

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

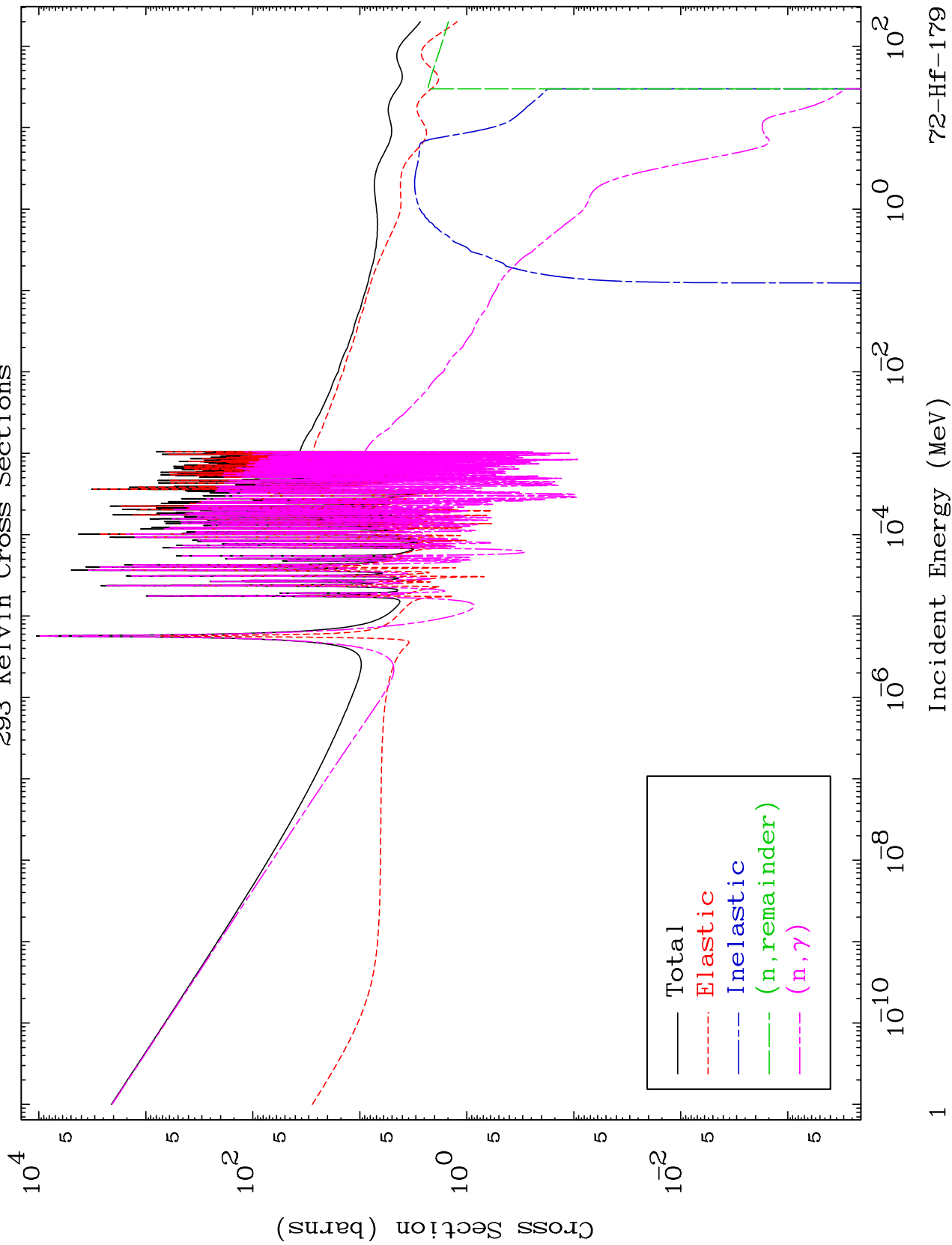
Press Mouse Button to Start

MAT 7240

Major

293 Kelvin Cross Sections

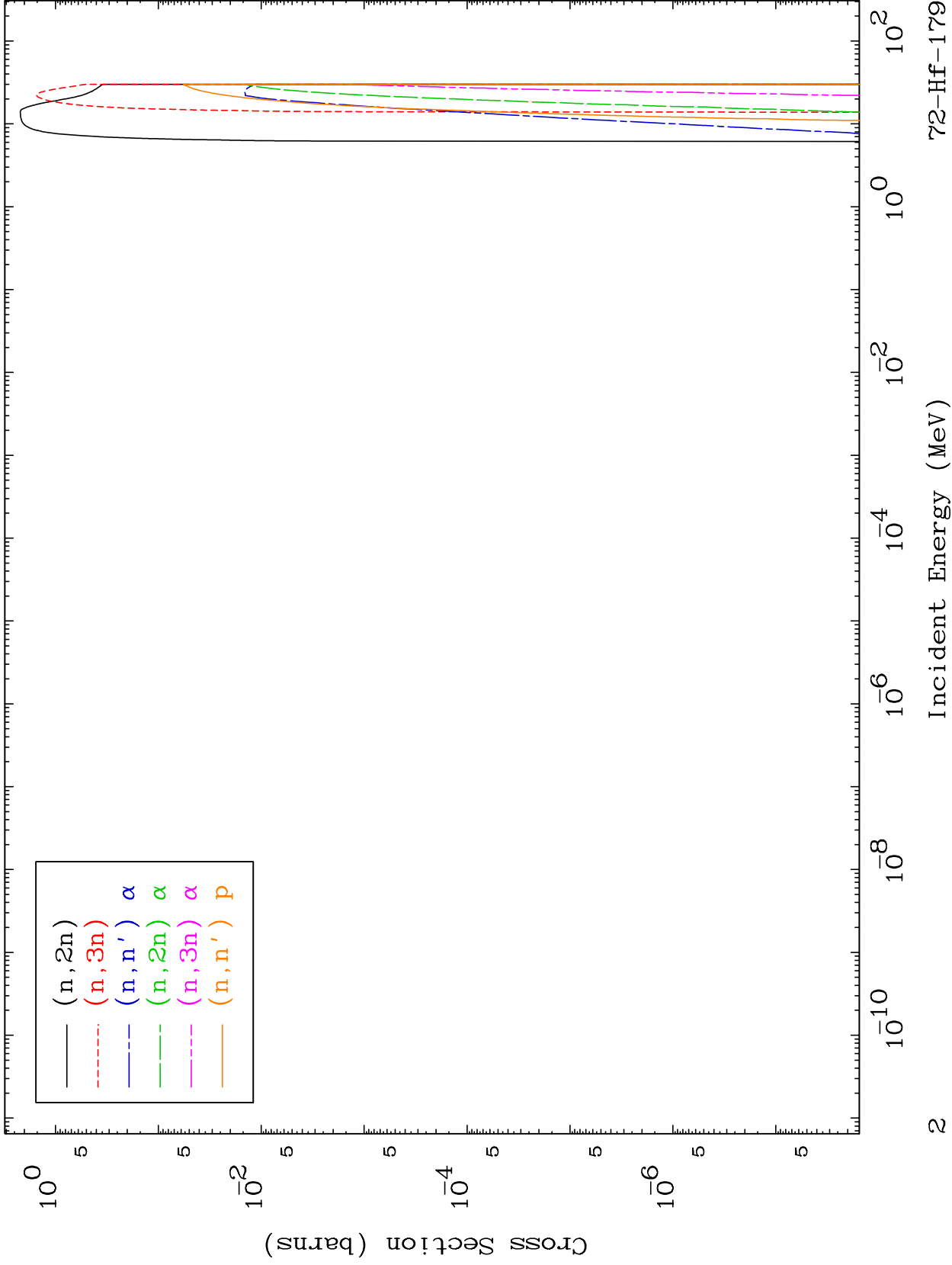
72-Hf-179

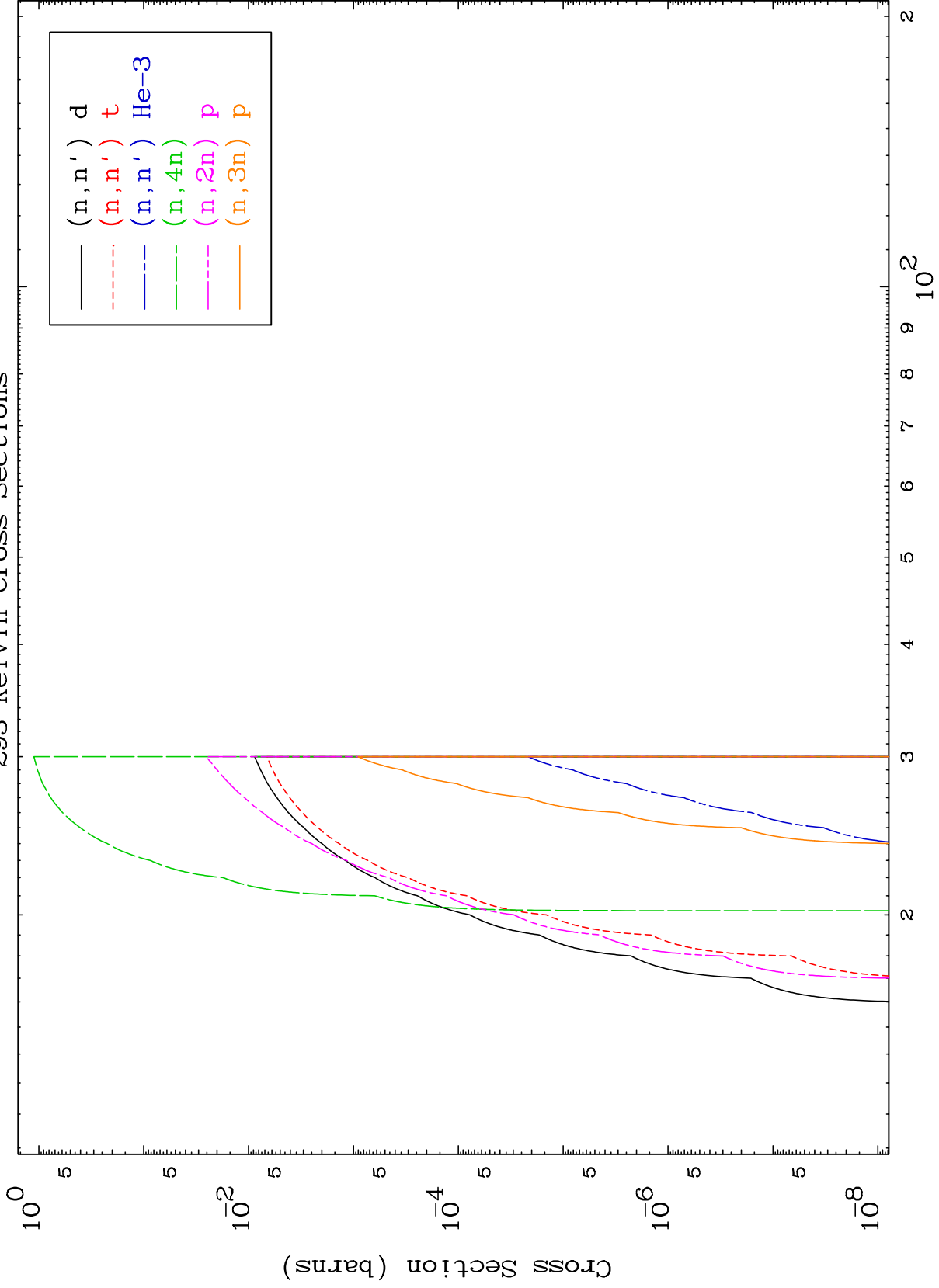


MAT 7240

Neutron Production  
293 Kelvin Cross Sections

72-Hf-179

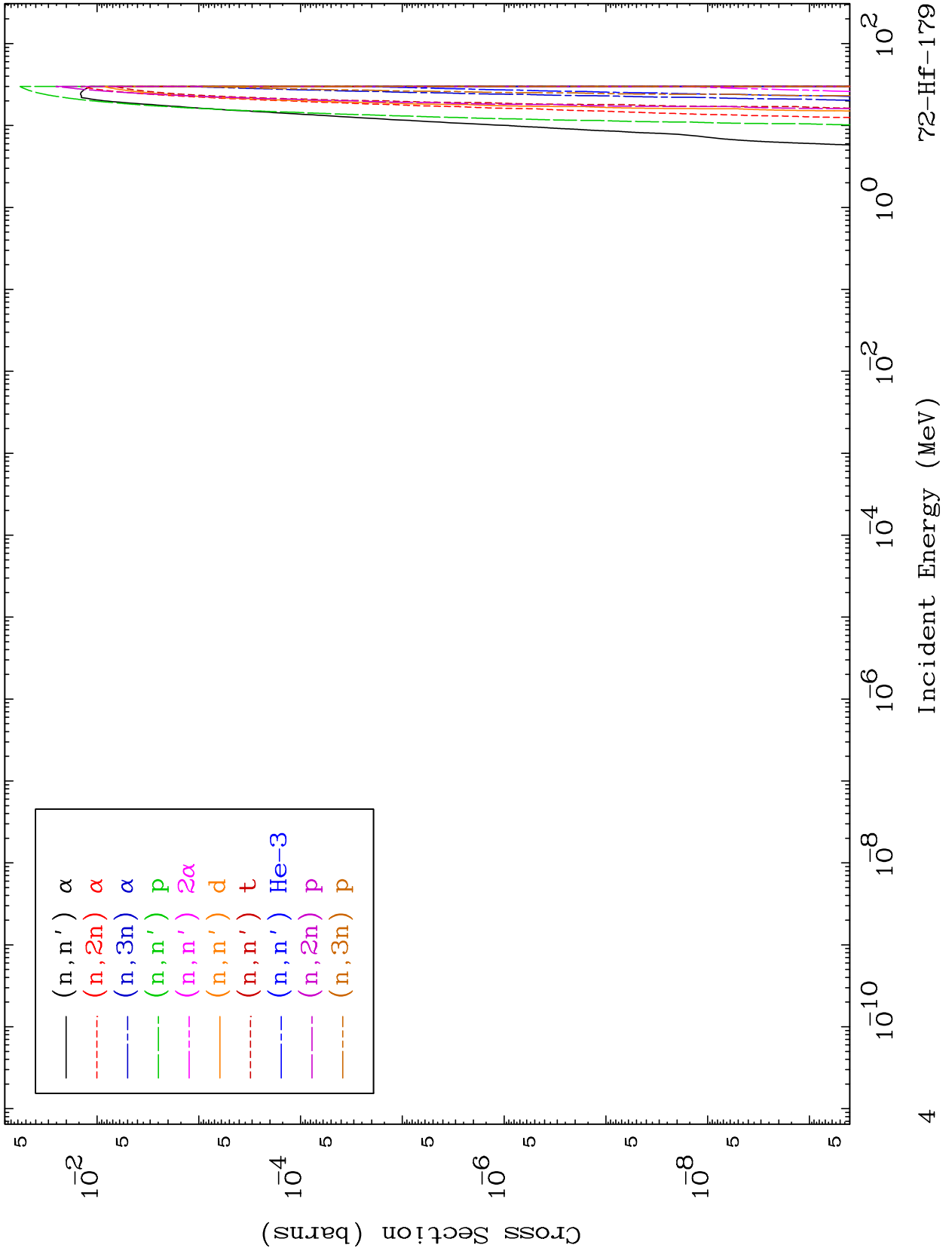




MAT 7240

Charged Particle  
293 Kelvin Cross Sections

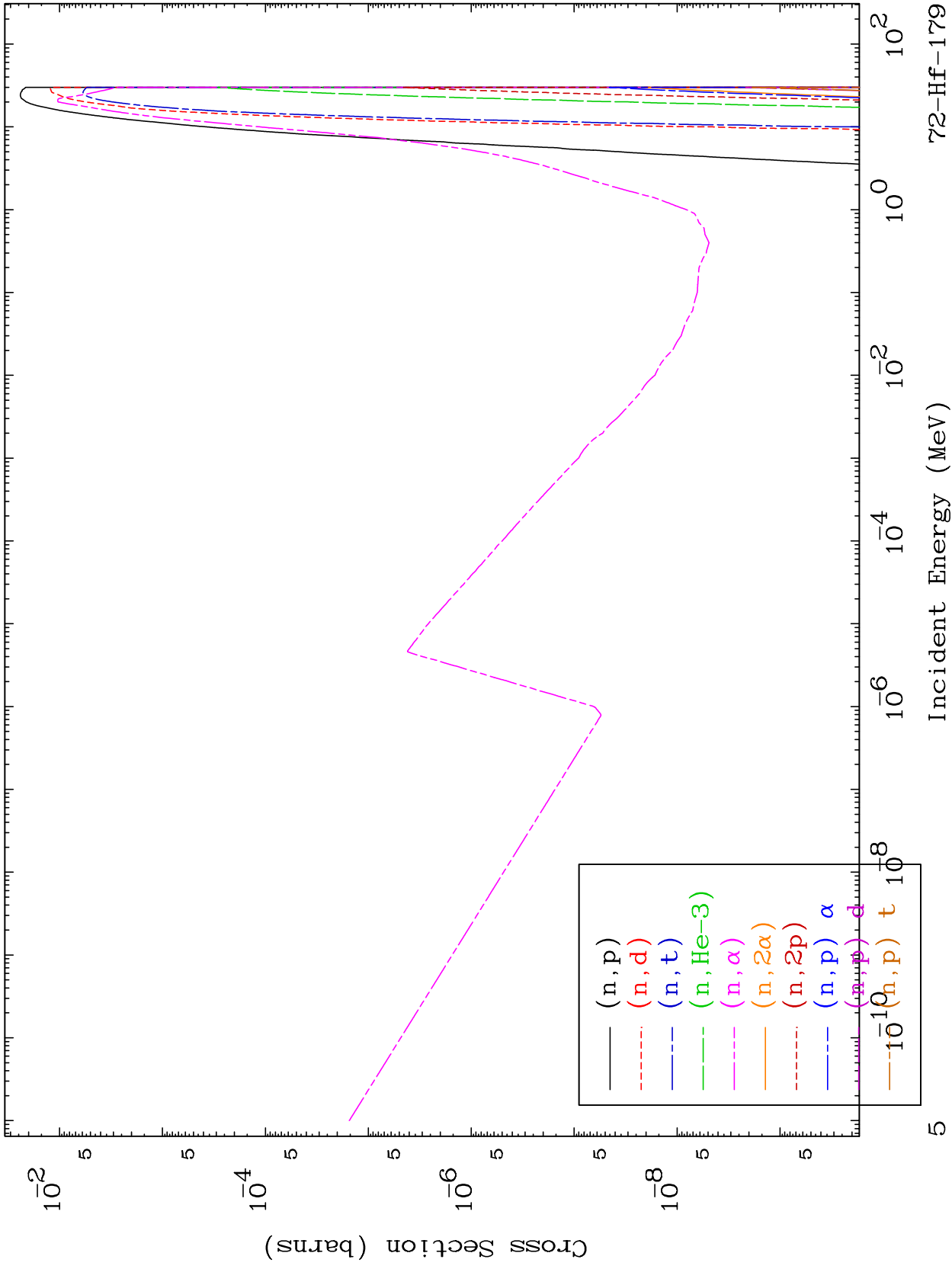
72-Hf-179

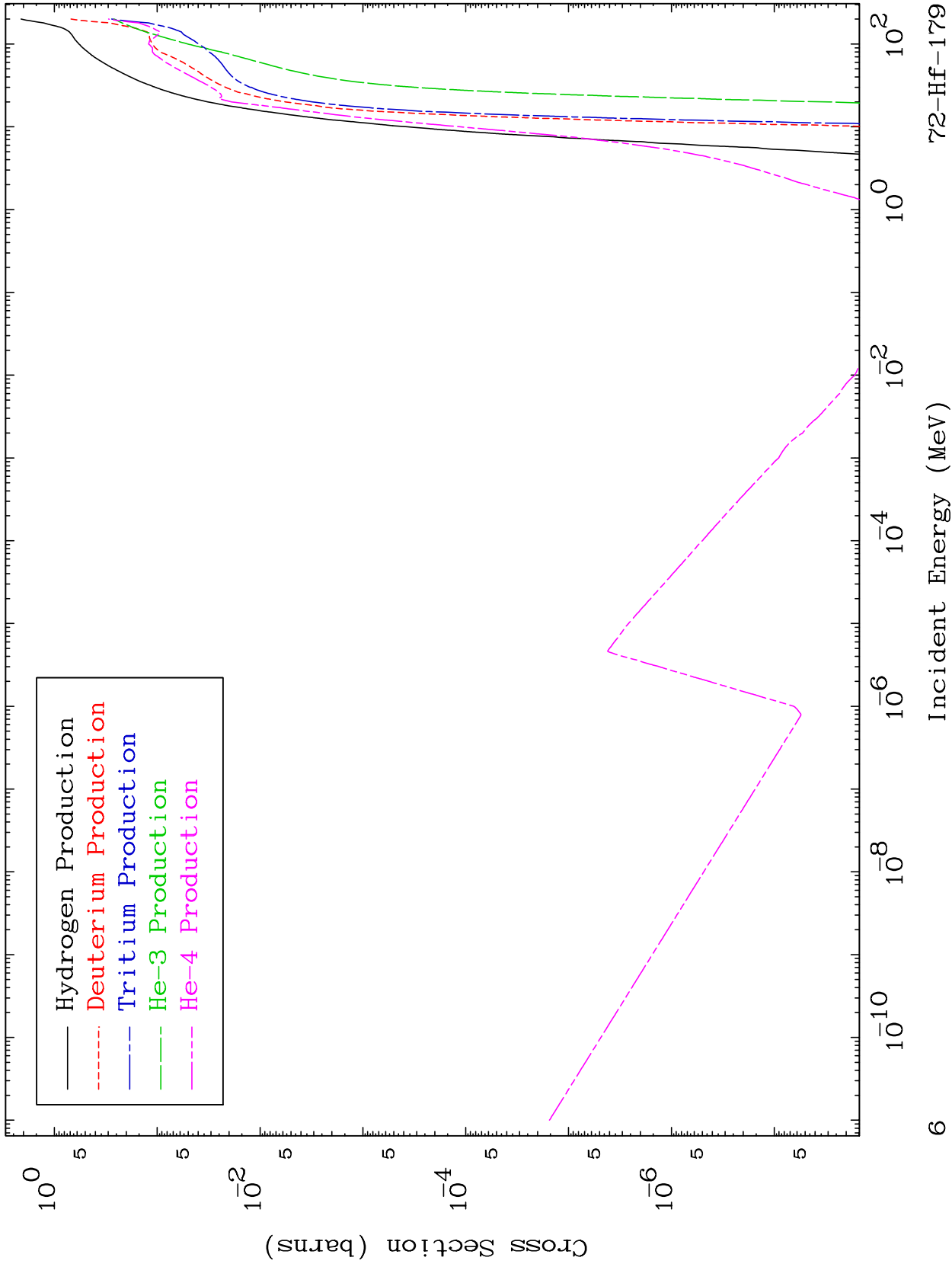


MAT 7240

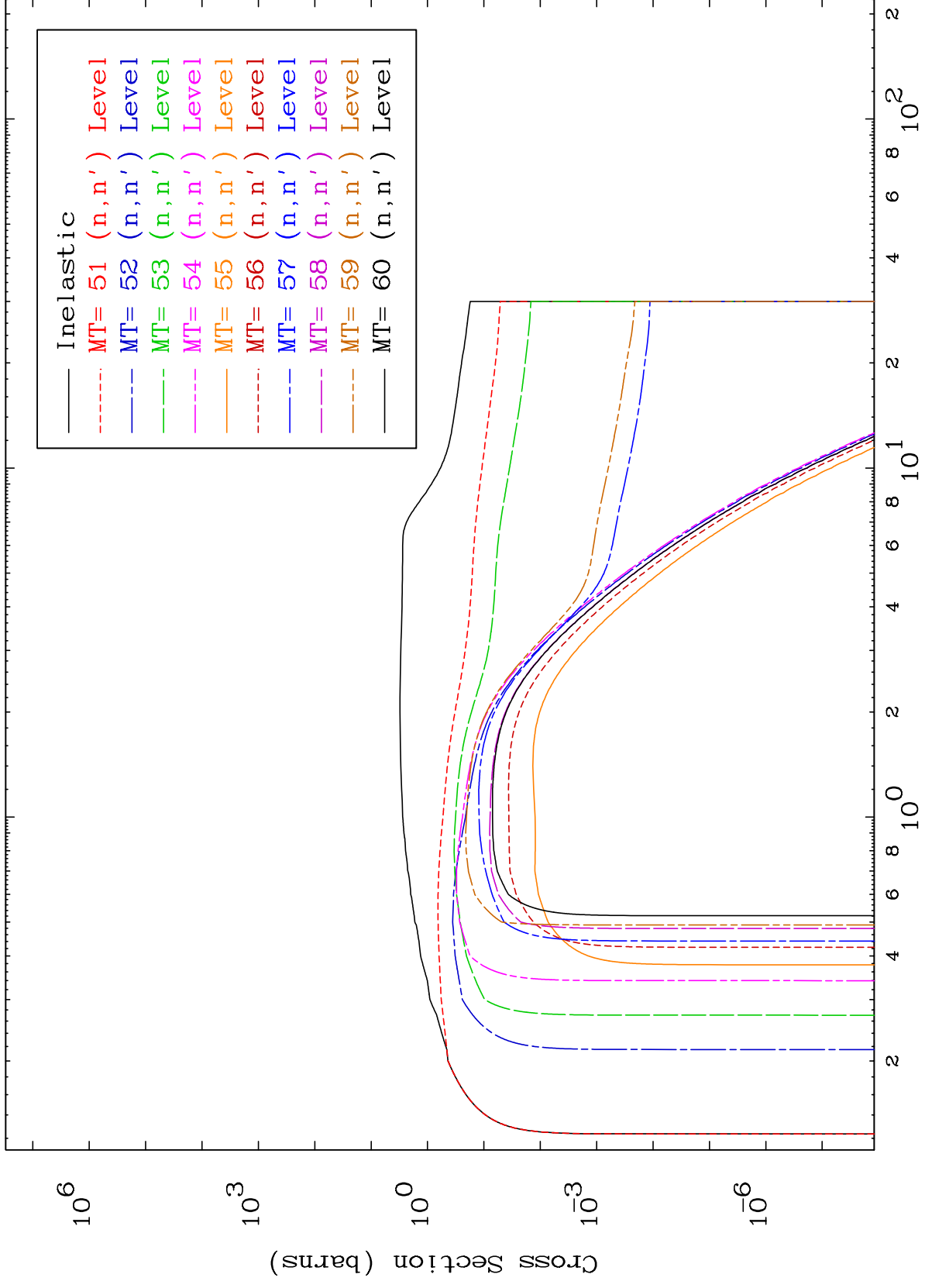
Charged Particle  
293 Kelvin Cross Sections

72-Hf-179





293 Kelvin Cross Sections



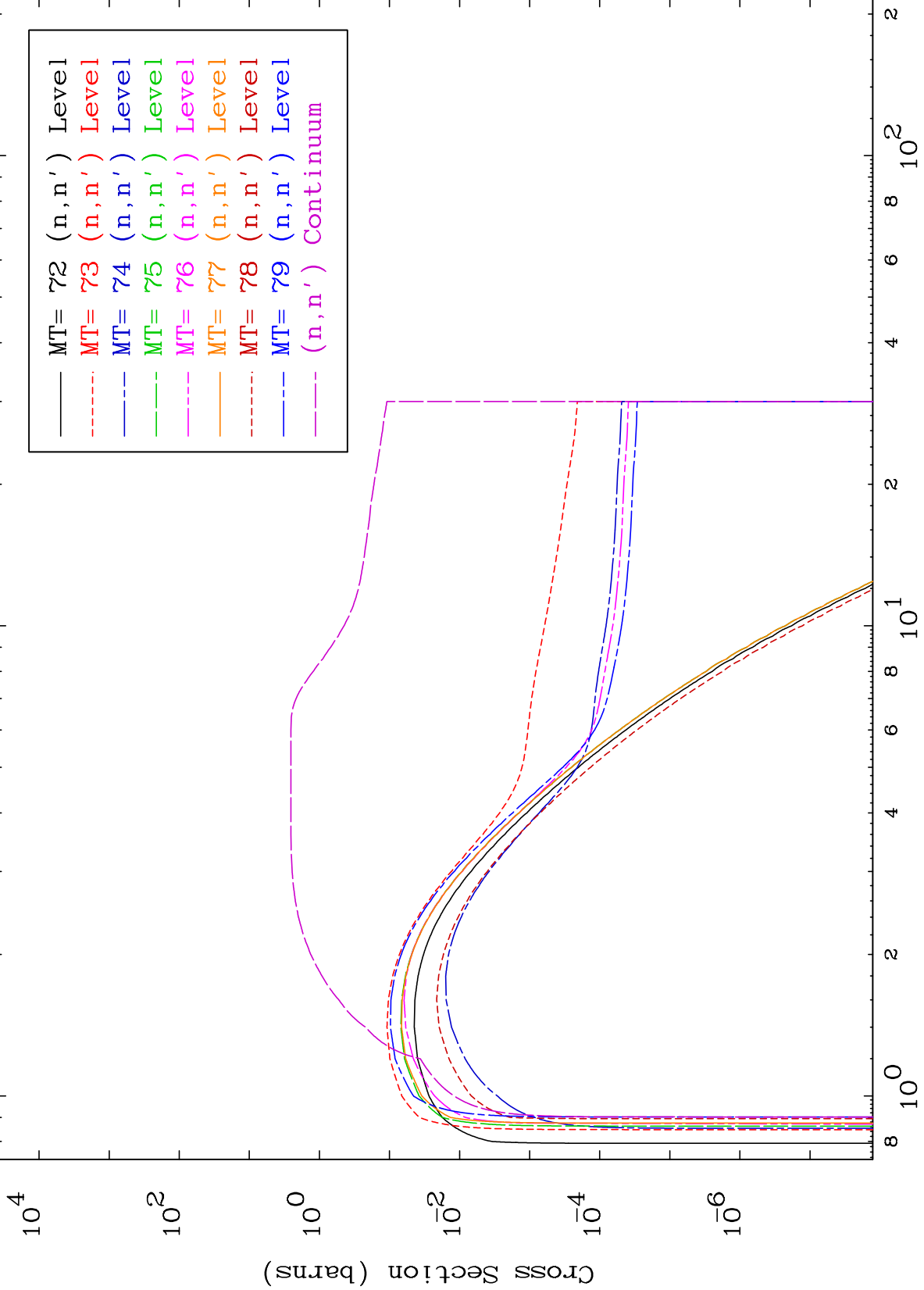


MAT 7240

(n,n') Level

72-Hf-179

293 Kelvin Cross Sections



9

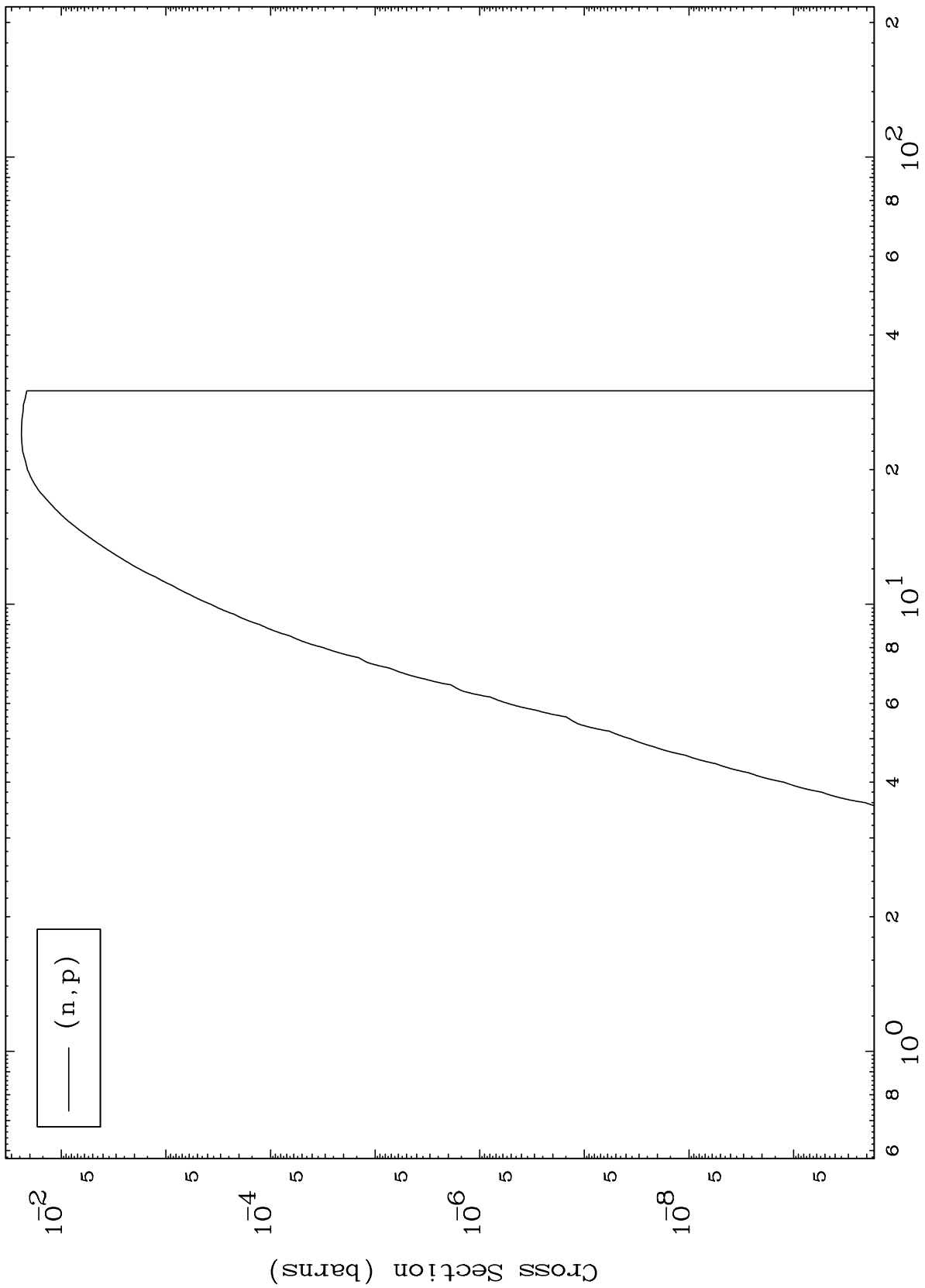
Incident Energy (MeV)

72-Hf-179

MAT 7240

(n,p) Levels  
293 Kelvin Cross Sections

72-Hf-179



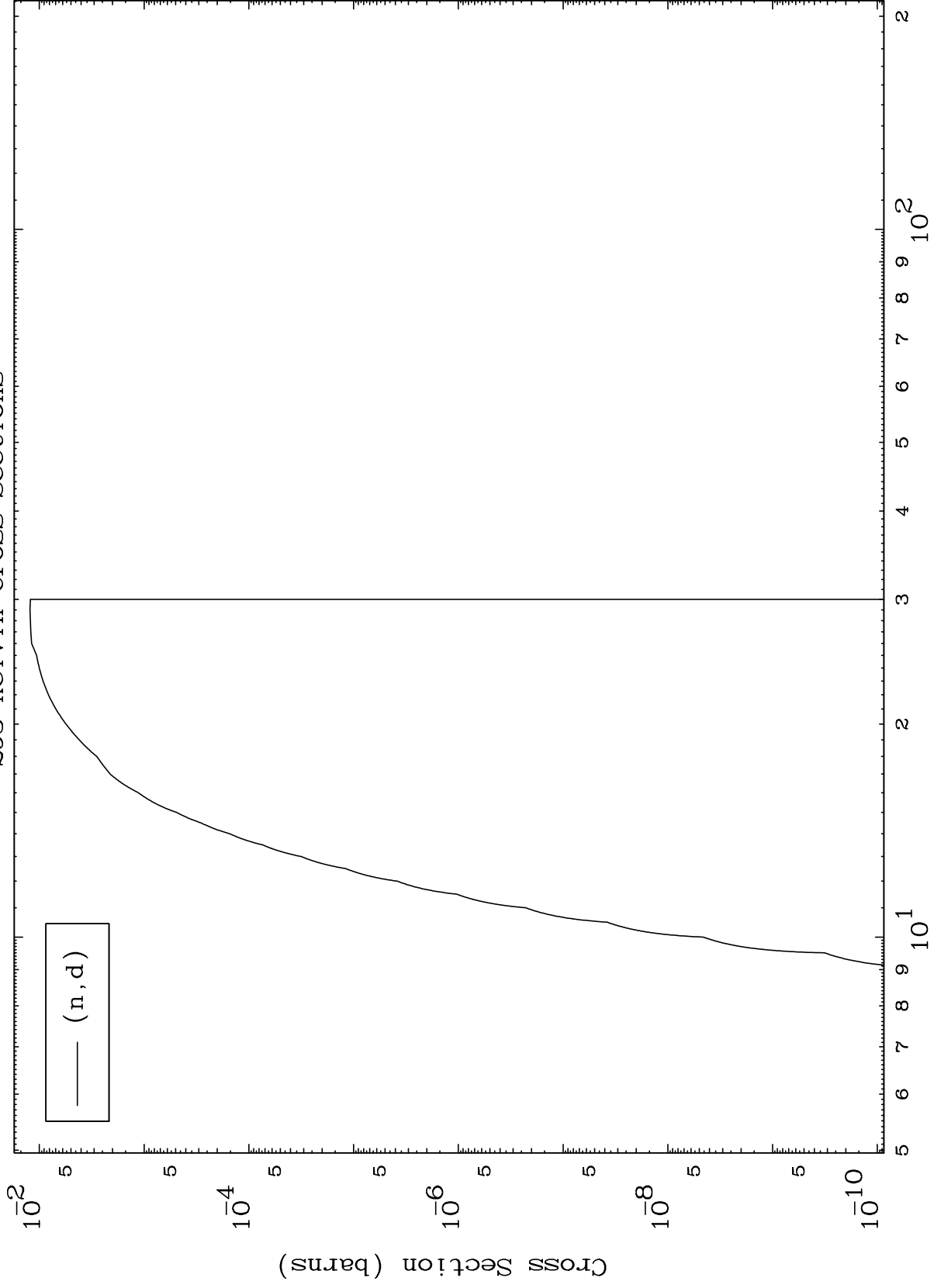
Incident Energy (MeV)

72-Hf-179

MAT 7240

(n,d) Levels  
293 Kelvin Cross Sections

72-Hf-179



11

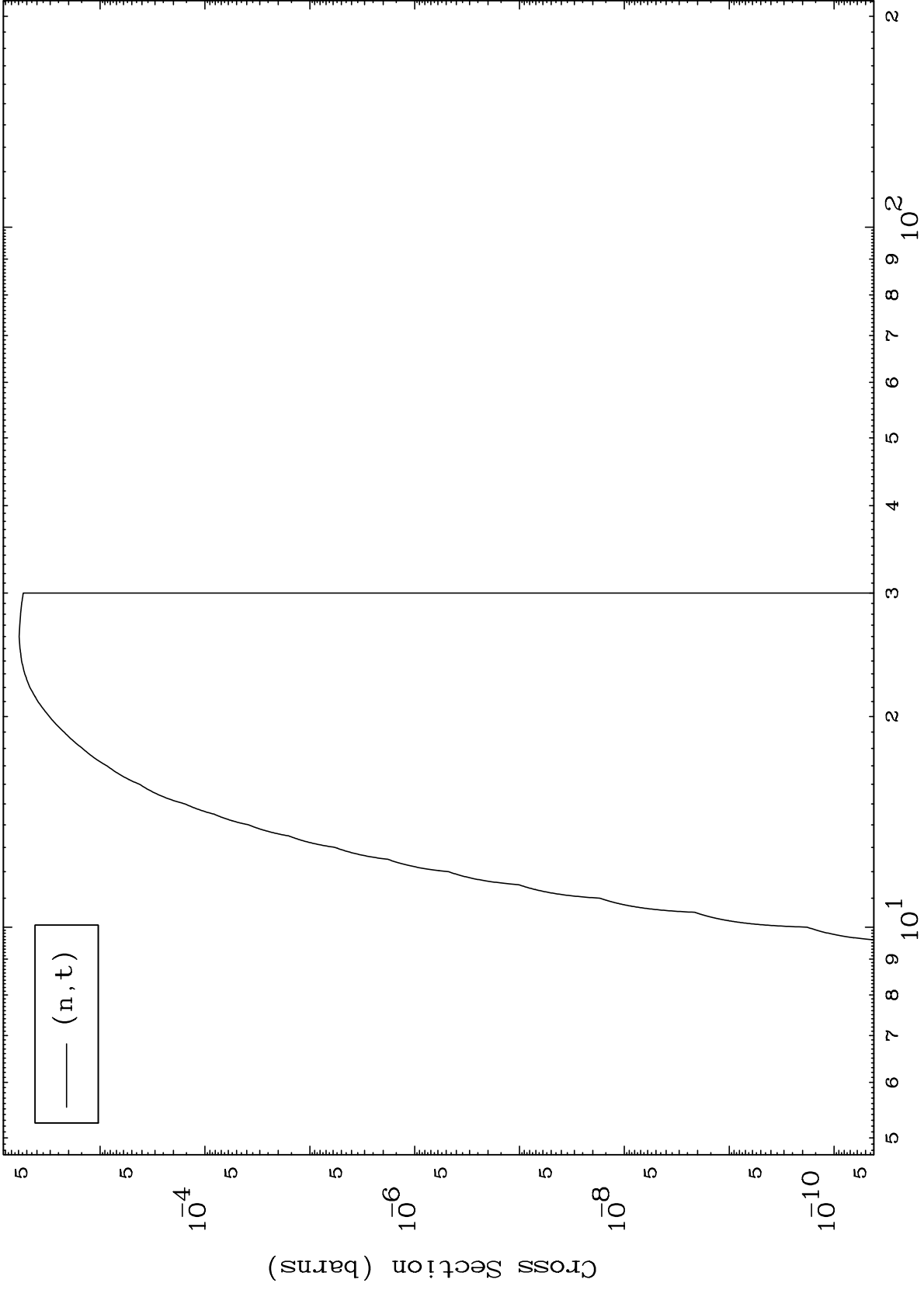
Incident Energy (MeV)

72-Hf-179

MAT 7240

(n,t) Levels  
293 Kelvin Cross Sections

72-Hf-179



12

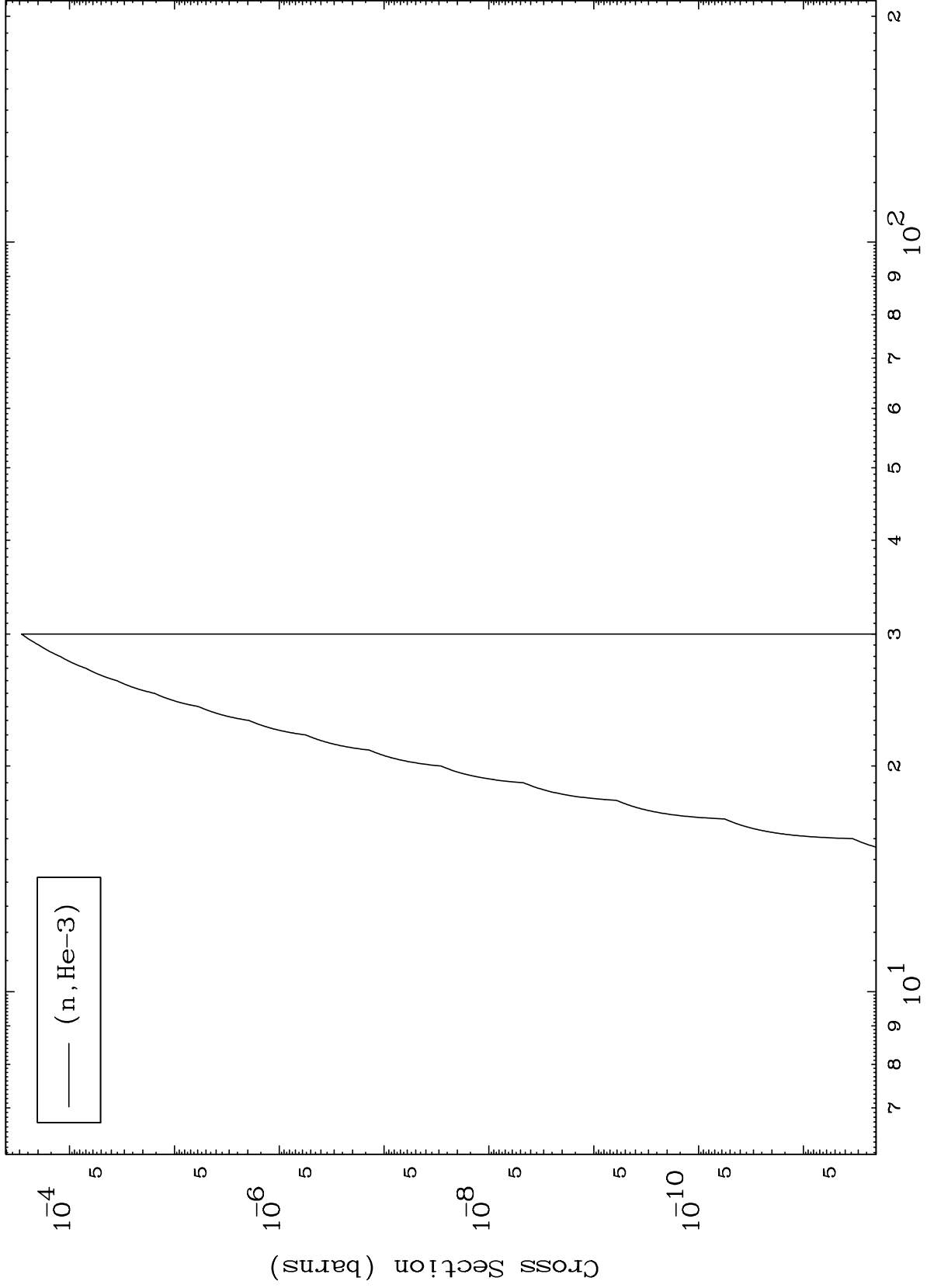
Incident Energy (MeV)

72-Hf-179

MAT 7240

(n,He3) Levels  
293 Kelvin Cross Sections

72-Hf-179



13

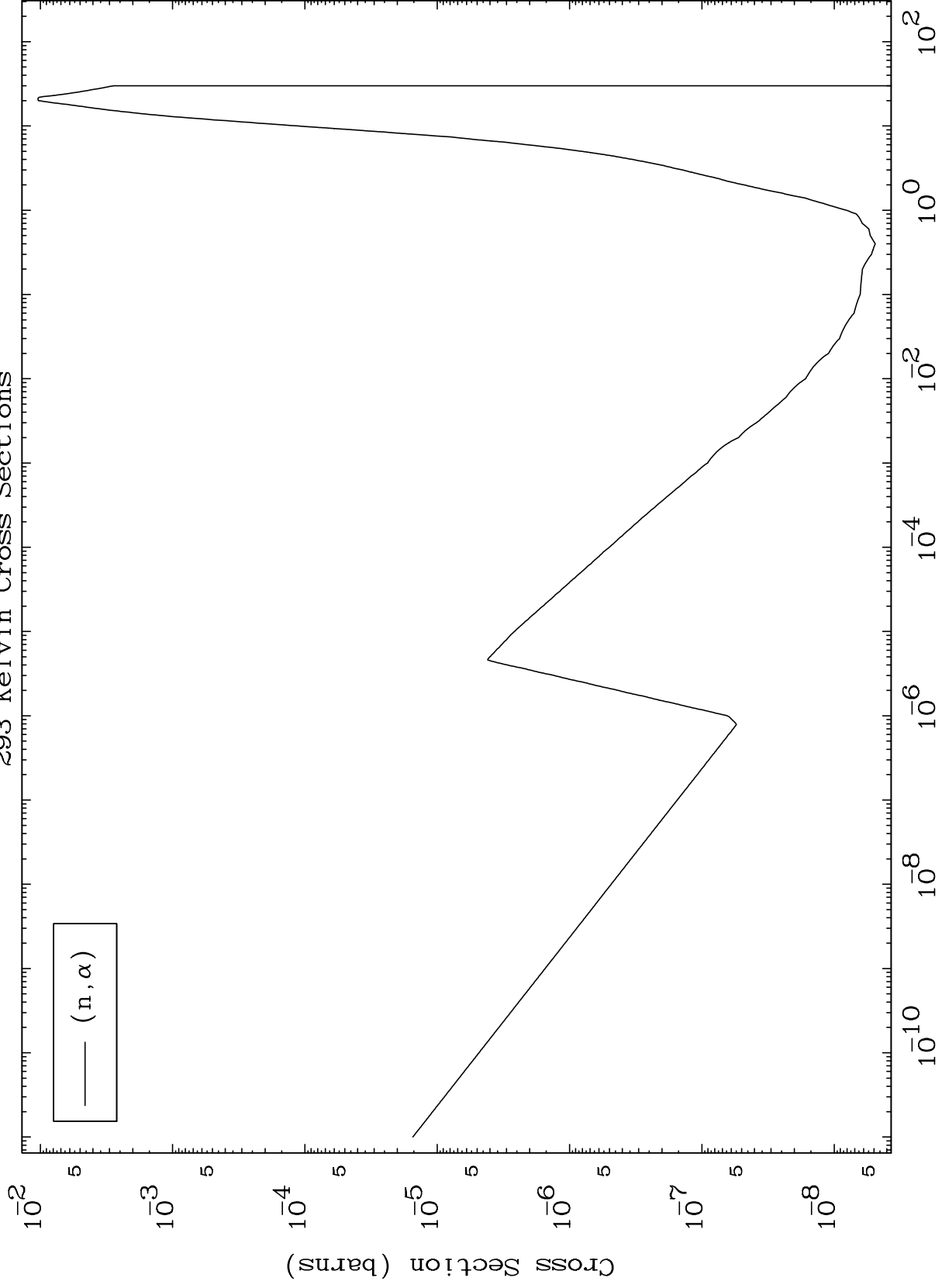
Incident Energy (MeV)

