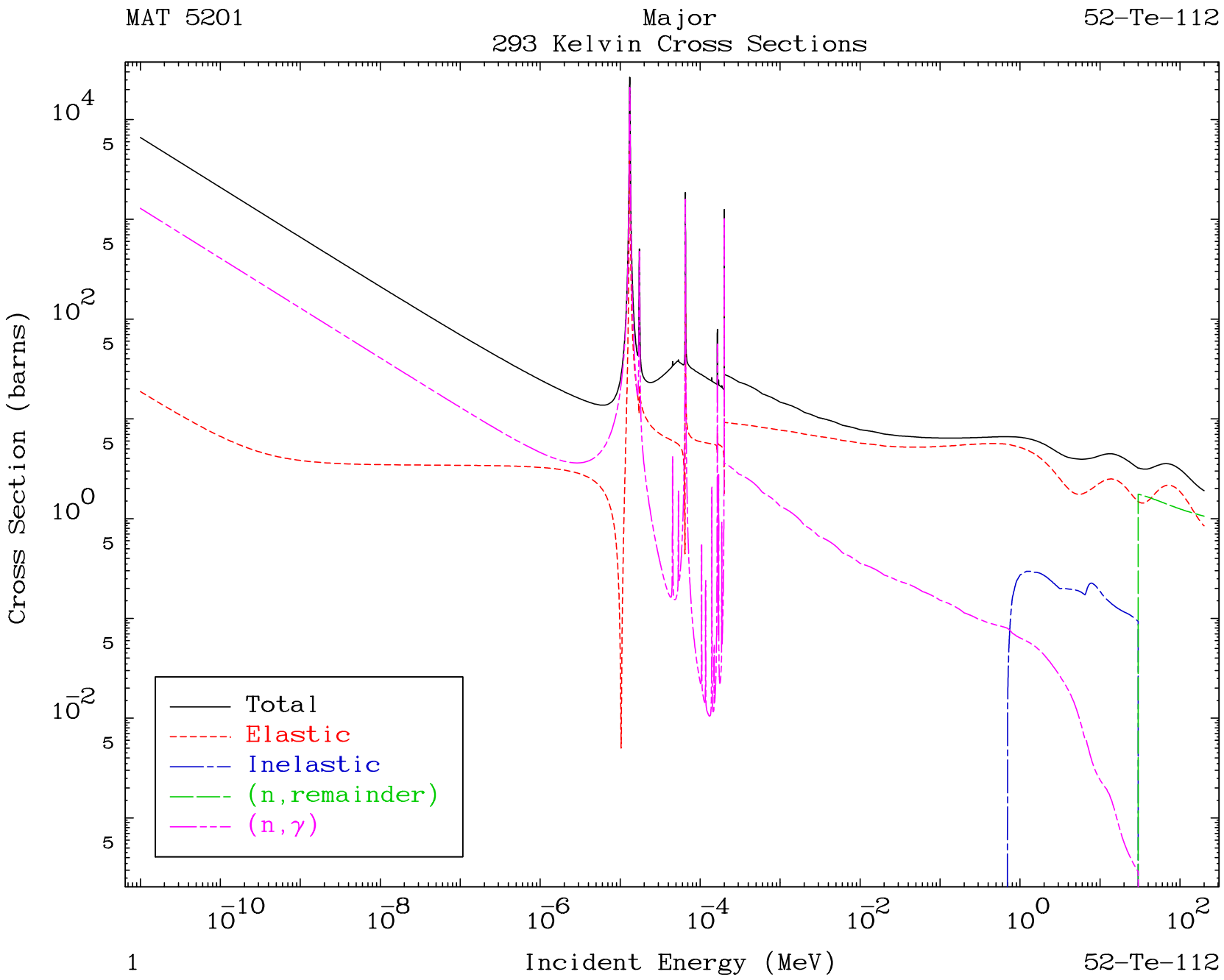
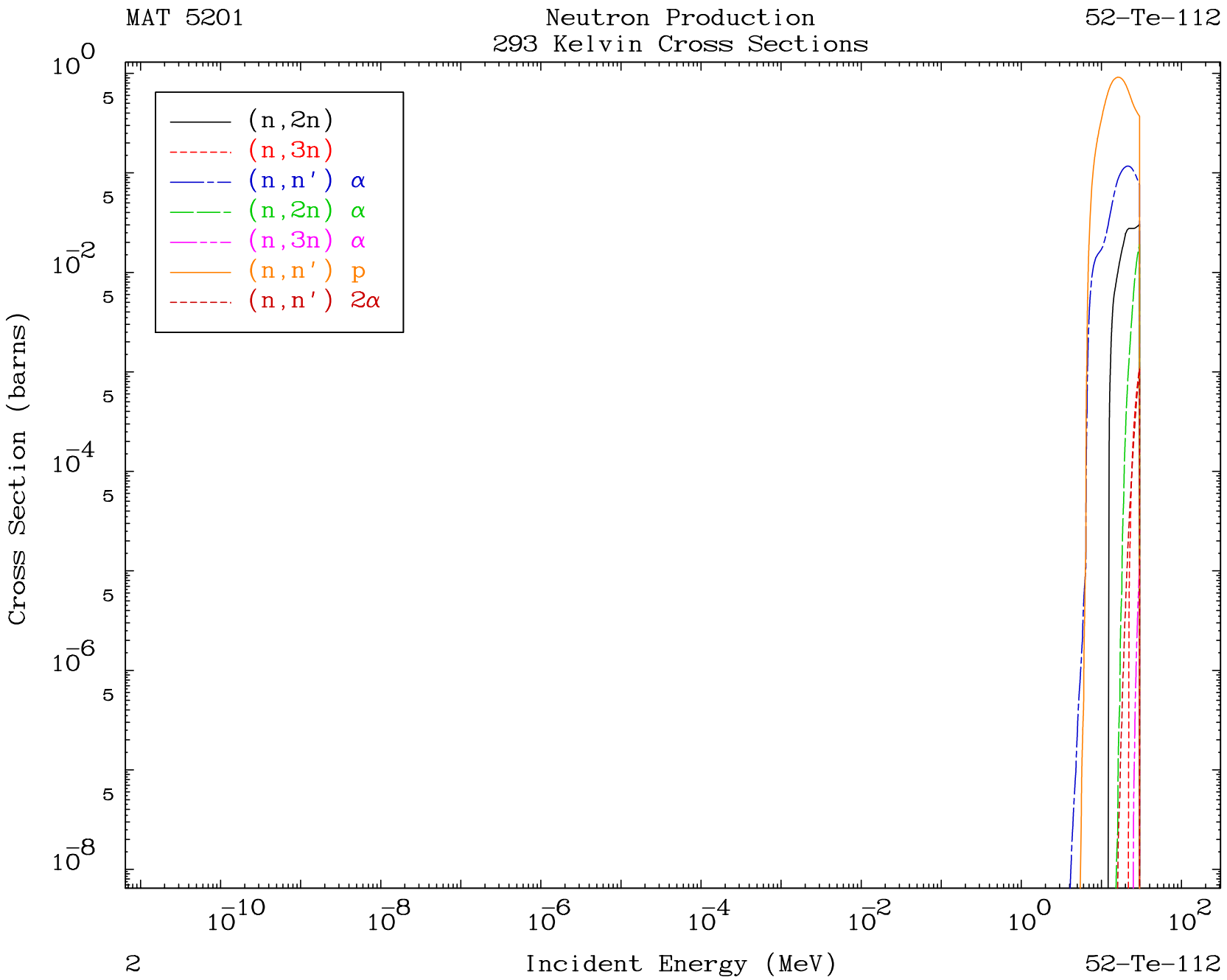
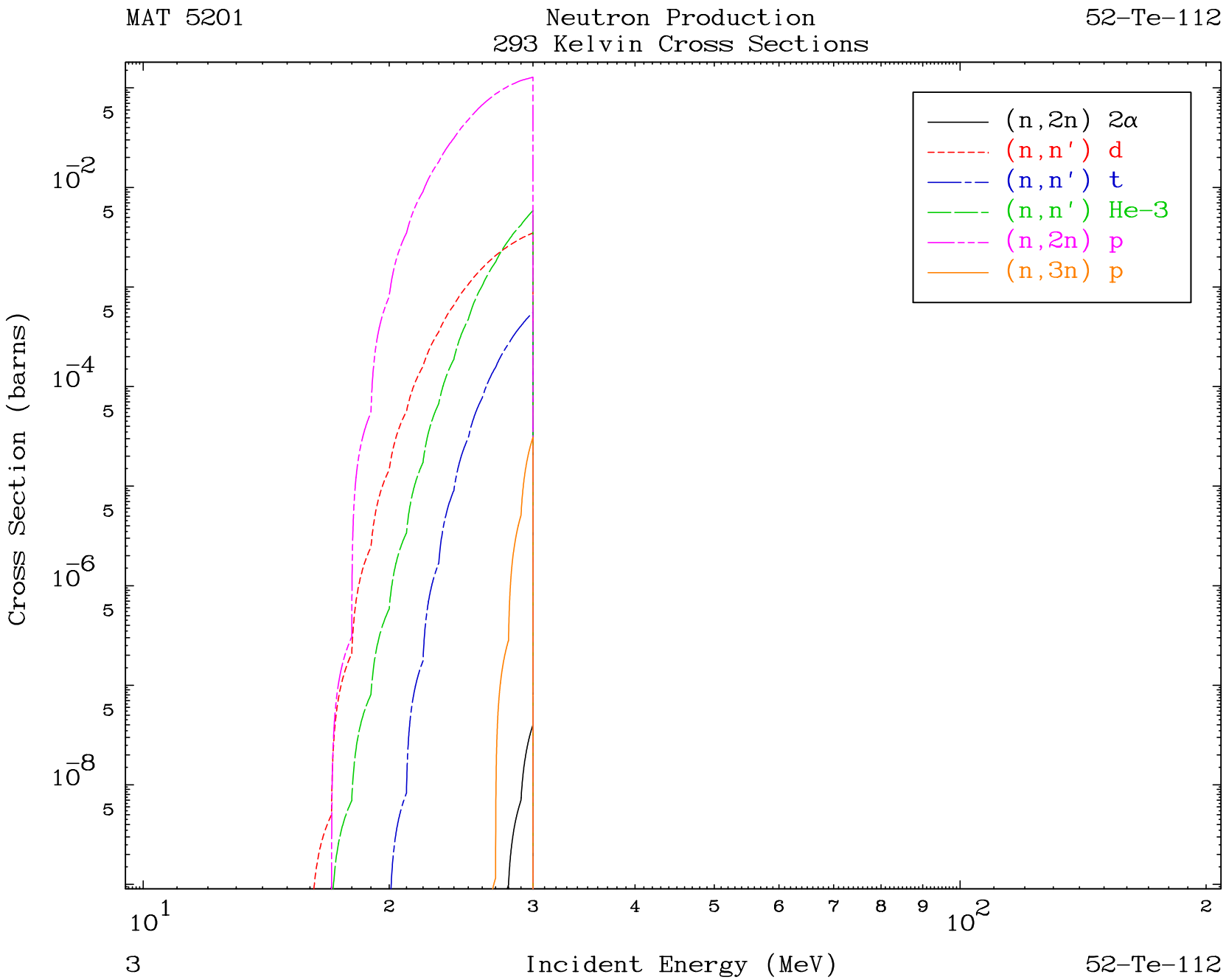
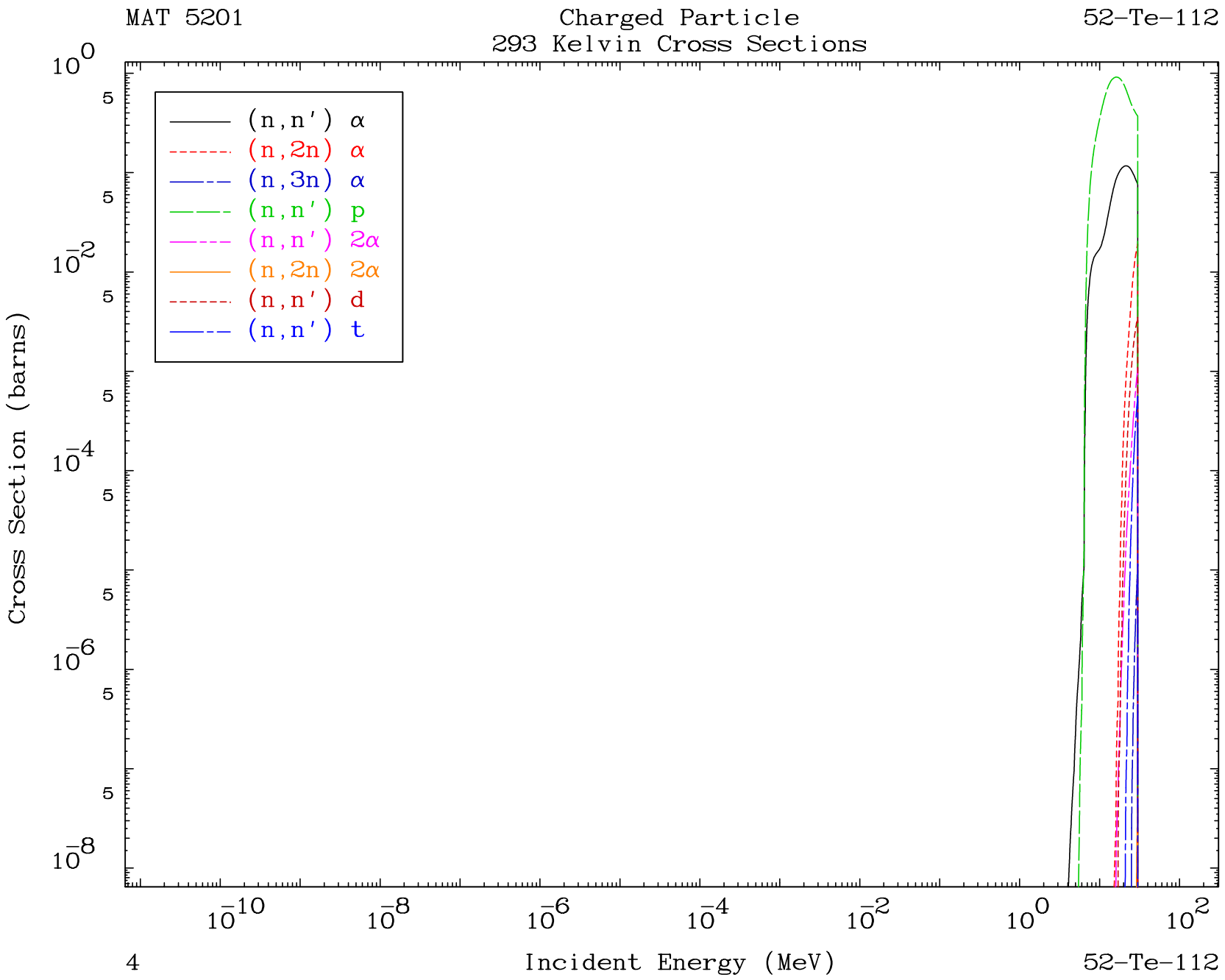
Program EVALPLOT
(Version 2017-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

