

Program EVALPLOT  
(Version 2021-1)

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

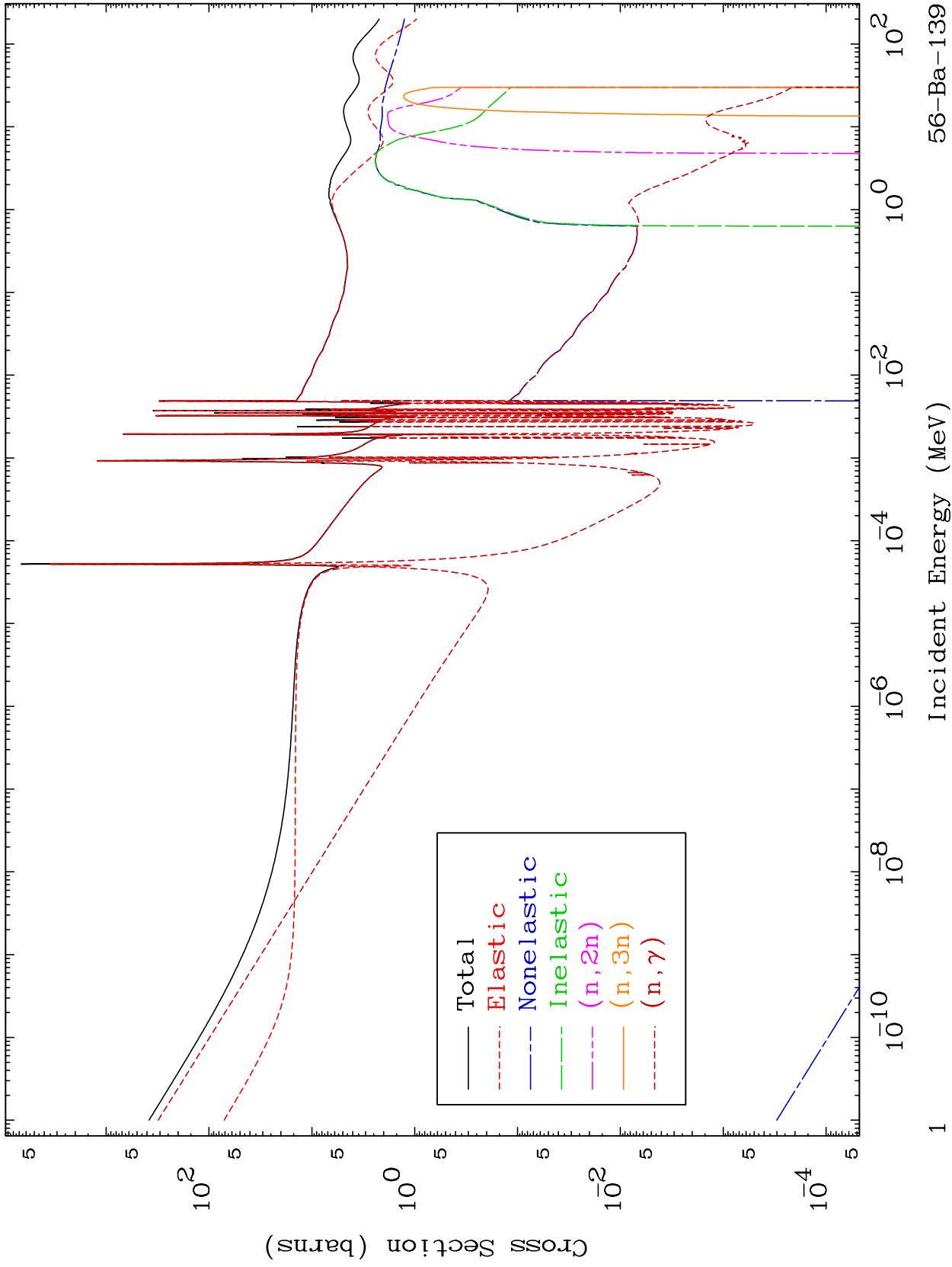
Web:redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 5652

Neutron Major  
293 Kelvin Cross Sections

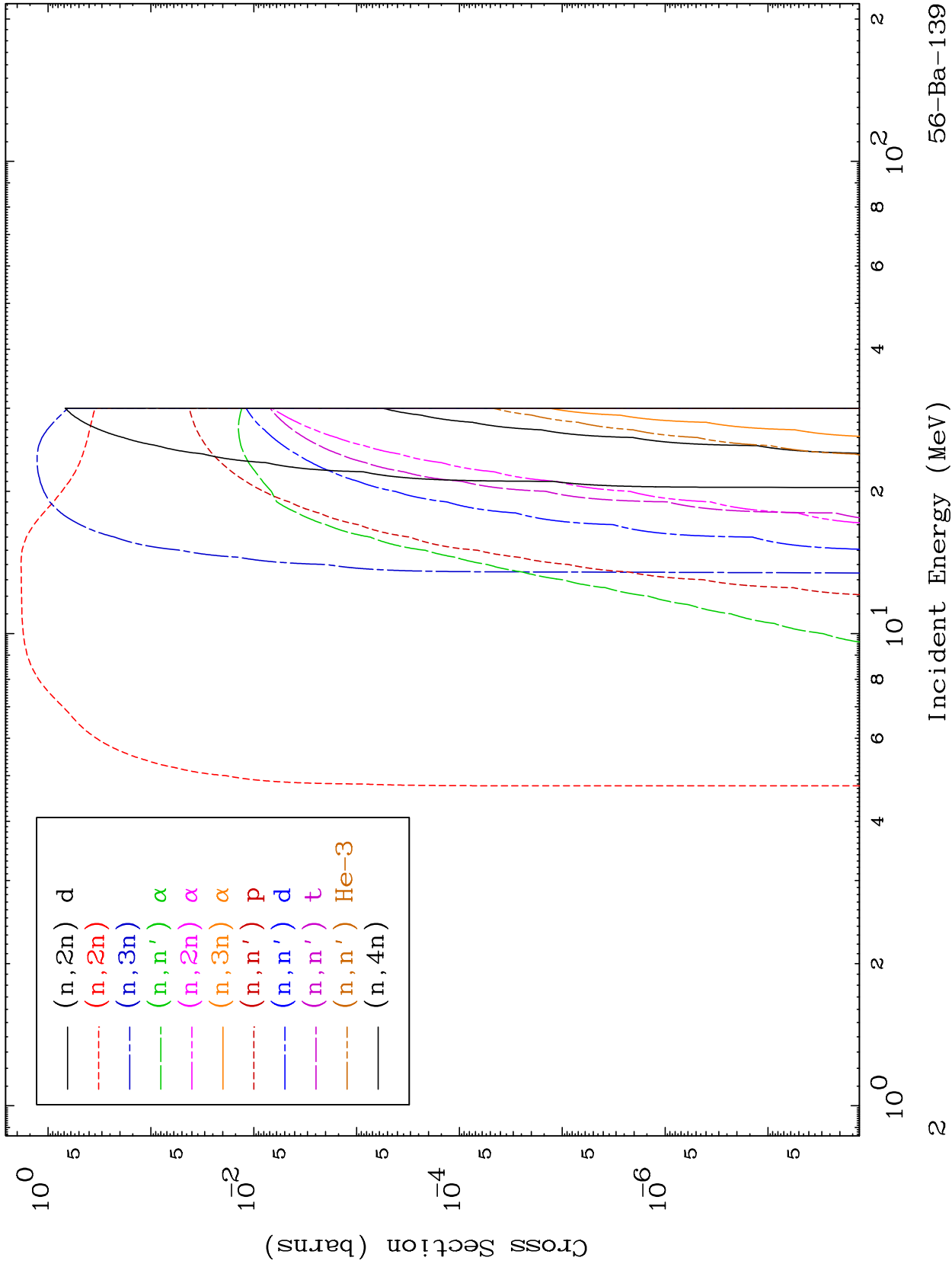
56-Ba-139



MAT 5652

Neutron Absorption  
293 Kelvin Cross Sections

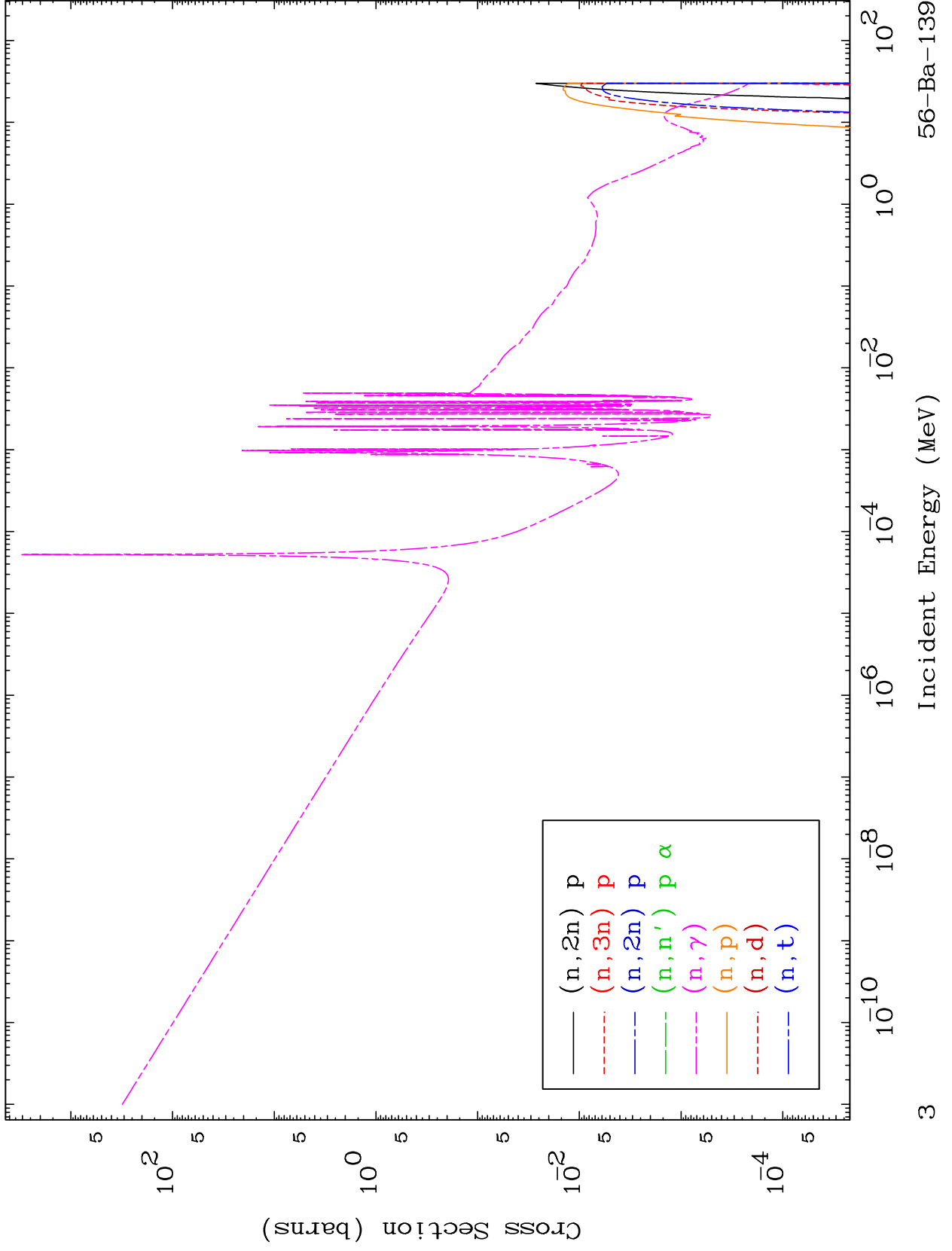
56-Ba-139

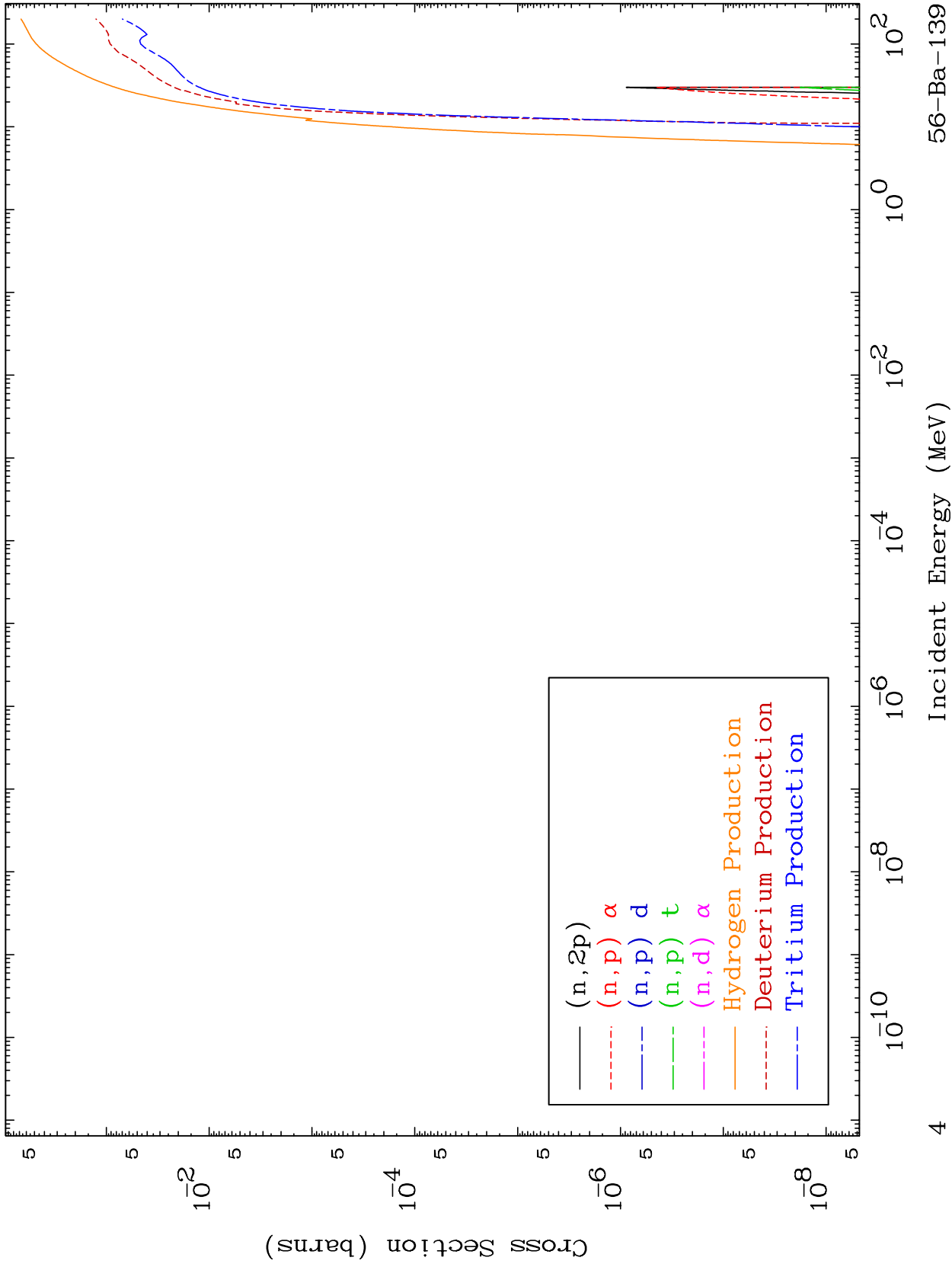


MAT 5652

Neutron Absorption  
293 Kelvin Cross Sections

56-Ba-139

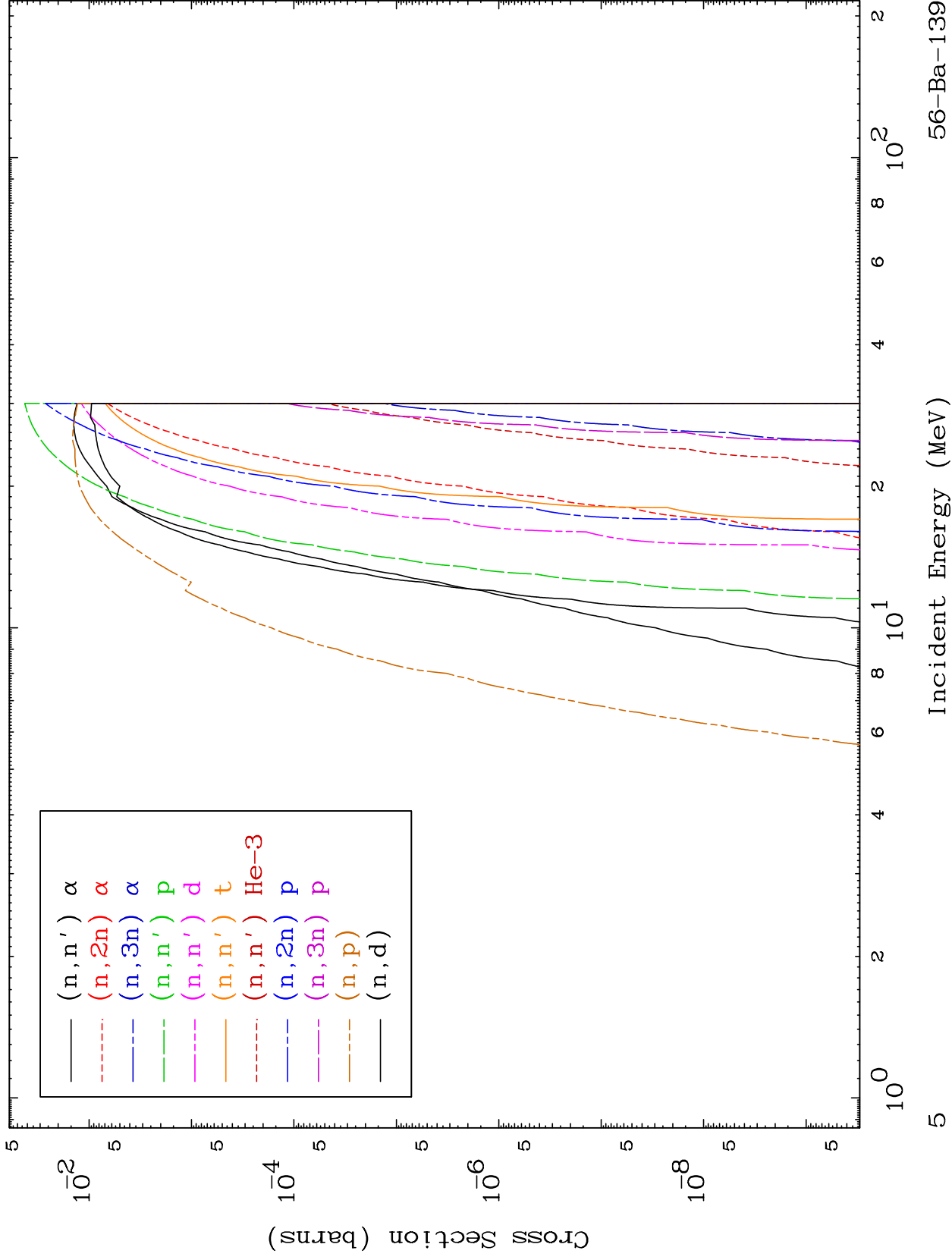




MAT 5652

Charged Particle  
293 Kelvin Cross Sections

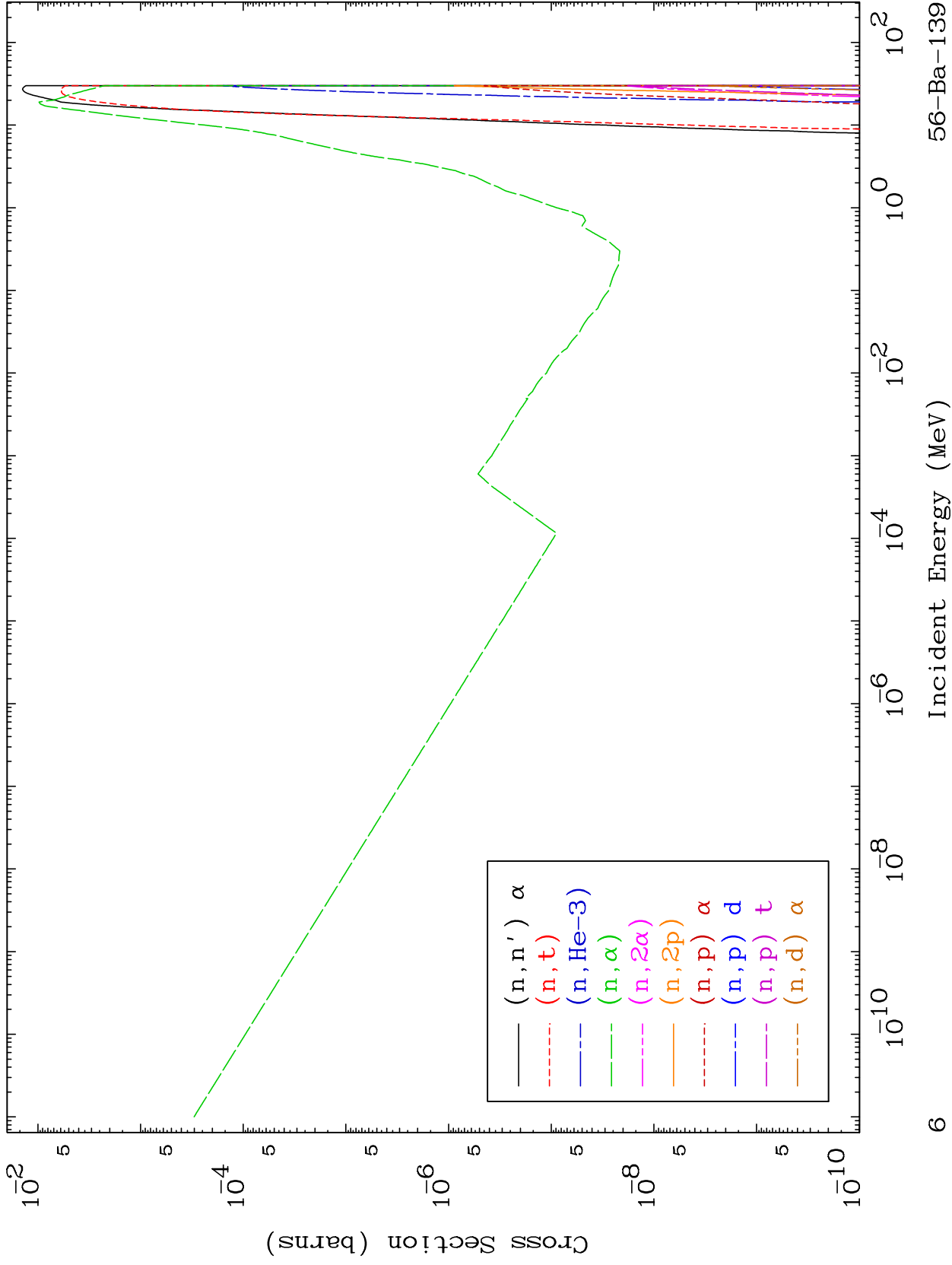
56-Ba-139



MAT 5652

Charged Particle  
293 Kelvin Cross Sections

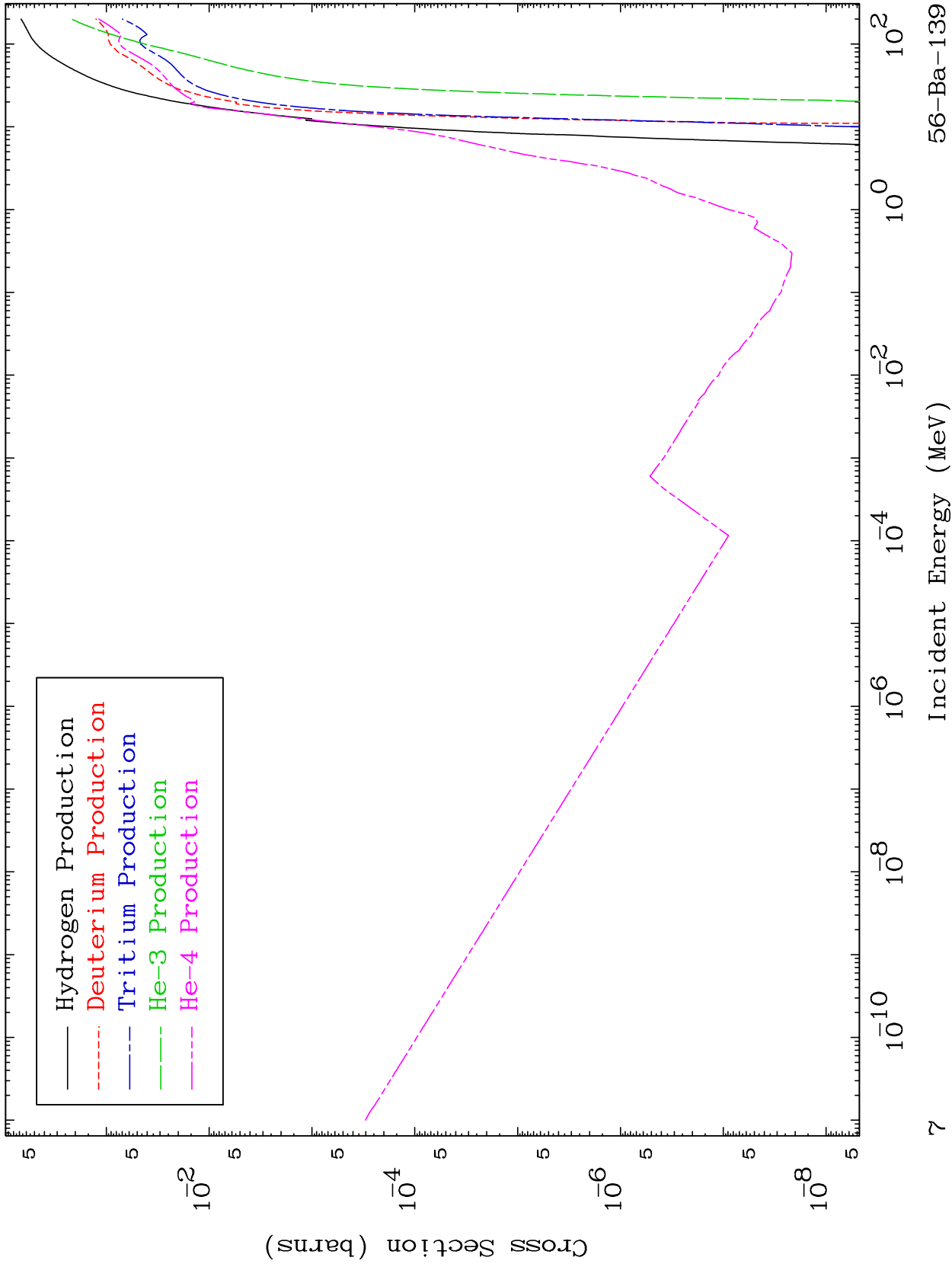
56-Ba-139



MAT 5652

Particle Production  
293 Kelvin Cross Sections

56-Ba-139

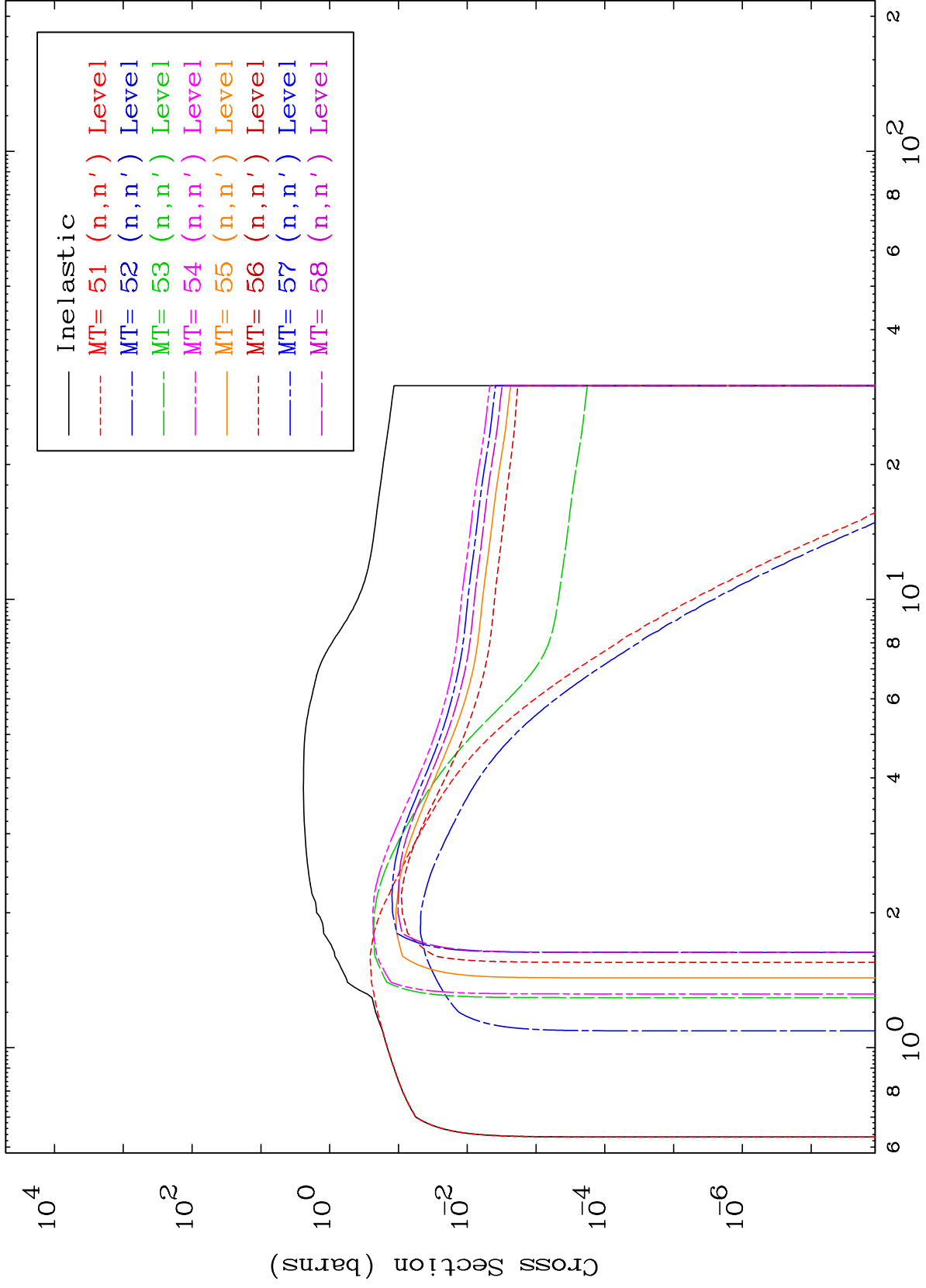


MAT 5652

(n,n') Levels

56-Ba-139

293 Kelvin Cross Sections



8

Incident Energy (MeV)

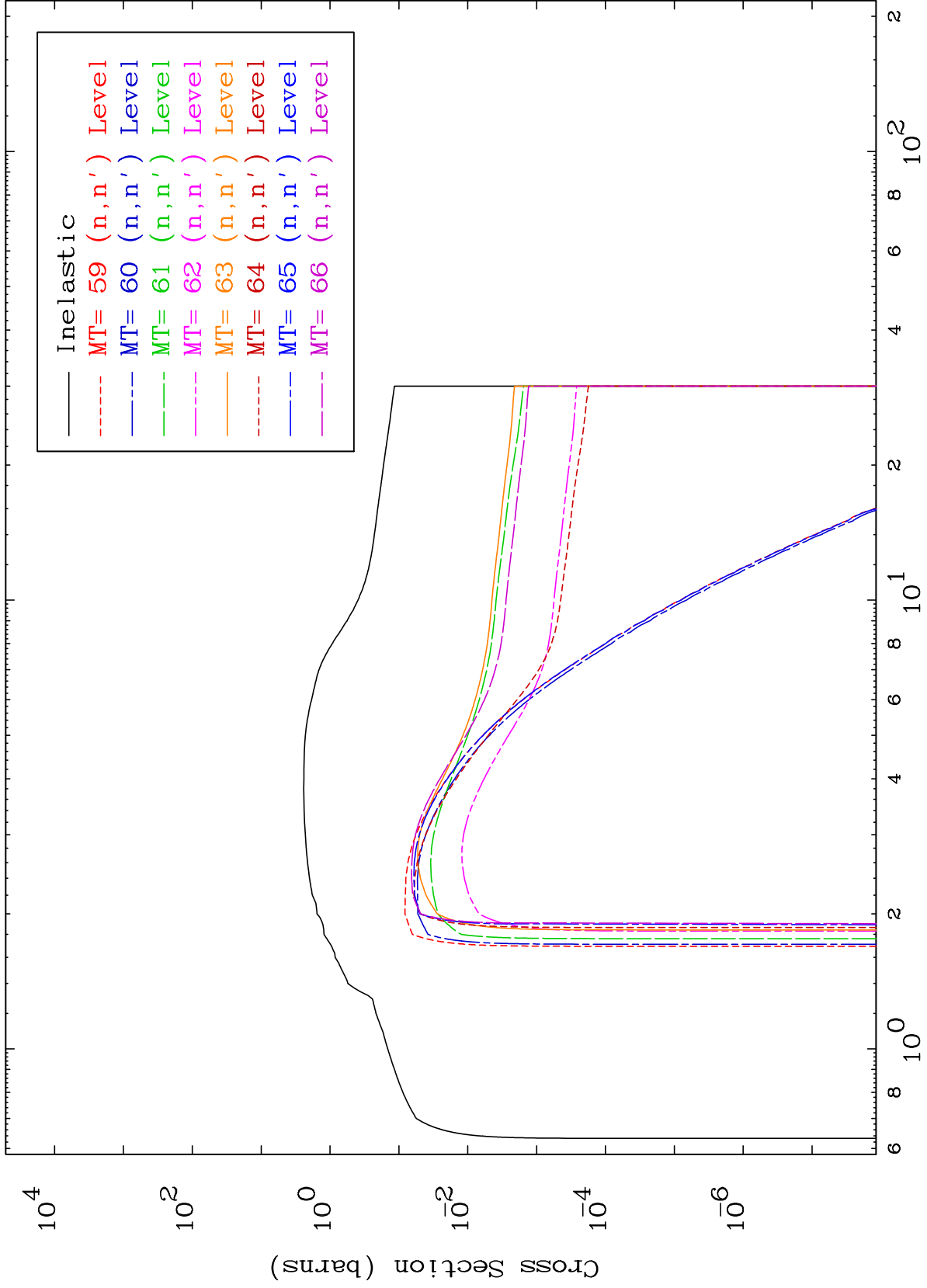
56-Ba-139

MAT 5652

(n,n') Levels

56-Ba-139

293 Kelvin Cross Sections



9

Incident Energy (MeV)

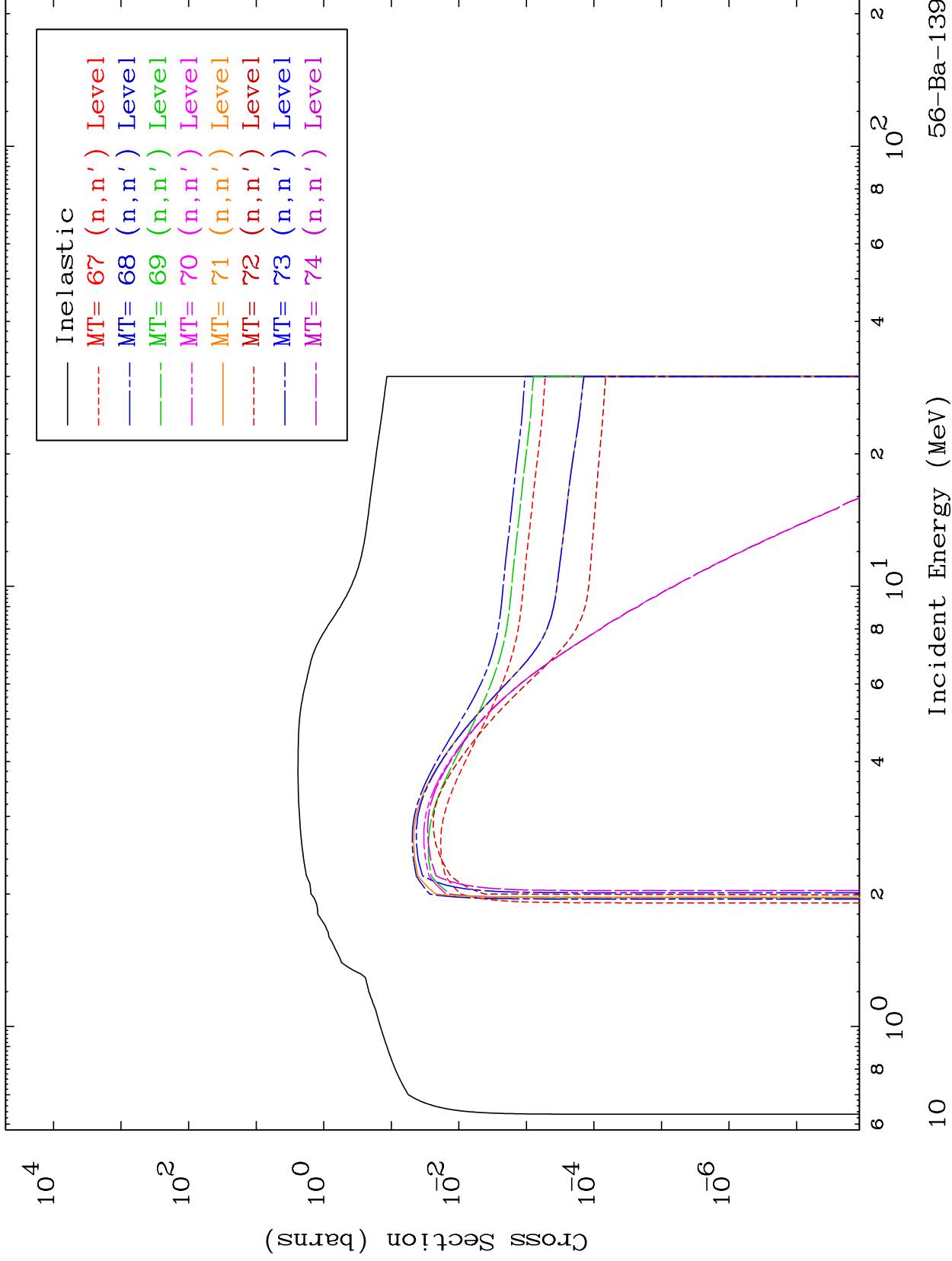
56-Ba-139

MAT 5652

(n,n') Levels

56-Ba-139

293 Kelvin Cross Sections

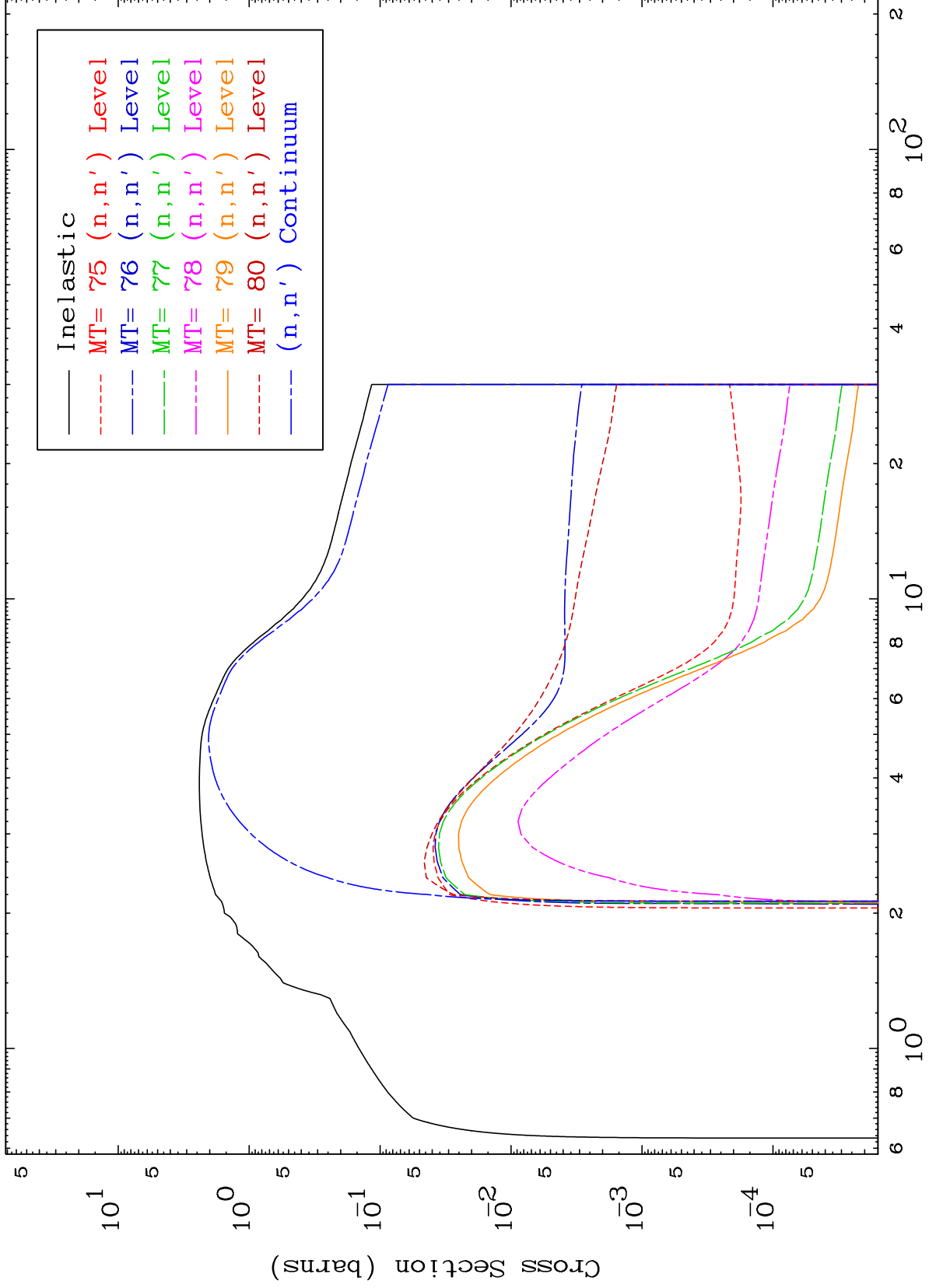


10

Incident Energy (MeV)

56-Ba-139

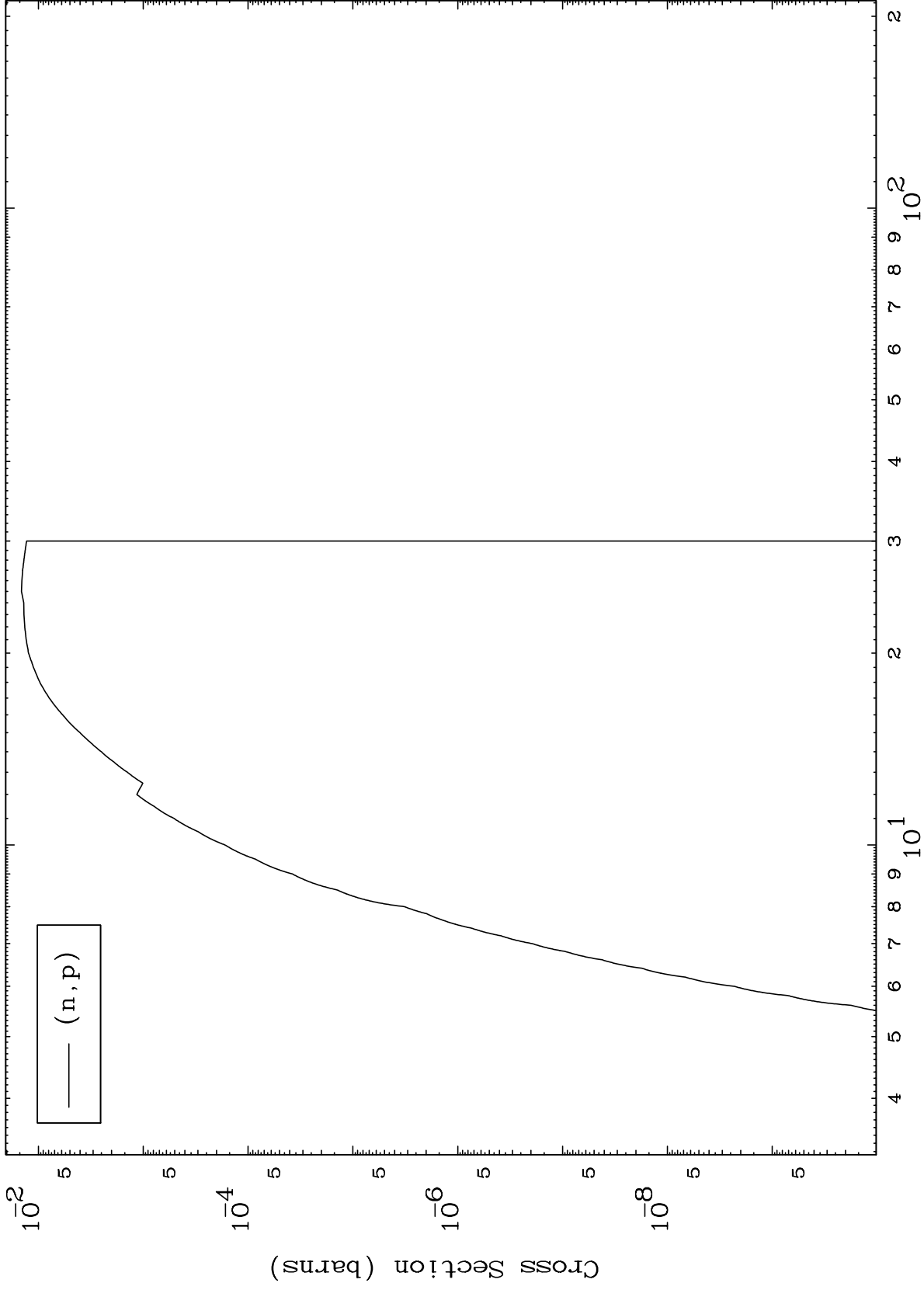
293 Kelvins Cross Sections



MAT 5652

(n,p) Levels  
293 Kelvin Cross Sections

56-Ba-139



12

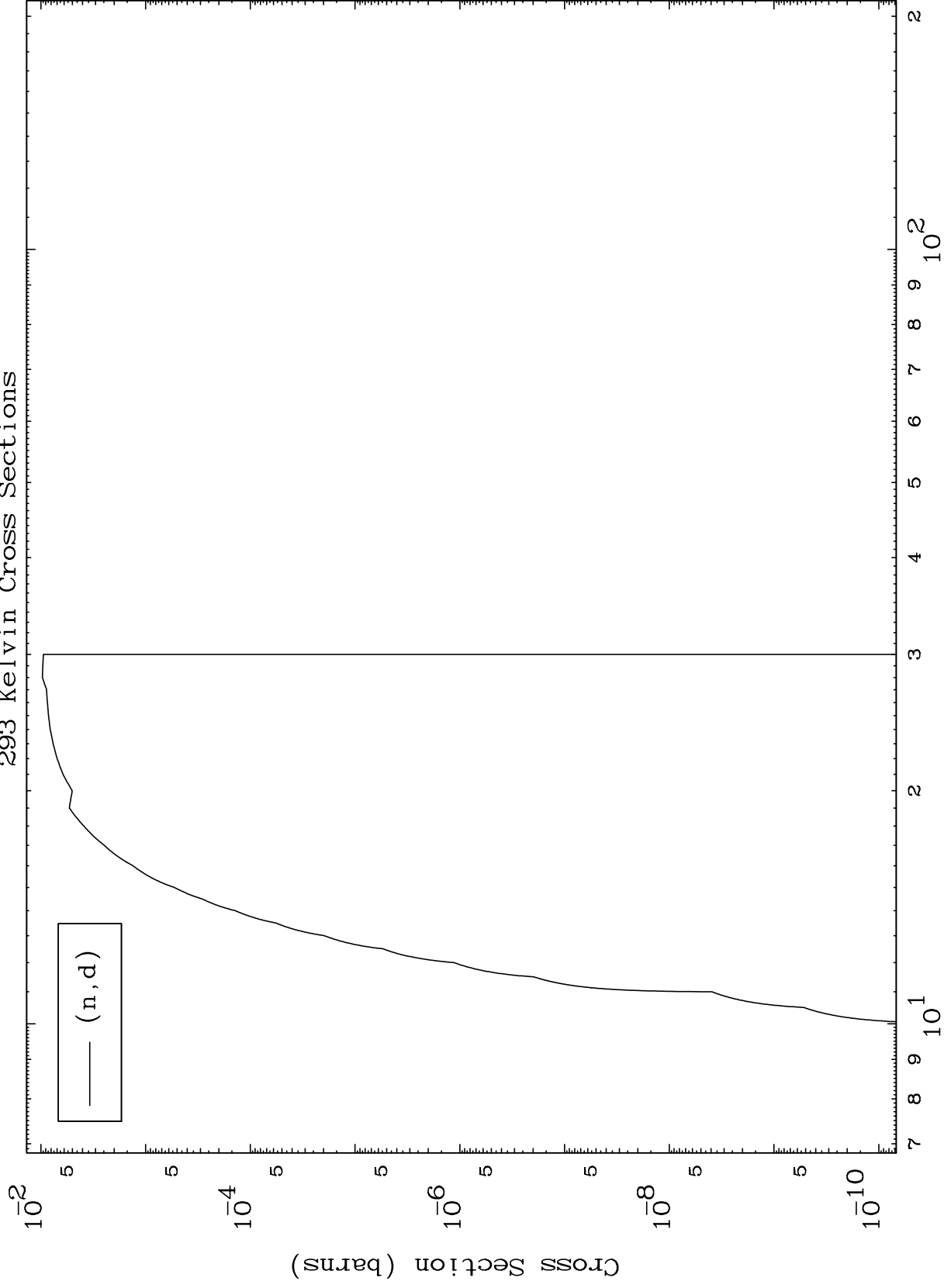
Incident Energy (MeV)

56-Ba-139

MAT 5652

(n,d) Levels  
293 Kelvin Cross Sections

56-Ba-139



13

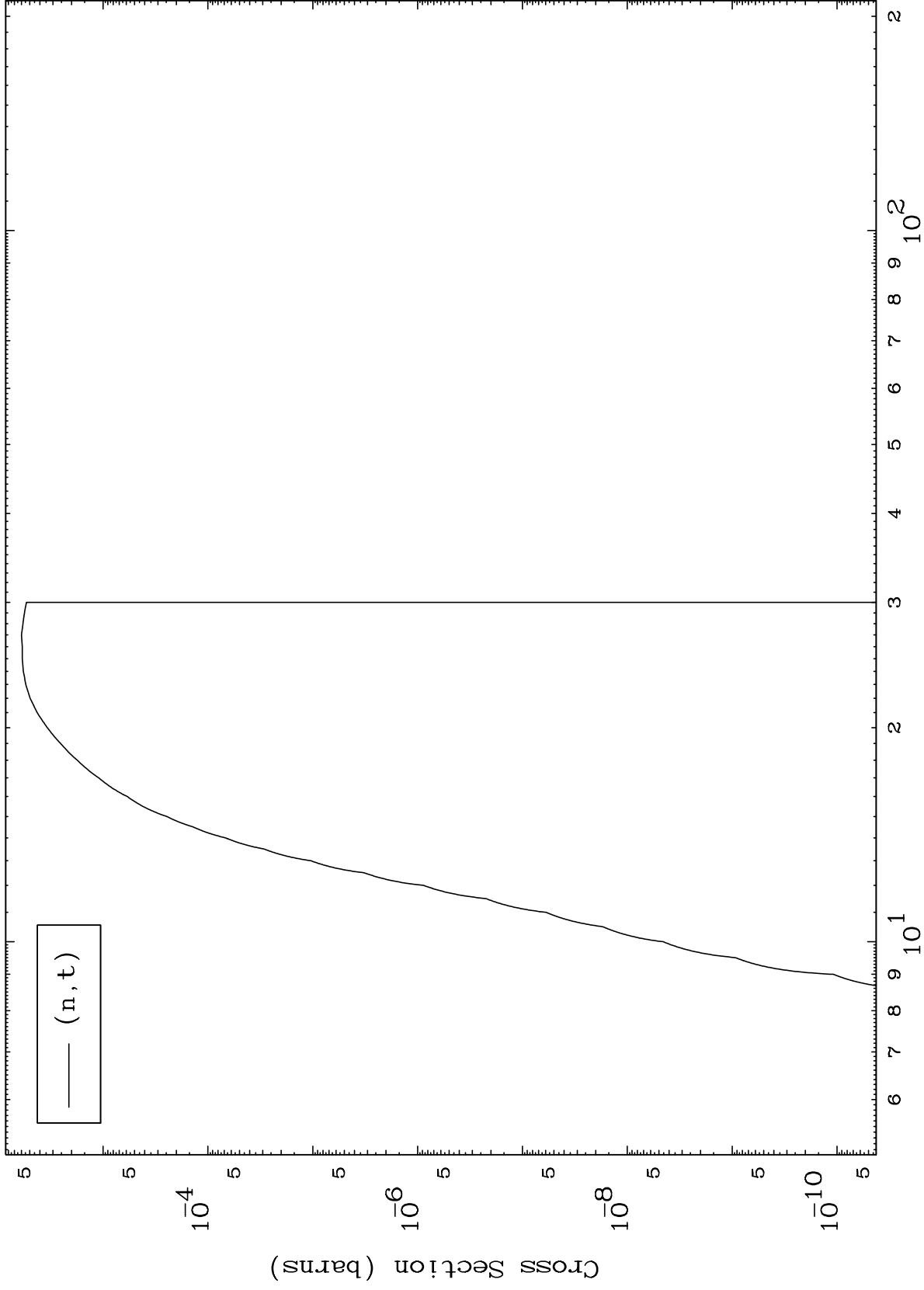
Incident Energy (MeV)

56-Ba-139

MAT 5652

(n,t) Levels  
293 Kelvin Cross Sections

56-Ba-139



14

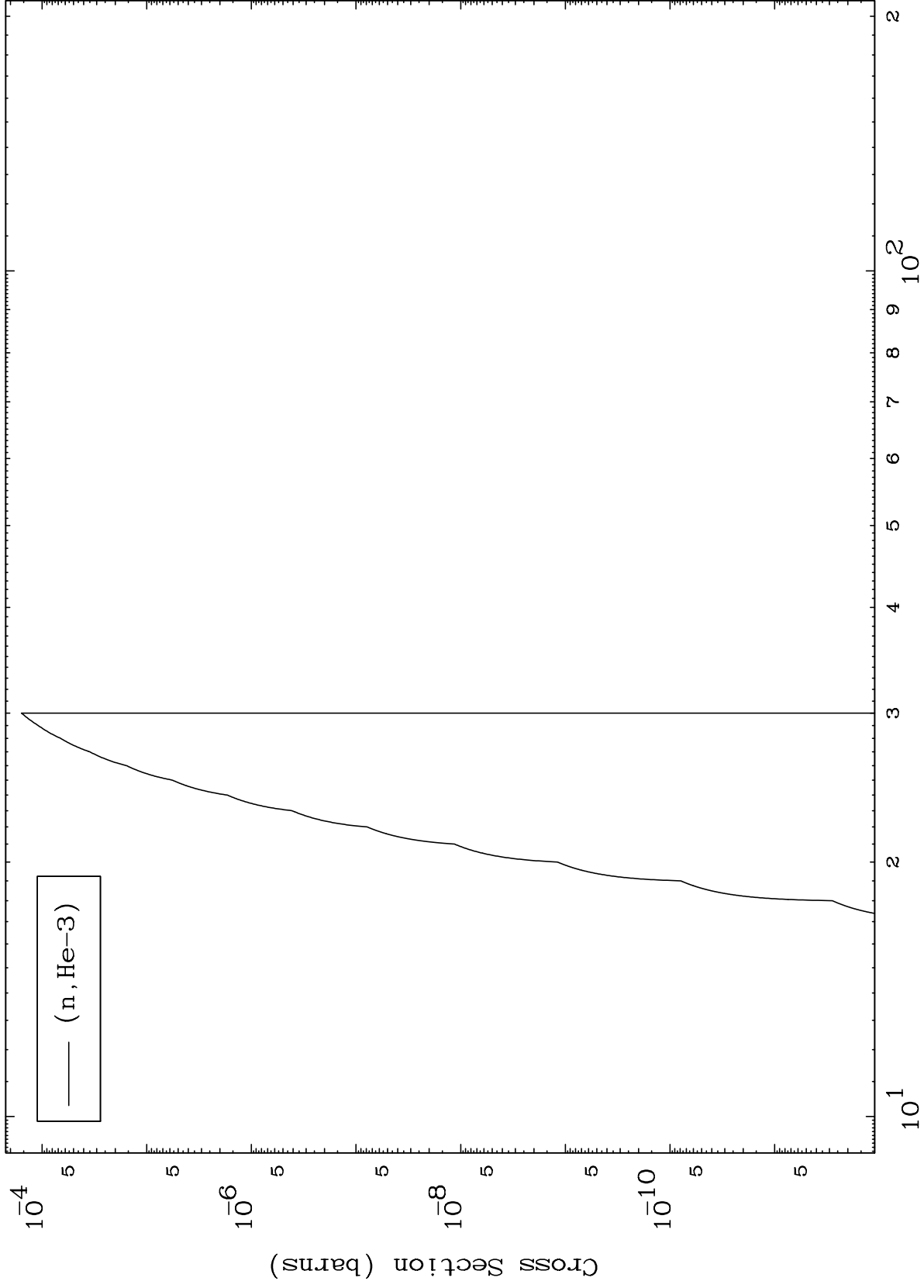
Incident Energy (MeV)

56-Ba-139

MAT 5652

(n,He3) Levels  
293 Kelvin Cross Sections

56-Ba-139



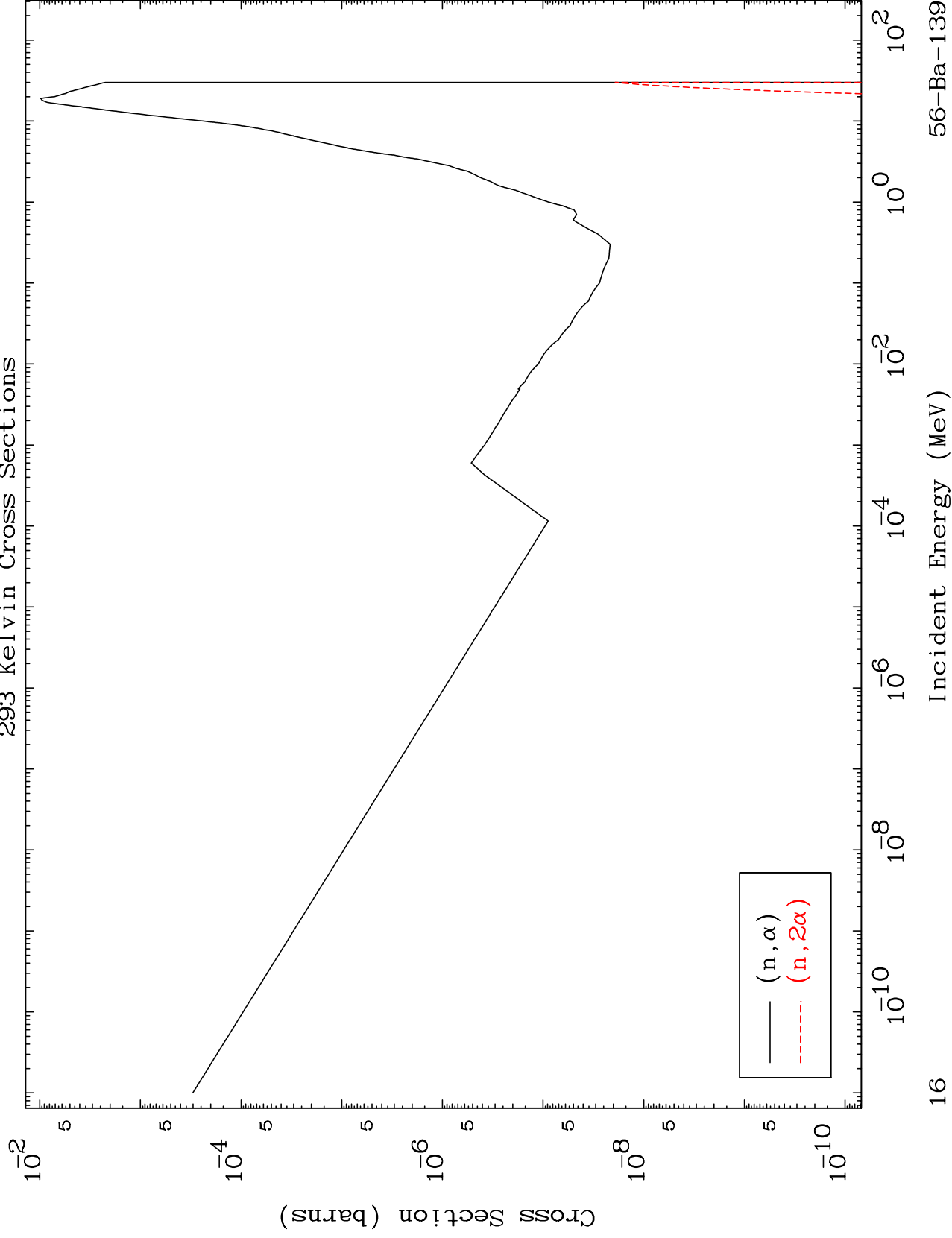
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

