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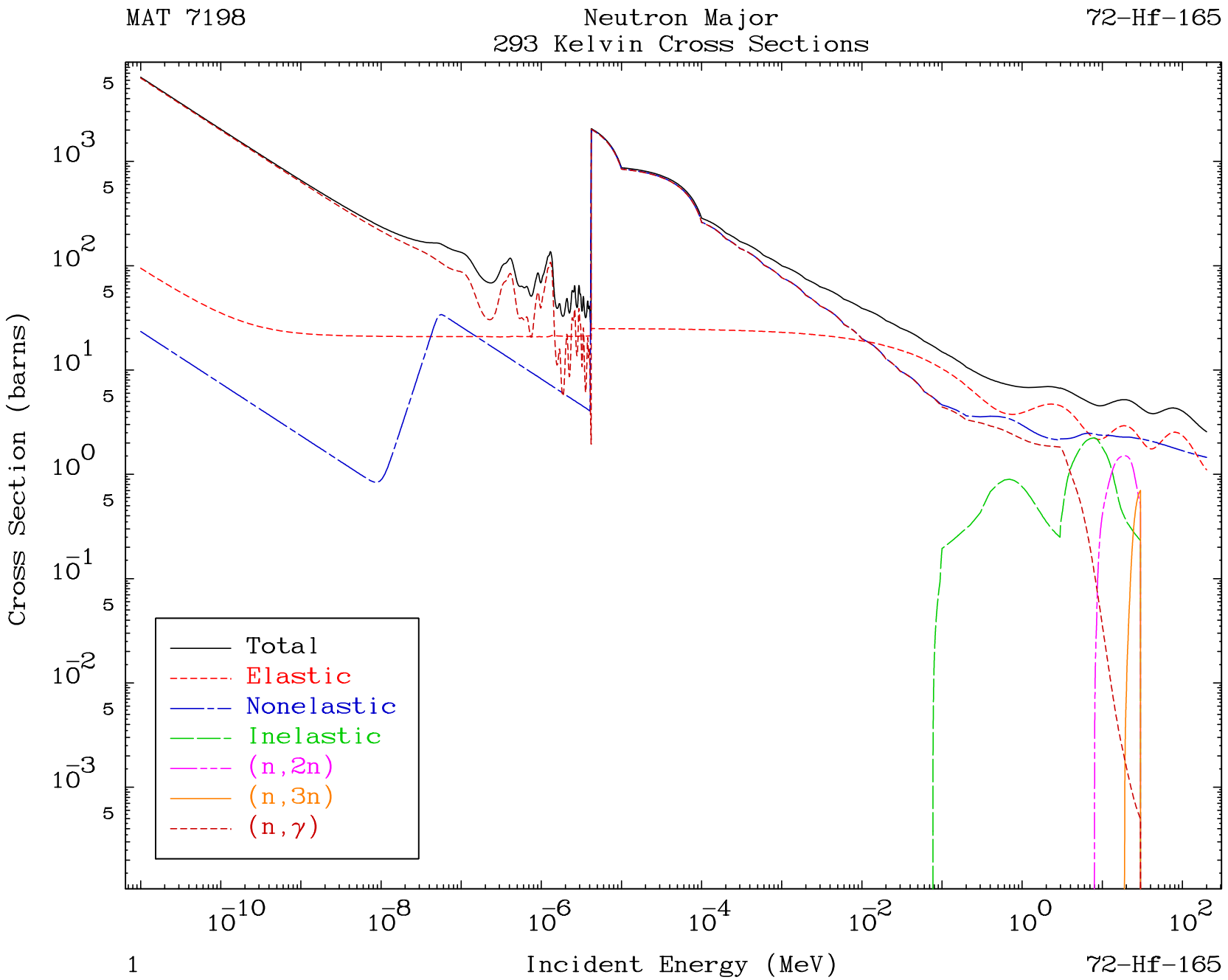
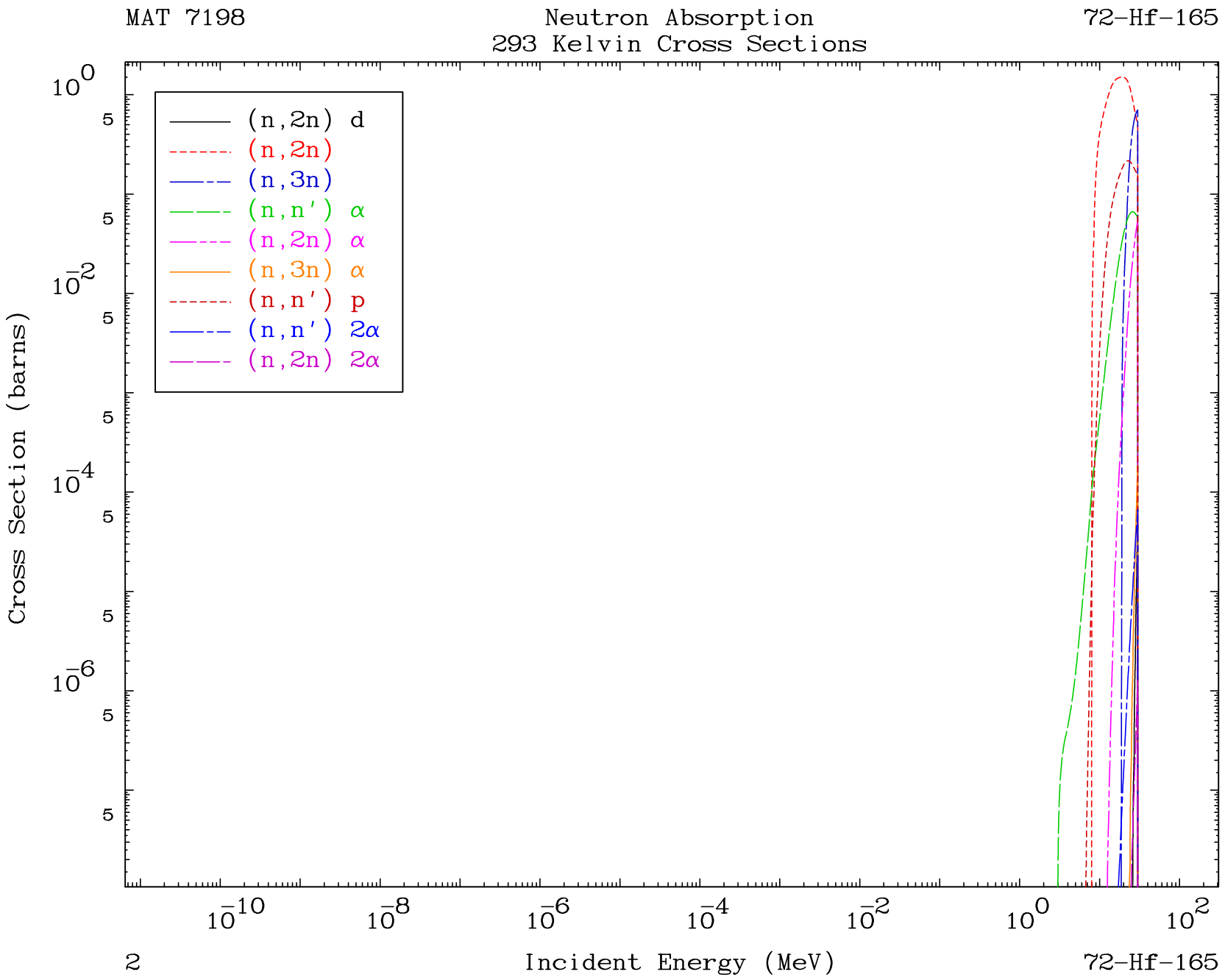
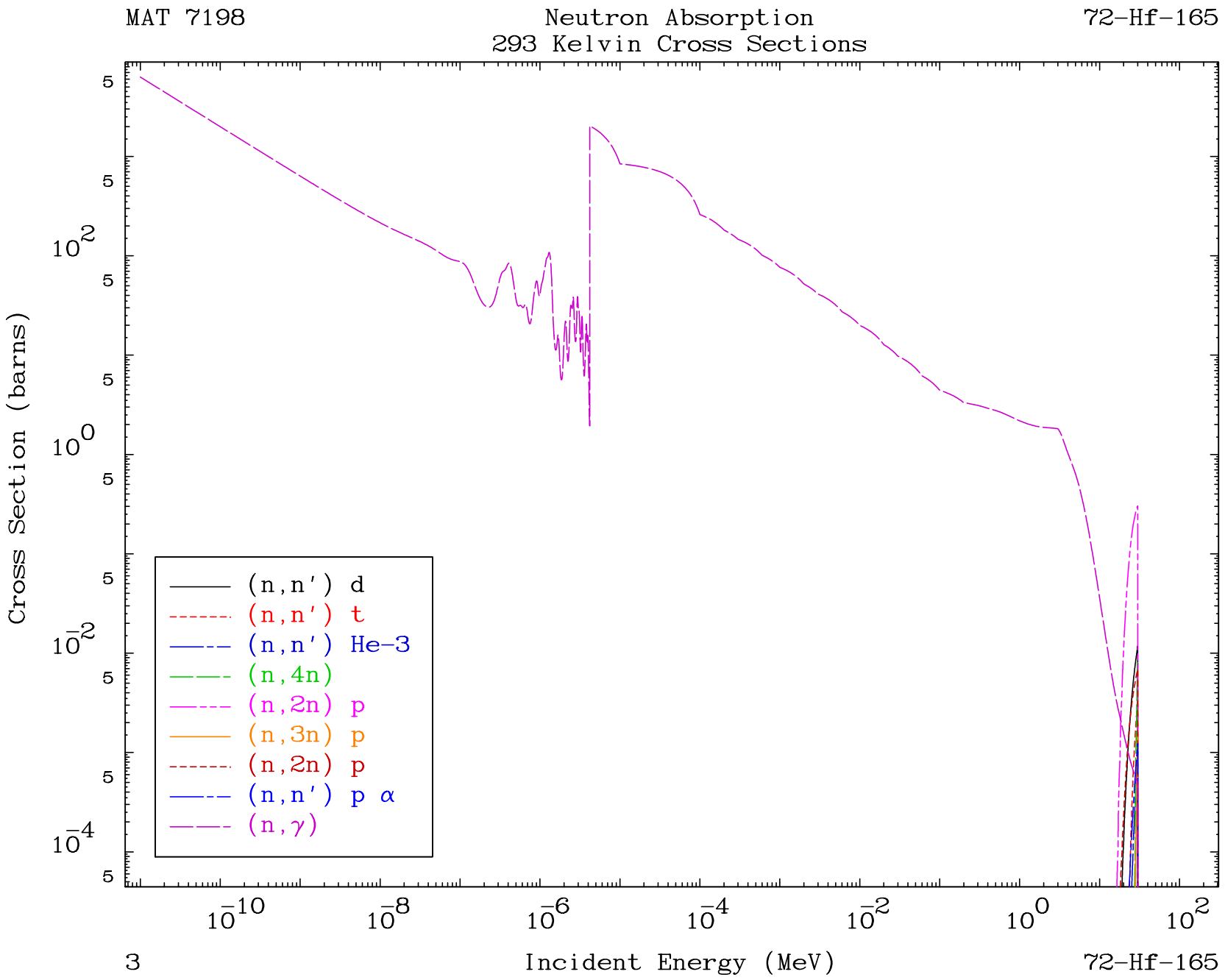
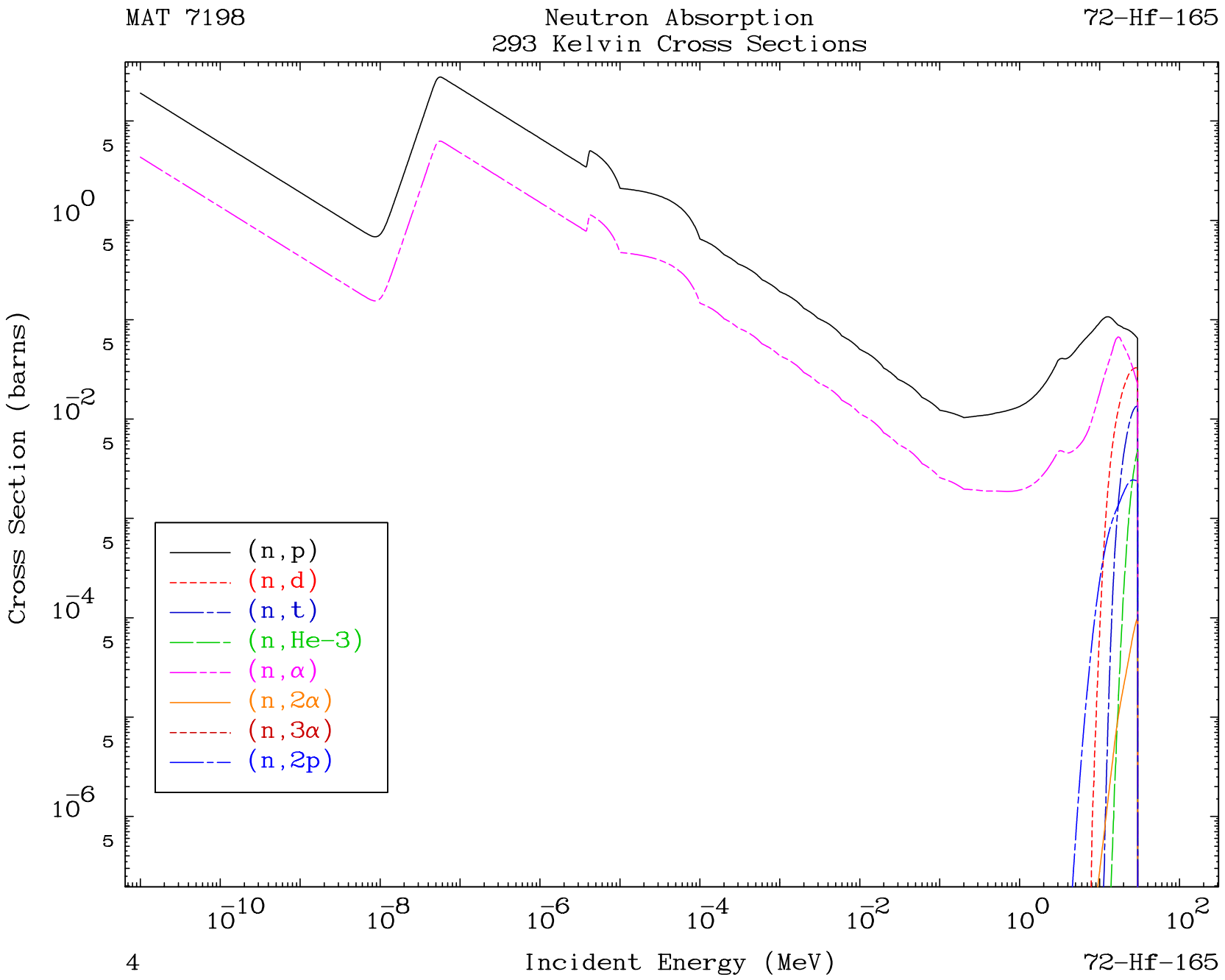
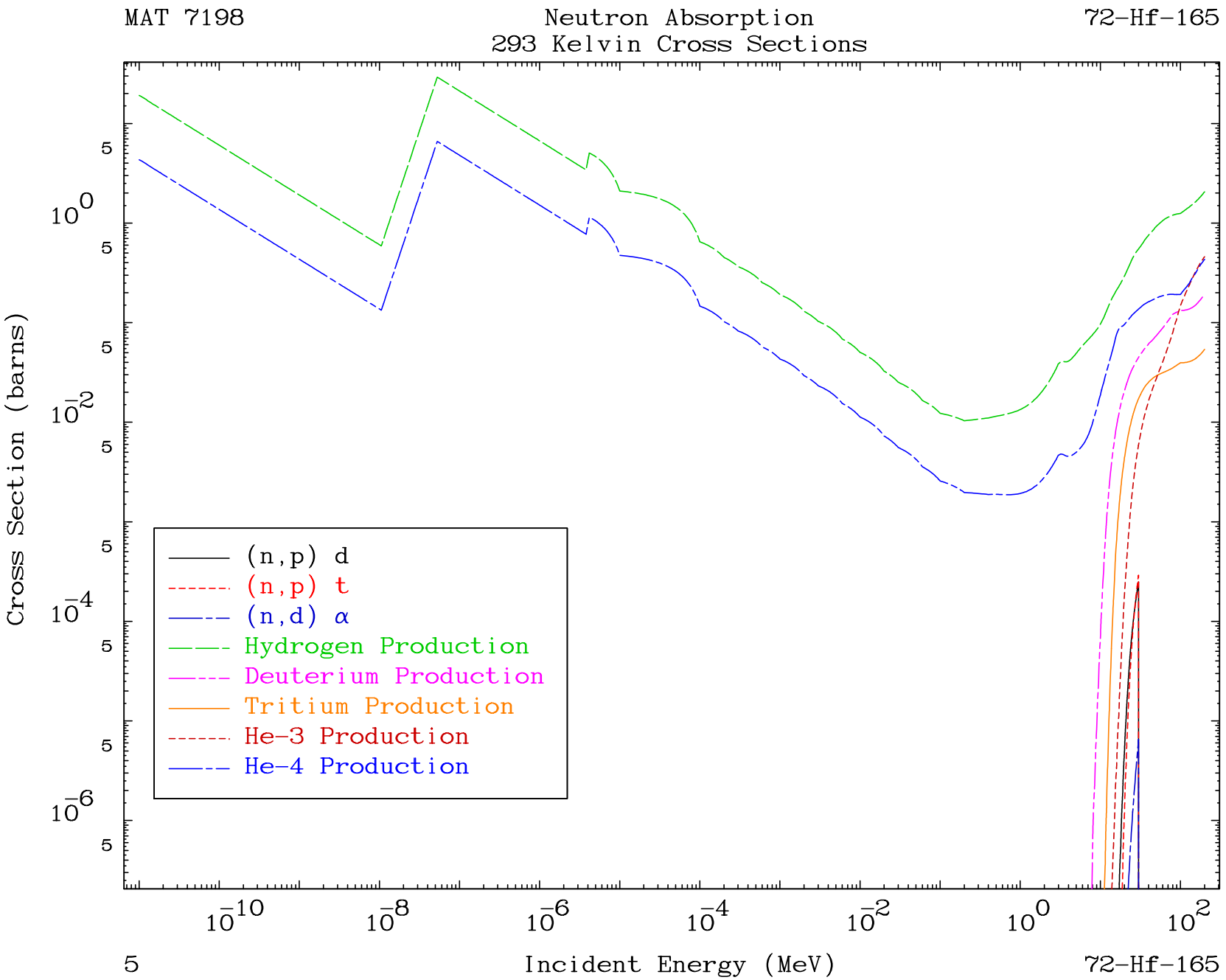
Press Mouse Button to Start

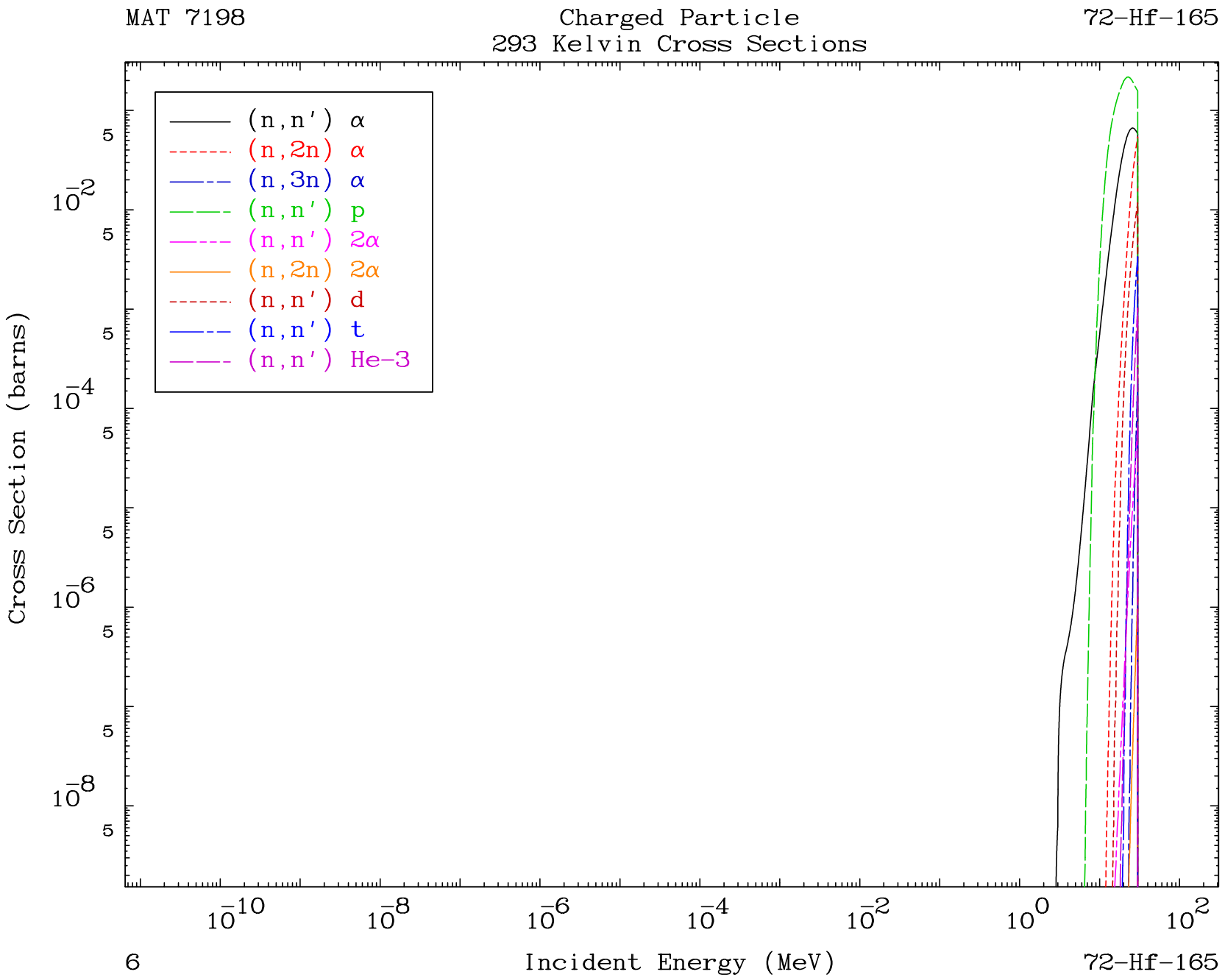

MAT 7198
Neutron Major
293 Kelvin Cross Sections
72-Hf-165
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Nonelastic
Inelastic
(n,2n)
(n,3n)
(n,γ)
1
72-Hf-165