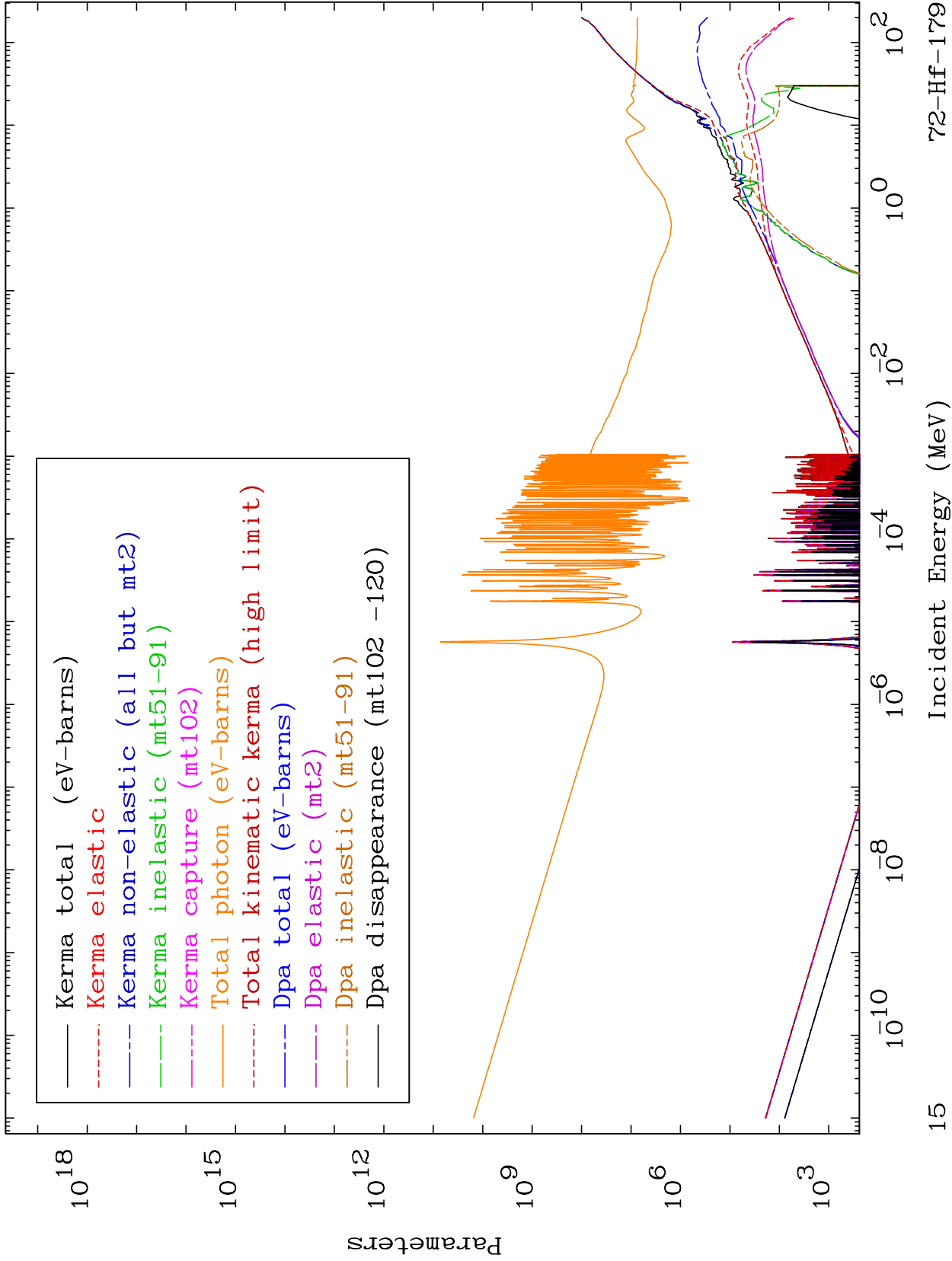
72-Hf-179

MAT 7240

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

72-Hf-179

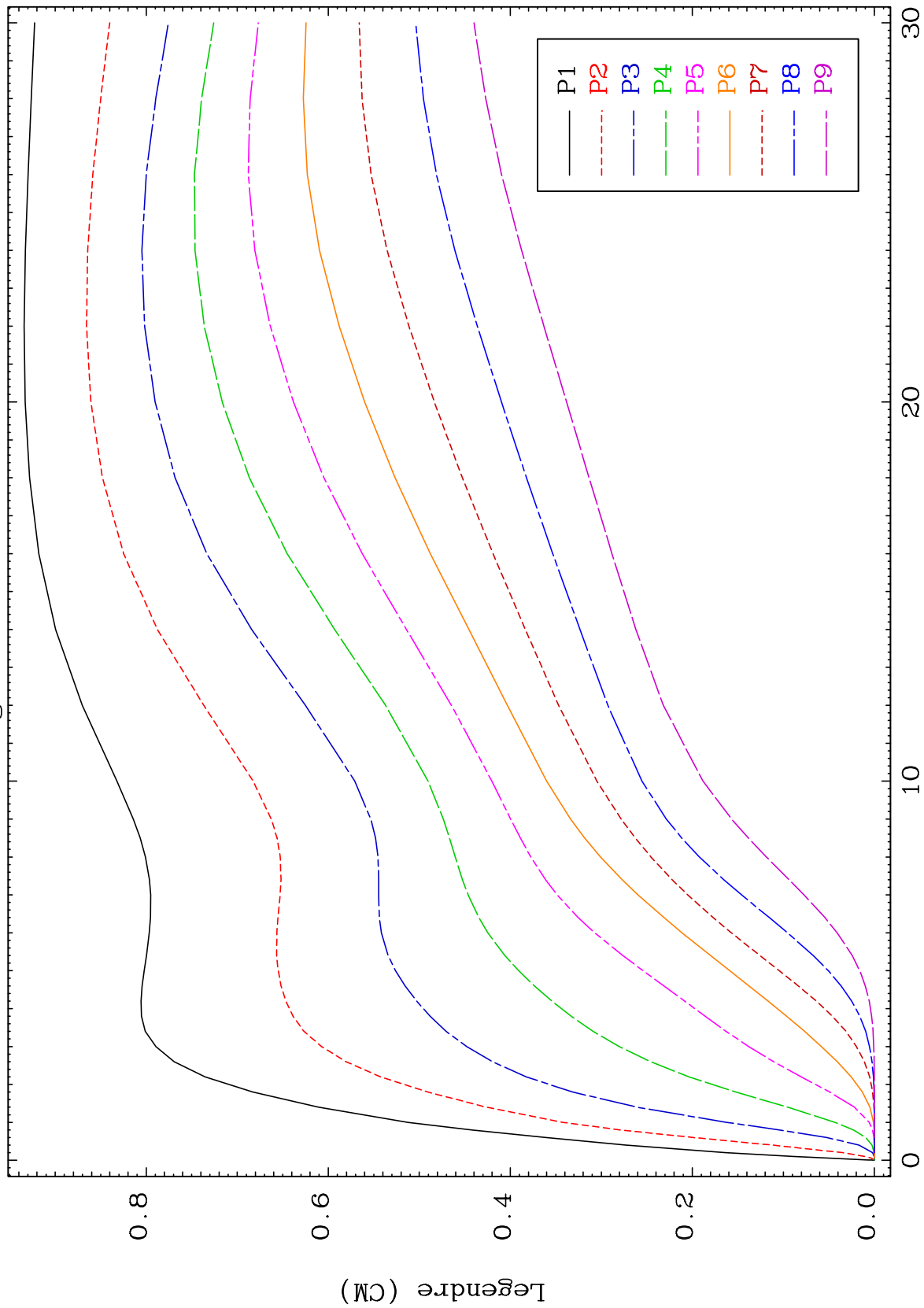




MAT 7240

Elastic Legendre Coefficients

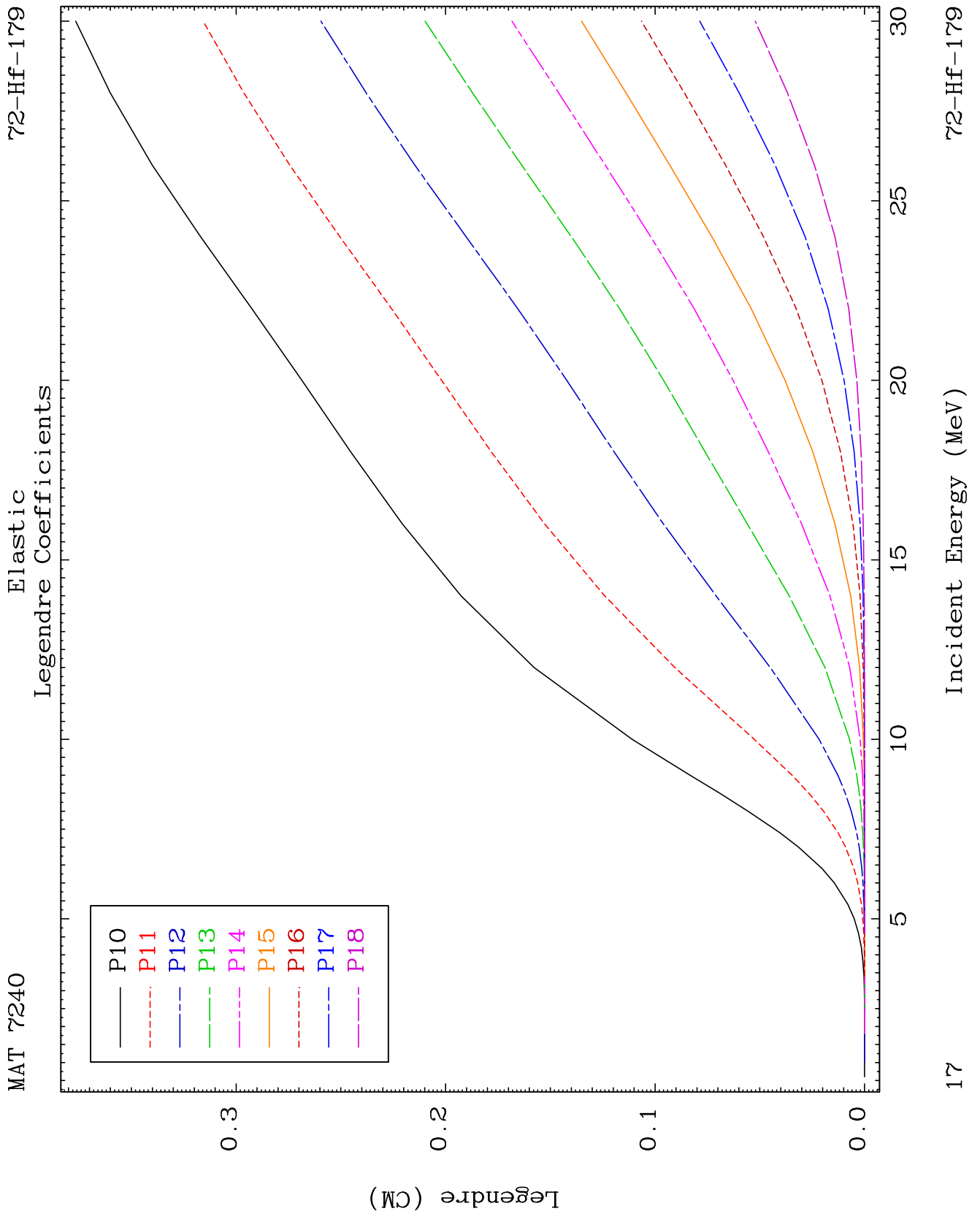
72-Hf-179



16

Incident Energy (MeV)

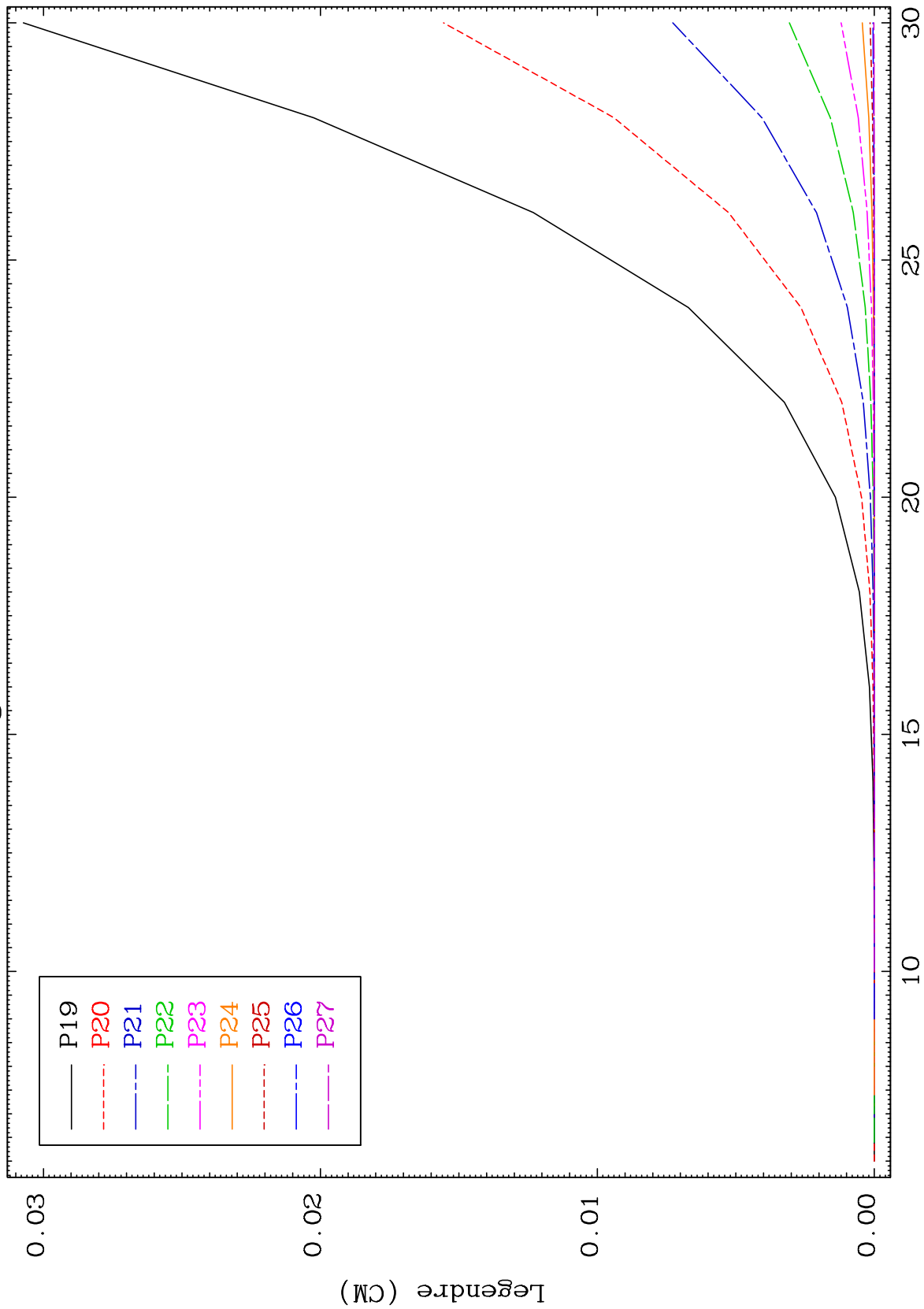
72-Hf-179



MAT 7240

Elastic  
Legendre Coefficients

72-Hf-179



18

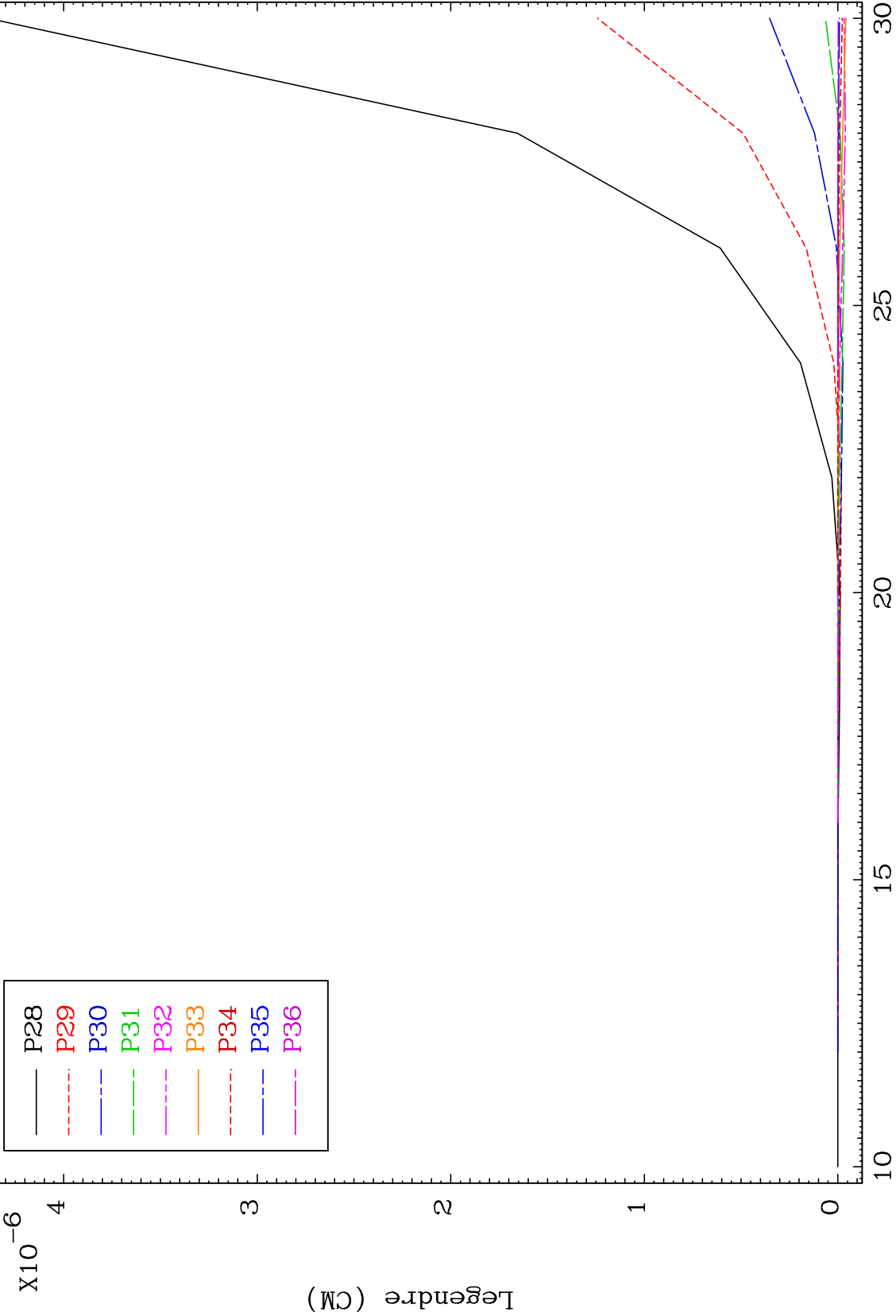
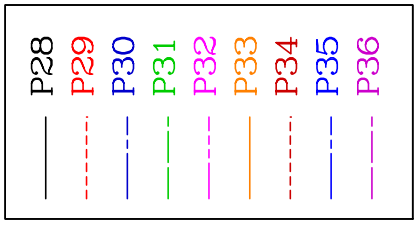
Incident Energy (MeV)

72-Hf-179

MAT 7240

Elastic Legendre Coefficients

72-Hf-179



72-Hf-179

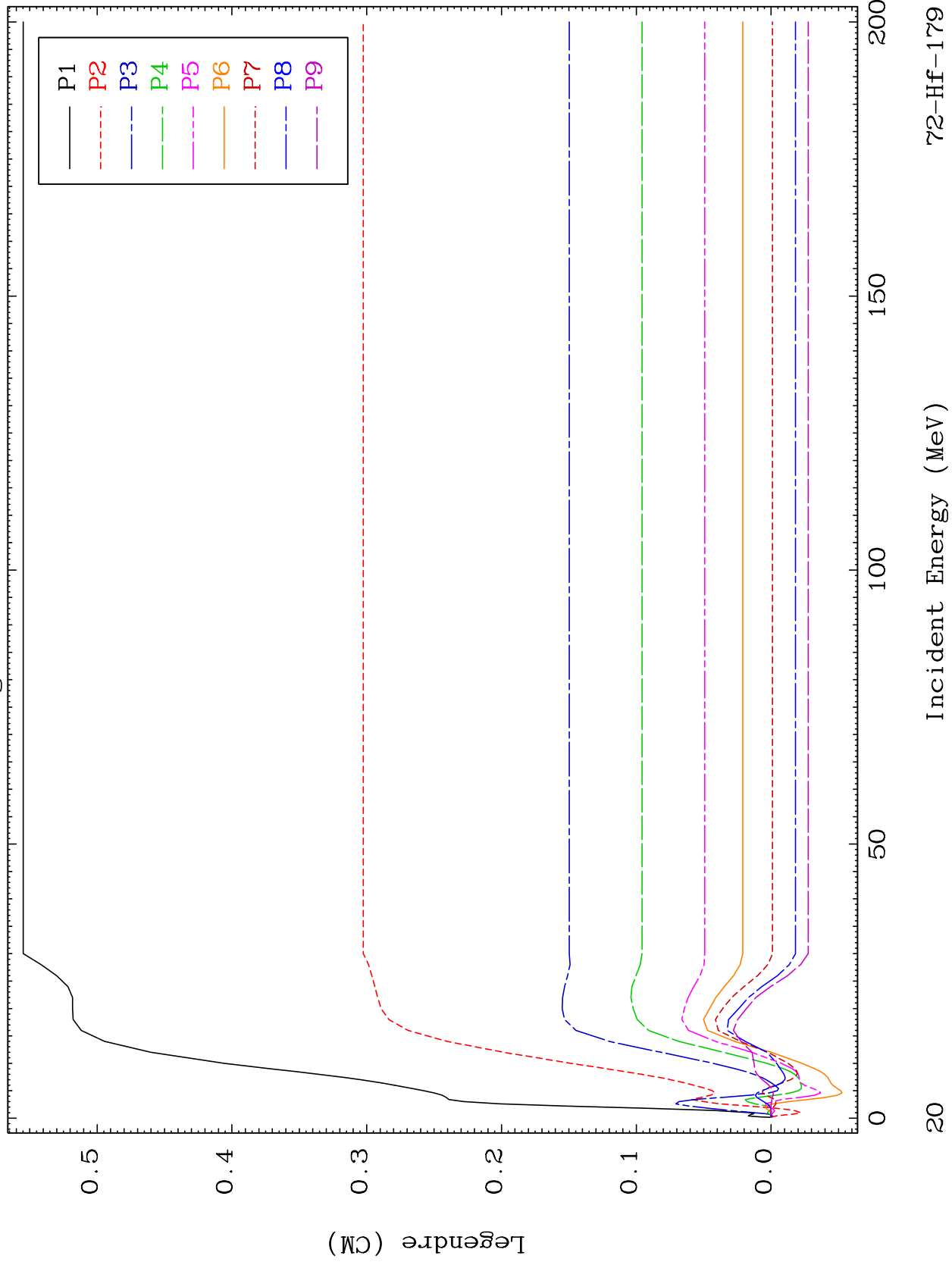
Incident Energy (MeV)

19

MAT 7240

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

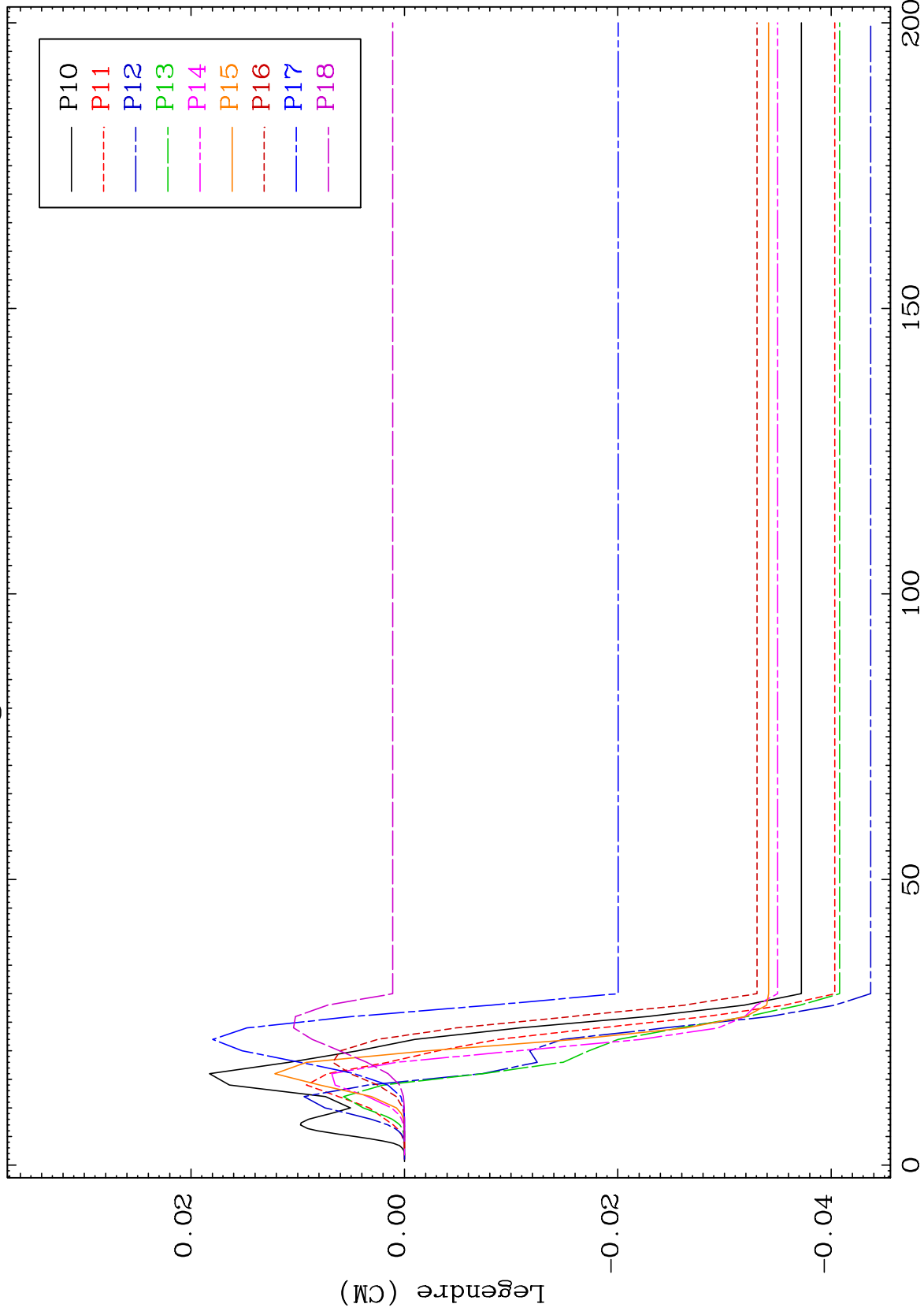
72-Hf-179



MAT 7240

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

72-Hf-179



21

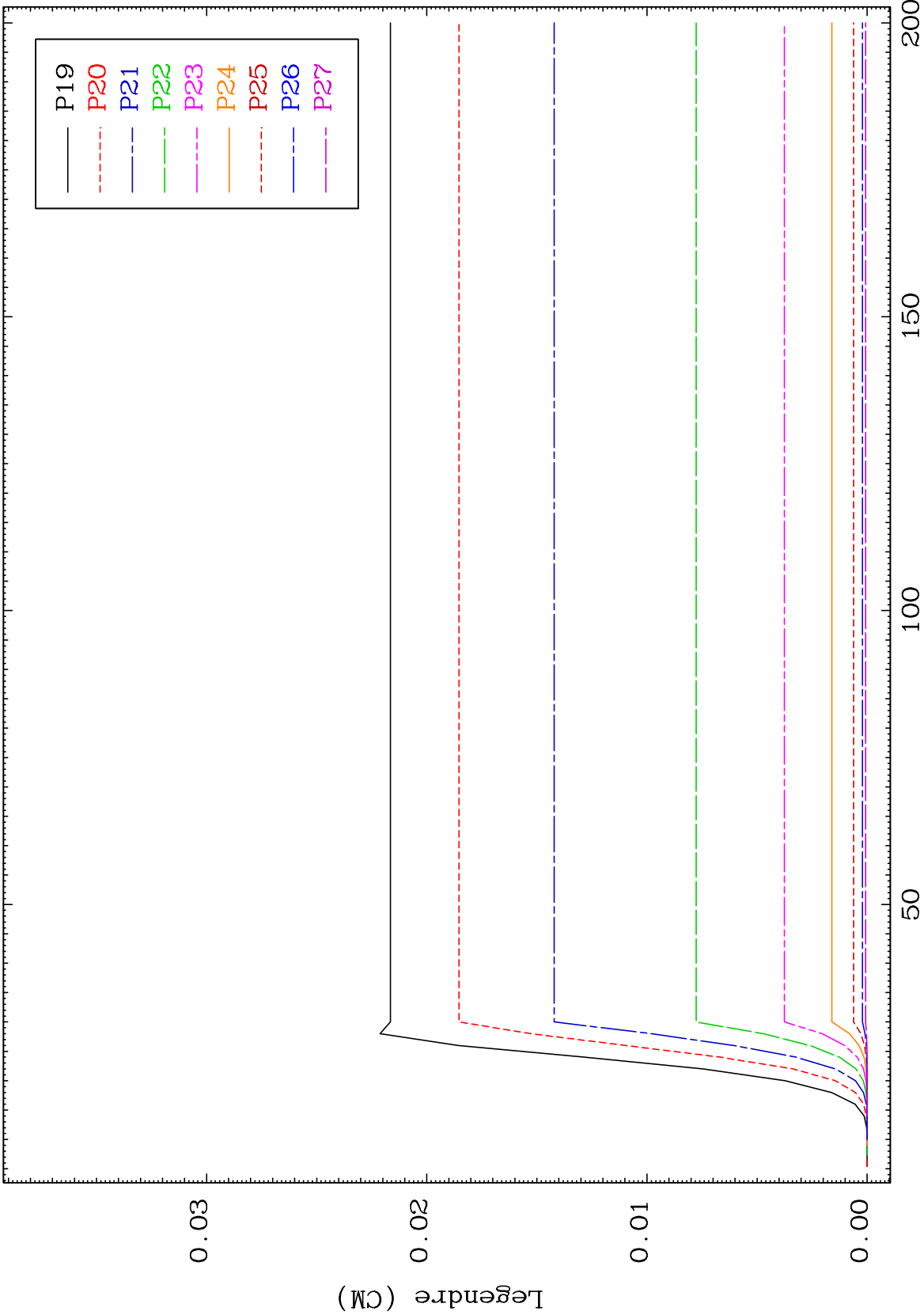
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



22

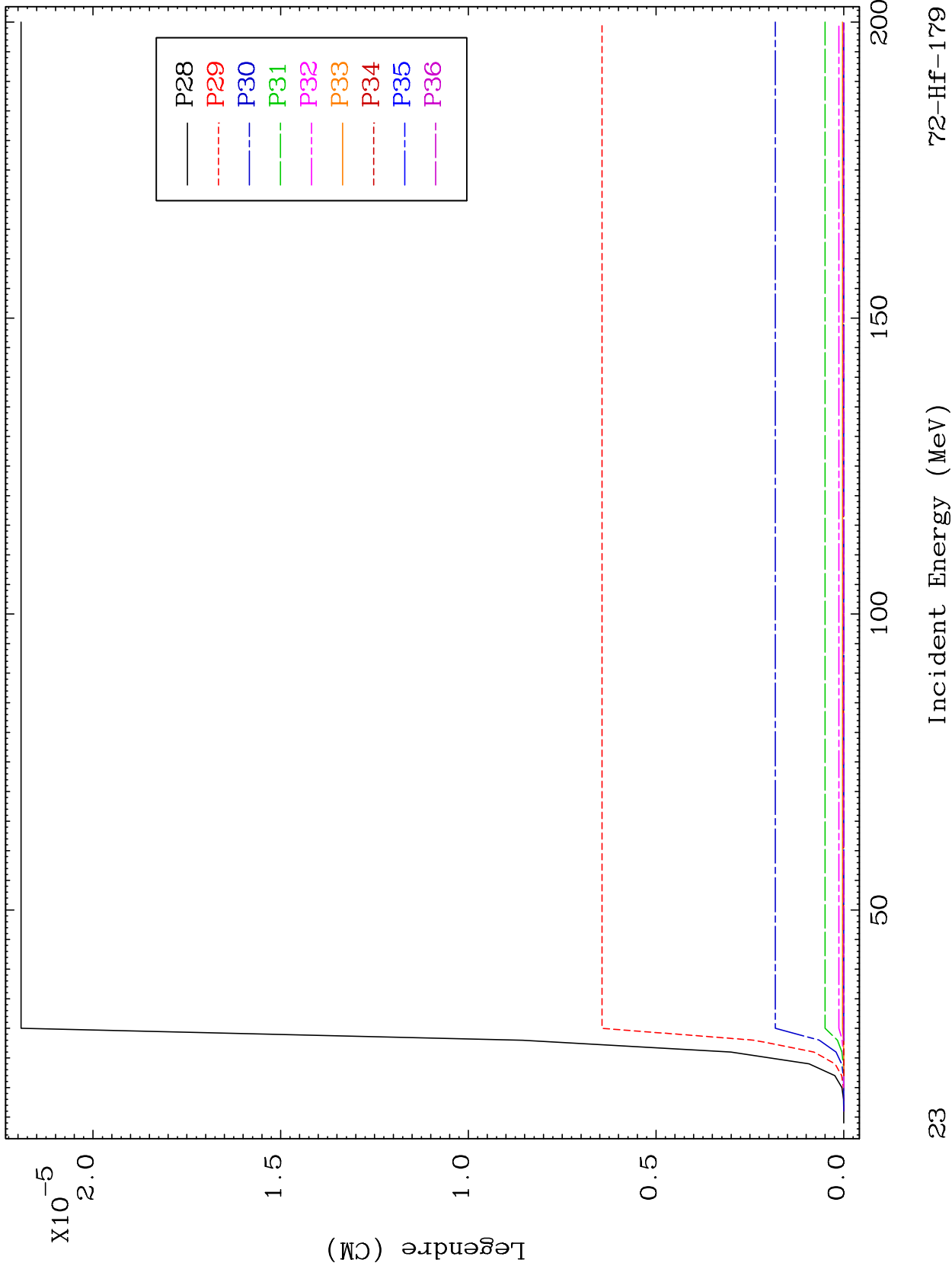
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179

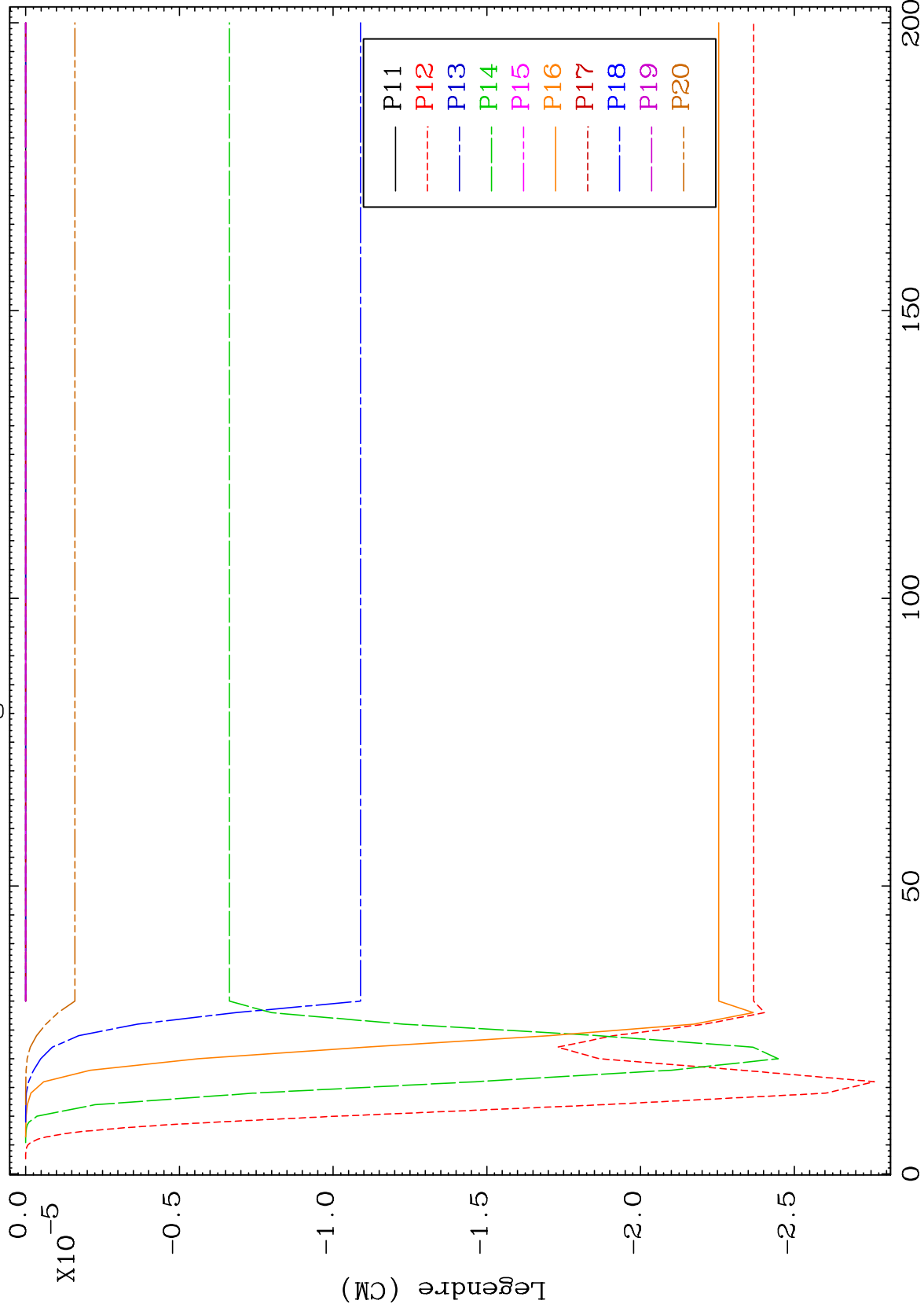




MAT 7240

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

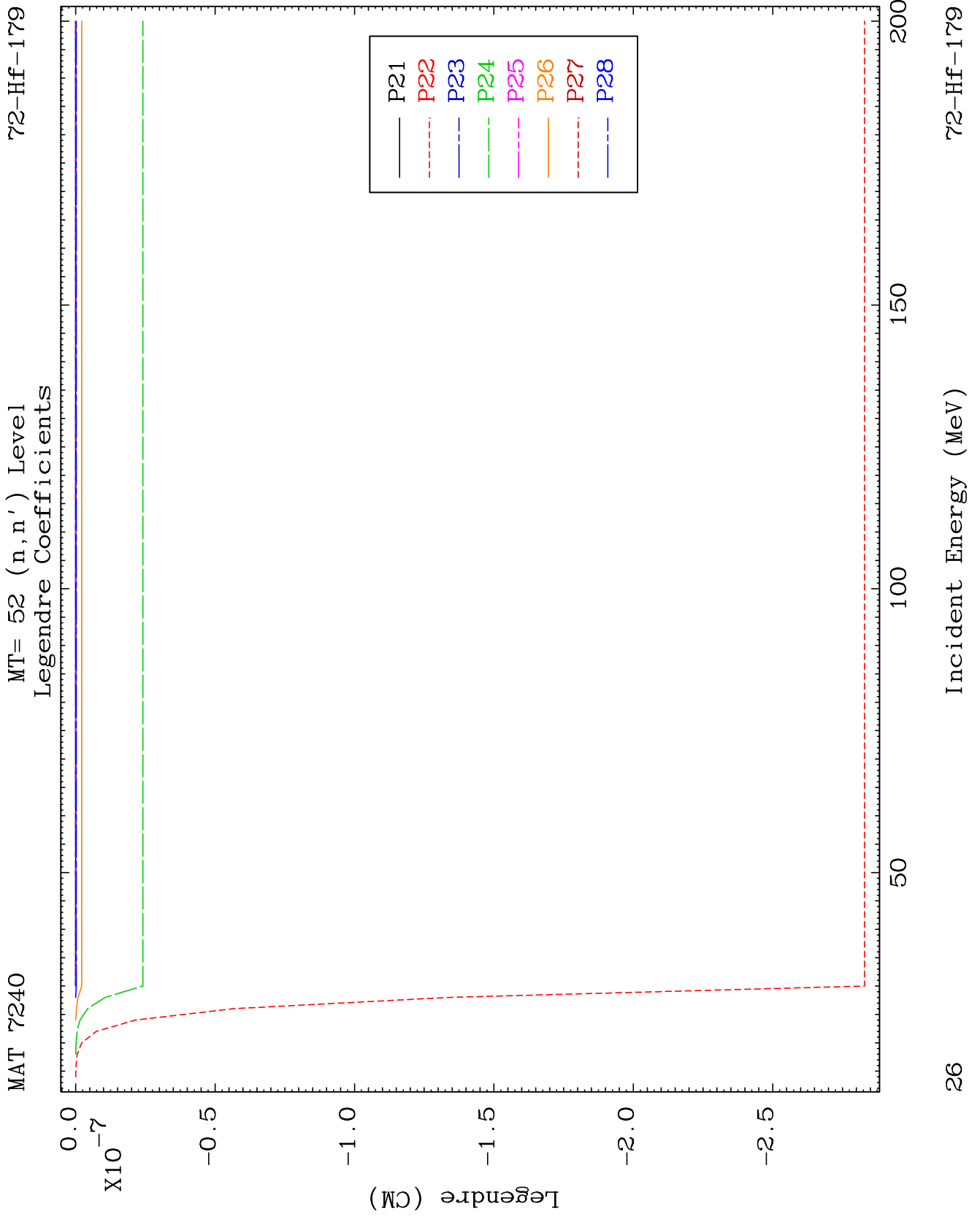
72-Hf-179



25

Incident Energy (MeV)

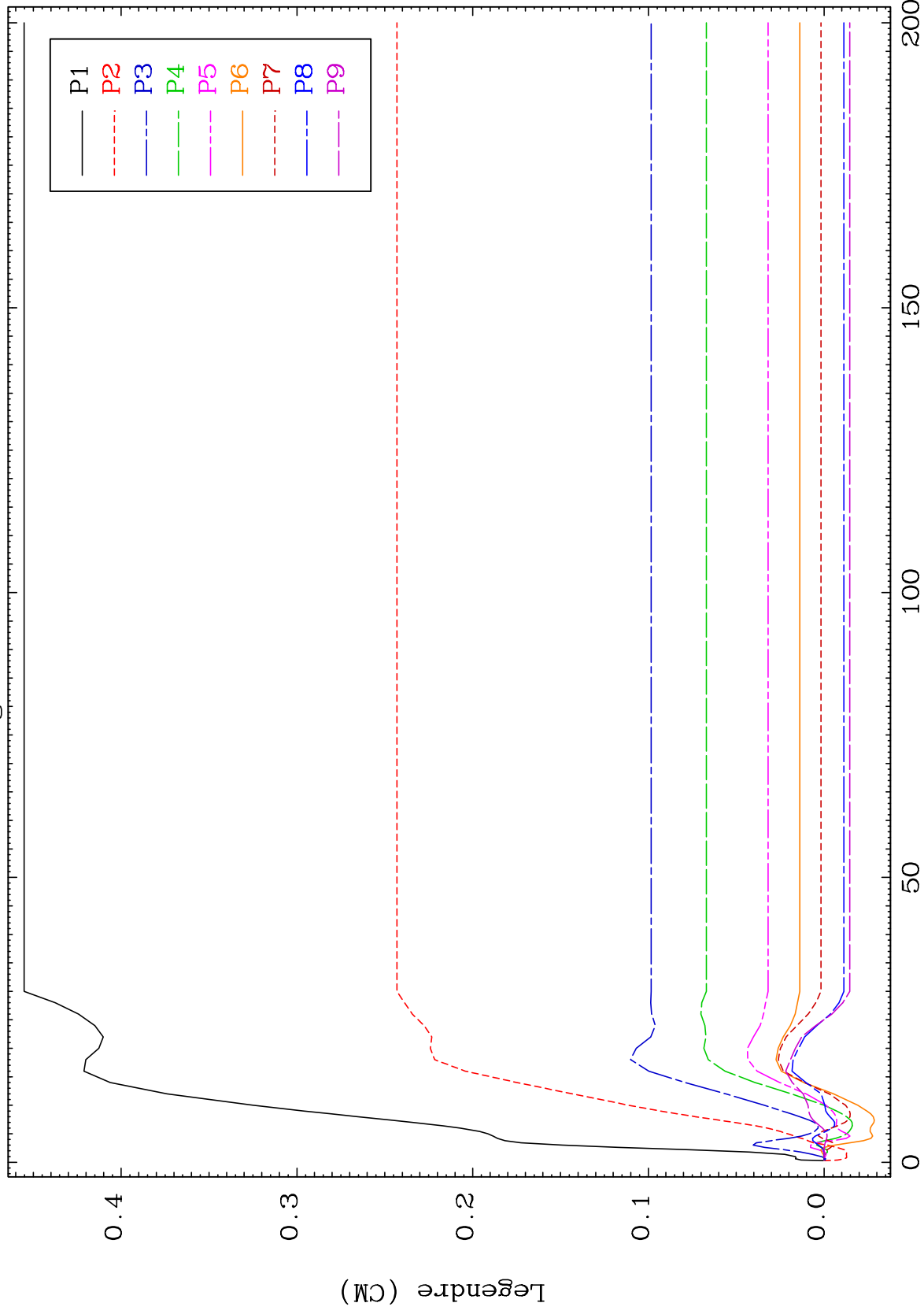
72-Hf-179



MAT 7240

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

72-Hf-179



27

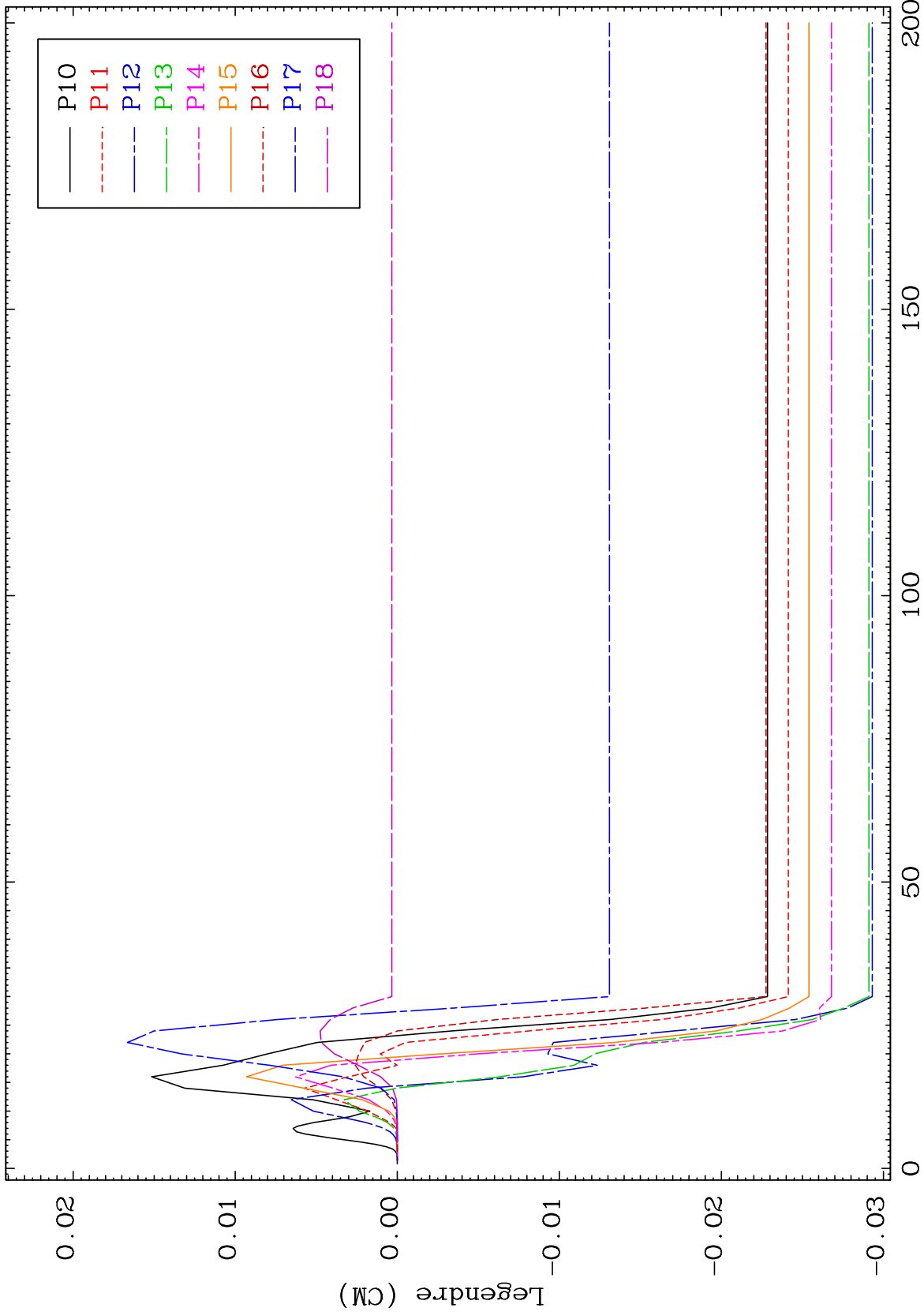
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

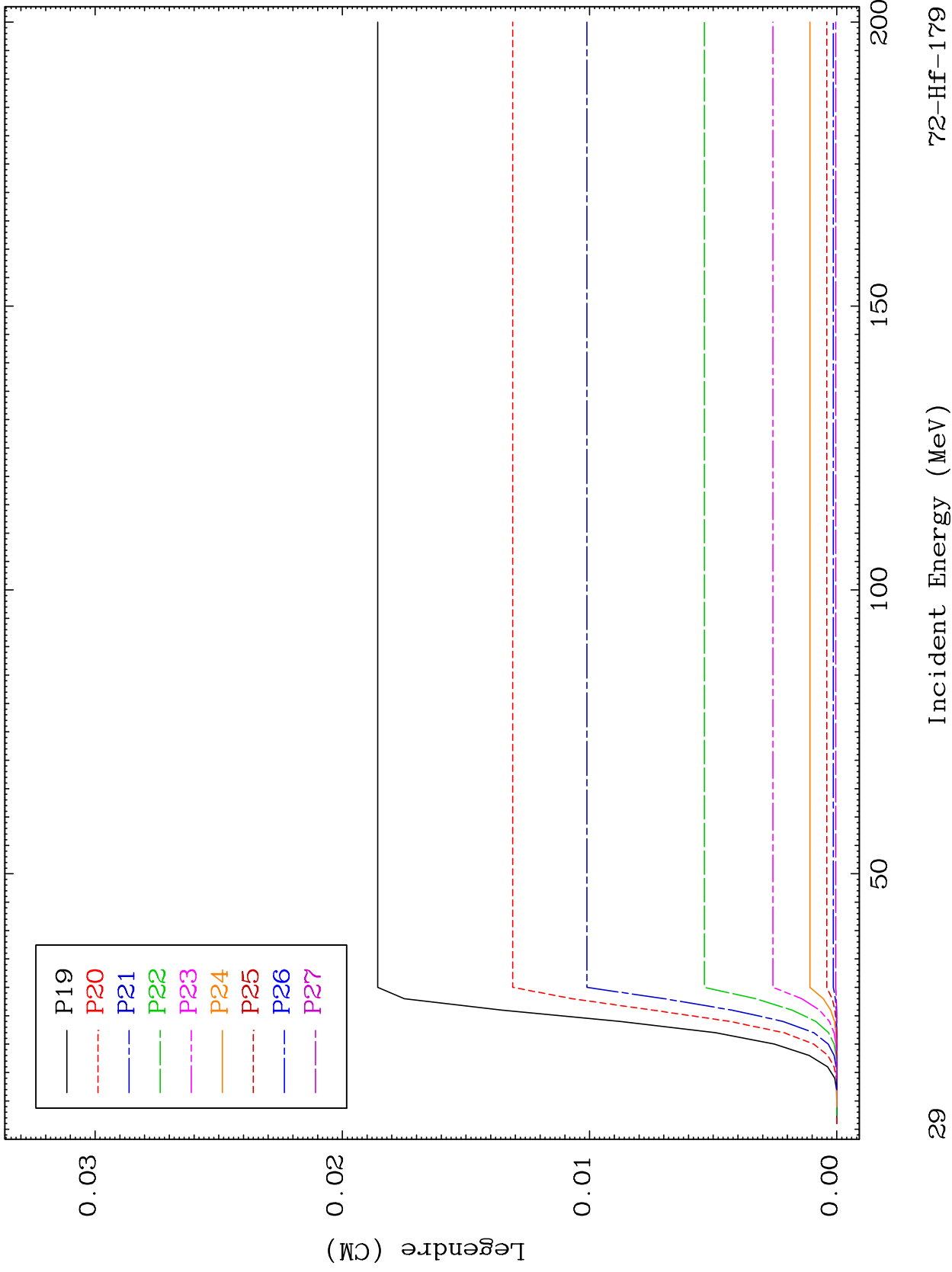
72-Hf-179



28

Incident Energy (MeV)

