Program EVALPLOT
(Version 2017-1)
by
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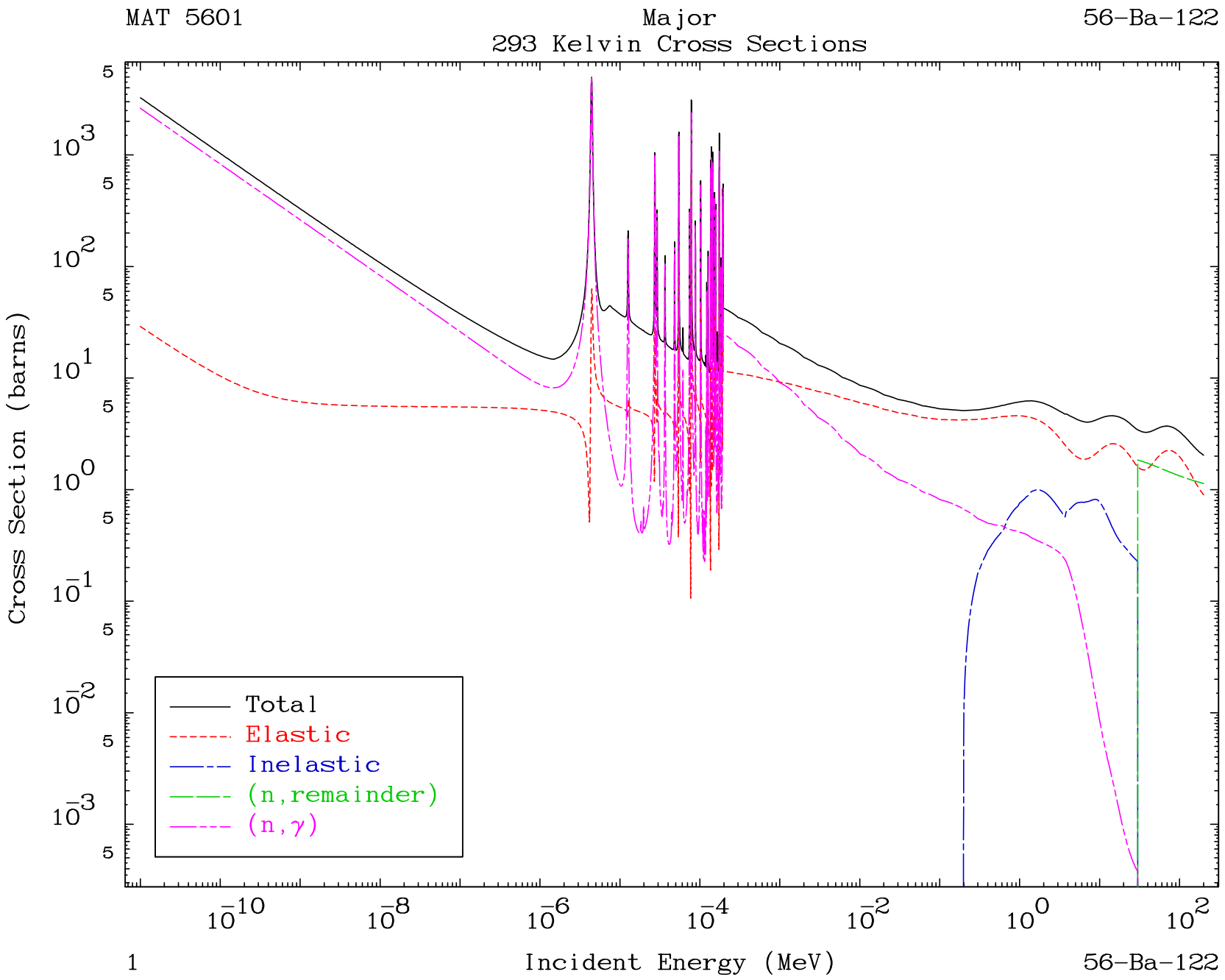
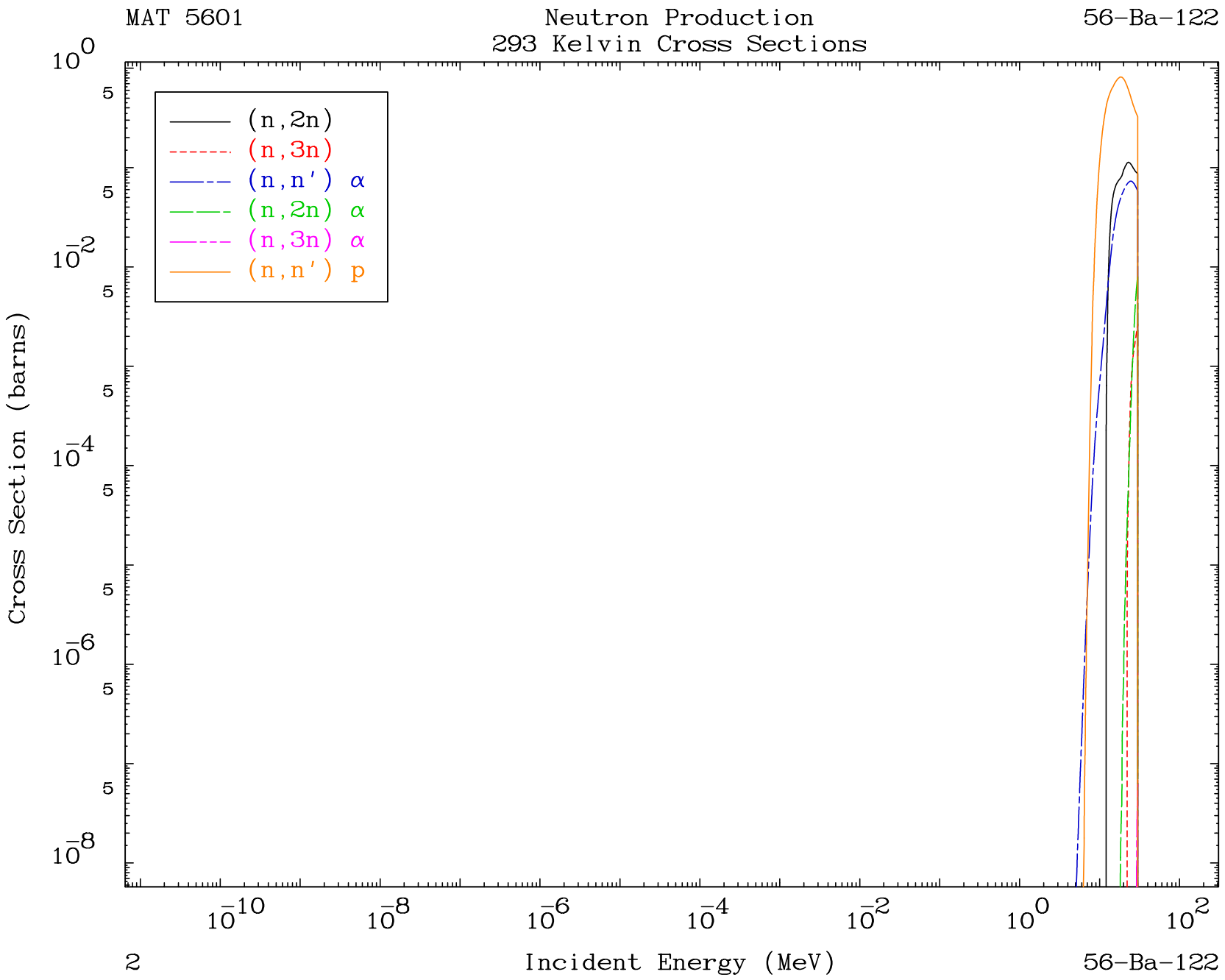
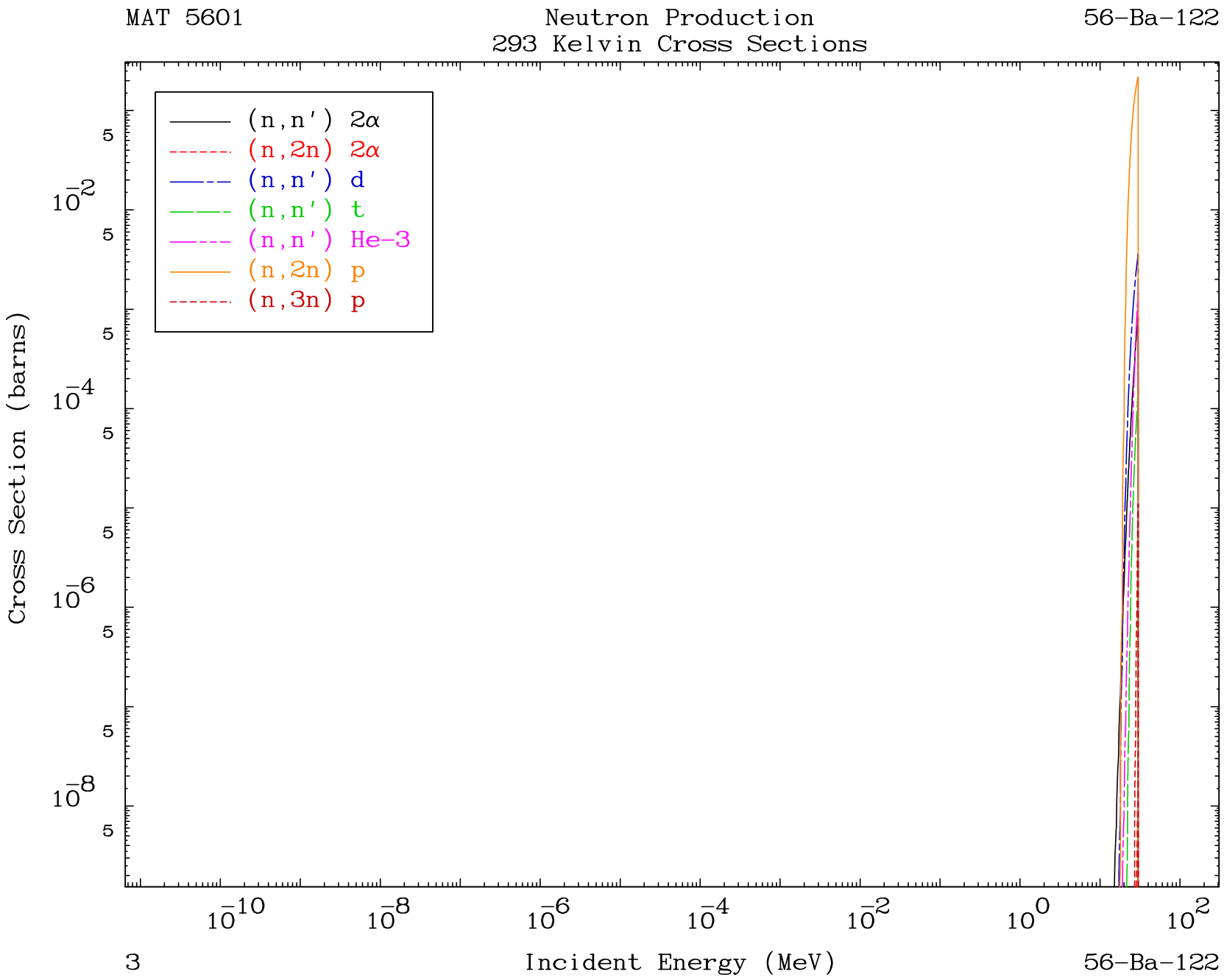
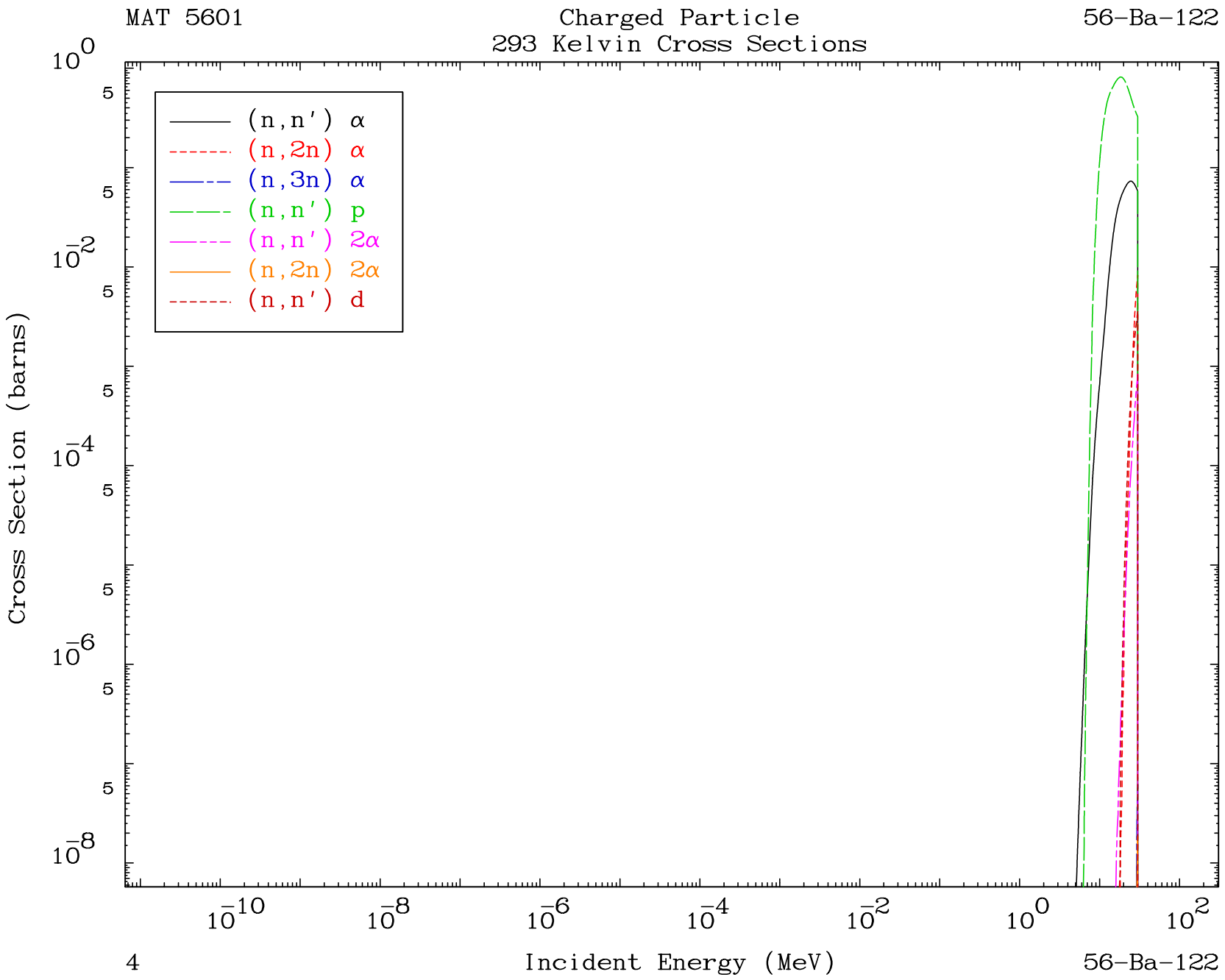
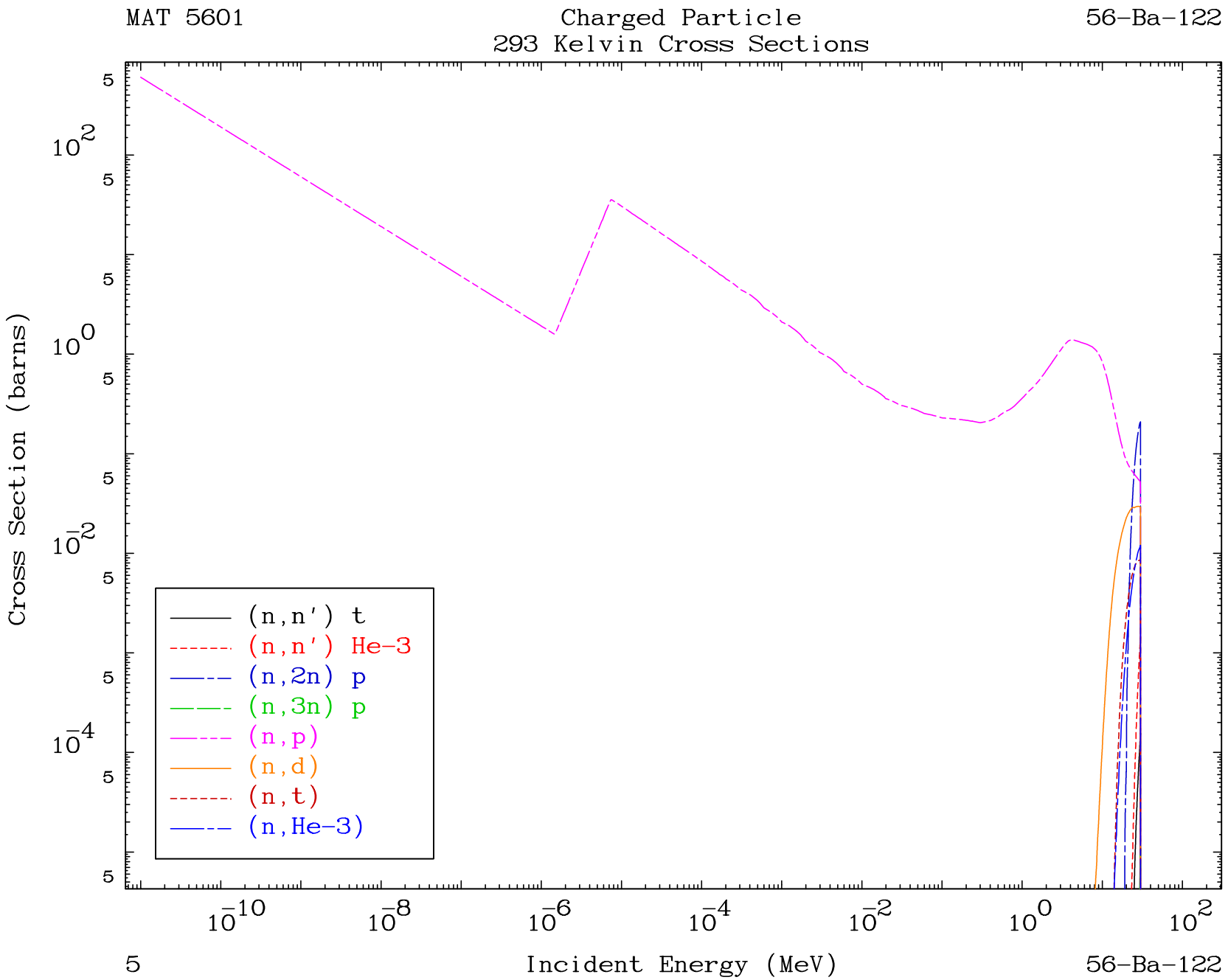
Press Mouse Button to Start

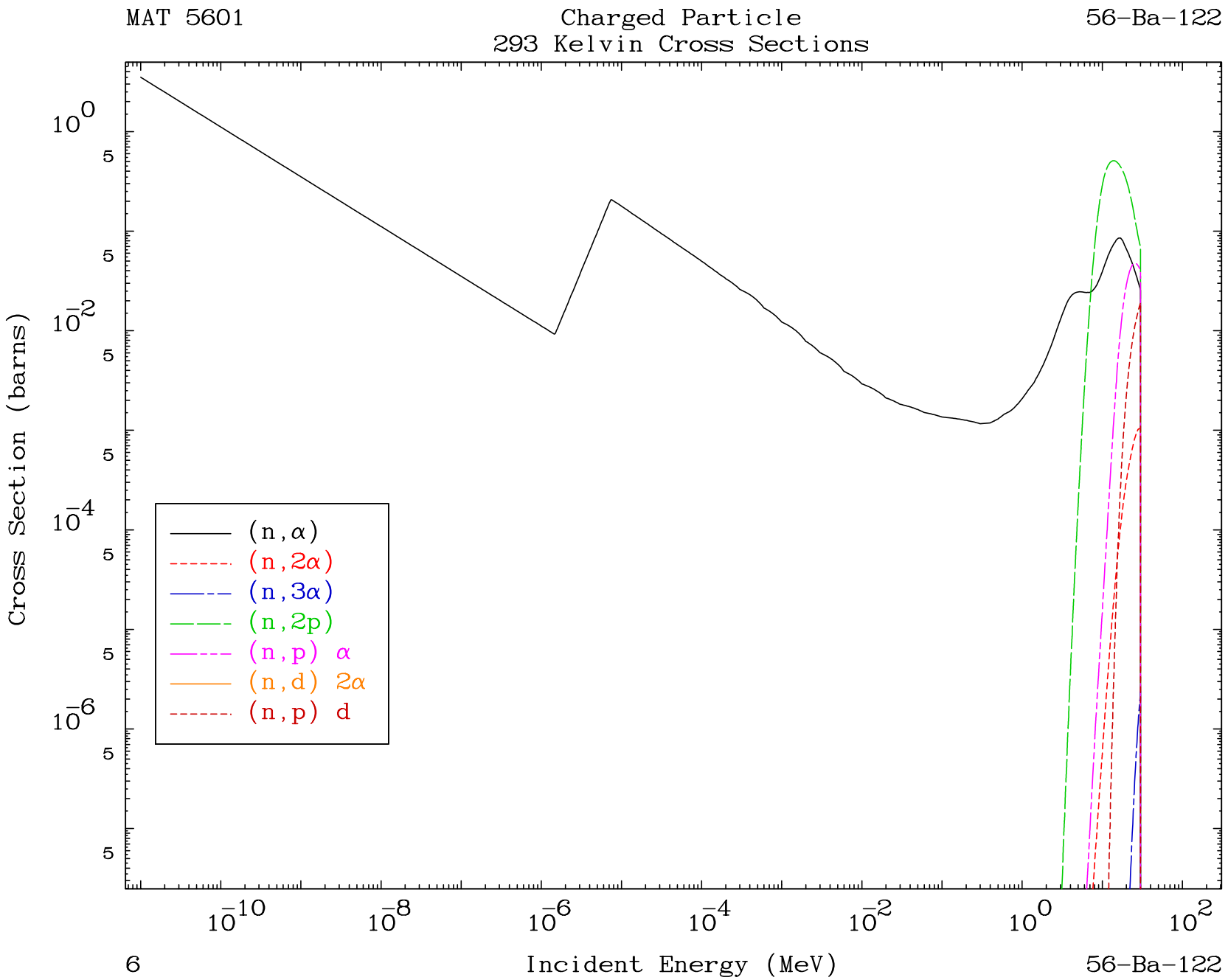

MAT 5601
Major
56-Ba-122
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
Total
Elastic
Inelastic
(n,remainder)
(n,γ)
1
56-Ba-122

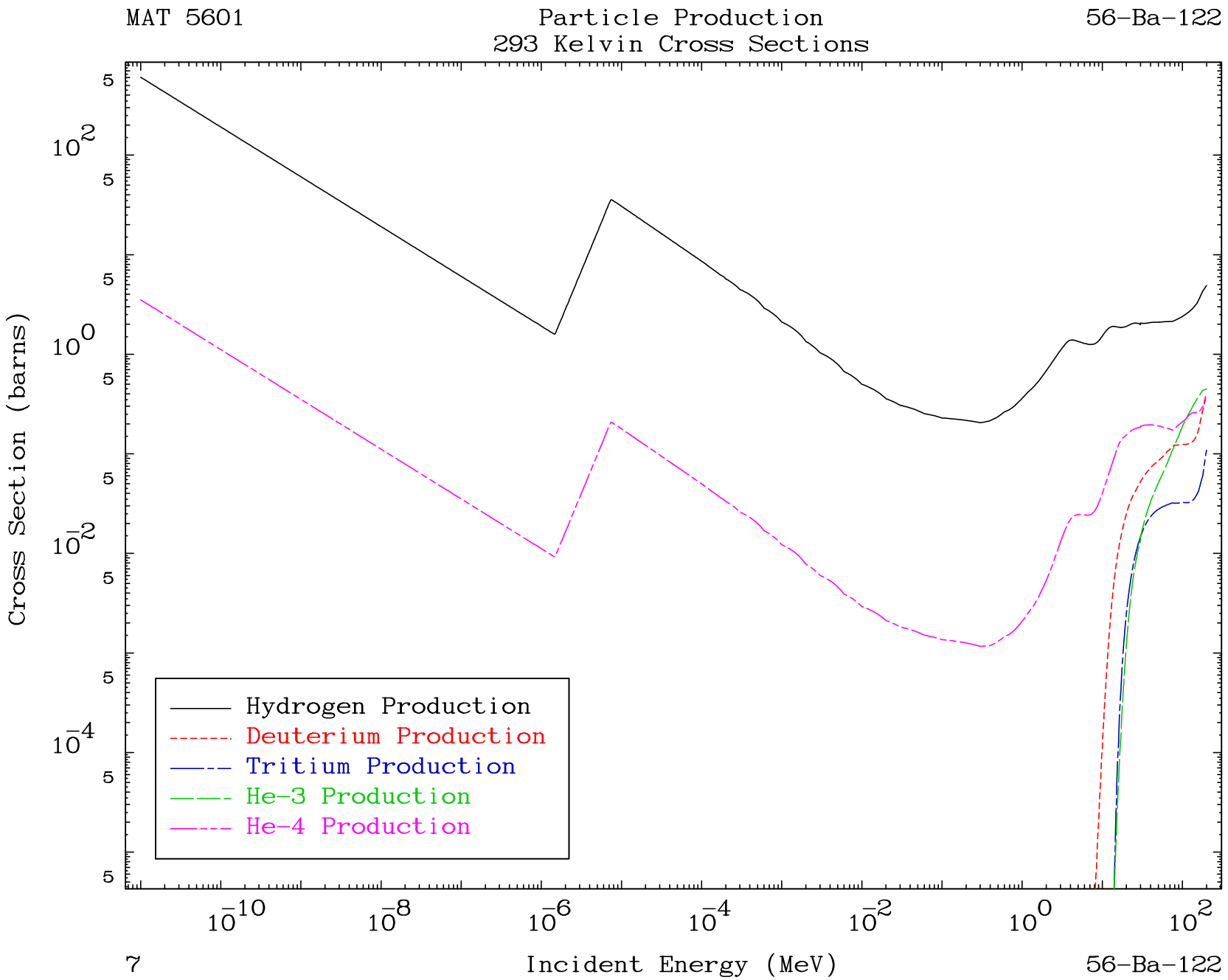

MAT 5601
Neutron Production
293 Kelvin Cross Sections
56-Ba-122
(n,2n)
(n,3n)
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
Cross Section (barns)
Incident Energy (MeV)
2
56-Ba-122

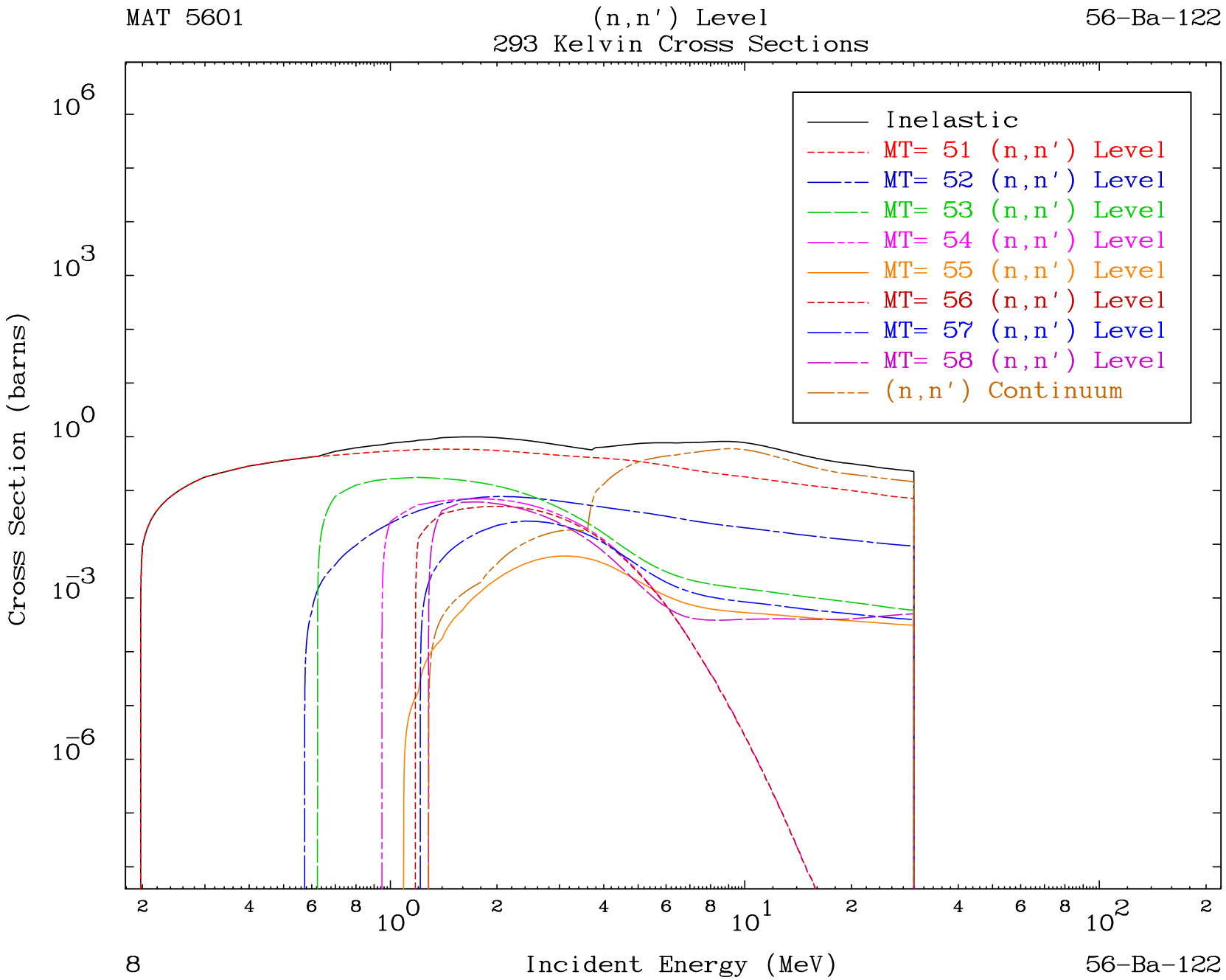

MAT 5601
Neutron Production
293 Kelvin Cross Sections
56-Ba-122
(n,n') 2α
(n,2n) 2α
(n,n') d
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
Cross Section (barns)
10-2
10-4
10-6
10-8
10-10
100
102
Incident Energy (MeV)
3
56-Ba-122