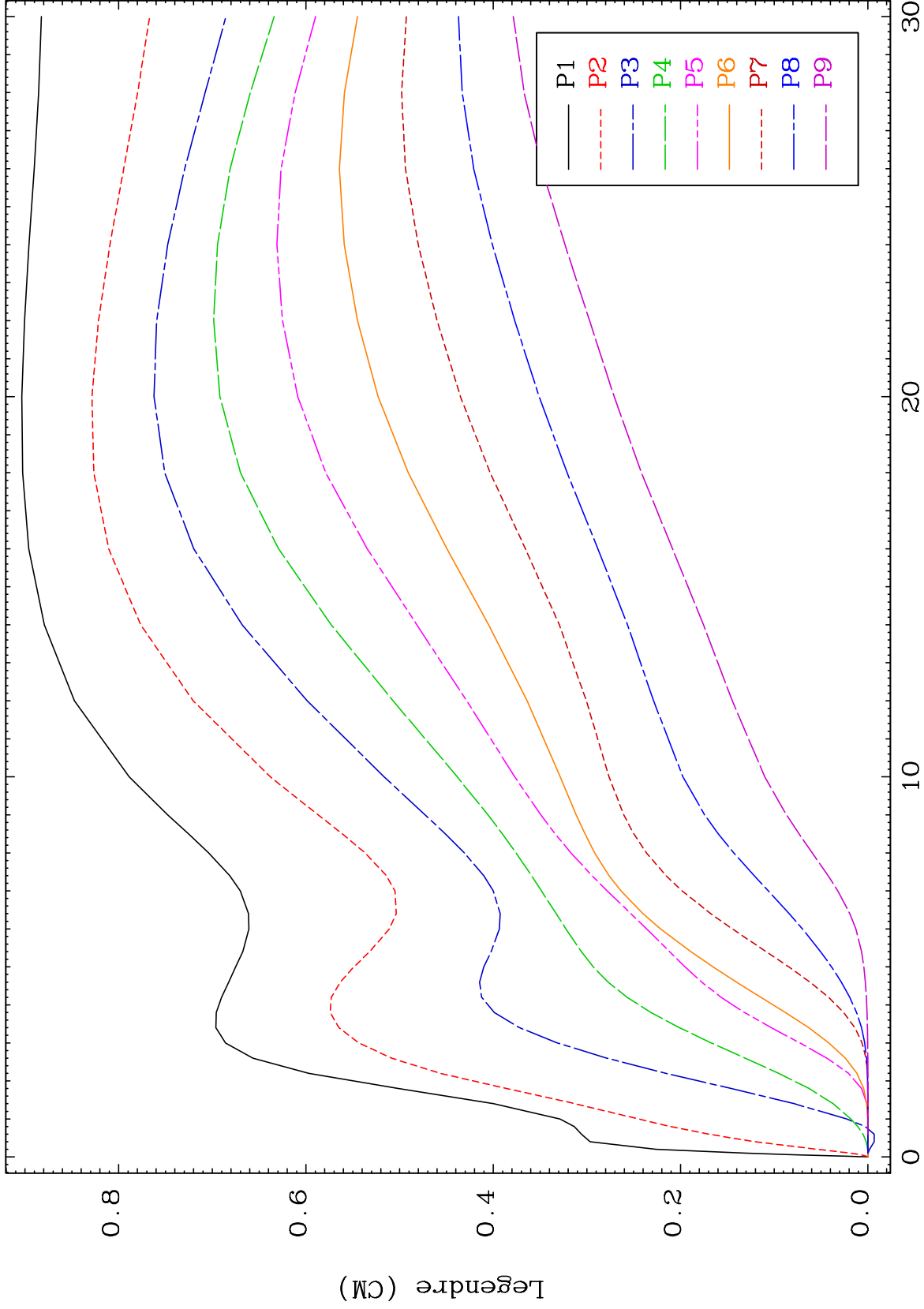
56-Ba-139



MAT 5652

Elastic Legendre Coefficients

<sup>56</sup>Ba-<sup>139</sup>



17

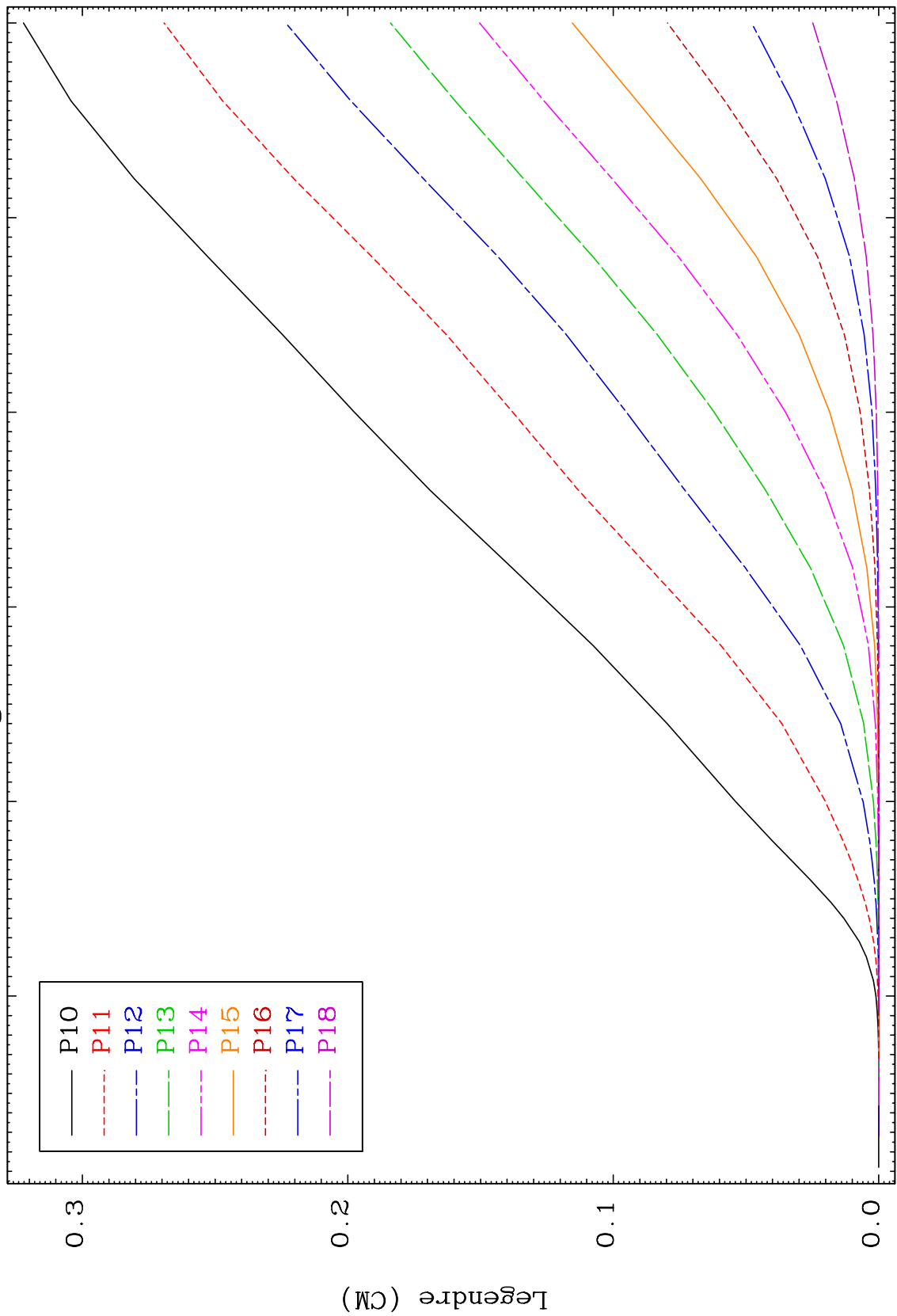
Incident Energy (MeV)

<sup>56</sup>Ba-<sup>139</sup>

MAT 5652

Elastic Legendre Coefficients

56-Ba-139



18

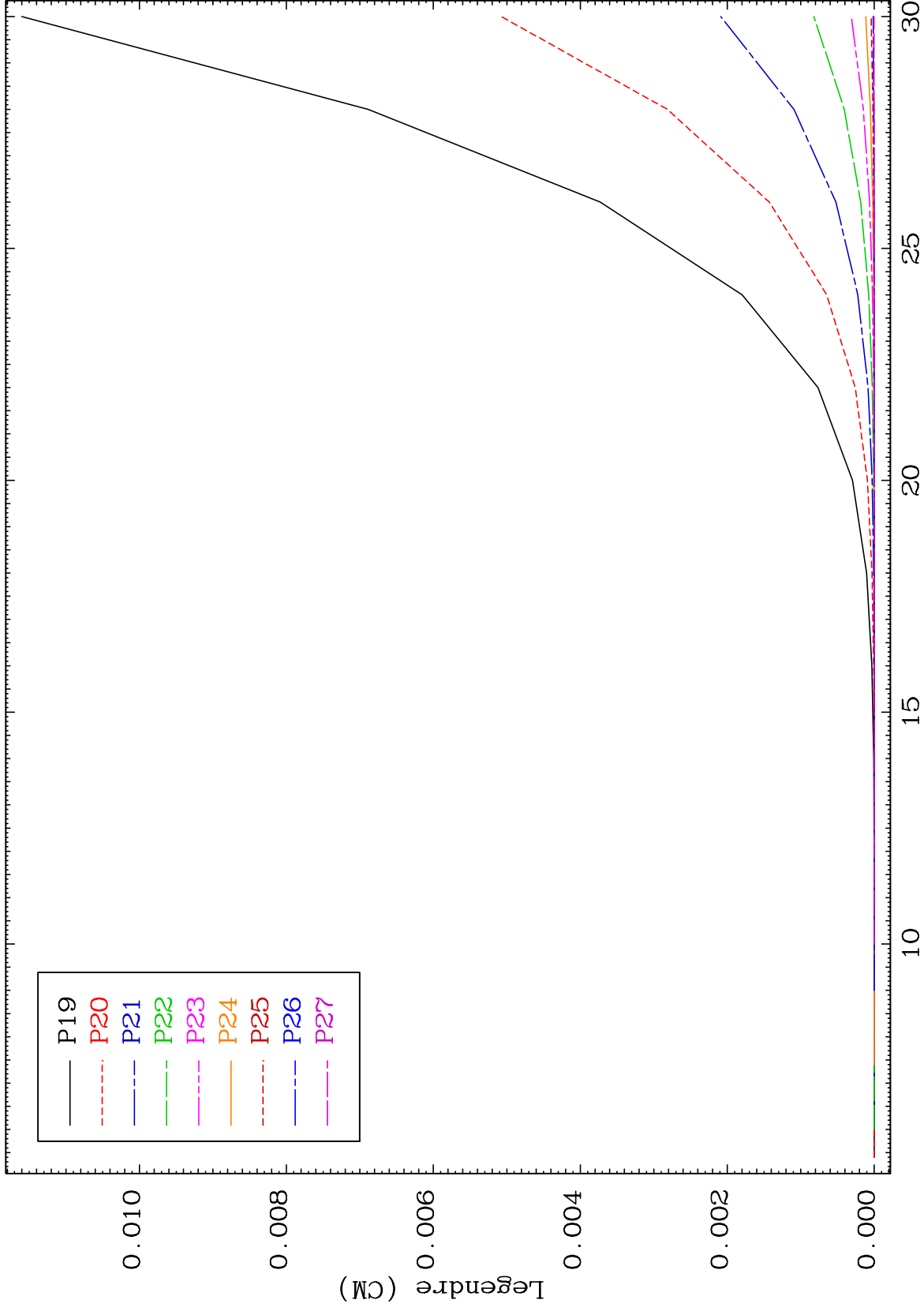
Incident Energy (MeV)

56-Ba-139

MAT 5652

### Elastic Legendre Coefficients

56-Ba-139



19

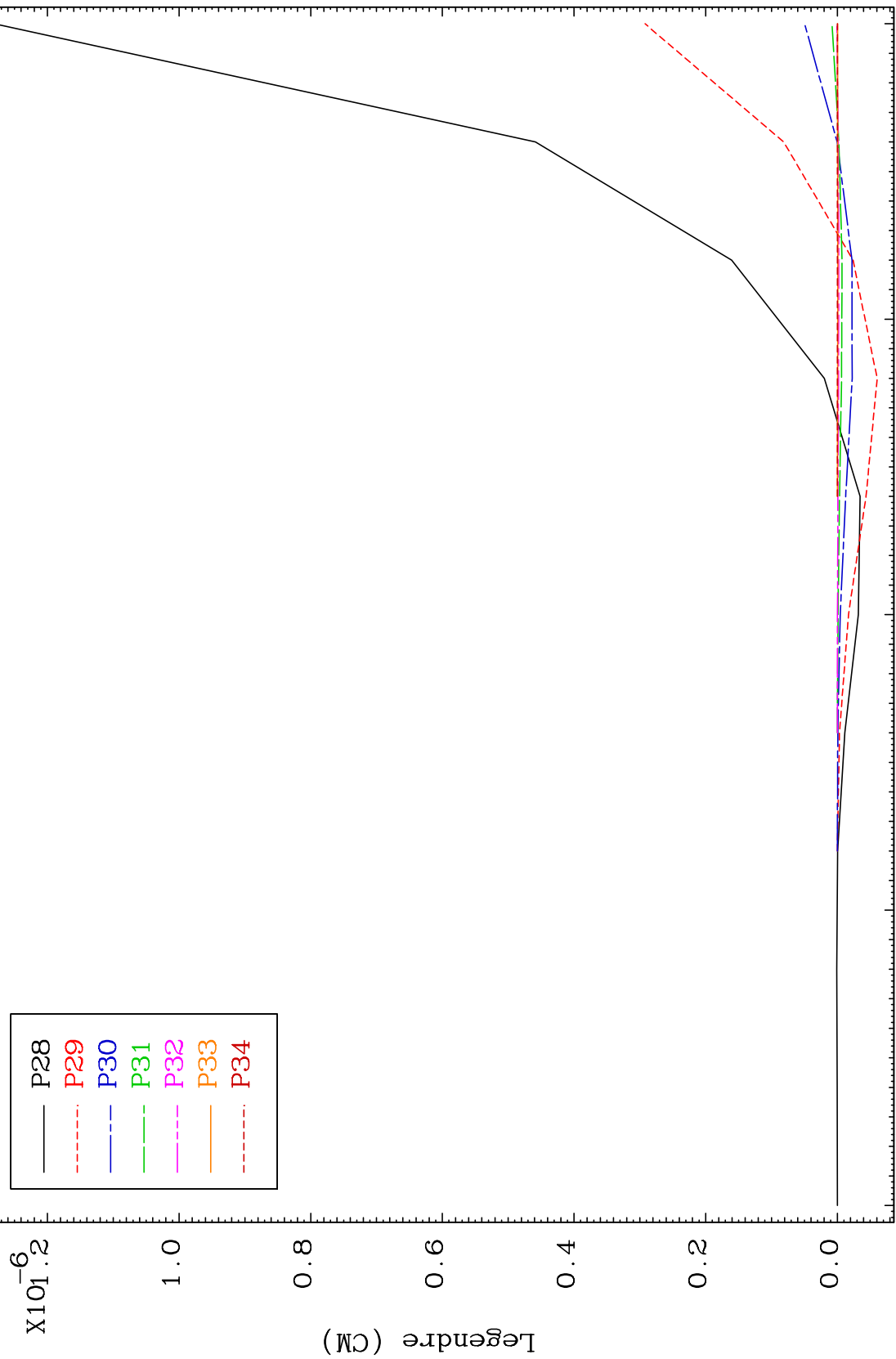
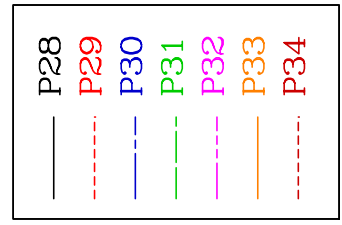
Incident Energy (MeV)

56-Ba-139

MAT 5652

Elastic Legendre Coefficients

56-Ba-139



20

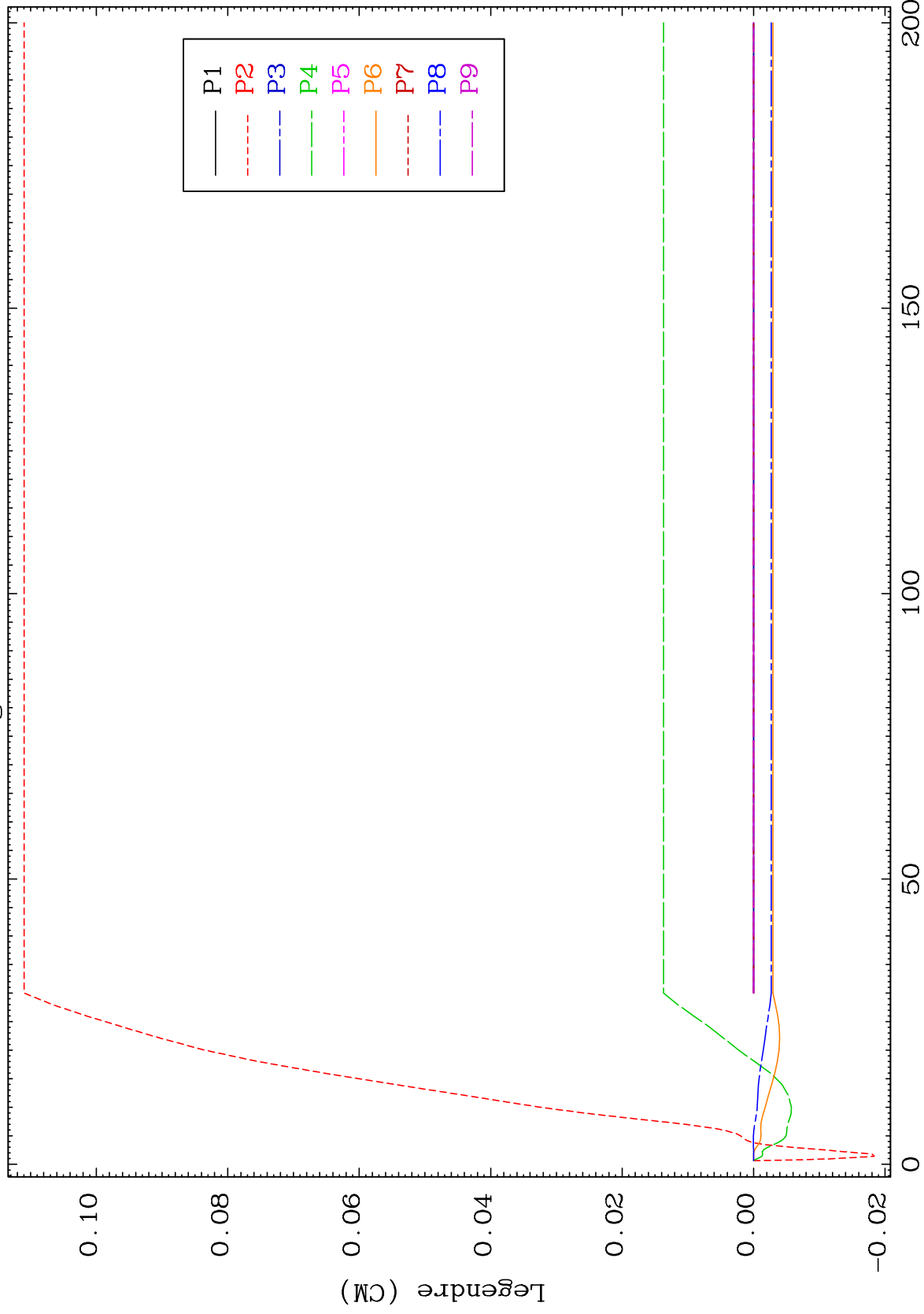
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



56-Ba-139

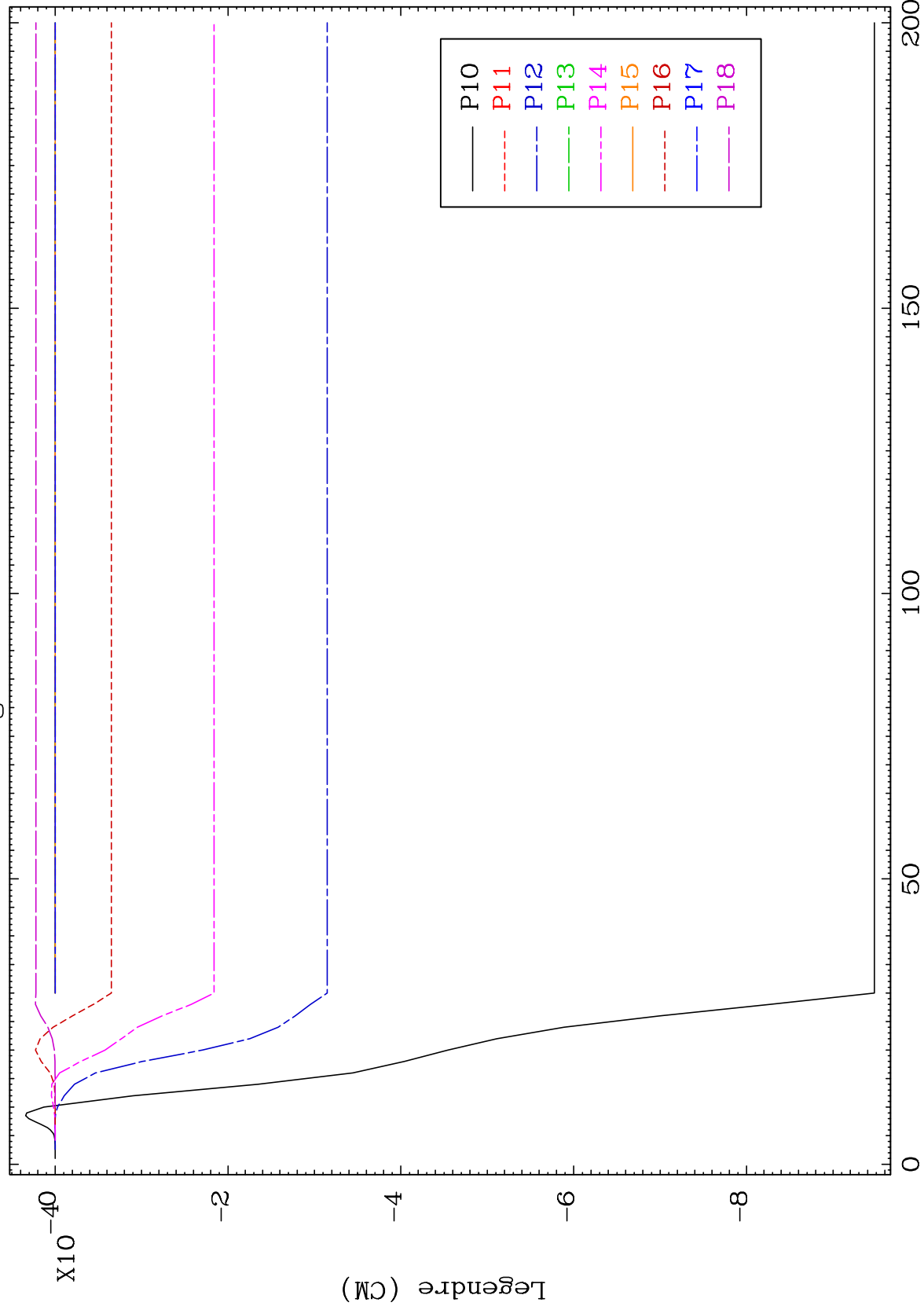
Incident Energy (MeV)

21

MAT 5652

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

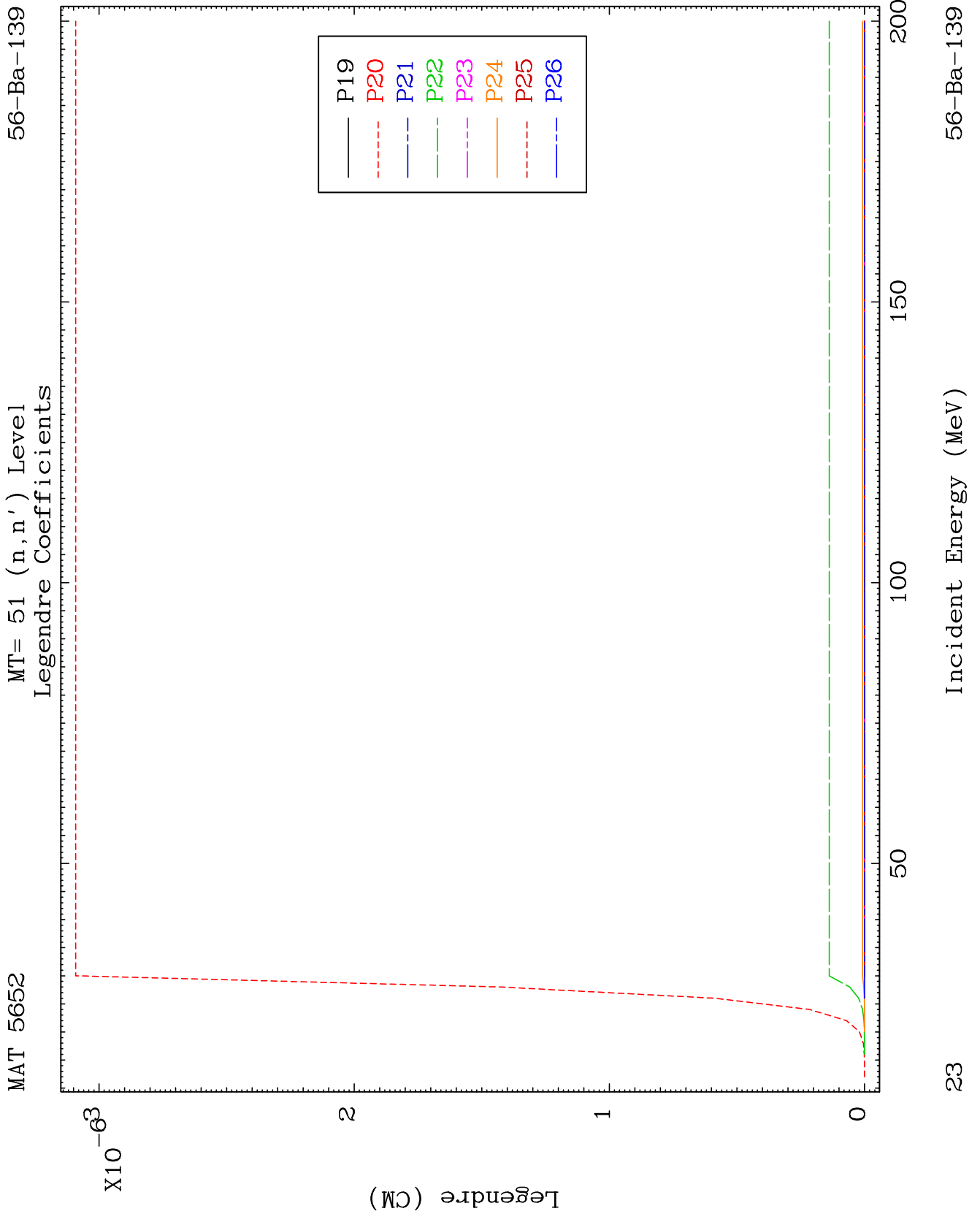
56-Ba-139



22

Incident Energy (MeV)

56-Ba-139

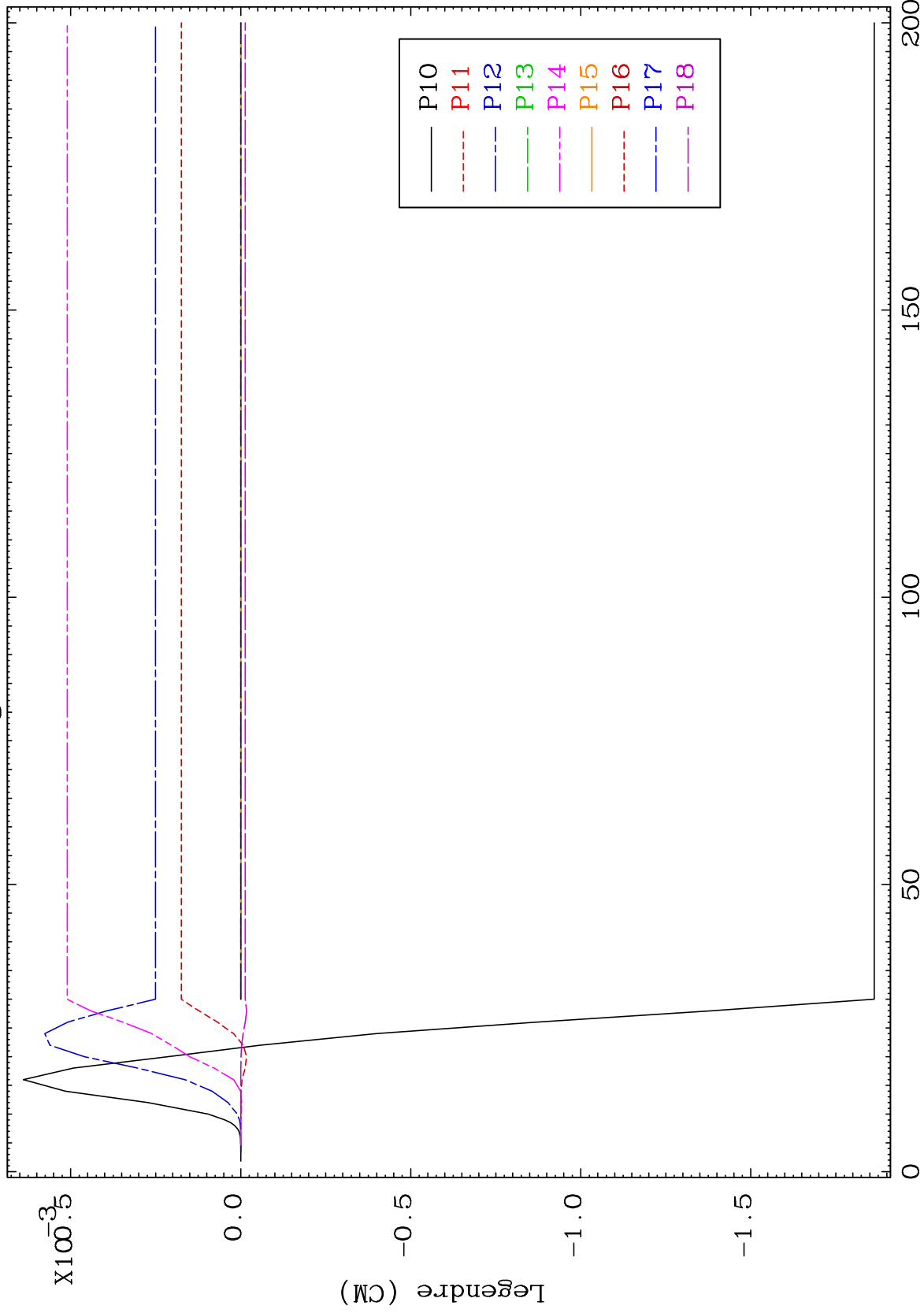




MAT 5652

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

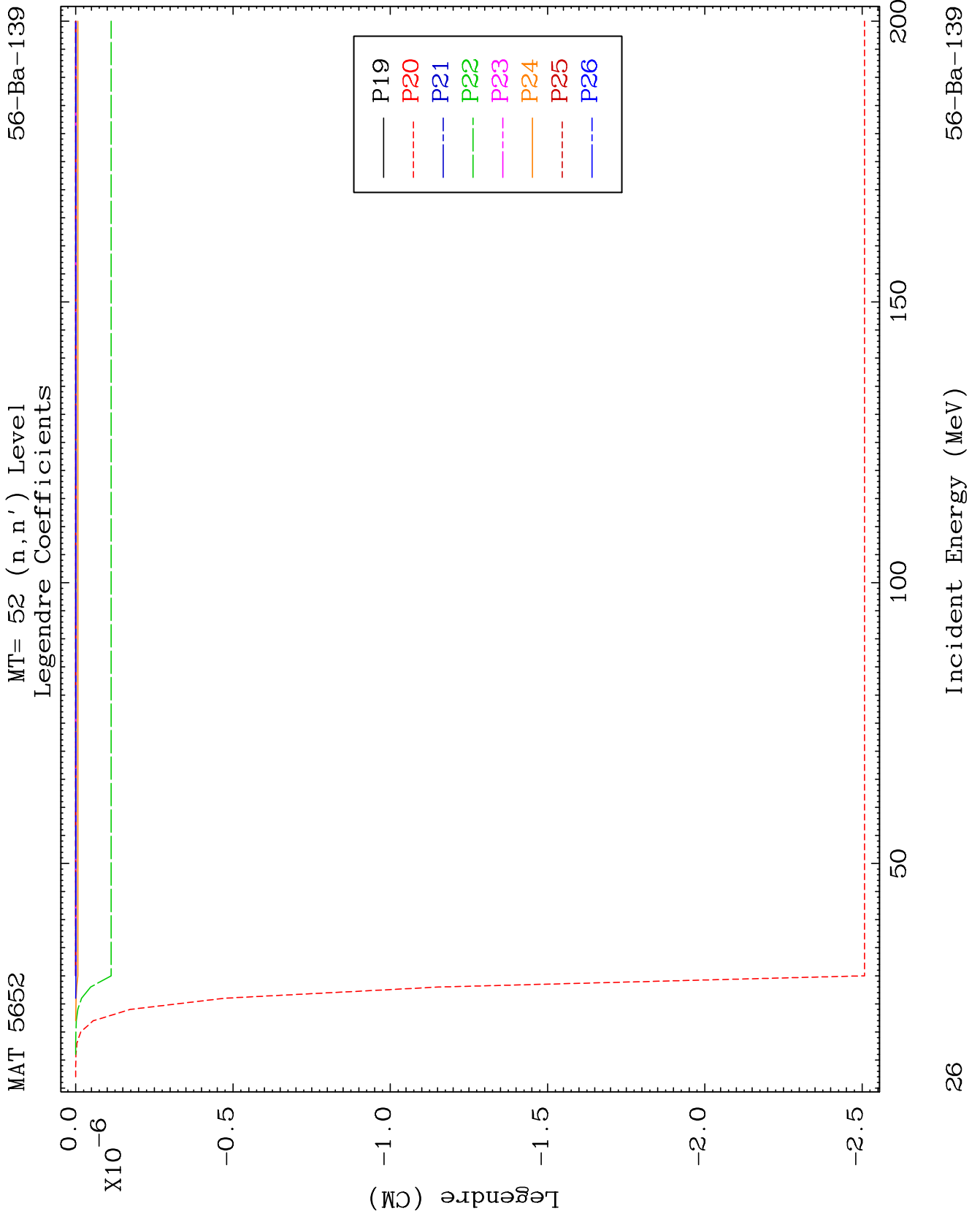
56-Ba-139

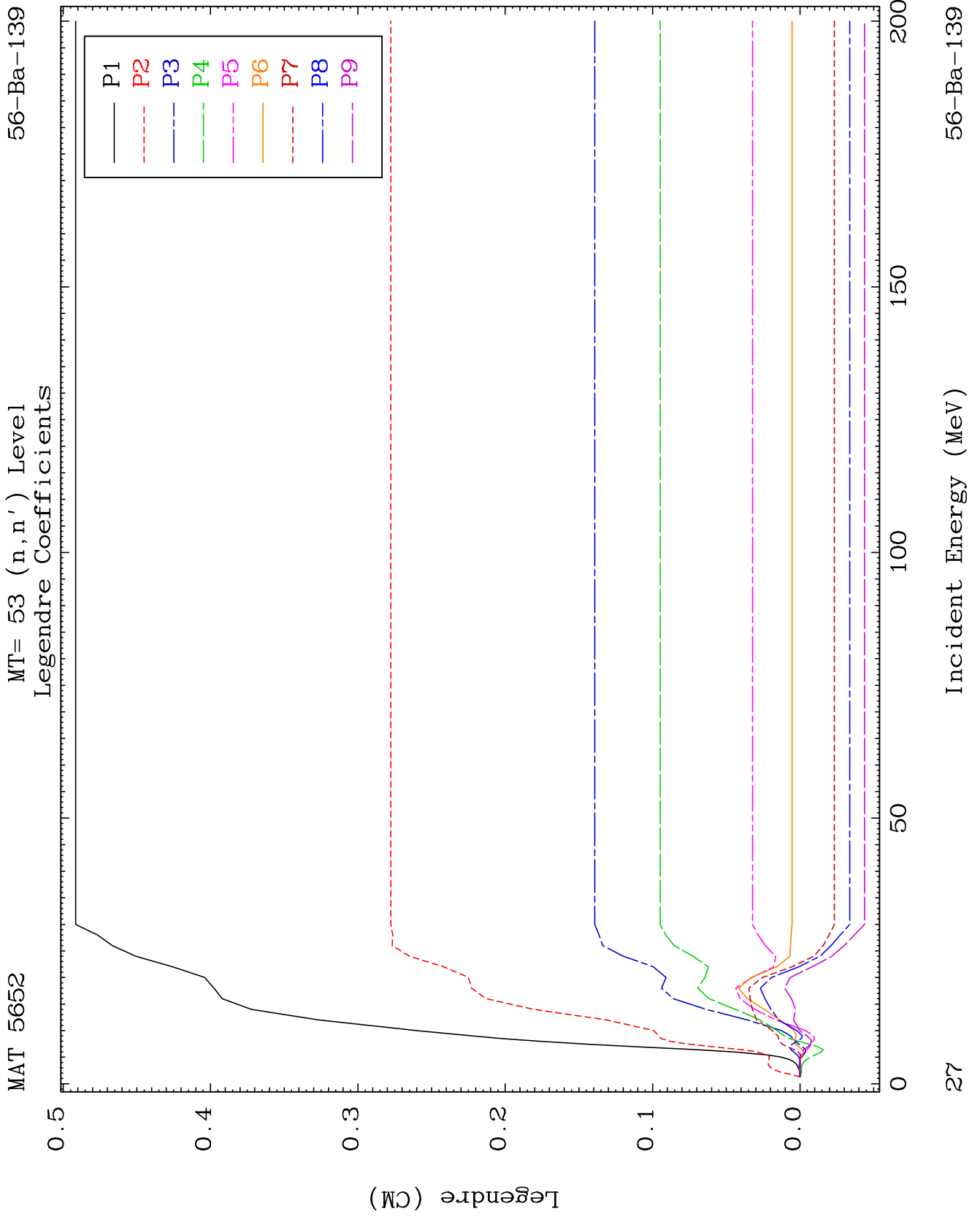


25

Incident Energy (MeV)

56-Ba-139

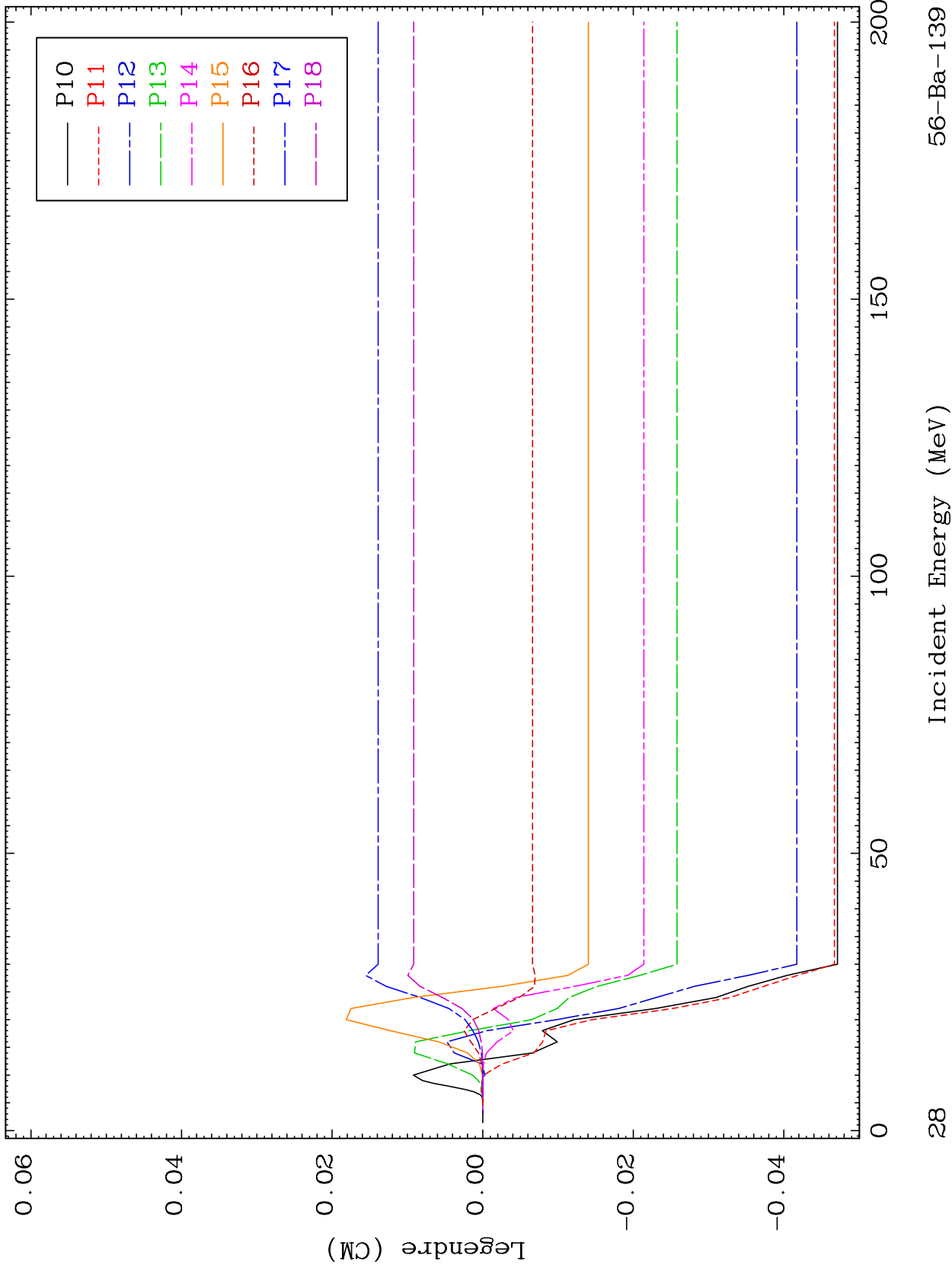




MAT 5652

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

56-Ba-139



56-Ba-139

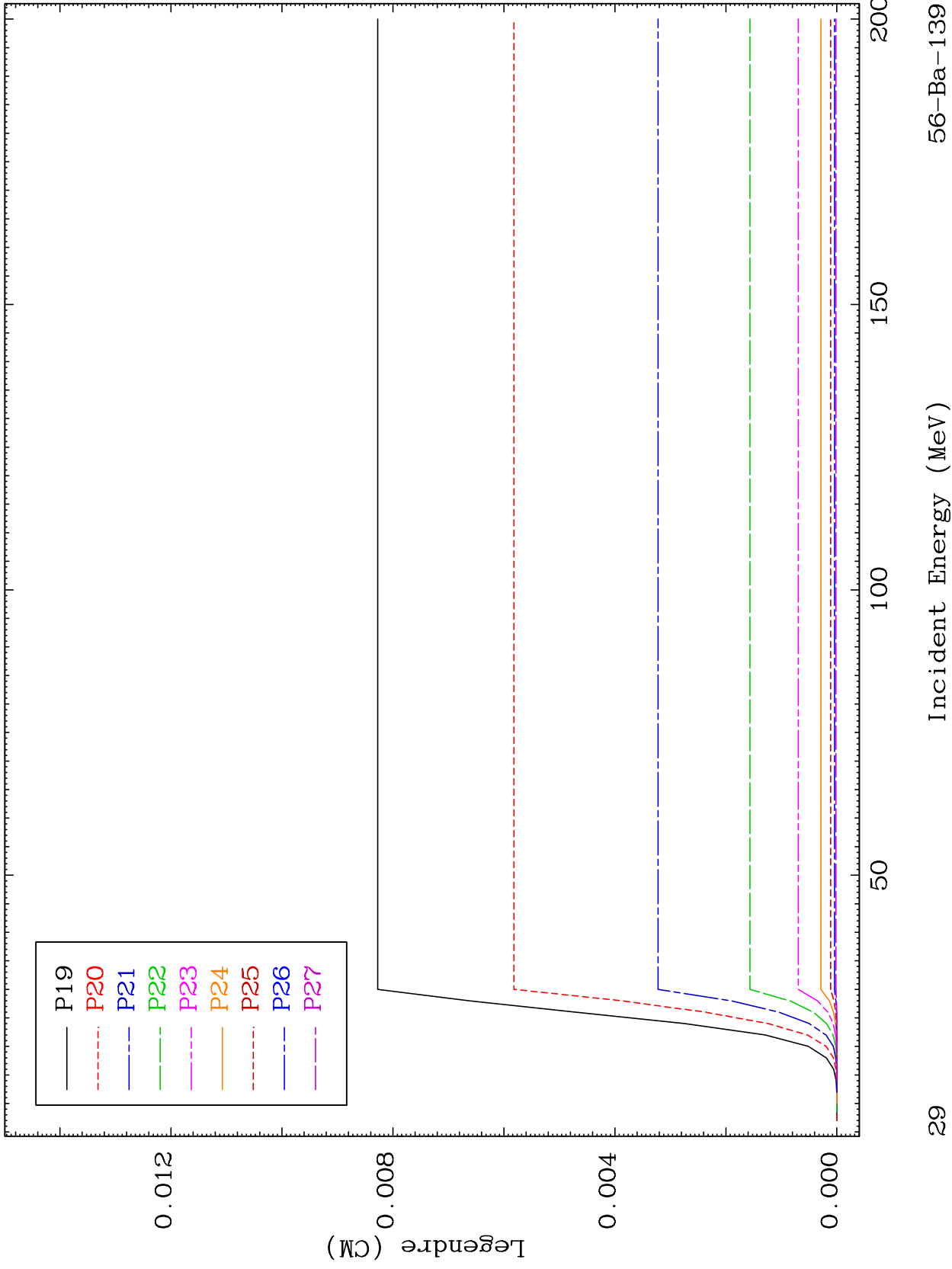
Incident Energy (MeV)

28

MAT 5652

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

56-Ba-139



29

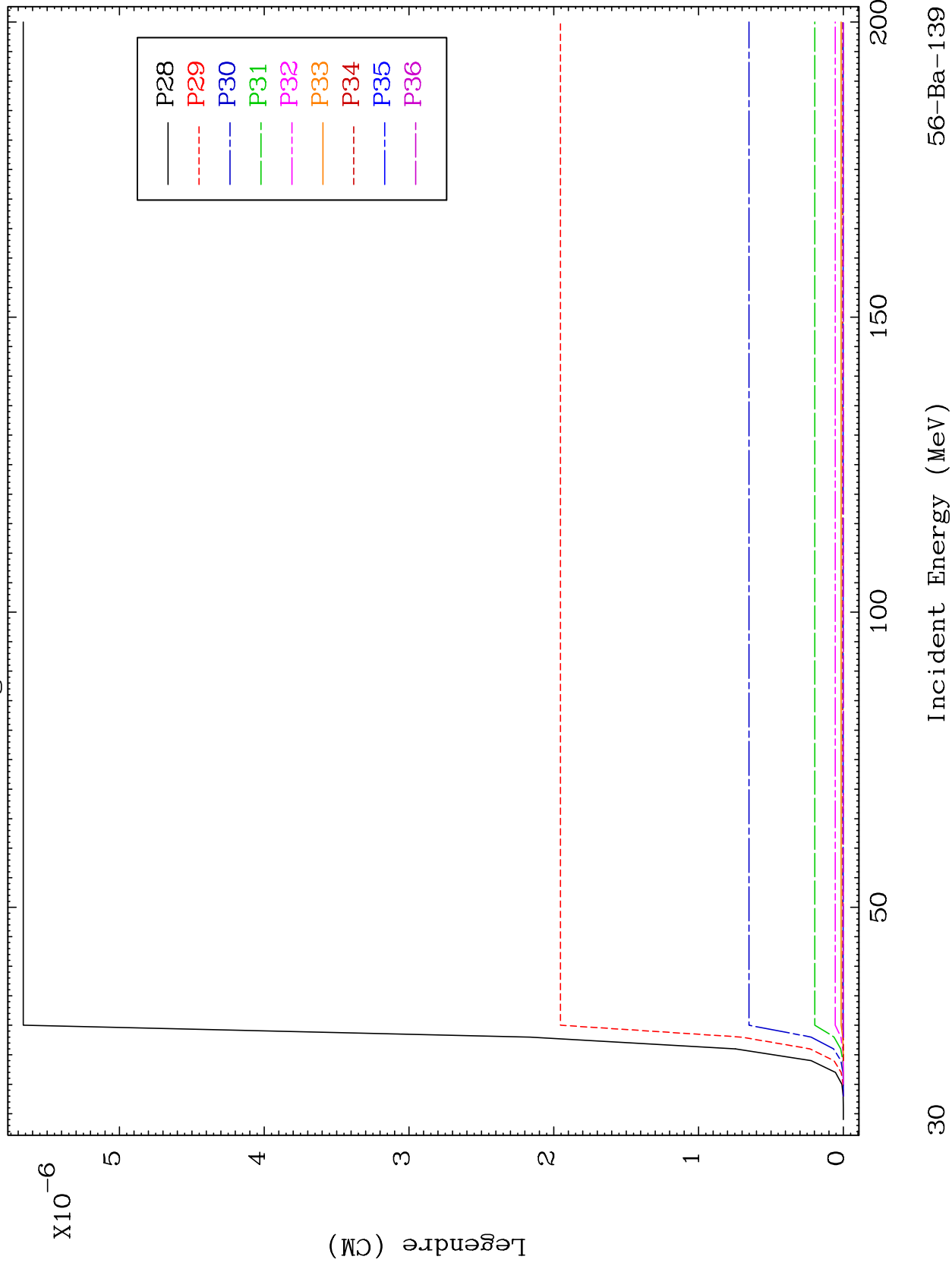
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

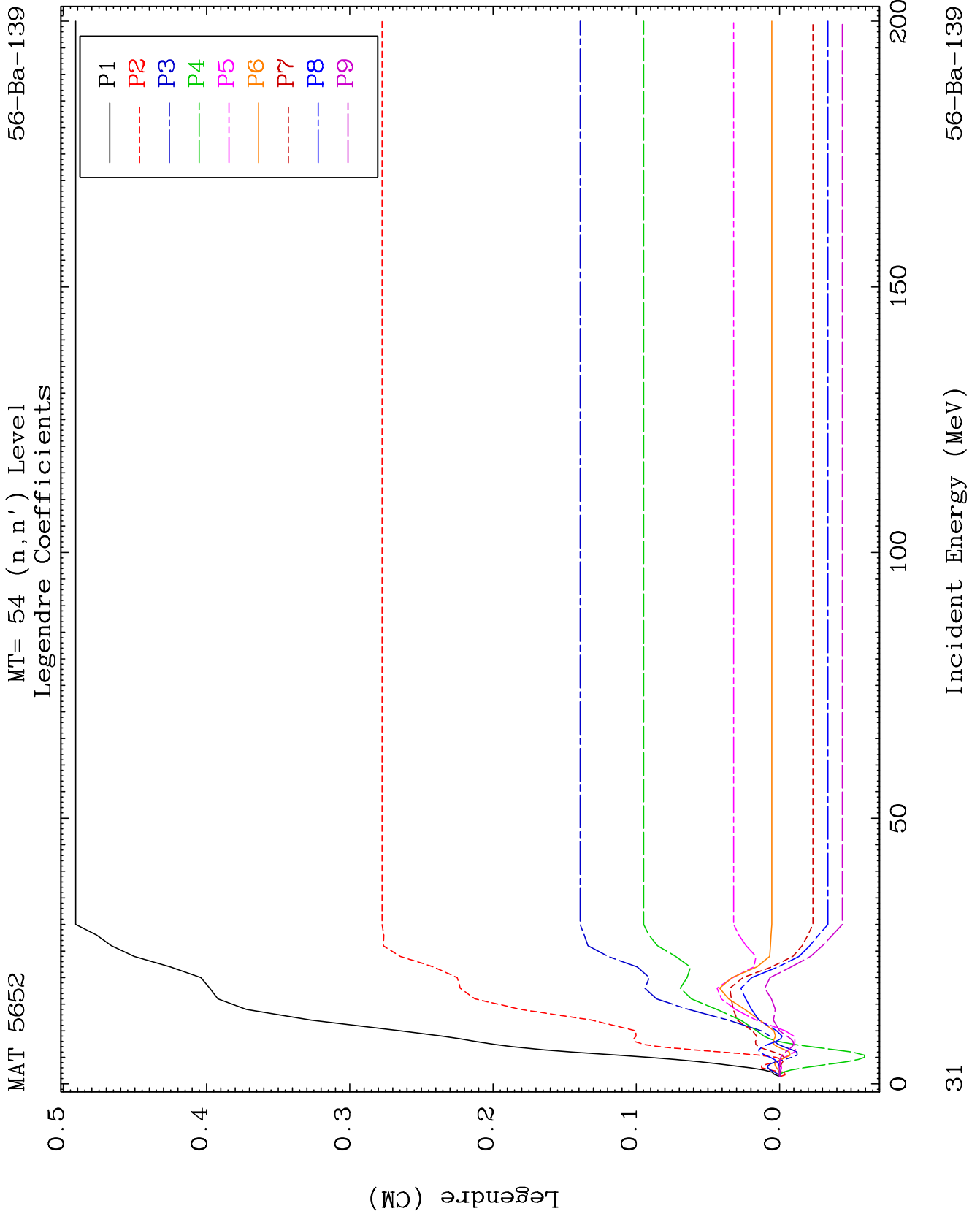
56-Ba-139



56-Ba-139

Incident Energy (MeV)

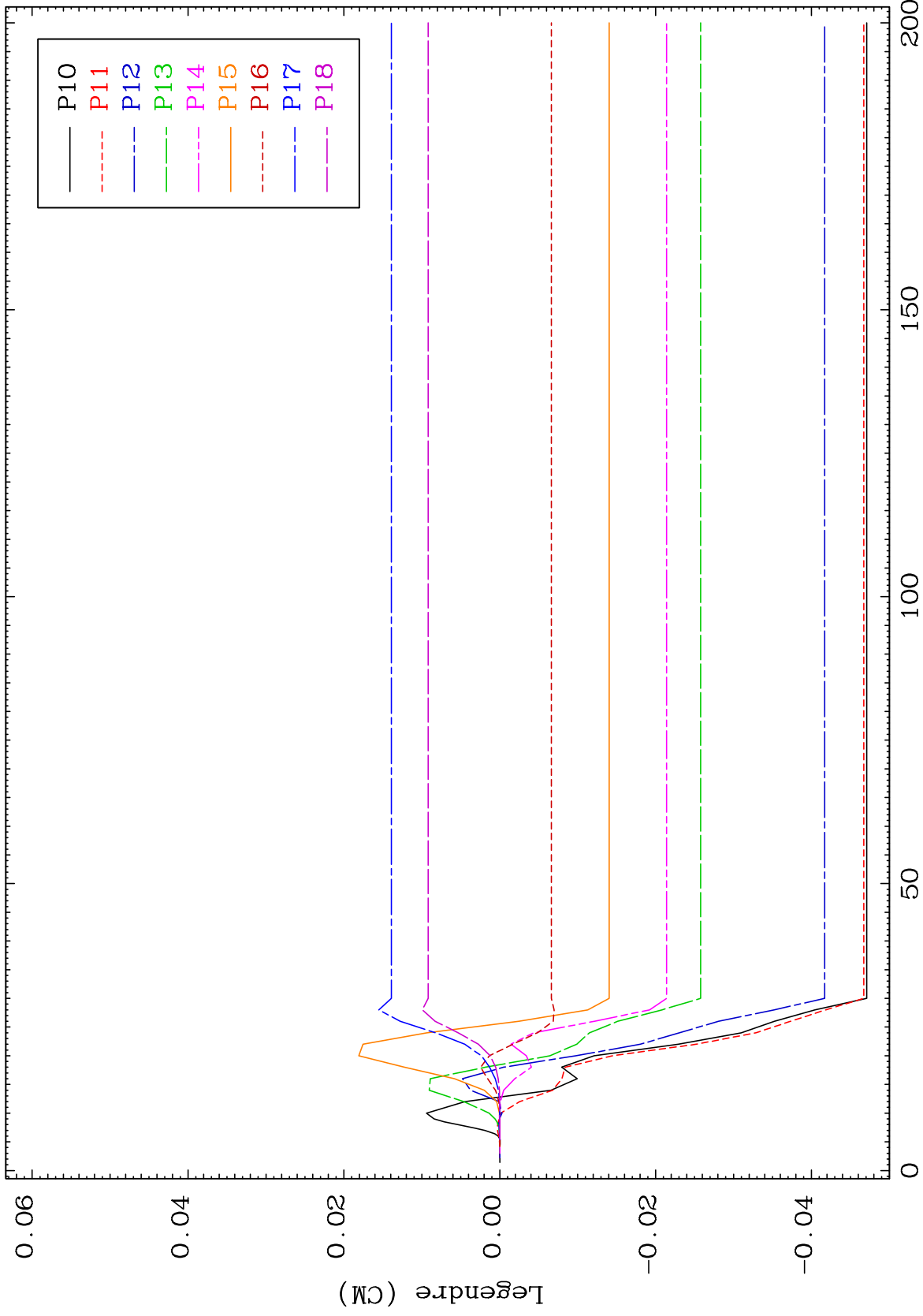
30



MAT 5652

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

56-Ba-139



32

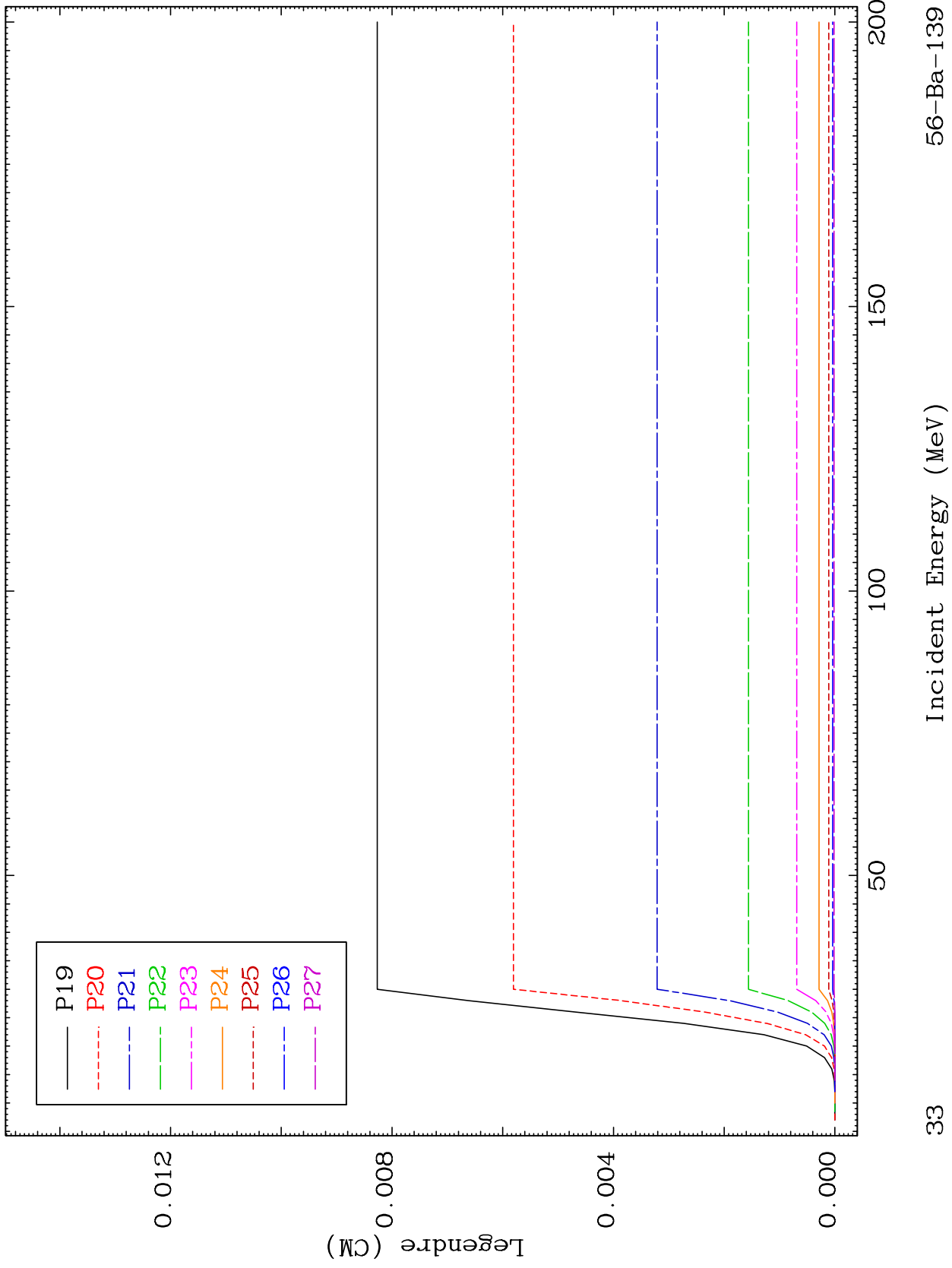
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



