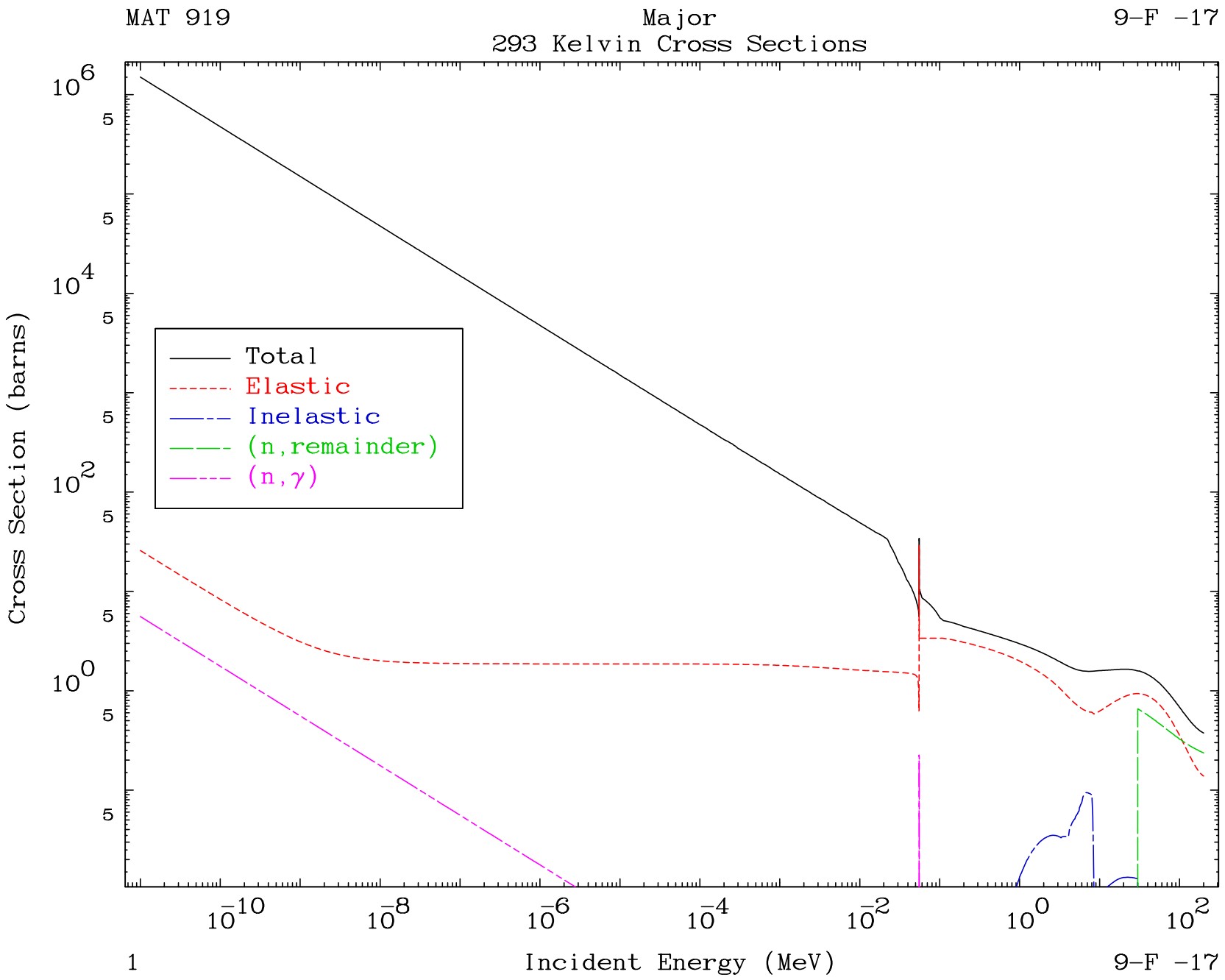
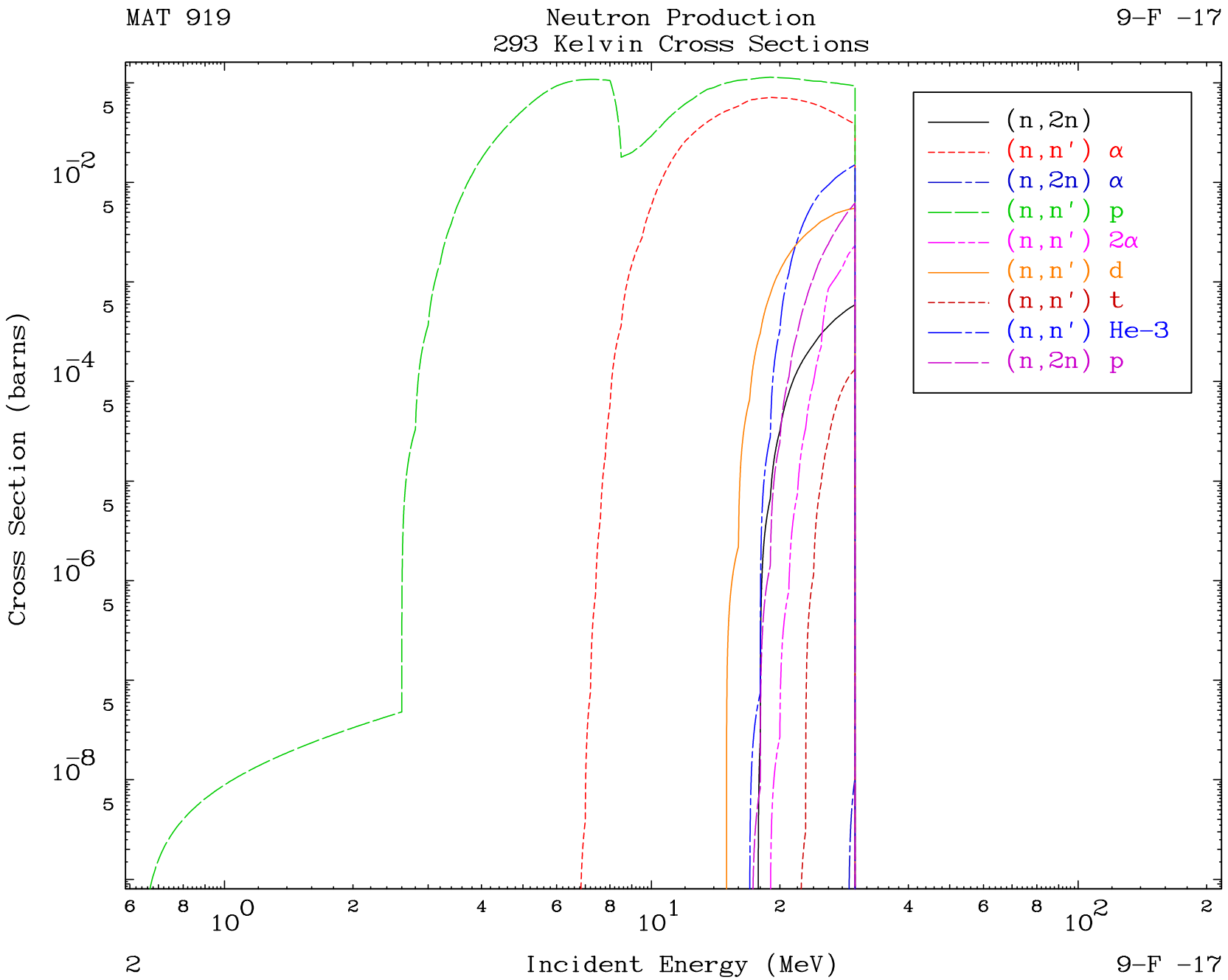
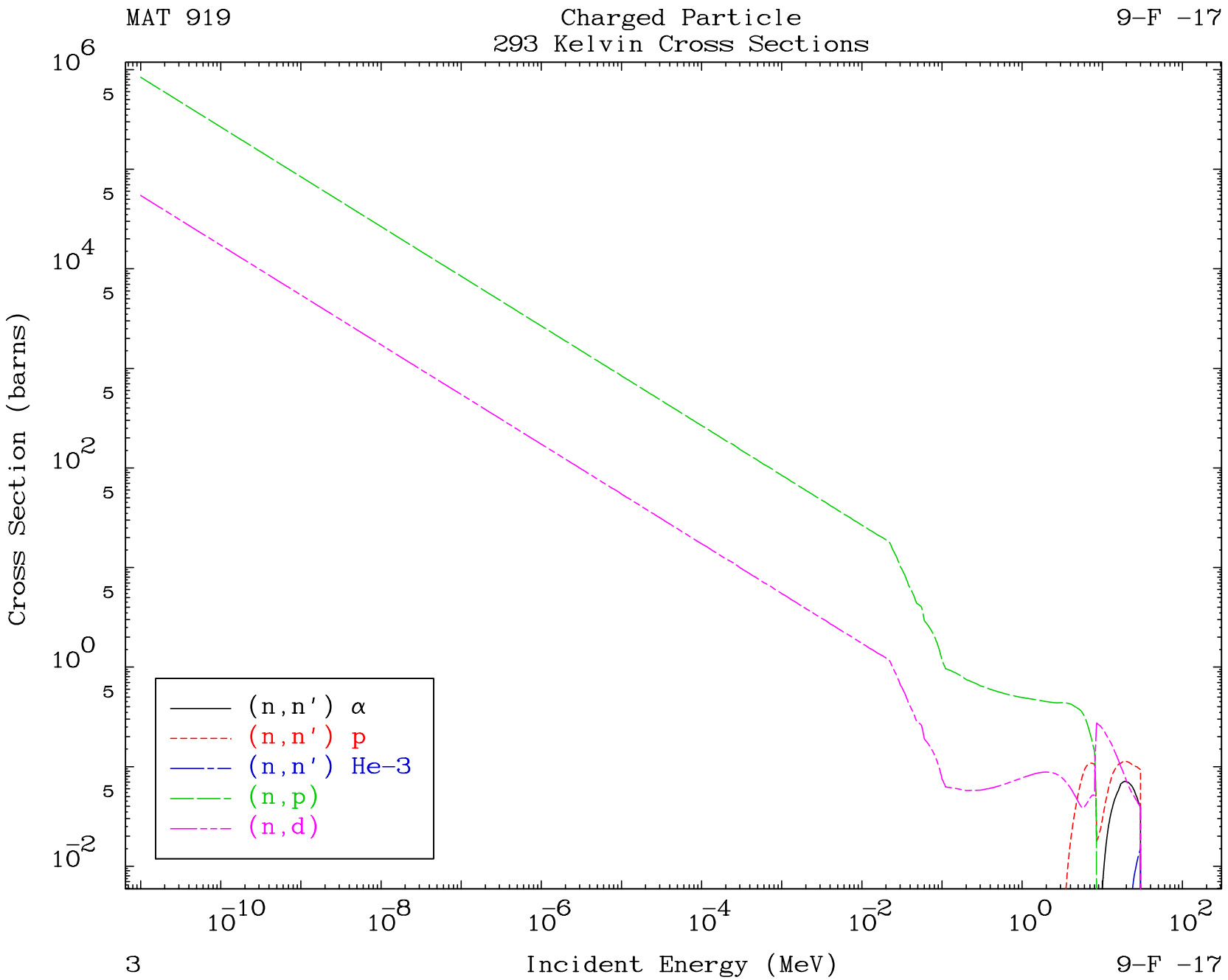
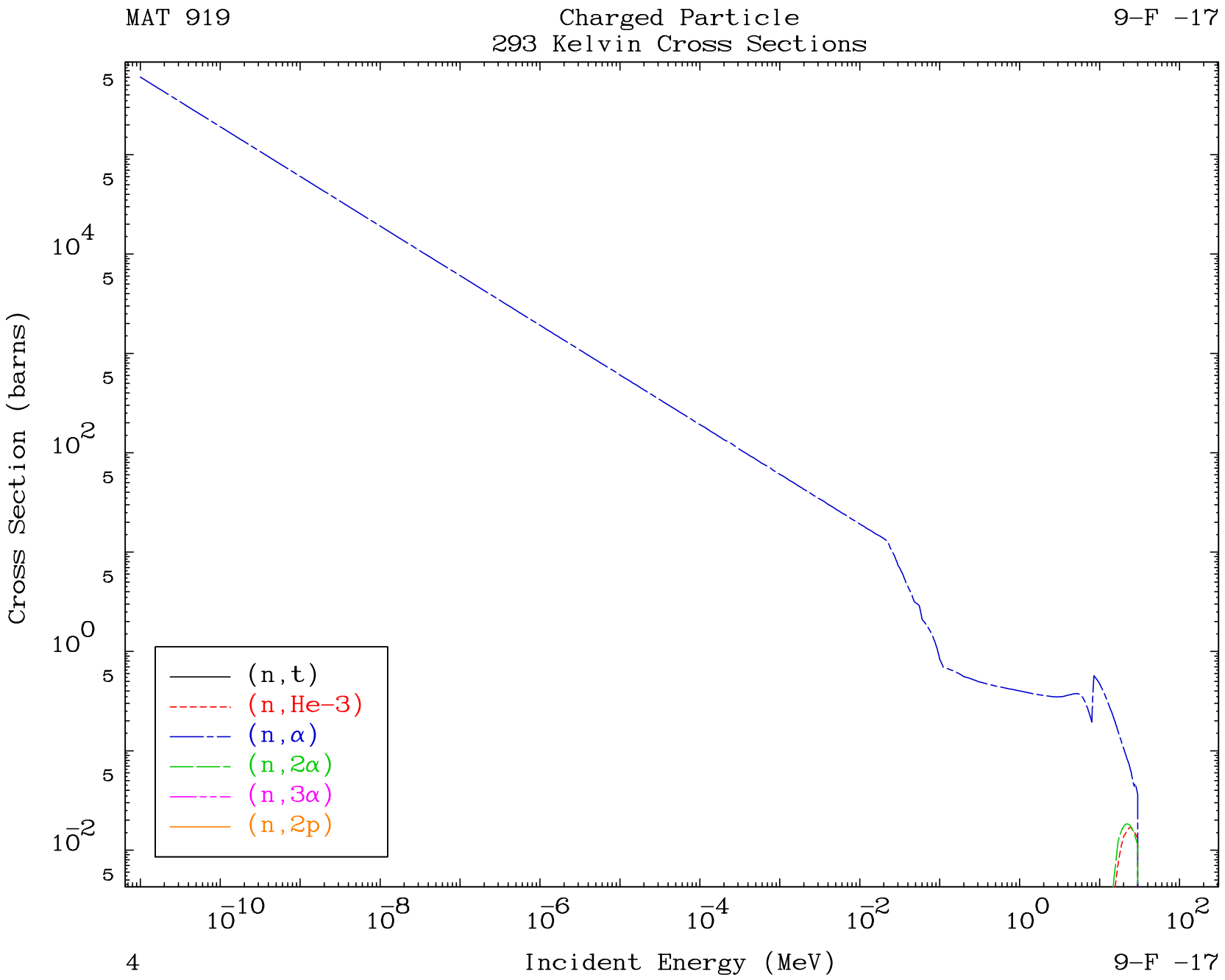
Program EVALPLOT
(Version 2017-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

