

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

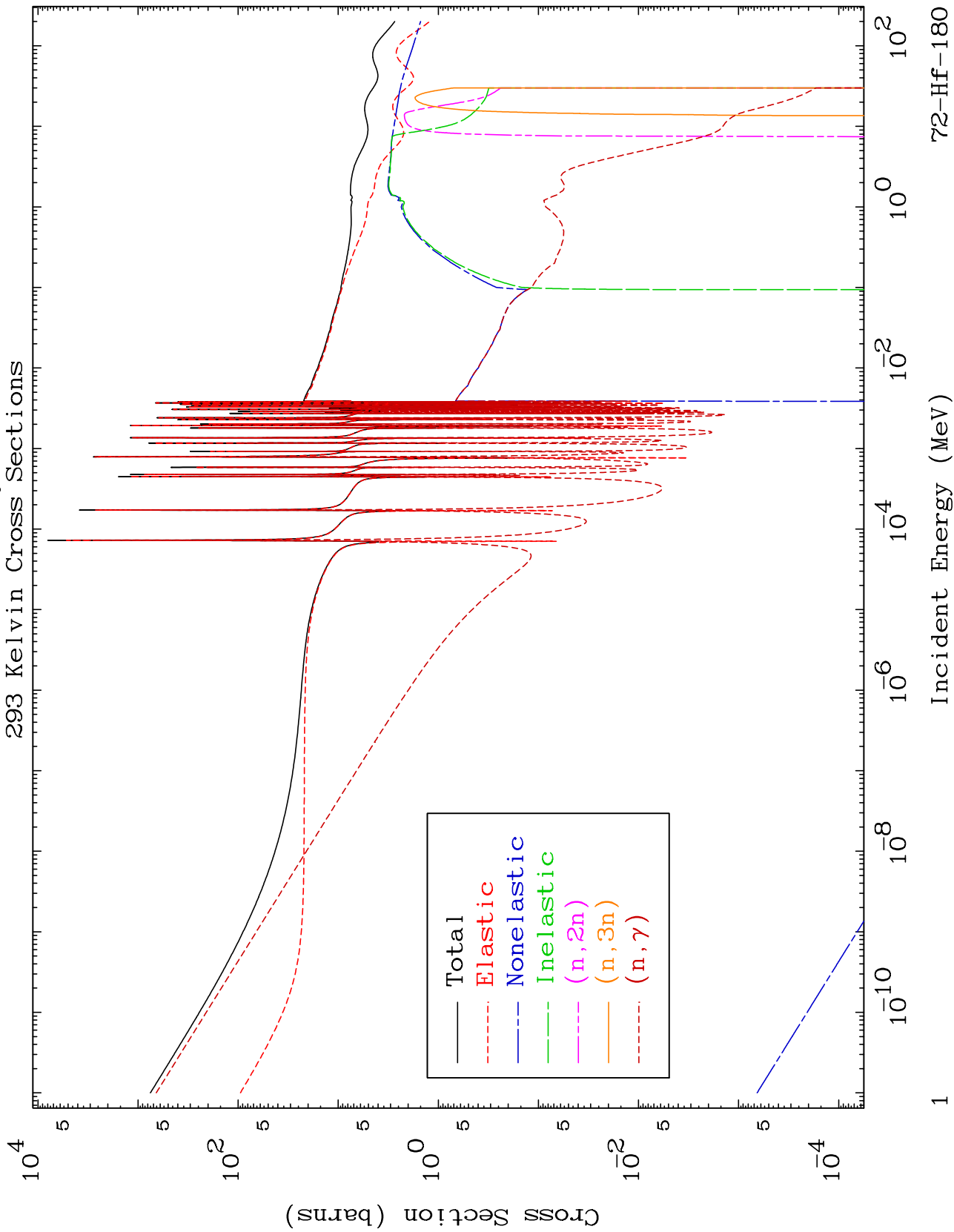
Web:redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 7243

Neutron Major
293 Kelvin Cross Sections

72-Hf-180



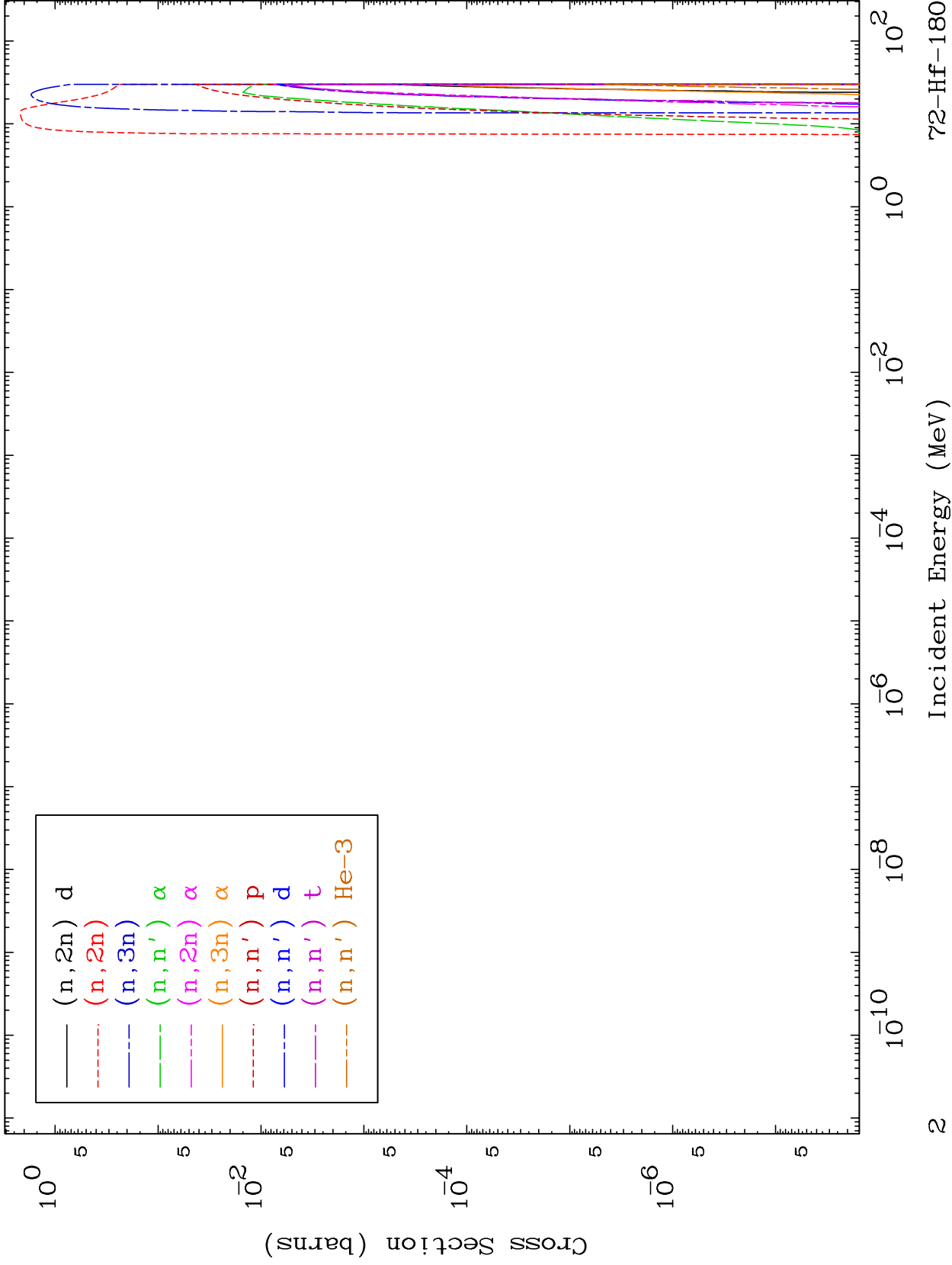
1

72-Hf-180

MAT 7243

Neutron Absorption
293 Kelvin Cross Sections

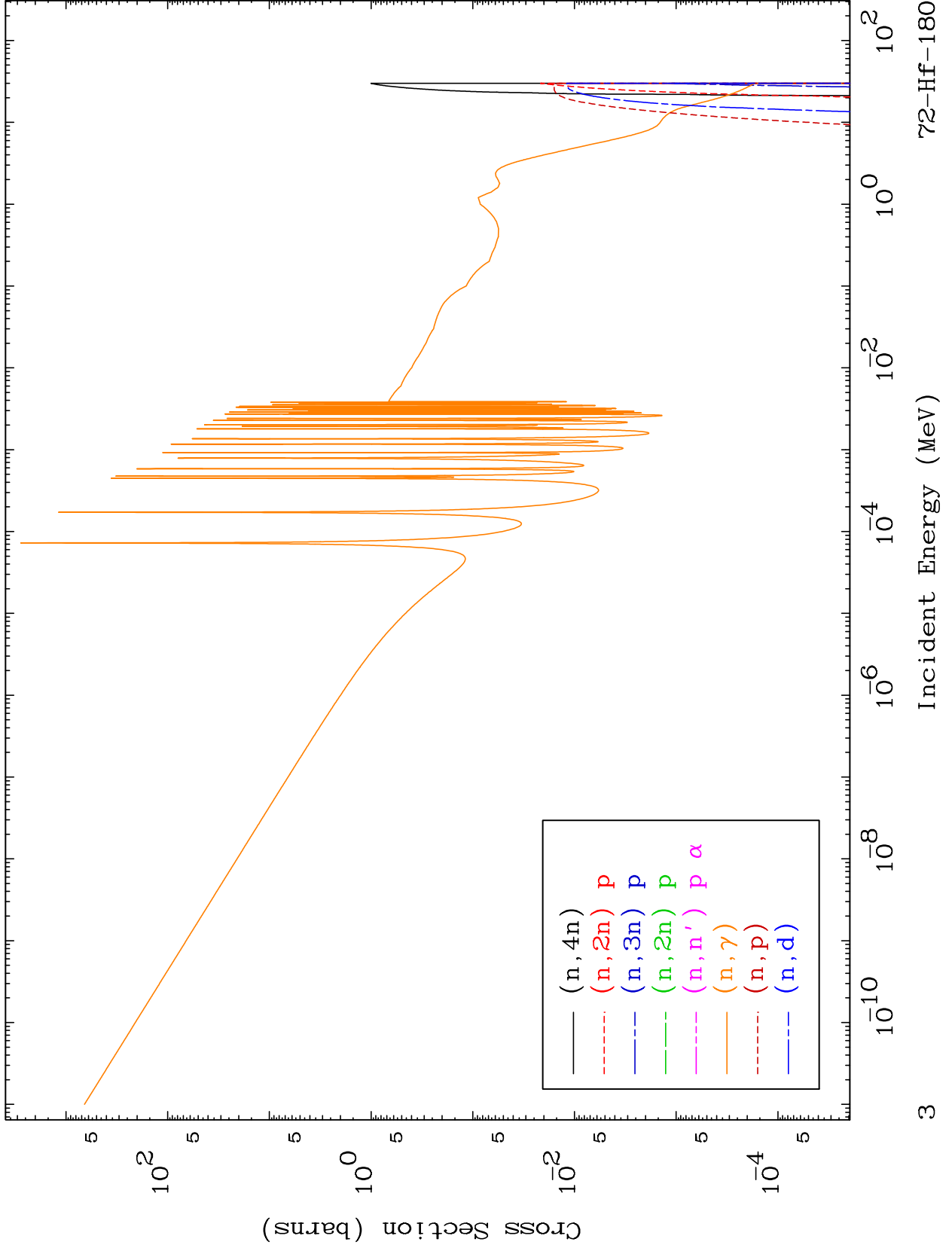
72-Hf-180



MAT 7243

Neutron Absorption
293 Kelvin Cross Sections

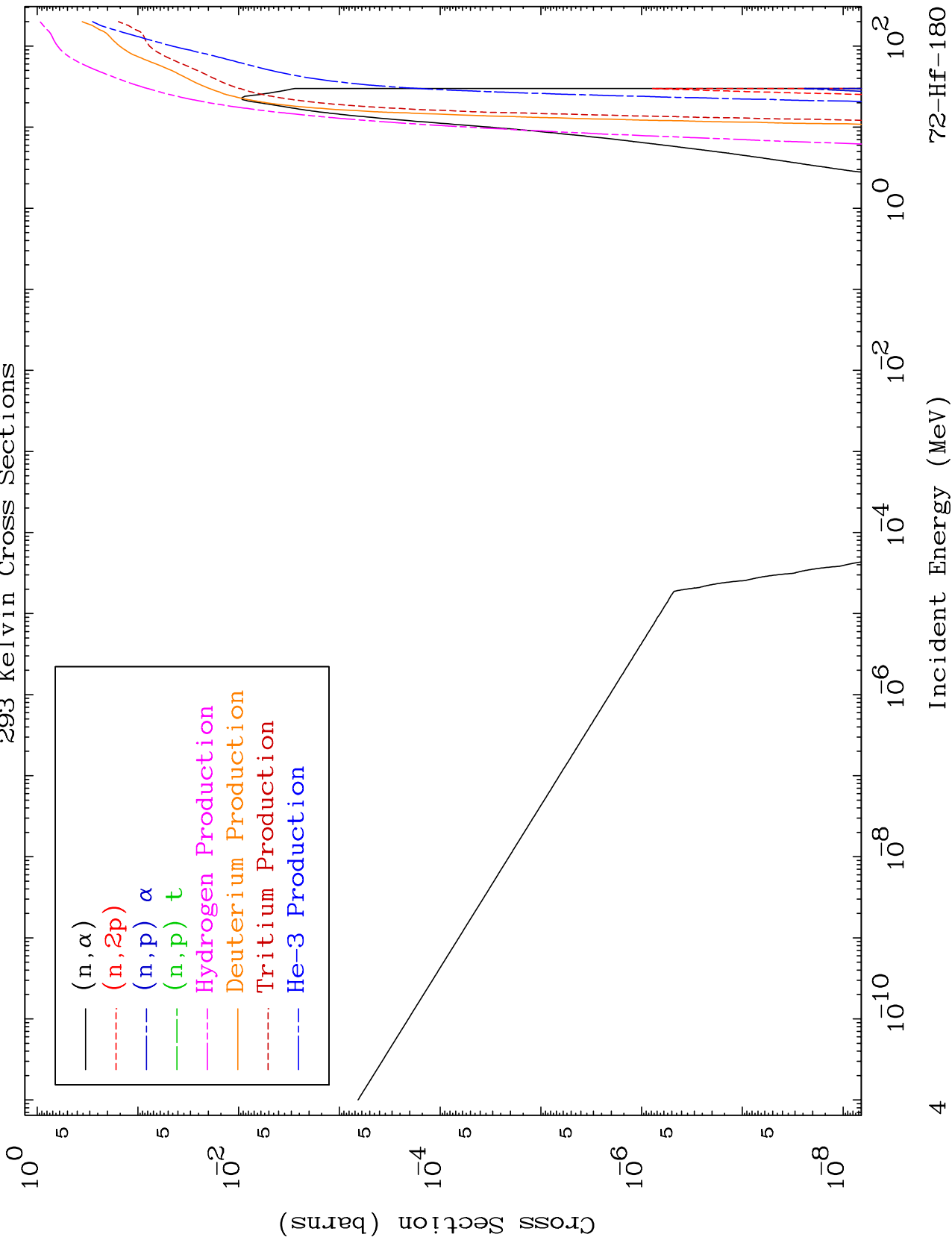
72-Hf-180



MAT 7243

Neutron Absorption
293 Kelvin Cross Sections

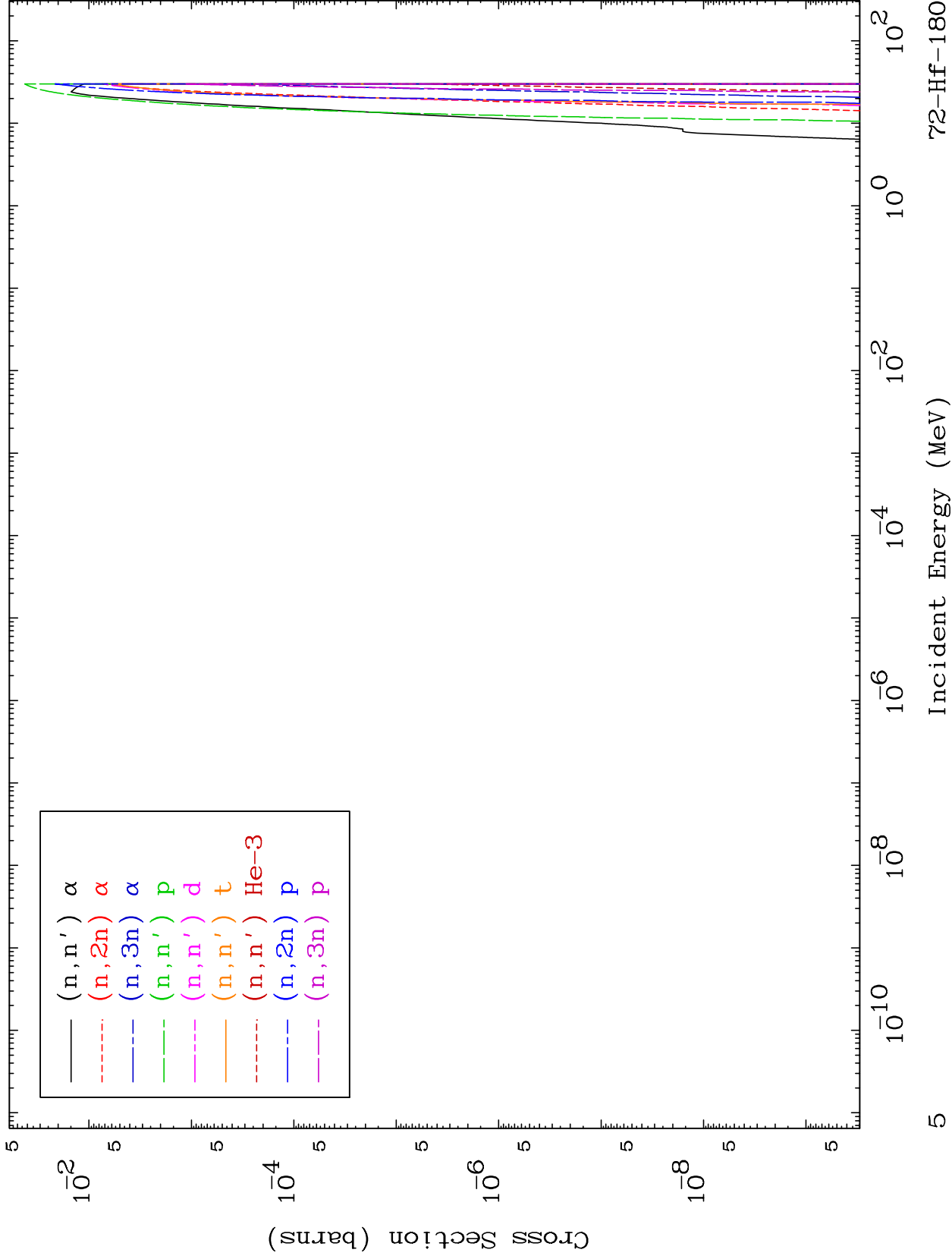
72-Hf-180



MAT 7243

Charged Particle
293 Kelvin Cross Sections

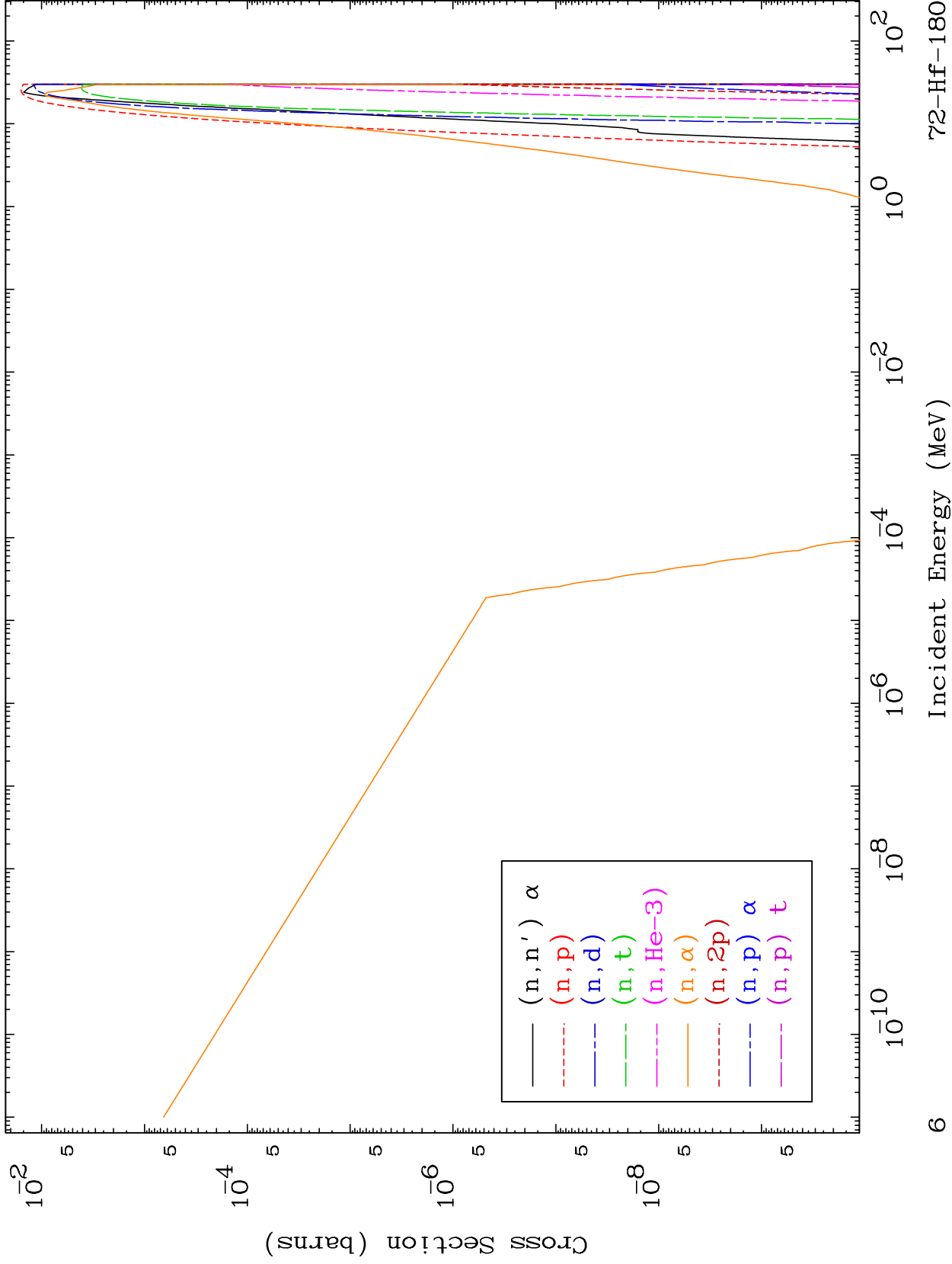
72-Hf-180



MAT 7243

Charged Particle
293 Kelvin Cross Sections

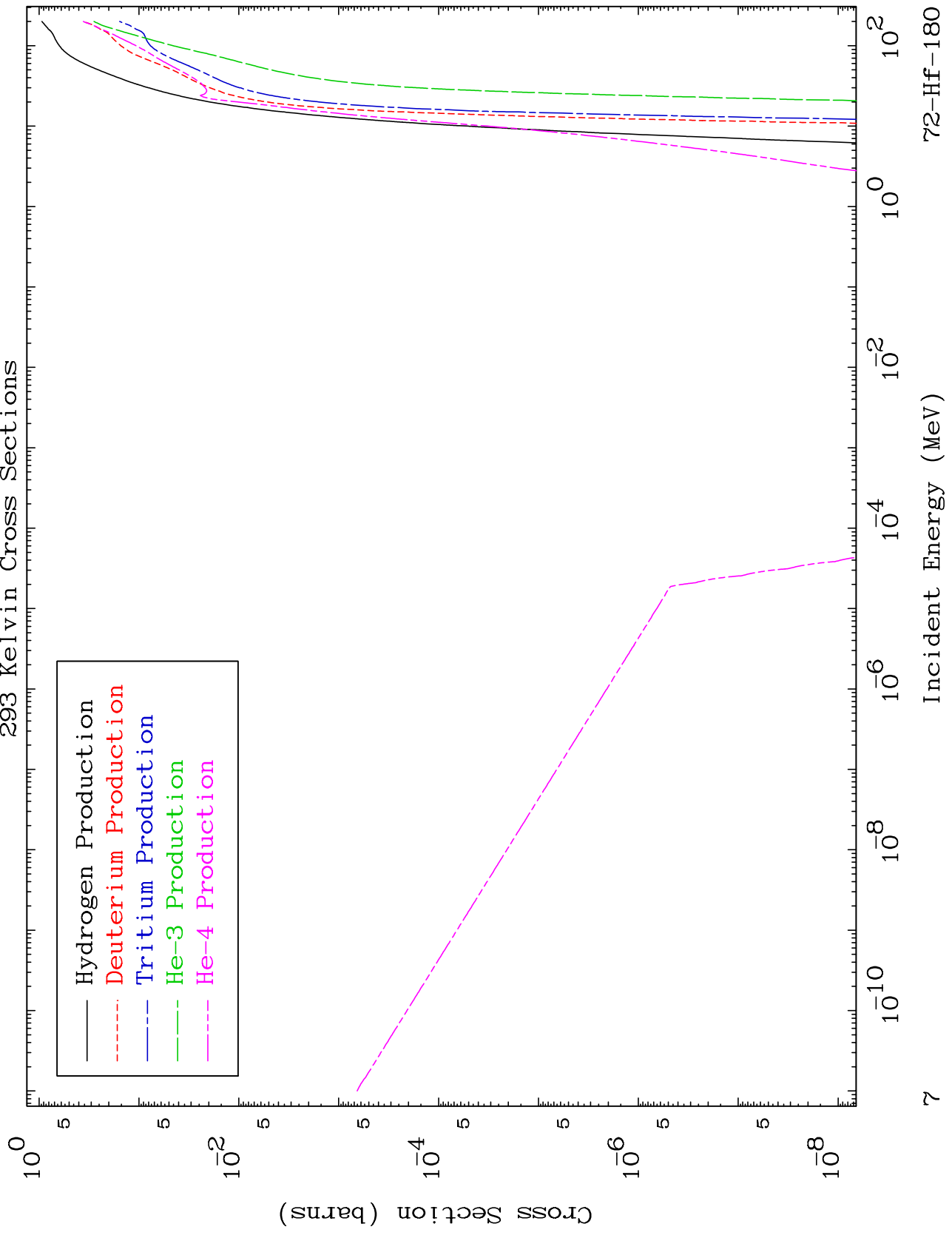
72-Hf-180



MAT 7243

Particle Production
293 Kelvin Cross Sections

72-Hf-180



Legend:

