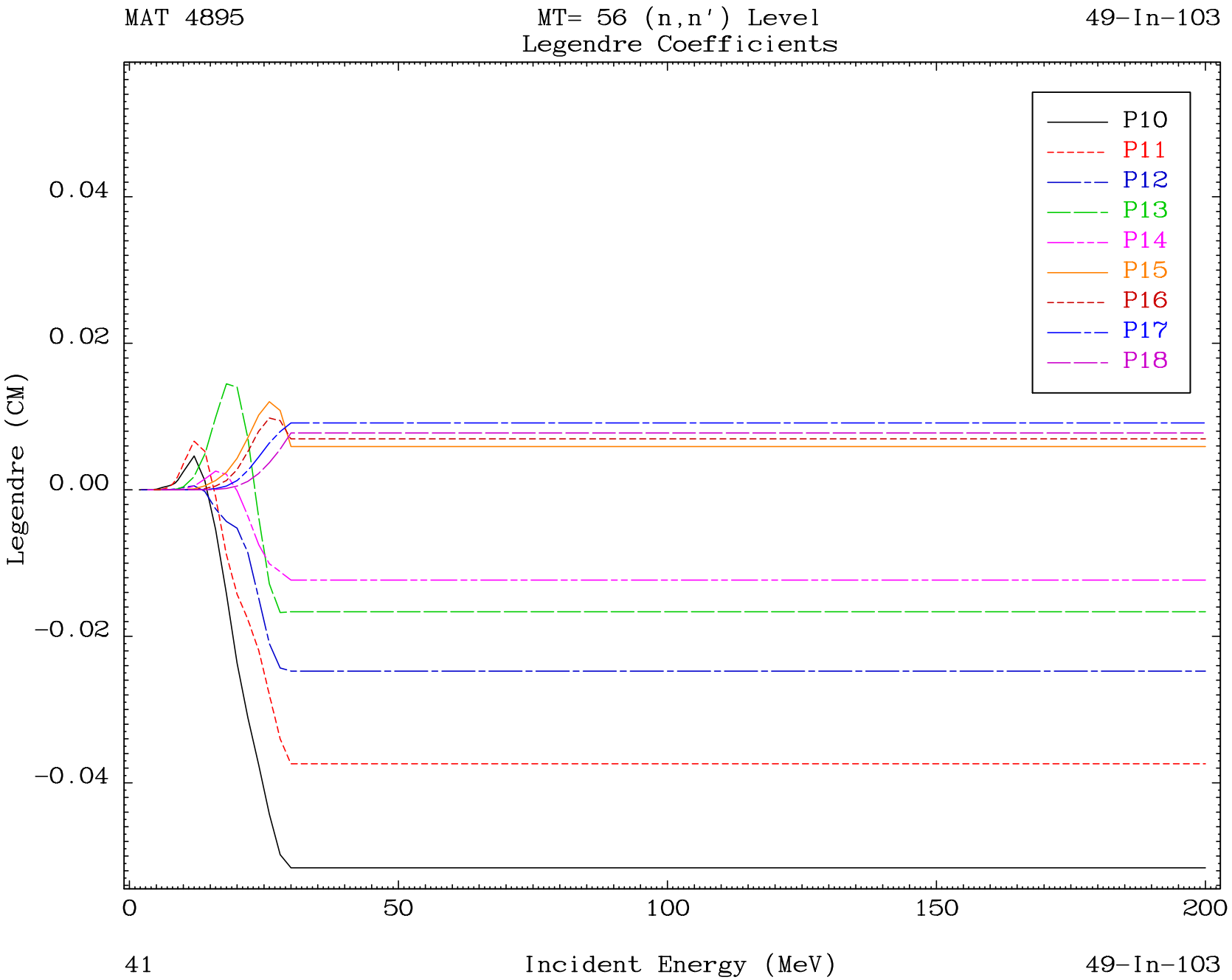

MAT 4895
MT= 55 (n,n') Level
Legendre Coefficients
49-In-103
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
36
49-In-103
P1
P2
P3
P4
P5
P6
P7
P8
P9

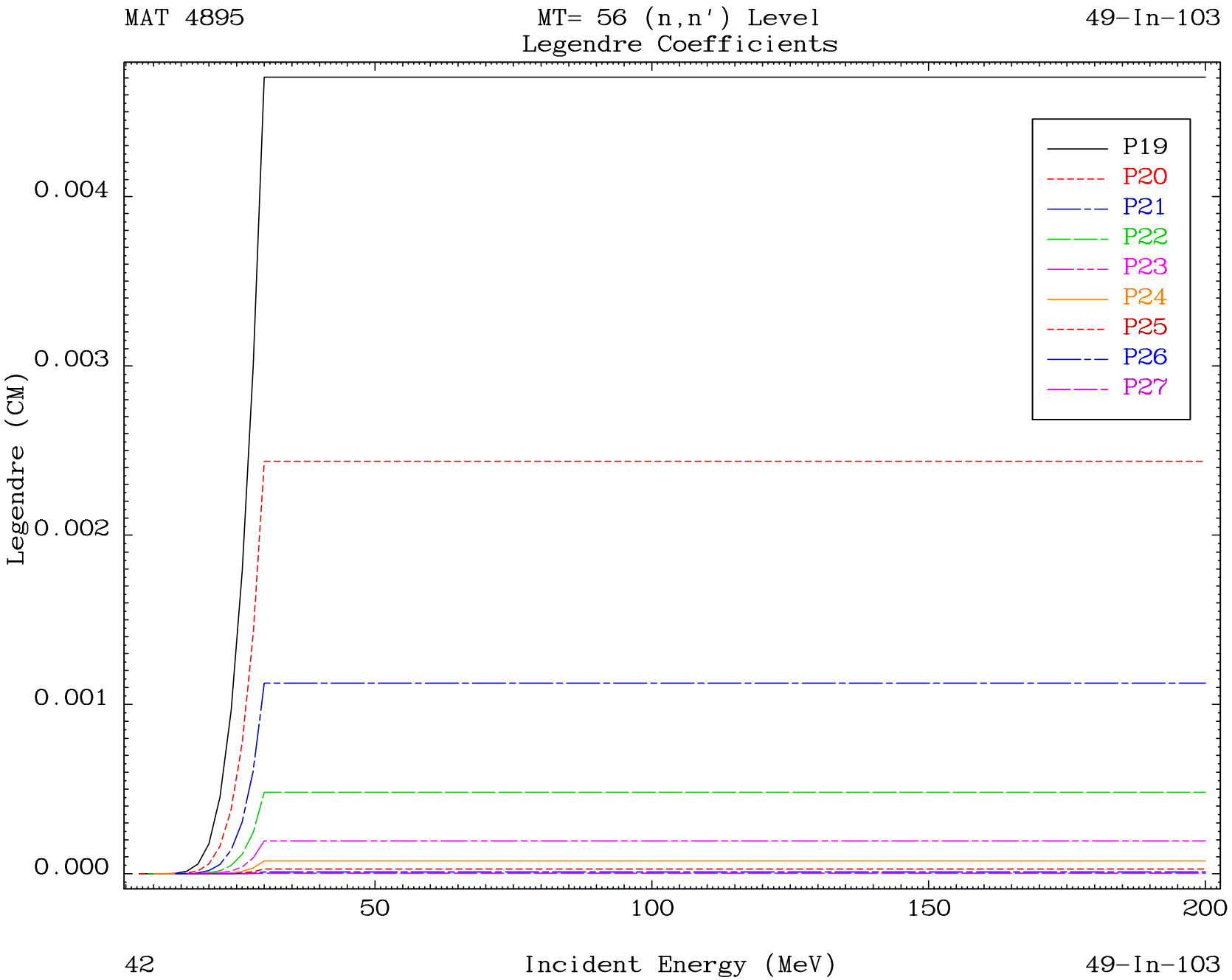

MAT 4895
MT= 55 (n,n') Level
Legendre Coefficients
49-In-103
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
37
Incident Energy (MeV)
49-In-103

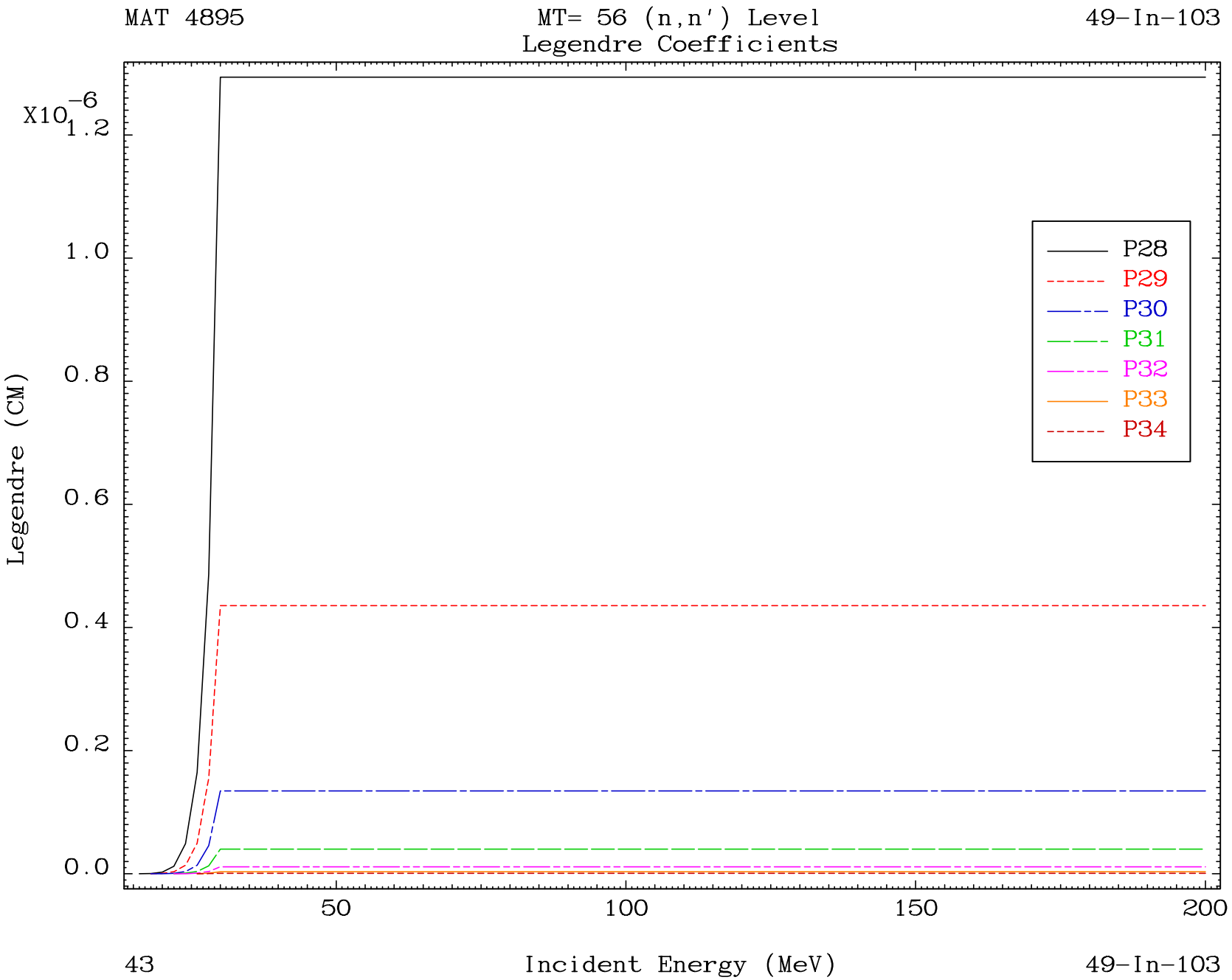

MAT 4895
MT= 55 (n,n') Level
Legendre Coefficients
49-In-103
X10^-3
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
38
Incident Energy (MeV)
49-In-103

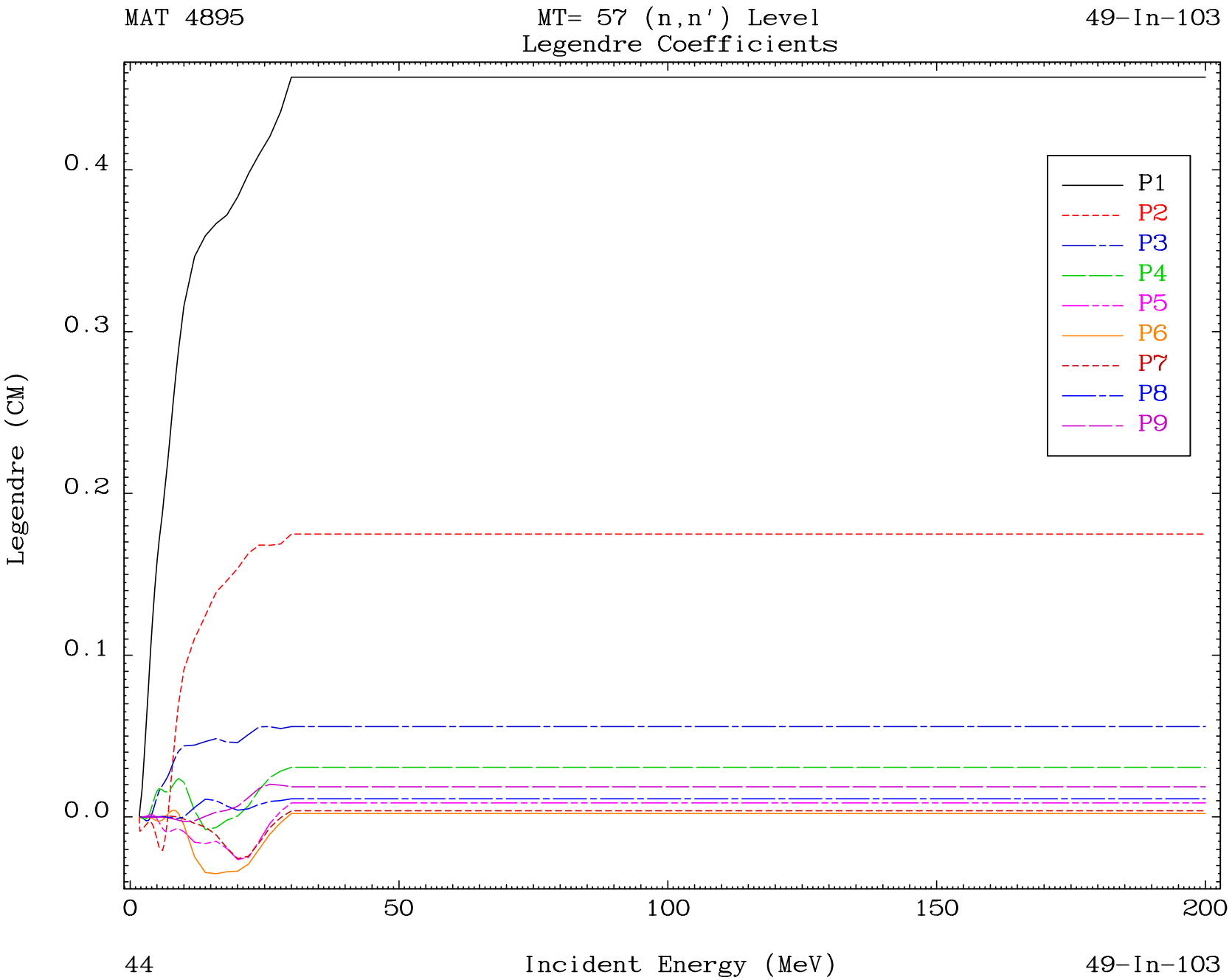

MAT 4895
MT= 55 (n,n') Level
Legendre Coefficients
49-In-103
X10-7
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
39
Incident Energy (MeV)
49-In-103

