

Program EVALPLOT  
(Version 2017-1)

by

Dermott E. Cullen  
(Present Contact Information)

Dermott E. Cullen  
1466 Hudson Way  
Livermore, CA 94550  
U.S.A.

Tele: 925-443-1911

E.Mail:redcullen1@comcast.net

Web:redcullen1.net/HOMEPAGE.NEW

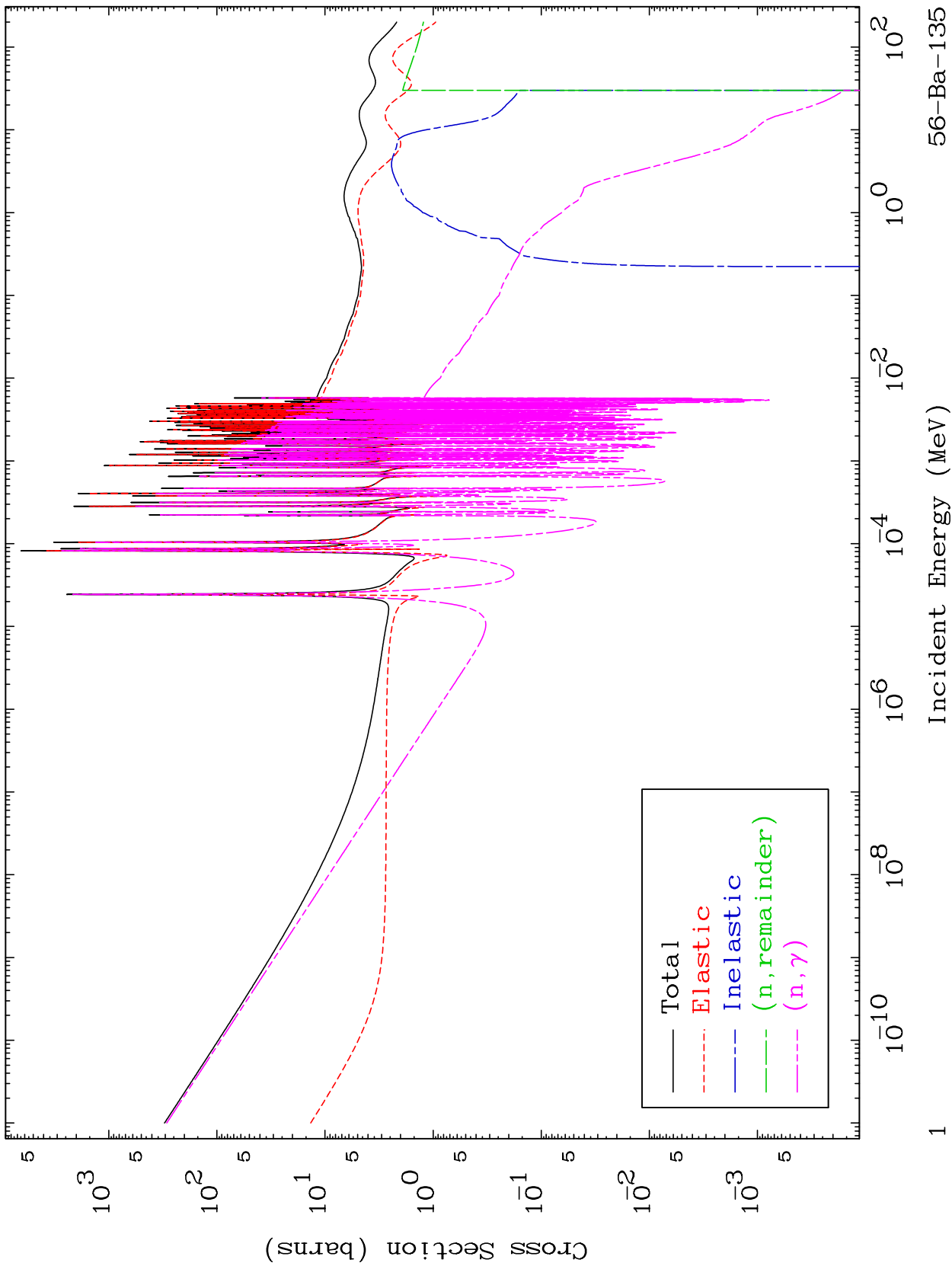
Press Mouse Button to Start

MAT 5640

Major

293 Kelvin Cross Sections

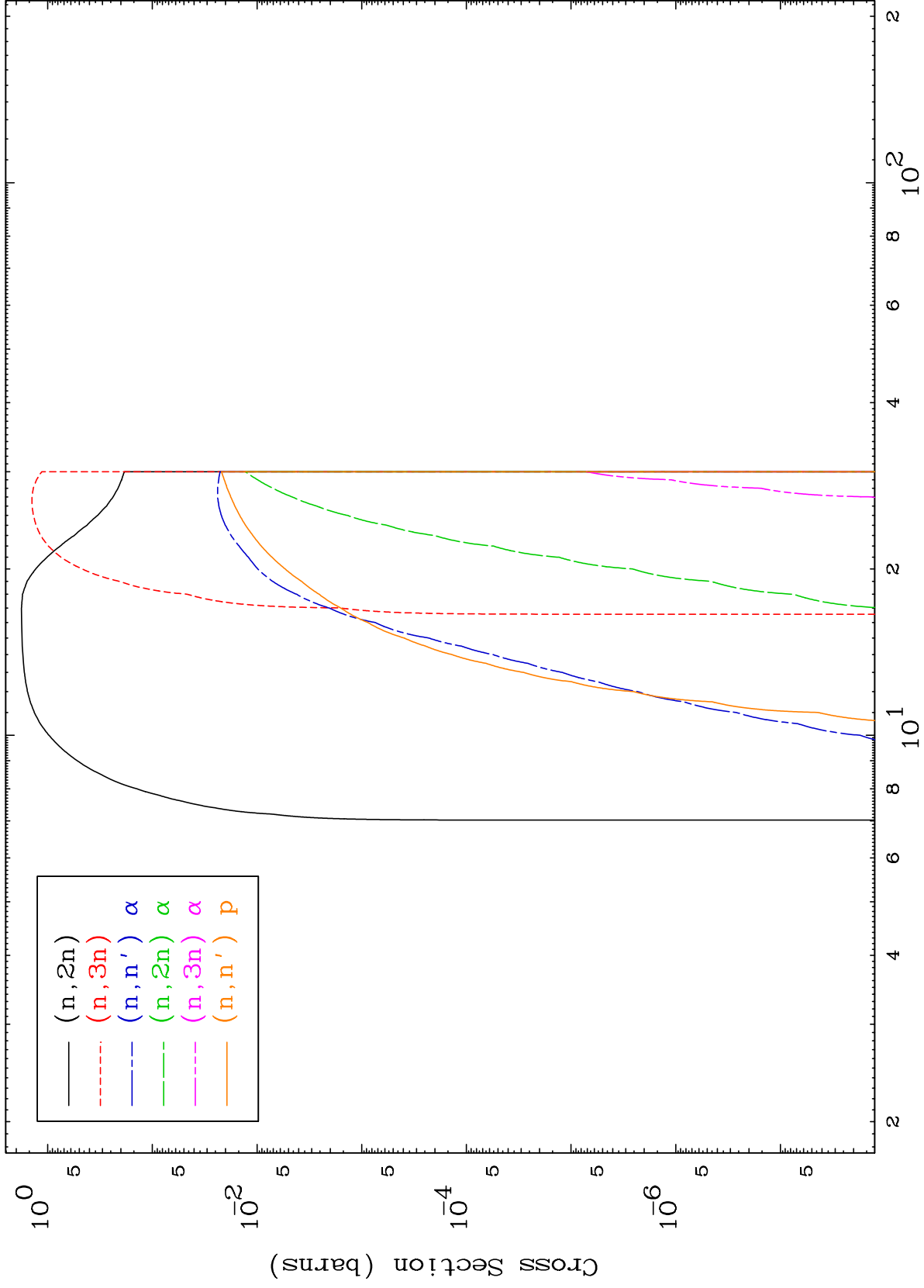
56-Ba-135



MAT 5640

Neutron Production  
293 Kelvin Cross Sections

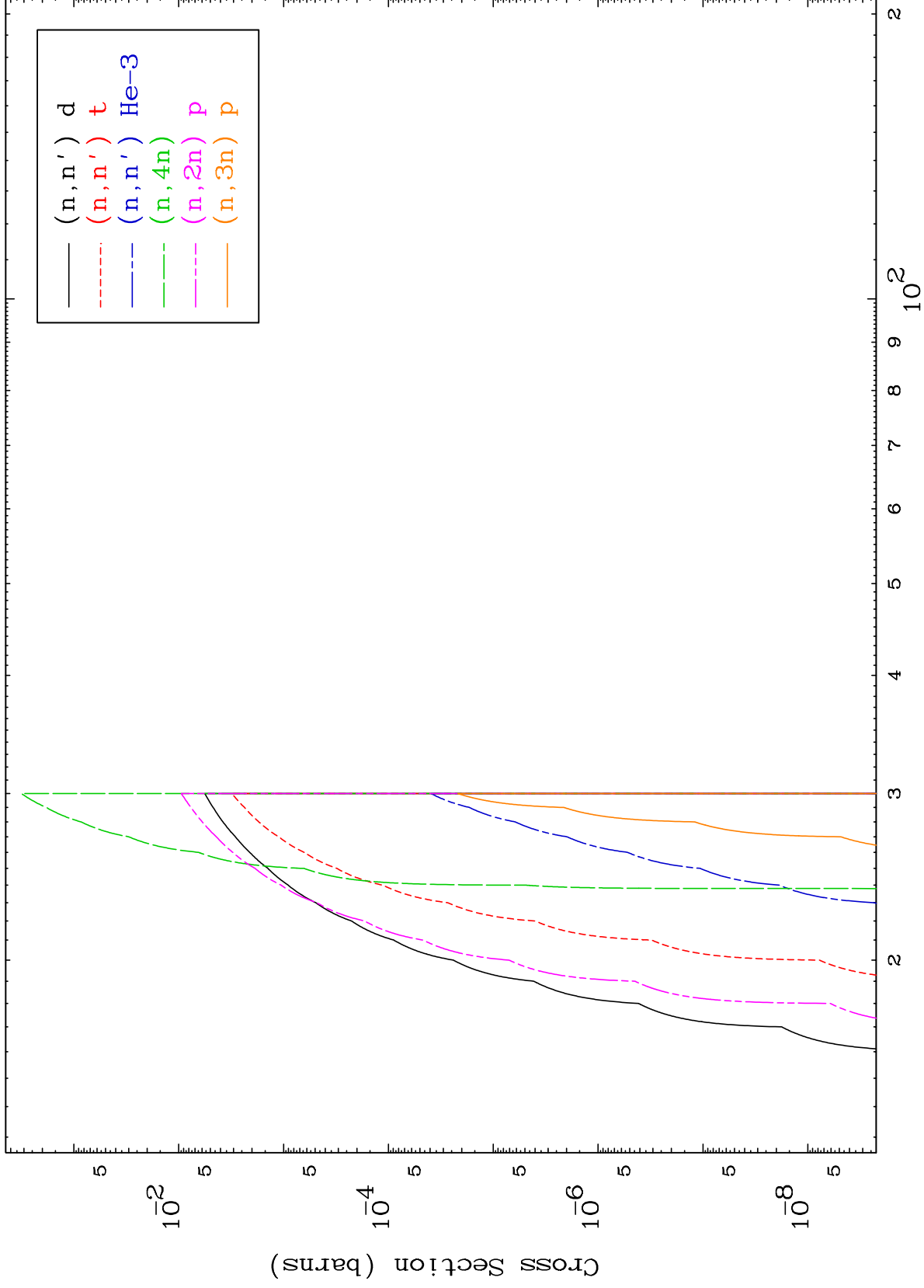
56-Ba-135



2

Incident Energy (MeV)

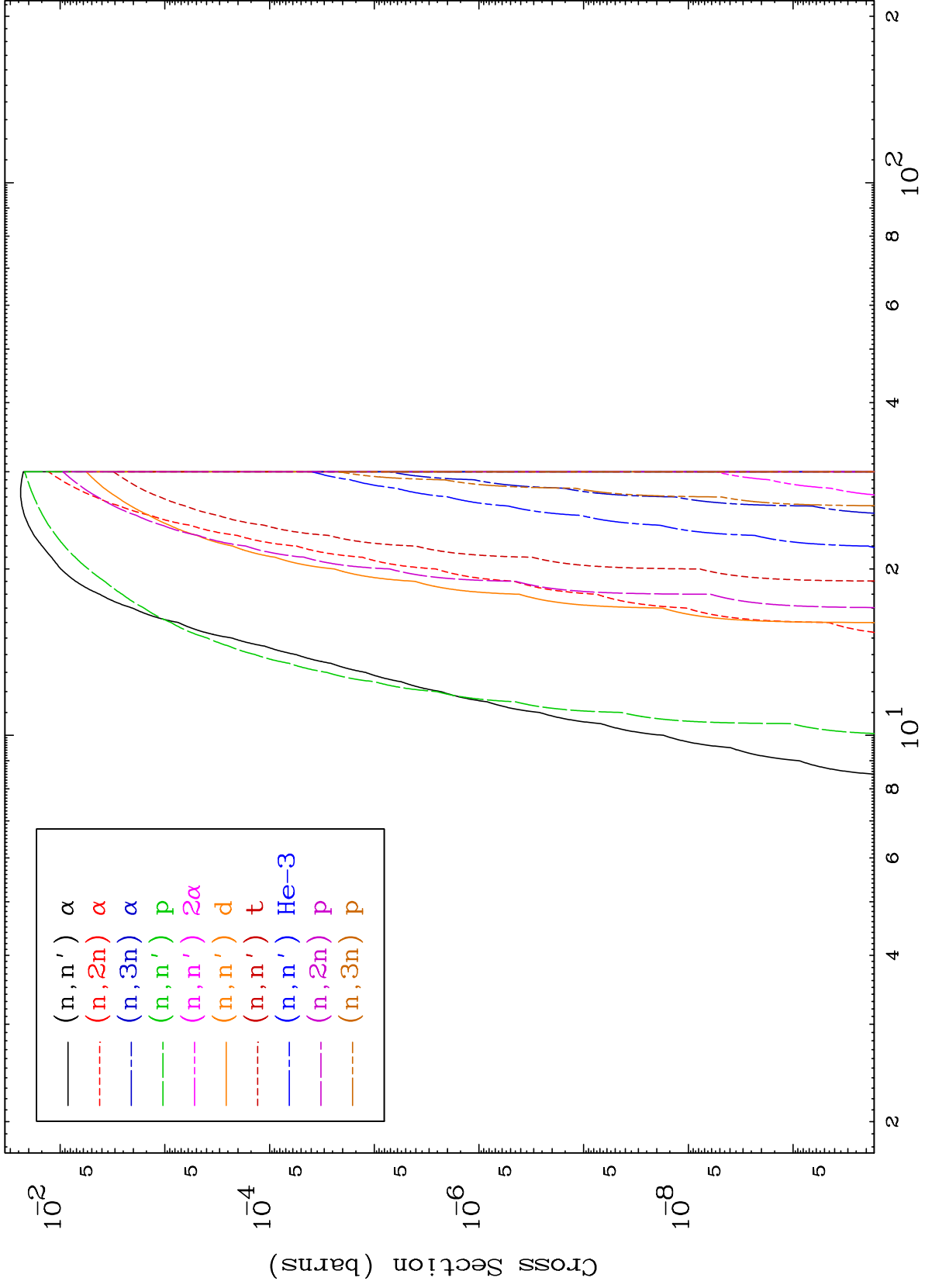
56-Ba-135



MAT 5640

Charged Particle  
293 Kelvin Cross Sections

56-Ba-135



4

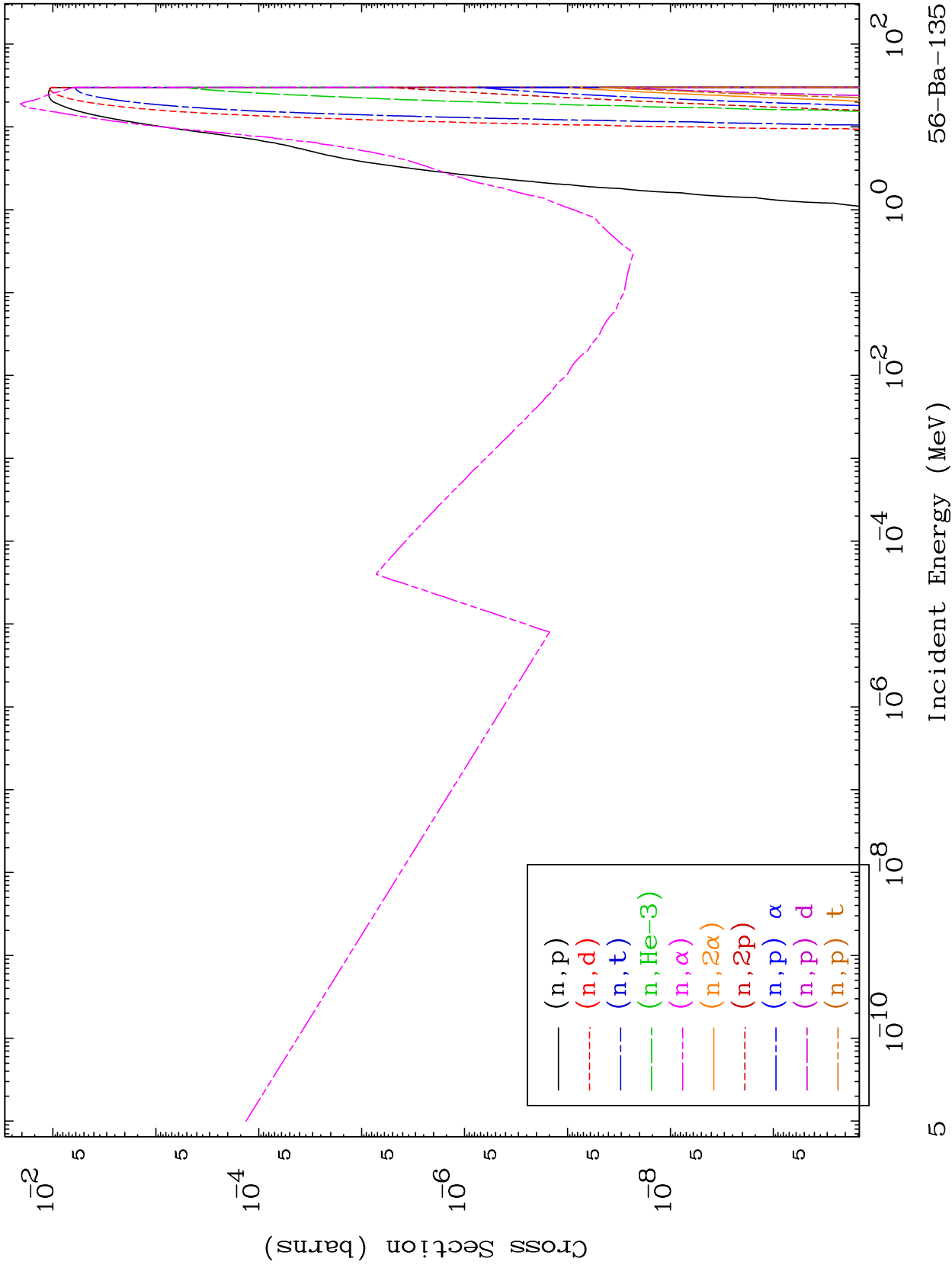
Incident Energy (MeV)

56-Ba-135

MAT 5640

Charged Particle  
293 Kelvin Cross Sections

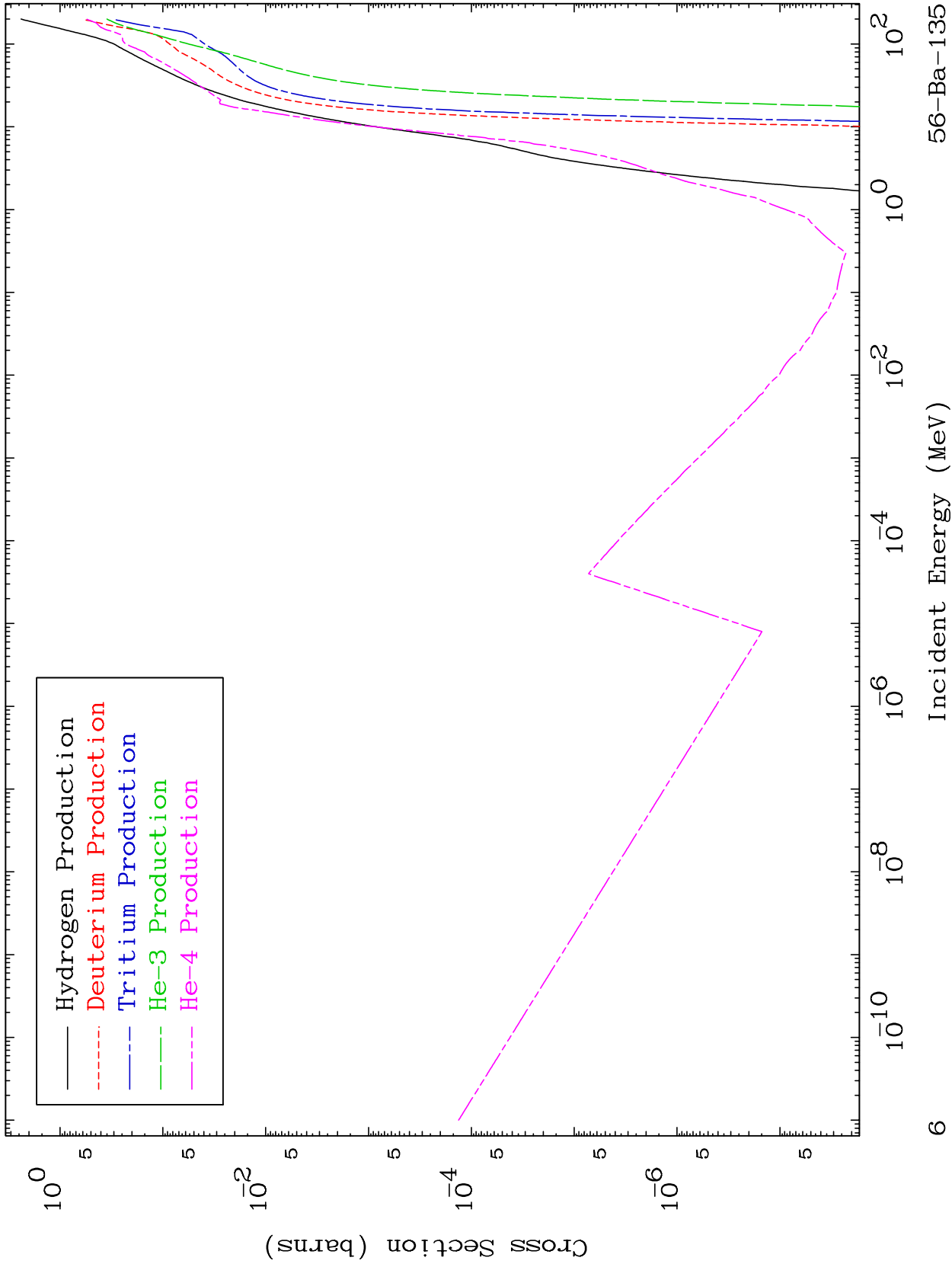
56-Ba-135



MAT 5640

Particle Production  
293 Kelvin Cross Sections

56-Ba-135

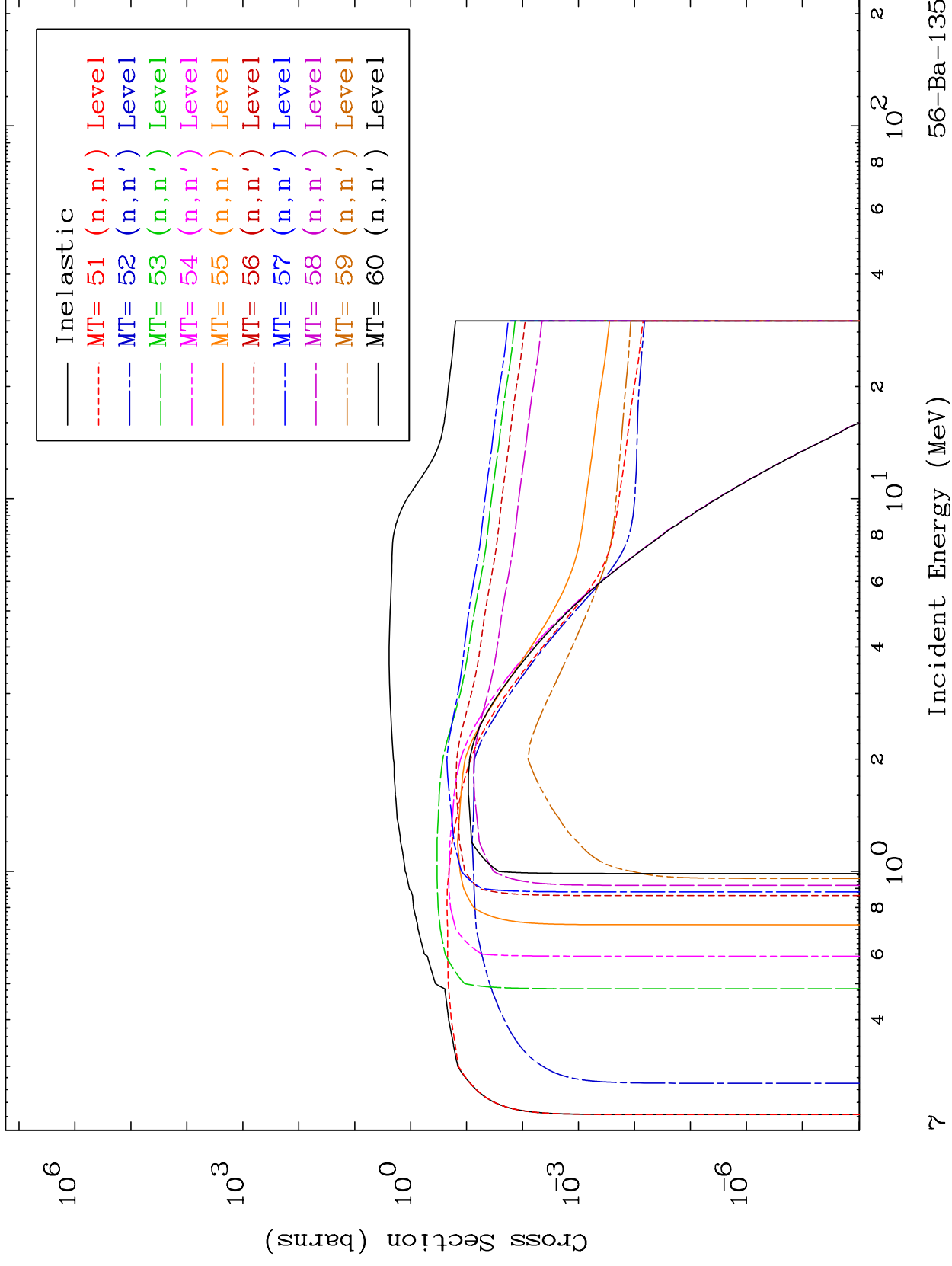


MAT 5640

(n,n') Level

56-Ba-135

293 Kelvin Cross Sections



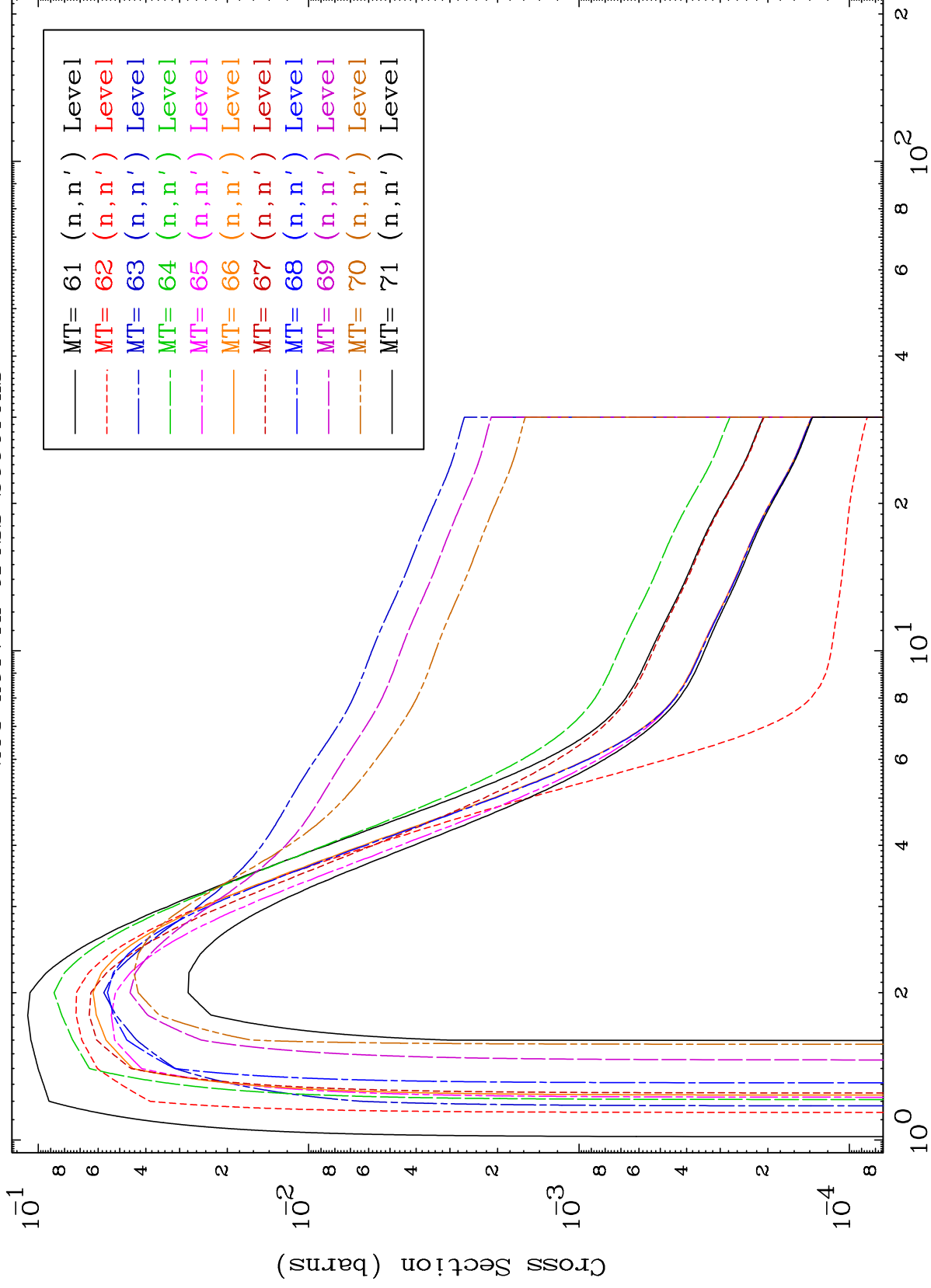


MAT 5640

(n,n') Level

56-Ba-135

293 Kelvin Cross Sections



Incident Energy (MeV)

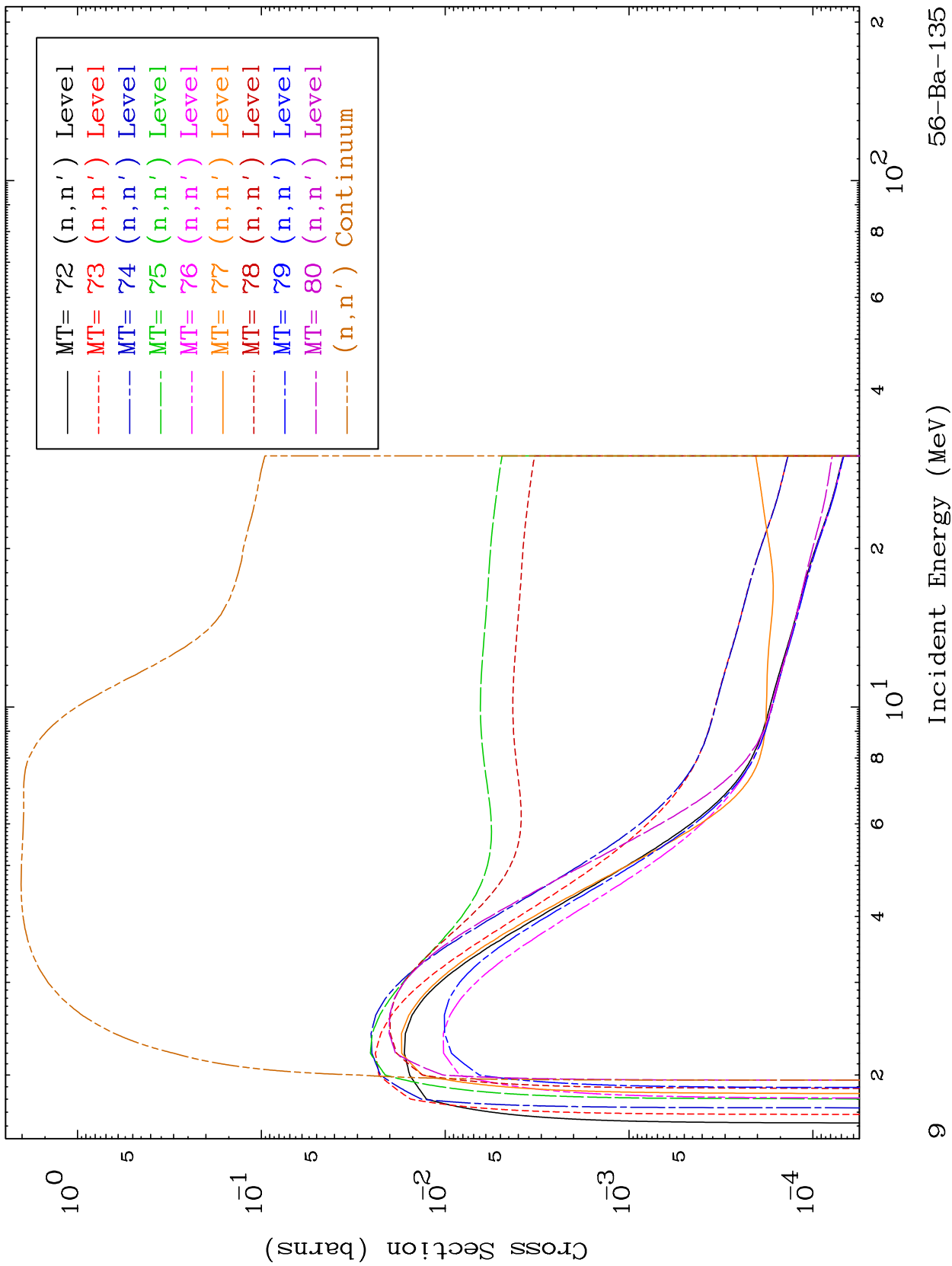
56-Ba-135

MAT 5640

(n,n') Level

56-Ba-135

293 Kelvin Cross Sections



9

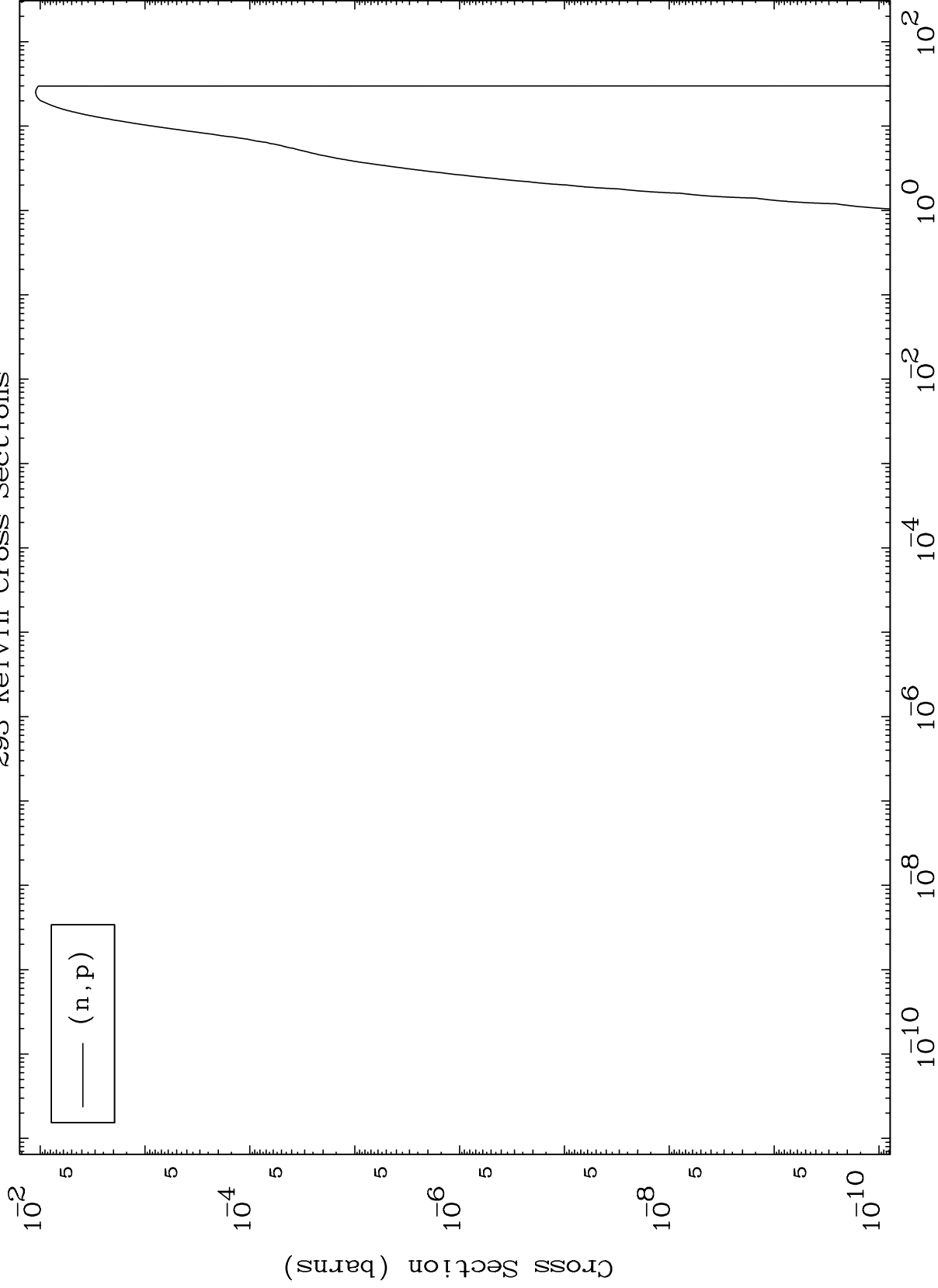
Incident Energy (MeV)

56-Ba-135

MAT 5640

(n,p) Levels  
293 Kelvin Cross Sections

56-Ba-135



10

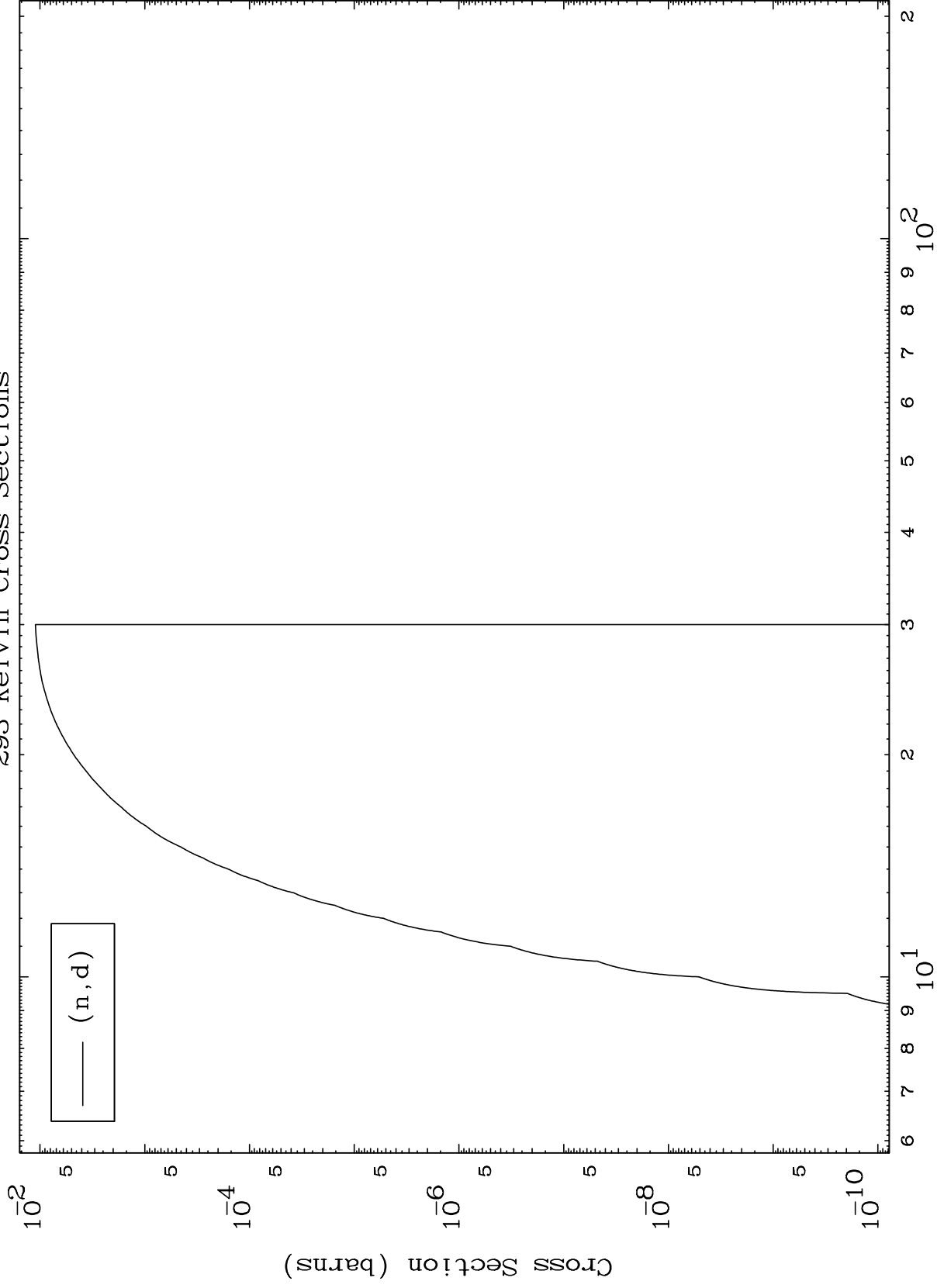
Incident Energy (MeV)

56-Ba-135

MAT 5640

(n,d) Levels  
293 Kelvin Cross Sections

56-Ba-135



11

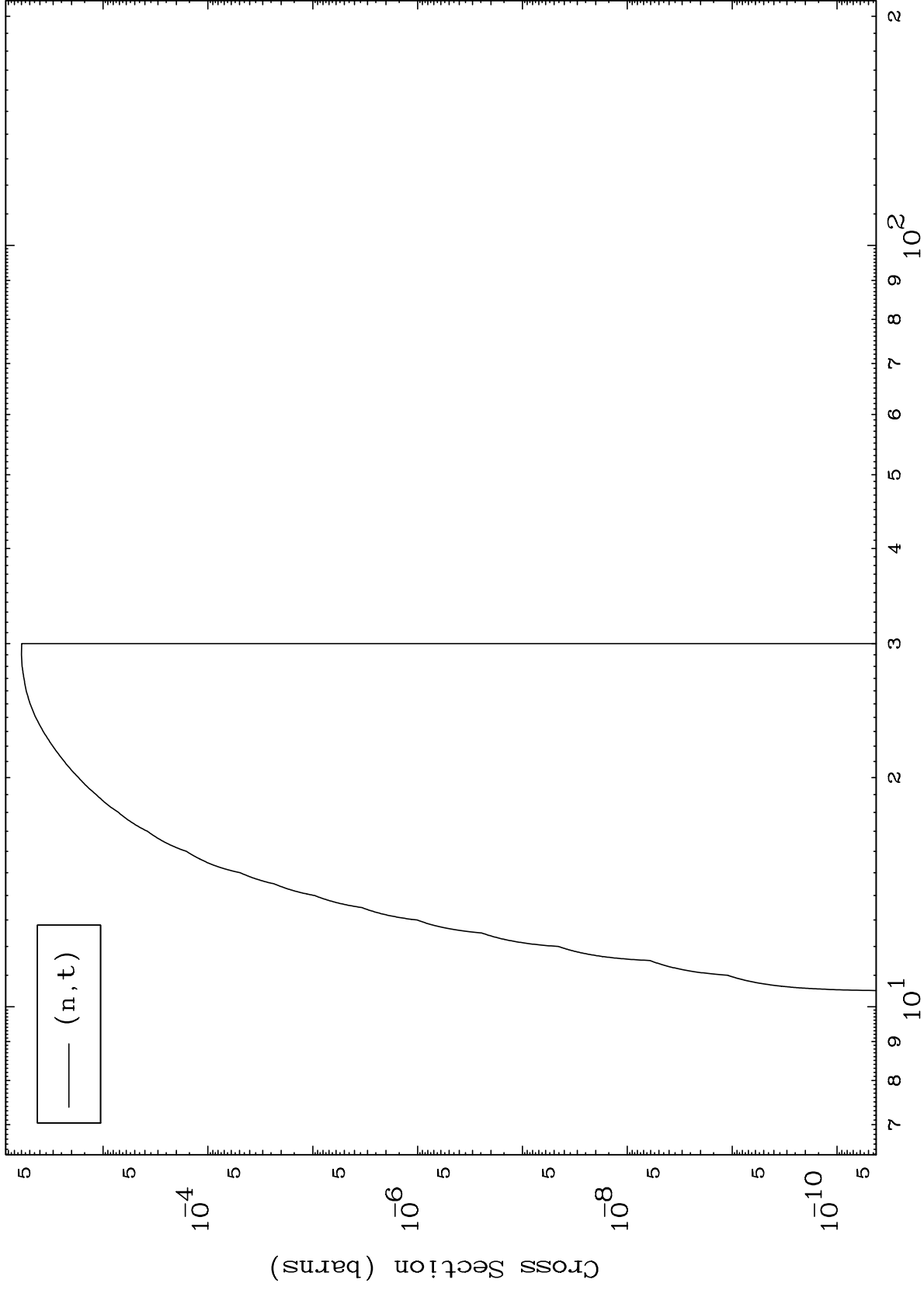
Incident Energy (MeV)

56-Ba-135

MAT 5640

(n,t) Levels  
293 Kelvin Cross Sections

56-Ba-135



12

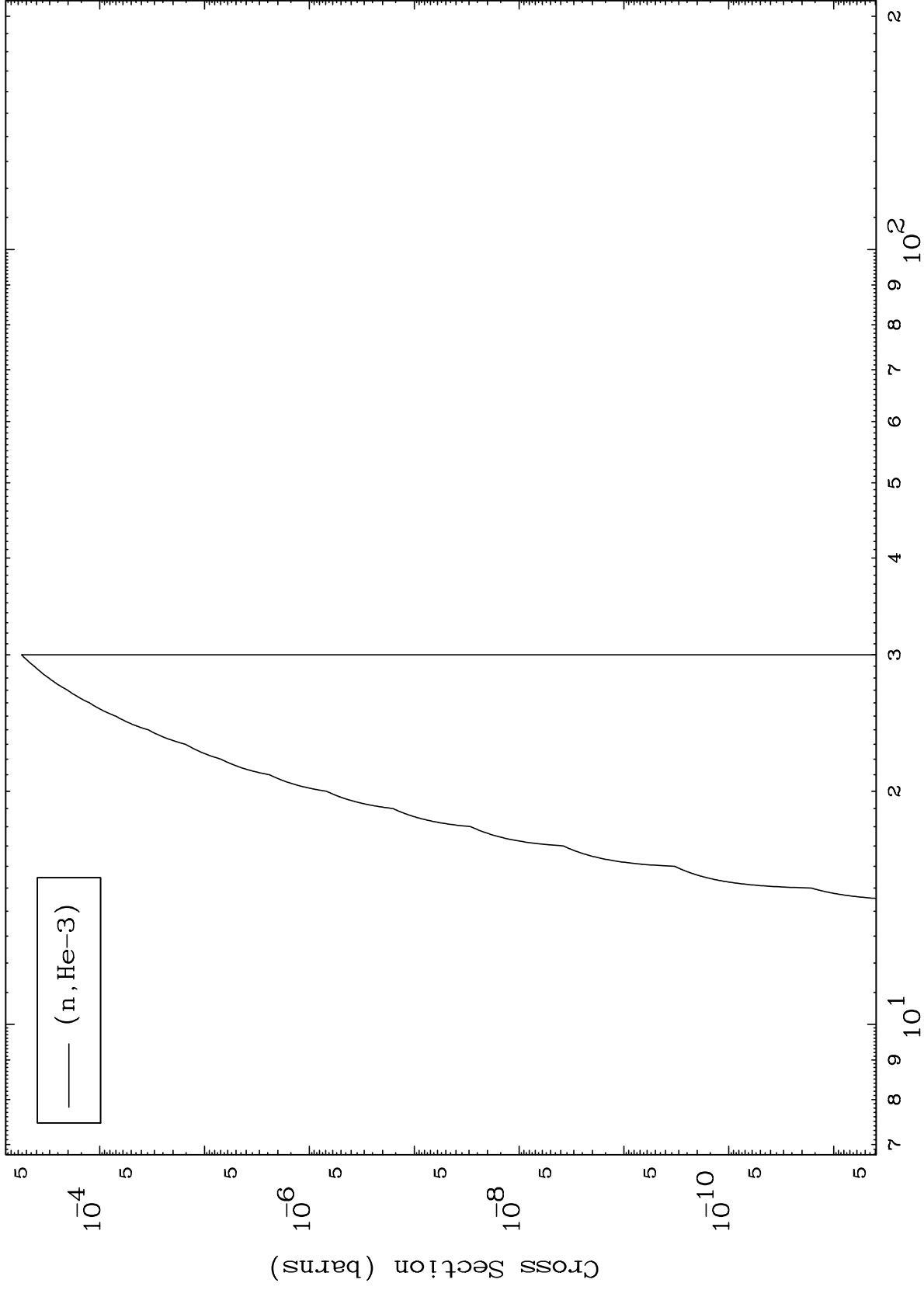
Incident Energy (MeV)

56-Ba-135

MAT 5640

(n,He3) Levels  
293 Kelvin Cross Sections

56-Ba-135



13

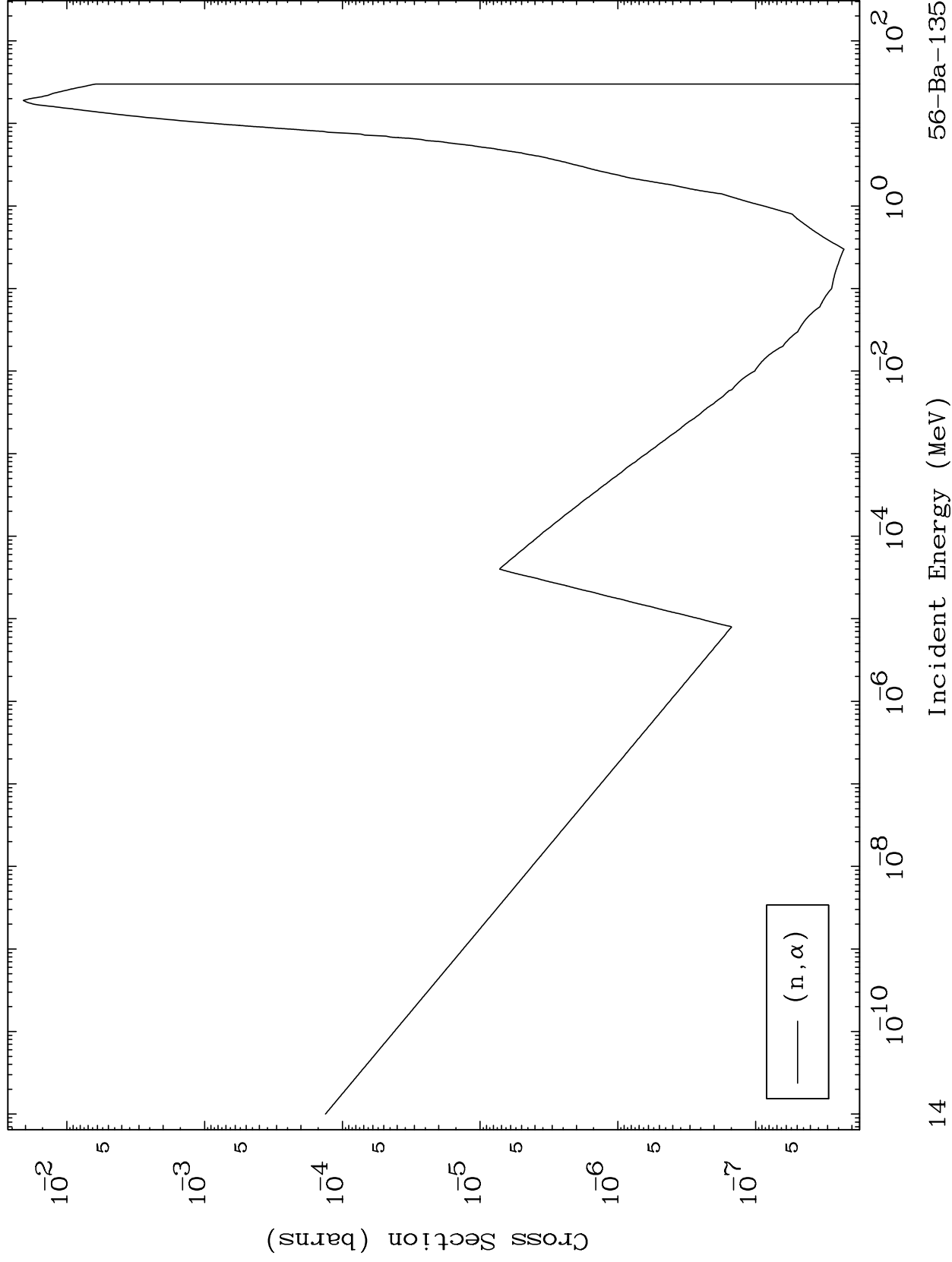
Incident Energy (MeV)

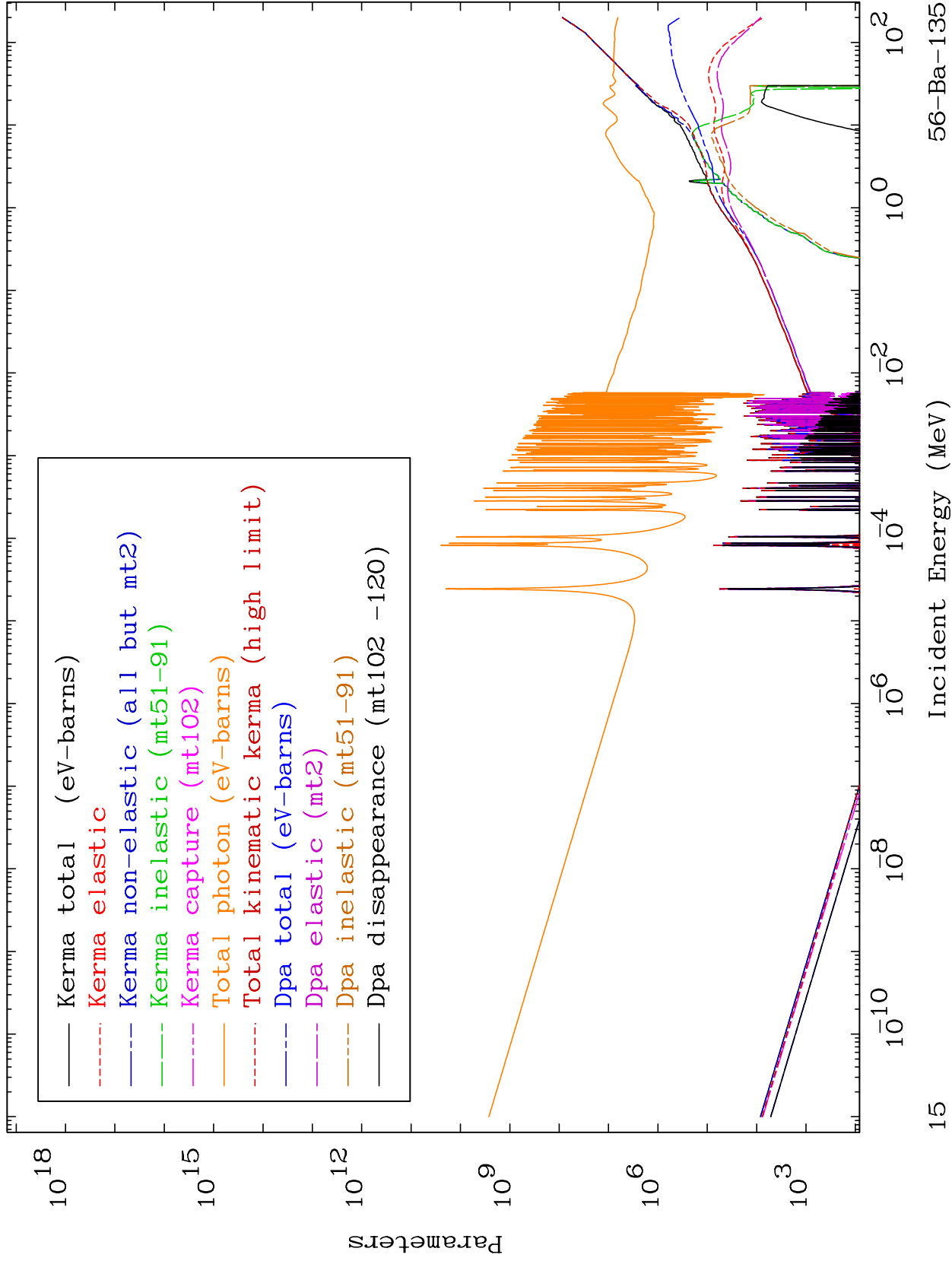
56-Ba-135

MAT 5640

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

56-Ba-135



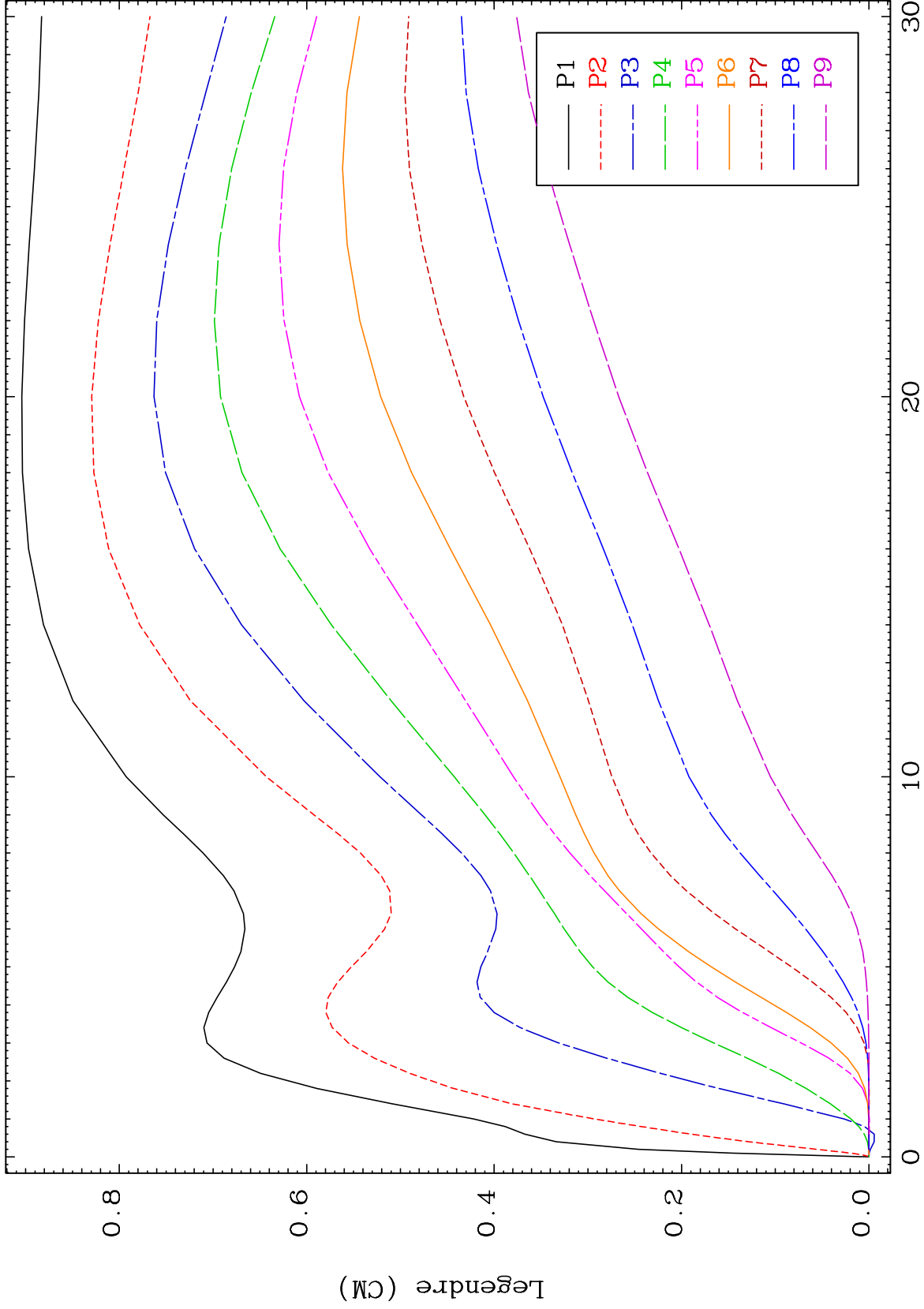




MAT 5640

Elastic Legendre Coefficients

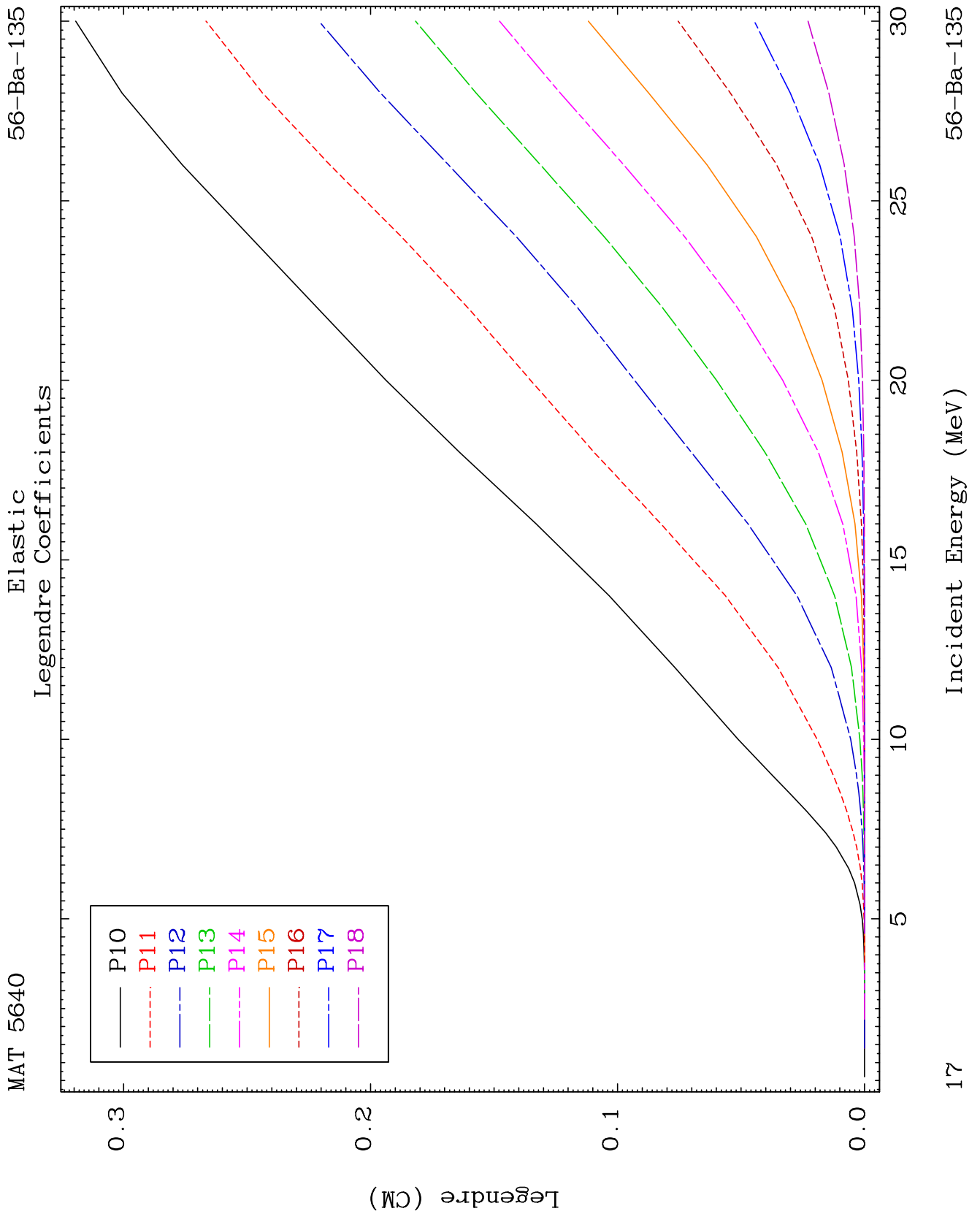
56-Ba-135



16

Incident Energy (MeV)