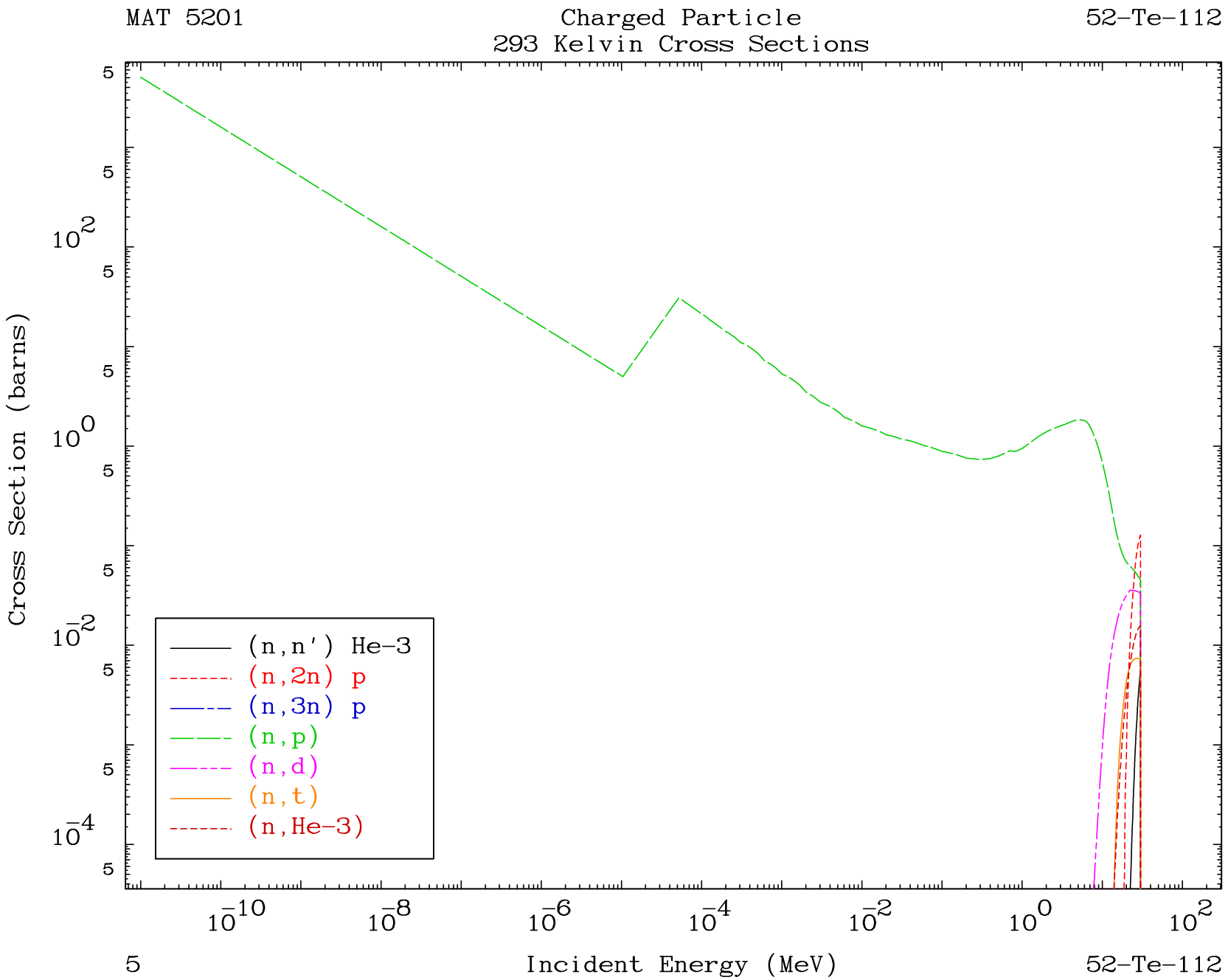
Press Mouse Button to Start

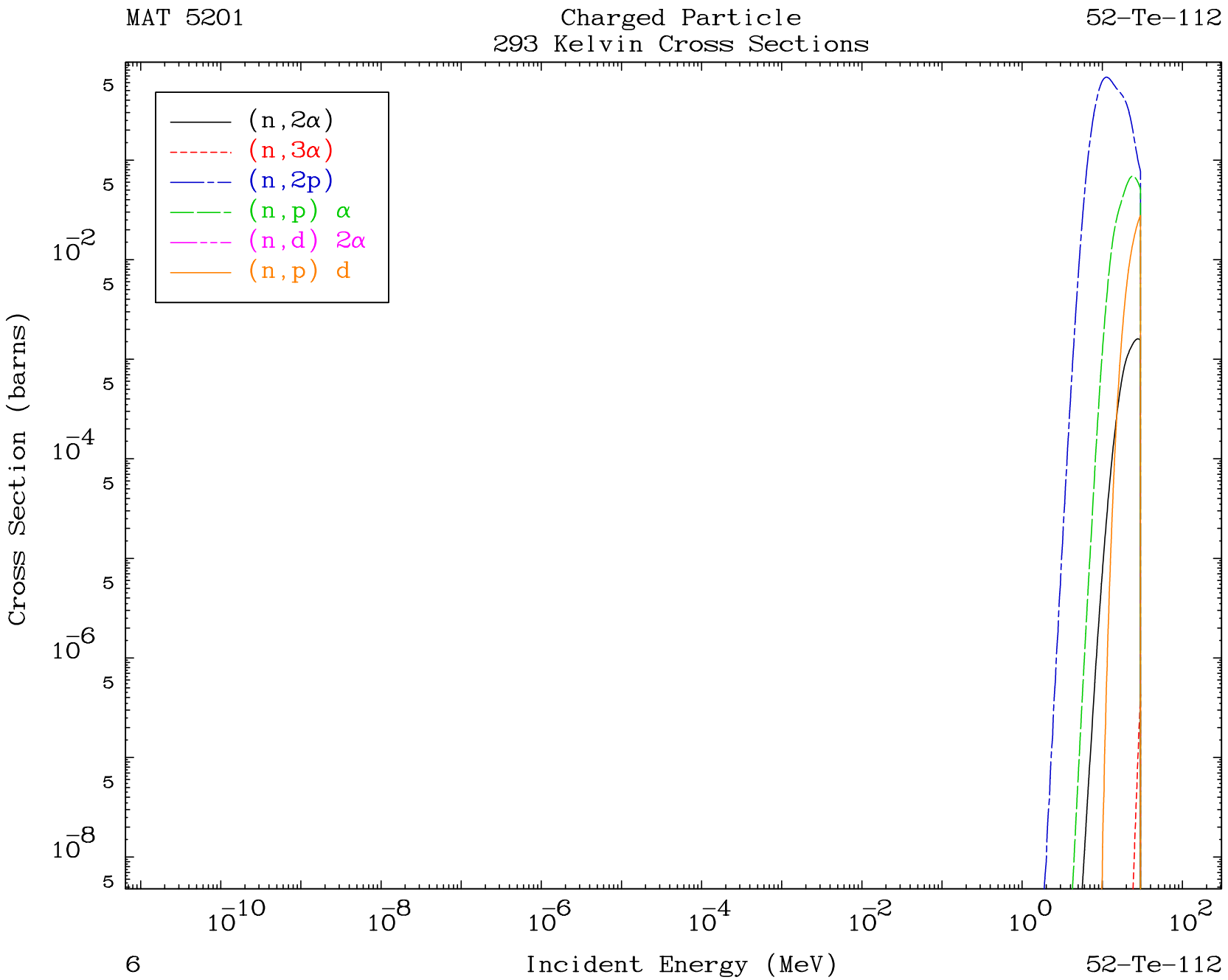

MAT 5201
Major
52-Te-112
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
52-Te-112

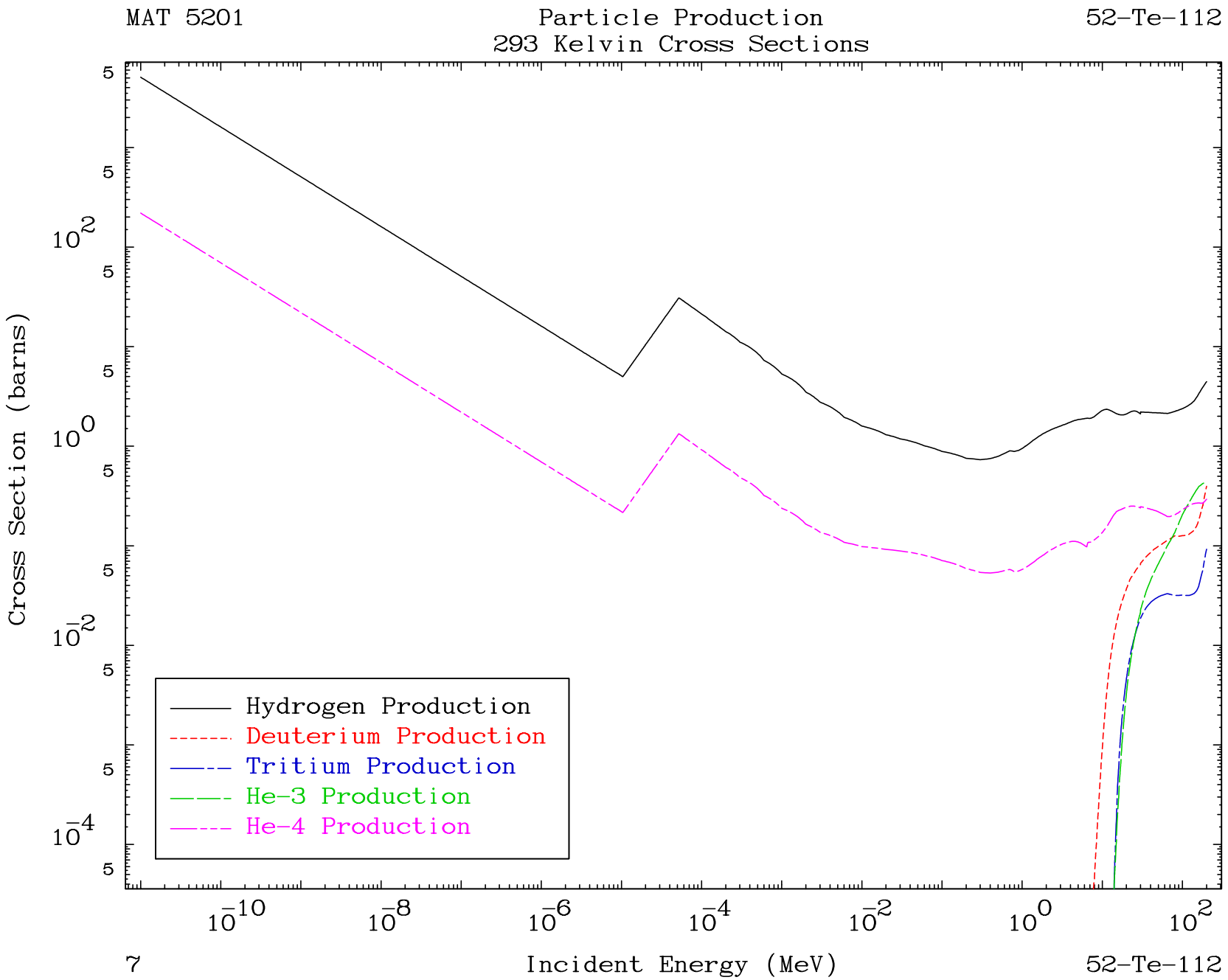

MAT 5201
Neutron Production
293 Kelvin Cross Sections
52-Te-112
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
Cross Section (barns)
Incident Energy (MeV)
2
52-Te-112

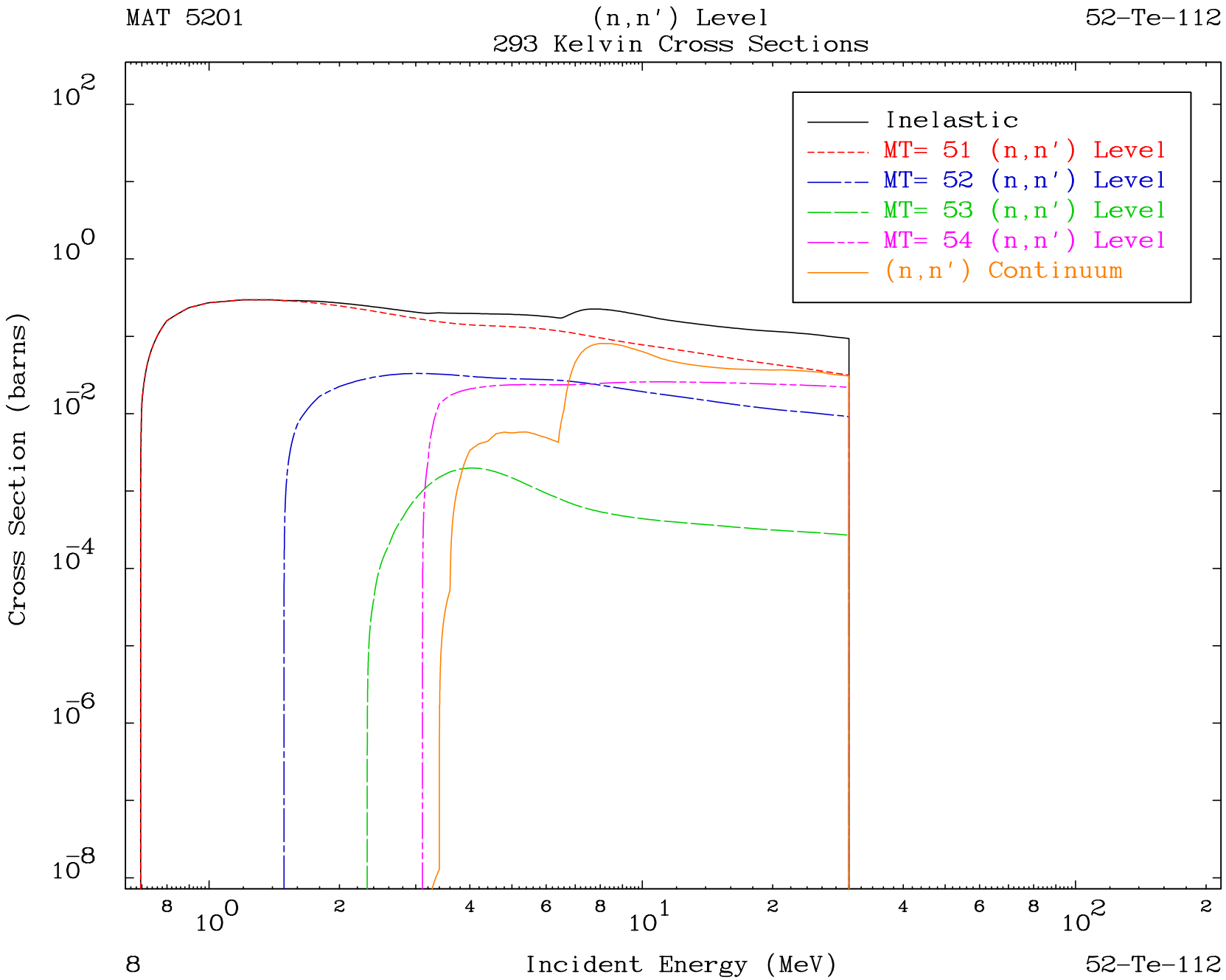

MAT 5201
Neutron Production
293 Kelvin Cross Sections
52-Te-112
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
Incident Energy (MeV)
52-Te-112
3

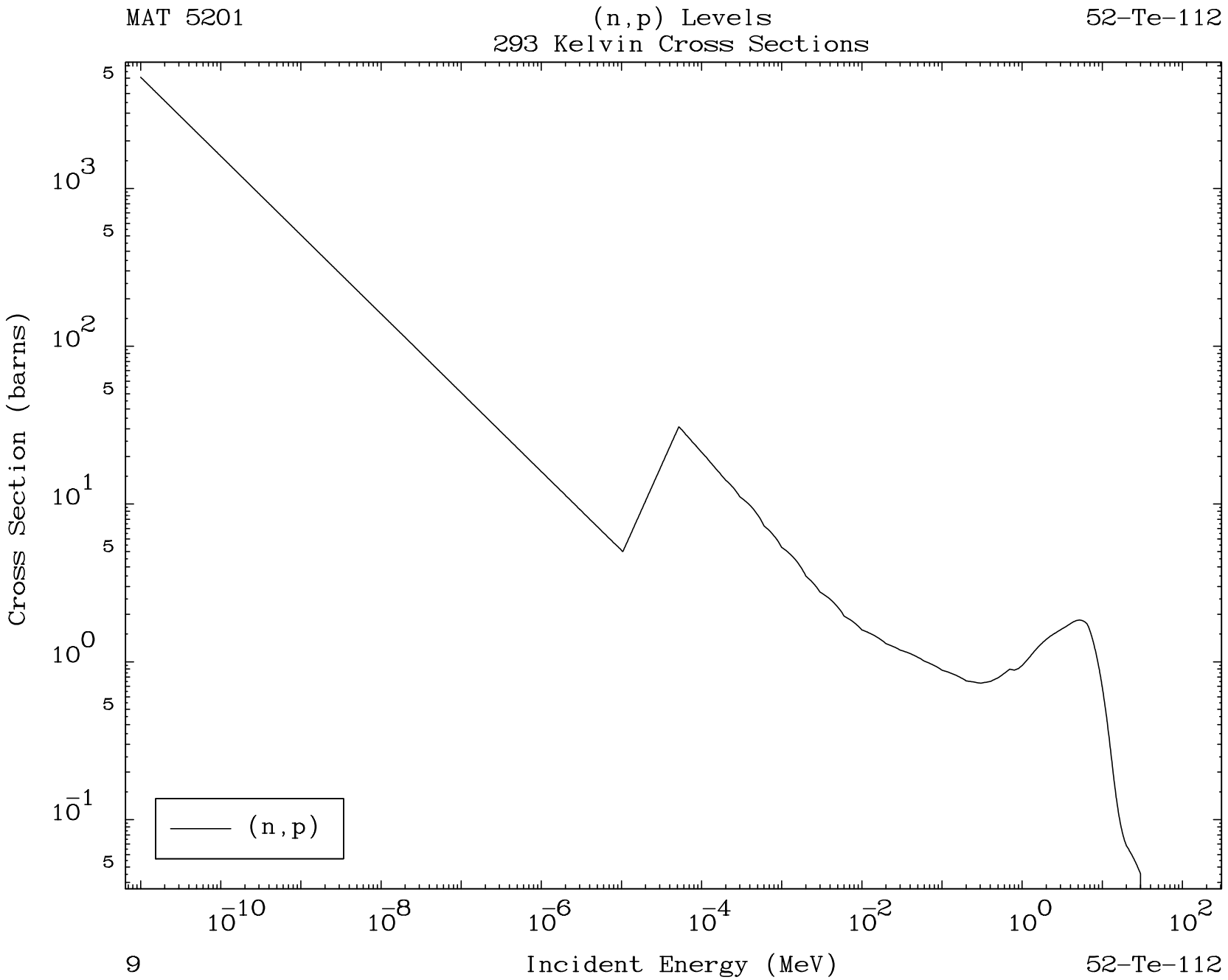

MAT 5201
Charged Particle
293 Kelvin Cross Sections
52-Te-112
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
Cross Section (barns)
Incident Energy (MeV)
4
52-Te-112

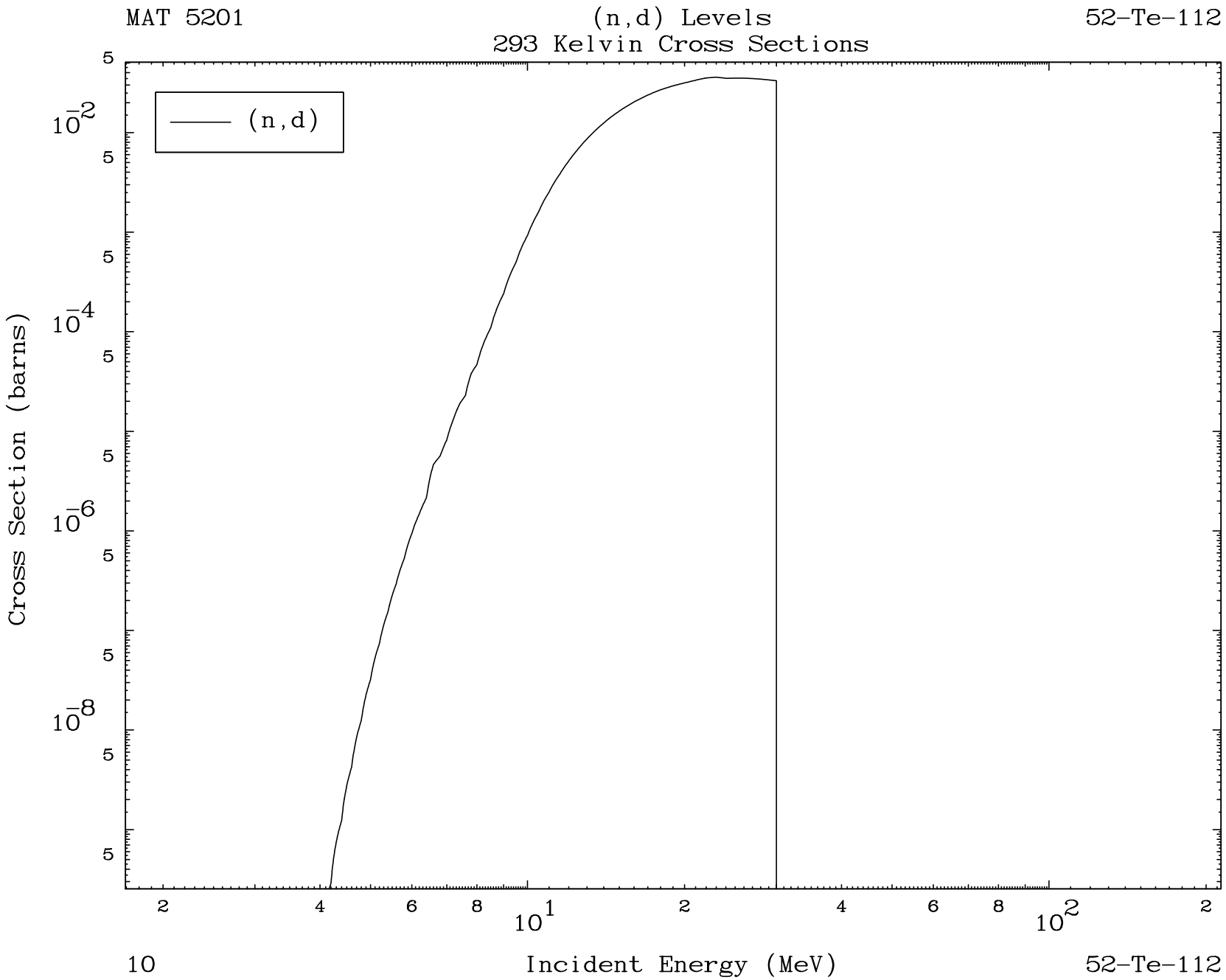

MAT 5201
Charged Particle
52-Te-112
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
52-Te-112
(n,n') He-3
(n,2n) p
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)