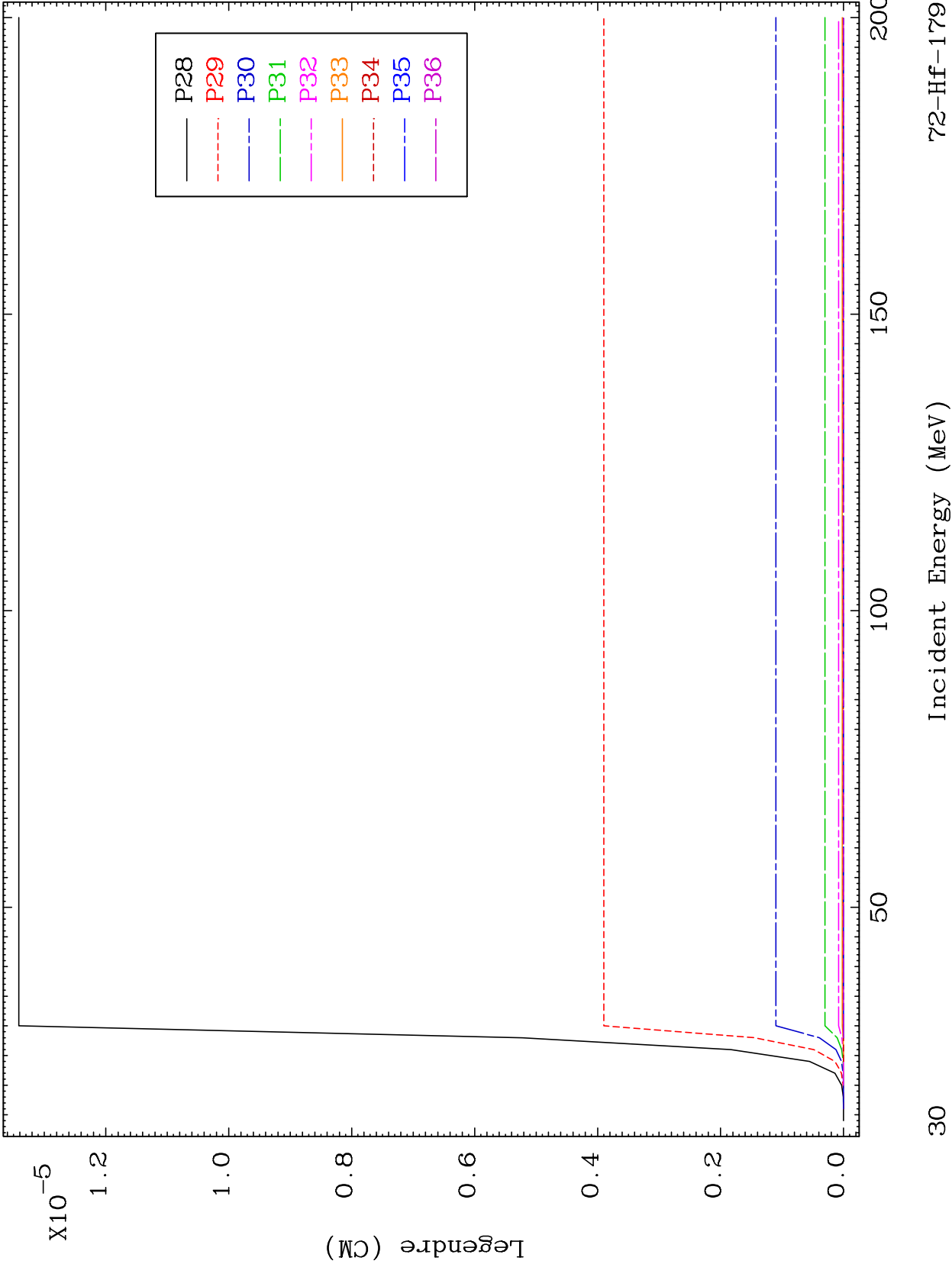
72-Hf-179



MAT 7240

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

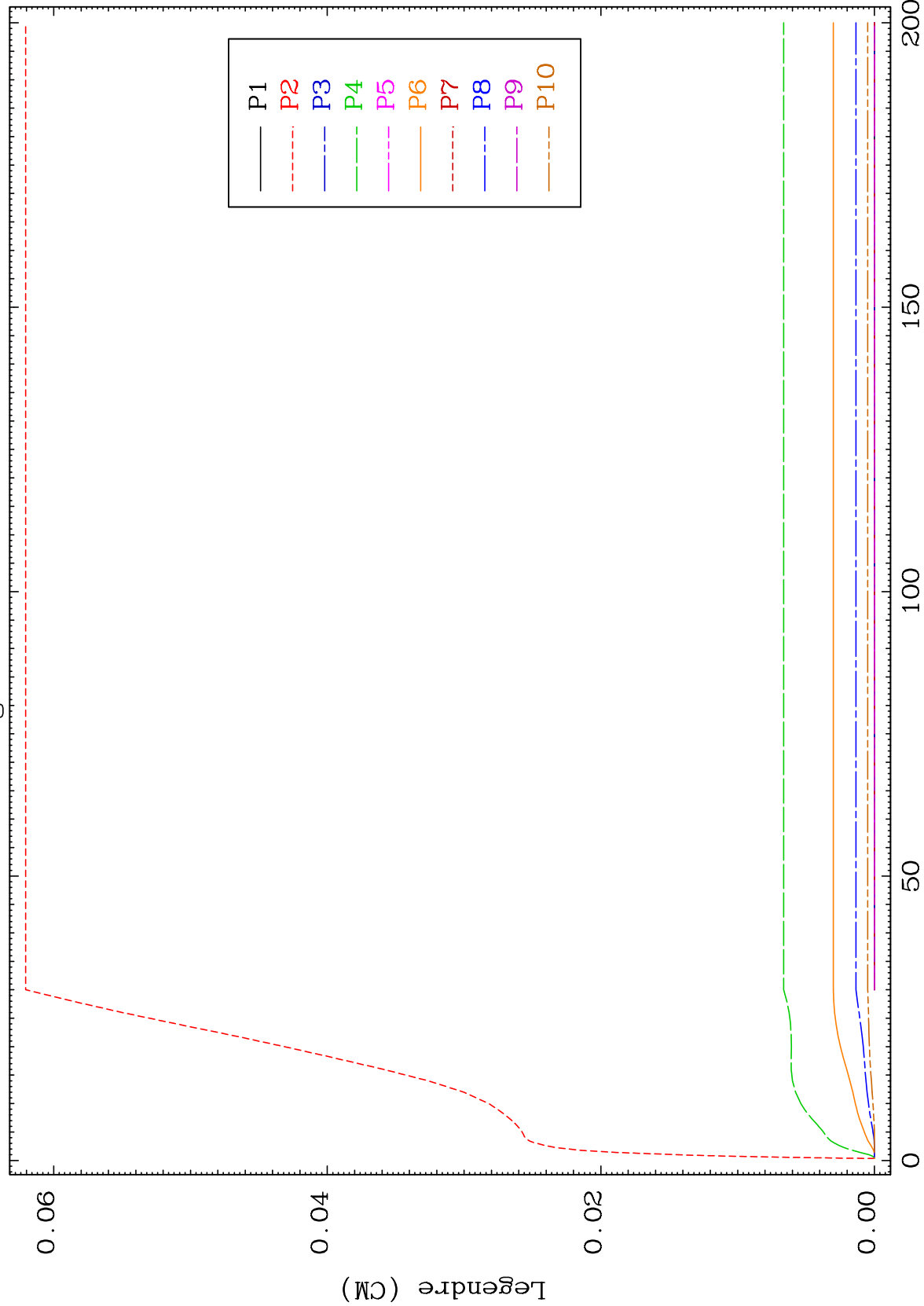
72-Hf-179



MAT 7240

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

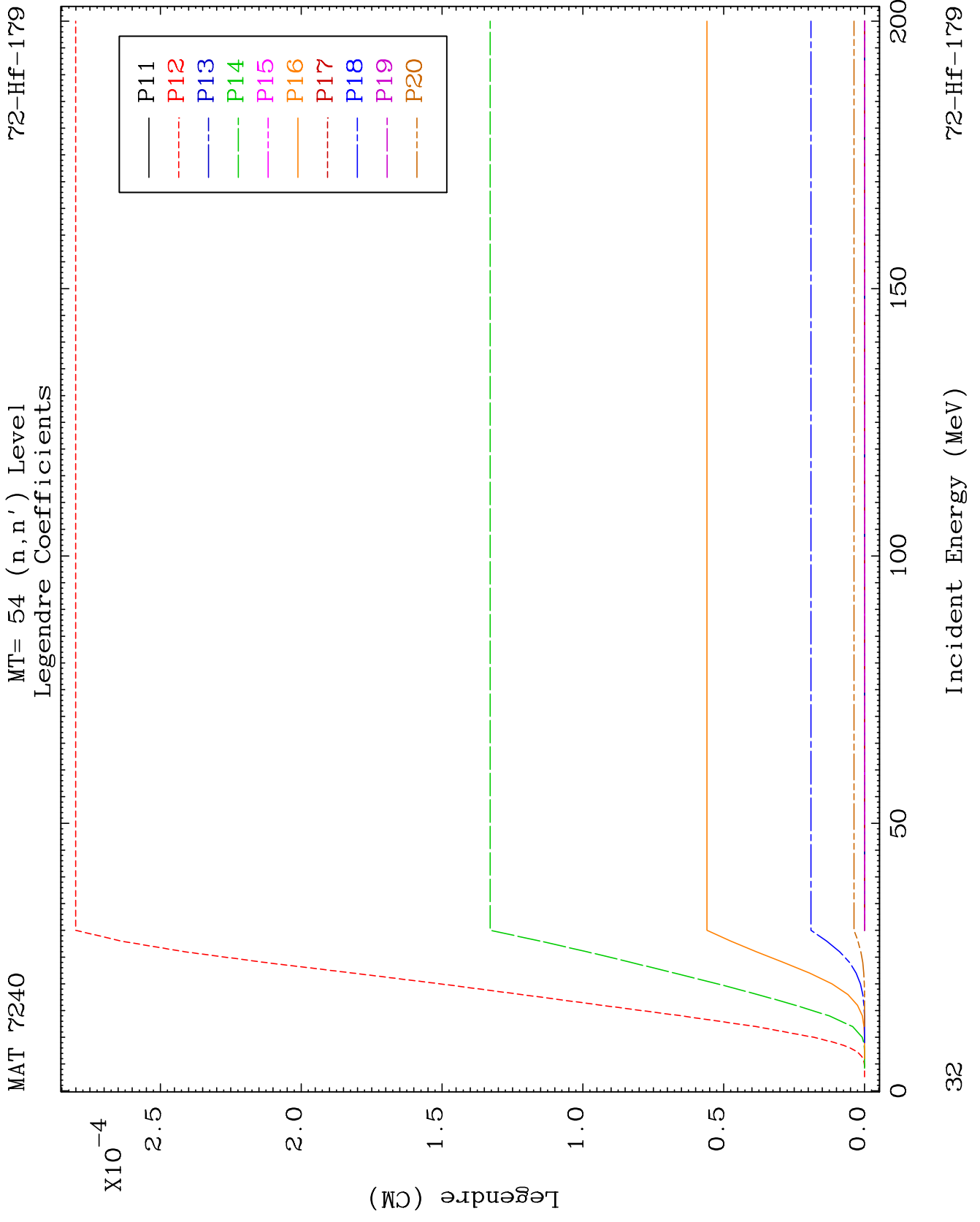
72-Hf-179

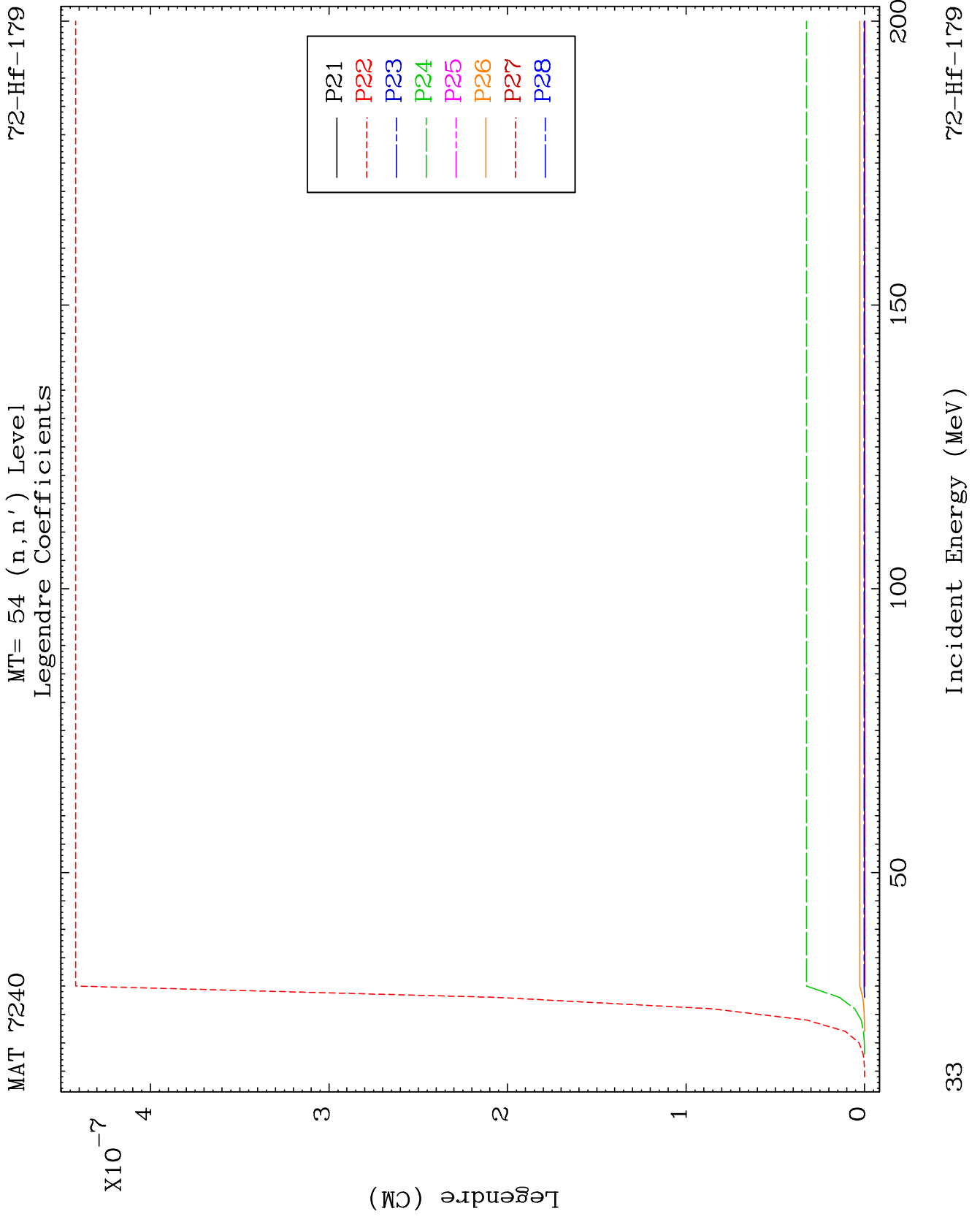


31

Incident Energy (MeV)

72-Hf-179

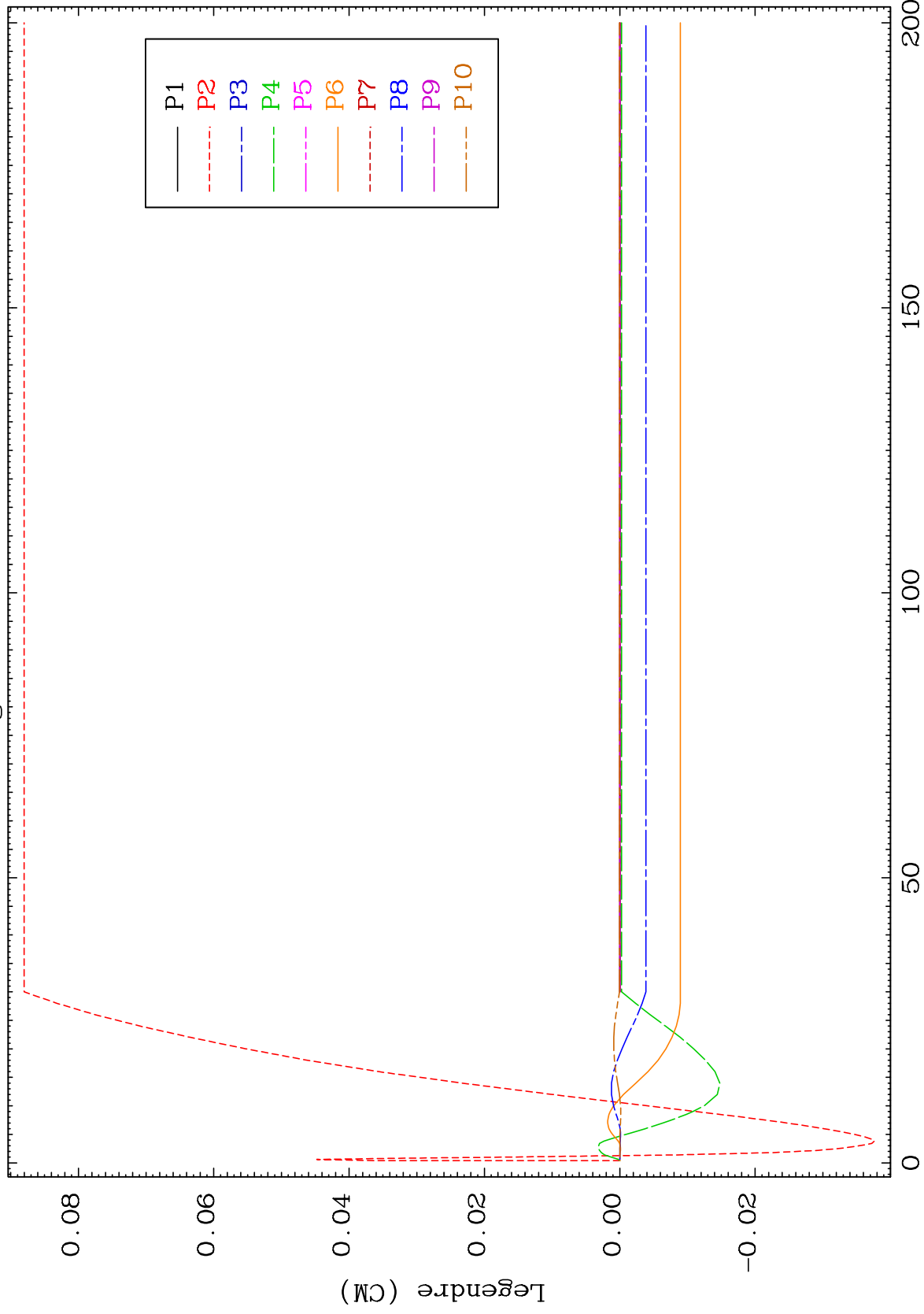




MAT 7240

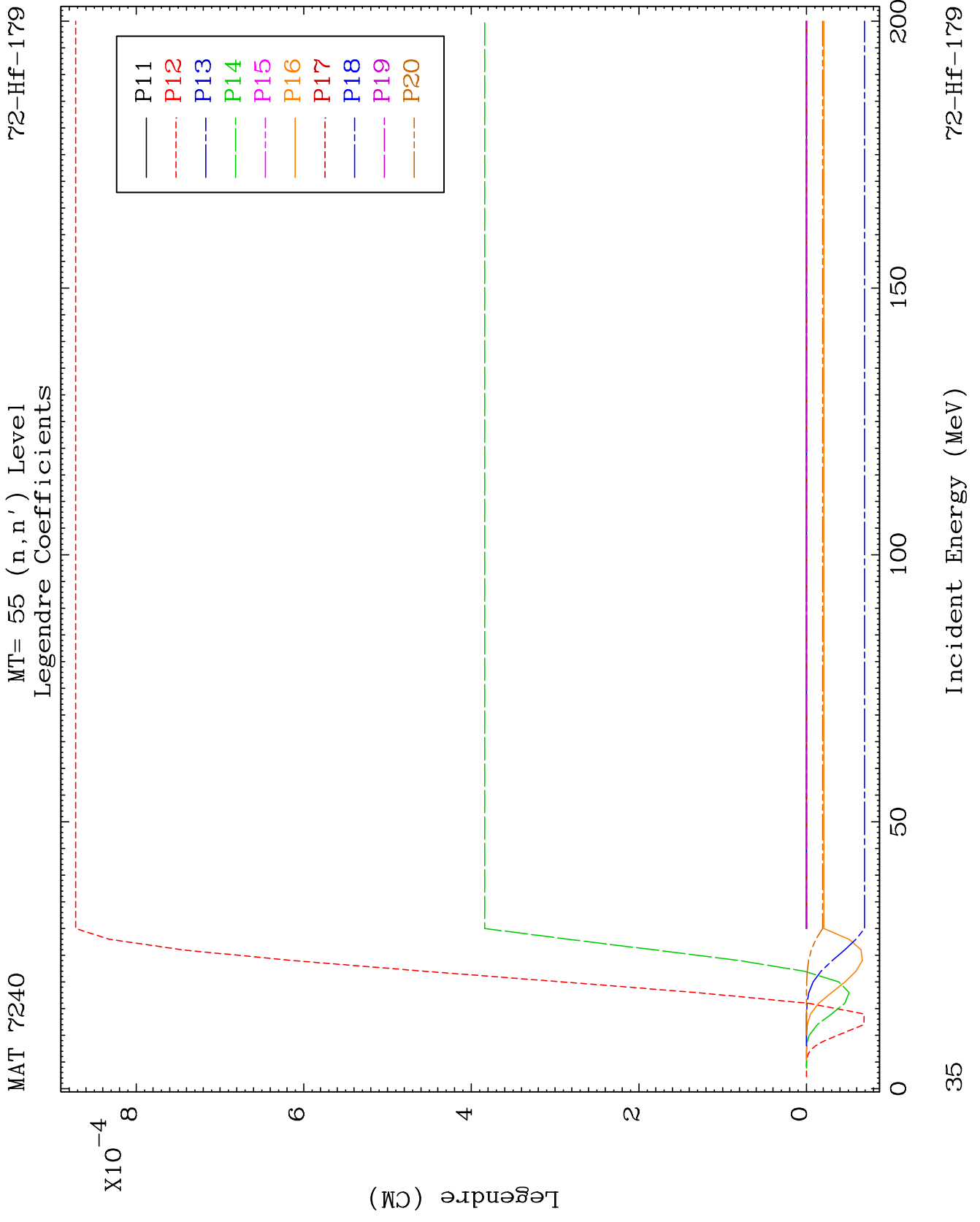
MT= 55 (n,n') Level  
Legendre Coefficients

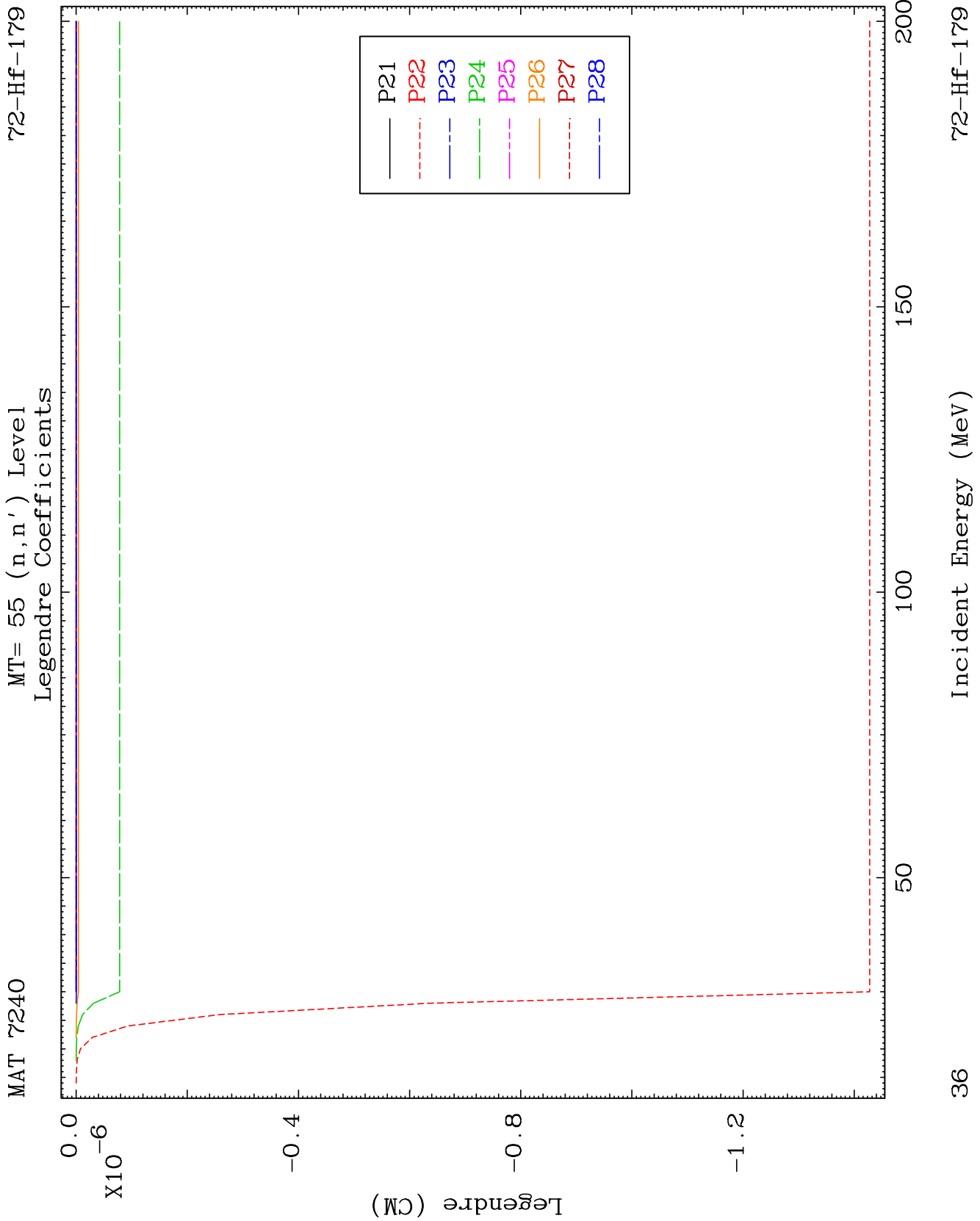
72-Hf-179



34

72-Hf-179

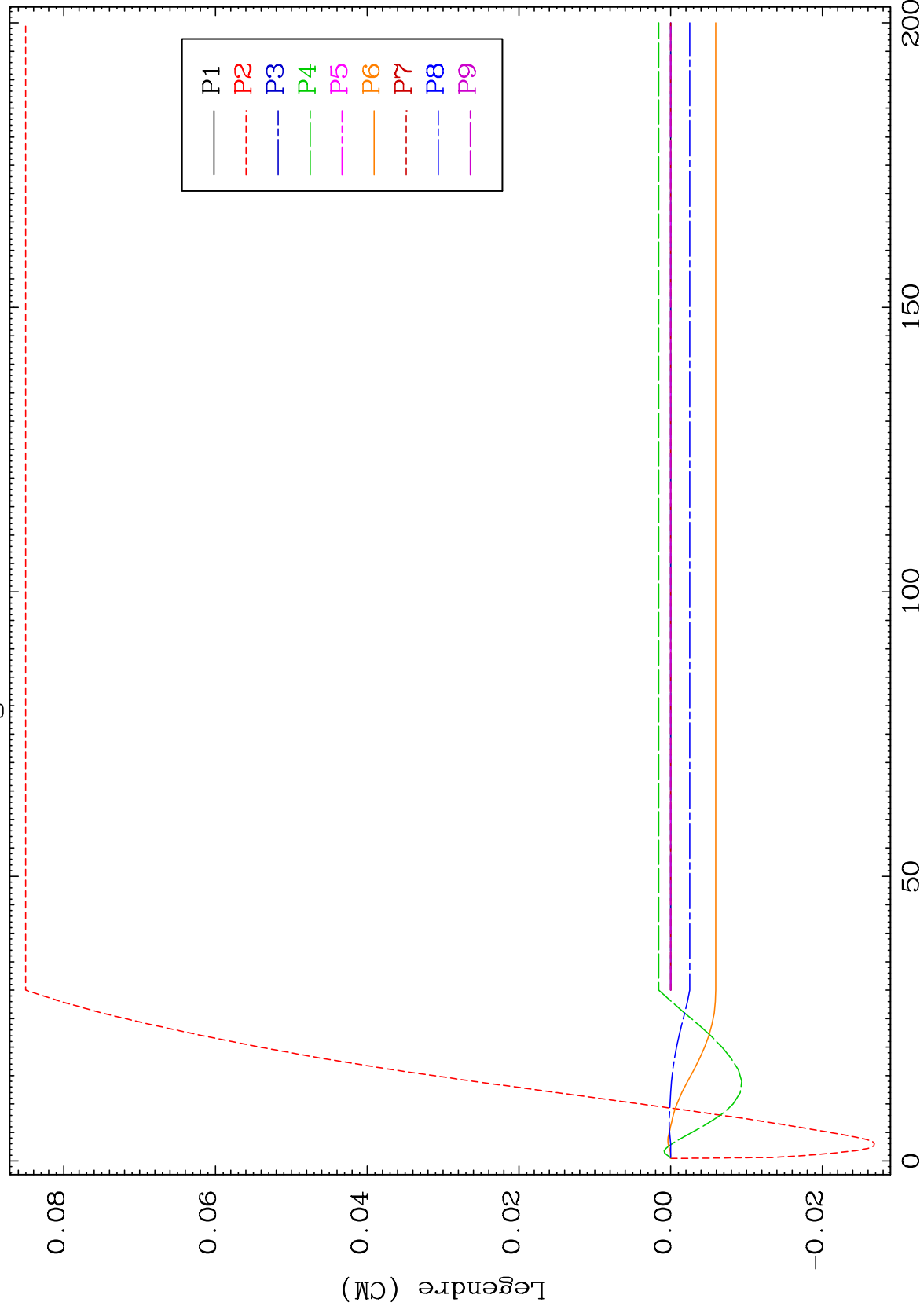




MAT 7240

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

72-Hf-179



72-Hf-179

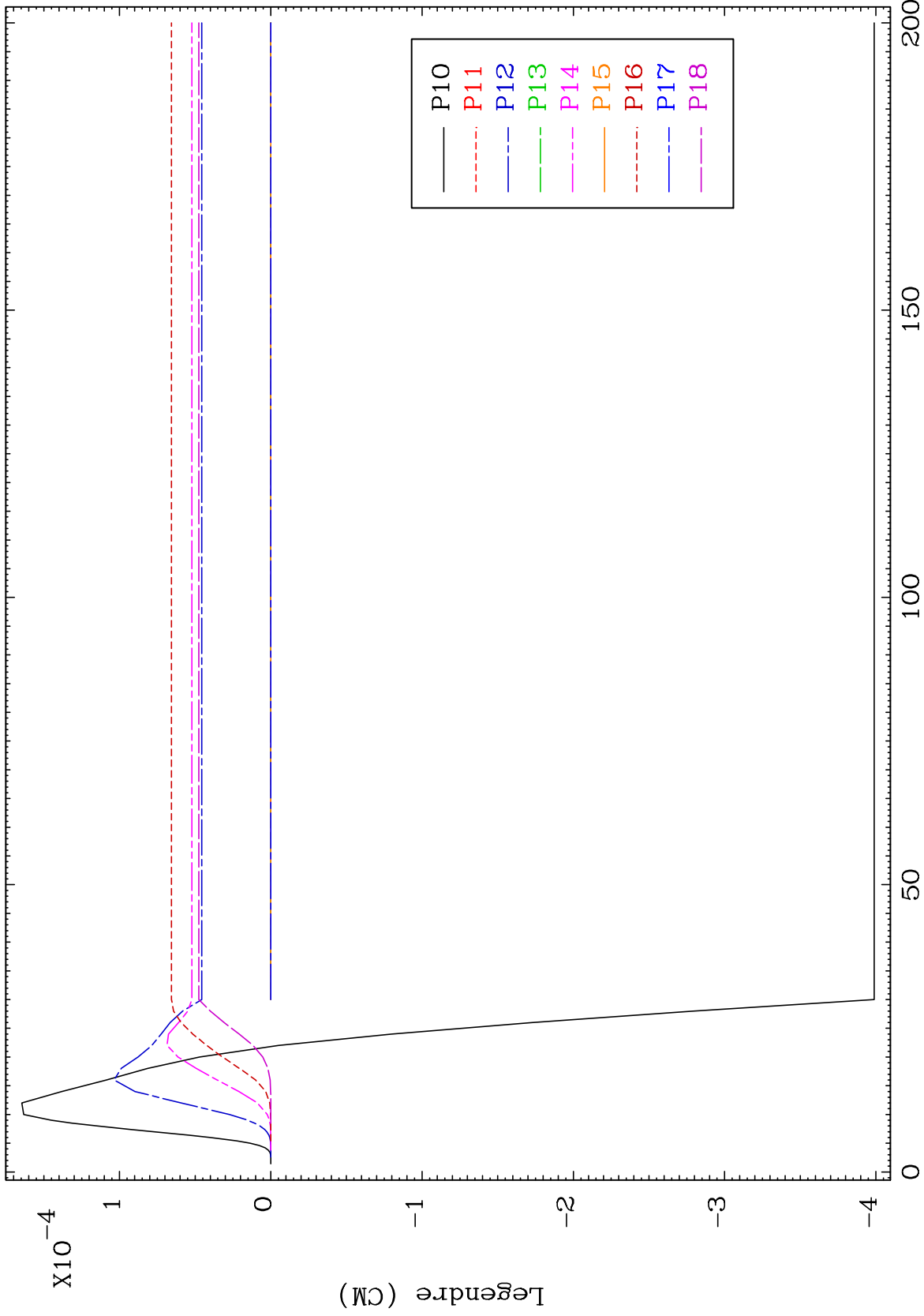
Incident Energy (MeV)

37

MAT 7240

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

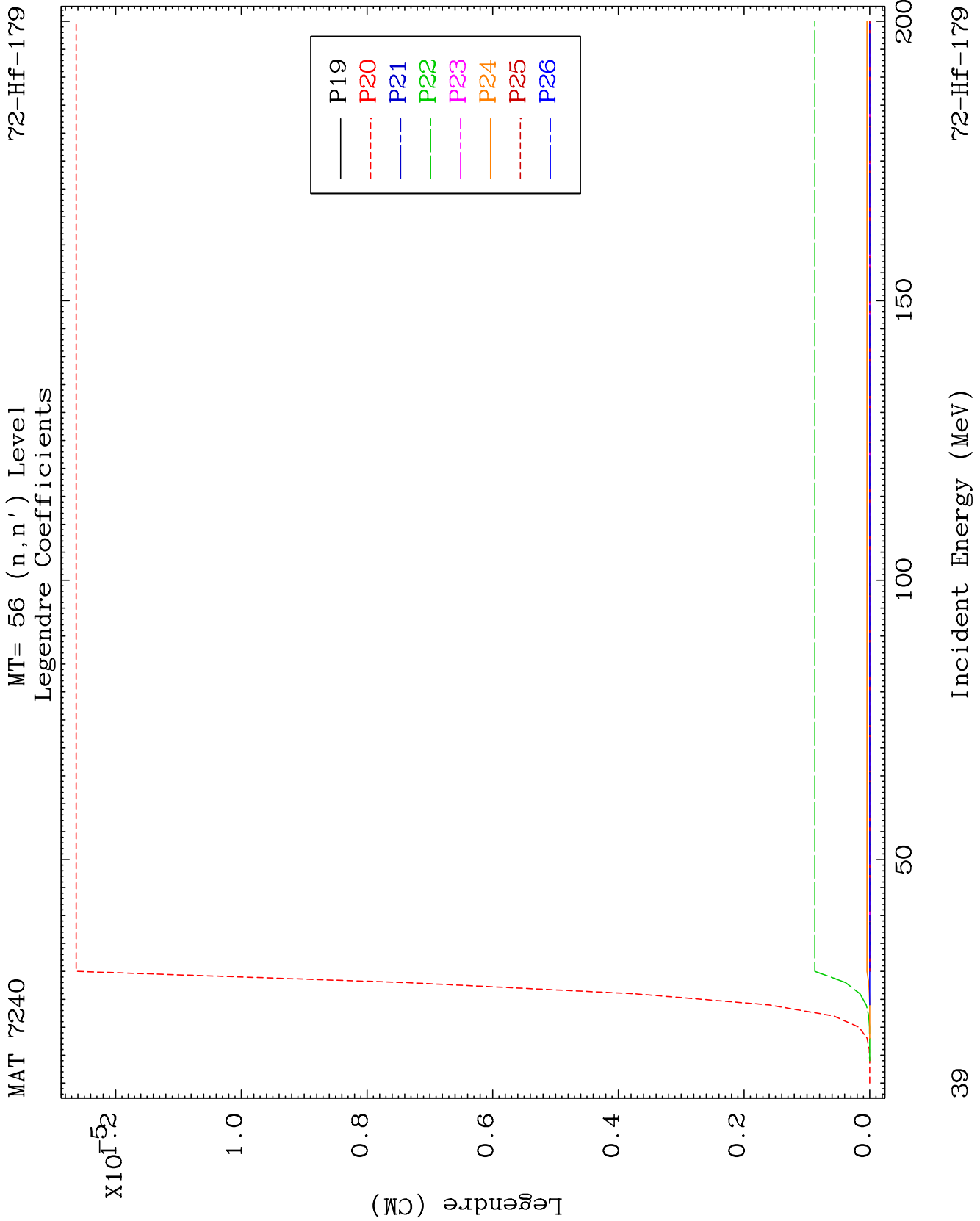
72-Hf-179



38

Incident Energy (MeV)

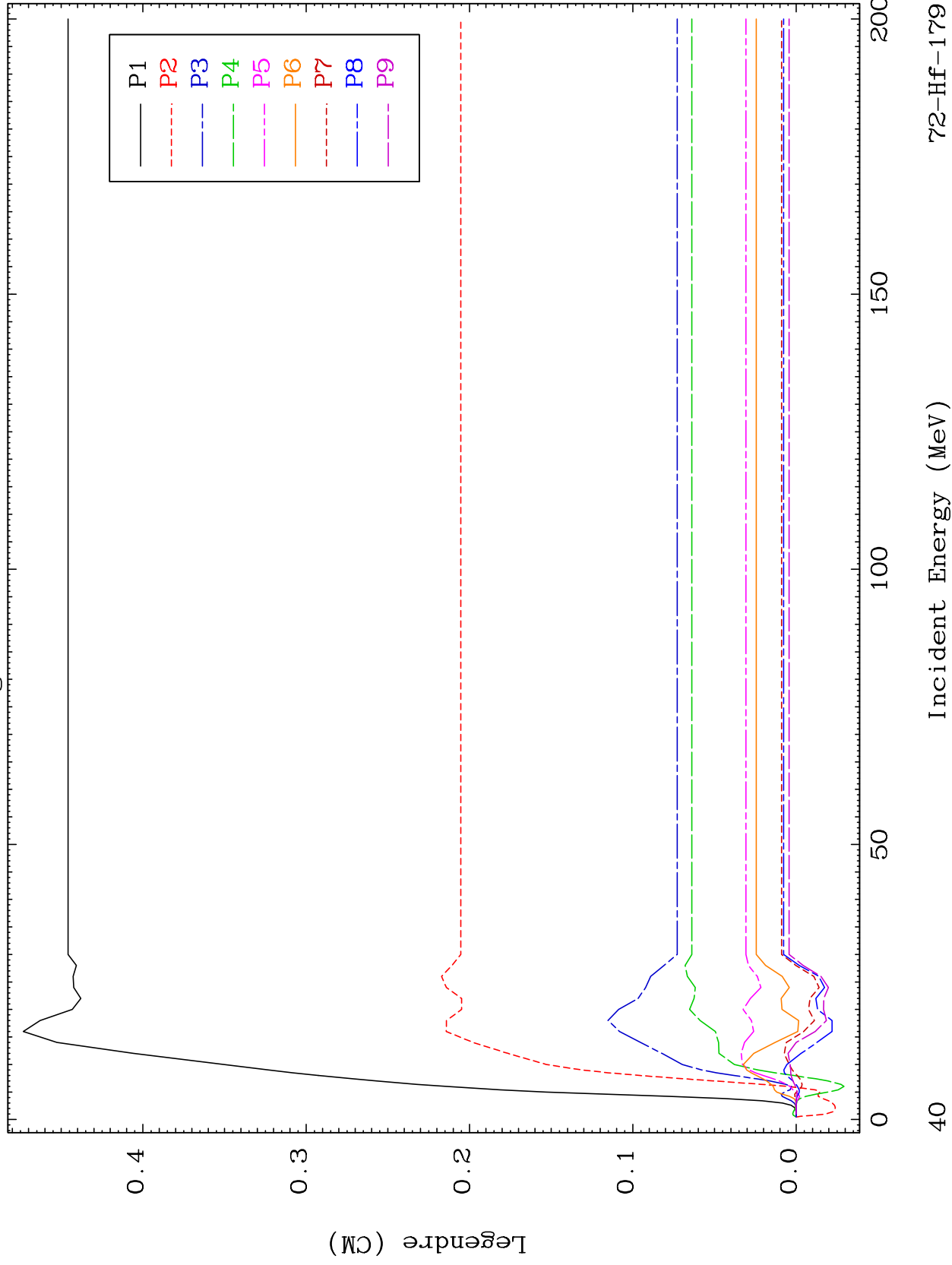
72-Hf-179



MAT 7240

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

72-Hf-179



72-Hf-179

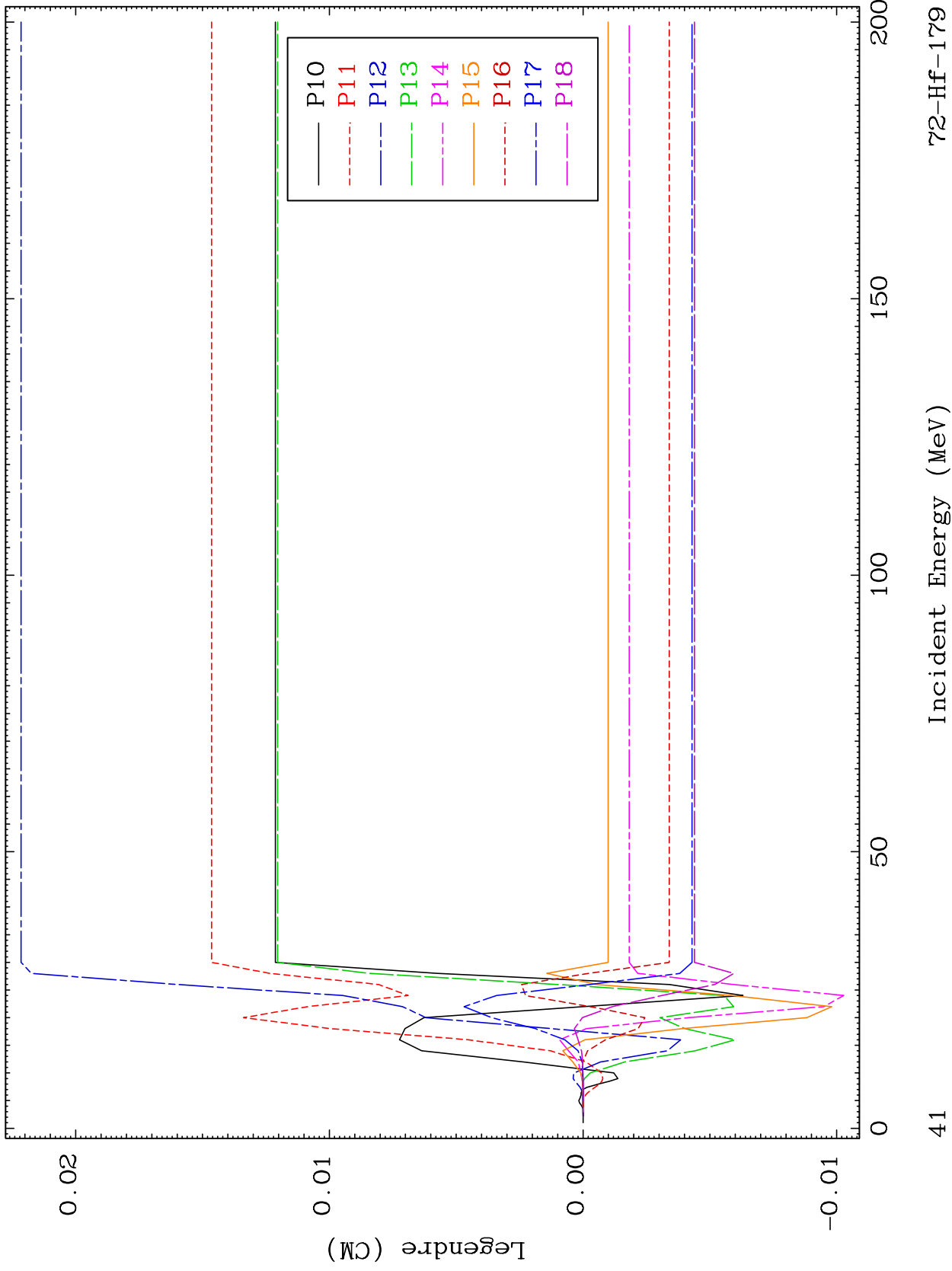
Incident Energy (MeV)

40

MAT 7240

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

72-Hf-179



41

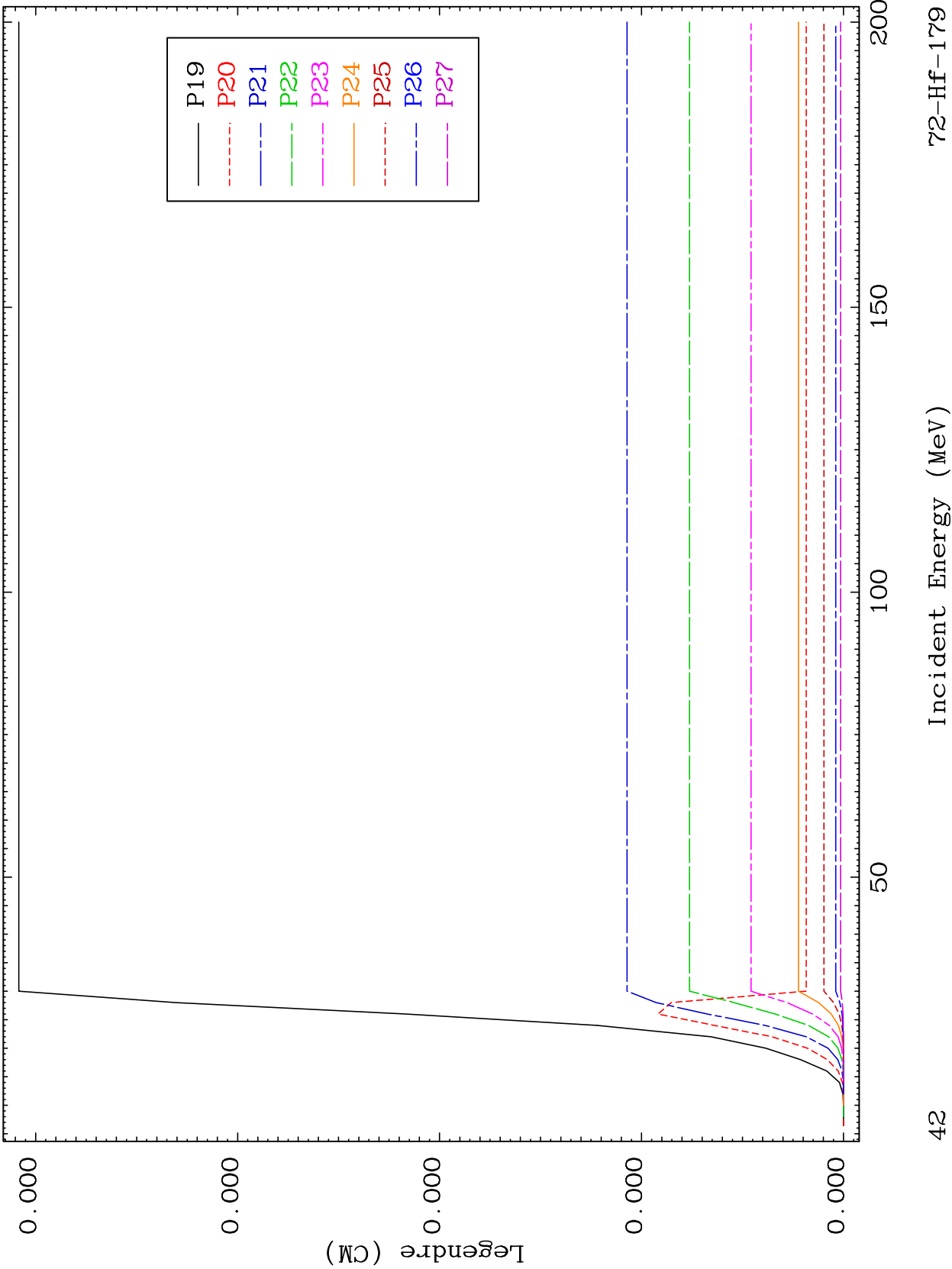
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



42

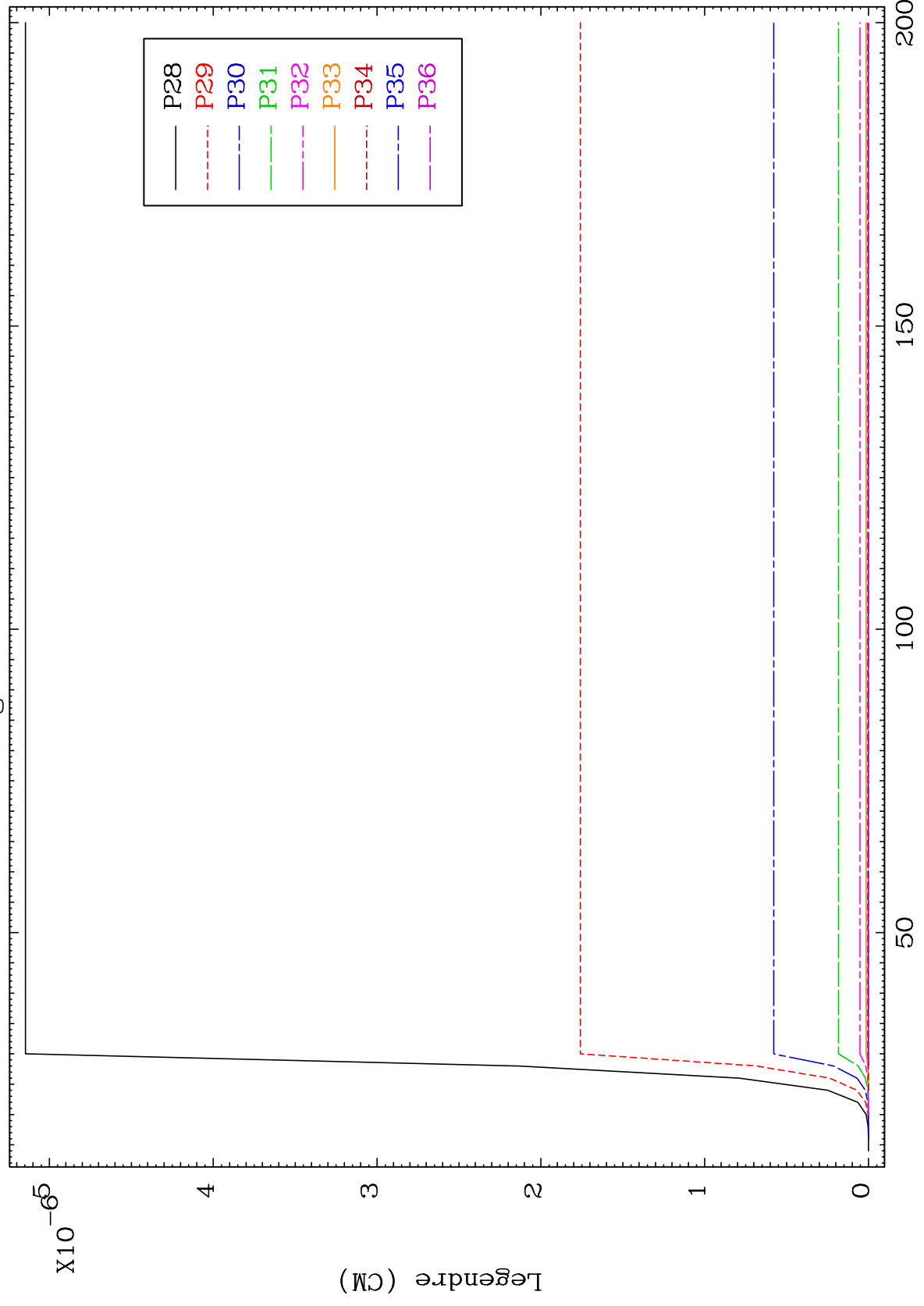
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

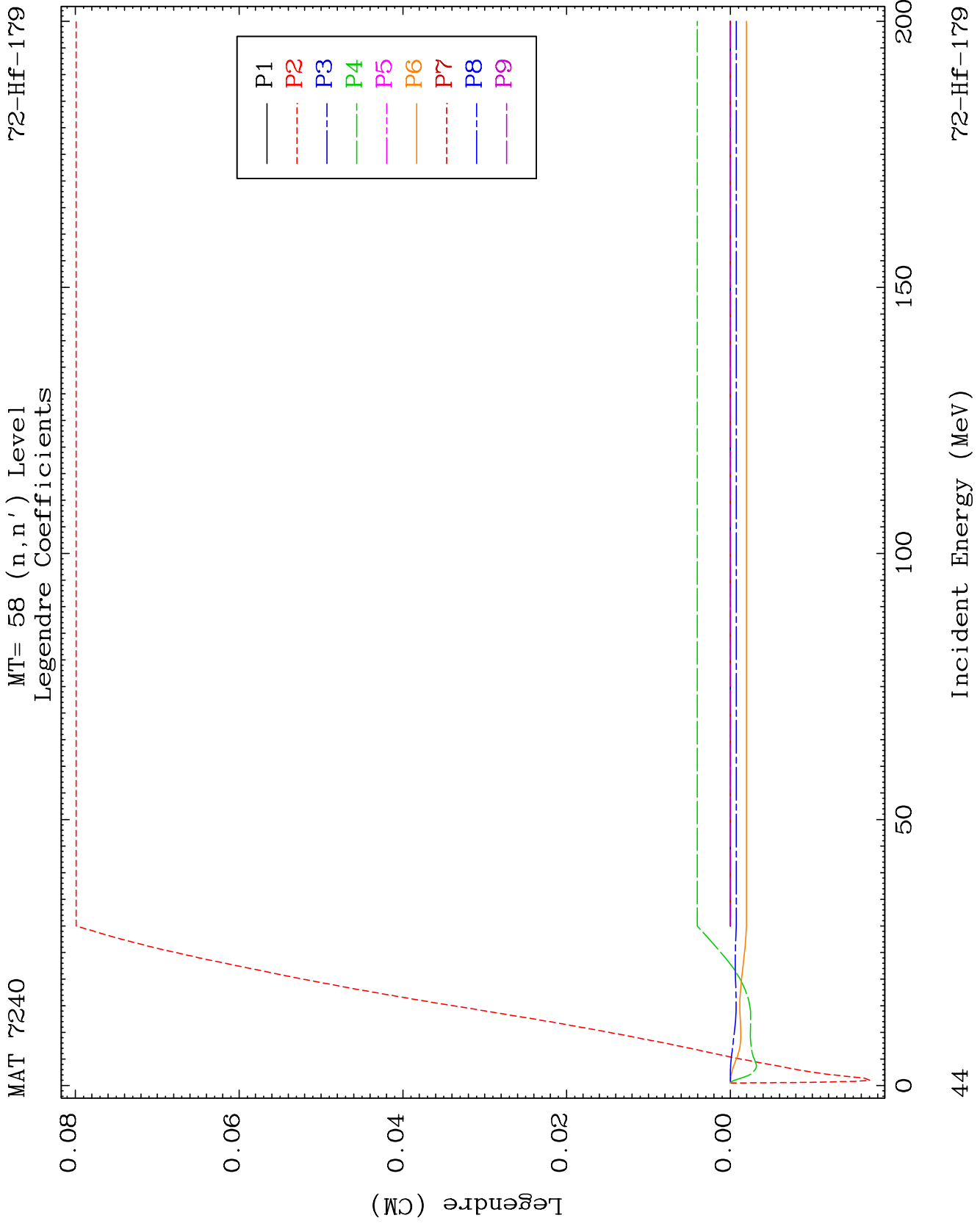
72-Hf-179

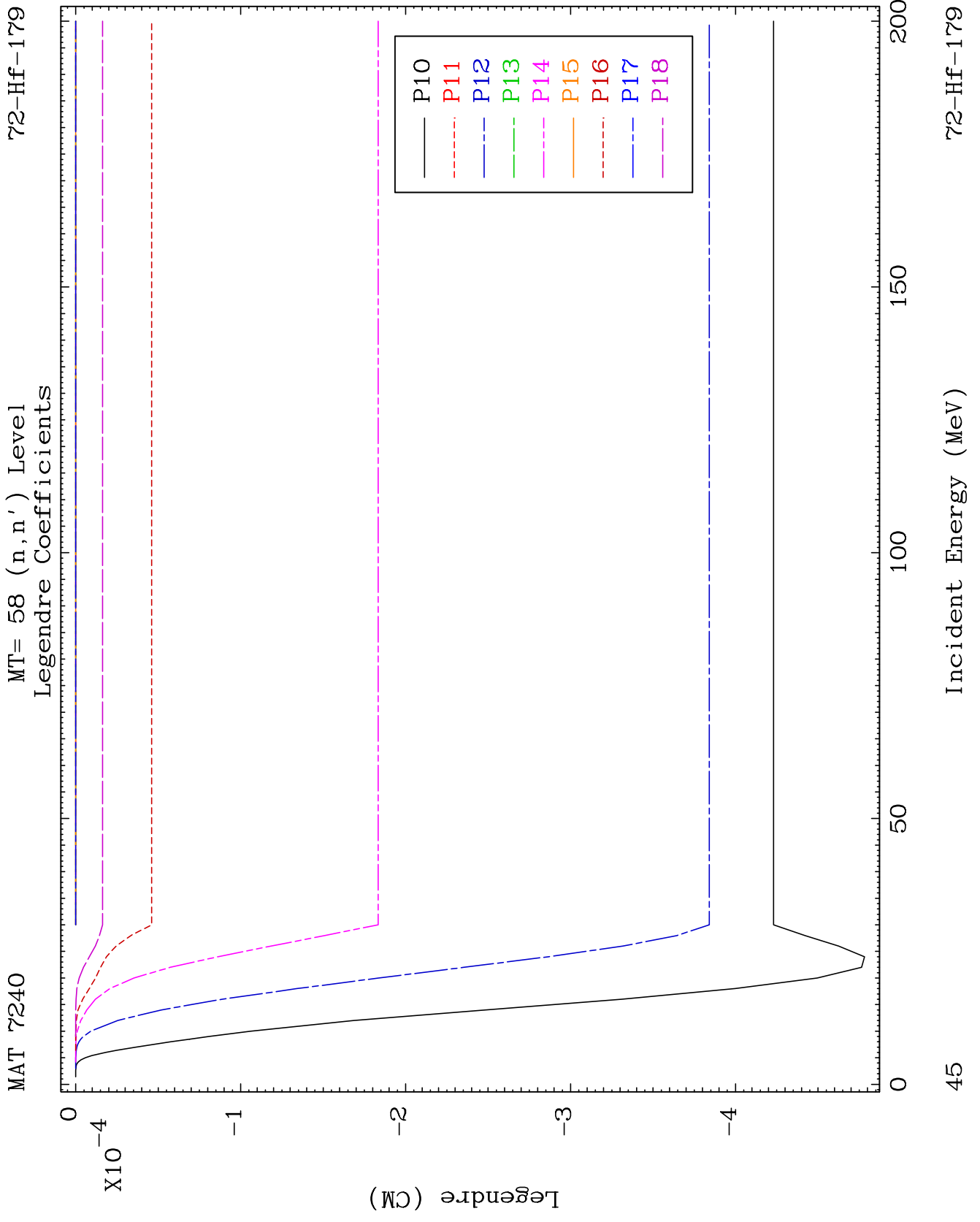


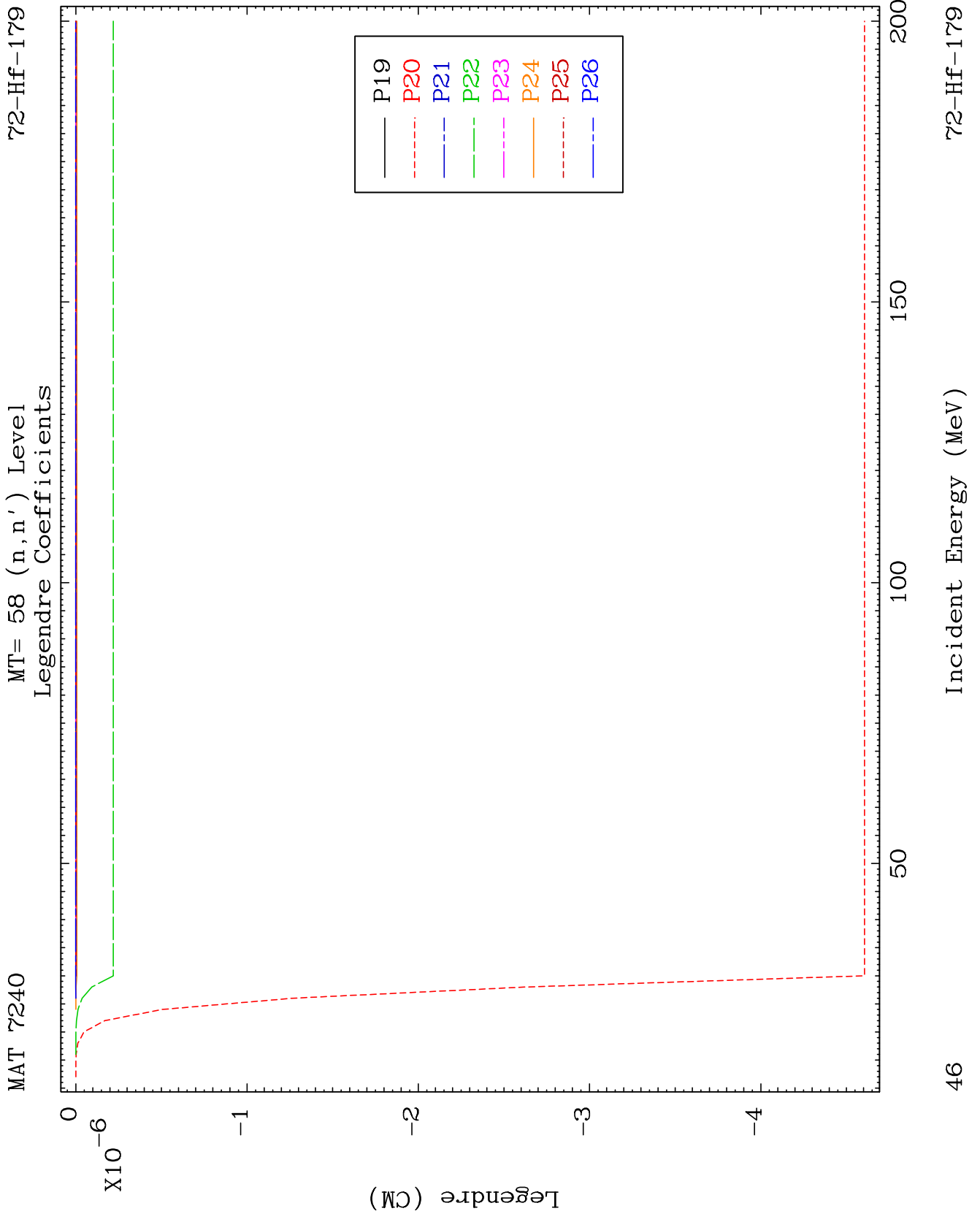
43

Incident Energy (MeV)