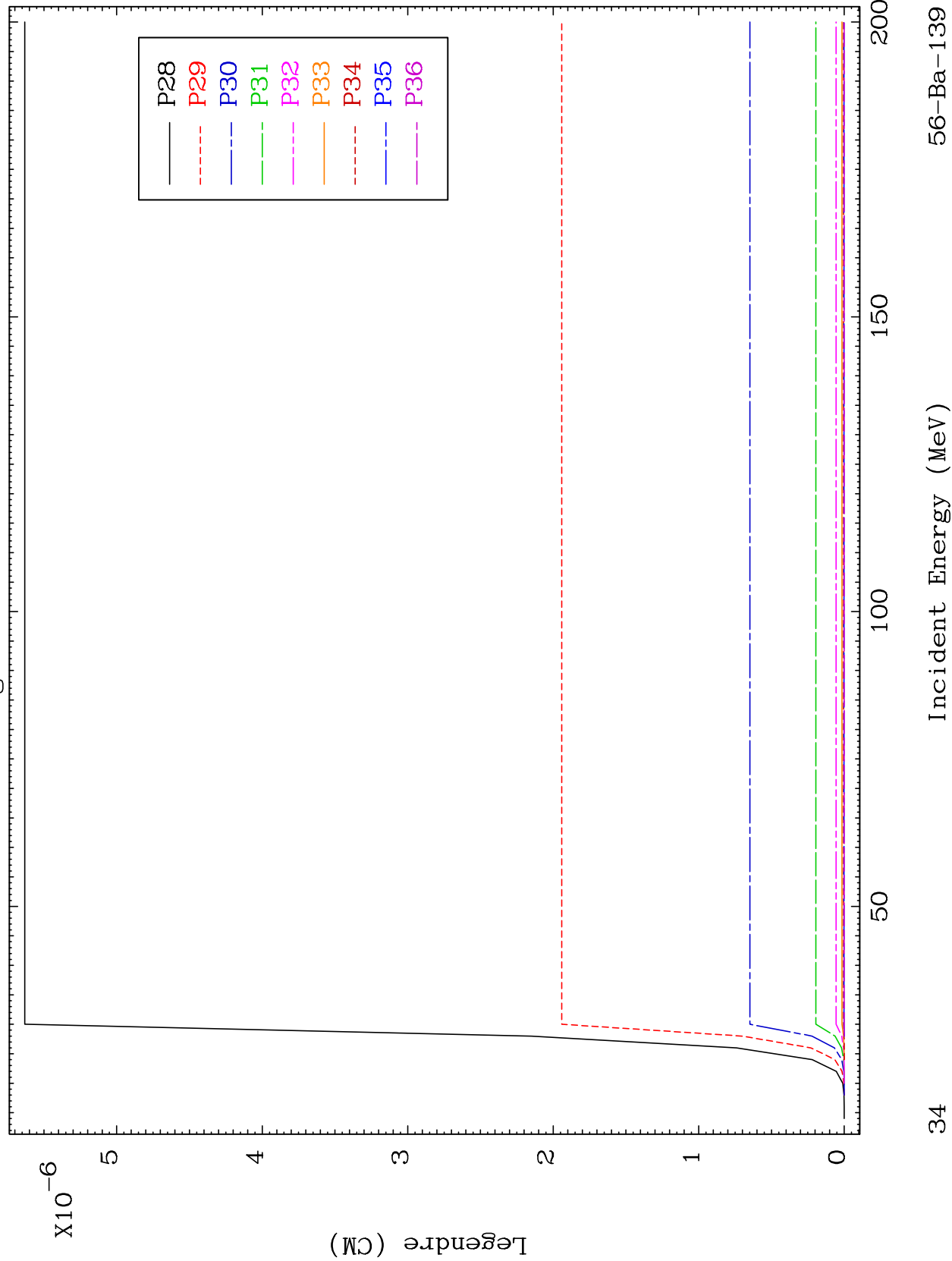
33

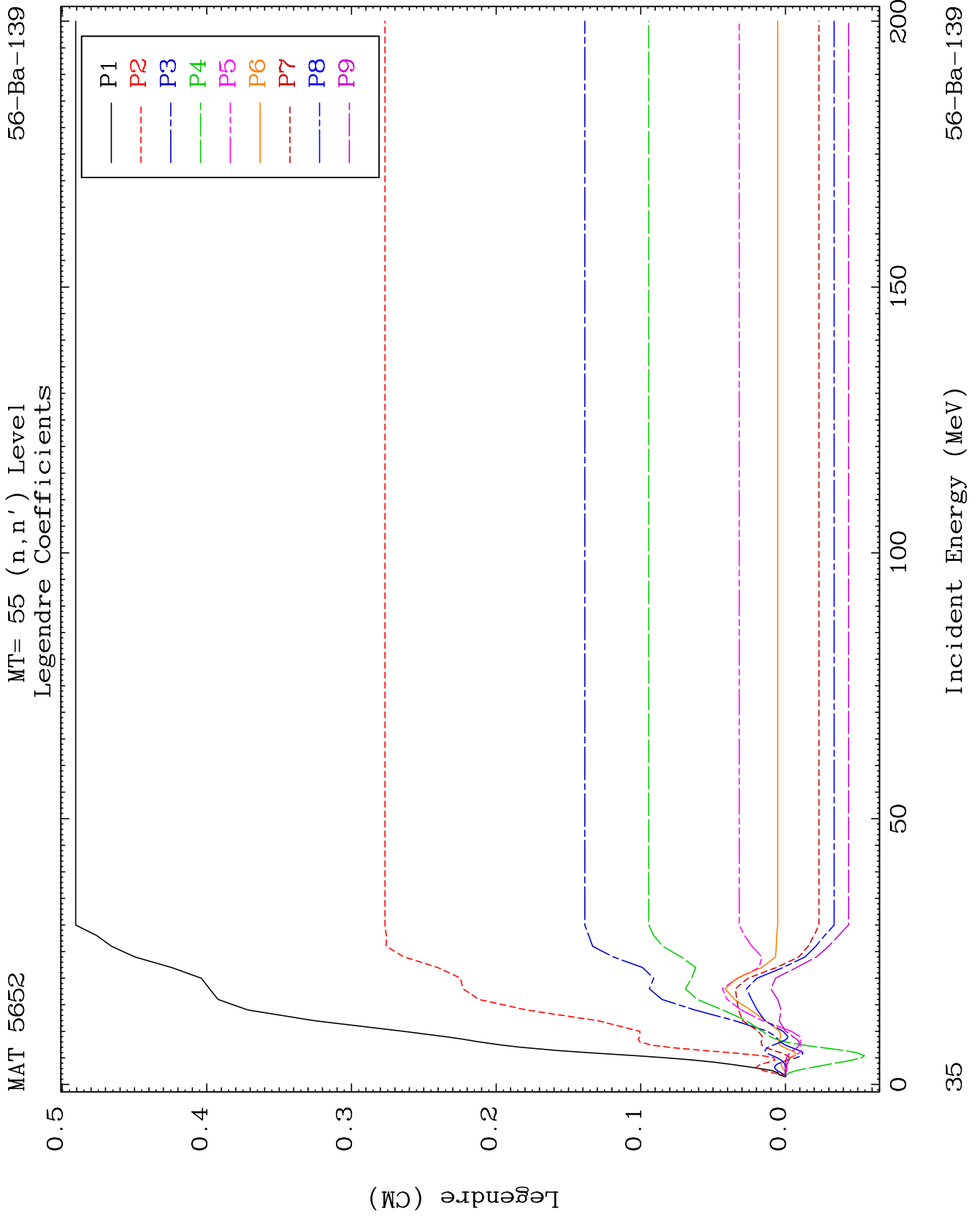
56-Ba-139

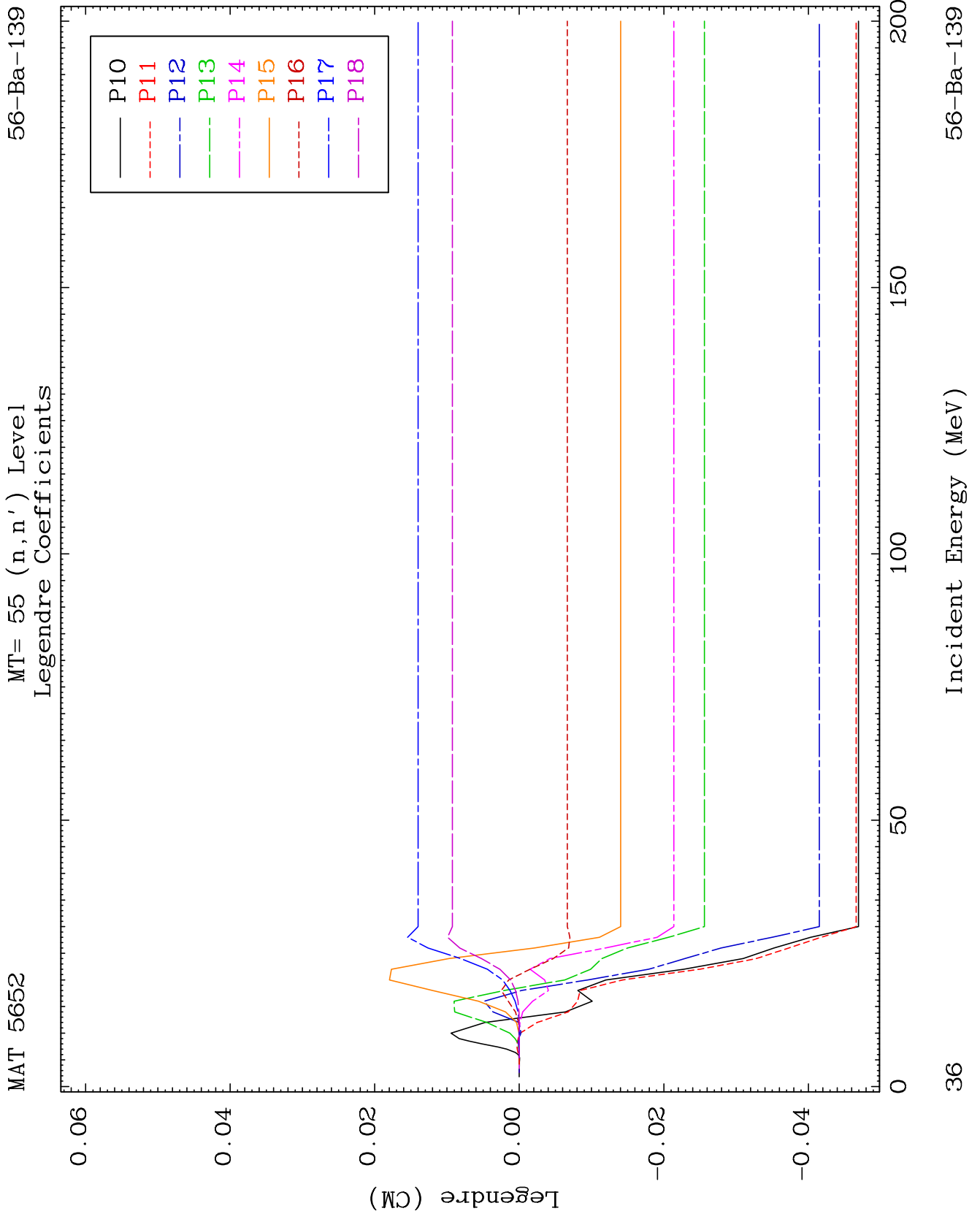
MAT 5652

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

56-Ba-139



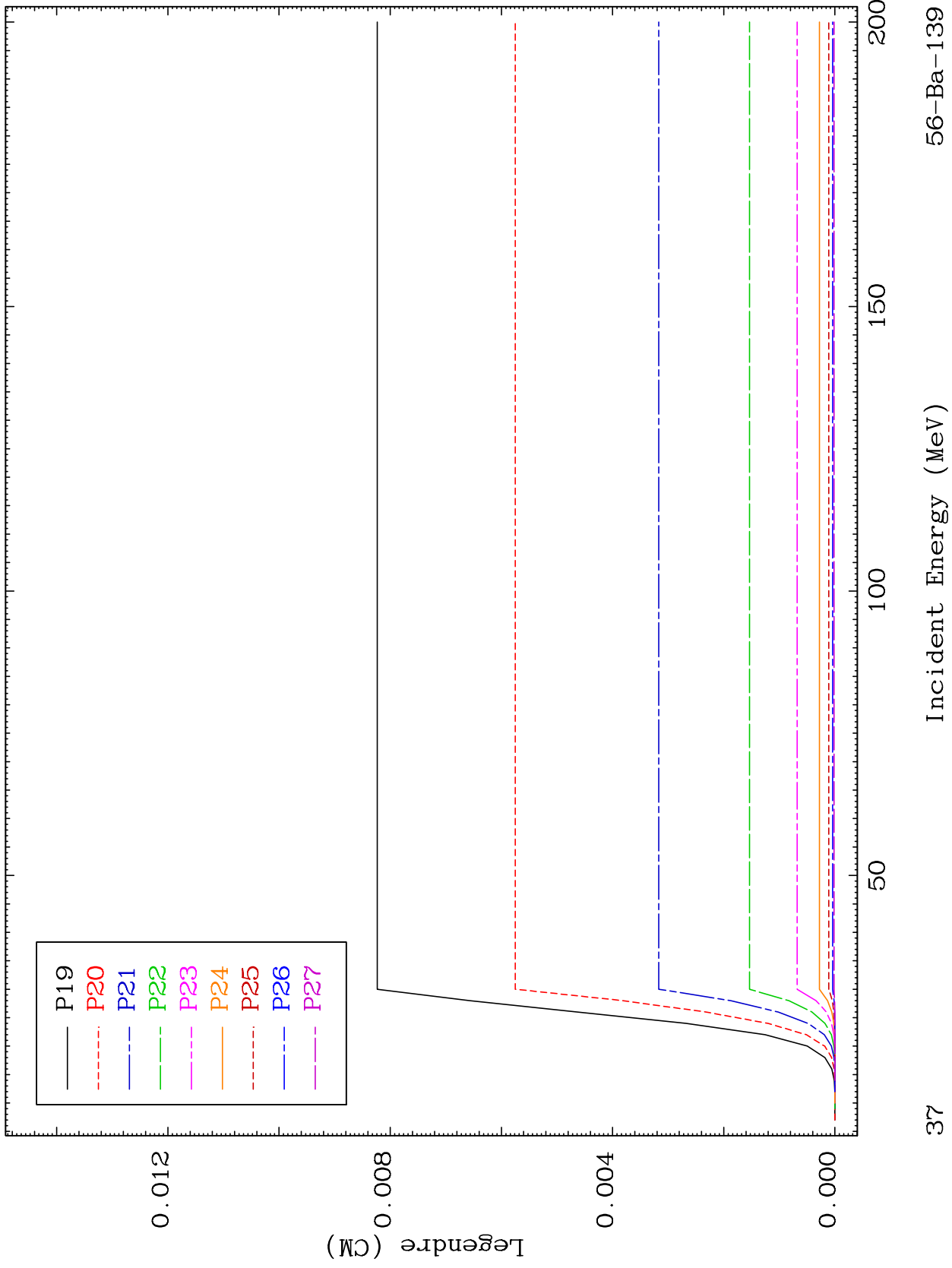




MAT 5652

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

56-Ba-139



37

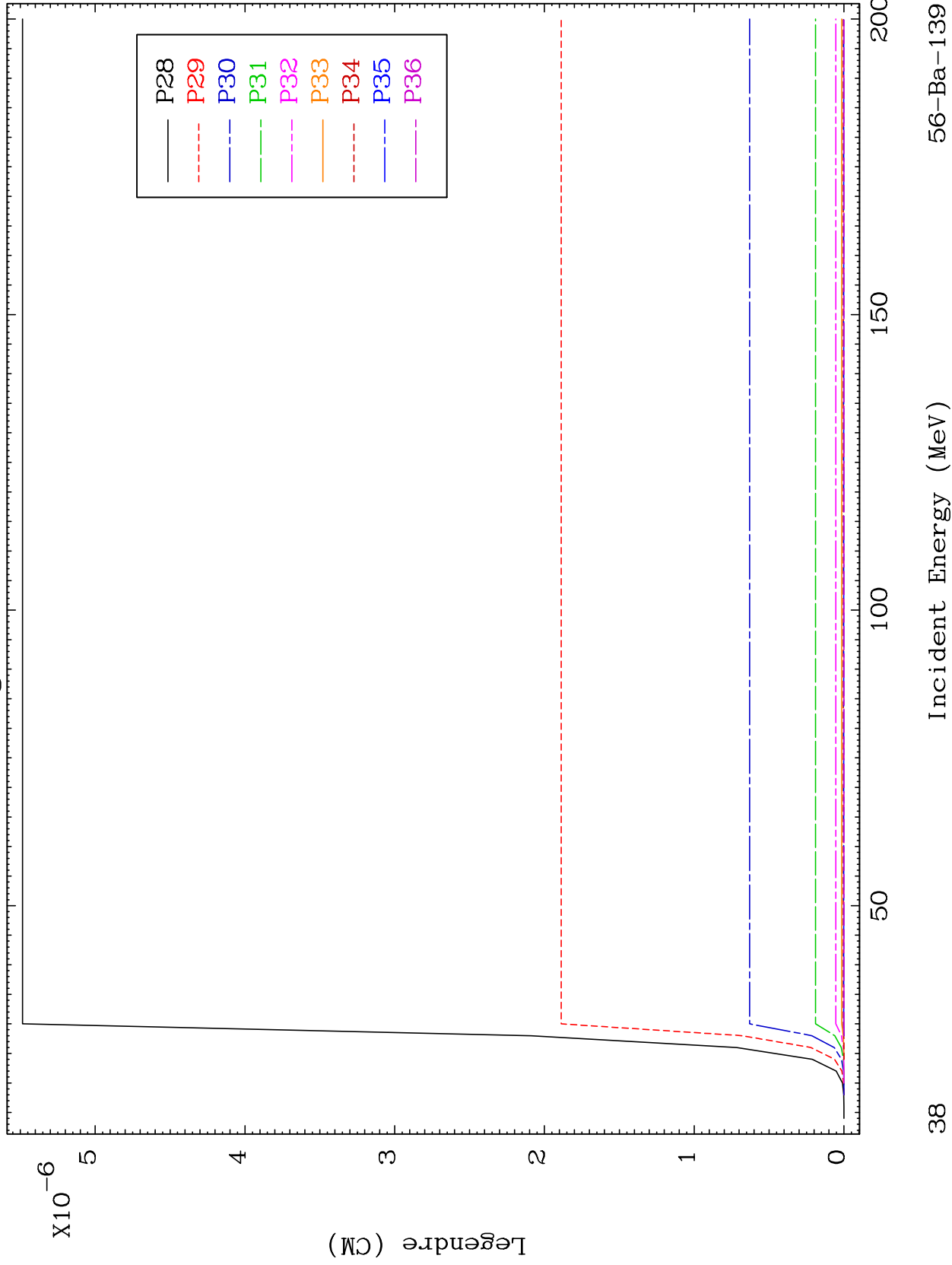
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

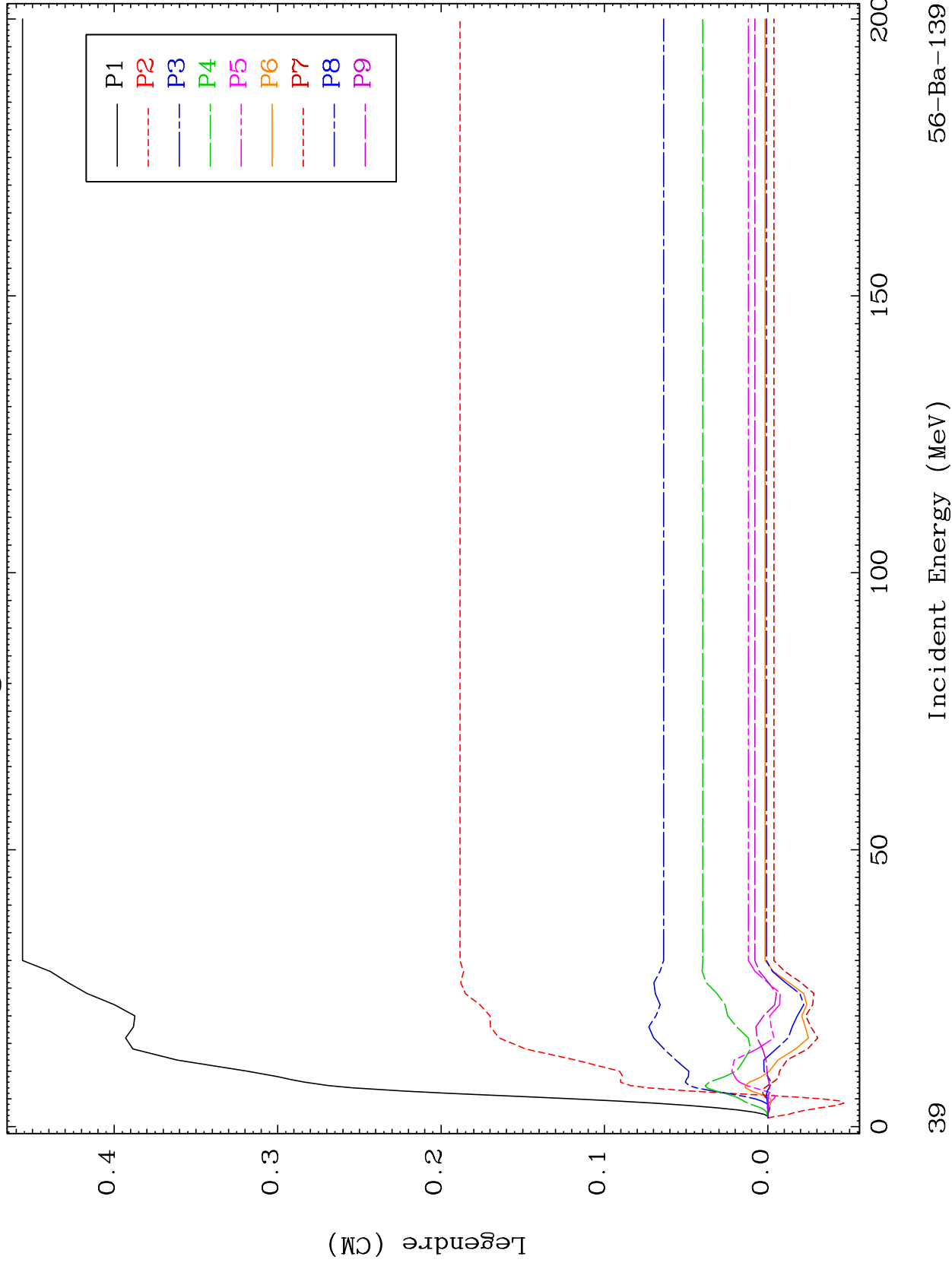
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

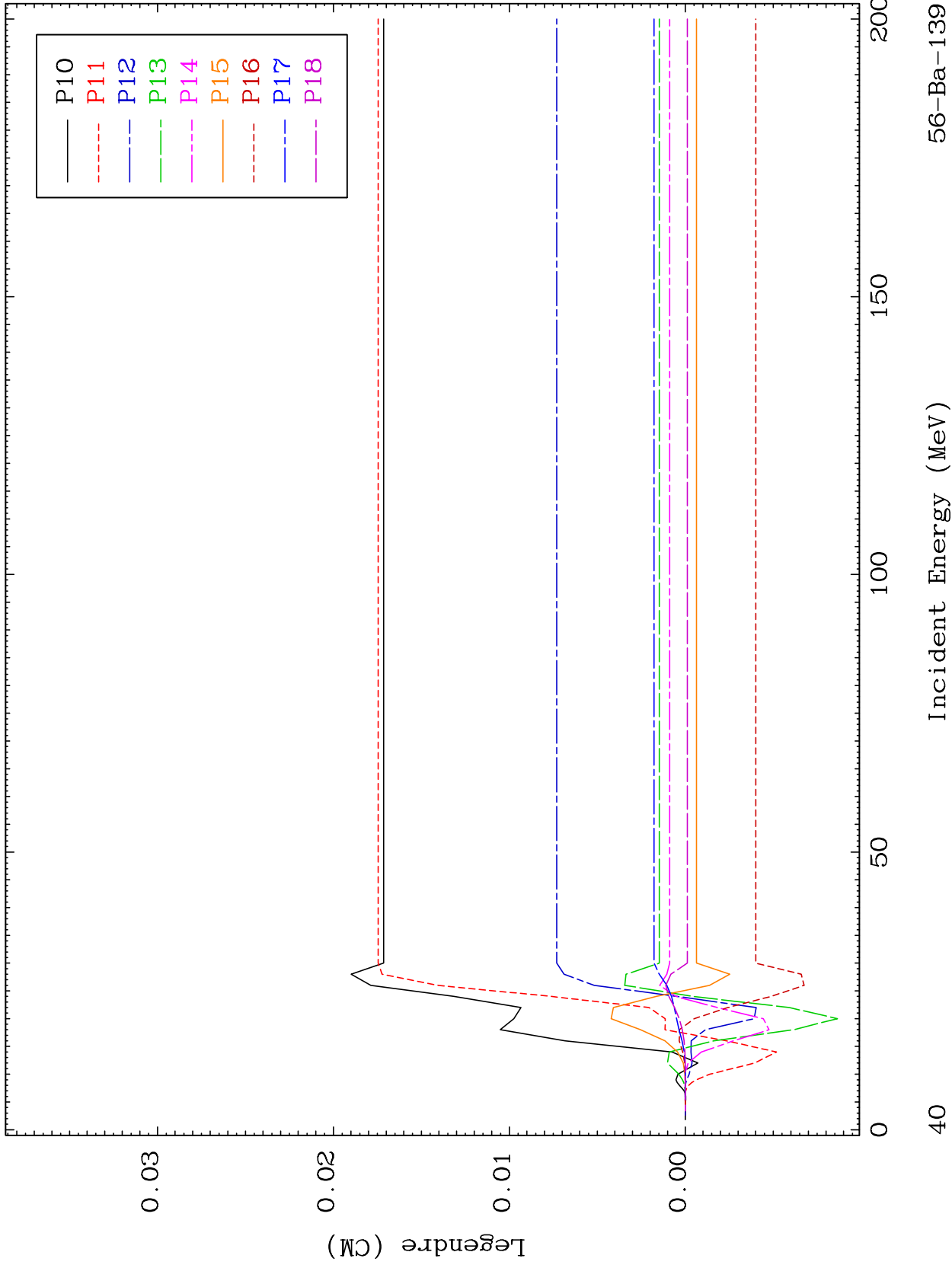
Incident Energy (MeV)

39

MAT 5652

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

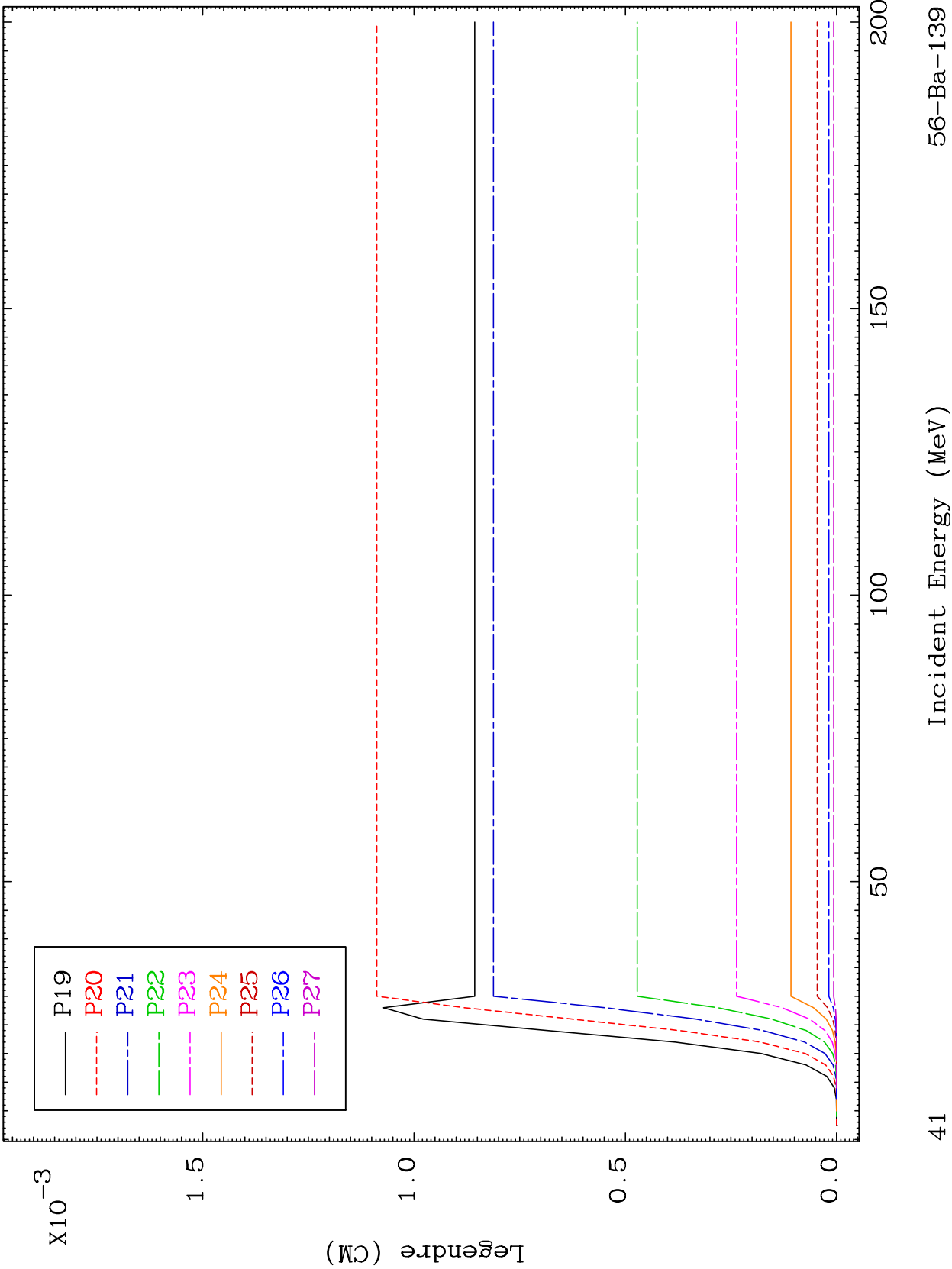
56-Ba-139



56-Ba-139

Incident Energy (MeV)

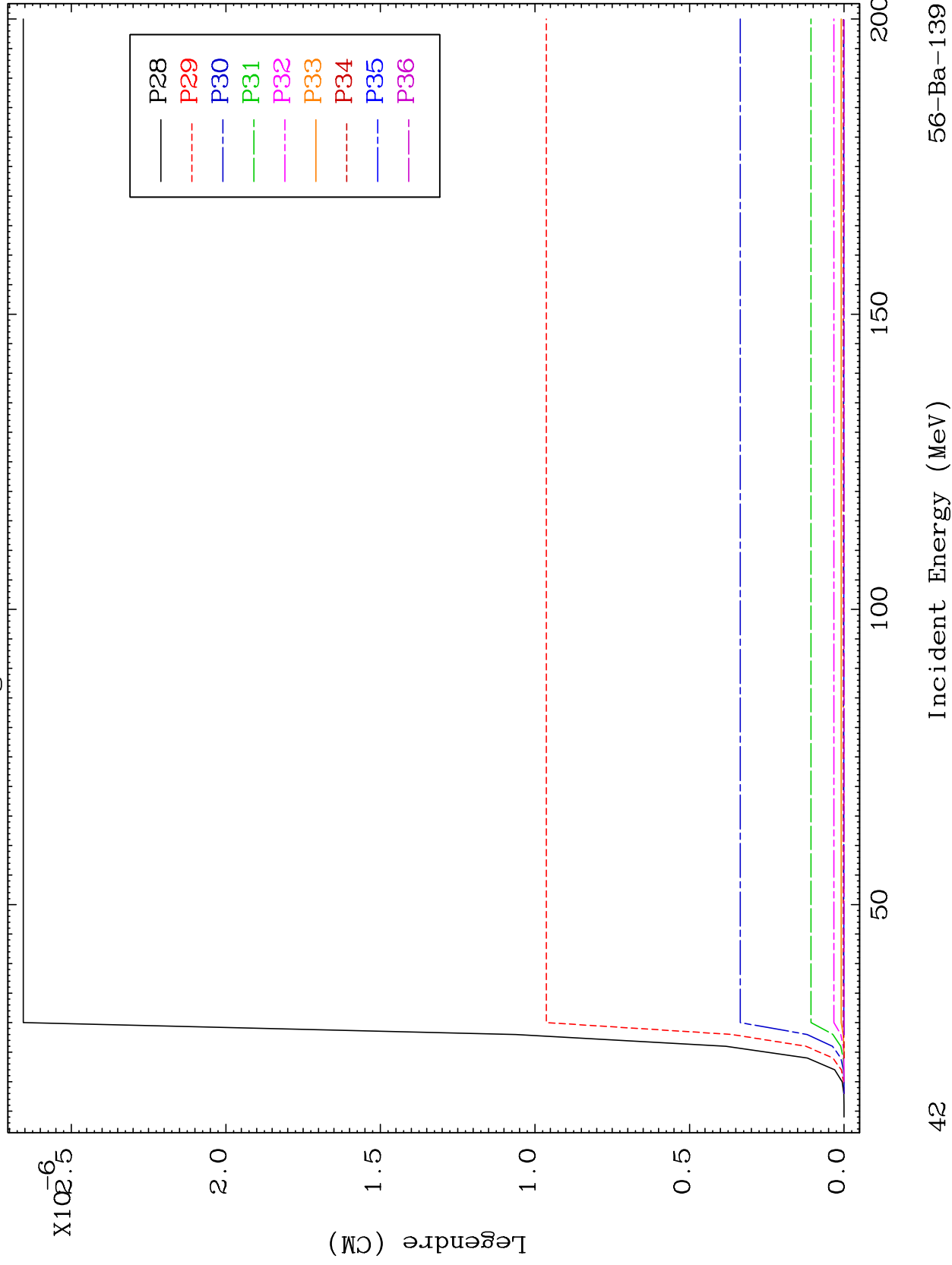
40



MAT 5652

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

56-Ba-139



42

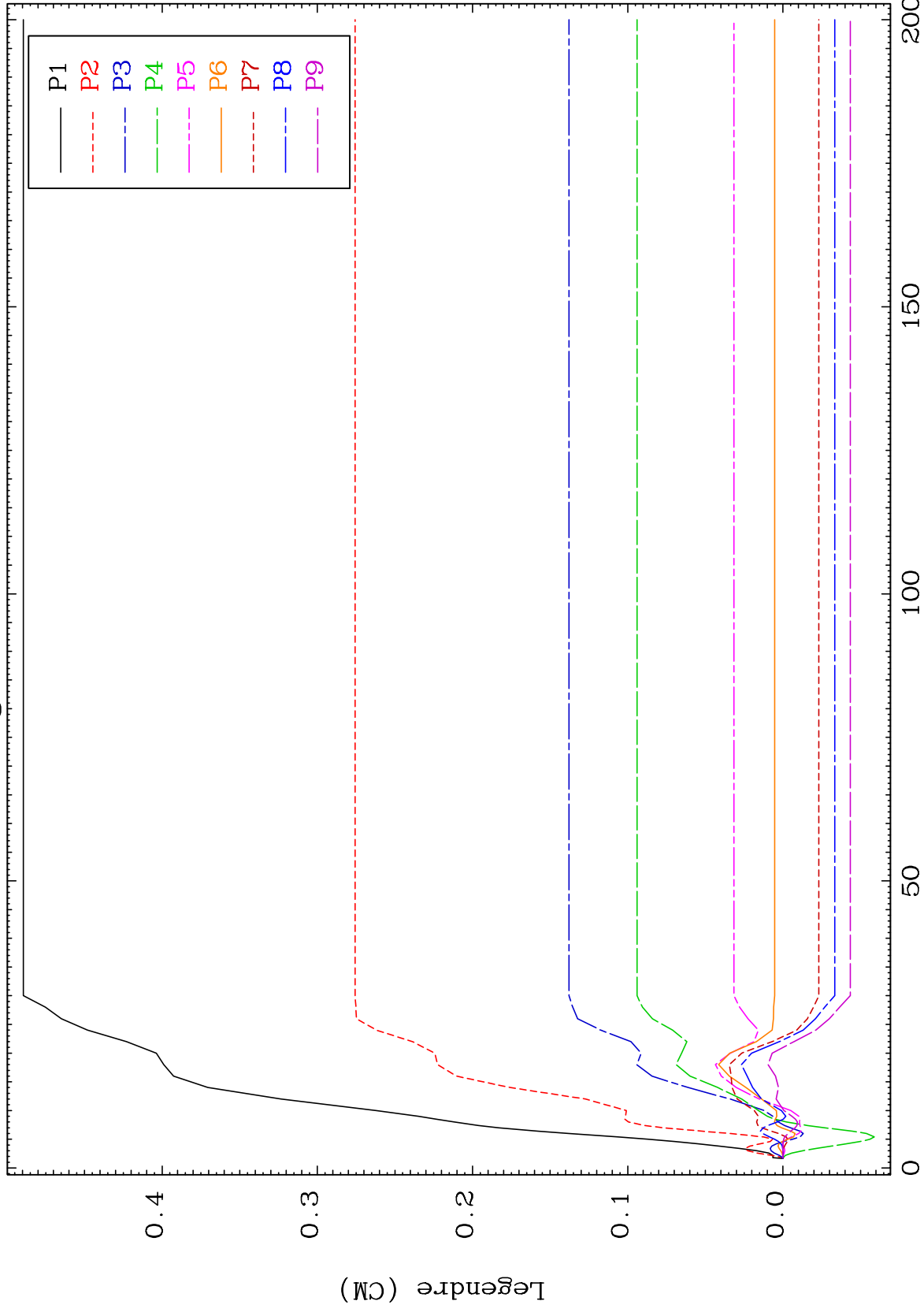
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



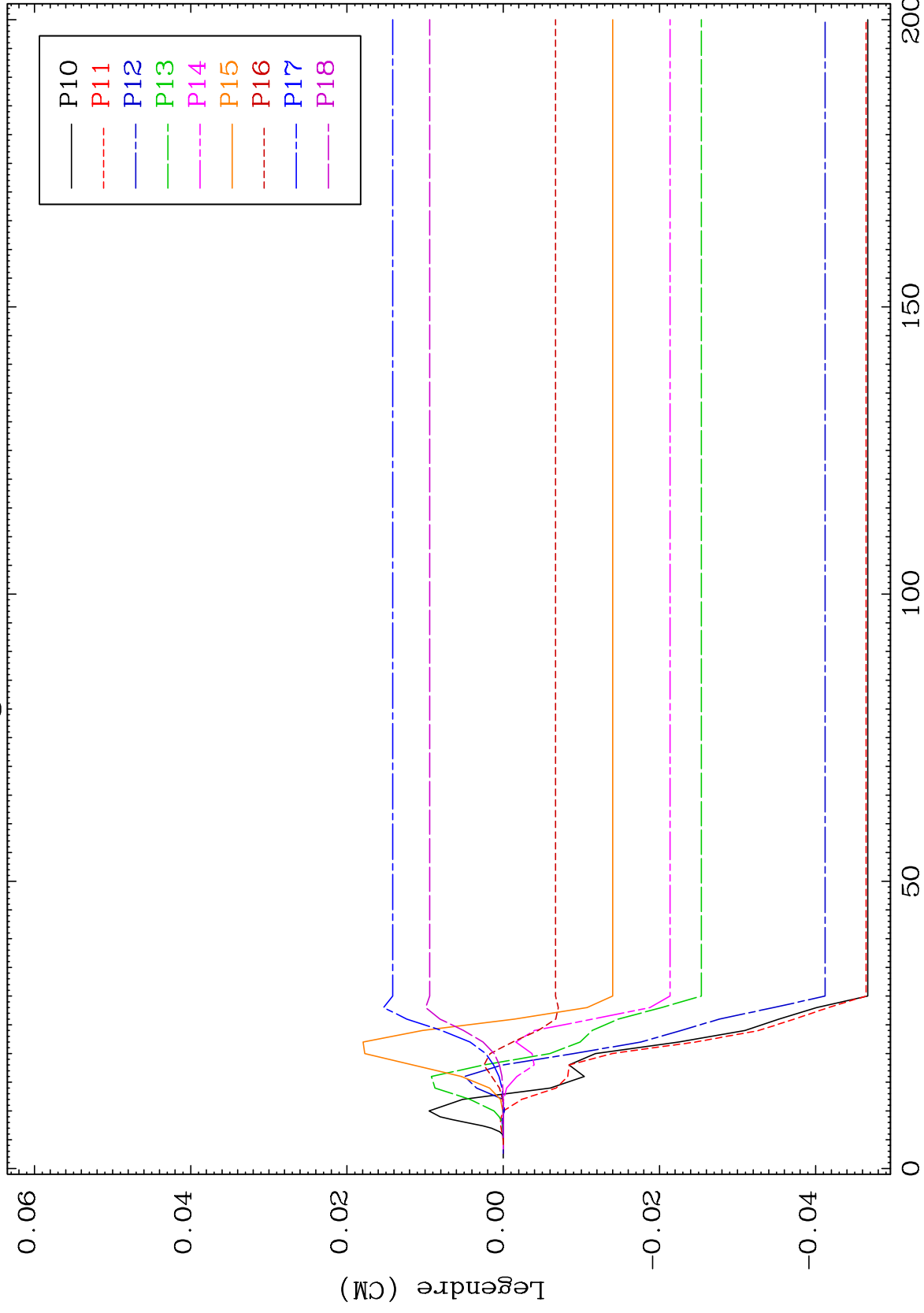
43

56-Ba-139

MAT 5652

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

56-Ba-139



44

Incident Energy (MeV)

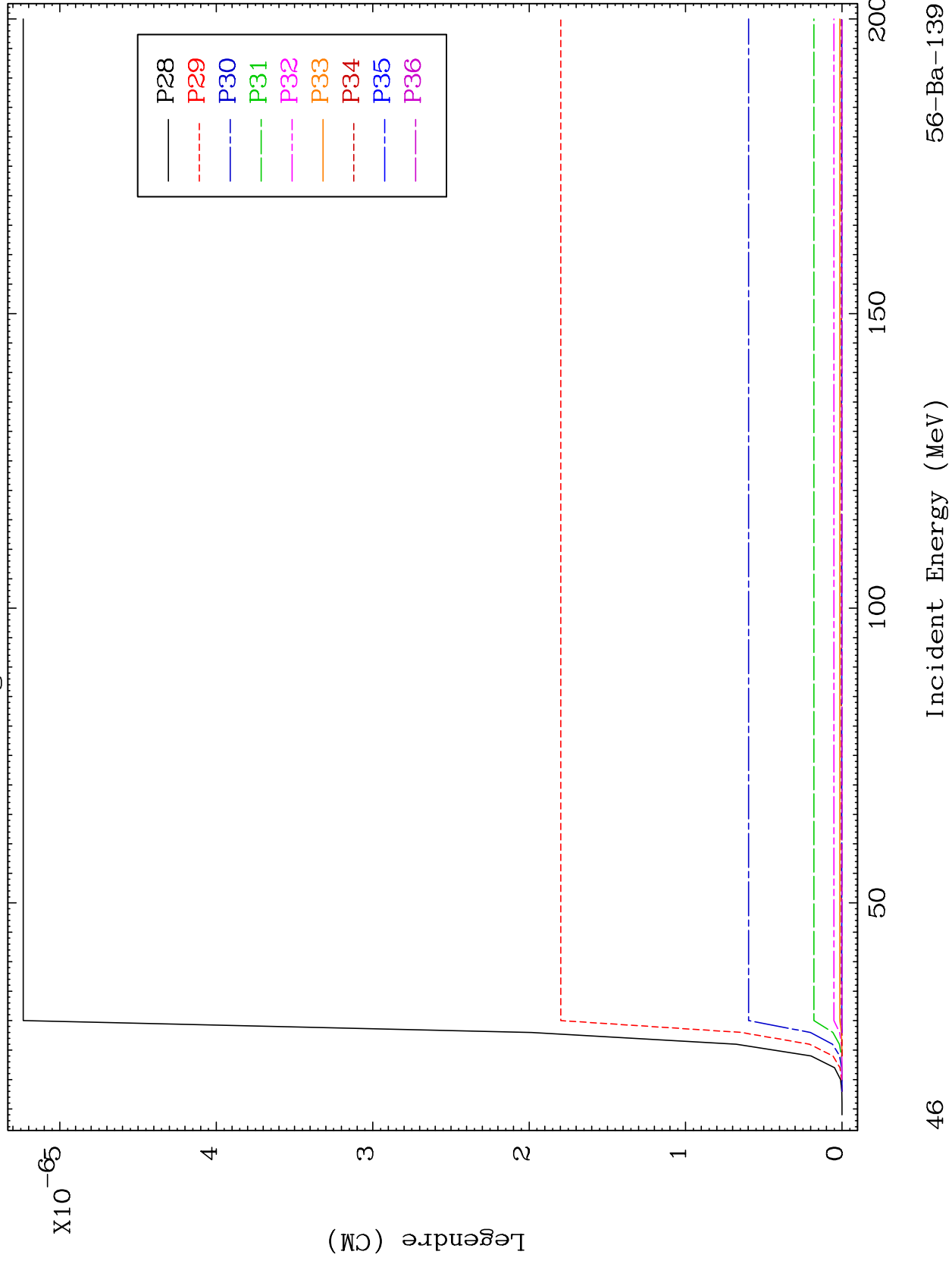
56-Ba-139



MAT 5652

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

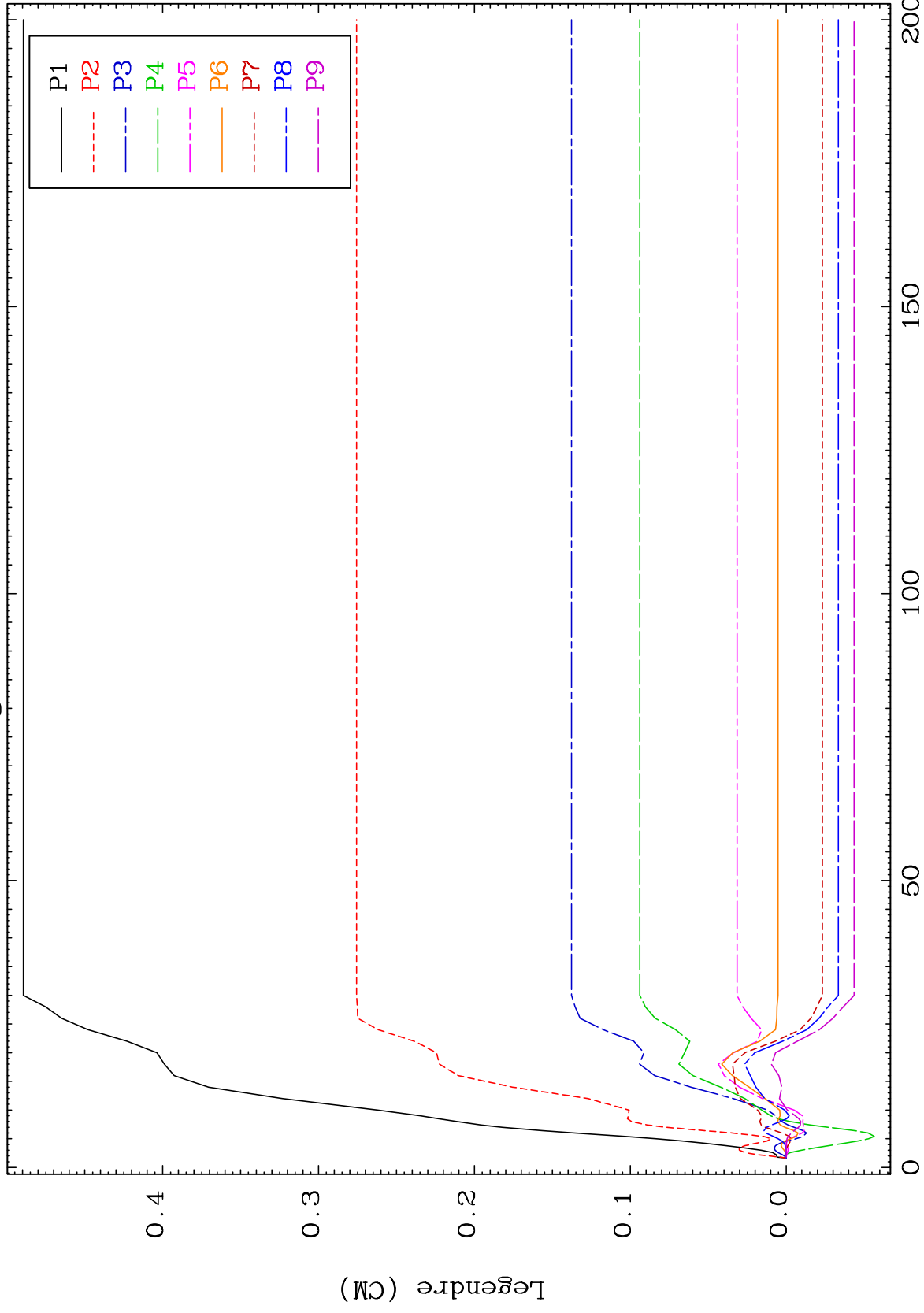
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

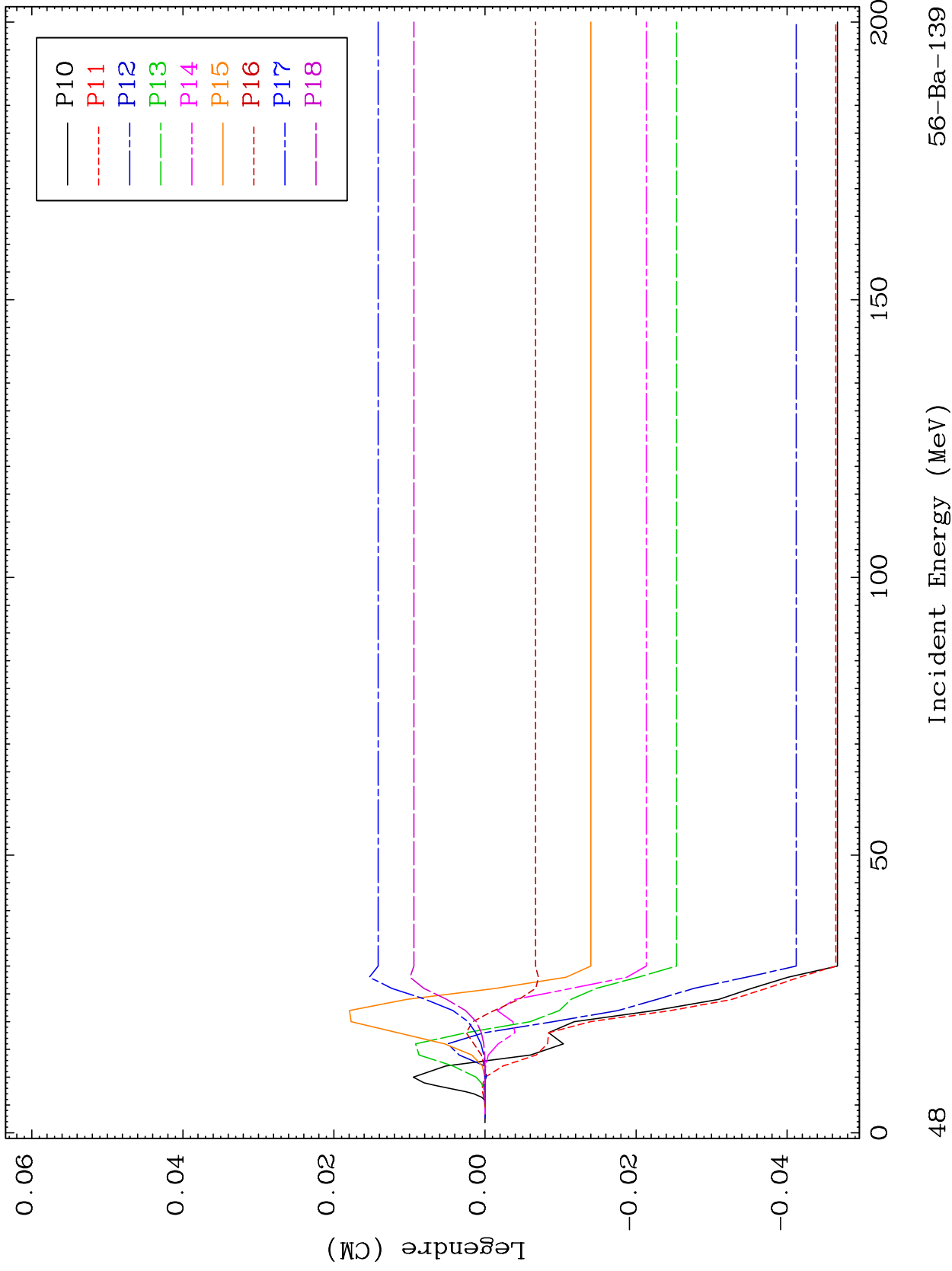
Incident Energy (MeV)

47

MAT 5652

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

56-Ba-139



56-Ba-139

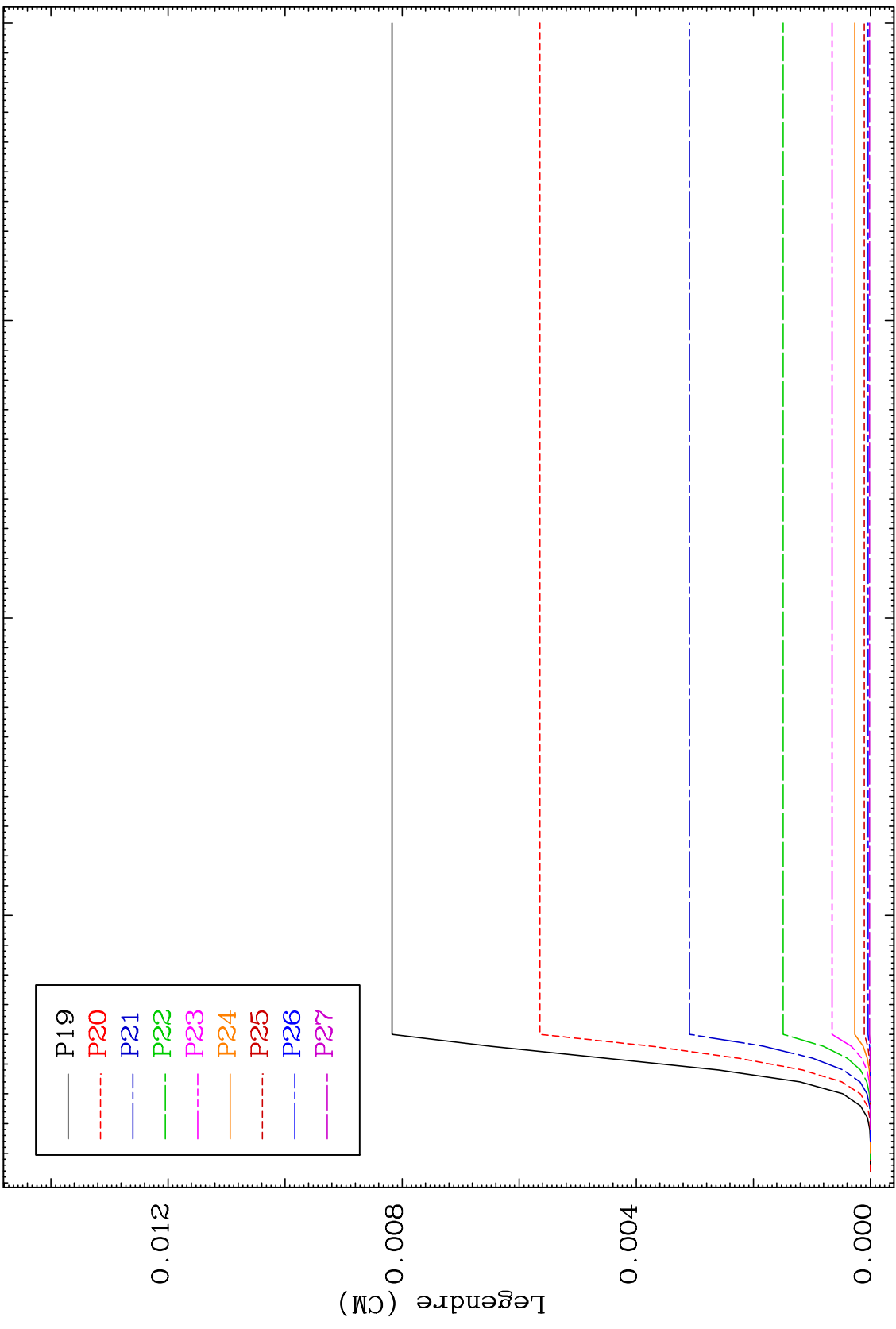
Incident Energy (MeV)

48

MAT 5652

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

56-Ba-139



49

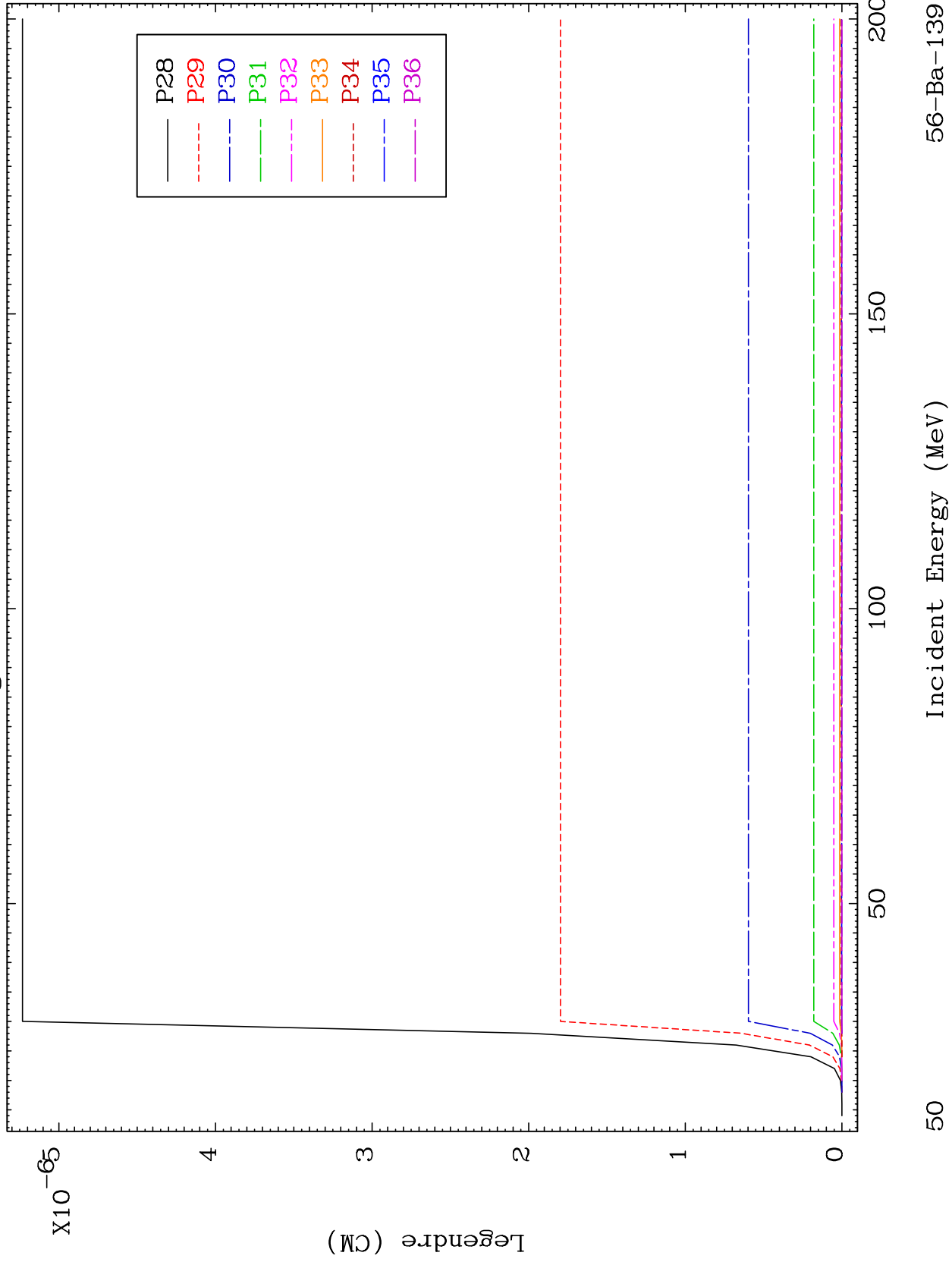
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

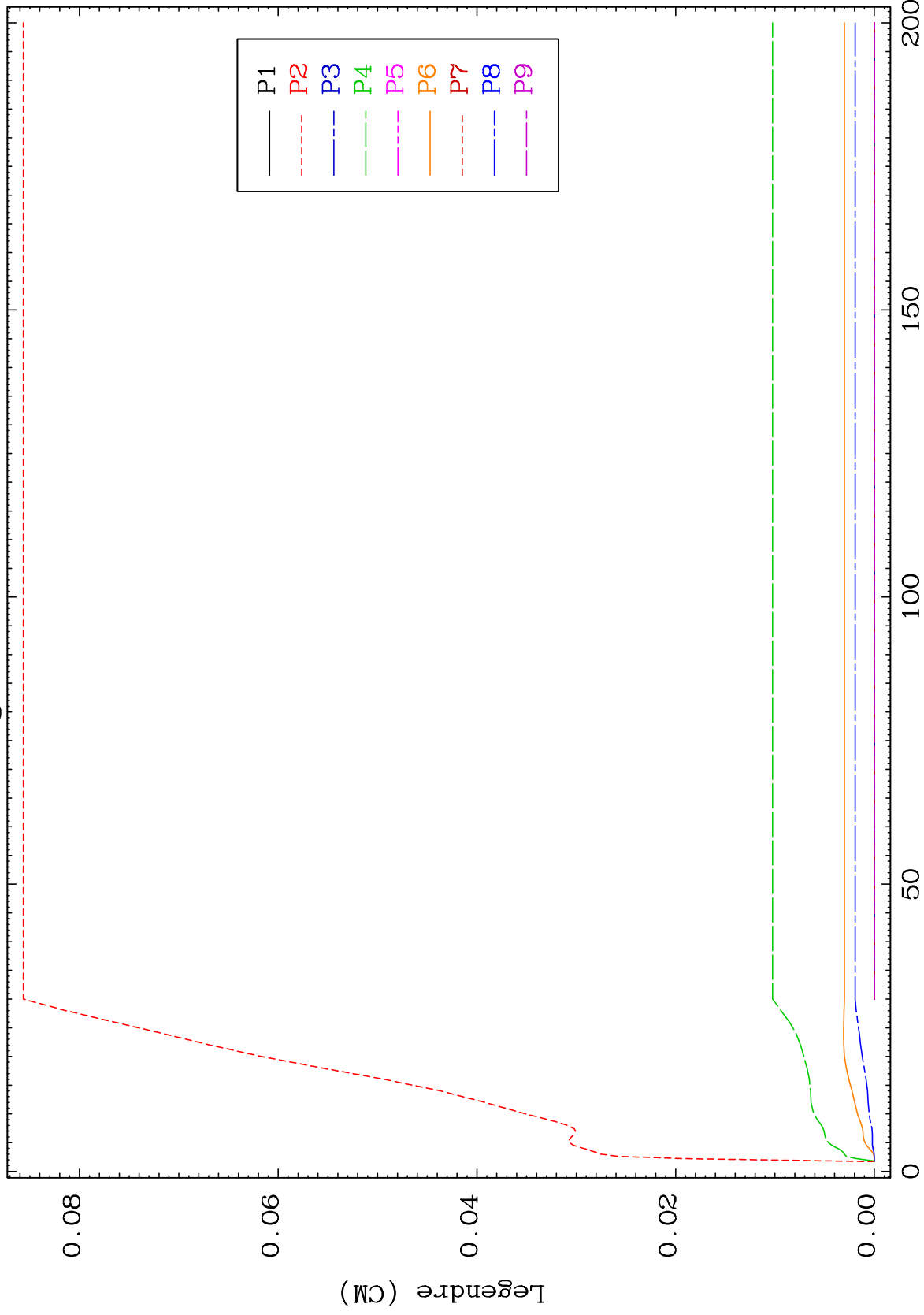
56-Ba-139



MAT 5652

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

56-Ba-139



51

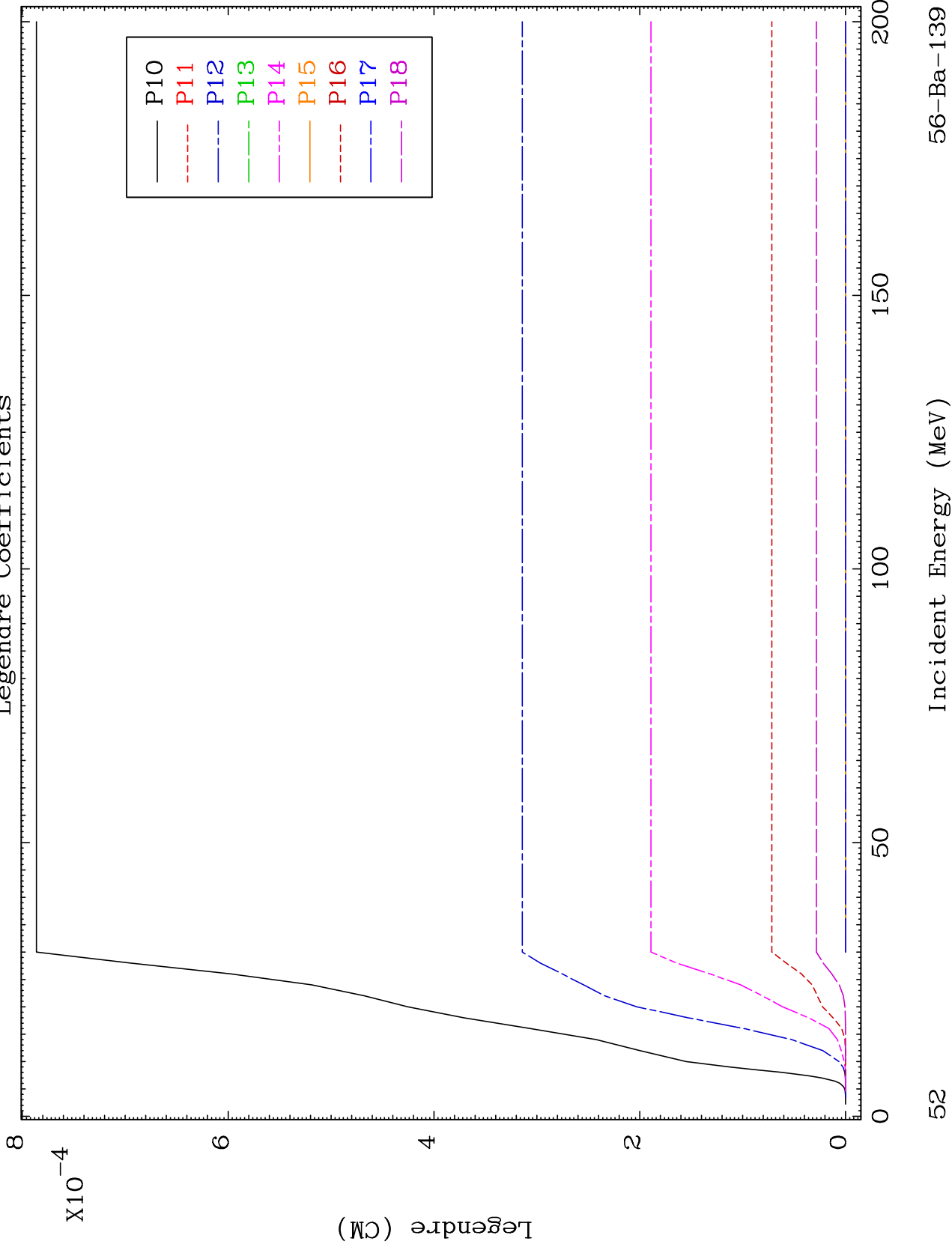
Incident Energy (MeV)

