

Program EVALPLOT  
(Version 2017-1)

by

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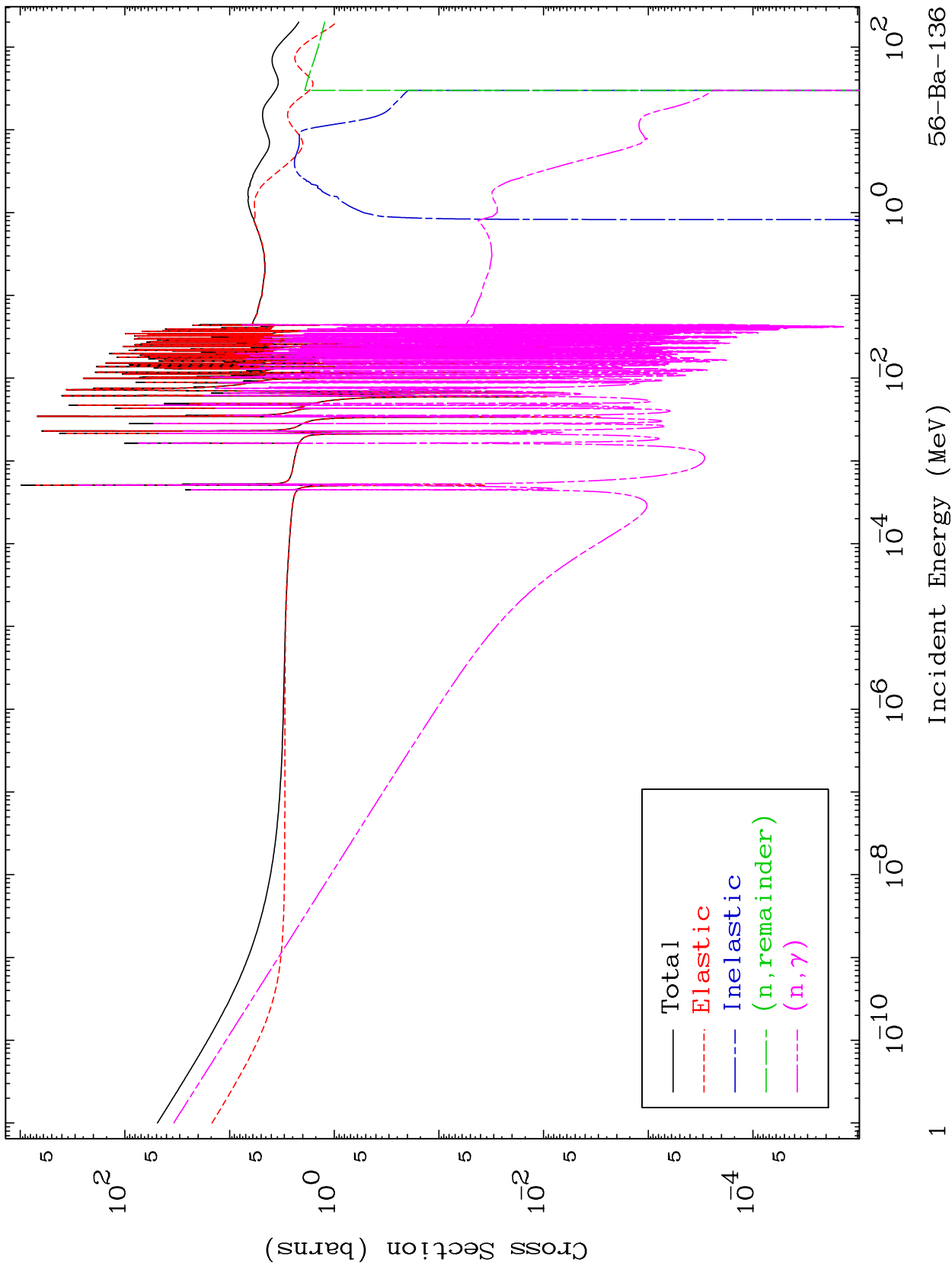
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Press Mouse Button to Start

MAT 5643

Major  
293 Kelvin Cross Sections

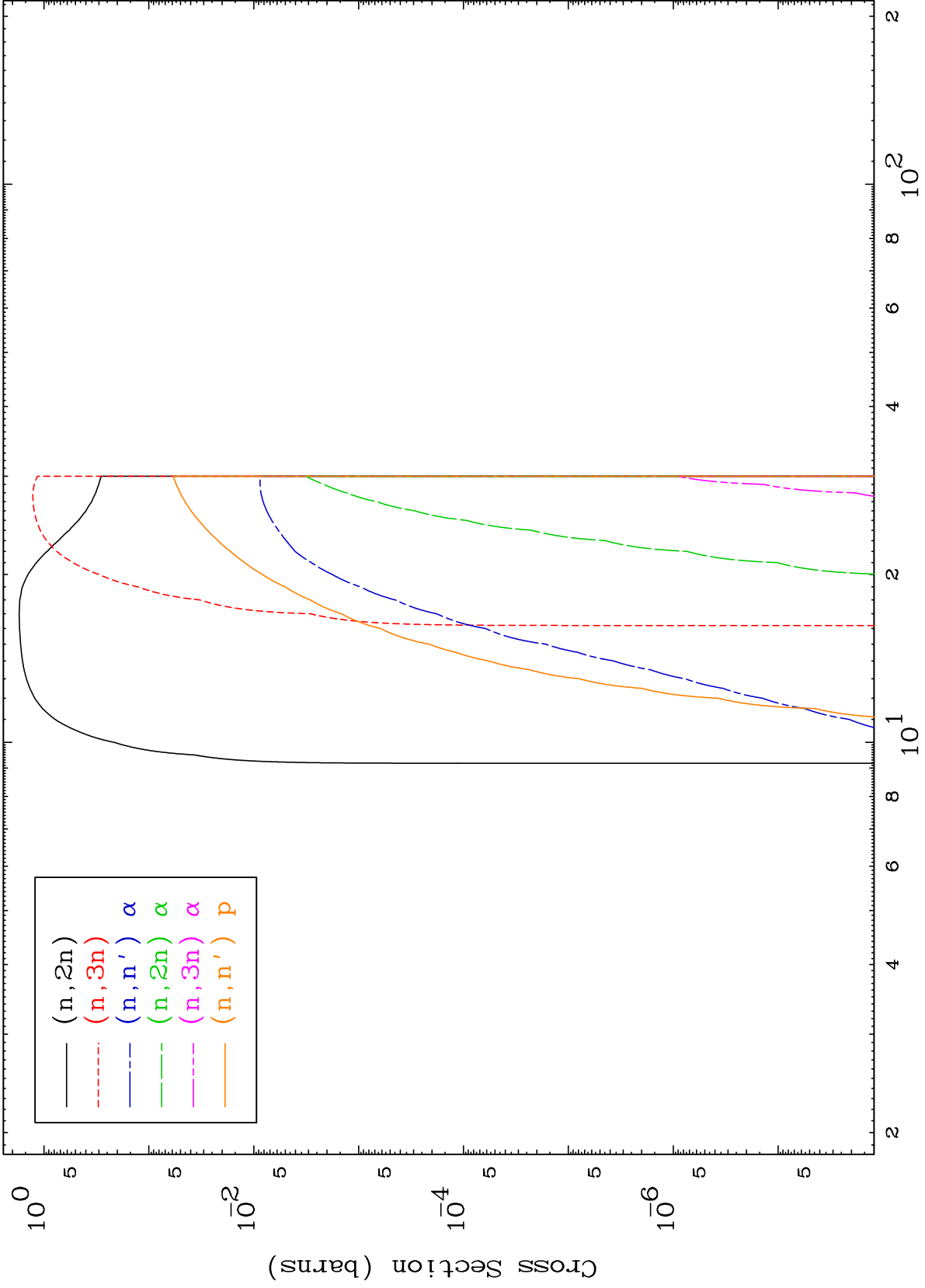
56-Ba-136



MAT 5643

Neutron Production  
293 Kelvin Cross Sections

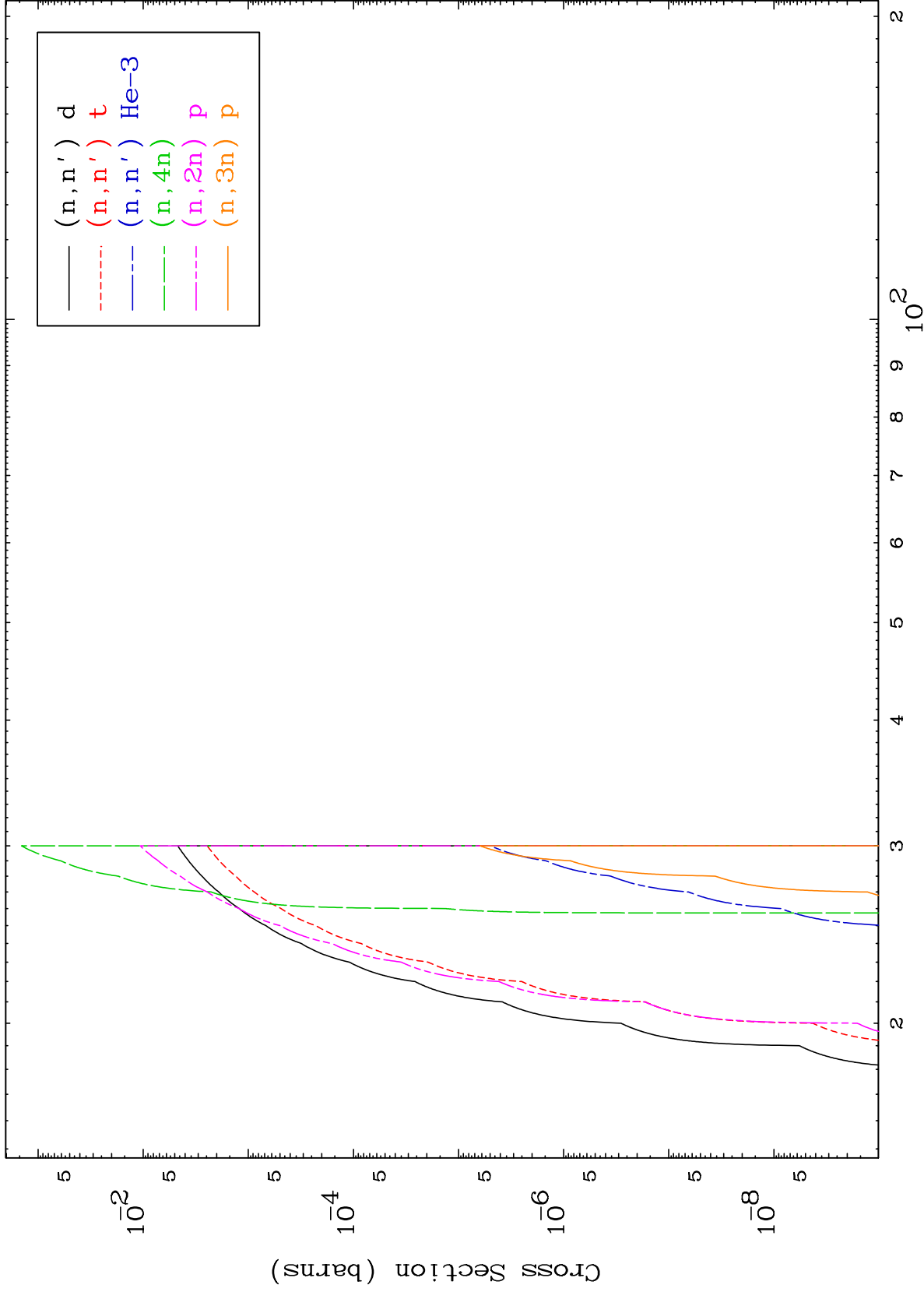
56-Ba-136

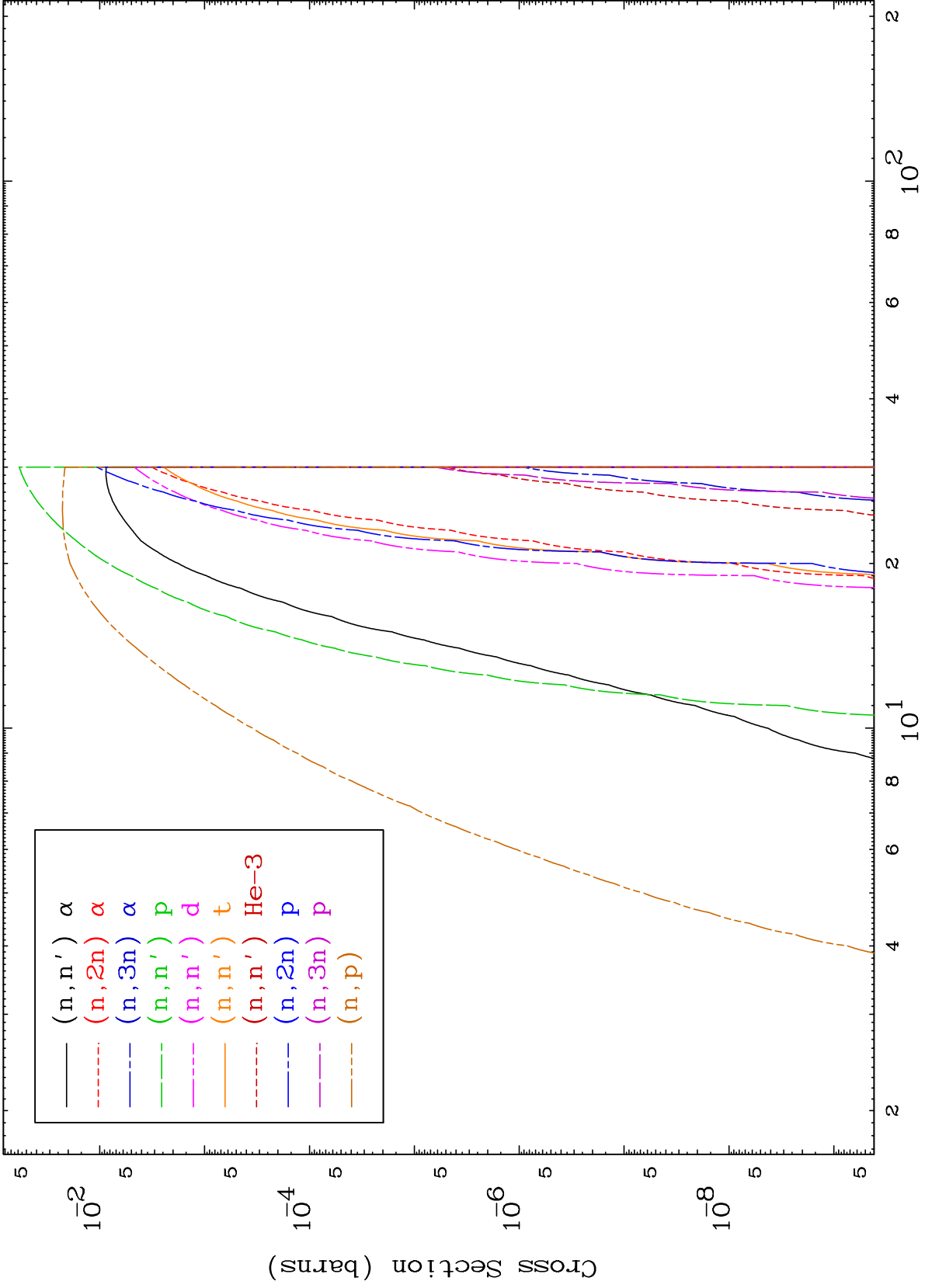


2

Incident Energy (MeV)

56-Ba-136

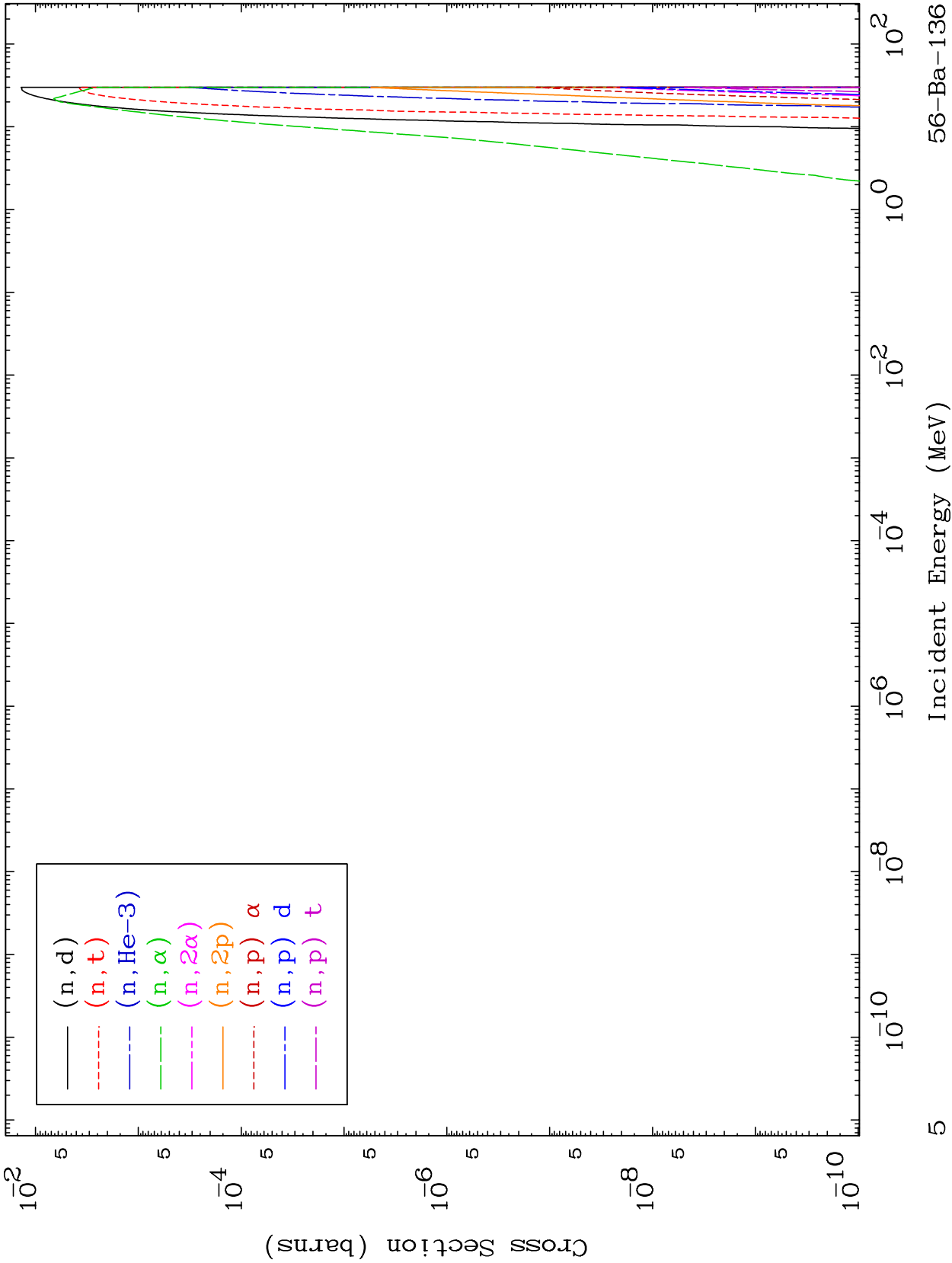




MAT 5643

Charged Particle  
293 Kelvin Cross Sections

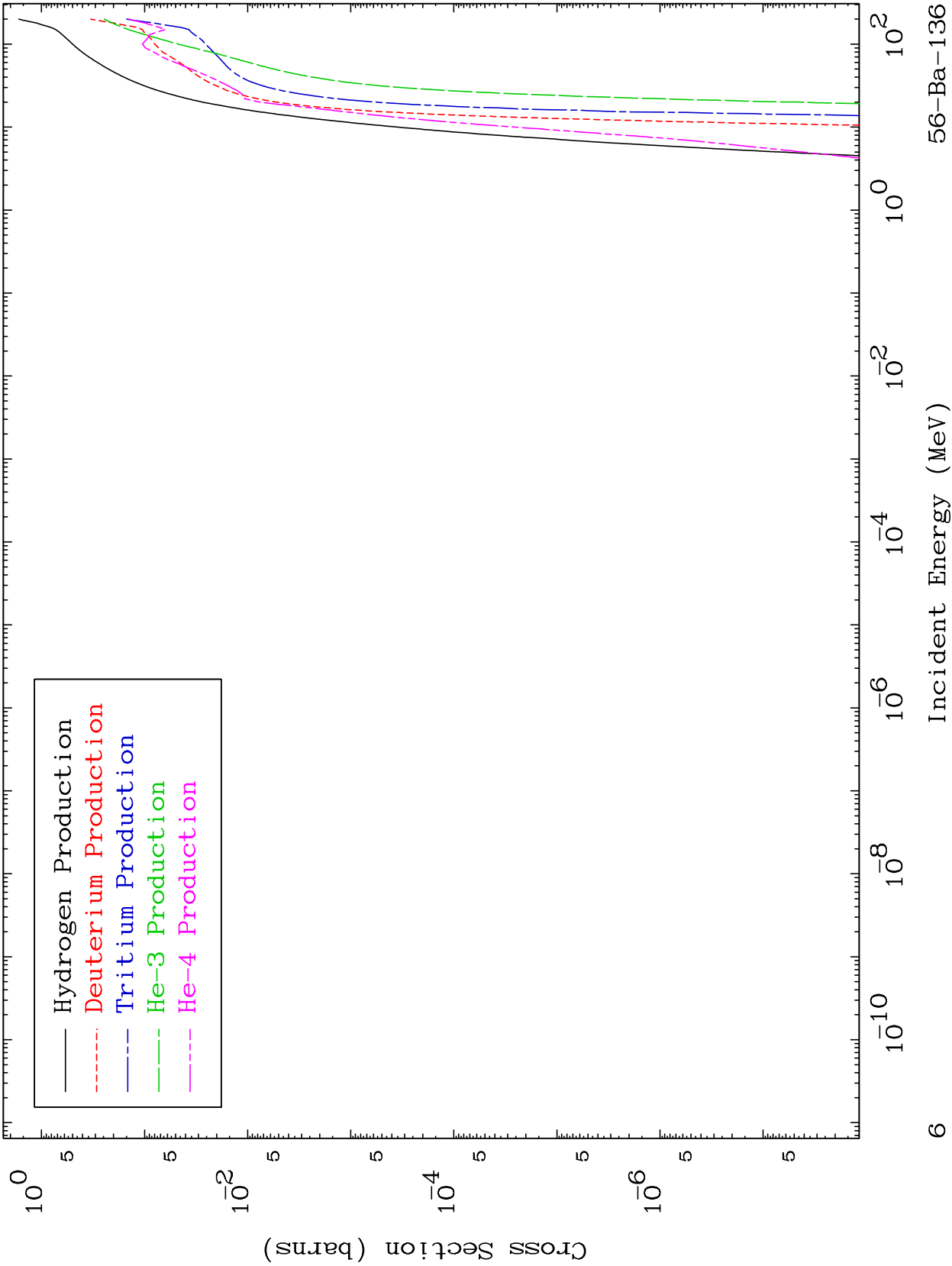
56-Ba-136



MAT 5643

Particle Production  
293 Kelvin Cross Sections

56-Ba-136

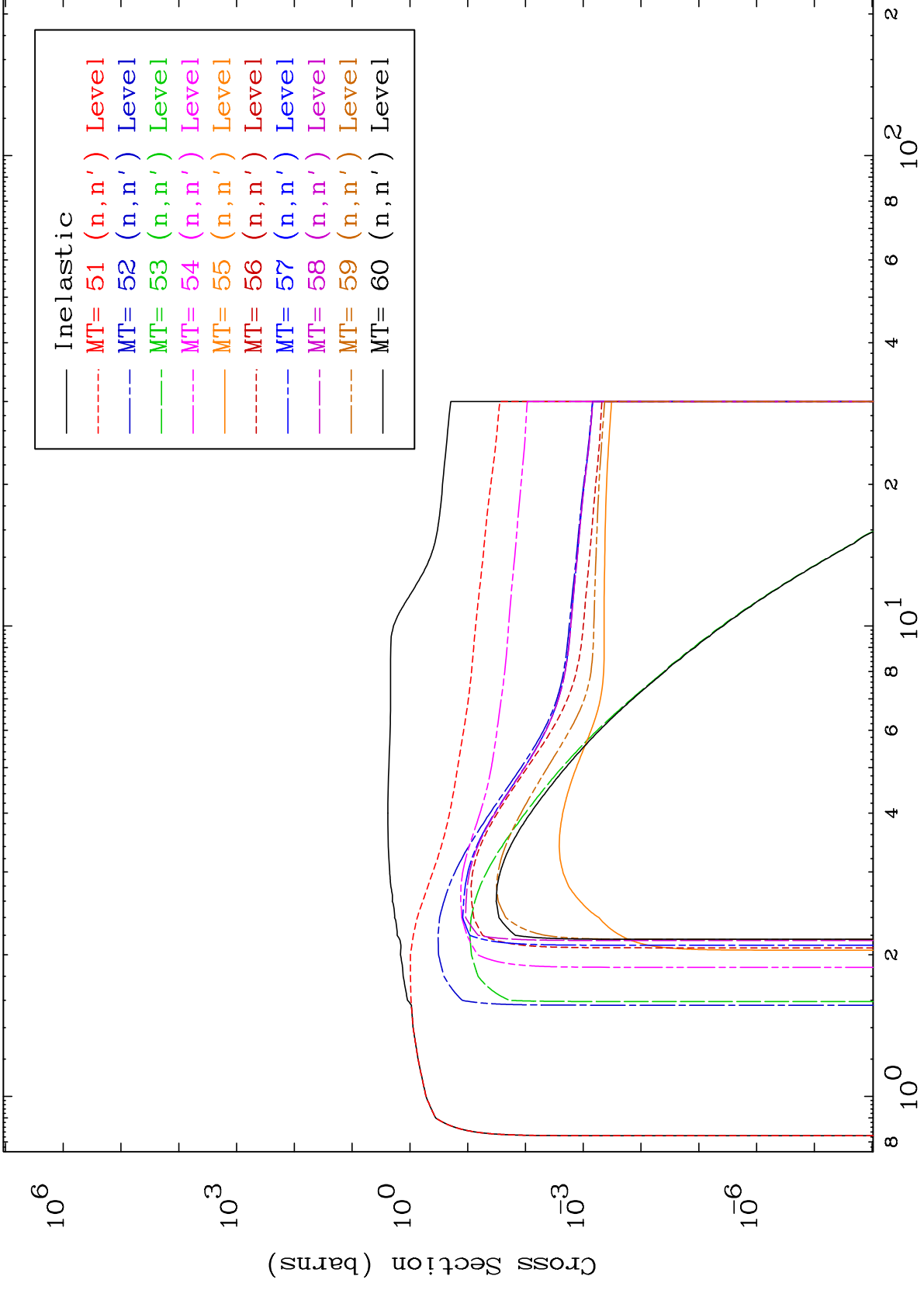


MAT 5643

(n,n') Level

56-Ba-136

293 Kelvin Cross Sections



Incident Energy (MeV)

56-Ba-136

7

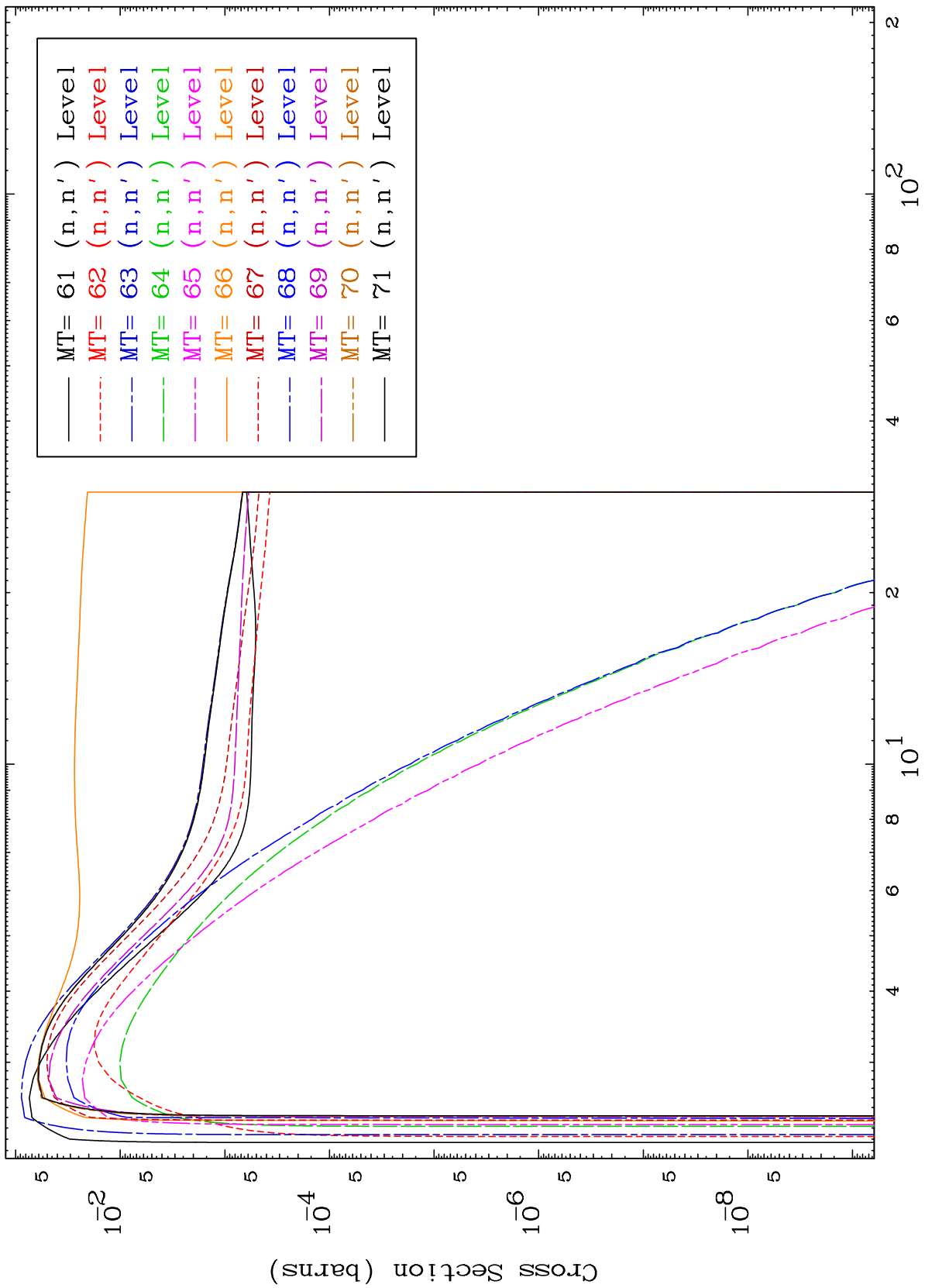


MAT 5643

(n,n') Level

56-Ba-136

293 Kelvin Cross Sections

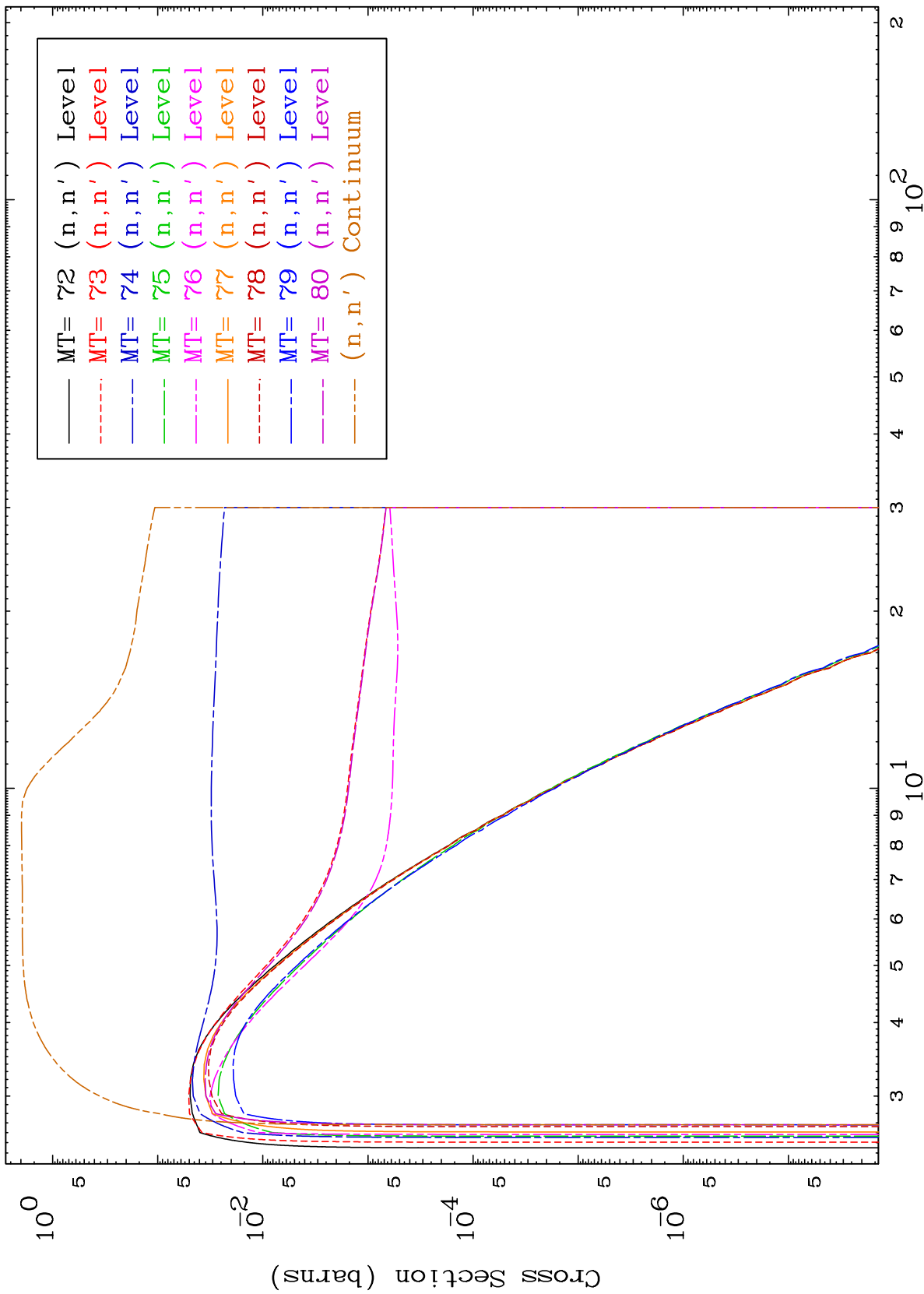


8

Incident Energy (MeV)

56-Ba-136

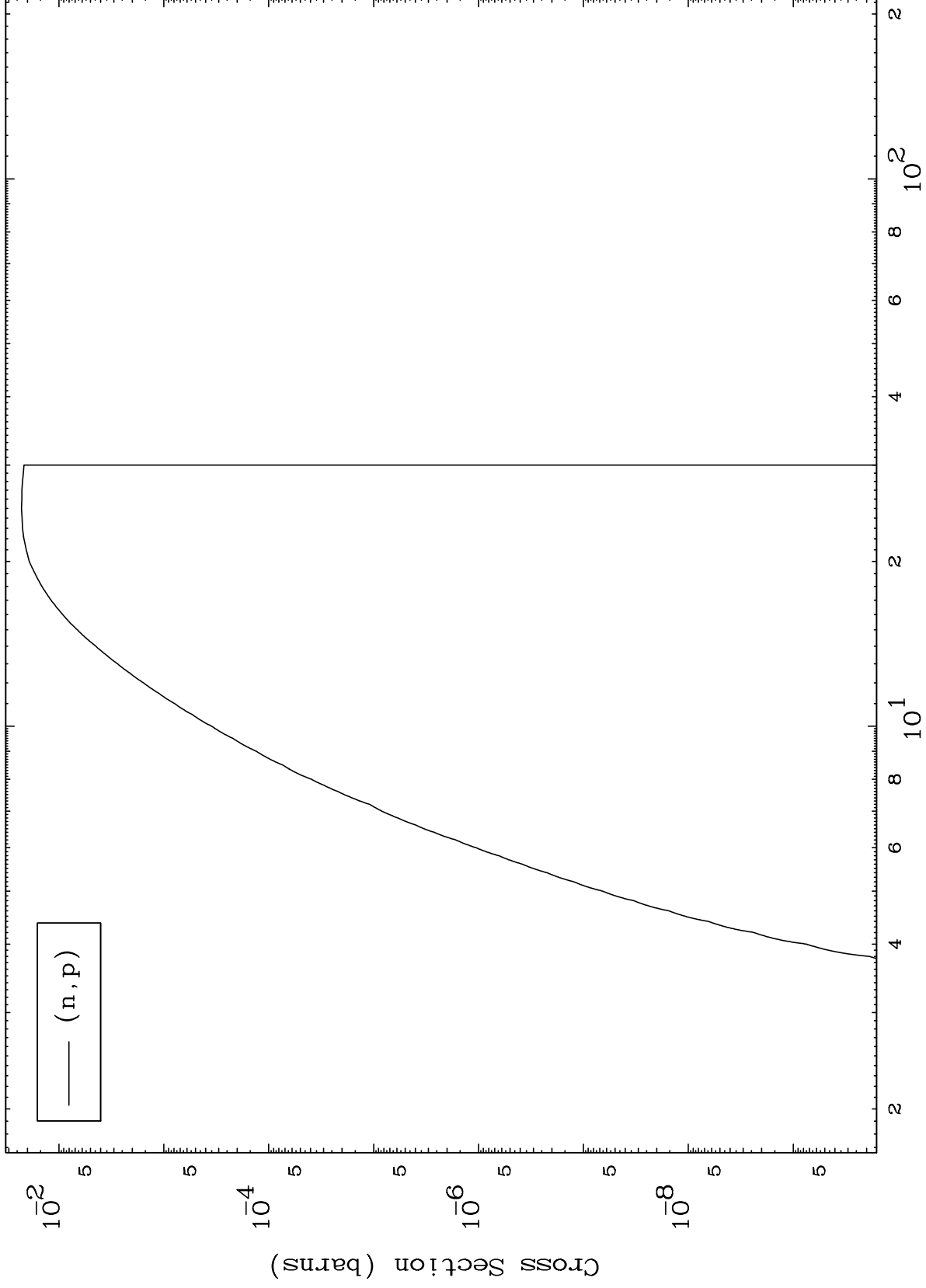
293 Kelvin Cross Sections



MAT 5643

(n,p) Levels  
293 Kelvin Cross Sections

56-Ba-136



10

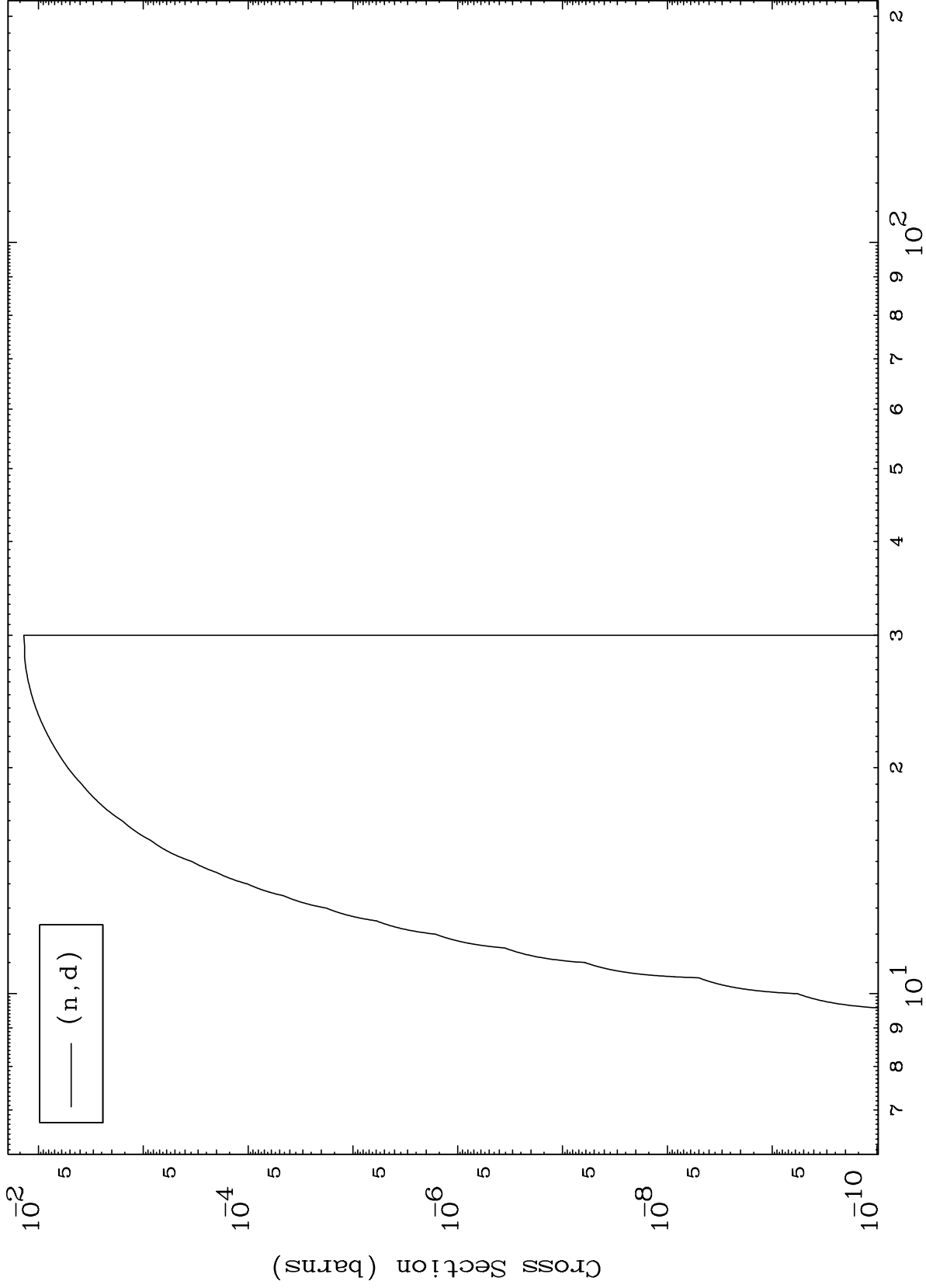
Incident Energy (MeV)

56-Ba-136

MAT 5643

(n,d) Levels  
293 Kelvin Cross Sections

56-Ba-136



11

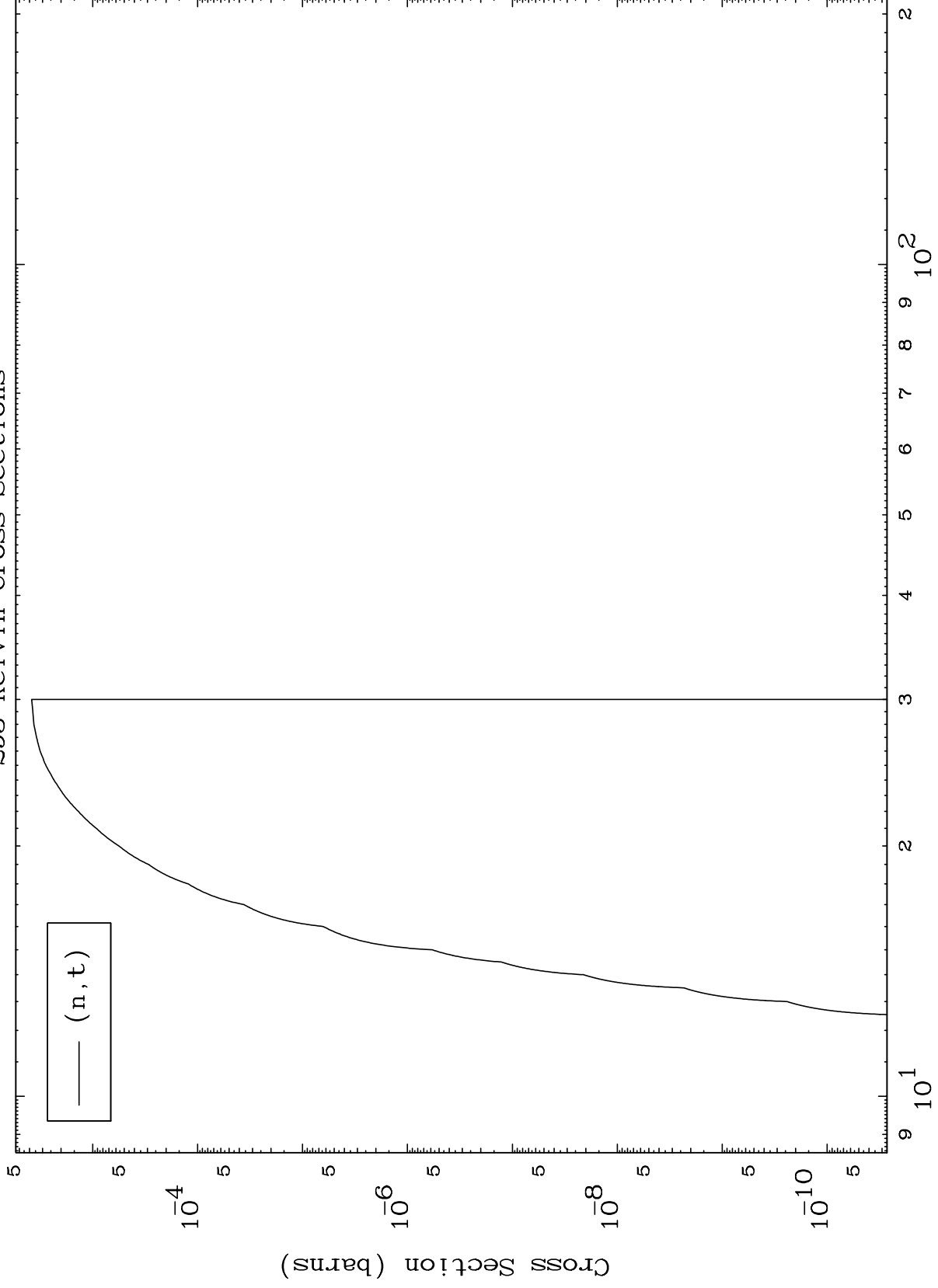
Incident Energy (MeV)

56-Ba-136

MAT 5643

(n,t) Levels  
293 Kelvin Cross Sections

56-Ba-136



12

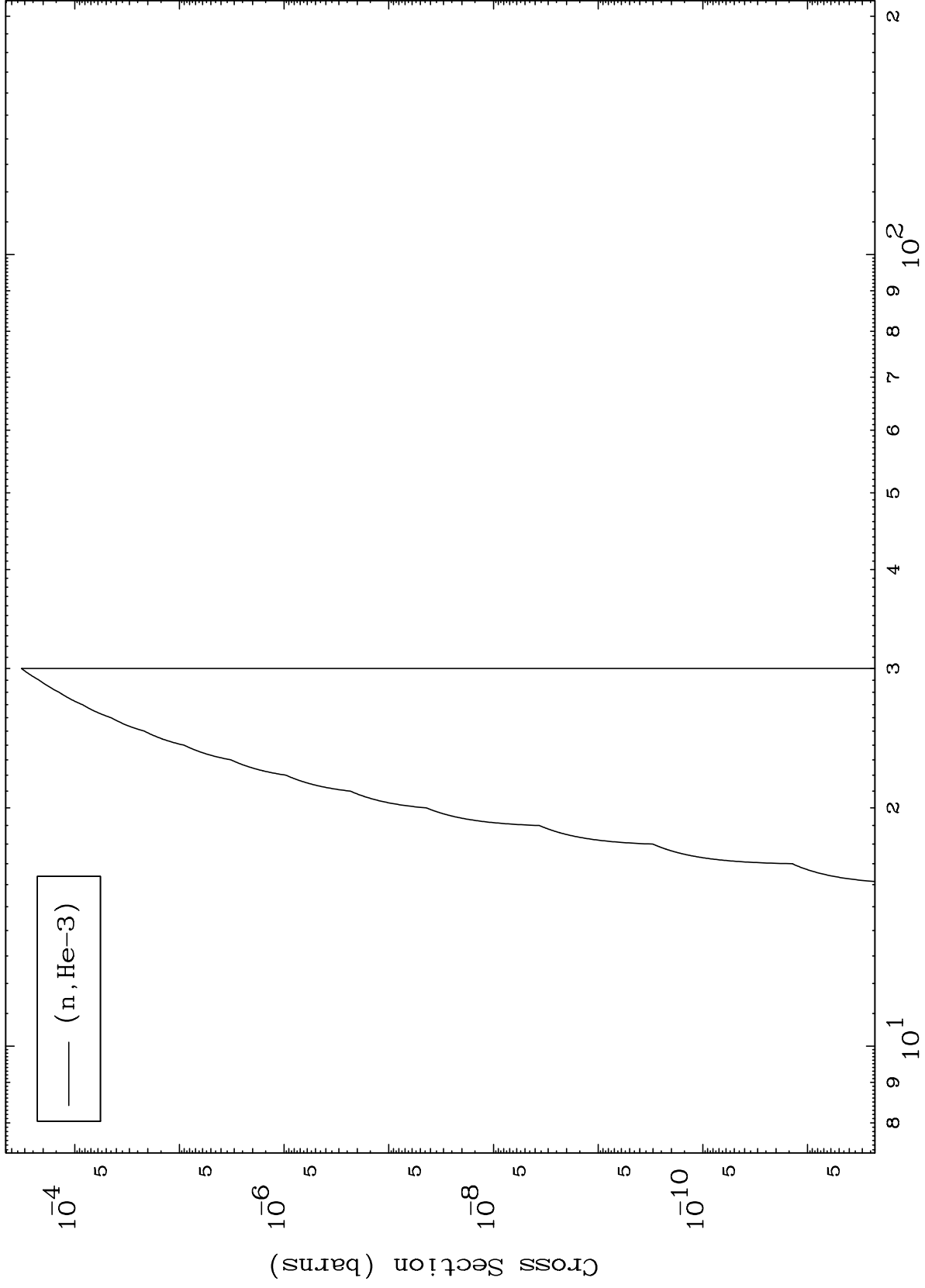
Incident Energy (MeV)

56-Ba-136

MAT 5643

(n,He3) Levels  
293 Kelvin Cross Sections

56-Ba-136



13

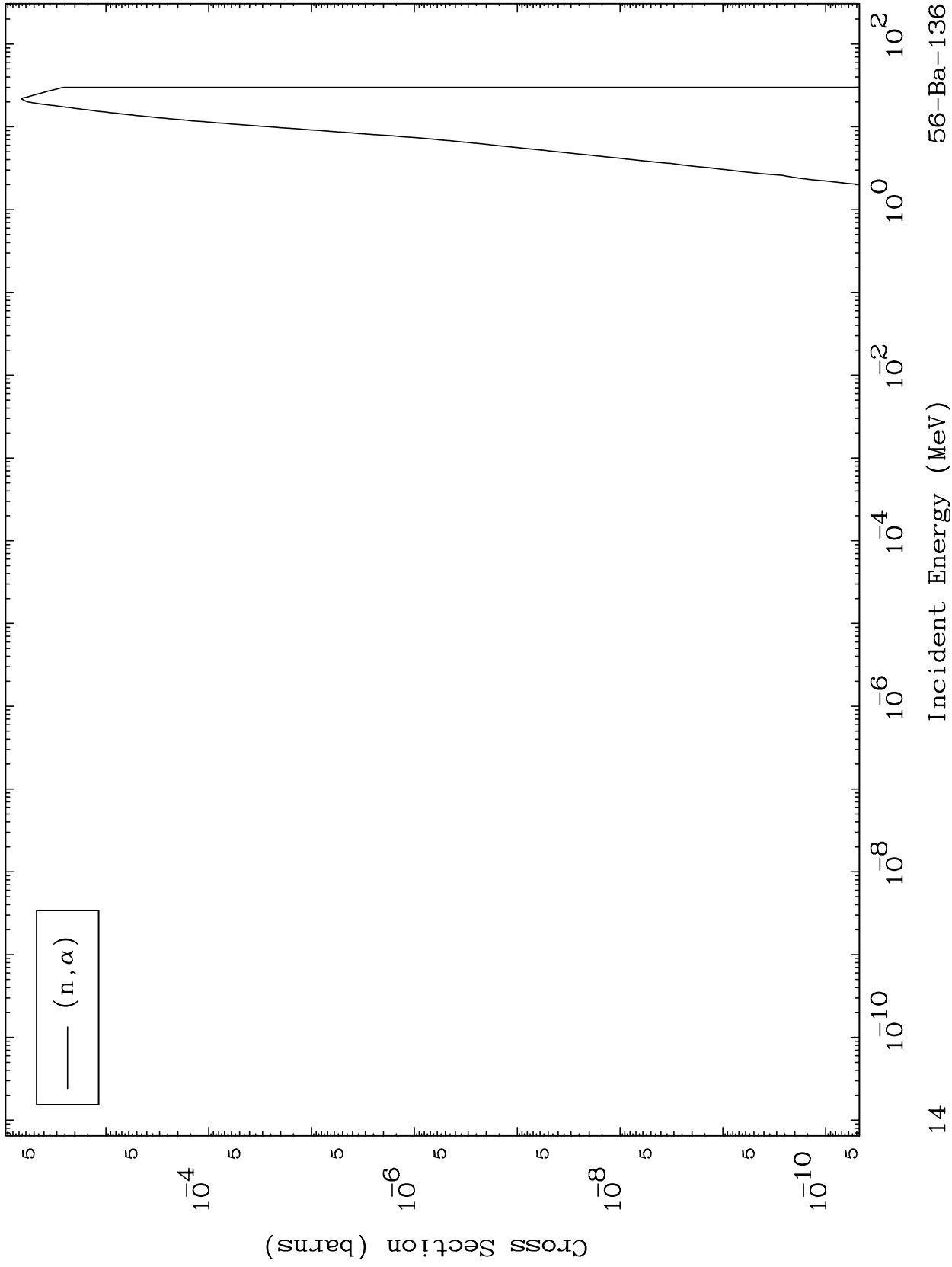
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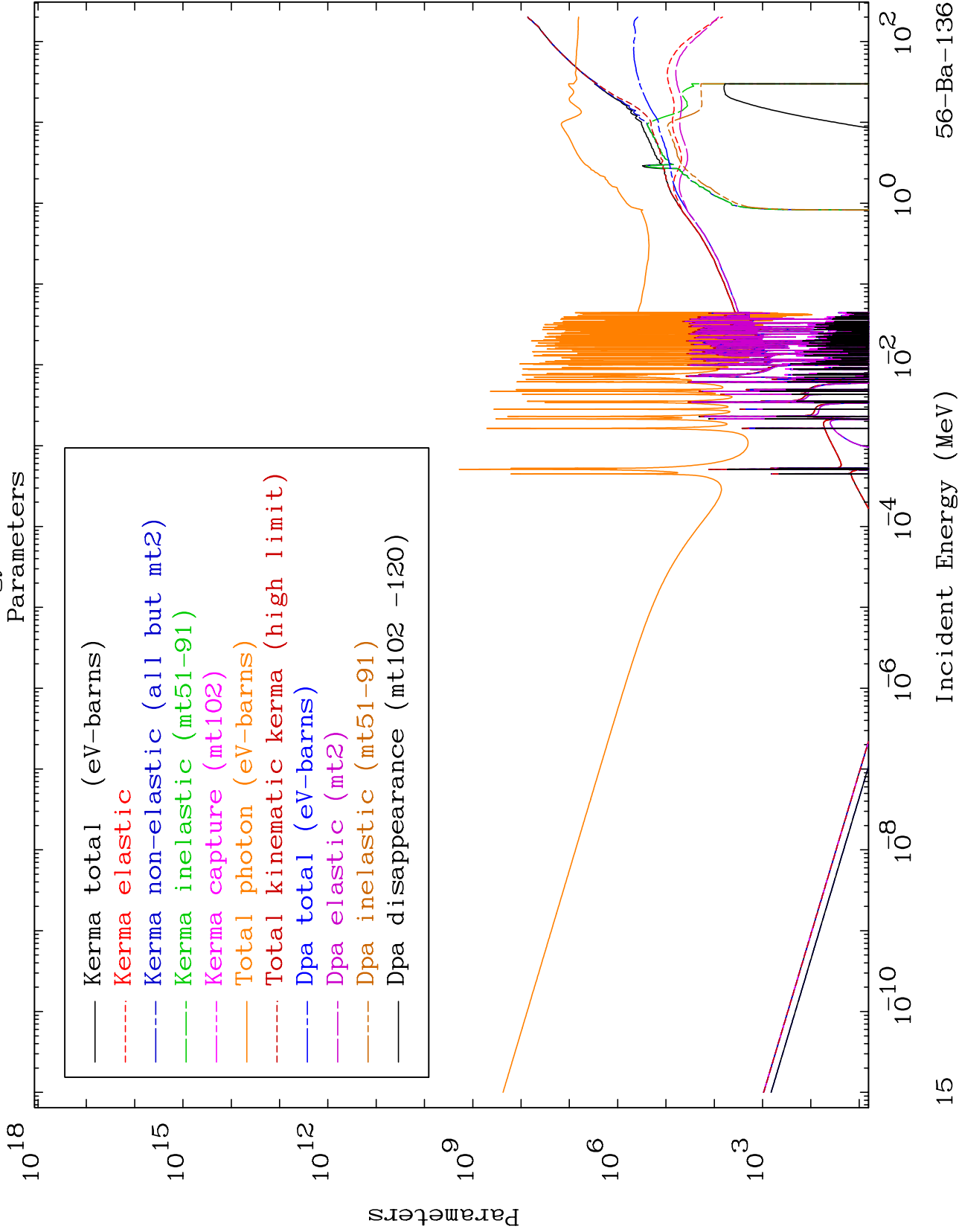
56-Ba-136

MAT 5643

(n,  $\alpha$ ) Levels  
293 Kelvin Cross Sections

56-Ba-136



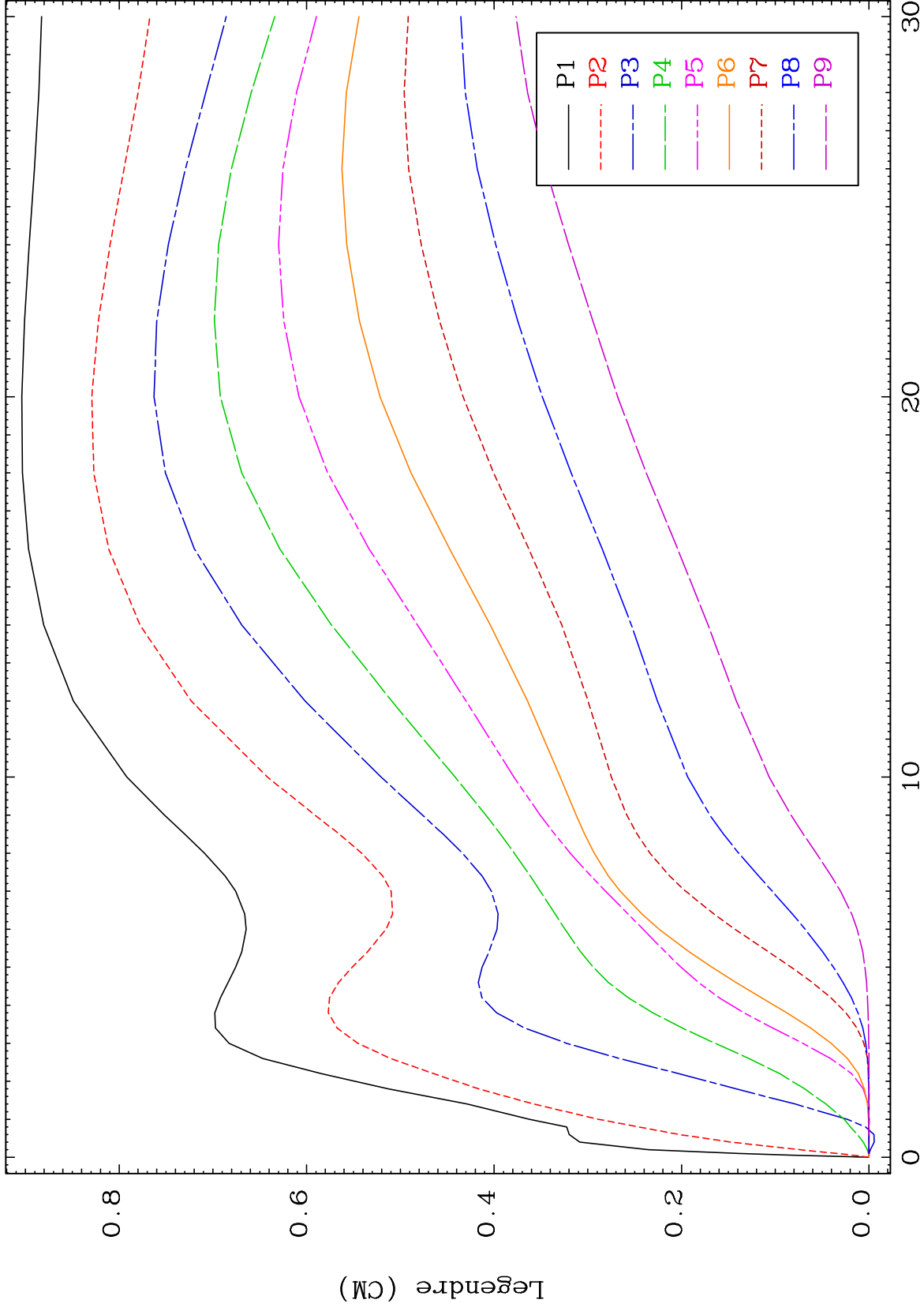




MAT 5643

56-Ba-136

Elastic Legendre Coefficients



16

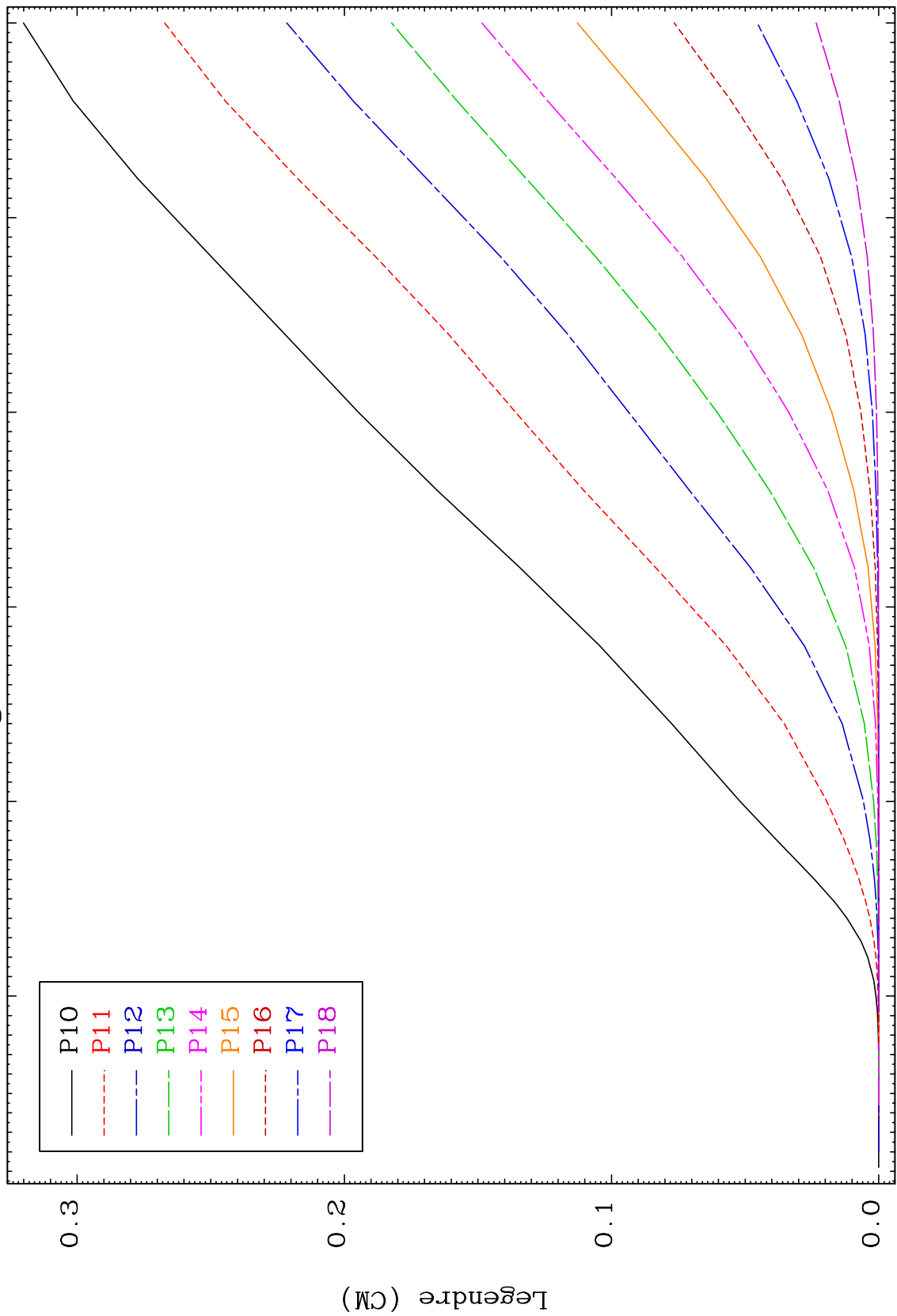
Incident Energy (MeV)

56-Ba-136

MAT 5643

Elastic Legendre Coefficients

56-Ba-136



17

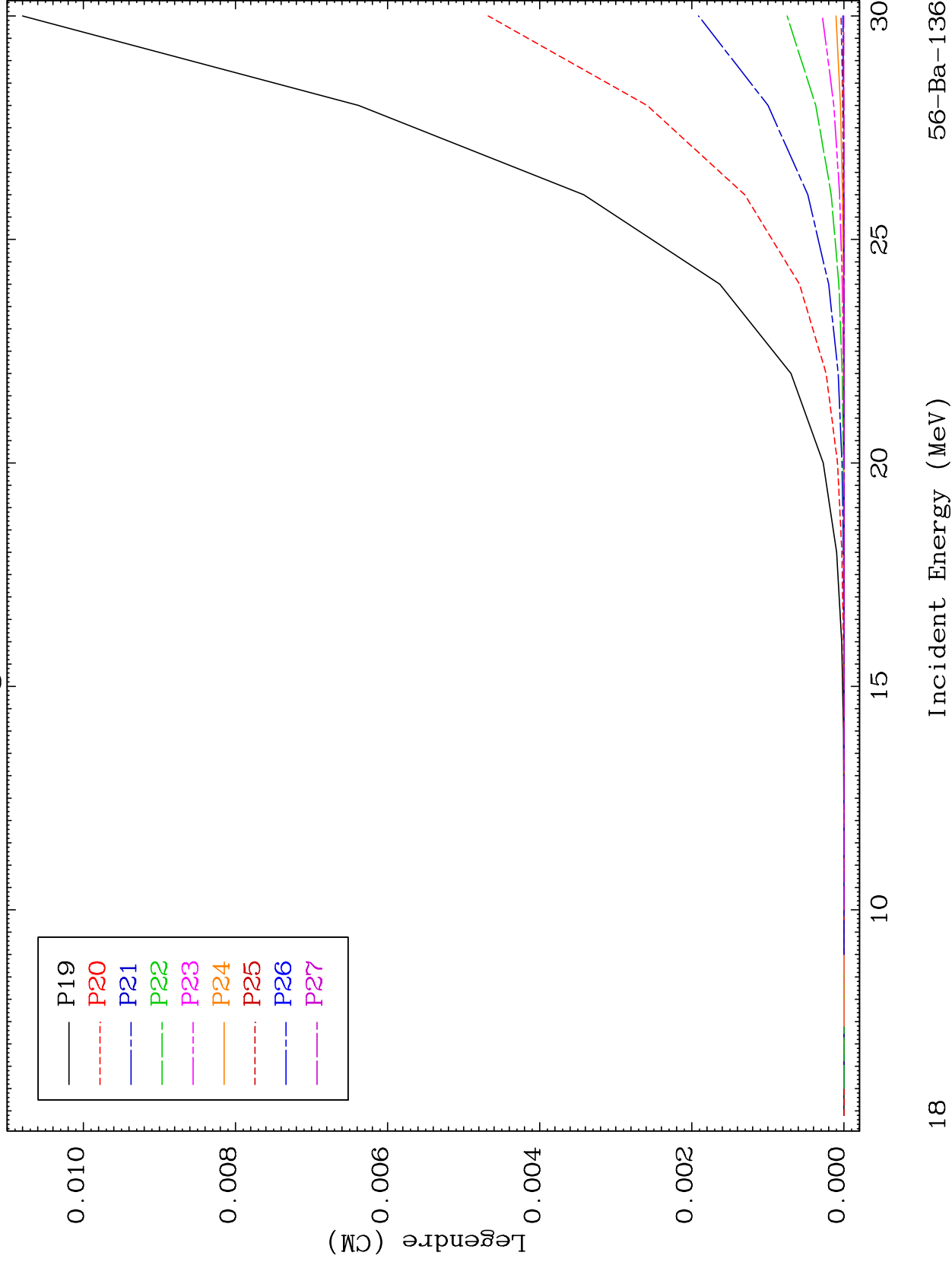
56-Ba-136

Incident Energy (MeV)