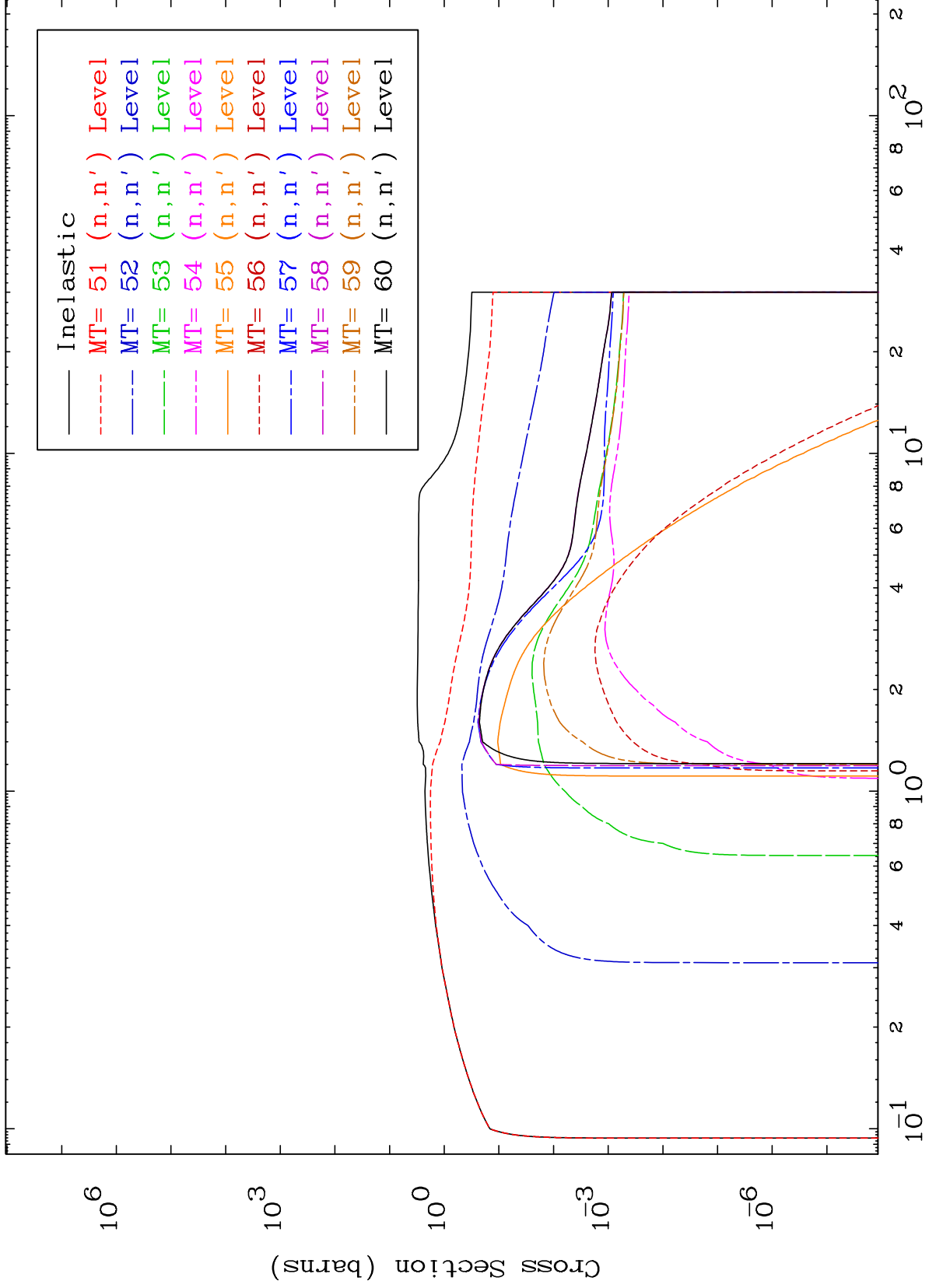
- Hydrogen Production (solid black line)
- Deuterium Production (dashed red line)
- Tritium Production (dash-dot blue line)
- He-3 Production (dashed green line)
- He-4 Production (dashed magenta line)

MAT 7243

(n,n') Levels

72-Hf-180

293 Kelvin Cross Sections



Incident Energy (MeV)

72-Hf-180

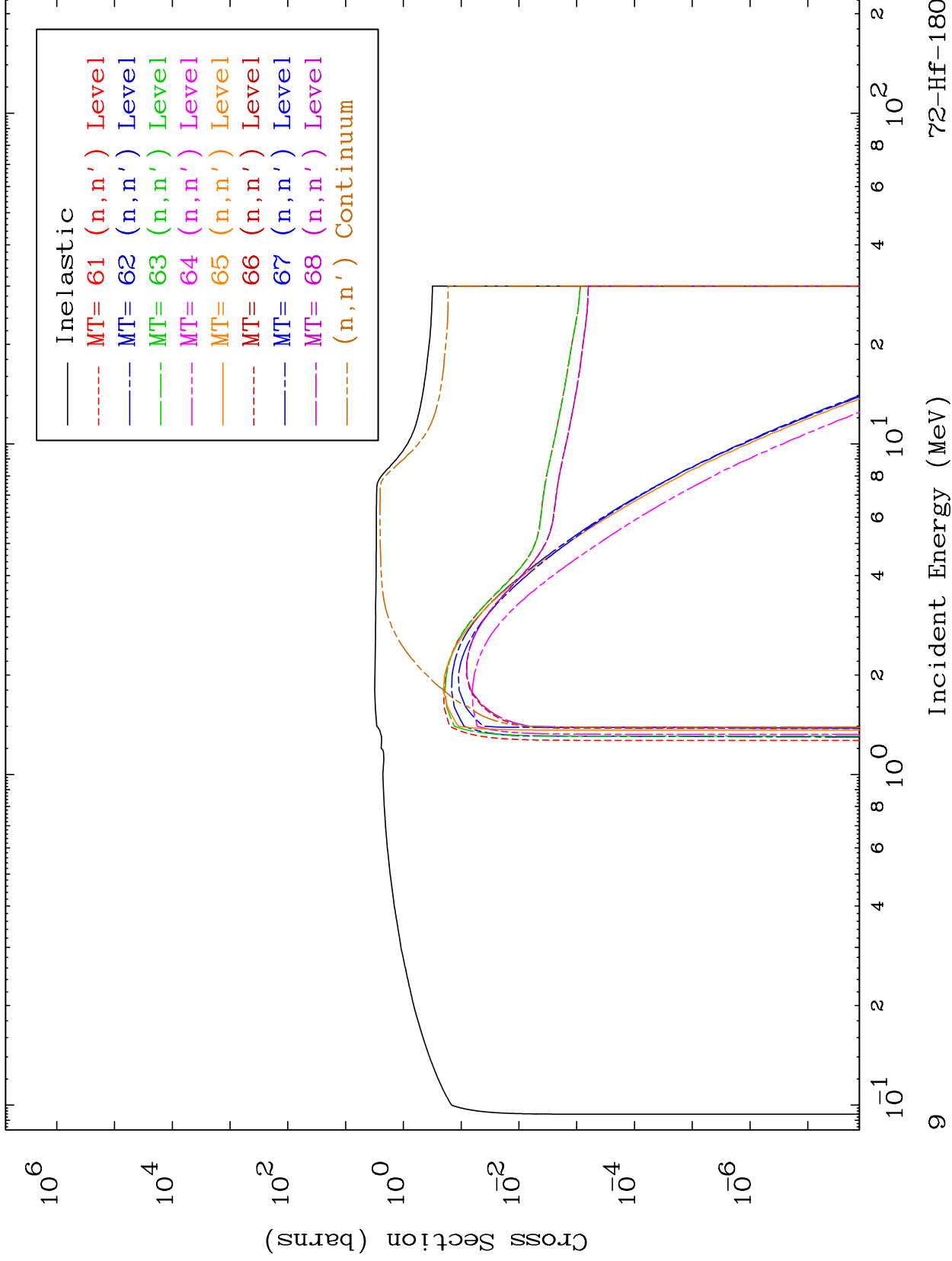
8

MAT 7243

(n,n') Levels

72-Hf-180

293 Kelvin Cross Sections



Incident Energy (MeV)

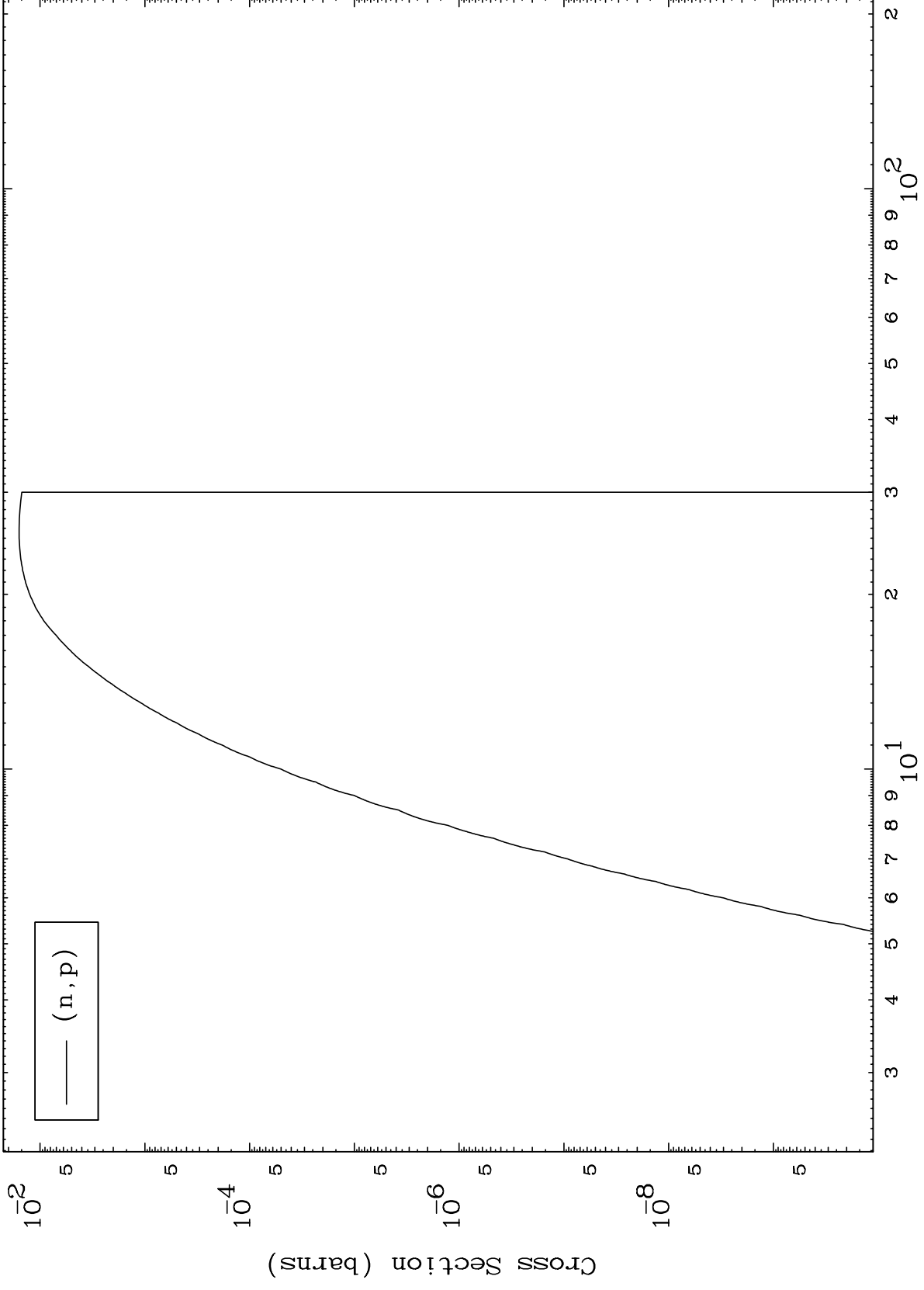
72-Hf-180

9

MAT 7243

(n,p) Levels
293 Kelvin Cross Sections

72-Hf-180



10

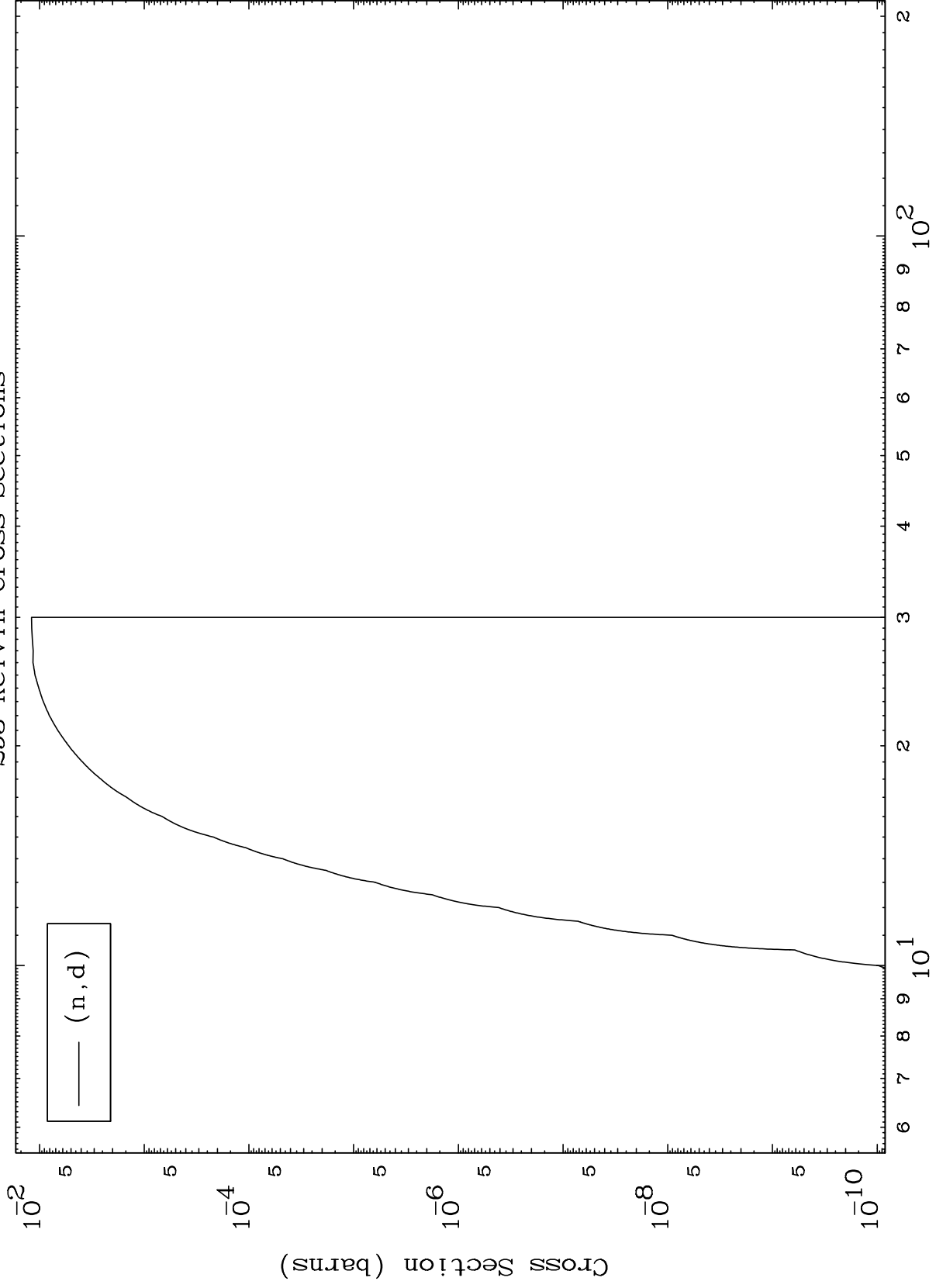
Incident Energy (MeV)

72-Hf-180

MAT 7243

(n,d) Levels
293 Kelvin Cross Sections

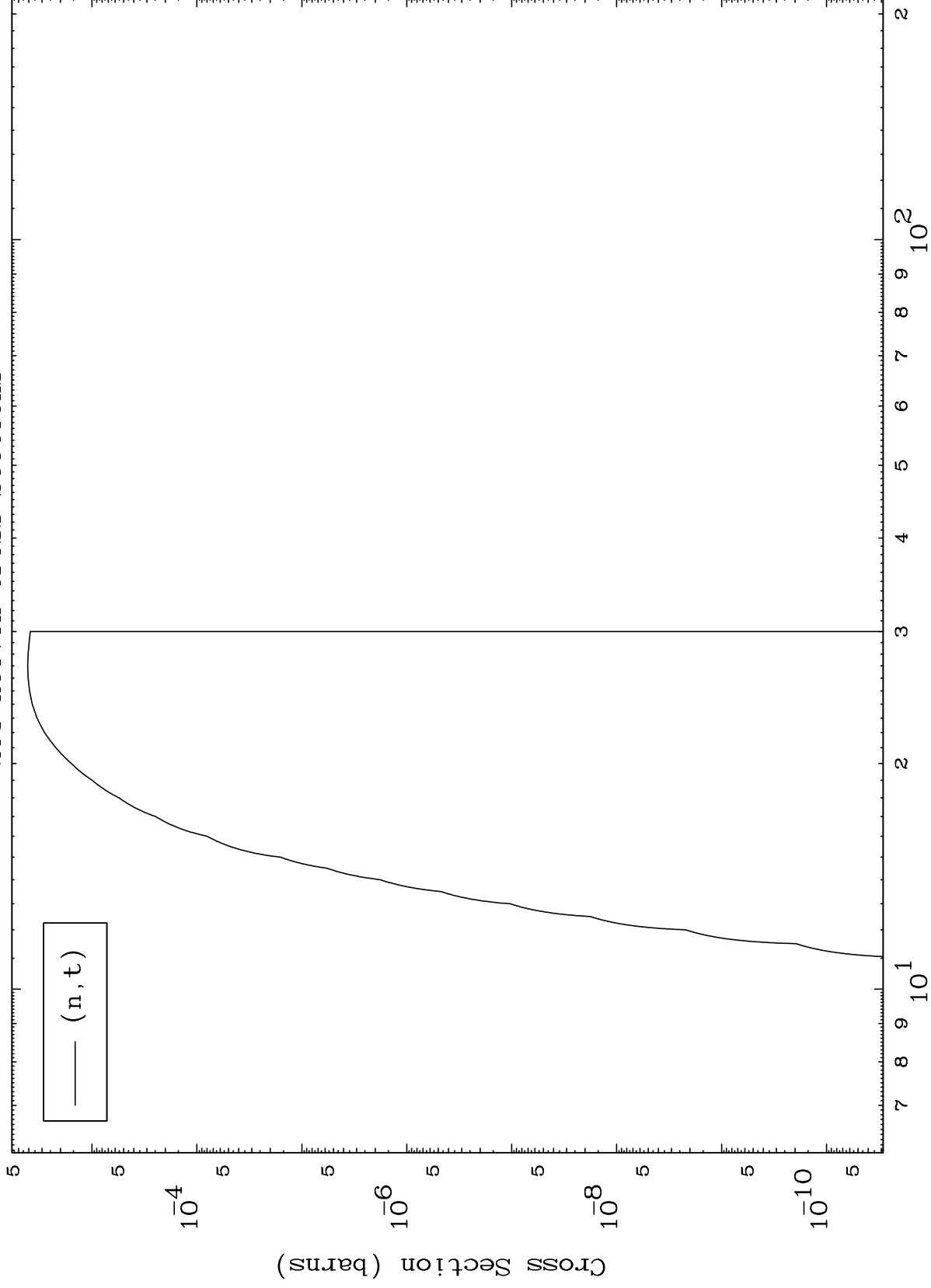
72-Hf-180



MAT 7243

(n,t) Levels
293 Kelvin Cross Sections

72-Hf-180



12

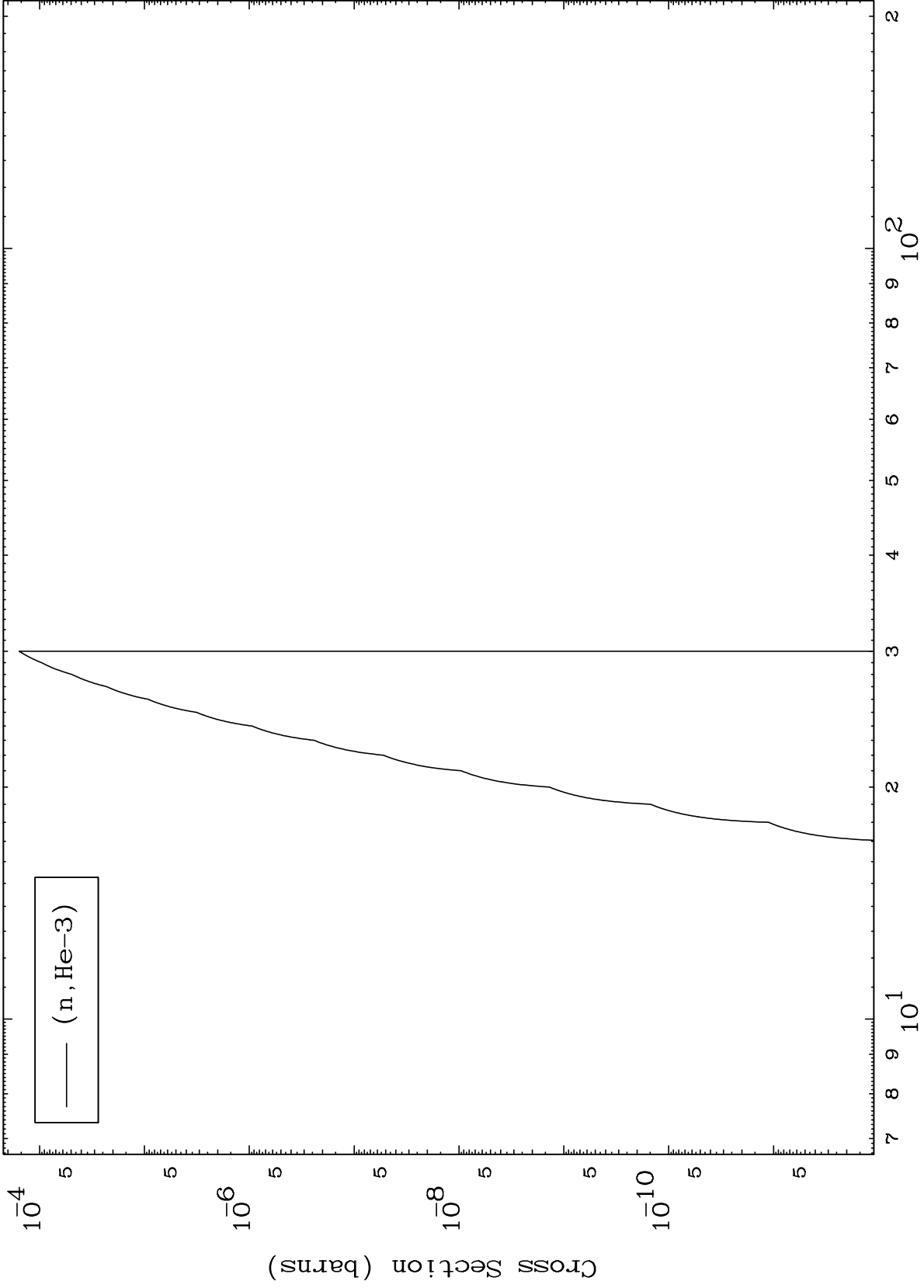
Incident Energy (MeV)