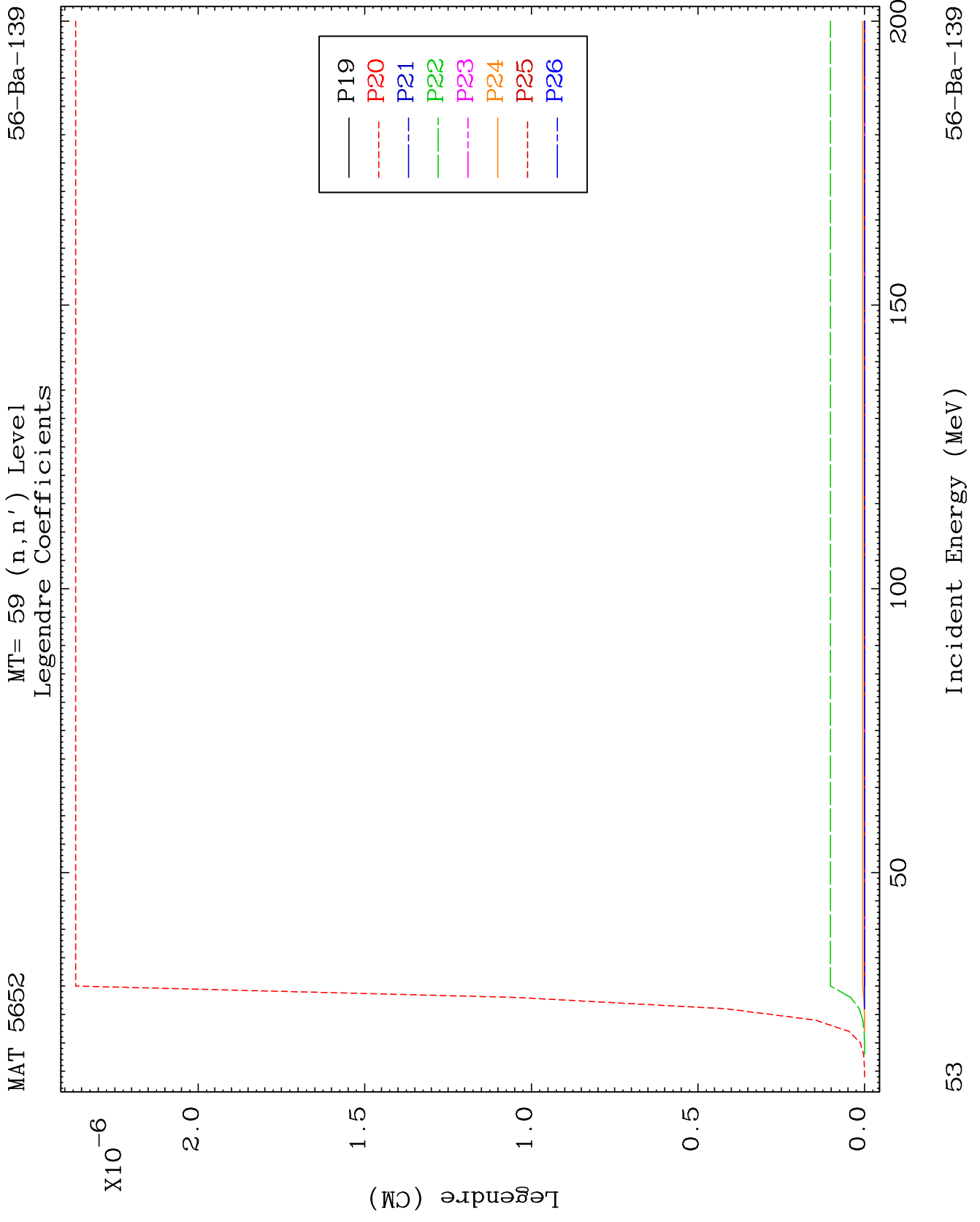
56-Ba-139

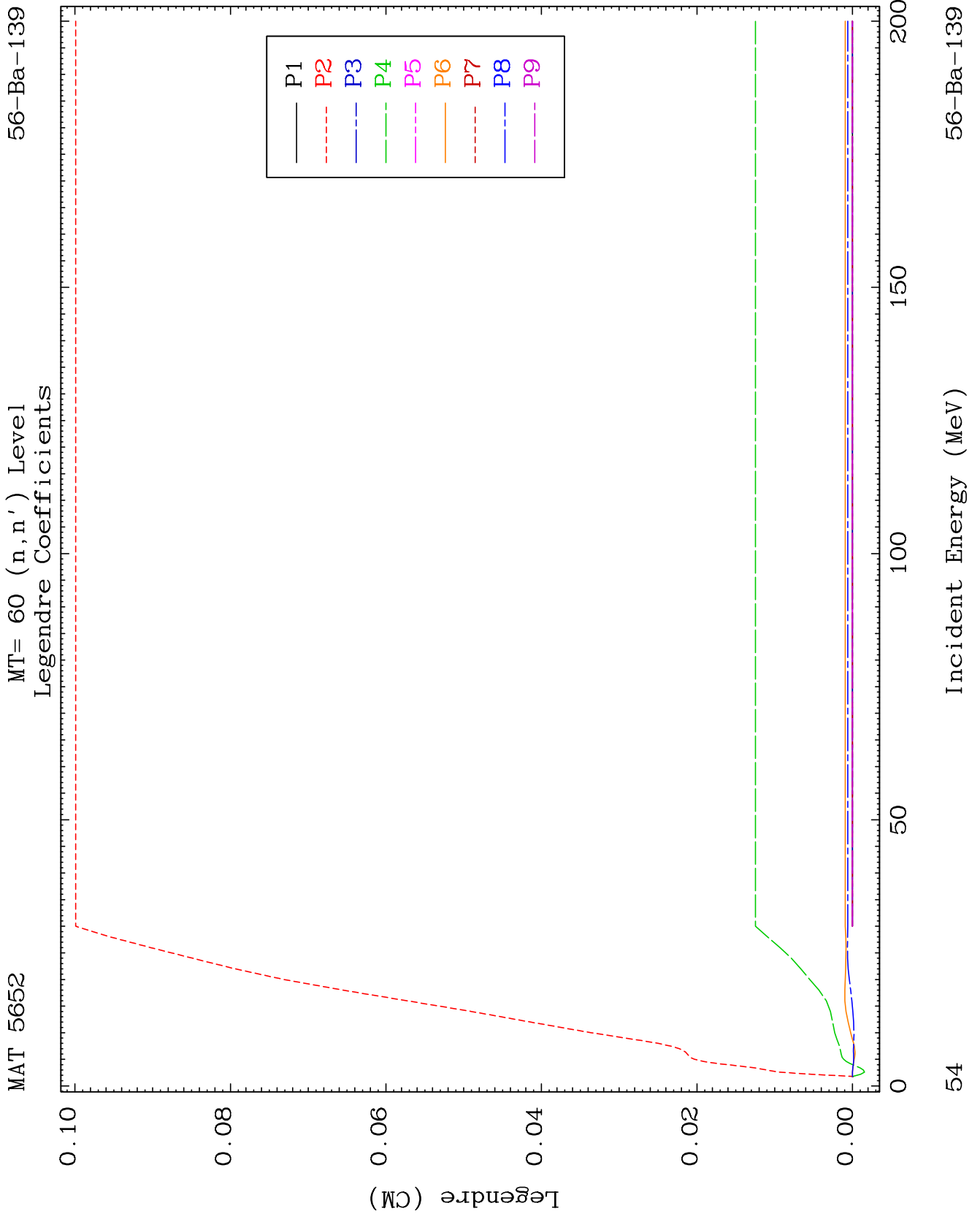
MAT 5652

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

56-Ba-139



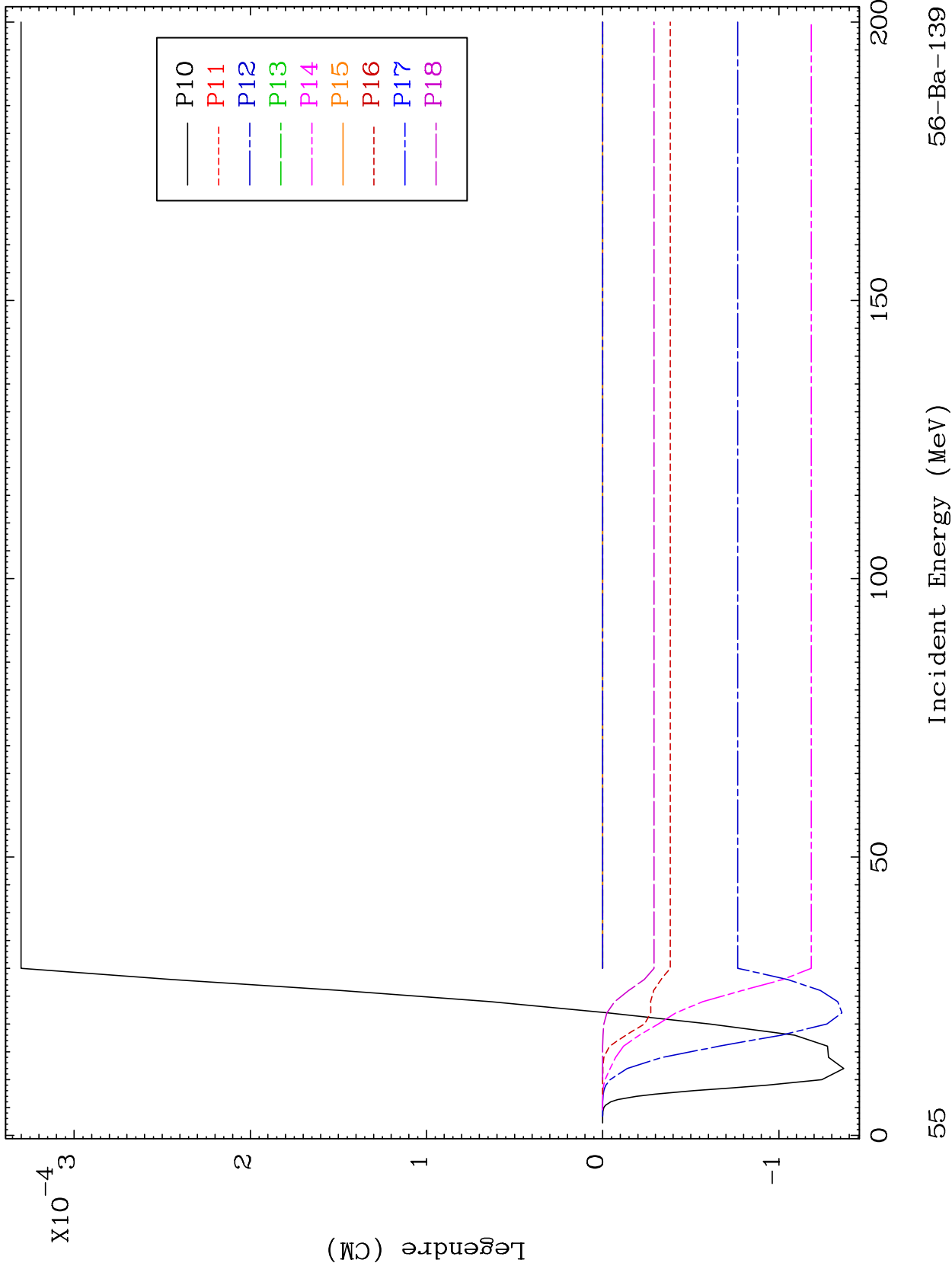


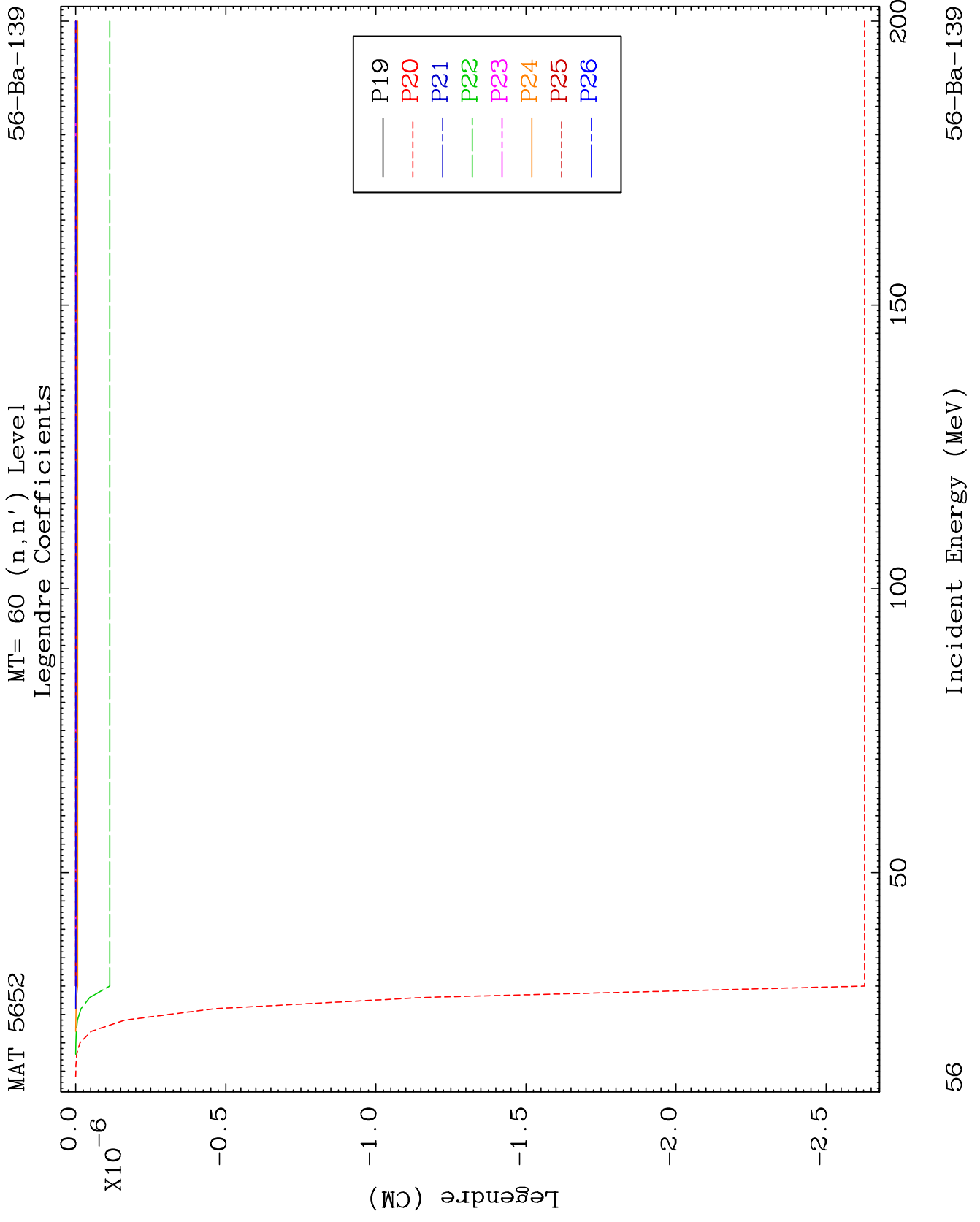


MAT 5652

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

56-Ba-139

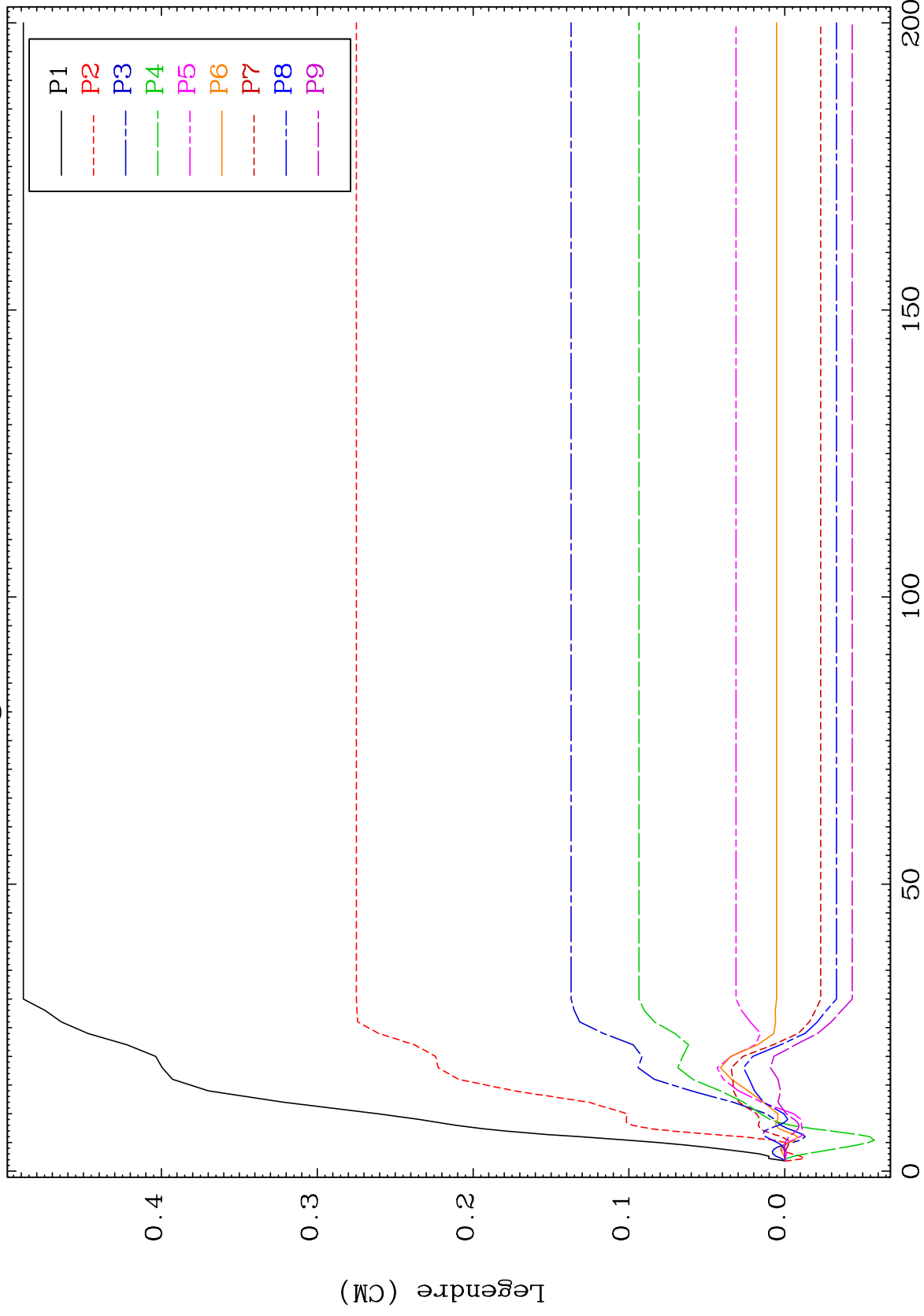




MAT 5652

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

56-Ba-139



56-Ba-139

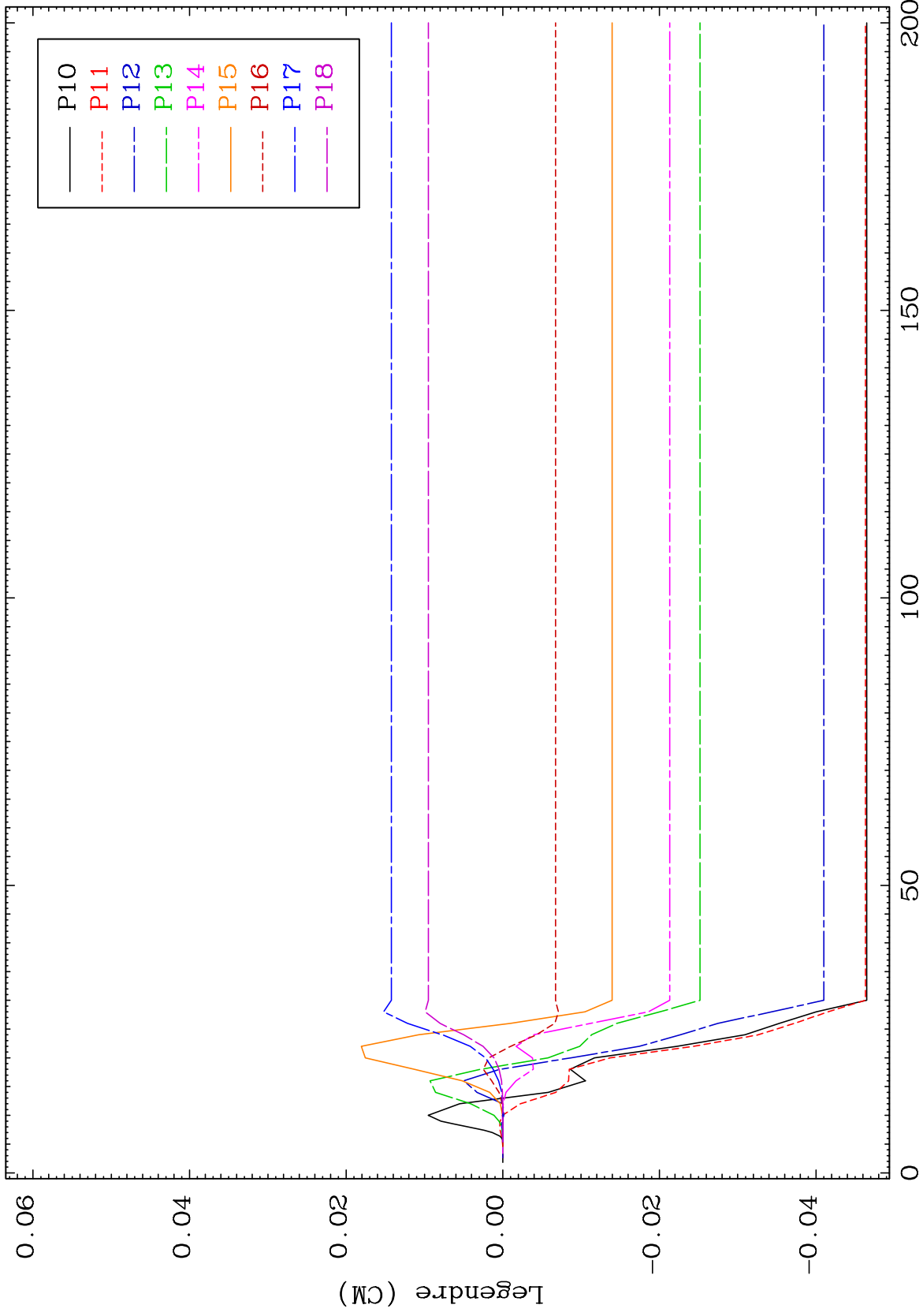
Incident Energy (MeV)

57

MAT 5652

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

56-Ba-139



58

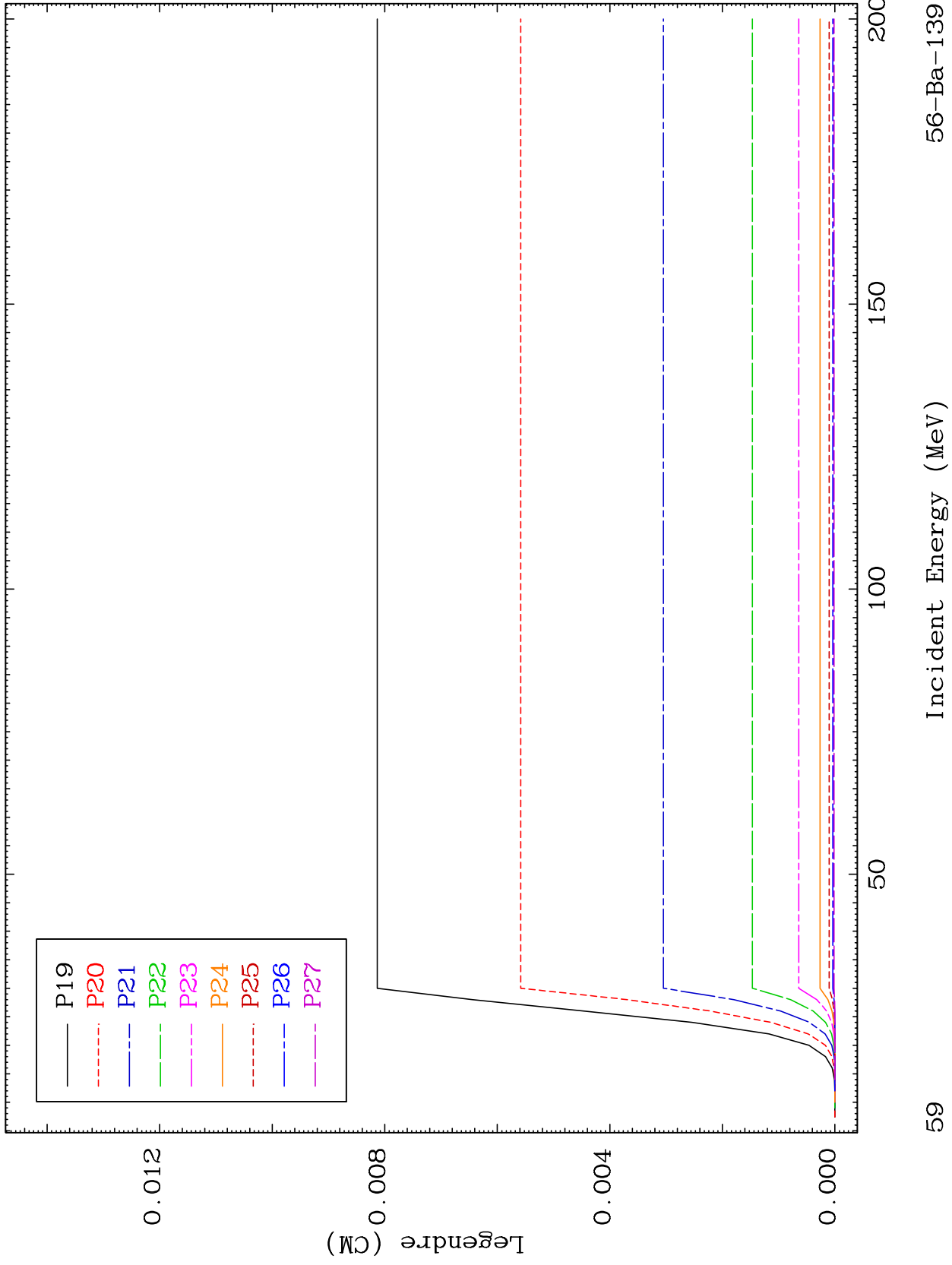
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



56-Ba-139

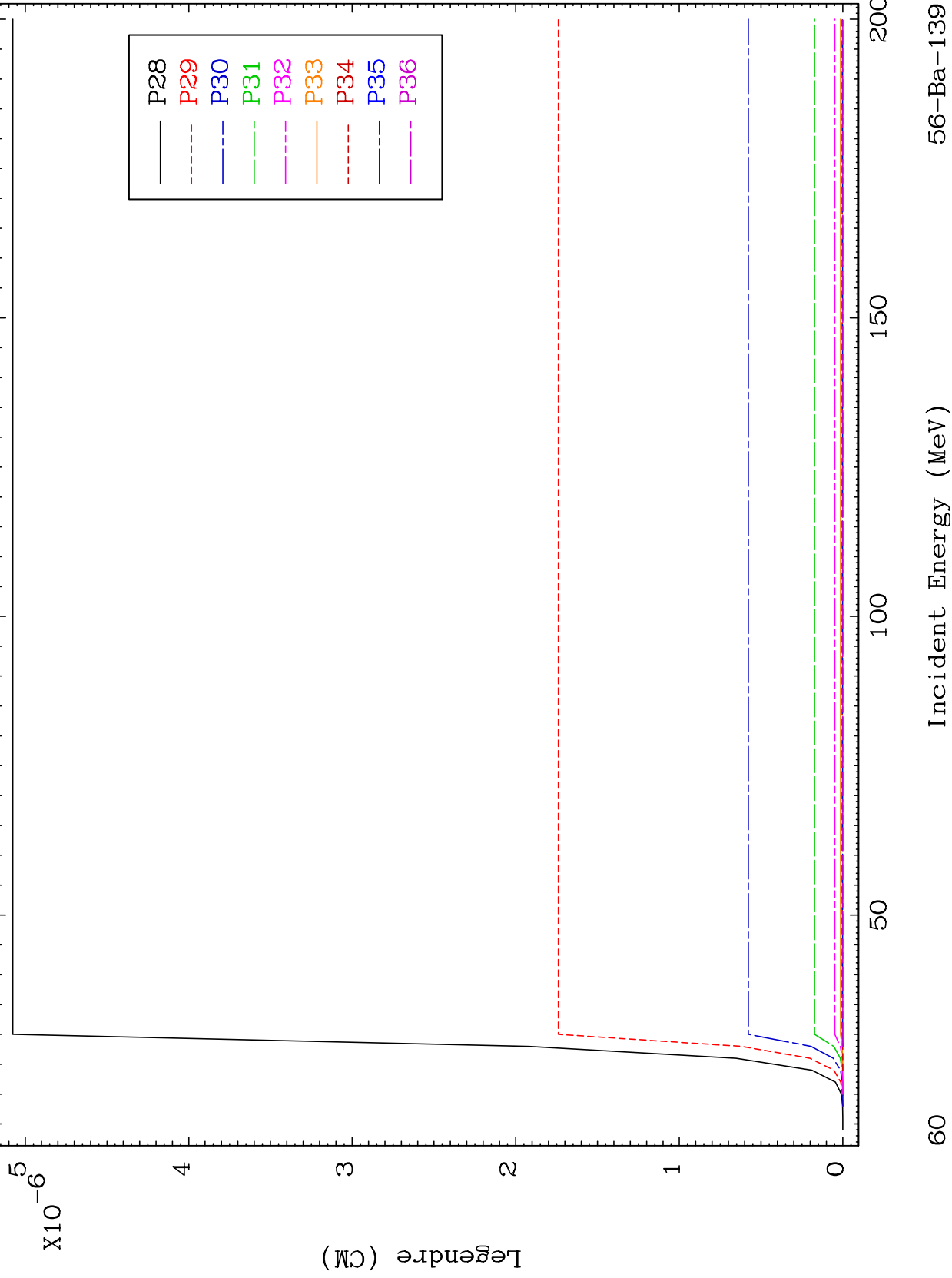
Incident Energy (MeV)

59

MAT 5652

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

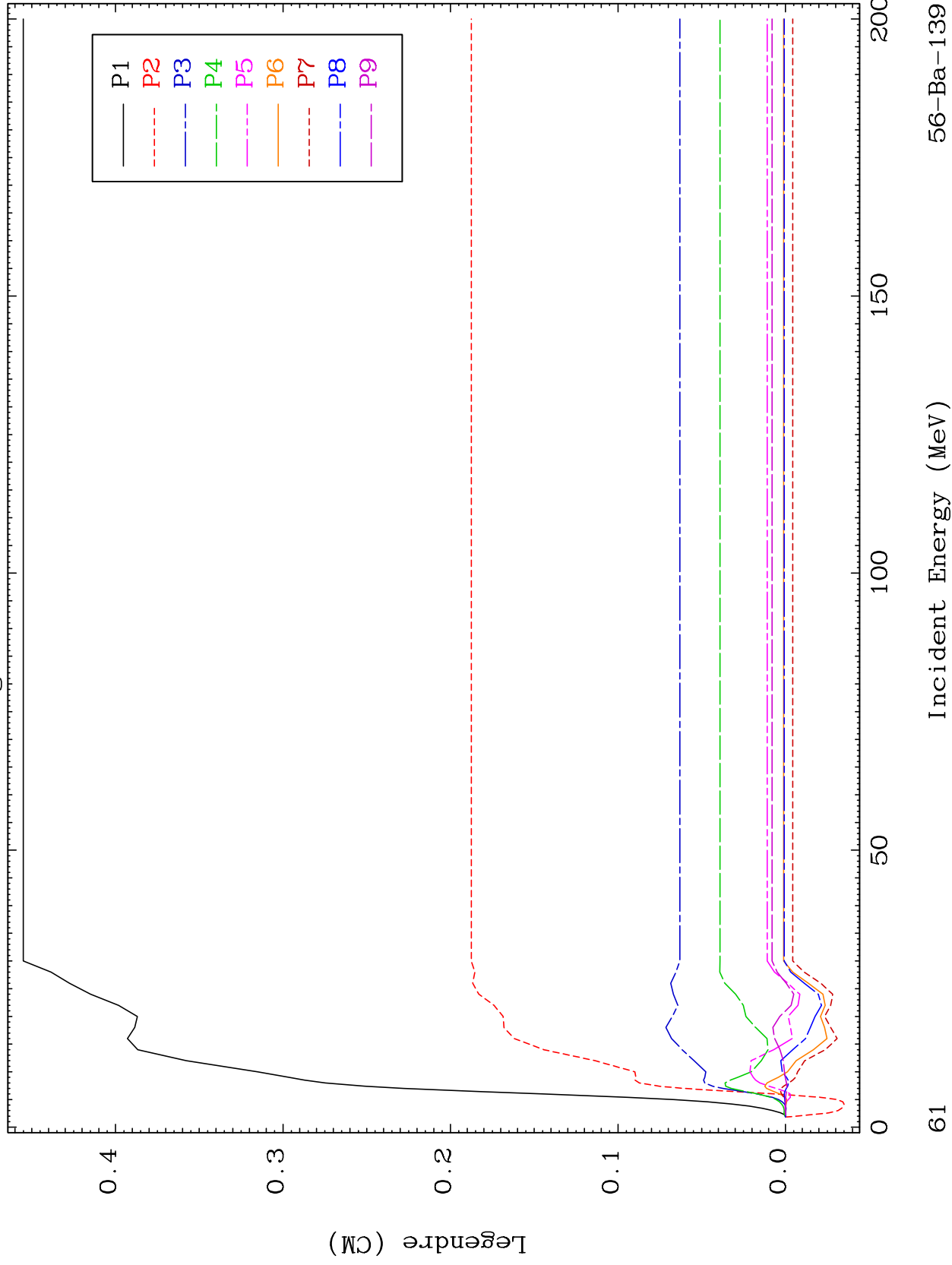
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

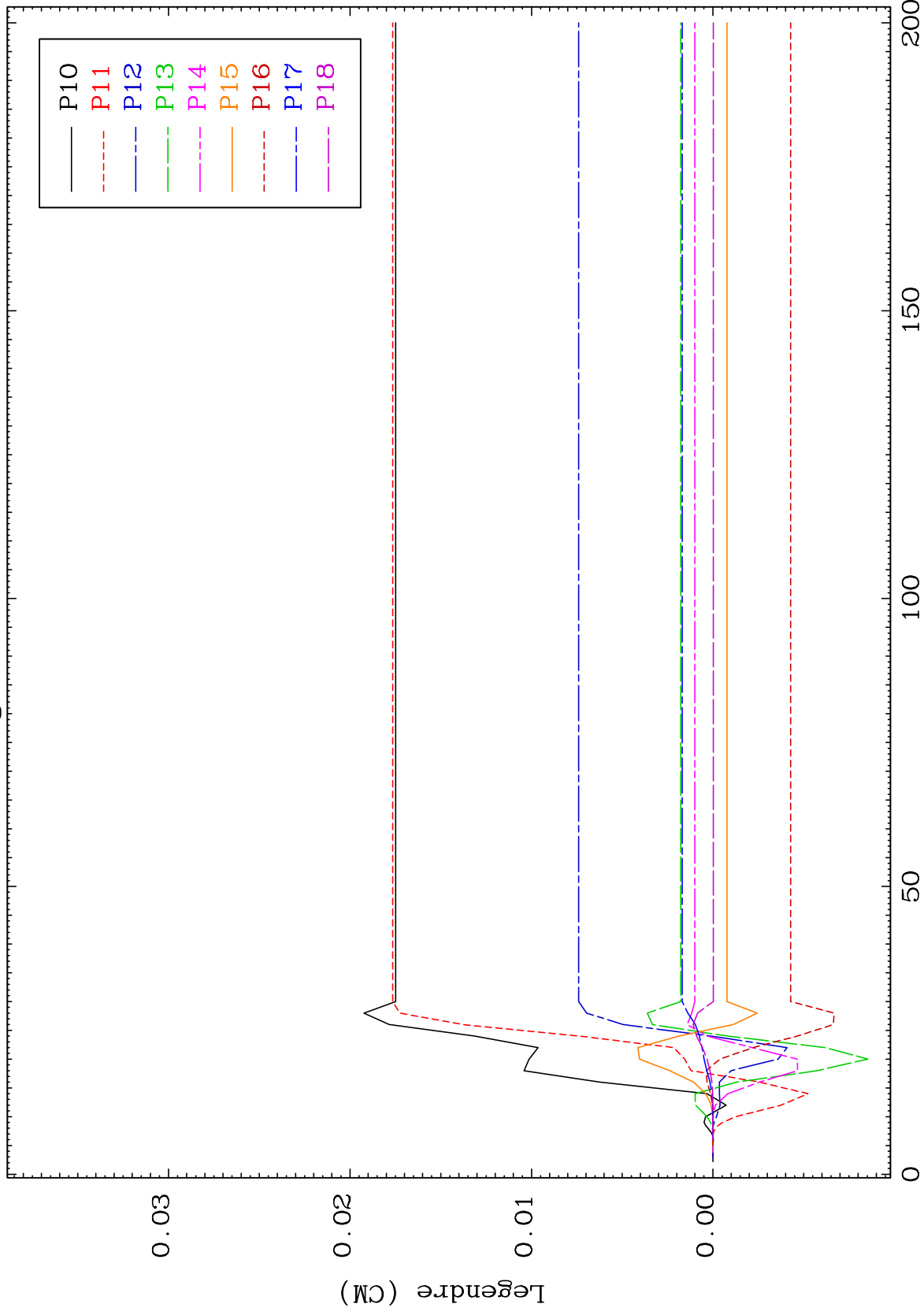
Incident Energy (MeV)

61

MAT 5652

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

56-Ba-139



62

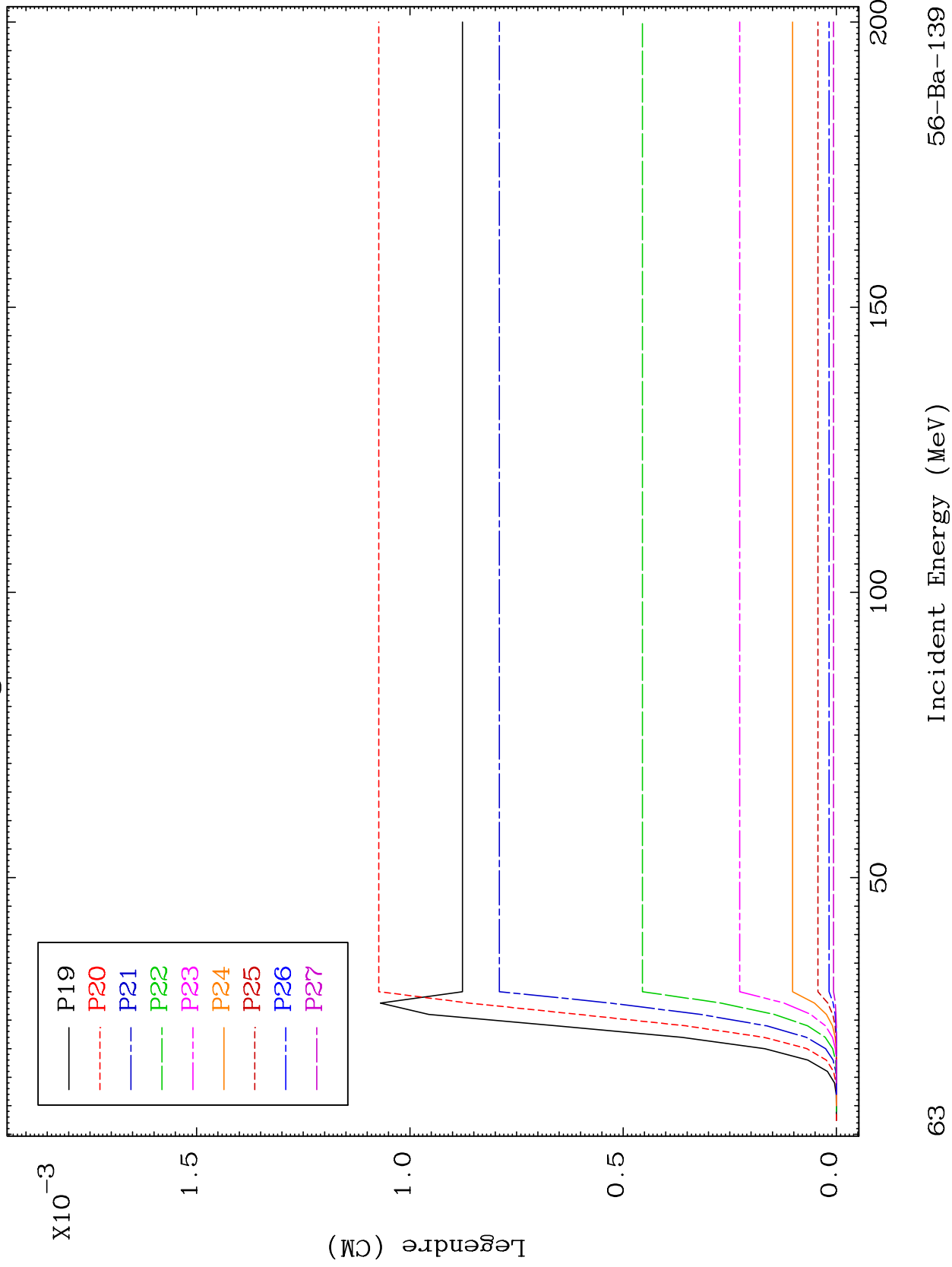
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

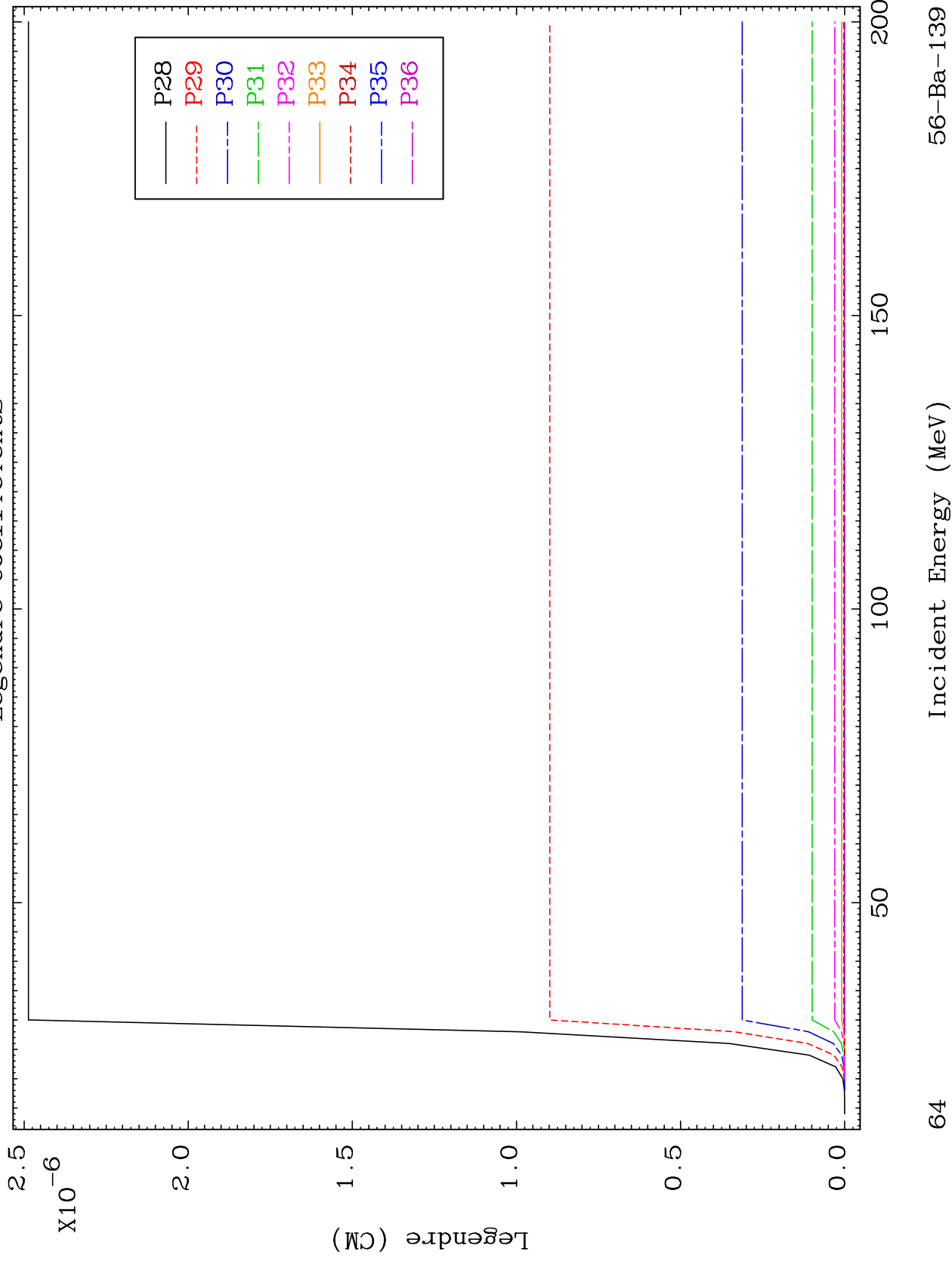
56-Ba-139



MAT 5652

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

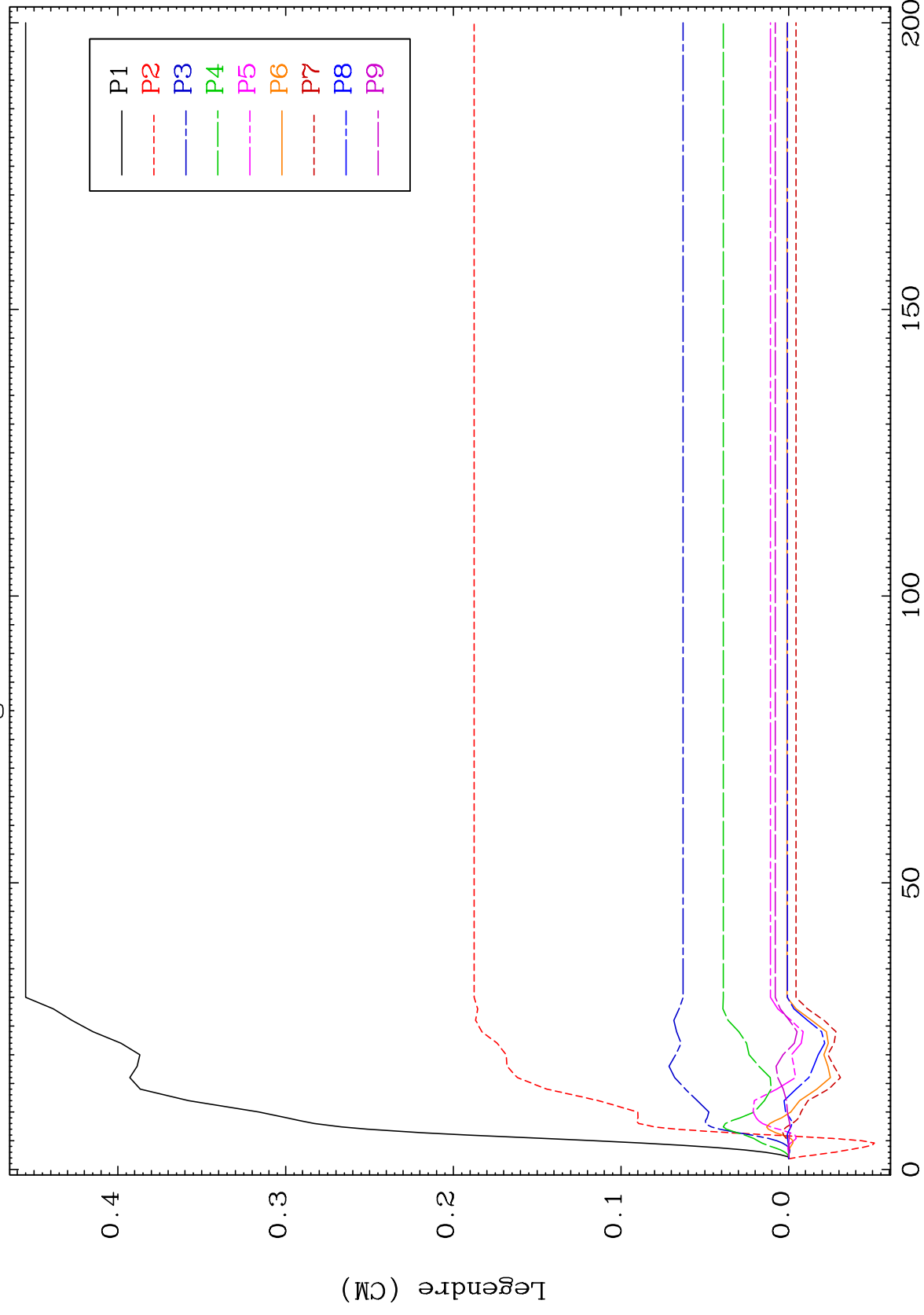
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

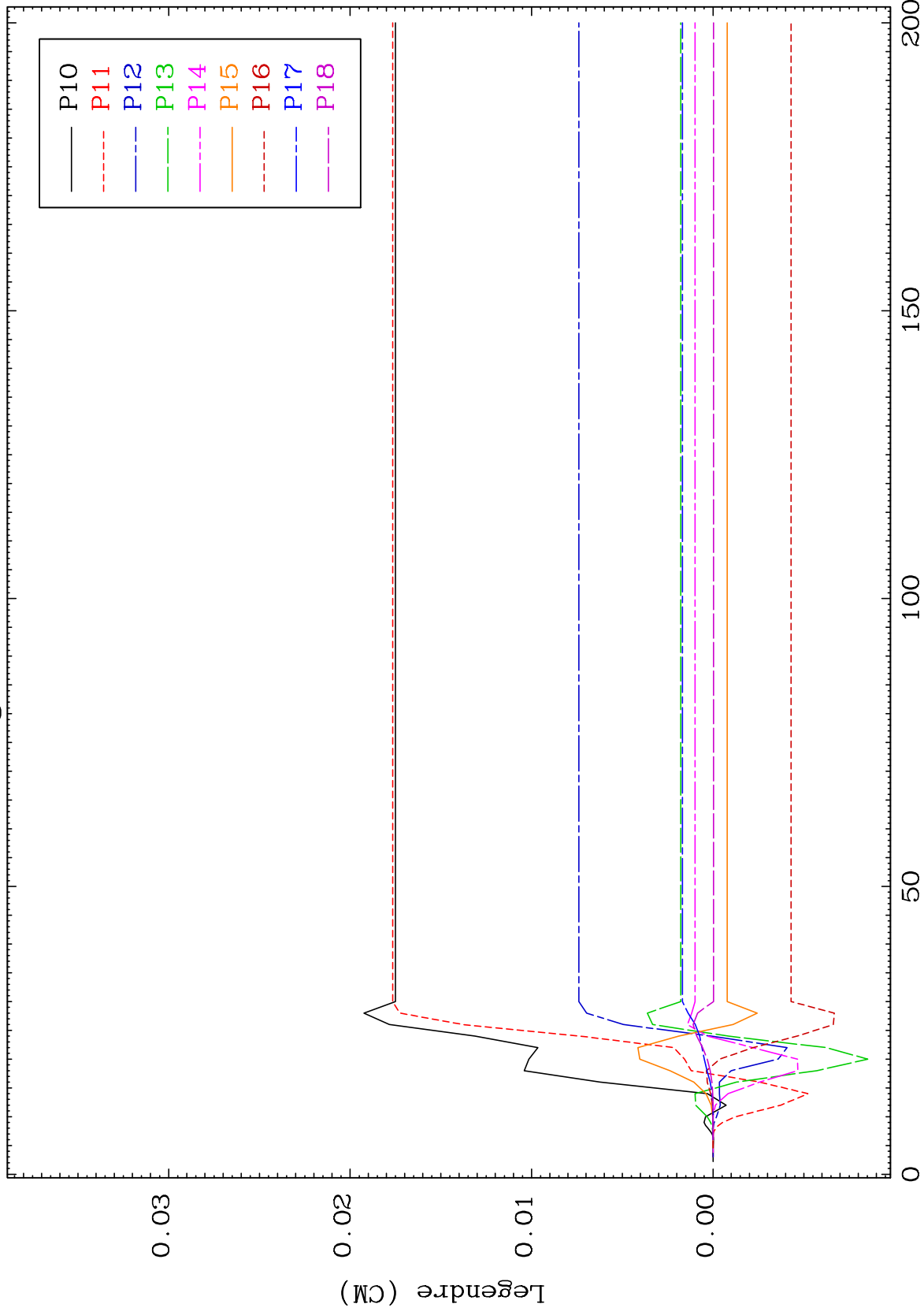
Incident Energy (MeV)

65

MAT 5652

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

56-Ba-139



66

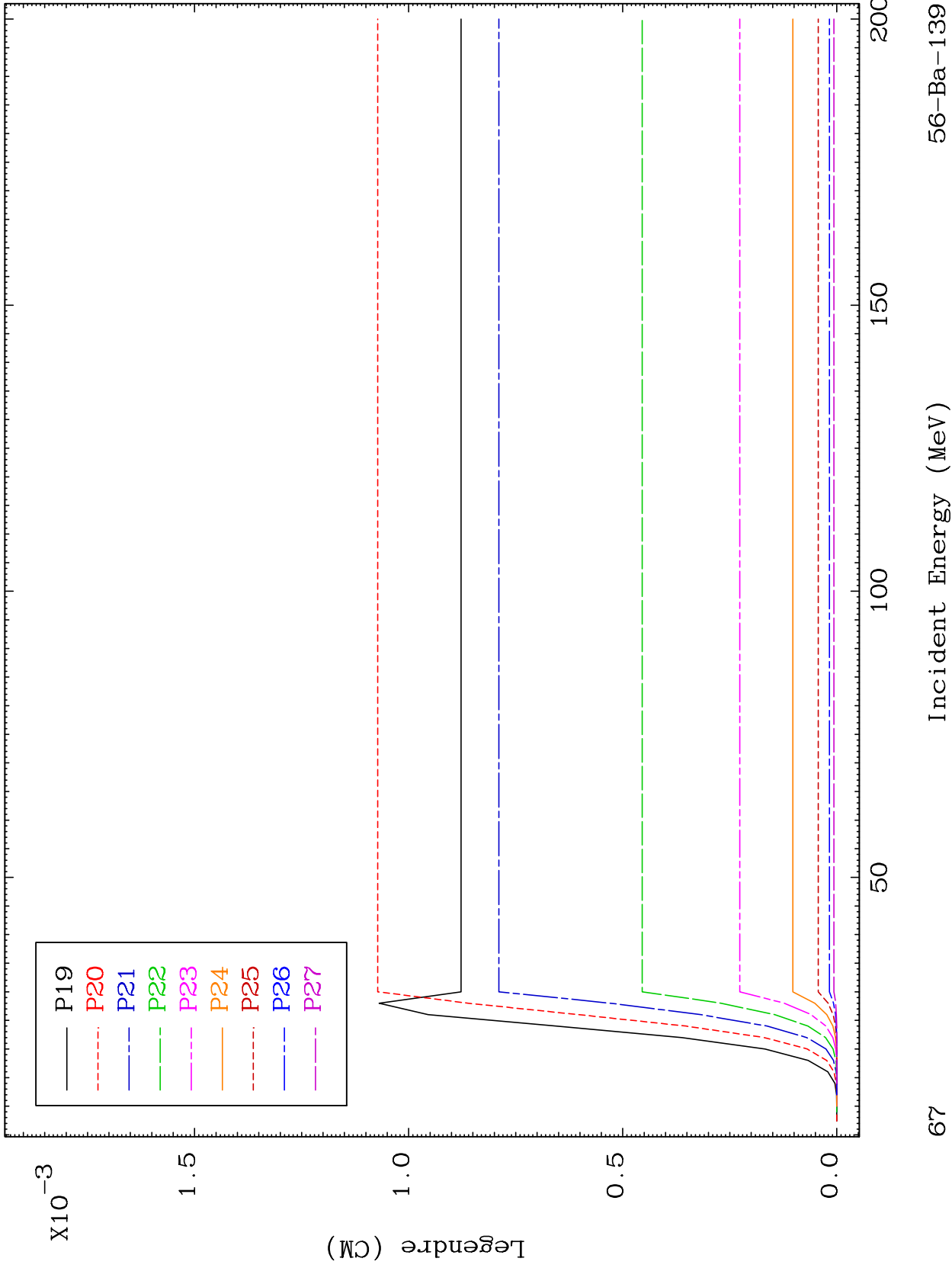
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

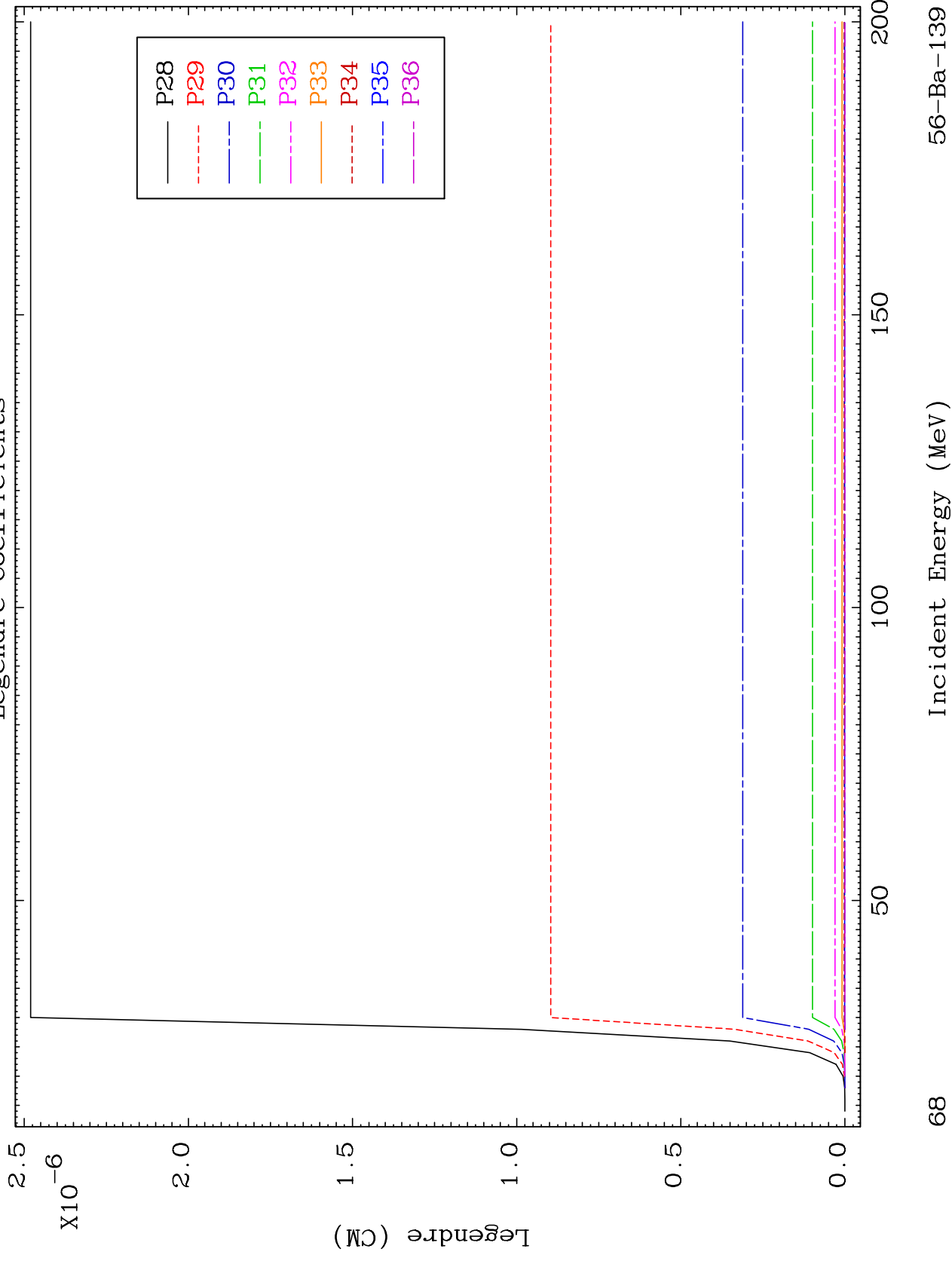
56-Ba-139



MAT 5652

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

56-Ba-139



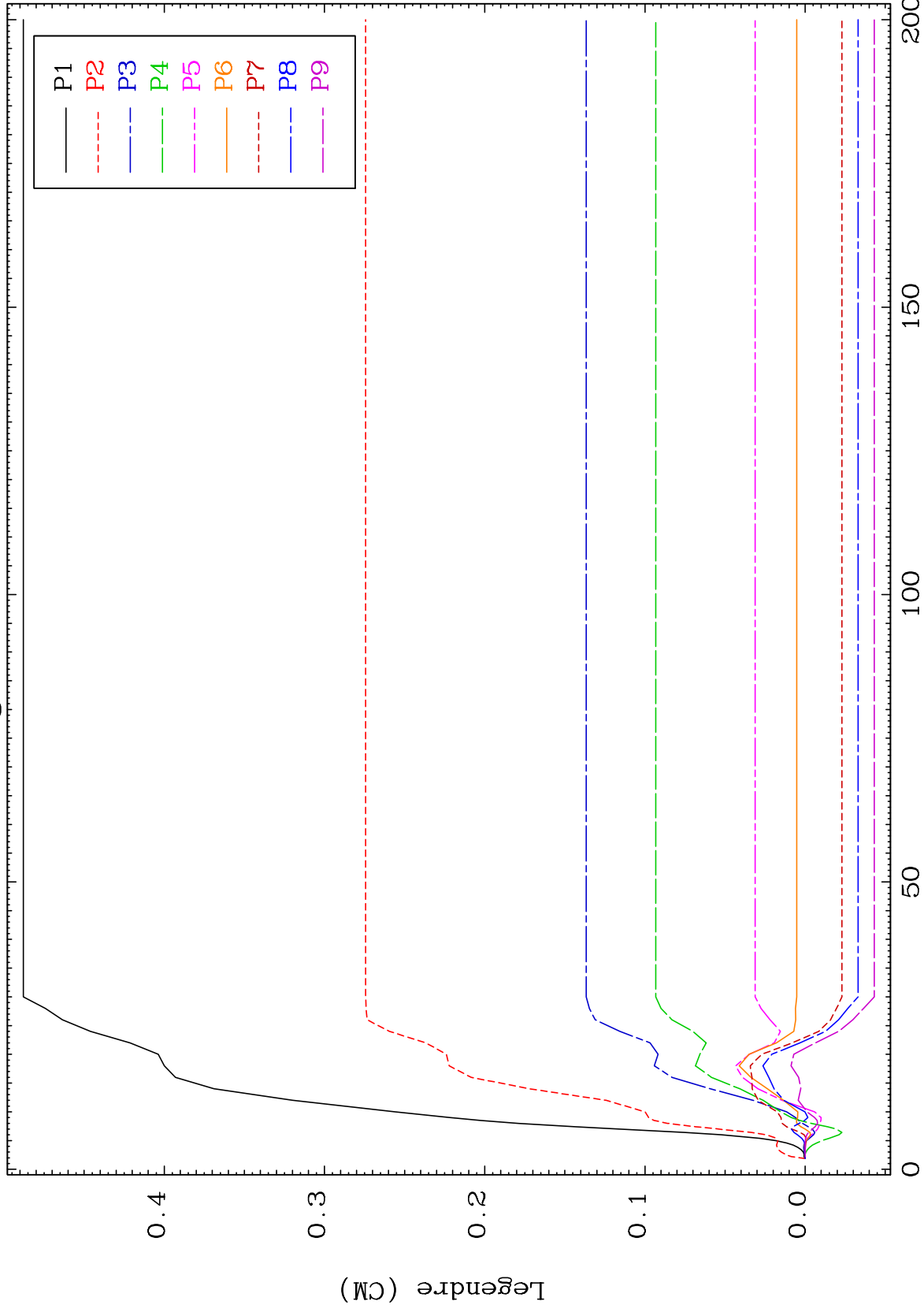
68

56-Ba-139

MAT 5652

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

56-Ba-139



69

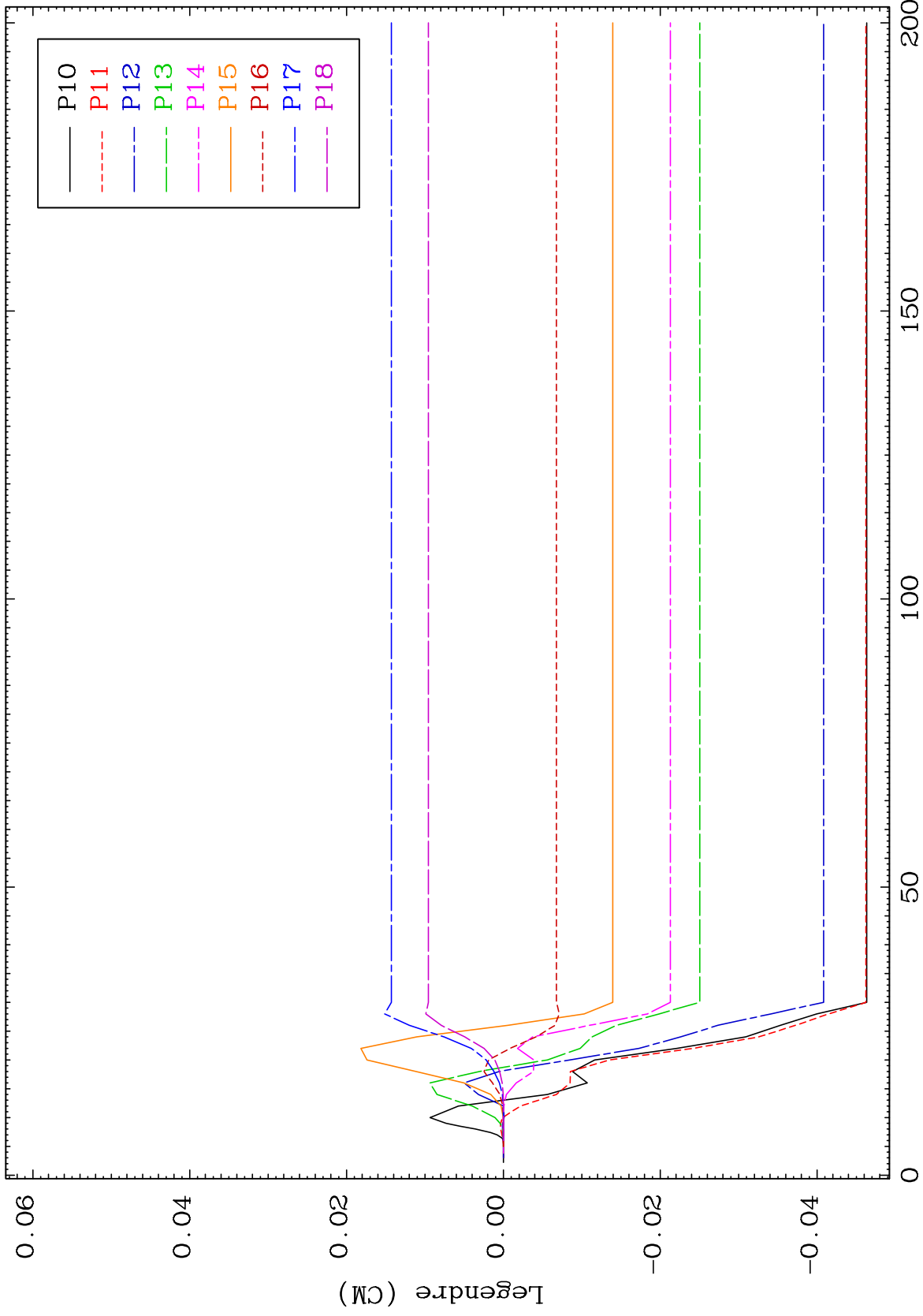
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