MAT 5643

### Elastic Legendre Coefficients

56-Ba-136



18

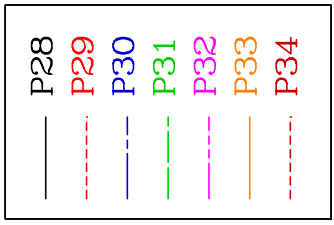
Incident Energy (MeV)

56-Ba-136

MAT 5643

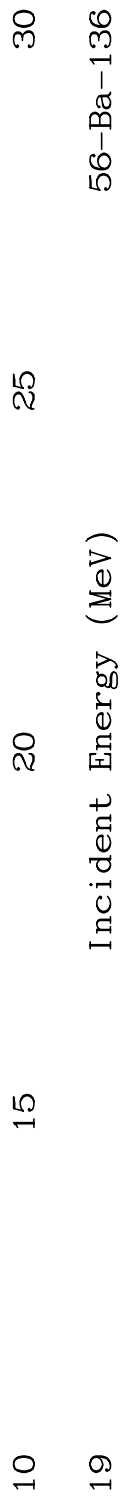
Elastic  
Legendre Coefficients

56-Ba-136



$\times 10^{-6}$   
1.0  
0.8  
0.6  
0.4  
0.2  
0.0

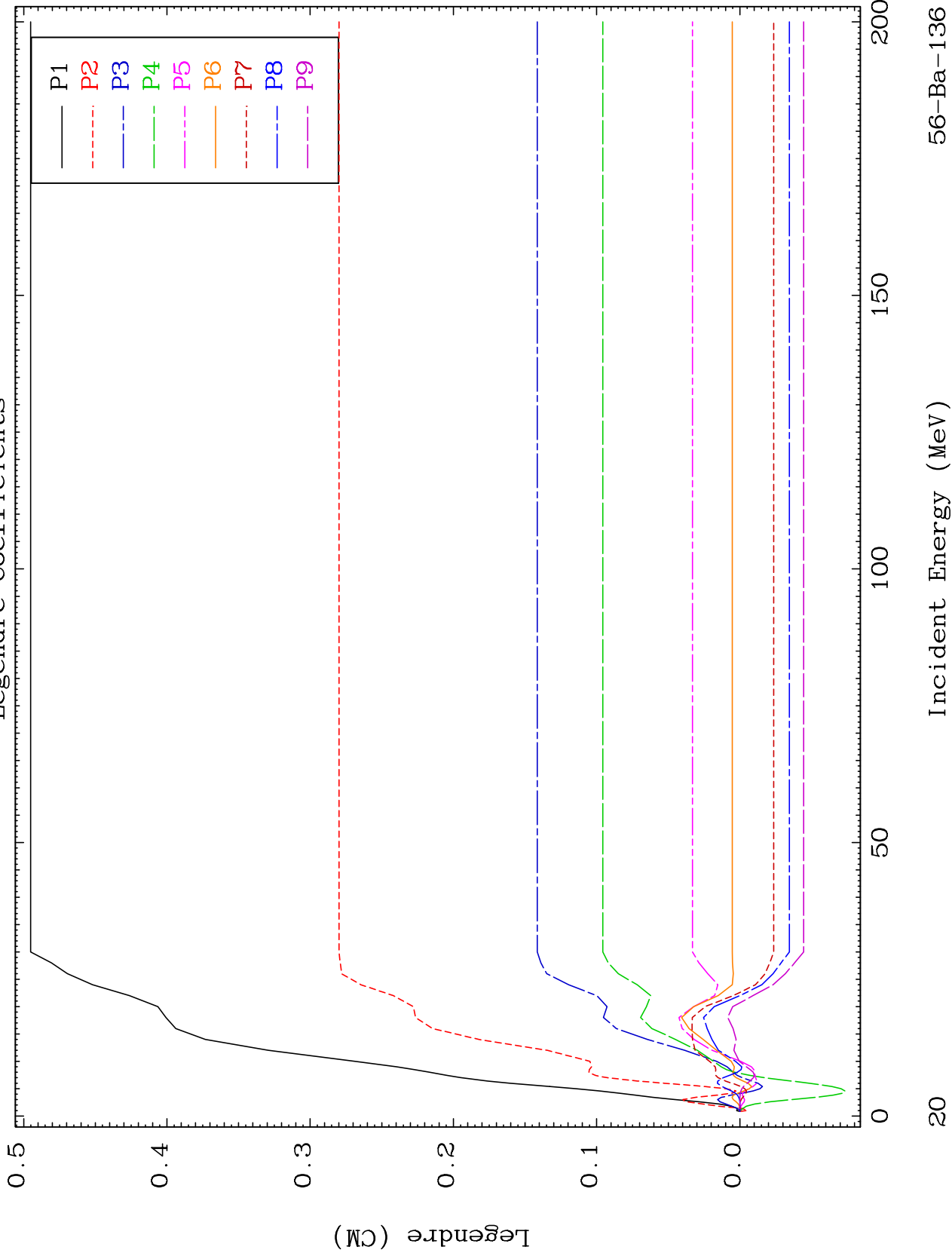
Legendre (CM)



MAT 5643

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

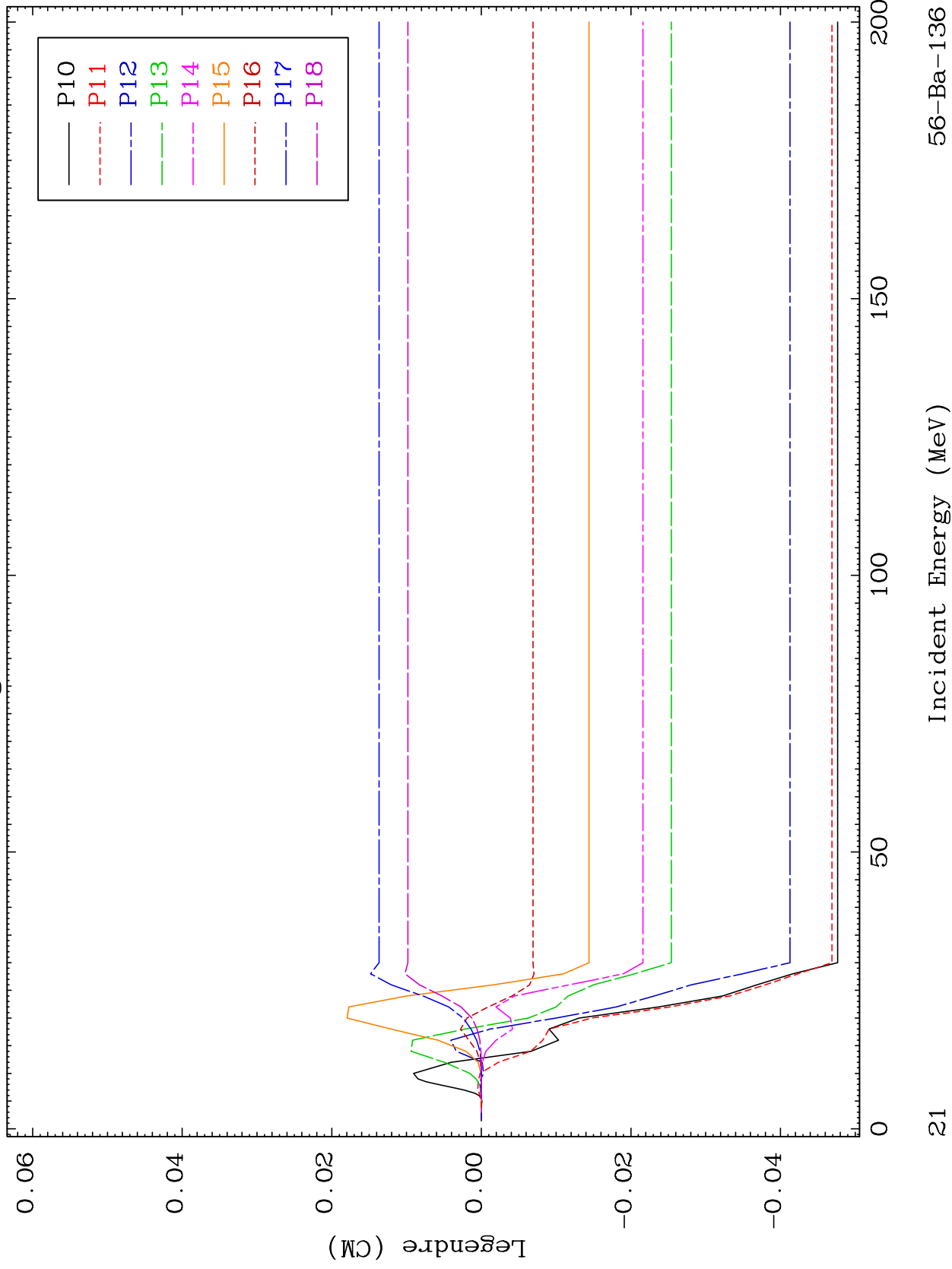
56-Ba-136



MAT 5643

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

56-Ba-136



21

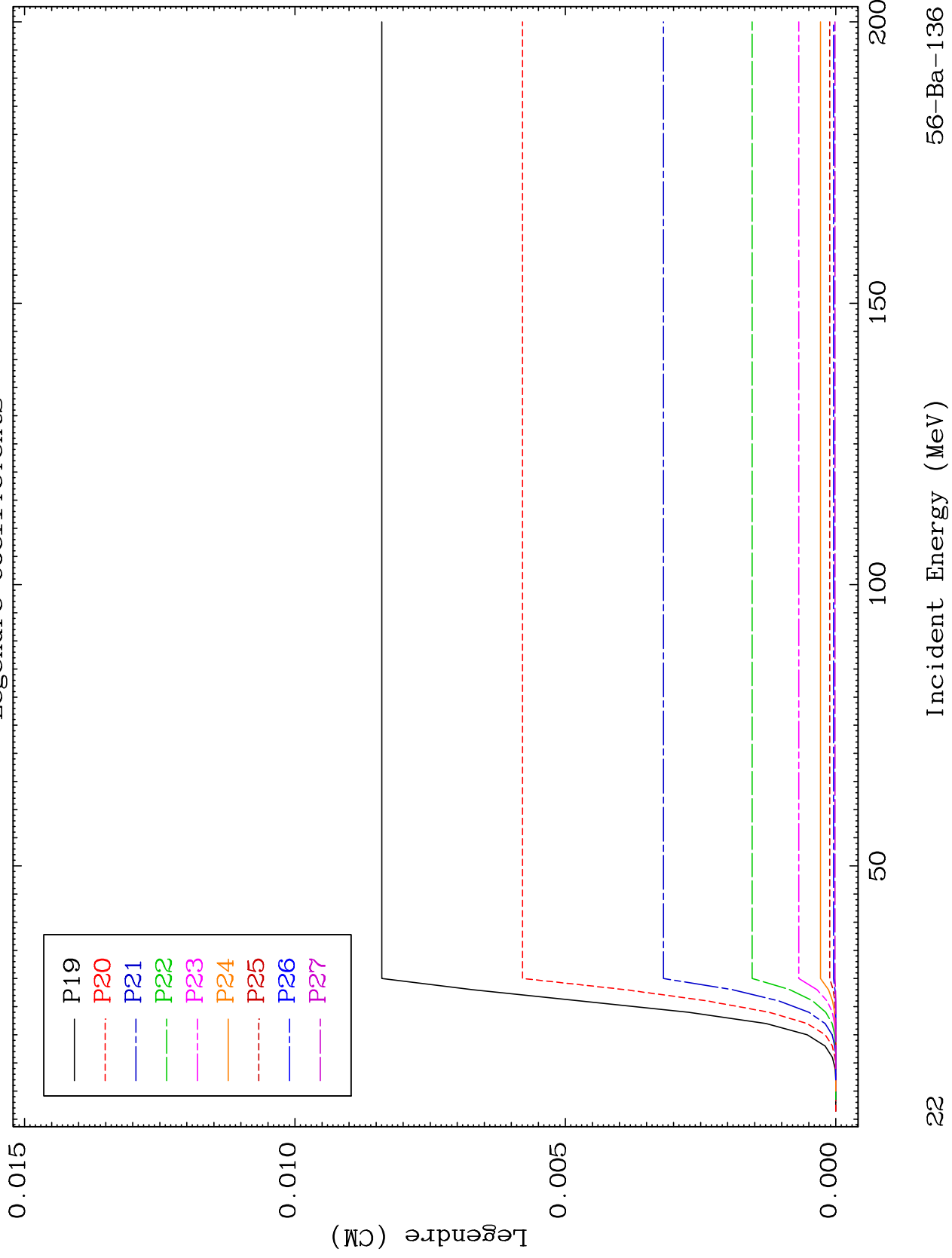
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

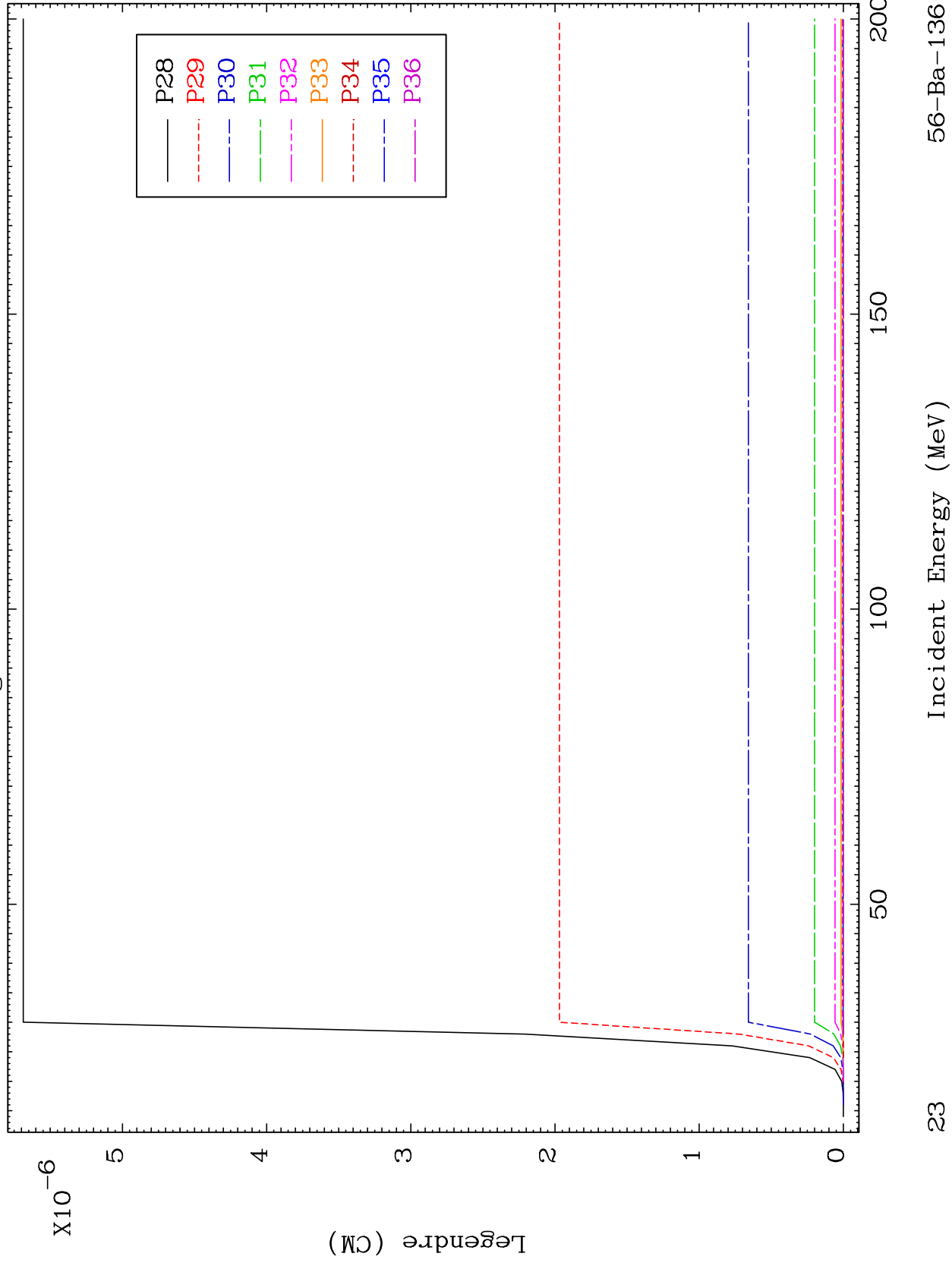
56-Ba-136



MAT 5643

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

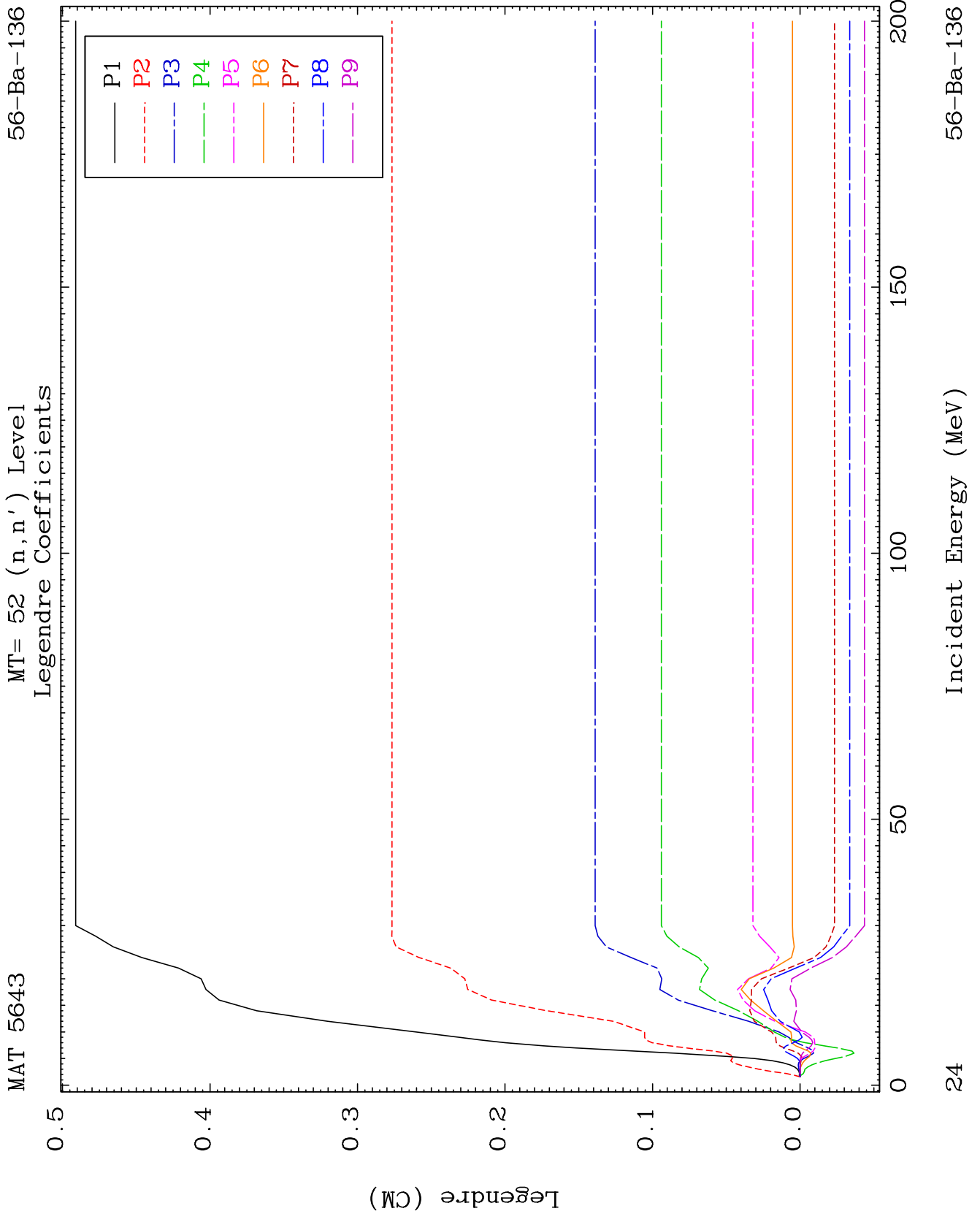
56-Ba-136



23

56-Ba-136

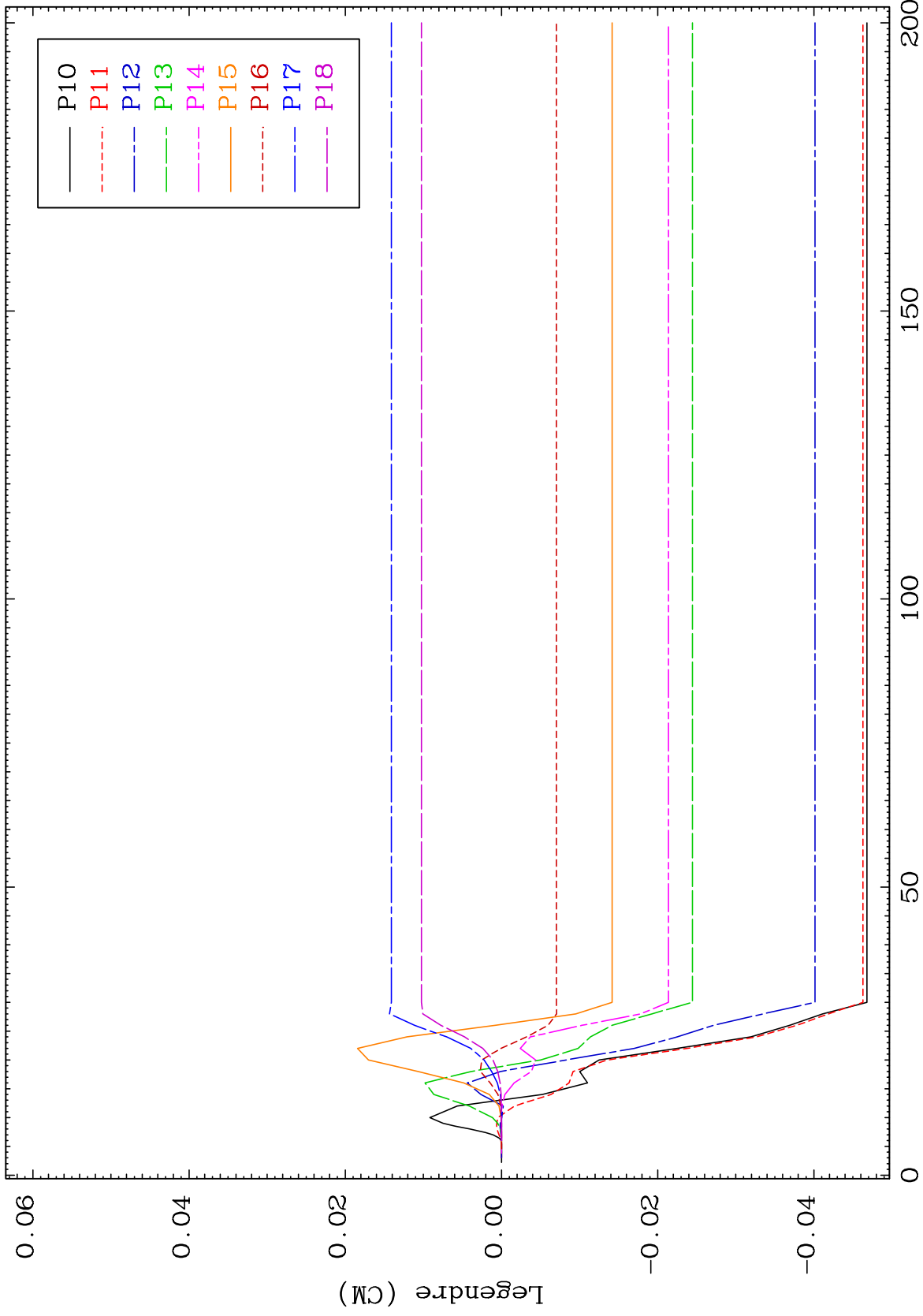




MAT 5643

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

56-Ba-136



56-Ba-136

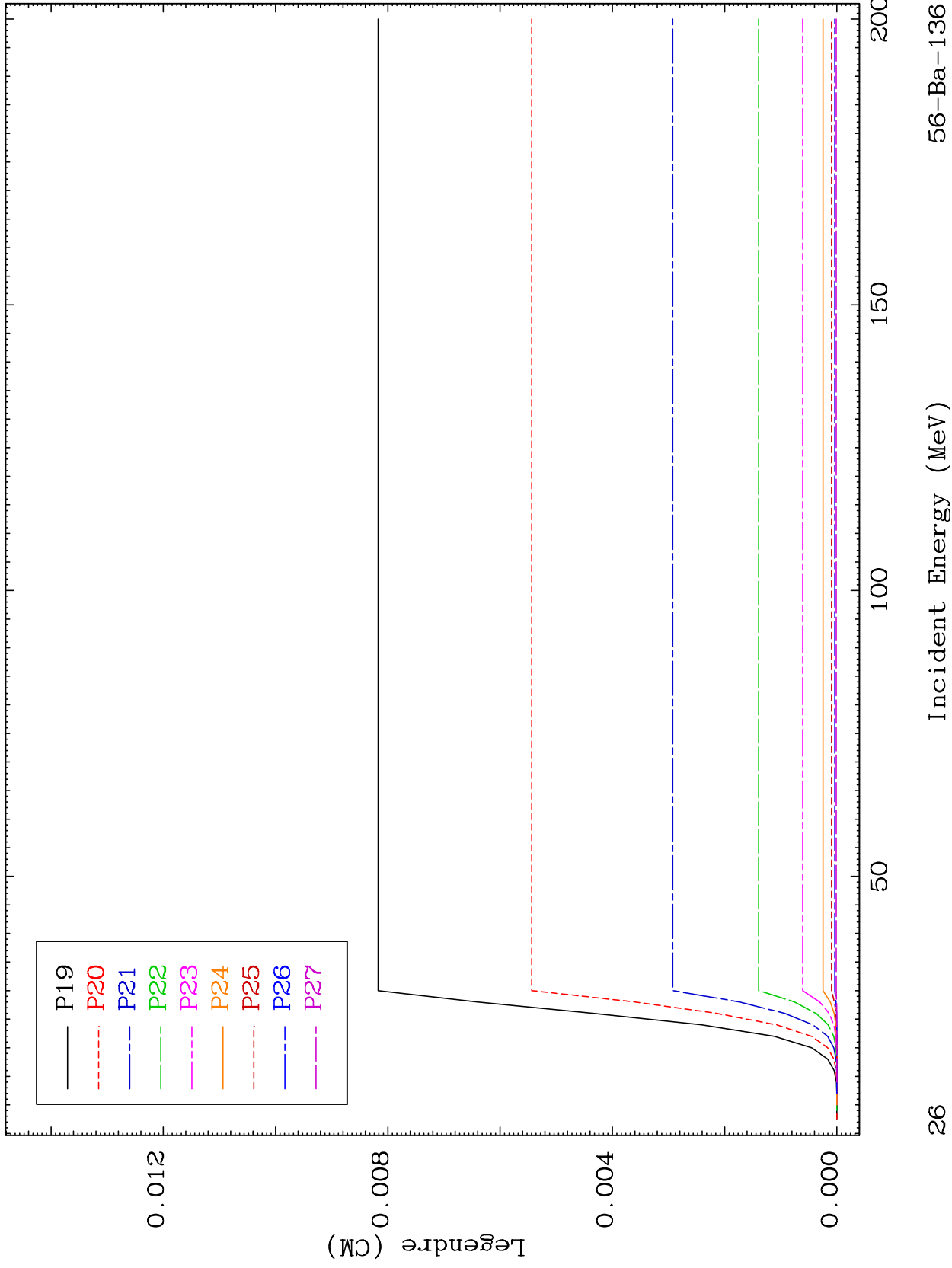
Incident Energy (MeV)

25

MAT 5643

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

56-Ba-136



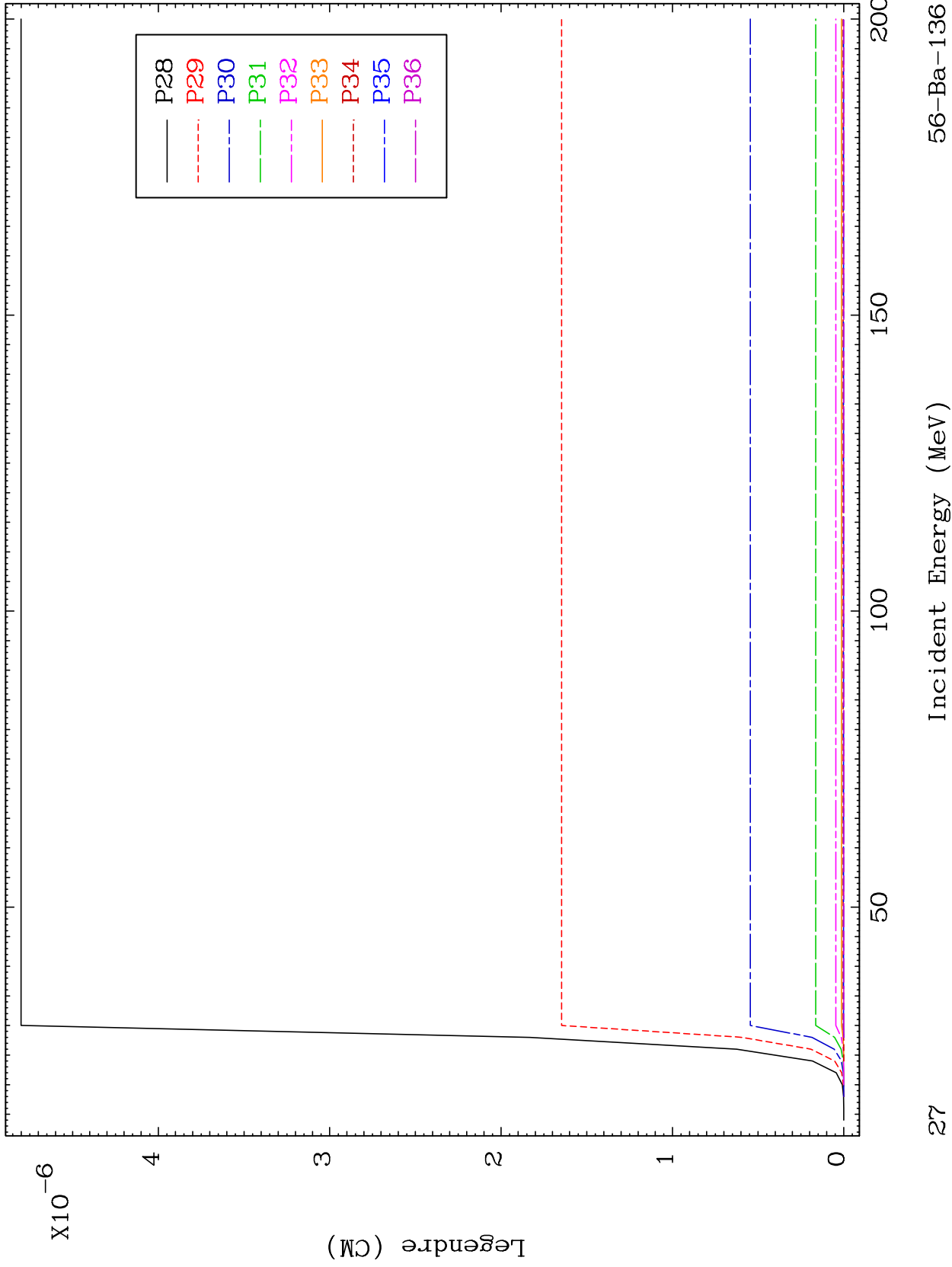
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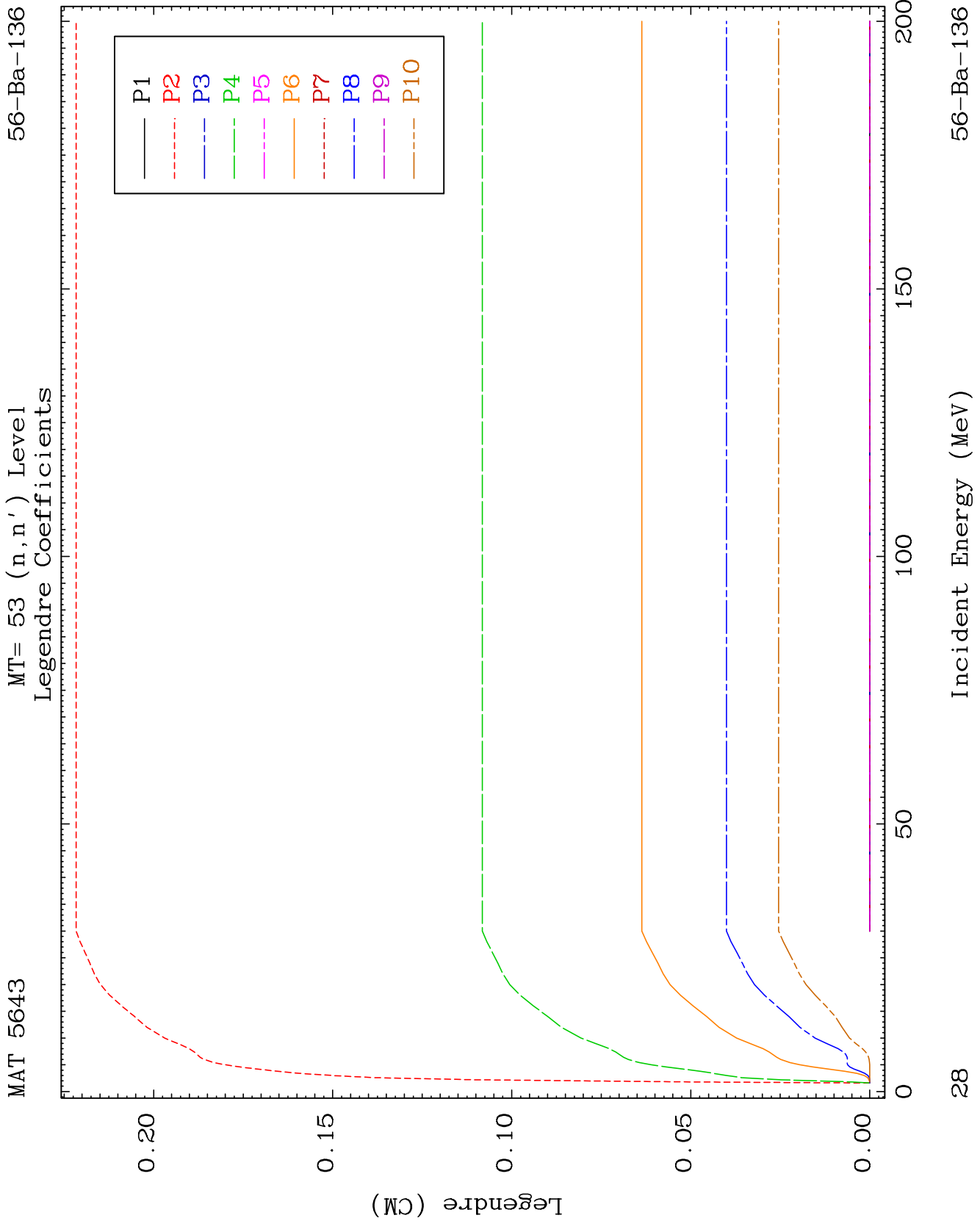
56-Ba-136

MAT 5643

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

56-Ba-136



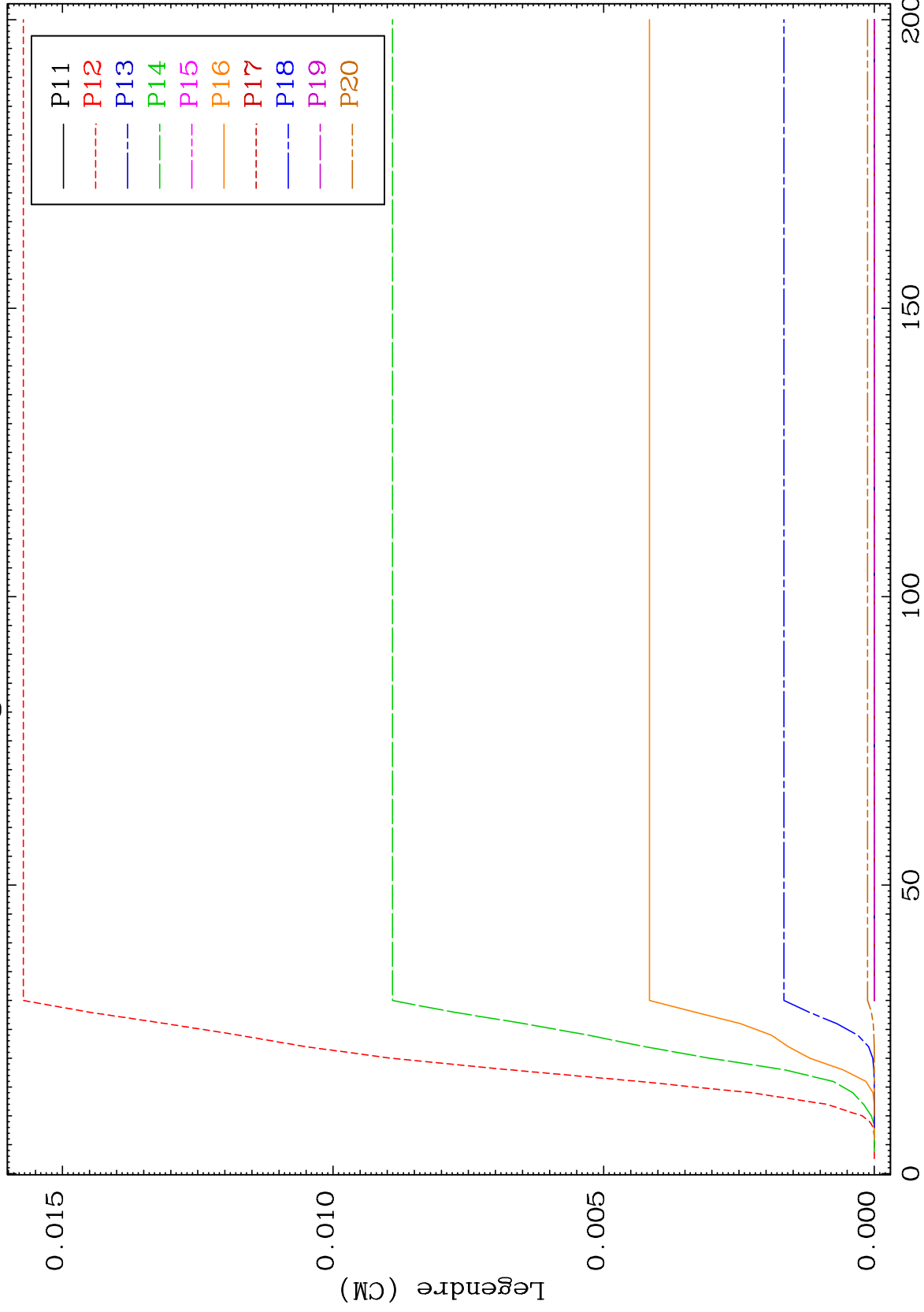


MAT 5643

MT= 53 (n,n') Level

56-Ba-136

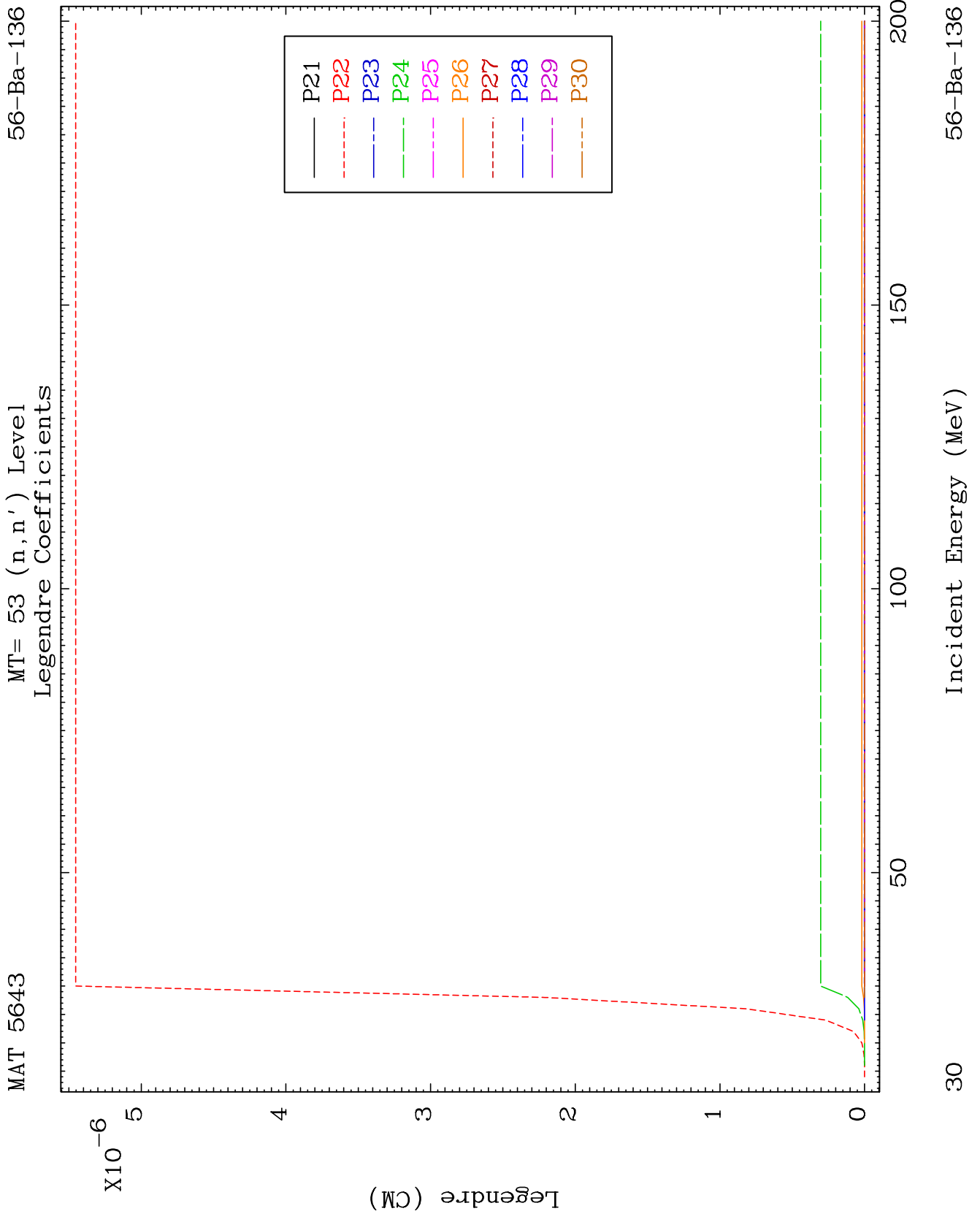
Legendre Coefficients



29

Incident Energy (MeV)

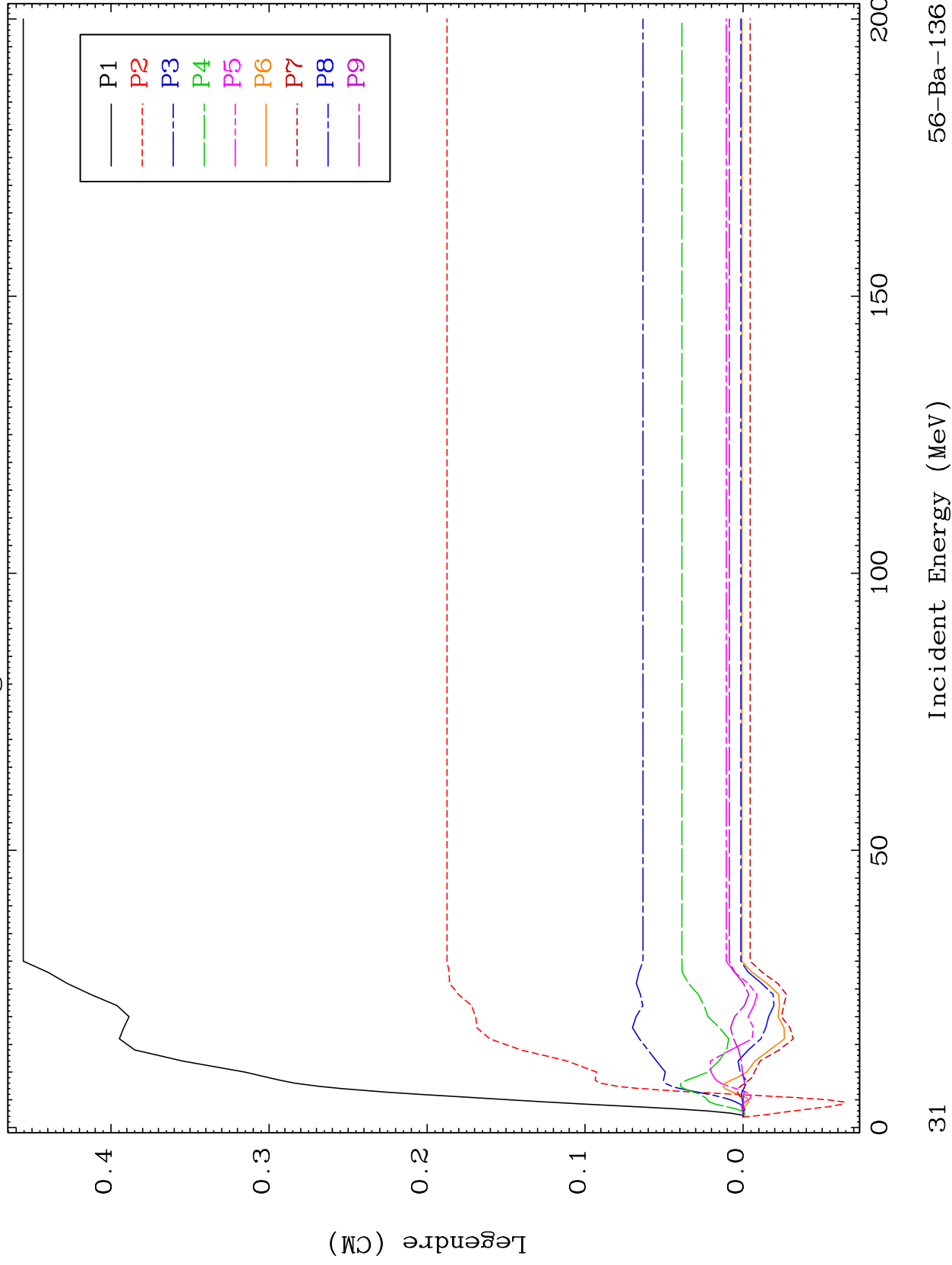
56-Ba-136



MAT 5643

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

56-Ba-136



56-Ba-136

Incident Energy (MeV)

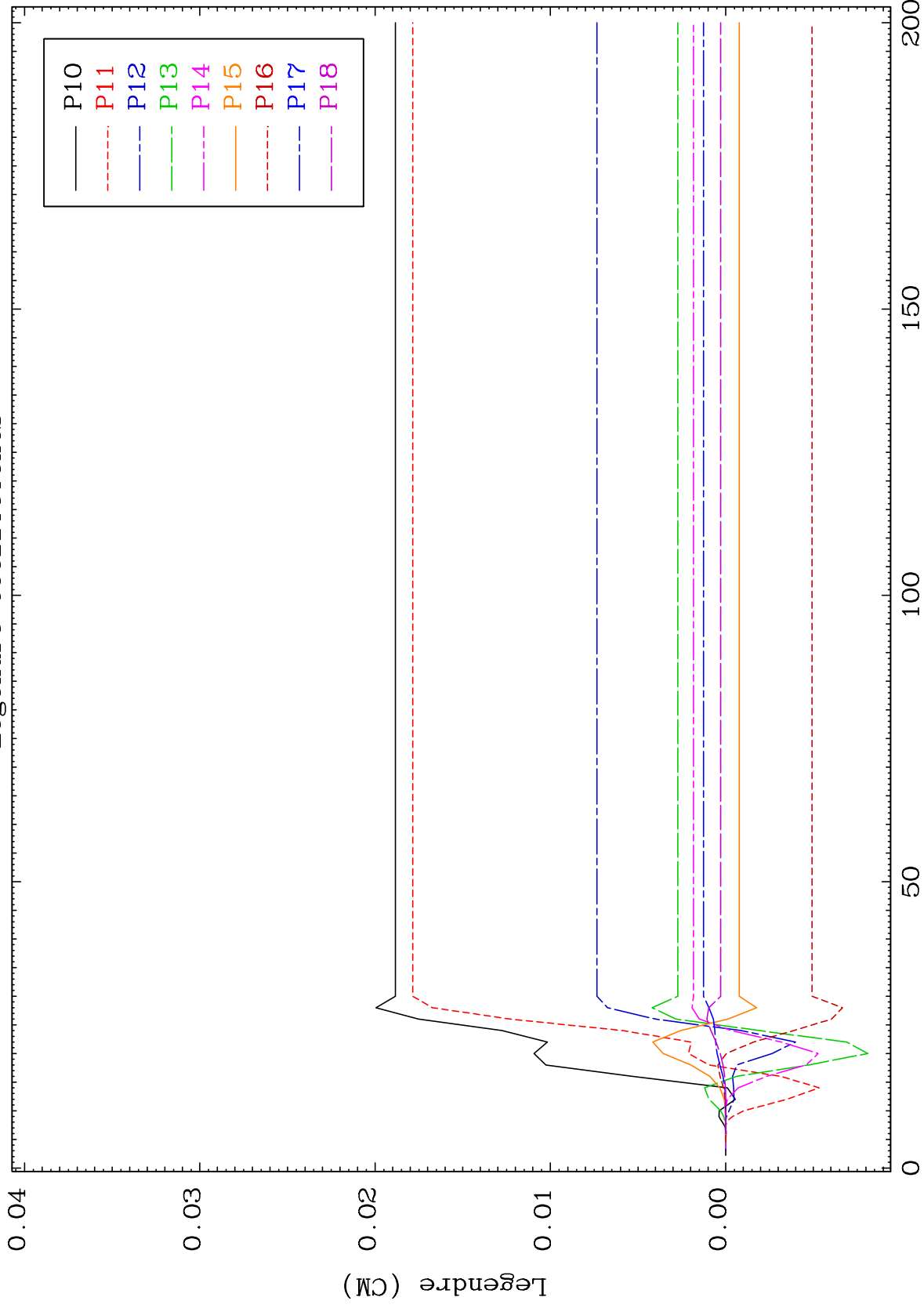
31



MAT 5643

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

56-Ba-136



56-Ba-136

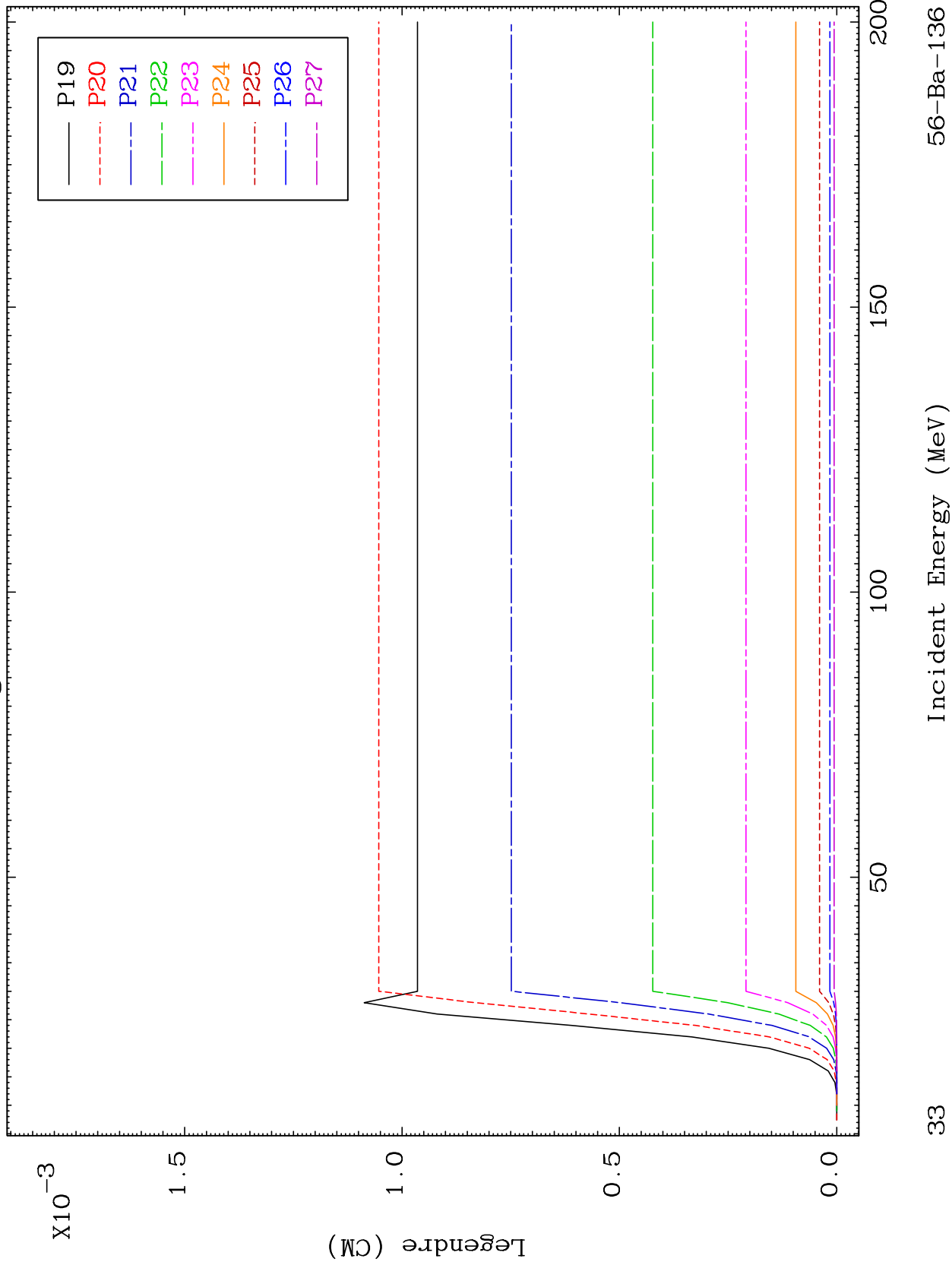
Incident Energy (MeV)

32

MAT 5643

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

56-Ba-136

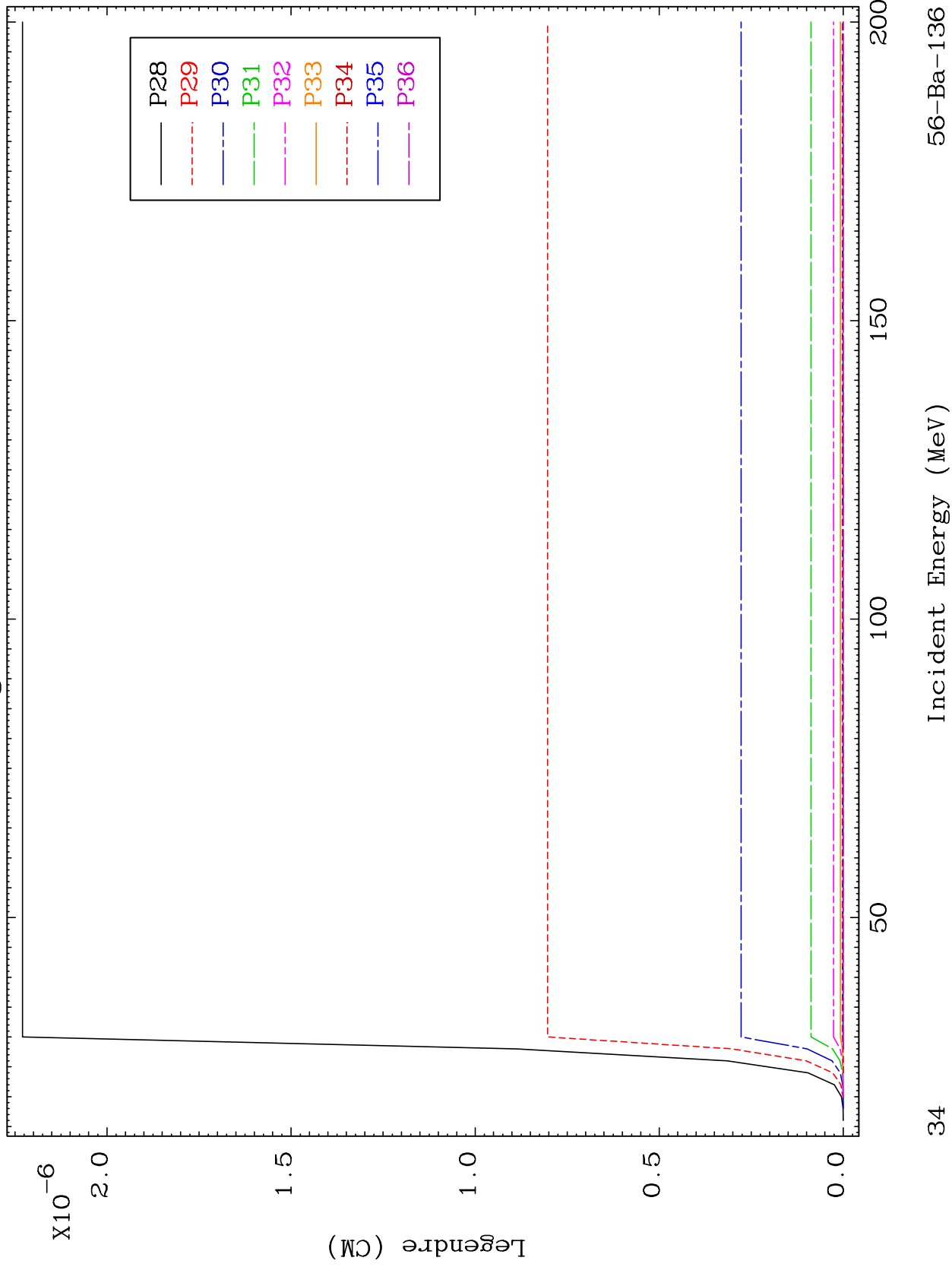


33

MAT 5643

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

56-Ba-136

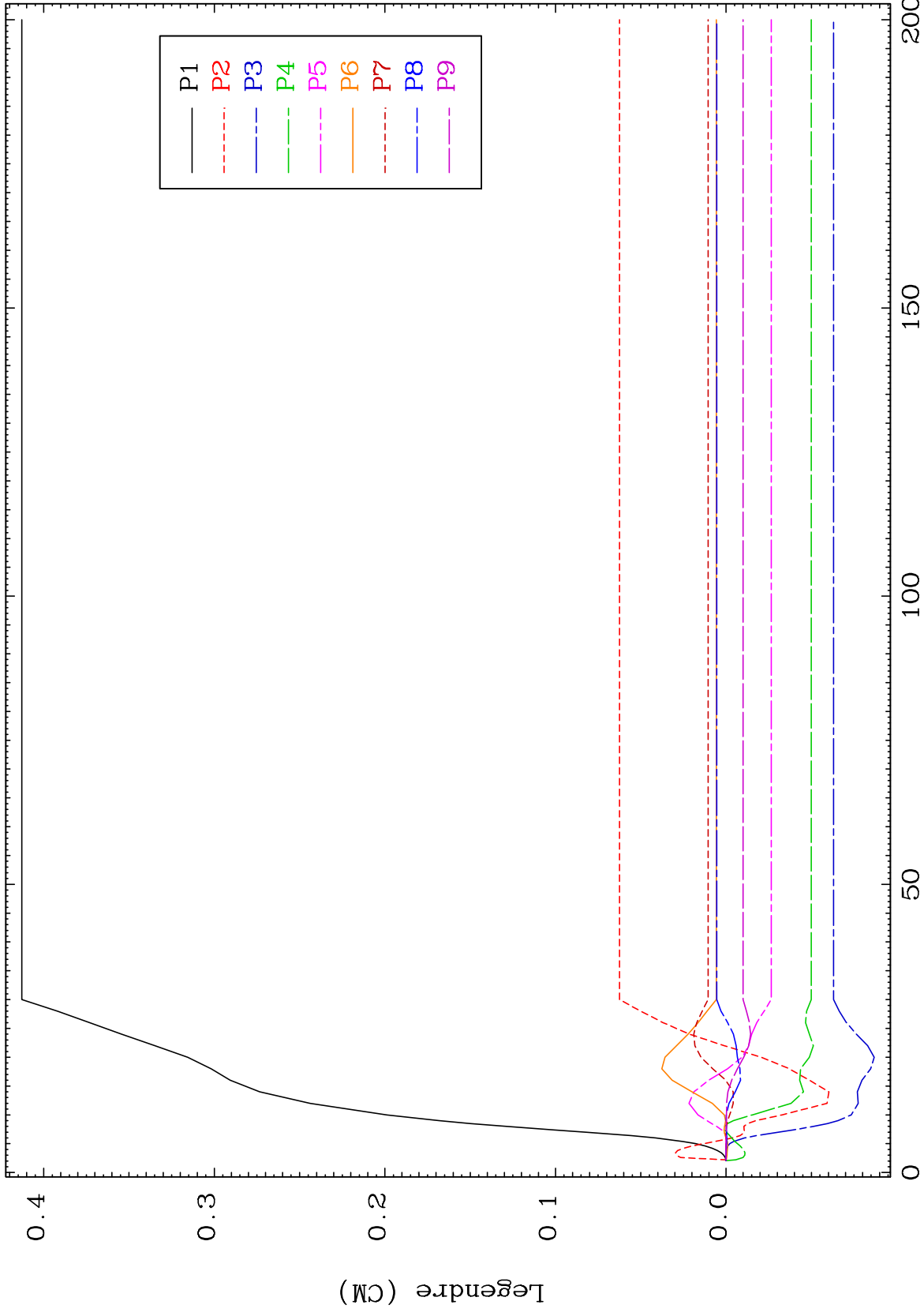


34

MAT 5643

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

56-Ba-136



56-Ba-136

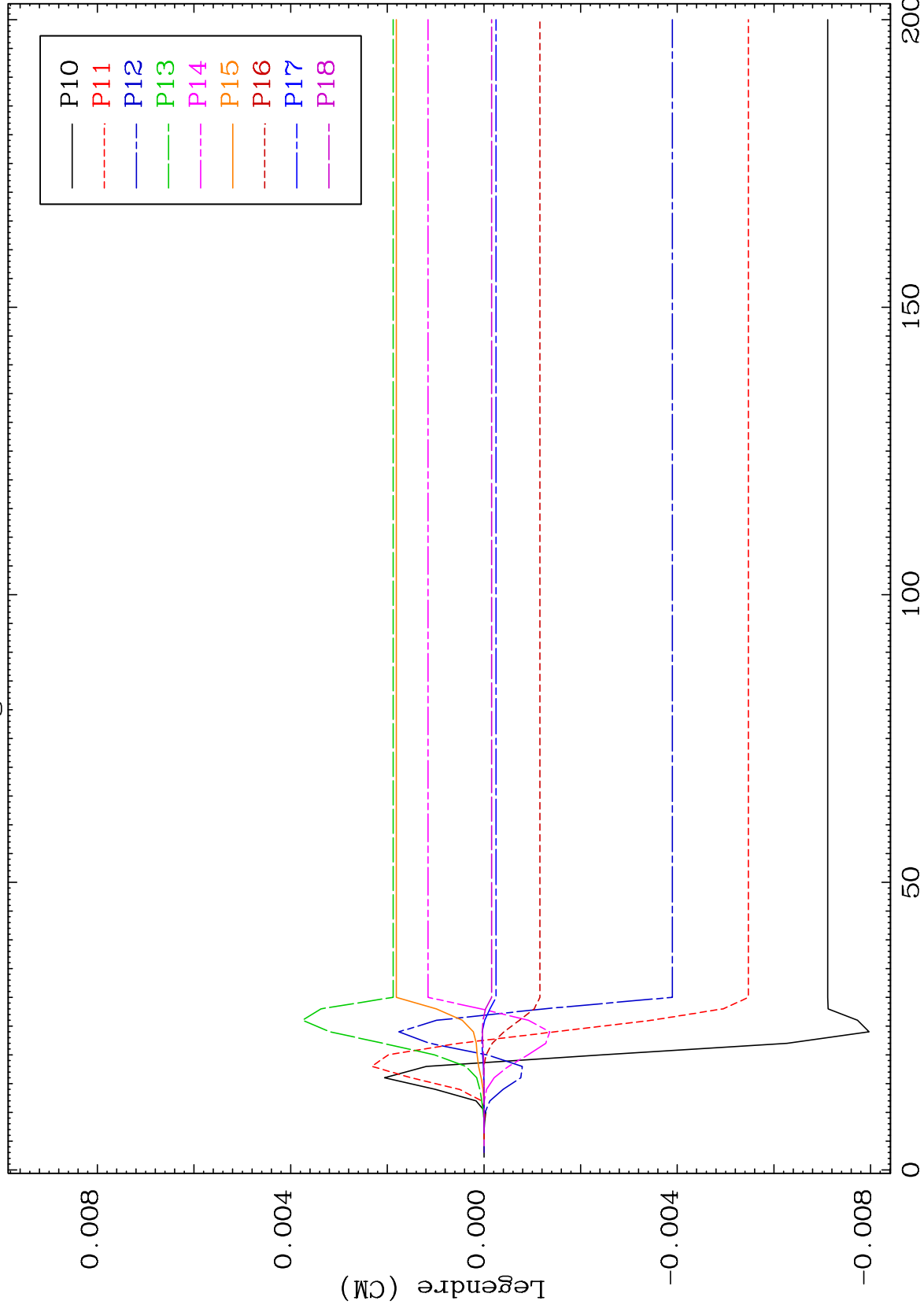
Incident Energy (MeV)

35

MAT 5643

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

56-Ba-136



36

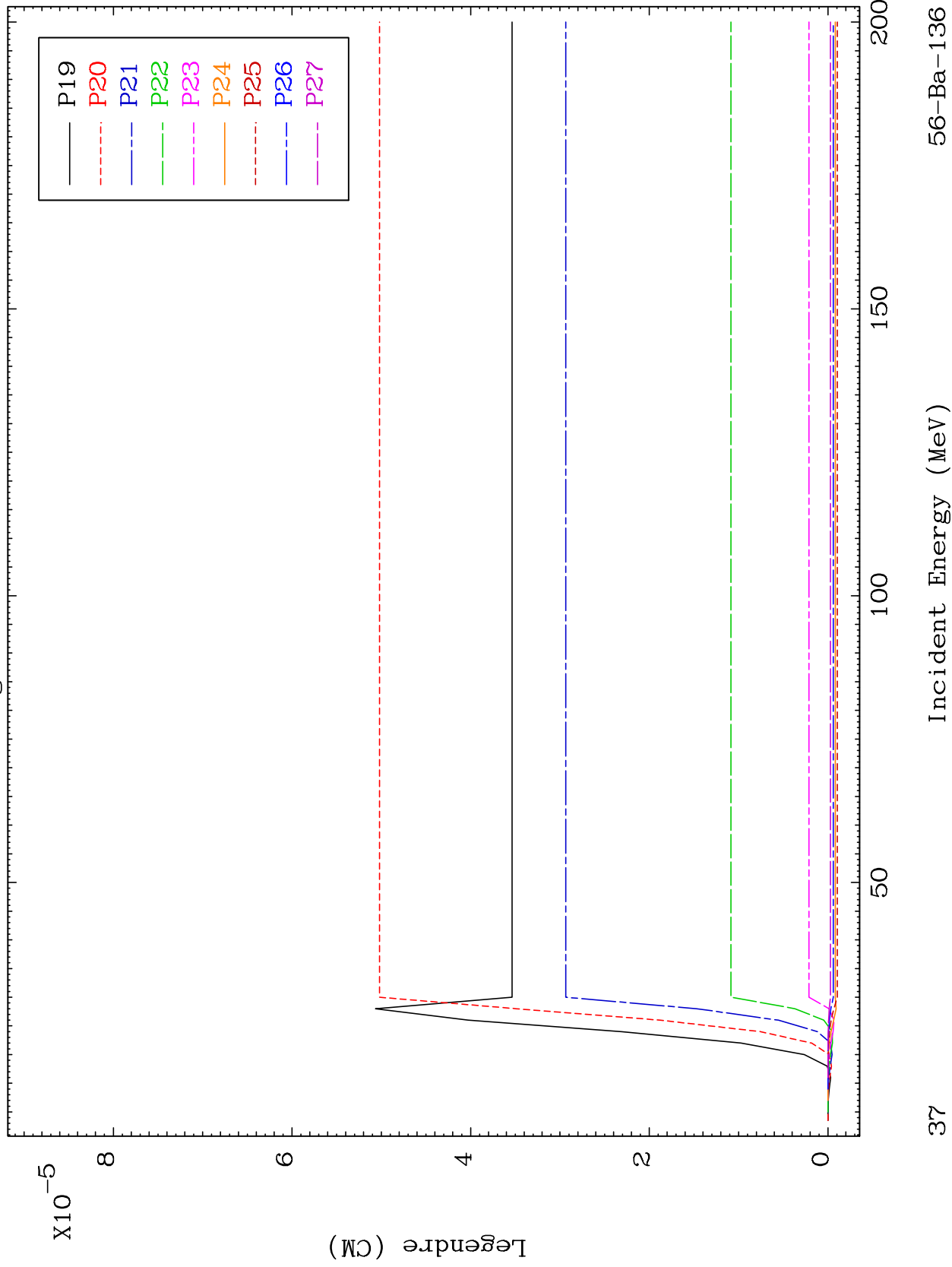
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