72-Hf-179



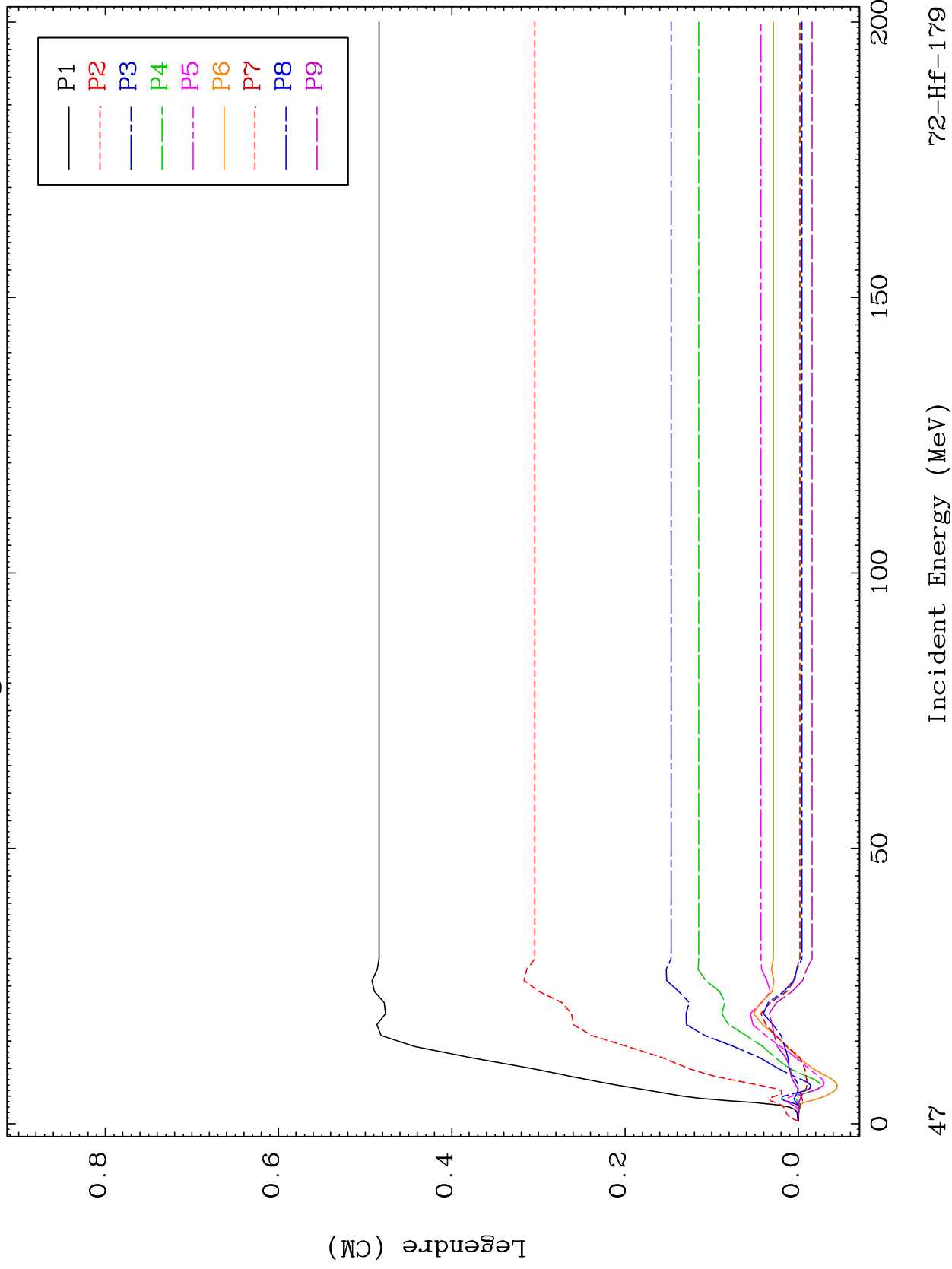




MAT 7240

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

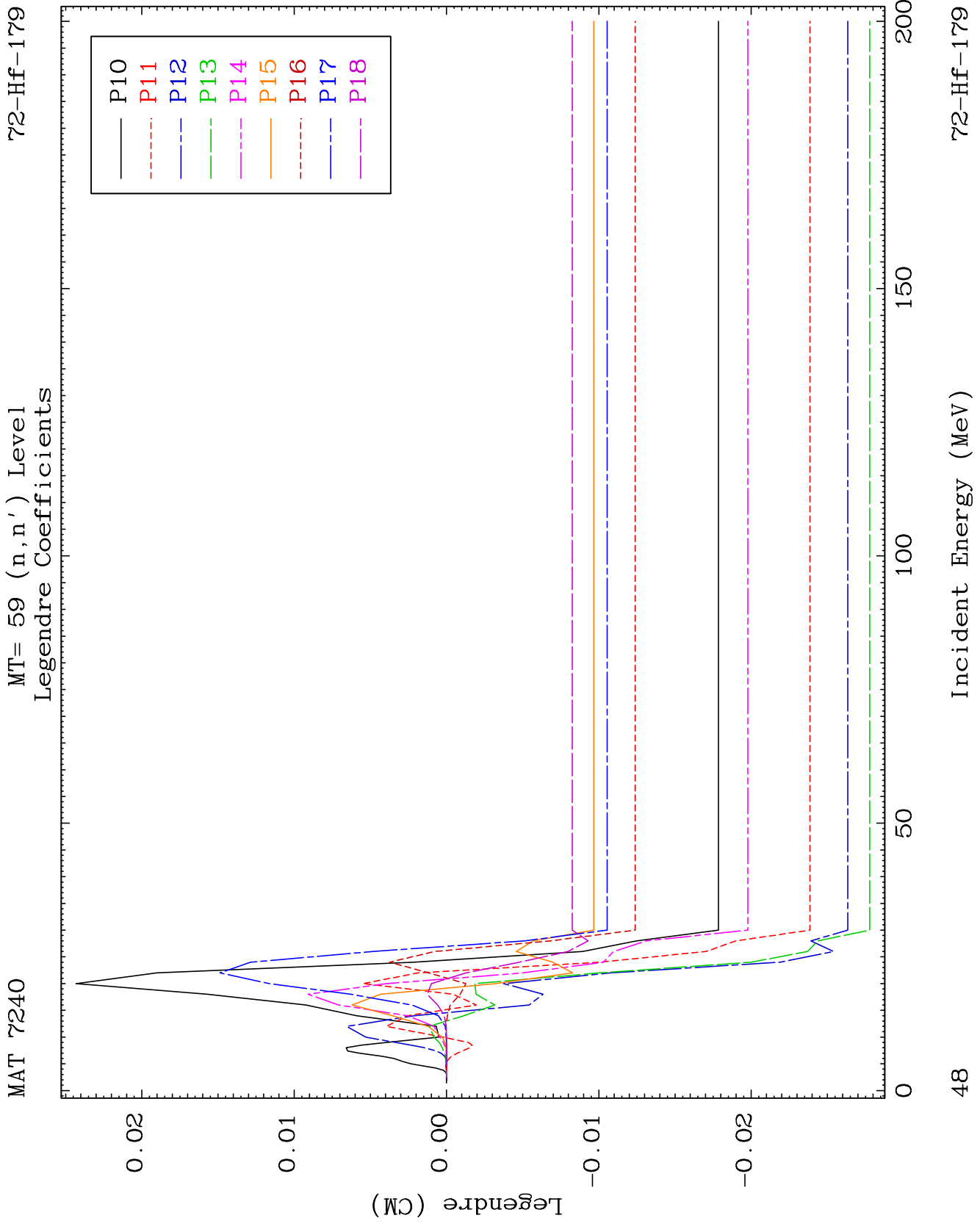
72-Hf-179



72-Hf-179

Incident Energy (MeV)

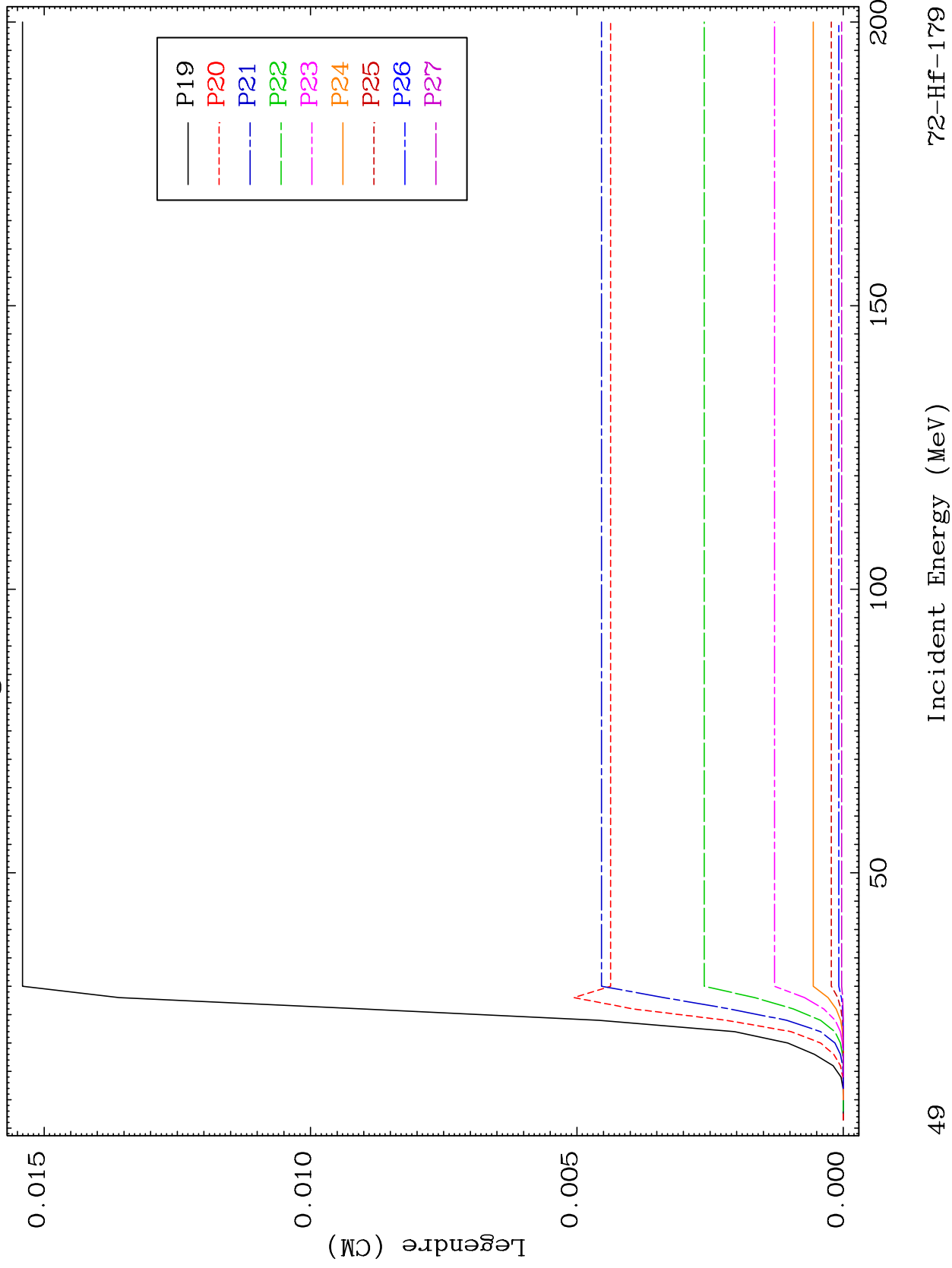
47



MAT 7240

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

72-Hf-179



49

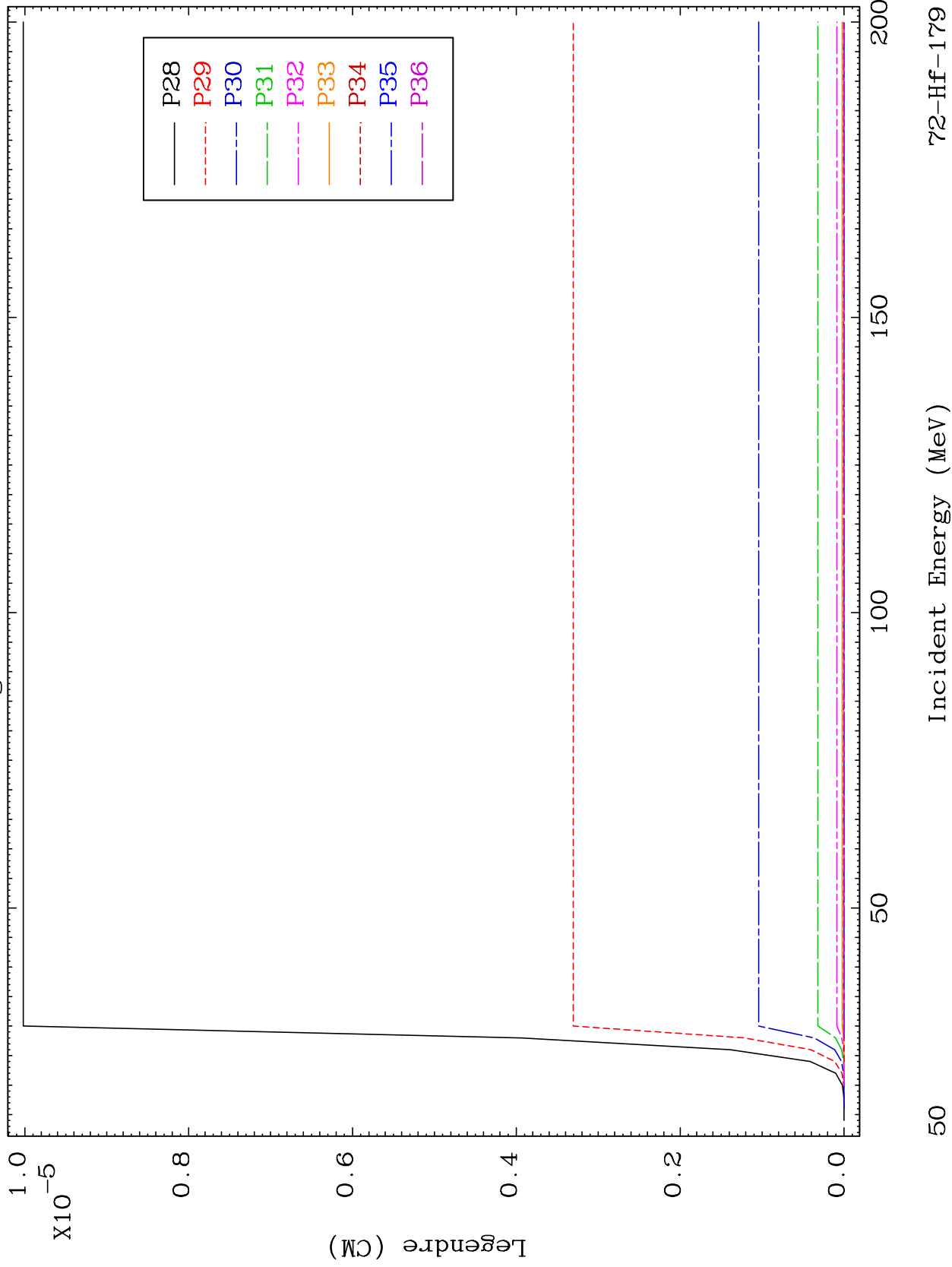
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

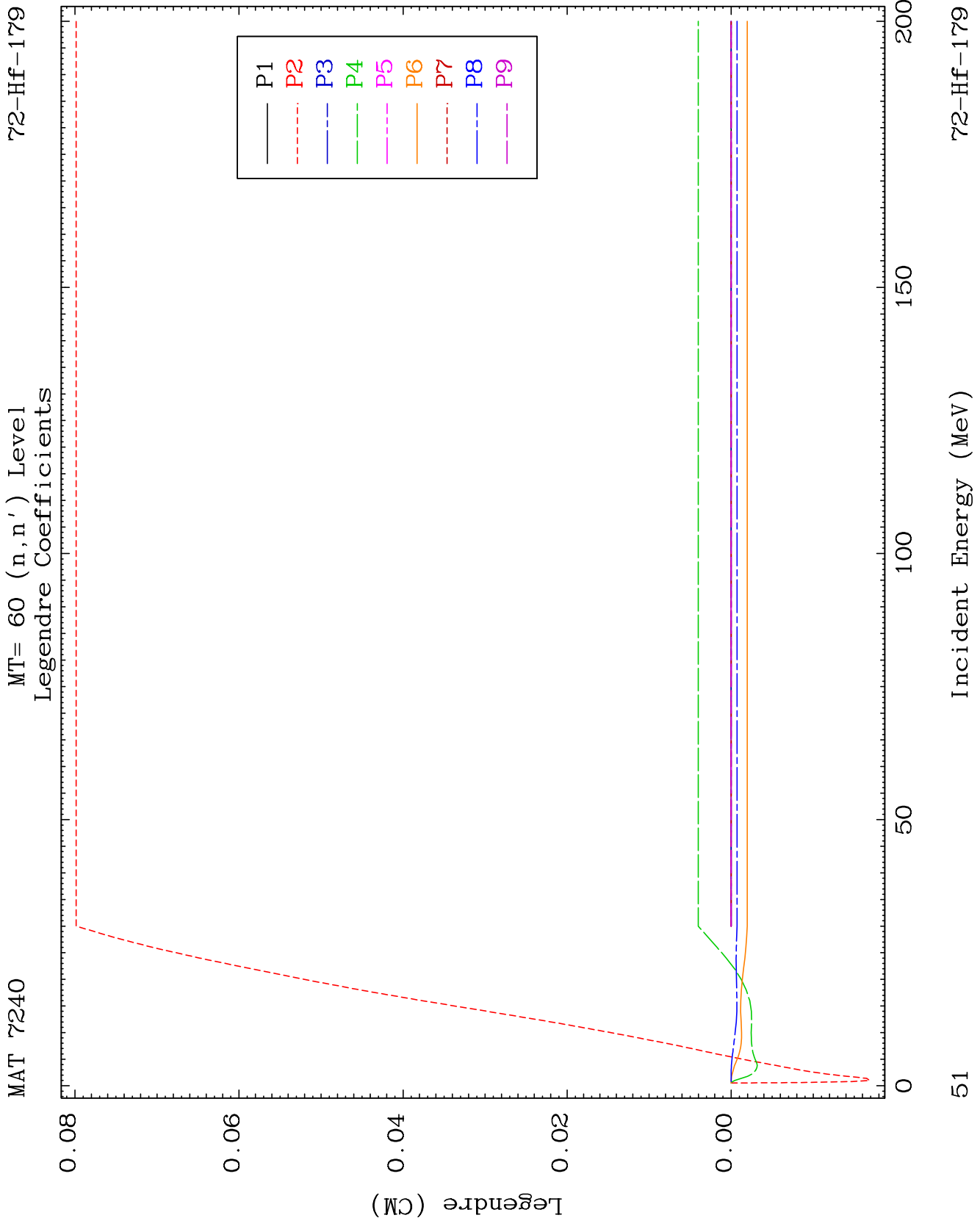
72-Hf-179

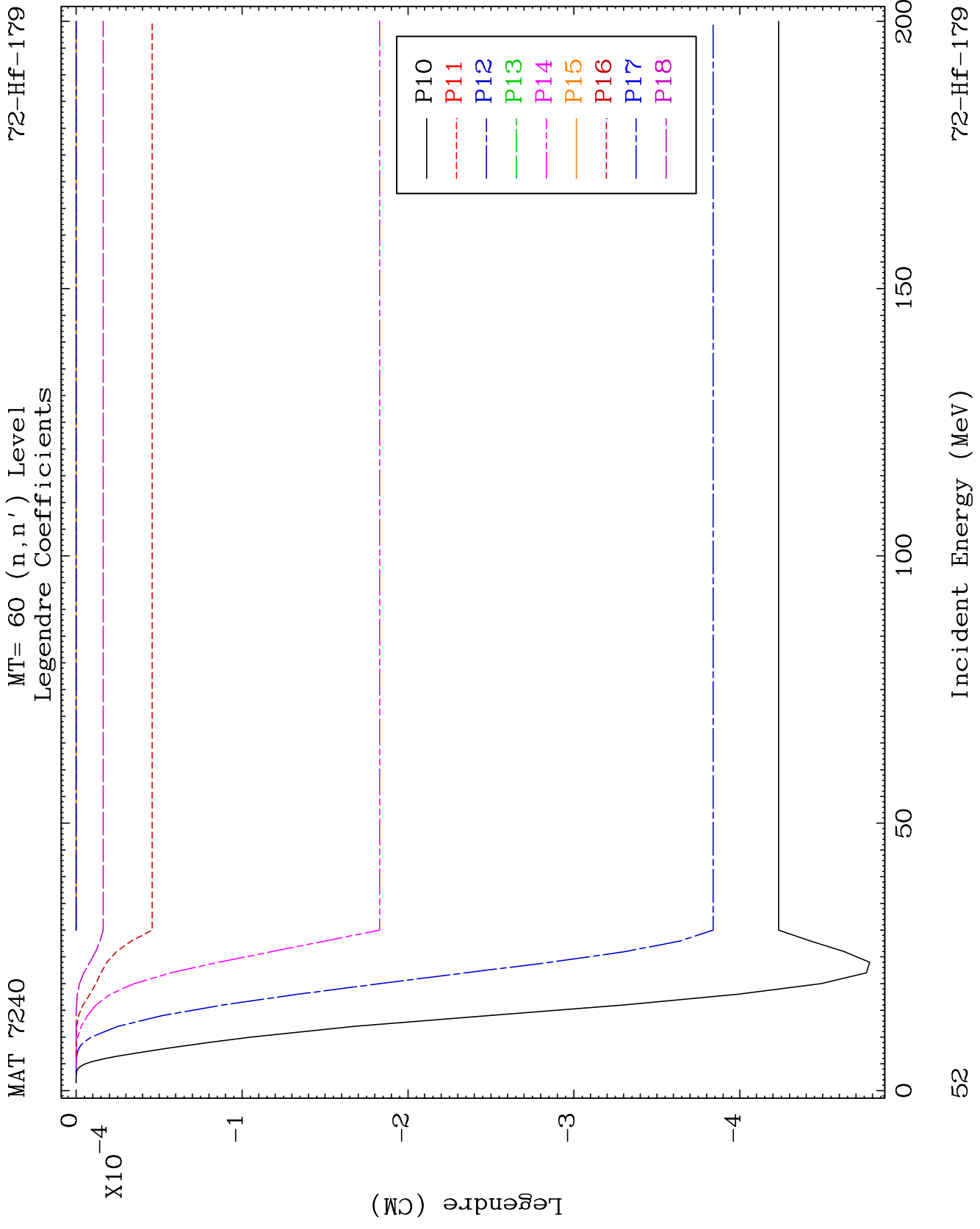


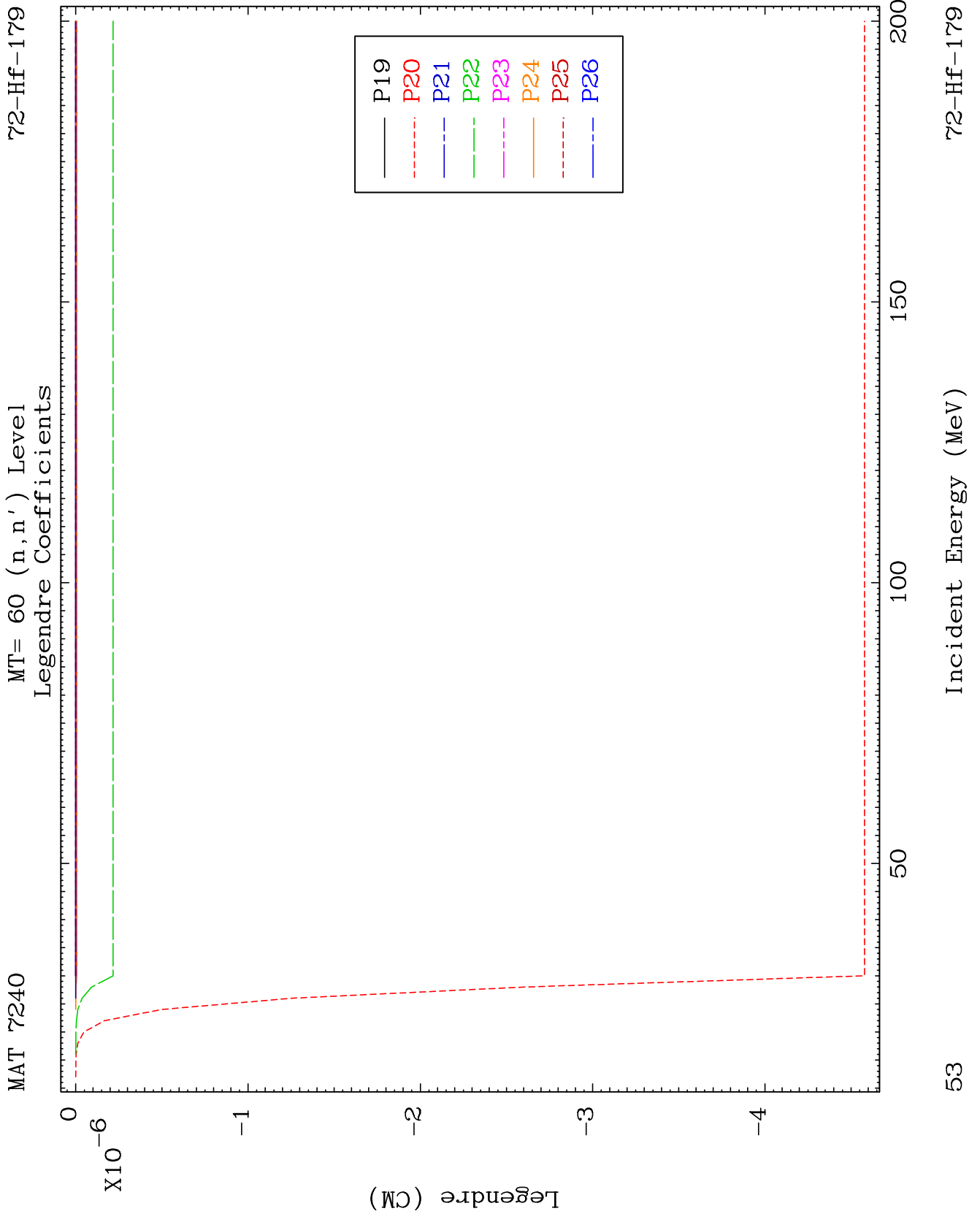
72-Hf-179

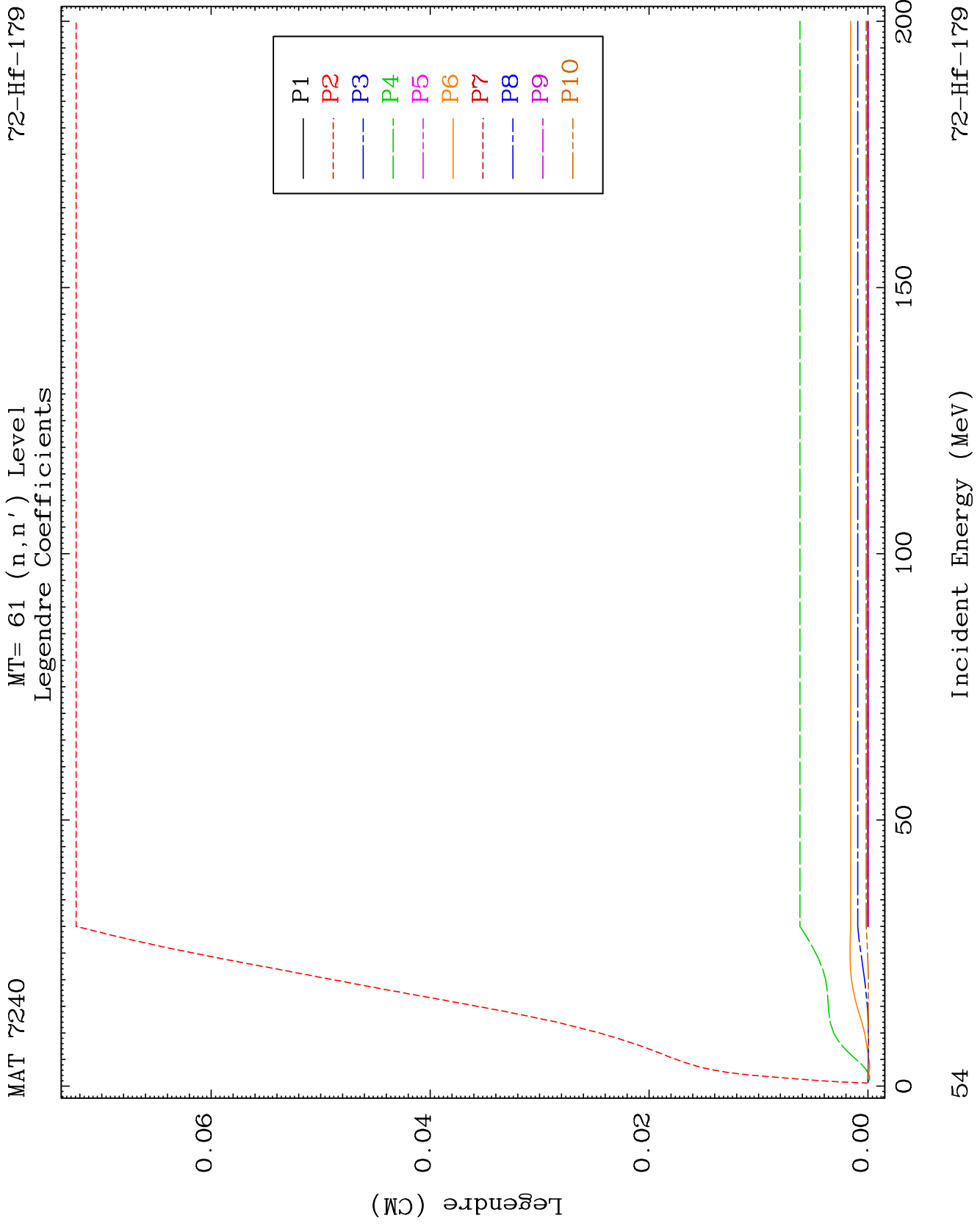
Incident Energy (MeV)

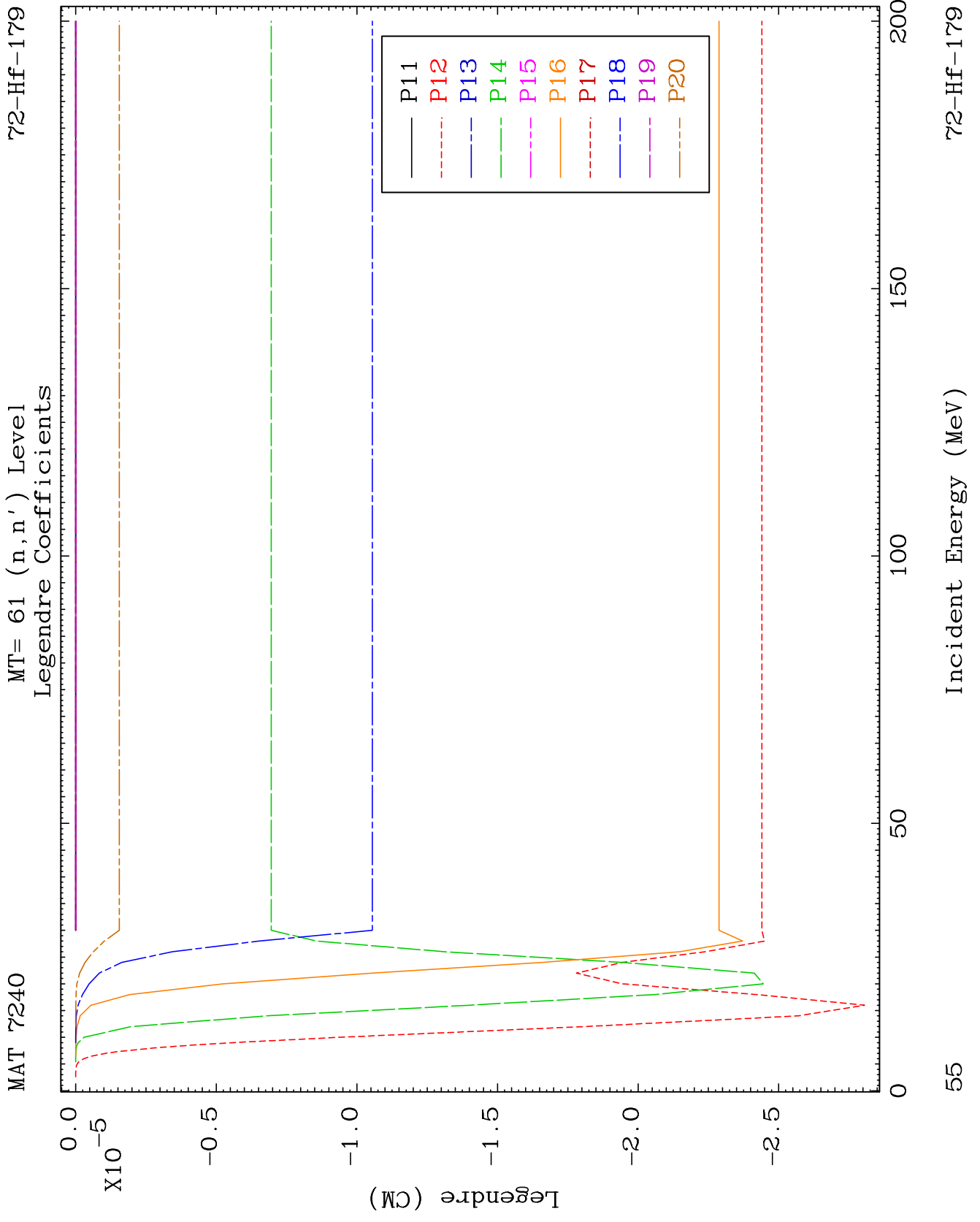
50

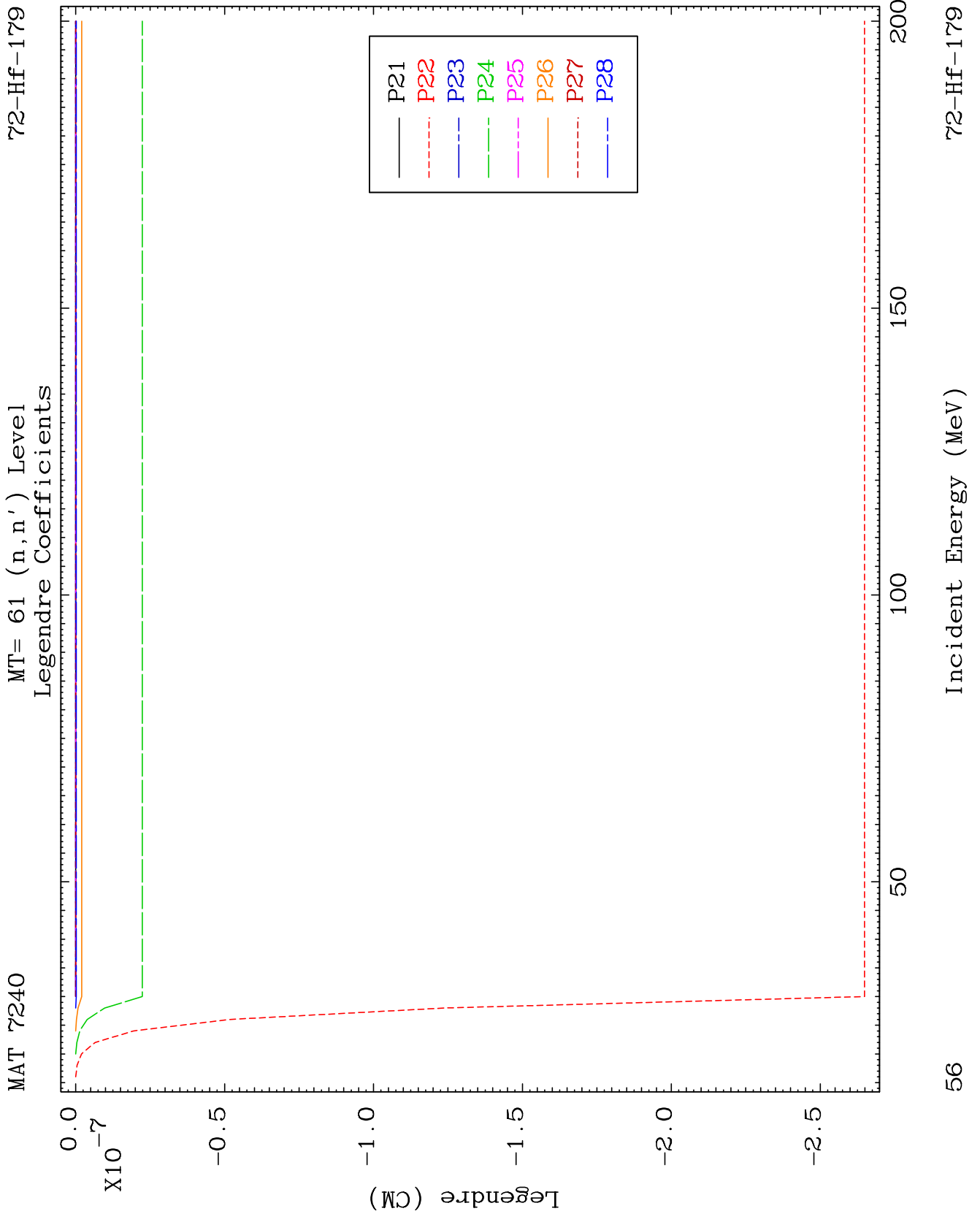








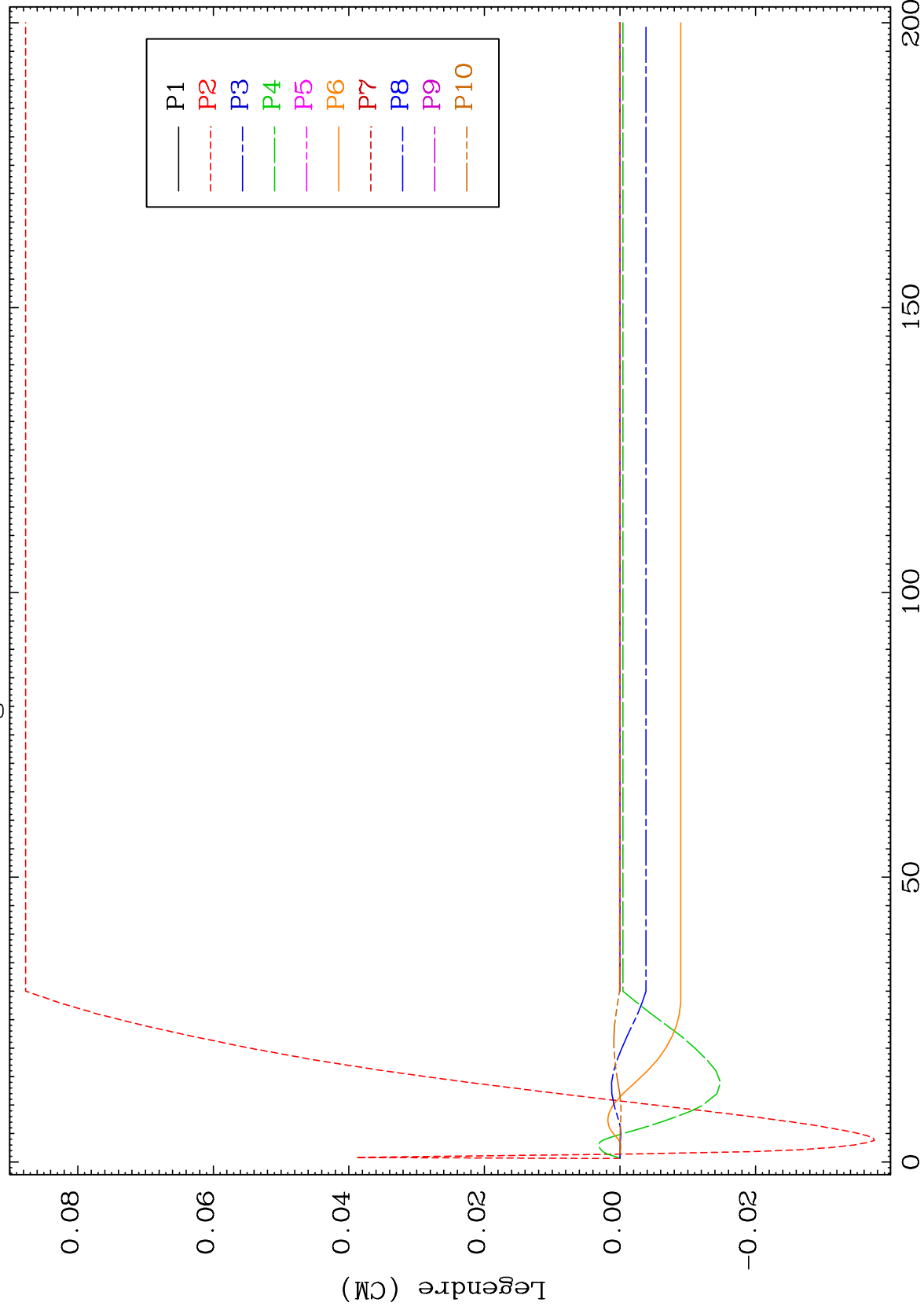




MAT 7240

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

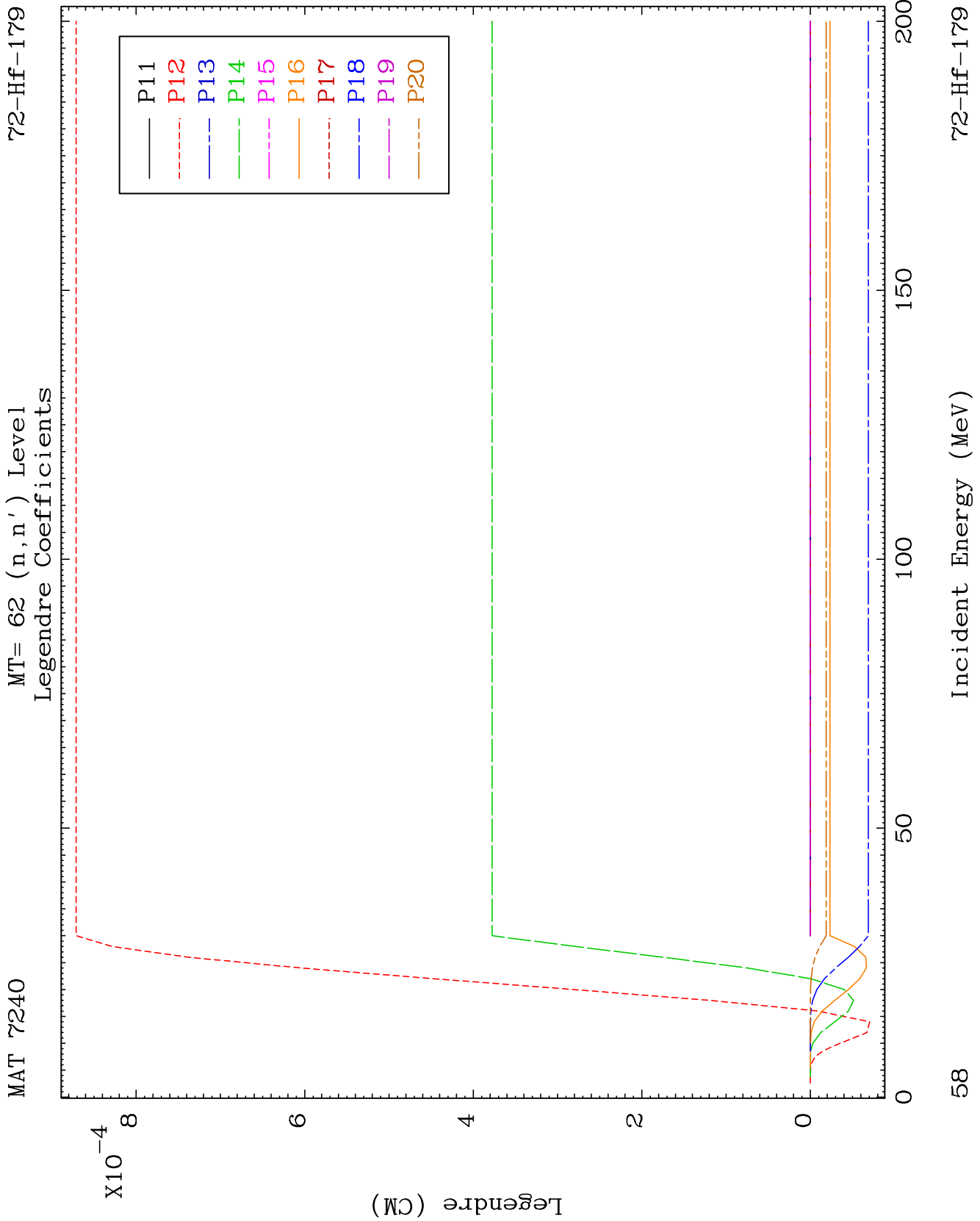
72-Hf-179

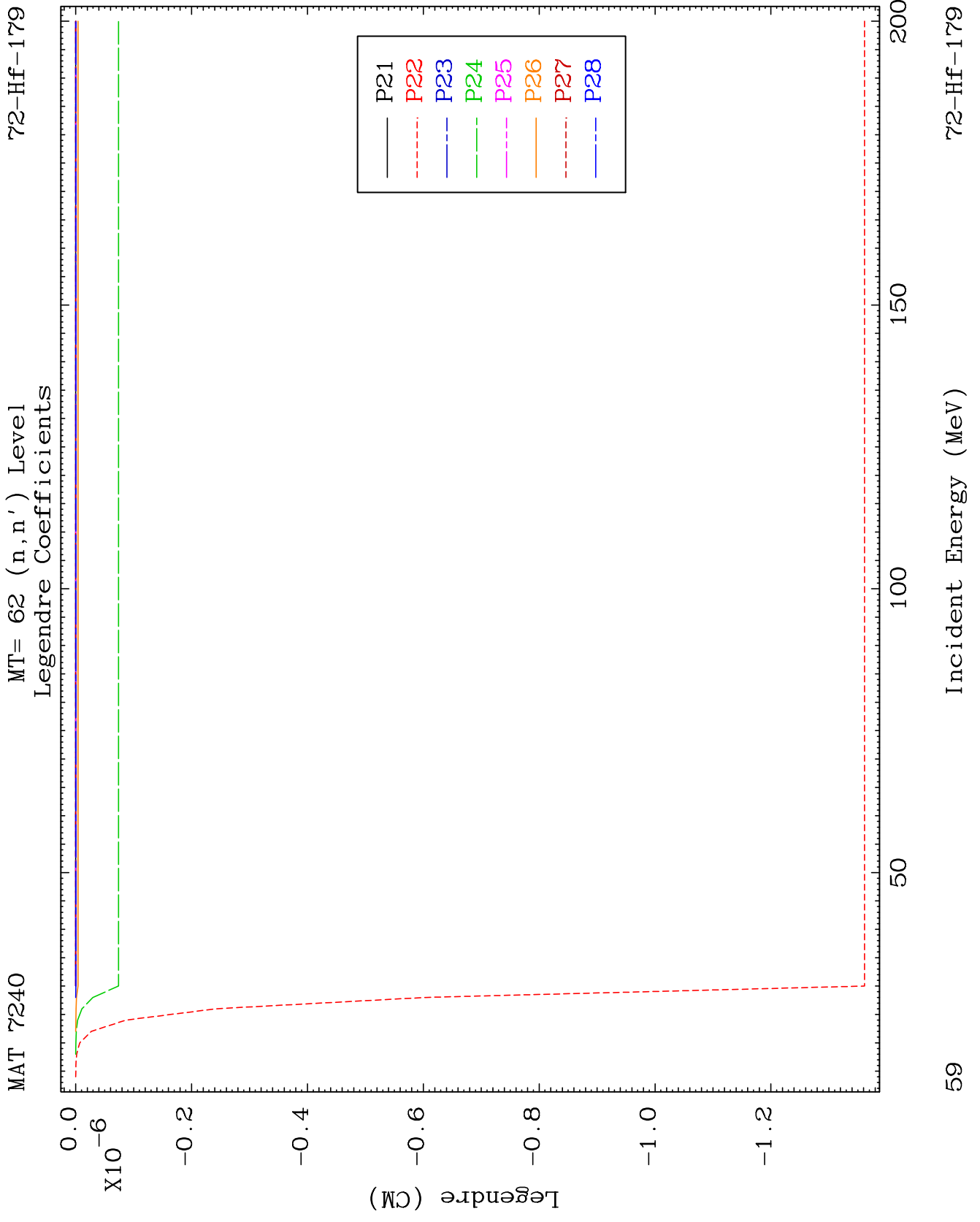


57

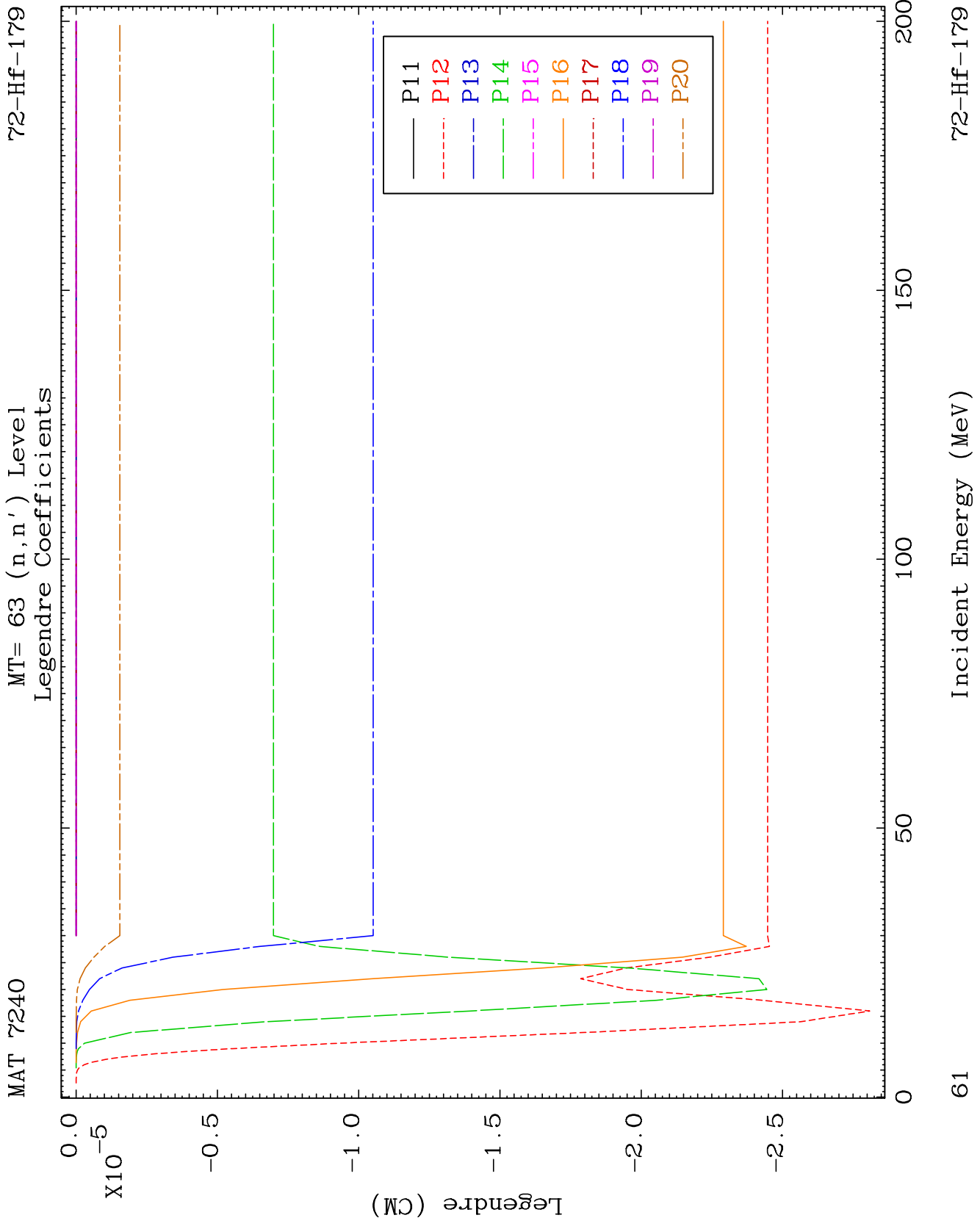
Incident Energy (MeV)