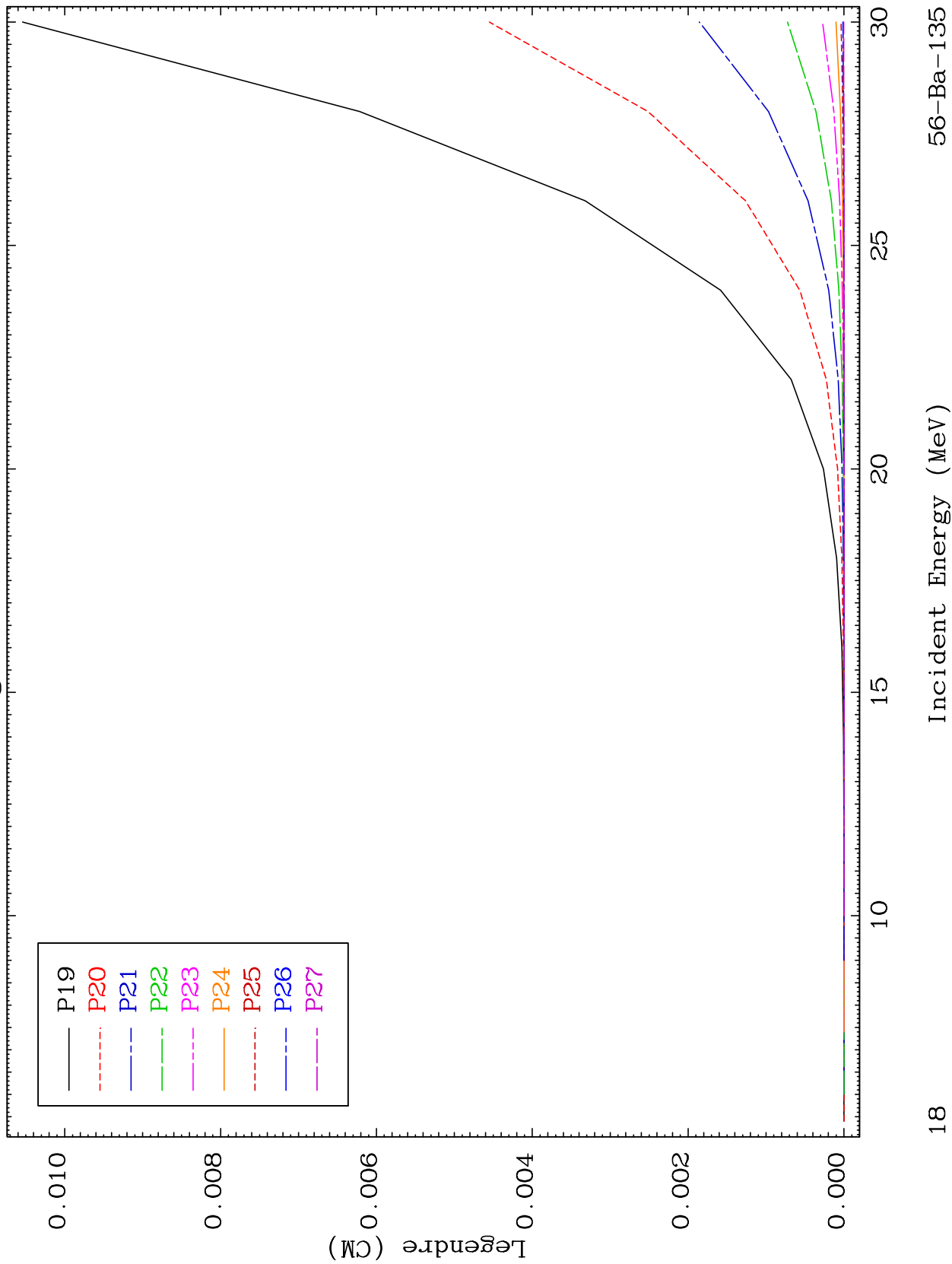
56-Ba-135



MAT 5640

### Elastic Legendre Coefficients

56-Ba-135



18

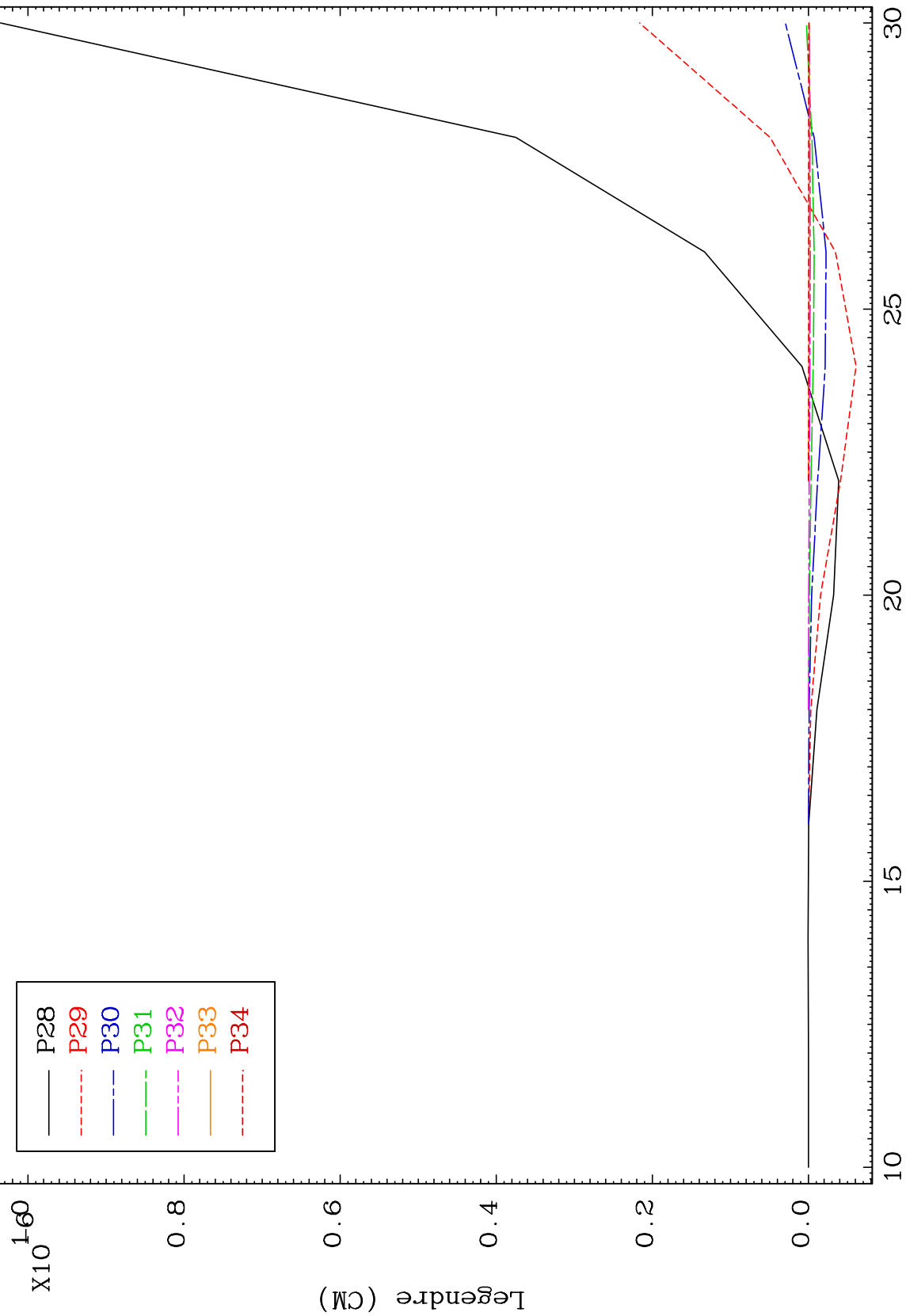
Incident Energy (MeV)

56-Ba-135

MAT 5640

Elastic Legendre Coefficients

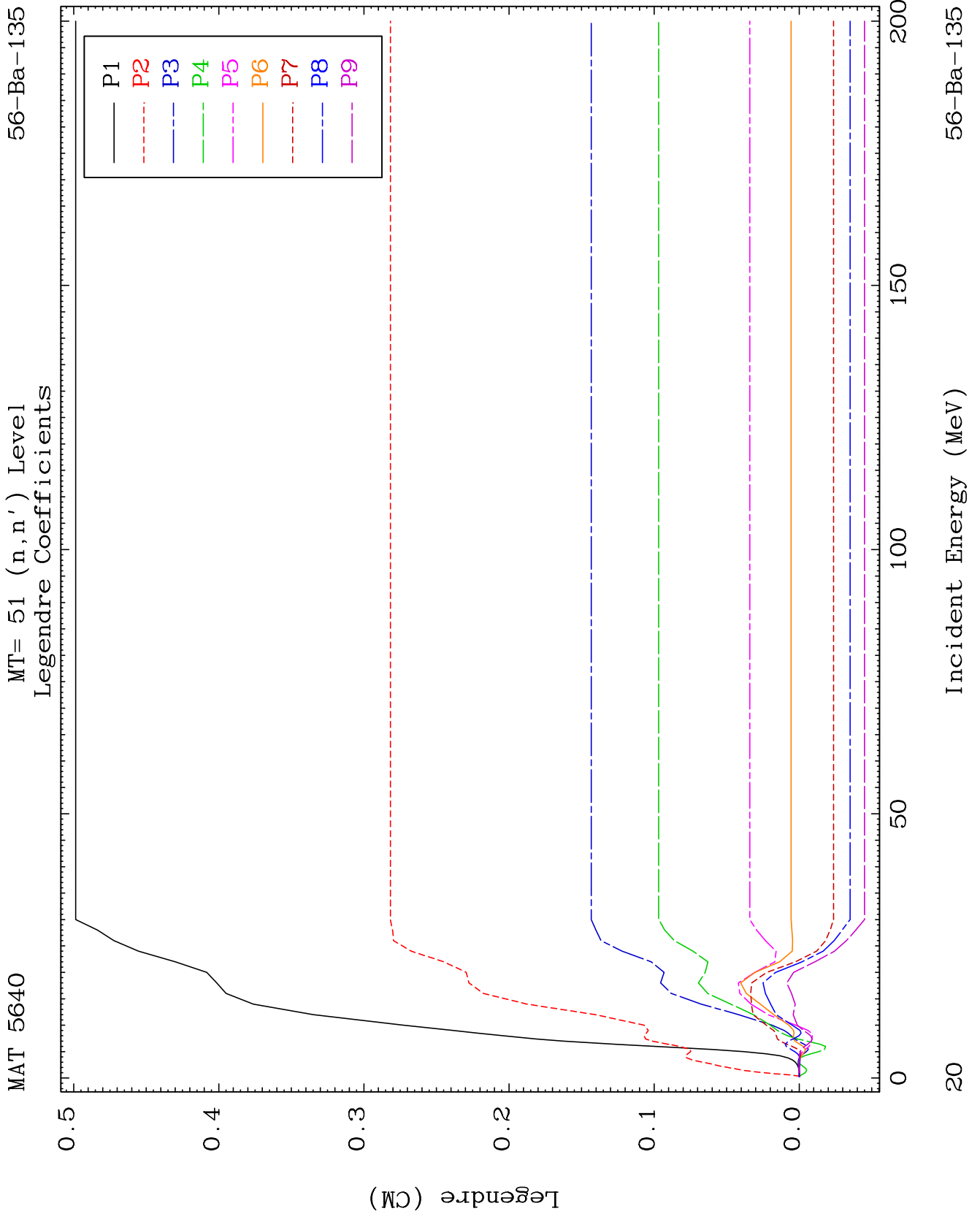
56-Ba-135



19

Incident Energy (MeV)

56-Ba-135

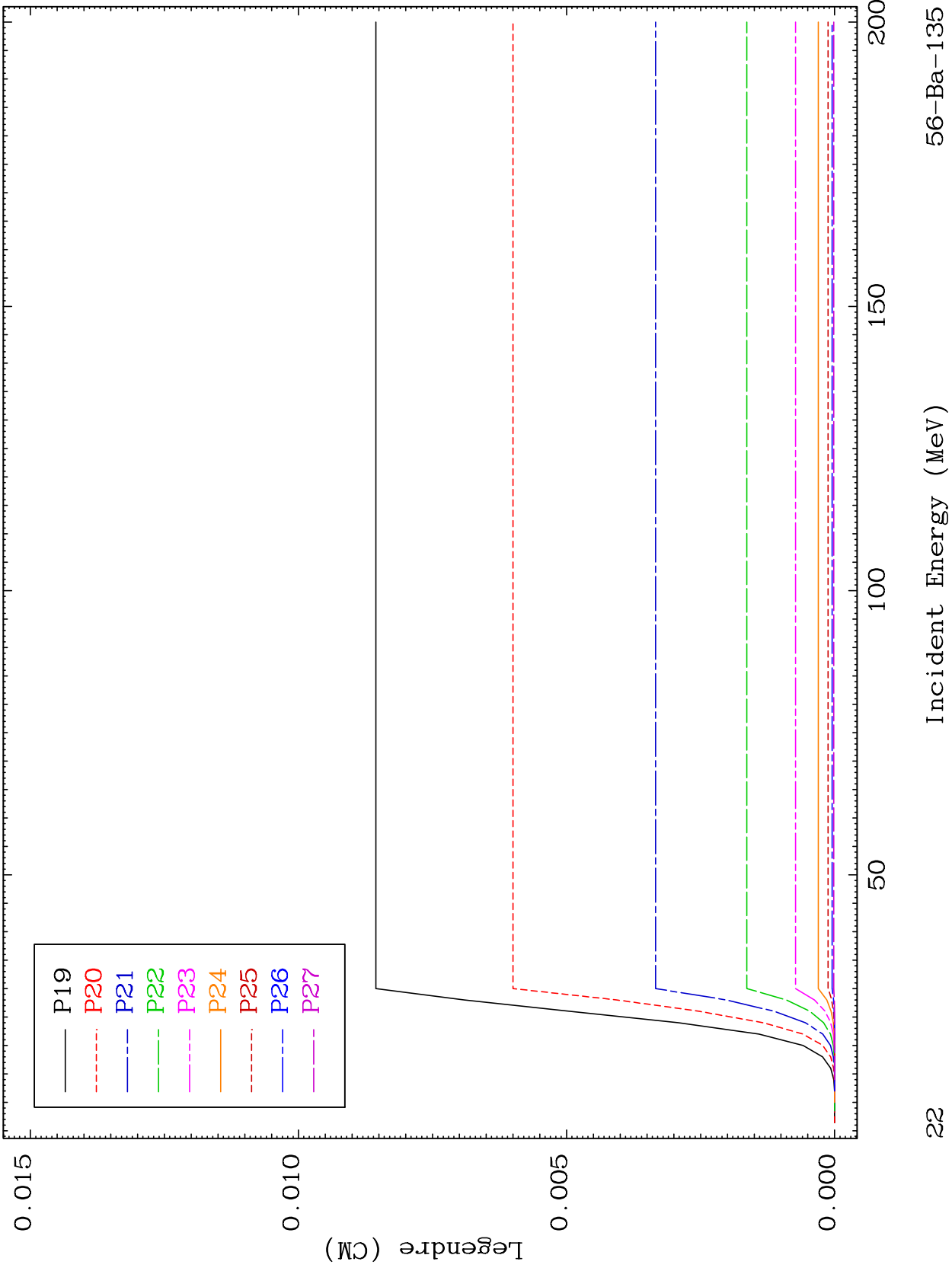




MAT 5640

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

56-Ba-135



22

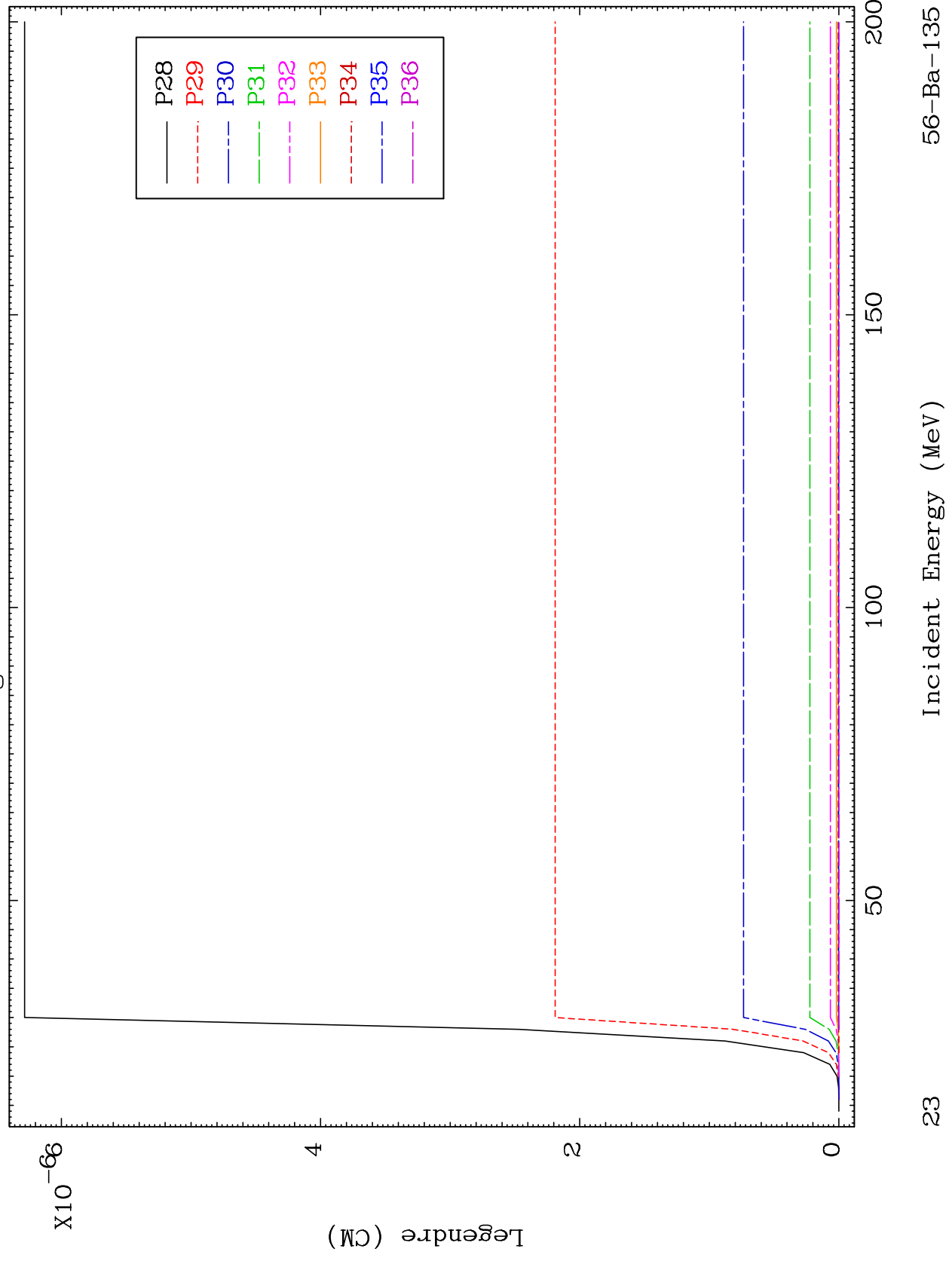
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

56-Ba-135



23

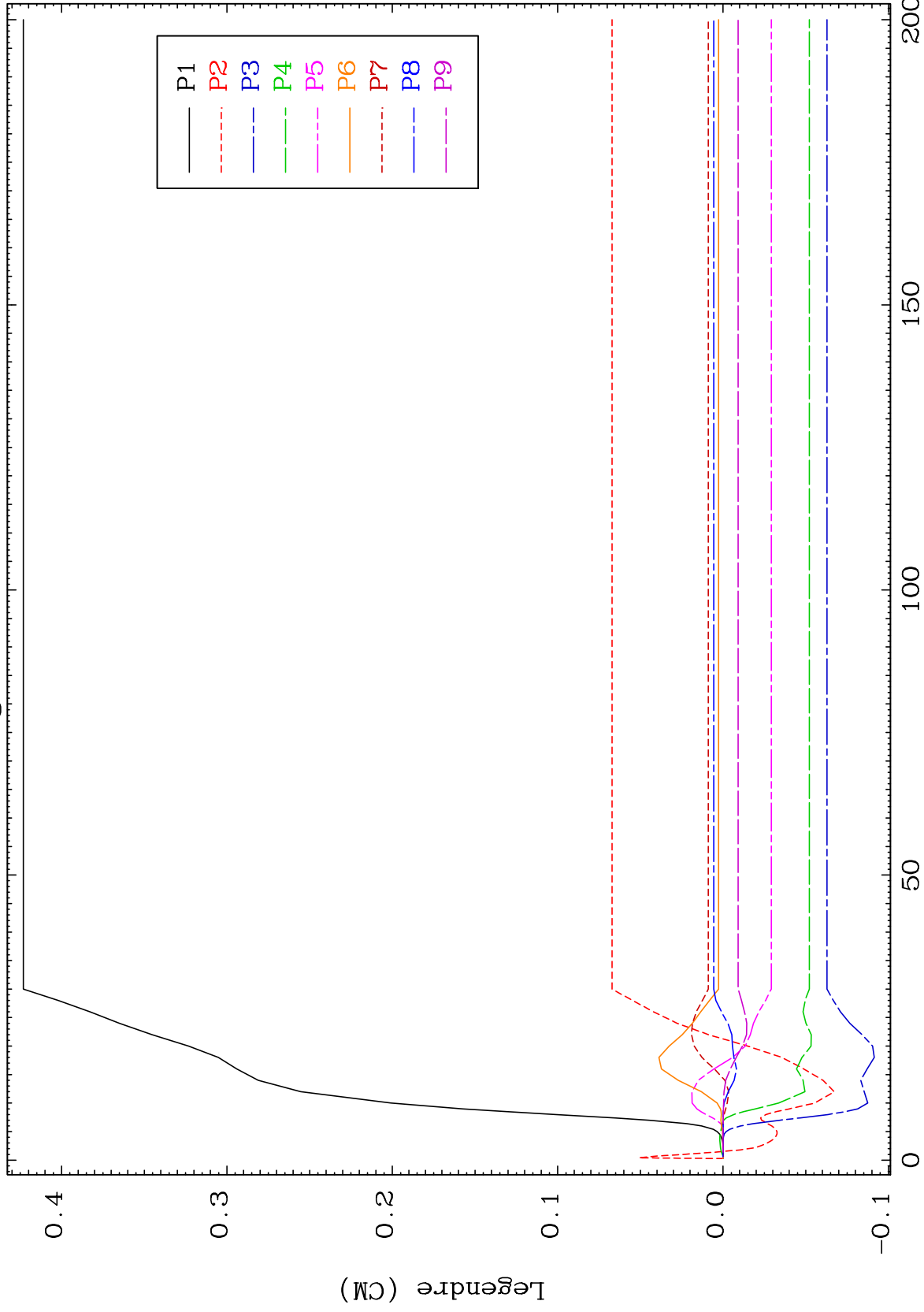
56-Ba-135



MAT 5640

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

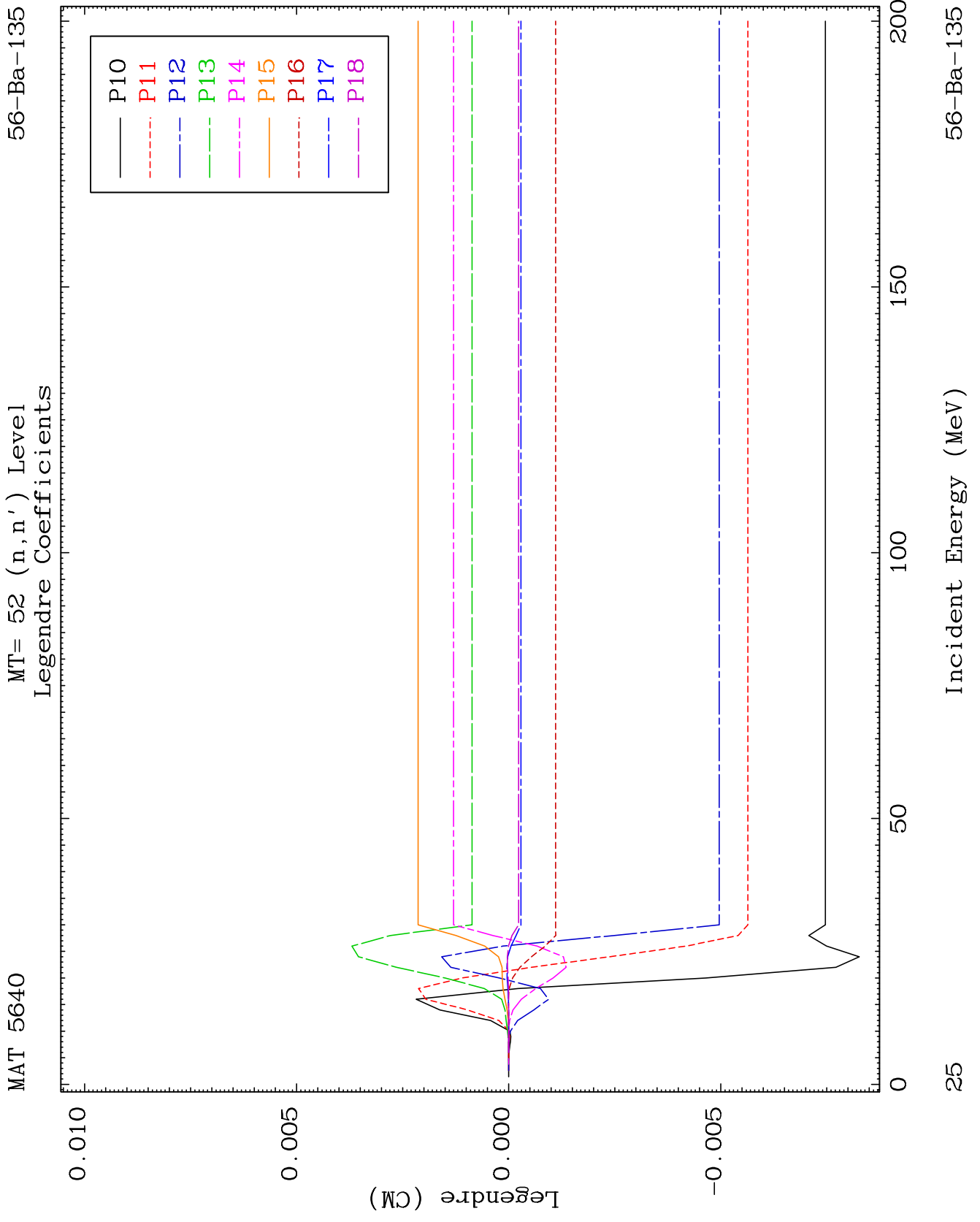
56-Ba-135



24

Incident Energy (MeV)

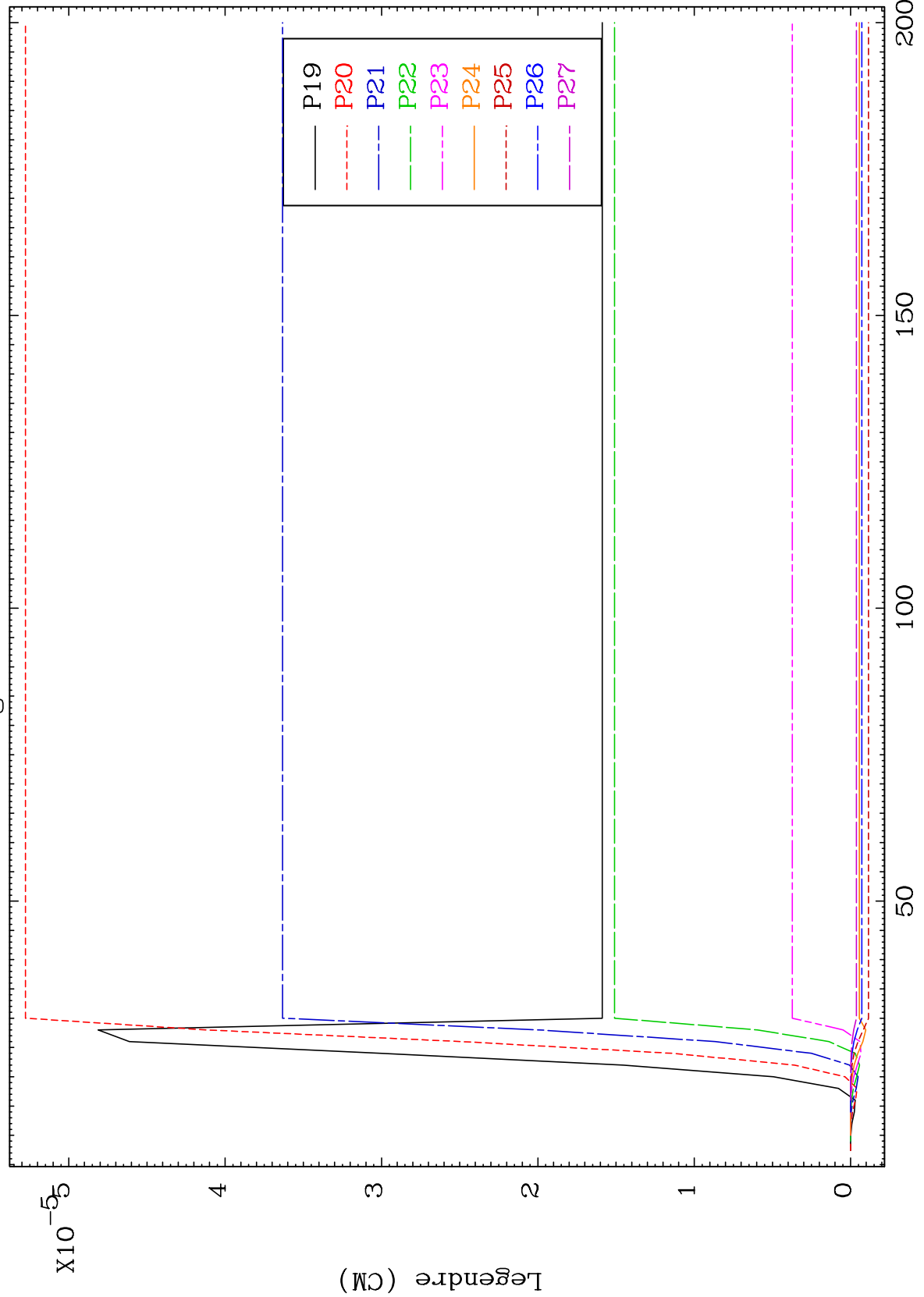
56-Ba-135



MAT 5640

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

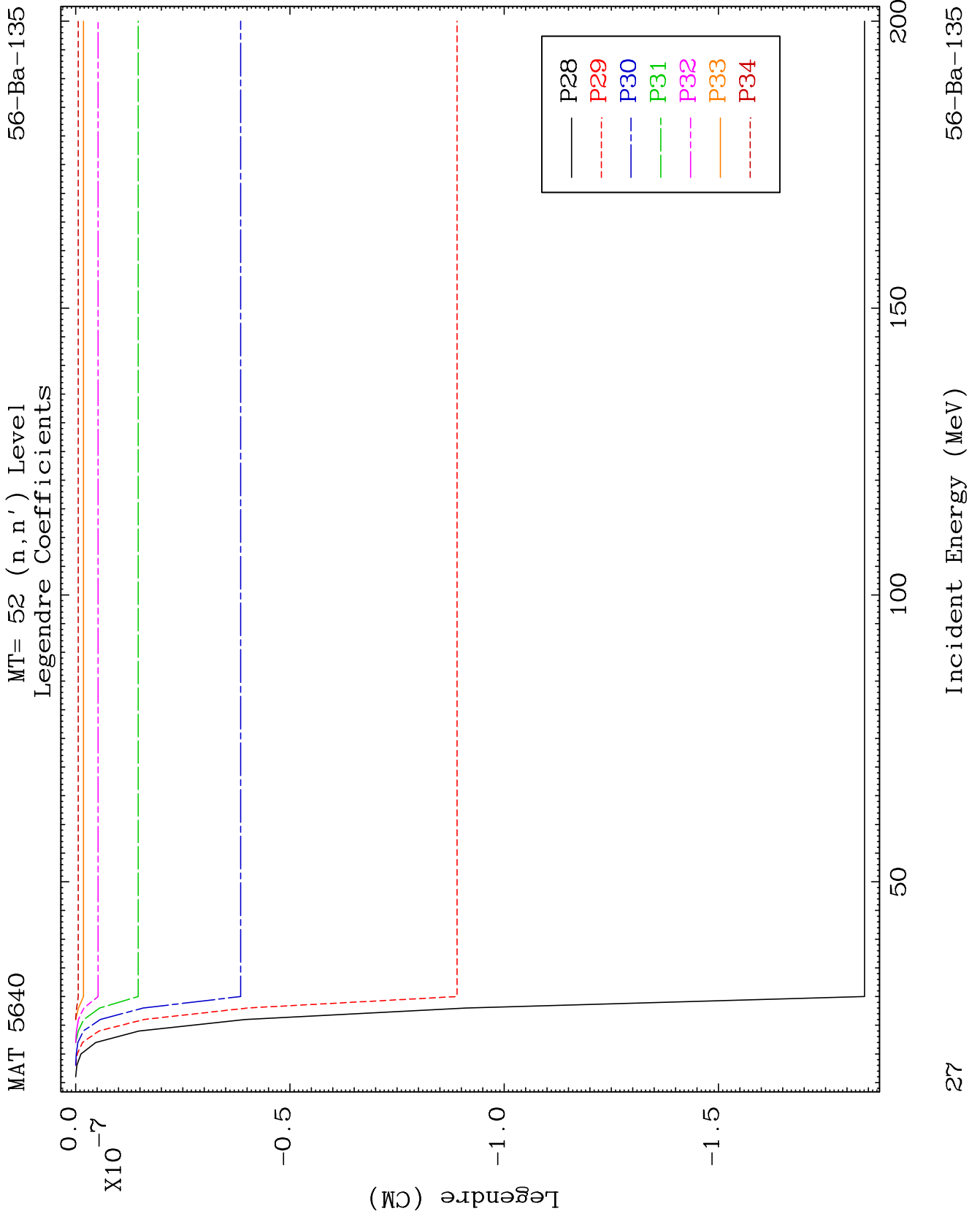
56-Ba-135



56-Ba-135

Incident Energy (MeV)

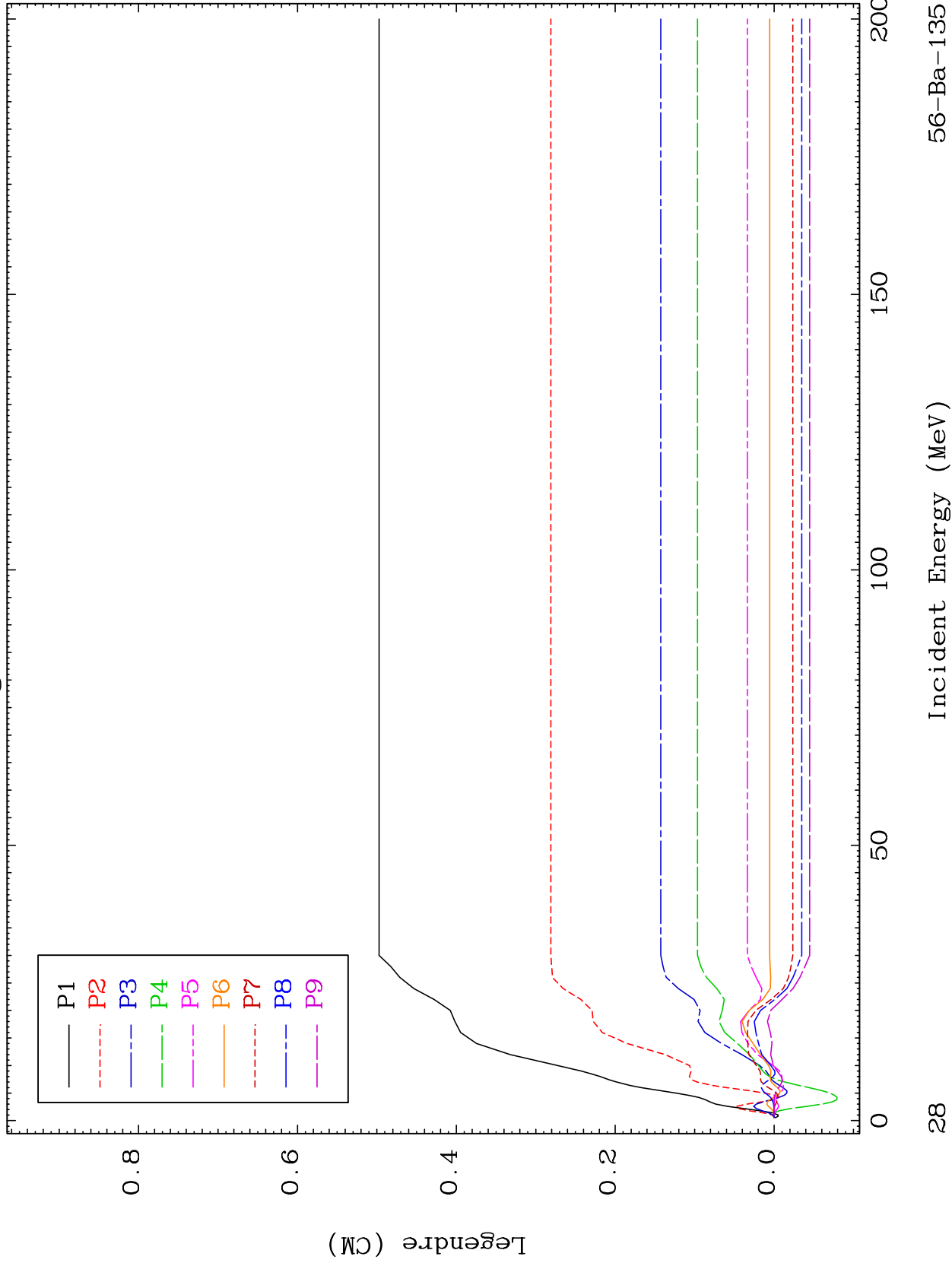
26



MAT 5640

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

56-Ba-135



56-Ba-135

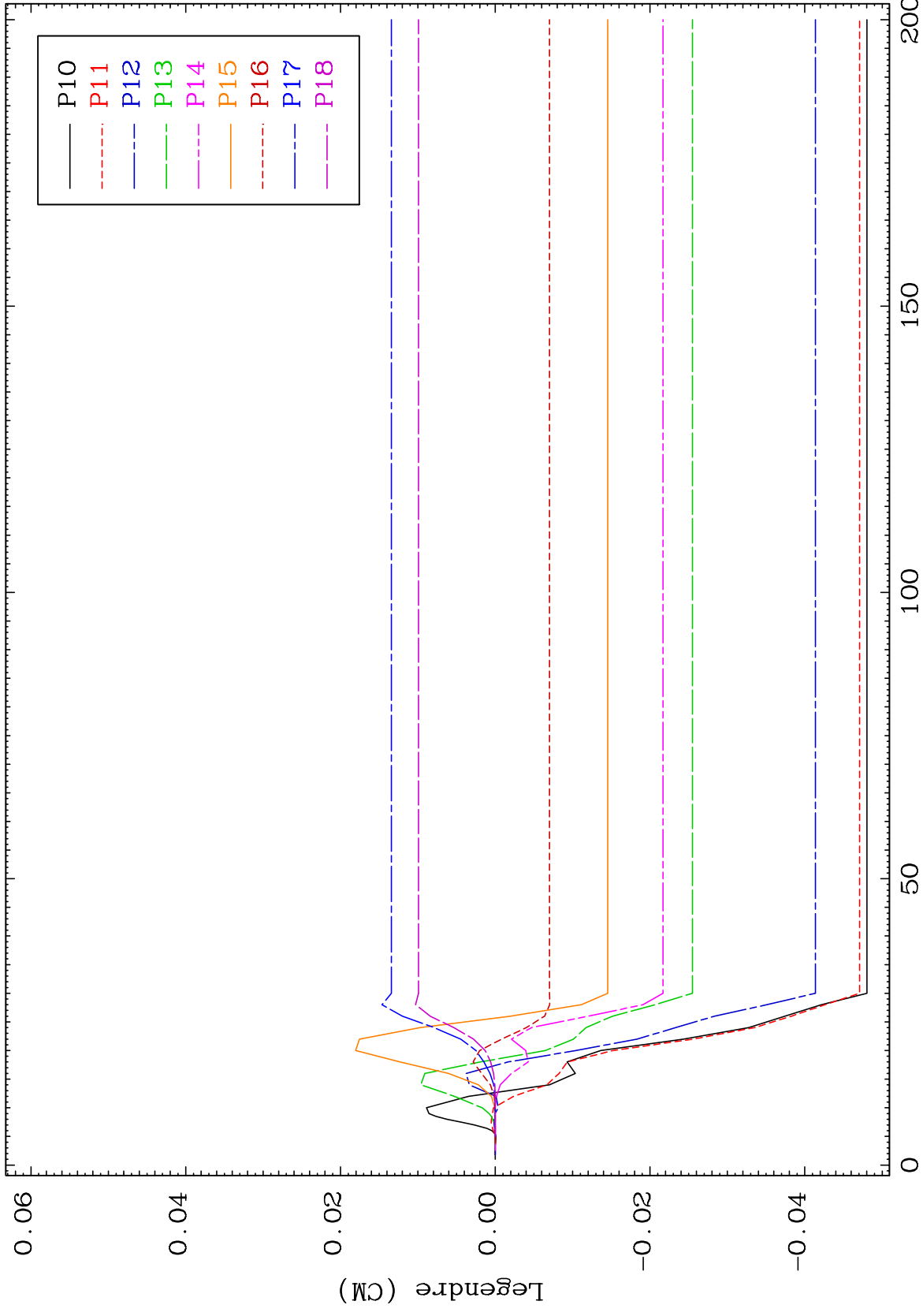
Incident Energy (MeV)

28

MAT 5640

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

56-Ba-135



29

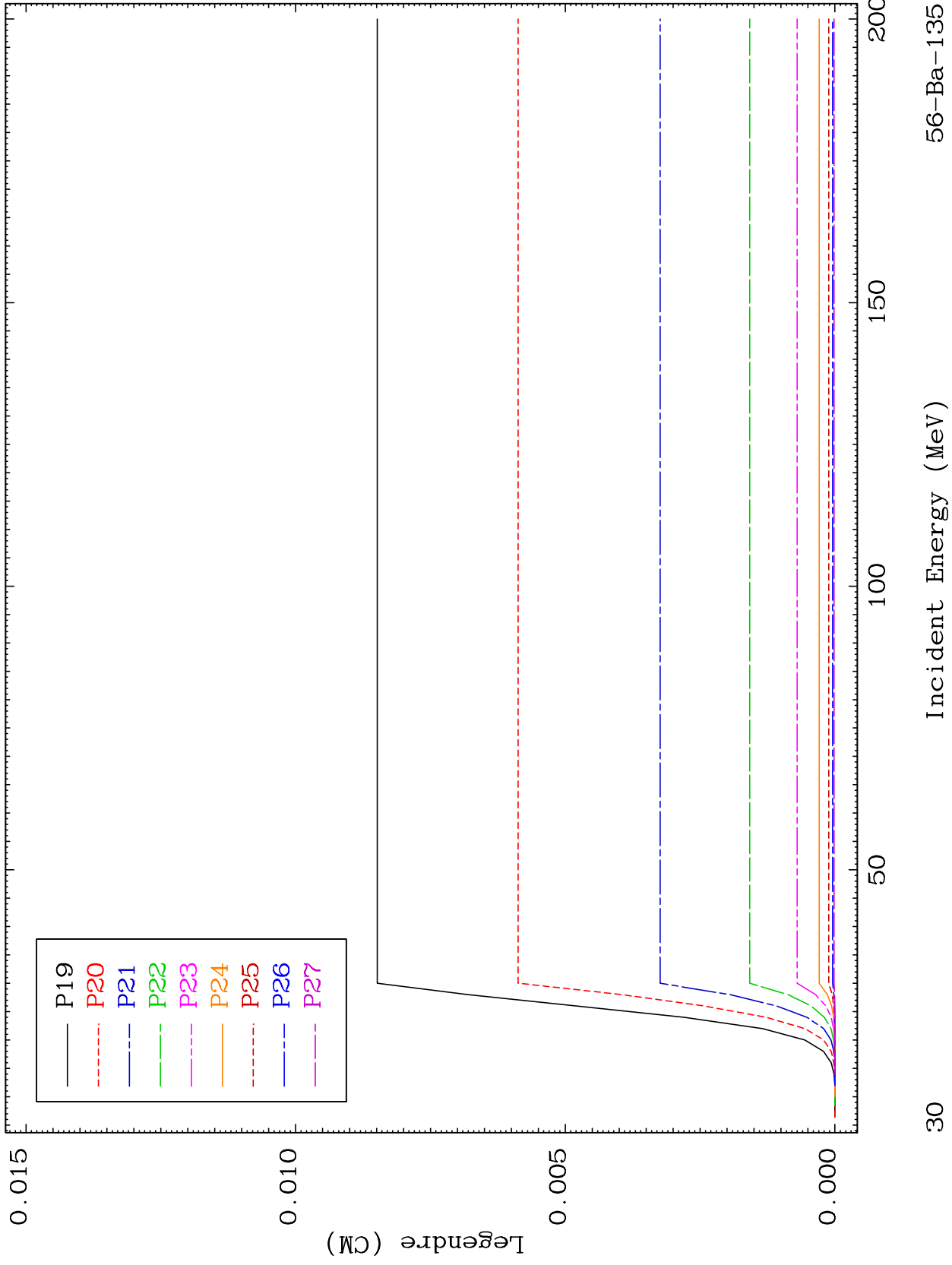
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

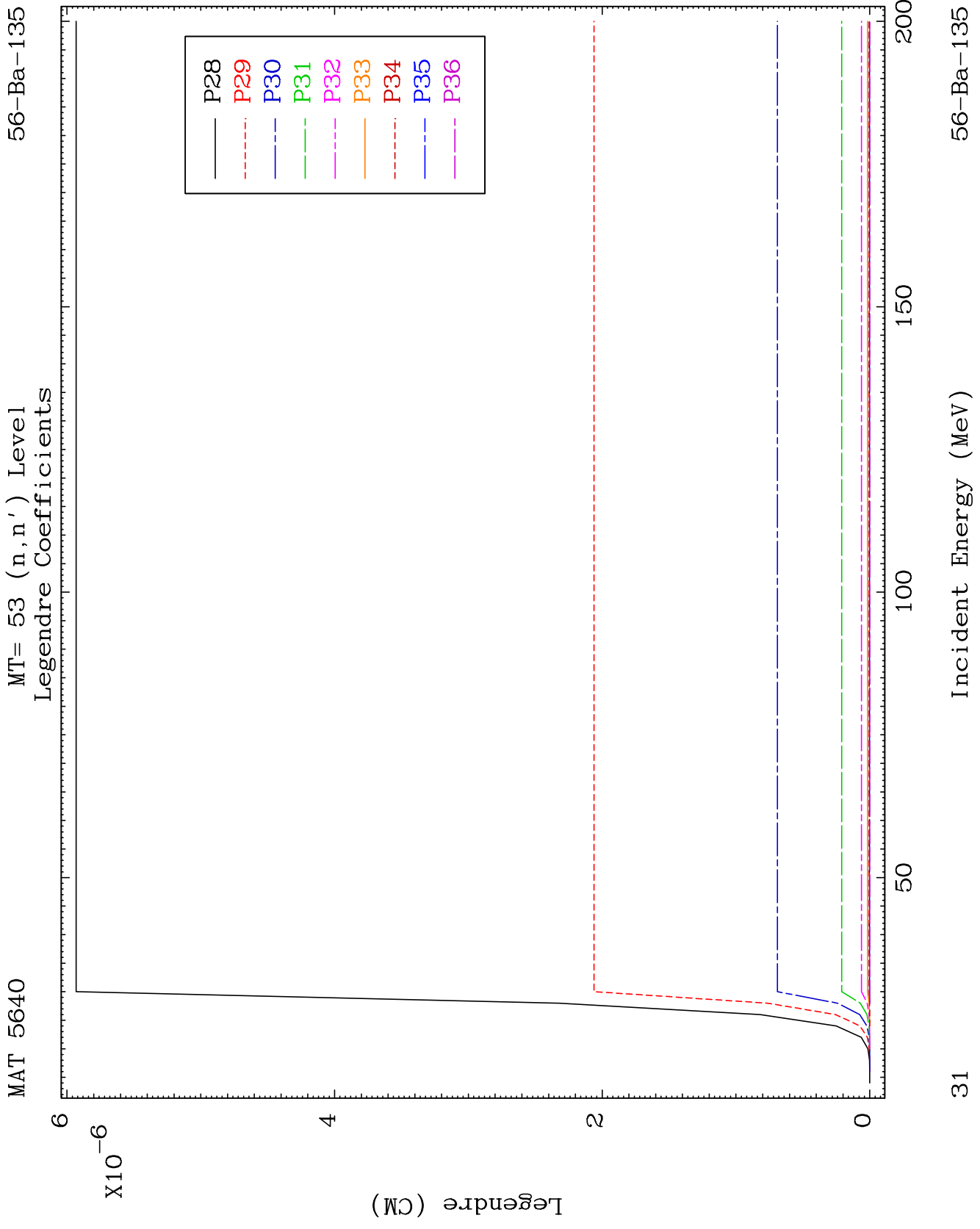
56-Ba-135



56-Ba-135

Incident Energy (MeV)

30



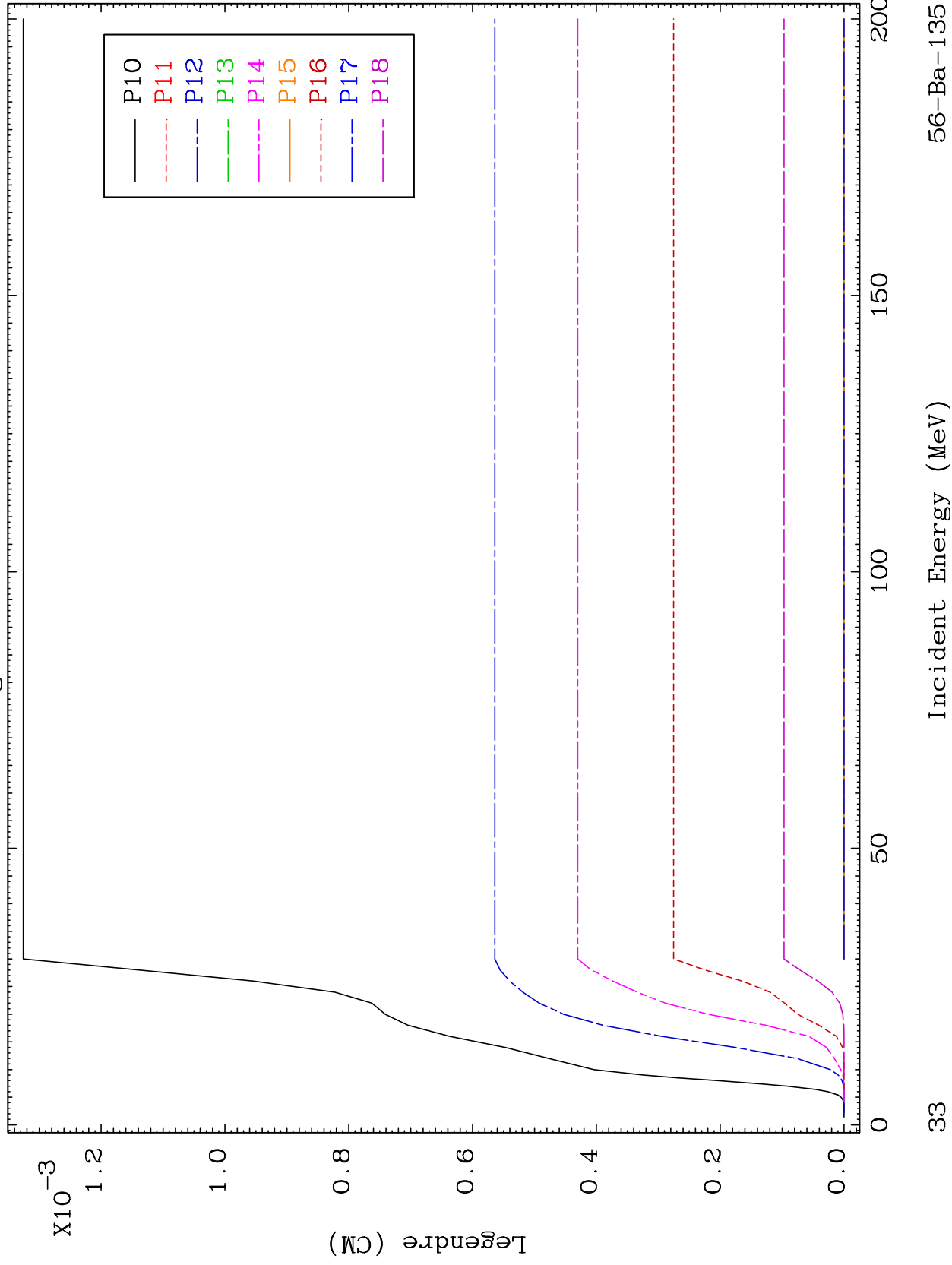


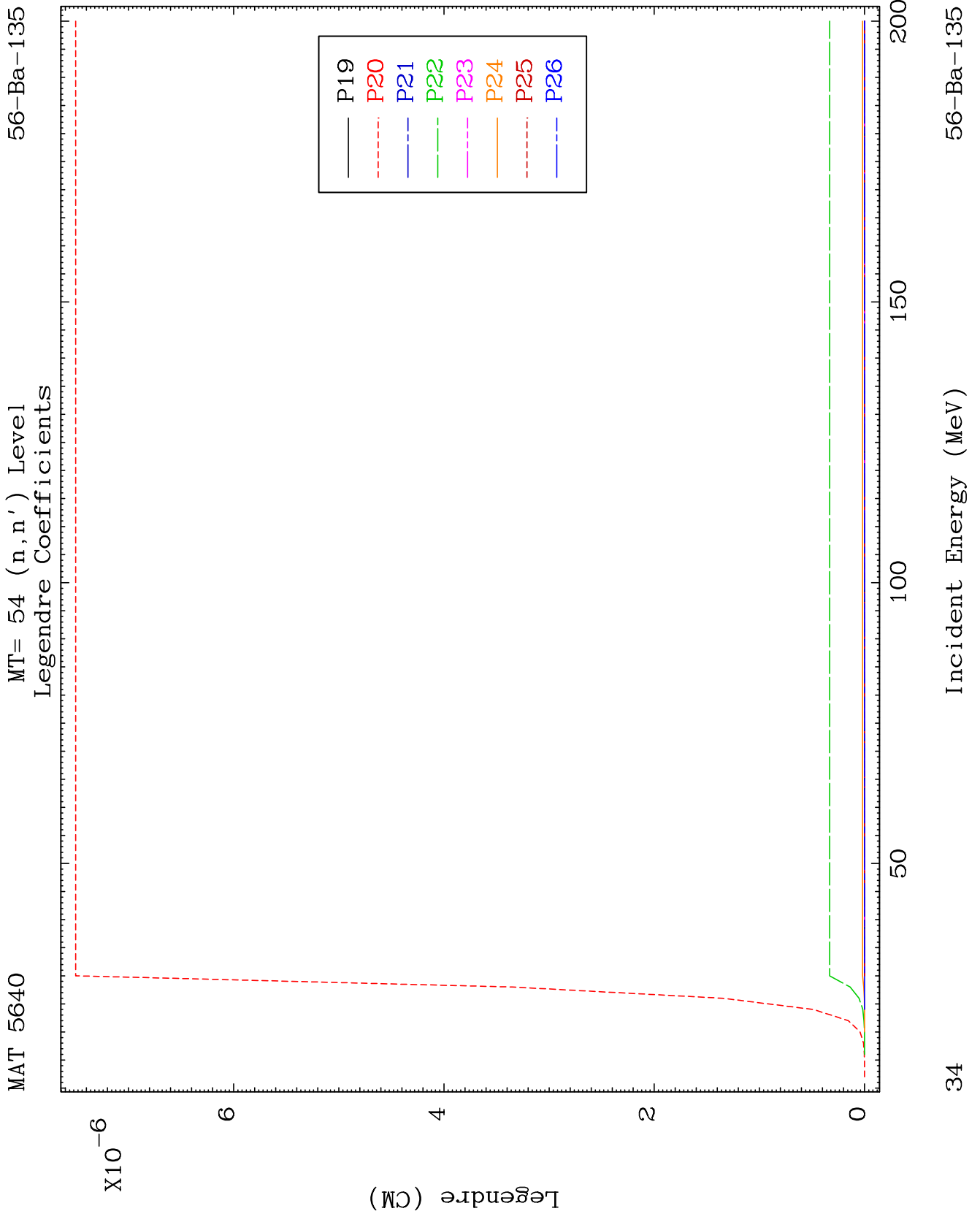


MAT 5640

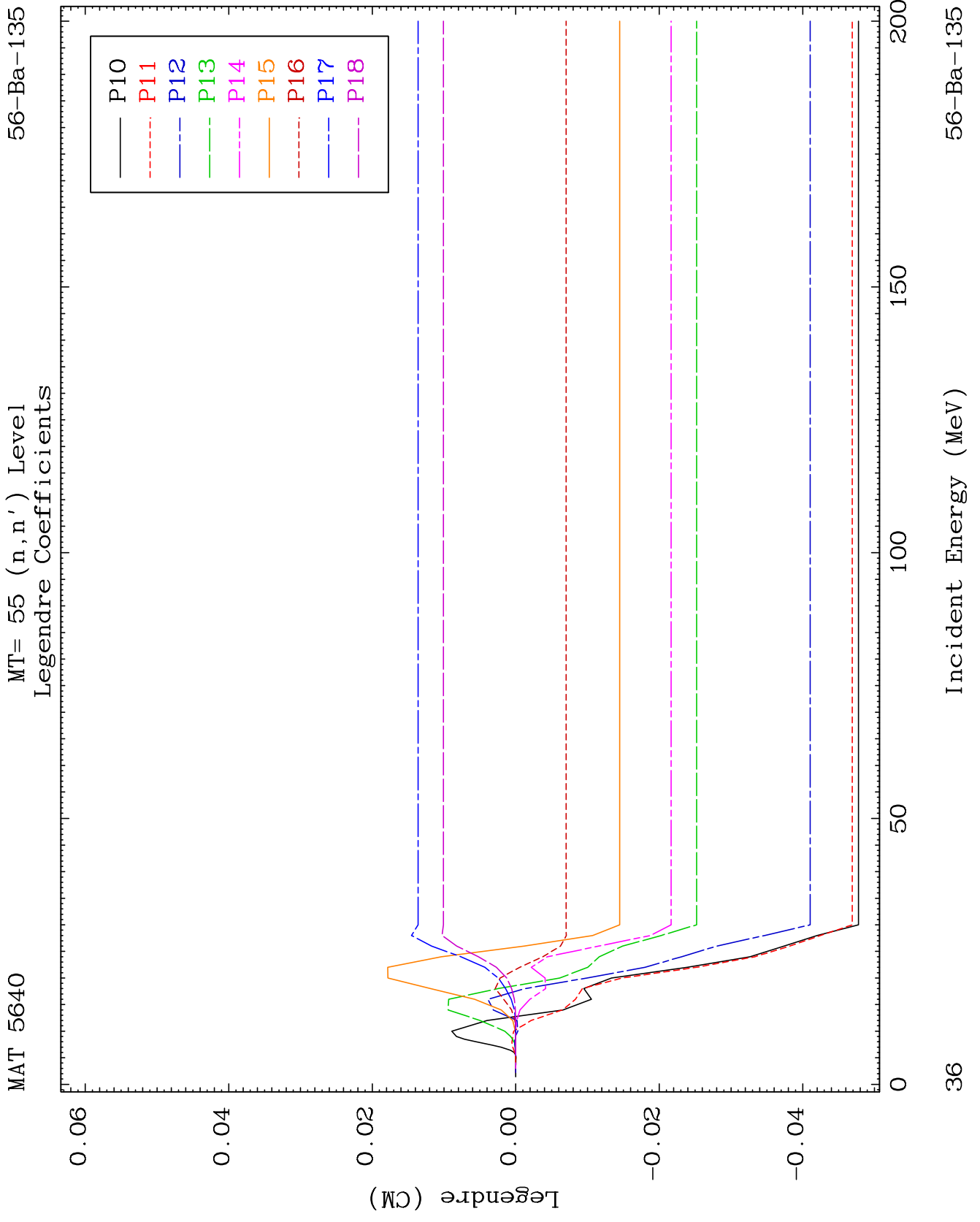
MT= 54 (n,n') Level  
Legendre Coefficients

56-Ba-135





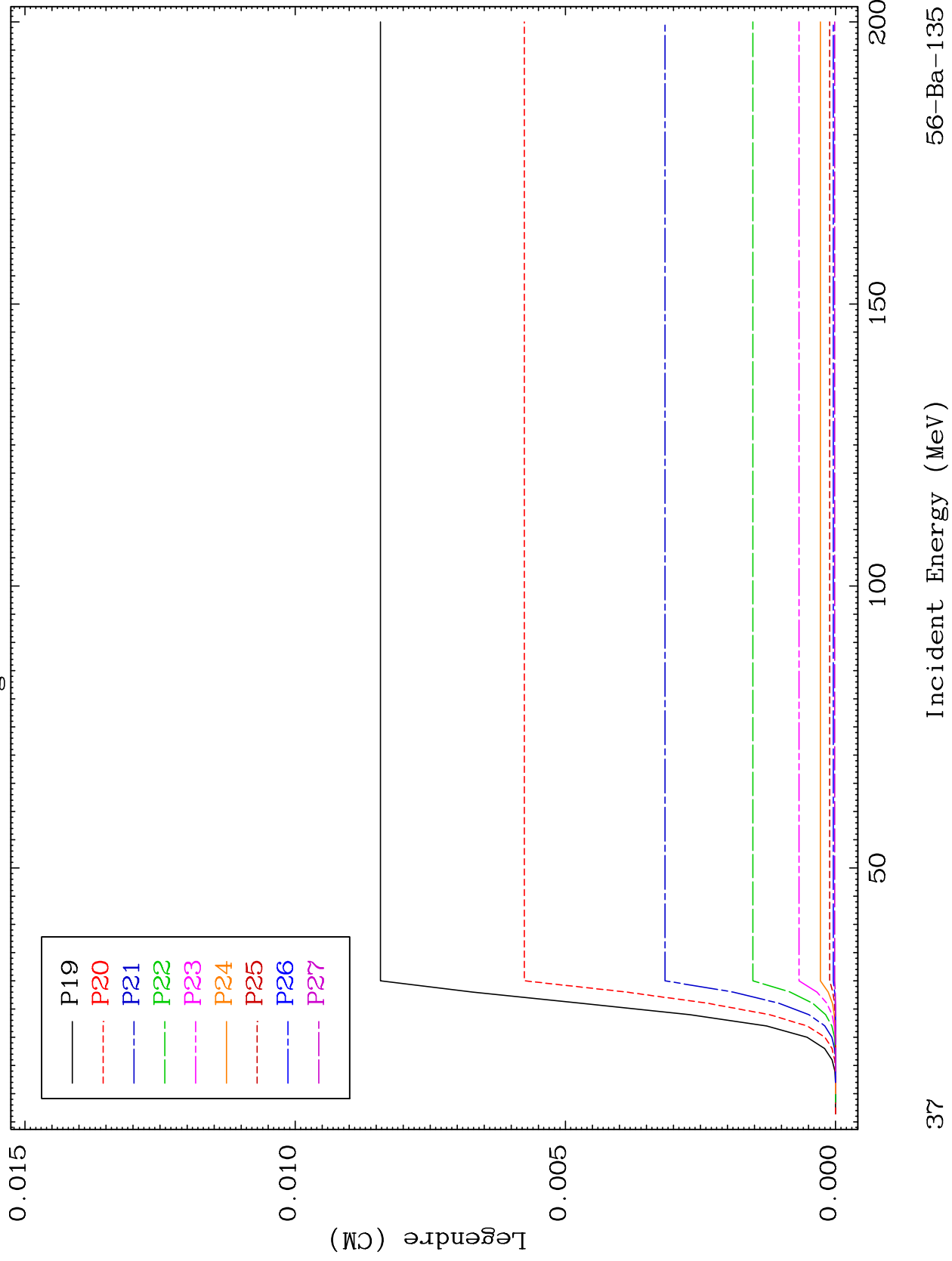




MAT 5640

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

56-Ba-135



37

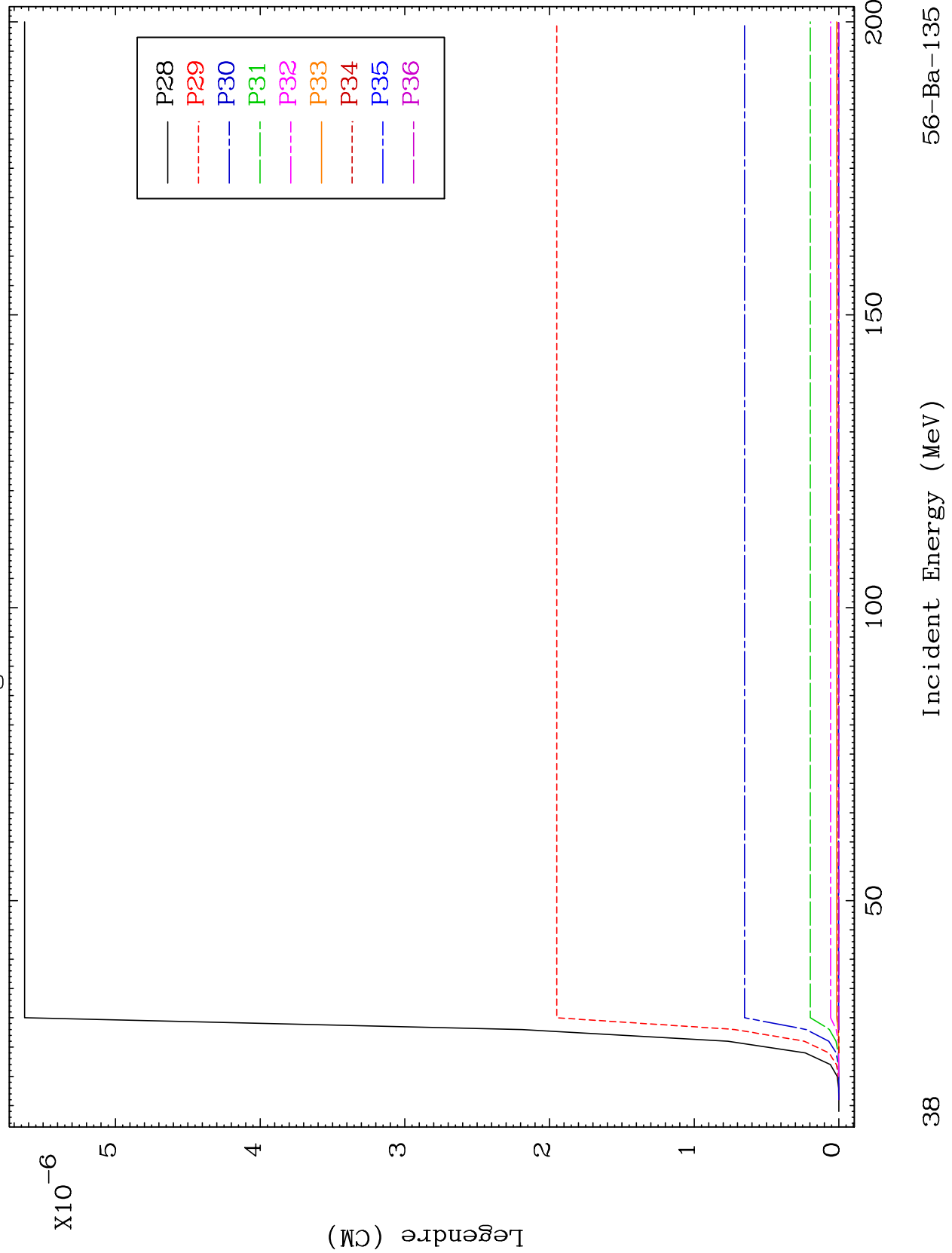
Incident Energy (MeV)