37

Incident Energy (MeV)

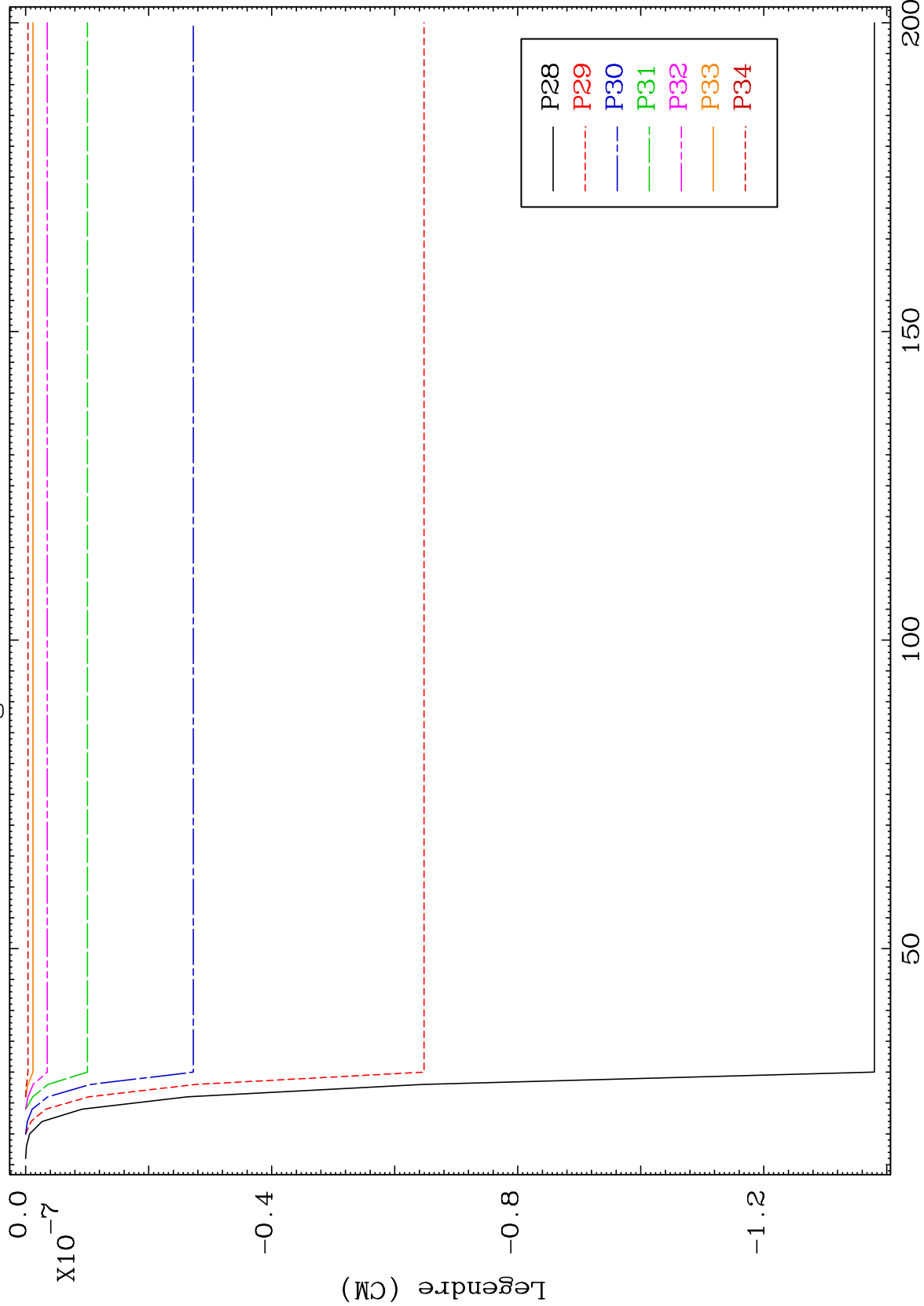
56-Ba-136

MAT 5643

MT= 55 (n,n') Level

56-Ba-136

Legendre Coefficients



56-Ba-136

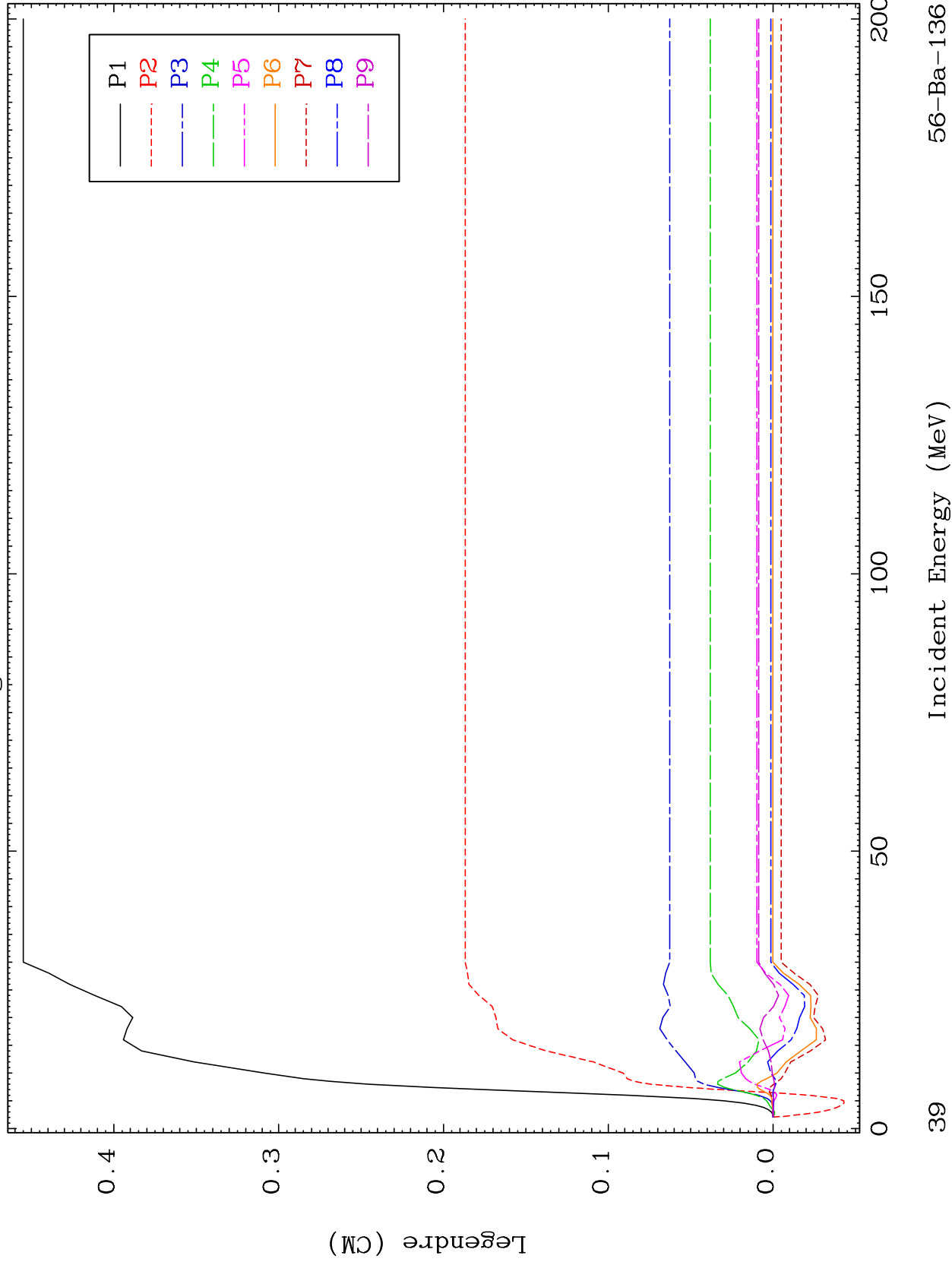
Incident Energy (MeV)

38

MAT 5643

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

56-Ba-136



56-Ba-136

Incident Energy (MeV)

39

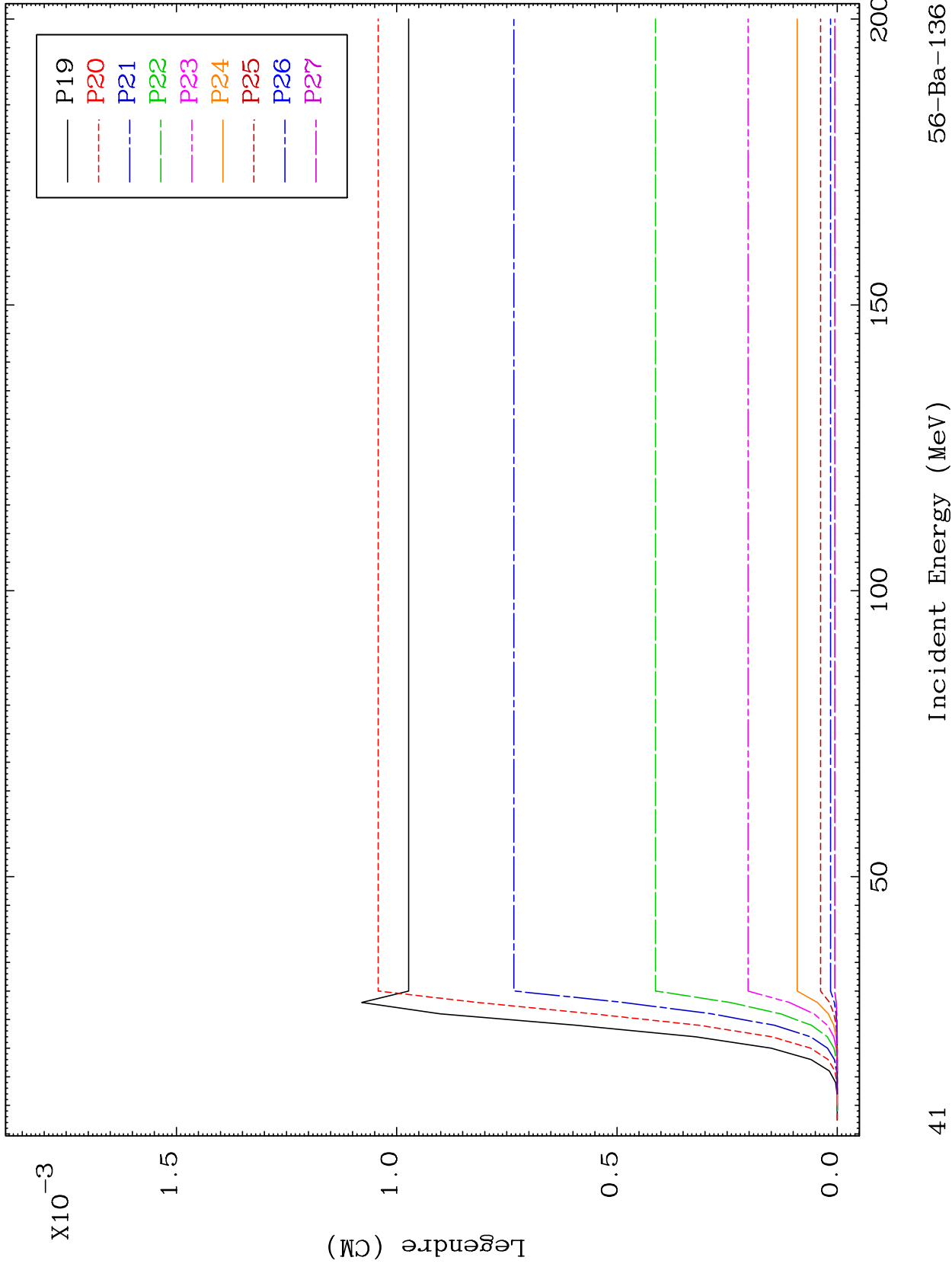




MAT 5643

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

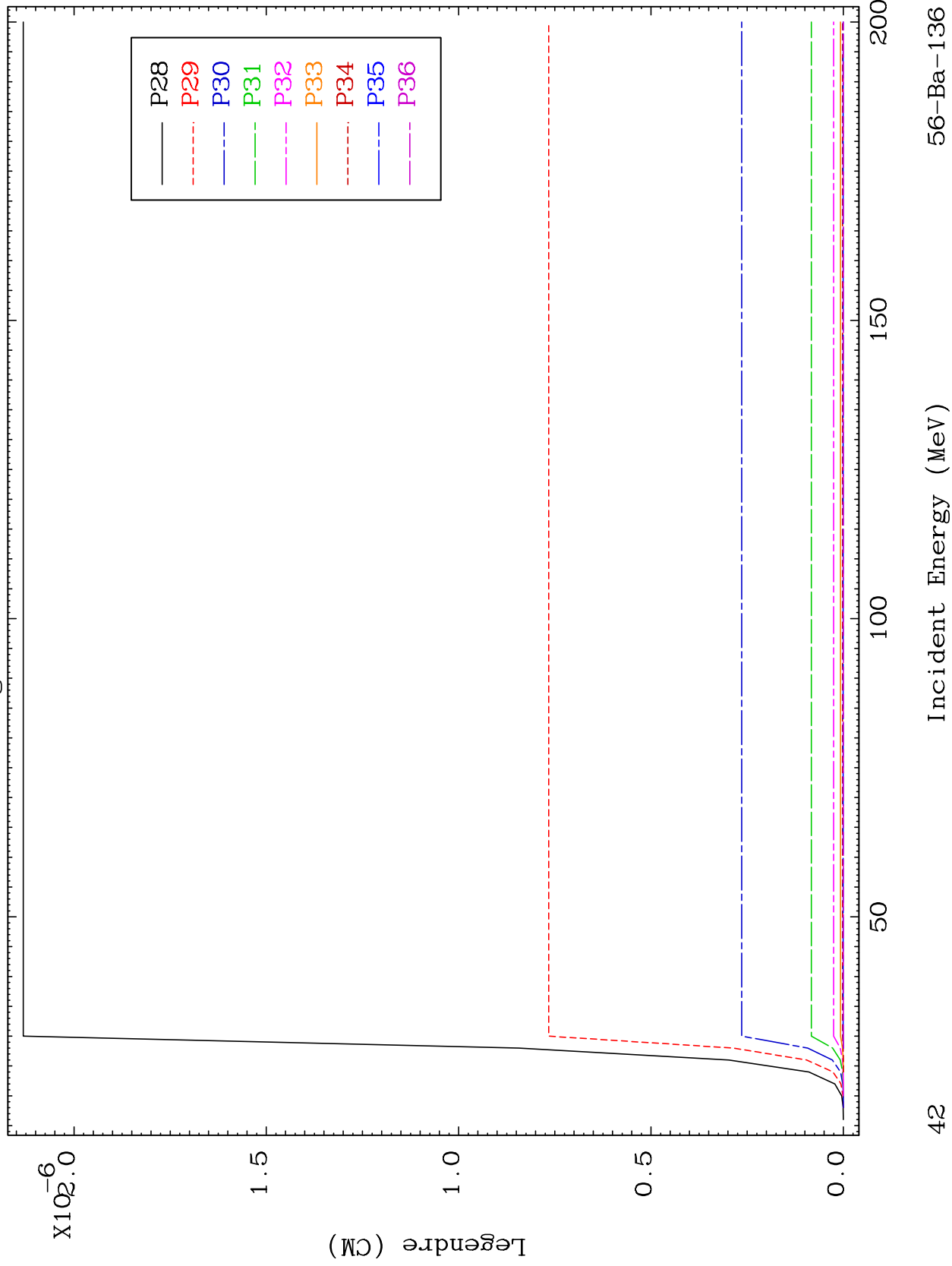
56-Ba-136



MAT 5643

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

56-Ba-136



42

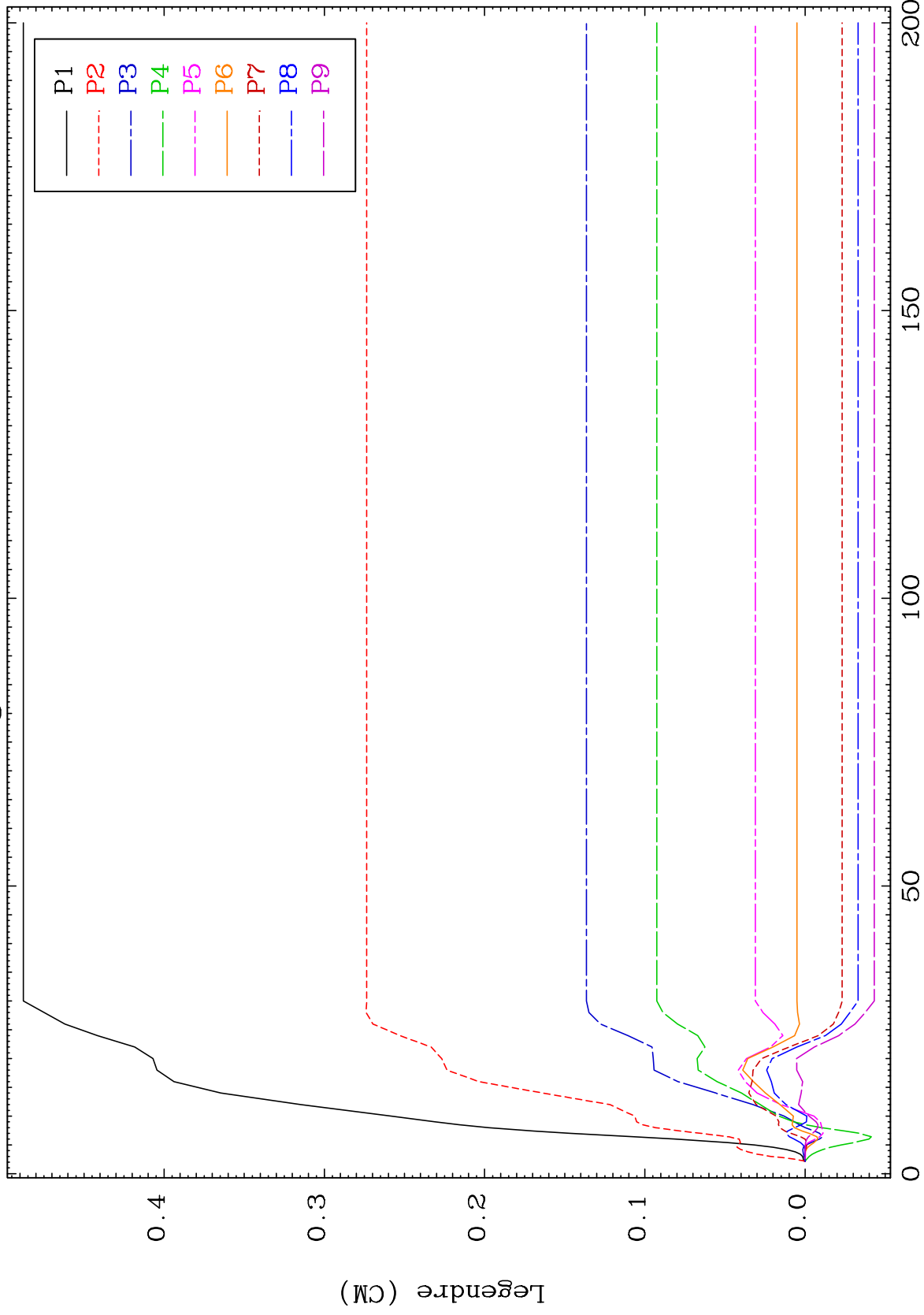
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



43

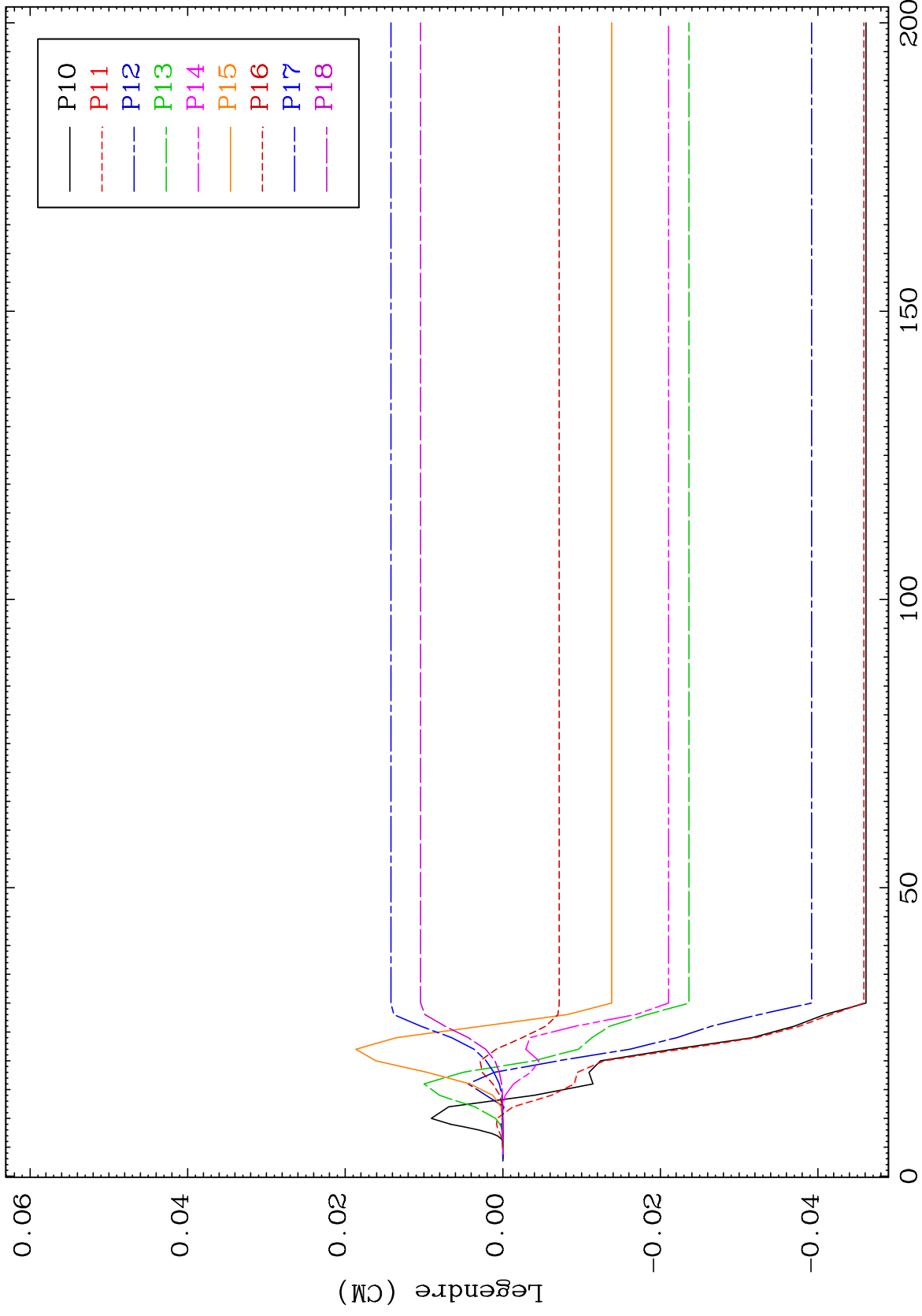
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



44

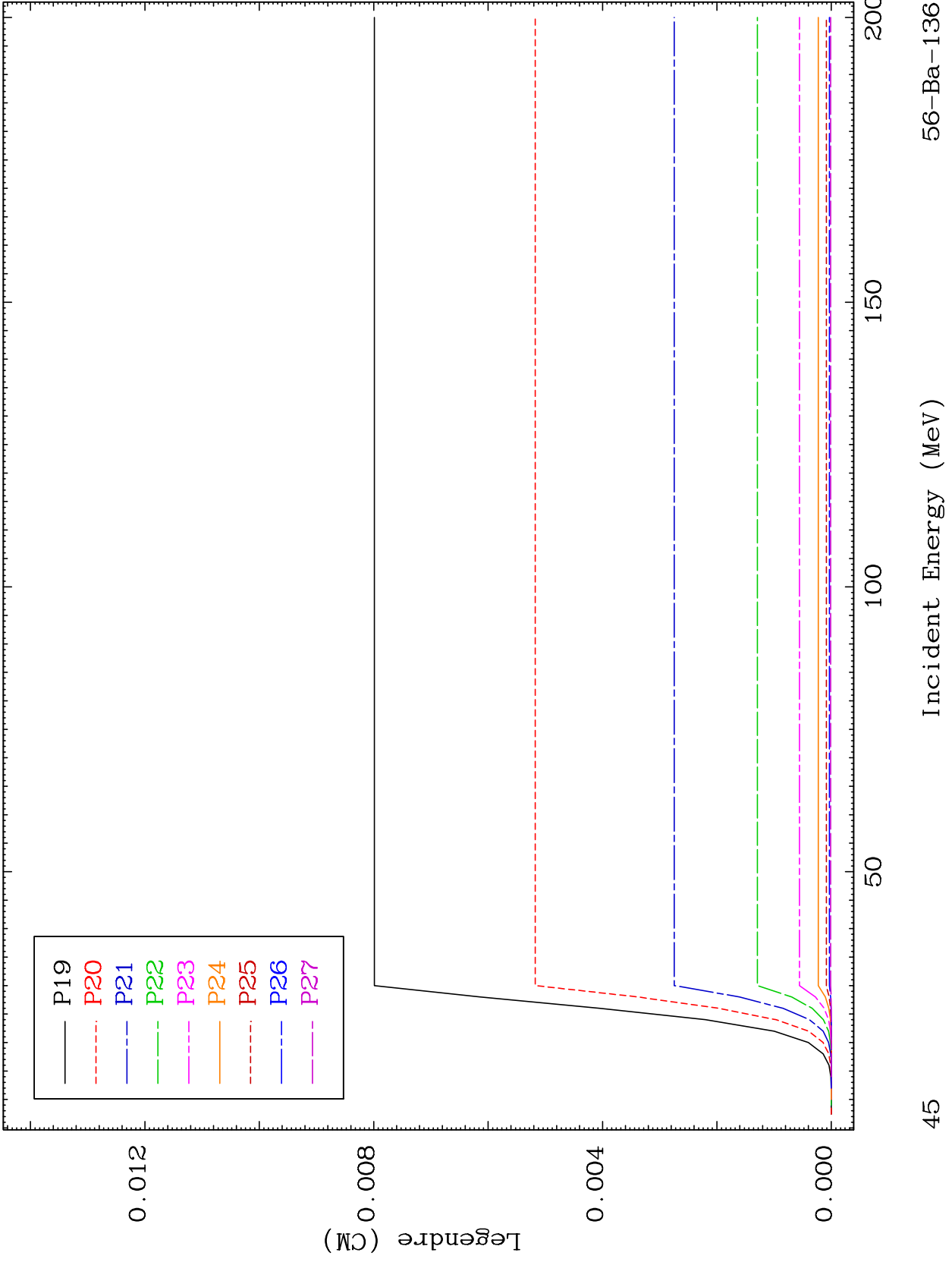
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



45

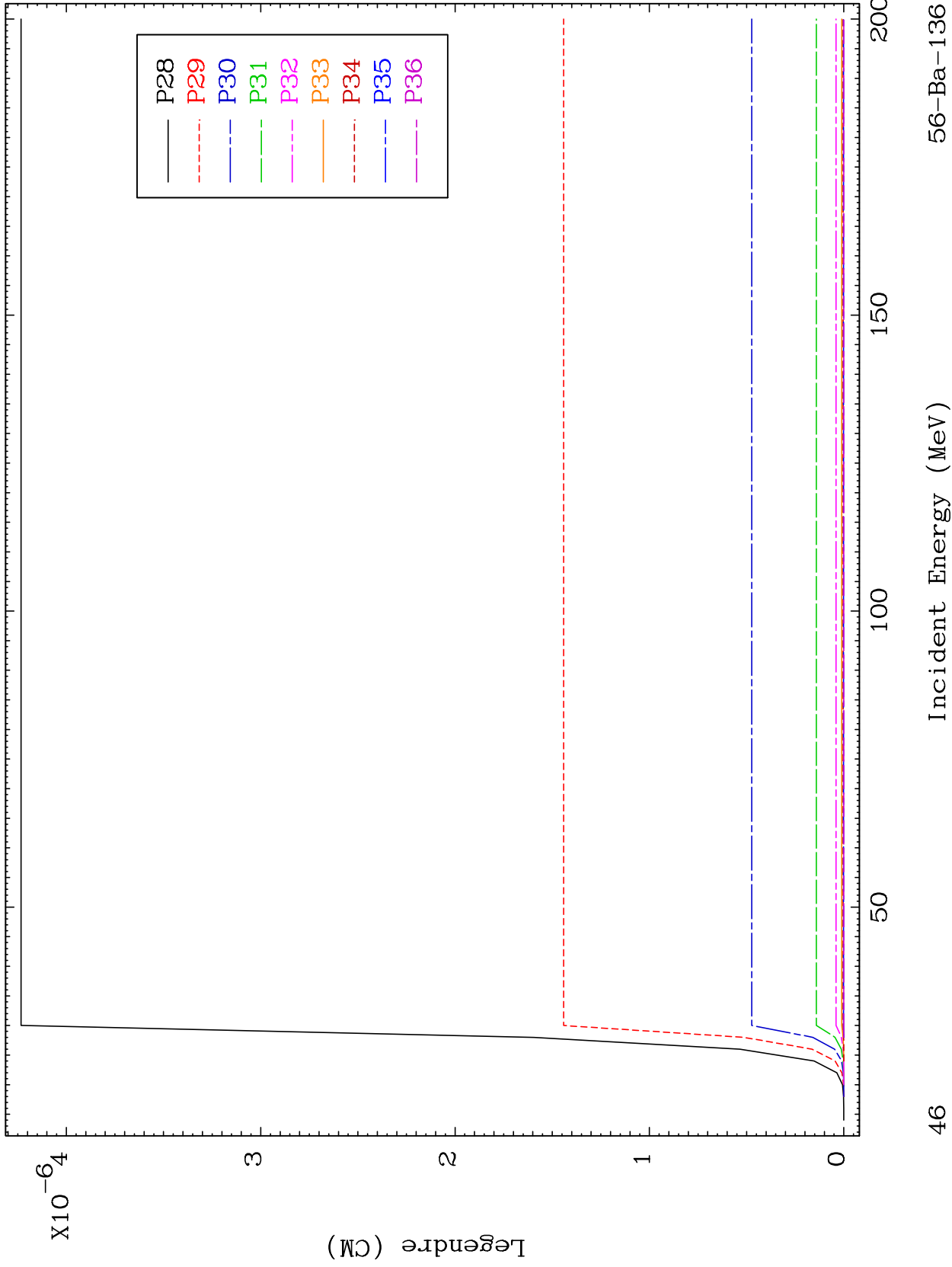
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

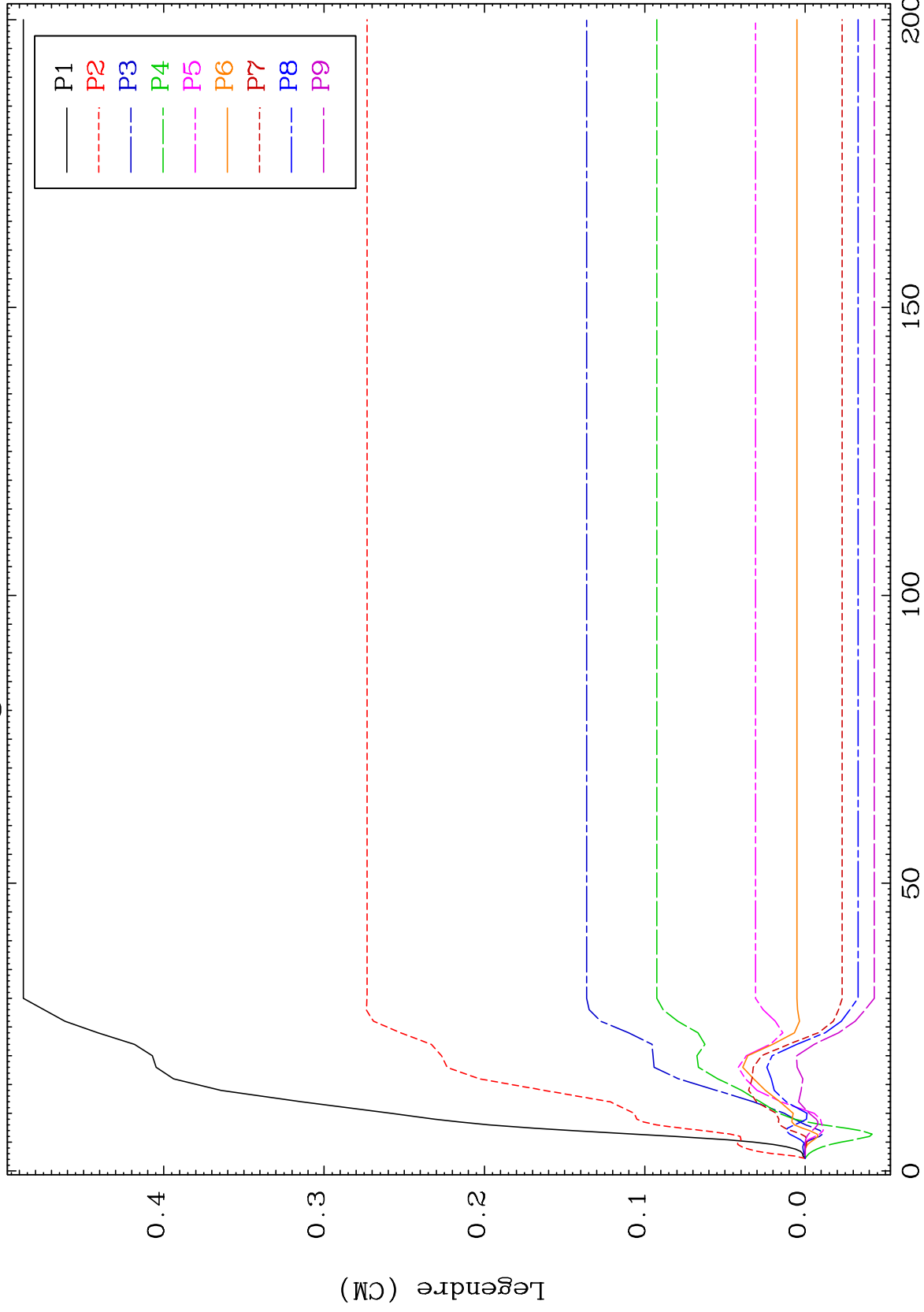
56-Ba-136



MAT 5643

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

56-Ba-136



47

Incident Energy (MeV)

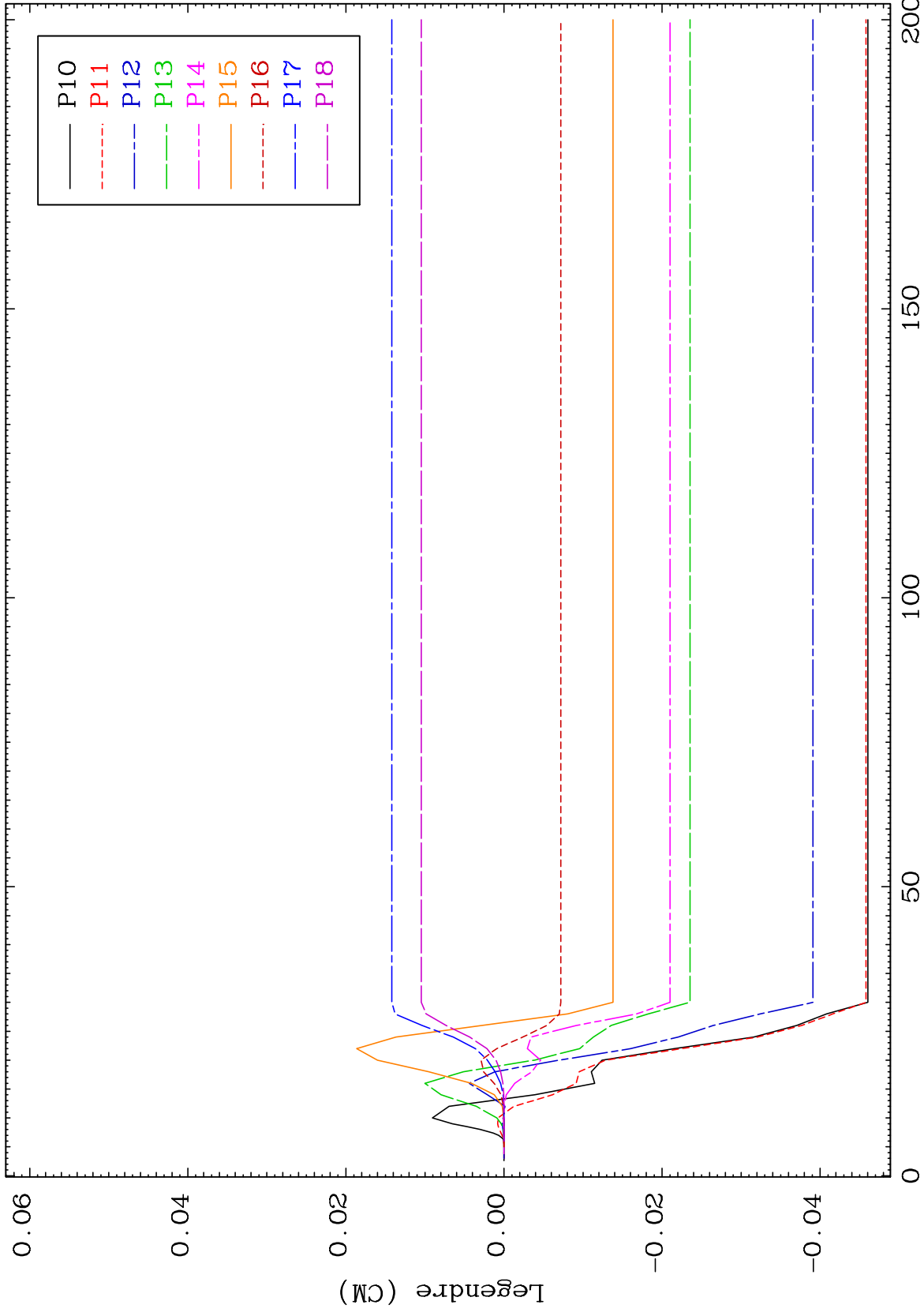
56-Ba-136



MAT 5643

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

56-Ba-136



48

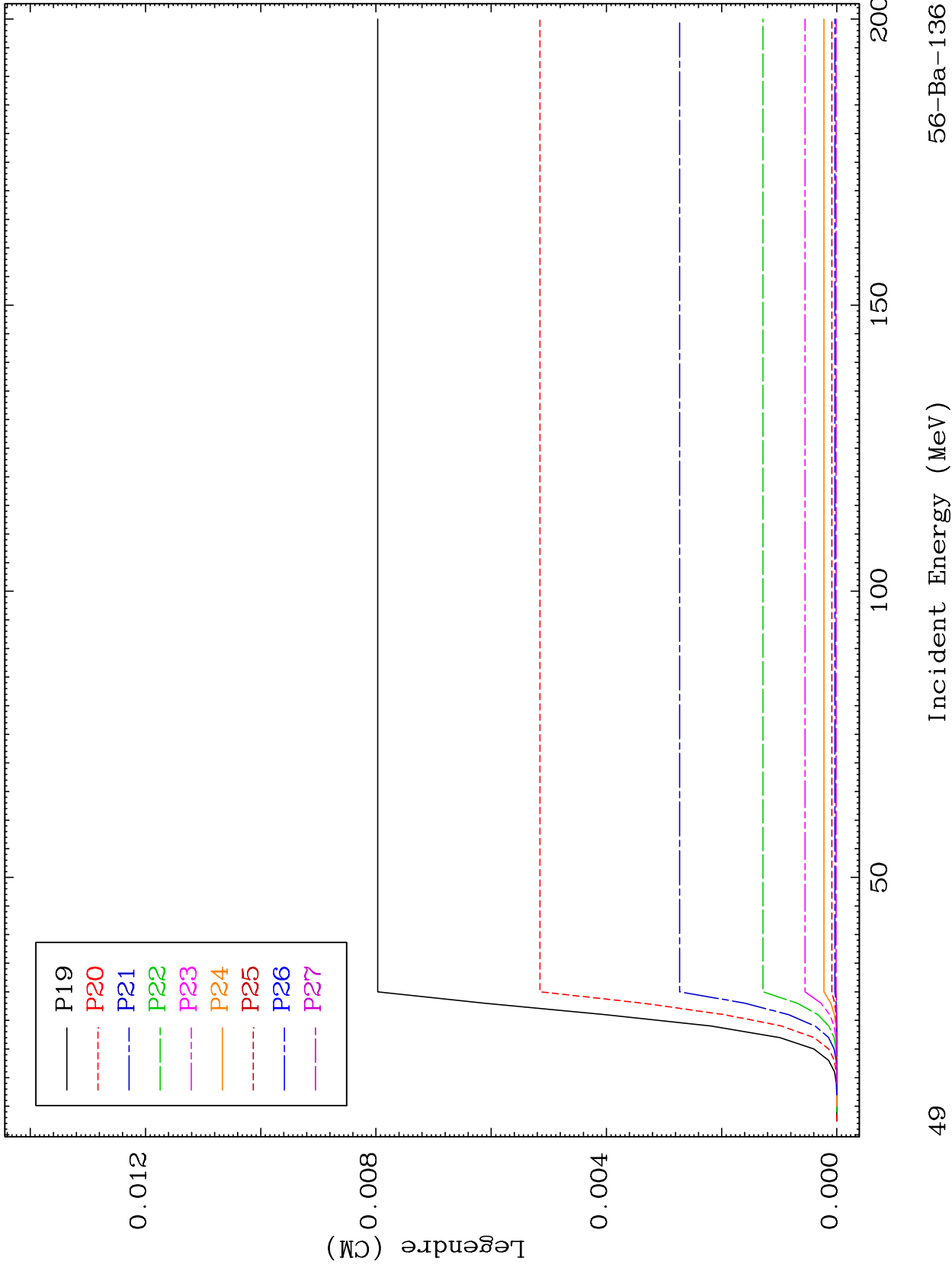
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



49

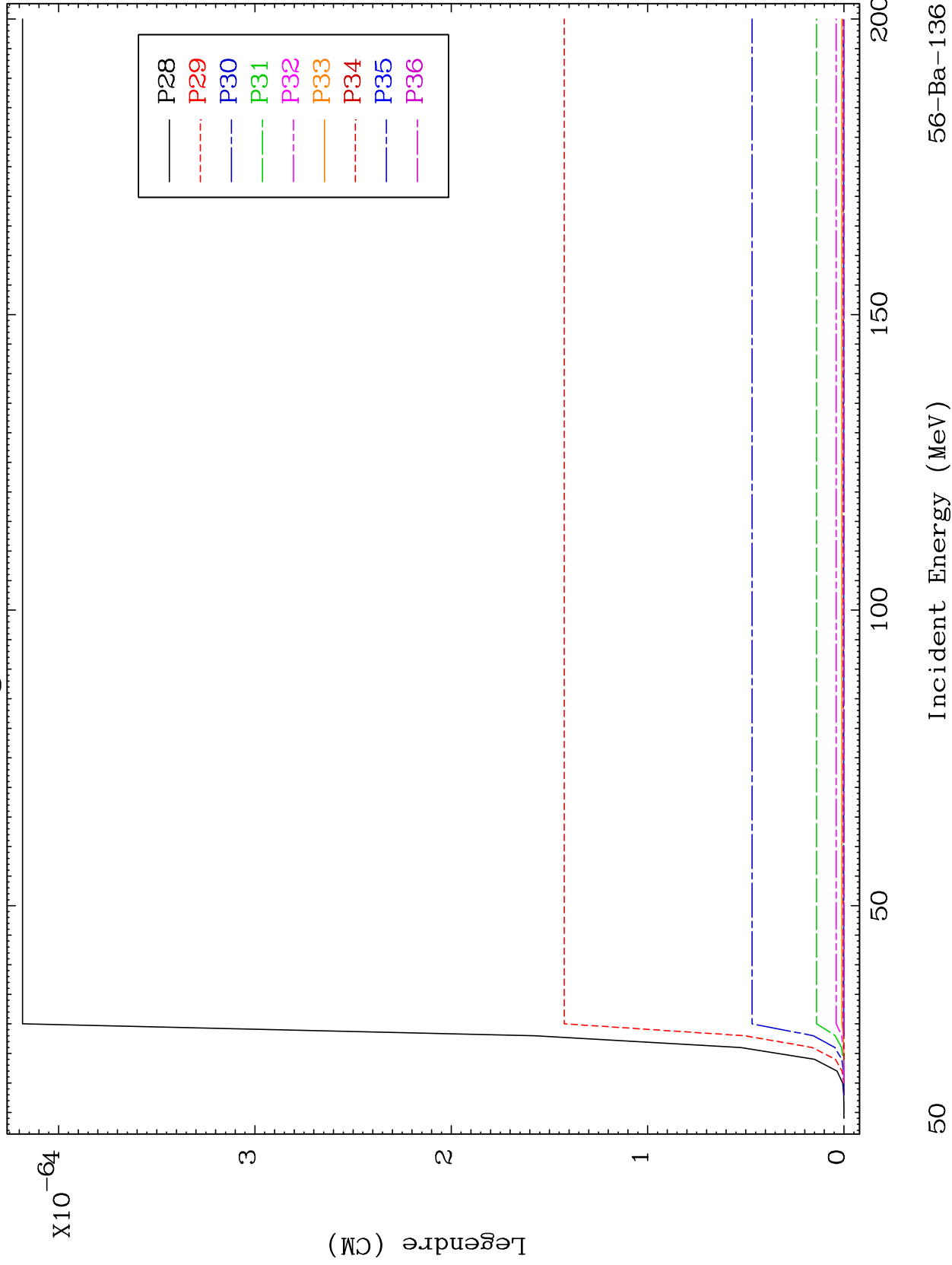
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

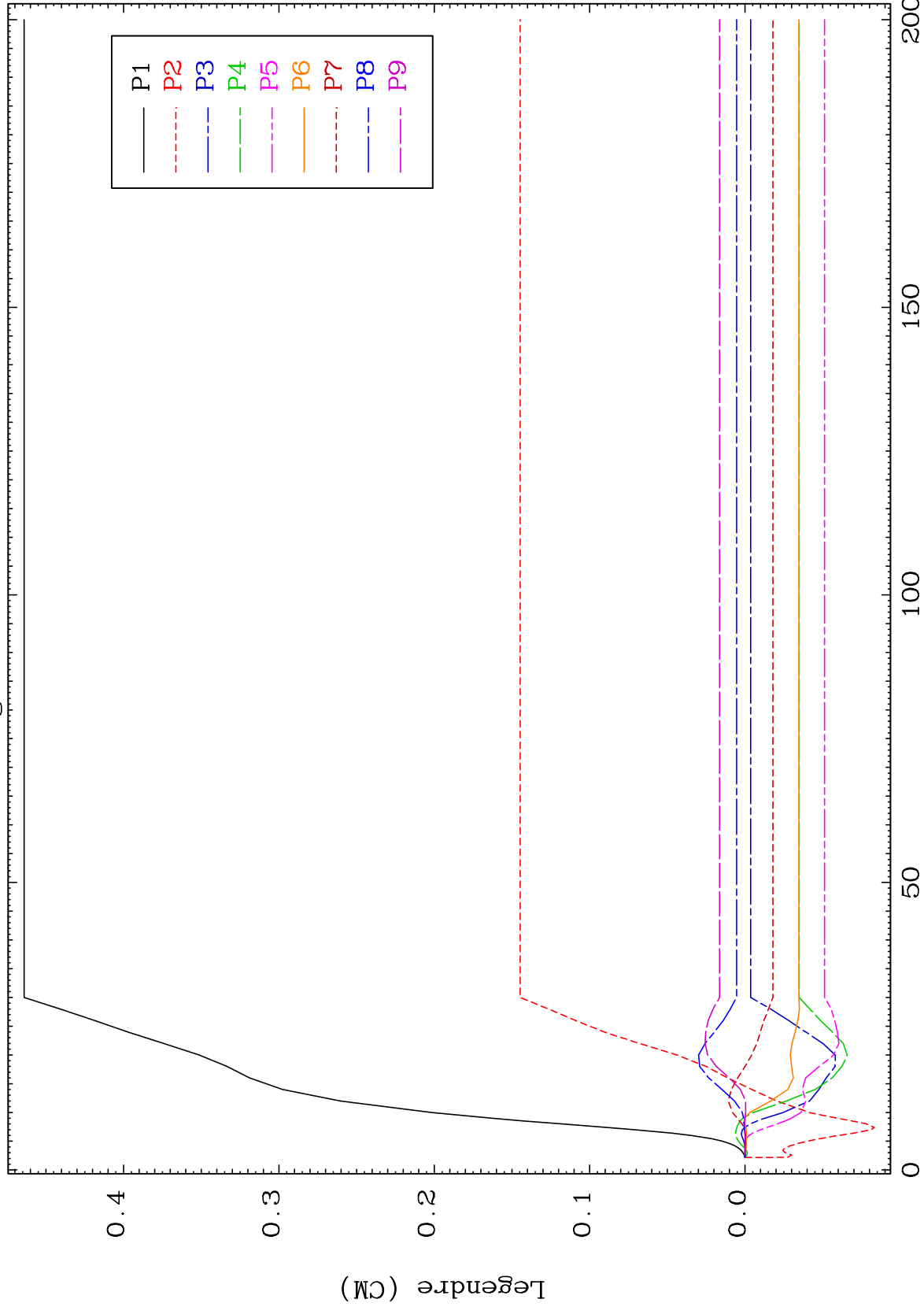
56-Ba-136



MAT 5643

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

56-Ba-136



51

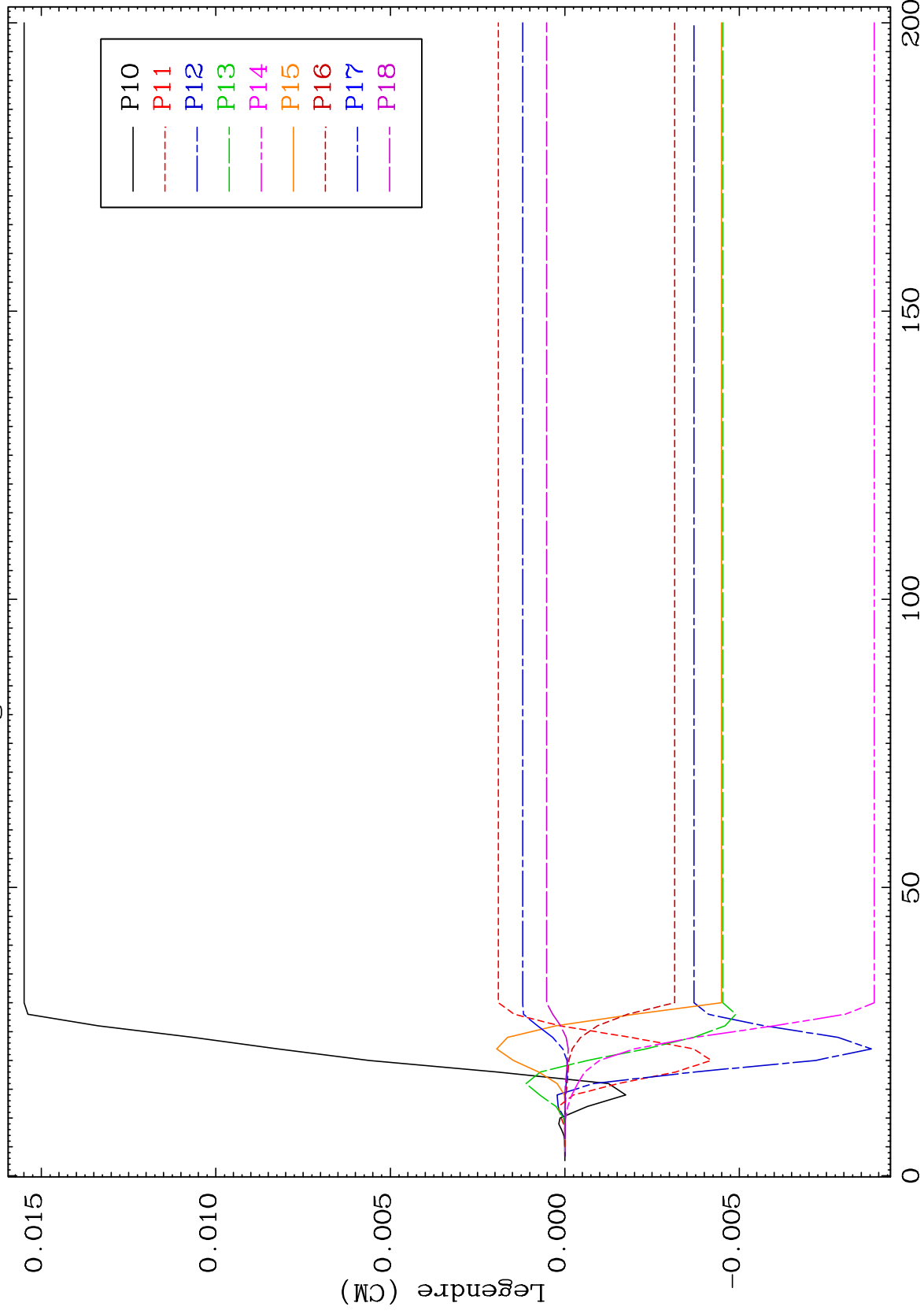
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

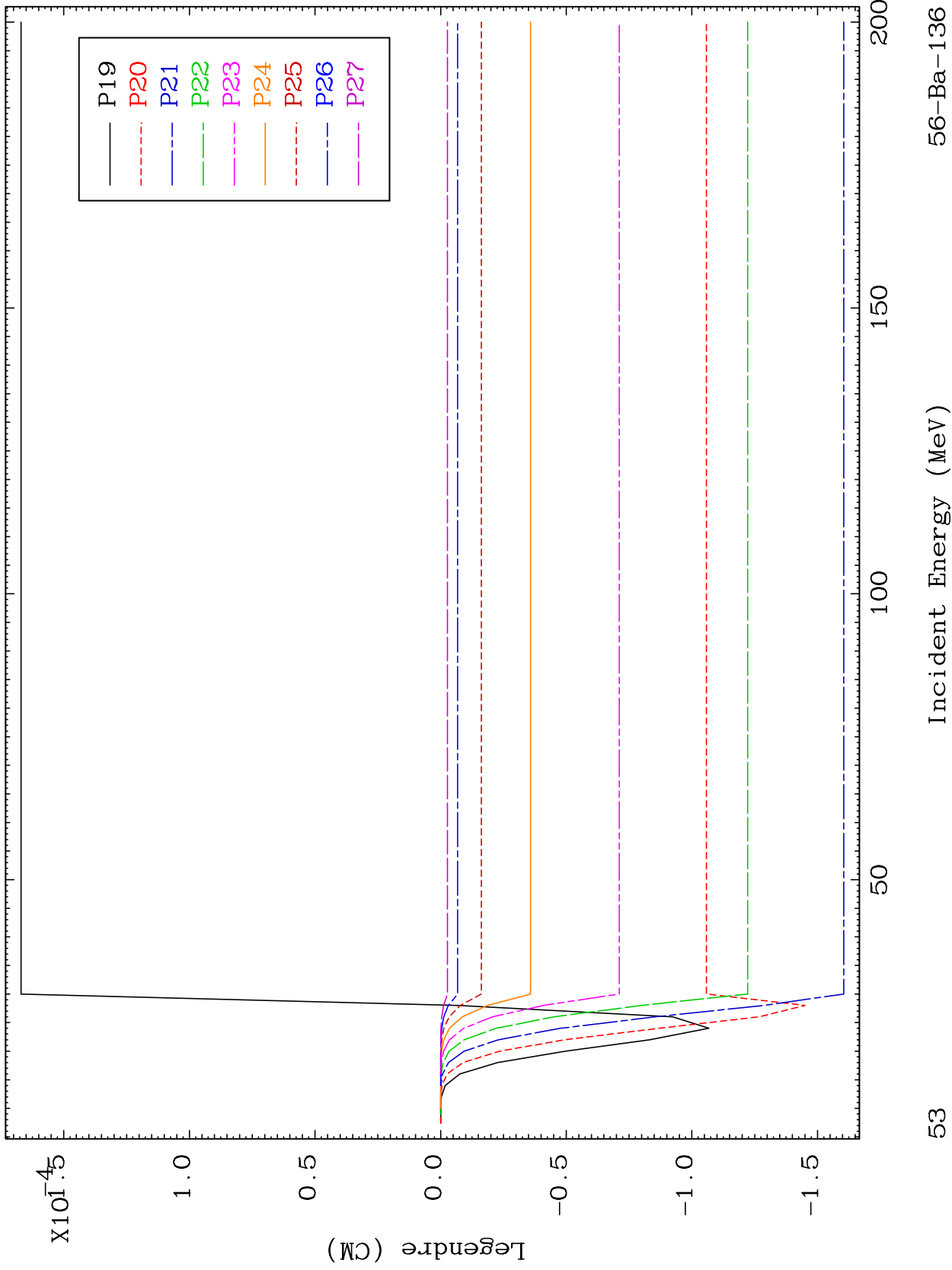
56-Ba-136



52

Incident Energy (MeV)

56-Ba-136

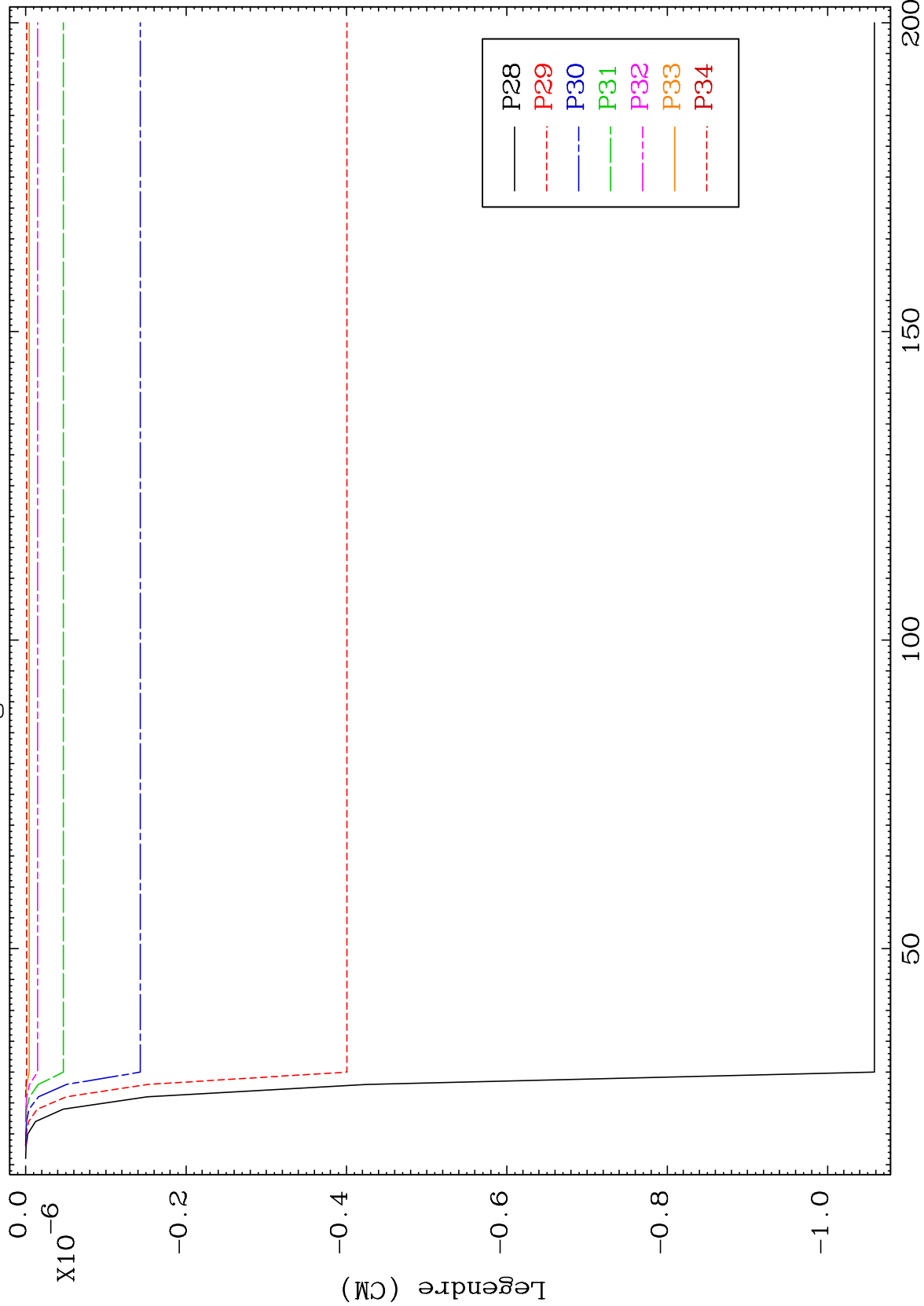


MAT 5643

MT= 59 (n,n') Level

56-Ba-136

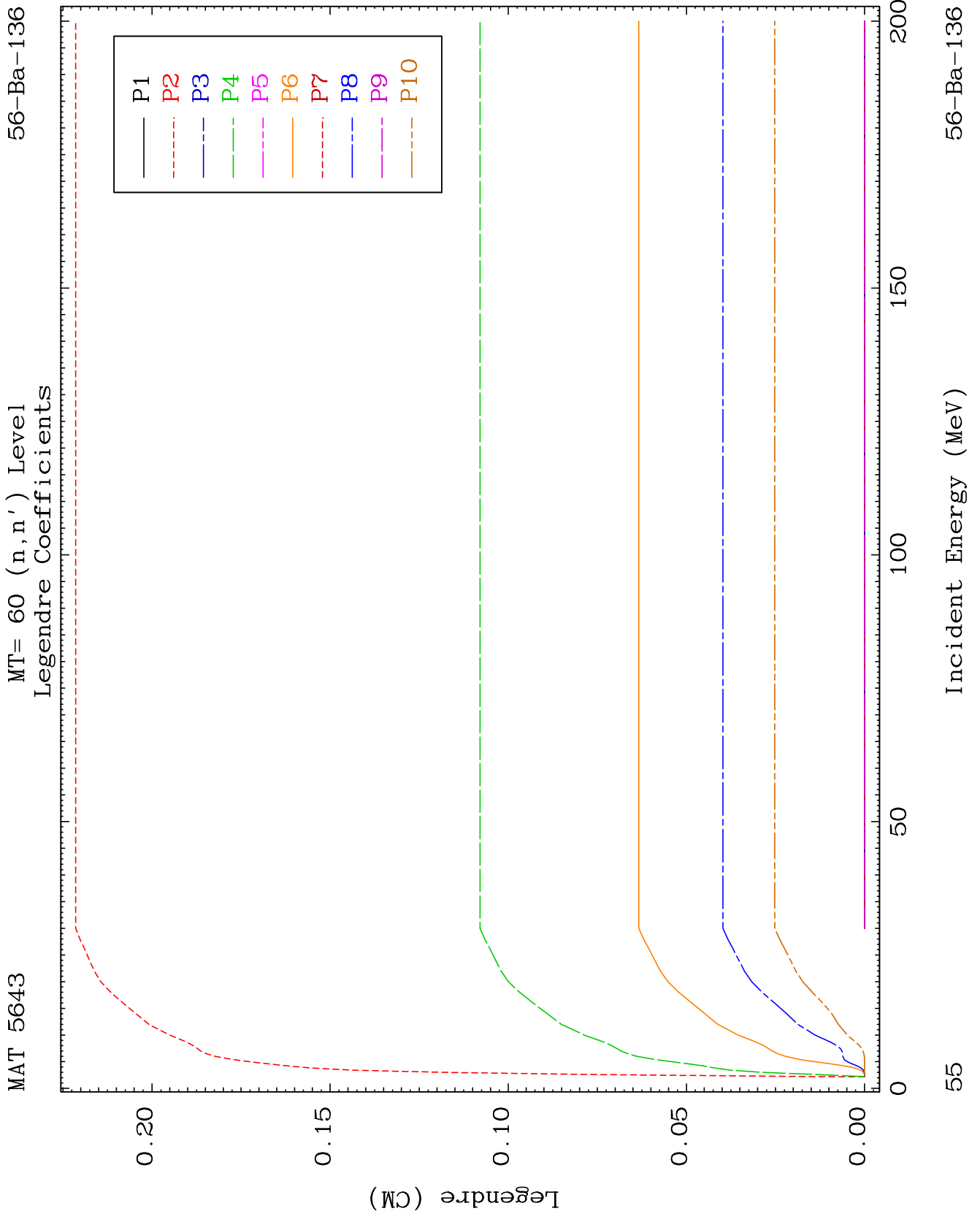
Legendre Coefficients



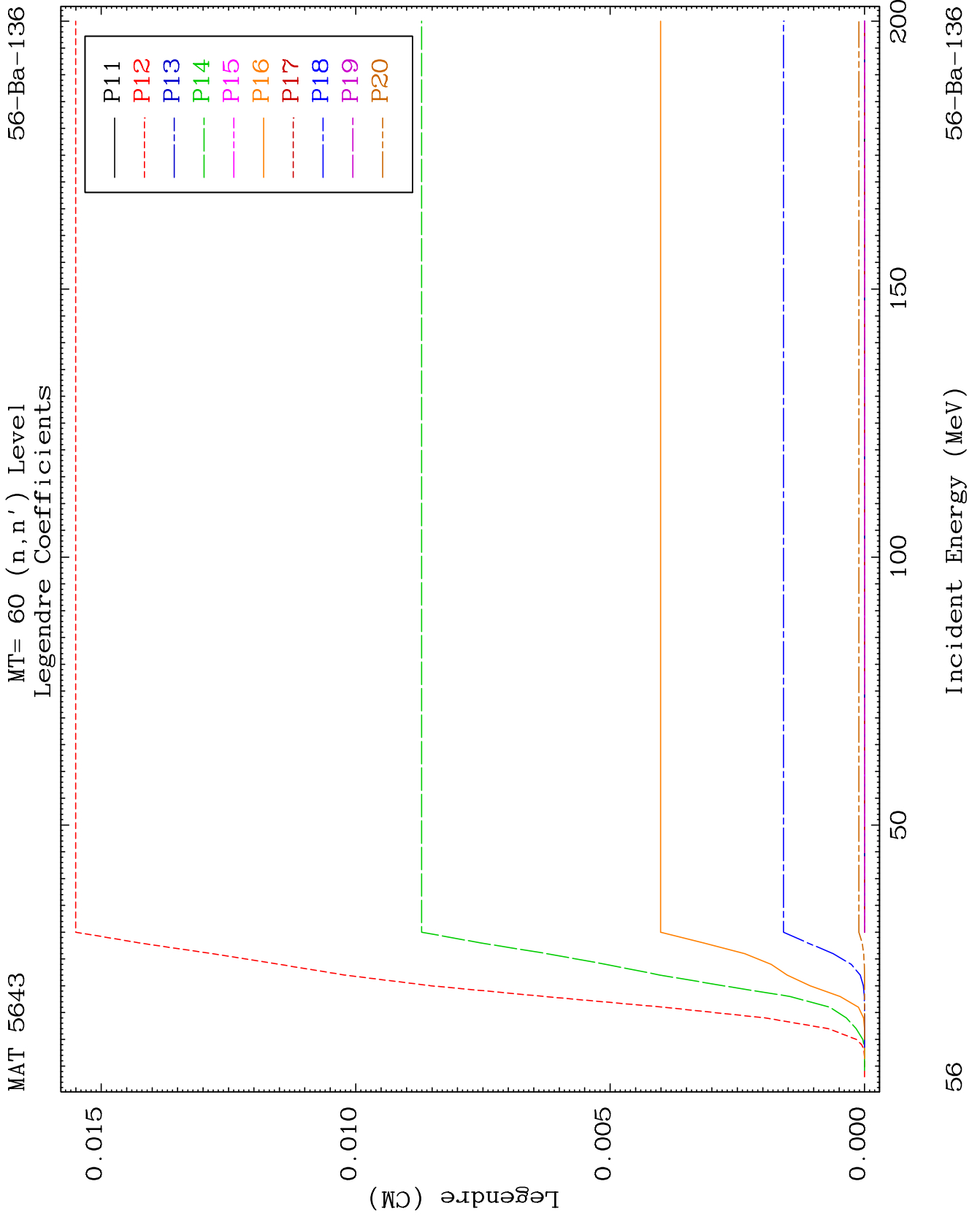
54

Incident Energy (MeV)