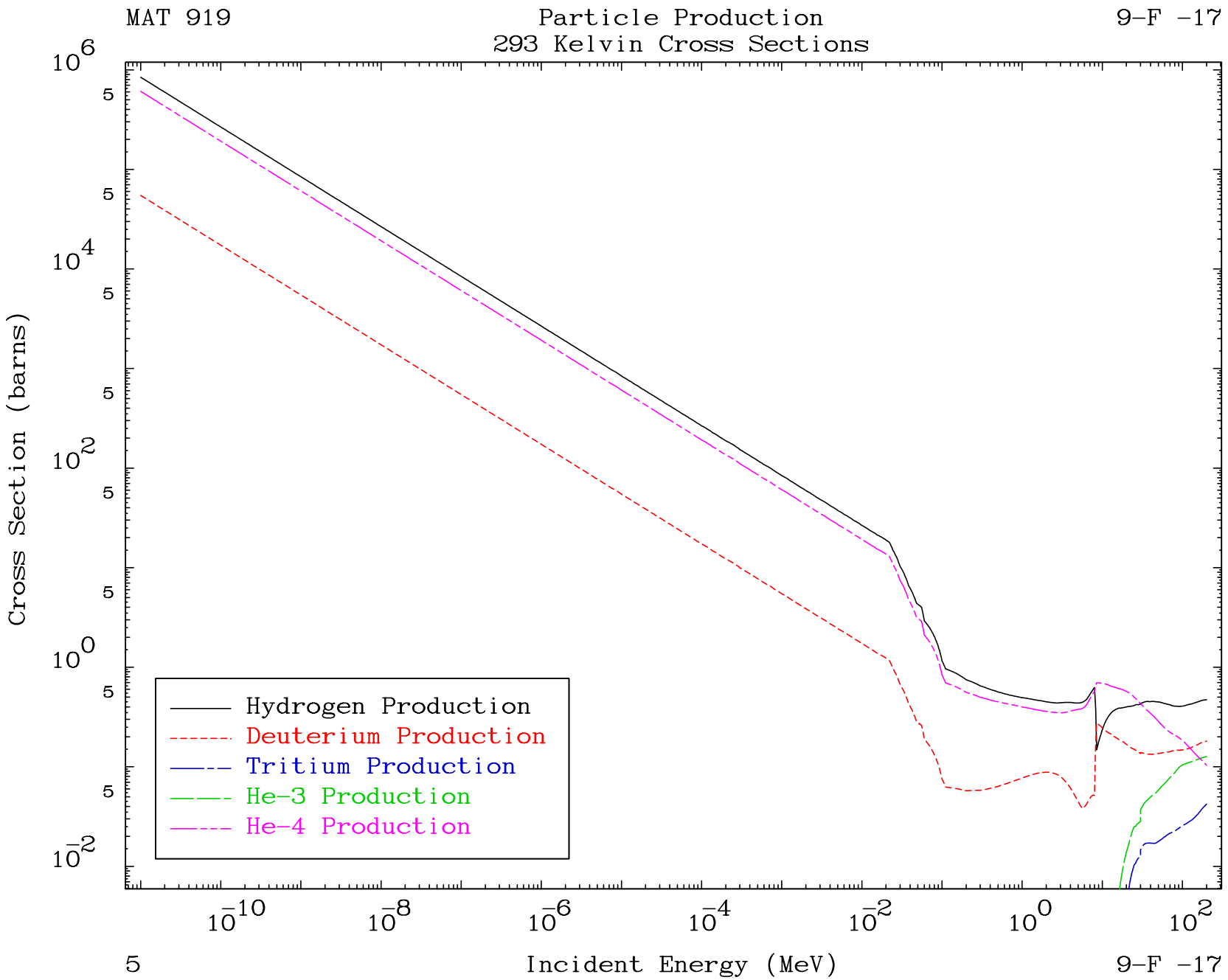
Press Mouse Button to Start

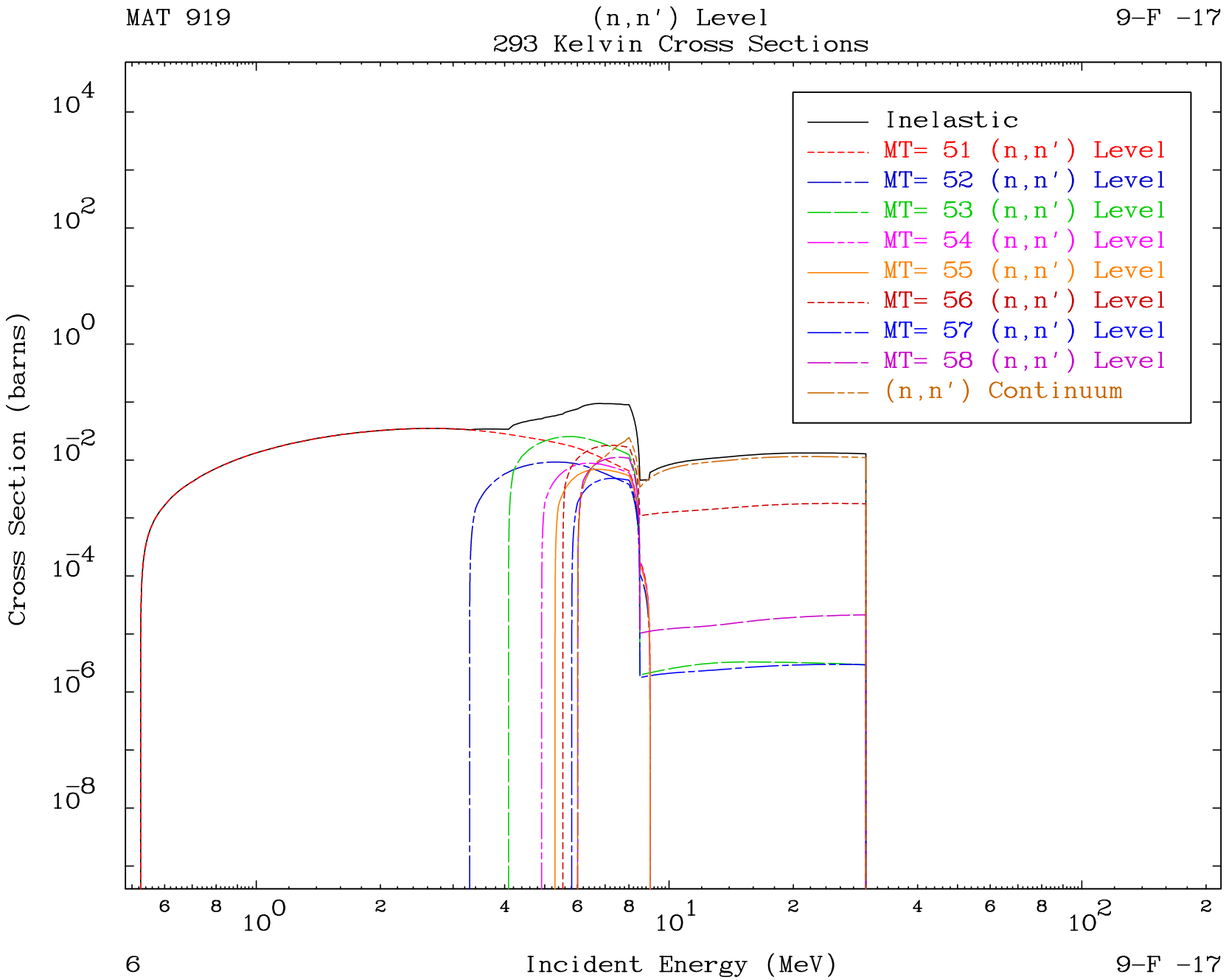

MAT 919
Major
9-F -17
293 Kelvin Cross Sections
Cross Section (barns)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
Incident Energy (MeV)
1
9-F -17

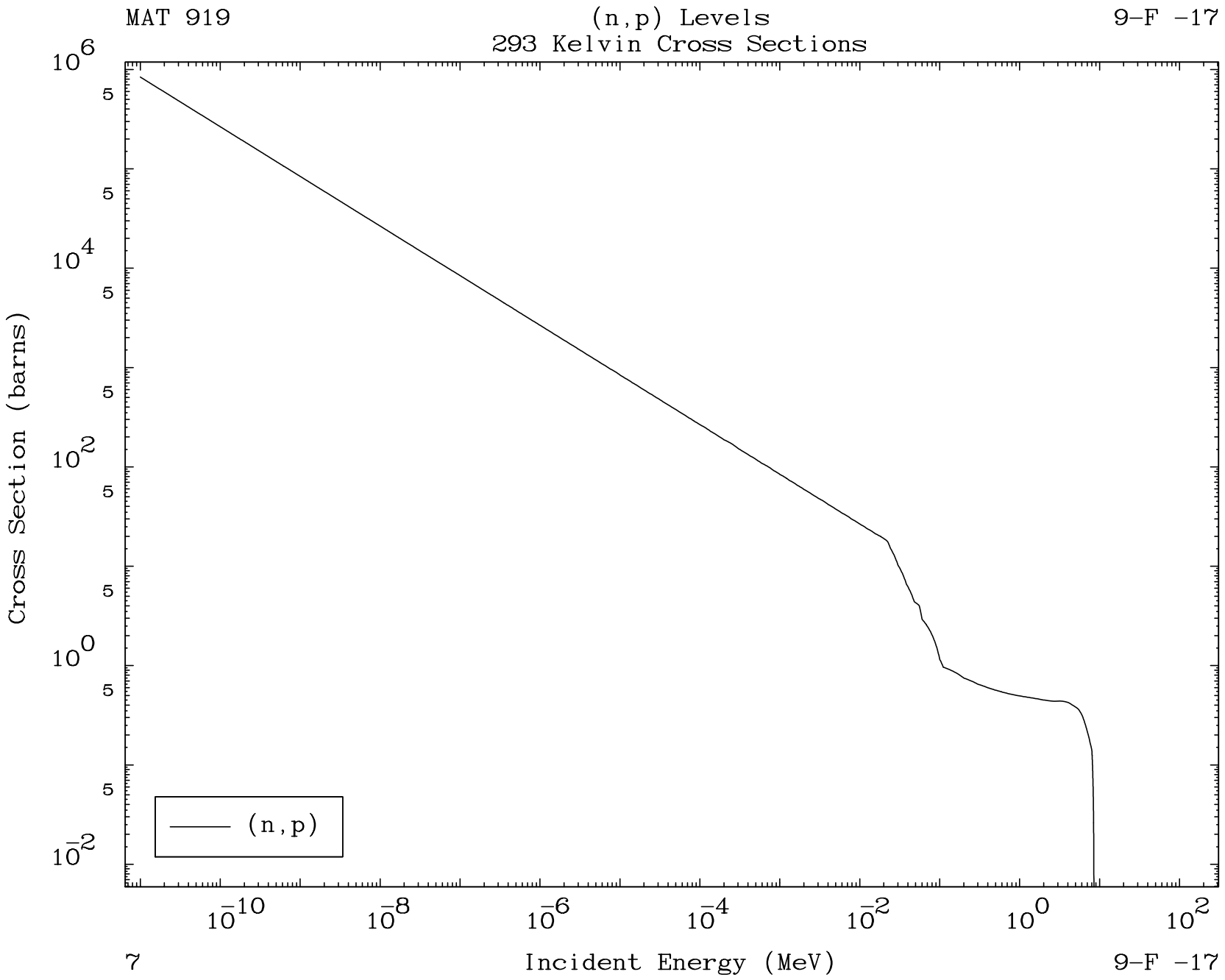

MAT 919
Neutron Production
293 Kelvin Cross Sections
9-F -17
Cross Section (barns)
Incident Energy (MeV)
(n,2n)
(n,n') α
(n,2n) α
(n,n') p
(n,n') 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
9-F -17

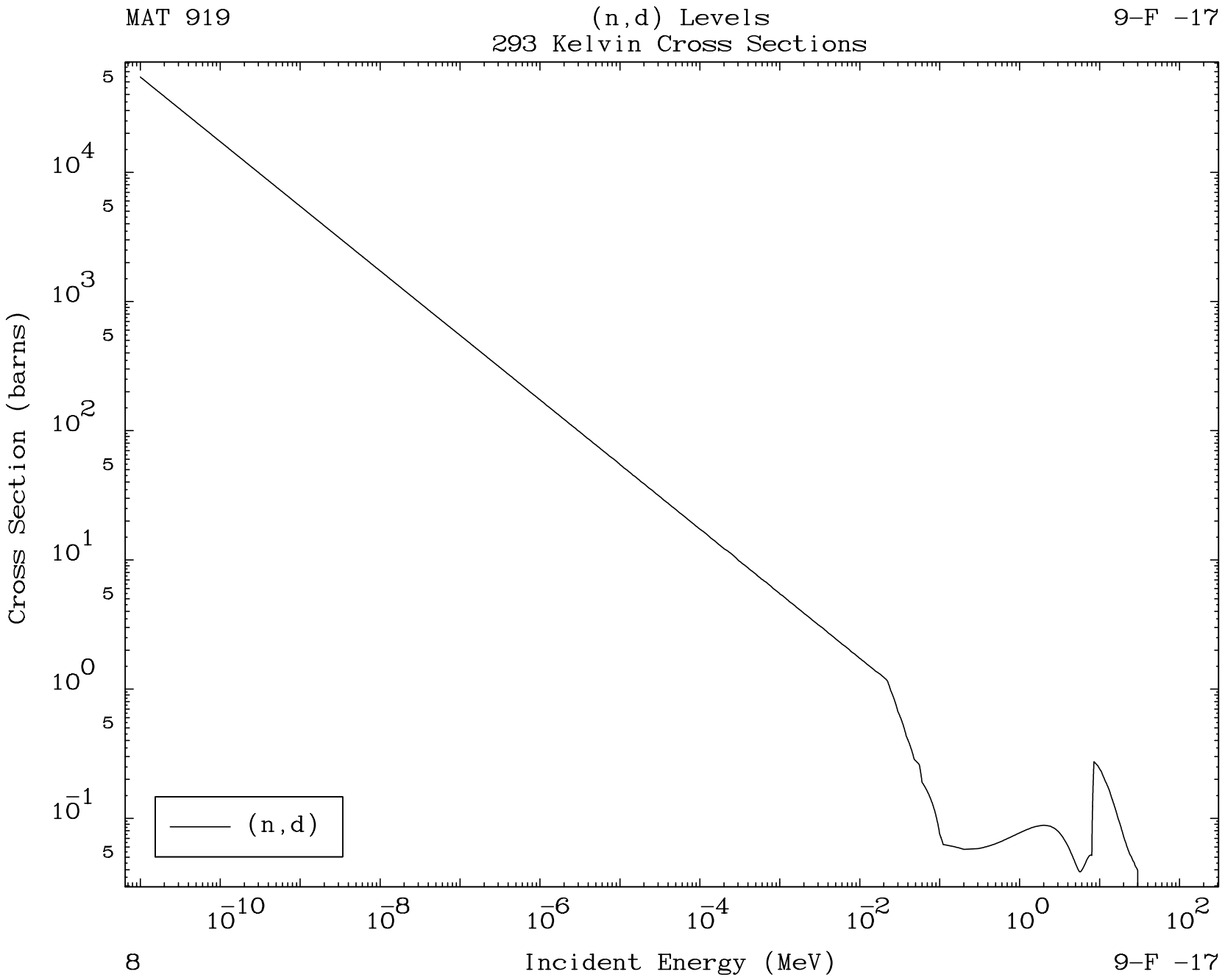

MAT 919
Charged Particle
293 Kelvin Cross Sections
9-F -17
Cross Section (barns)
Incident Energy (MeV)
(n,n') α
(n,n') p
(n,n') He-3
(n,p)
(n,d)
3
9-F -17


MAT 919
Charged Particle
293 Kelvin Cross Sections
9-F -17
Cross Section (barns)
Incident Energy (MeV)
(n,t)
(n,He-3)
(n,α)
(n,2α)
(n,3α)
(n,2p)
4
9-F -17

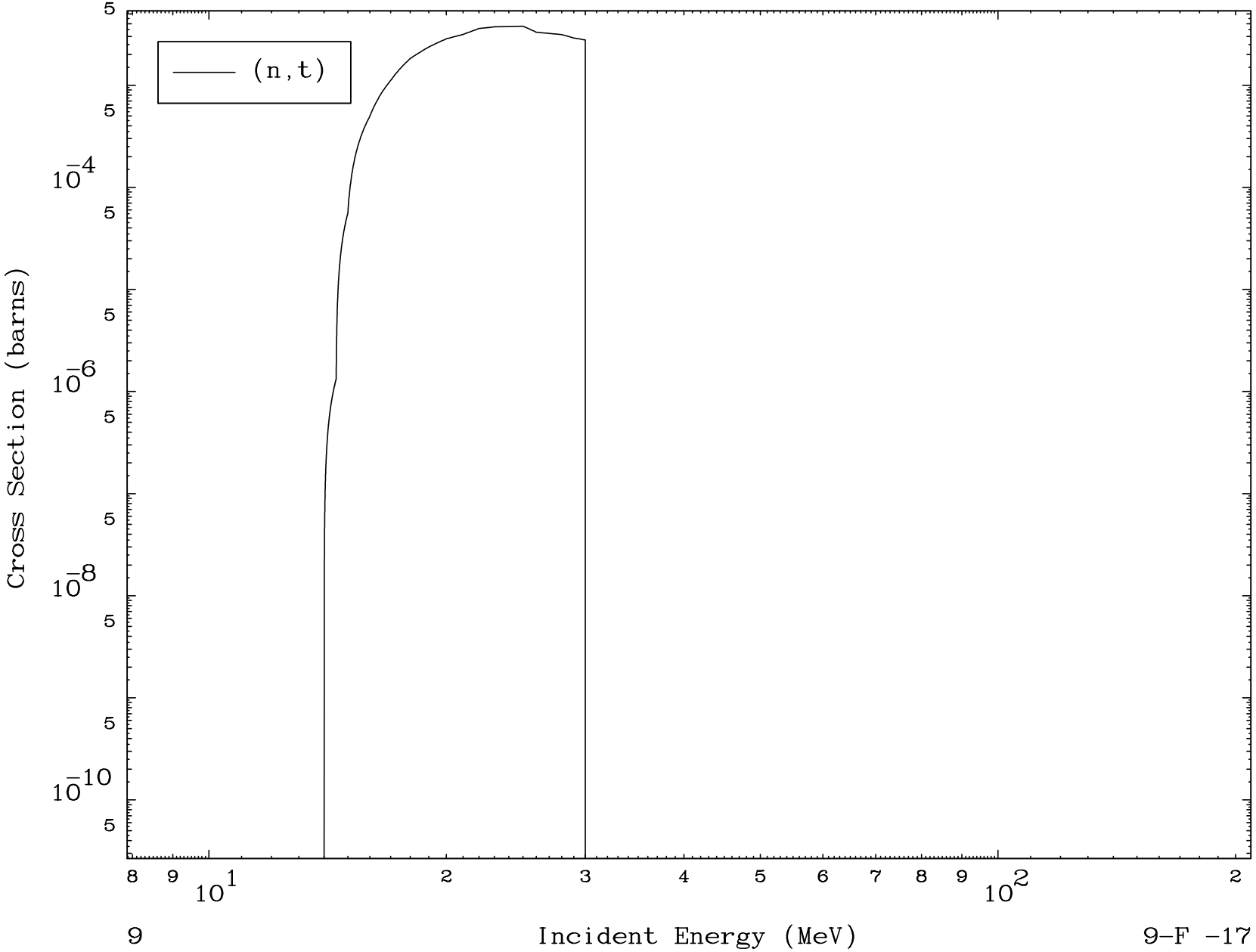

MAT 919
Particle Production
293 Kelvin Cross Sections
9-F -17
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
5
9-F -17