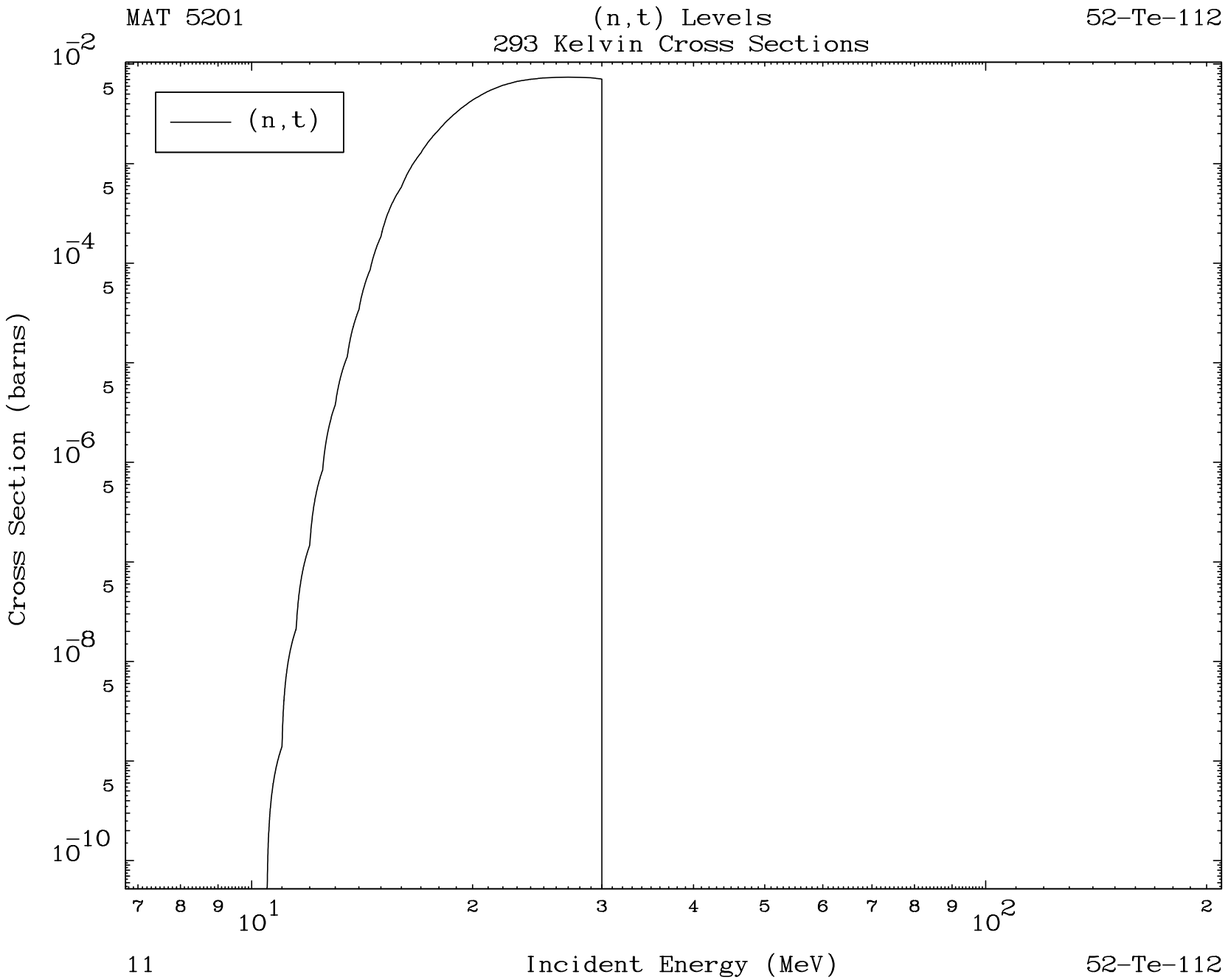

MAT 5201
Charged Particle
293 Kelvin Cross Sections
52-Te-112
(n,2α)
(n,3α)
(n,2p)
(n,p) α
(n,d) 2α
(n,p) d
Cross Section (barns)
Incident Energy (MeV)
6
52-Te-112

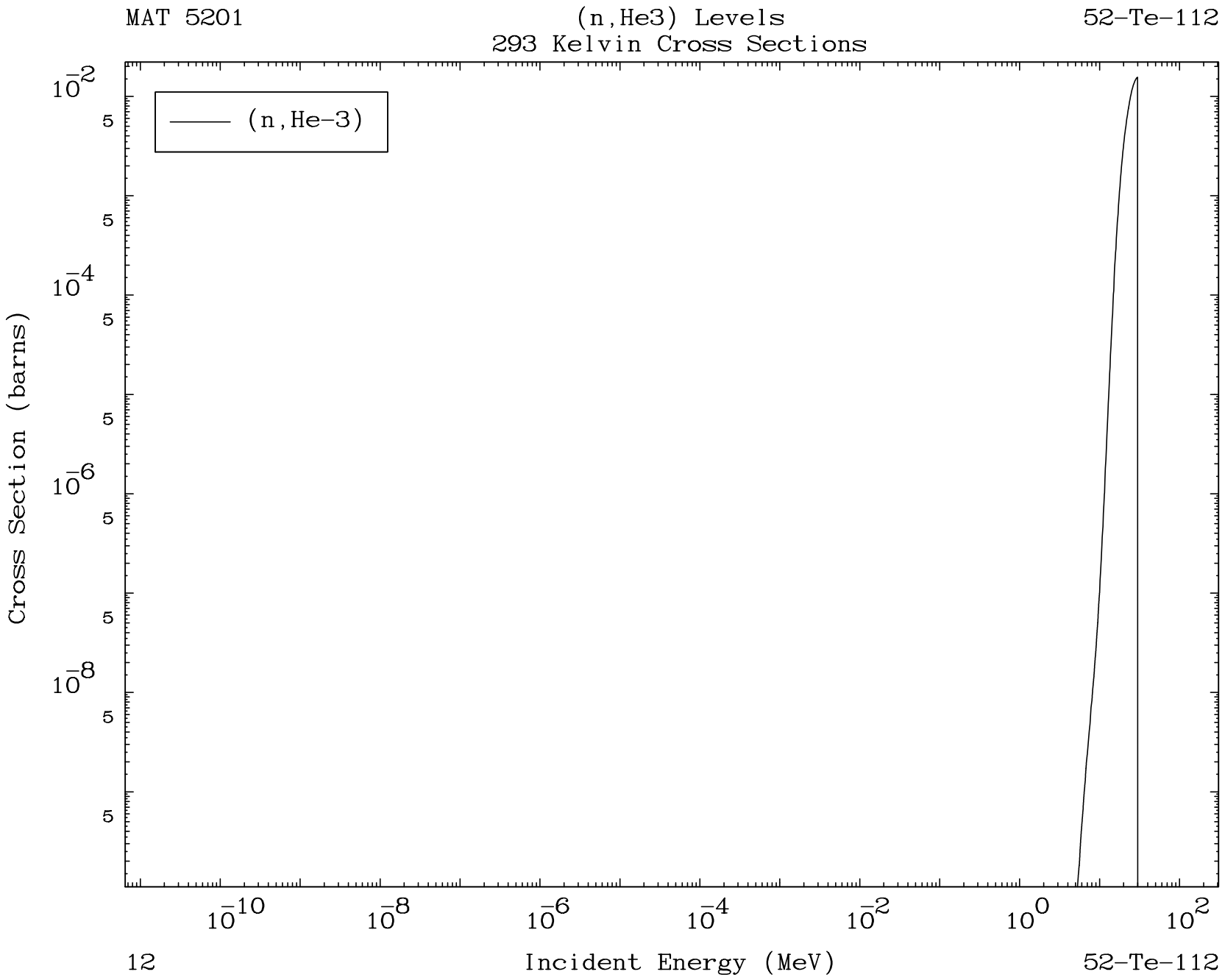

MAT 5201
Particle Production
293 Kelvin Cross Sections
52-Te-112
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
7
52-Te-112

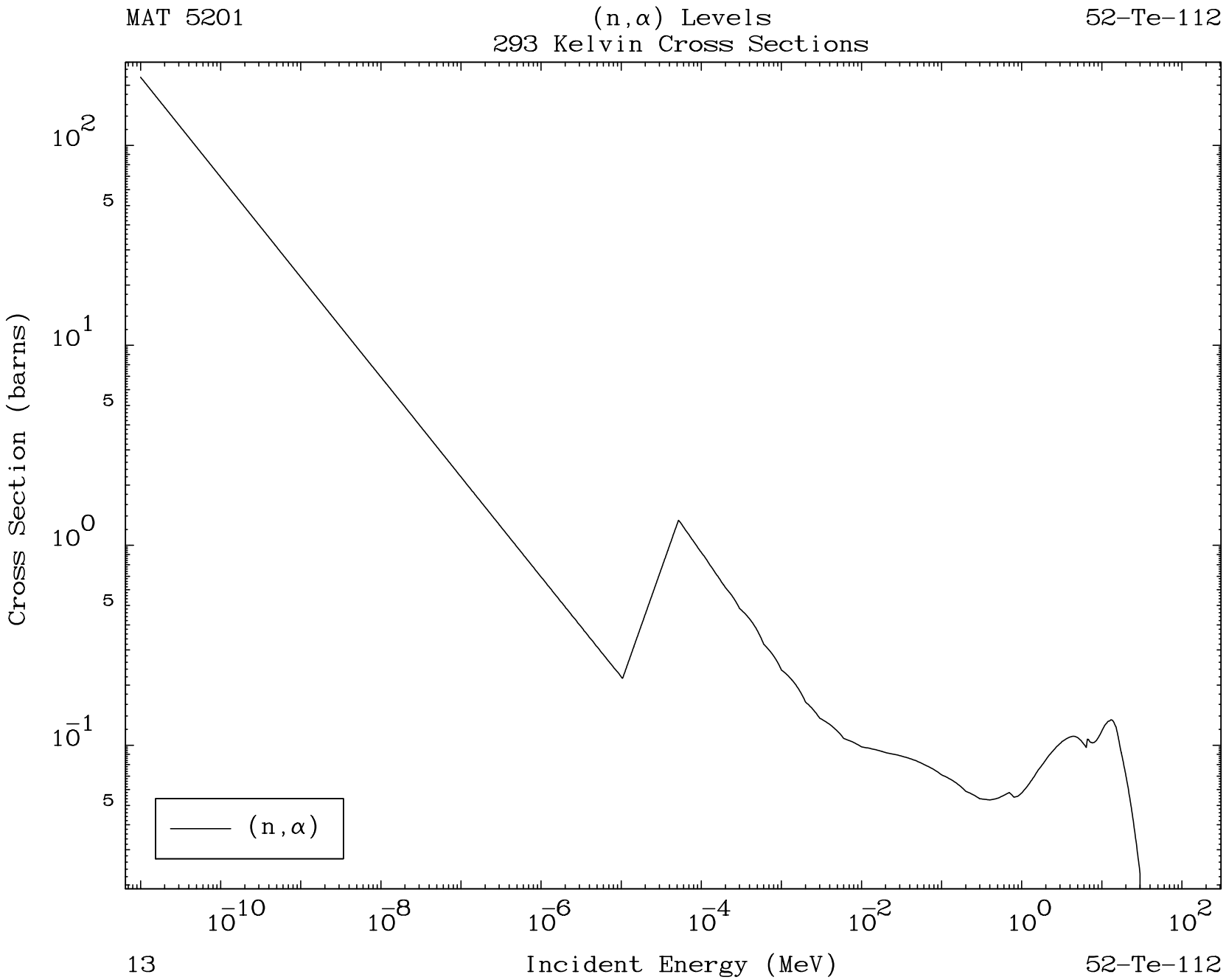

MAT 5201
(n,n') Level
52-Te-112
293 Kelvin Cross Sections
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
52-Te-112

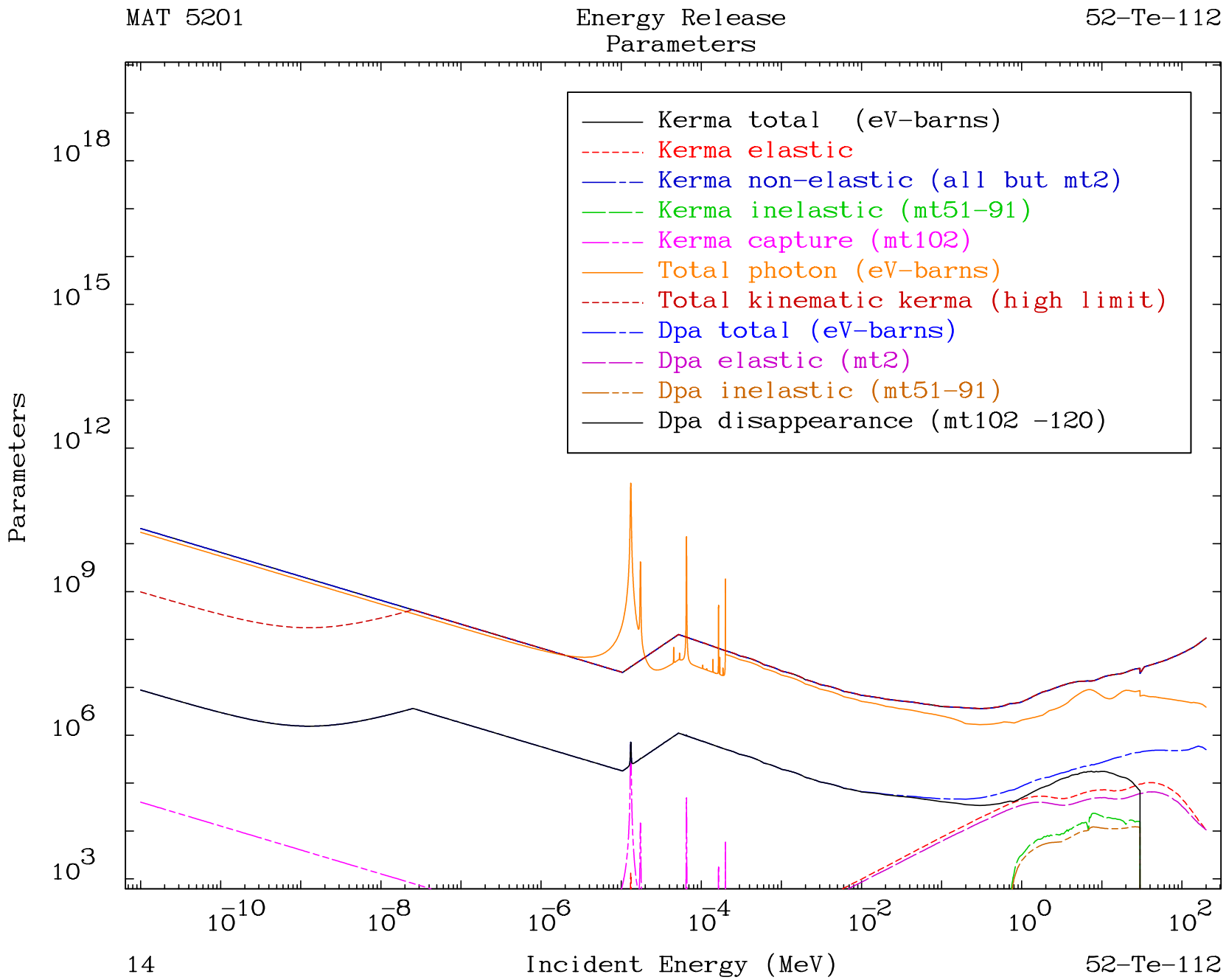

MAT 5201
(n,p) Levels
52-Te-112
293 Kelvin Cross Sections
Cross Section (barns)
10^3
10^2
10^1
10^0
10^-1
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
(n,p)
9
Incident Energy (MeV)
52-Te-112

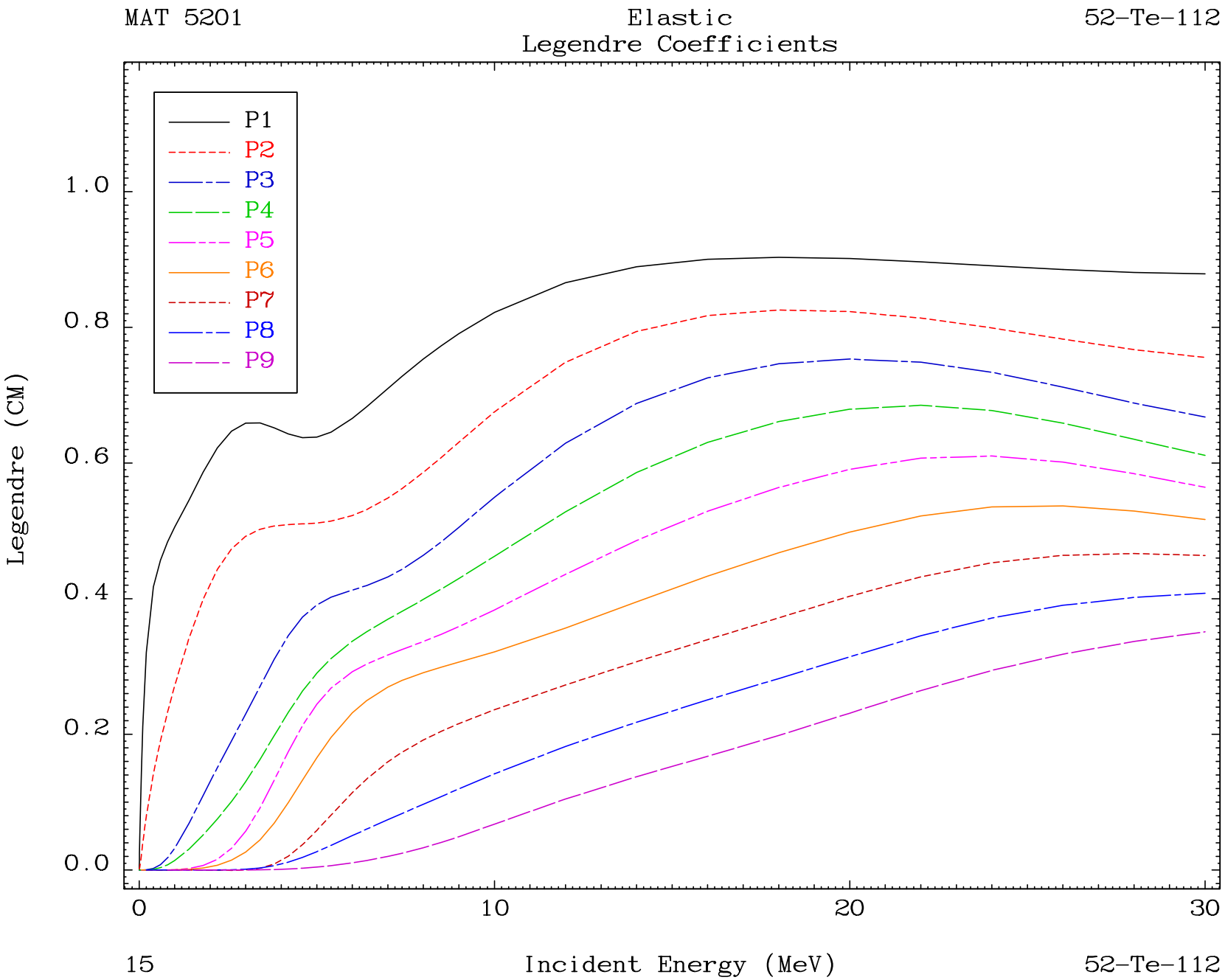

MAT 5201
(n,d) Levels
52-Te-112
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
52-Te-112