56-Ba-136



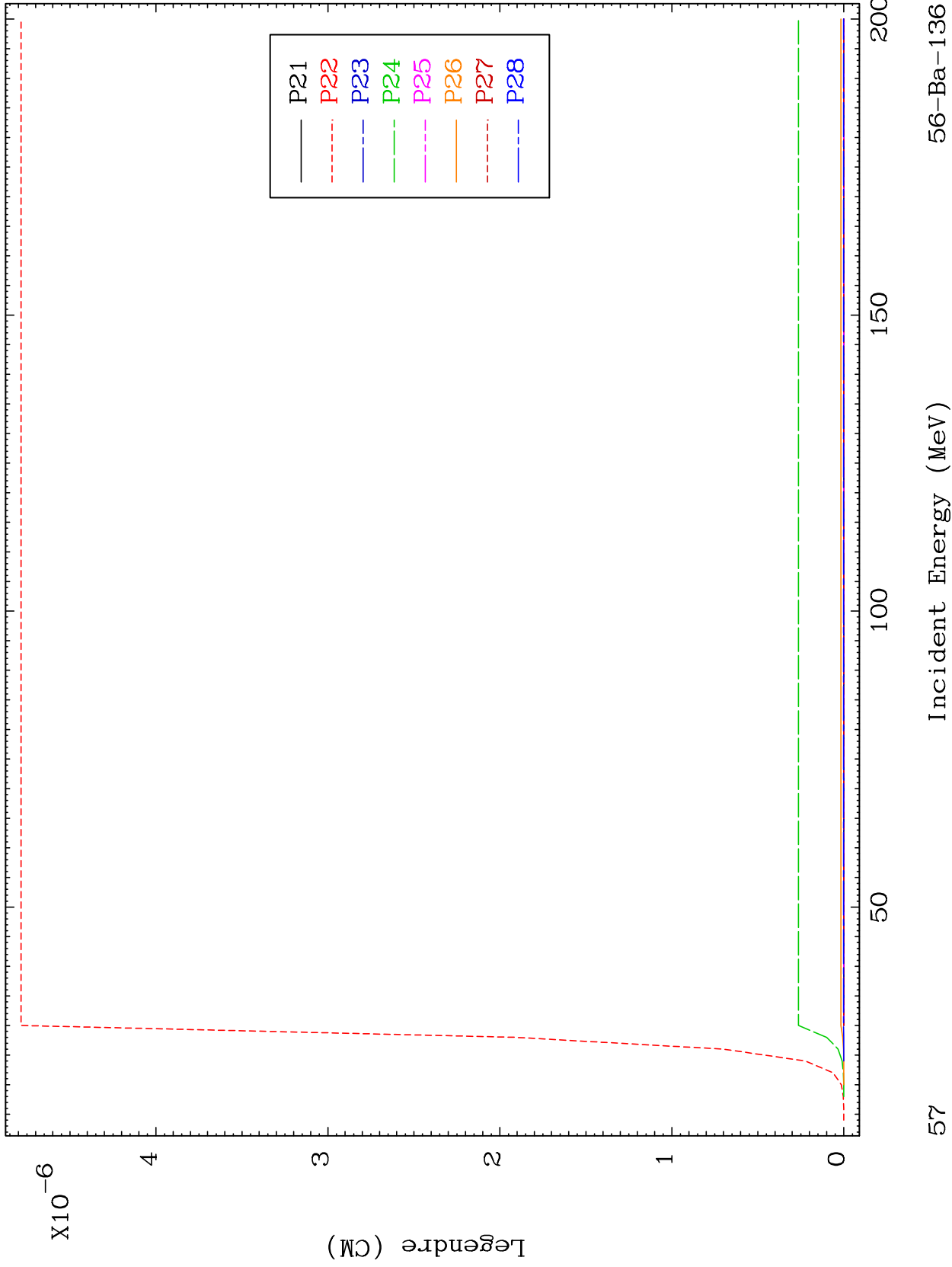




MAT 5643

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

56-Ba-136



57

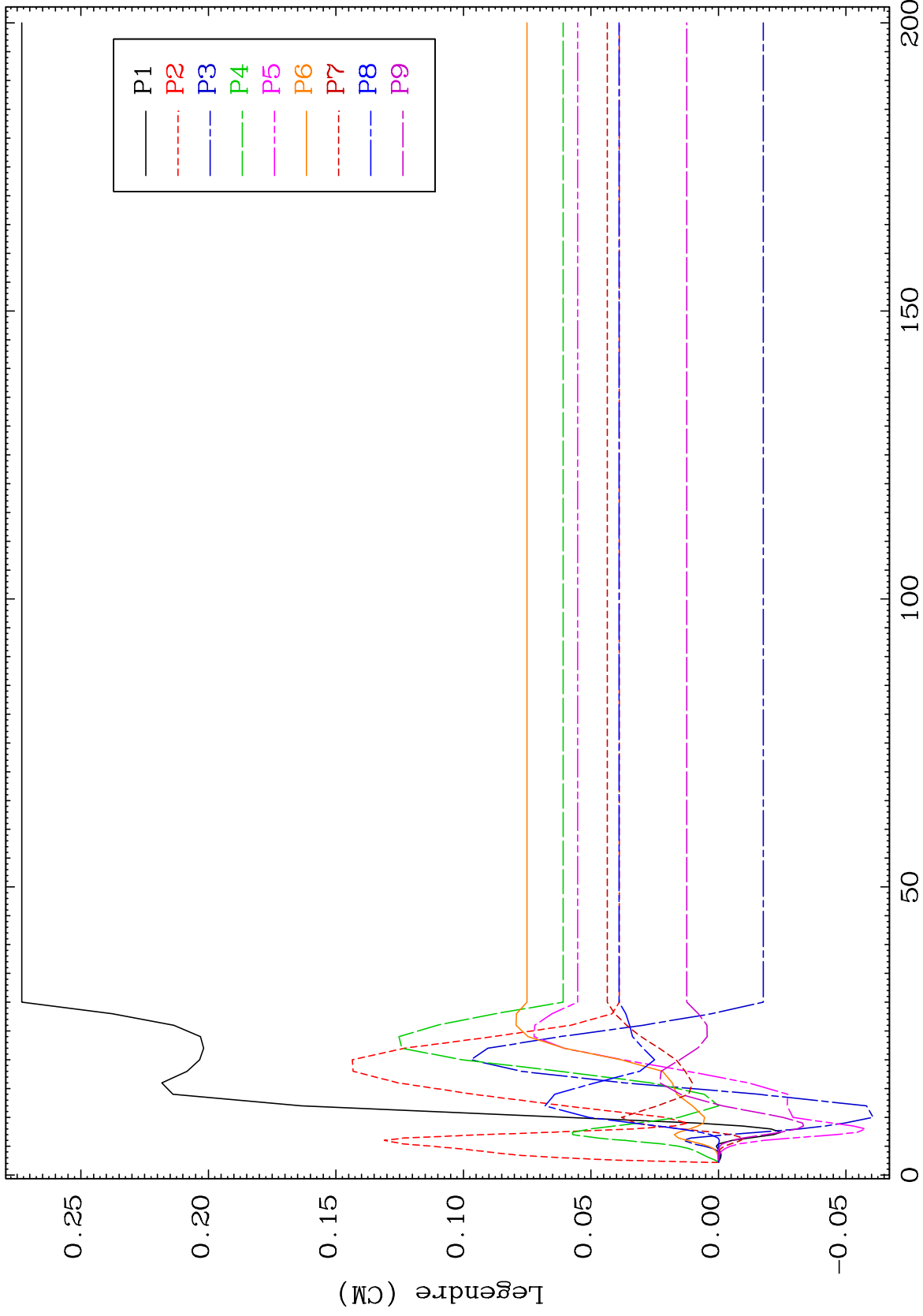
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



56-Ba-136

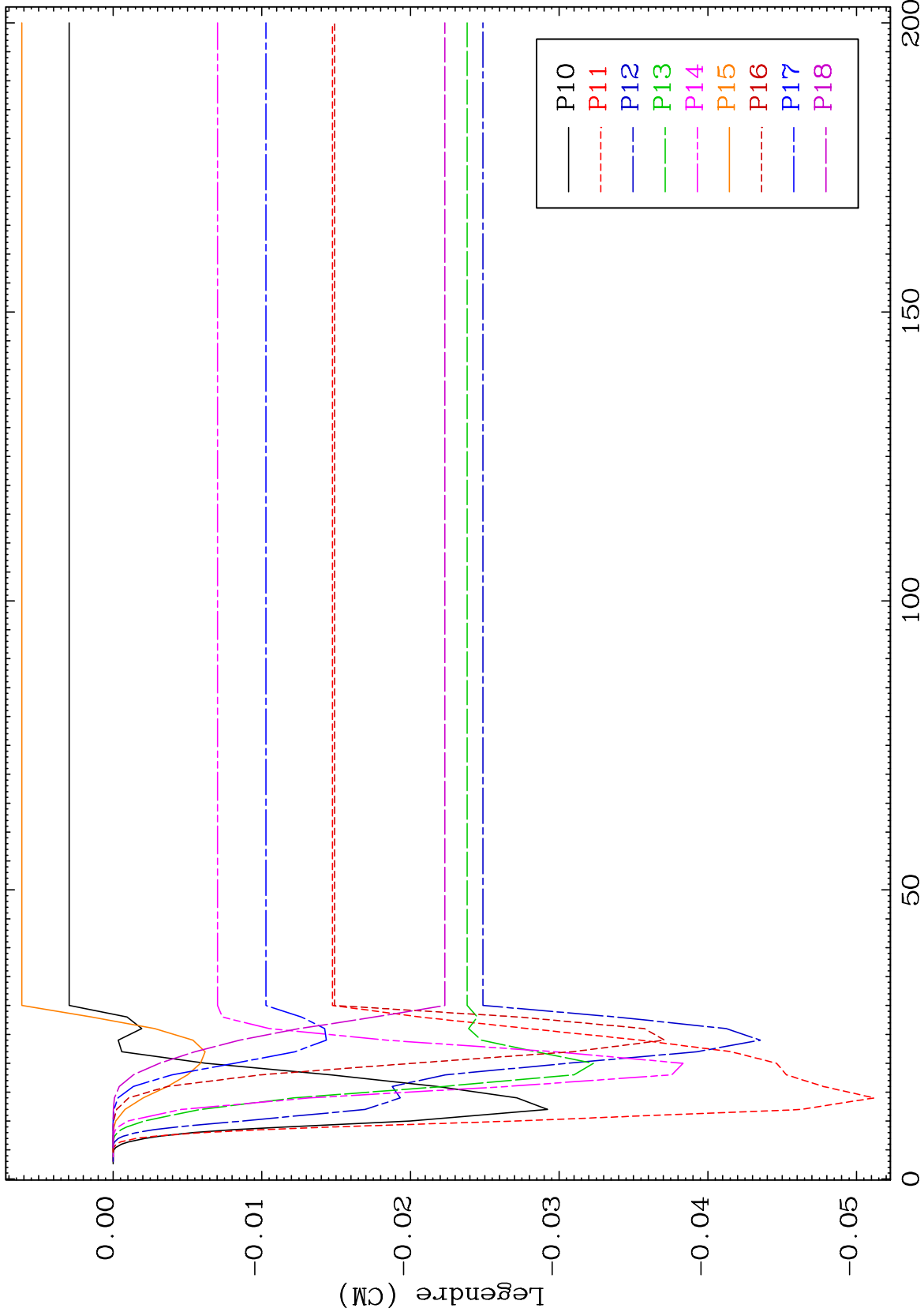
Incident Energy (MeV)

58

MAT 5643

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

56-Ba-136

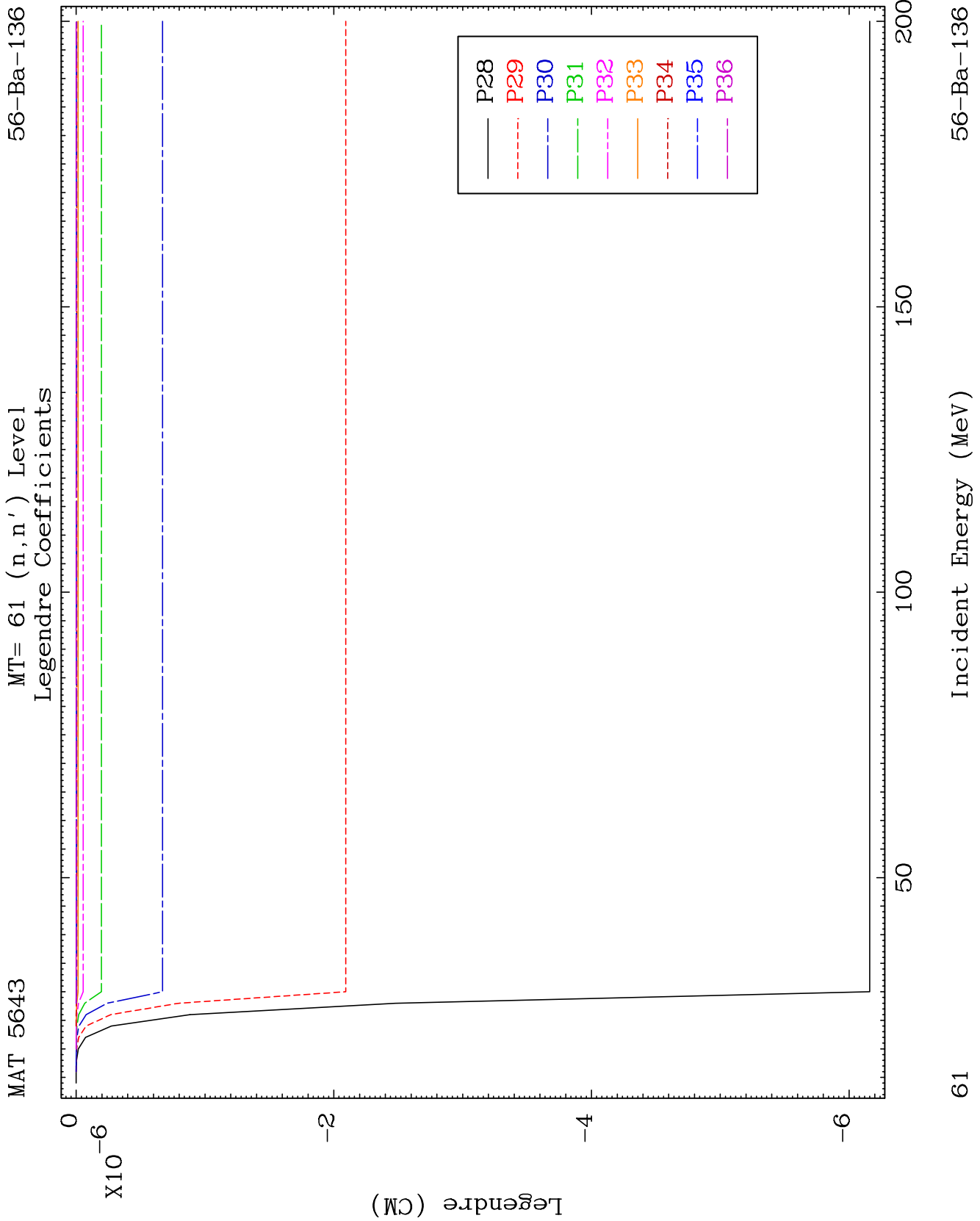


59

Incident Energy (MeV)

56-Ba-136

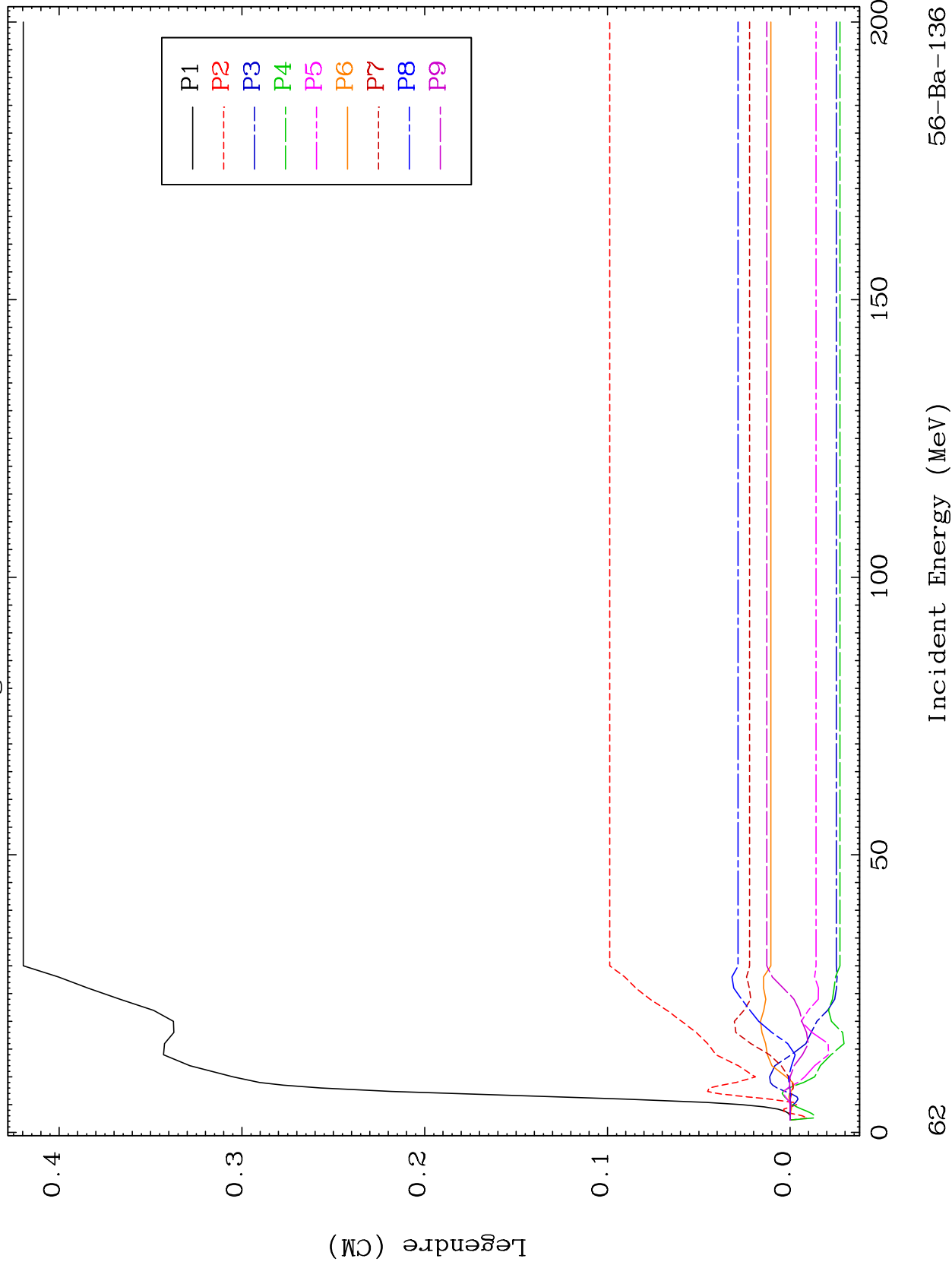




MAT 5643

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

56-Ba-136



56-Ba-136

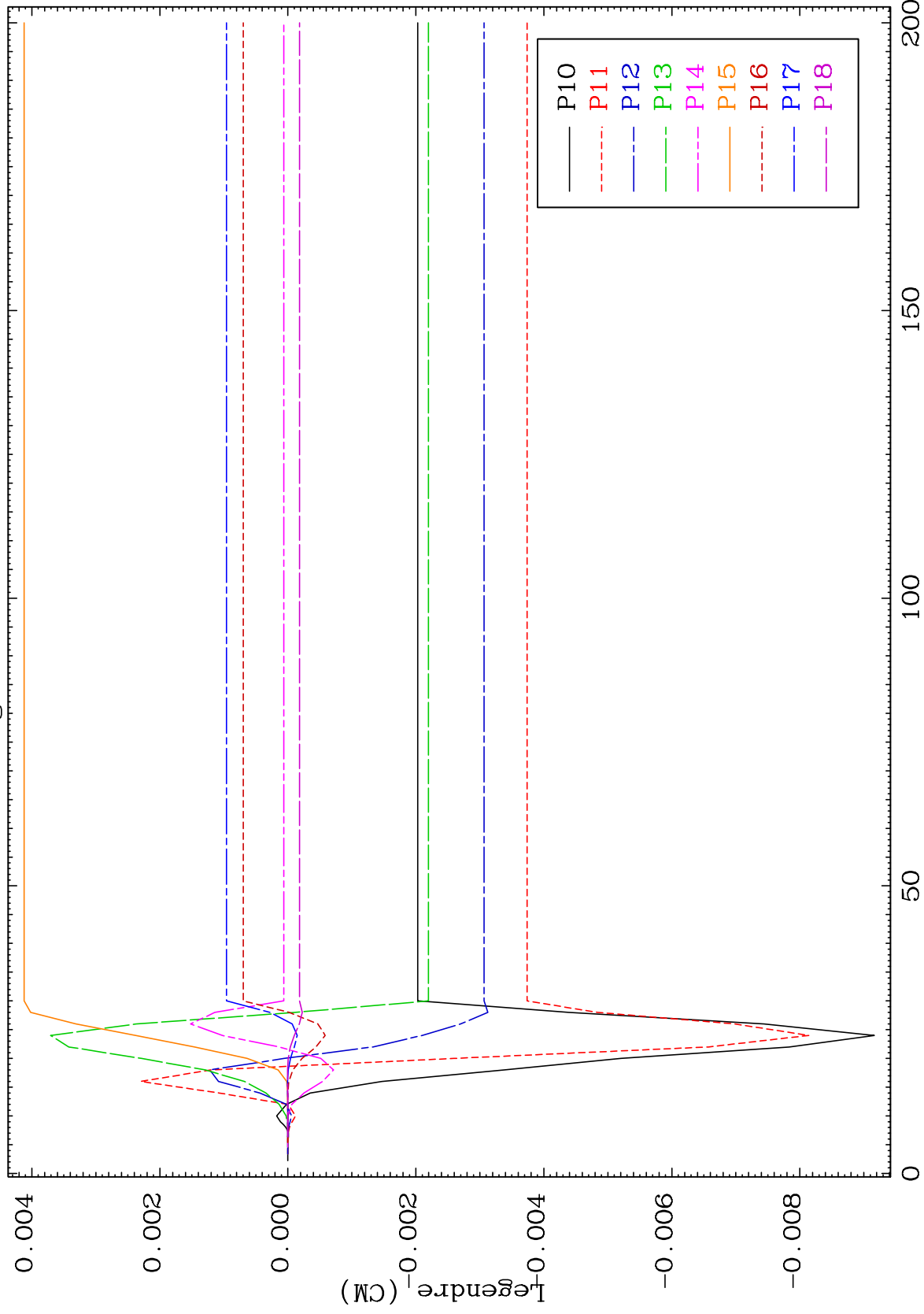
Incident Energy (MeV)

62

MAT 5643

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

56-Ba-136



63

Incident Energy (MeV)

56-Ba-136

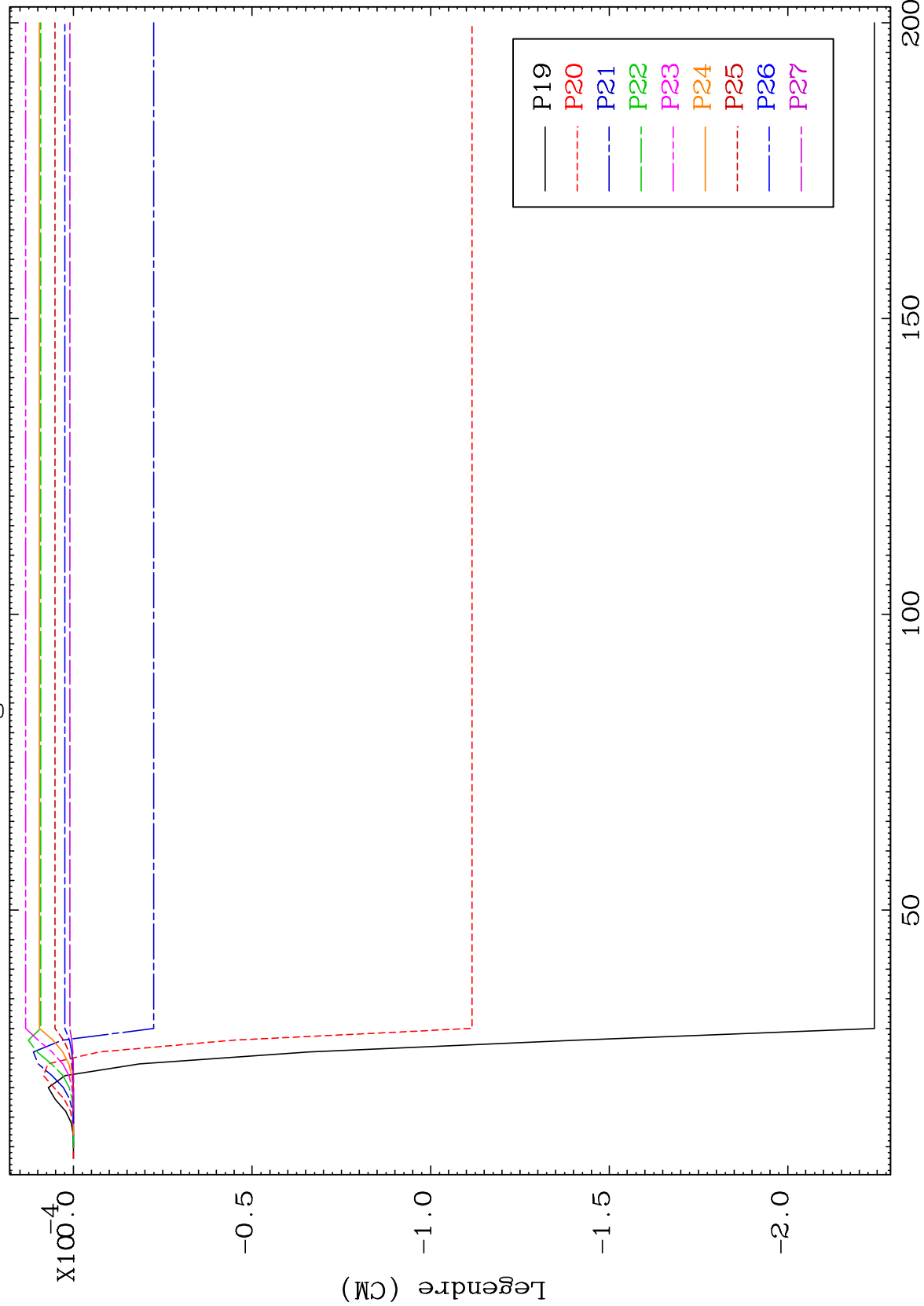


MAT 5643

MT= 62 (n,n') Level

56-Ba-136

Legendre Coefficients



64

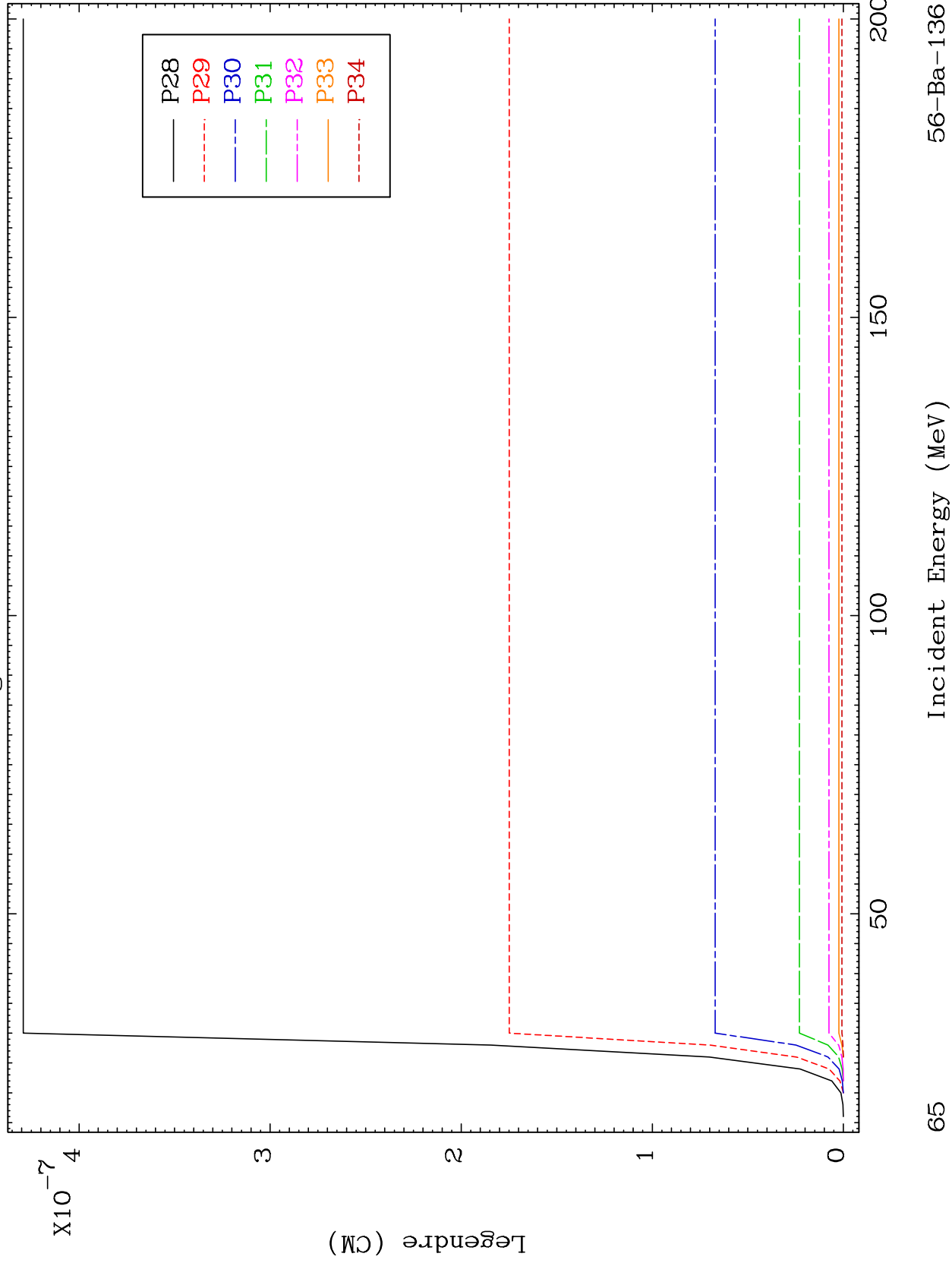
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

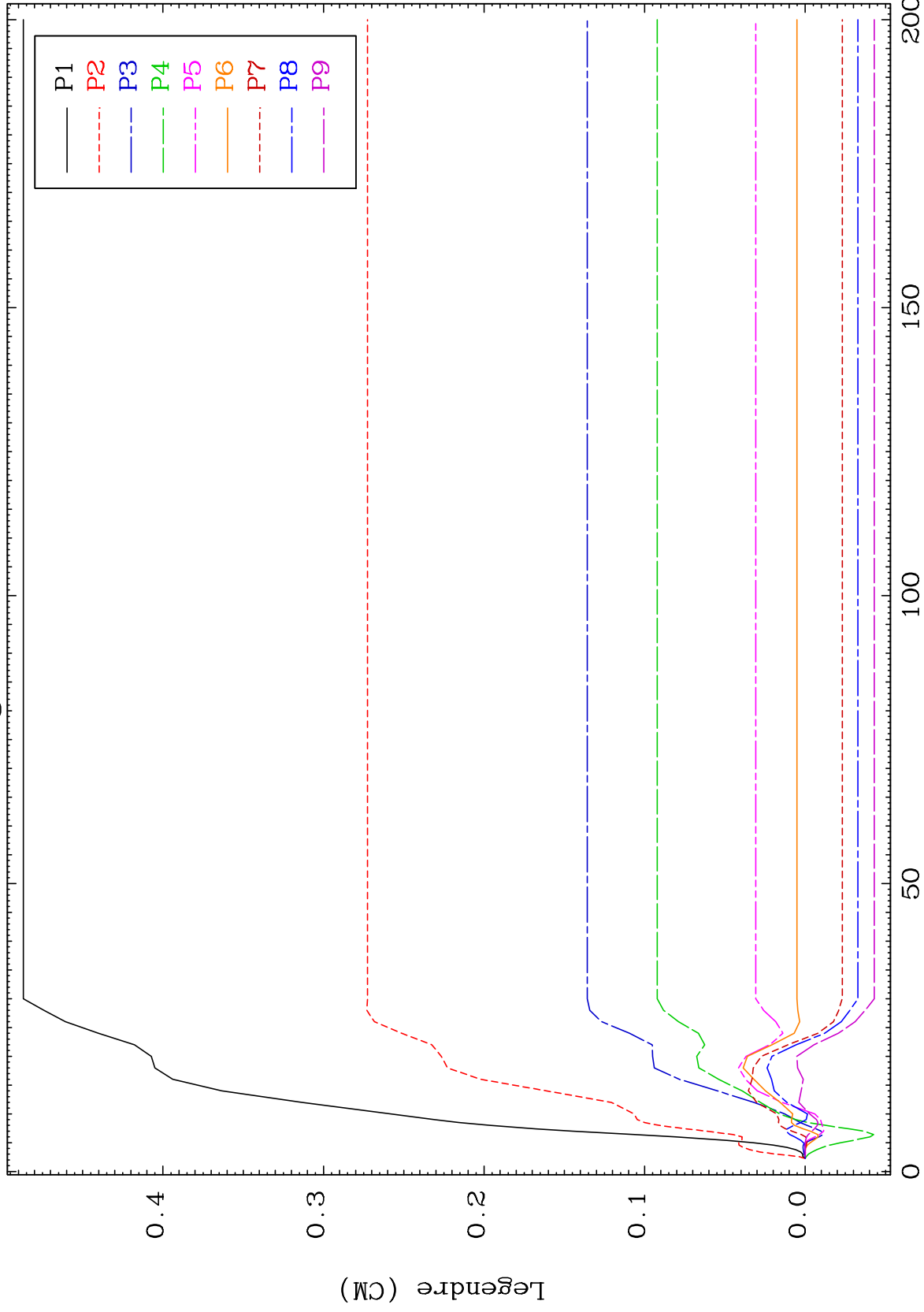
56-Ba-136



MAT 5643

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

56-Ba-136



56-Ba-136

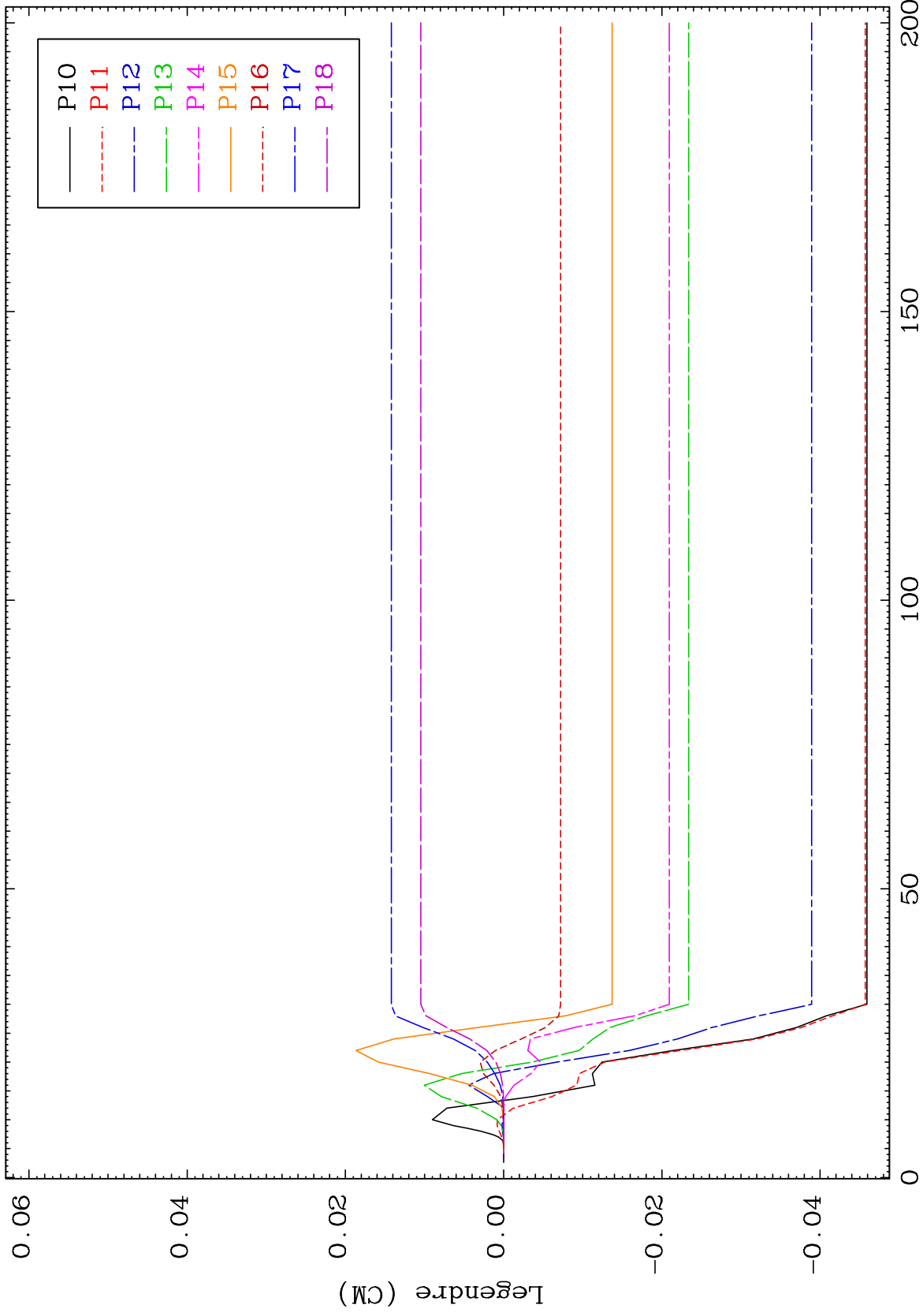
Incident Energy (MeV)

66

MAT 5643

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

56-Ba-136



67

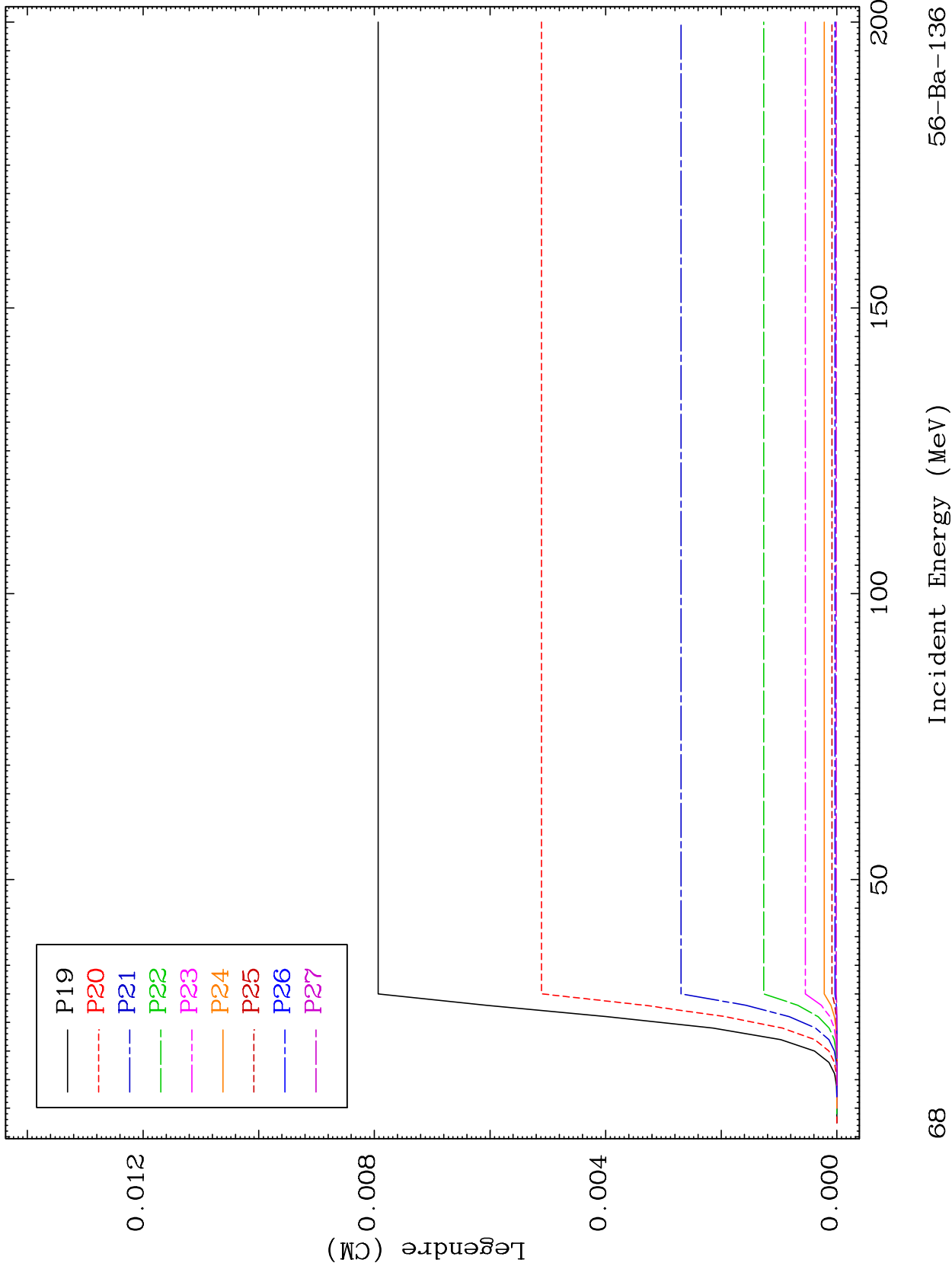
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



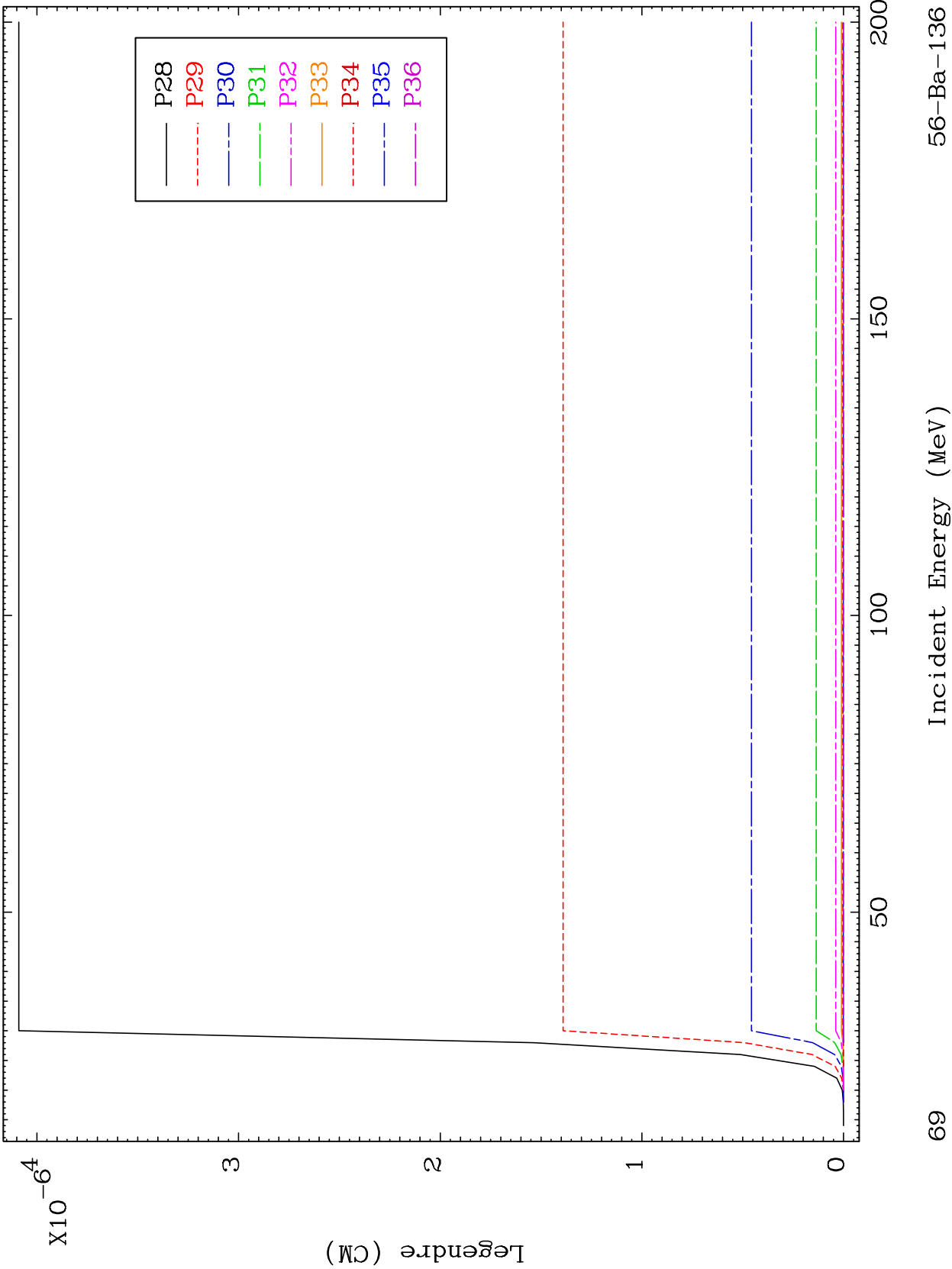
68

56-Ba-136

MAT 5643

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

56-Ba-136

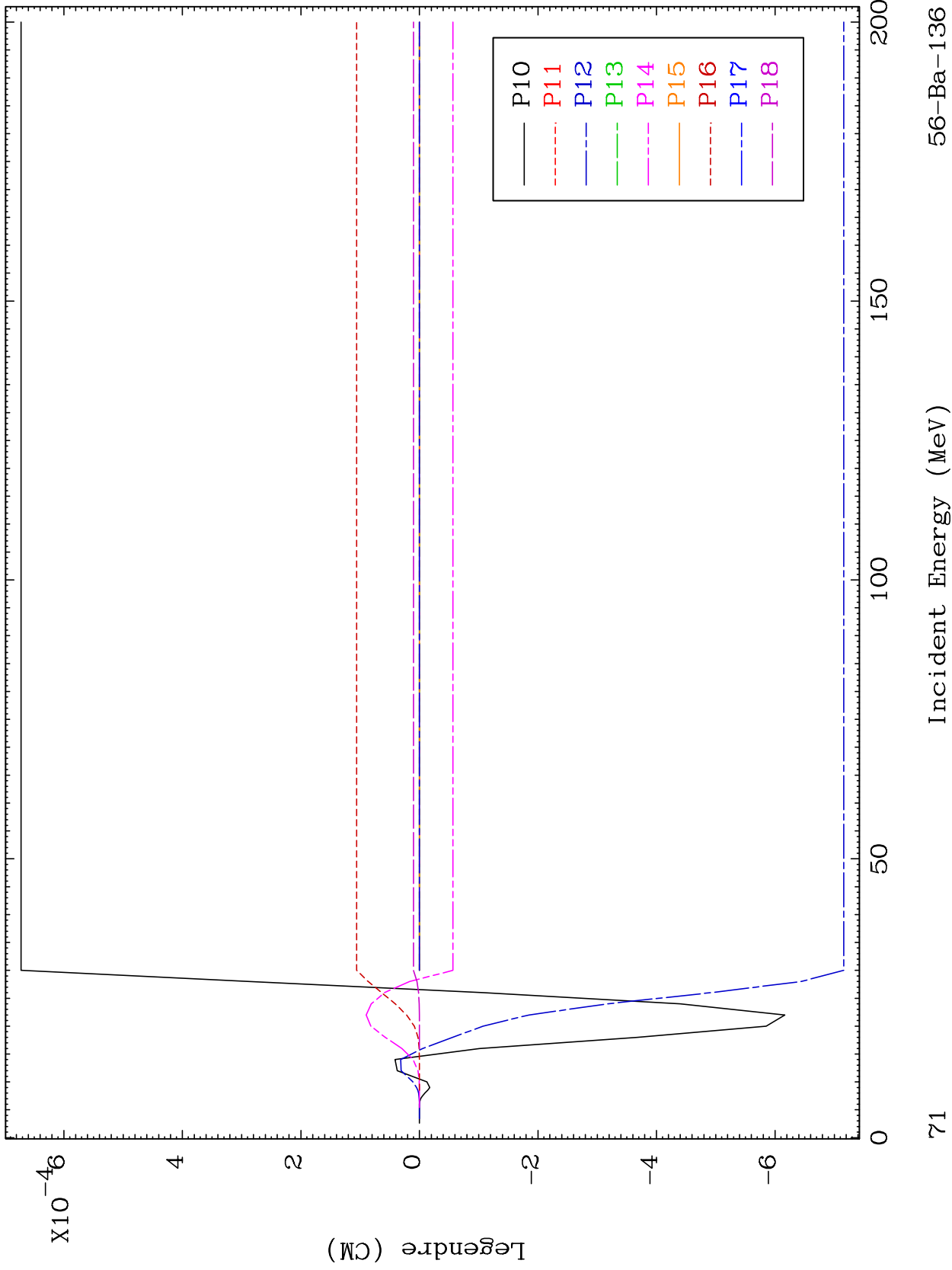




MAT 5643

MT= 64 (n,n') Level  
Legendre Coefficients

56-Ba-136

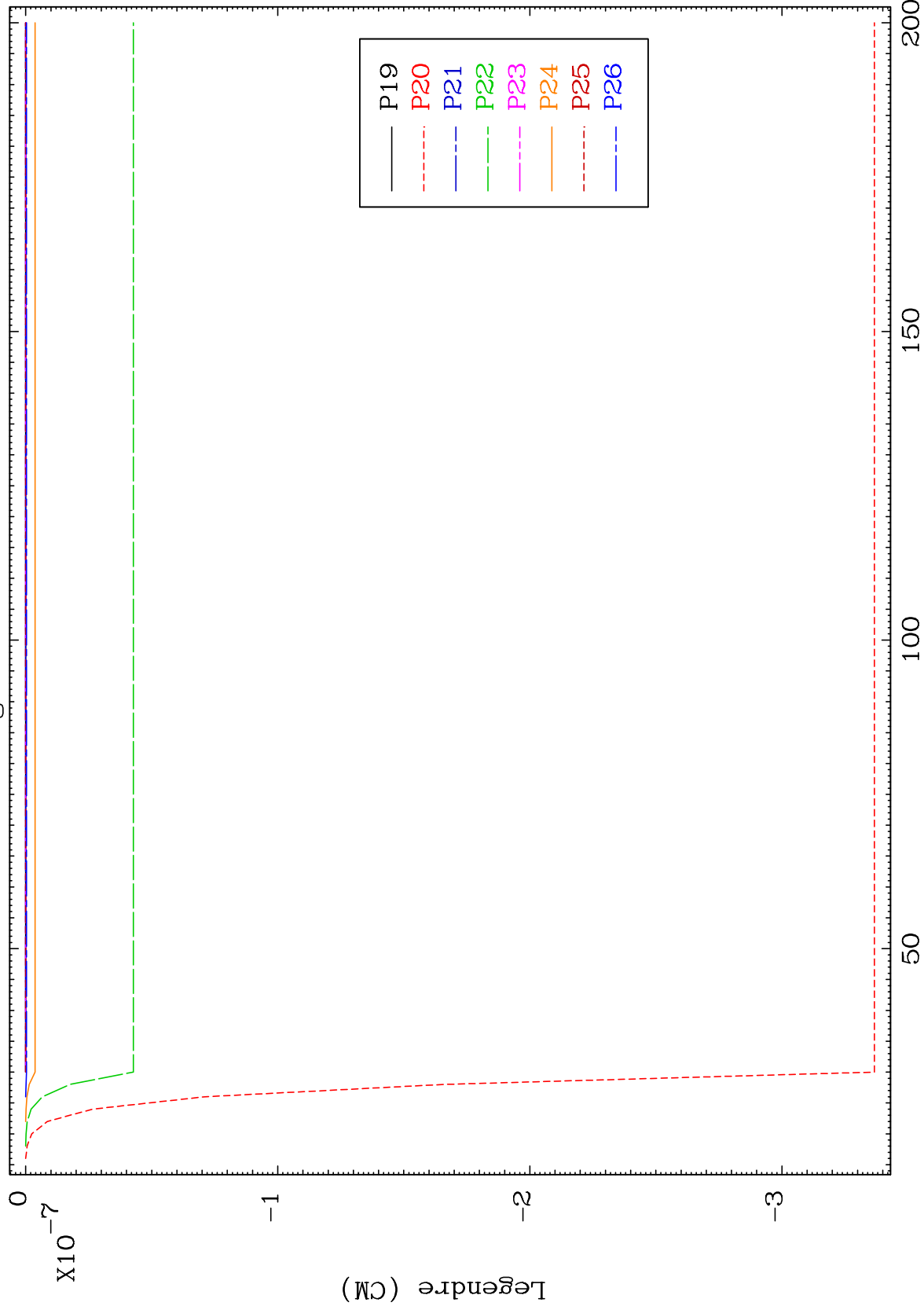




MAT 5643

MT= 64 (n,n') Level  
Legendre Coefficients

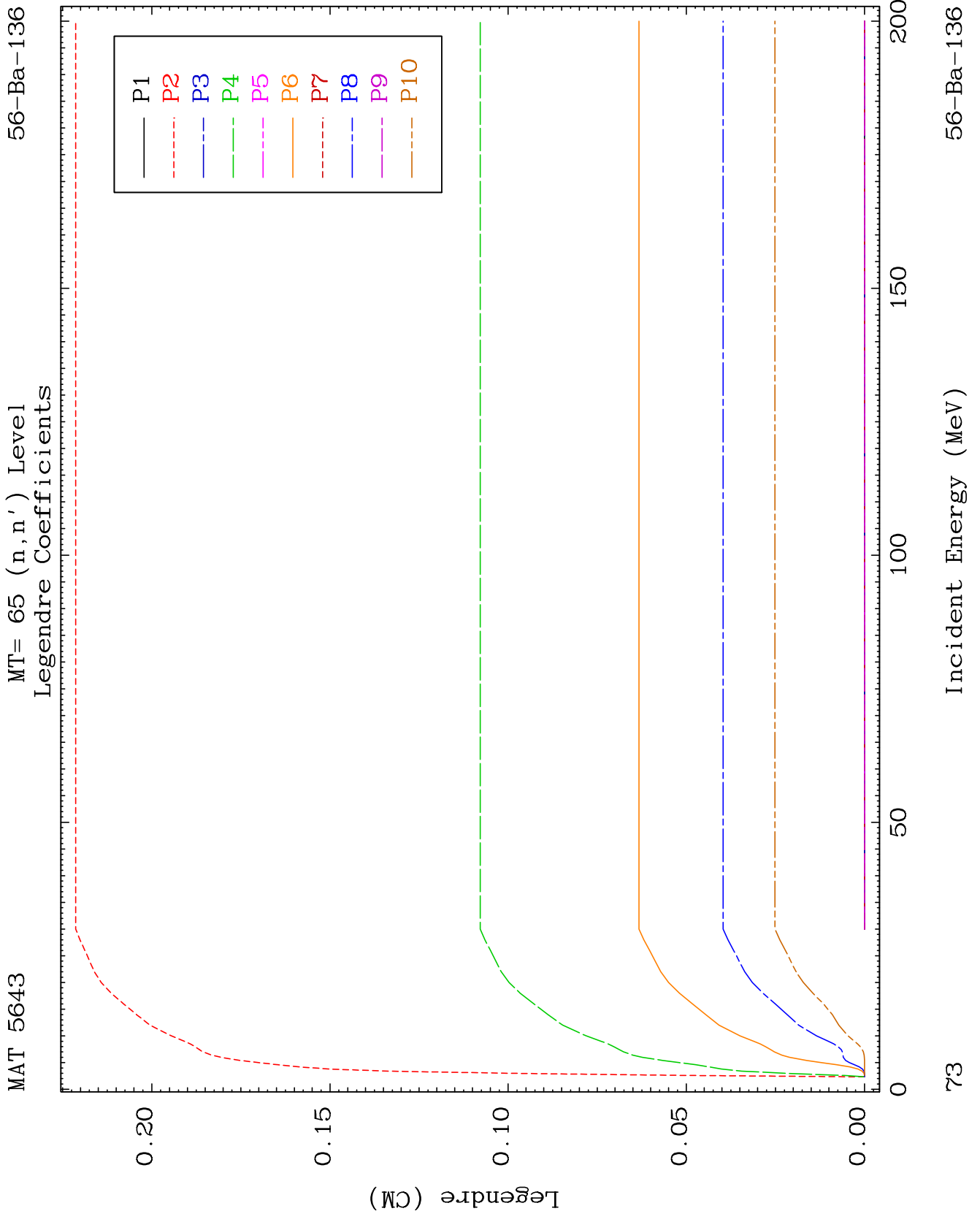
56-Ba-136



56-Ba-136

Incident Energy (MeV)

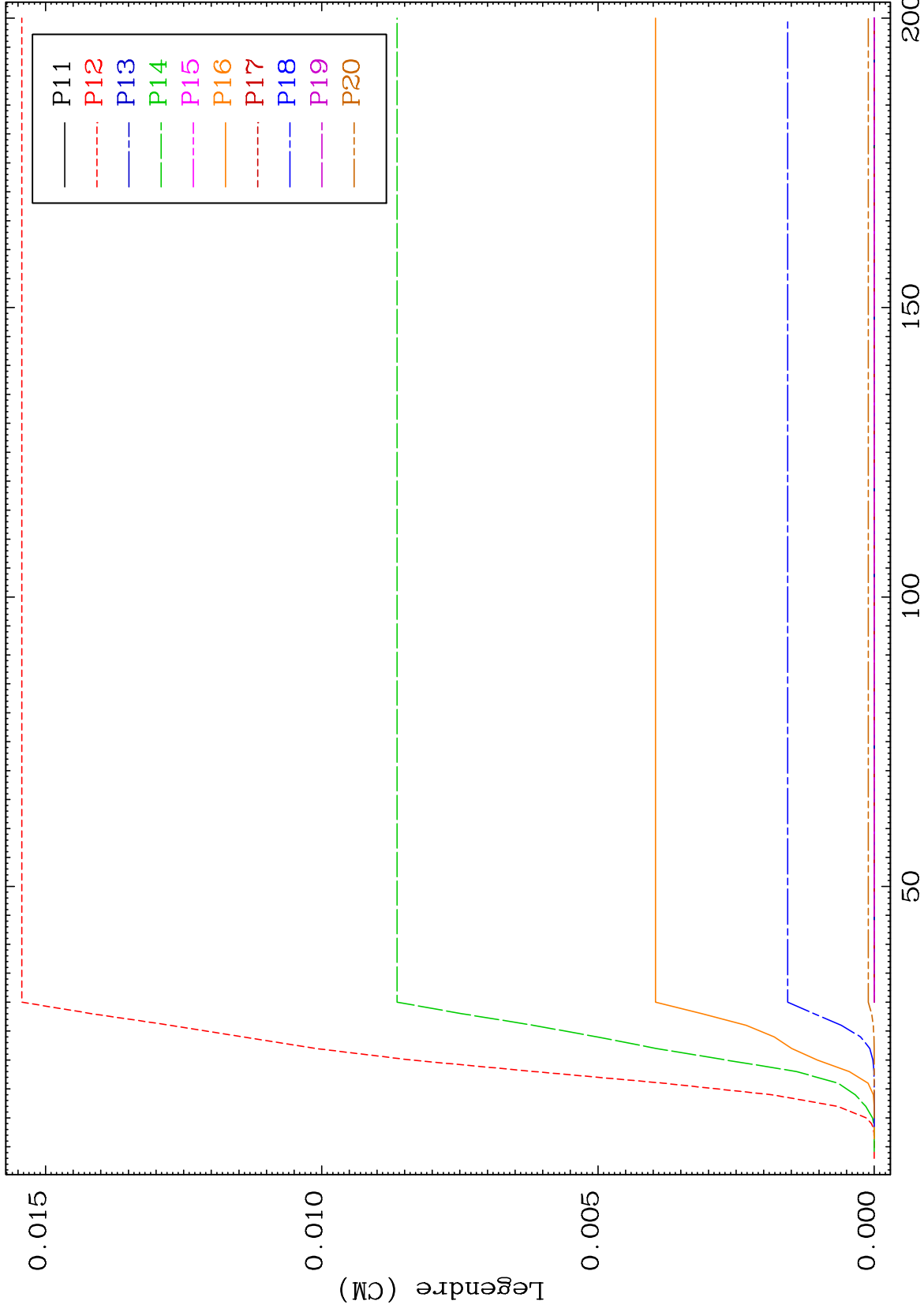
72



MAT 5643

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

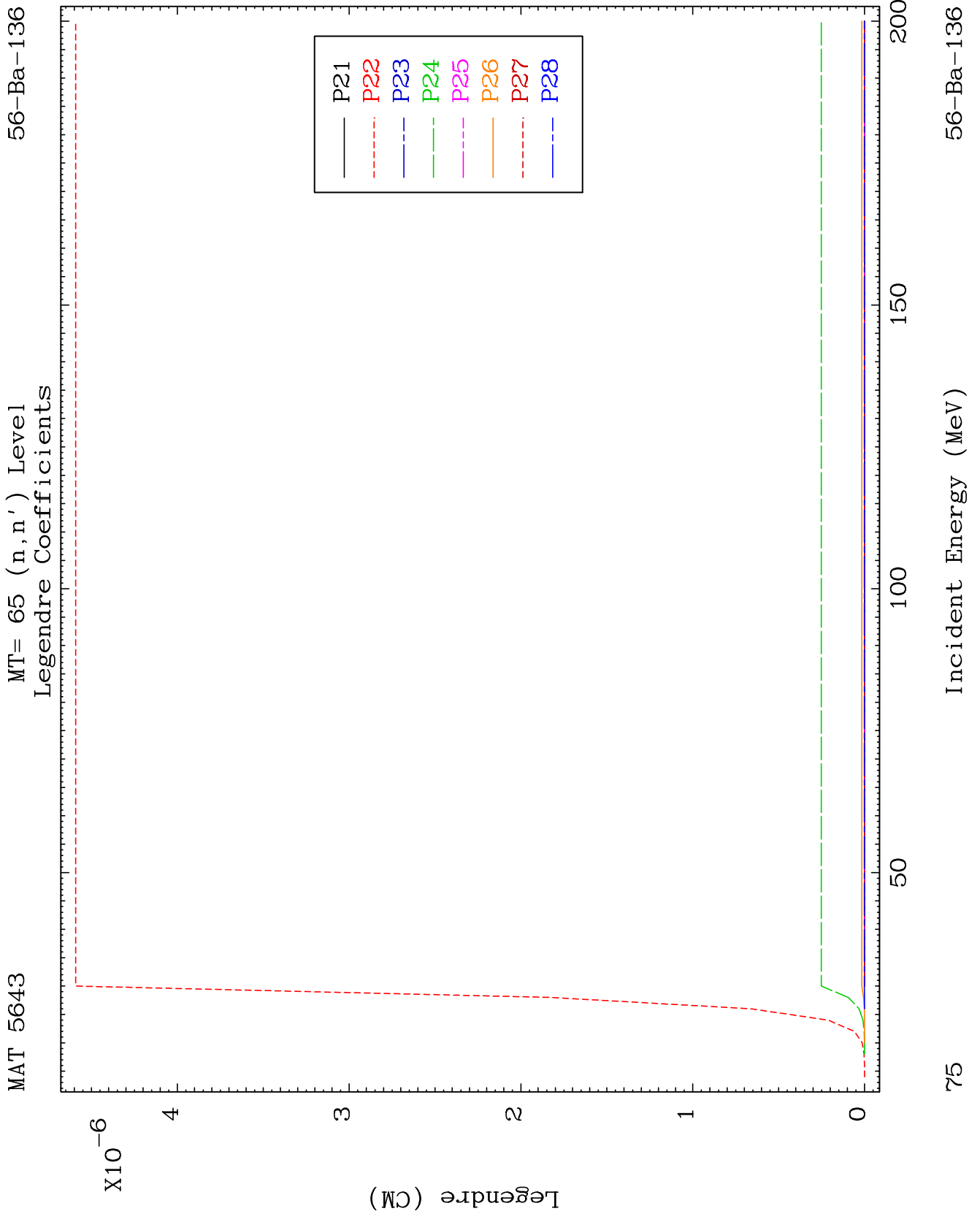
56-Ba-136



74

Incident Energy (MeV)

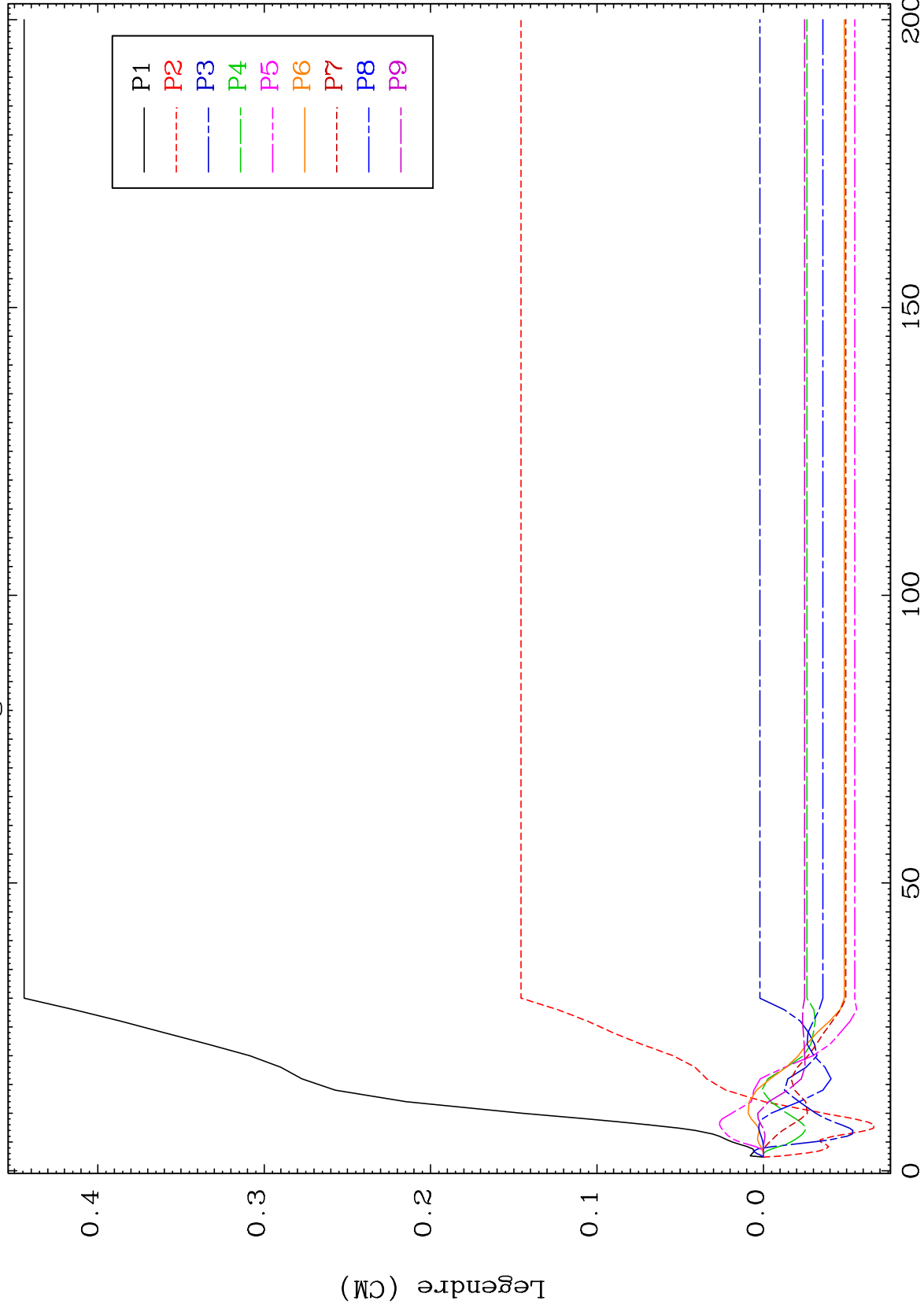
56-Ba-136



MAT 5643

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

56-Ba-136



76

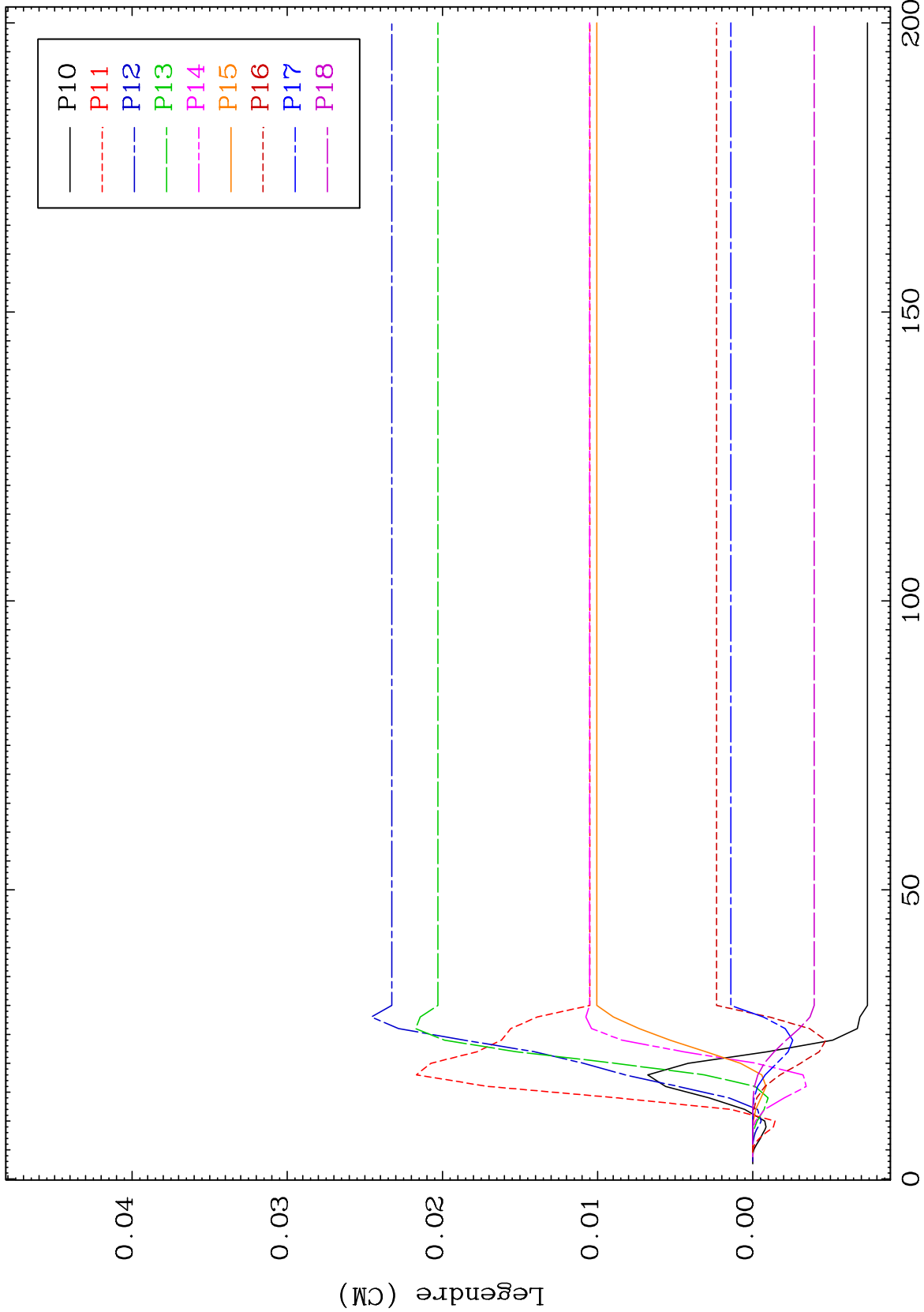
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