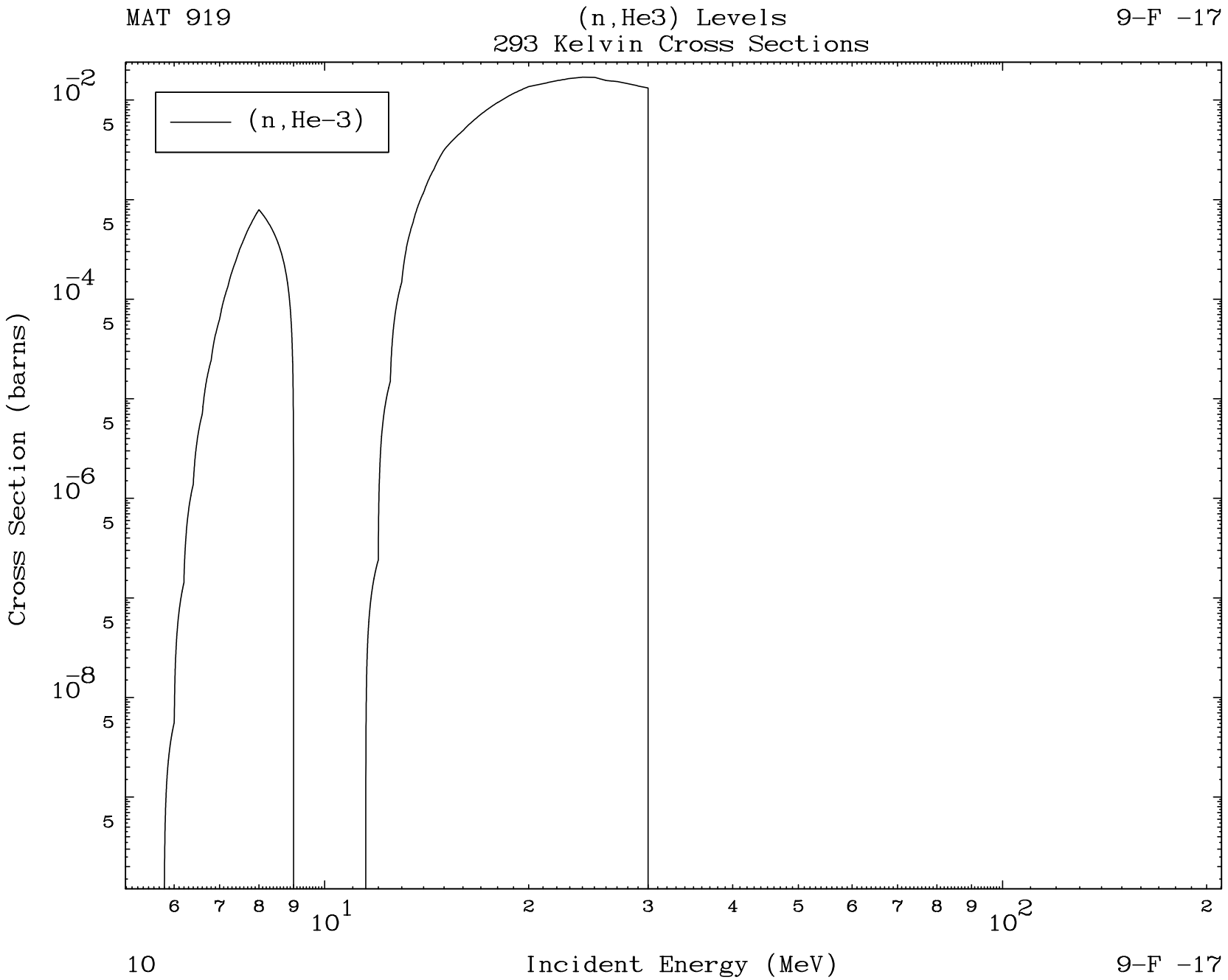

MAT 919
(n,n') Level
293 Kelvin Cross Sections
9-F -17
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
6
9-F -17


MAT 919
(n,p) Levels
293 Kelvin Cross Sections
9-F -17
Cross Section (barns)
10^6
10^4
10^2
10^0
10^-2
5
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
7
9-F -17

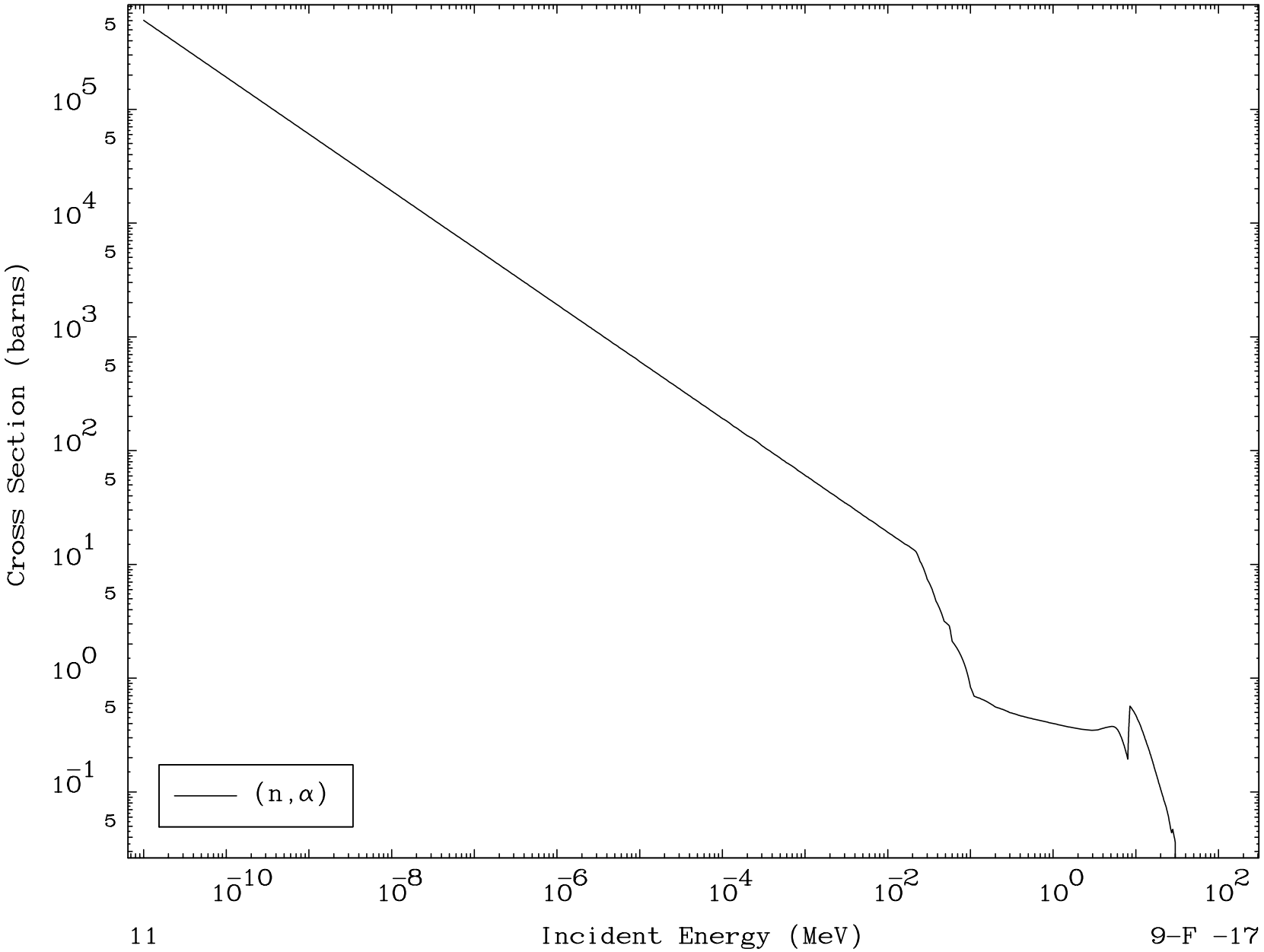

MAT 919
(n,d) Levels
9-F -17
293 Kelvin Cross Sections
Cross Section (barns)
10^4
10^3
10^2
10^1
10^0
10^-1
(n,d)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
Incident Energy (MeV)
8
9-F -17

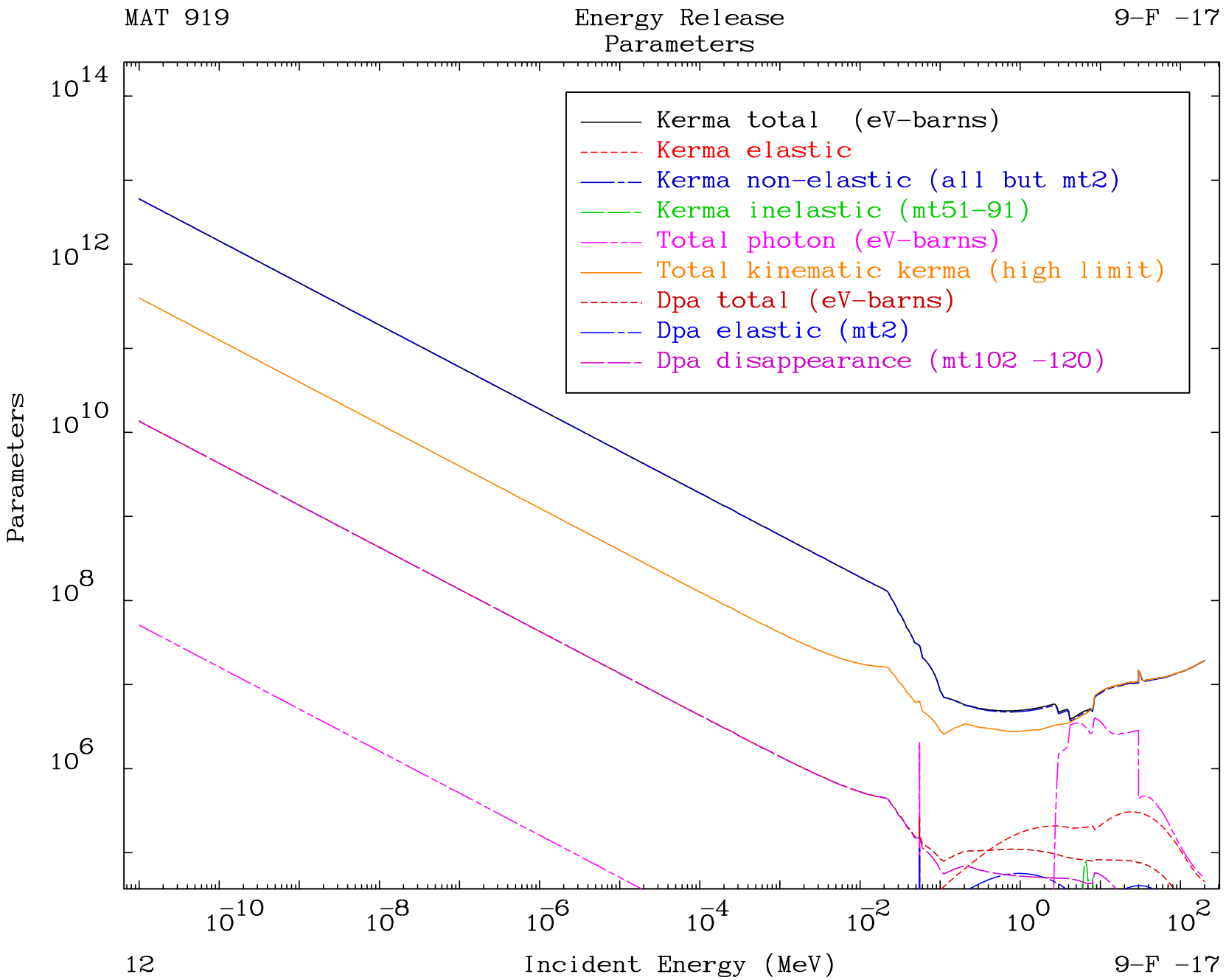
293 Kelvin Cross Sections

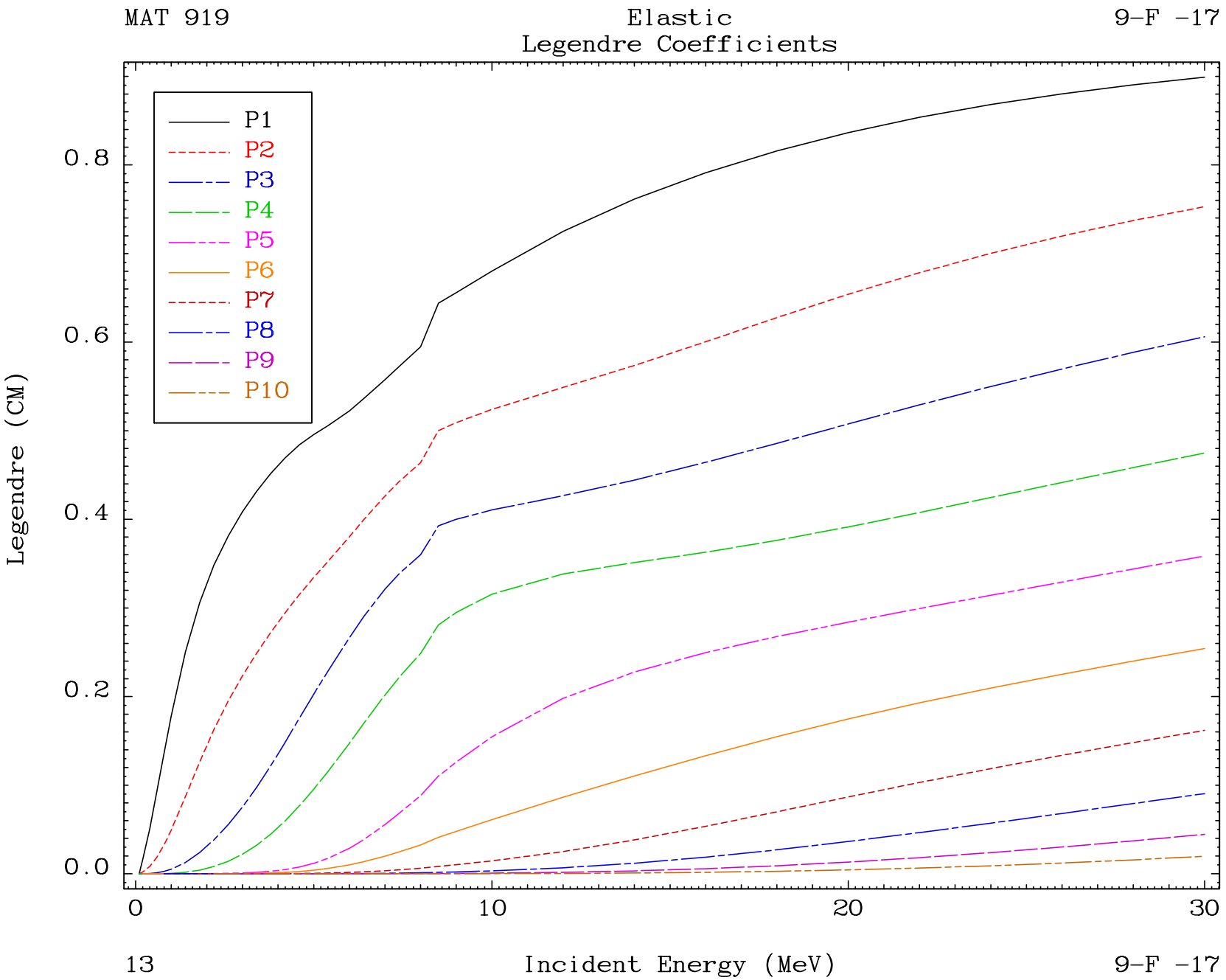


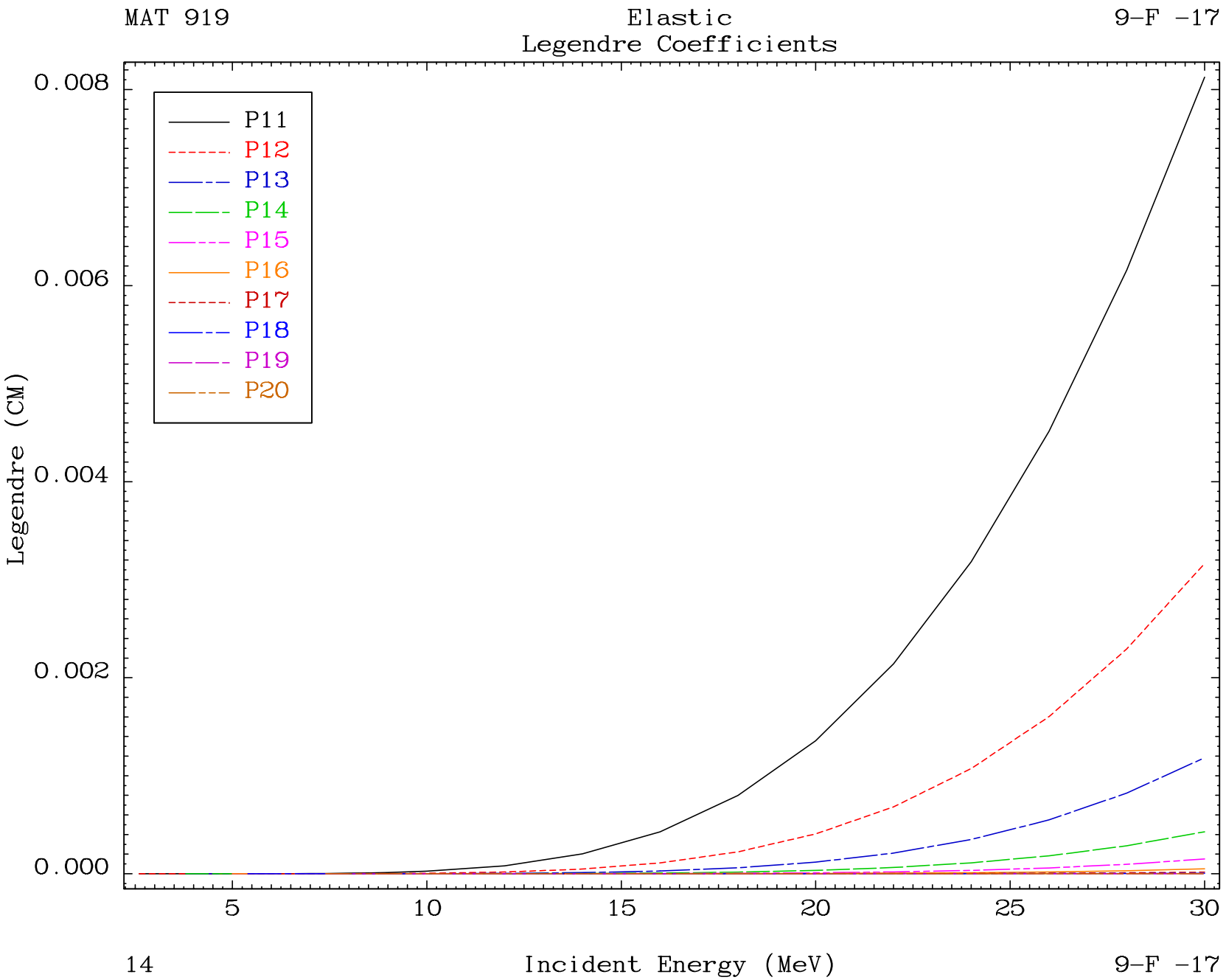

MAT 919
(n,He3) Levels
9-F -17
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
5
6 7 8 9 10^1 2 3 4 5 6 7 8 9 10^2 2
10
Incident Energy (MeV)
9-F -17

