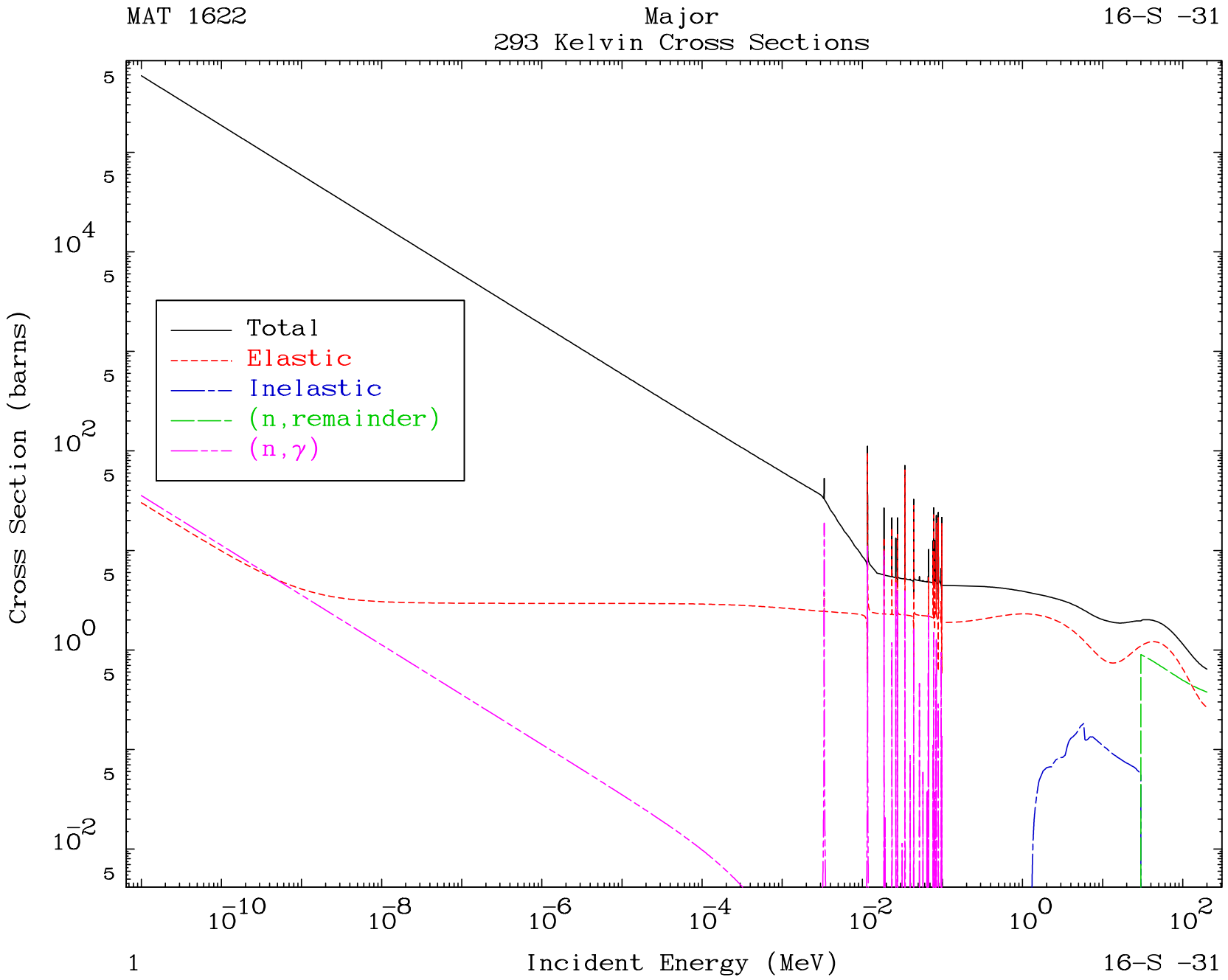
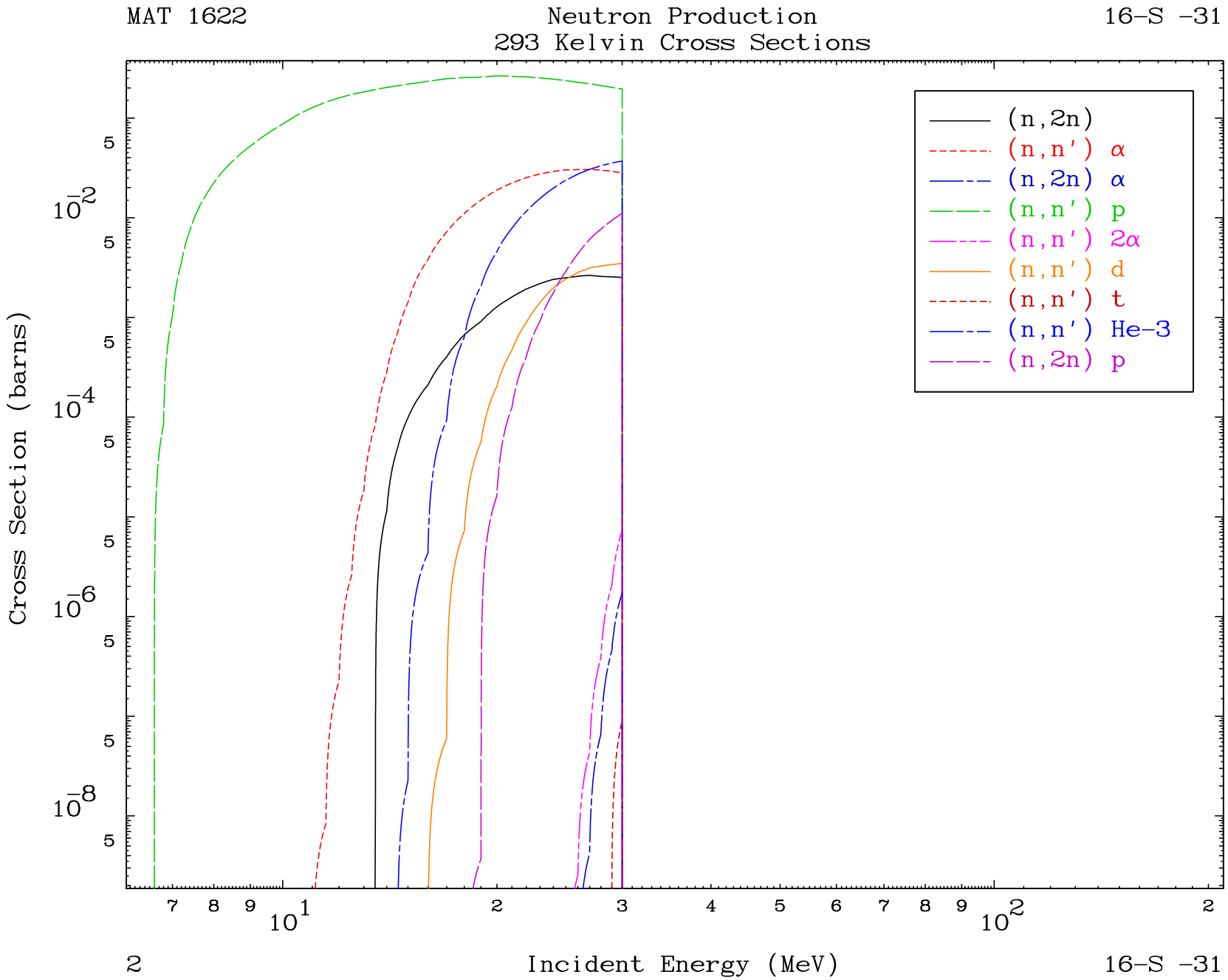
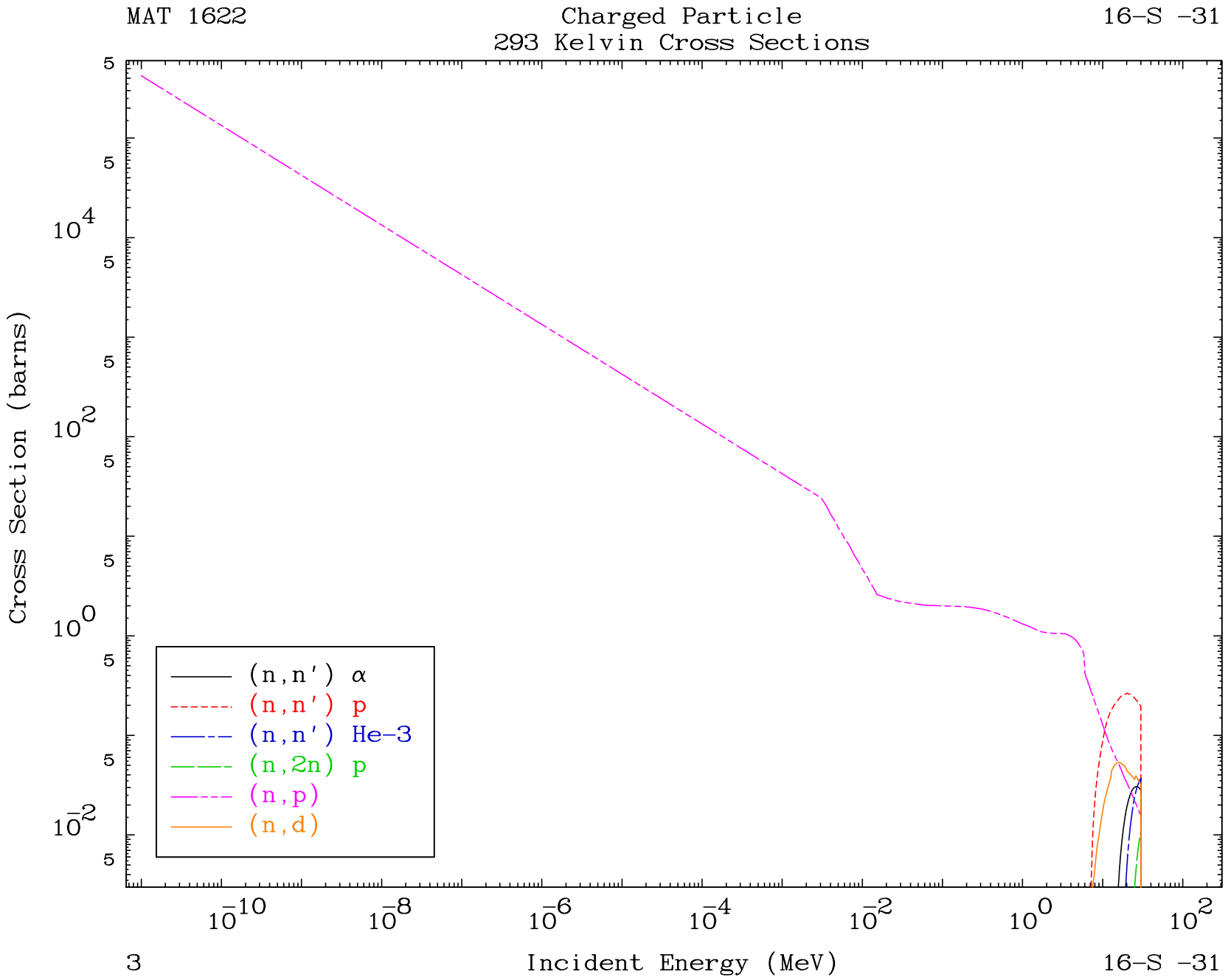
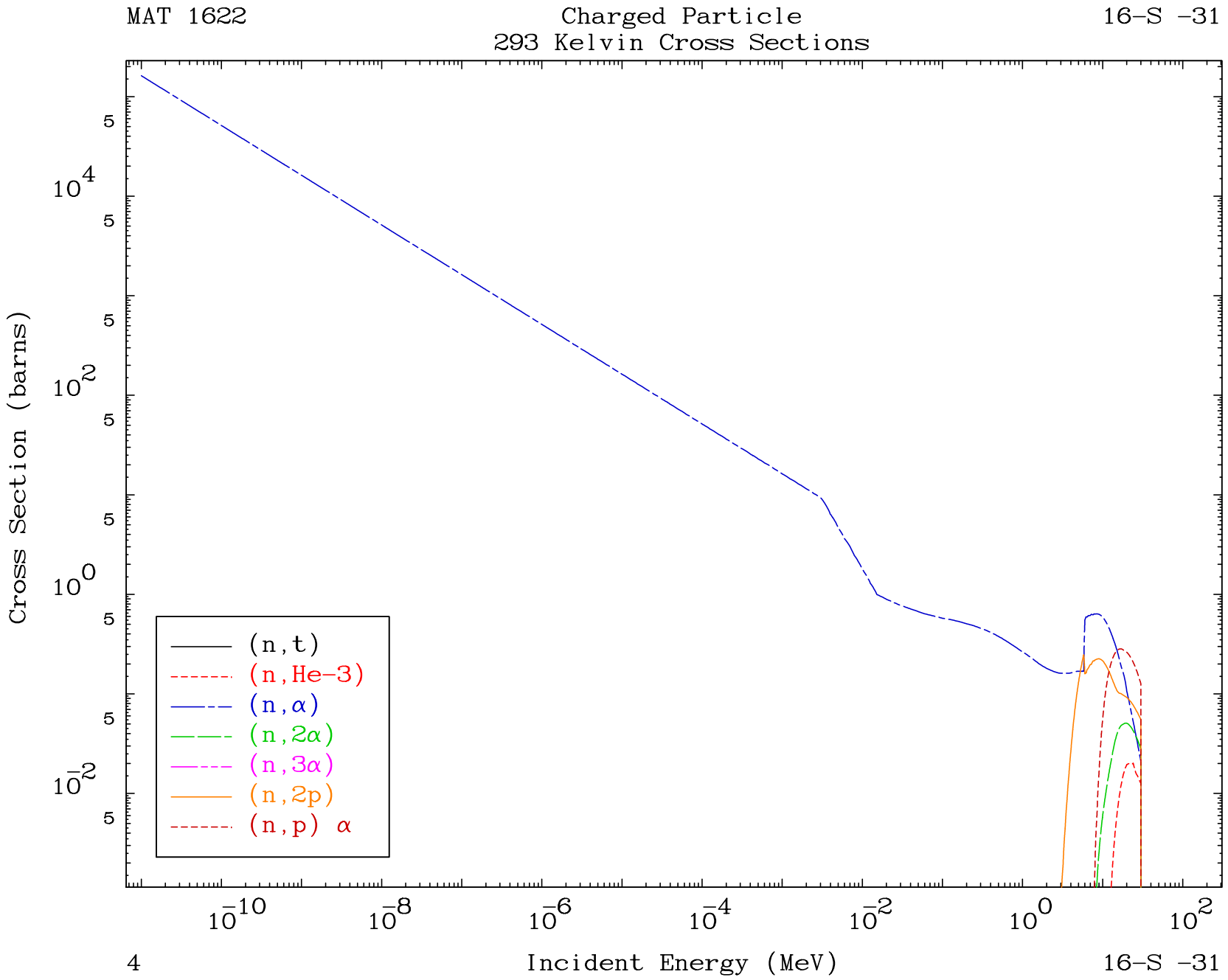
Program EVALPLOT
(Version 2018-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