77

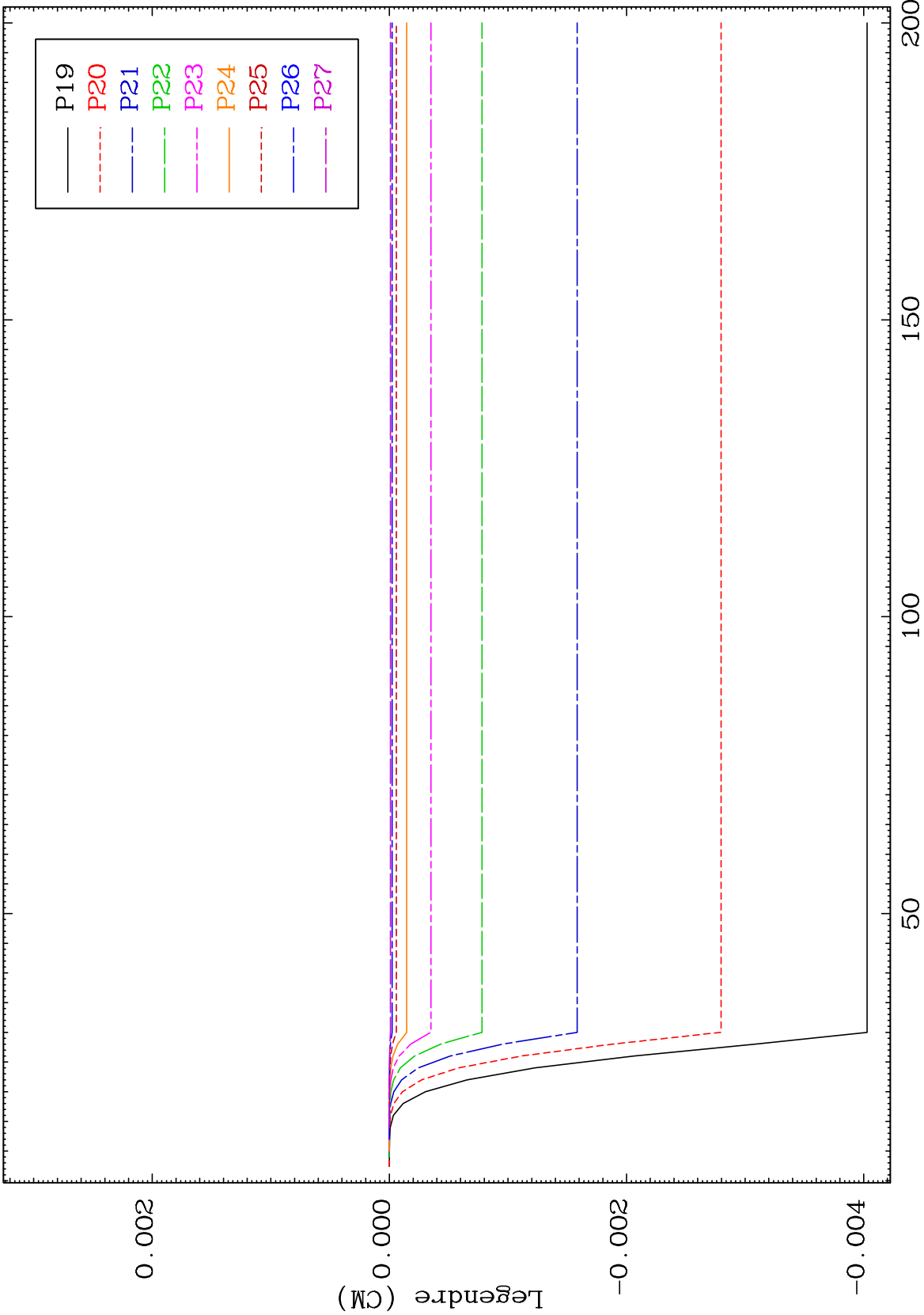
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



78

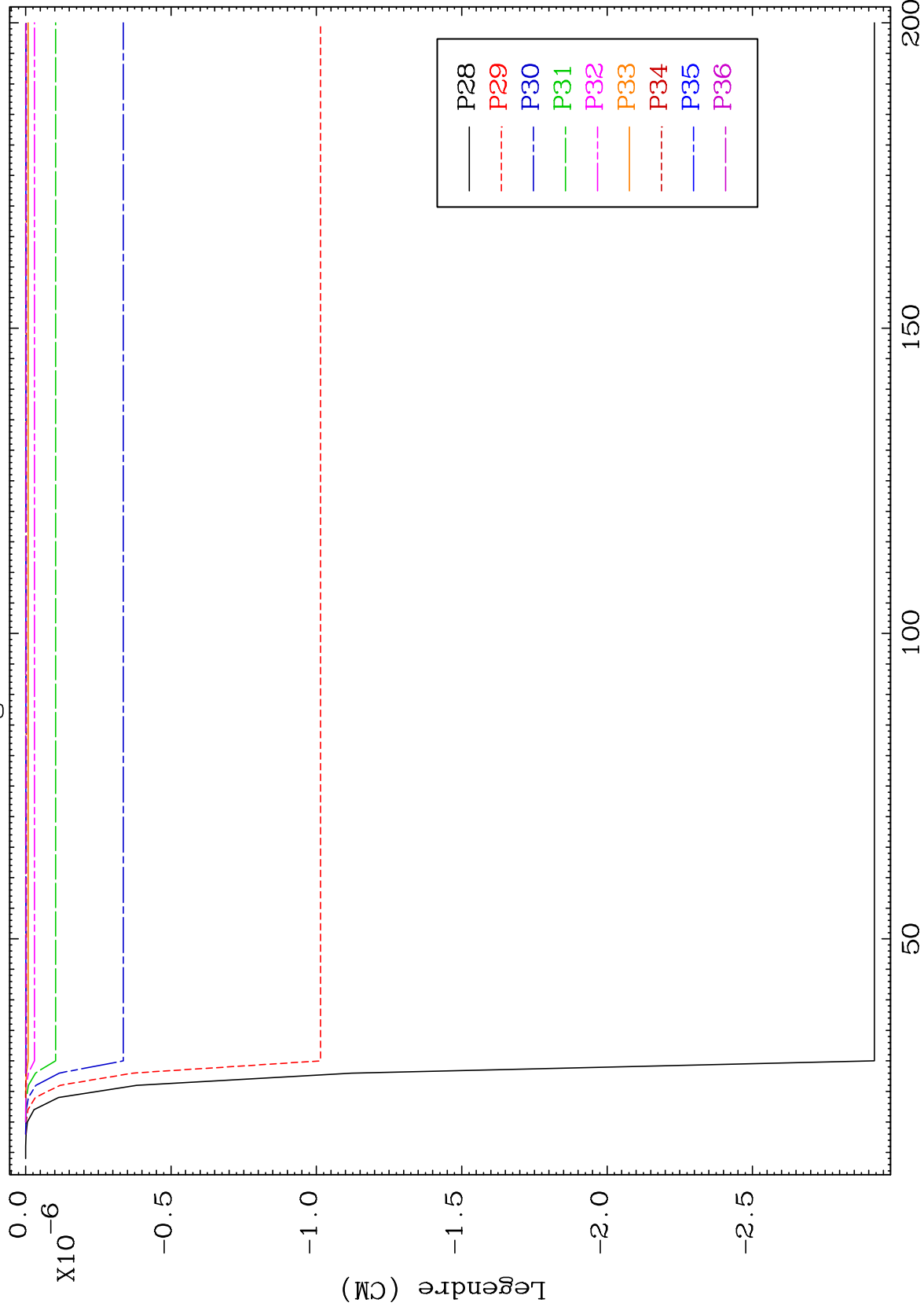
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



79

Incident Energy (MeV)

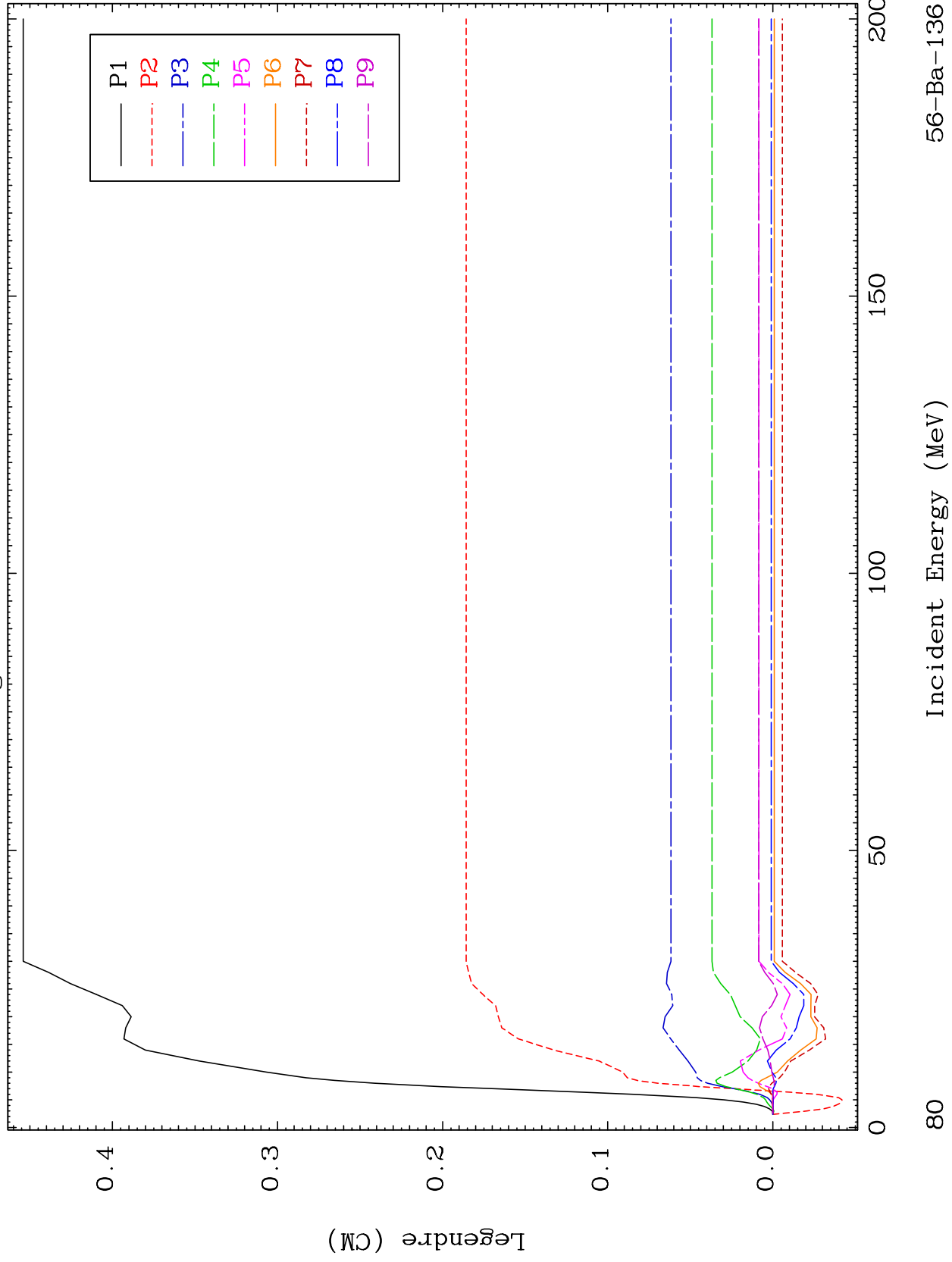
56-Ba-136



MAT 5643

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

56-Ba-136



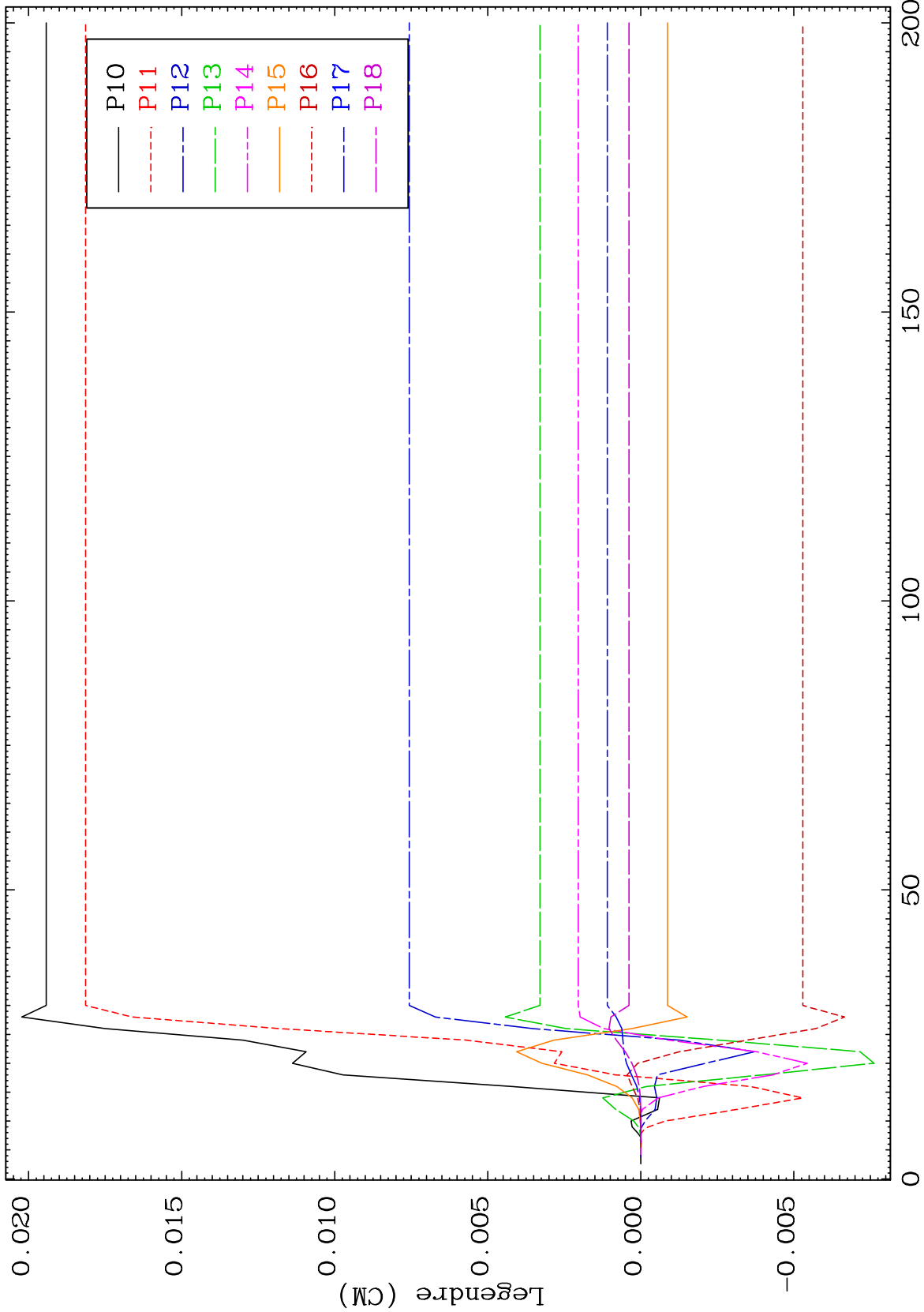
56-Ba-136

Incident Energy (MeV)

MAT 5643

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

56-Ba-136



81

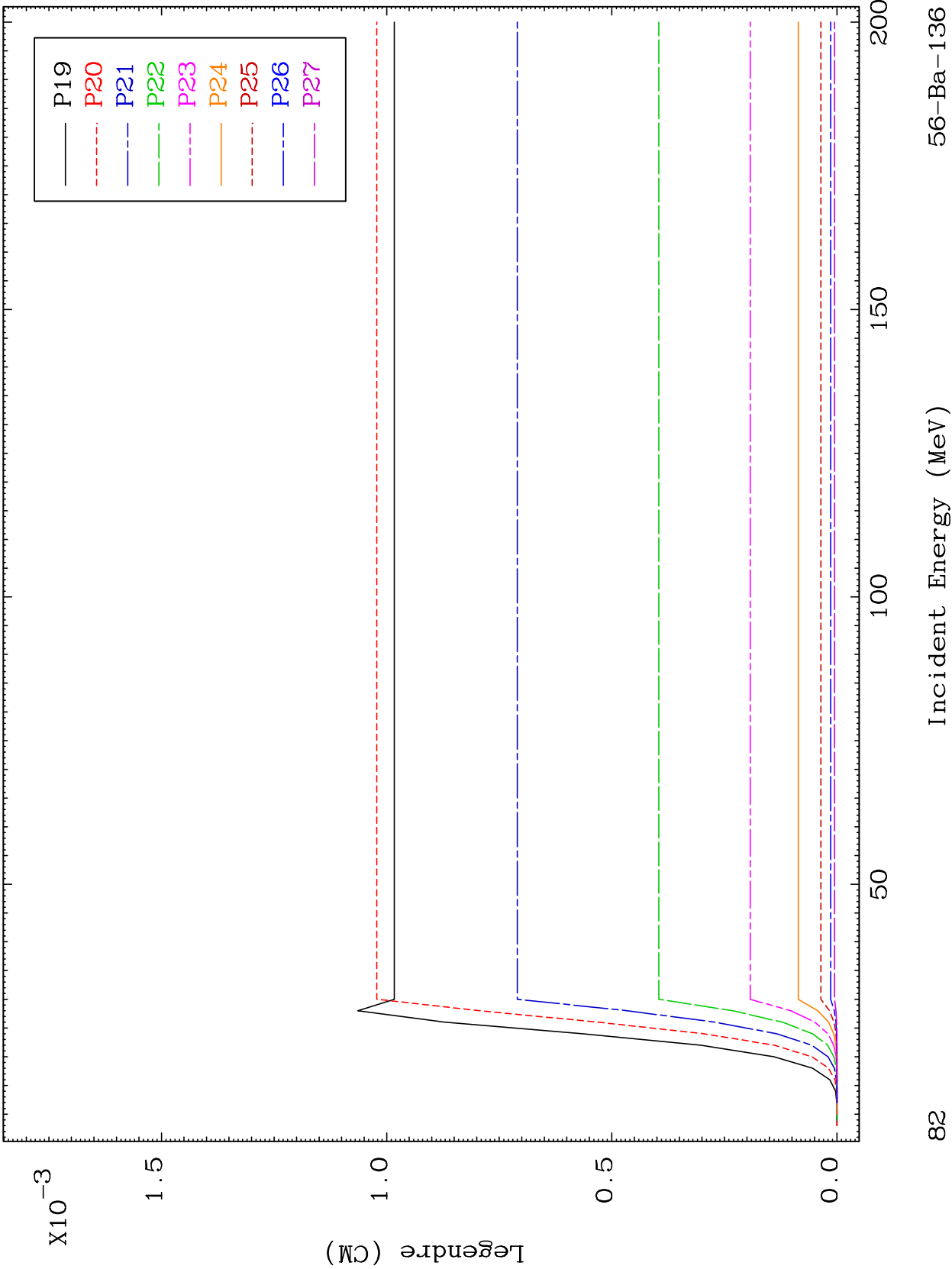
Incident Energy (MeV)

56-Ba-136

MAT 5643

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

56-Ba-136



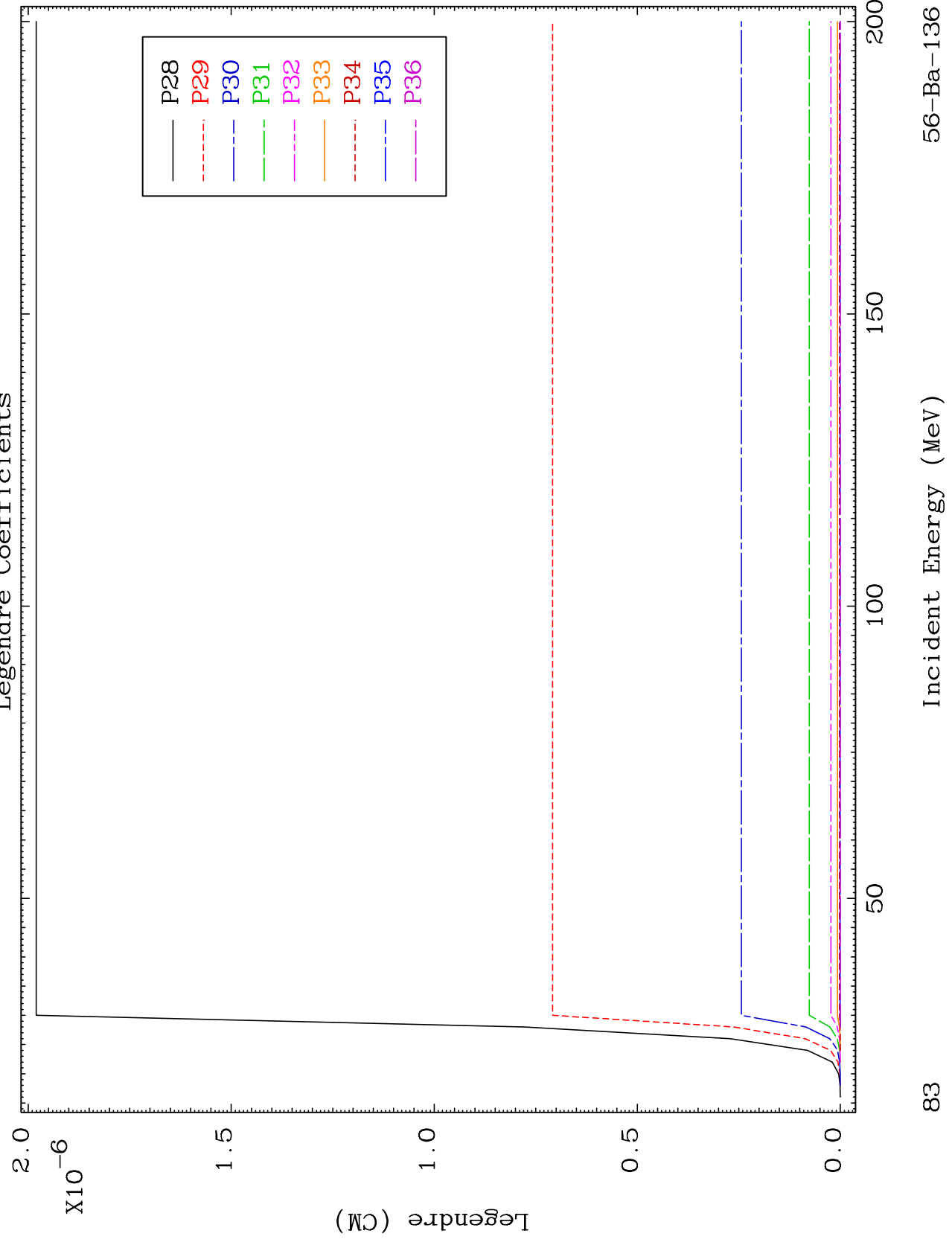
82

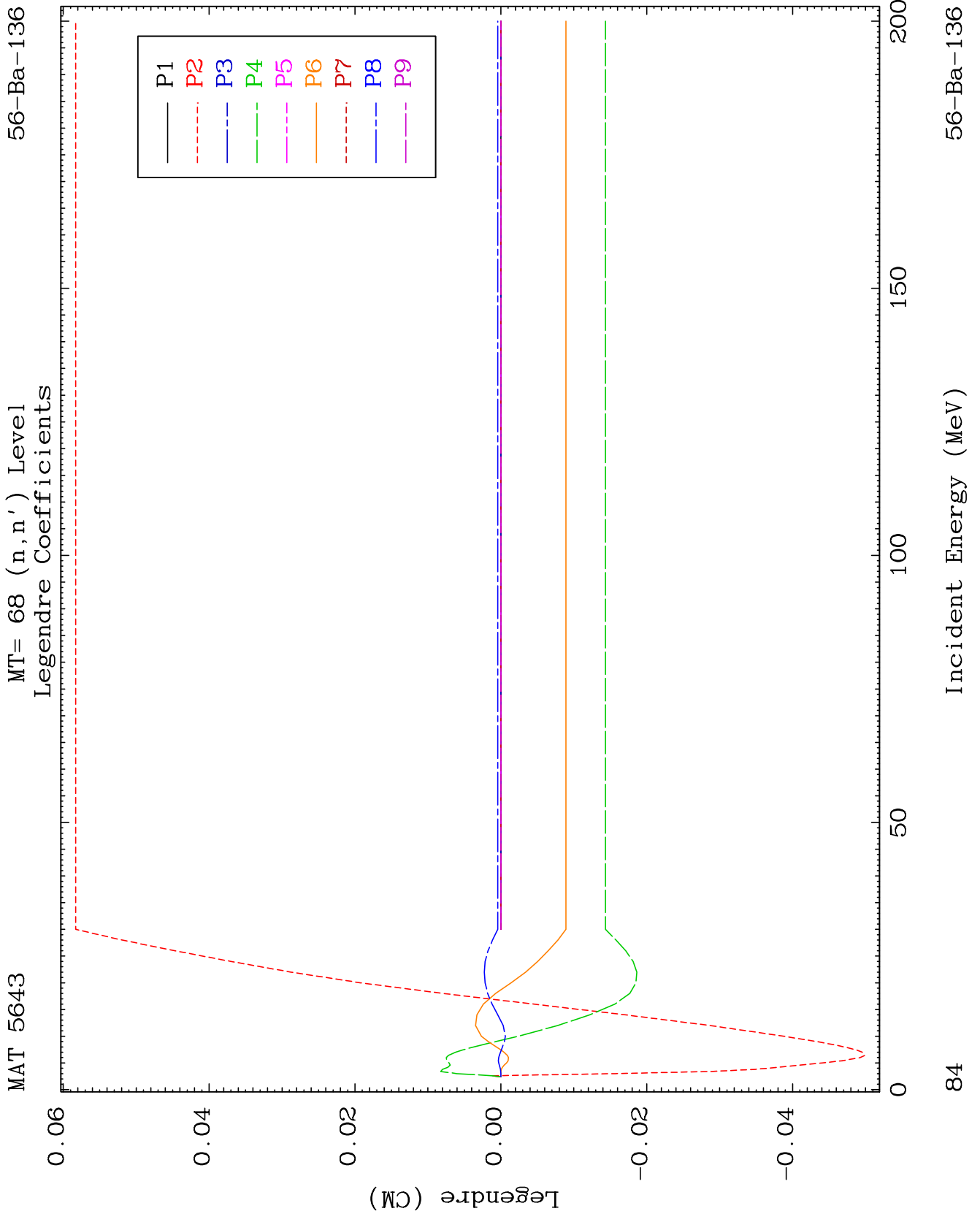
56-Ba-136

MAT 5643

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

56-Ba-136

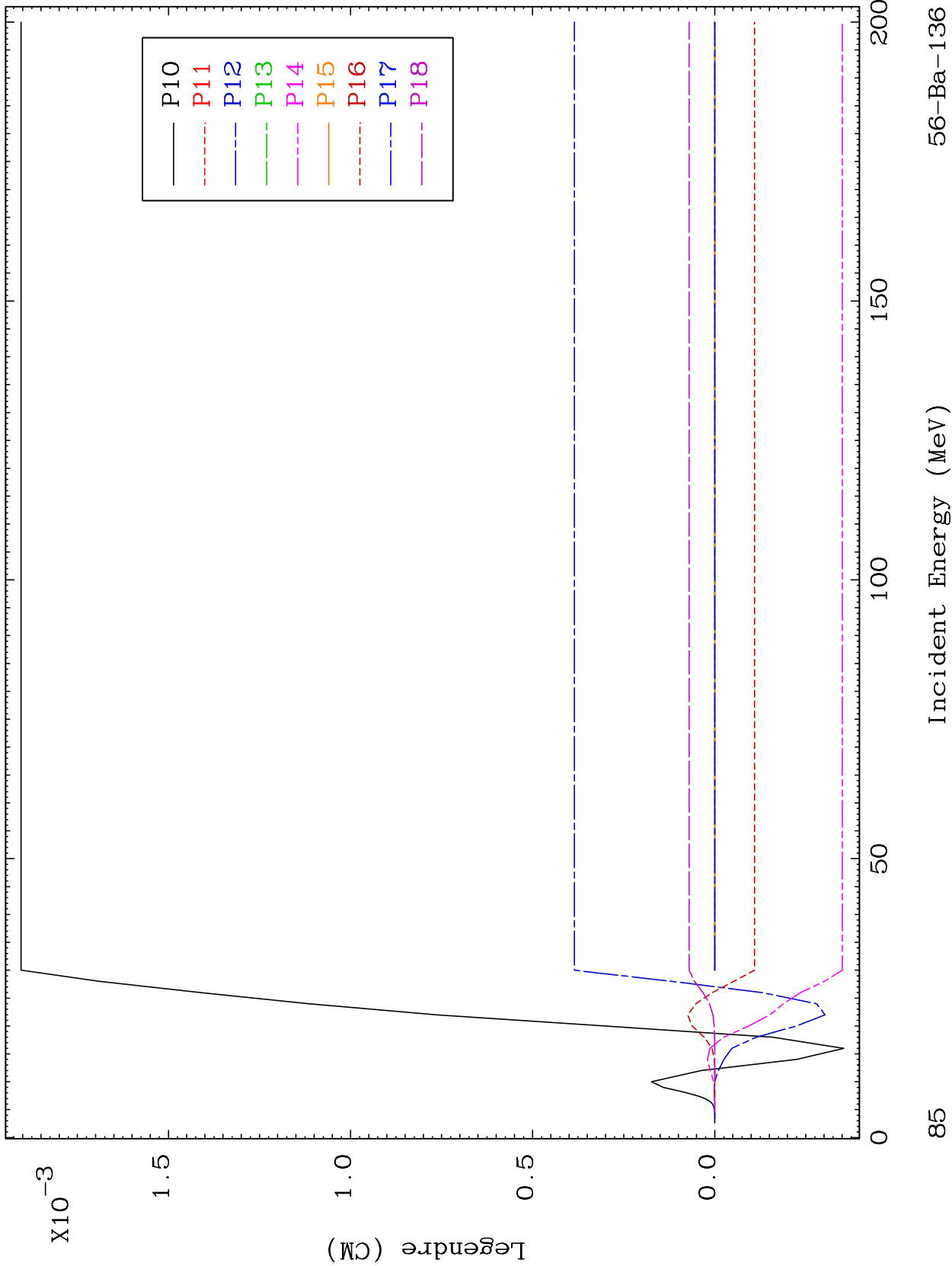




MAT 5643

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

56-Ba-136



56-Ba-136

Incident Energy (MeV)

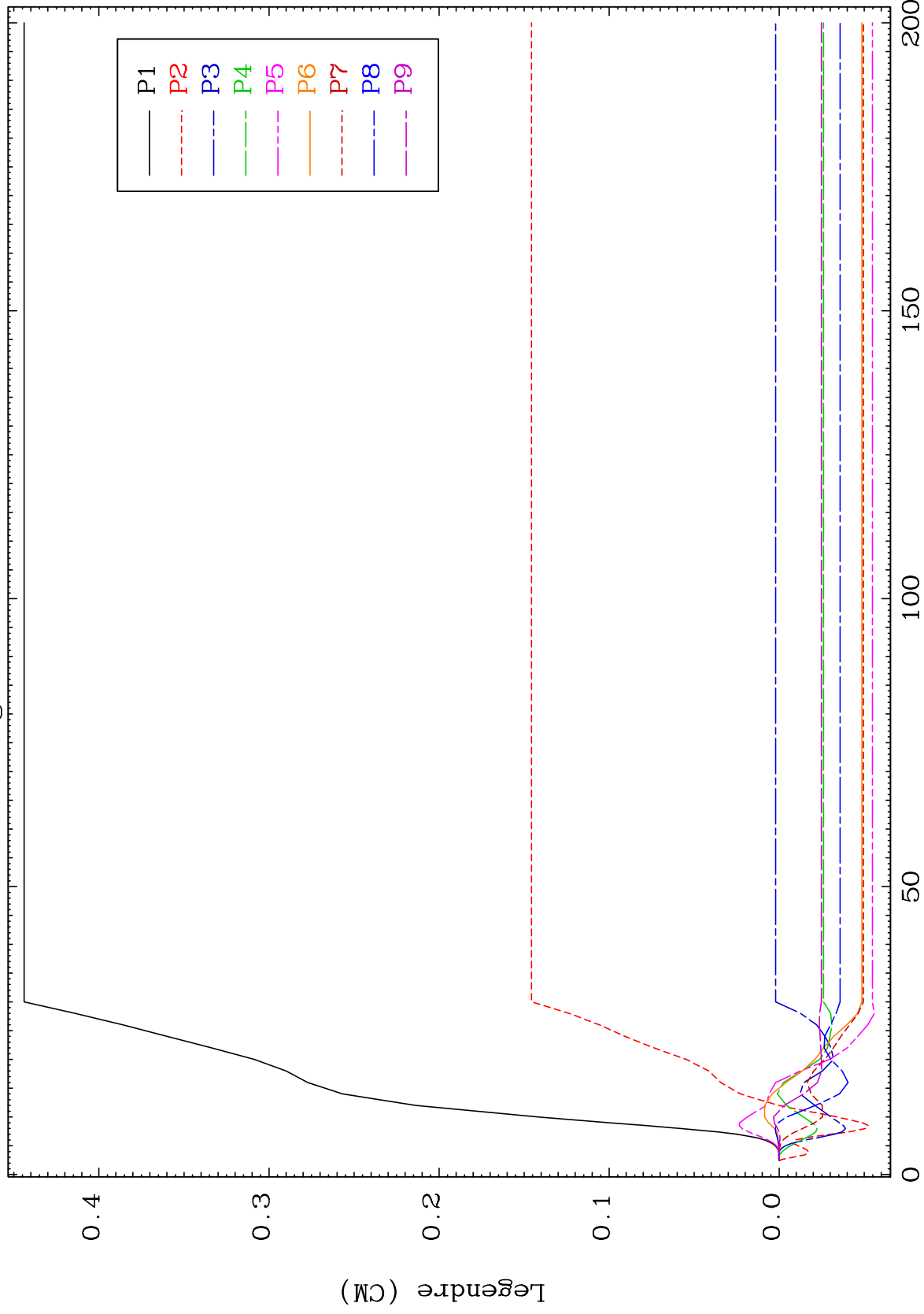
85



MAT 5643

MT= 69 (n,n') Level  
Legendre Coefficients

56-Ba-136



87

Incident Energy (MeV)

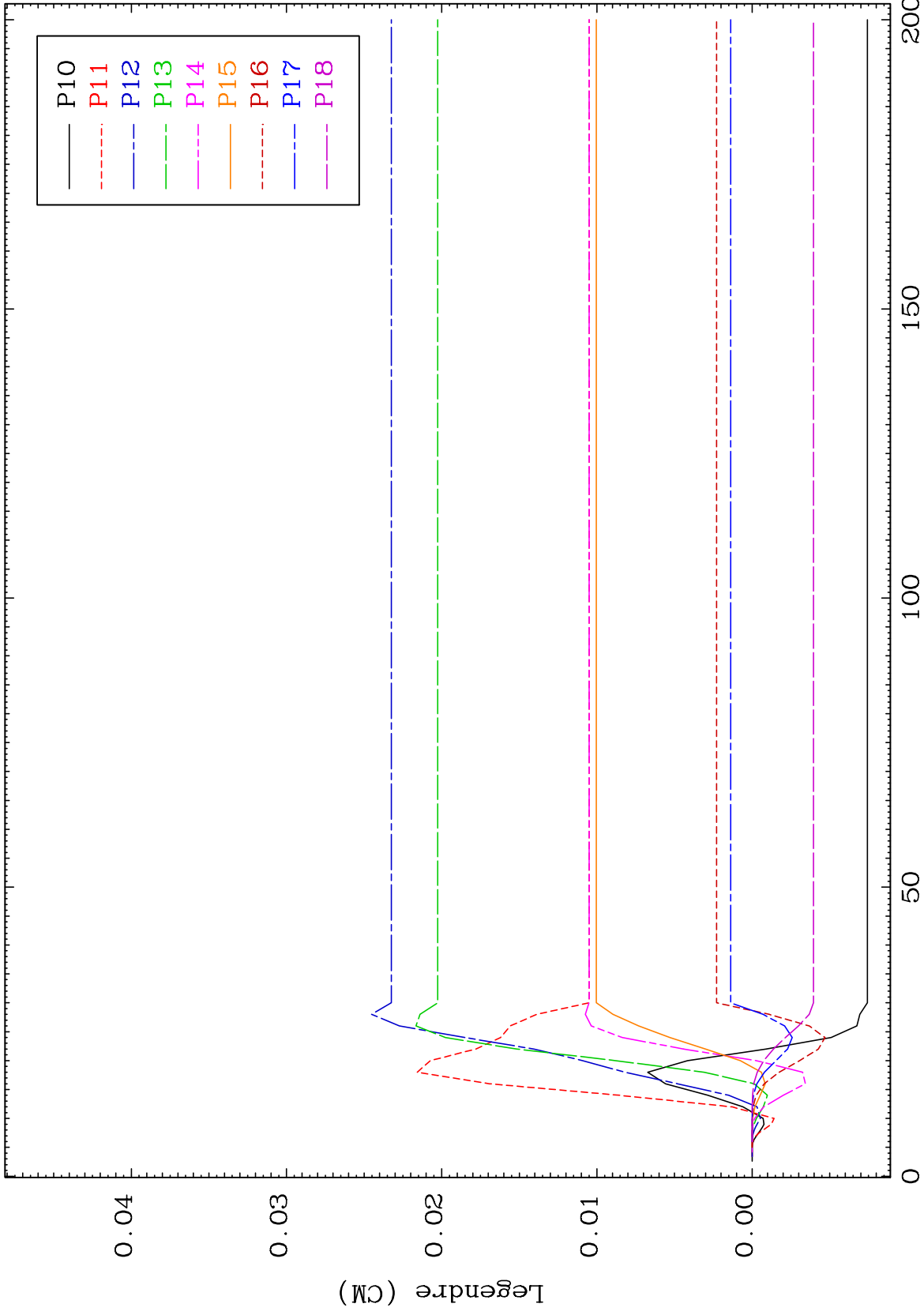
56-Ba-136



MAT 5643

MT= 69 (n,n') Level  
Legendre Coefficients

56-Ba-136



88

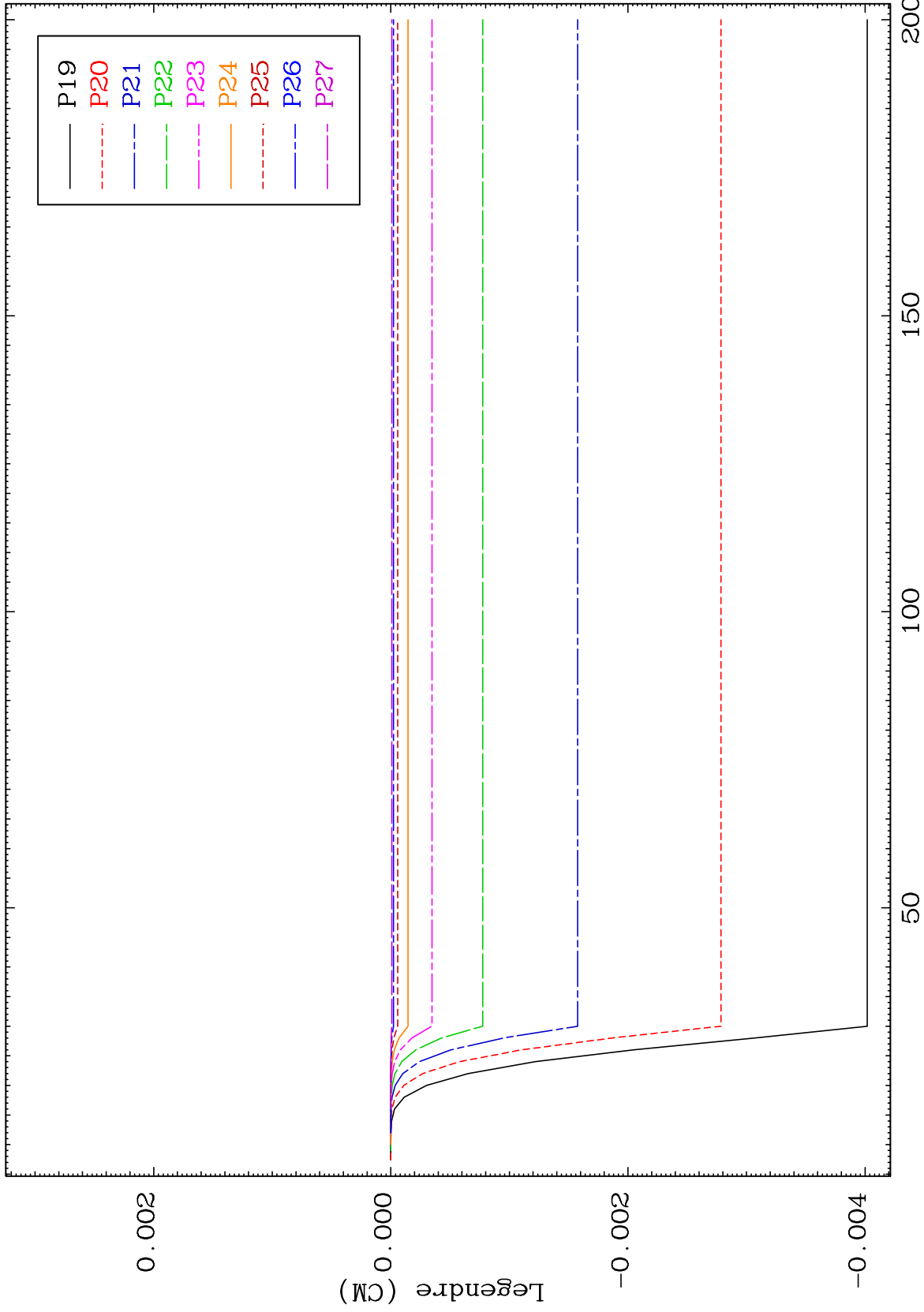
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 69 (n,n') Level  
Legendre Coefficients

56-Ba-136



89

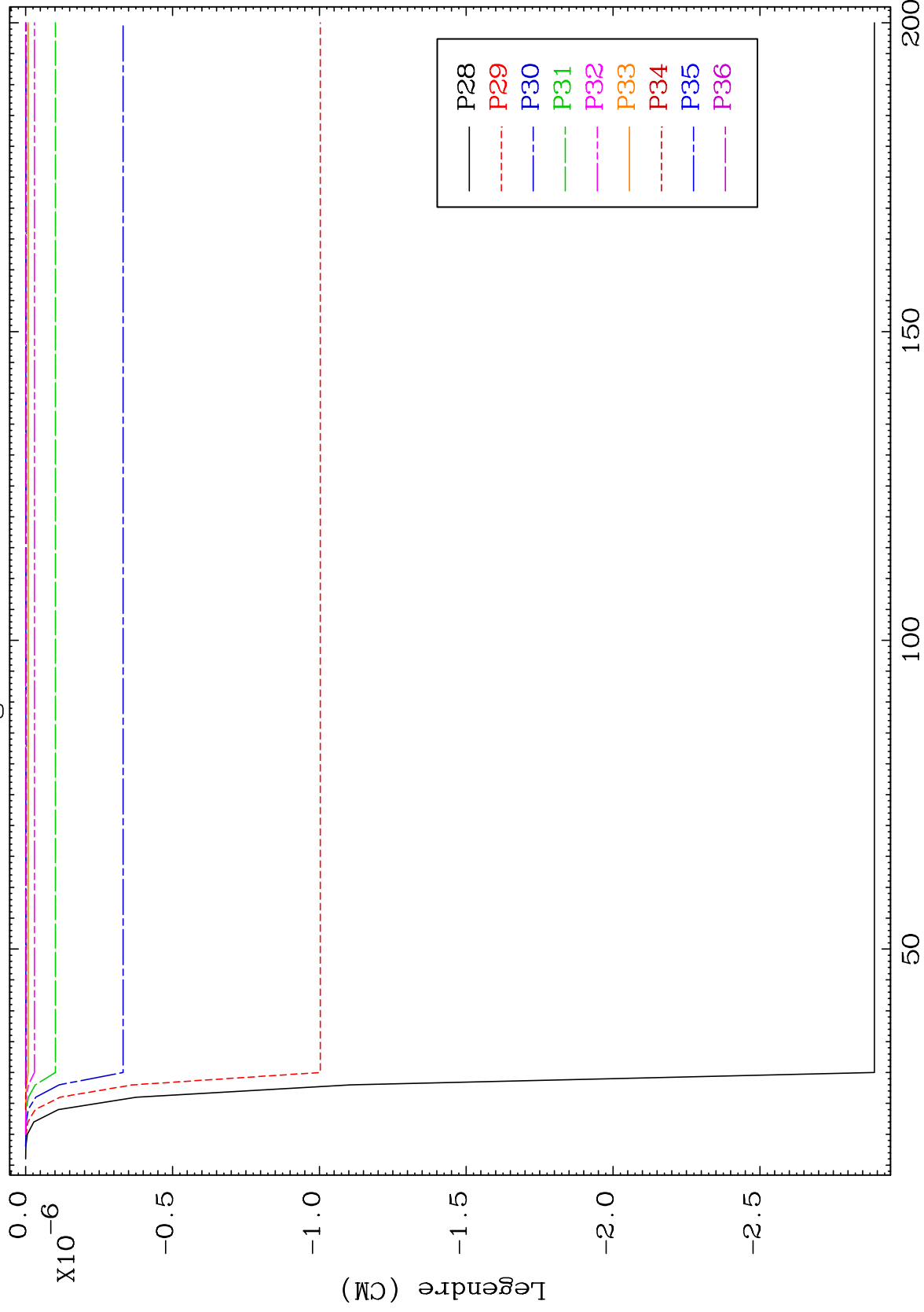
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 69 (n,n') Level  
Legendre Coefficients

56-Ba-136



90

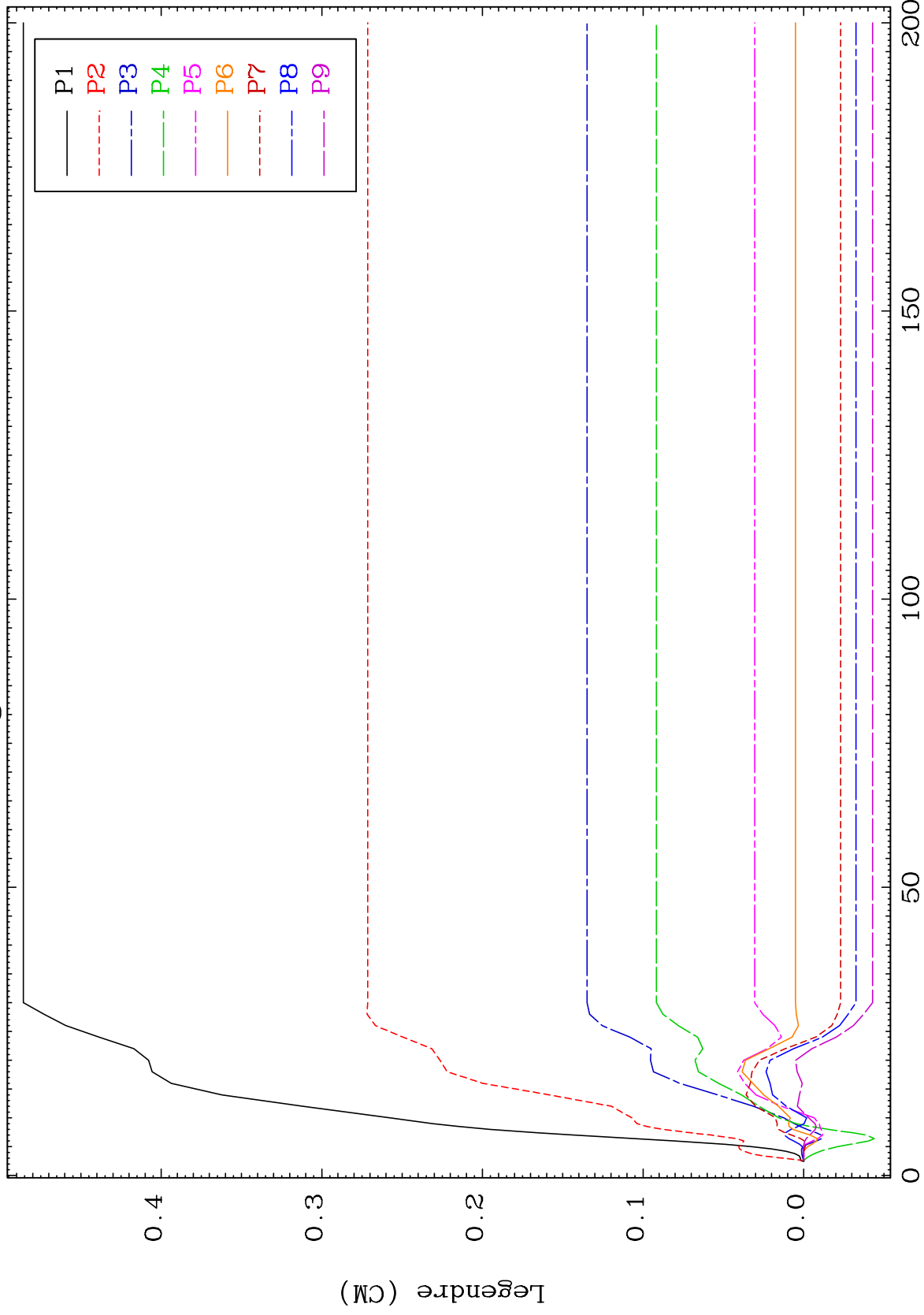
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 70 (n,n') Level  
Legendre Coefficients

56-Ba-136



91

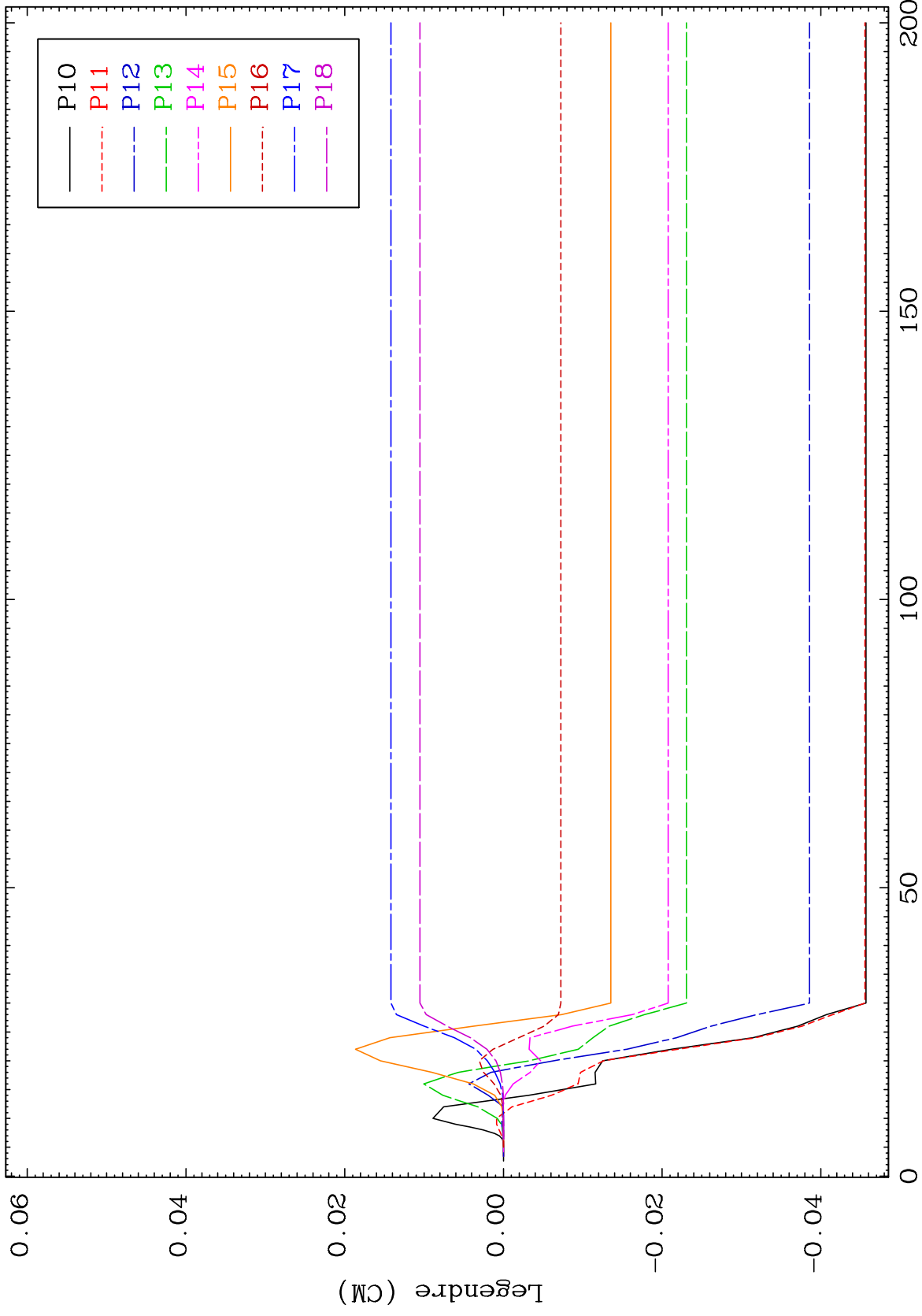
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 70 (n,n') Level  
Legendre Coefficients

56-Ba-136



92

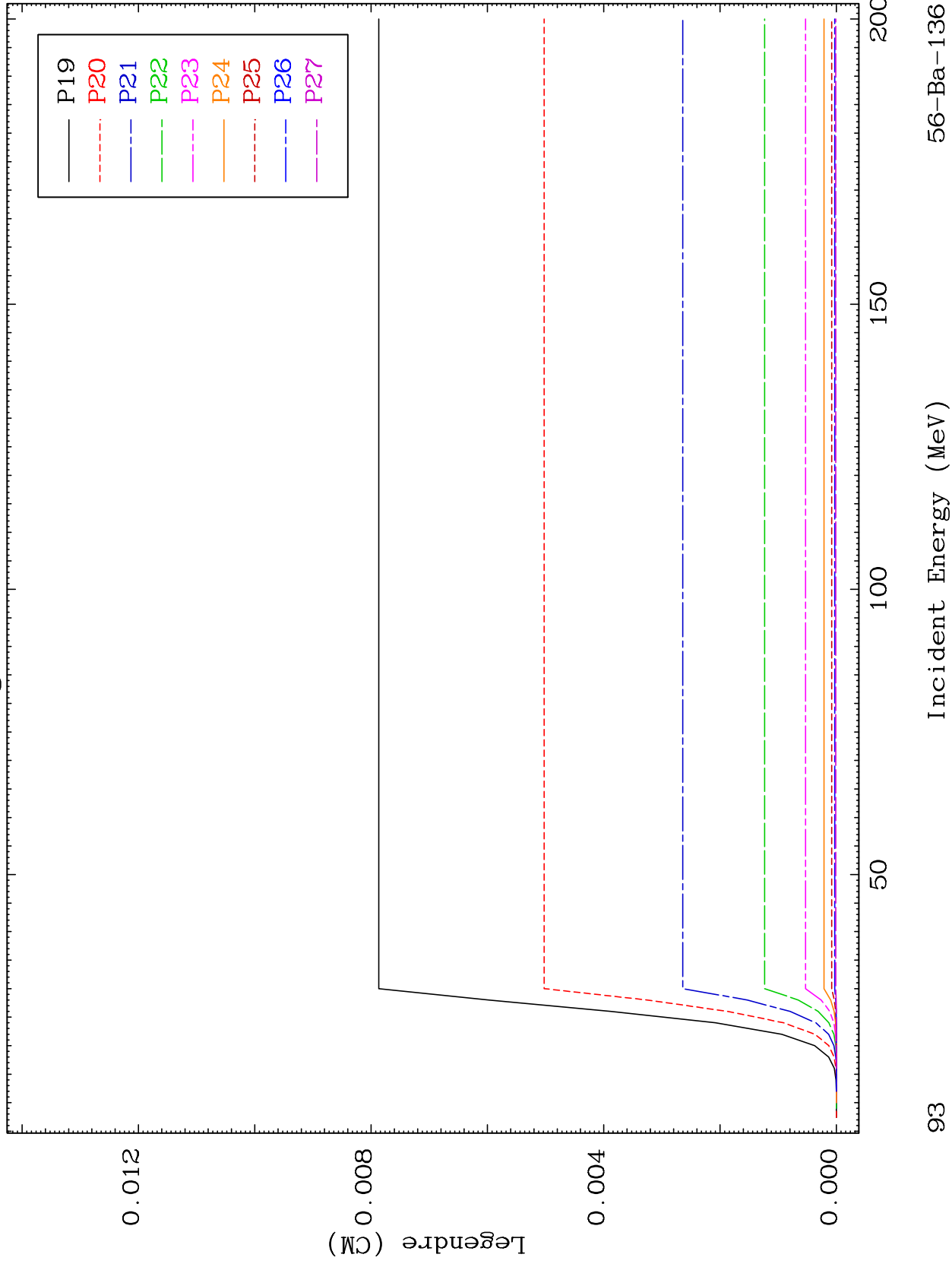
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 70 (n,n') Level  
Legendre Coefficients

56-Ba-136



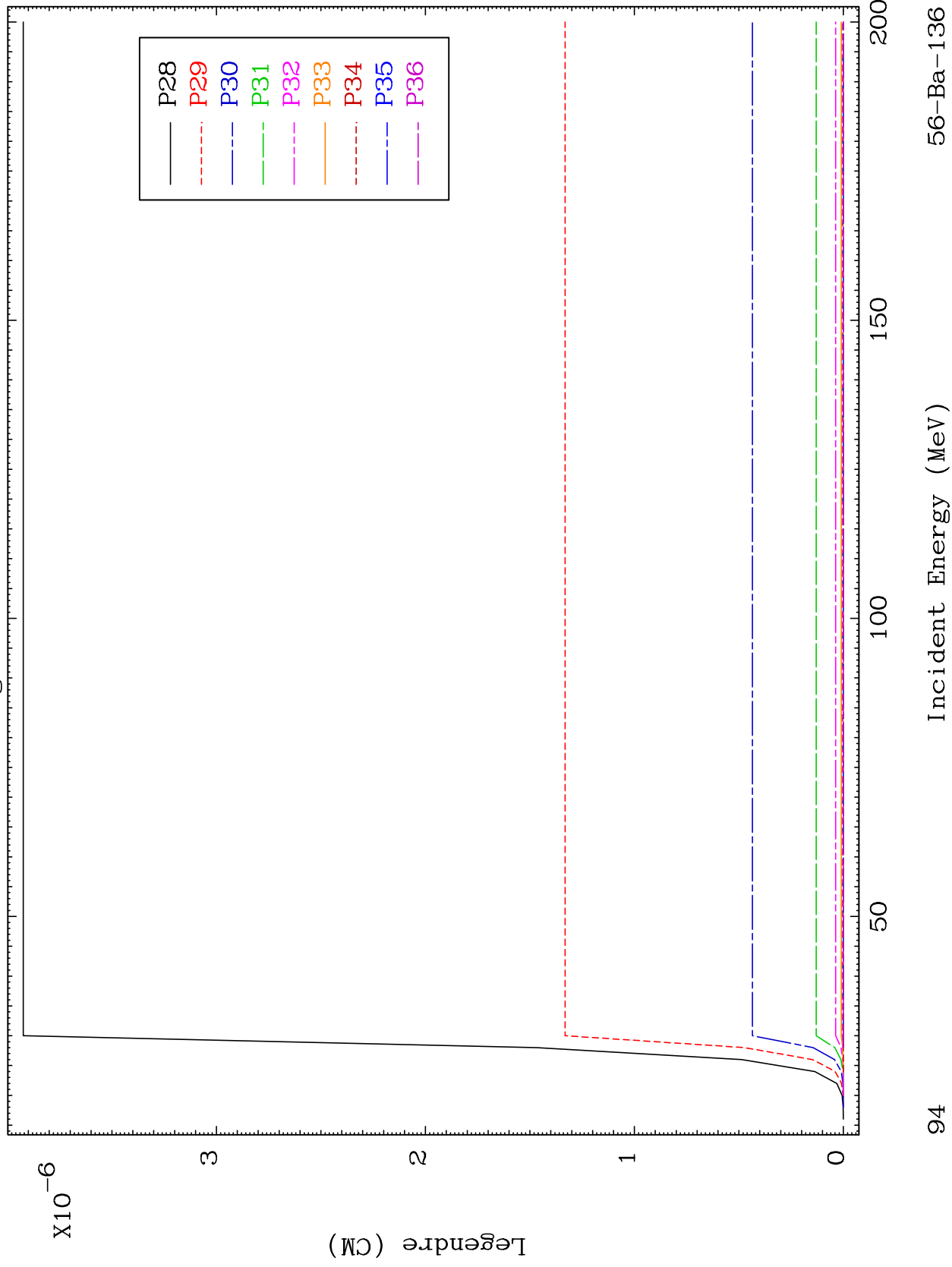
93

56-Ba-136

MAT 5643

MT= 70 (n,n') Level  
Legendre Coefficients

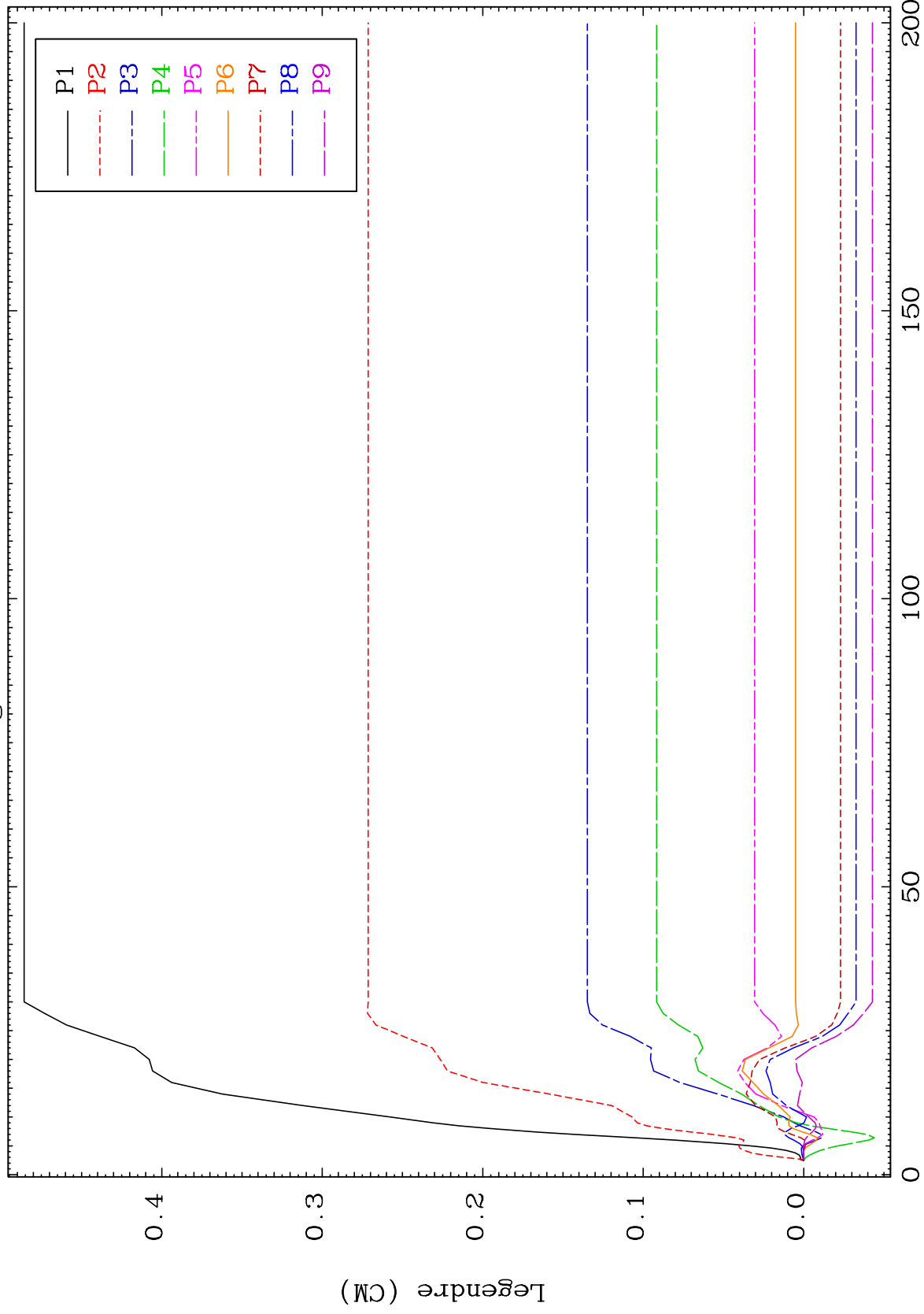
56-Ba-136



MAT 5643

MT= 71 (n,n') Level  
Legendre Coefficients

56-Ba-136



56-Ba-136

Incident Energy (MeV)