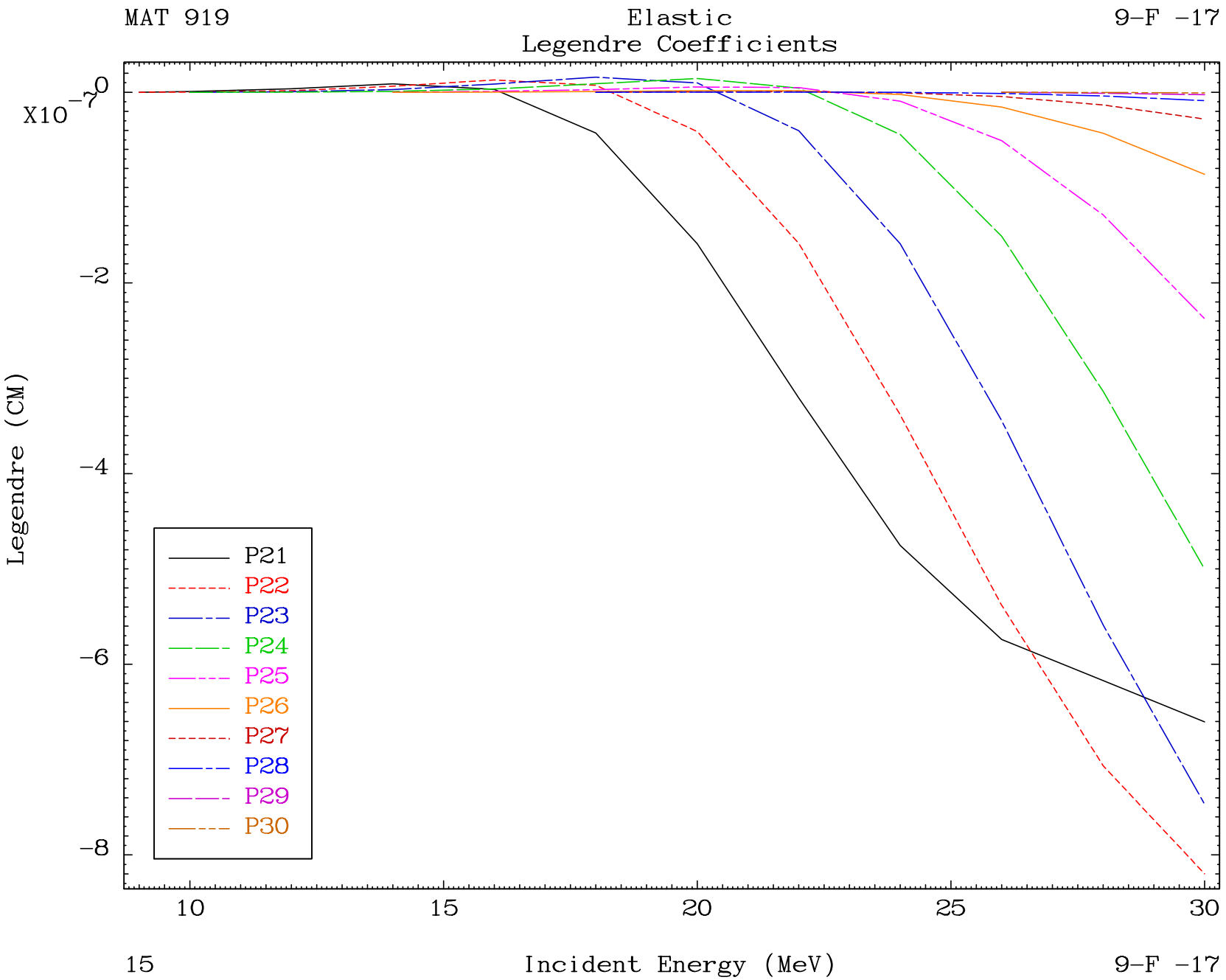
293 Kelvin Cross Sections

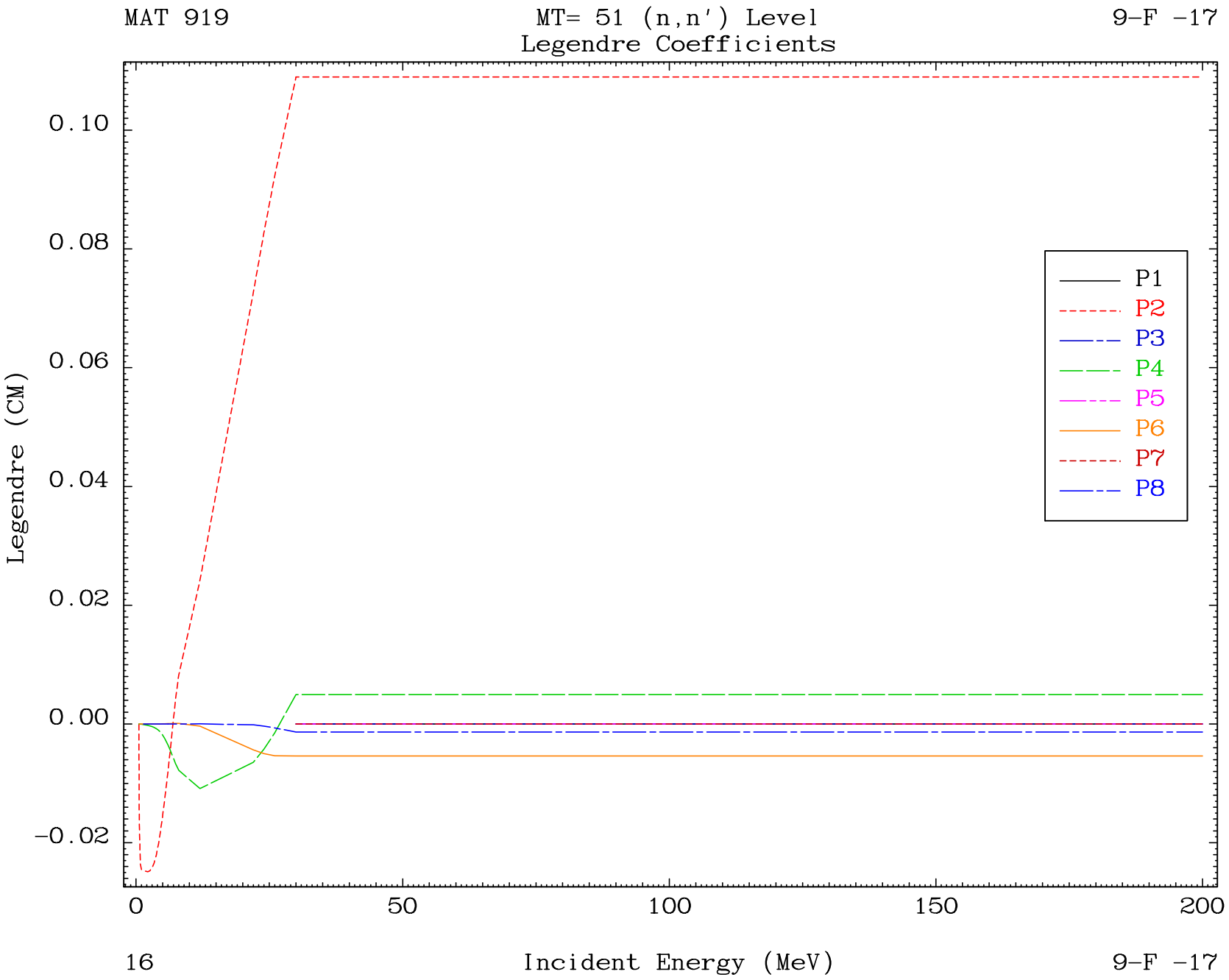


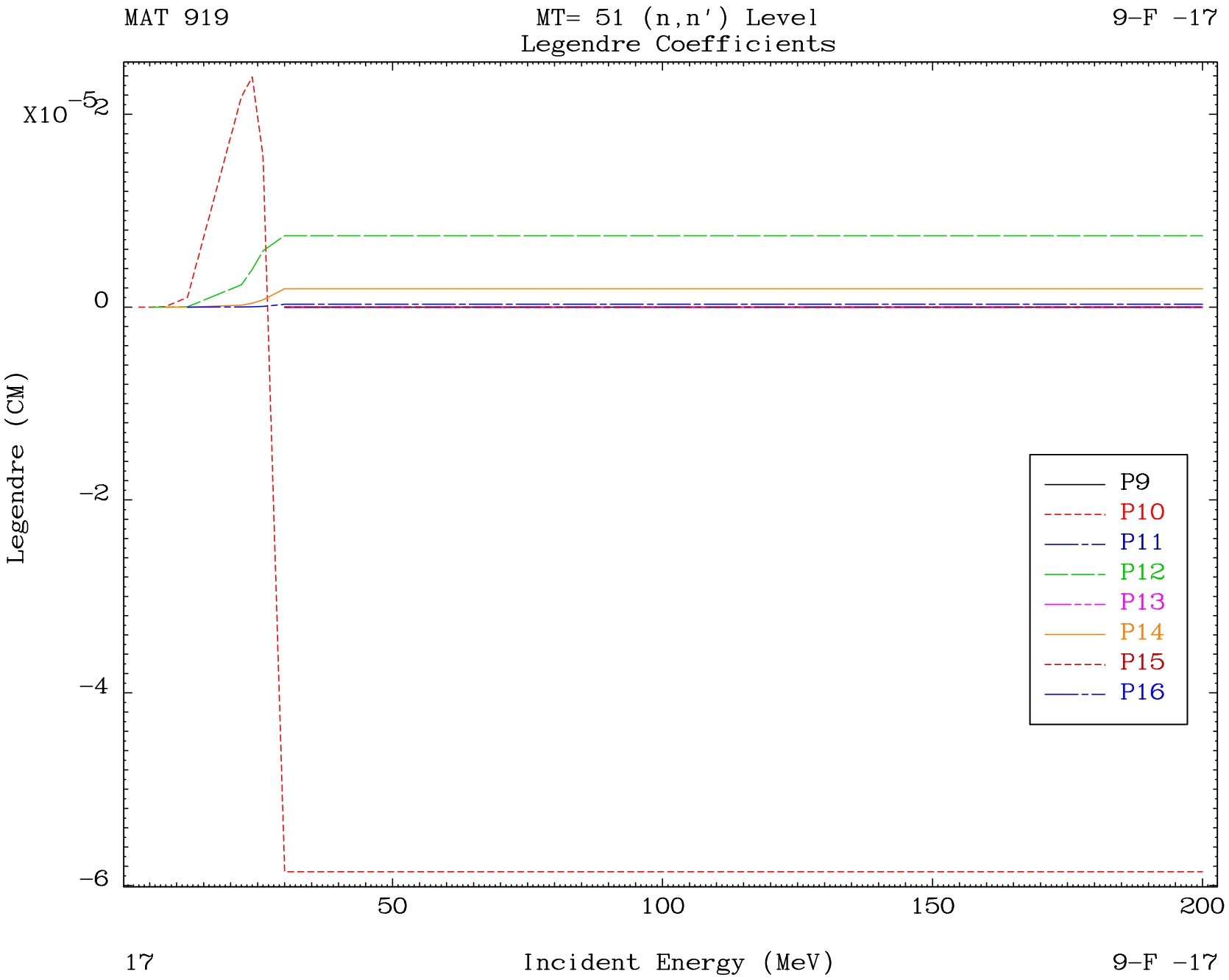

MAT 919
Energy Release
Parameters
9-F -17
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa disappearance (mt102 -120)
Parameters
10^{14}
10^{12}
10^{10}
10^{8}
10^{6}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
10^{0}
10^{2}
Incident Energy (MeV)
12
9-F -17

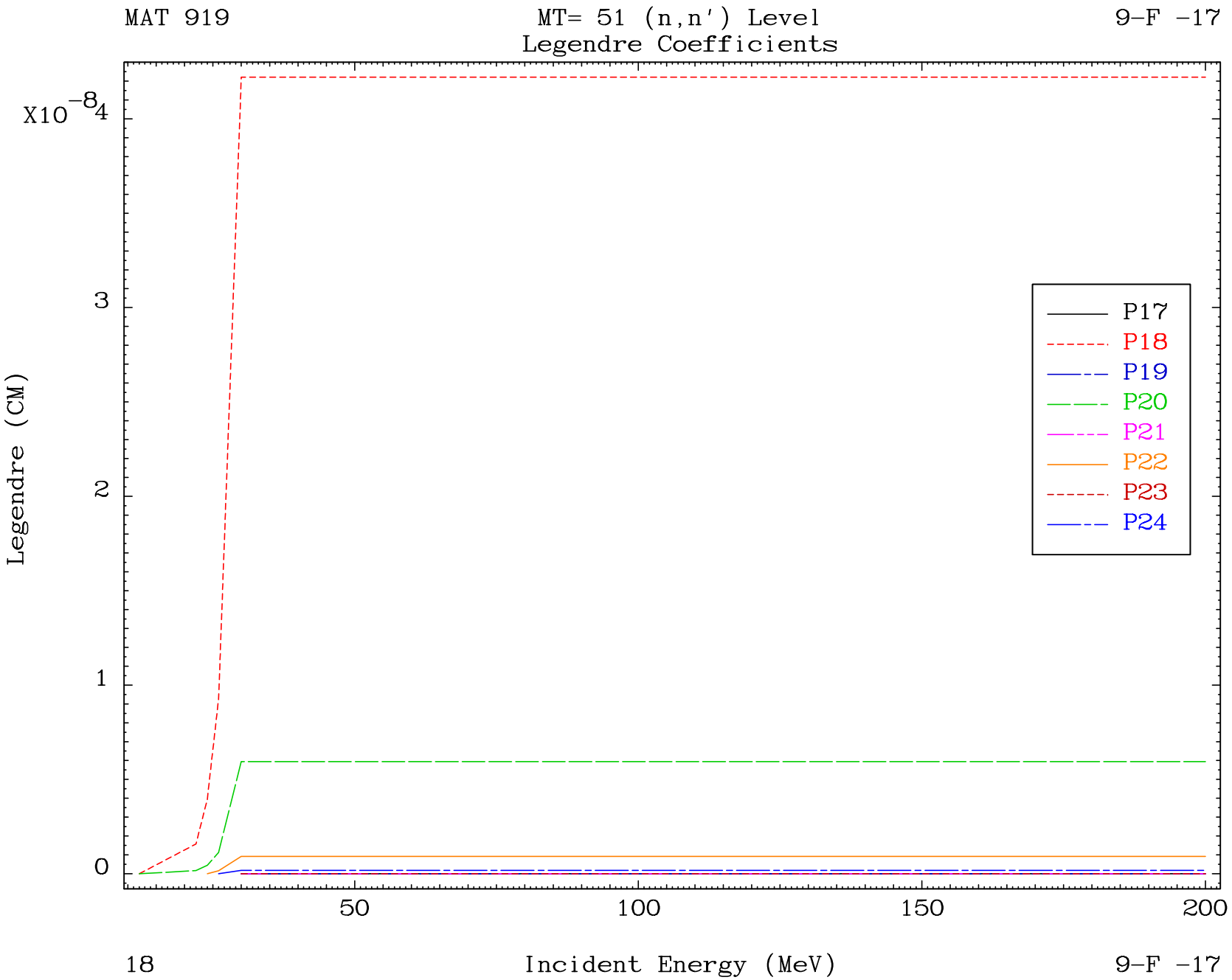

MAT 919
Elastic
Legendre Coefficients
9-F -17
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
13
Incident Energy (MeV)
9-F -17

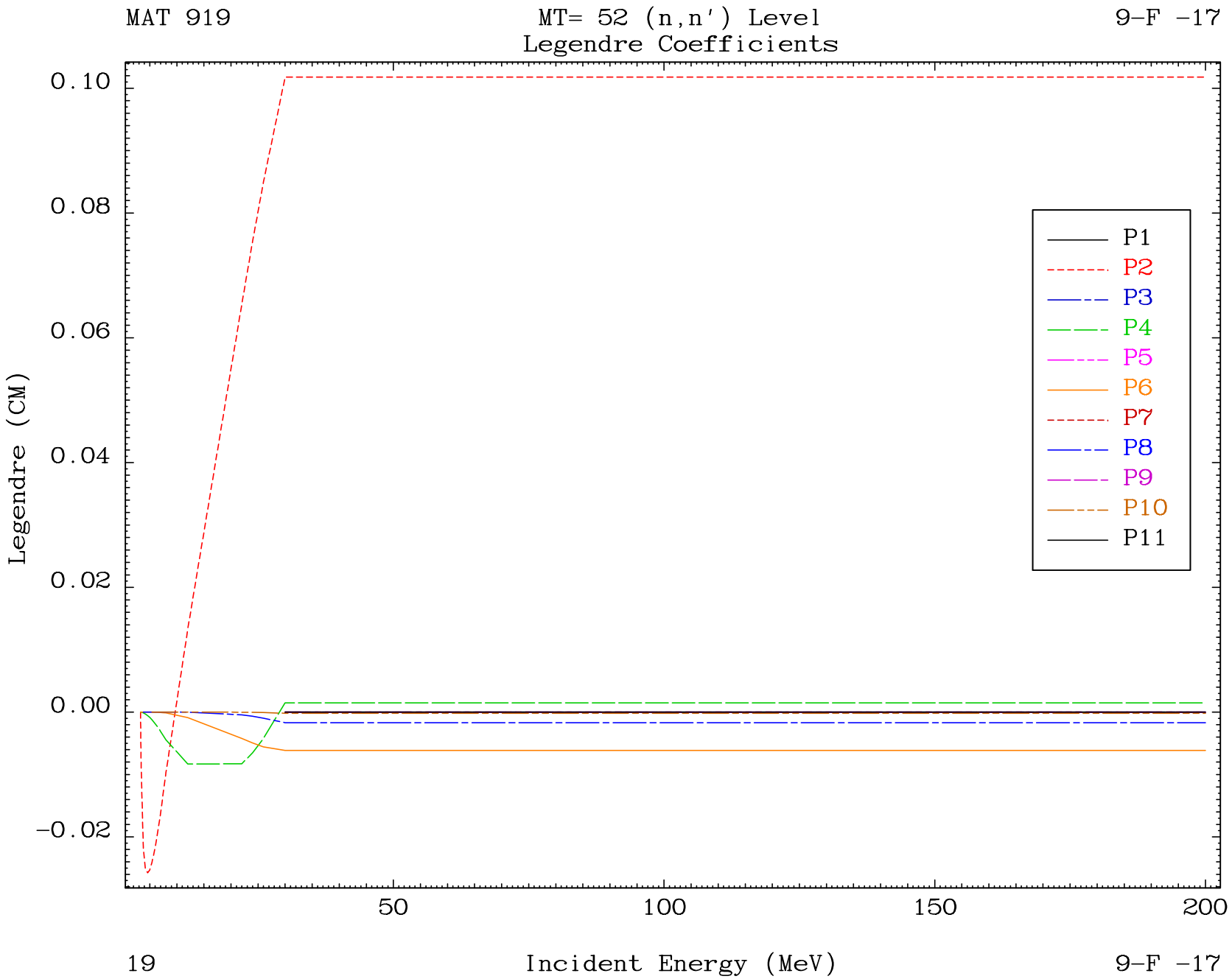

MAT 919
Elastic
Legendre Coefficients
9-F -17
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.008
0.006
0.004
0.002
0.000
Legendre (CM)
5
10
15
20
25
30
14
Incident Energy (MeV)
9-F -17