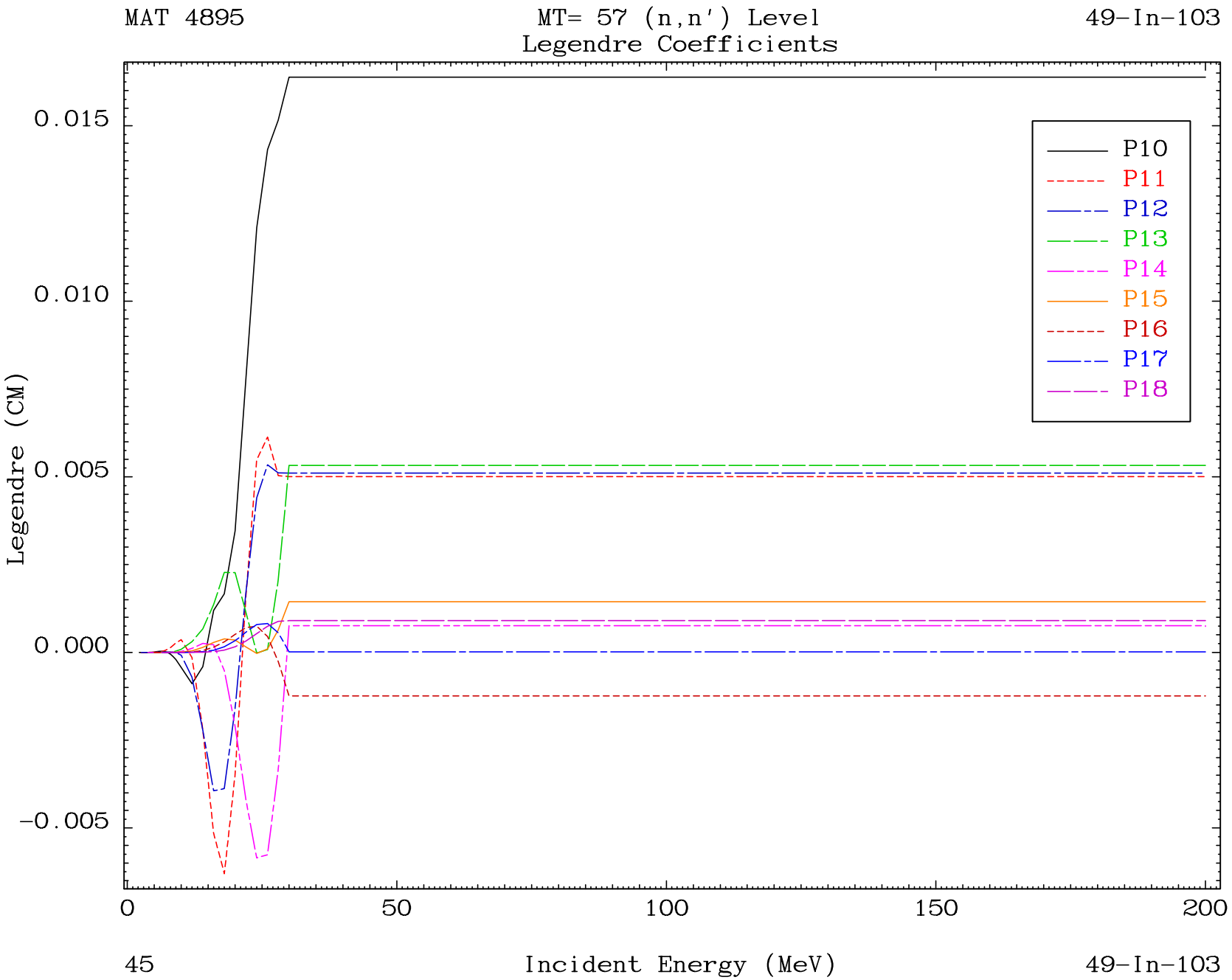

MAT 4895
MT= 56 (n,n') Level
Legendre Coefficients
49-In-103
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
40
Incident Energy (MeV)
49-In-103

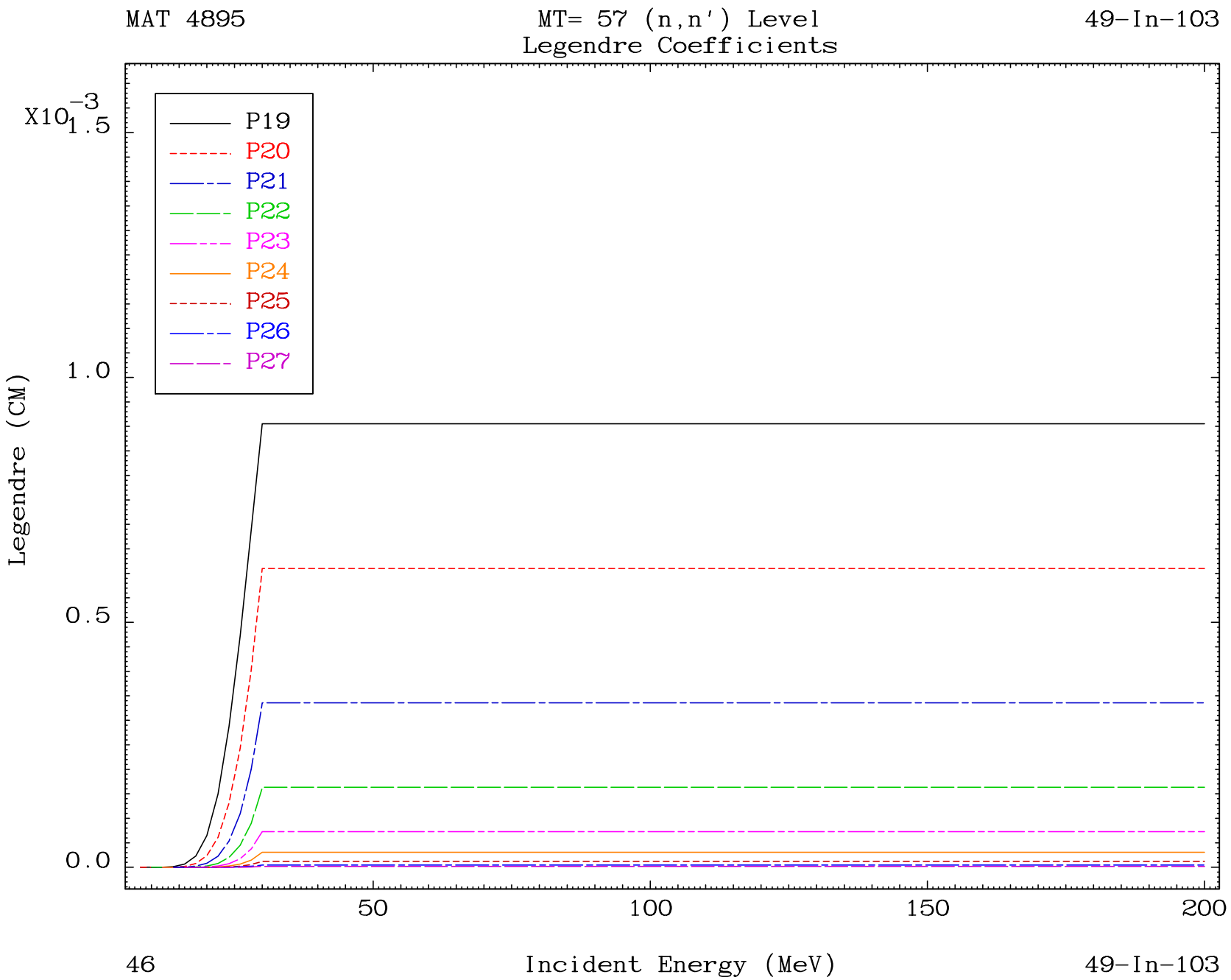

MAT 4895
MT= 56 (n,n') Level
Legendre Coefficients
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
41
Incident Energy (MeV)
49-In-103

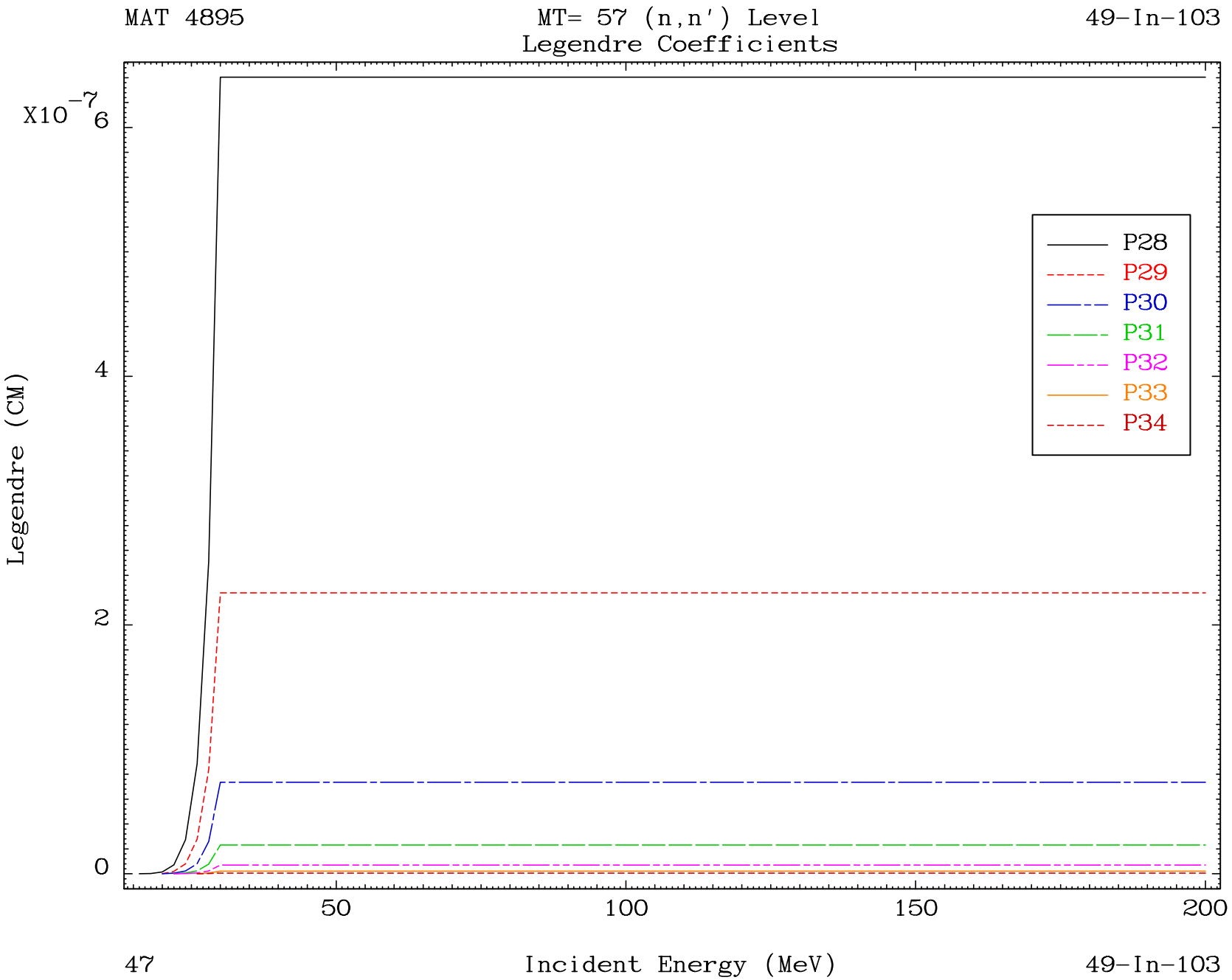

MAT 4895
MT= 56 (n,n') Level
Legendre Coefficients
49-In-103
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
50
100
150
200
42
Incident Energy (MeV)
49-In-103

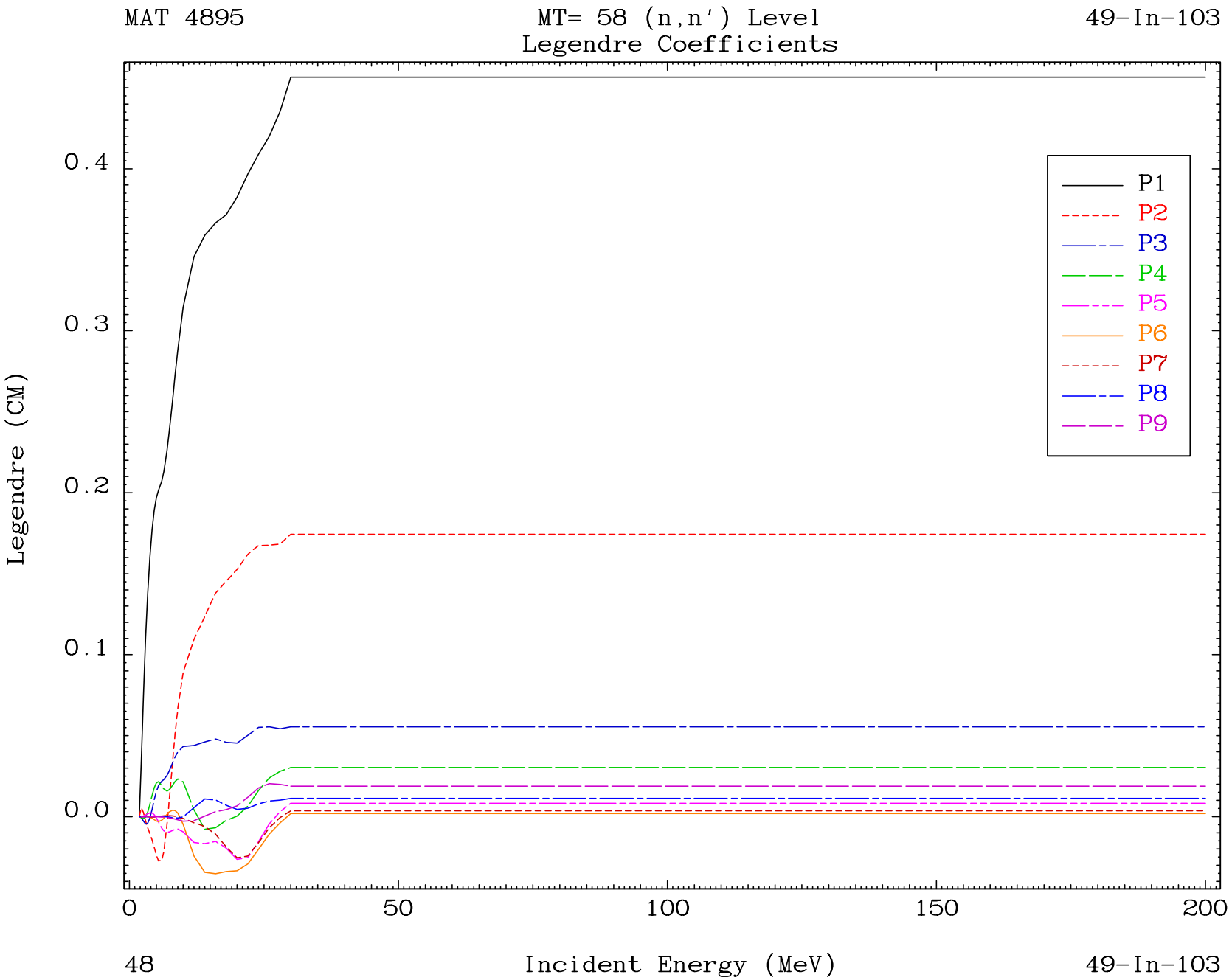

MAT 4895
MT= 56 (n,n') Level
Legendre Coefficients
49-In-103
X10^-6
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
43
Incident Energy (MeV)
49-In-103