72-Hf-180

MAT 7243

(n,He3) Levels
293 Kelvin Cross Sections

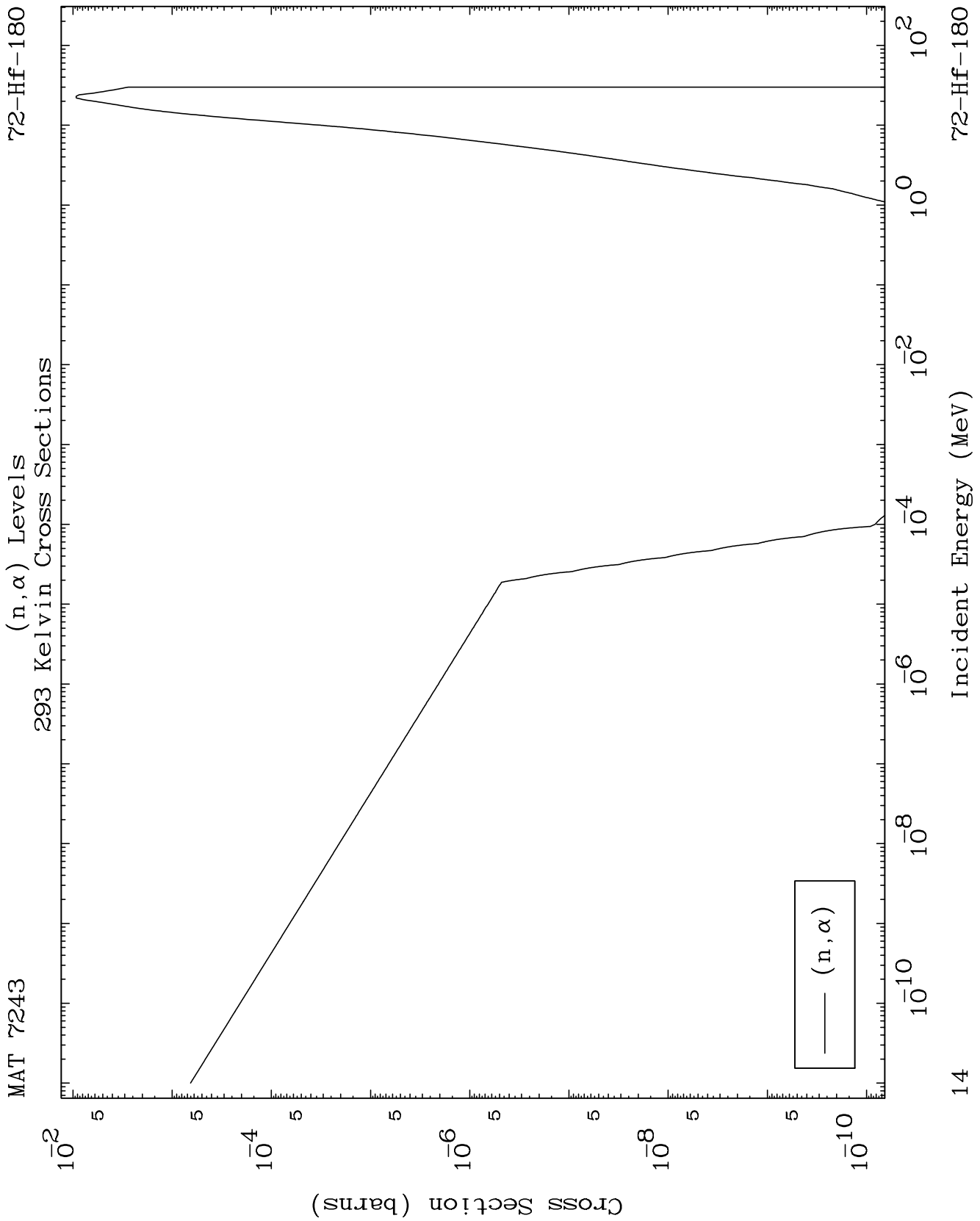
72-Hf-180



13

Incident Energy (MeV)

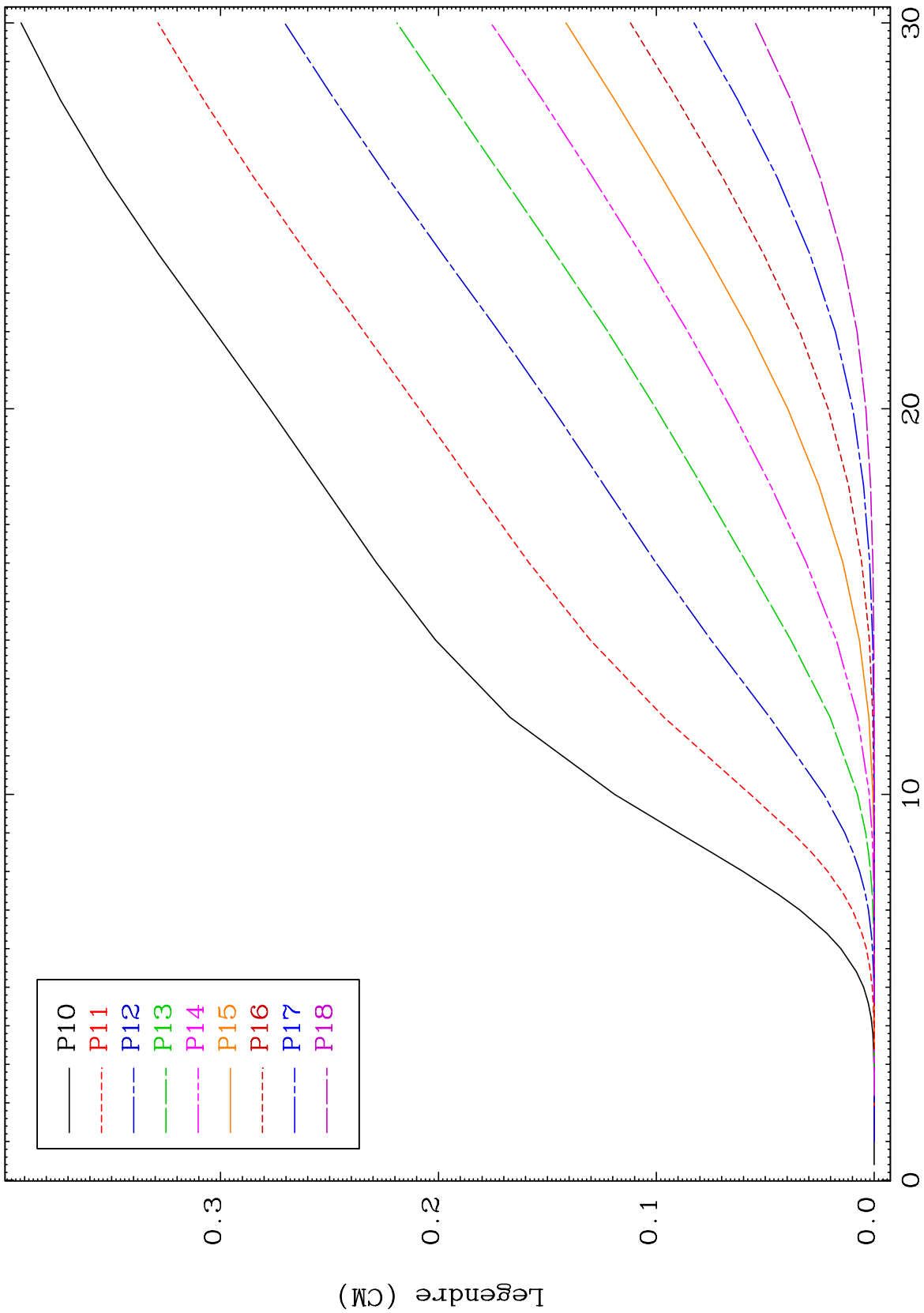
72-Hf-180



MAT 7243

Elastic Legendre Coefficients

72-Hf-180



16

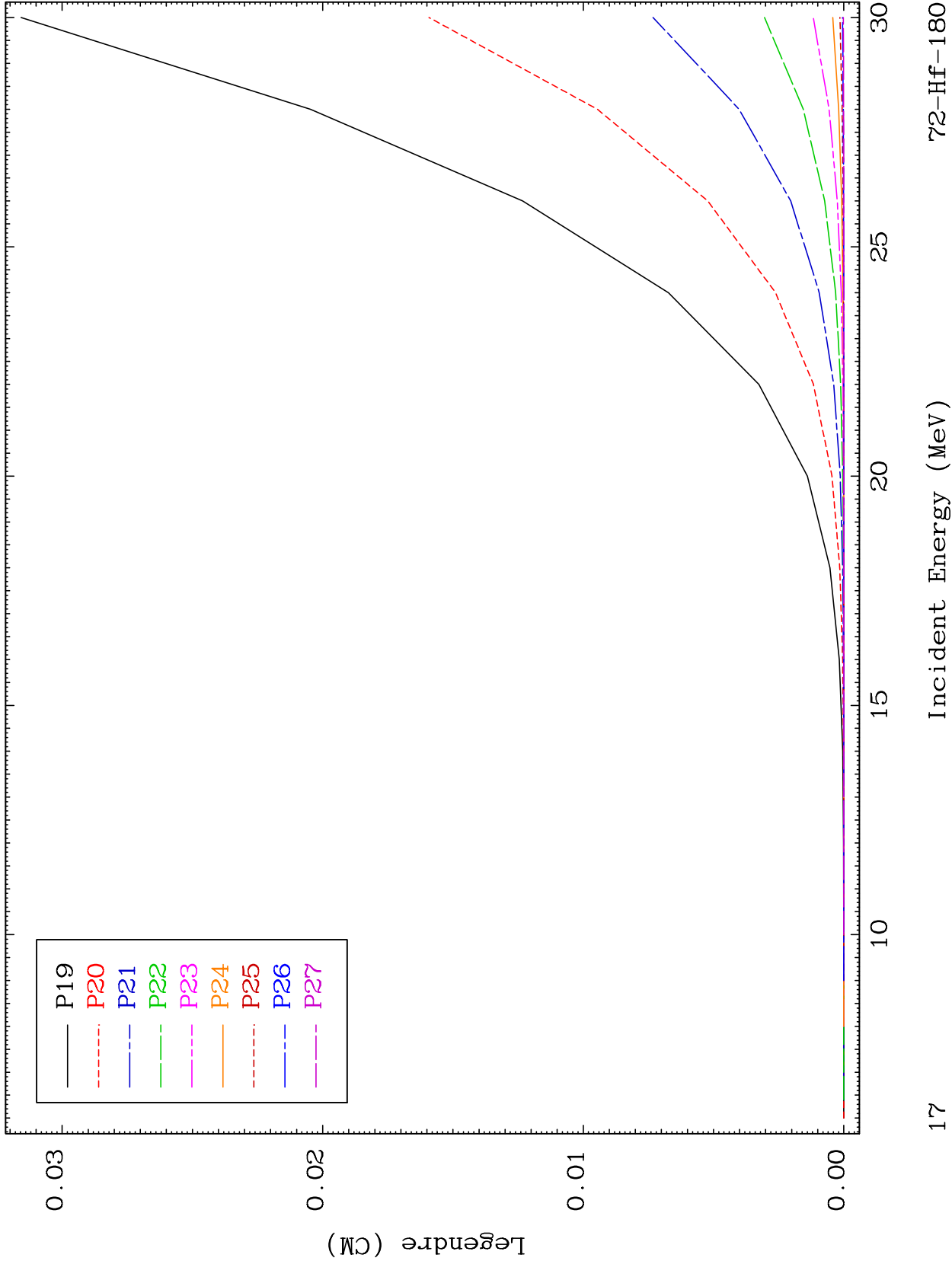
Incident Energy (MeV)

72-Hf-180

MAT 7243

Elastic Legendre Coefficients

72-Hf-180



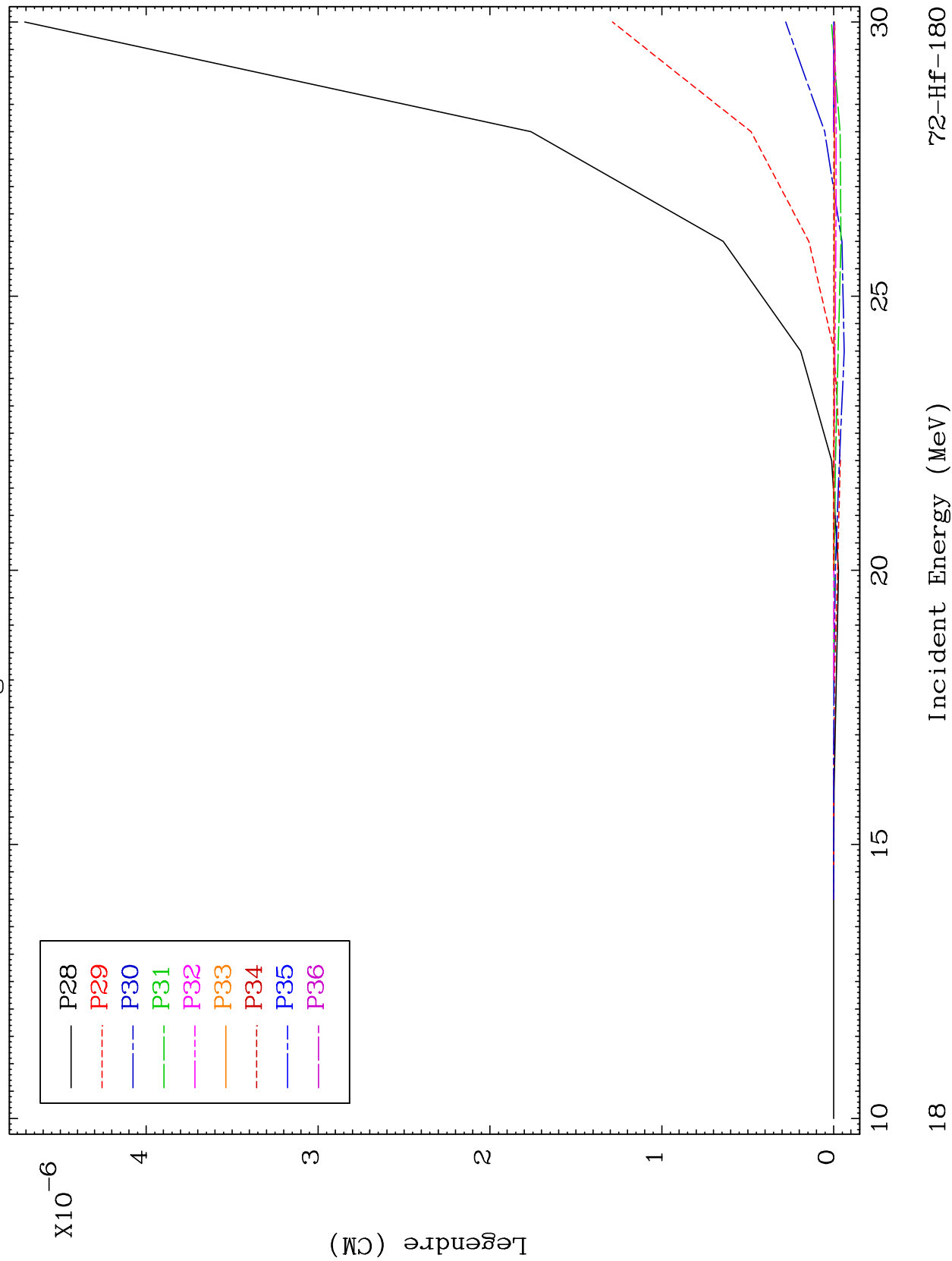
17

72-Hf-180

MAT 7243

Elastic Legendre Coefficients

72-Hf-180



18

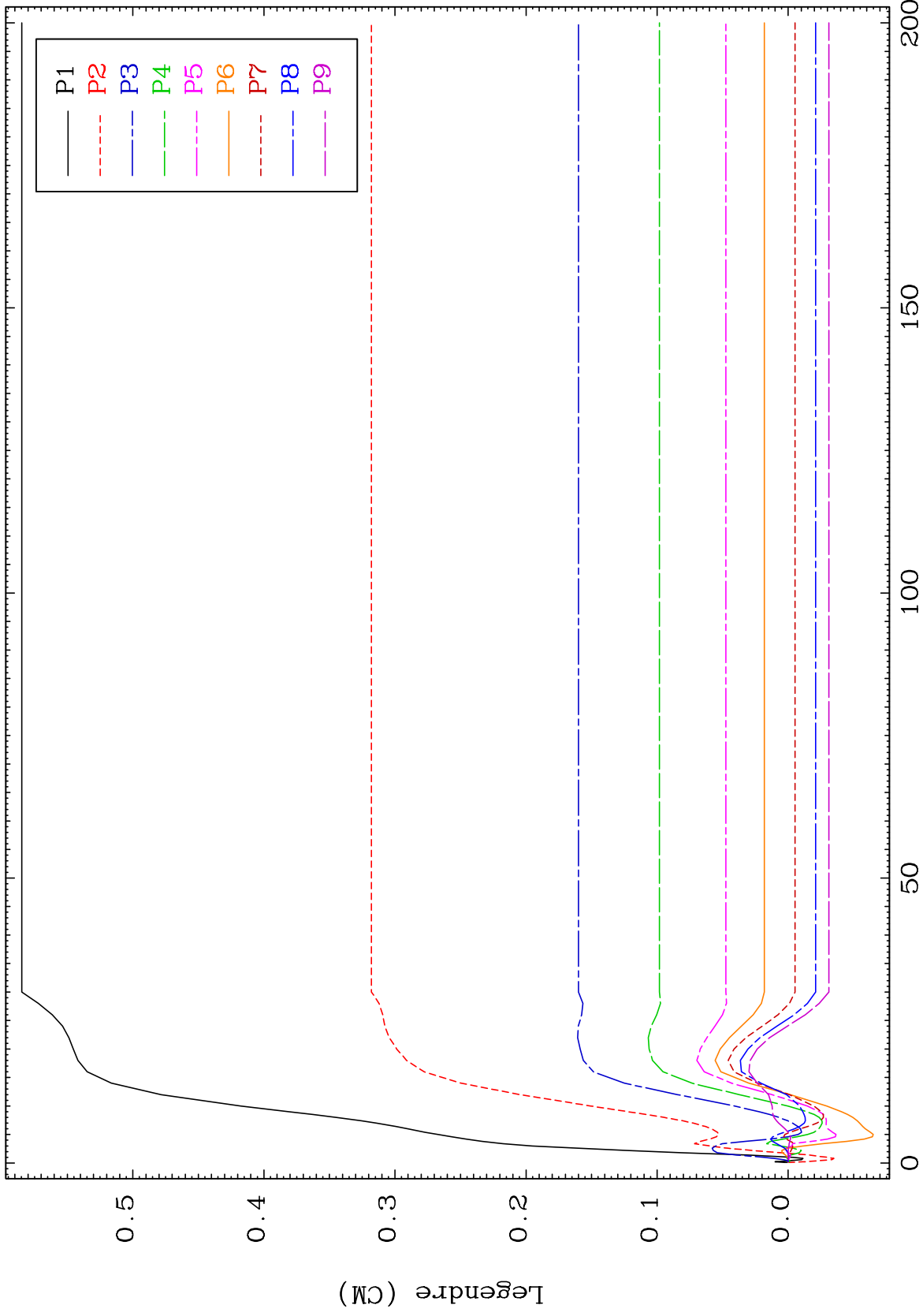
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

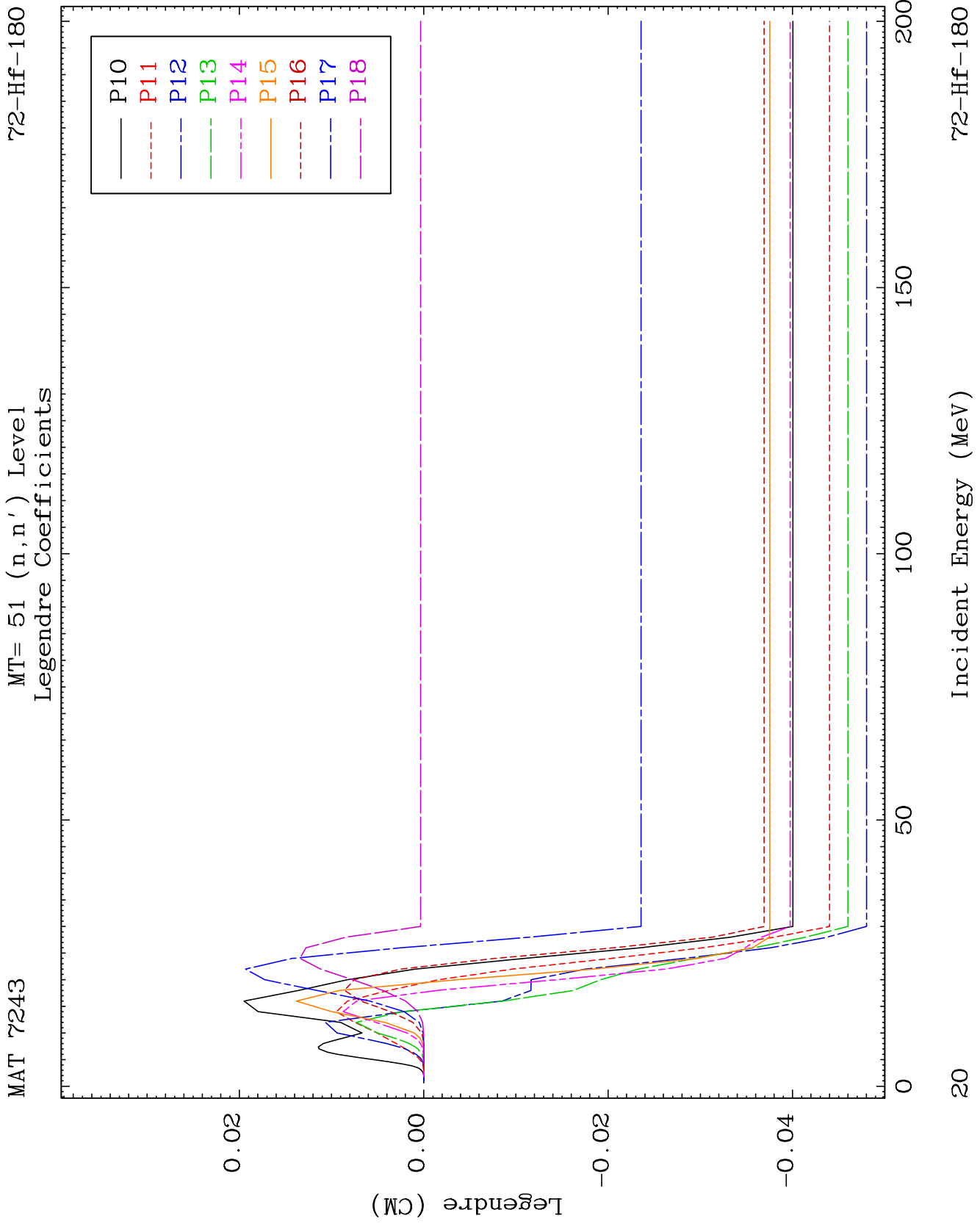
72-Hf-180



19

Incident Energy (MeV)