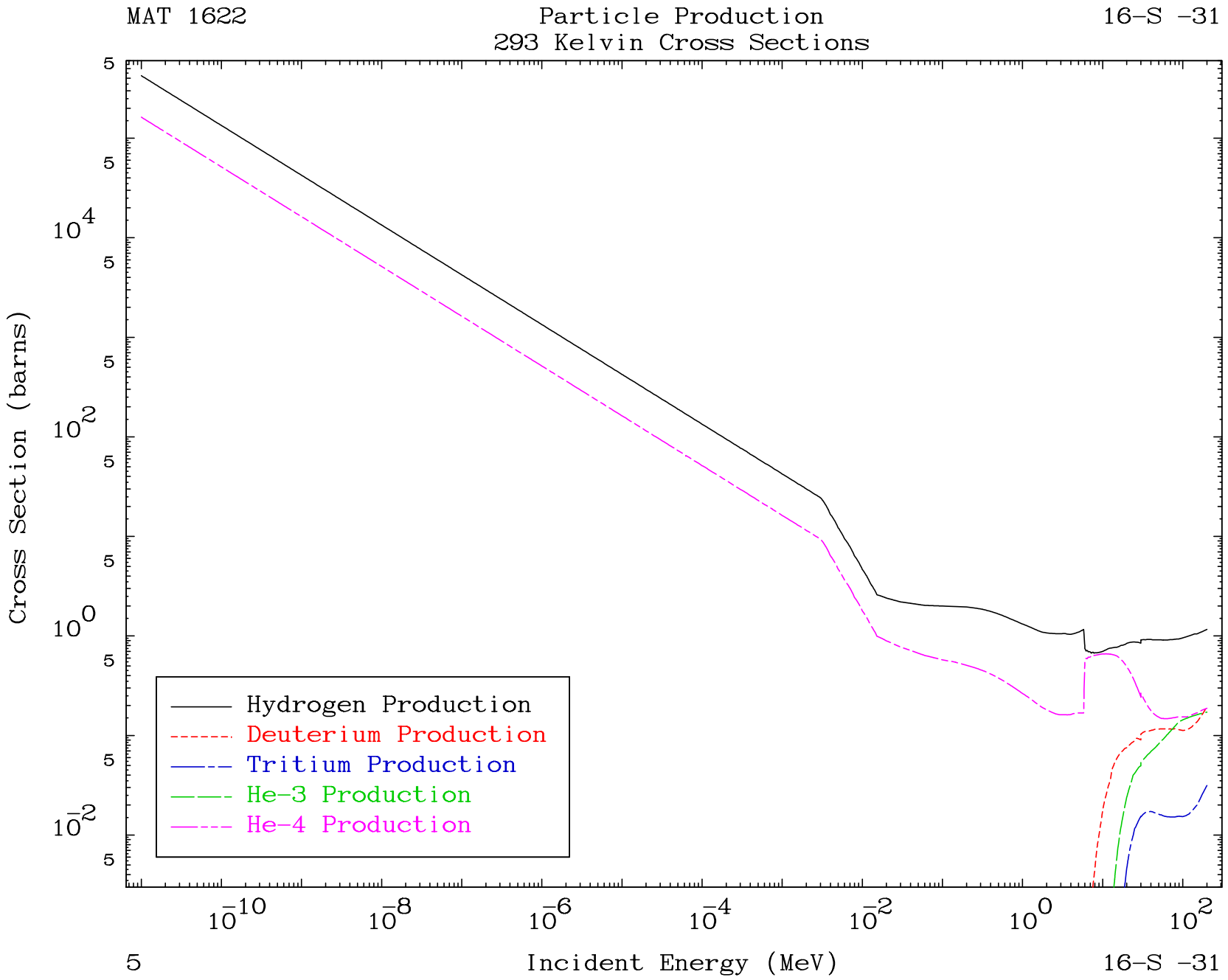
Press Mouse Button to Start

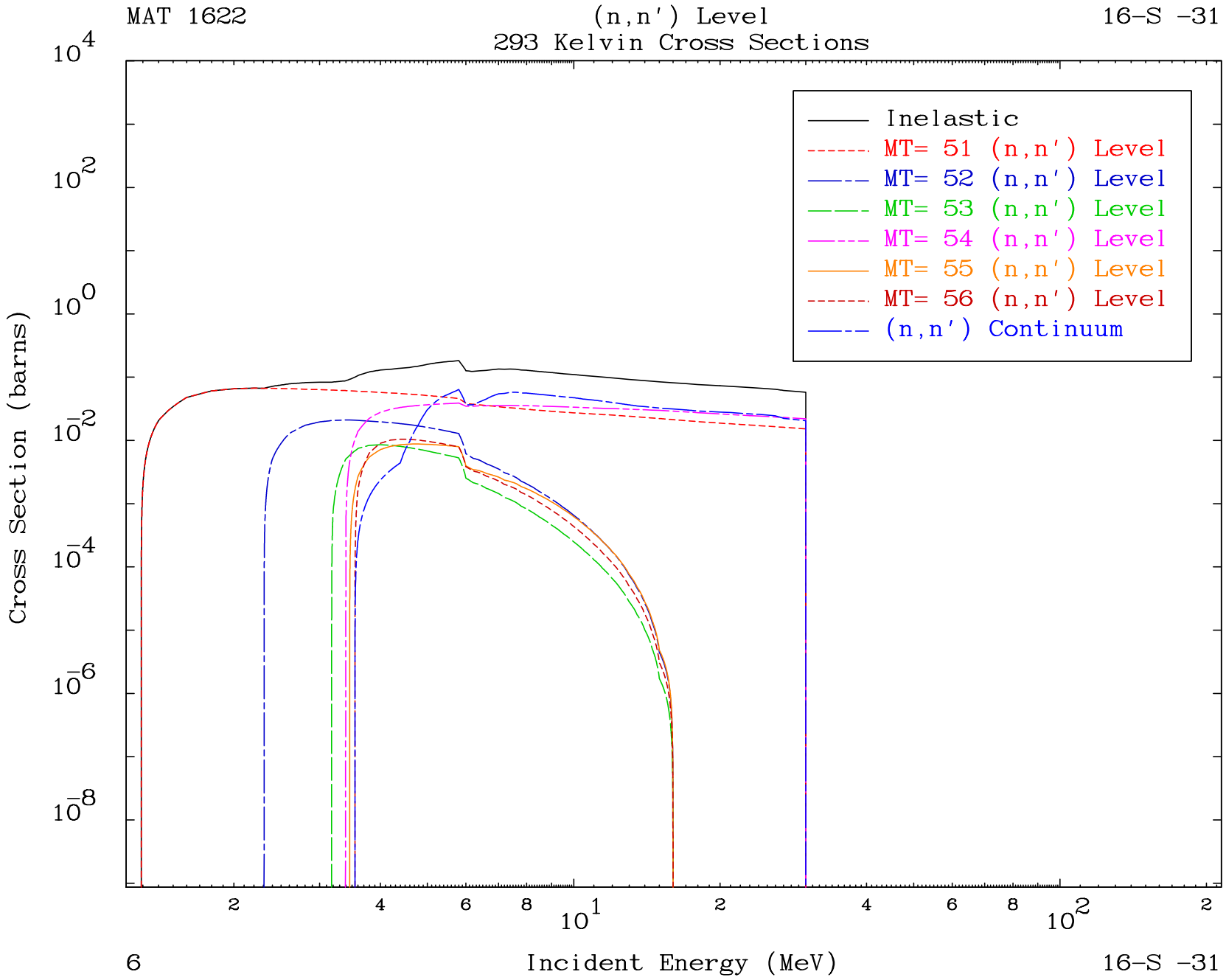

MAT 1622
Major
16-S -31
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
16-S -31

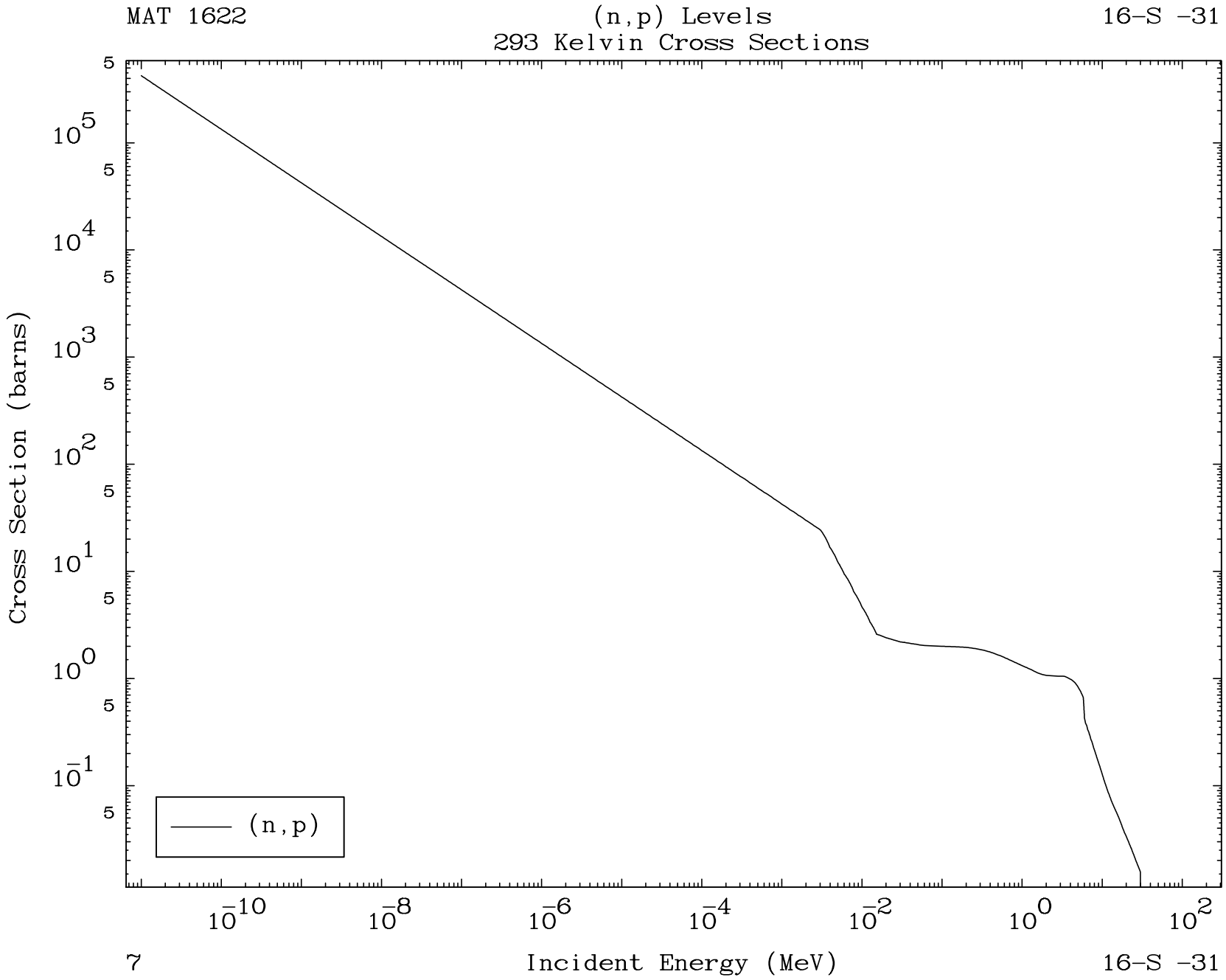

MAT 1622
Neutron Production
293 Kelvin Cross Sections
16-S -31
(n,2n)
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
Cross Section (barns)
Incident Energy (MeV)
2
16-S -31


MAT 1622
Charged Particle
16-S -31
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,n') p
(n,n') He-3
(n,2n) p
(n,p)
(n,d)
3
16-S -31

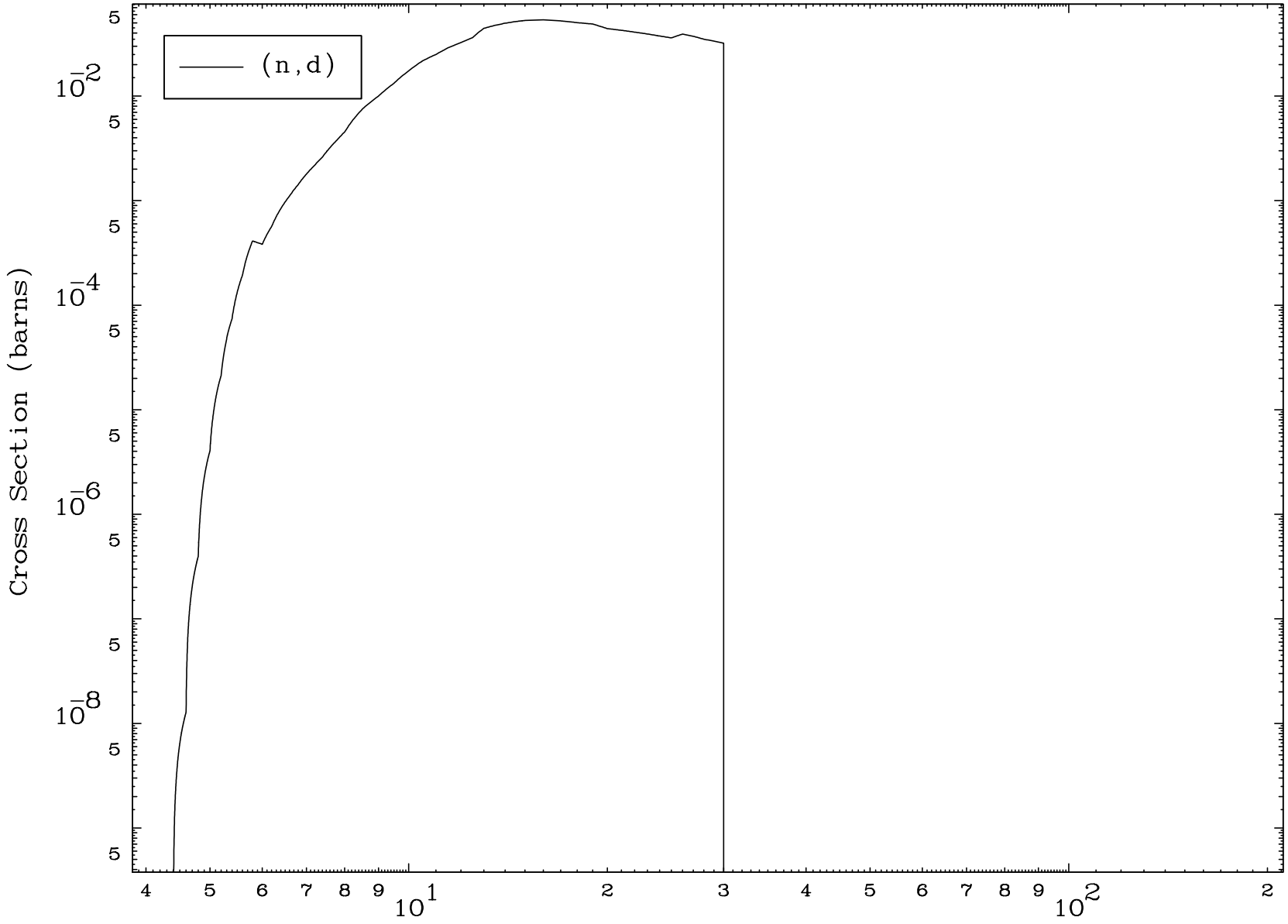

MAT 1622
Charged Particle
293 Kelvin Cross Sections
16-S -31
Cross Section (barns)
Incident Energy (MeV)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,3α)
(n,2p)
(n,p) α
4
16-S -31

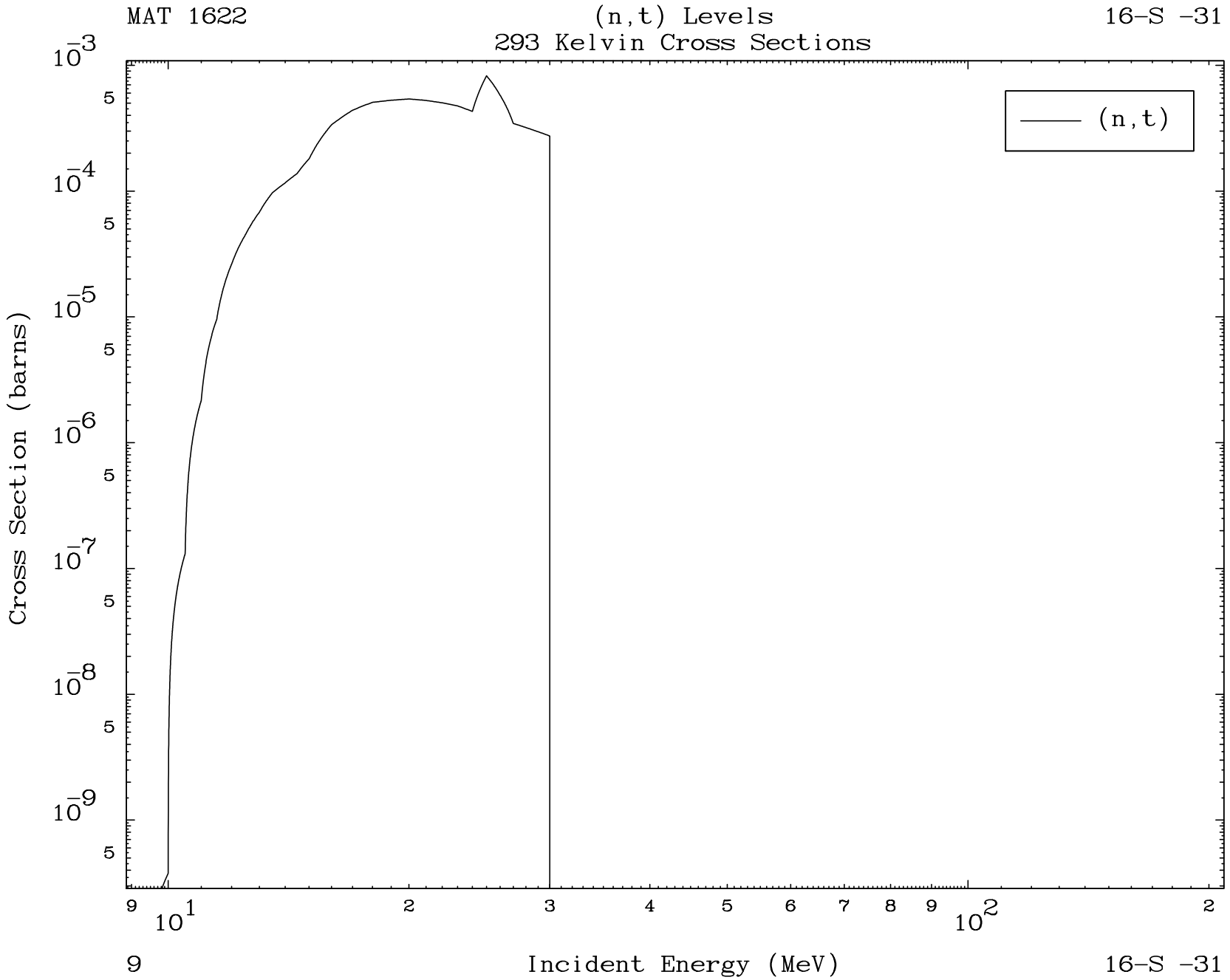

MAT 1622
Particle Production
293 Kelvin Cross Sections
16-S -31
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production

