

Program EVALPLOT
(Version 2018-1)

by

Dermott E. Cullen
(Present Contact Information)

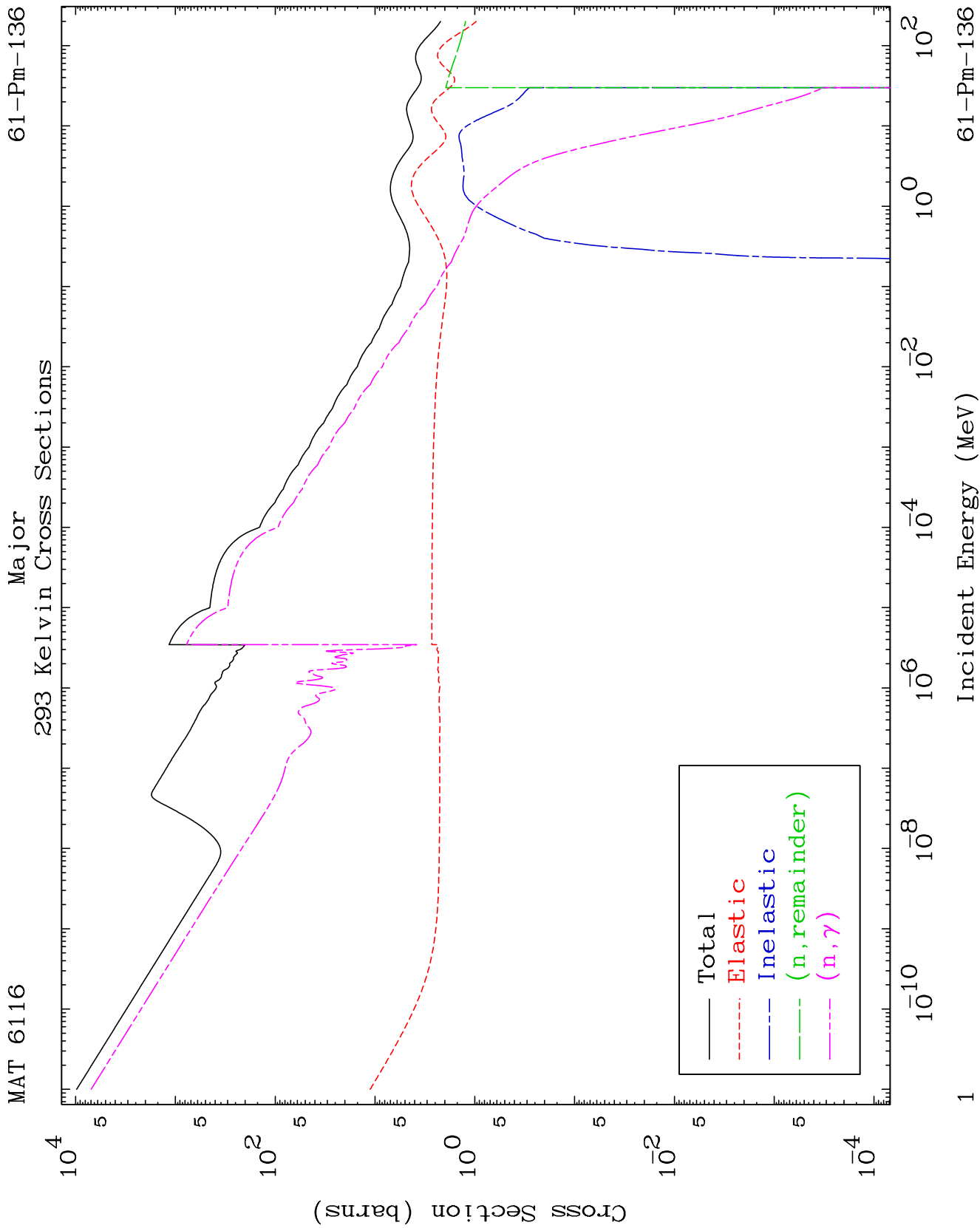
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Web: redcullen1.net/HOMEPAGE.NEW

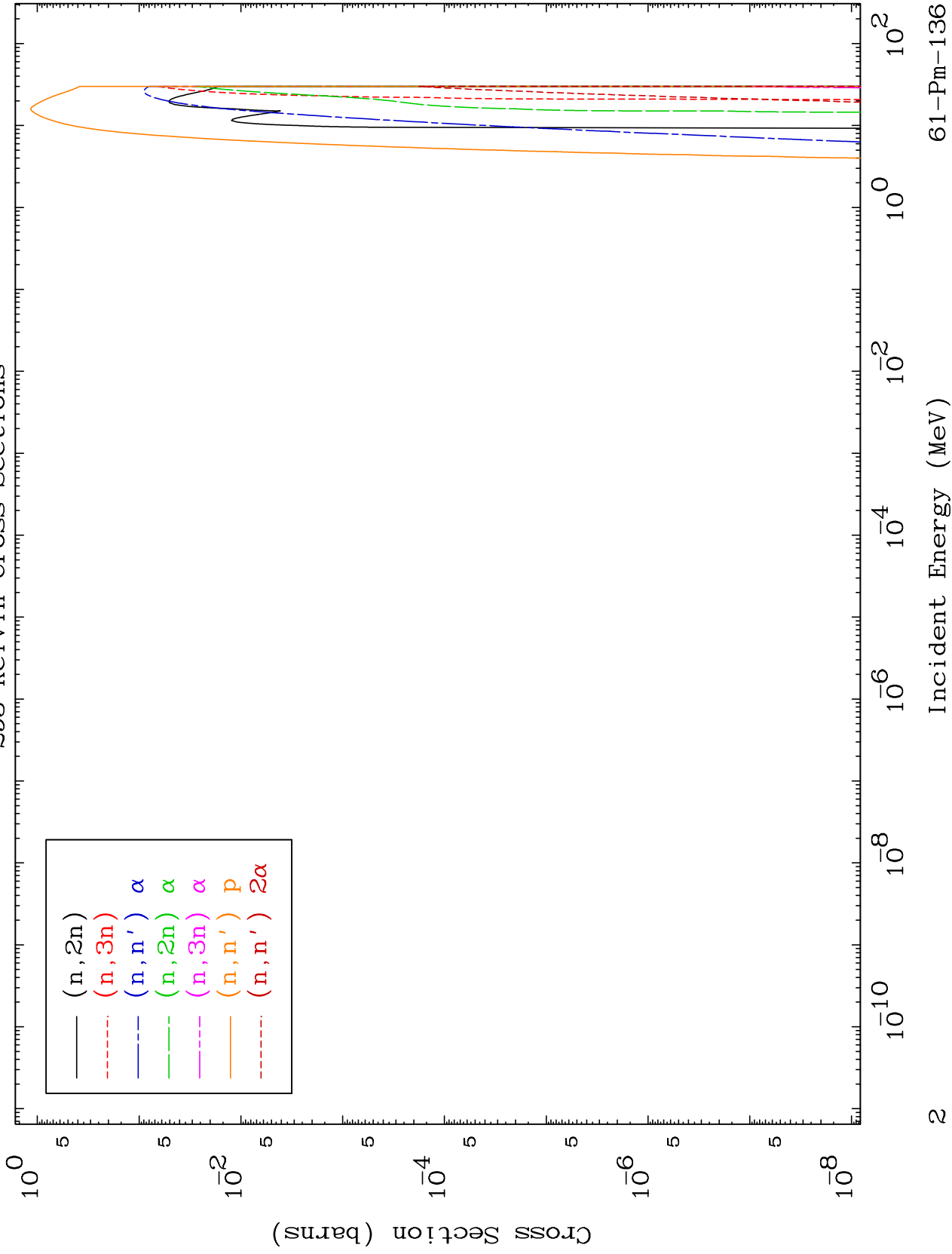
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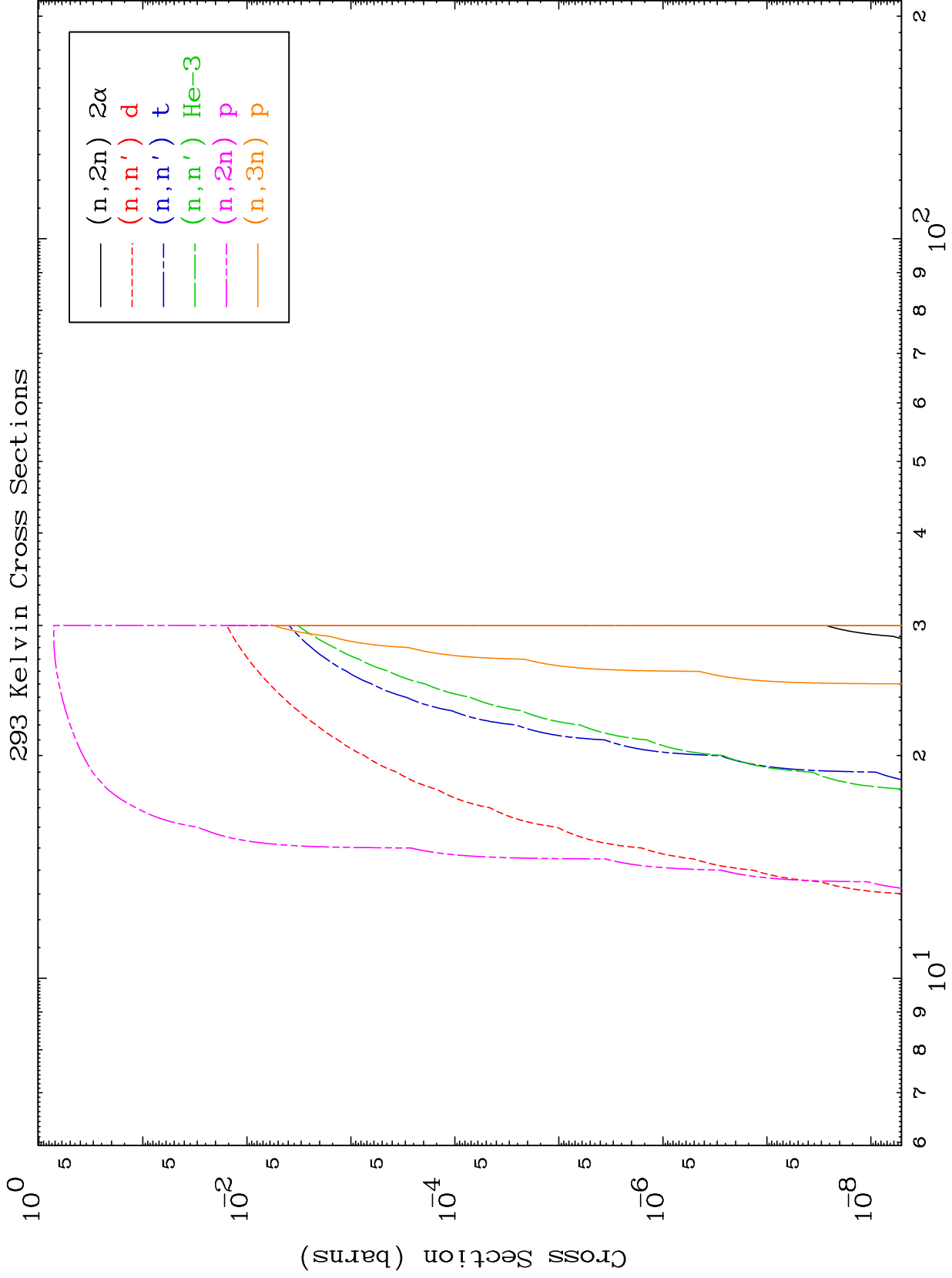


MAT 6116

Neutron Production
293 Kelvin Cross Sections

61-Pm-136

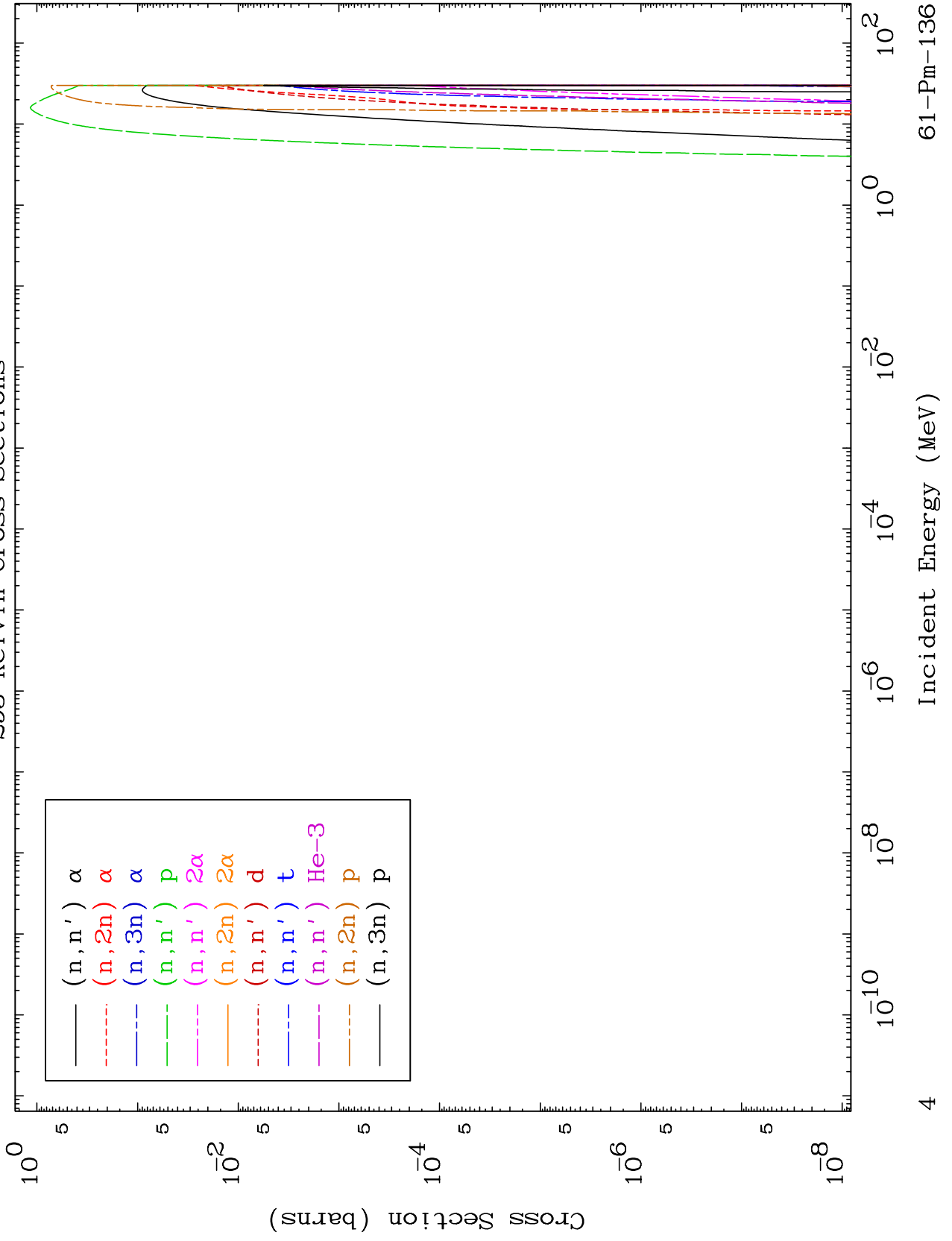




MAT 6116

Charged Particle
293 Kelvin Cross Sections

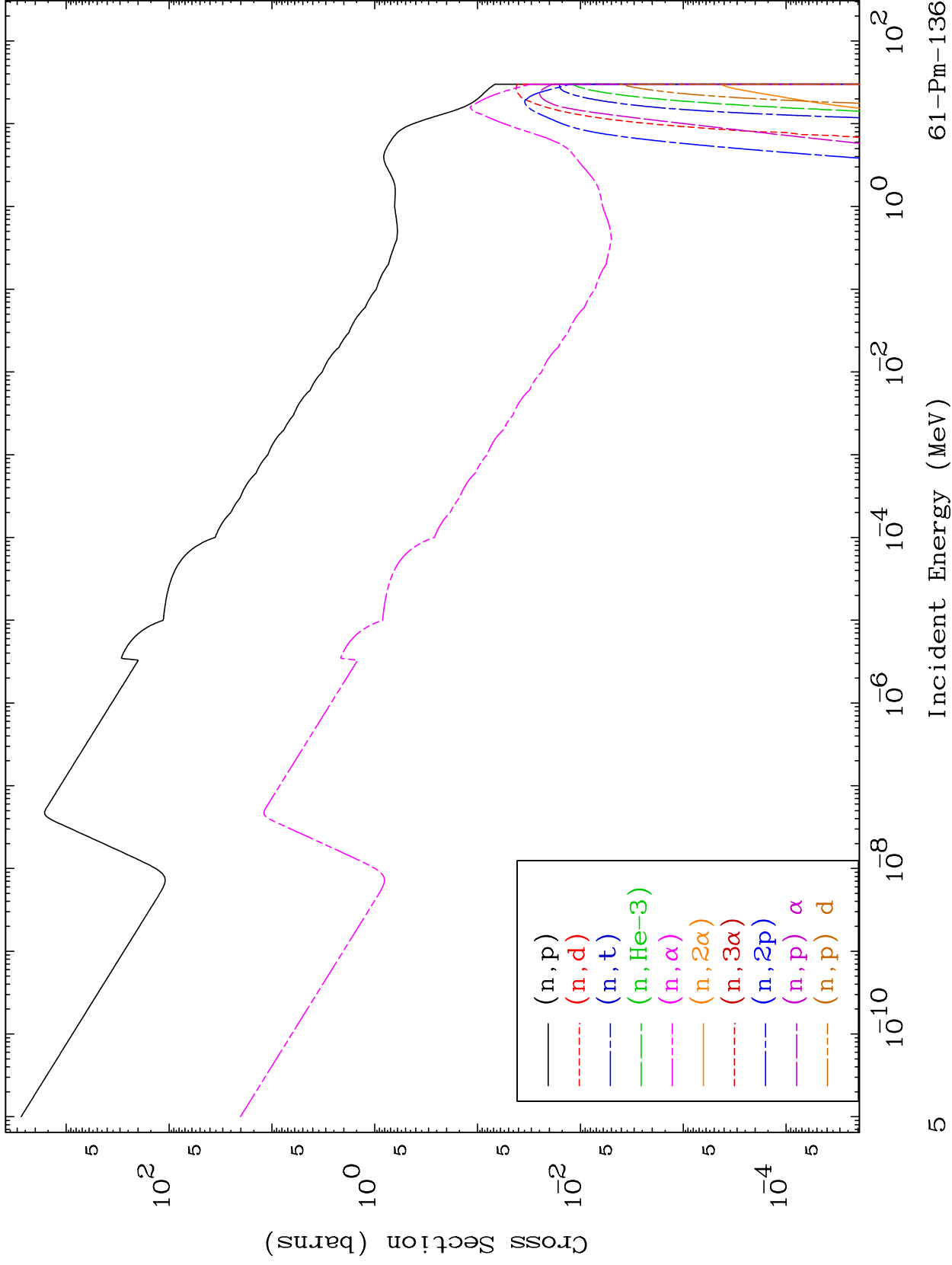
61-Pm-136

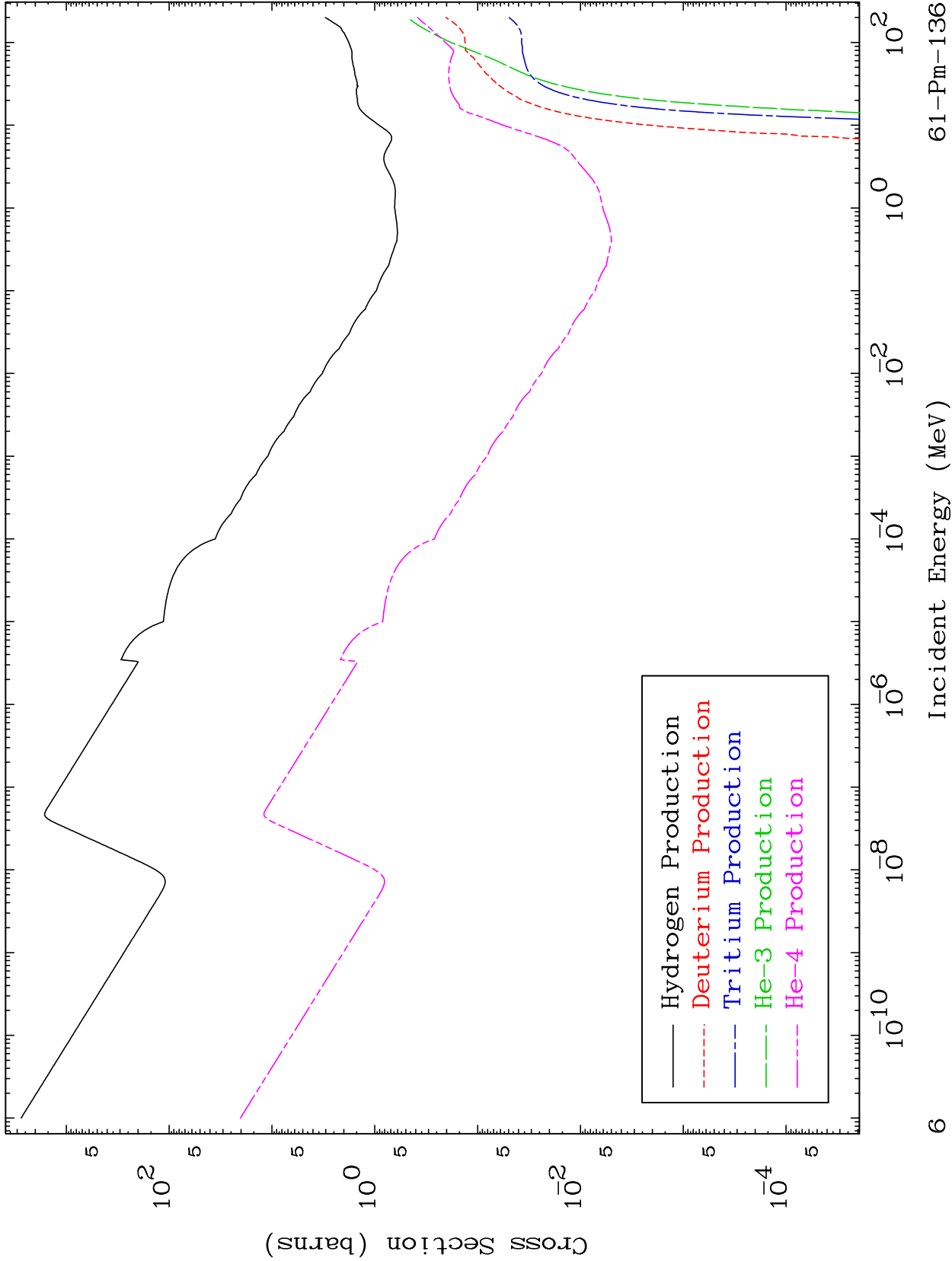


MAT 6116

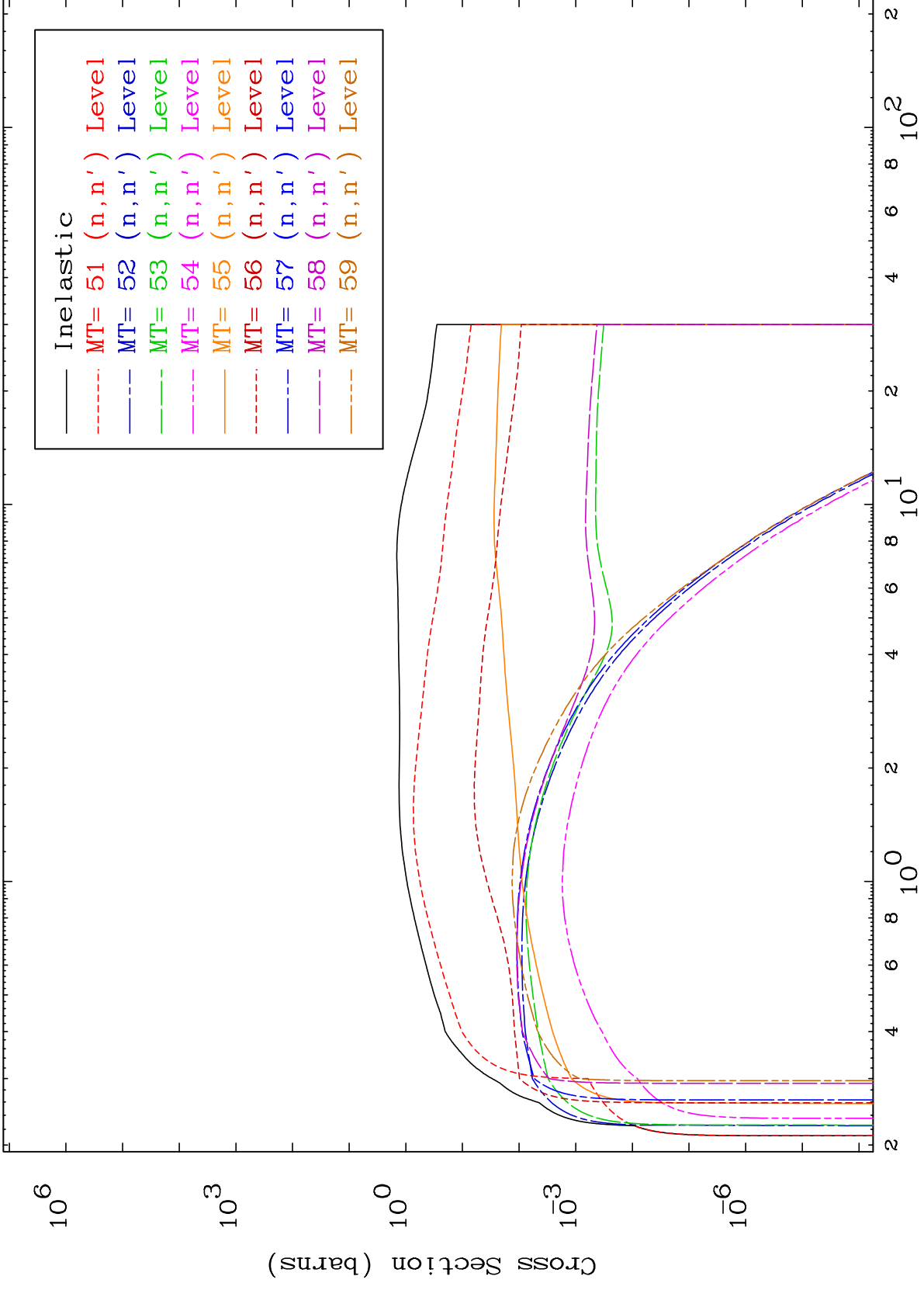
Charged Particle
293 Kelvin Cross Sections

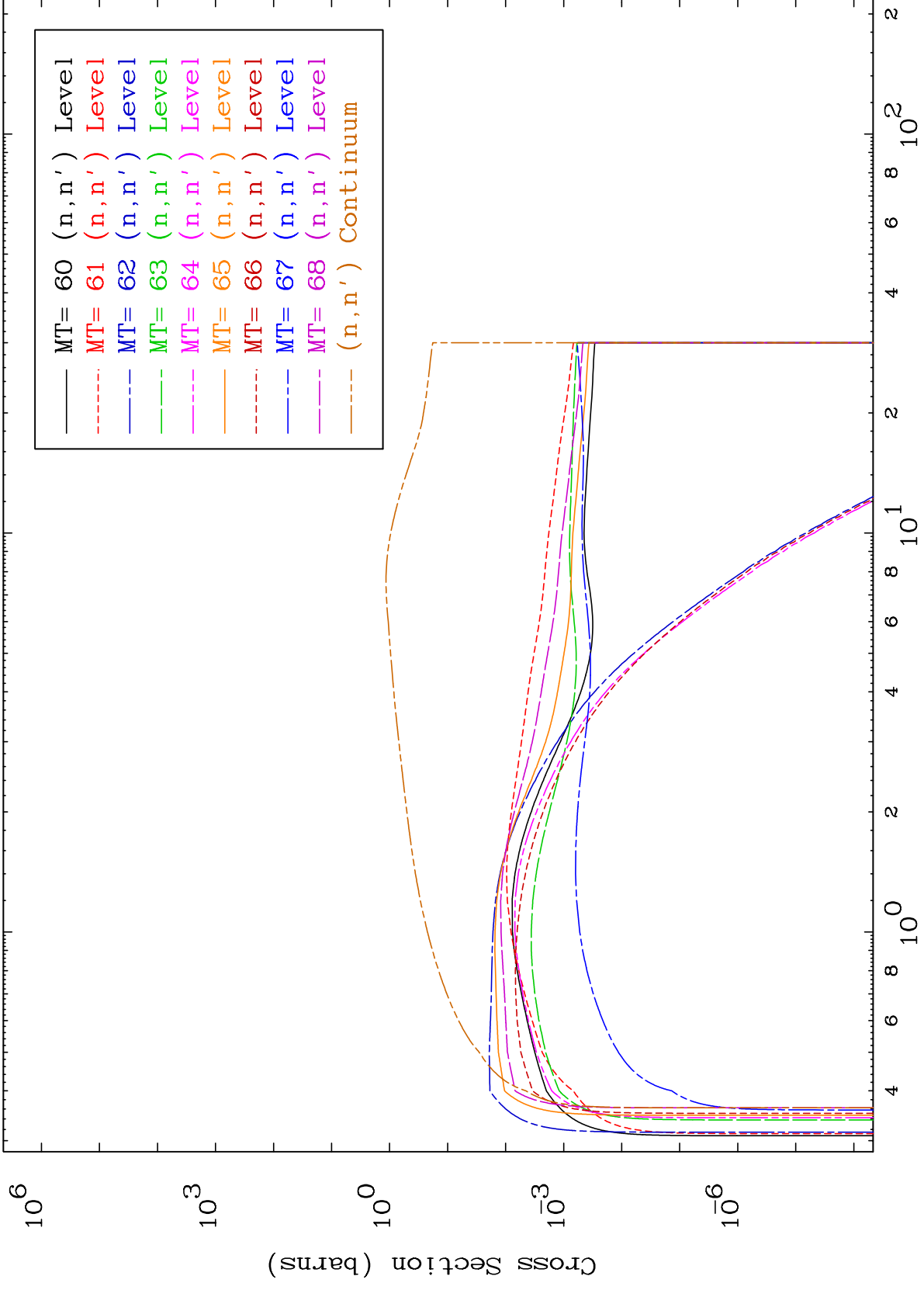
61-Pm-136





293 Kelvin Cross Sections

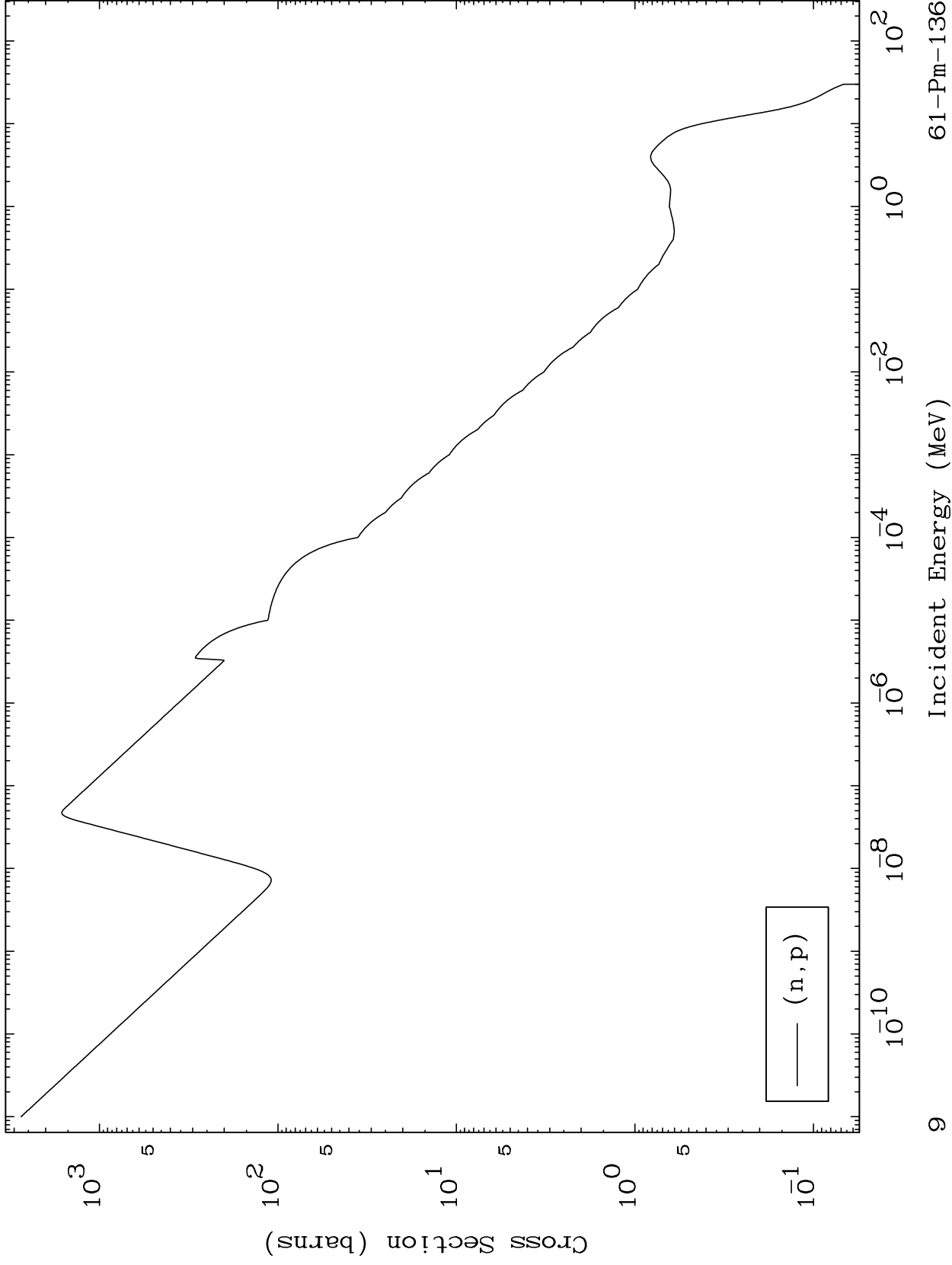




MAT 6116

(n,p) Levels
293 Kelvin Cross Sections

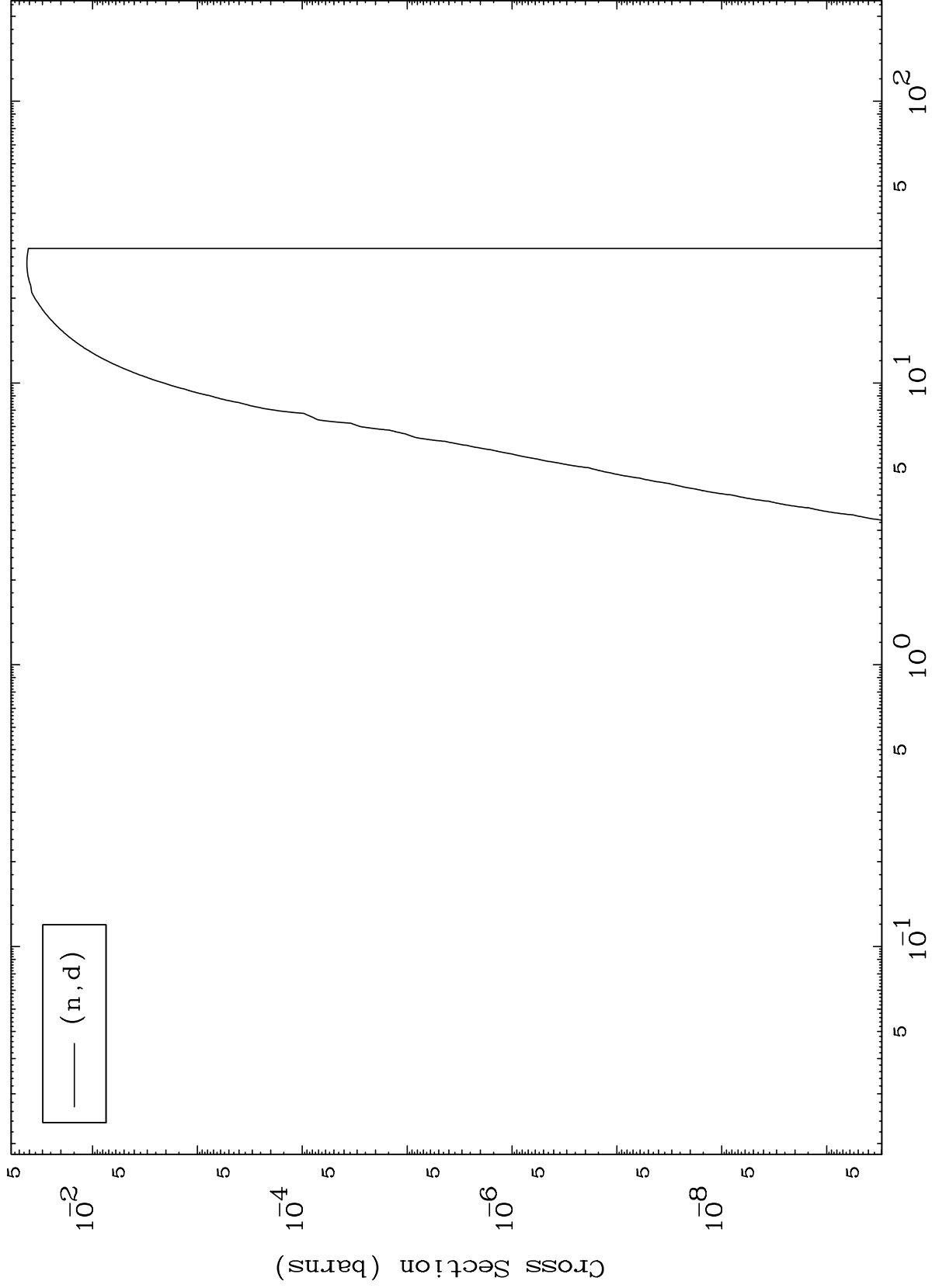
61-Pm-136



MAT 6116

(n,d) Levels
293 Kelvin Cross Sections

61-Pm-136



10

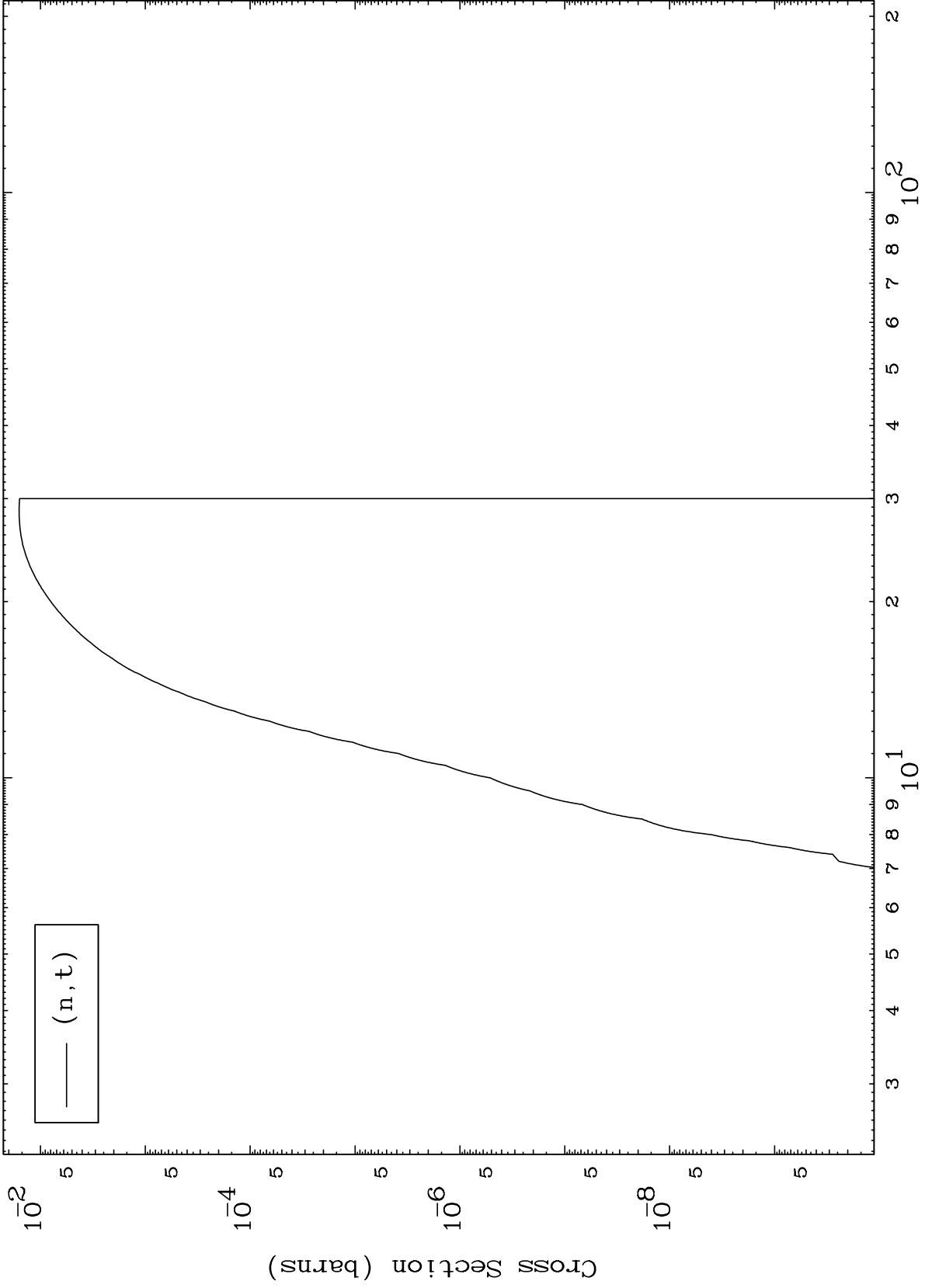
Incident Energy (MeV)

61-Pm-136

MAT 6116

(n,t) Levels
293 Kelvin Cross Sections

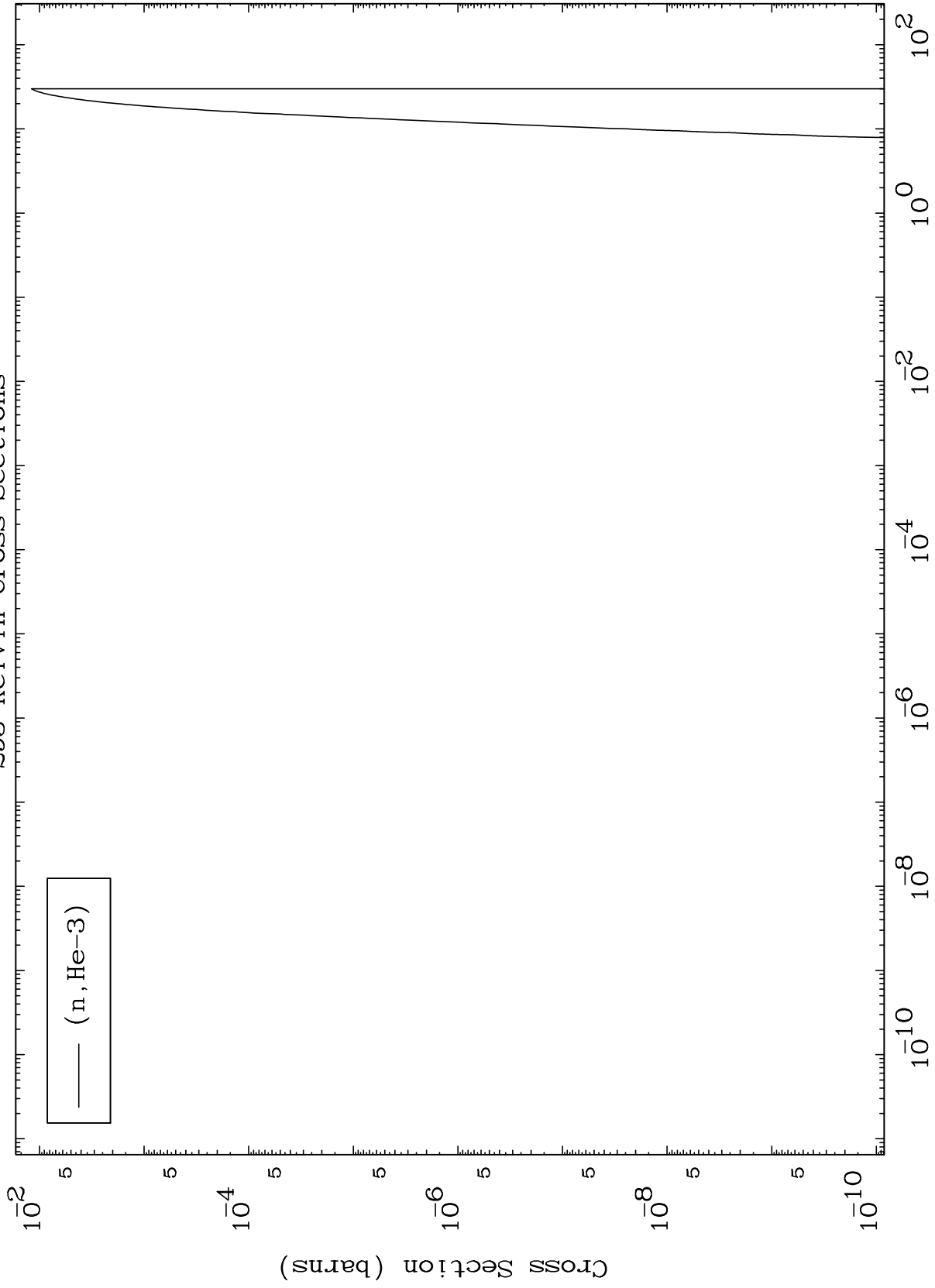
61-Pm-136



MAT 6116

(n,He3) Levels
293 Kelvin Cross Sections

61-Pm-136



12

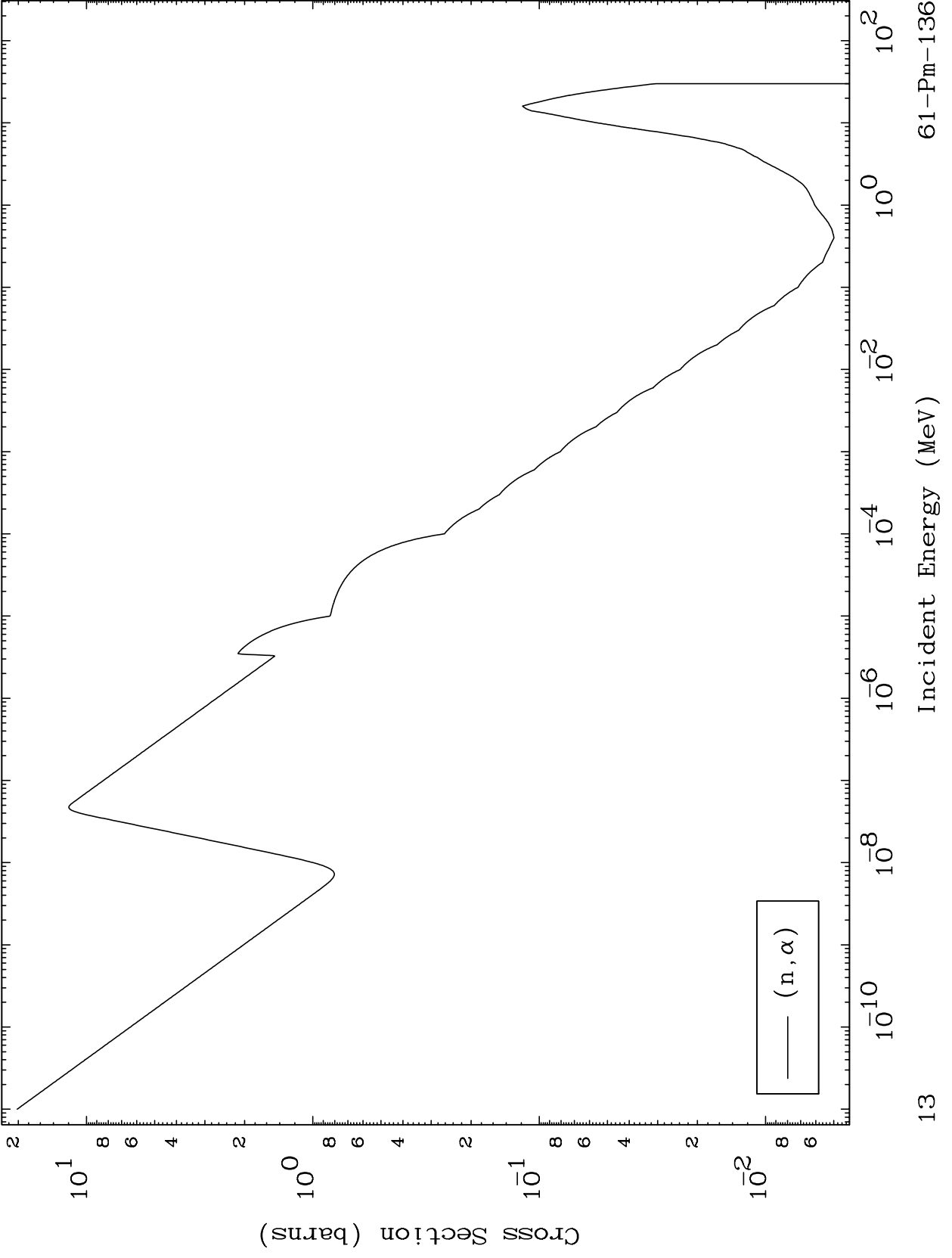
Incident Energy (MeV)