72-Hf-179



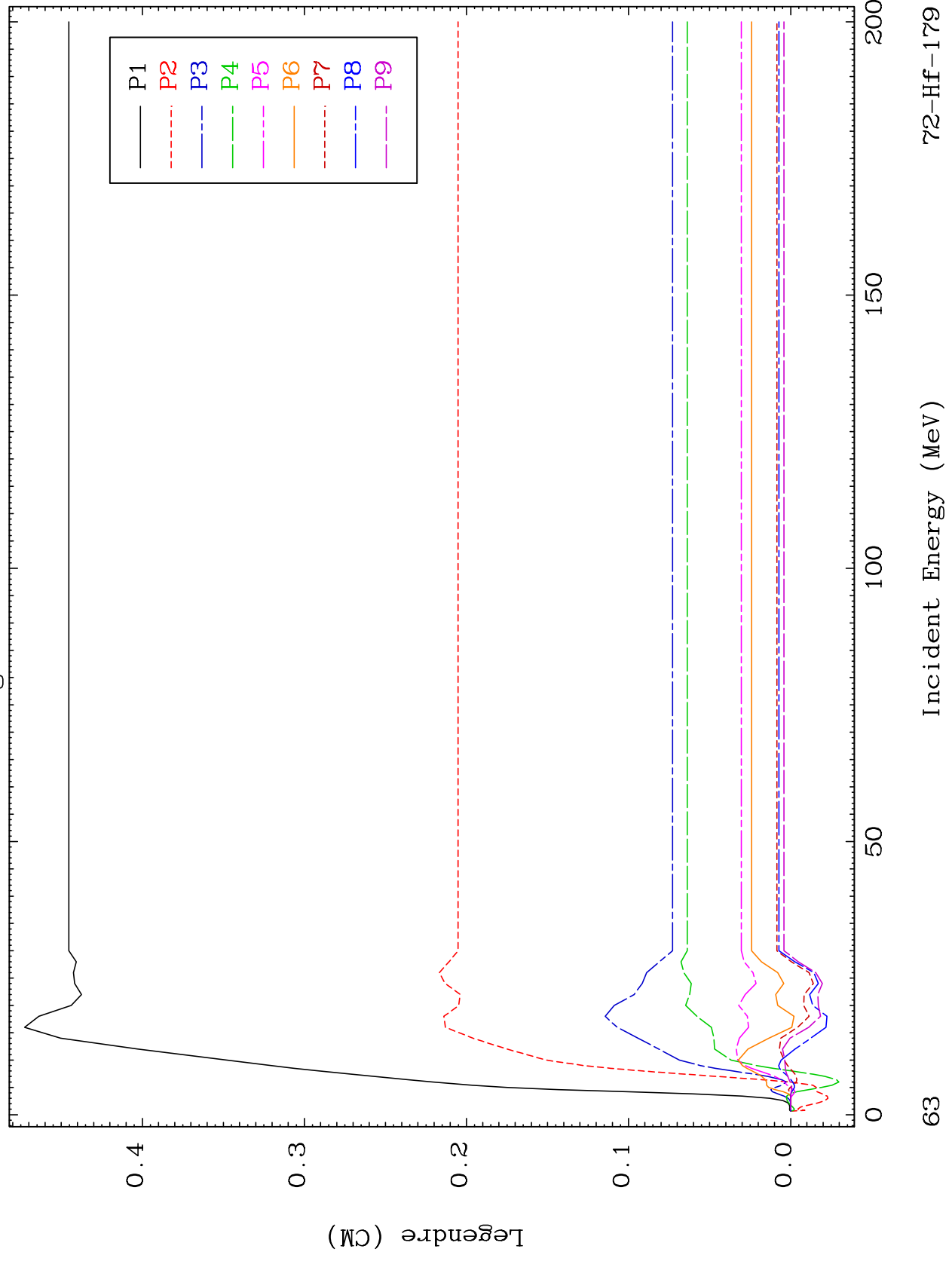








MAT 7240 MT= 64 (n,n') Level Legendre Coefficients 72-Hf-179

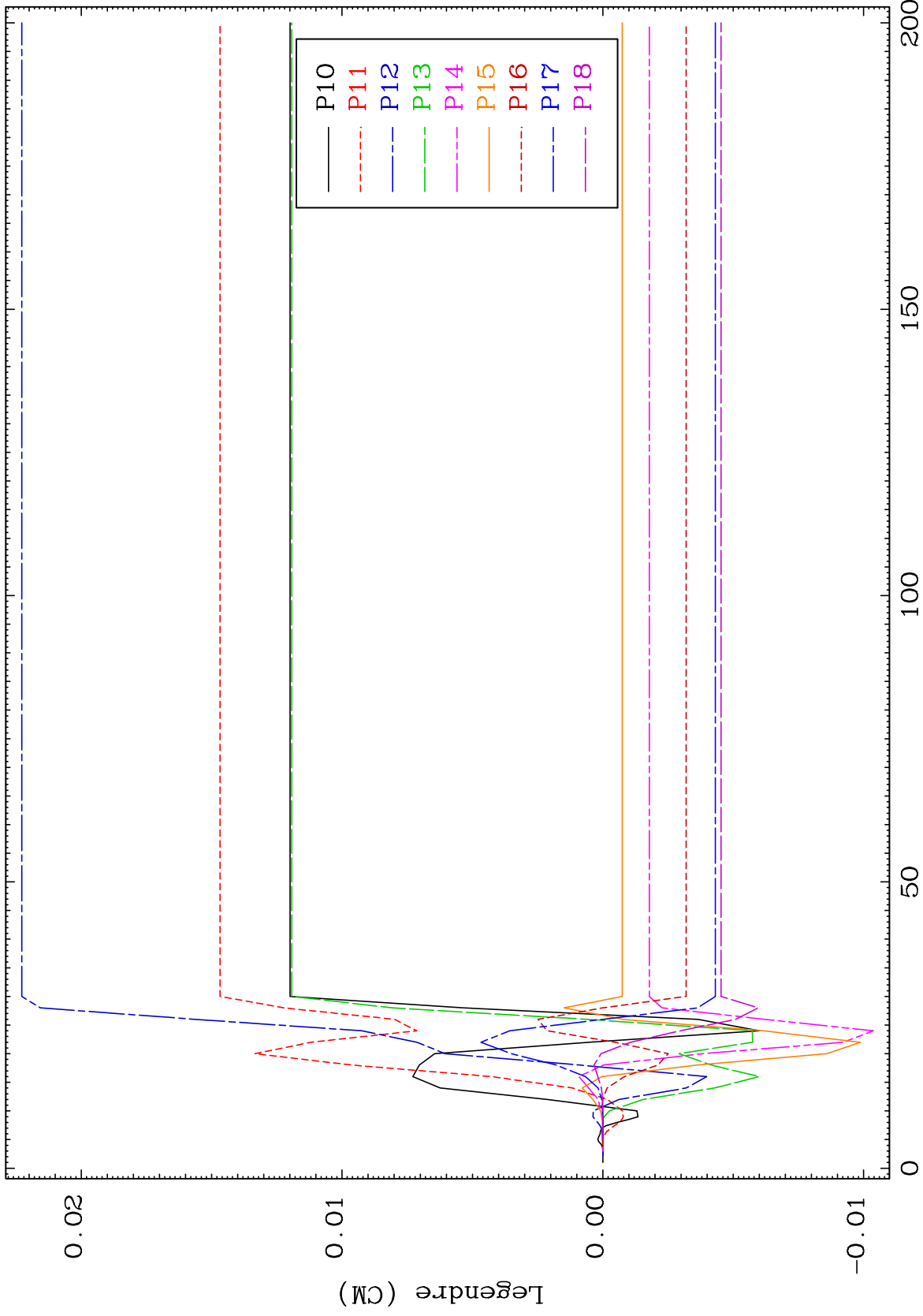


63 72-Hf-179

MAT 7240

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

72-Hf-179



64

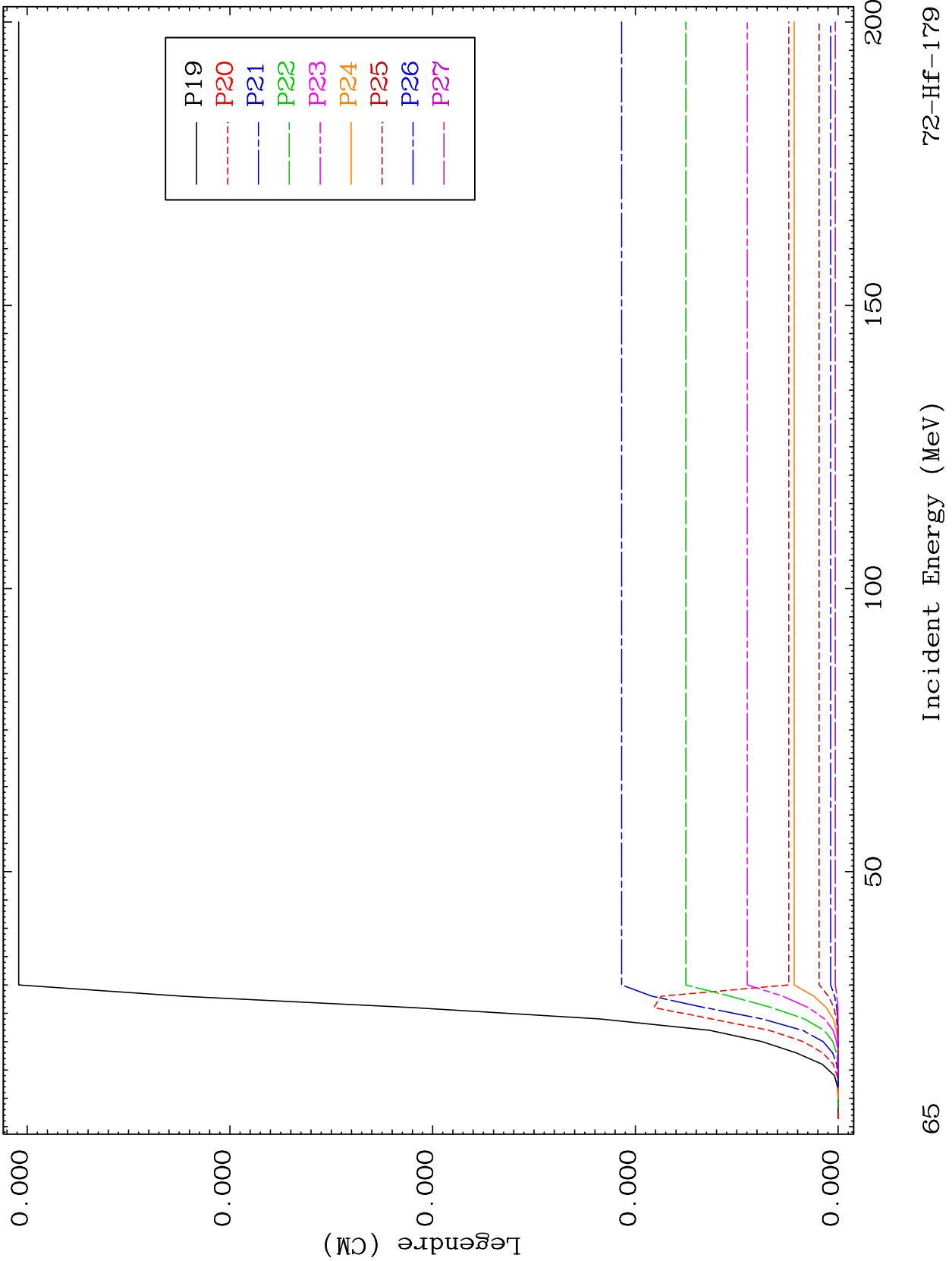
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



65

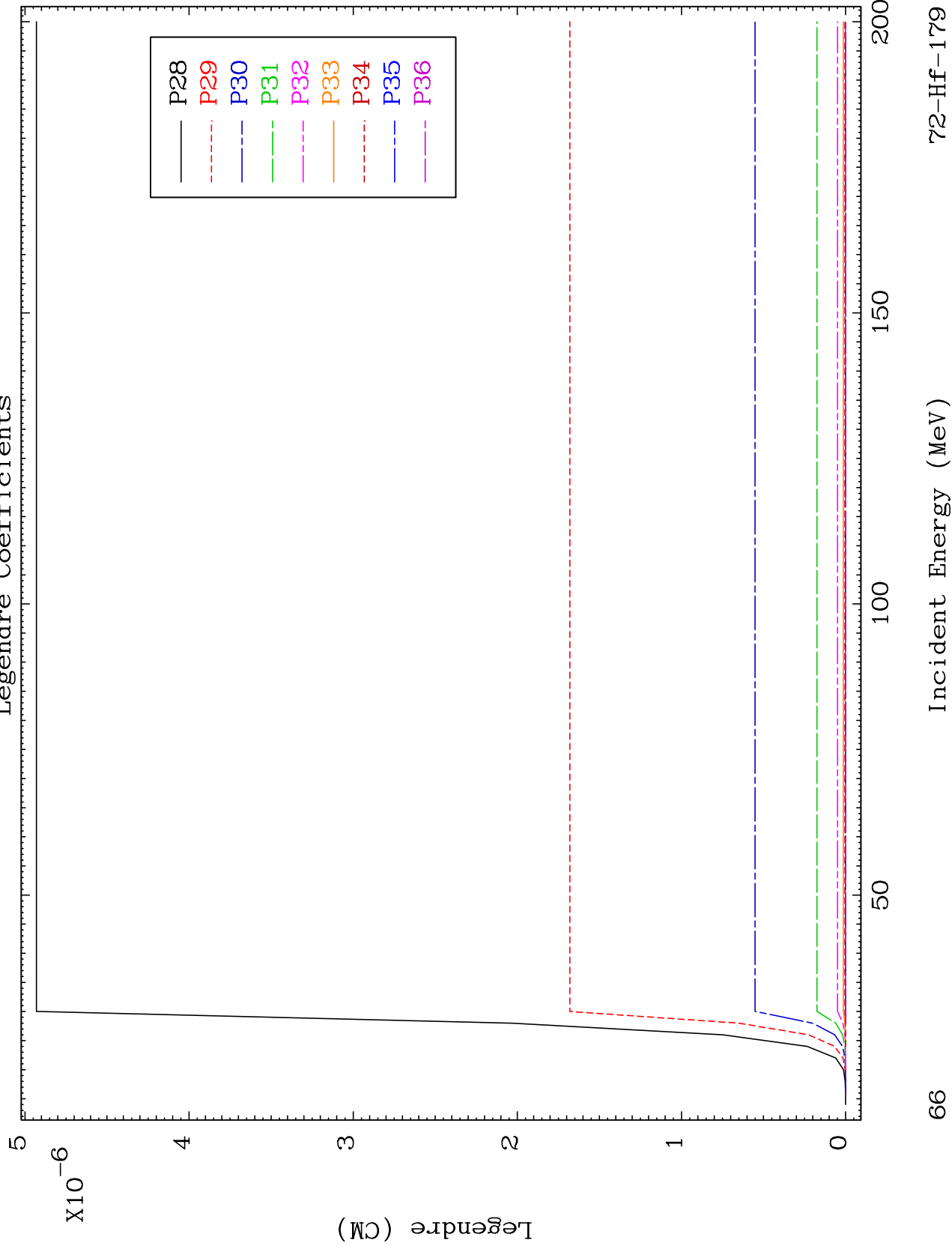
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179

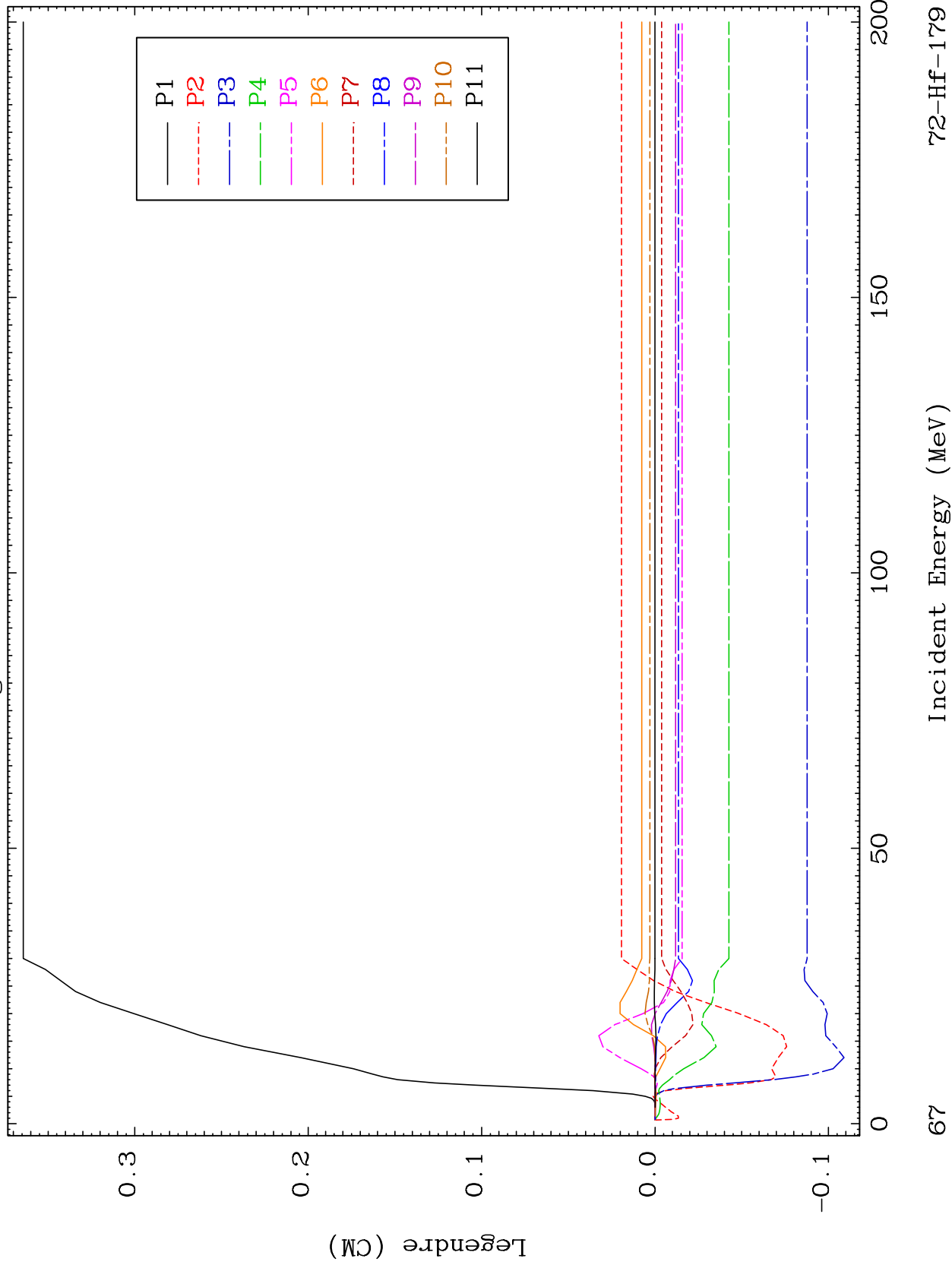


66

MAT 7240

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

72-Hf-179



72-Hf-179

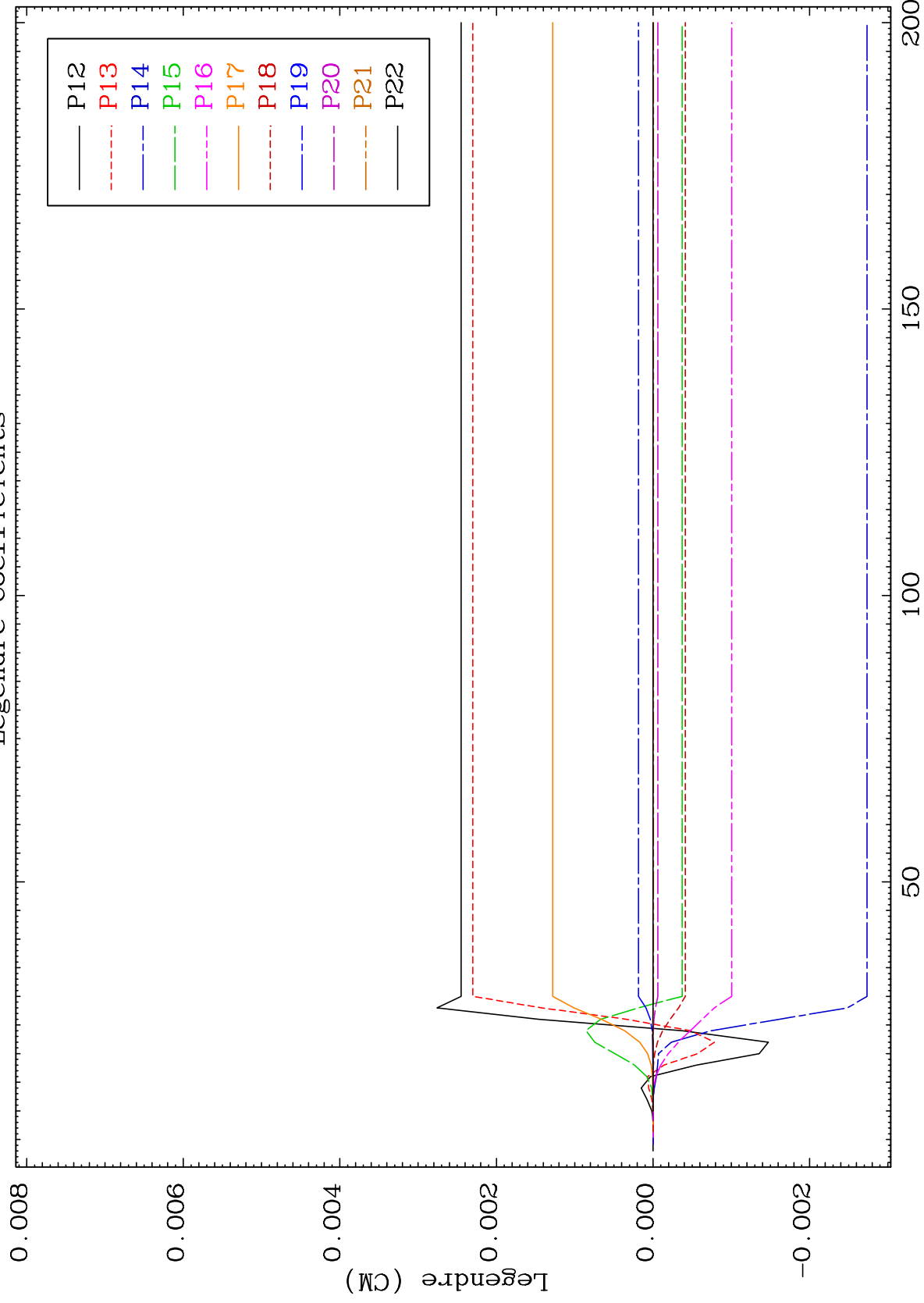
Incident Energy (MeV)

67

MAT 7240

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

72-Hf-179



68

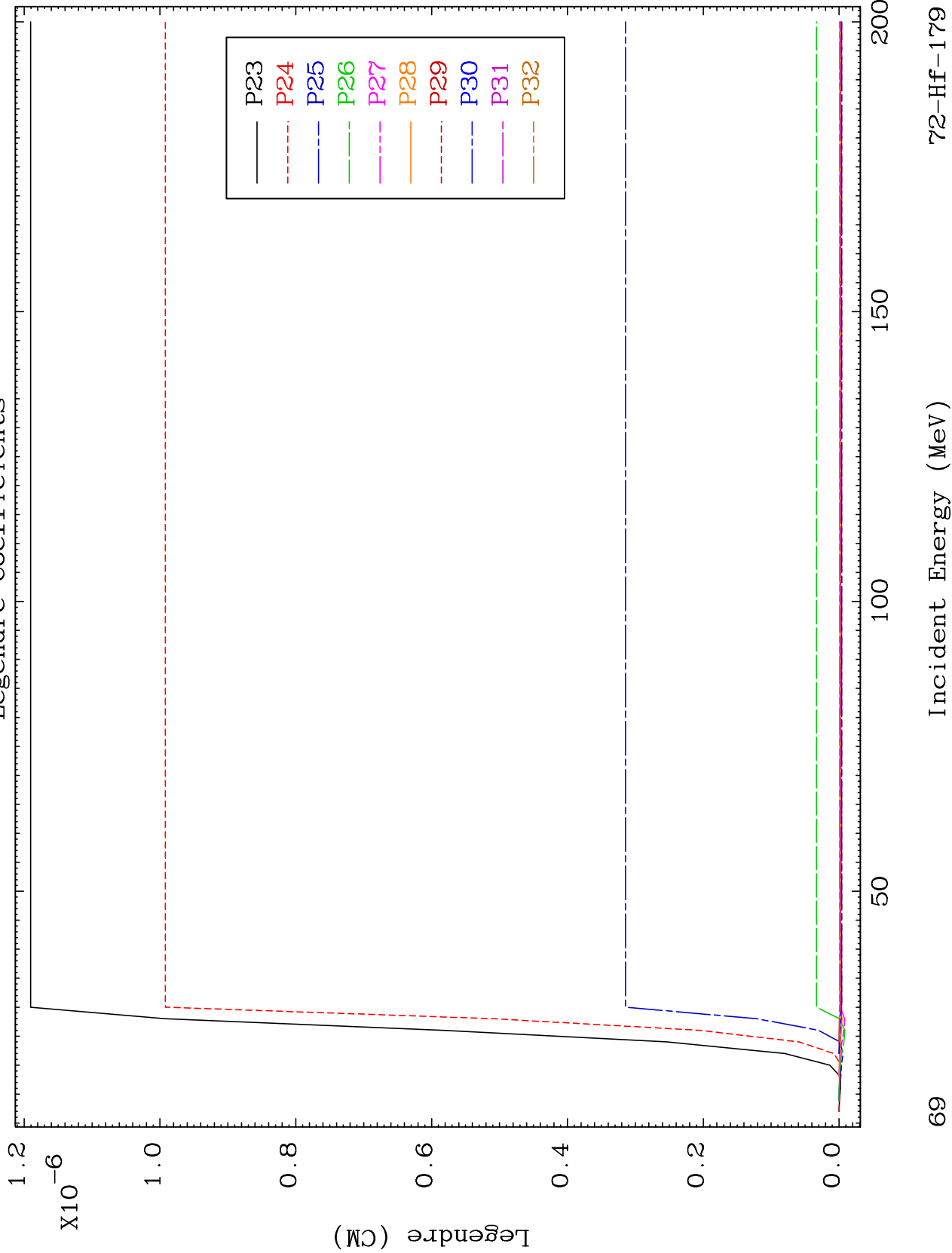
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



69

Incident Energy (MeV)

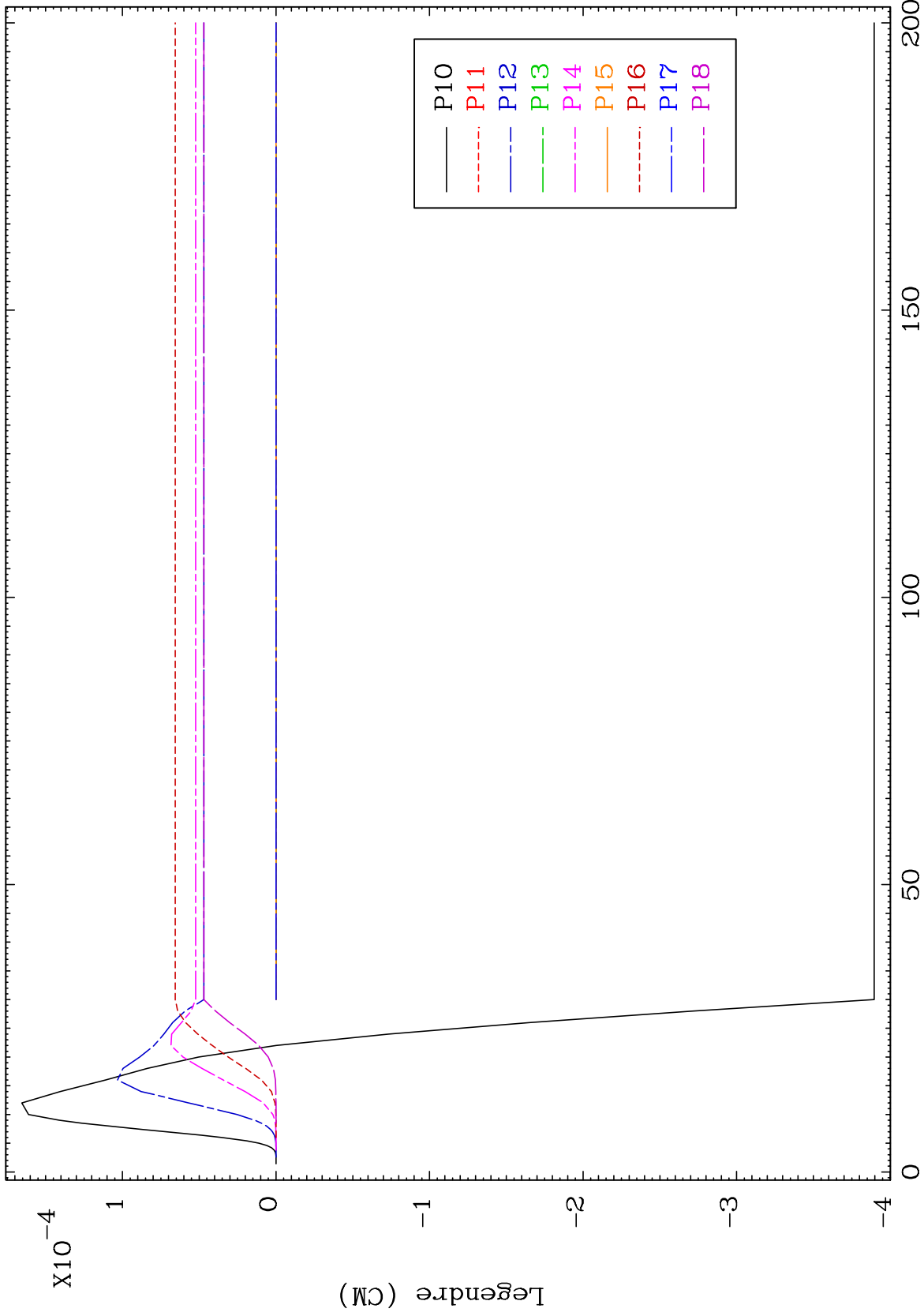
72-Hf-179



MAT 7240

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

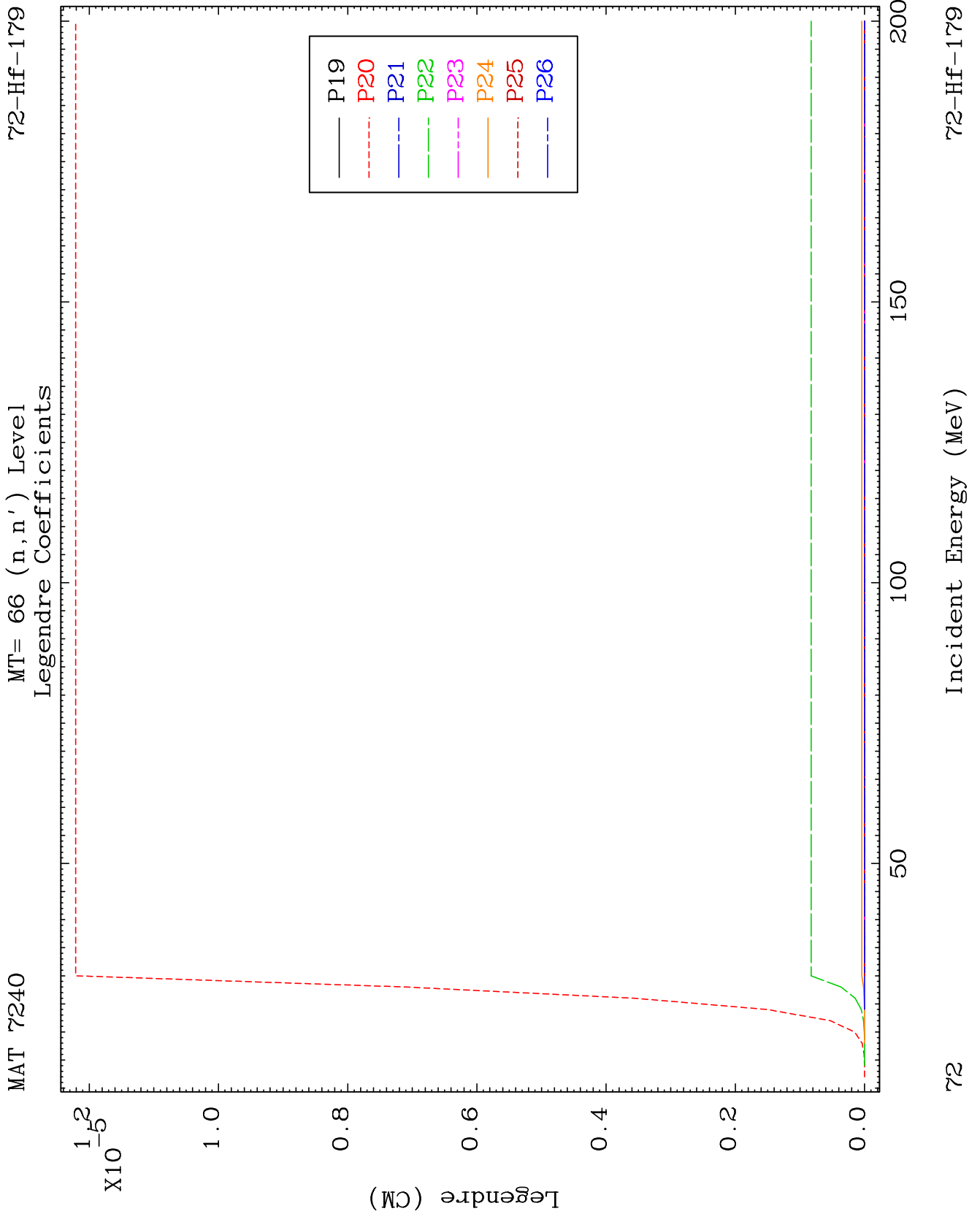
72-Hf-179



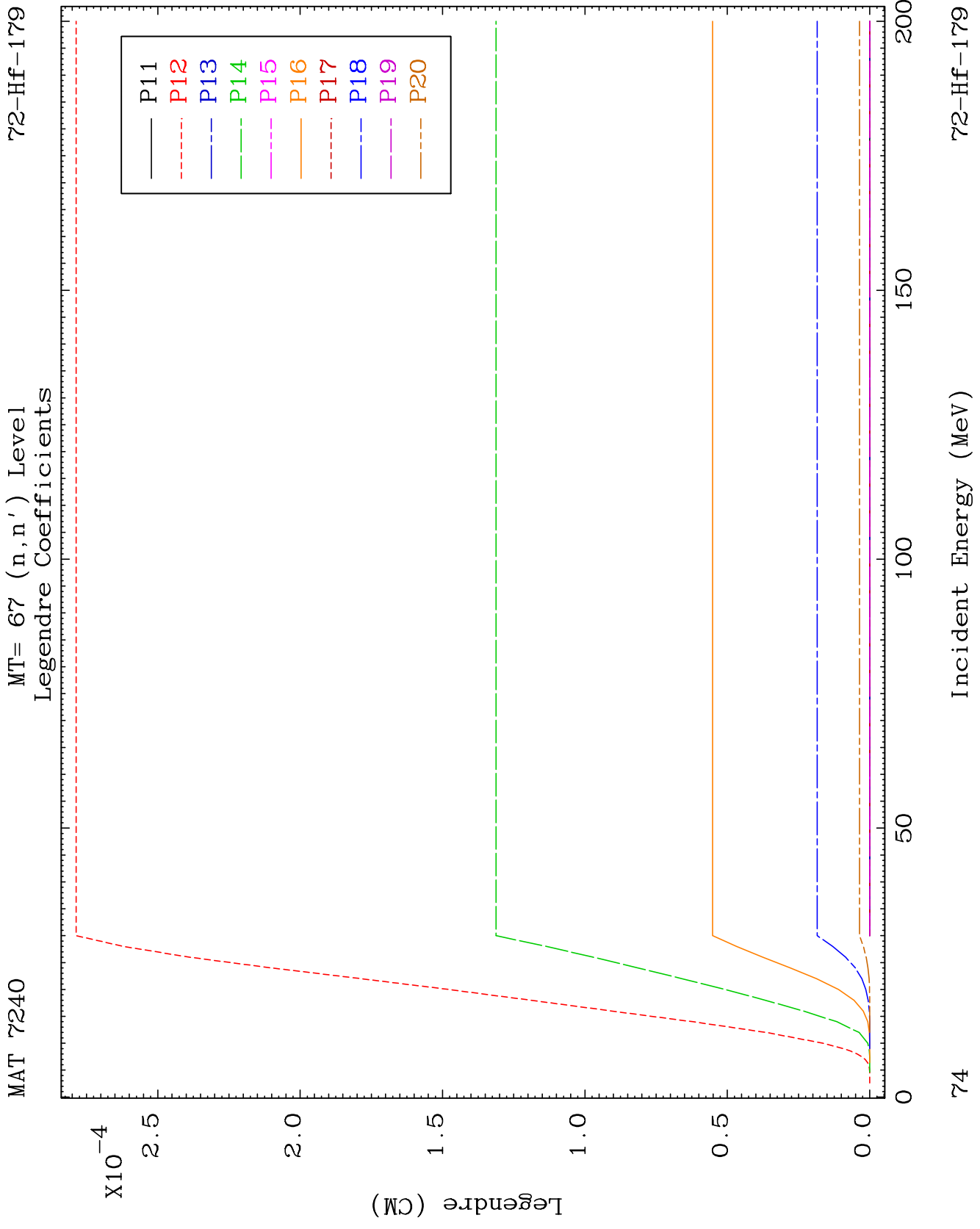
71

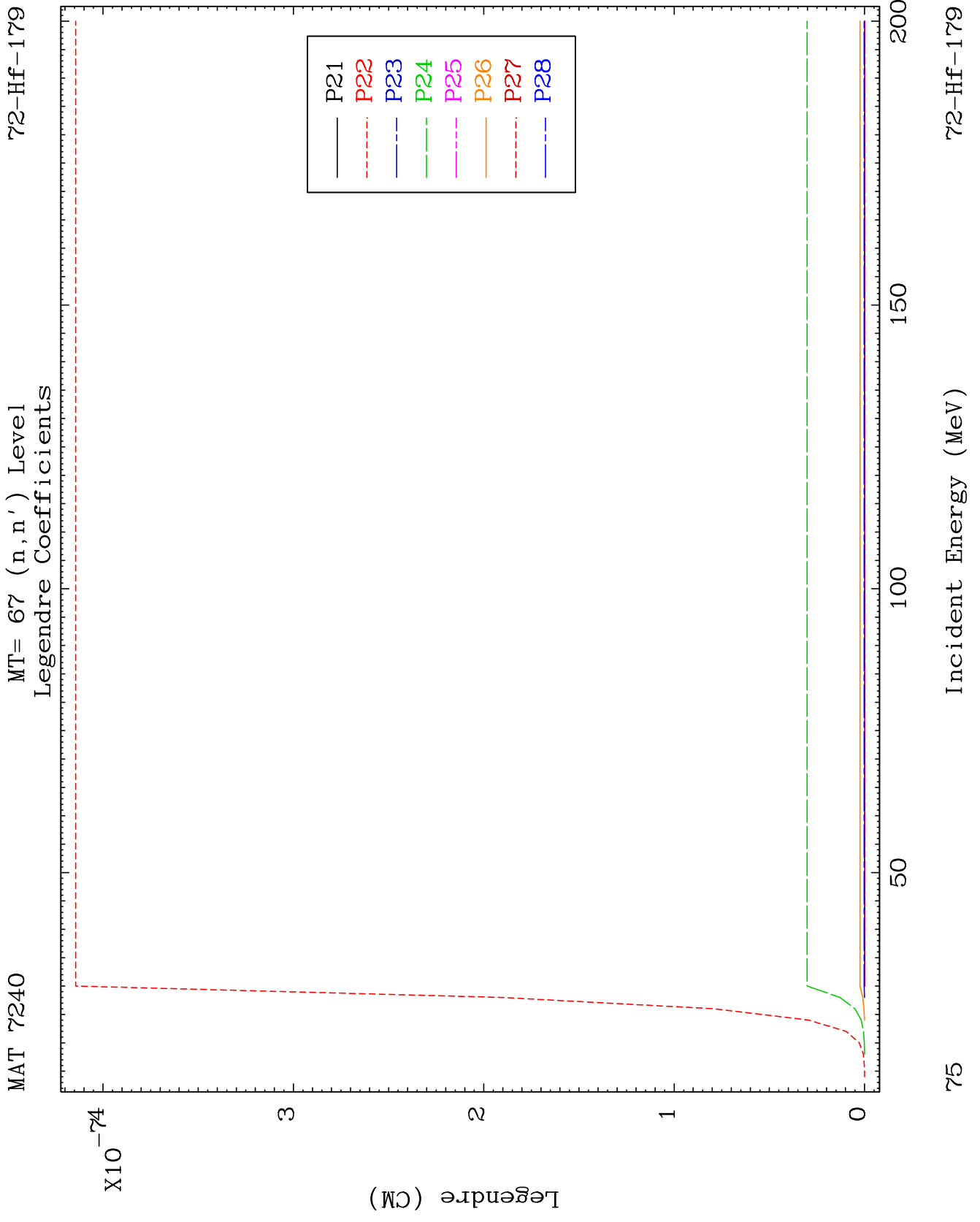
Incident Energy (MeV)