70

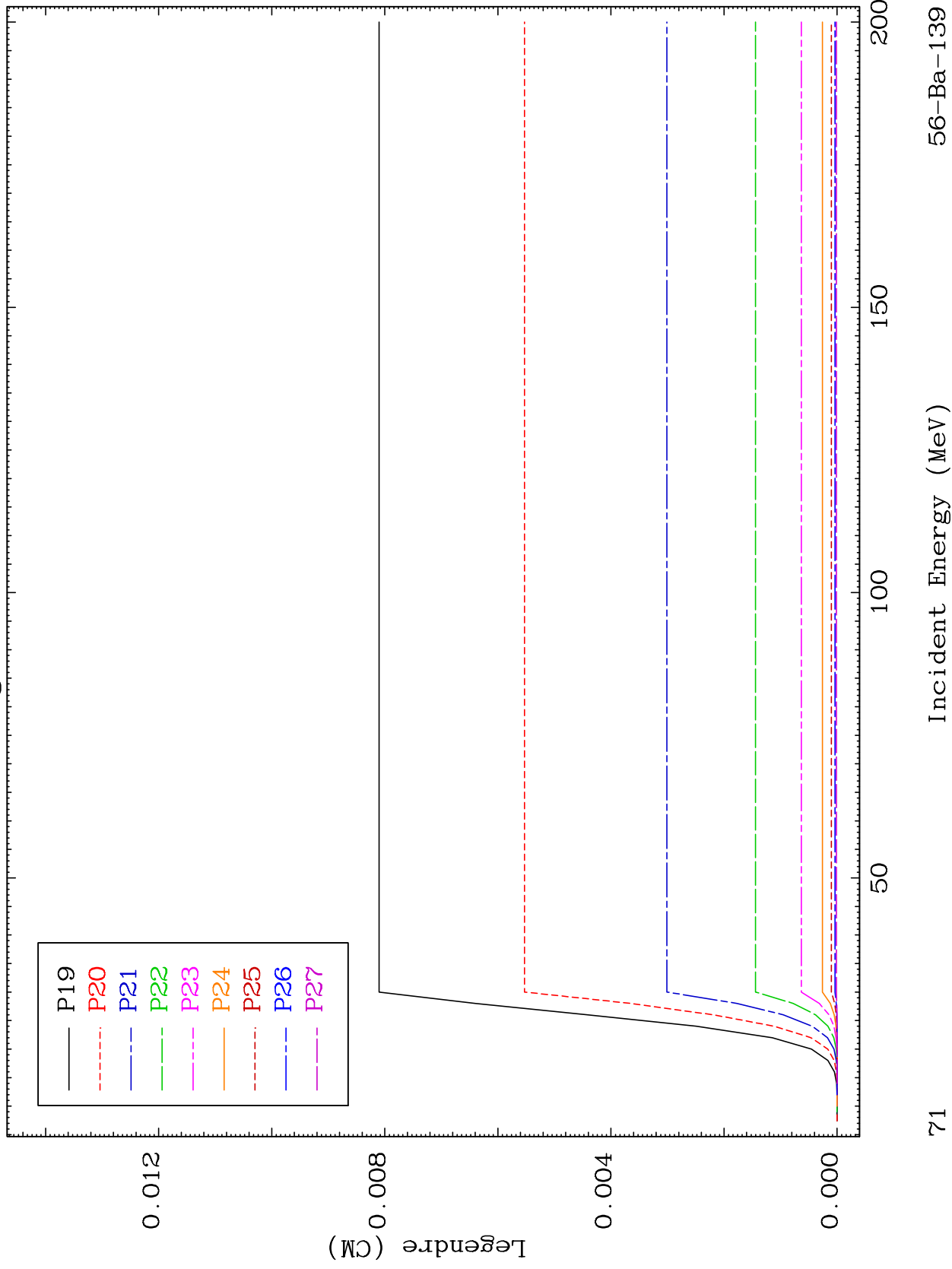
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



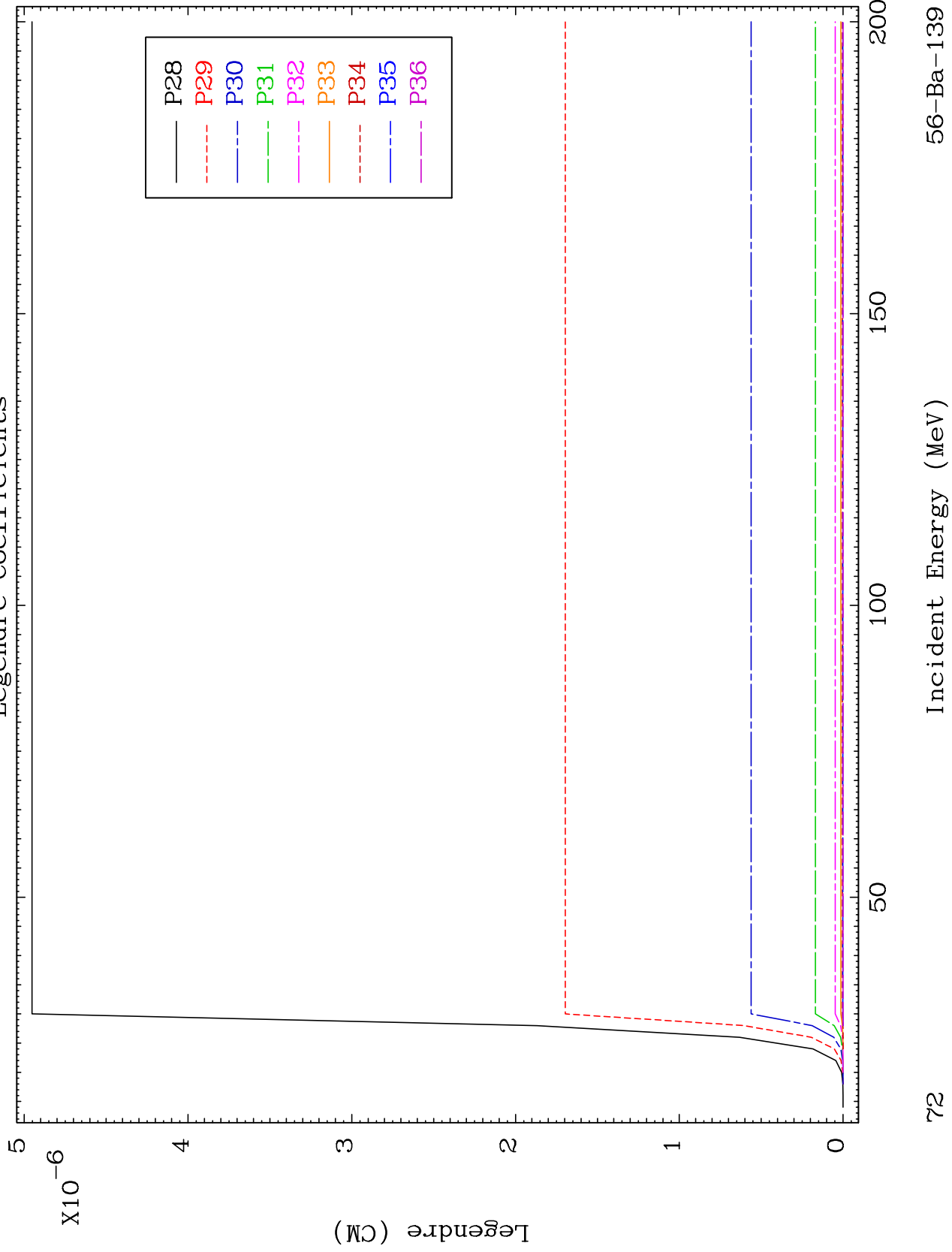
71

56-Ba-139

MAT 5652

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

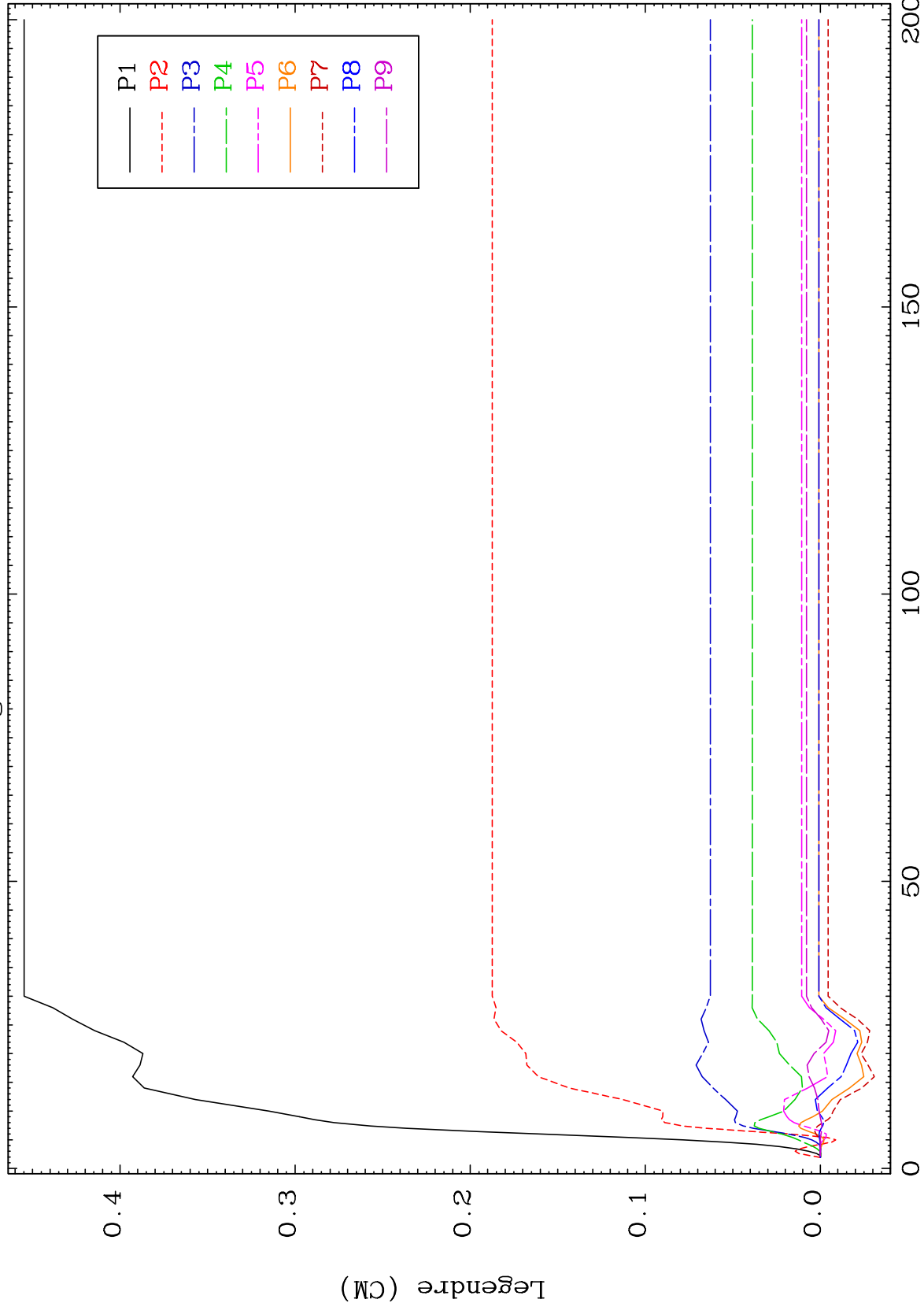
56-Ba-139



MAT 5652

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

56-Ba-139



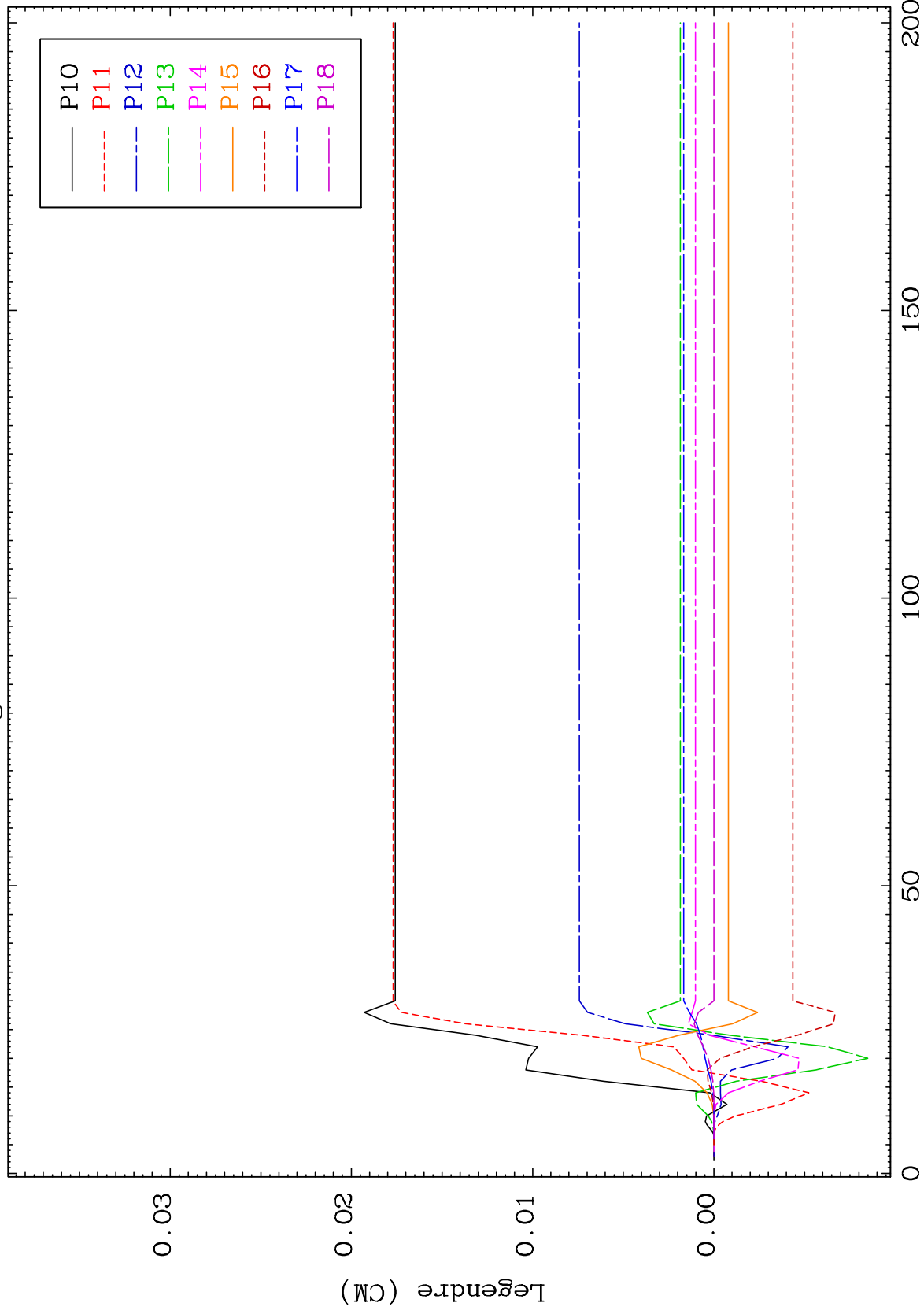
73

56-Ba-139

MAT 5652

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

56-Ba-139



74

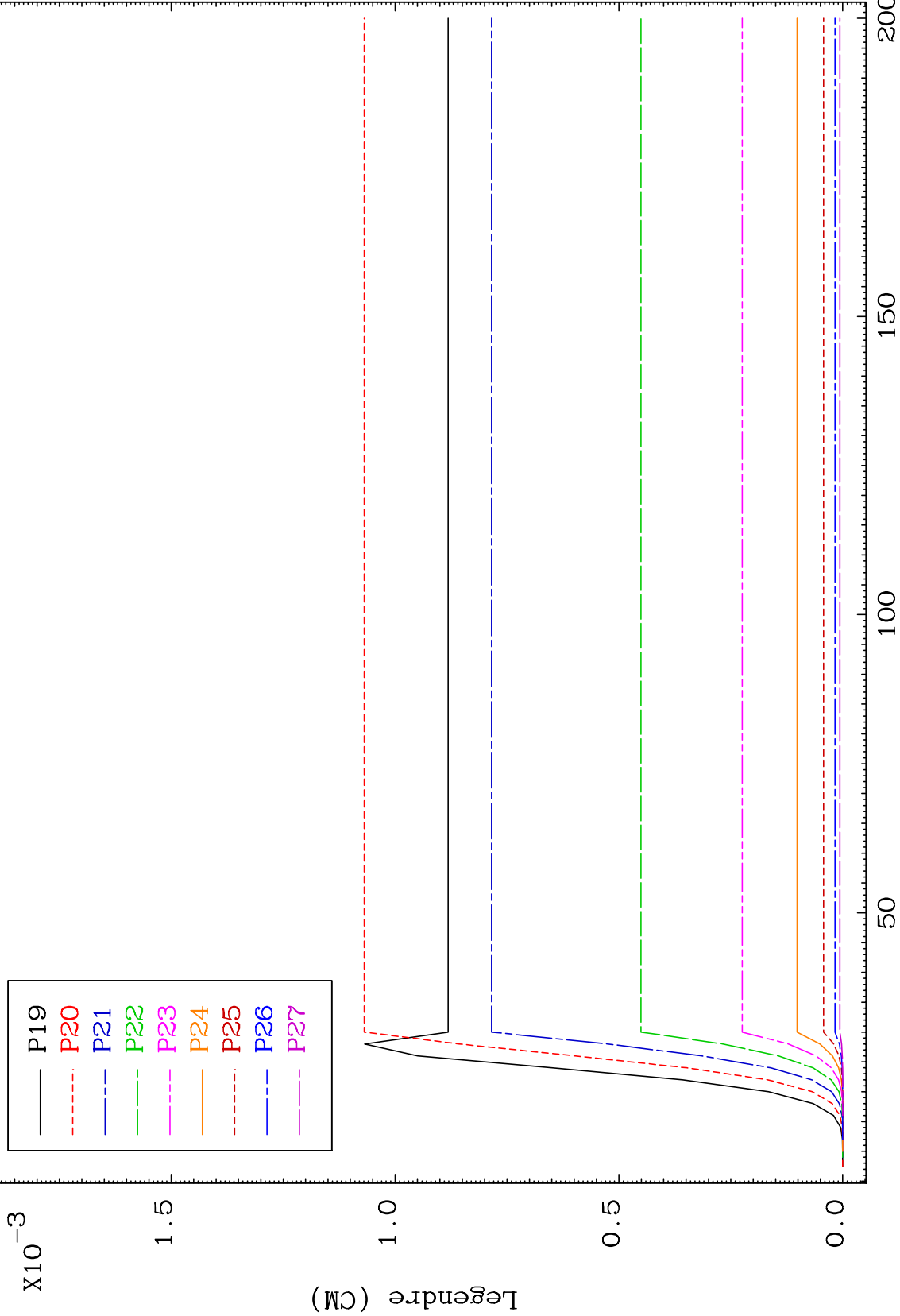
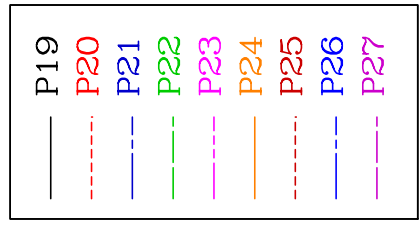
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



75

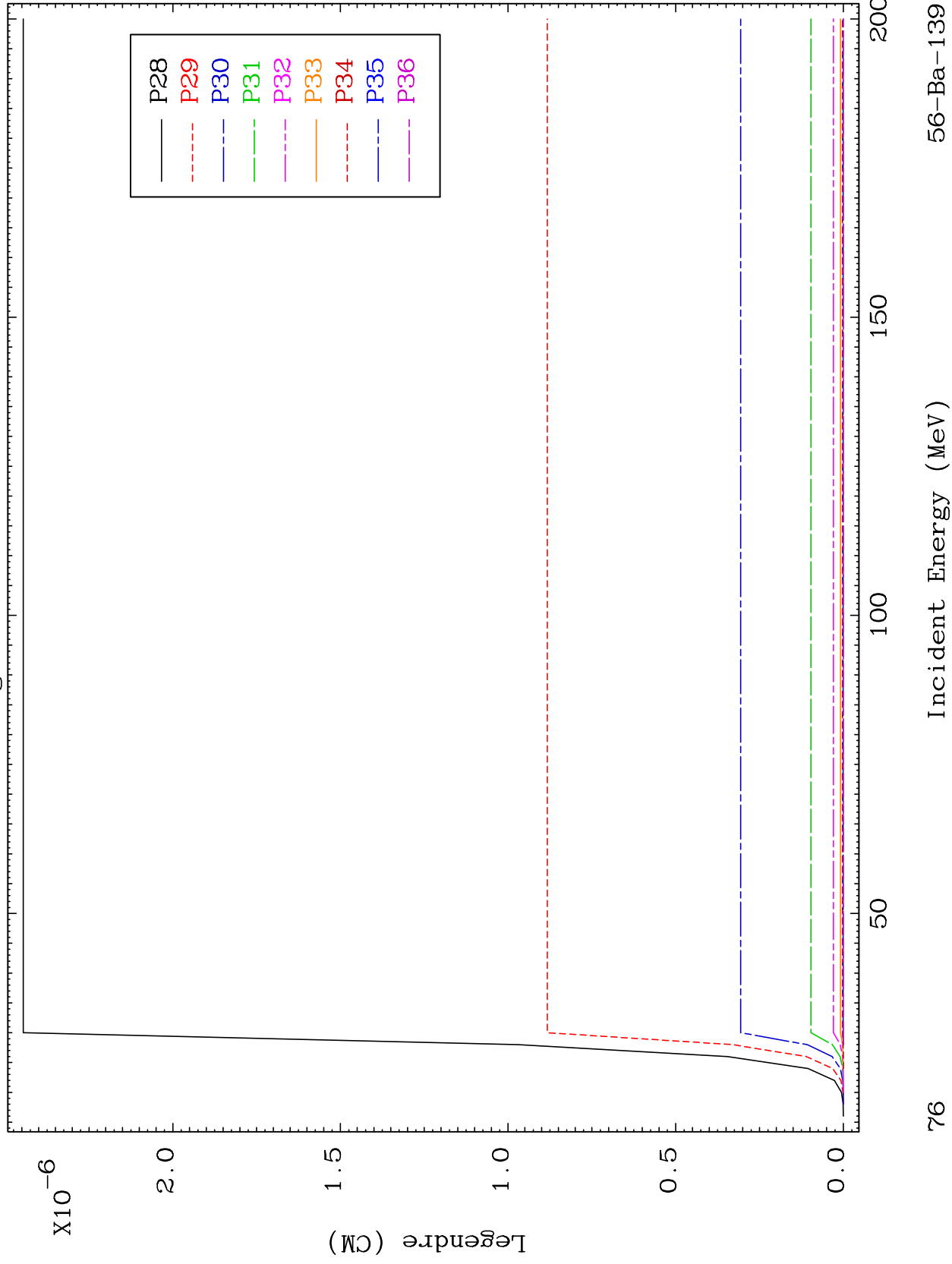
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

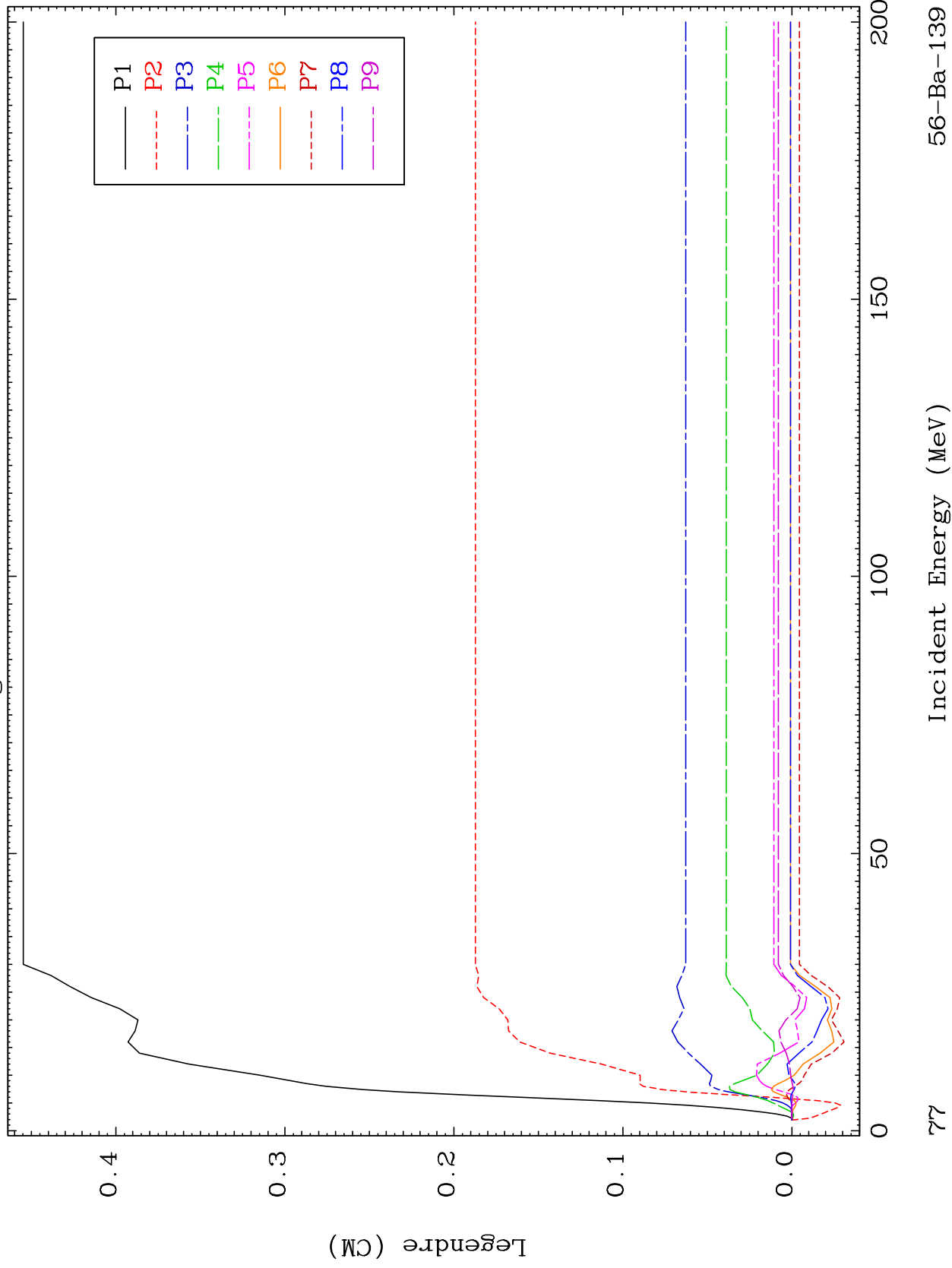
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

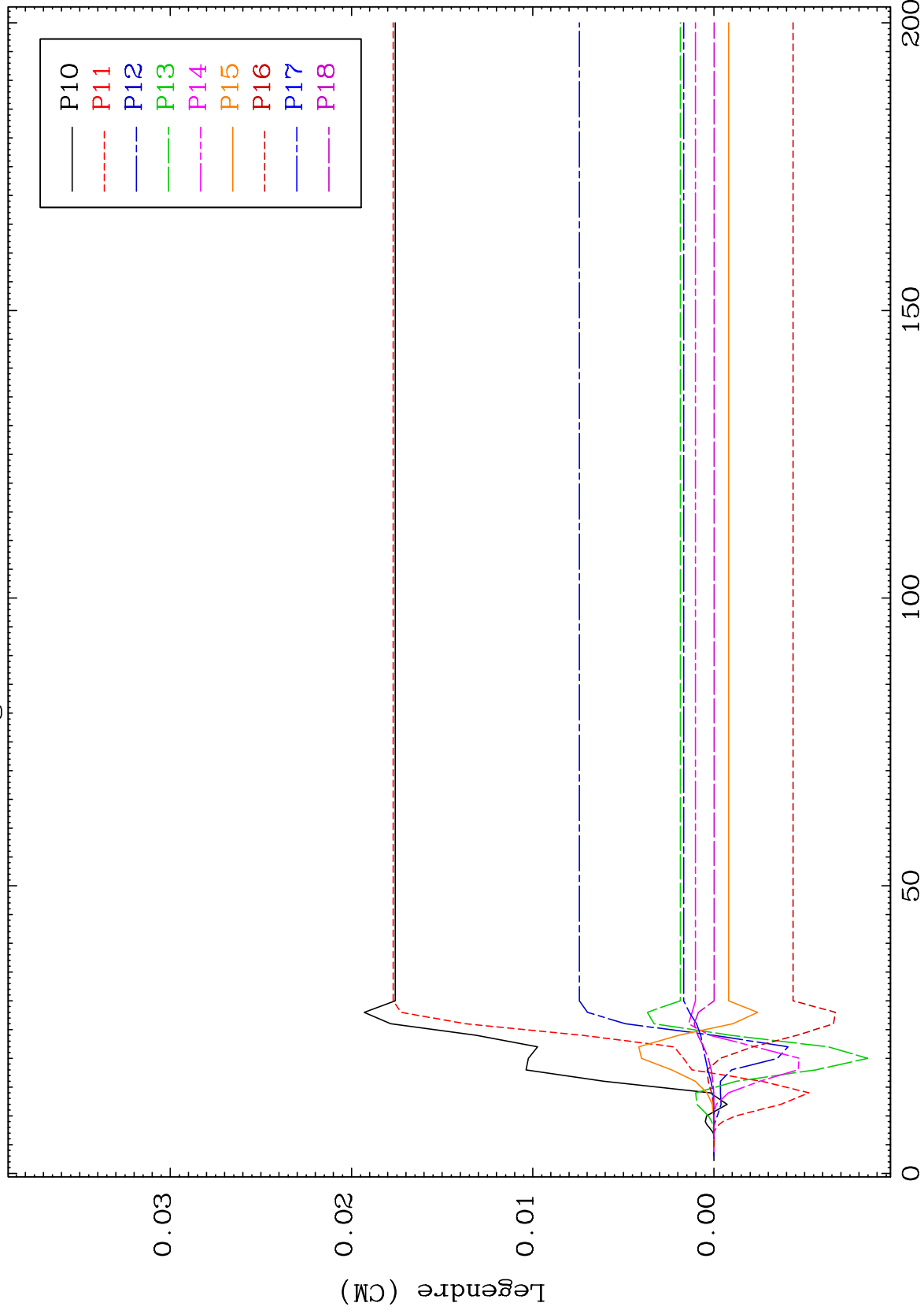
Incident Energy (MeV)

77

MAT 5652

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

56-Ba-139



78

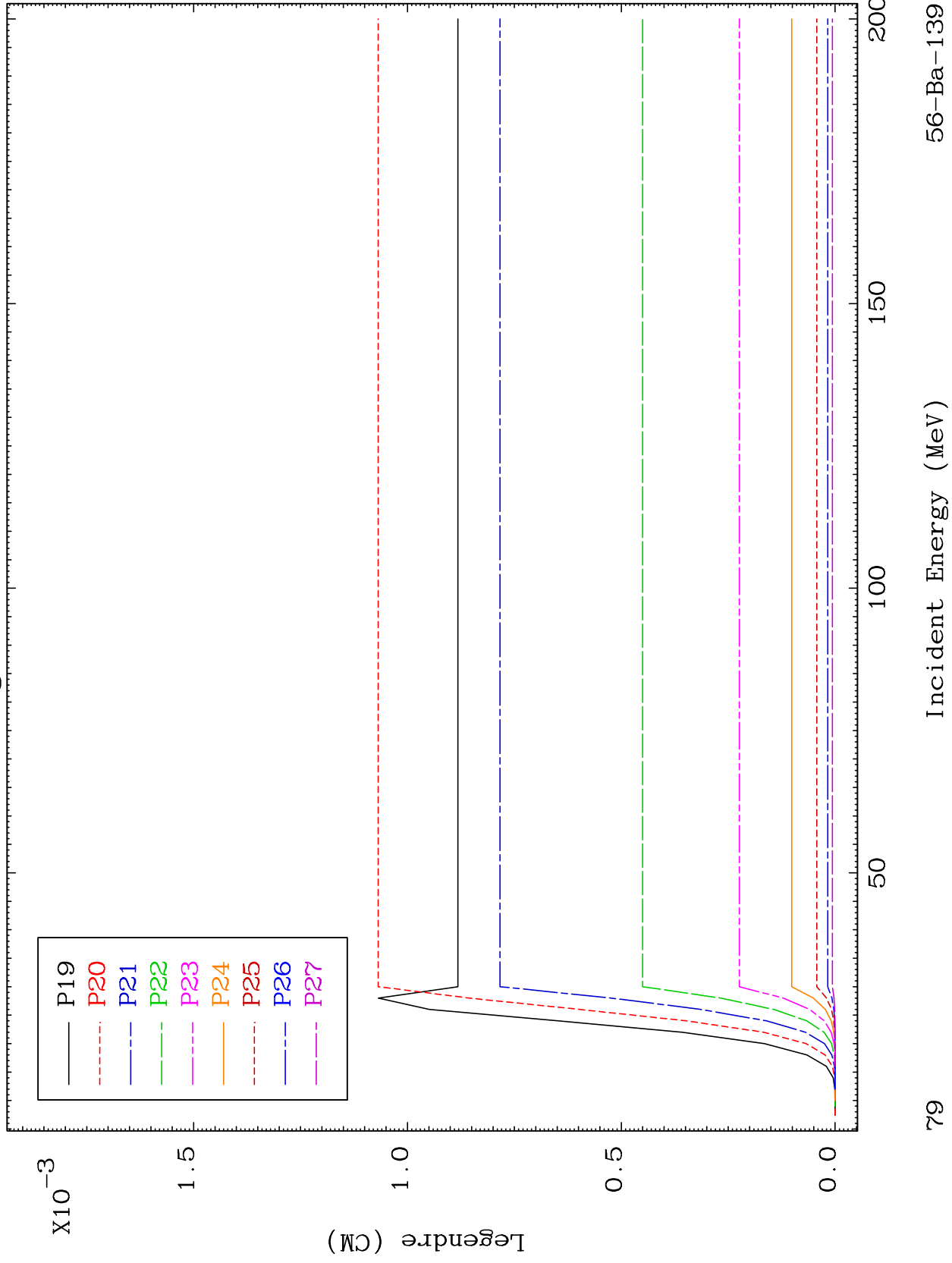
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

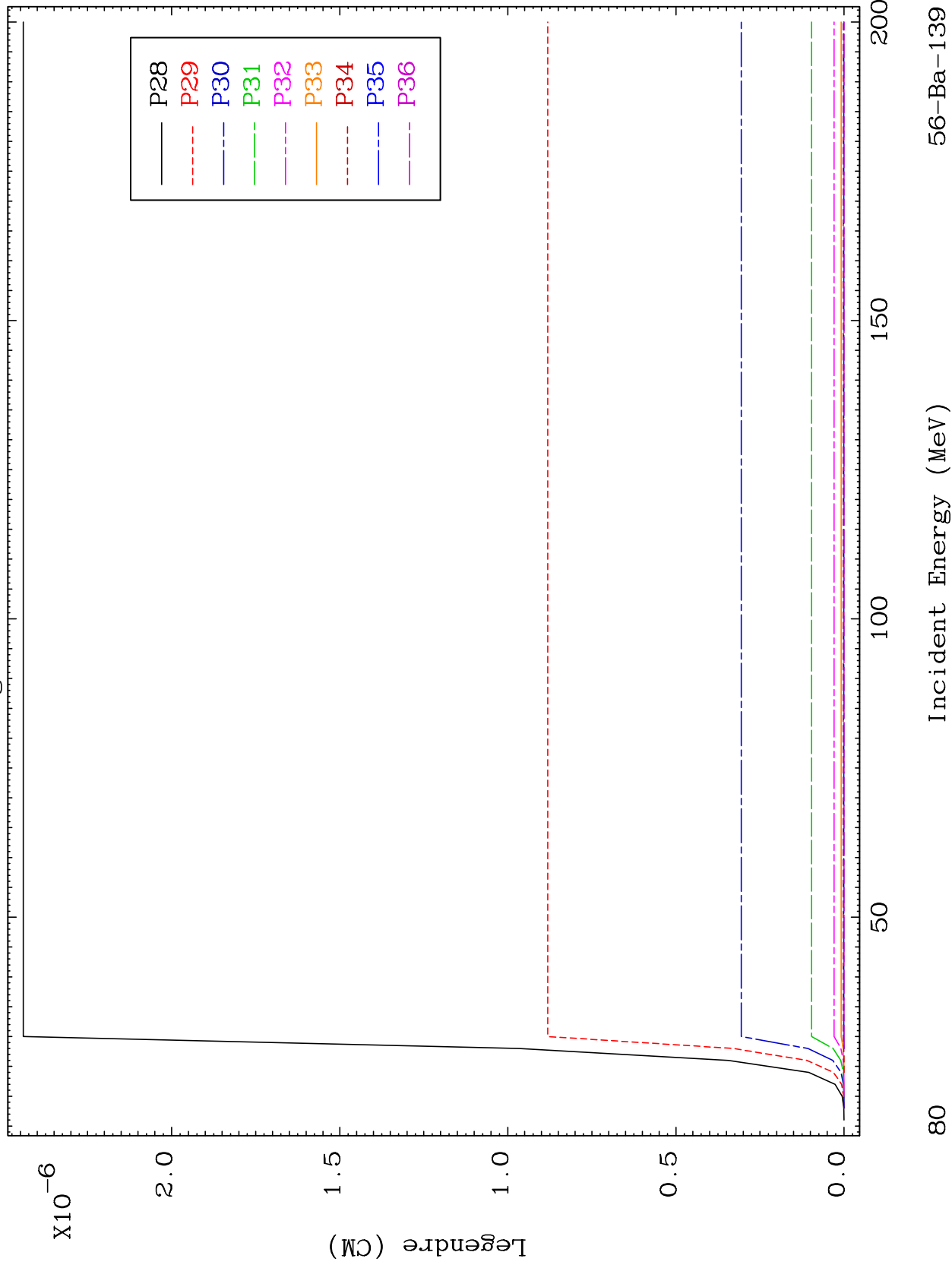
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

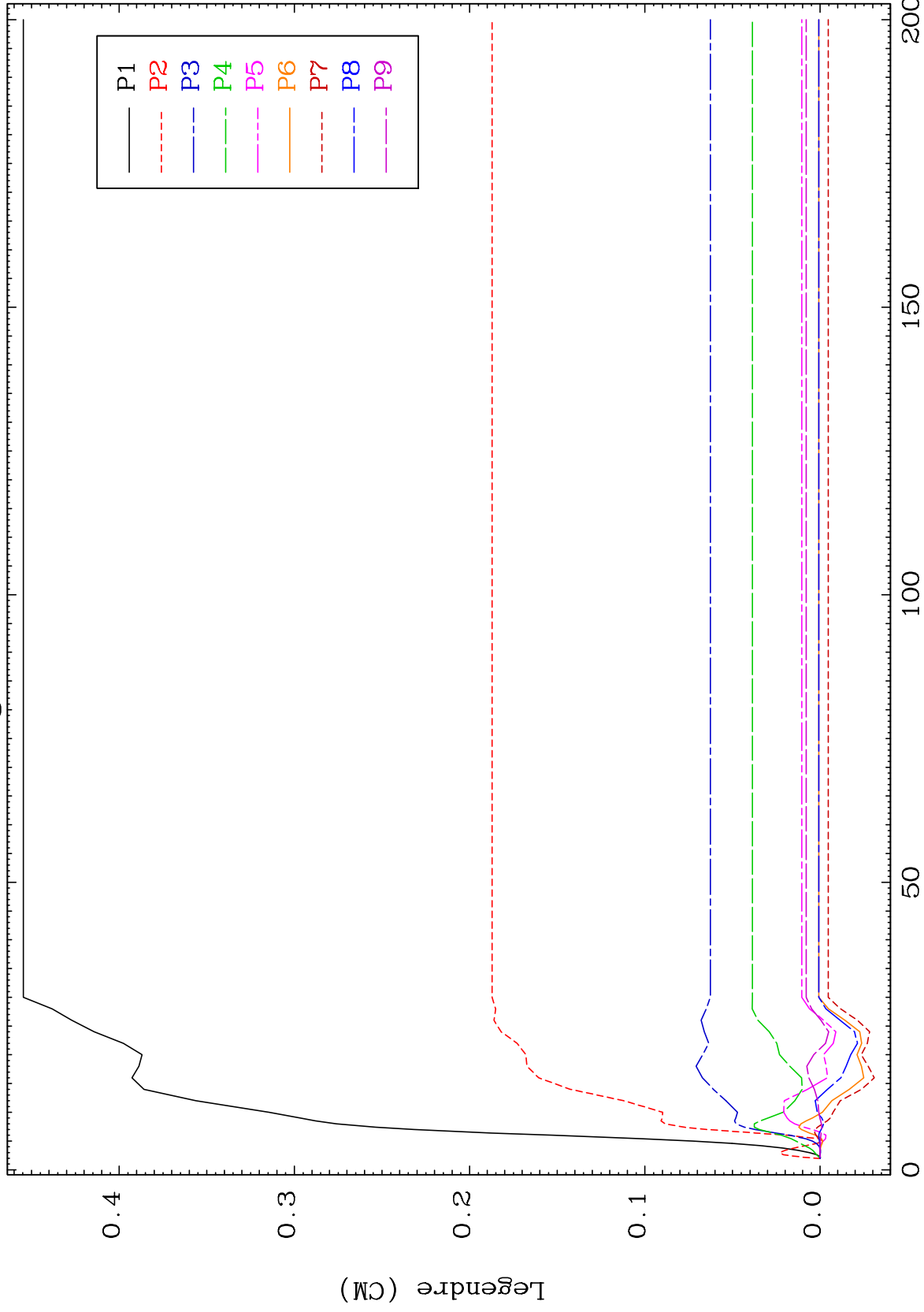
Incident Energy (MeV)

80

MAT 5652

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

56-Ba-139



81

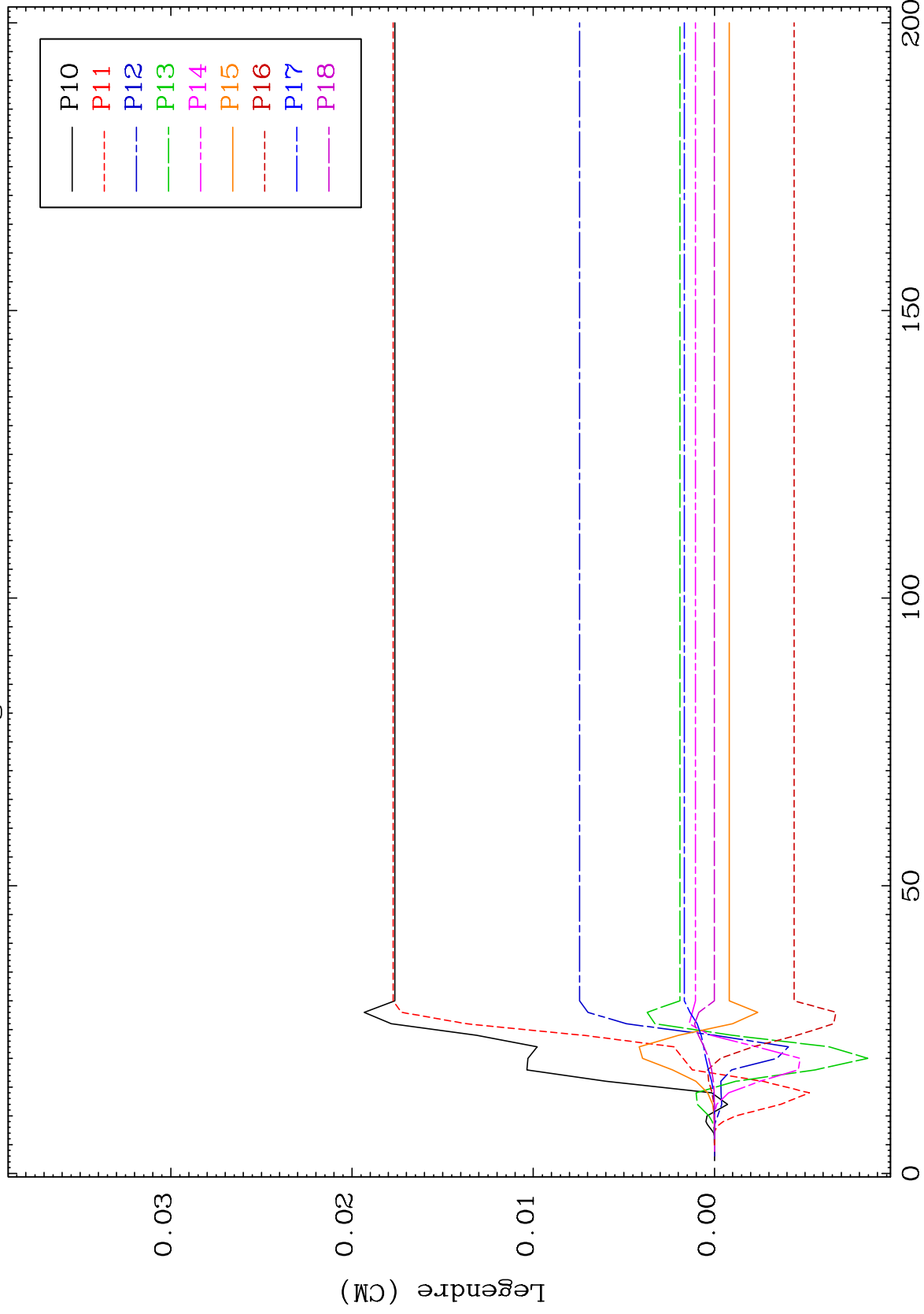
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



82

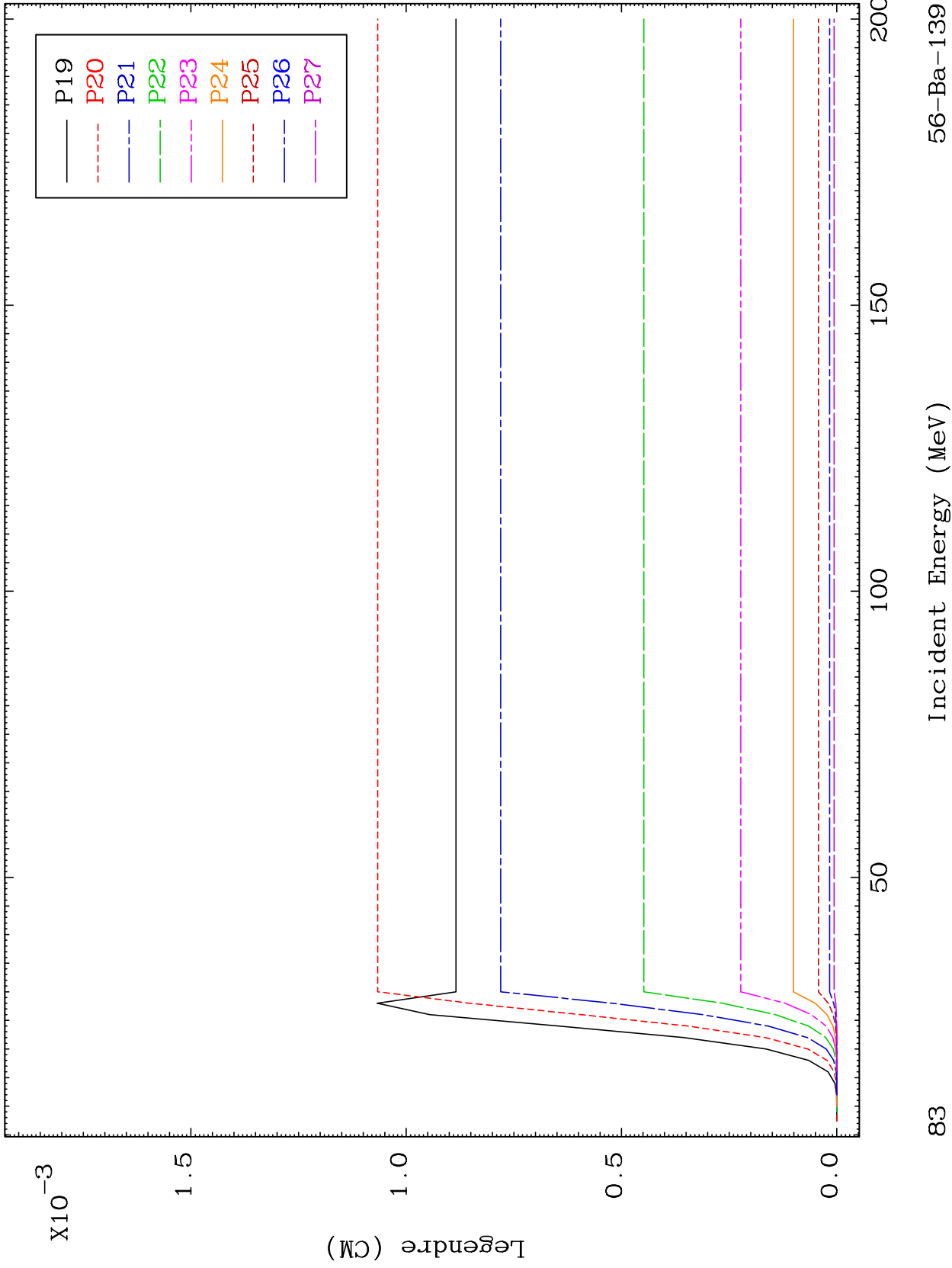
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

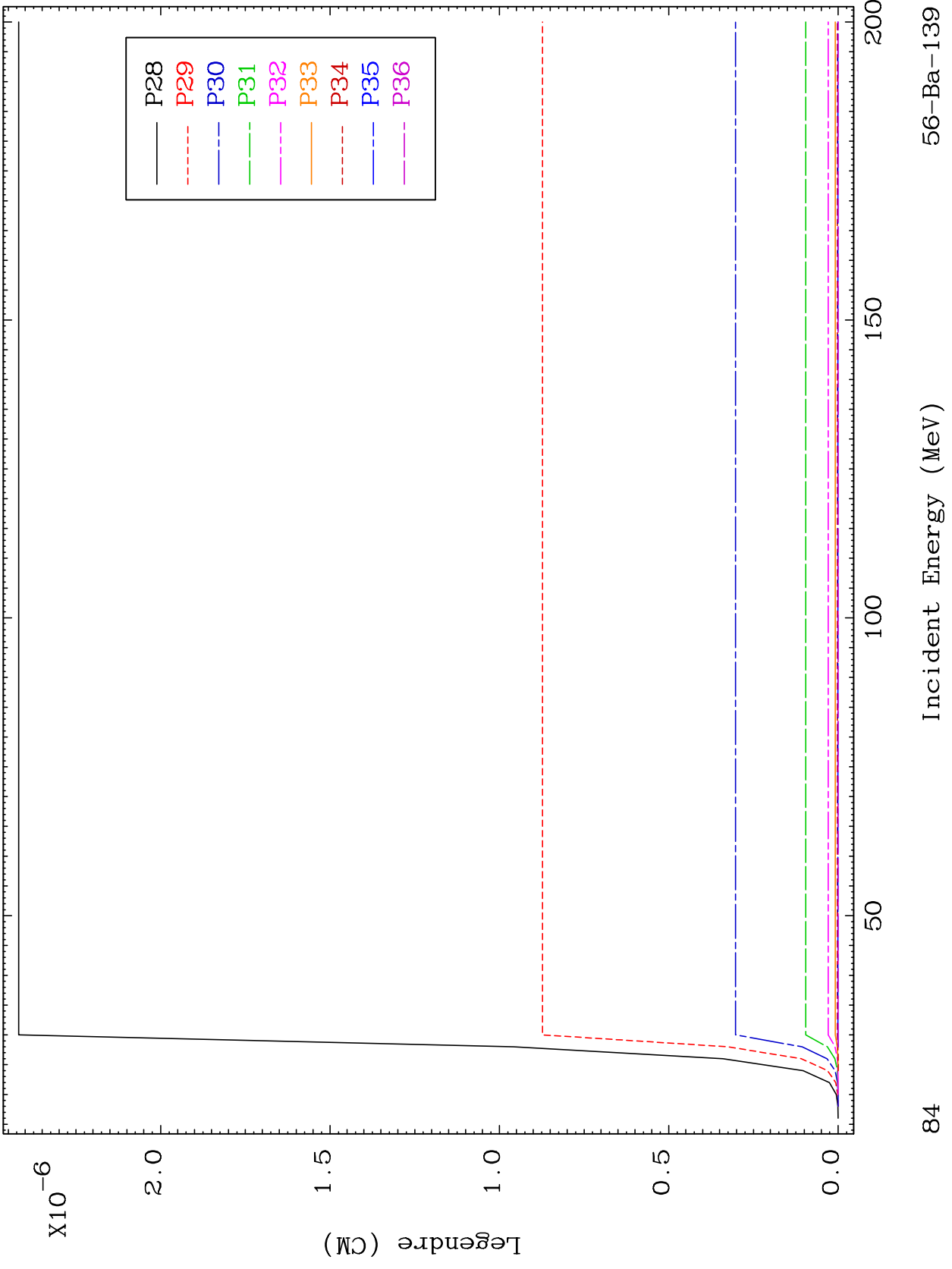
56-Ba-139



MAT 5652

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

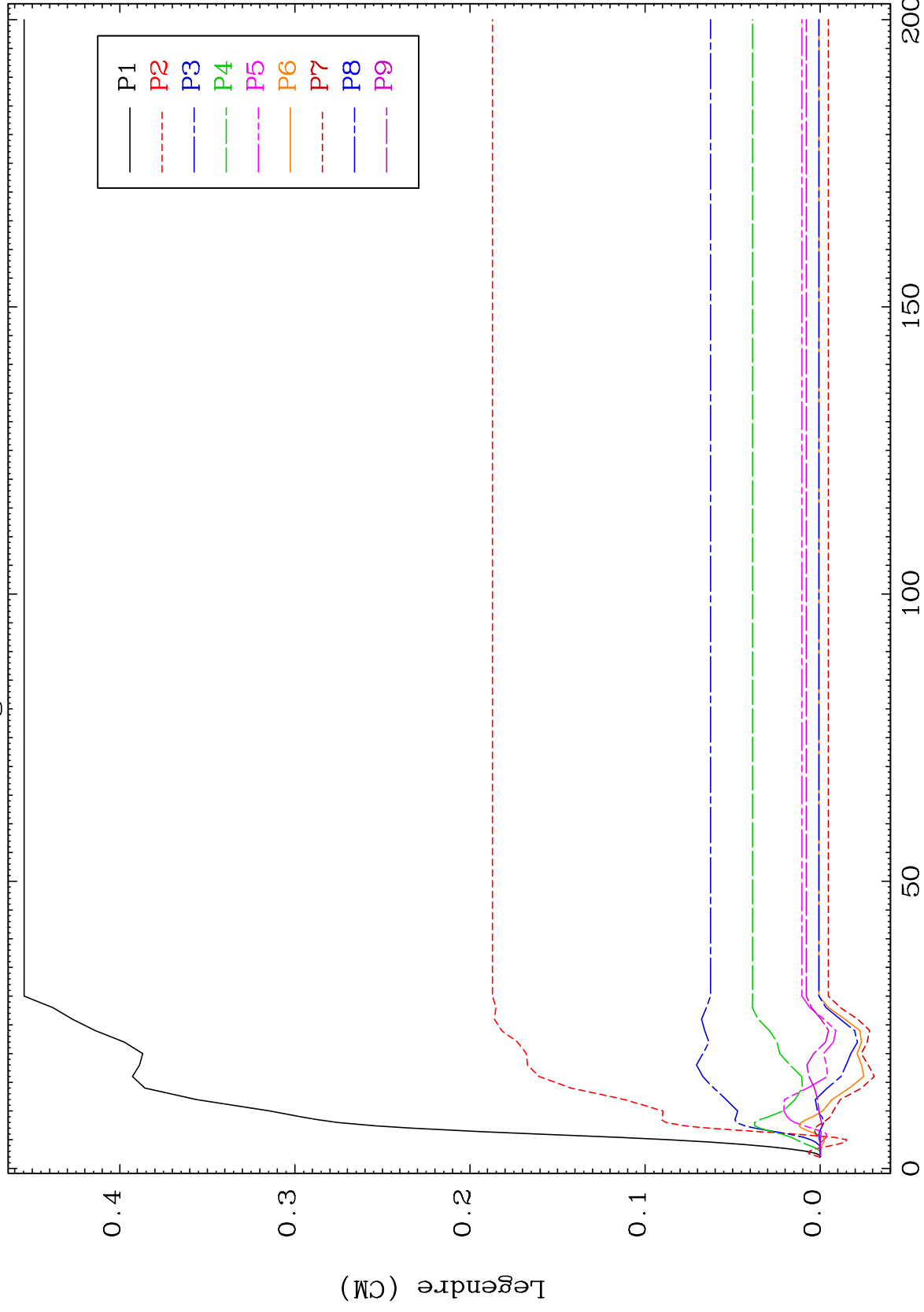
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

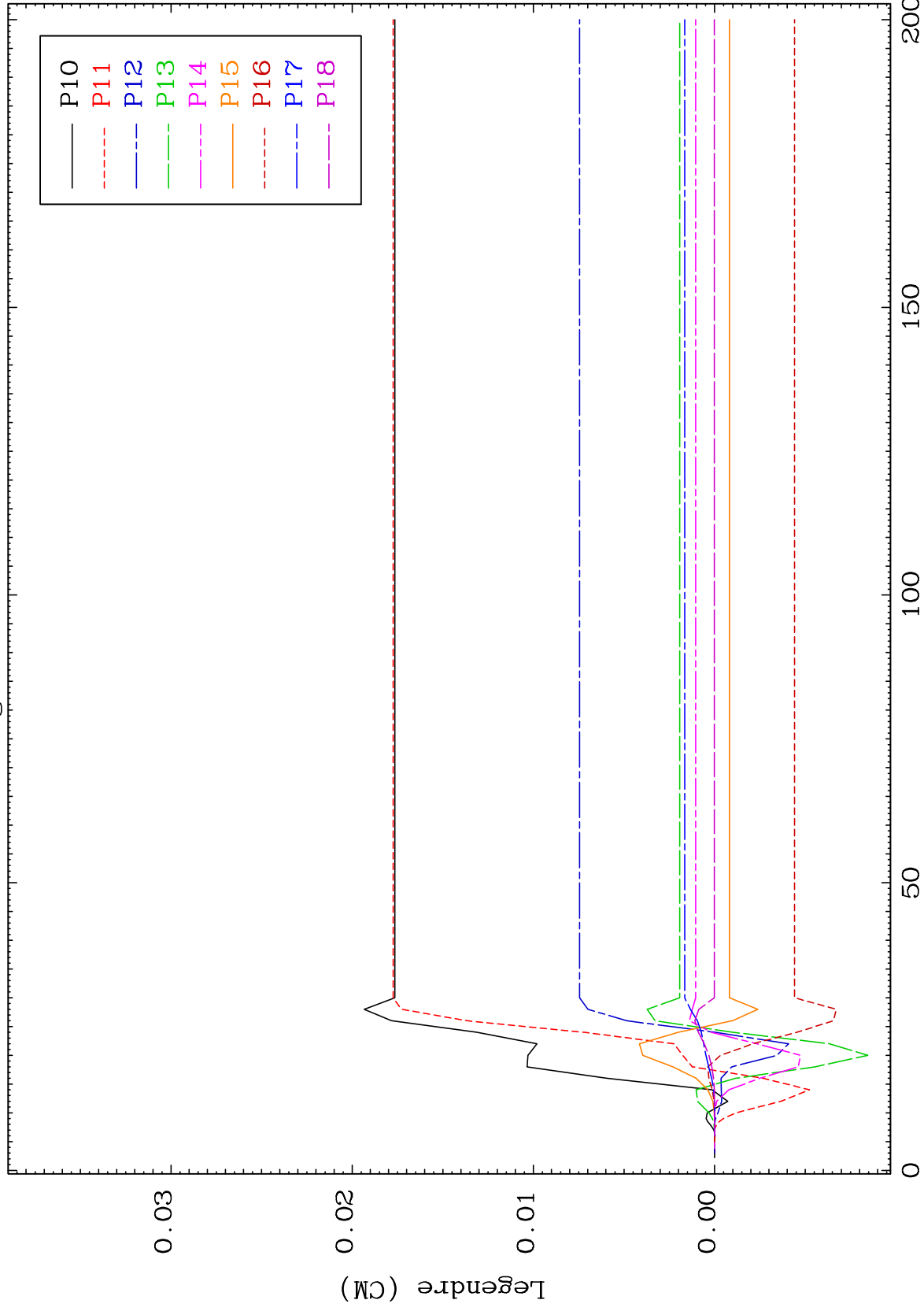
Incident Energy (MeV)

85

MAT 5652

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

56-Ba-139



86

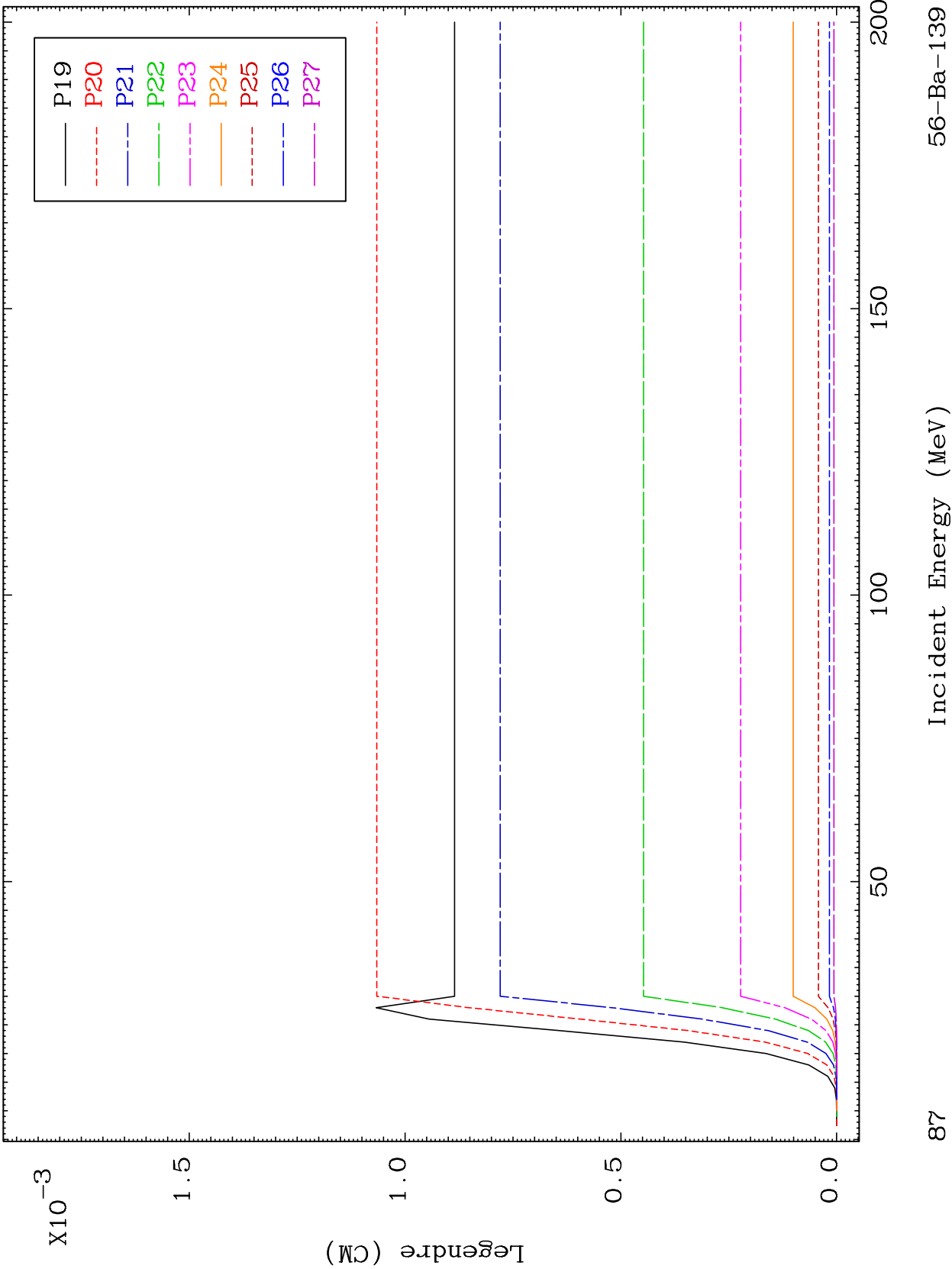
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

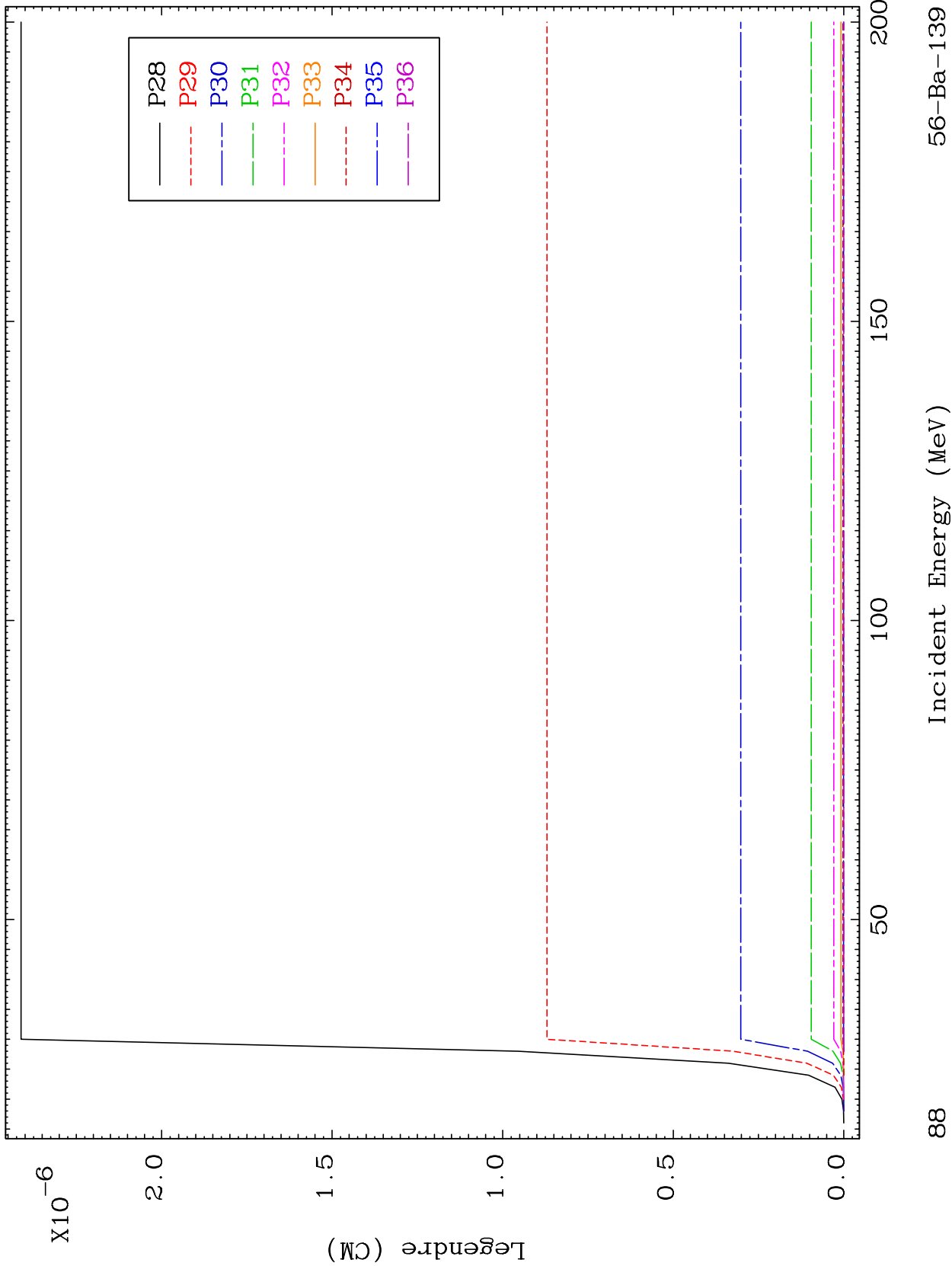
56-Ba-139



MAT 5652

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

56-Ba-139



88

Incident Energy (MeV)