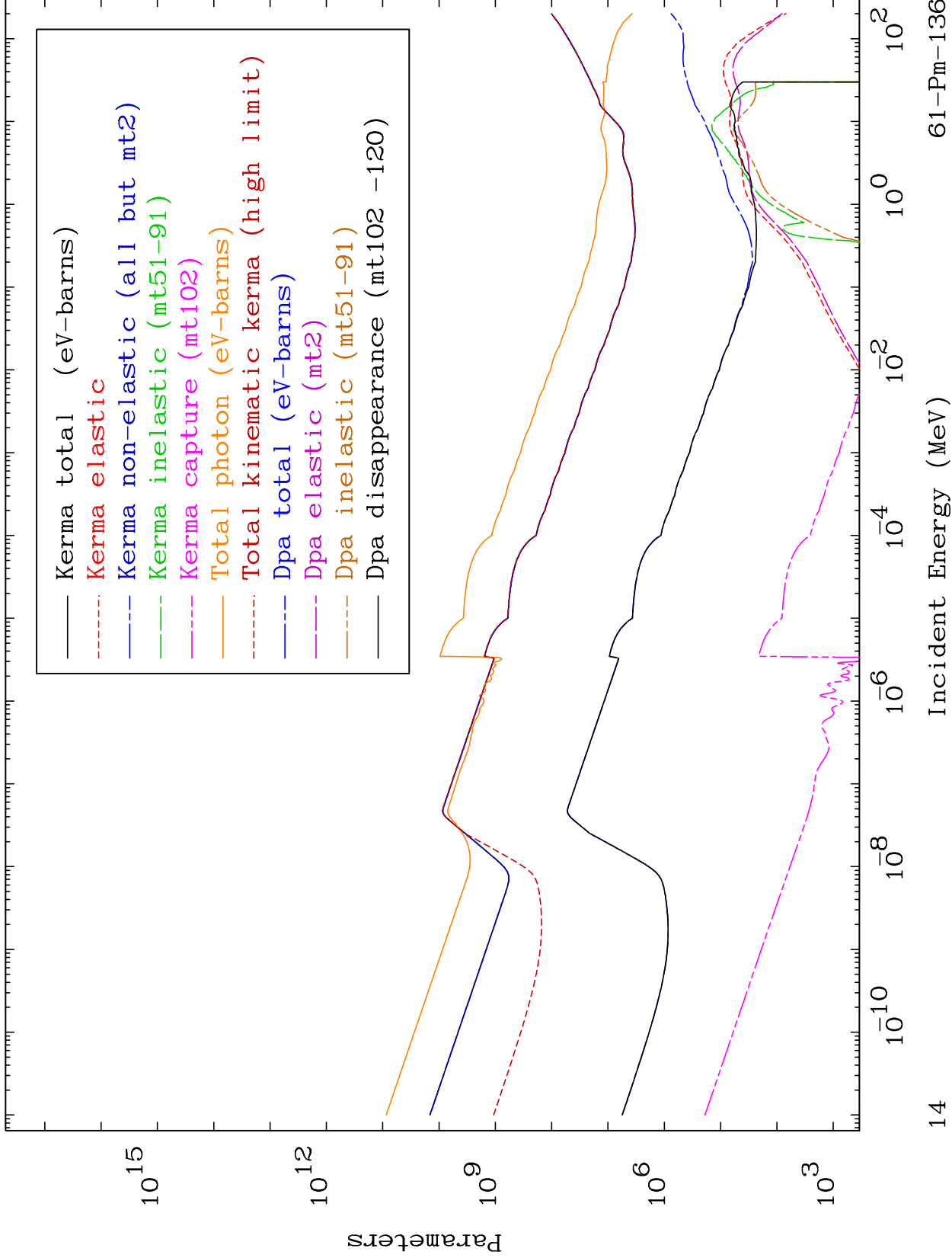
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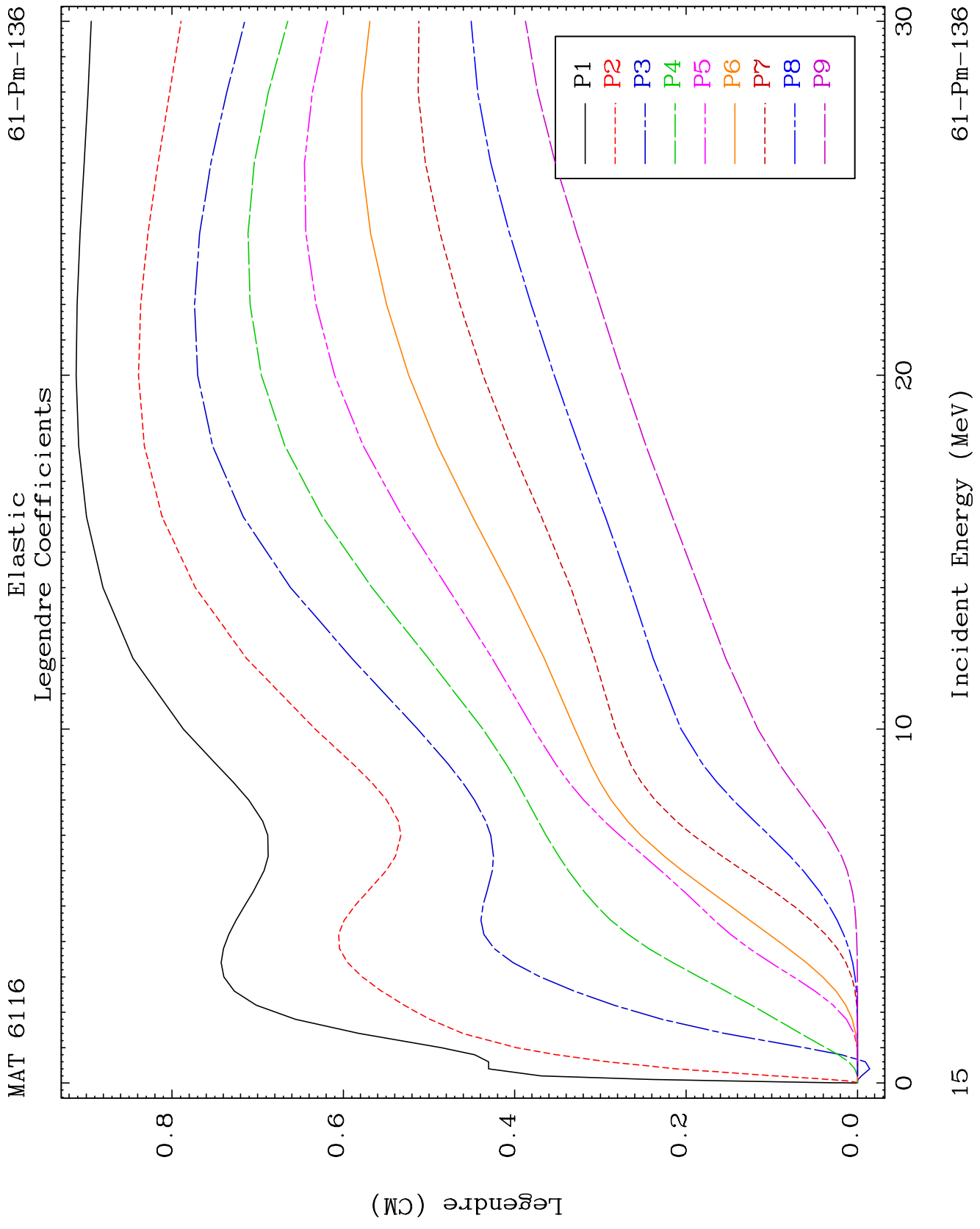
MAT 6116

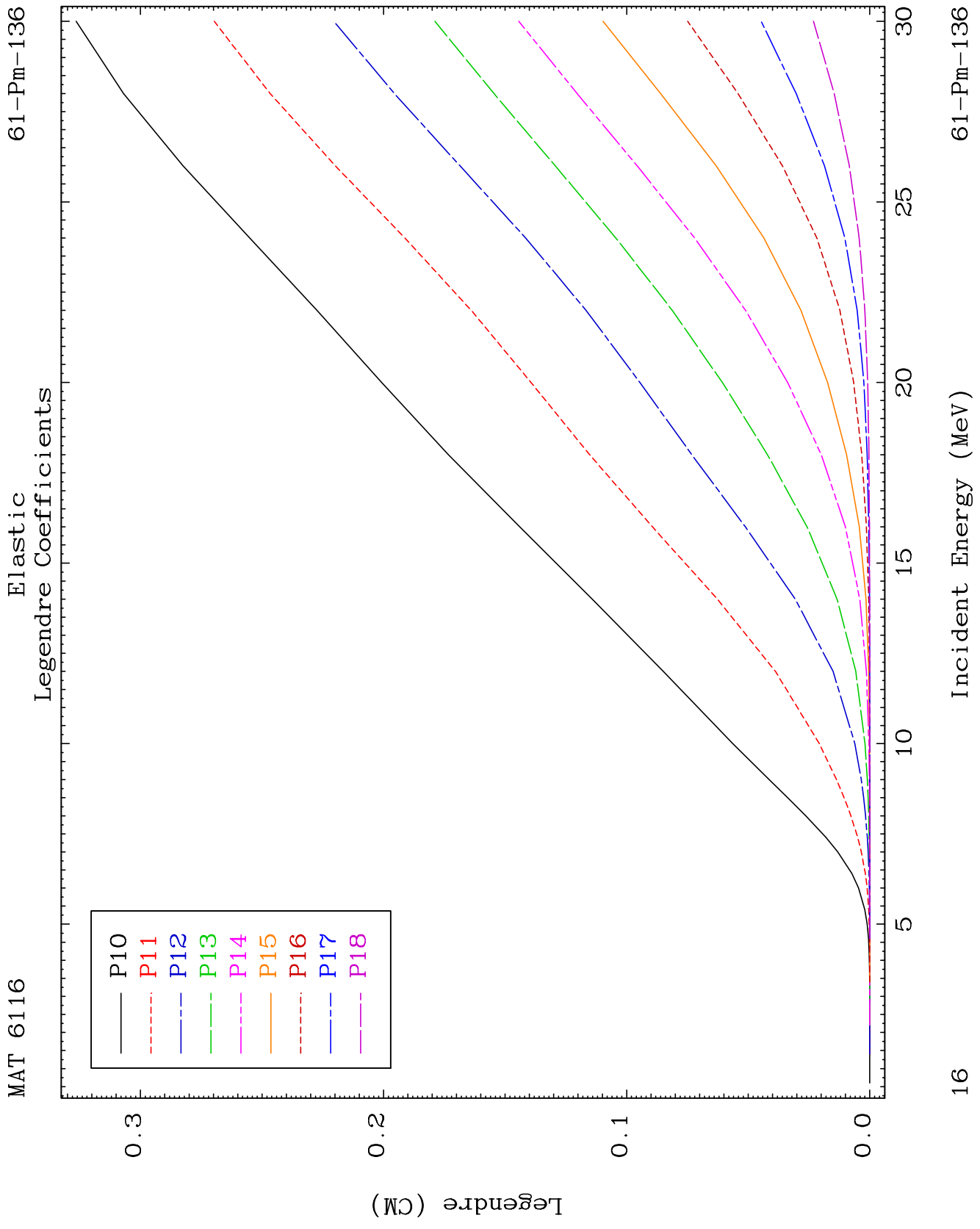
(n,α) Levels
293 Kelvin Cross Sections

61-Pm-136





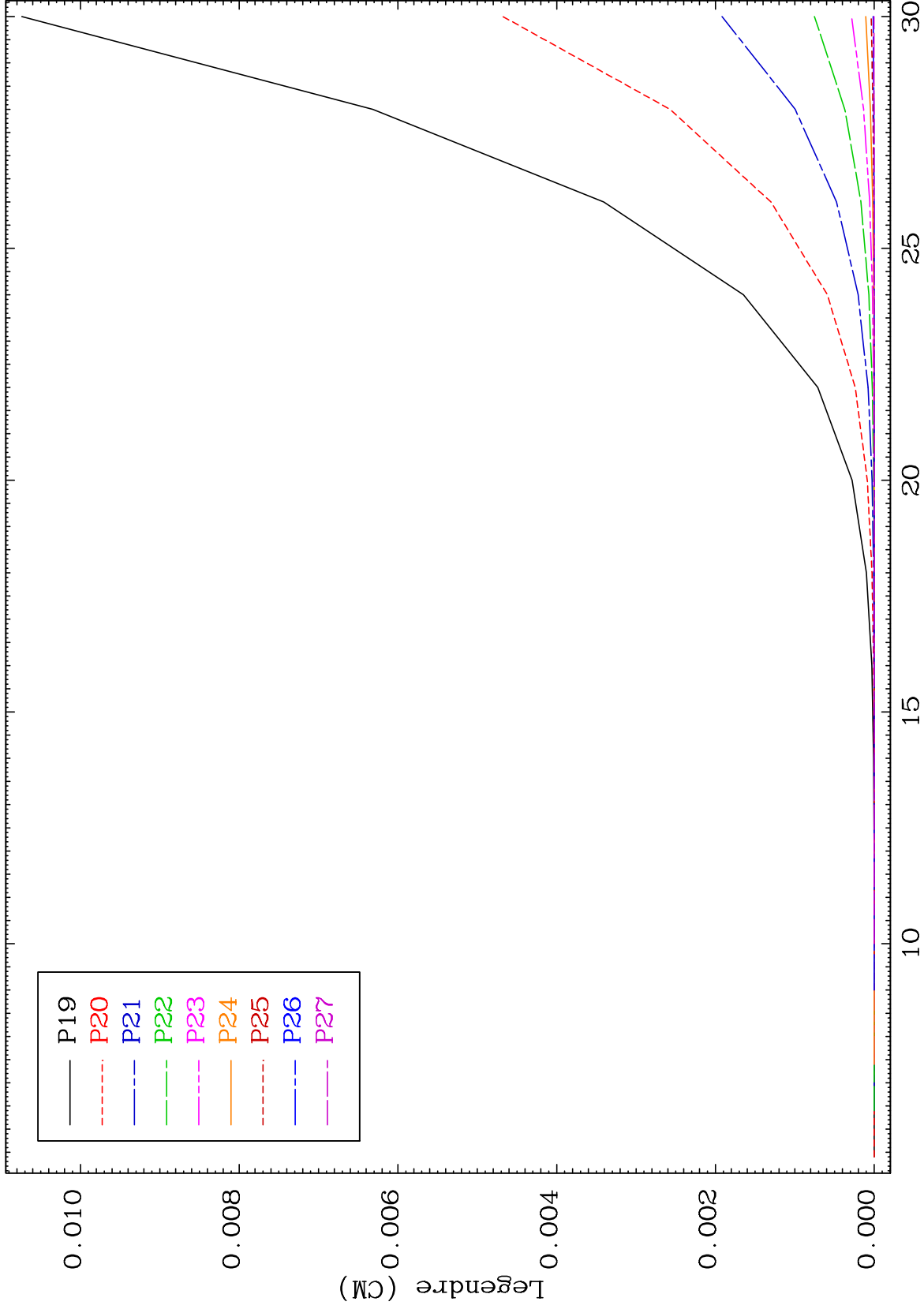




MAT 6116

Elastic Legendre Coefficients

61-Pm-136



17

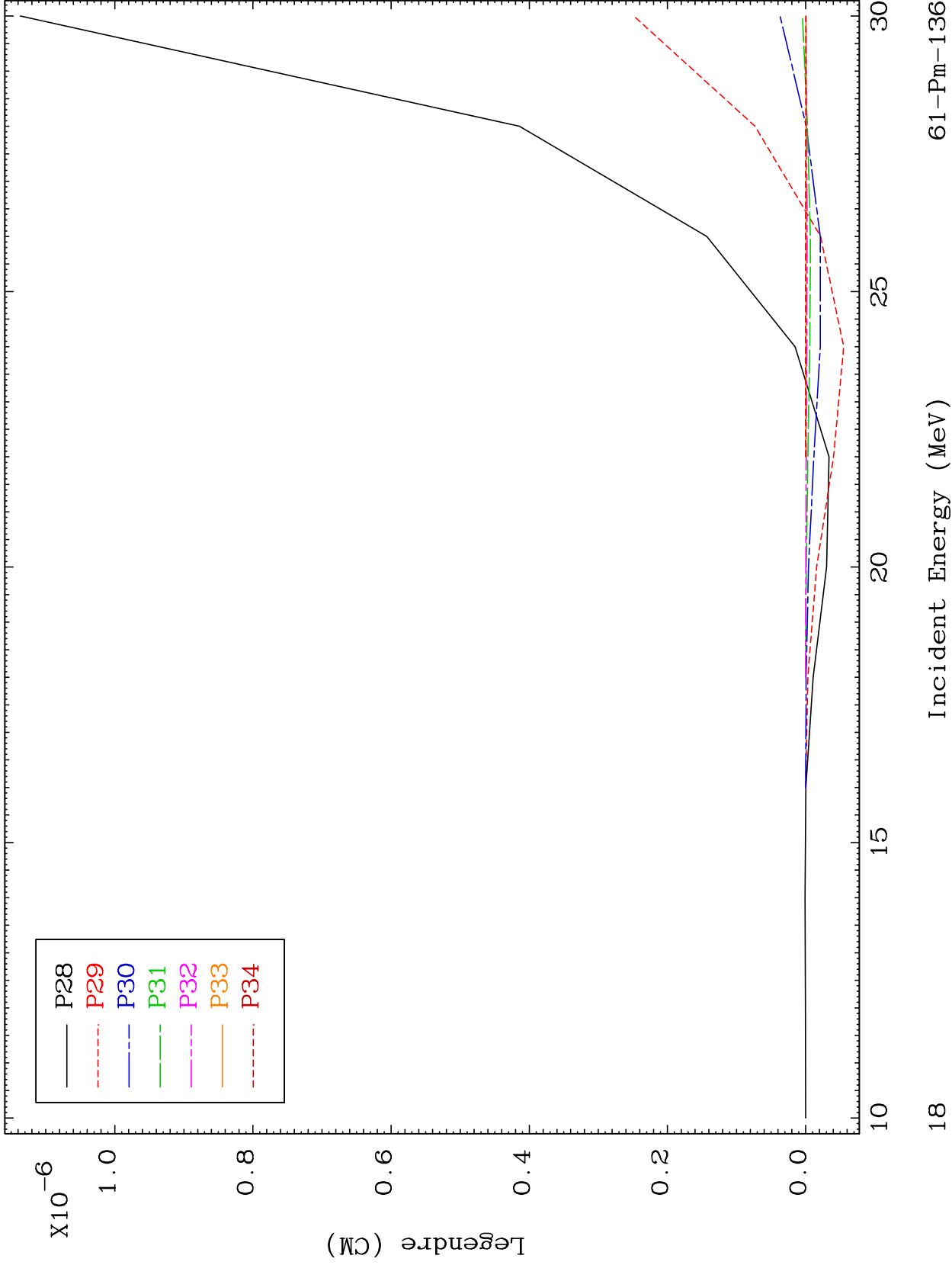
Incident Energy (MeV)

61-Pm-136

MAT 6116

Elastic
Legendre Coefficients

61-Pm-136



18

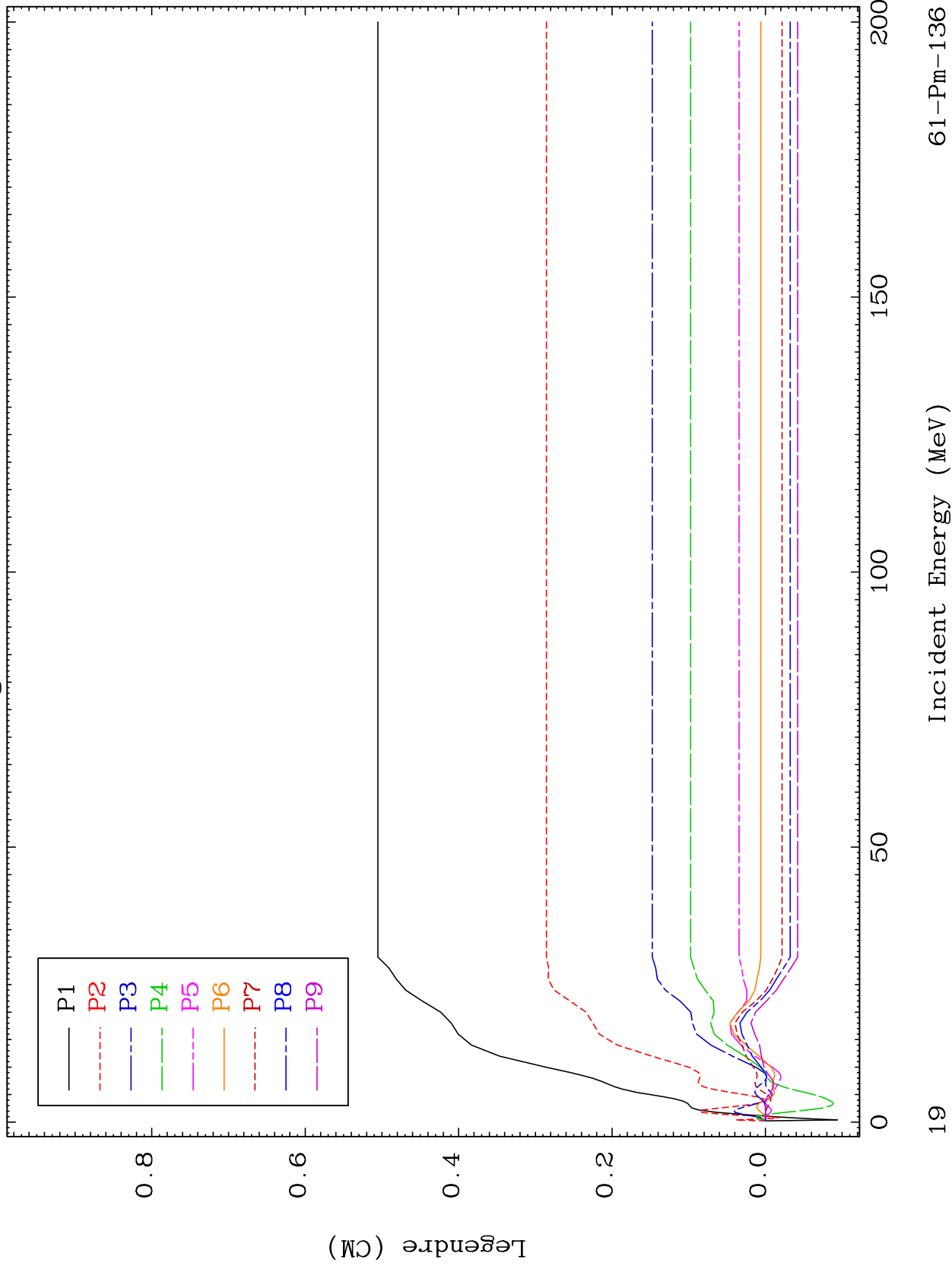
Incident Energy (MeV)

61-Pm-136

MAT 6116

MT= 51 (n,n') Level
Legendre Coefficients

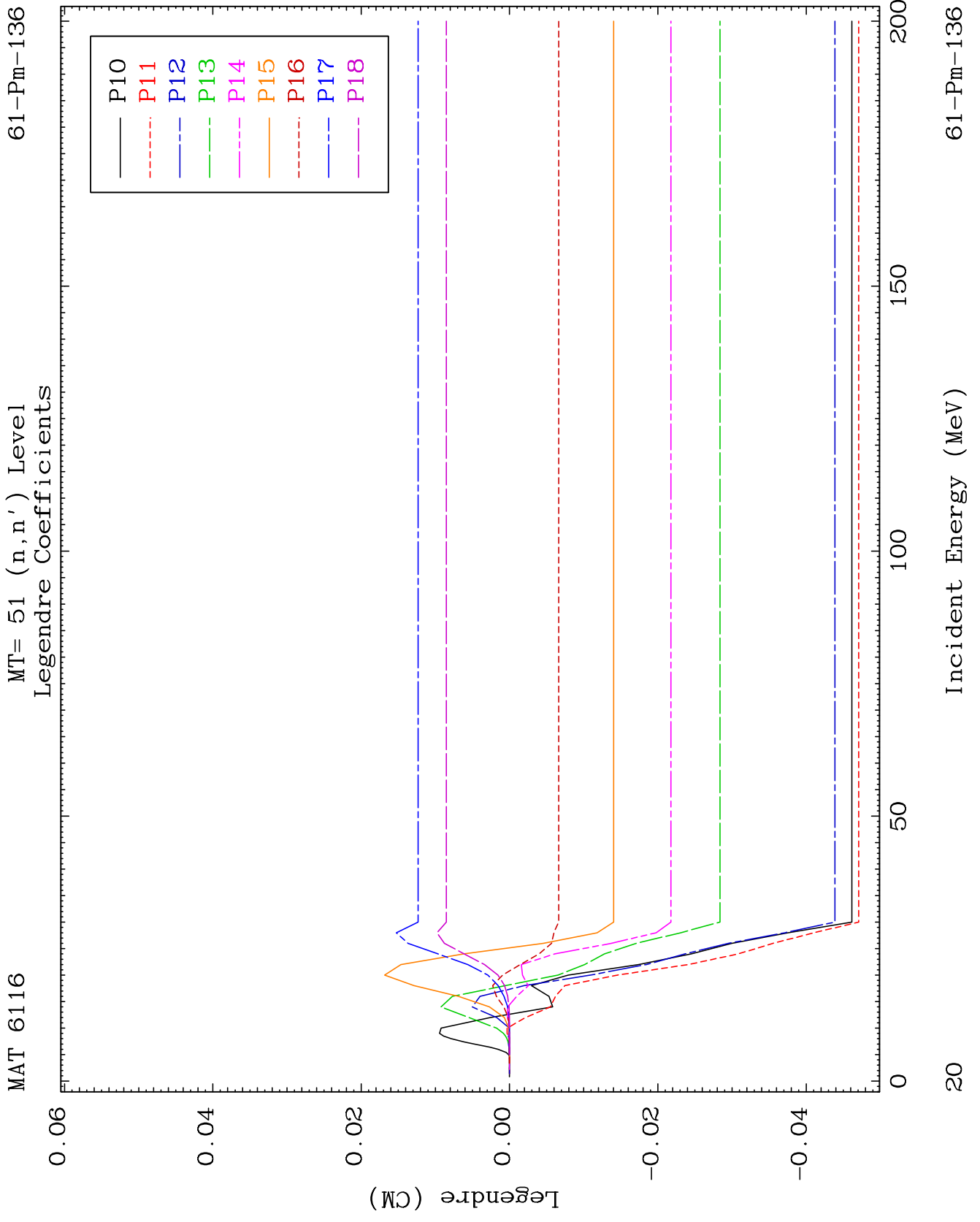
61-Pm-136



61-Pm-136

Incident Energy (MeV)

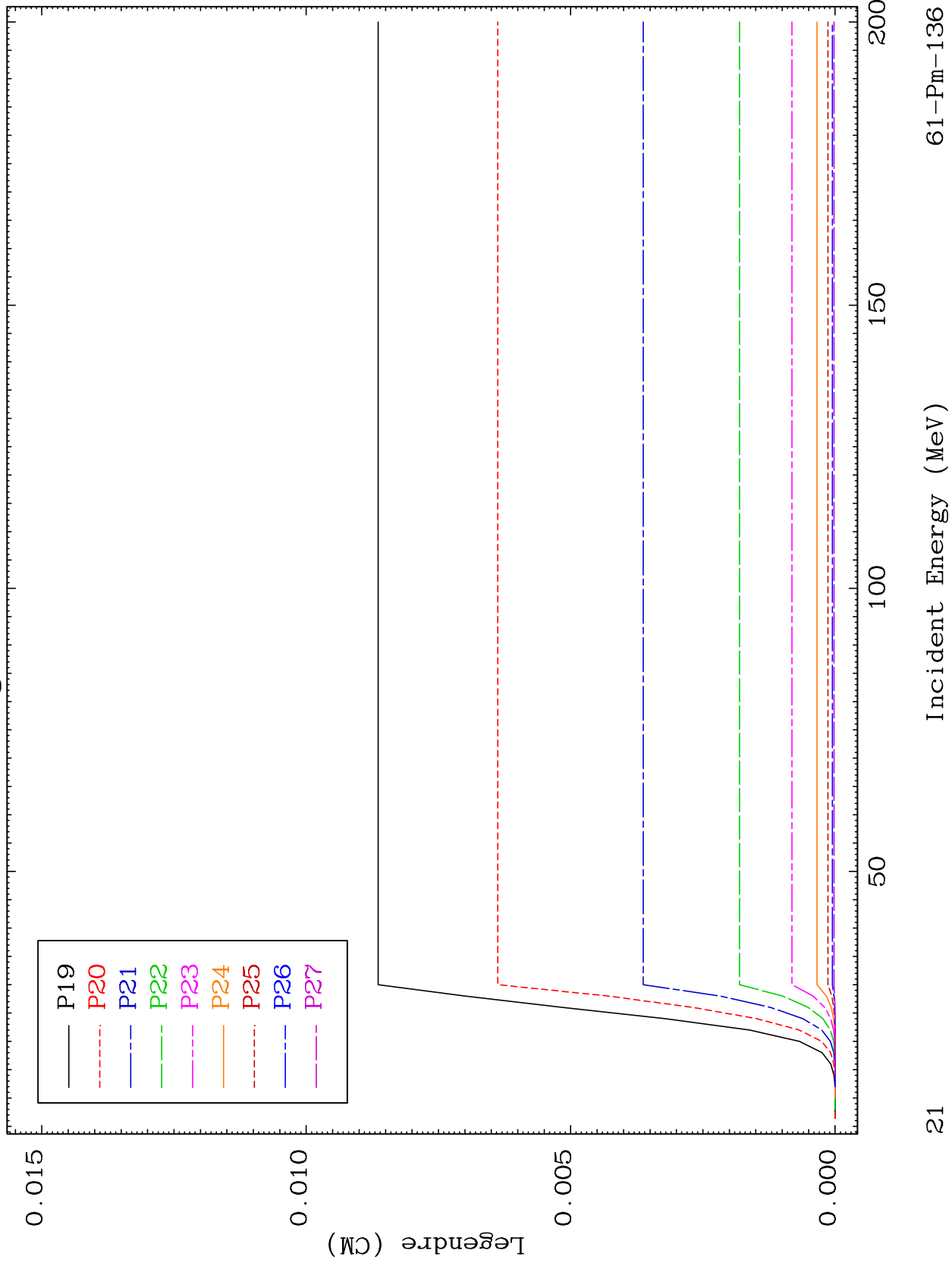
19



MAT 6116

MT= 51 (n,n') Level
Legendre Coefficients

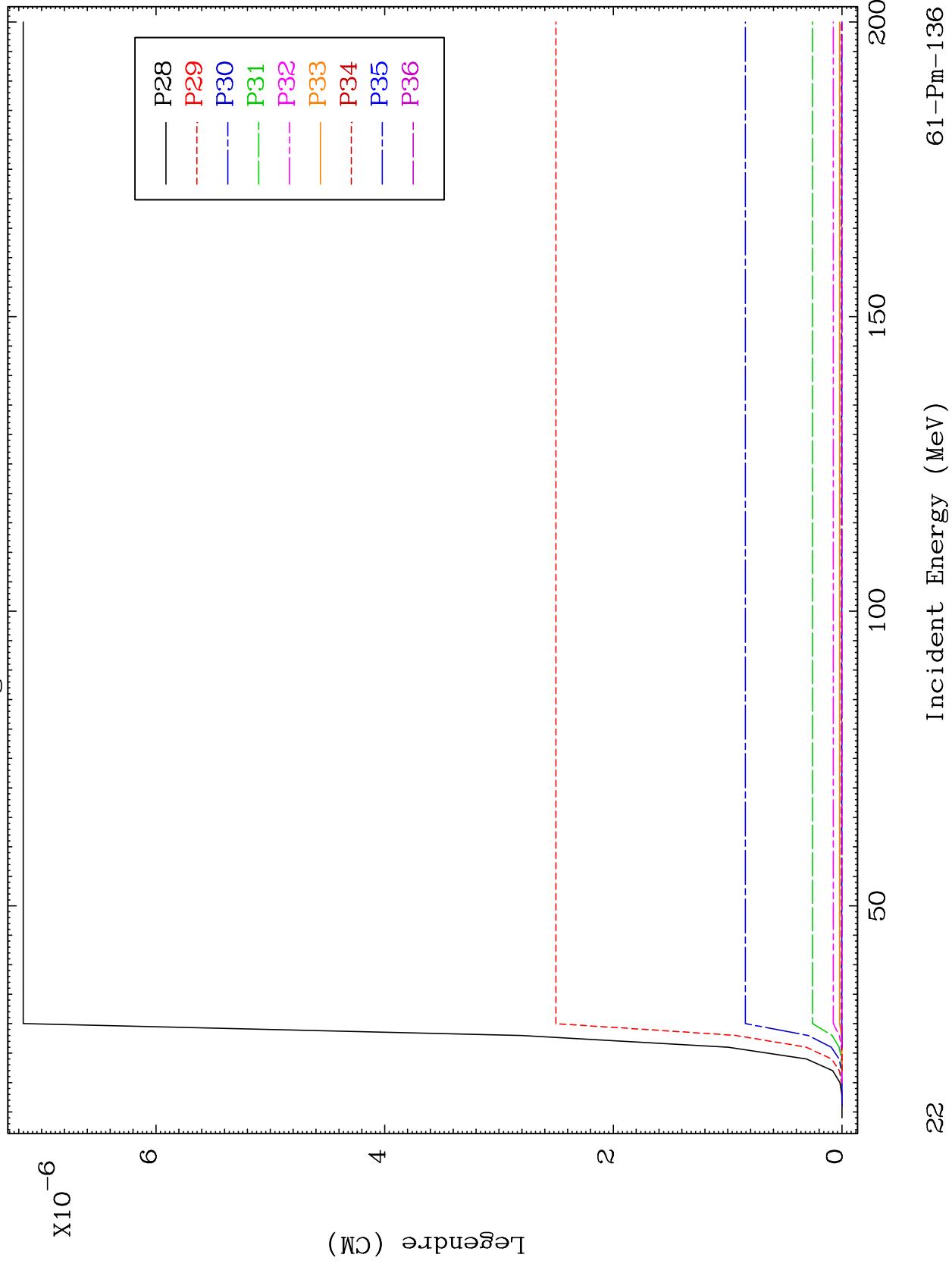
61-Pm-136



MAT 6116

MT= 51 (n,n') Level
Legendre Coefficients

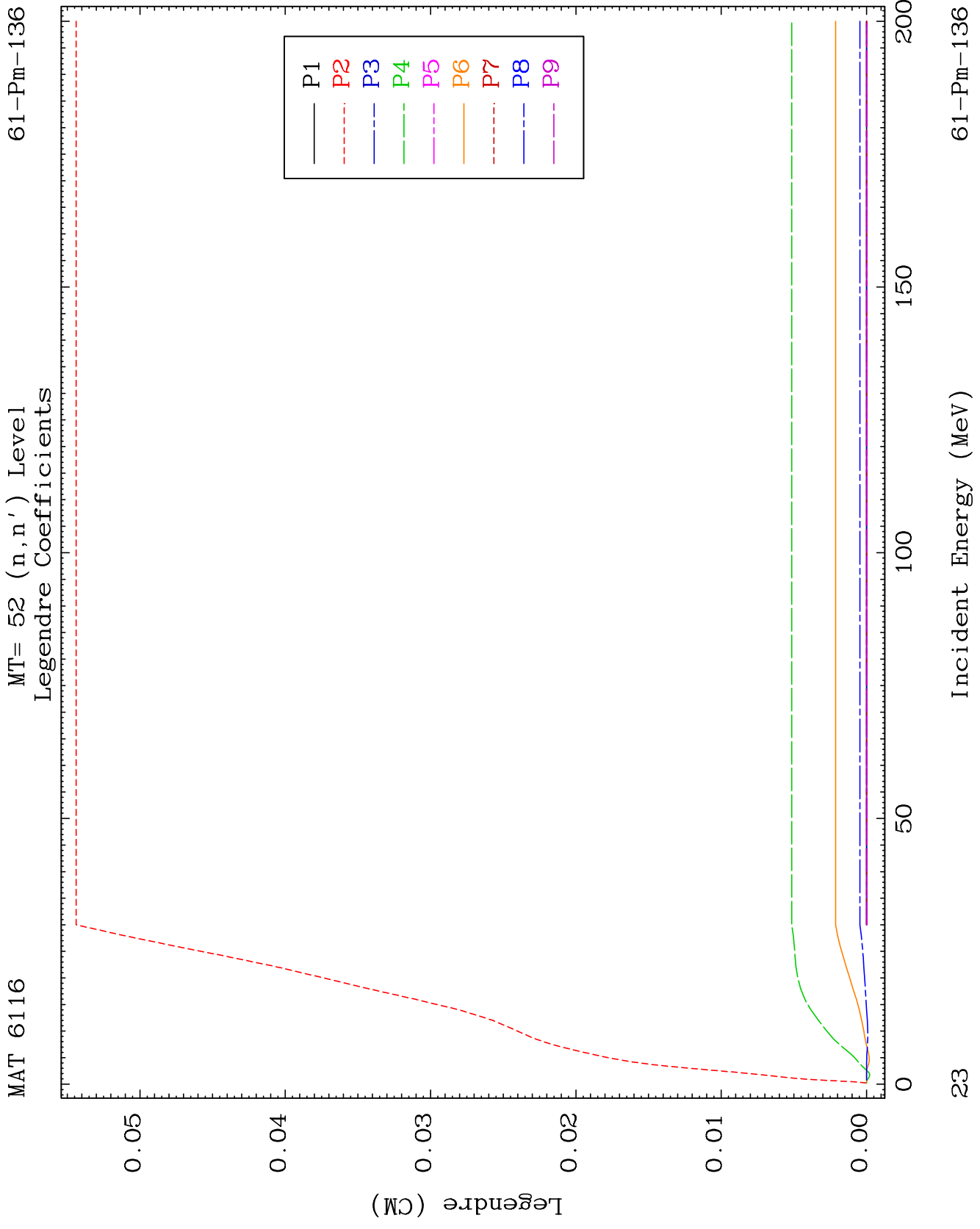
61-Pm-136



22

Incident Energy (MeV)

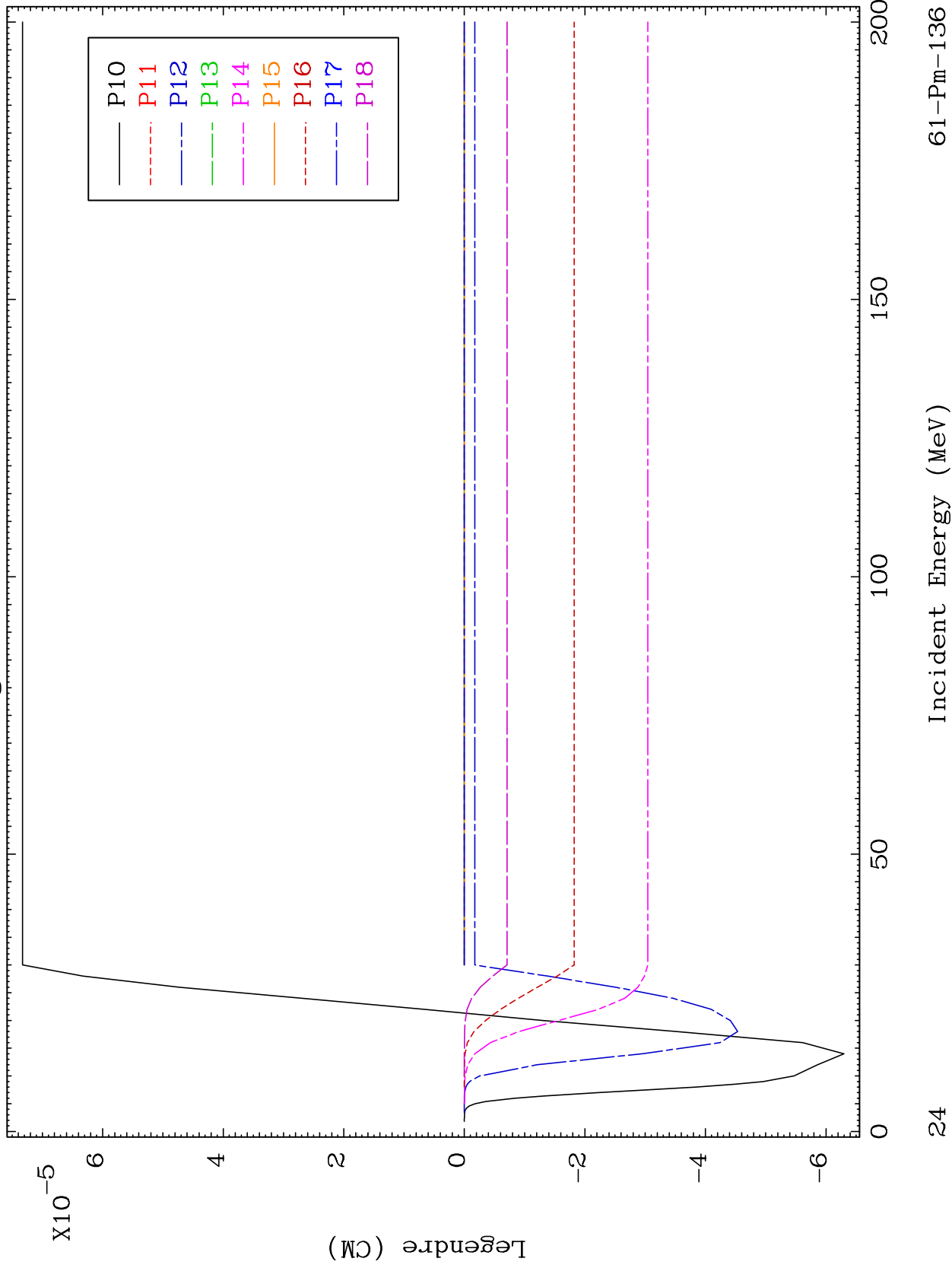
61-Pm-136



MAT 6116

MT= 52 (n,n') Level
Legendre Coefficients

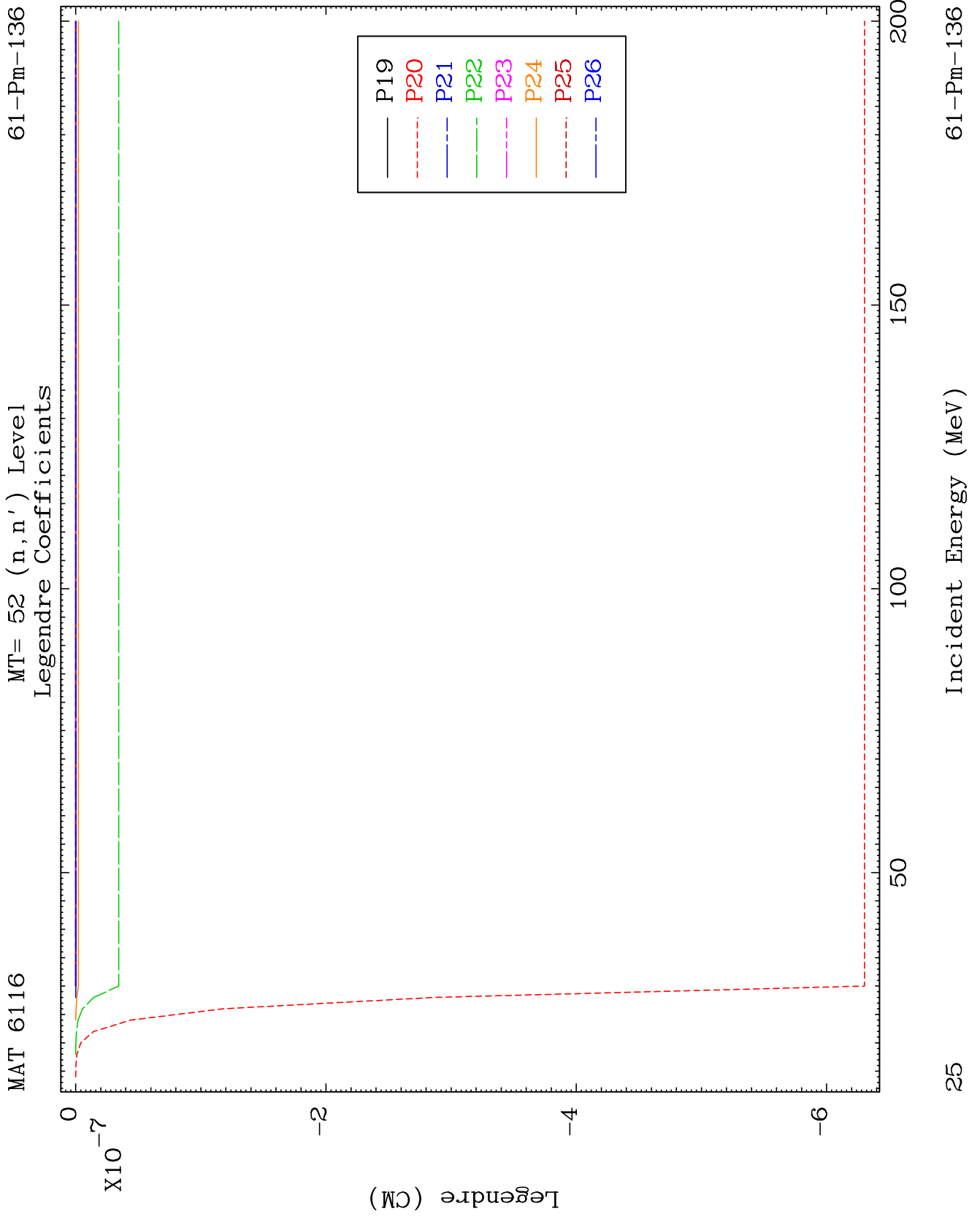
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24