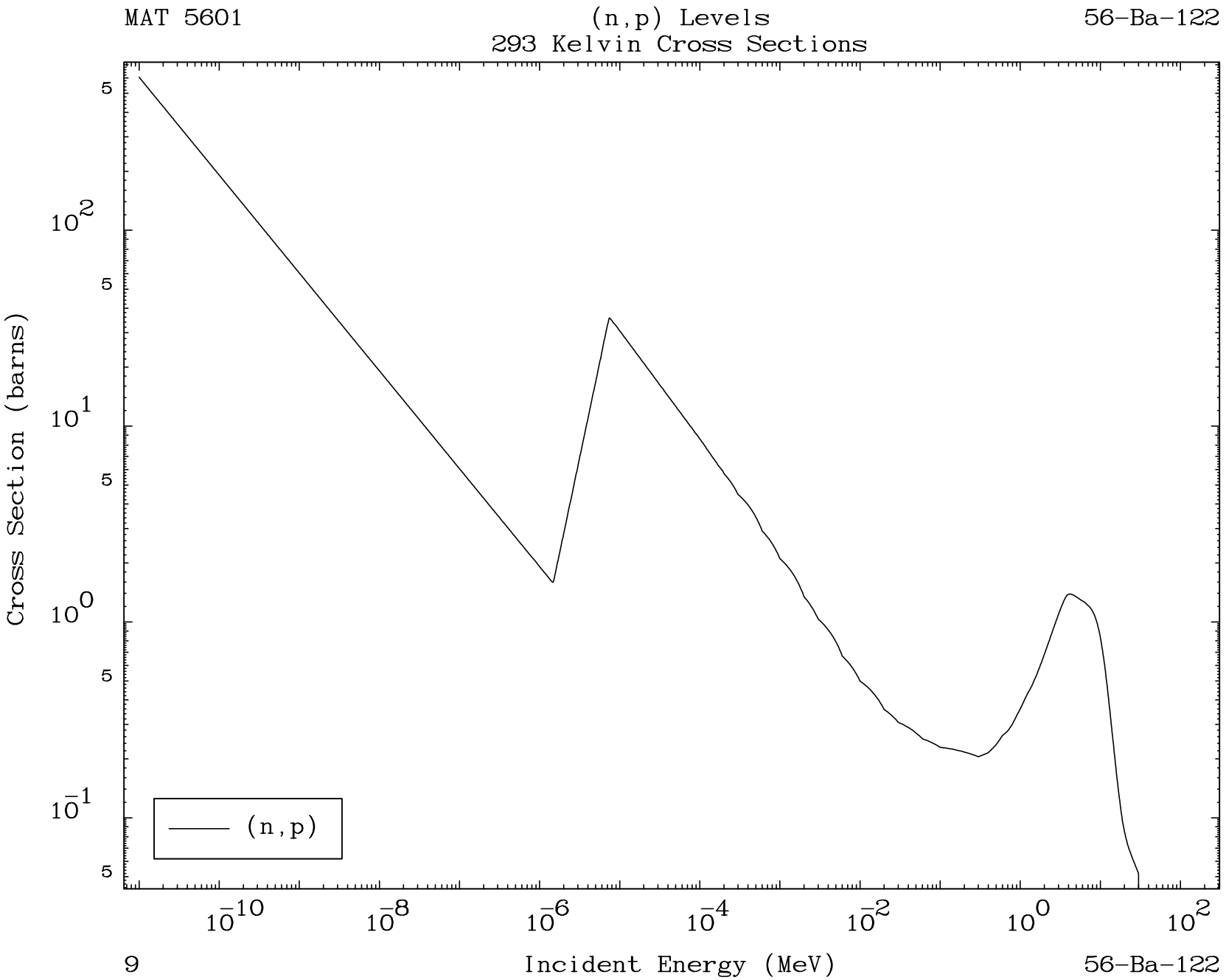

MAT 5601
Charged Particle
56-Ba-122
293 Kelvin Cross Sections
(n,n') α
(n,2n) α
(n,3n) α
(n,n') p
(n,n') 2α
(n,2n) 2α
(n,n') d
Cross Section (barns)
Incident Energy (MeV)
4
56-Ba-122

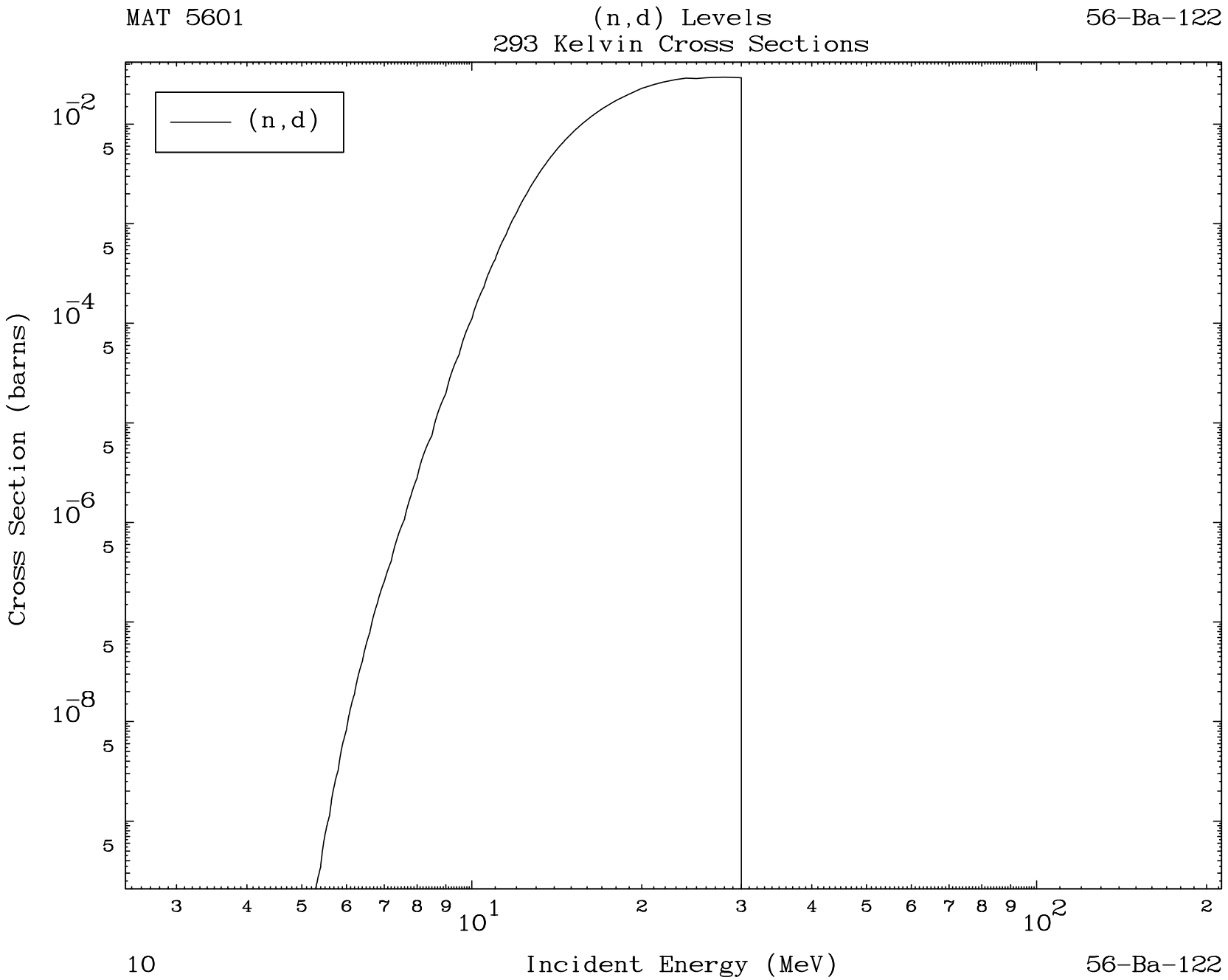

MAT 5601
Charged Particle
56-Ba-122
293 Kelvin Cross Sections
Cross Section (barns)
Incident Energy (MeV)
56-Ba-122
(n,n') t
(n,n') He-3
(n,2n) p
(n,3n) p
(n,p)
(n,d)
(n,t)
(n,He-3)

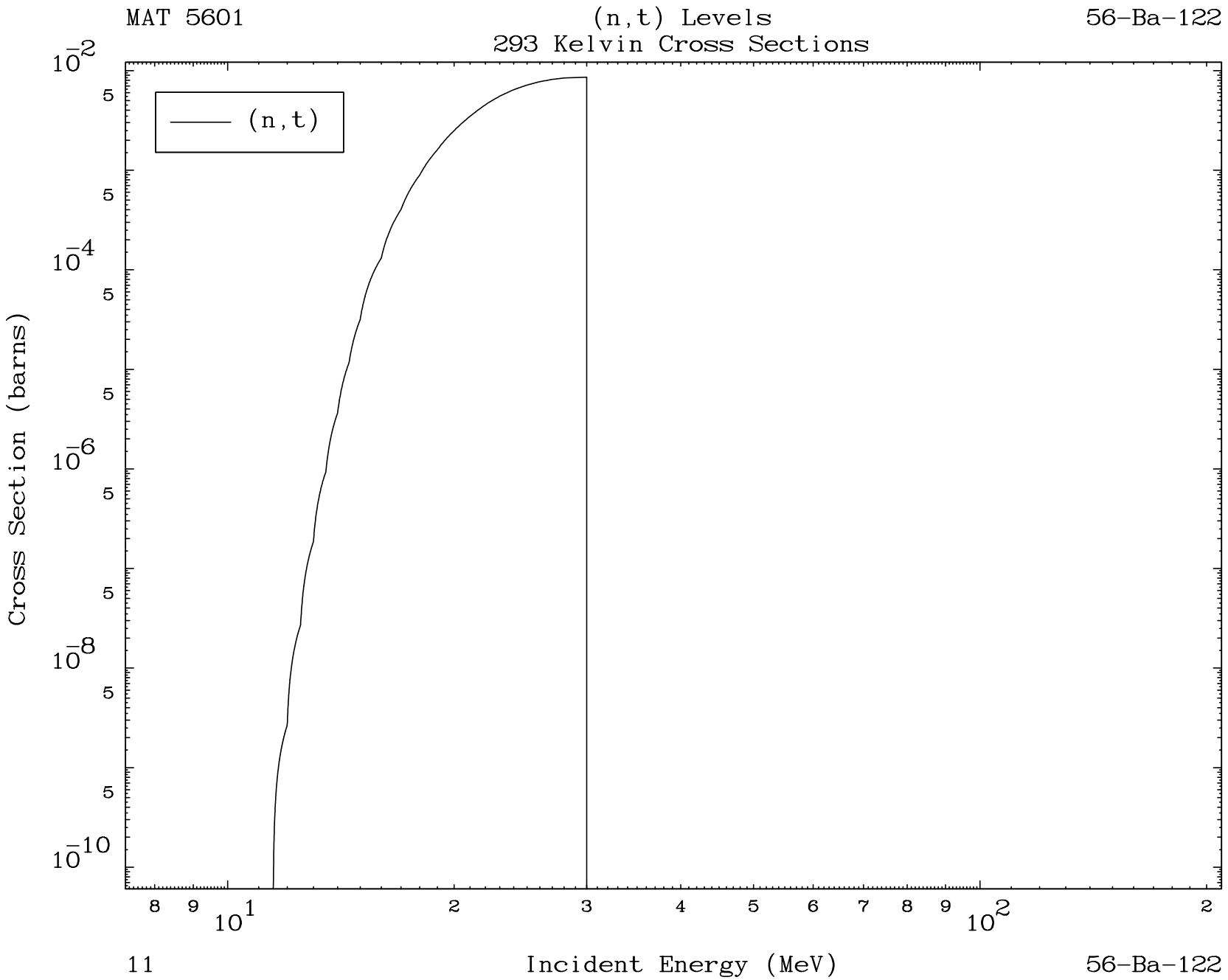

MAT 5601
Charged Particle
293 Kelvin Cross Sections
56-Ba-122
Cross Section (barns)
Incident Energy (MeV)
(n,α)
(n,2α)
(n,3α)
(n,2p)
(n,p) α
(n,d) 2α
(n,p) d
6
56-Ba-122

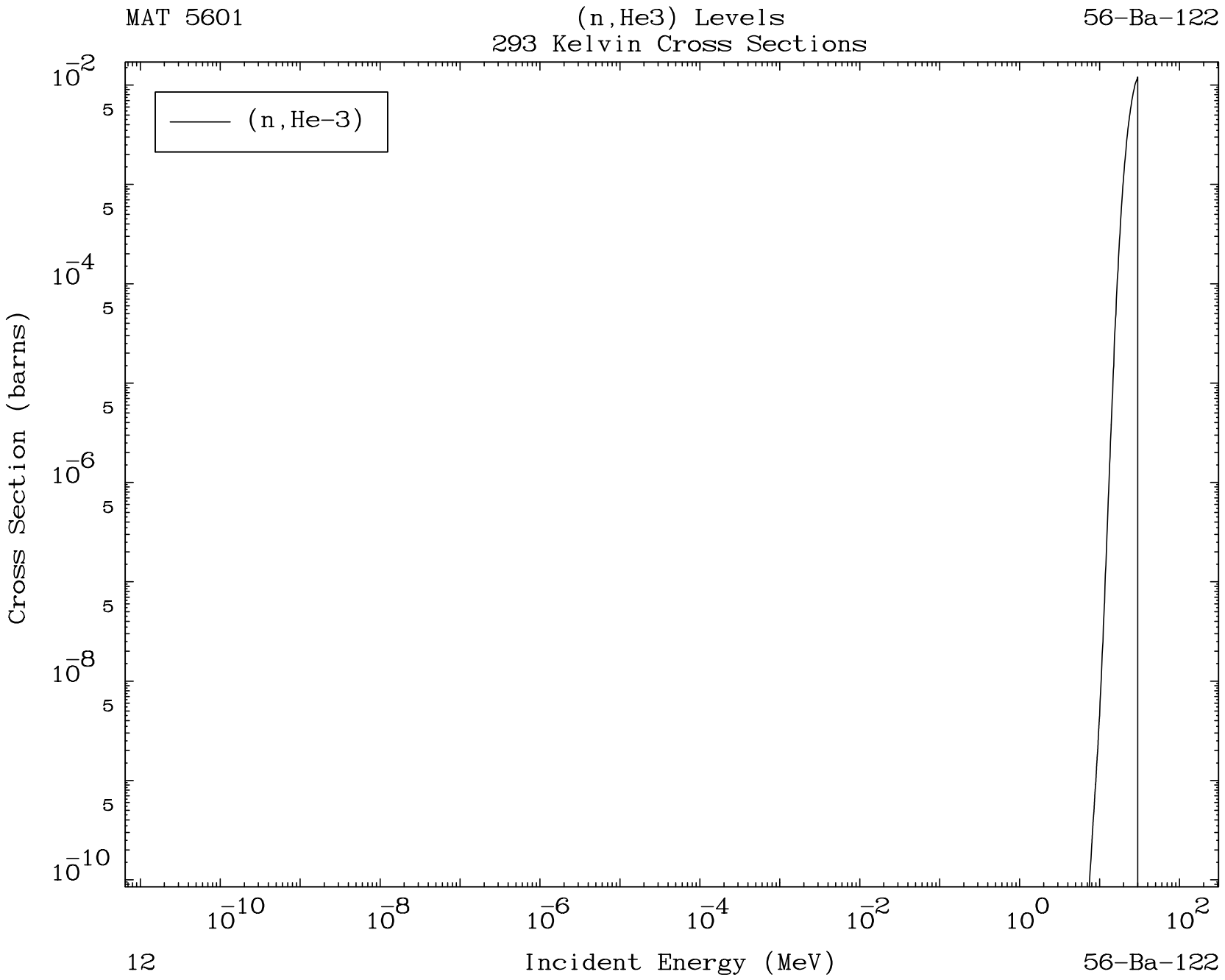

MAT 5601
Particle Production
293 Kelvin Cross Sections
56-Ba-122
Cross Section (barns)
Incident Energy (MeV)
Hydrogen Production
Deuterium Production
Tritium Production
He-3 Production
He-4 Production
7
56-Ba-122

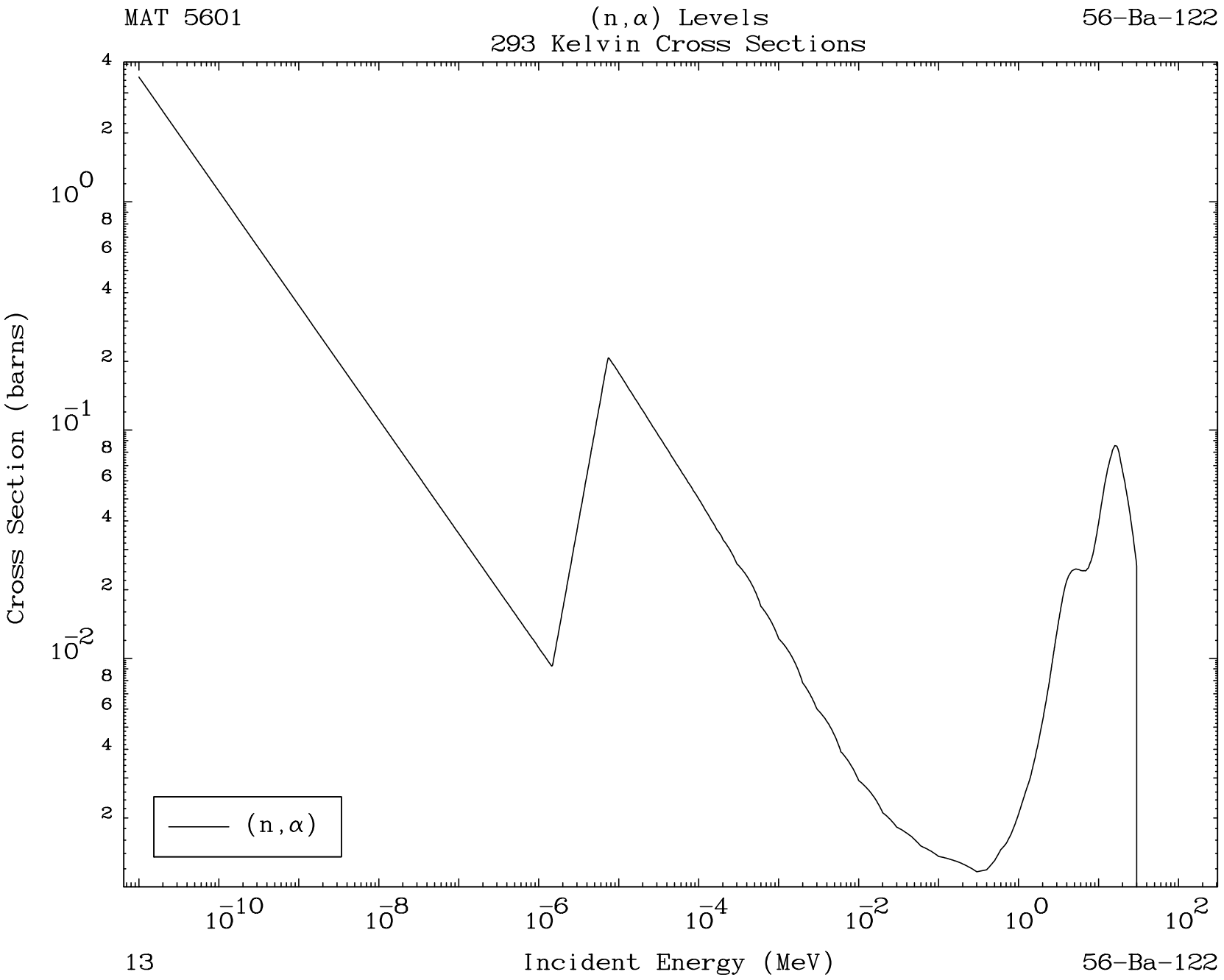

MAT 5601
(n,n') Level
293 Kelvin Cross Sections
56-Ba-122
Inelastic
MT= 51 (n,n') Level
MT= 52 (n,n') Level
MT= 53 (n,n') Level
MT= 54 (n,n') Level
MT= 55 (n,n') Level
MT= 56 (n,n') Level
MT= 57 (n,n') Level
MT= 58 (n,n') Level
(n,n') Continuum
Cross Section (barns)
Incident Energy (MeV)
8
56-Ba-122

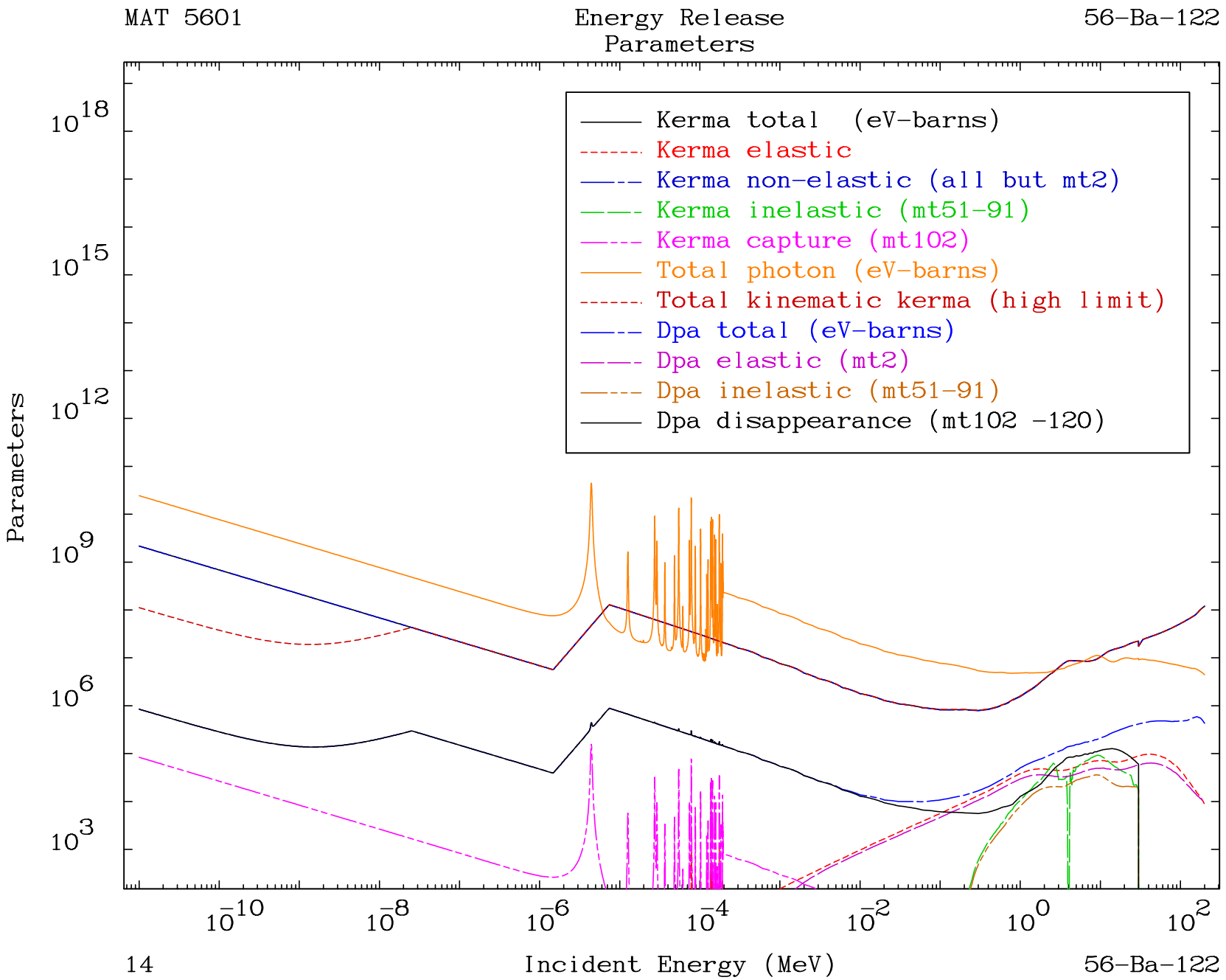

MAT 5601
(n,p) Levels
56-Ba-122
293 Kelvin Cross Sections
Cross Section (barns)
5
10^2
5
10^1
5
10^0
5
10^-1
5
(n,p)
10^-10
10^-8
10^-6
10^-4
10^-2
10^0
10^2
9
Incident Energy (MeV)
56-Ba-122

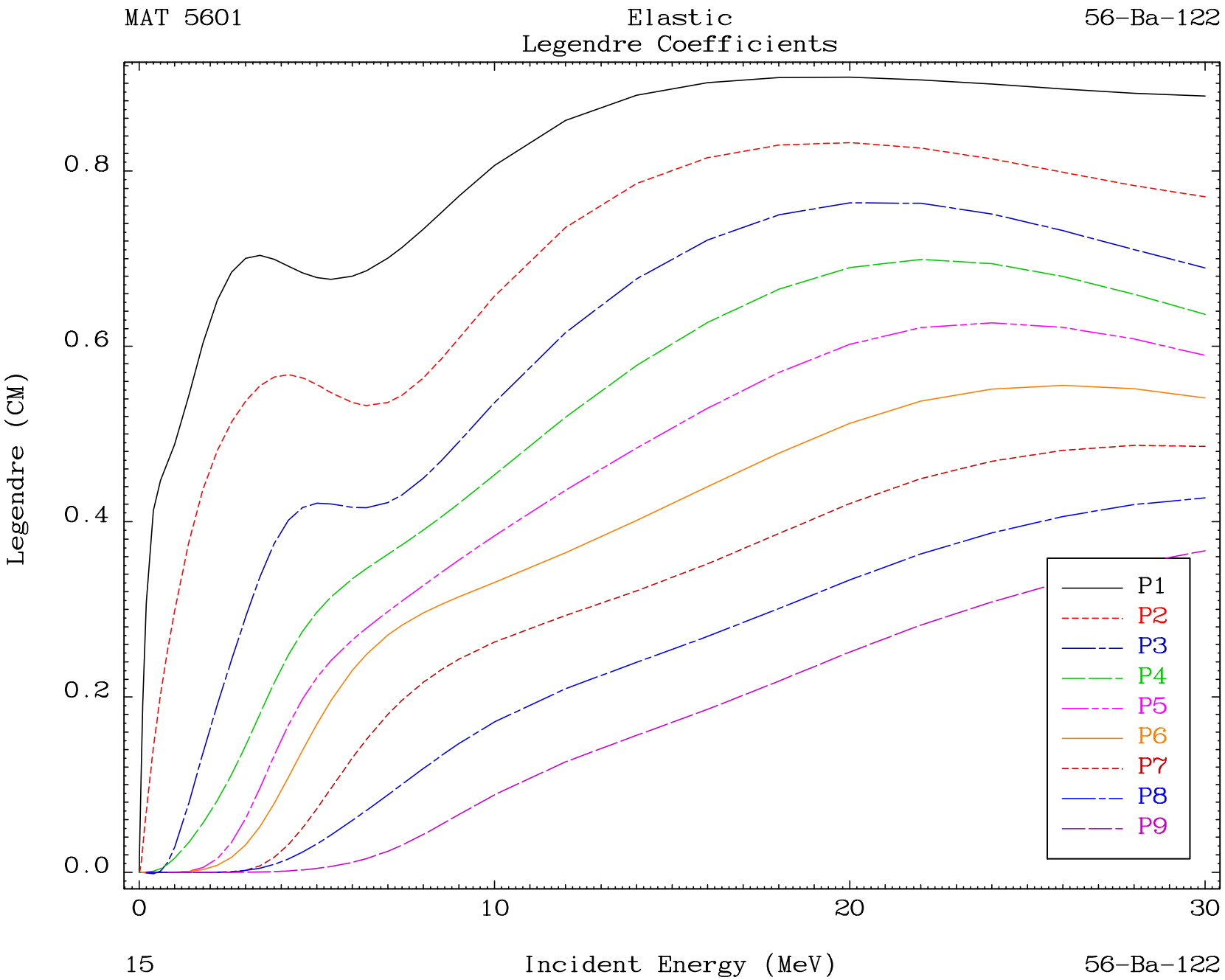

MAT 5601
(n,d) Levels
56-Ba-122
293 Kelvin Cross Sections
(n,d)
Cross Section (barns)
Incident Energy (MeV)
56-Ba-122