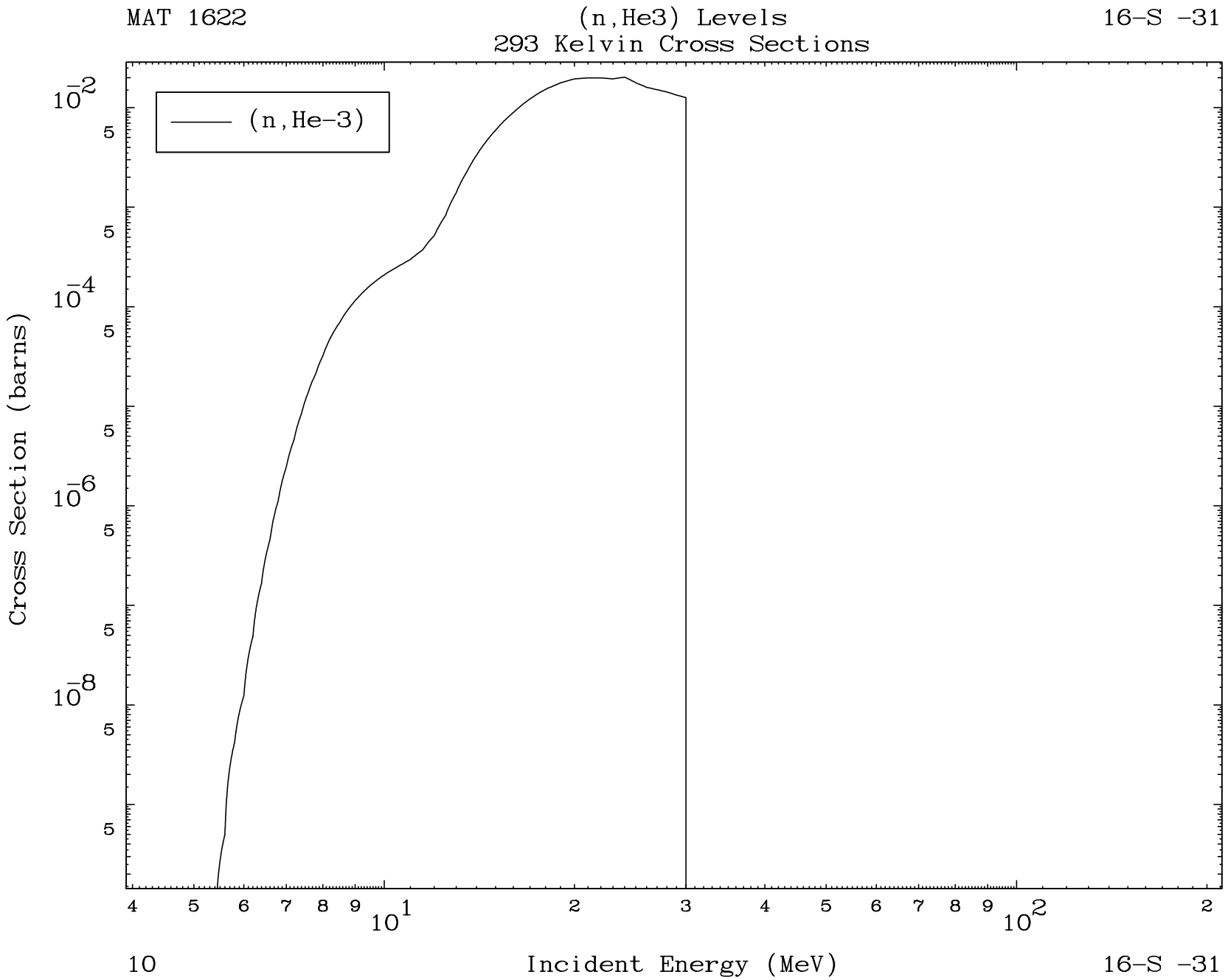

MAT 1622
(n,n') Level
16-S -31
293 Kelvin Cross Sections
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
6
16-S -31

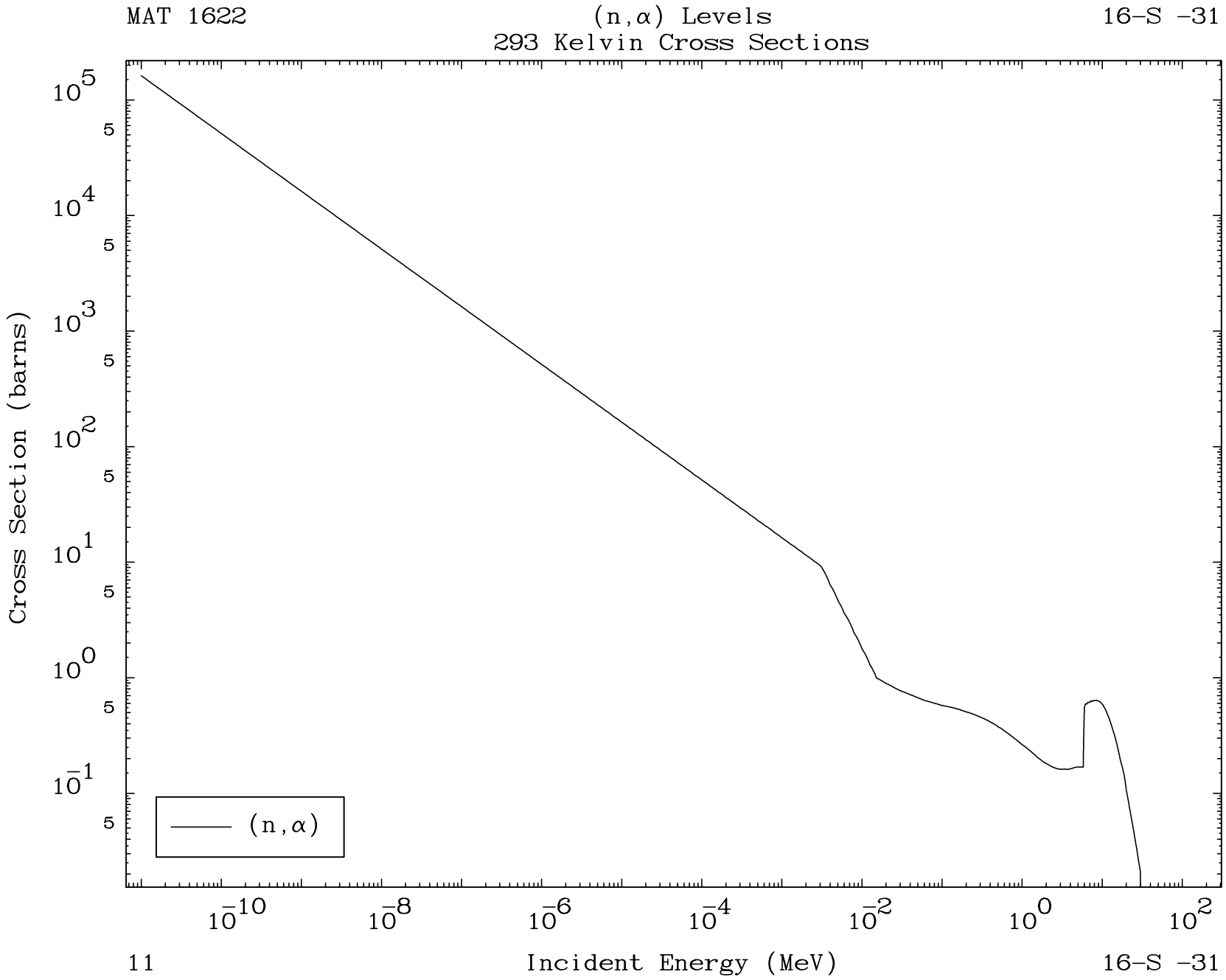

MAT 1622
(n,p) Levels
16-S -31
293 Kelvin Cross Sections
Cross Section (barns)
10^5
10^4
10^3
10^2
10^1
10^0
10^-1
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
7
16-S -31