56-Ba-135

MAT 5640

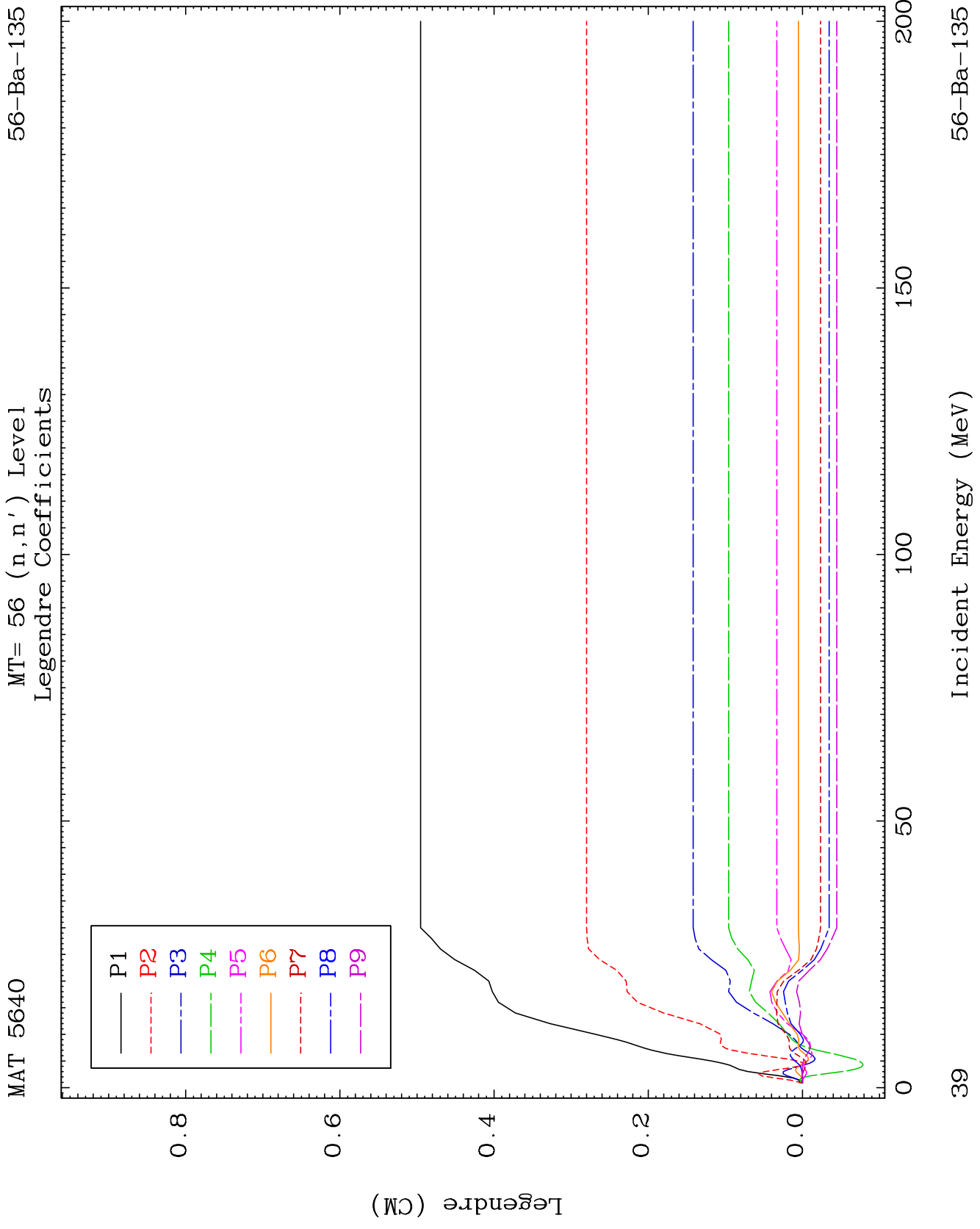
MT= 55 (n,n') Level  
Legendre Coefficients

56-Ba-135

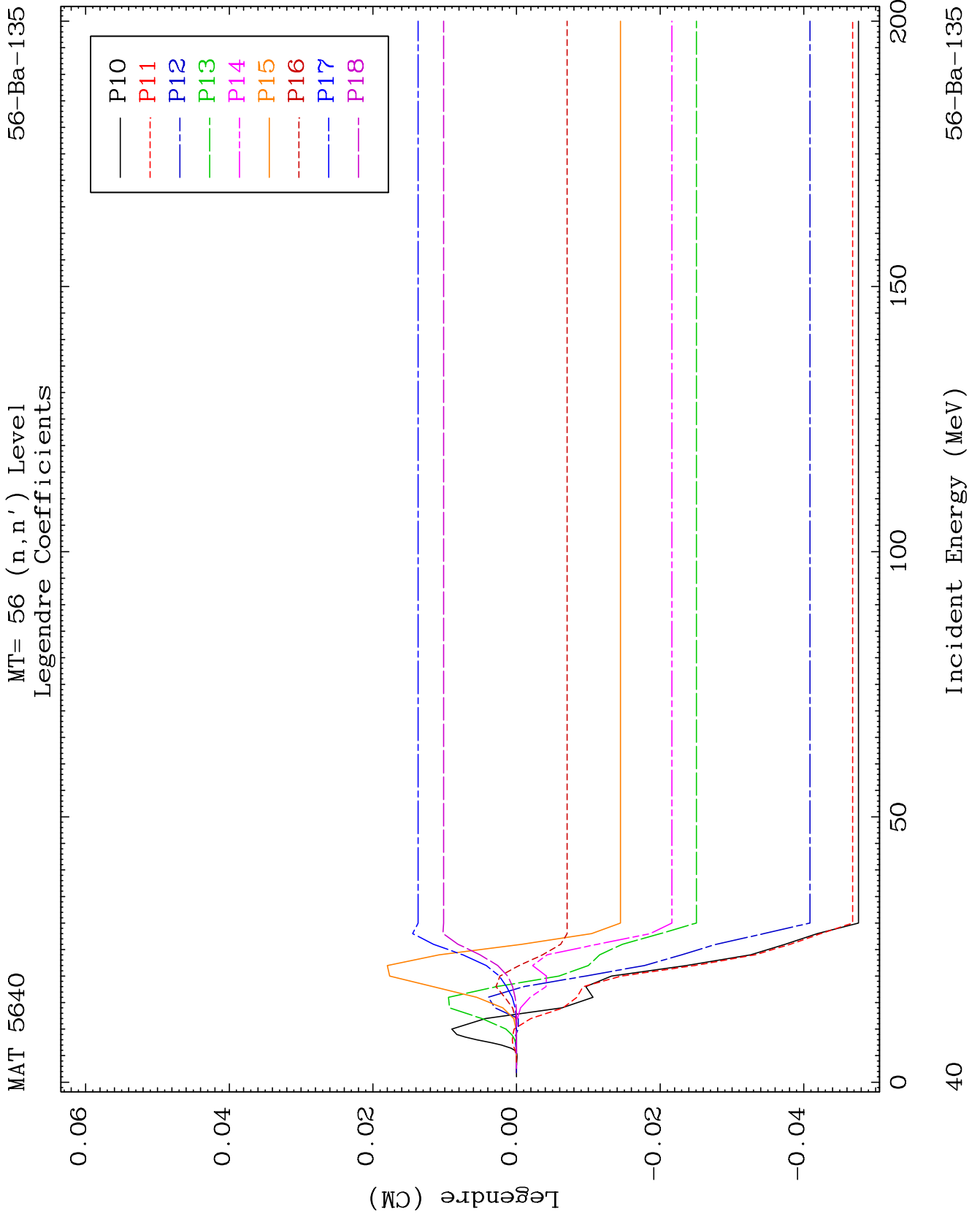


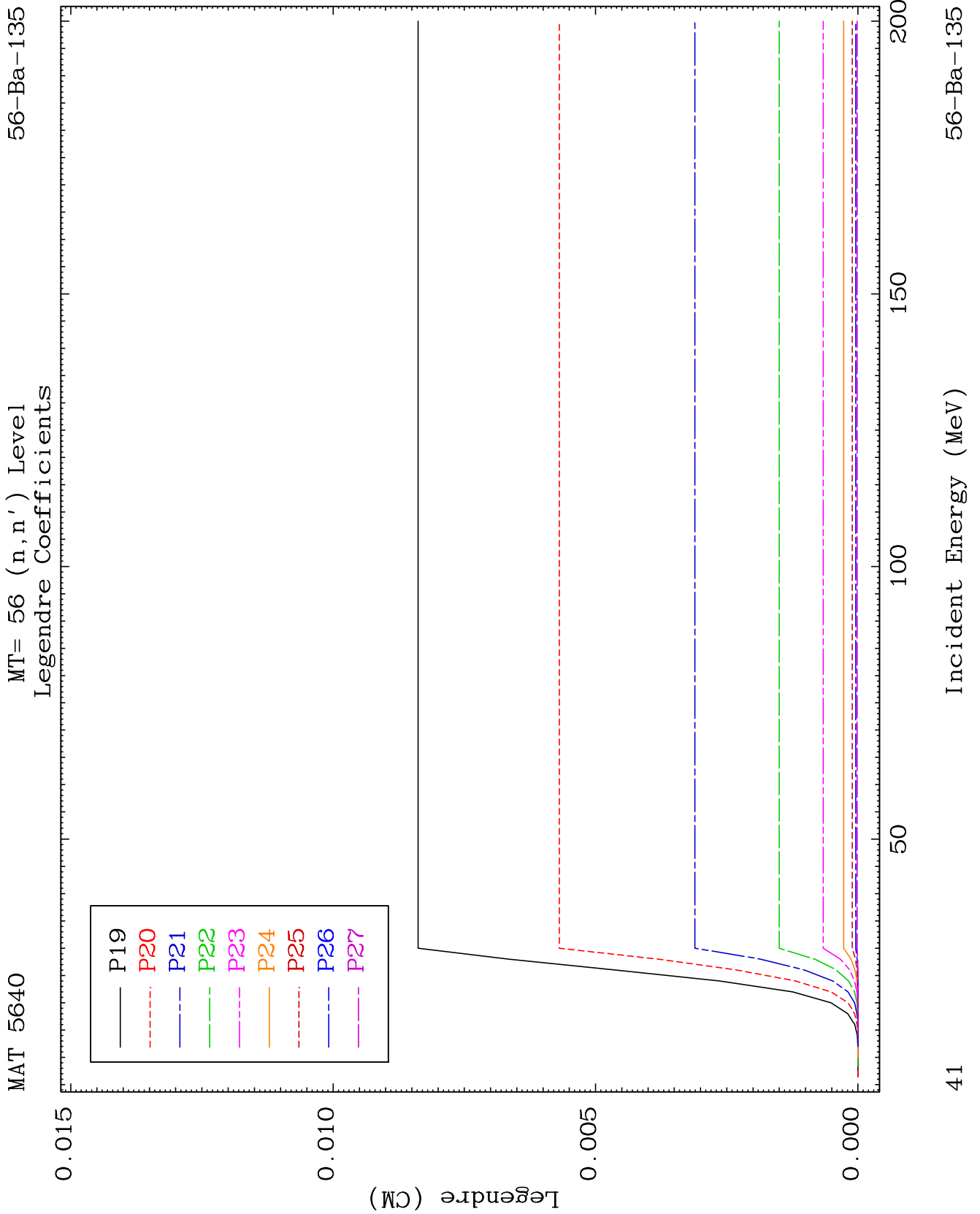
38

200





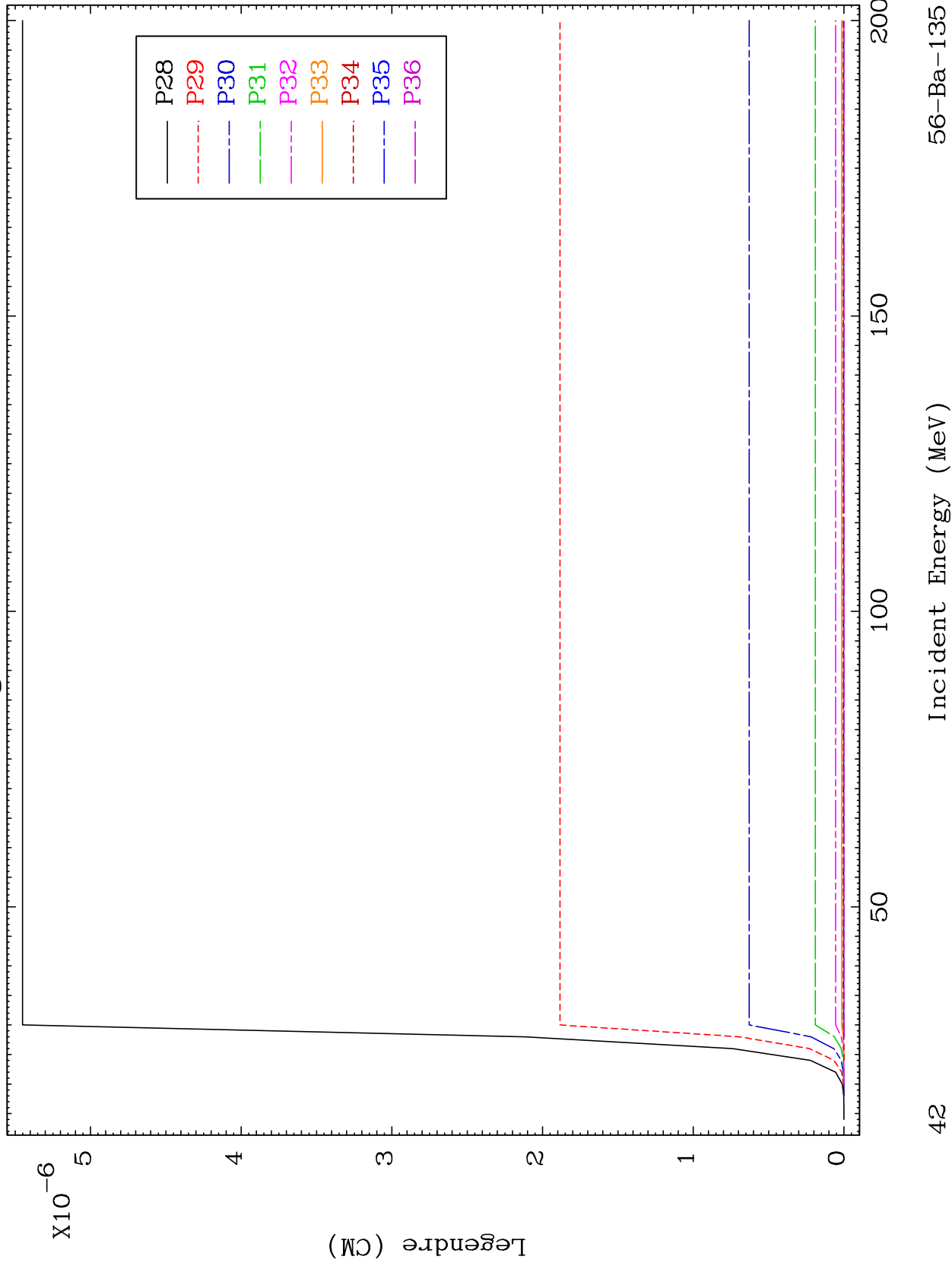




MAT 5640

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

56-Ba-135



42

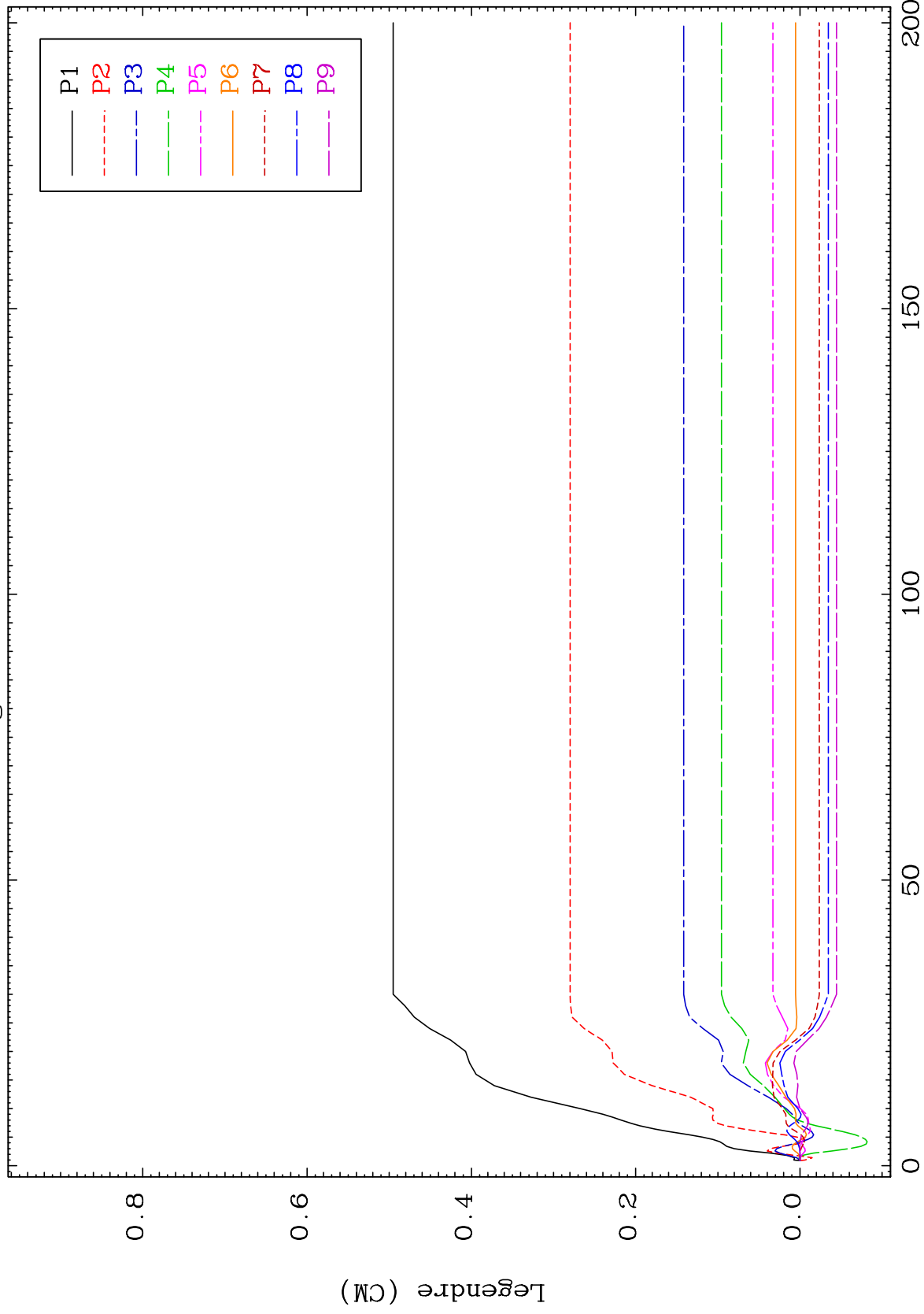
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

56-Ba-135



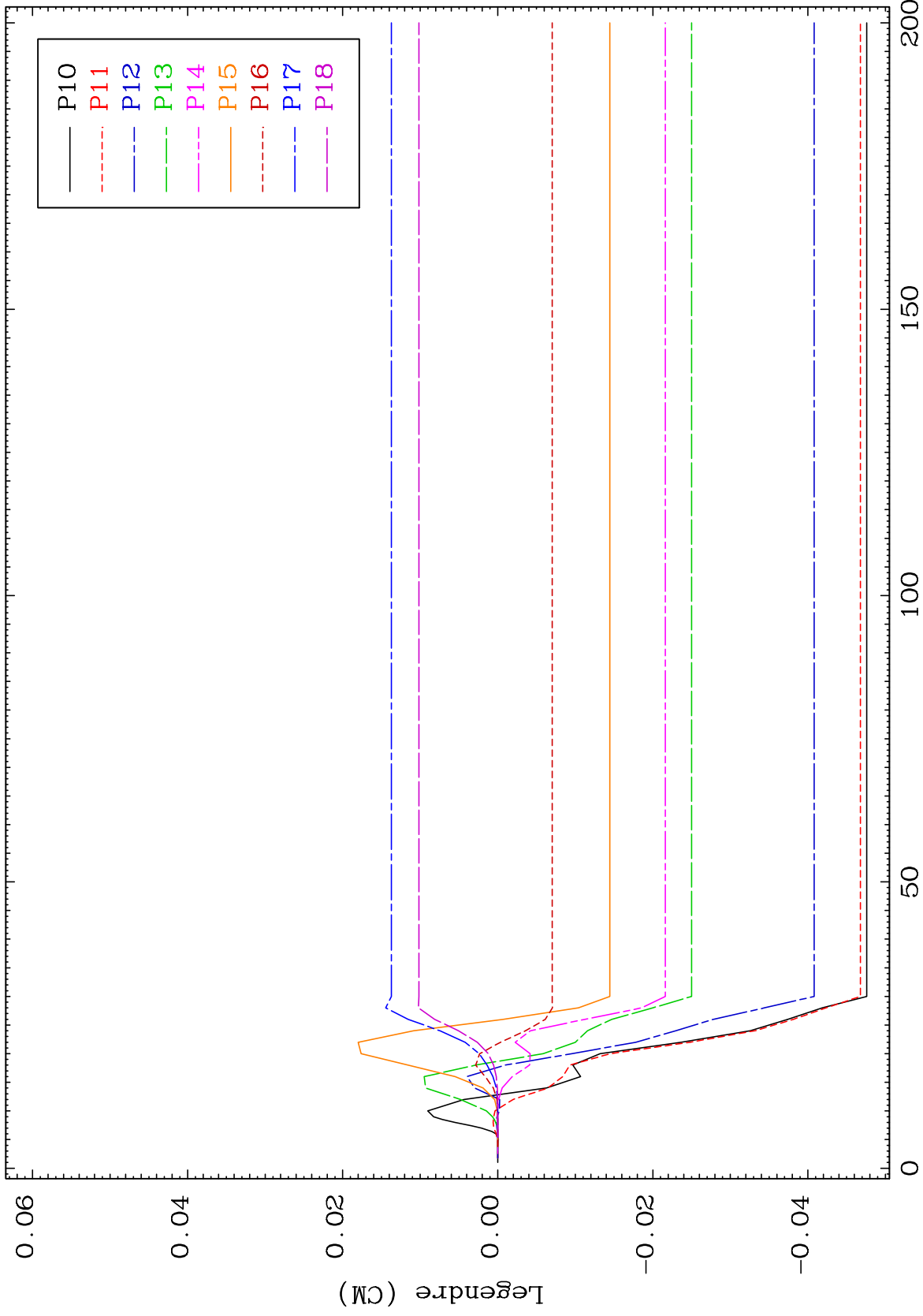
43

56-Ba-135

MAT 5640

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

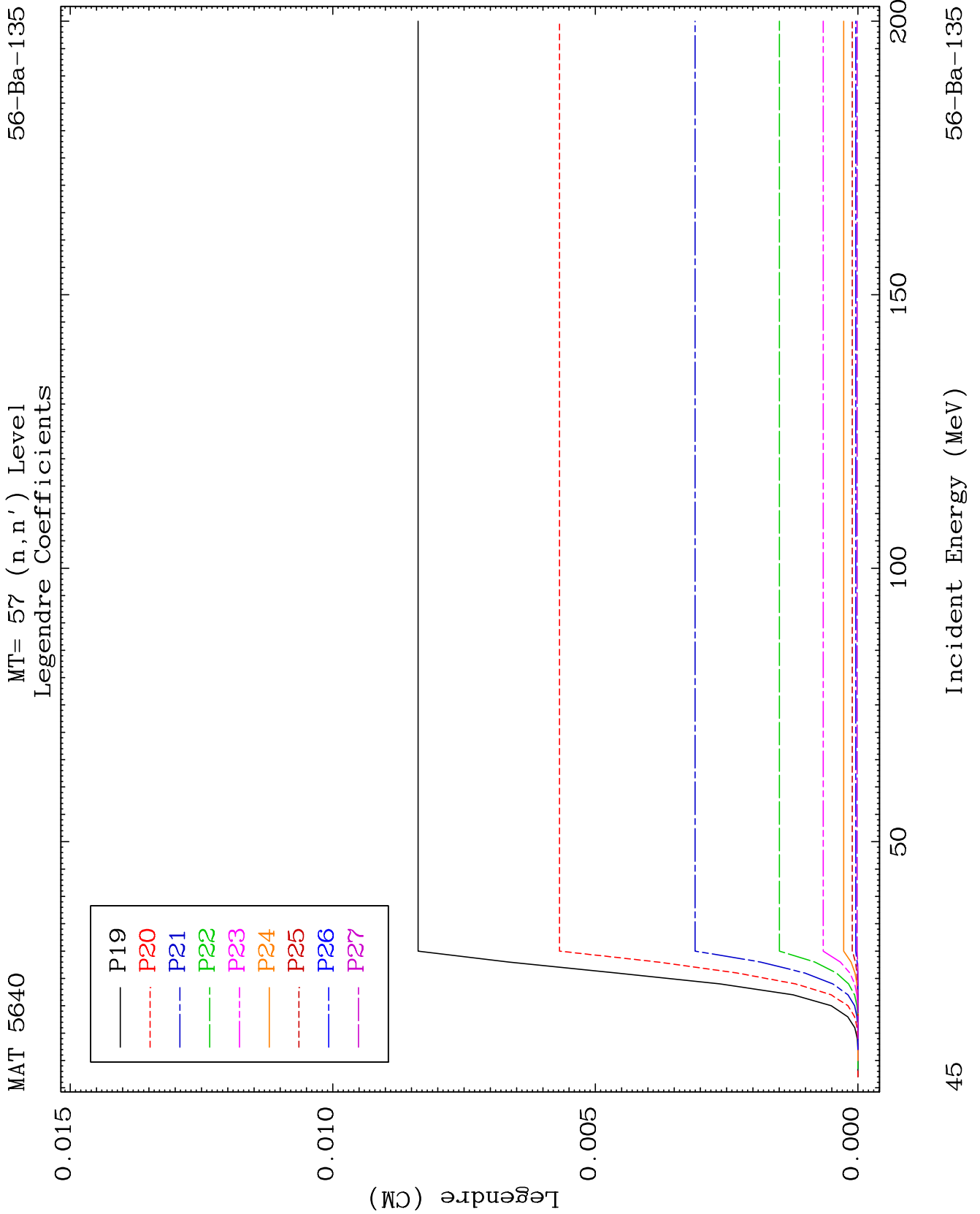
56-Ba-135



44

Incident Energy (MeV)

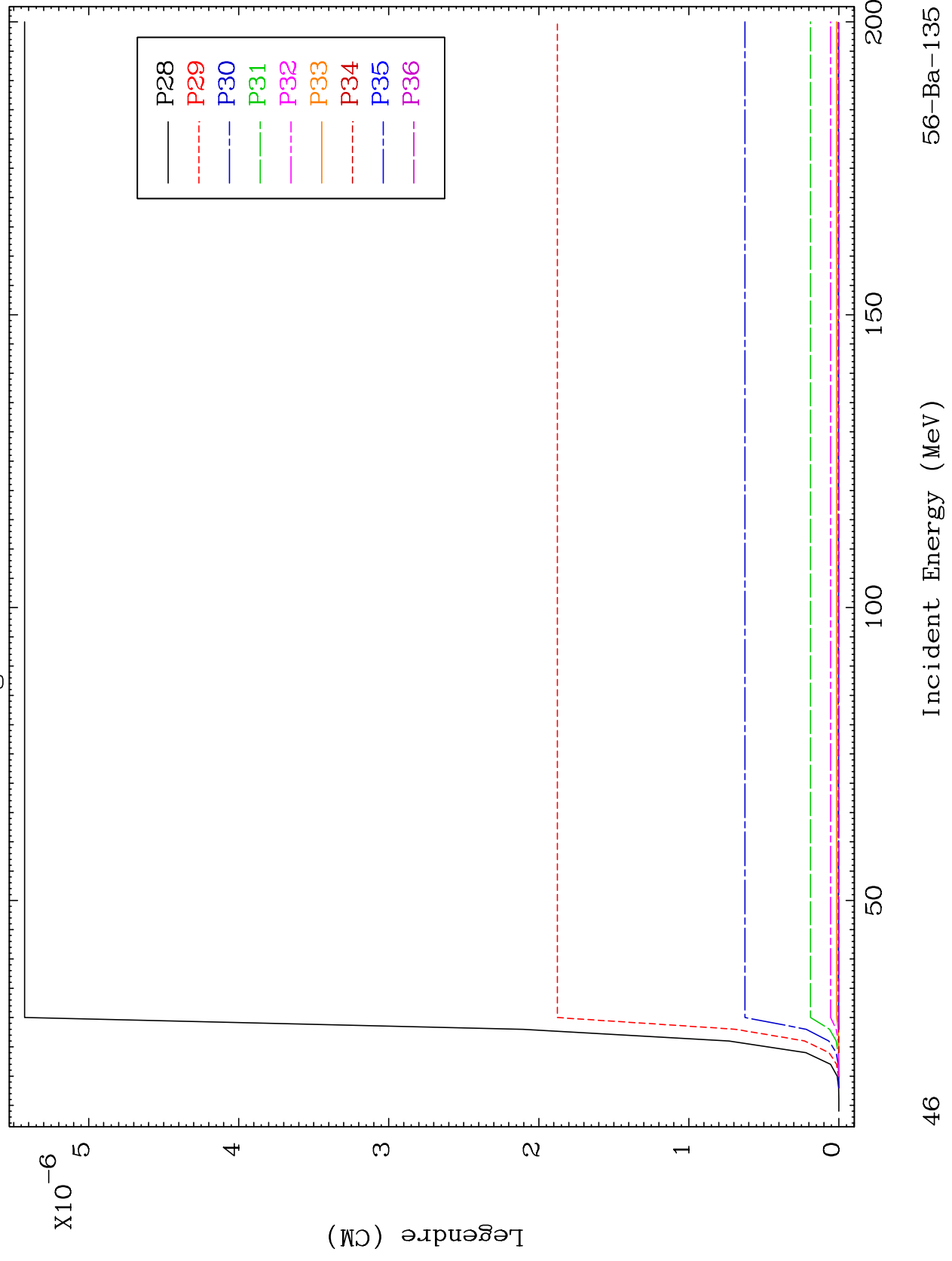
56-Ba-135



MAT 5640

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

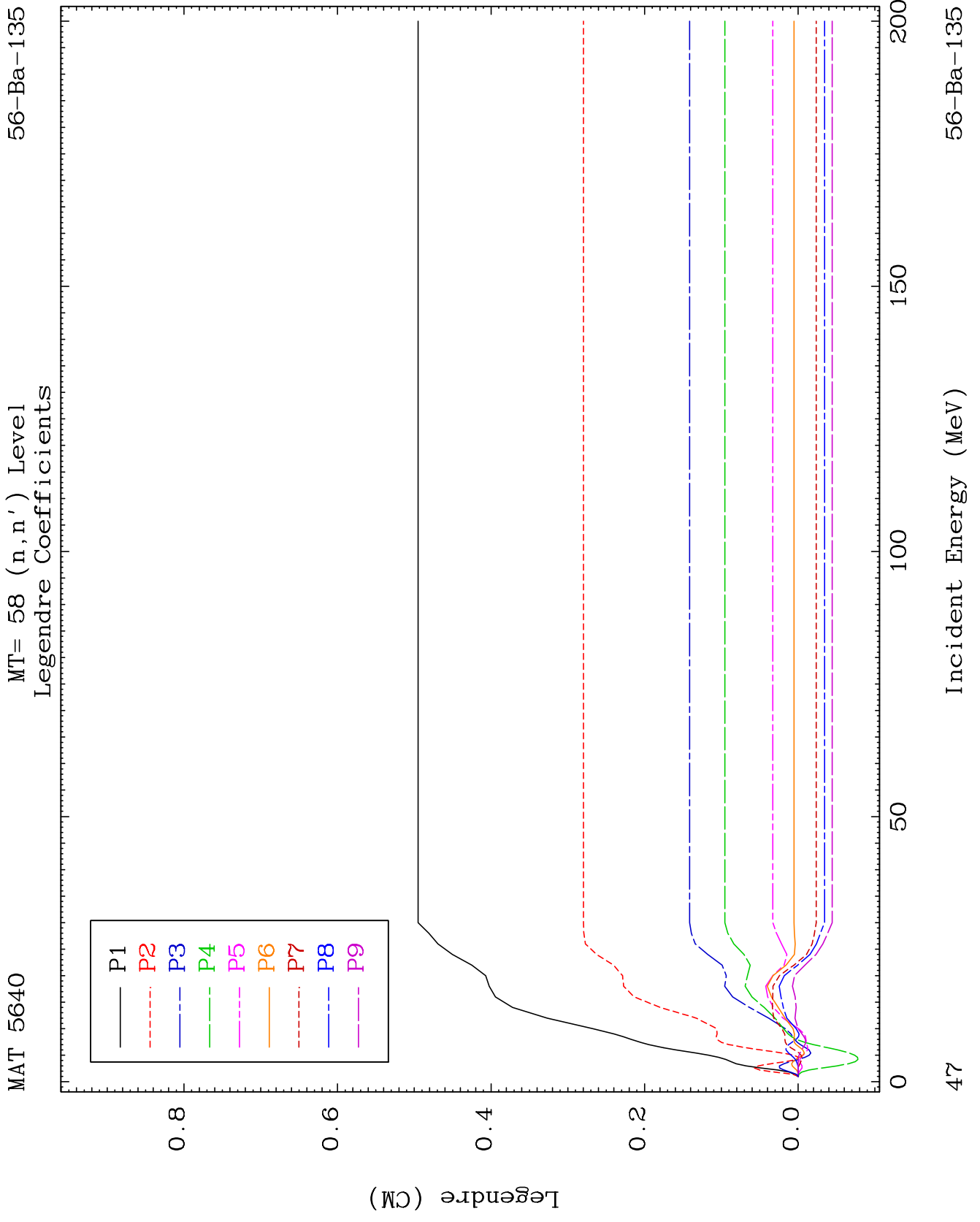
56-Ba-135



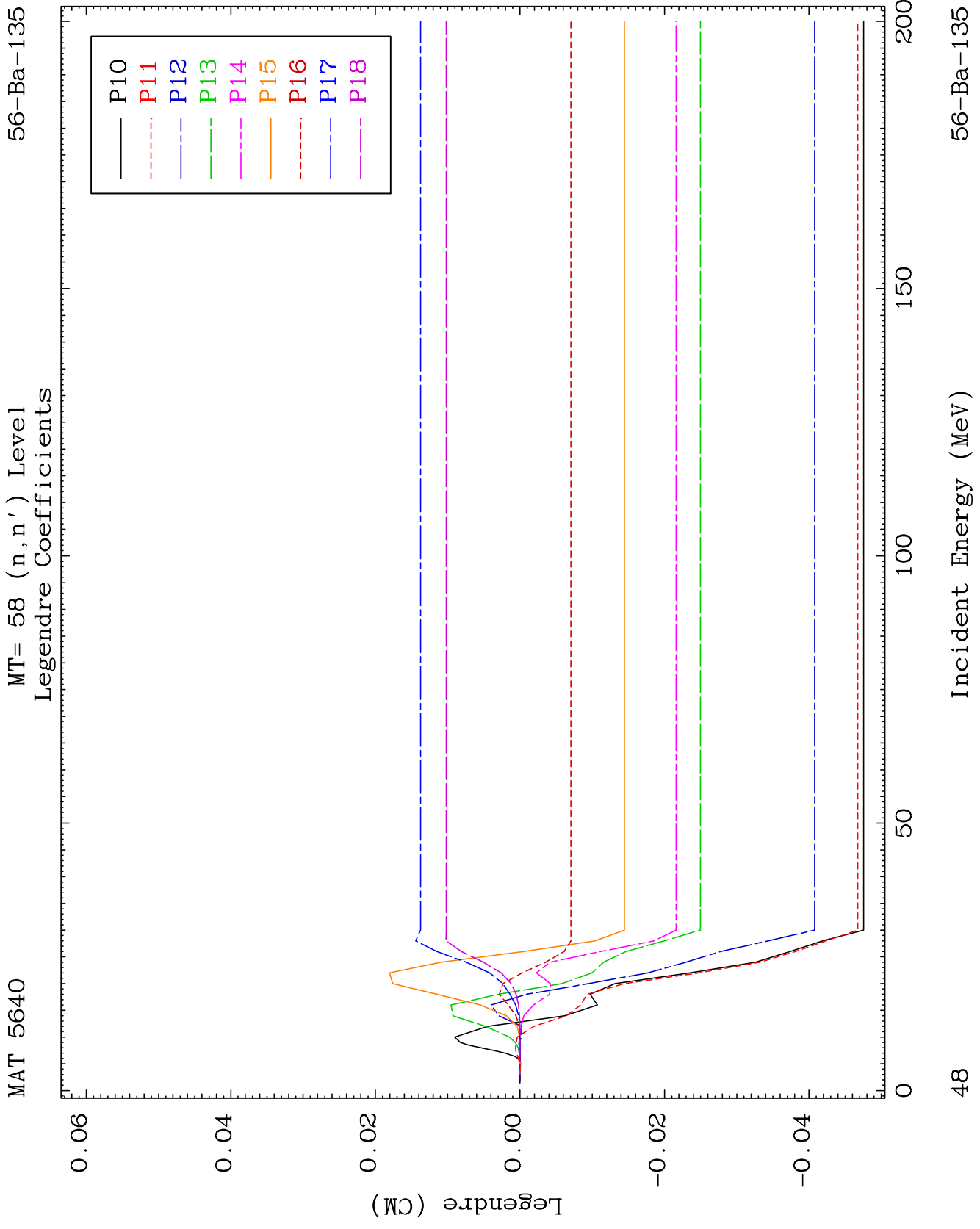
46

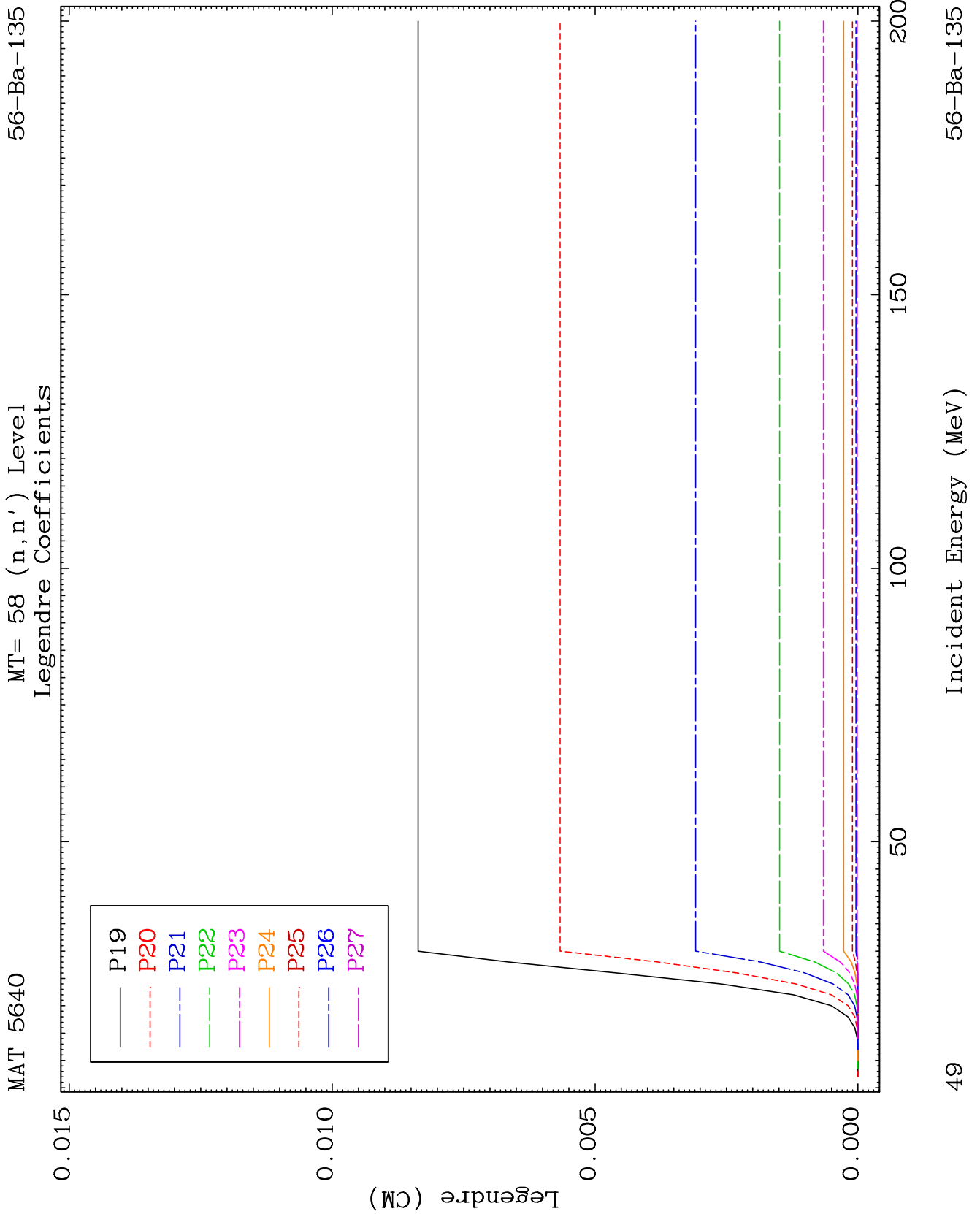
Incident Energy (MeV)

56-Ba-135





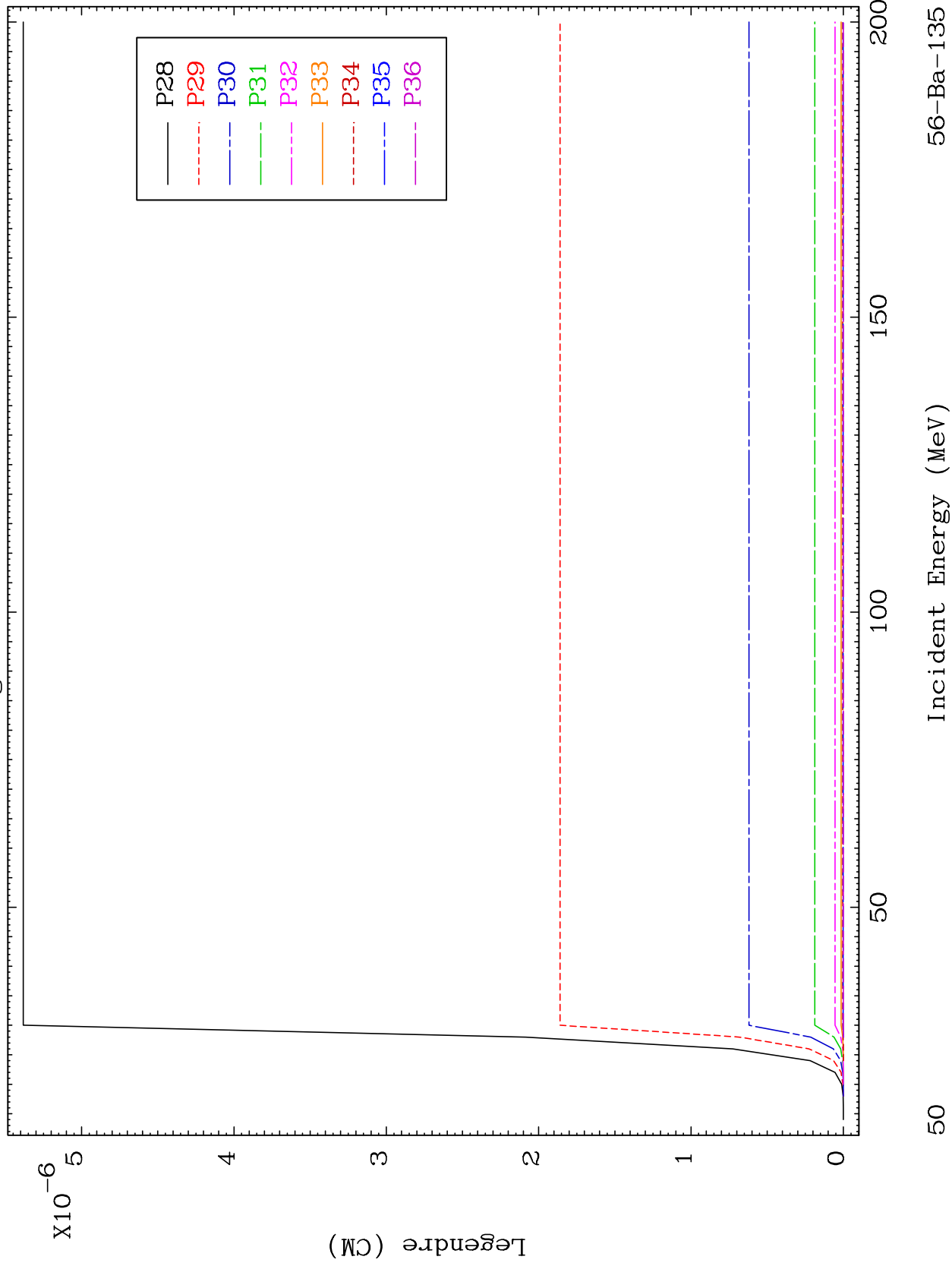




MAT 5640

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

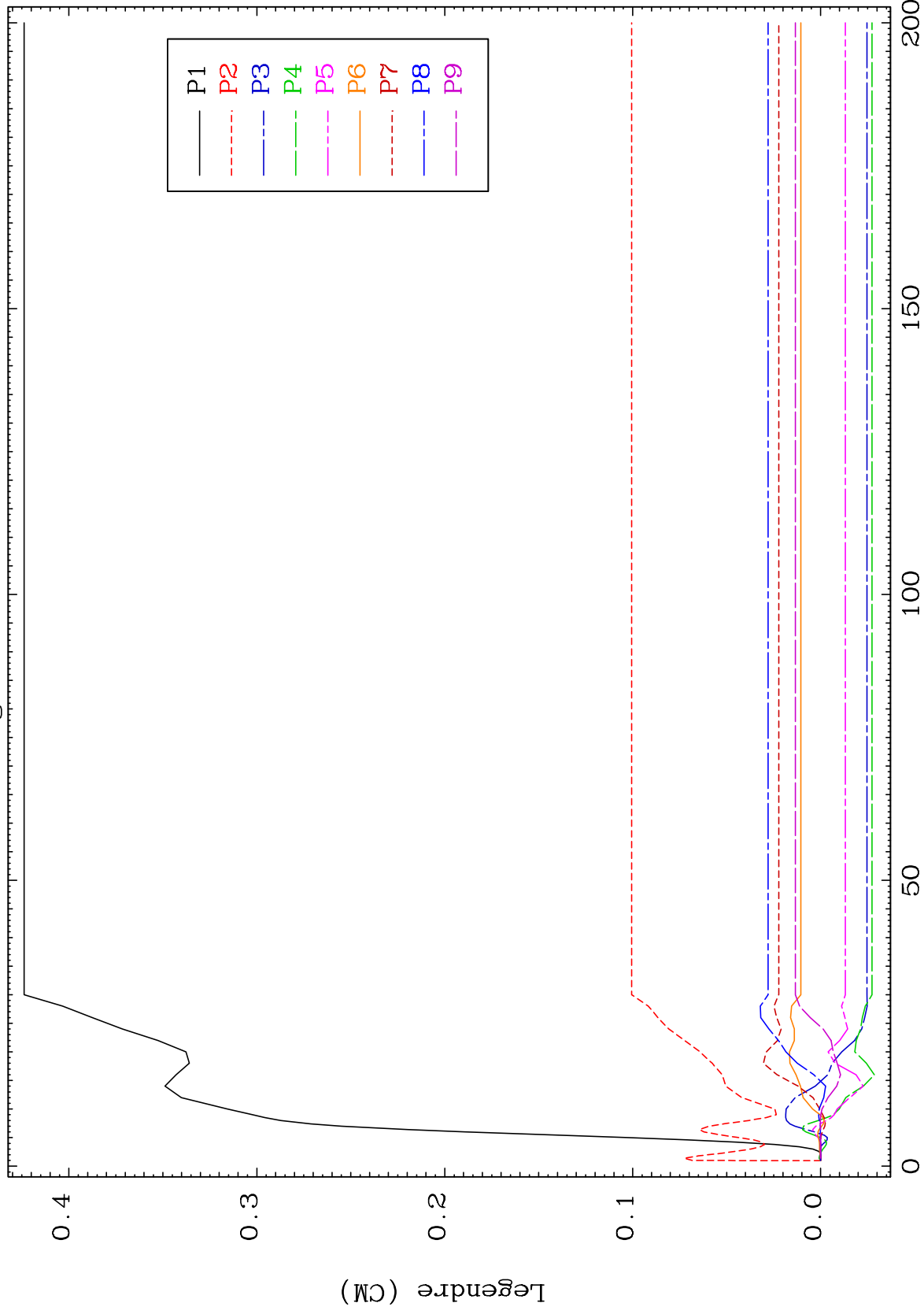
56-Ba-135



MAT 5640

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

56-Ba-135



51

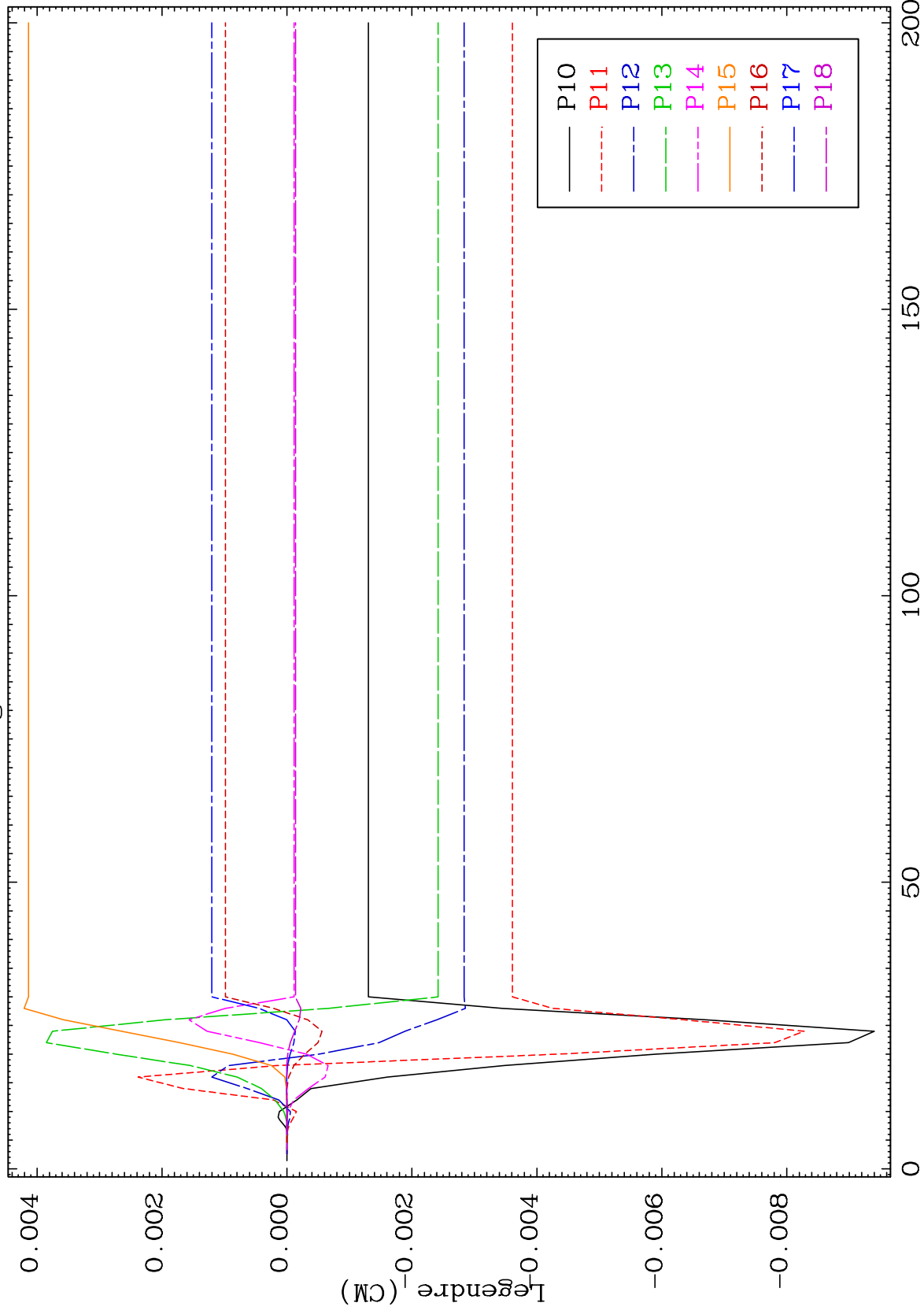
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

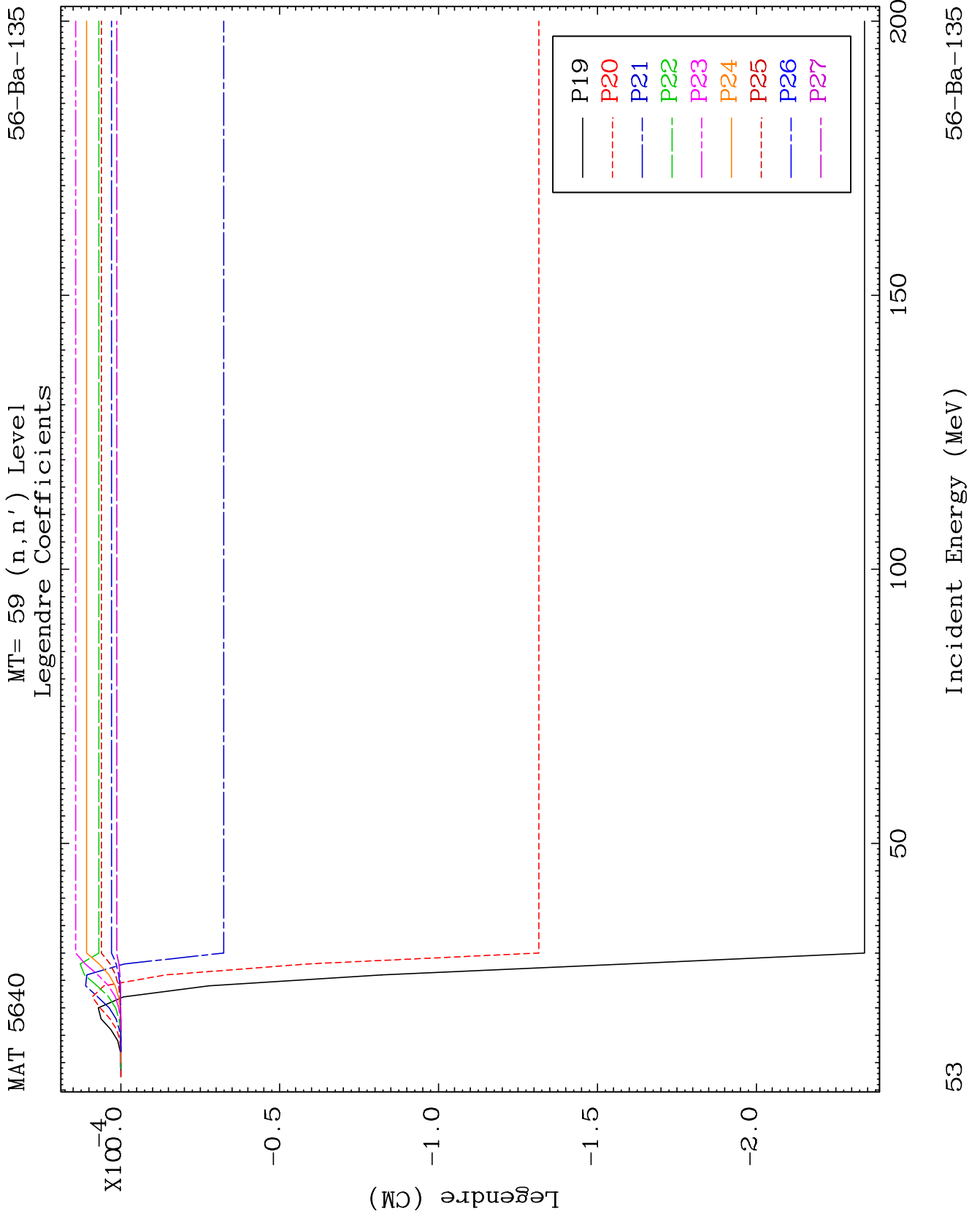
56-Ba-135



52

Incident Energy (MeV)

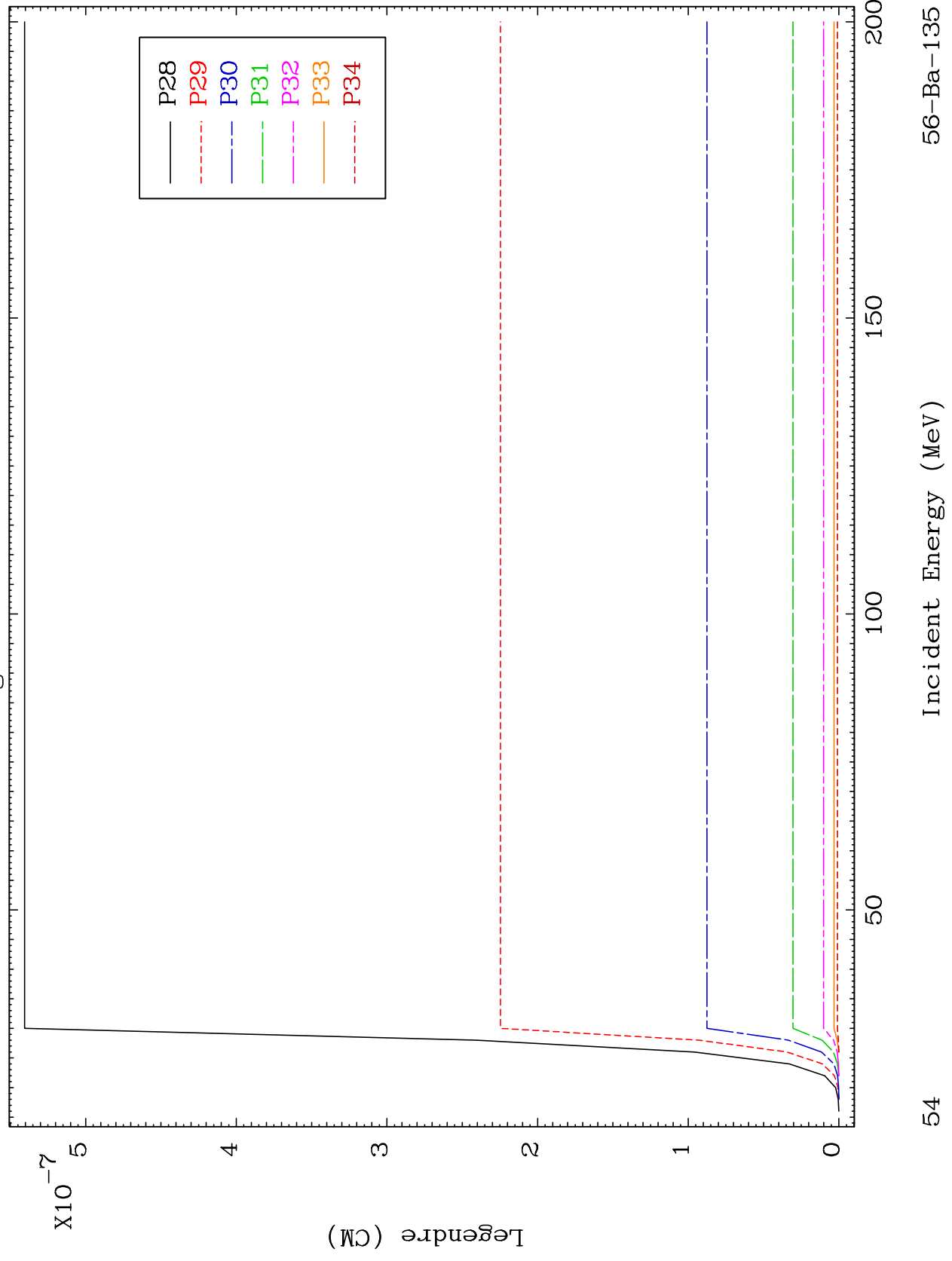
56-Ba-135



MAT 5640

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

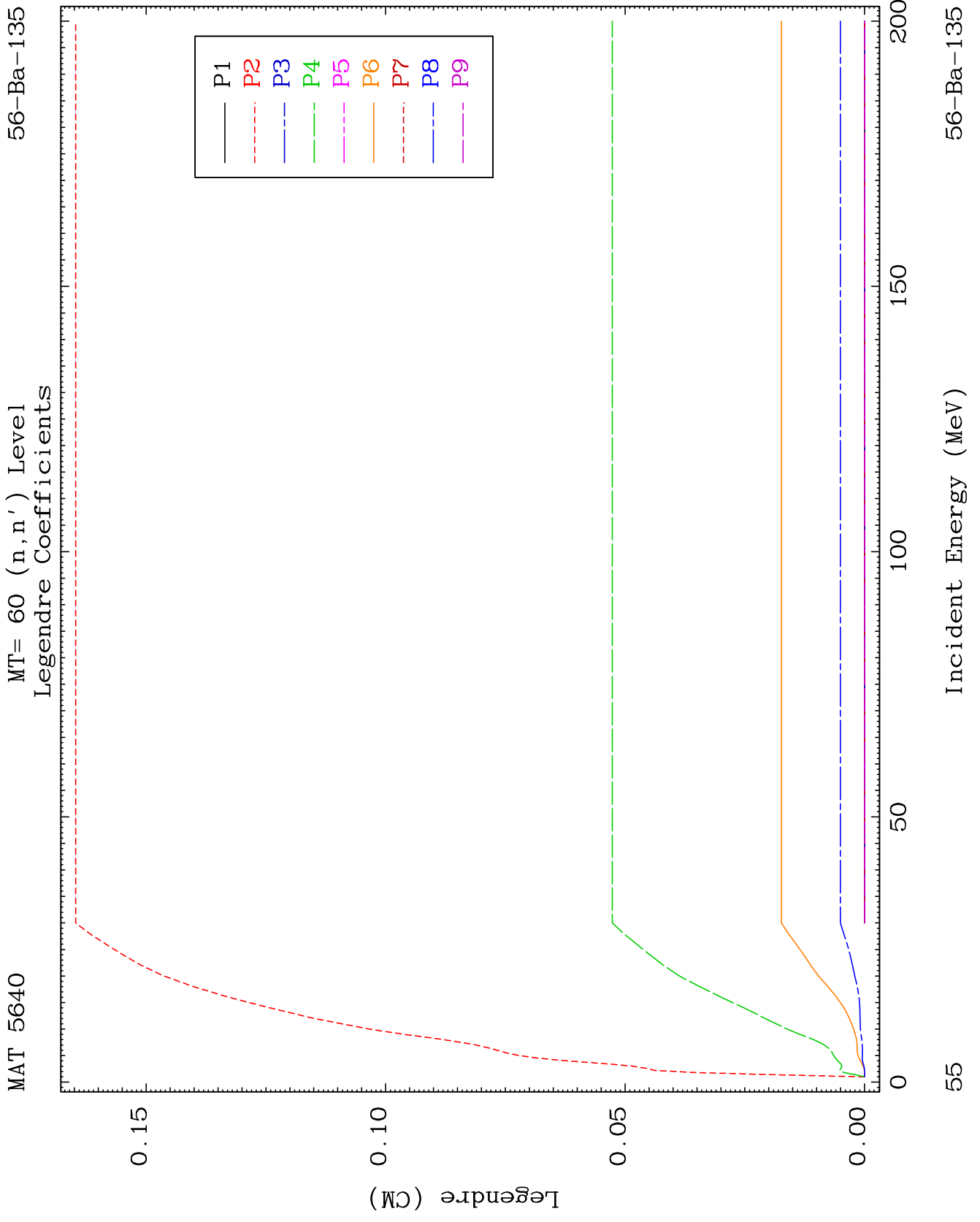
56-Ba-135



54

Incident Energy (MeV)