72-Hf-179

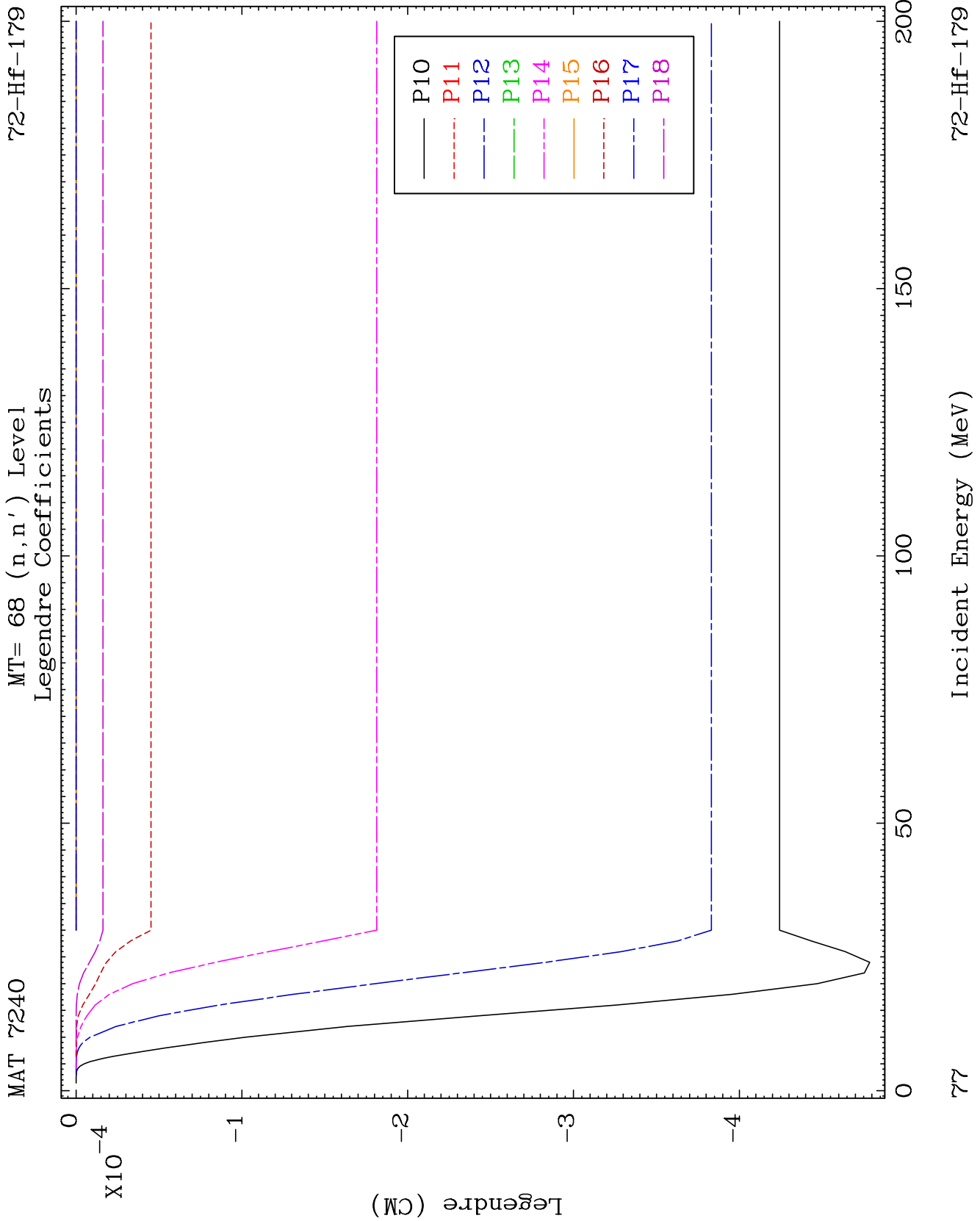








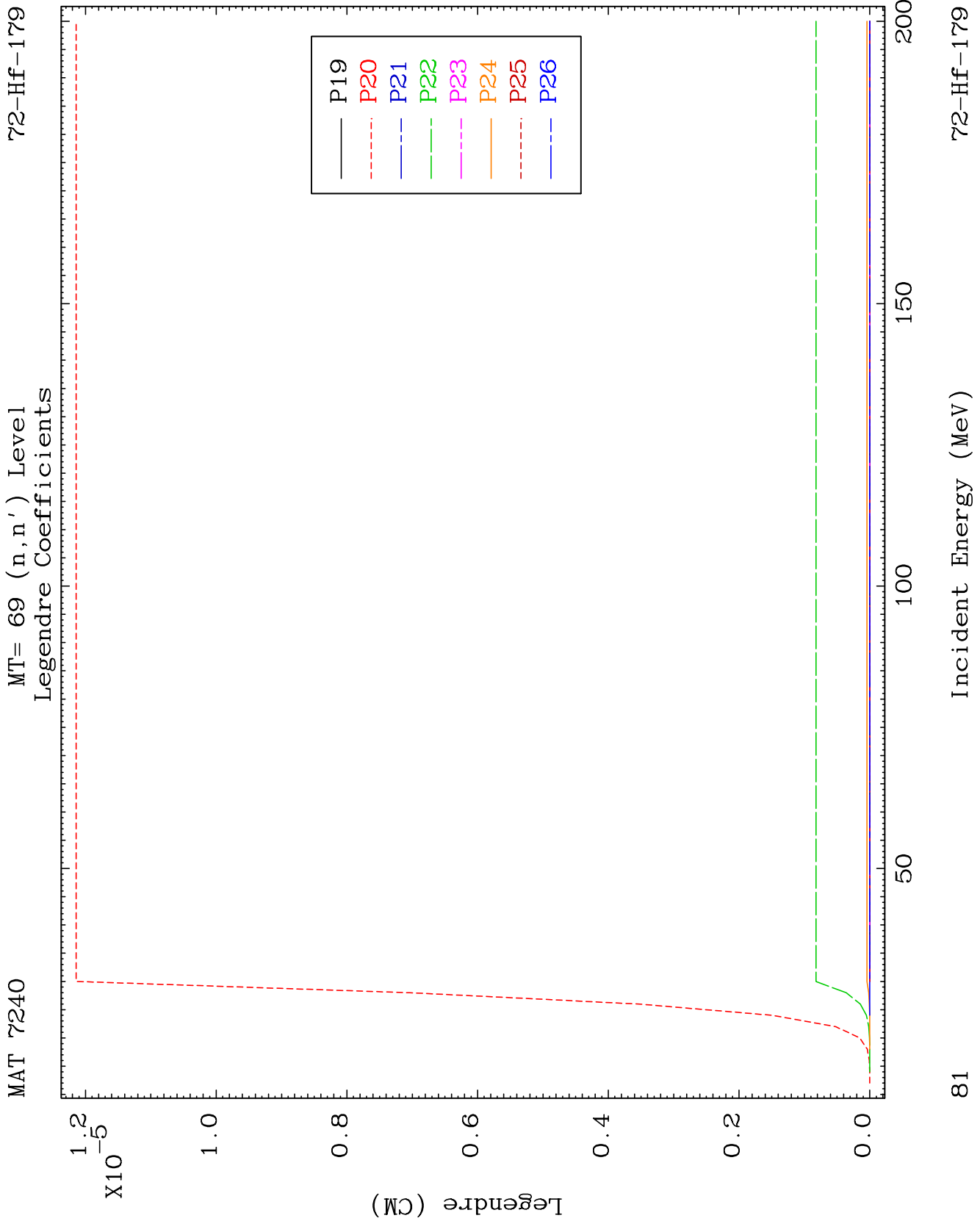


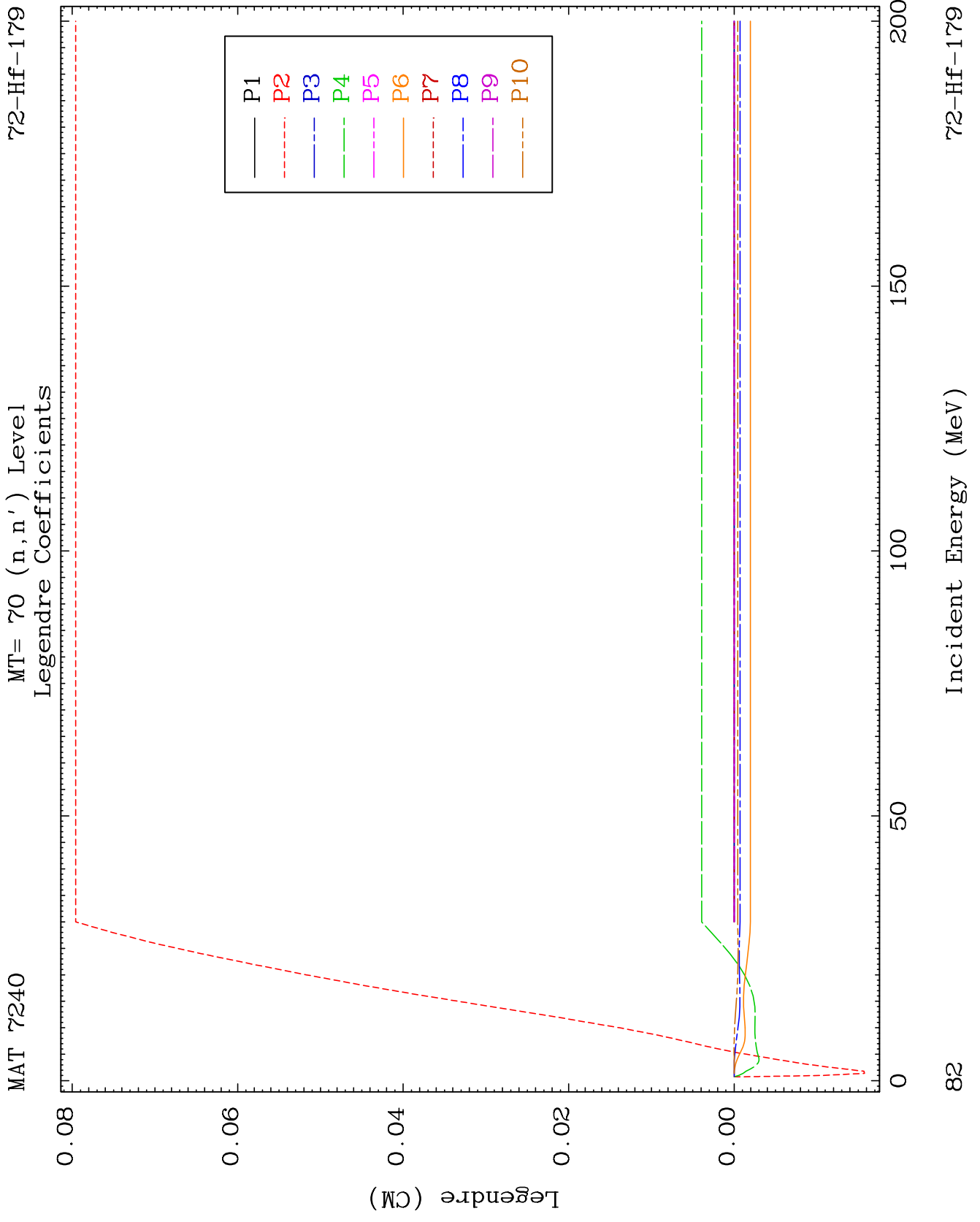


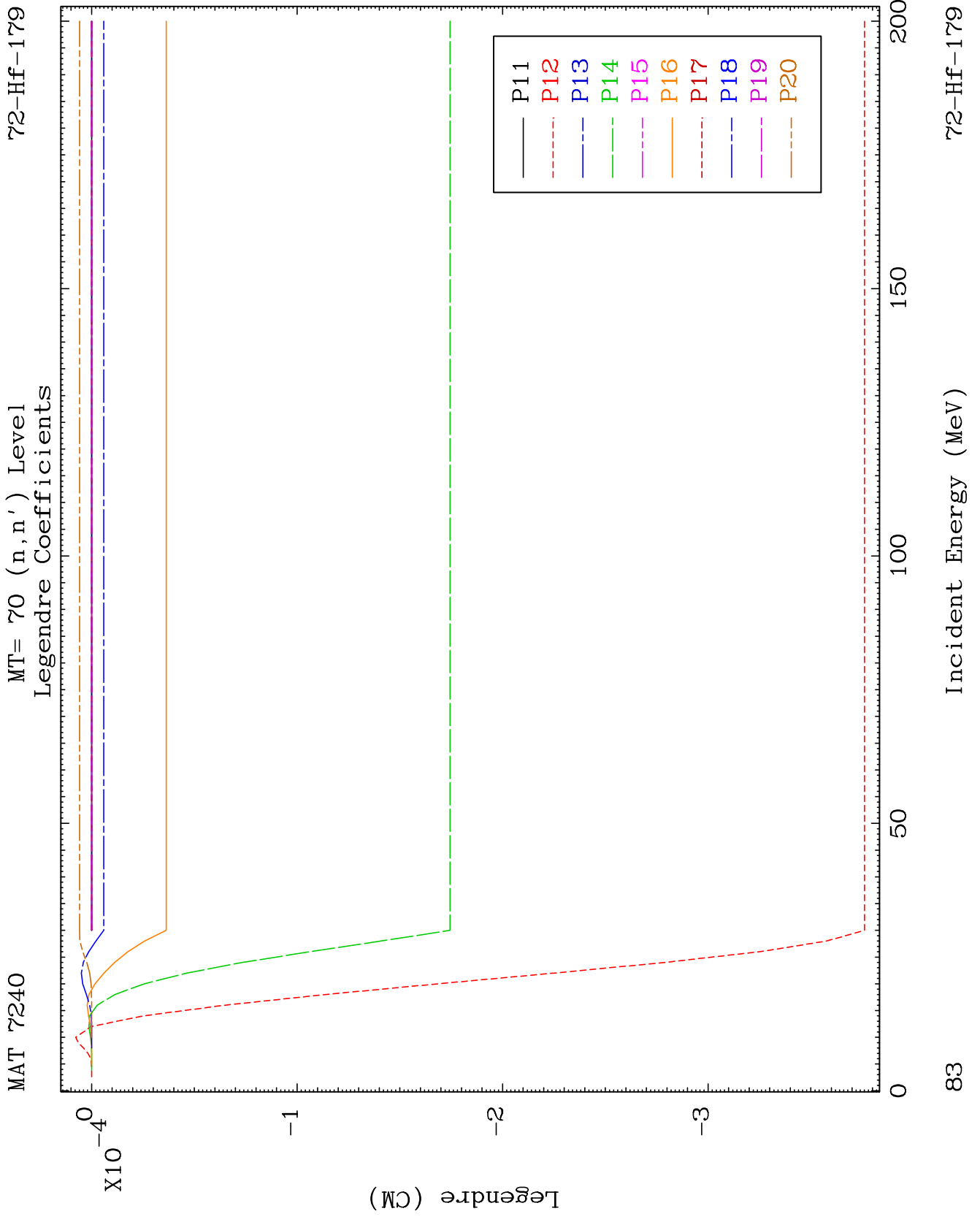






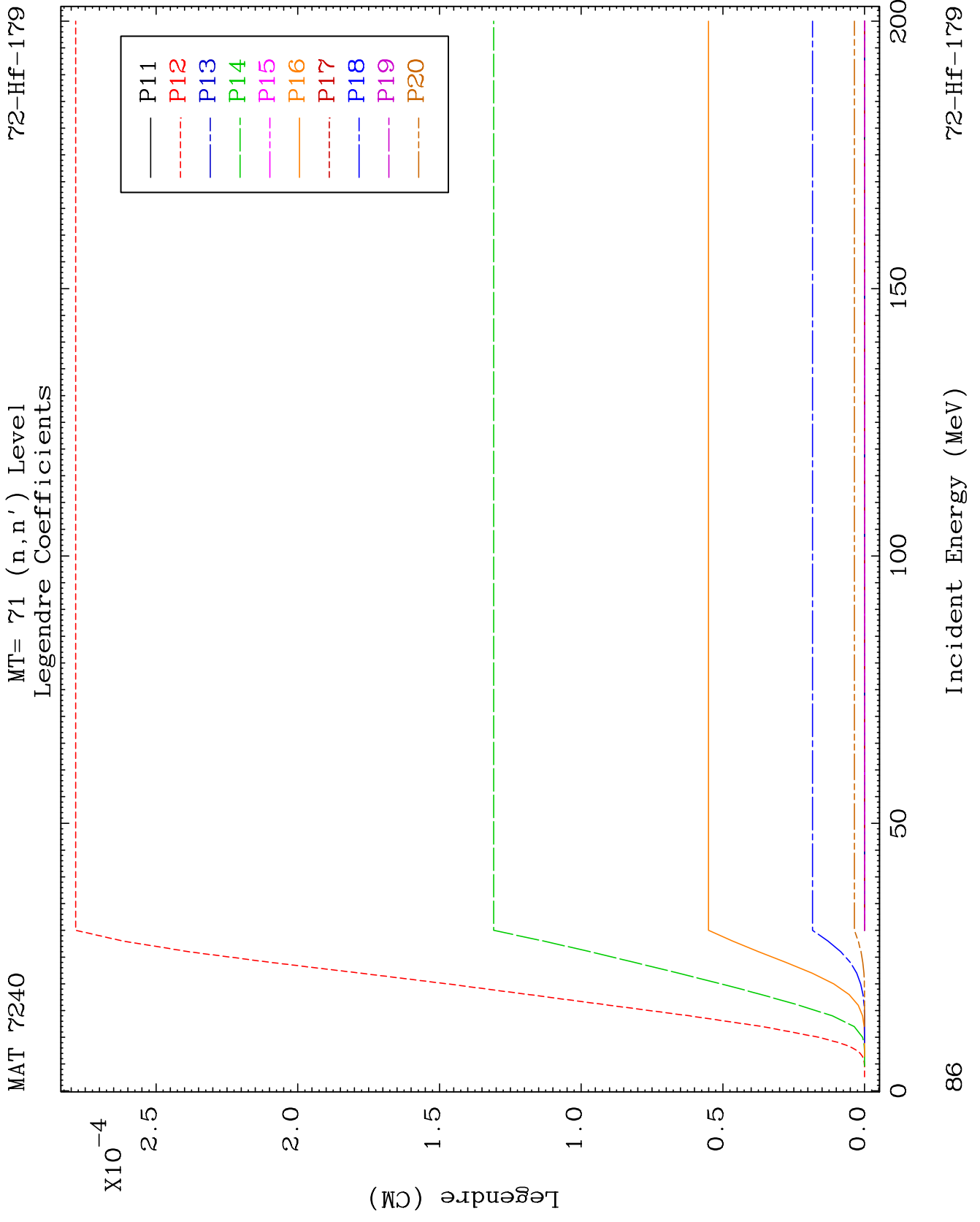






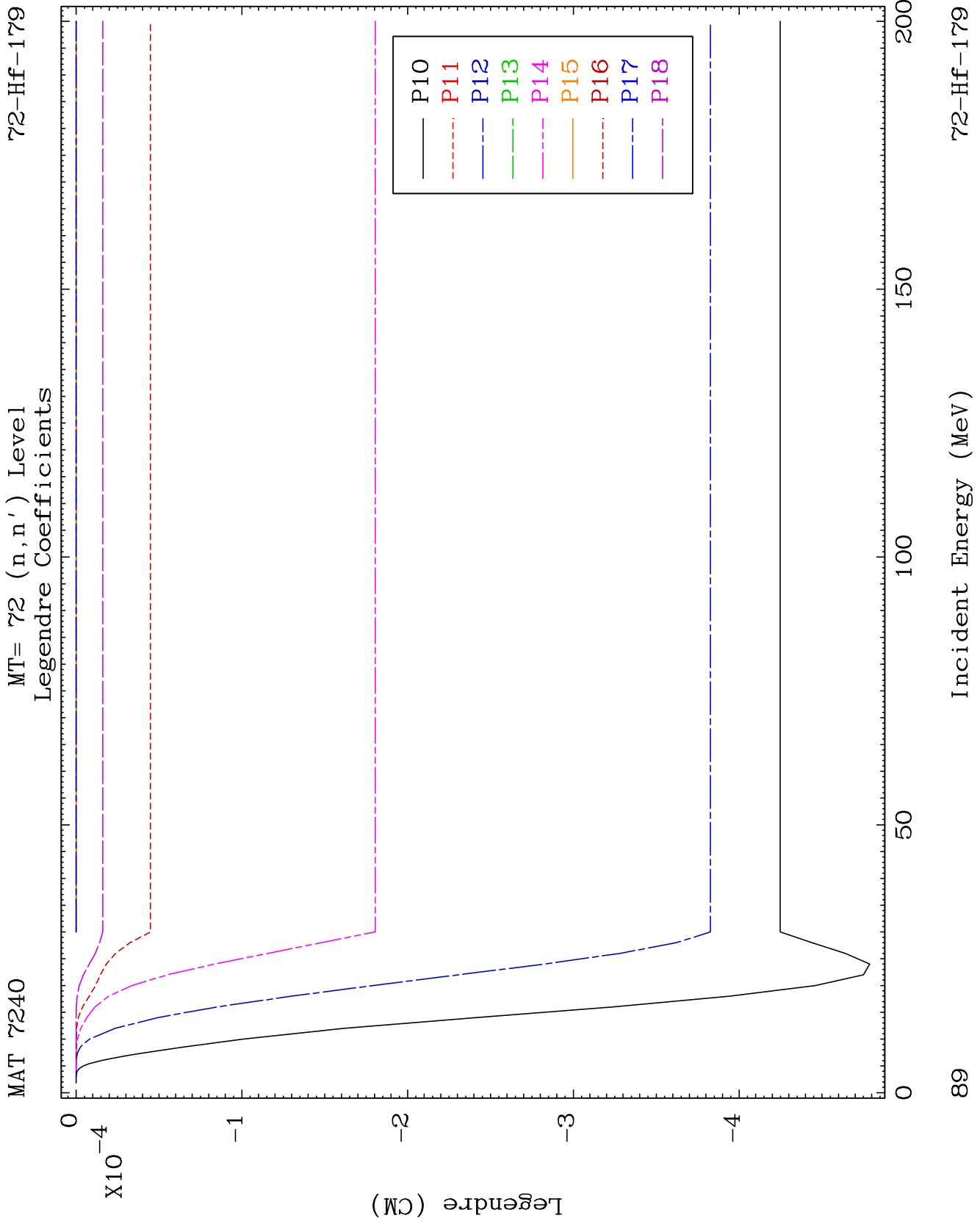










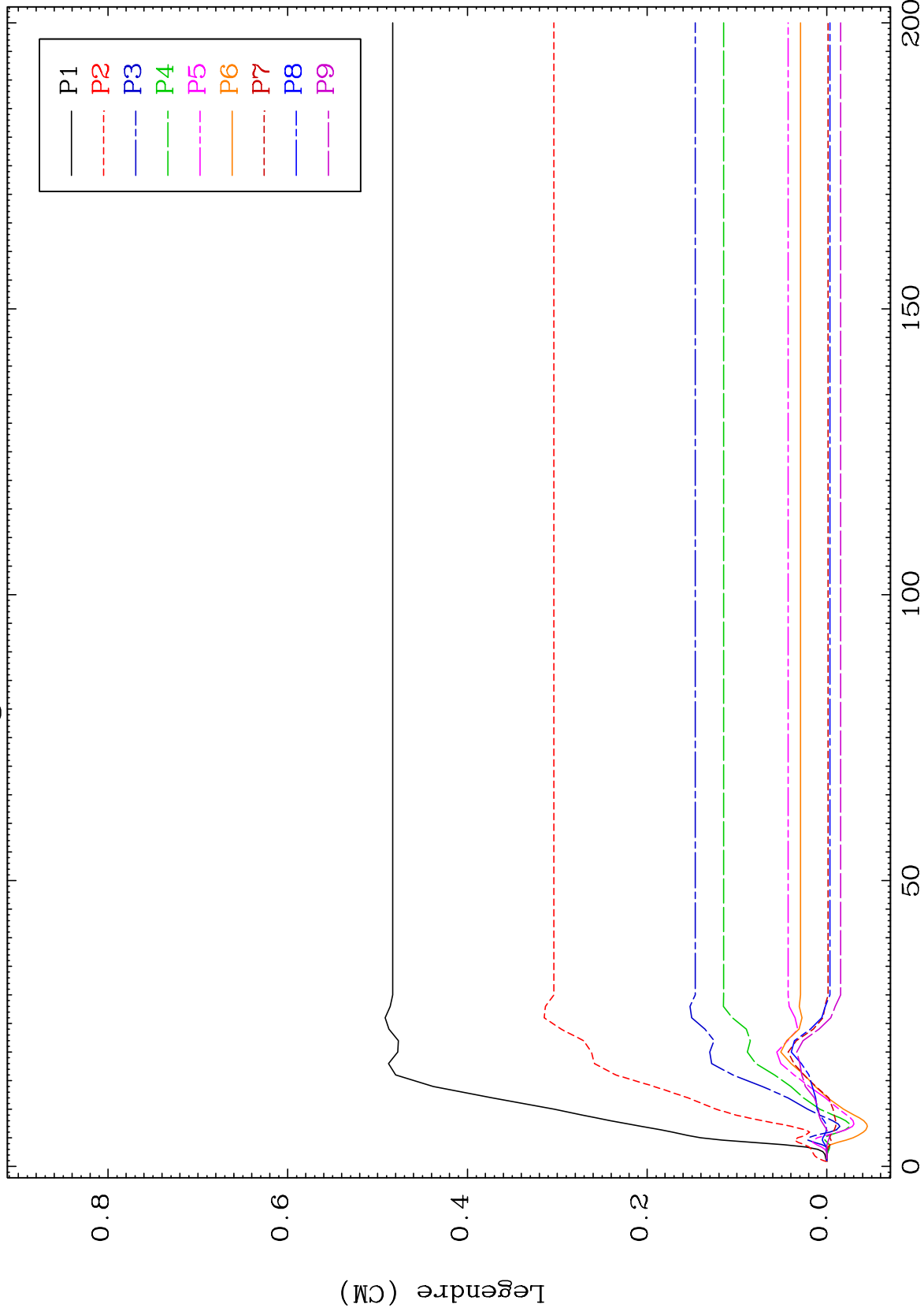




MAT 7240

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

72-Hf-179



91

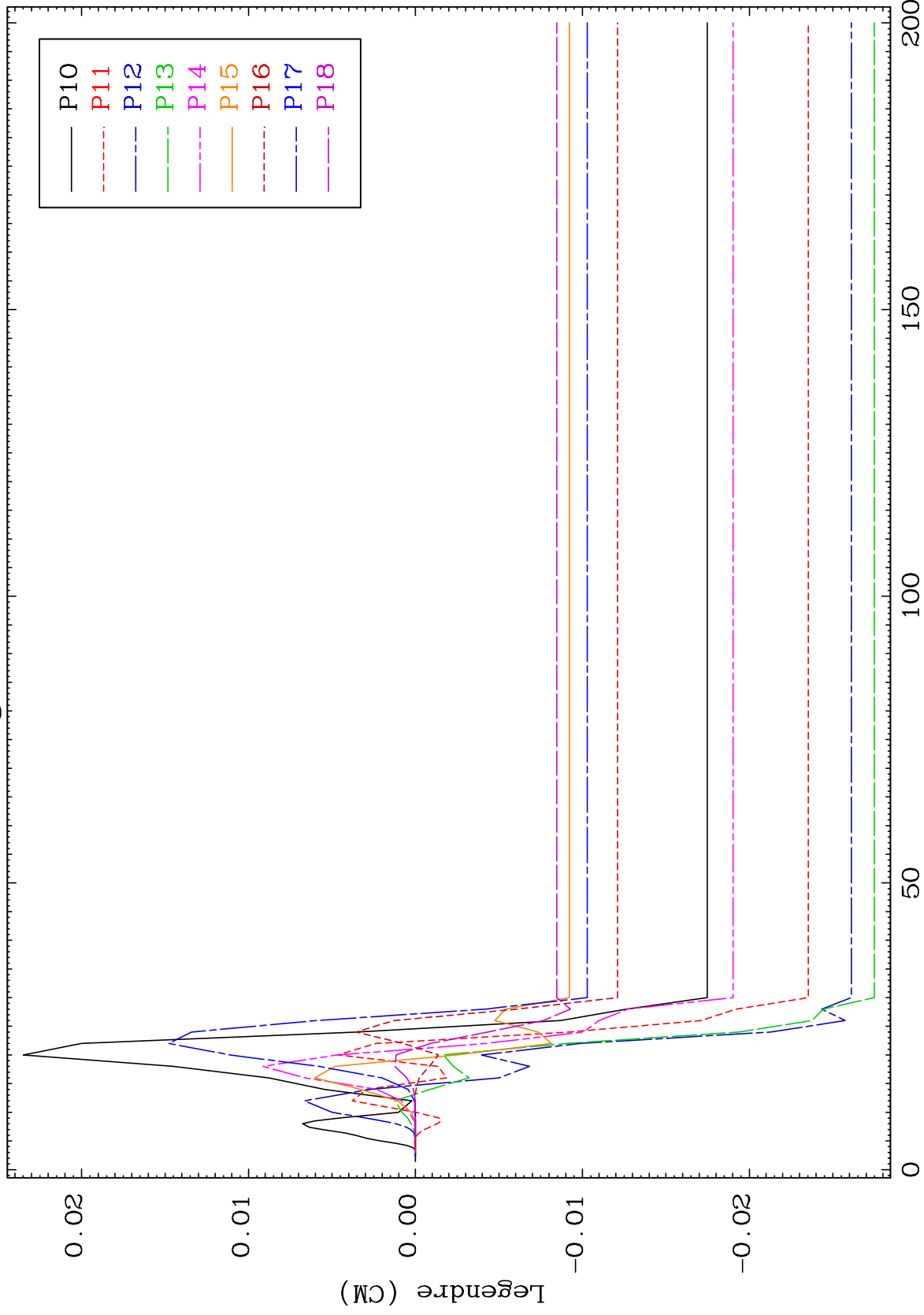
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



92

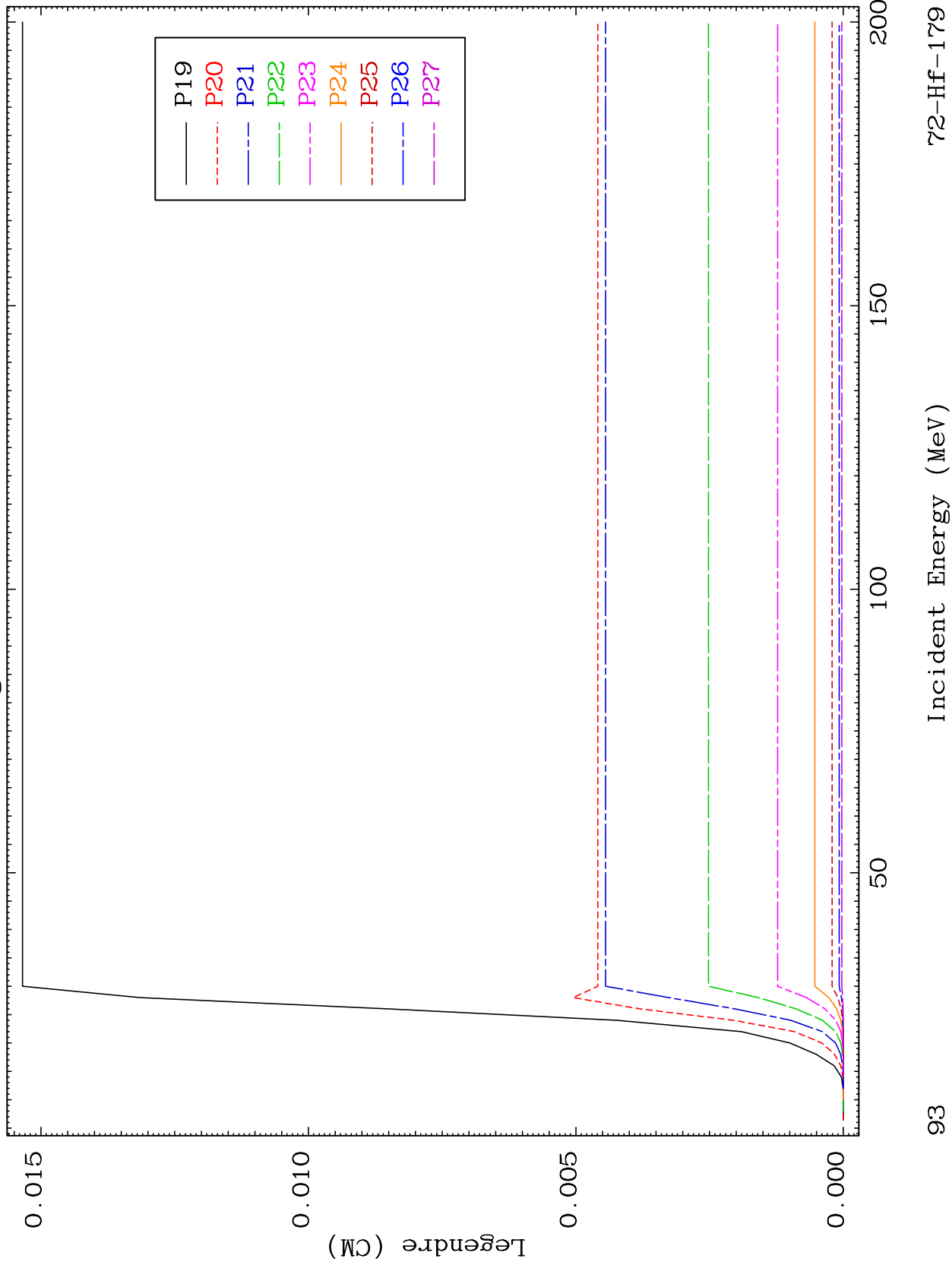
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



93

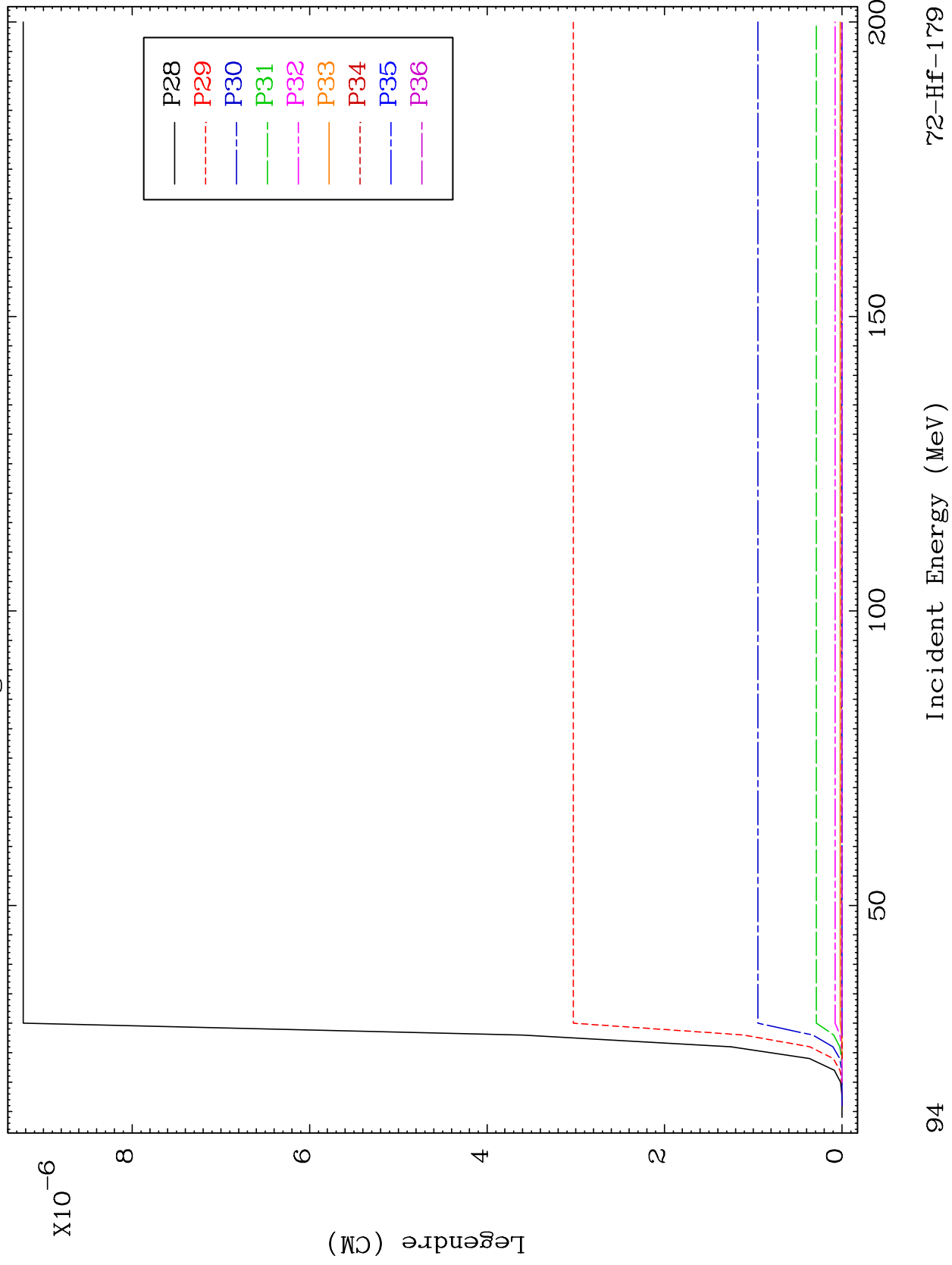
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



94

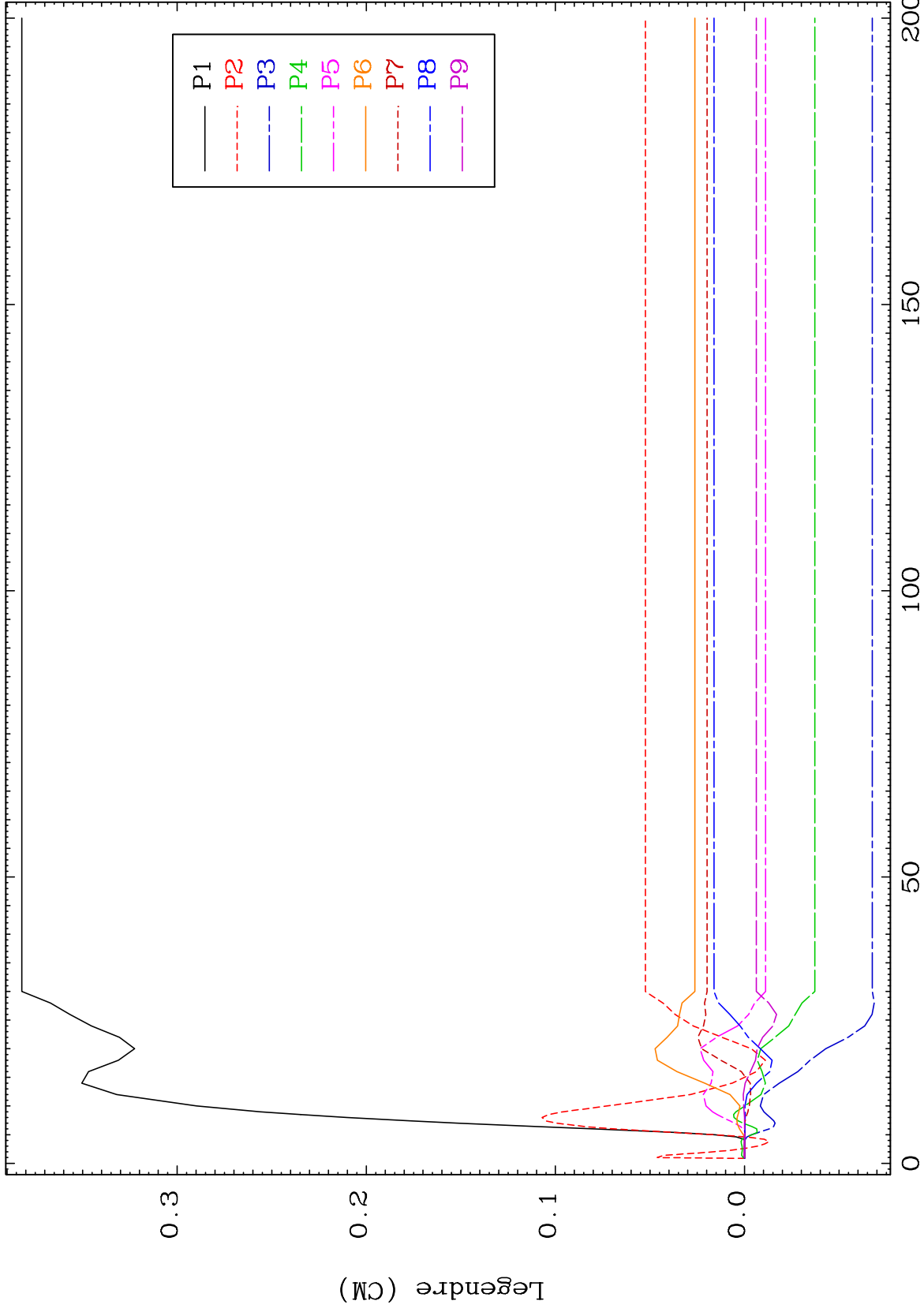
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



72-Hf-179

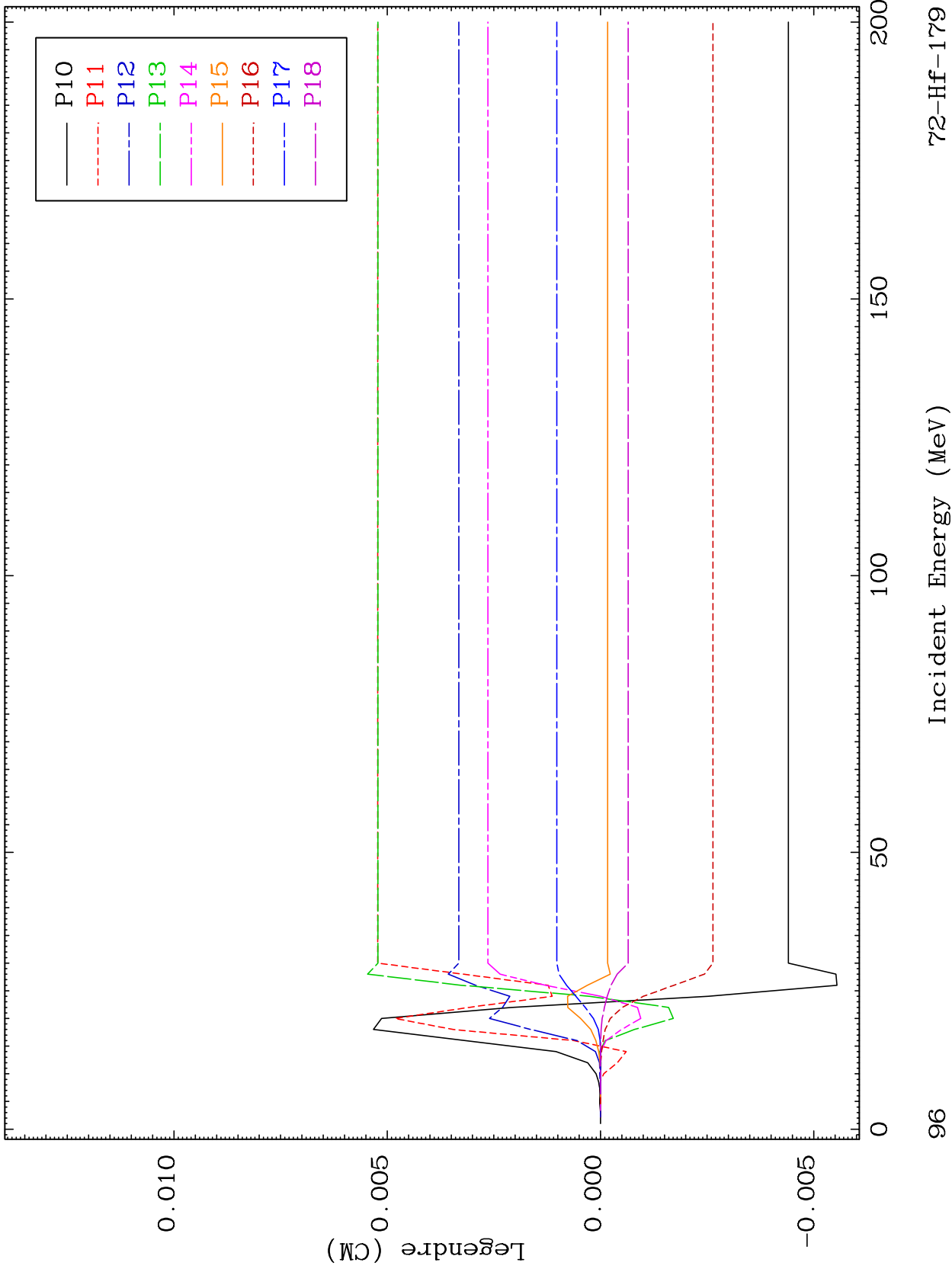
Incident Energy (MeV)

95

MAT 7240

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

72-Hf-179



96

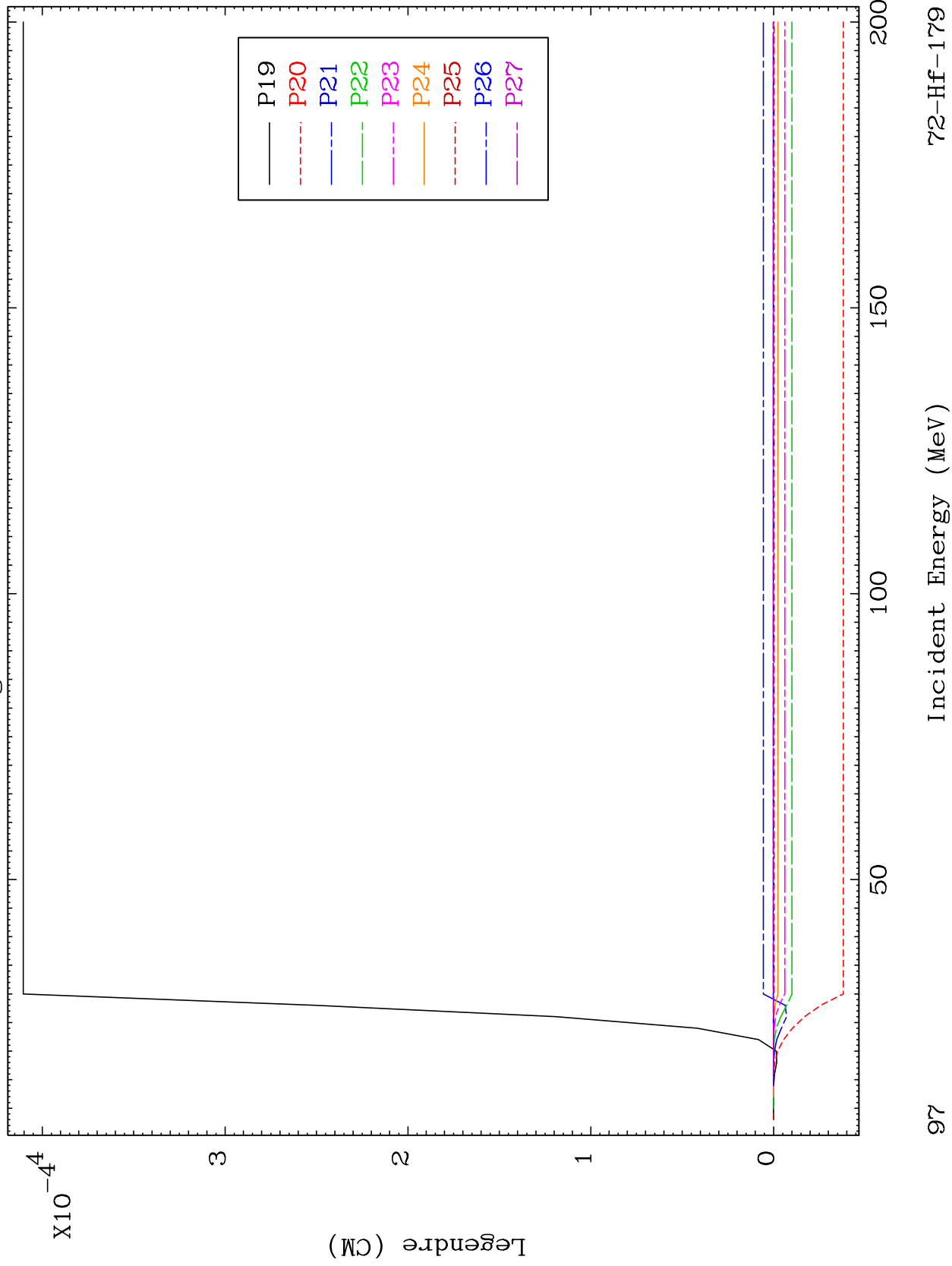
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



97

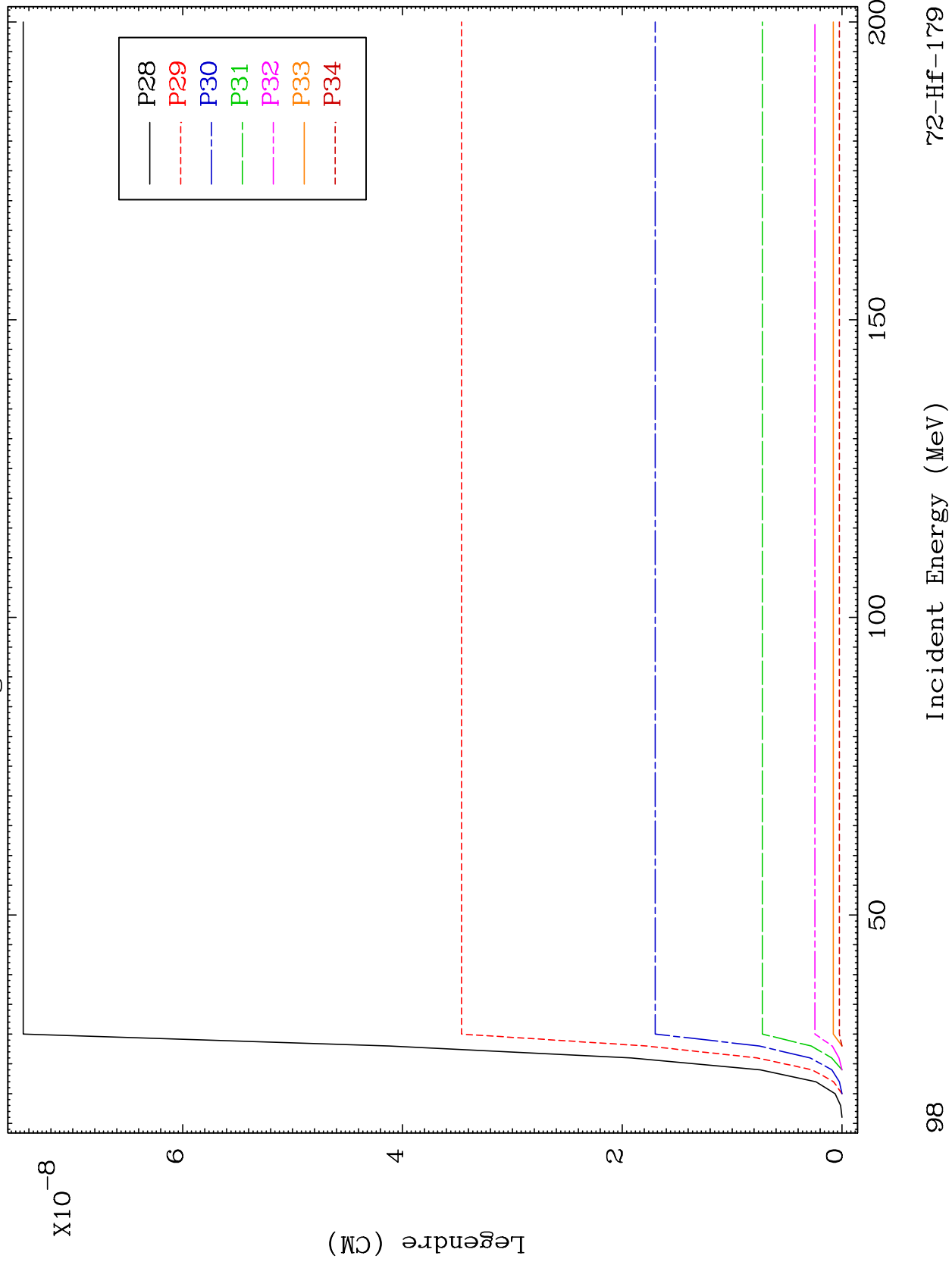
Incident Energy (MeV)

72-Hf-179

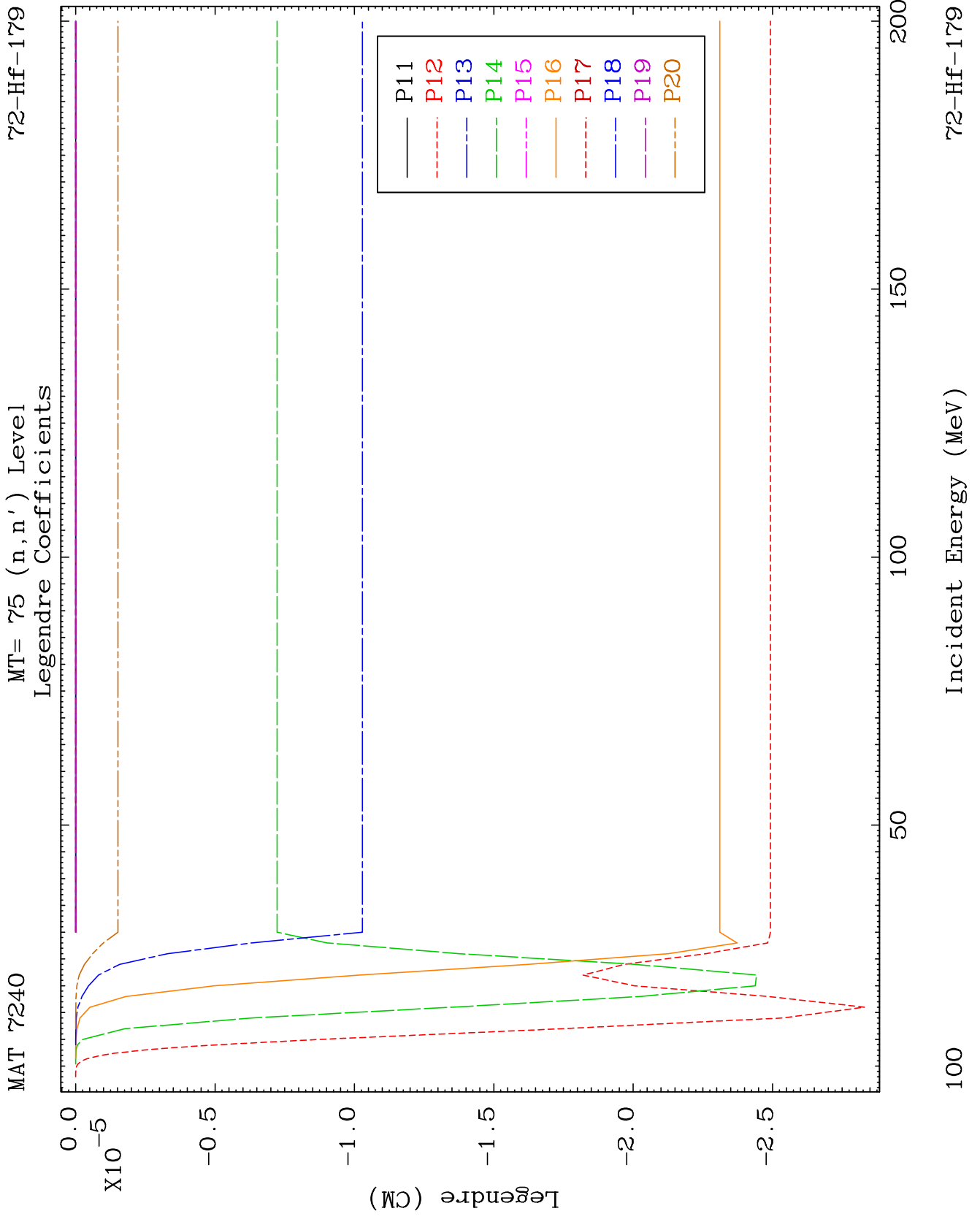
MAT 7240

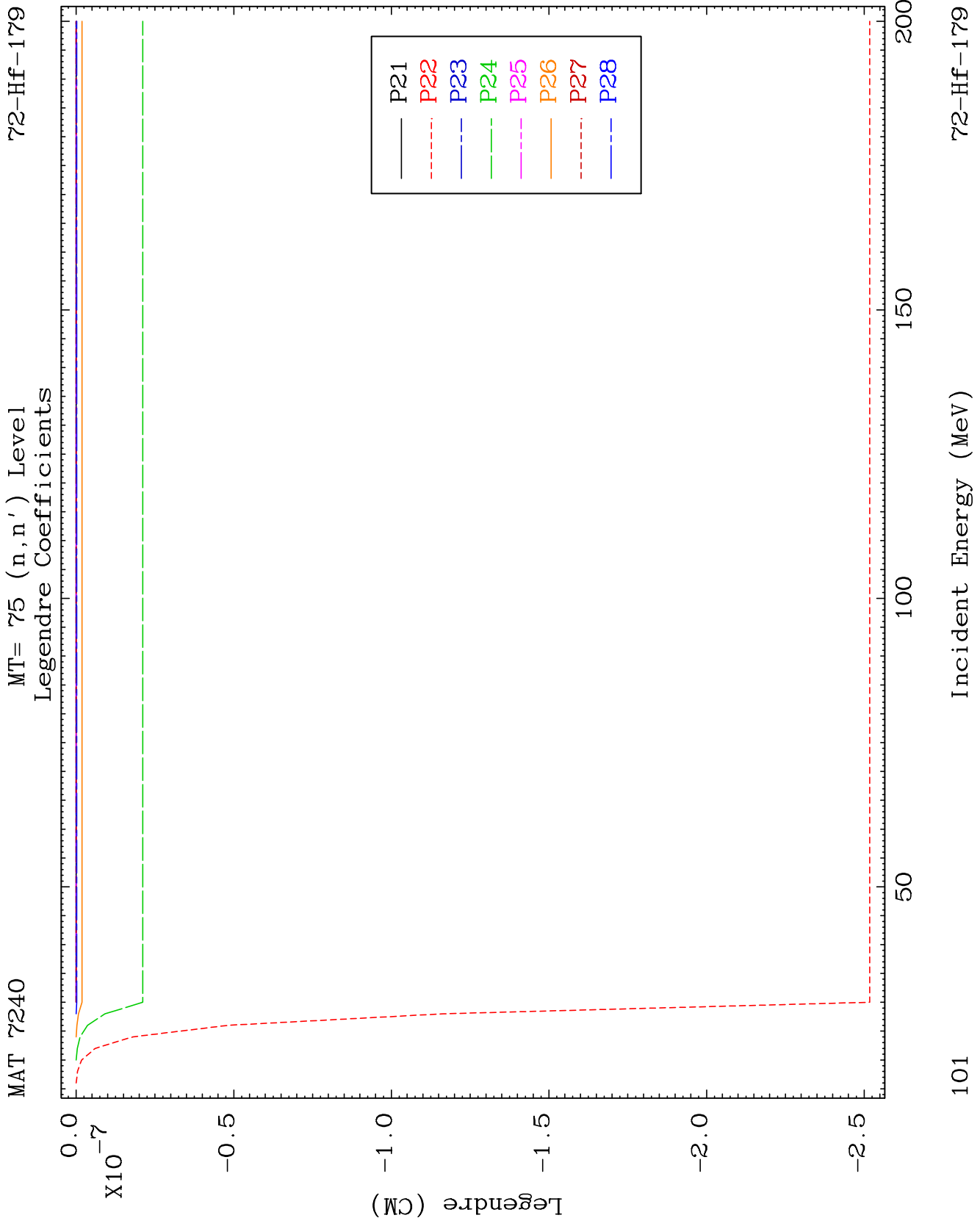
MT= 74 (n,n') Level  
Legendre Coefficients

72-Hf-179





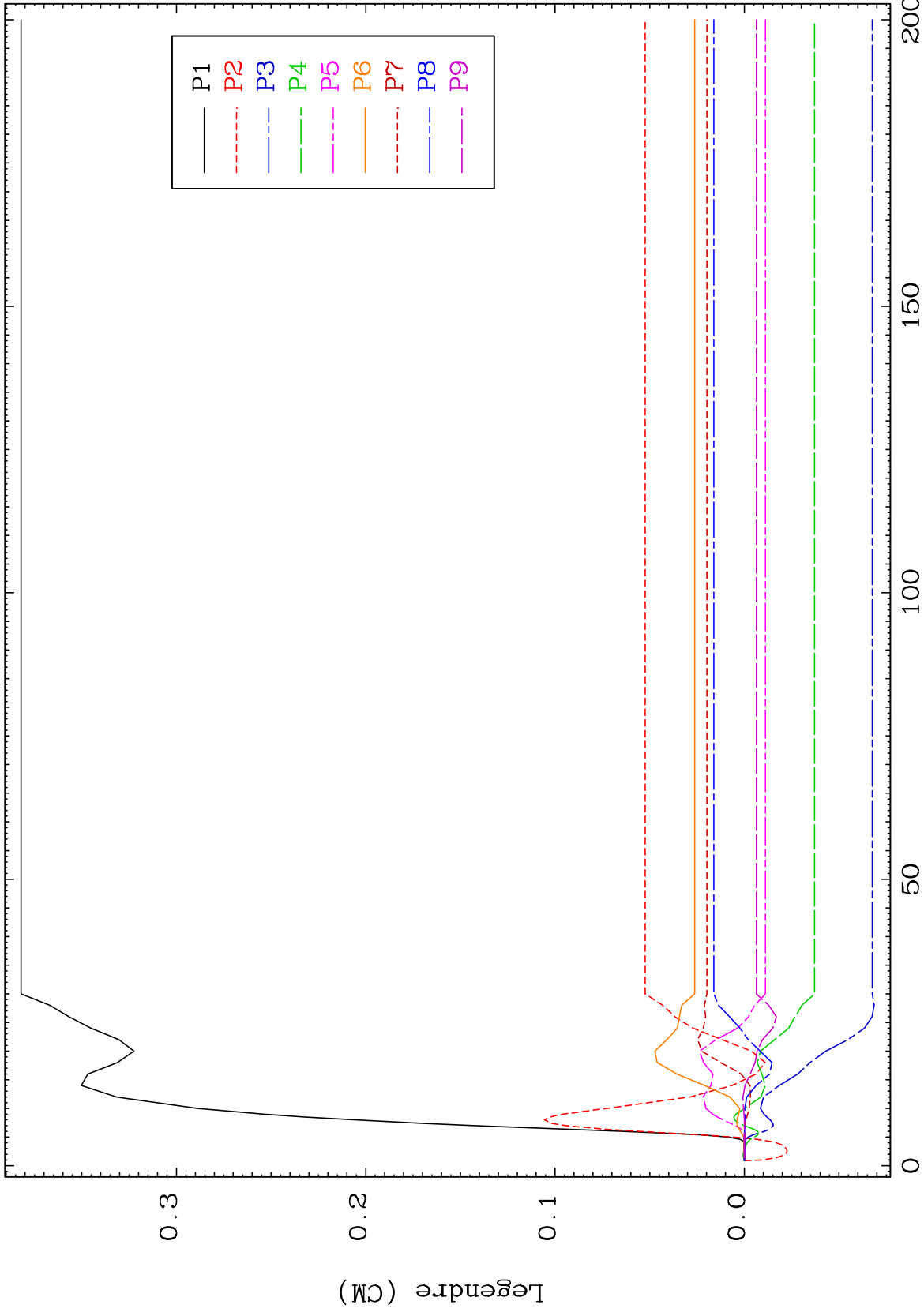




MAT 7240

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

72-Hf-179



102

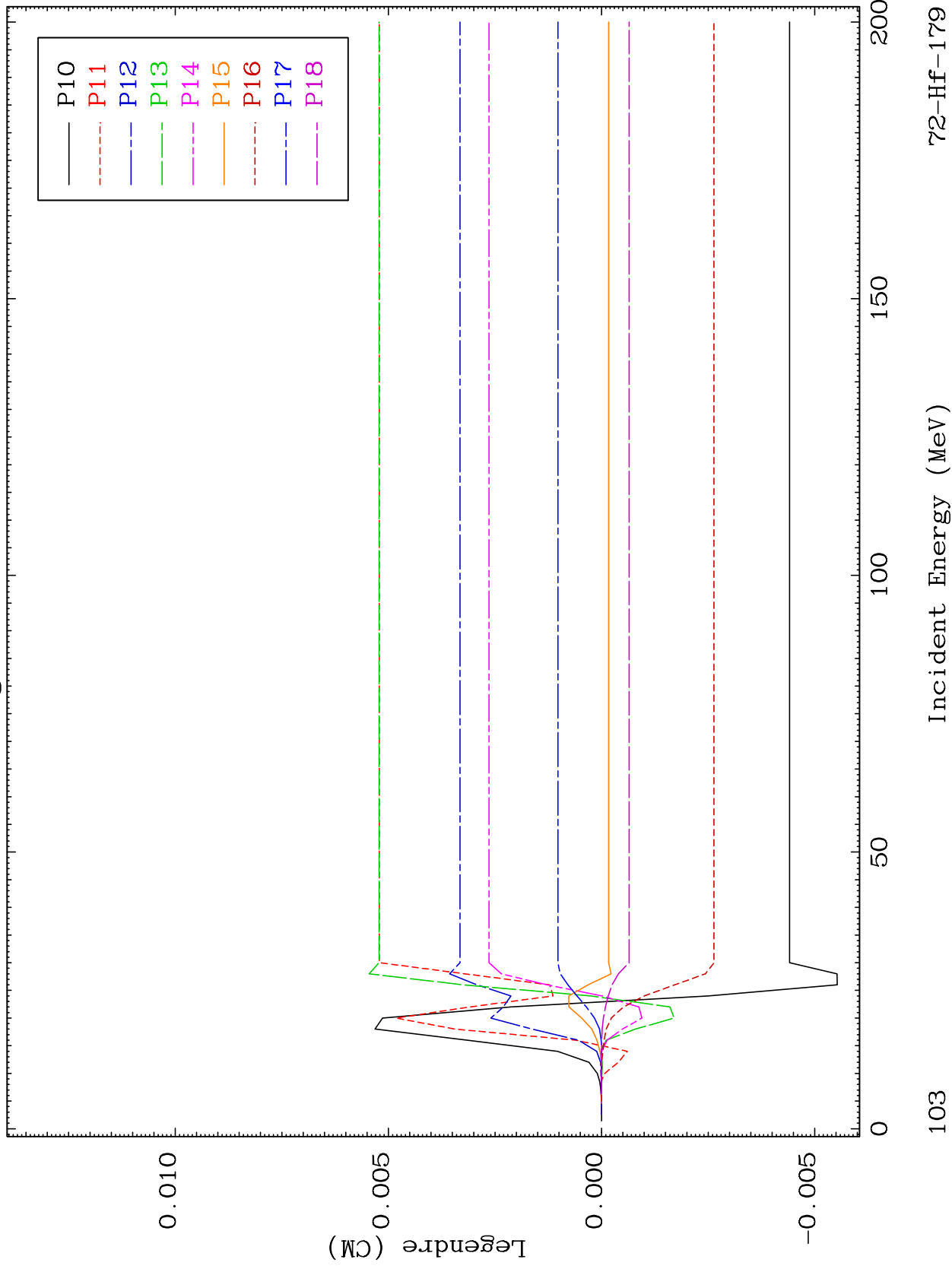
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