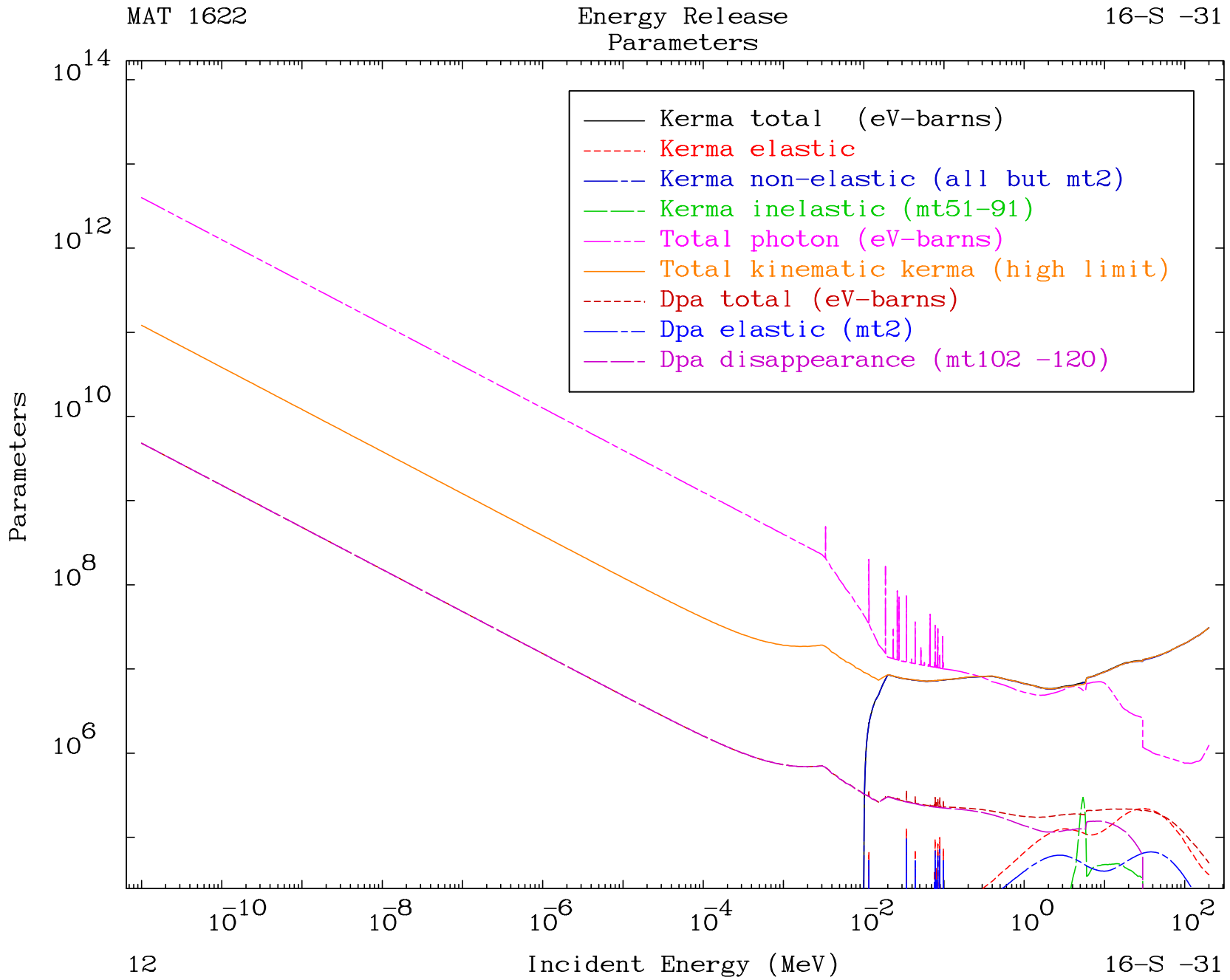
293 Kelvin Cross Sections

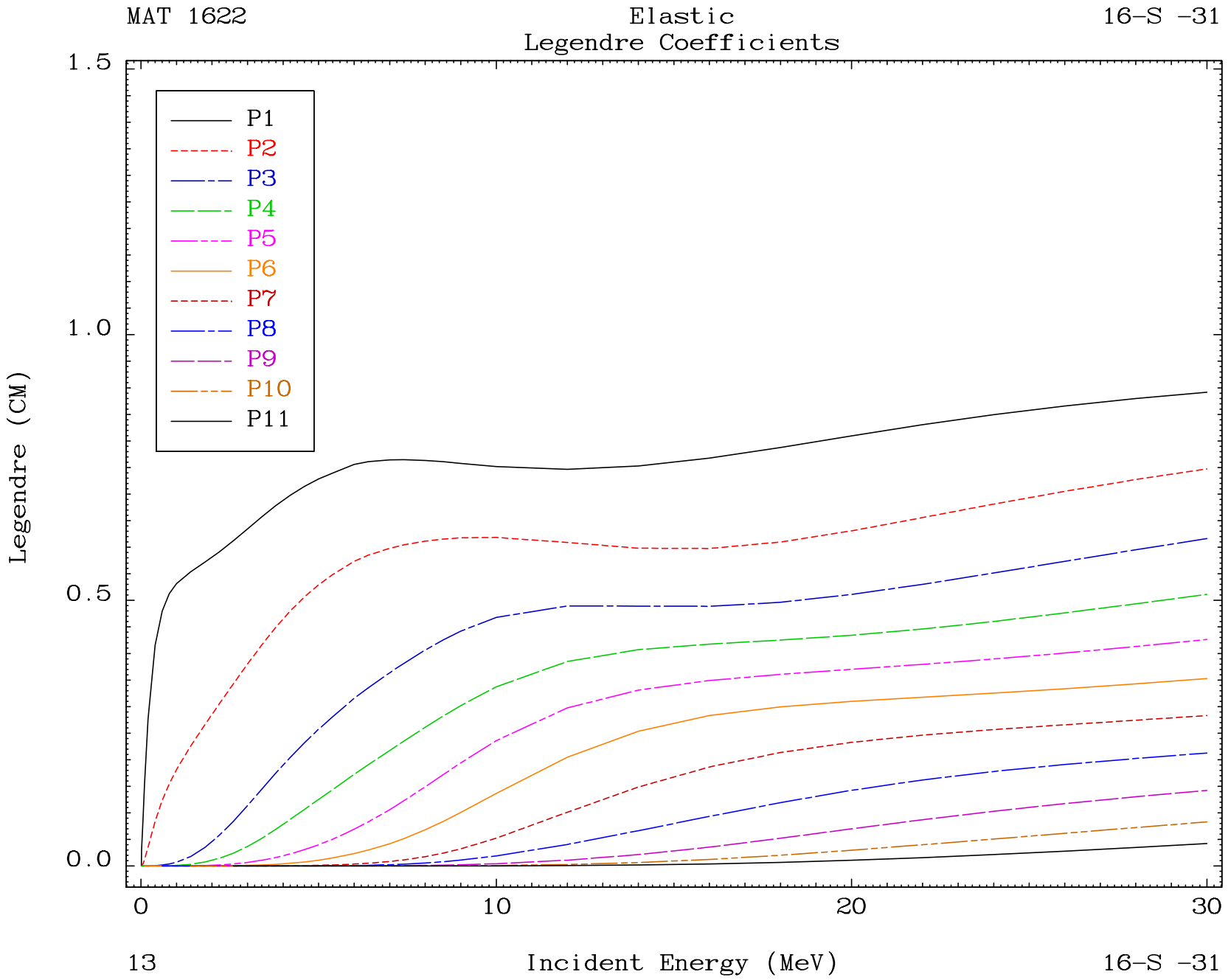


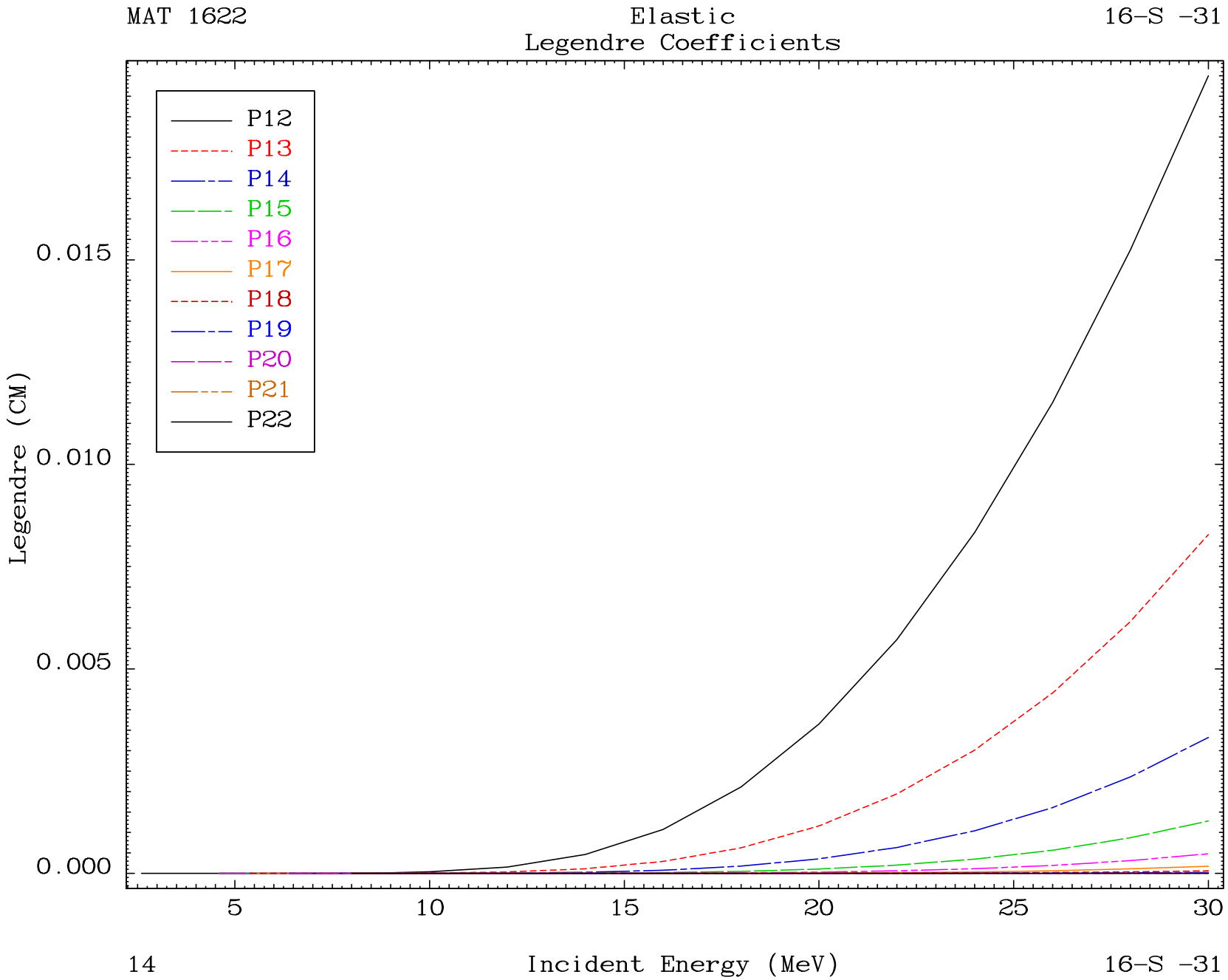

MAT 1622
(n,t) Levels
16-S -31
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
16-S -31

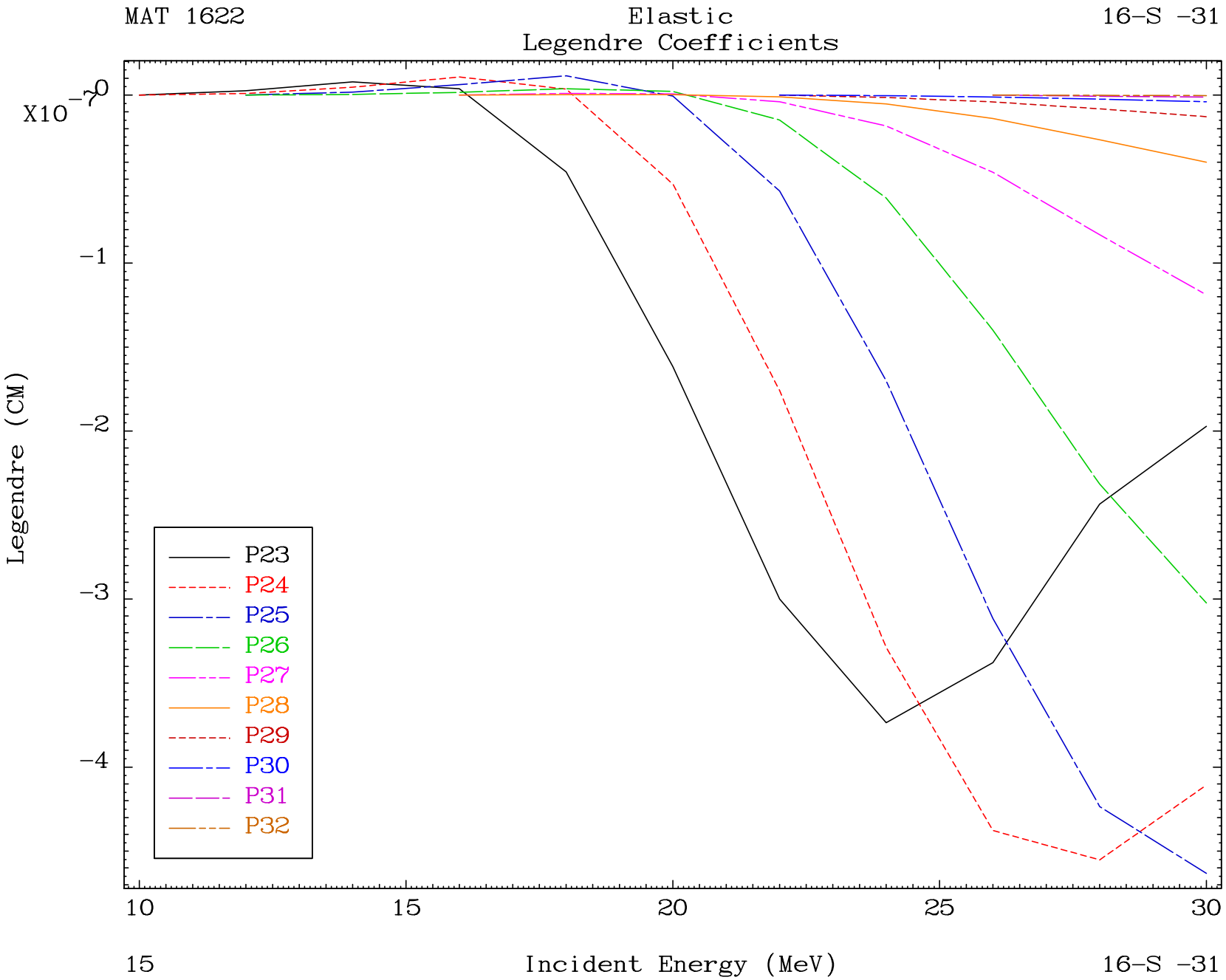

MAT 1622
(n,He3) Levels
16-S -31
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
5
4 5 6 7 8 9 10^1 2 3 4 5 6 7 8 9 10^2 2
10
Incident Energy (MeV)
16-S -31

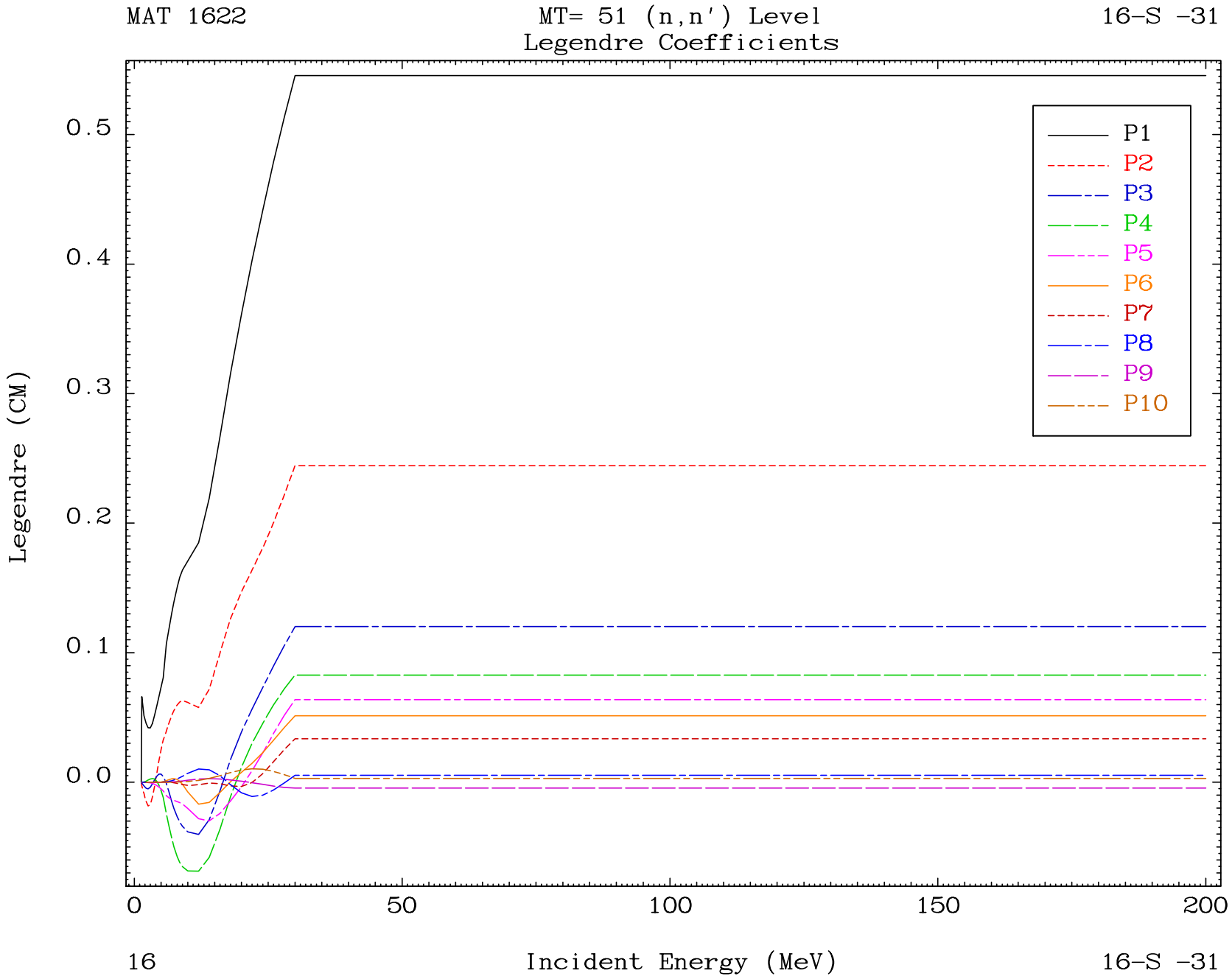

MAT 1622
(n,α) Levels
16-S -31
293 Kelvin Cross Sections
Cross Section (barns)
10^5
10^4
10^3
10^2
10^1
10^0
10^-1
(n,α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
11
16-S -31

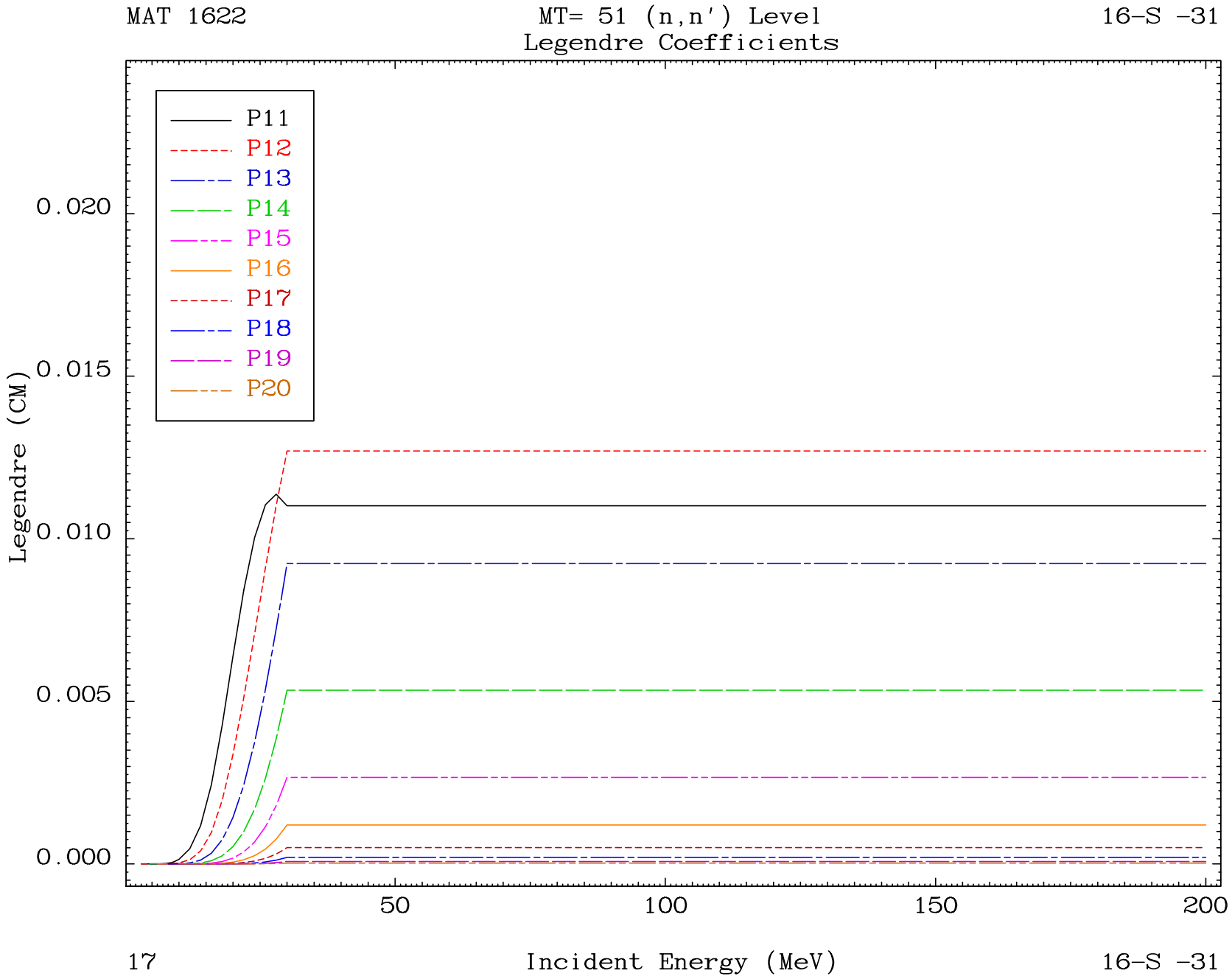

MAT 1622
Energy Release
Parameters
16-S -31
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa disappearance (mt102 -120)
Parameters
Incident Energy (MeV)
12
16-S -31