56-Ba-135

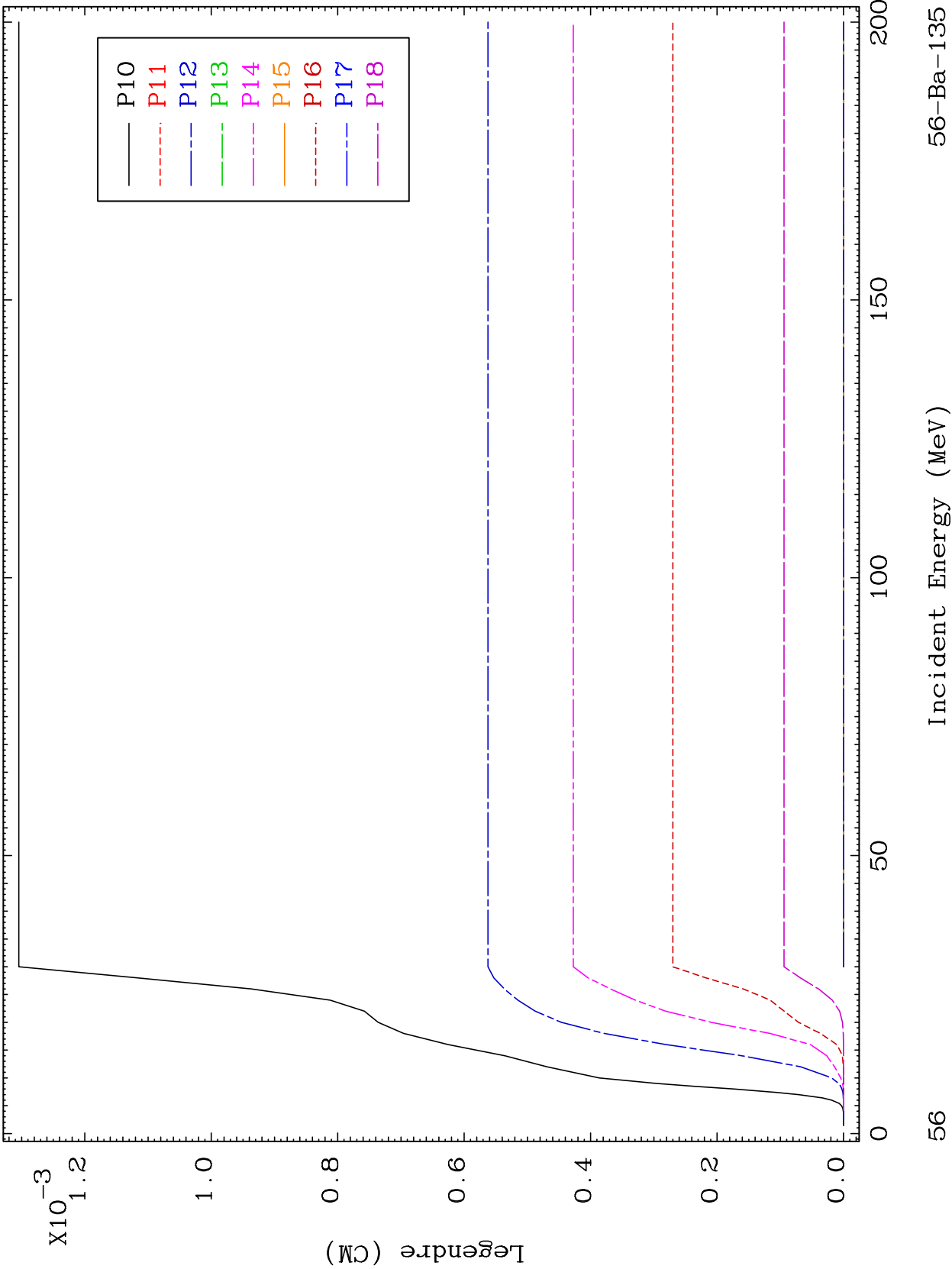




MAT 5640

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

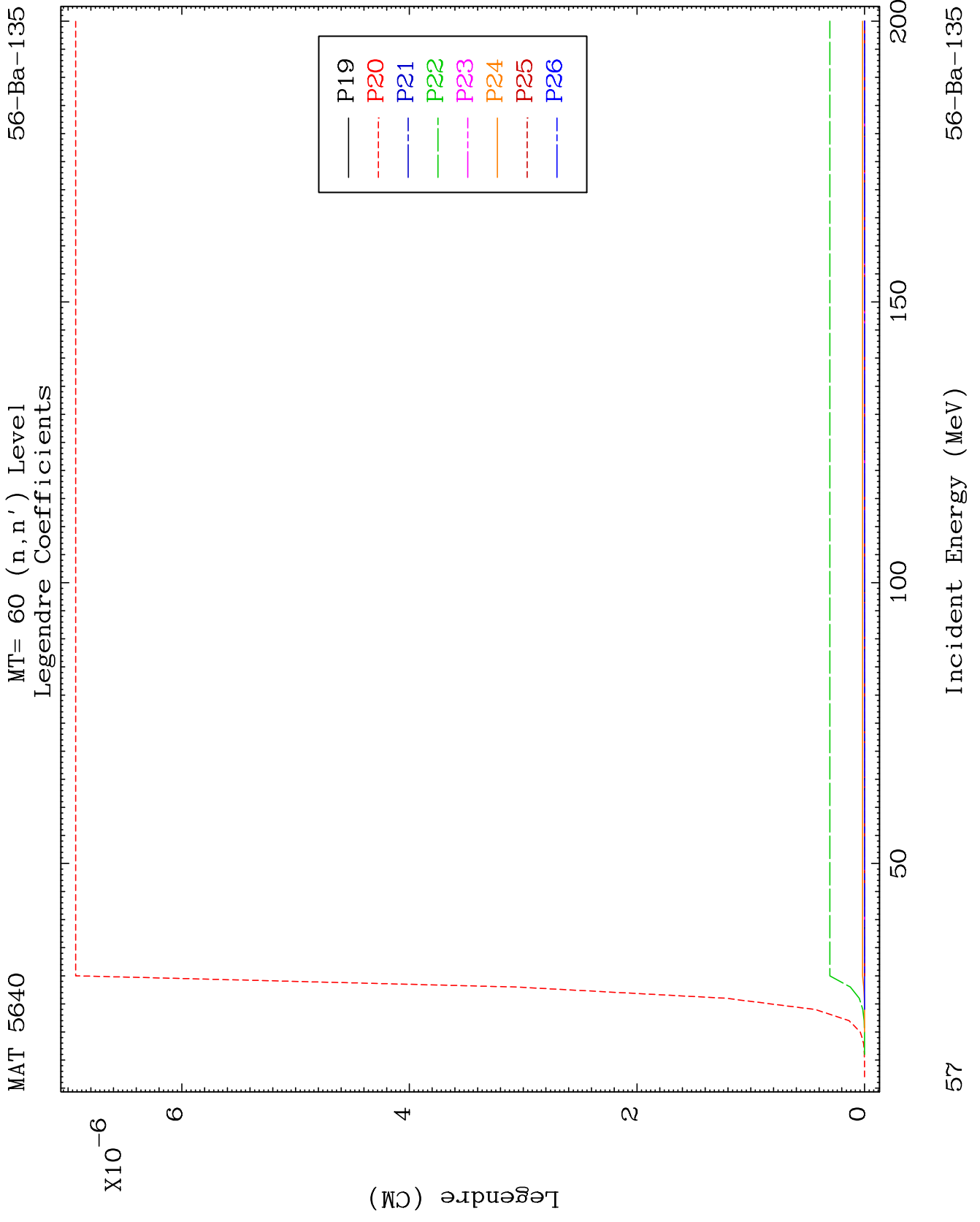
56-Ba-135

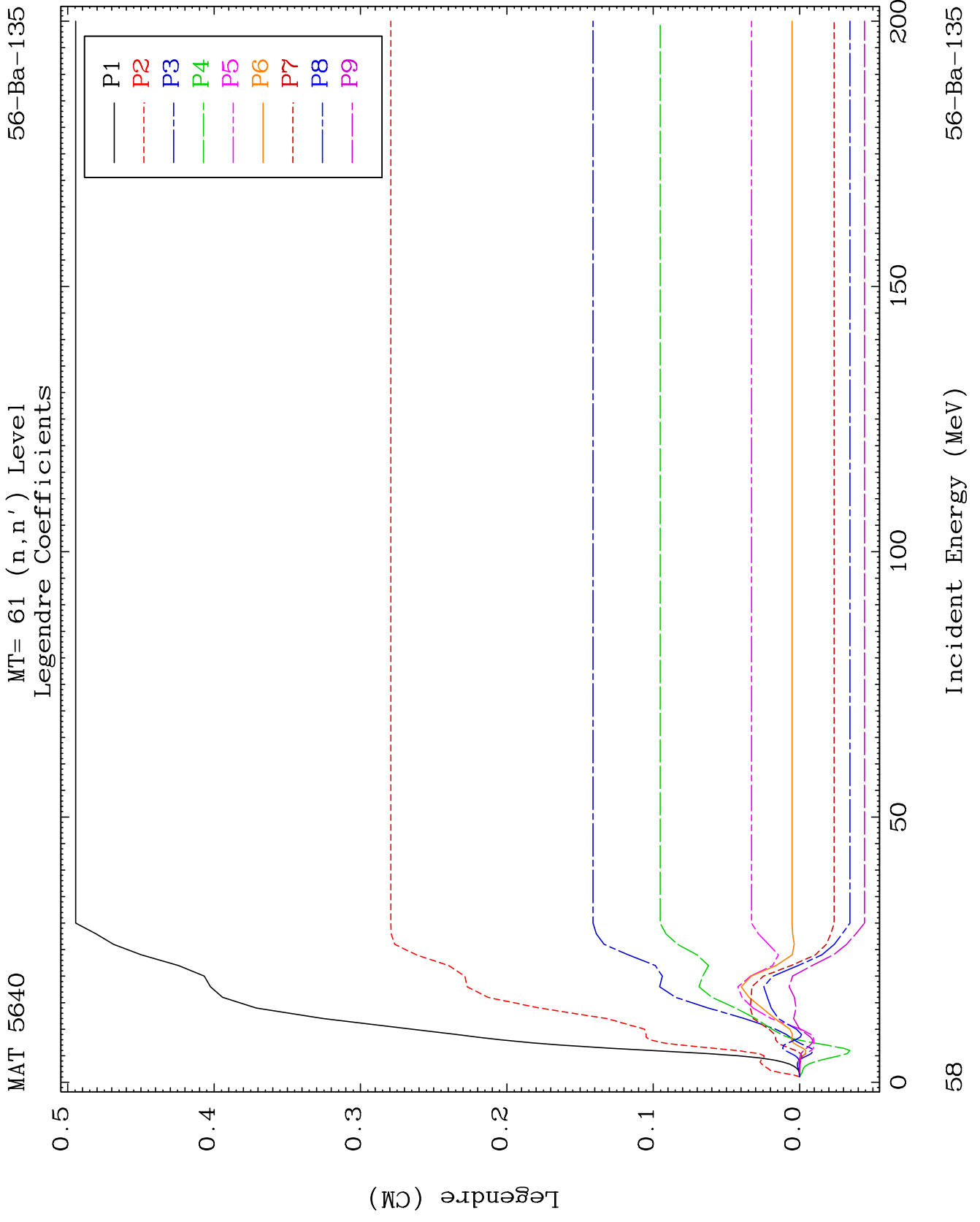


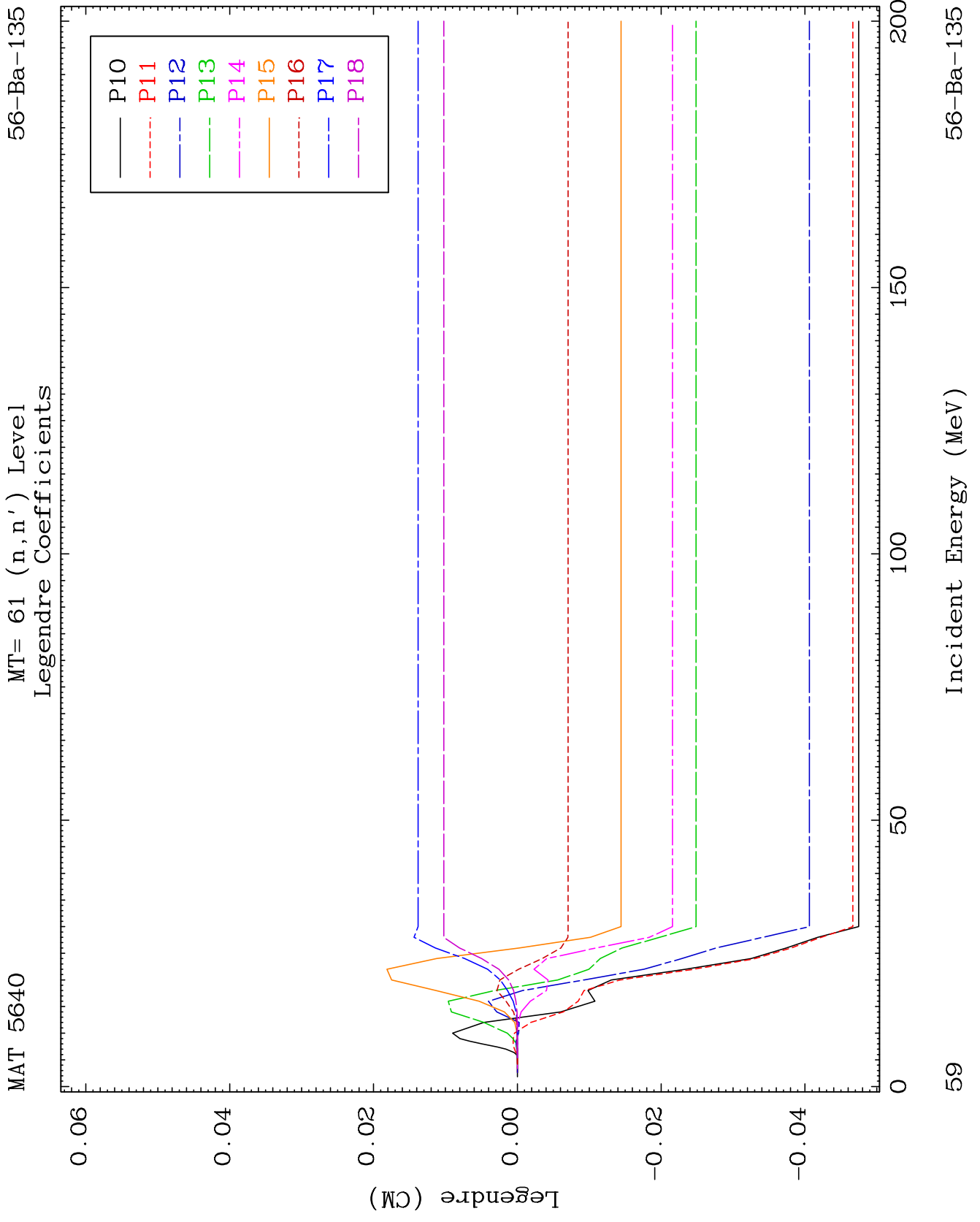
56-Ba-135

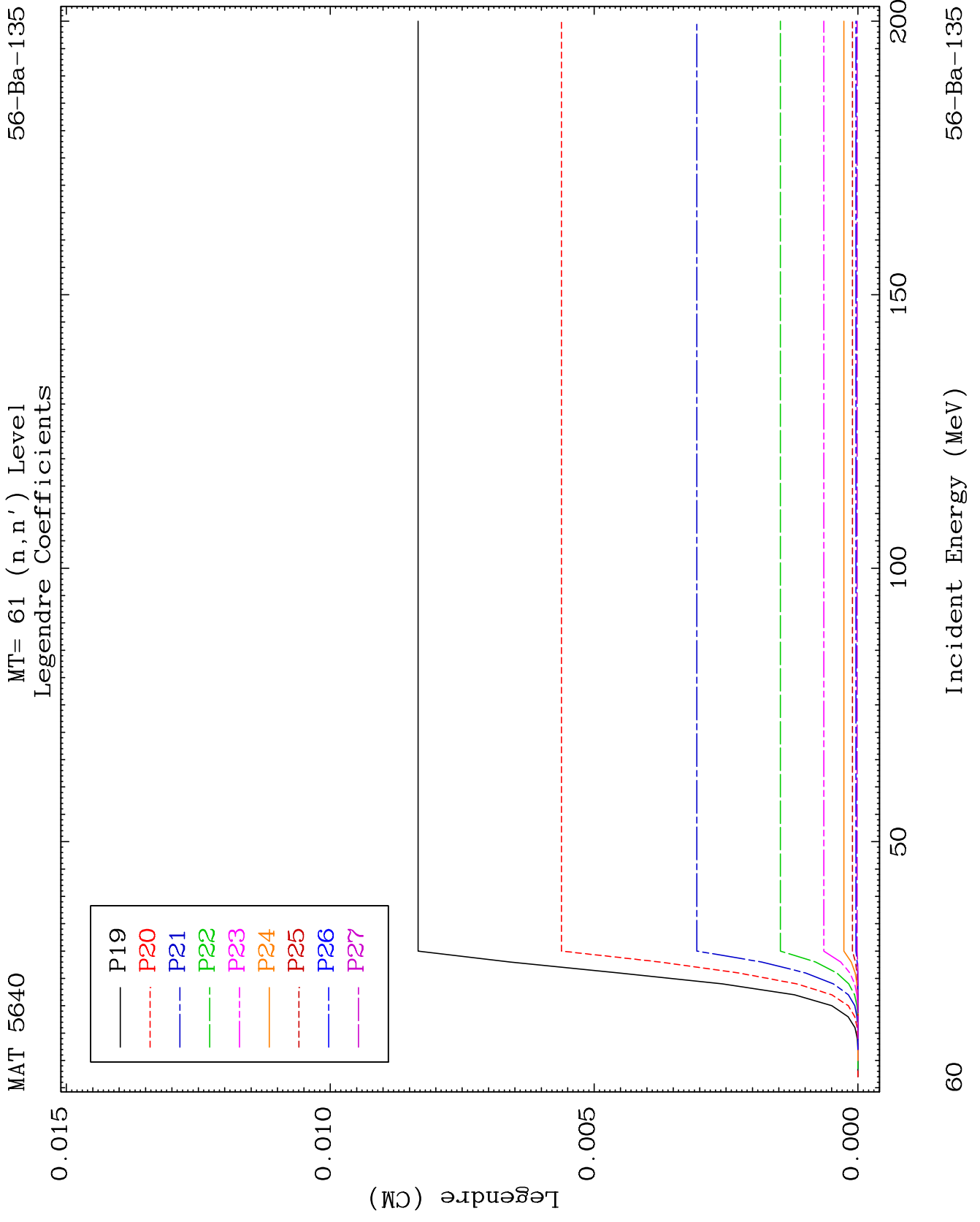
Incident Energy (MeV)

56





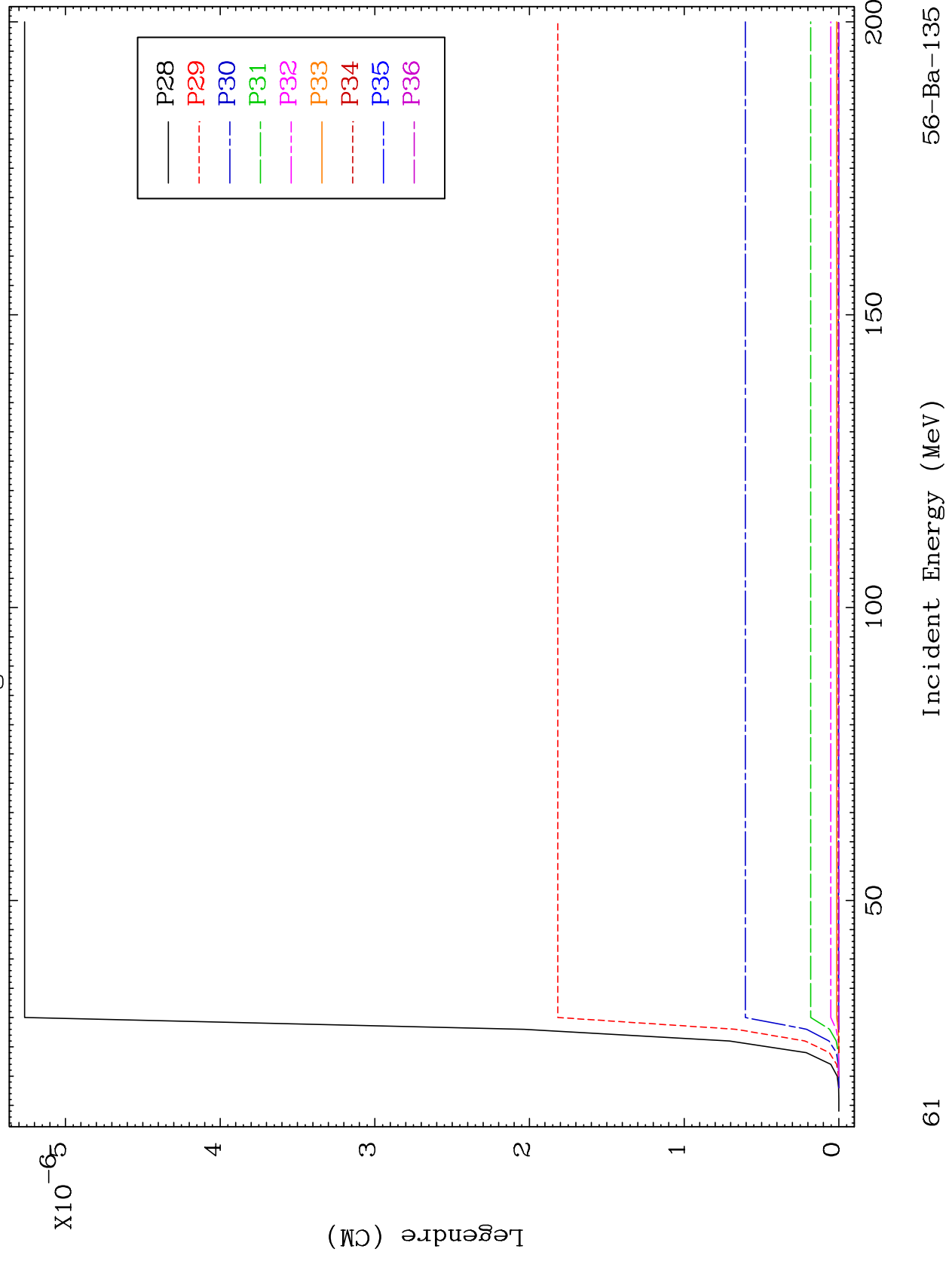




MAT 5640

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

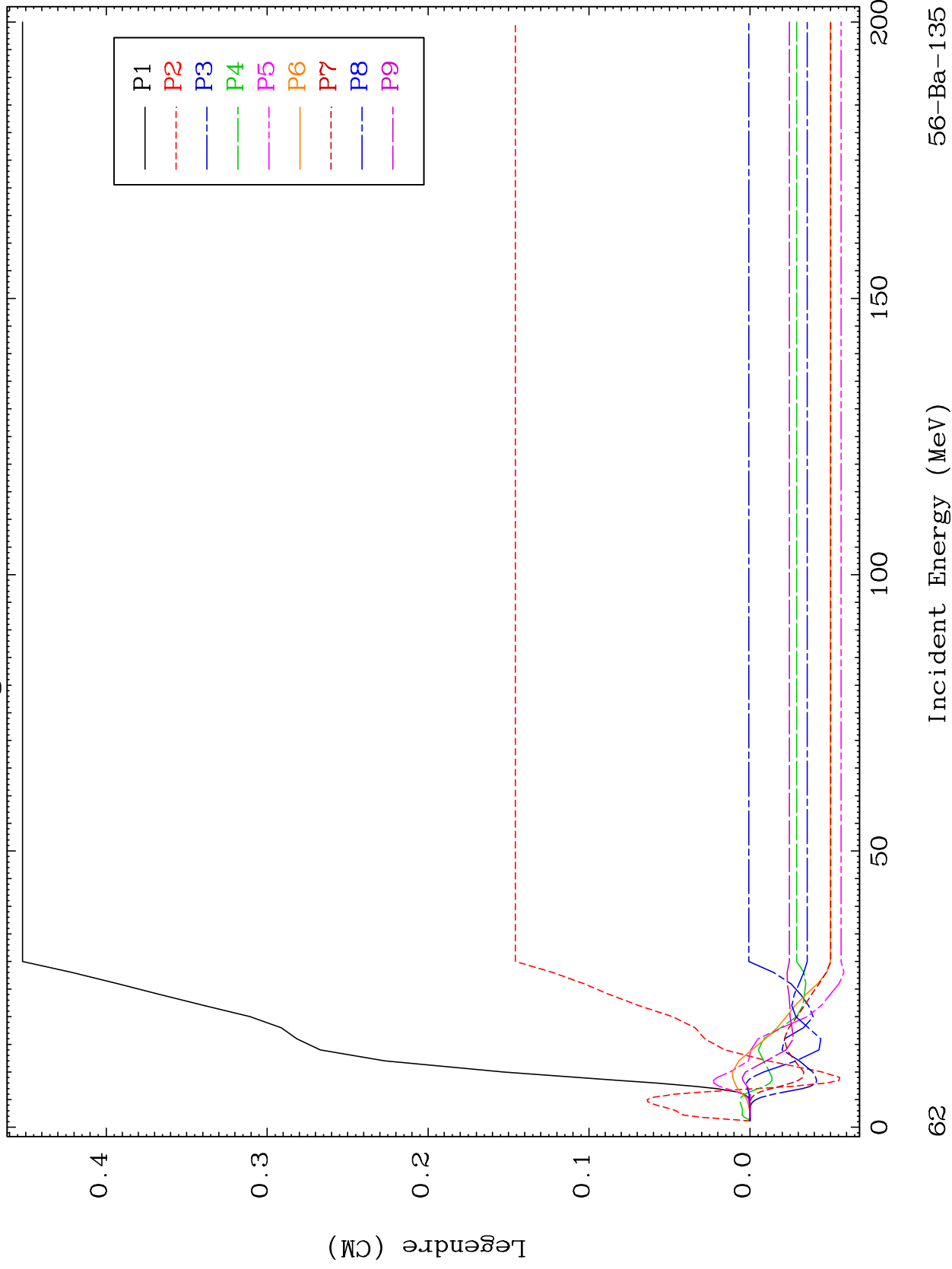
56-Ba-135



MAT 5640

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

56-Ba-135



56-Ba-135

Incident Energy (MeV)

62

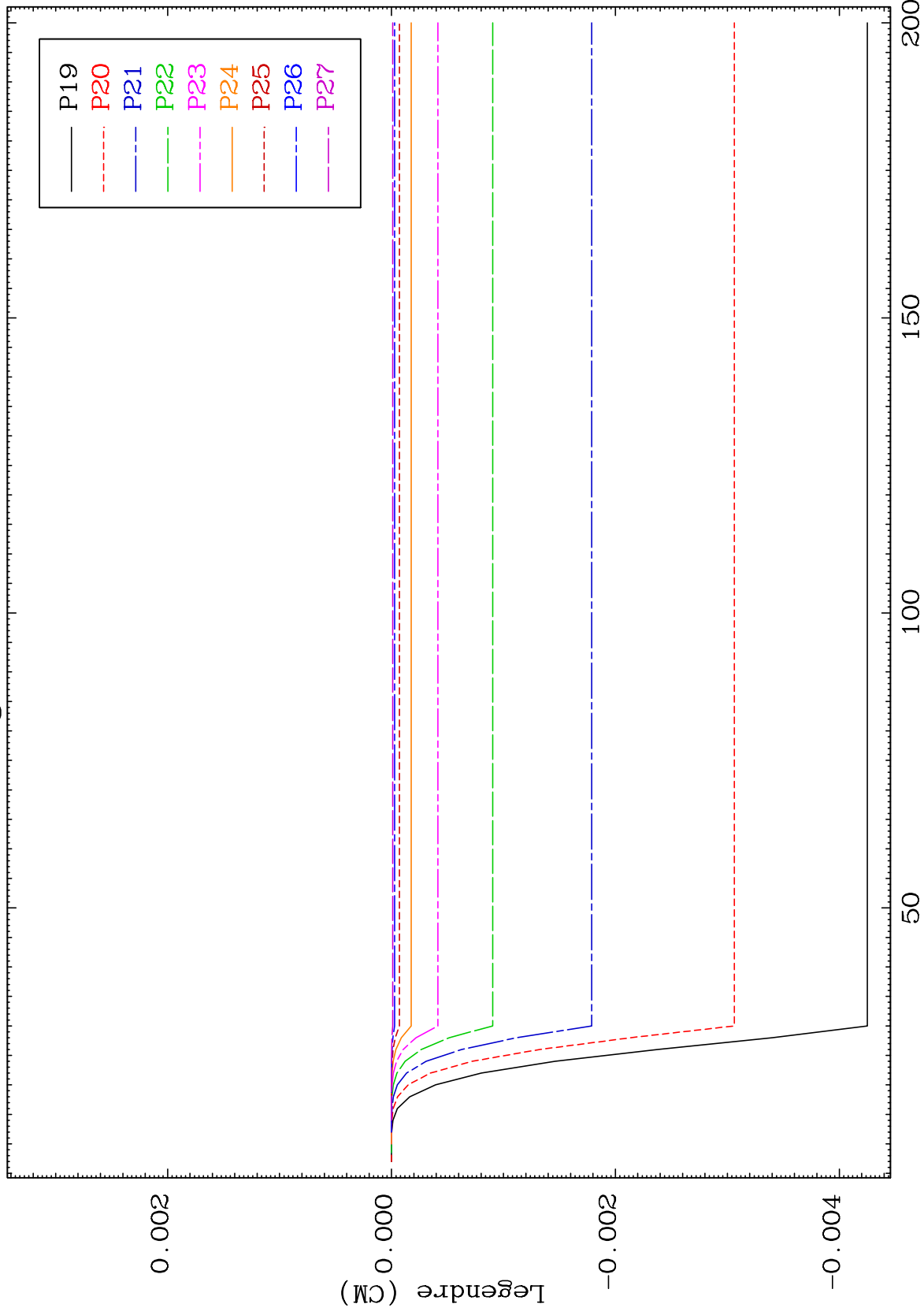




MAT 5640

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

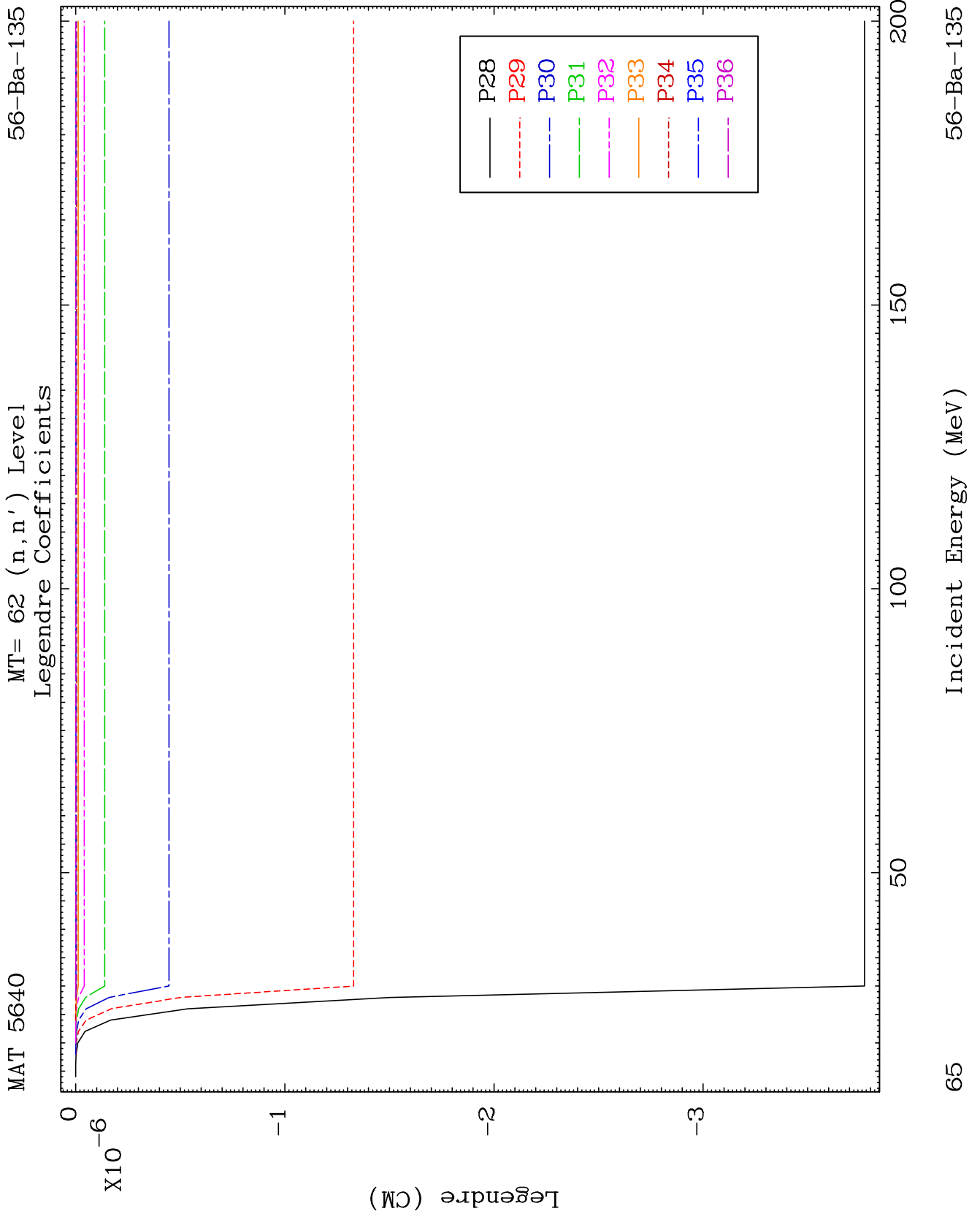
56-Ba-135



64

Incident Energy (MeV)

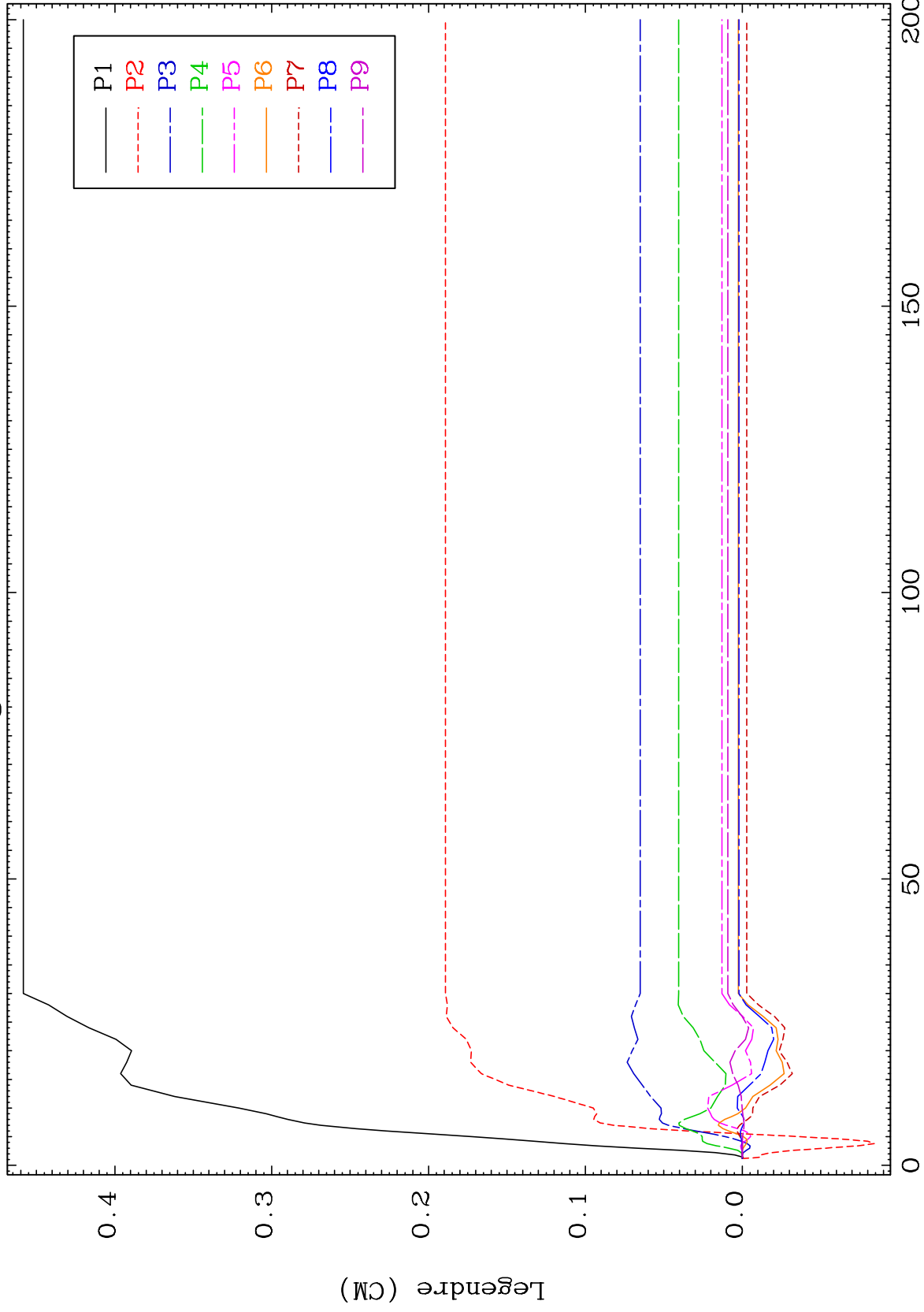
56-Ba-135



MAT 5640

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

56-Ba-135



56-Ba-135

Incident Energy (MeV)

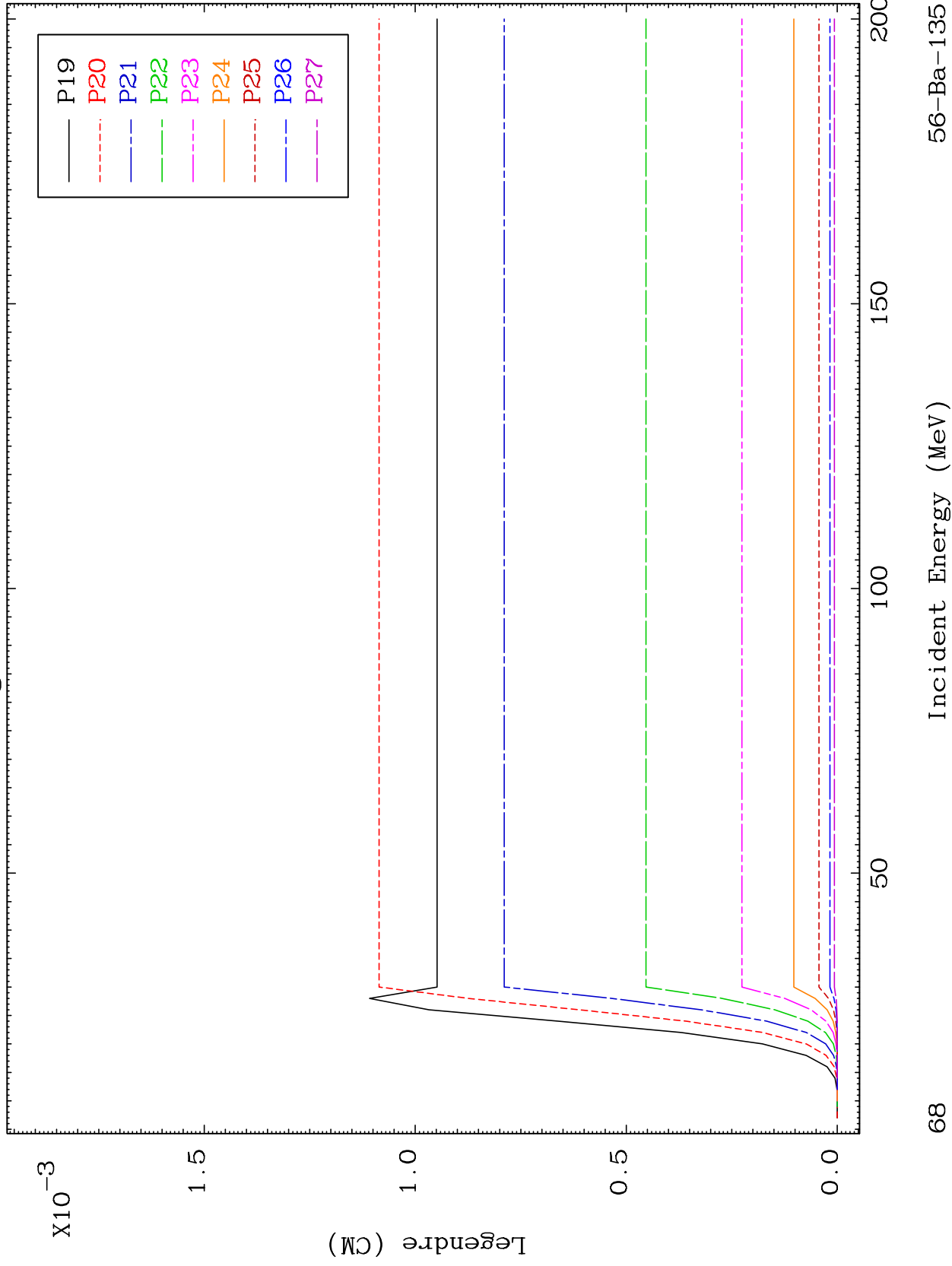
66



MAT 5640

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

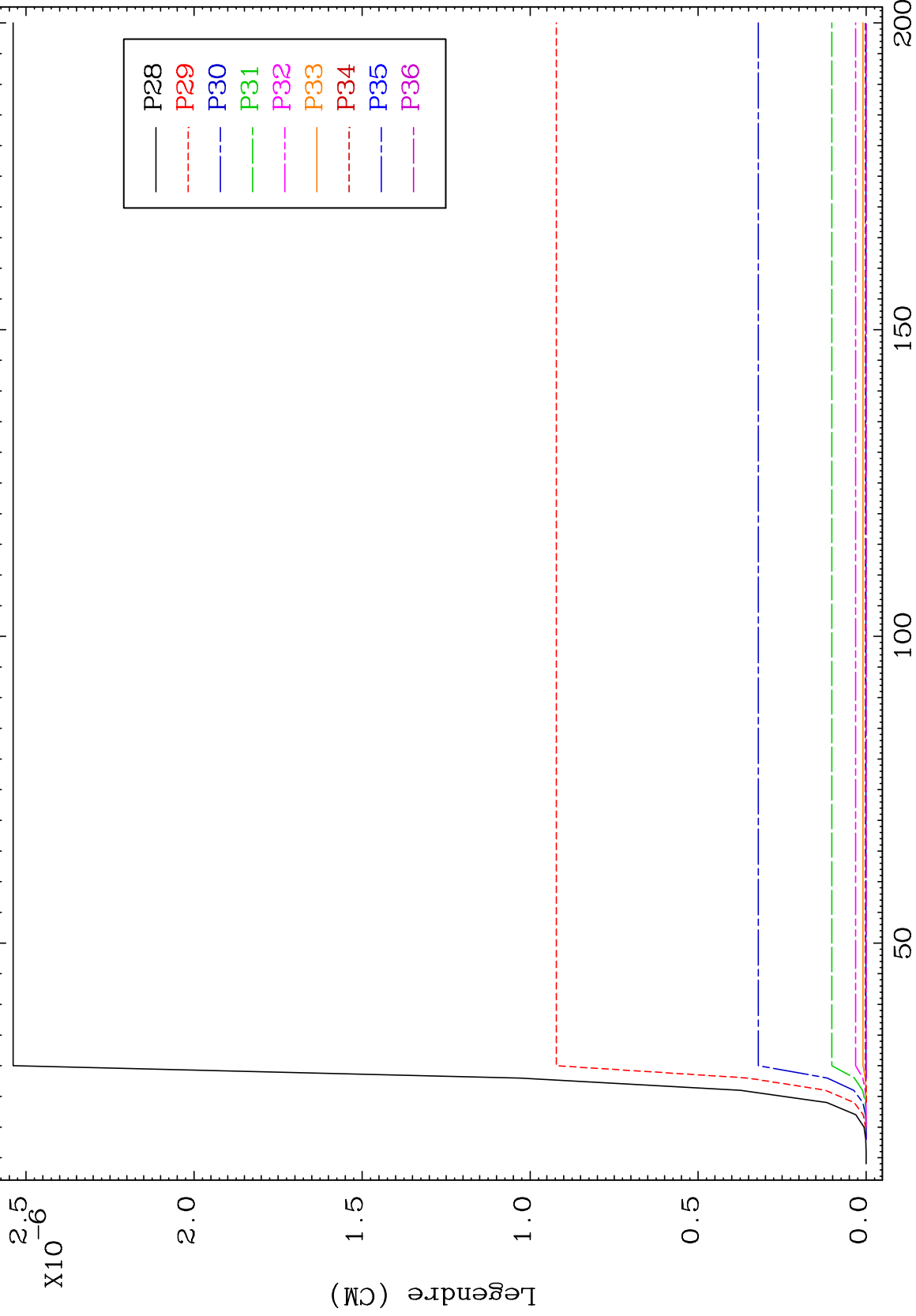
56-Ba-135



MAT 5640

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

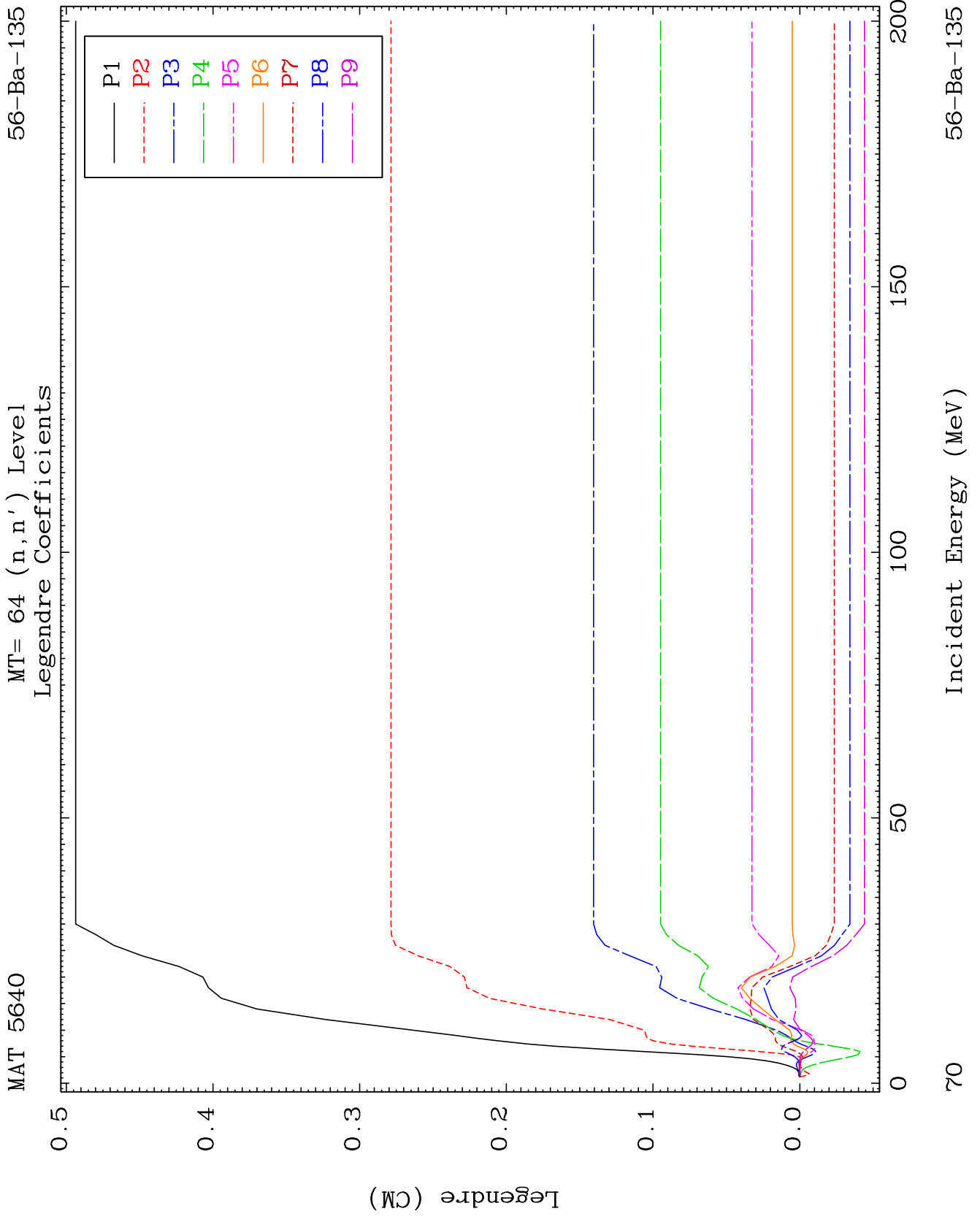
56-Ba-135

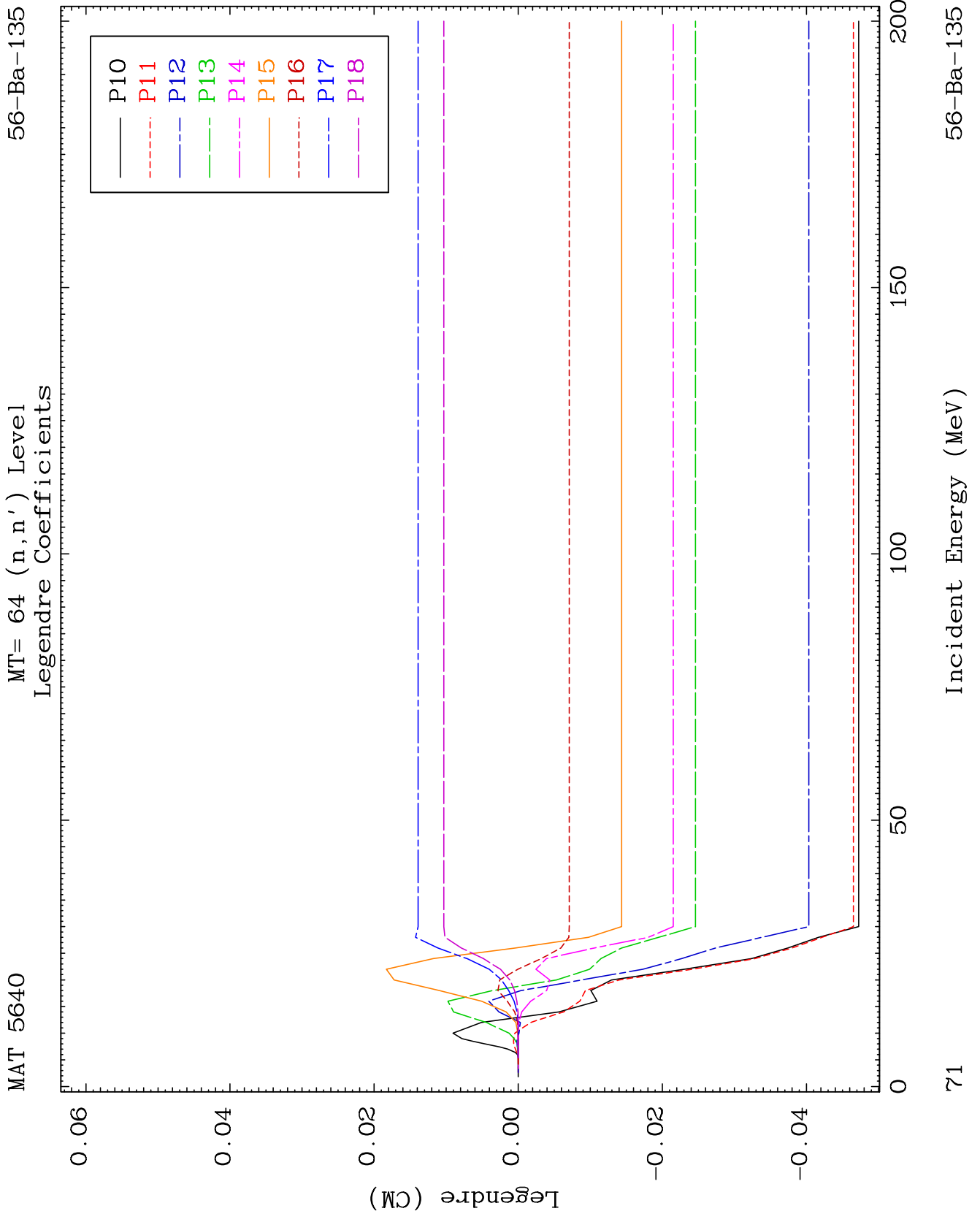


69

Incident Energy (MeV)

56-Ba-135



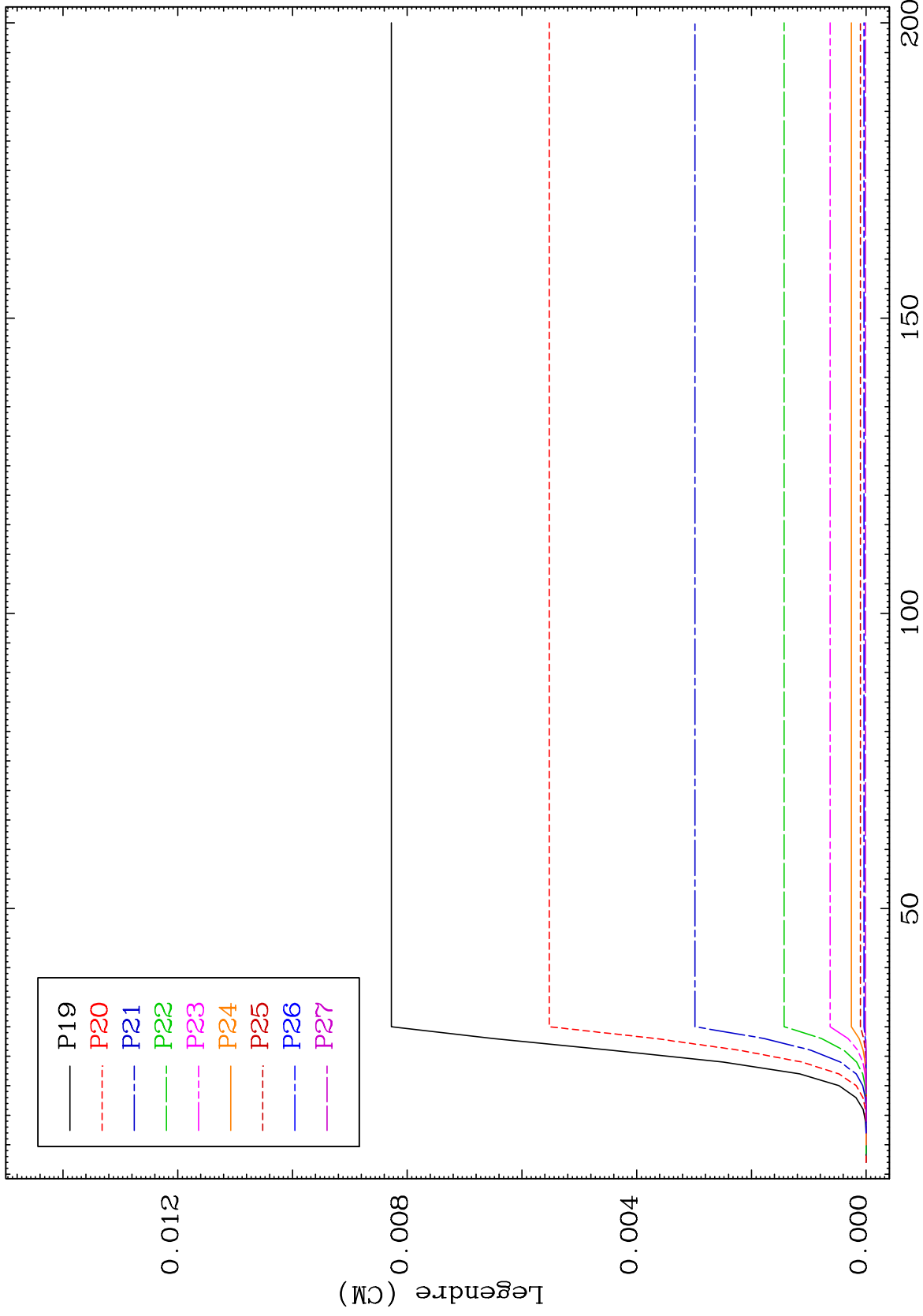




MAT 5640

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

56-Ba-135



72

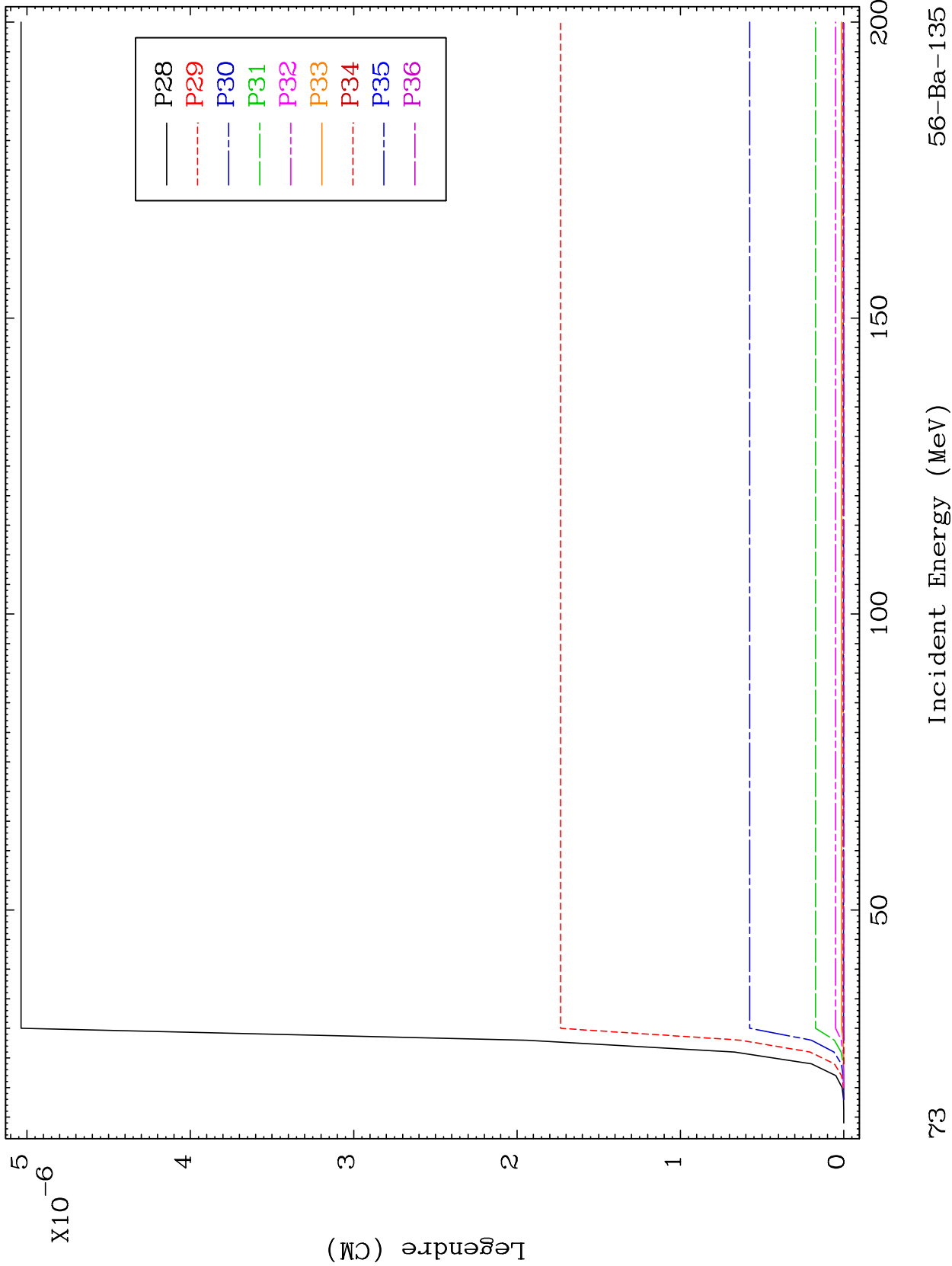
Incident Energy (MeV)

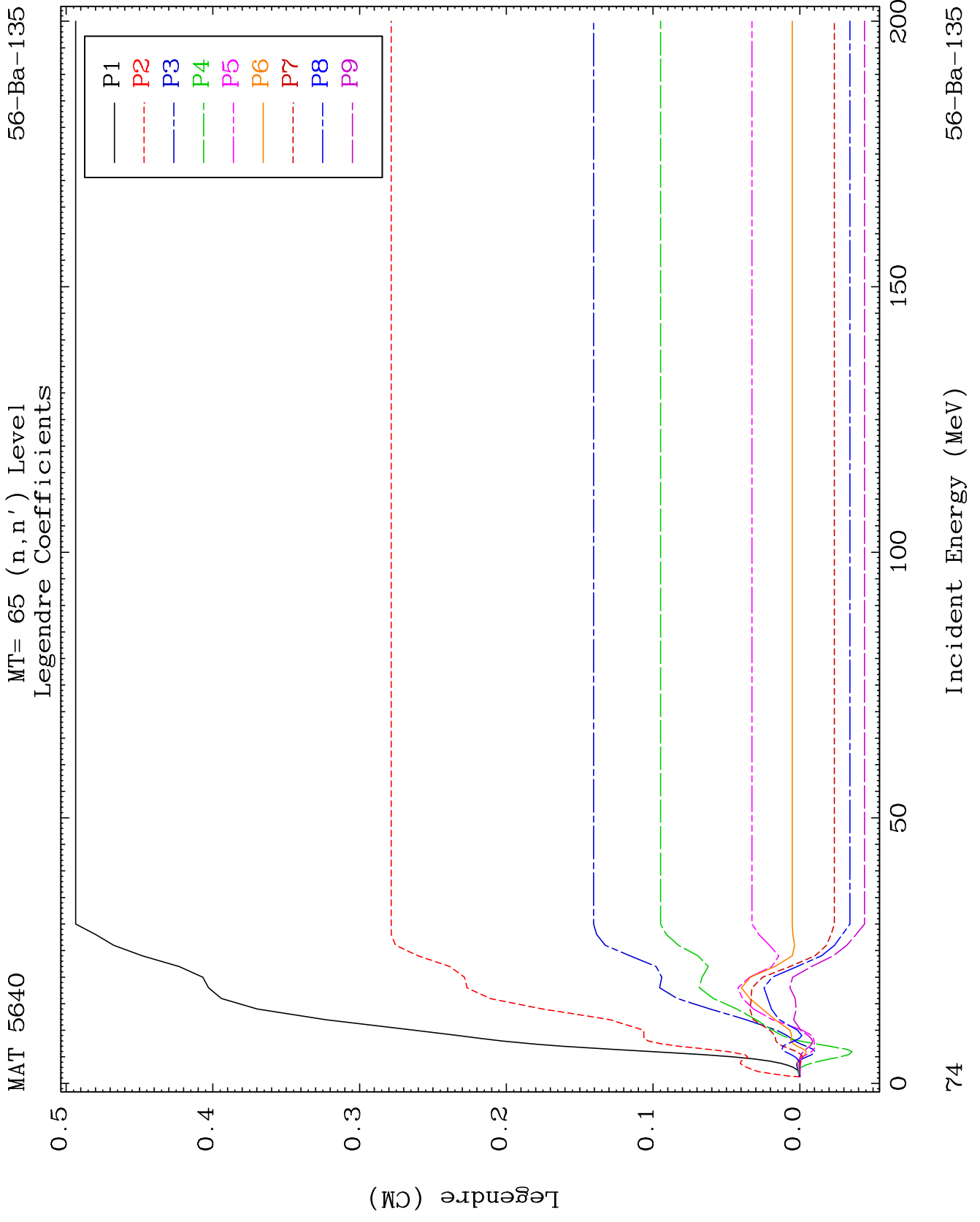
56-Ba-135

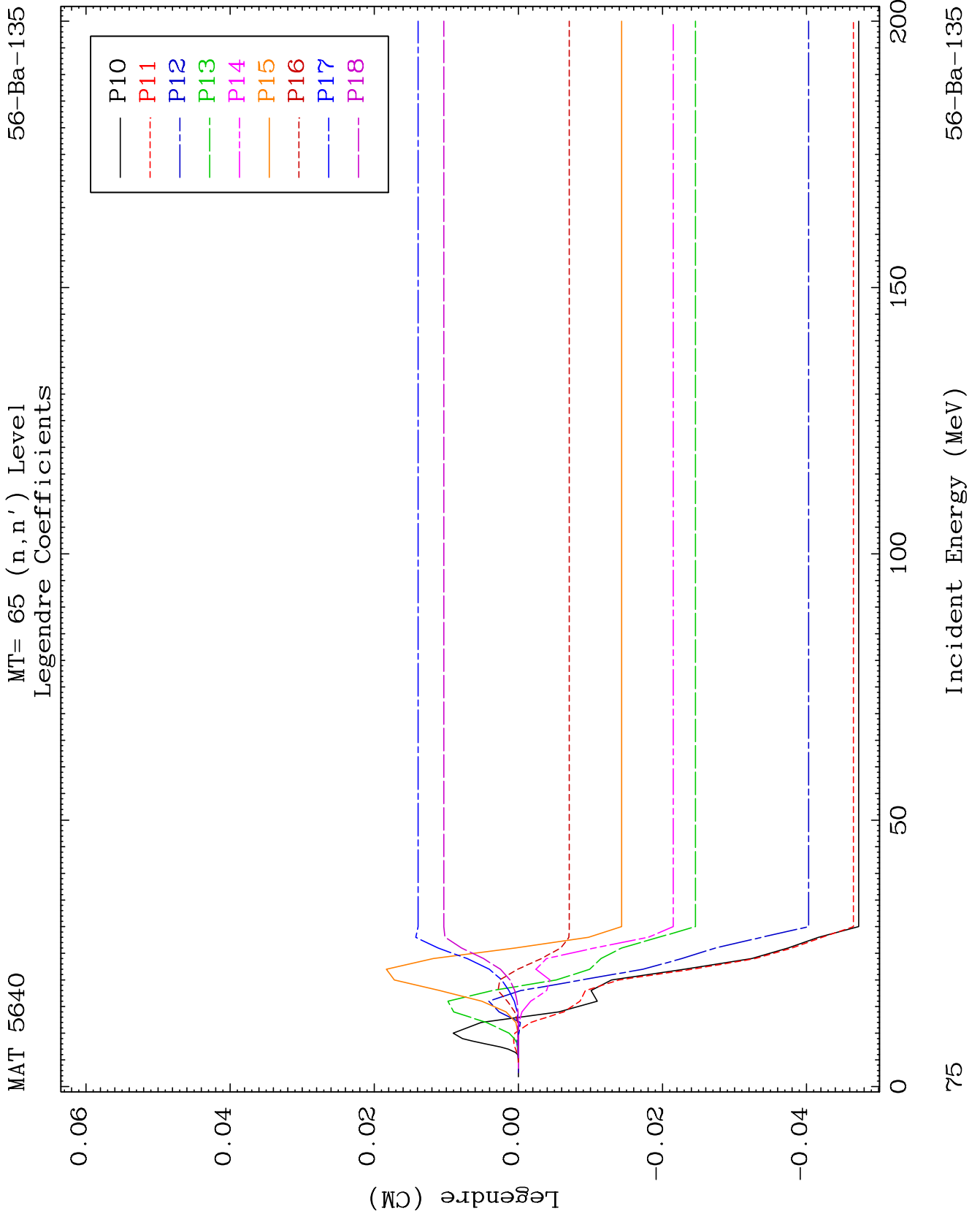
MAT 5640

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

56-Ba-135



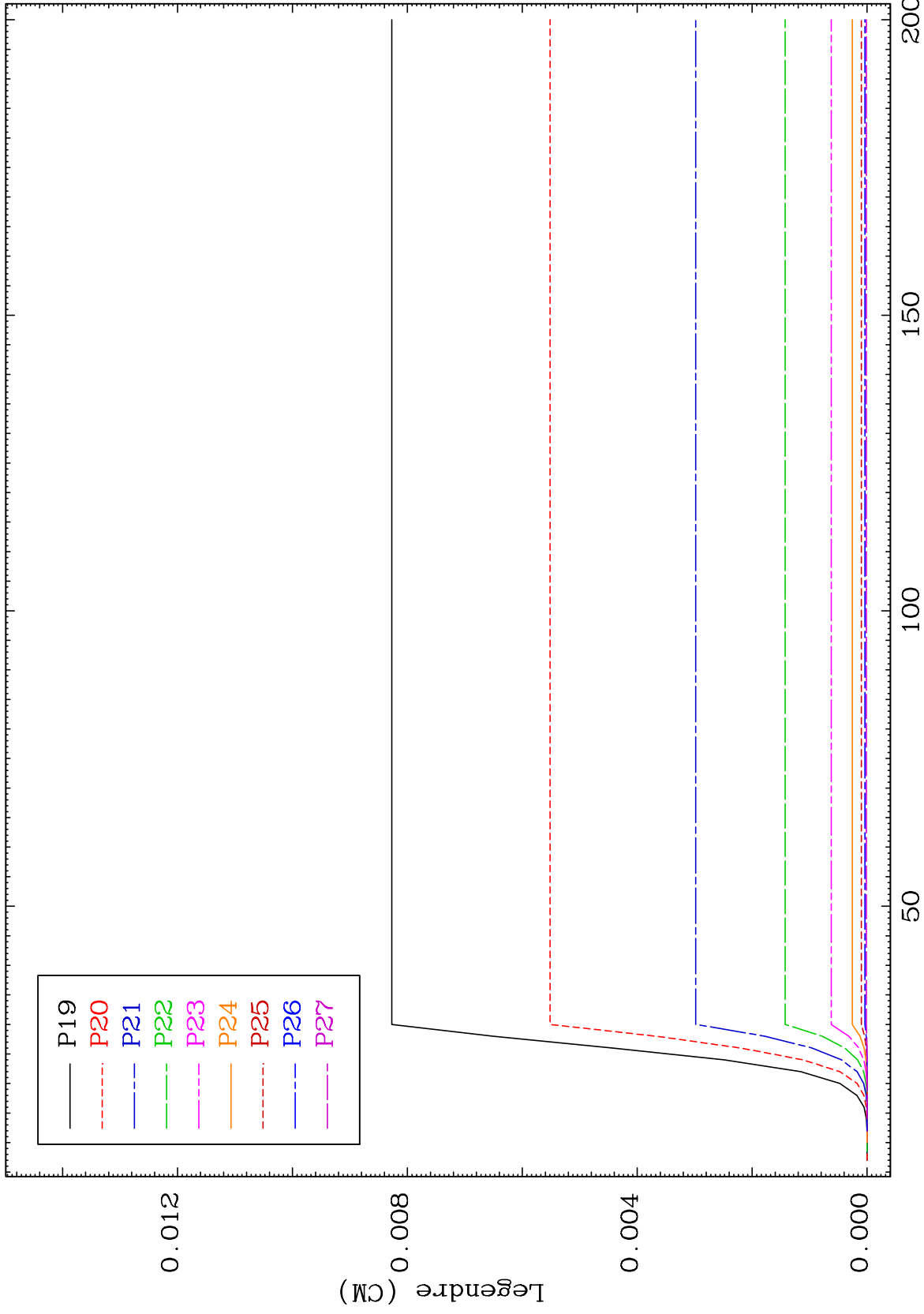




MAT 5640

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

56-Ba-135



76

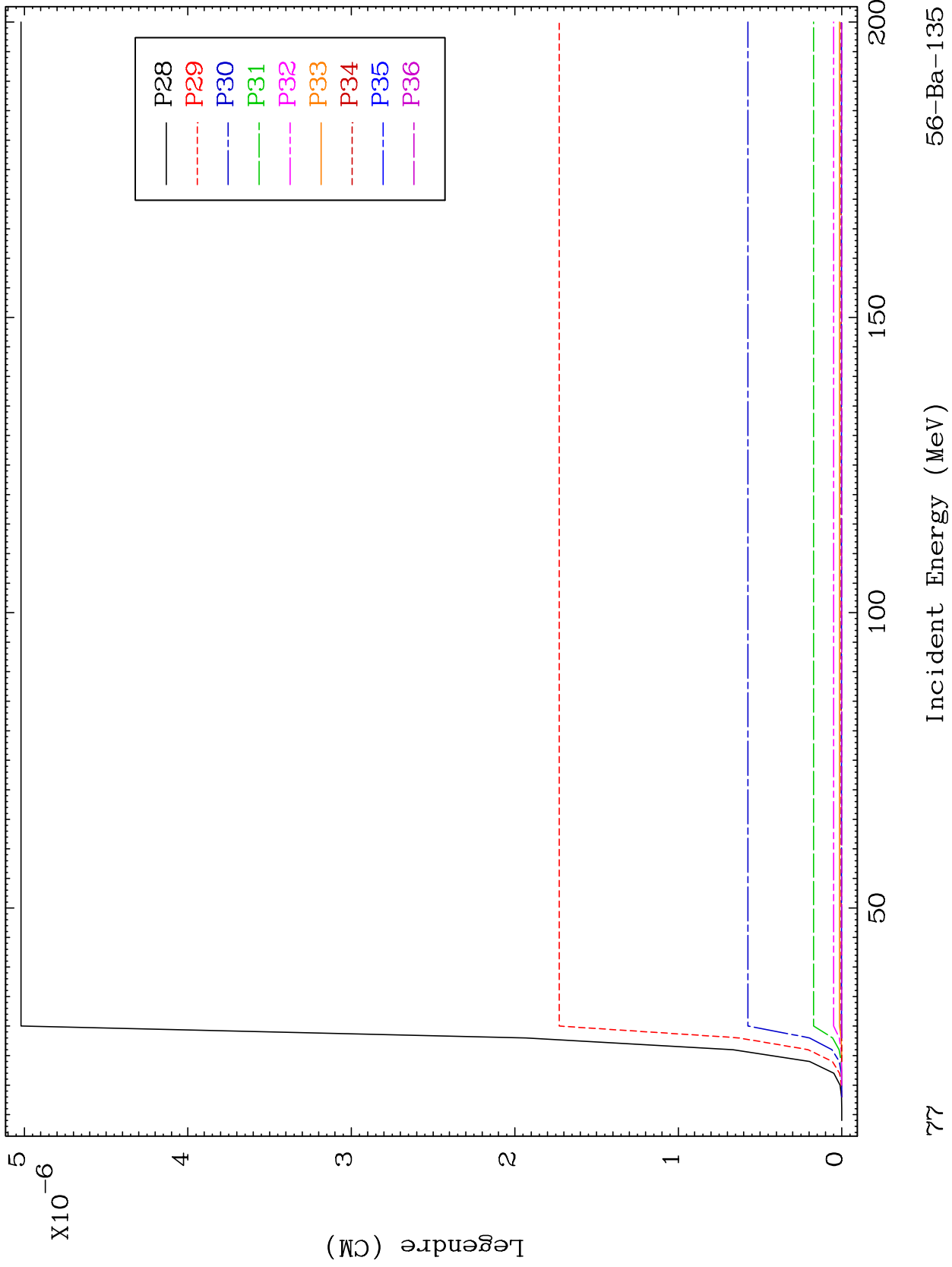
Incident Energy (MeV)