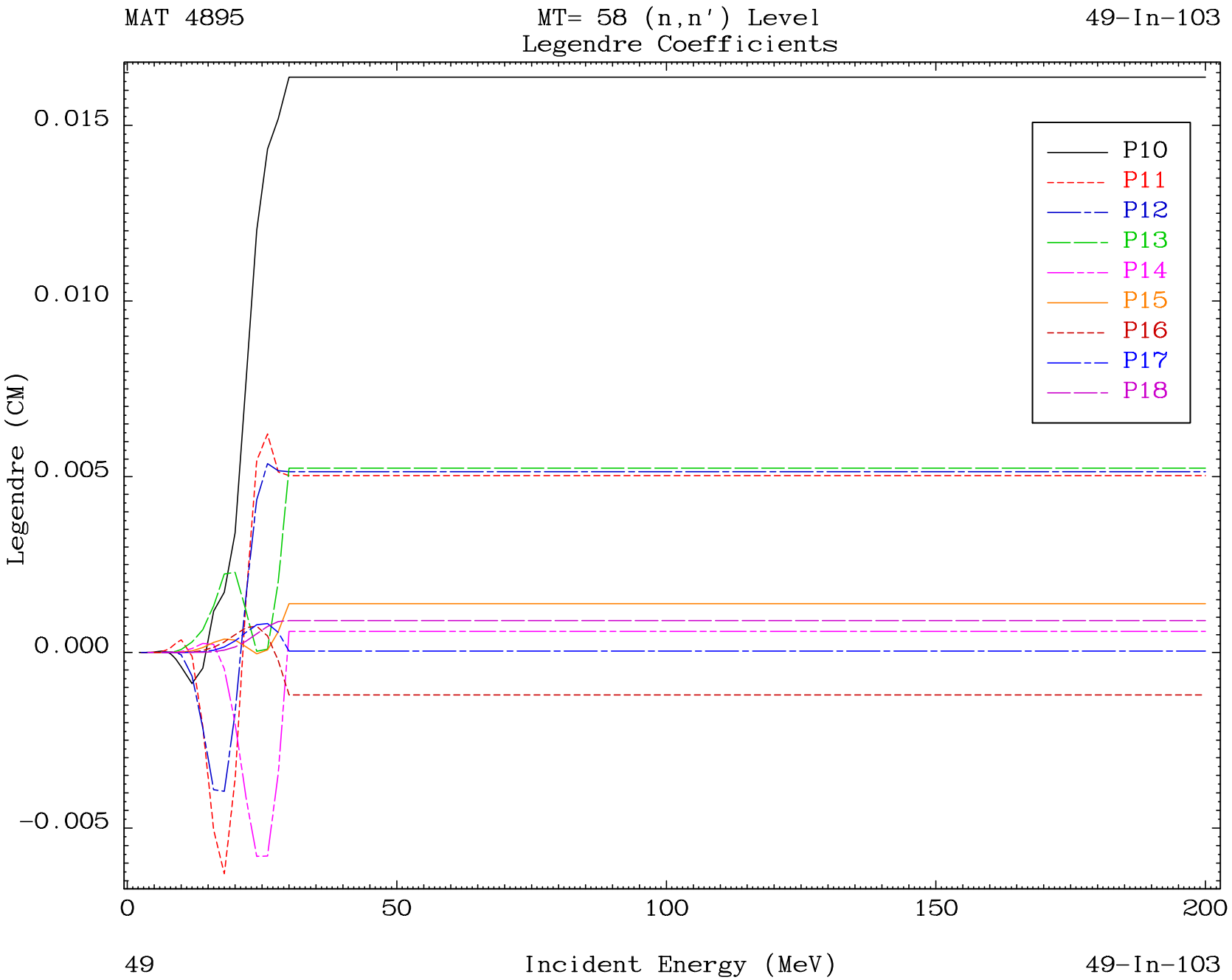

MAT 4895
MT= 57 (n,n') Level
Legendre Coefficients
49-In-103
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
44
Incident Energy (MeV)
49-In-103

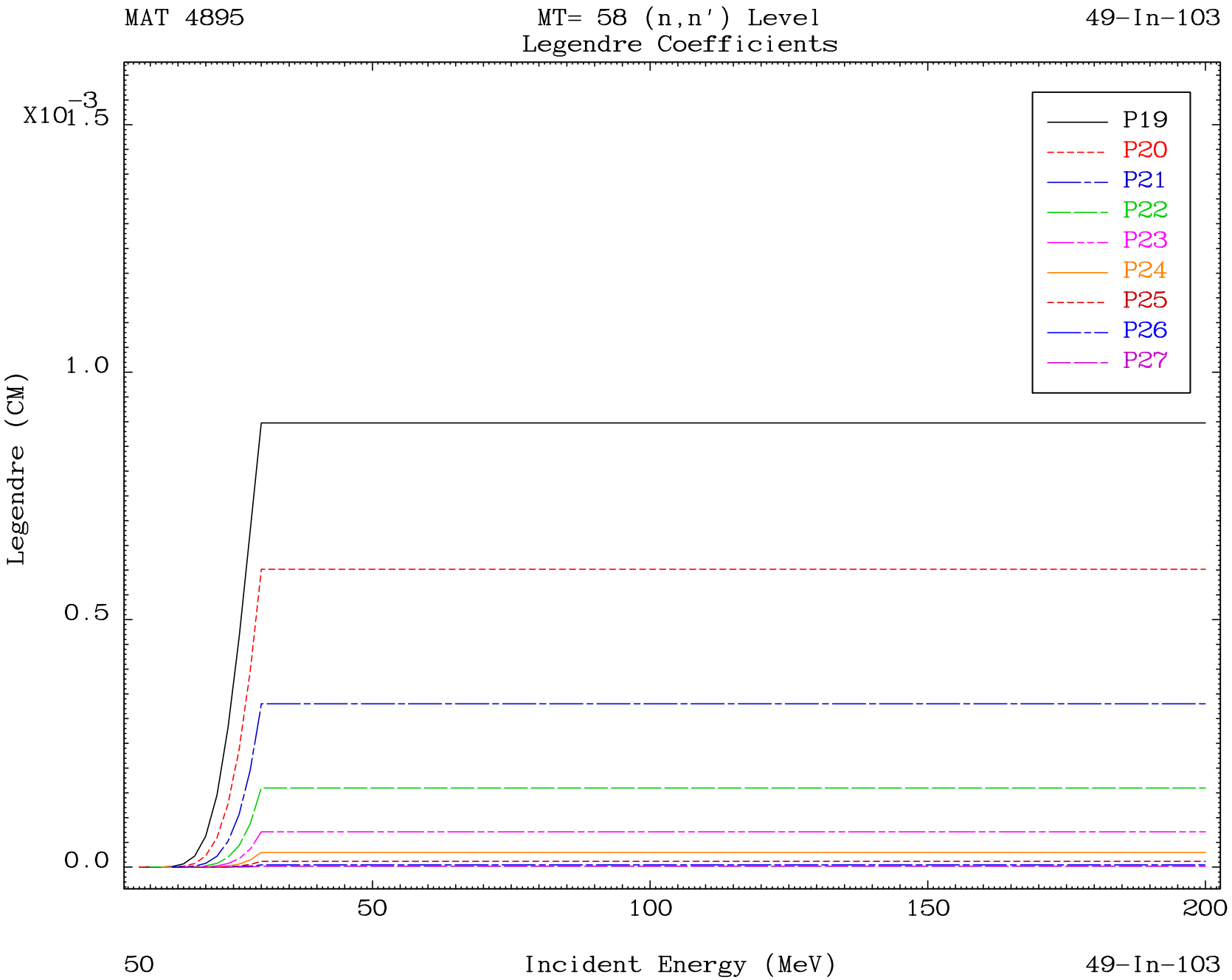

MAT 4895
MT= 57 (n,n') Level
Legendre Coefficients
49-In-103
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
45
Incident Energy (MeV)
49-In-103

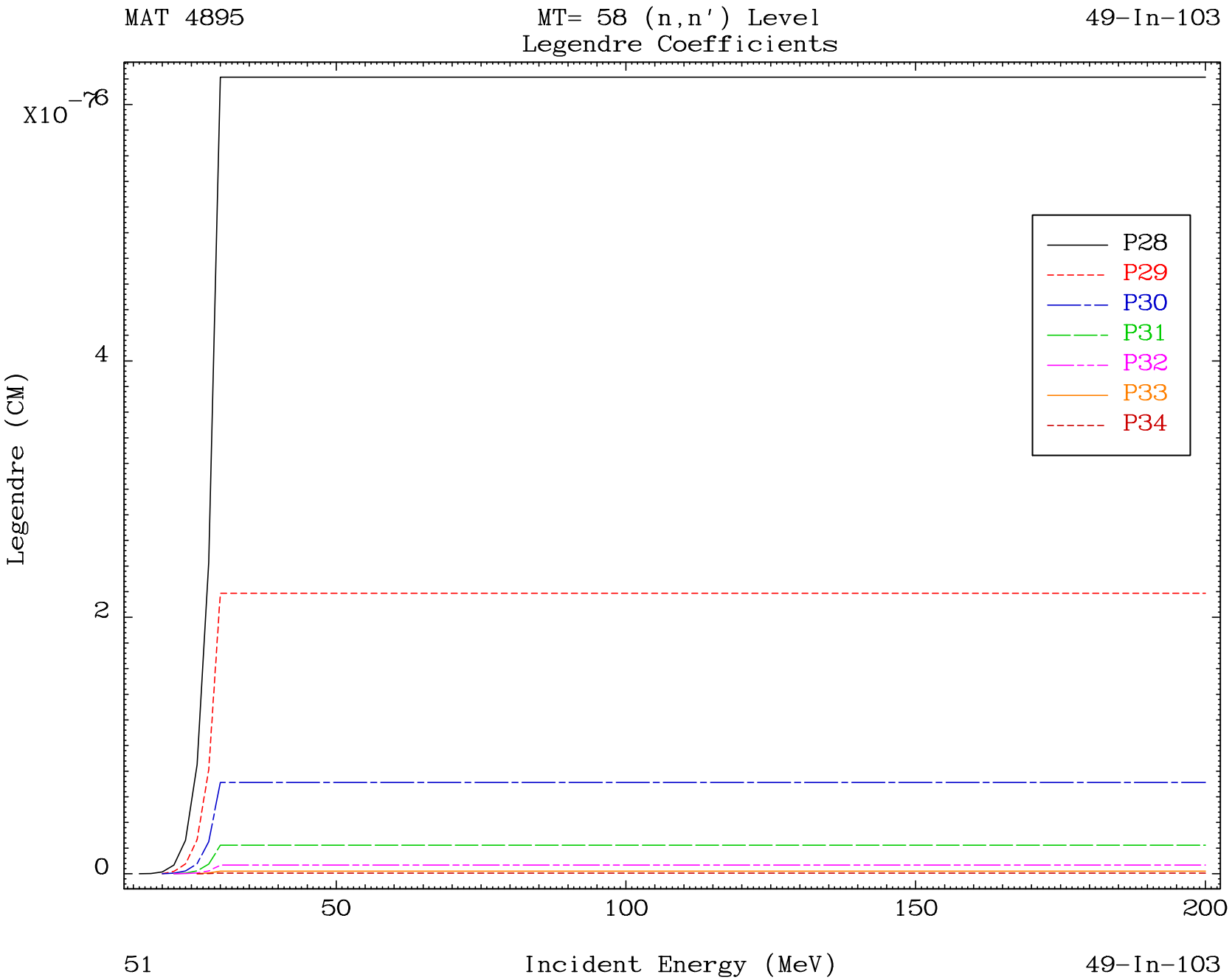

MAT 4895
MT= 57 (n,n') Level
Legendre Coefficients
49-In-103
X10-3
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
46
Incident Energy (MeV)
49-In-103

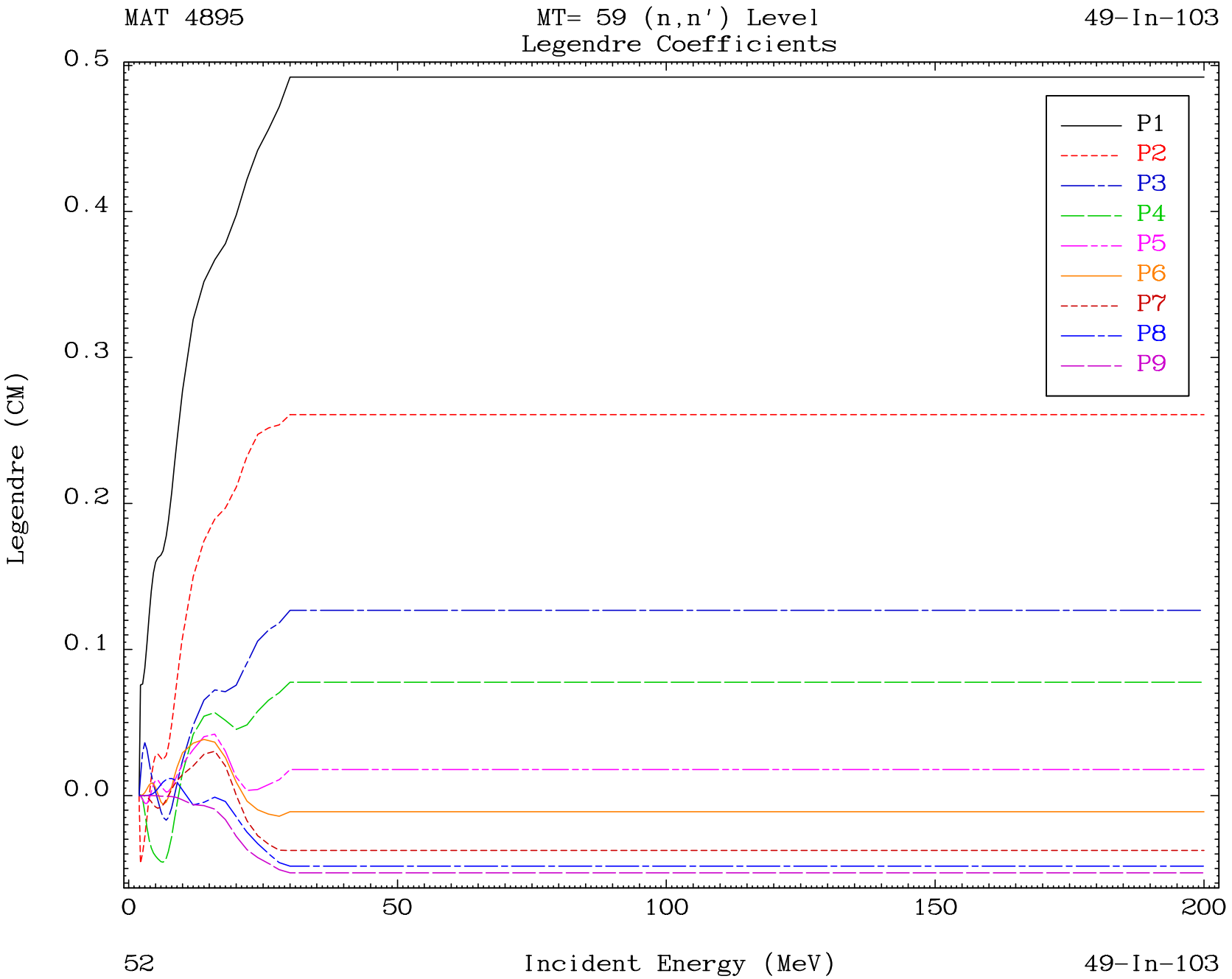

MAT 4895
MT= 57 (n,n') Level
Legendre Coefficients
49-In-103
X10 -7
6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
47
Incident Energy (MeV)
49-In-103