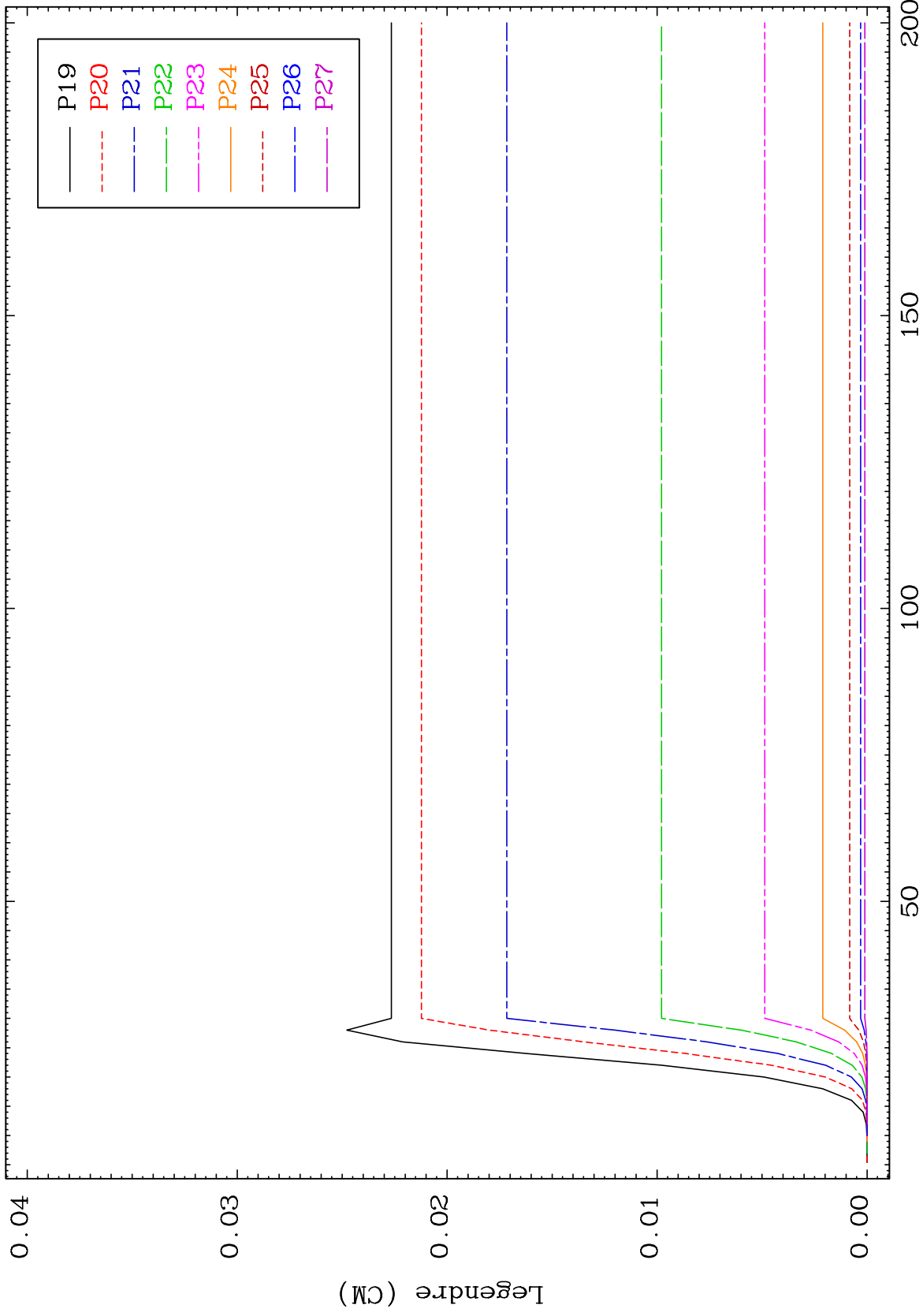
72-Hf-180



MAT 7243

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

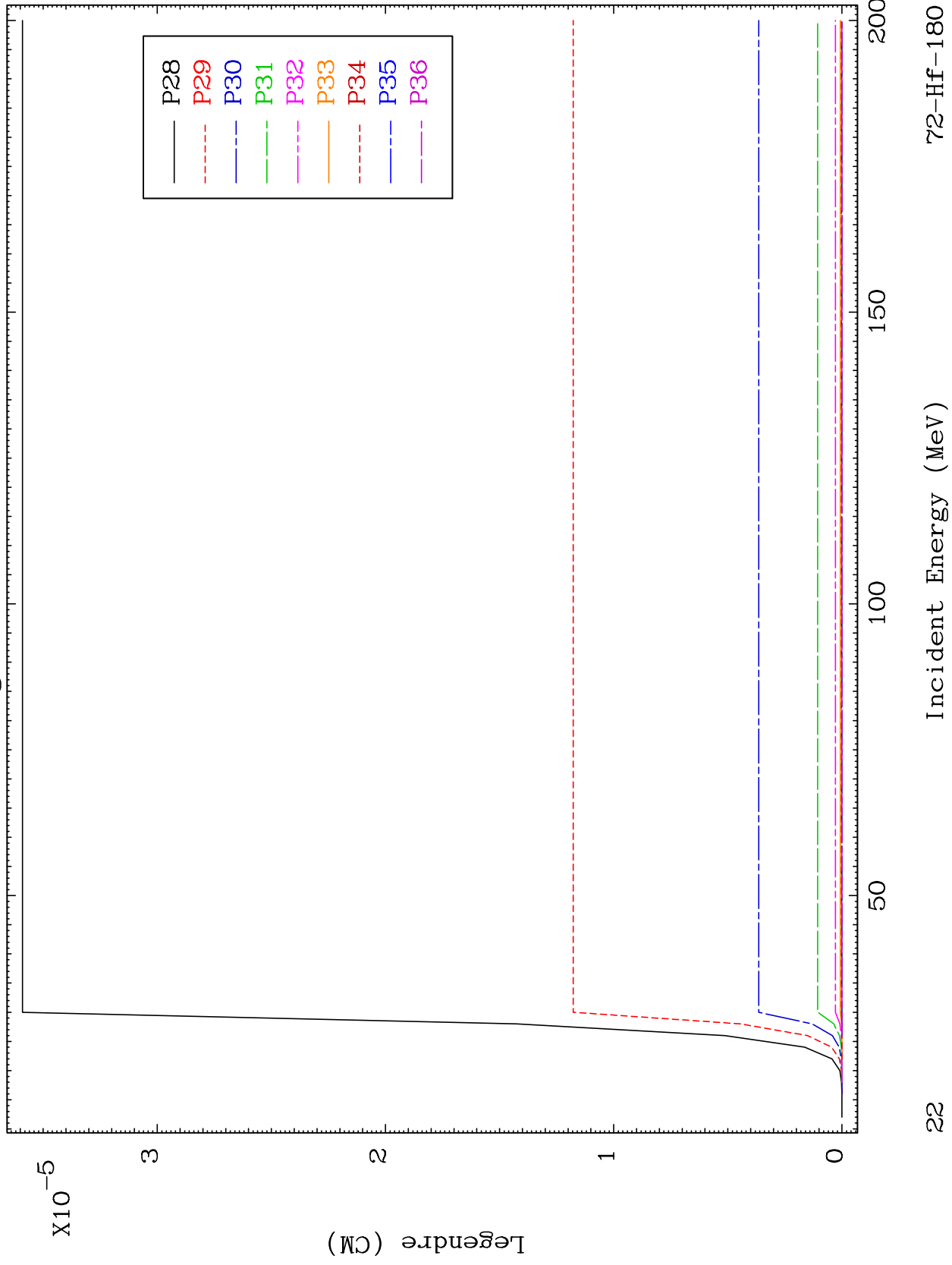
72-Hf-180



MAT 7243

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

72-Hf-180



22

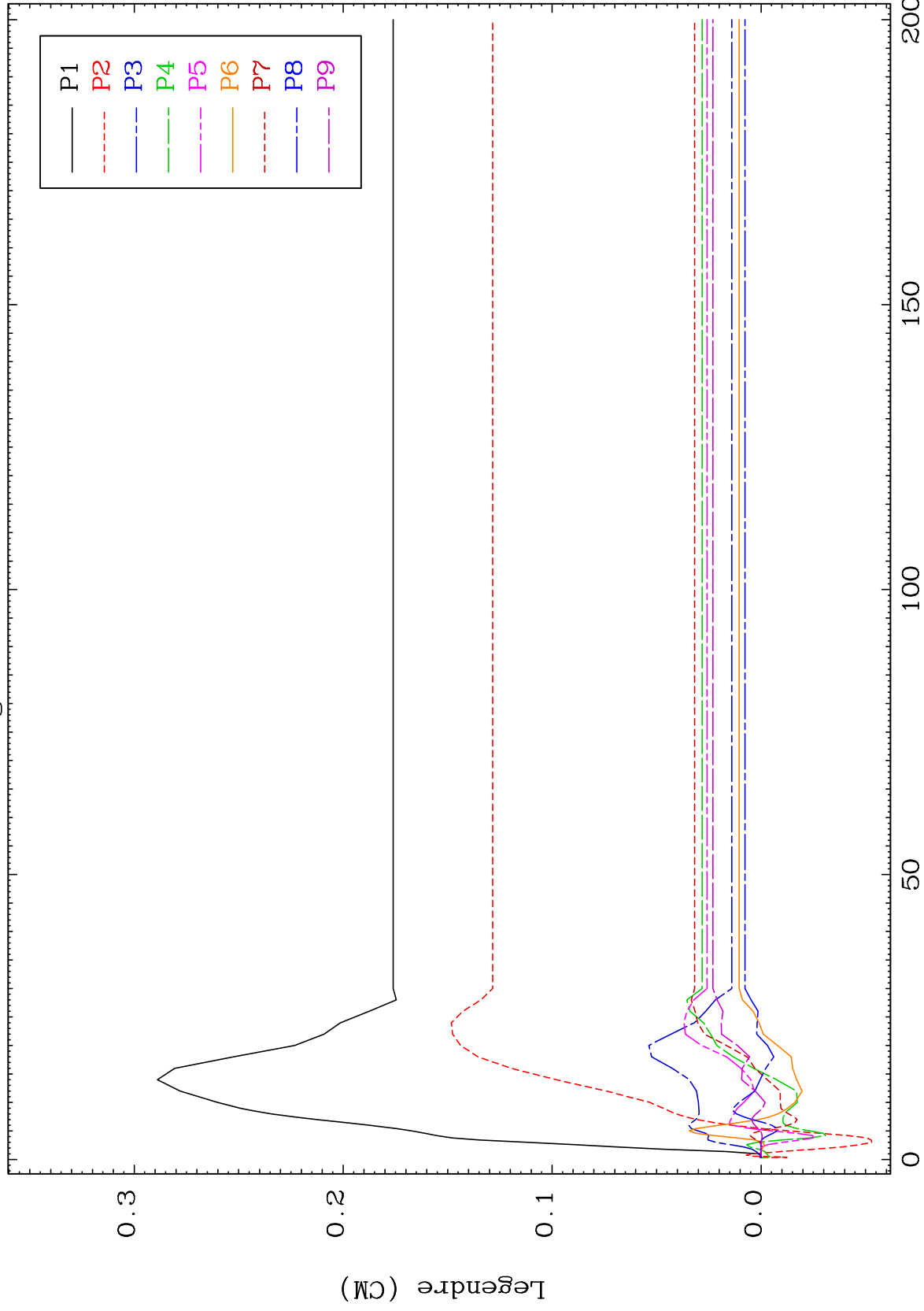
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

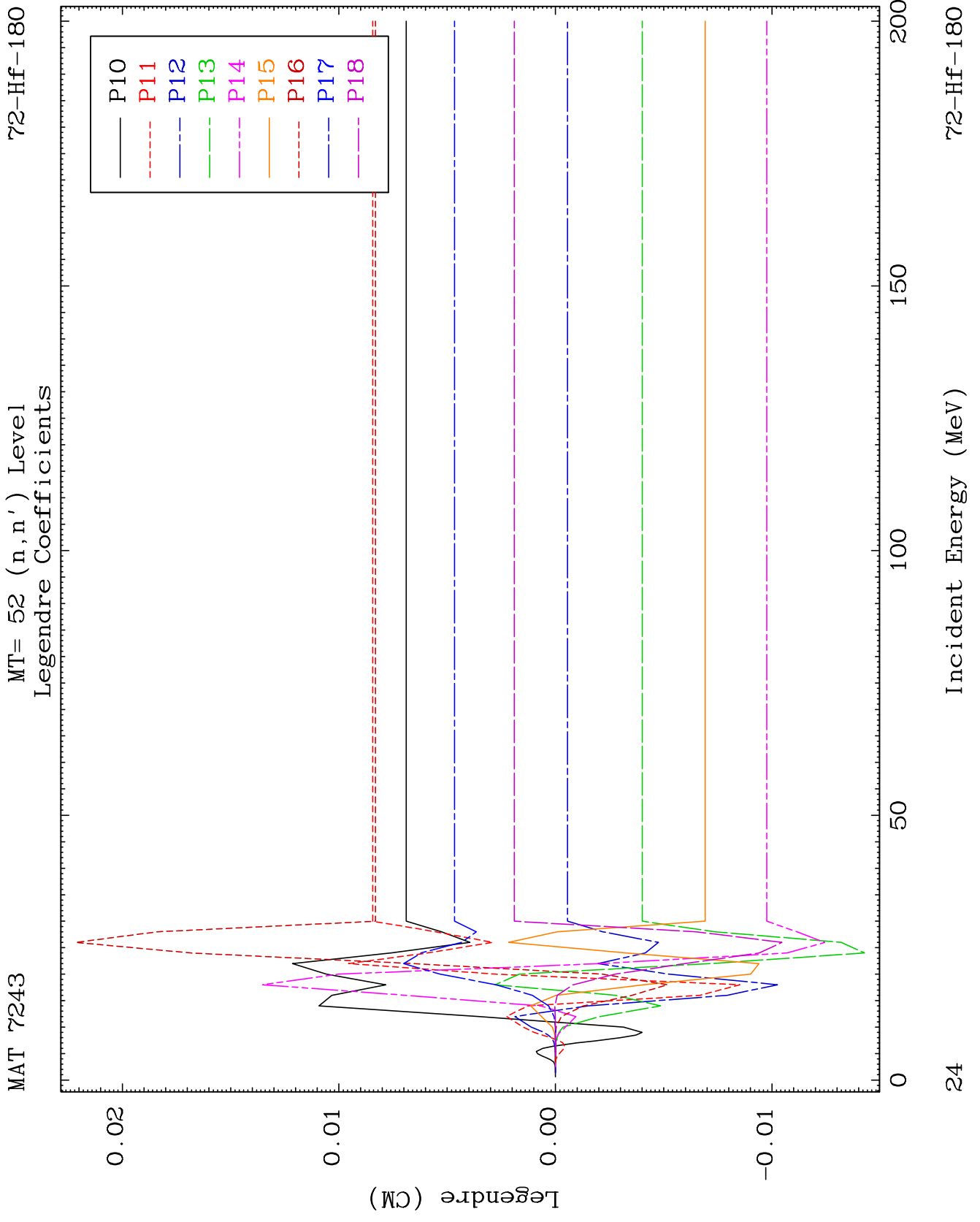
72-Hf-180



23

Incident Energy (MeV)

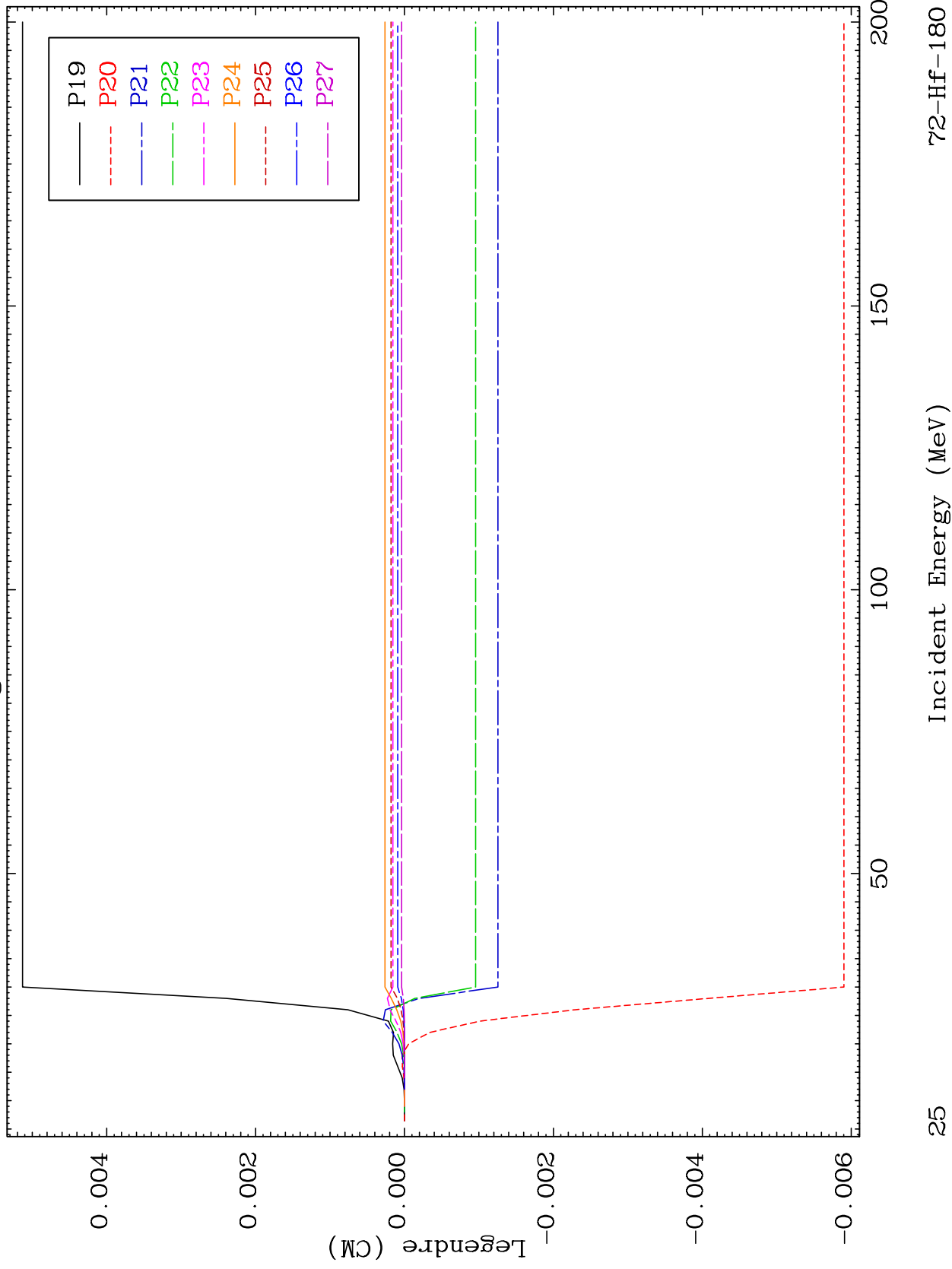
72-Hf-180



MAT 7243

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

72-Hf-180



25

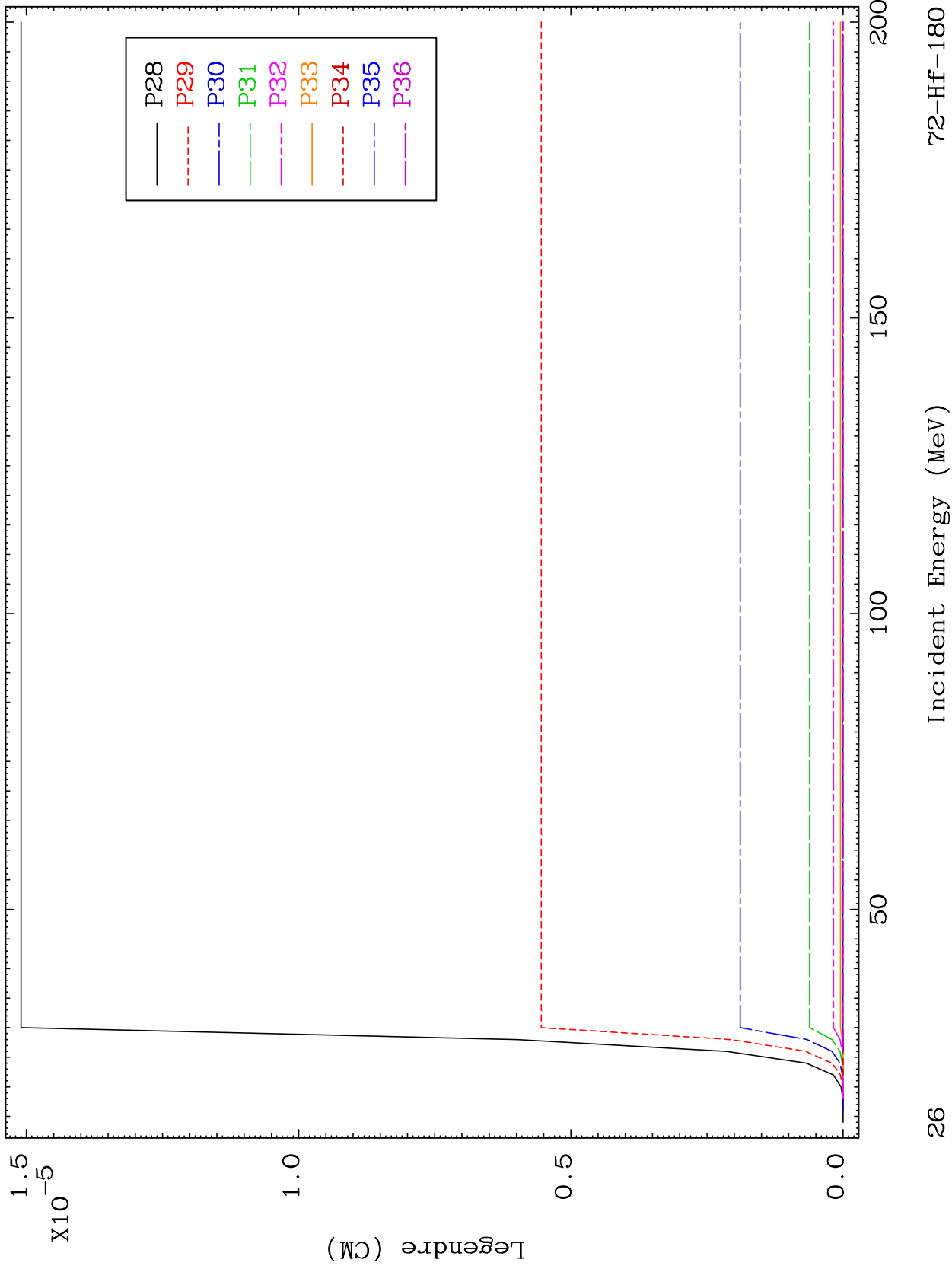
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