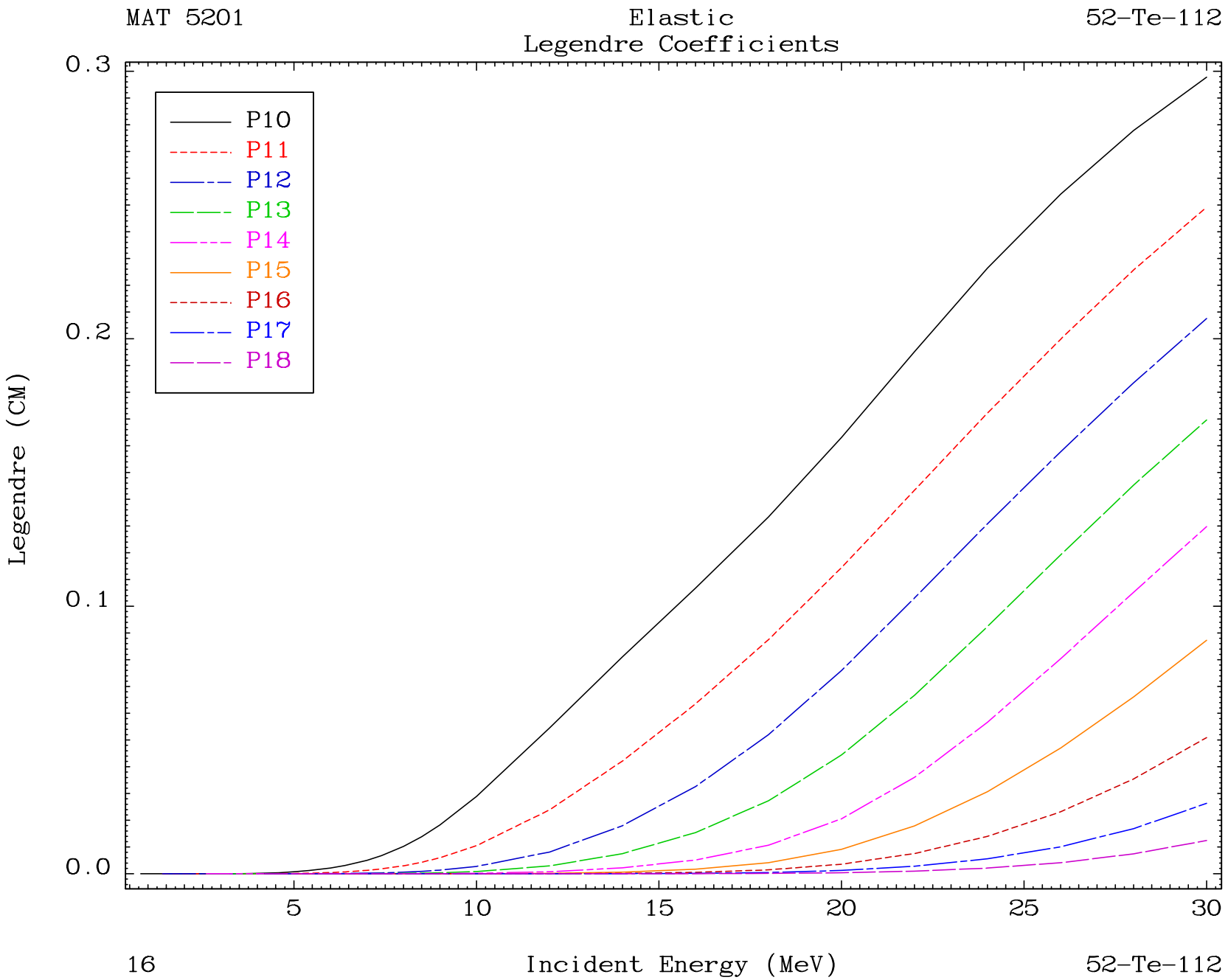

MAT 5201
(n,t) Levels
52-Te-112
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
11
52-Te-112

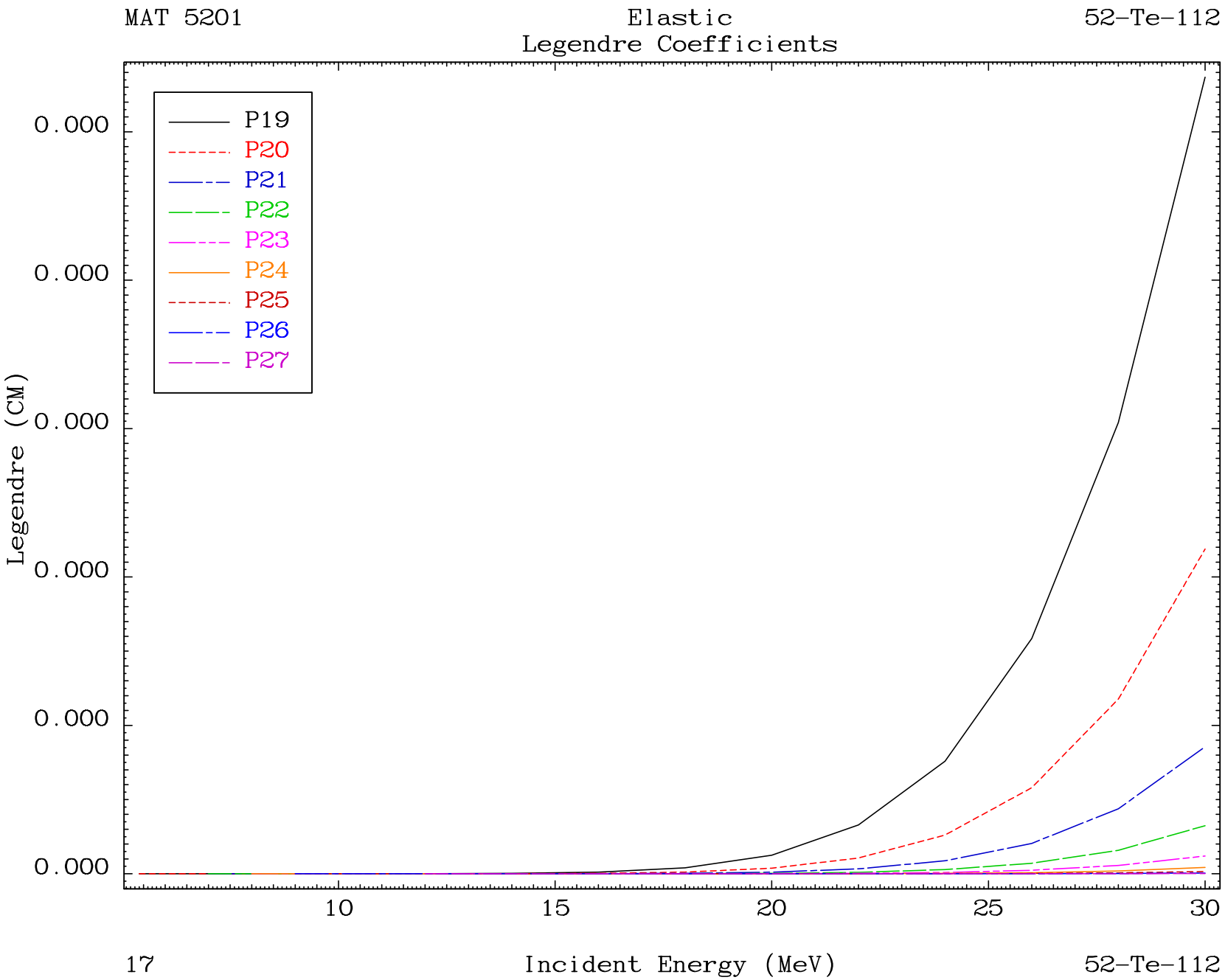

MAT 5201
(n,He3) Levels
52-Te-112
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
Incident Energy (MeV)
12
52-Te-112

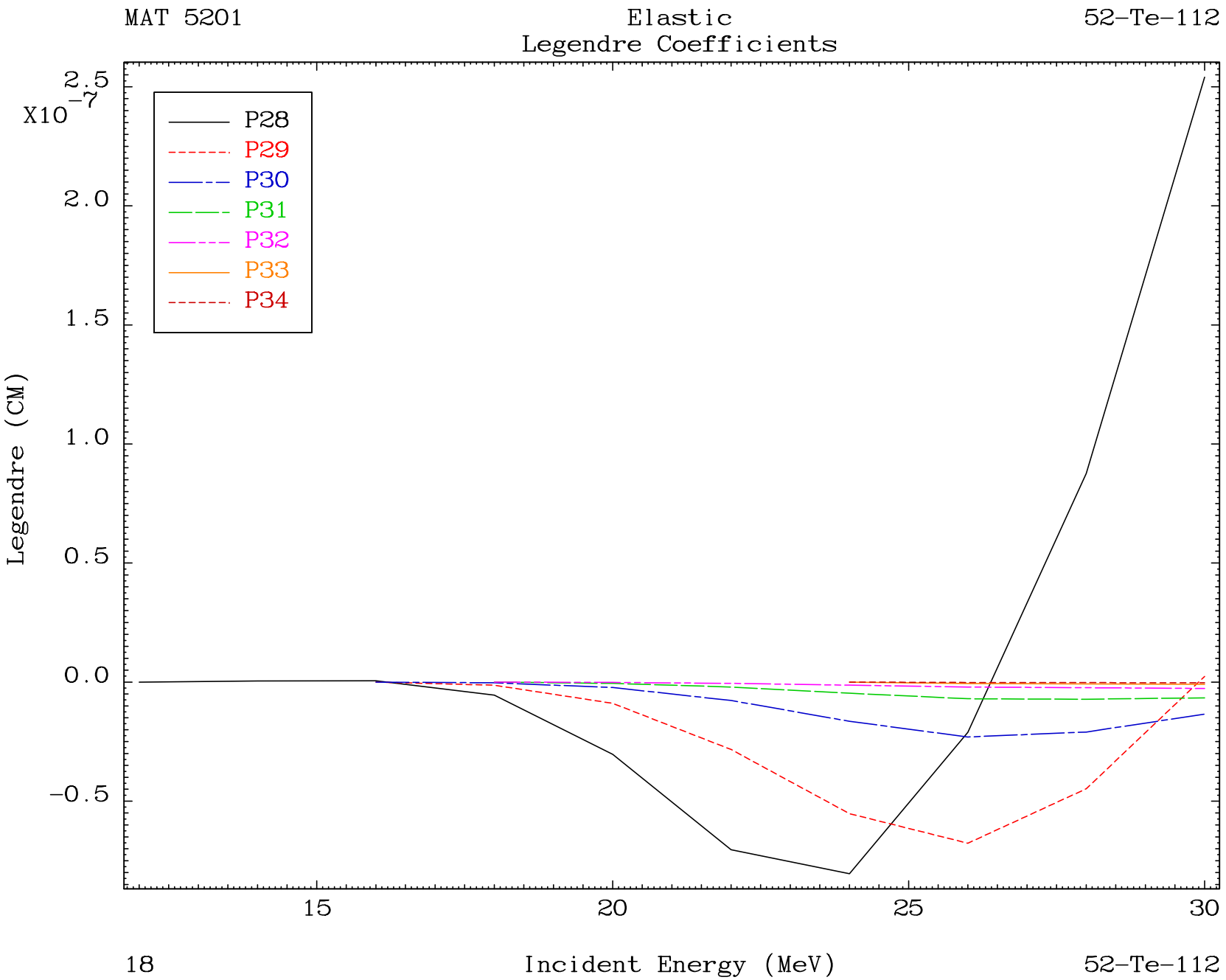

MAT 5201
(n,α) Levels
52-Te-112
293 Kelvin Cross Sections
Cross Section (barns)
10^2
5
10^1
5
10^0
5
10^-1
5
(n,α)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
13
Incident Energy (MeV)
52-Te-112

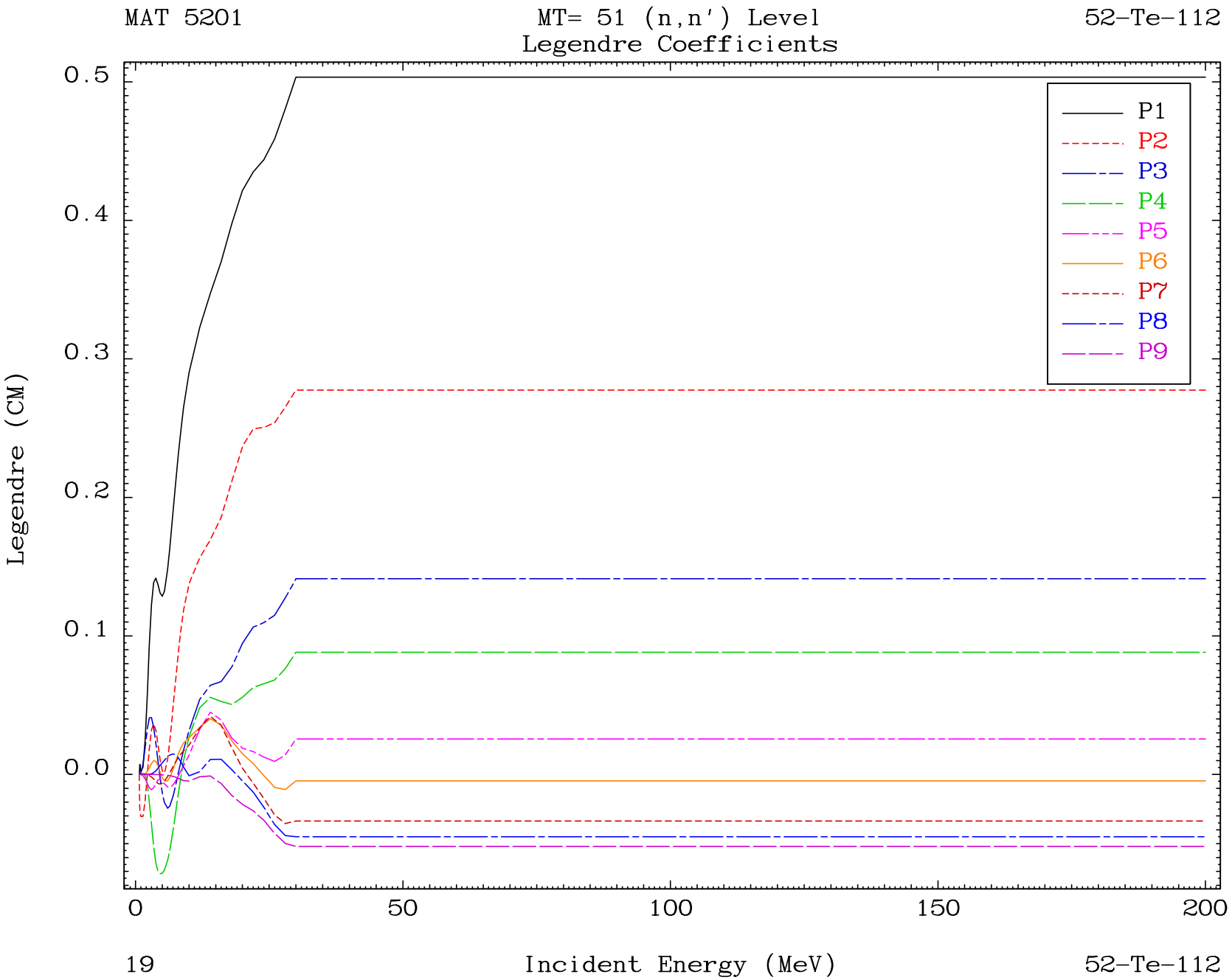

MAT 5201
Energy Release
Parameters
52-Te-112
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (mt102 -120)
Parameters
10^{18}
10^{15}
10^{12}
10^{9}
10^{6}
10^{3}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
10^{0}
10^{2}
Incident Energy (MeV)
14
52-Te-112