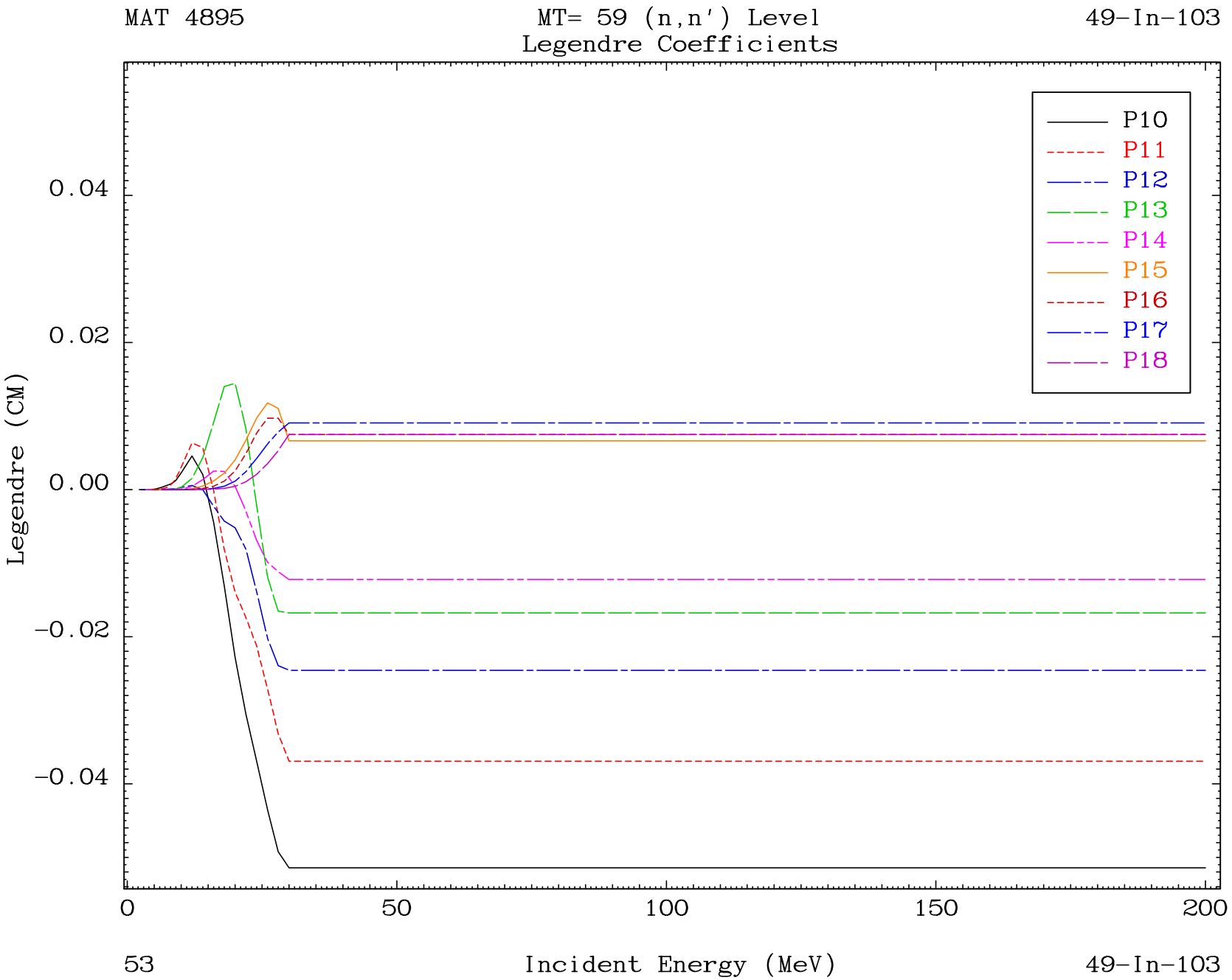

MAT 4895
MT= 58 (n,n') Level
Legendre Coefficients
49-In-103
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
48
Incident Energy (MeV)
49-In-103

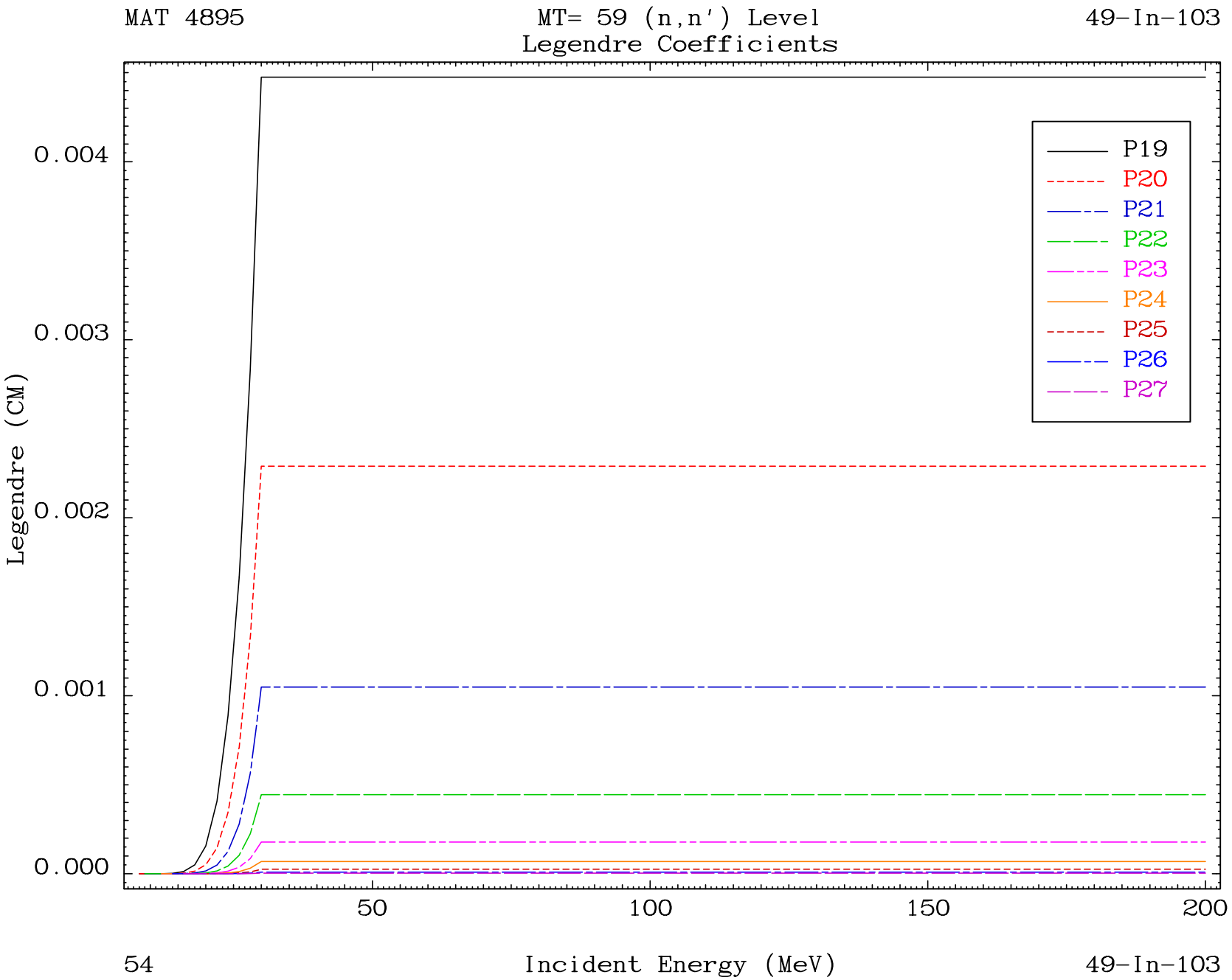

MAT 4895
MT= 58 (n,n') Level
Legendre Coefficients
49-In-103
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
0
50
100
150
200
49
Incident Energy (MeV)
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18

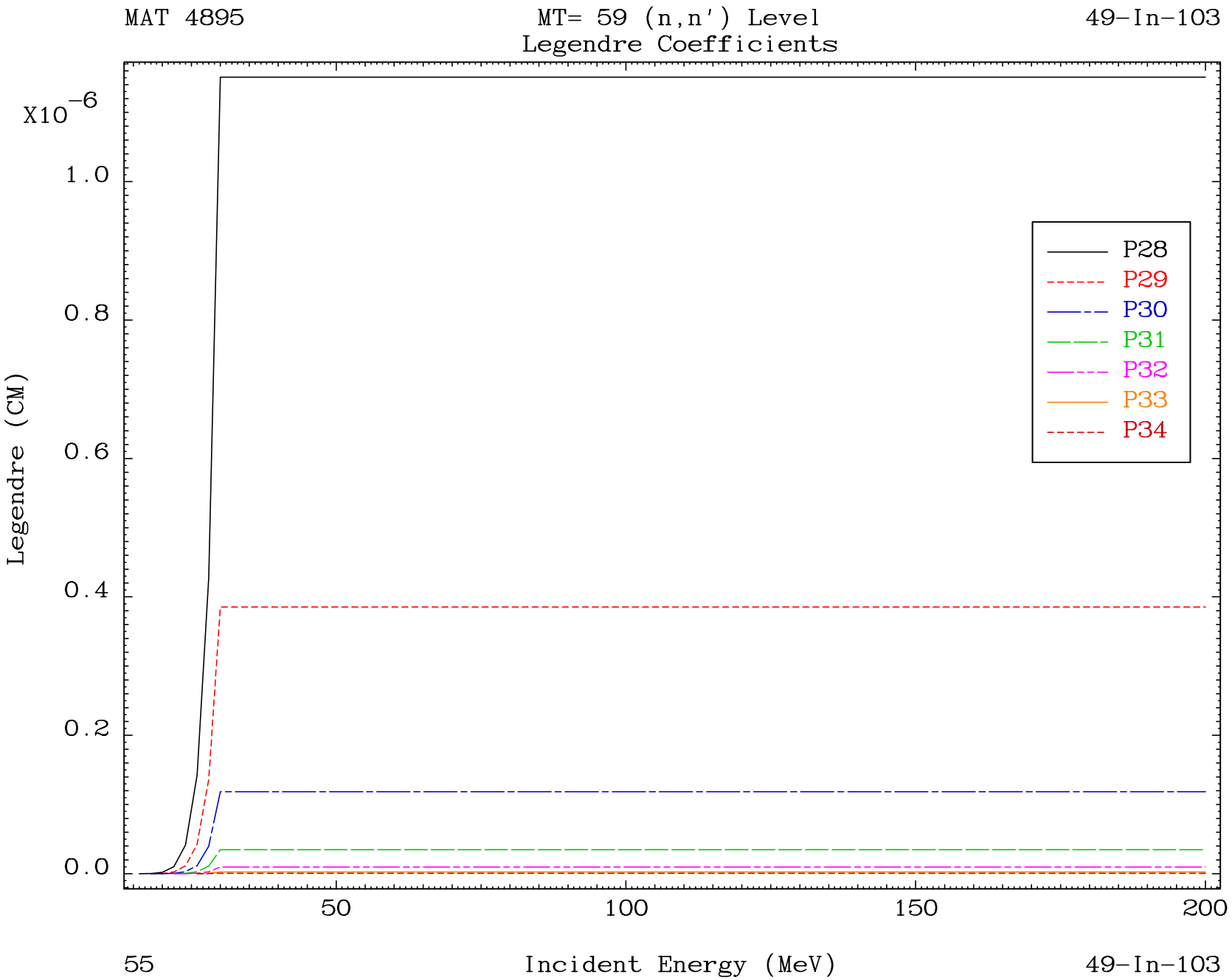

MAT 4895
MT= 58 (n,n') Level
Legendre Coefficients
49-In-103
X10-3
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
50
Incident Energy (MeV)
49-In-103

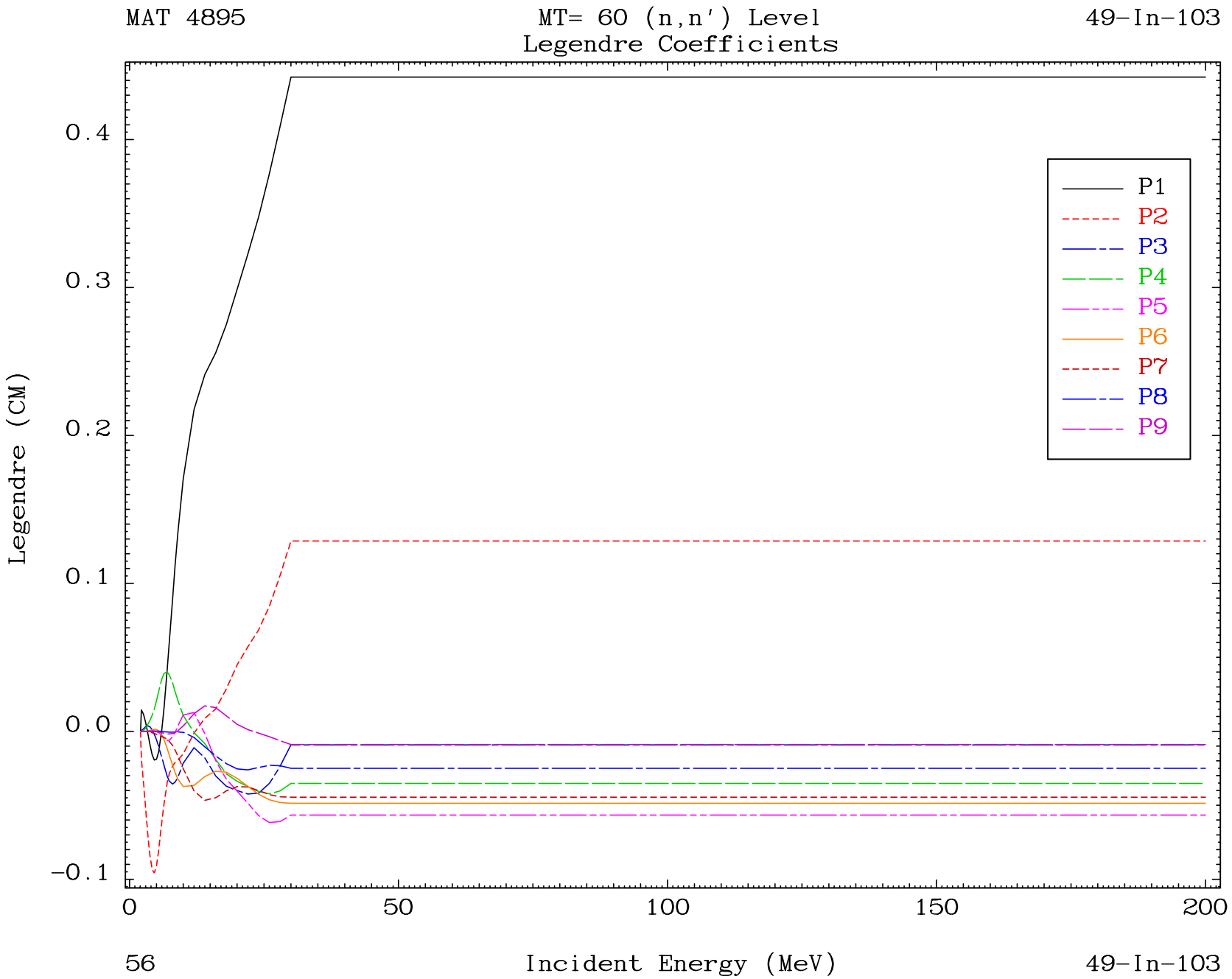

MAT 4895
MT= 58 (n,n') Level
Legendre Coefficients
49-In-103
X10^-6
4
2
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
51
Incident Energy (MeV)
49-In-103