26

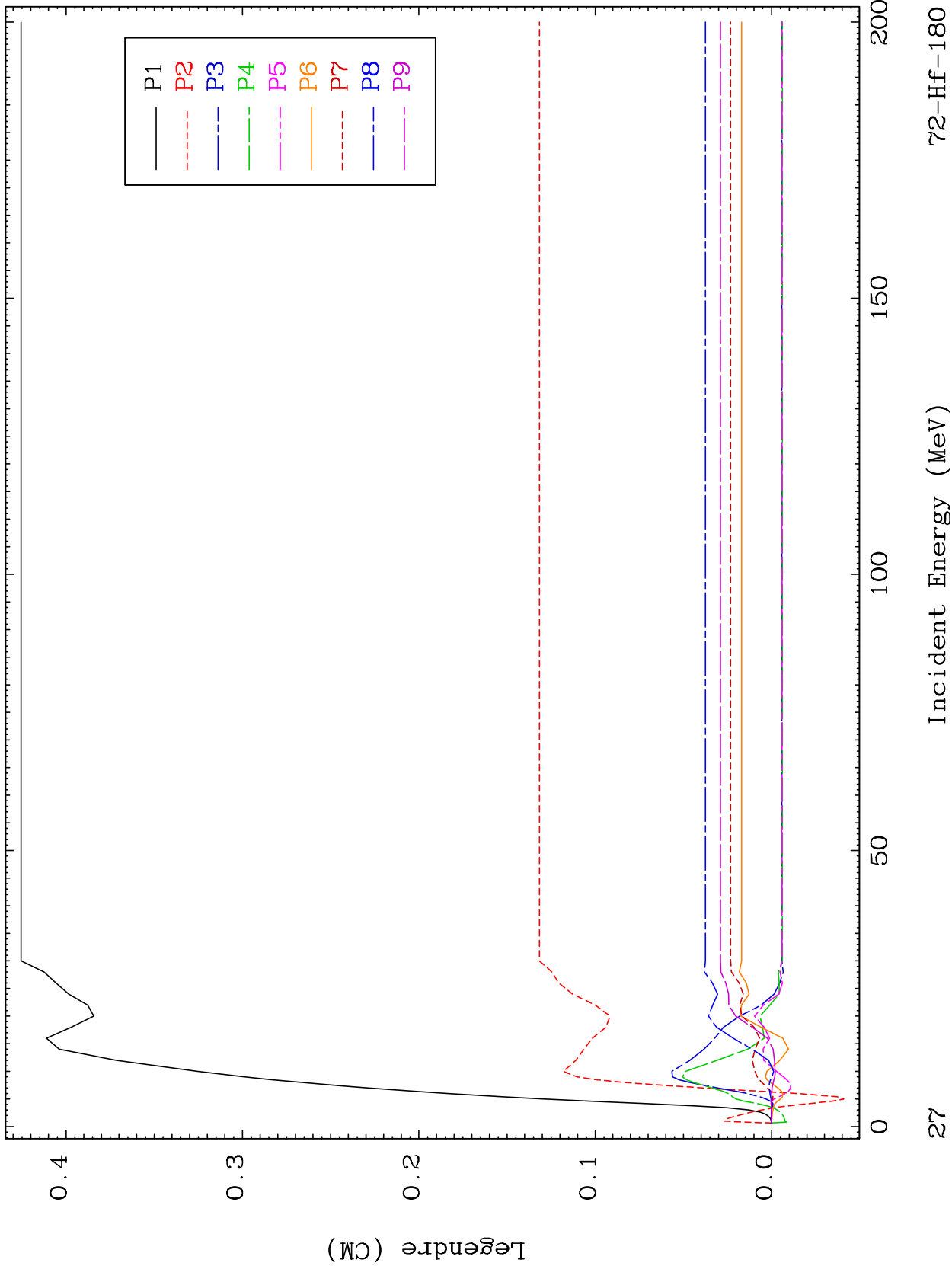
72-Hf-180

MAT 7243

MT= 53 (n,n') Level

72-Hf-180

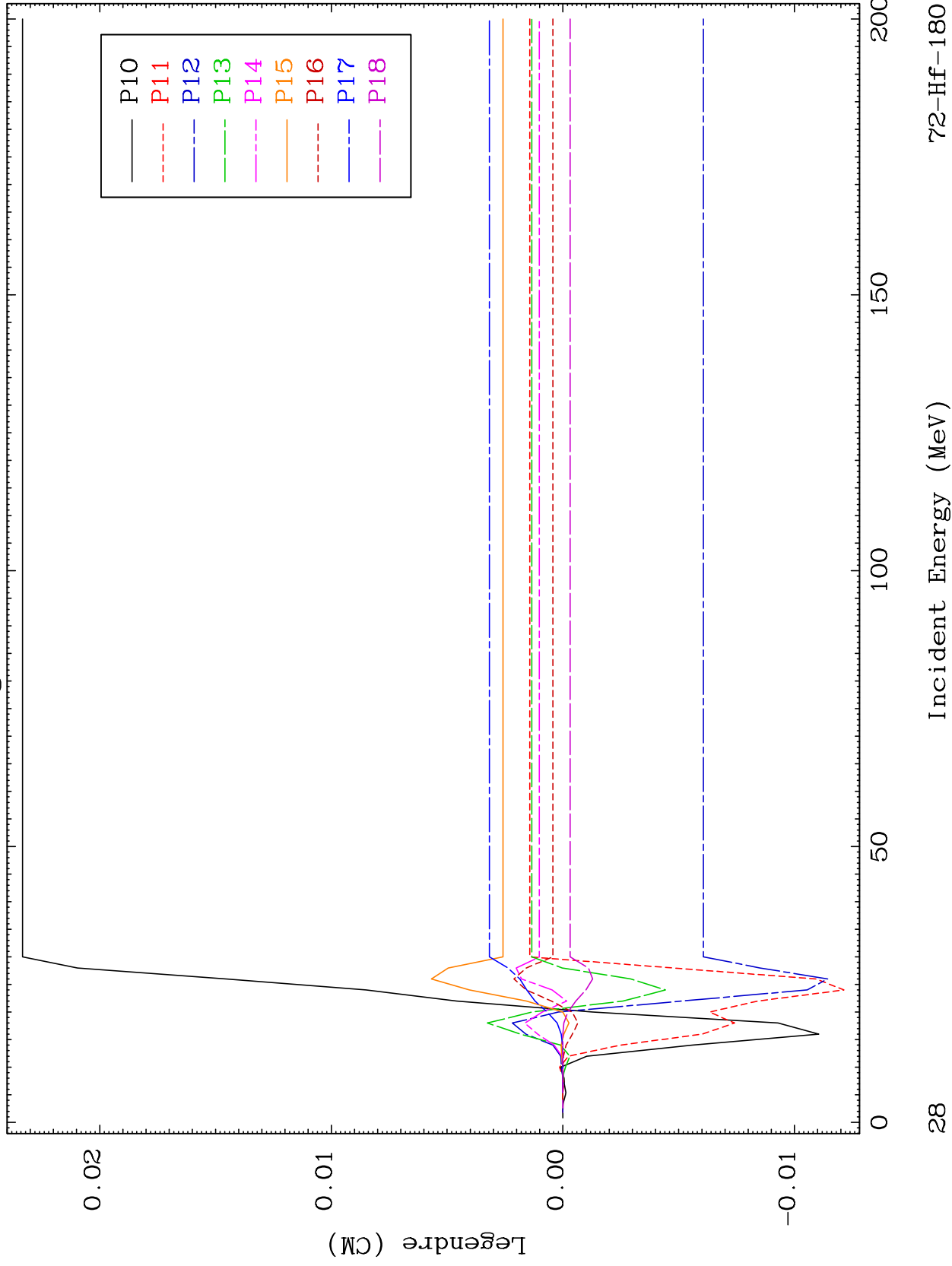
Legendre Coefficients



MAT 7243

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

72-Hf-180



72-Hf-180

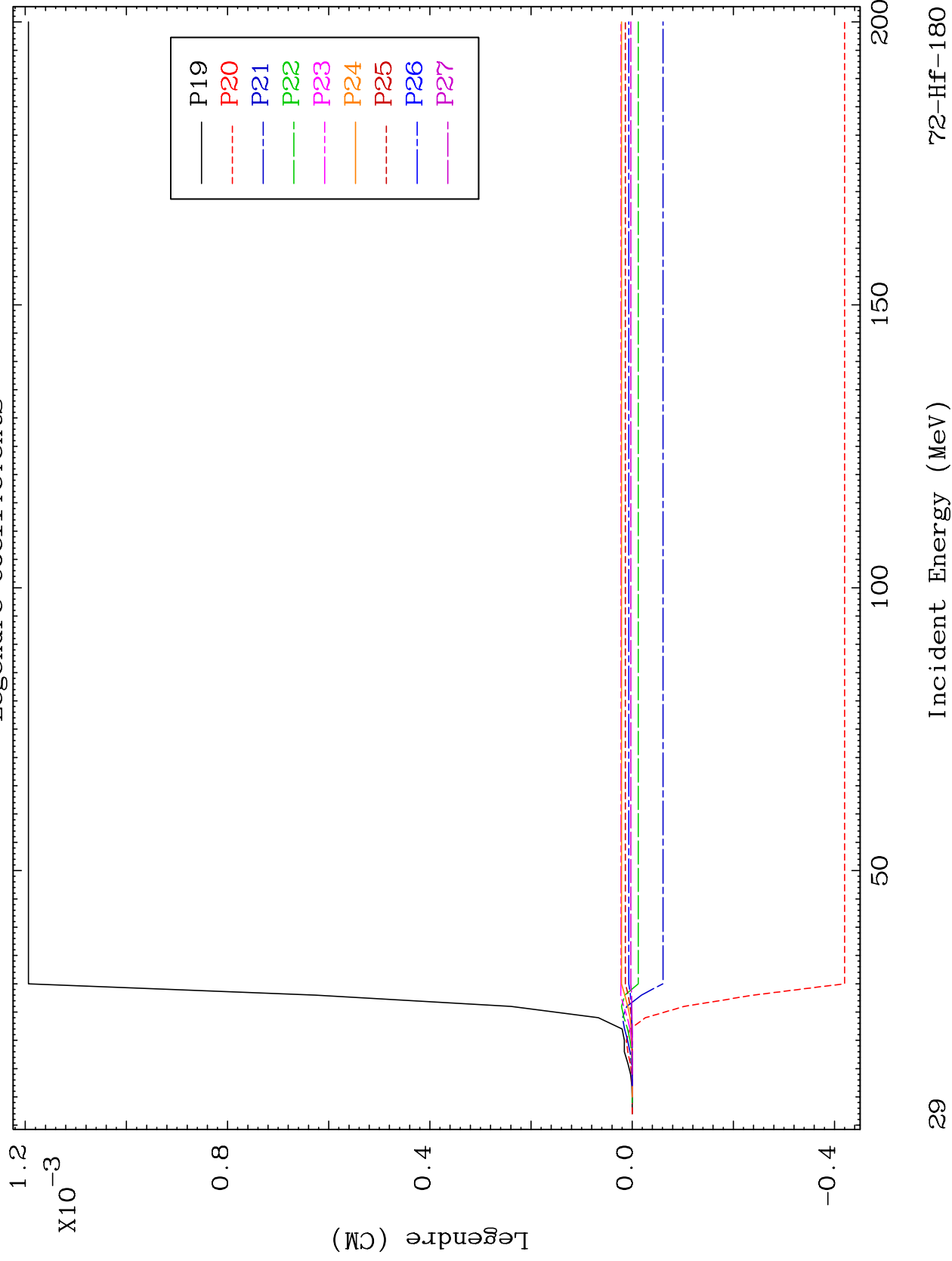
Incident Energy (MeV)

28

MAT 7243

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

72-Hf-180



29

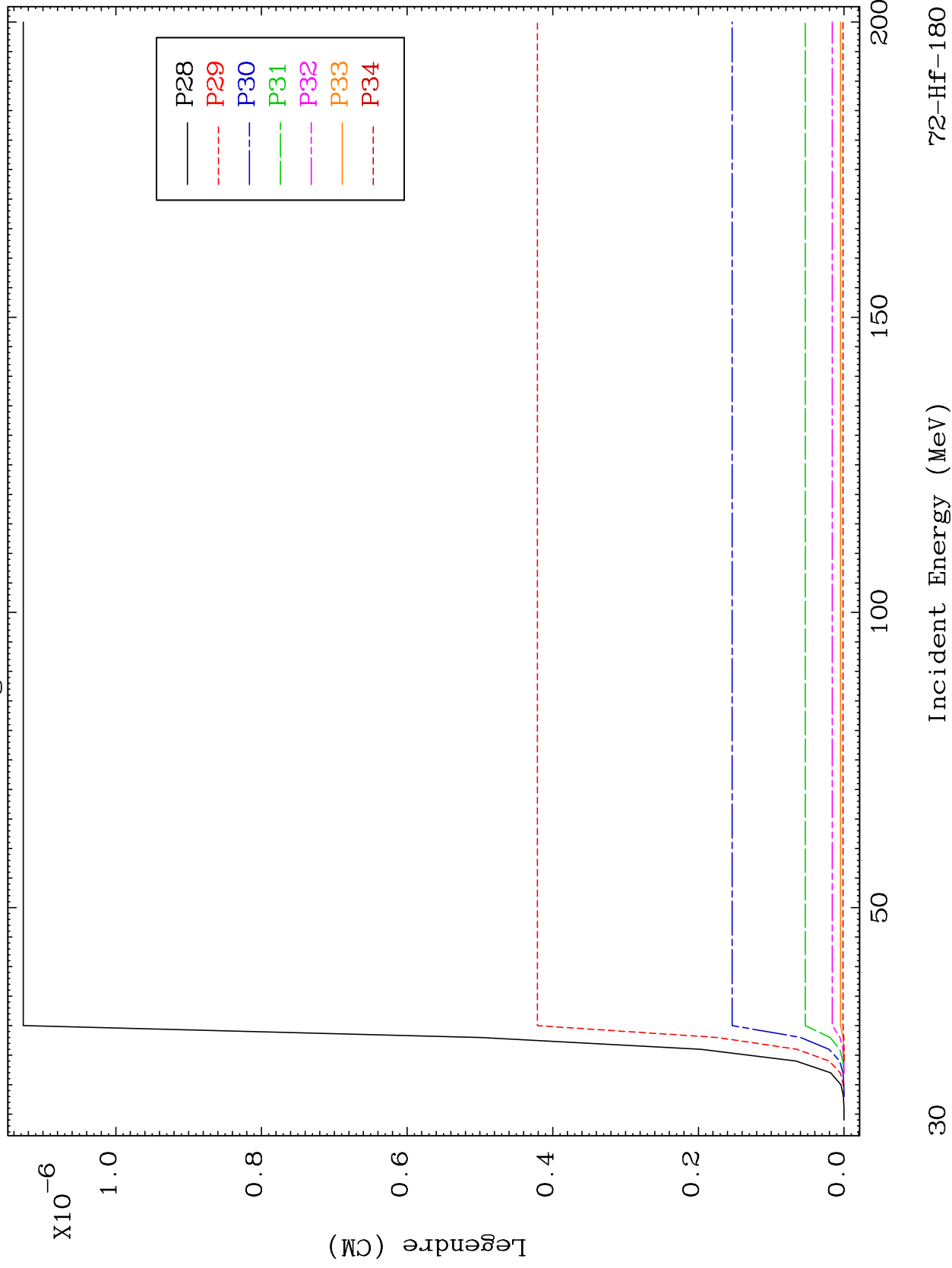
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

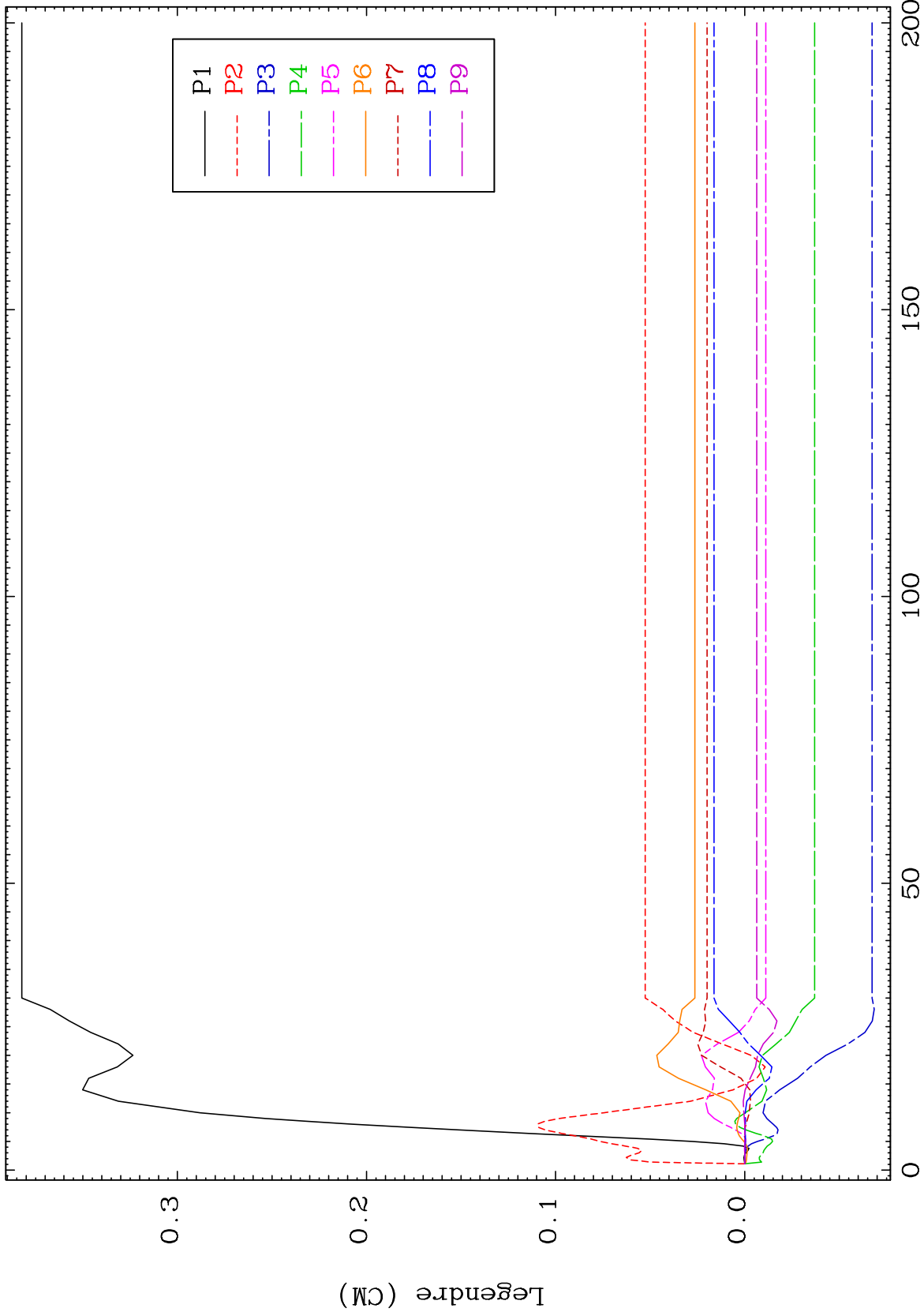
72-Hf-180



MAT 7243

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

72-Hf-180



31

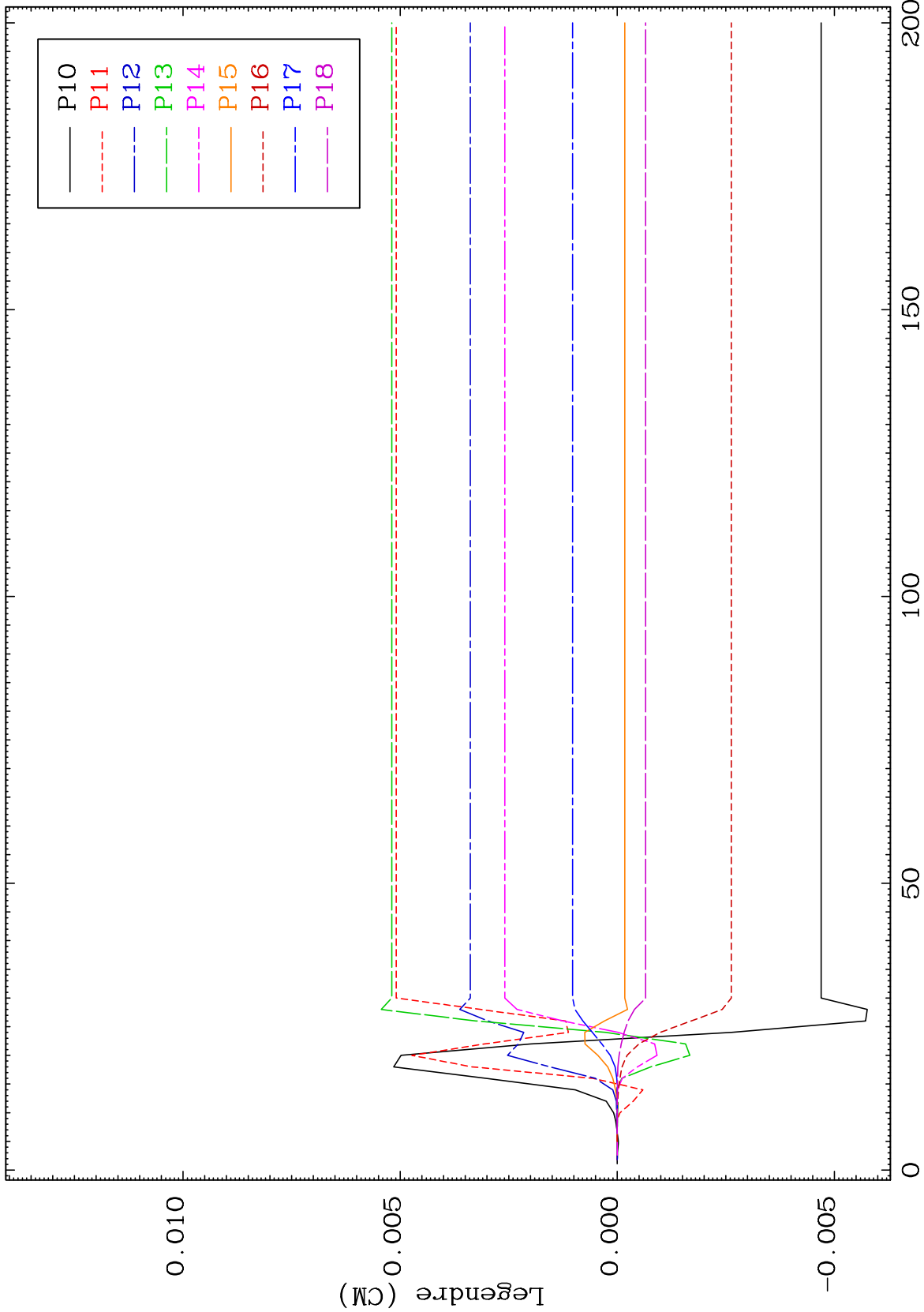
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



32

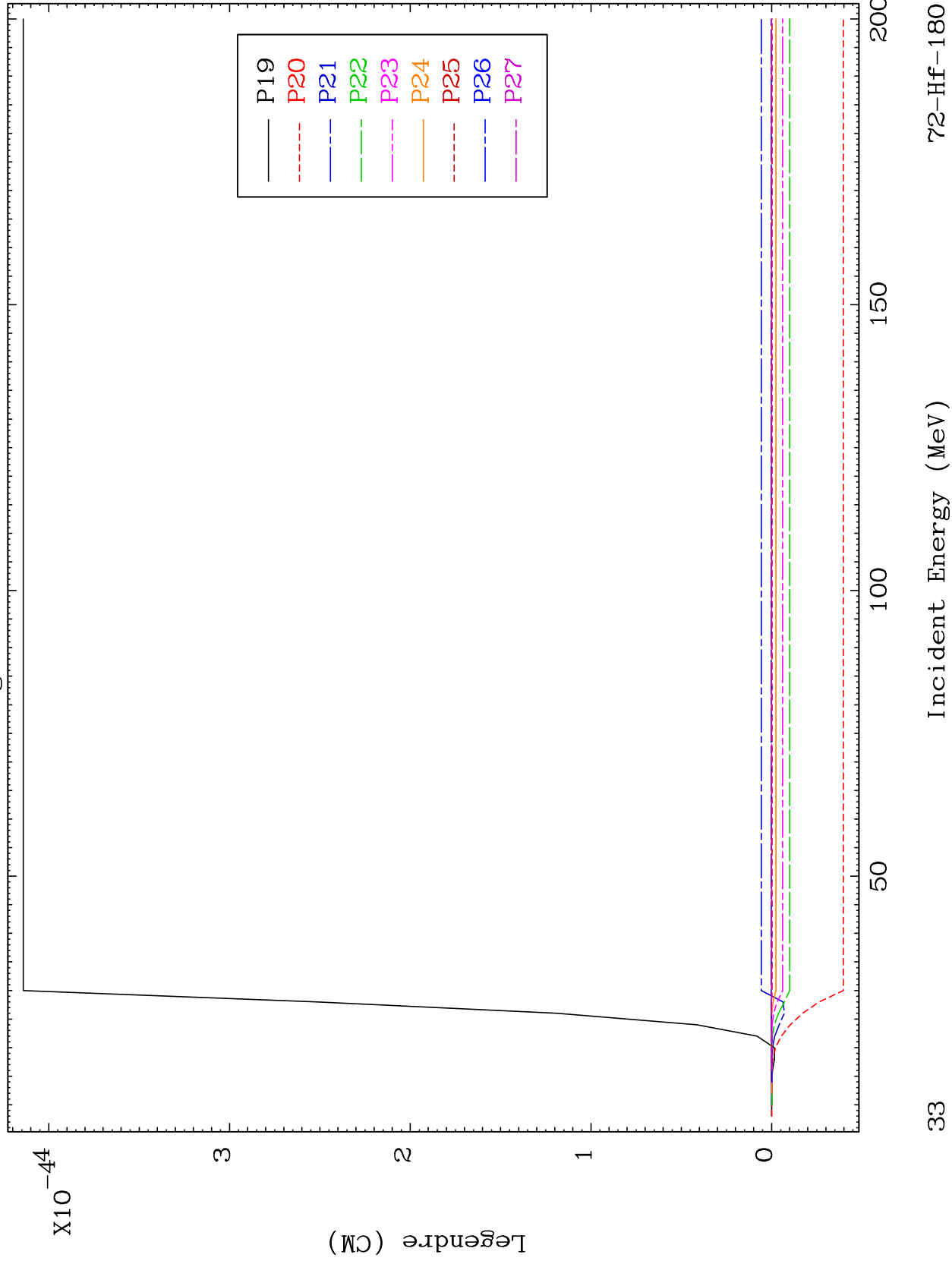
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