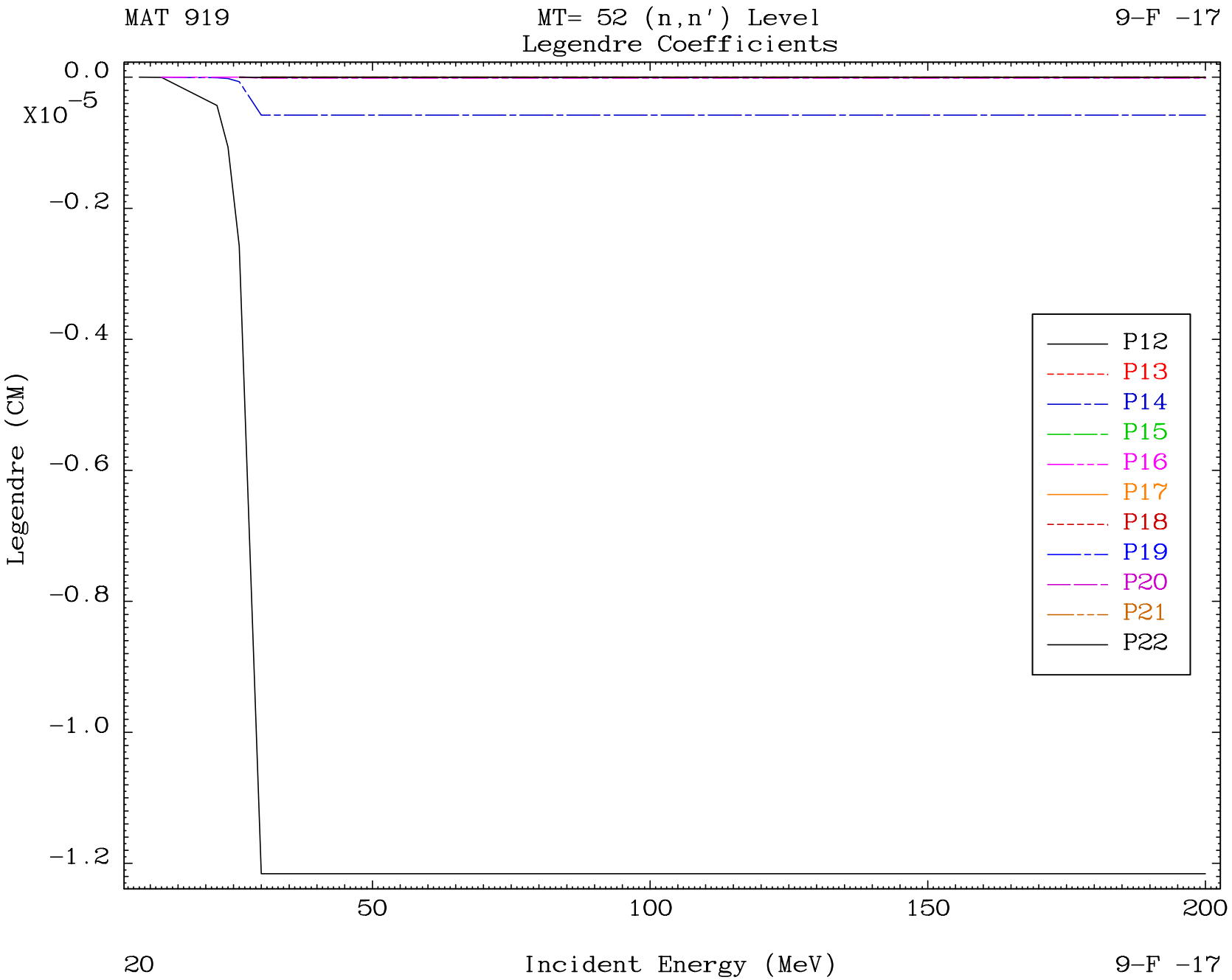

MAT 919
Elastic
Legendre Coefficients
9-F -17
X10^-2
0
-2
-4
-6
-8
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
10
15
20
25
30
15
Incident Energy (MeV)
9-F -17

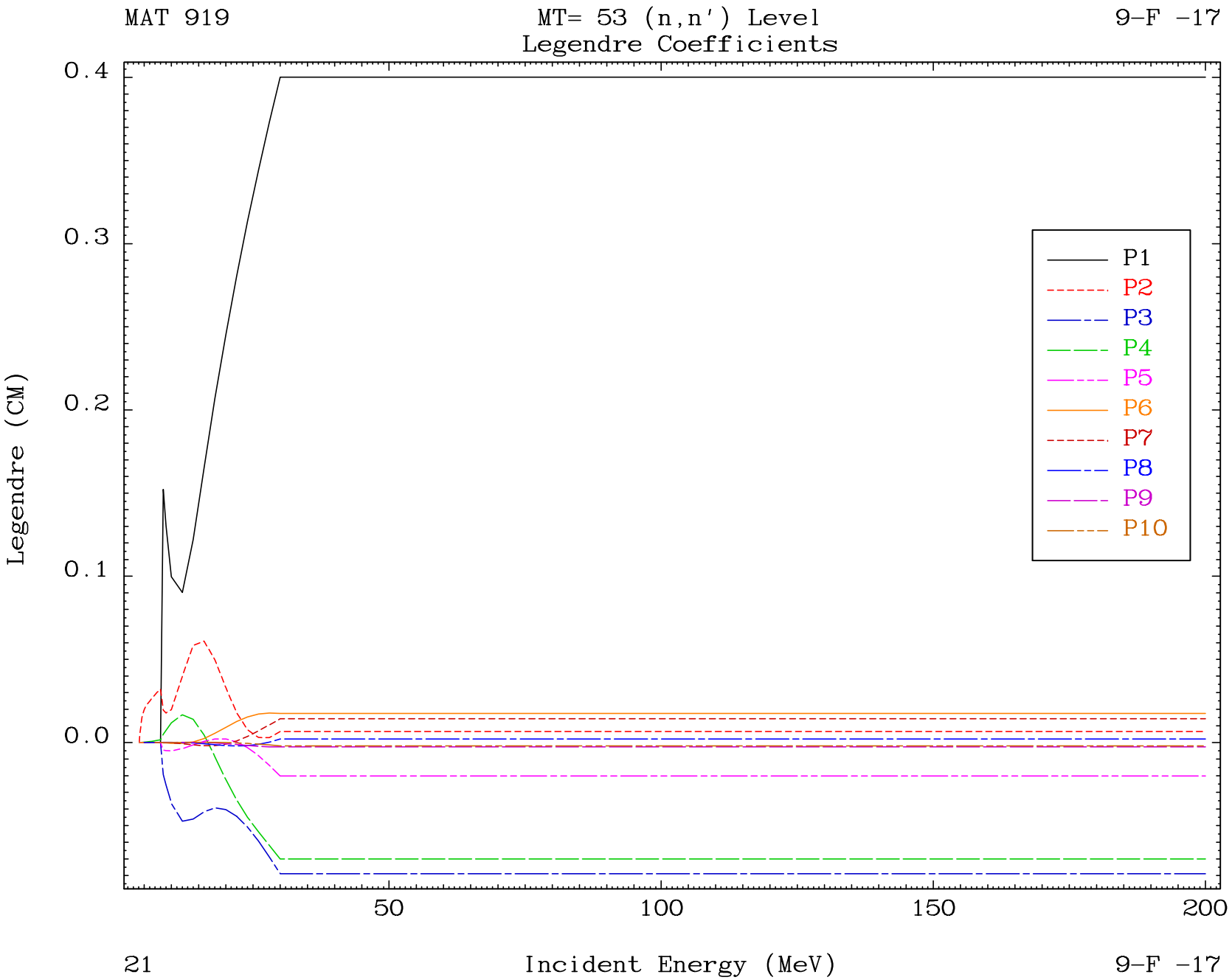

MAT 919
MT= 51 (n,n') Level
Legendre Coefficients
9-F -17
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
0
50
100
150
200
16
Incident Energy (MeV)
9-F -17
P1
P2
P3
P4
P5
P6
P7
P8

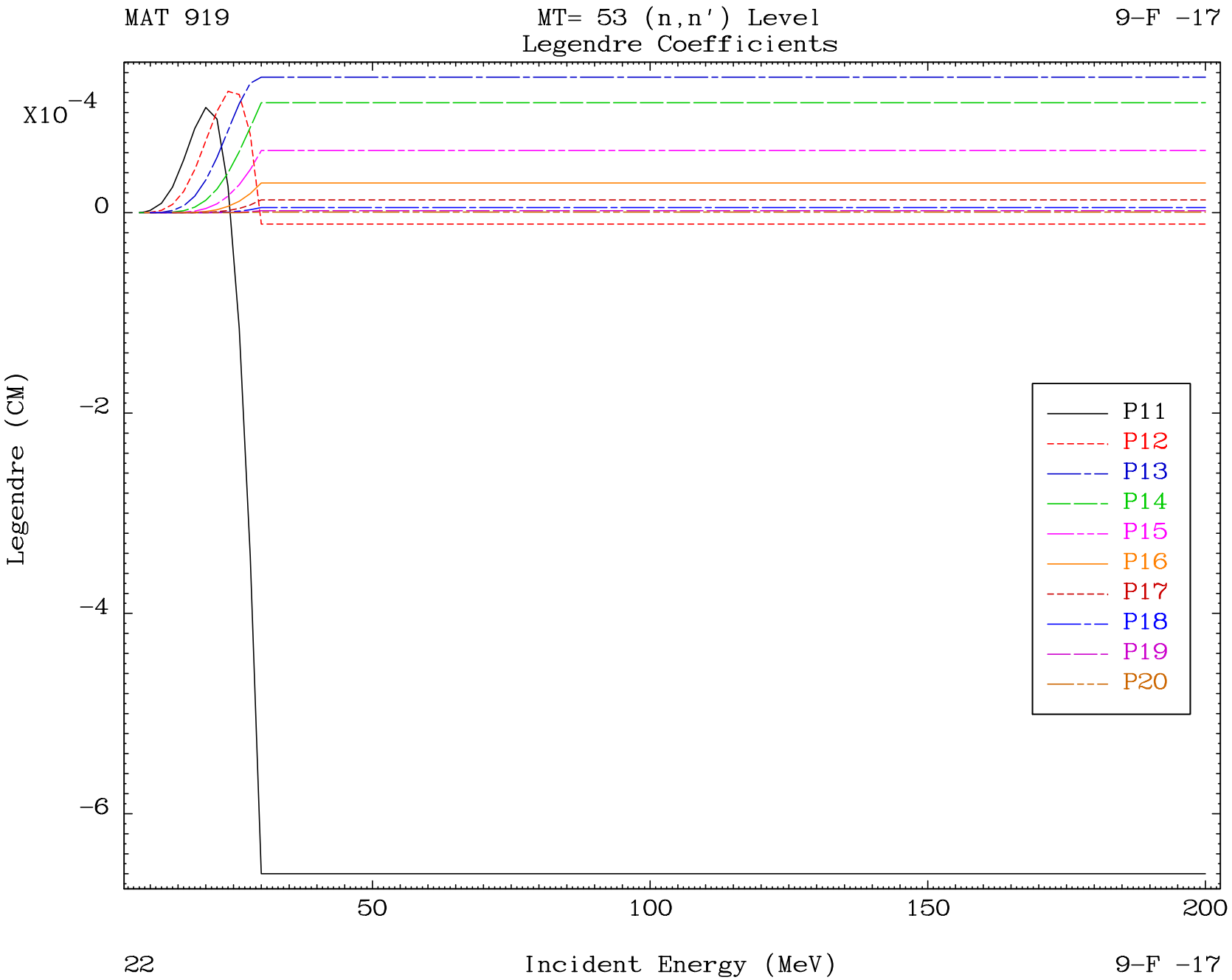

MAT 919
MT= 51 (n,n') Level
Legendre Coefficients
9-F -17
X10-5
2
0
-2
-4
-6
Legendre (CM)
50
100
150
200
17
Incident Energy (MeV)
9-F -17
P9
P10
P11
P12
P13
P14
P15
P16

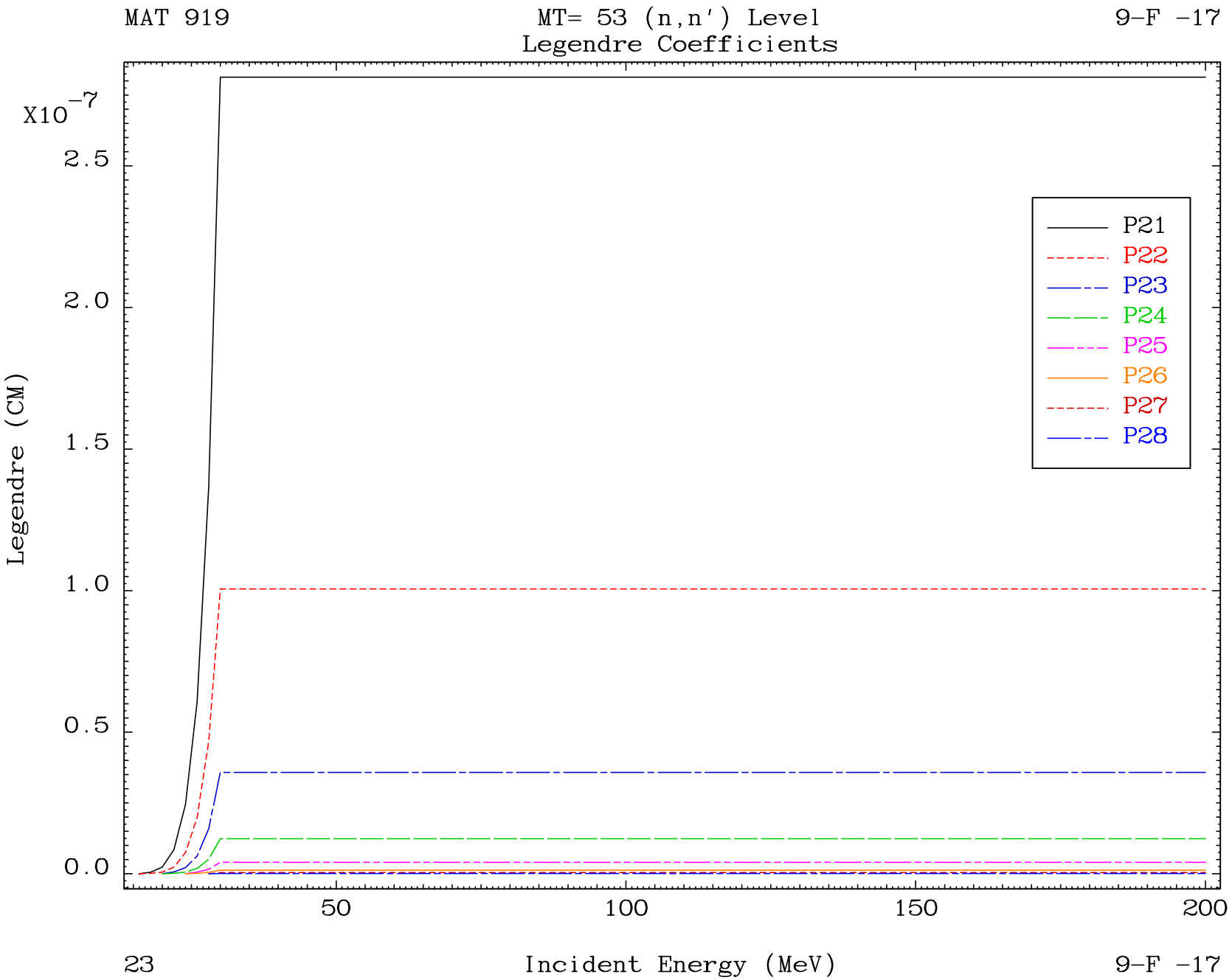

MAT 919
MT= 51 (n,n') Level
Legendre Coefficients
9-F -17
X10^-8
4
3
2
1
0
Legendre (CM)
50
100
150
200
18
Incident Energy (MeV)
9-F -17
P17
P18
P19
P20
P21
P22
P23
P24