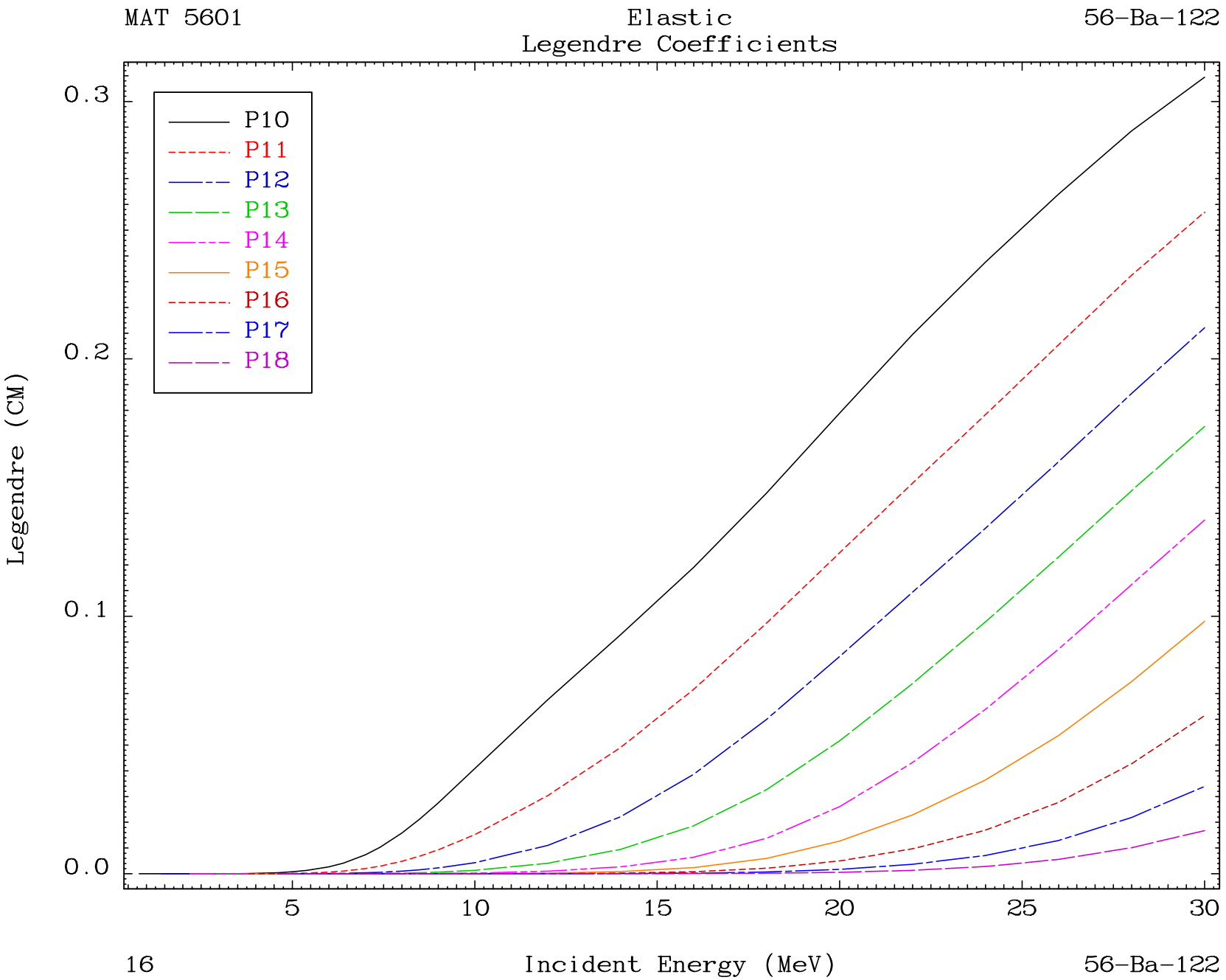

MAT 5601
(n,t) Levels
56-Ba-122
293 Kelvin Cross Sections
(n,t)
Cross Section (barns)
Incident Energy (MeV)
11
56-Ba-122

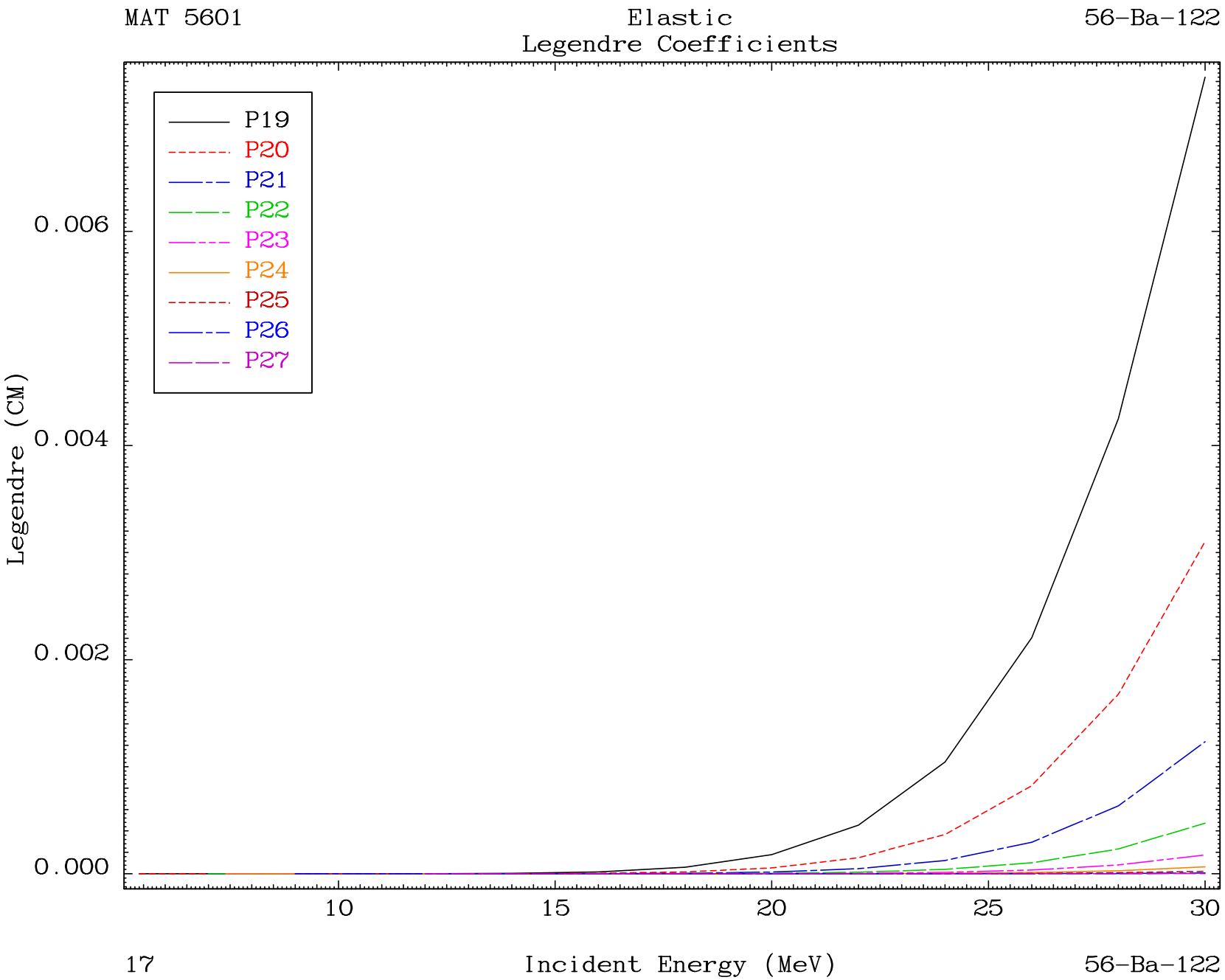

MAT 5601
(n,He3) Levels
56-Ba-122
293 Kelvin Cross Sections
(n,He-3)
Cross Section (barns)
Incident Energy (MeV)
12
56-Ba-122

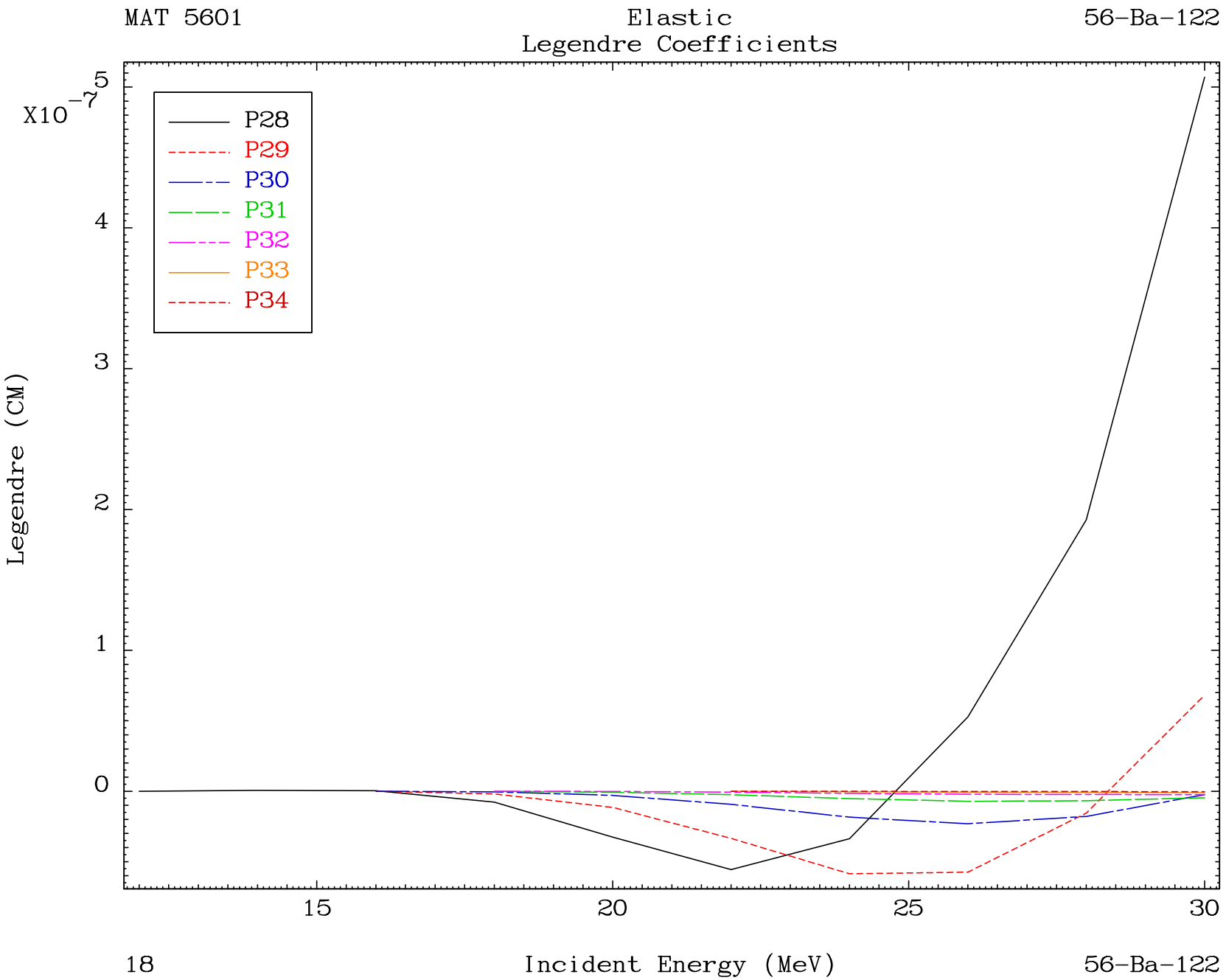

MAT 5601
(n,α) Levels
56-Ba-122
293 Kelvin Cross Sections
Cross Section (barns)
(n,α)
Incident Energy (MeV)
13
56-Ba-122

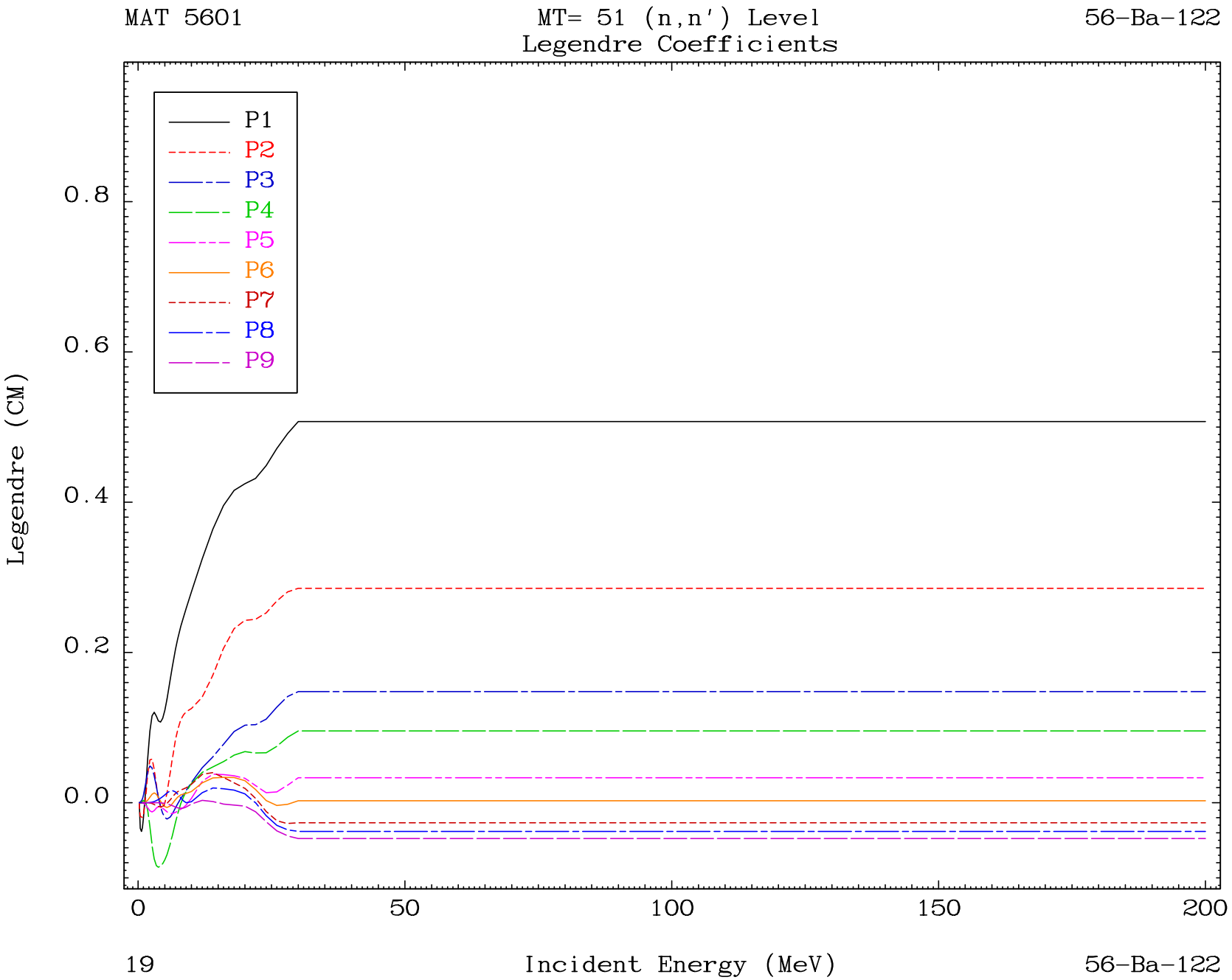

MAT 5601
Energy Release
Parameters
56-Ba-122
Kerma total (eV-barns)
Kerma elastic
Kerma non-elastic (all but mt2)
Kerma inelastic (mt51-91)
Kerma capture (mt102)
Total photon (eV-barns)
Total kinematic kerma (high limit)
Dpa total (eV-barns)
Dpa elastic (mt2)
Dpa inelastic (mt51-91)
Dpa disappearance (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
14
Incident Energy (MeV)
56-Ba-122

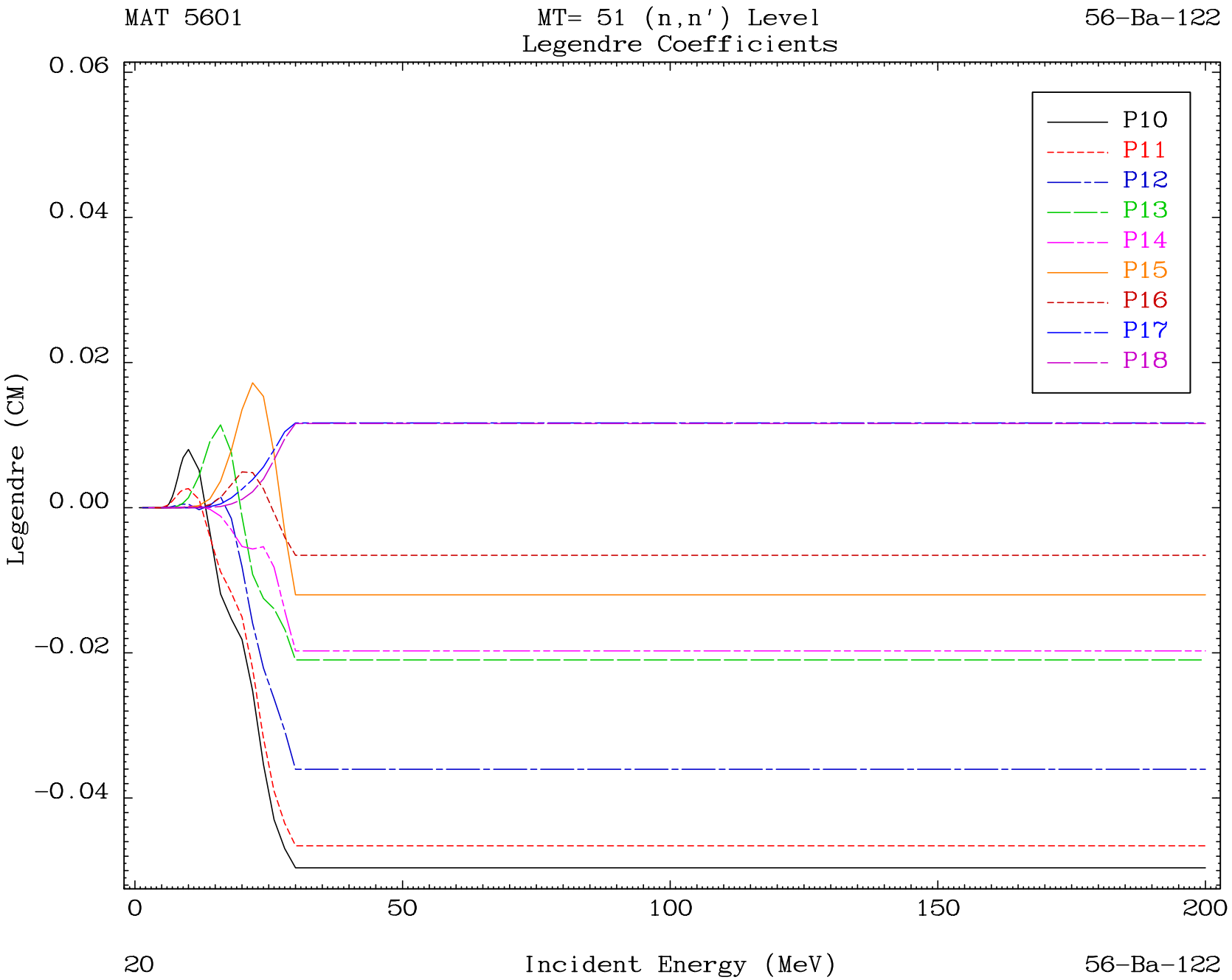

MAT 5601
Elastic
Legendre Coefficients
56-Ba-122
Legendre (CM)
0.0
0.2
0.4
0.6
0.8
0
10
20
30
15
Incident Energy (MeV)
56-Ba-122
P1
P2
P3
P4
P5
P6
P7
P8
P9

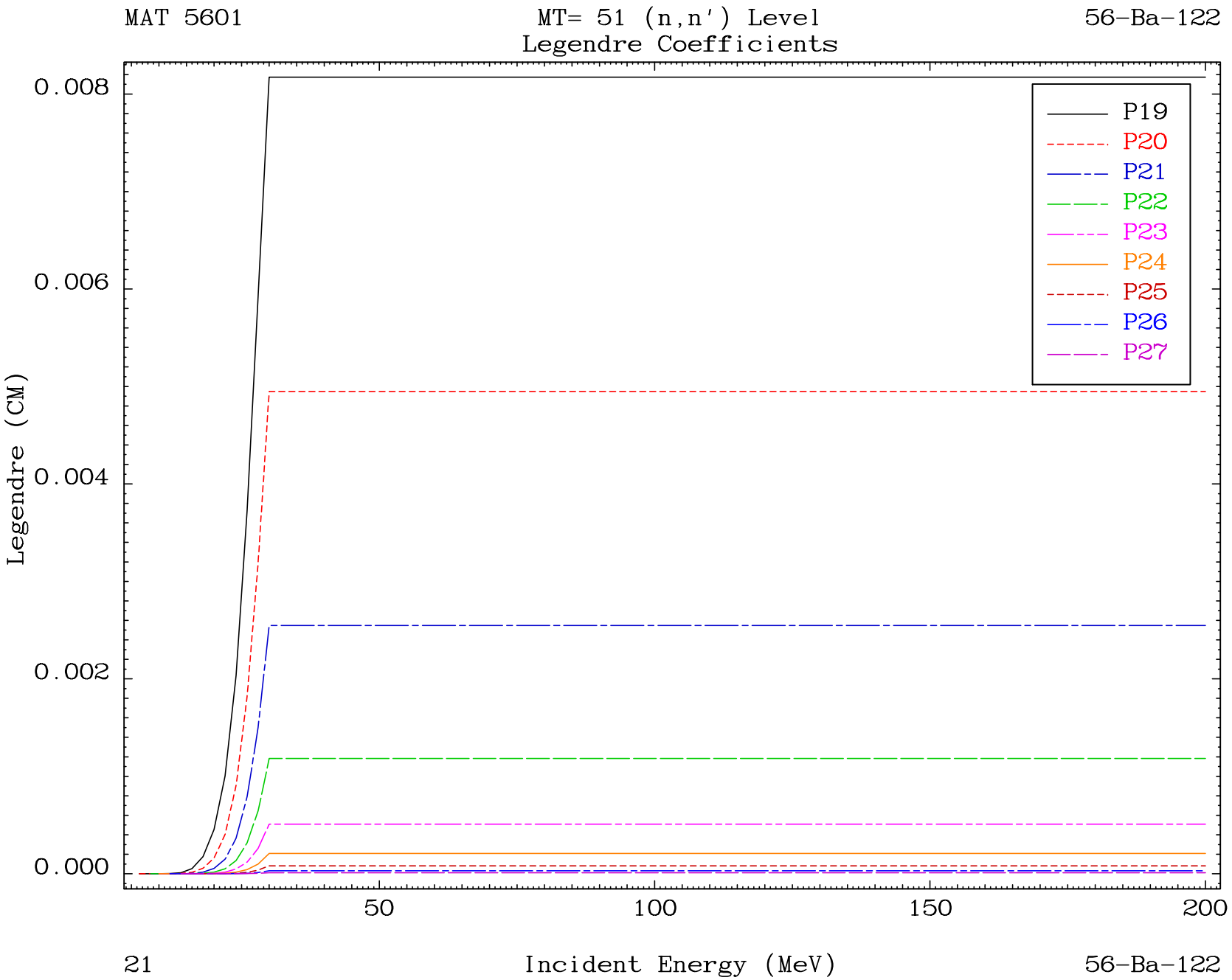

MAT 5601
Elastic
Legendre Coefficients
56-Ba-122
P10
P11
P12
P13
P14
P15
P16
P17
P18
Legendre (CM)
0.3
0.2
0.1
0.0
5
10
15
20
25
30
16
Incident Energy (MeV)
56-Ba-122

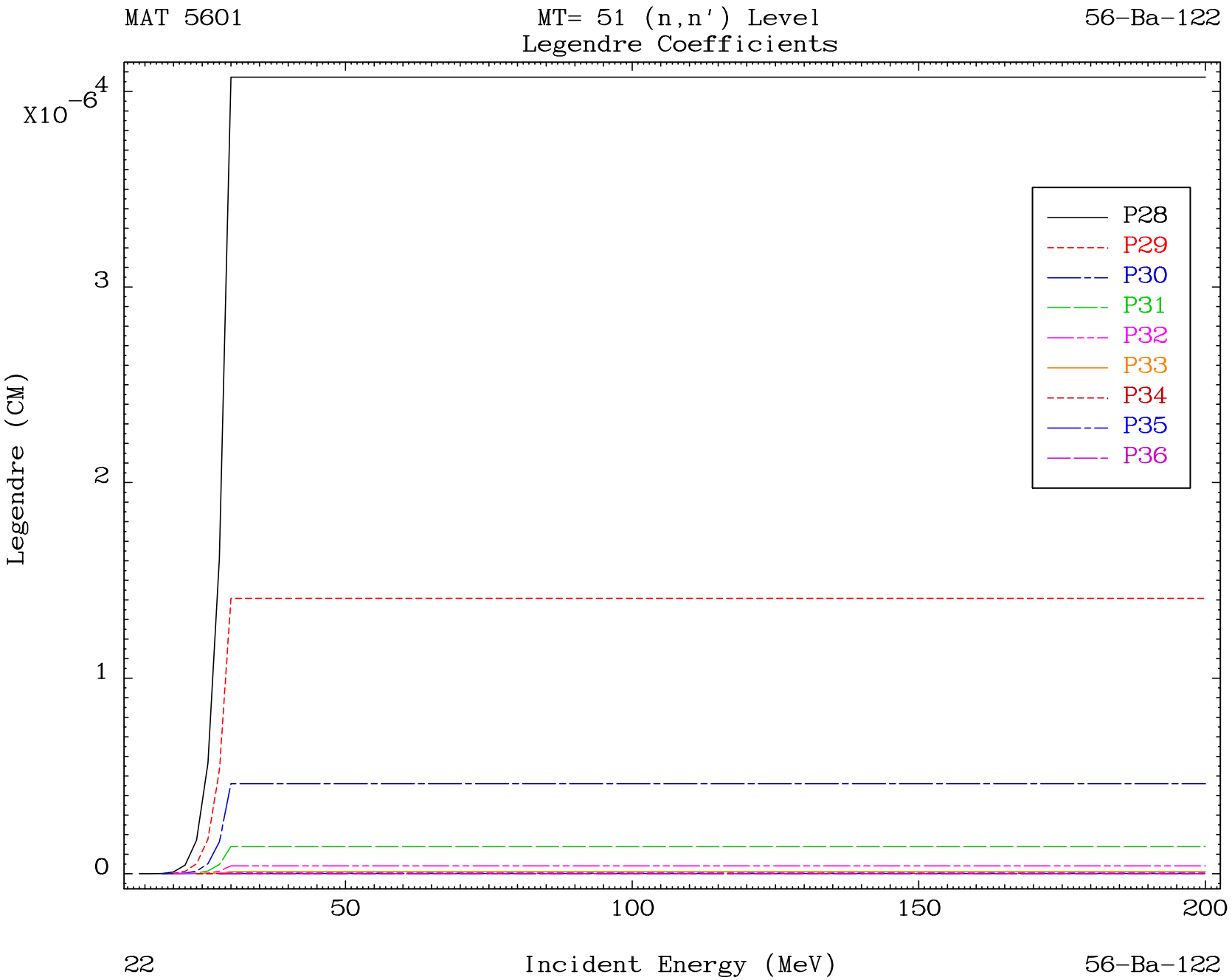

MAT 5601
Elastic
Legendre Coefficients
56-Ba-122
P19
P20
P21
P22
P23
P24
P25
P26
P27
0.006
0.004
0.002
0.000
Legendre (CM)
10
15
20
25
30
17
Incident Energy (MeV)
56-Ba-122