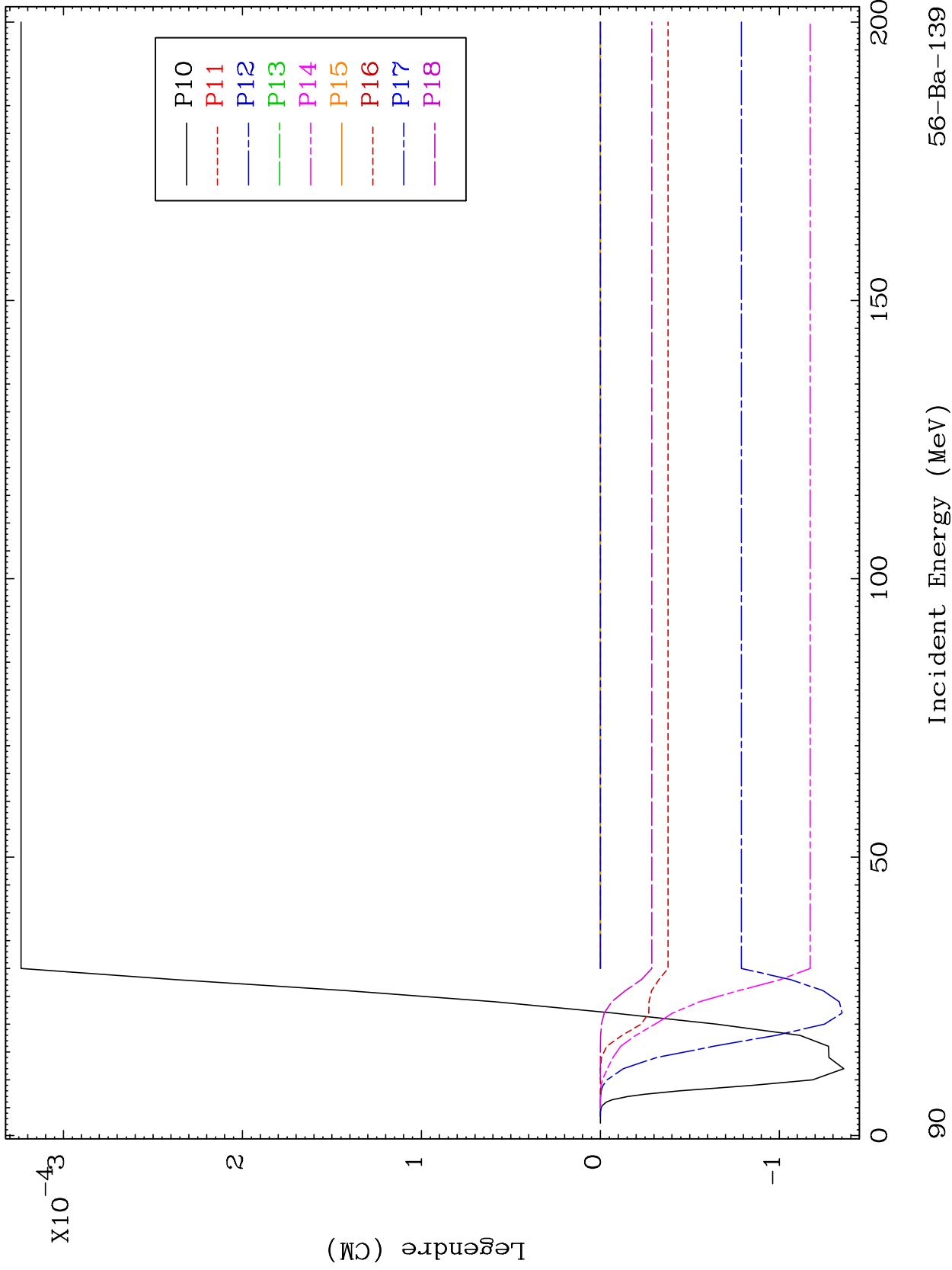
56-Ba-139



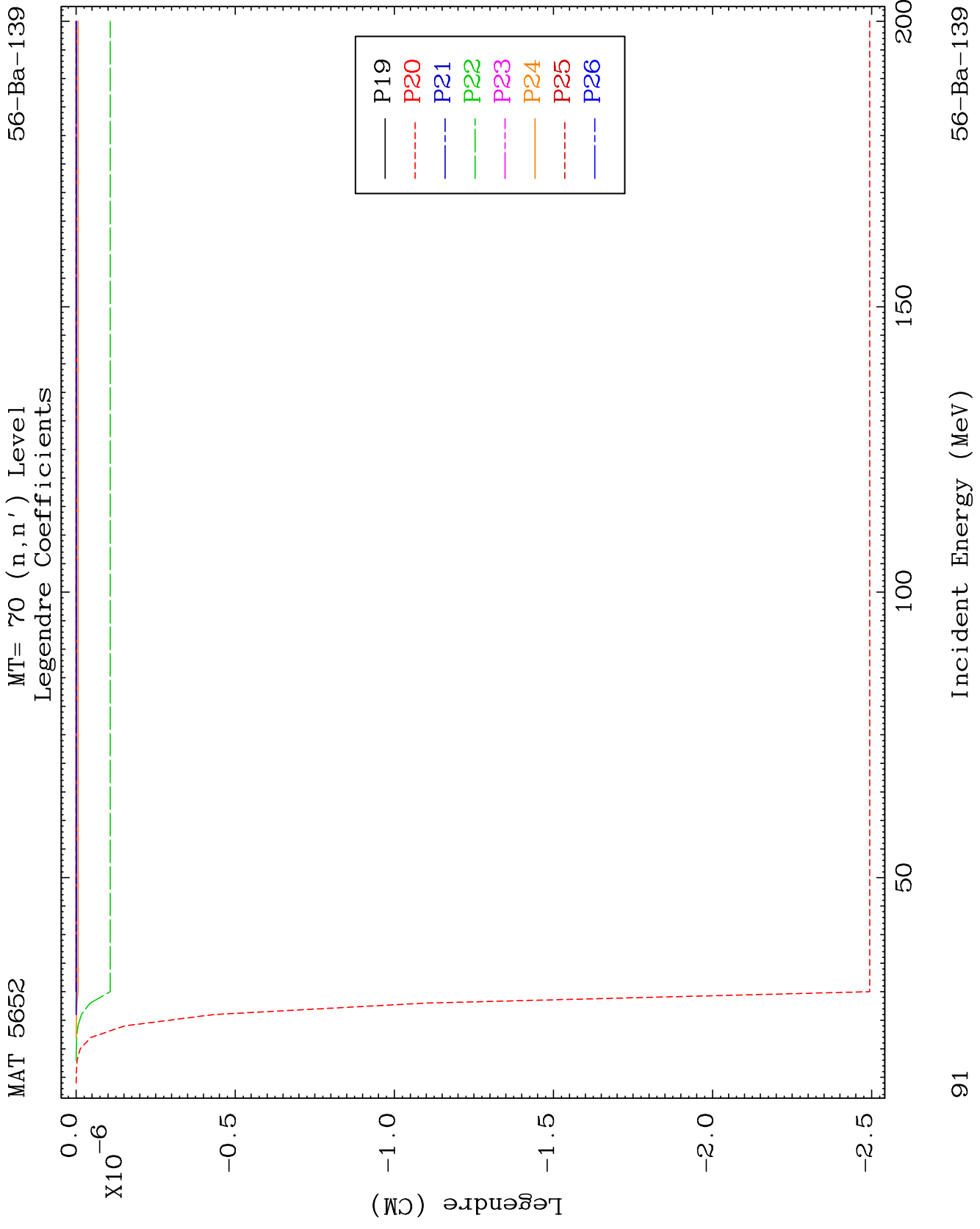
MAT 5652

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

56-Ba-139



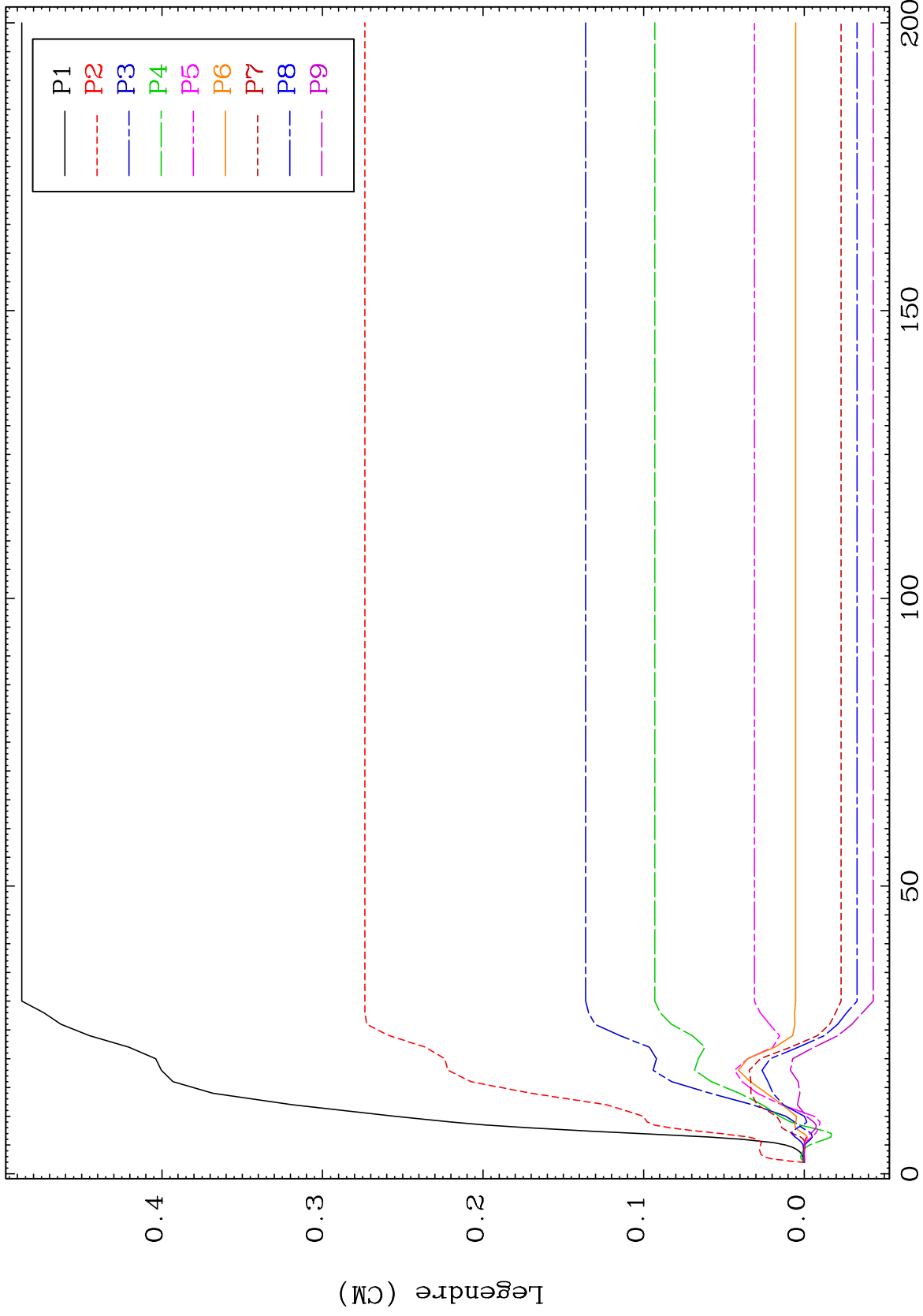
56-Ba-139



MAT 5652

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

56-Ba-139



92

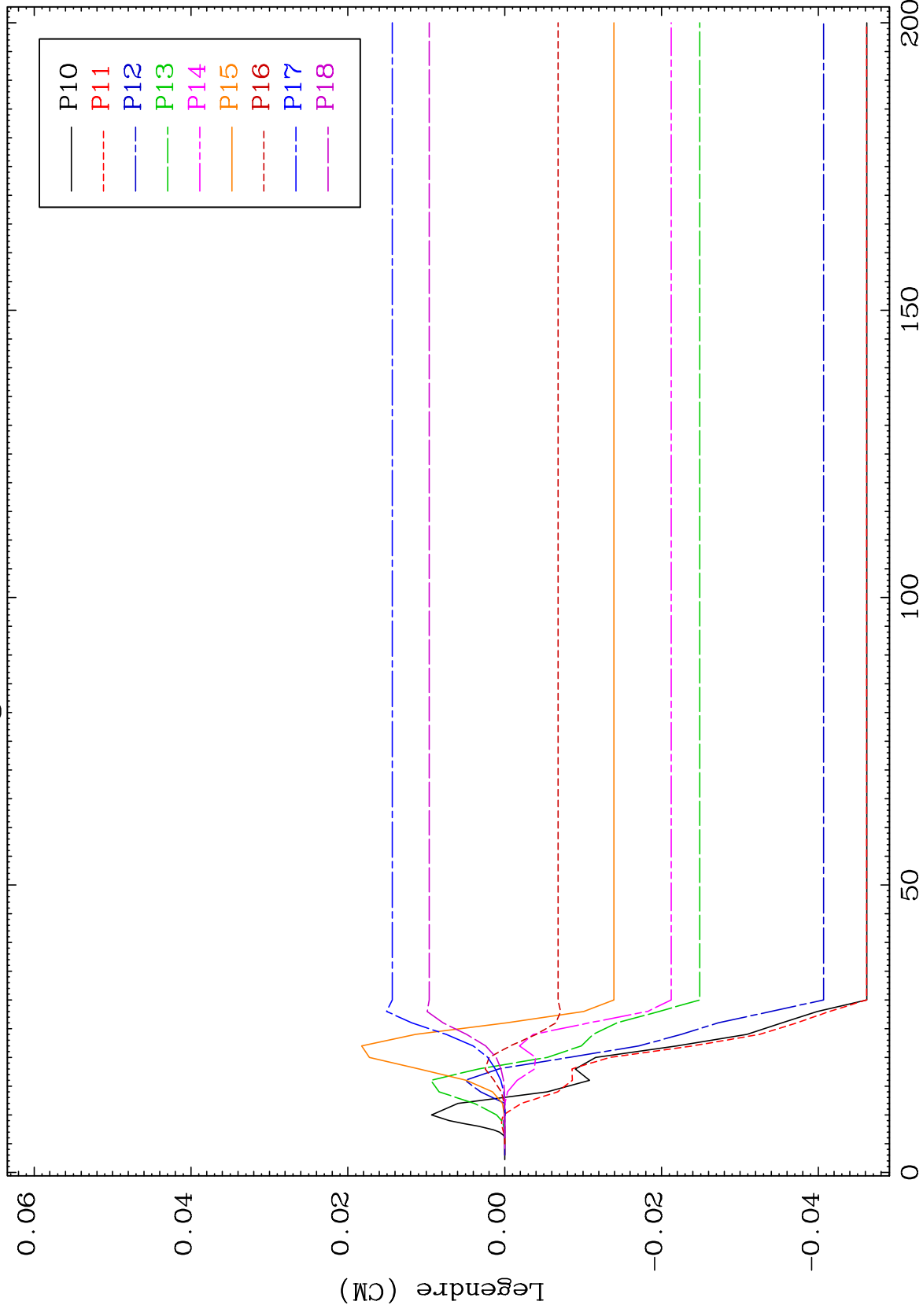
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



93

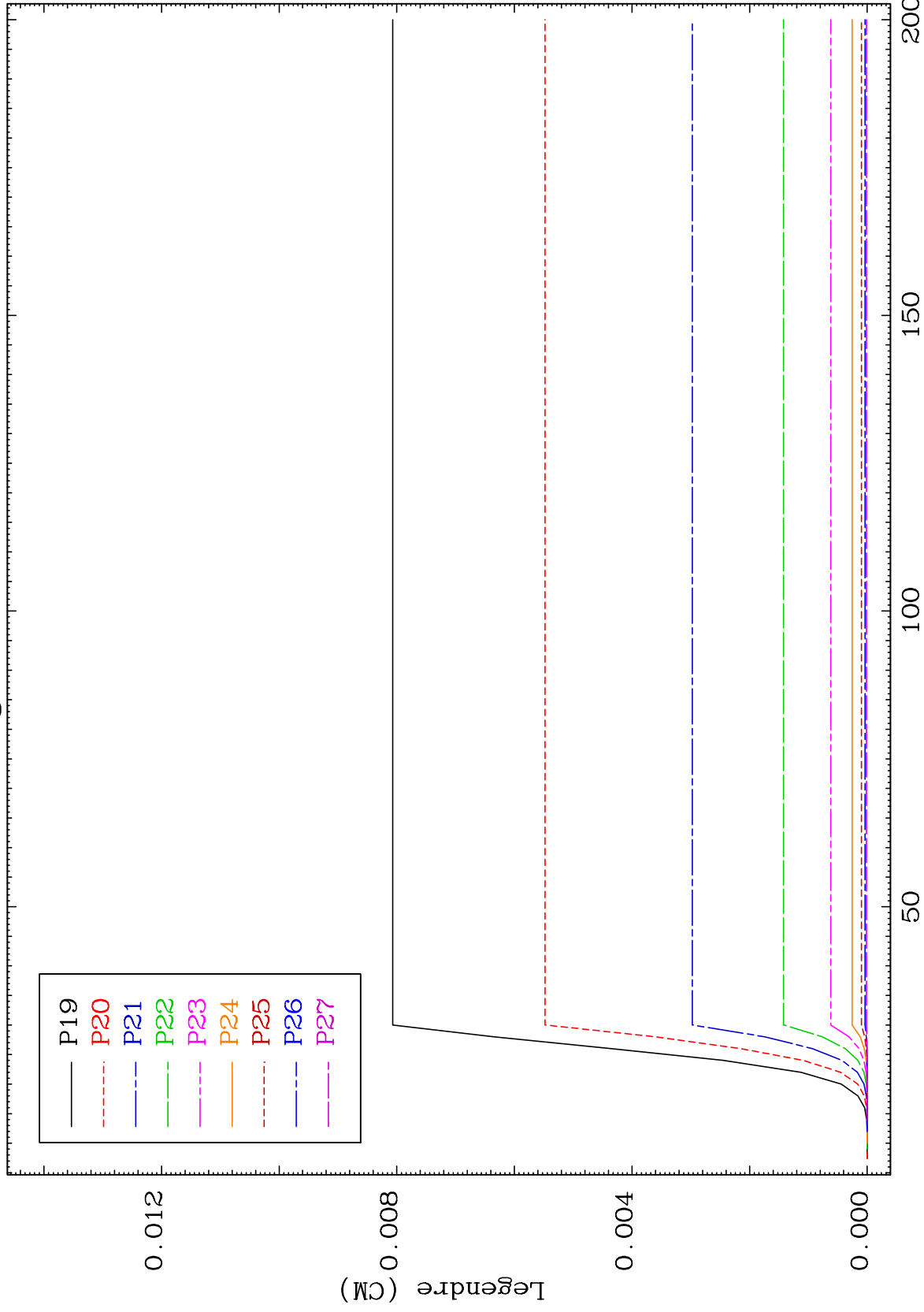
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



94

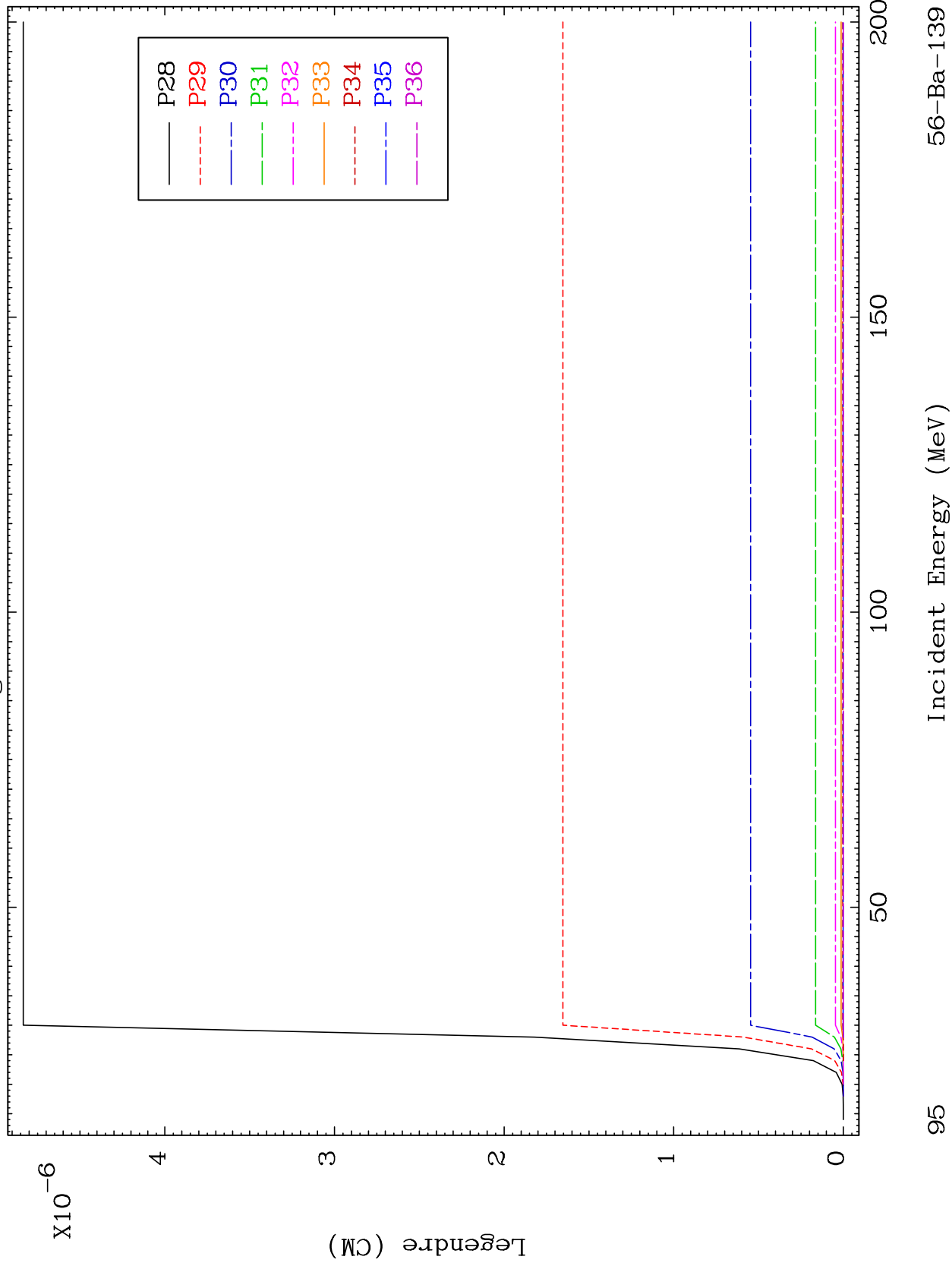
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



95

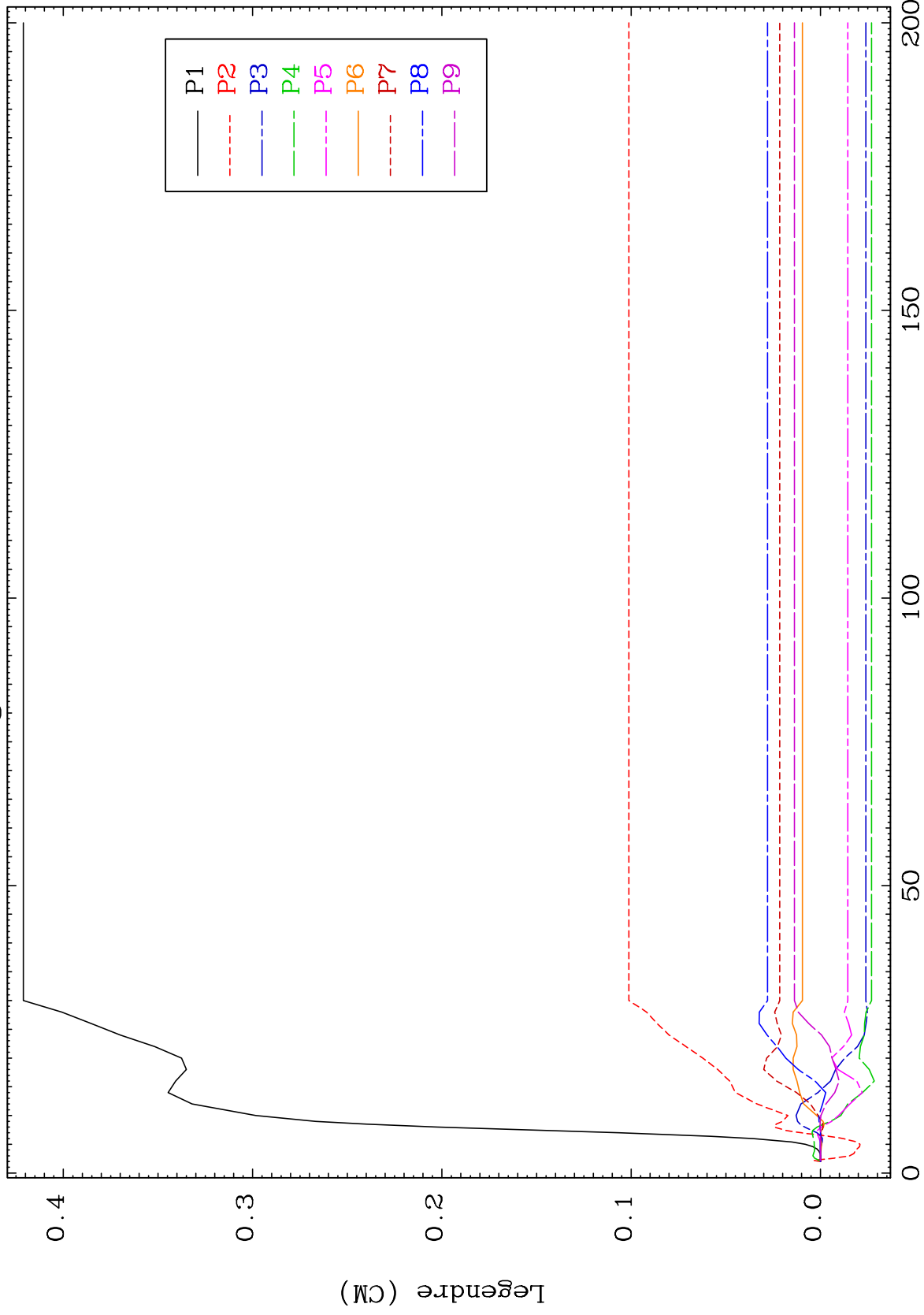
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



96

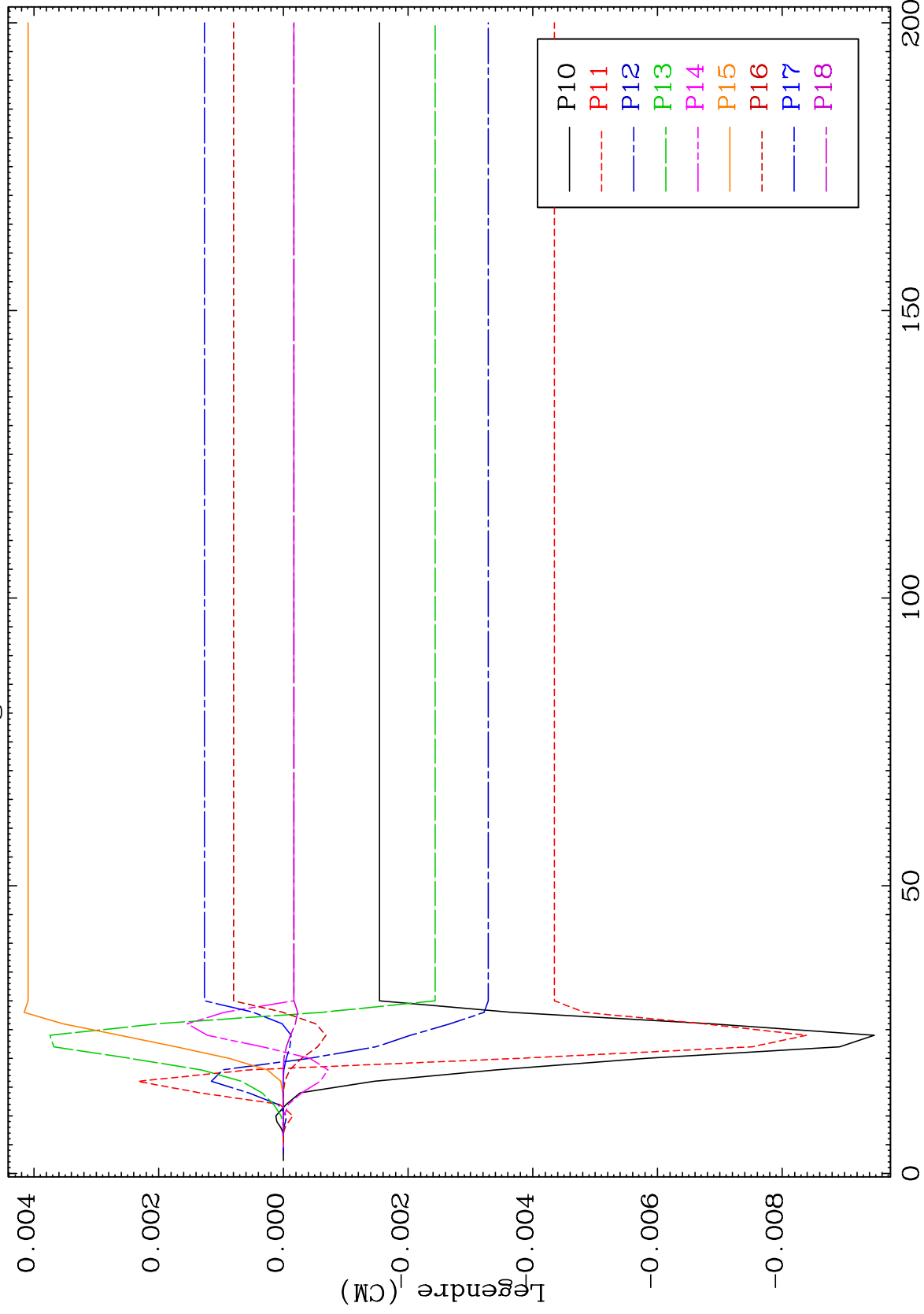
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



97

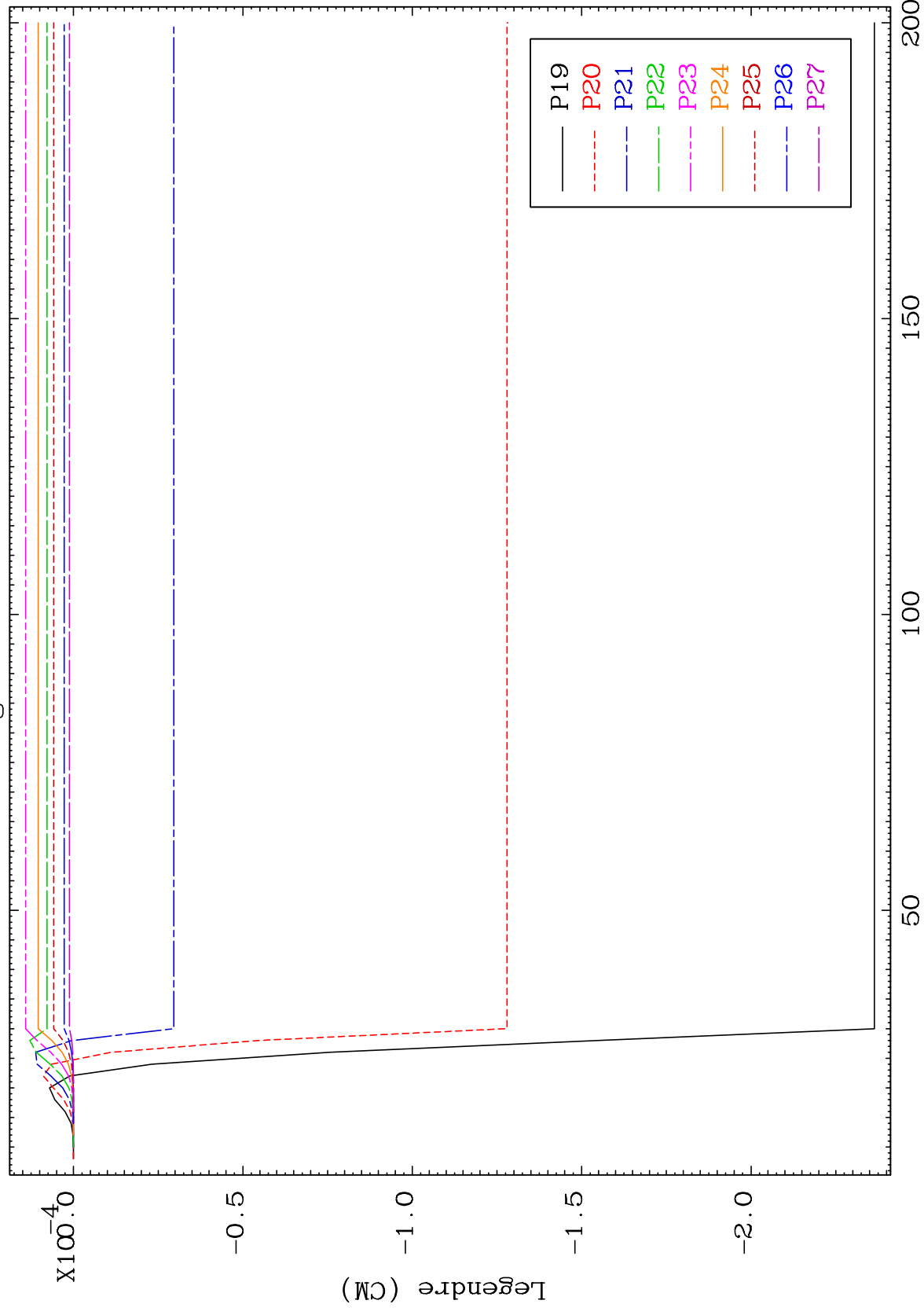
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

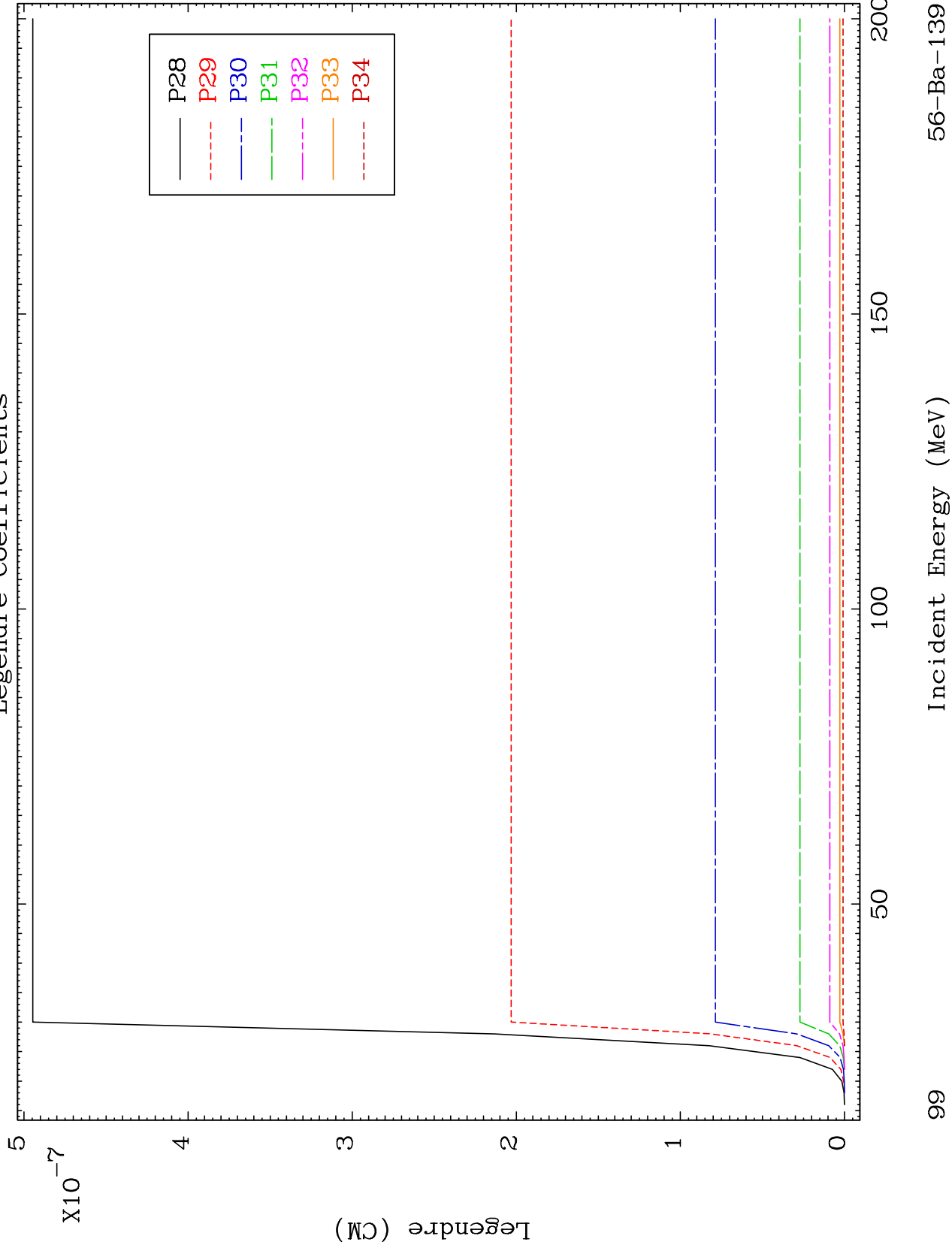
56-Ba-139



MAT 5652

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

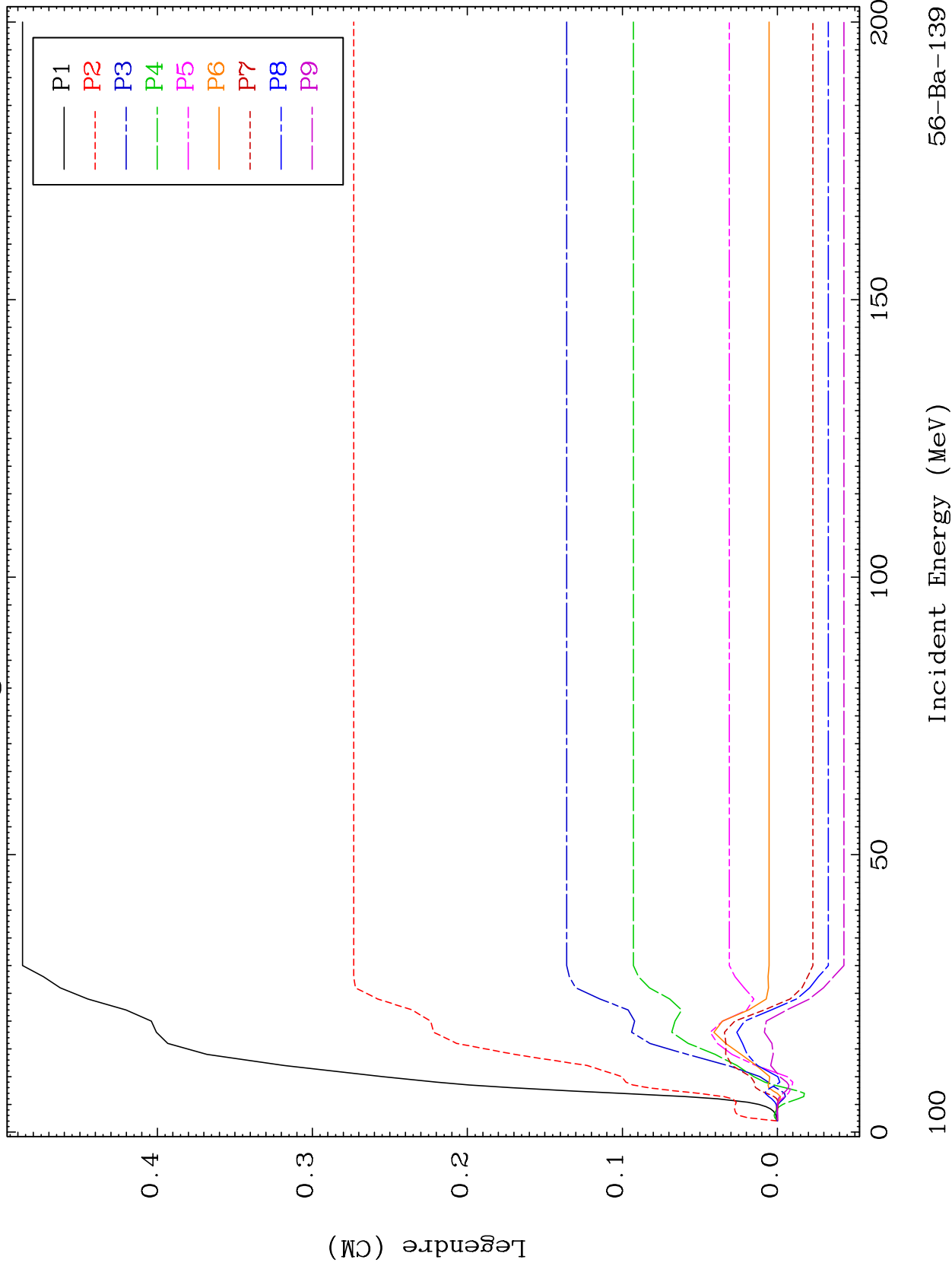
56-Ba-139



MAT 5652

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

56-Ba-139



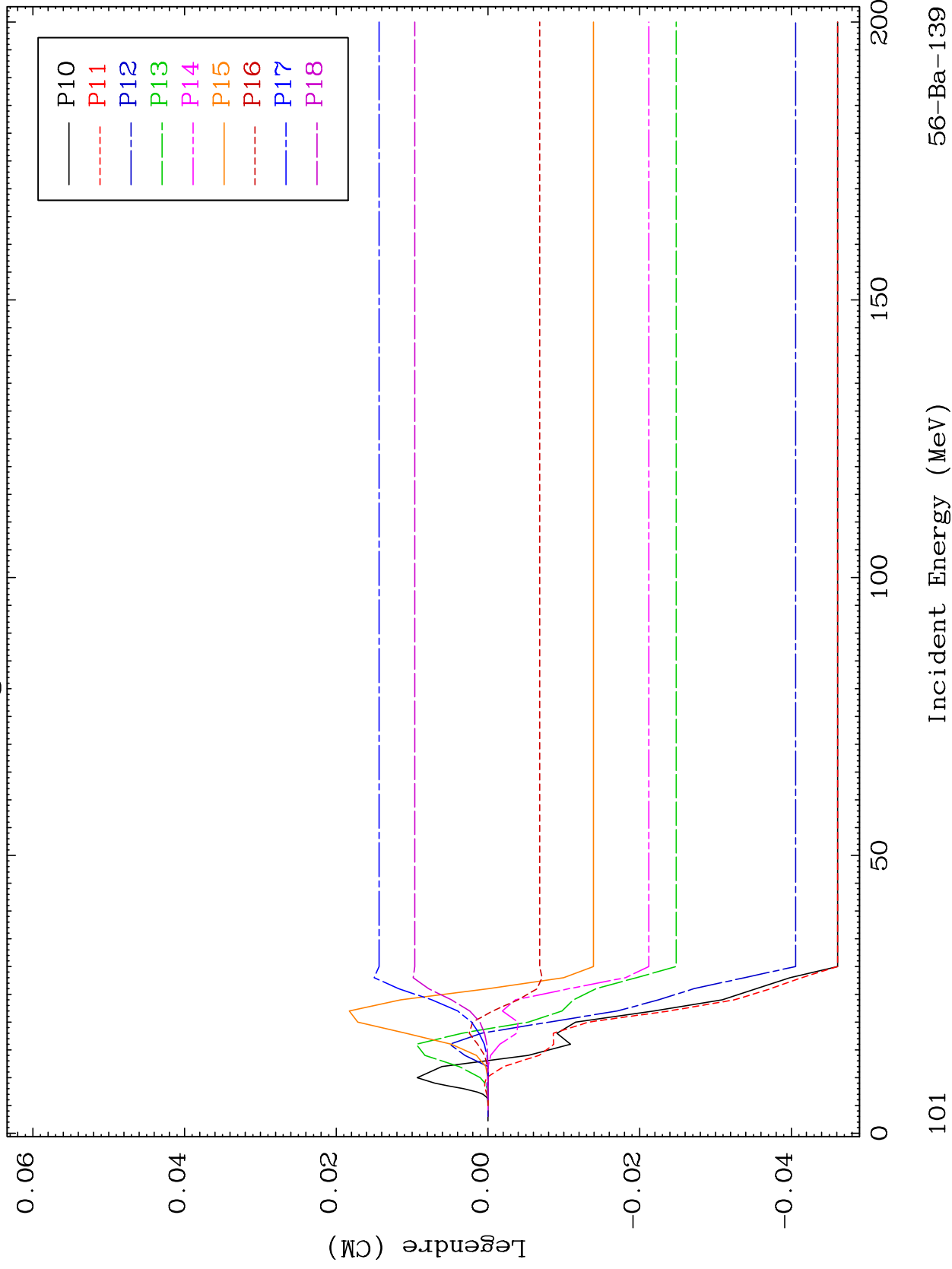
56-Ba-139

Incident Energy (MeV)

MAT 5652

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

56-Ba-139



101

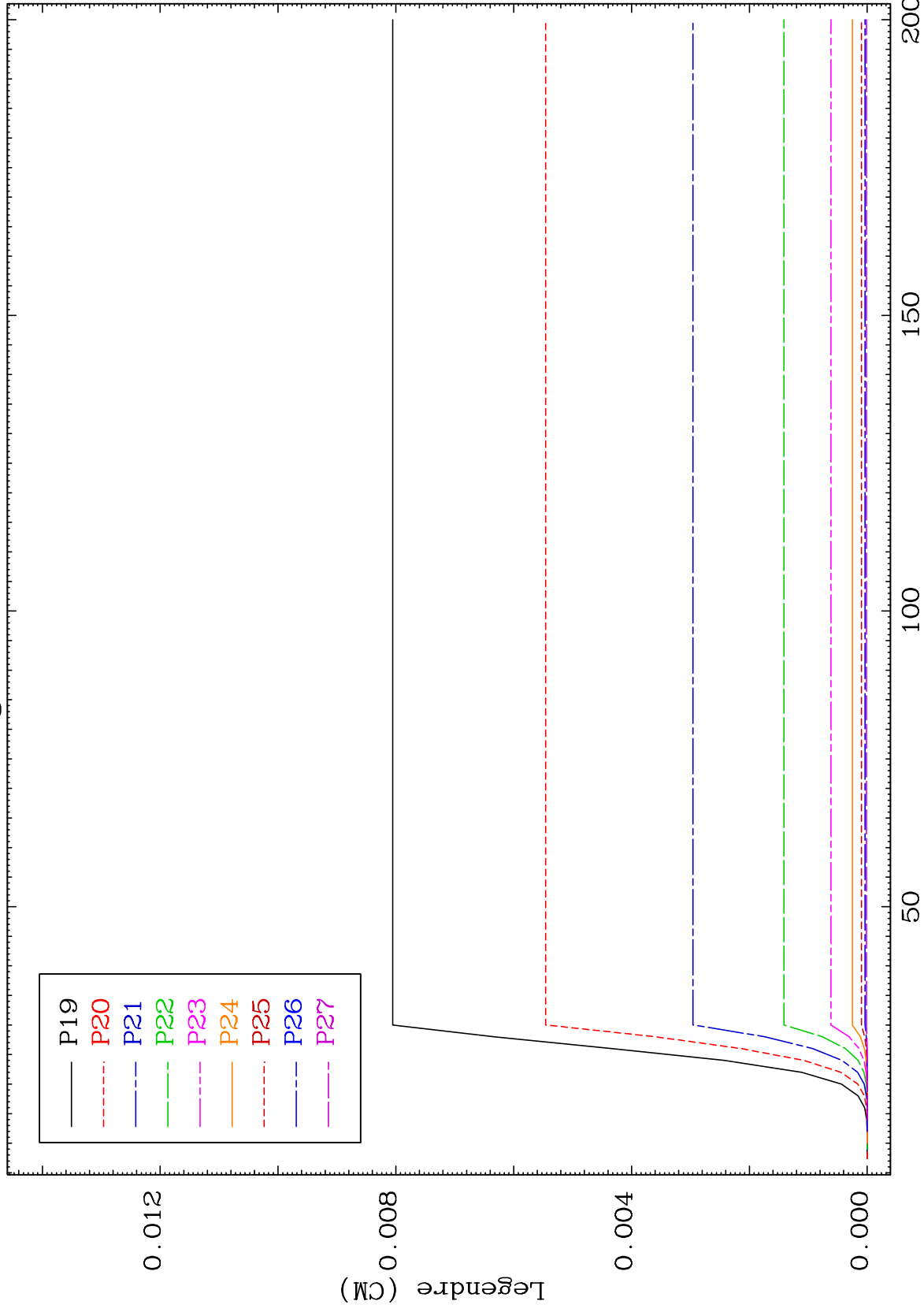
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



102

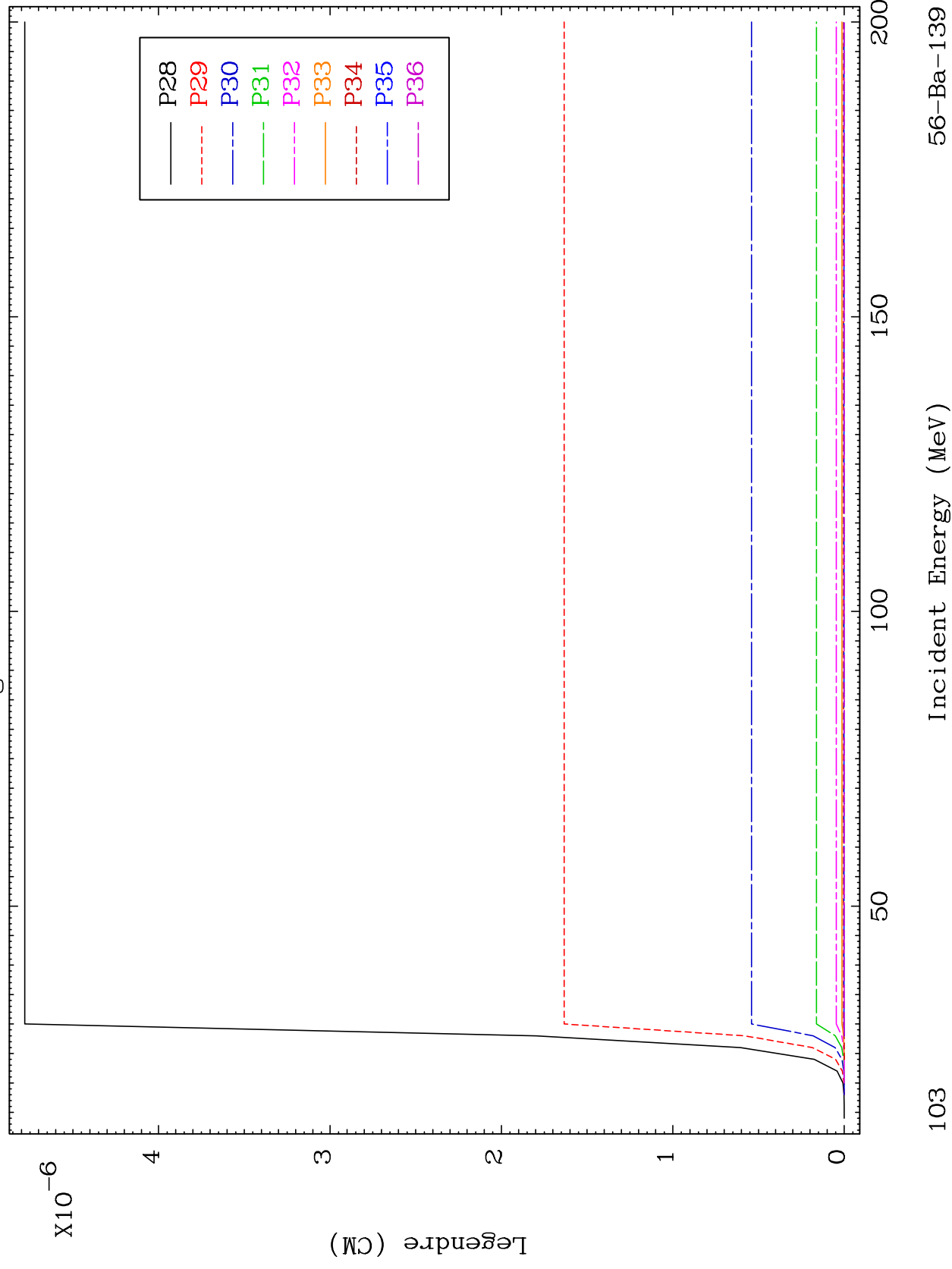
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



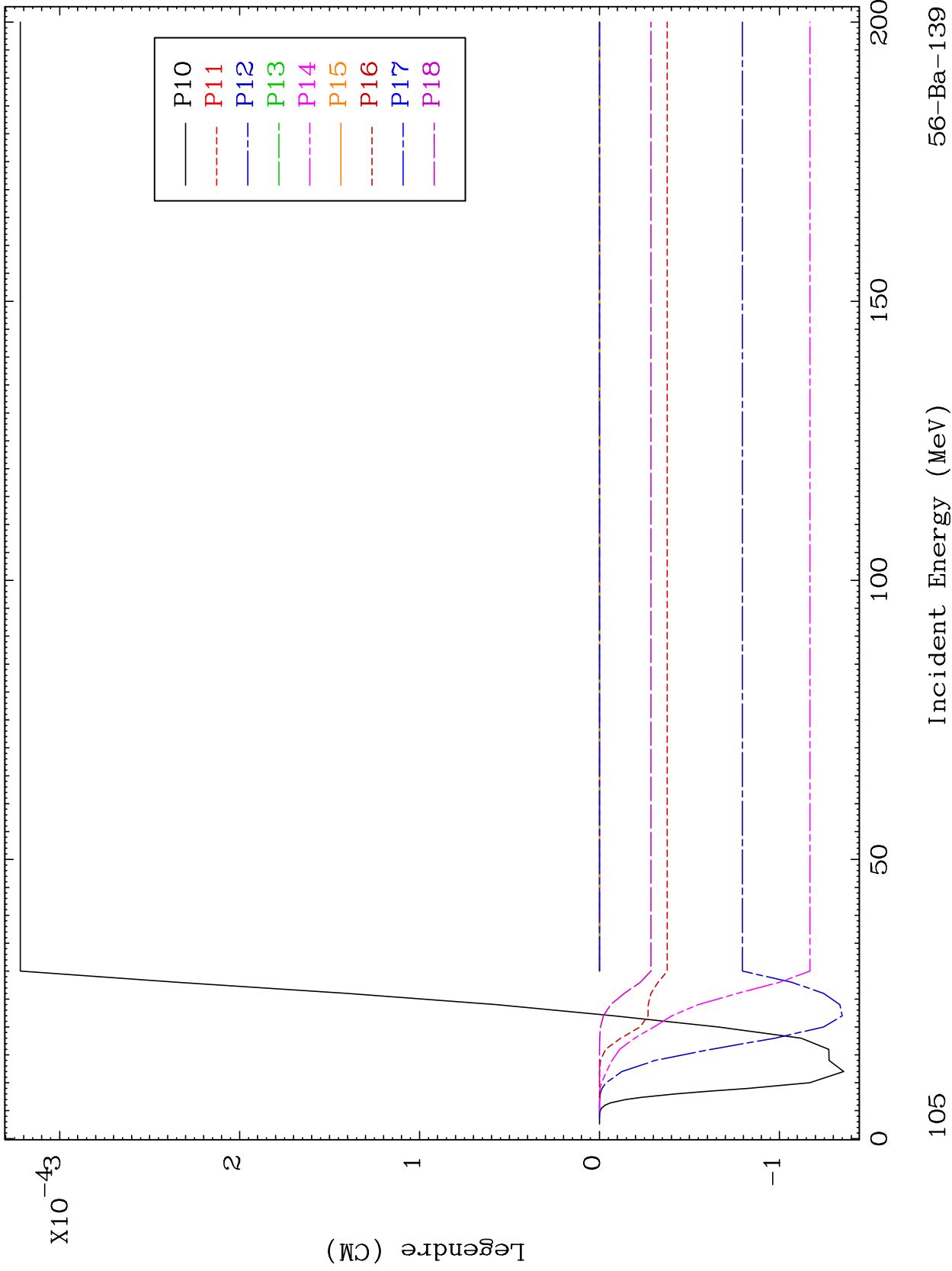
103

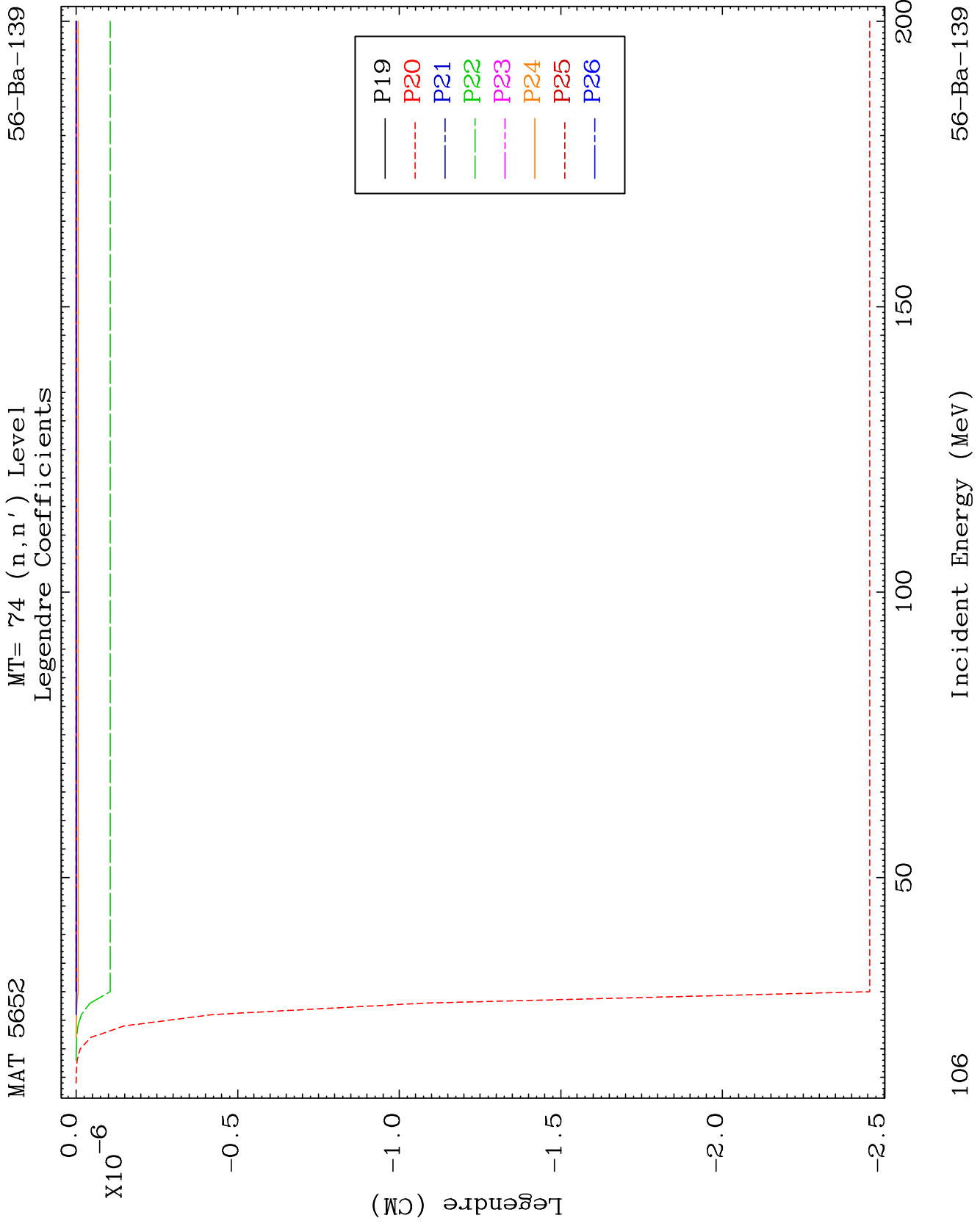


MAT 5652

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

56-Ba-139

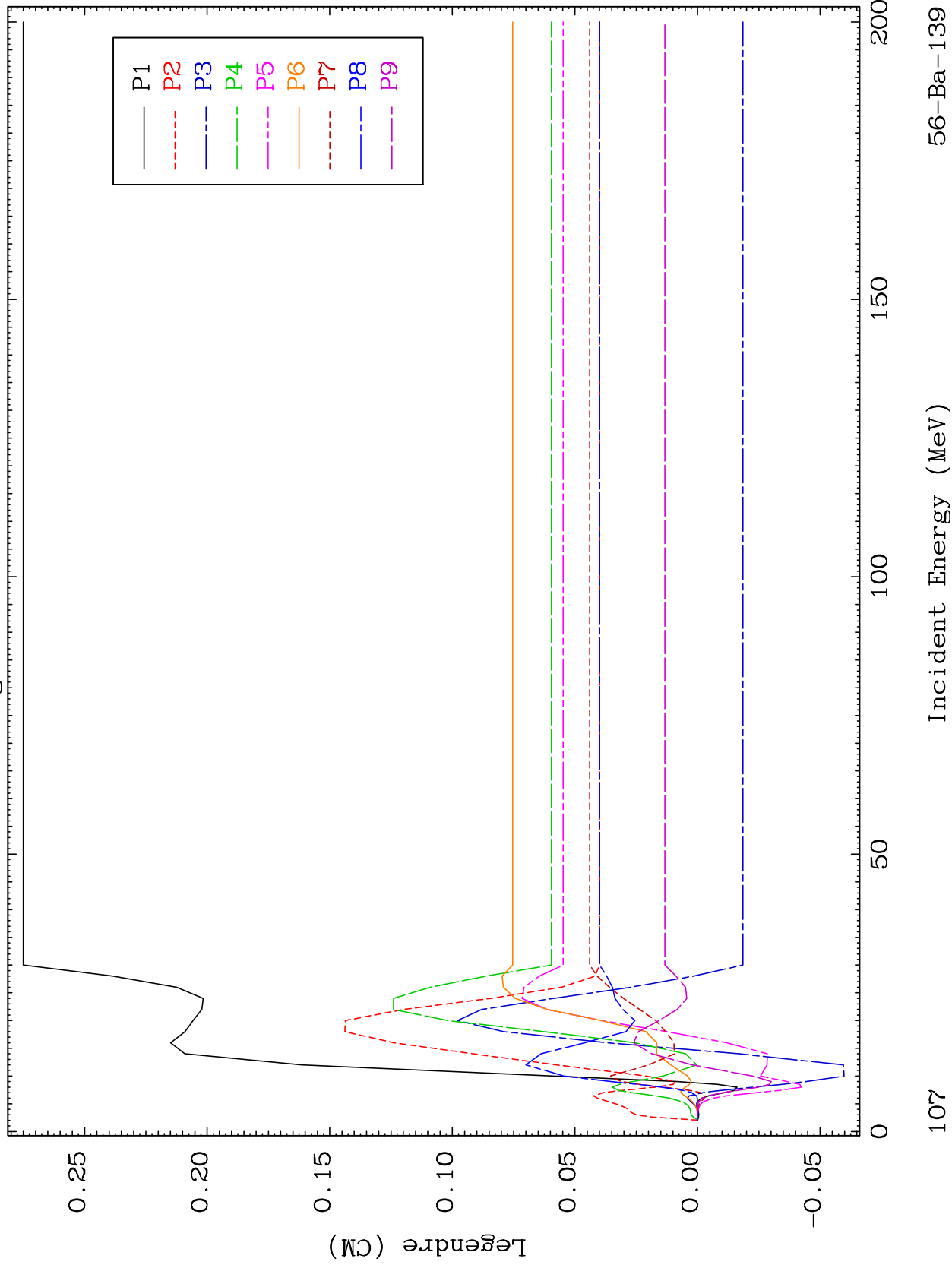




MAT 5652

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

56-Ba-139



56-Ba-139

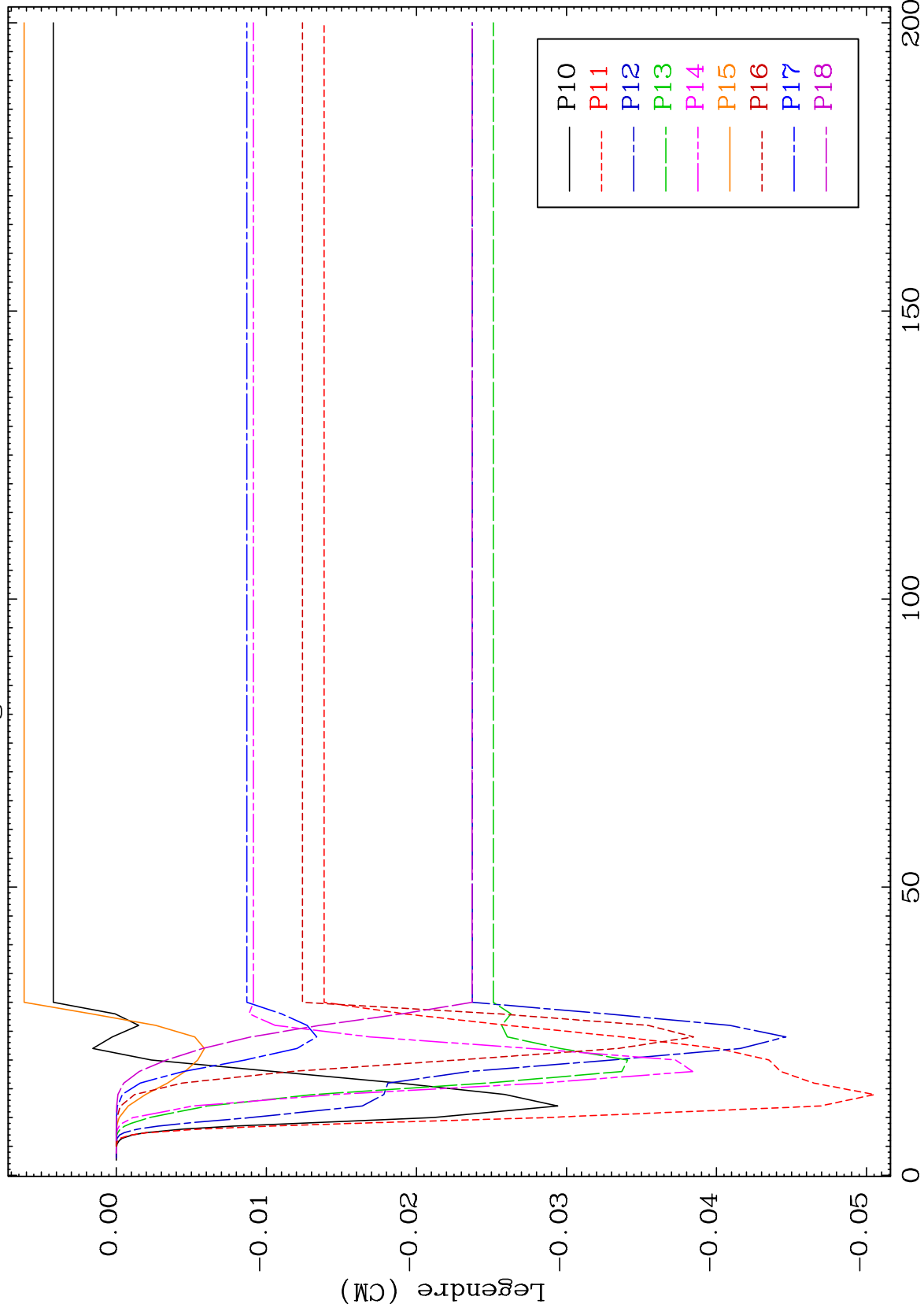
Incident Energy (MeV)