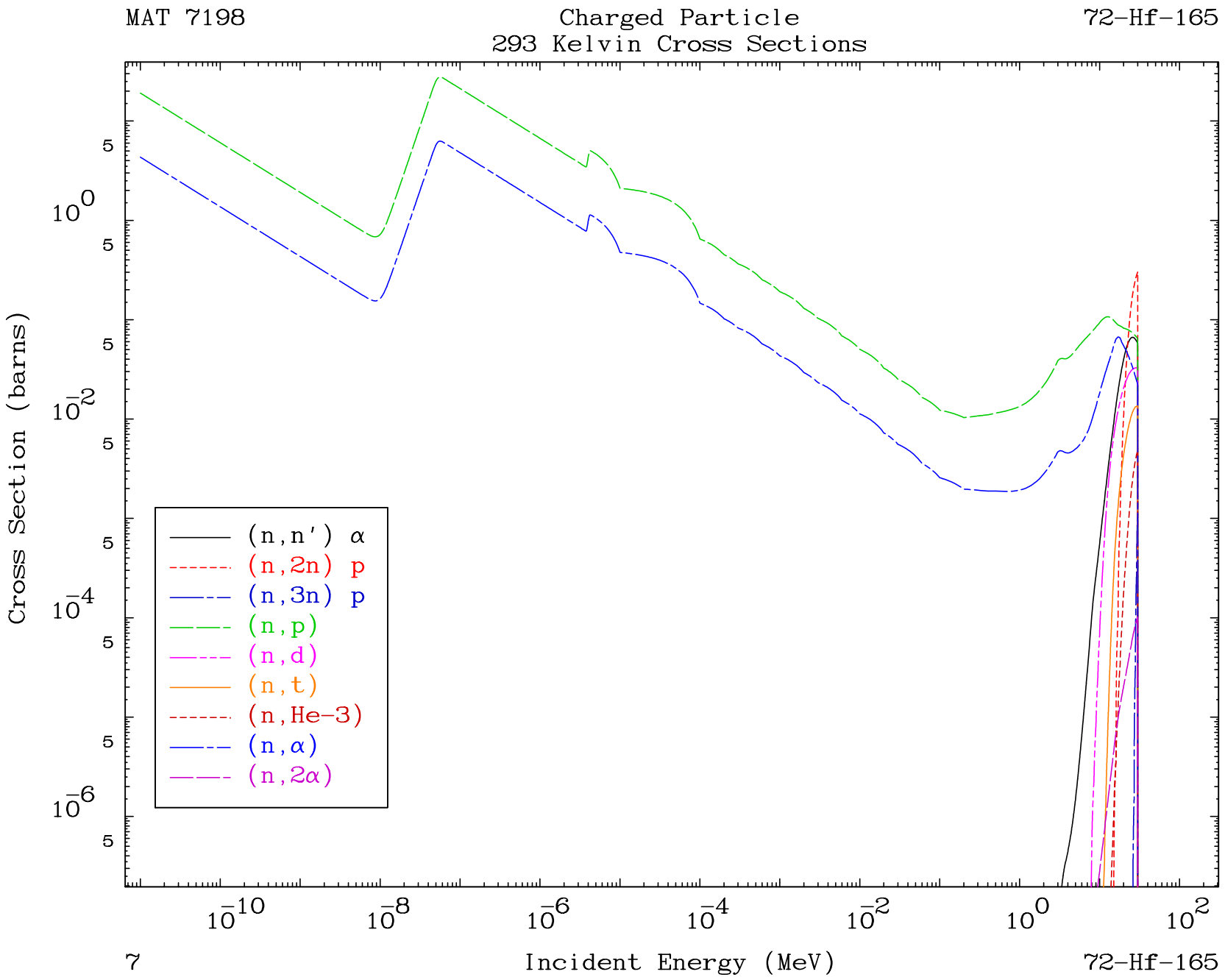

MAT 7198
Neutron Absorption
293 Kelvin Cross Sections
72-Hf-165
(n,2n) d
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
Cross Section (barns)
Incident Energy (MeV)
2
72-Hf-165

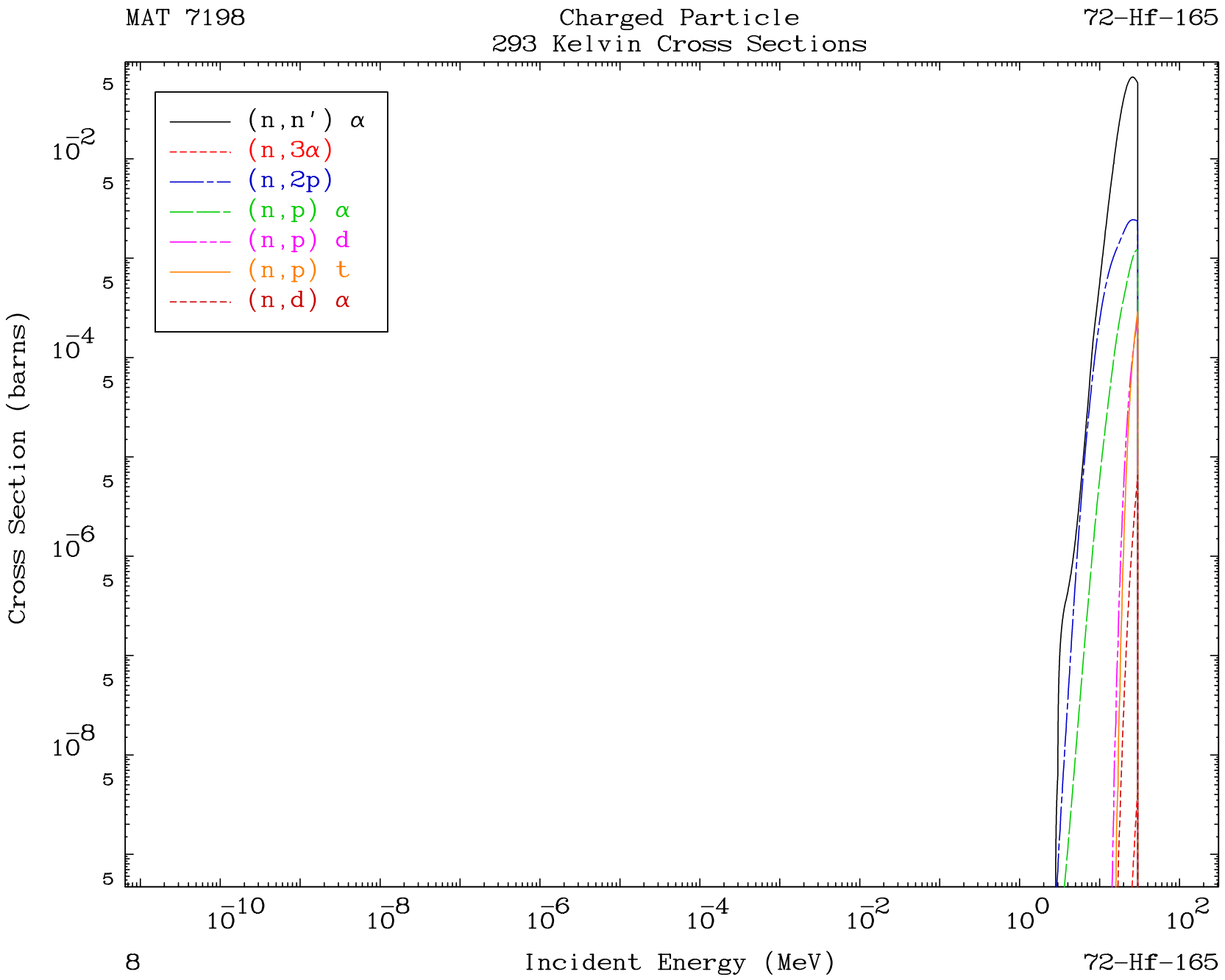

MAT 7198
Neutron Absorption
293 Kelvin Cross Sections
72-Hf-165
Cross Section (barns)
Incident Energy (MeV)
(n,n') d
(n,n') t
(n,n') He-3
(n,4n)
(n,2n) p
(n,3n) p
(n,2n) p
(n,n') p α
(n,γ)
3
72-Hf-165

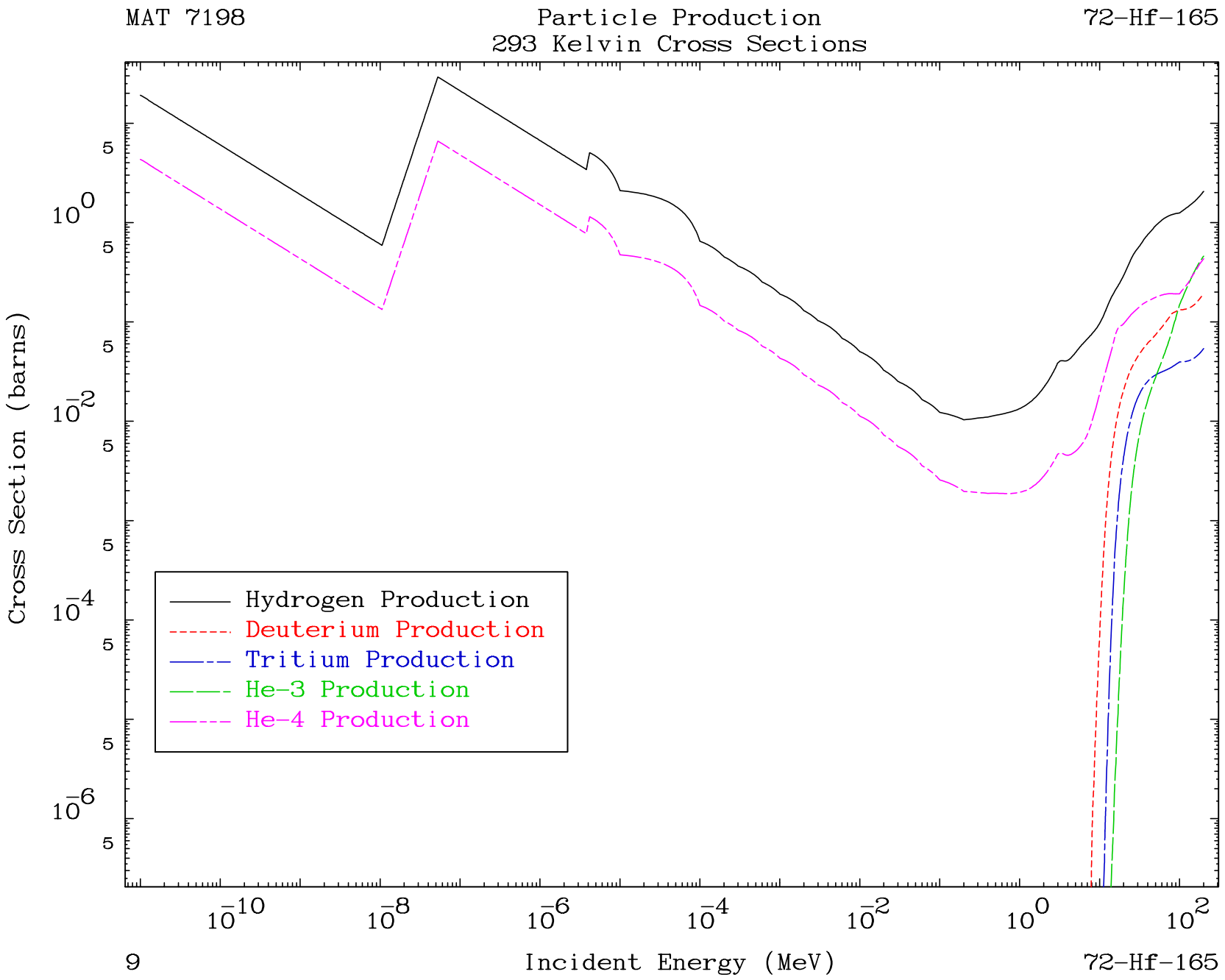

MAT 7198
Neutron Absorption
293 Kelvin Cross Sections
72-Hf-165
Cross Section (barns)
Incident Energy (MeV)
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,3α)
(n,2p)
4
72-Hf-165

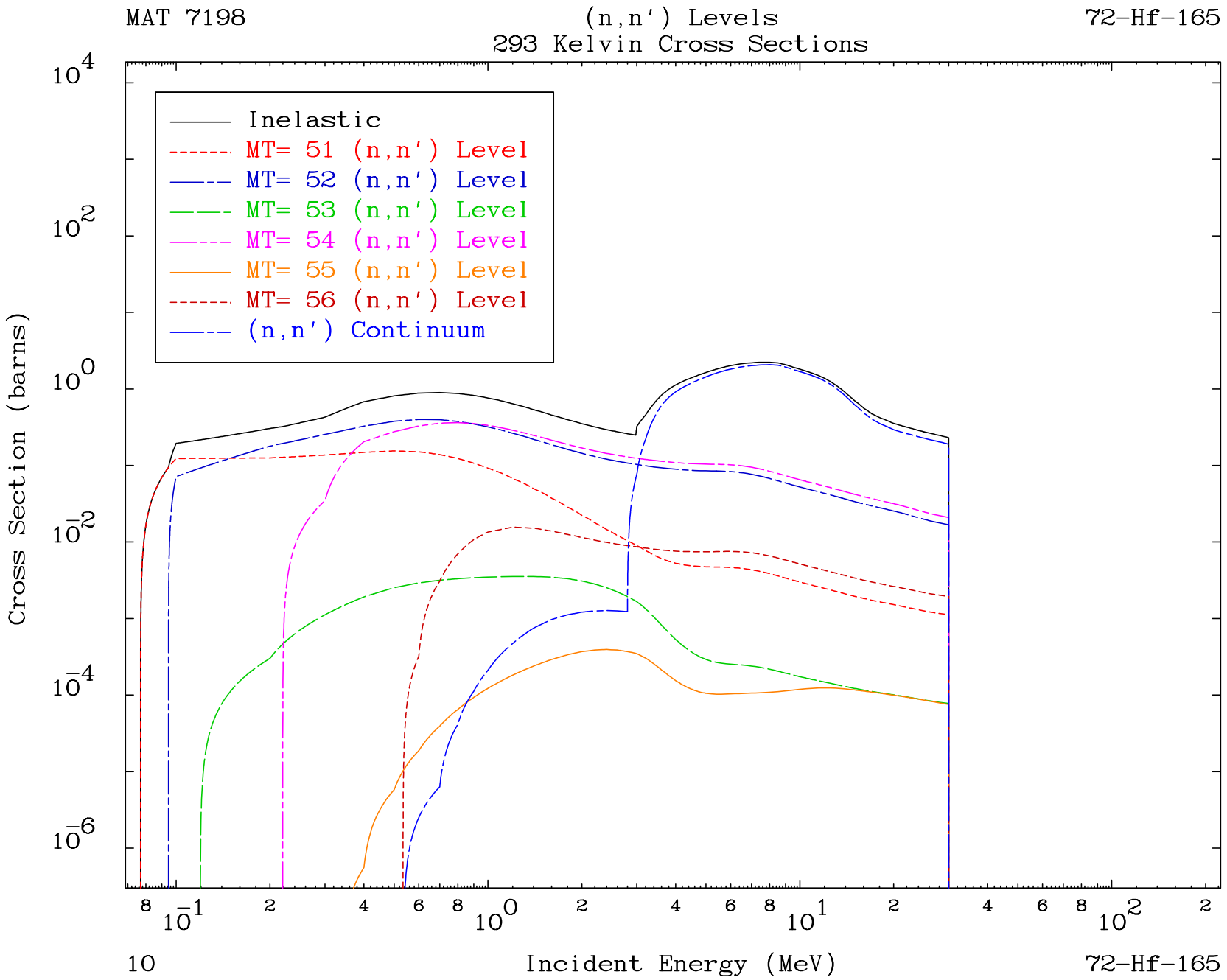

MAT 7198
Neutron Absorption
293 Kelvin Cross Sections
72-Hf-165
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
5
(n,p) d
(n,p) t
(n,d) α
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
72-Hf-165

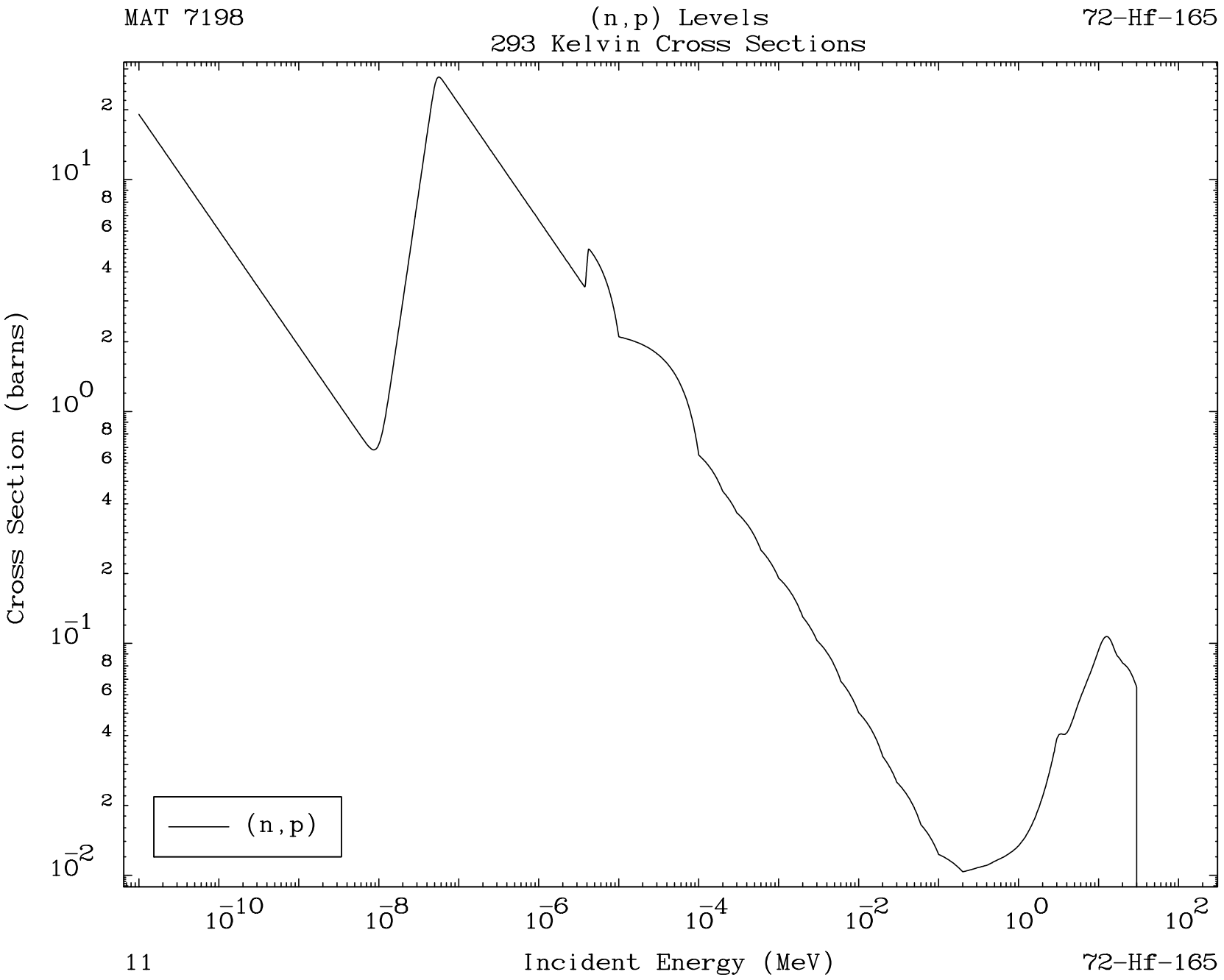

MAT 7198
Charged Particle
293 Kelvin Cross Sections
72-Hf-165
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
Cross Section (barns)
10-2
10-4
10-6
10-8
10-10
100
102
Incident Energy (MeV)
6
72-Hf-165

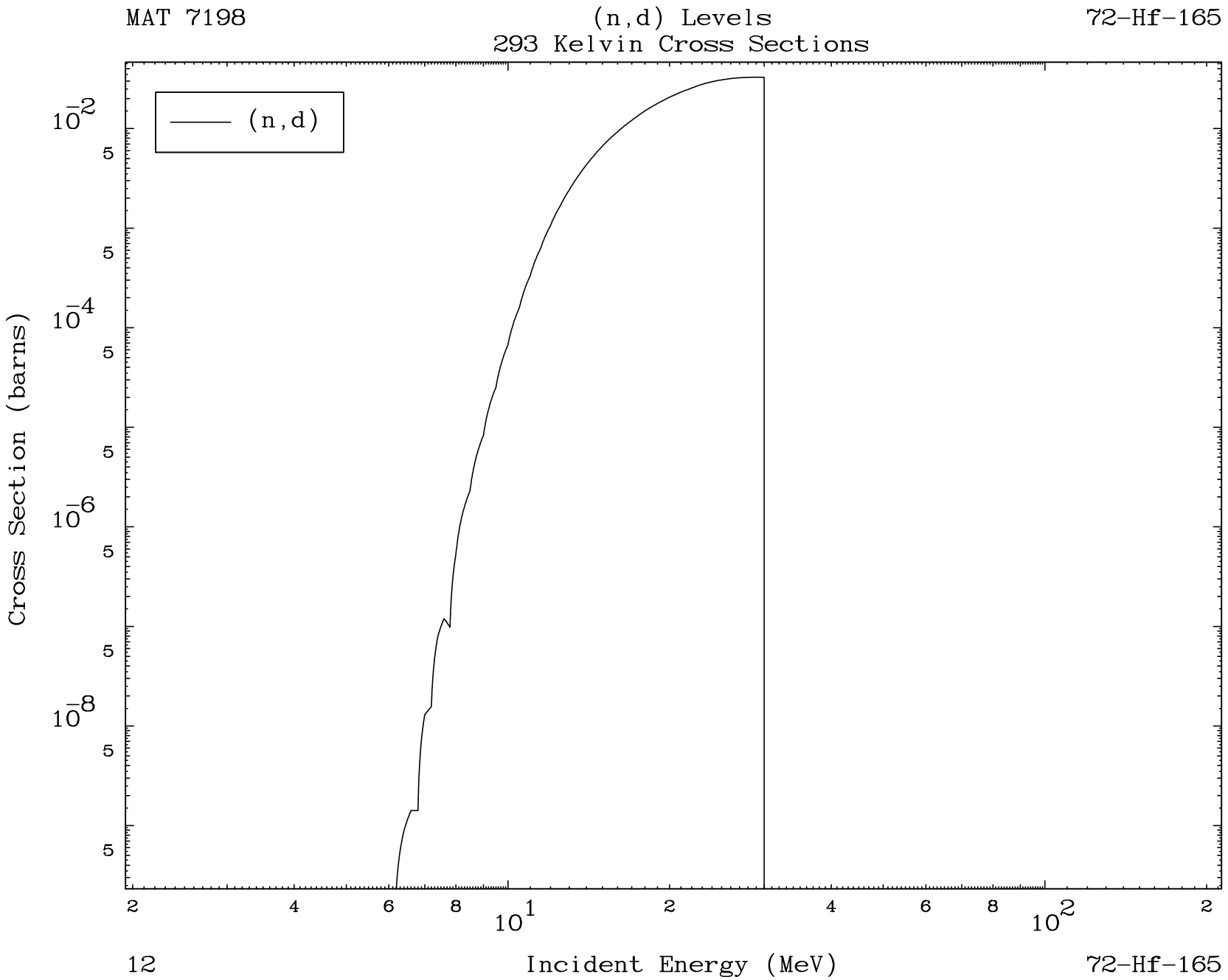

MAT 7198
Charged Particle
293 Kelvin Cross Sections
72-Hf-165
Cross Section (barns)
Incident Energy (MeV)
7
72-Hf-165
(n,n') α
(n,2n) p
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)
(n,α)
(n,2α)