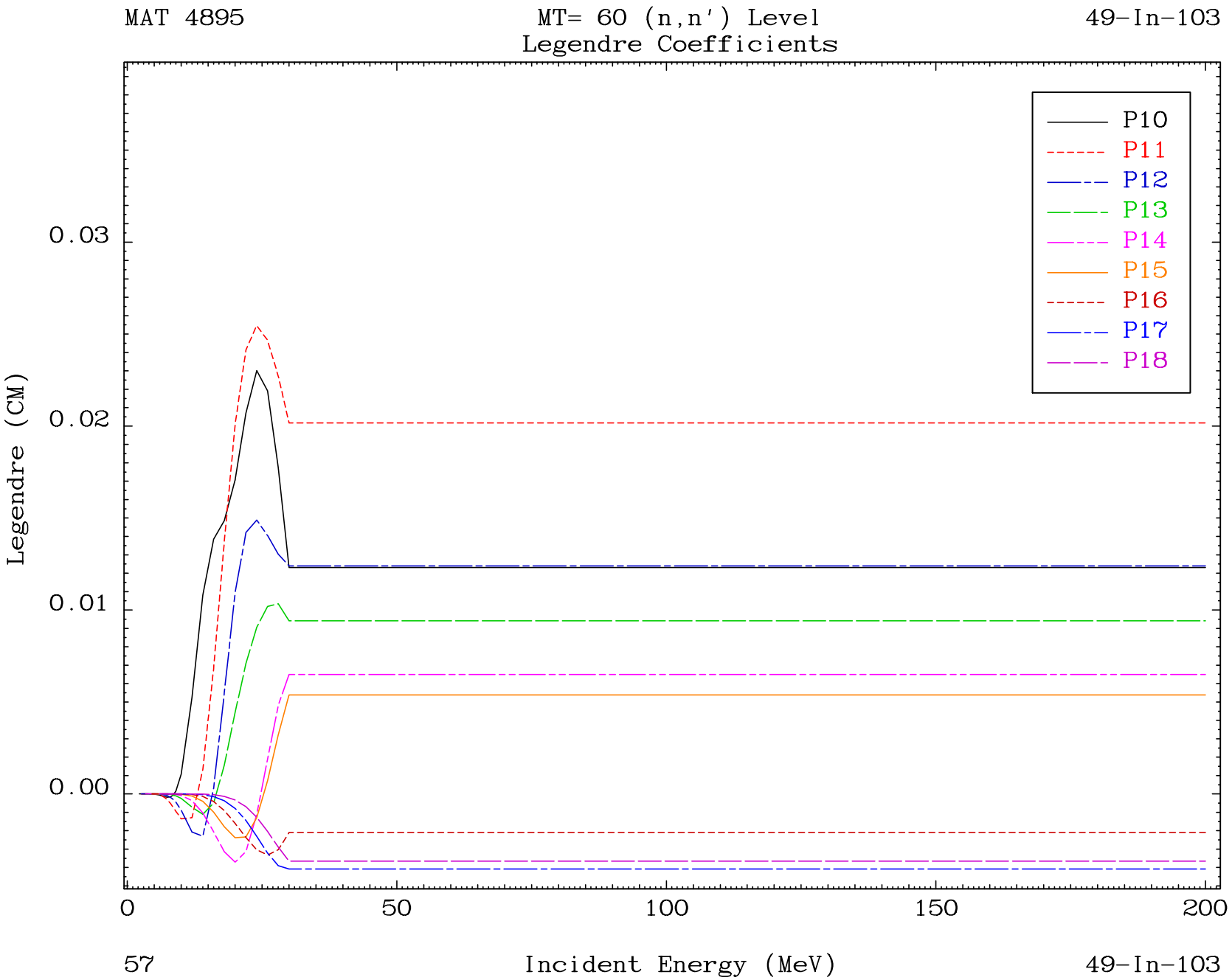

MAT 4895
MT= 59 (n,n') Level
Legendre Coefficients
49-In-103
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
52
Incident Energy (MeV)
49-In-103

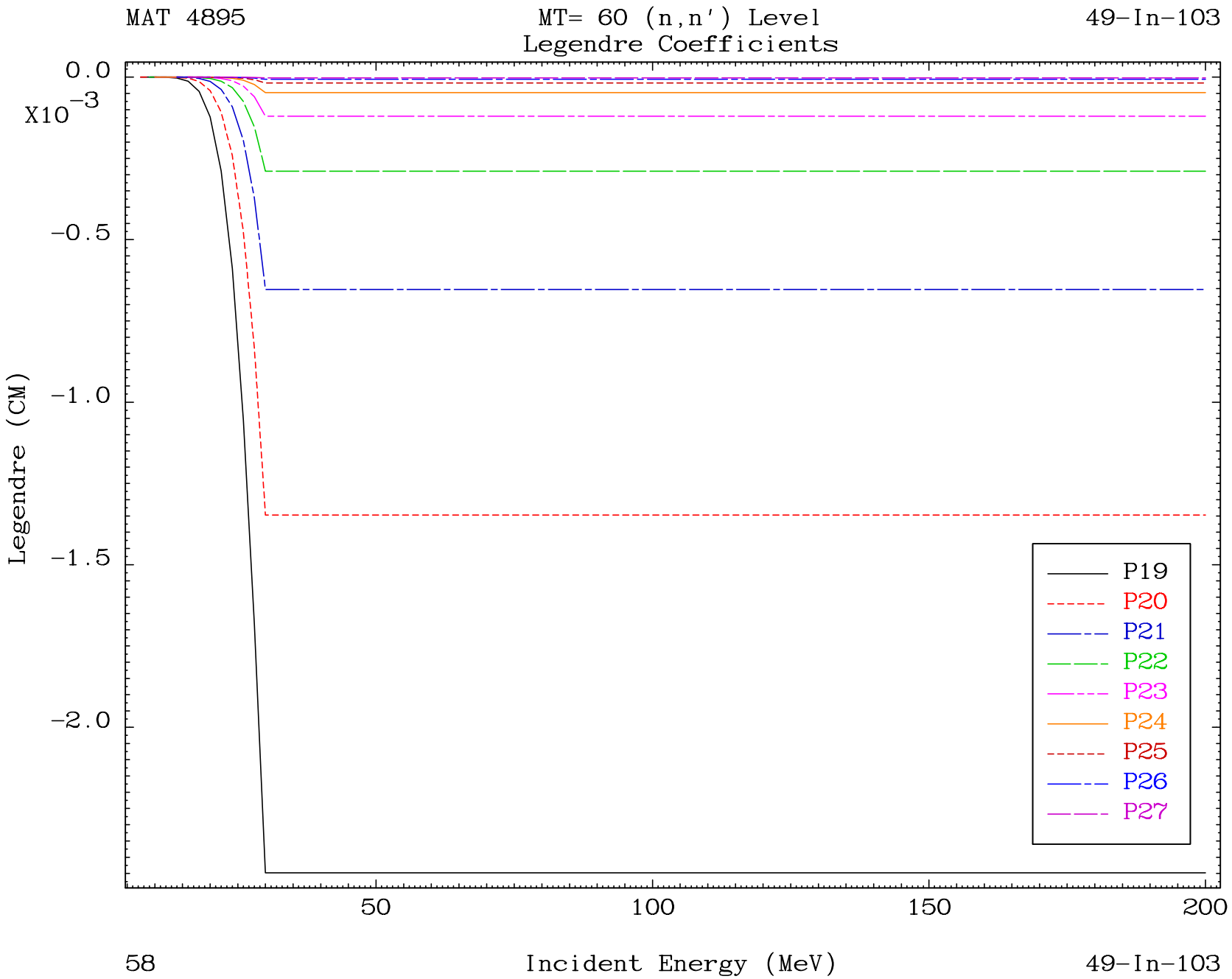

MAT 4895
MT= 59 (n,n') Level
Legendre Coefficients
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
53
Incident Energy (MeV)
49-In-103

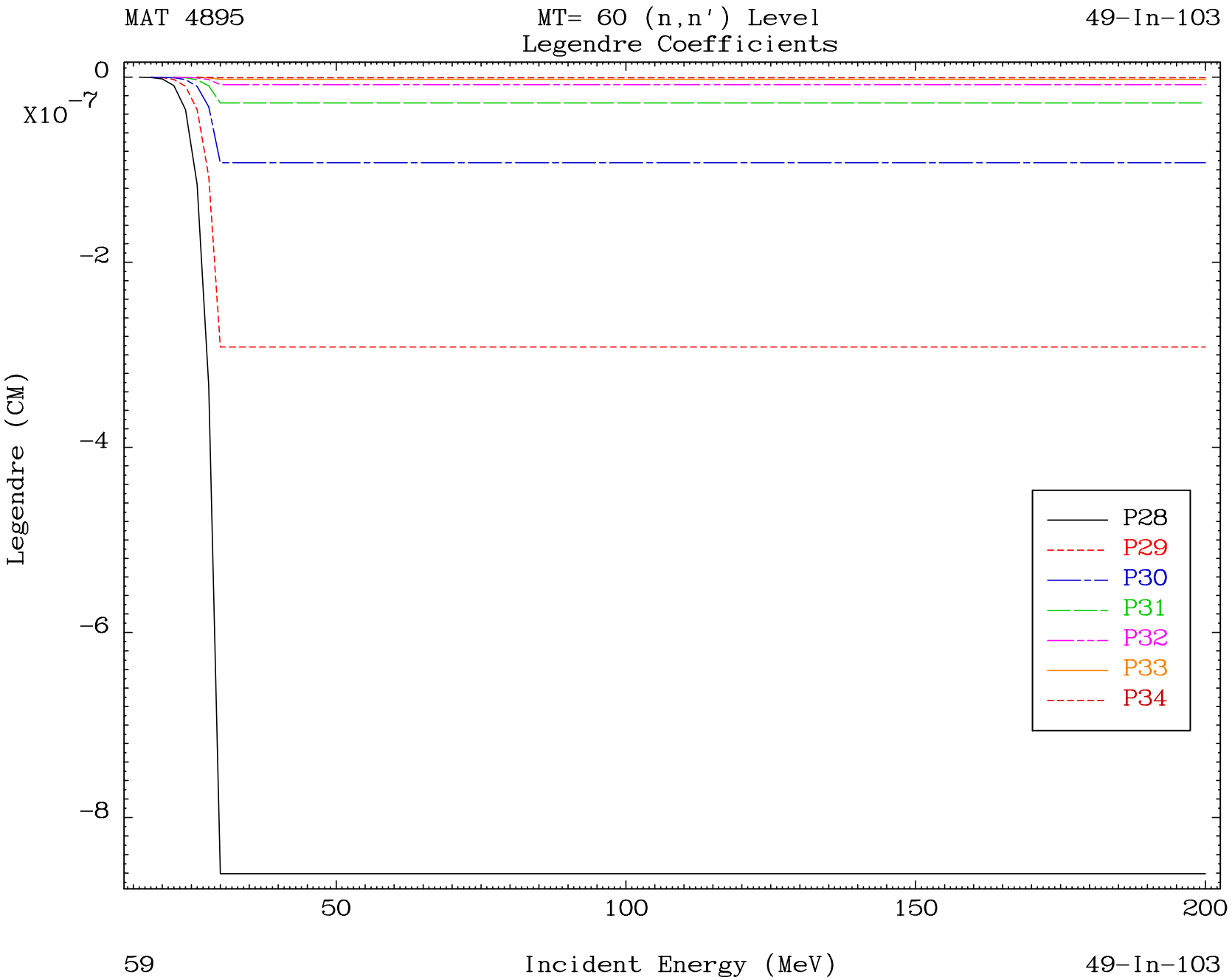

MAT 4895
MT= 59 (n,n') Level
Legendre Coefficients
49-In-103
0.004
0.003
0.002
0.001
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
54
Incident Energy (MeV)
49-In-103

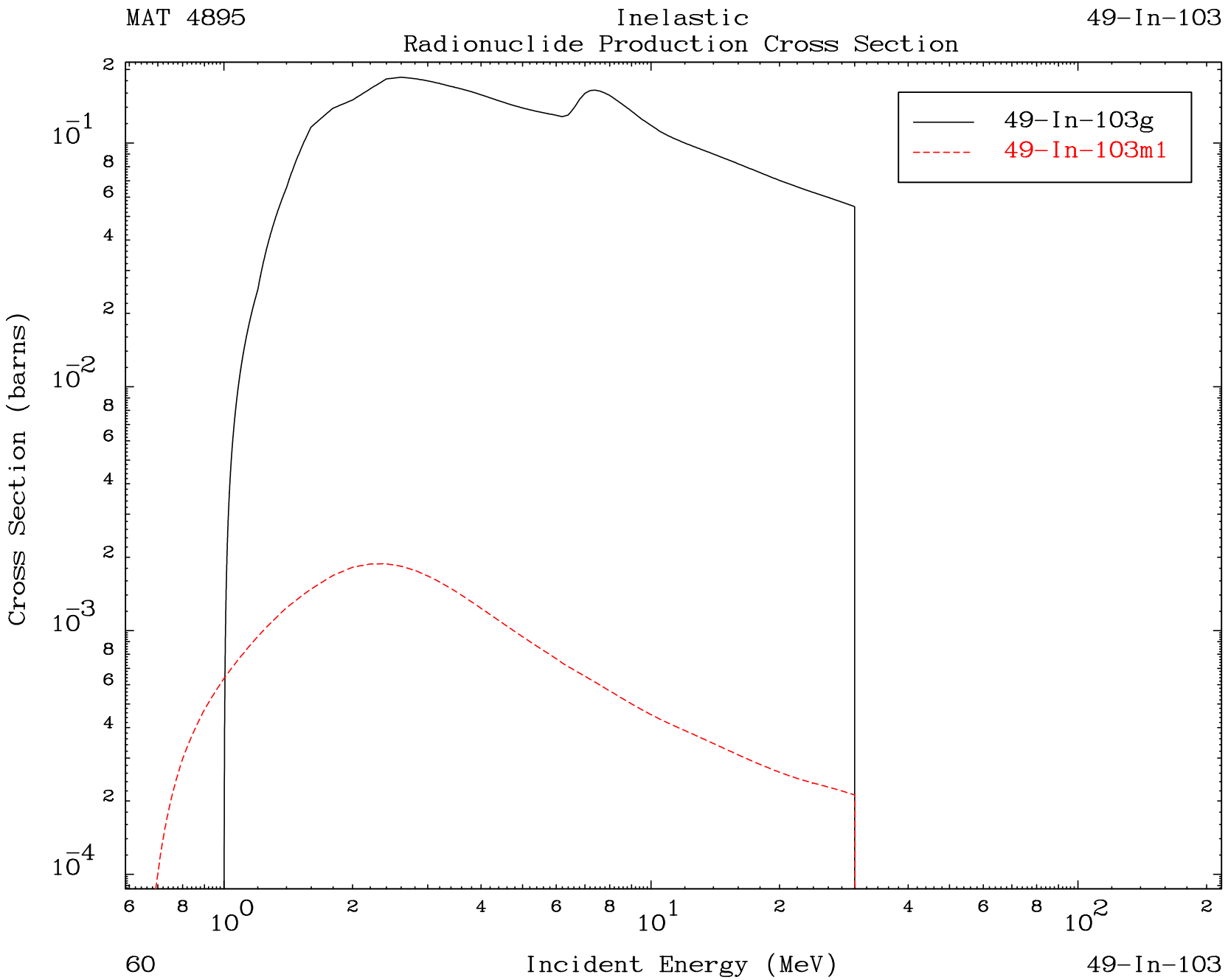

MAT 4895
MT= 59 (n,n') Level
Legendre Coefficients
49-In-103
X10^-6
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
55
Incident Energy (MeV)
49-In-103