72-Hf-179

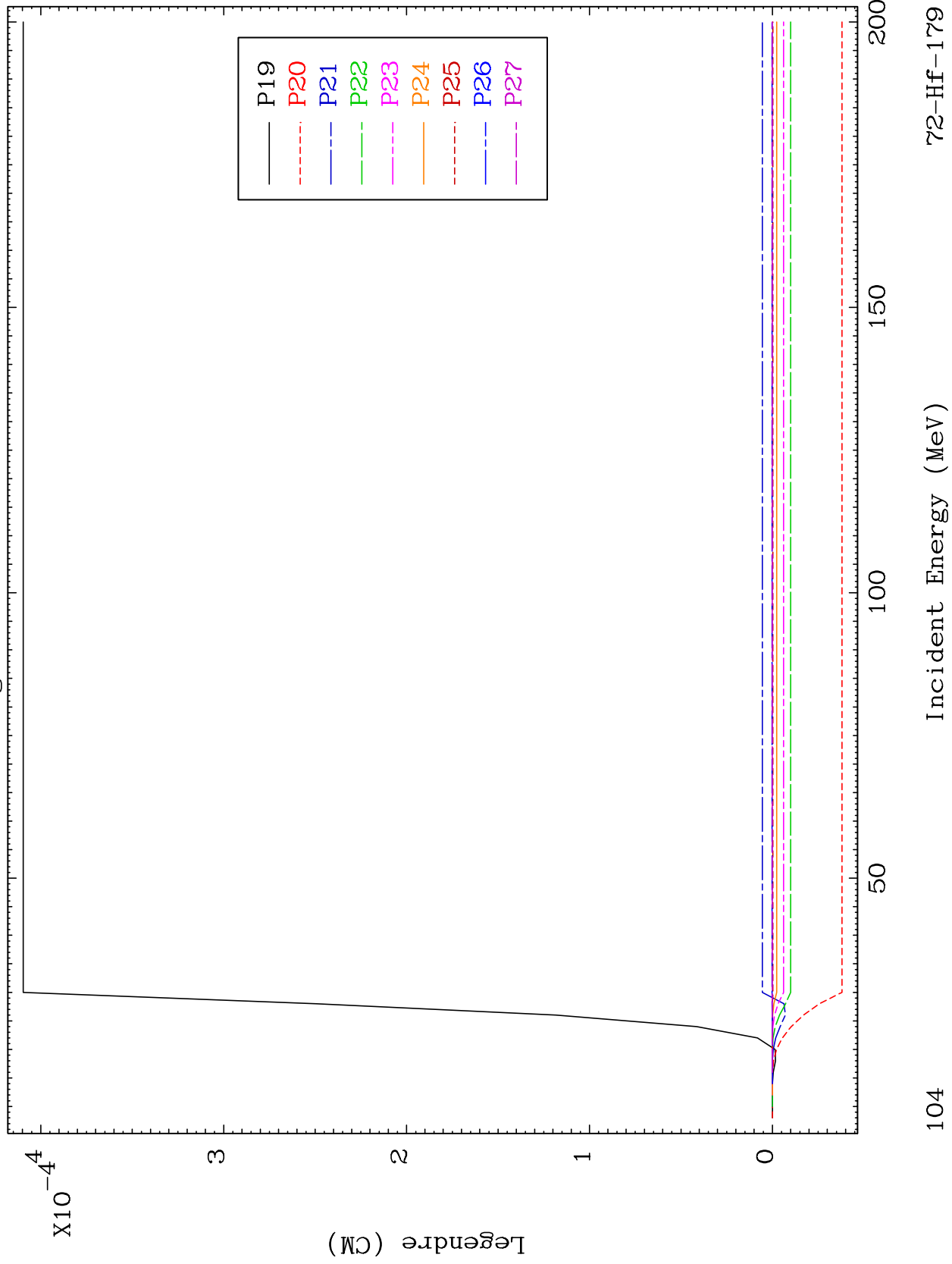
Incident Energy (MeV)

103

MAT 7240

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

72-Hf-179



104

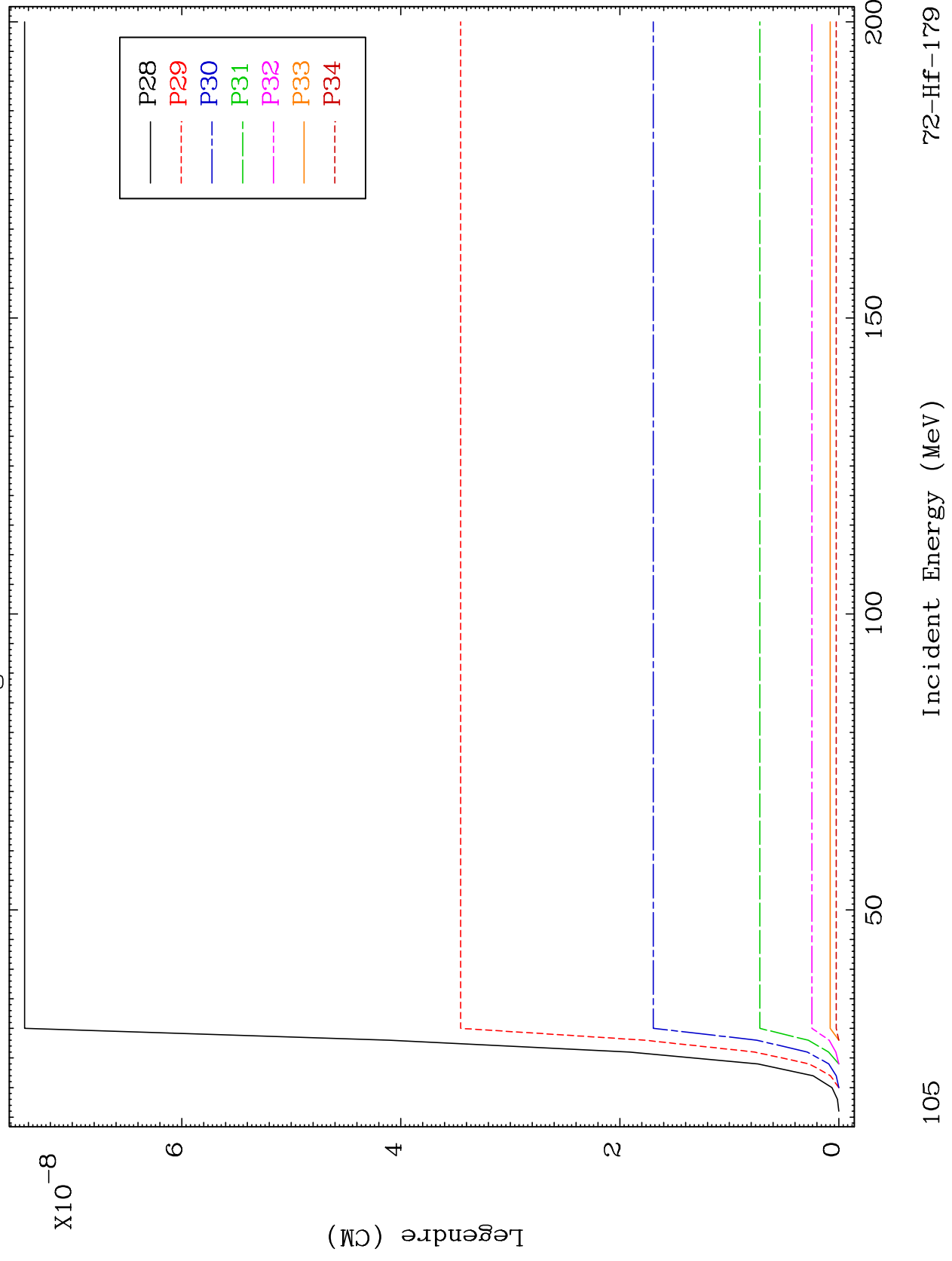
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179

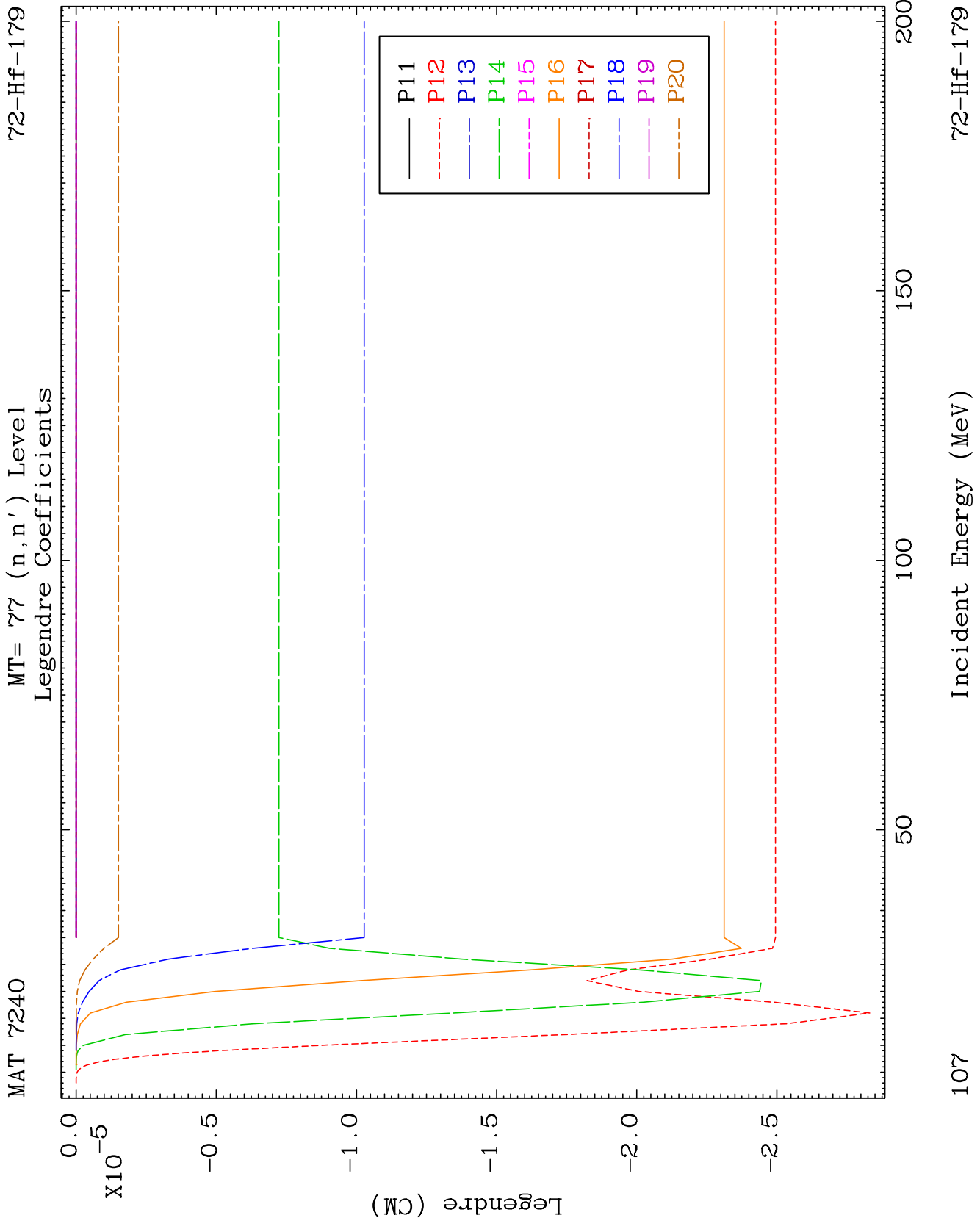


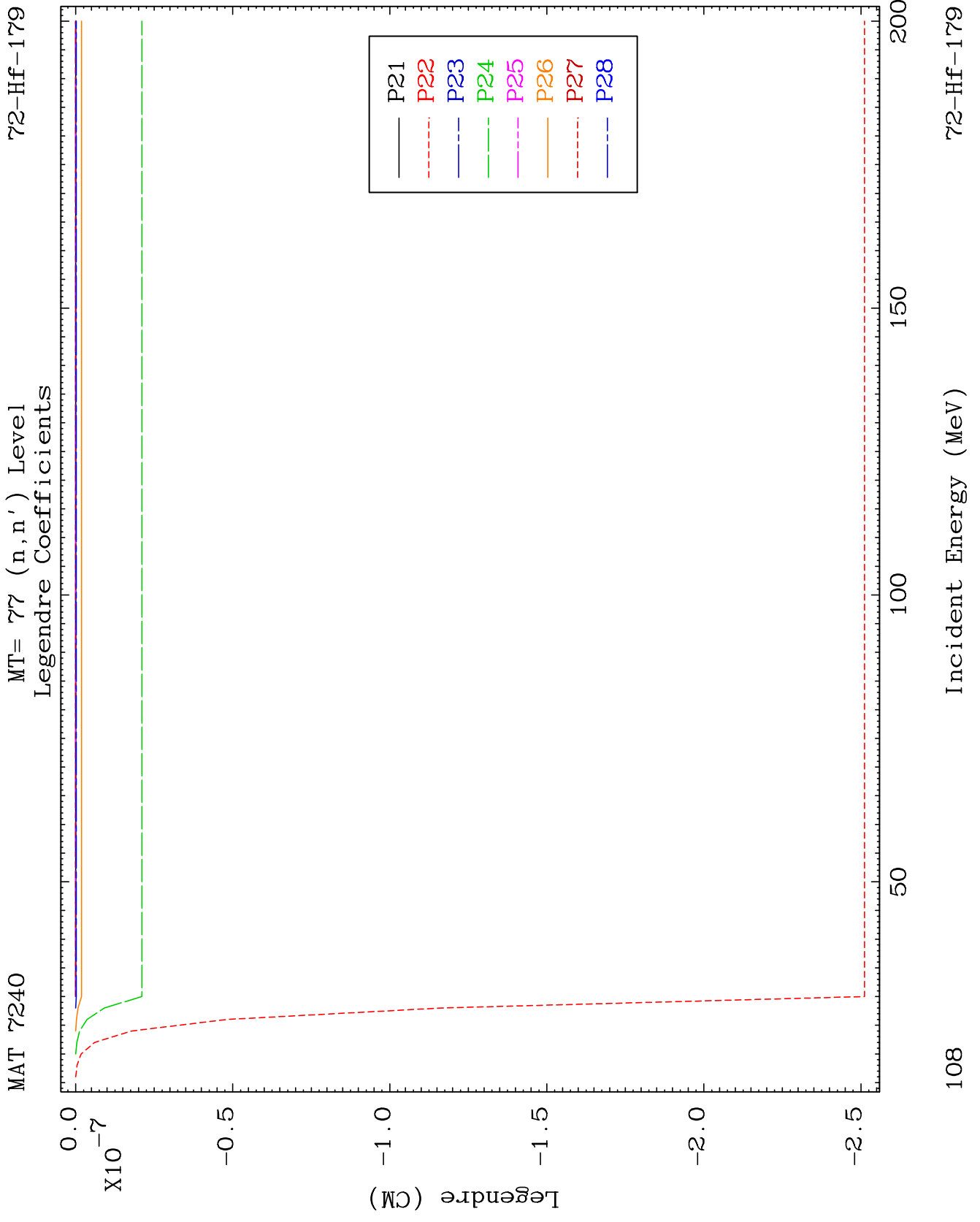
72-Hf-179

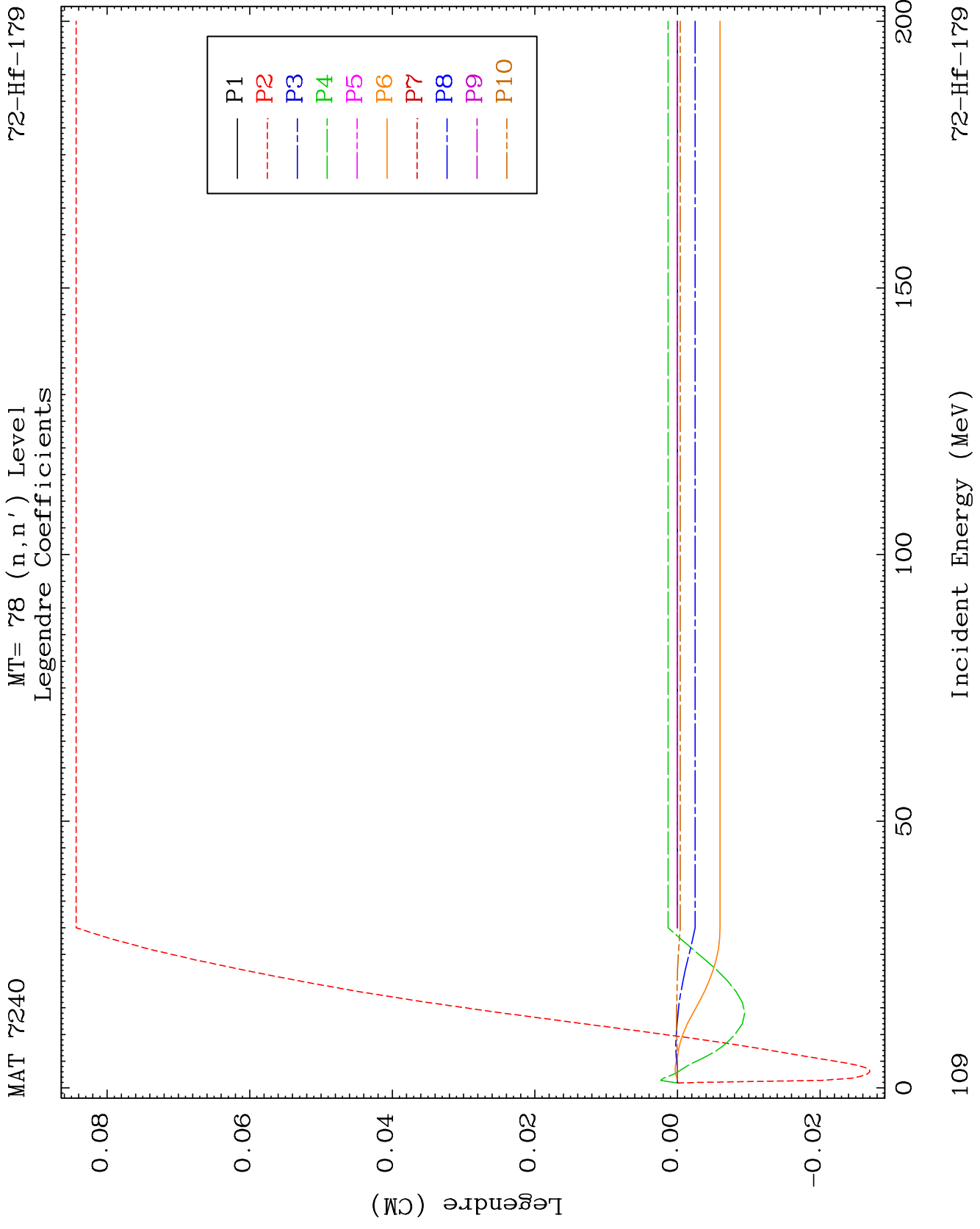
Incident Energy (MeV)

105





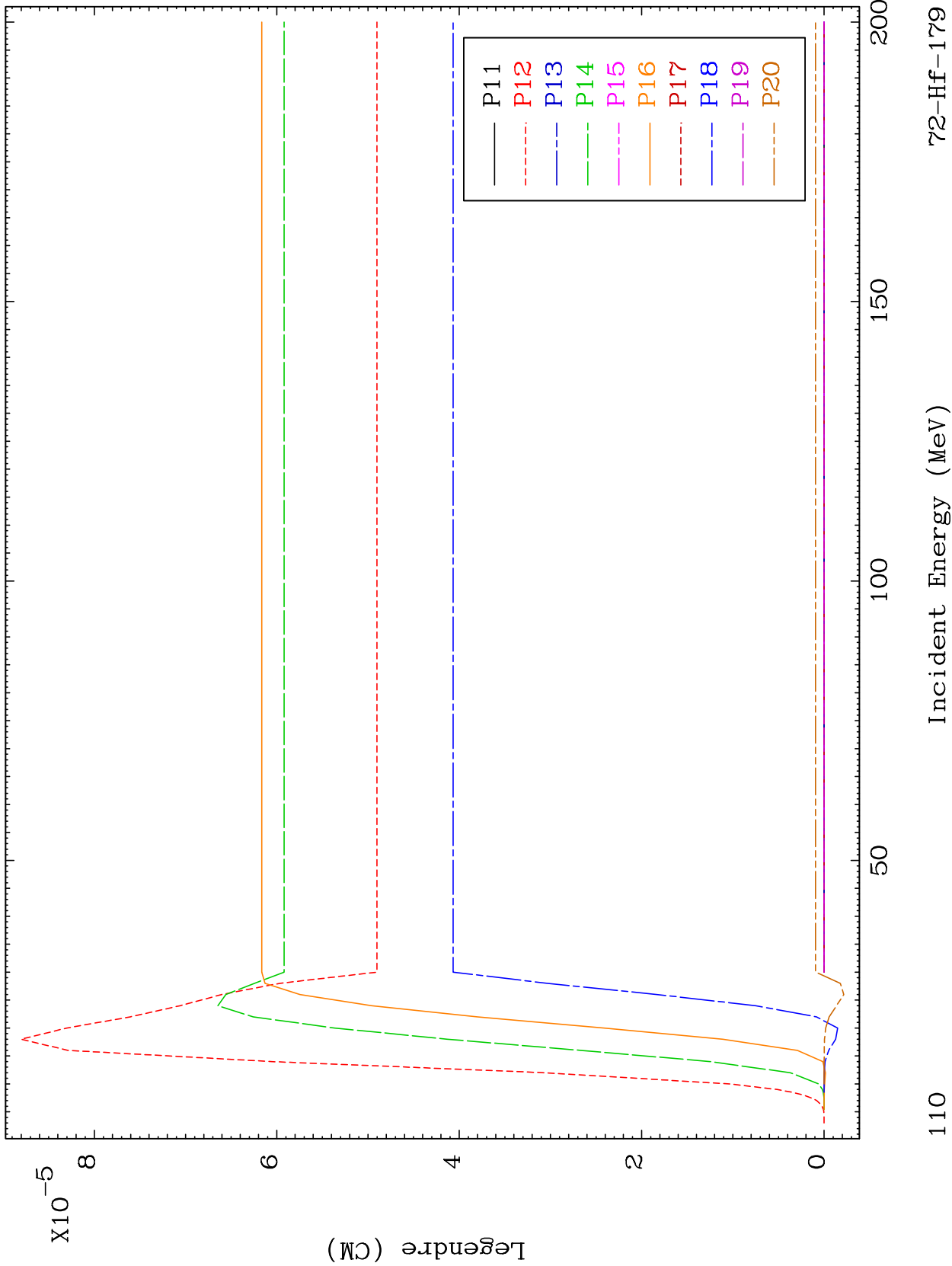


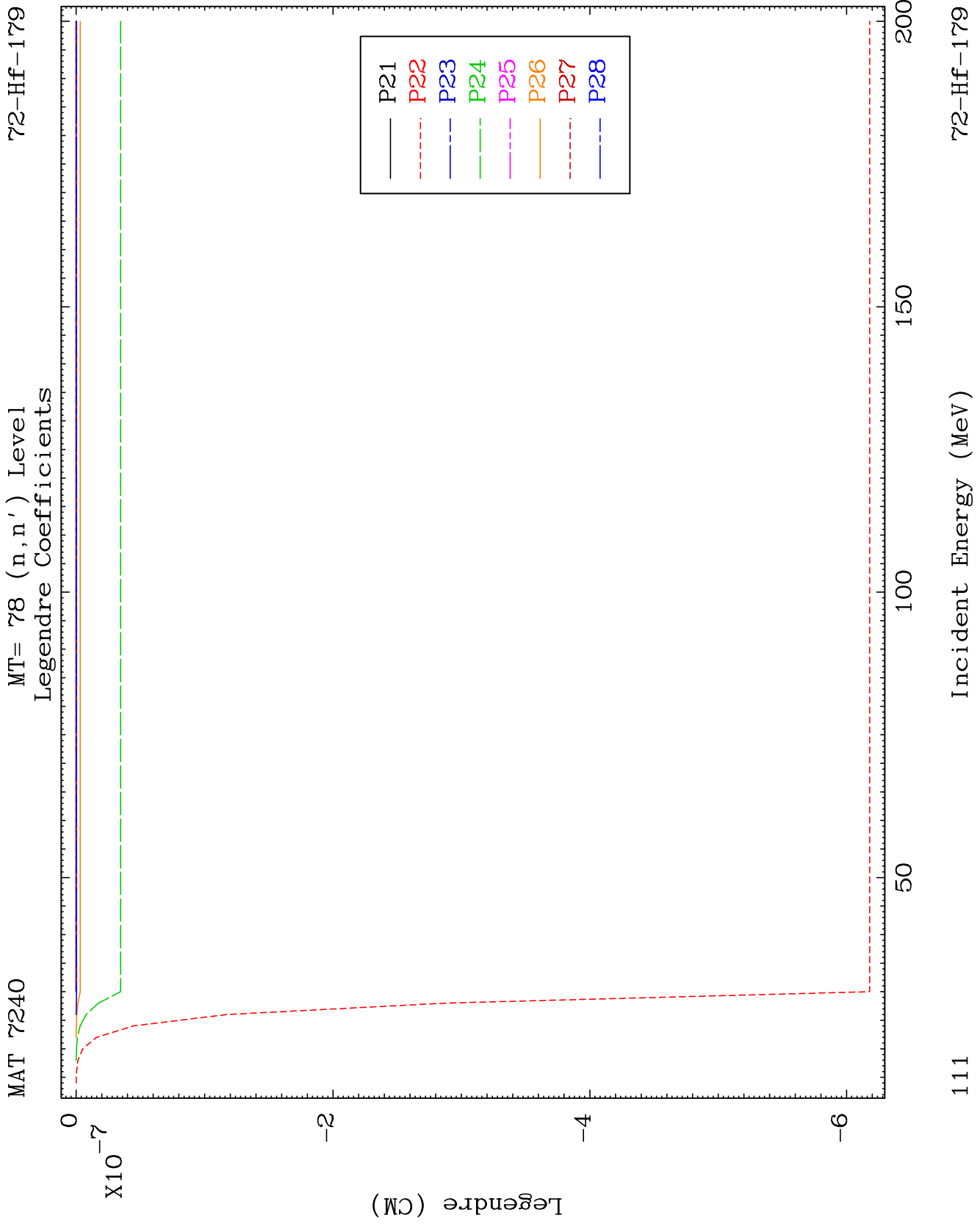


MAT 7240

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

72-Hf-179

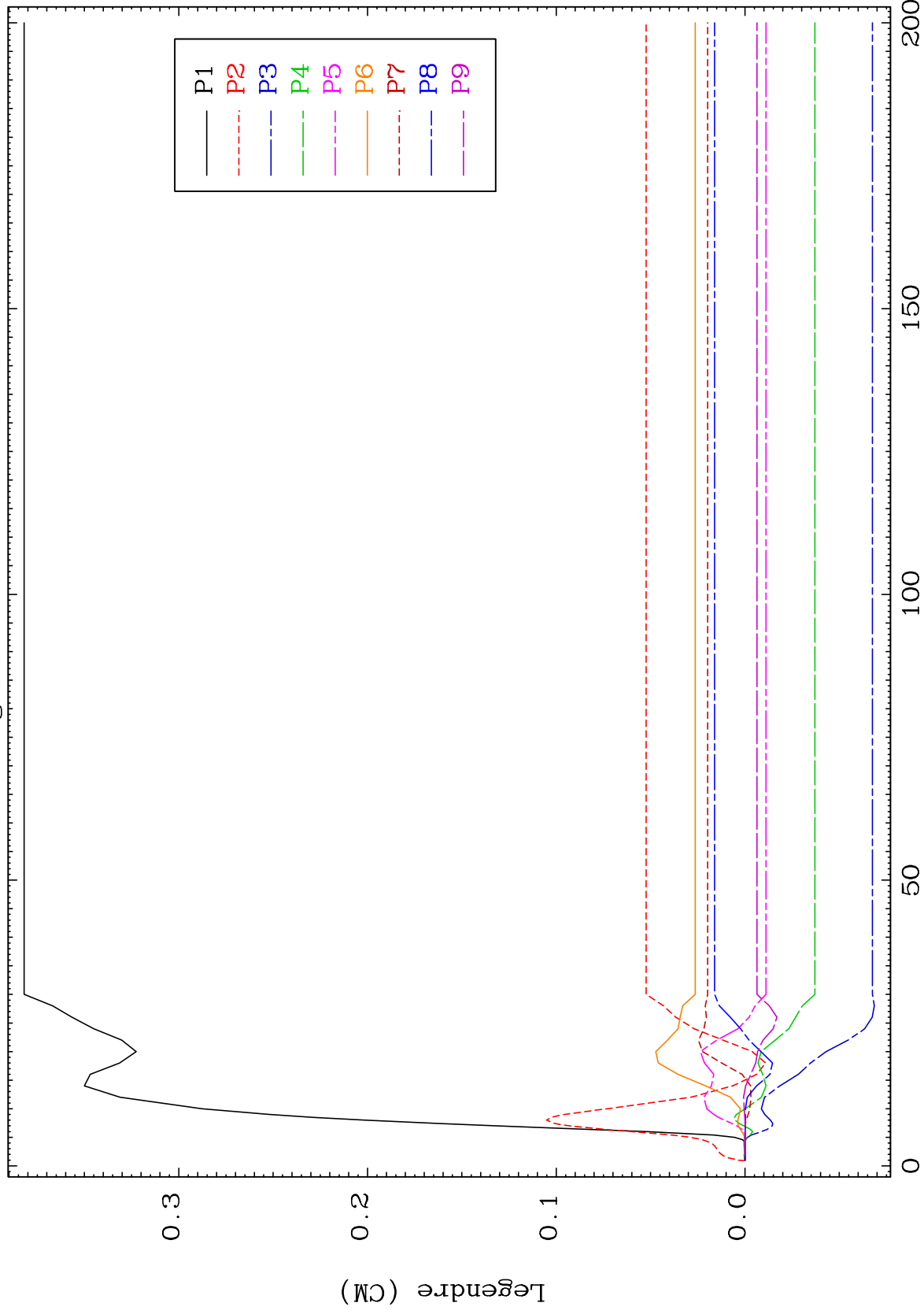




MAT 7240

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

72-Hf-179



112

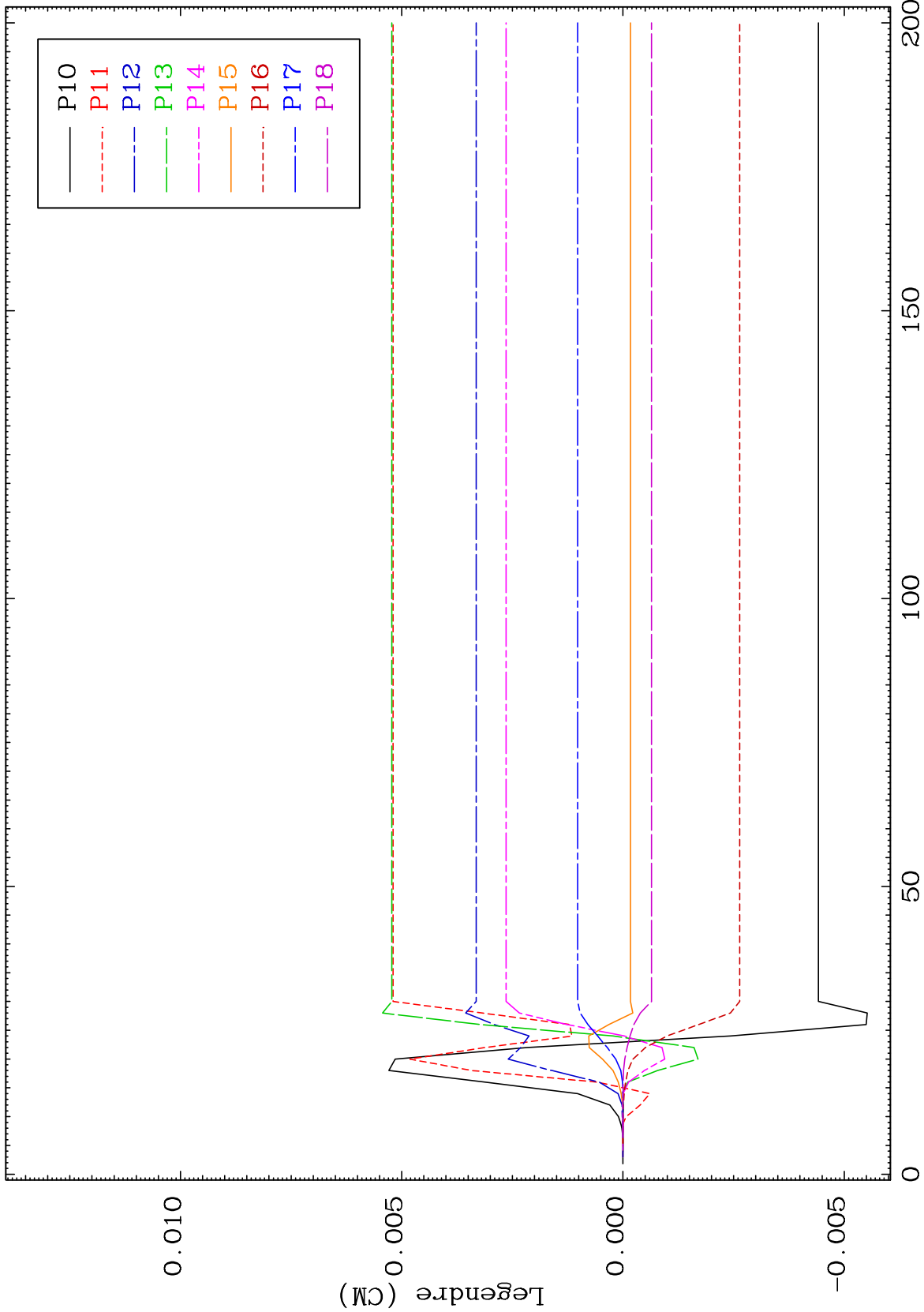
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



113

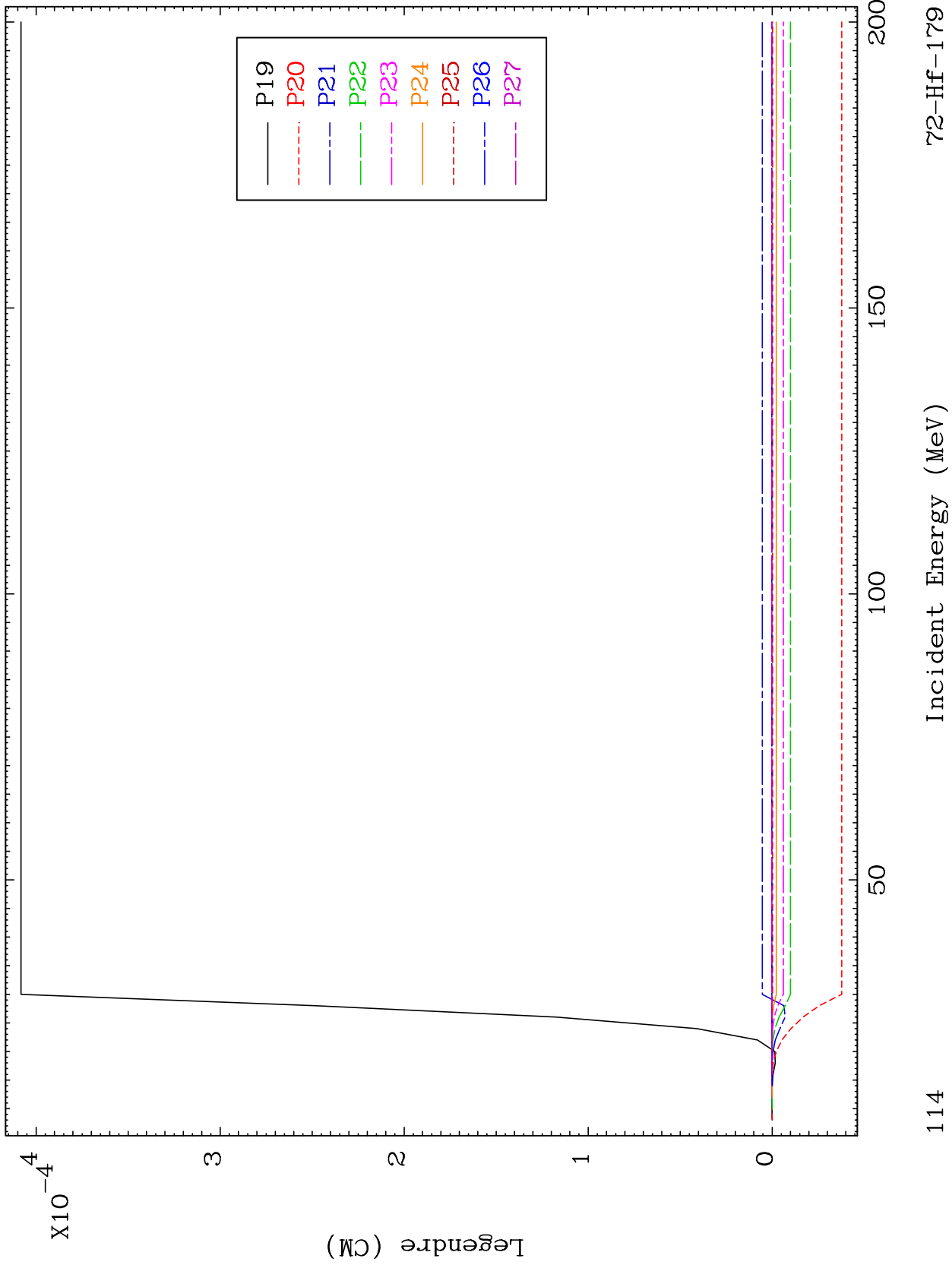
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179



114

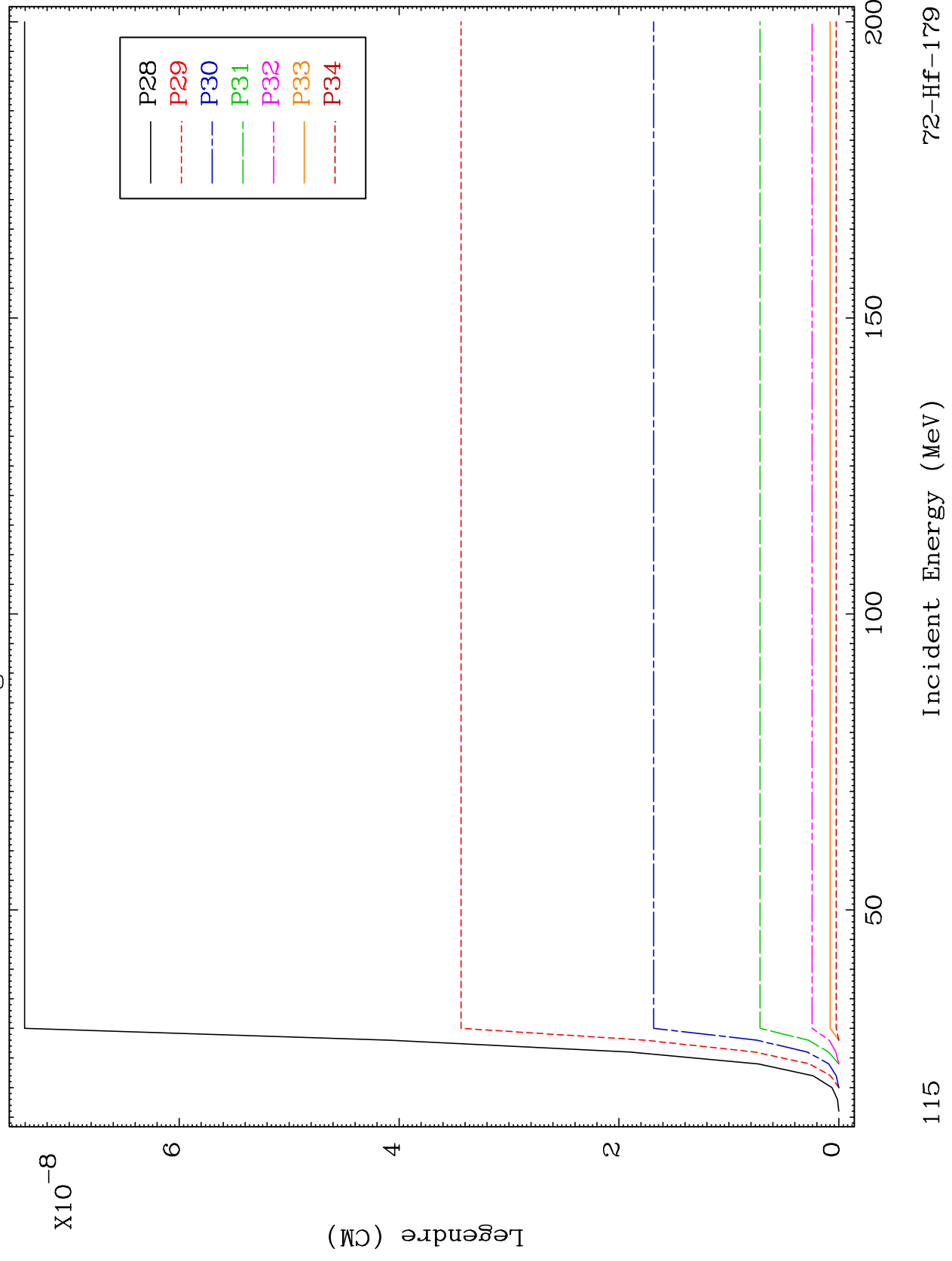
Incident Energy (MeV)

72-Hf-179

MAT 7240

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

72-Hf-179

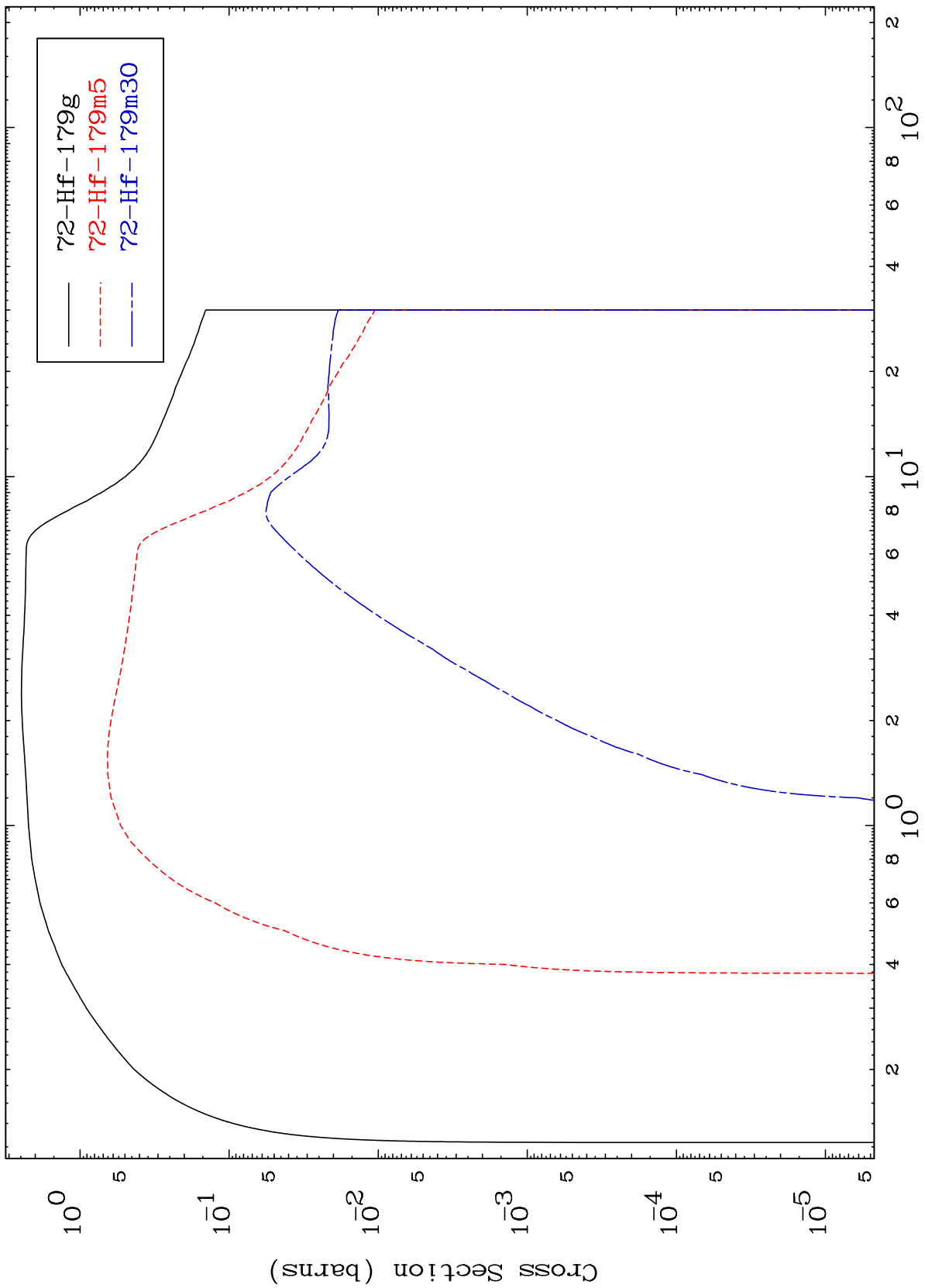


72-Hf-179

Incident Energy (MeV)

115

Inelastic  
Radionuclide Production Cross Section



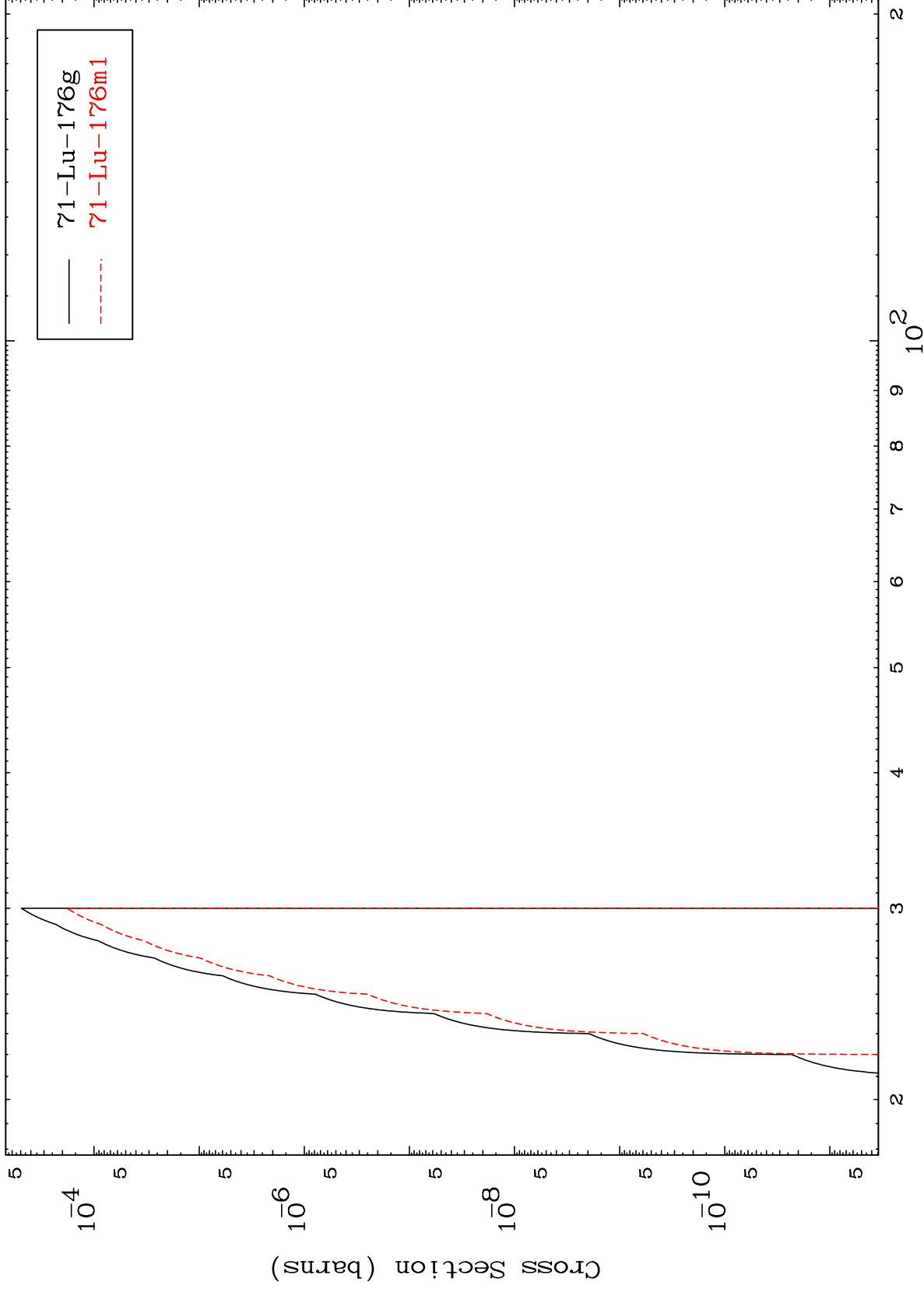
72-Hf-179g  
72-Hf-179m5  
72-Hf-179m30

MAT 7240

(n,2n) d

72-Hf-179

Radionuclide Production Cross Section



117

Incident Energy (MeV)

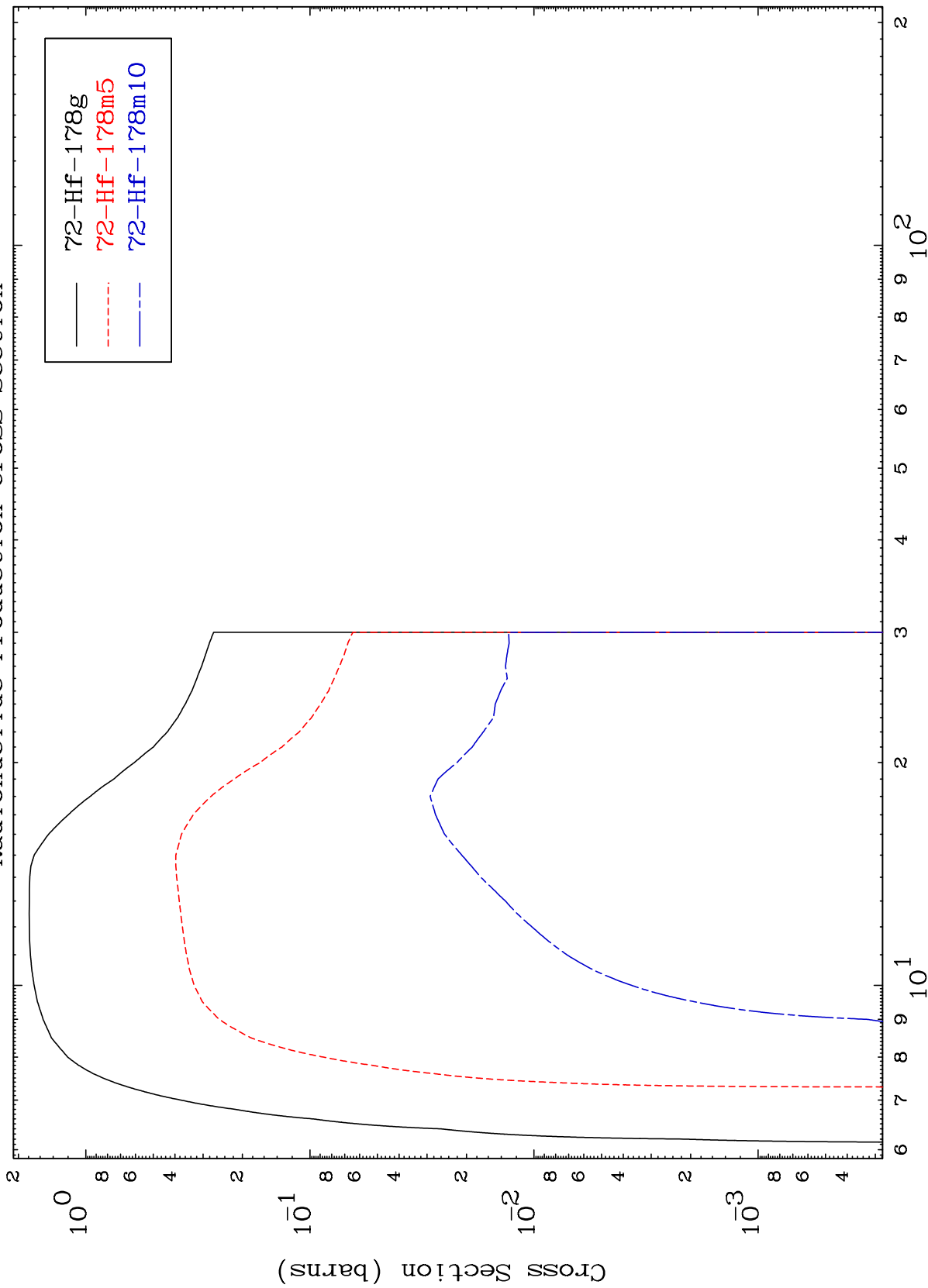
72-Hf-179

MAT 7240

72-Hf-179

(n,2n)

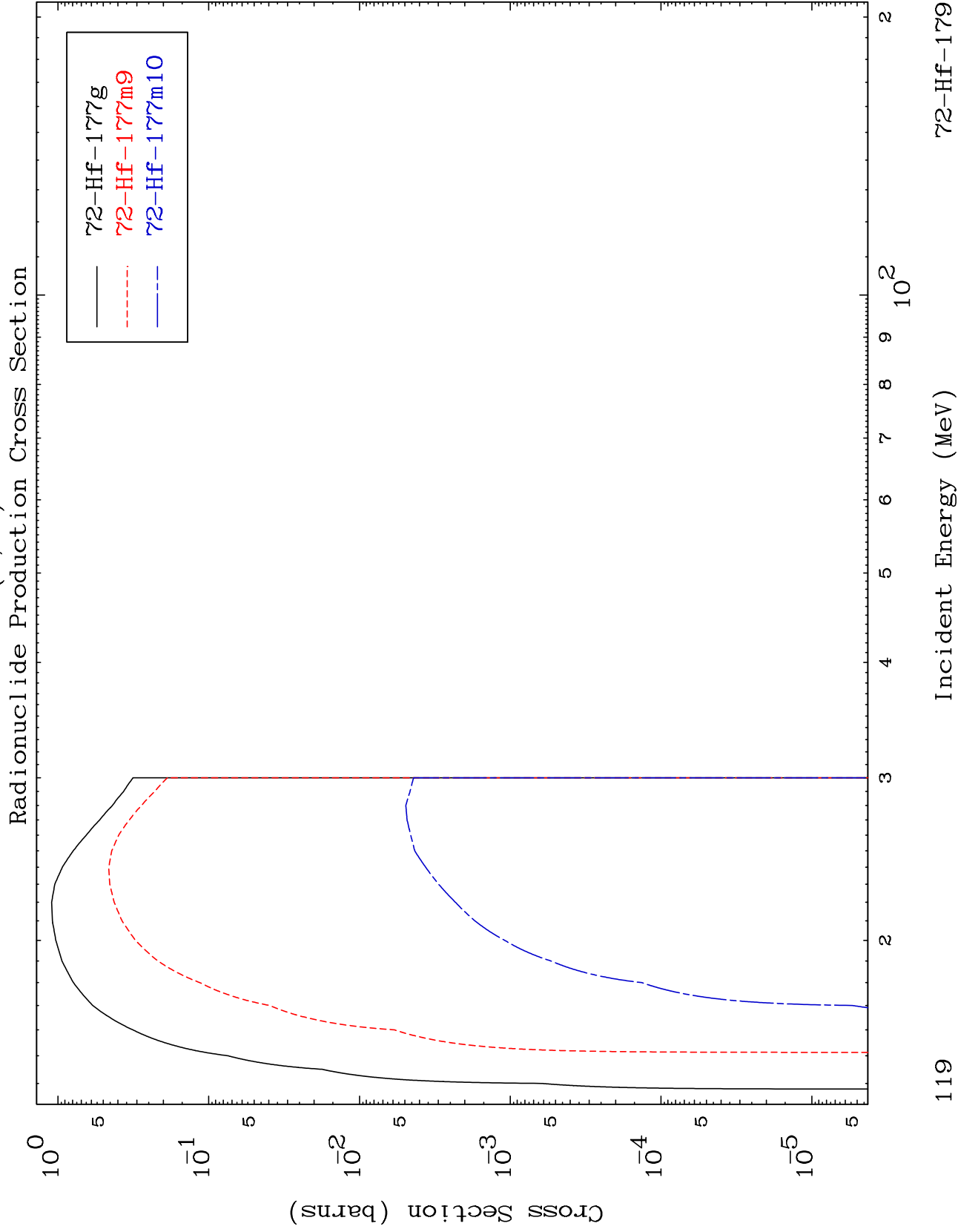
Radionuclide Production Cross Section



72-Hf-179

Incident Energy (MeV)