Incident Energy (MeV)

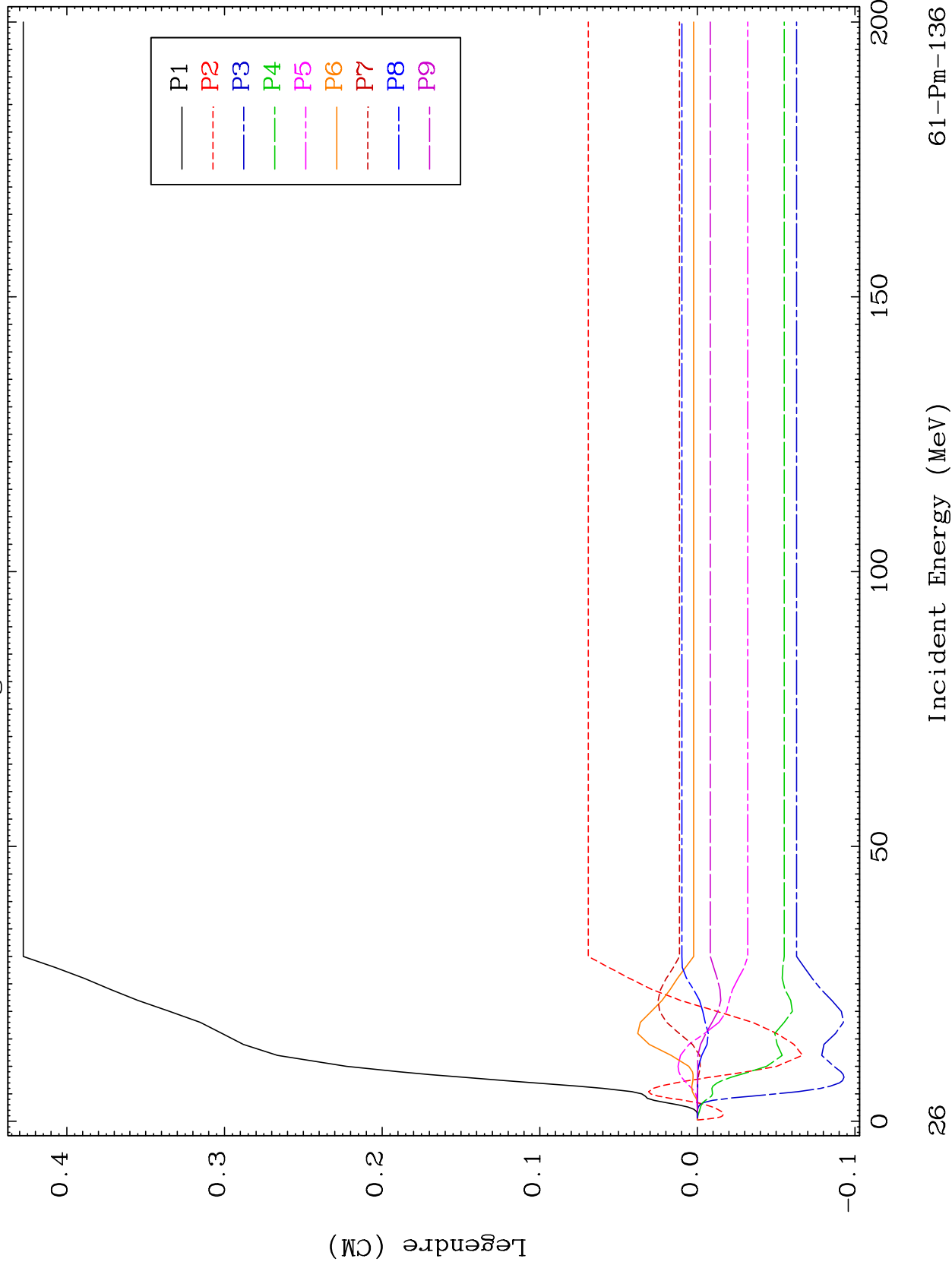
61-Pm-136



MAT 6116

MT= 53 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

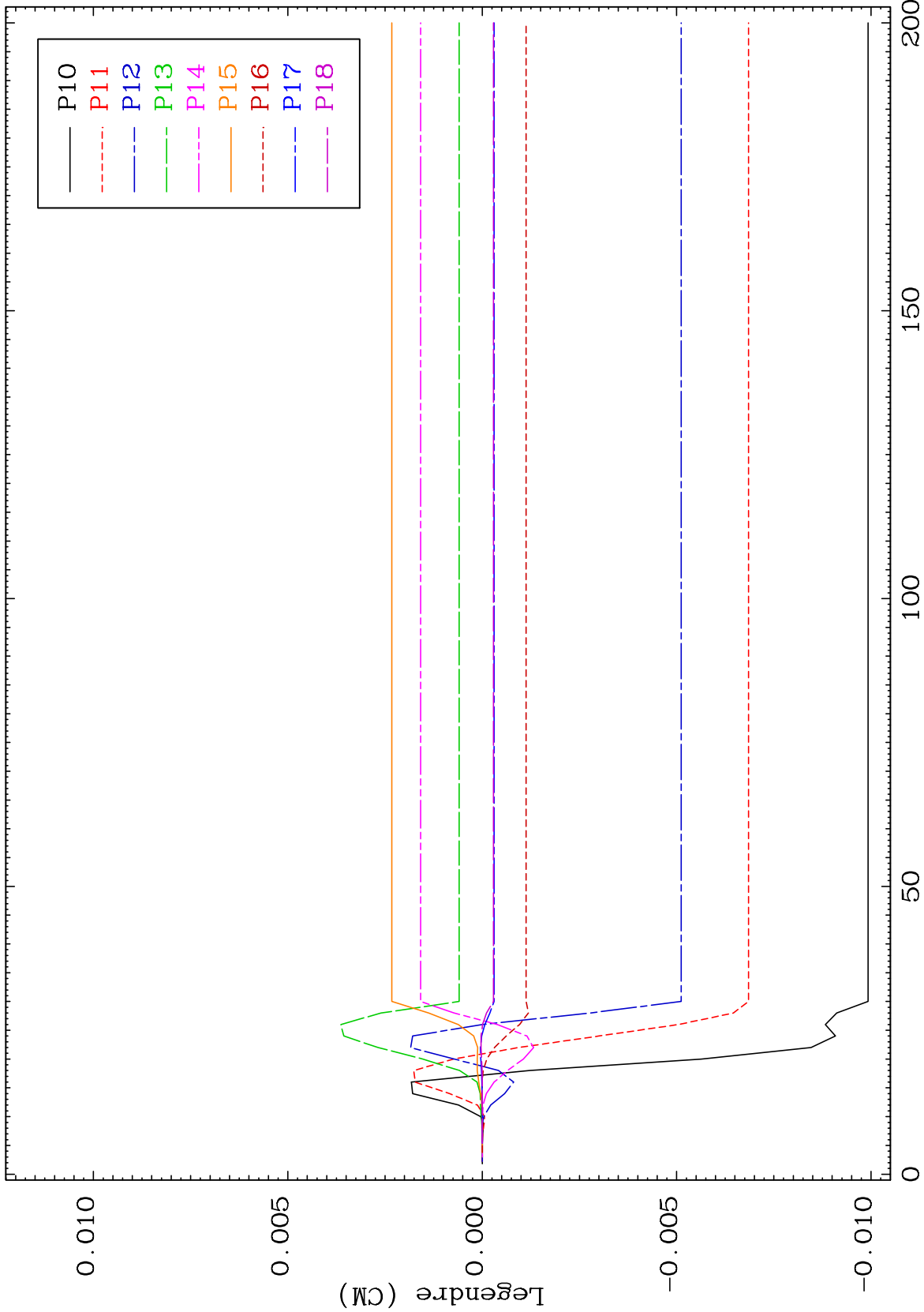
Incident Energy (MeV)

26

MAT 6116

MT= 53 (n,n') Level Legendre Coefficients

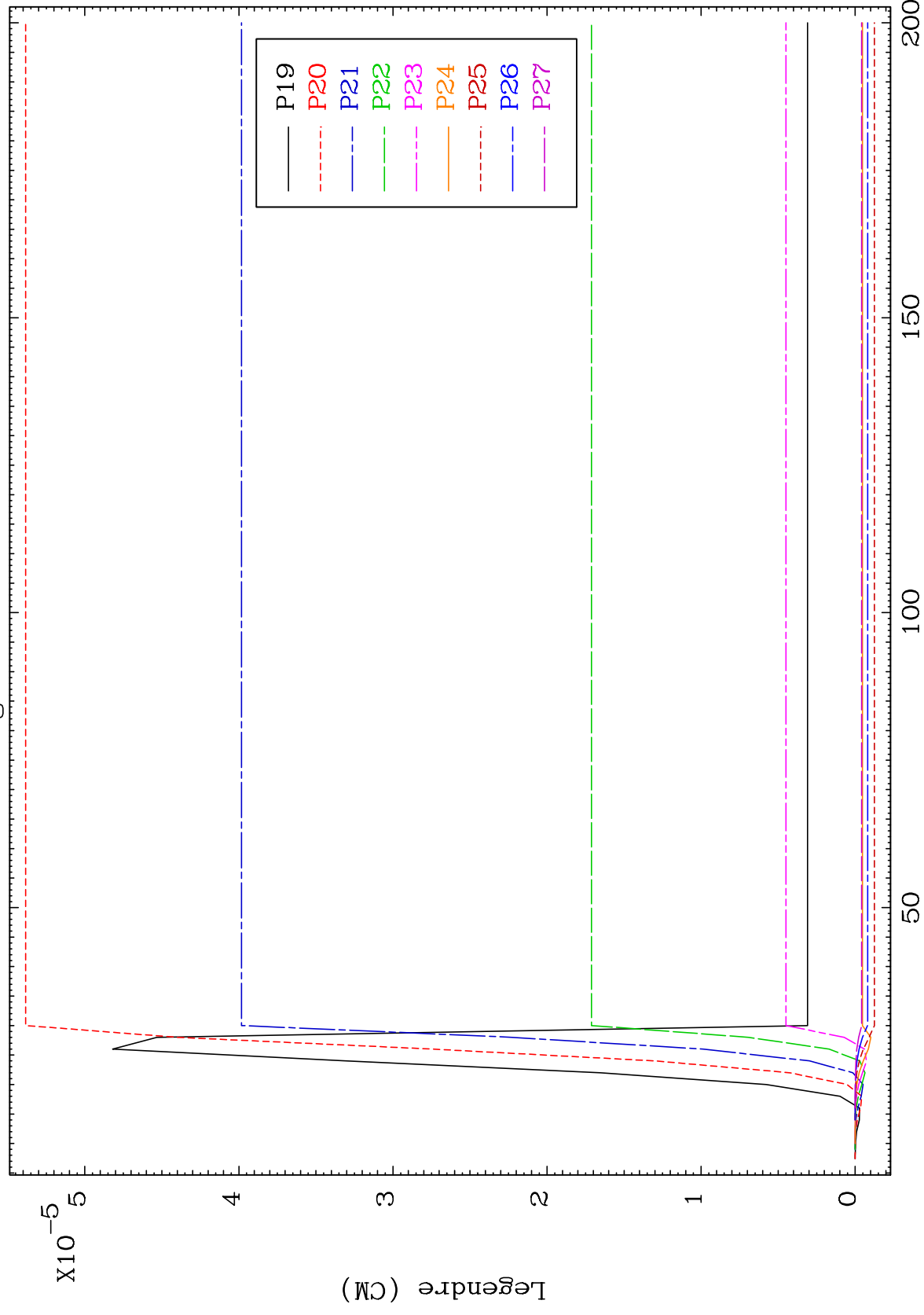
61-Pm-136



MAT 6116

MT= 53 (n,n') Level
Legendre Coefficients

61-Pm-136



28

Incident Energy (MeV)

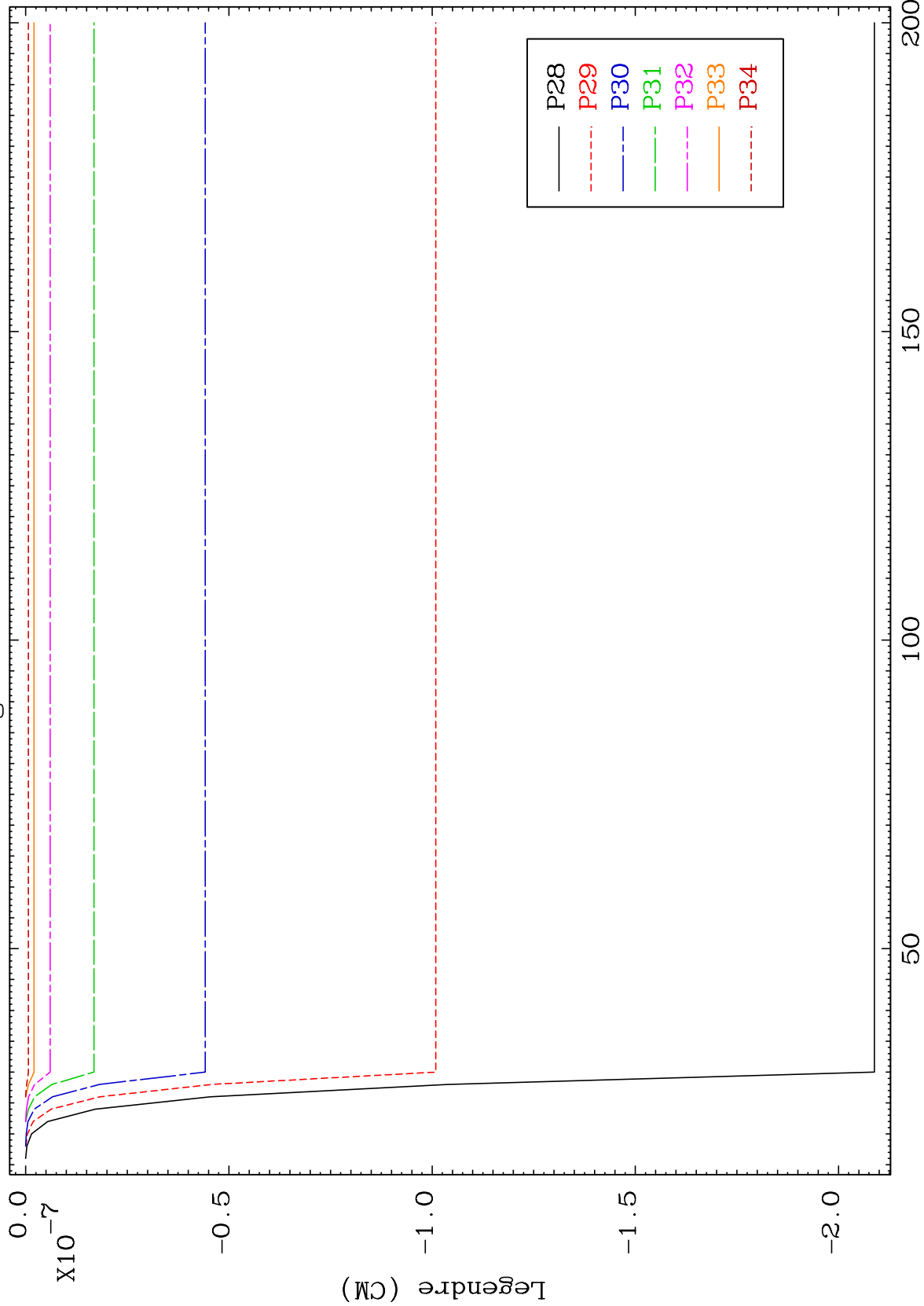
61-Pm-136

MAT 6116

MT= 53 (n,n') Level

61-Pm-136

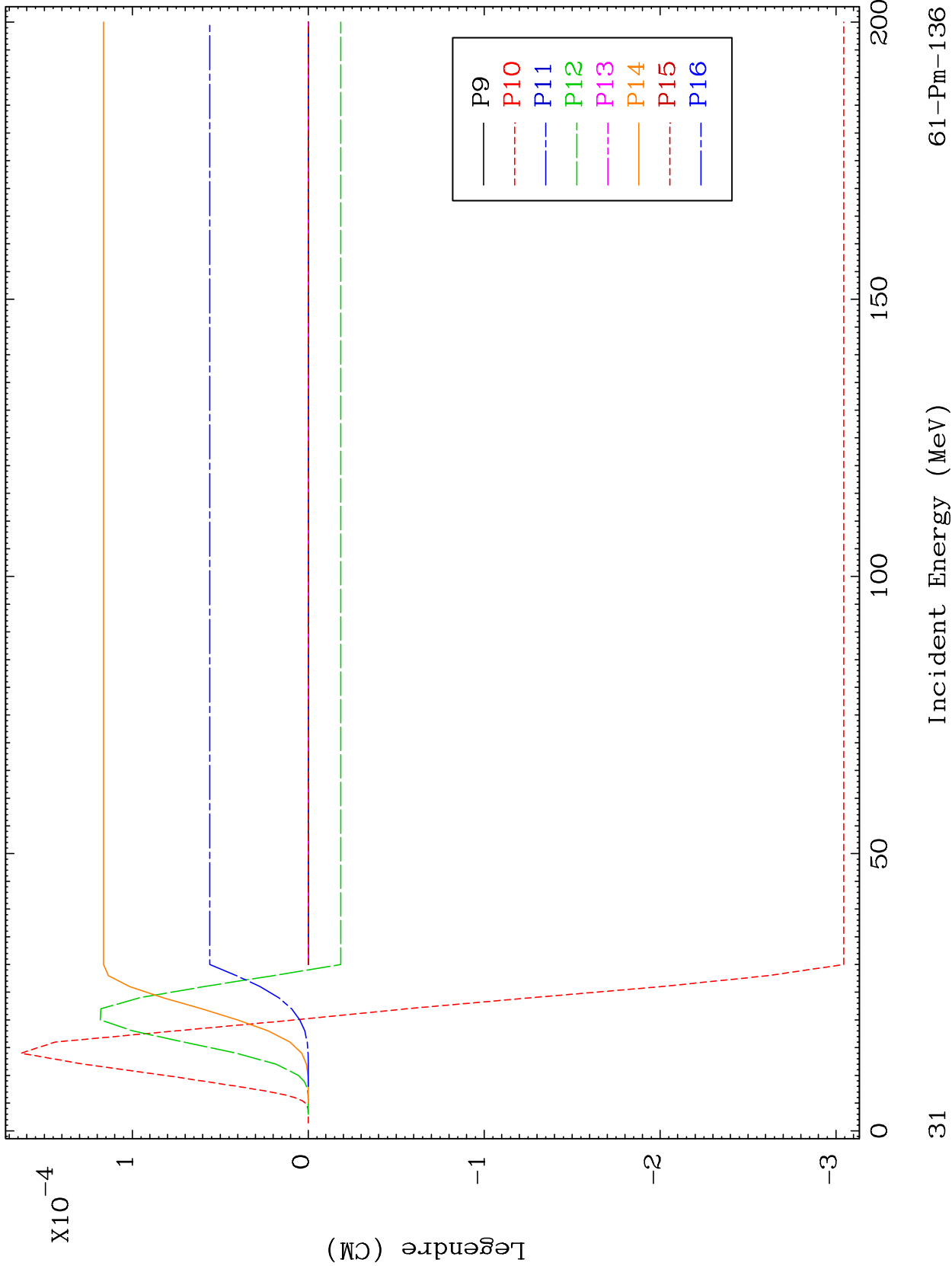
Legendre Coefficients



MAT 6116

MT= 54 (n,n') Level
Legendre Coefficients

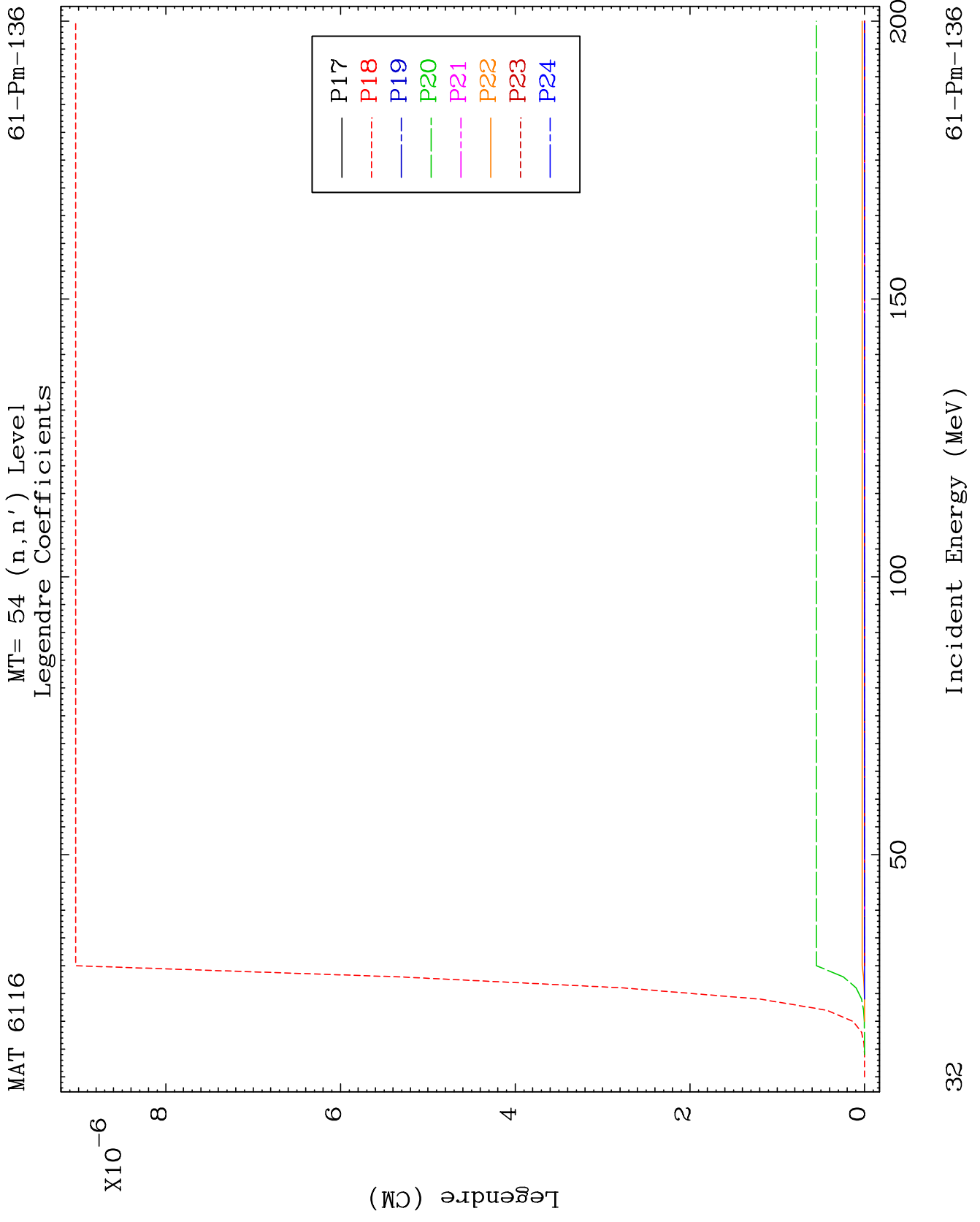
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31

Incident Energy (MeV)

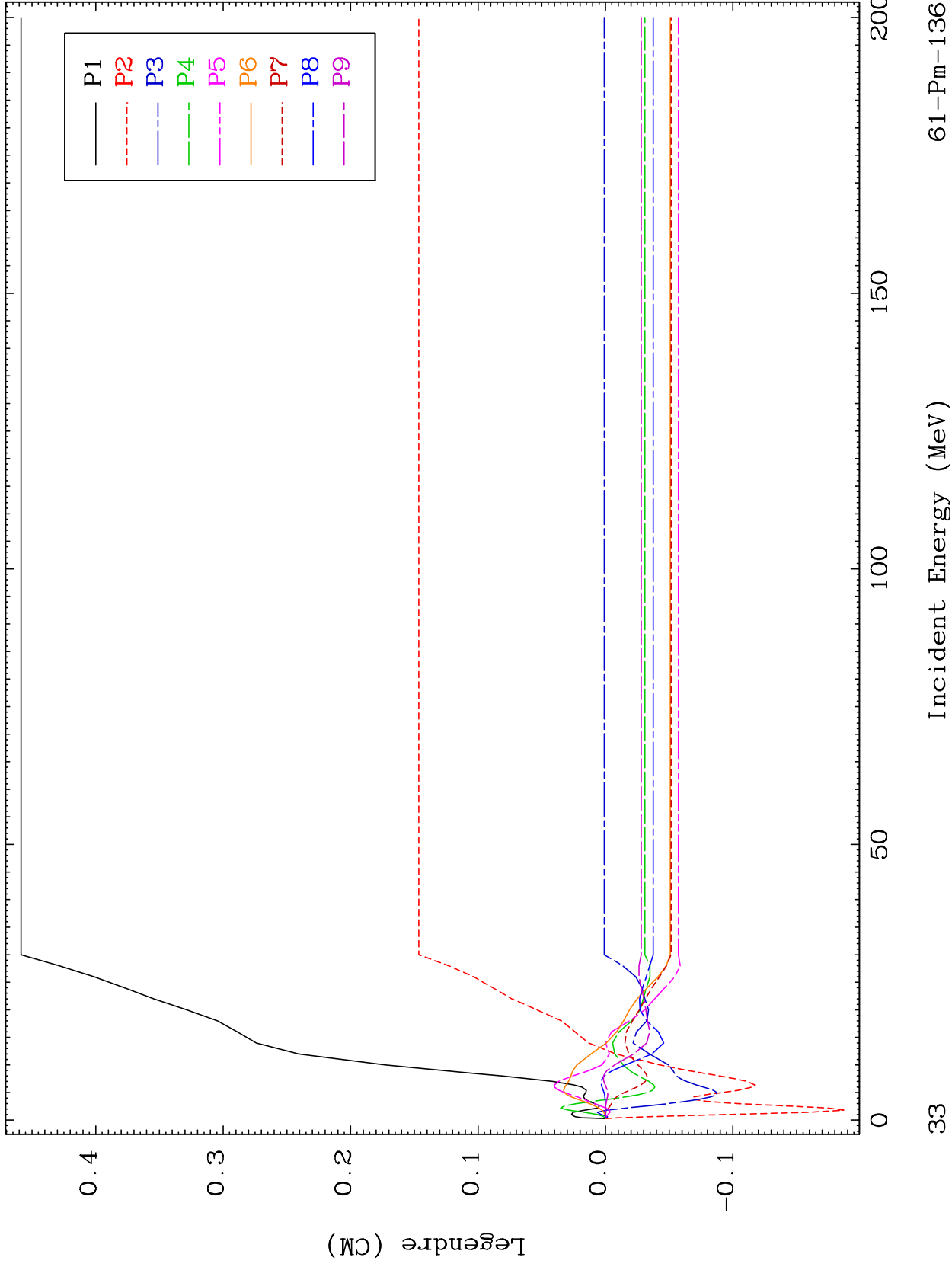
61-Pm-136



MAT 61116

MT= 55 (n,n') Level
Legendre Coefficients

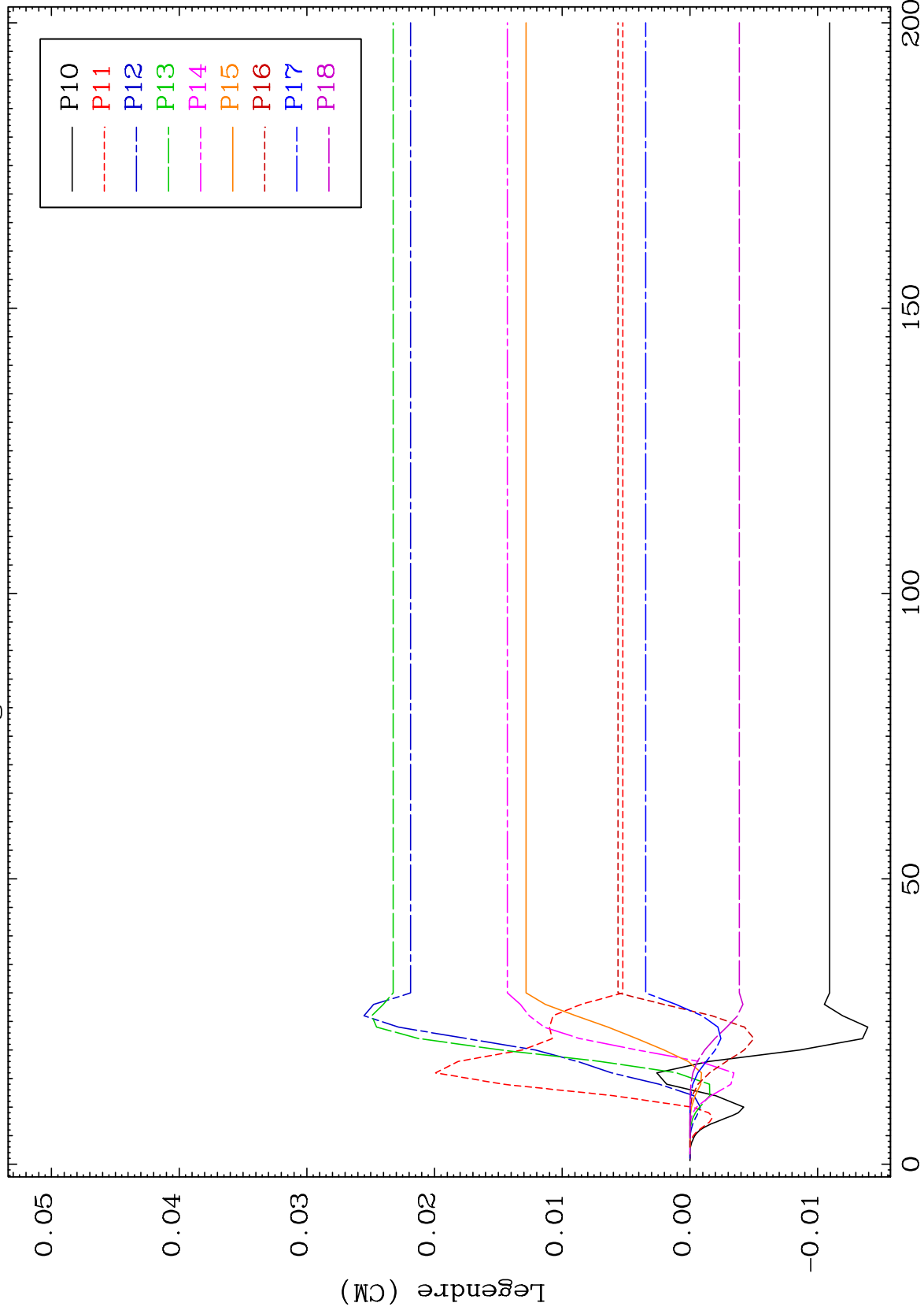
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MAT 6116

MT= 55 (n,n') Level
Legendre Coefficients

61-Pm-136



34

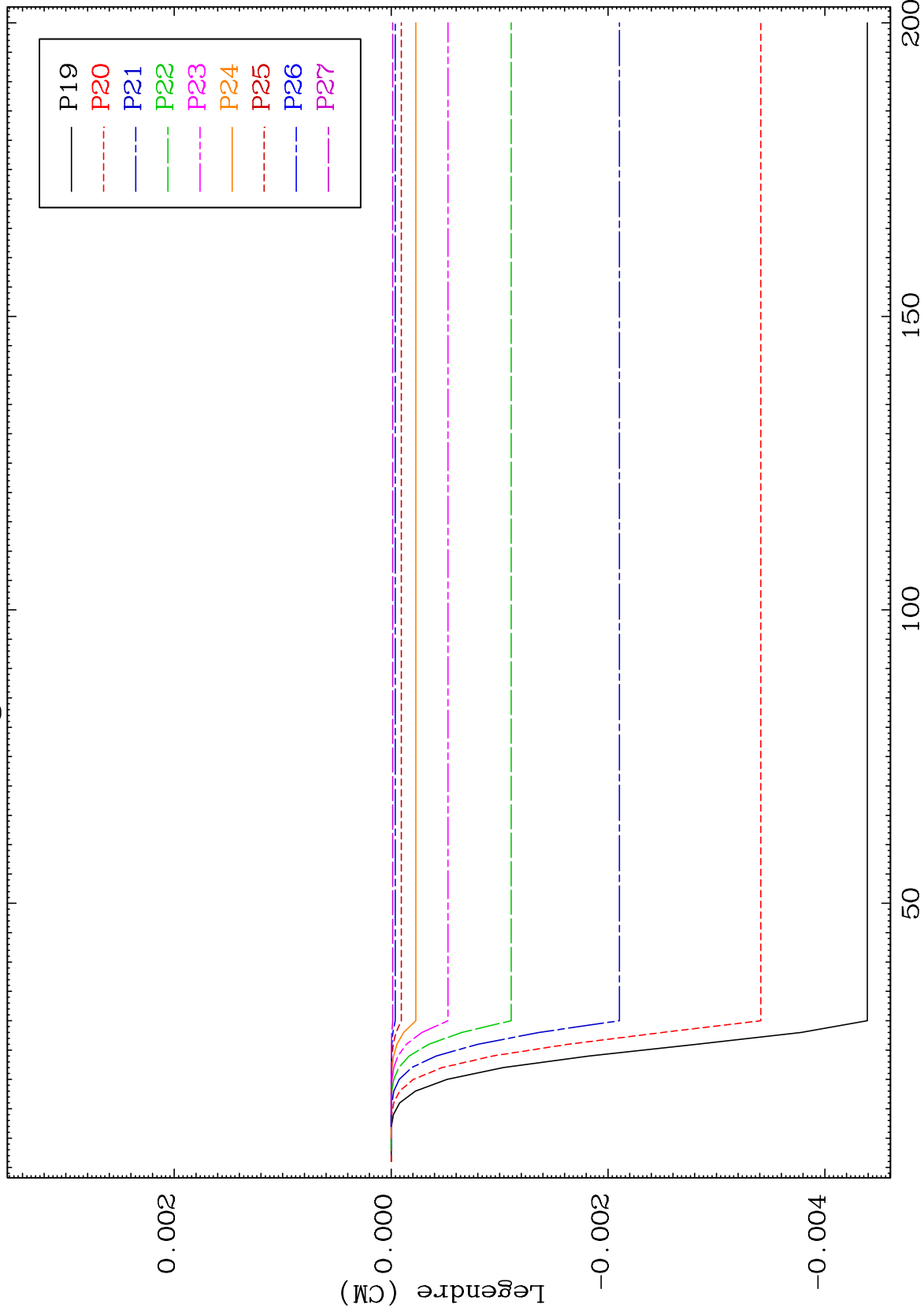
Incident Energy (MeV)

61-Pm-136

MAT 6116

MT= 55 (n,n') Level
Legendre Coefficients

61-Pm-136



35

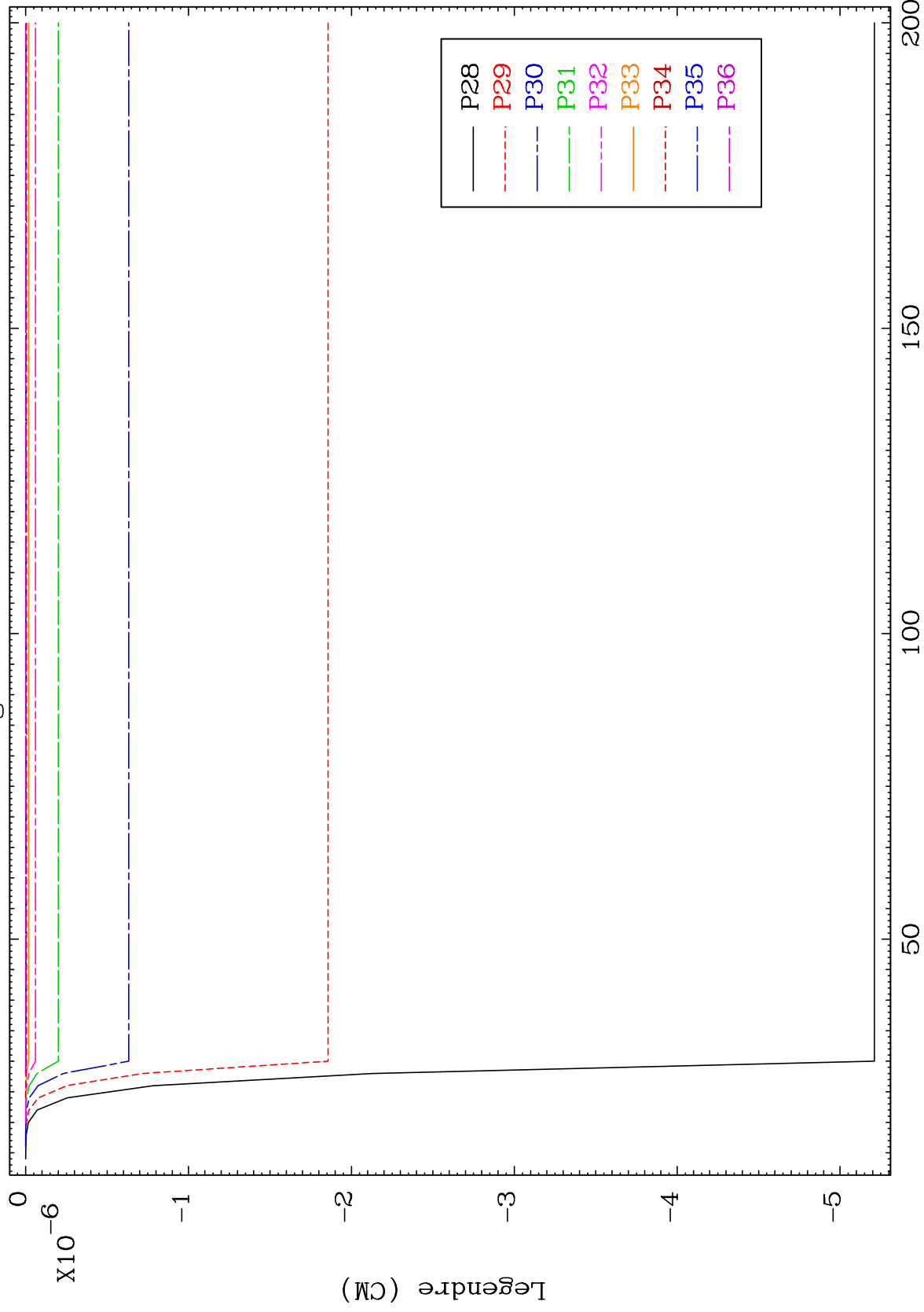
Incident Energy (MeV)

61-Pm-136

MAT 6116

MT= 55 (n,n') Level
Legendre Coefficients

61-Pm-136



36

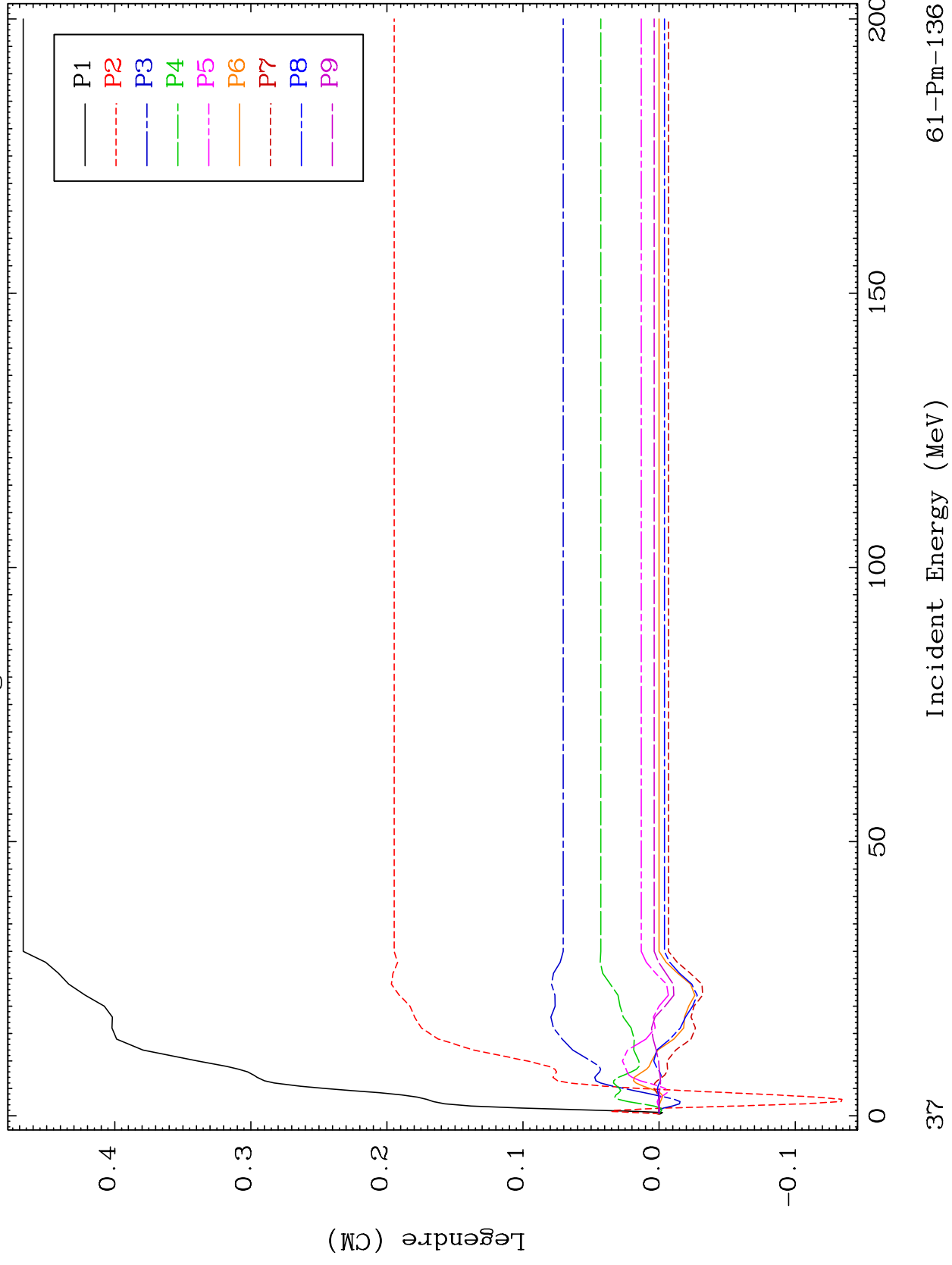
Incident Energy (MeV)

61-Pm-136

MAT 6116

MT= 56 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

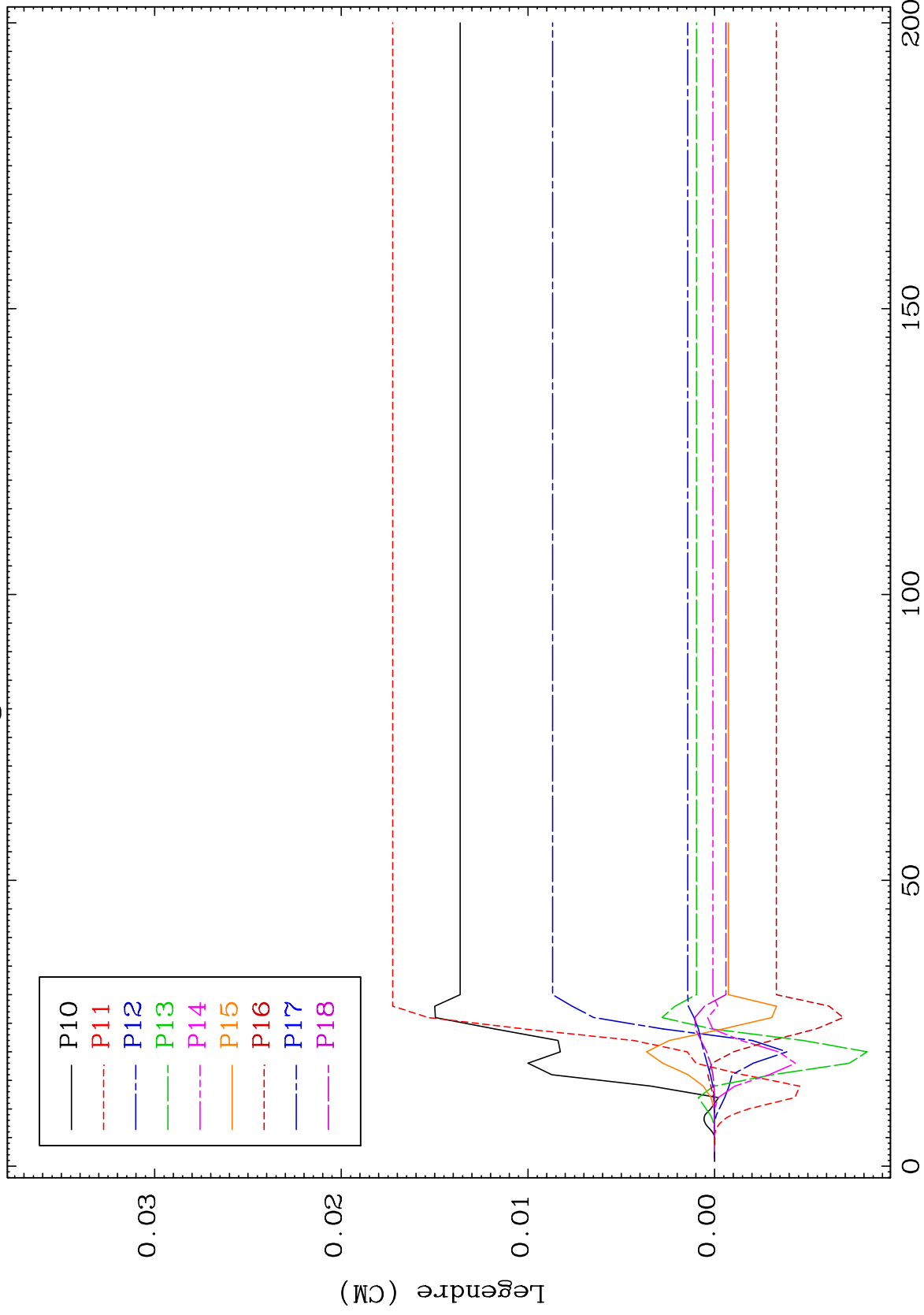
Incident Energy (MeV)