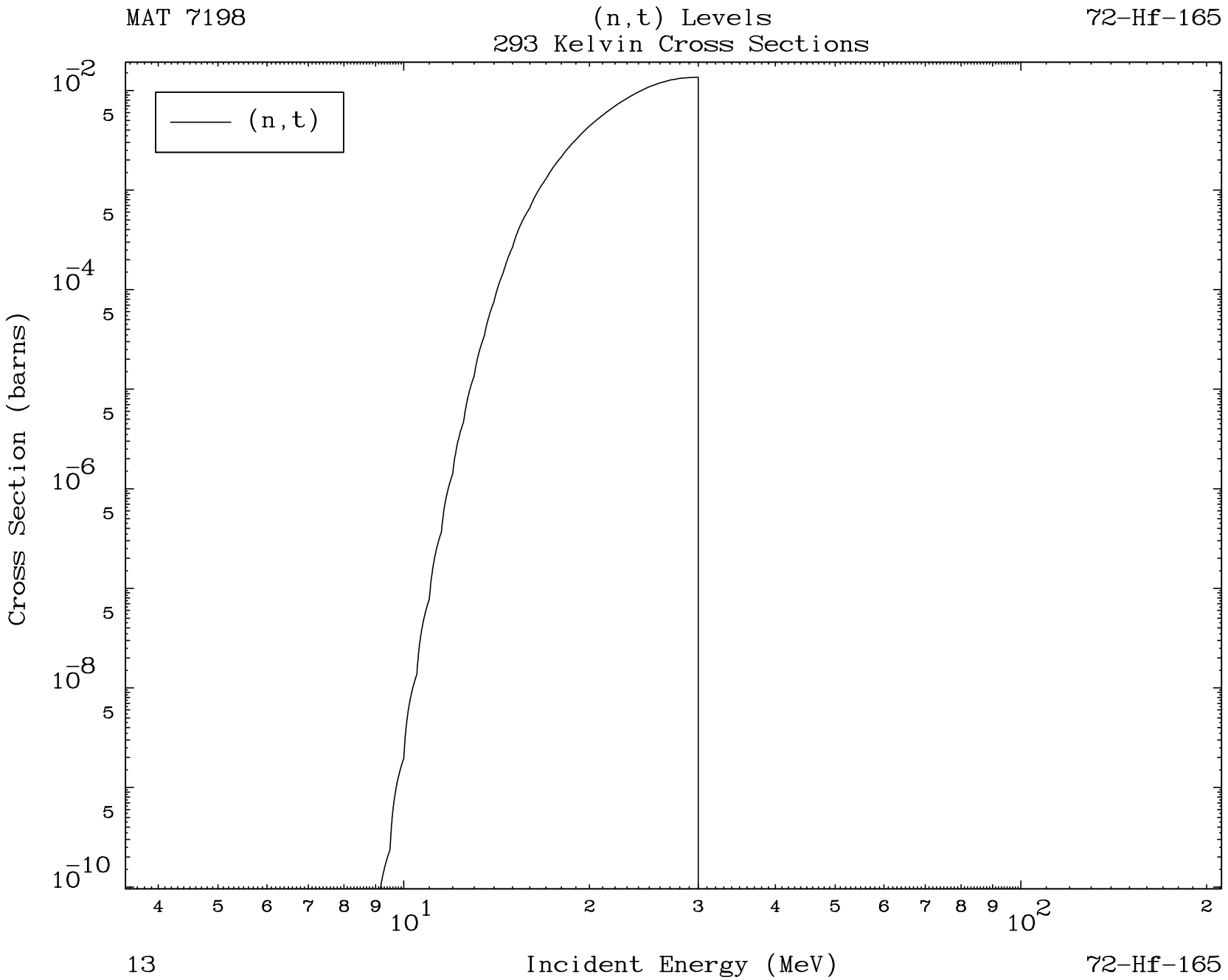

MAT 7198
Charged Particle
293 Kelvin Cross Sections
72-Hf-165
(n,n') α
(n,3α)
(n,2p)
(n,p) α
(n,p) d
(n,p) t
(n,d) α
Cross Section (barns)
Incident Energy (MeV)
8
72-Hf-165

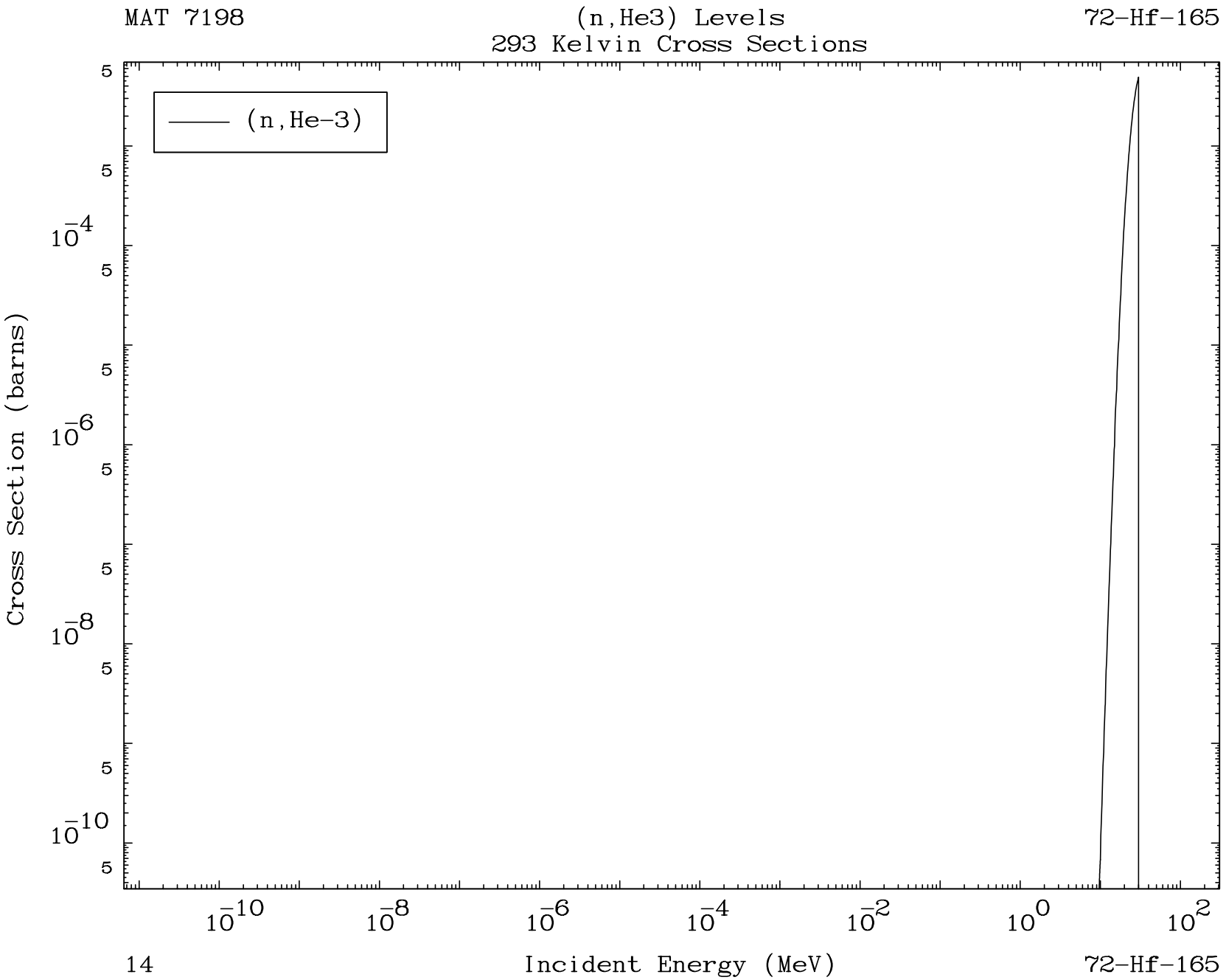

MAT 7198
Particle Production
293 Kelvin Cross Sections
72-Hf-165
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
9
72-Hf-165

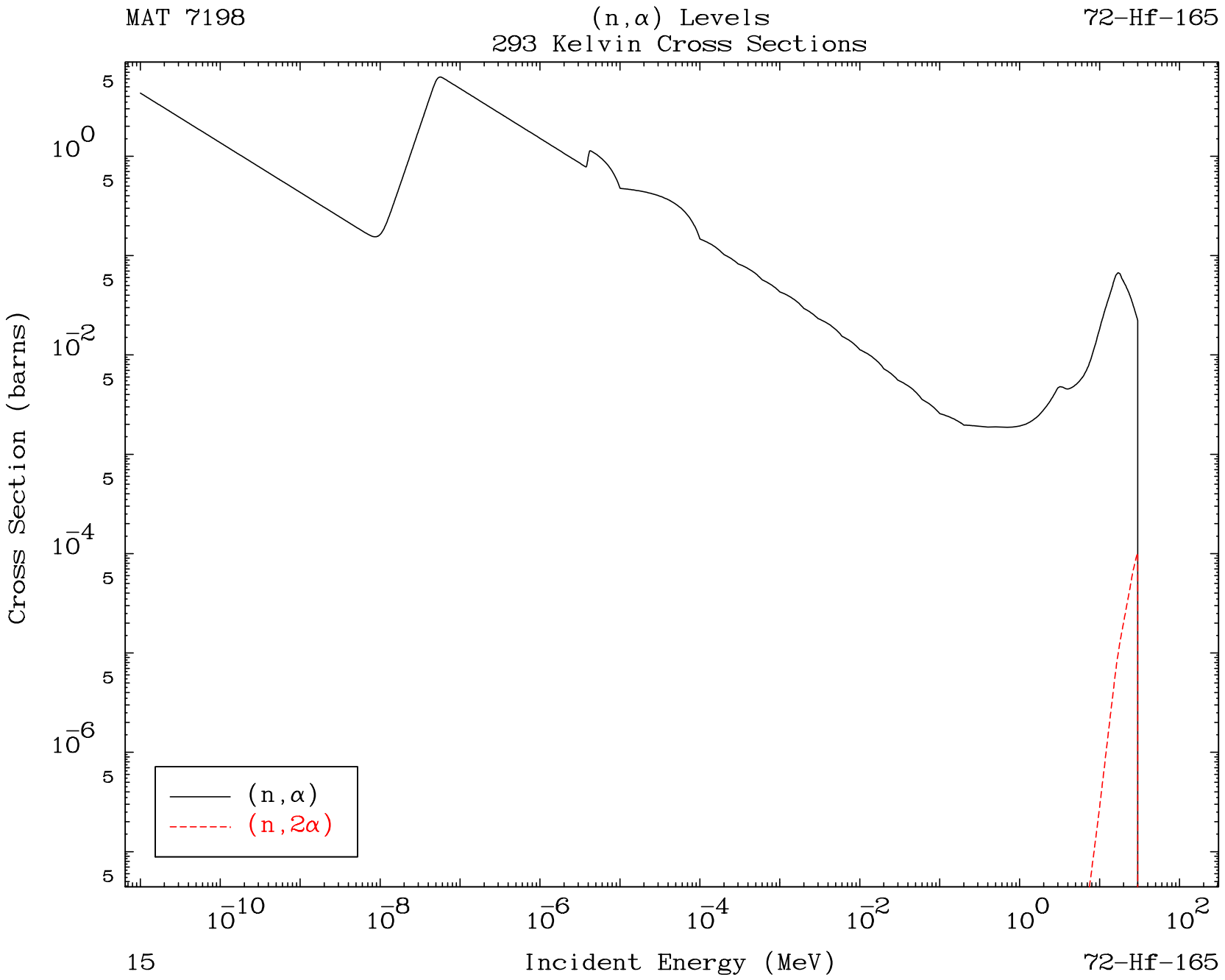

MAT 7198
(n,n') Levels
72-Hf-165
293 Kelvin Cross Sections
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
72-Hf-165

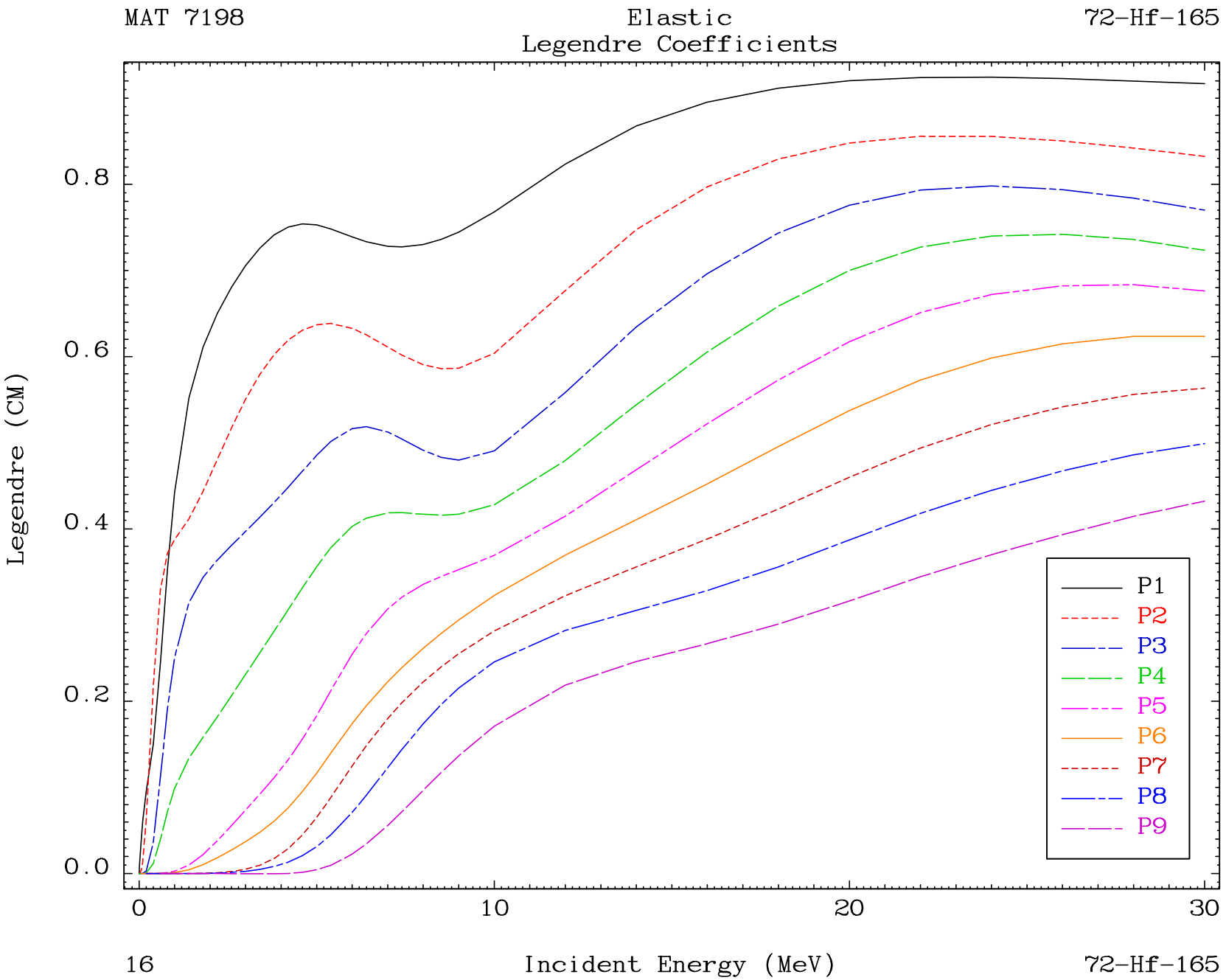

MAT 7198
(n,p) Levels
72-Hf-165
293 Kelvin Cross Sections
Cross Section (barns)
(n,p)
11
Incident Energy (MeV)
72-Hf-165

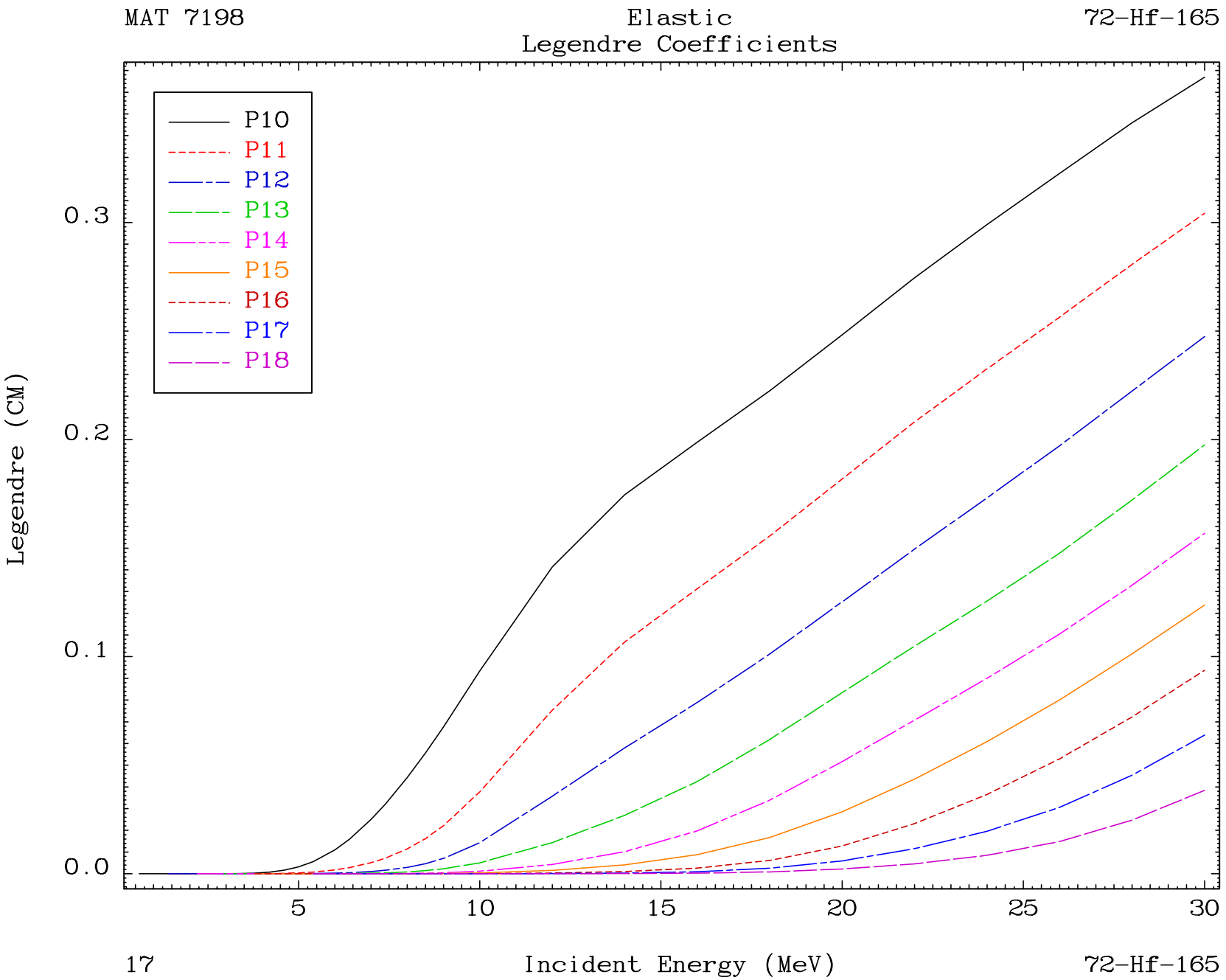

MAT 7198
(n,d) Levels
72-Hf-165
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
4
6
8
10 1
10 2
Incident Energy (MeV)
12
72-Hf-165

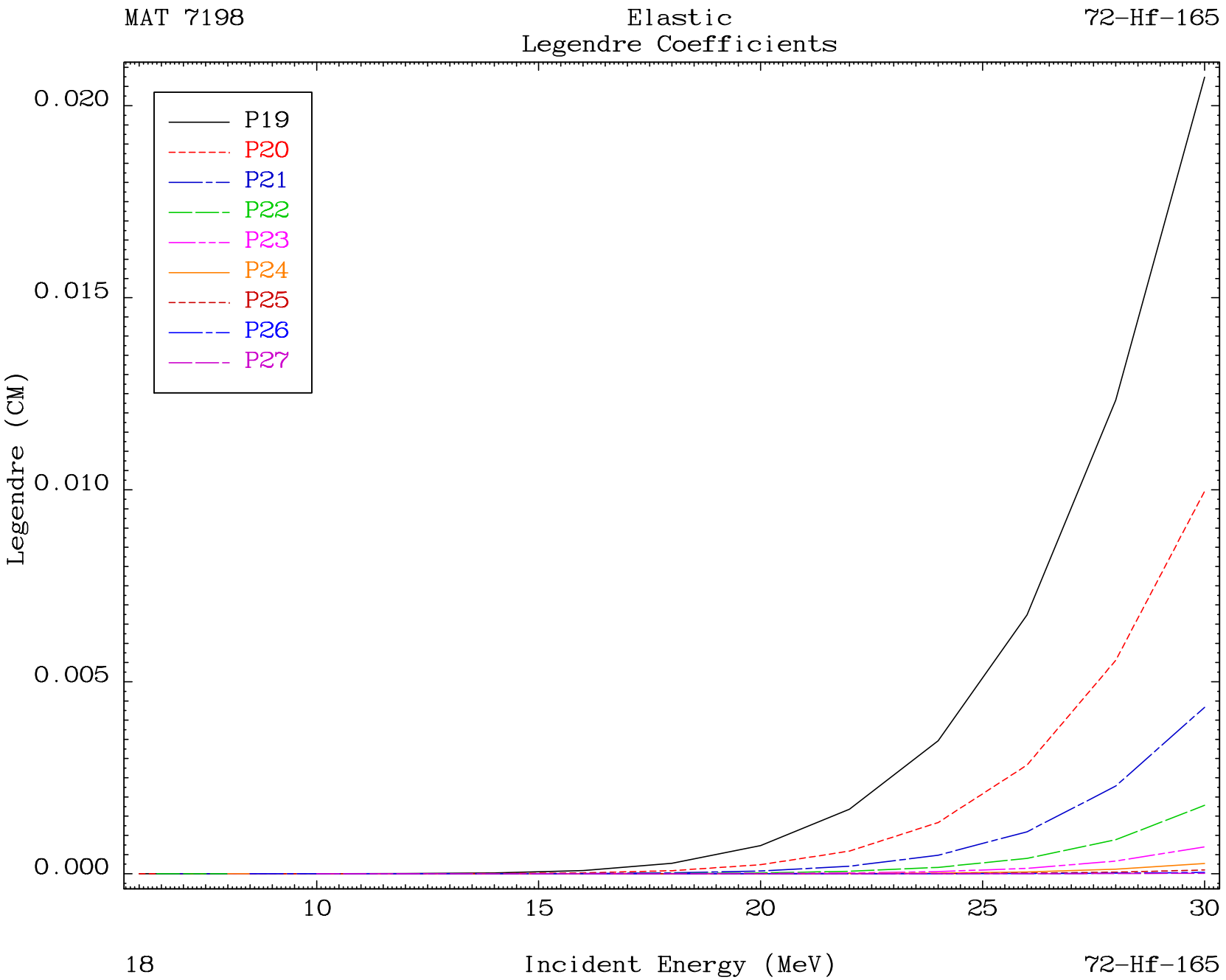

MAT 7198
(n,t) Levels
72-Hf-165
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
13
72-Hf-165