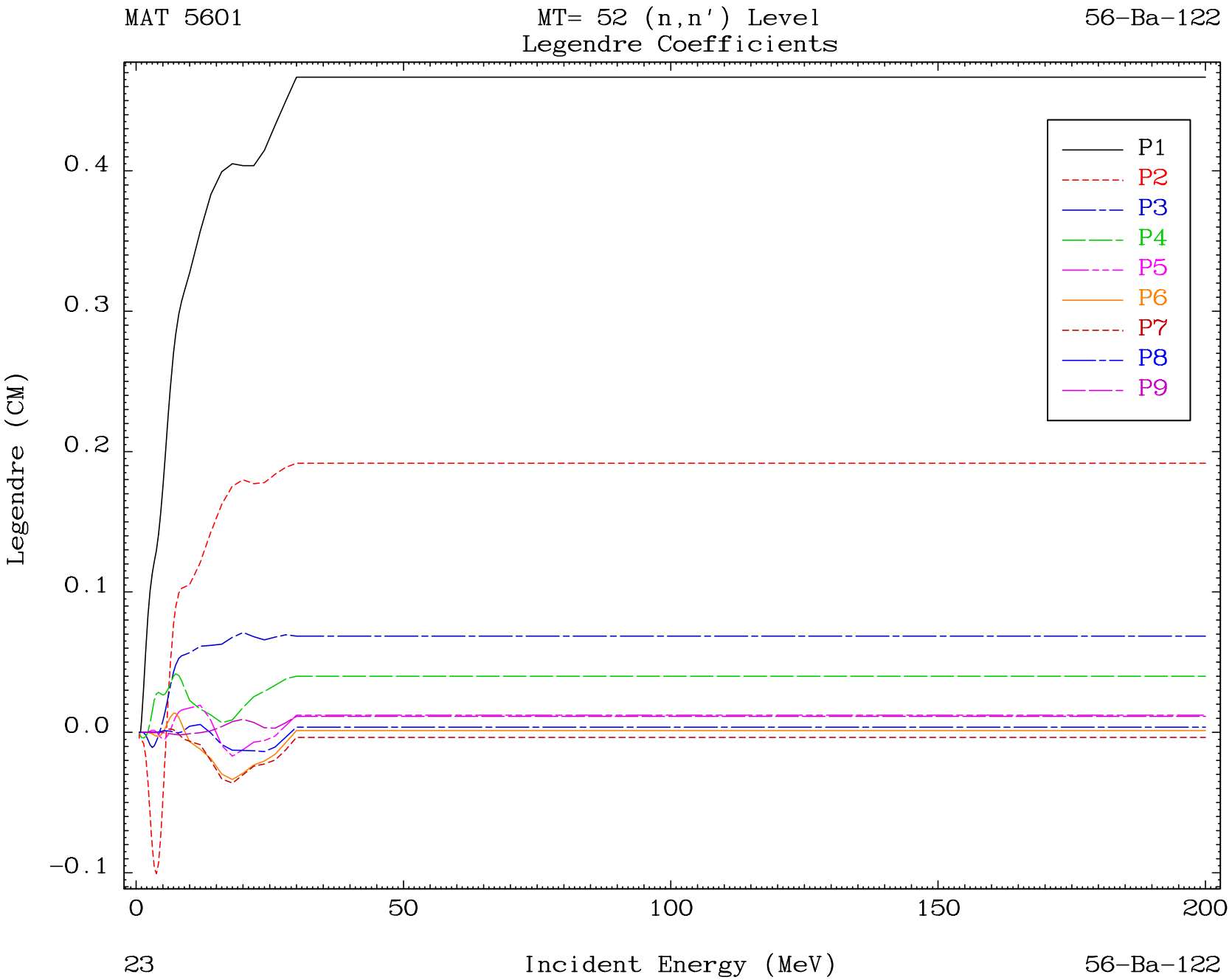

MAT 5601
Elastic
Legendre Coefficients
56-Ba-122
X10-2
5
4
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
15
20
25
30
18
Incident Energy (MeV)
56-Ba-122

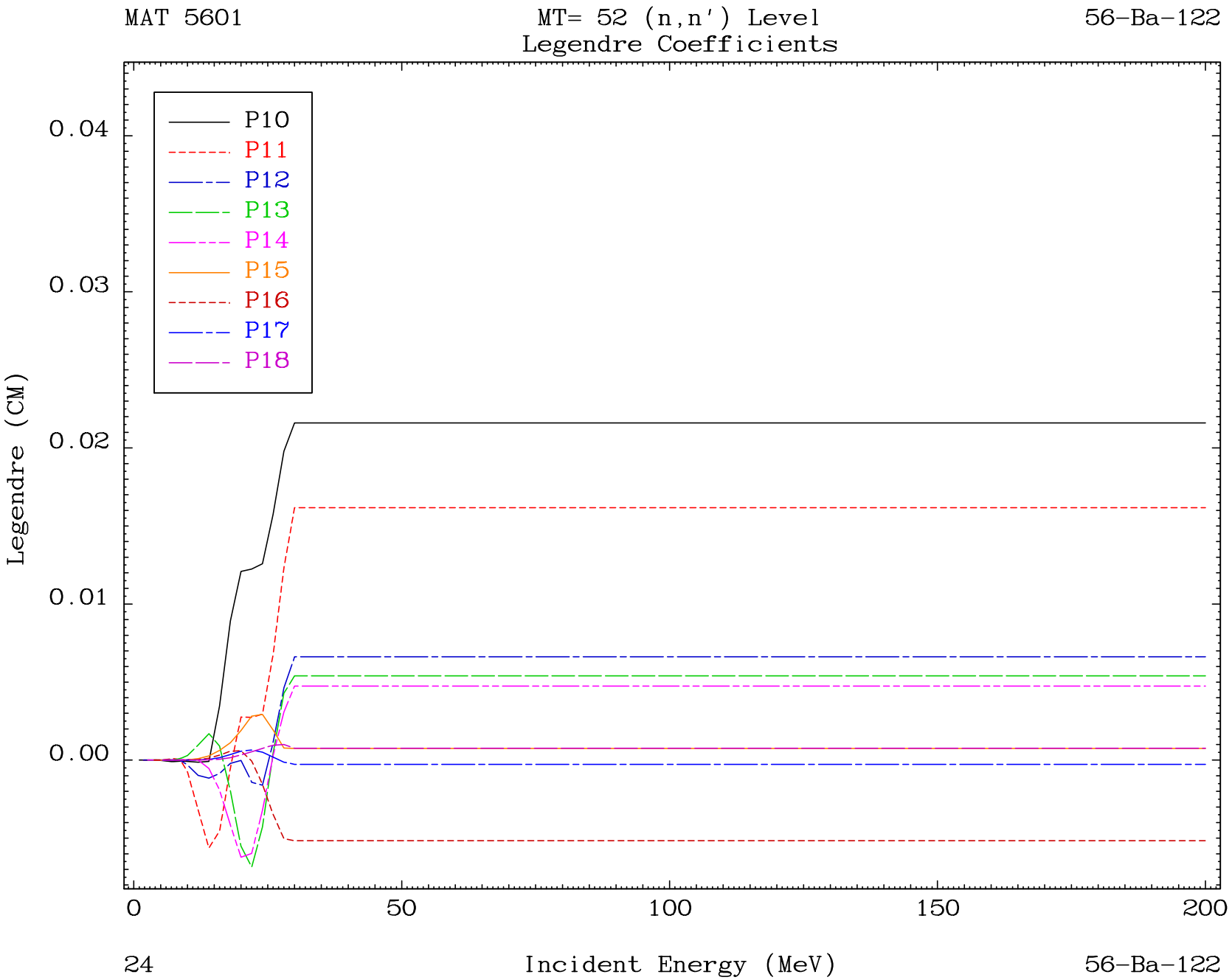

MAT 5601
MT= 51 (n,n') Level
Legendre Coefficients
56-Ba-122
P1
P2
P3
P4
P5
P6
P7
P8
P9
Legendre (CM)
0.8
0.6
0.4
0.2
0.0
0
50
100
150
200
19
Incident Energy (MeV)
56-Ba-122

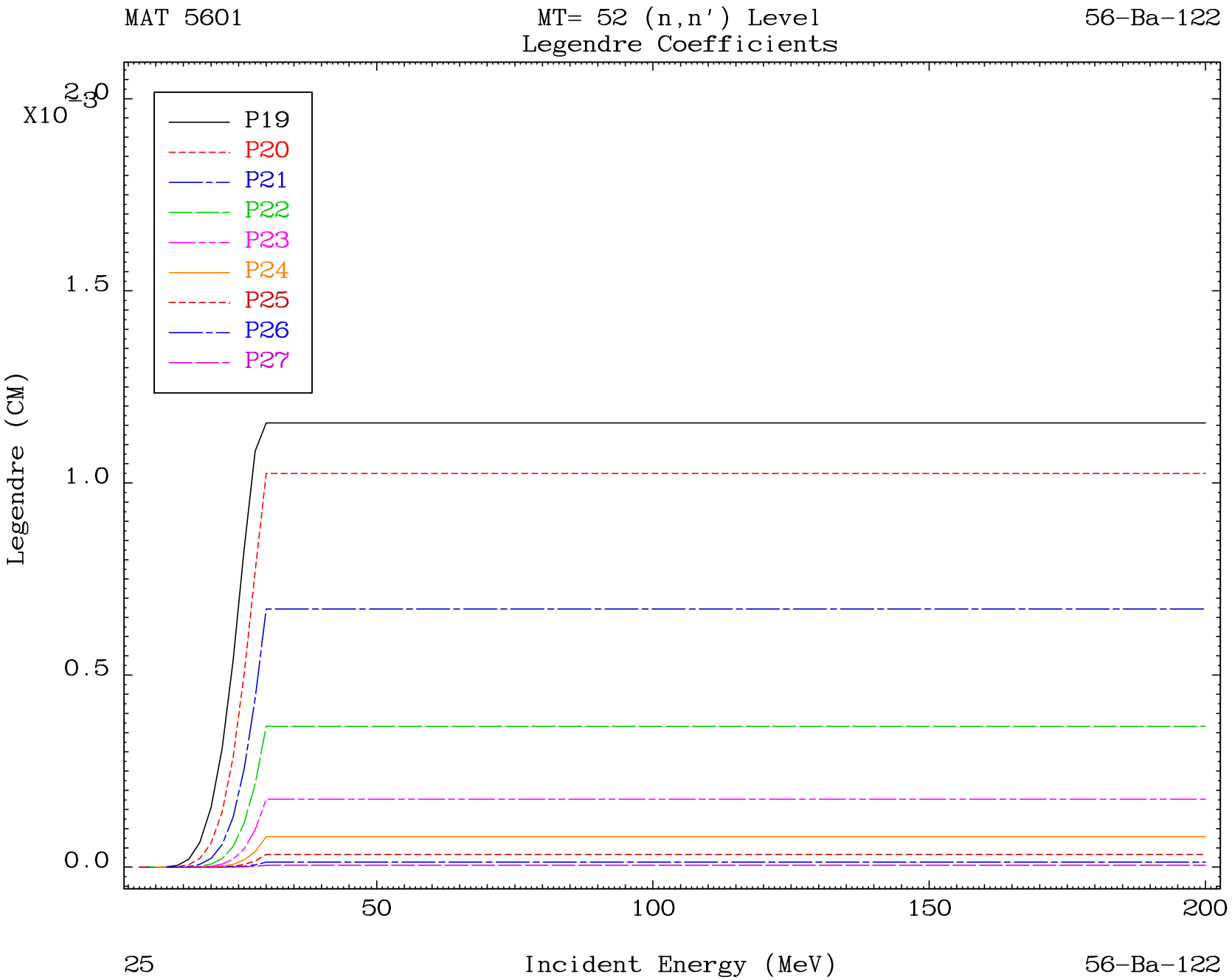

MAT 5601
MT= 51 (n,n') Level
Legendre Coefficients
56-Ba-122
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
20
Incident Energy (MeV)
56-Ba-122

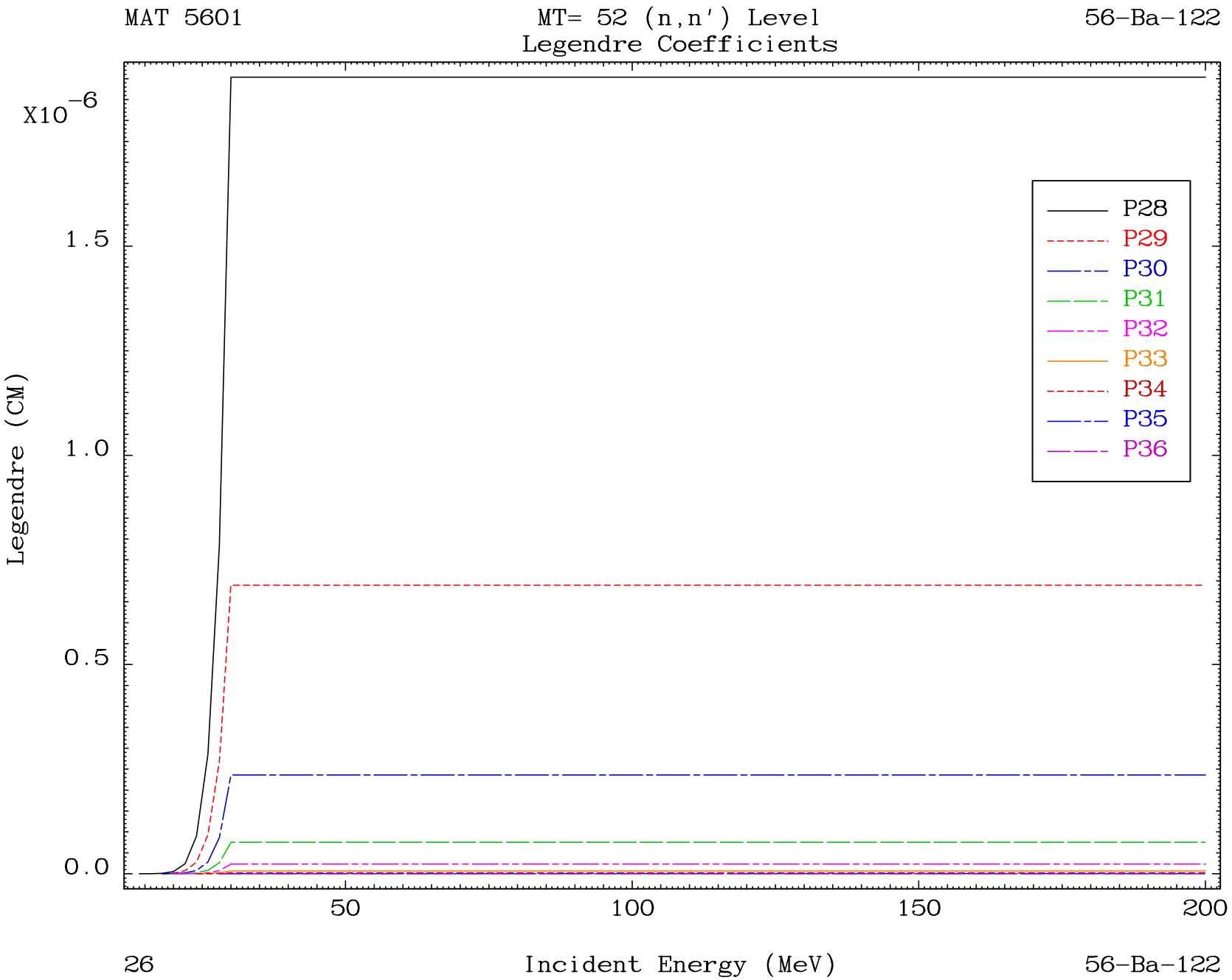

MAT 5601
MT= 51 (n,n') Level
Legendre Coefficients
56-Ba-122
0.008
0.006
0.004
0.002
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
21
Incident Energy (MeV)
56-Ba-122

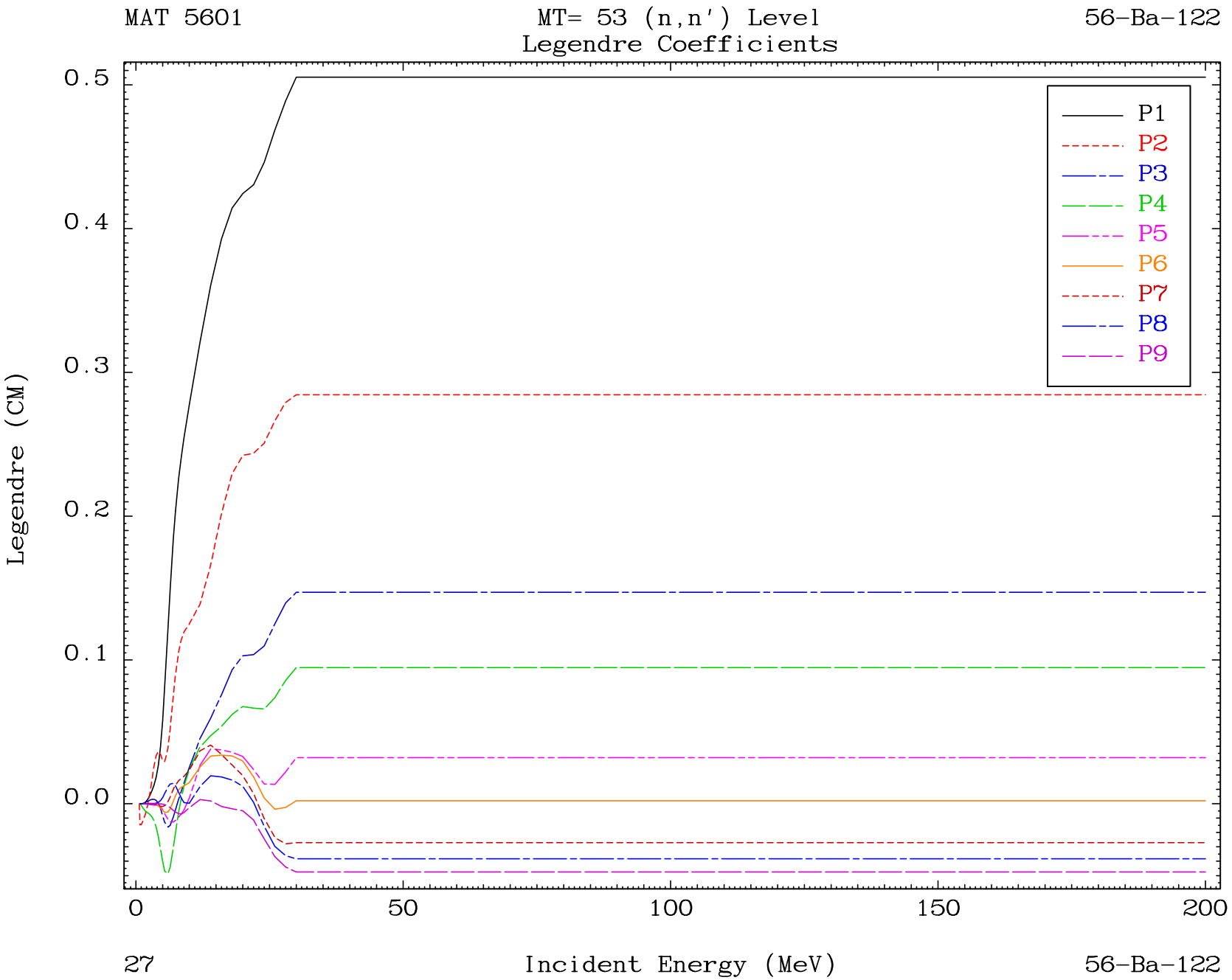

MAT 5601
MT= 51 (n,n') Level
Legendre Coefficients
56-Ba-122
X10^-6
4
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
22
Incident Energy (MeV)
56-Ba-122

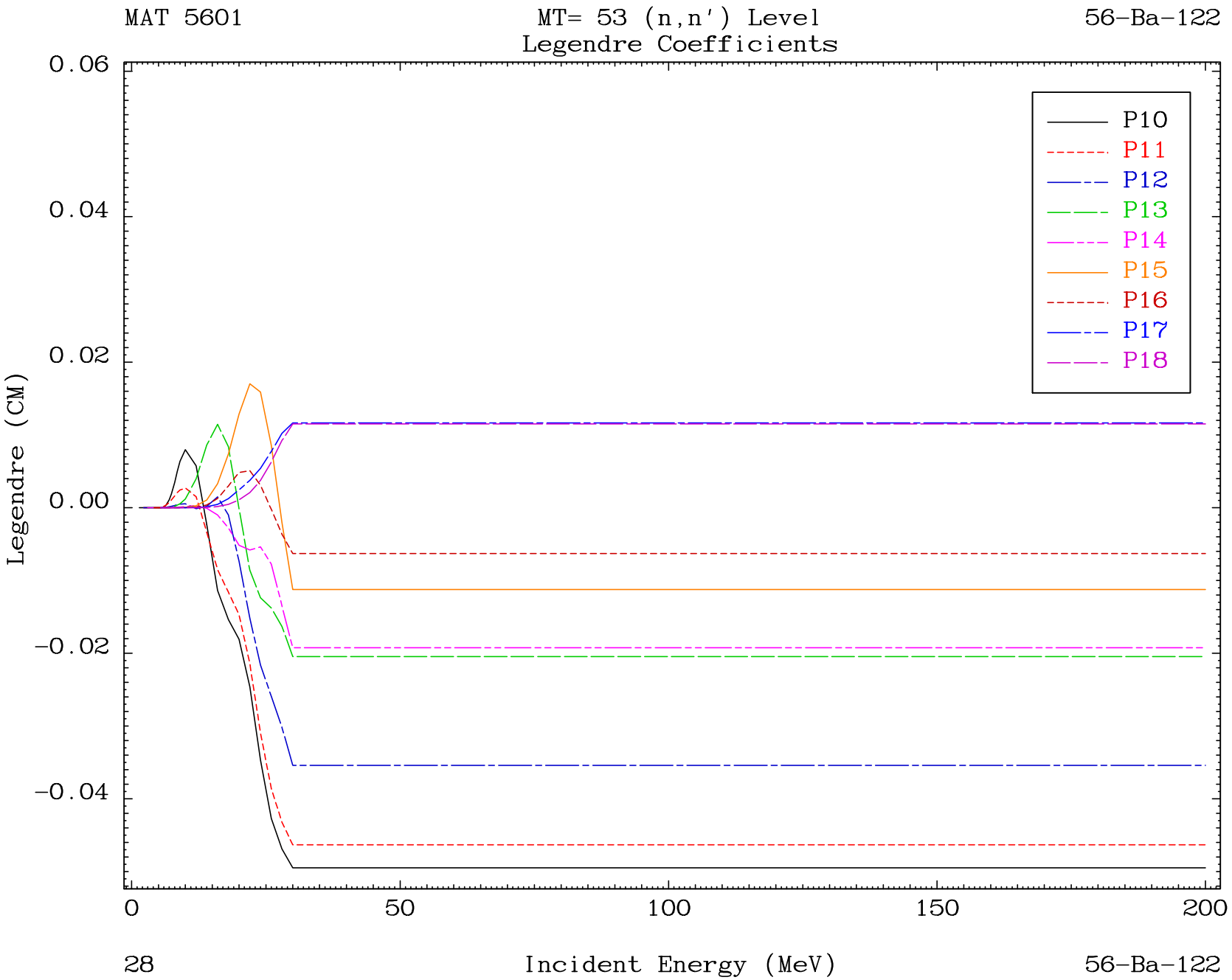

MAT 5601
MT= 52 (n,n') Level
Legendre Coefficients
56-Ba-122
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
-0.1
0
50
100
150
200
Incident Energy (MeV)
23
56-Ba-122
P1
P2
P3
P4
P5
P6
P7
P8
P9

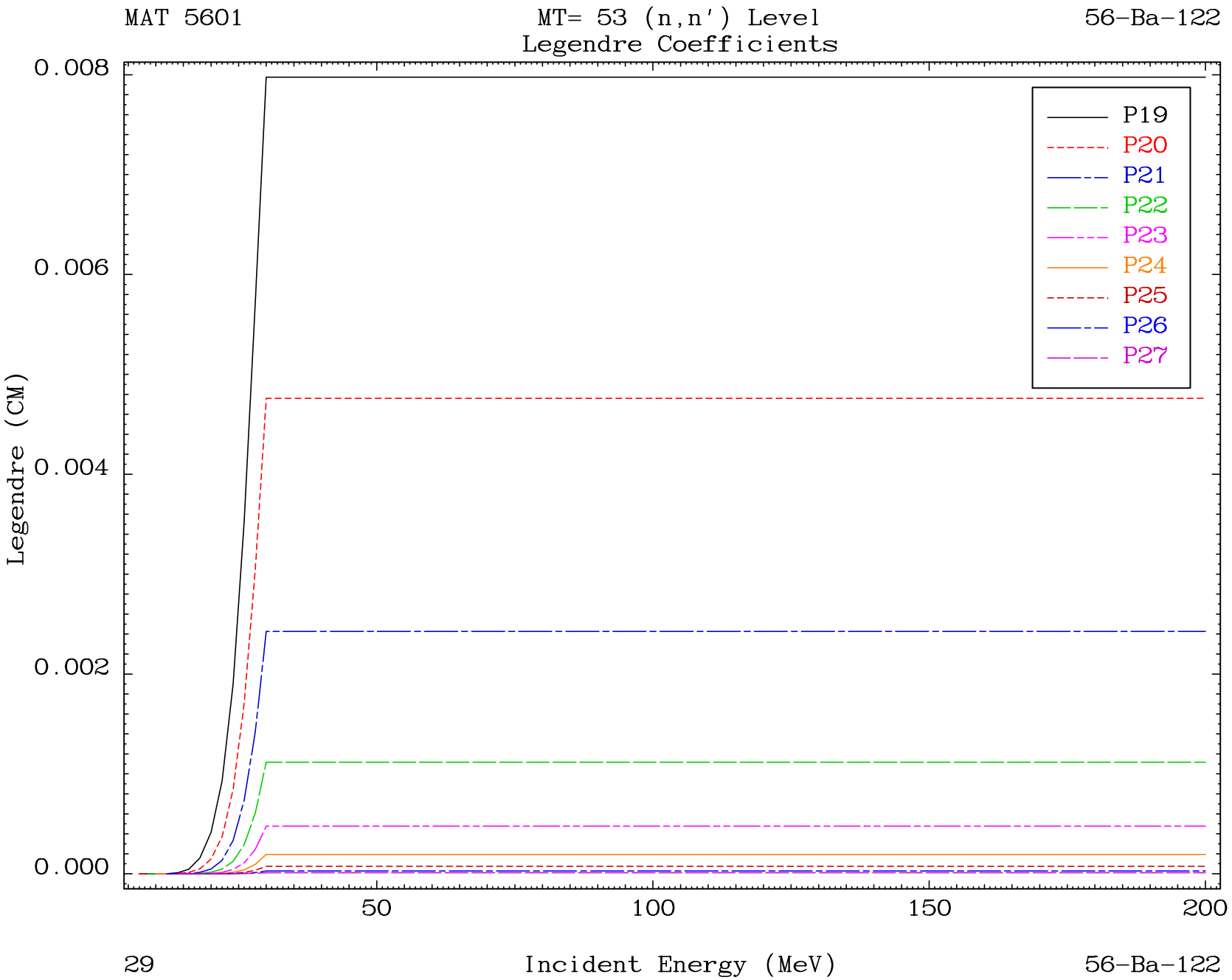

MAT 5601
MT= 52 (n,n') Level
Legendre Coefficients
56-Ba-122
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.03
0.02
0.01
0.00
Legendre (CM)
0
50
100
150
200
24
Incident Energy (MeV)
56-Ba-122

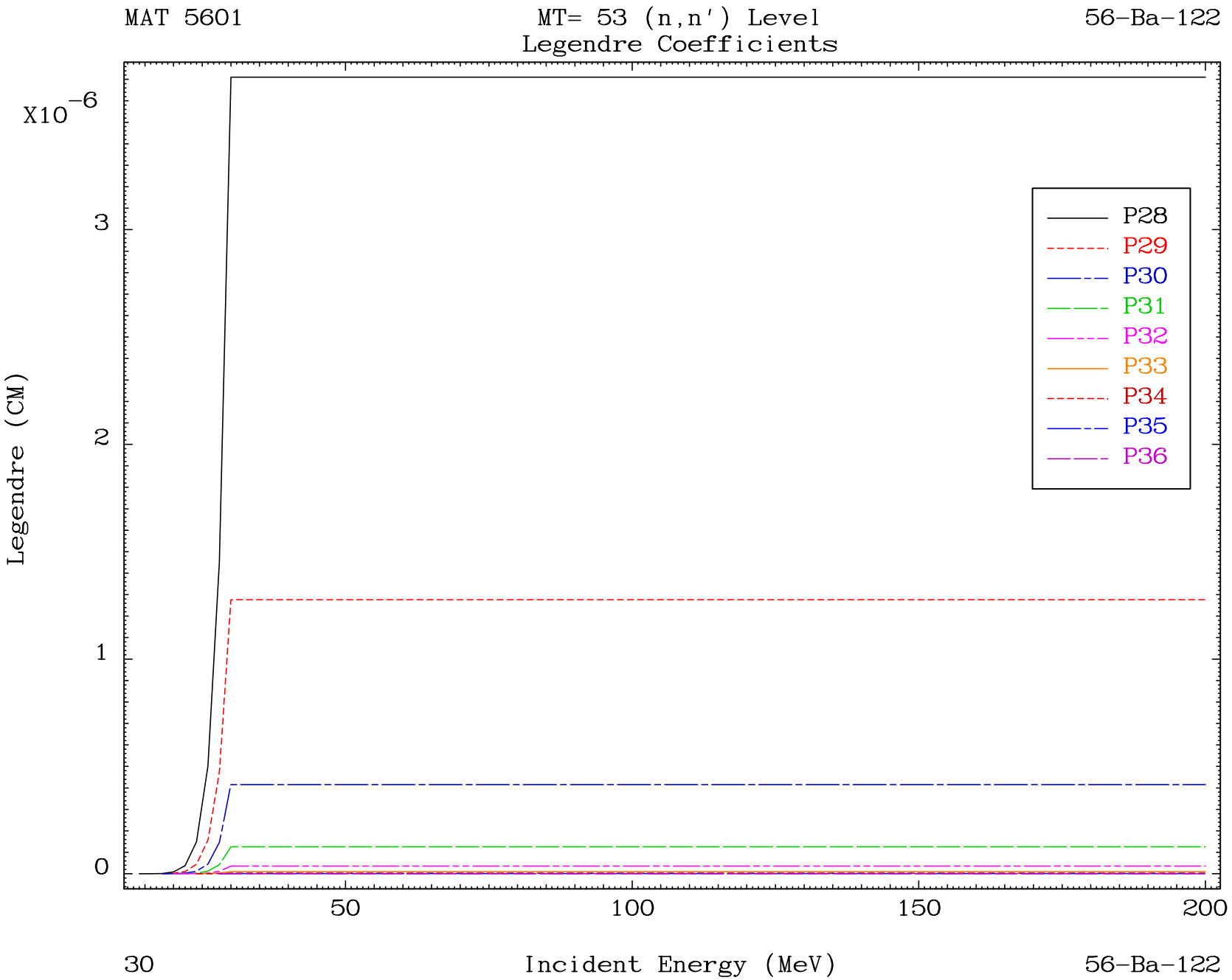

MAT 5601
MT= 52 (n,n') Level
Legendre Coefficients
56-Ba-122
X10 -3
2.0
1.5
1.0
0.5
0.0
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
25
50
100
150
200
Incident Energy (MeV)
56-Ba-122