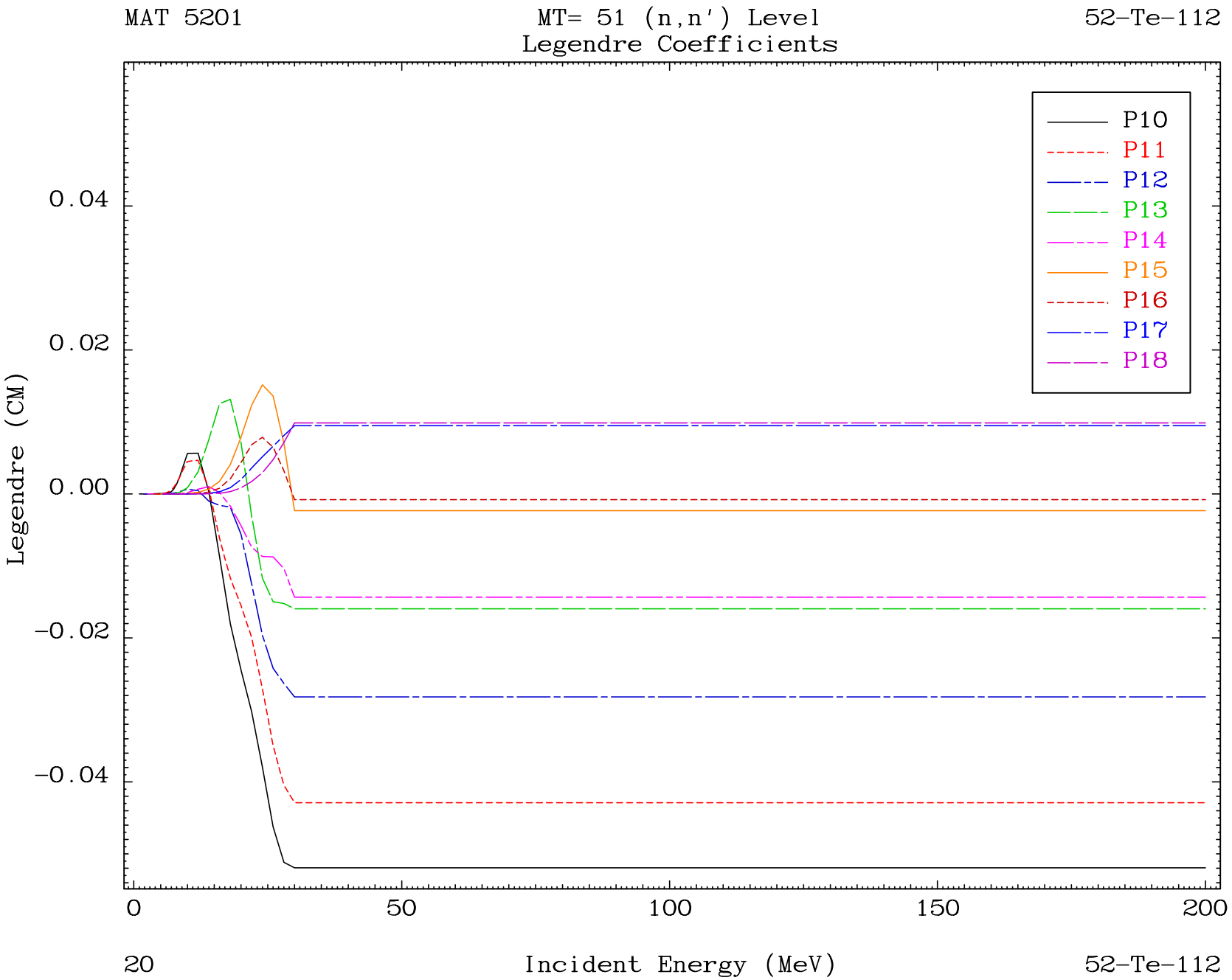

MAT 5201
Elastic
Legendre Coefficients
52-Te-112
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
15
Incident Energy (MeV)
52-Te-112

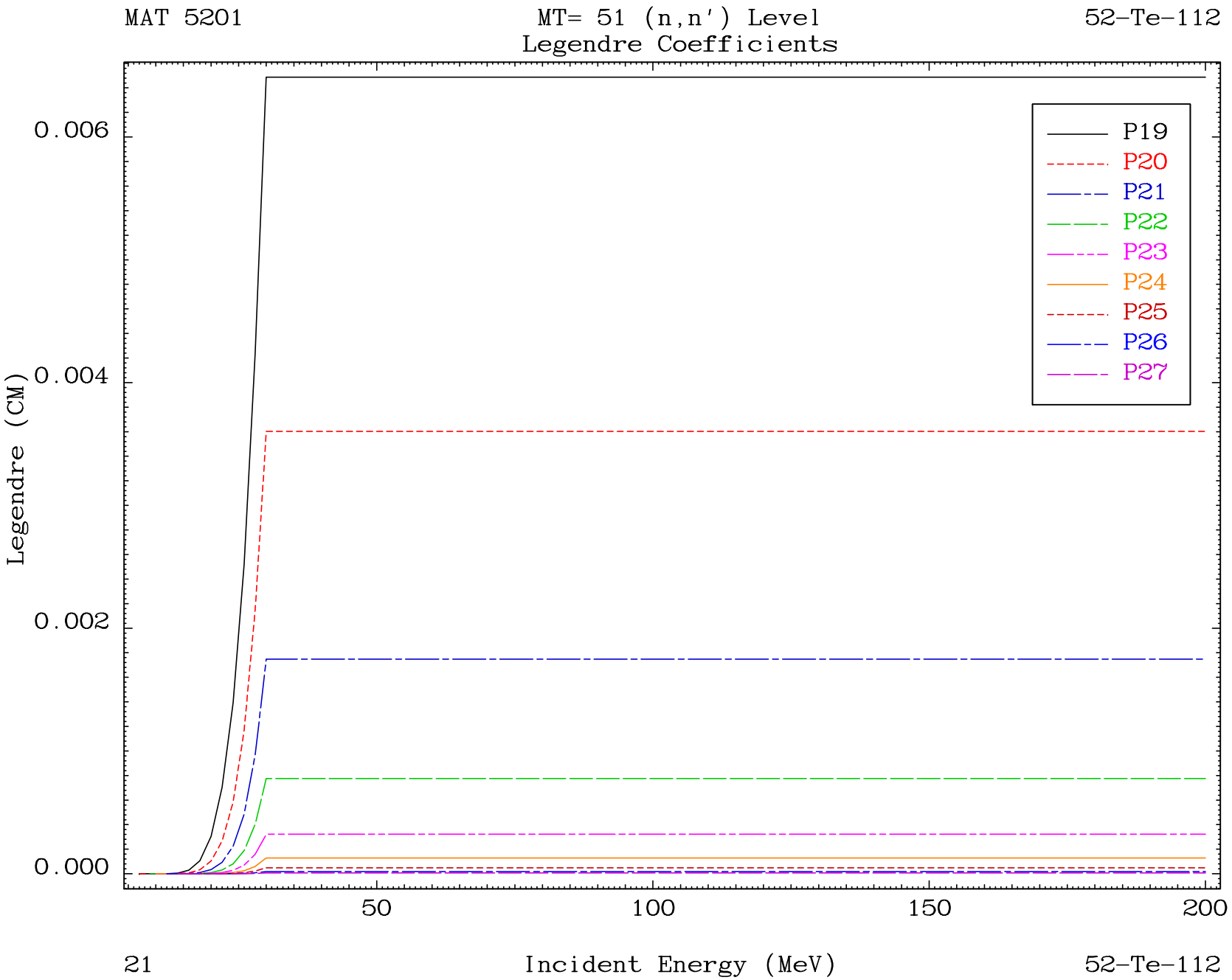

MAT 5201
Elastic
Legendre Coefficients
52-Te-112
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.3
0.2
0.1
0.0
Legendre (CM)
5
10
15
20
25
30
16
Incident Energy (MeV)
52-Te-112

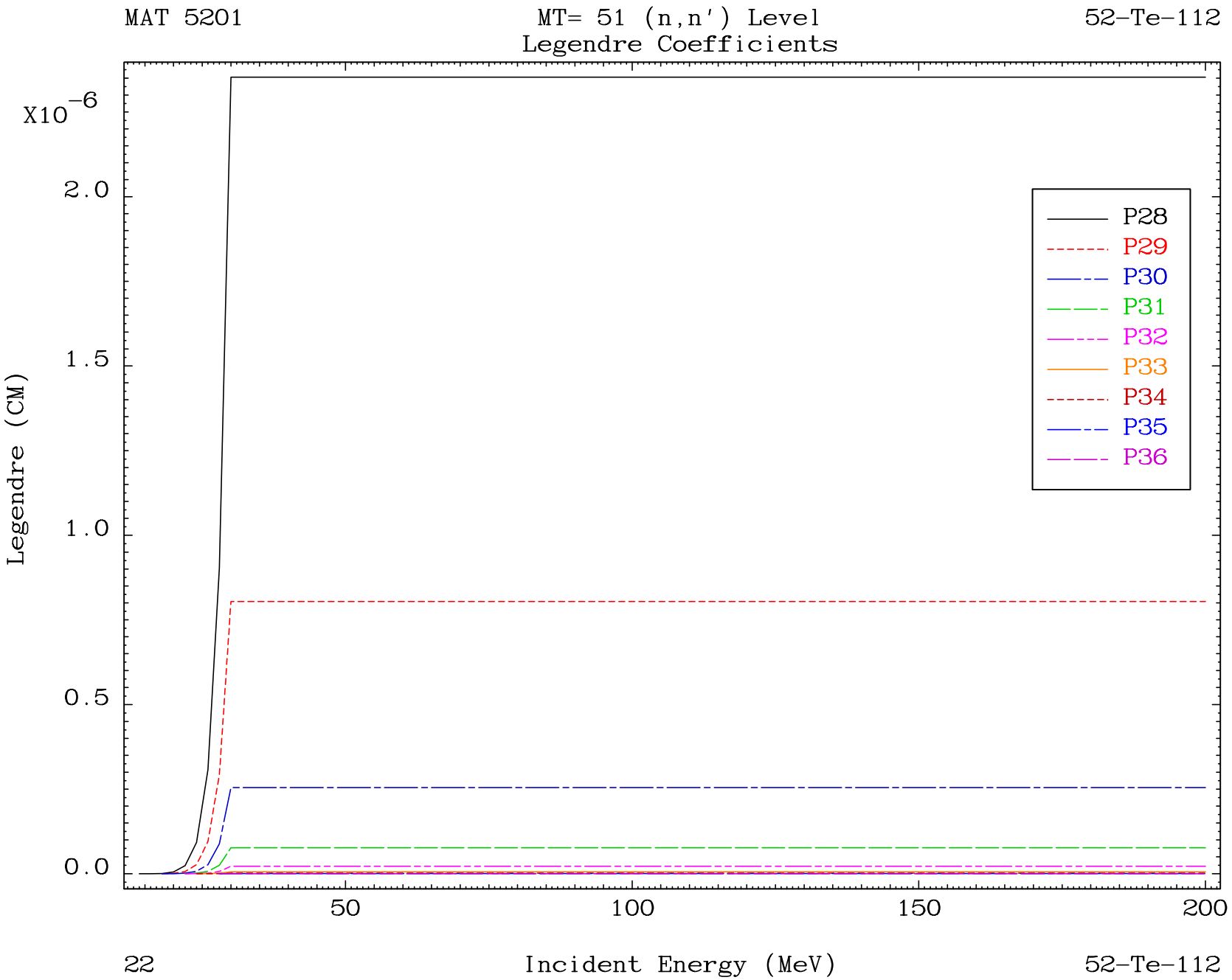

MAT 5201
Elastic
Legendre Coefficients
52-Te-112
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.000
0.000
0.000
0.000
0.000
Legendre (CM)
10
15
20
25
30
17
Incident Energy (MeV)
52-Te-112

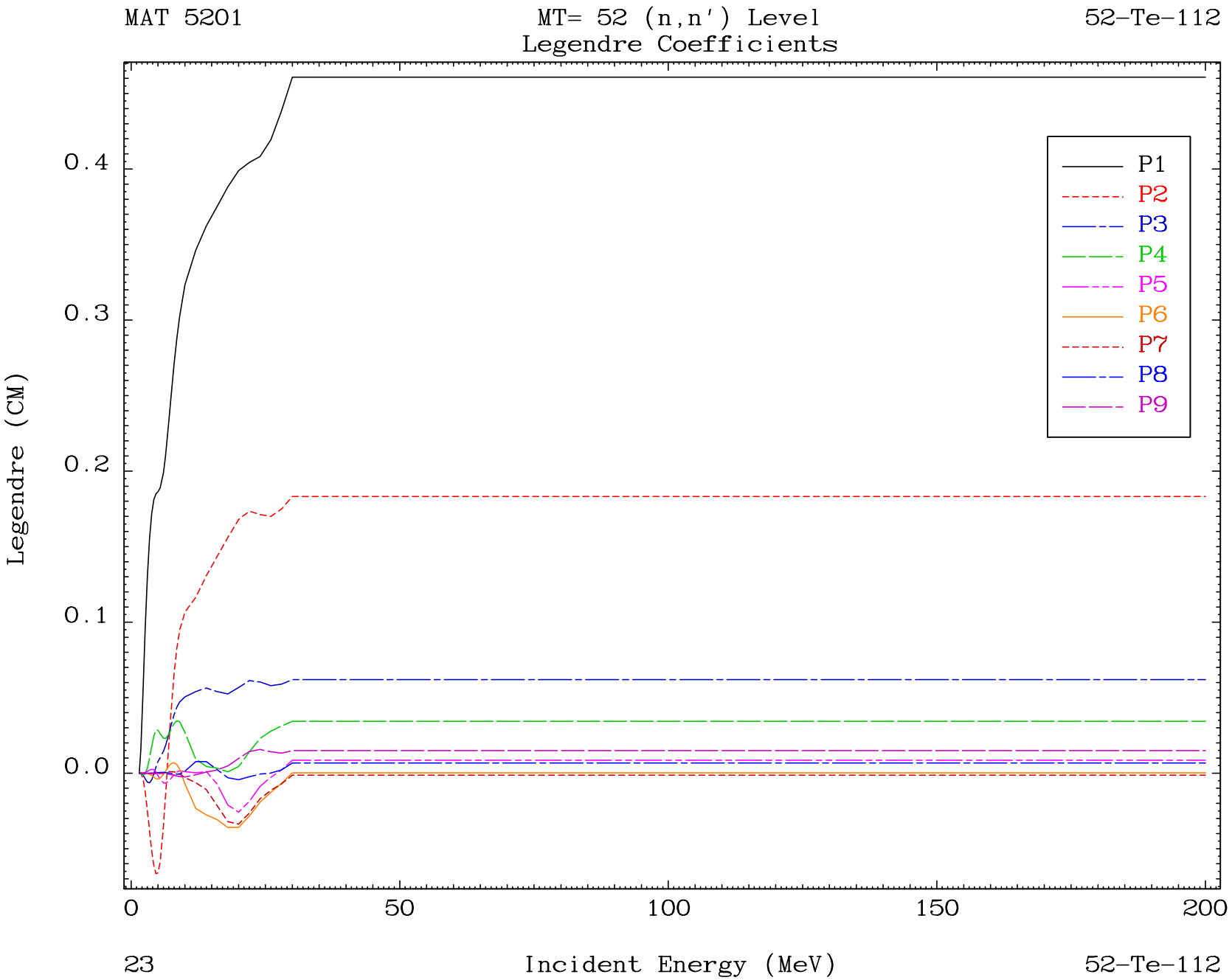

MAT 5201
Elastic
Legendre Coefficients
52-Te-112
X10-7
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
P28
P29
P30
P31
P32
P33
P34
Legendre (CM)
15
20
25
30
18
Incident Energy (MeV)
52-Te-112

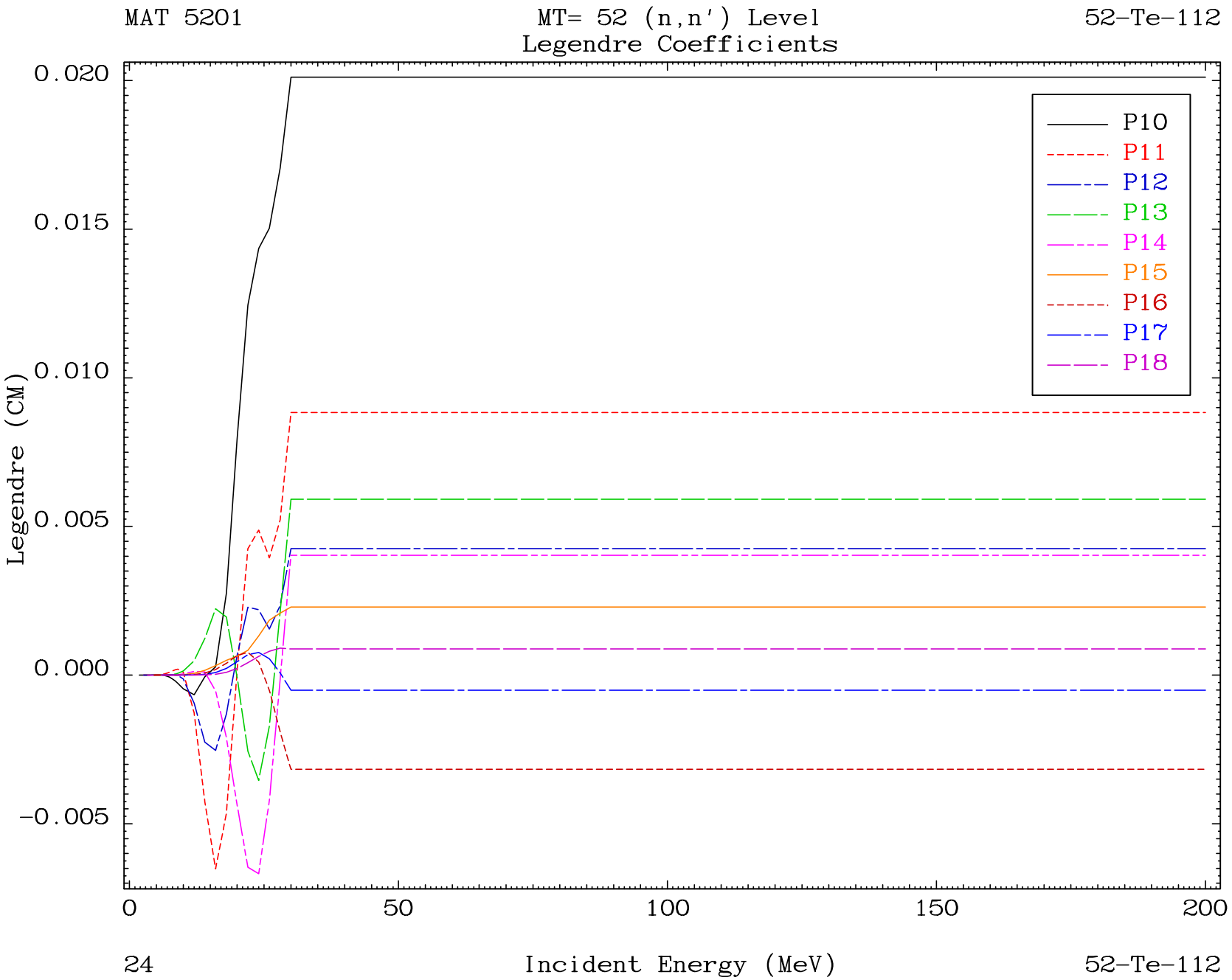

MAT 5201
MT= 51 (n,n') Level
Legendre Coefficients
52-Te-112
Legendre (CM)
0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
19
52-Te-112
P1
P2
P3
P4
P5
P6
P7
P8
P9