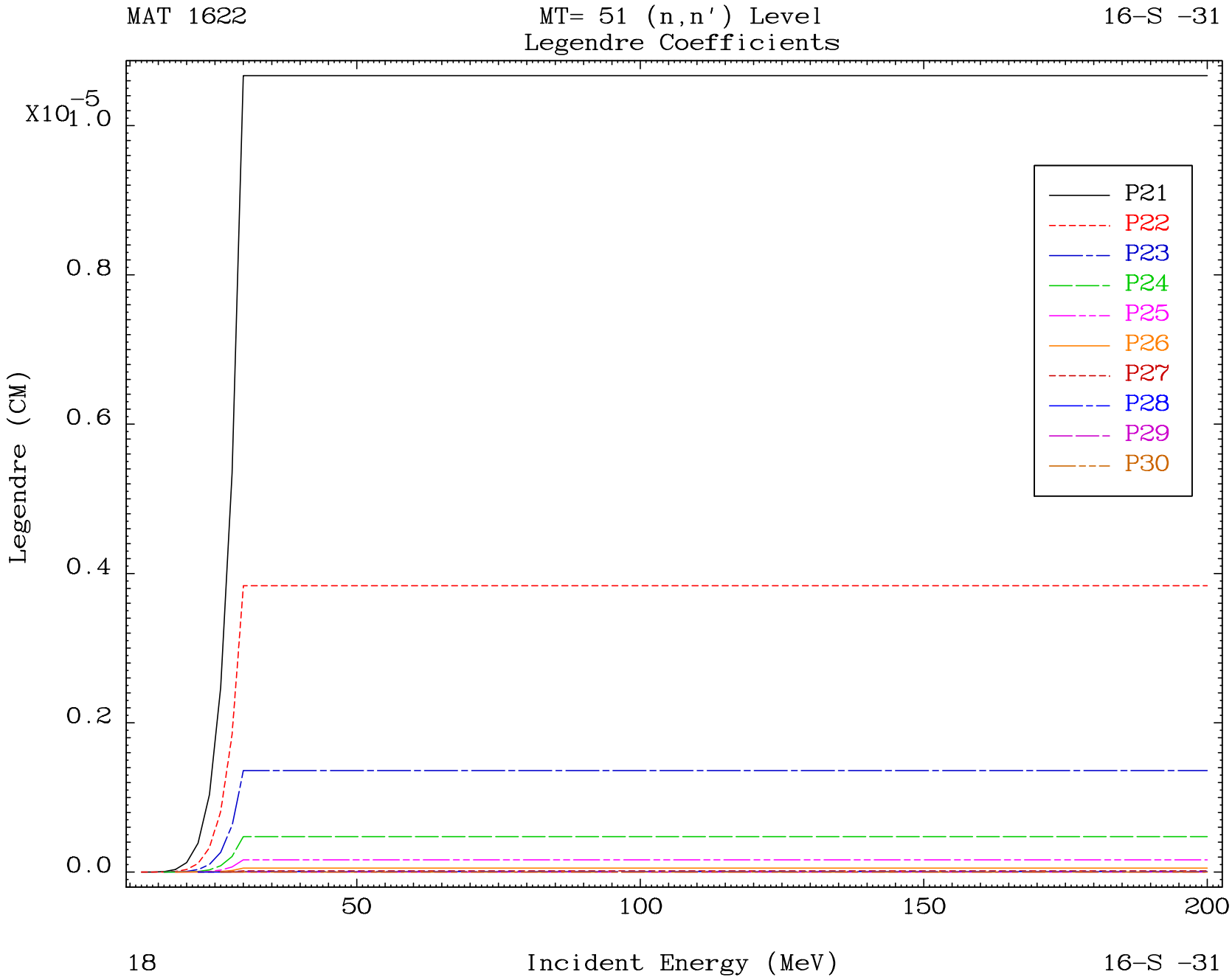

MAT 1622
Elastic
Legendre Coefficients
16-S -31
1.5
1.0
0.5
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
0
10
20
30
13
Incident Energy (MeV)
16-S -31

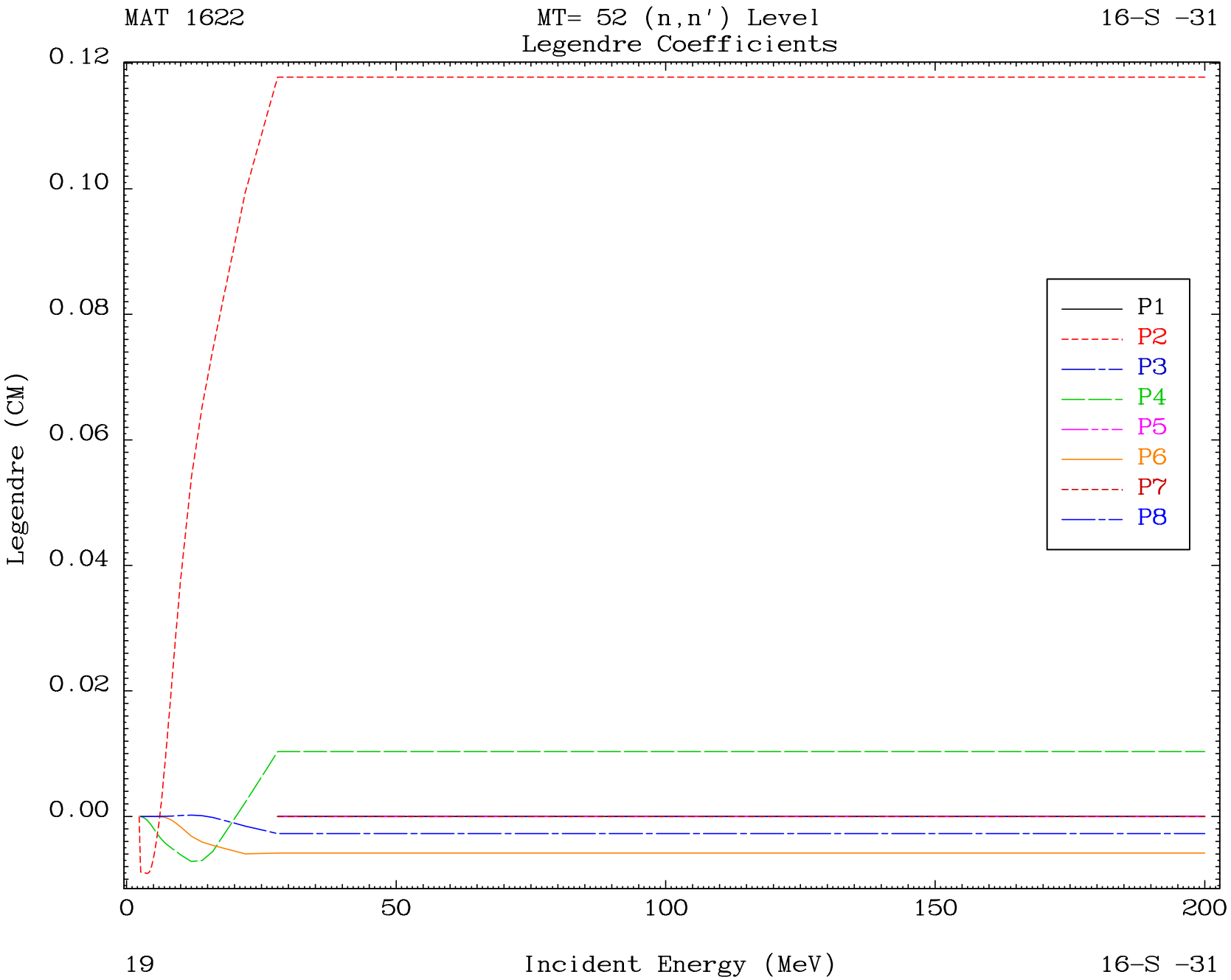

MAT 1622
Elastic
Legendre Coefficients
16-S -31
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
Legendre (CM)
0.015
0.010
0.005
0.000
5
10
15
20
25
30
14
Incident Energy (MeV)
16-S -31

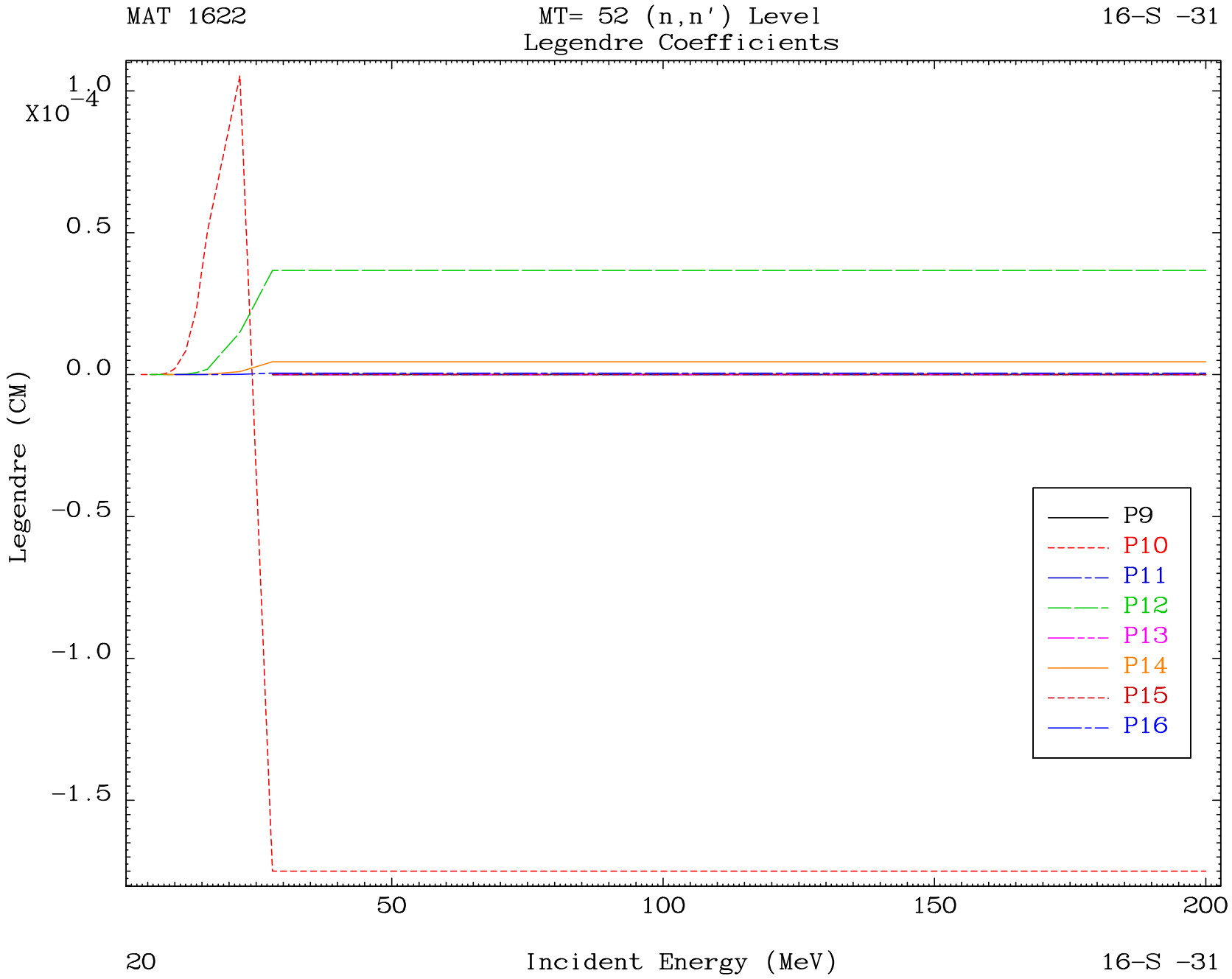

MAT 1622
Elastic
16-S -31
Legendre Coefficients
X10^-0
-1
-2
-3
-4
Legendre (CM)
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32
10
15
20
25
30
15
Incident Energy (MeV)
16-S -31

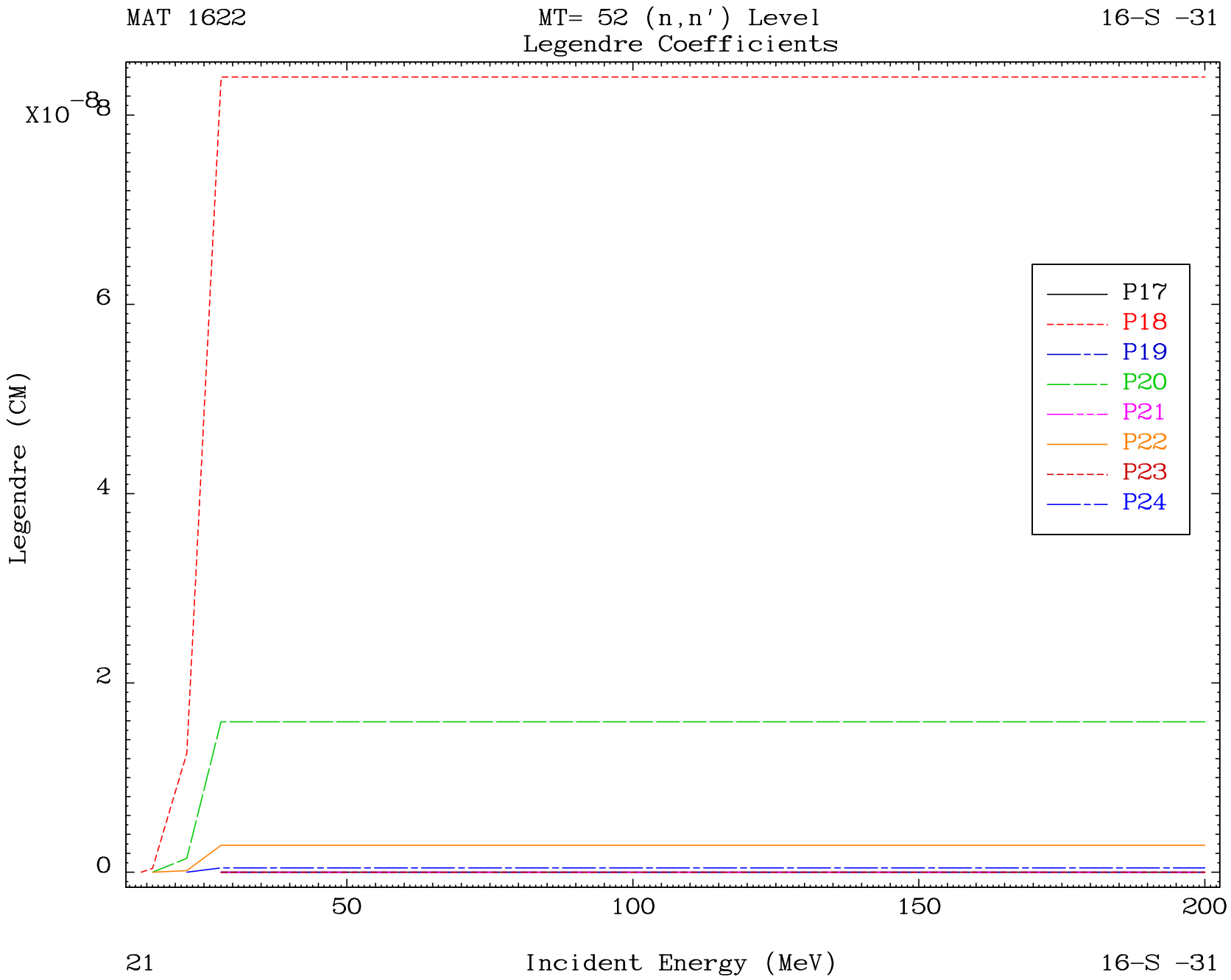

MAT 1622
MT= 51 (n,n') Level
Legendre Coefficients
16-S -31
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
16
Incident Energy (MeV)
16-S -31
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

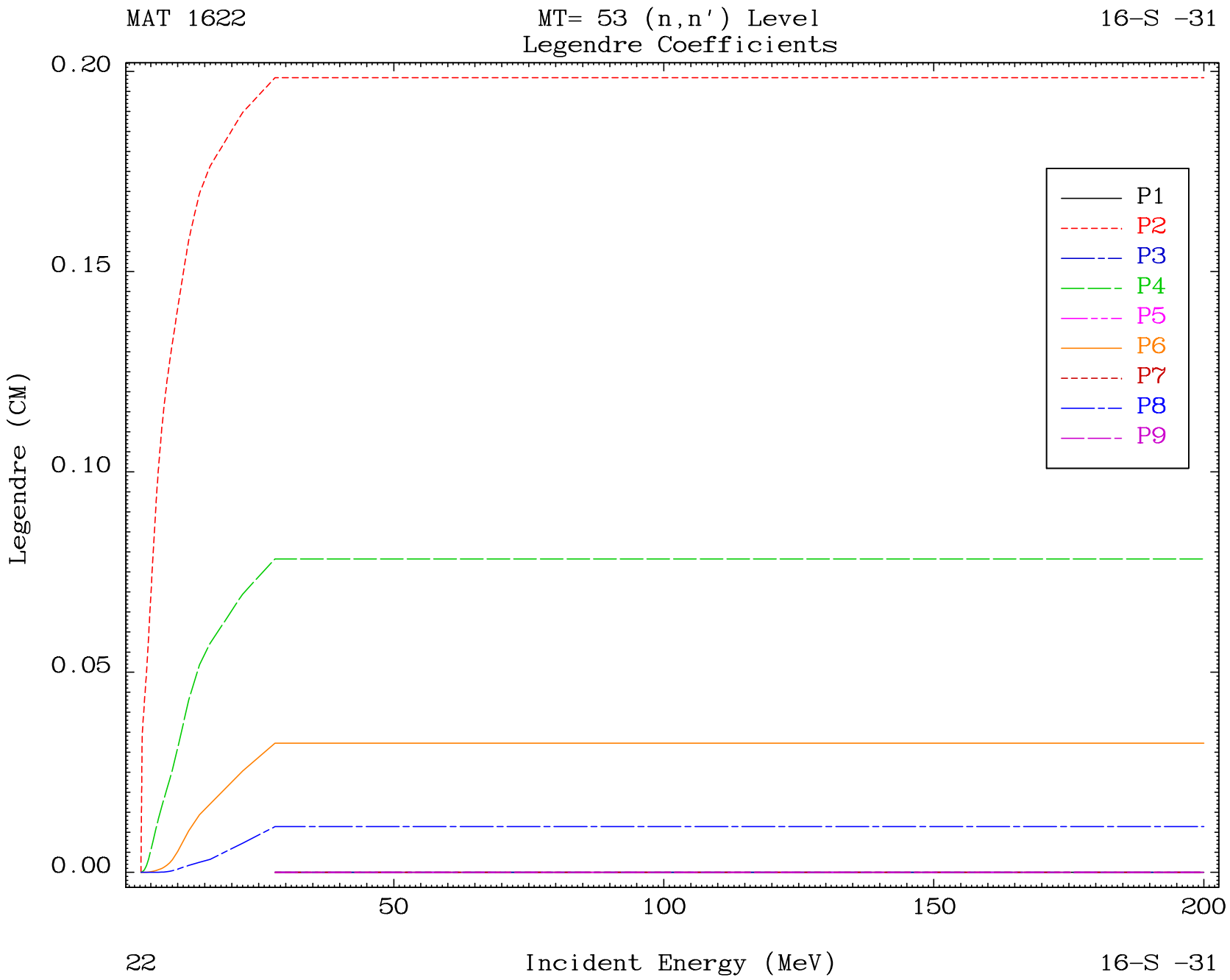

MAT 1622
MT= 51 (n,n') Level
Legendre Coefficients
16-S -31
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
17
Incident Energy (MeV)
16-S -31