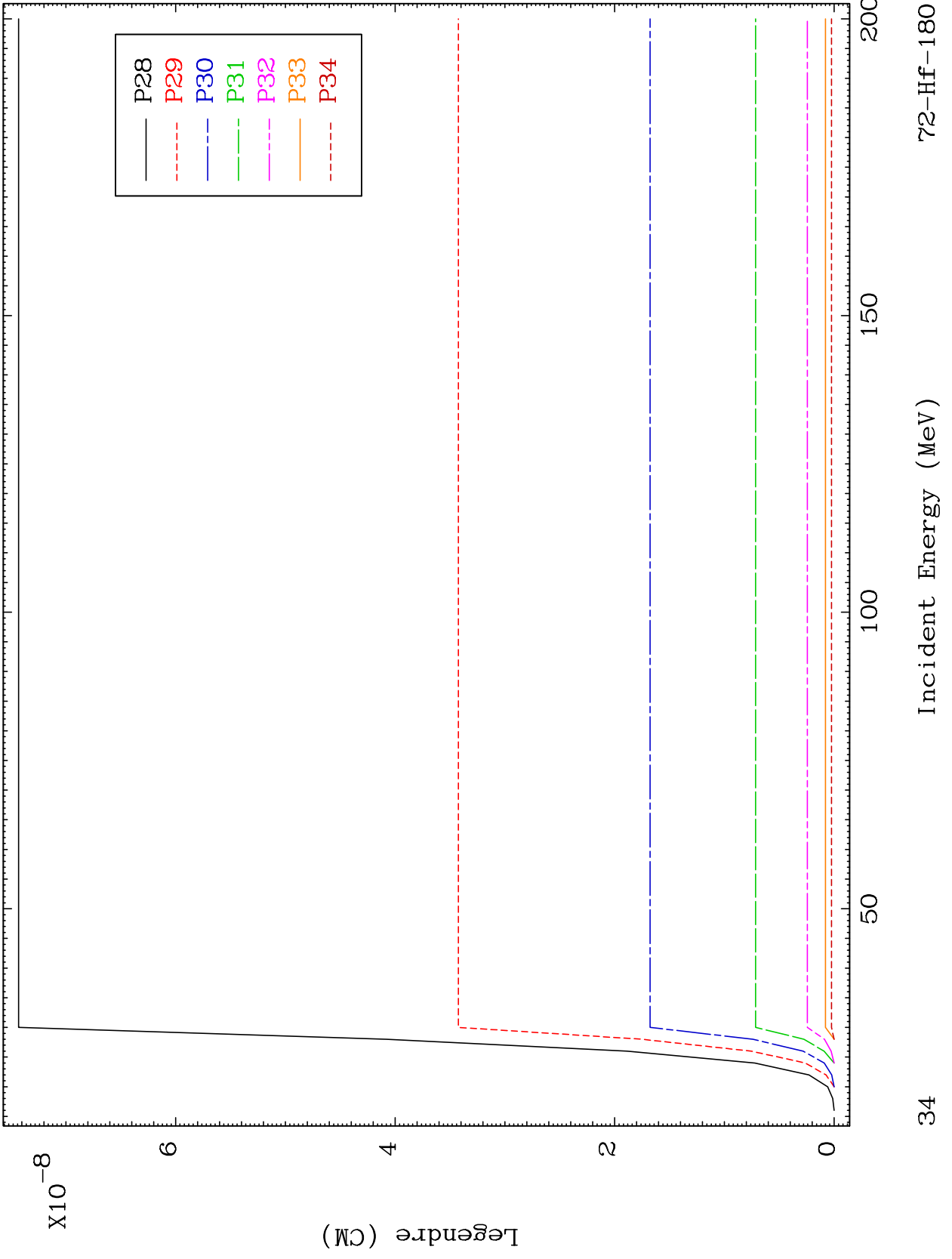
33

72-Hf-180

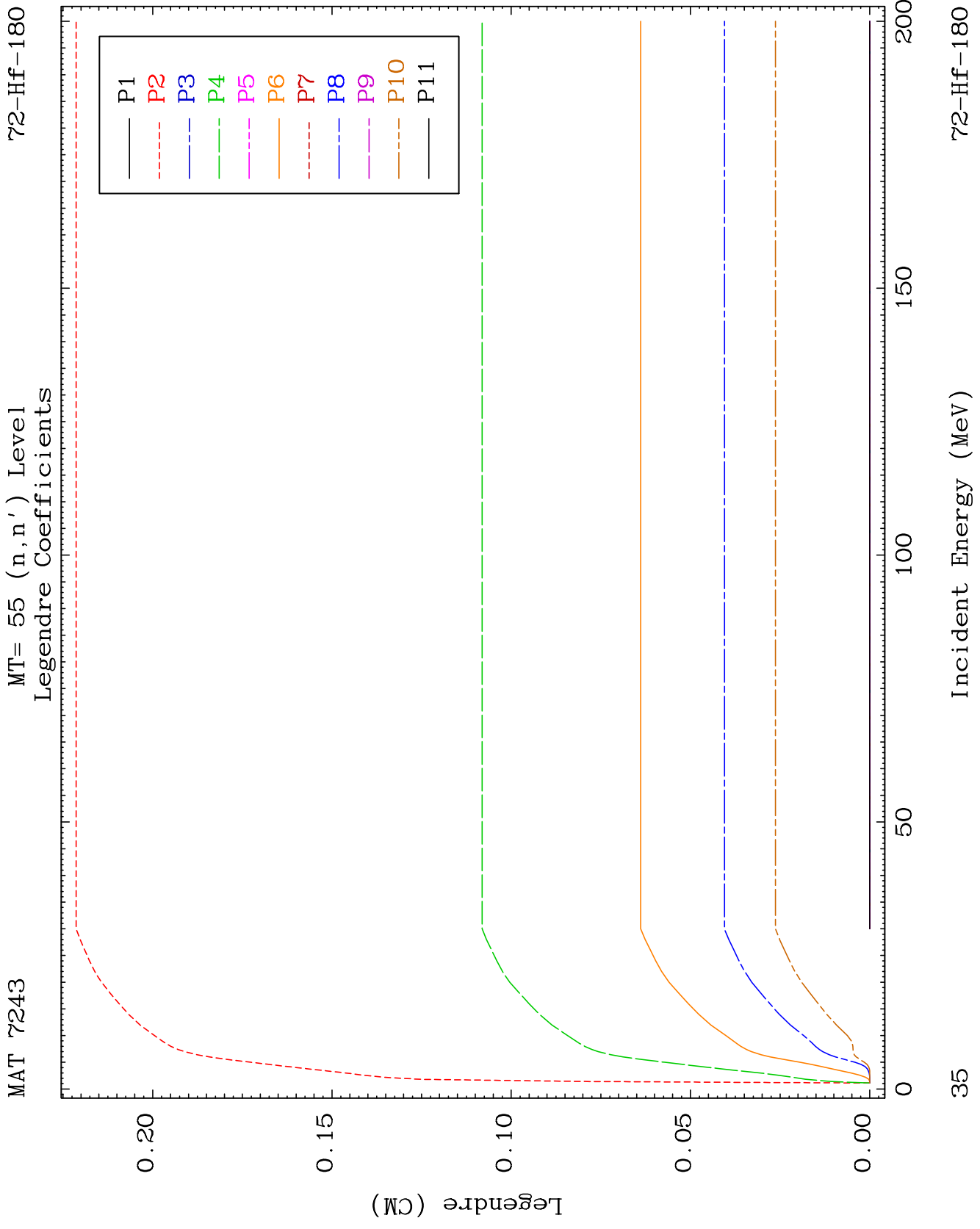
MAT 7243

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

72-Hf-180



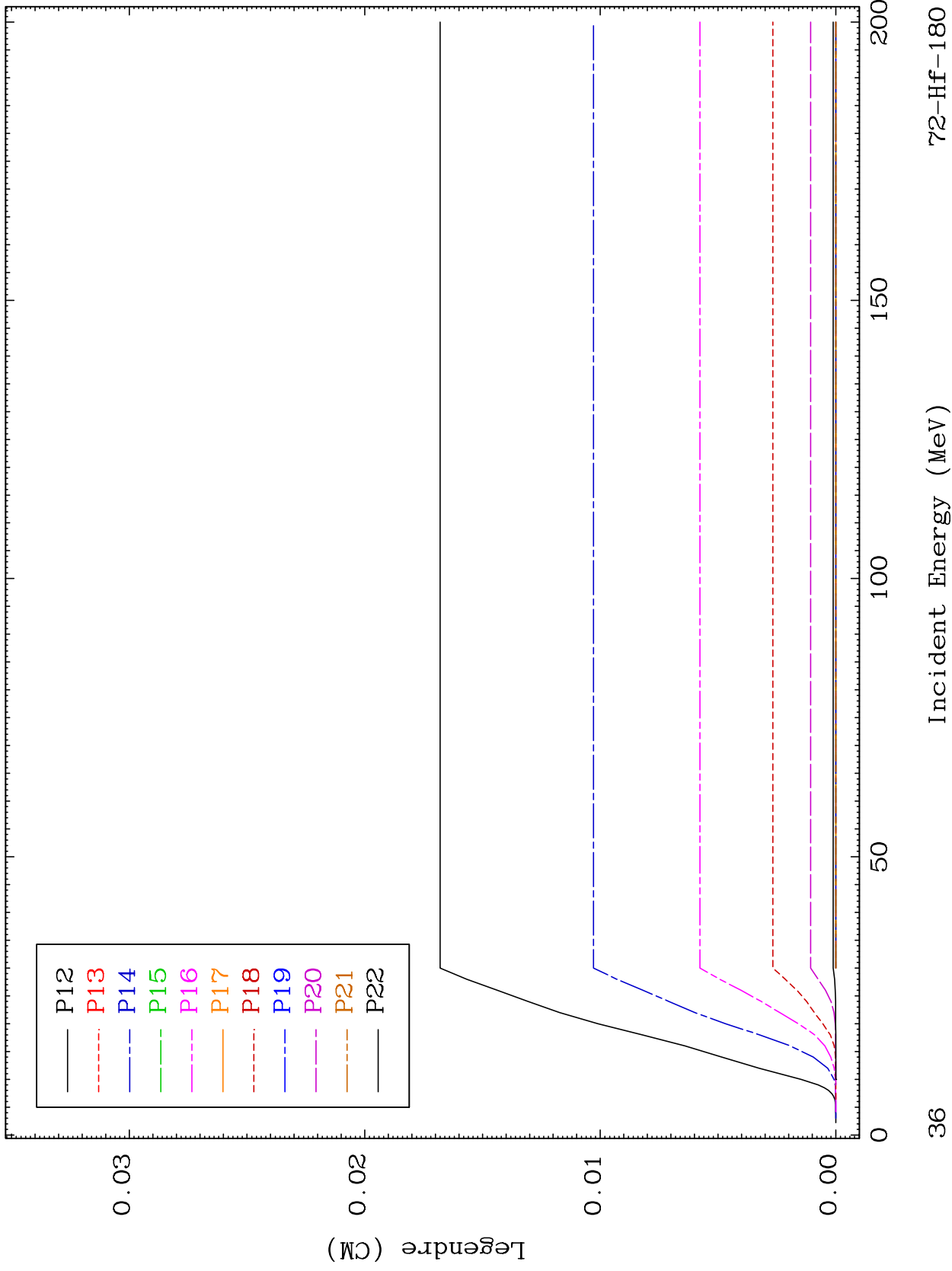
34



MAT 7243

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

72-Hf-180



36

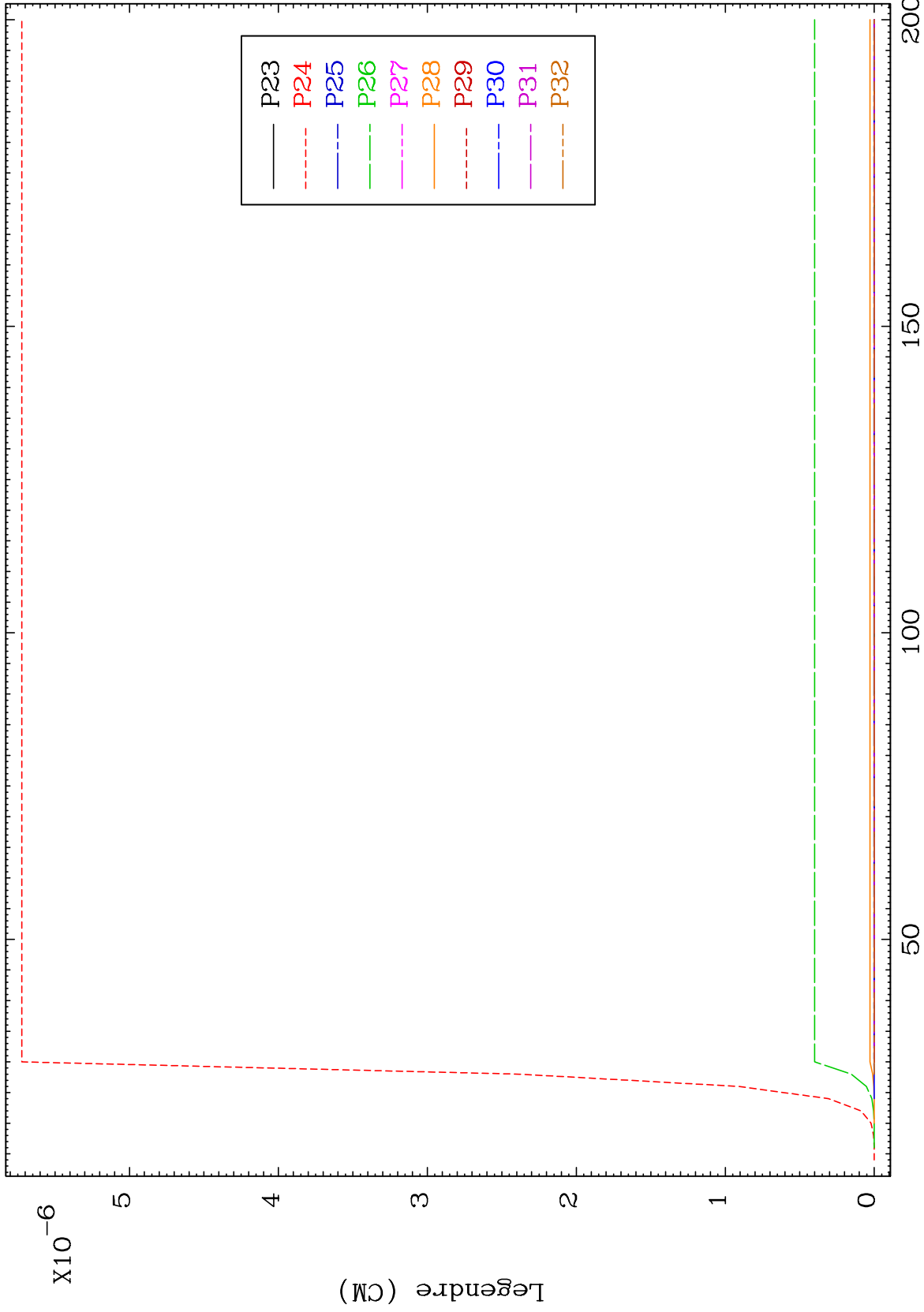
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



37

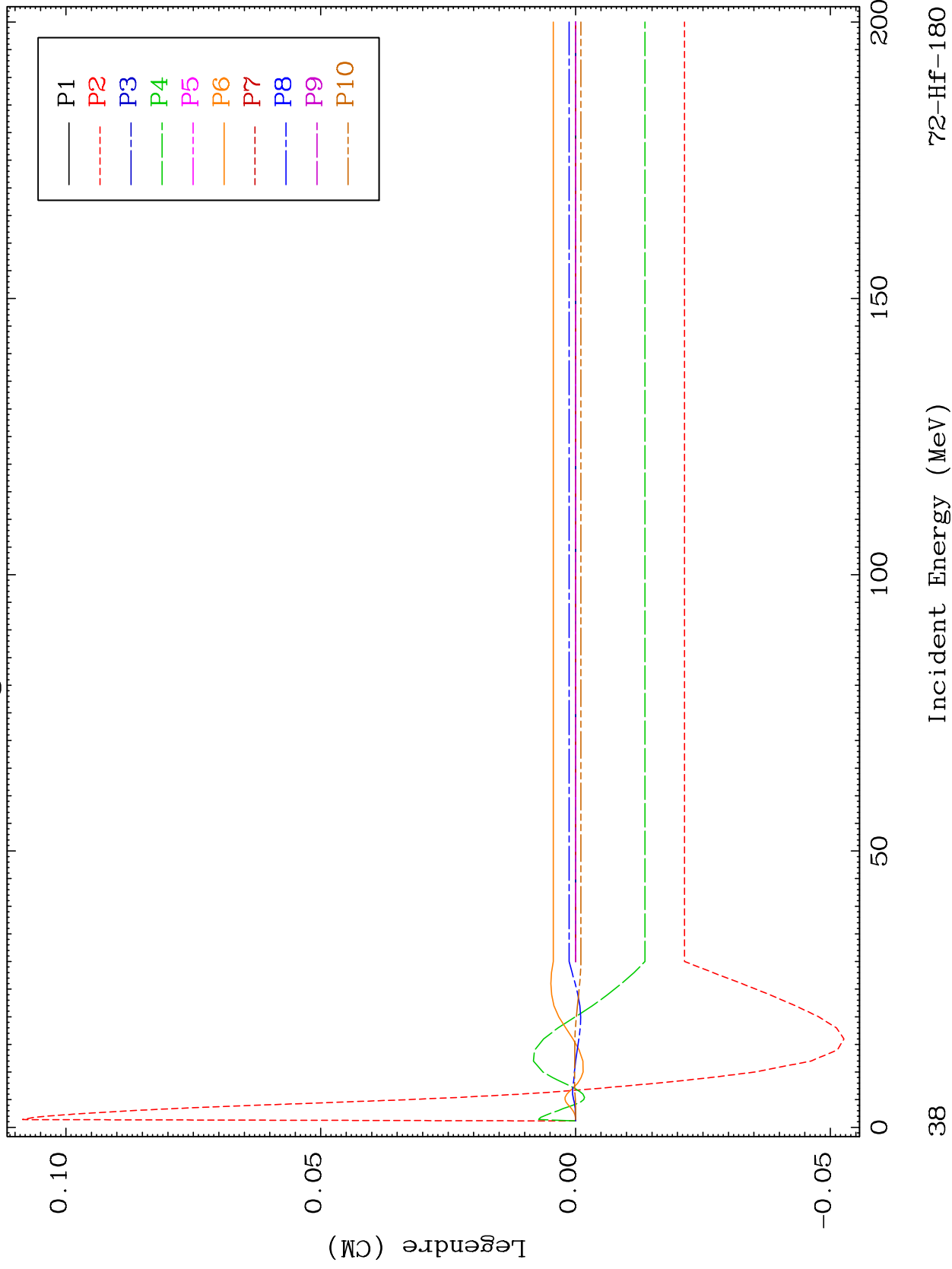
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



72-Hf-180

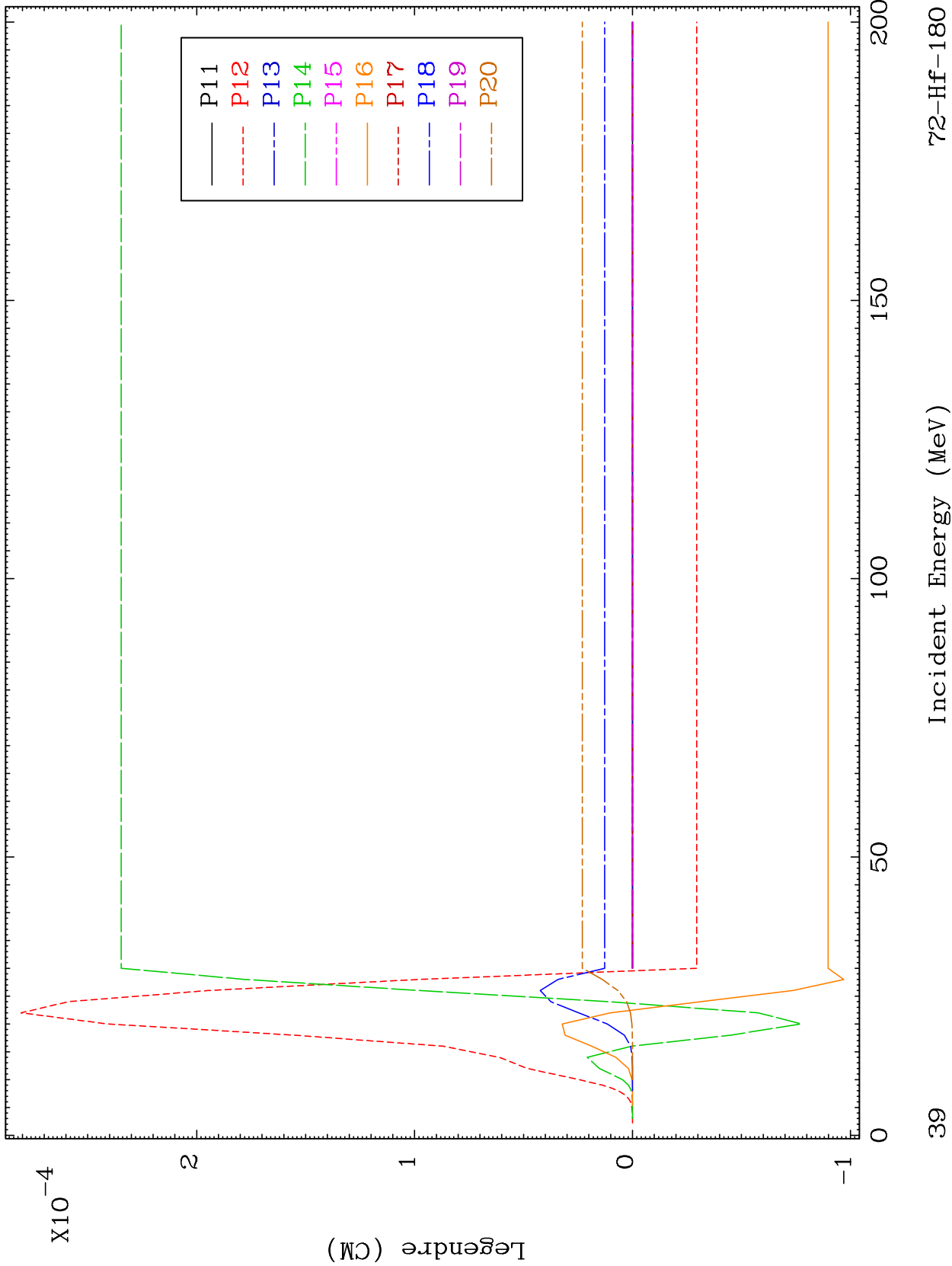
Incident Energy (MeV)