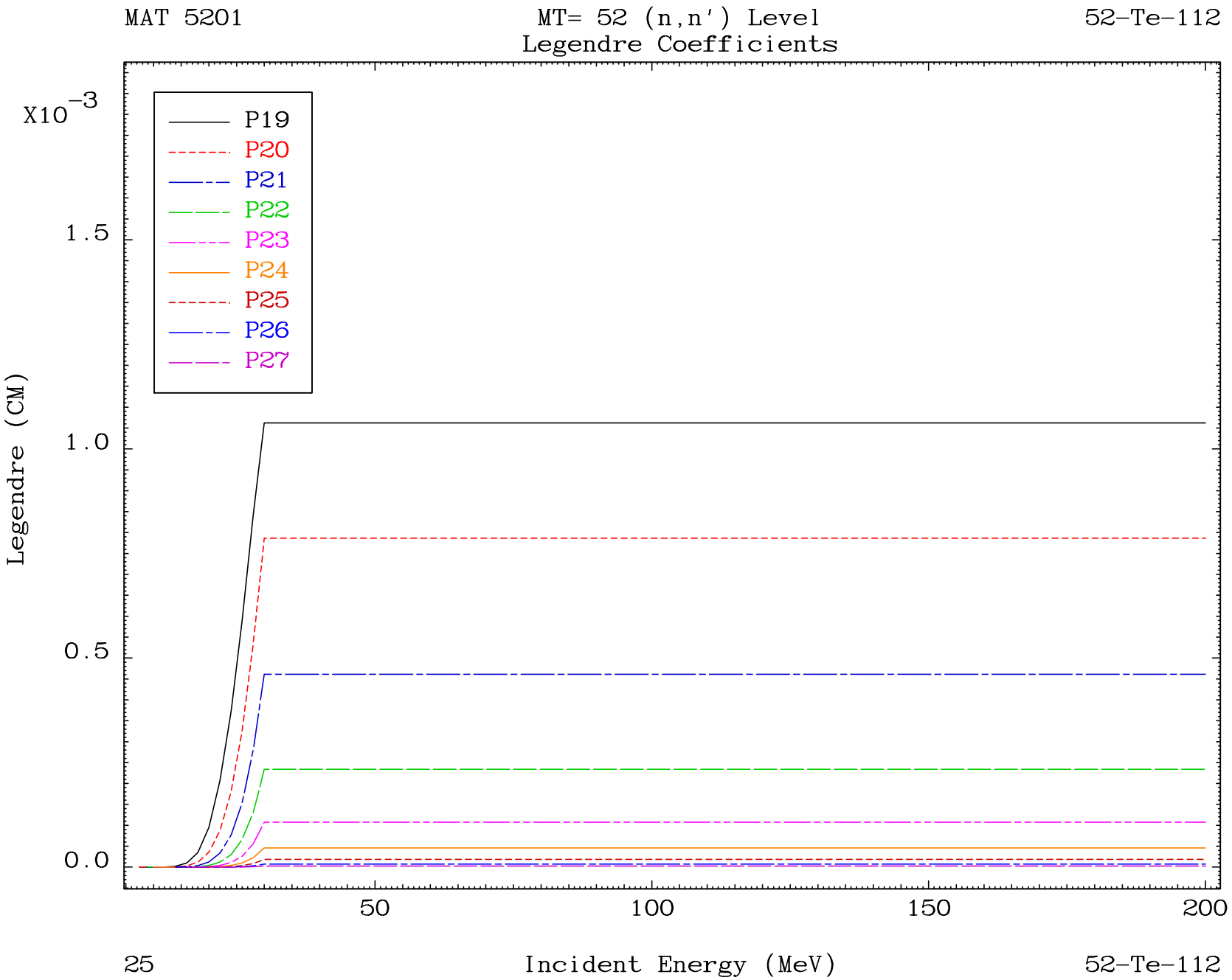

MAT 5201
MT= 51 (n,n') Level
Legendre Coefficients
52-Te-112
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
0
50
100
150
200
20
Incident Energy (MeV)
52-Te-112

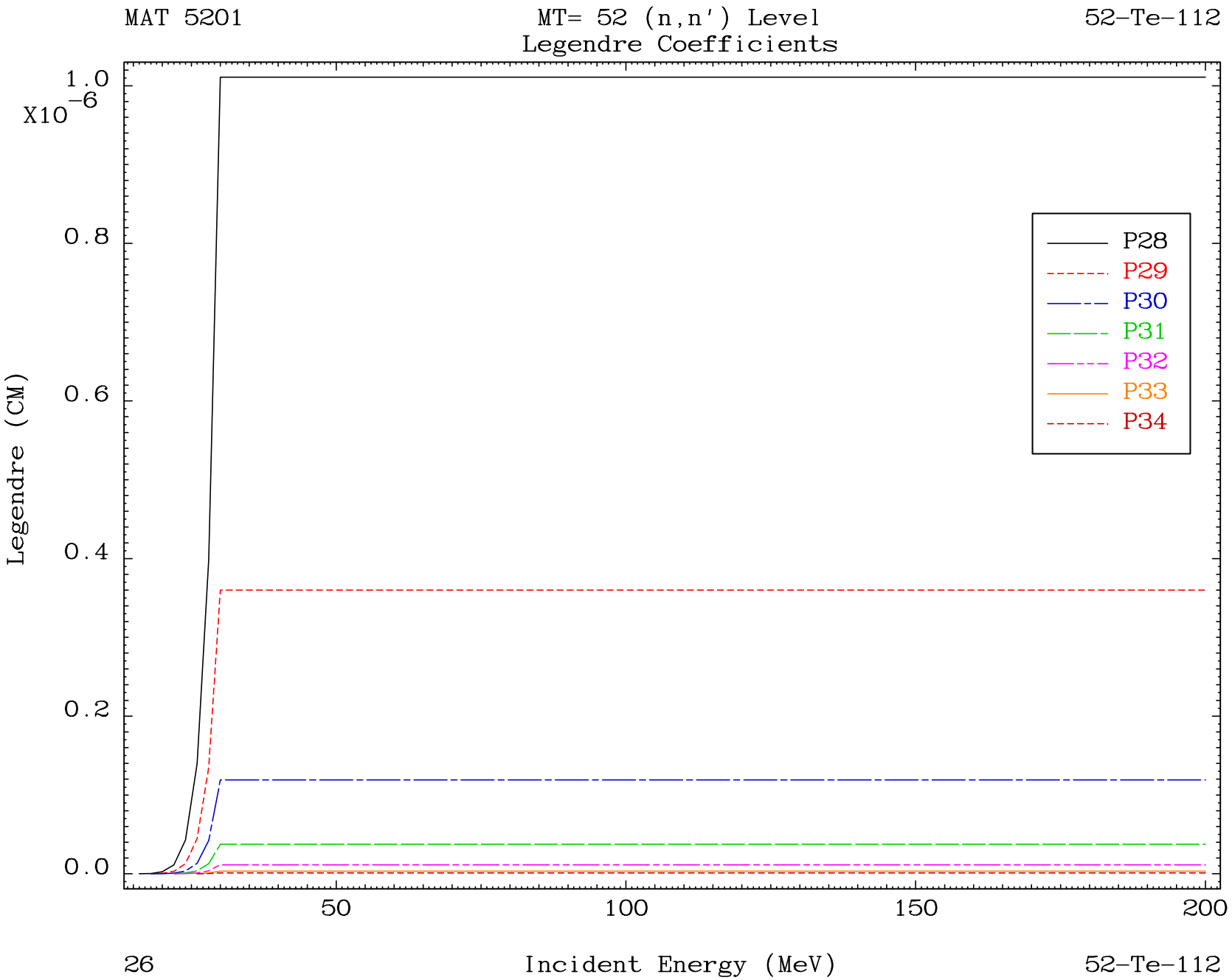

MAT 5201
MT= 51 (n,n') Level
Legendre Coefficients
52-Te-112
0.006
0.004
0.002
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
21
Incident Energy (MeV)
52-Te-112

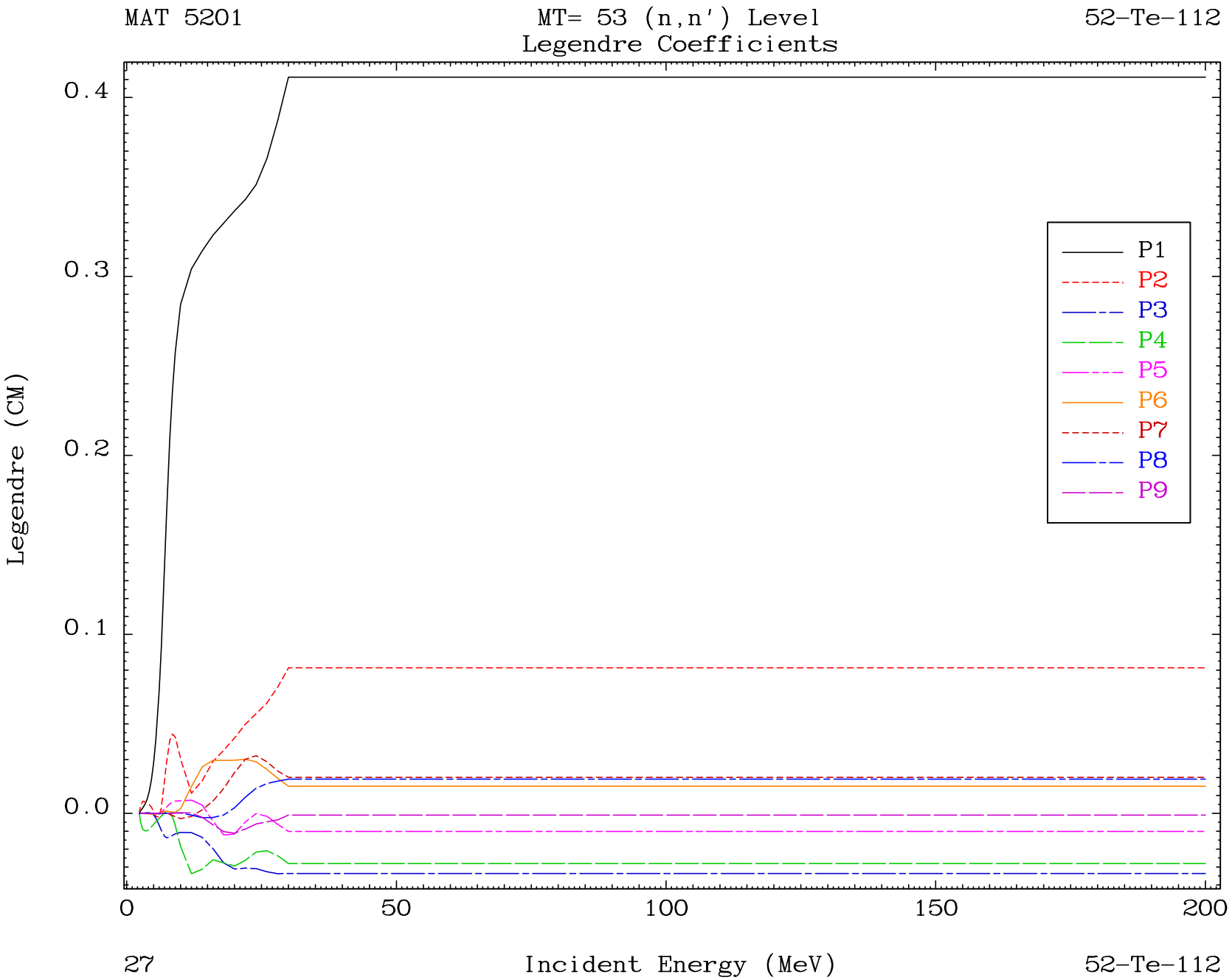

MAT 5201
MT= 51 (n,n') Level
Legendre Coefficients
52-Te-112
X10^-6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
50
100
150
200
22
Incident Energy (MeV)
52-Te-112
P28
P29
P30
P31
P32
P33
P34
P35
P36

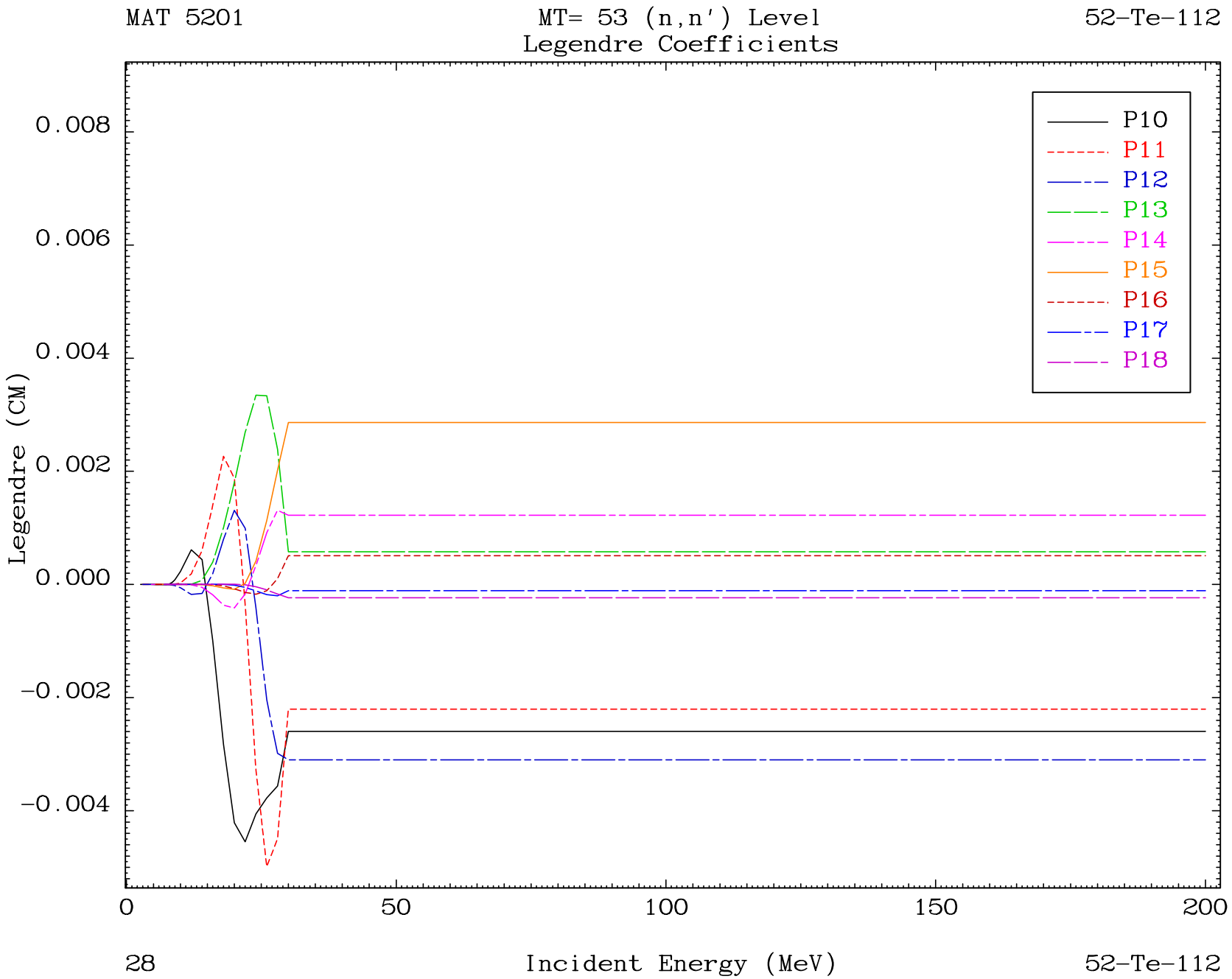

MAT 5201
MT= 52 (n,n') Level
Legendre Coefficients
52-Te-112
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
P1
P2
P3
P4
P5
P6
P7
P8
P9
23
Incident Energy (MeV)
52-Te-112

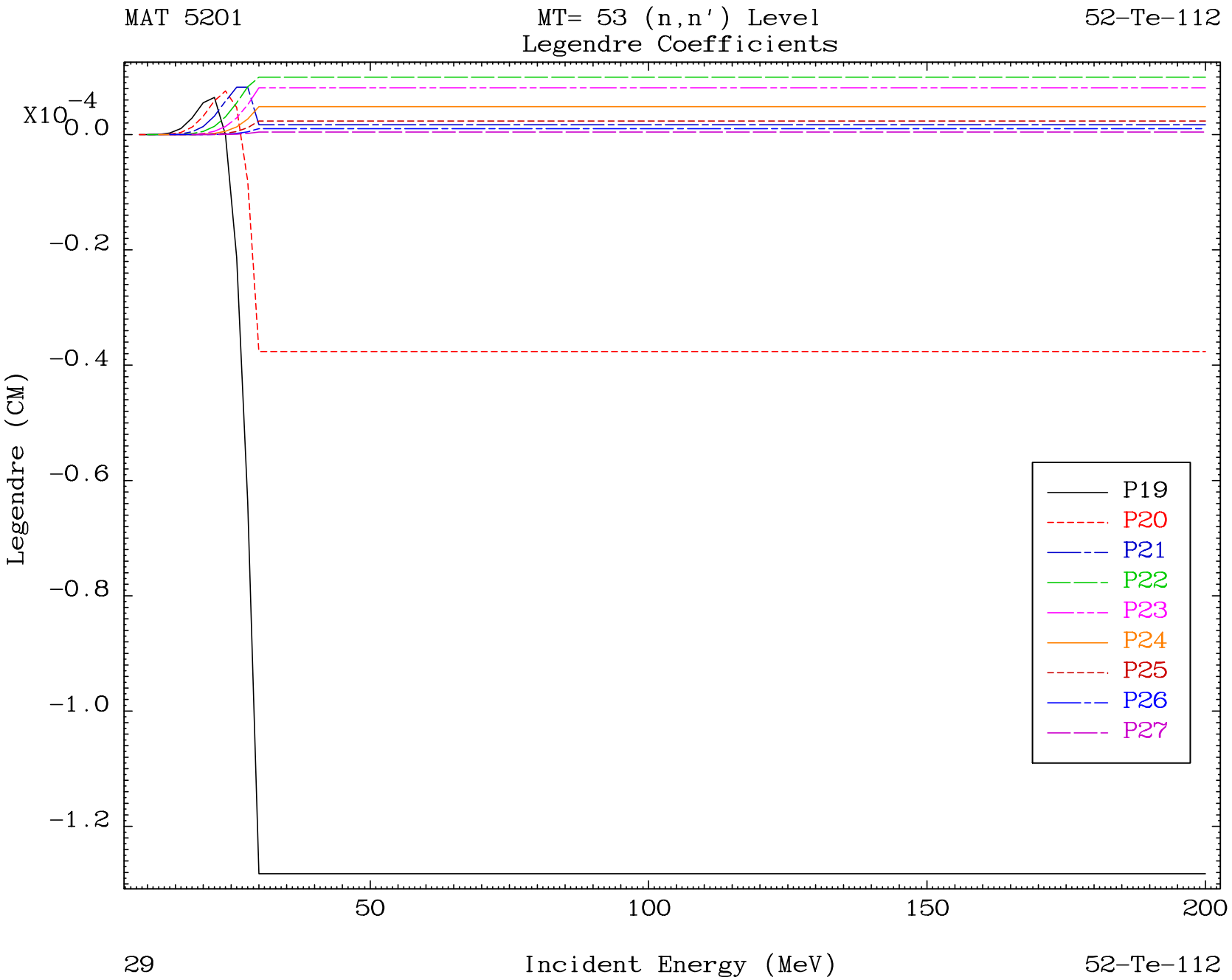

MAT 5201
MT= 52 (n,n') Level
Legendre Coefficients
52-Te-112
0.020
0.015
0.010
0.005
0.000
-0.005
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
24
Incident Energy (MeV)
52-Te-112