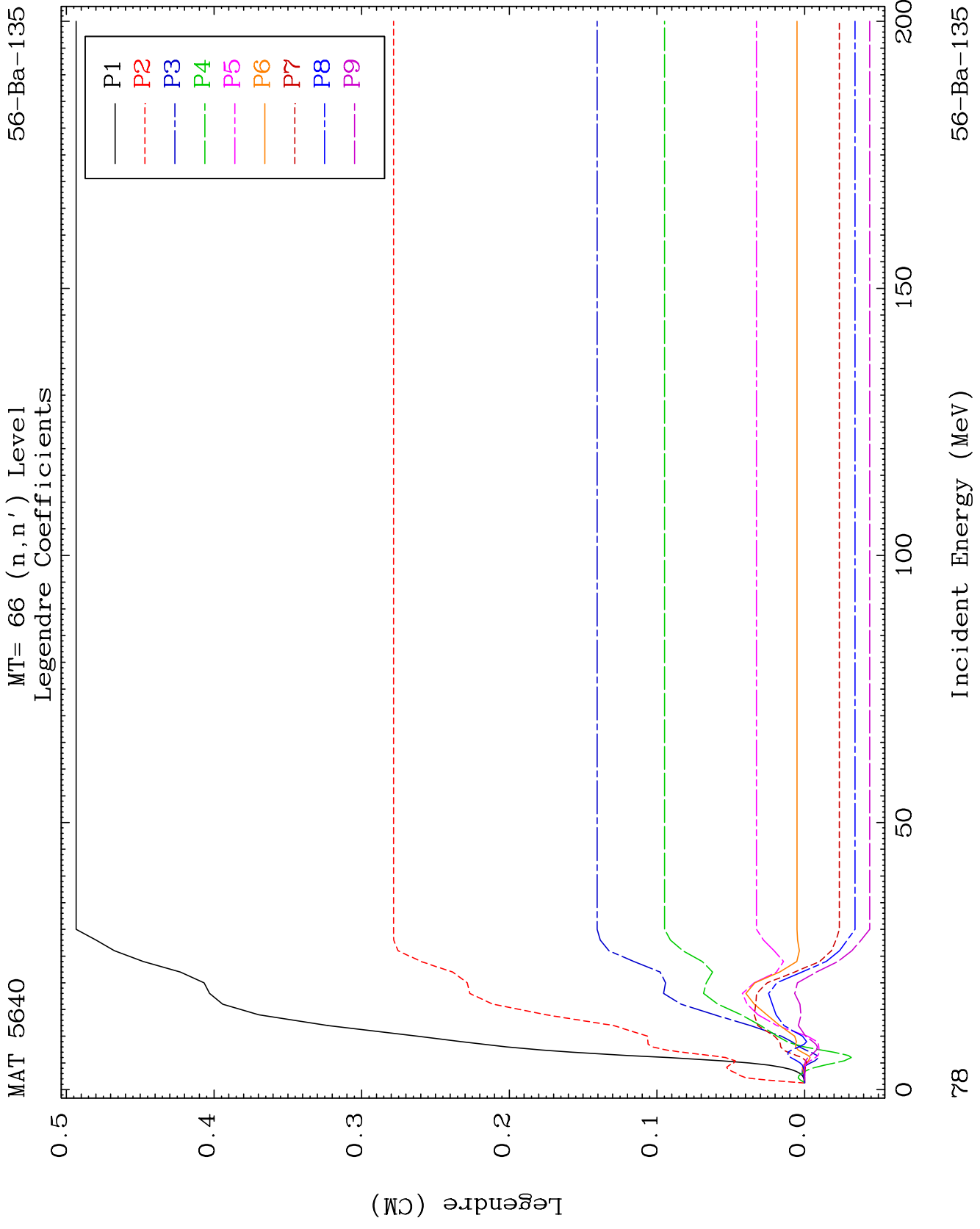
56-Ba-135

MAT 5640

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

56-Ba-135





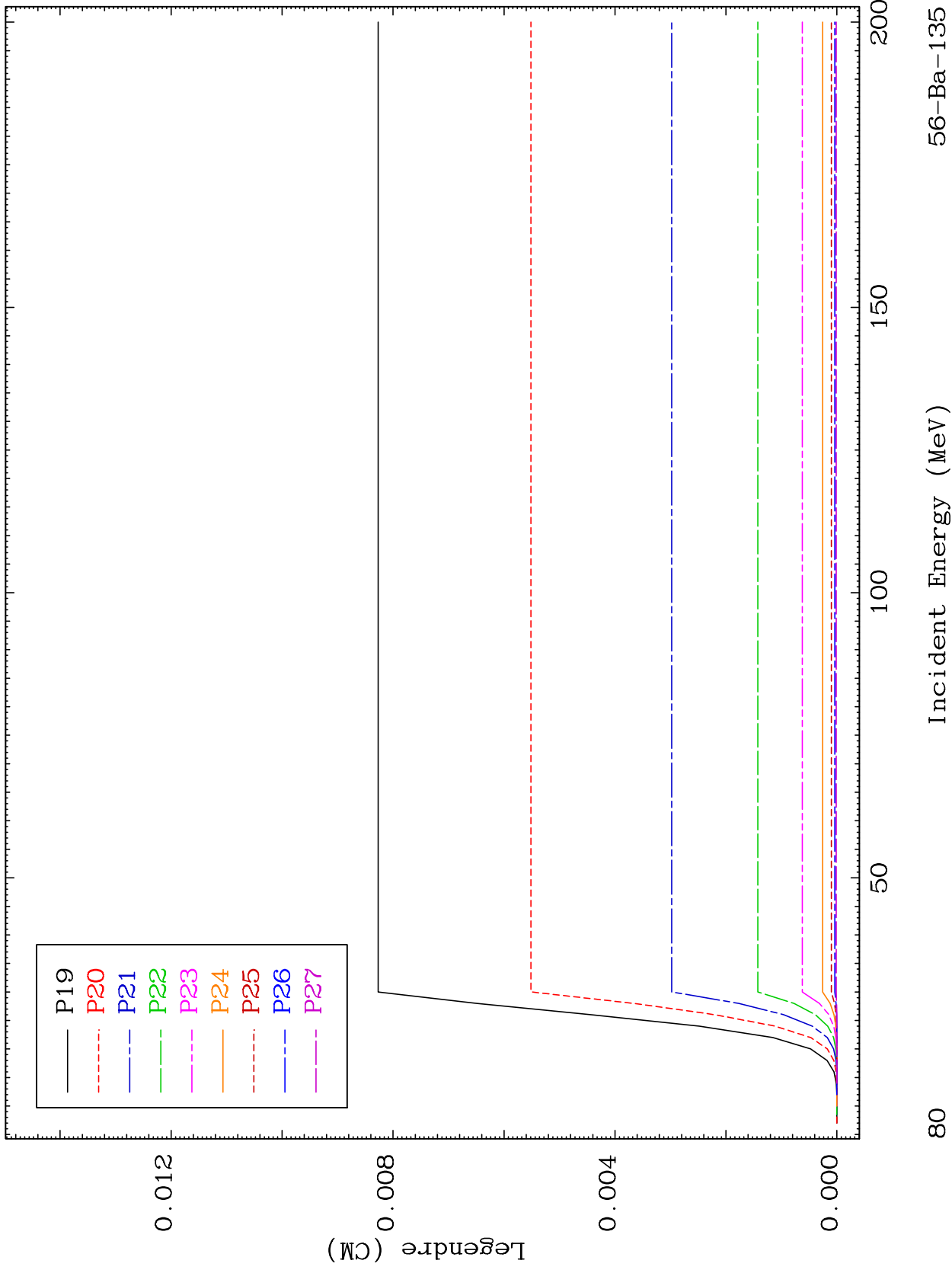




MAT 5640

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

56-Ba-135



80

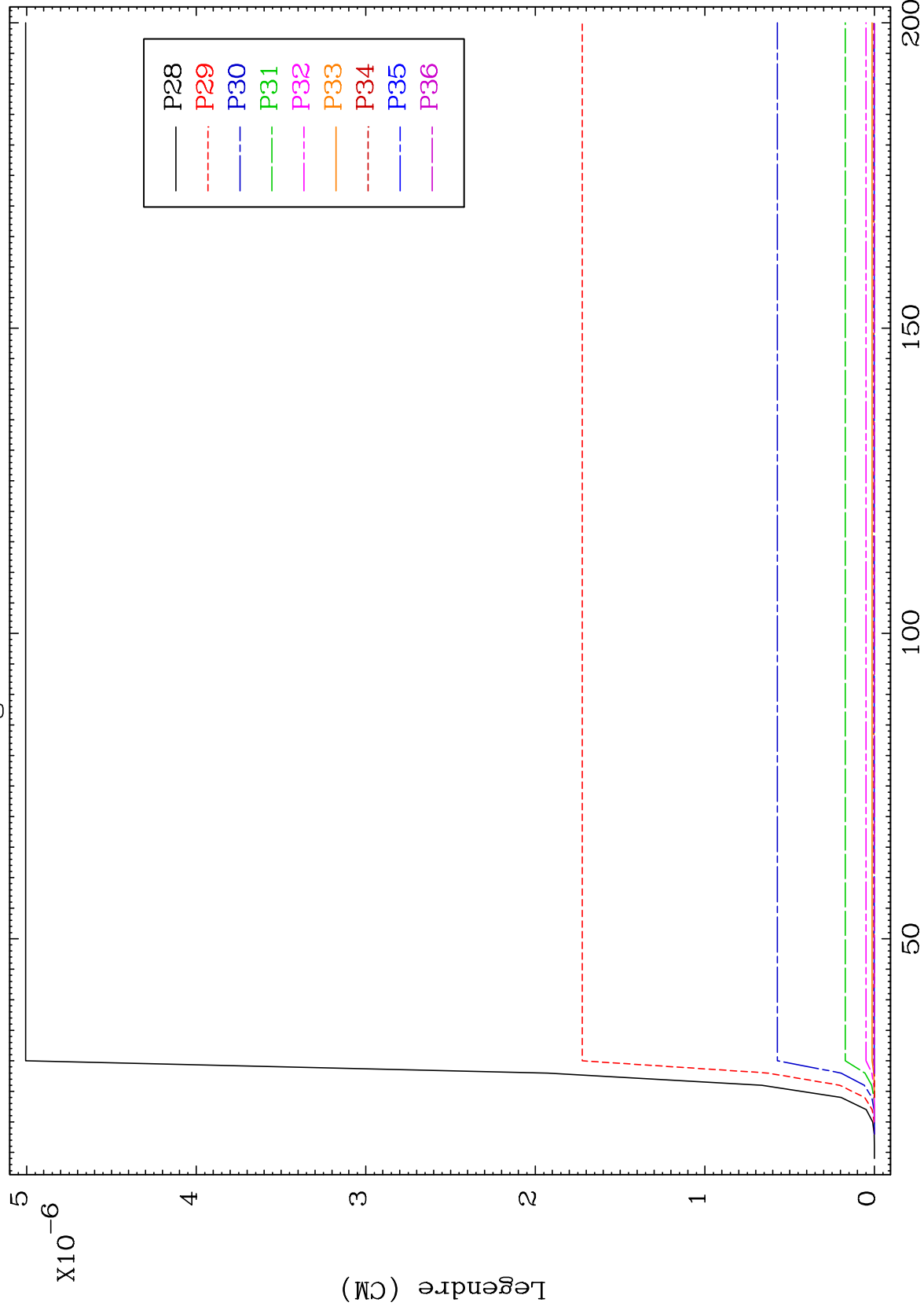
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

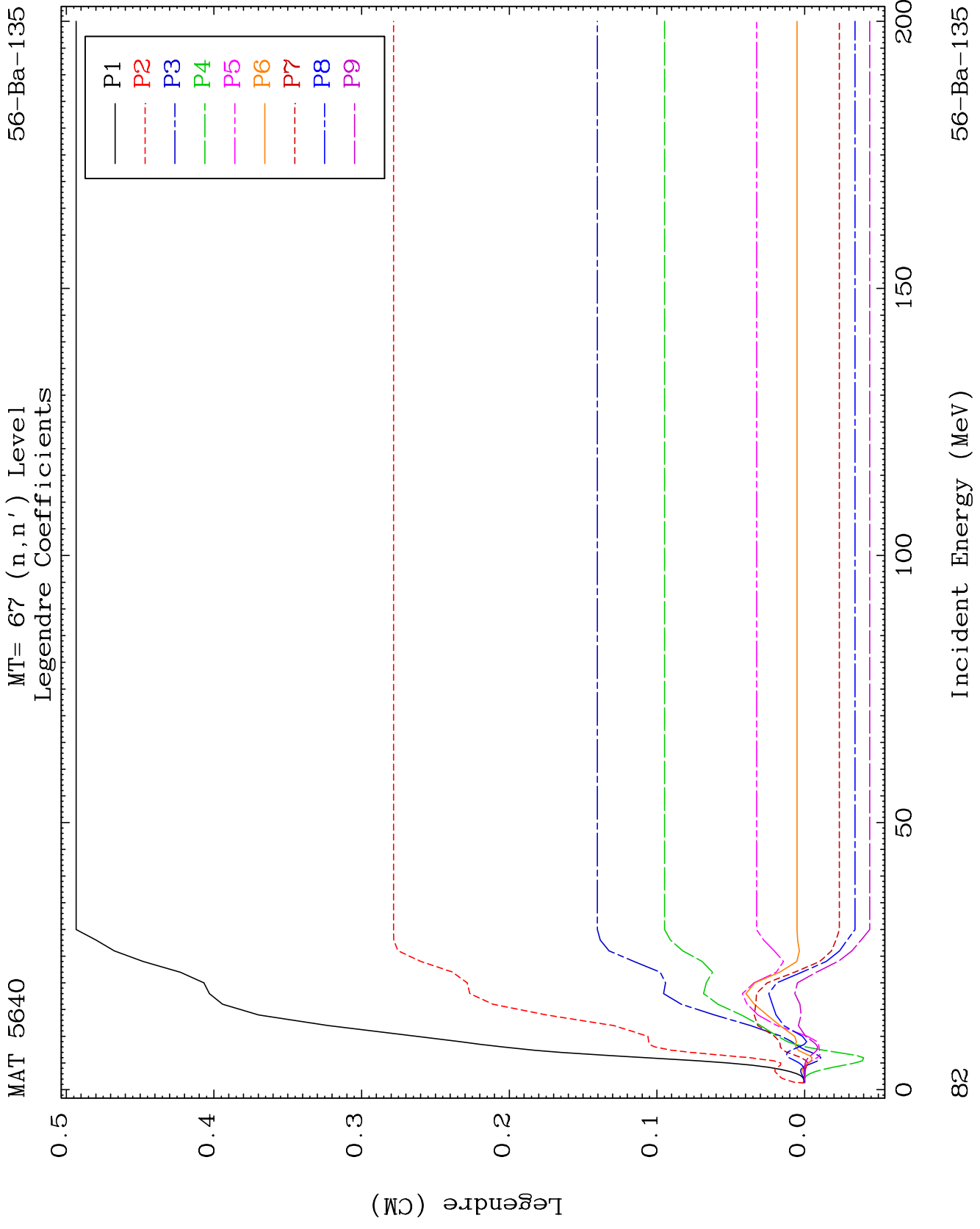
56-Ba-135



56-Ba-135

Incident Energy (MeV)

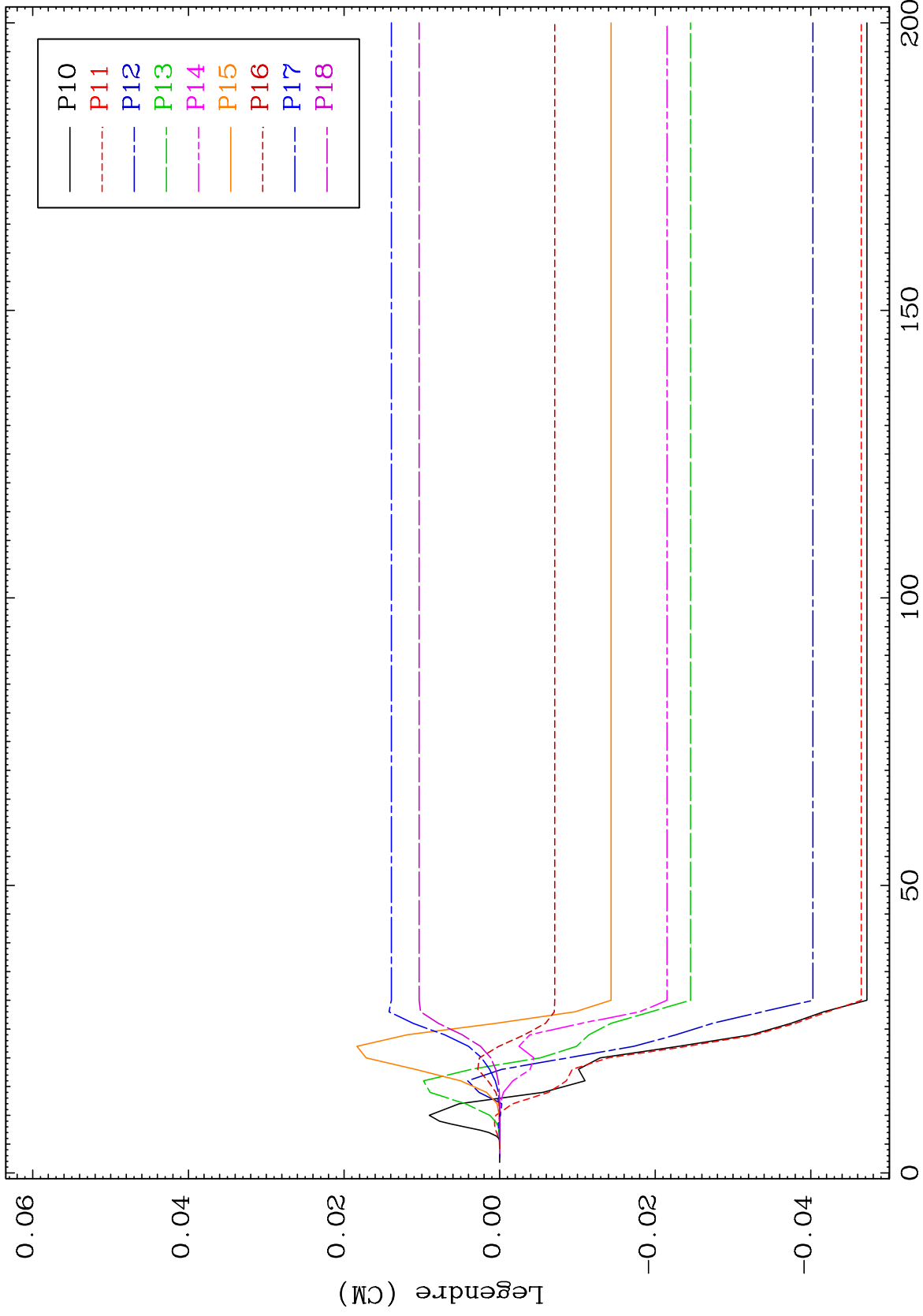
81



MAT 5640

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

56-Ba-135



83

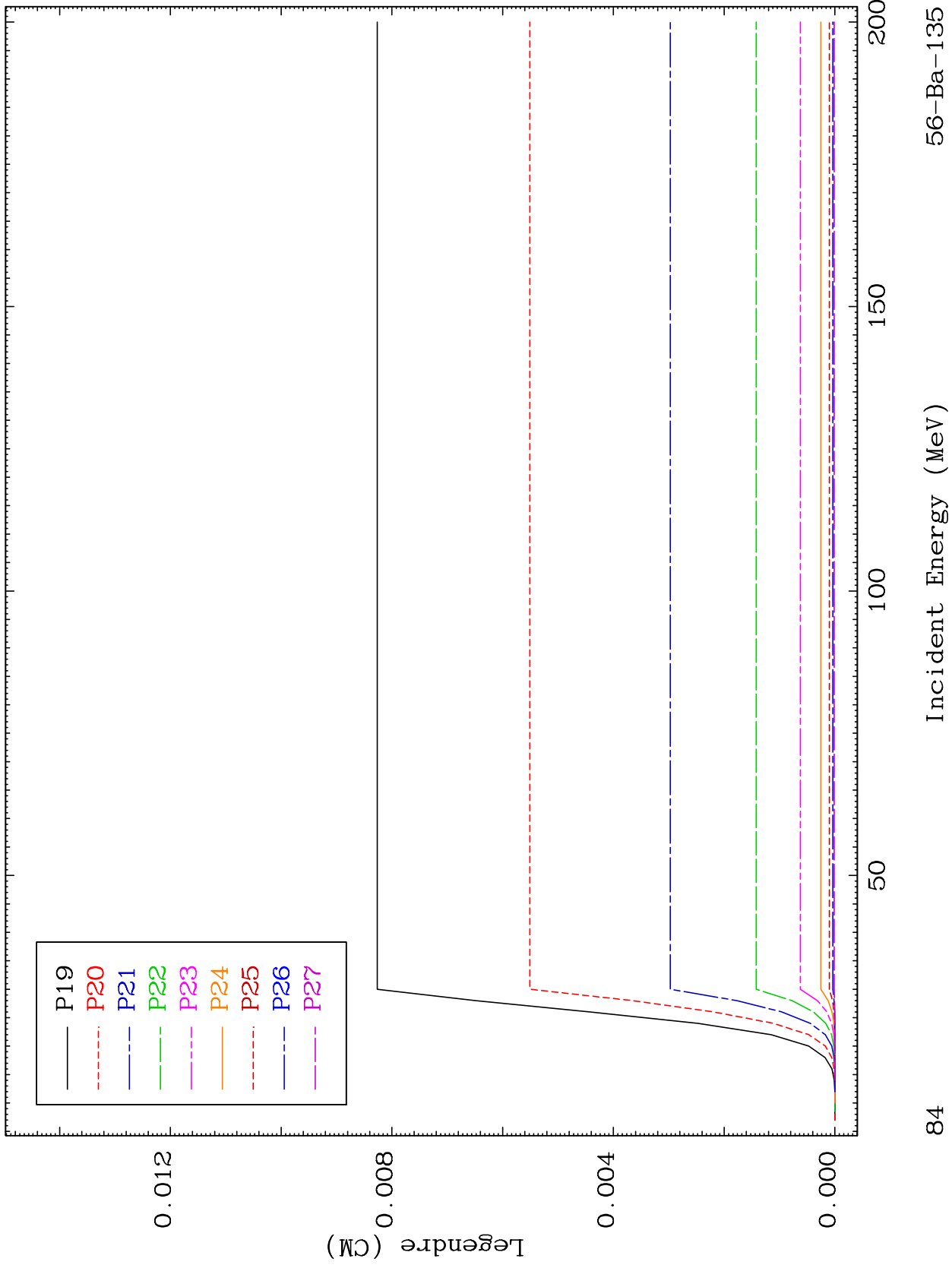
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

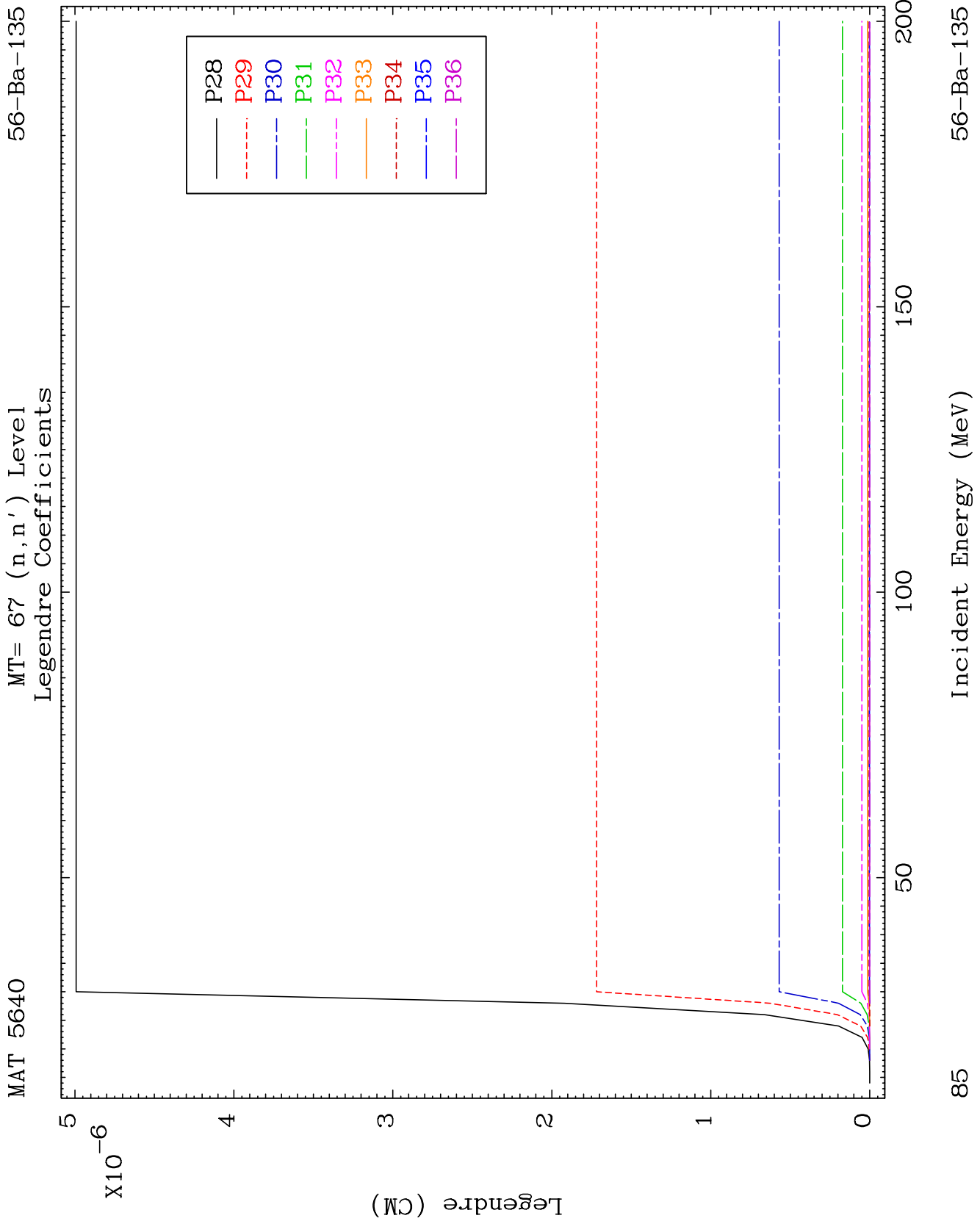
56-Ba-135

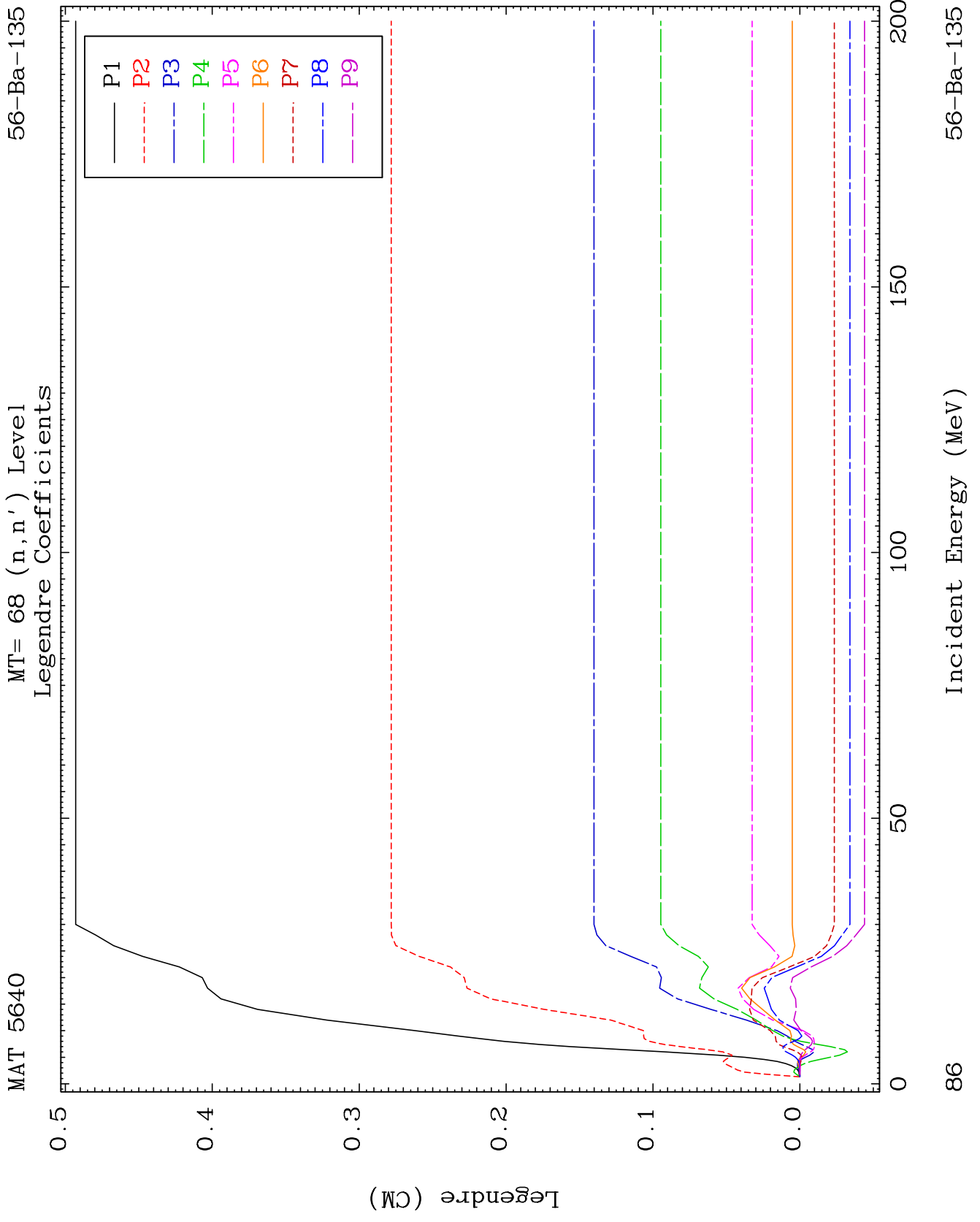


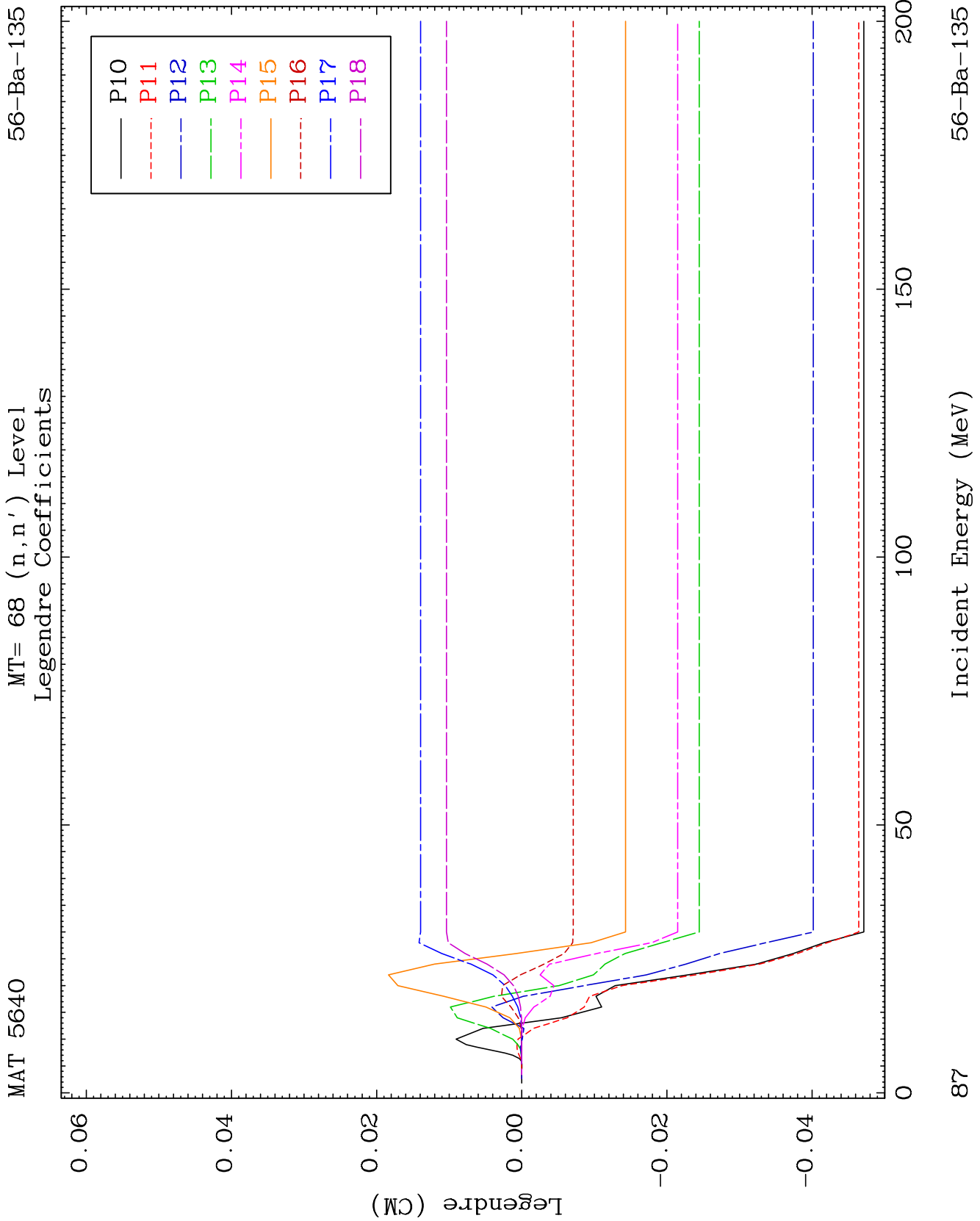
84

Incident Energy (MeV)

56-Ba-135





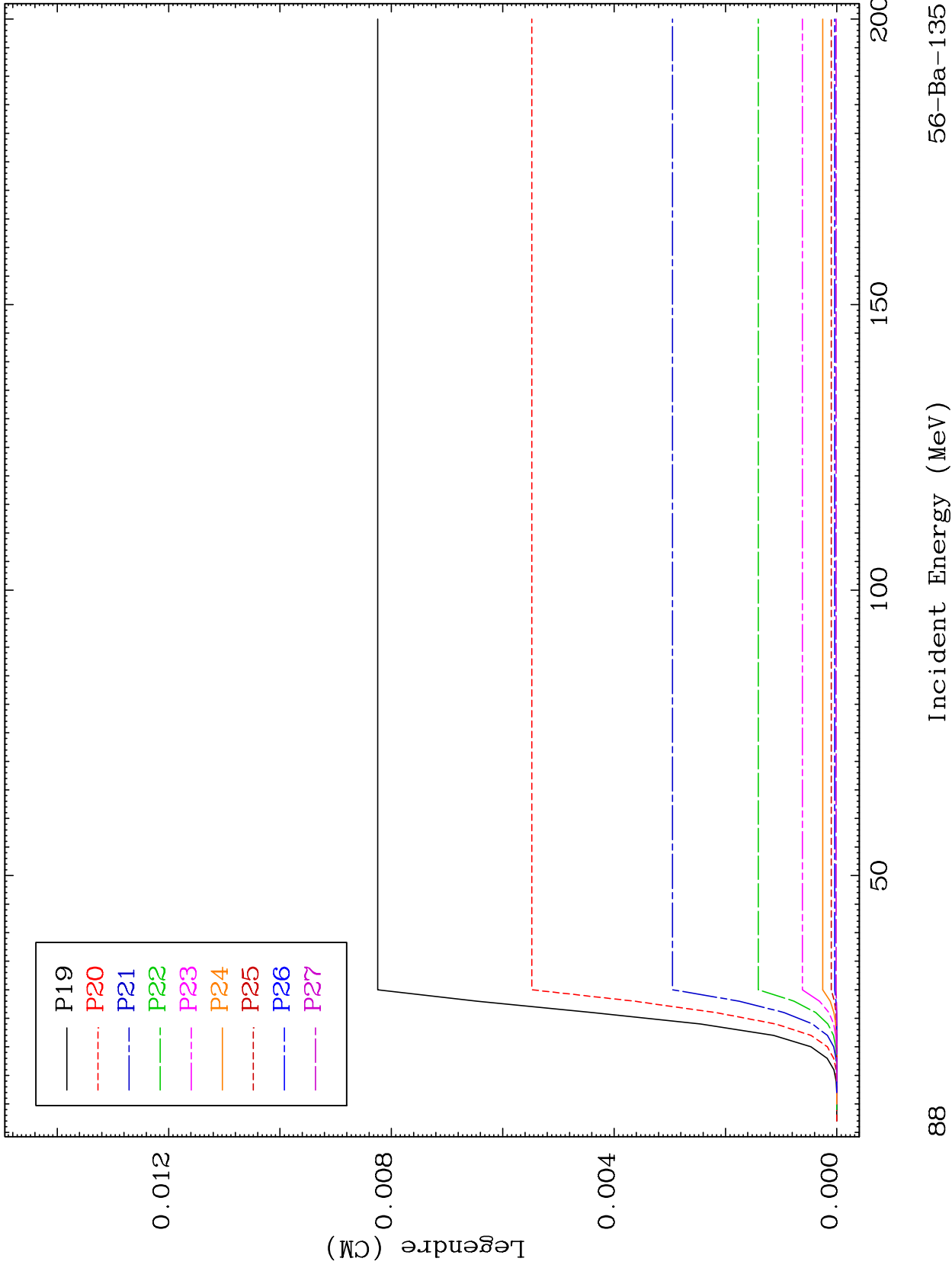




MAT 5640

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

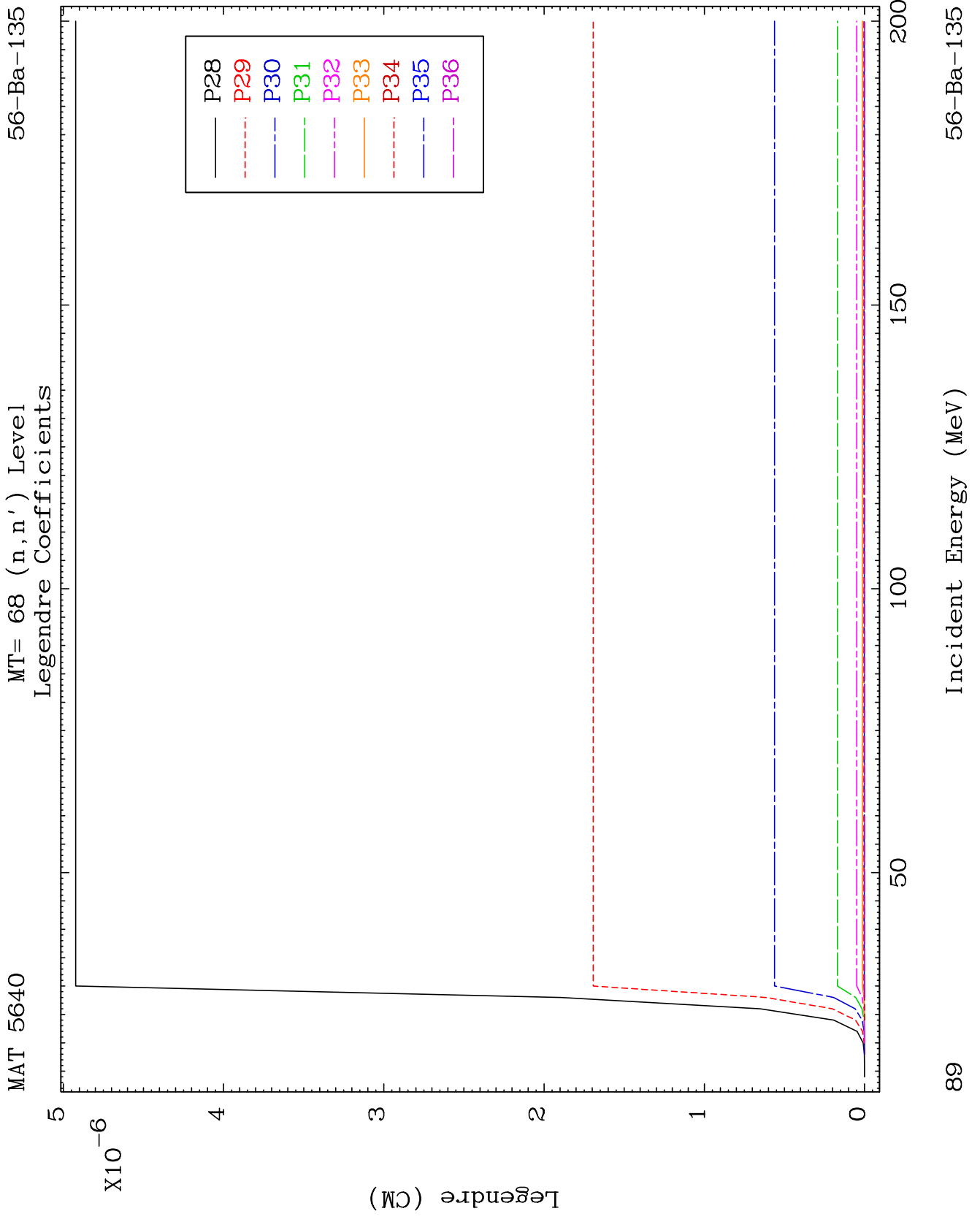
56-Ba-135

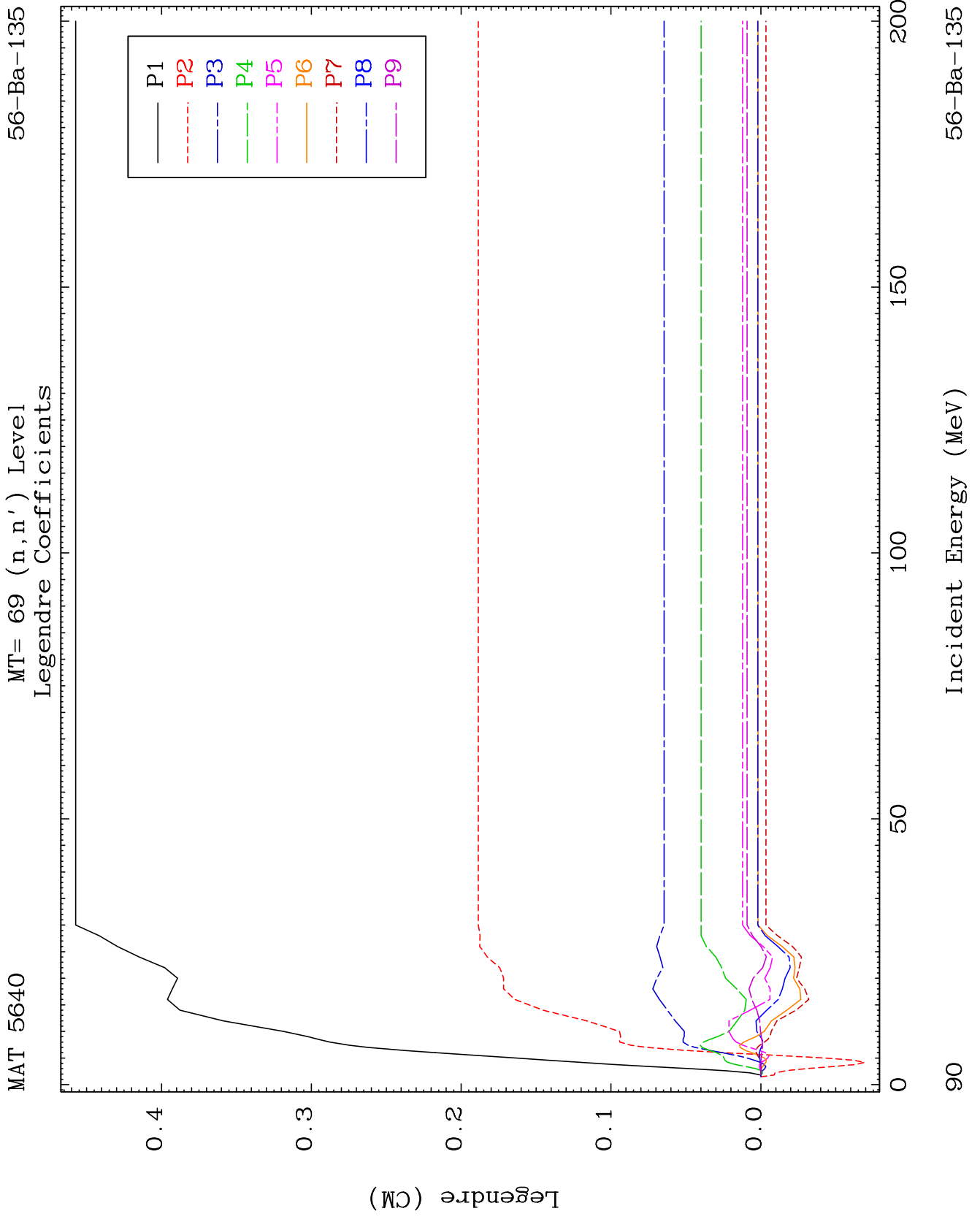


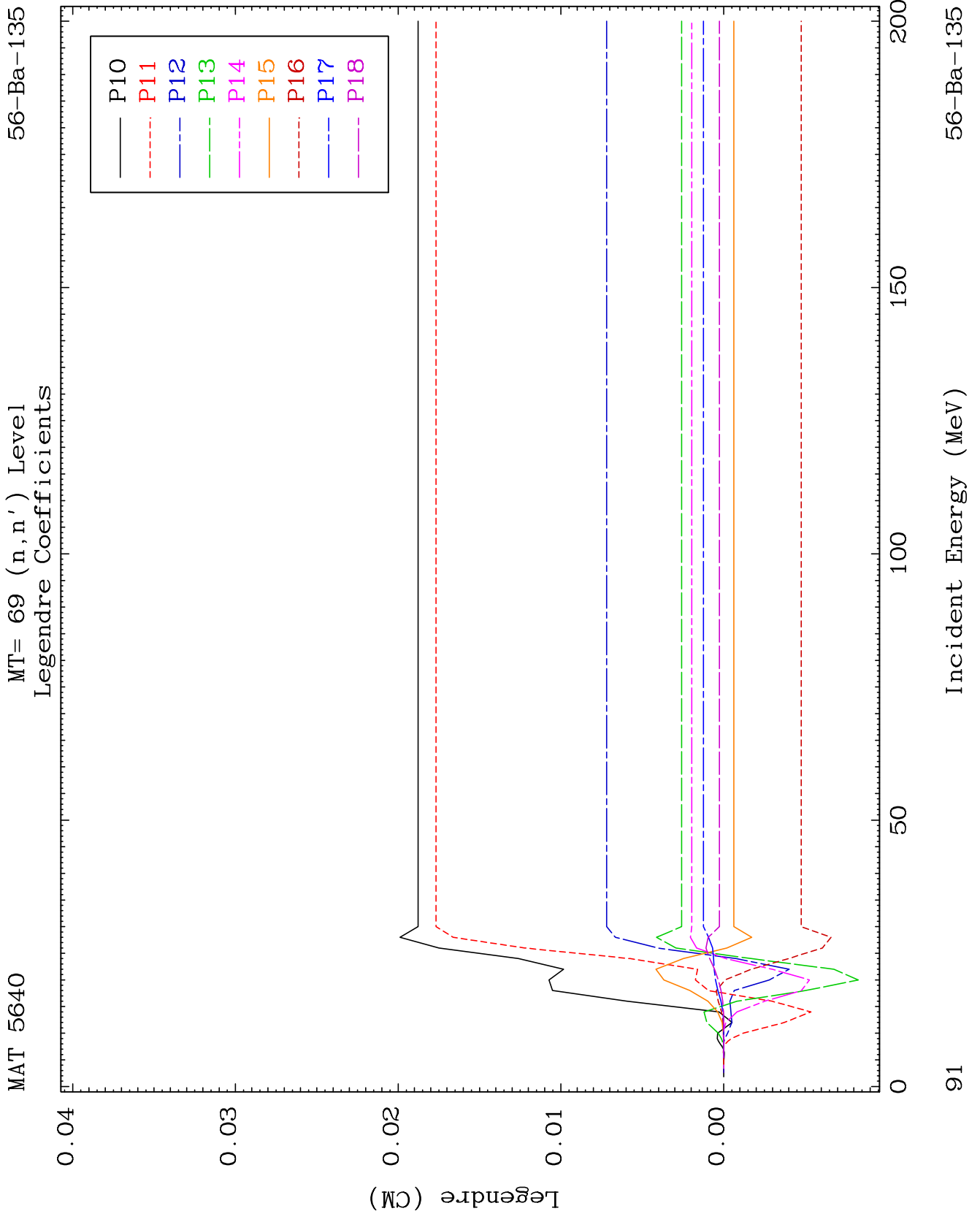
88

Incident Energy (MeV)

56-Ba-135



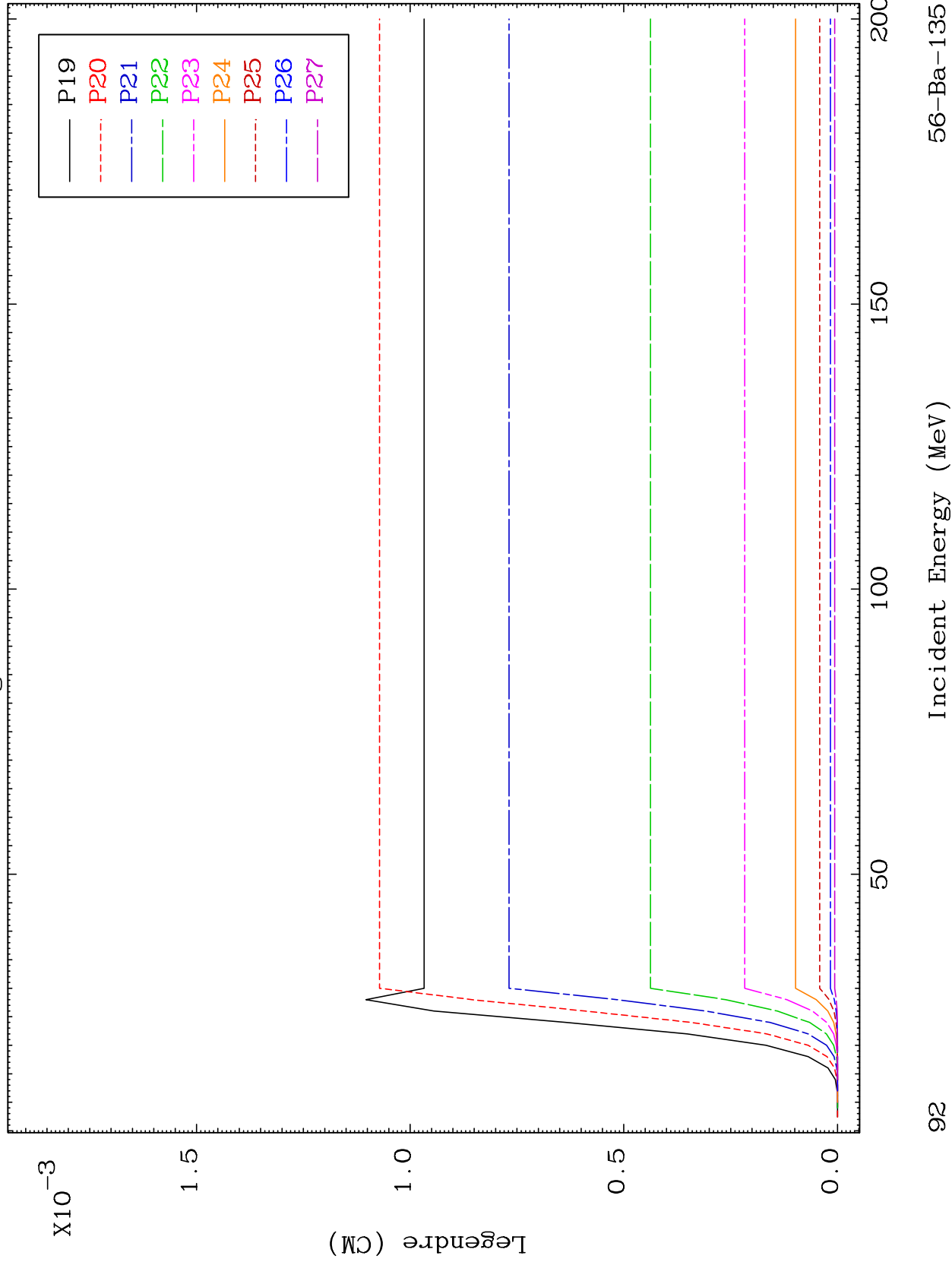




MAT 5640

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

56-Ba-135



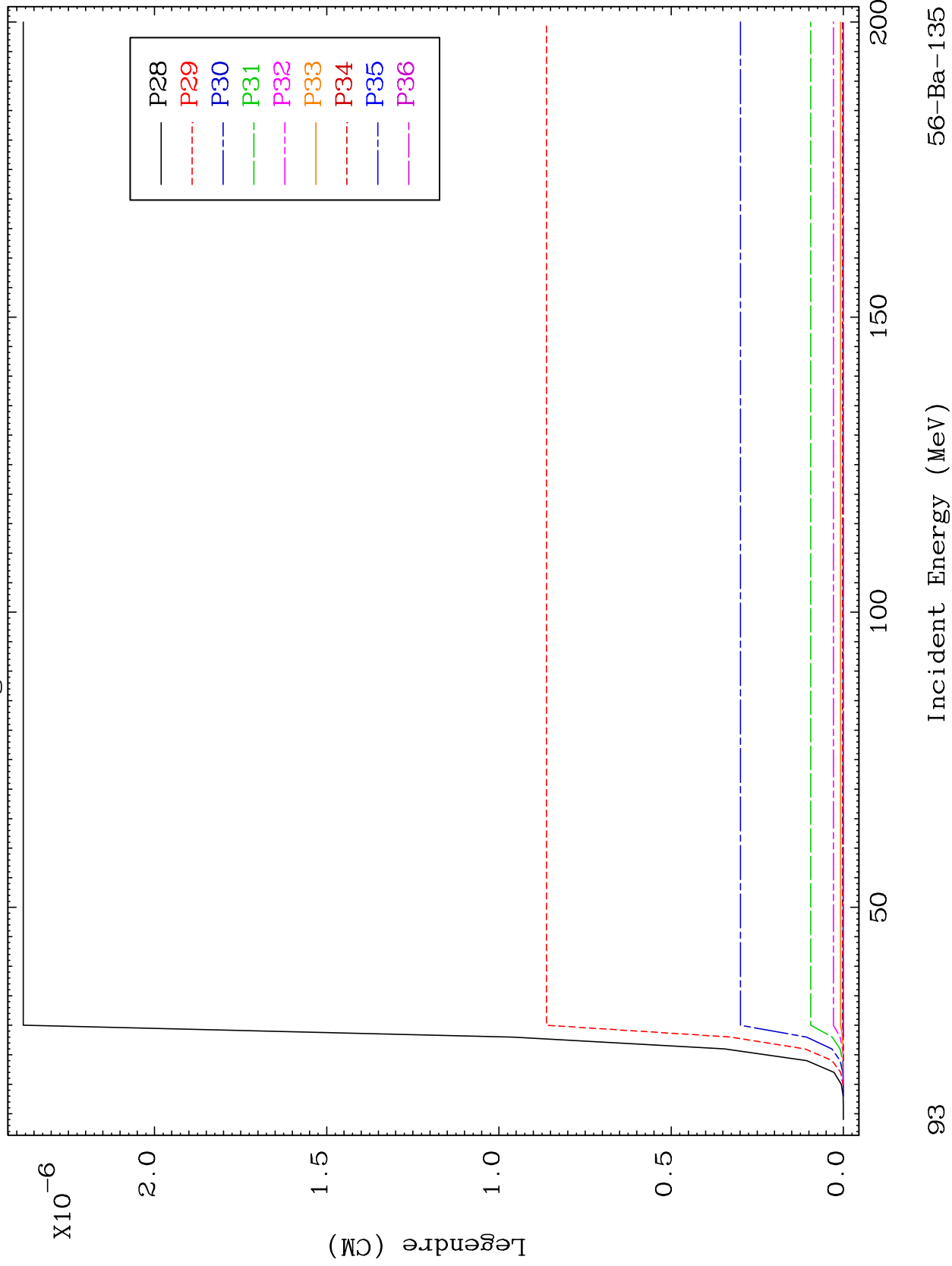
92

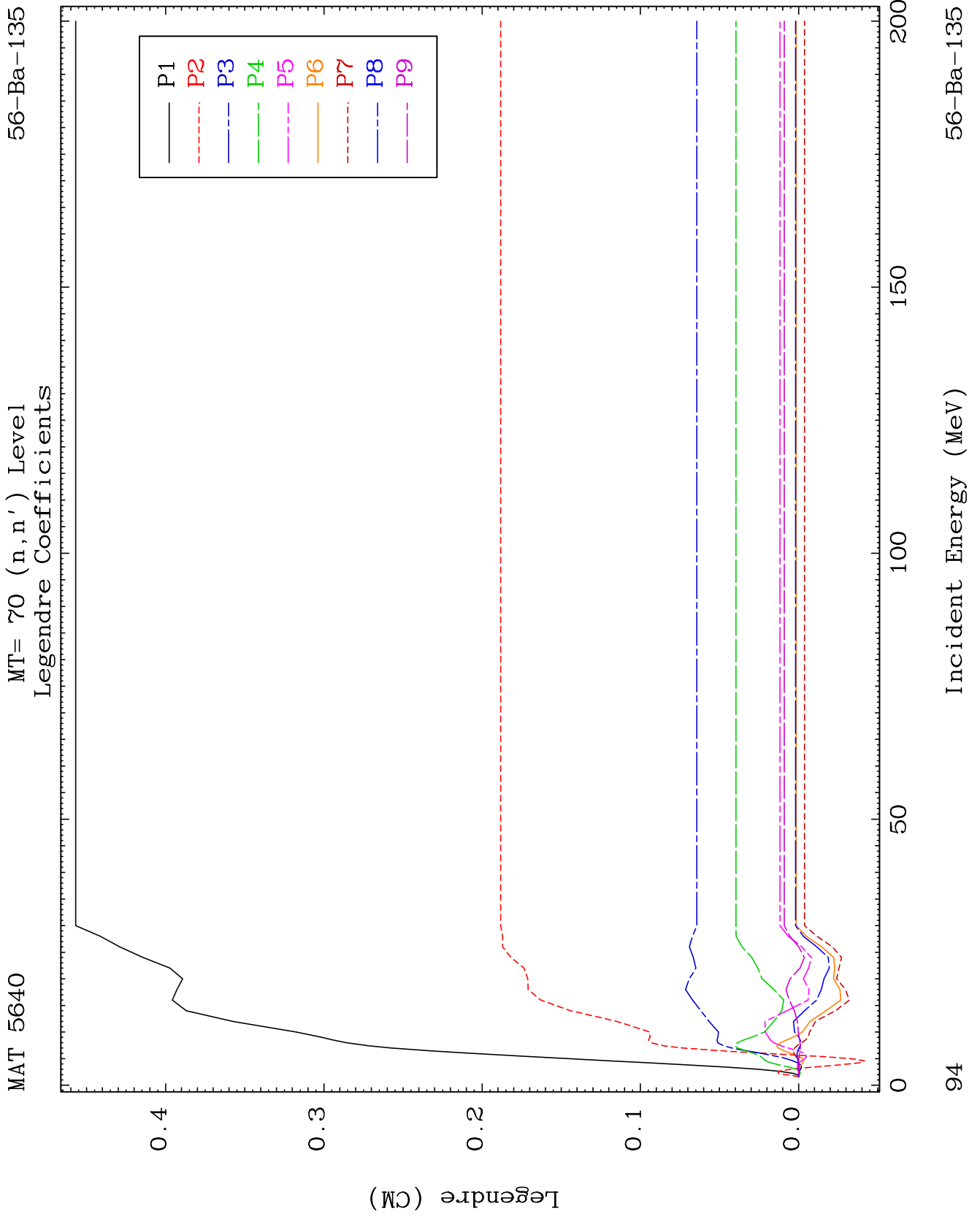
56-Ba-135

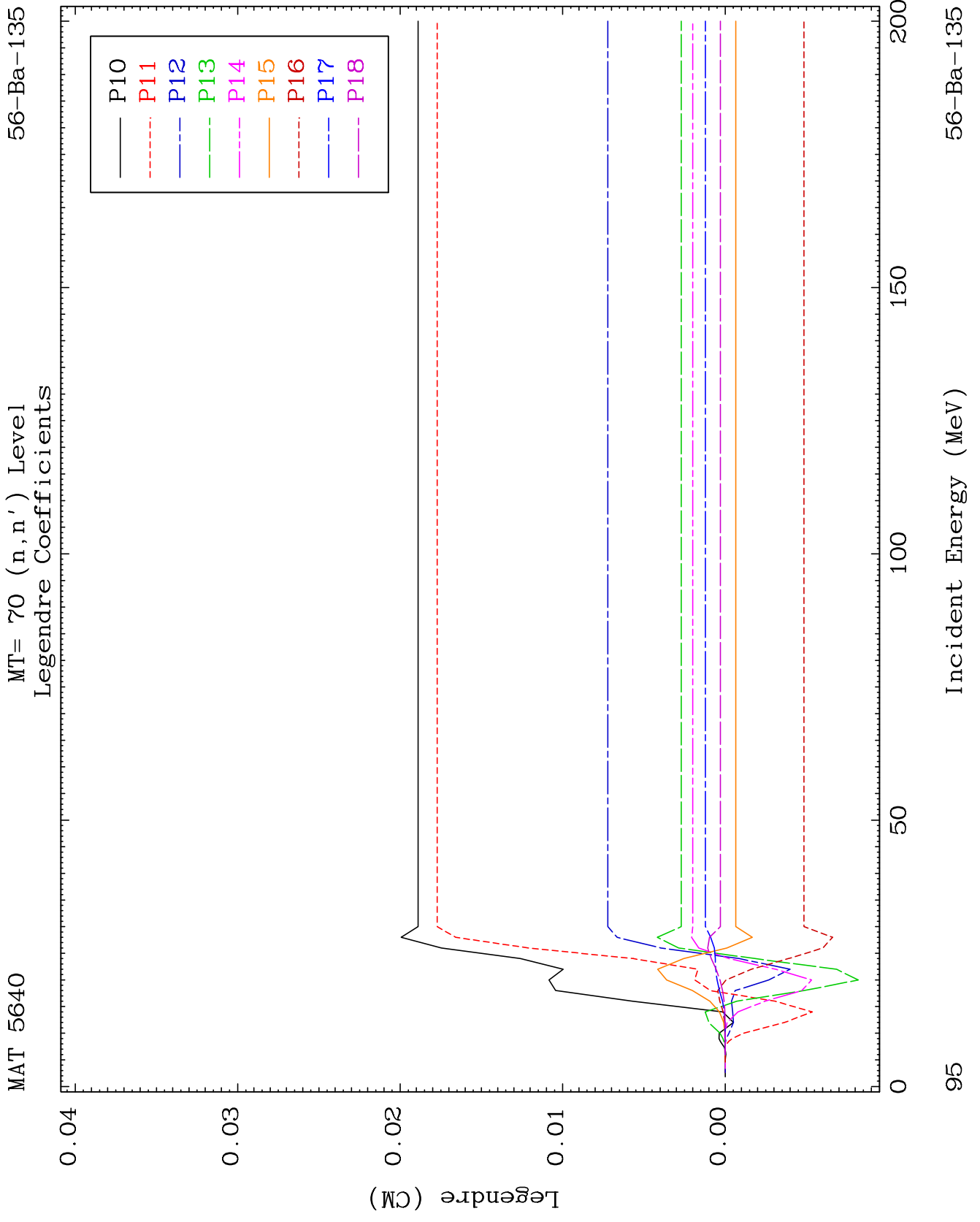
MAT 5640

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

56-Ba-135





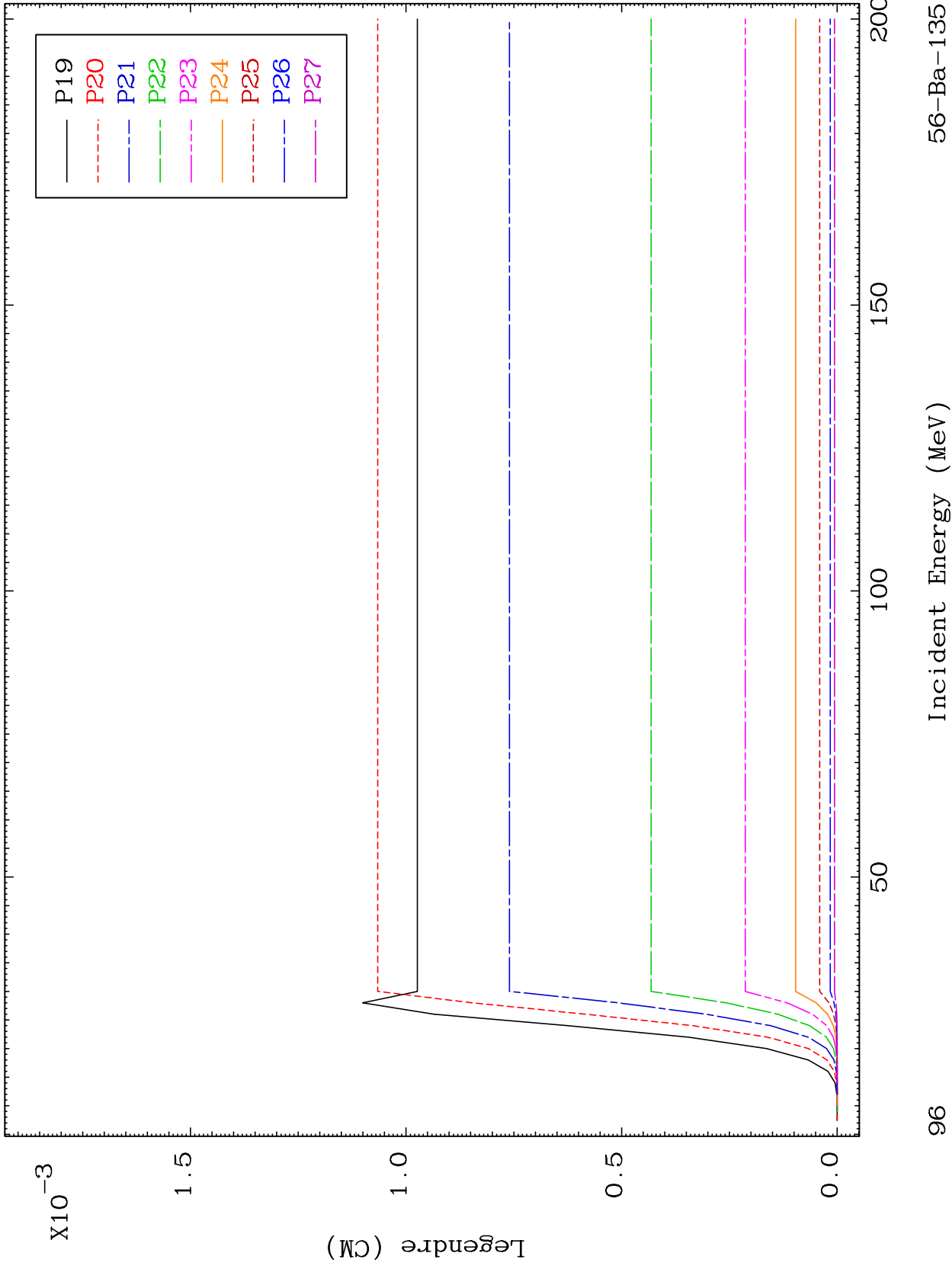




MAT 5640

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

56-Ba-135



96

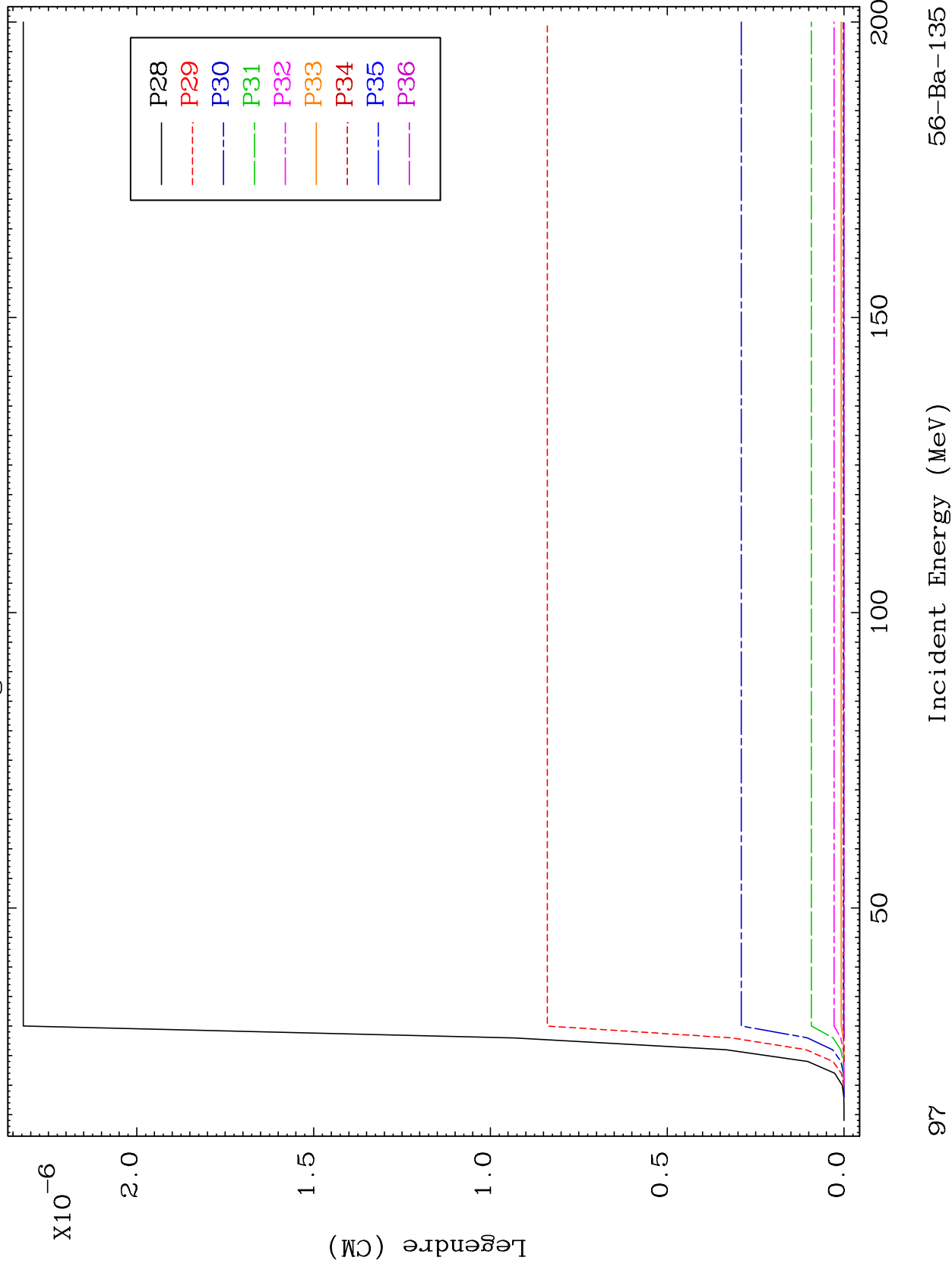
Incident Energy (MeV)