118

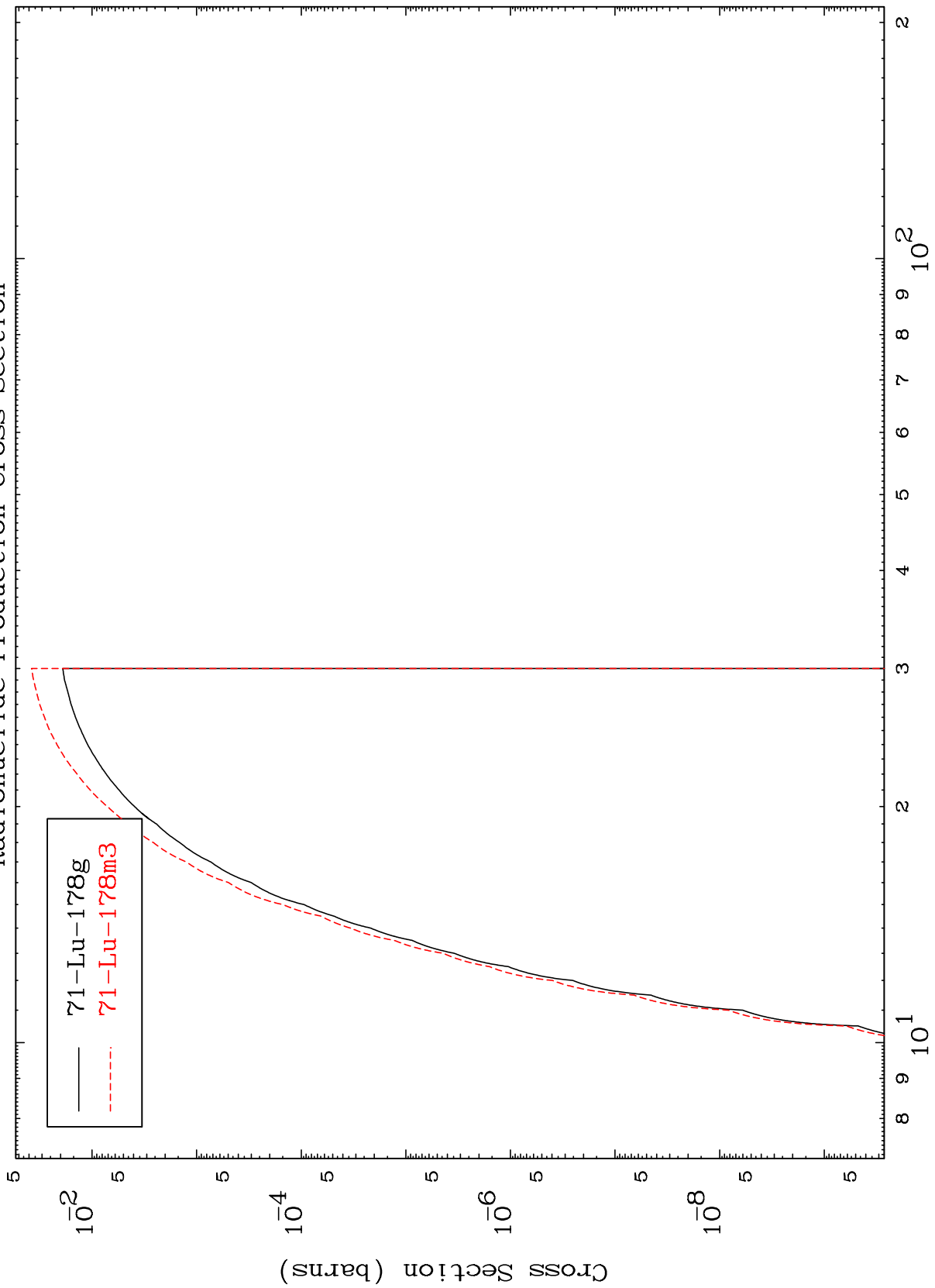


MAT 7240

(n,n') p

72-Hf-179

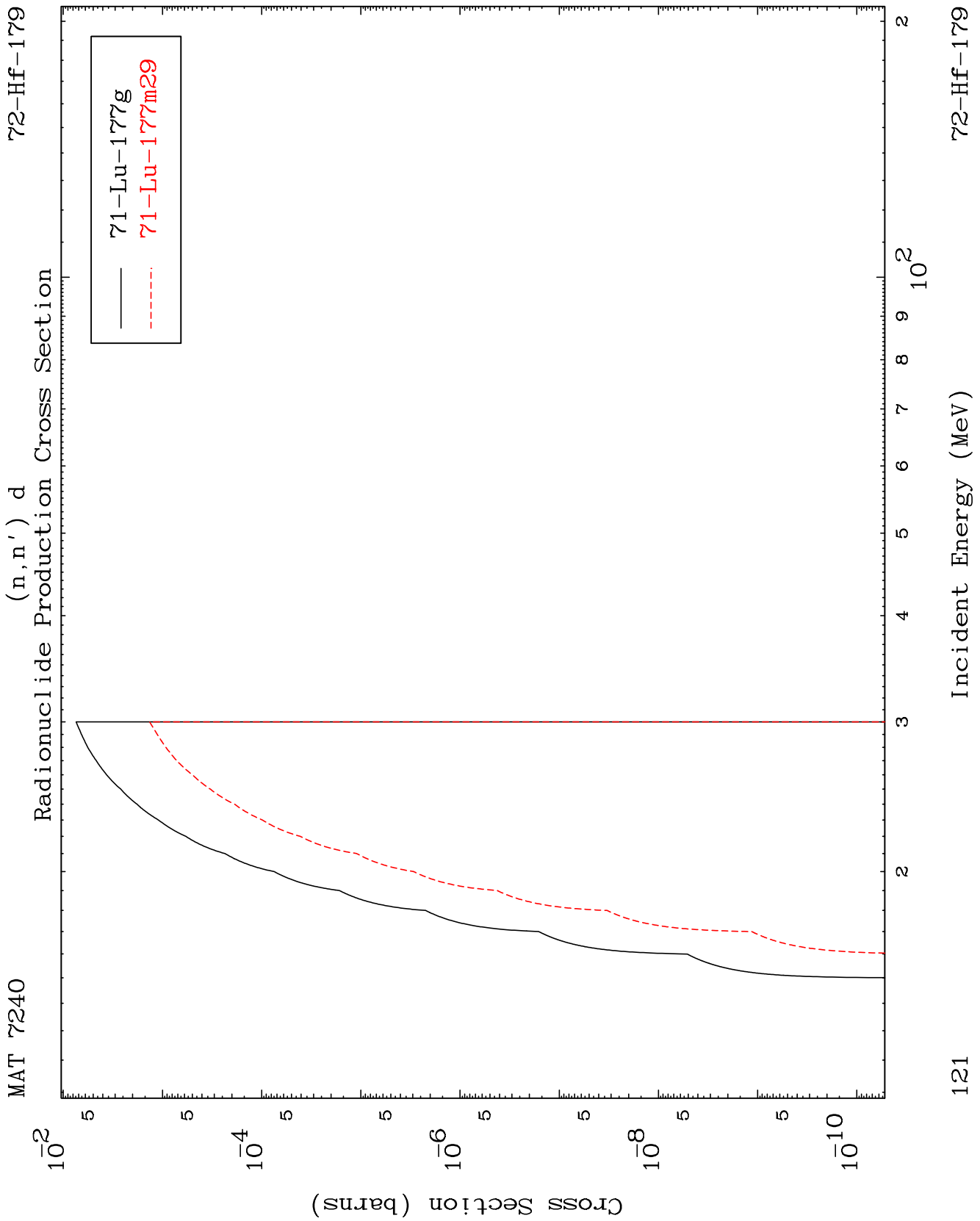
Radionuclide Production Cross Section



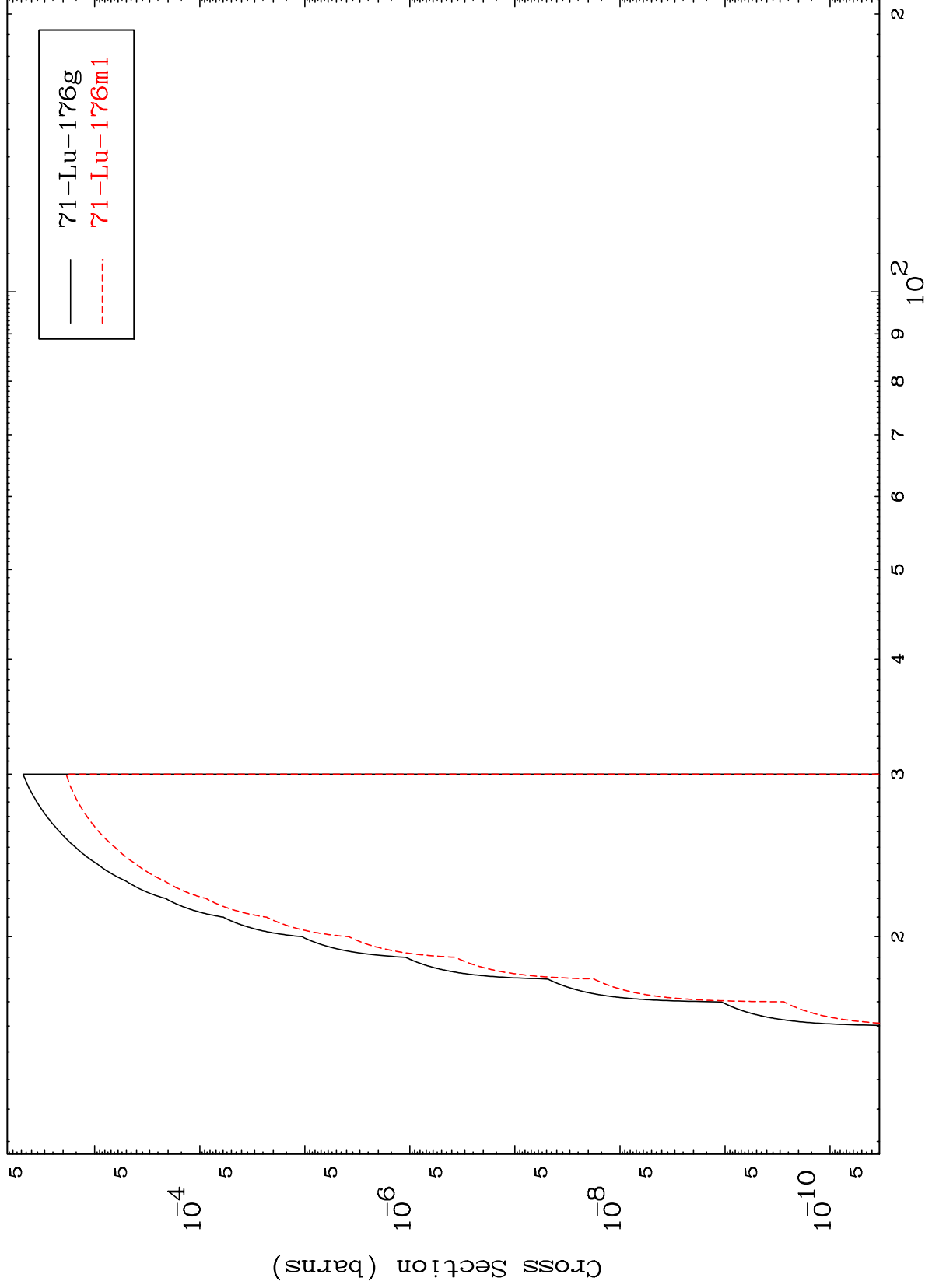
120

Incident Energy (MeV)

72-Hf-179



Radionuclide Production Cross Section

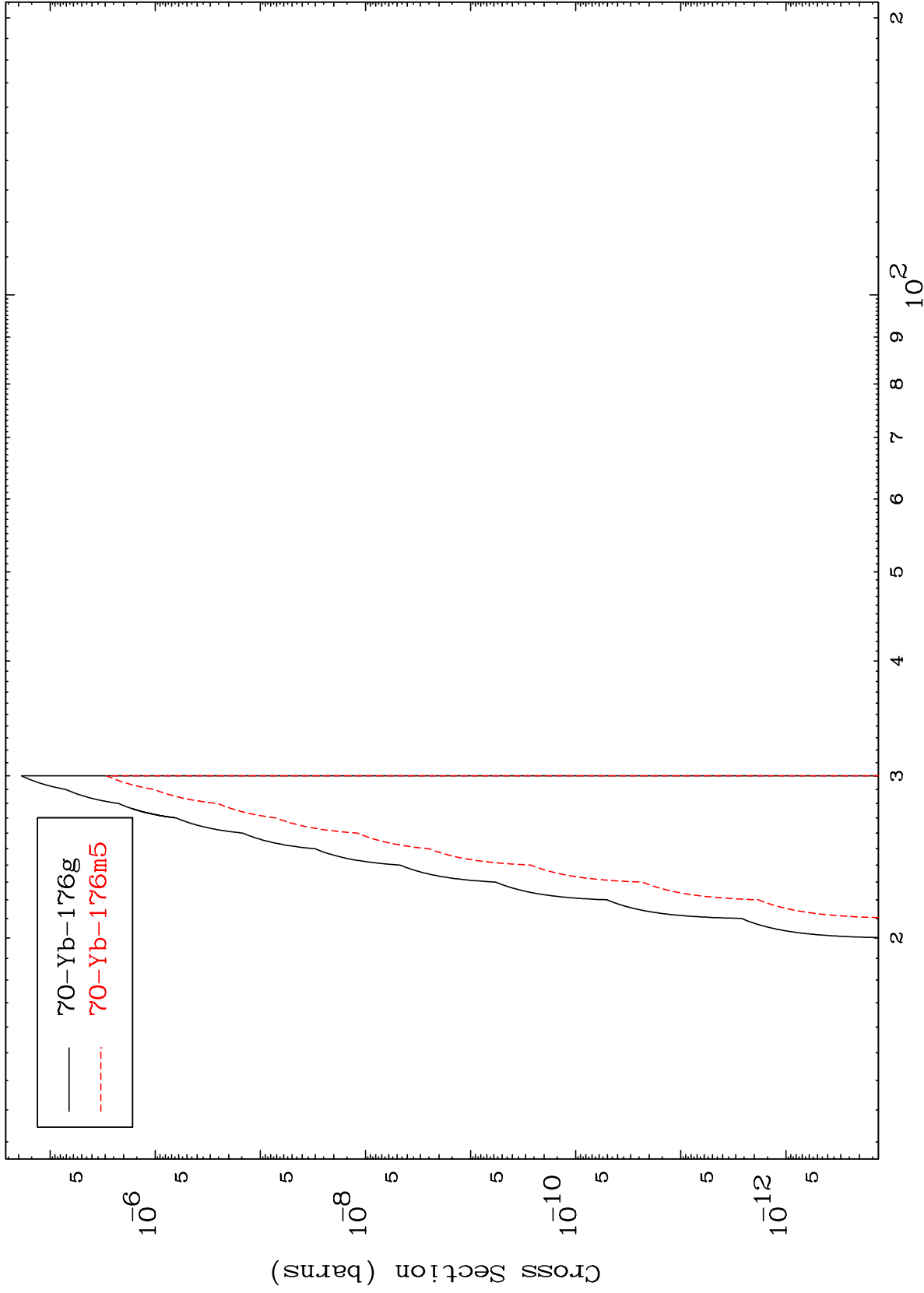


MAT 7240

(n,n') He-3

72-Hf-179

Radionuclide Production Cross Section



123

Incident Energy (MeV)

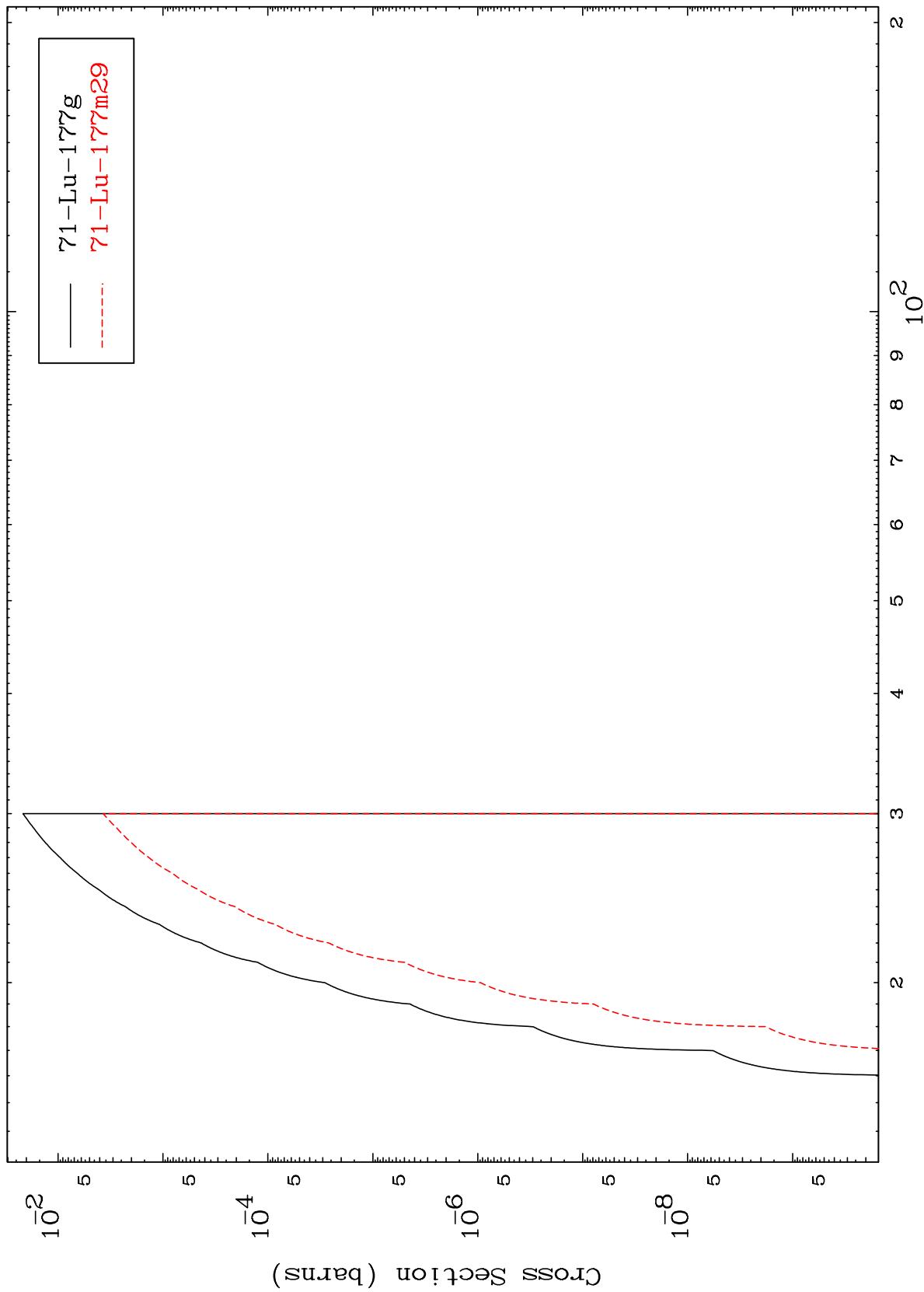
72-Hf-179

MAT 7240

(n,2n) p

72-Hf-179

Radionuclide Production Cross Section



124

Incident Energy (MeV)

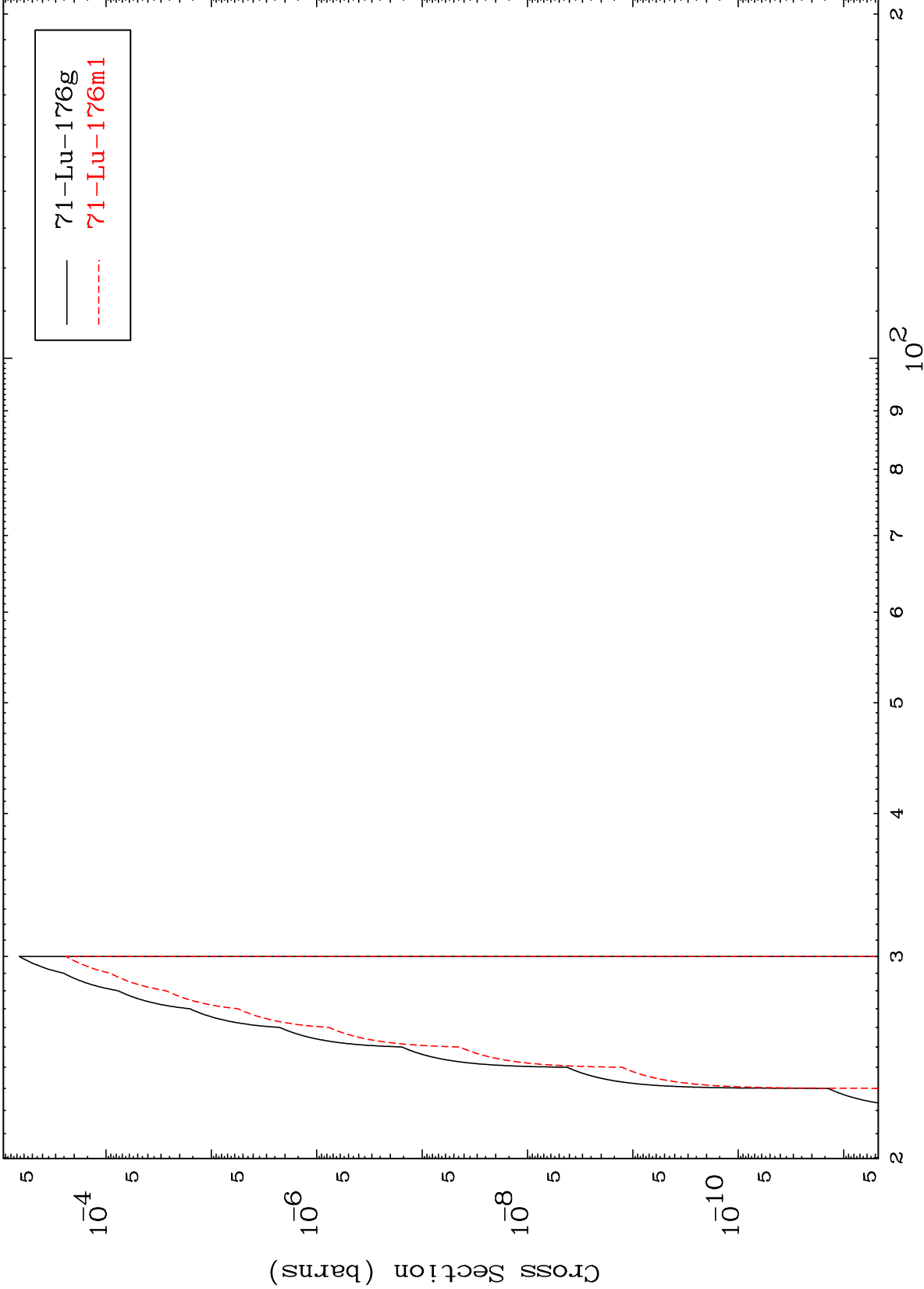
72-Hf-179

MAT 7240

(n,3n) p

72-Hf-179

Radionuclide Production Cross Section

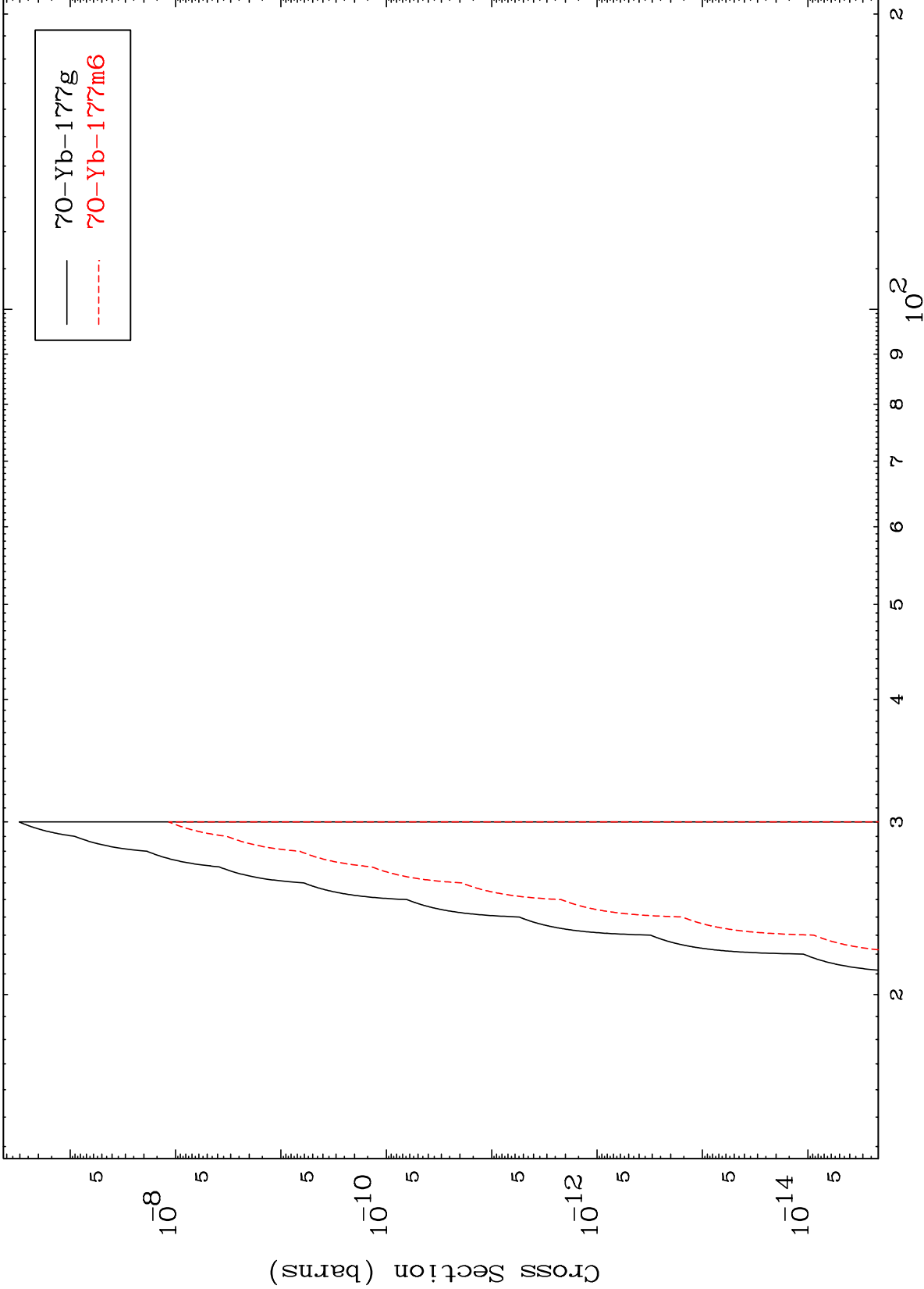


125

Incident Energy (MeV)

72-Hf-179

Radionuclide Production Cross Section

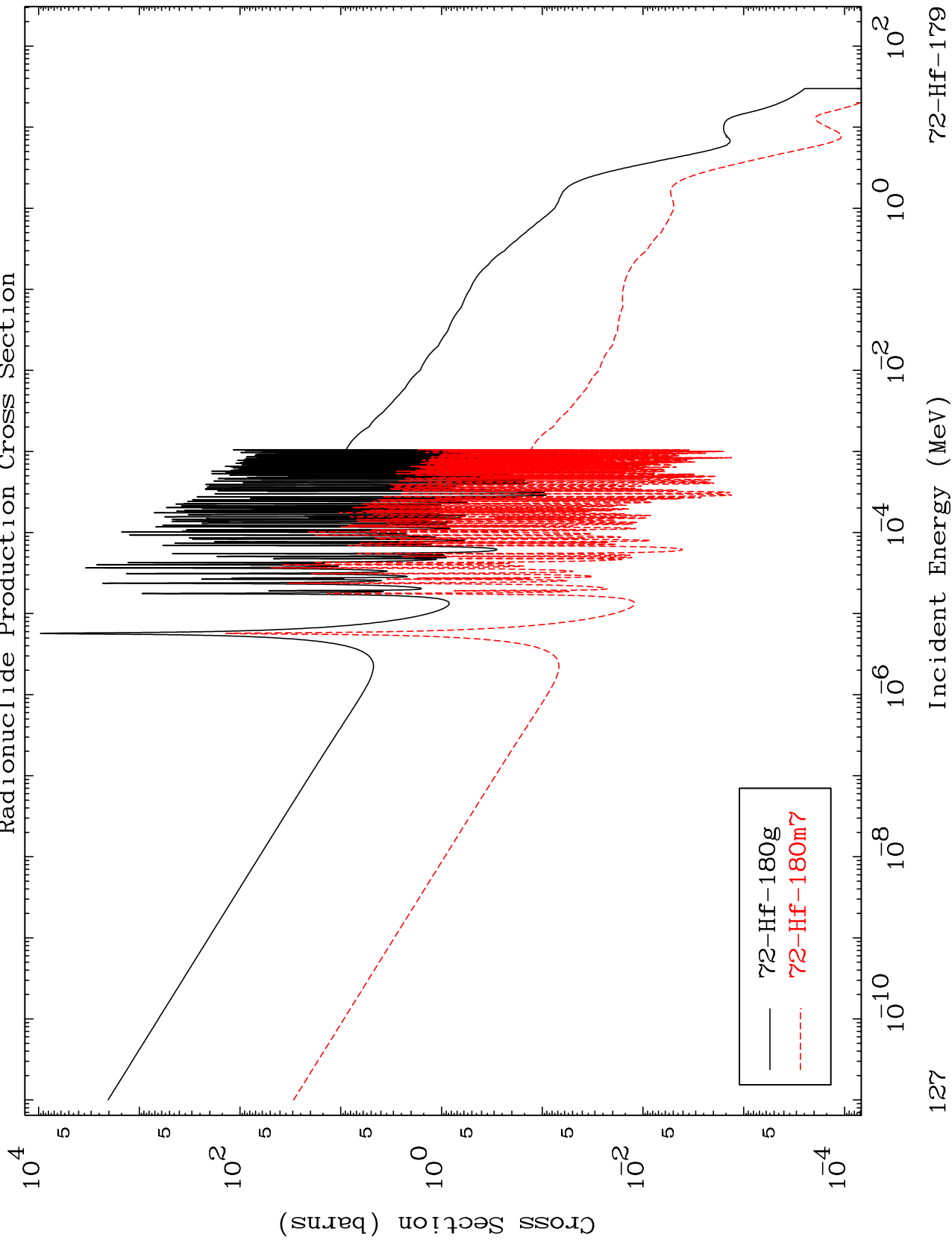


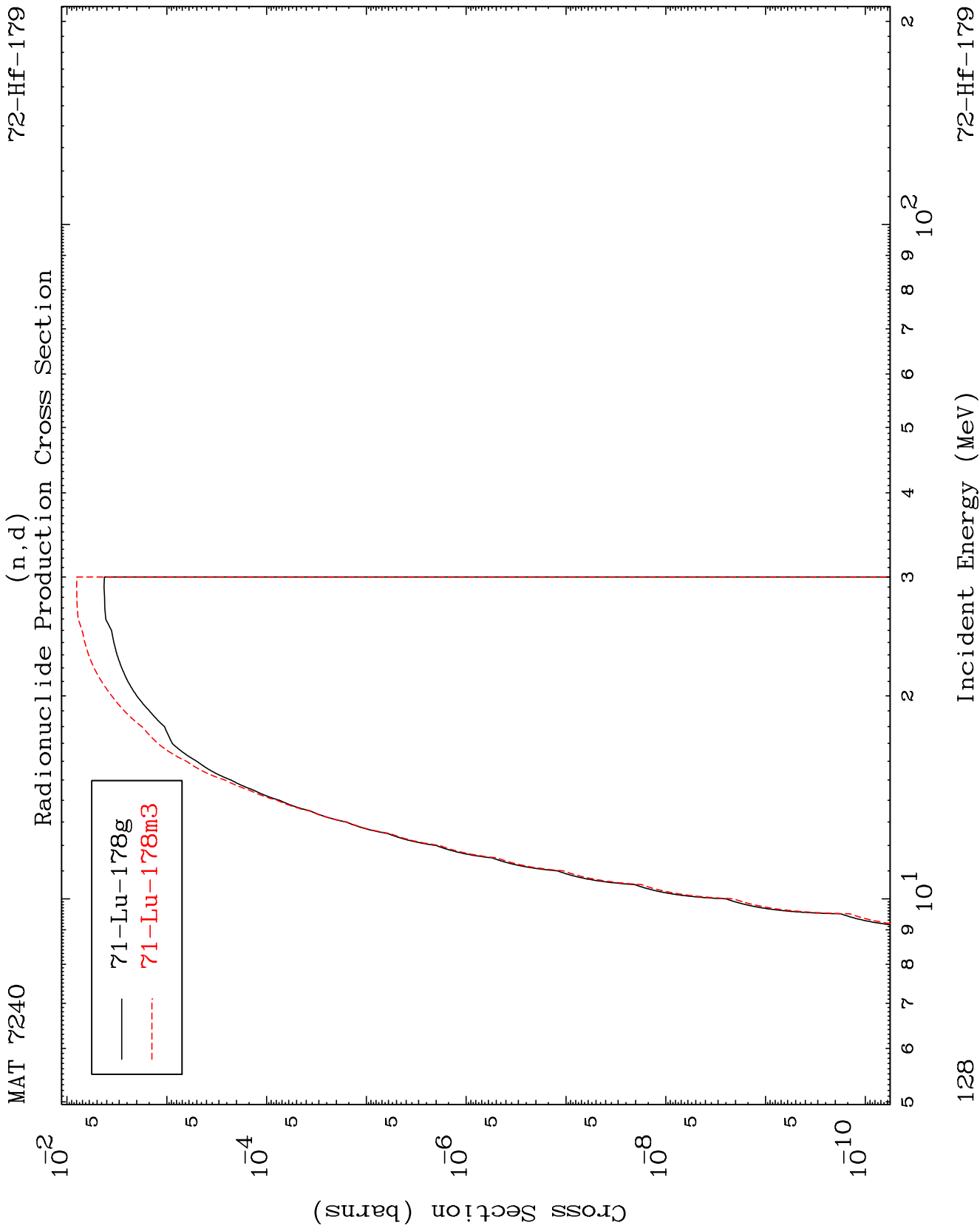
MAT 7240

72-Hf-179

Radionuclide Production Cross Section

(n,  $\gamma$ )

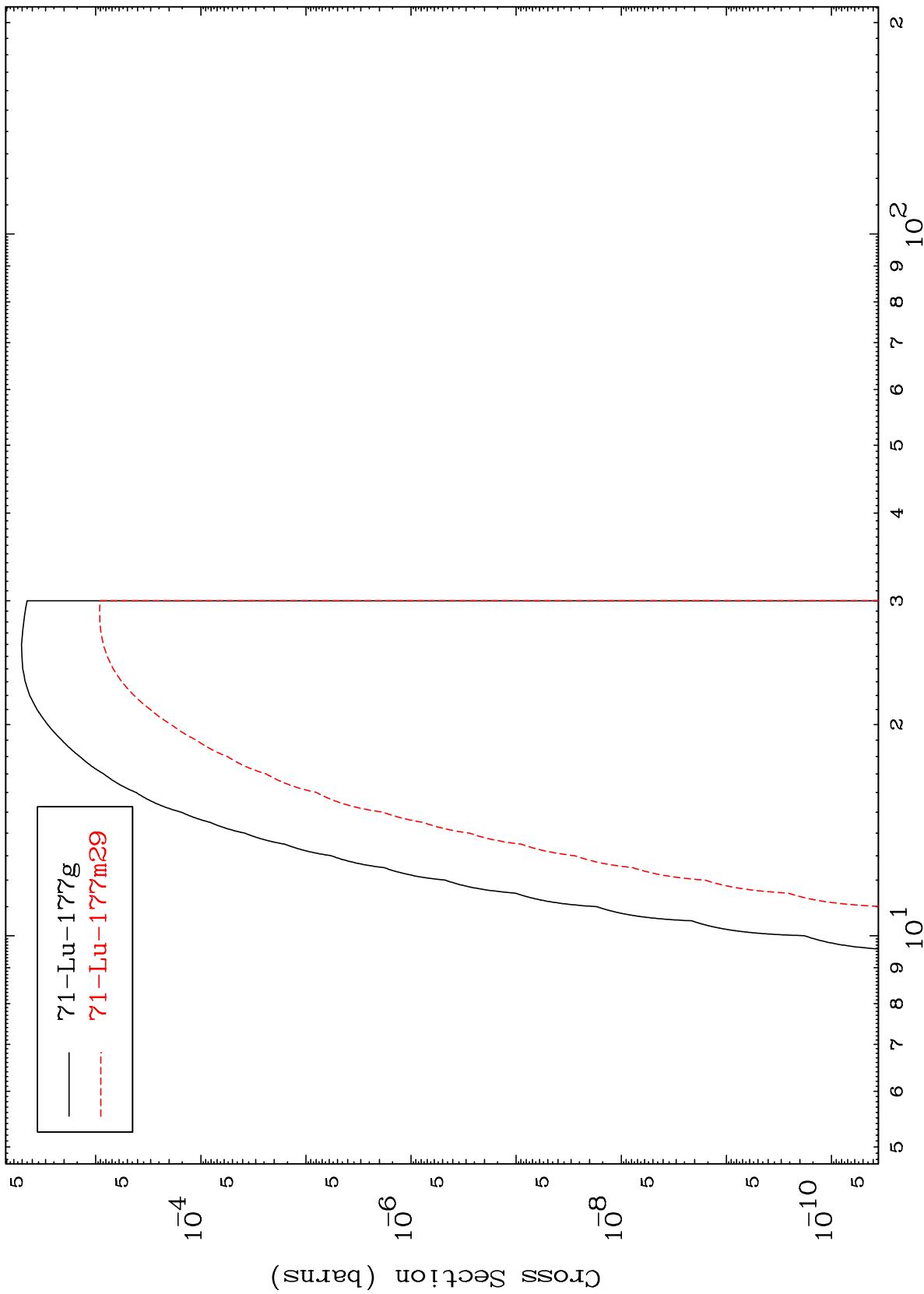




MAT 7240

72-Hf-179

(n, t)  
Radionuclide Production Cross Section



129

Incident Energy (MeV)

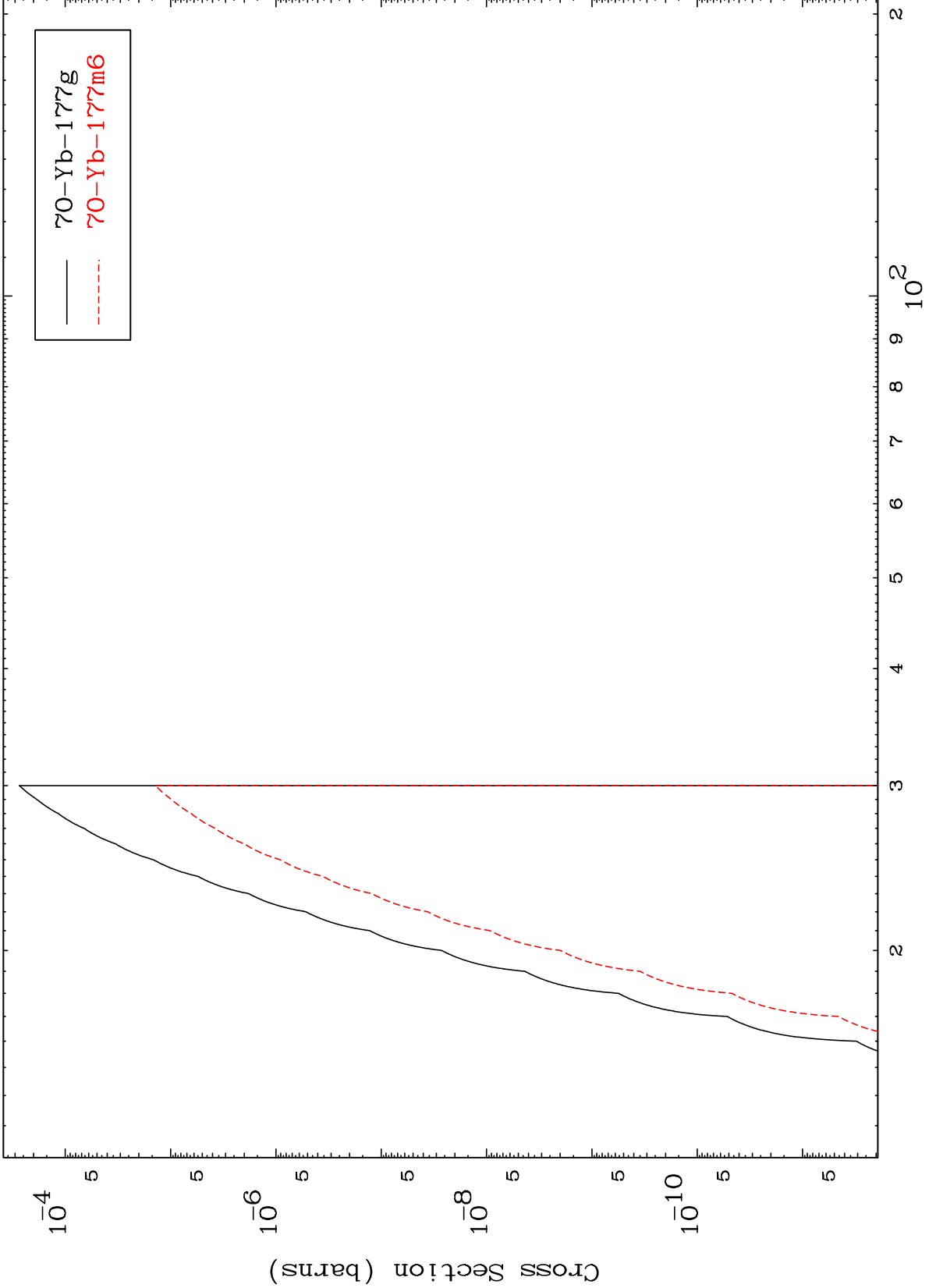
72-Hf-179

MAT 7240

(n,He-3)

72-Hf-179

Radionuclide Production Cross Section

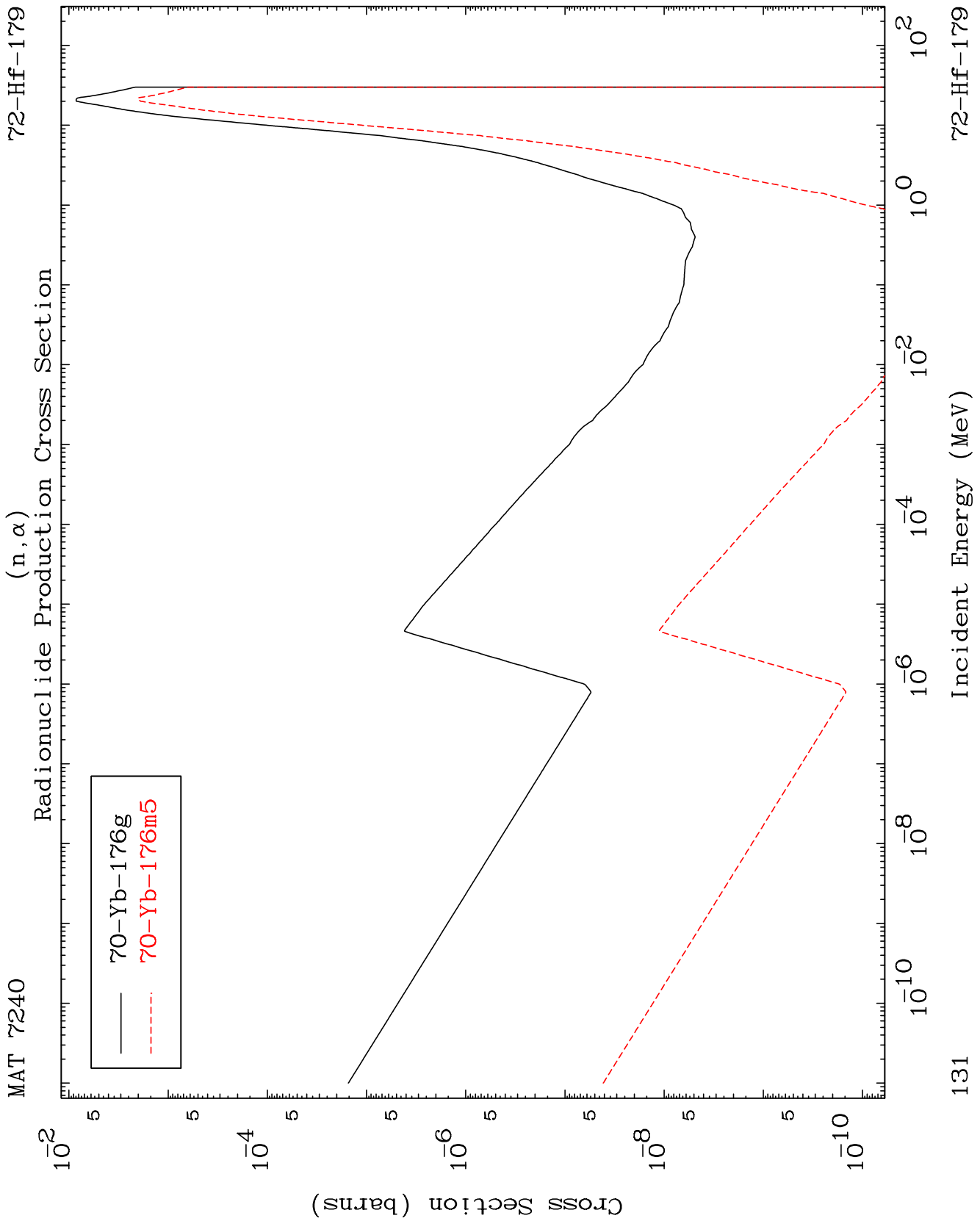


—  $^{70}\text{Yb-177g}$   
- - -  $^{70}\text{Yb-177m6}$

130

Incident Energy (MeV)

72-Hf-179

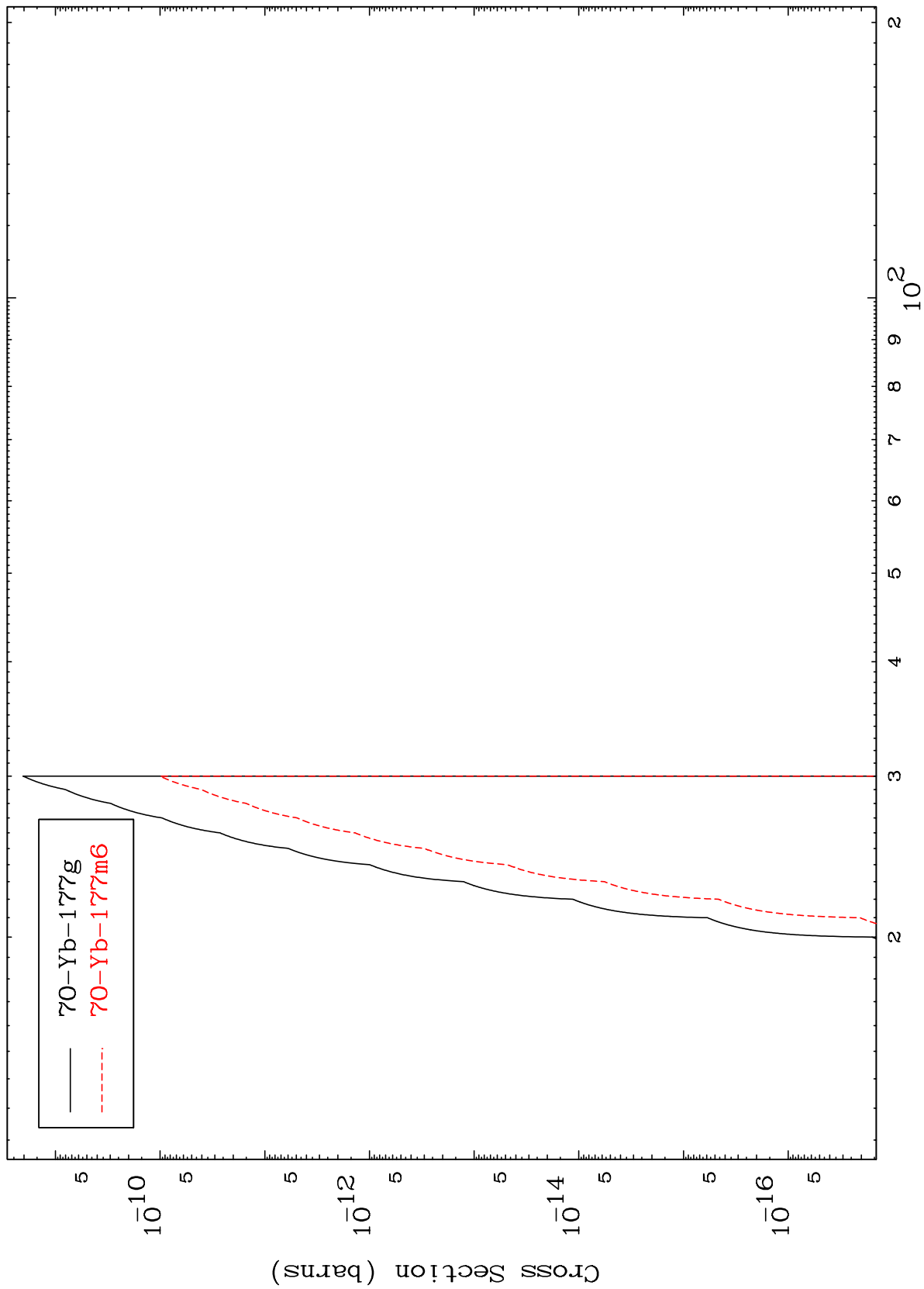


MAT 7240

(n,p) d

72-Hf-179

Radionuclide Production Cross Section



132

Incident Energy (MeV)

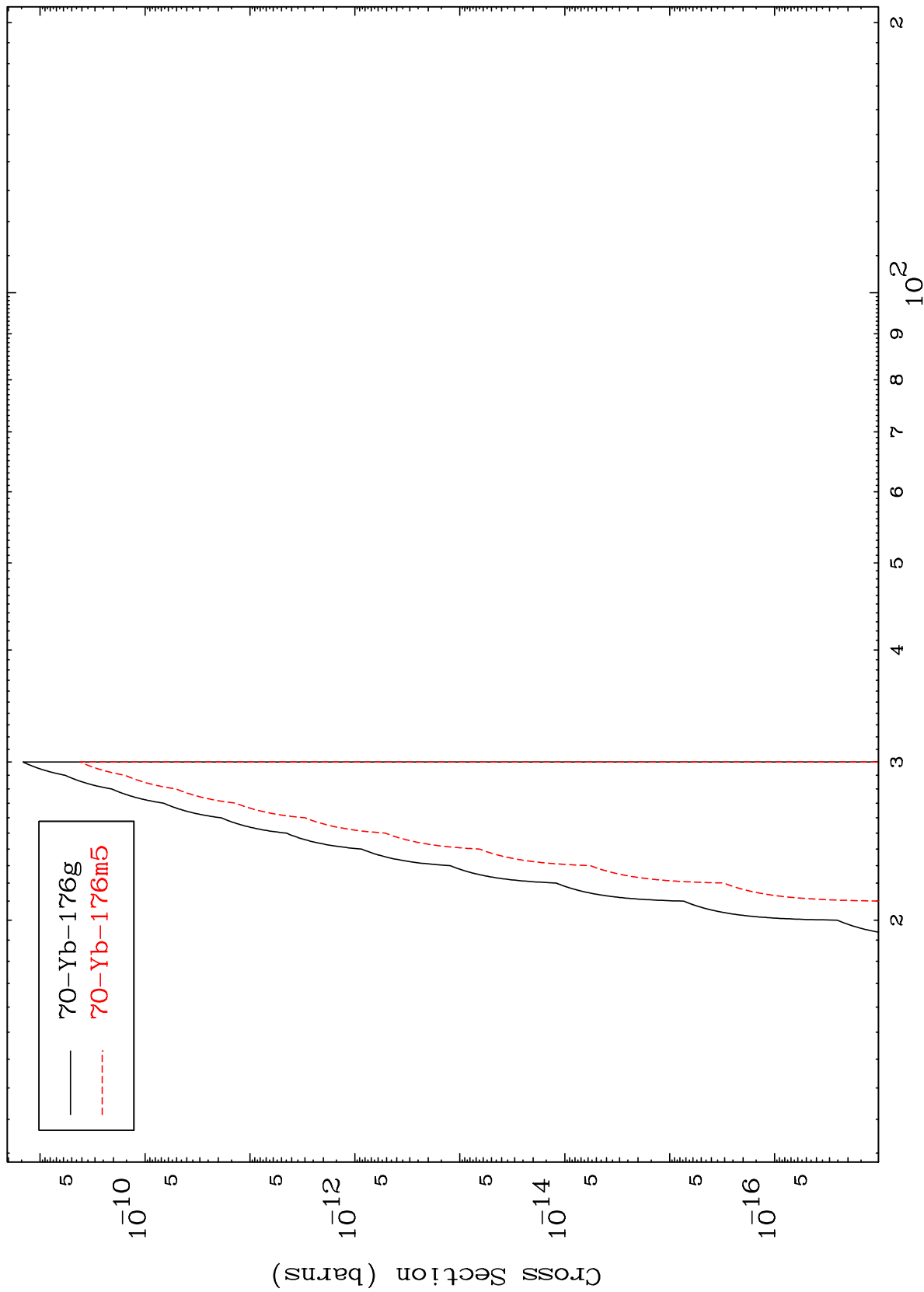
72-Hf-179

MAT 7240

(n,p) t

72-Hf-179

Radionuclide Production Cross Section



70-Yb-176g  
70-Yb-176m5