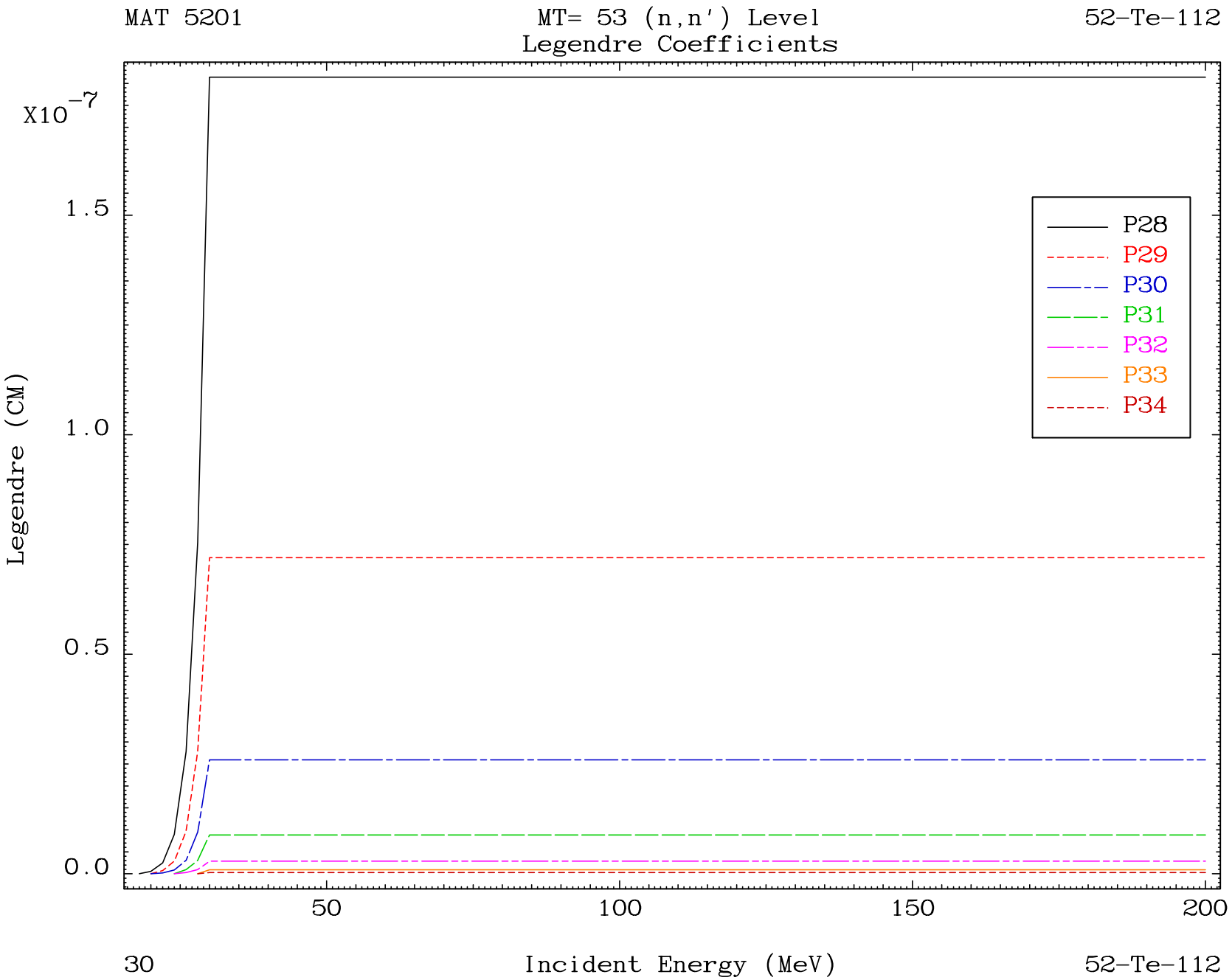

MAT 5201
MT= 52 (n,n') Level
Legendre Coefficients
52-Te-112
X10-3
1.5
1.0
0.5
0.0
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
50
100
150
200
25
Incident Energy (MeV)
52-Te-112

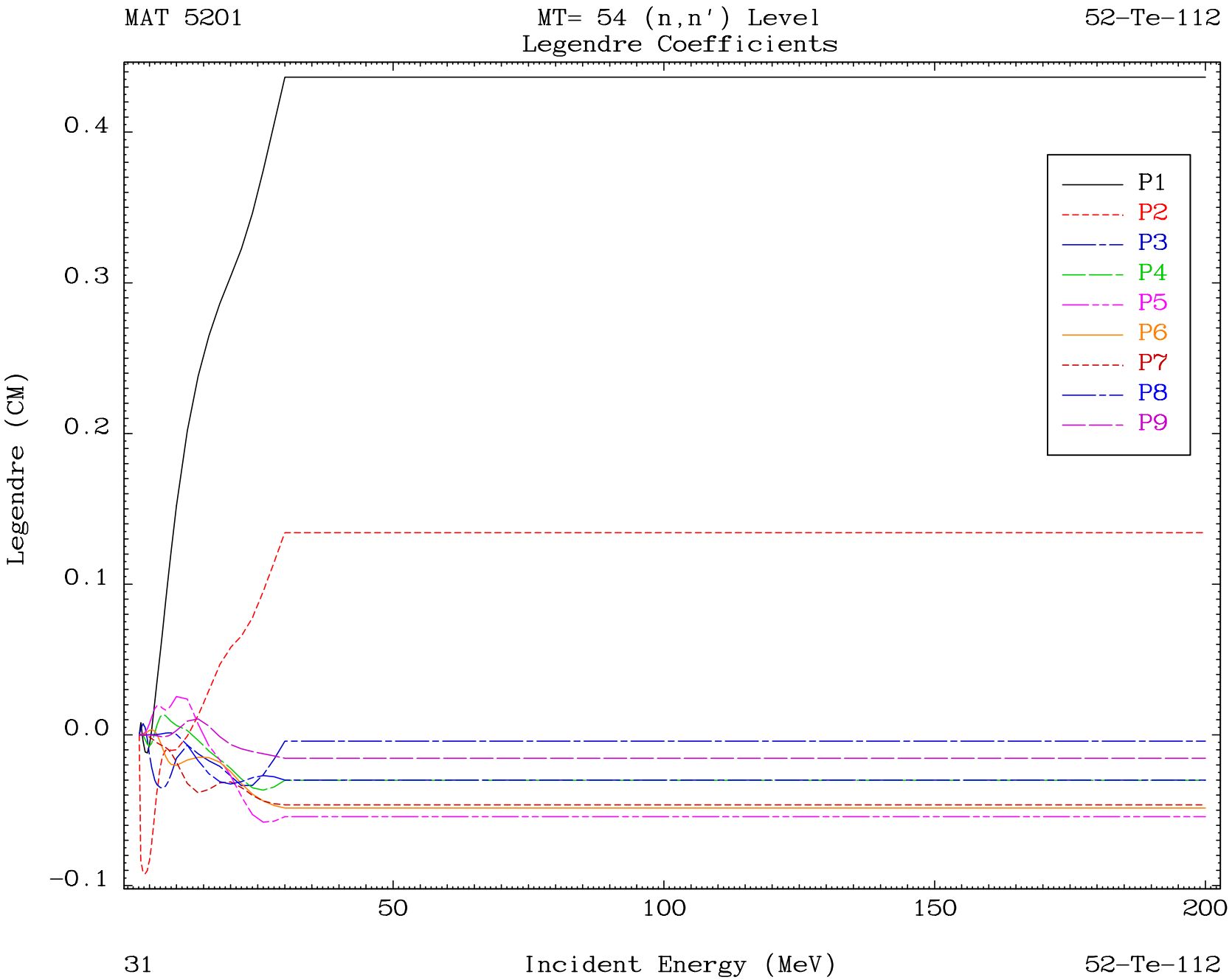

MAT 5201
MT= 52 (n,n') Level
Legendre Coefficients
52-Te-112
1.0
X10 -6
0.8
0.6
0.4
0.2
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
26
Incident Energy (MeV)
52-Te-112

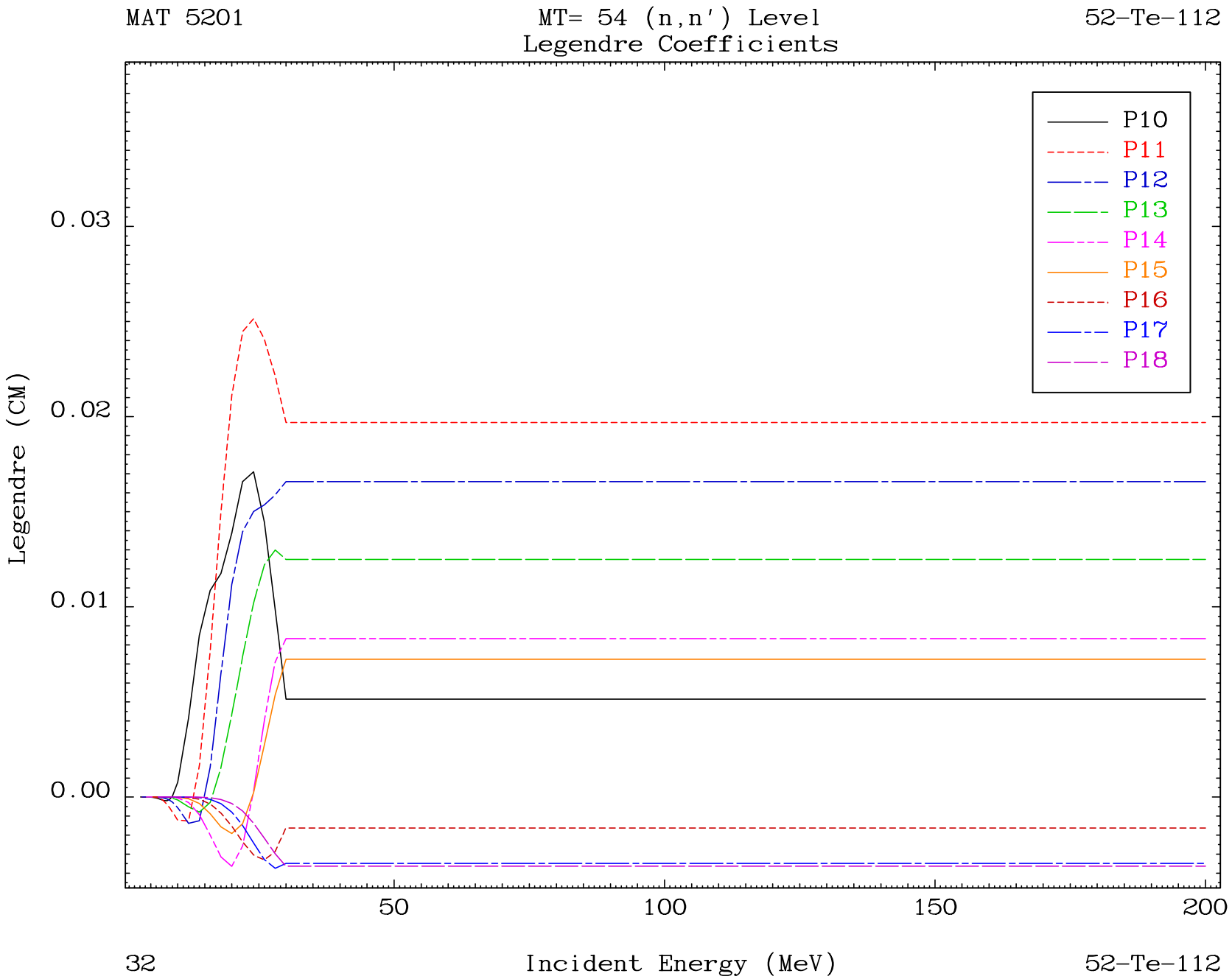

MAT 5201
MT= 53 (n,n') Level
Legendre Coefficients
52-Te-112
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
27
52-Te-112
P1
P2
P3
P4
P5
P6
P7
P8
P9

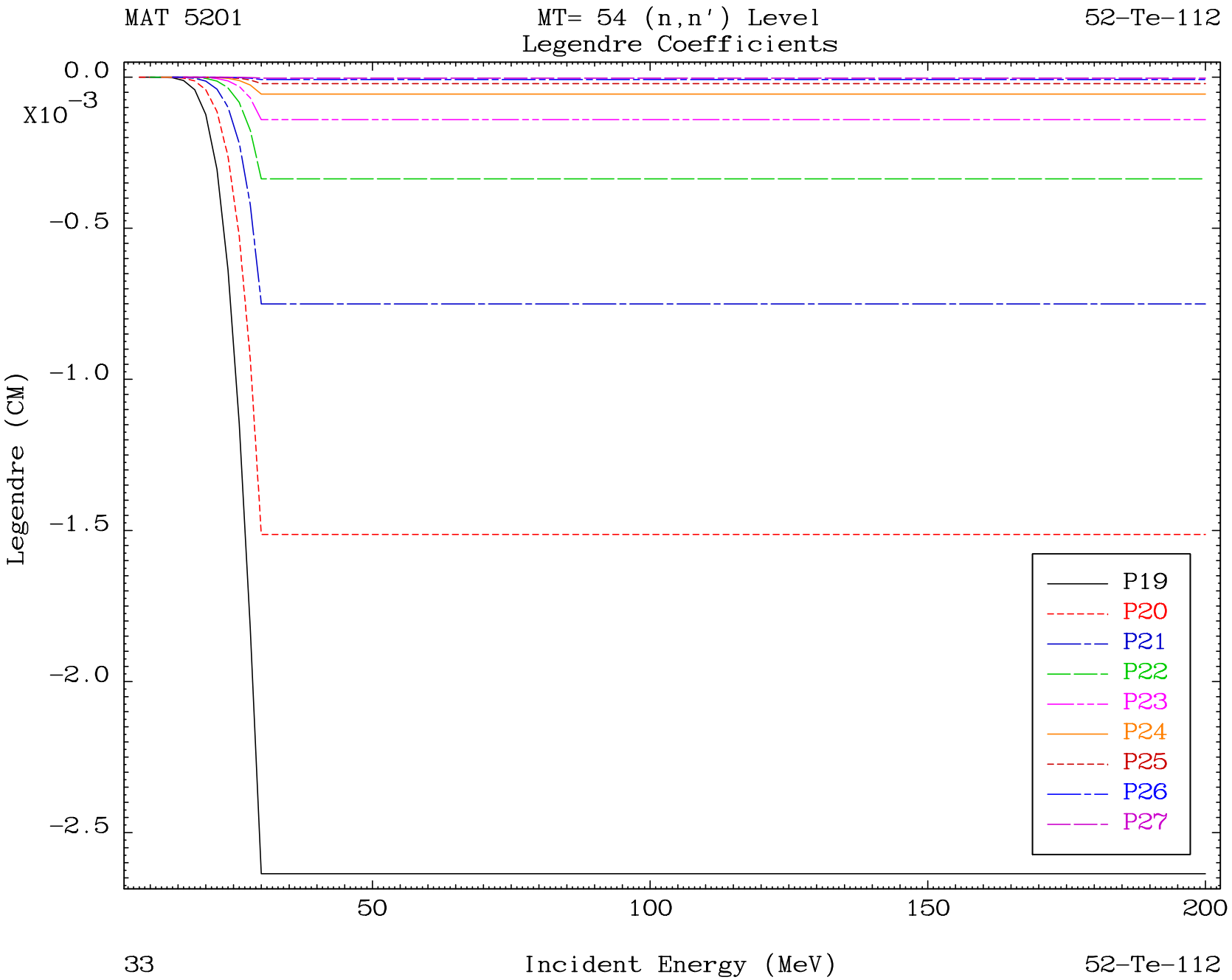

MAT 5201
MT= 53 (n,n') Level
Legendre Coefficients
52-Te-112
0.008
0.006
0.004
0.002
0.000
−0.002
−0.004
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
28
Incident Energy (MeV)
52-Te-112

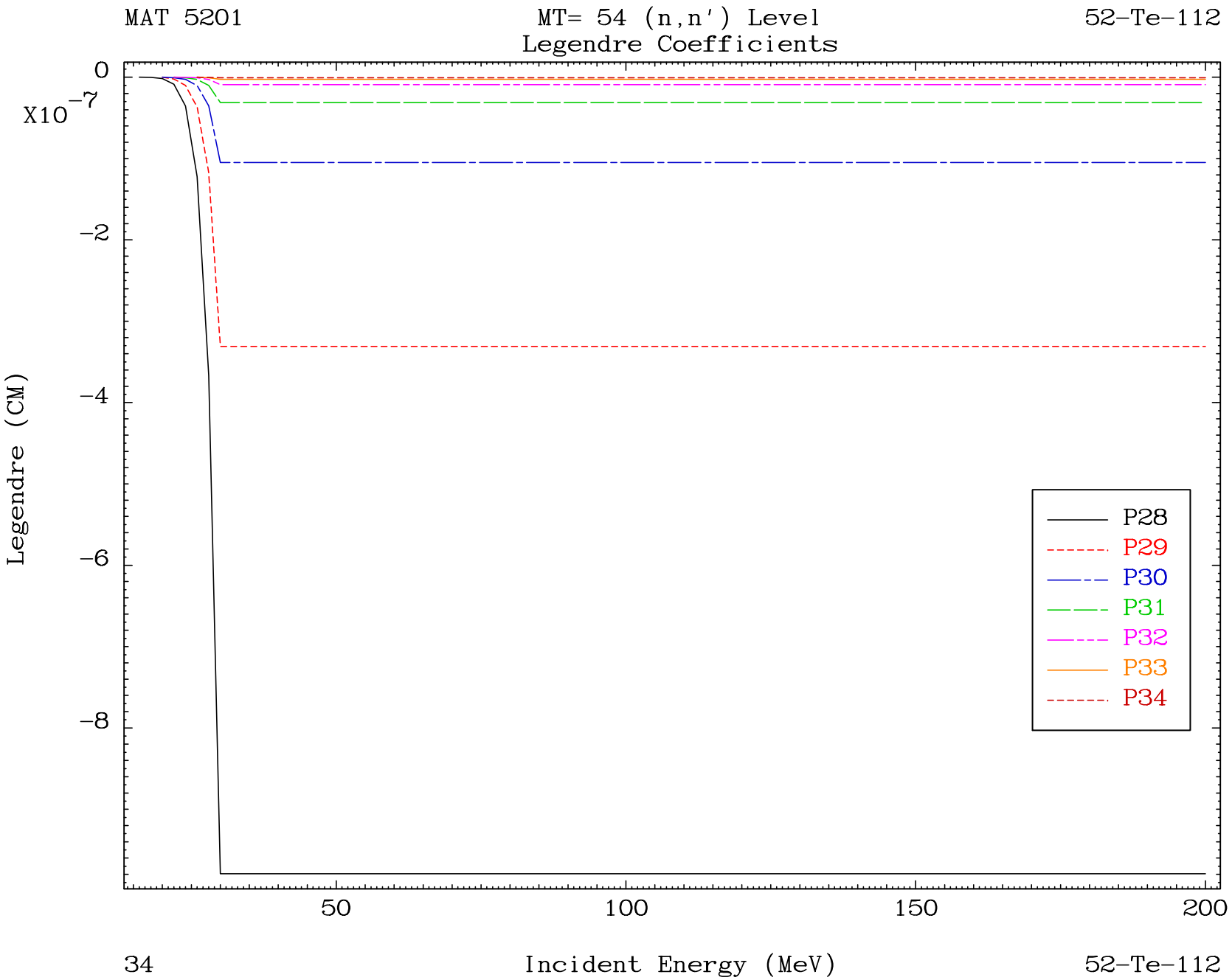

MAT 5201
MT= 53 (n,n') Level
Legendre Coefficients
52-Te-112
X10^-4
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
Legendre (CM)
50
100
150
200
P19
P20
P21
P22
P23
P24
P25
P26
P27
29
Incident Energy (MeV)
52-Te-112