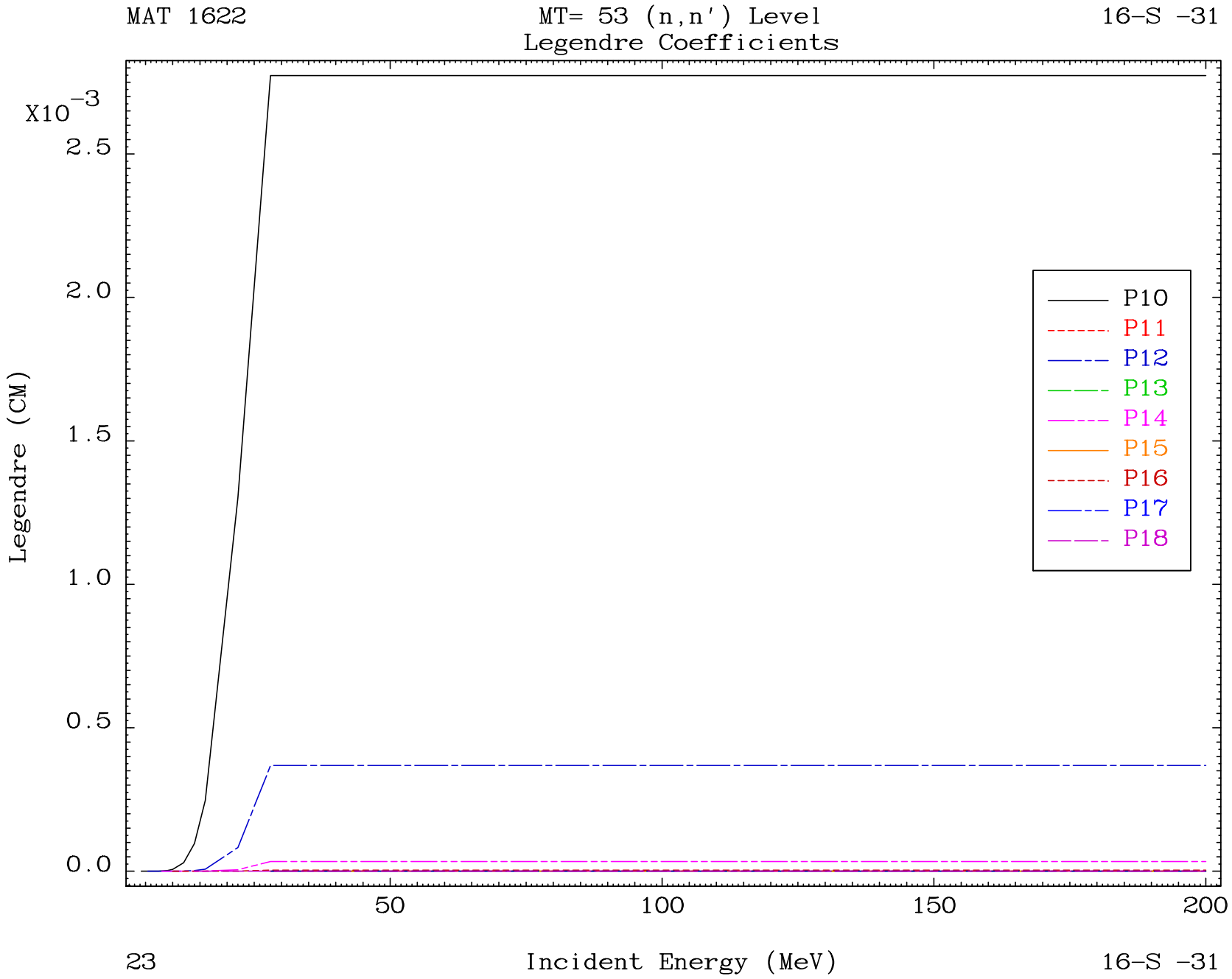

MAT 1622
MT= 51 (n,n') Level
Legendre Coefficients
16-S -31
X10 -5
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
18
Incident Energy (MeV)
16-S -31
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30

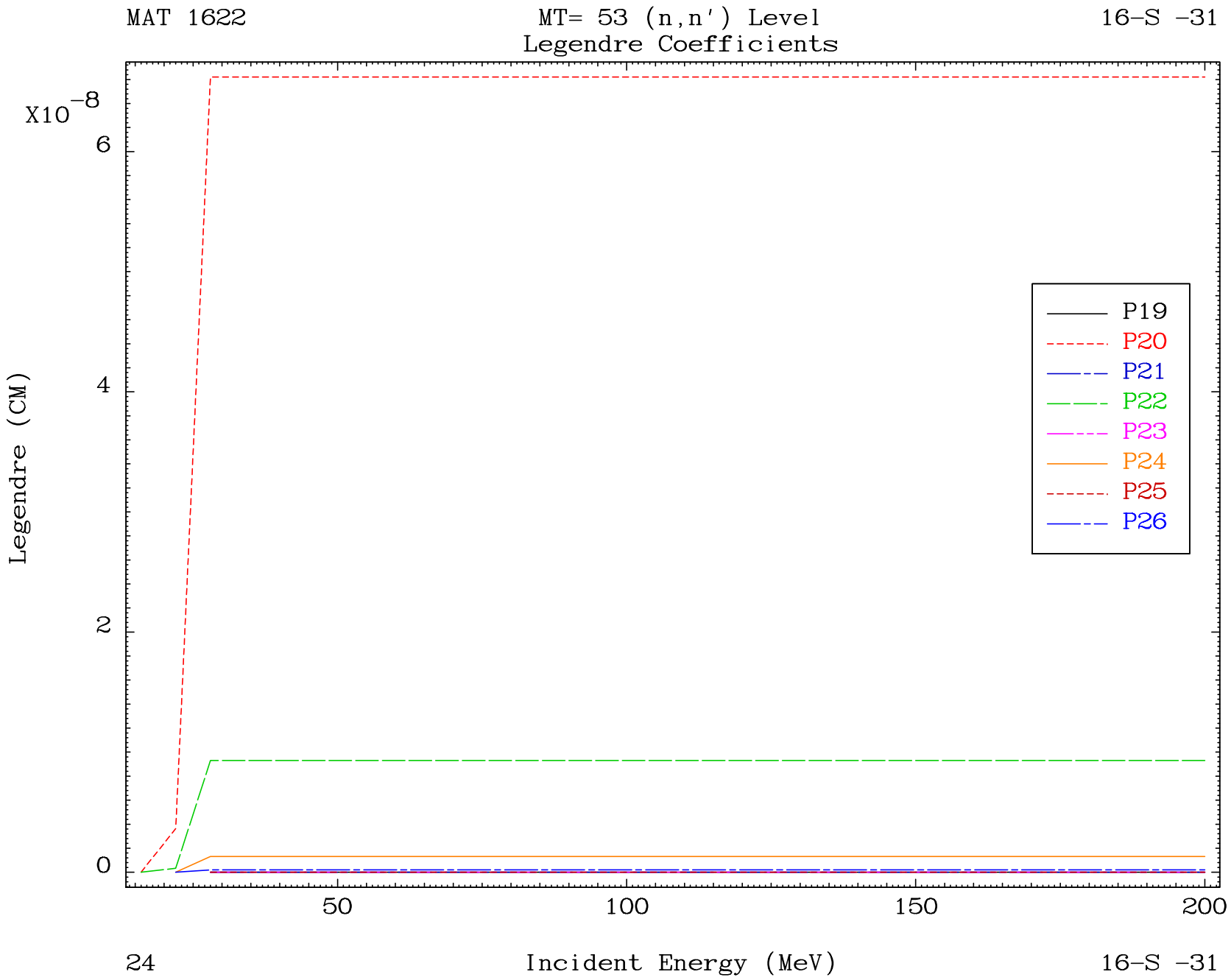

MAT 1622
MT= 52 (n,n') Level
Legendre Coefficients
16-S -31
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Legendre (CM)
0
50
100
150
200
19
Incident Energy (MeV)
16-S -31
P1
P2
P3
P4
P5
P6
P7
P8

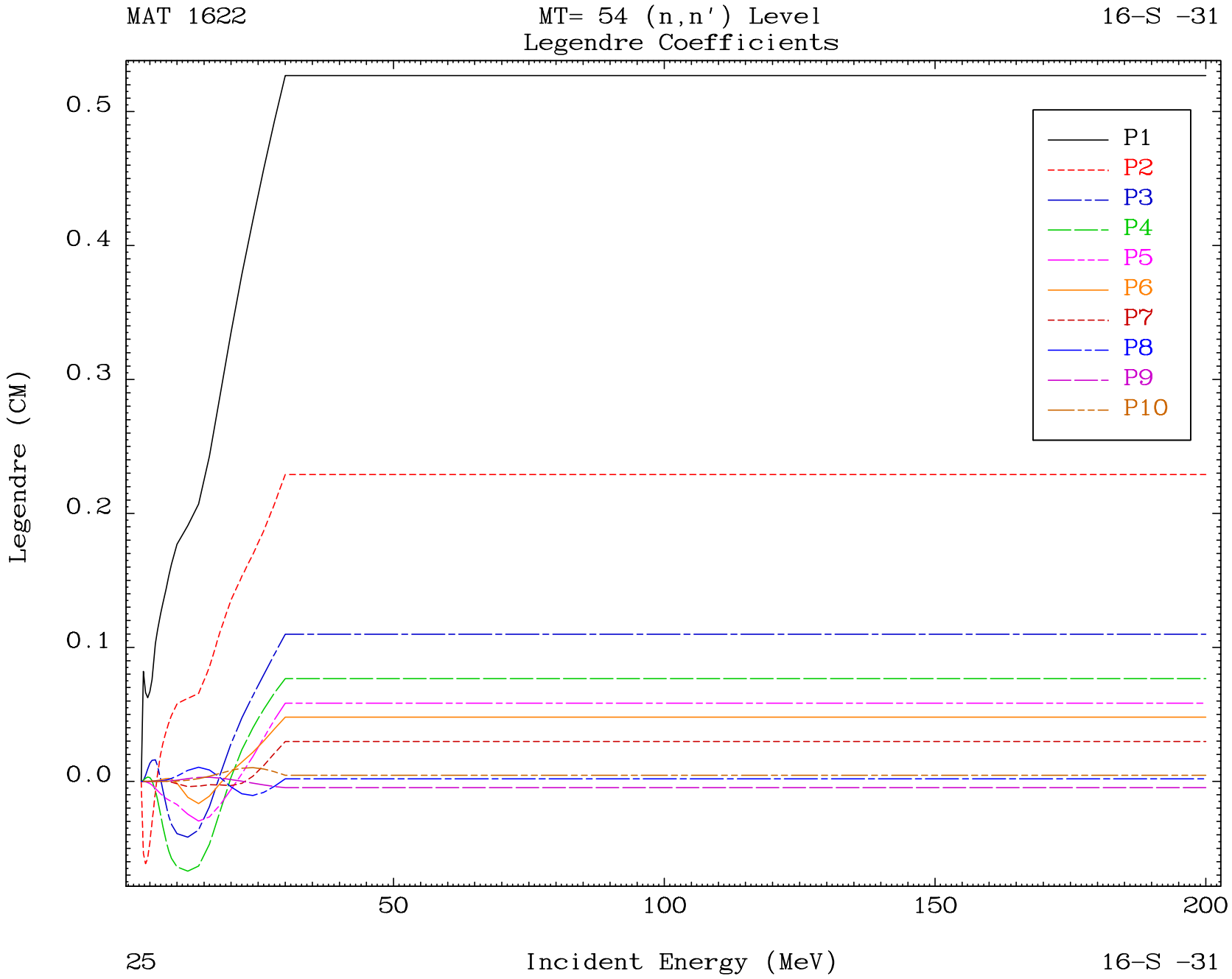

MAT 1622
MT= 52 (n,n') Level
Legendre Coefficients
16-S -31
X10^-4
1.0
0.5
0.0
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
20
Incident Energy (MeV)
16-S -31
P9
P10
P11
P12
P13
P14
P15
P16

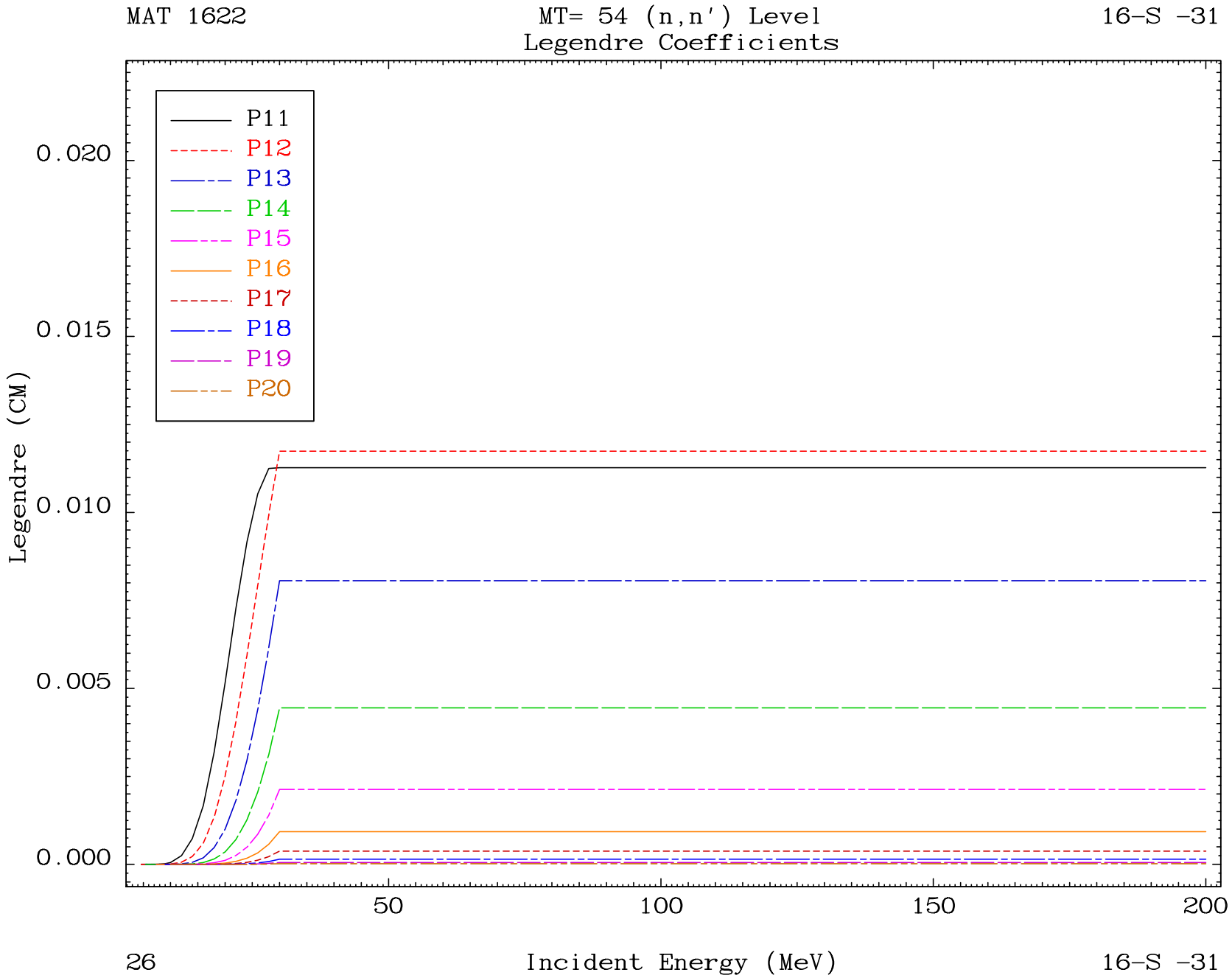

MAT 1622
MT= 52 (n,n') Level
Legendre Coefficients
16-S -31
X10 -8
8
6
4
2
0
Legendre (CM)
50
100
150
200
21
Incident Energy (MeV)
16-S -31
P17
P18
P19
P20
P21
P22
P23
P24