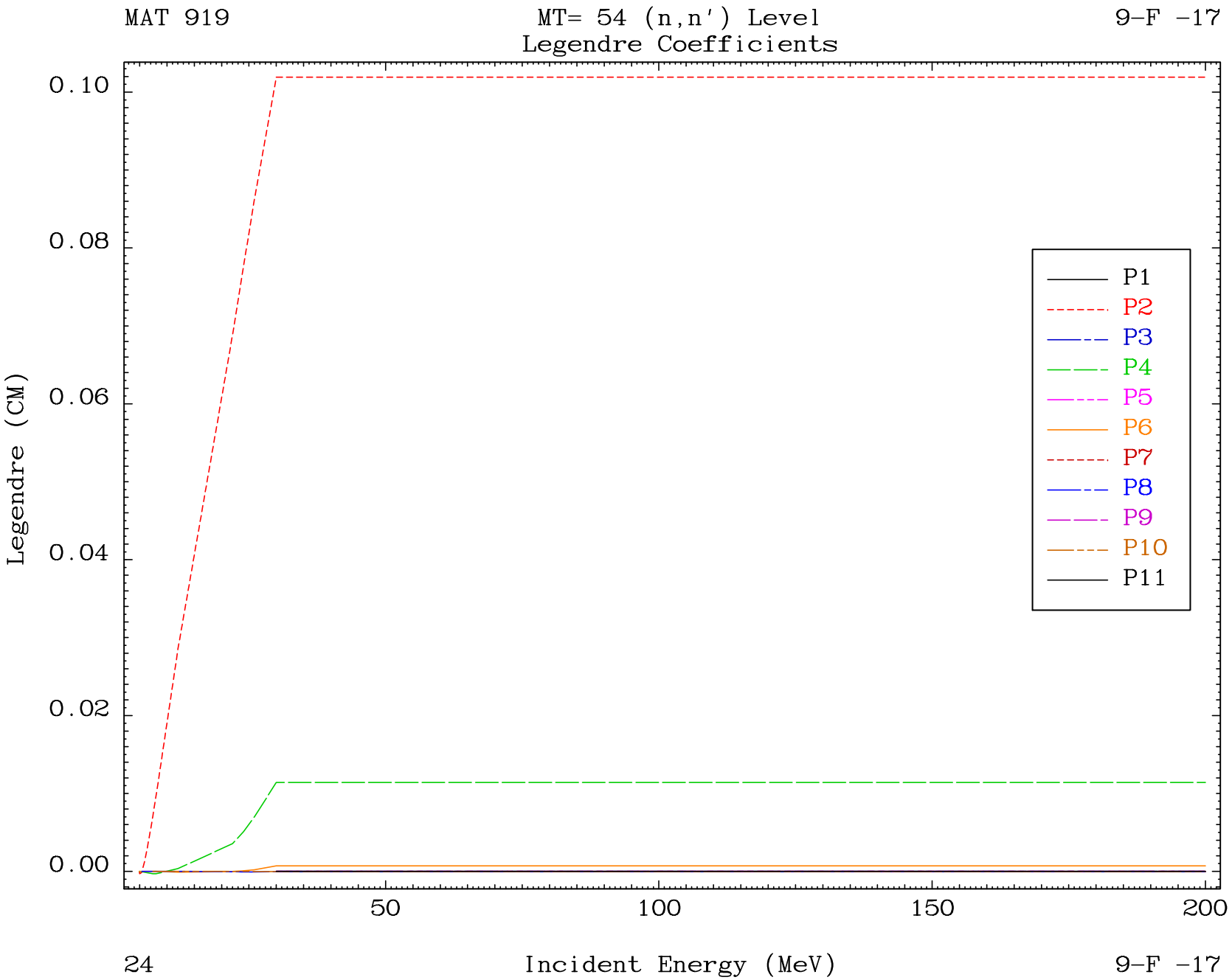

MAT 919
MT= 52 (n,n') Level
Legendre Coefficients
9-F -17
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
Legendre (CM)
50
100
150
200
19
Incident Energy (MeV)
9-F -17
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11

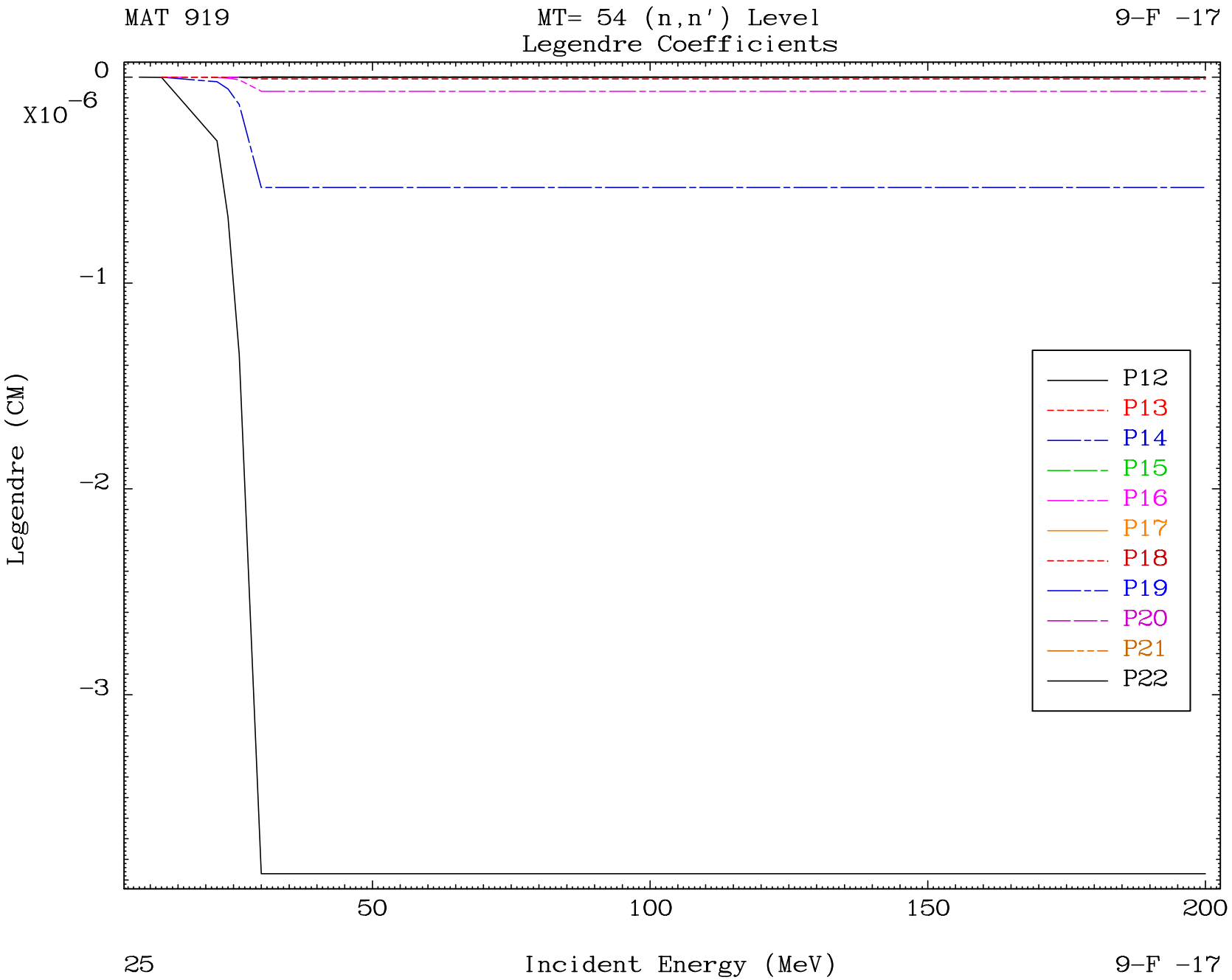

MAT 919
MT= 52 (n,n') Level
Legendre Coefficients
9-F -17
0.0
X10^-5
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
Legendre (CM)
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
20
50
100
150
200
Incident Energy (MeV)
9-F -17

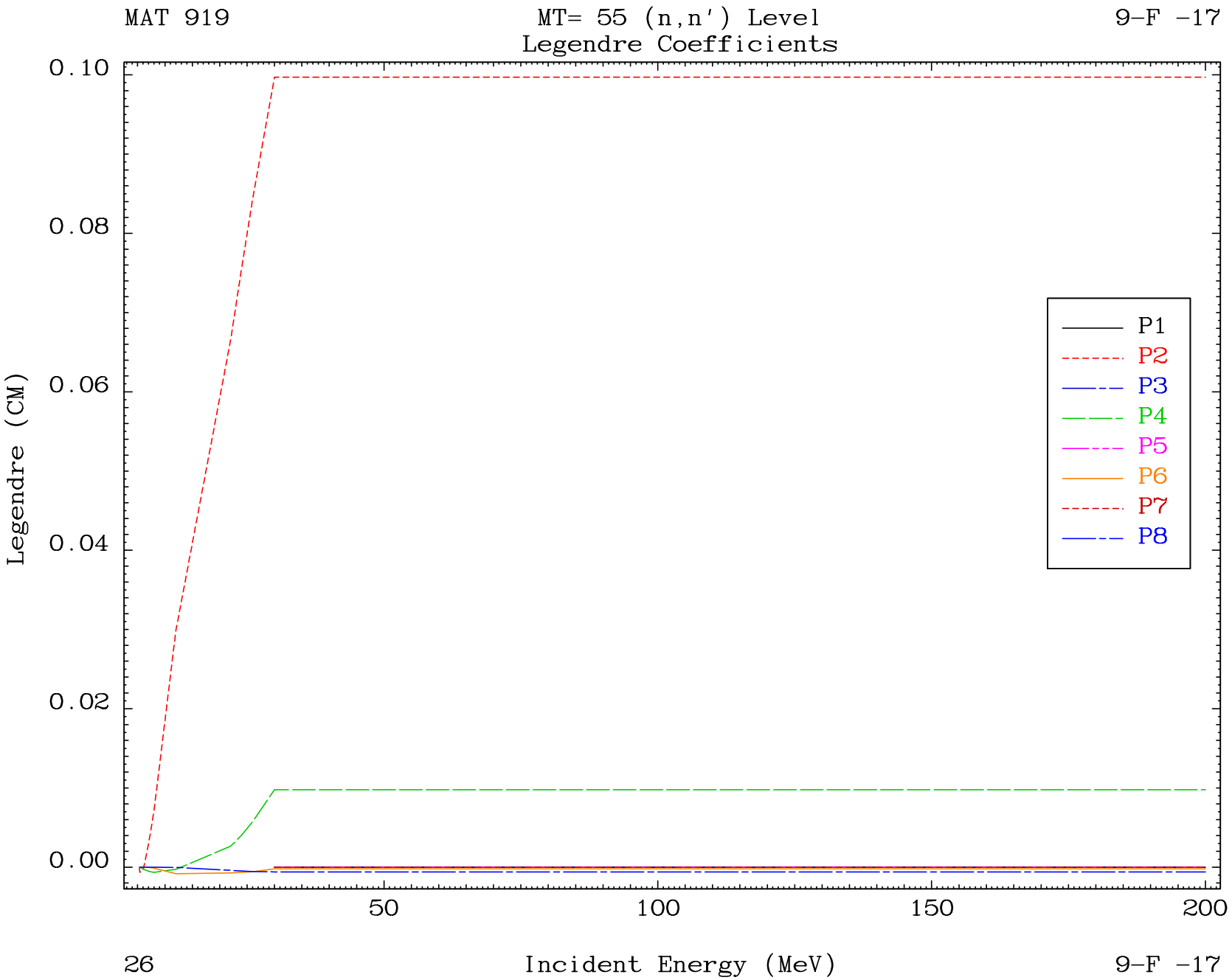

MAT 919
MT= 53 (n,n') Level
Legendre Coefficients
9-F -17
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
50
100
150
200
21
Incident Energy (MeV)
9-F -17
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10

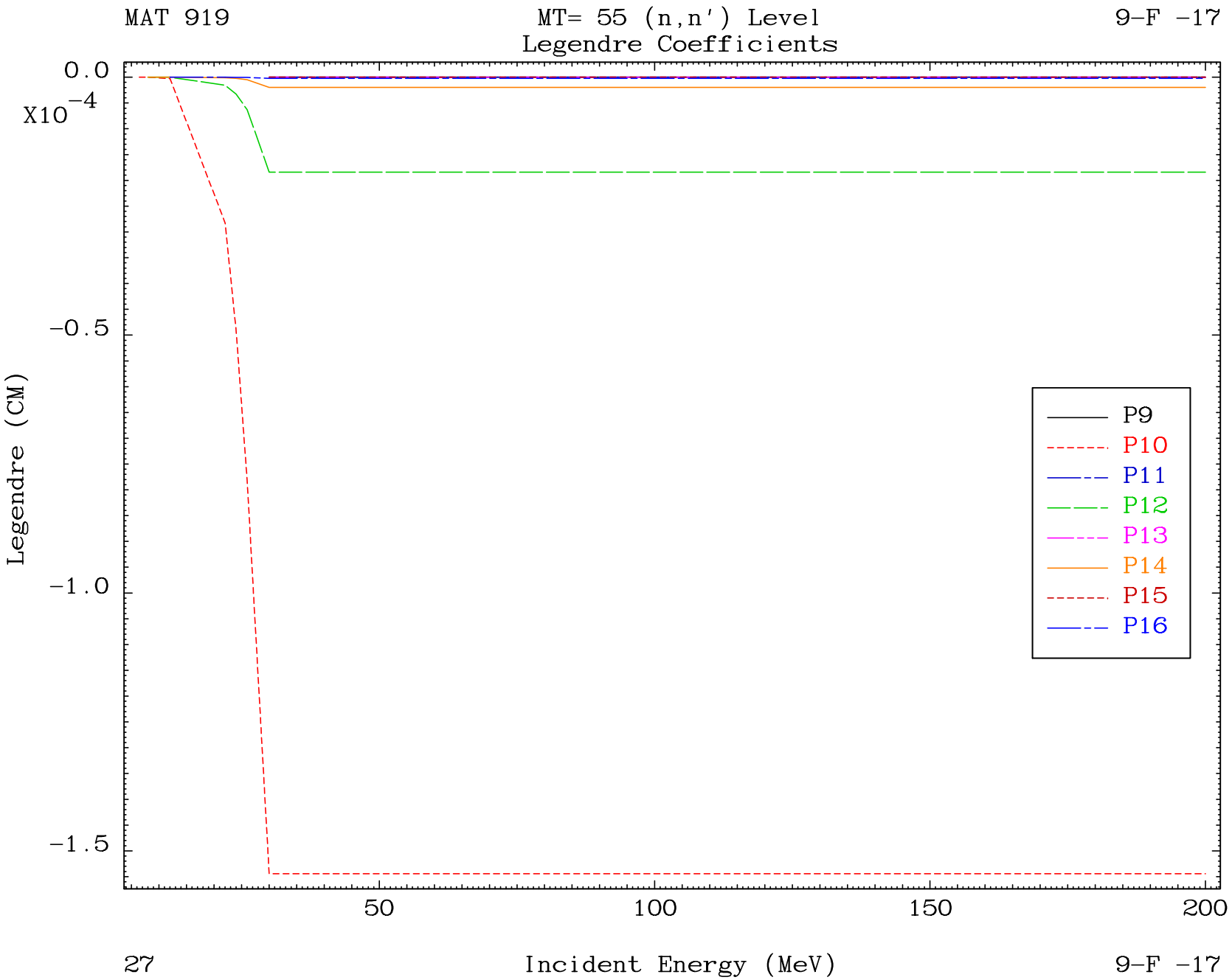

MAT 919
MT= 53 (n,n') Level
Legendre Coefficients
9-F -17
X10^-4
0
-2
-4
-6
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
9-F -17
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20

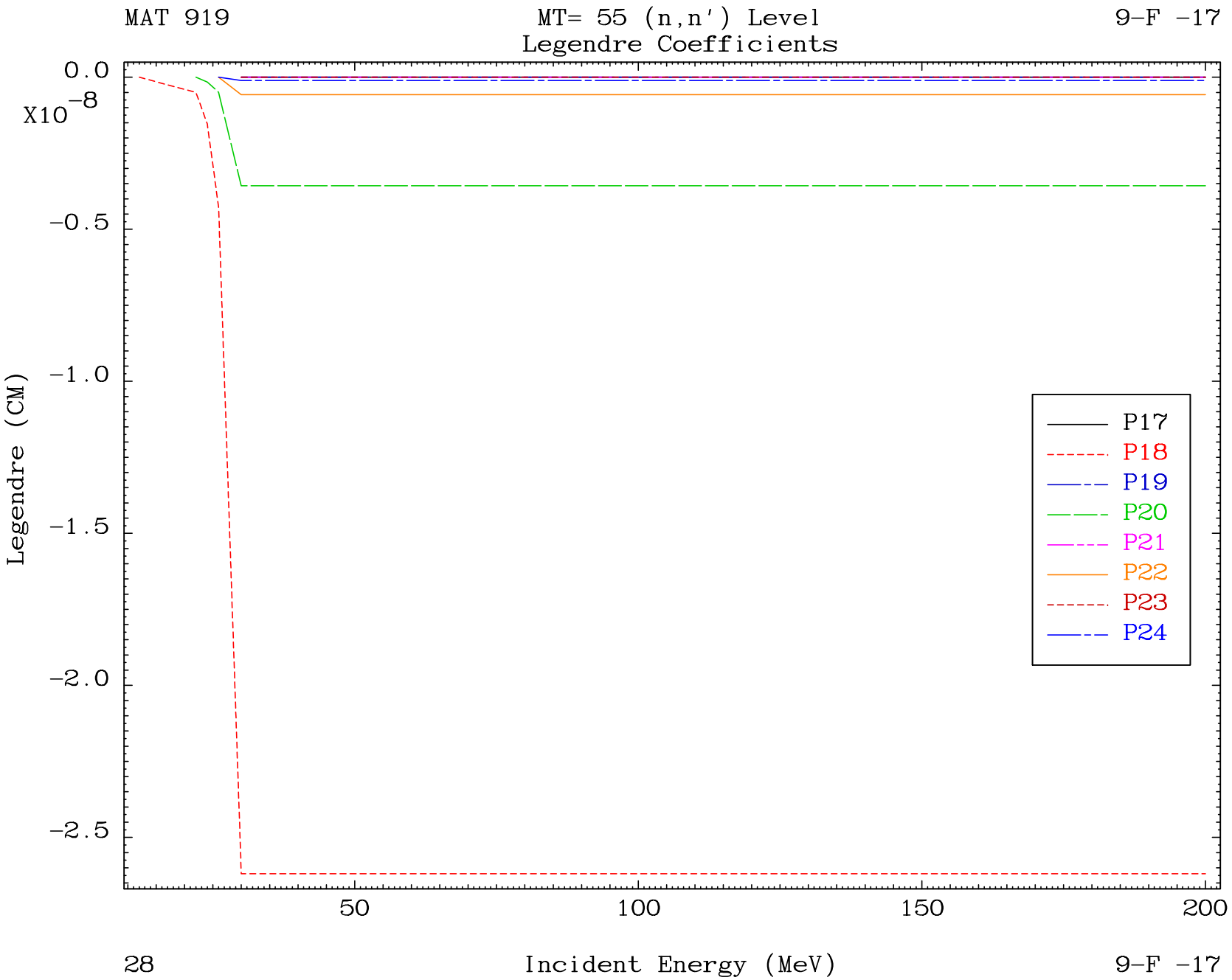

MAT 919
MT= 53 (n,n') Level
Legendre Coefficients
9-F -17
X10-7
2.5
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P21
P22
P23
P24
P25
P26
P27
P28
50
100
150
200
23
Incident Energy (MeV)
9-F -17