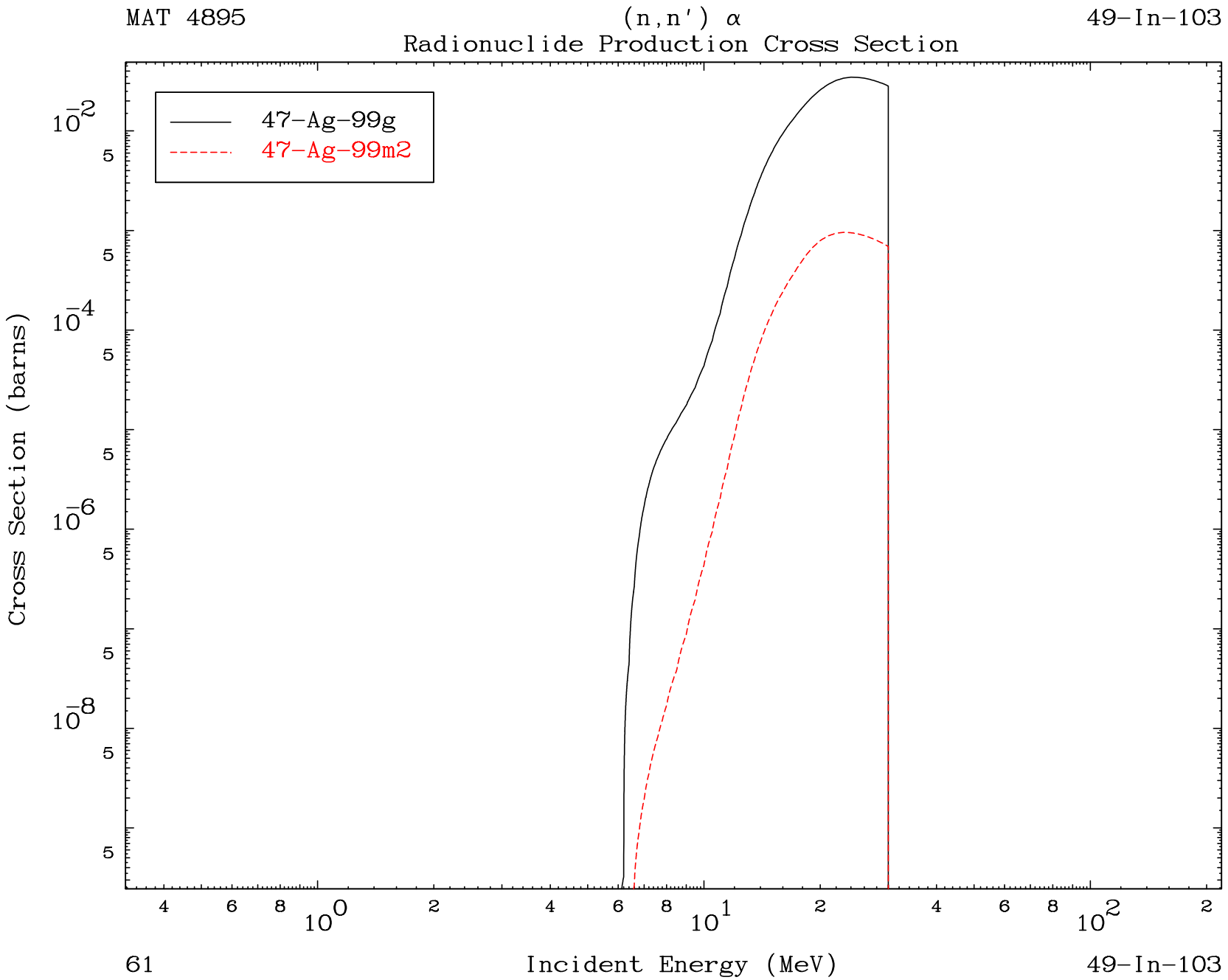

MAT 4895
MT= 60 (n,n') Level
Legendre Coefficients
49-In-103
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
56
Incident Energy (MeV)
49-In-103

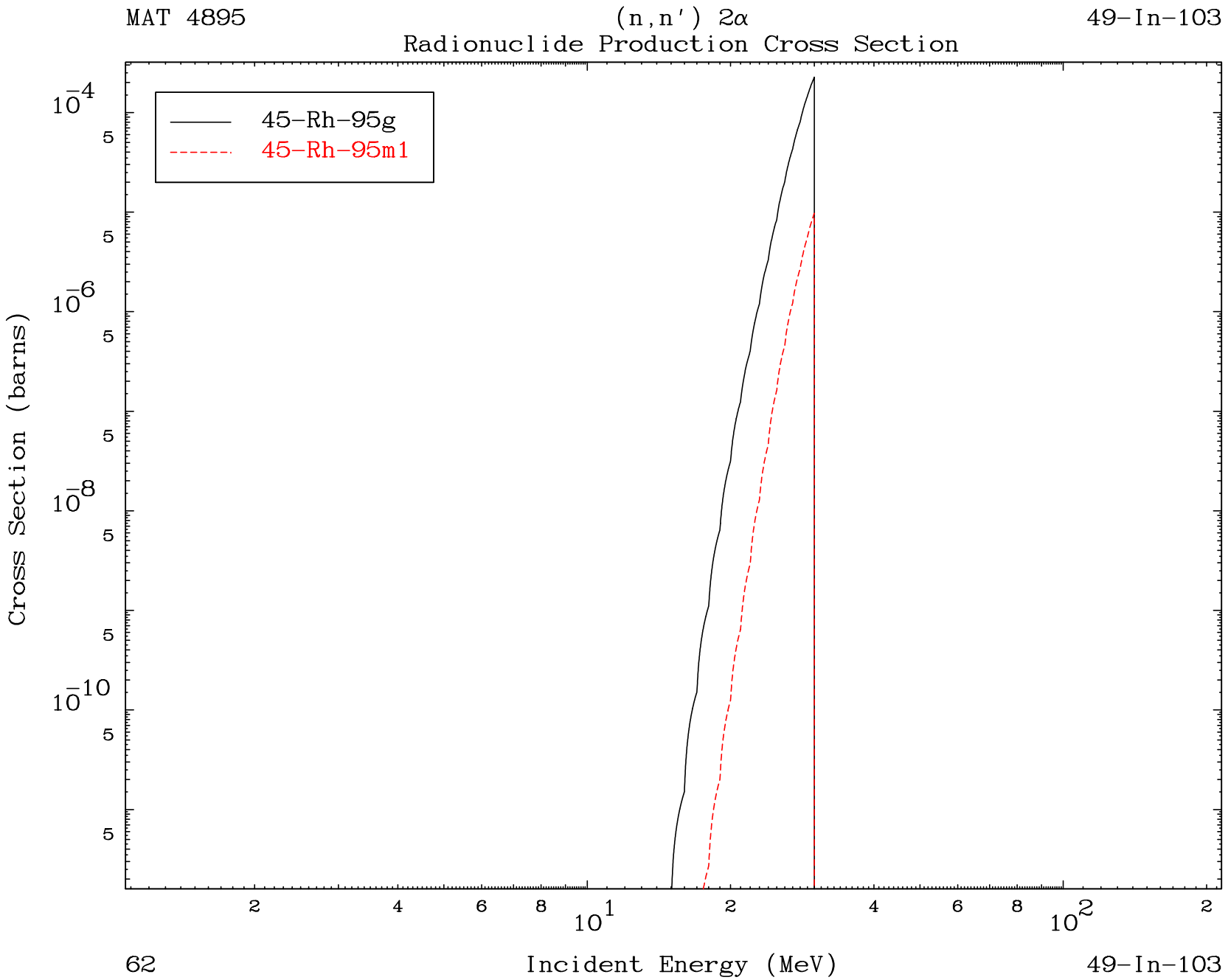

MAT 4895
MT= 60 (n,n') Level
Legendre Coefficients
49-In-103
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.03
0.02
0.01
0.00
Legendre (CM)
0
50
100
150
200
57
Incident Energy (MeV)
49-In-103

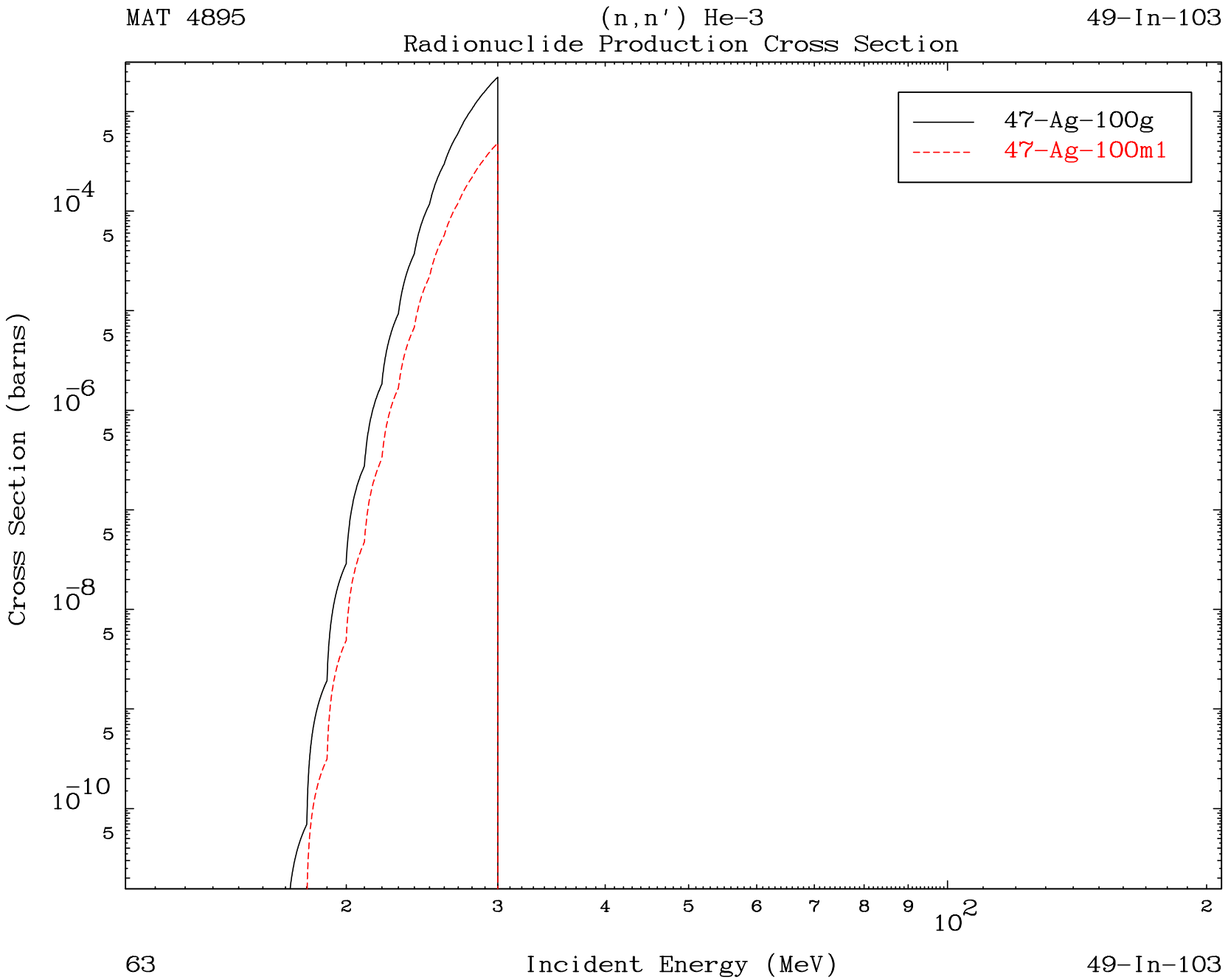

MAT 4895
MT= 60 (n,n') Level
Legendre Coefficients
49-In-103
0.0
X10^-3
-0.5
-1.0
-1.5
-2.0
Legendre (CM)
50
100
150
200
58
Incident Energy (MeV)
49-In-103
P19
P20
P21
P22
P23
P24
P25
P26
P27

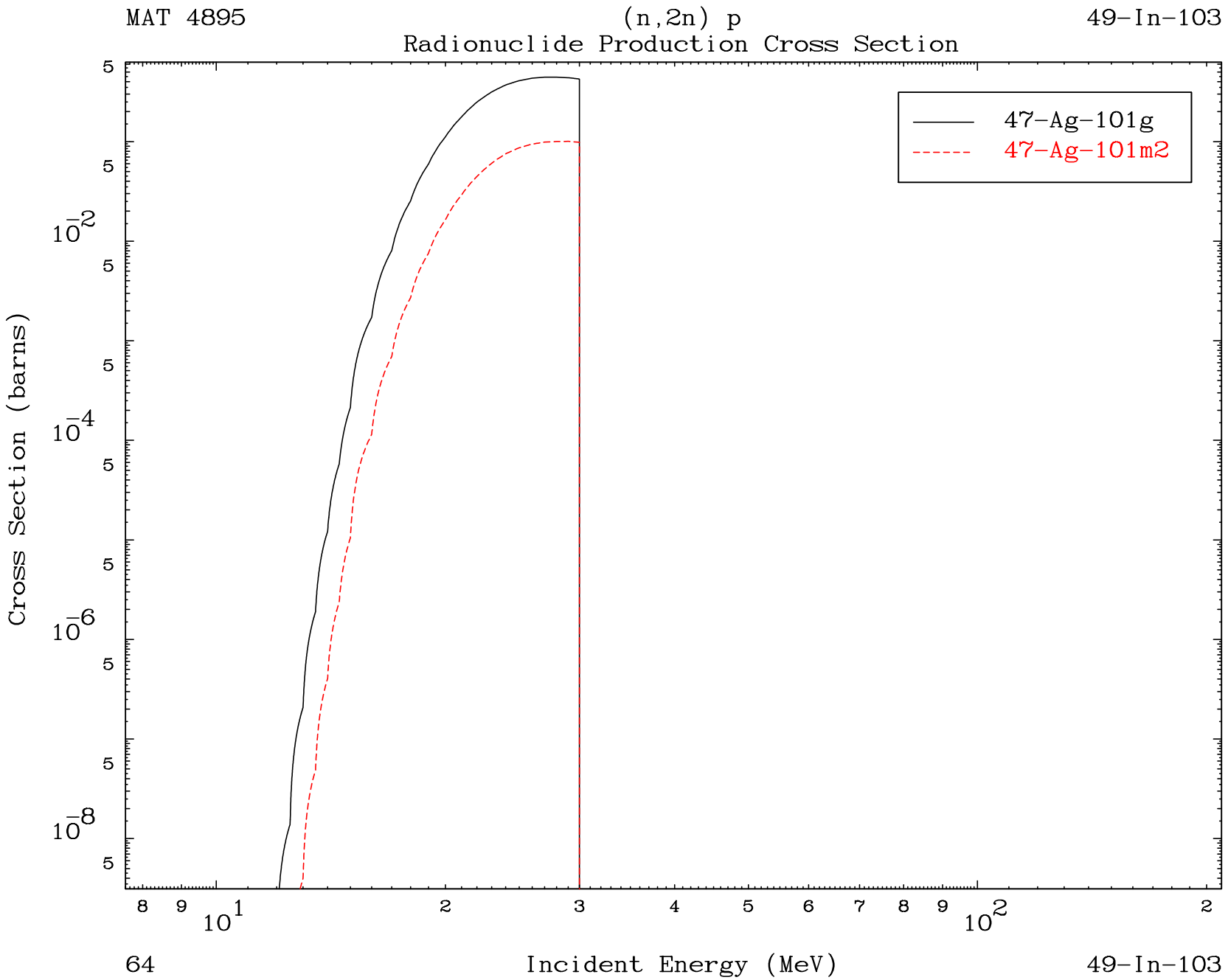

MAT 4895
MT= 60 (n,n') Level
Legendre Coefficients
49-In-103
0
X10-7
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
59
Incident Energy (MeV)
49-In-103
P28
P29
P30
P31
P32
P33
P34