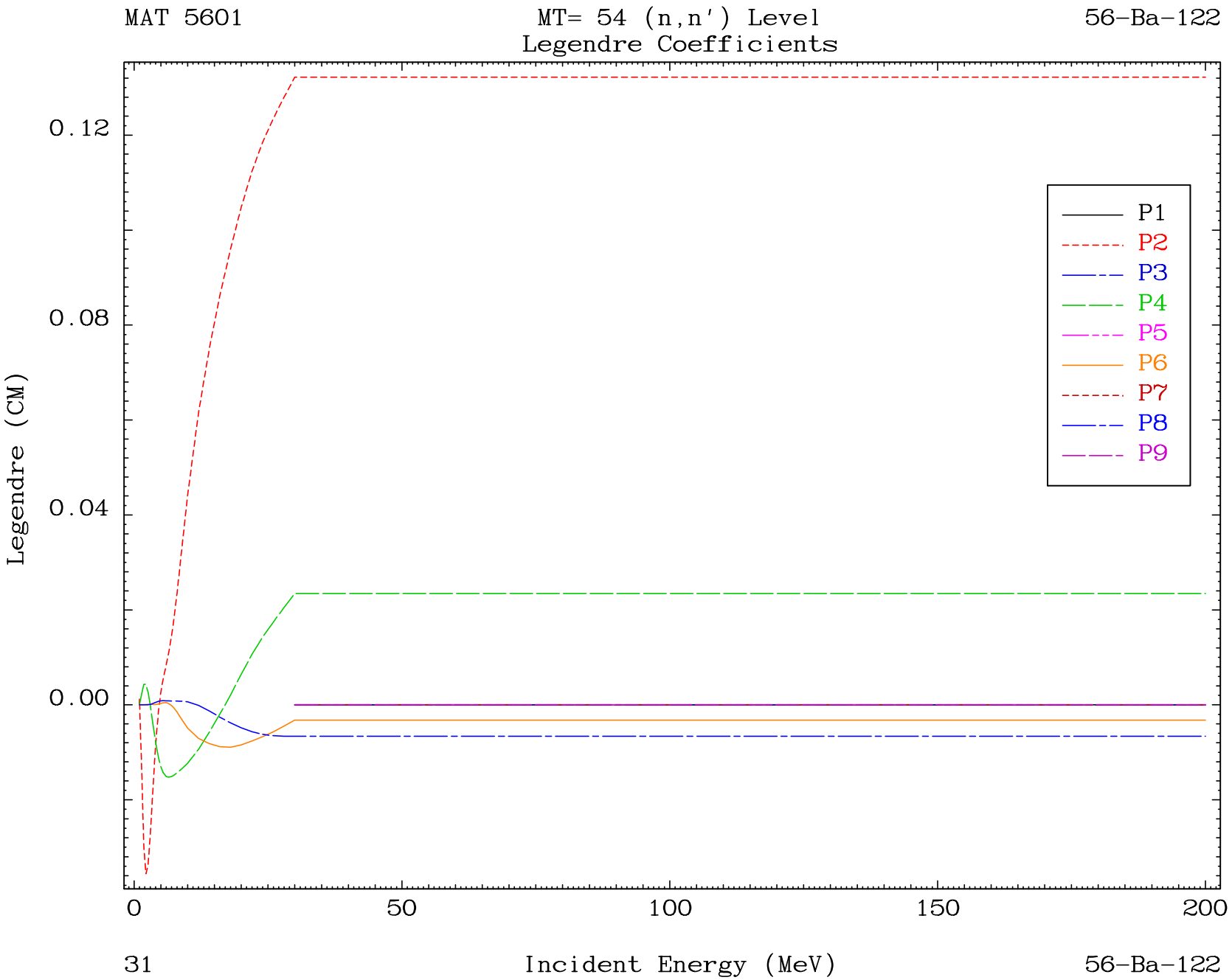

MAT 5601
MT= 52 (n,n') Level
Legendre Coefficients
56-Ba-122
X10^-6
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
26
Incident Energy (MeV)
56-Ba-122

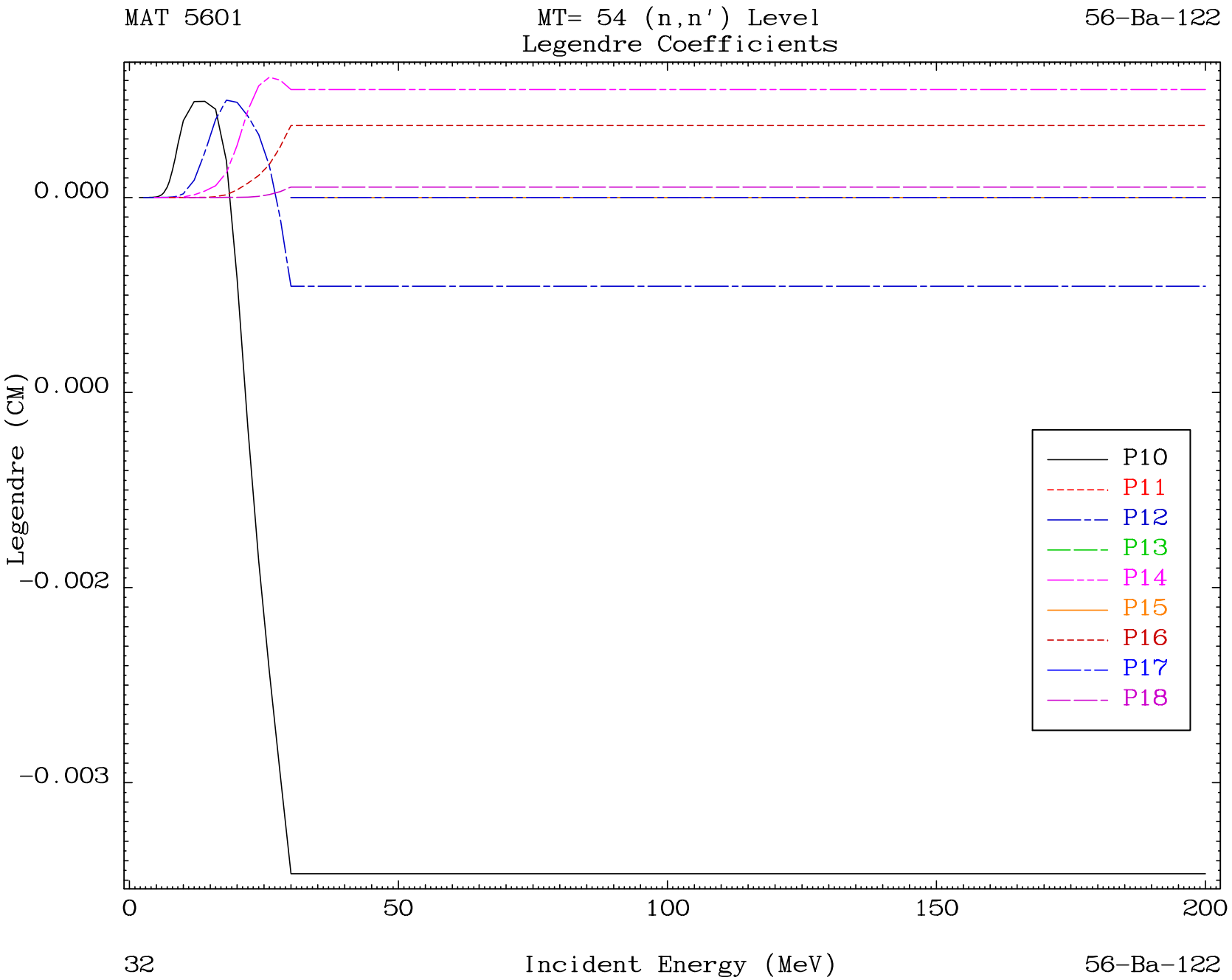

MAT 5601
MT= 53 (n,n') Level
Legendre Coefficients
56-Ba-122
0.5
0.4
0.3
0.2
0.1
0.0
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
27
Incident Energy (MeV)
56-Ba-122

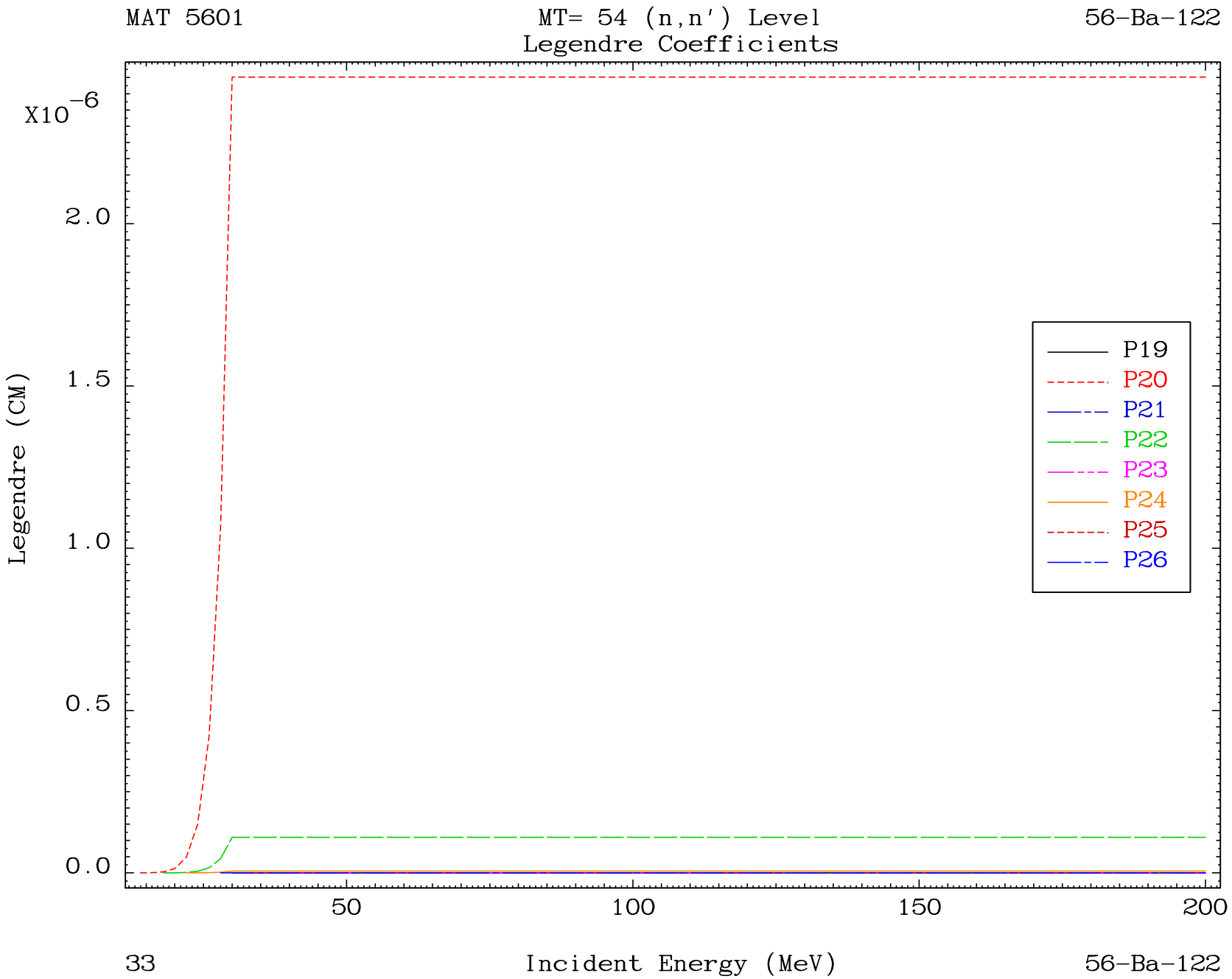

MAT 5601
MT= 53 (n,n') Level
Legendre Coefficients
56-Ba-122
0.06
0.04
0.02
0.00
-0.02
-0.04
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
28
Incident Energy (MeV)
56-Ba-122

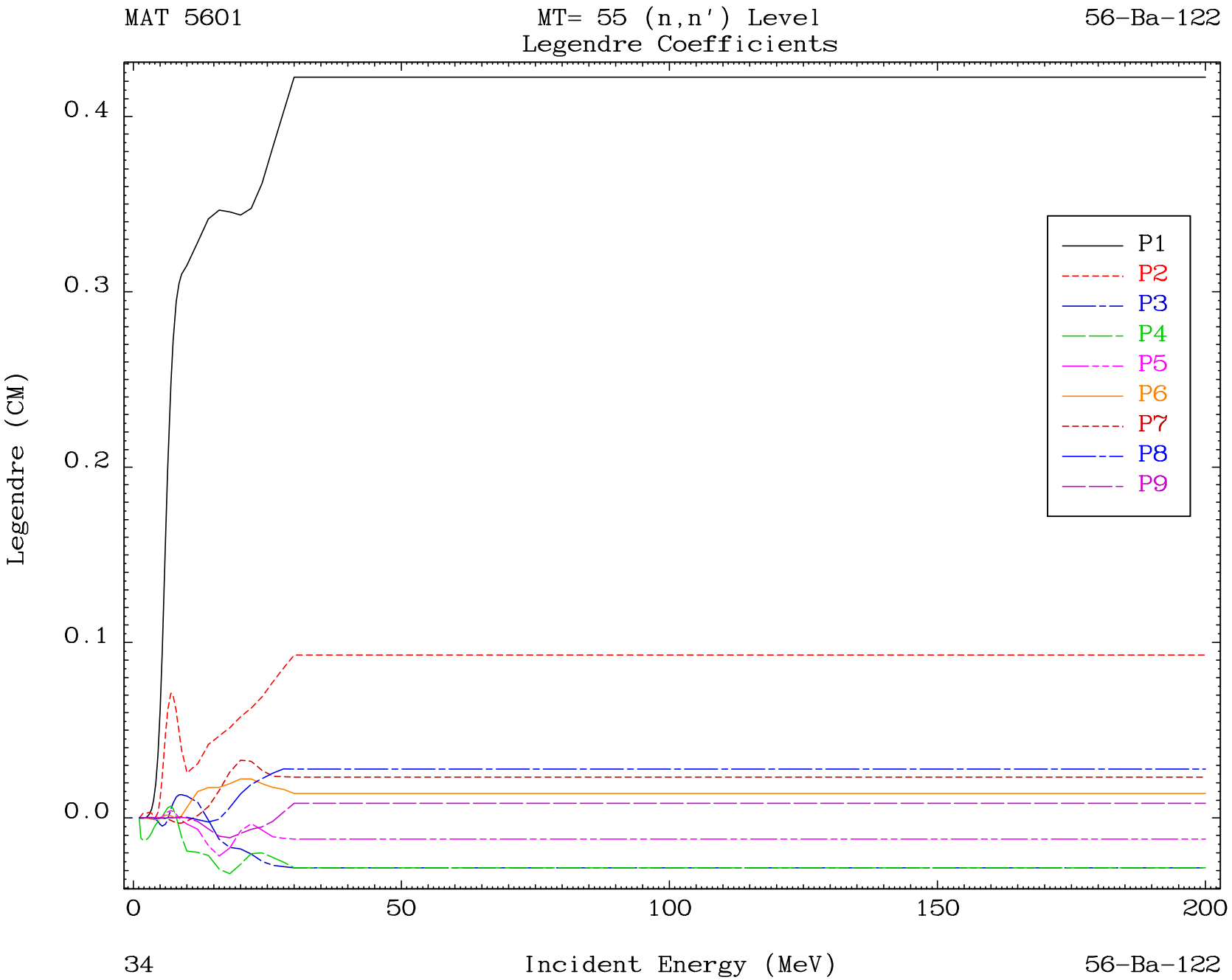

MAT 5601
MT= 53 (n,n') Level
Legendre Coefficients
56-Ba-122
0.008
0.006
0.004
0.002
0.000
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
P27
50
100
150
200
29
Incident Energy (MeV)
56-Ba-122

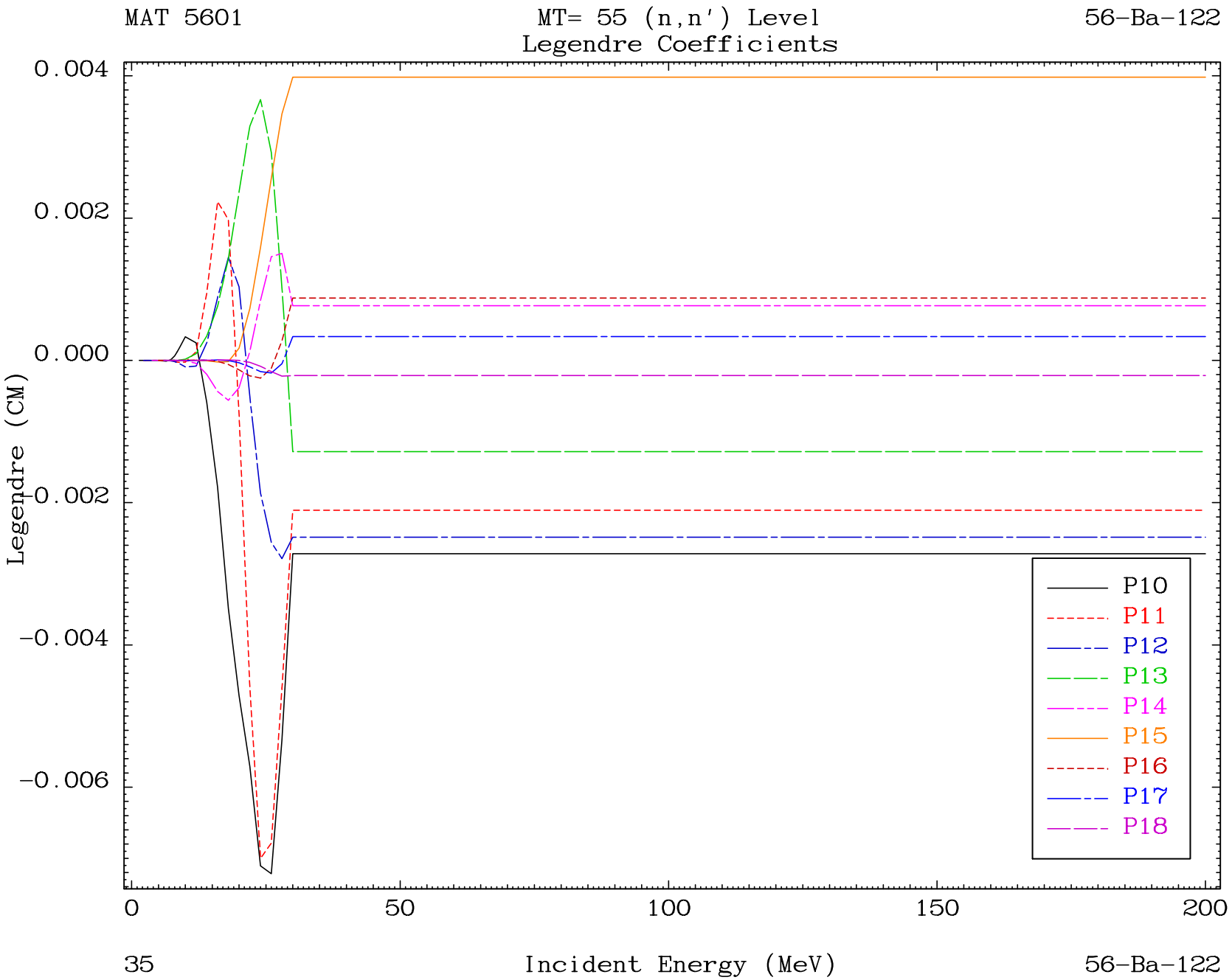

MAT 5601
MT= 53 (n,n') Level
Legendre Coefficients
56-Ba-122
X10^-6
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
30
Incident Energy (MeV)
56-Ba-122

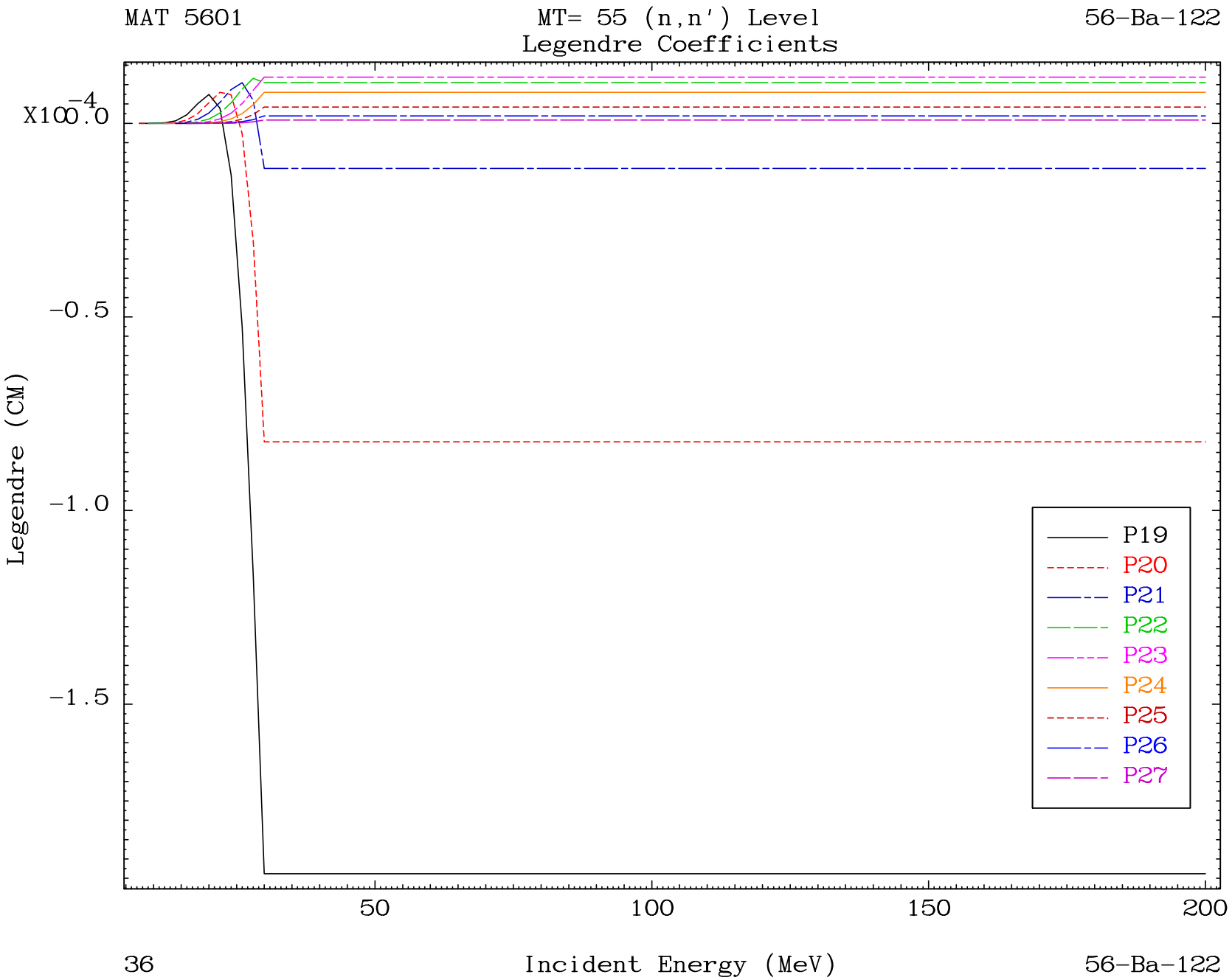

MAT 5601
MT= 54 (n,n') Level
Legendre Coefficients
56-Ba-122
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
31
Incident Energy (MeV)
56-Ba-122

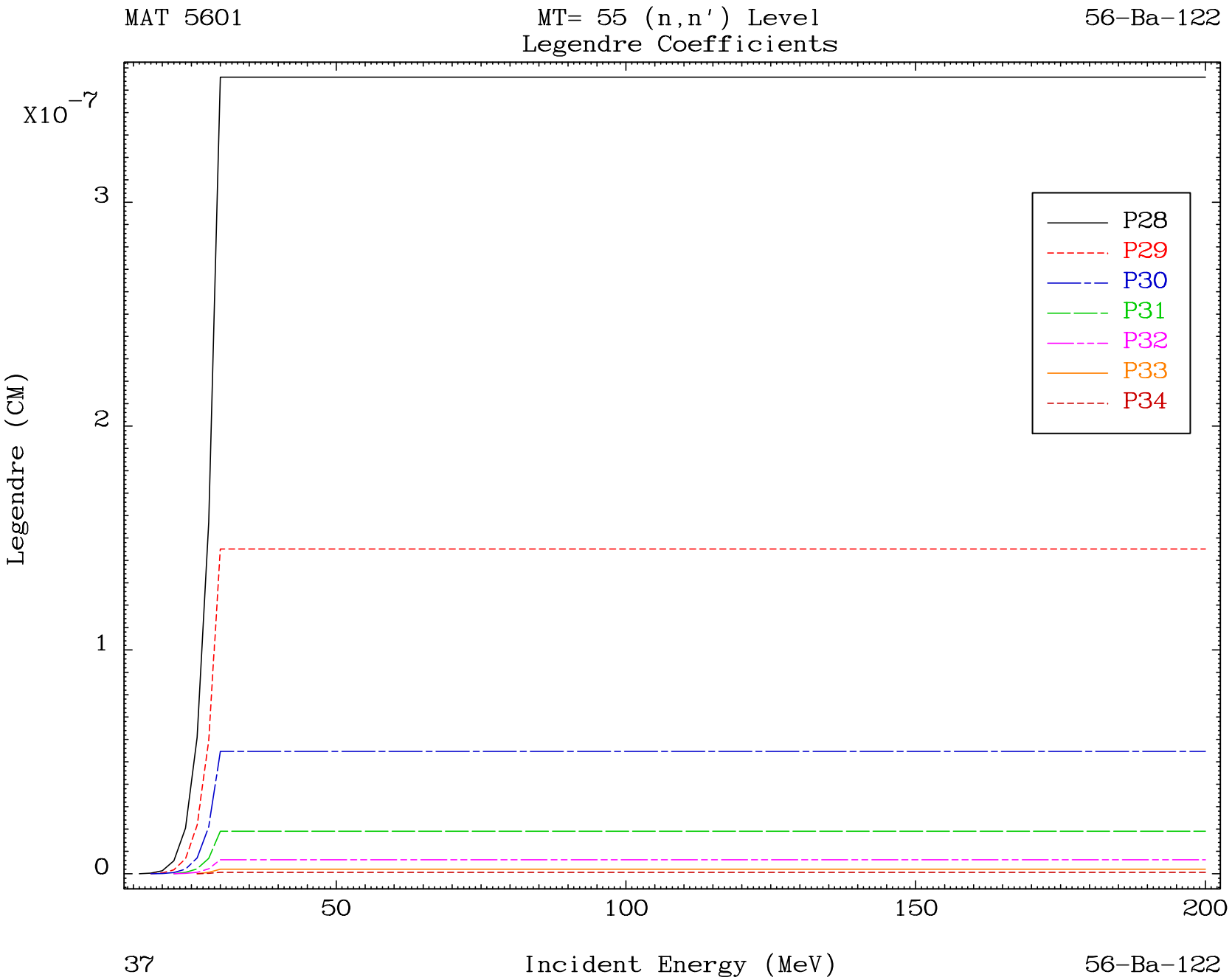

MAT 5601
MT= 54 (n,n') Level
Legendre Coefficients
56-Ba-122
0.000
0.000
-0.002
-0.003
Legendre (CM)
0
50
100
150
200
32
Incident Energy (MeV)
56-Ba-122
P10
P11
P12
P13
P14
P15
P16
P17
P18