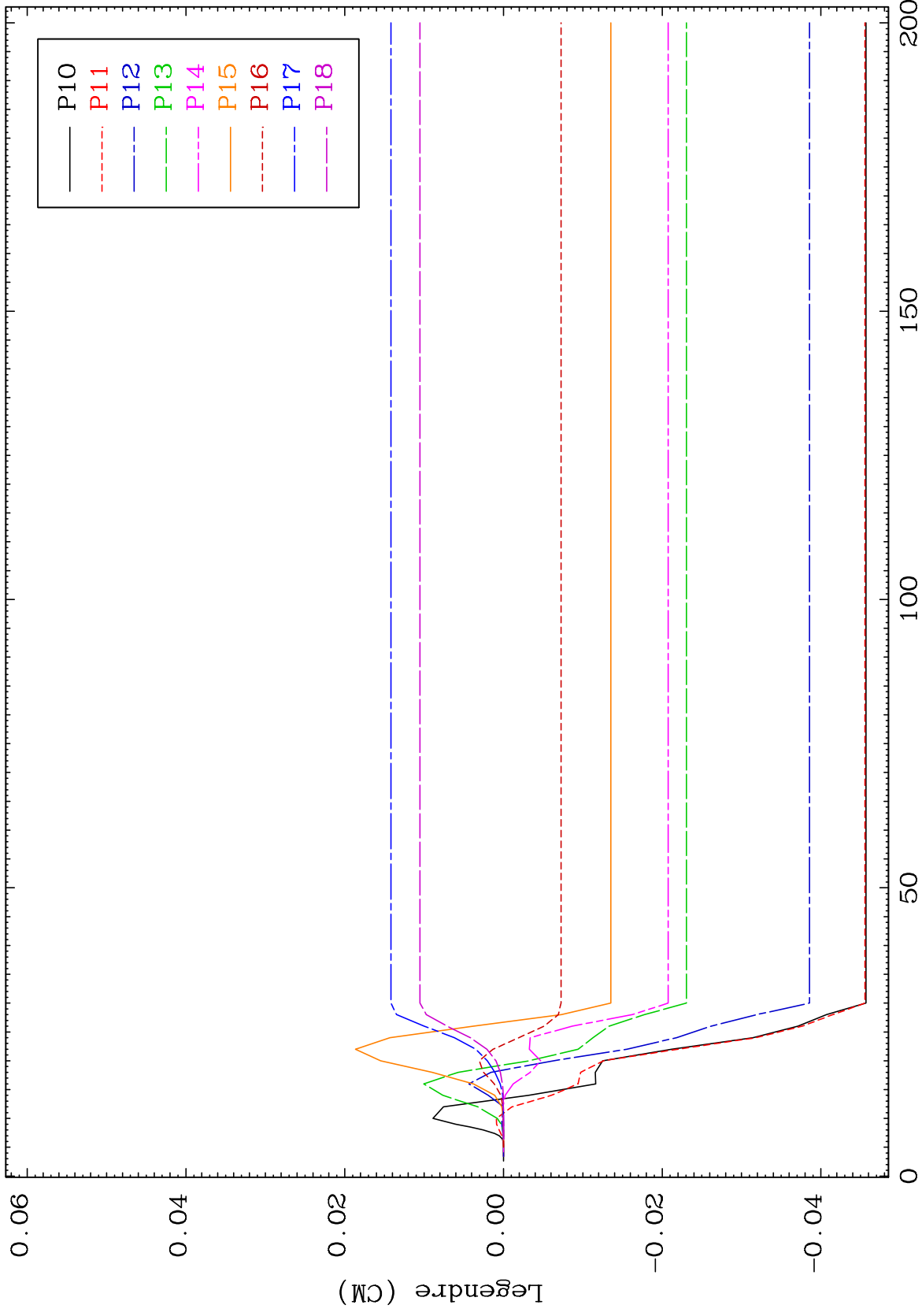
95



MAT 5643

MT= 71 (n,n') Level  
Legendre Coefficients

56-Ba-136



96

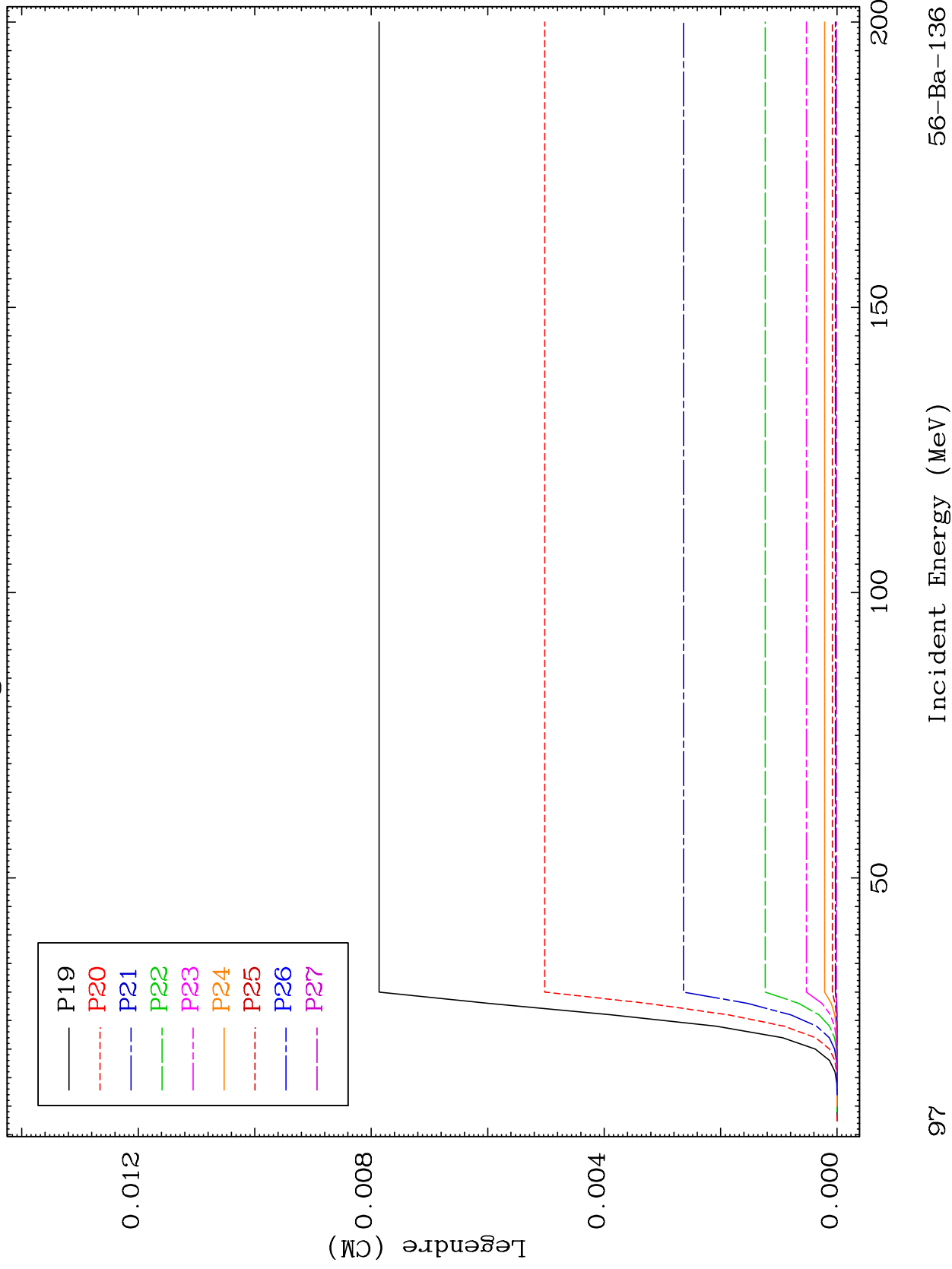
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 71 (n,n') Level  
Legendre Coefficients

56-Ba-136



97

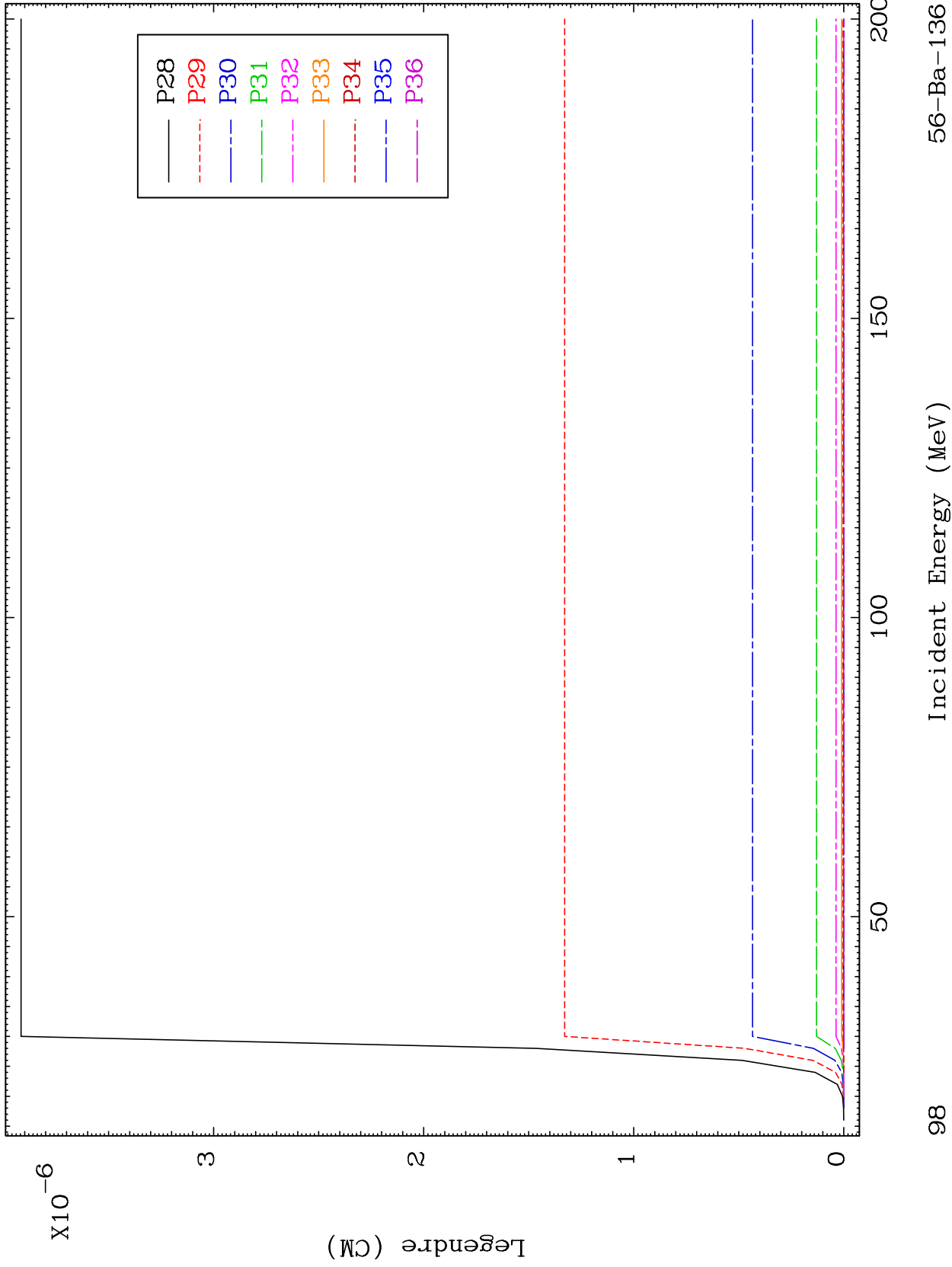
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 71 (n,n') Level  
Legendre Coefficients

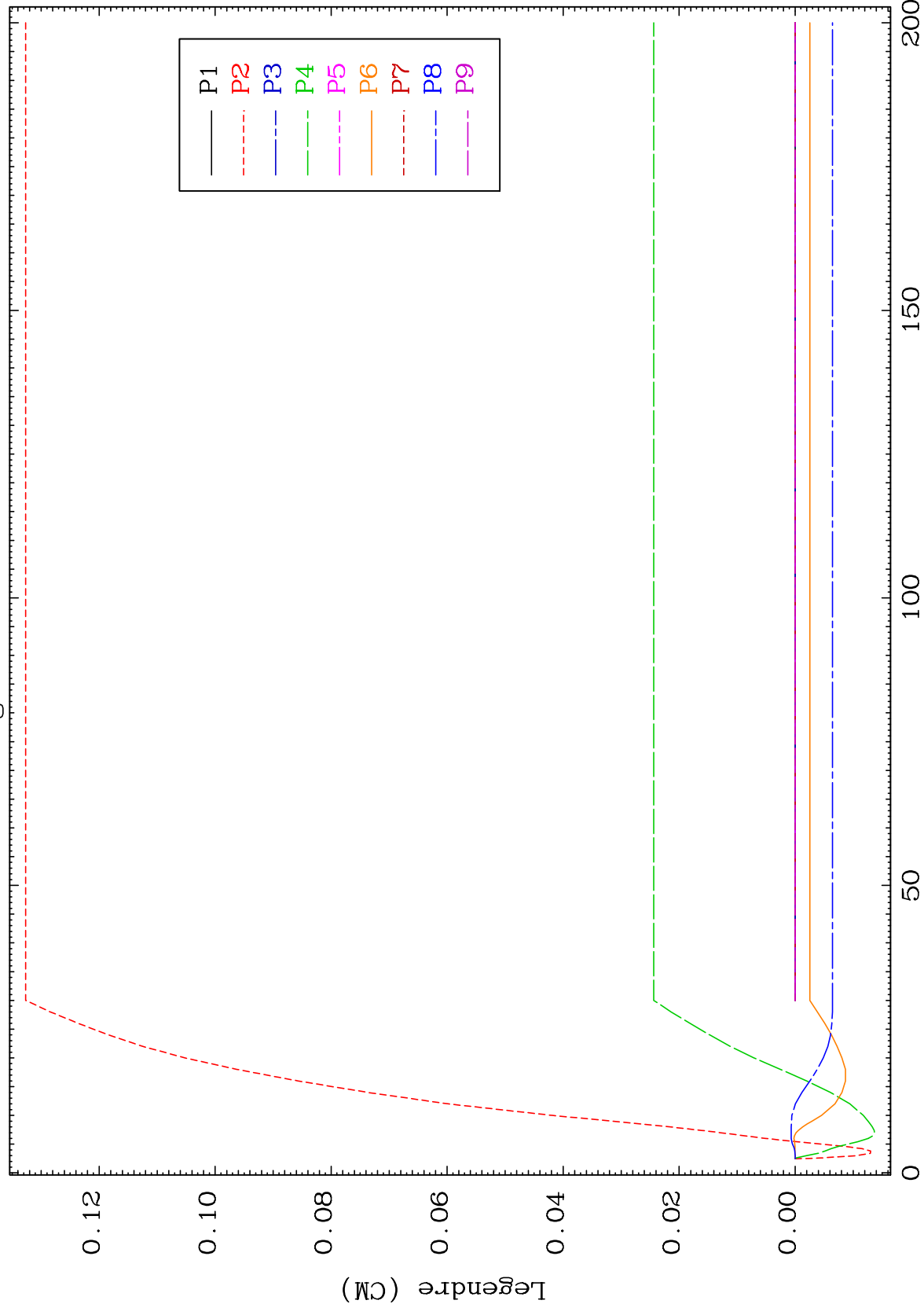
56-Ba-136



MAT 5643

MT= 72 (n,n') Level  
Legendre Coefficients

56-Ba-136



99

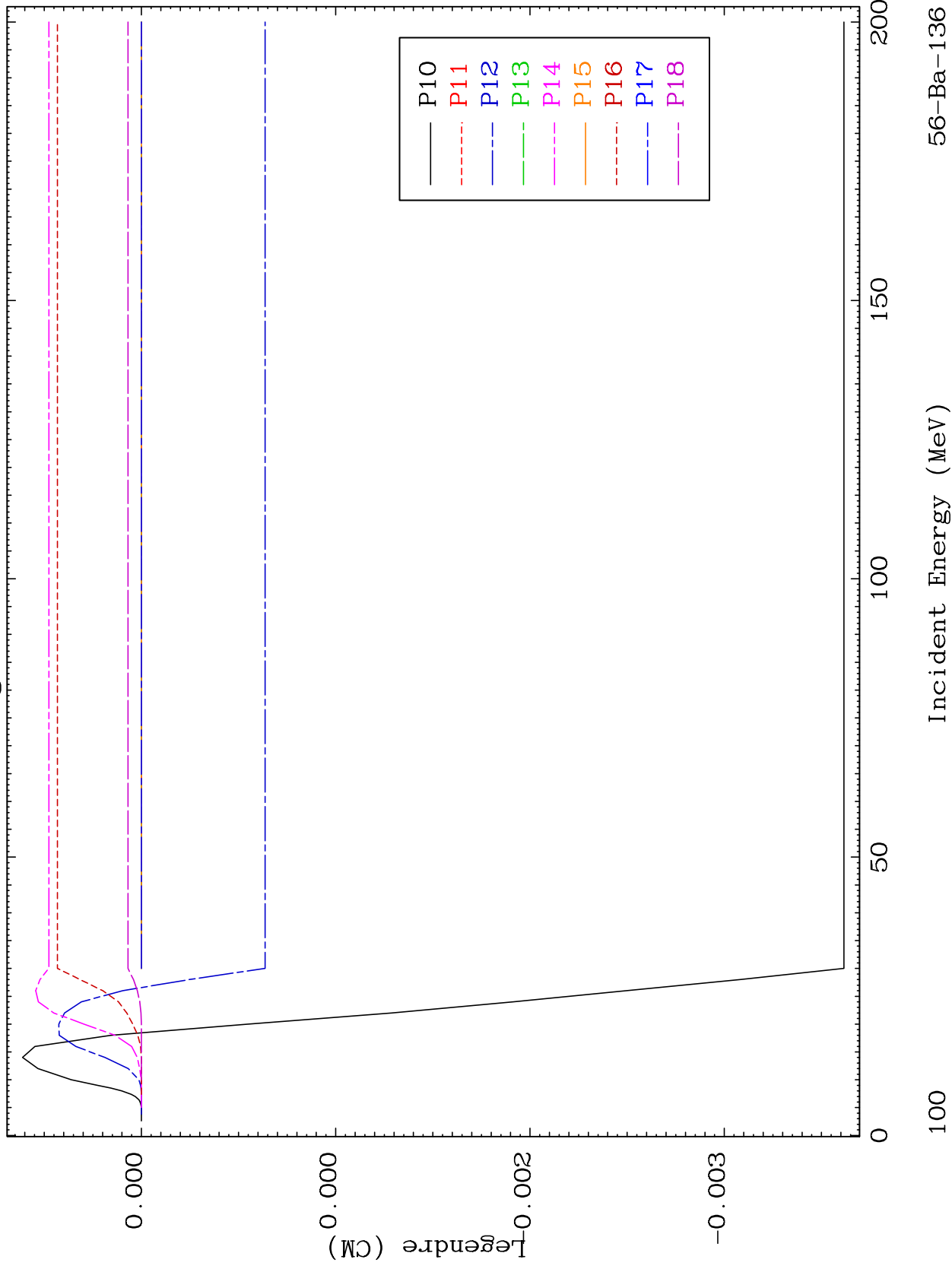
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 72 (n,n') Level  
Legendre Coefficients

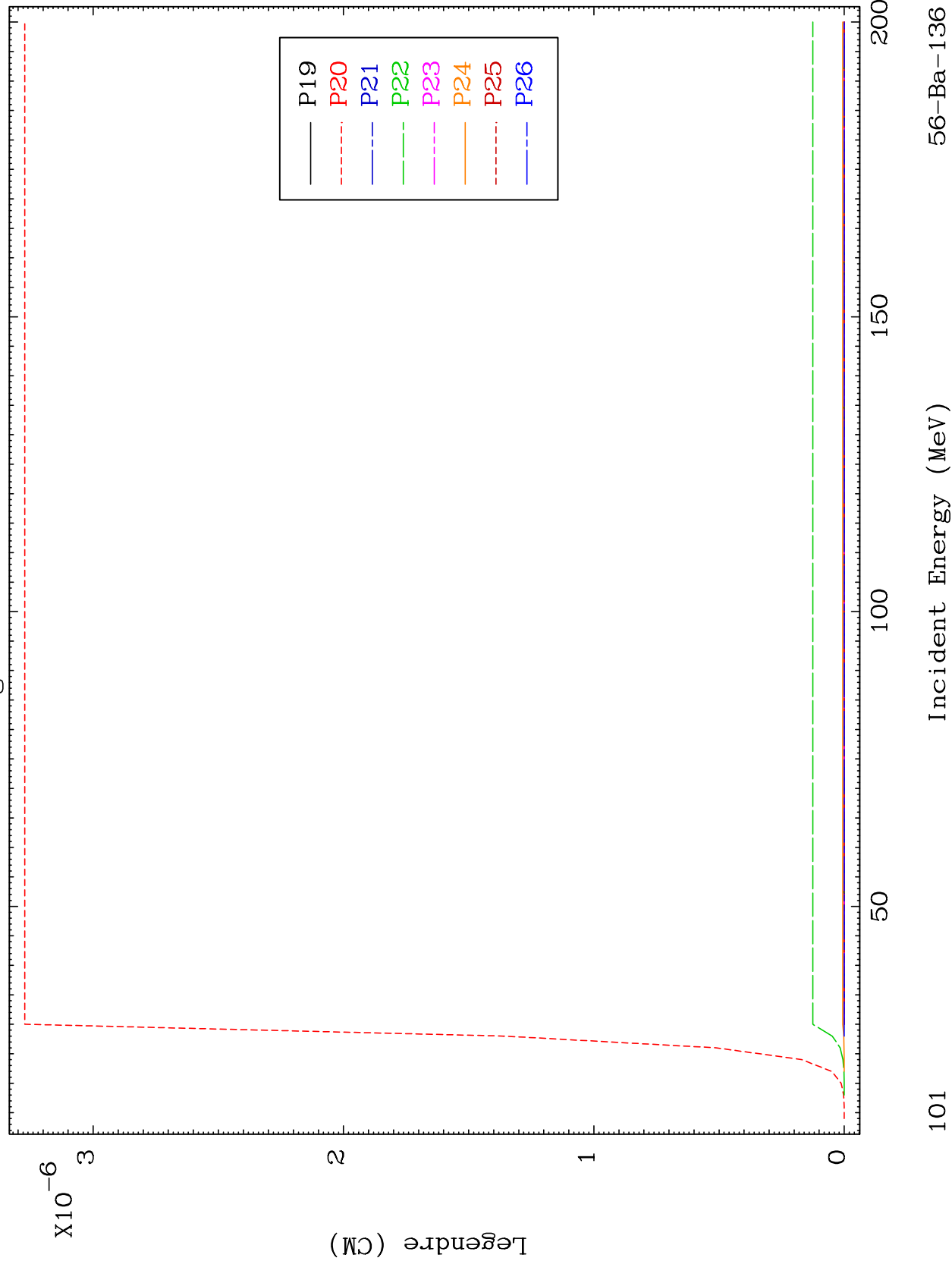
56-Ba-136



MAT 5643

MT= 72 (n,n') Level  
Legendre Coefficients

56-Ba-136



101

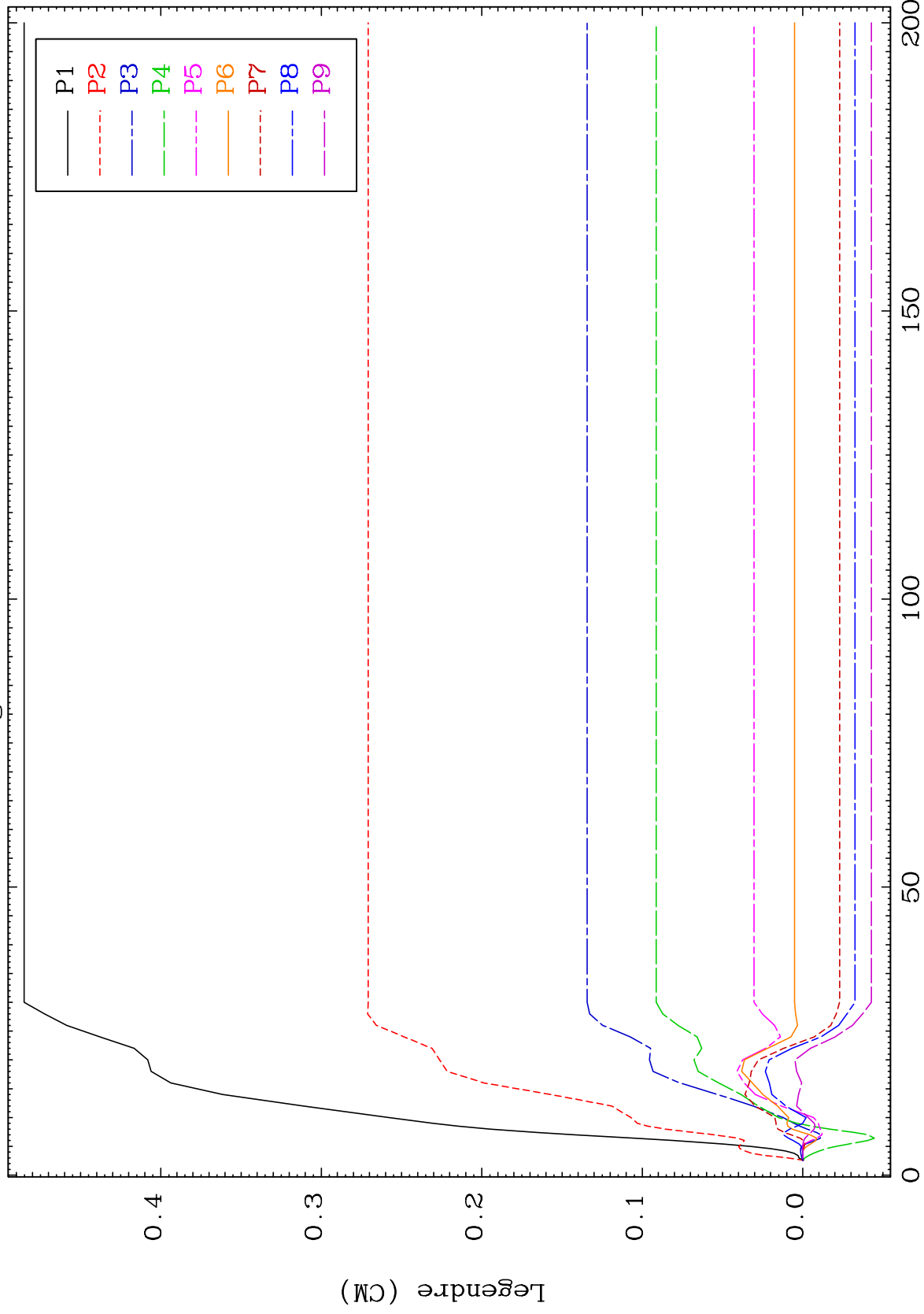
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 73 (n,n') Level  
Legendre Coefficients

56-Ba-136



56-Ba-136

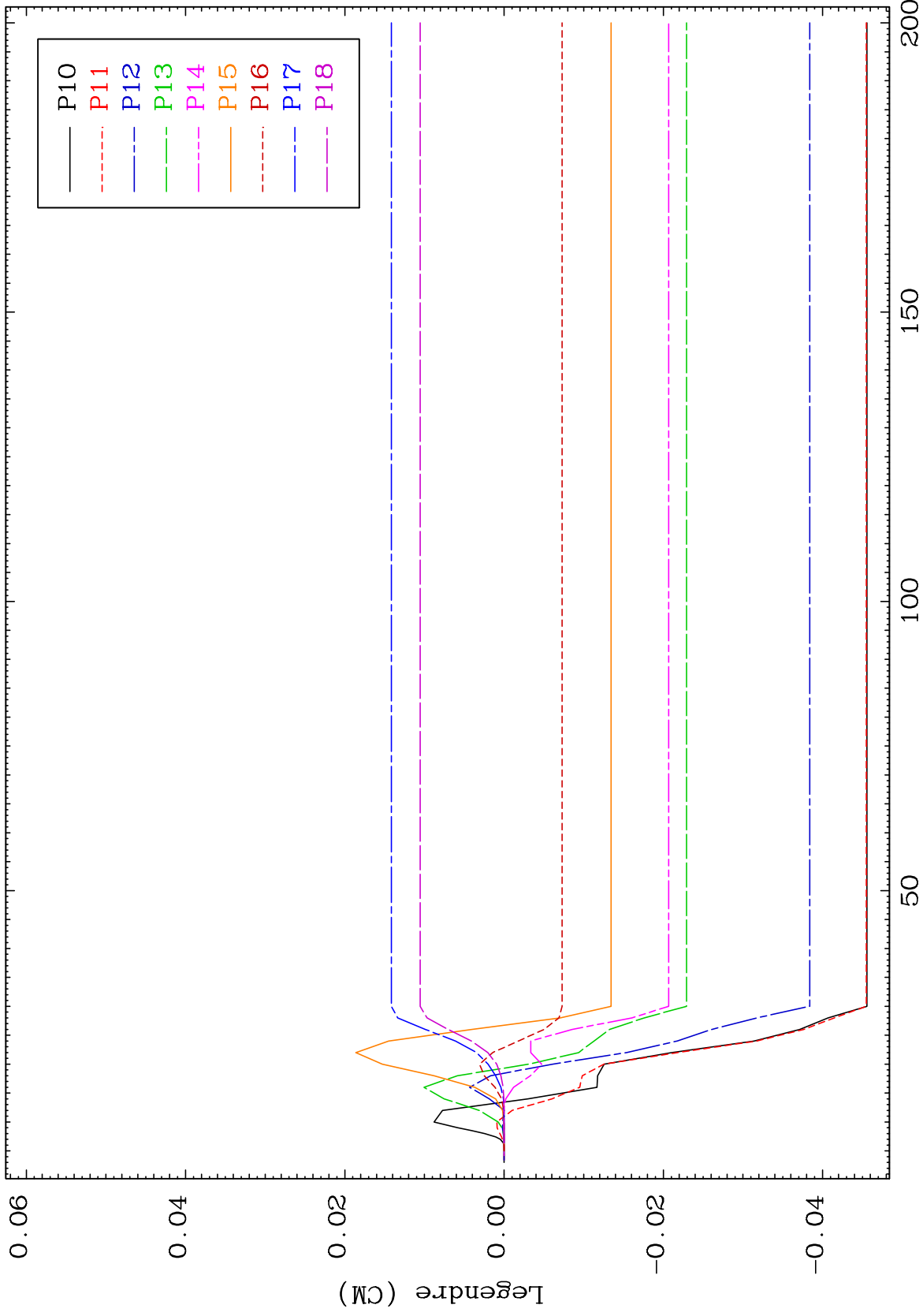
Incident Energy (MeV)

102

MAT 5643

MT= 73 (n,n') Level  
Legendre Coefficients

56-Ba-136



103

Incident Energy (MeV)

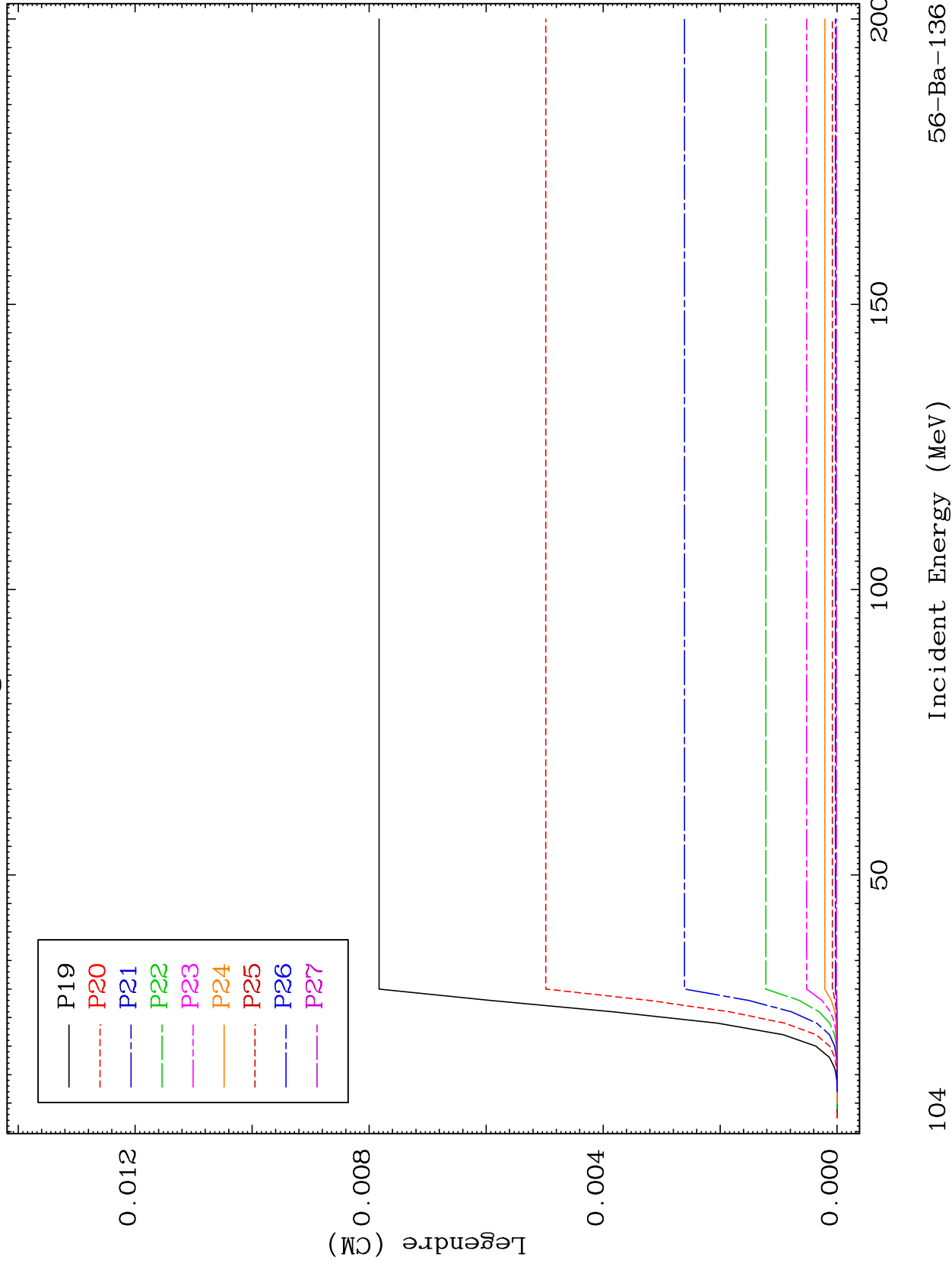
56-Ba-136



MAT 5643

MT= 73 (n,n') Level  
Legendre Coefficients

56-Ba-136



104

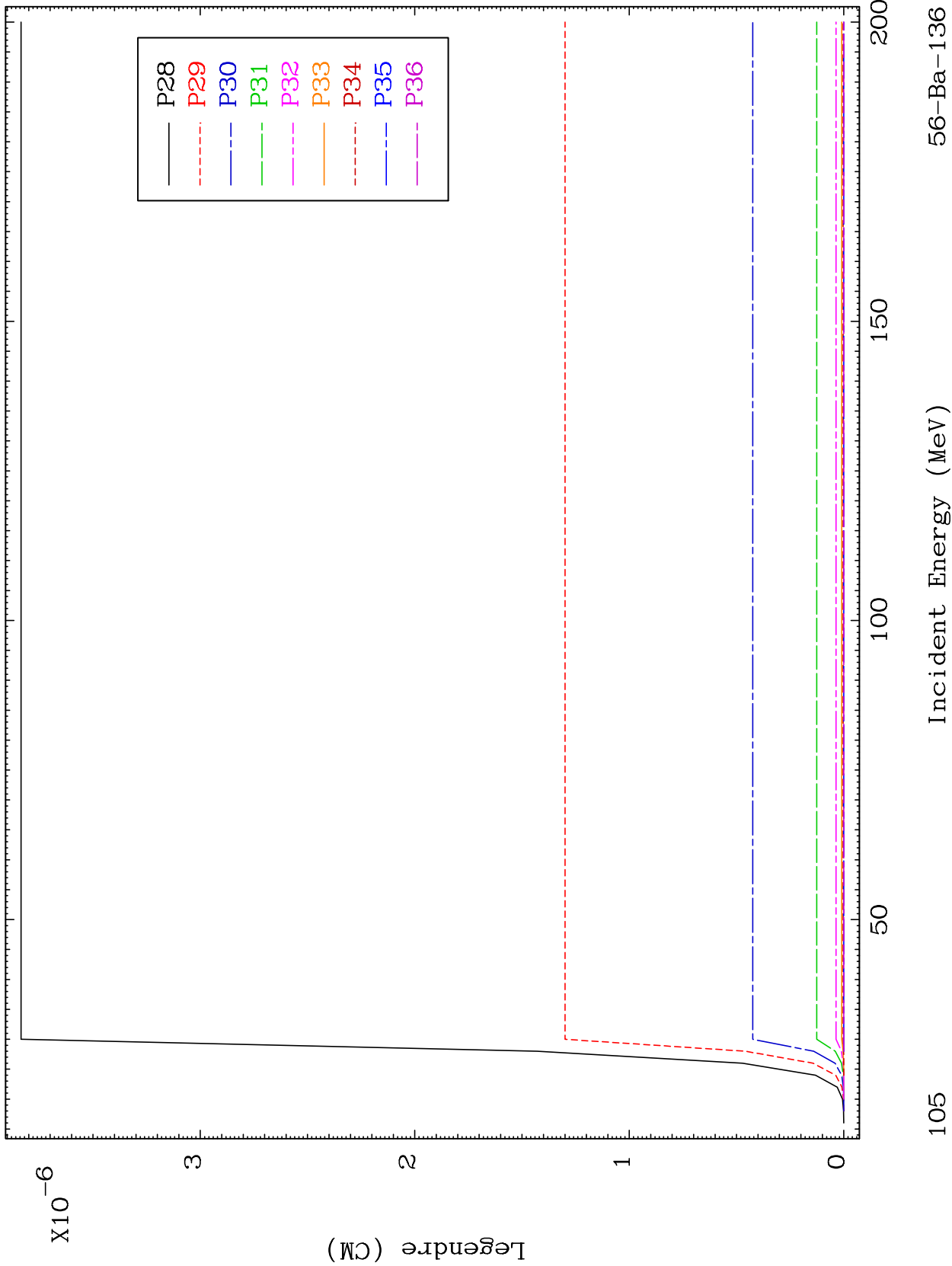
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 73 (n,n') Level  
Legendre Coefficients

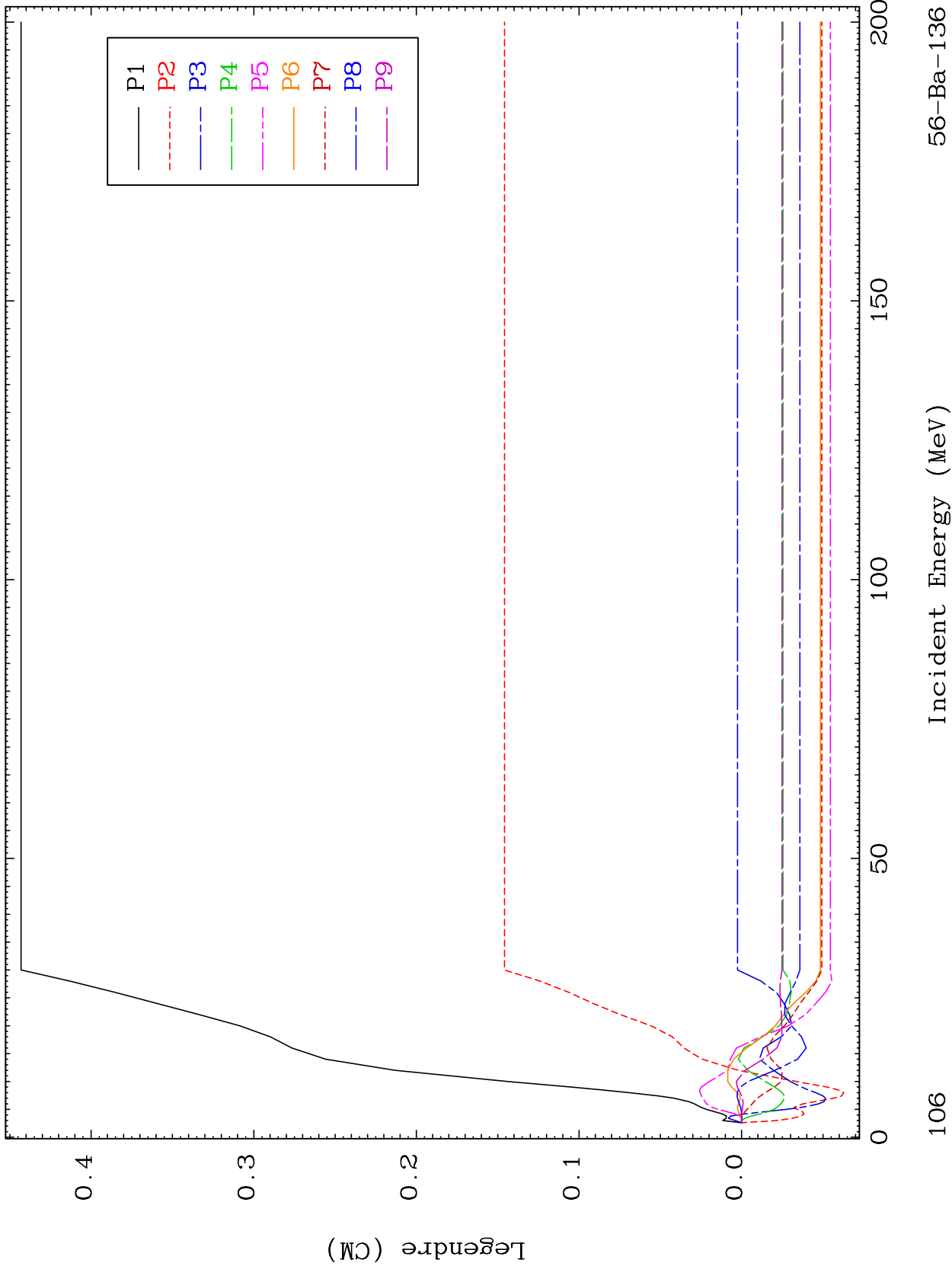
56-Ba-136



MAT 5643

MT= 74 (n,n') Level  
Legendre Coefficients

56-Ba-136



56-Ba-136

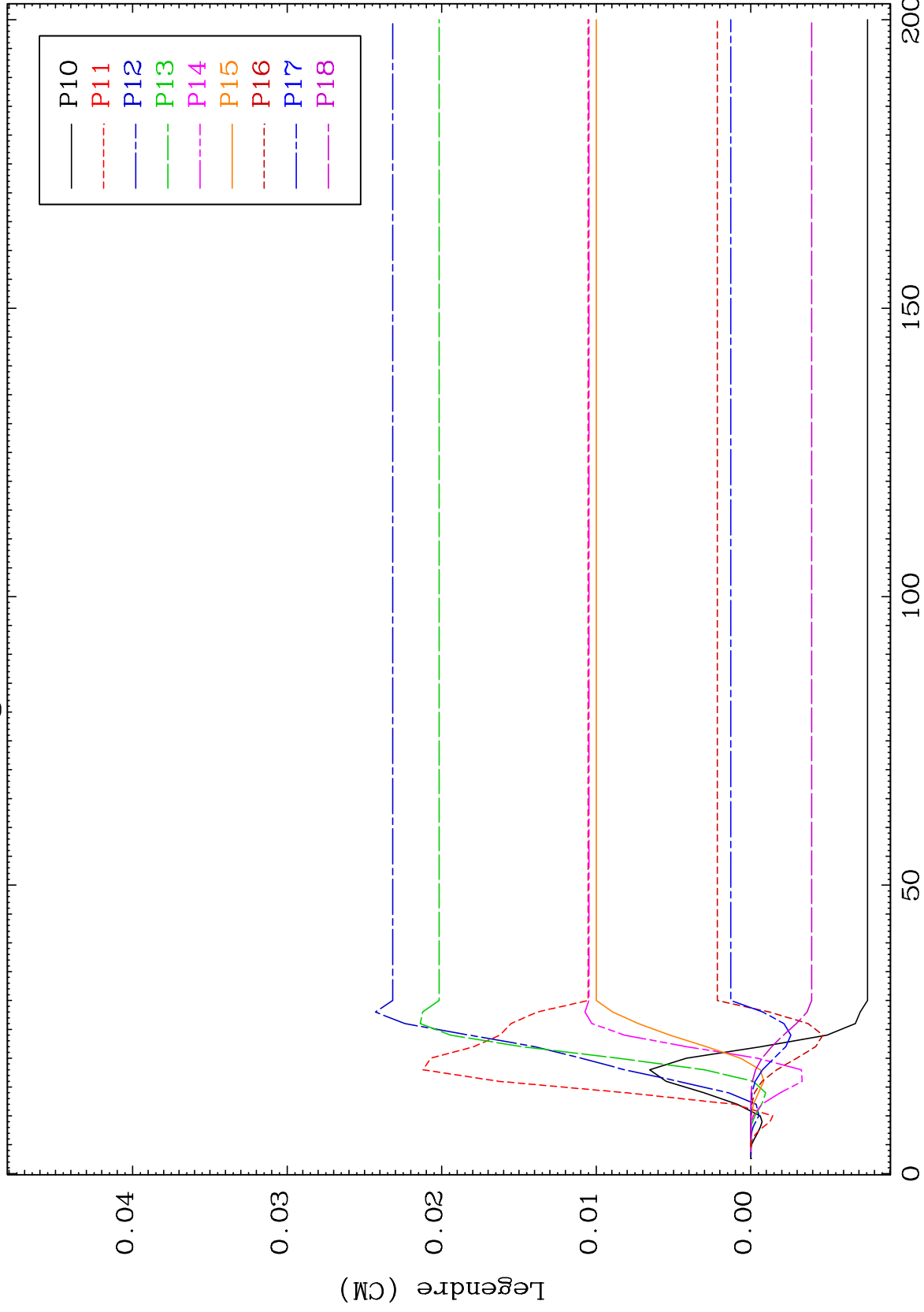
Incident Energy (MeV)

106

MAT 5643

MT= 74 (n,n') Level  
Legendre Coefficients

56-Ba-136



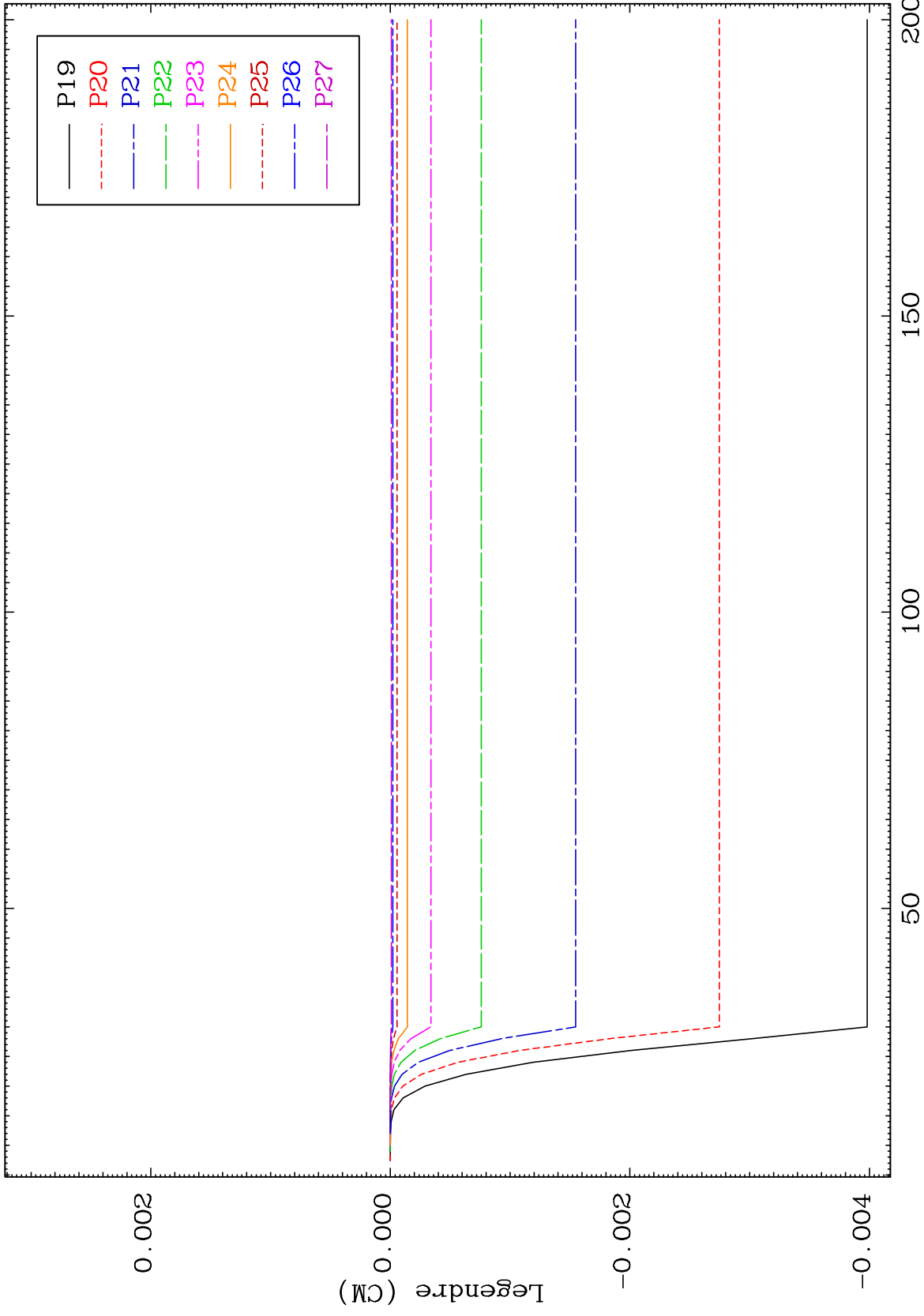
107

56-Ba-136

MAT 5643

MT= 74 (n,n') Level  
Legendre Coefficients

56-Ba-136



108

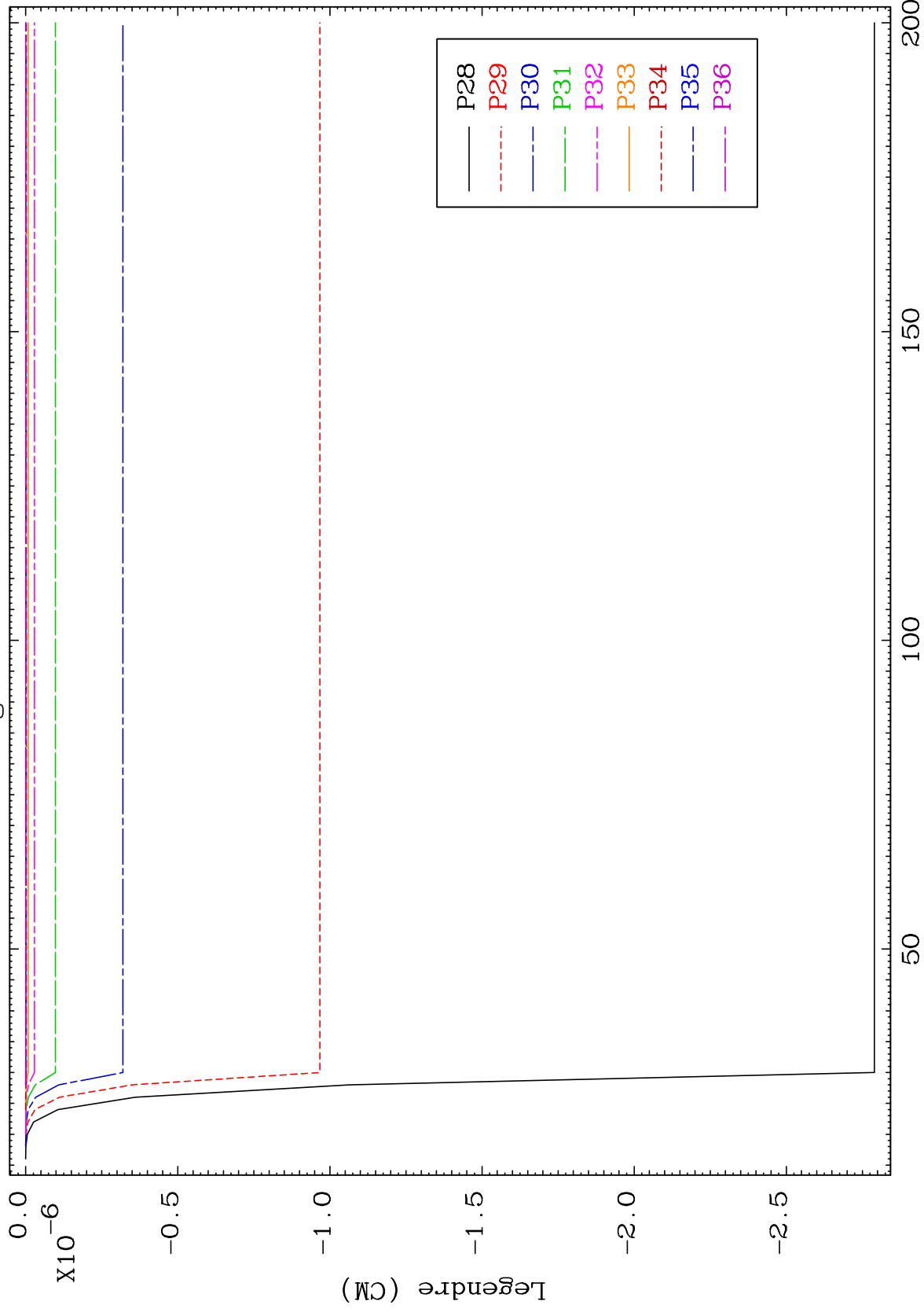
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 74 (n,n') Level  
Legendre Coefficients

56-Ba-136



109

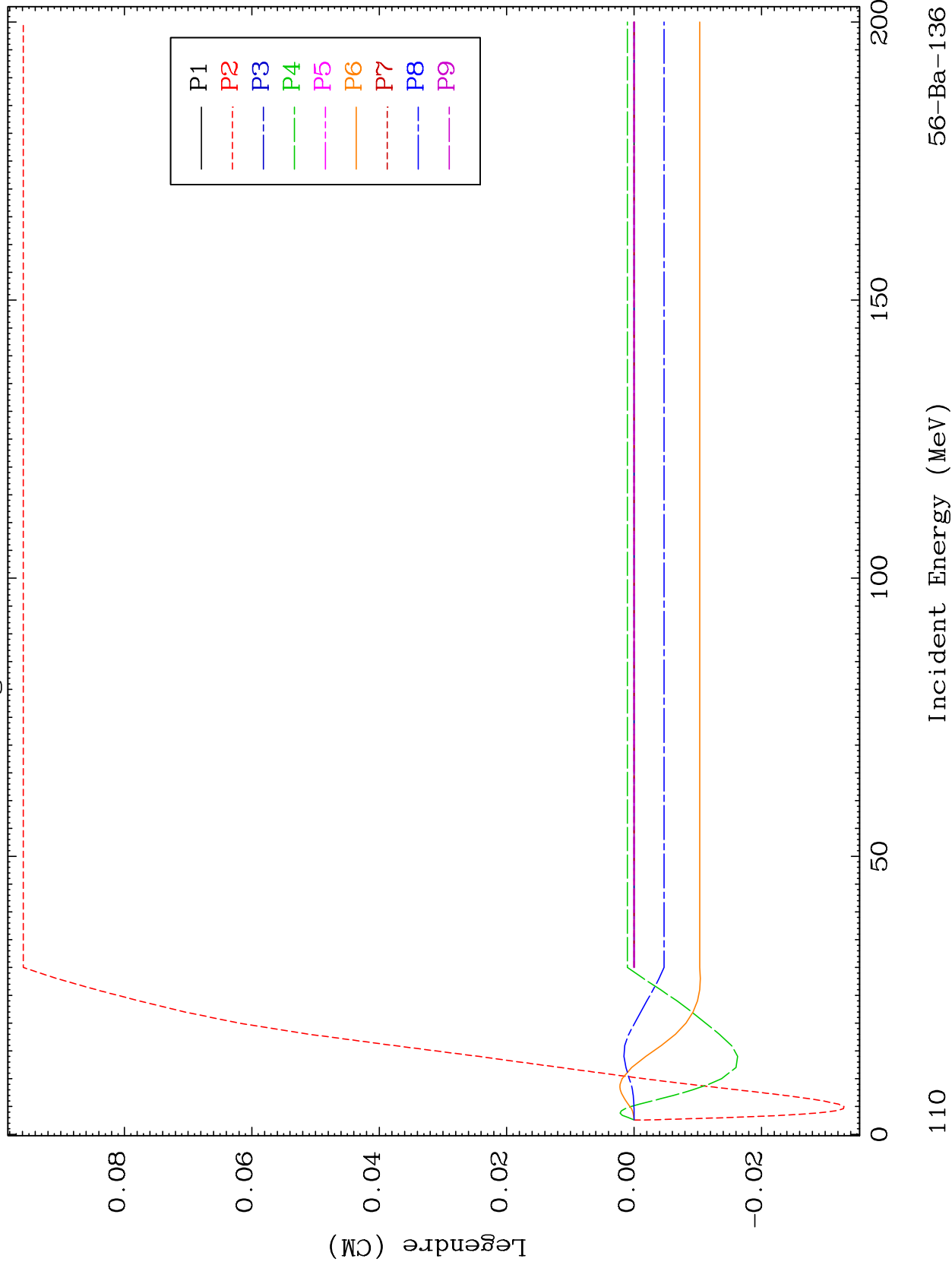
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 75 (n,n') Level  
Legendre Coefficients

56-Ba-136



56-Ba-136

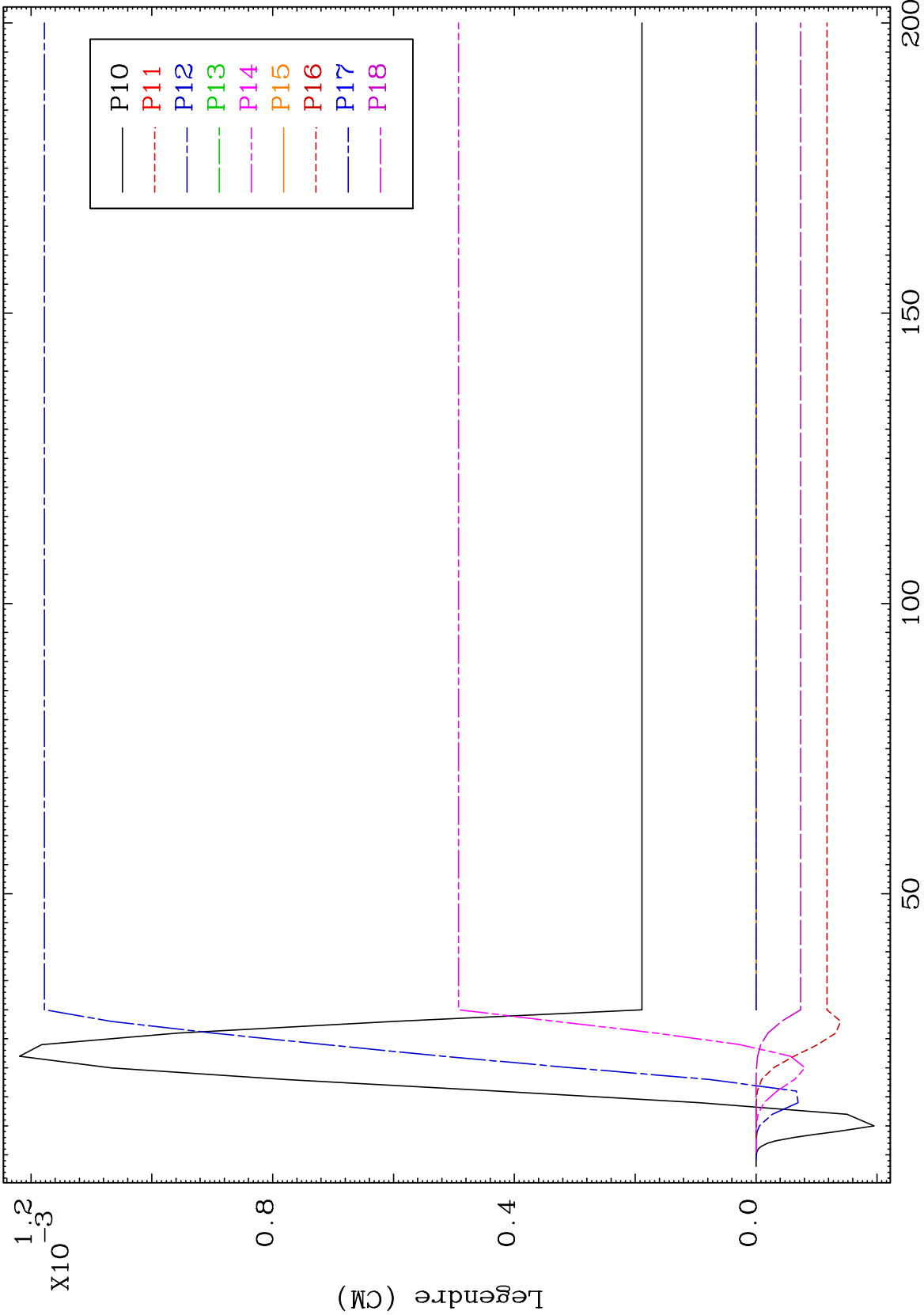
Incident Energy (MeV)

110

MAT 5643

MT= 75 (n,n') Level  
Legendre Coefficients

56-Ba-136



111

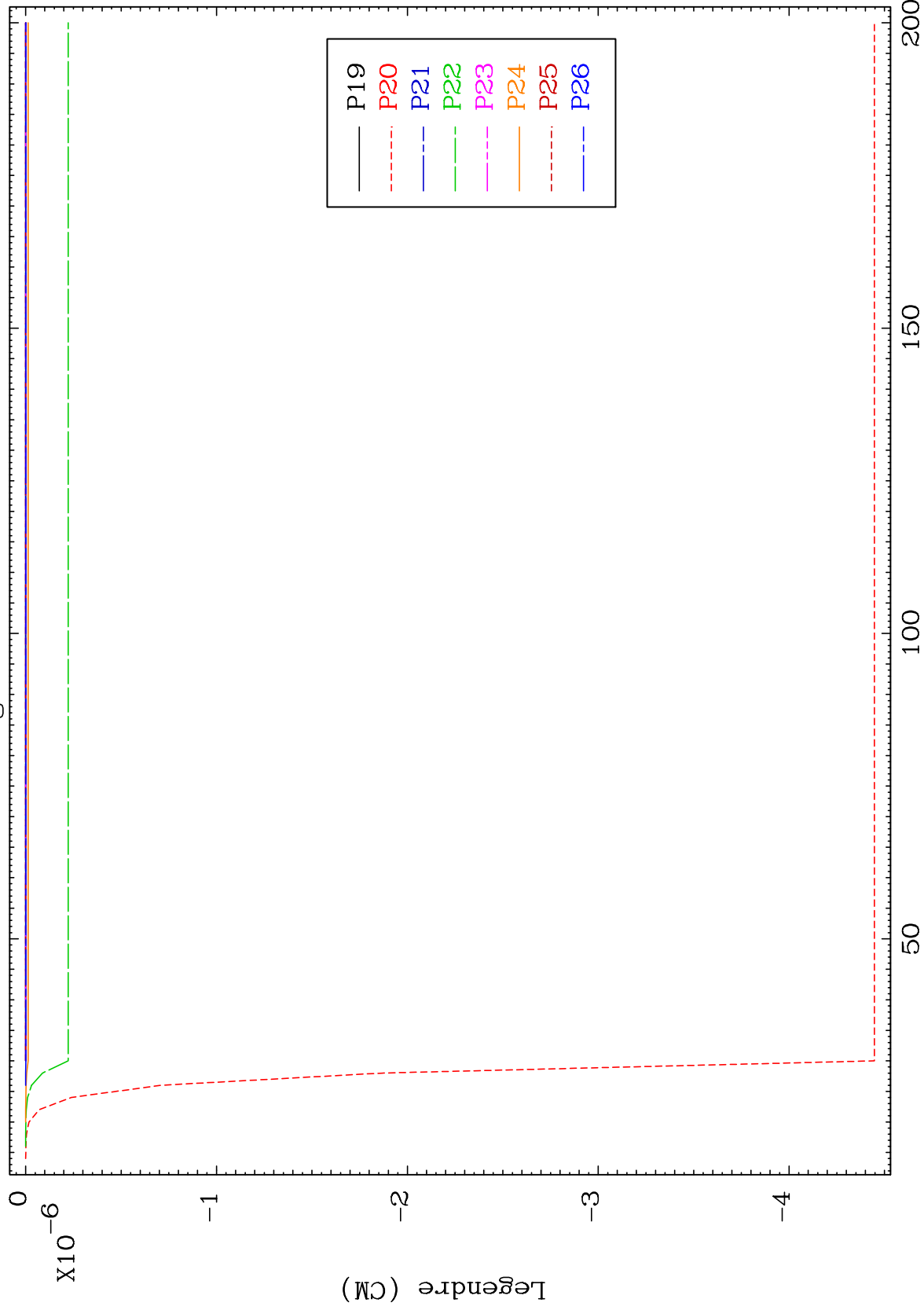
56-Ba-136



MAT 5643

MT= 75 (n,n') Level  
Legendre Coefficients

56-Ba-136



112

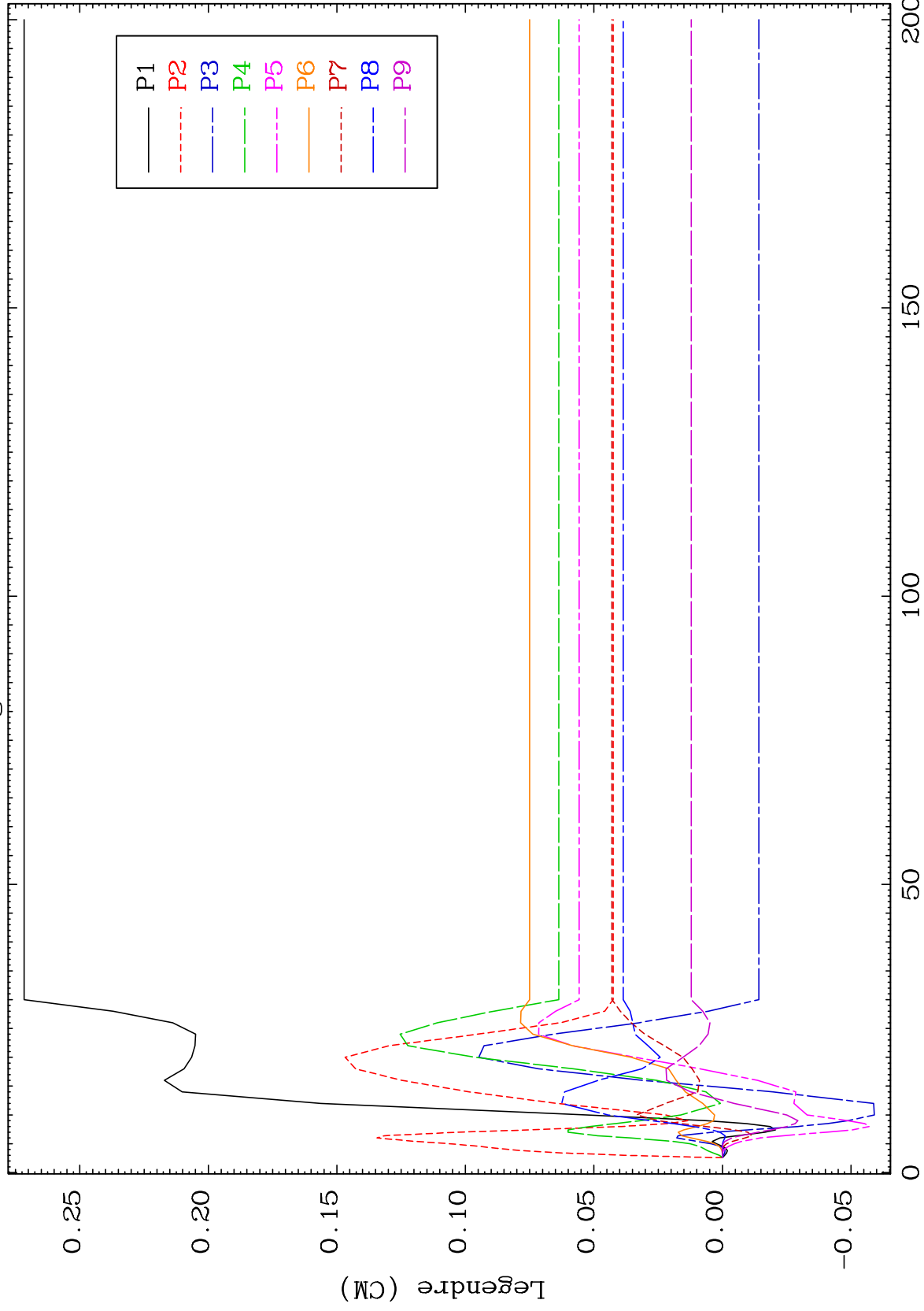
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 76 (n,n') Level  
Legendre Coefficients

56-Ba-136



113

Incident Energy (MeV)