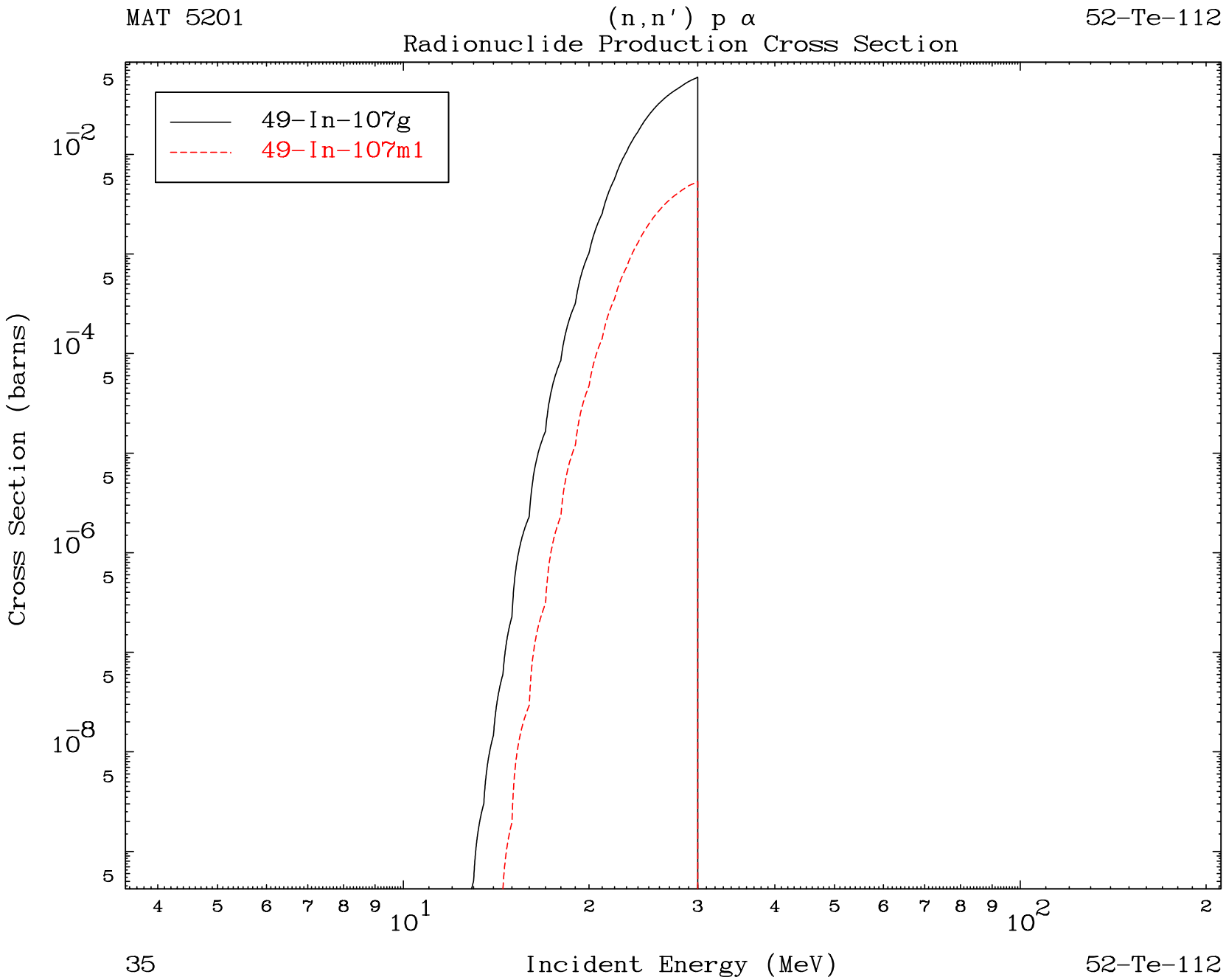

MAT 5201
MT= 53 (n,n') Level
Legendre Coefficients
52-Te-112
X10-7
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
30
Incident Energy (MeV)
52-Te-112

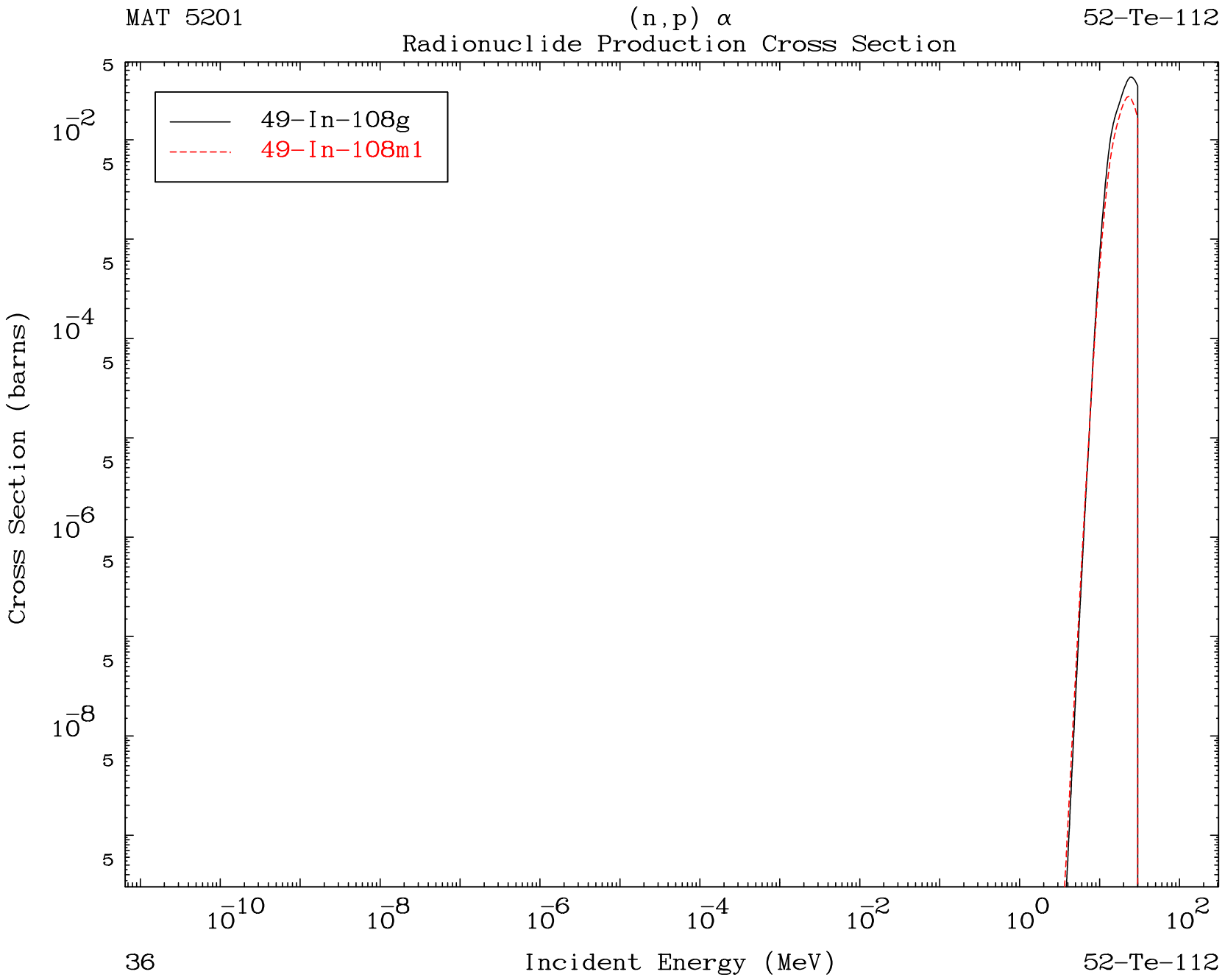

MAT 5201
MT= 54 (n,n') Level
Legendre Coefficients
52-Te-112
0.4
0.3
0.2
0.1
0.0
-0.1
Legendre (CM)
50
100
150
200
31
Incident Energy (MeV)
52-Te-112
P1
P2
P3
P4
P5
P6
P7
P8
P9

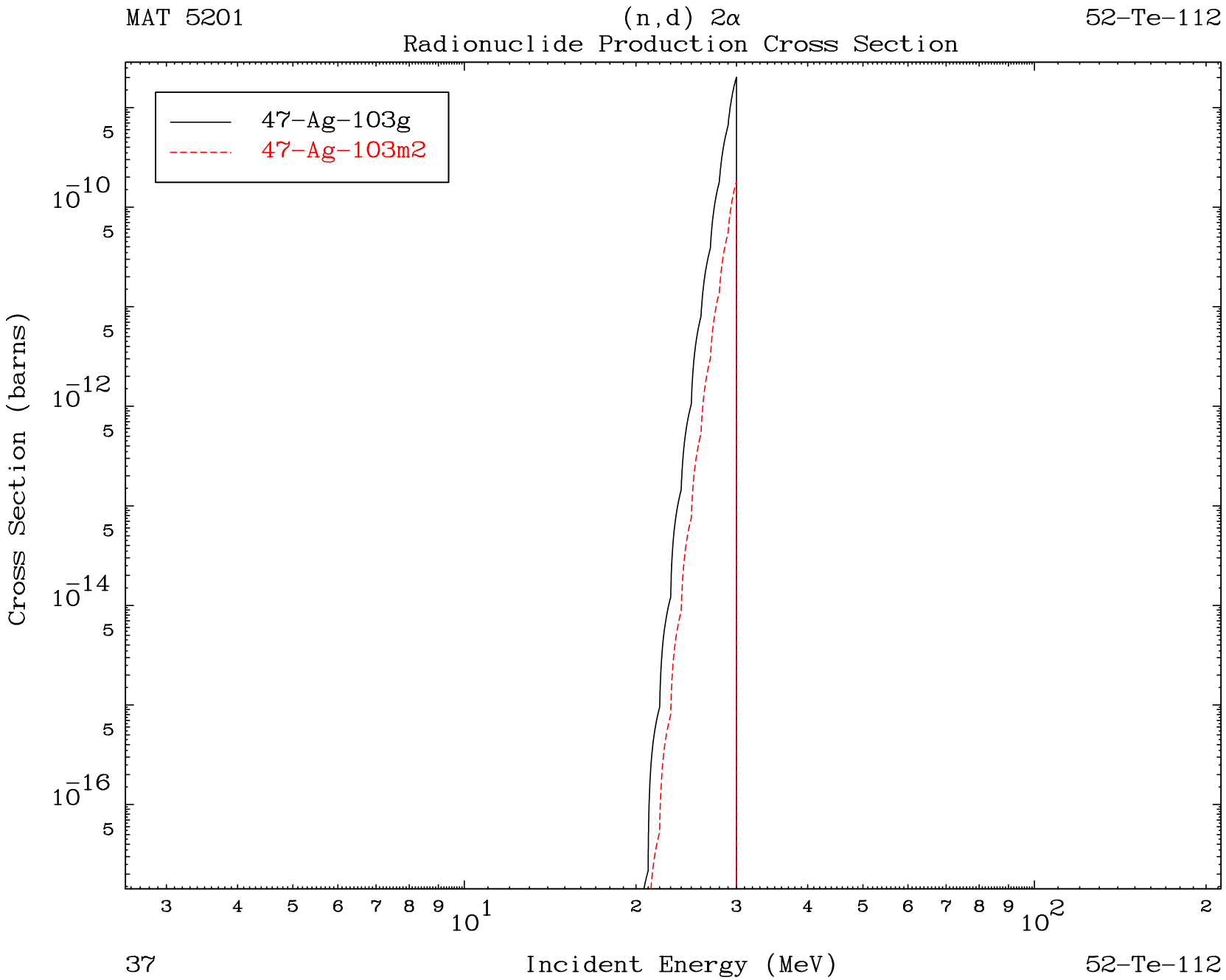

MAT 5201
MT= 54 (n,n') Level
Legendre Coefficients
52-Te-112
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.03
0.02
0.01
0.00
Legendre (CM)
50
100
150
200
32
Incident Energy (MeV)
52-Te-112

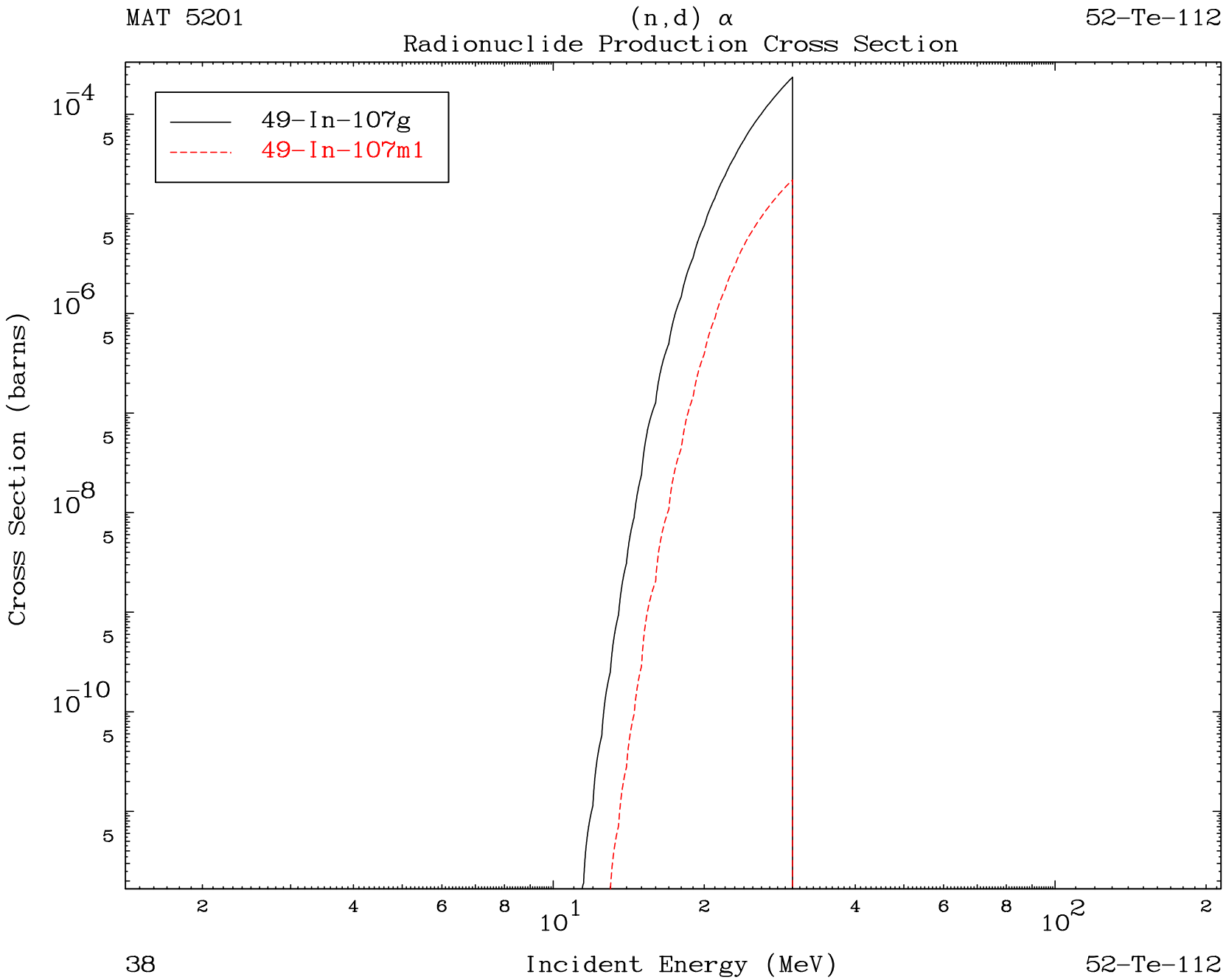

MAT 5201
MT= 54 (n,n') Level
Legendre Coefficients
52-Te-112
0.0
X10^-3
-0.5
-1.0
-1.5
-2.0
-2.5
Legendre (CM)
50
100
150
200
33
Incident Energy (MeV)
52-Te-112
P19
P20
P21
P22
P23
P24
P25
P26
P27


MAT 5201
MT= 54 (n,n') Level
Legendre Coefficients
52-Te-112
X10-7
0
-2
-4
-6
-8
Legendre (CM)
50
100
150
200
34
Incident Energy (MeV)
52-Te-112
P28
P29
P30
P31
P32
P33
P34


MAT 5201
(n,n') p α
52-Te-112
Radionuclide Production Cross Section
49-In-107g
49-In-107m1
Cross Section (barns)
Incident Energy (MeV)
35
52-Te-112


MAT 5201
(n,p) α
52-Te-112
Radionuclide Production Cross Section
49-In-108g
49-In-108m1
Cross Section (barns)
Incident Energy (MeV)
36
52-Te-112


MAT 5201
(n,d) 2α
52-Te-112
Radionuclide Production Cross Section
47-Ag-103g
47-Ag-103m2
Cross Section (barns)
10^-10
10^-12
10^-14
10^-16
5
3 4 5 6 7 8 9 10^1 2 3 4 5 6 7 8 9 10^2 2
37
Incident Energy (MeV)
52-Te-112


MAT 5201
(n,d) α
52-Te-112
Radionuclide Production Cross Section
49-In-107g
49-In-107m1
Cross Section (barns)
10^-4
10^-6
10^-8
10^-10
10^1
10^2
Incident Energy (MeV)
38
52-Te-112