107

MAT 5652

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

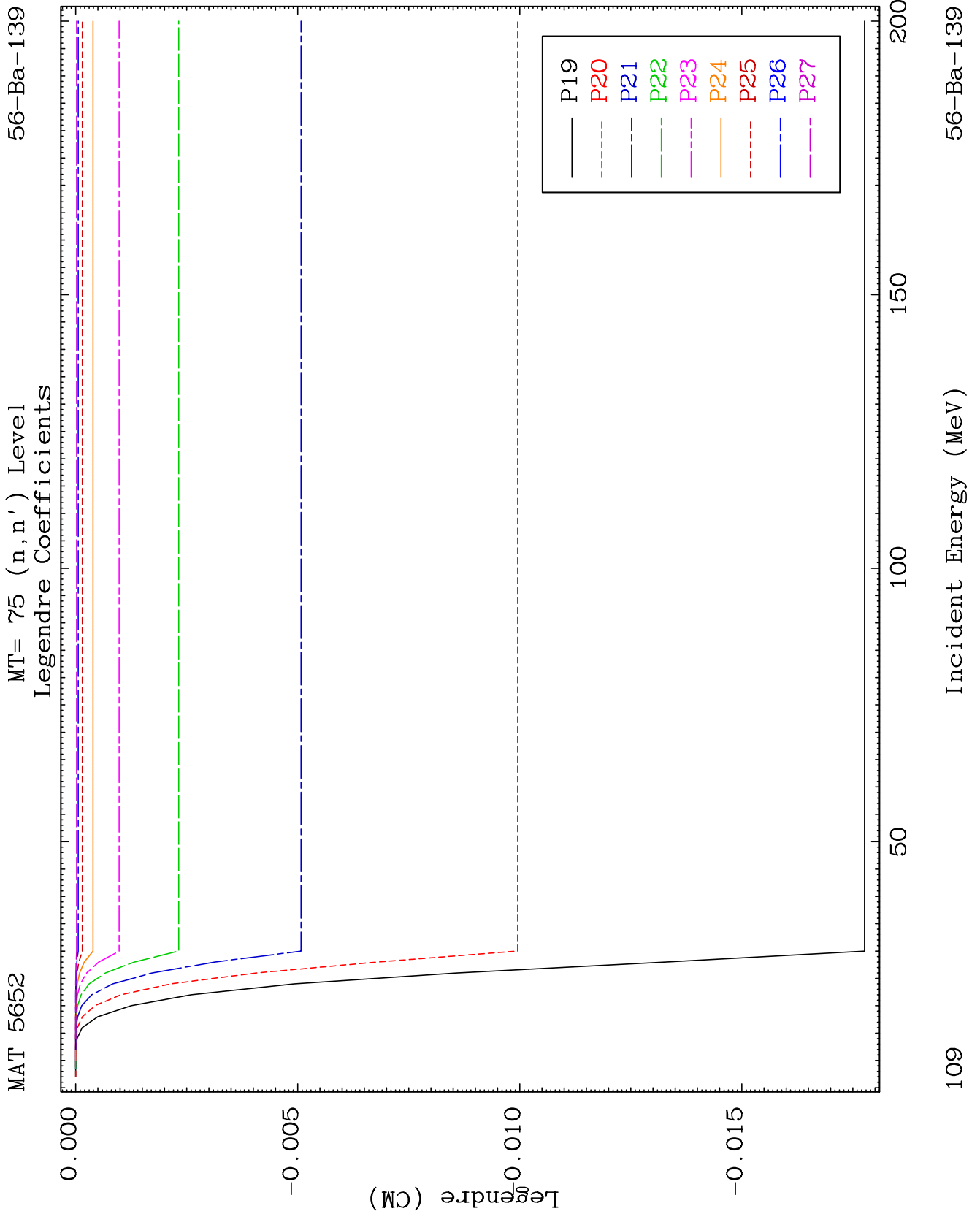
56-Ba-139

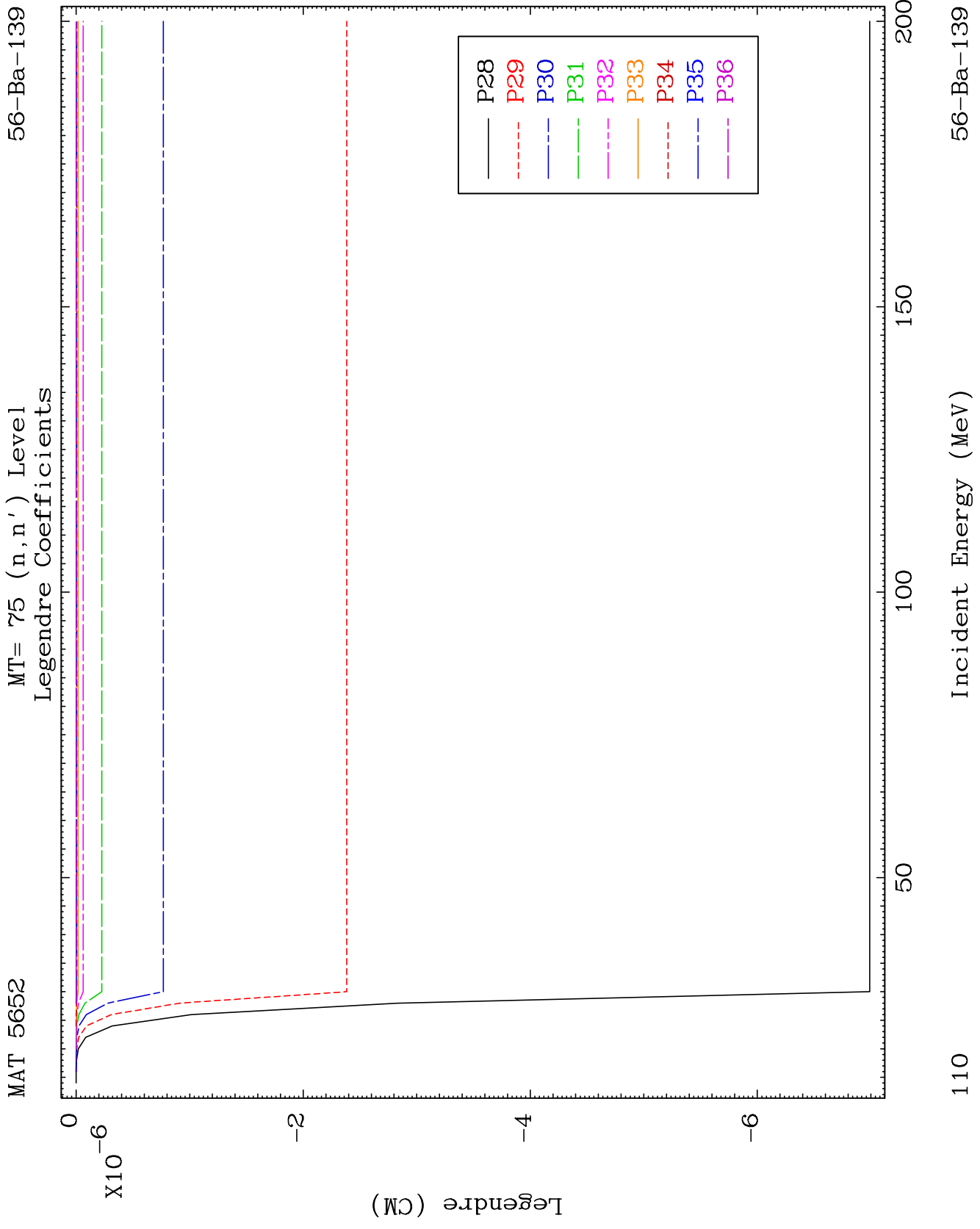


108

Incident Energy (MeV)

56-Ba-139

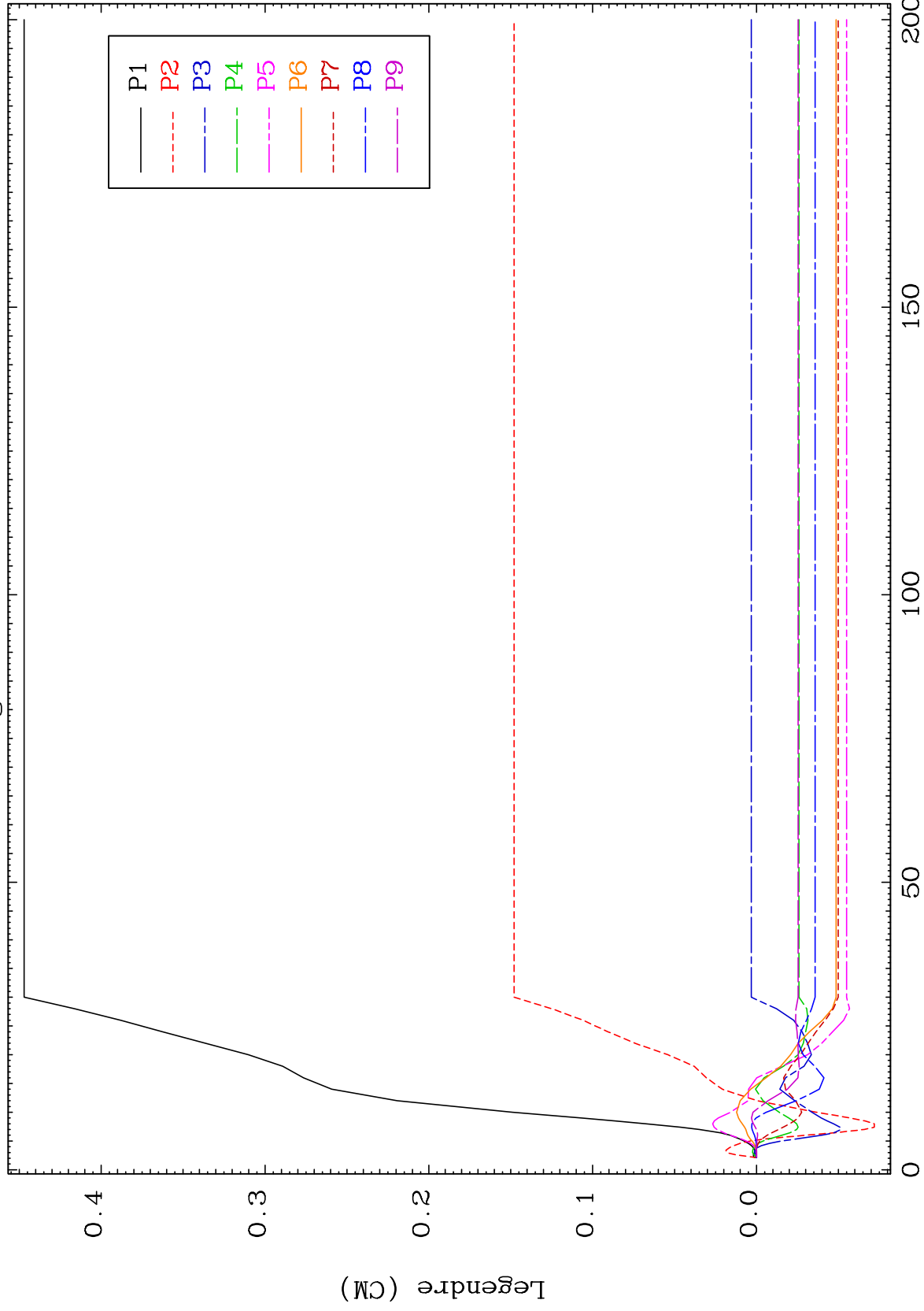




MAT 5652

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

56-Ba-139



56-Ba-139

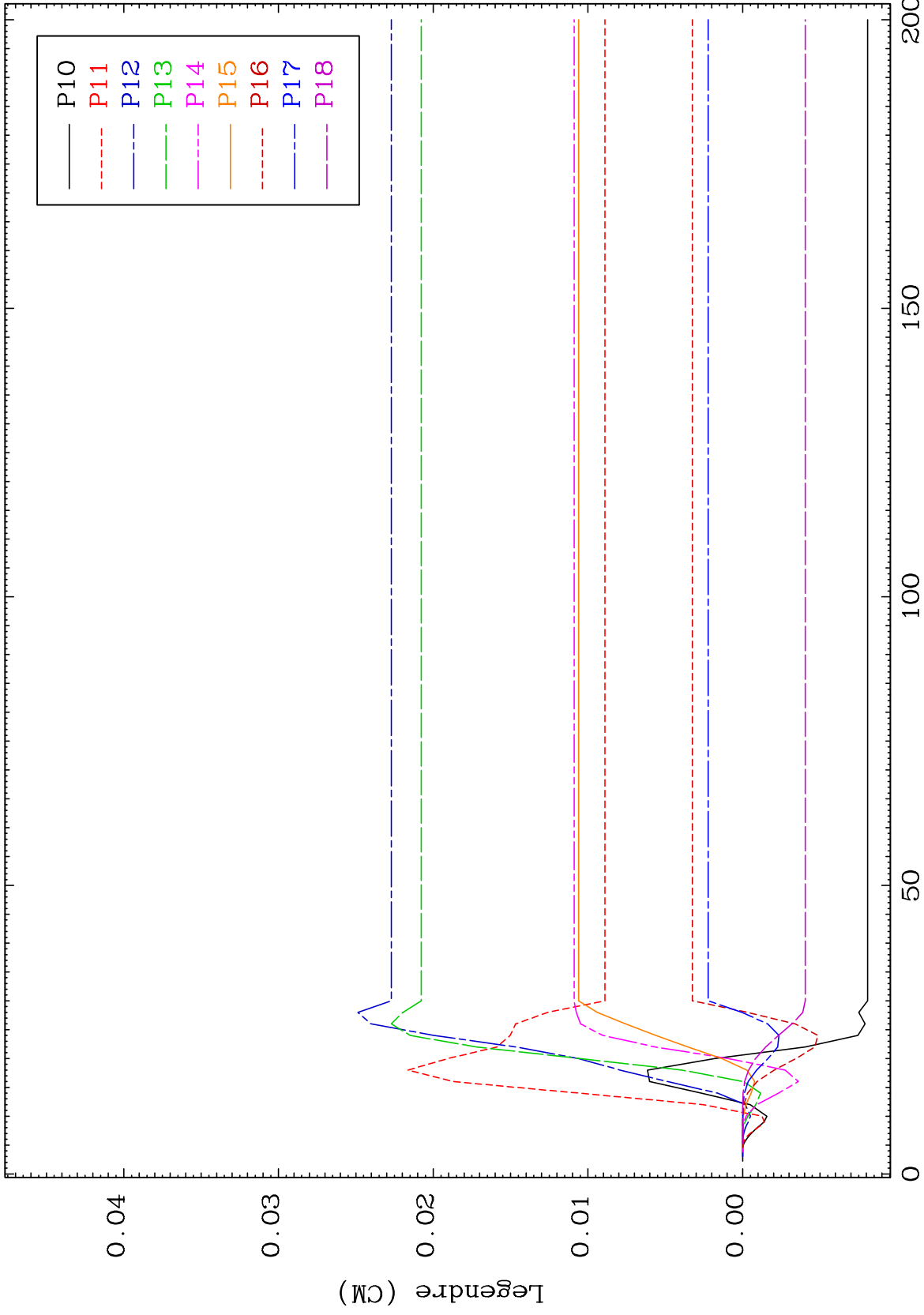
Incident Energy (MeV)

111

MAT 5652

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

56-Ba-139



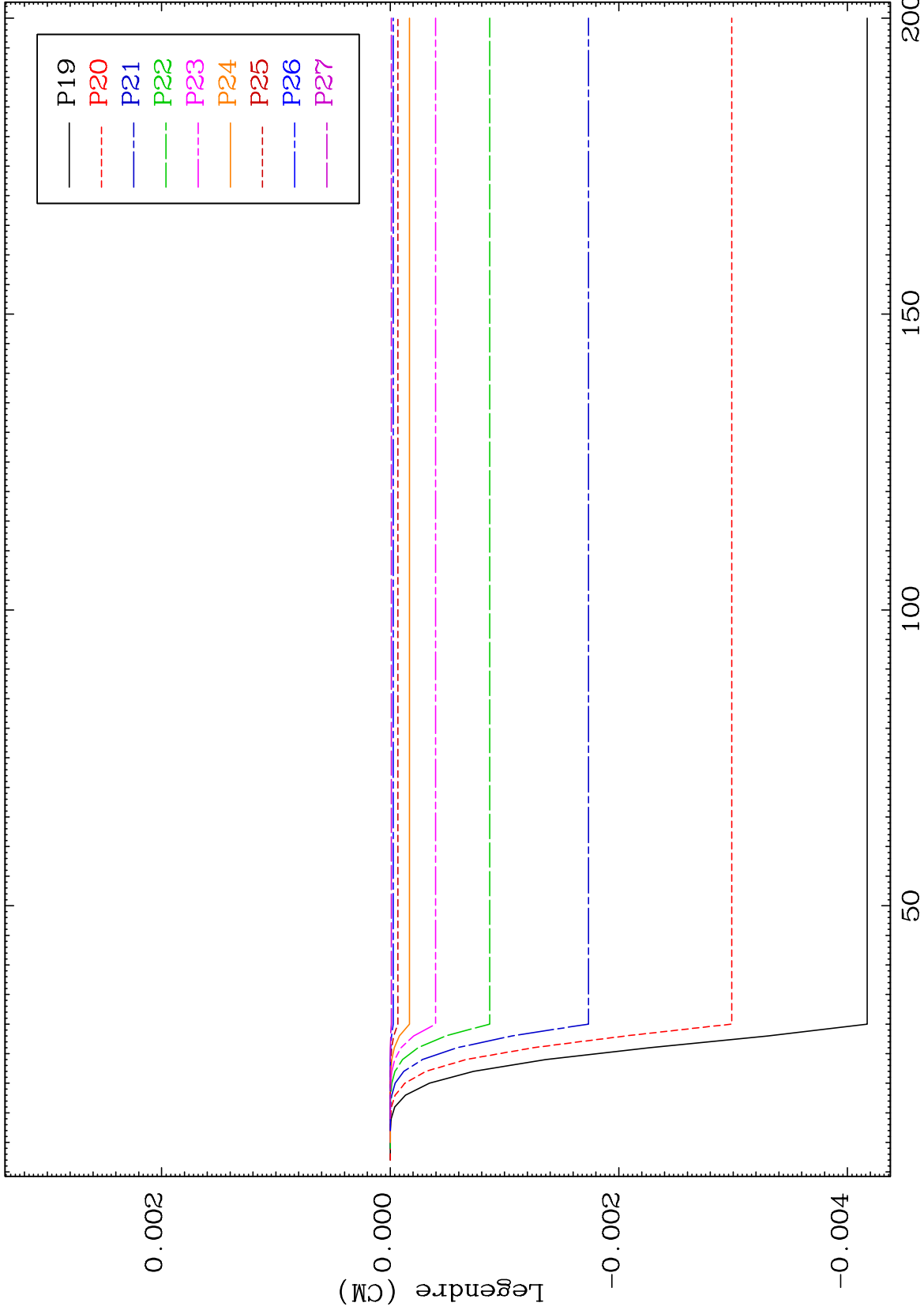
112

56-Ba-139

MAT 5652

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

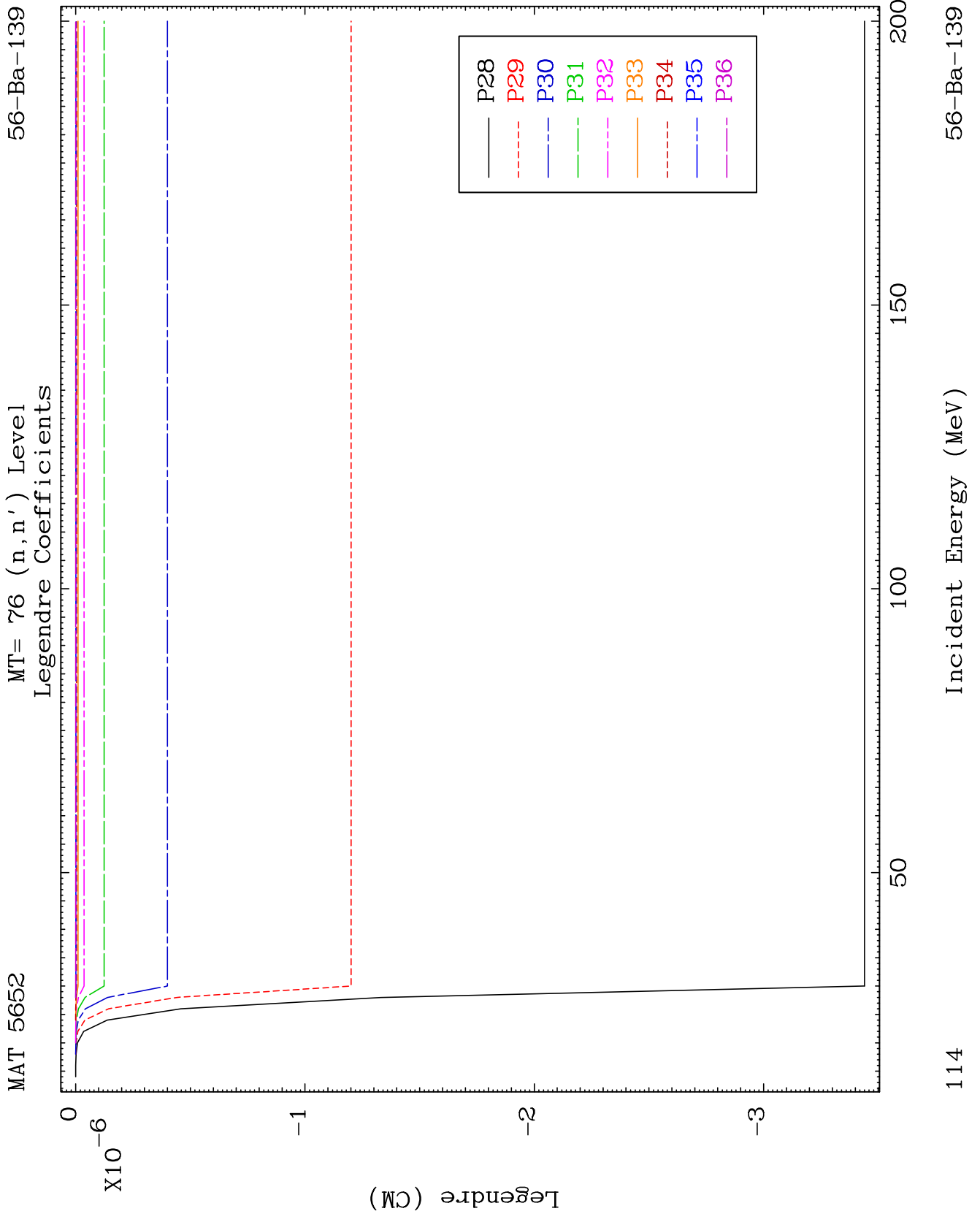
56-Ba-139



113

Incident Energy (MeV)

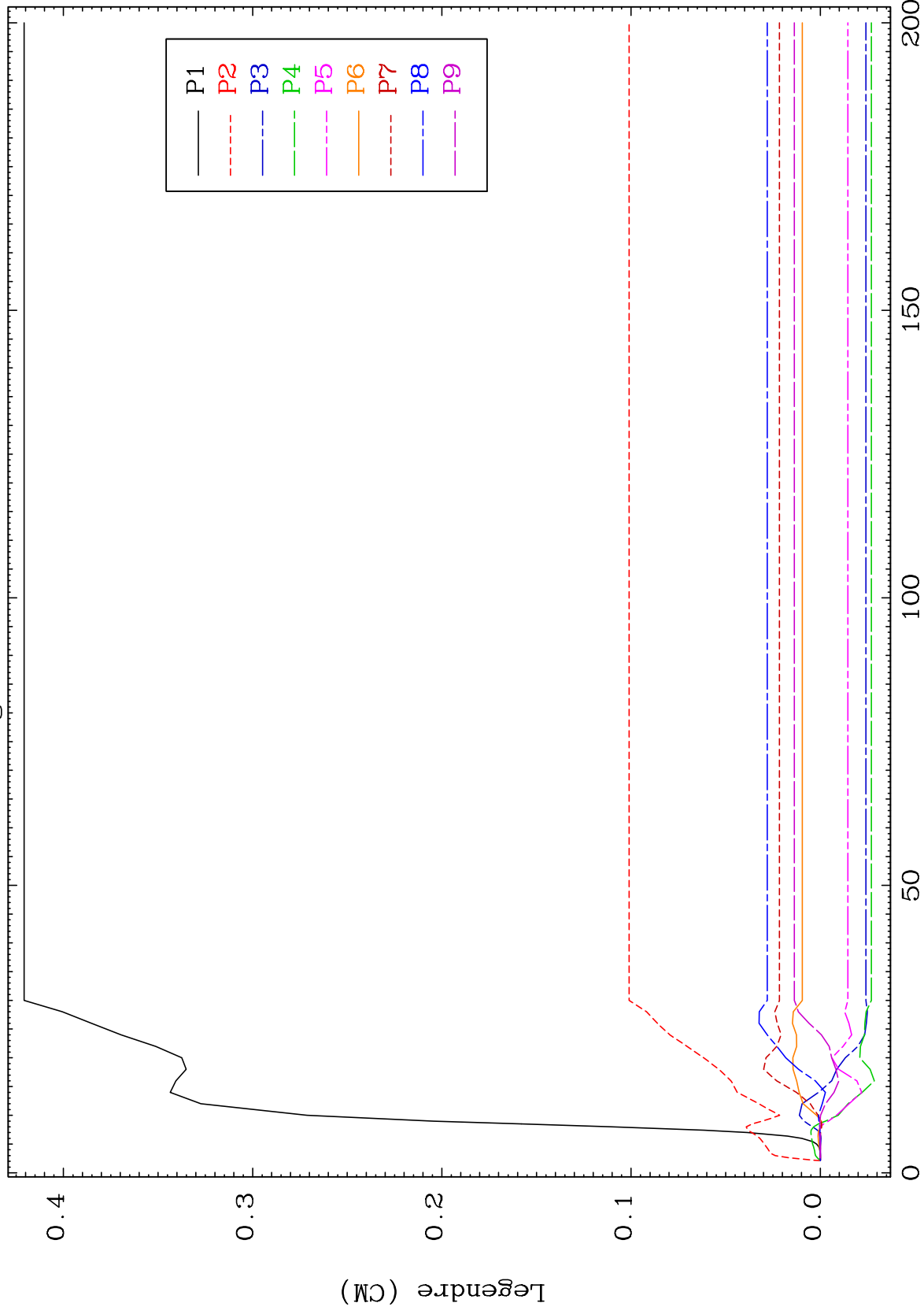
56-Ba-139



MAT 5652

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

56-Ba-139



56-Ba-139

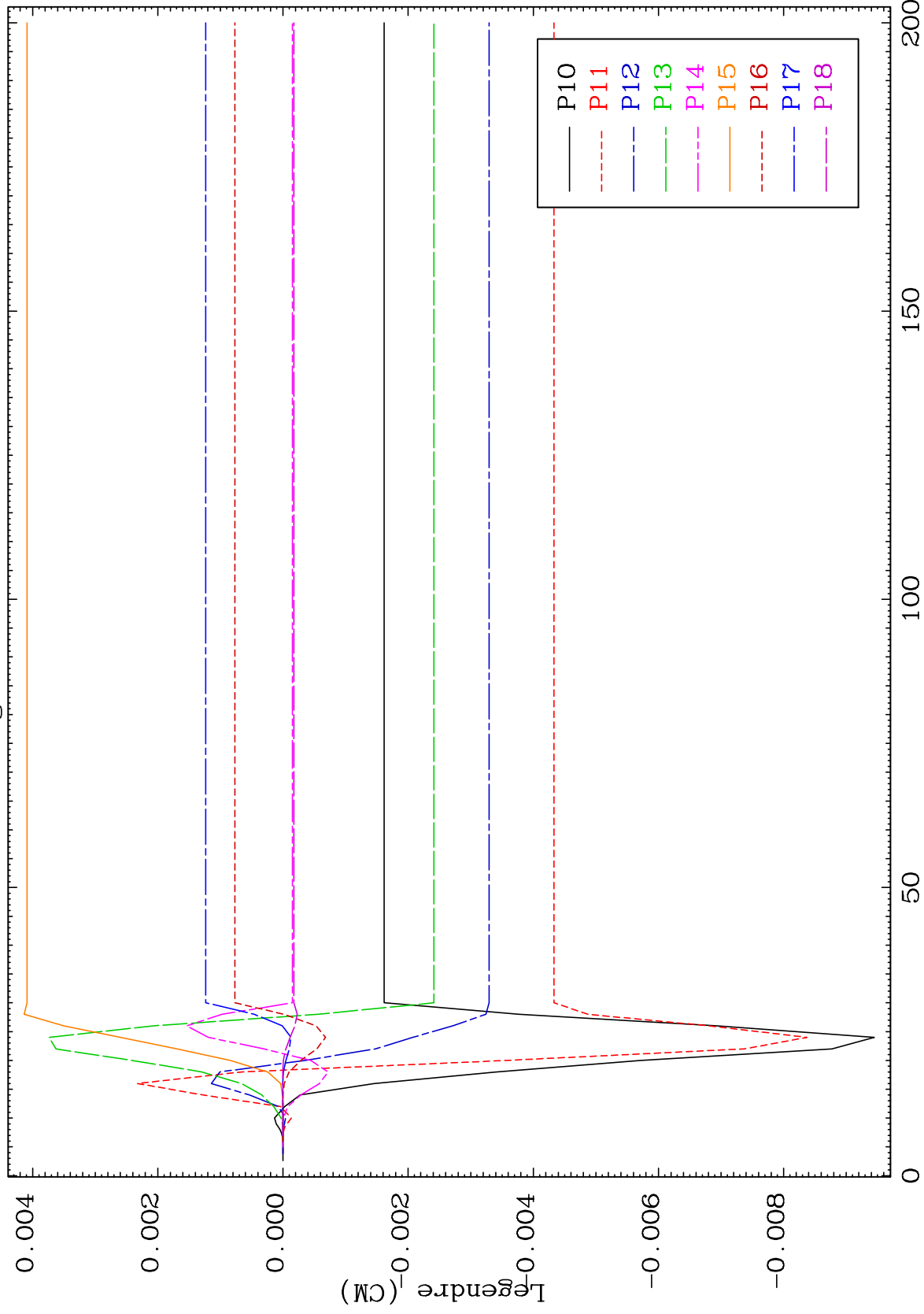
Incident Energy (MeV)

115

MAT 5652

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

56-Ba-139



116

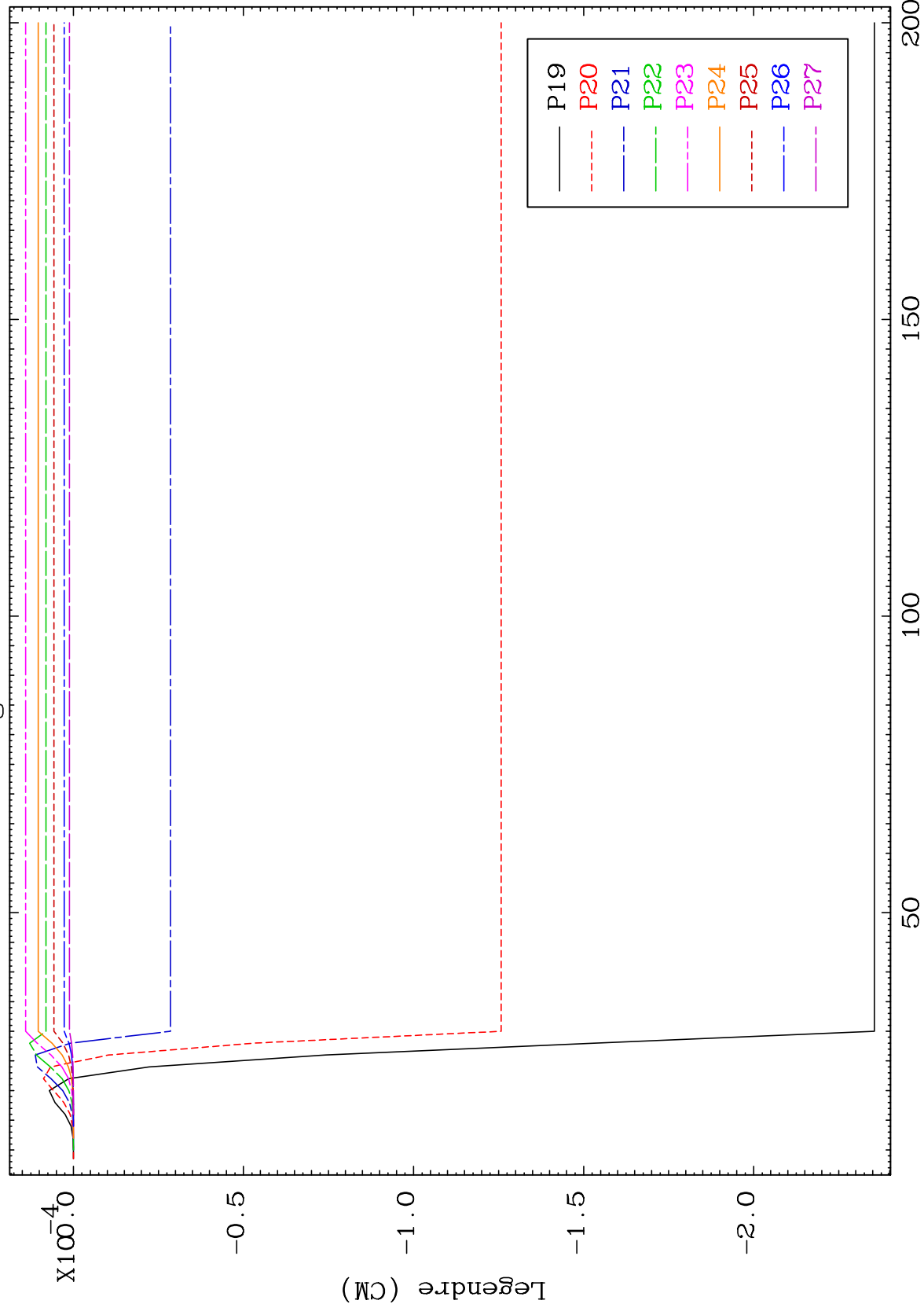
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

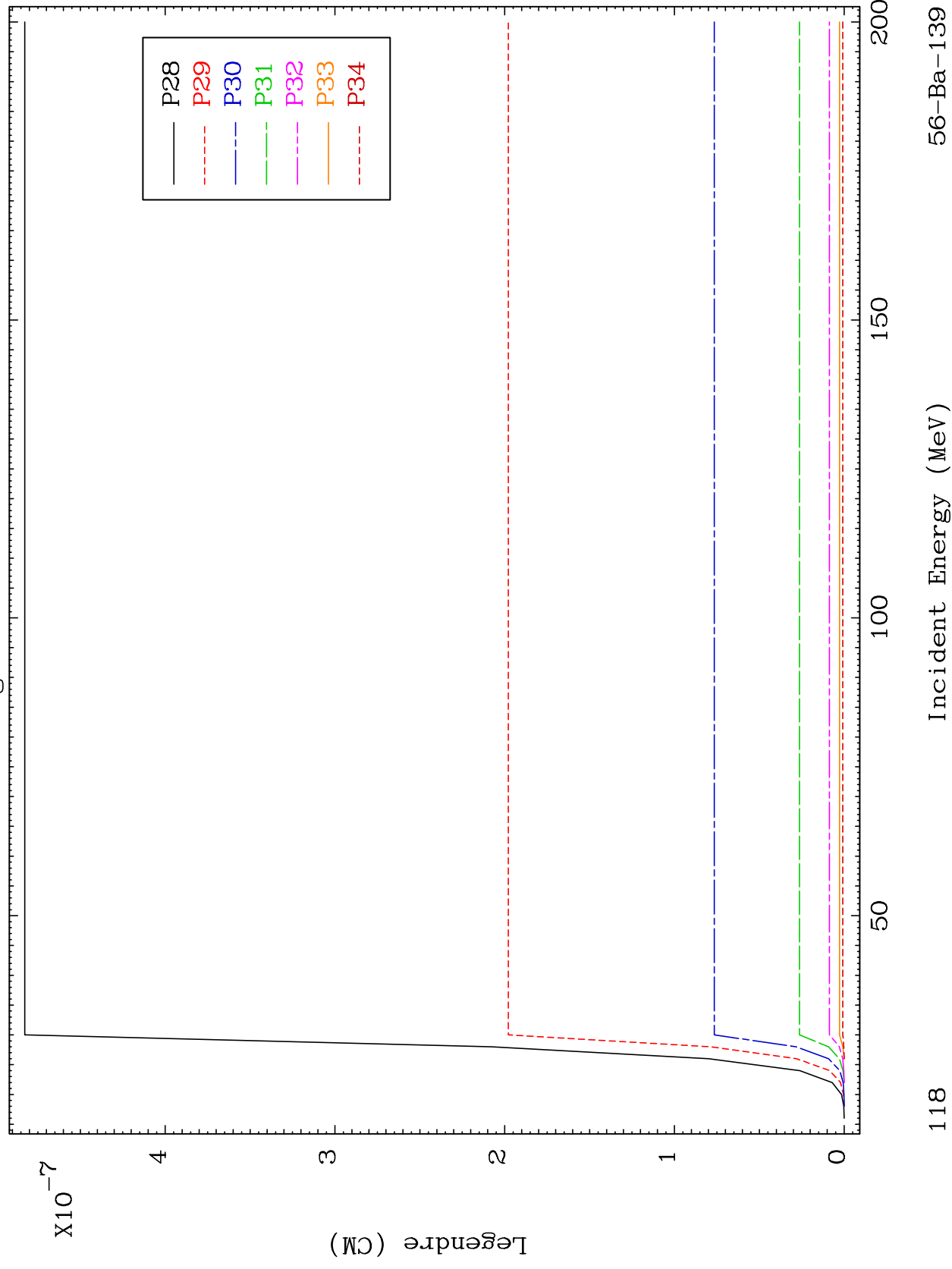
56-Ba-139



MAT 5652

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

56-Ba-139



118

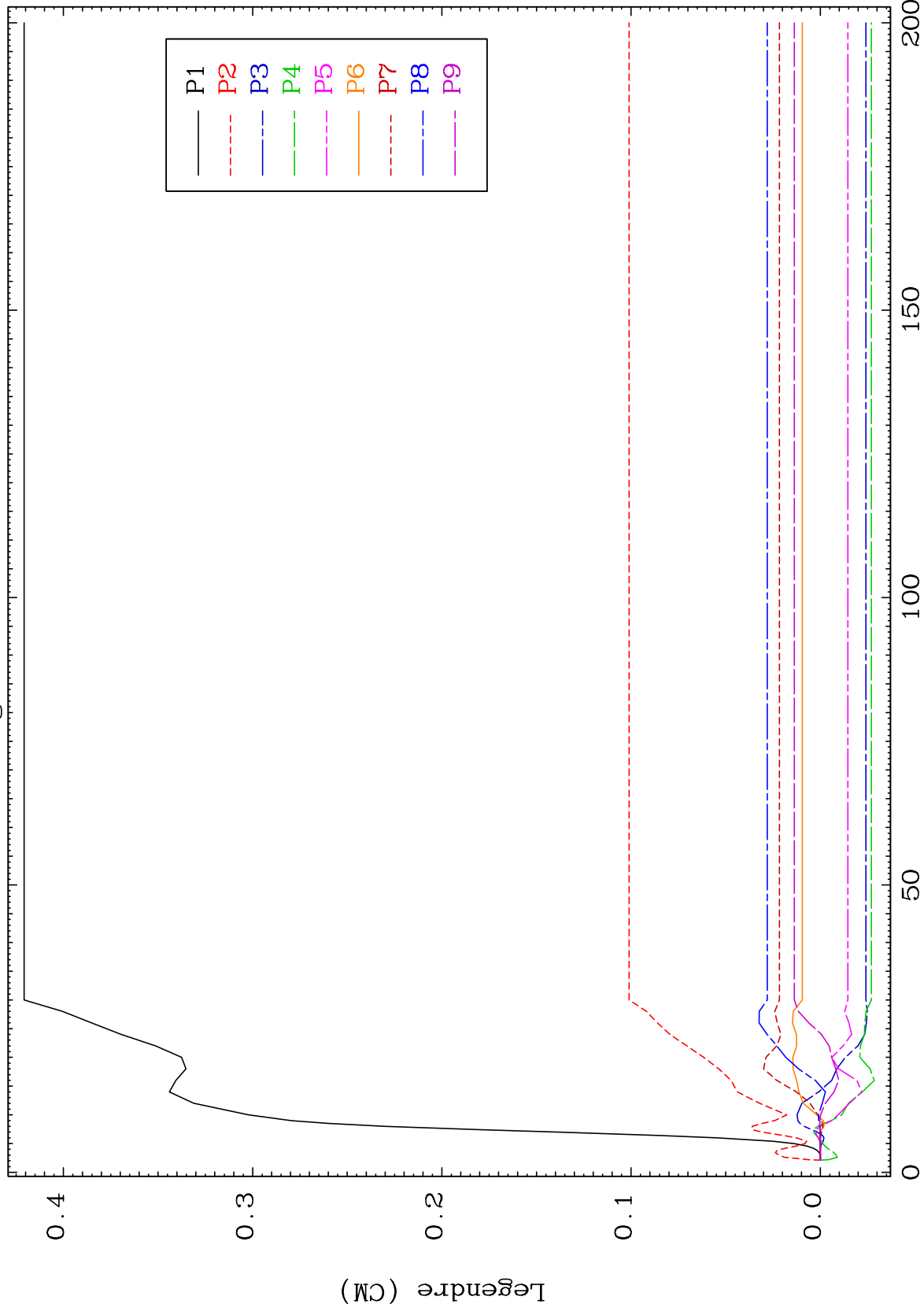
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



119

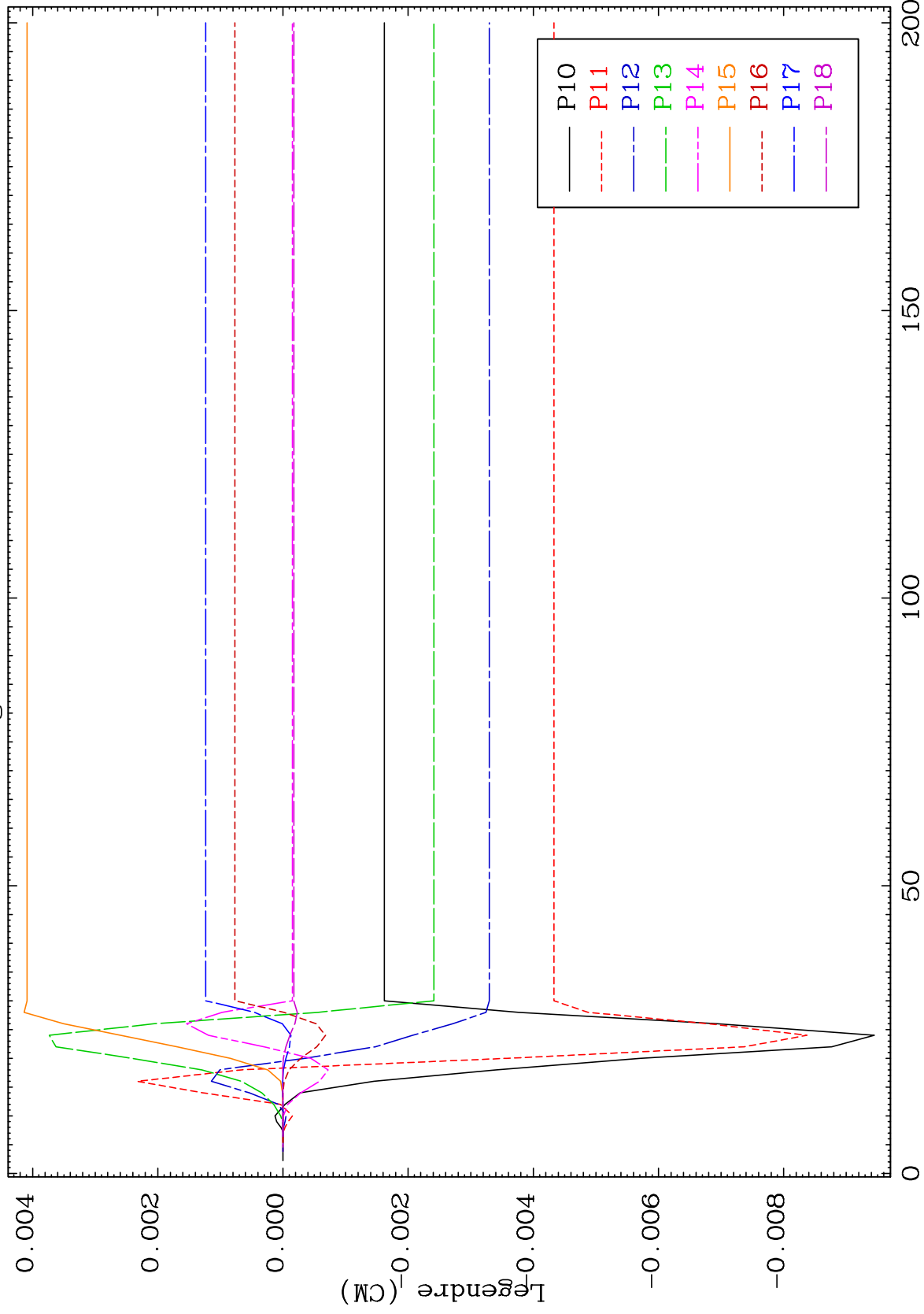
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



120

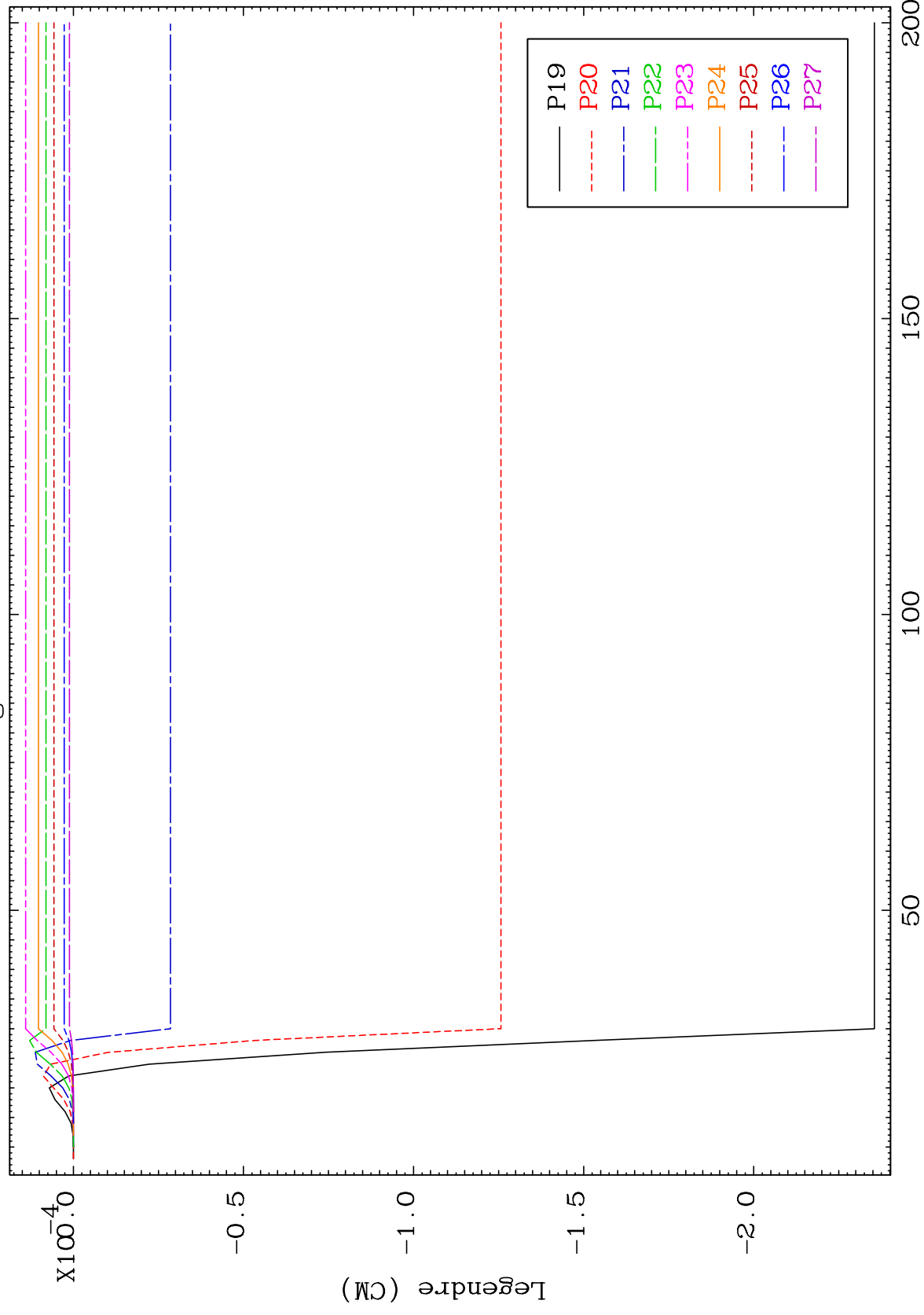
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



121

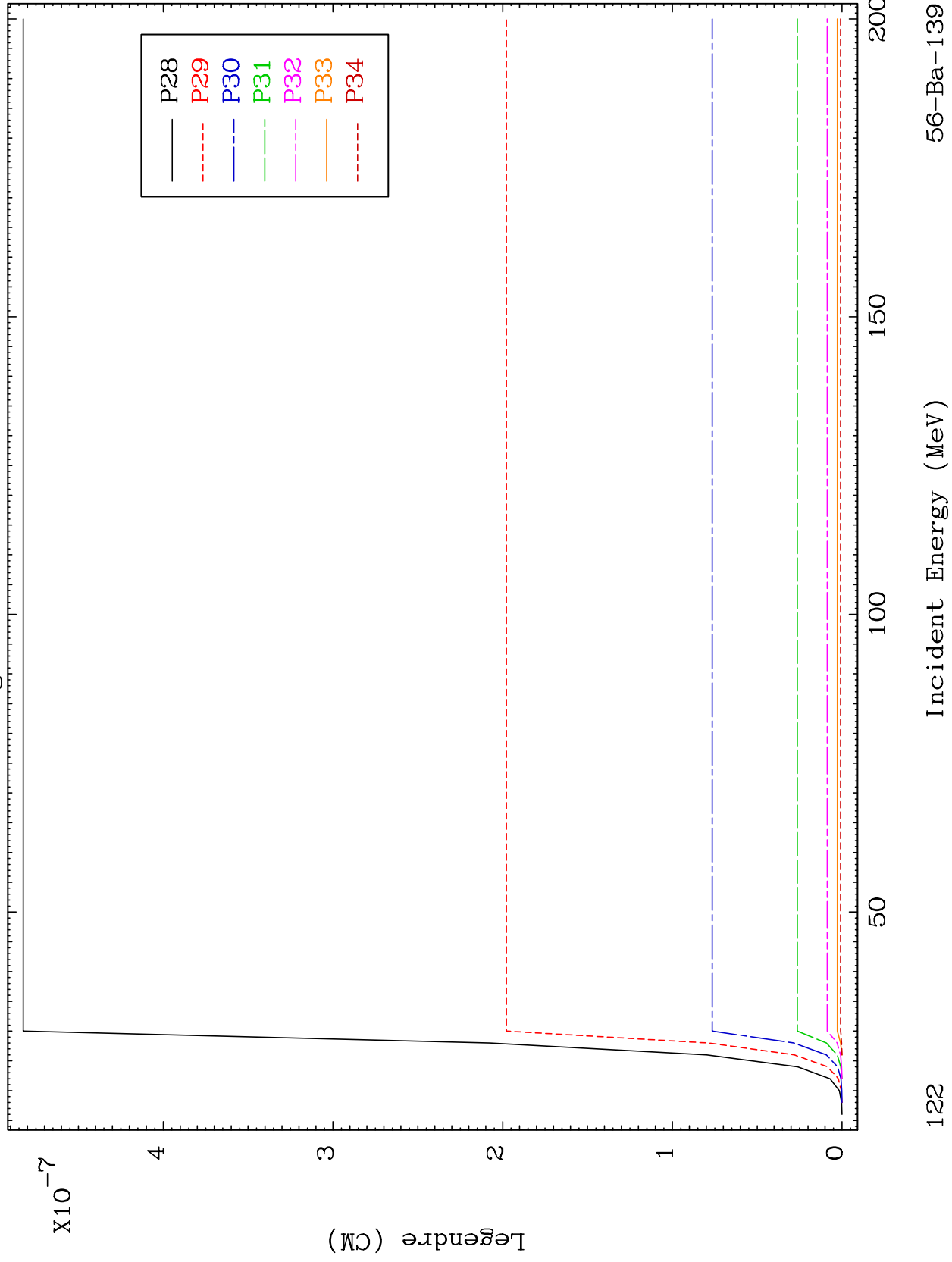
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



122

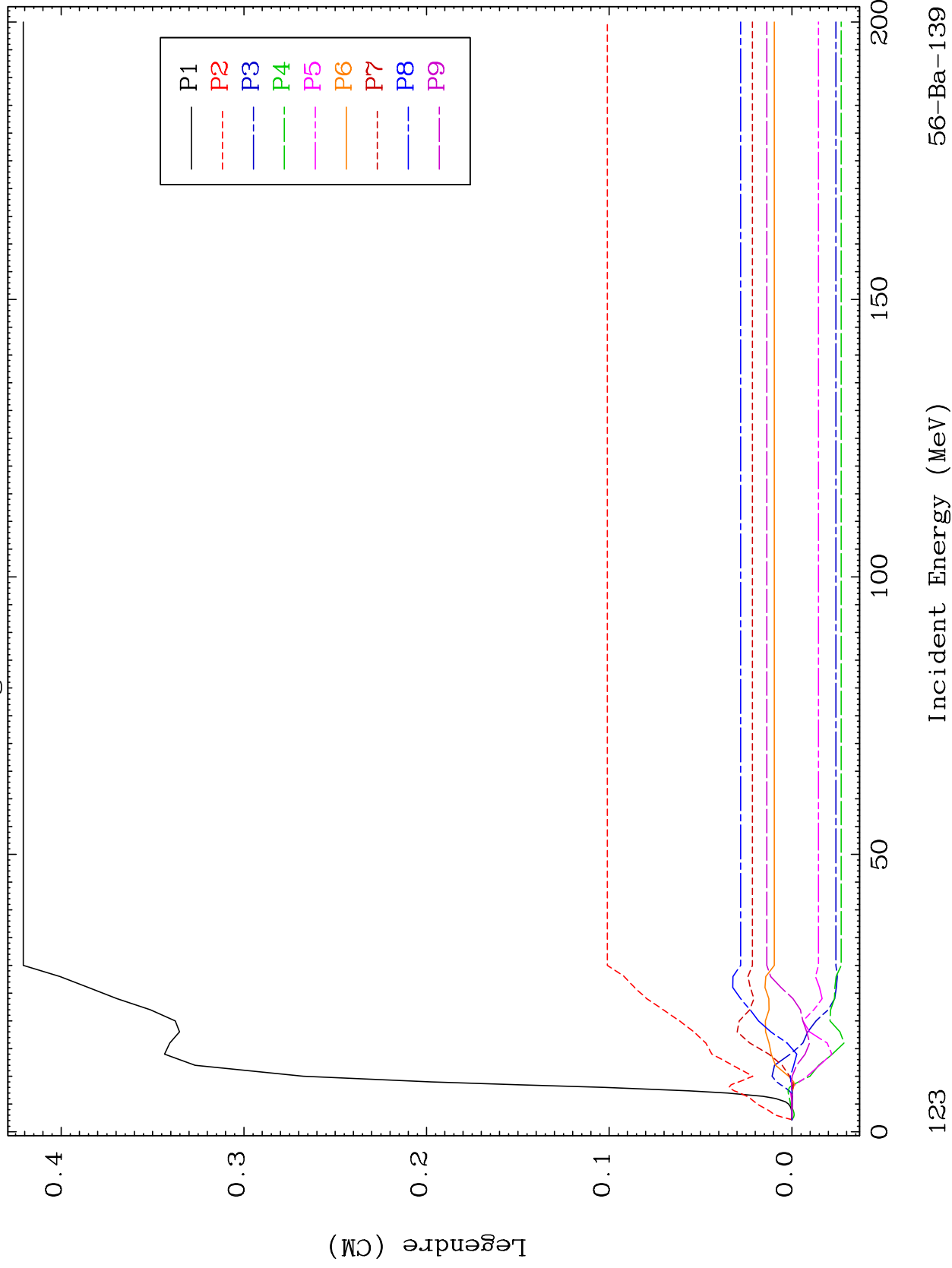
Incident Energy (MeV)

56-Ba-139

MAT 5652

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

56-Ba-139



56-Ba-139

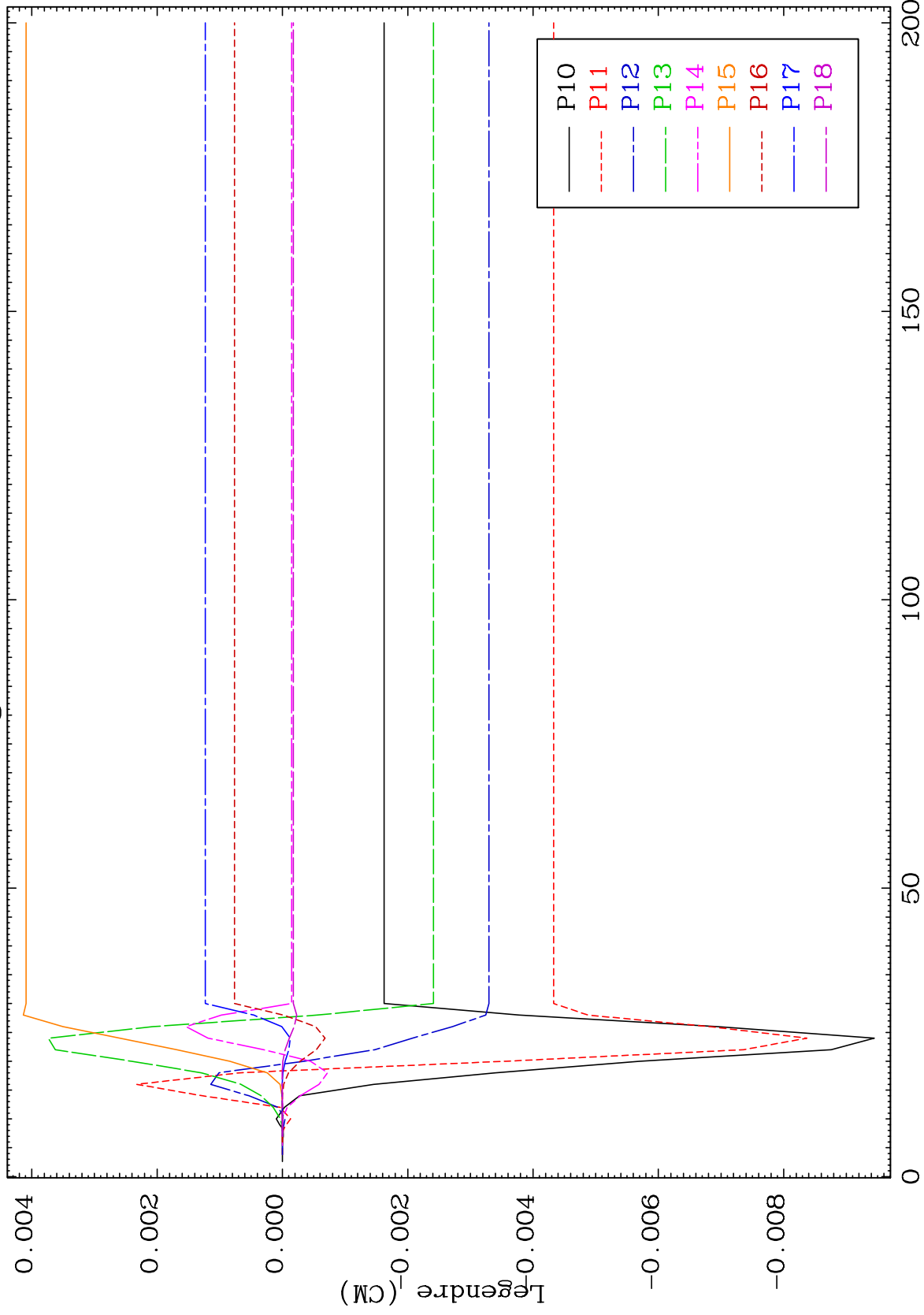
Incident Energy (MeV)