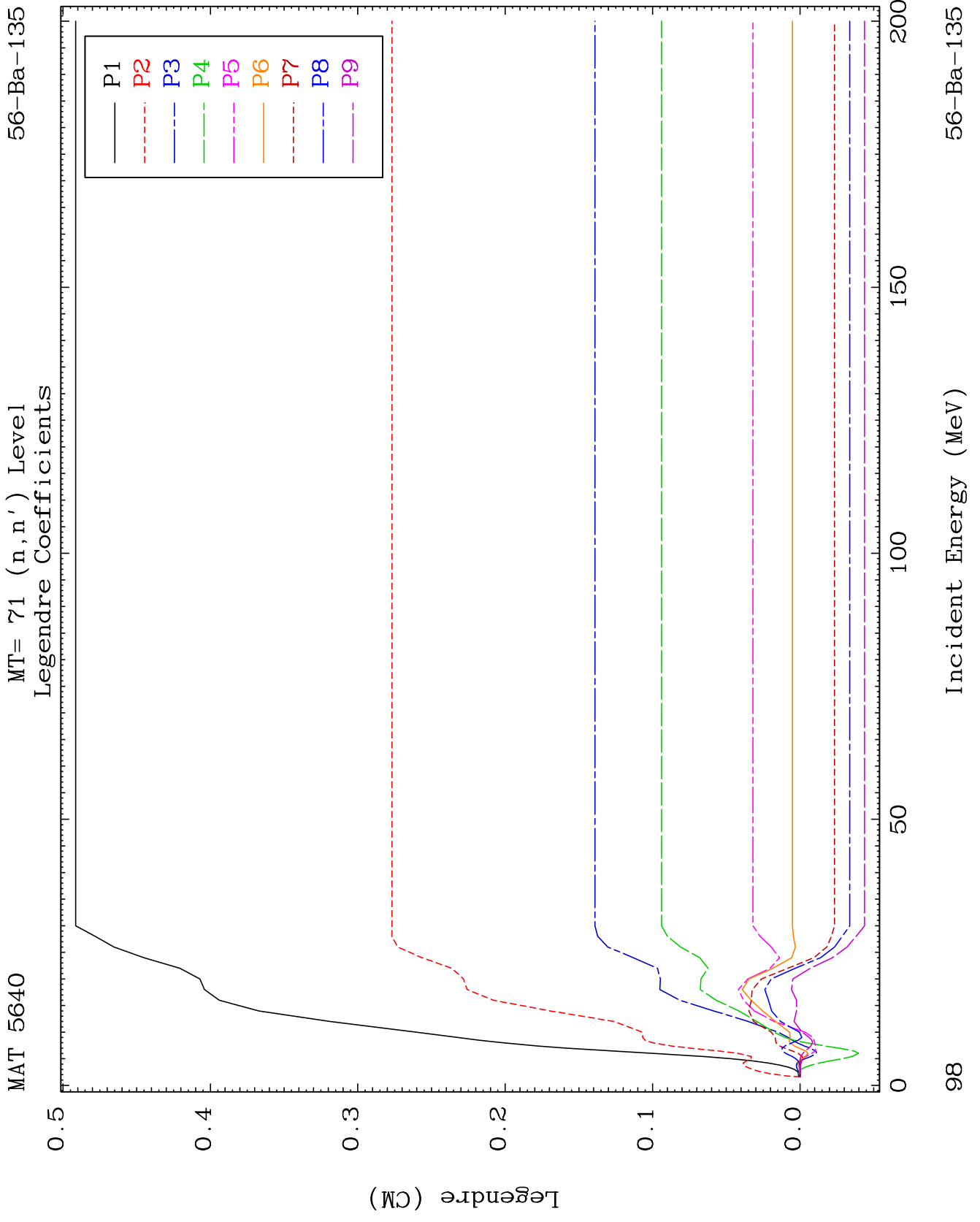
56-Ba-135

MAT 5640

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

56-Ba-135



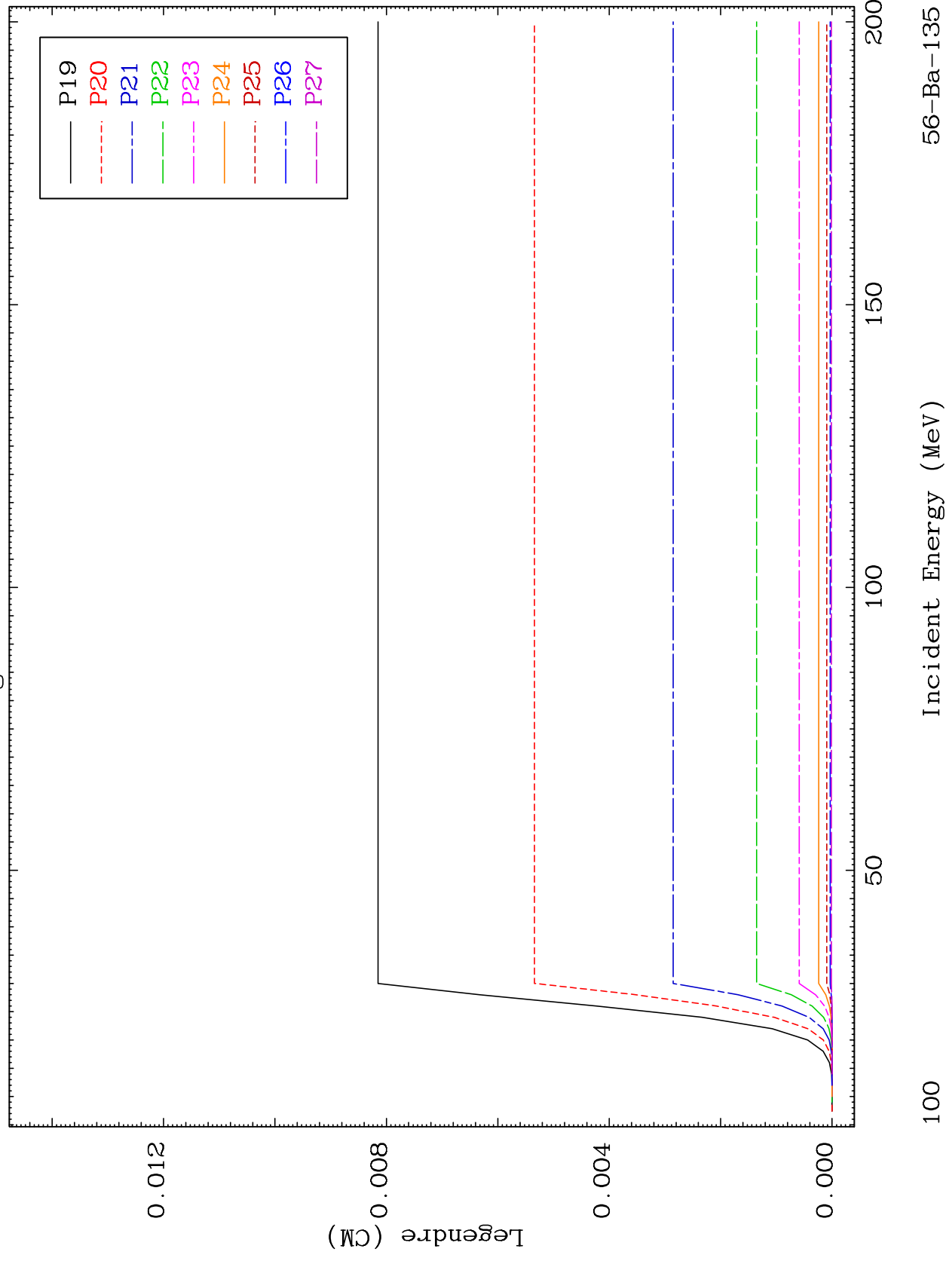




MAT 5640

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

56-Ba-135



100

50

100

150

200

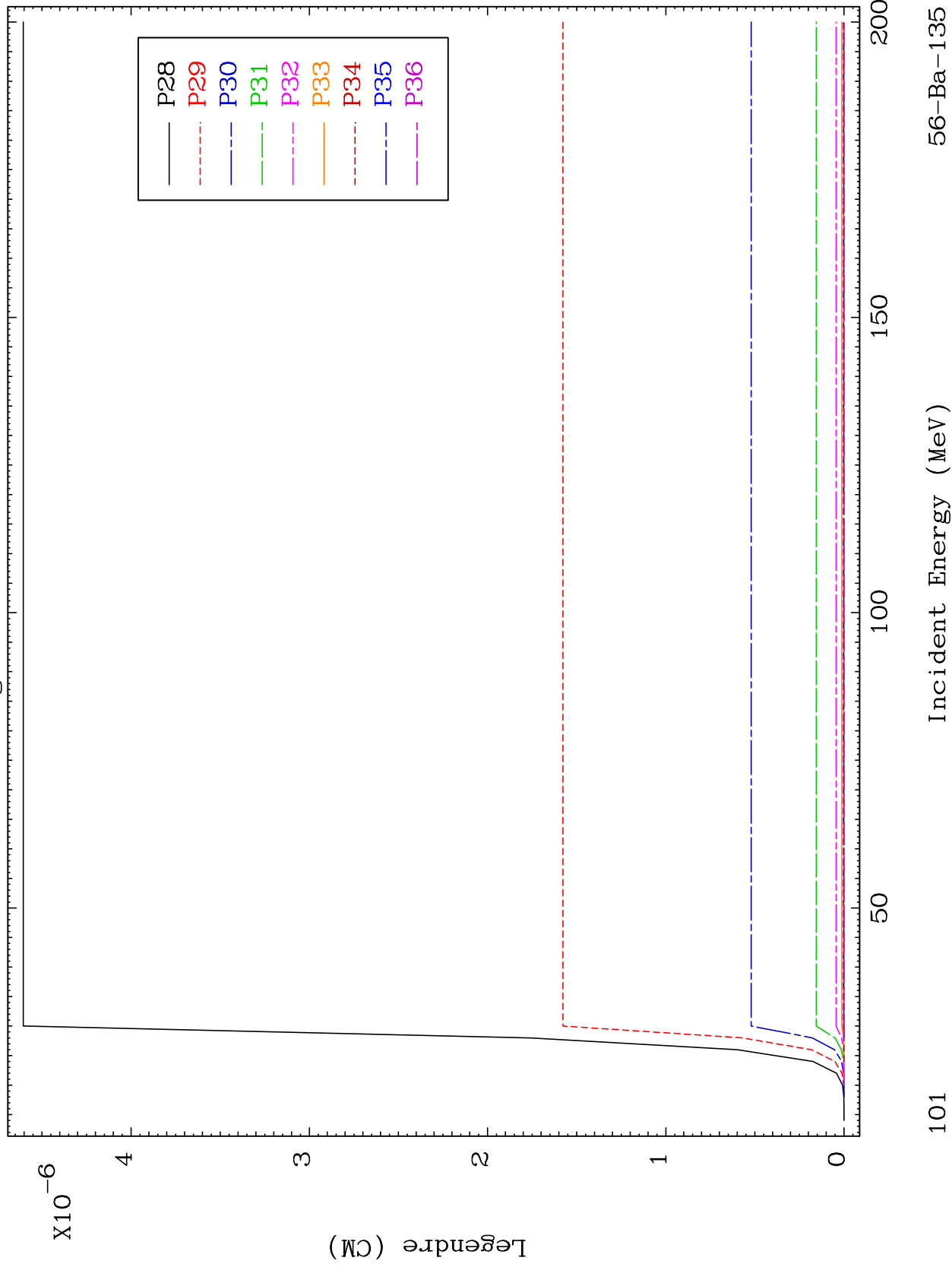
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

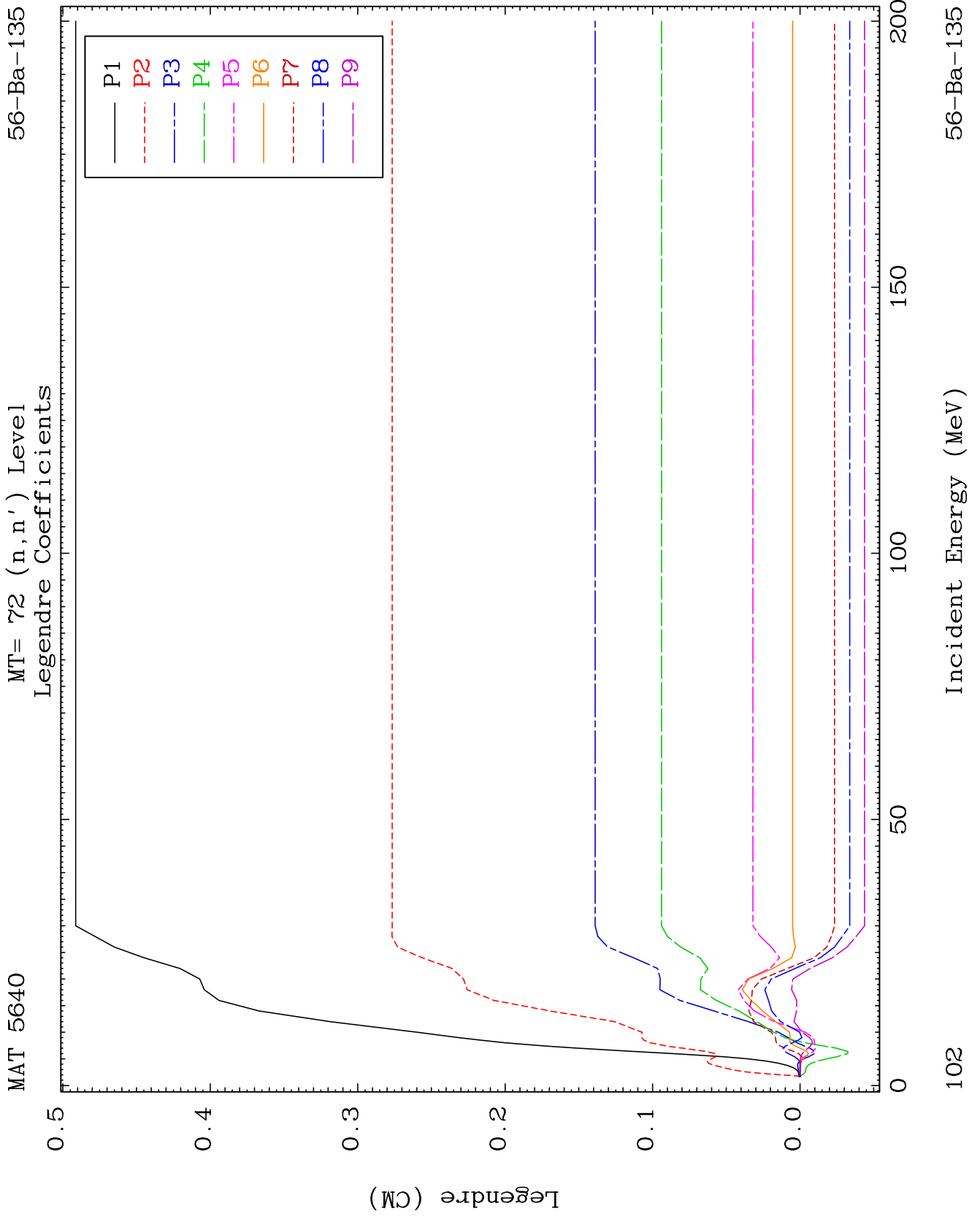
56-Ba-135



101

Incident Energy (MeV)

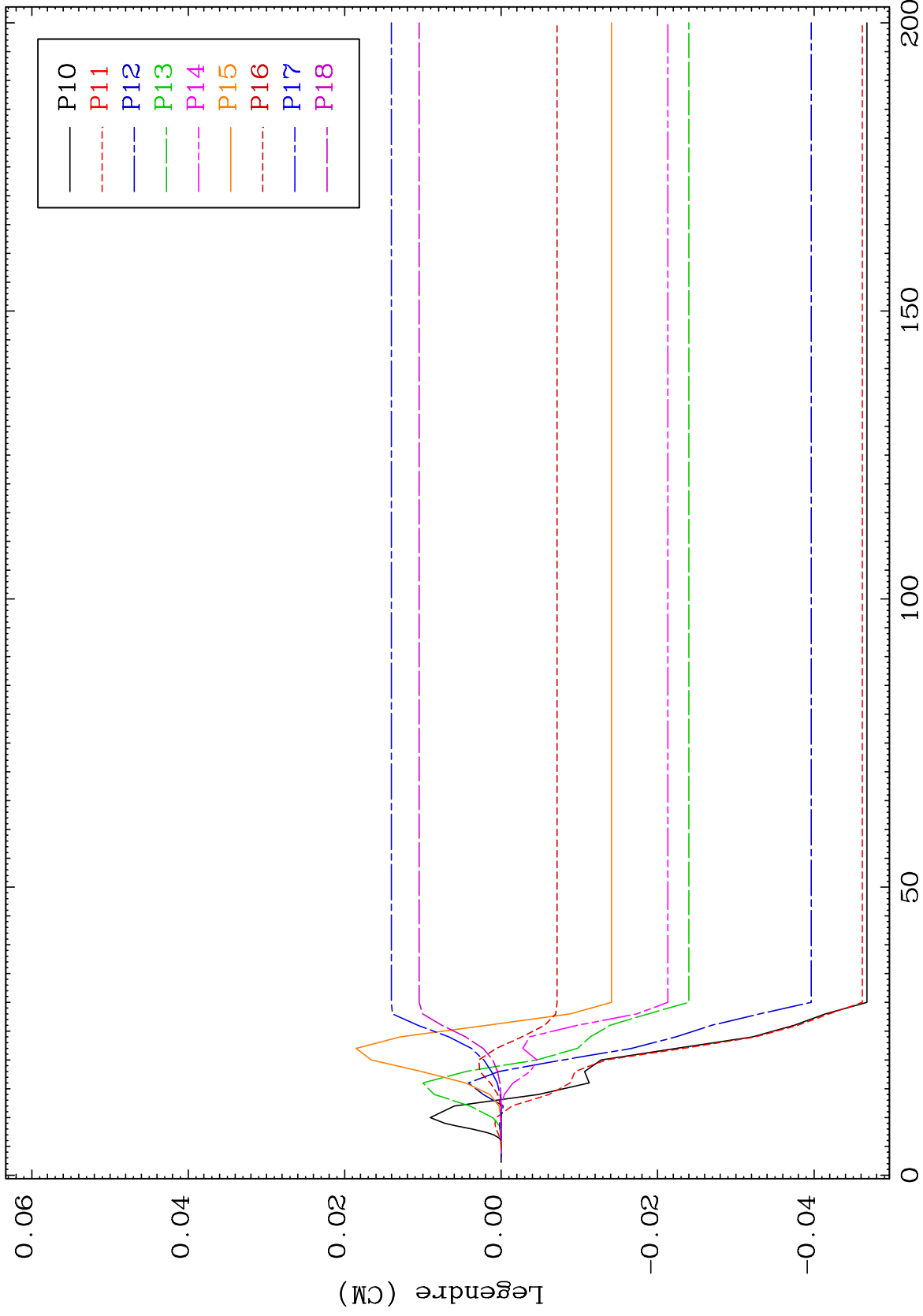
56-Ba-135



MAT 5640

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

56-Ba-135



103

Incident Energy (MeV)

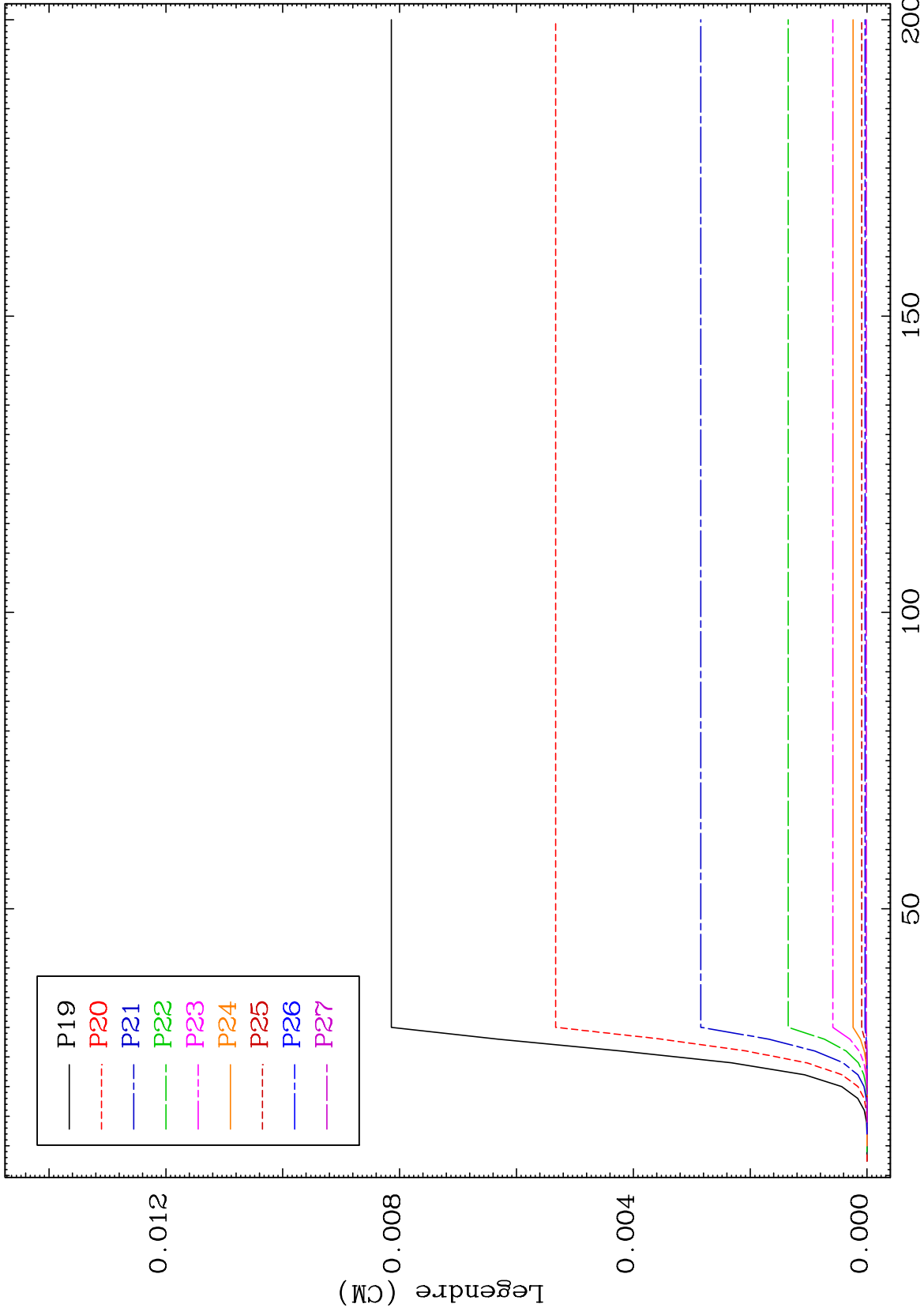
56-Ba-135



MAT 5640

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

56-Ba-135



104

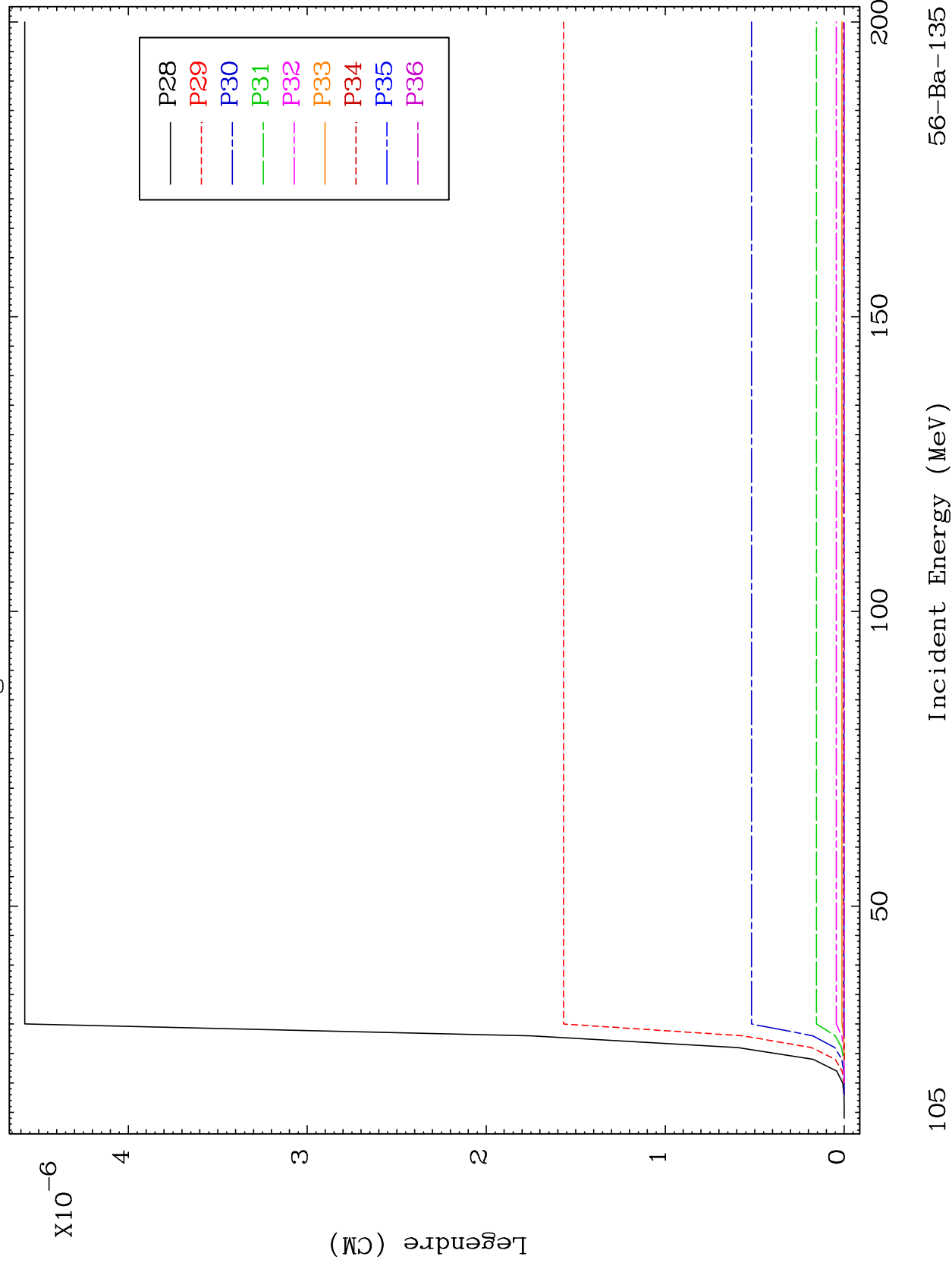
Incident Energy (MeV)

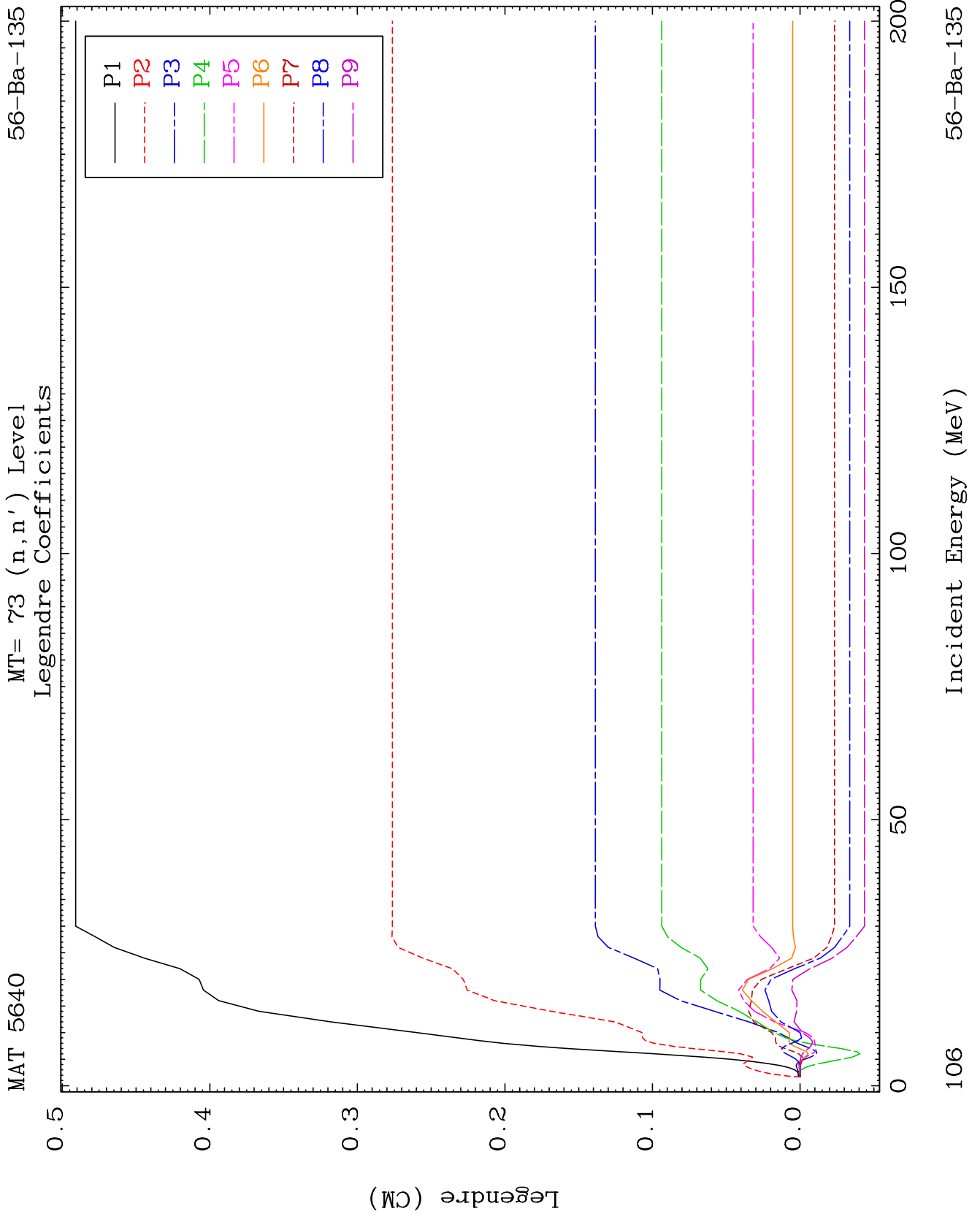
56-Ba-135

MAT 5640

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

56-Ba-135



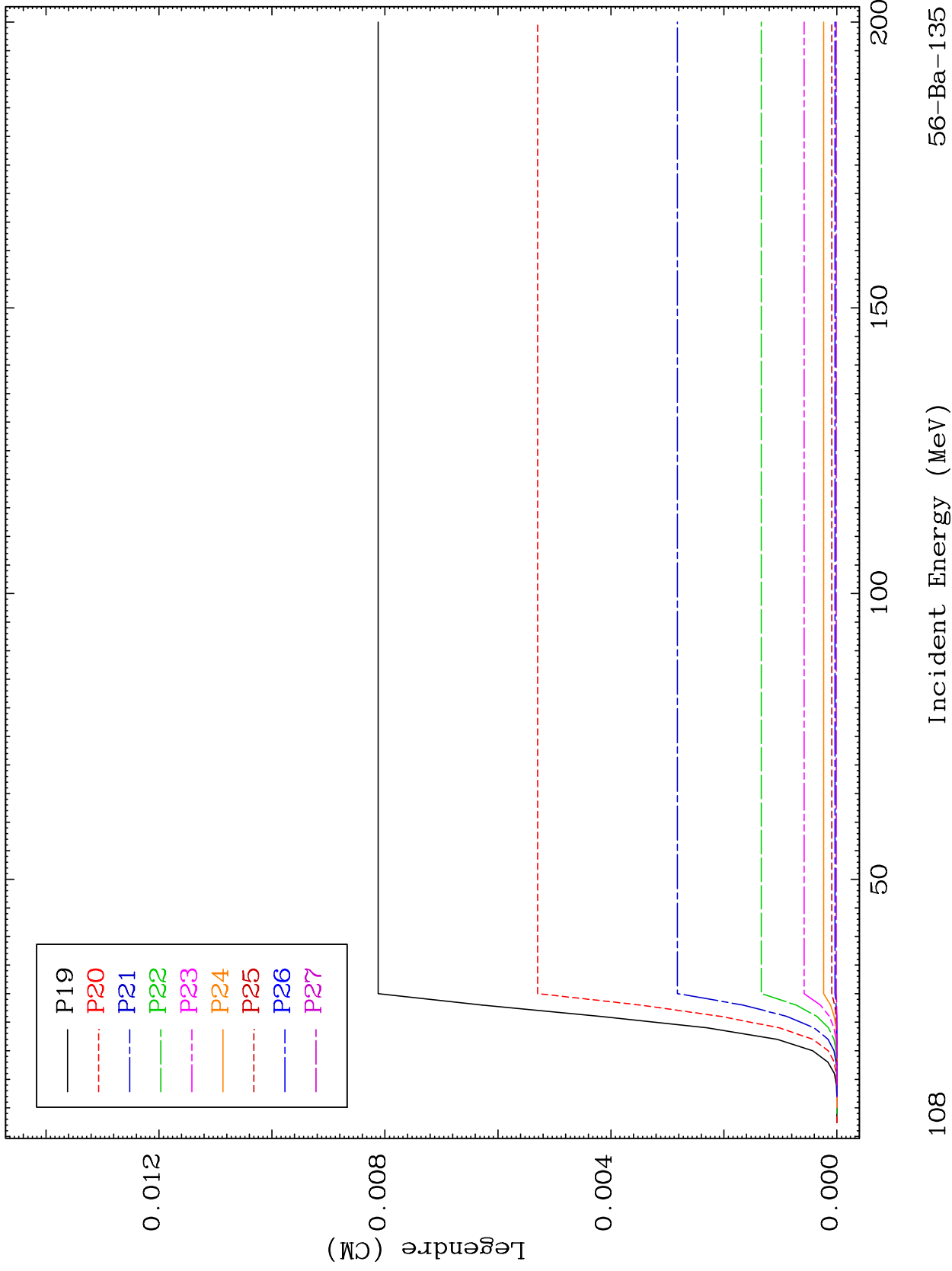




MAT 5640

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

56-Ba-135



108

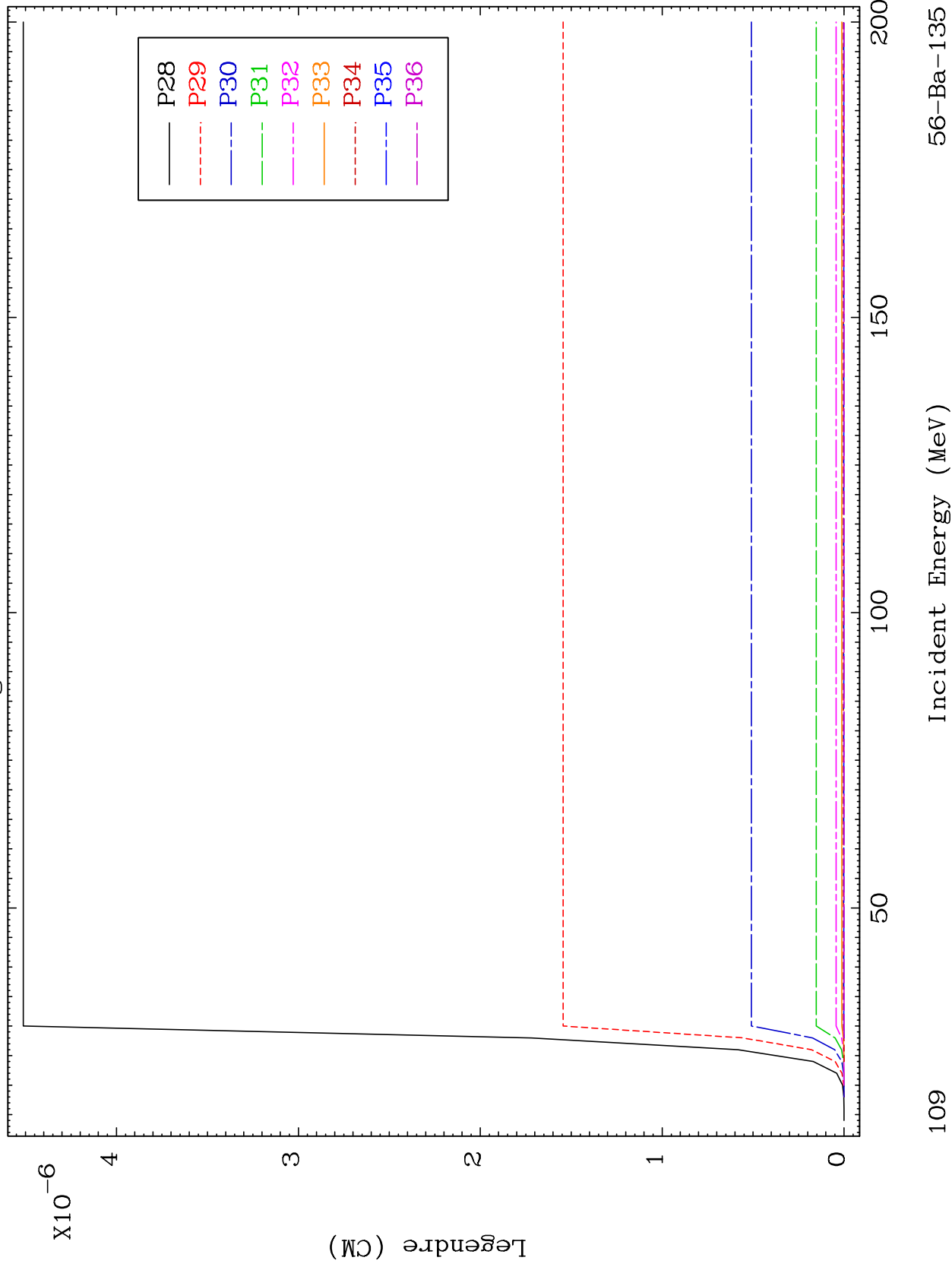
Incident Energy (MeV)

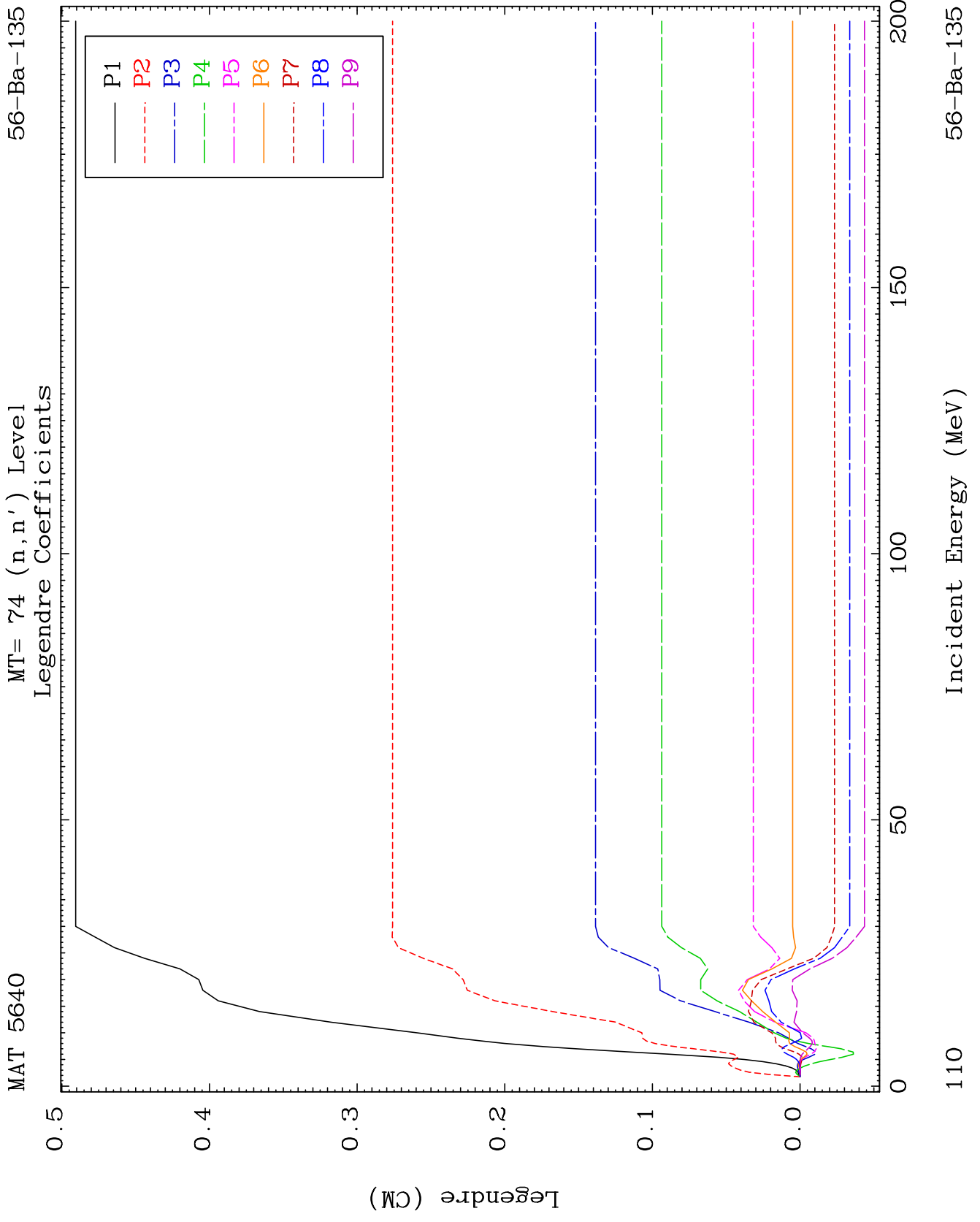
56-Ba-135

MAT 5640

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

56-Ba-135





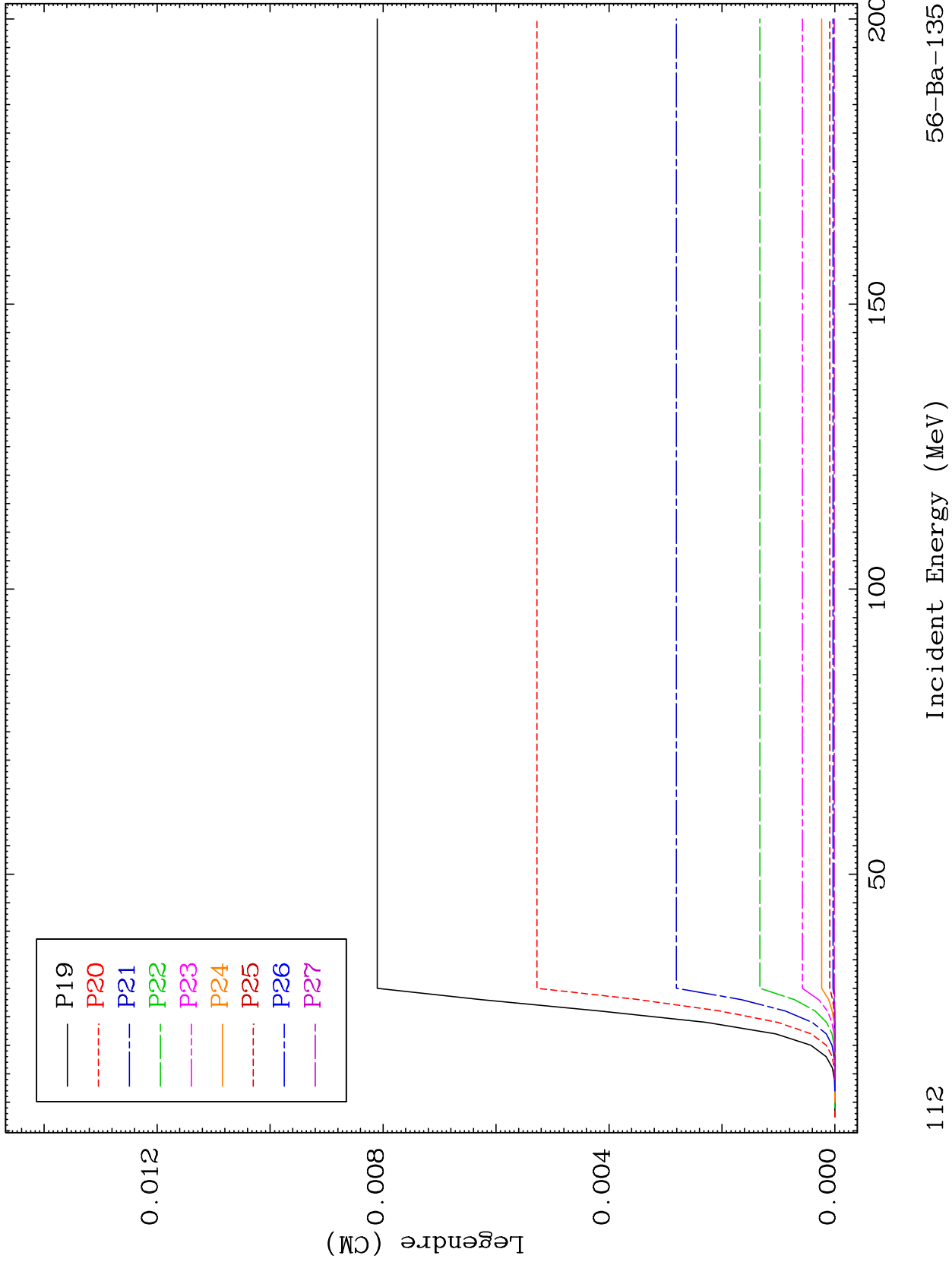




MAT 5640

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

56-Ba-135



112

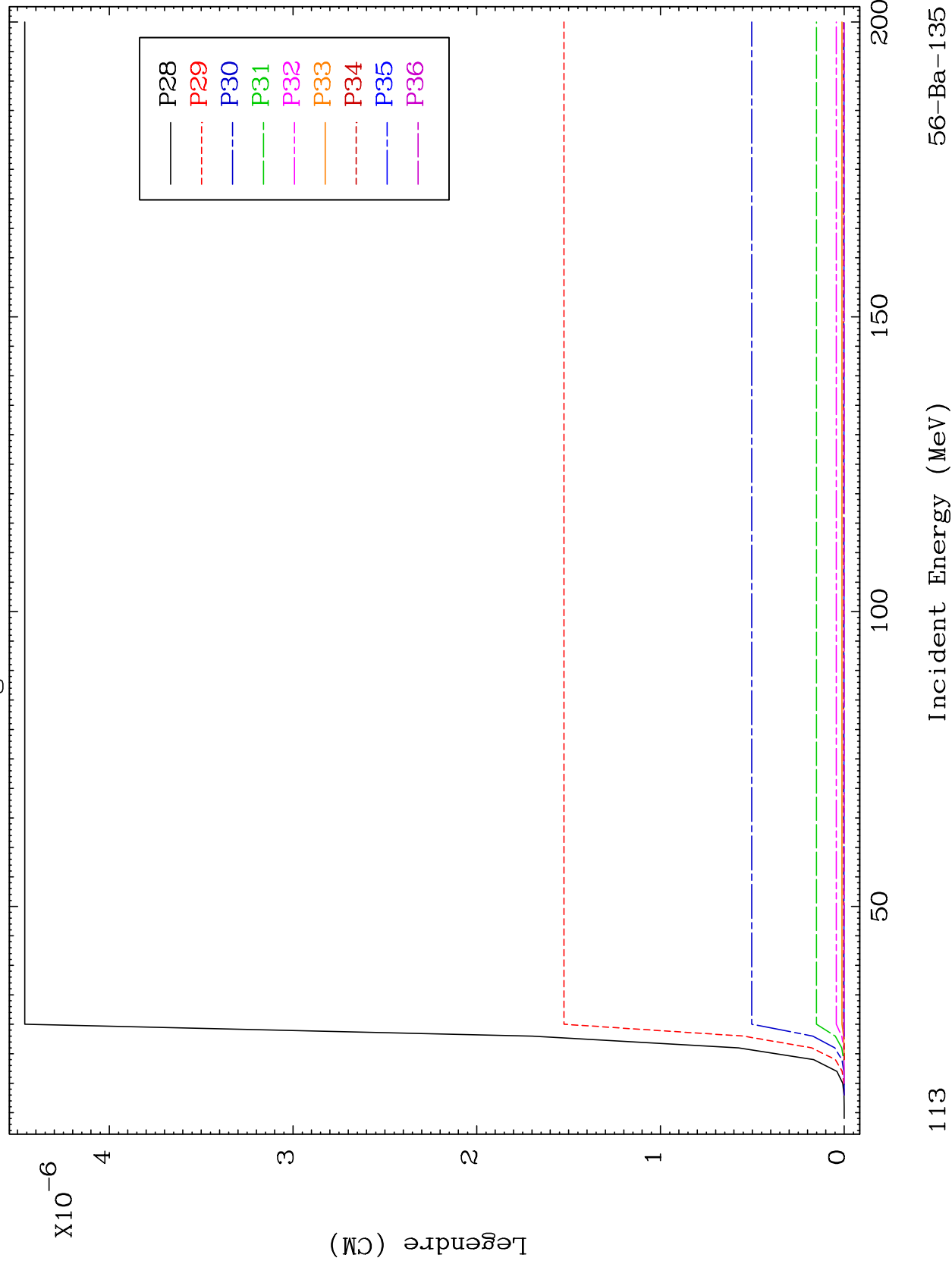
Incident Energy (MeV)

56-Ba-135

MAT 5640

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

56-Ba-135

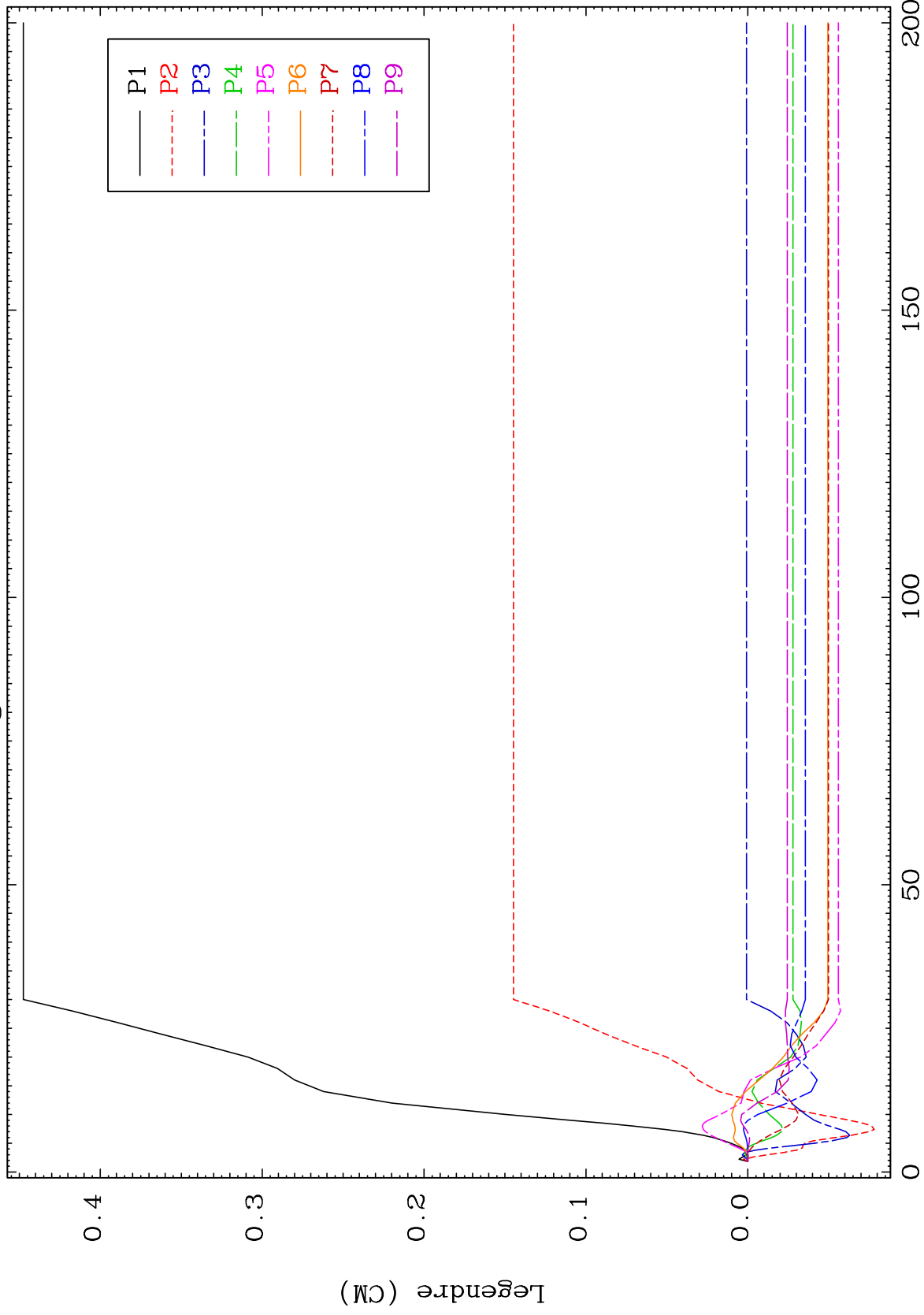


113

MAT 5640

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

56-Ba-135



114

Incident Energy (MeV)

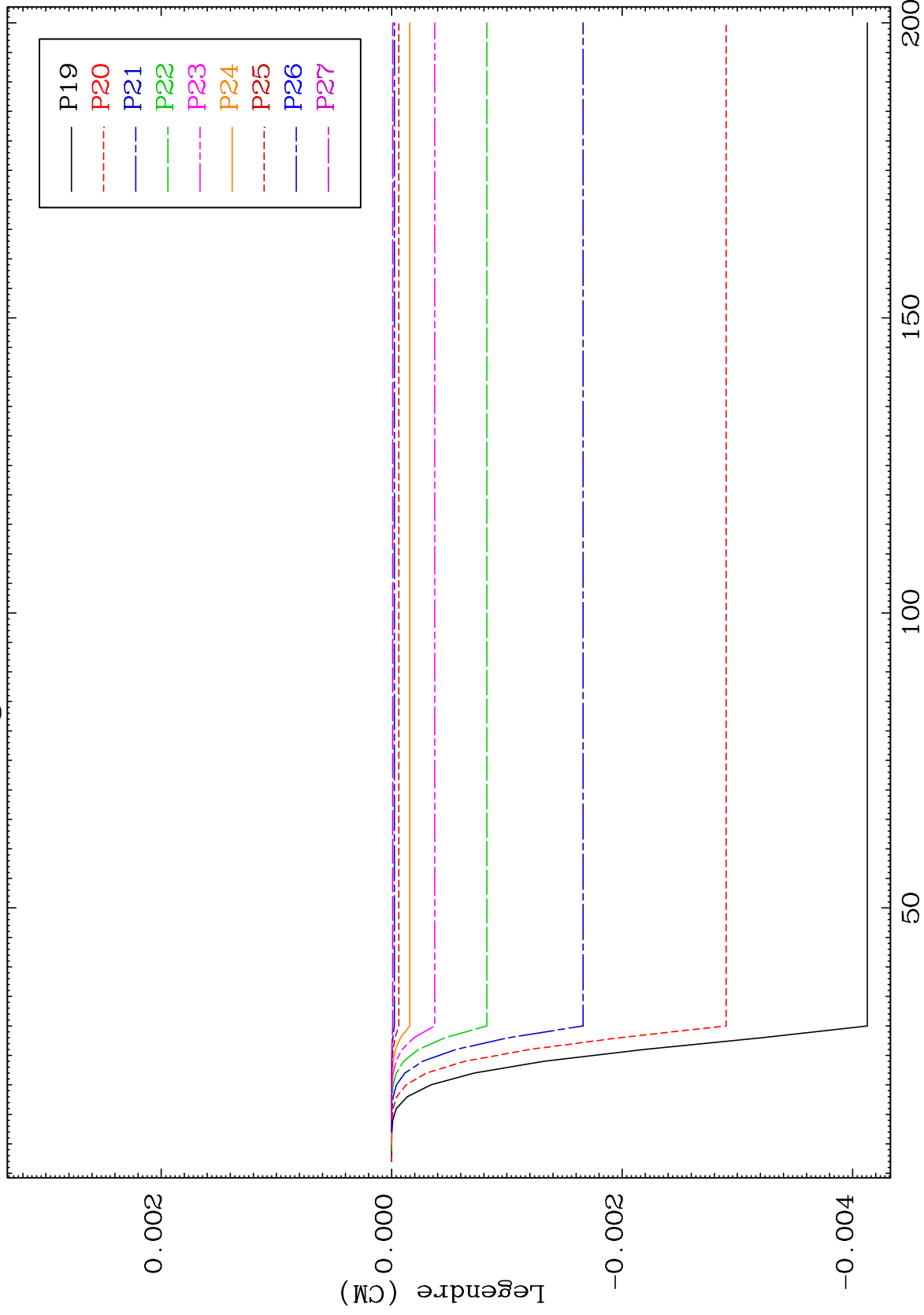
56-Ba-135



MAT 5640

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

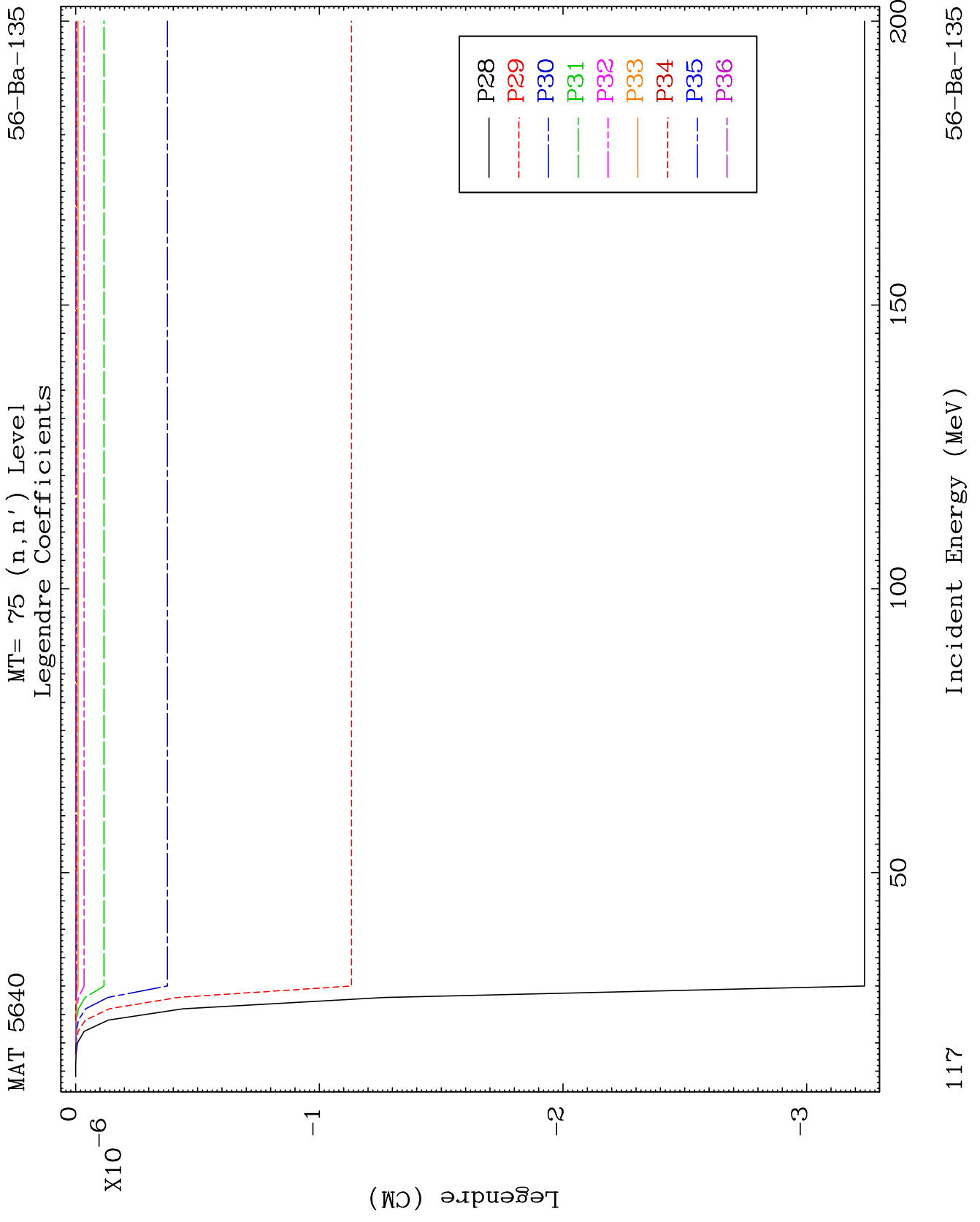
56-Ba-135

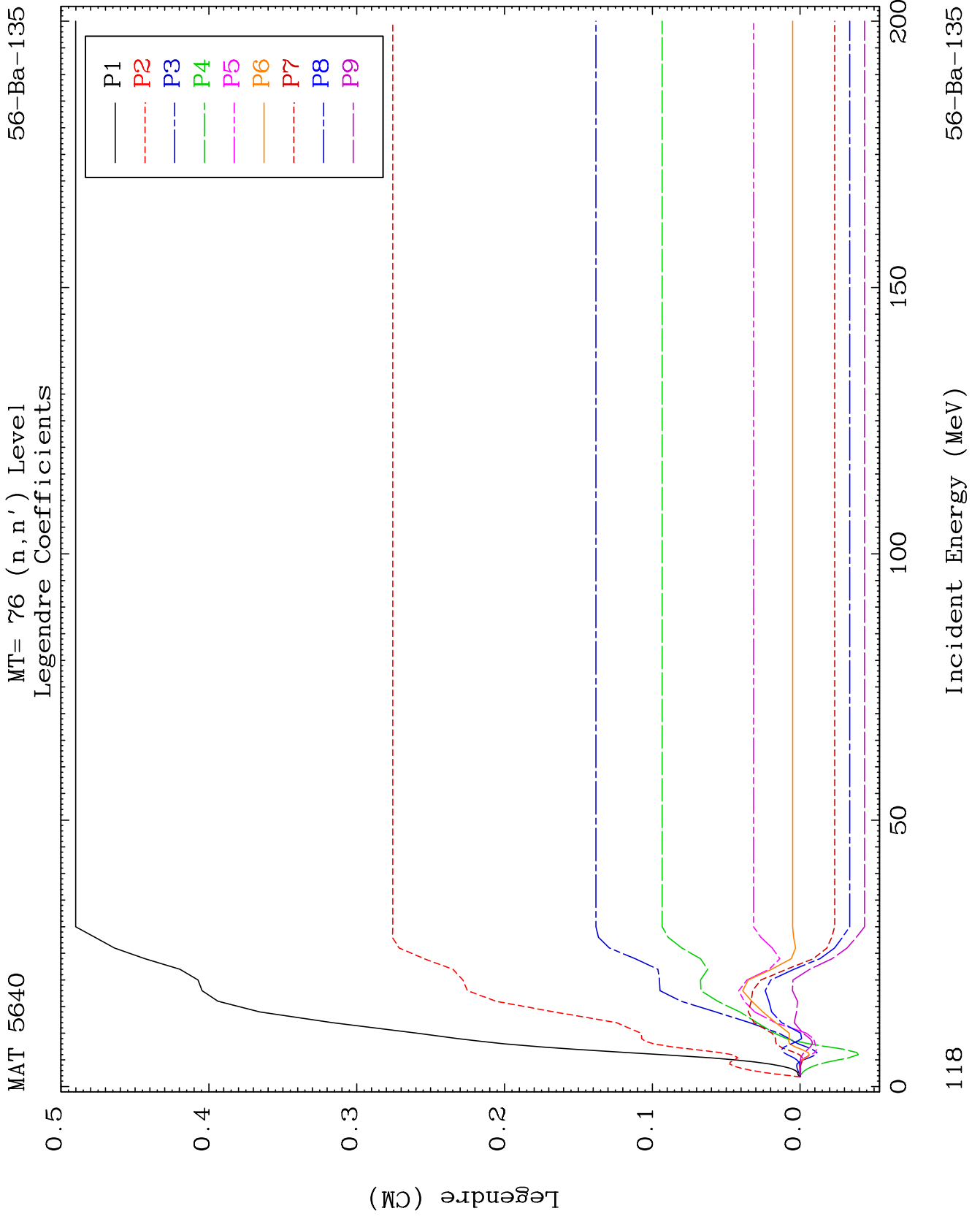


116

Incident Energy (MeV)