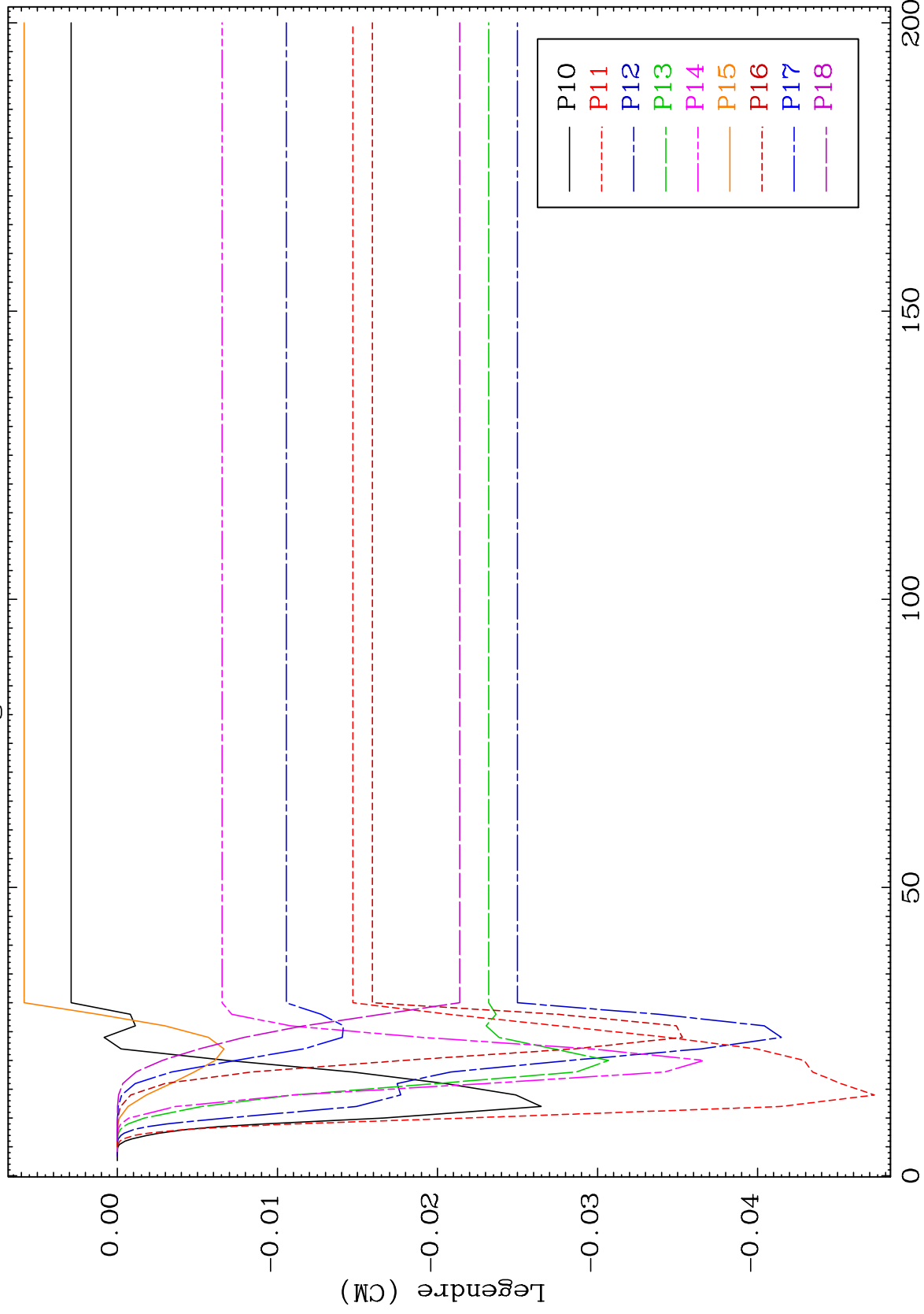
56-Ba-136

MAT 5643

MT= 76 (n,n') Level

56-Ba-136

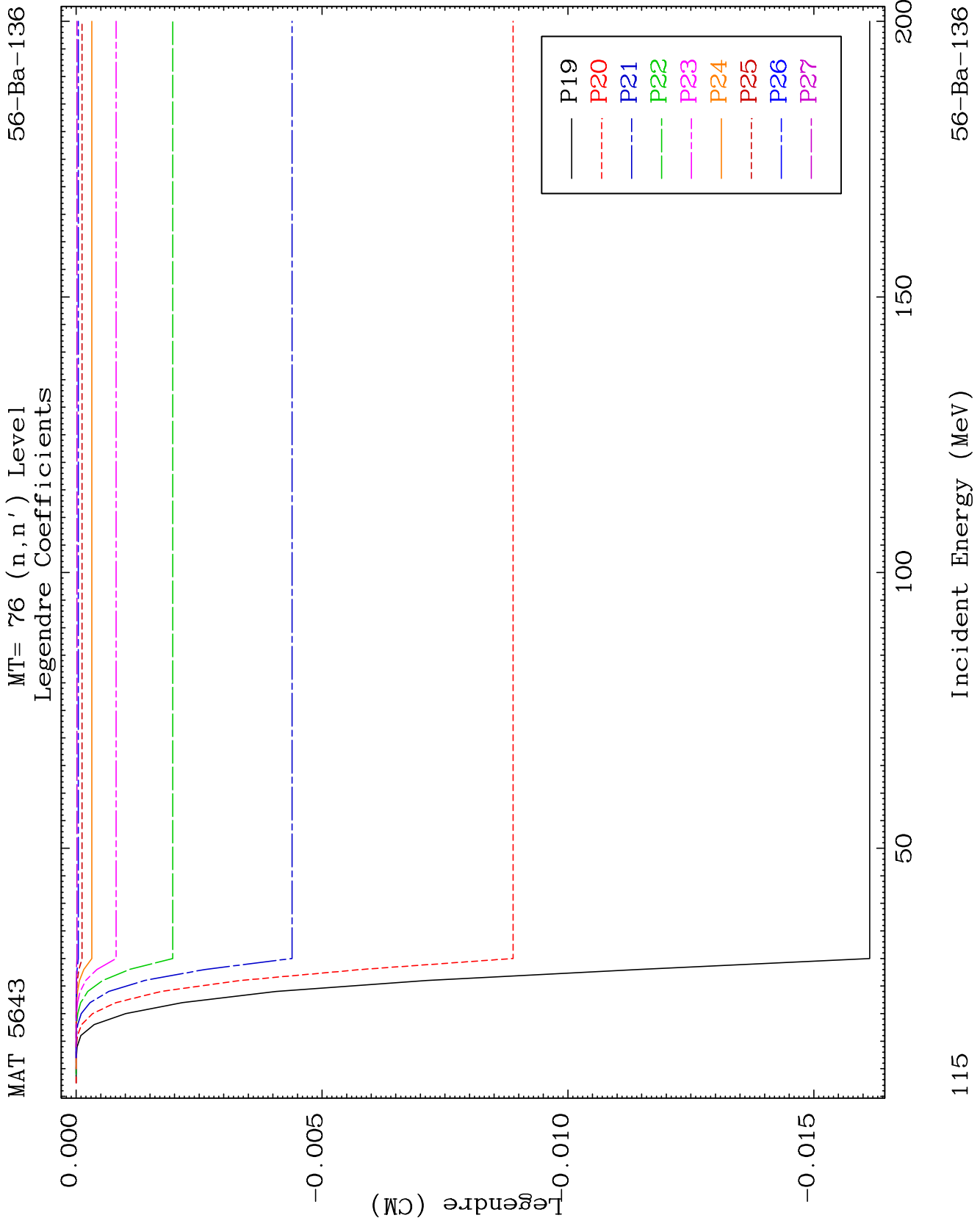
Legendre Coefficients

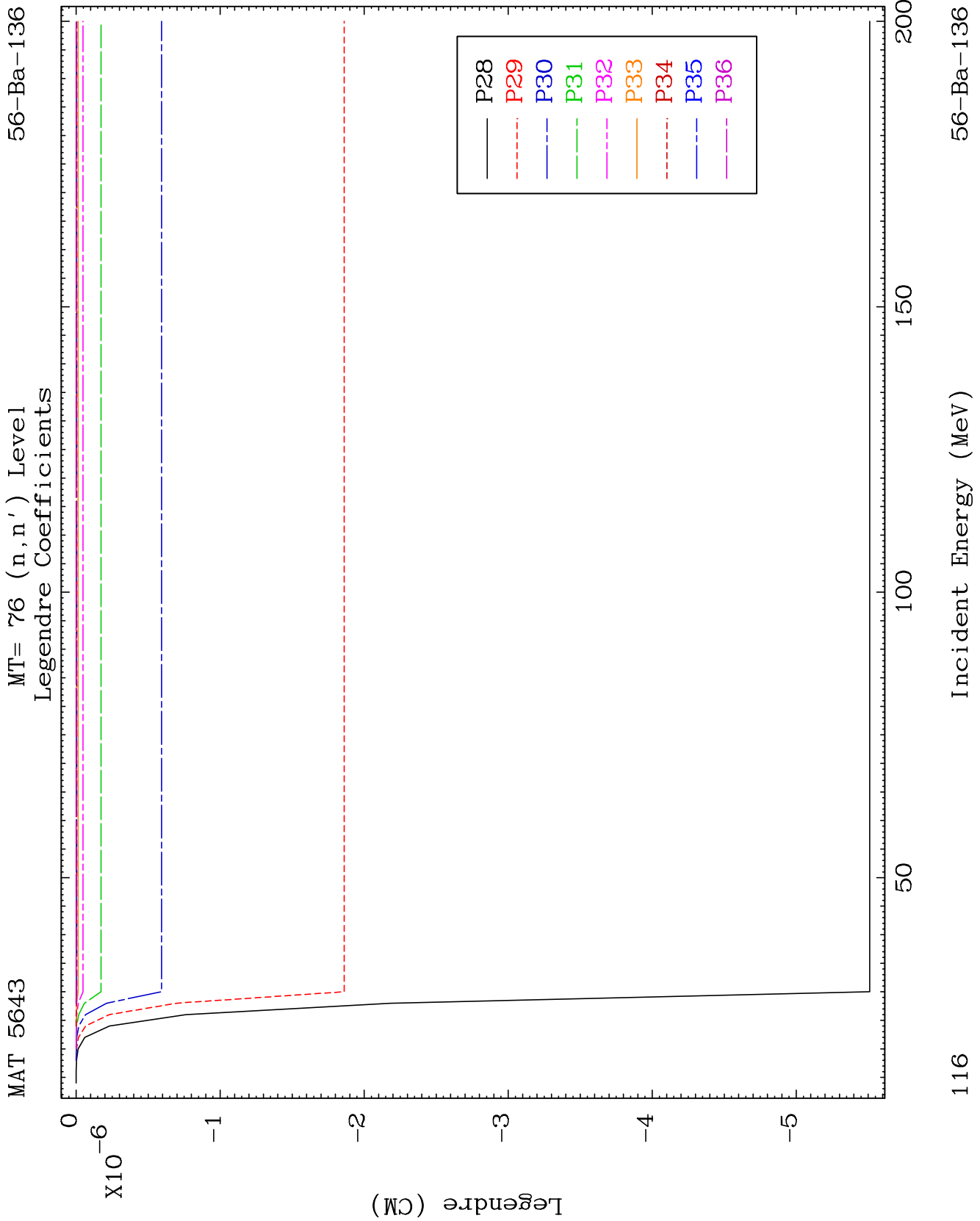


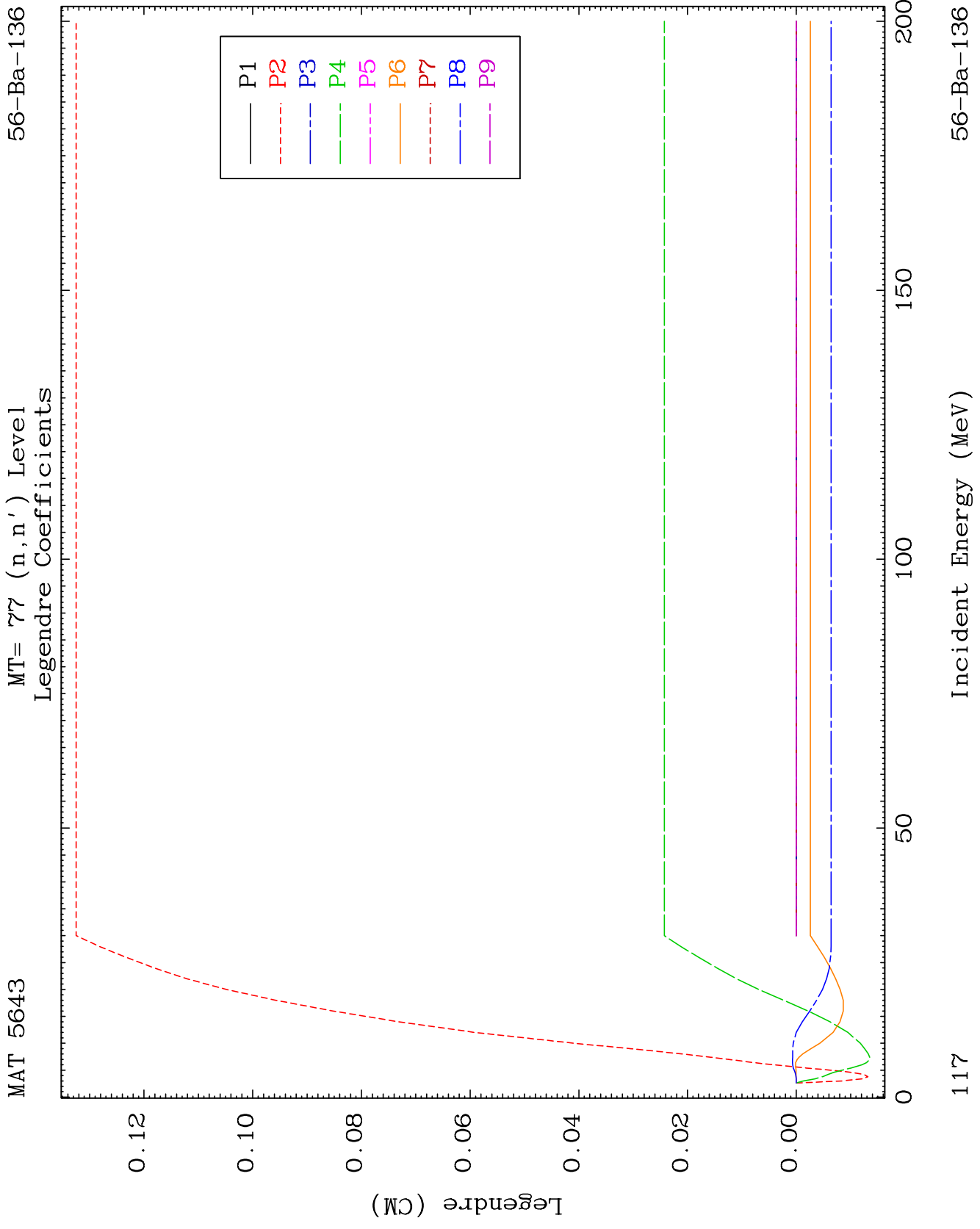
114

Incident Energy (MeV)

56-Ba-136



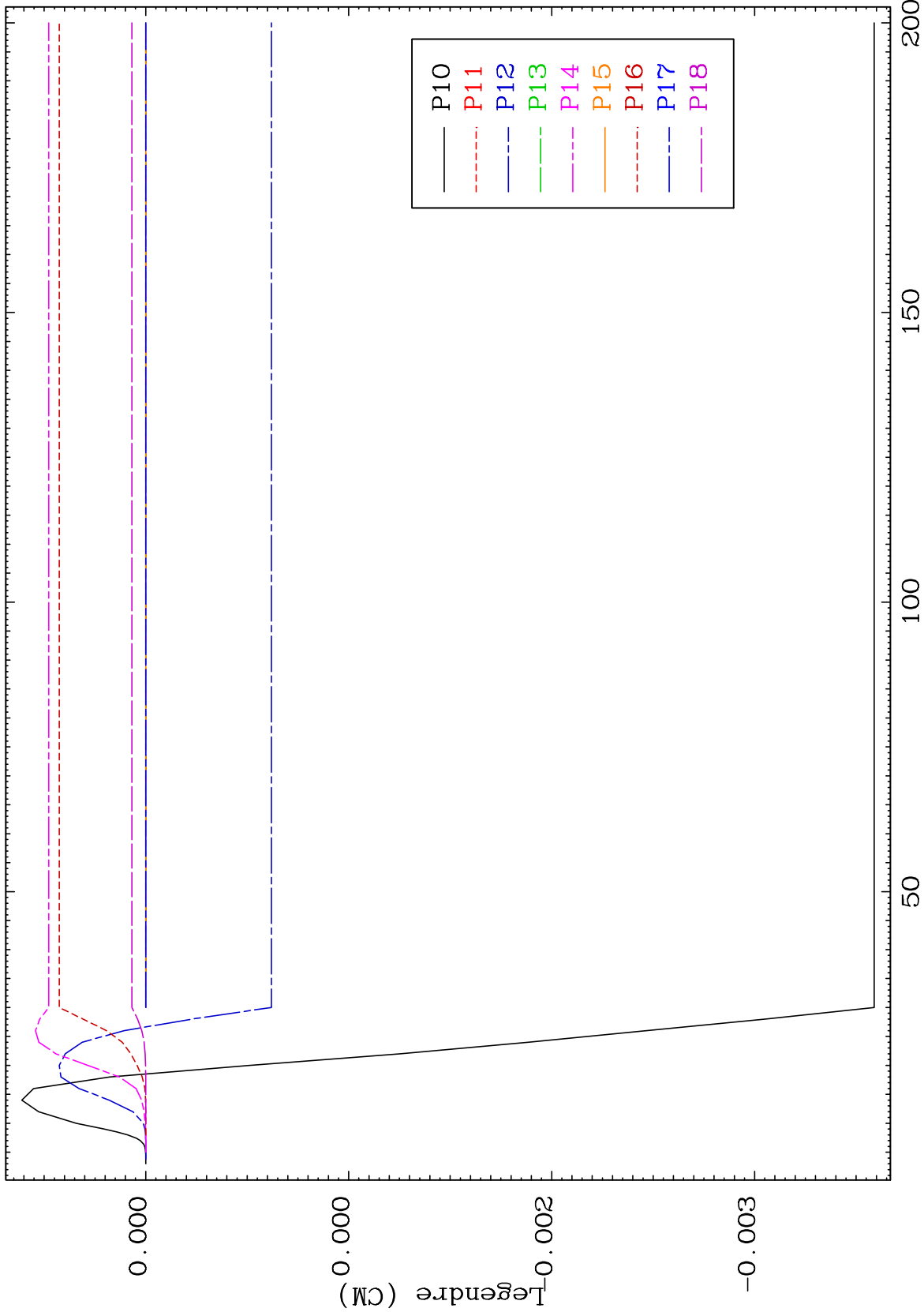




MAT 5643

MT= 77 (n,n') Level  
Legendre Coefficients

56-Ba-136



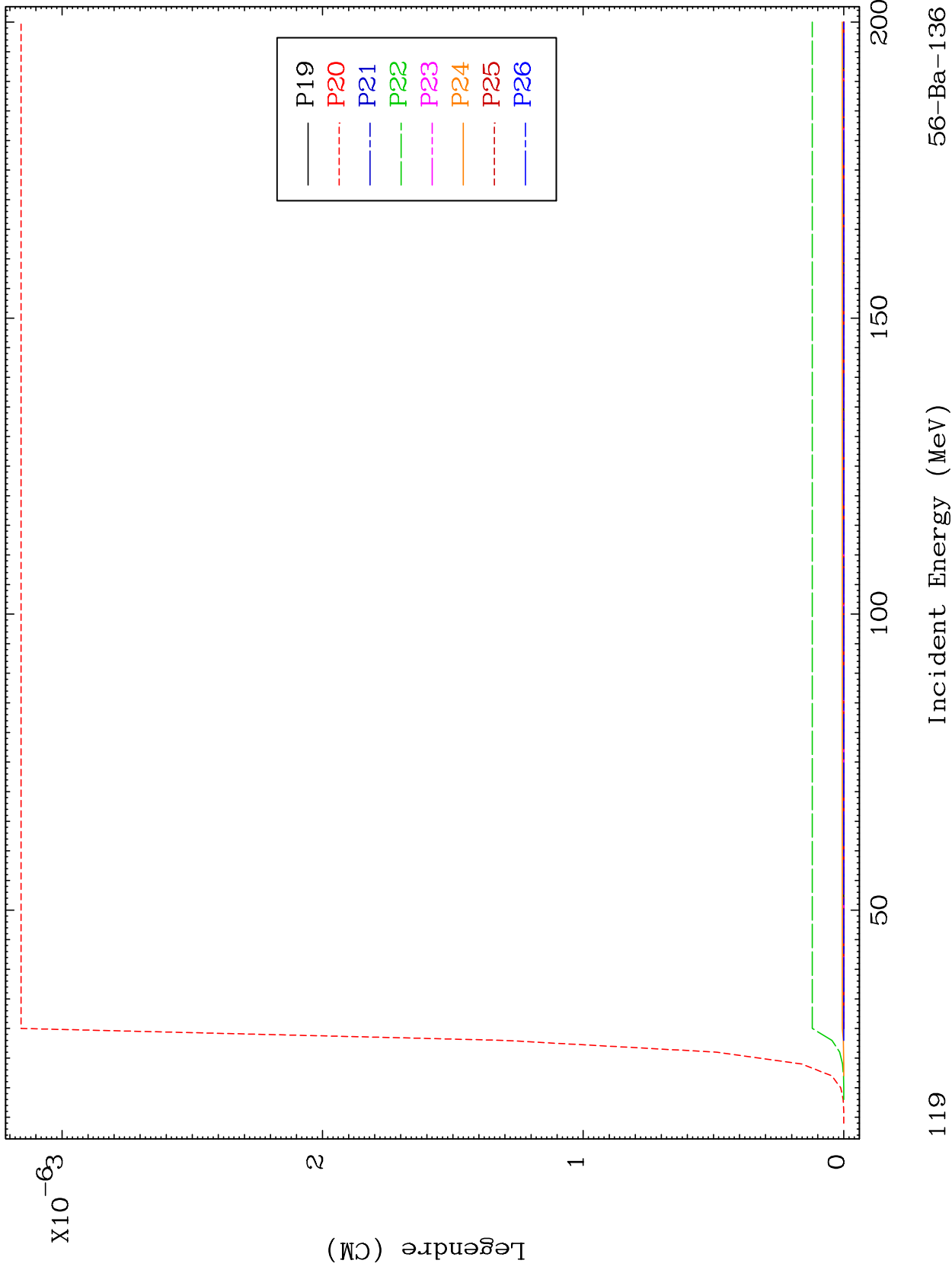
118

56-Ba-136

MAT 5643

MT= 77 (n,n') Level  
Legendre Coefficients

56-Ba-136

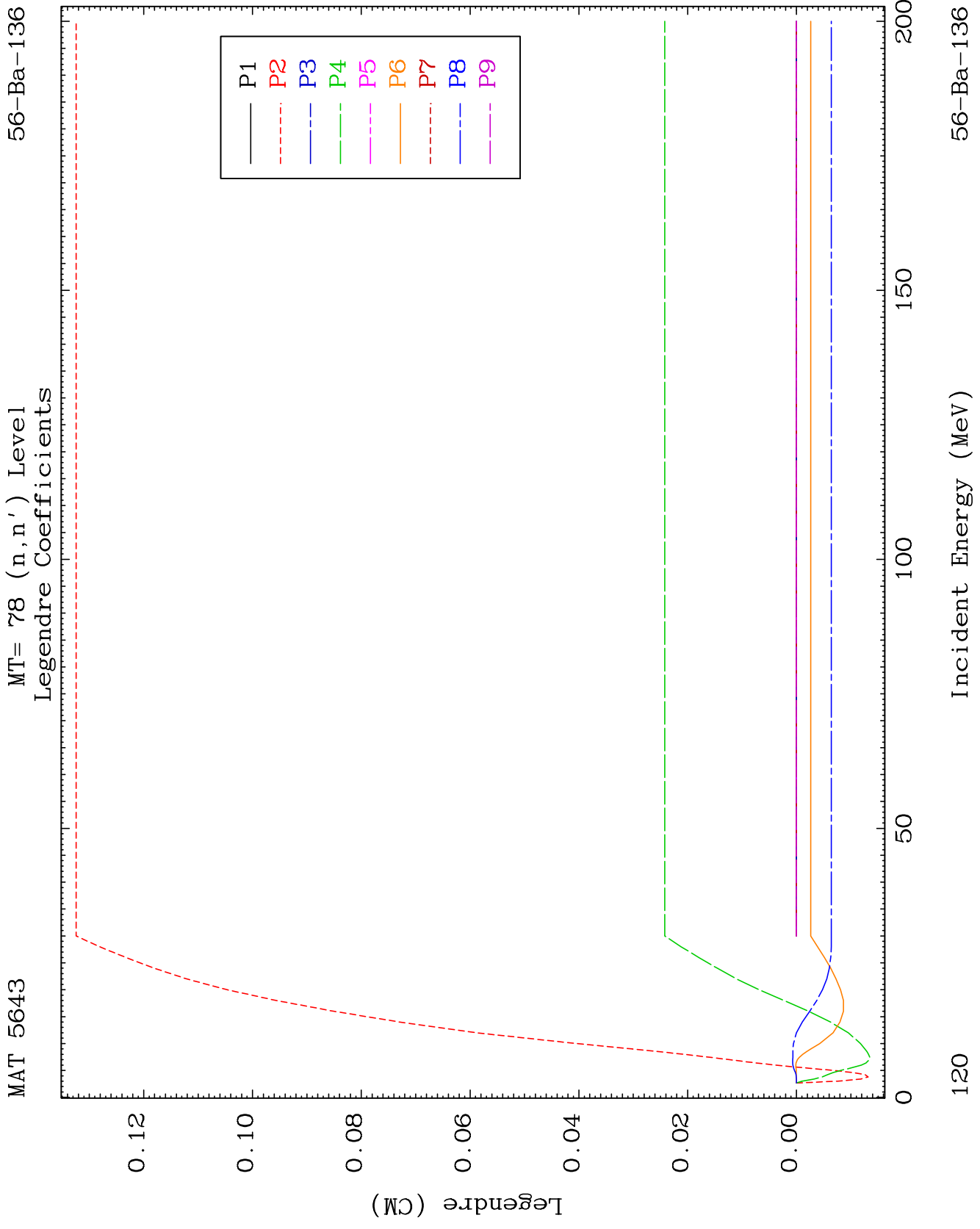


119

Incident Energy (MeV)

56-Ba-136

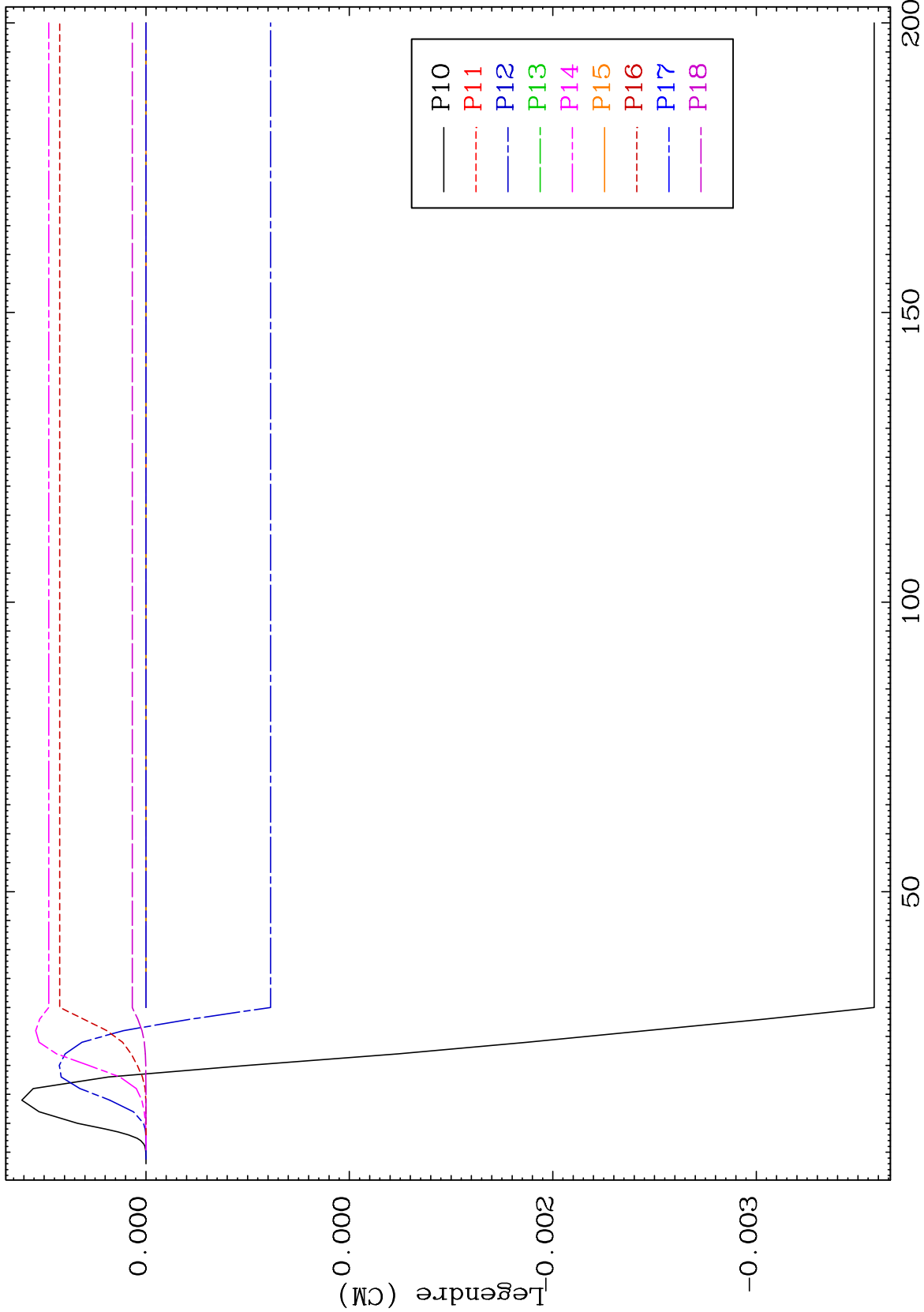




MAT 5643

MT= 78 (n,n') Level  
Legendre Coefficients

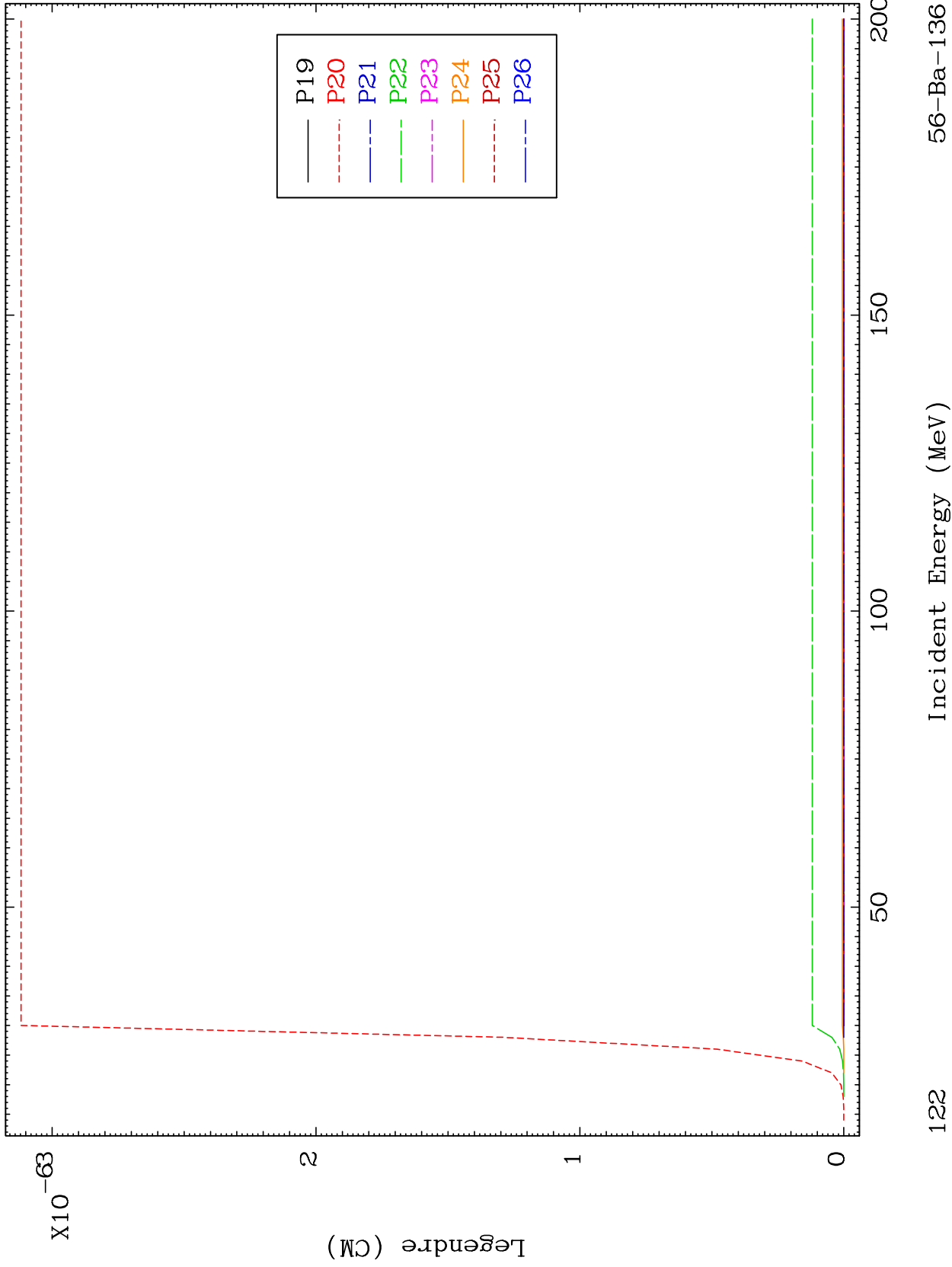
56-Ba-136



MAT 5643

MT= 78 (n,n') Level  
Legendre Coefficients

56-Ba-136

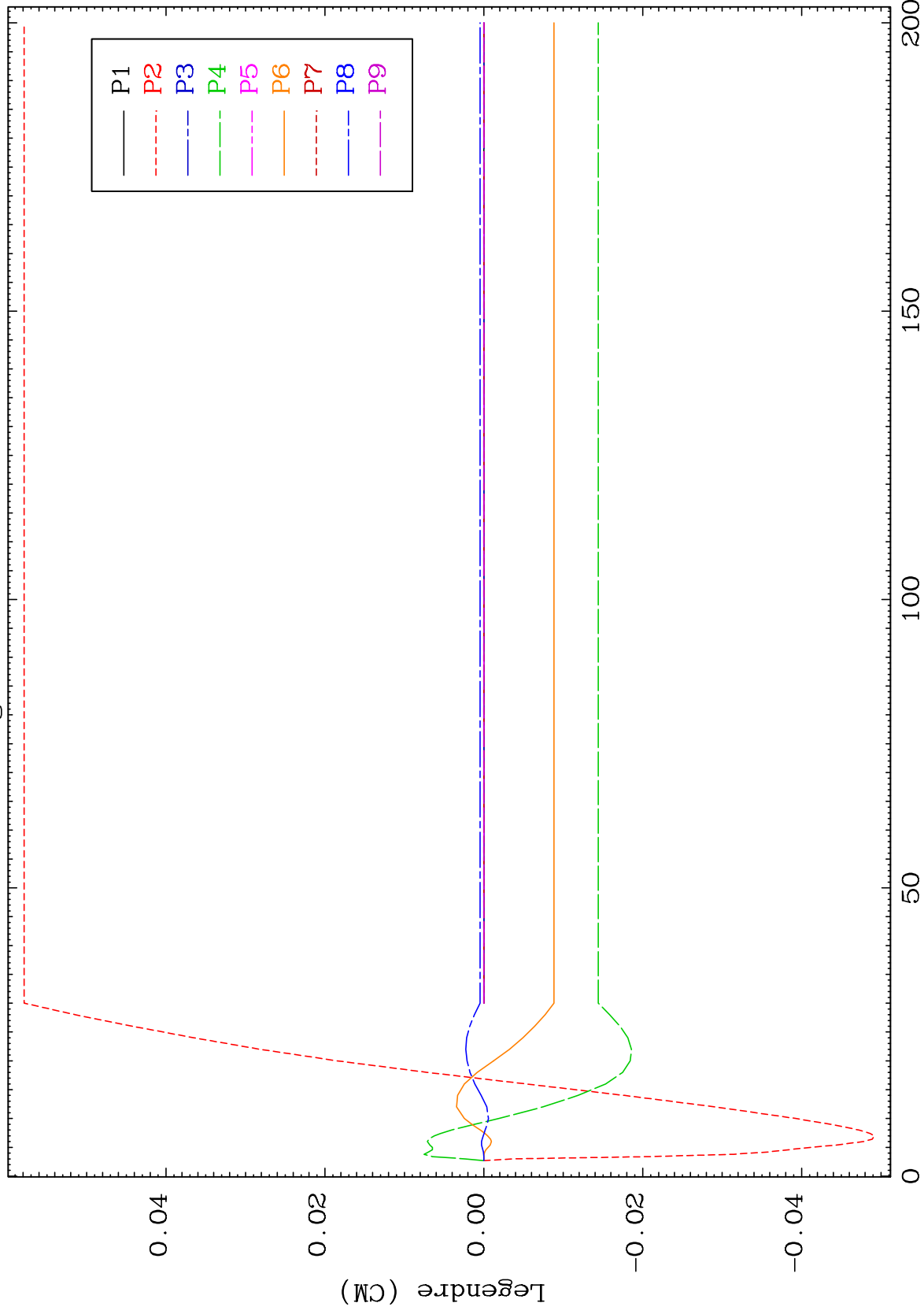


122

MAT 5643

MT= 79 (n,n') Level  
Legendre Coefficients

56-Ba-136



56-Ba-136

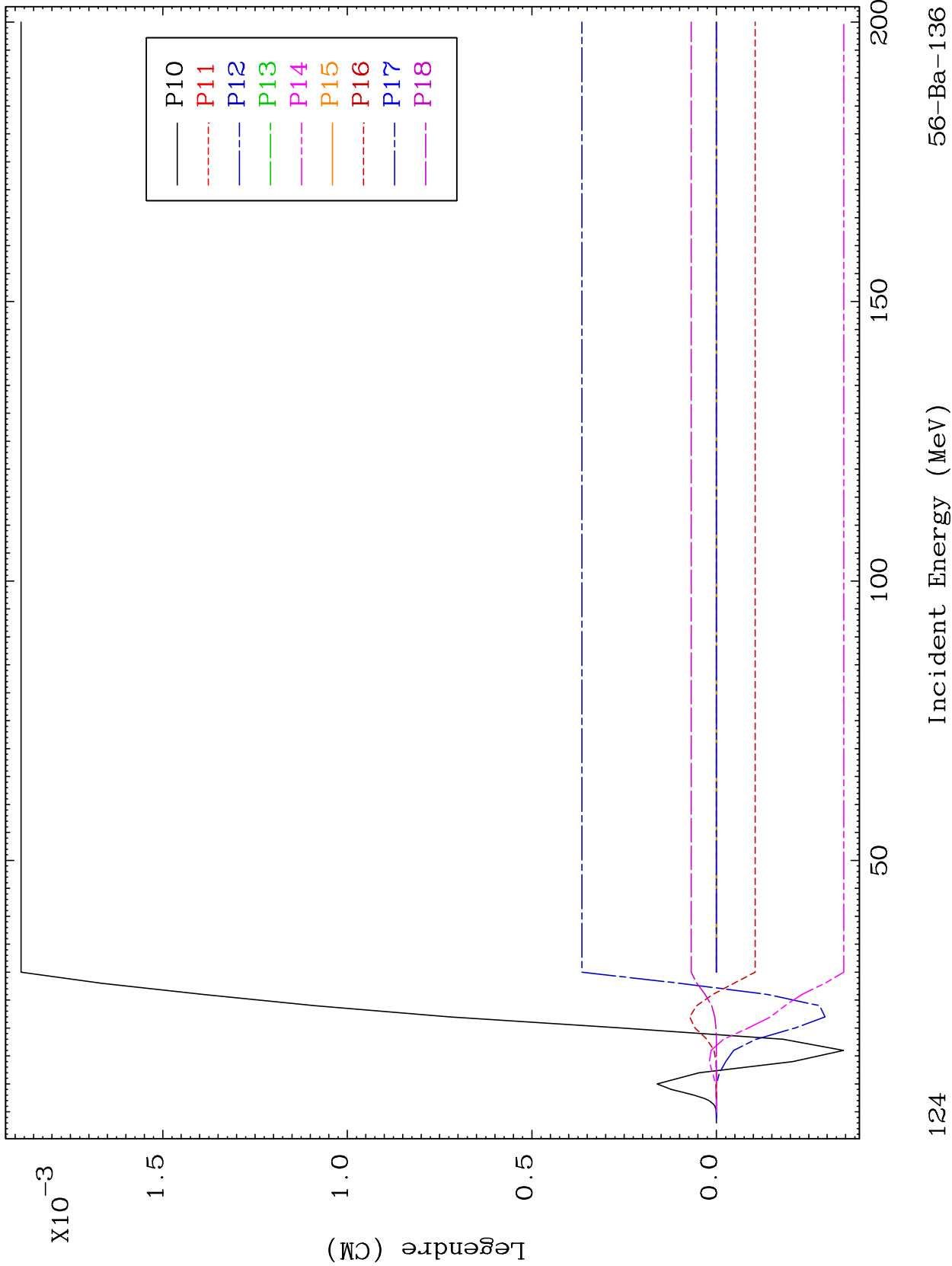
Incident Energy (MeV)

123

MAT 5643

MT= 79 (n,n') Level  
Legendre Coefficients

56-Ba-136



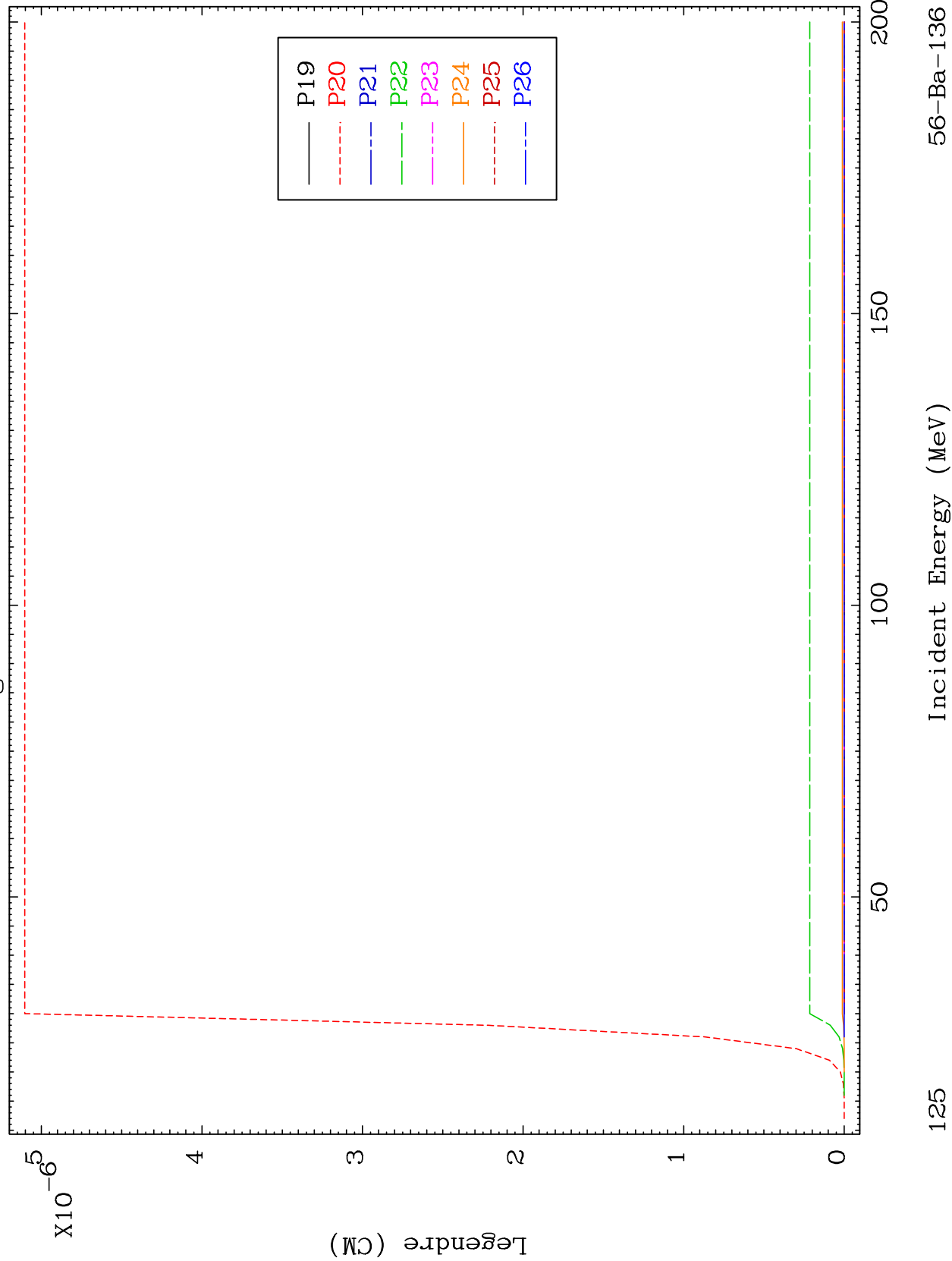
124

56-Ba-136

MAT 5643

MT= 79 (n,n') Level  
Legendre Coefficients

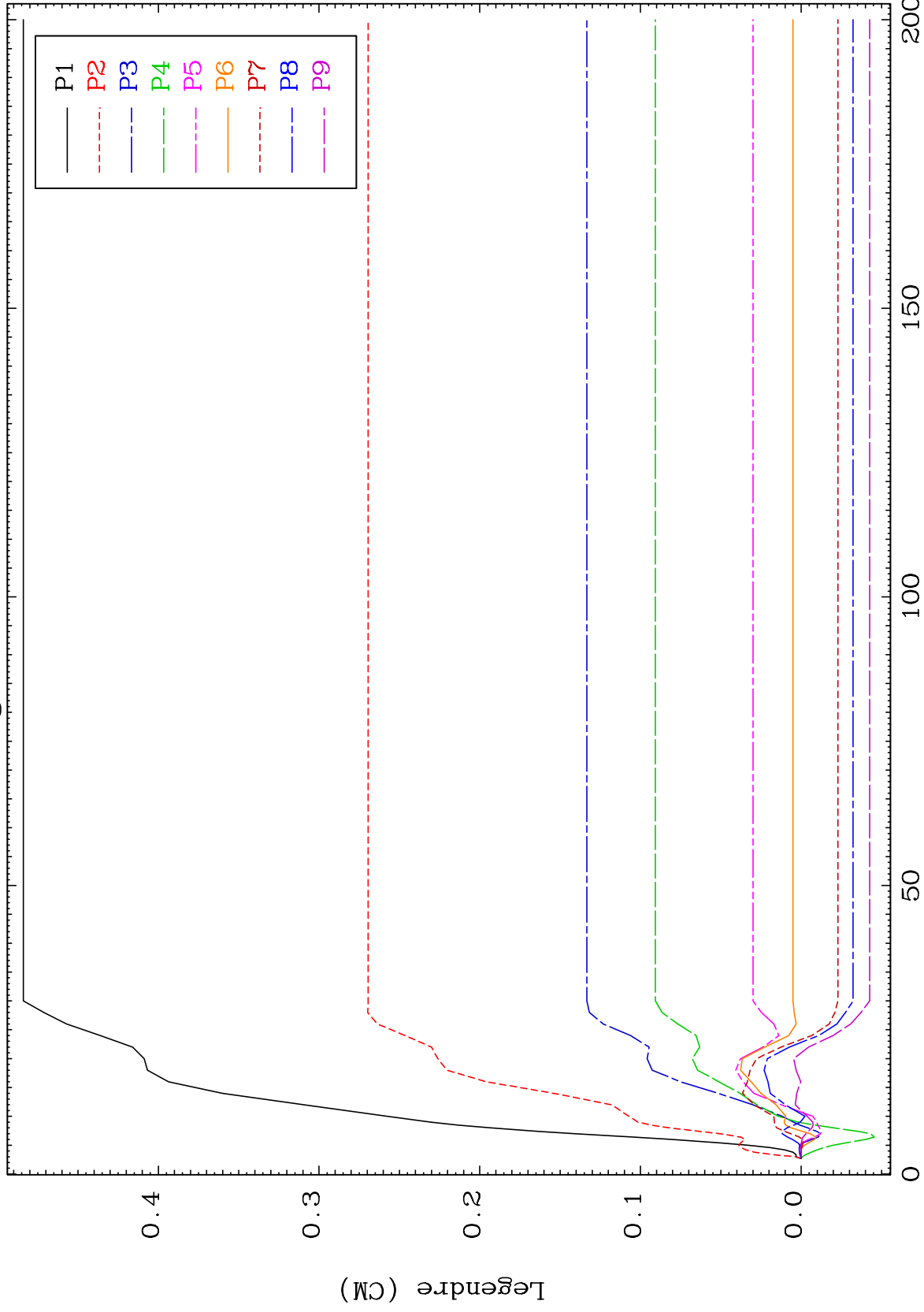
56-Ba-136



MAT 5643

MT= 80 (n,n') Level  
Legendre Coefficients

56-Ba-136



56-Ba-136

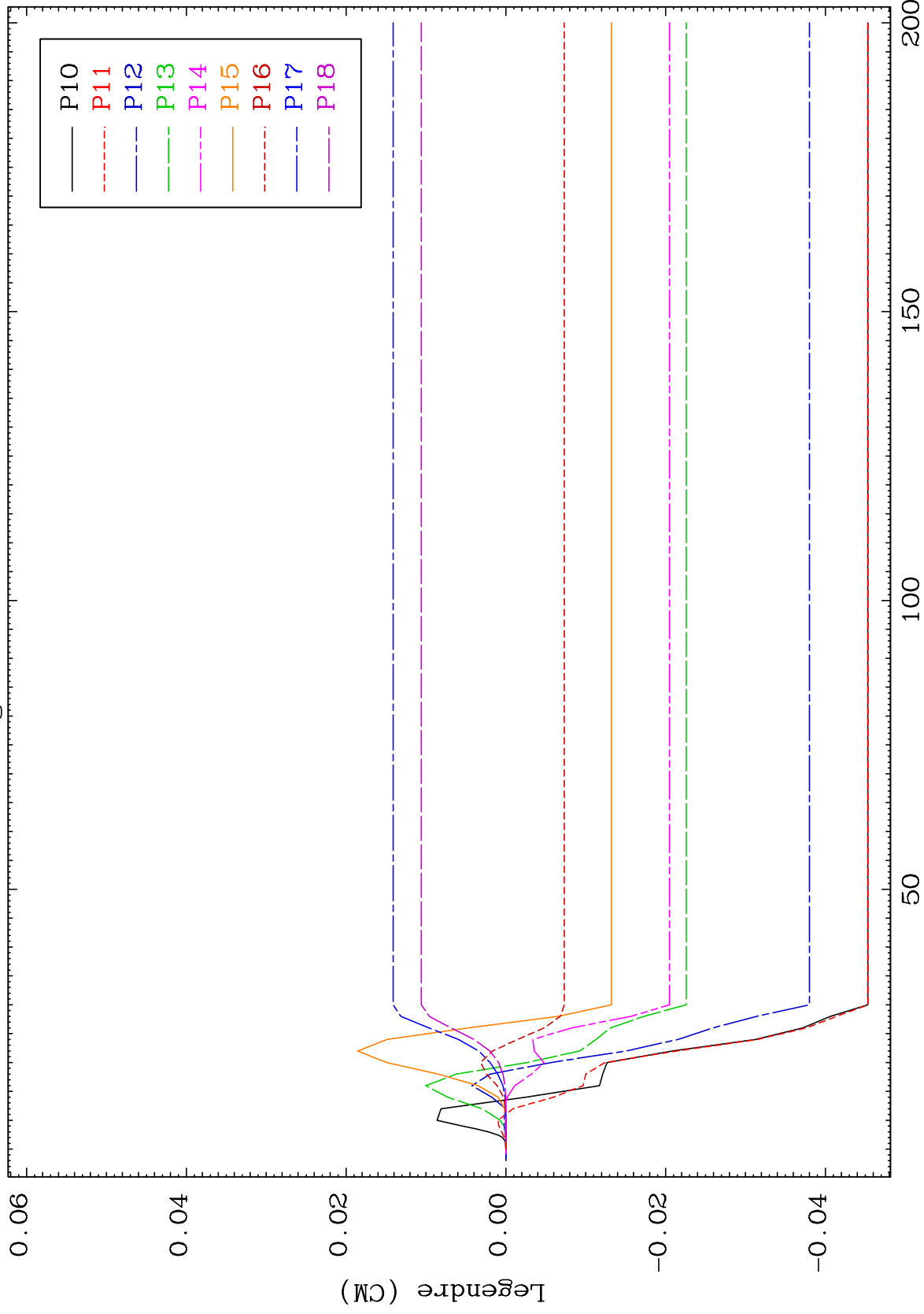
Incident Energy (MeV)

126

MAT 5643

MT= 80 (n,n') Level  
Legendre Coefficients

56-Ba-136



127

Incident Energy (MeV)

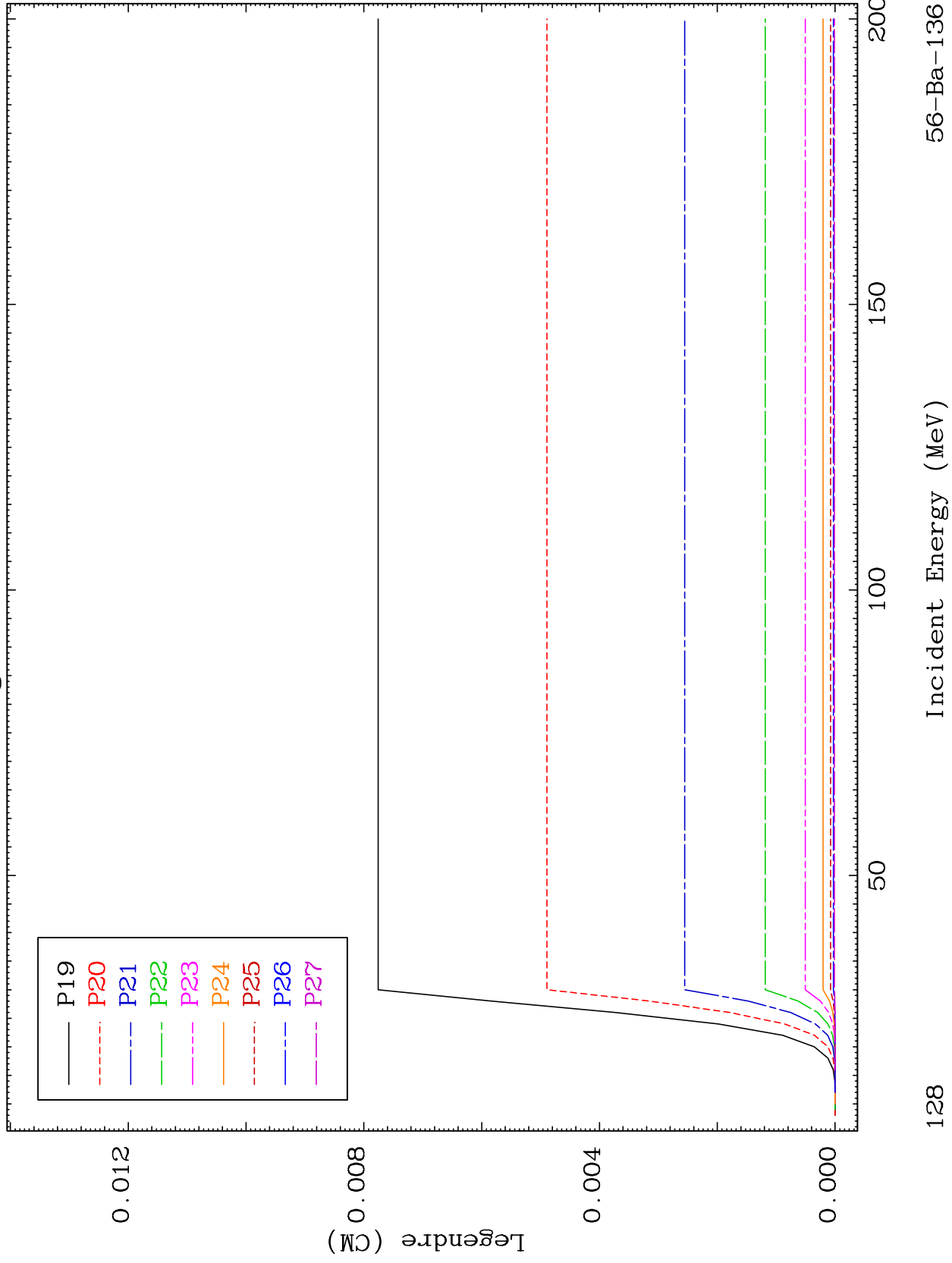
56-Ba-136



MAT 5643

MT= 80 (n,n') Level  
Legendre Coefficients

56-Ba-136



128

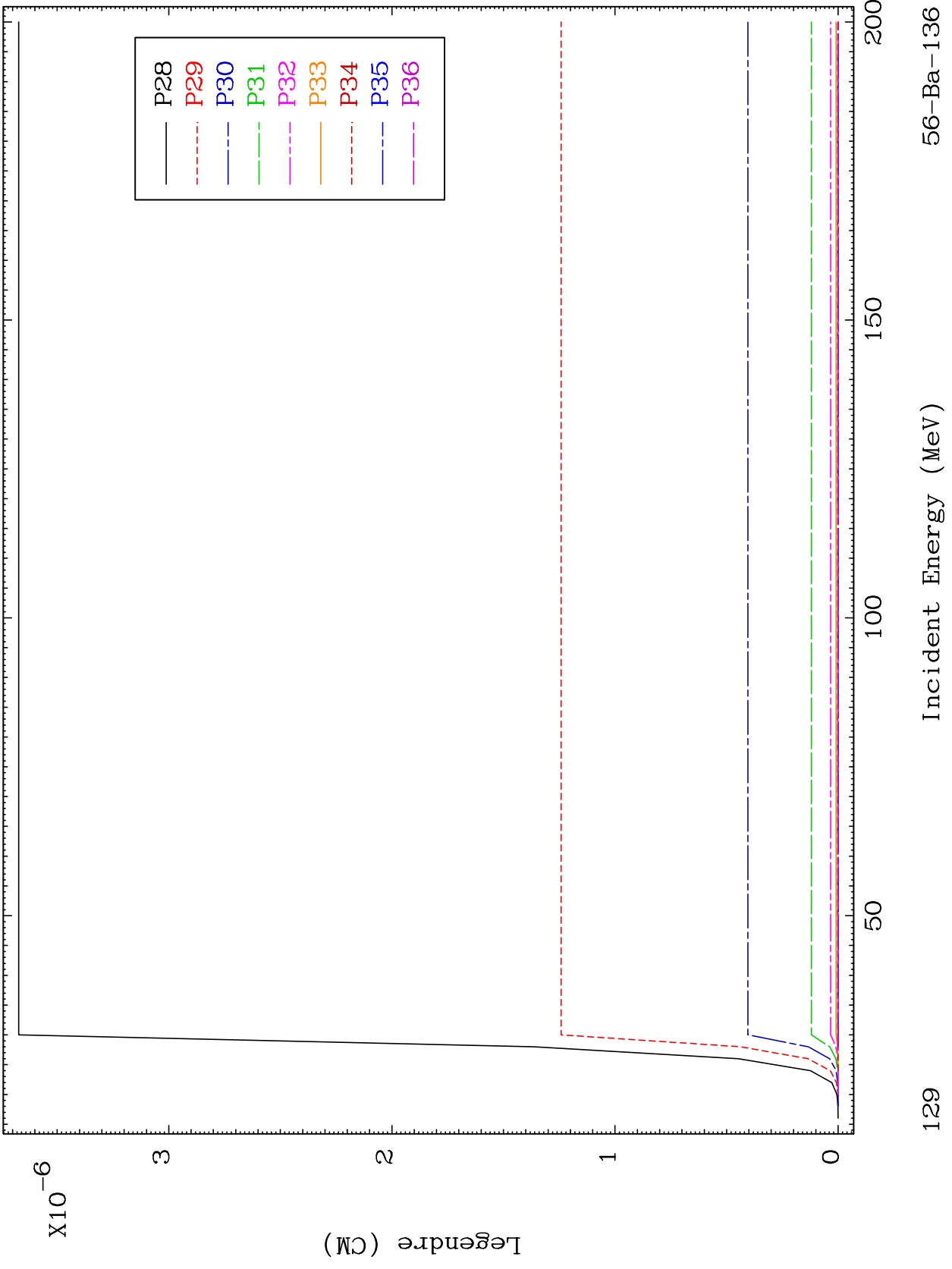
Incident Energy (MeV)

56-Ba-136

MAT 5643

MT= 80 (n,n') Level  
Legendre Coefficients

56-Ba-136

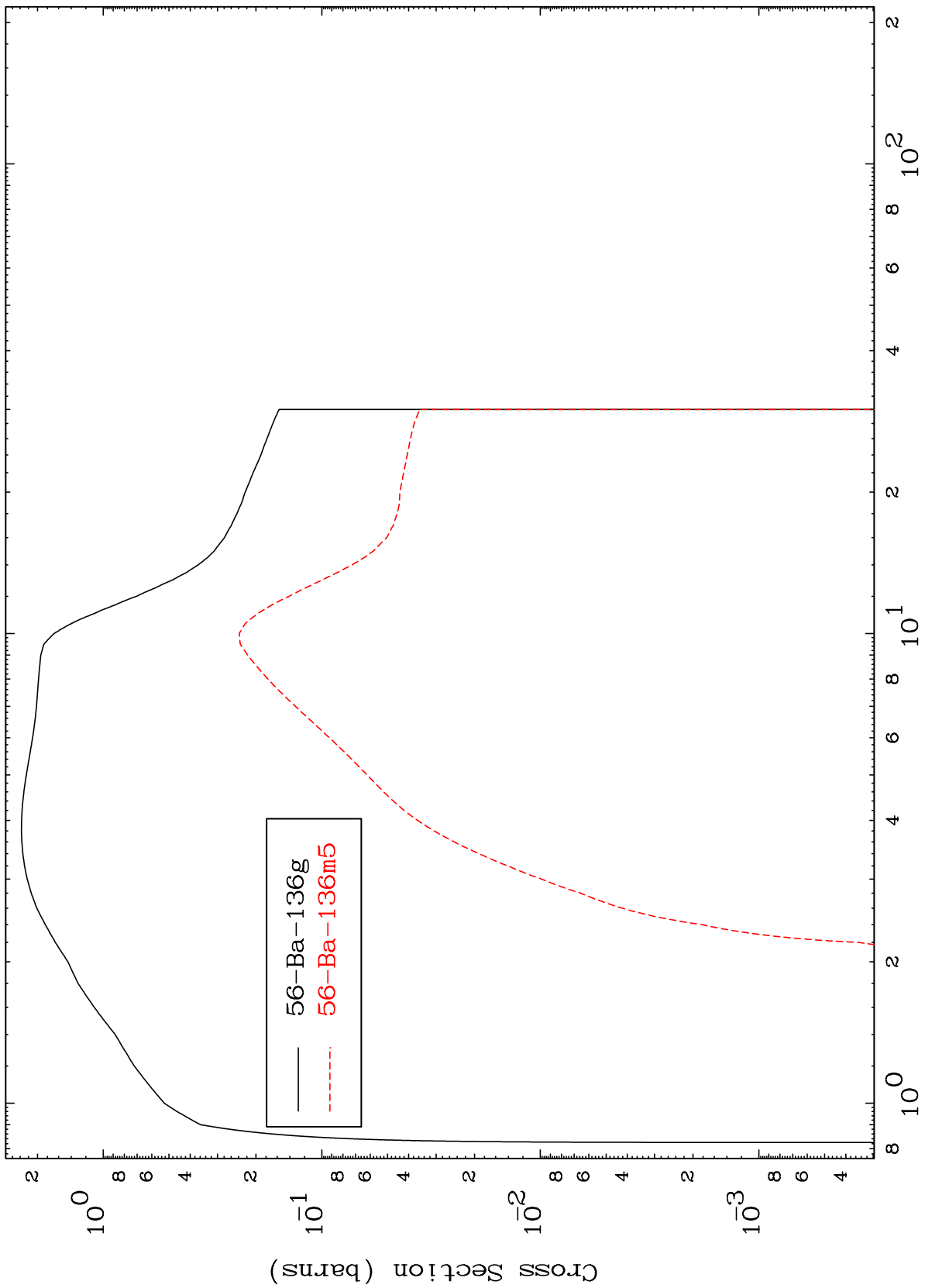


129

MAT 5643

56-Ba-136

### Inelastic Radionuclide Production Cross Section



56-Ba-136

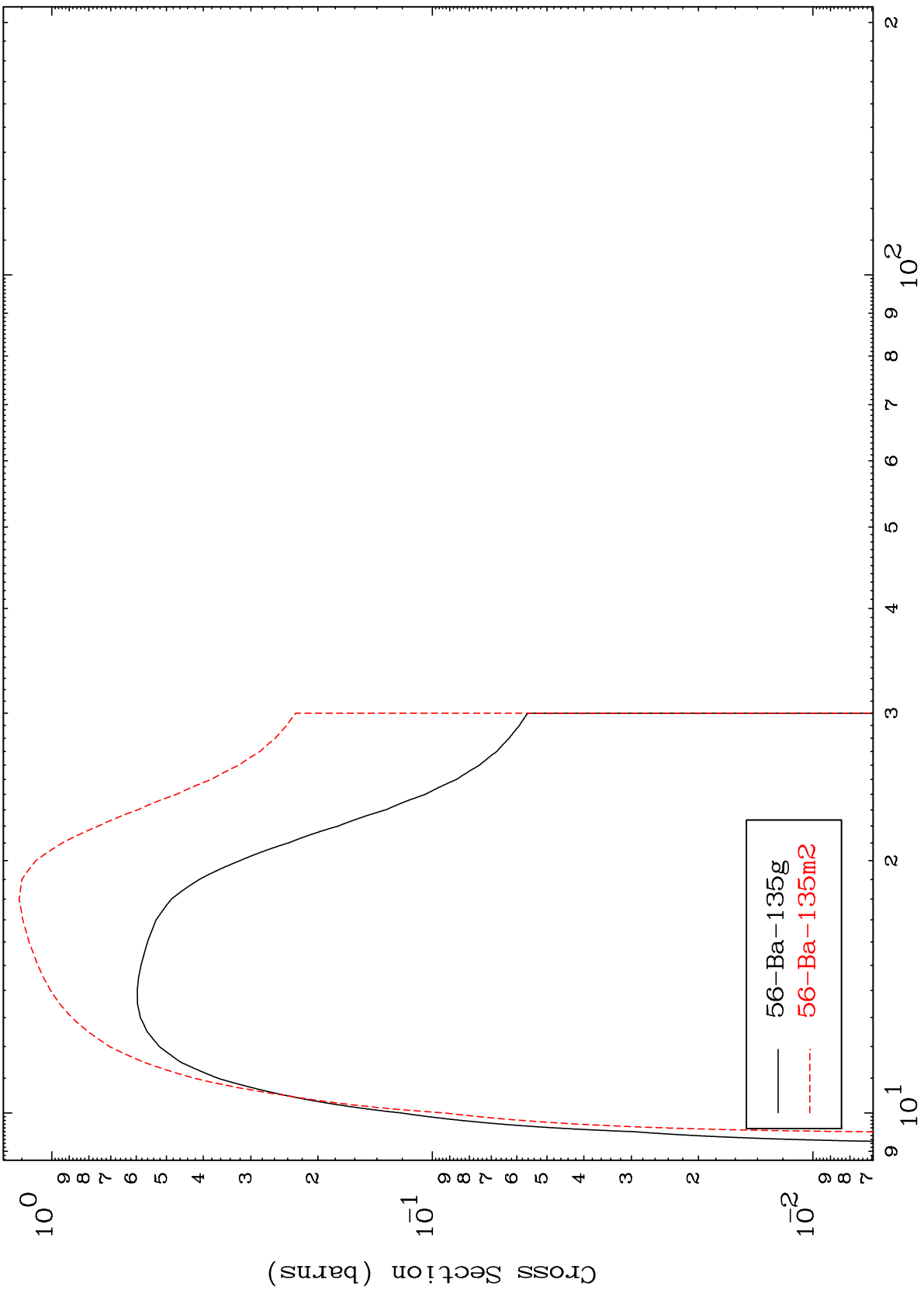
Incident Energy (MeV)

130

MAT 5643

56-Ba-136

(n,2n)  
Radionuclide Production Cross Section



56-Ba-136

Incident Energy (MeV)