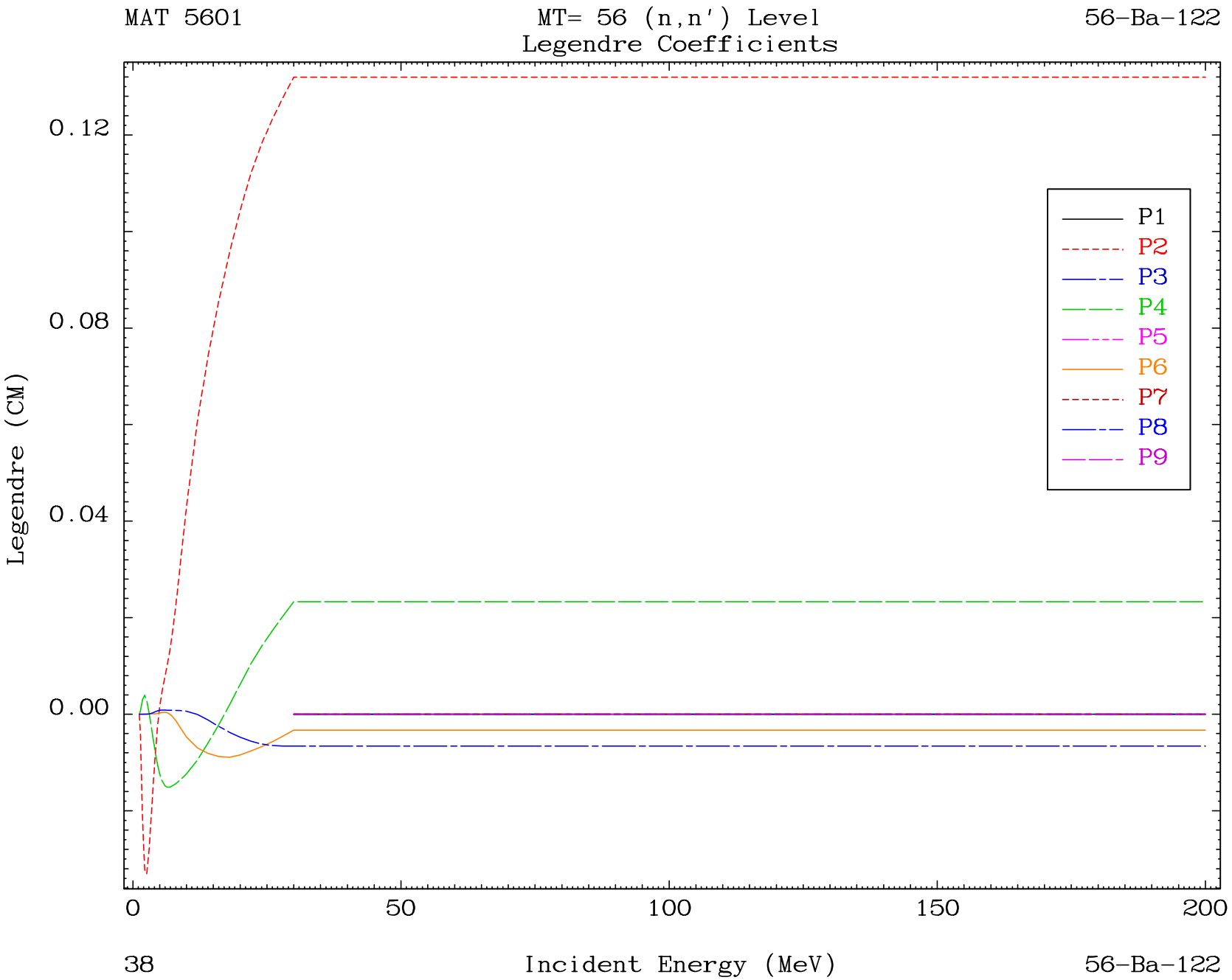

MAT 5601
MT= 54 (n,n') Level
Legendre Coefficients
56-Ba-122
X10^-6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
50
100
150
200
33
Incident Energy (MeV)
56-Ba-122

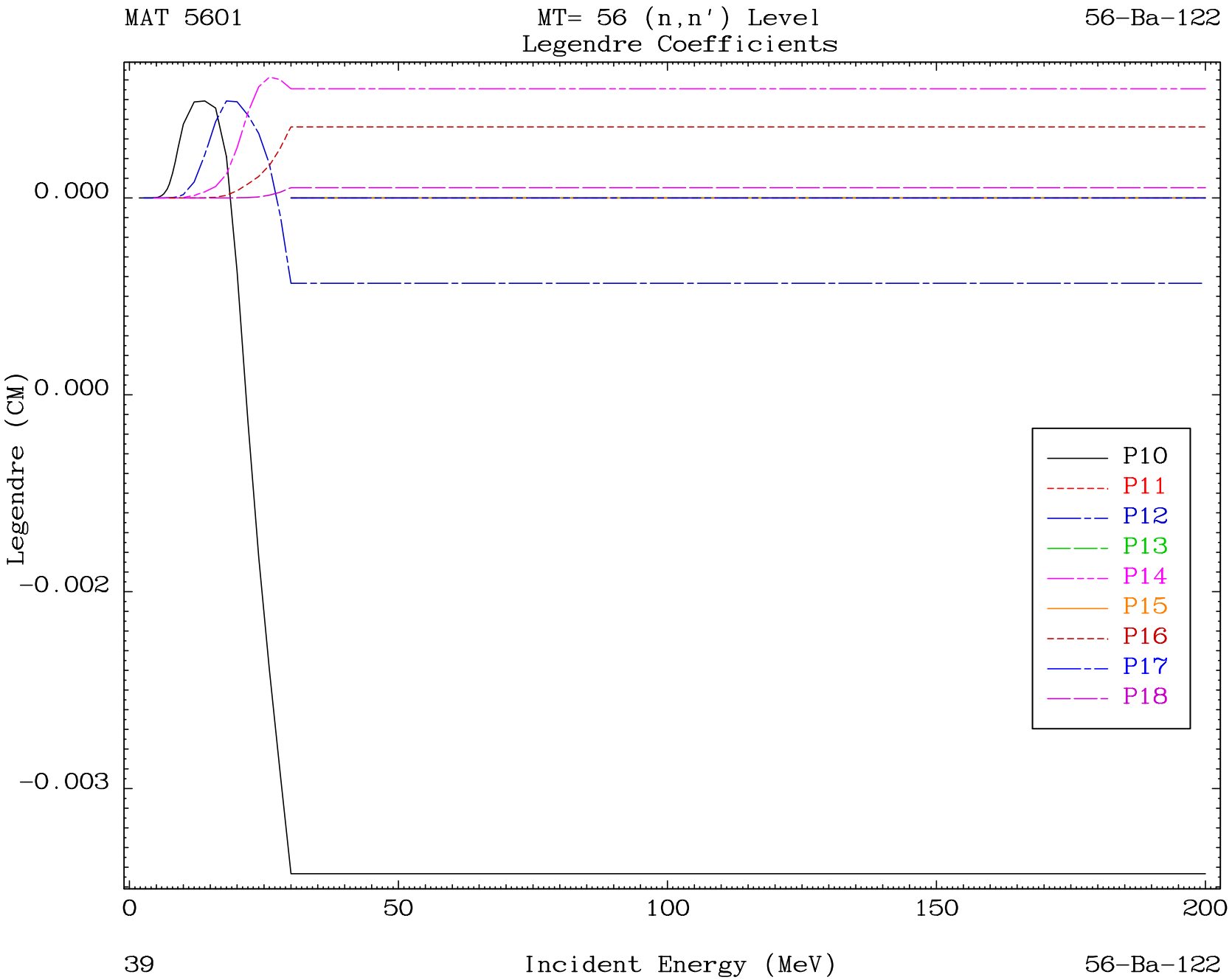

MAT 5601
MT= 55 (n,n') Level
Legendre Coefficients
56-Ba-122
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
34
Incident Energy (MeV)
56-Ba-122
P1
P2
P3
P4
P5
P6
P7
P8
P9

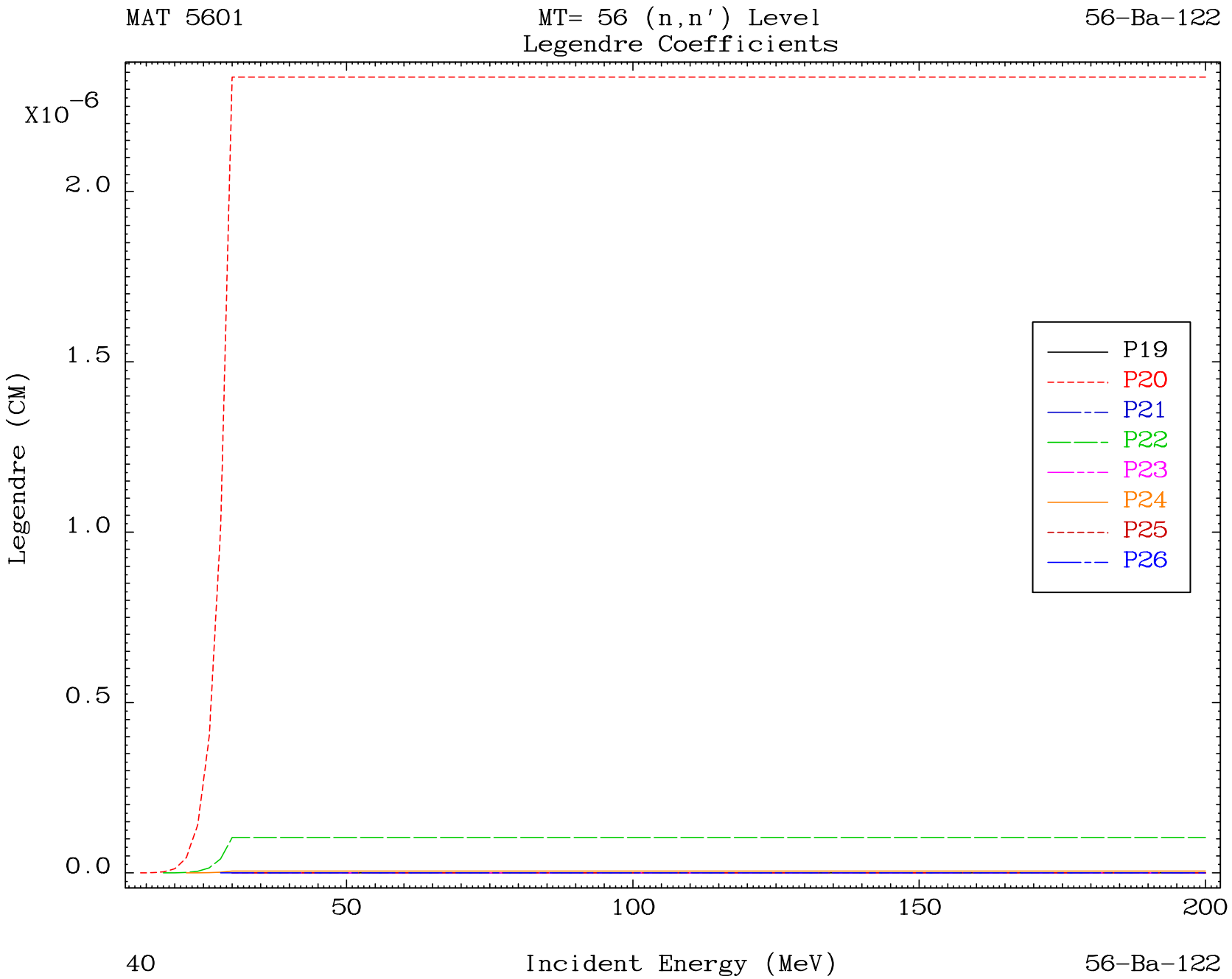

MAT 5601
MT= 55 (n,n') Level
Legendre Coefficients
56-Ba-122
0.004
0.002
0.000
-0.002
-0.004
-0.006
Legendre (CM)
0
50
100
150
200
35
Incident Energy (MeV)
56-Ba-122
P10
P11
P12
P13
P14
P15
P16
P17
P18

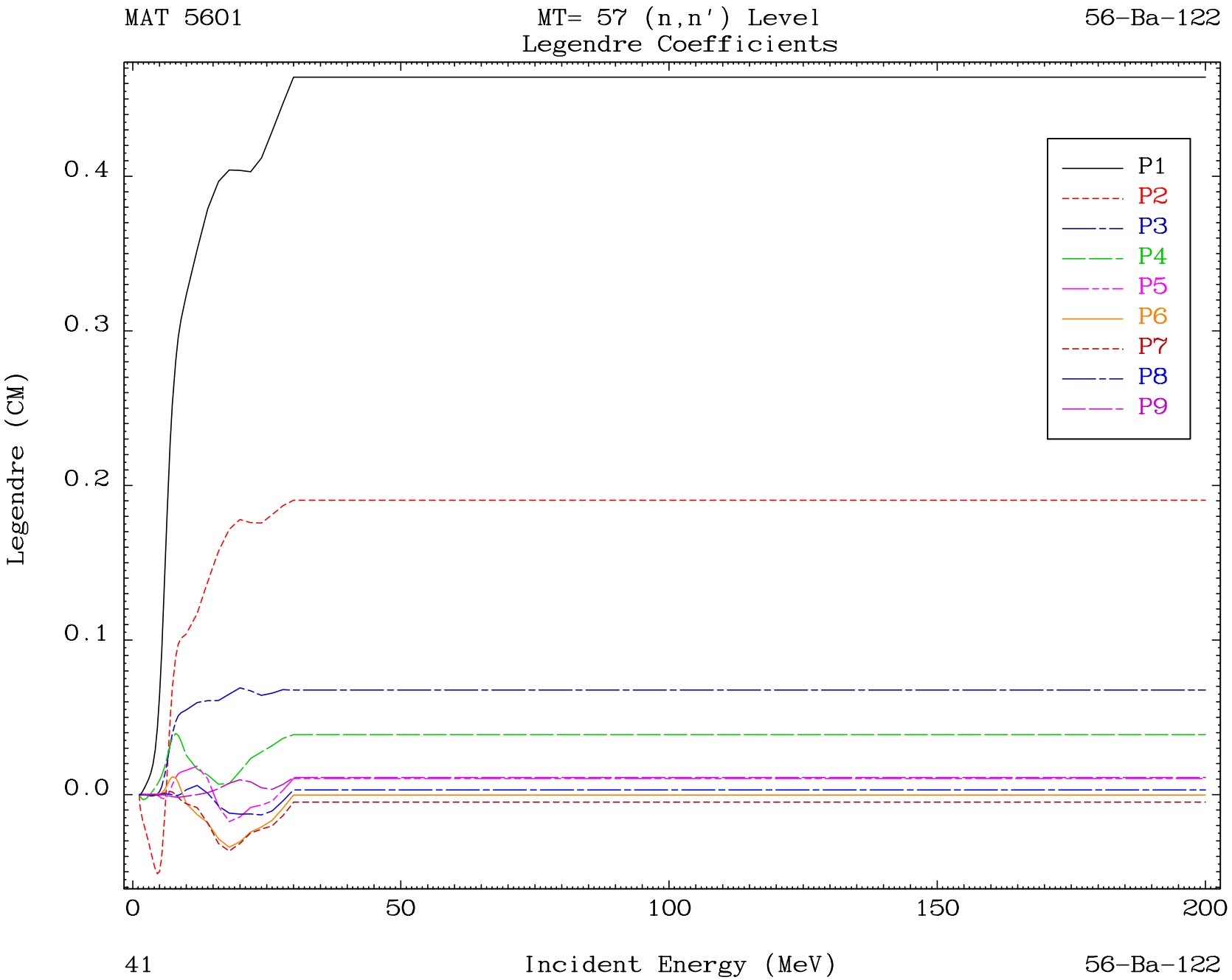

MAT 5601
MT= 55 (n,n') Level
Legendre Coefficients
56-Ba-122
X10^-4
0.0
-0.5
-1.0
-1.5
Legendre (CM)
50
100
150
200
36
Incident Energy (MeV)
56-Ba-122
P19
P20
P21
P22
P23
P24
P25
P26
P27

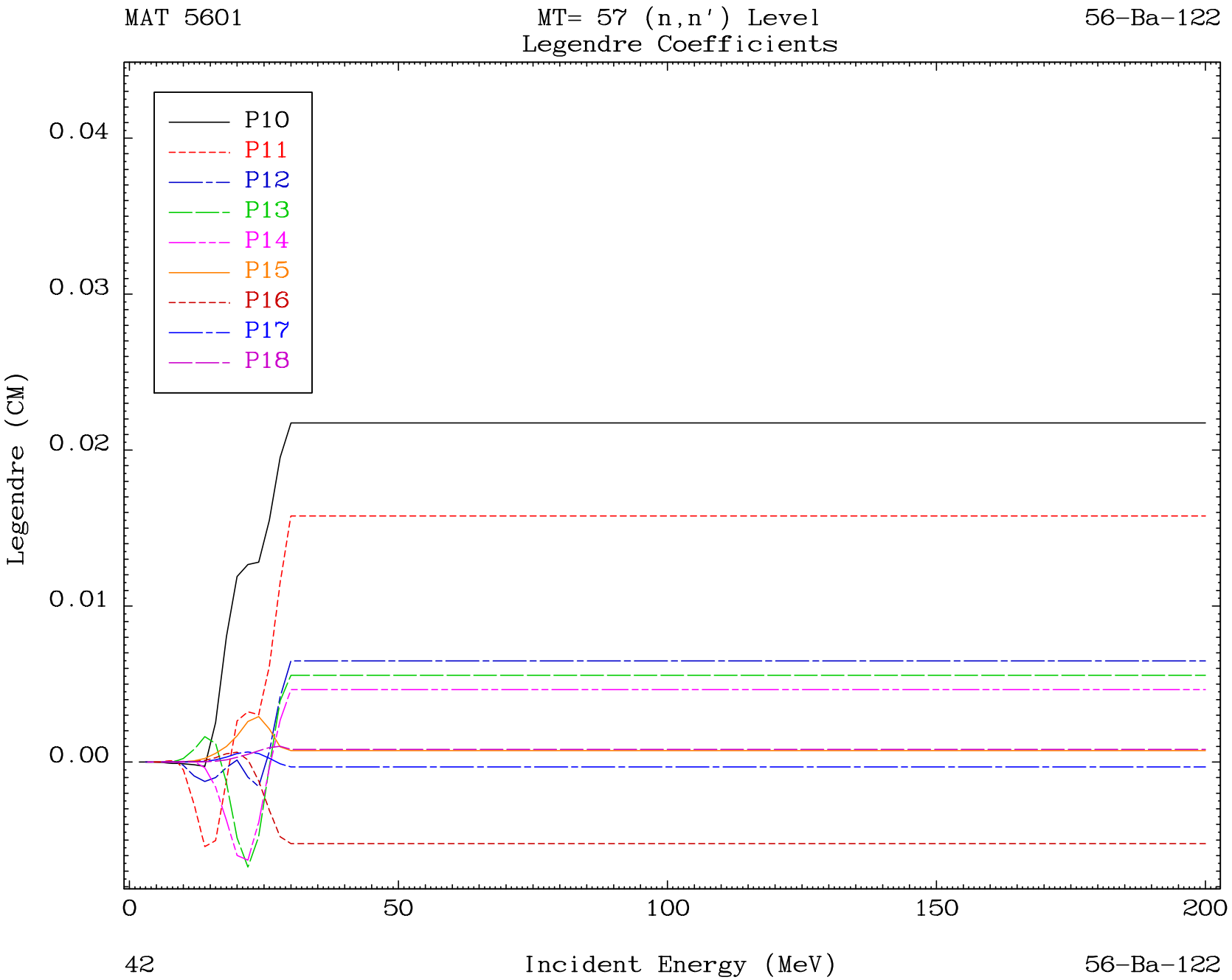

MAT 5601
MT= 55 (n,n') Level
Legendre Coefficients
56-Ba-122
X10-7
3
2
1
0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
50
100
150
200
37
Incident Energy (MeV)
56-Ba-122

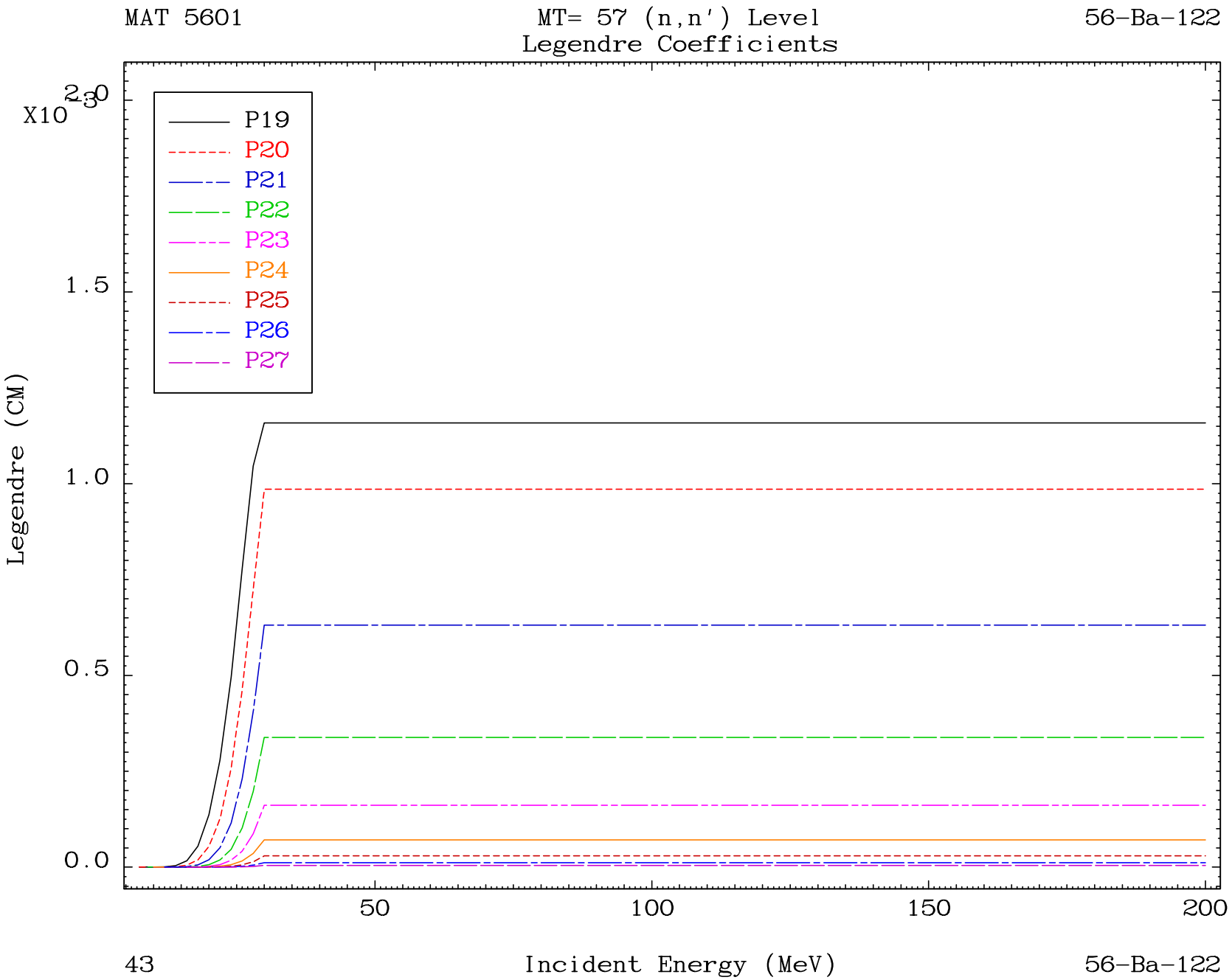

MAT 5601
MT= 56 (n,n') Level
Legendre Coefficients
56-Ba-122
0.12
0.08
0.04
0.00
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
38
Incident Energy (MeV)
56-Ba-122

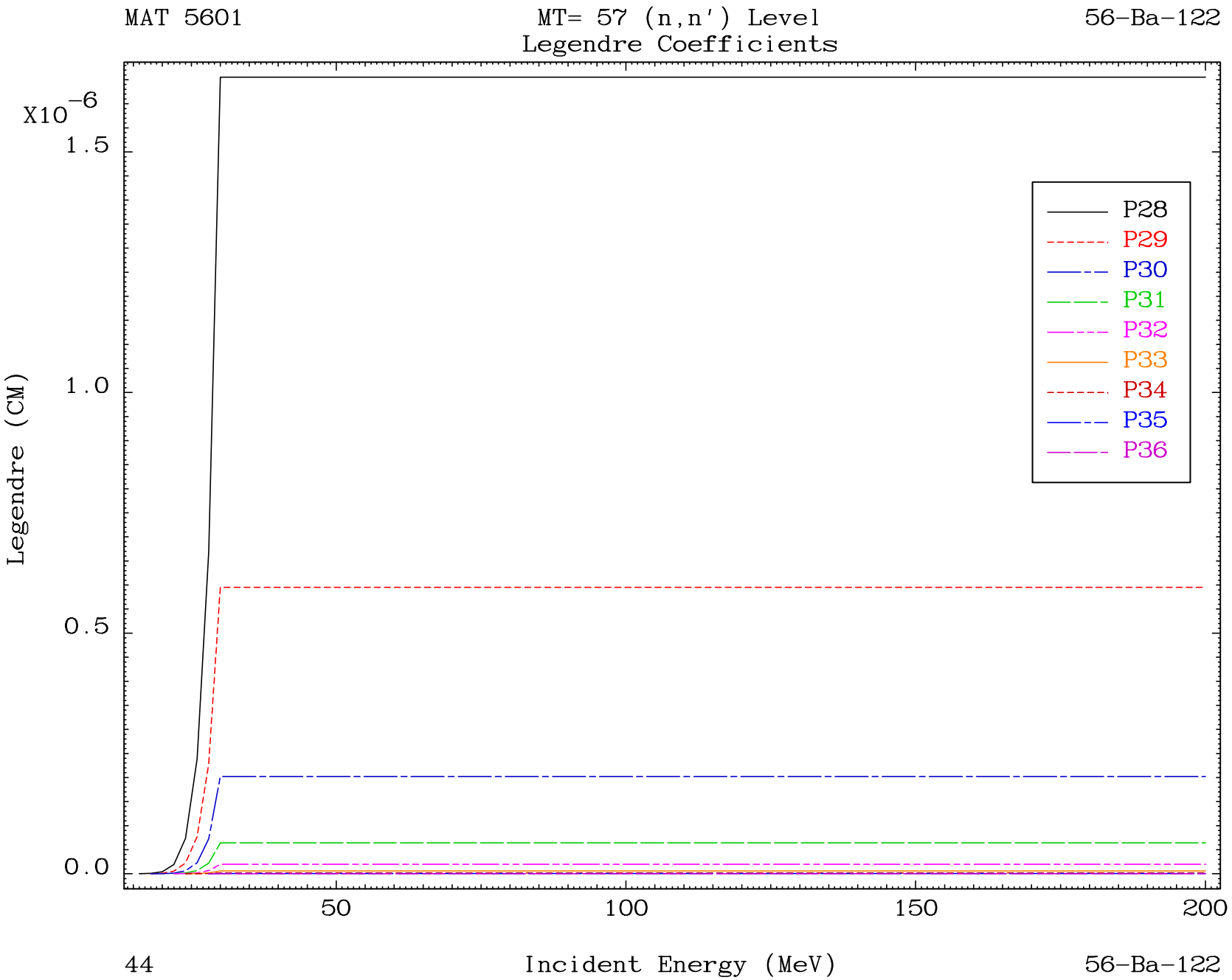

MAT 5601
MT= 56 (n,n') Level
Legendre Coefficients
56-Ba-122
0.000
0.000
−0.002
−0.003
Legendre (CM)
P10
P11
P12
P13
P14
P15
P16
P17
P18
0
50
100
150
200
39
Incident Energy (MeV)
56-Ba-122

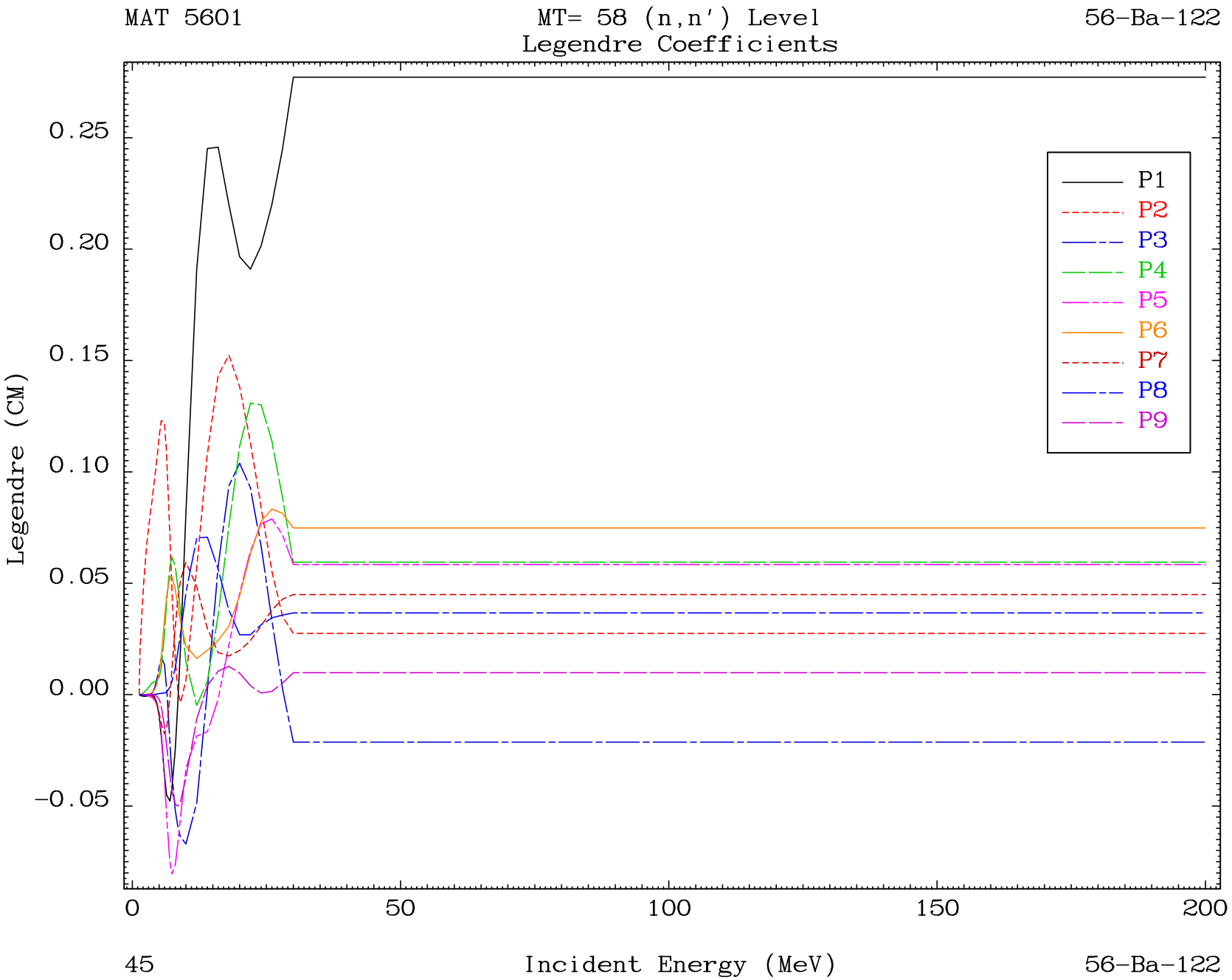

MAT 5601
MT= 56 (n,n') Level
Legendre Coefficients
56-Ba-122
X10^-6
2.0
1.5
1.0
0.5
0.0
Legendre (CM)
P19
P20
P21
P22
P23
P24
P25
P26
40
50
100
150
200
Incident Energy (MeV)
56-Ba-122