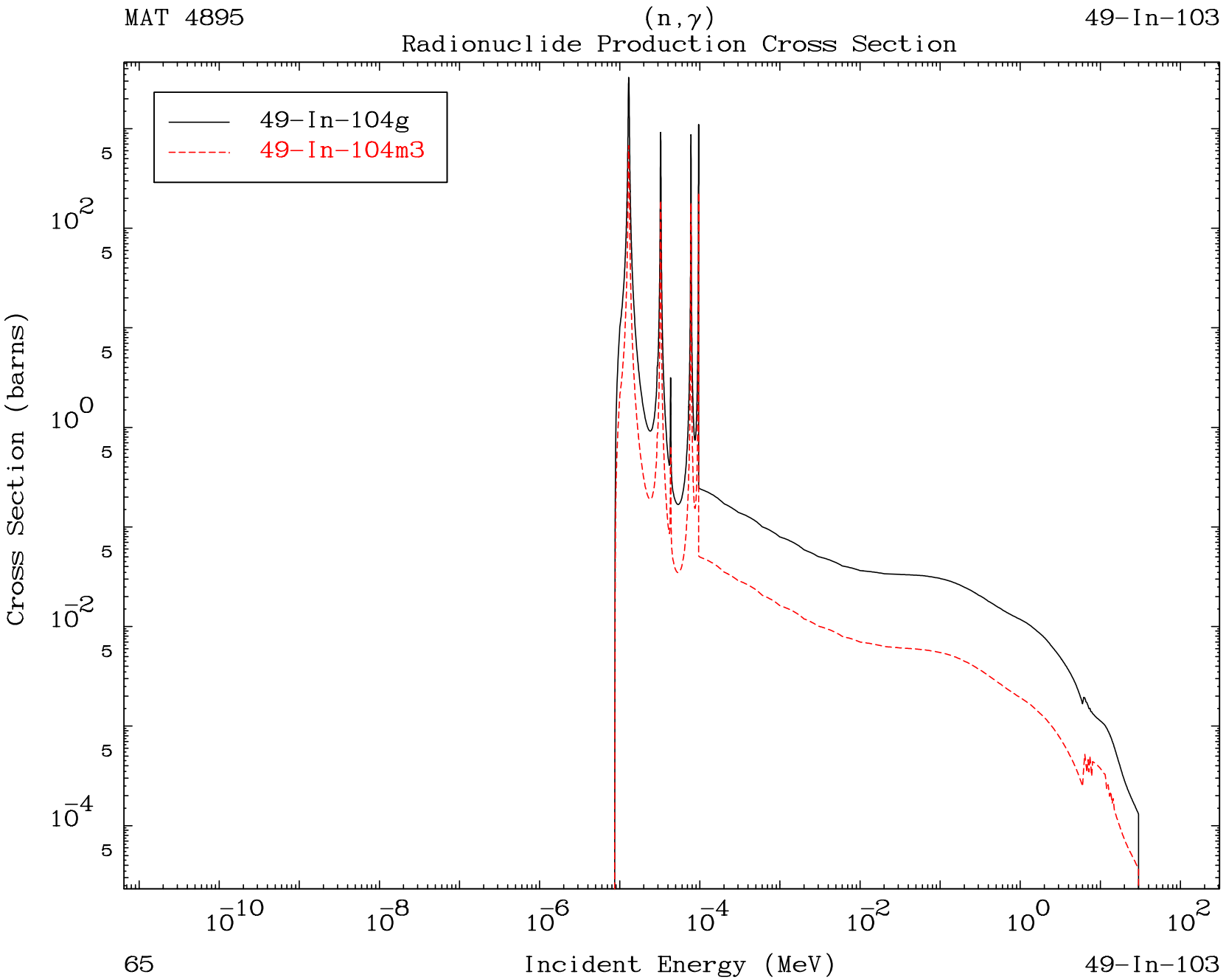

MAT 4895
Inelastic
49-In-103
Radionuclide Production Cross Section
49-In-103g
49-In-103m1
Cross Section (barns)
Incident Energy (MeV)
60
49-In-103

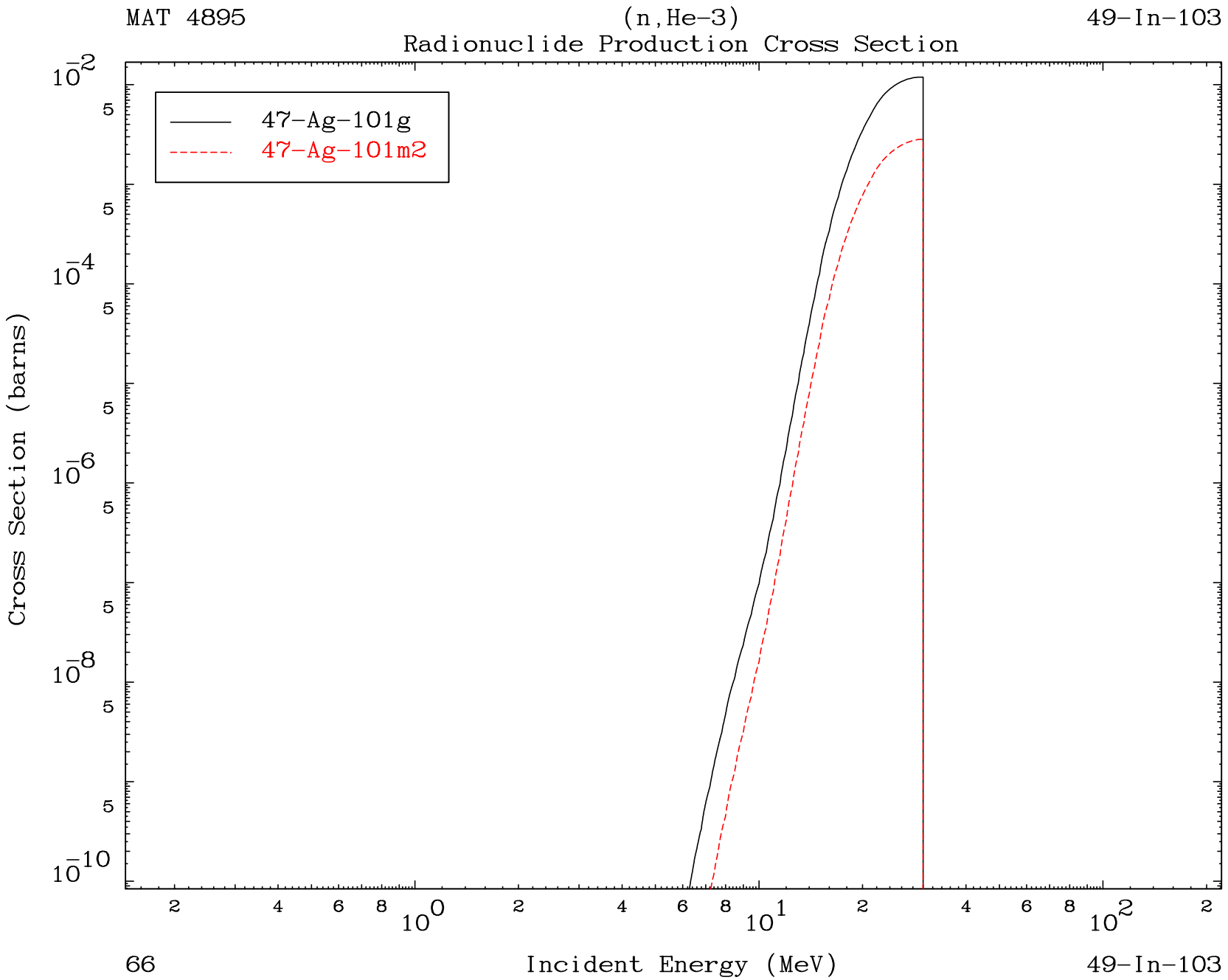

MAT 4895
(n,n') α
49-In-103
Radionuclide Production Cross Section
47-Ag-99g
47-Ag-99m2
Cross Section (barns)
Incident Energy (MeV)
61
49-In-103

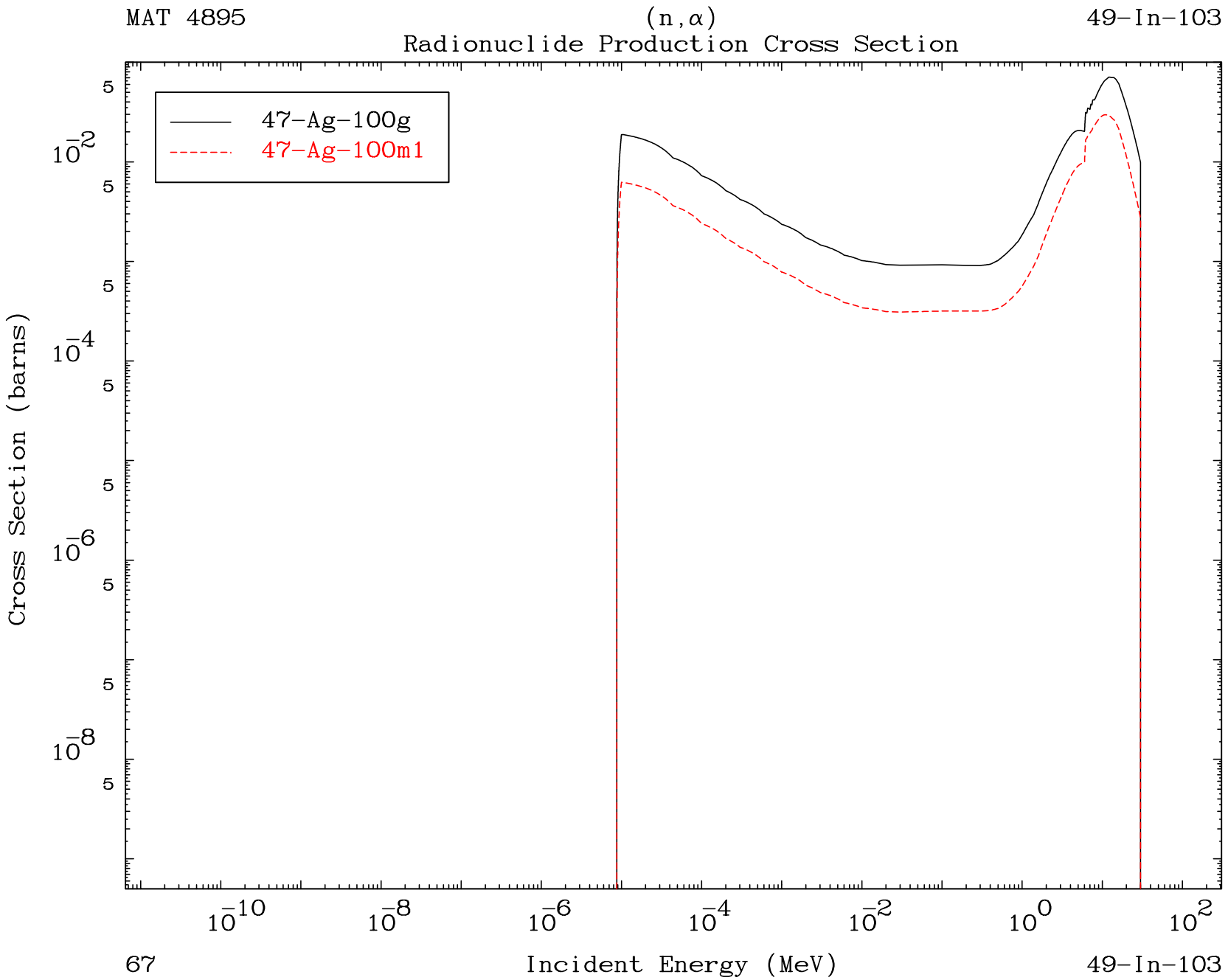

MAT 4895
(n,n') 2α
49-In-103
Radionuclide Production Cross Section
45-Rh-95g
45-Rh-95m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
2
4
6
8
10^1
10^2
62
Incident Energy (MeV)
49-In-103