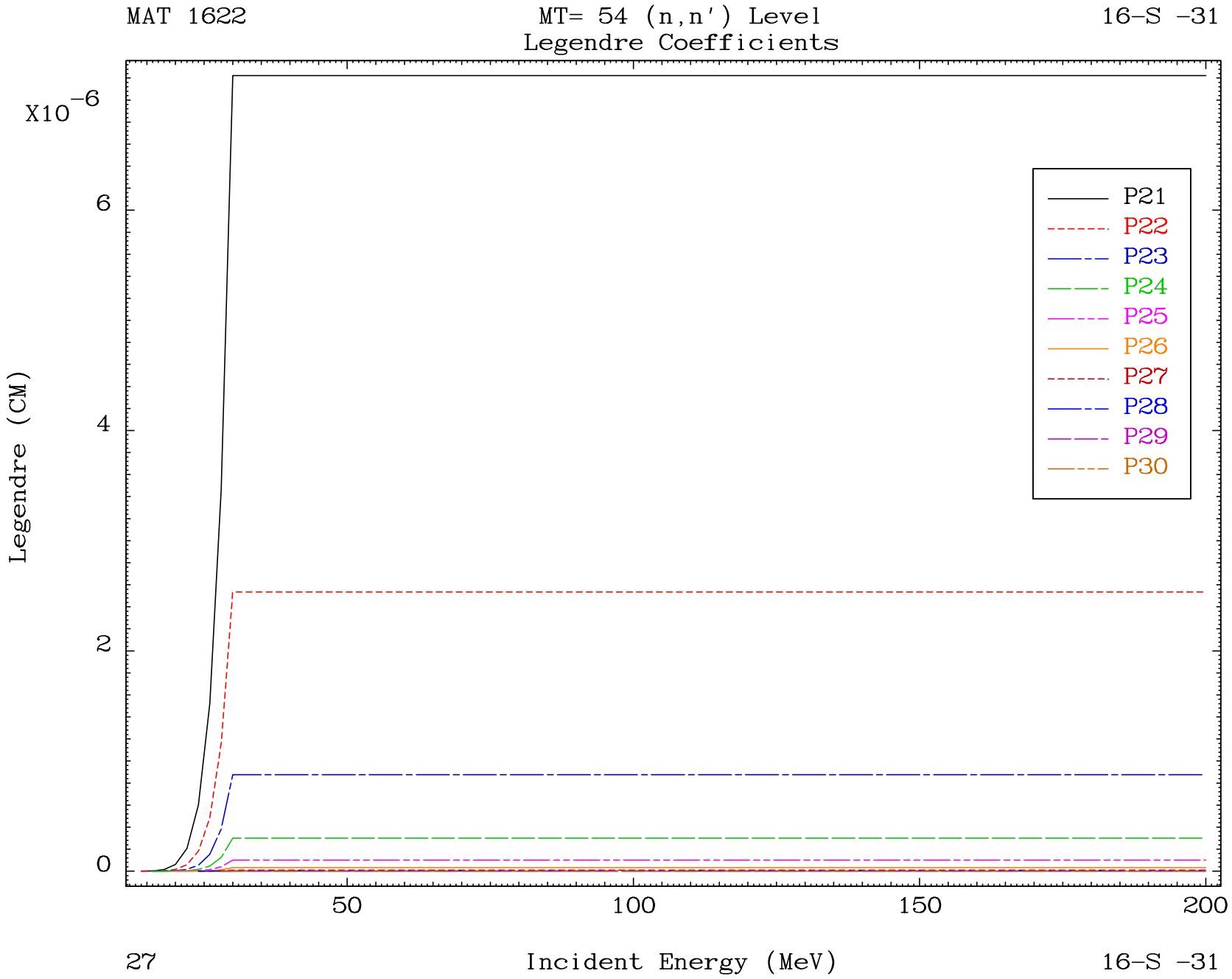

MAT 1622
MT= 53 (n,n') Level
Legendre Coefficients
16-S -31
0.20
0.15
0.10
0.05
0.00
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
16-S -31
P1
P2
P3
P4
P5
P6
P7
P8
P9

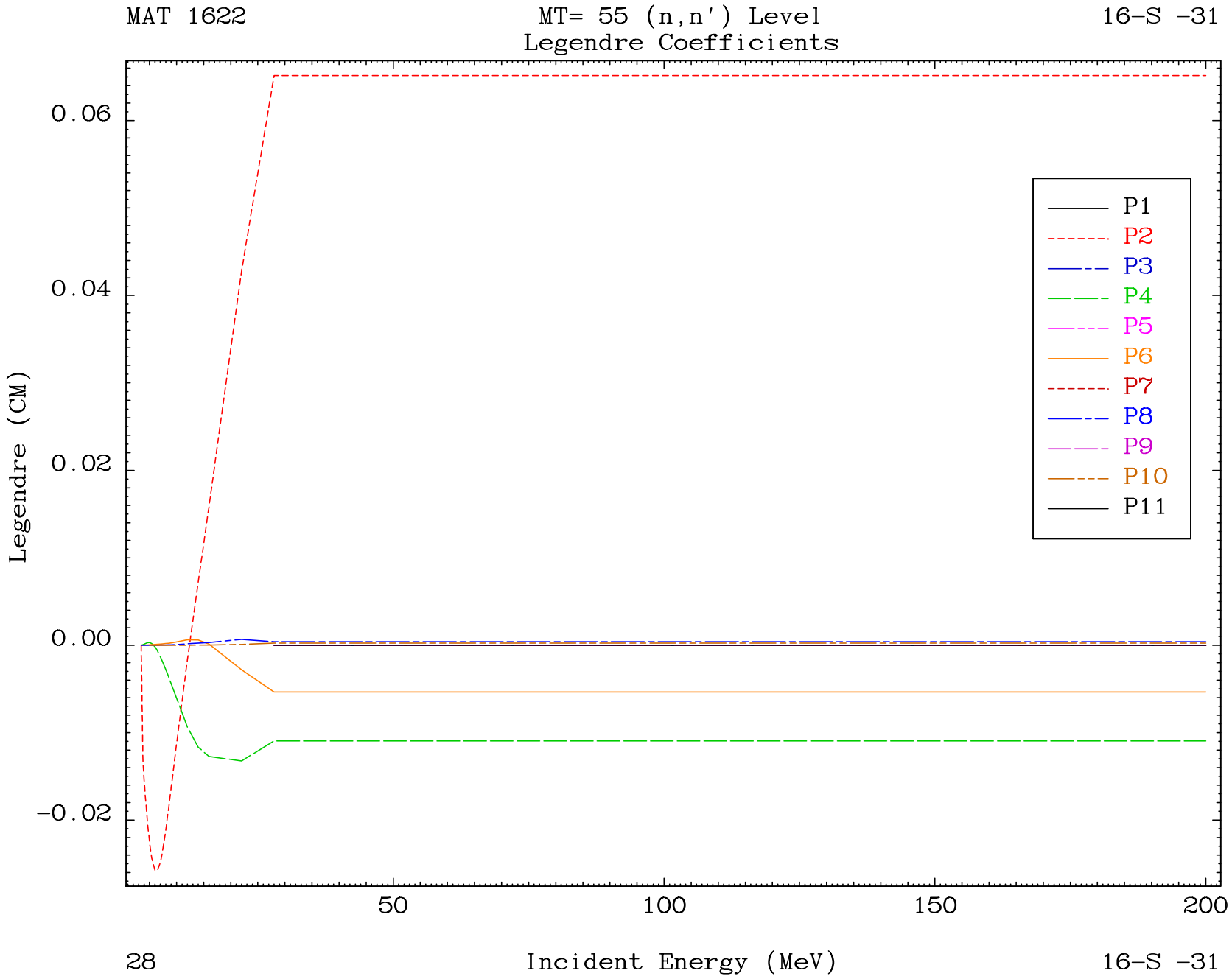

MAT 1622
MT= 53 (n,n') Level
Legendre Coefficients
16-S -31
X10-3
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
23
Incident Energy (MeV)
16-S -31
P10
P11
P12
P13
P14
P15
P16
P17
P18

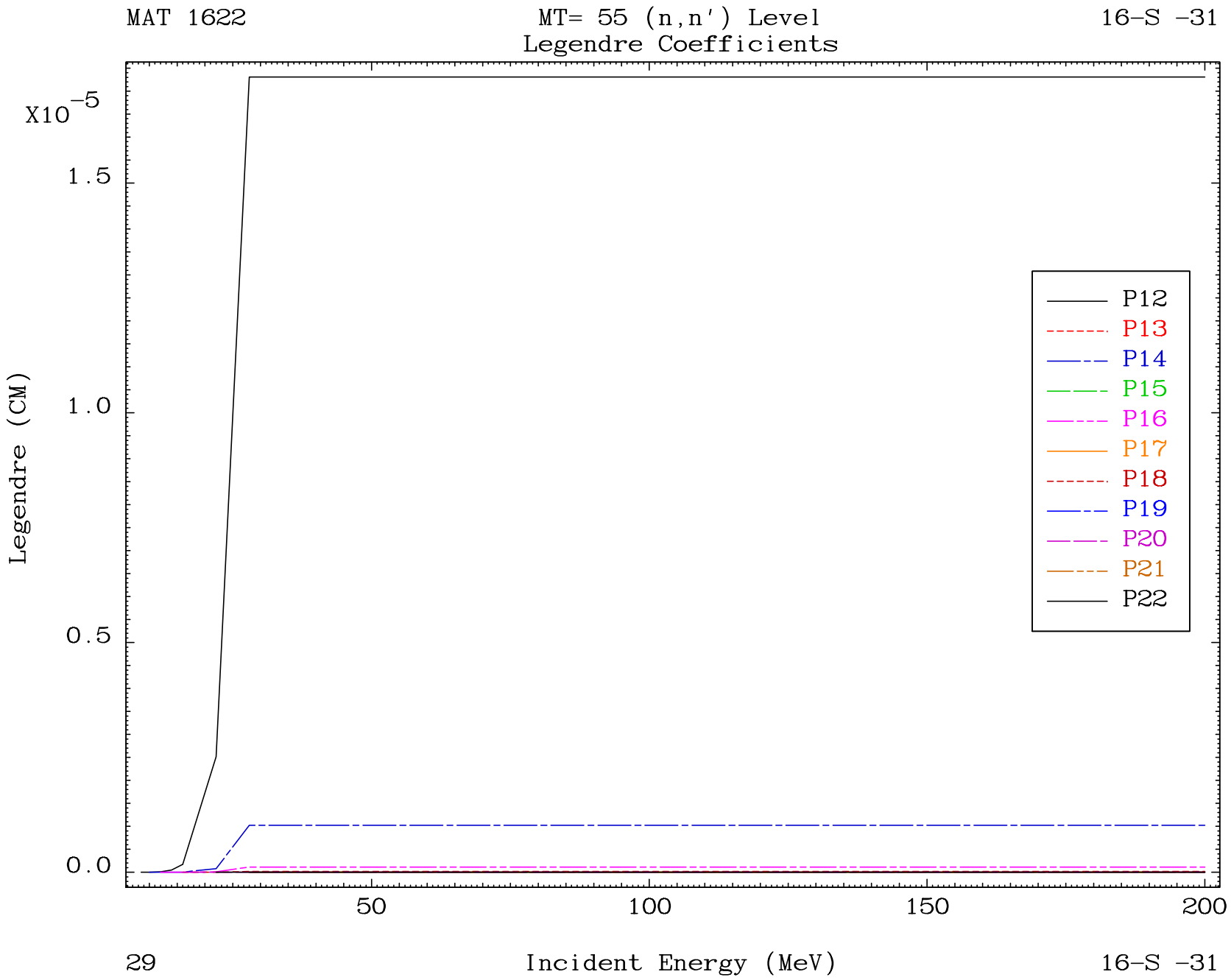

MAT 1622
MT= 53 (n,n') Level
Legendre Coefficients
16-S -31
X10 -8
6
4
2
0
Legendre (CM)
50
100
150
200
24
Incident Energy (MeV)
16-S -31
P19
P20
P21
P22
P23
P24
P25
P26

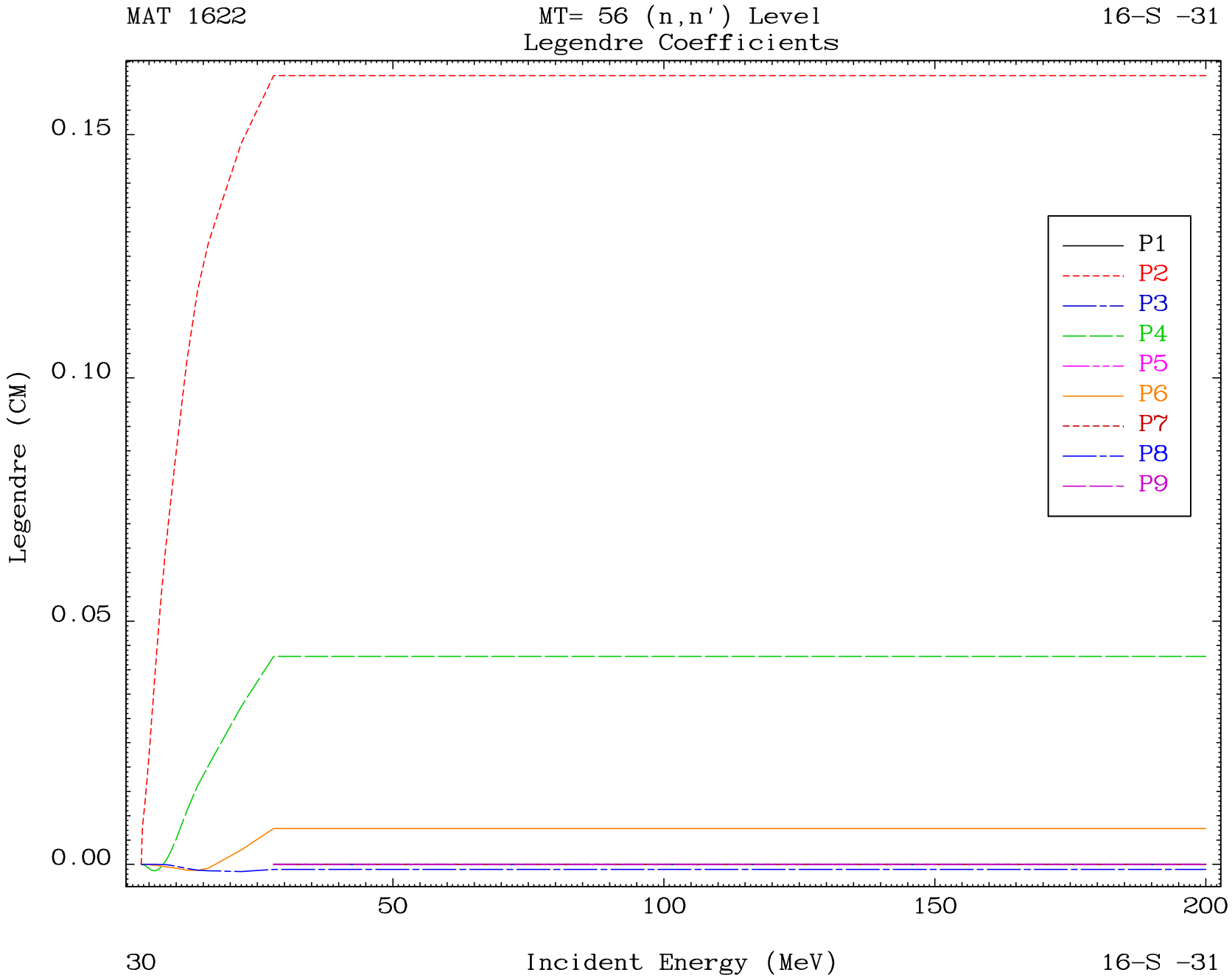

MAT 1622
MT= 54 (n,n') Level
Legendre Coefficients
16-S -31
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
50
100
150
200
25
Incident Energy (MeV)
16-S -31