37

MAT 6116

MT= 56 (n,n') Level
Legendre Coefficients

61-Pm-136



38

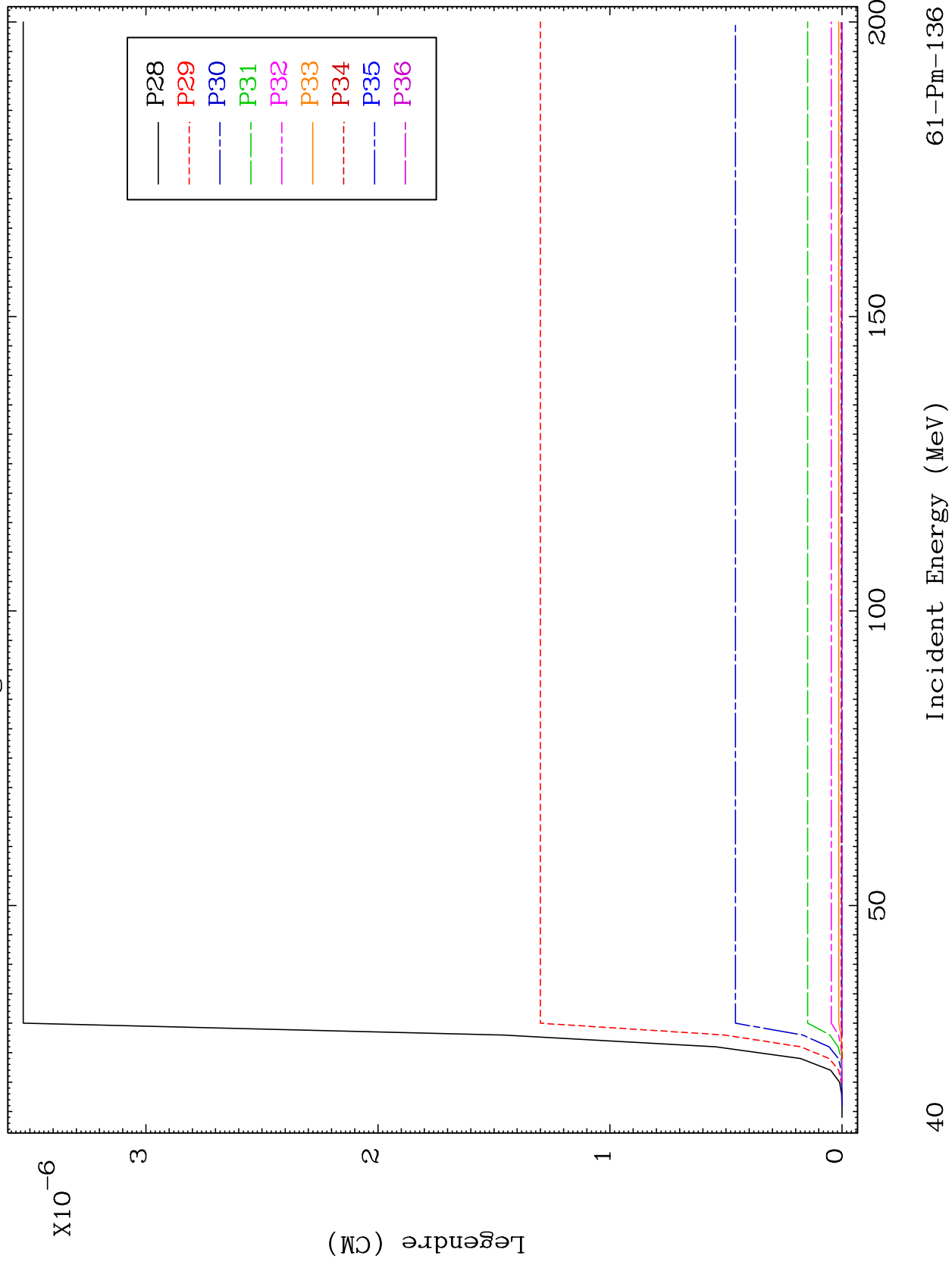
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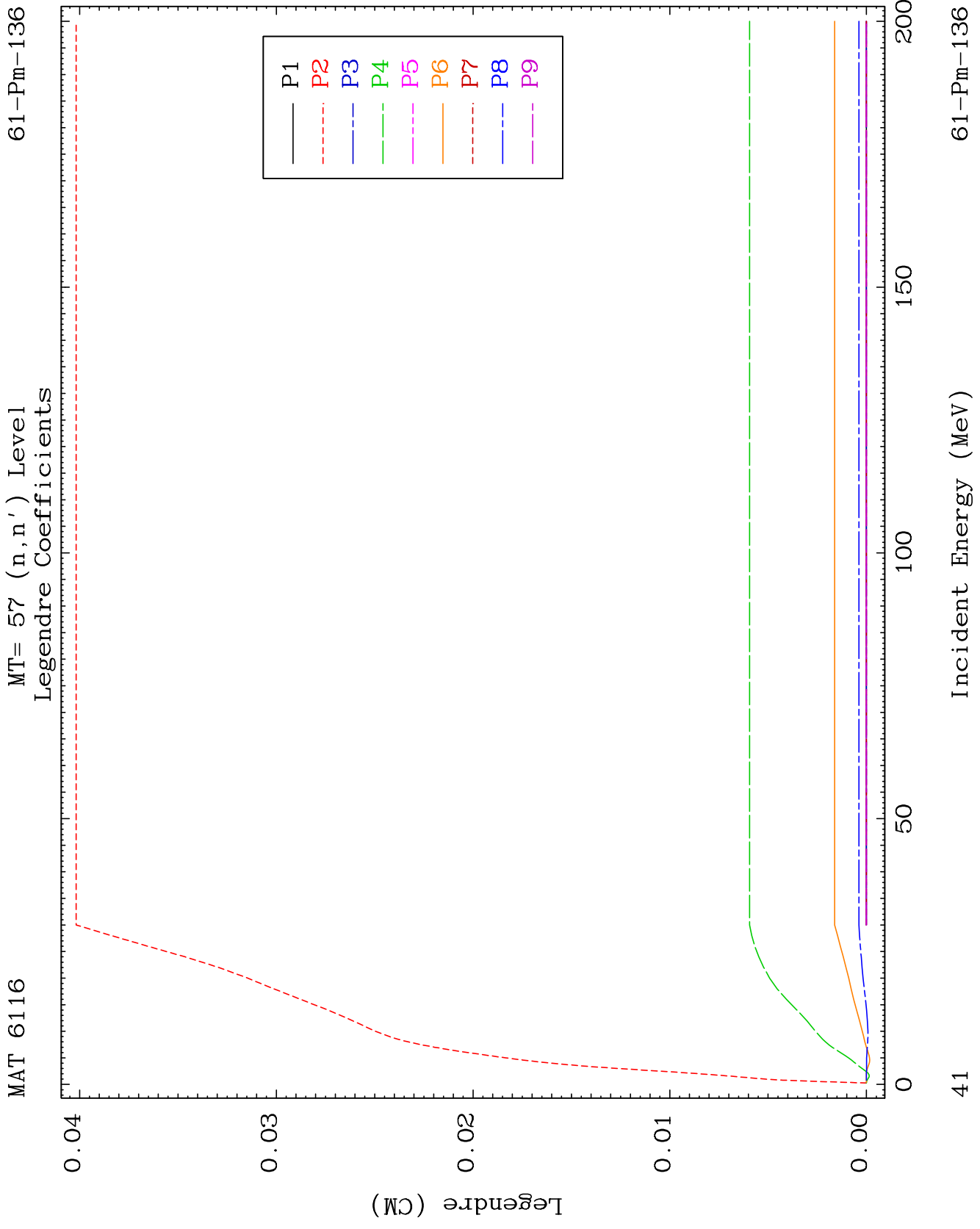
61-Pm-136

MAT 6116

MT= 56 (n,n') Level
Legendre Coefficients

61-Pm-136

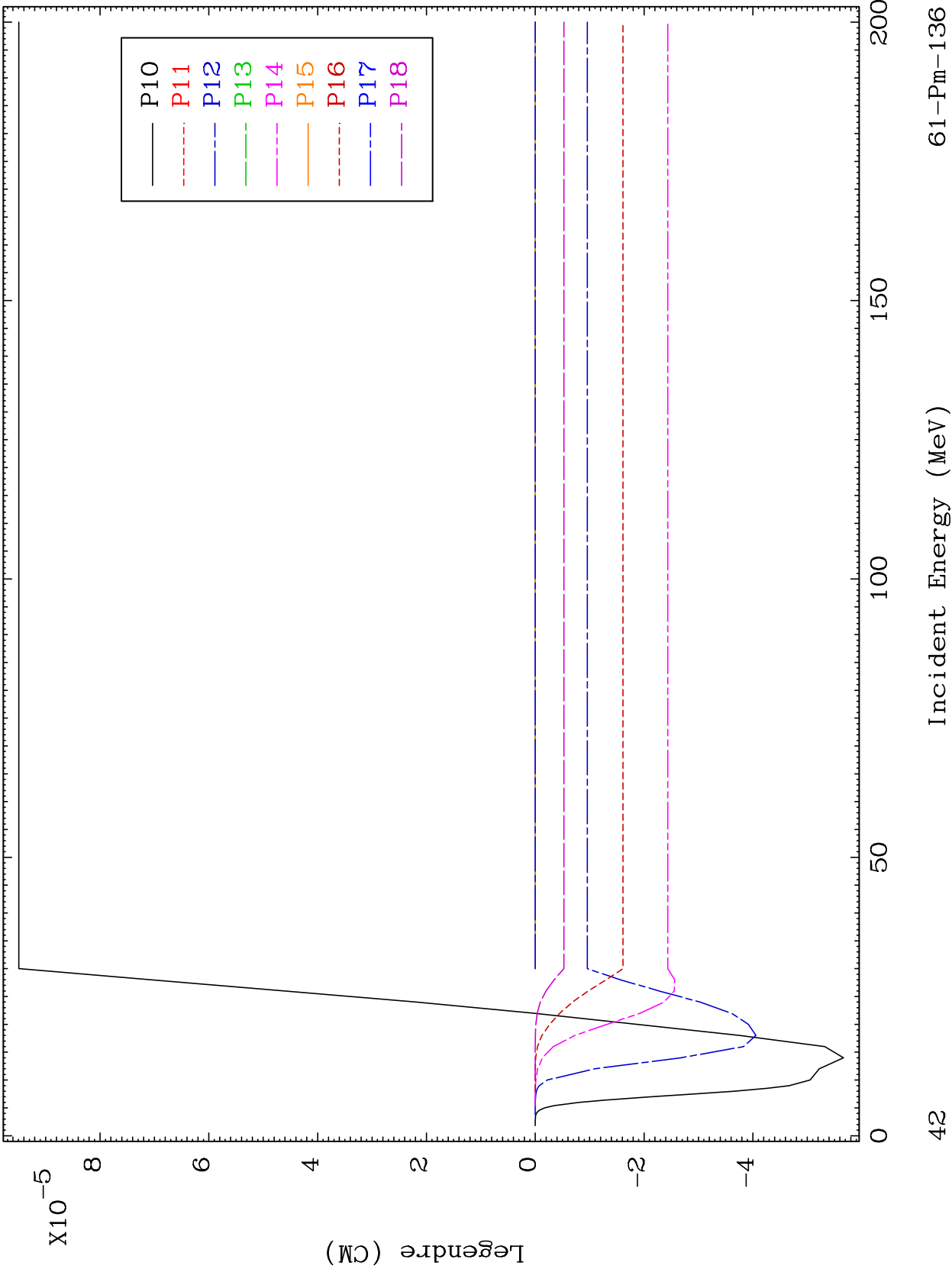




MAT 6116

MT= 57 (n,n') Level
Legendre Coefficients

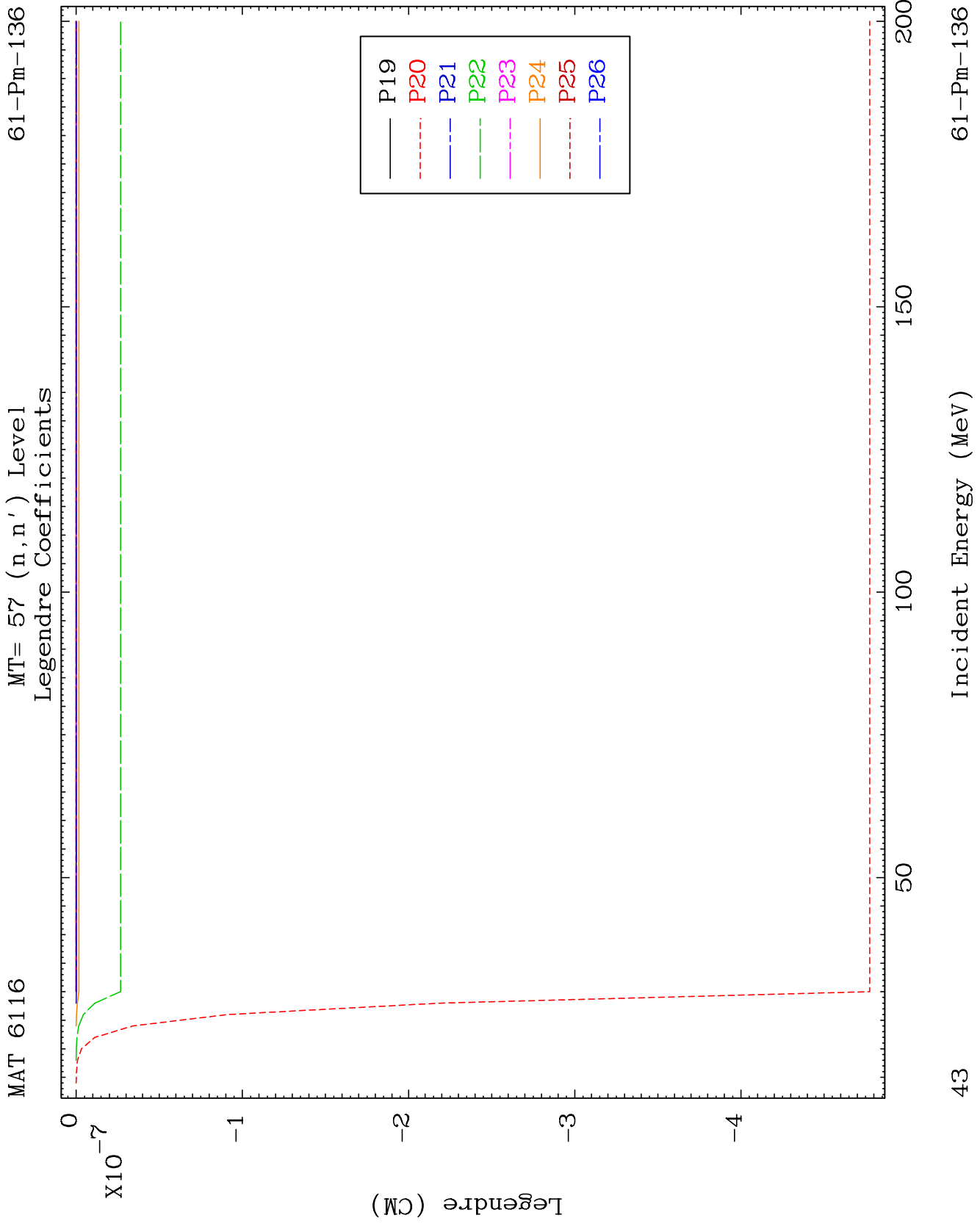
61-Pm-136



61-Pm-136

Incident Energy (MeV)

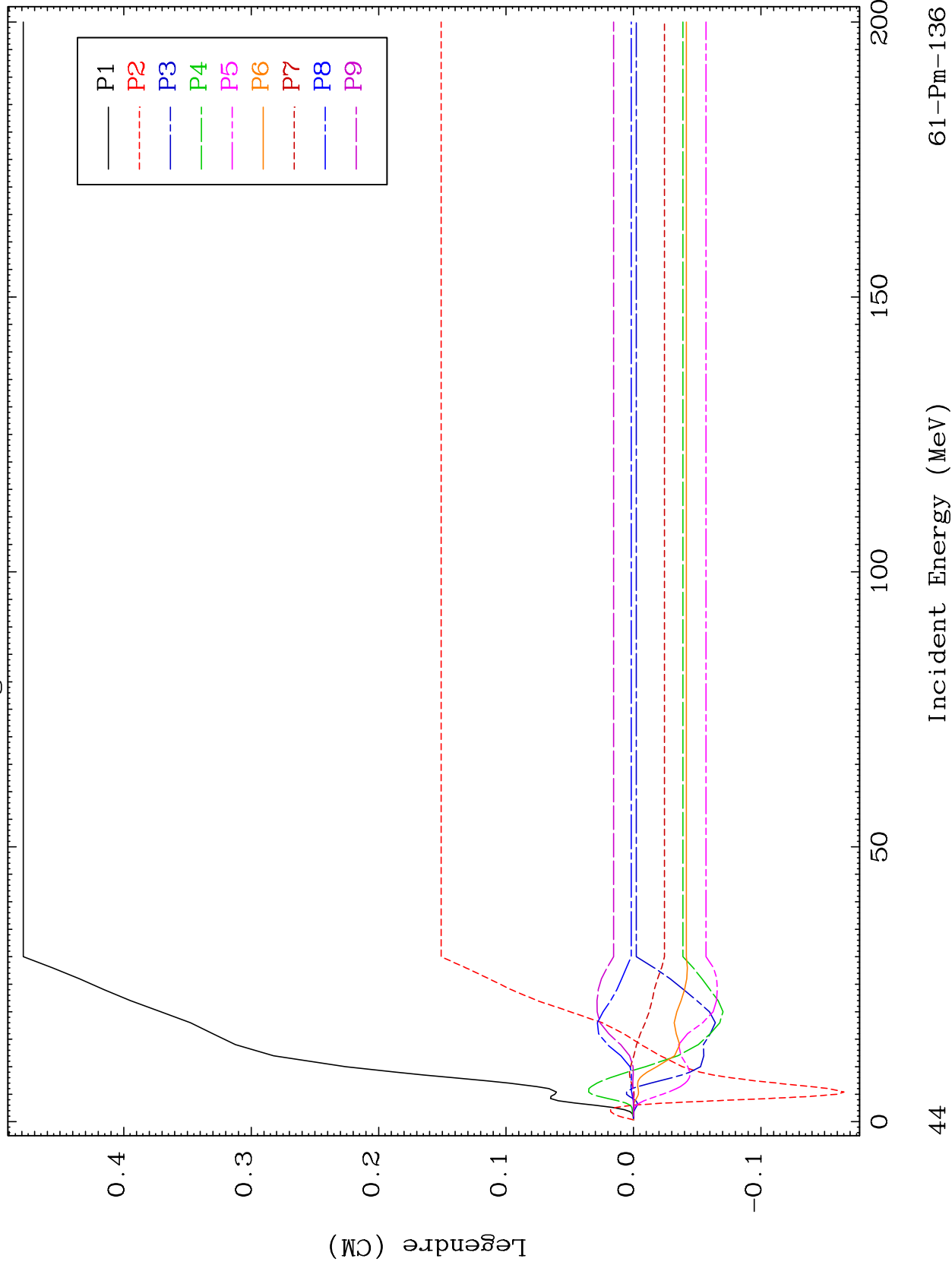
42



MAT 6116

MT= 58 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

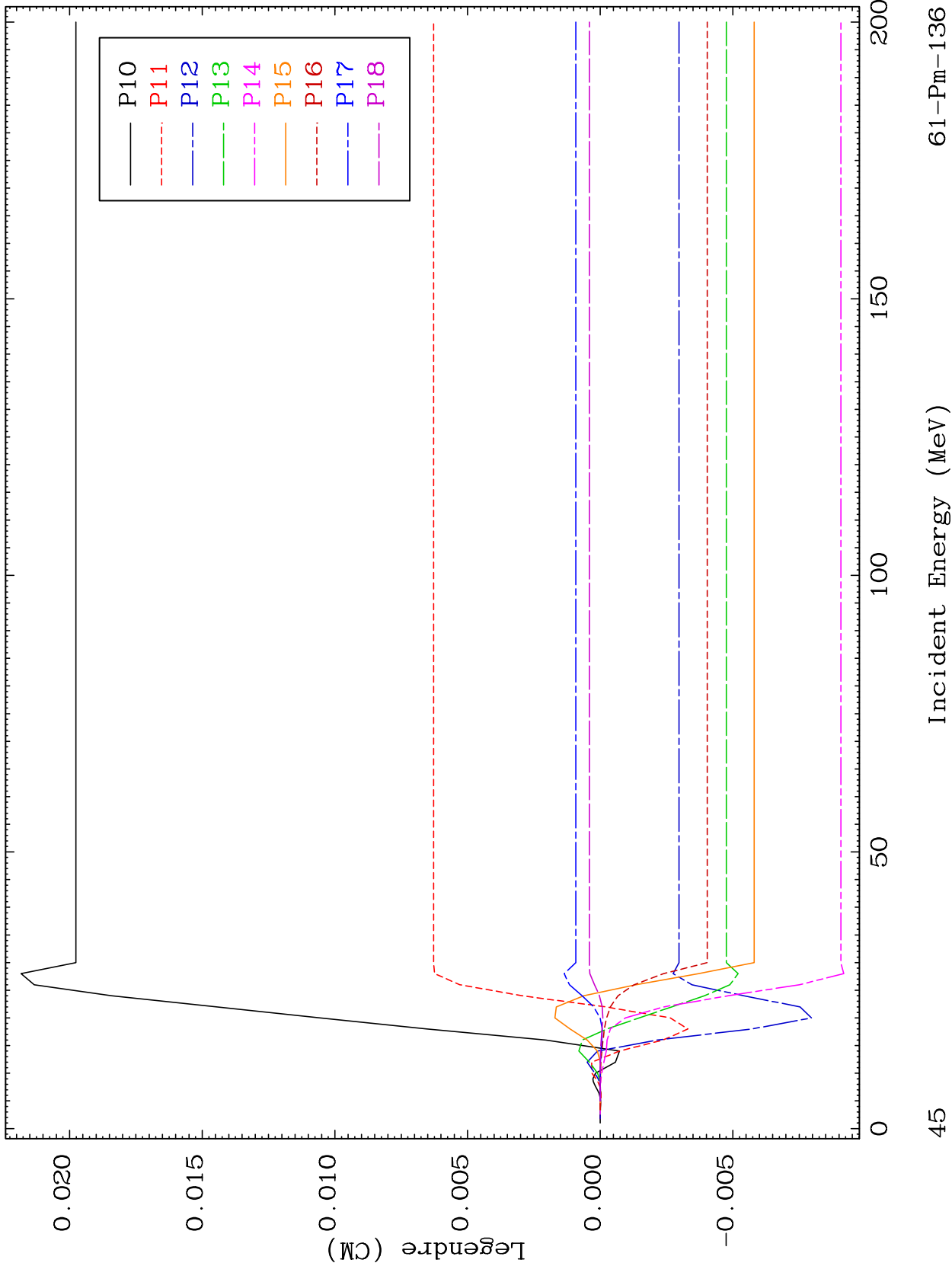
Incident Energy (MeV)

44

MAT 6116

MT= 58 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

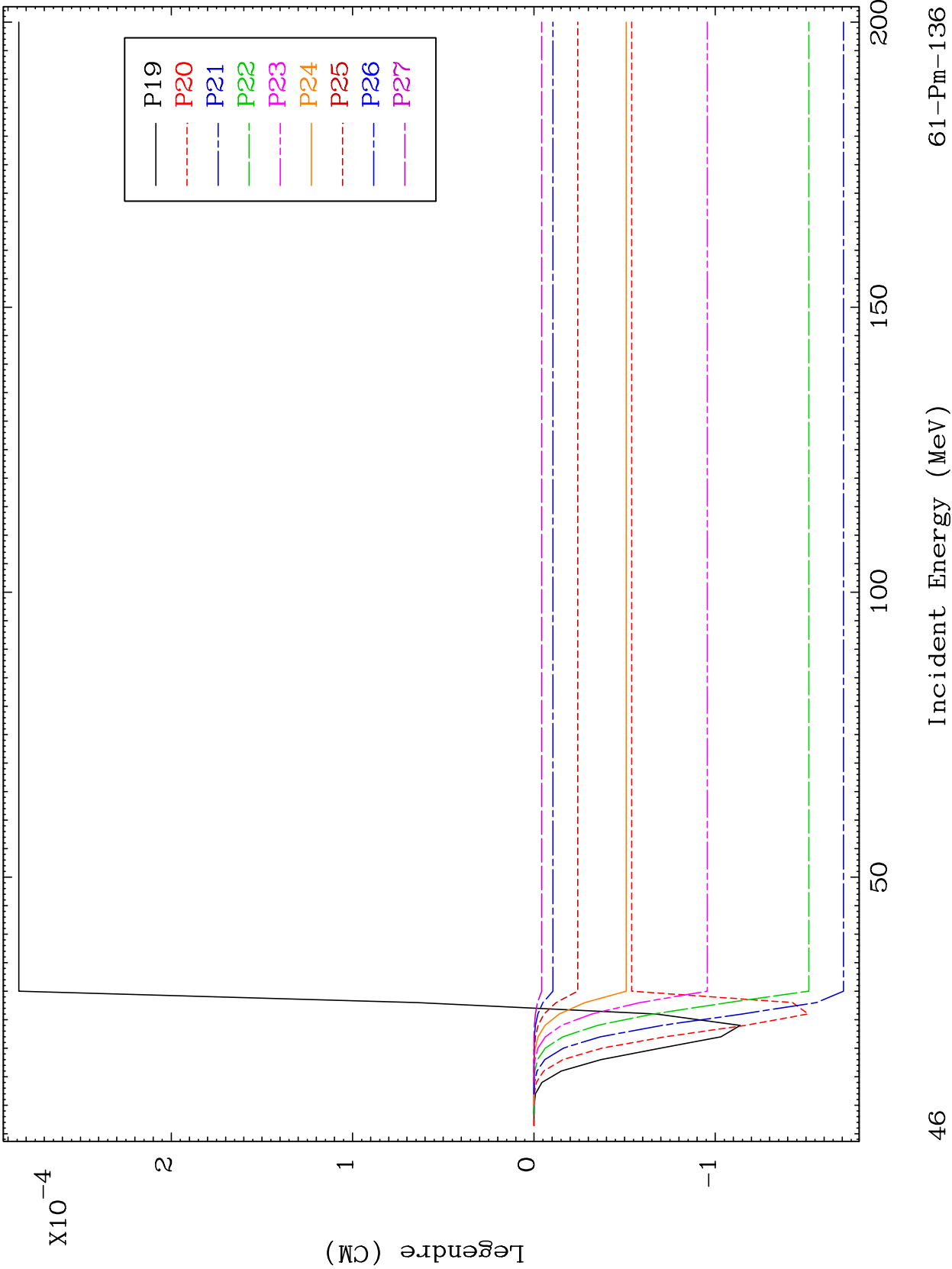
Incident Energy (MeV)

45

MAT 6116

MT= 58 (n,n') Level
Legendre Coefficients

61-Pm-136



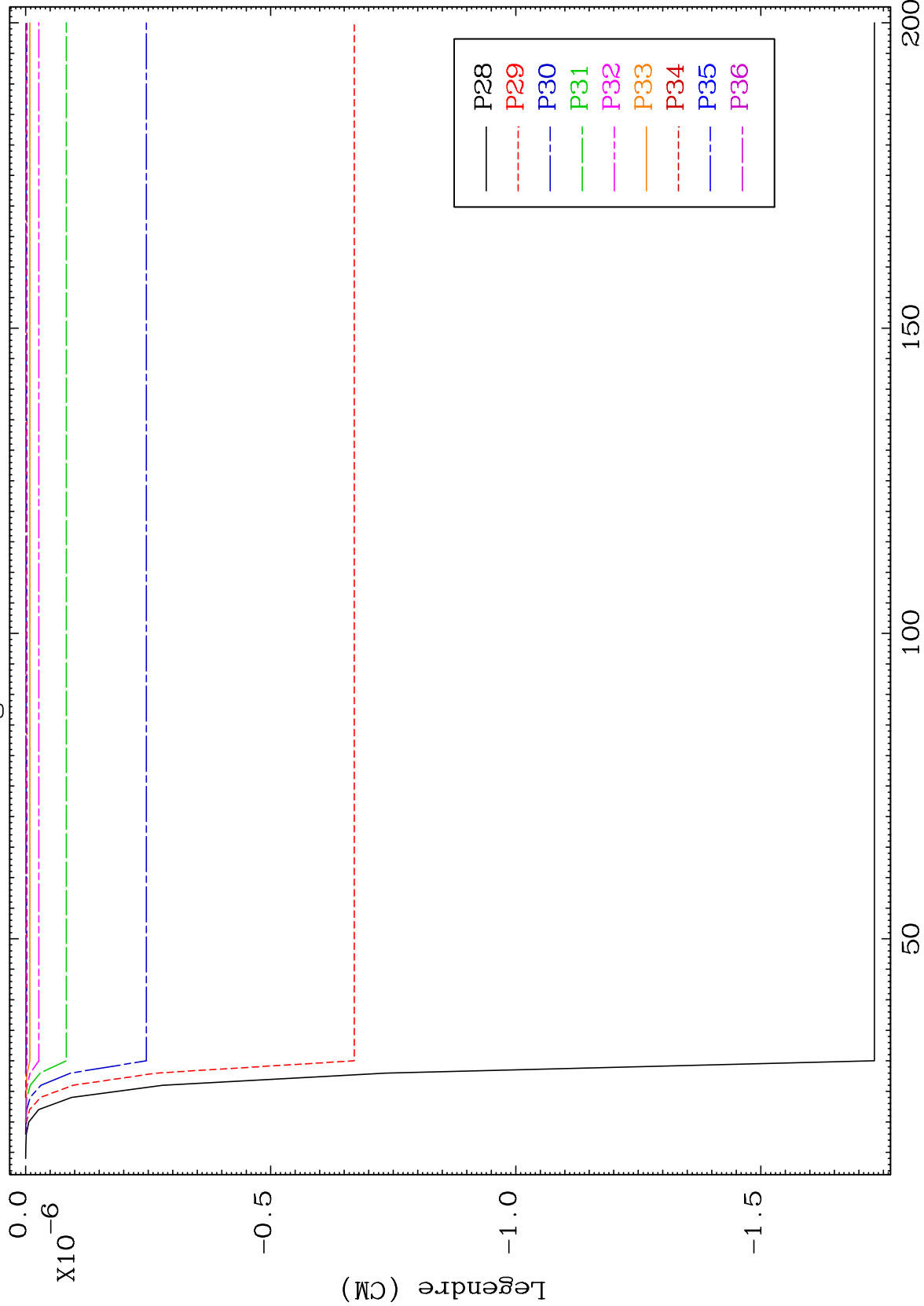
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61-Pm-136

MAT 6116

MT= 58 (n,n') Level
Legendre Coefficients

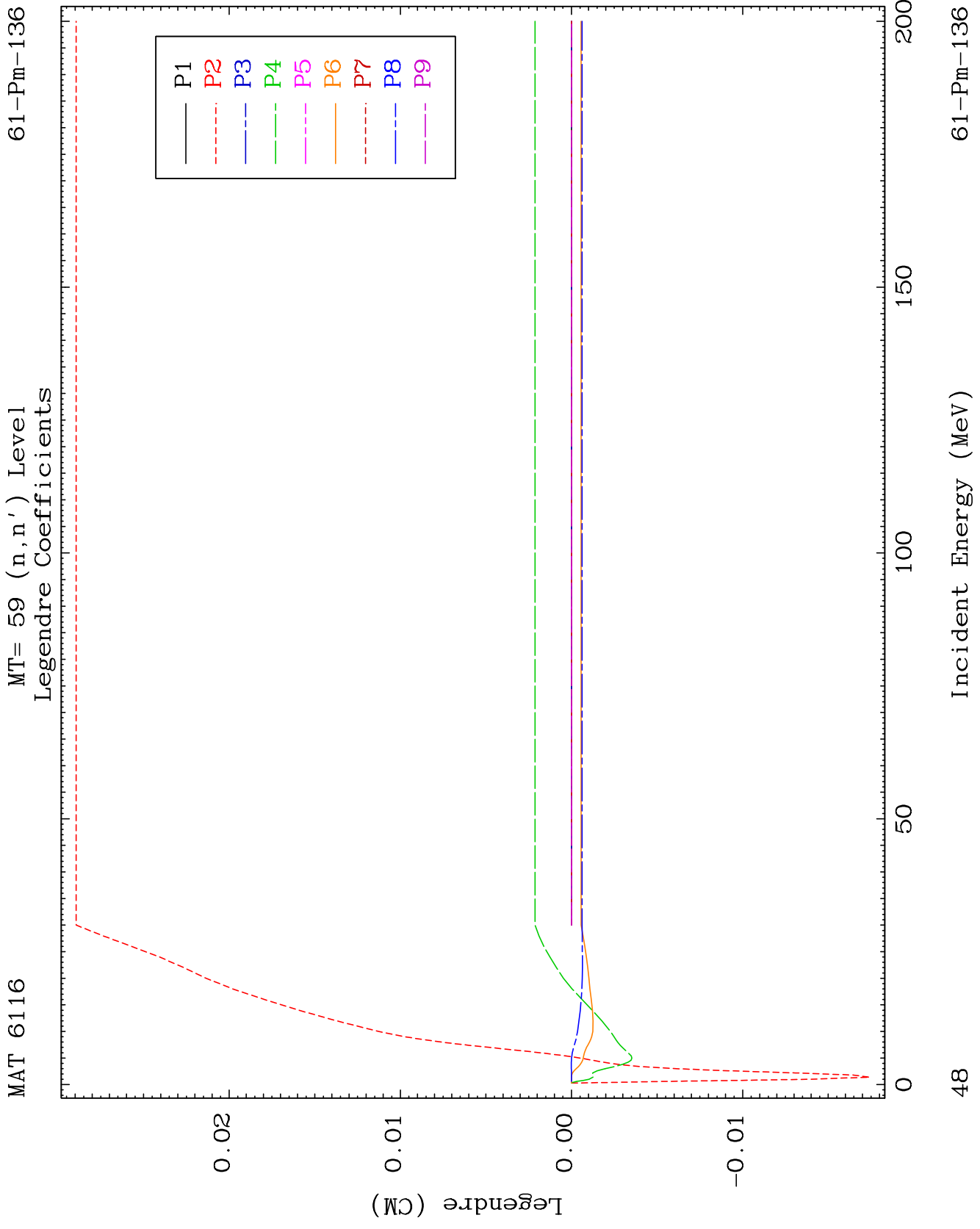
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47

Incident Energy (MeV)

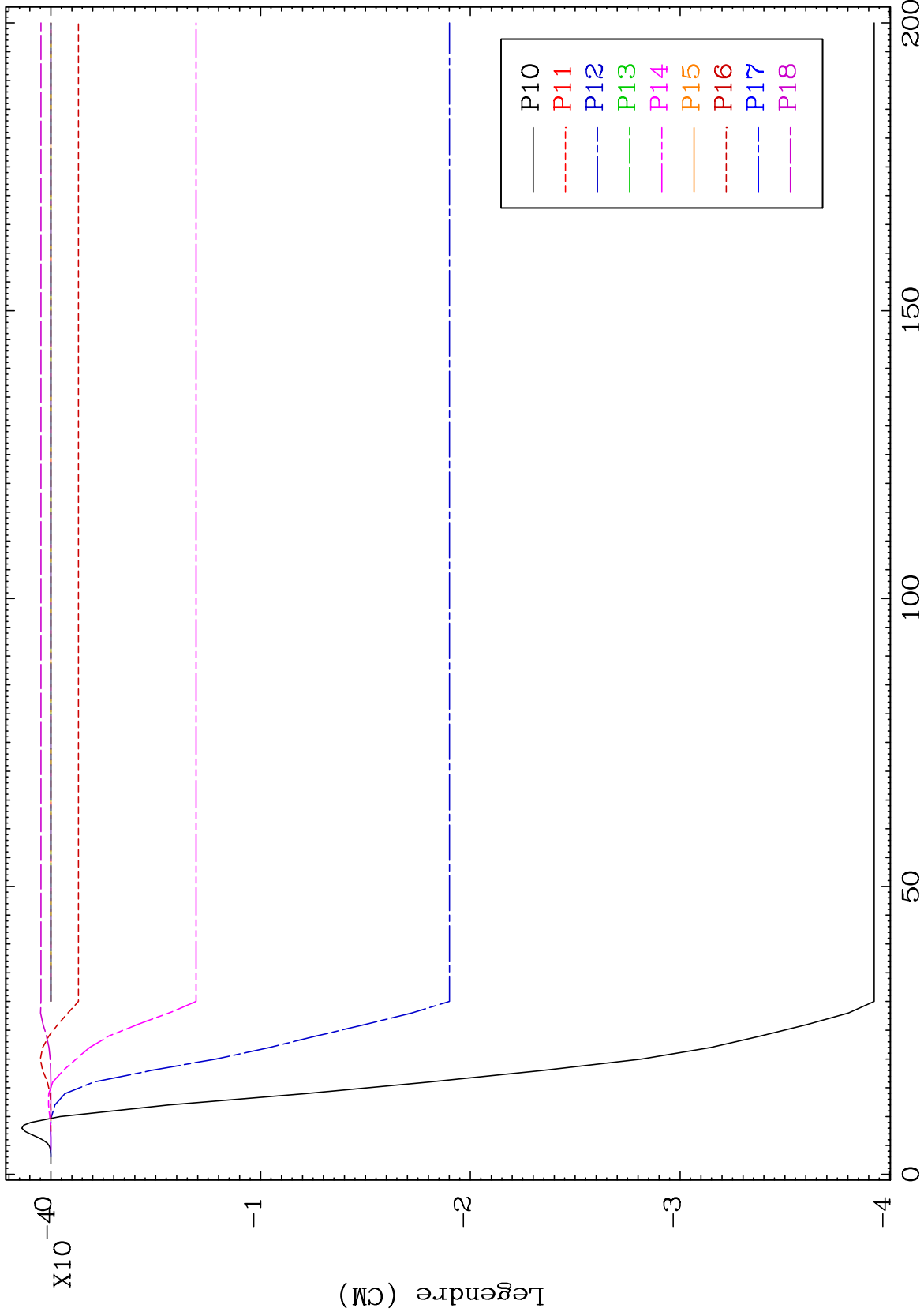
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MAT 6116

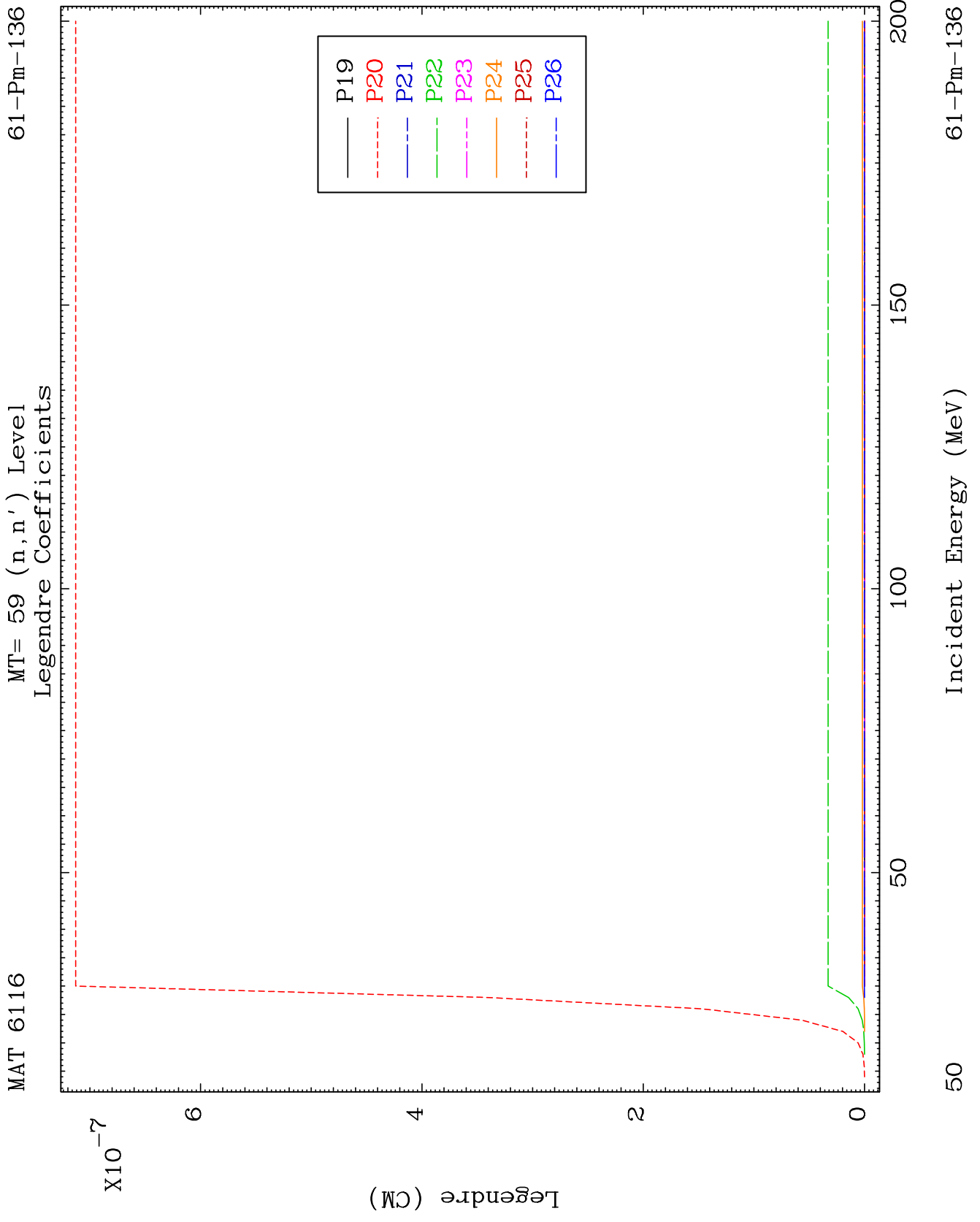
MT= 59 (n,n') Level
Legendre Coefficients

61-Pm-136



49

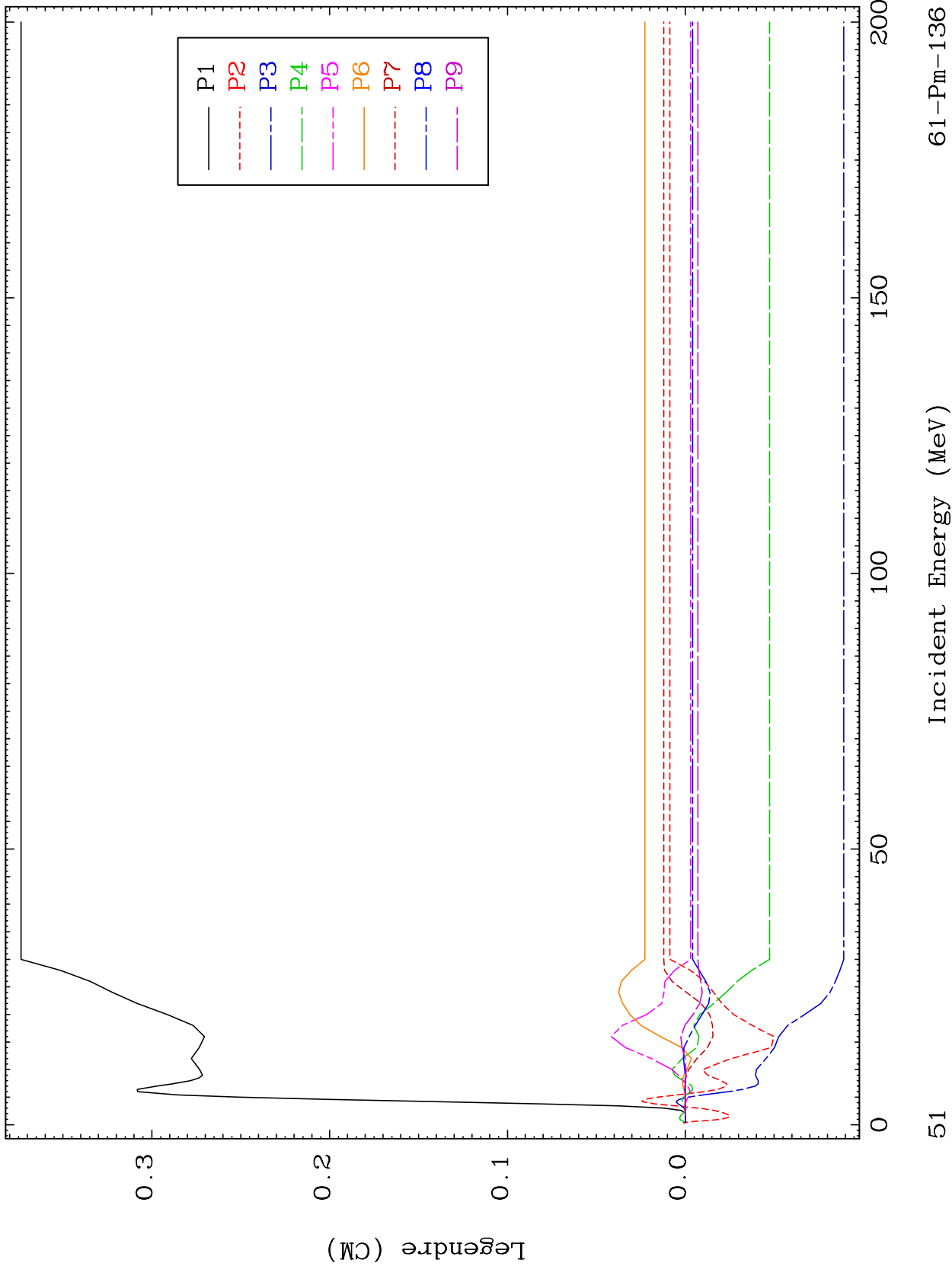
61-Pm-136



MAT 6116

MT= 60 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

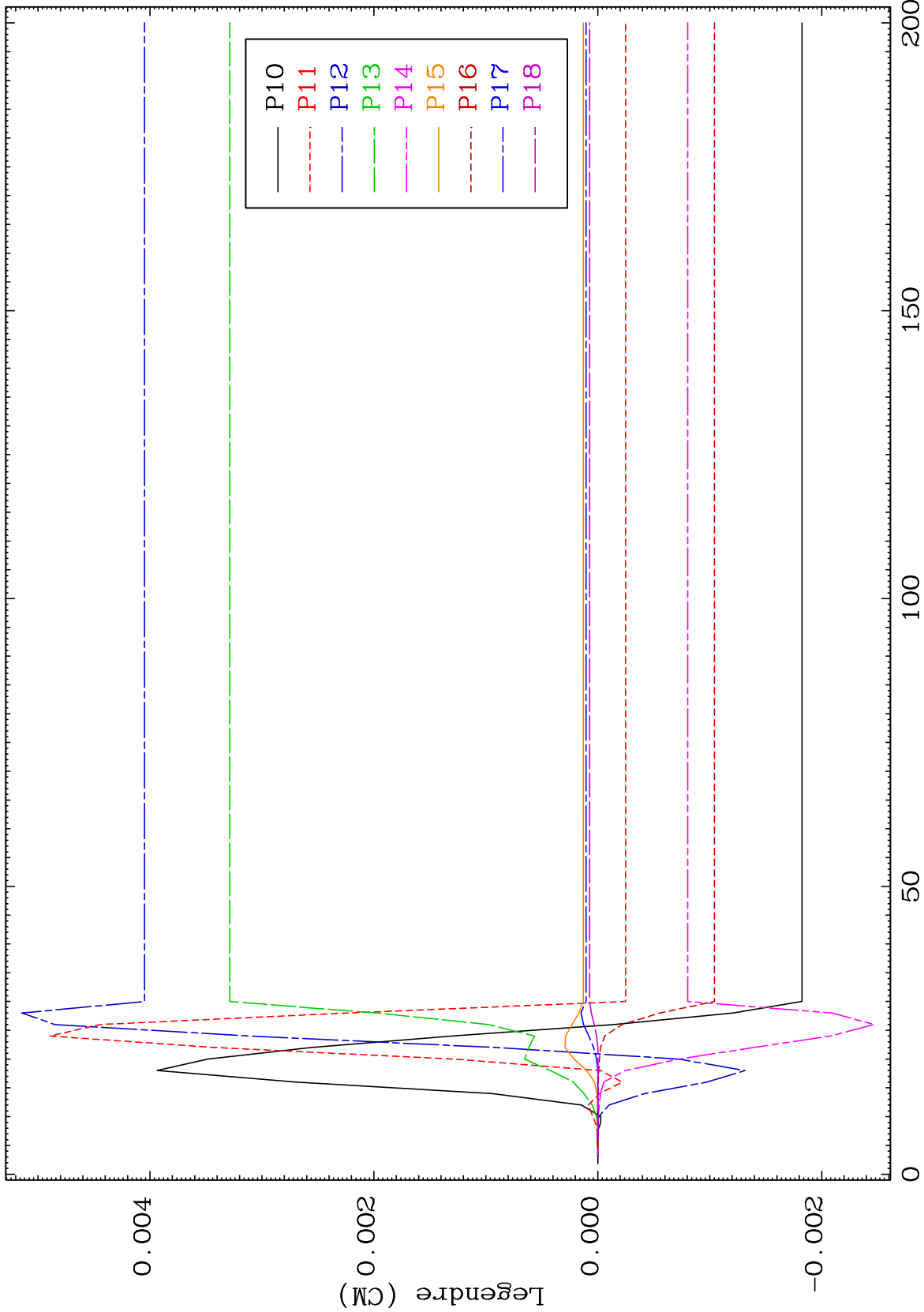
Incident Energy (MeV)