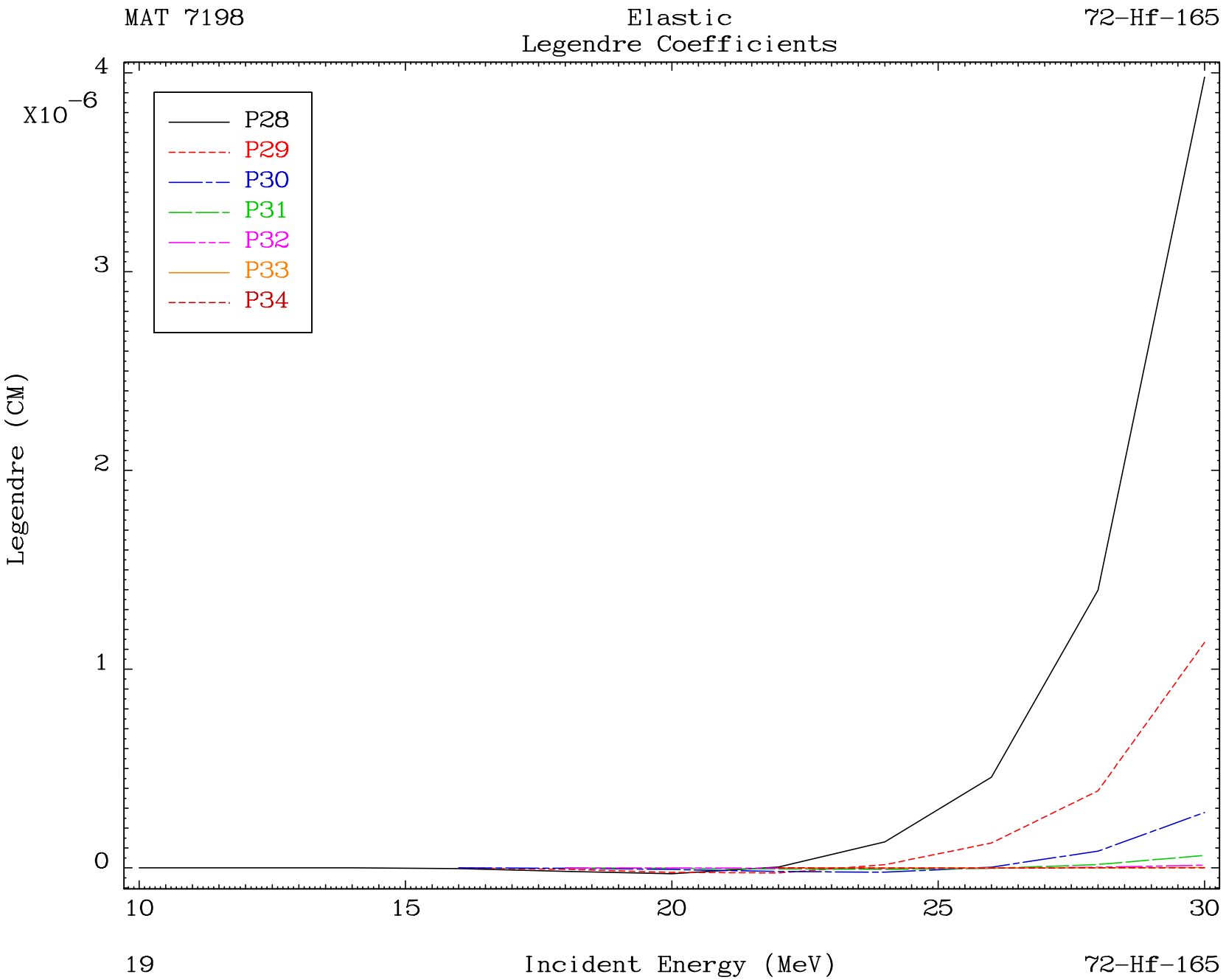

MAT 7198
(n,He3) Levels
72-Hf-165
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
Incident Energy (MeV)
14
72-Hf-165

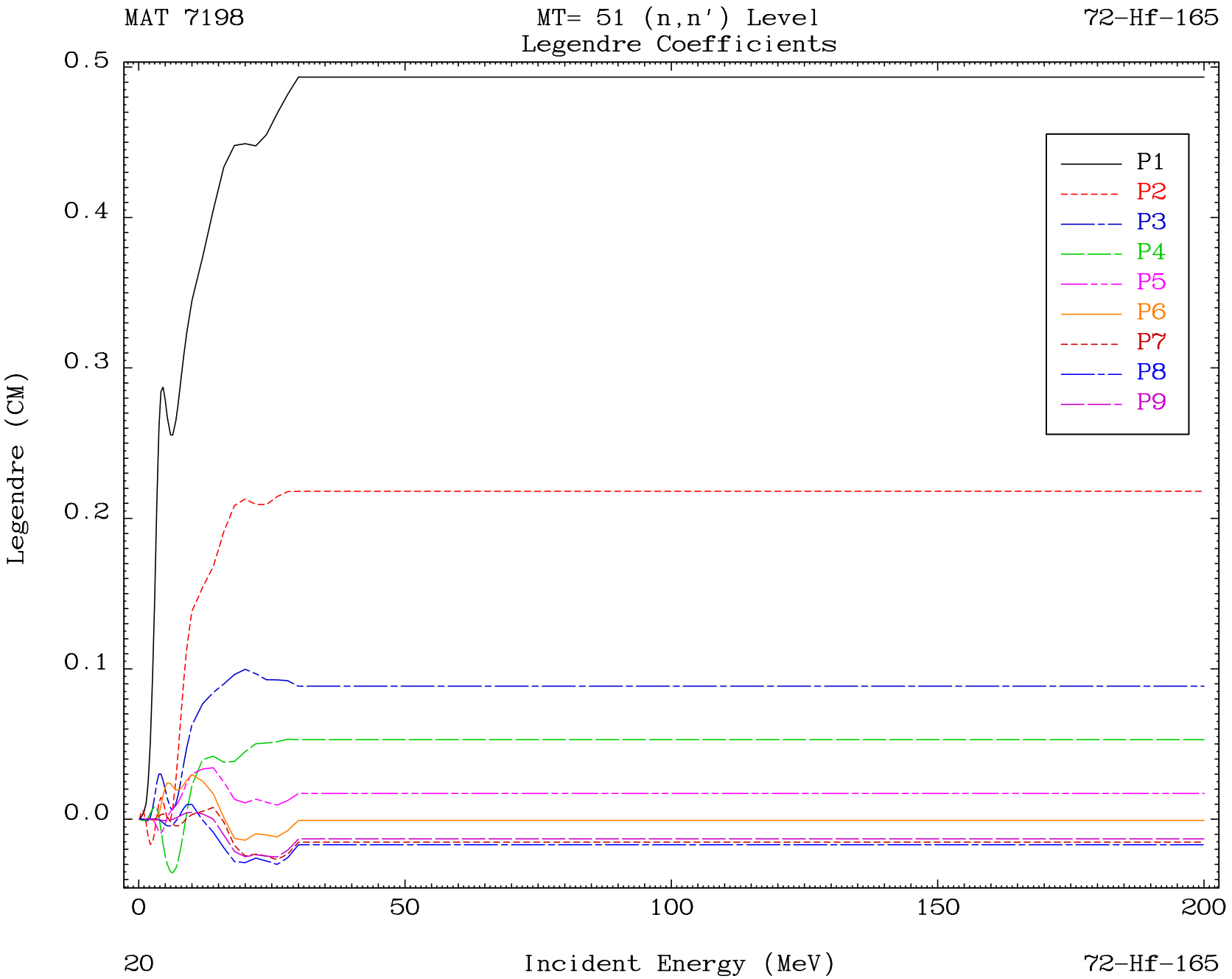

MAT 7198
(n,α) Levels
72-Hf-165
293 Kelvin Cross Sections
Cross Section (barns)
10^0
10^-2
10^-4
10^-6
5
(n,α)
(n,2α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
15
Incident Energy (MeV)
72-Hf-165

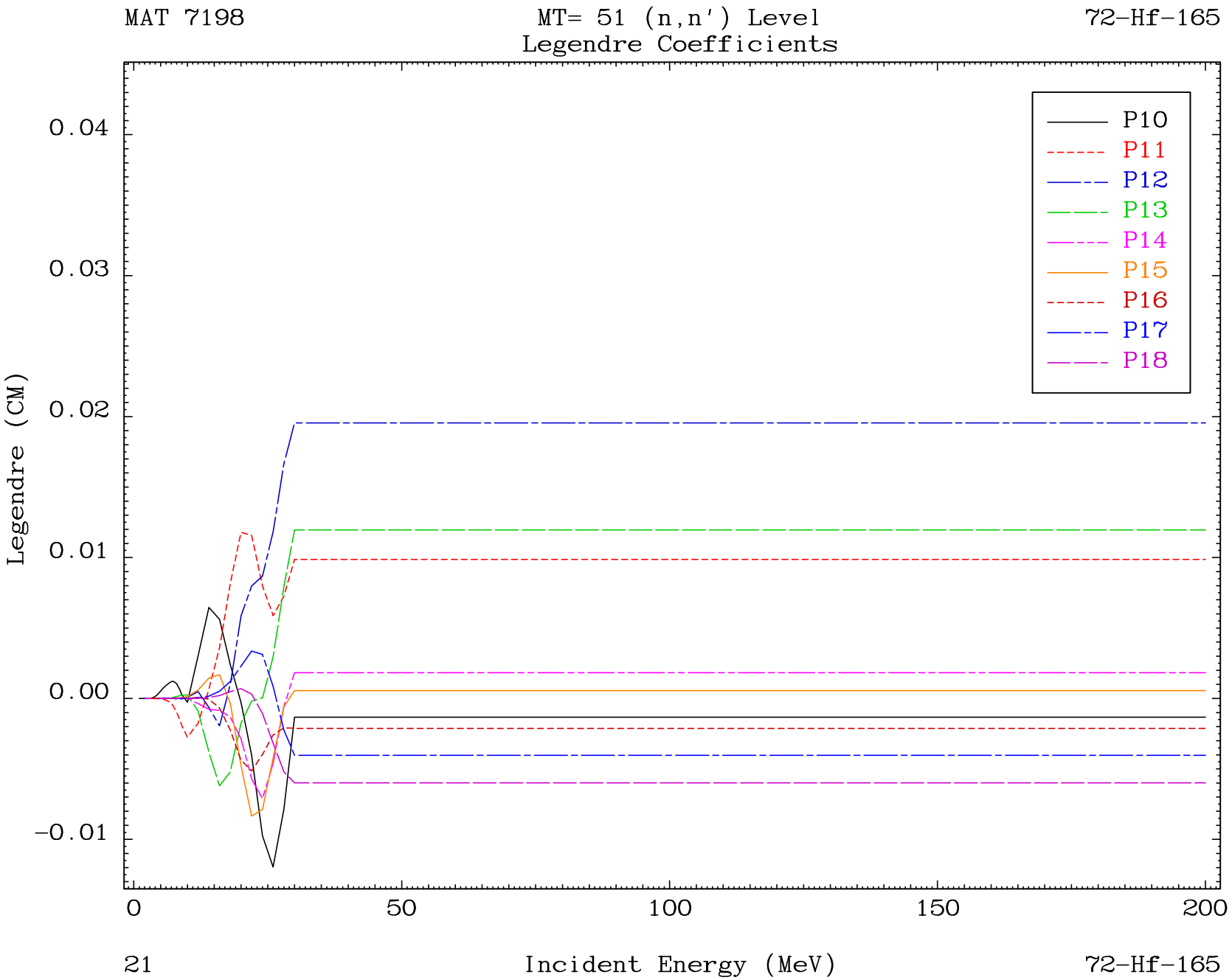

MAT 7198
Elastic
Legendre Coefficients
72-Hf-165
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
16
Incident Energy (MeV)
72-Hf-165
P1
P2
P3
P4
P5
P6
P7
P8
P9

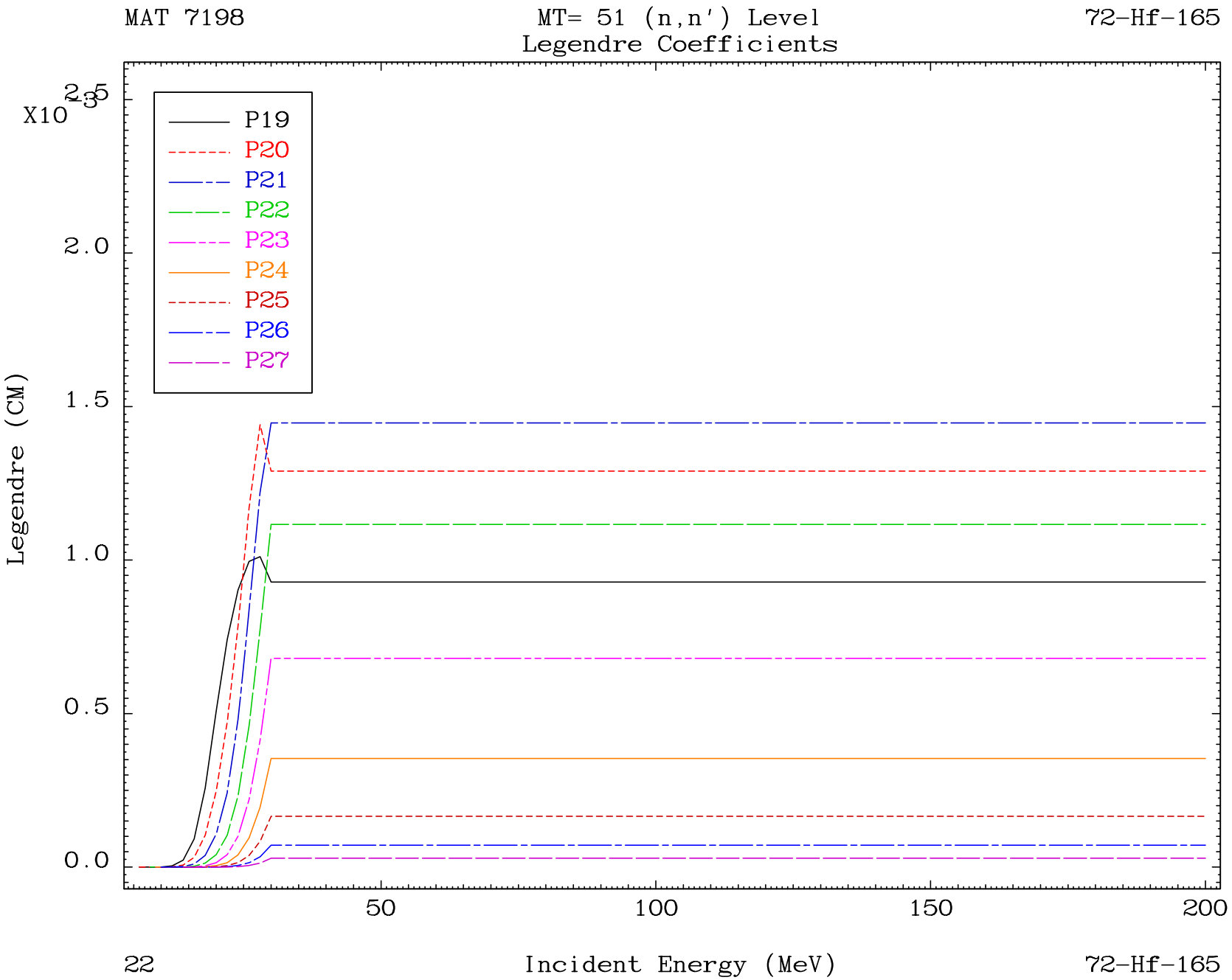

MAT 7198
Elastic
Legendre Coefficients
72-Hf-165
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.0
0.1
0.2
0.3
5
10
15
20
25
30
17
Incident Energy (MeV)
72-Hf-165

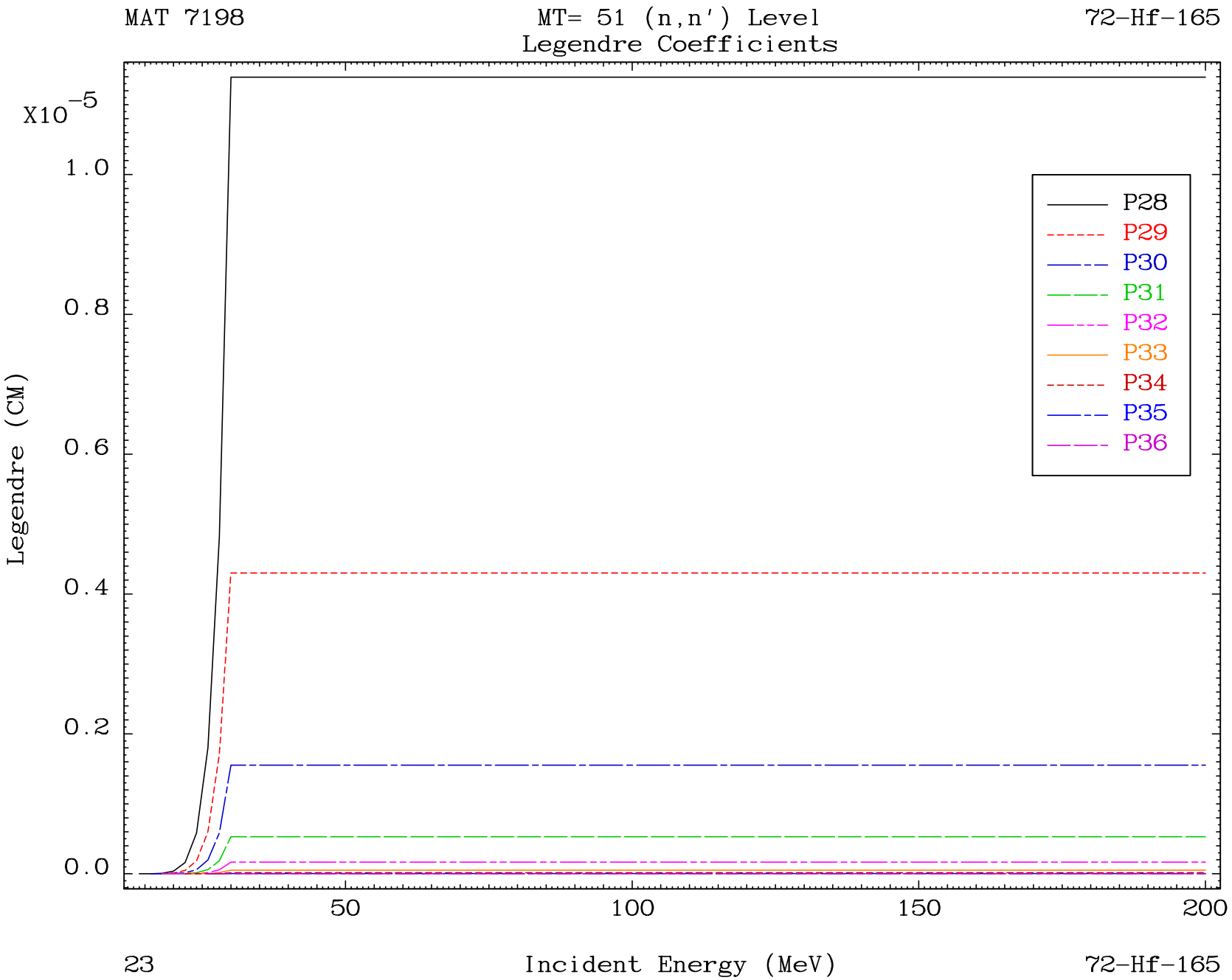

MAT 7198
Elastic
Legendre Coefficients
72-Hf-165
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
10
15
20
25
30
18
Incident Energy (MeV)
72-Hf-165

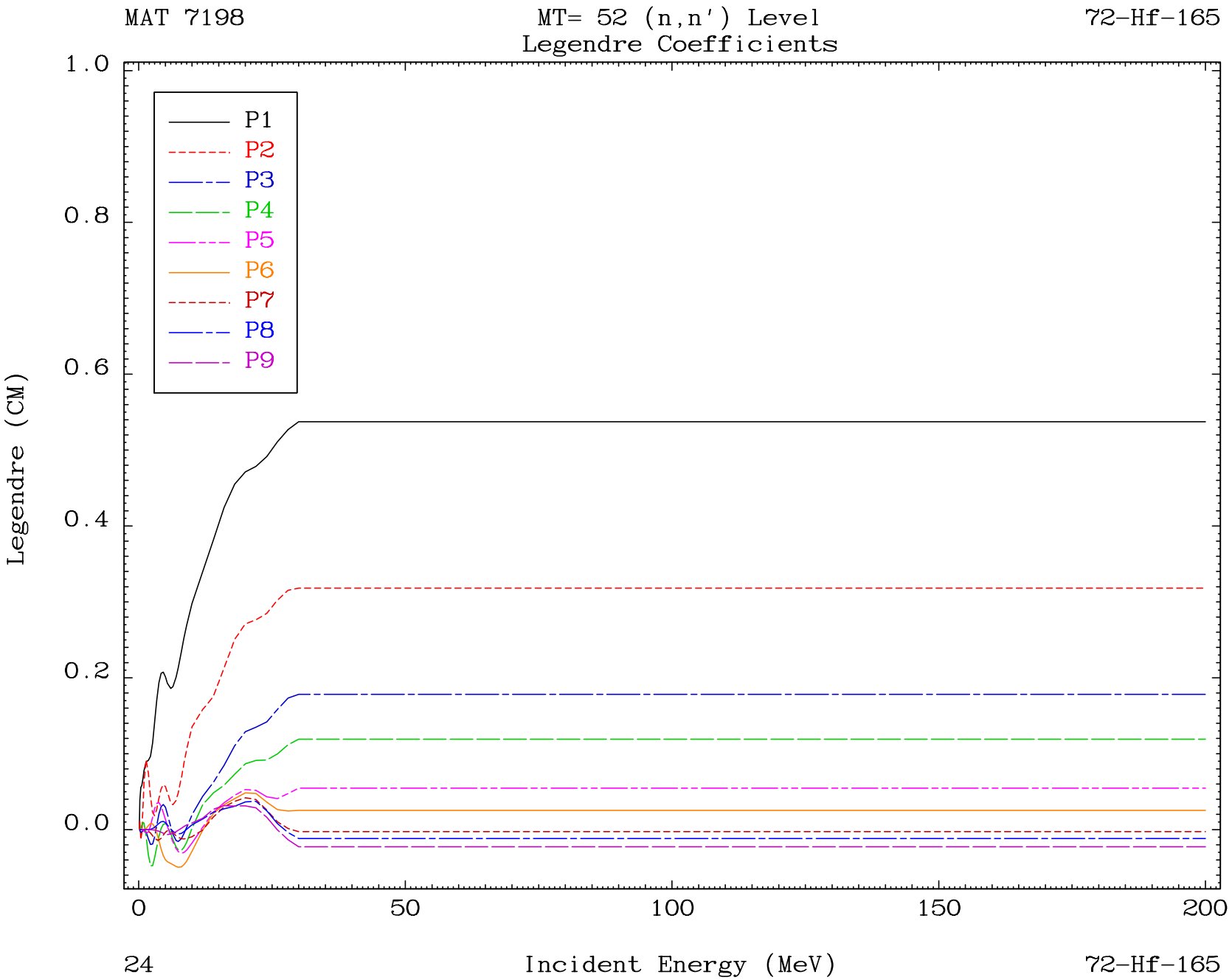

MAT 7198
Elastic
Legendre Coefficients
72-Hf-165
X10 −6
4
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
10
15
20
25
30
19
Incident Energy (MeV)
72-Hf-165