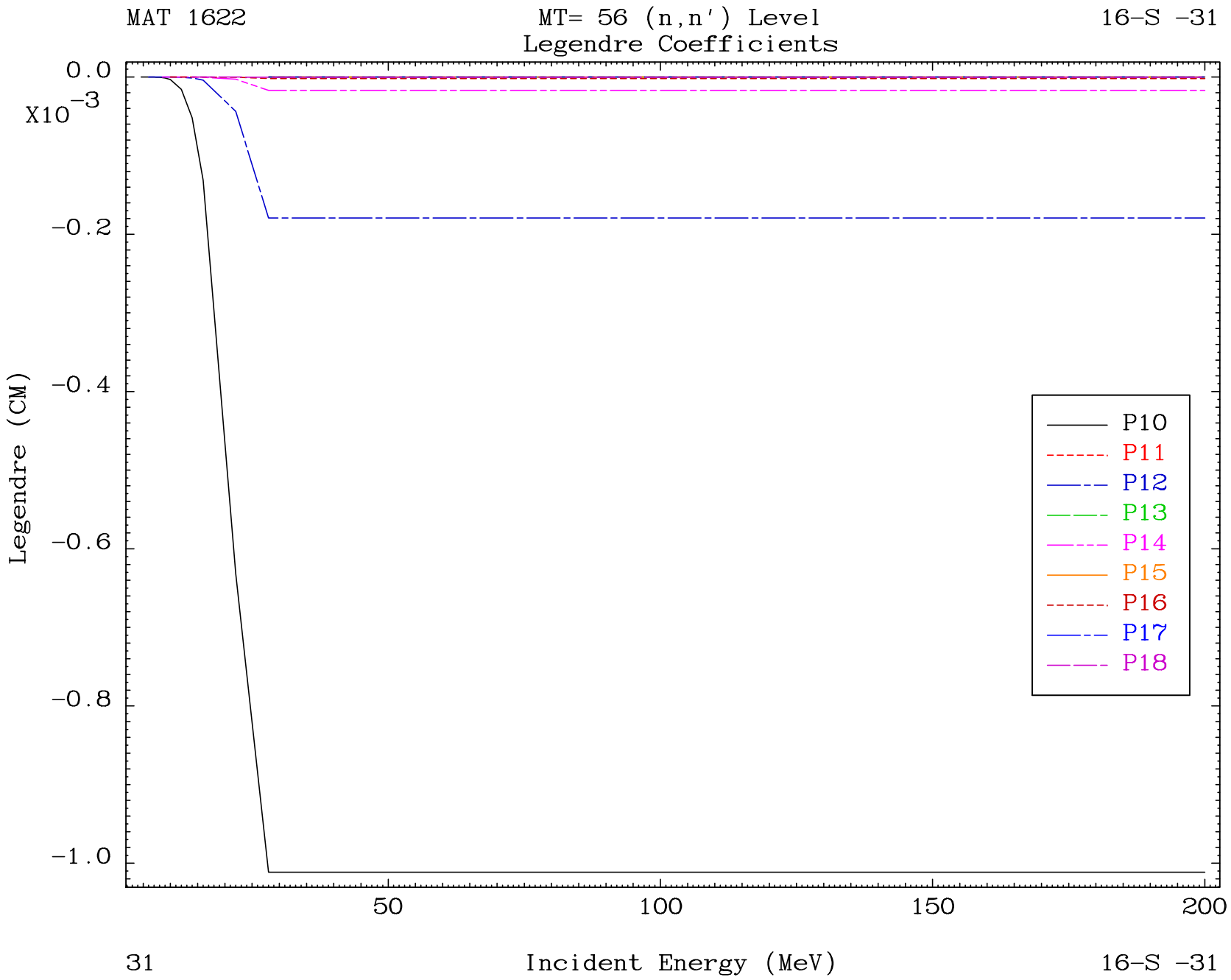

MAT 1622
MT= 54 (n,n') Level
Legendre Coefficients
16-S -31
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
26
Incident Energy (MeV)
16-S -31

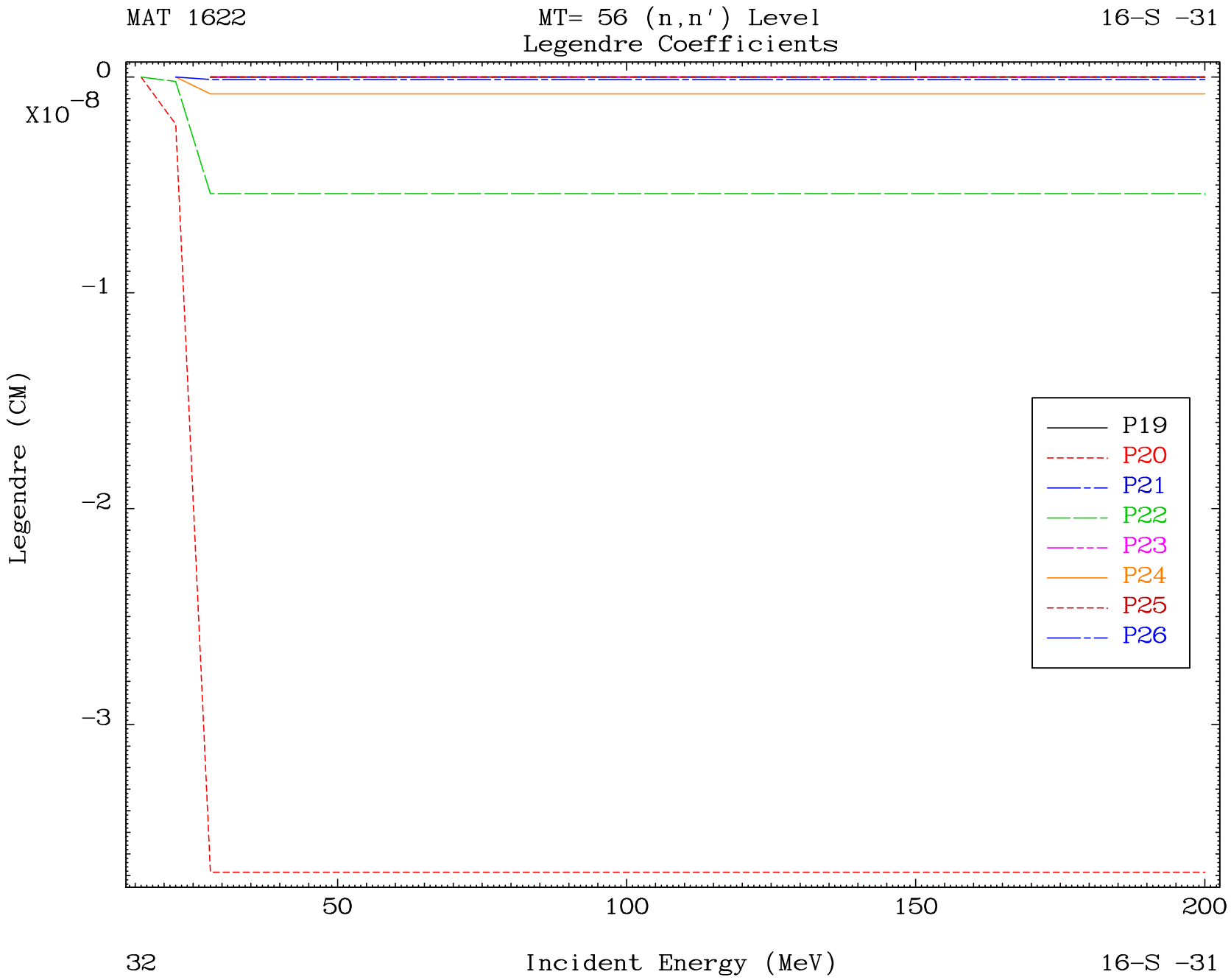

MAT 1622
MT= 54 (n,n') Level
Legendre Coefficients
16-S -31
X10^-6
6
4
2
0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
50
100
150
200
27
Incident Energy (MeV)
16-S -31

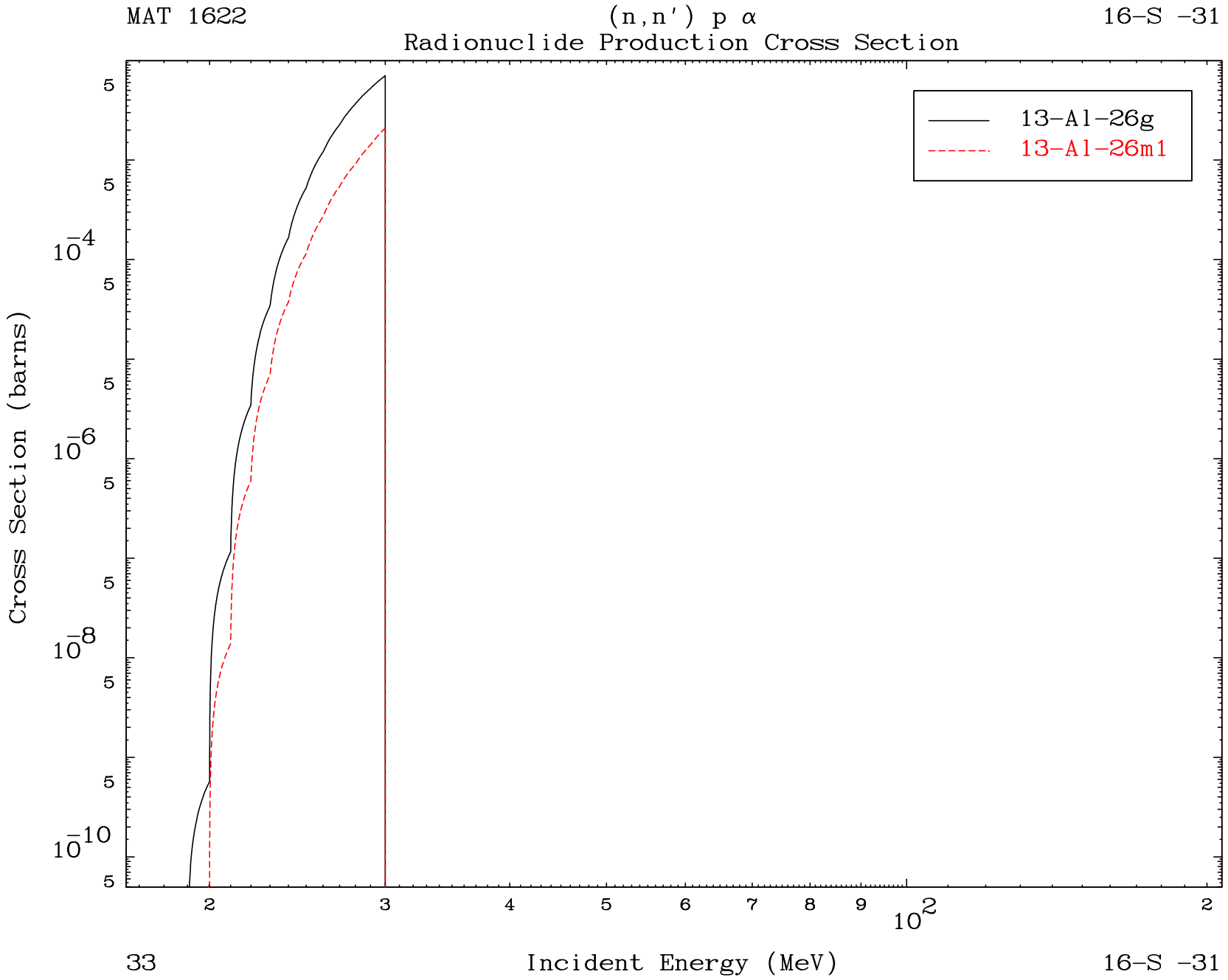

MAT 1622
MT= 55 (n,n') Level
Legendre Coefficients
16-S -31
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
50
100
150
200
28
Incident Energy (MeV)
16-S -31

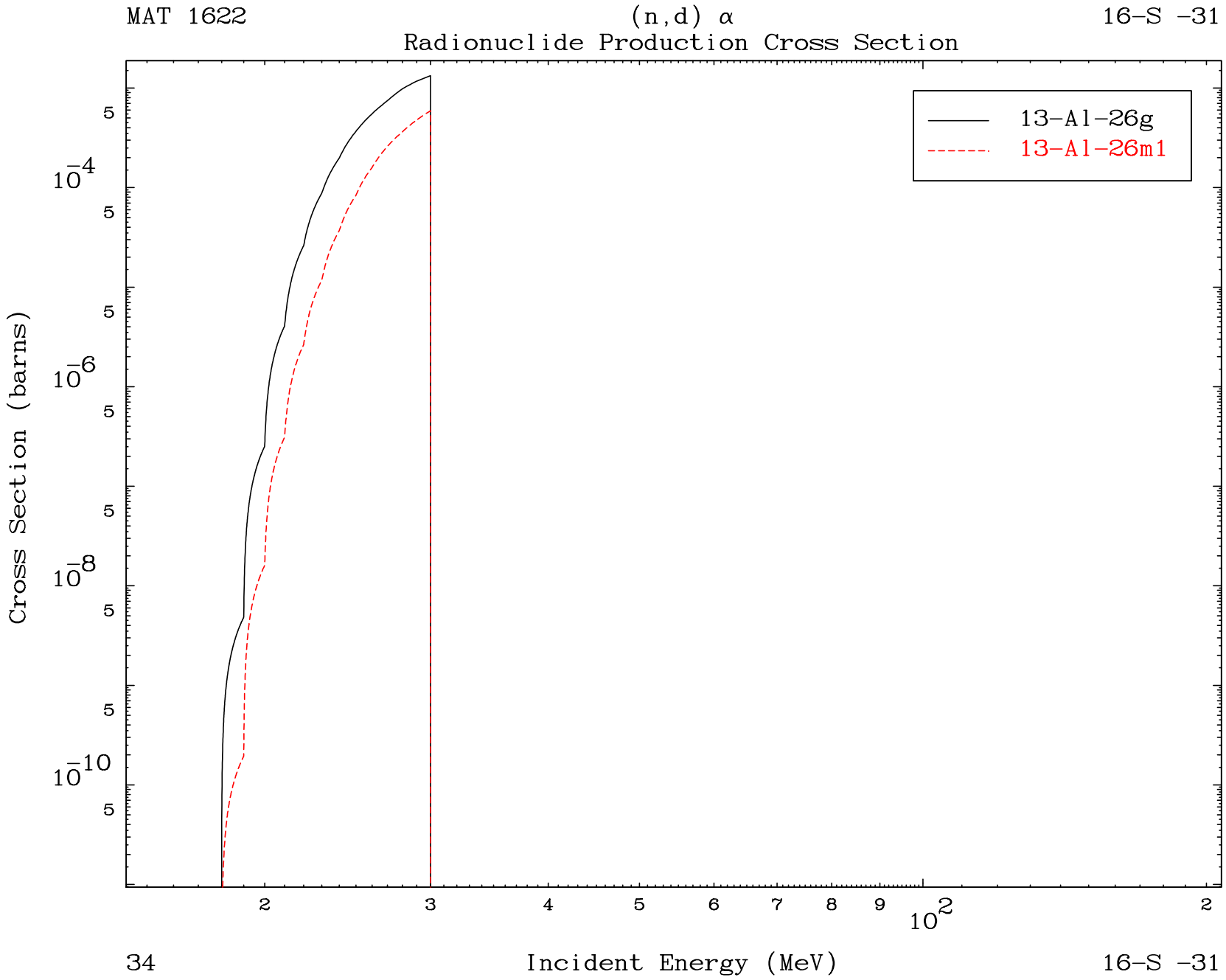

MAT 1622
MT= 55 (n,n') Level
Legendre Coefficients
16-S -31
X10-5
1.5
1.0
0.5
0.0
Legendre (CM)
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
50
100
150
200
29
Incident Energy (MeV)
16-S -31


MAT 1622
MT= 56 (n,n') Level
Legendre Coefficients
16-S -31
0.15
0.10
0.05
0.00
Legendre (CM)
50
100
150
200
30
Incident Energy (MeV)
16-S -31
P1
P2
P3
P4
P5
P6
P7
P8
P9


MAT 1622
MT= 56 (n,n') Level
Legendre Coefficients
16-S -31
0.0
X10^-3
-0.2
-0.4
-0.6
-0.8
-1.0
Legendre (CM)
50
100
150
200
31
Incident Energy (MeV)
16-S -31
P10
P11
P12
P13
P14
P15
P16
P17
P18


MAT 1622
MT= 56 (n,n') Level
Legendre Coefficients
16-S -31
0
X10 −8
−1
−2
−3
Legendre (CM)
50
100
150
200
32
Incident Energy (MeV)
16-S -31
P19
P20
P21
P22
P23
P24
P25
P26


MAT 1622
(n,n') p α
16-S -31
Radionuclide Production Cross Section
13-Al-26g
13-Al-26m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
5
2
3
4
6
7
8
9
10^2
33
Incident Energy (MeV)
16-S -31


MAT 1622
(n,d) α
16-S -31
Radionuclide Production Cross Section
13-Al-26g
13-Al-26m1
Cross Section (barns)
10-4
10-6
10-8
10-10
2
3
4
5
6
7
8
9
10 2
34
Incident Energy (MeV)
16-S -31