51

MAT 6116

MT= 60 (n,n') Level
Legendre Coefficients

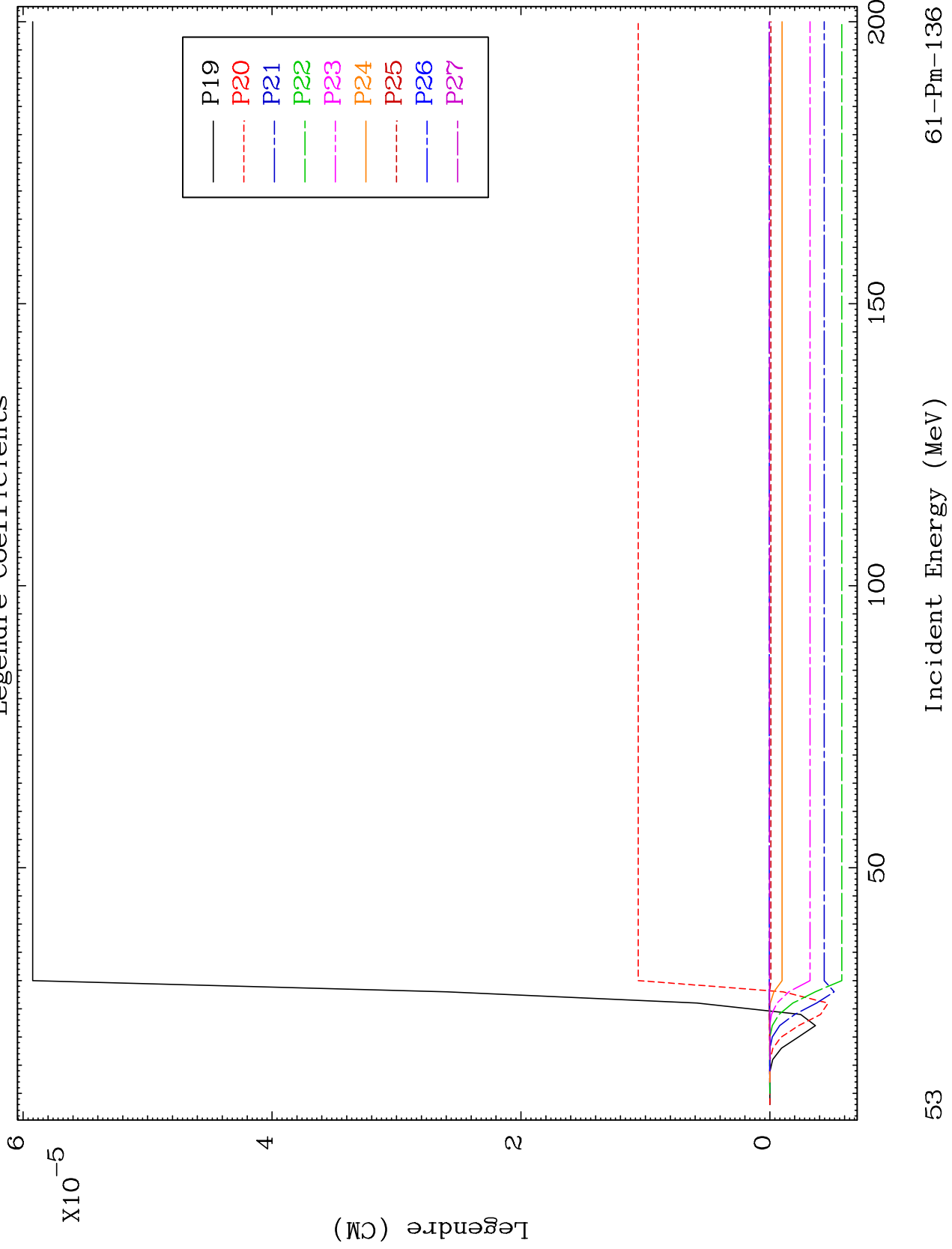
61-Pm-136



52

Incident Energy (MeV)

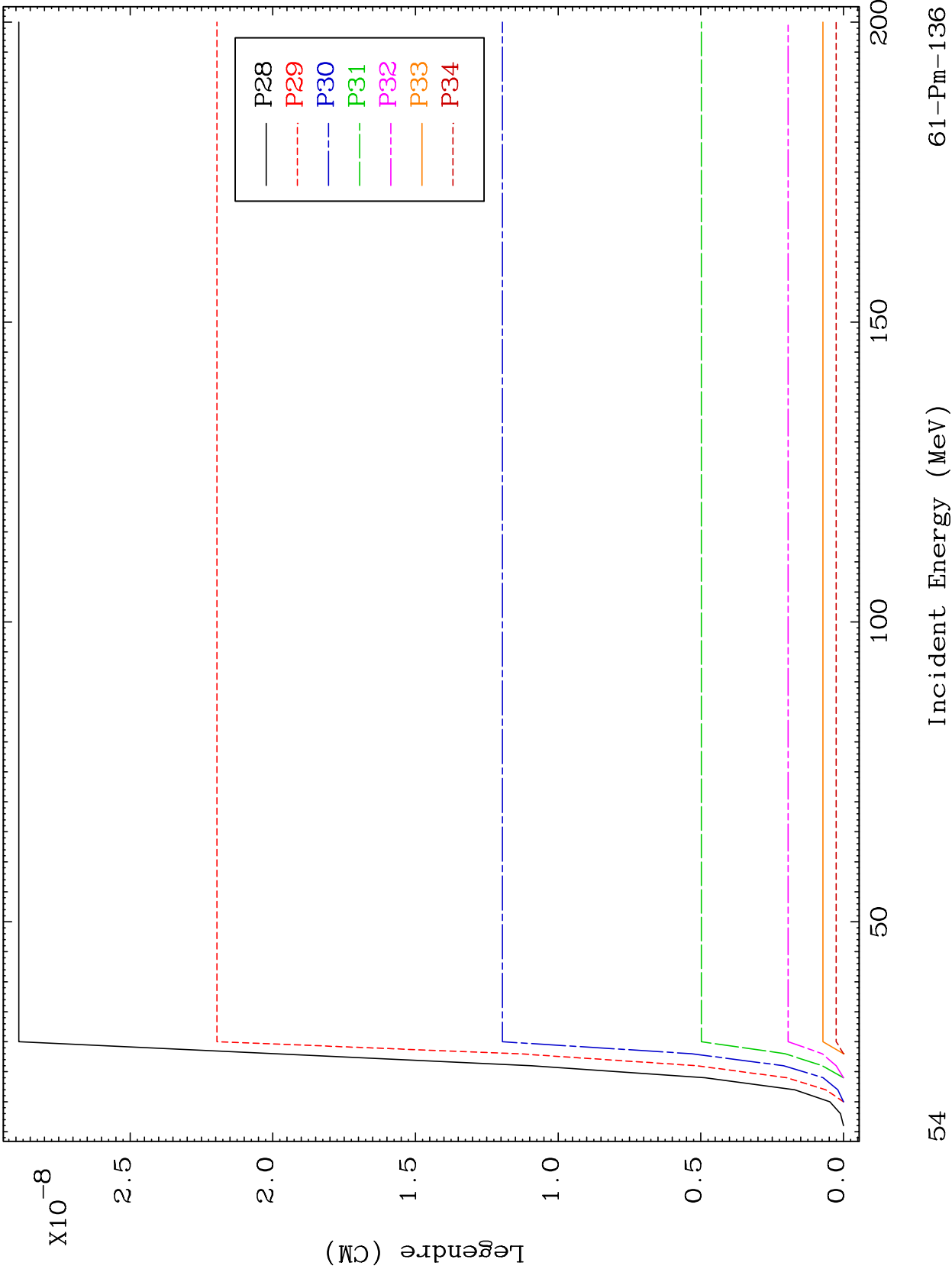
61-Pm-136



MAT 6116

MT= 60 (n,n') Level
Legendre Coefficients

61-Pm-136



54

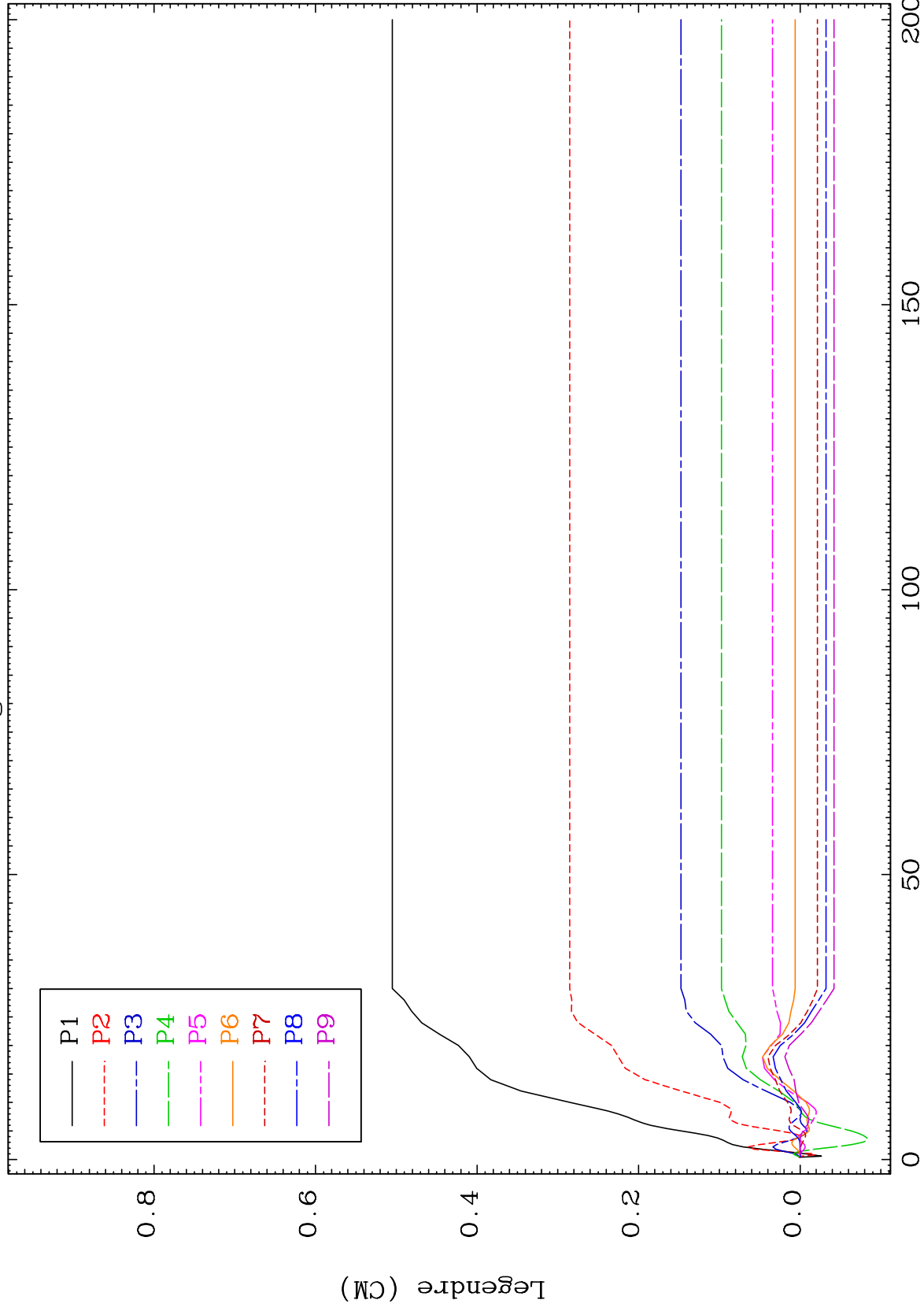
Incident Energy (MeV)

61-Pm-136

MAT 6116

MT= 61 (n,n') Level
Legendre Coefficients

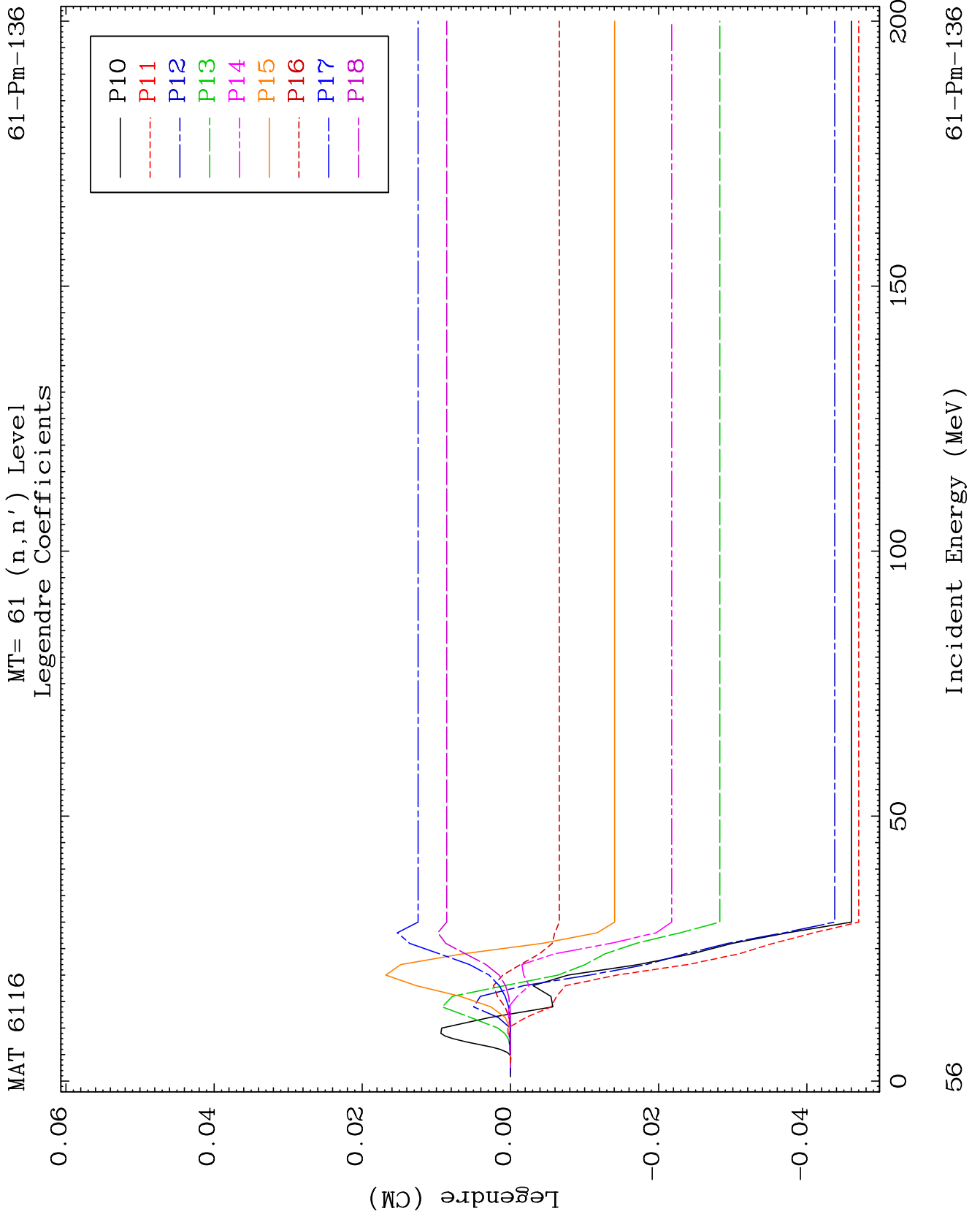
61-Pm-136



61-Pm-136

Incident Energy (MeV)

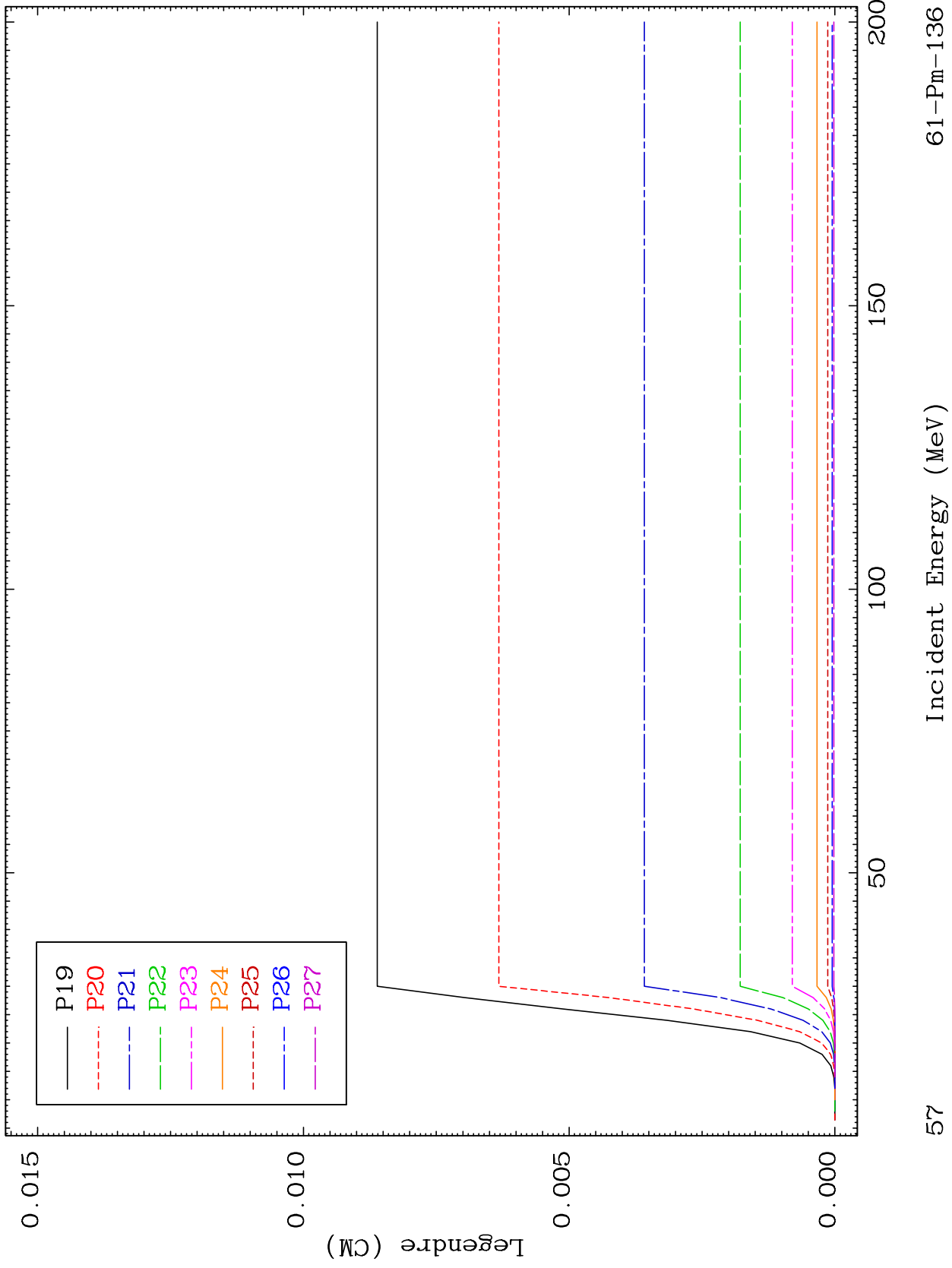
55



MAT 6116

MT= 61 (n,n') Level
Legendre Coefficients

61-Pm-136



57

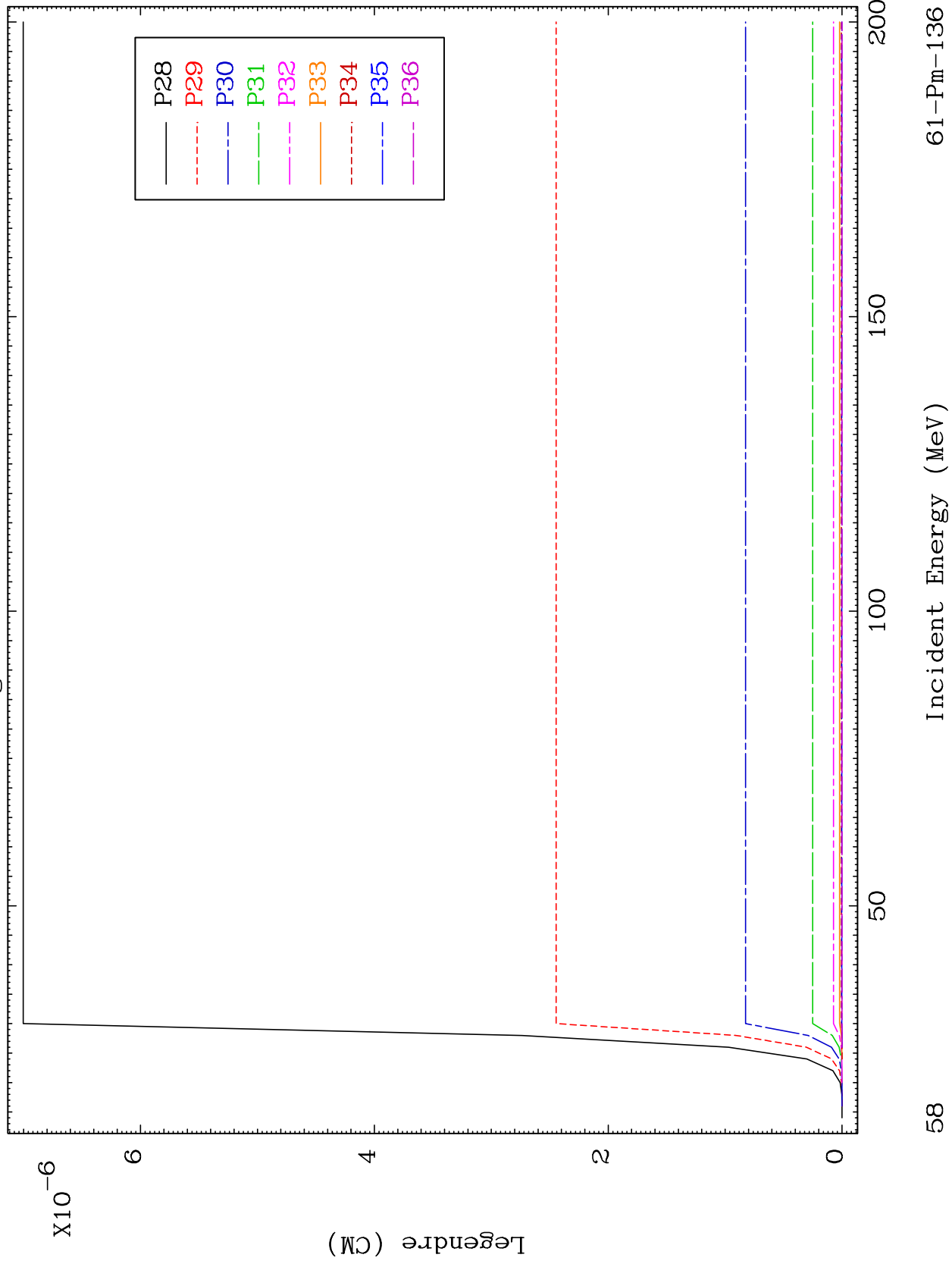
Incident Energy (MeV)

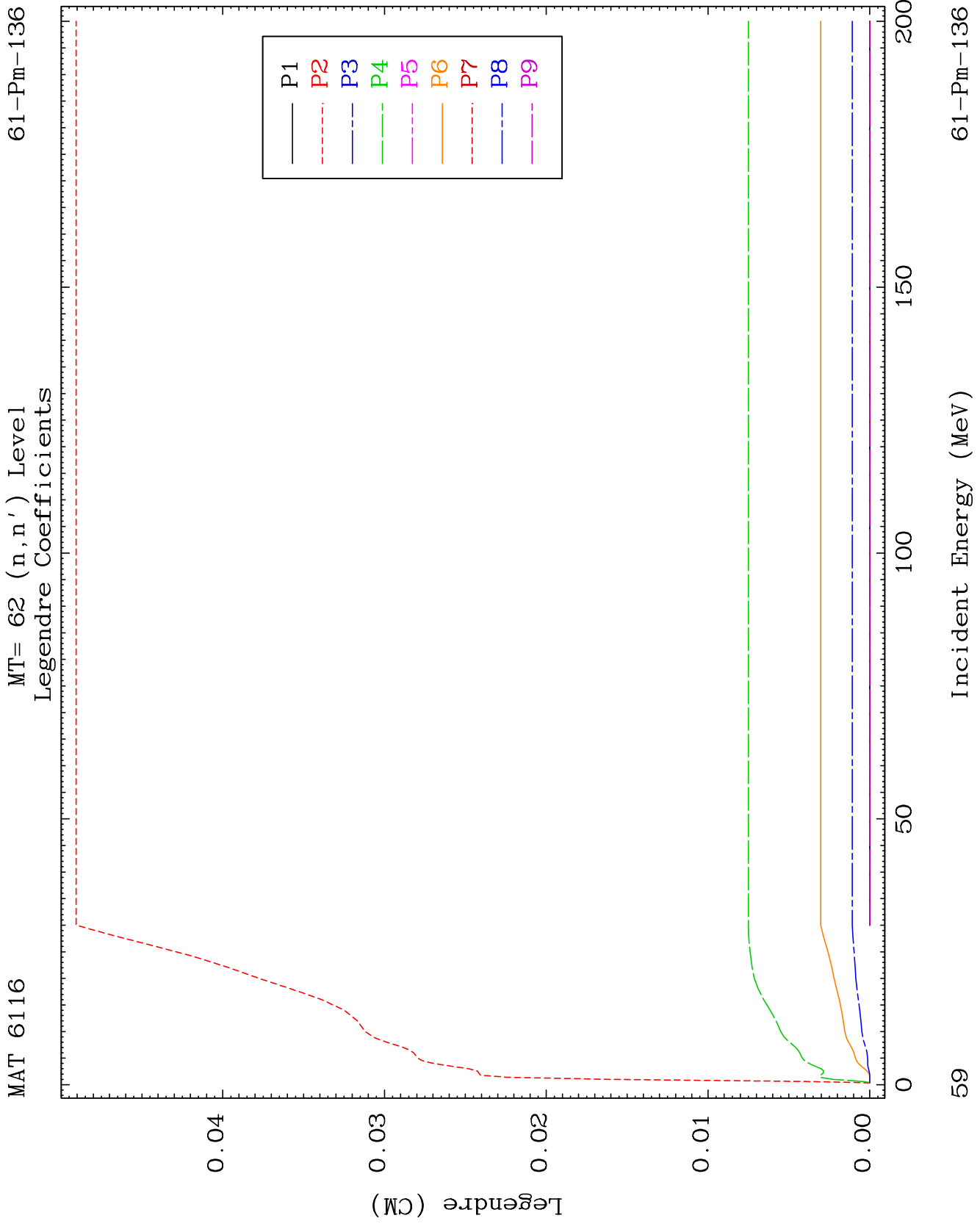
61-Pm-136

MAT 6116

MT= 61 (n,n') Level
Legendre Coefficients

61-Pm-136

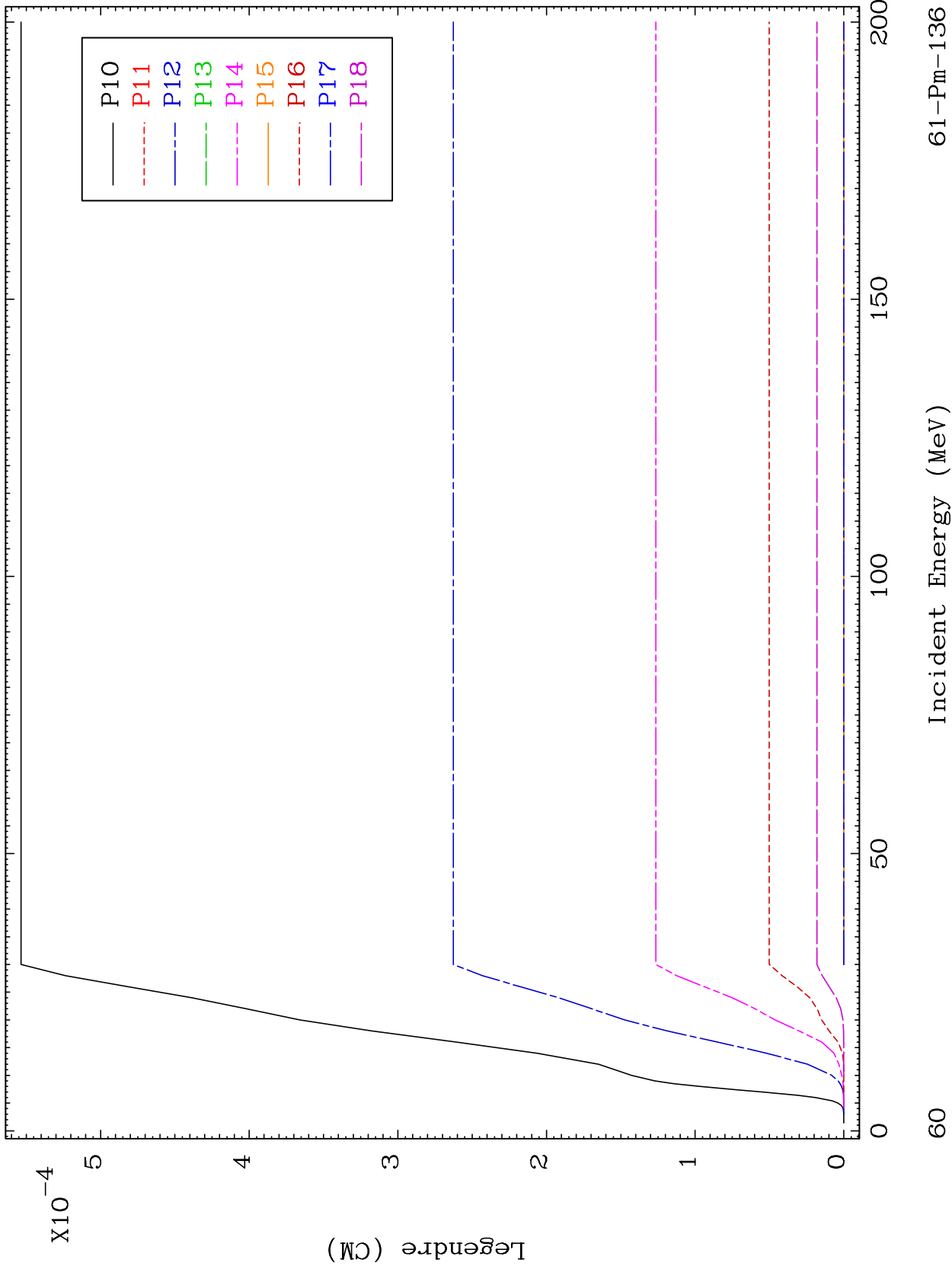




MAT 6116

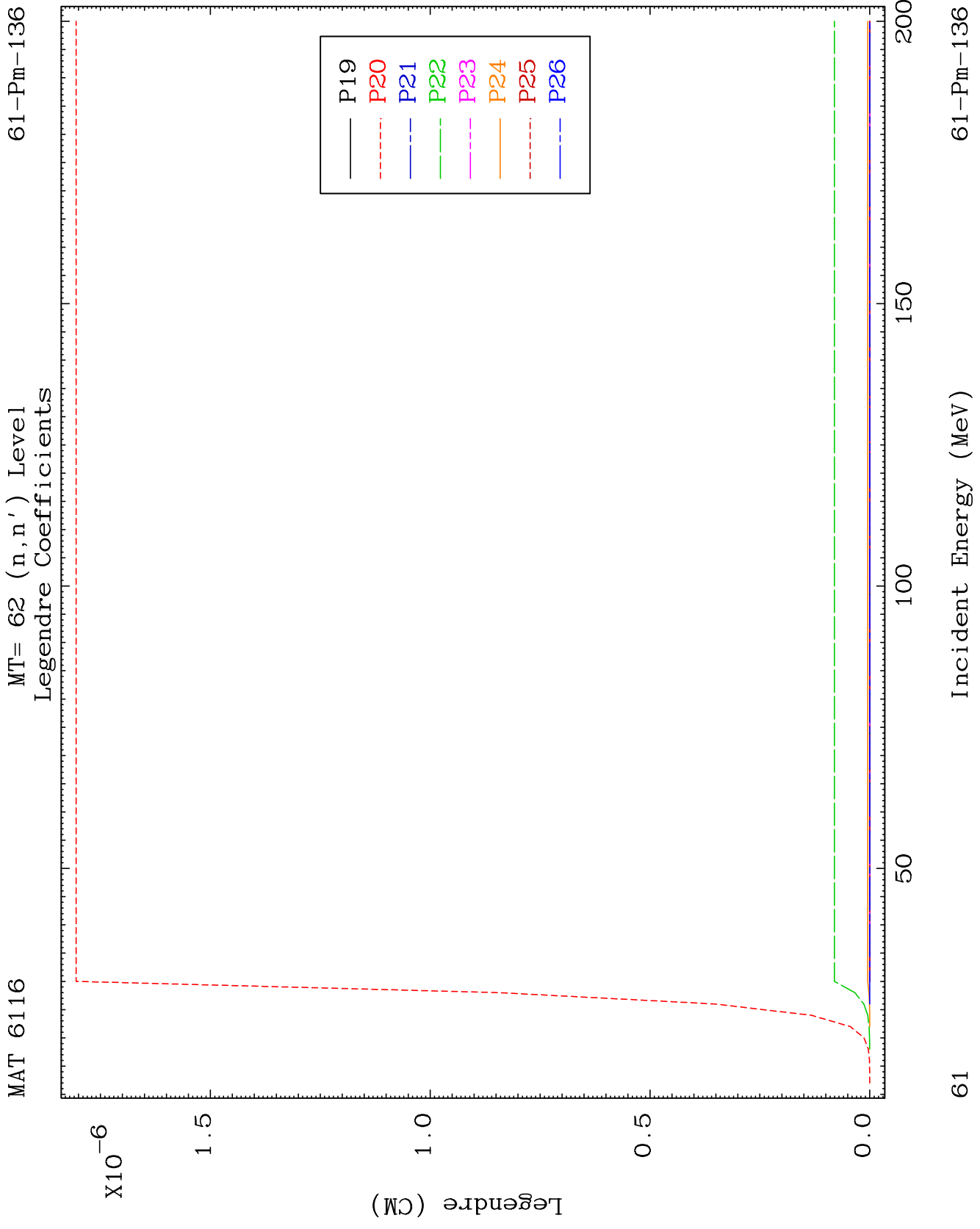
MT= 62 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

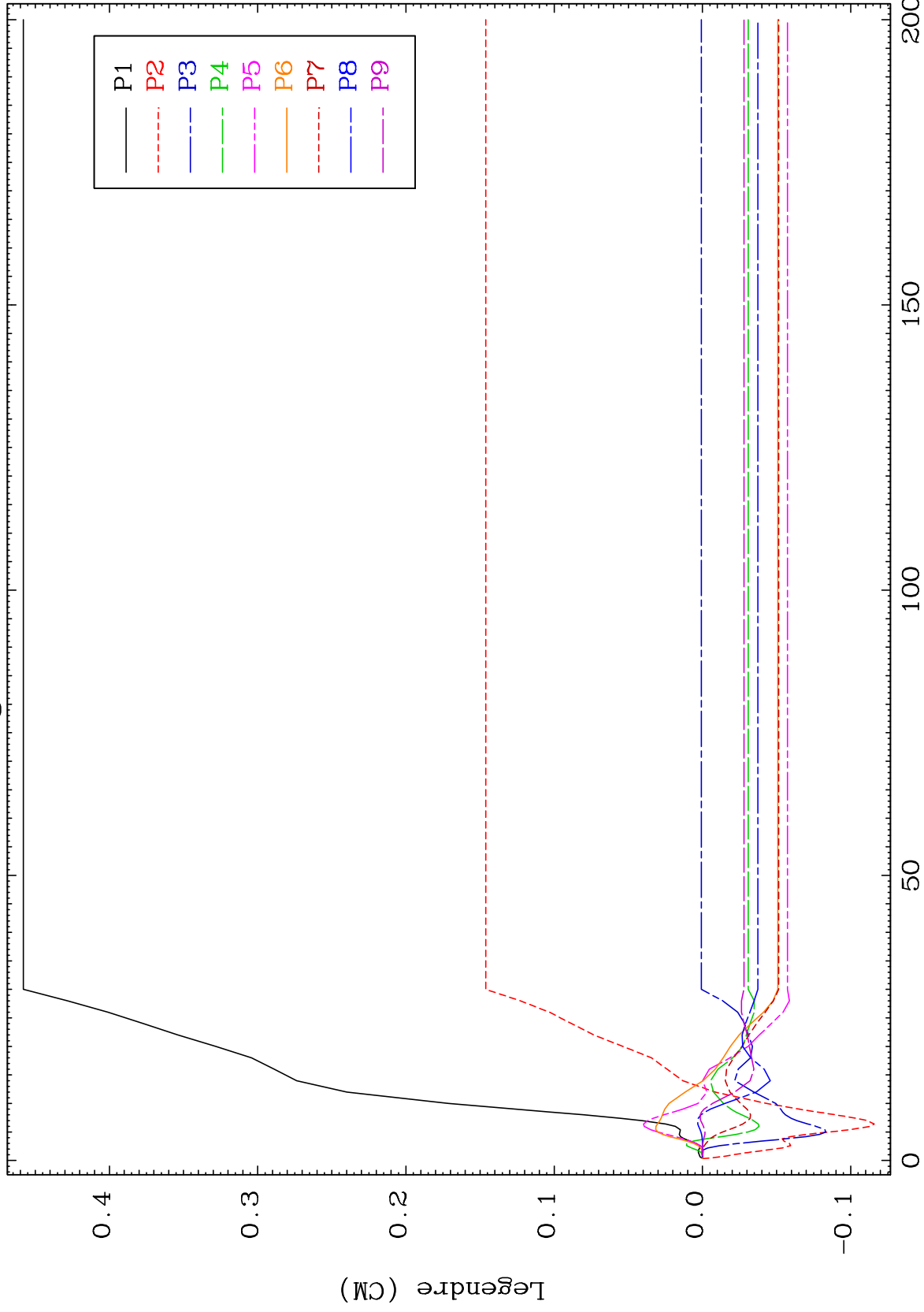
Incident Energy (MeV)



MAT 6116

MT= 63 (n,n') Level
Legendre Coefficients

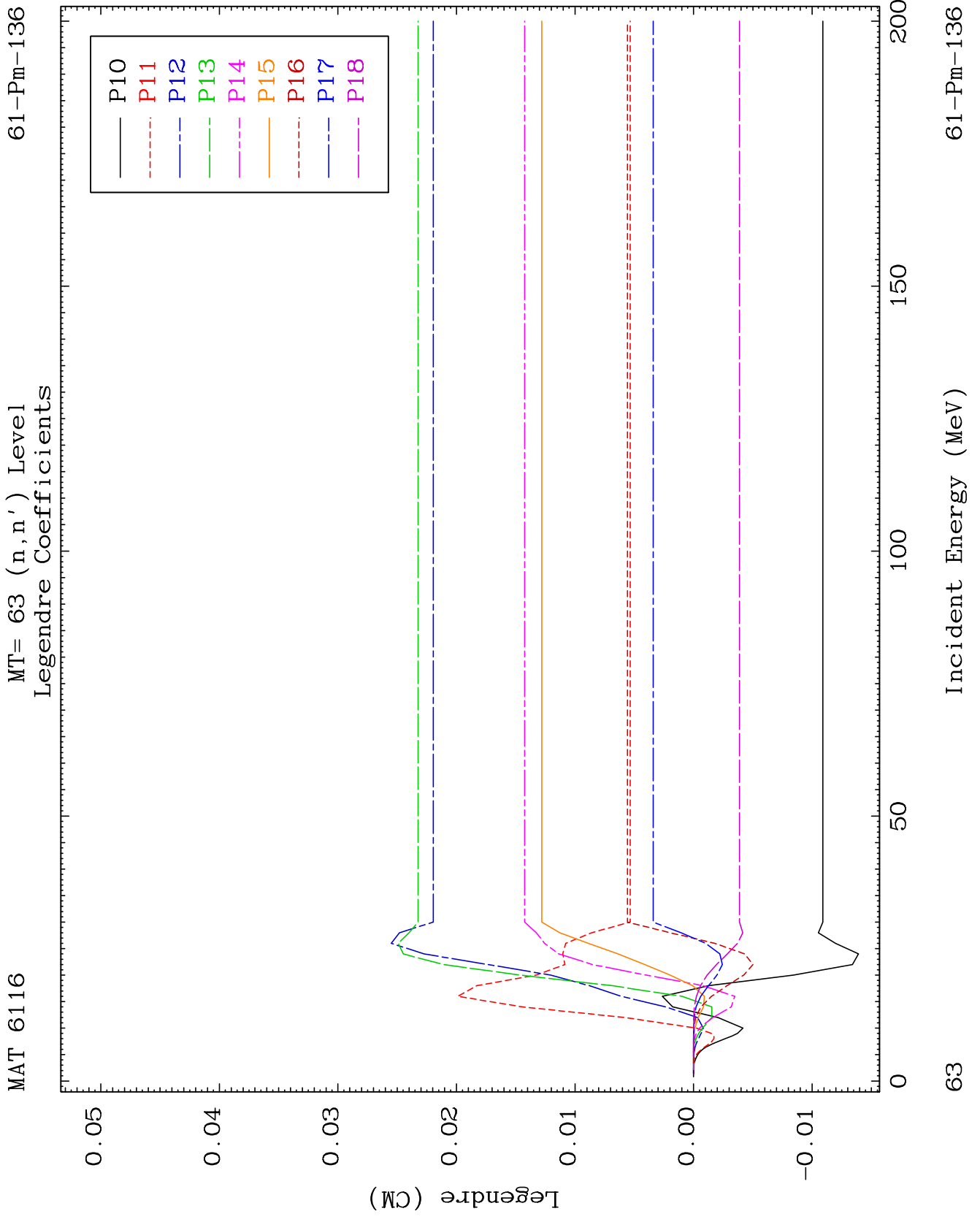
61-Pm-136



62

Incident Energy (MeV)