56-Ba-135

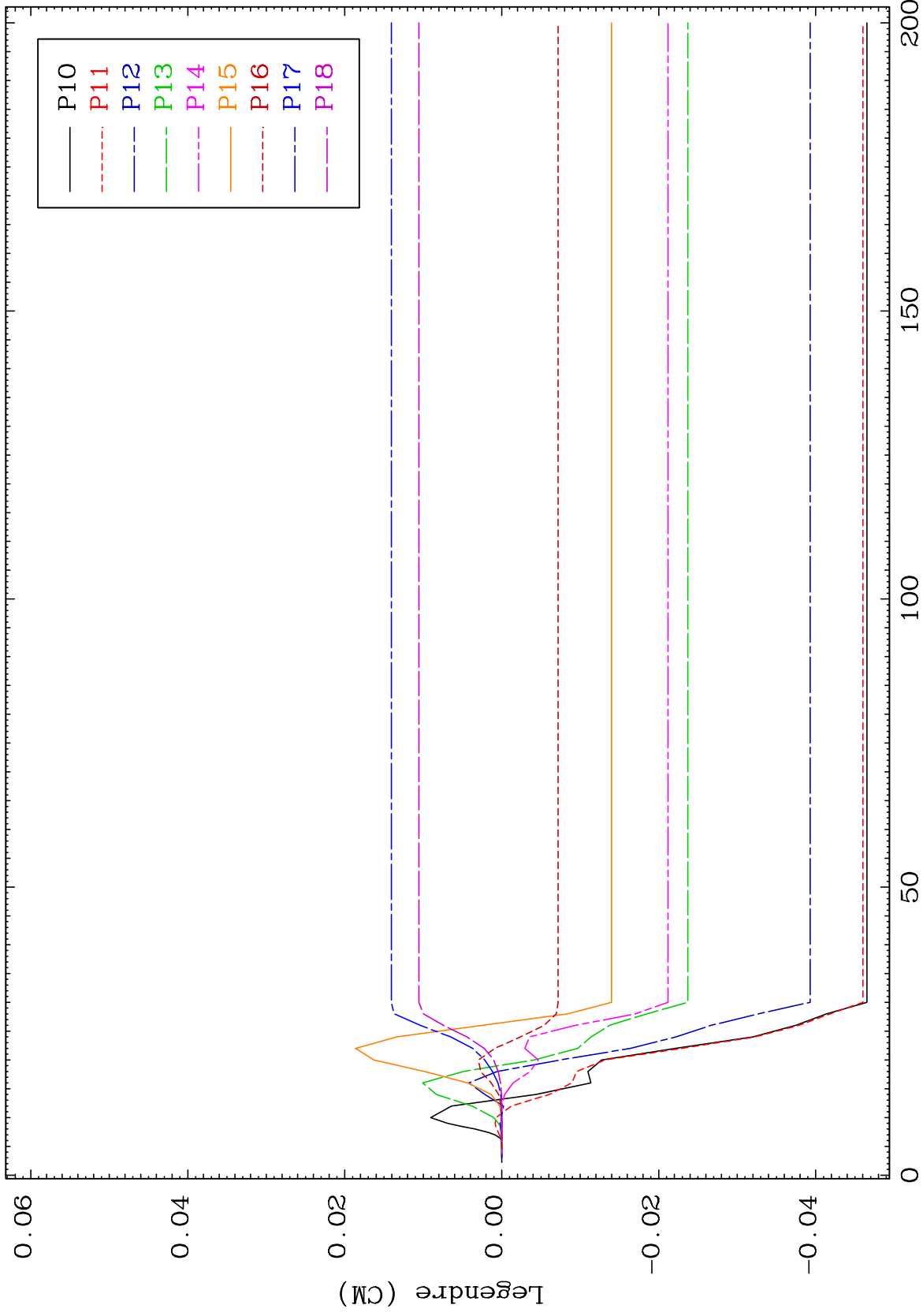




MAT 5640

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

56-Ba-135



119

Incident Energy (MeV)

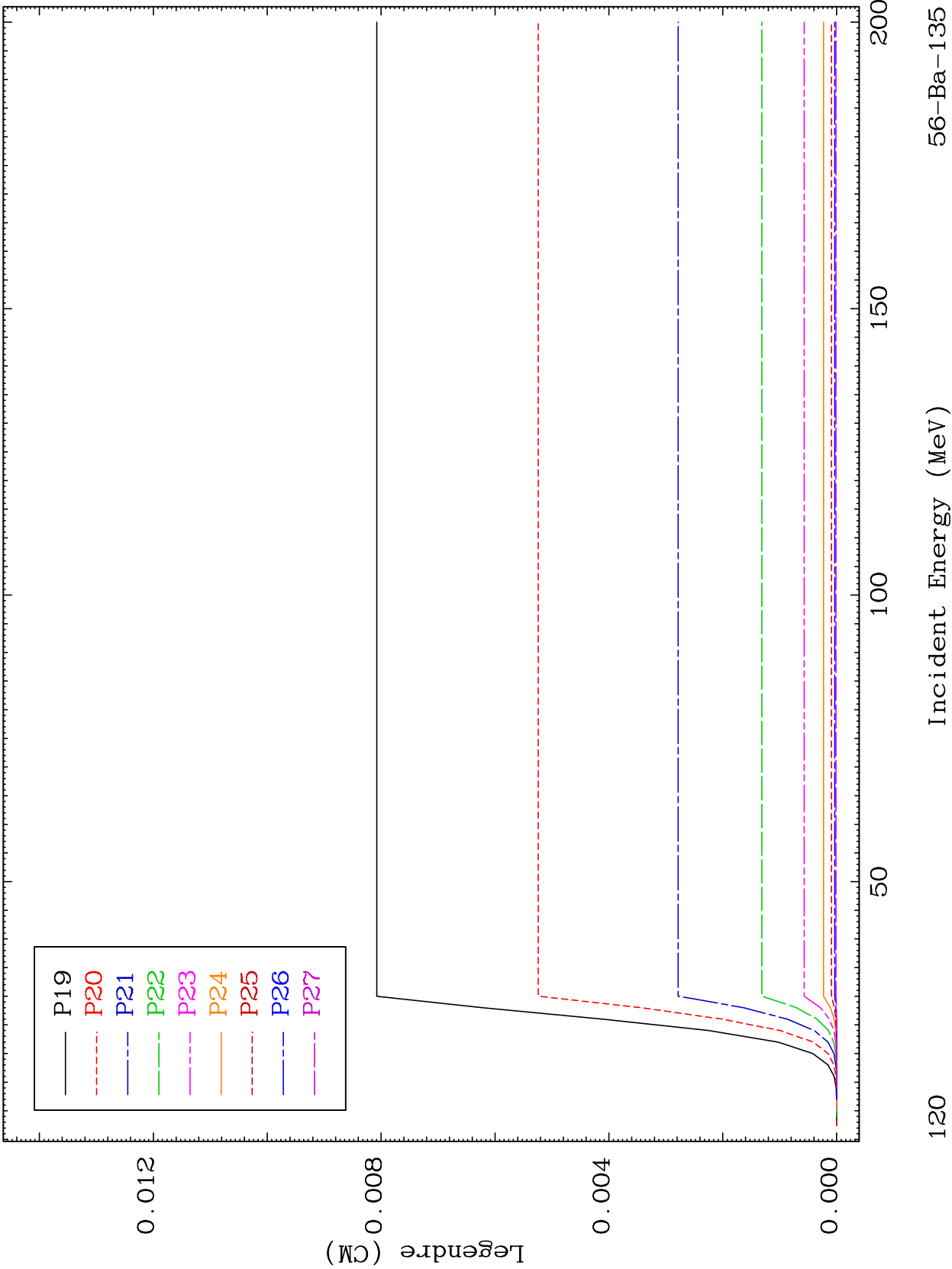
56-Ba-135



MAT 5640

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

56-Ba-135



56-Ba-135

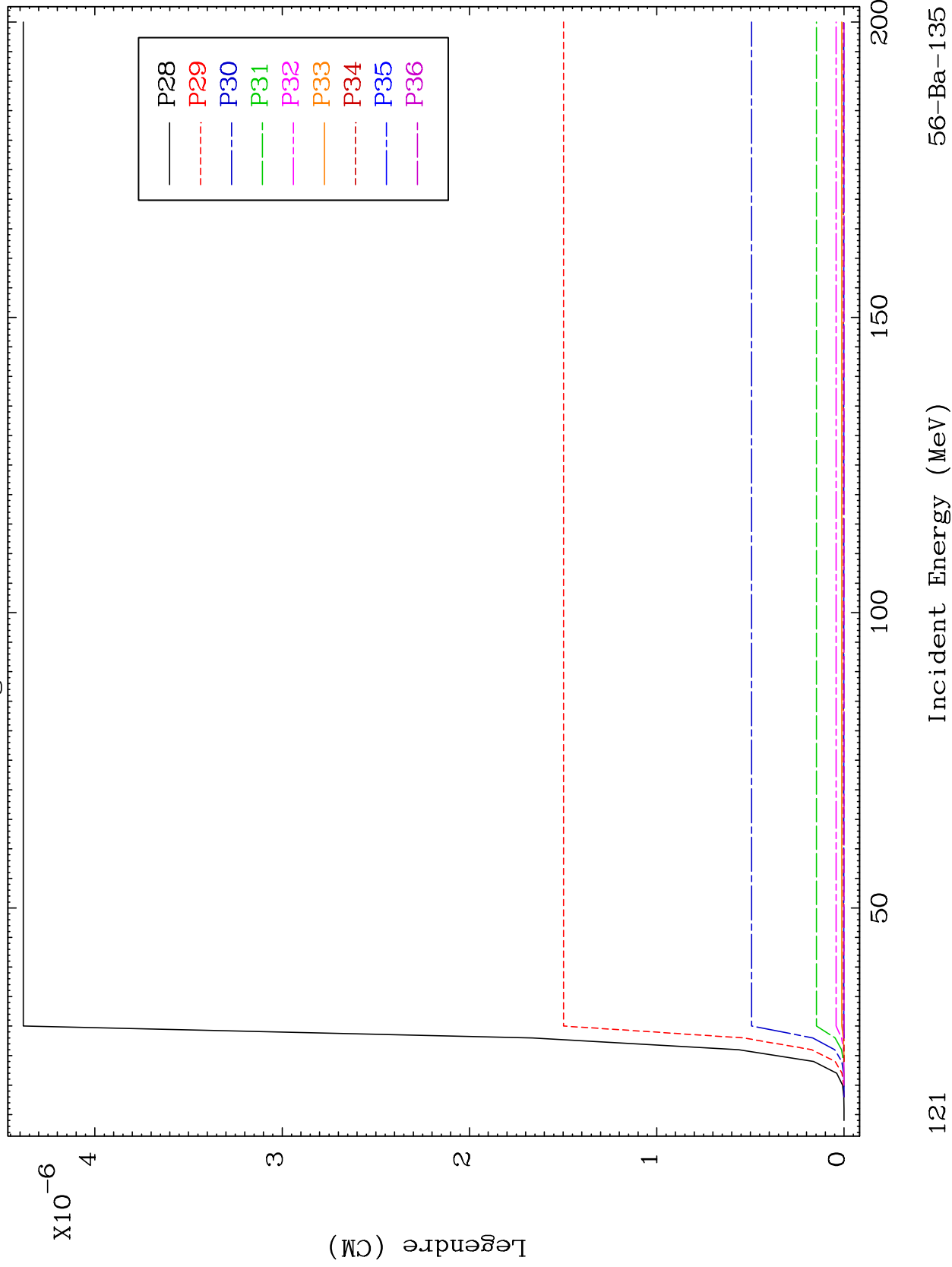
Incident Energy (MeV)

120

MAT 5640

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

56-Ba-135



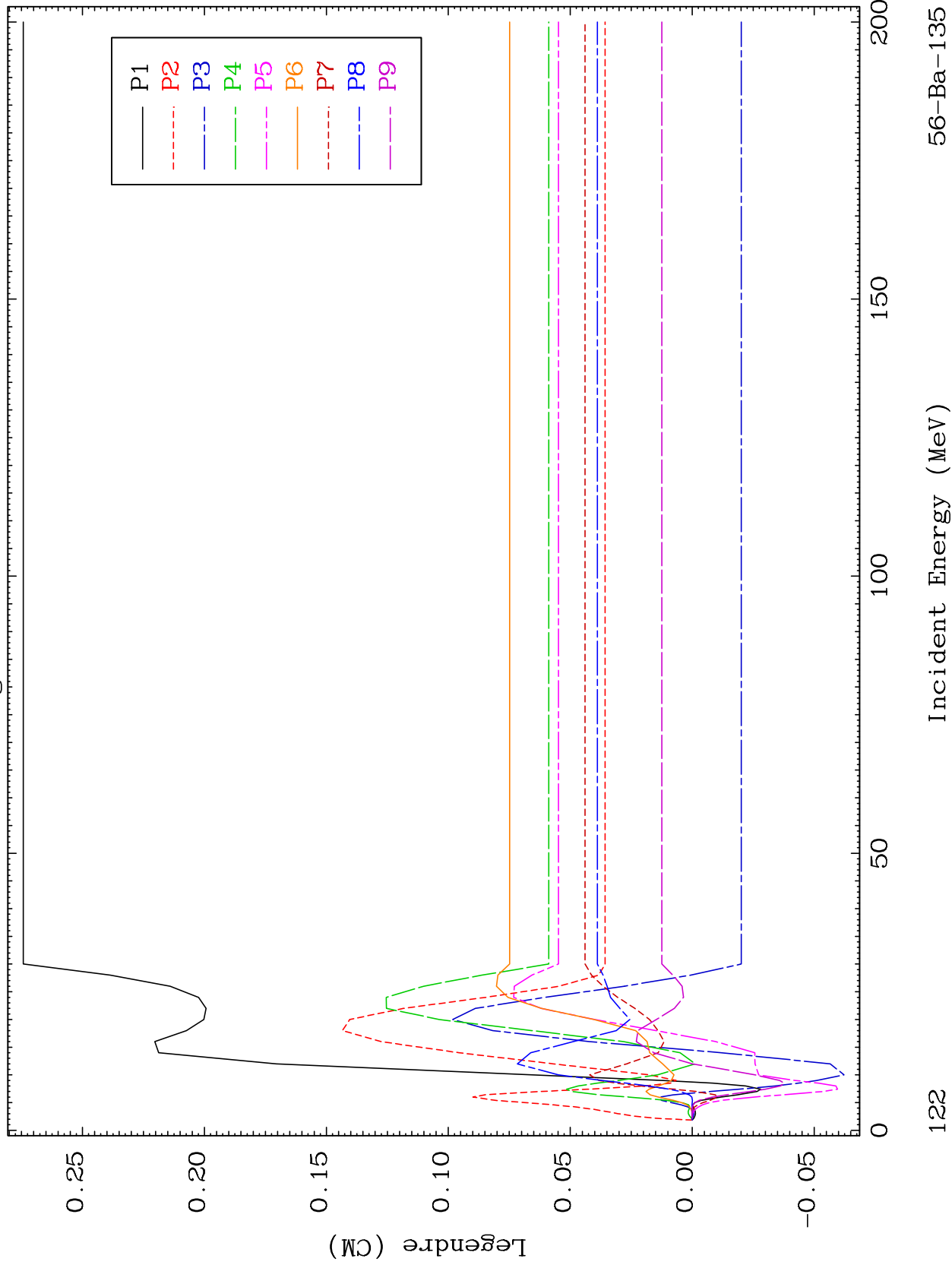
121

56-Ba-135

MAT 5640

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

56-Ba-135



56-Ba-135

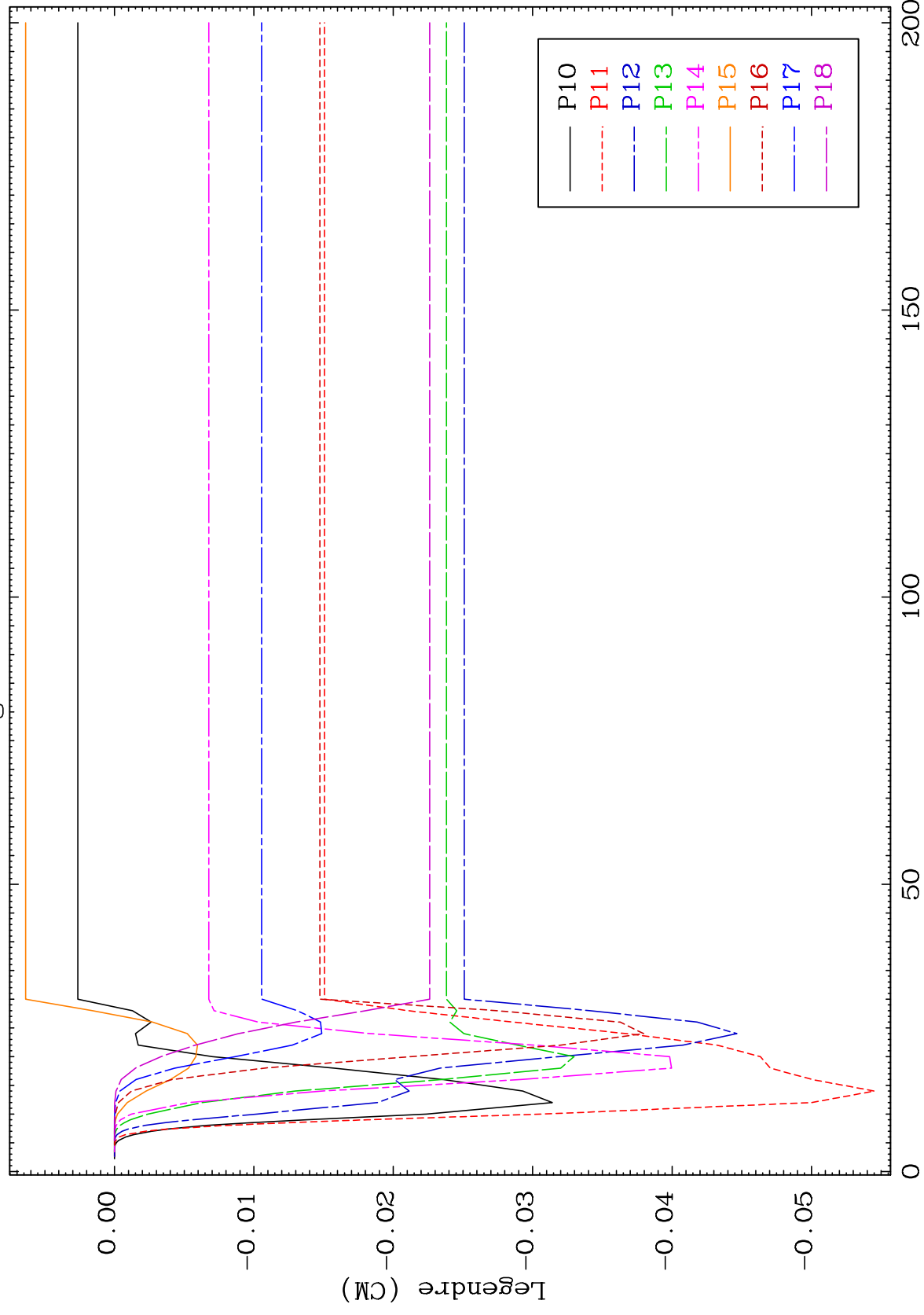
Incident Energy (MeV)

122

MAT 5640

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

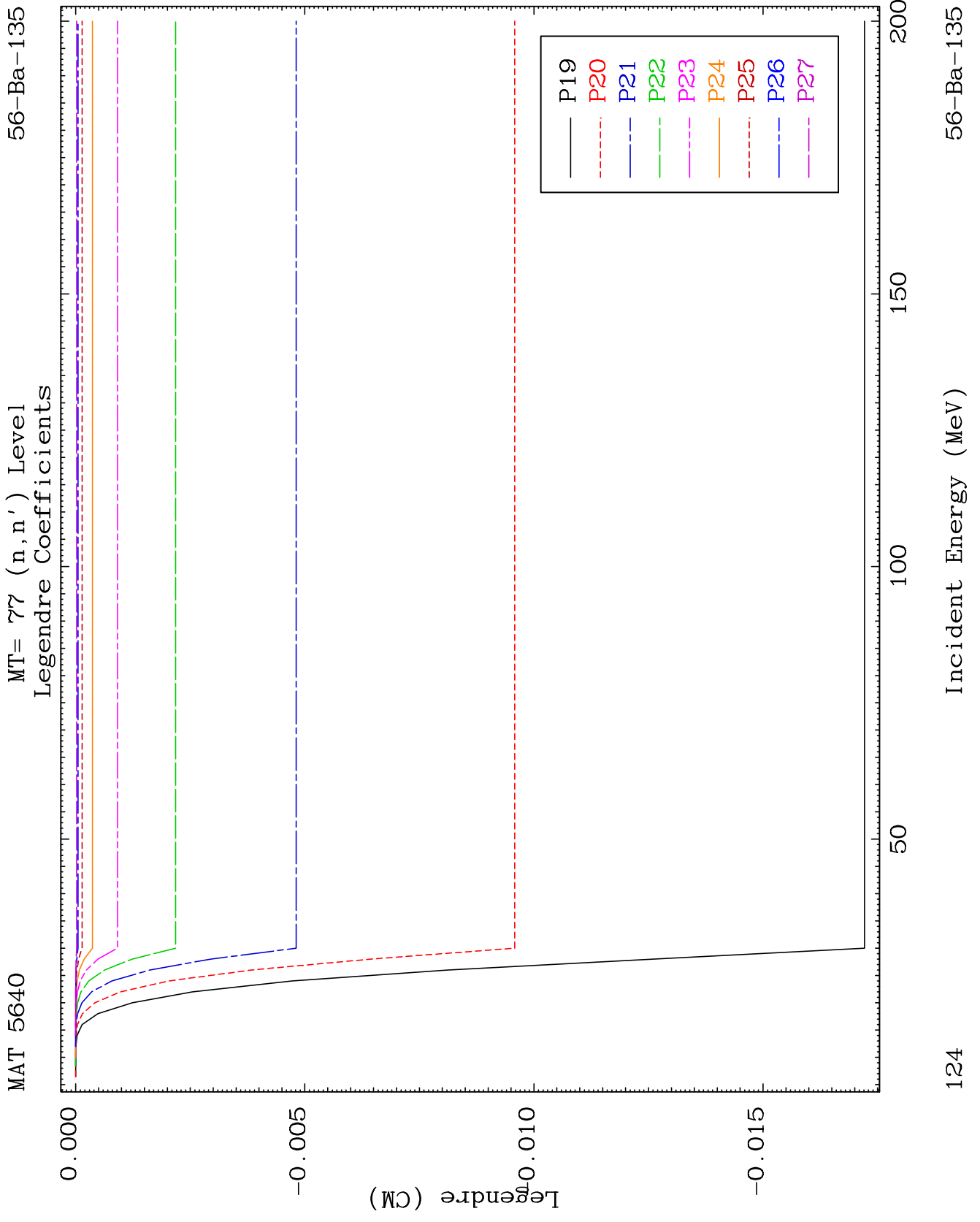
56-Ba-135

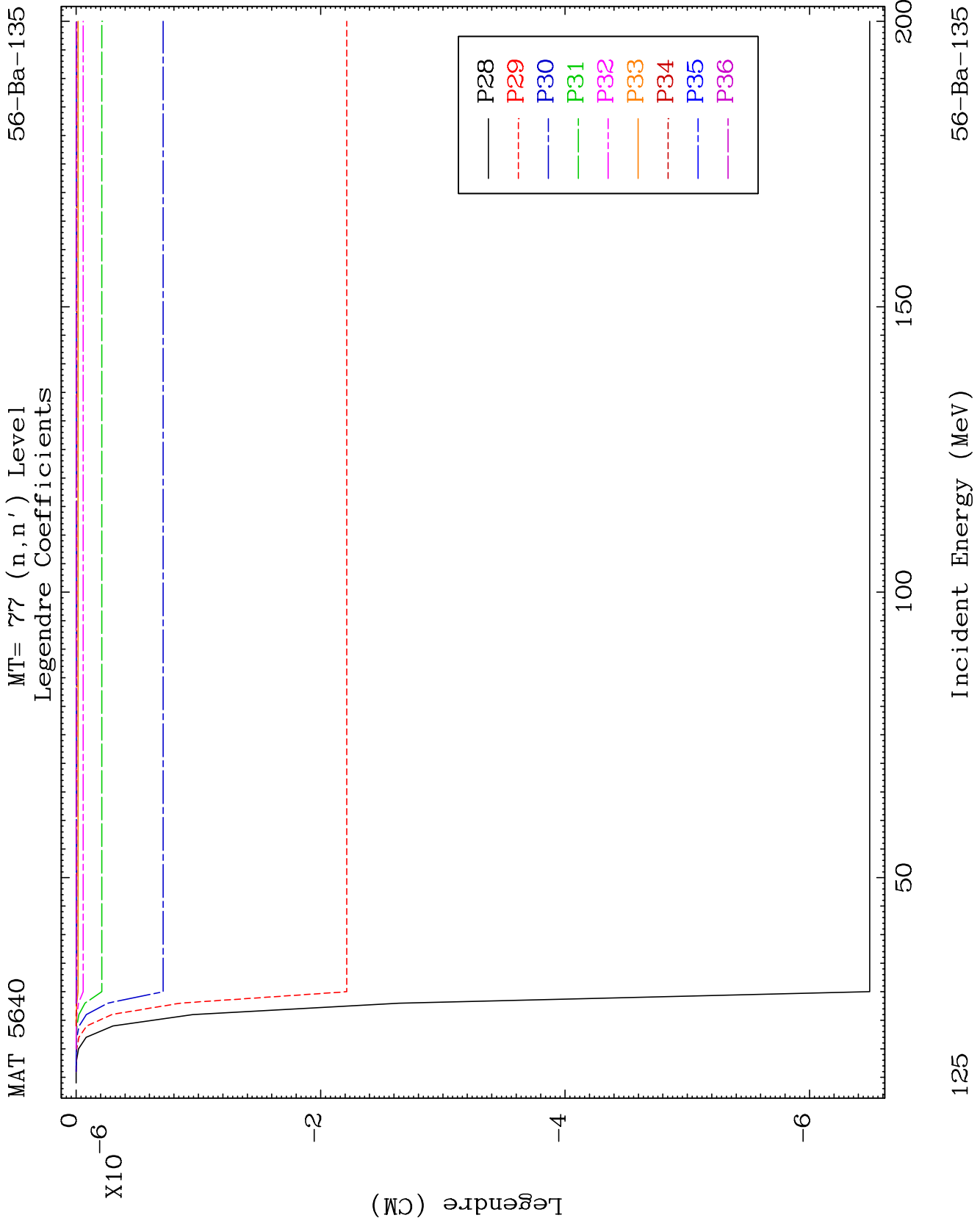


123

Incident Energy (MeV)

56-Ba-135

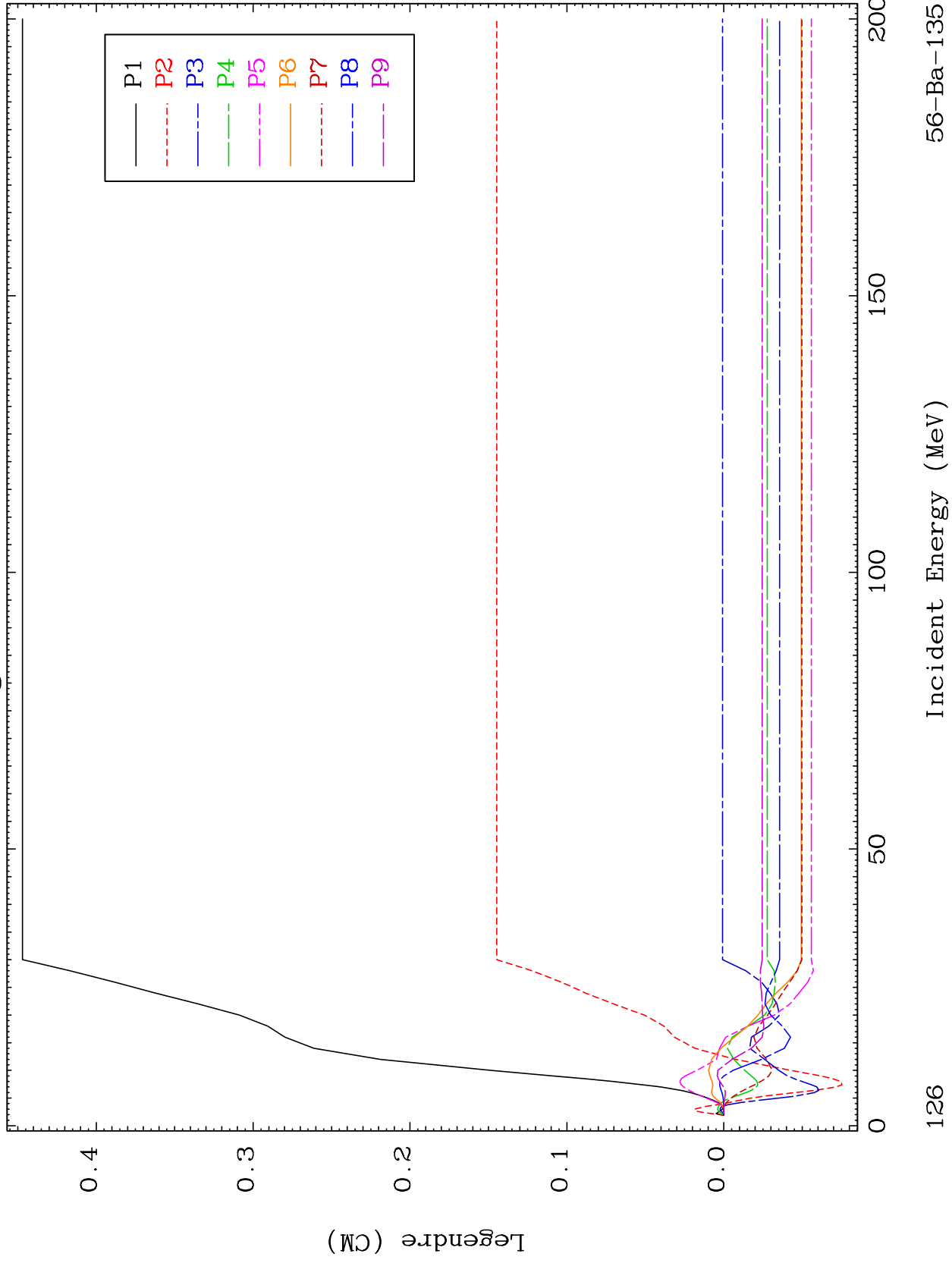




MAT 5640

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

56-Ba-135



56-Ba-135

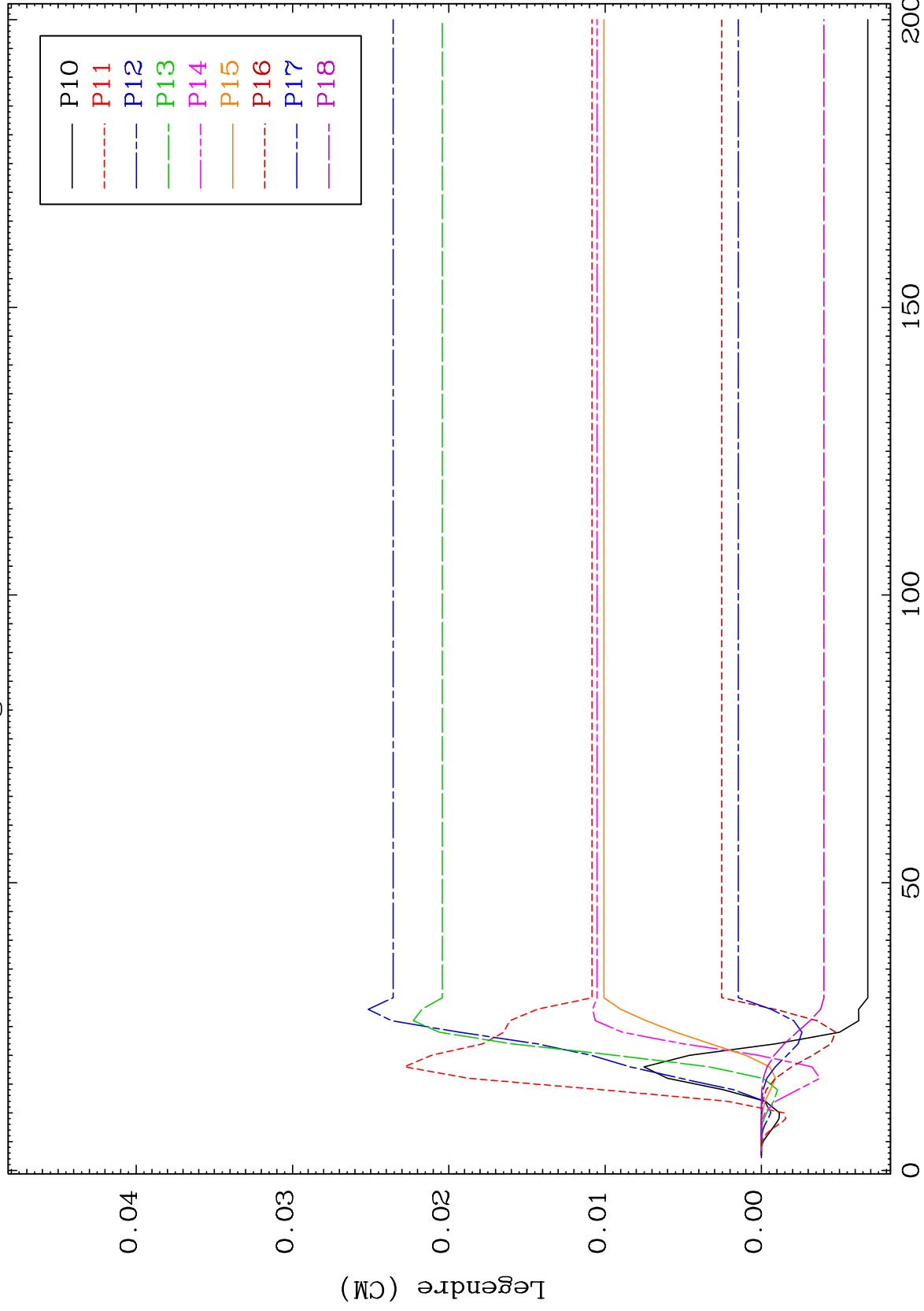
Incident Energy (MeV)

126

MAT 5640

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

56-Ba-135



127

Incident Energy (MeV)

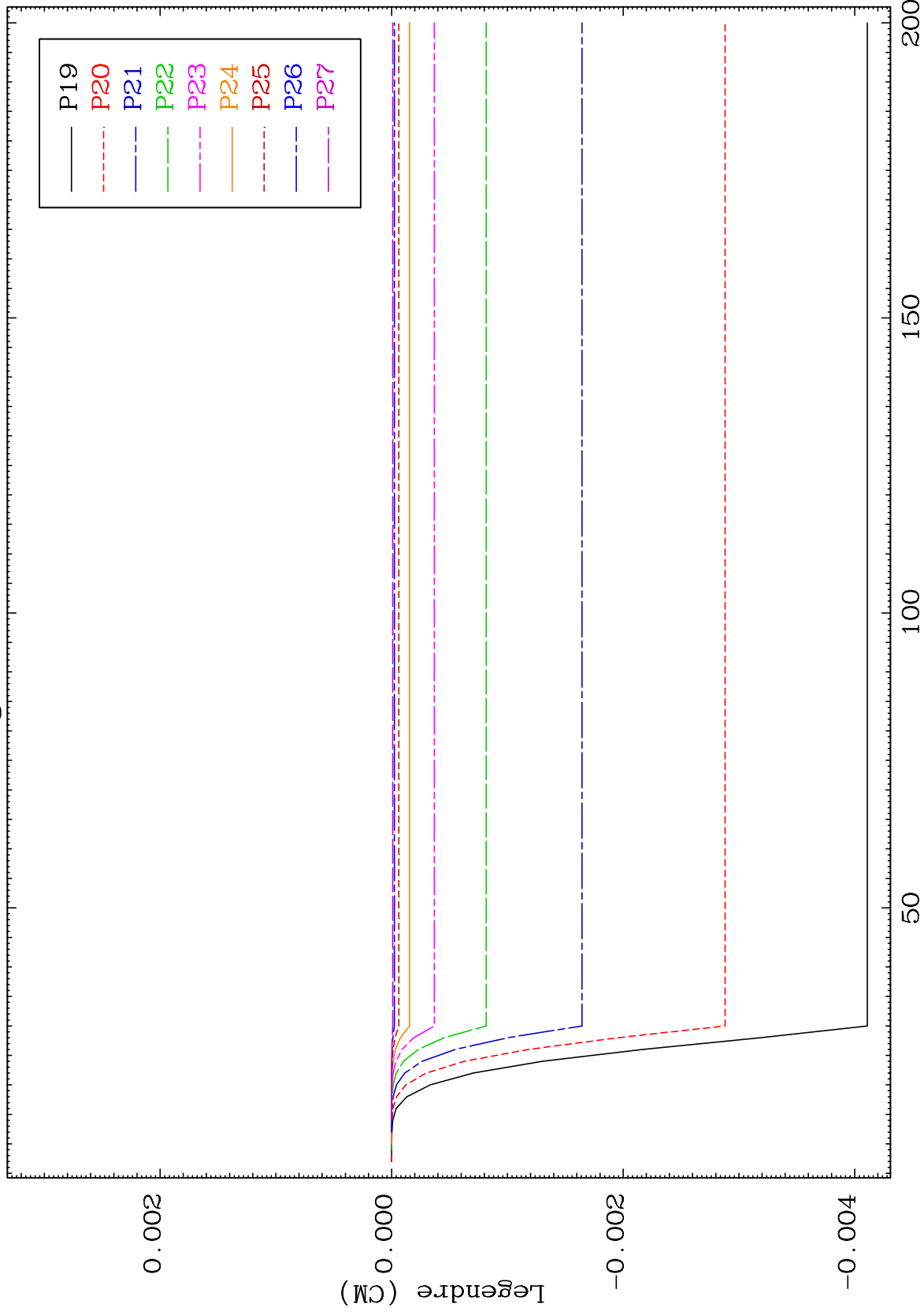
56-Ba-135



MAT 5640

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

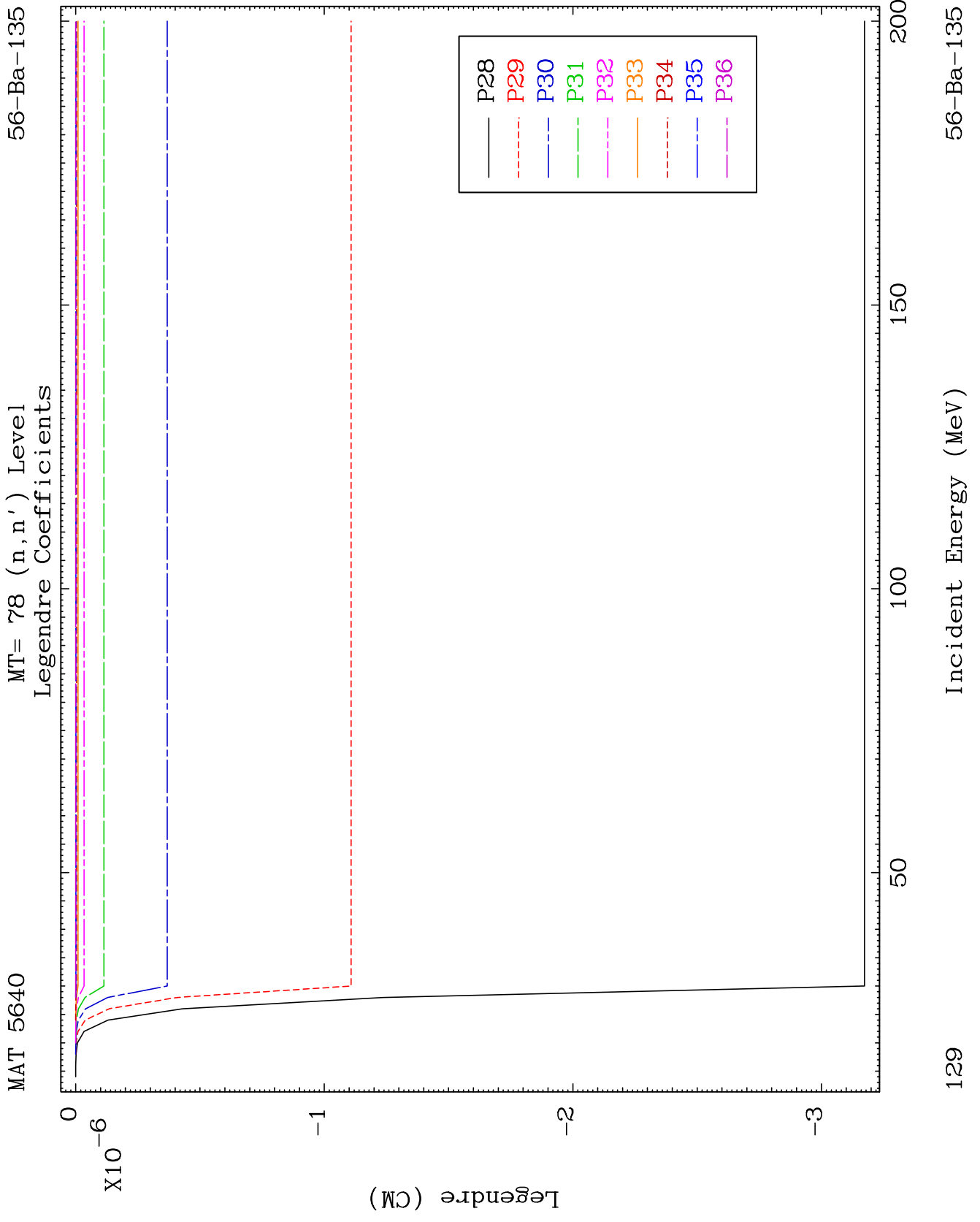
56-Ba-135

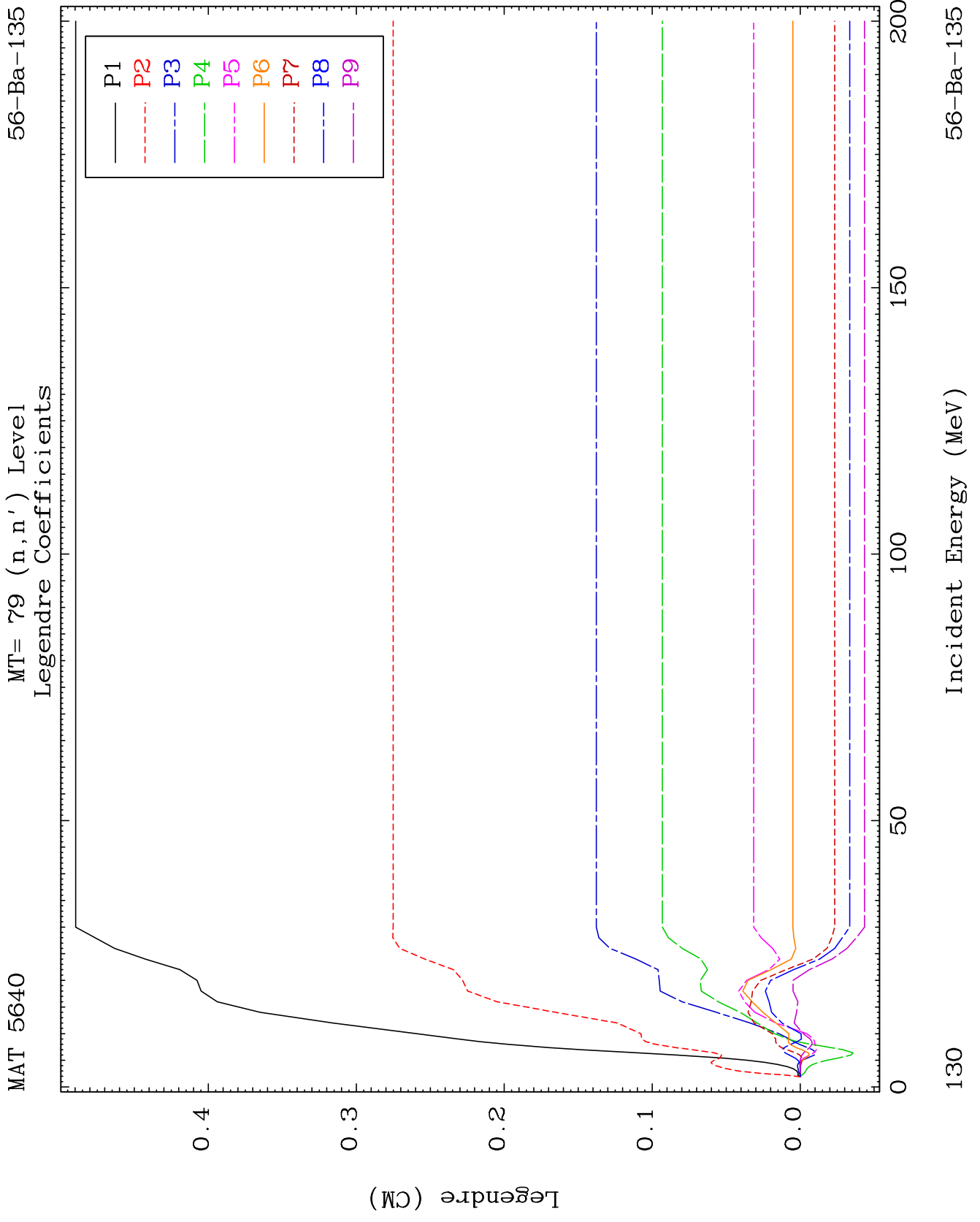


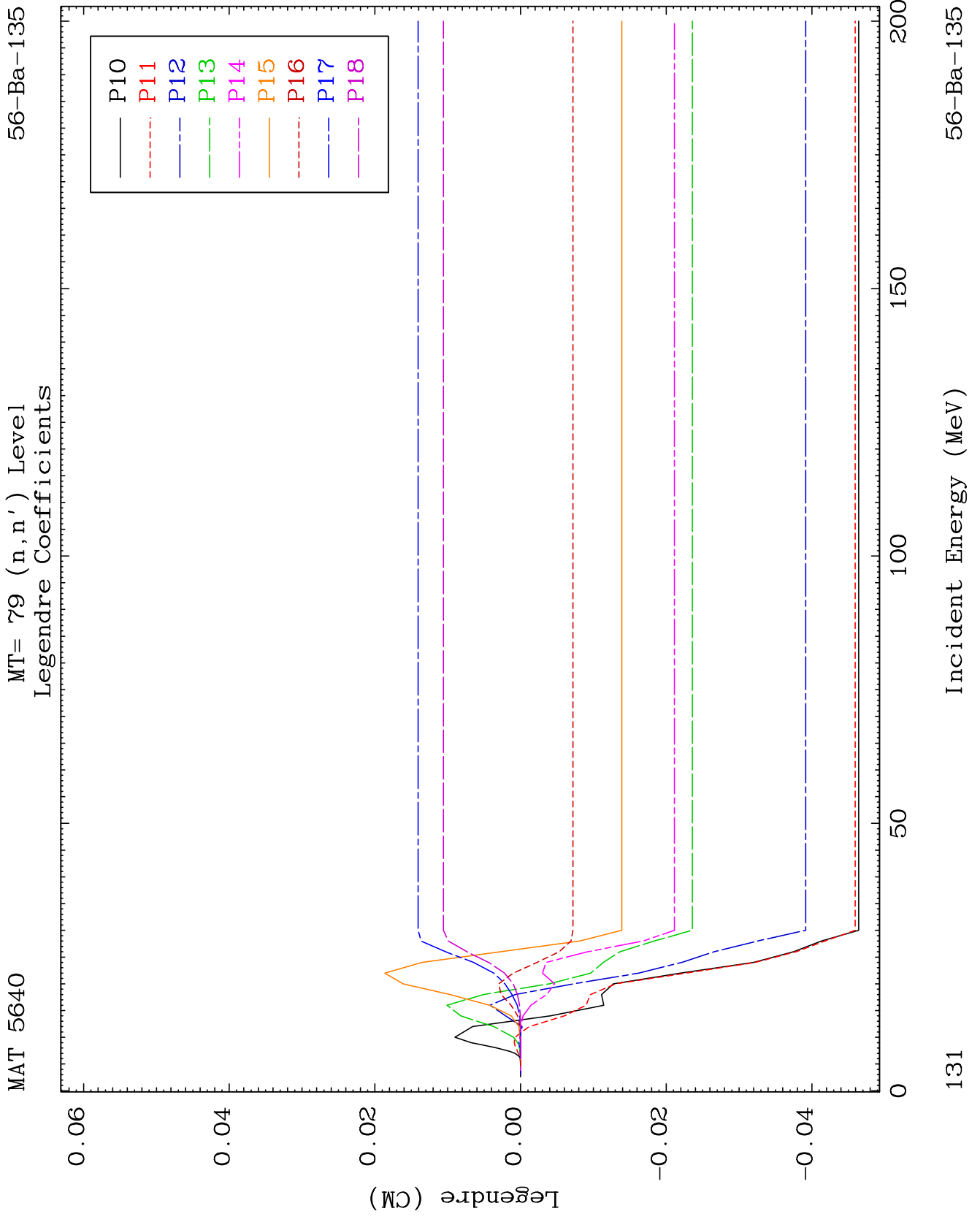
128

Incident Energy (MeV)

56-Ba-135



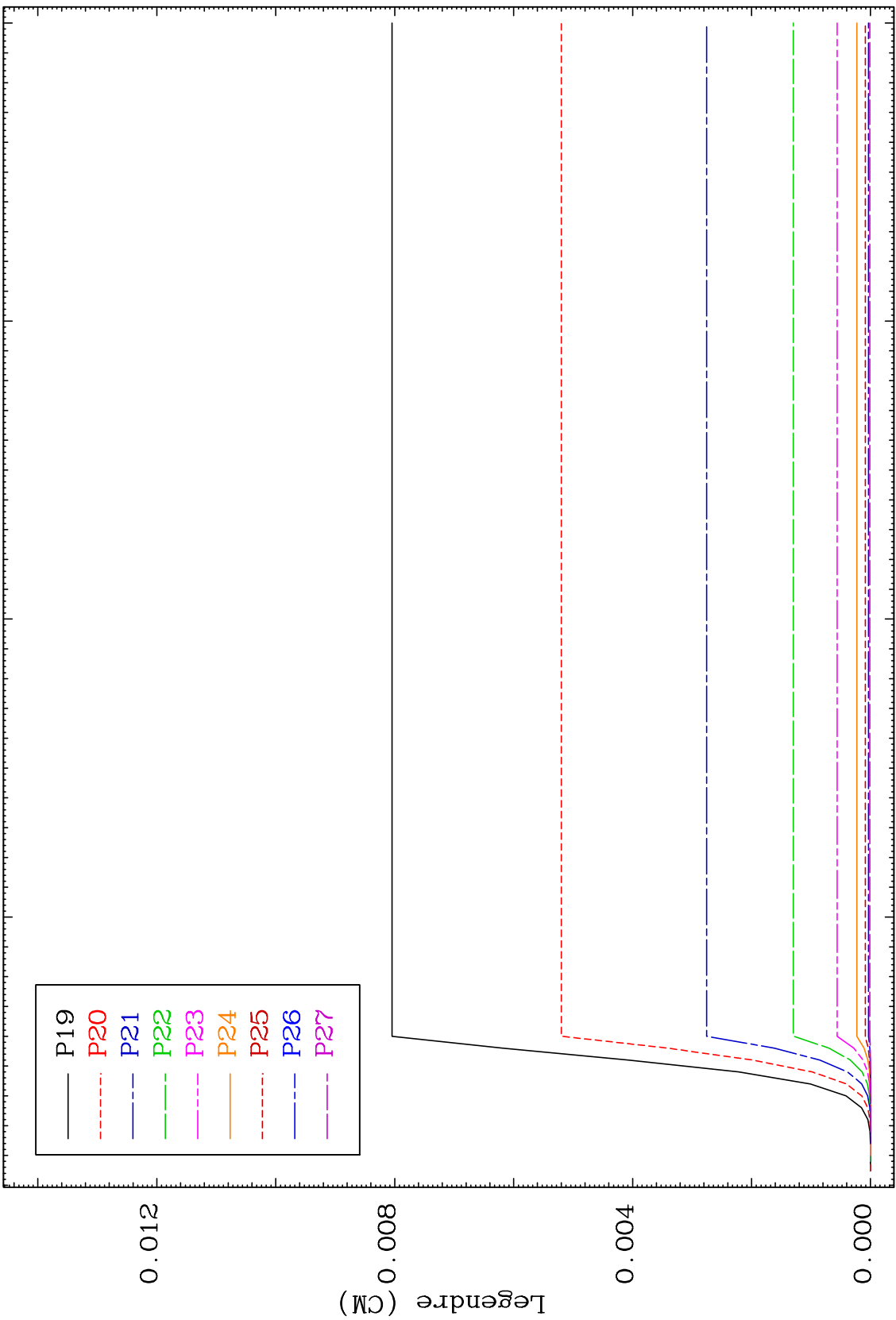




MAT 5640

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

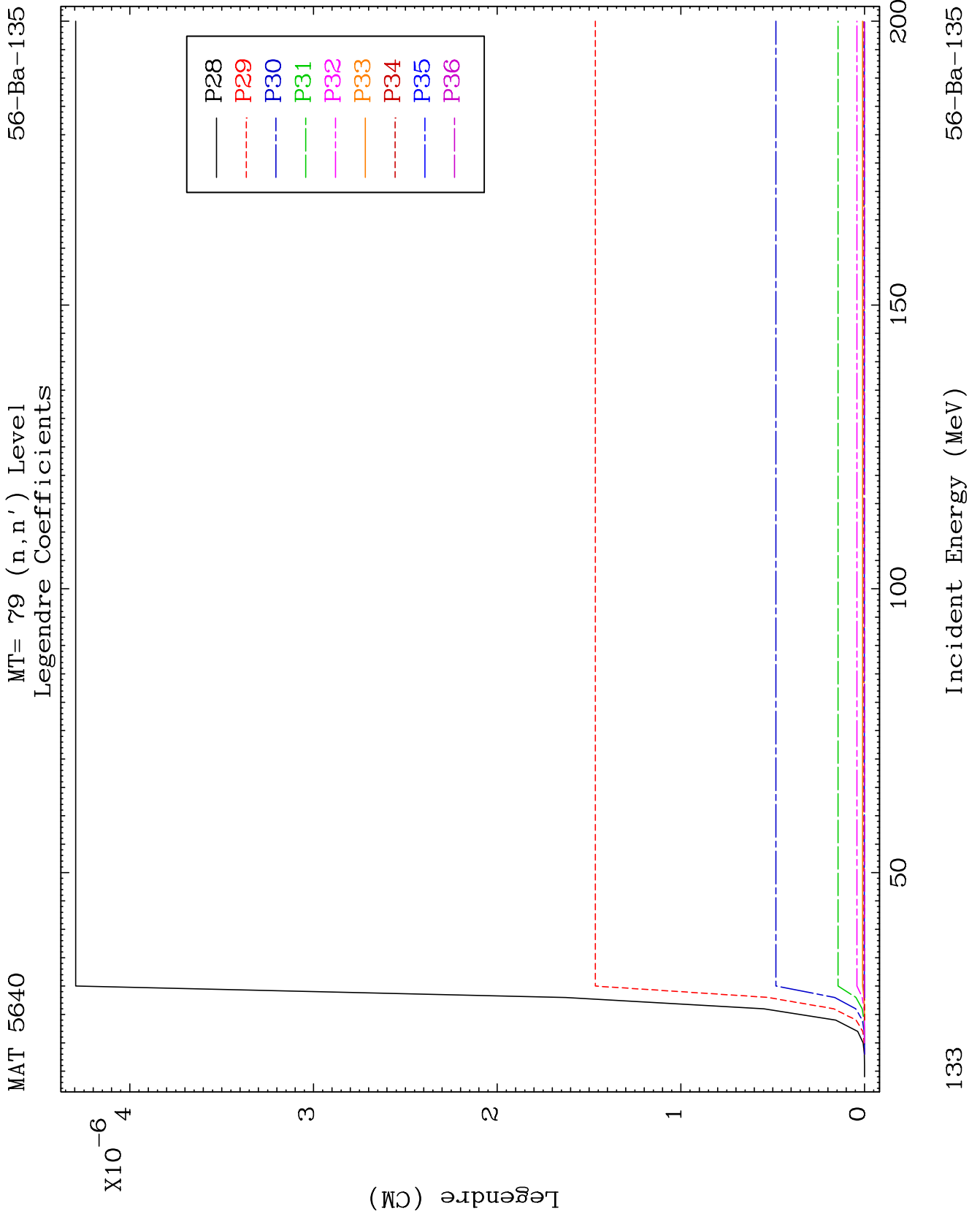
56-Ba-135

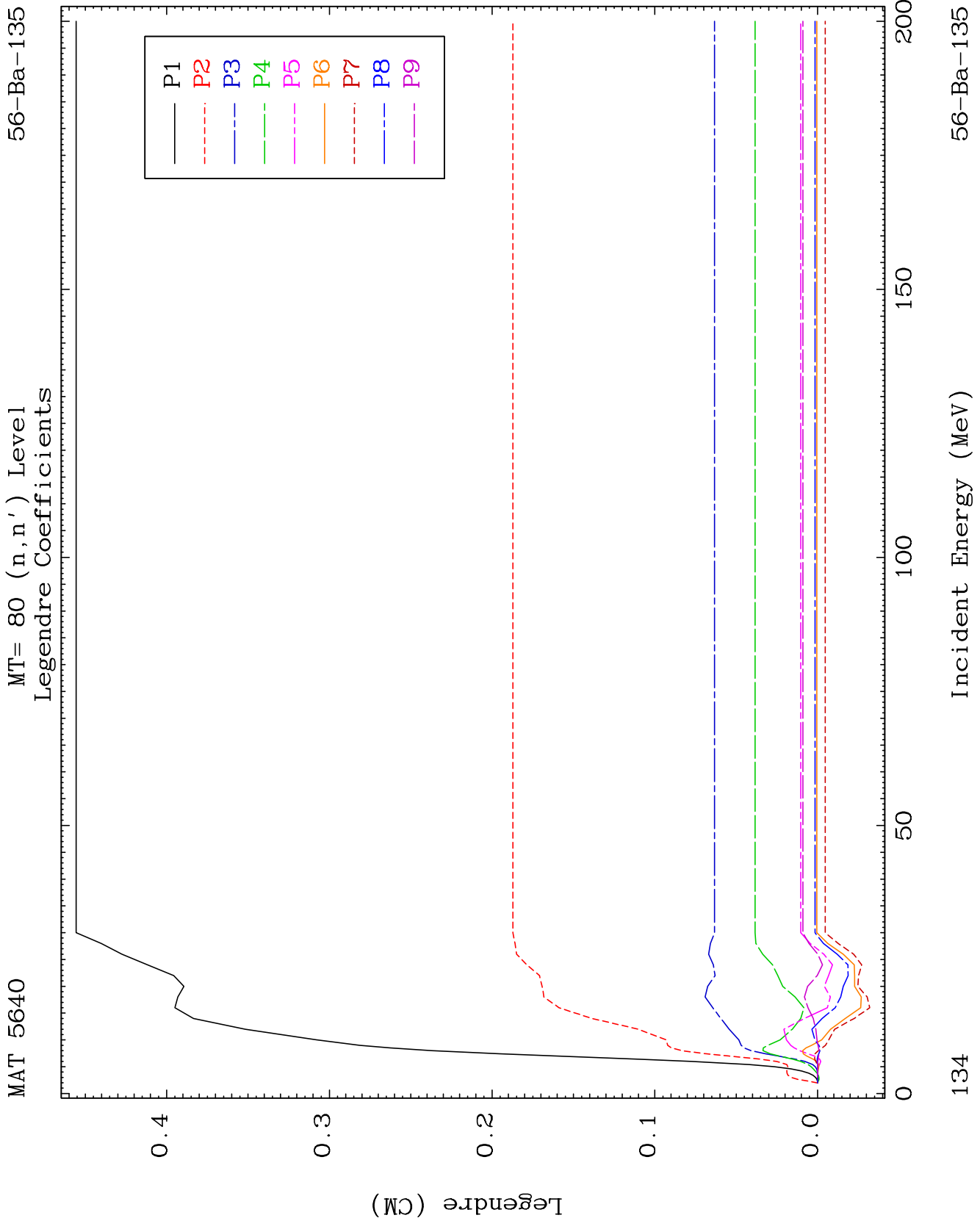


132

Incident Energy (MeV)

56-Ba-135

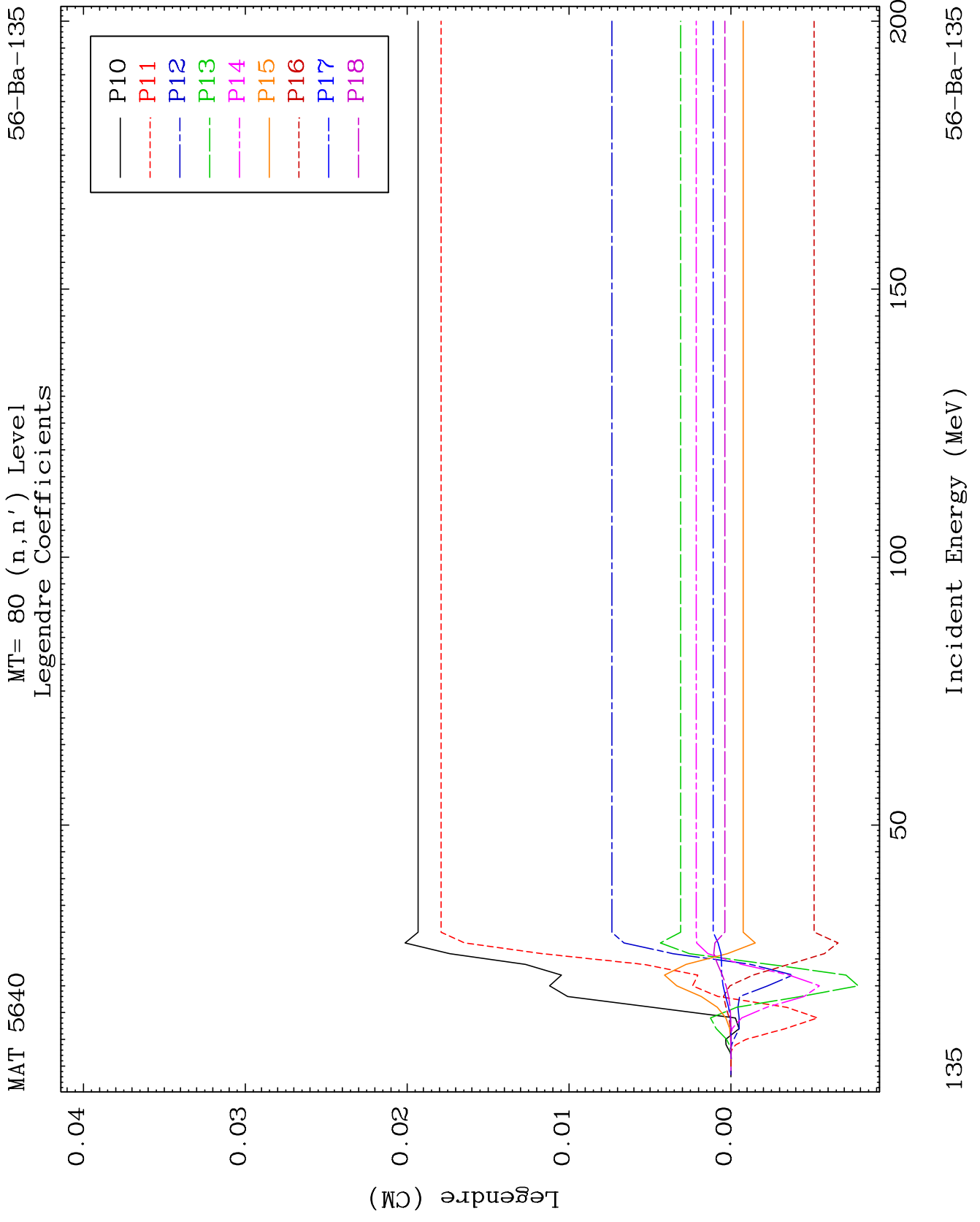




56-Ba-135

Incident Energy (MeV)