123

MAT 5652

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

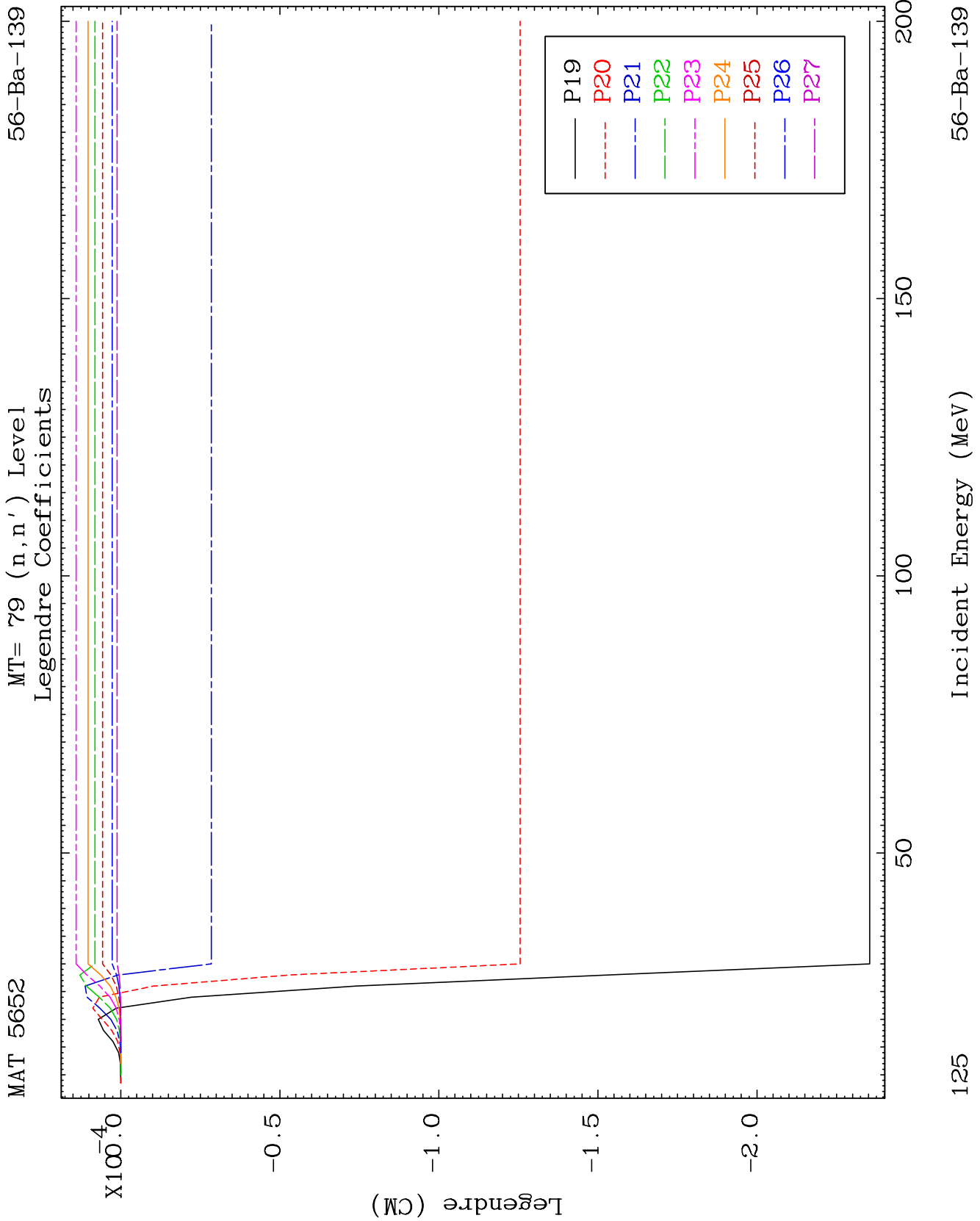
56-Ba-139



124

Incident Energy (MeV)

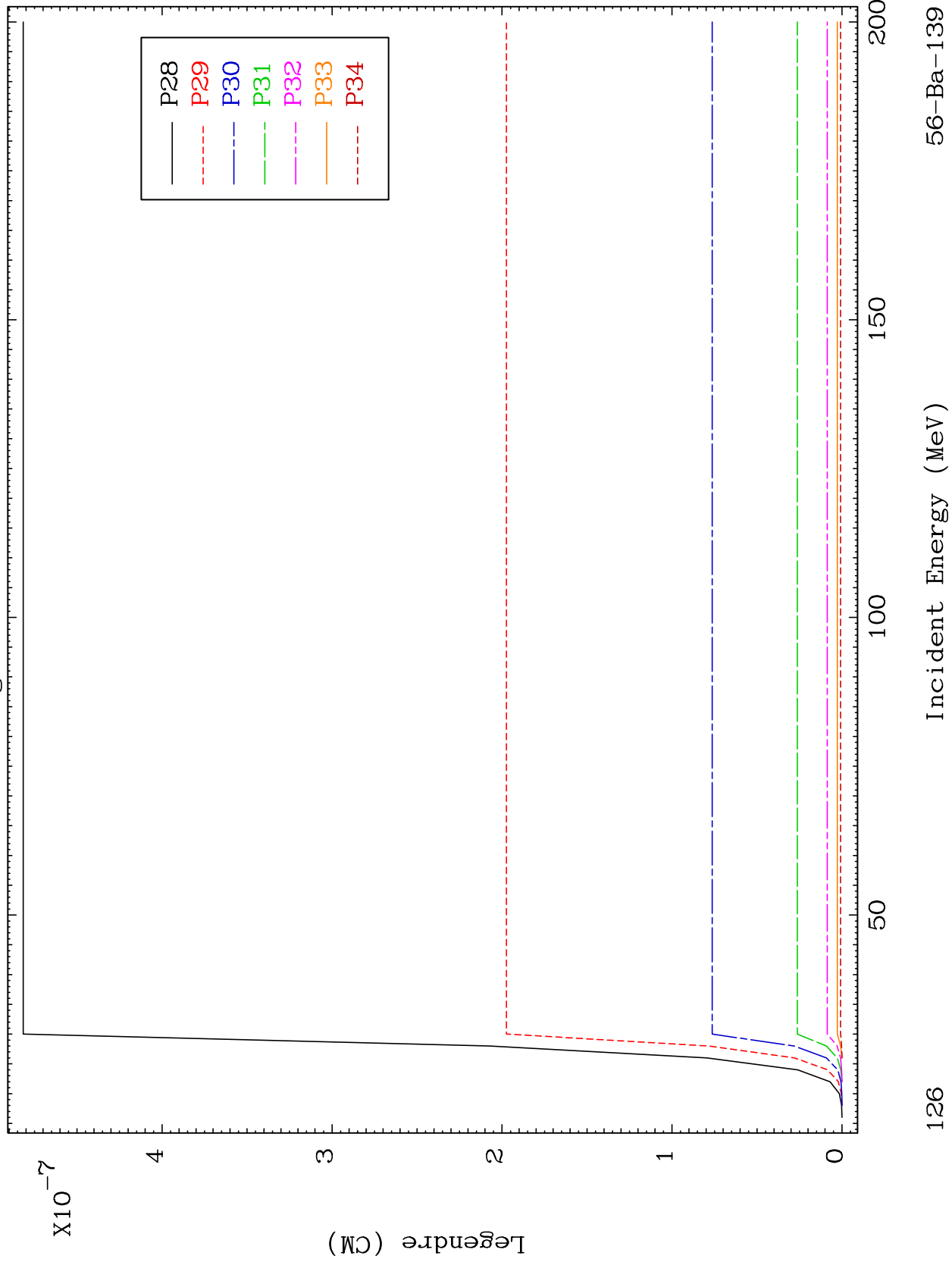
56-Ba-139



MAT 5652

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

56-Ba-139

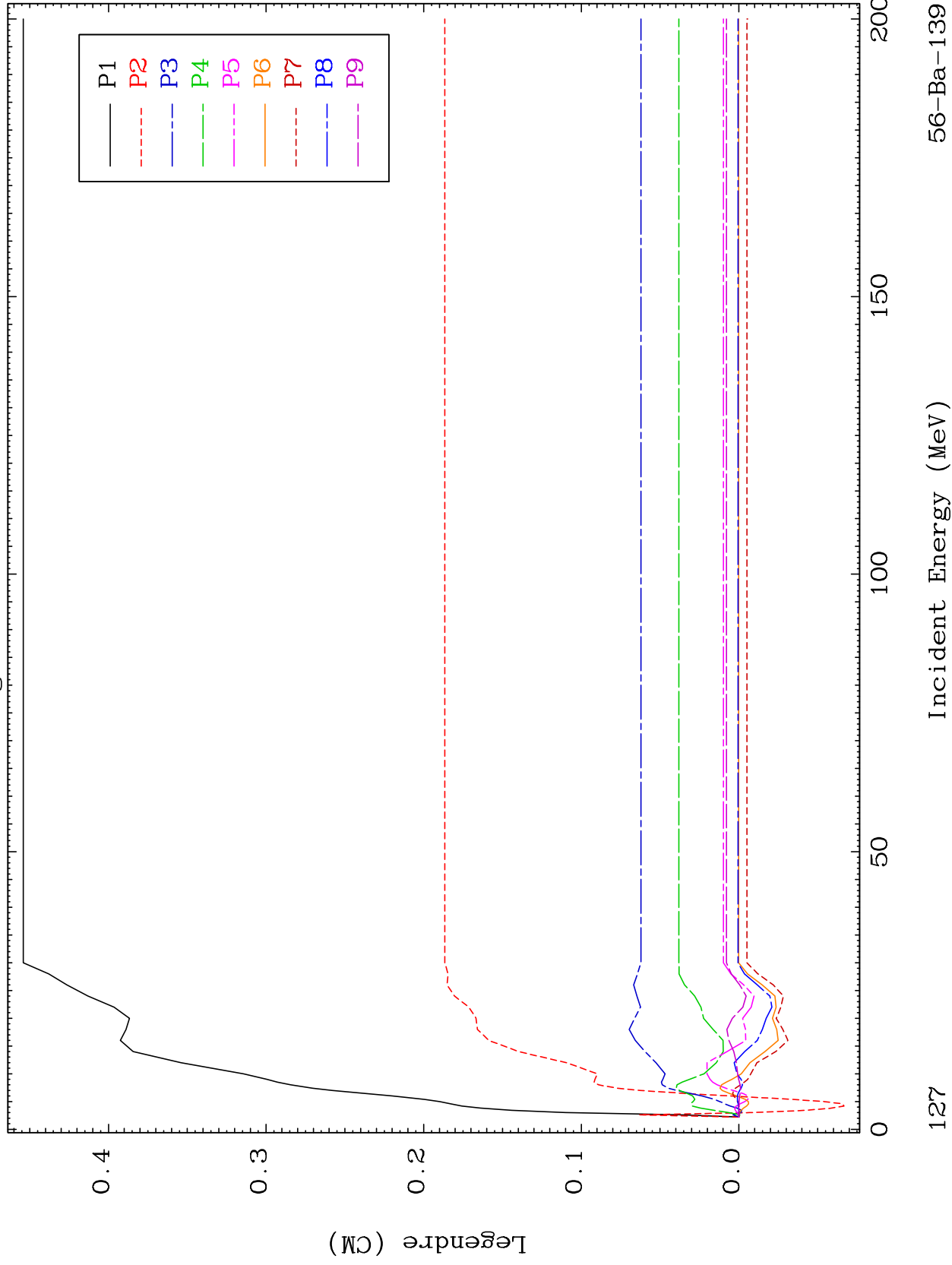


126

MAT 5652

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

56-Ba-139



56-Ba-139

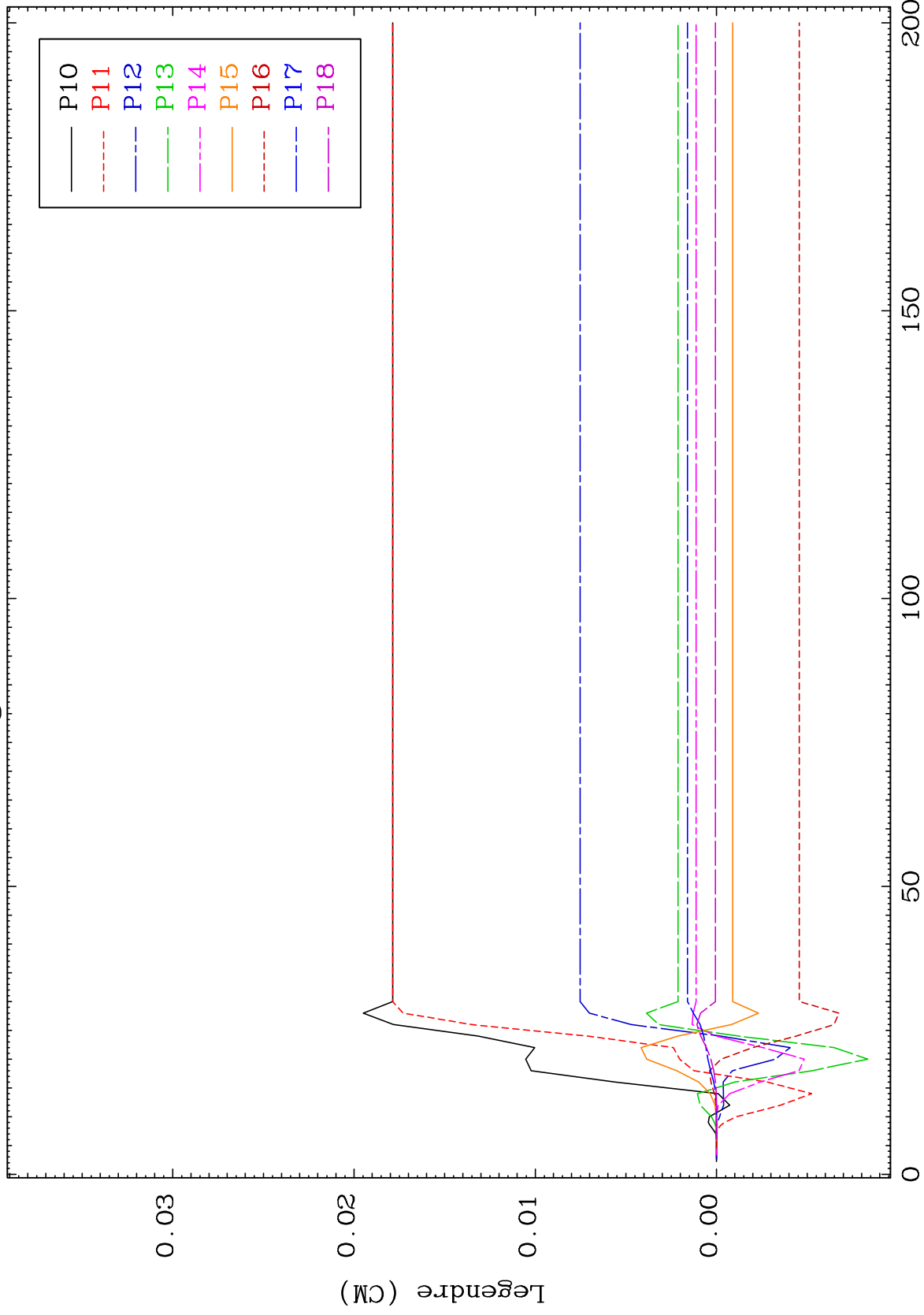
Incident Energy (MeV)

127

MAT 5652

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

56-Ba-139



56-Ba-139

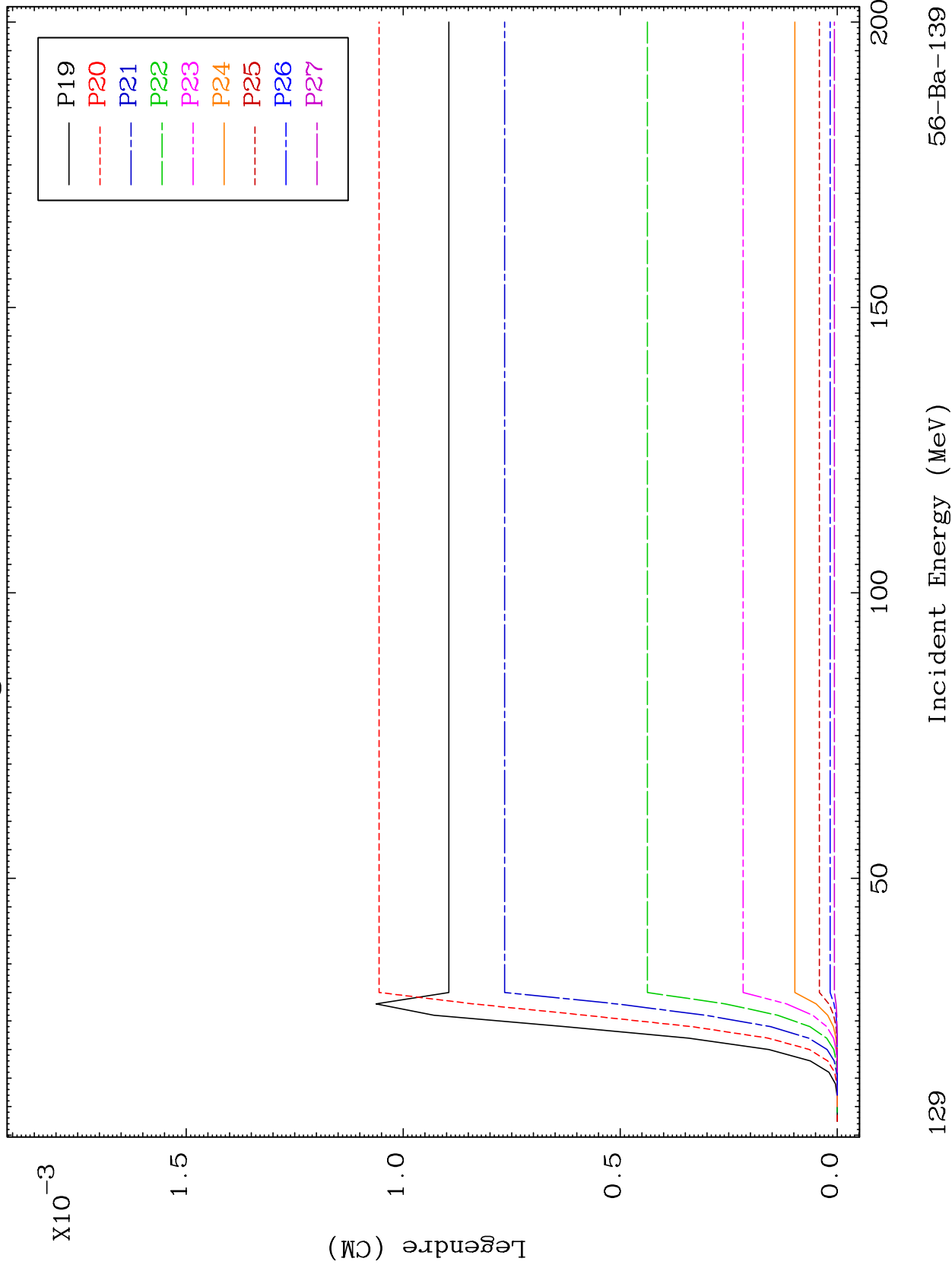
Incident Energy (MeV)

128

MAT 5652

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

56-Ba-139

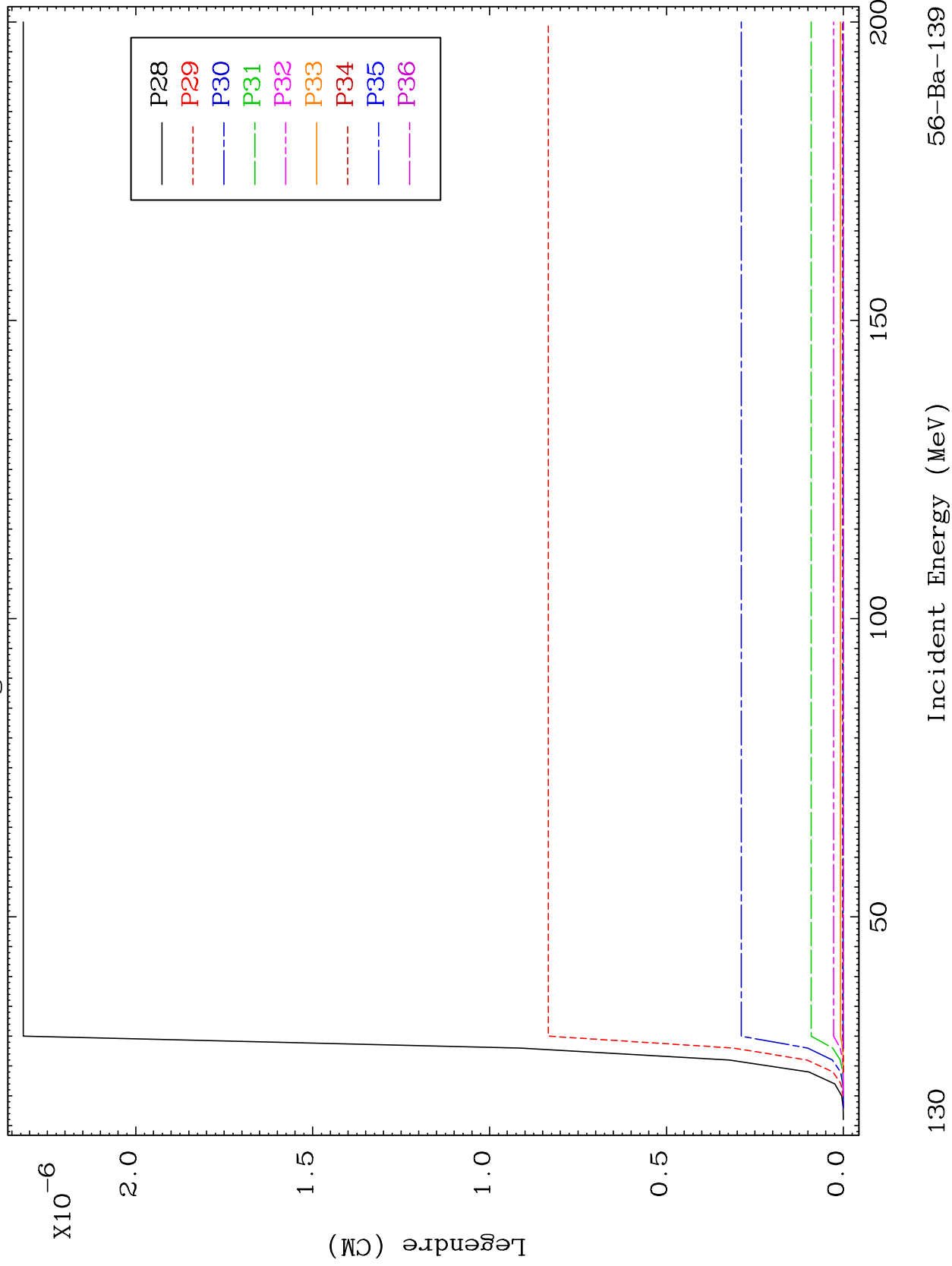


129

MAT 5652

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

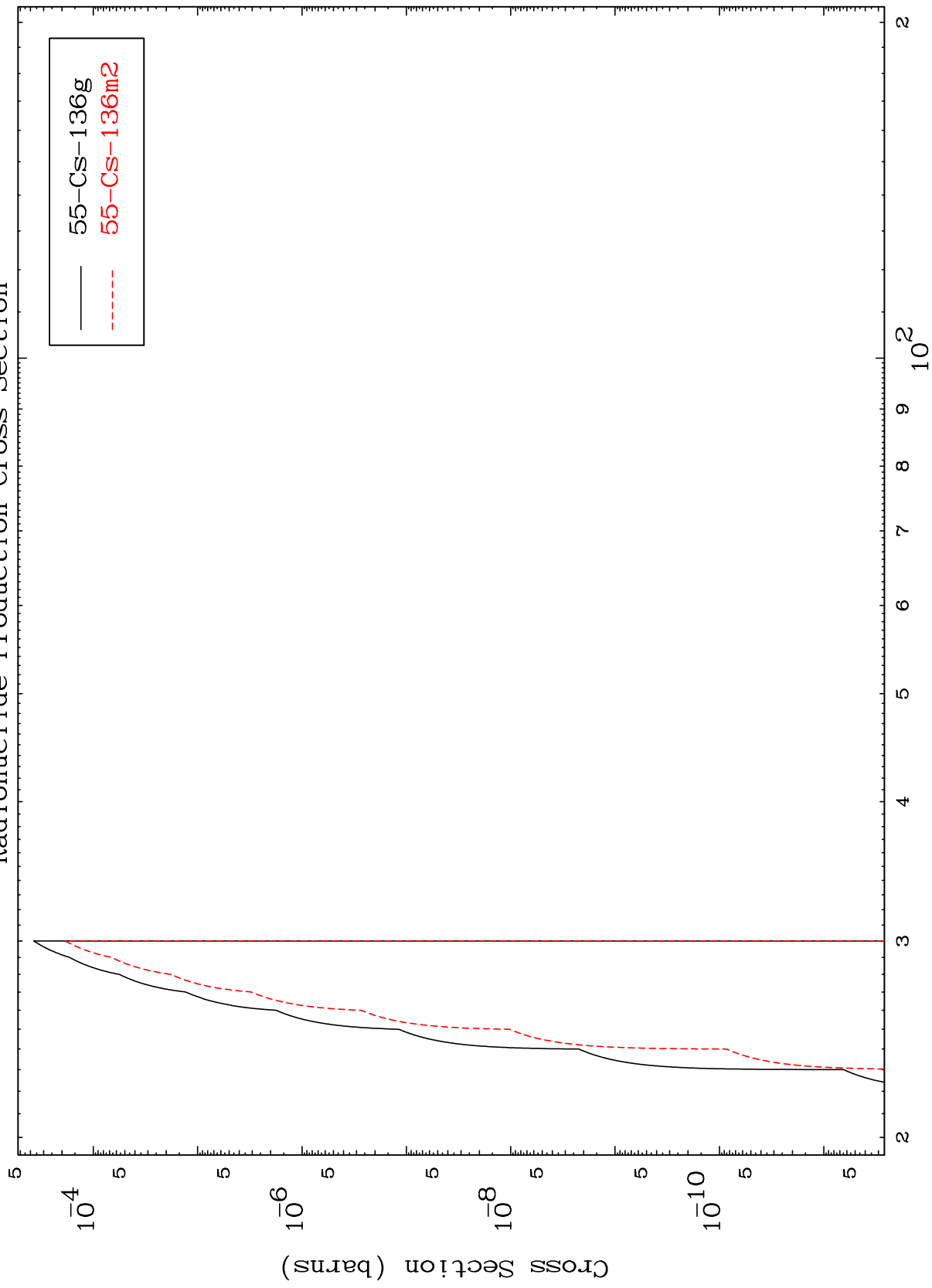
56-Ba-139



MAT 5652

56-Ba-139

(n,2n) d  
Radionuclide Production Cross Section



56-Ba-139

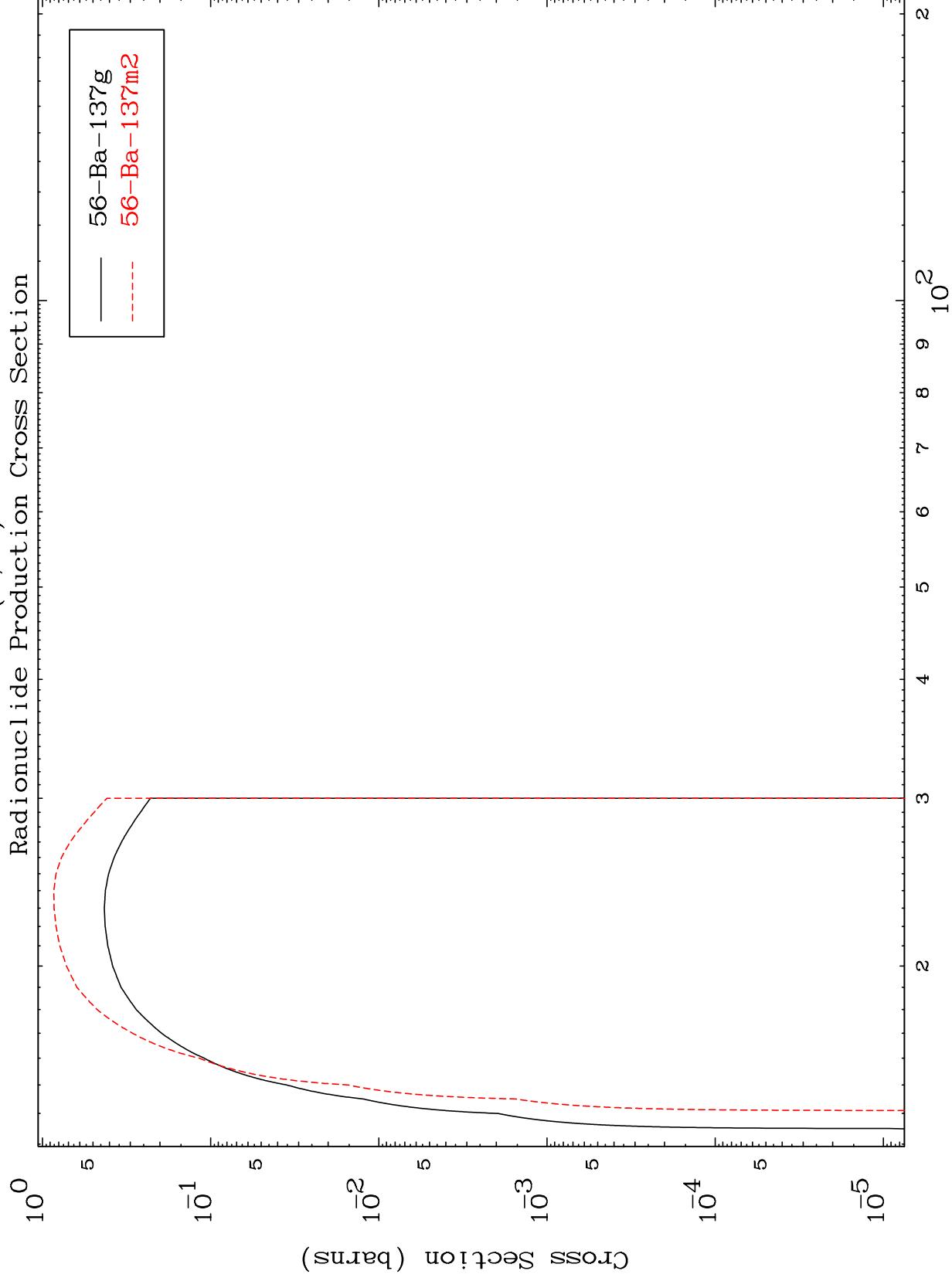
Incident Energy (MeV)

131

MAT 5652

(n,3n)

56-Ba-139



132

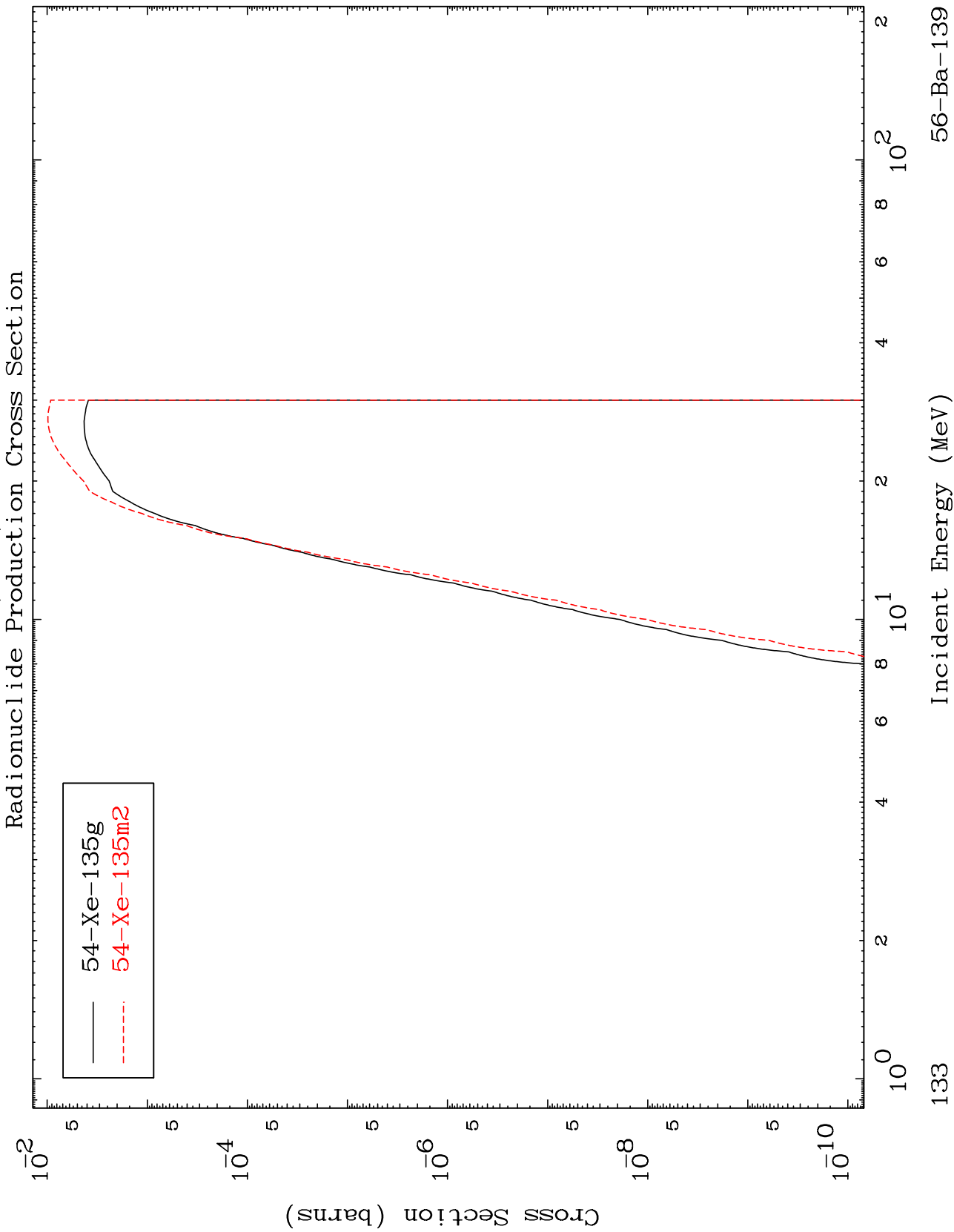
Incident Energy (MeV)

56-Ba-139

MAT 5652

(n,n')  $\alpha$

56-Ba-139

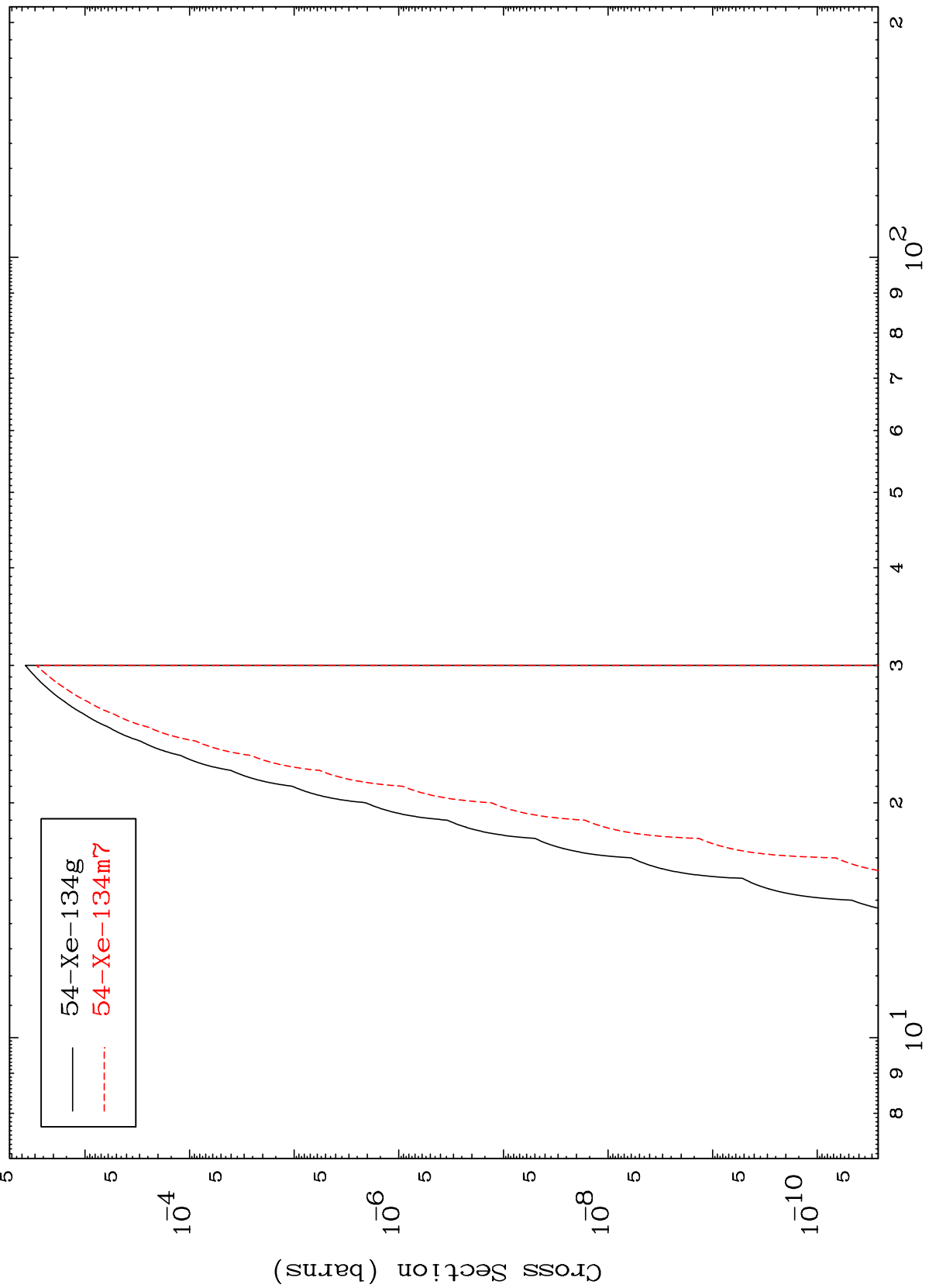


MAT 5652

56-Ba-139

(n,2n)  $\alpha$

Radionuclide Production Cross Section



54-Xe-134g  
54-Xe-134m7

134

Incident Energy (MeV)

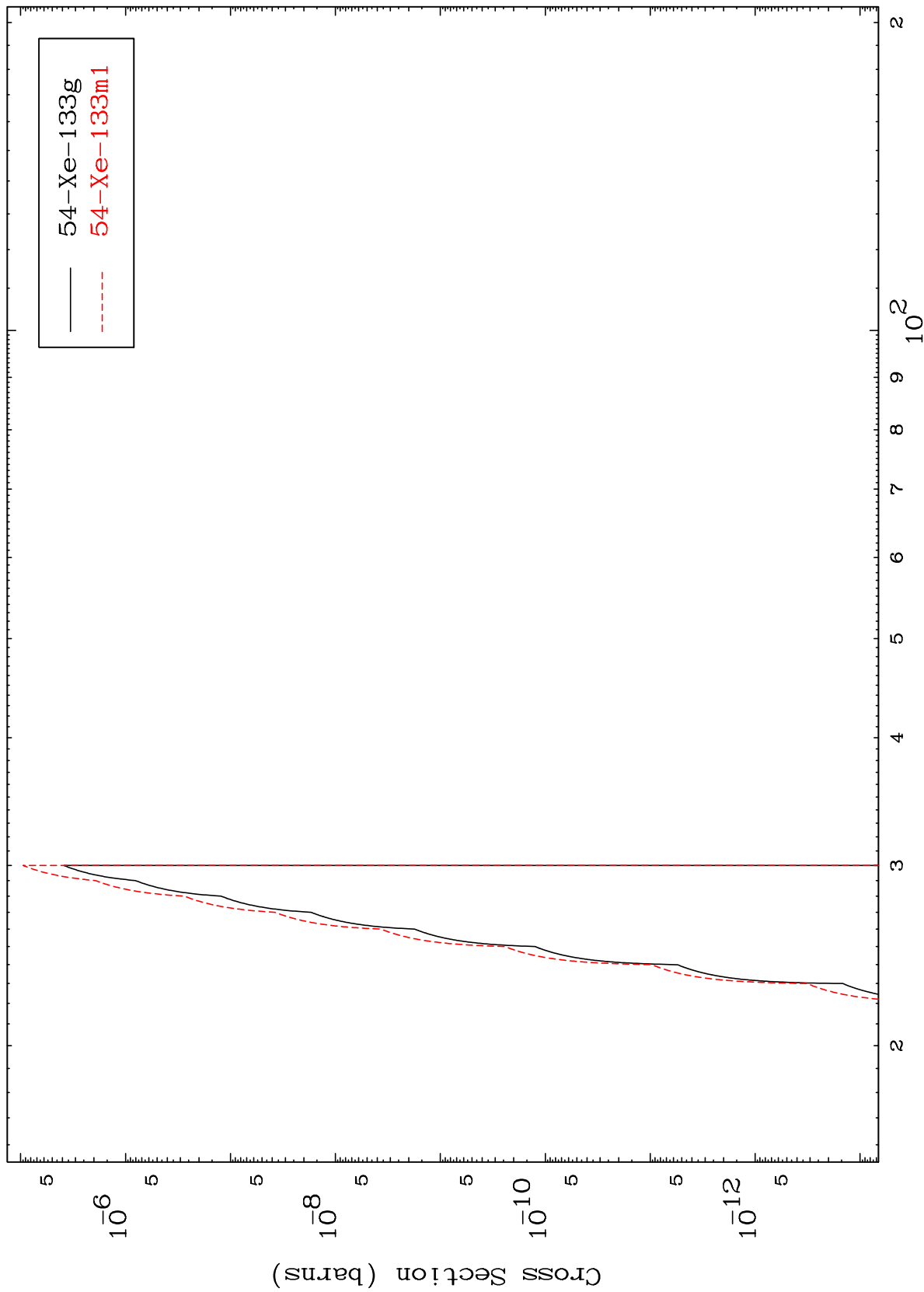
56-Ba-139

MAT 5652

(n,3n)  $\alpha$

56-Ba-139

Radionuclide Production Cross Section



135

Incident Energy (MeV)

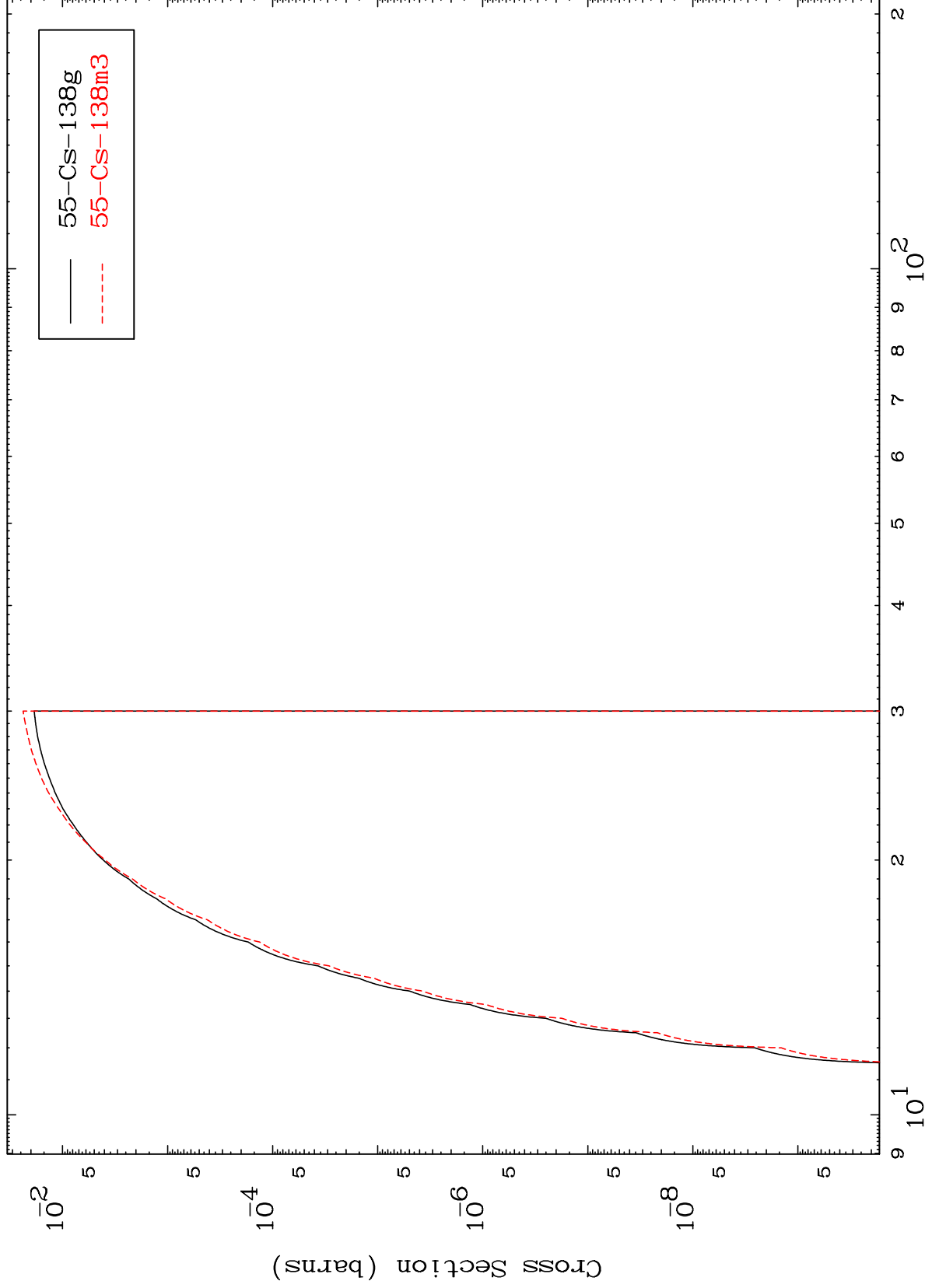
56-Ba-139

MAT 5652

(n,n') p

56-Ba-139

Radionuclide Production Cross Section



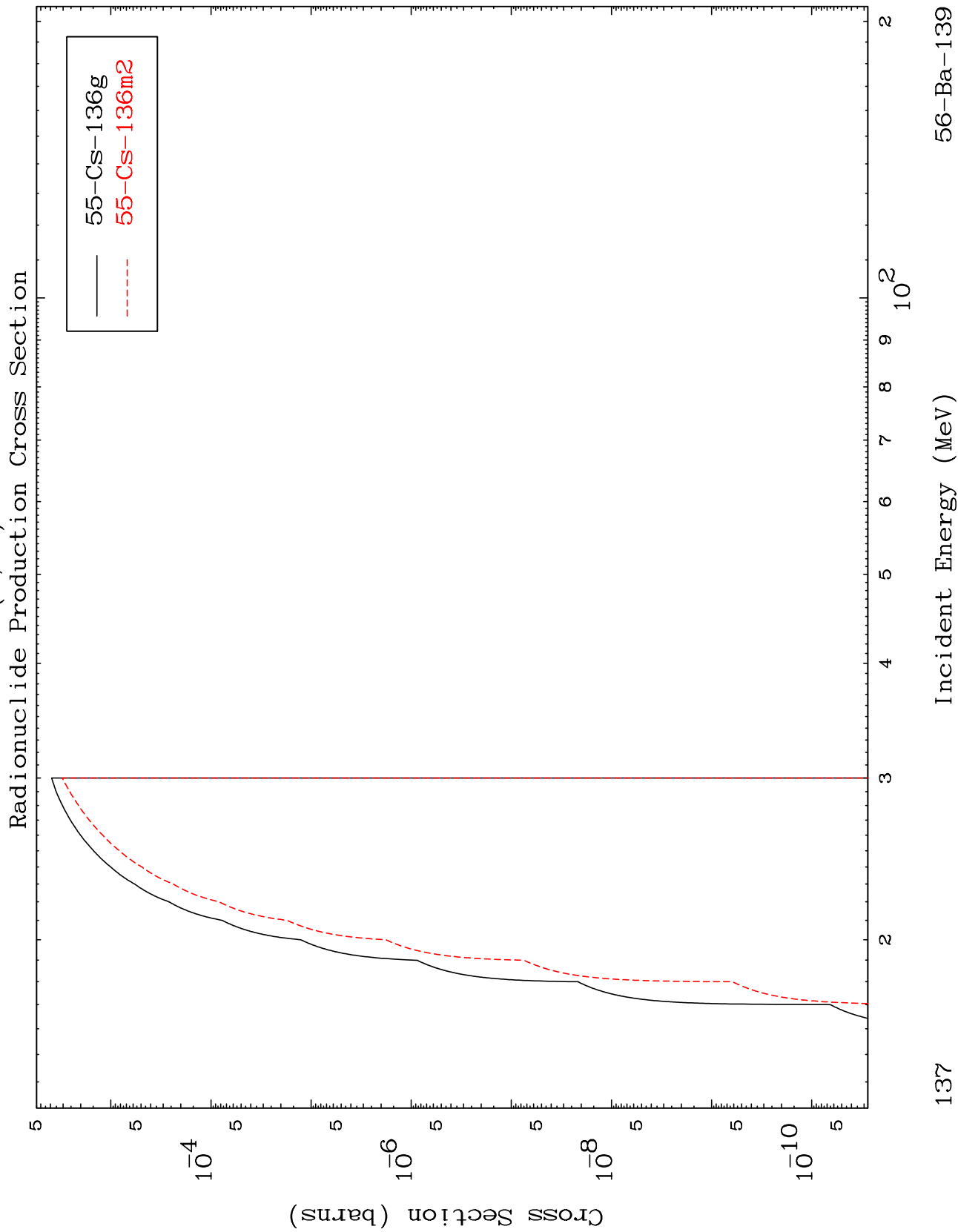
Incident Energy (MeV)

56-Ba-139

MAT 5652

(n,n') t

56-Ba-139



137

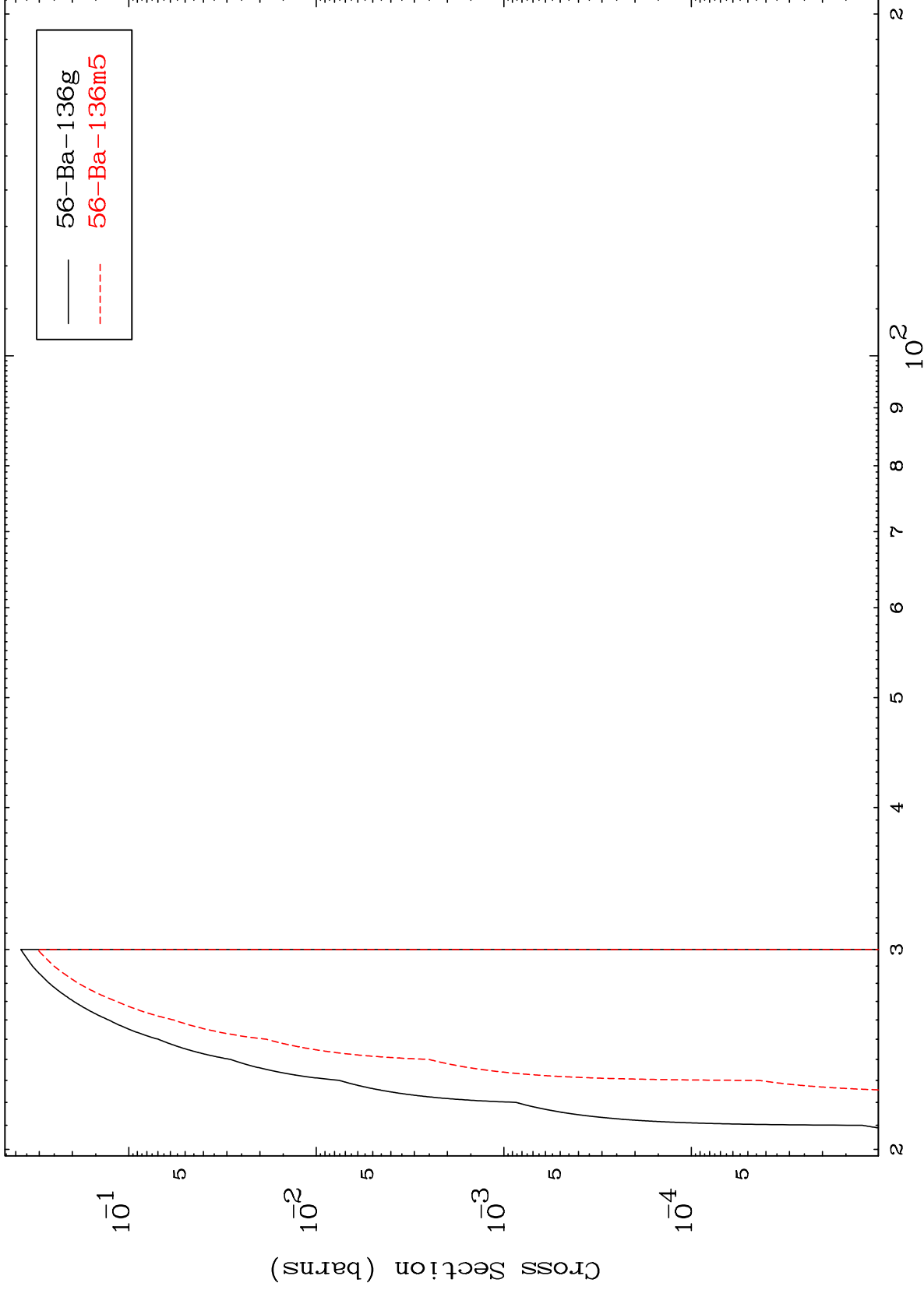
56-Ba-139

MAT 5652

(n,4n)

56-Ba-139

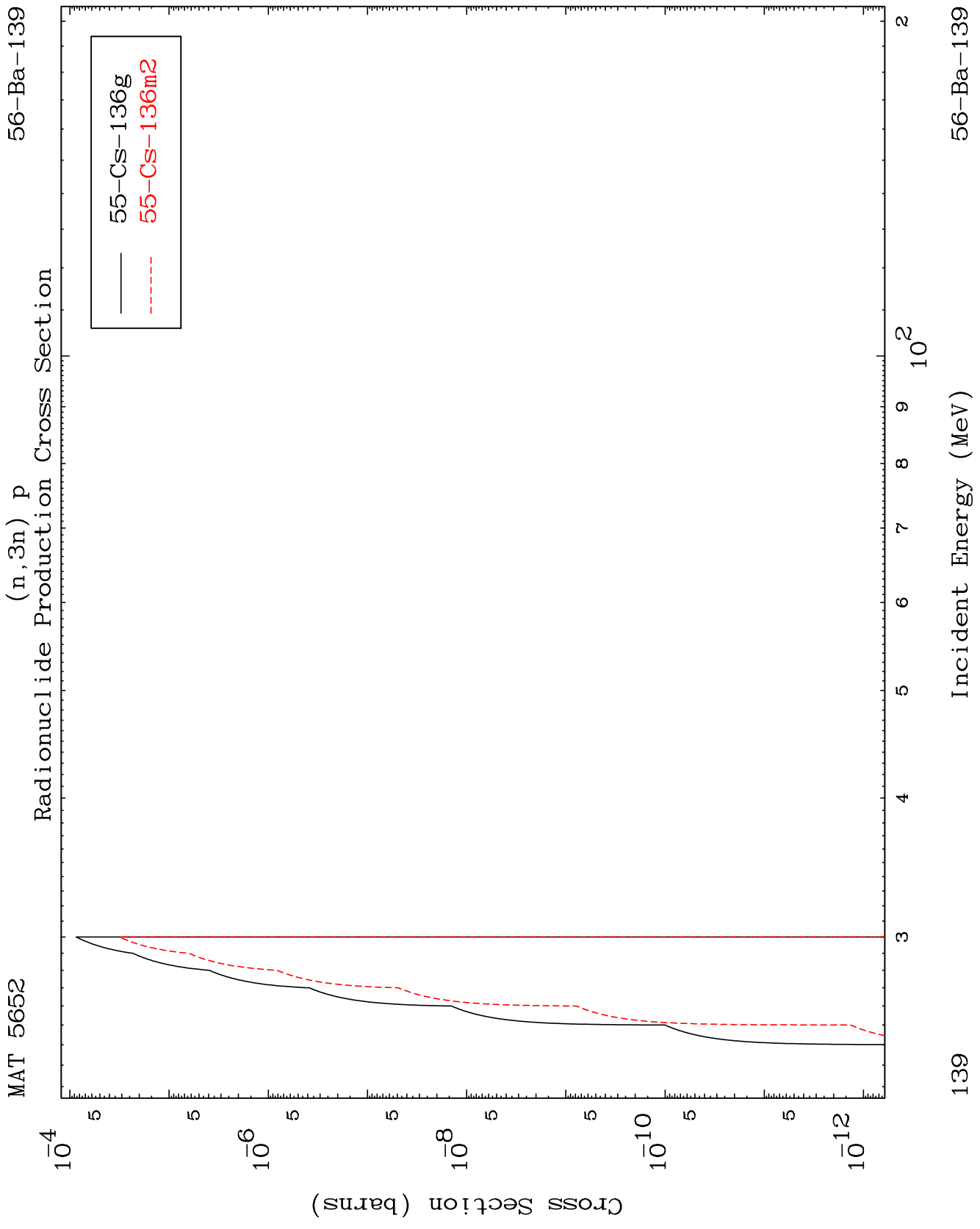
Radionuclide Production Cross Section



138

Incident Energy (MeV)

56-Ba-139



139

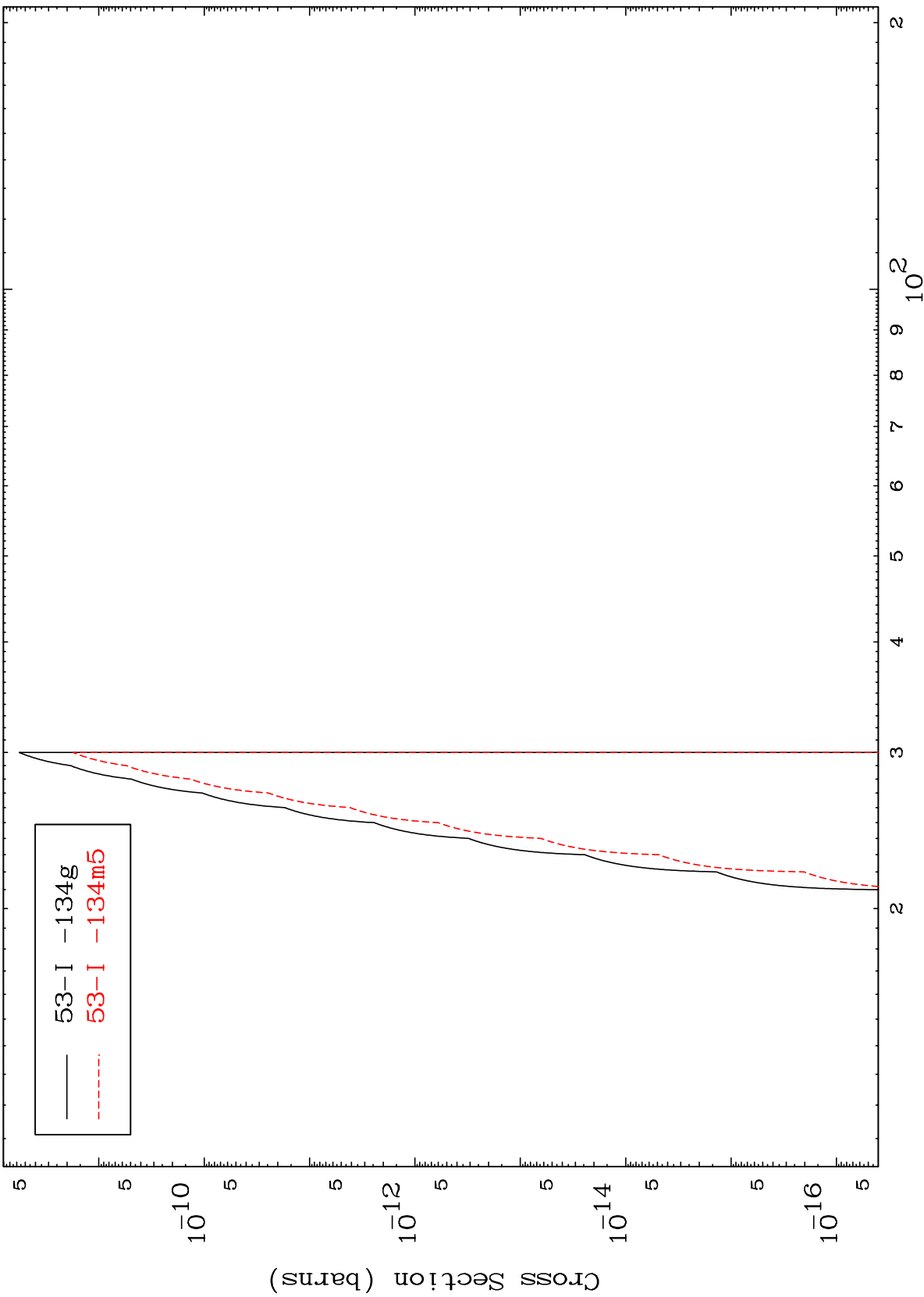
56-Ba-139

MAT 5652

(n,n') p  $\alpha$

56-Ba-139

Radionuclide Production Cross Section



140

Incident Energy (MeV)

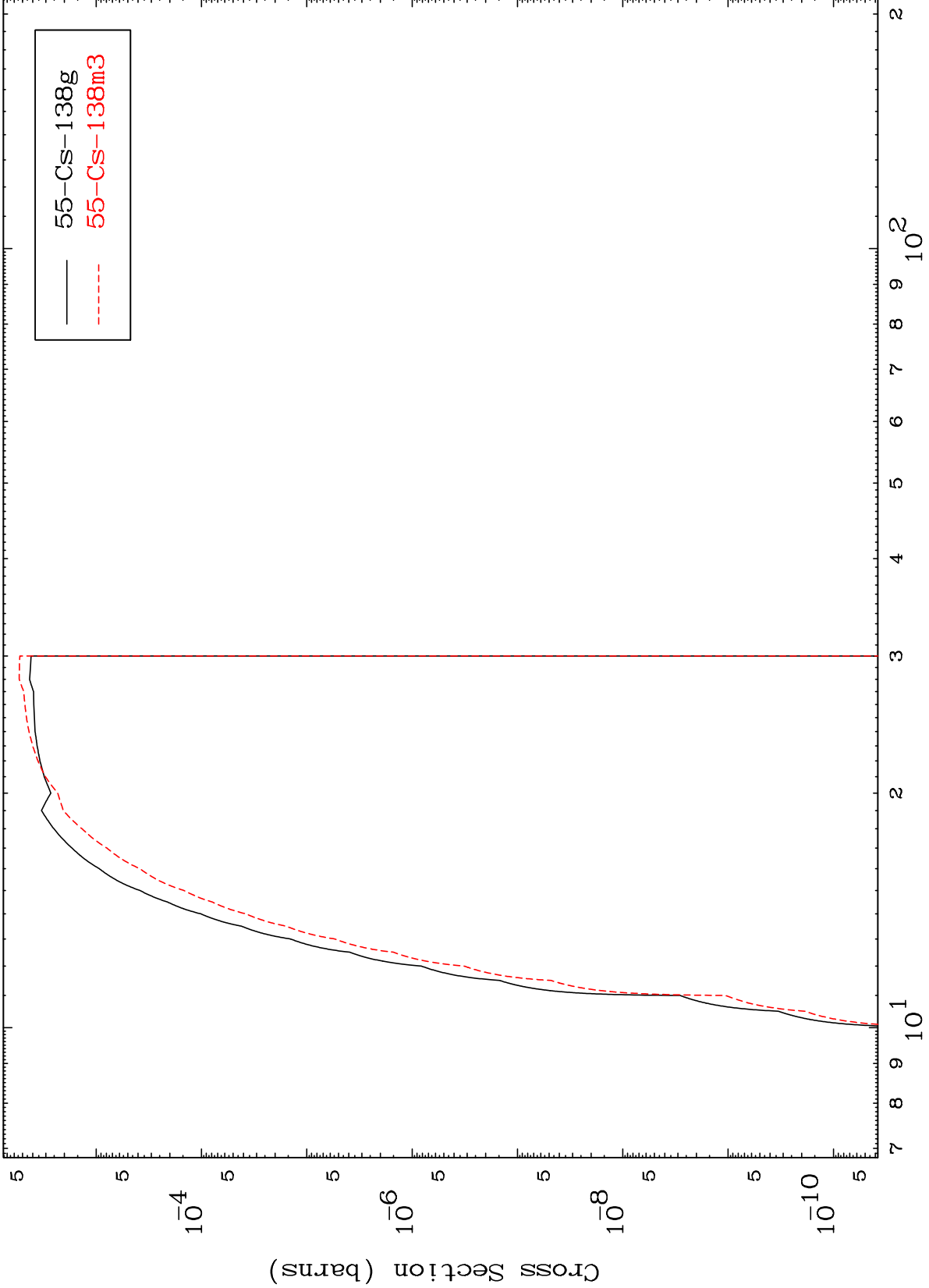
56-Ba-139

MAT 5652

(n,d)

56-Ba-139

Radionuclide Production Cross Section



141

Incident Energy (MeV)

56-Ba-139

Radionuclide Production Cross Section