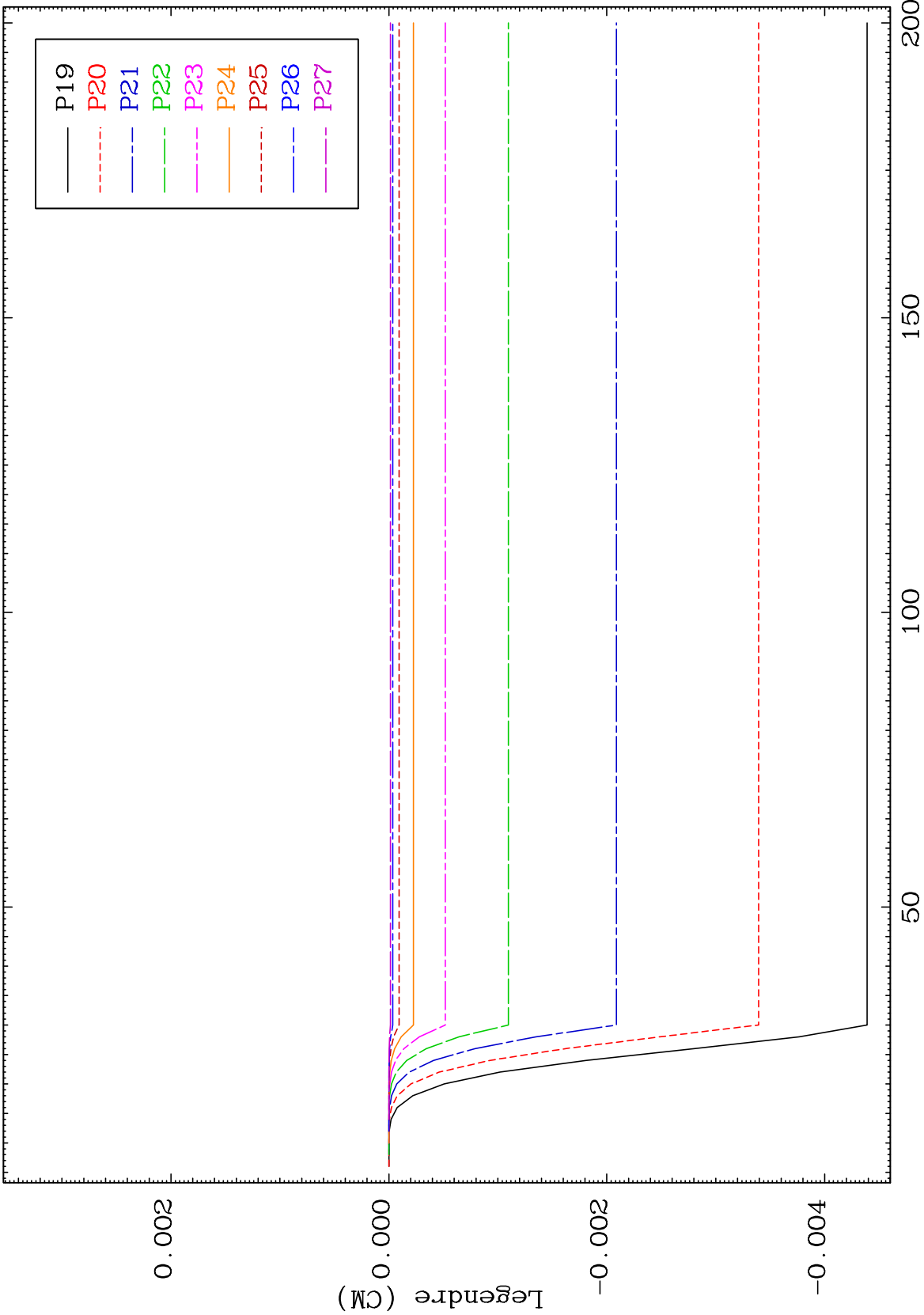
61-Pm-136



MAT 6116

MT= 63 (n,n') Level
Legendre Coefficients

61-Pm-136



64

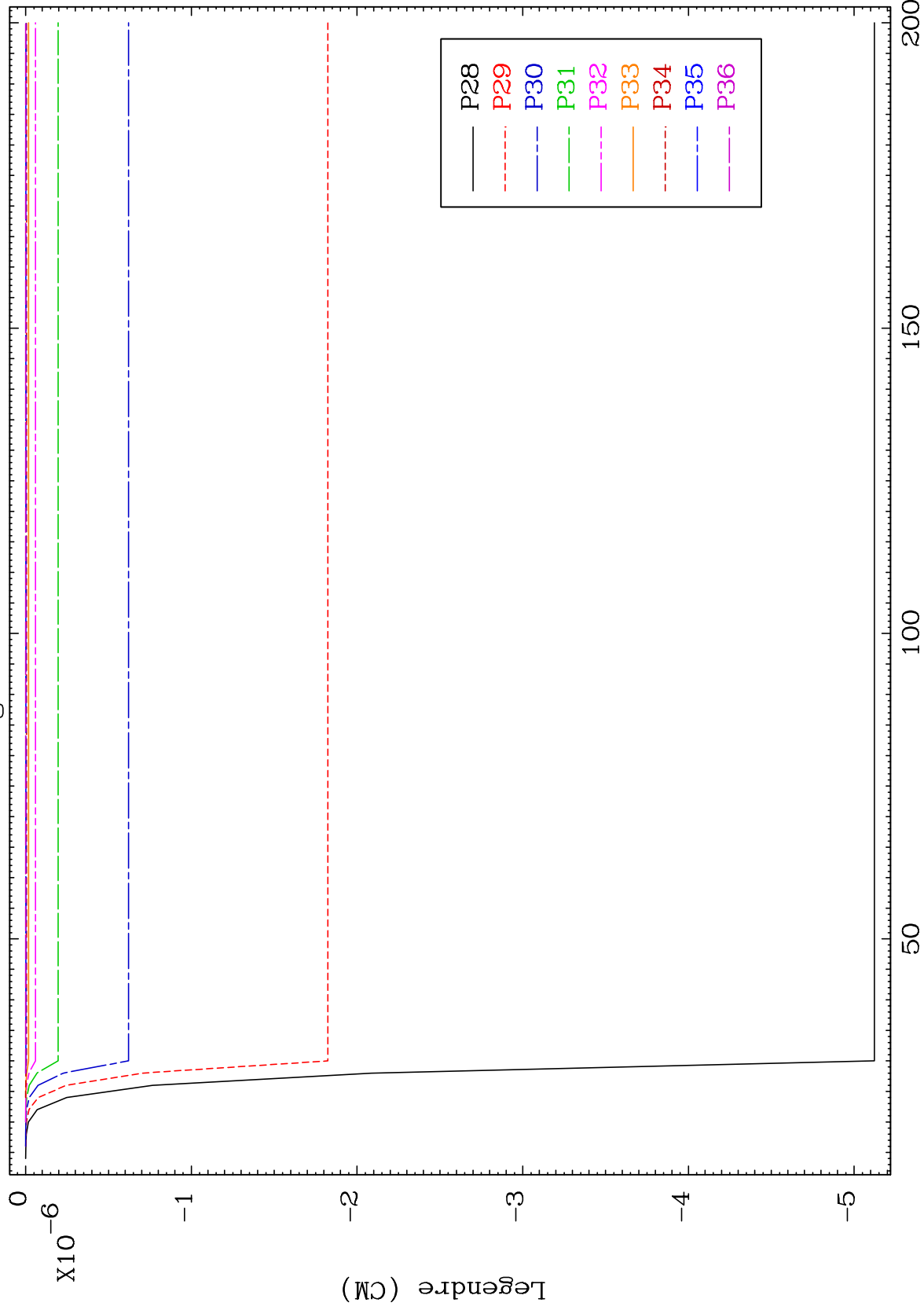
Incident Energy (MeV)

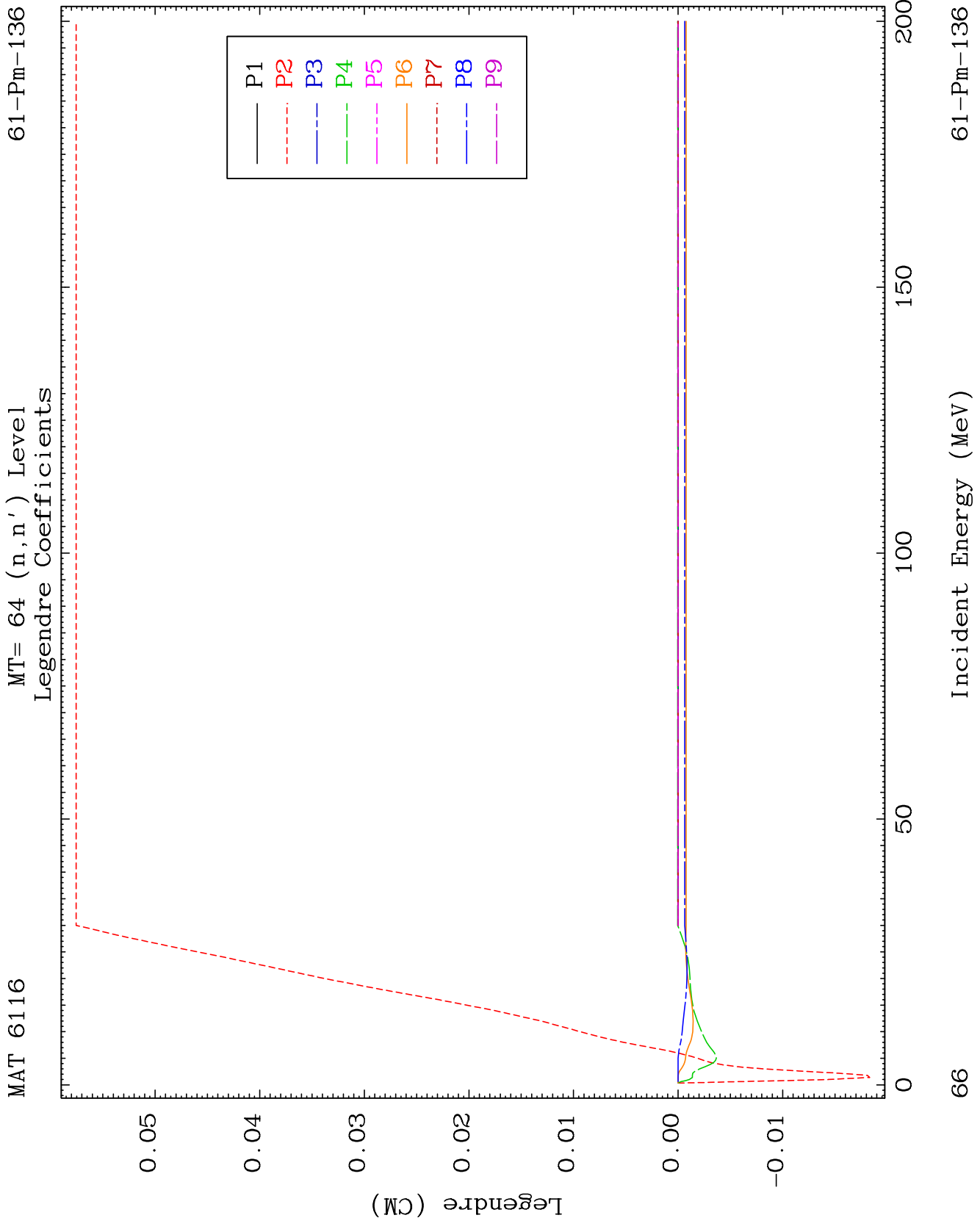
61-Pm-136

MAT 6116

MT= 63 (n,n') Level
Legendre Coefficients

61-Pm-136





61-Pm-136

Incident Energy (MeV)

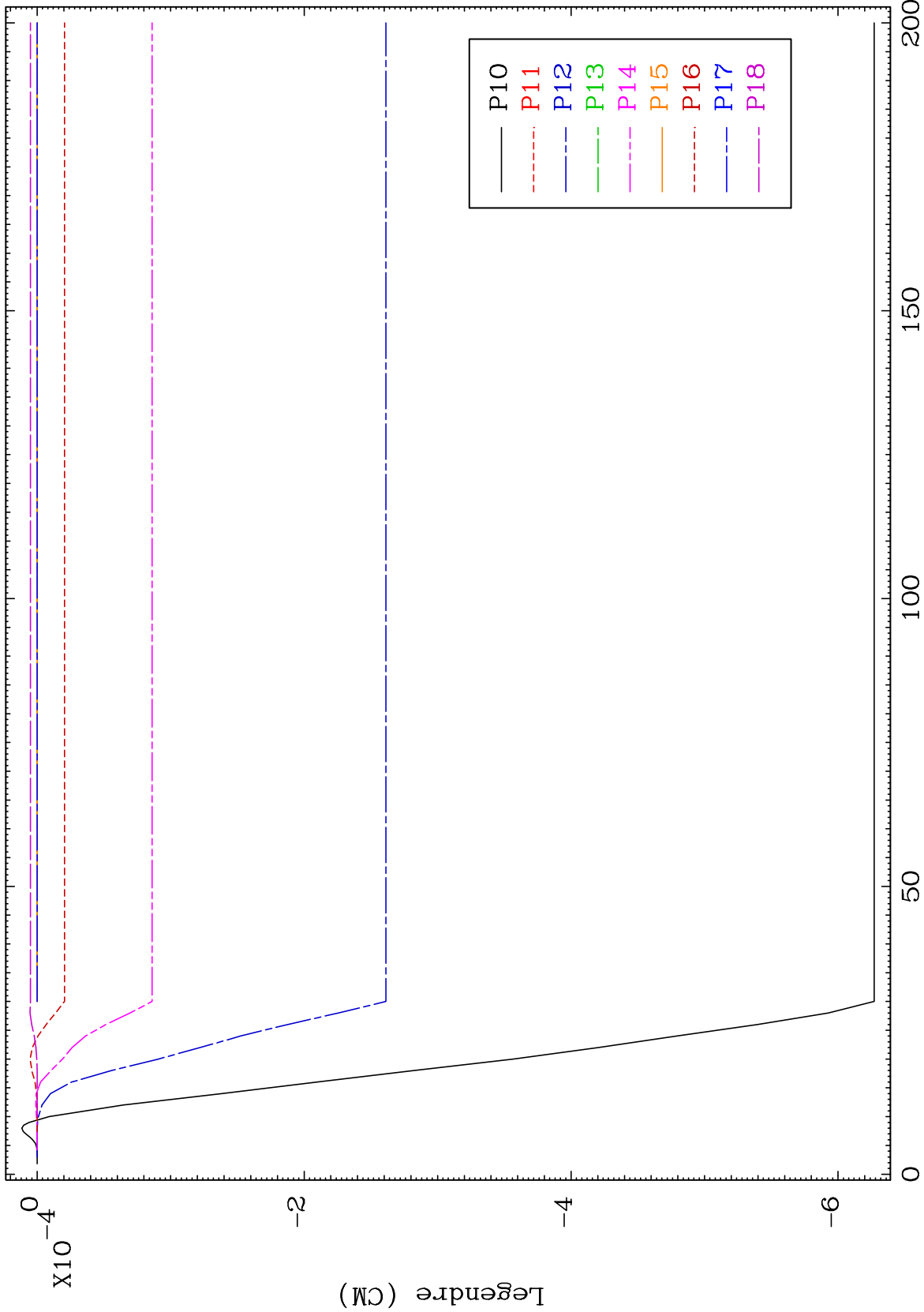
66

MAT 6116

MT= 64 (n,n') Level

61-Pm-136

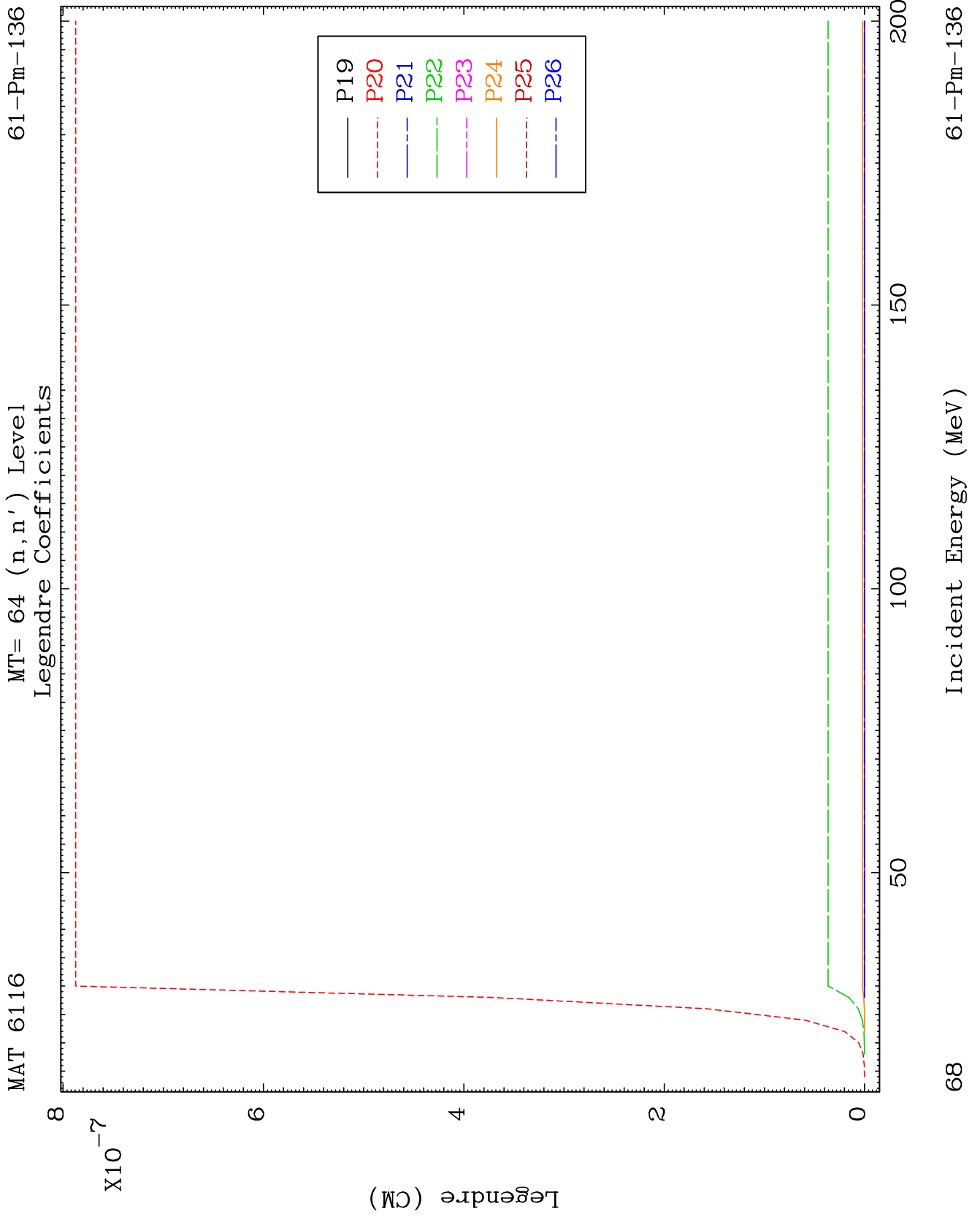
Legendre Coefficients



67

Incident Energy (MeV)

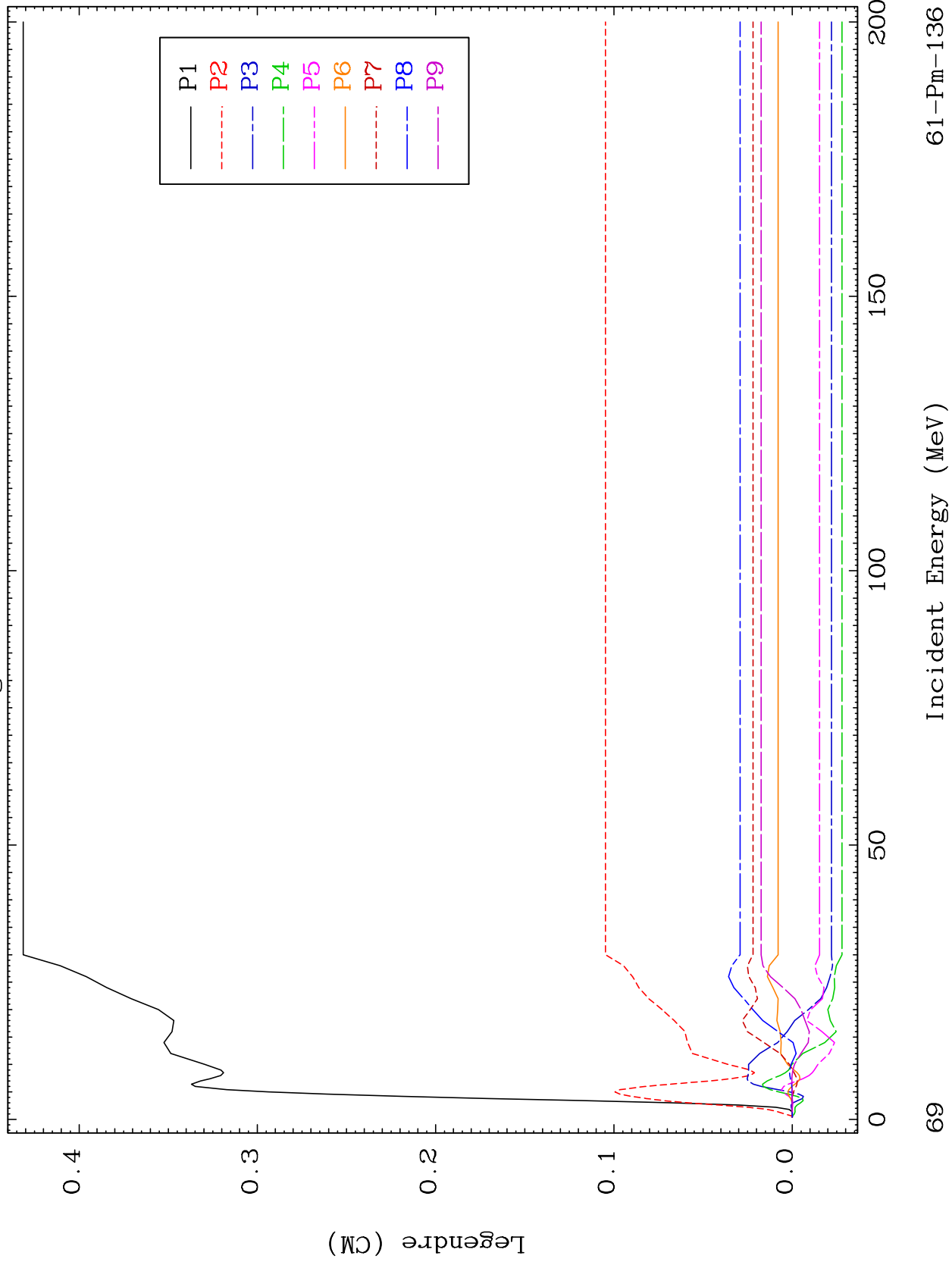
61-Pm-136



MAT 6116

MT= 65 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

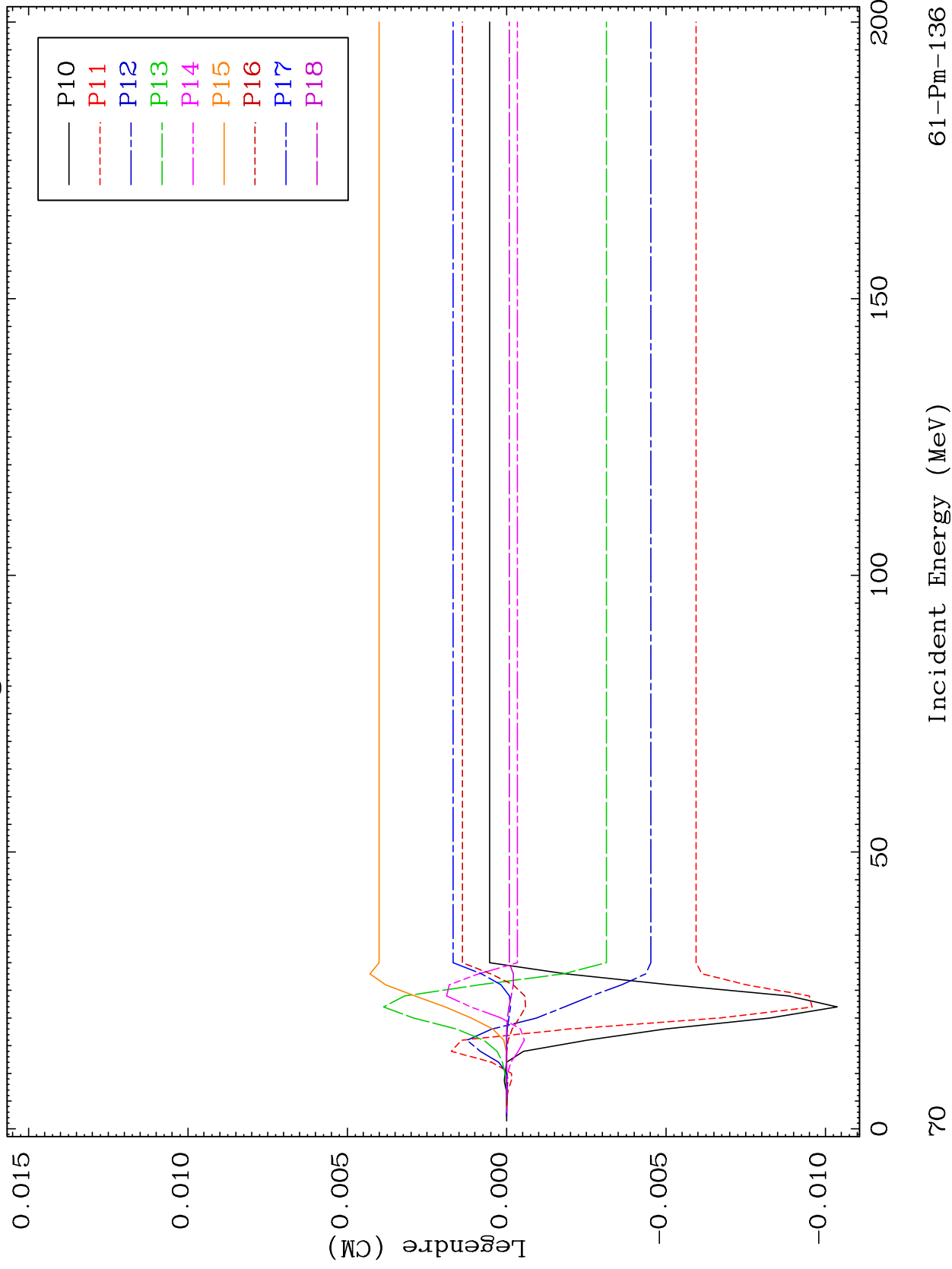
Incident Energy (MeV)

69

MAT 6116

MT= 65 (n,n') Level
Legendre Coefficients

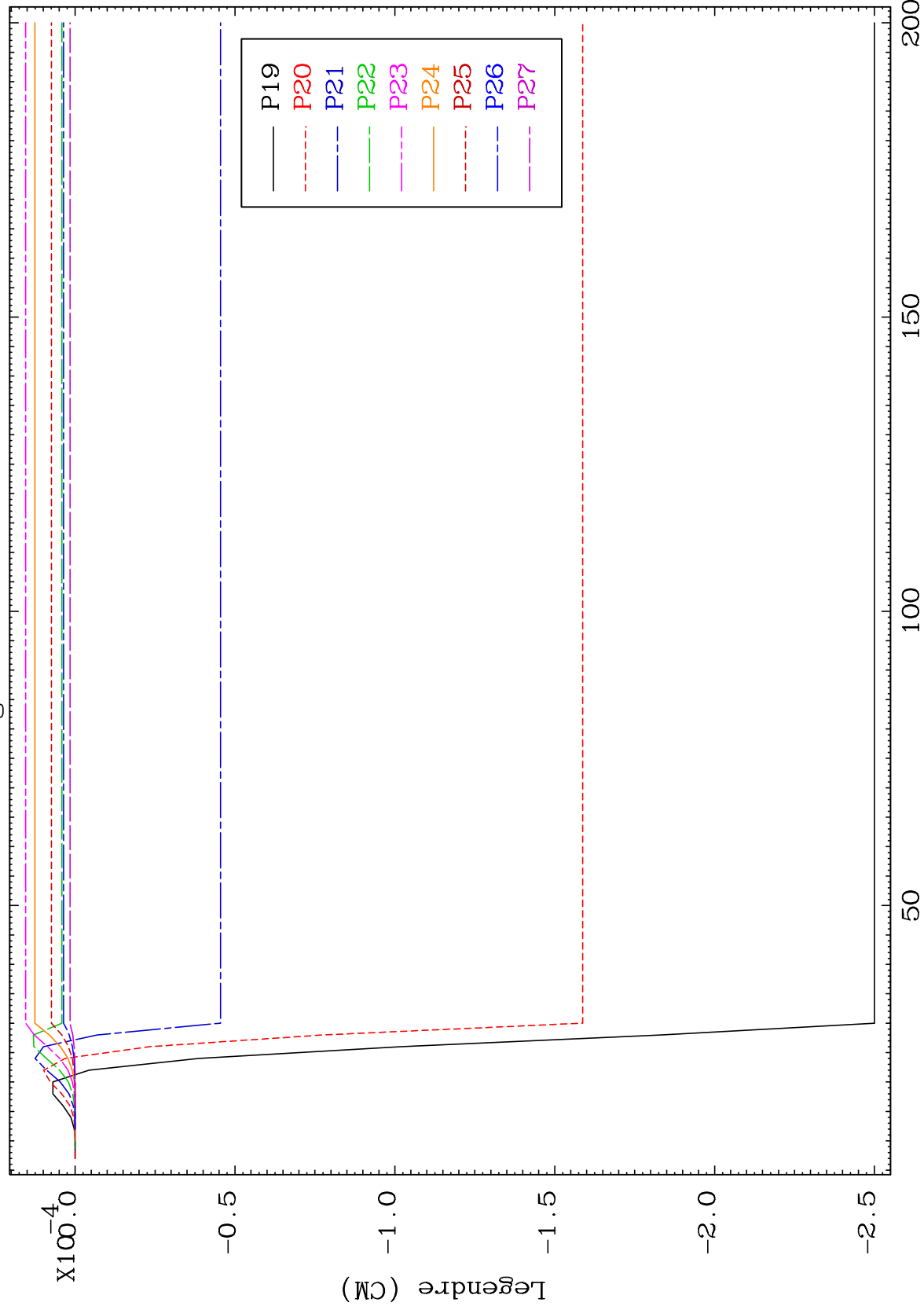
61-Pm-136



61-Pm-136

Incident Energy (MeV)

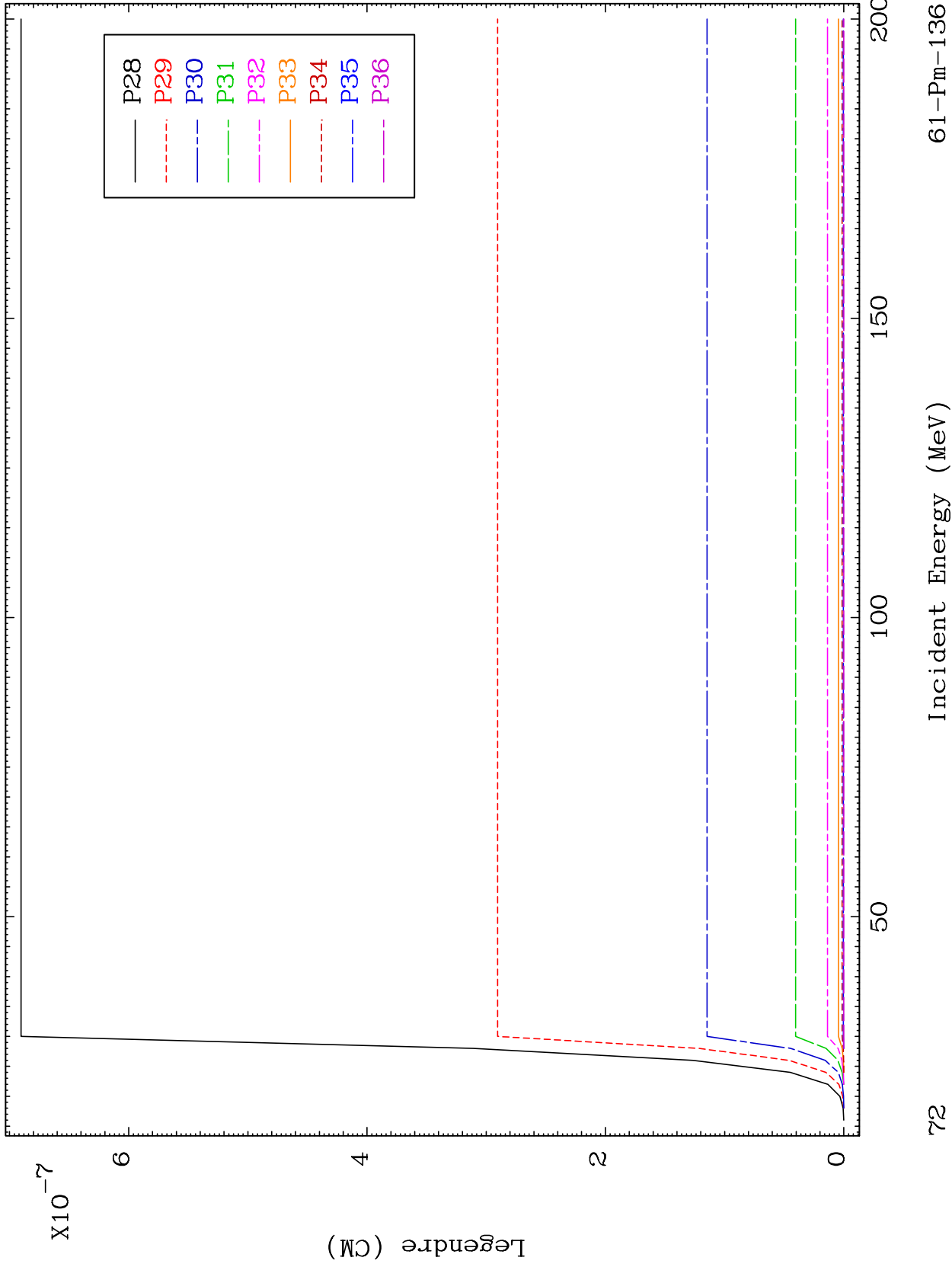
70



MAT 6116

MT= 65 (n,n') Level
Legendre Coefficients

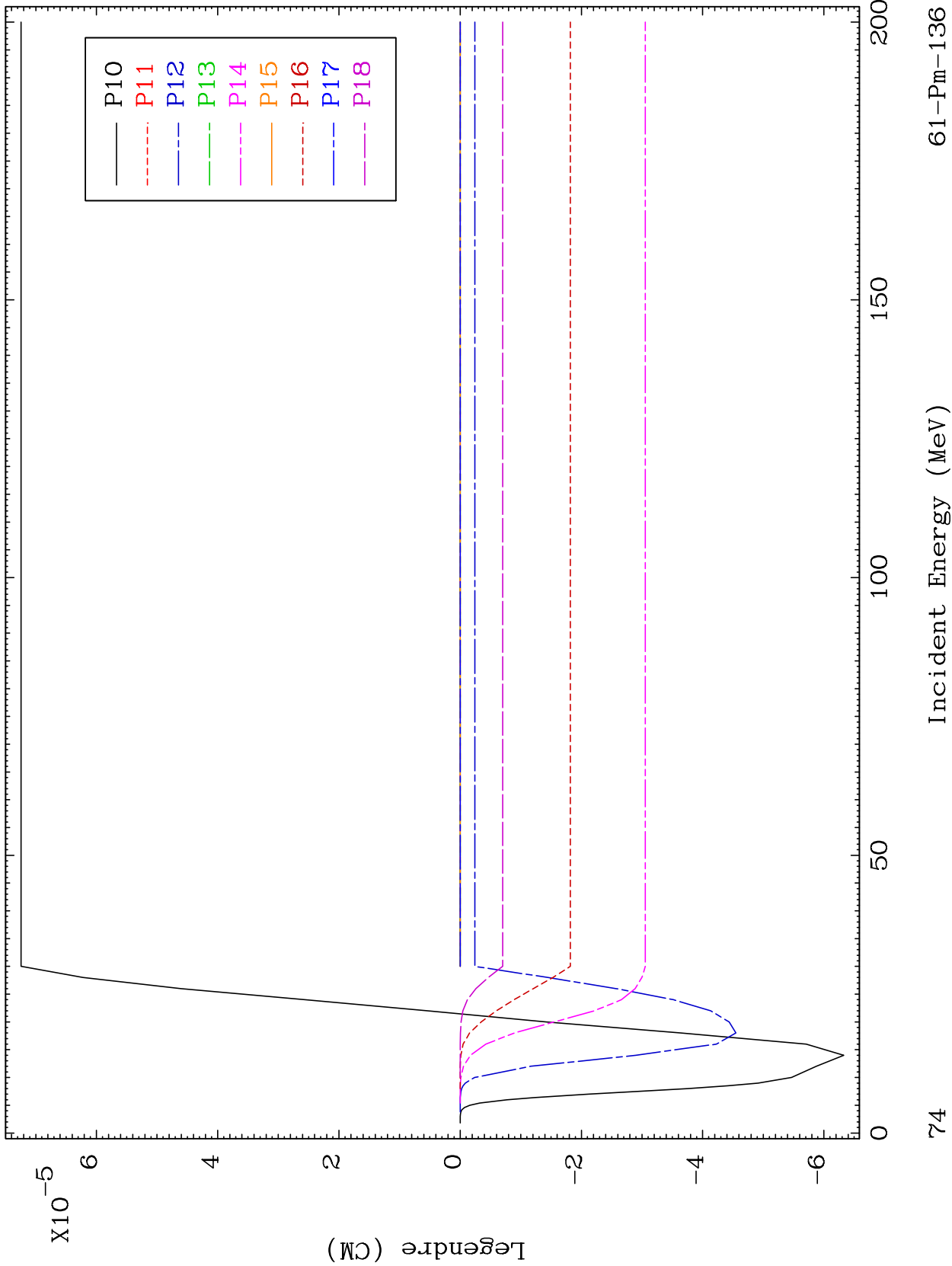
61-Pm-136



MAT 6116

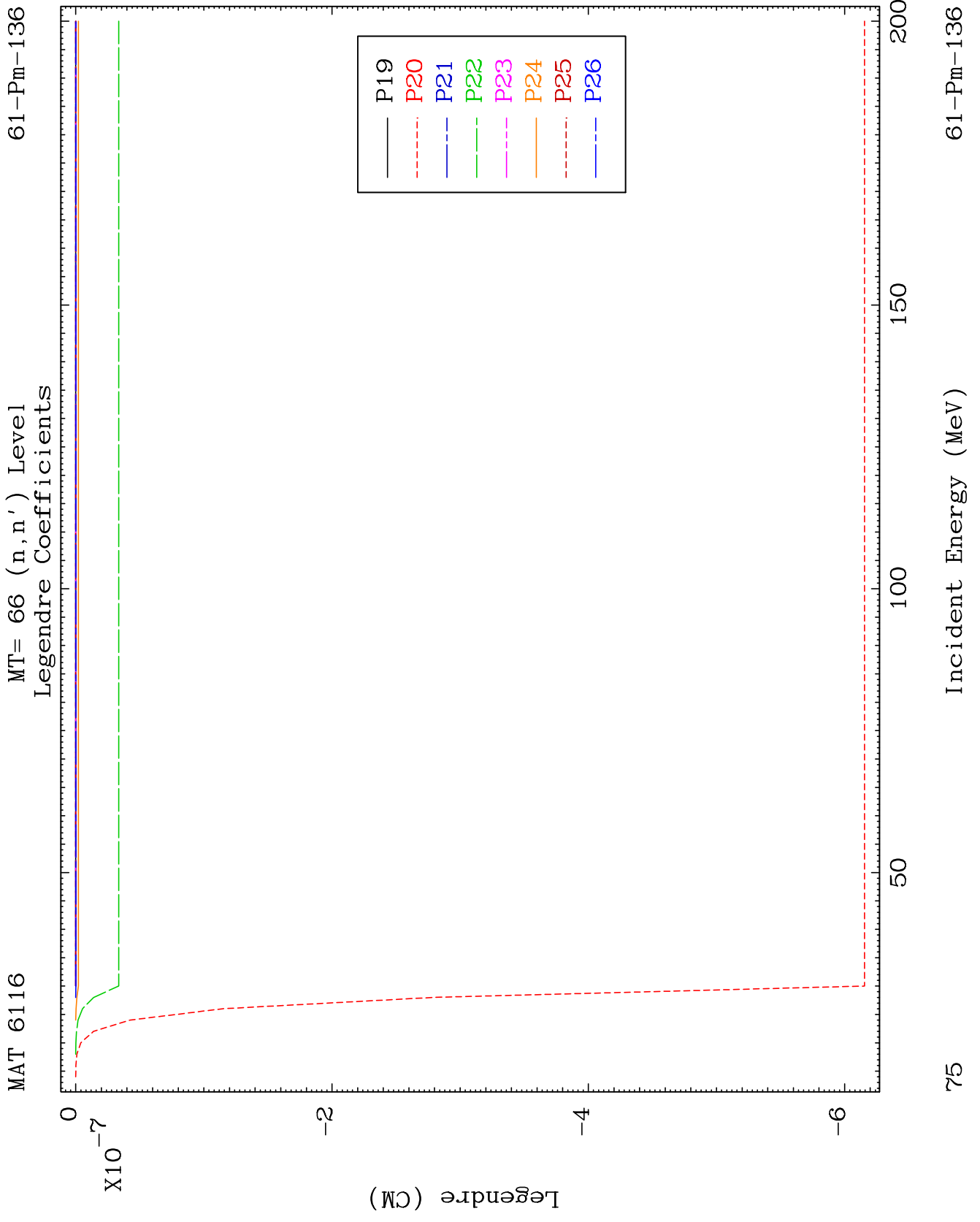
MT= 66 (n,n') Level
Legendre Coefficients

61-Pm-136



74

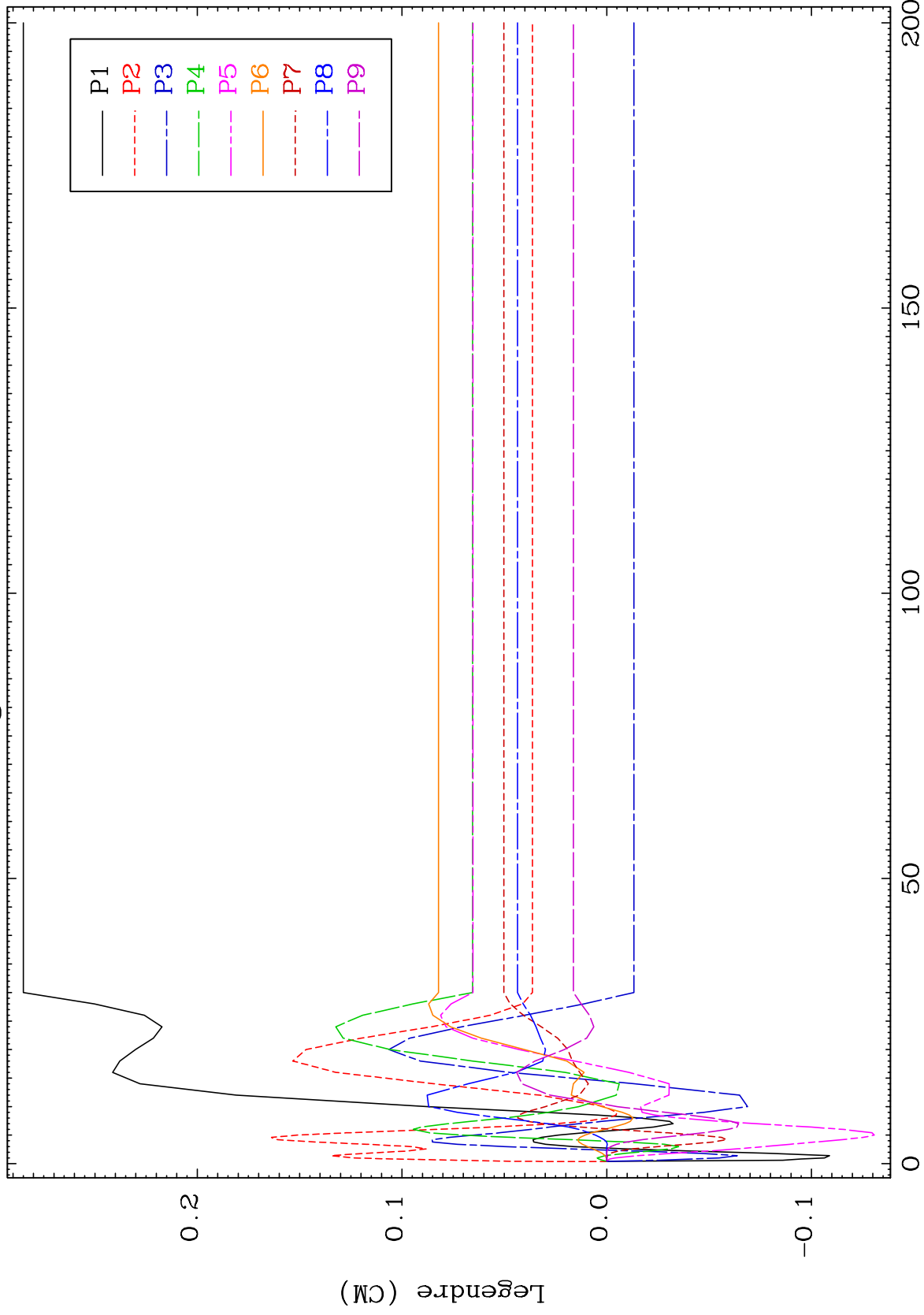
61-Pm-136



MAT 6116

MT= 67 (n,n') Level
Legendre Coefficients

61-Pm-136



76

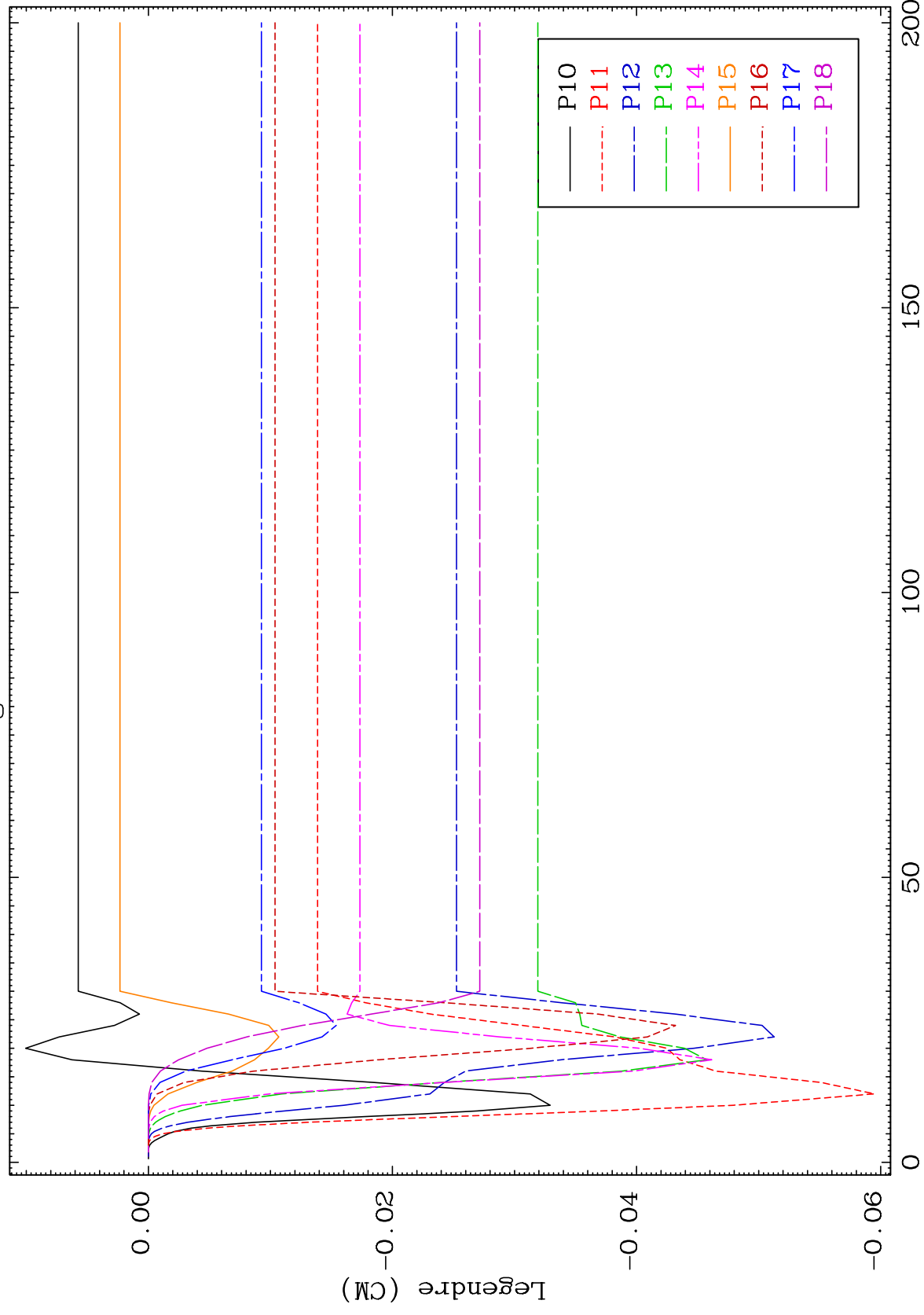
Incident Energy (MeV)