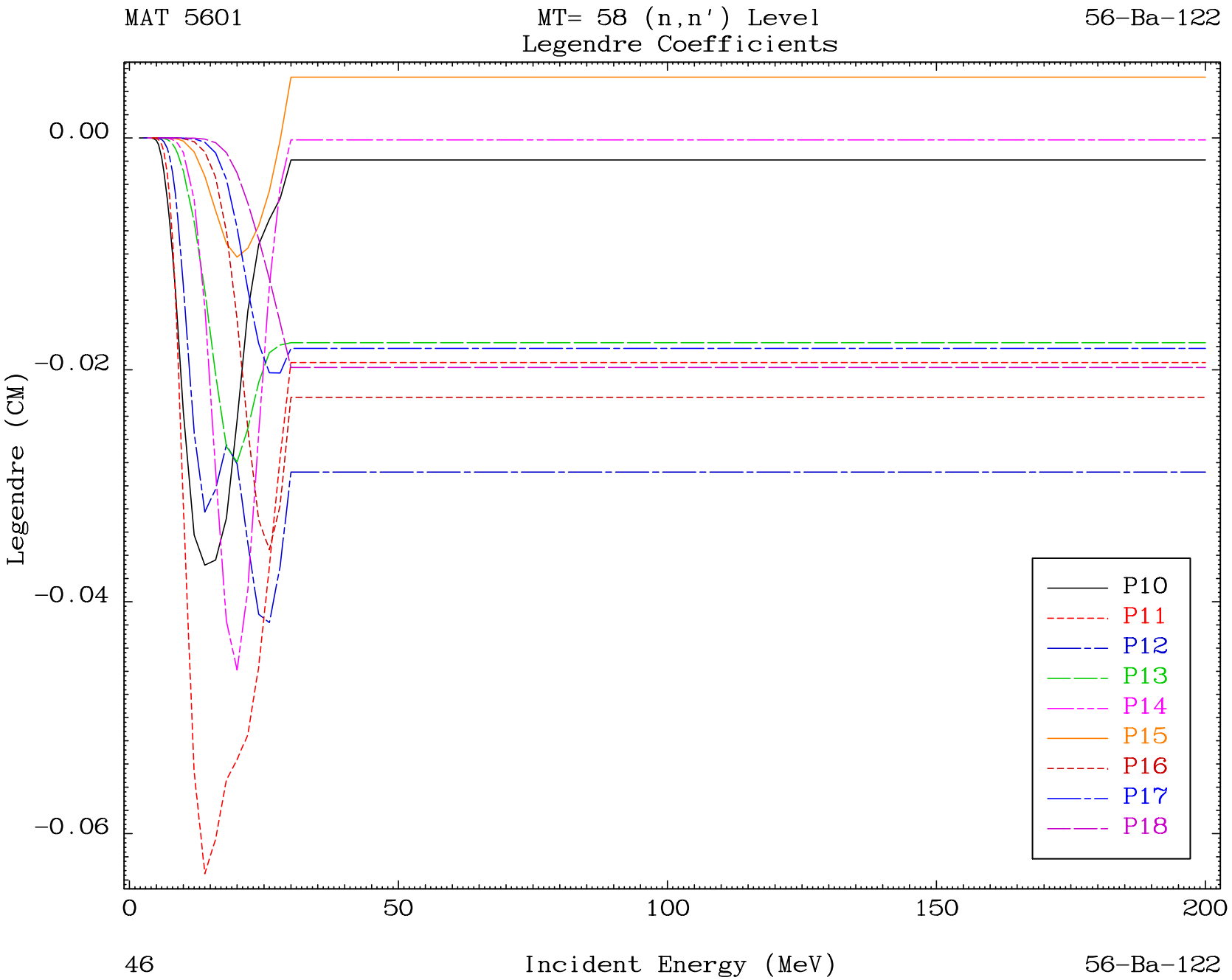

MAT 5601
MT= 57 (n,n') Level
Legendre Coefficients
56-Ba-122
Legendre (CM)
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
Incident Energy (MeV)
41
56-Ba-122
P1
P2
P3
P4
P5
P6
P7
P8
P9

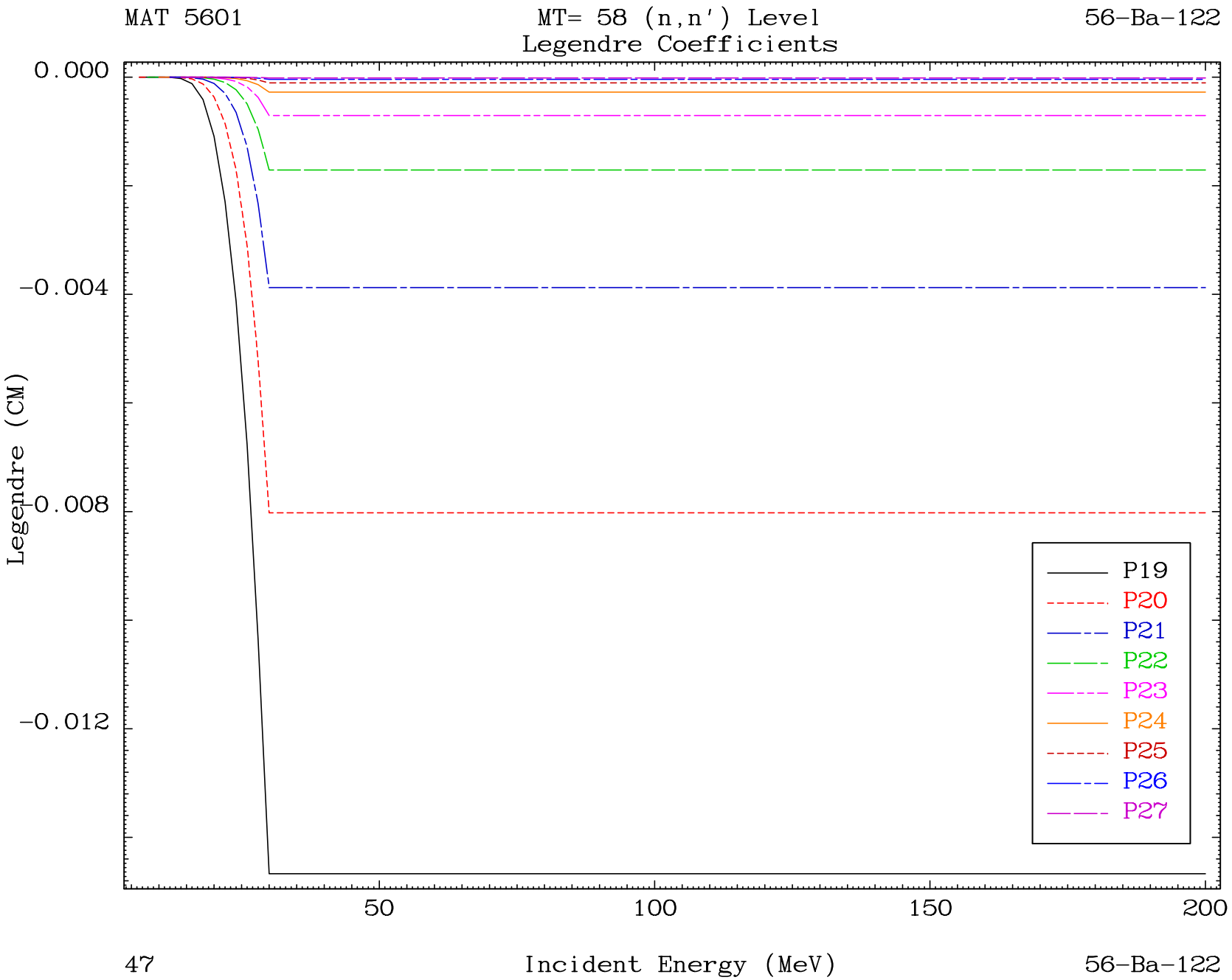

MAT 5601
MT= 57 (n,n') Level
Legendre Coefficients
56-Ba-122
P10
P11
P12
P13
P14
P15
P16
P17
P18
0.04
0.03
0.02
0.01
0.00
Legendre (CM)
0
50
100
150
200
42
Incident Energy (MeV)
56-Ba-122

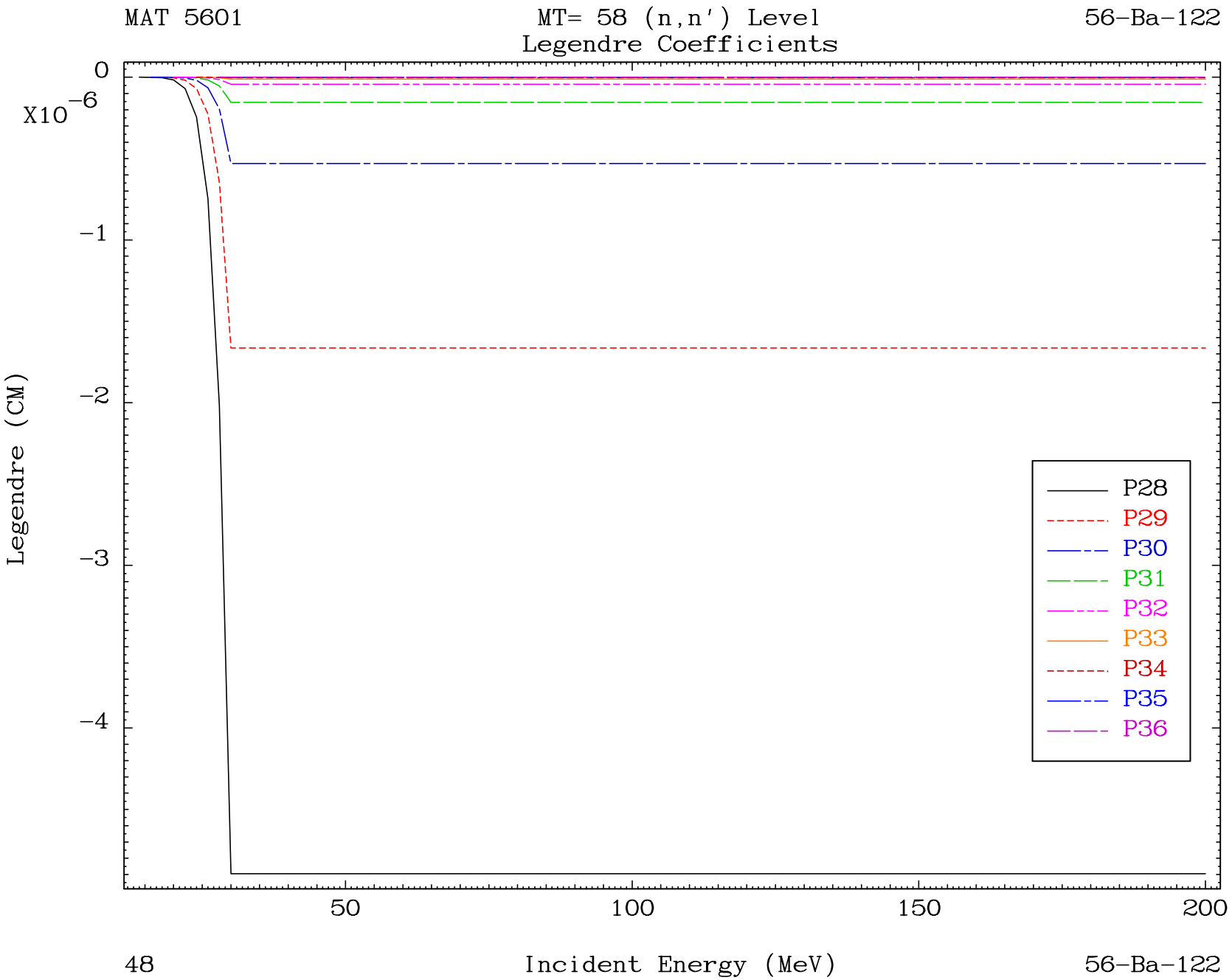

MAT 5601
MT= 57 (n,n') Level
Legendre Coefficients
56-Ba-122
X10 -3
2.0
1.5
1.0
0.5
0.0
P19
P20
P21
P22
P23
P24
P25
P26
P27
Legendre (CM)
50
100
150
200
43
Incident Energy (MeV)
56-Ba-122

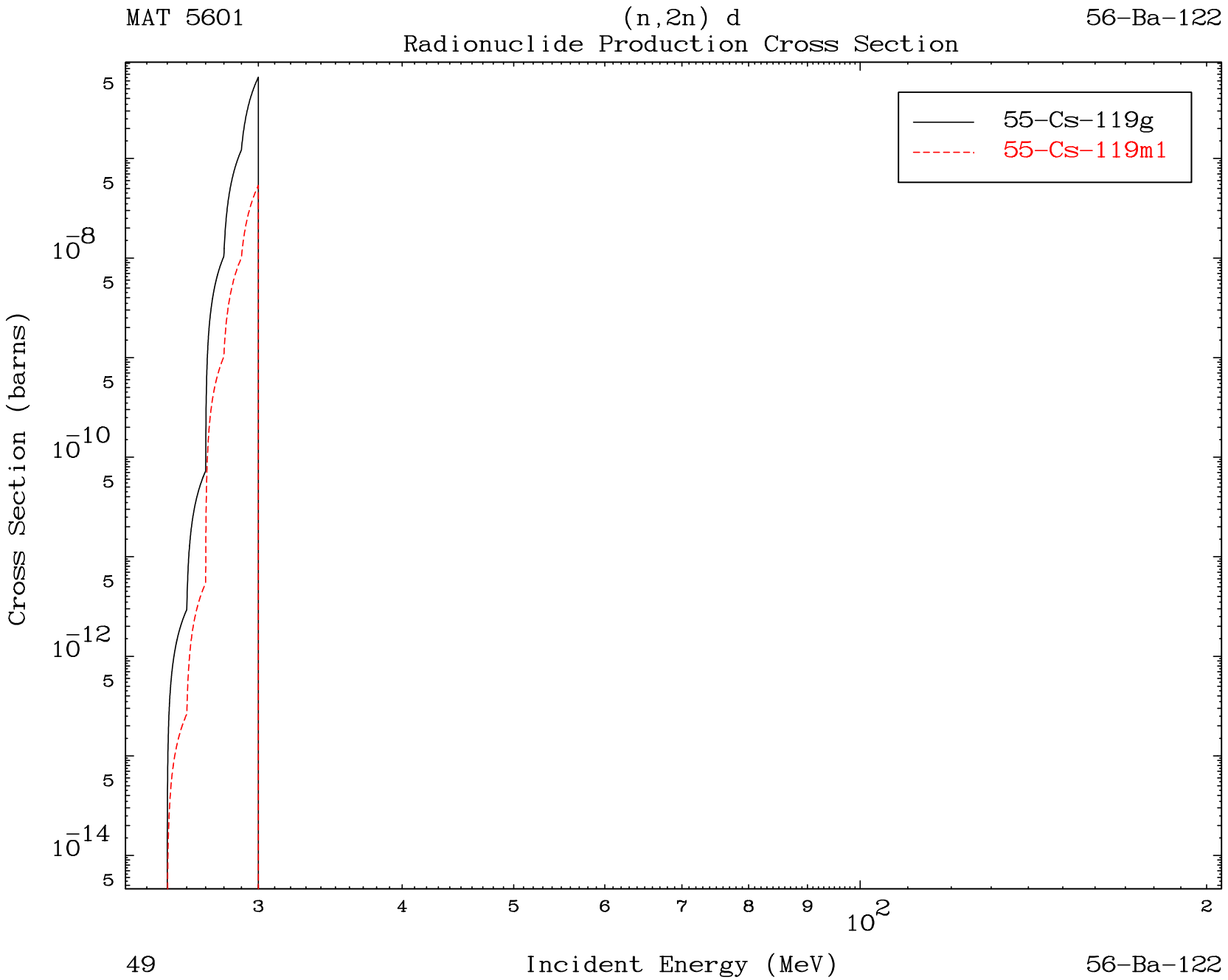

MAT 5601
MT= 57 (n,n') Level
Legendre Coefficients
56-Ba-122
X10^-6
1.5
1.0
0.5
0.0
Legendre (CM)
P28
P29
P30
P31
P32
P33
P34
P35
P36
50
100
150
200
44
Incident Energy (MeV)
56-Ba-122

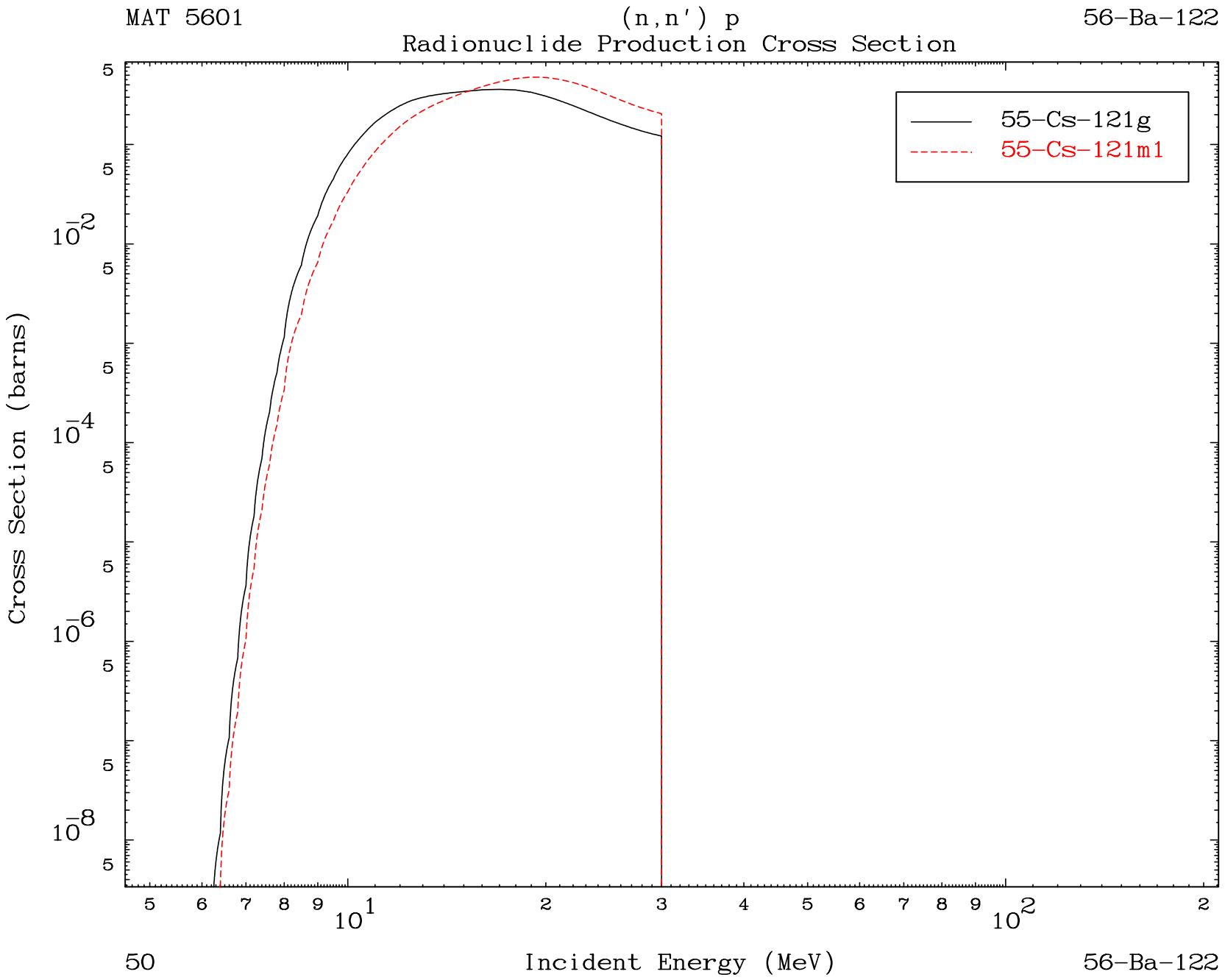

MAT 5601
MT= 58 (n,n') Level
Legendre Coefficients
56-Ba-122
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
Legendre (CM)
P1
P2
P3
P4
P5
P6
P7
P8
P9
0
50
100
150
200
45
Incident Energy (MeV)
56-Ba-122

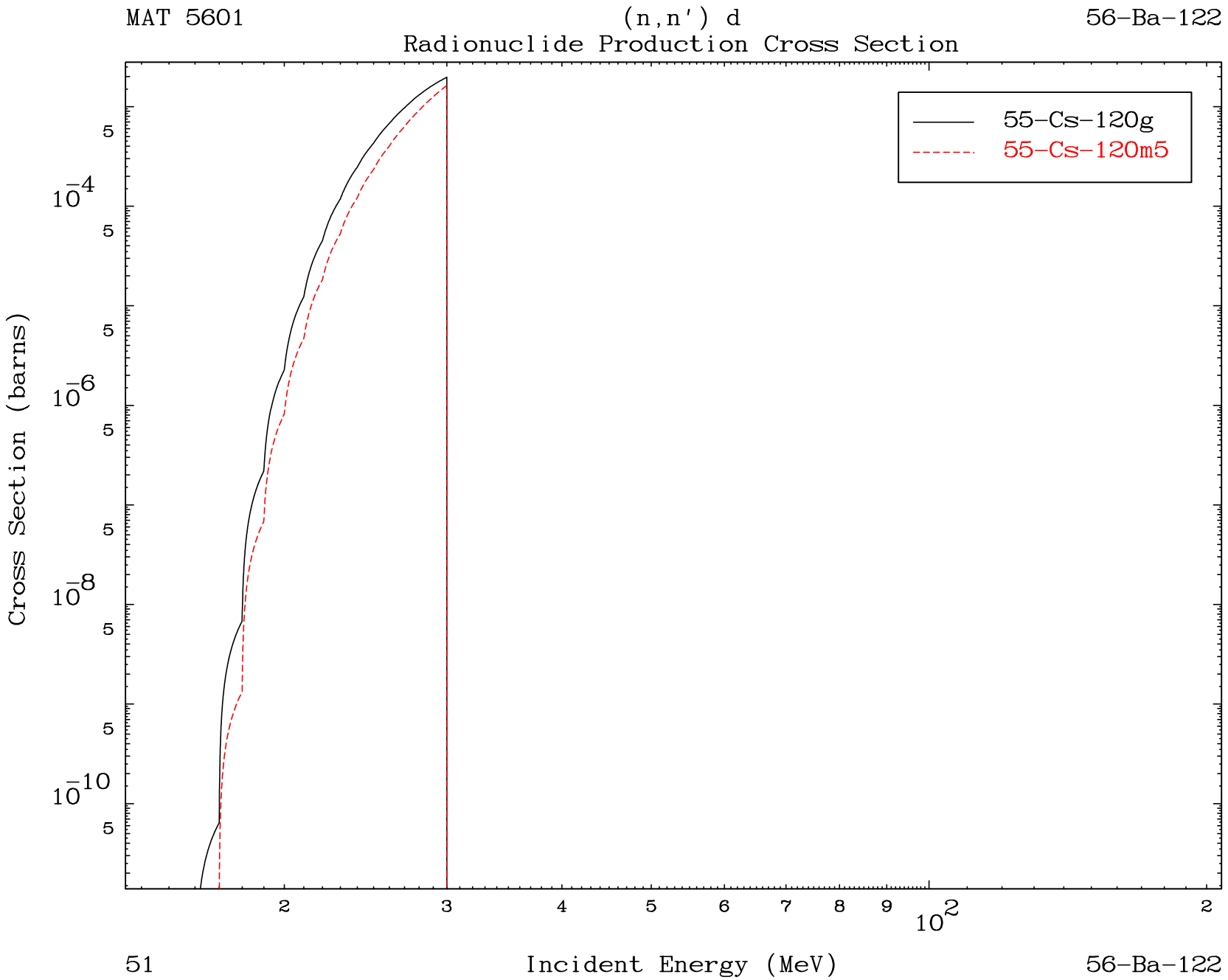

MAT 5601
MT= 58 (n,n') Level
Legendre Coefficients
56-Ba-122
0.00
-0.02
-0.04
-0.06
Legendre (CM)
0
50
100
150
200
46
Incident Energy (MeV)
56-Ba-122
P10
P11
P12
P13
P14
P15
P16
P17
P18

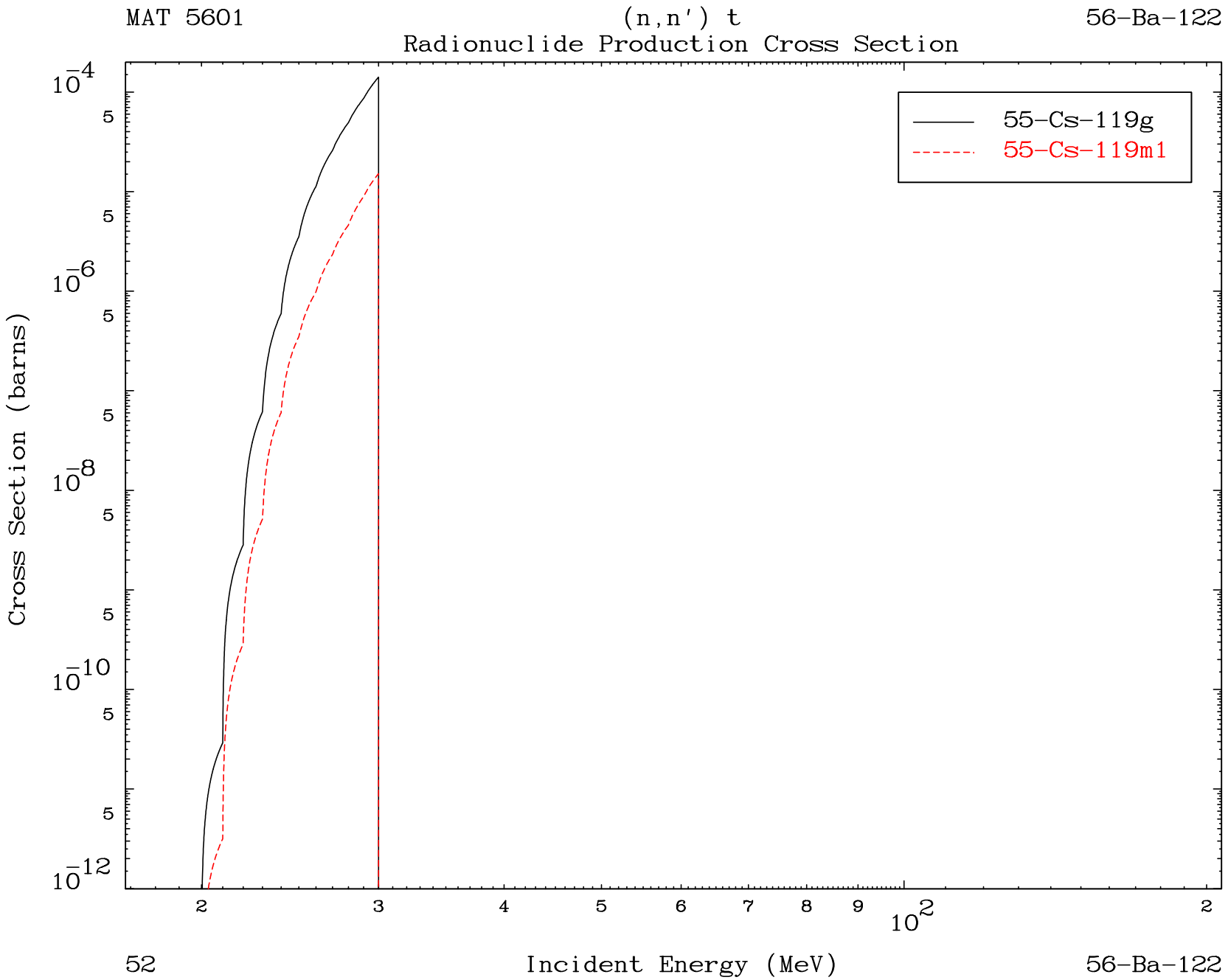

MAT 5601
MT= 58 (n,n') Level
Legendre Coefficients
56-Ba-122
0.000
-0.004
-0.008
-0.012
Legendre (CM)
50
100
150
200
47
Incident Energy (MeV)
56-Ba-122
P19
P20
P21
P22
P23
P24
P25
P26
P27