38

MAT 7243

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

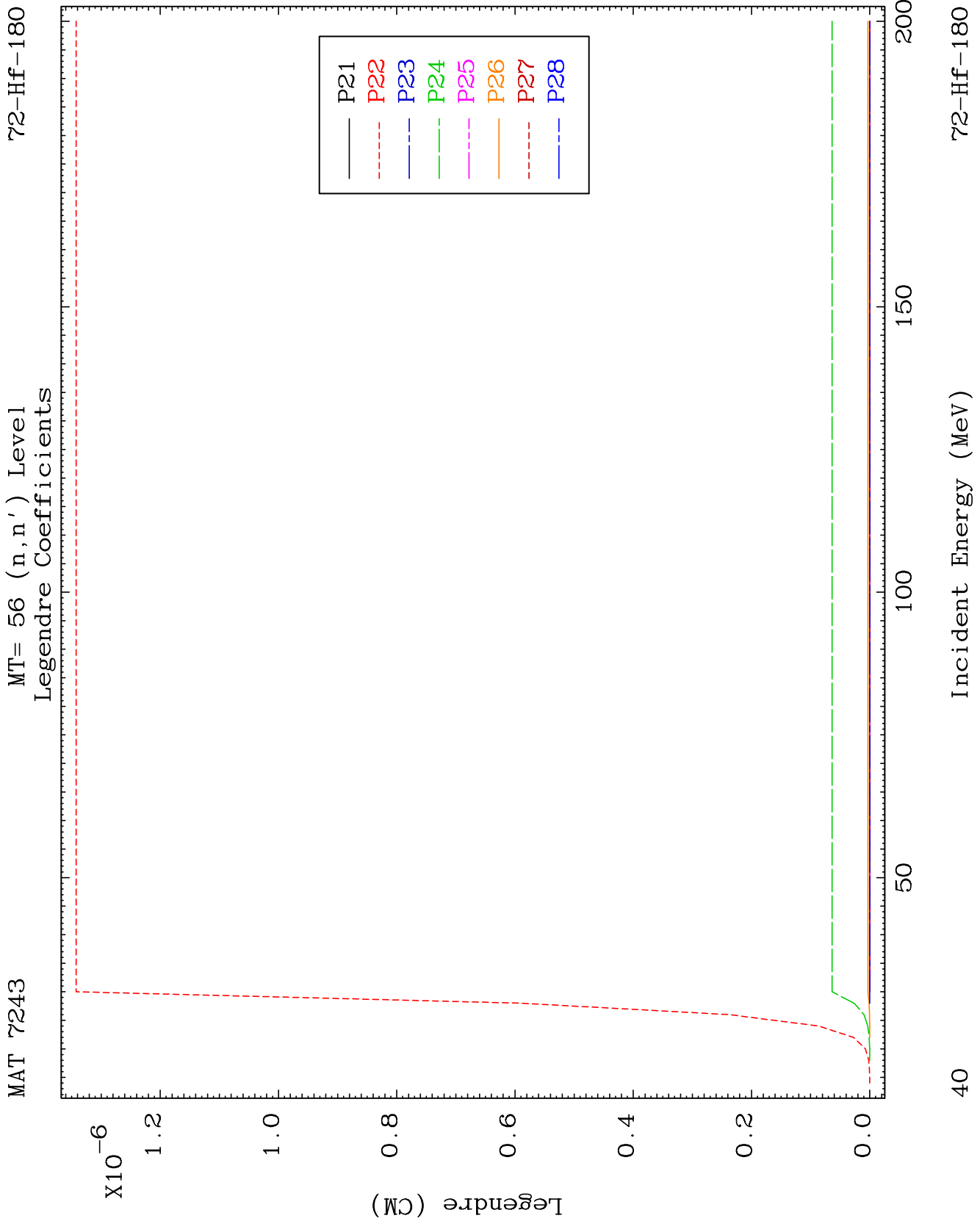
72-Hf-180



39

Incident Energy (MeV)

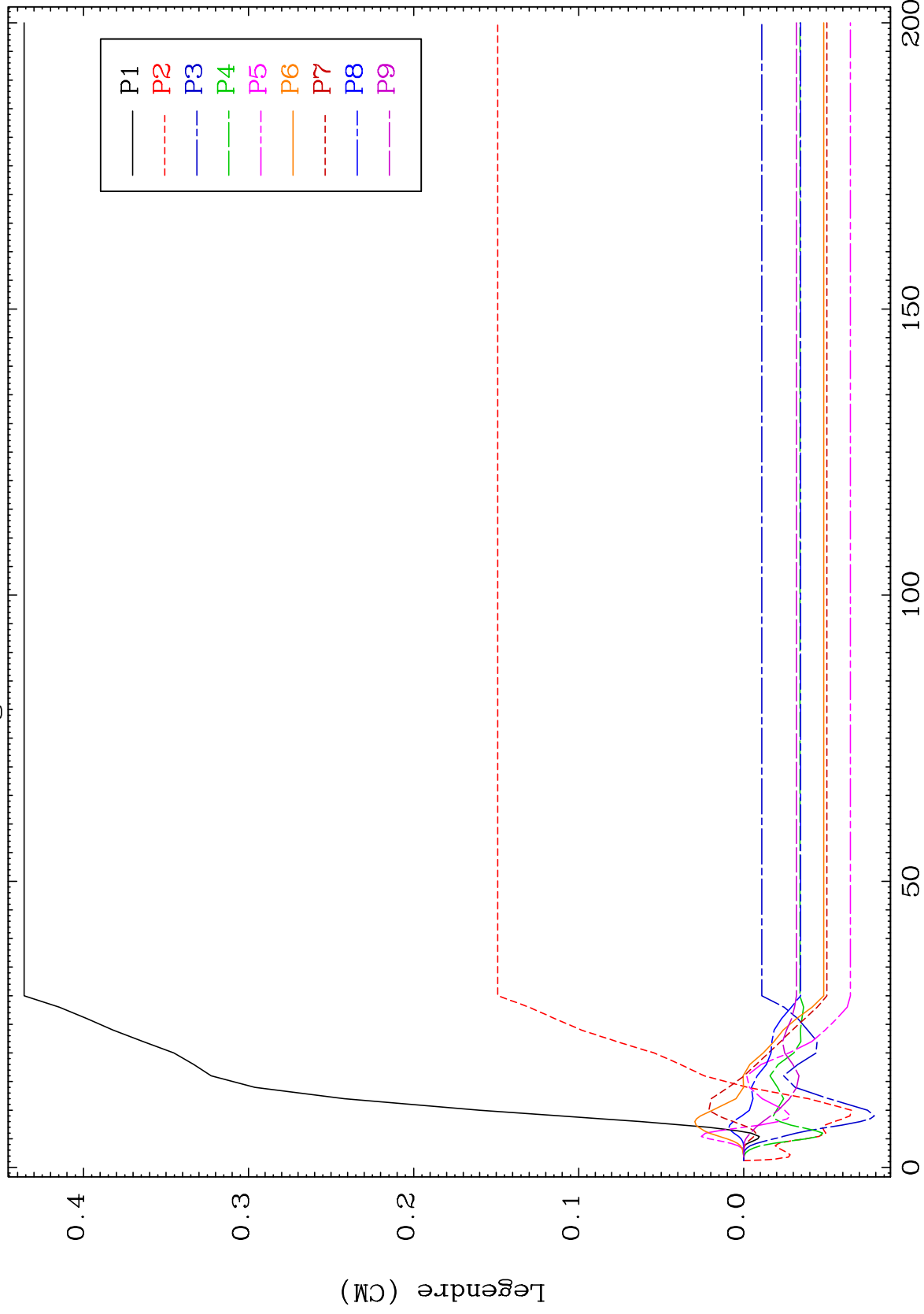
72-Hf-180



MAT 7243

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

72-Hf-180



41

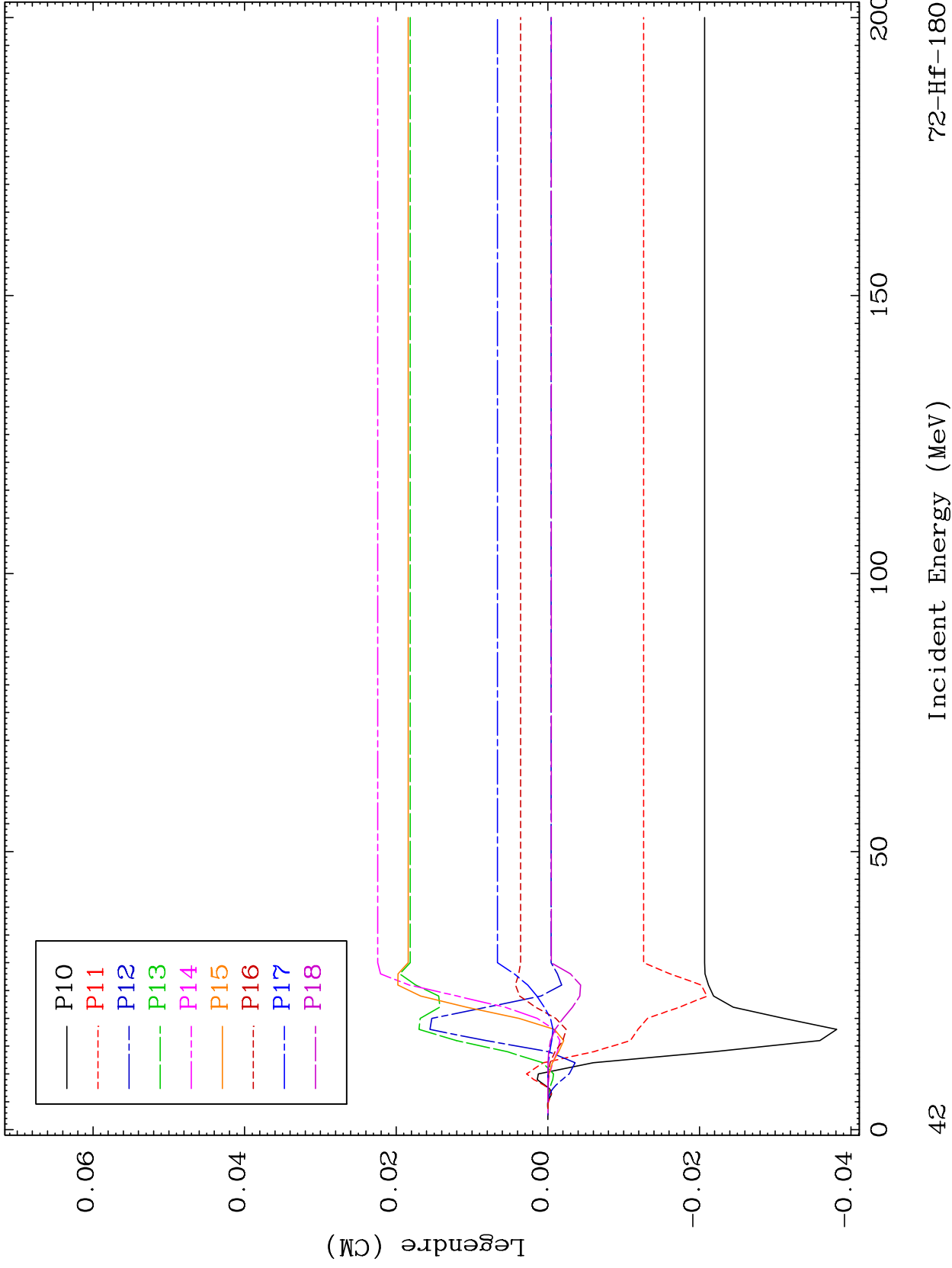
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



72-Hf-180

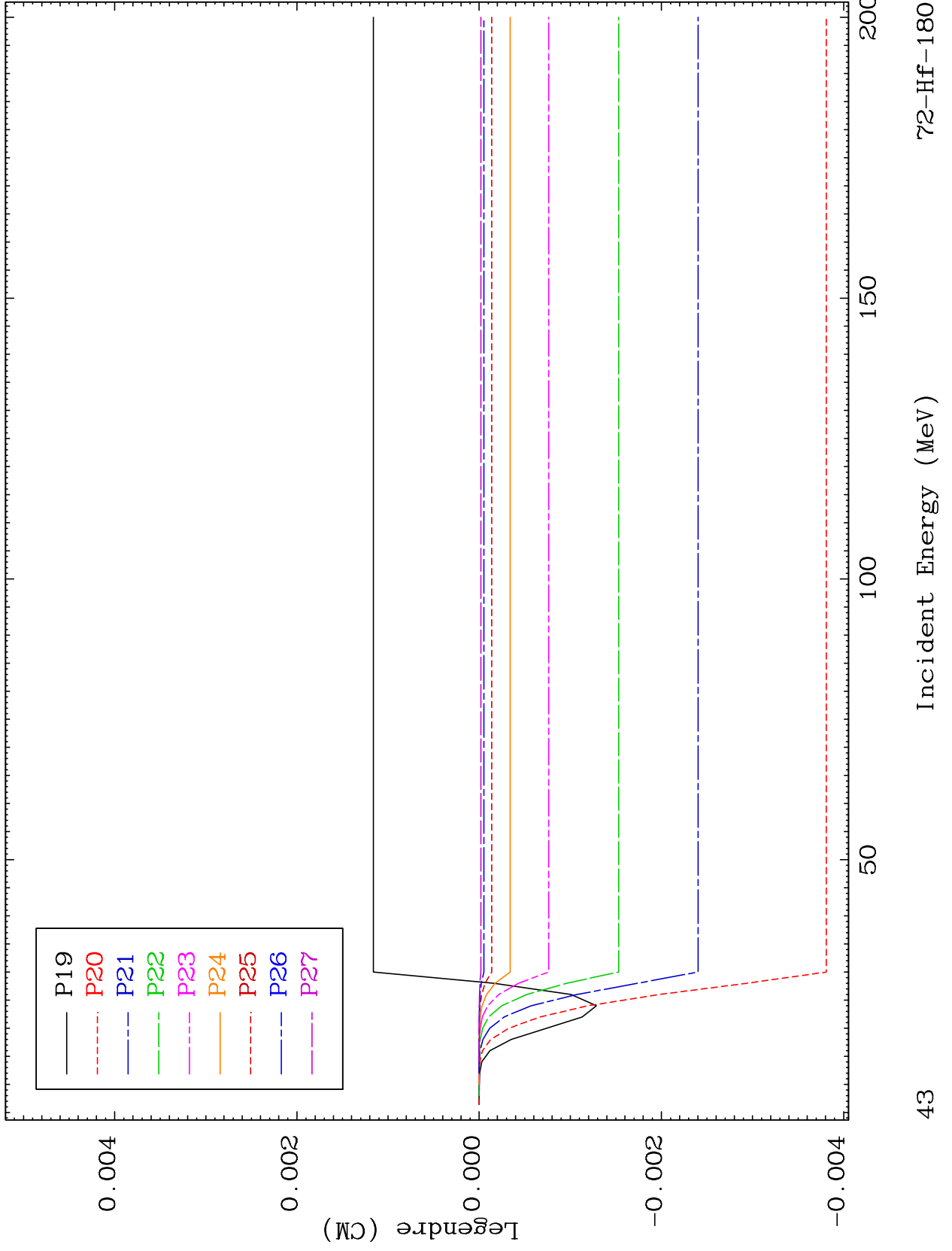
Incident Energy (MeV)

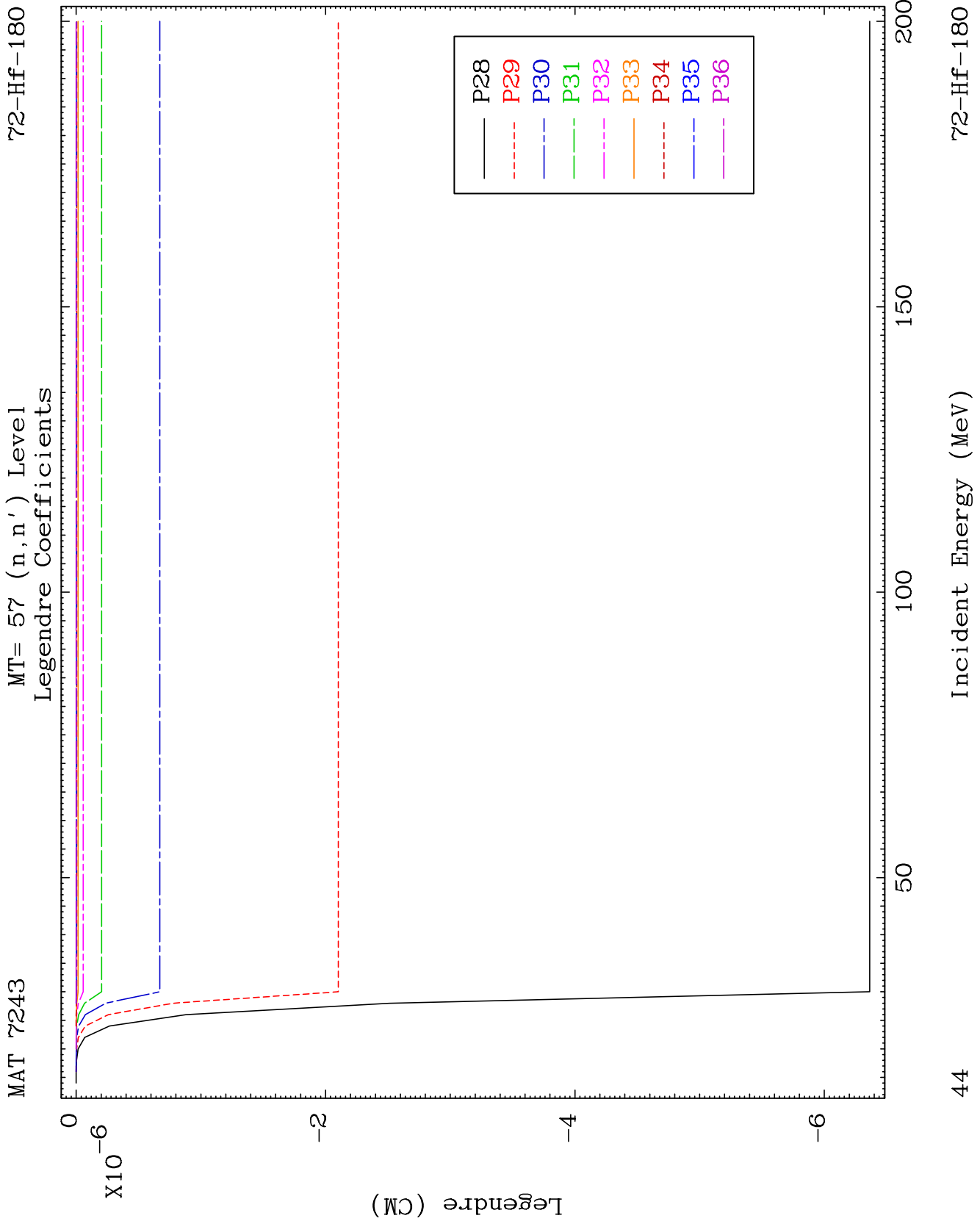
42

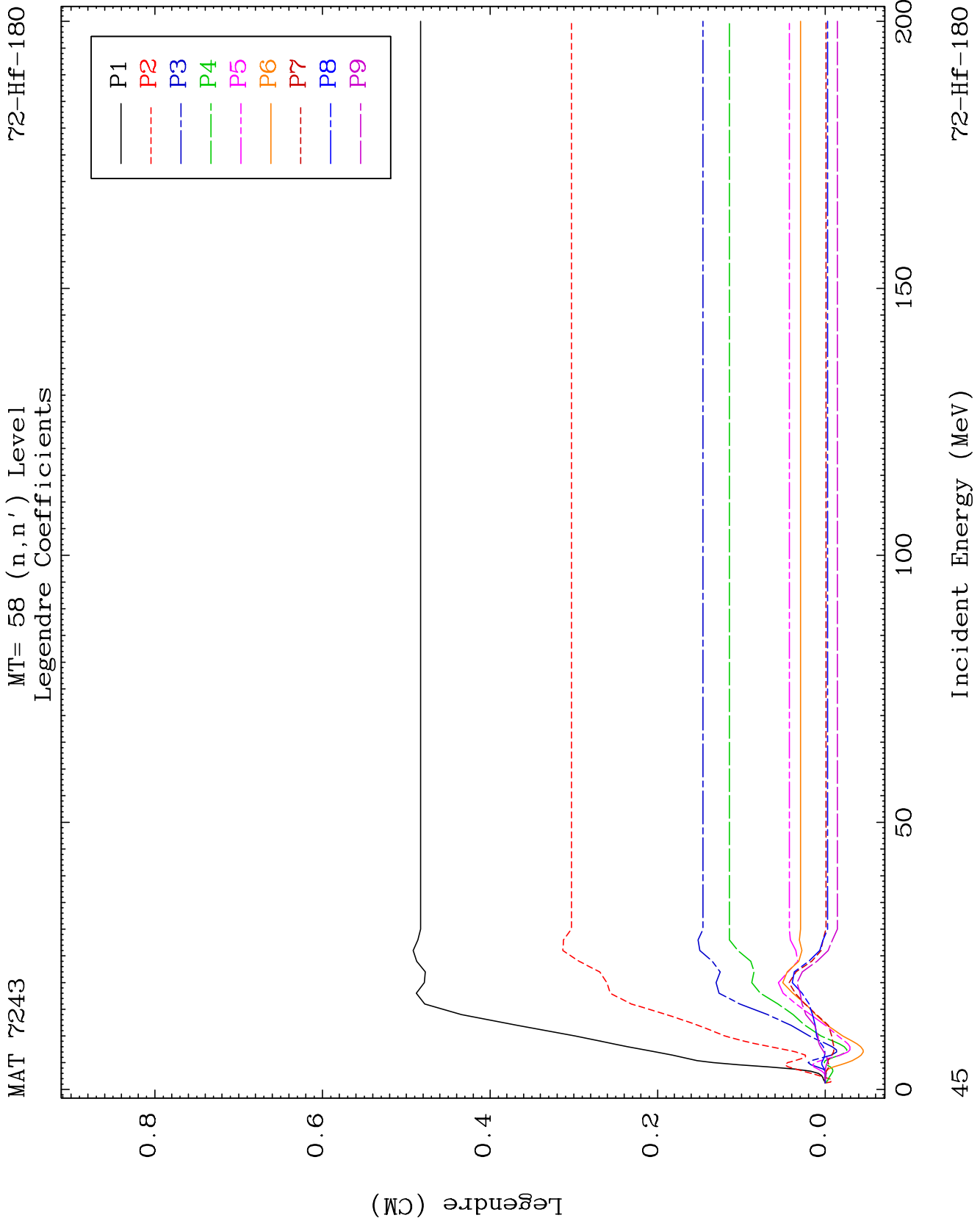
MAT 7243

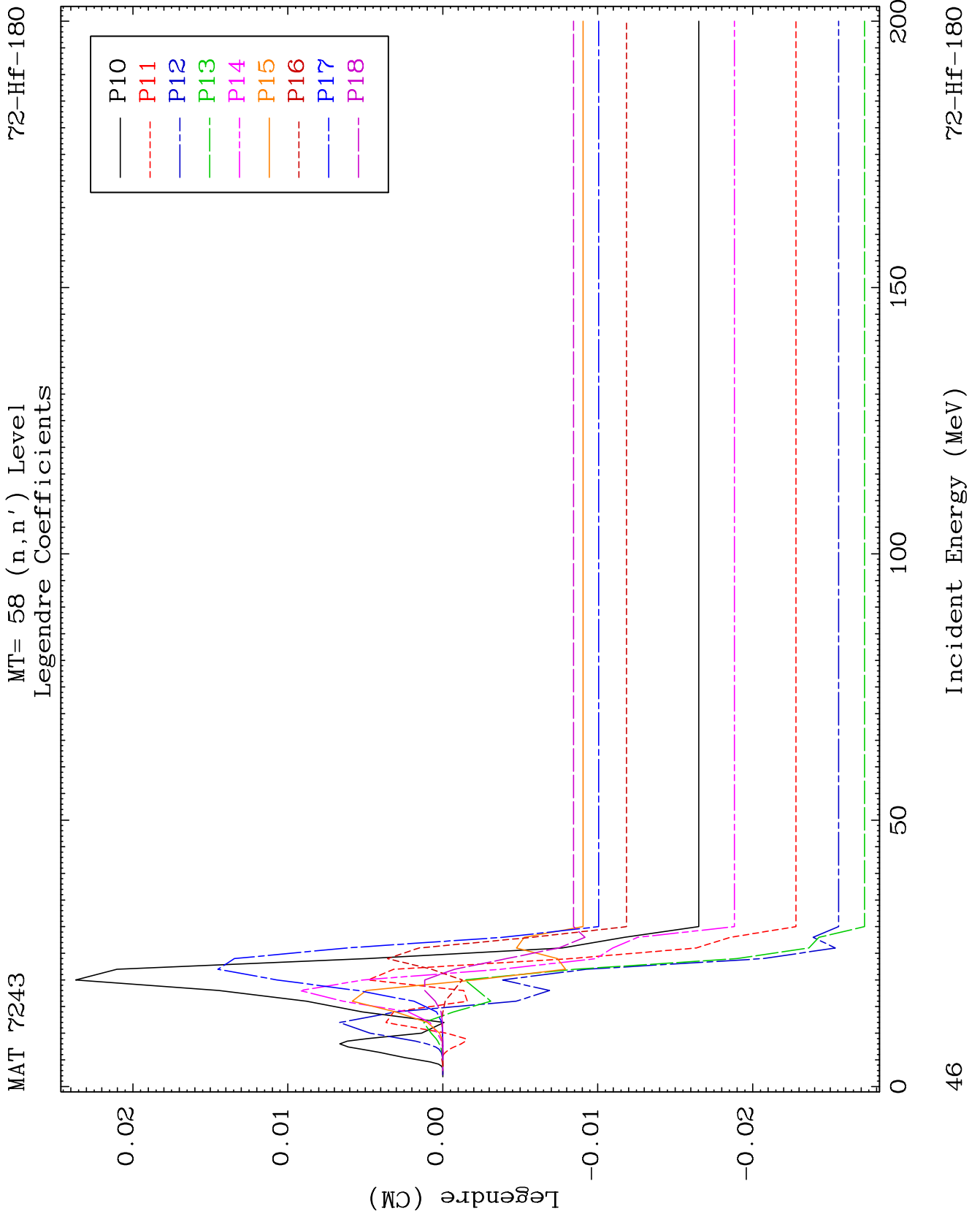
MT= 57 (n,n') Level
Legendre Coefficients