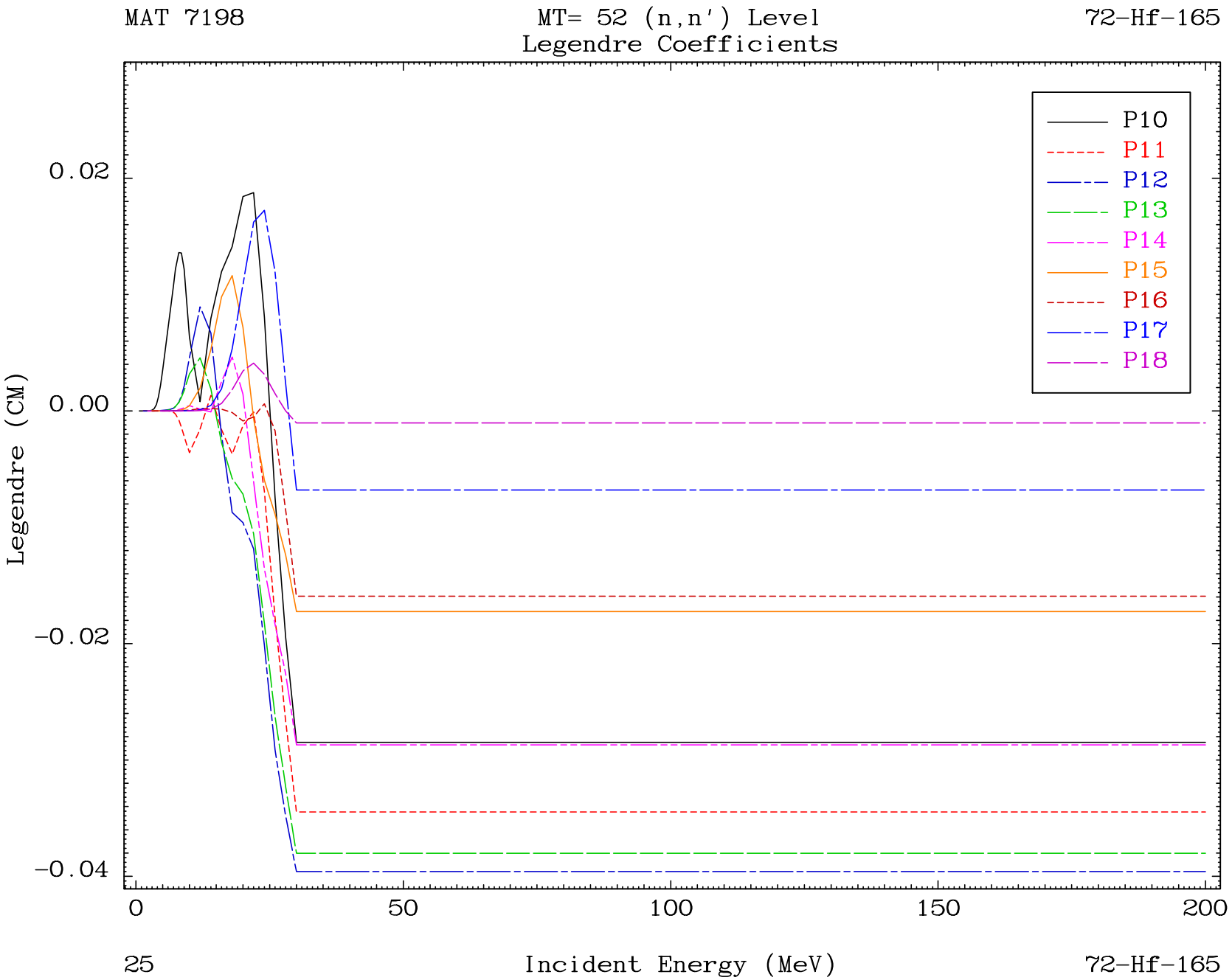

MAT 7198
MT= 51 (n,n') Level
Legendre Coefficients
72-Hf-165
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
20
Incident Energy (MeV)
72-Hf-165
P1
P2
P3
P4
P5
P6
P7
P8
P9

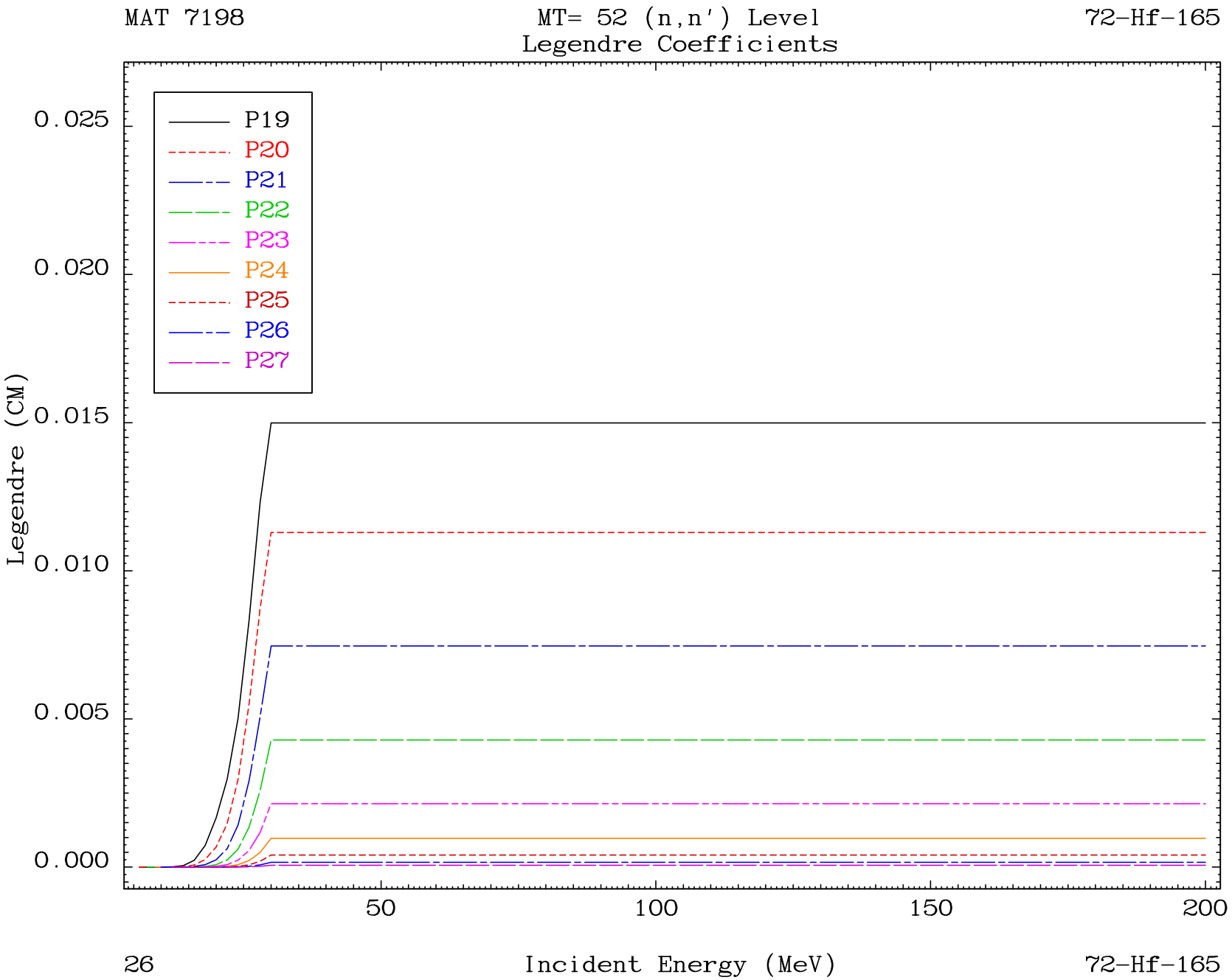

MAT 7198
MT= 51 (n,n') Level
Legendre Coefficients
72-Hf-165
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
21
Incident Energy (MeV)
72-Hf-165

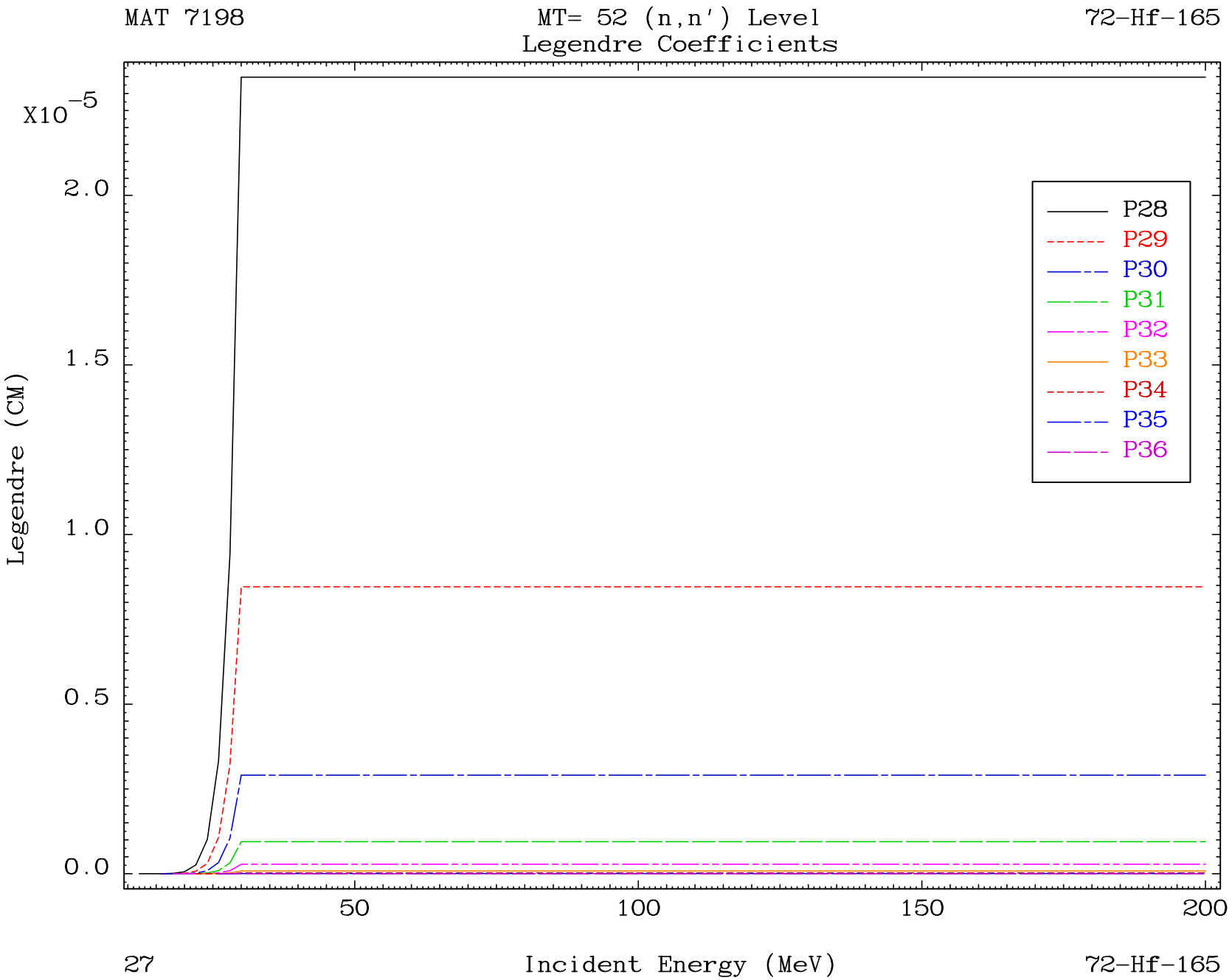

MAT 7198
MT= 51 (n,n') Level
Legendre Coefficients
72-Hf-165
X10 -3
2.5
2.0
1.5
1.0
0.5
0.0
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
72-Hf-165

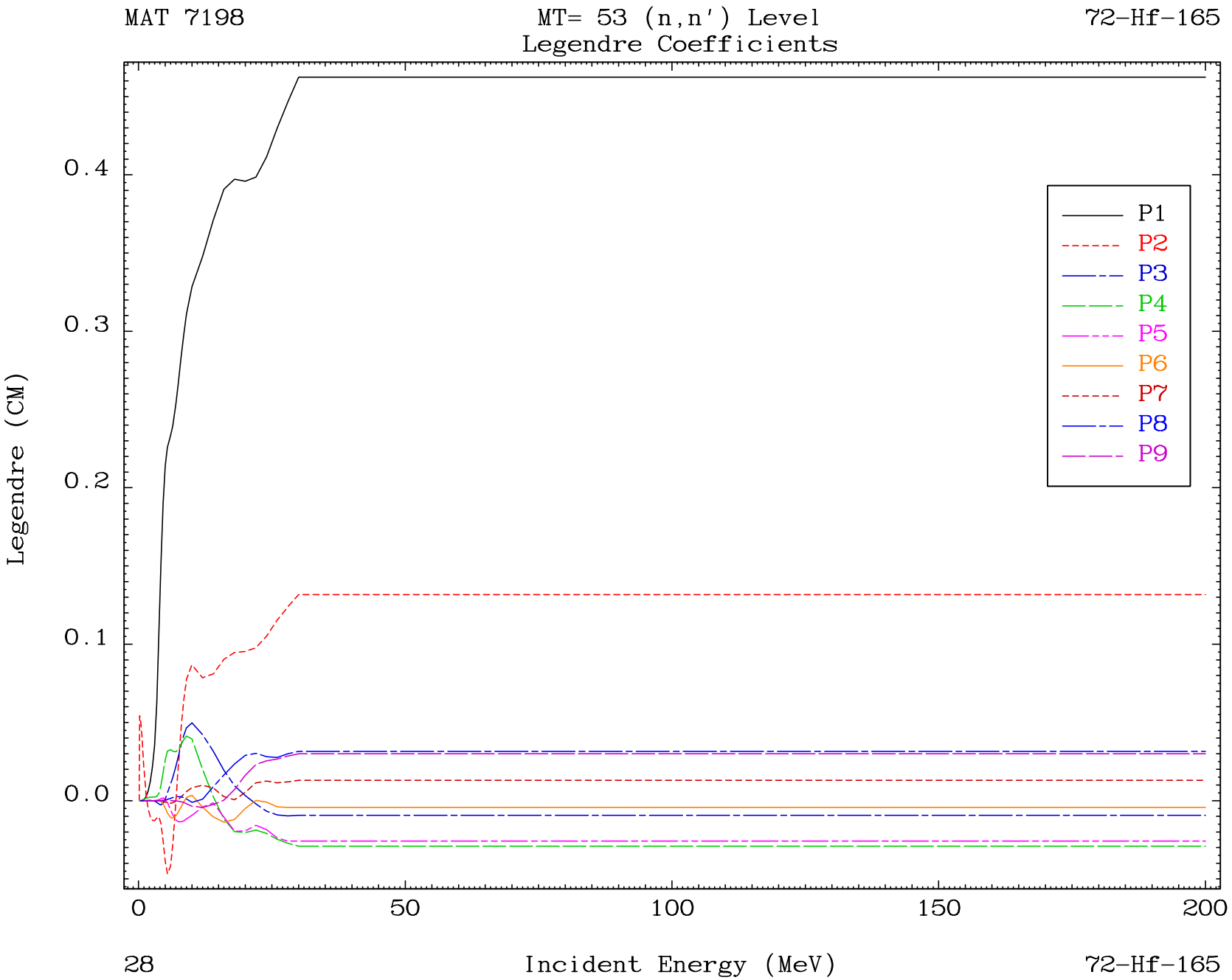

MAT 7198
MT= 51 (n,n') Level
Legendre Coefficients
72-Hf-165
X10^-5
1.0
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
50
100
150
200
23
Incident Energy (MeV)
72-Hf-165
P28
P29
P30
P31
P32
P33
P34
P35
P36

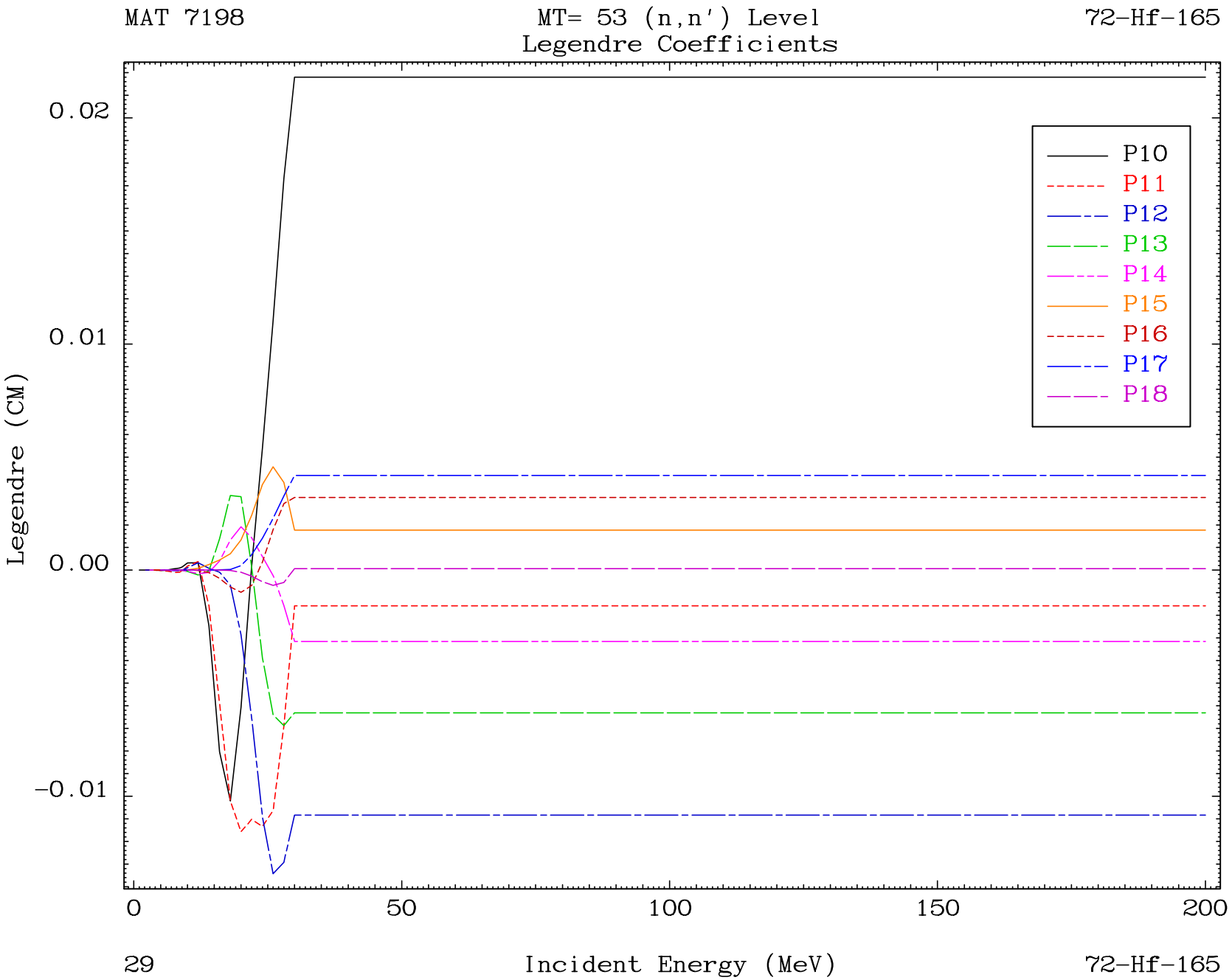

MAT 7198
MT= 52 (n,n') Level
Legendre Coefficients
72-Hf-165
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
24
Incident Energy (MeV)
72-Hf-165

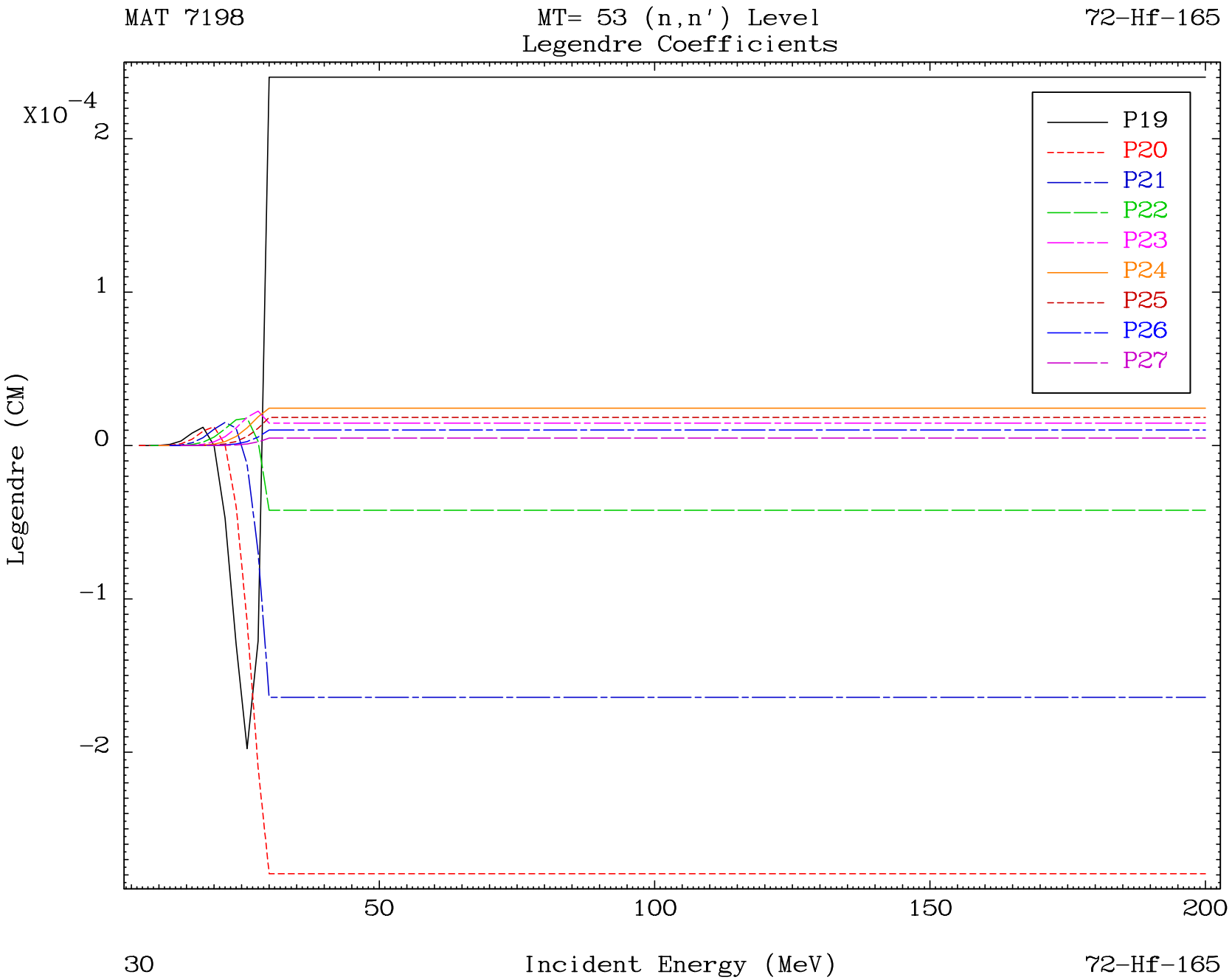

MAT 7198
MT= 52 (n,n') Level
Legendre Coefficients
72-Hf-165
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
25
Incident Energy (MeV)
72-Hf-165