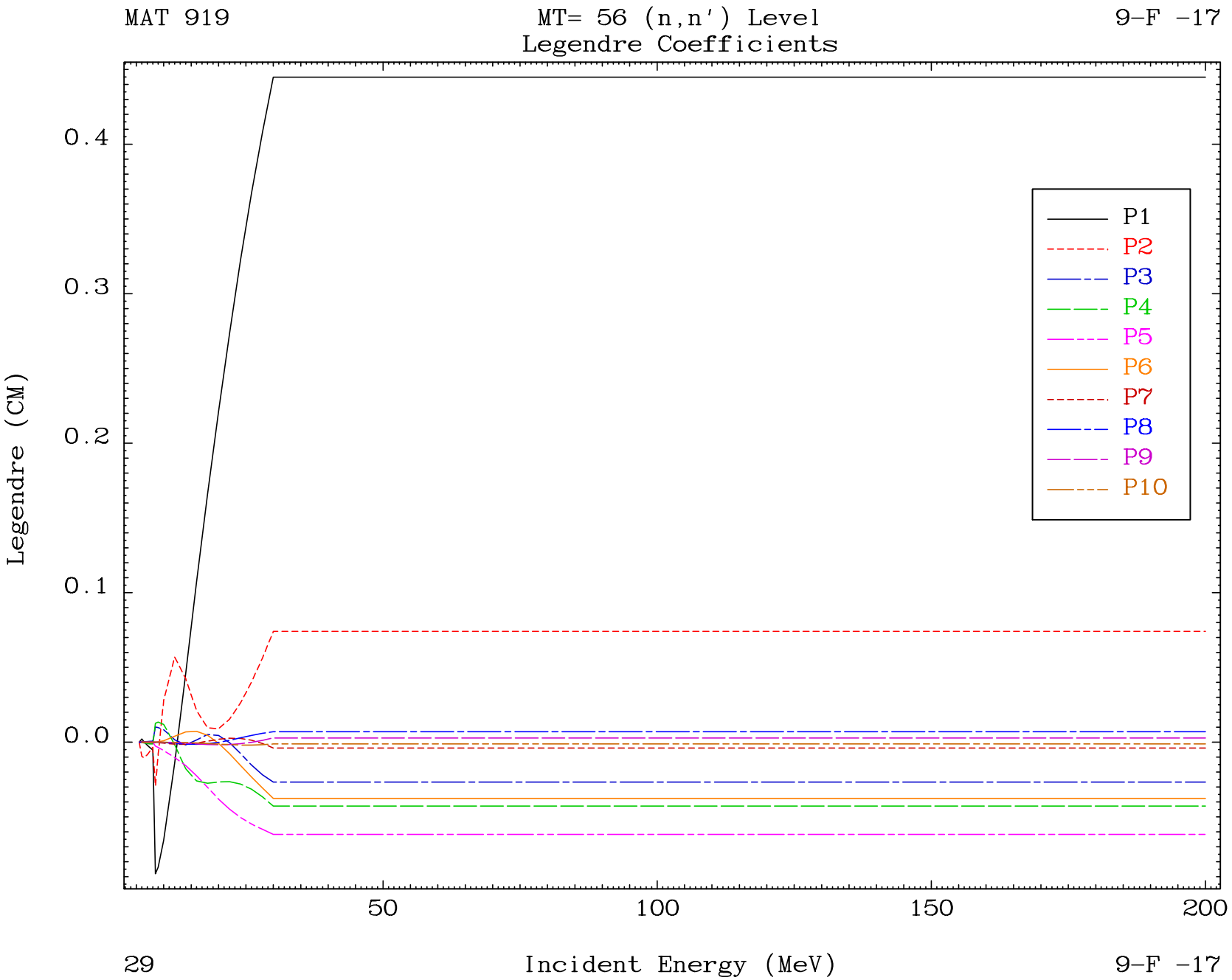

MAT 919
MT= 54 (n,n') Level
Legendre Coefficients
9-F -17
0.10
0.08
0.06
0.04
0.02
0.00
Legendre (CM)
50
100
150
200
24
Incident Energy (MeV)
9-F -17
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11

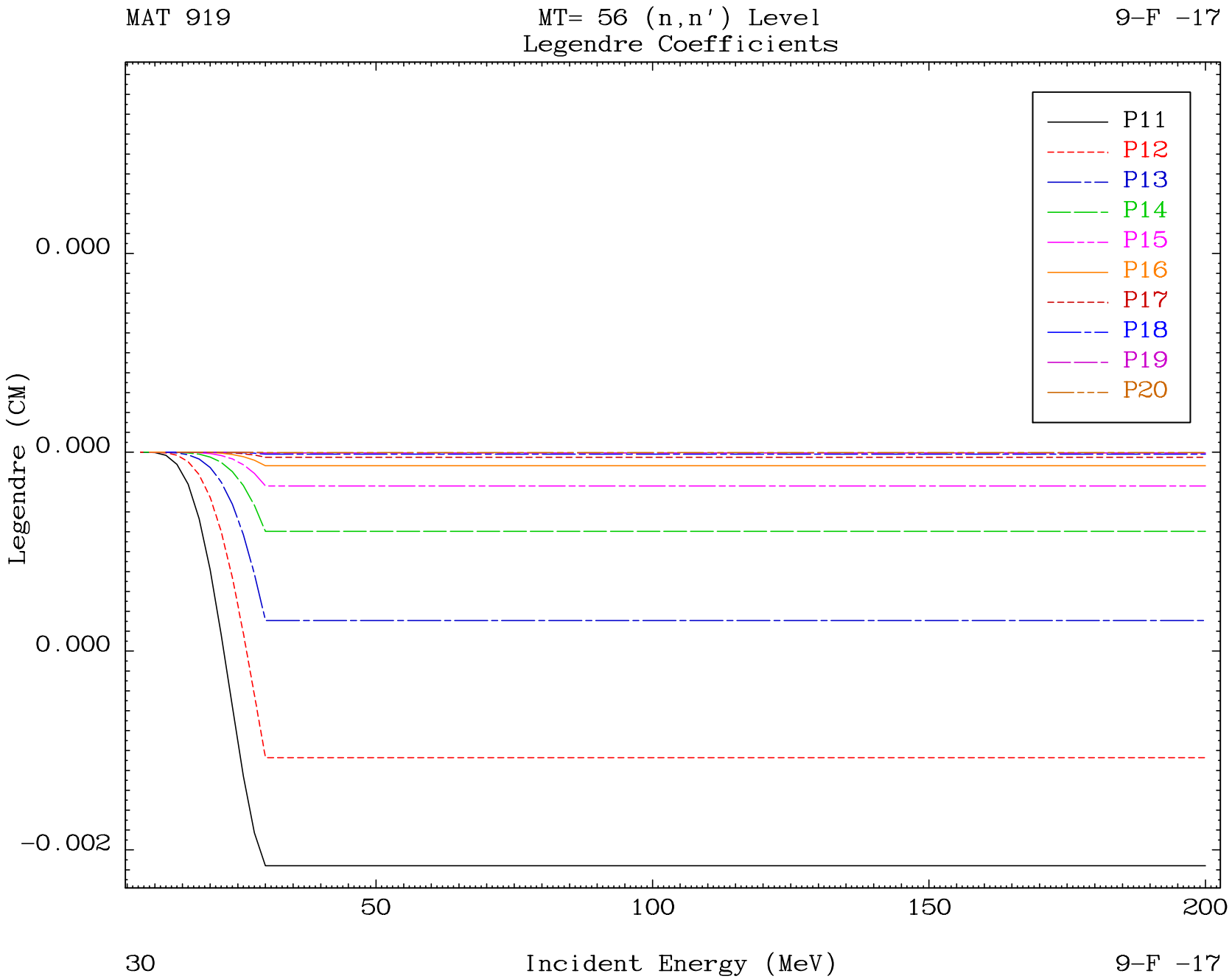

MAT 919
MT= 54 (n,n') Level
Legendre Coefficients
9-F -17
0
X10 -6
-1
-2
-3
Legendre (CM)
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
50
100
150
200
25
Incident Energy (MeV)
9-F -17

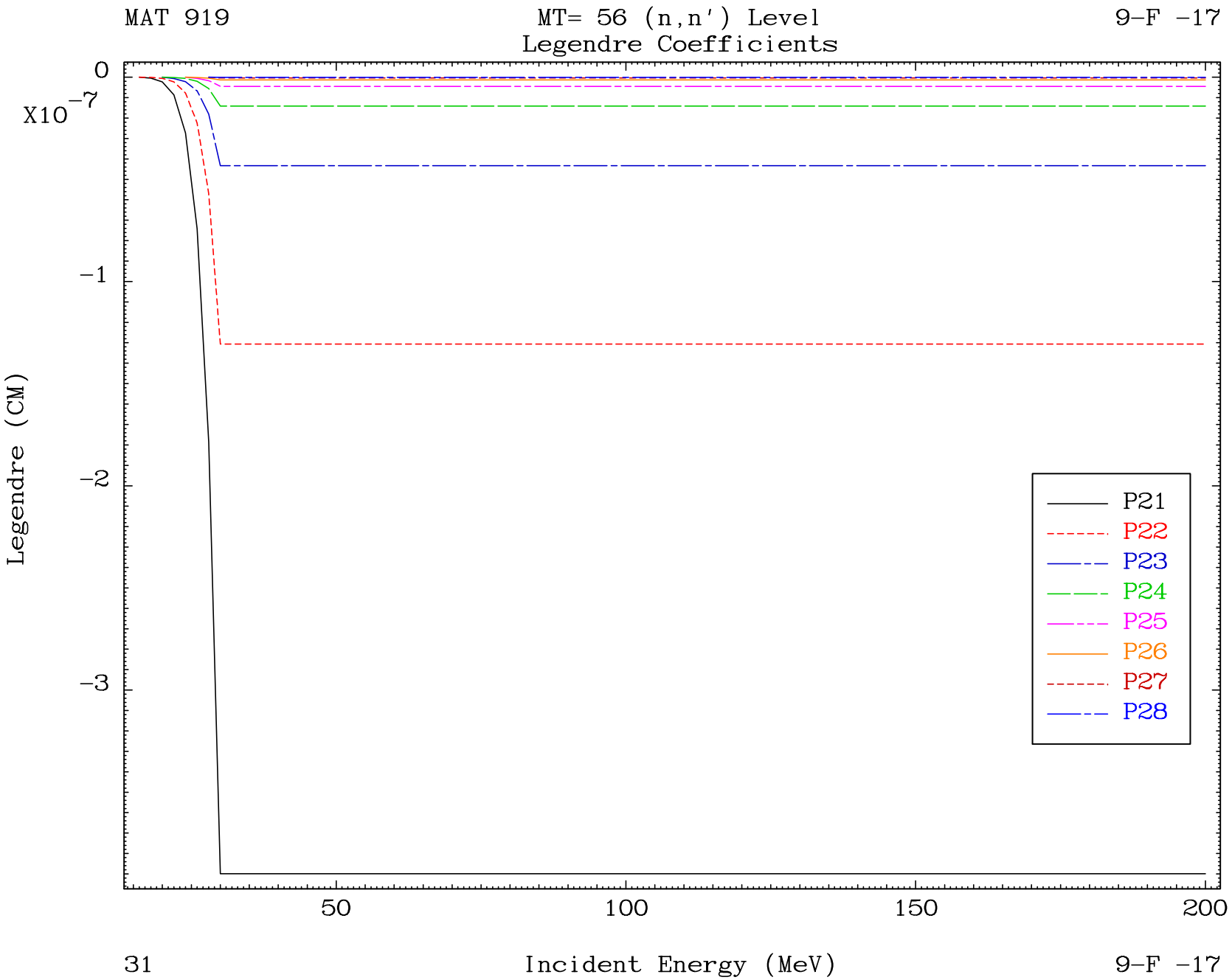

MAT 919
MT= 55 (n,n') Level
Legendre Coefficients
9-F -17
0.10
0.08
0.06
0.04
0.02
0.00
Legendre (CM)
50
100
150
200
26
Incident Energy (MeV)
9-F -17
P1
P2
P3
P4
P5
P6
P7
P8

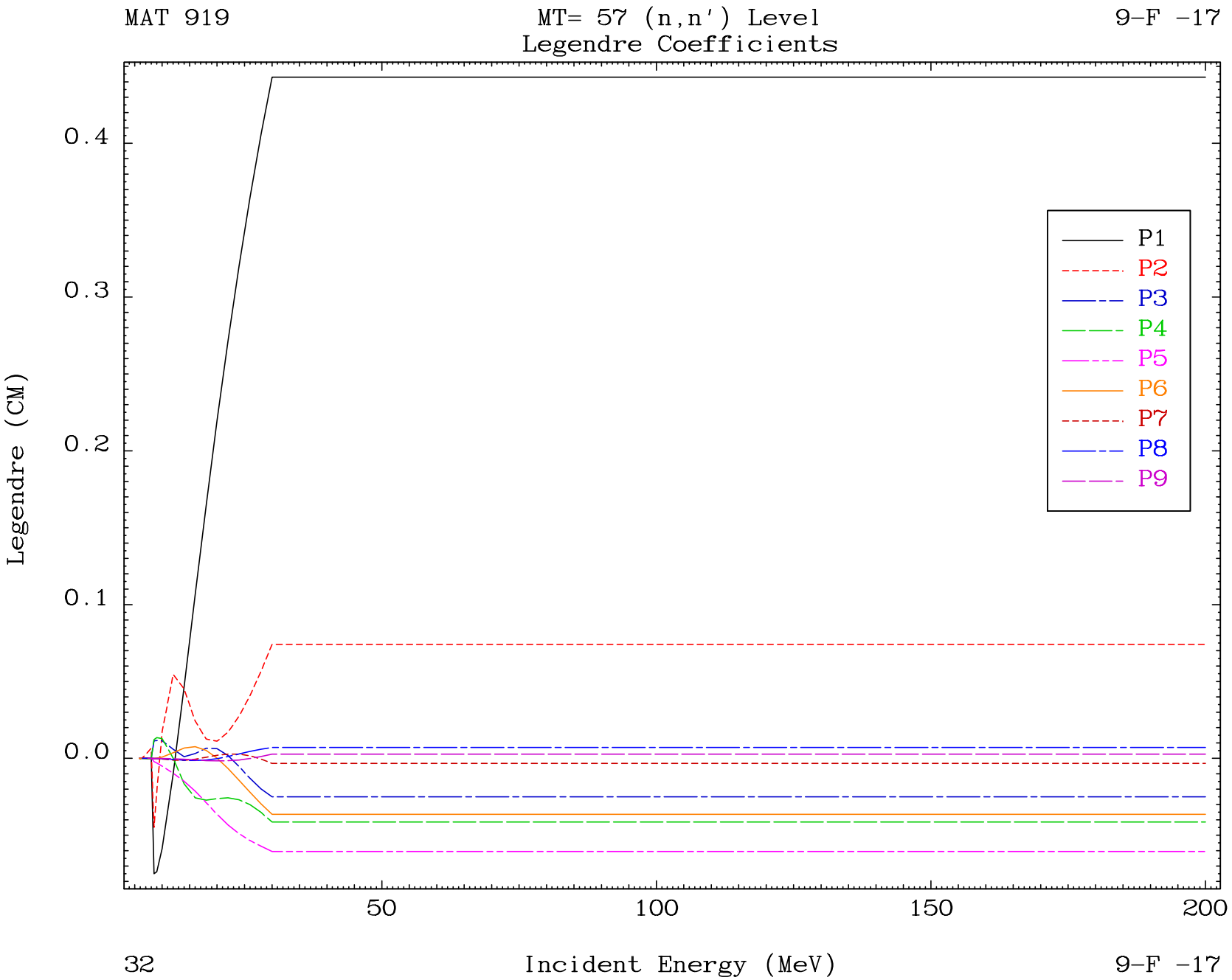

MAT 919
MT= 55 (n,n') Level
Legendre Coefficients
9-F -17
0.0
X10^-4
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
27
Incident Energy (MeV)
9-F -17
P9
P10
P11
P12
P13
P14
P15
P16

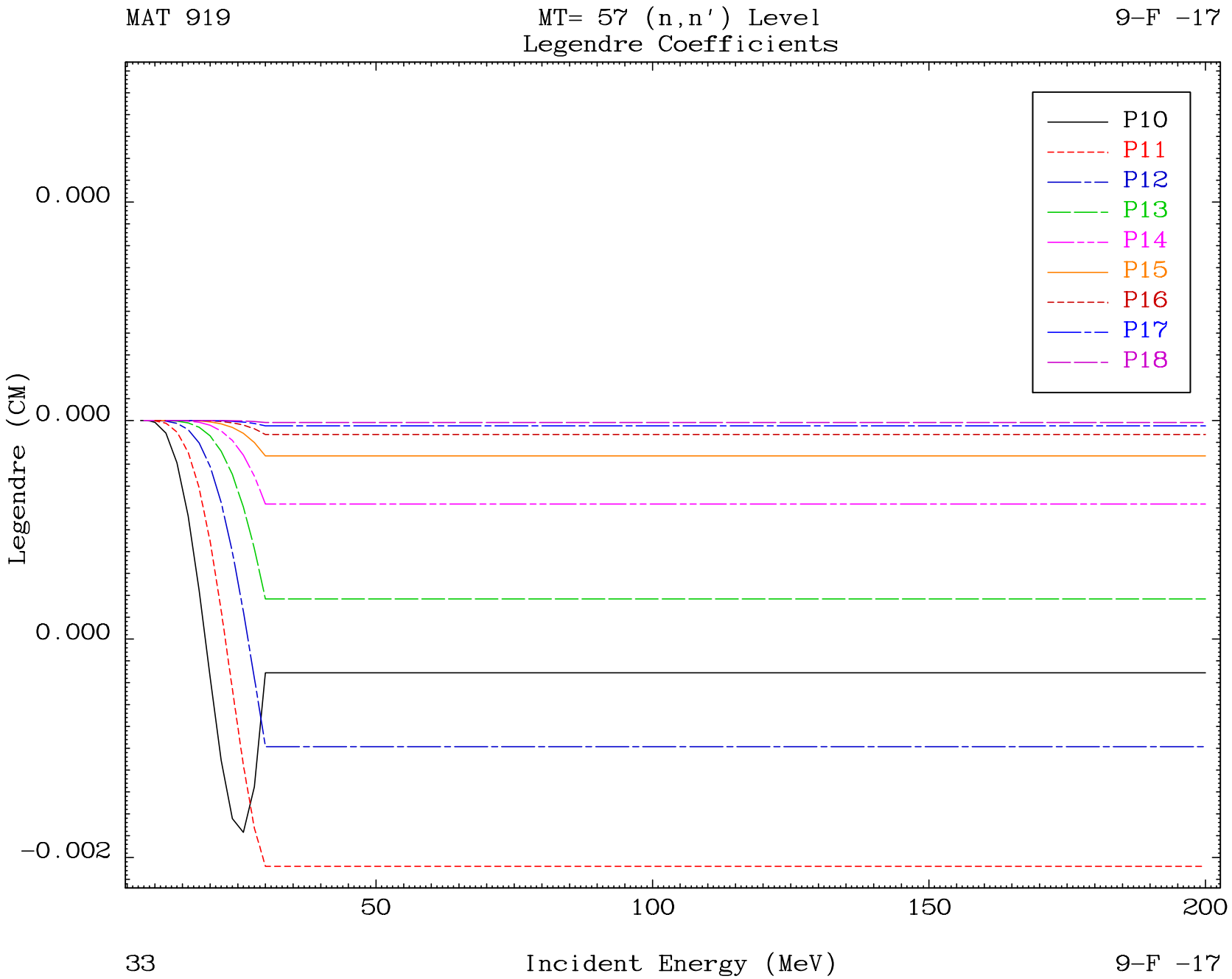

MAT 919
MT= 55 (n,n') Level
Legendre Coefficients
9-F -17
0.0
X10-8
-0.5
-1.0
-1.5
-2.0
-2.5
Legendre (CM)
50
100
150
200
28
Incident Energy (MeV)
9-F -17
P17
P18
P19
P20
P21
P22
P23
P24