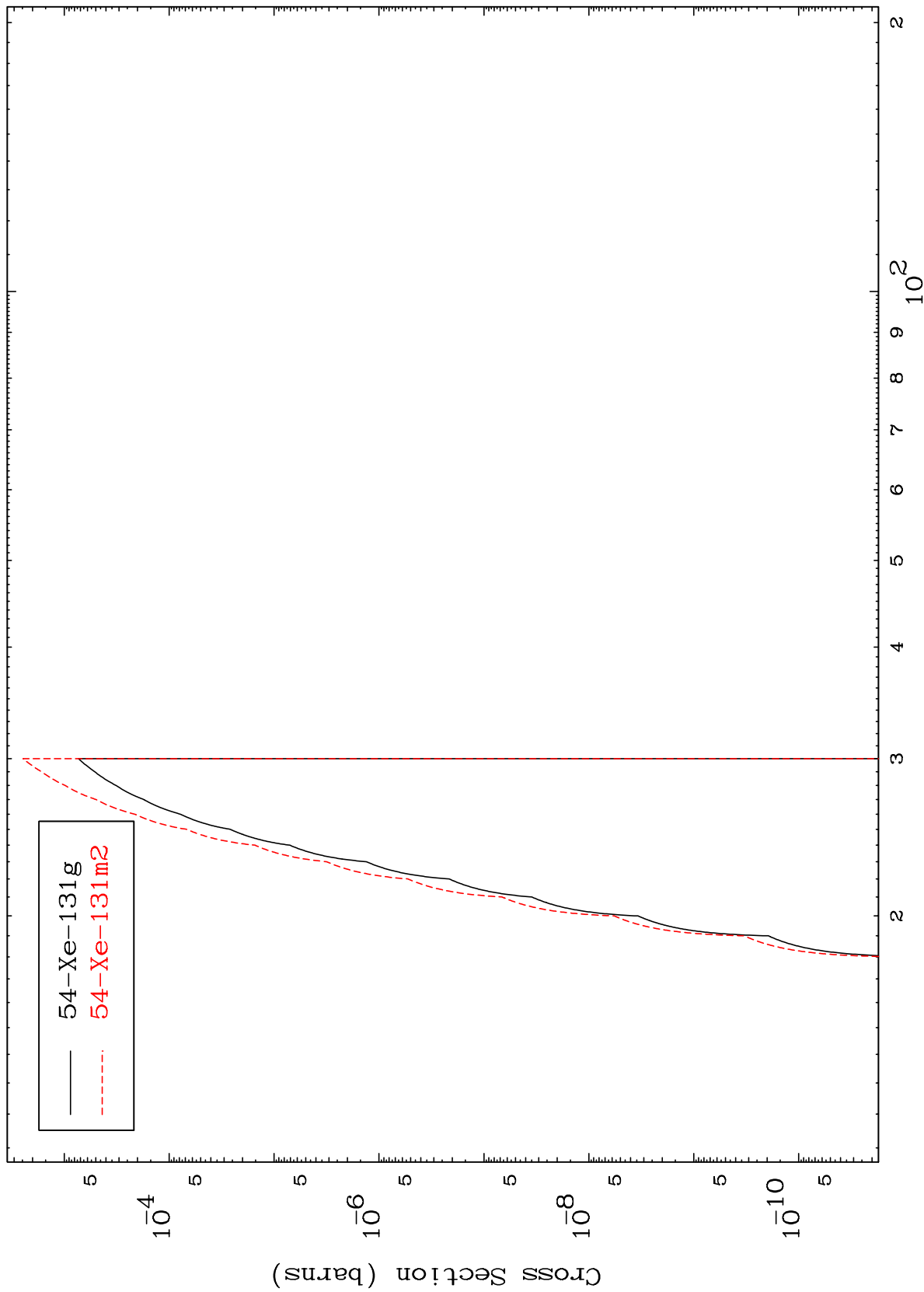
131

MAT 5643

56-Ba-136

(n,2n)  $\alpha$

Radionuclide Production Cross Section



132

Incident Energy (MeV)

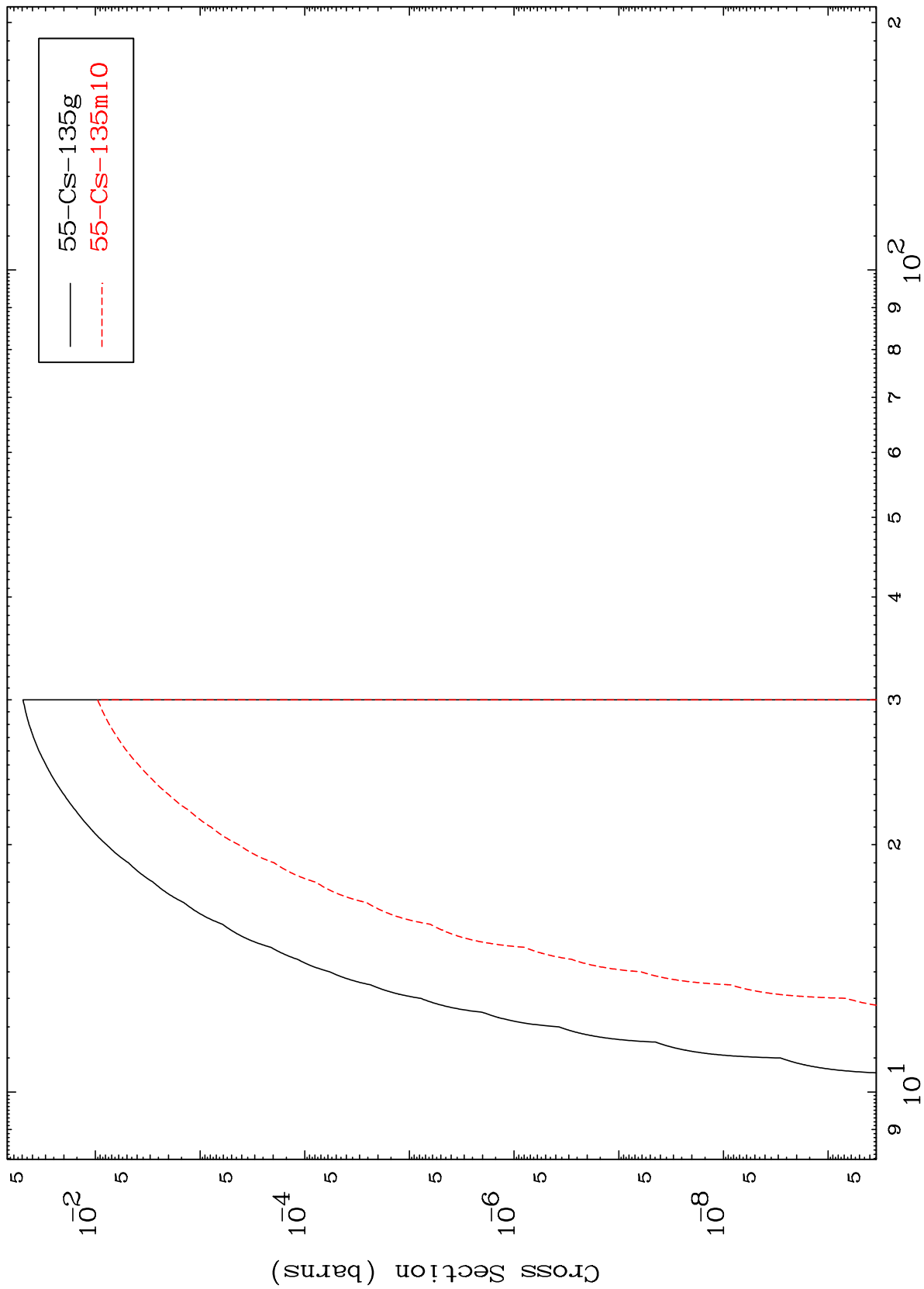
56-Ba-136

MAT 5643

(n,n') p

56-Ba-136

Radionuclide Production Cross Section



133

Incident Energy (MeV)

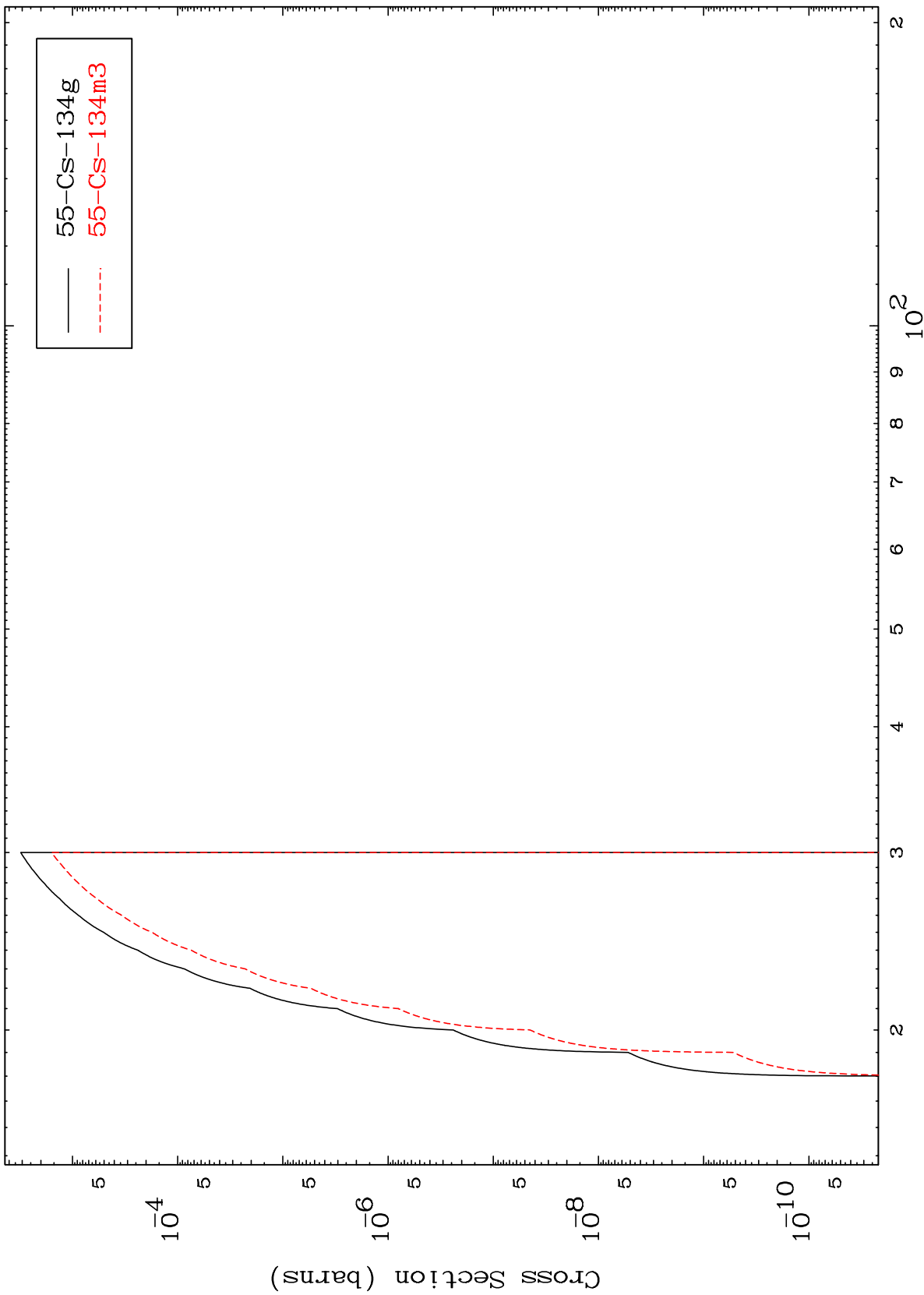
56-Ba-136

MAT 5643

(n,n') d

56-Ba-136

Radionuclide Production Cross Section



134

Incident Energy (MeV)

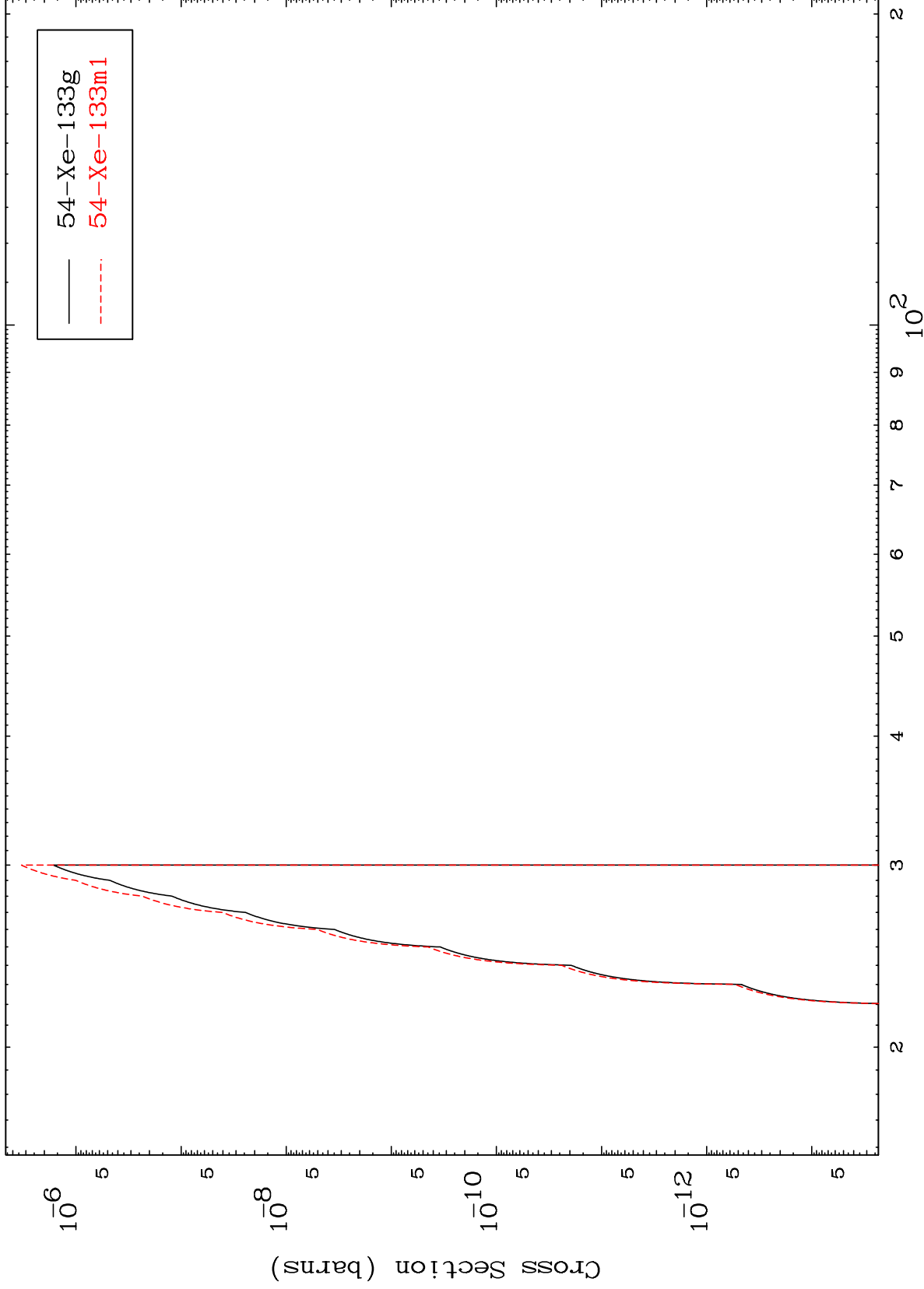
56-Ba-136

MAT 5643

(n,n') He-3

56-Ba-136

Radionuclide Production Cross Section



135

Incident Energy (MeV)

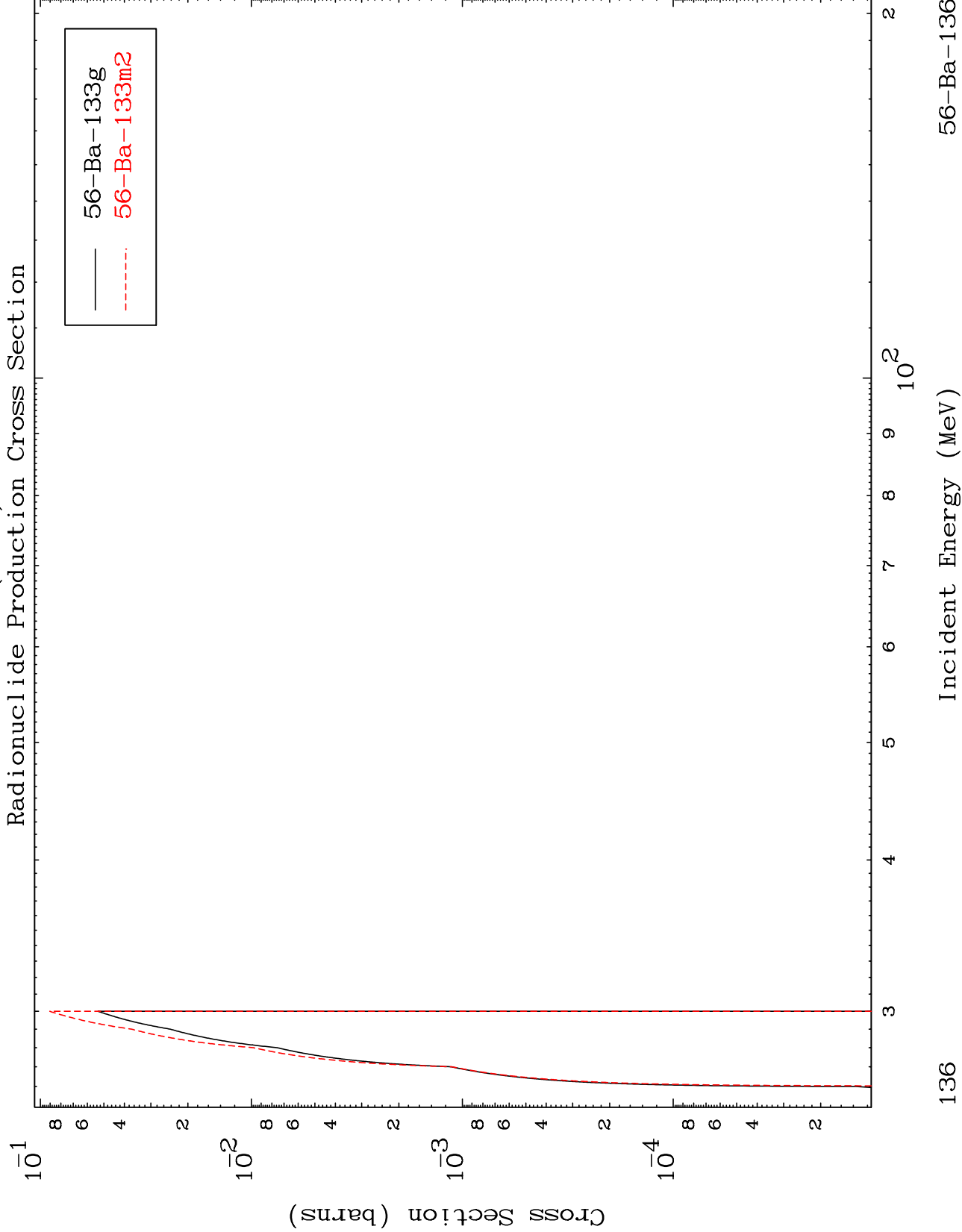
56-Ba-136



MAT 5643

(n,4n)

56-Ba-136



136

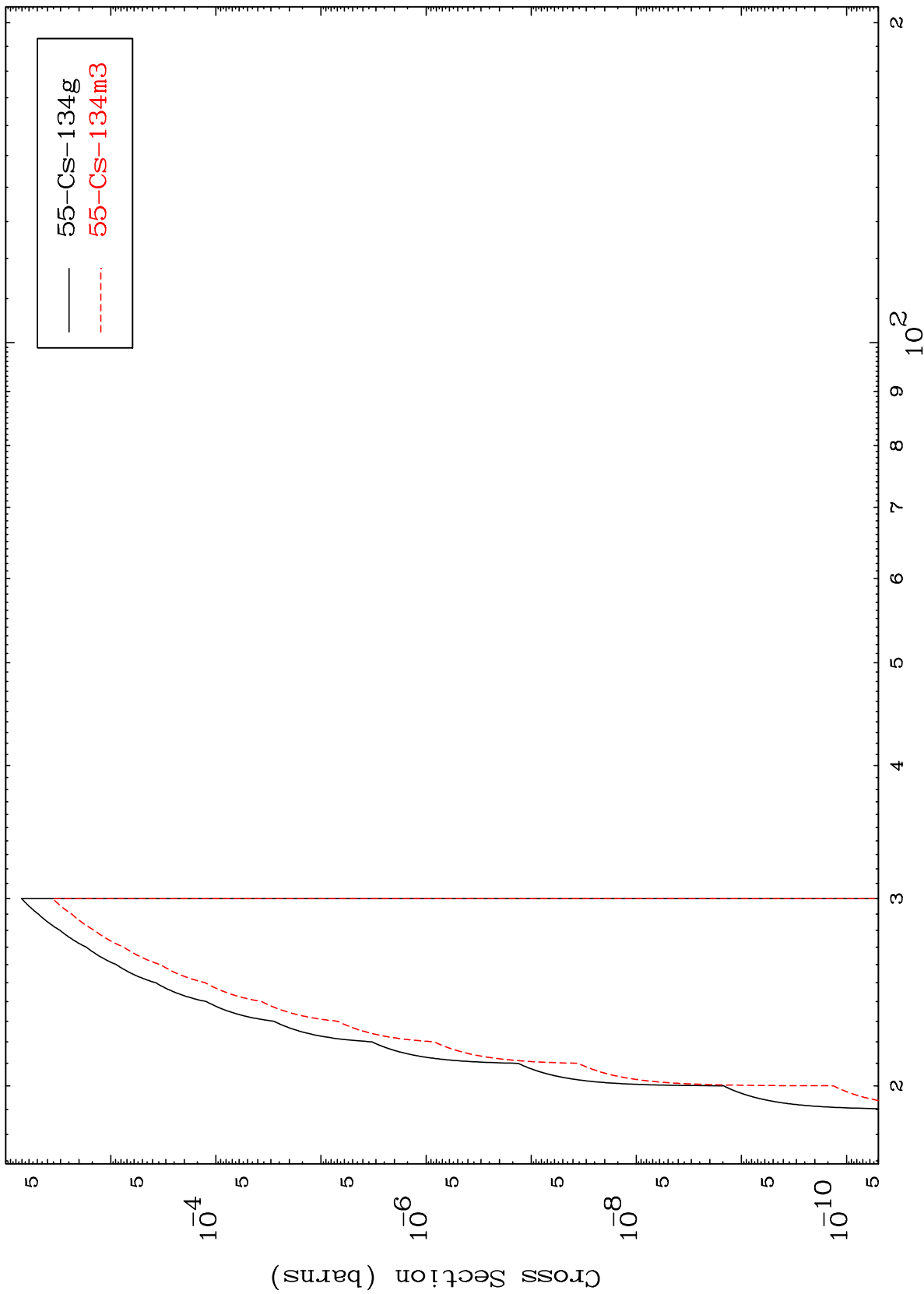
Incident Energy (MeV)

56-Ba-136

MAT 5643

56-Ba-136

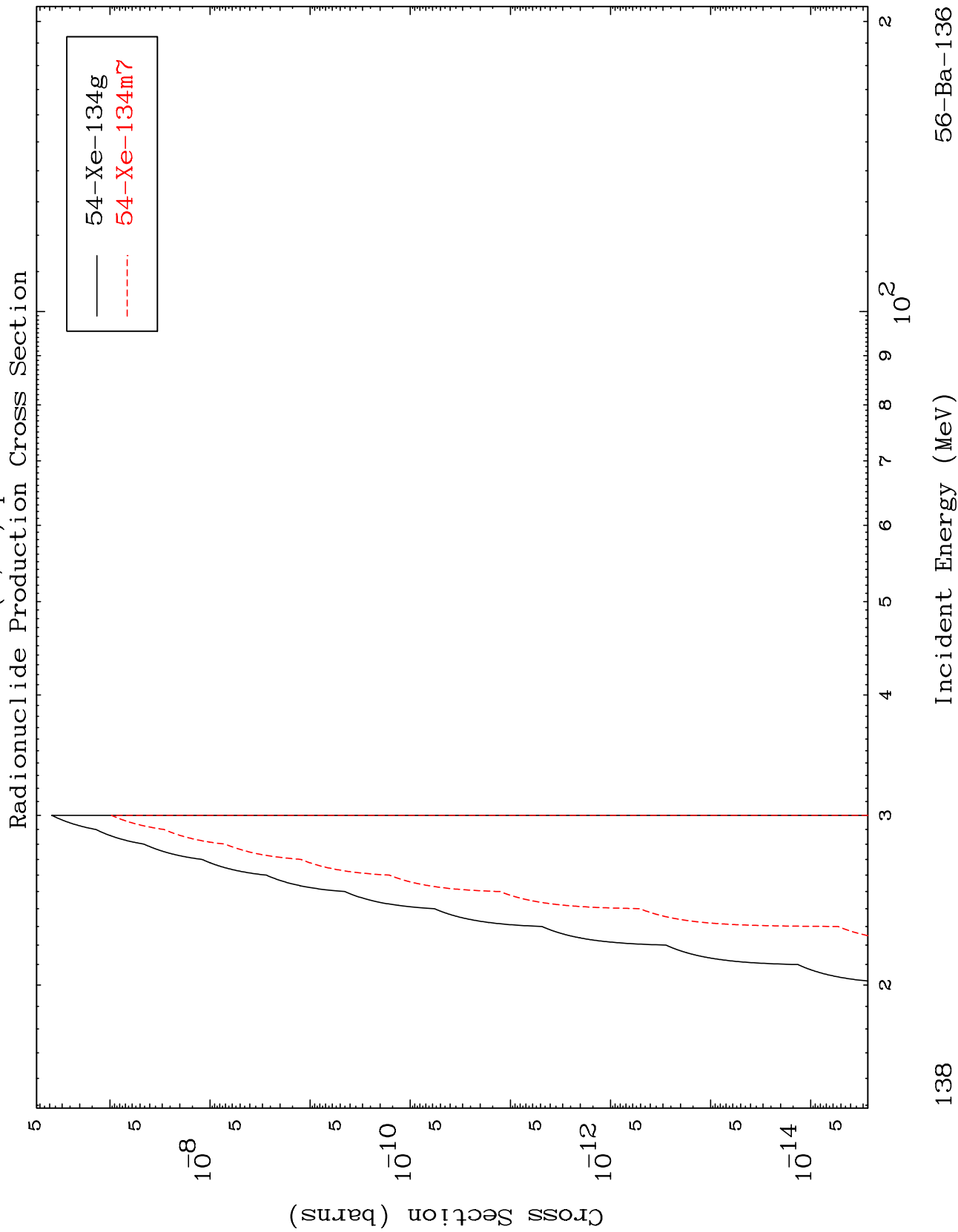
(n,2n) p  
Radionuclide Production Cross Section



56-Ba-136

Incident Energy (MeV)

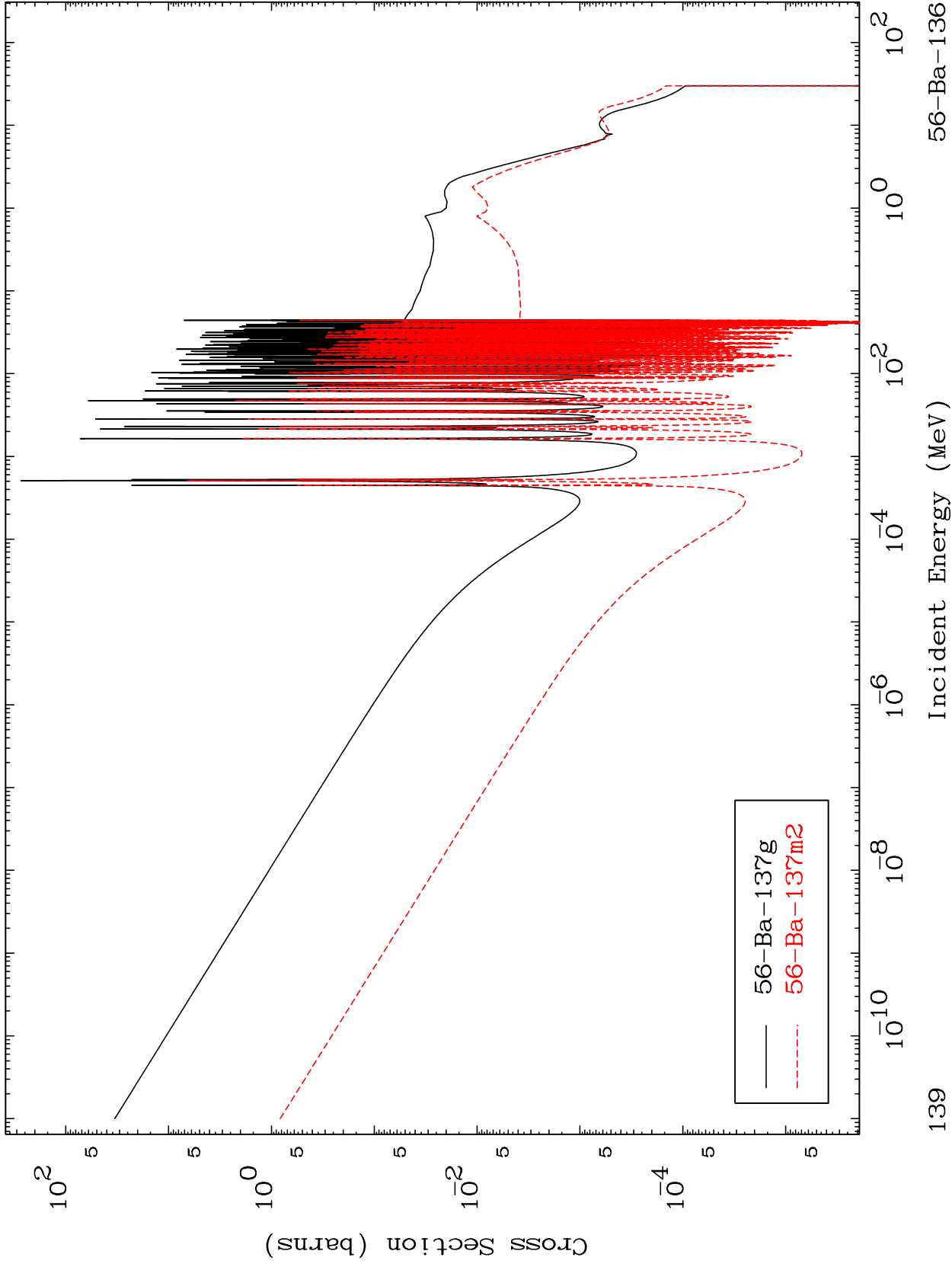
137



MAT 5643

56-Ba-136

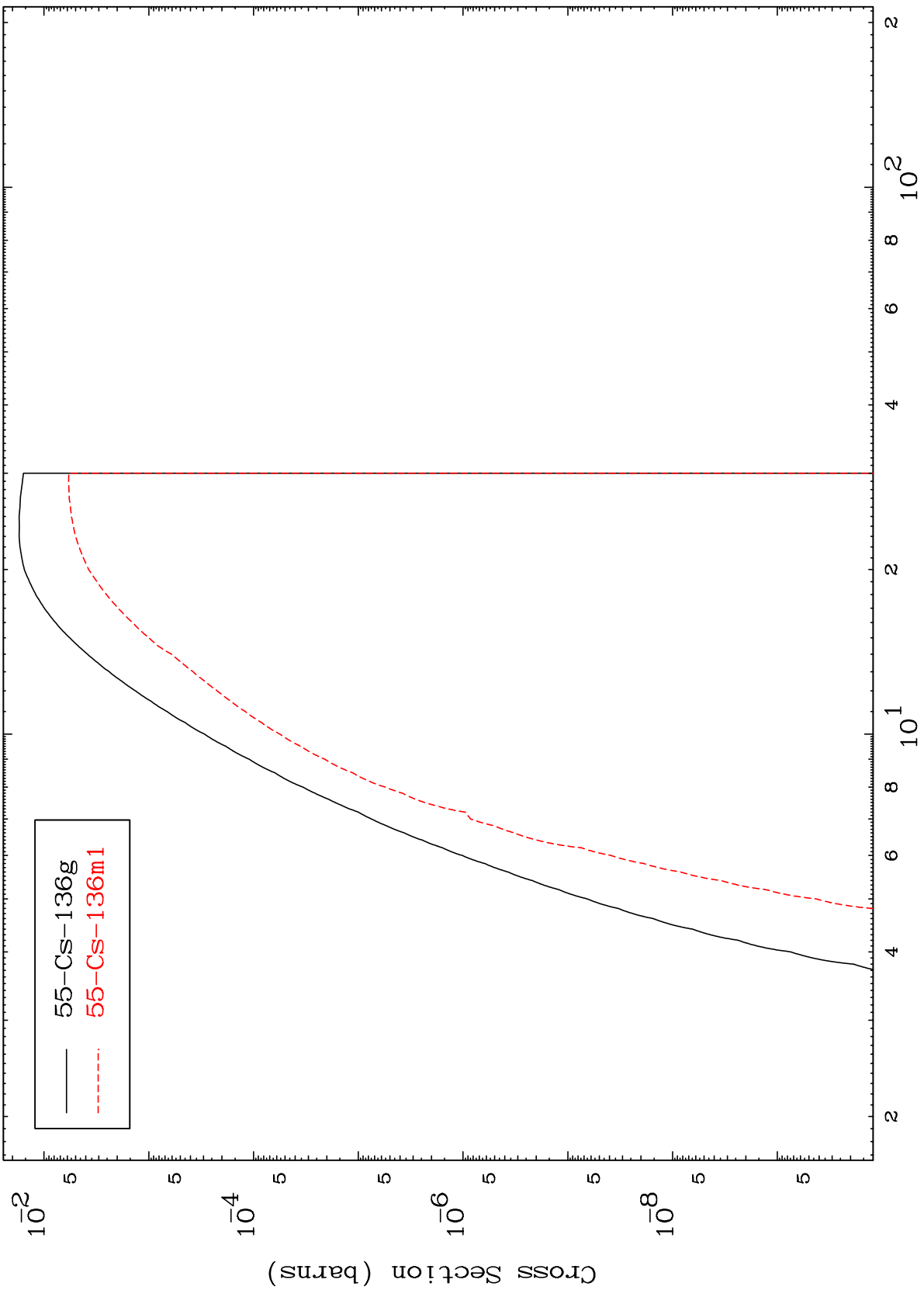
$(n, \gamma)$   
Radionuclide Production Cross Section



MAT 5643

56-Ba-136

(n,p)  
Radionuclide Production Cross Section



— 55-Cs-136g  
- - - 55-Cs-136m1

140

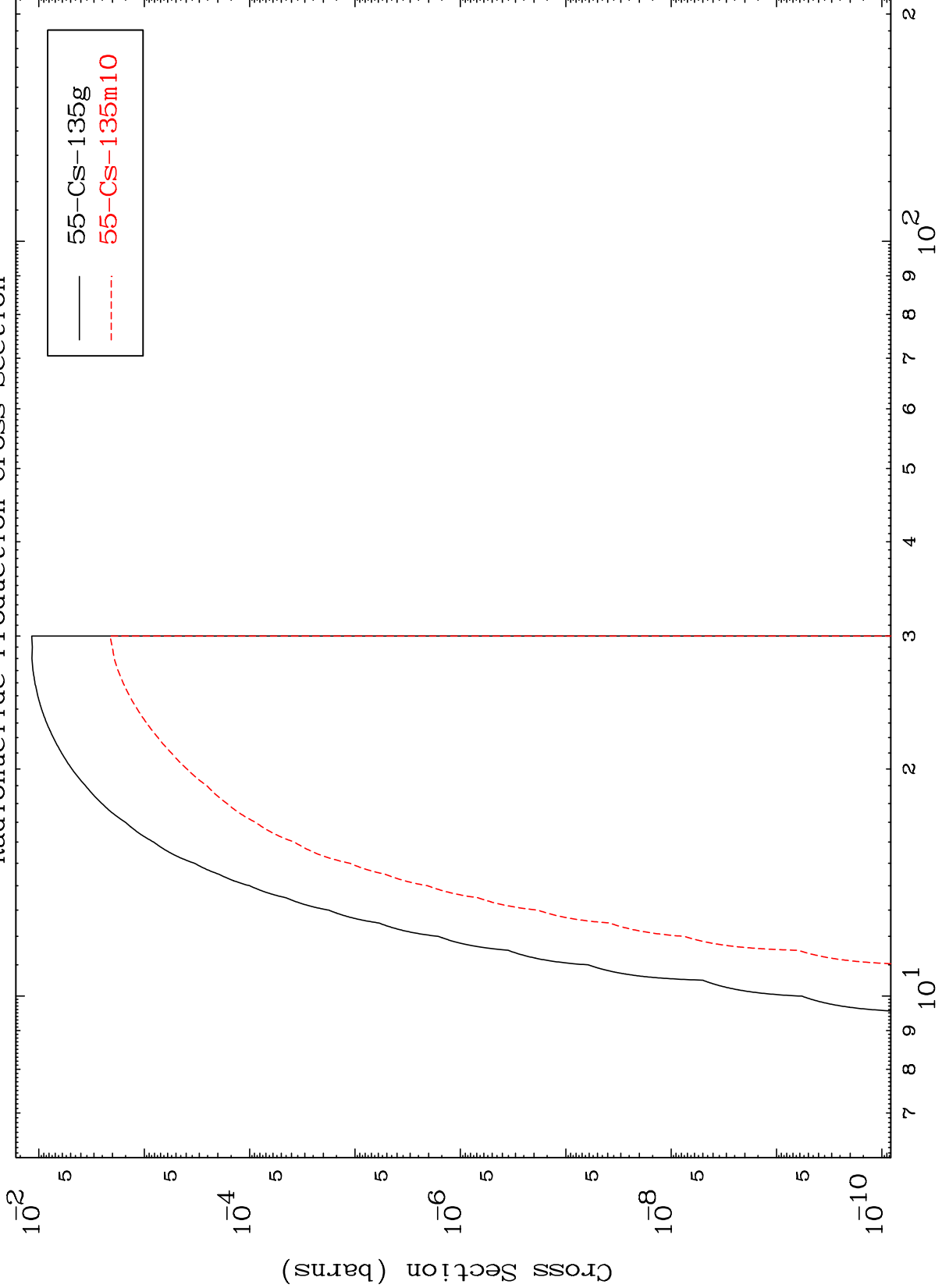
Incident Energy (MeV)

56-Ba-136

MAT 5643

56-Ba-136

(n,d)  
Radionuclide Production Cross Section



55-Cs-135g  
55-Cs-135m10

141

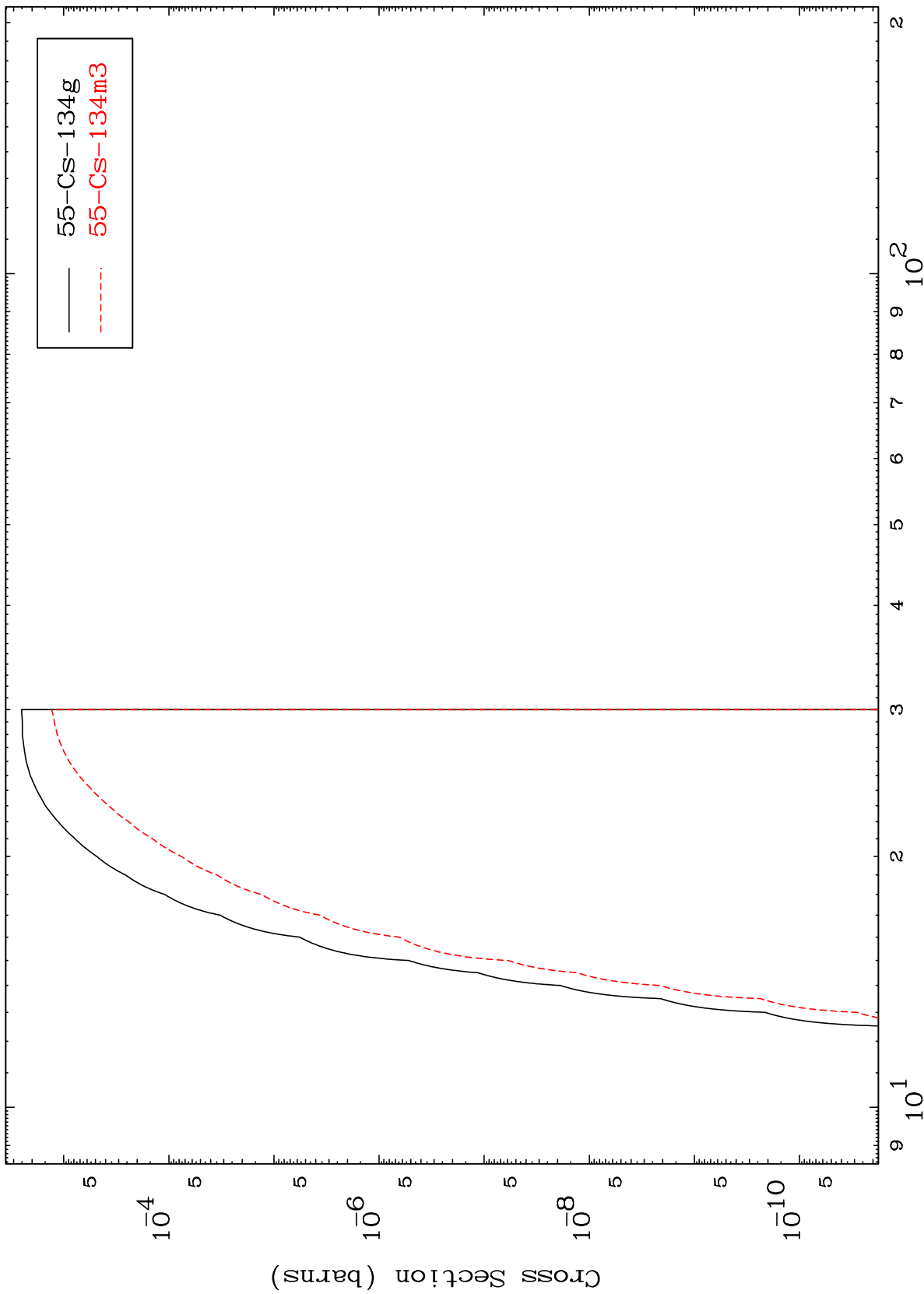
Incident Energy (MeV)

56-Ba-136

MAT 5643

56-Ba-136

(n, t)  
Radionuclide Production Cross Section



56-Ba-136

Incident Energy (MeV)

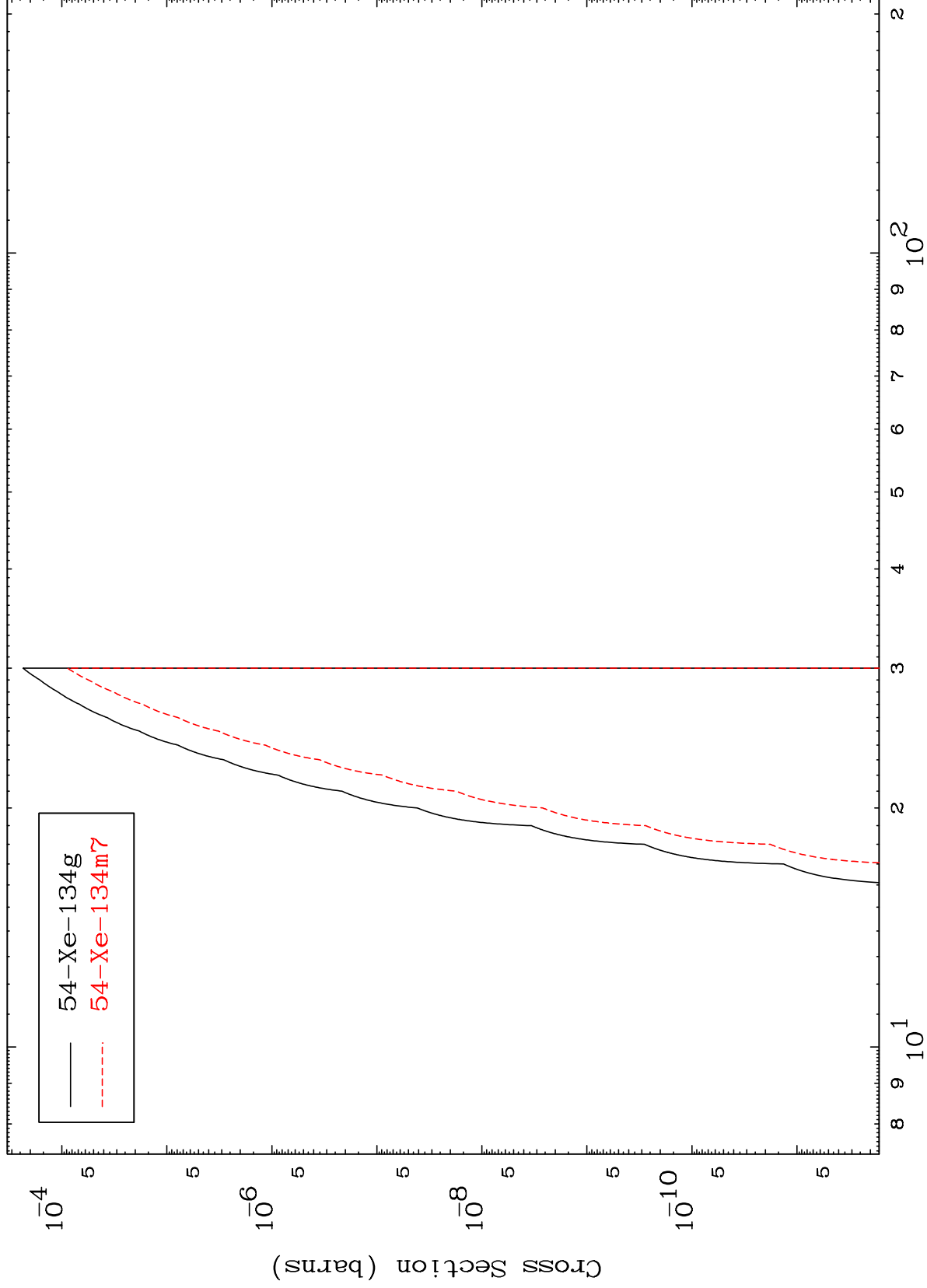
142

MAT 5643

(n,He-3)

56-Ba-136

Radionuclide Production Cross Section



143

Incident Energy (MeV)

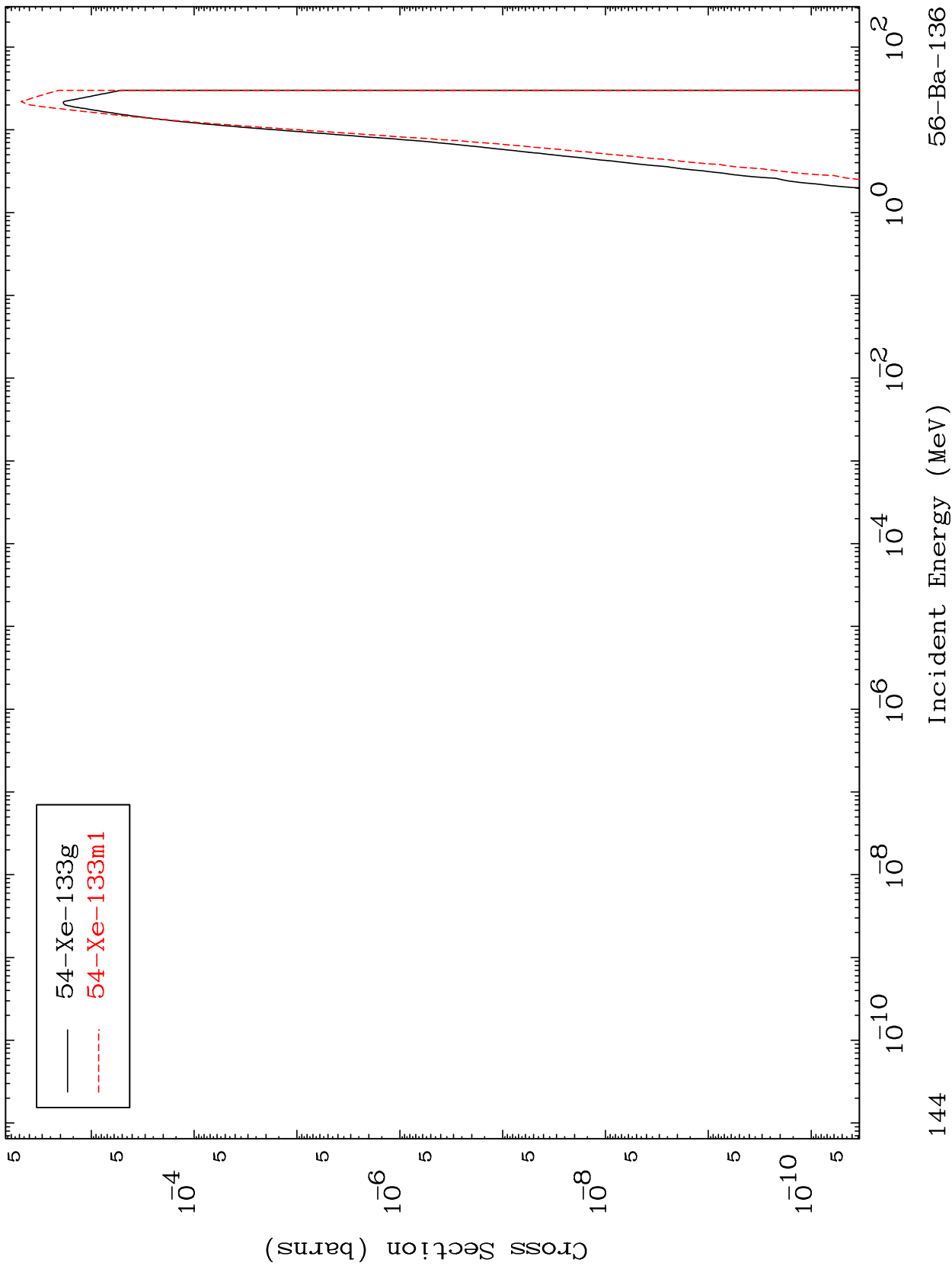
56-Ba-136



MAT 5643

56-Ba-136

(n,  $\alpha$ )  
Radionuclide Production Cross Section



144

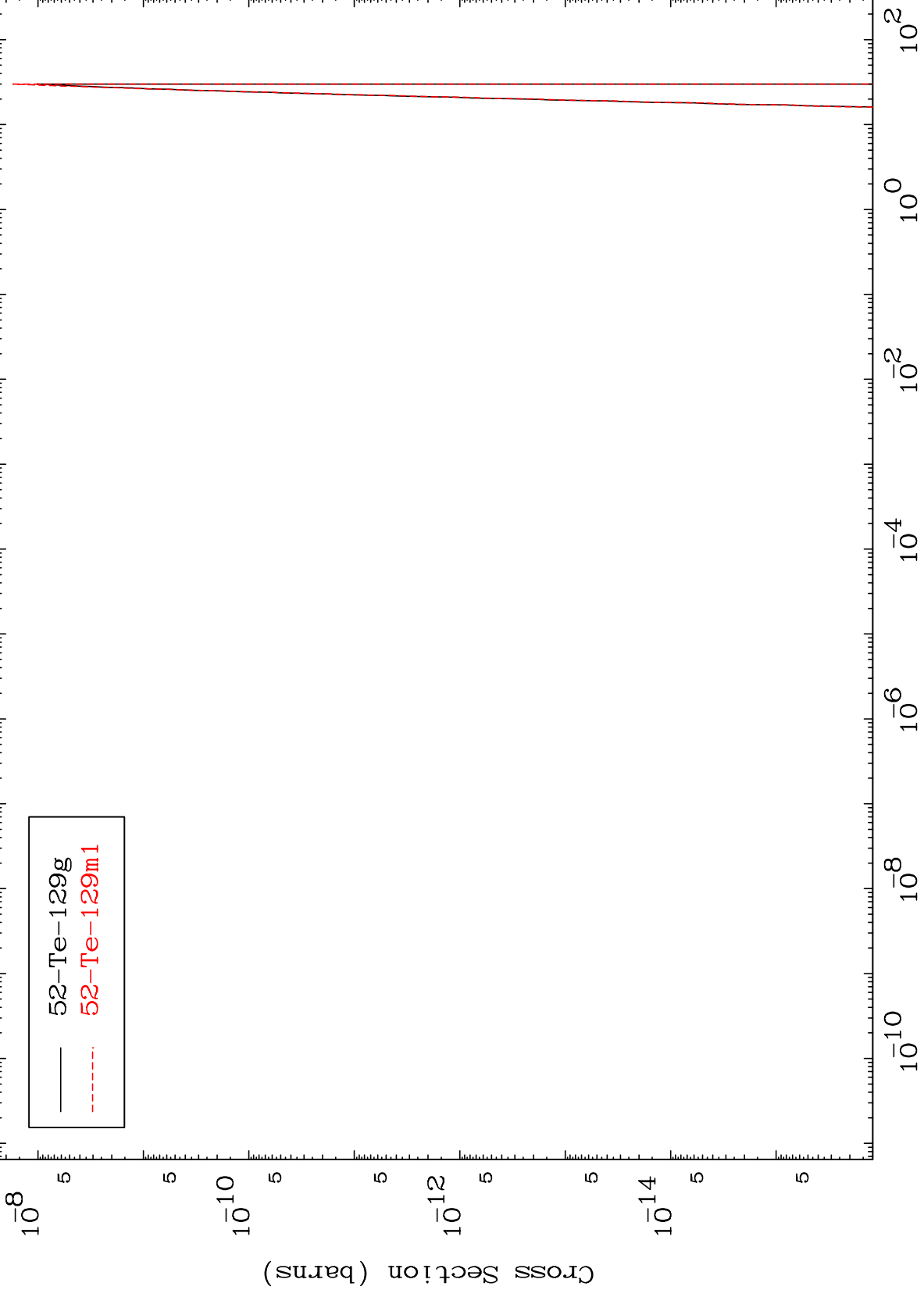
56-Ba-136

MAT 5643

(n,2α)

56-Ba-136

Radionuclide Production Cross Section

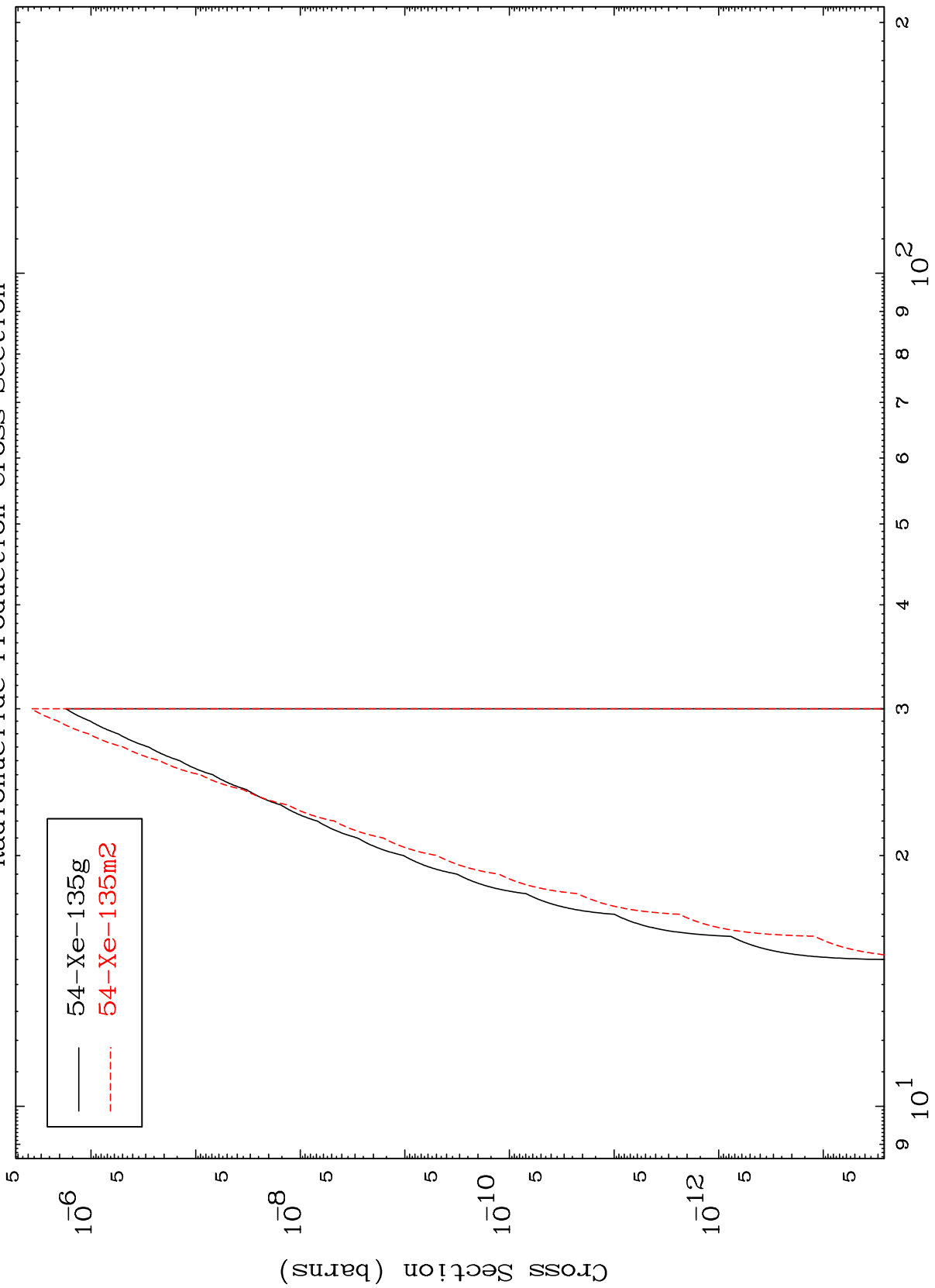


52-Te-129g  
52-Te-129m1

MAT 5643

56-Ba-136

(n,2p)  
Radionuclide Production Cross Section



54-Xe-135g  
54-Xe-135m2

56-Ba-136

Incident Energy (MeV)

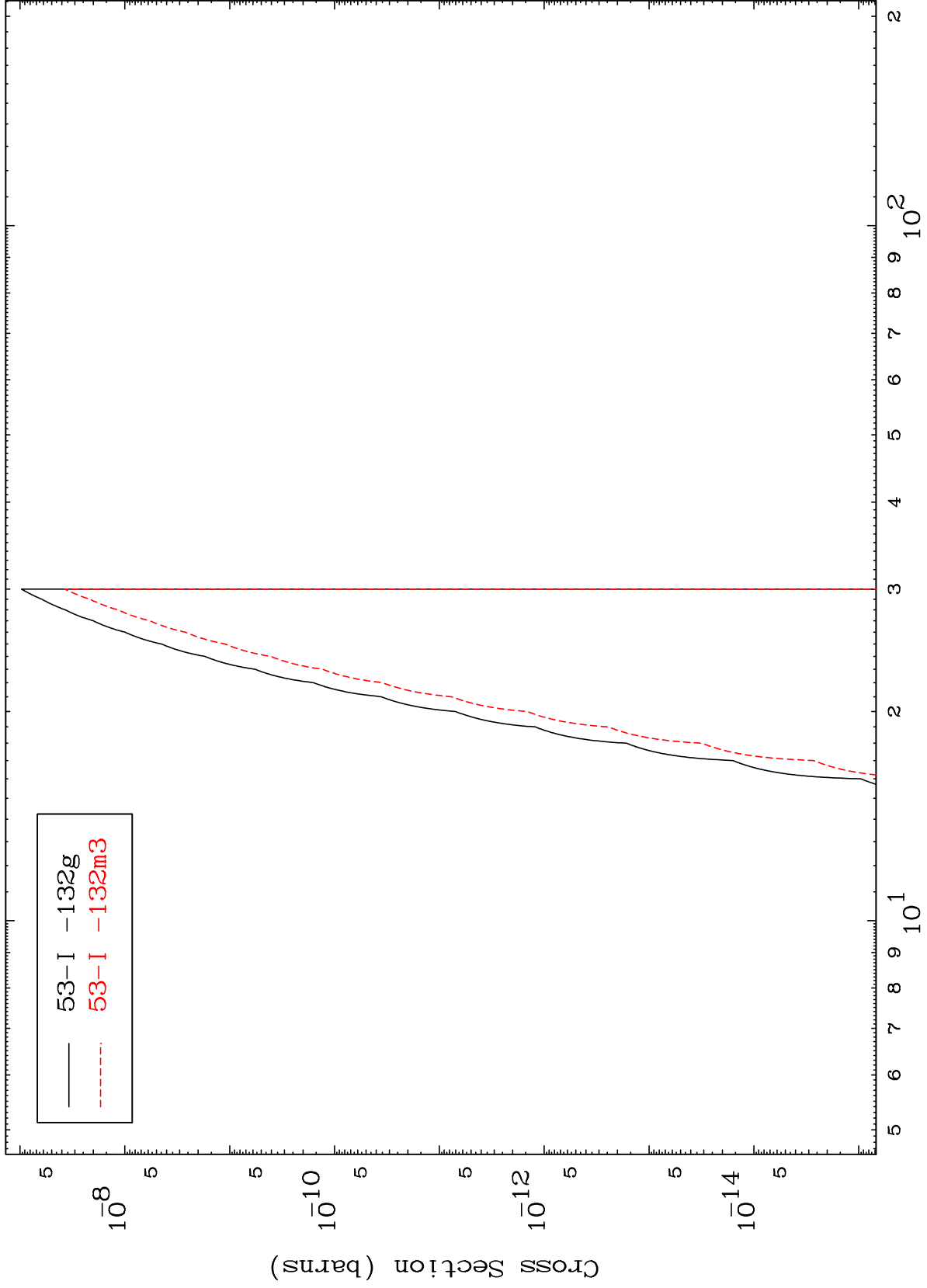
146

MAT 5643

(n,p)  $\alpha$

56-Ba-136

Radionuclide Production Cross Section



147

Incident Energy (MeV)

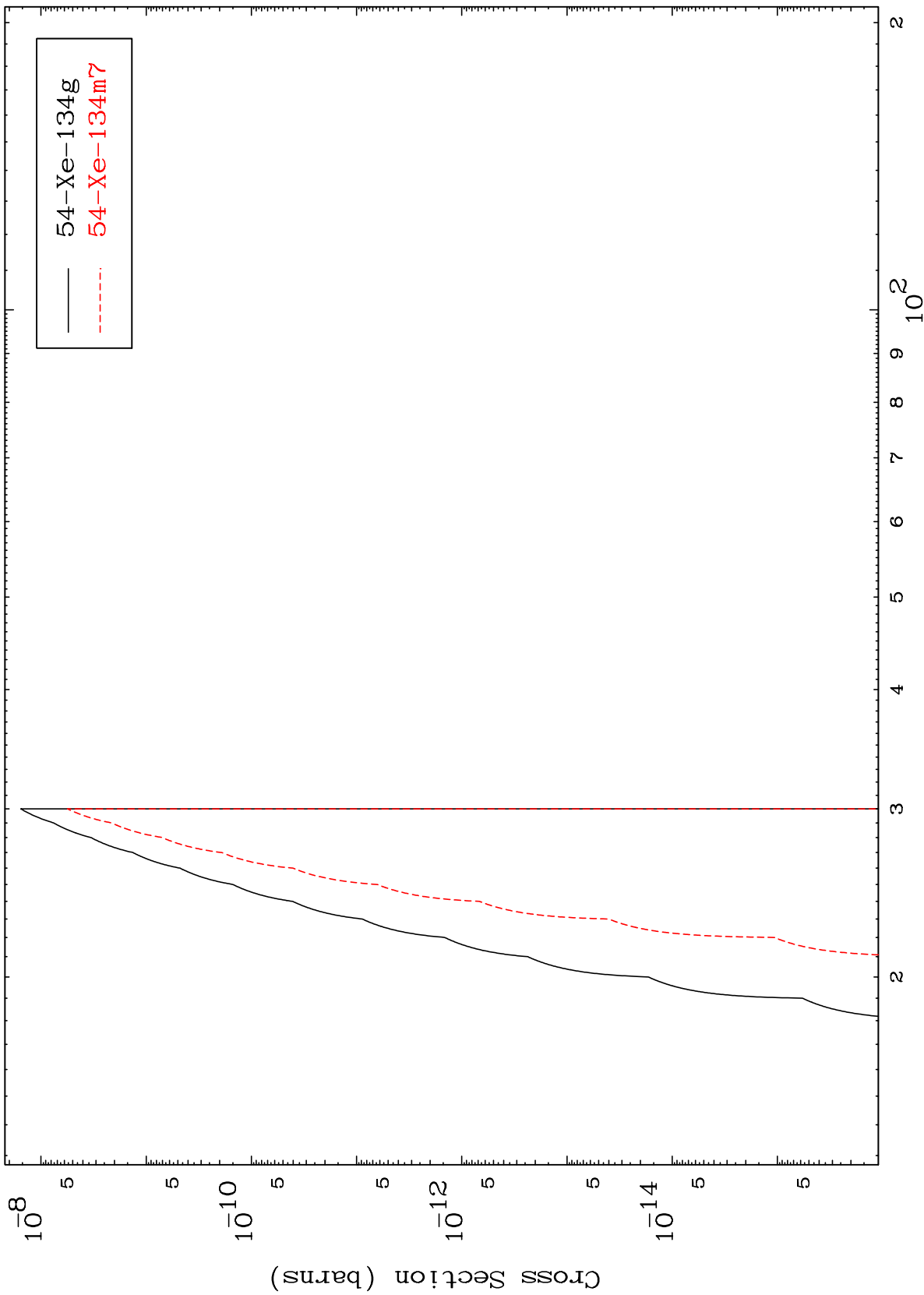
56-Ba-136

MAT 5643

(n,p) d

56-Ba-136

Radionuclide Production Cross Section



148

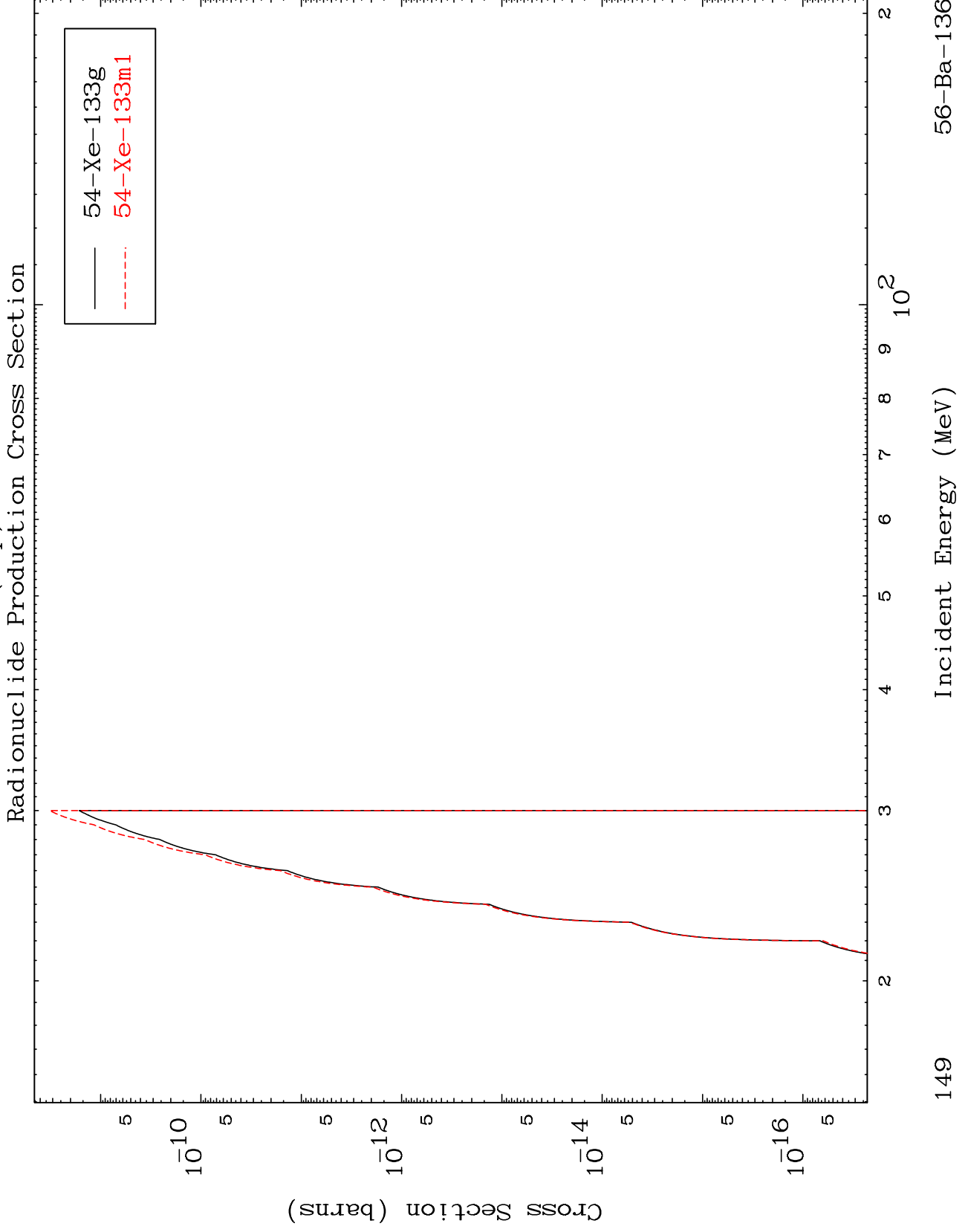
Incident Energy (MeV)

56-Ba-136

MAT 5643

(n,p) t

56-Ba-136



149

56-Ba-136