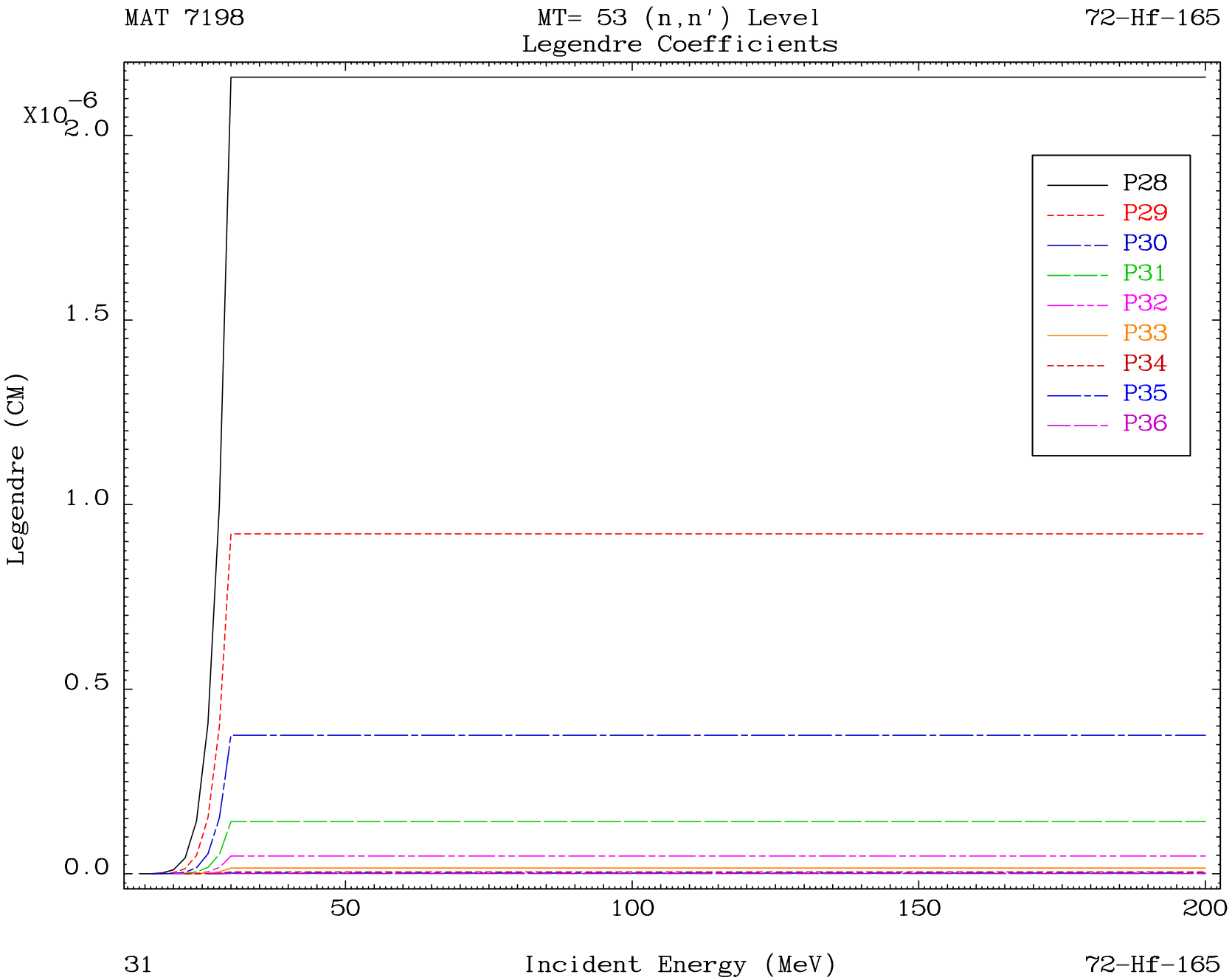

MAT 7198
MT= 52 (n,n') Level
Legendre Coefficients
72-Hf-165
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.025
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
26
Incident Energy (MeV)
72-Hf-165

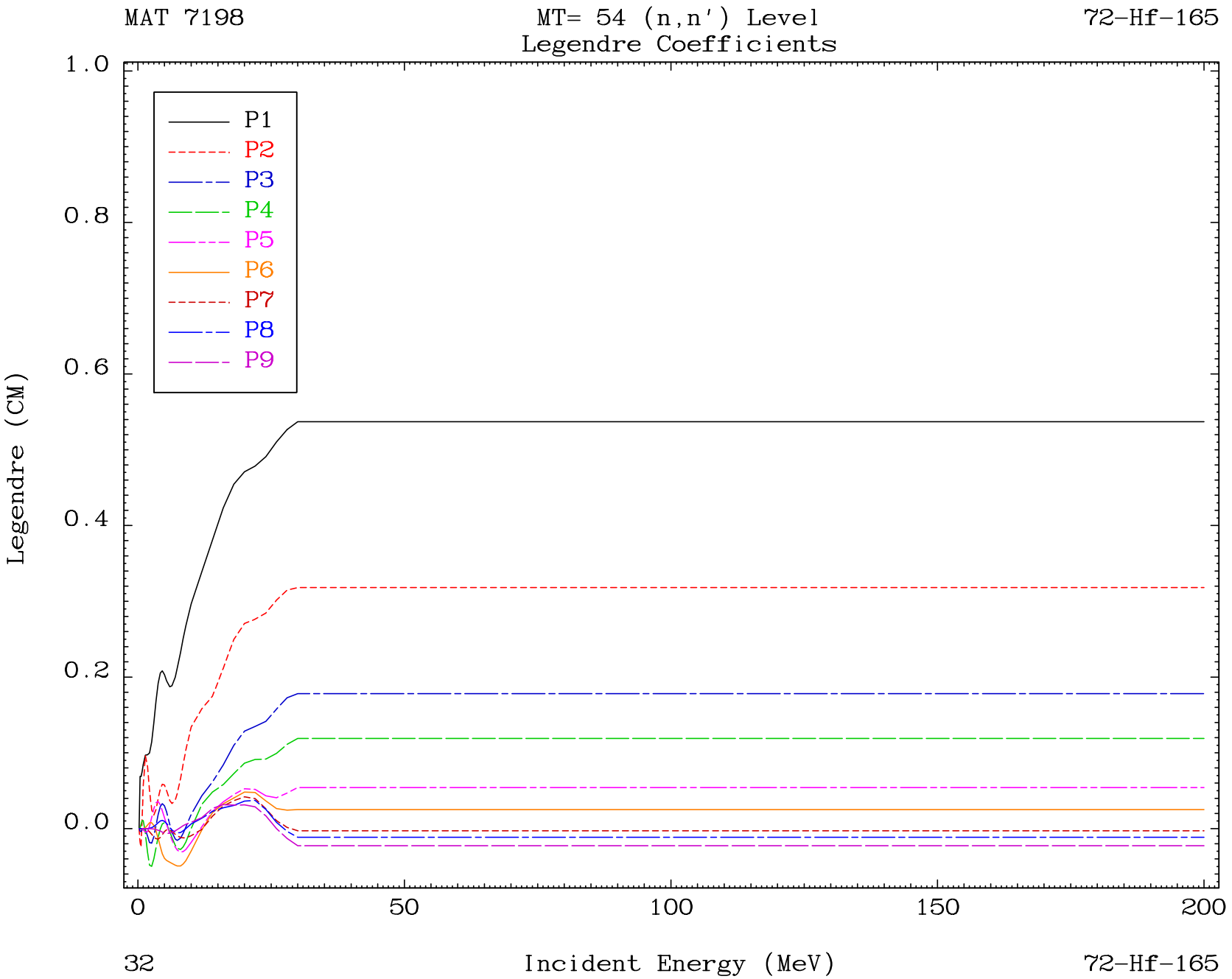

MAT 7198
MT= 52 (n,n') Level
Legendre Coefficients
72-Hf-165
X10-5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
27
Incident Energy (MeV)
72-Hf-165

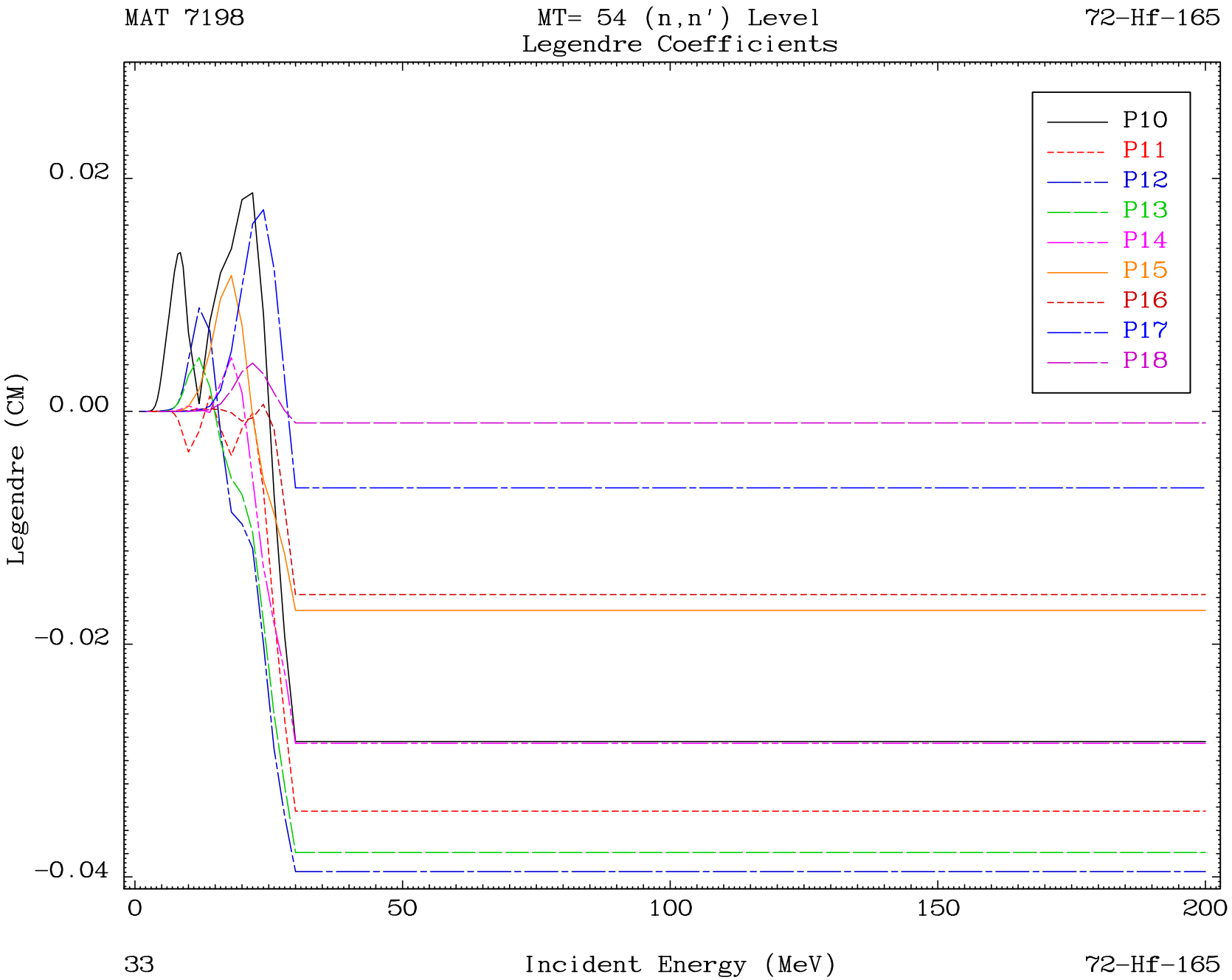

MAT 7198
MT= 53 (n,n') Level
Legendre Coefficients
72-Hf-165
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
28
Incident Energy (MeV)
72-Hf-165
P1
P2
P3
P4
P5
P6
P7
P8
P9

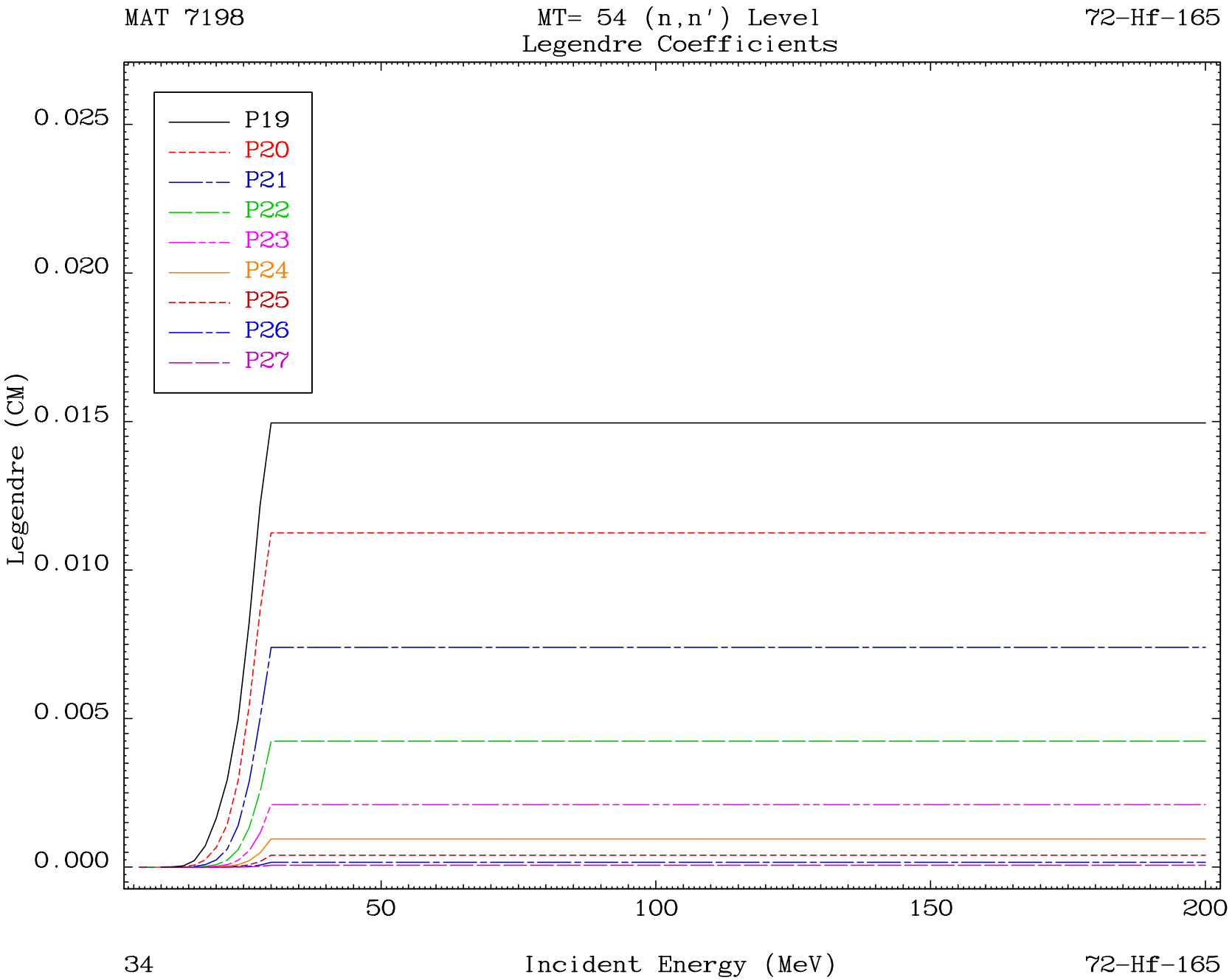

MAT 7198
MT= 53 (n,n') Level
Legendre Coefficients
72-Hf-165
0.02
0.01
0.00
-0.01
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
29
Incident Energy (MeV)
72-Hf-165

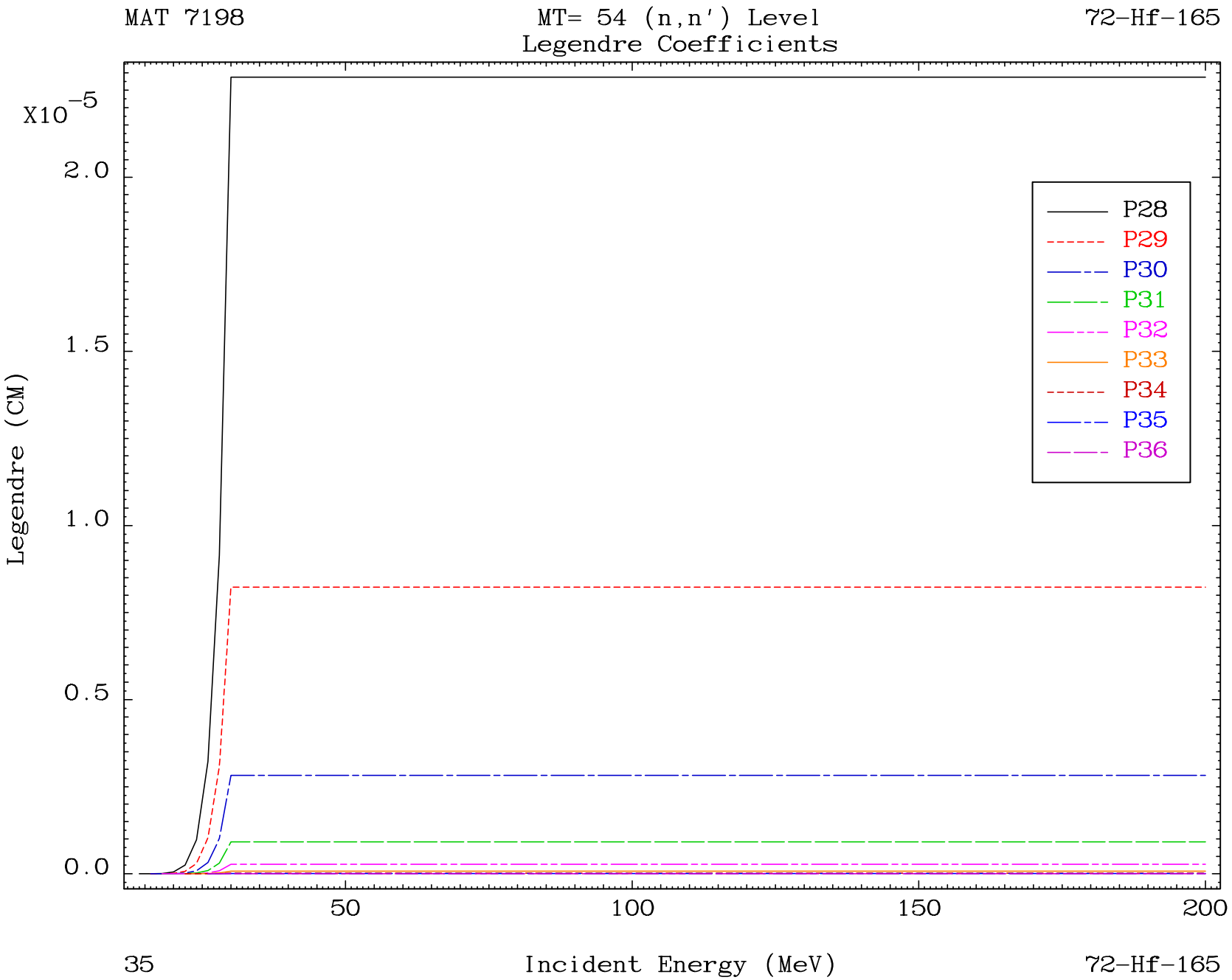

MAT 7198
MT= 53 (n,n') Level
Legendre Coefficients
72-Hf-165
X10^-4
2
1
0
-1
-2
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
30
Incident Energy (MeV)
72-Hf-165

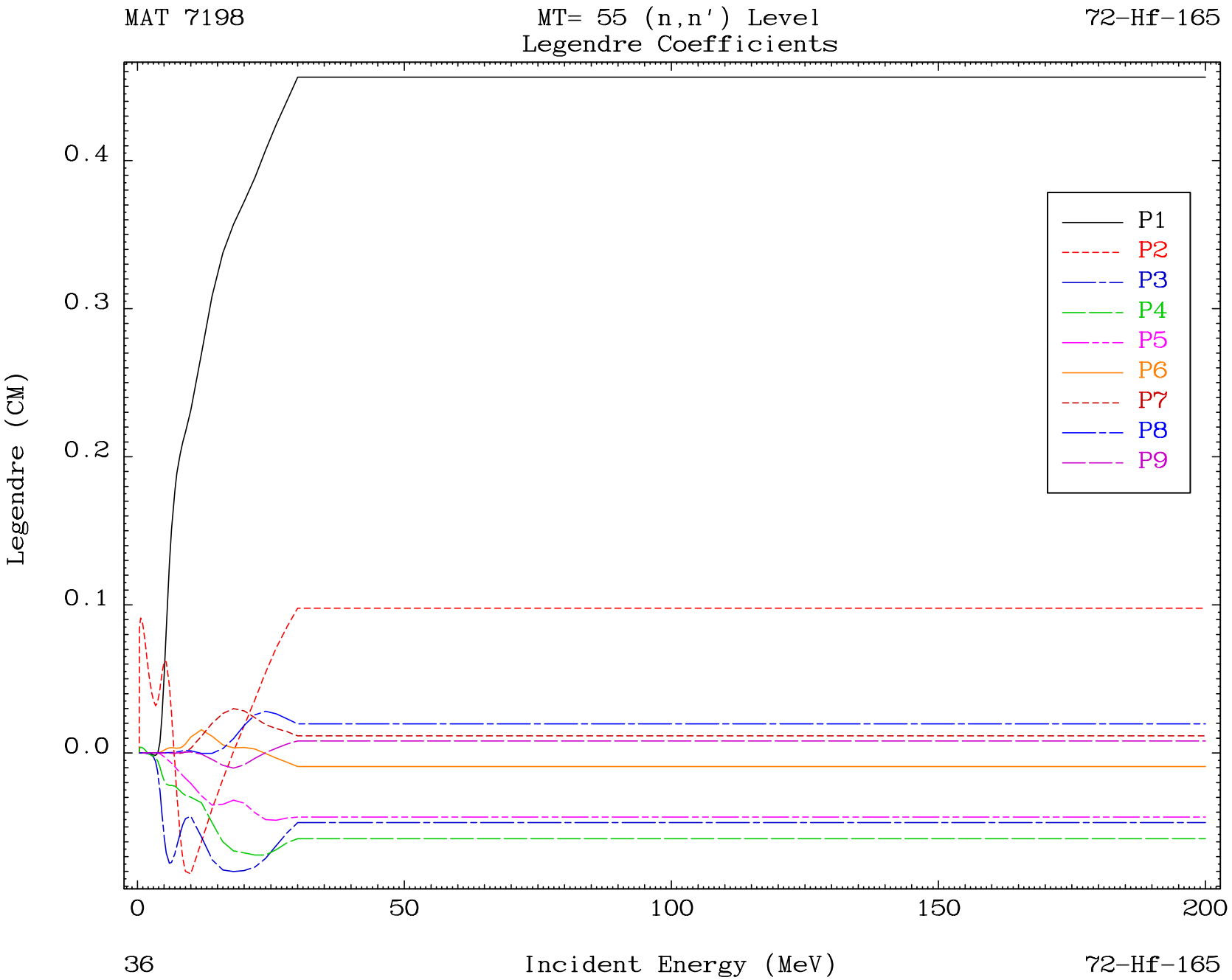

MAT 7198
MT= 53 (n,n') Level
Legendre Coefficients
72-Hf-165
X10-6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
31
Incident Energy (MeV)
72-Hf-165