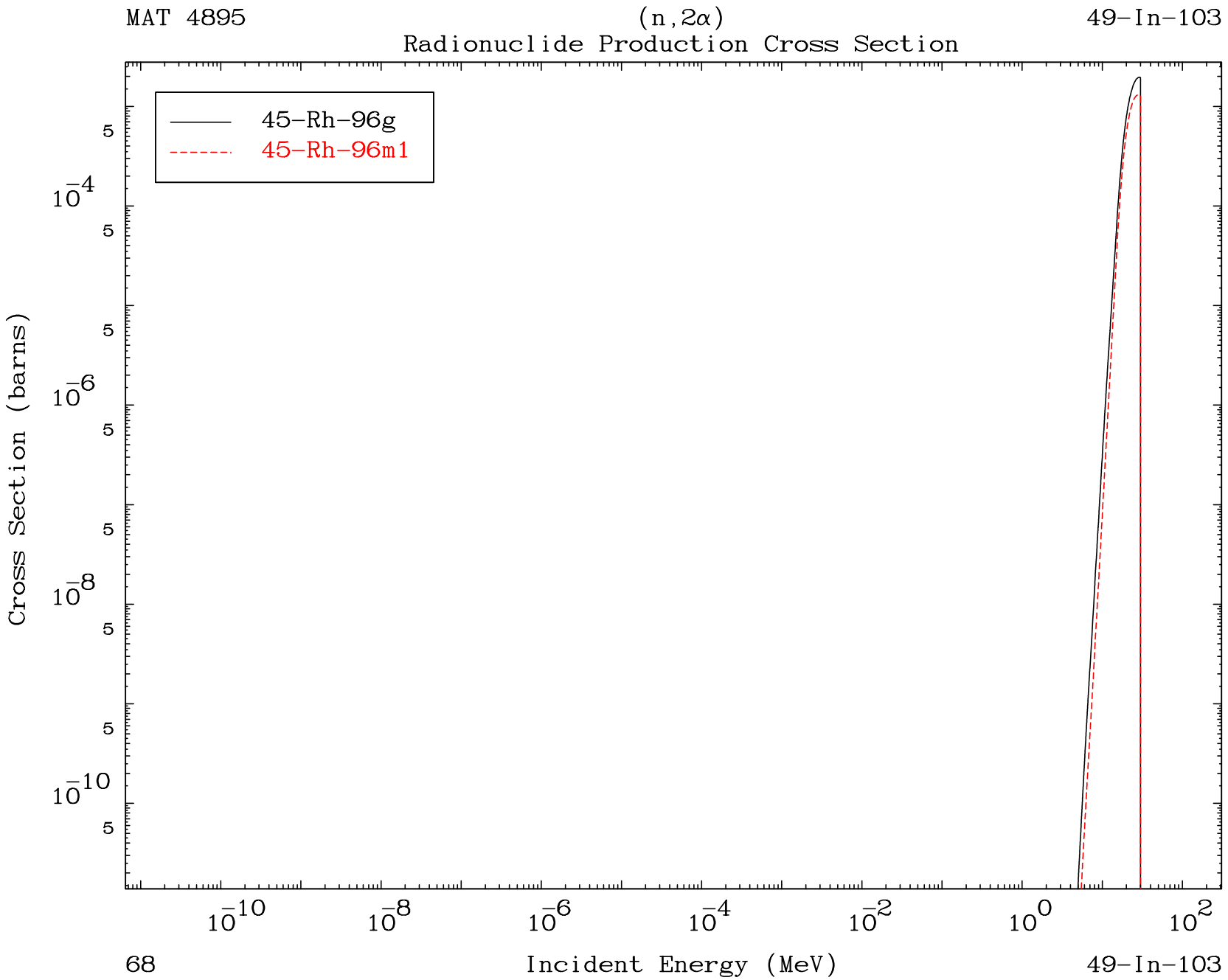

MAT 4895
(n,n') He-3
49-In-103
Radionuclide Production Cross Section
47-Ag-100g
47-Ag-100m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
2
3
4
5
6
7
8
9
10^2
2
63
Incident Energy (MeV)
49-In-103

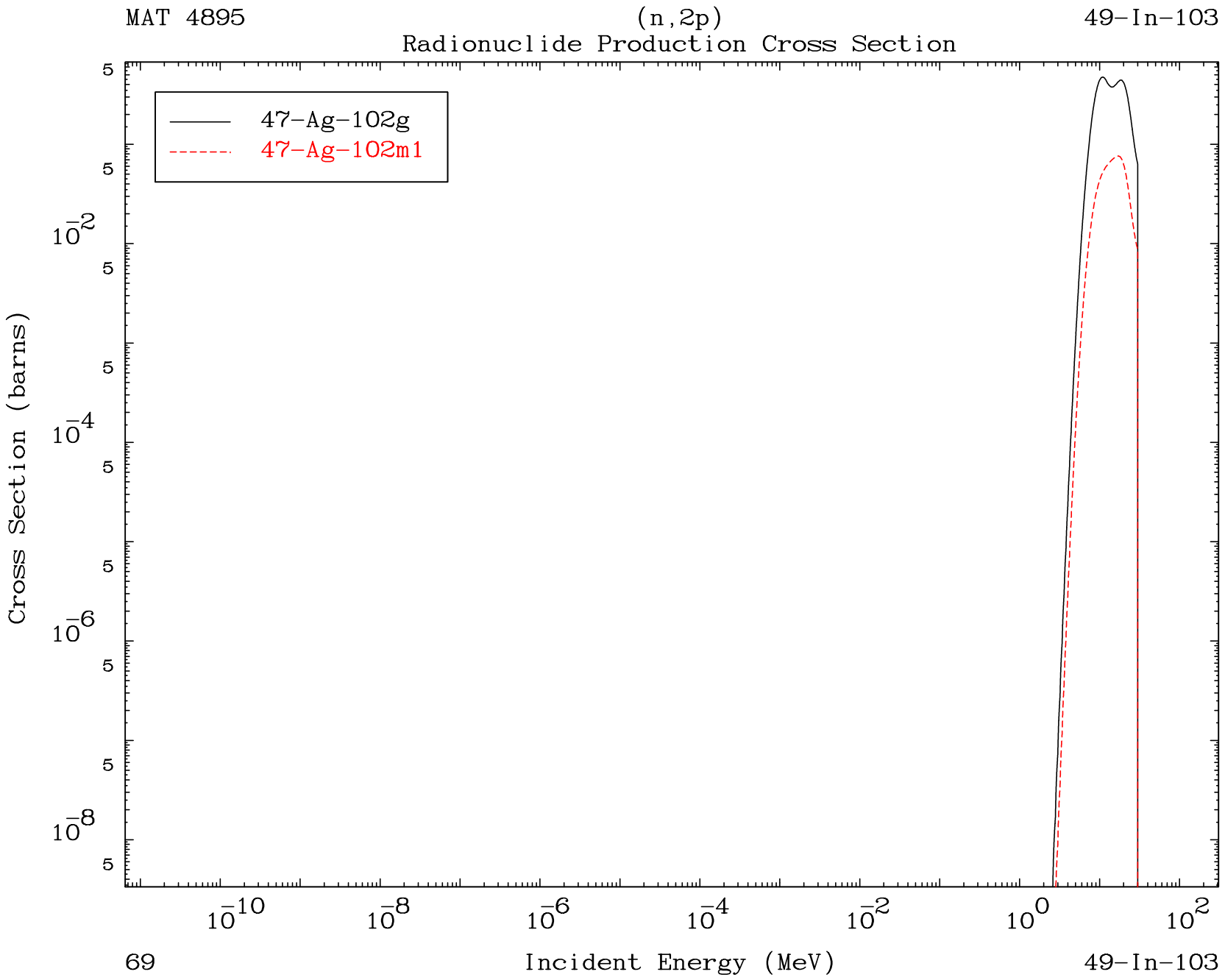

MAT 4895
(n,2n) p
49-In-103
Radionuclide Production Cross Section
47-Ag-101g
47-Ag-101m2
Cross Section (barns)
Incident Energy (MeV)
64
49-In-103

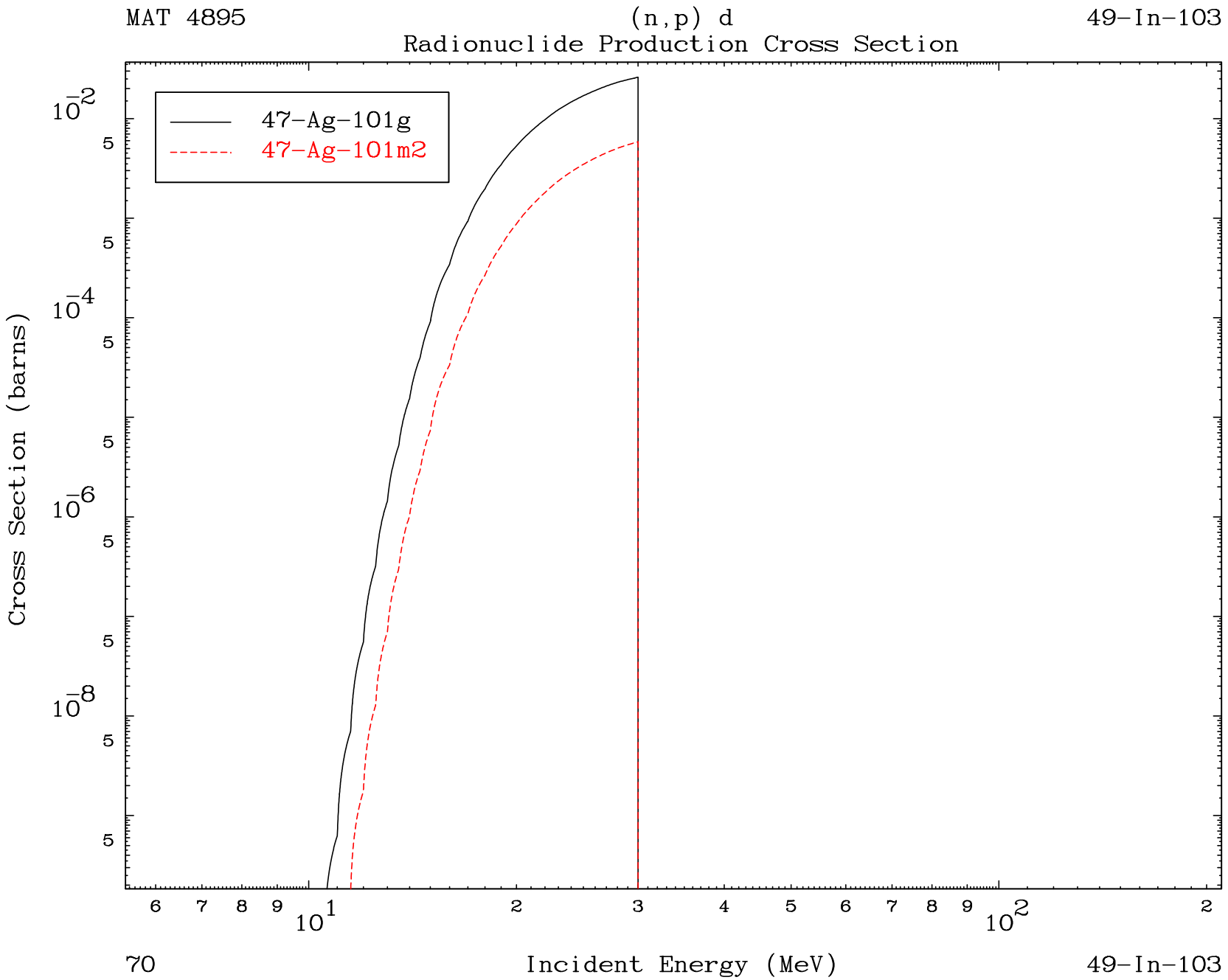

MAT 4895
(n,γ)
49-In-103
Radionuclide Production Cross Section
49-In-104g
49-In-104m3
Cross Section (barns)
10^2
10^0
10^-2
10^-4
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
65
Incident Energy (MeV)
49-In-103

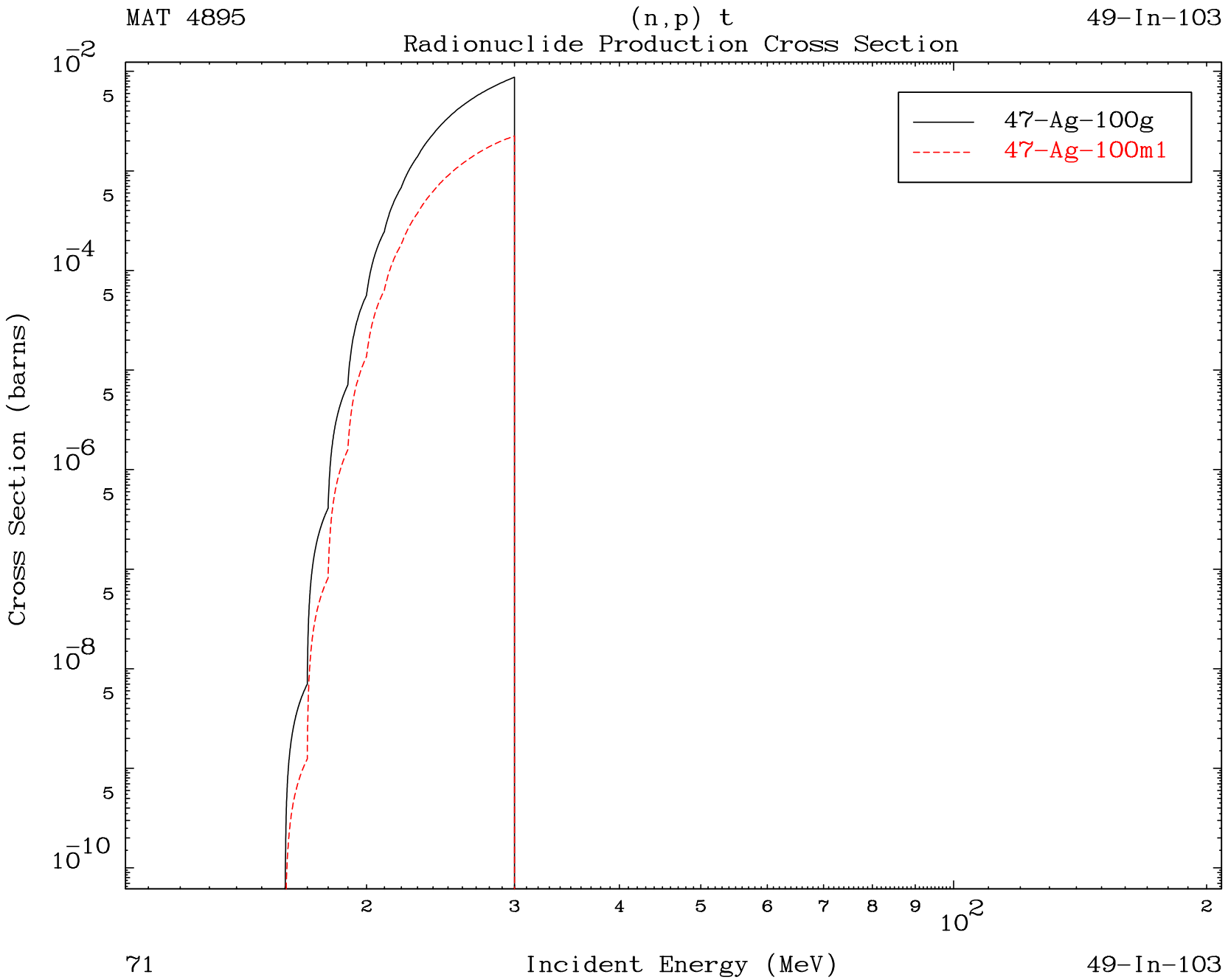

MAT 4895
(n,He-3)
49-In-103
Radionuclide Production Cross Section
47-Ag-101g
47-Ag-101m2
Cross Section (barns)
Incident Energy (MeV)
66
49-In-103


MAT 4895
(n,α)
49-In-103
Radionuclide Production Cross Section
47-Ag-100g
47-Ag-100m1
Cross Section (barns)
Incident Energy (MeV)
67
49-In-103


MAT 4895
(n,2α)
49-In-103
Radionuclide Production Cross Section
45-Rh-96g
45-Rh-96m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
68
Incident Energy (MeV)
49-In-103


MAT 4895
(n,2p)
49-In-103
Radionuclide Production Cross Section
47-Ag-102g
47-Ag-102m1
Cross Section (barns)
Incident Energy (MeV)
69
49-In-103


MAT 4895
(n,p) d
49-In-103
Radionuclide Production Cross Section
47-Ag-101g
47-Ag-101m2
Cross Section (barns)
Incident Energy (MeV)
70
49-In-103


MAT 4895
(n,p) t
49-In-103
Radionuclide Production Cross Section
47-Ag-100g
47-Ag-100m1
Cross Section (barns)
Incident Energy (MeV)
71
49-In-103