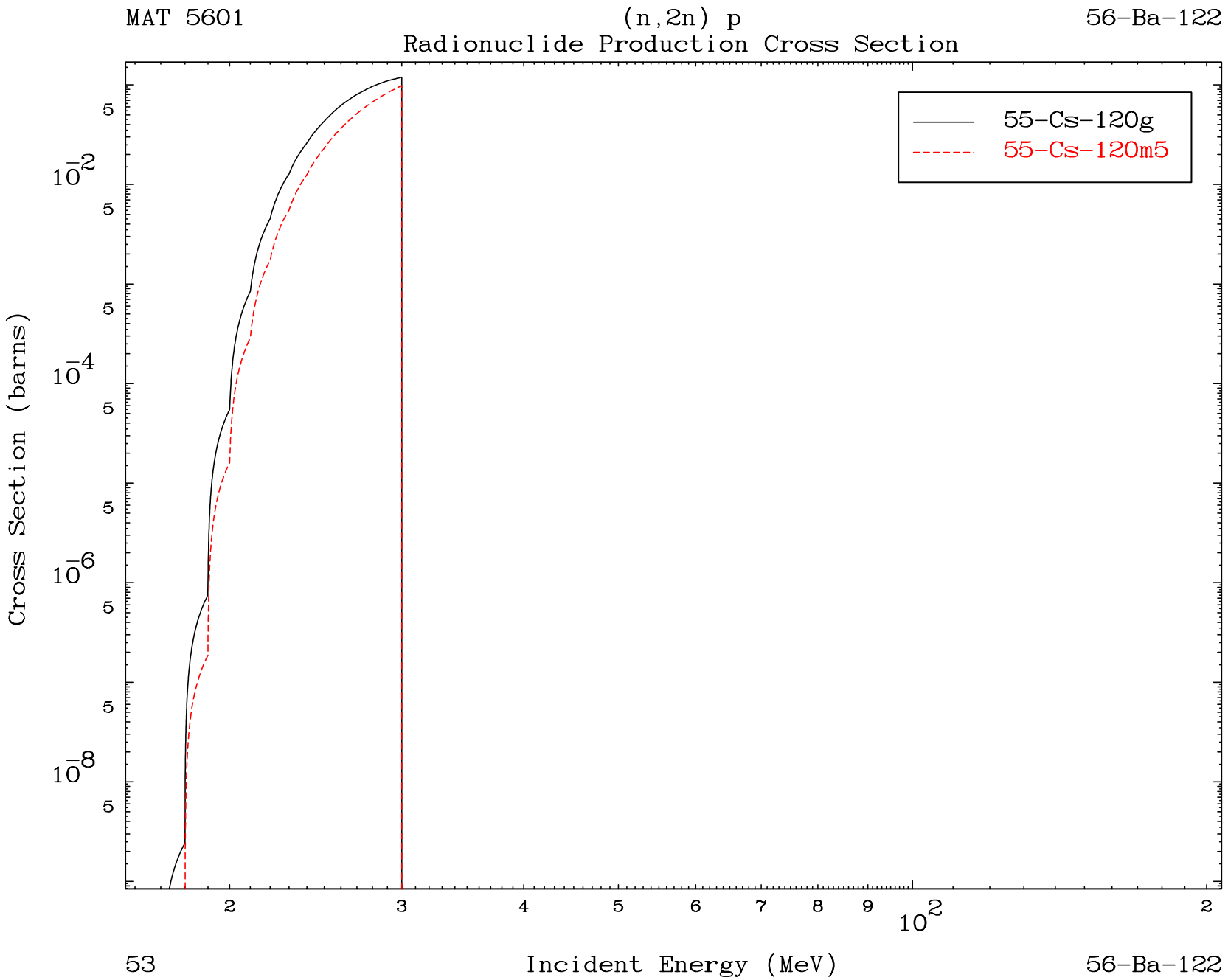

MAT 5601
MT= 58 (n,n') Level
Legendre Coefficients
56-Ba-122
0
X10−6
−1
−2
−3
−4
Legendre (CM)
50
100
150
200
48
Incident Energy (MeV)
56-Ba-122
P28
P29
P30
P31
P32
P33
P34
P35
P36

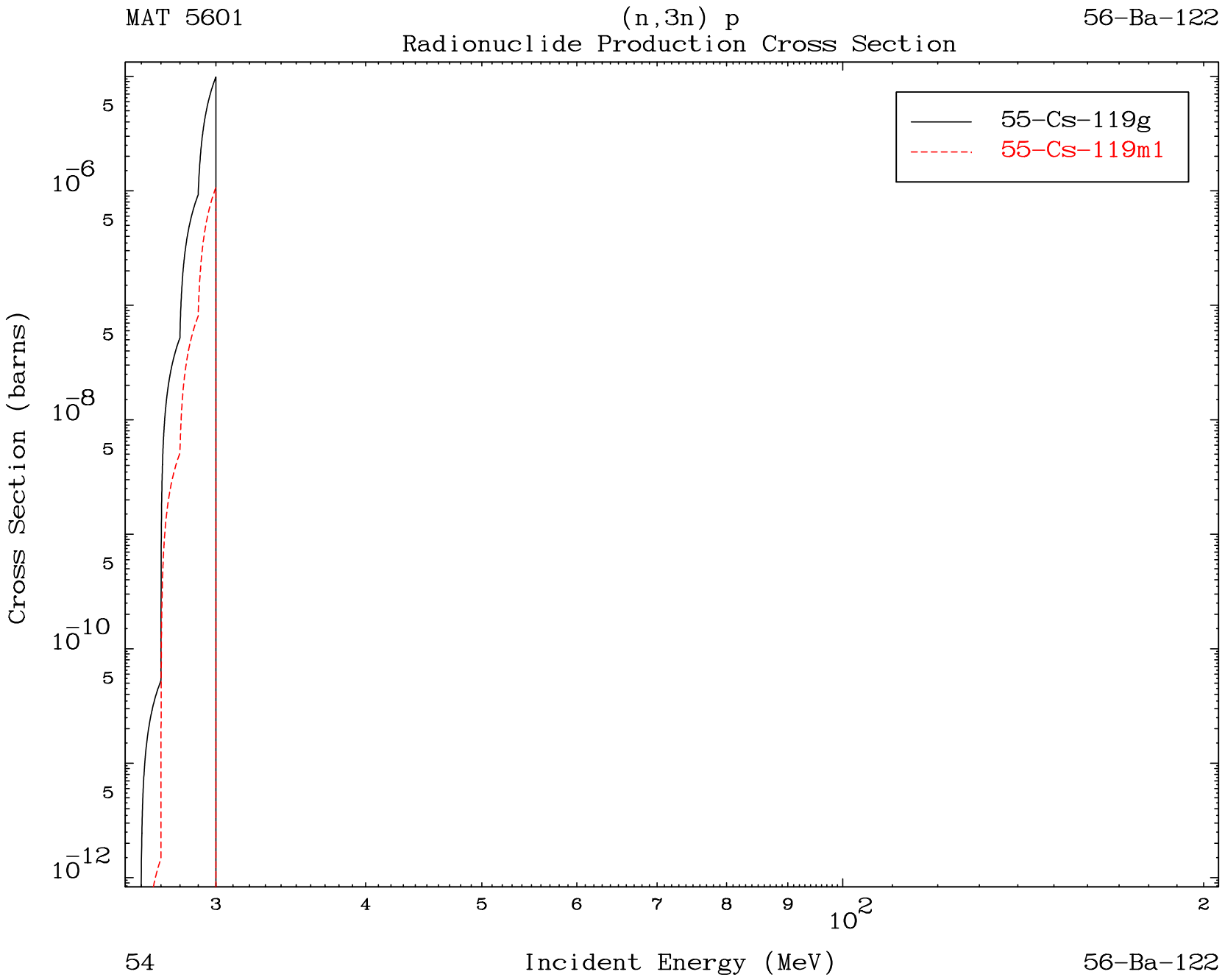

MAT 5601
(n,2n) d
56-Ba-122
Radionuclide Production Cross Section
55-Cs-119g
55-Cs-119m1
Cross Section (barns)
Incident Energy (MeV)
49
56-Ba-122

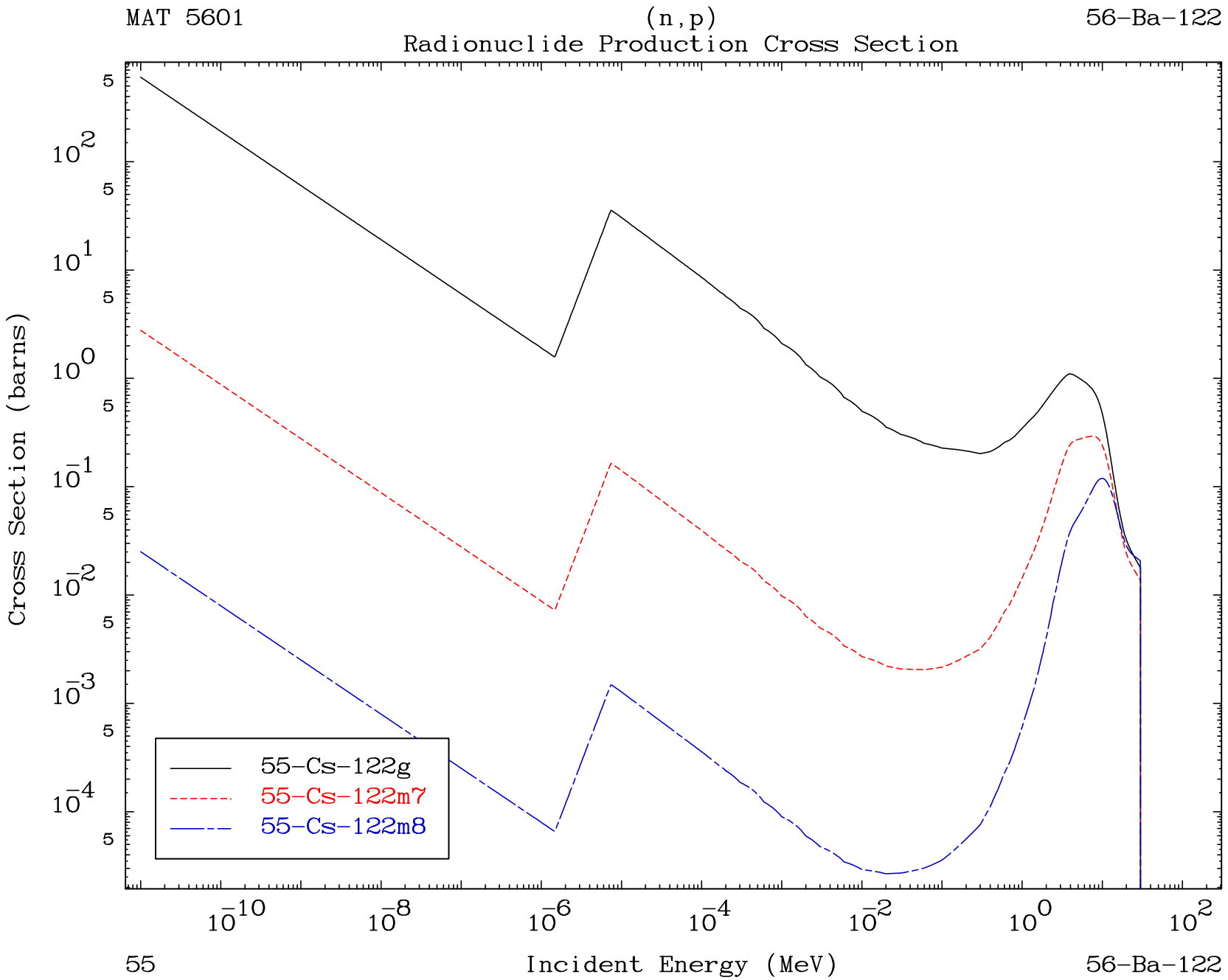

MAT 5601
(n,n') p
56-Ba-122
Radionuclide Production Cross Section
55-Cs-121g
55-Cs-121m1
Cross Section (barns)
Incident Energy (MeV)
50
56-Ba-122

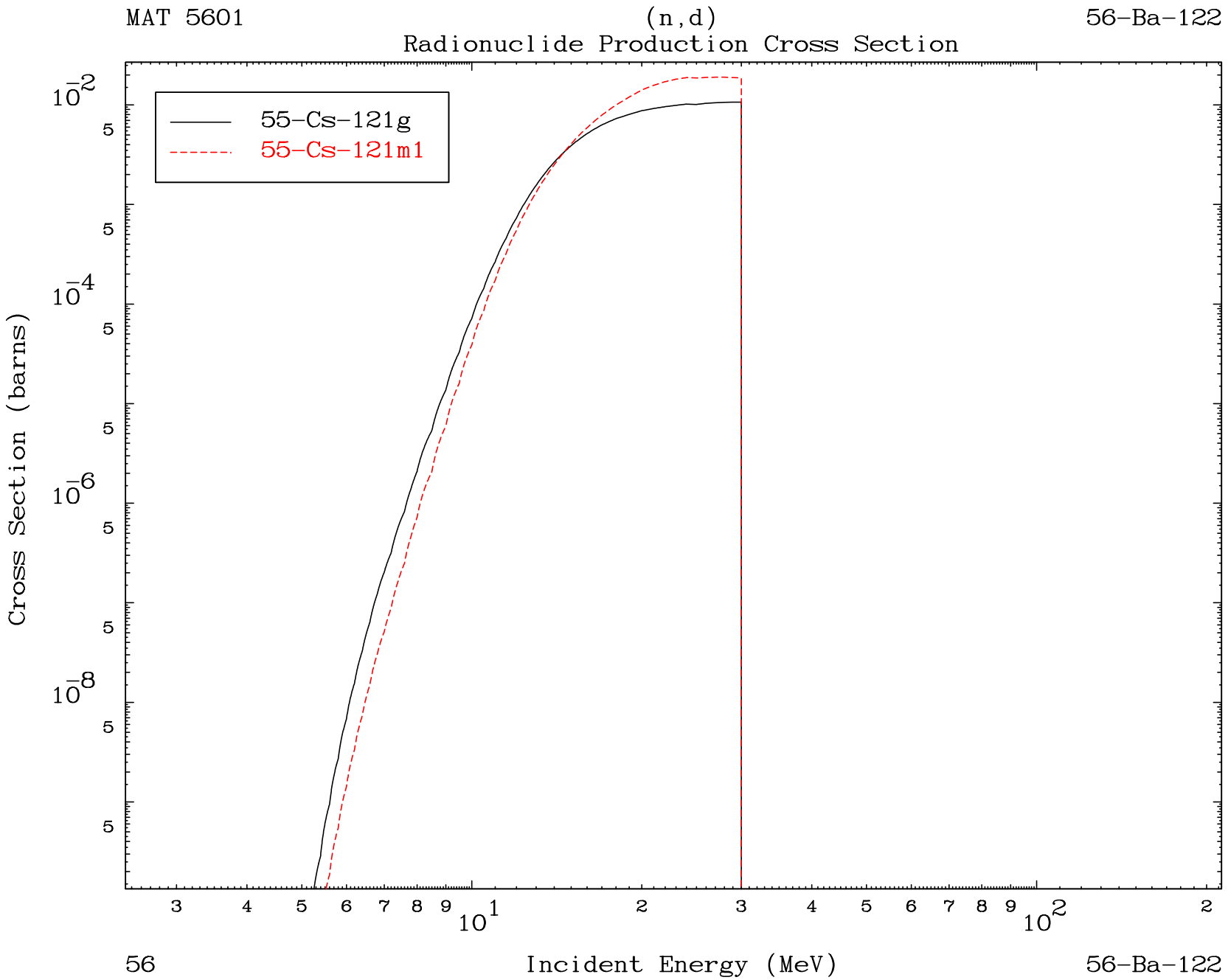

MAT 5601
(n,n') d
56-Ba-122
Radionuclide Production Cross Section
55-Cs-120g
55-Cs-120m5
Cross Section (barns)
10-4
10-6
10-8
10-10
2
3
4
5
6
7
8
9
10 2
2
51
Incident Energy (MeV)
56-Ba-122

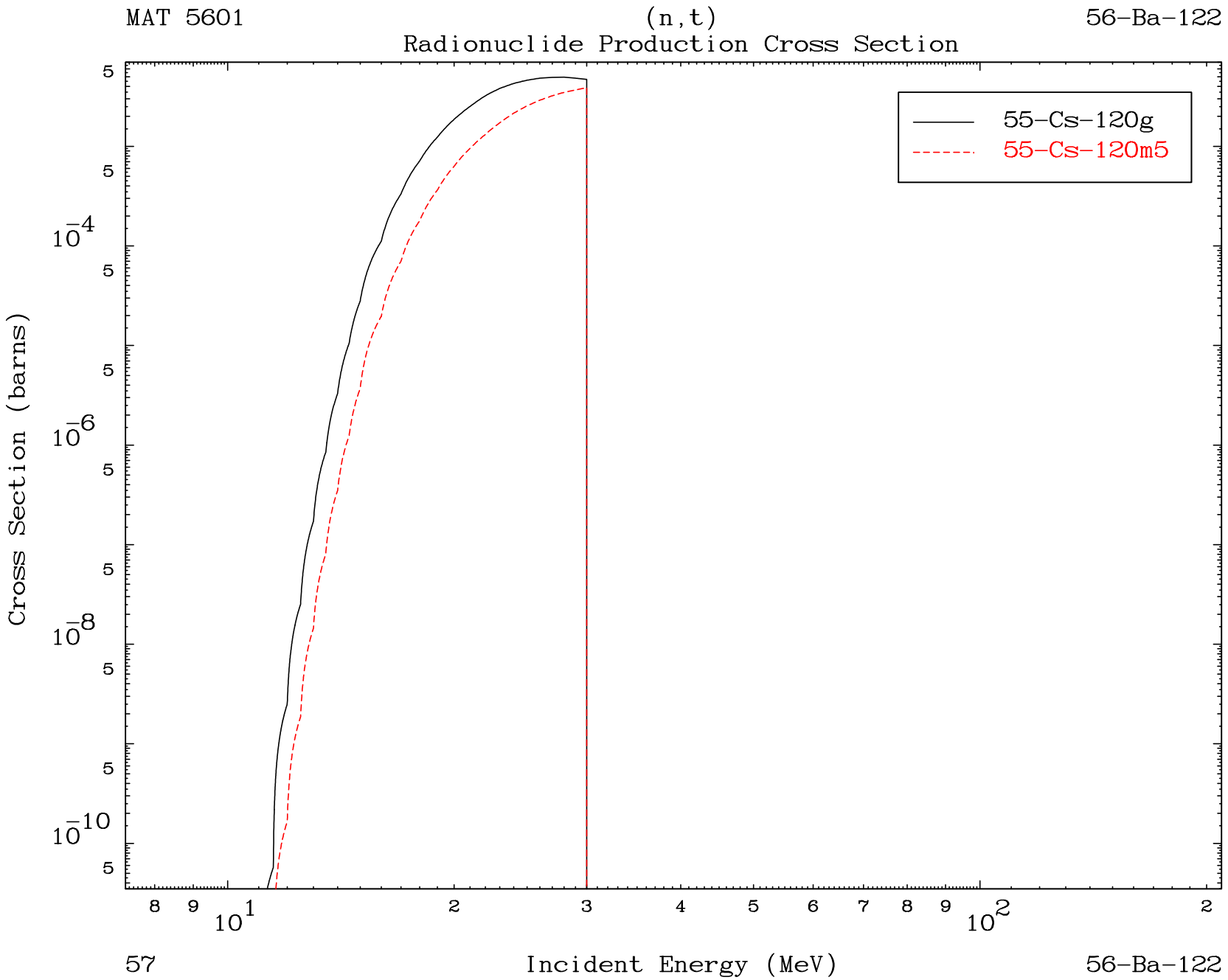

MAT 5601
(n,n') t
56-Ba-122
Radionuclide Production Cross Section
55-Cs-119g
55-Cs-119m1
Cross Section (barns)
Incident Energy (MeV)
52
56-Ba-122

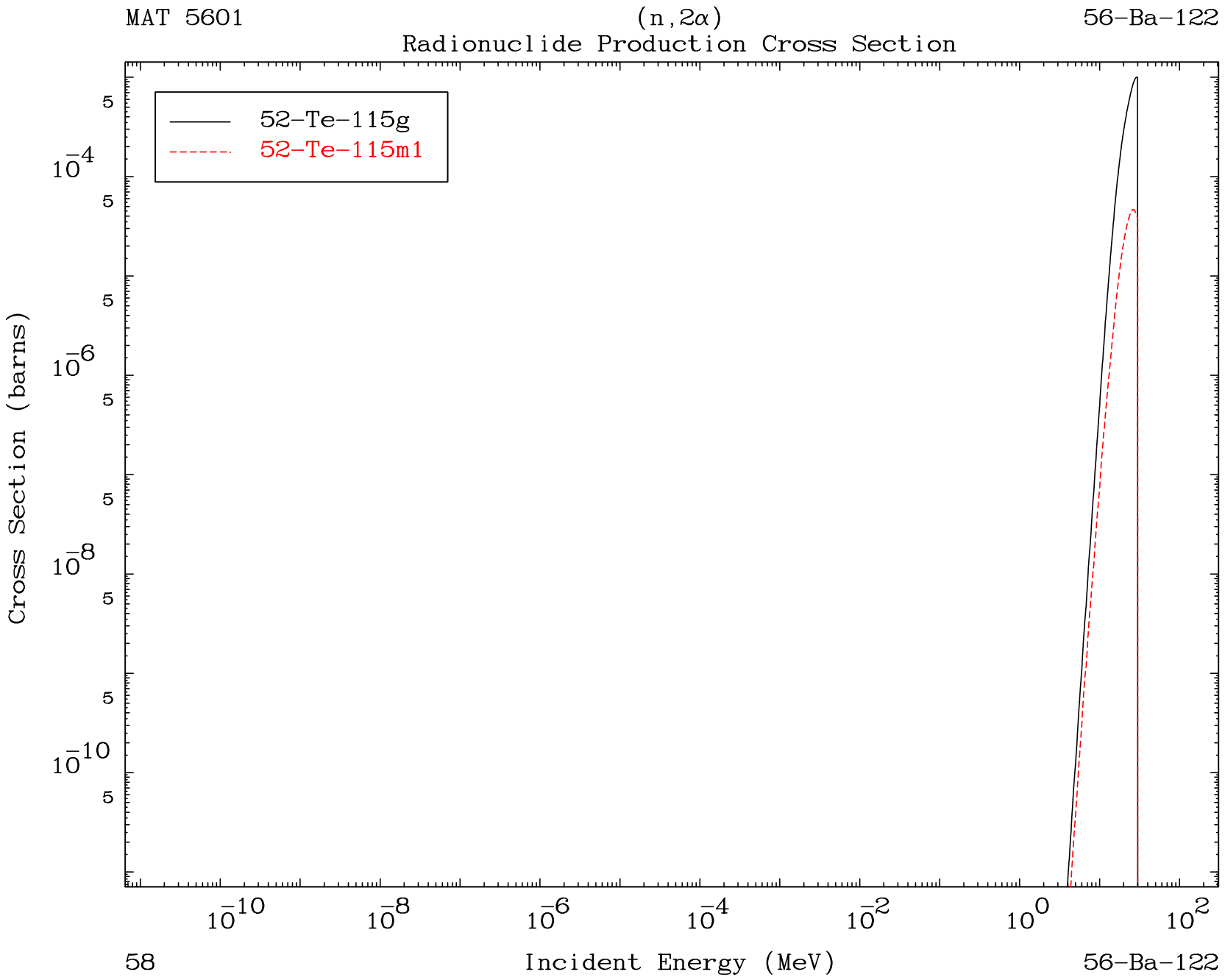

MAT 5601
(n,2n) p
56-Ba-122
Radionuclide Production Cross Section
55-Cs-120g
55-Cs-120m5
Cross Section (barns)
10-2
10-4
10-6
10-8
5
2
3
4
5
6
7
8
9
10 2
2
53
Incident Energy (MeV)
56-Ba-122

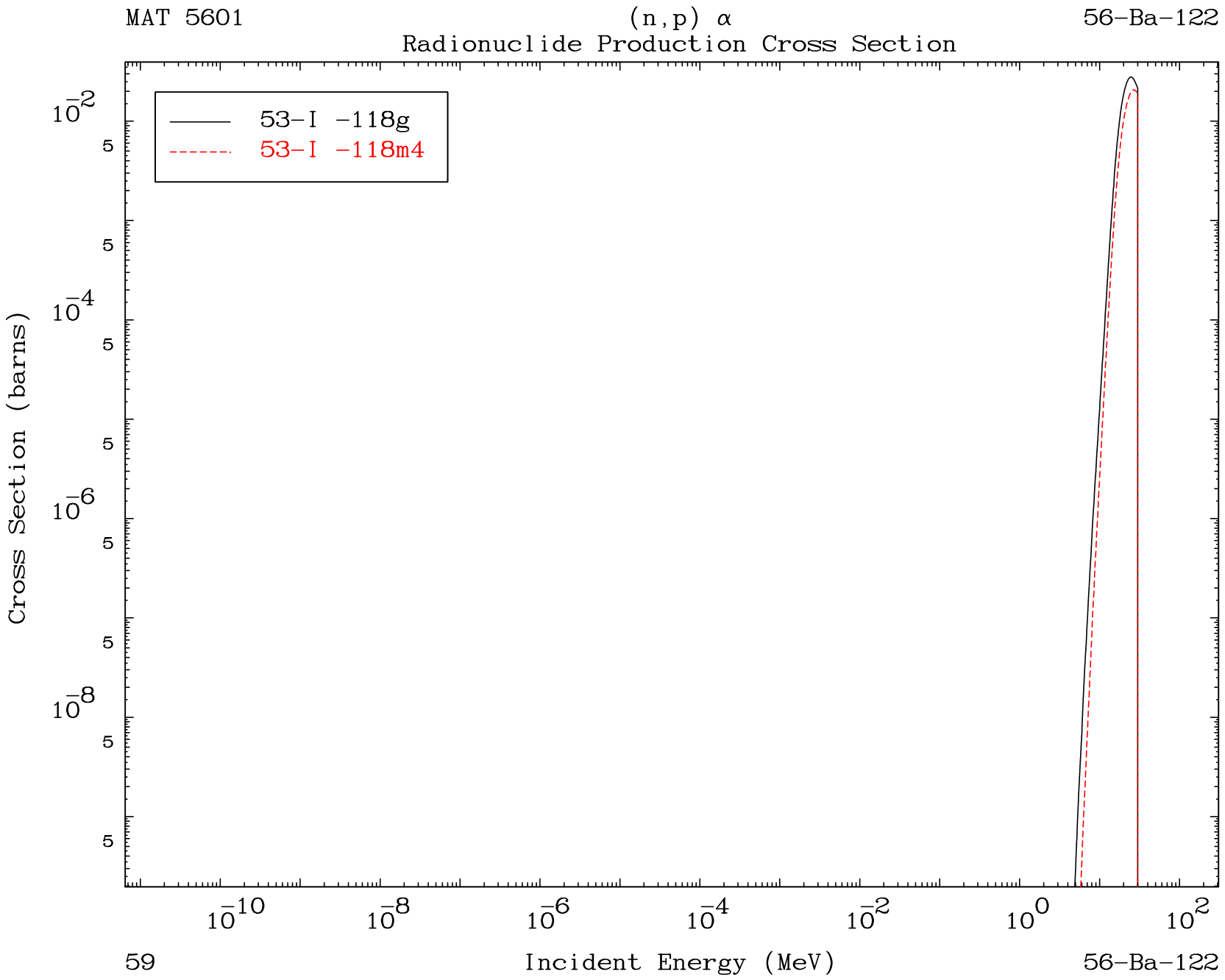

MAT 5601
(n,3n) p
56-Ba-122
Radionuclide Production Cross Section
55-Cs-119g
55-Cs-119m1
Cross Section (barns)
10-6
10-8
10-10
10-12
5
3
4
5
6
7
8
9
10 2
2
54
Incident Energy (MeV)
56-Ba-122


MAT 5601
(n,p)
56-Ba-122
Radionuclide Production Cross Section
Cross Section (barns)
55-Cs-122g
55-Cs-122m7
55-Cs-122m8
55
Incident Energy (MeV)
56-Ba-122


MAT 5601
(n,d)
56-Ba-122
Radionuclide Production Cross Section
55-Cs-121g
55-Cs-121m1
Cross Section (barns)
Incident Energy (MeV)
56
56-Ba-122


MAT 5601
(n,t)
56-Ba-122
Radionuclide Production Cross Section
55-Cs-120g
55-Cs-120m5
Cross Section (barns)
Incident Energy (MeV)
57
56-Ba-122


MAT 5601
(n,2α)
56-Ba-122
Radionuclide Production Cross Section
52-Te-115g
52-Te-115m1
Cross Section (barns)
Incident Energy (MeV)
58
56-Ba-122


MAT 5601
(n,p) α
56-Ba-122
Radionuclide Production Cross Section
53-I -118g
53-I -118m4
Cross Section (barns)
Incident Energy (MeV)
59
56-Ba-122