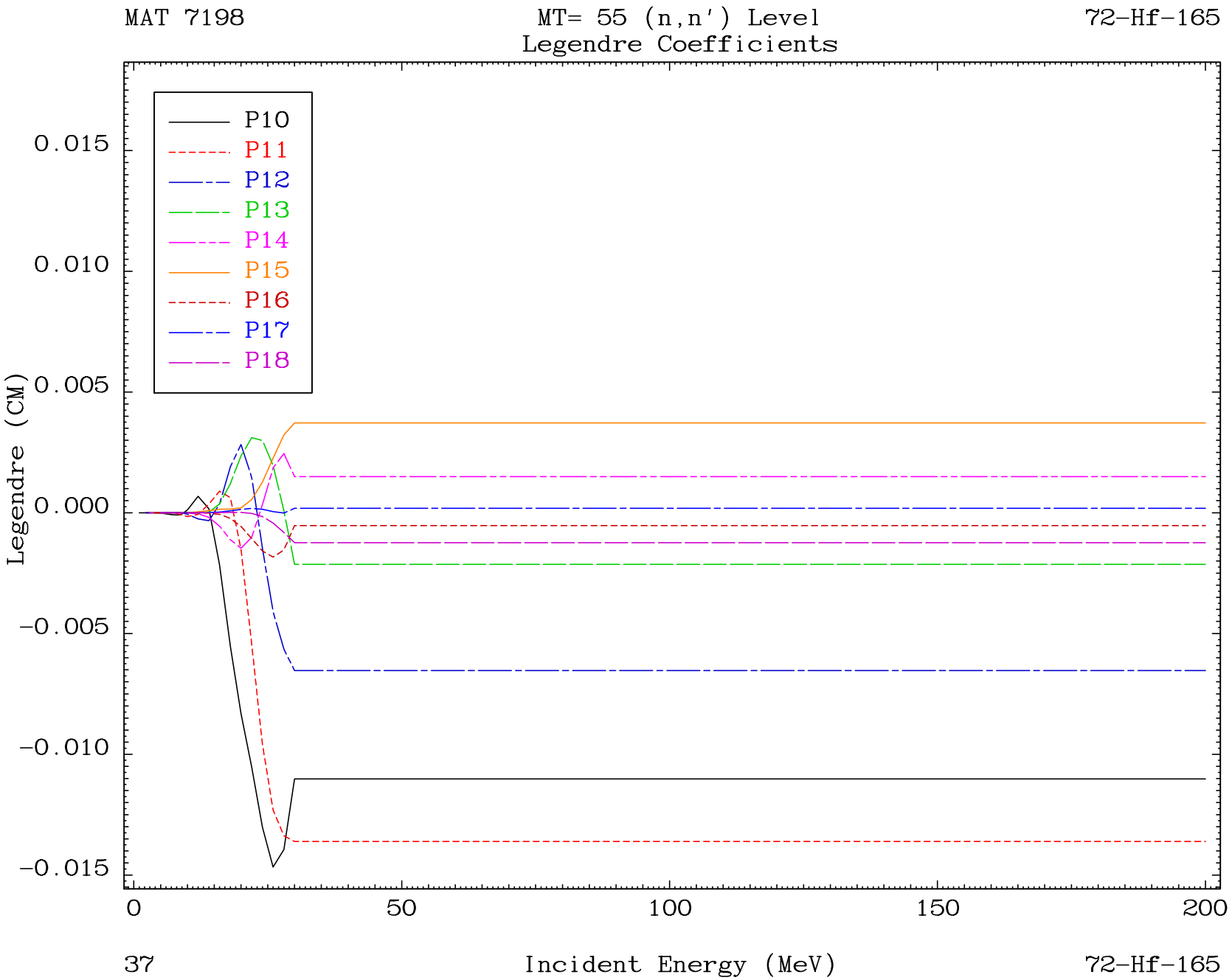

MAT 7198
MT= 54 (n,n') Level
Legendre Coefficients
72-Hf-165
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
32
Incident Energy (MeV)
72-Hf-165

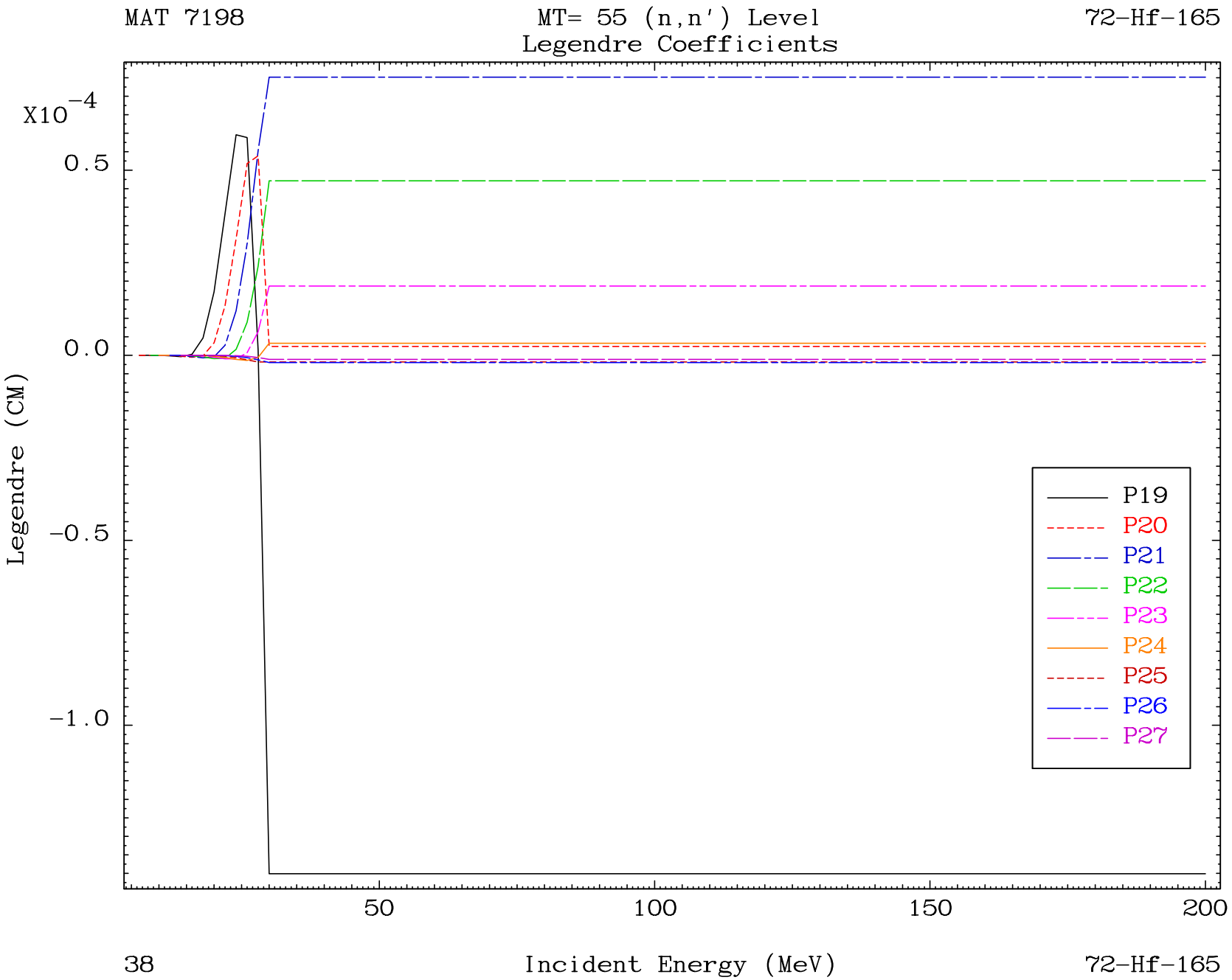

MAT 7198
MT= 54 (n,n') Level
Legendre Coefficients
72-Hf-165
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
33
Incident Energy (MeV)
72-Hf-165

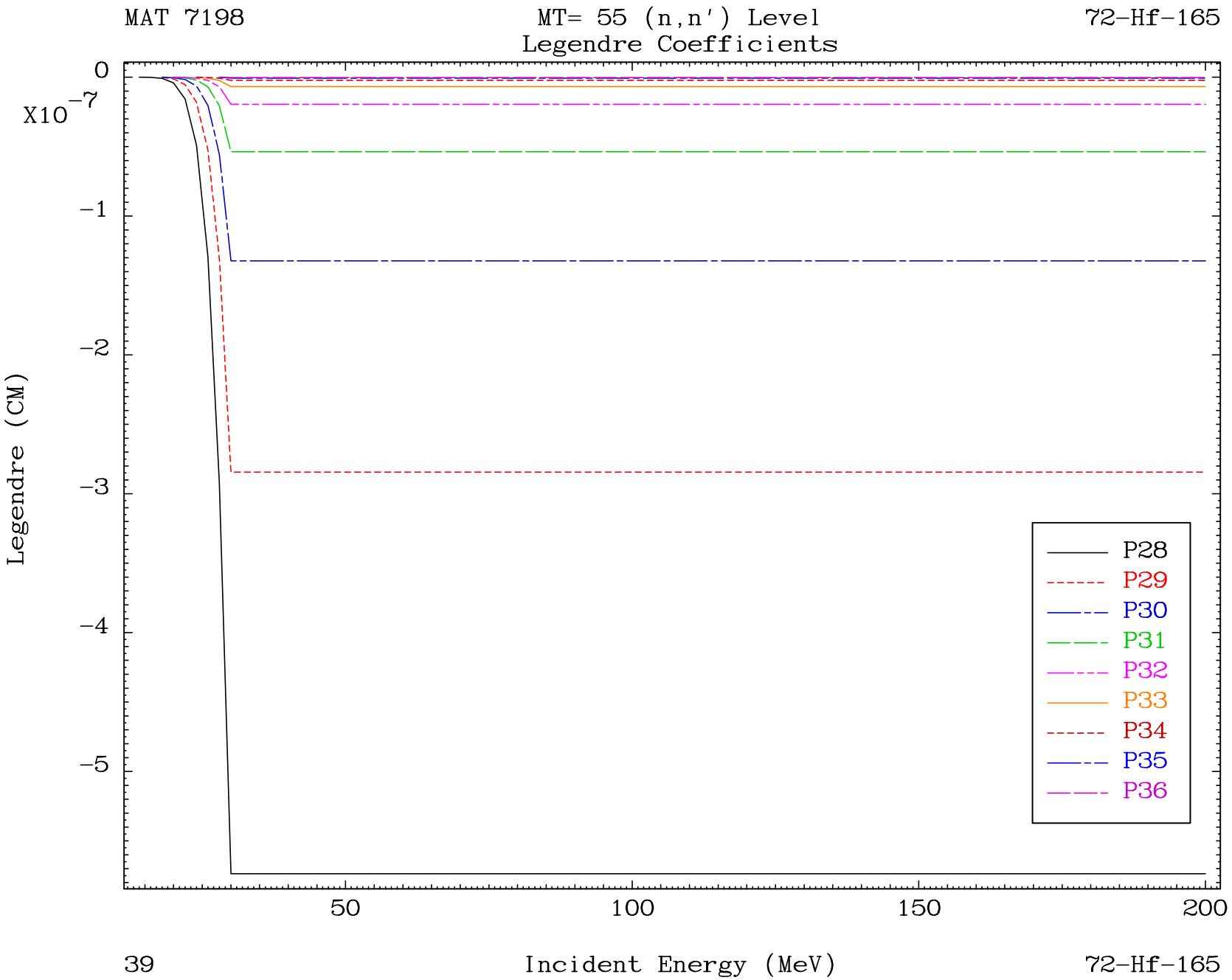

MAT 7198
MT= 54 (n,n') Level
Legendre Coefficients
72-Hf-165
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.025
0.020
0.015
0.010
0.005
0.000
Legendre (CM)
50
100
150
200
34
Incident Energy (MeV)
72-Hf-165

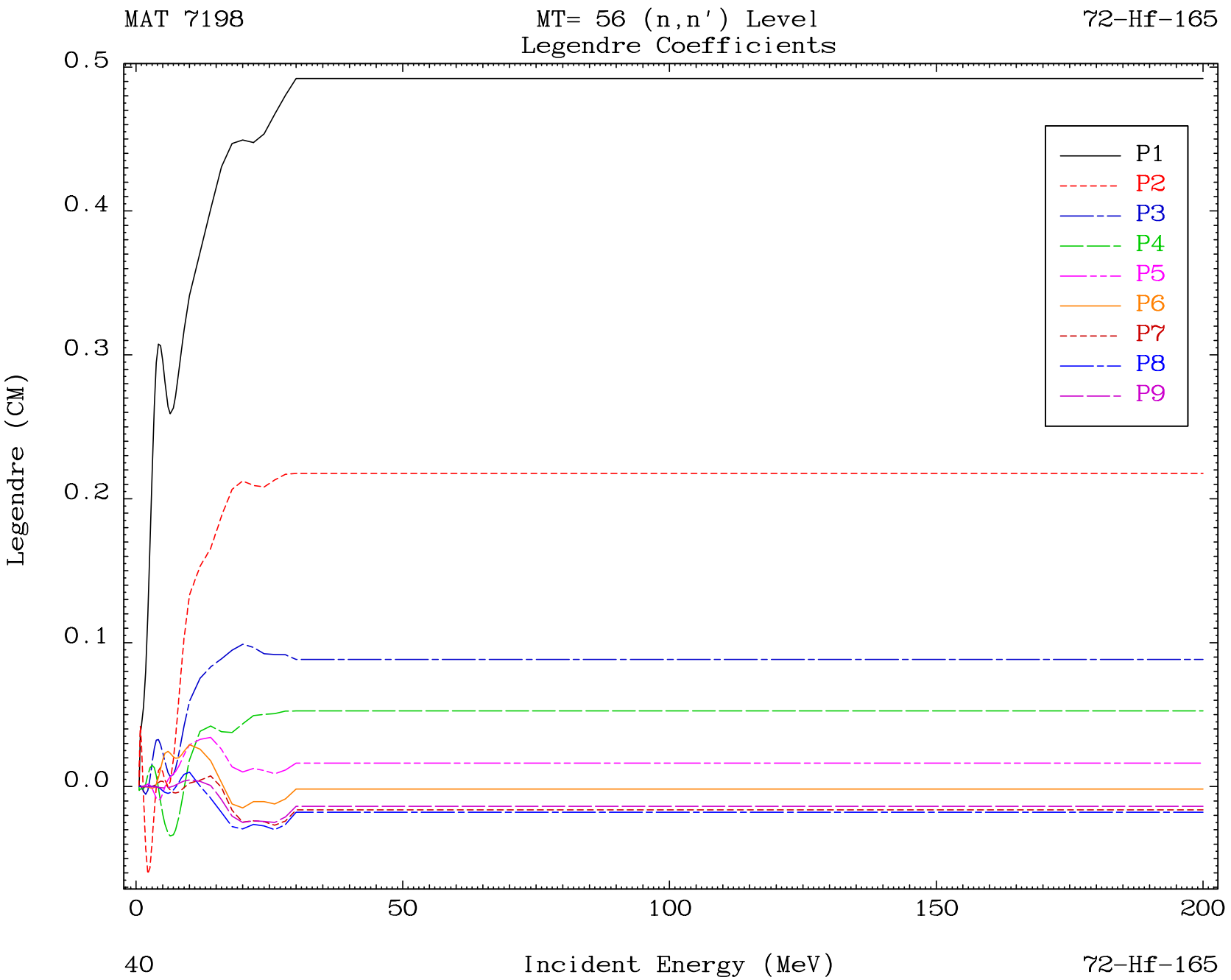

MAT 7198
MT= 54 (n,n') Level
Legendre Coefficients
72-Hf-165
X10^-5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
35
Incident Energy (MeV)
72-Hf-165

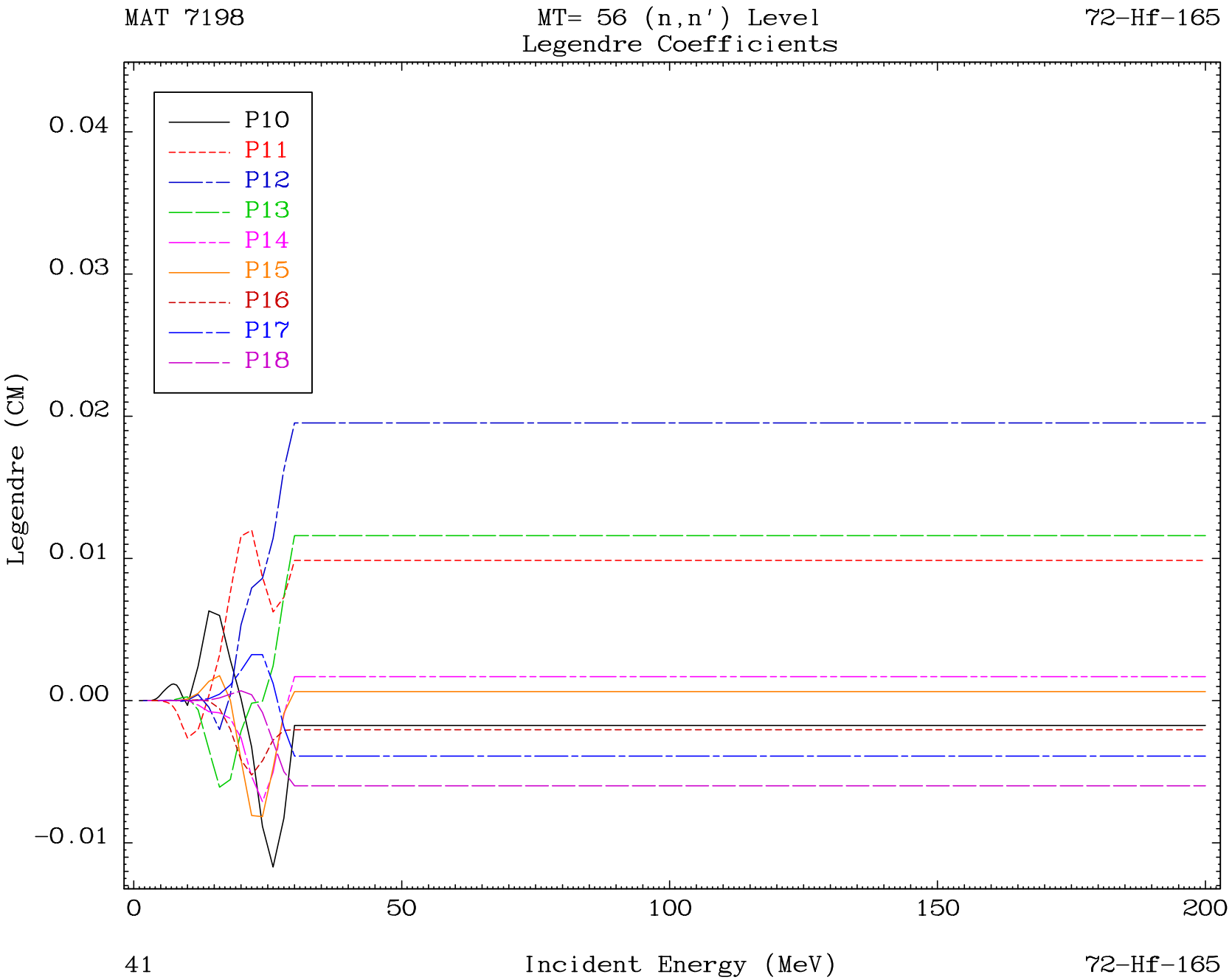

MAT 7198
MT= 55 (n,n') Level
Legendre Coefficients
72-Hf-165
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
36
Incident Energy (MeV)
72-Hf-165

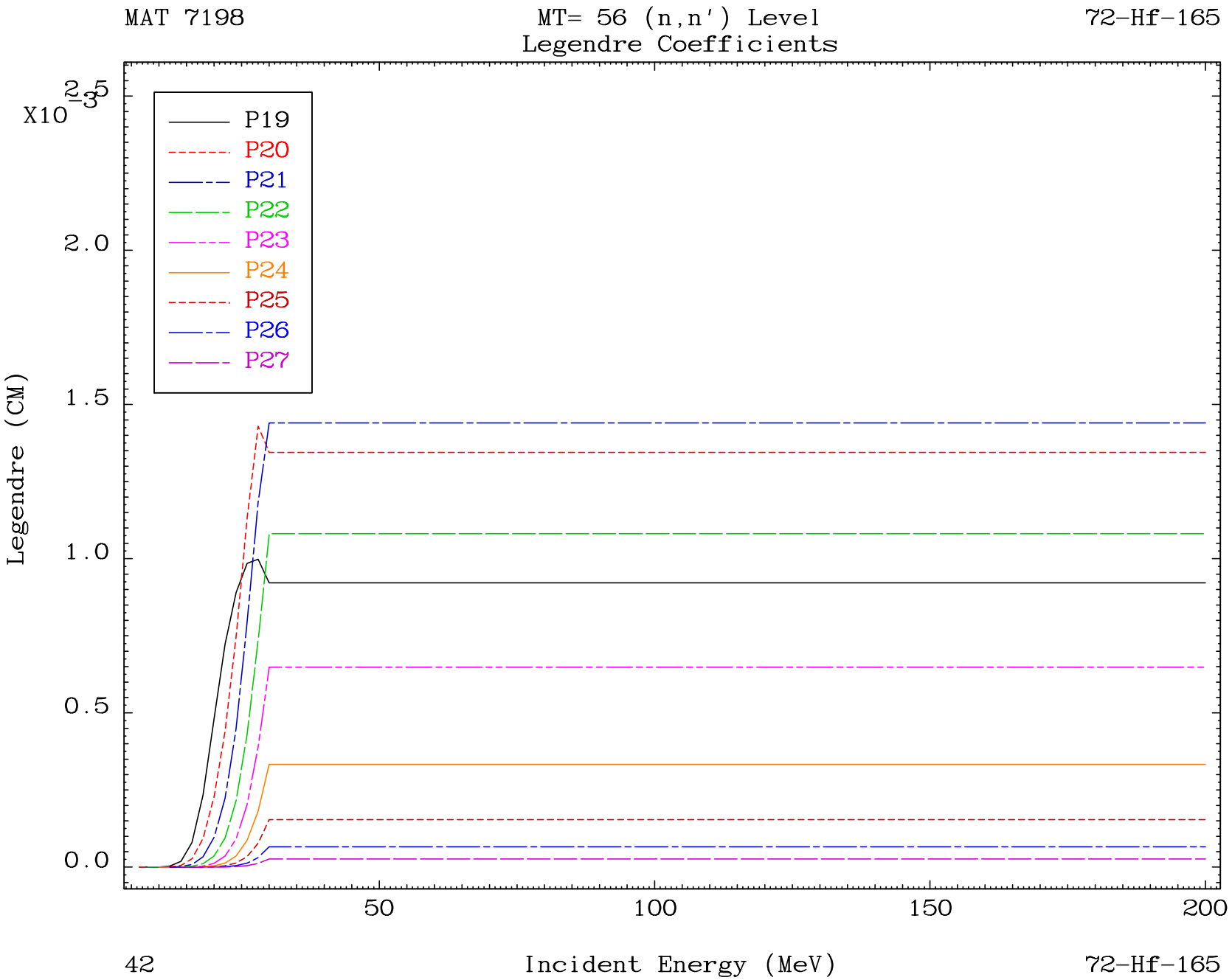

MAT 7198
MT= 55 (n,n') Level
Legendre Coefficients
72-Hf-165
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
Legendre (CM)
0
50
100
150
200
37
Incident Energy (MeV)
72-Hf-165