134

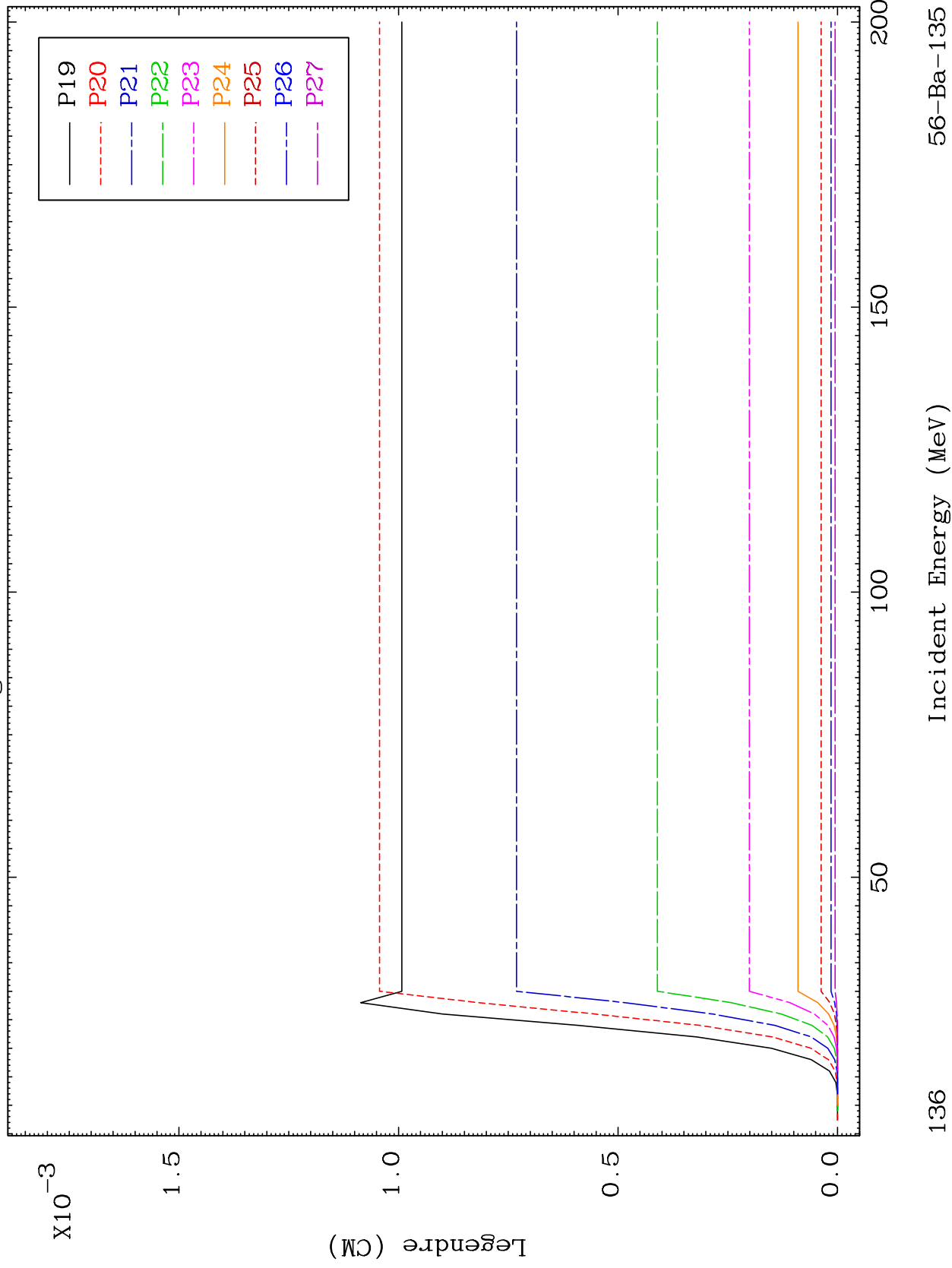




MAT 5640

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

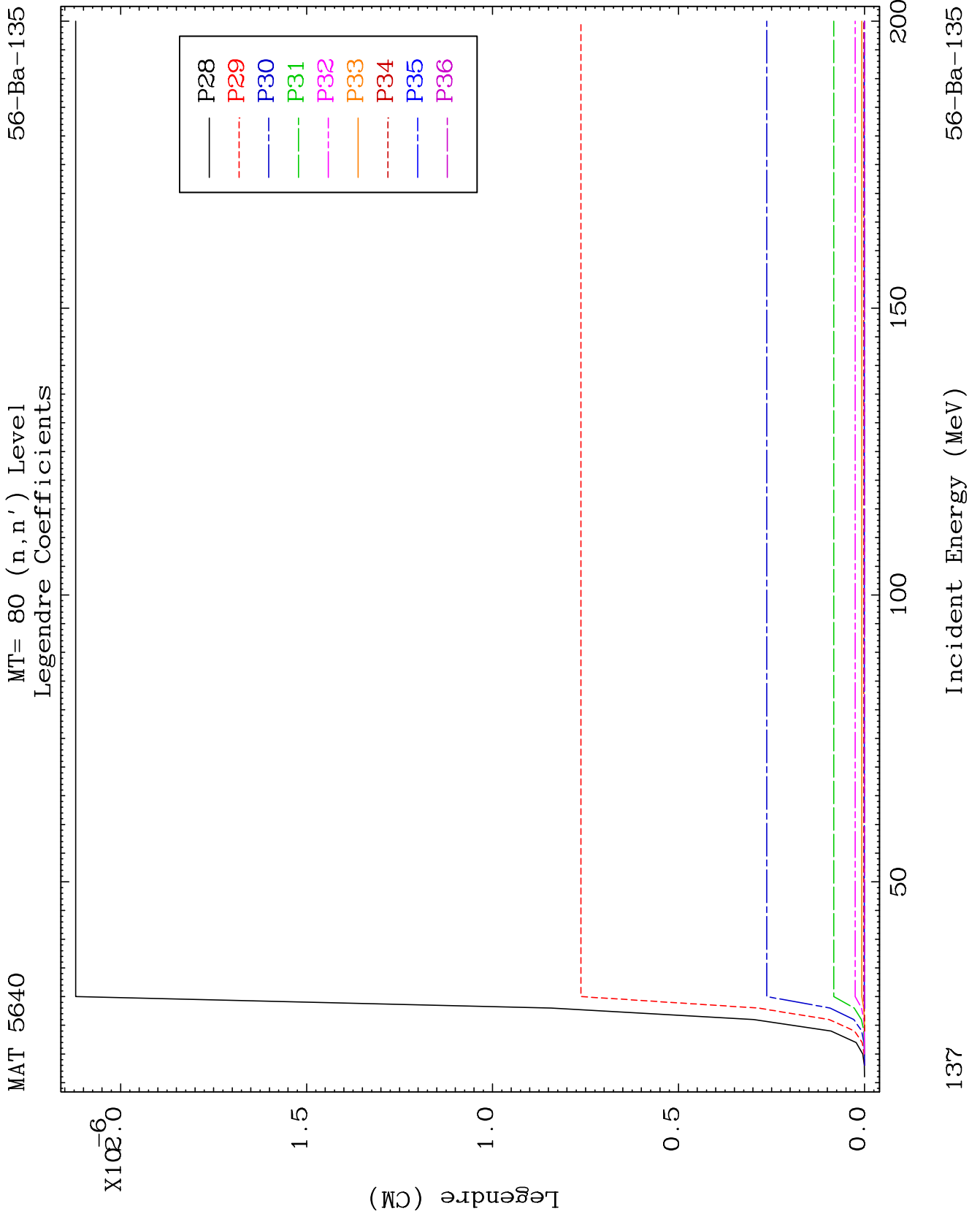
56-Ba-135



136

Incident Energy (MeV)

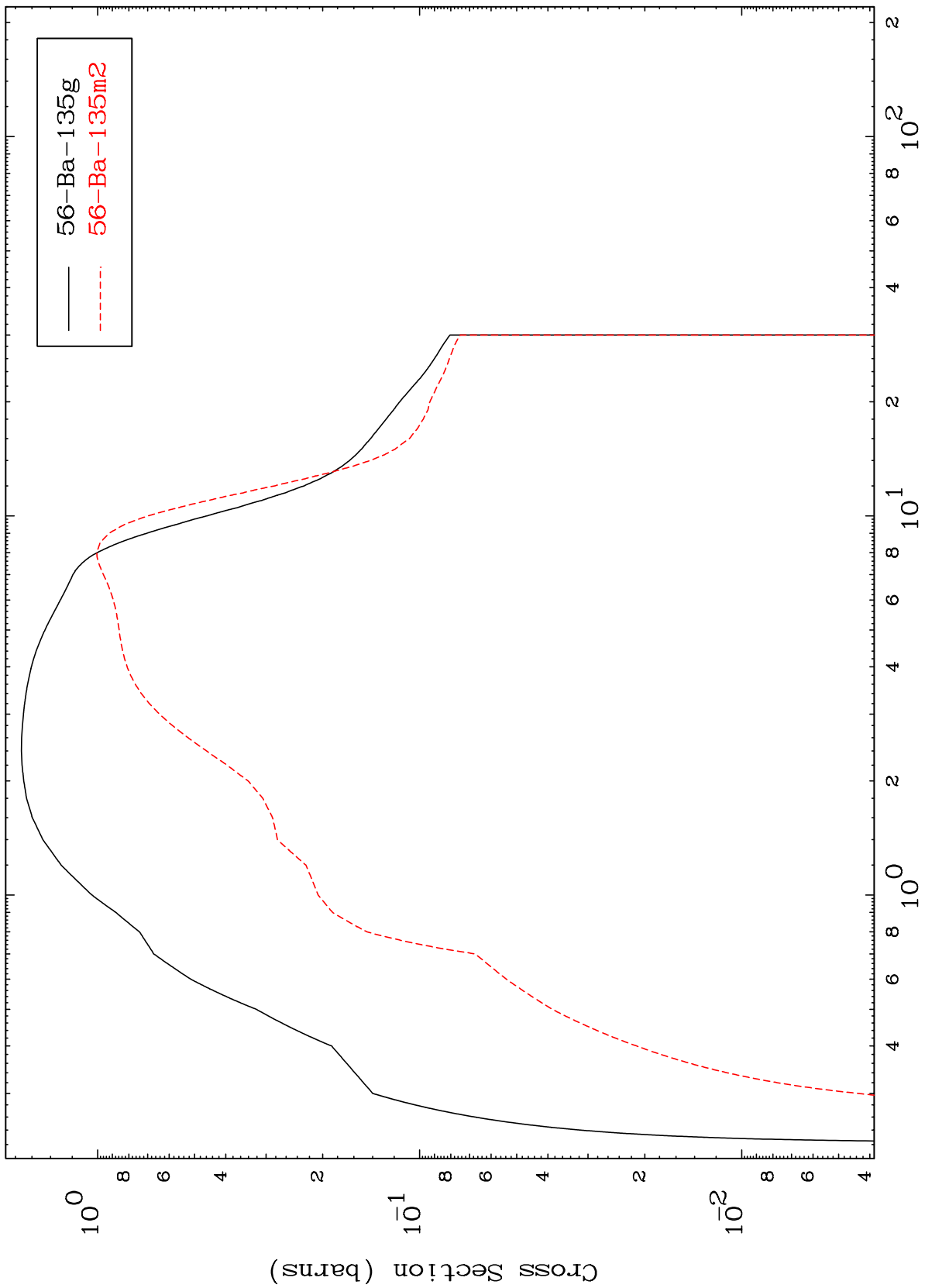
56-Ba-135



MAT 5640

56-Ba-135

Inelastic  
Radionuclide Production Cross Section



138

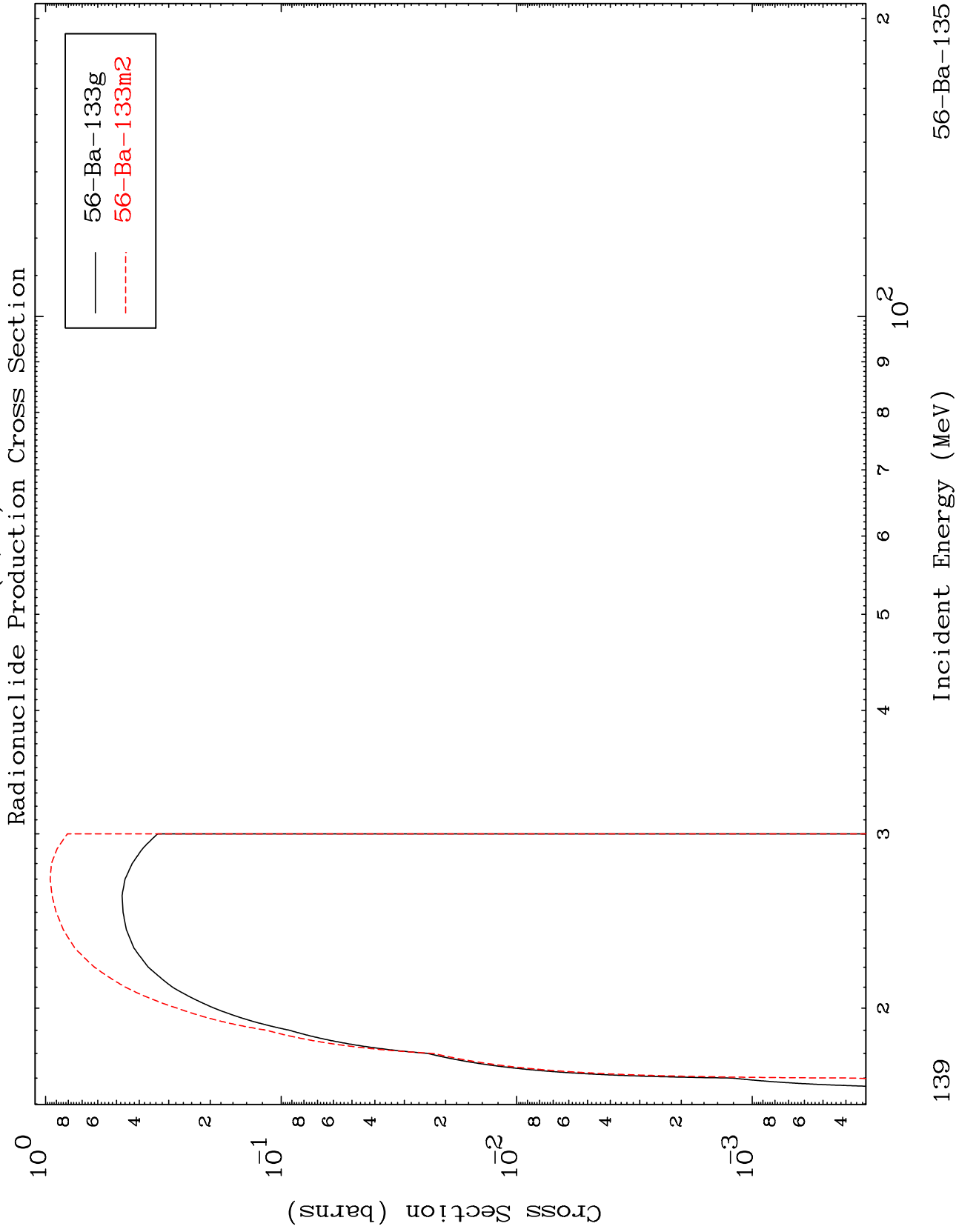
56-Ba-135

Incident Energy (MeV)

MAT 5640

(n,3n)

56-Ba-135



139

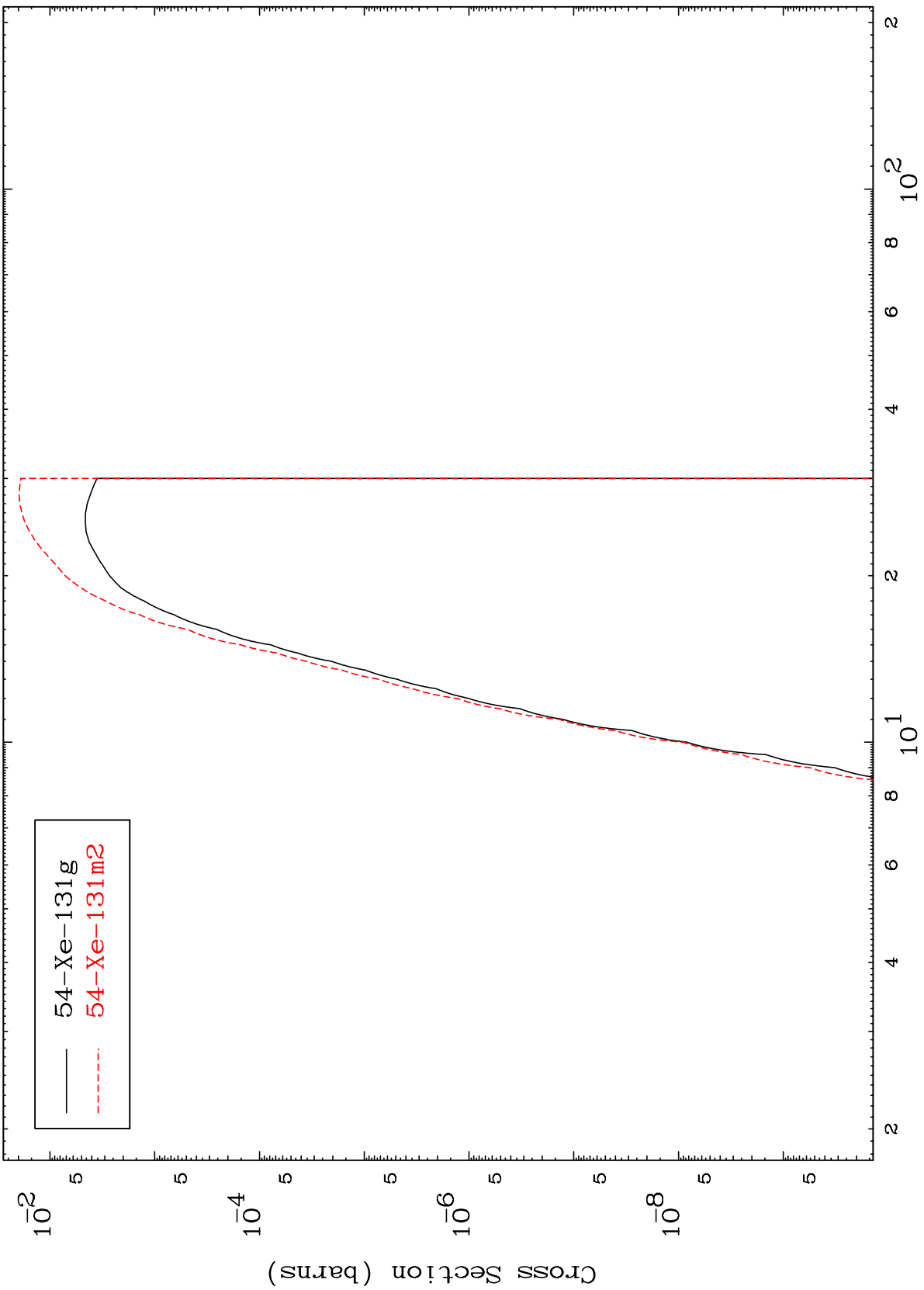
56-Ba-135

MAT 5640

56-Ba-135

(n,n')  $\alpha$

Radionuclide Production Cross Section



56-Ba-135

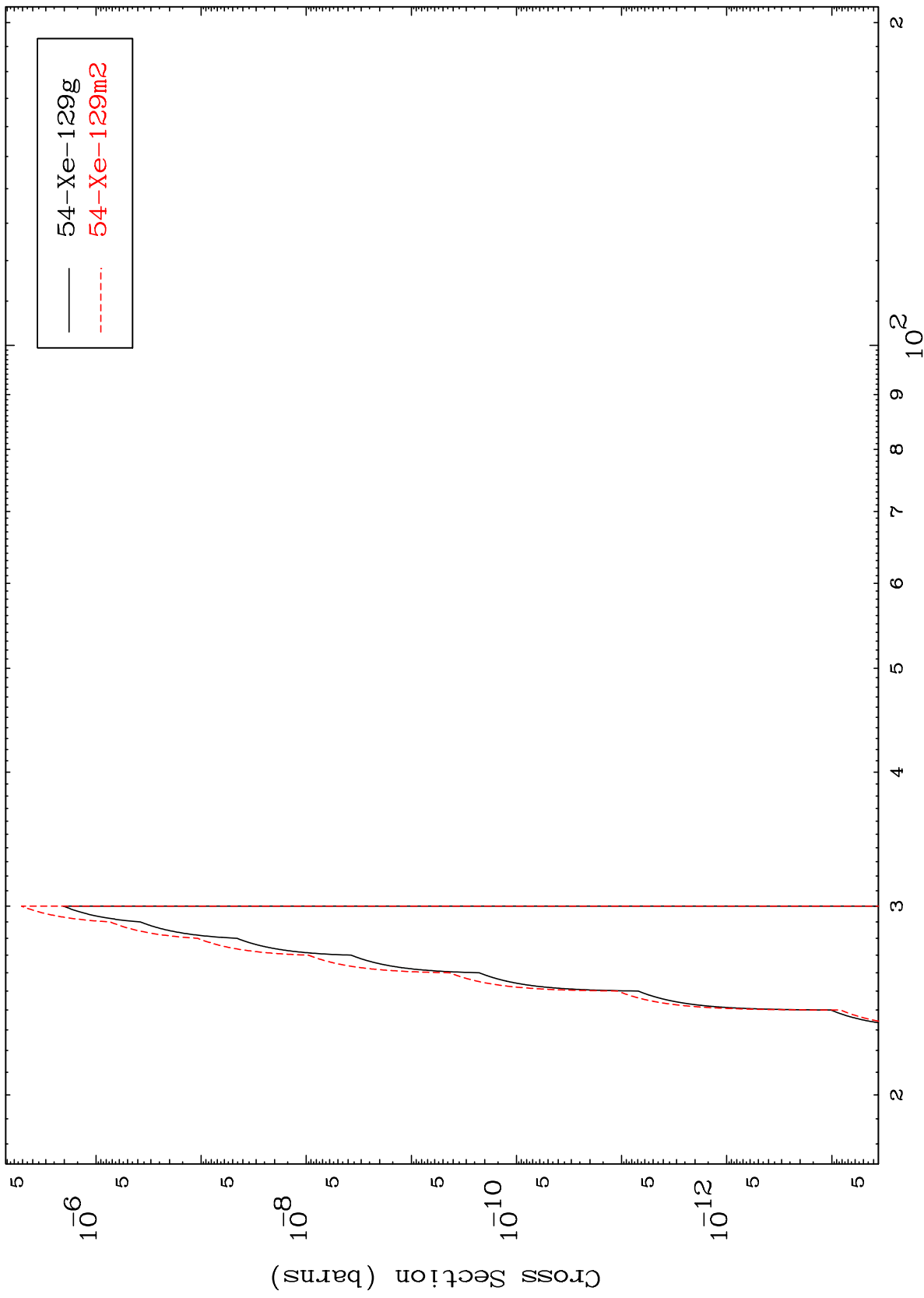
Incident Energy (MeV)

140

MAT 5640

56-Ba-135

$(n,3n) \alpha$   
Radionuclide Production Cross Section



141

56-Ba-135

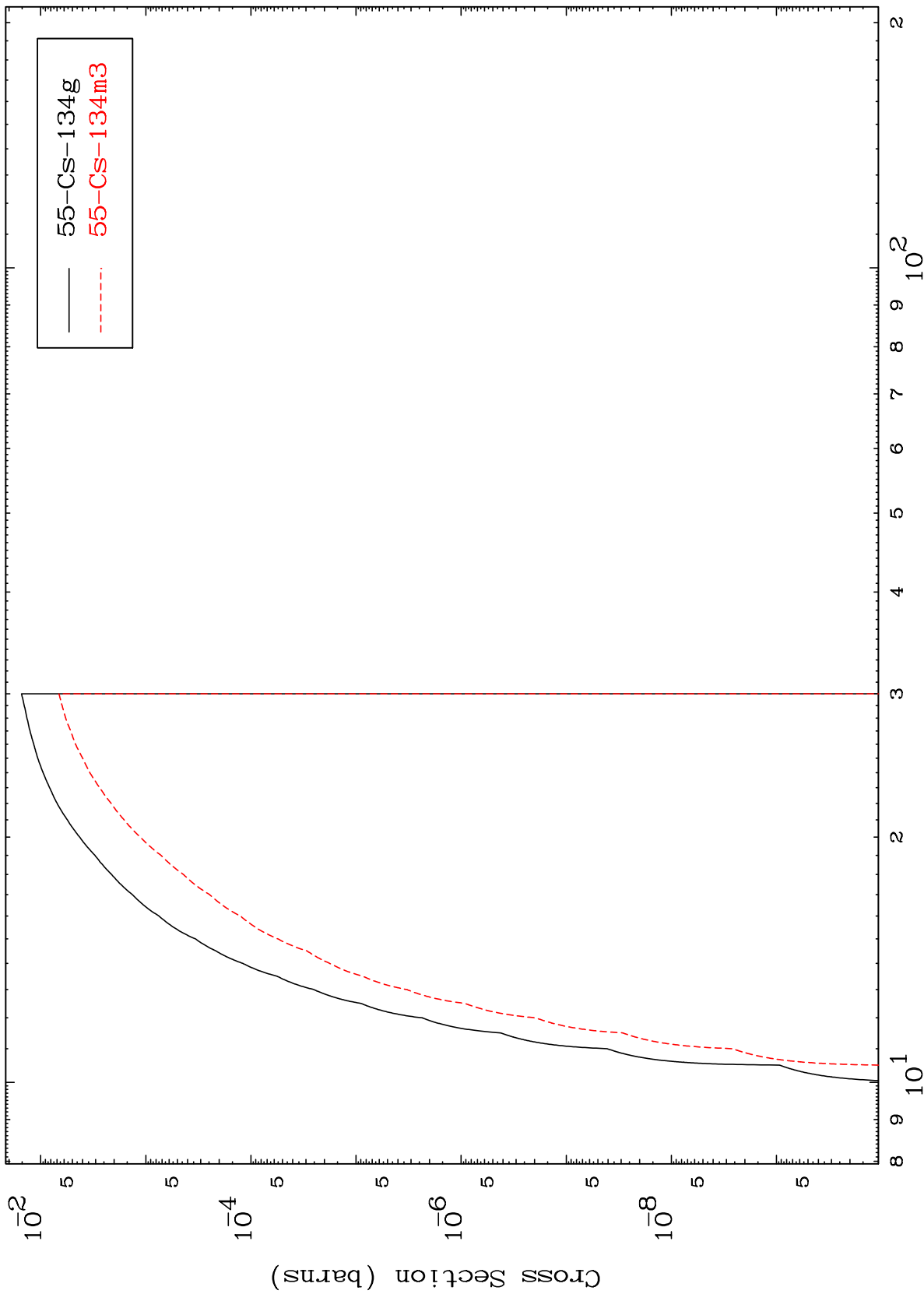
Incident Energy (MeV)

MAT 5640

(n,n') p

56-Ba-135

Radionuclide Production Cross Section



142

Incident Energy (MeV)

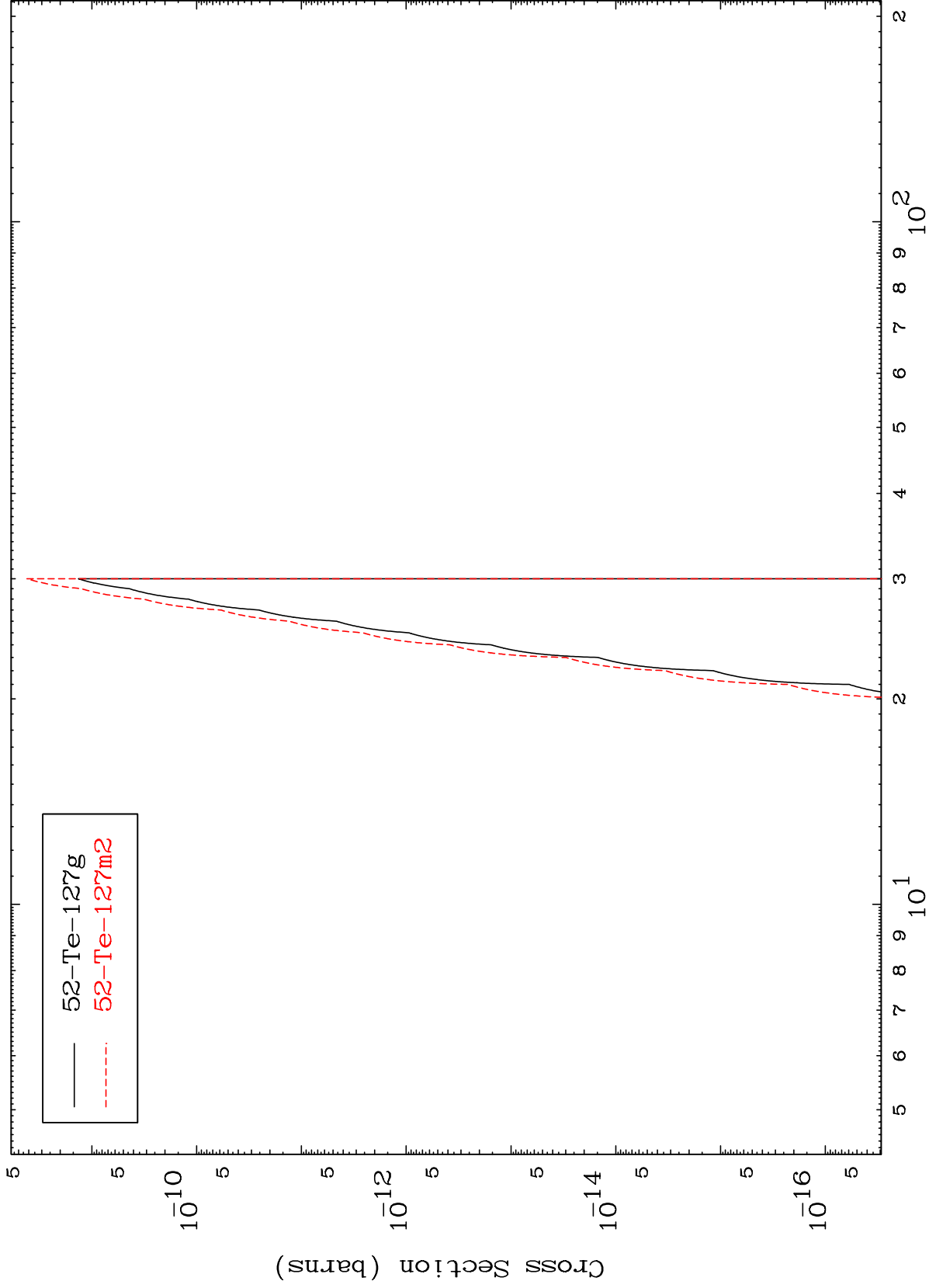
56-Ba-135

MAT 5640

(n,n') 2α

56-Ba-135

Radionuclide Production Cross Section



143

Incident Energy (MeV)

56-Ba-135

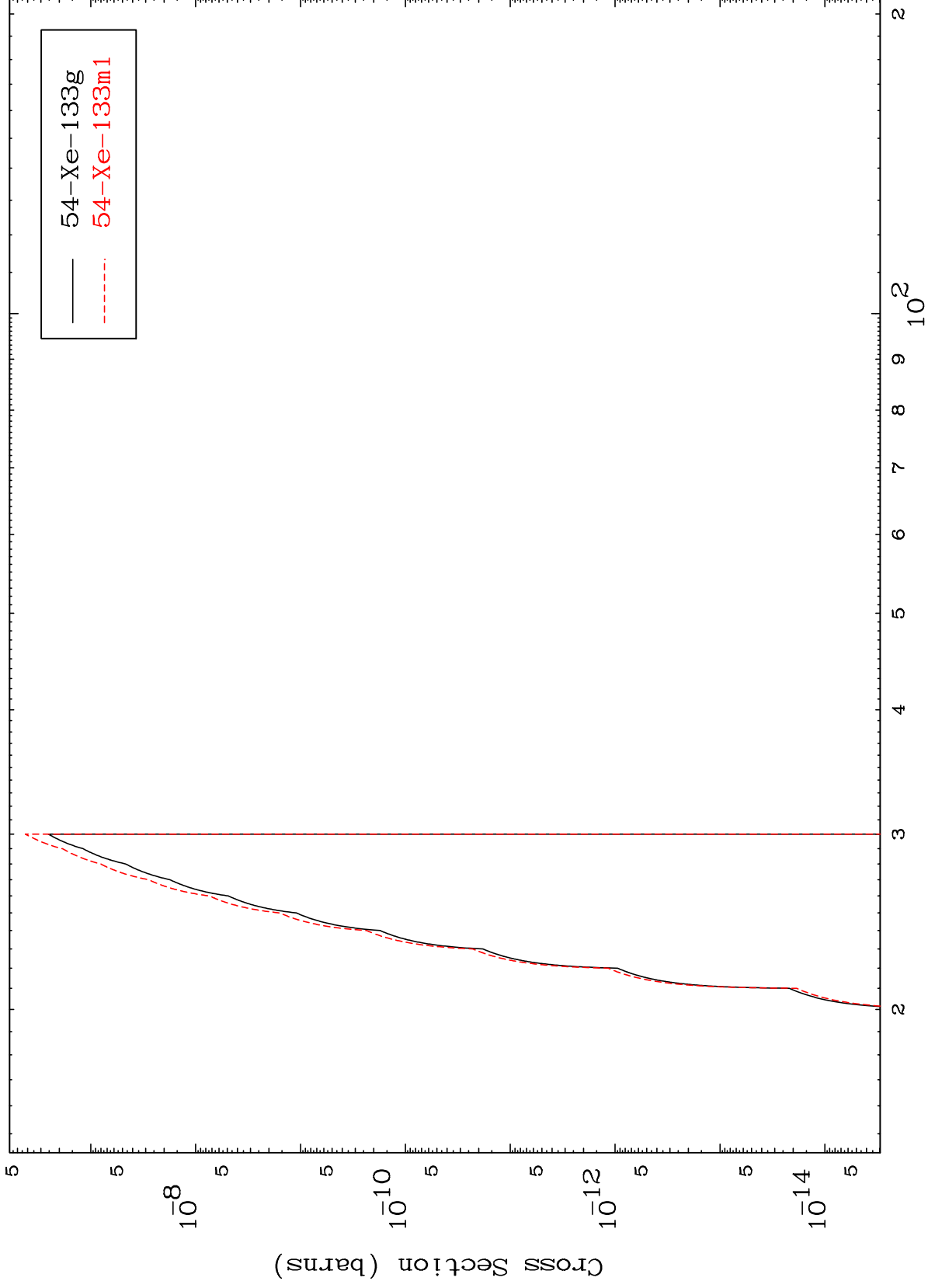


MAT 5640

(n,2n) p

56-Ba-135

Radionuclide Production Cross Section



144

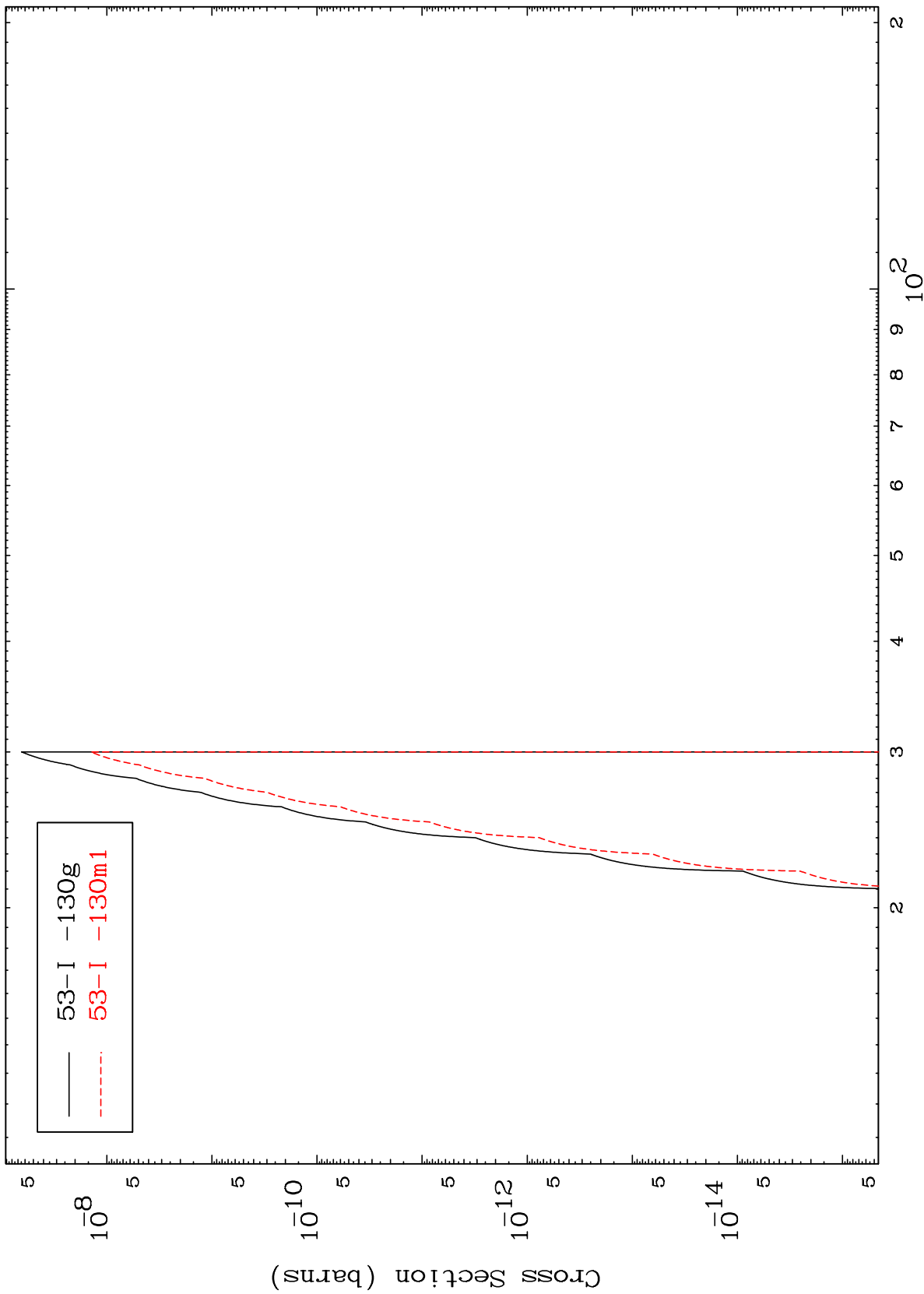
Incident Energy (MeV)

56-Ba-135

MAT 5640

56-Ba-135

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



145

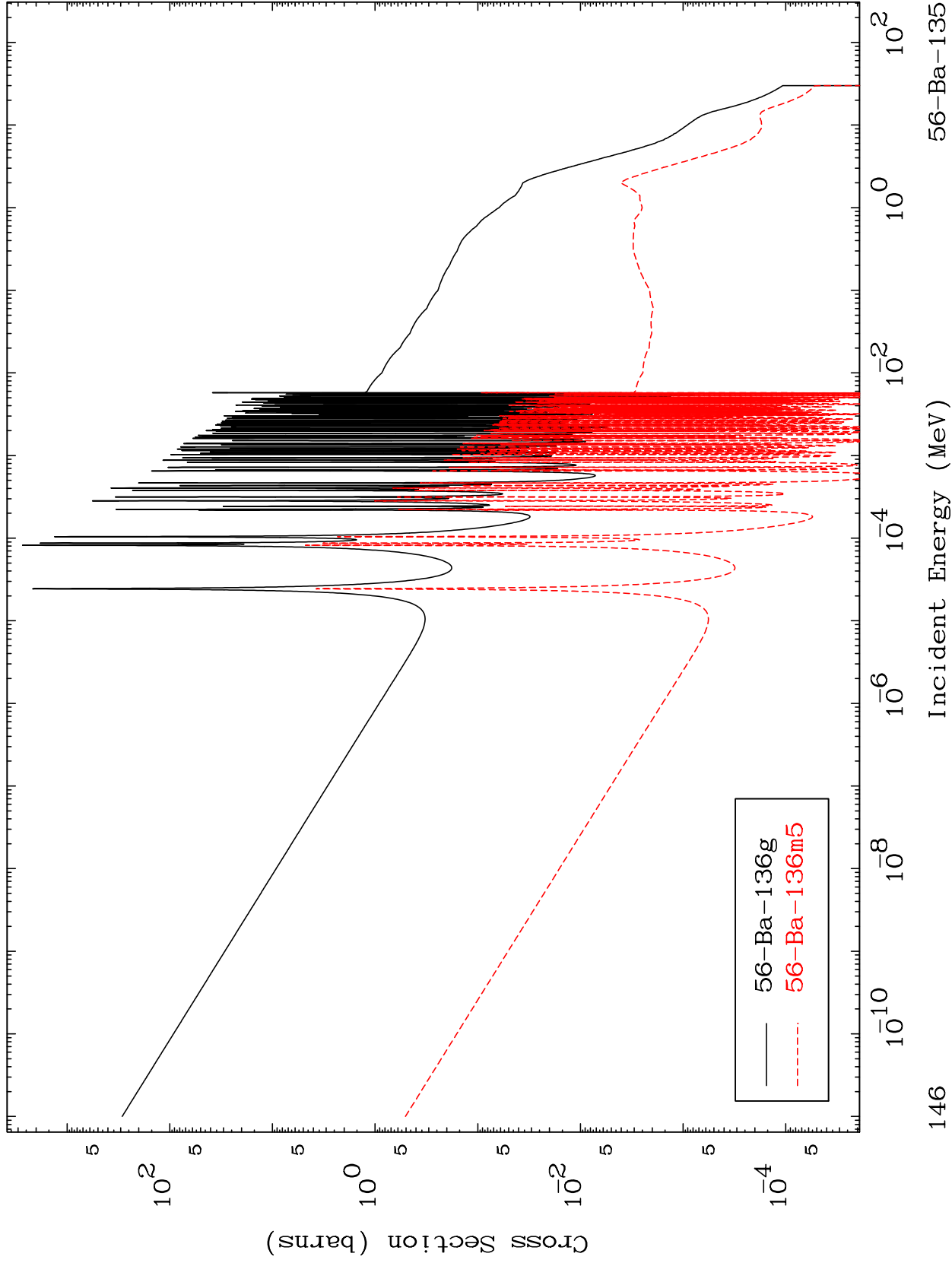
56-Ba-135

Incident Energy (MeV)

MAT 5640

56-Ba-135

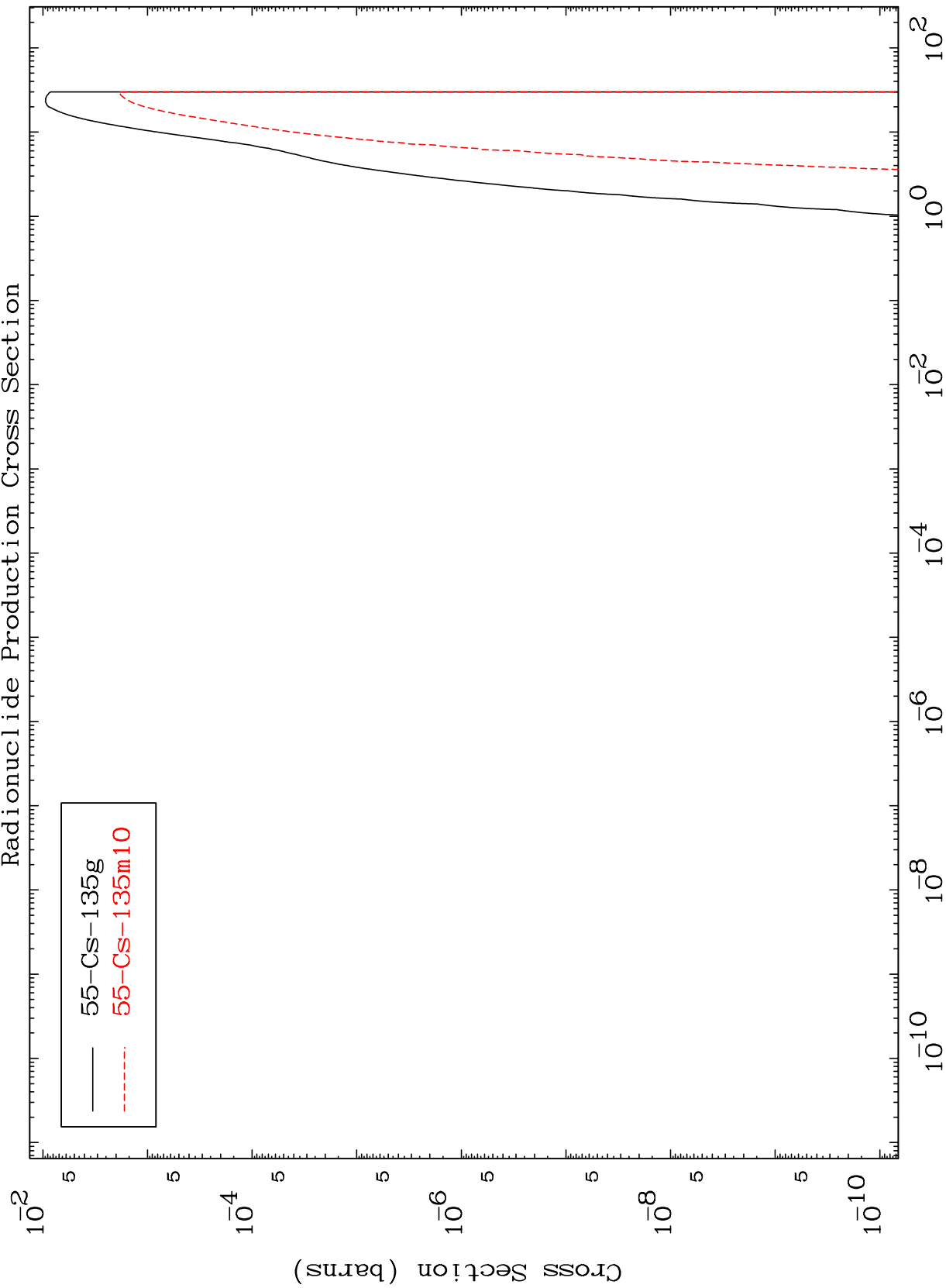
(n,  $\gamma$ )  
Radionuclide Production Cross Section



MAT 5640

56-Ba-135

(n,p)  
Radionuclide Production Cross Section

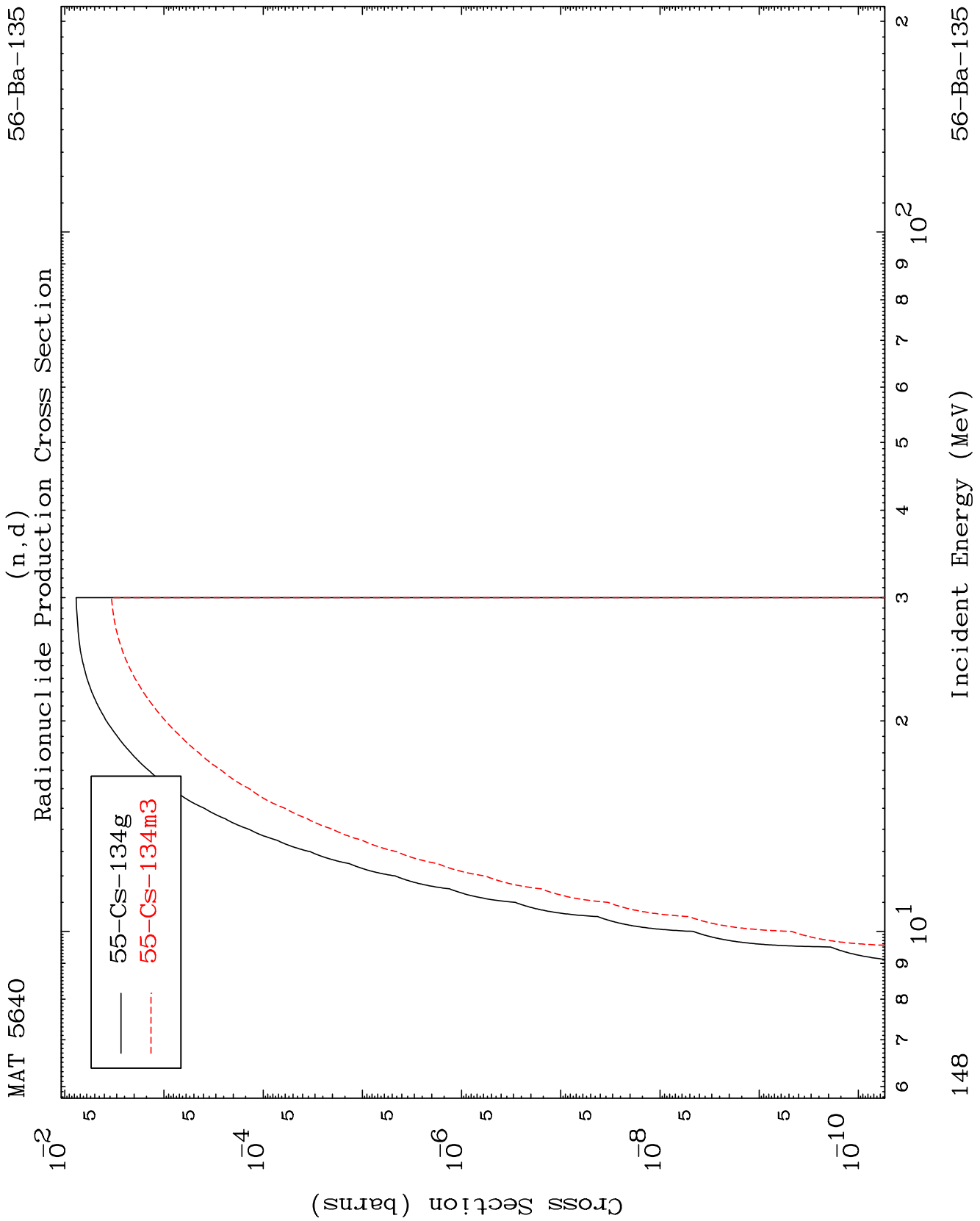


55-Cs-135g  
55-Cs-135m10

56-Ba-135

Incident Energy (MeV)

147

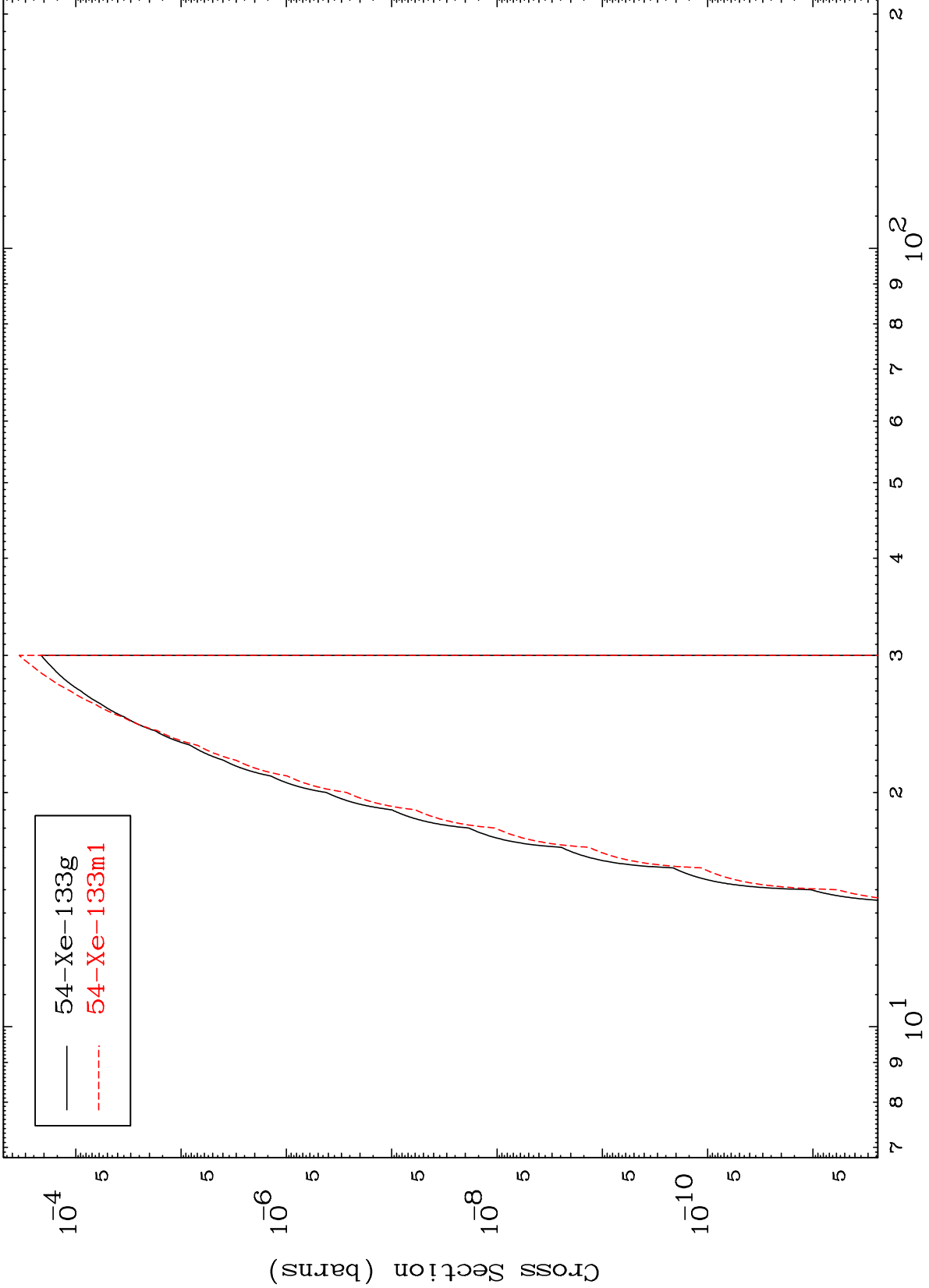


MAT 5640

(n,He-3)

56-Ba-135

Radionuclide Production Cross Section



54-Xe-133g  
54-Xe-133m1

149

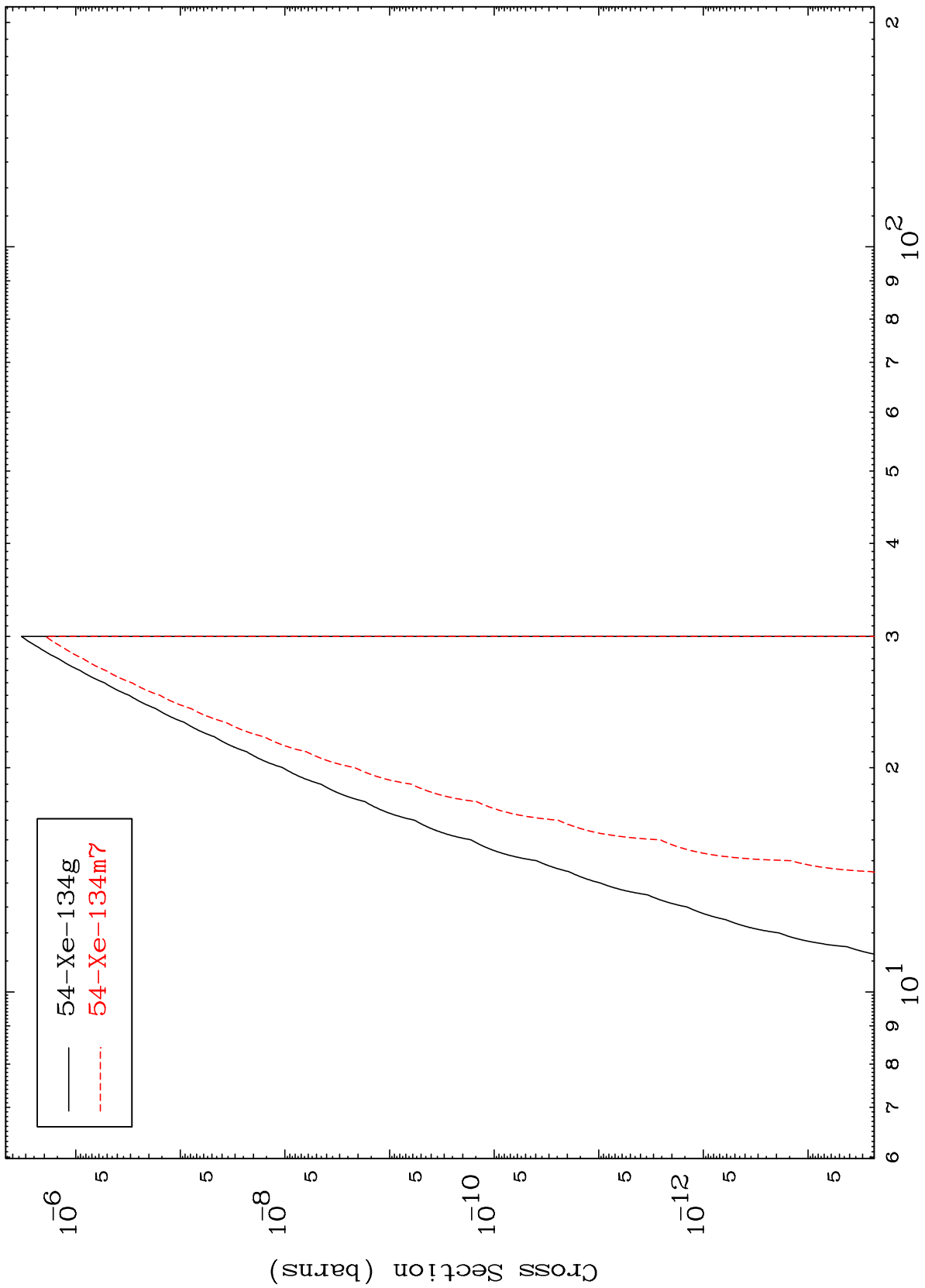
Incident Energy (MeV)

56-Ba-135

MAT 5640

56-Ba-135

(n,2p)  
Radionuclide Production Cross Section



— 54-Xe-134g  
- - - 54-Xe-134m7

150

Incident Energy (MeV)

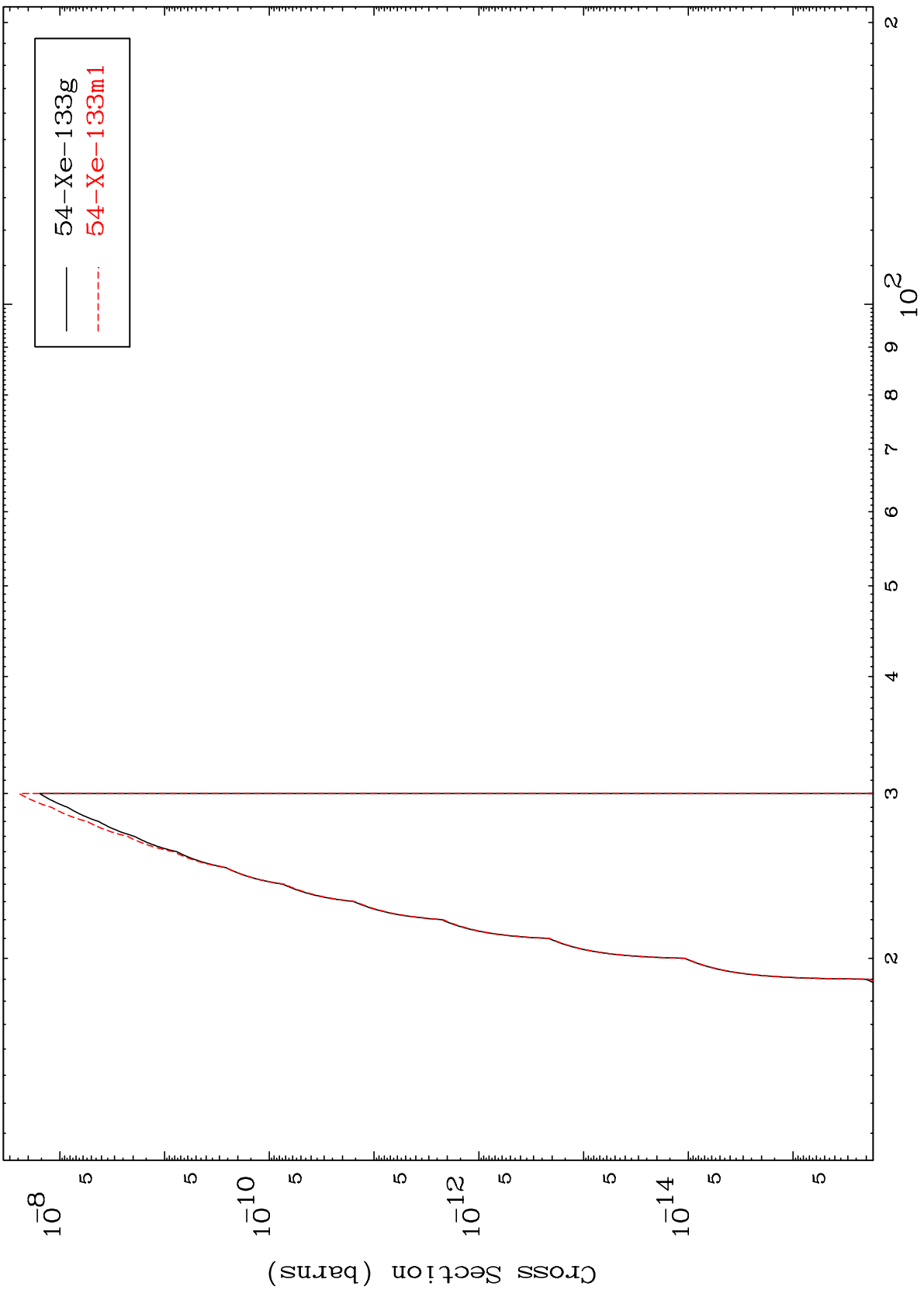
56-Ba-135

MAT 5640

(n,p) d

56-Ba-135

Radionuclide Production Cross Section



151

Incident Energy (MeV)

56-Ba-135

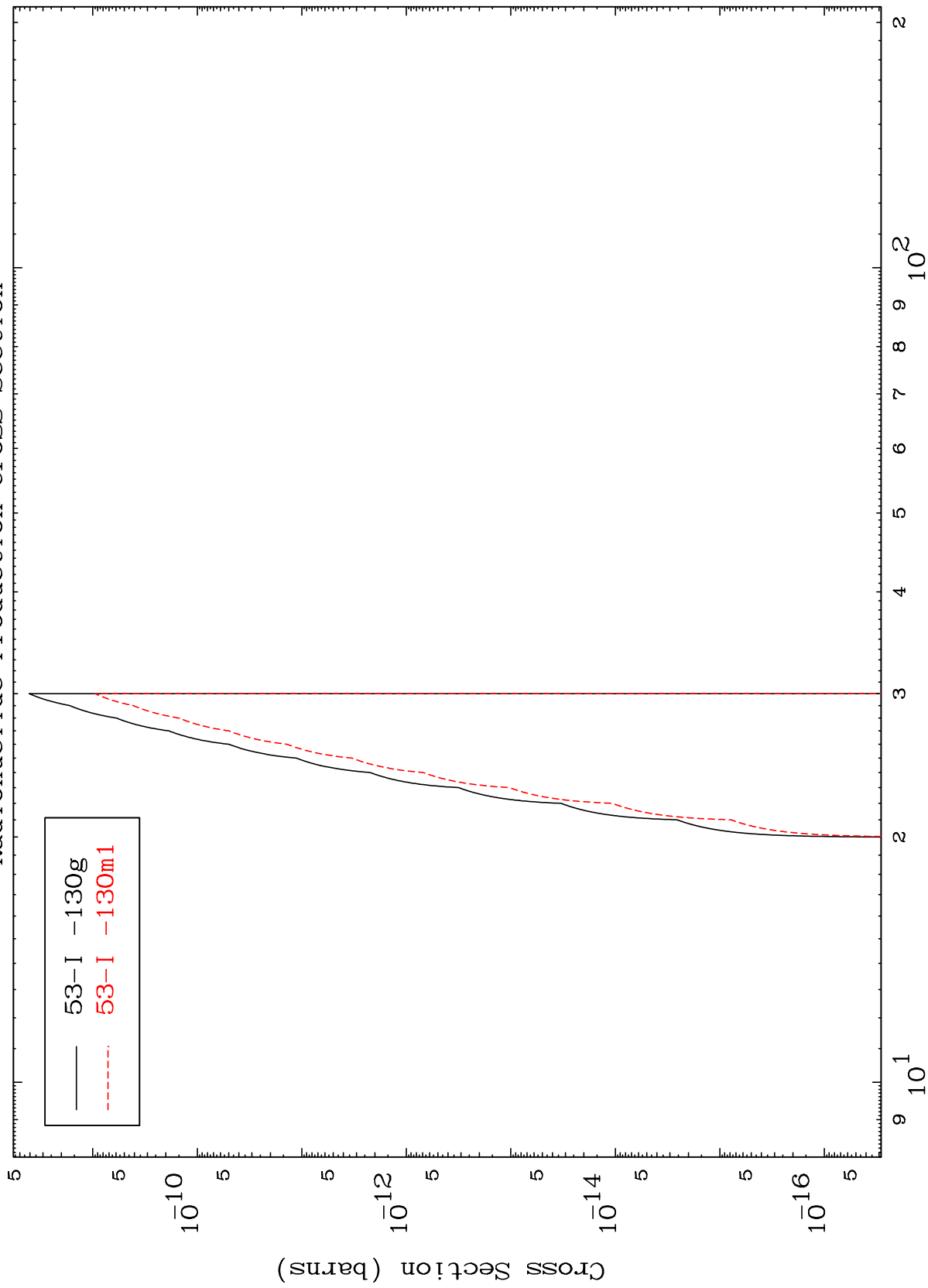


MAT 5640

56-Ba-135

(n,d)  $\alpha$

Radionuclide Production Cross Section



152

Incident Energy (MeV)

56-Ba-135