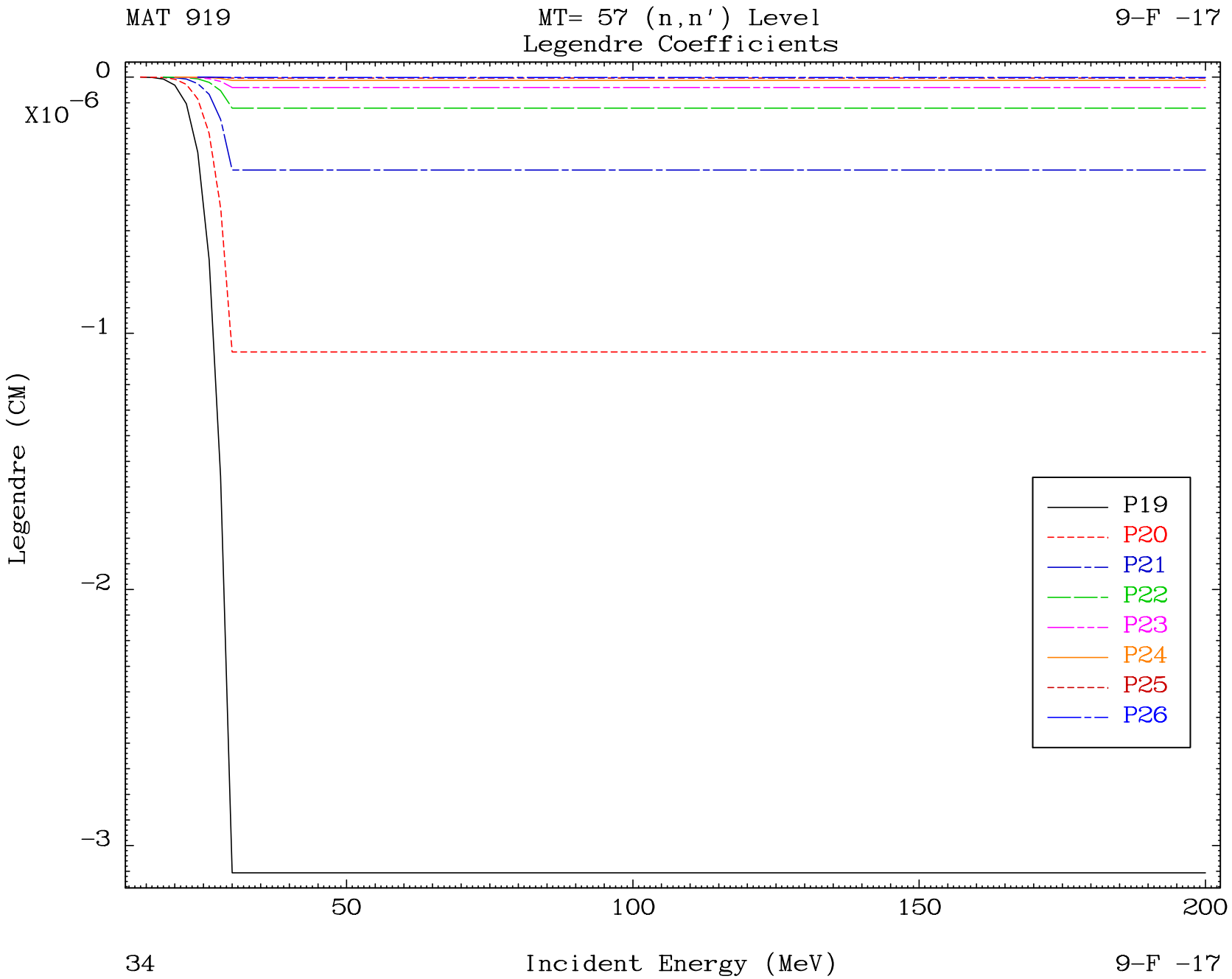

MAT 919
MT= 56 (n,n') Level
Legendre Coefficients
9-F -17
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
29
Incident Energy (MeV)
9-F -17

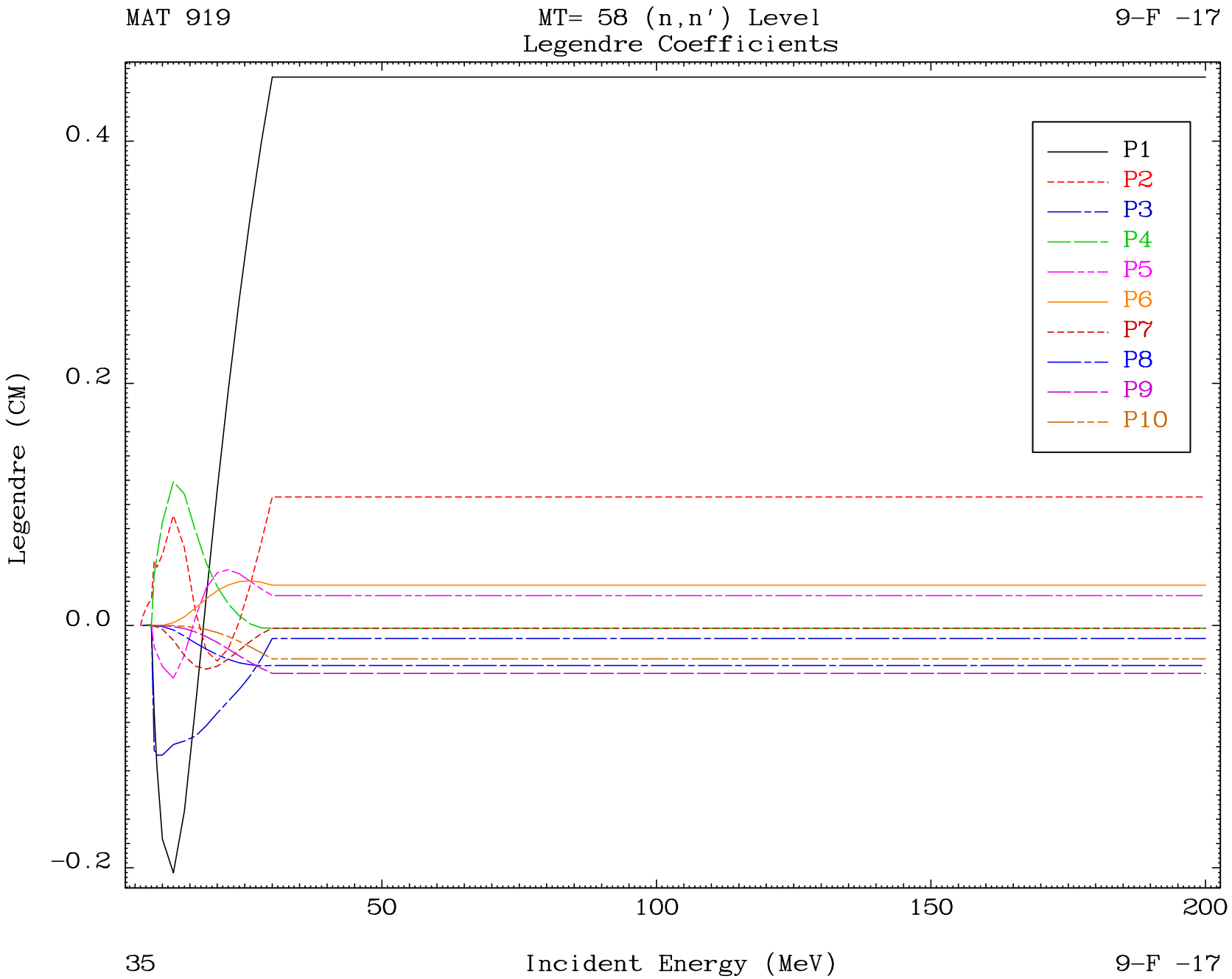

MAT 919
MT= 56 (n,n') Level
Legendre Coefficients
9-F -17
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
0.000
0.000
0.000
-0.002
Legendre (CM)
50
100
150
200
30
Incident Energy (MeV)
9-F -17

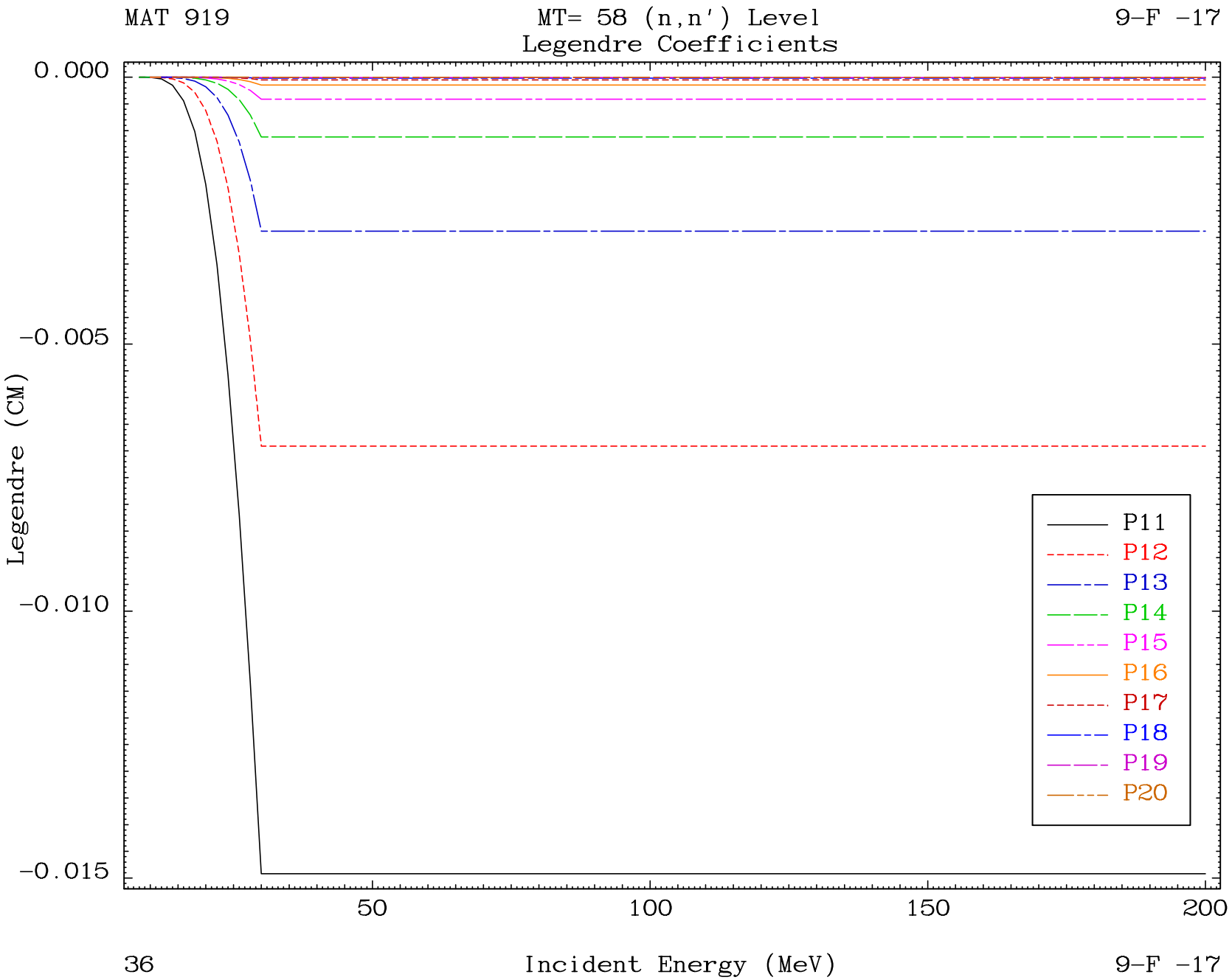

MAT 919
MT= 56 (n,n') Level
Legendre Coefficients
9-F -17
0
X10-7
-1
-2
-3
Legendre (CM)
50
100
150
200
31
Incident Energy (MeV)
9-F -17
P21
P22
P23
P24
P25
P26
P27
P28

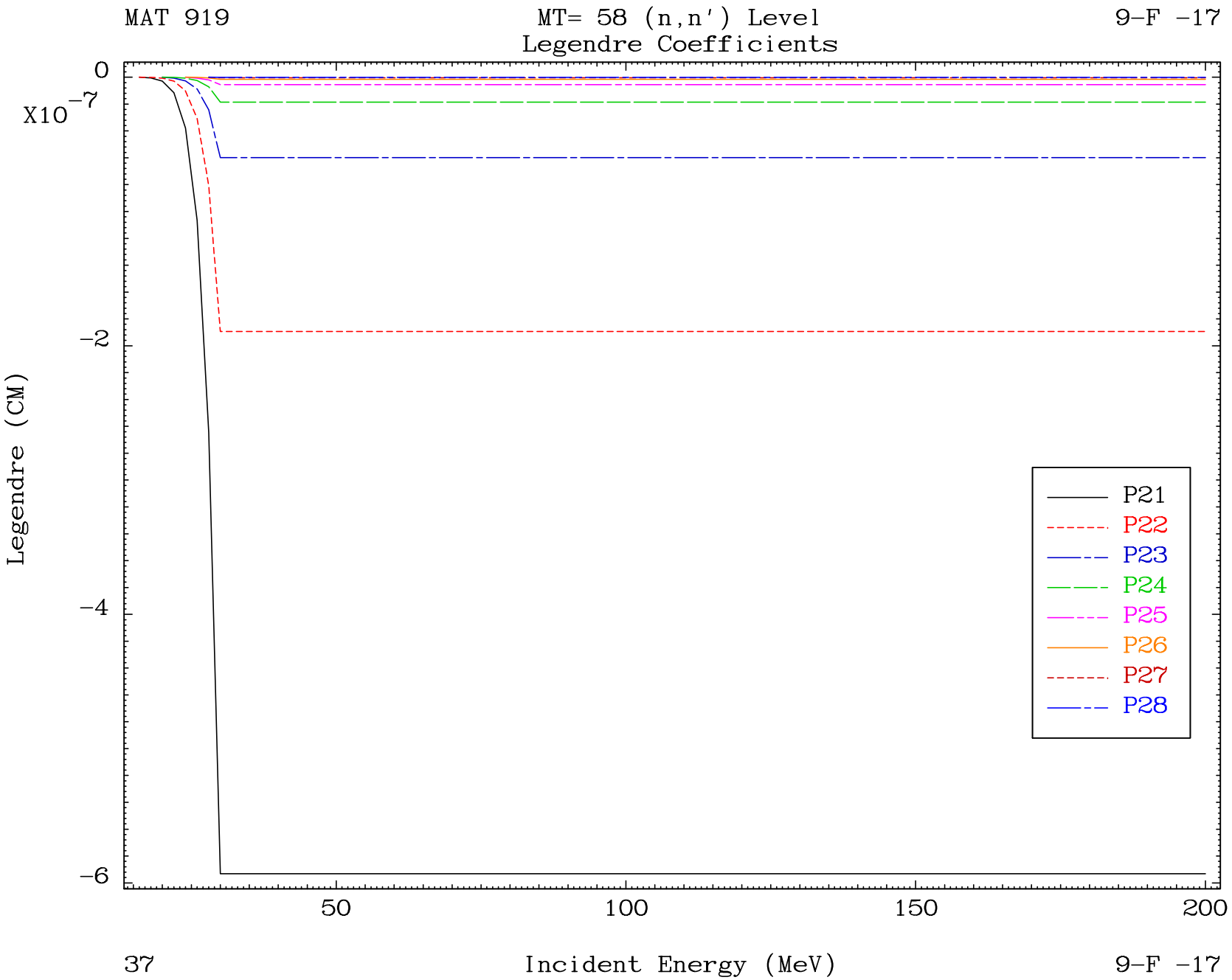

MAT 919
MT= 57 (n,n') Level
Legendre Coefficients
9-F -17
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
32
Incident Energy (MeV)
9-F -17


MAT 919
MT= 57 (n,n') Level
Legendre Coefficients
9-F -17
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.000
0.000
0.000
-0.002
Legendre (CM)
50
100
150
200
33
Incident Energy (MeV)
9-F -17


MAT 919
MT= 57 (n,n') Level
Legendre Coefficients
9-F -17
0
X10^-6
-1
-2
-3
Legendre (CM)
50
100
150
200
34
Incident Energy (MeV)
9-F -17
P19
P20
P21
P22
P23
P24
P25
P26


MAT 919
MT= 58 (n,n') Level
Legendre Coefficients
9-F -17
0.4
0.2
0.0
-0.2
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
50
100
150
200
35
Incident Energy (MeV)
9-F -17


MAT 919
MT= 58 (n,n') Level
Legendre Coefficients
9-F -17
0.000
-0.005
-0.010
-0.015
Legendre (CM)
50
100
150
200
Incident Energy (MeV)
36
9-F -17
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20


MAT 919
MT= 58 (n,n') Level
Legendre Coefficients
9-F -17
0
X10-7
-2
-4
-6
Legendre (CM)
50
100
150
200
37
Incident Energy (MeV)
9-F -17
P21
P22
P23
P24
P25
P26
P27
P28