61-Pm-136

MAT 6116

MT= 67 (n,n') Level
Legendre Coefficients

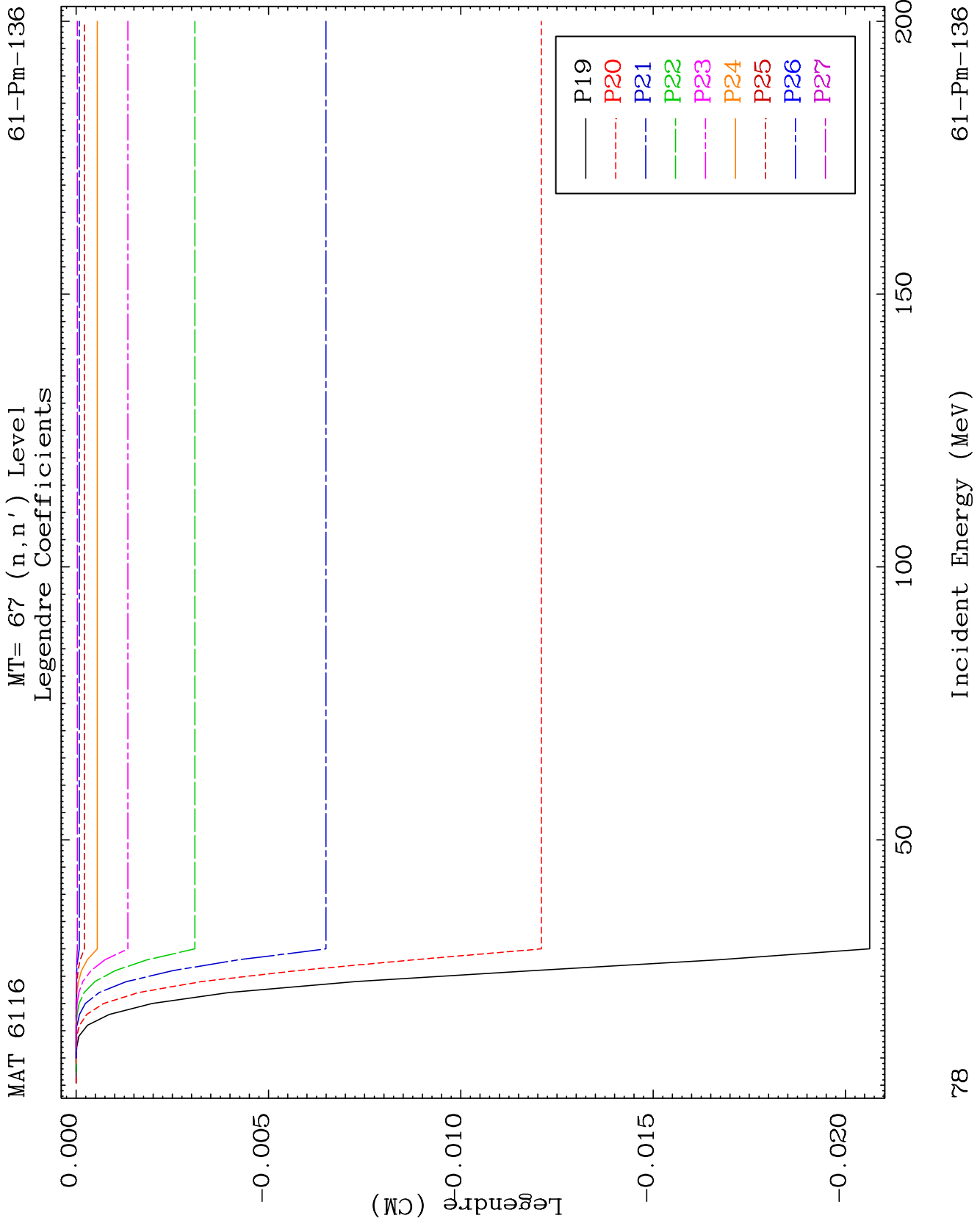
61-Pm-136



77

Incident Energy (MeV)

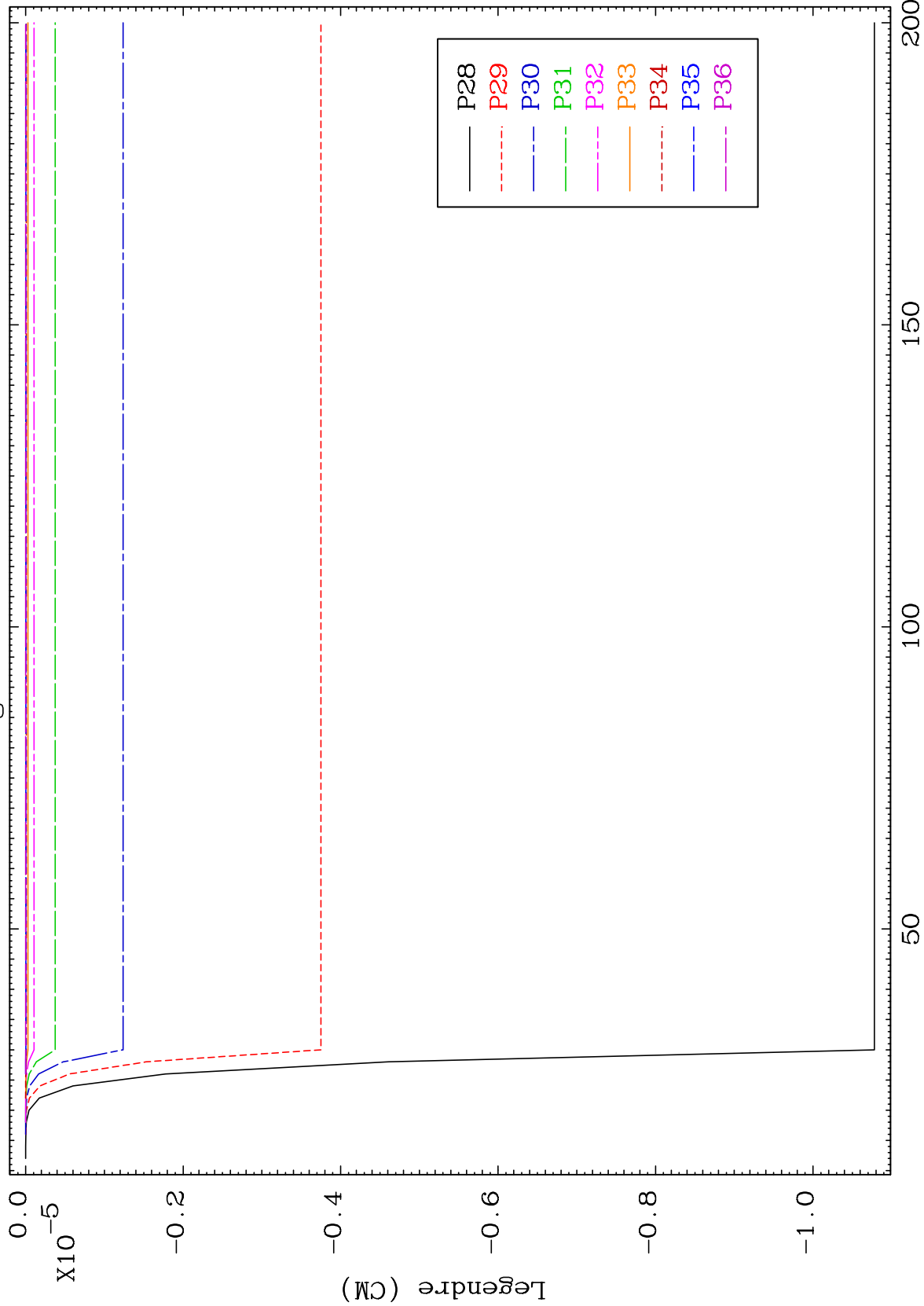
61-Pm-136



MAT 6116

MT= 67 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

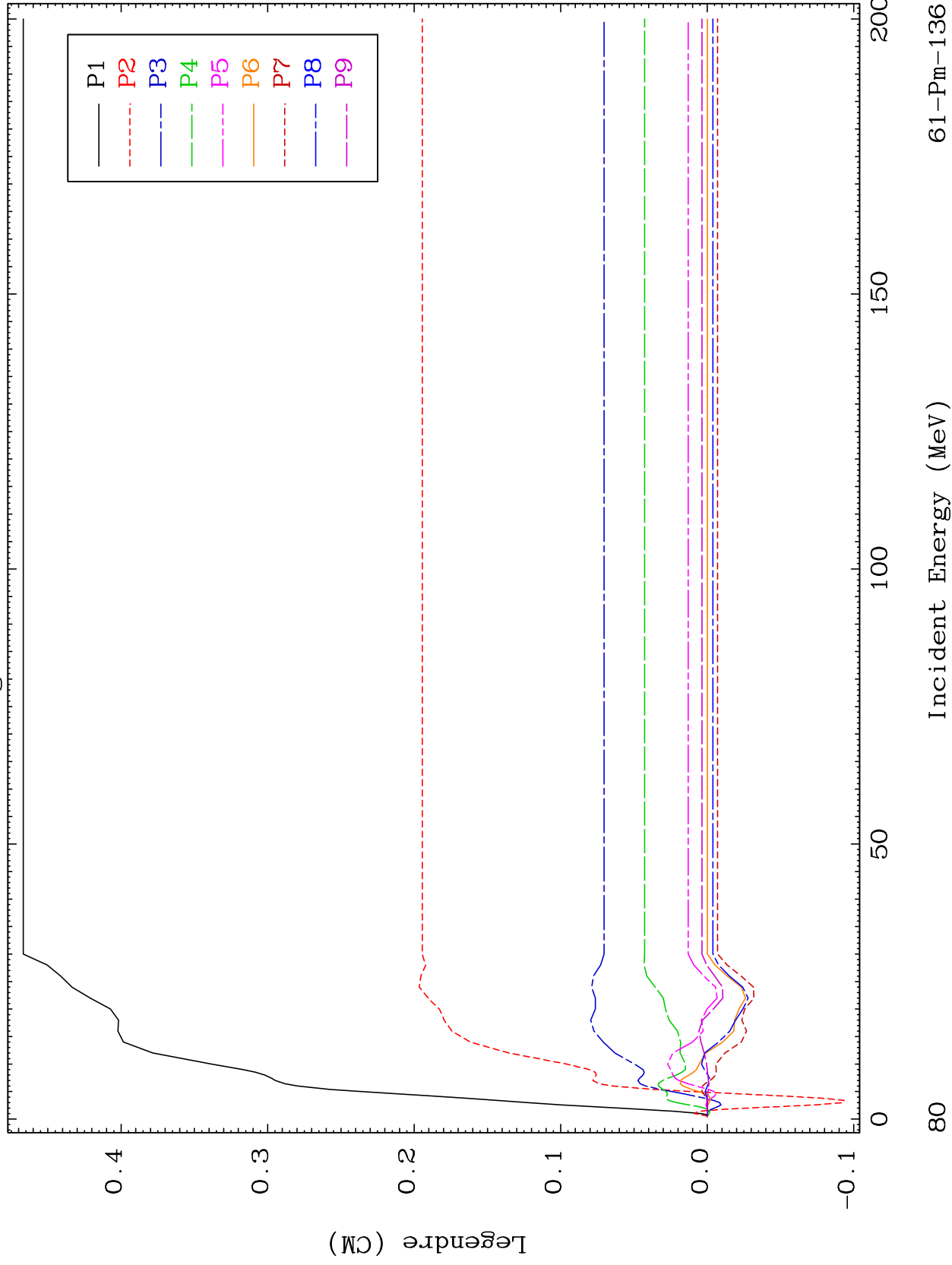
Incident Energy (MeV)

79

MAT 6116

MT= 68 (n,n') Level
Legendre Coefficients

61-Pm-136



61-Pm-136

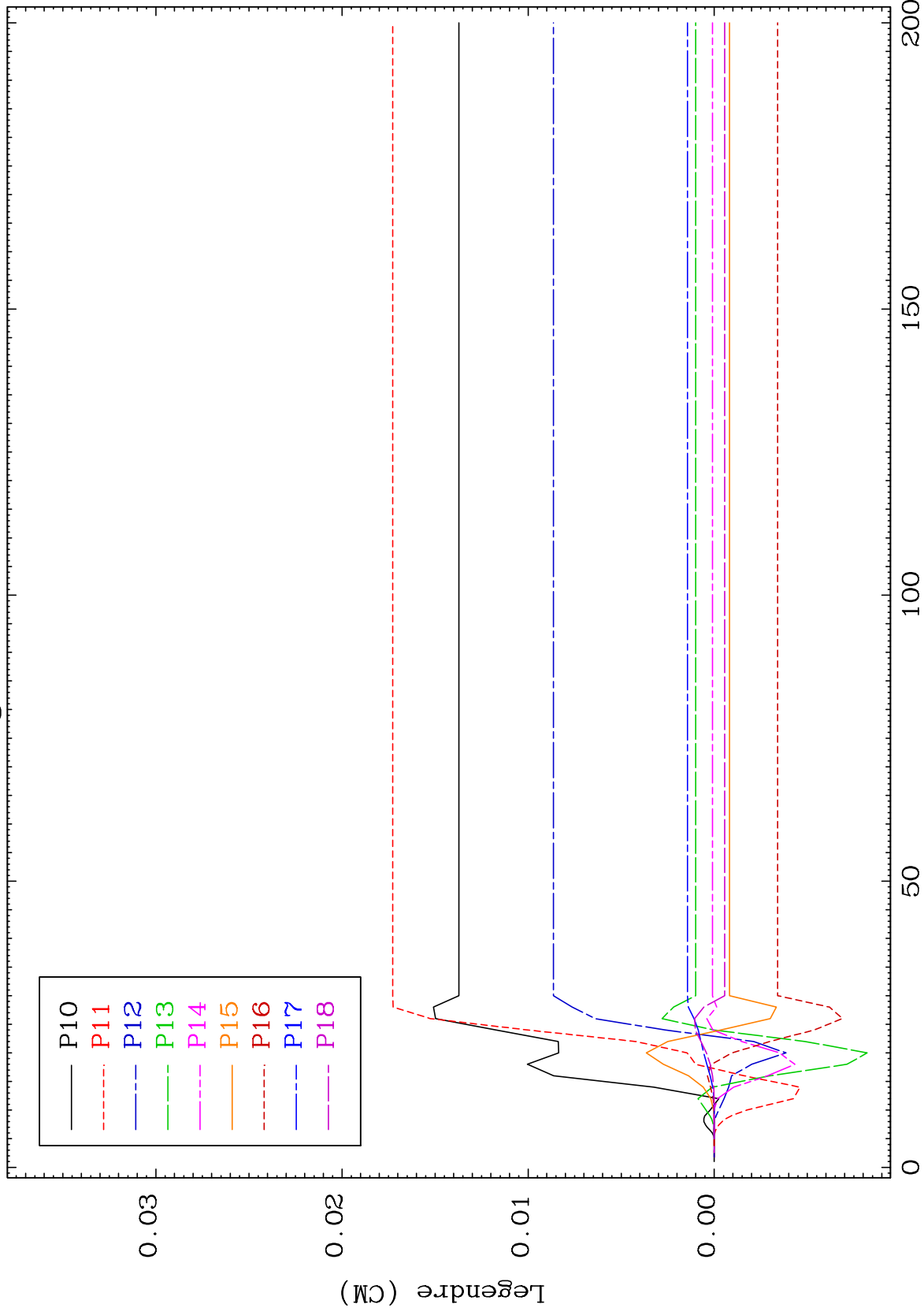
Incident Energy (MeV)

80

MAT 6116

MT= 68 (n,n') Level
Legendre Coefficients

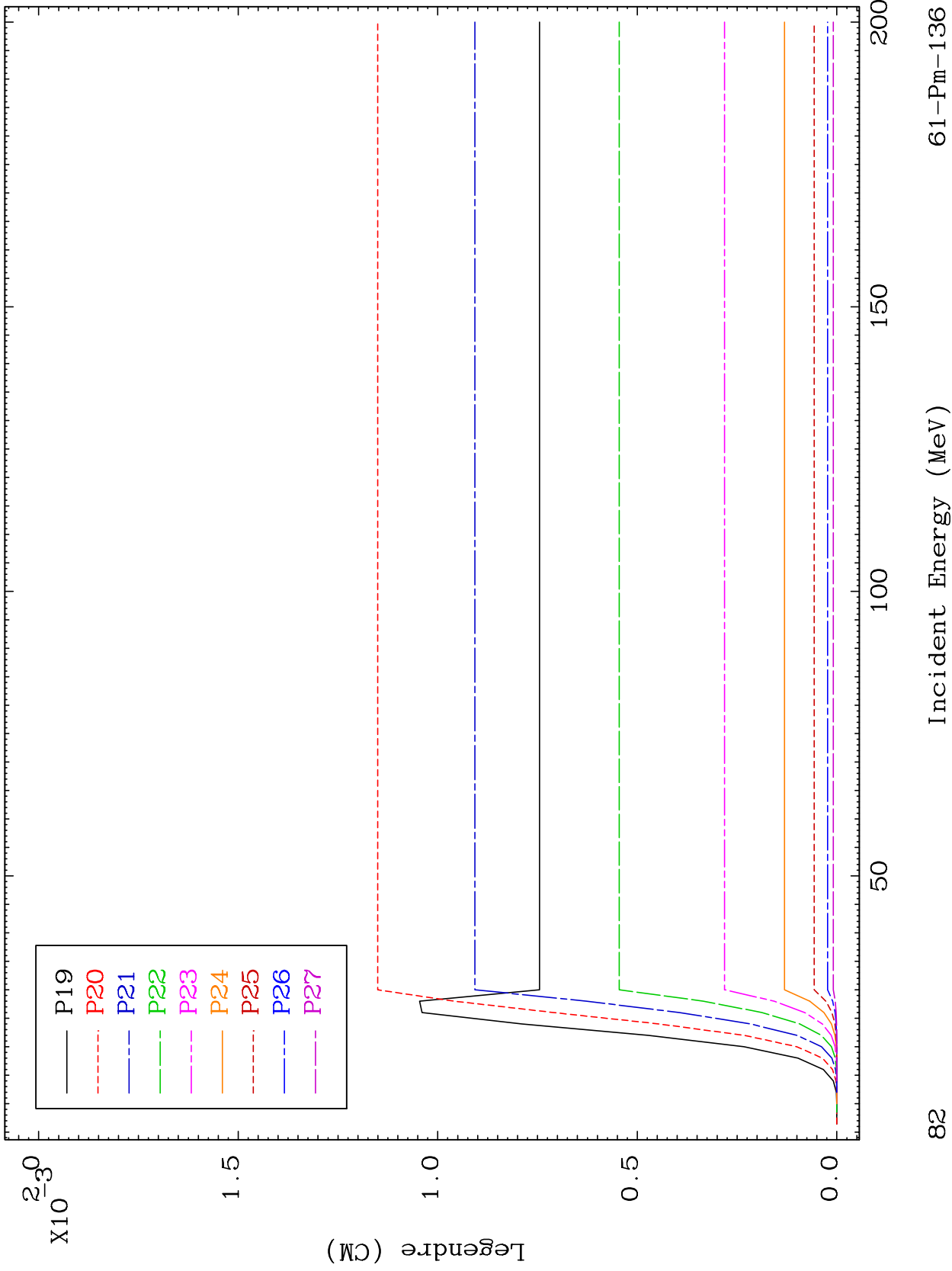
61-Pm-136



81

Incident Energy (MeV)

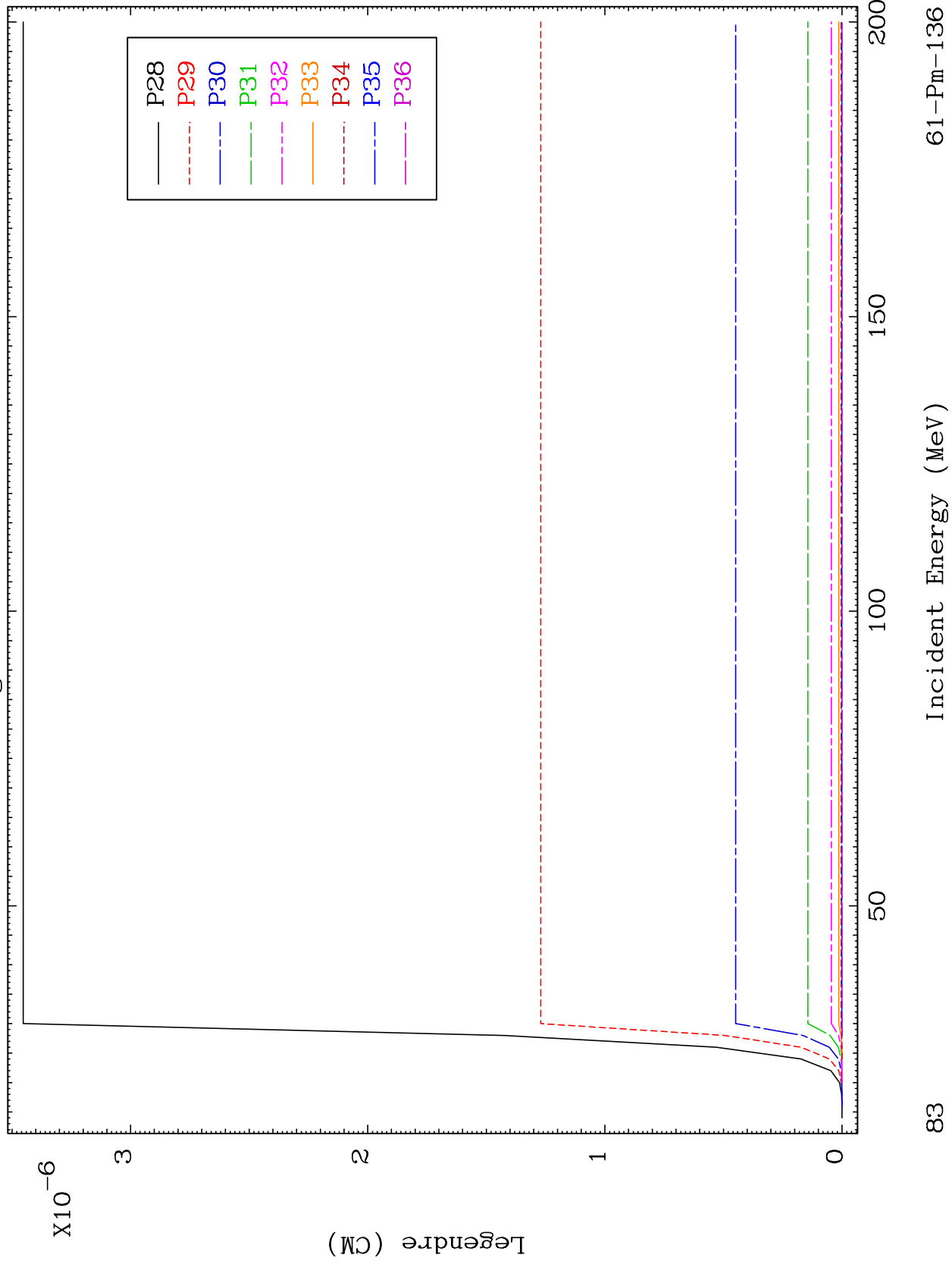
61-Pm-136



MAT 6116

MT= 68 (n,n') Level
Legendre Coefficients

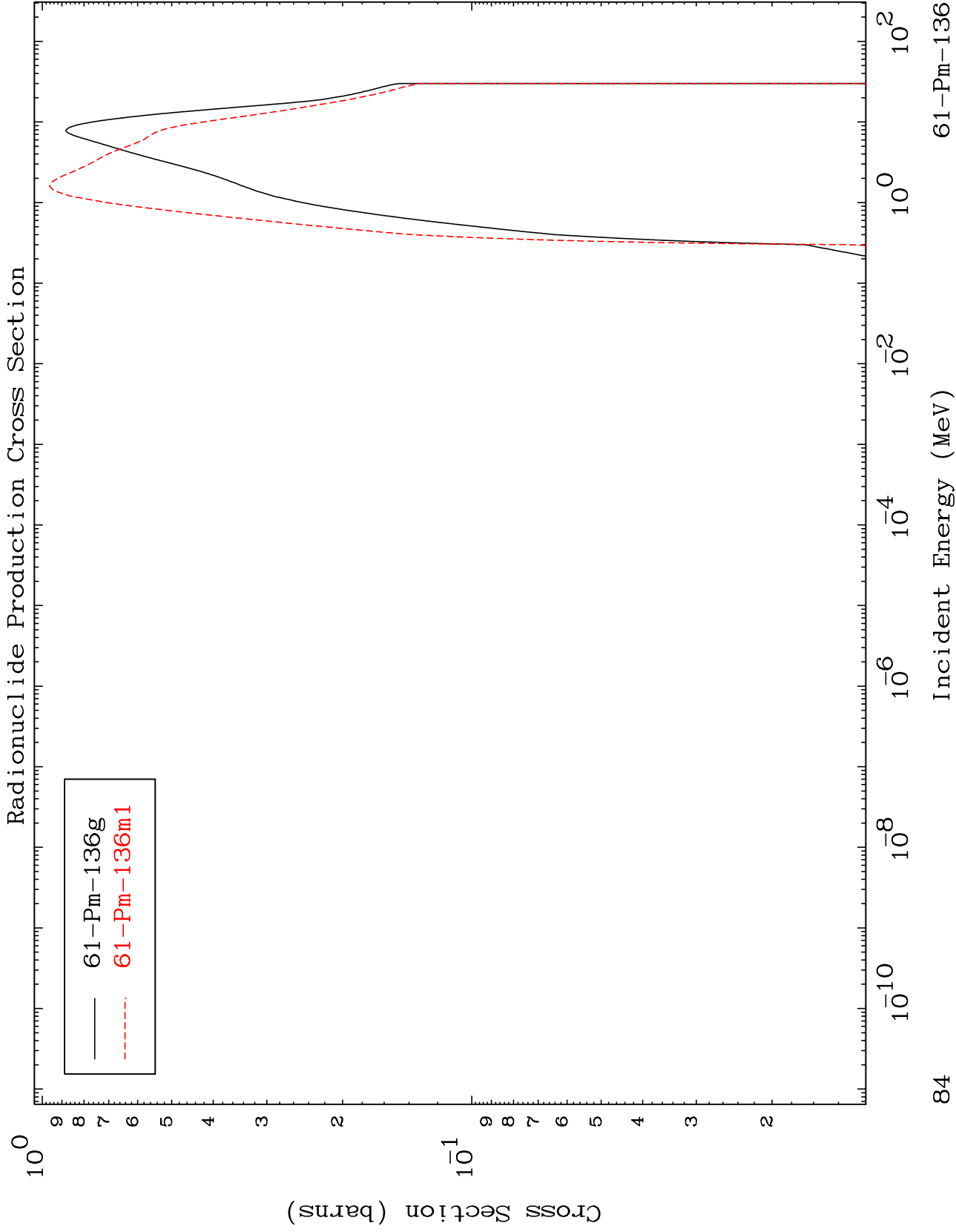
61-Pm-136



MAT 6116

Inelastic

61-Pm-136

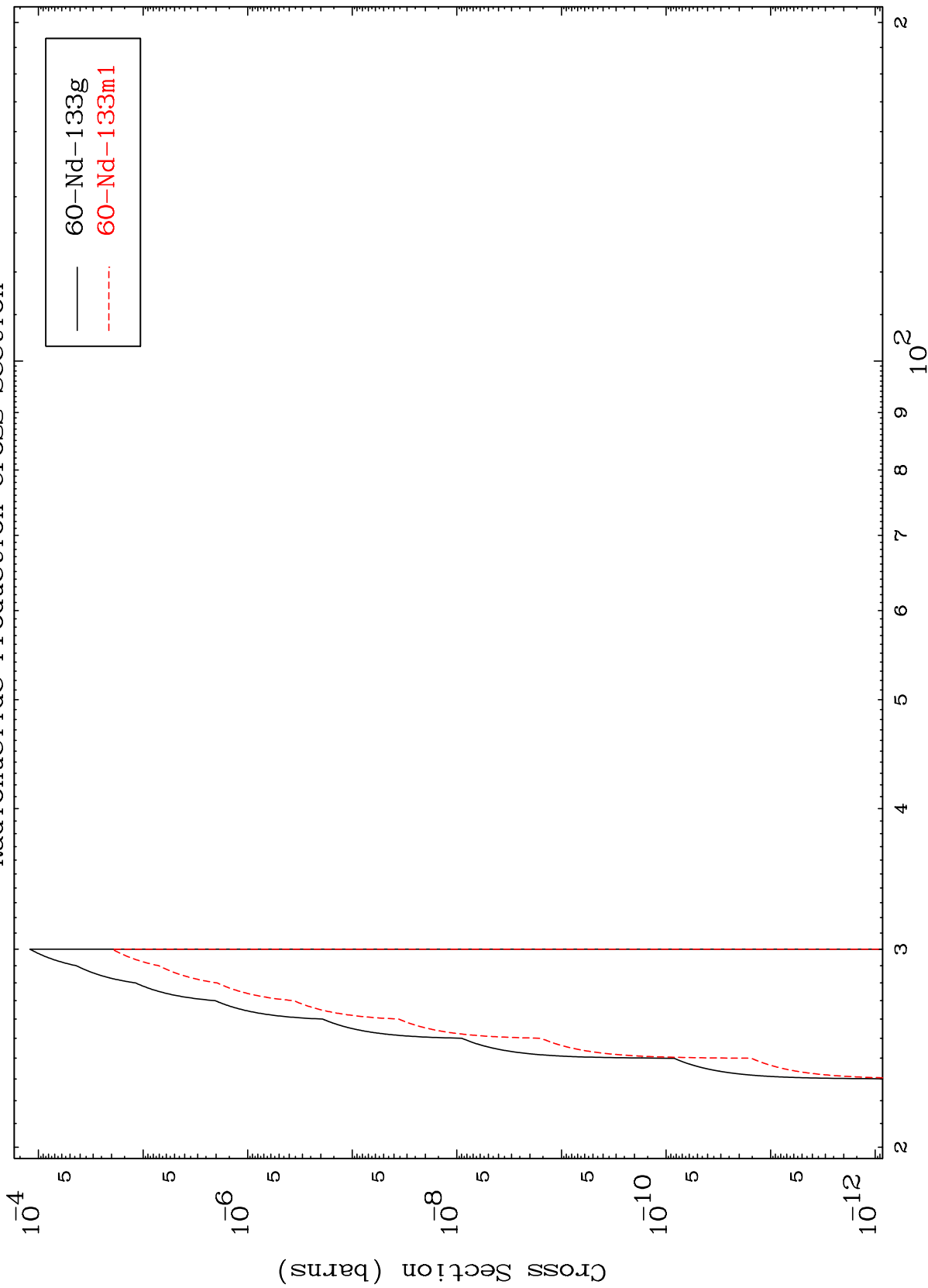


MAT 6116

(n,2n) d

61-Pm-136

Radionuclide Production Cross Section



85

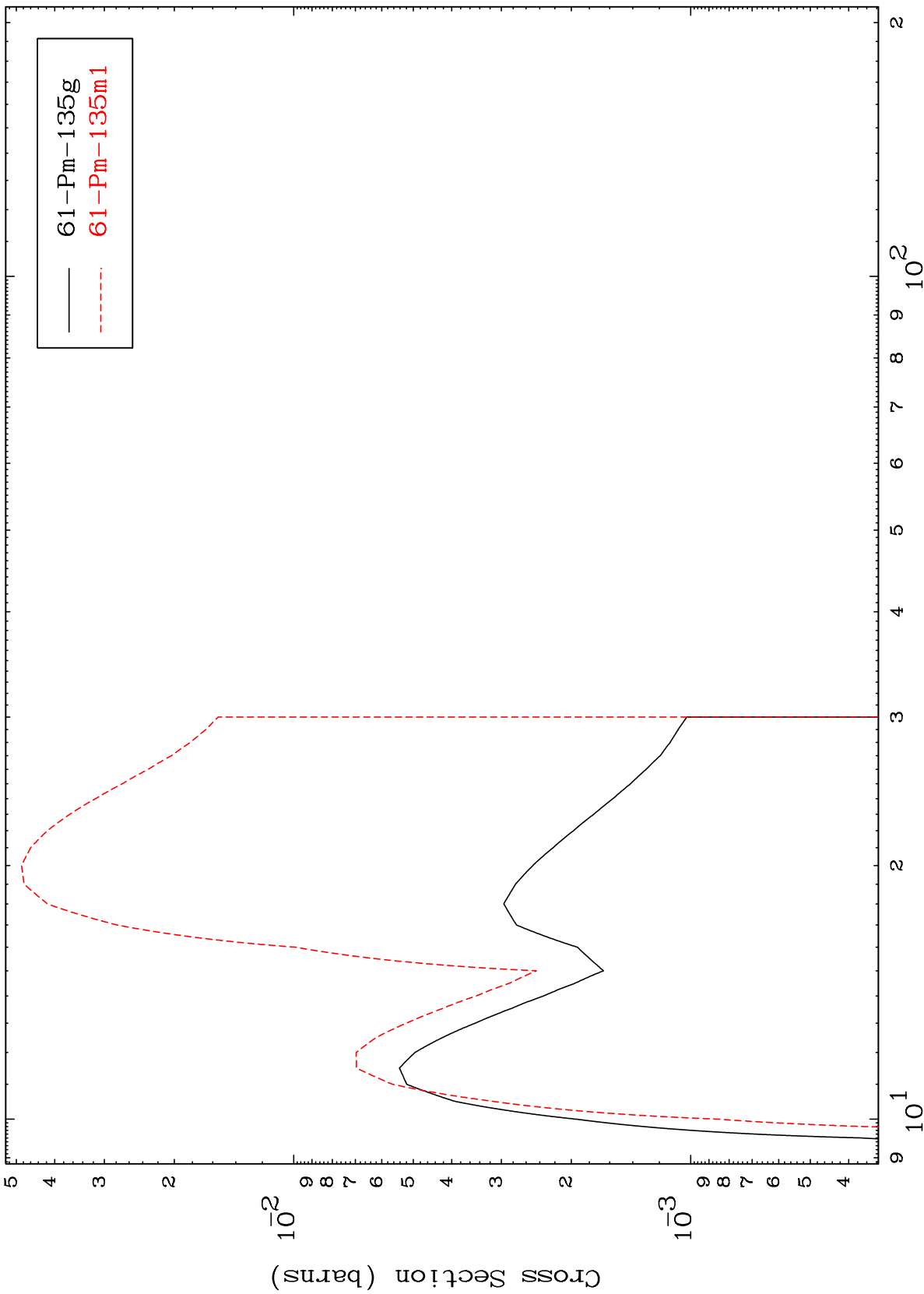
Incident Energy (MeV)

61-Pm-136

MAT 6116

61-Pm-136

(n,2n)
Radionuclide Production Cross Section



61-Pm-136

Incident Energy (MeV)

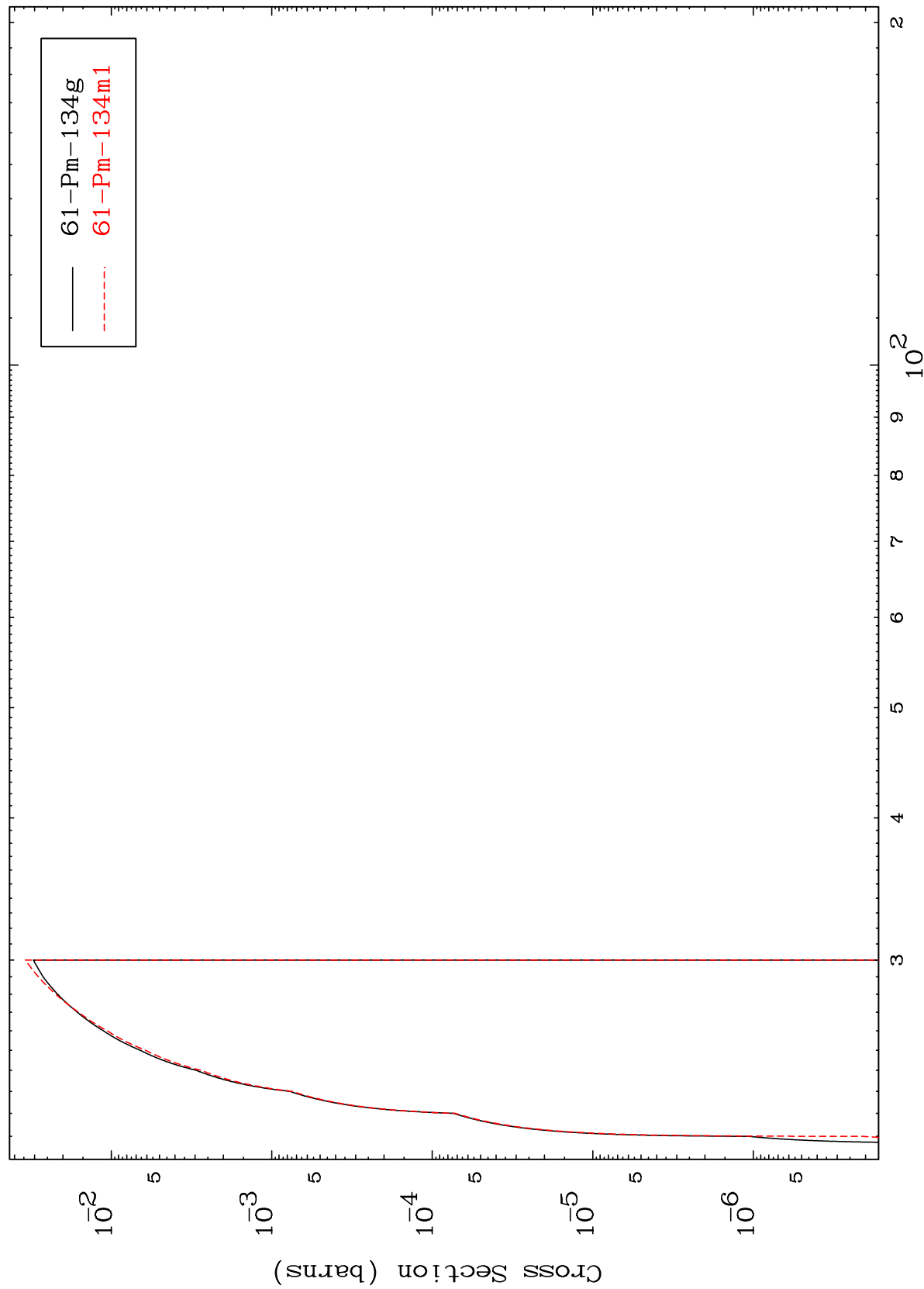
86

MAT 6116

61-Pm-136

(n,3n)

Radionuclide Production Cross Section



87

61-Pm-136

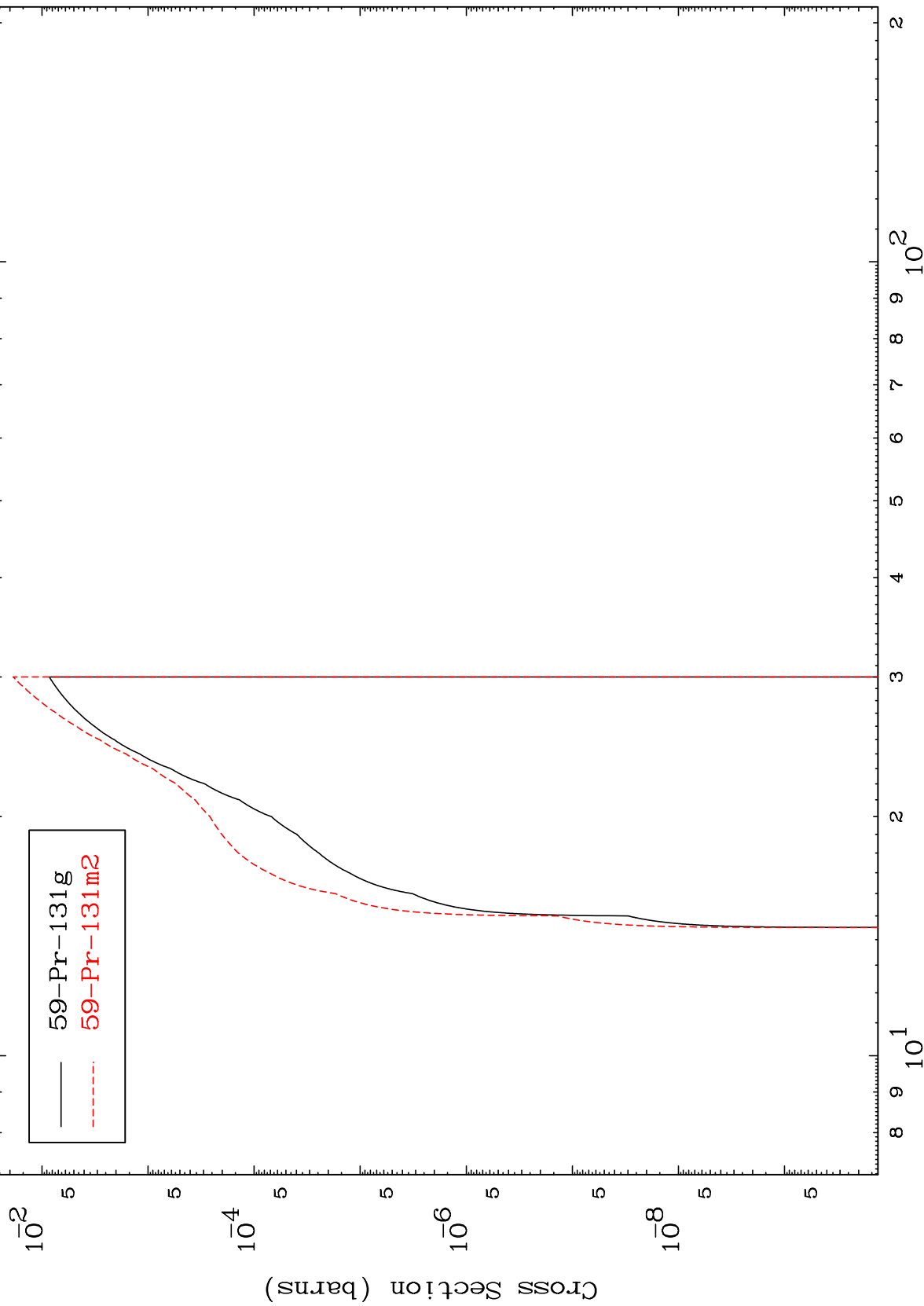
Incident Energy (MeV)

MAT 6116

(n,2n) α

61-Pm-136

Radionuclide Production Cross Section



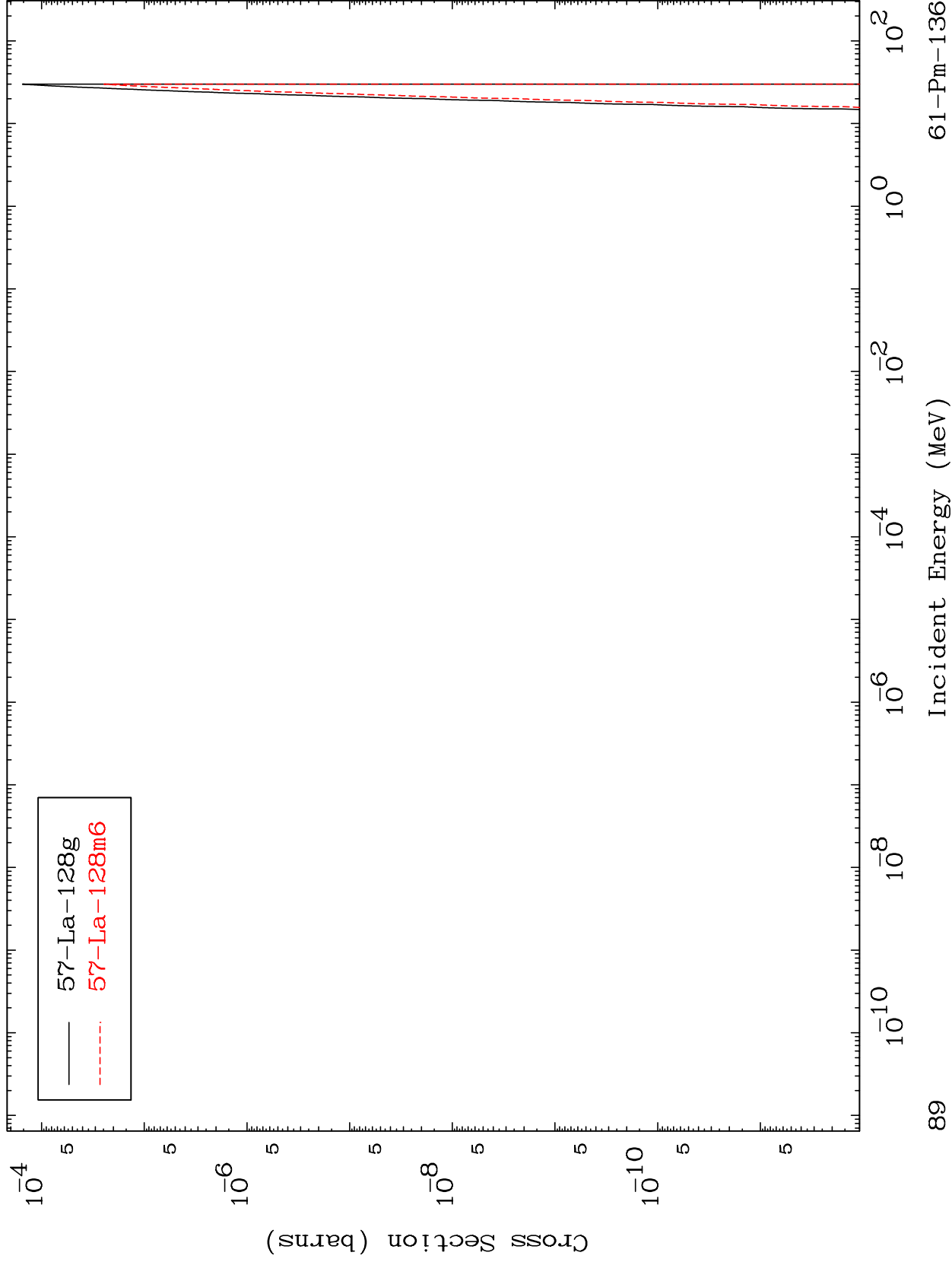
59-Pr-131g
59-Pr-131m2

MAT 6116

(n,n') 2 α

61-Pm-136

Radionuclide Production Cross Section



89

Incident Energy (MeV)