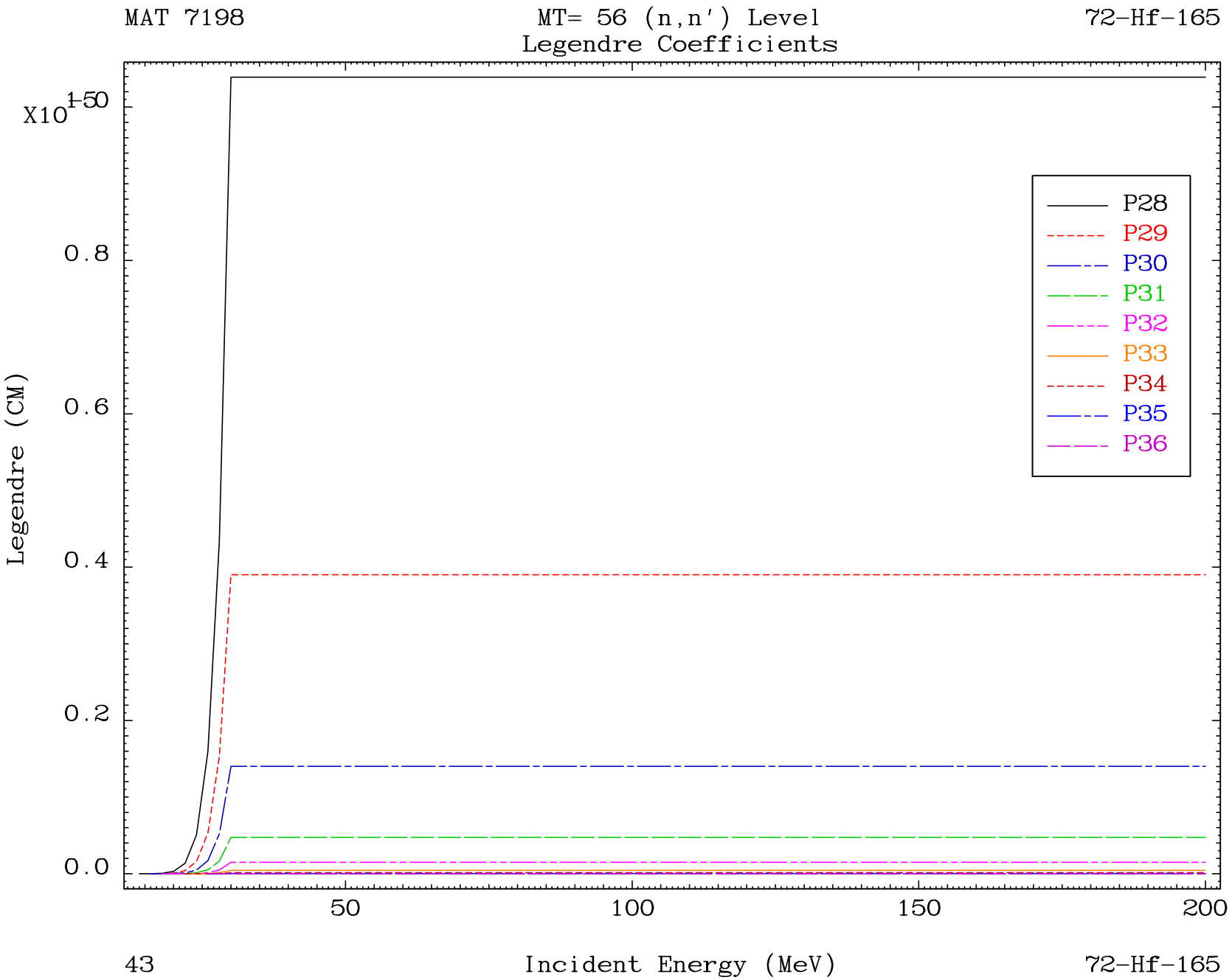

MAT 7198
MT= 55 (n,n') Level
Legendre Coefficients
72-Hf-165
X10^-4
0.5
0.0
-0.5
-1.0
Legendre (CM)
50
100
150
200
38
Incident Energy (MeV)
72-Hf-165
P19
P20
P21
P22
P23
P24
P25
P26
P27

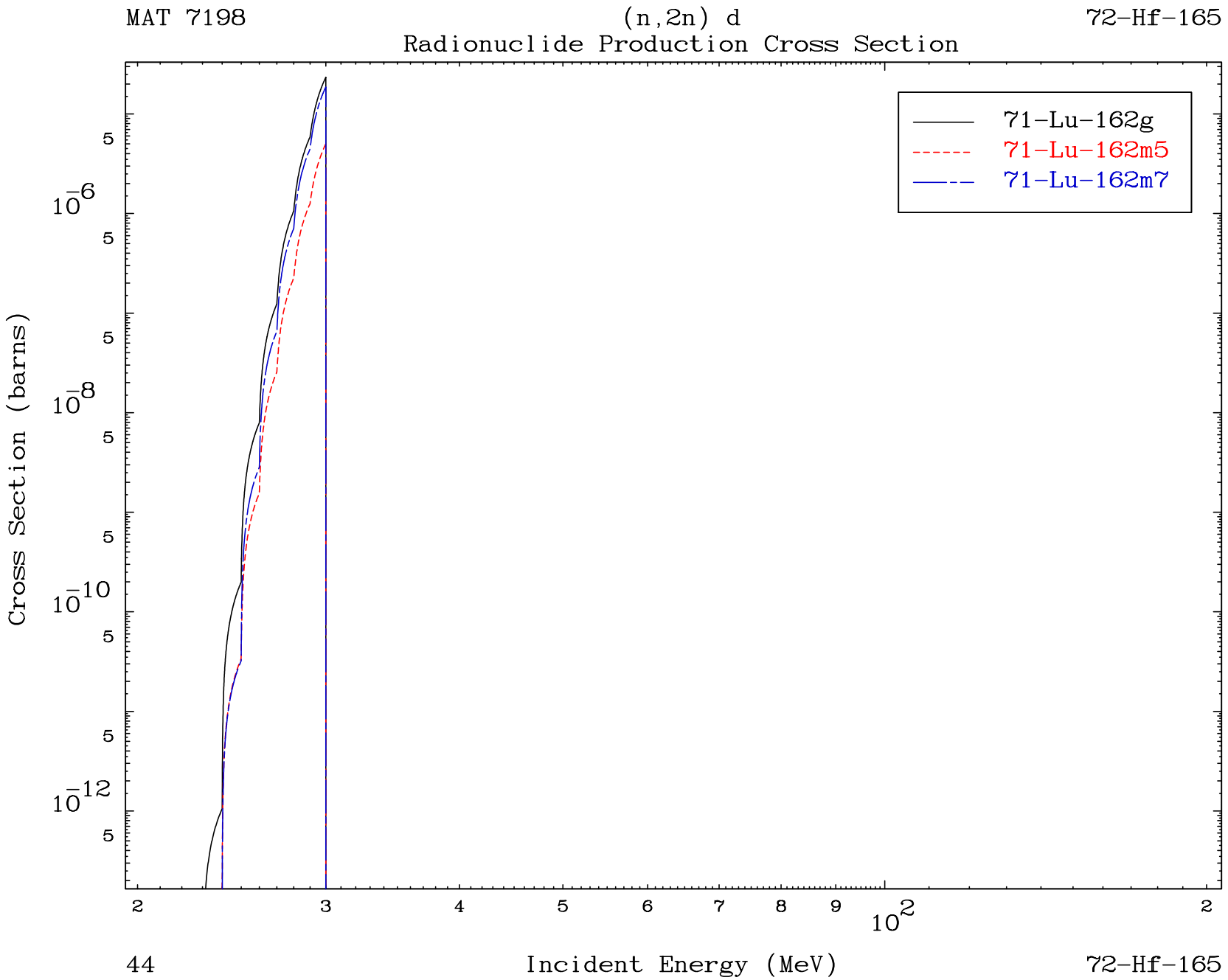

MAT 7198
MT= 55 (n,n') Level
Legendre Coefficients
72-Hf-165
X10-7
0
-1
-2
-3
-4
-5
Legendre (CM)
50
100
150
200
39
Incident Energy (MeV)
72-Hf-165
P28
P29
P30
P31
P32
P33
P34
P35
P36

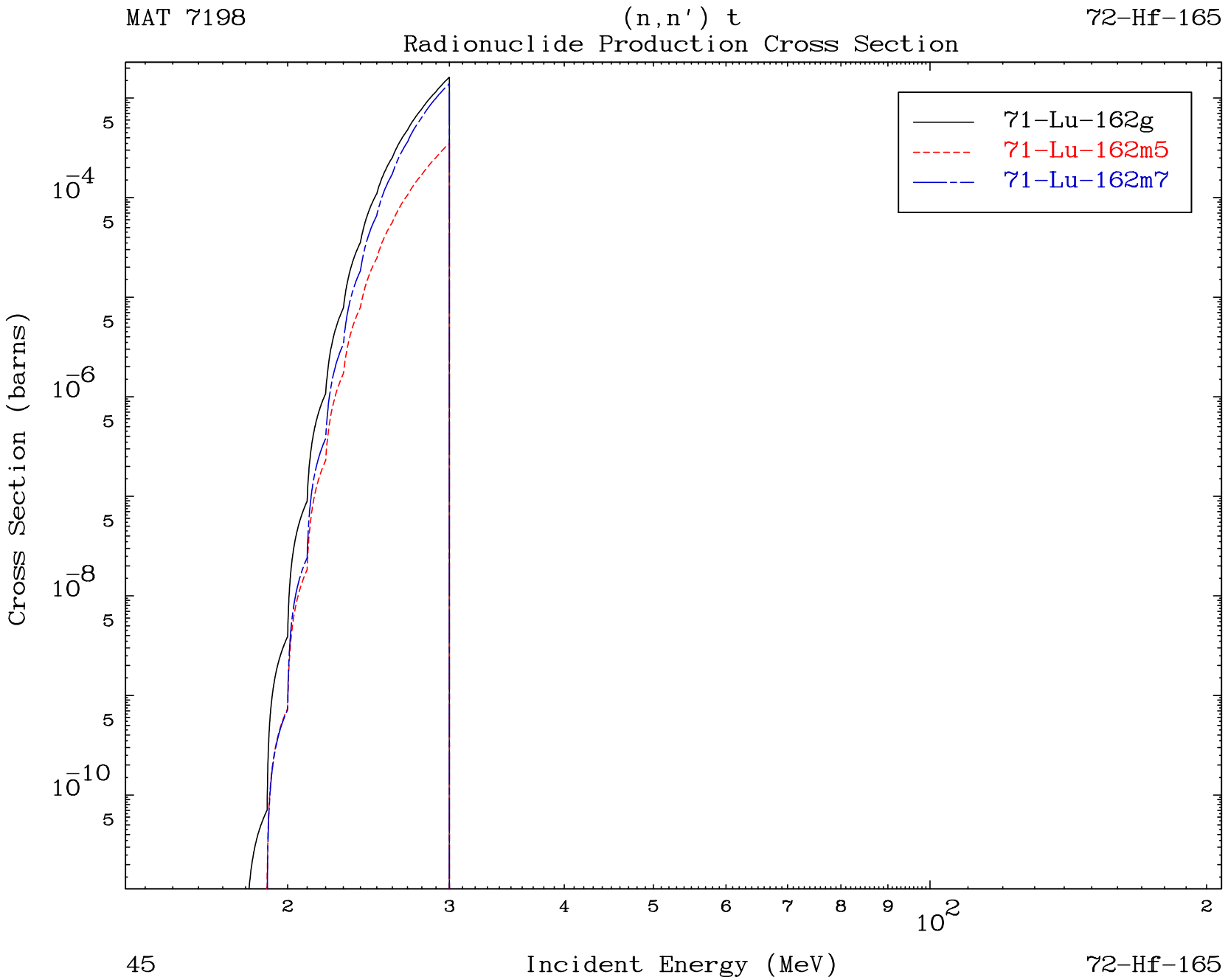

MAT 7198
MT= 56 (n,n') Level
Legendre Coefficients
72-Hf-165
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
40
Incident Energy (MeV)
72-Hf-165

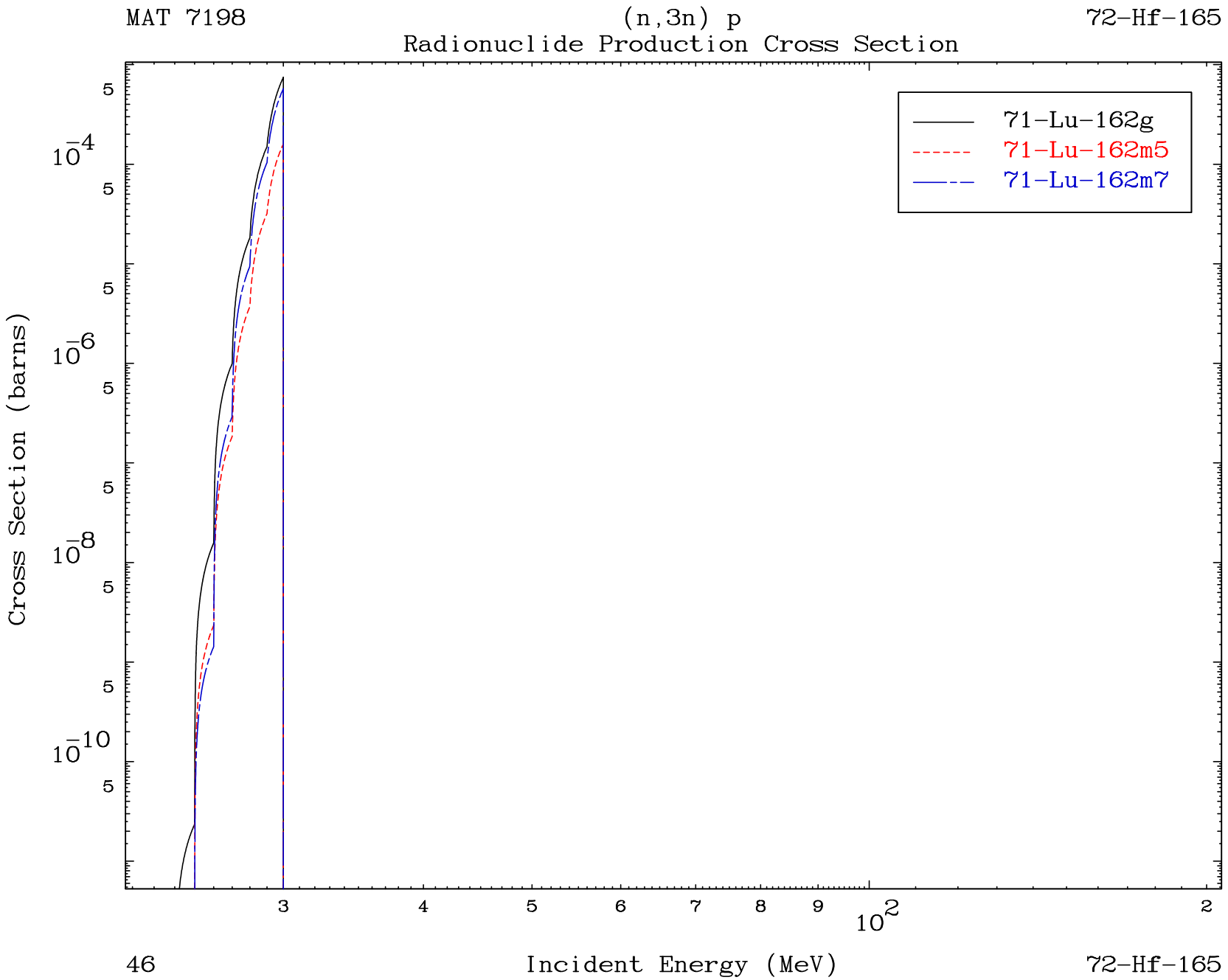

MAT 7198
MT= 56 (n,n') Level
Legendre Coefficients
72-Hf-165
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.03
0.02
0.01
0.00
-0.01
Legendre (CM)
0
50
100
150
200
41
Incident Energy (MeV)
72-Hf-165

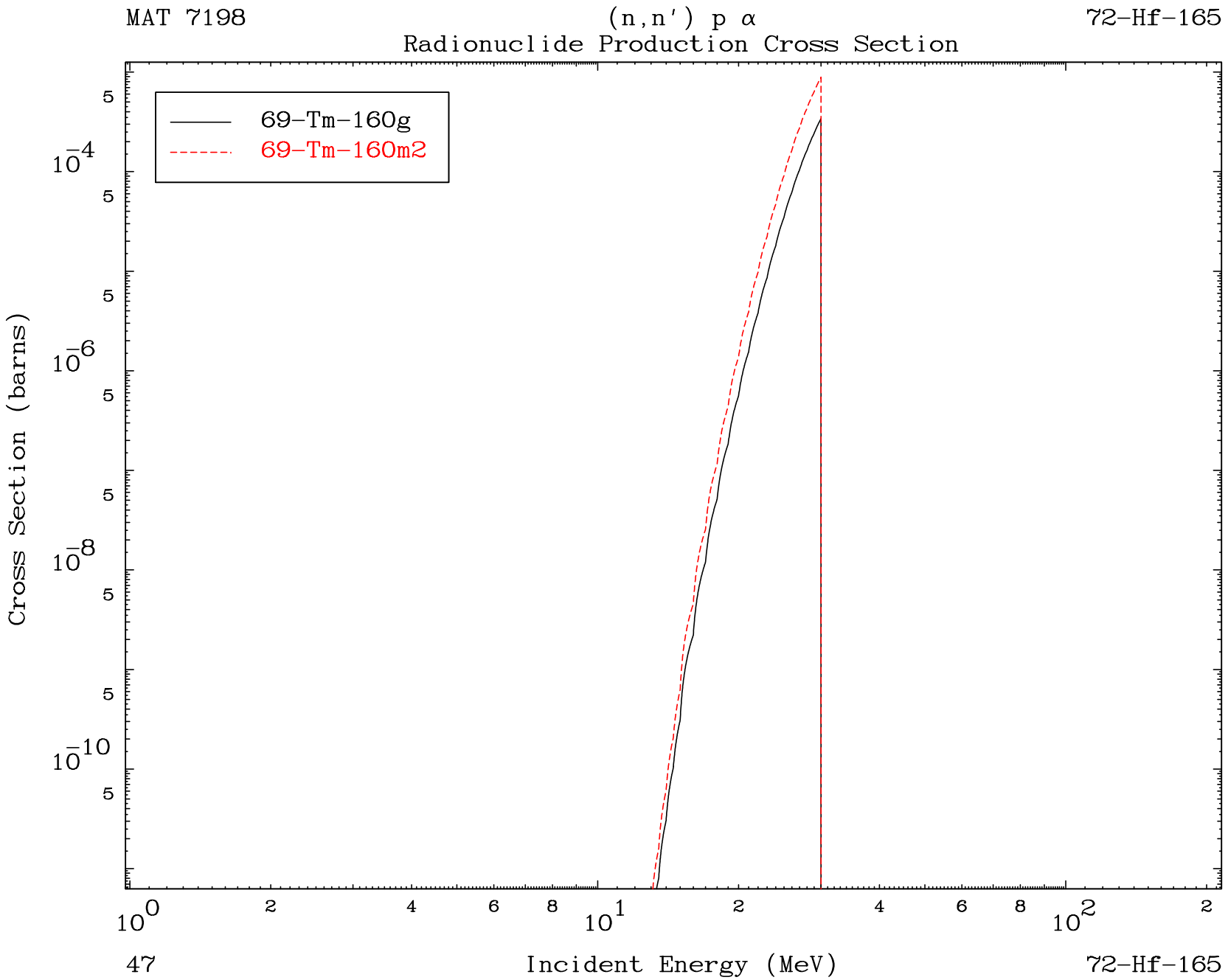

MAT 7198
MT= 56 (n,n') Level
Legendre Coefficients
72-Hf-165
X10-3
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
42
Incident Energy (MeV)
72-Hf-165

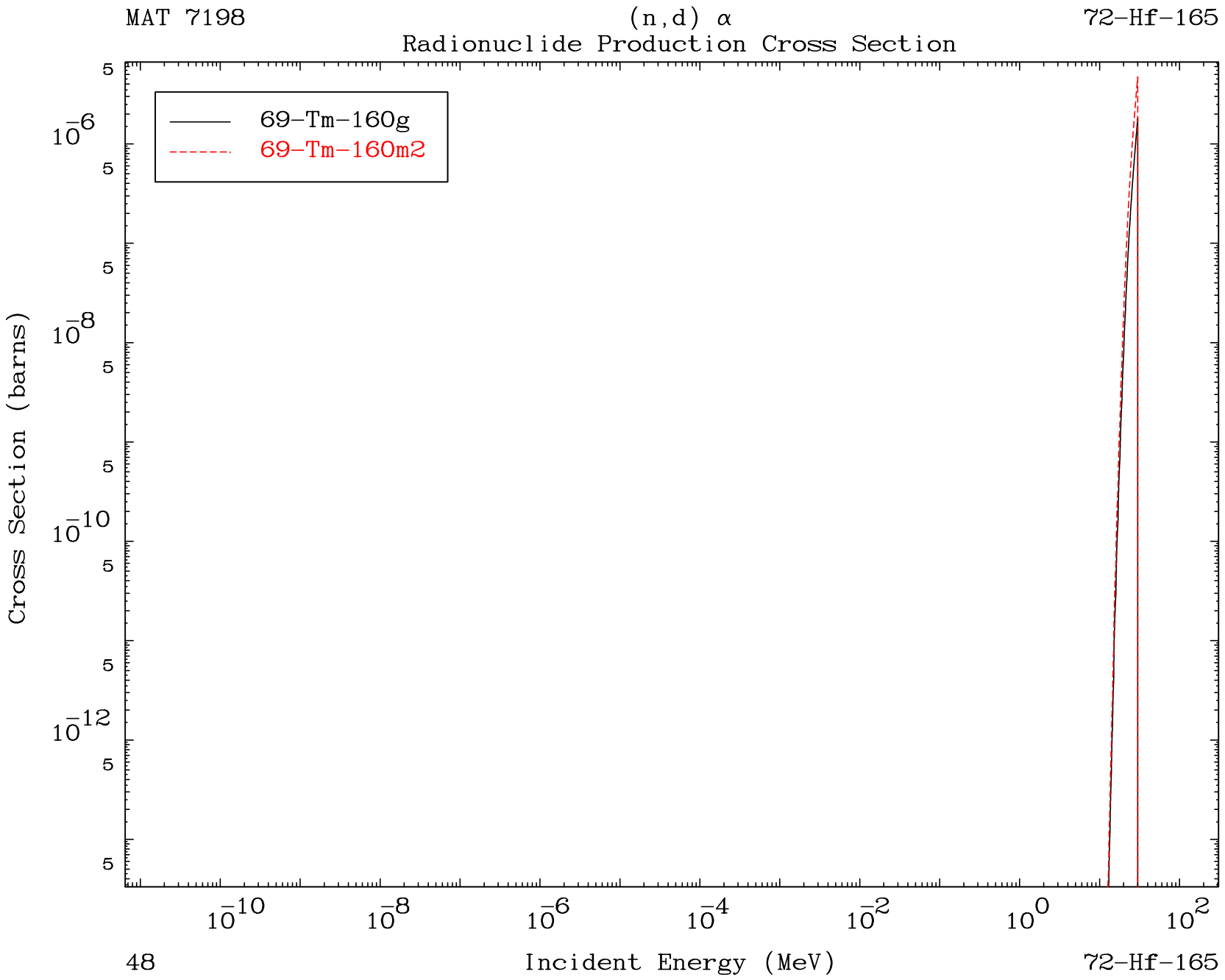

MAT 7198
MT= 56 (n,n') Level
Legendre Coefficients
72-Hf-165
X10-50
1
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
43
Incident Energy (MeV)
72-Hf-165


MAT 7198
(n,2n) d
72-Hf-165
Radionuclide Production Cross Section
71-Lu-162g
71-Lu-162m5
71-Lu-162m7
Cross Section (barns)
10-6
10-8
10-10
10-12
5
2
3
4
5
6
7
8
9
102
2
44
Incident Energy (MeV)
72-Hf-165


MAT 7198
(n,n') t
72-Hf-165
Radionuclide Production Cross Section
71-Lu-162g
71-Lu-162m5
71-Lu-162m7
Cross Section (barns)
10-4
10-6
10-8
10-10
2
3
4
5
6
7
8
9
10 2
2
45
Incident Energy (MeV)
72-Hf-165


MAT 7198
(n,3n) p
72-Hf-165
Radionuclide Production Cross Section
71-Lu-162g
71-Lu-162m5
71-Lu-162m7
Cross Section (barns)
10-4
10-6
10-8
10-10
3
4
5
6
7
8
9
10 2
2
46
Incident Energy (MeV)
72-Hf-165


MAT 7198
(n,n') p α
72-Hf-165
Radionuclide Production Cross Section
69-Tm-160g
69-Tm-160m2
Cross Section (barns)
10-4
10-6
10-8
10-10
100
101
102
Incident Energy (MeV)
47
72-Hf-165


MAT 7198
(n,d) α
72-Hf-165
Radionuclide Production Cross Section
69-Tm-160g
69-Tm-160m2
Cross Section (barns)
Incident Energy (MeV)
48
72-Hf-165