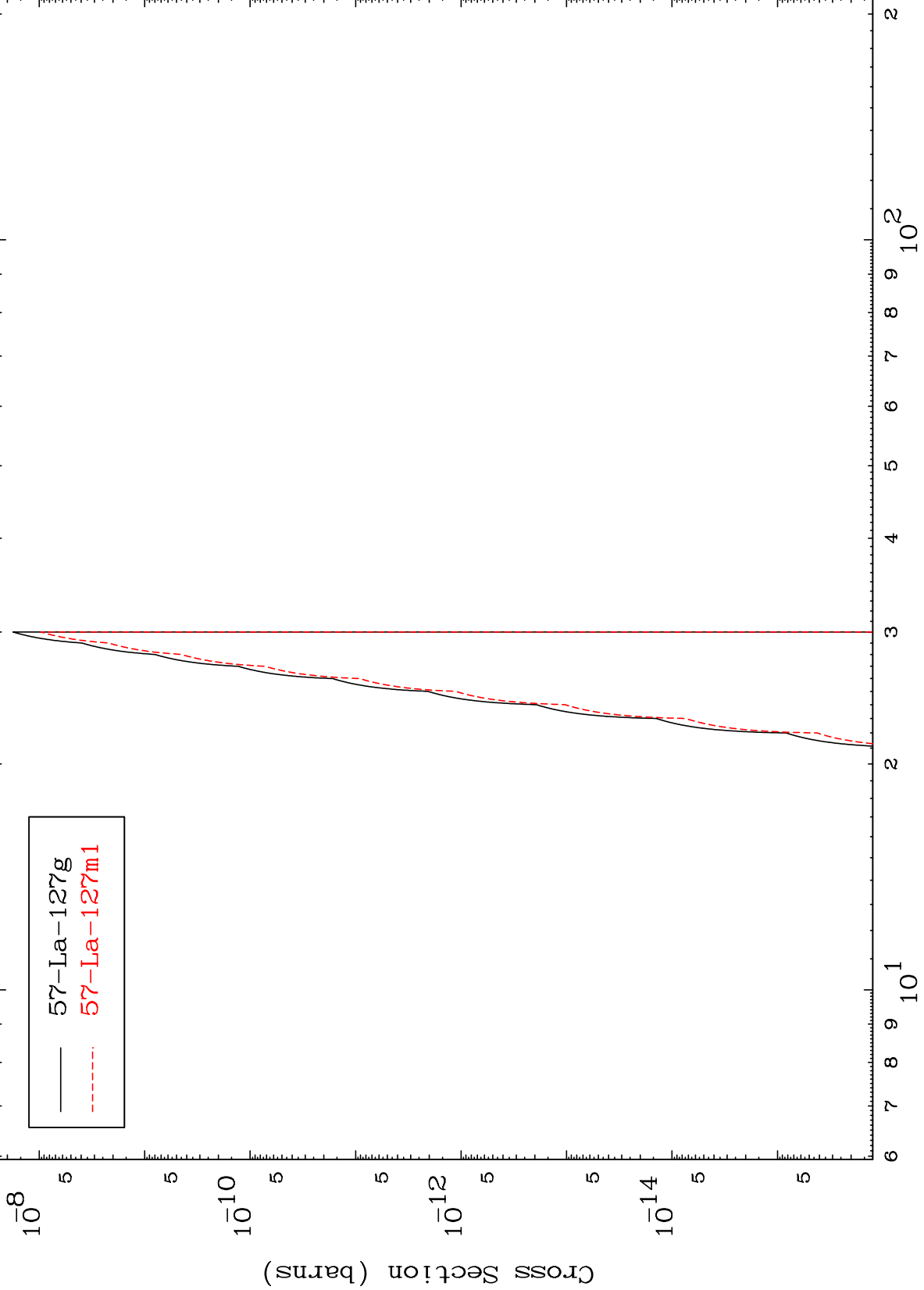
61-Pm-136

MAT 61116

$(n,2n) 2\alpha$

61-Pm-136

Radionuclide Production Cross Section



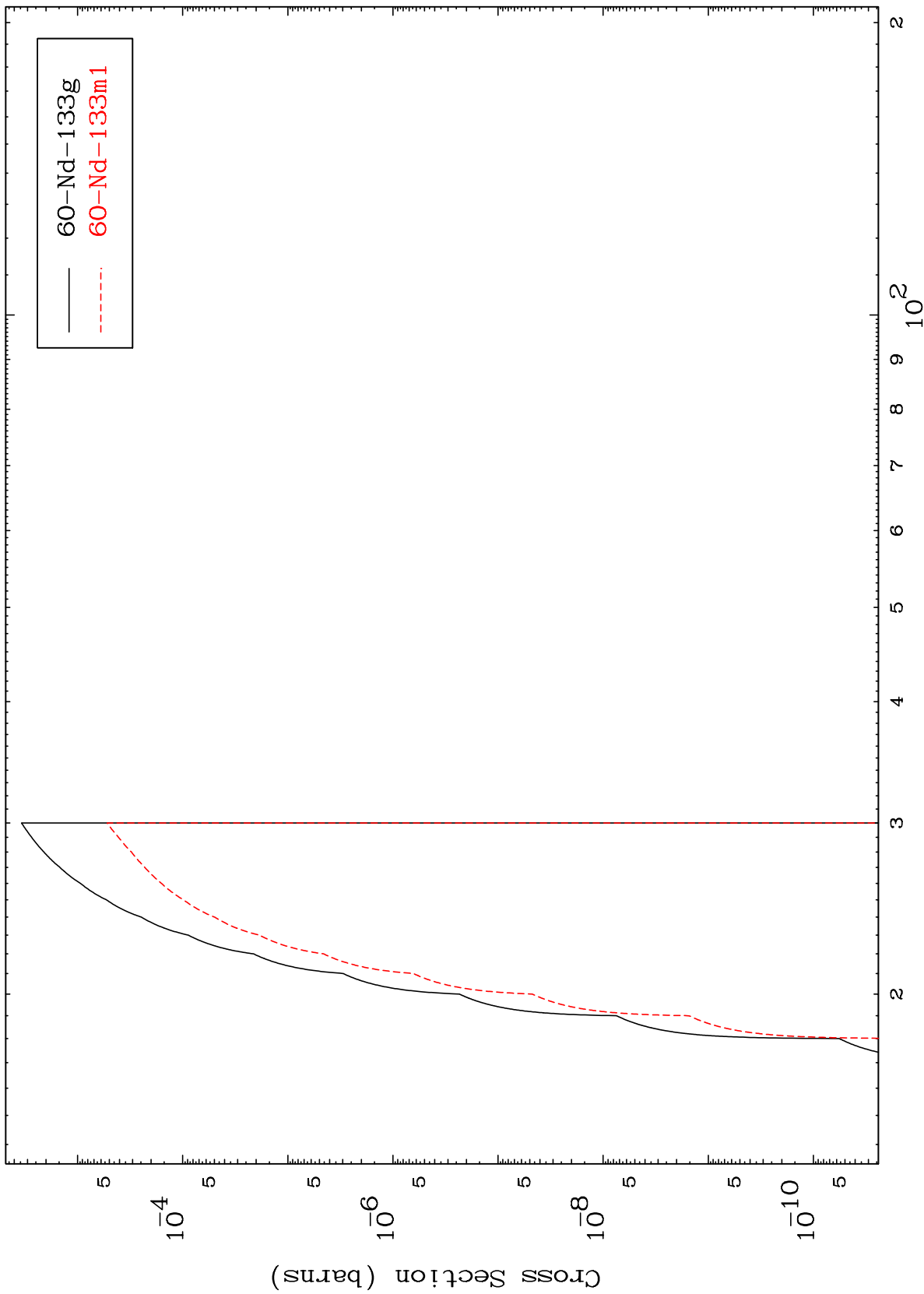
57-La-127g
57-La-127m1

90

Incident Energy (MeV)

61-Pm-136

Radionuclide Production Cross Section



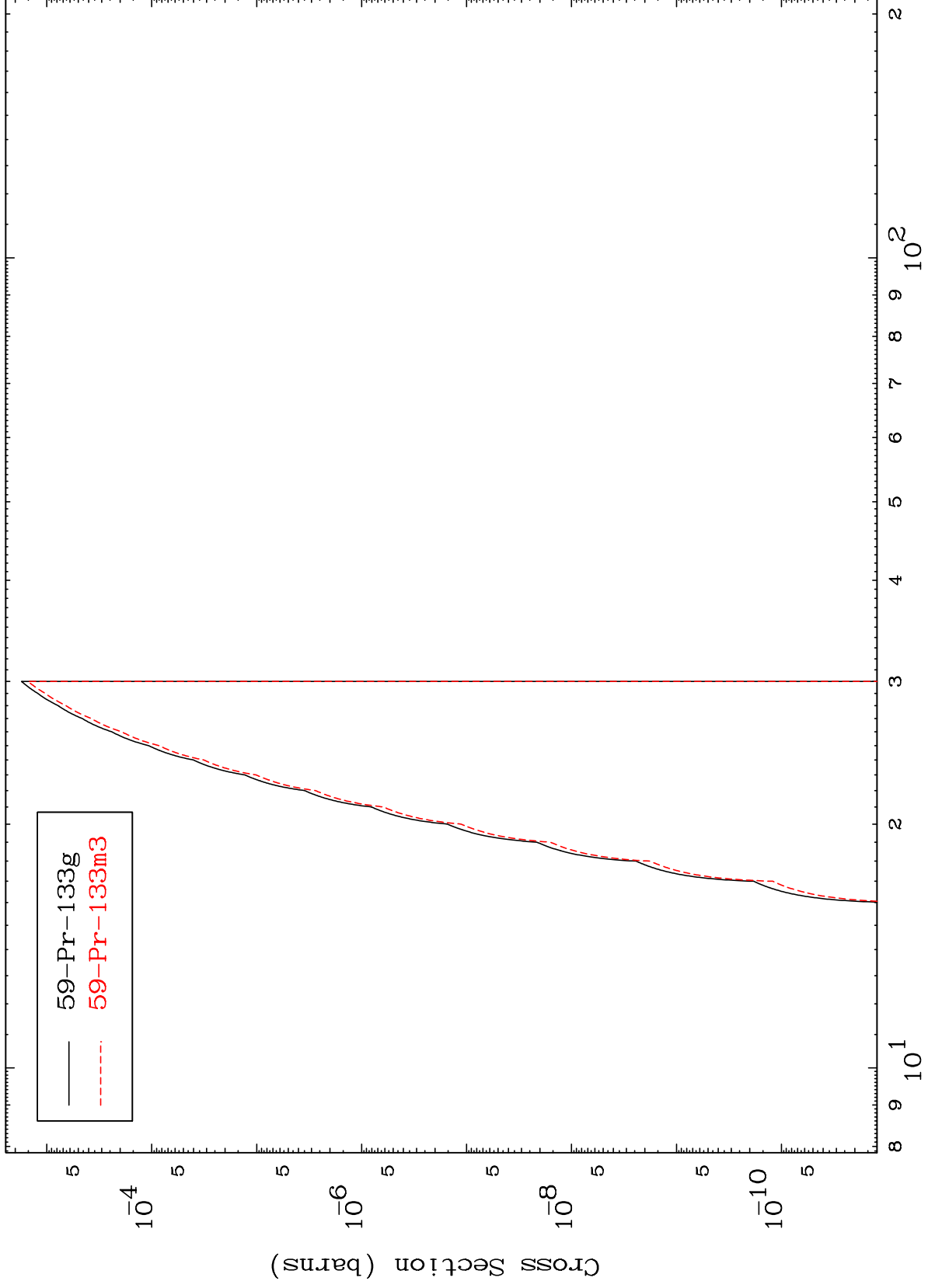
60-Nd-133g
60-Nd-133m1

MAT 6116

(n,n') He-3

61-Pm-136

Radionuclide Production Cross Section

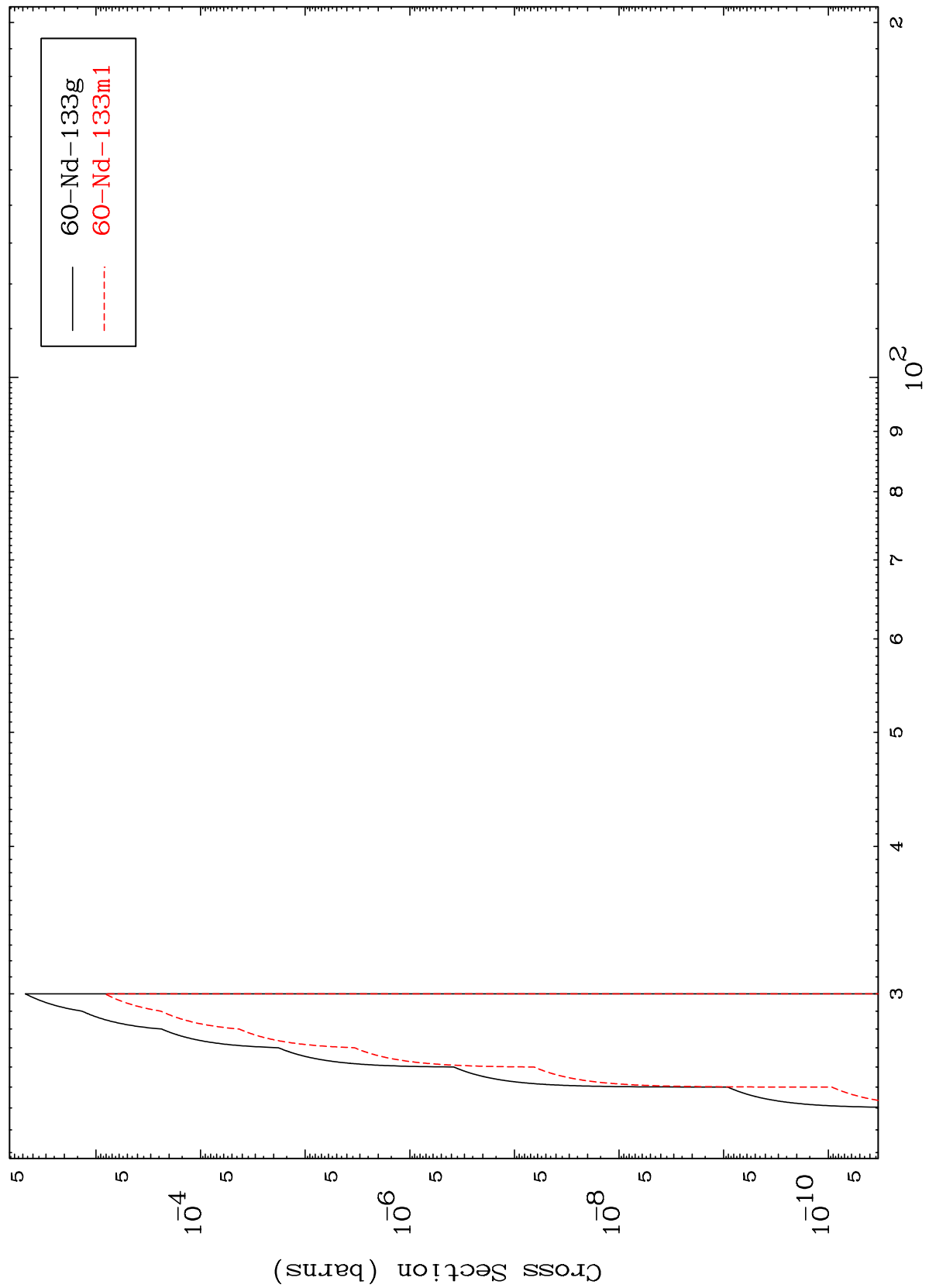


92

Incident Energy (MeV)

61-Pm-136

Radionuclide Production Cross Section



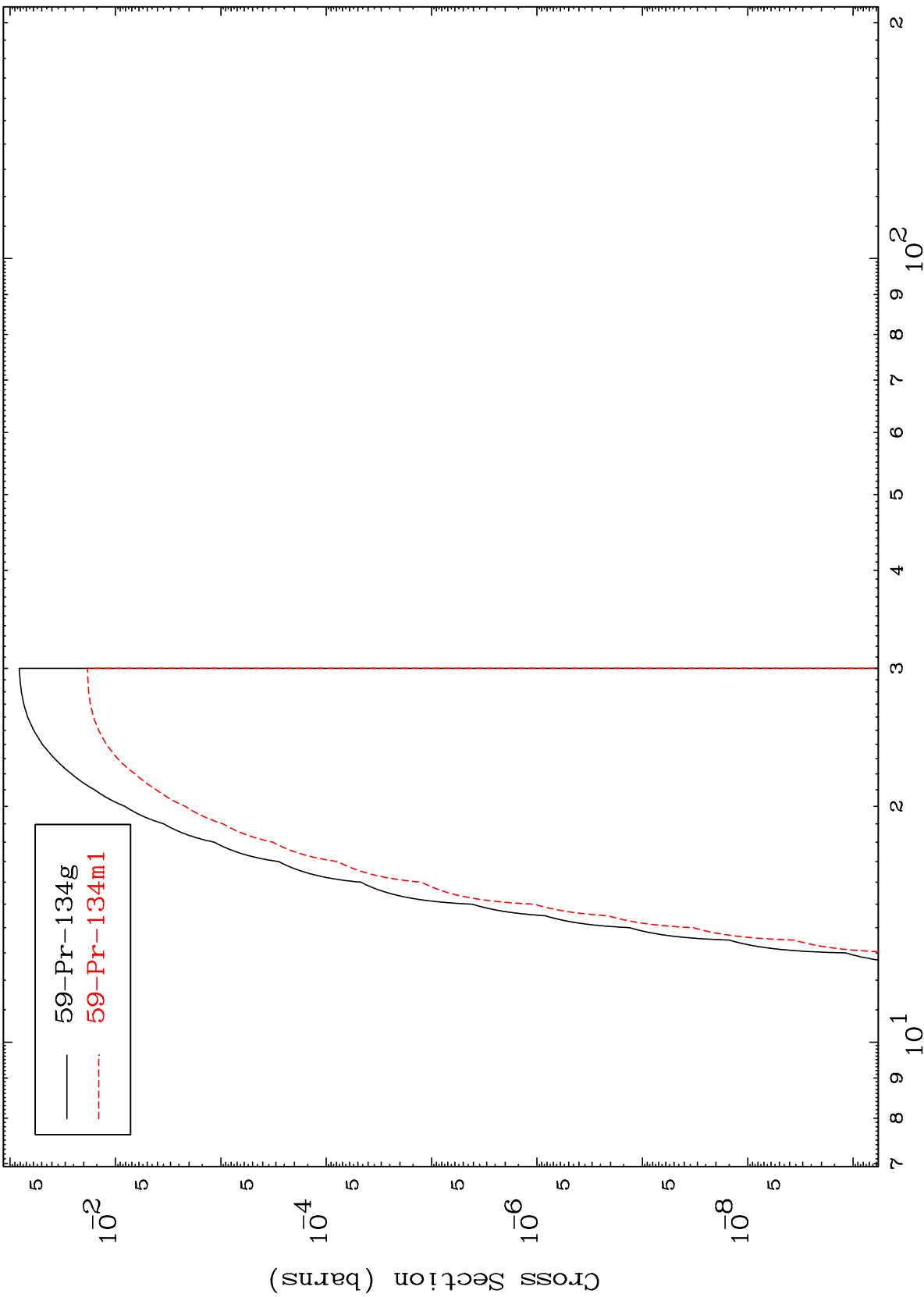
60-Nd-133g
60-Nd-133m1

MAT 61116

(n,2n) p

61-Pm-136

Radionuclide Production Cross Section



59-Pr-134g
59-Pr-134m1

94

Incident Energy (MeV)

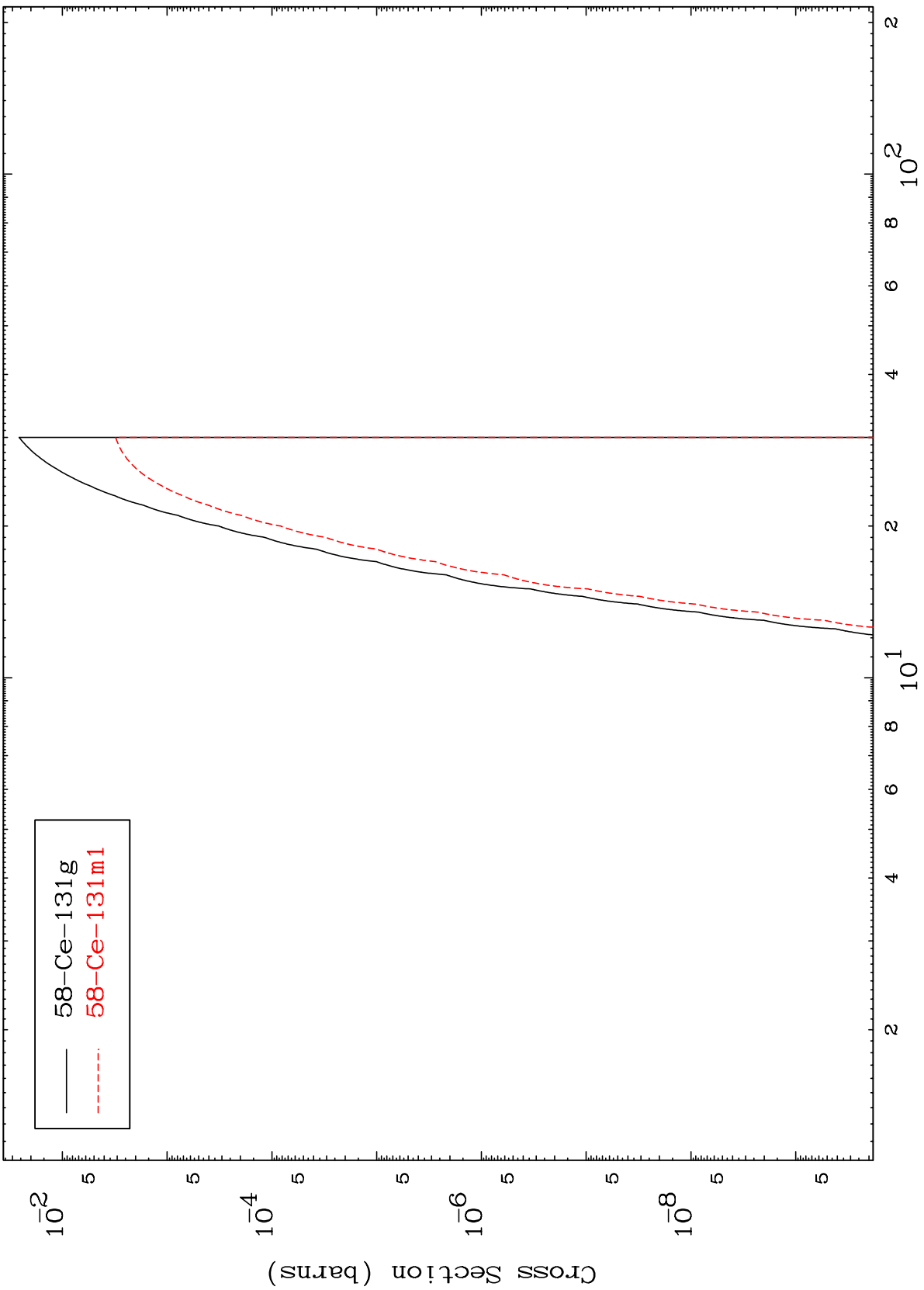
61-Pm-136

MAT 6116

(n,n') p α

61-Pm-136

Radionuclide Production Cross Section



95

Incident Energy (MeV)

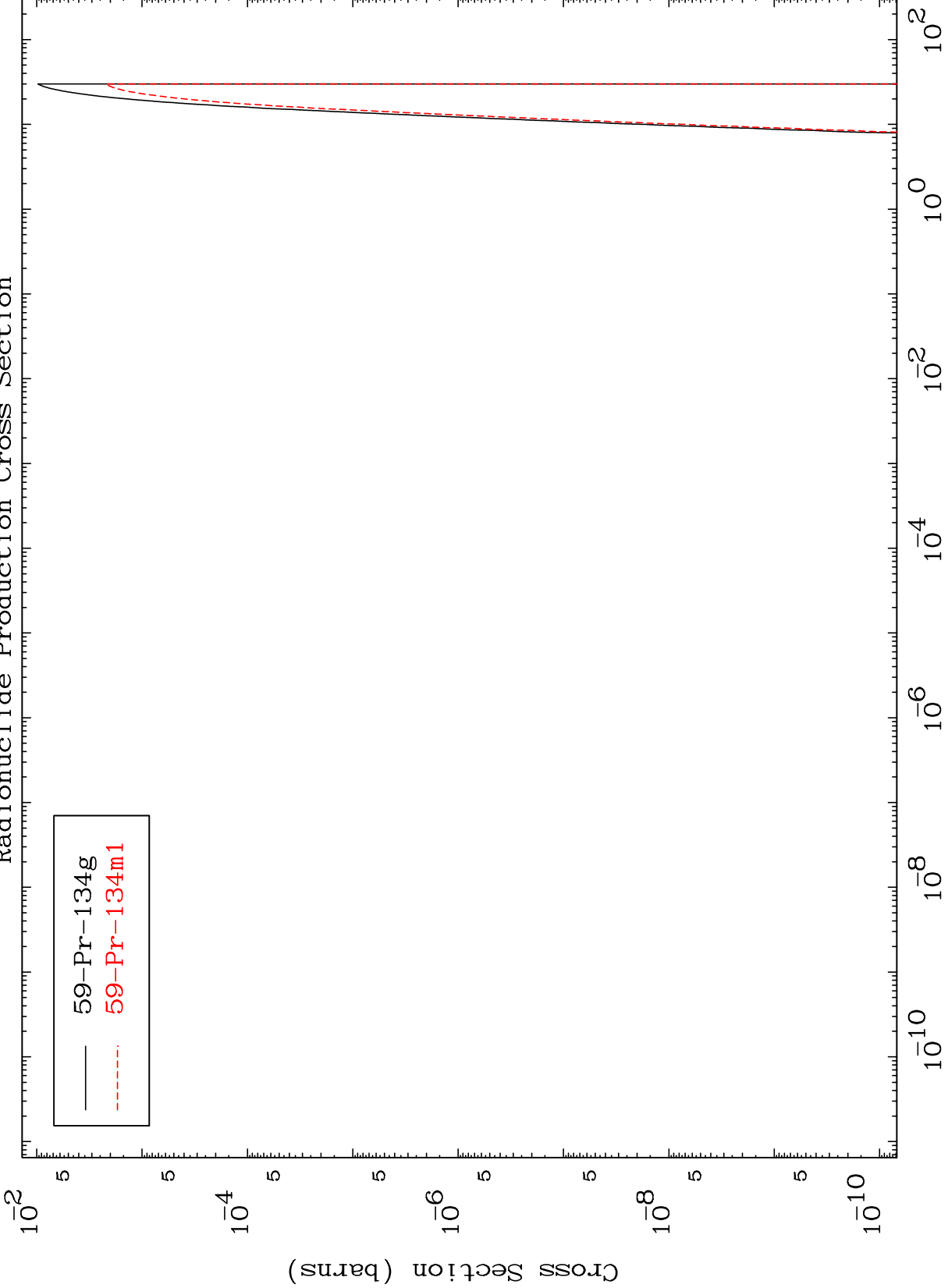
61-Pm-136

MAT 6116

(n,He-3)

61-Pm-136

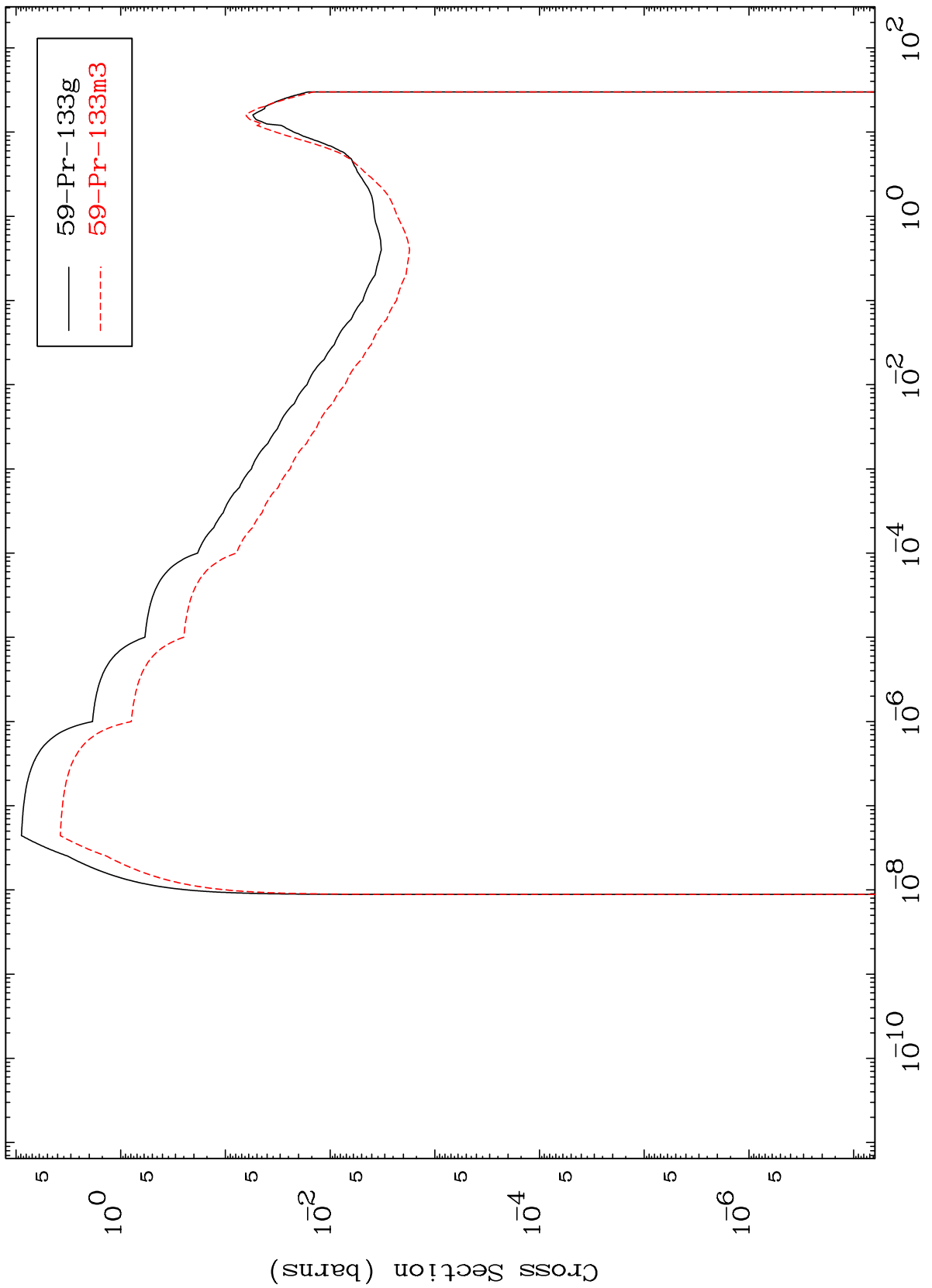
Radionuclide Production Cross Section



MAT 6116

61-Pm-136

(n, α)
Radionuclide Production Cross Section

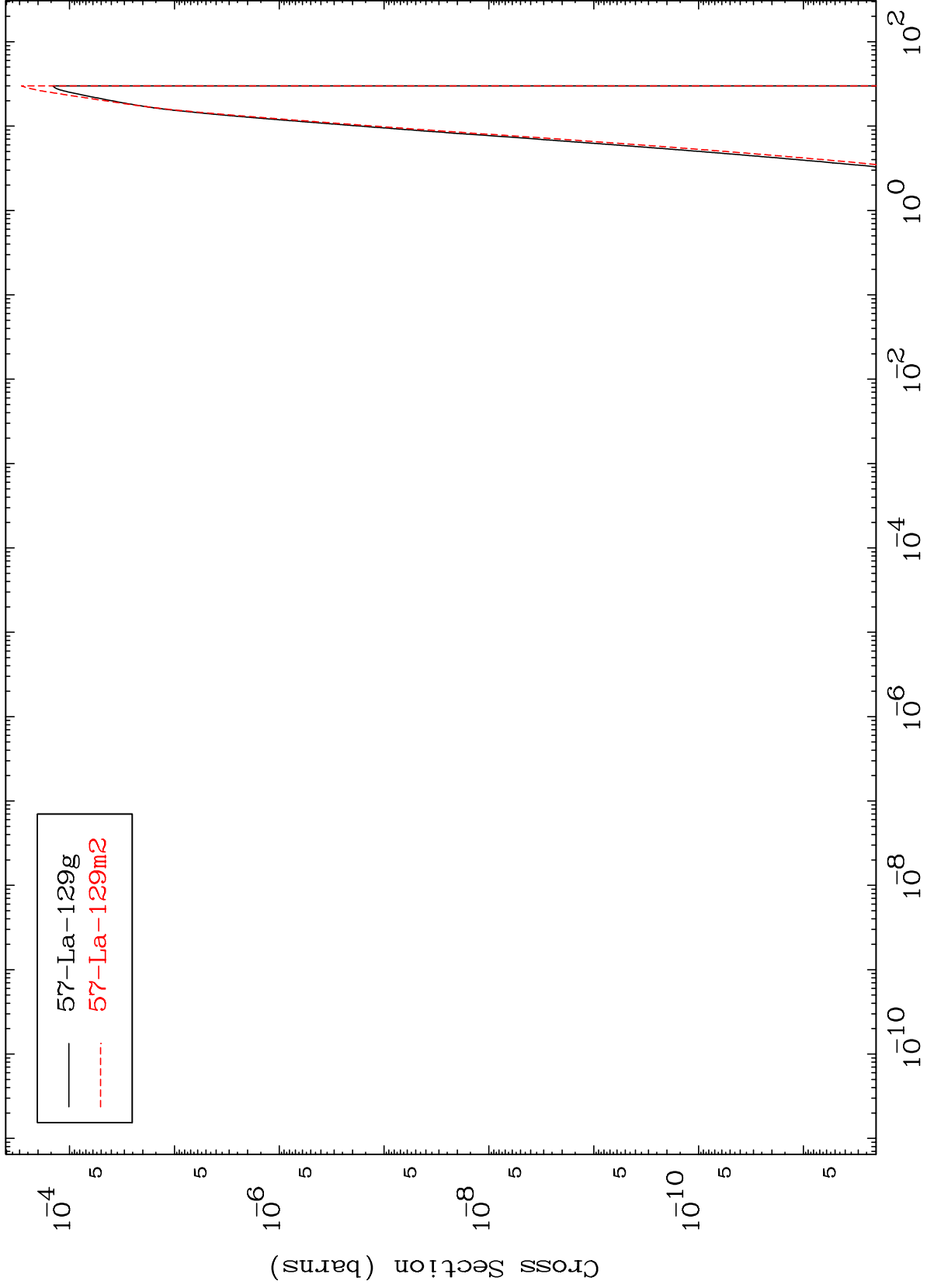


MAT 6116

(n,2α)

61-Pm-136

Radionuclide Production Cross Section



98

Incident Energy (MeV)

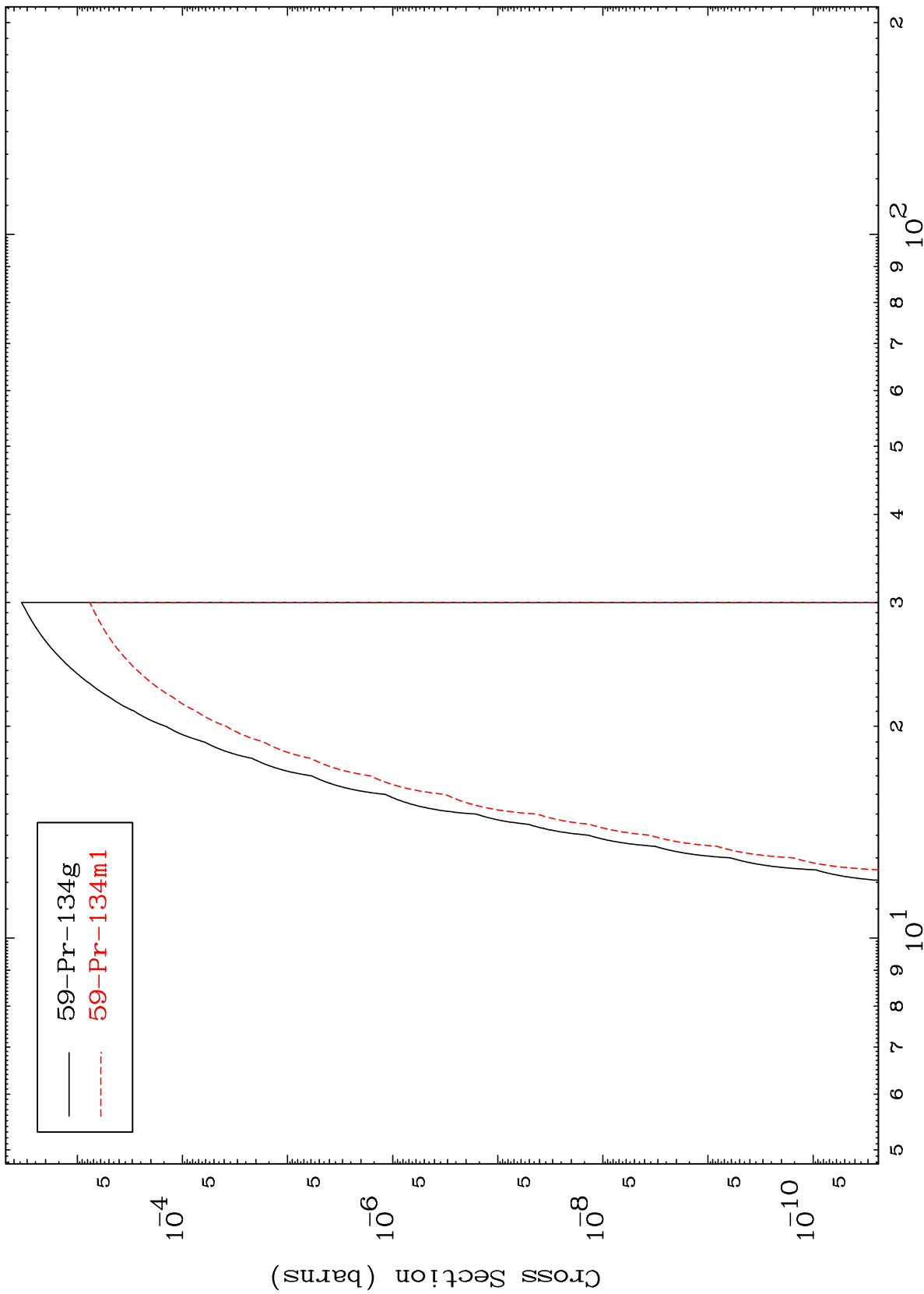
61-Pm-136

MAT 6116

(n,p) d

61-Pm-136

Radionuclide Production Cross Section



99

Incident Energy (MeV)

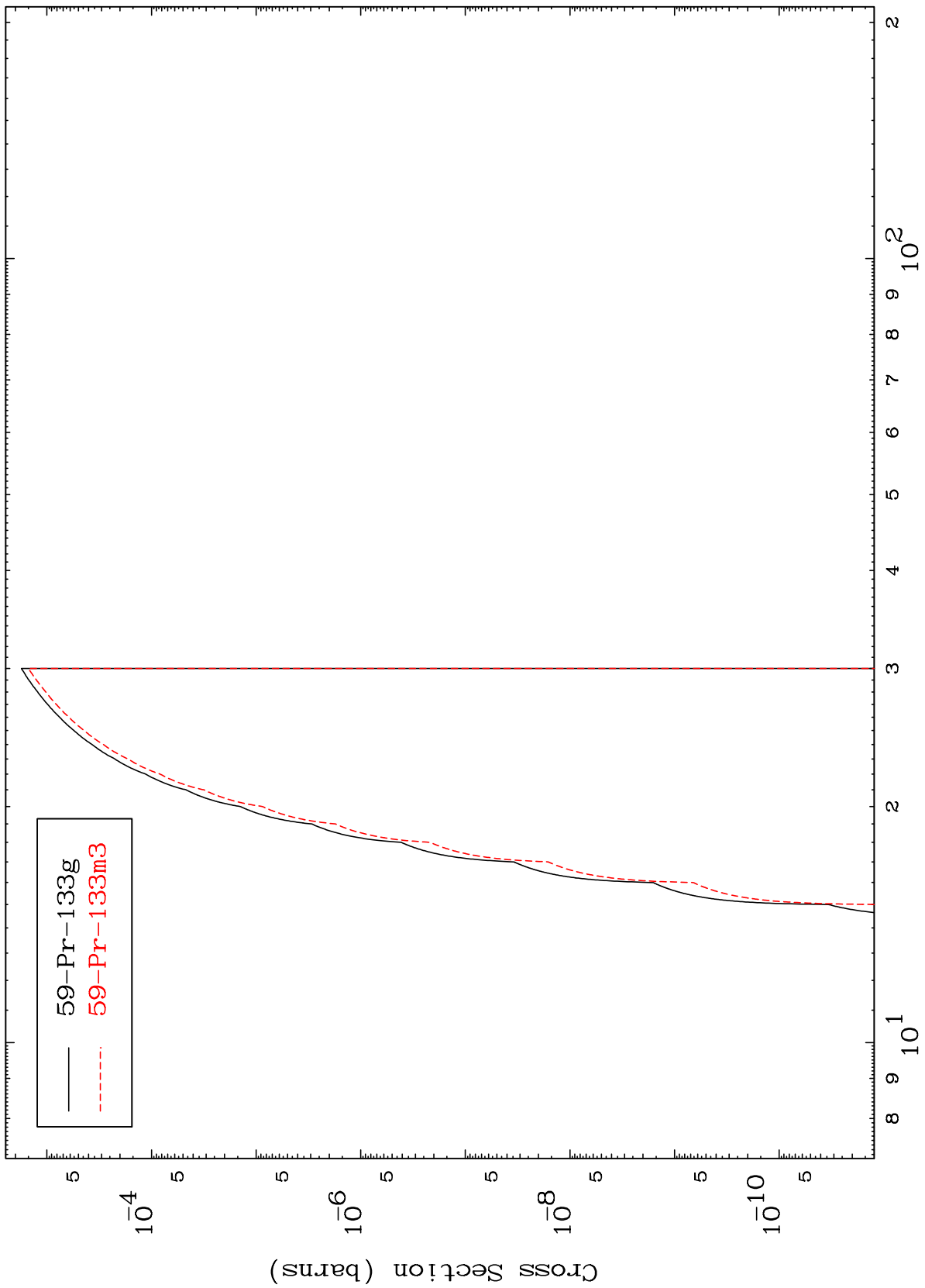
61-Pm-136

MAT 6116

(n,p) t

61-Pm-136

Radionuclide Production Cross Section



100

Incident Energy (MeV)

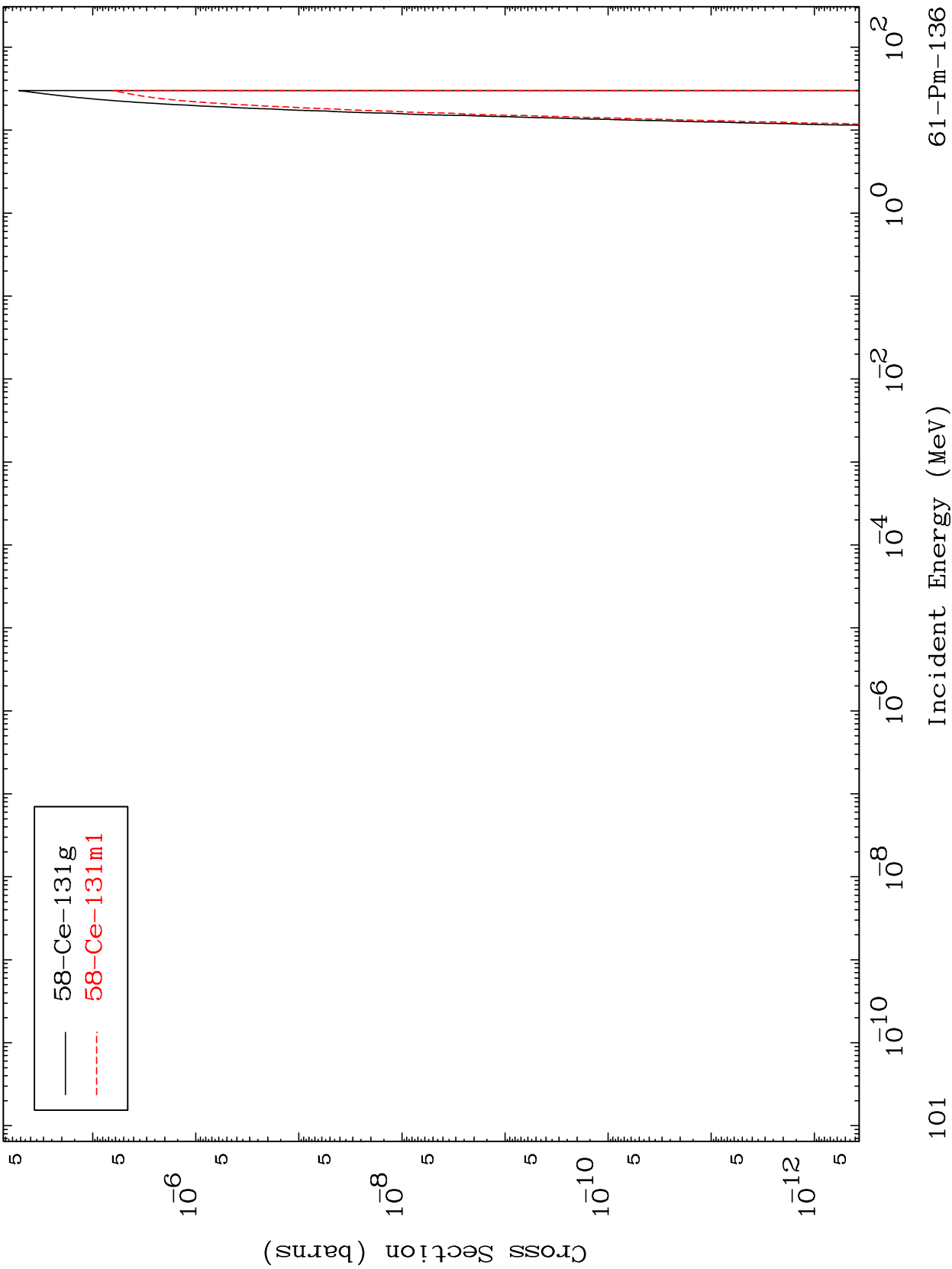
61-Pm-136

MAT 6116

(n,d) α

61-Pm-136

Radionuclide Production Cross Section



58-Ce-131g
58-Ce-131m1

101

Incident Energy (MeV)

61-Pm-136