72-Hf-180





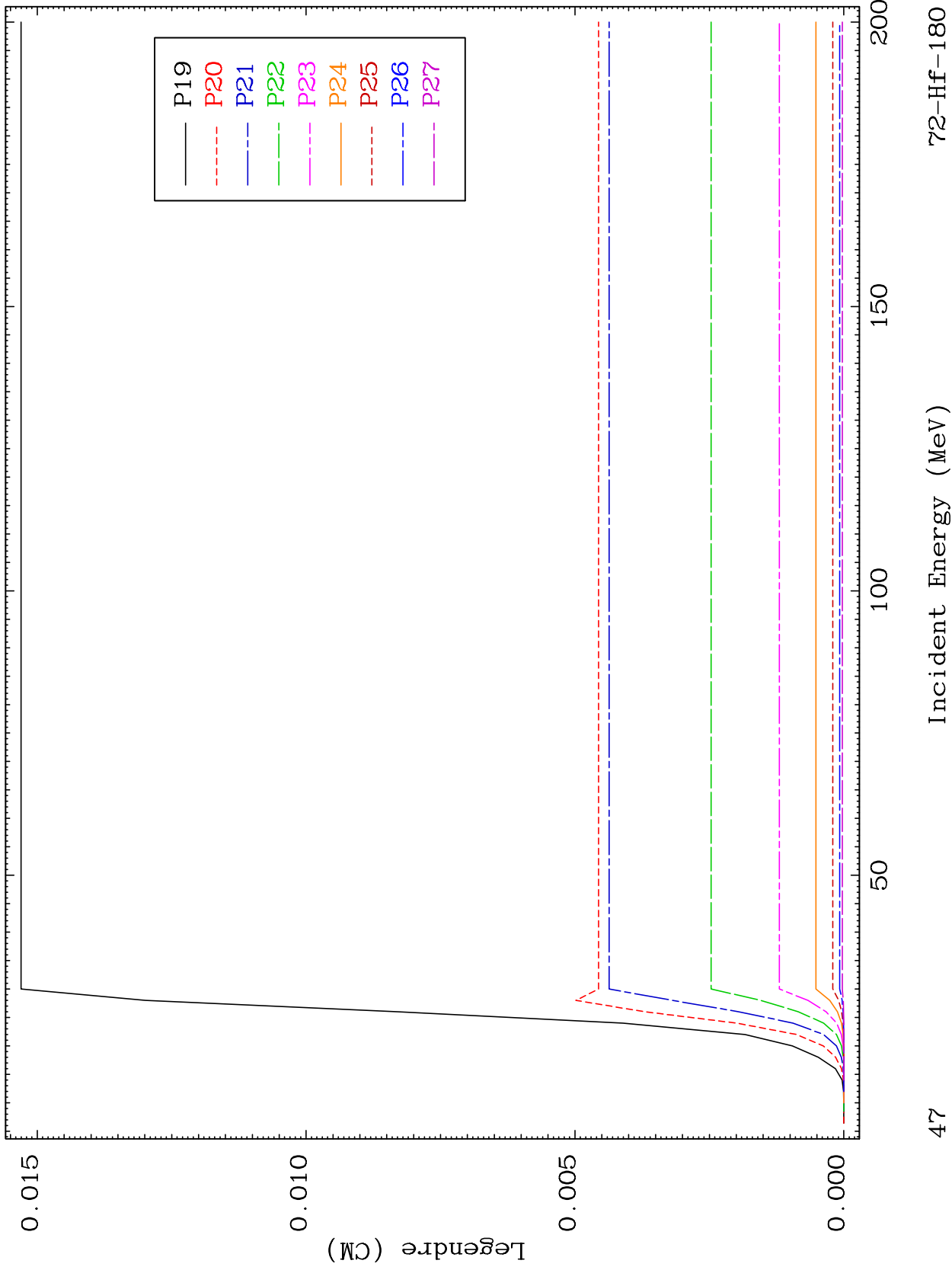




MAT 7243

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

72-Hf-180



47

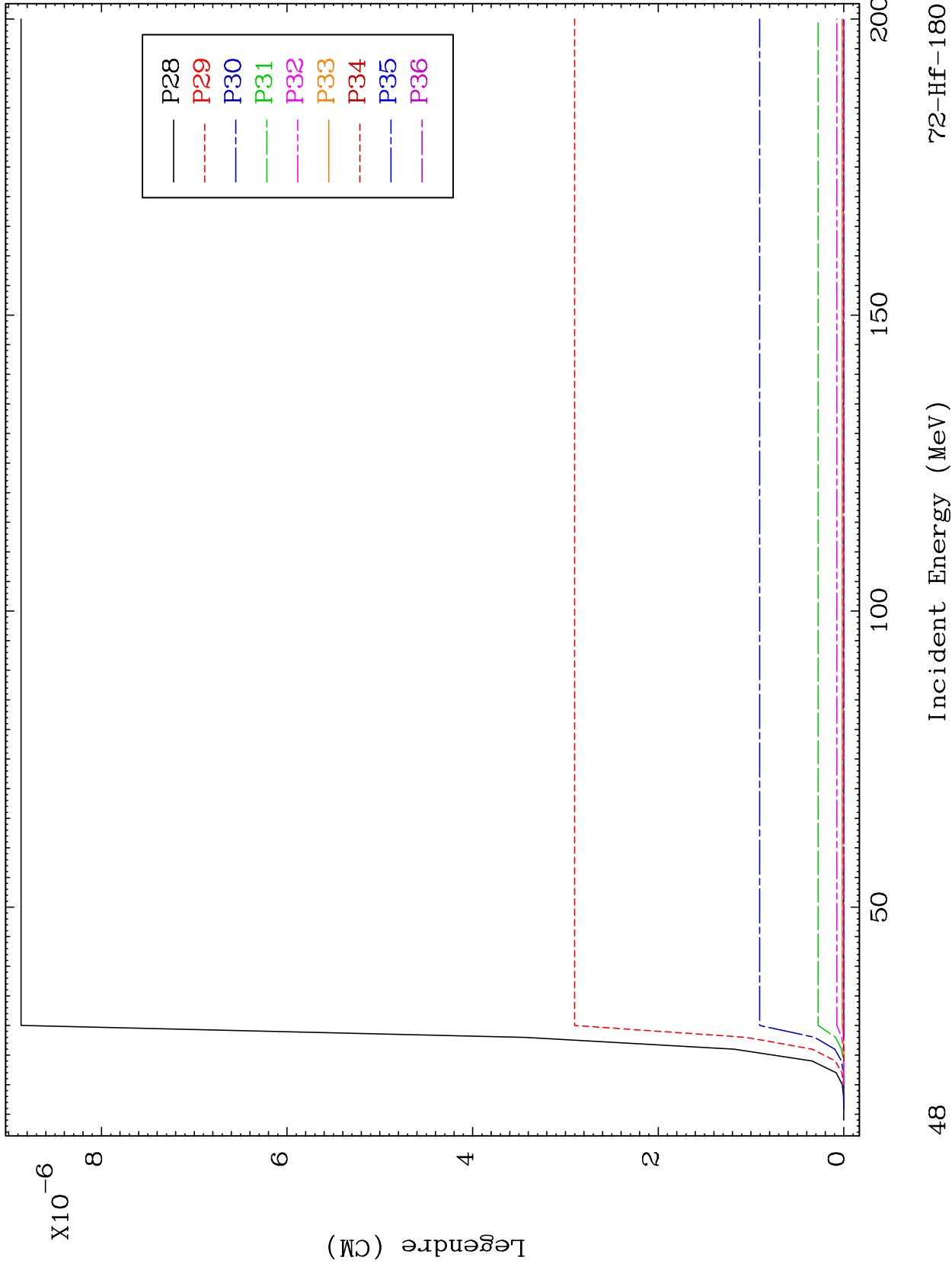
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



48

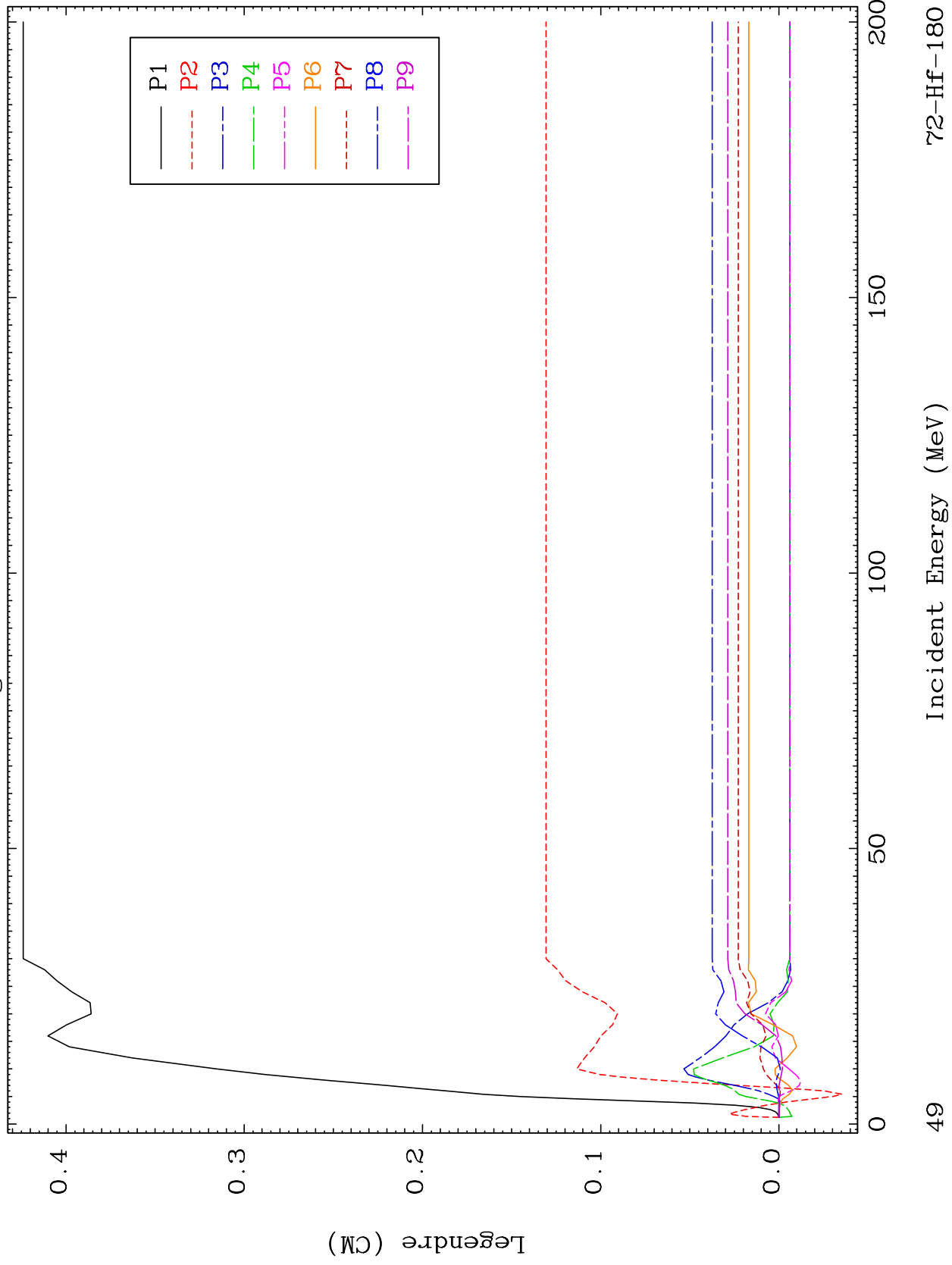
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



72-Hf-180

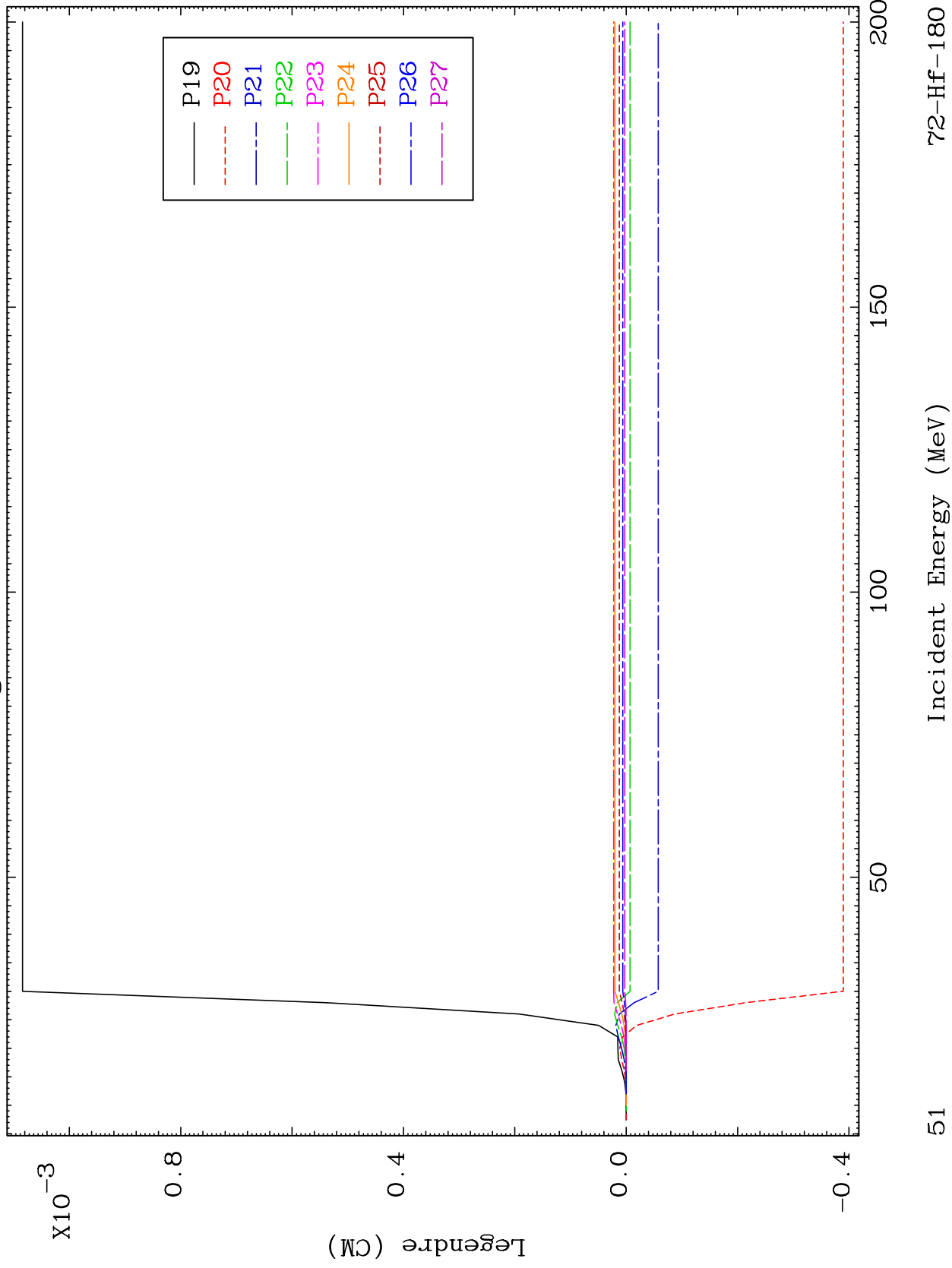
Incident Energy (MeV)

49

MAT 7243

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

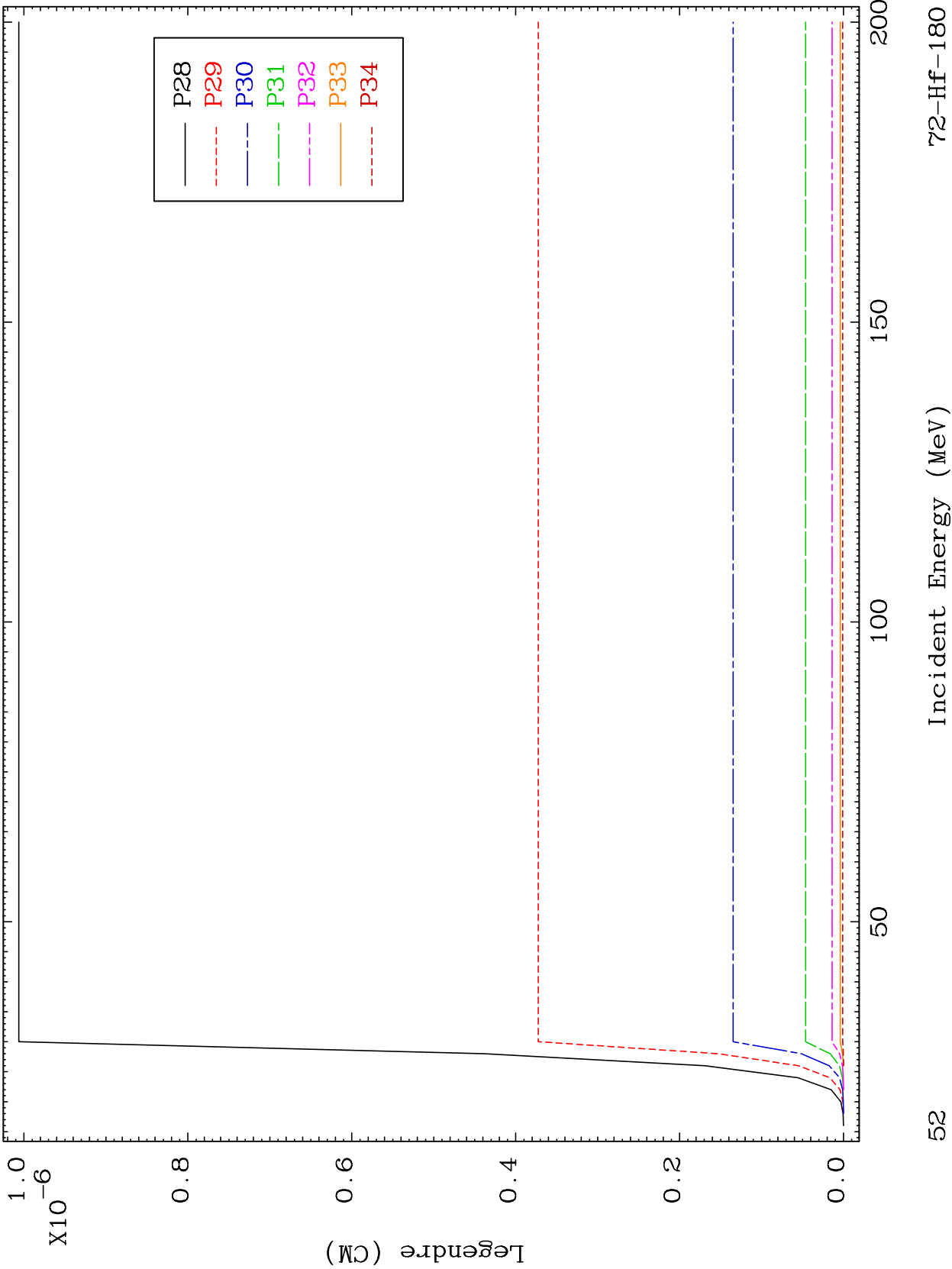
72-Hf-180



MAT 7243

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

72-Hf-180



52

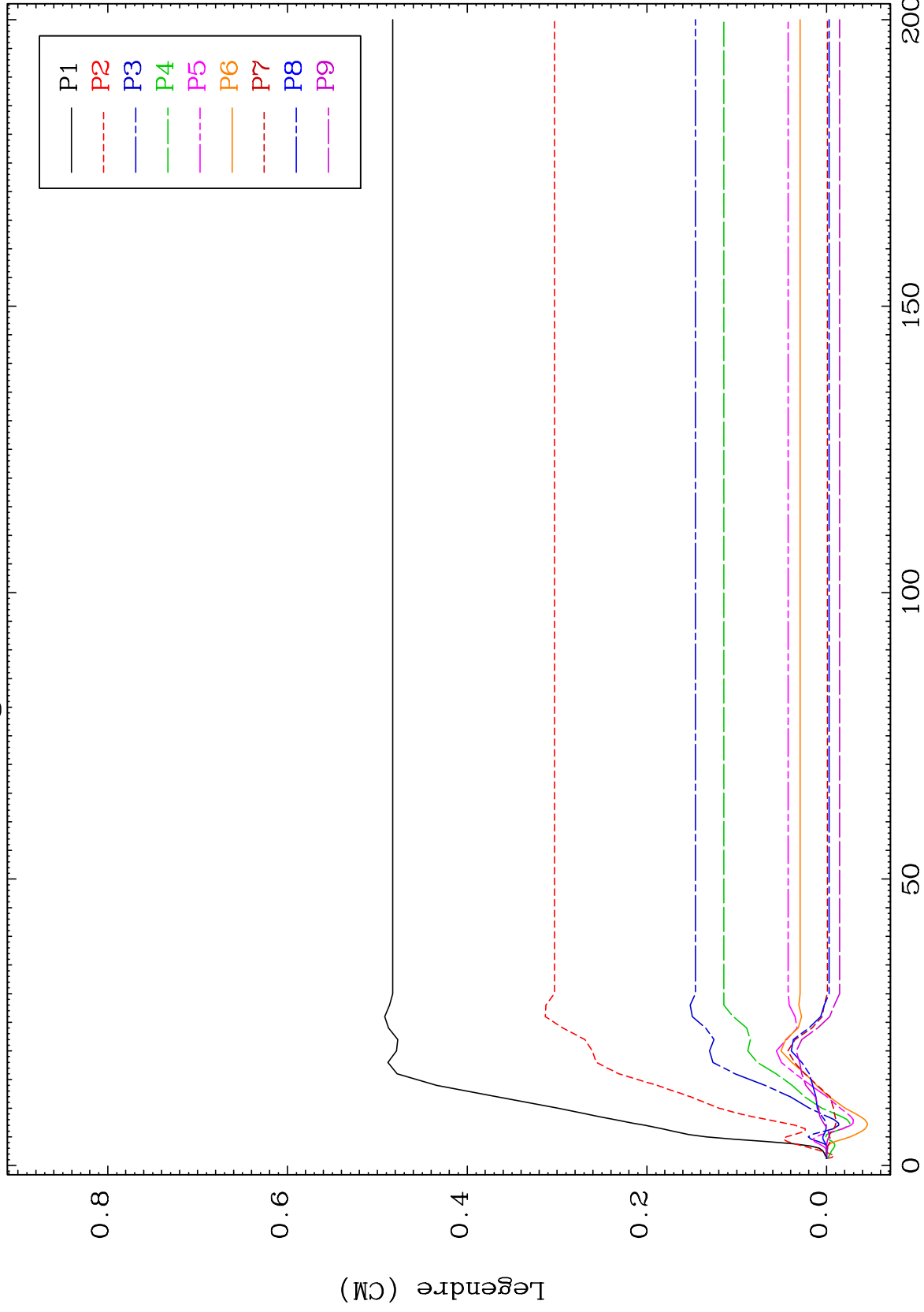
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

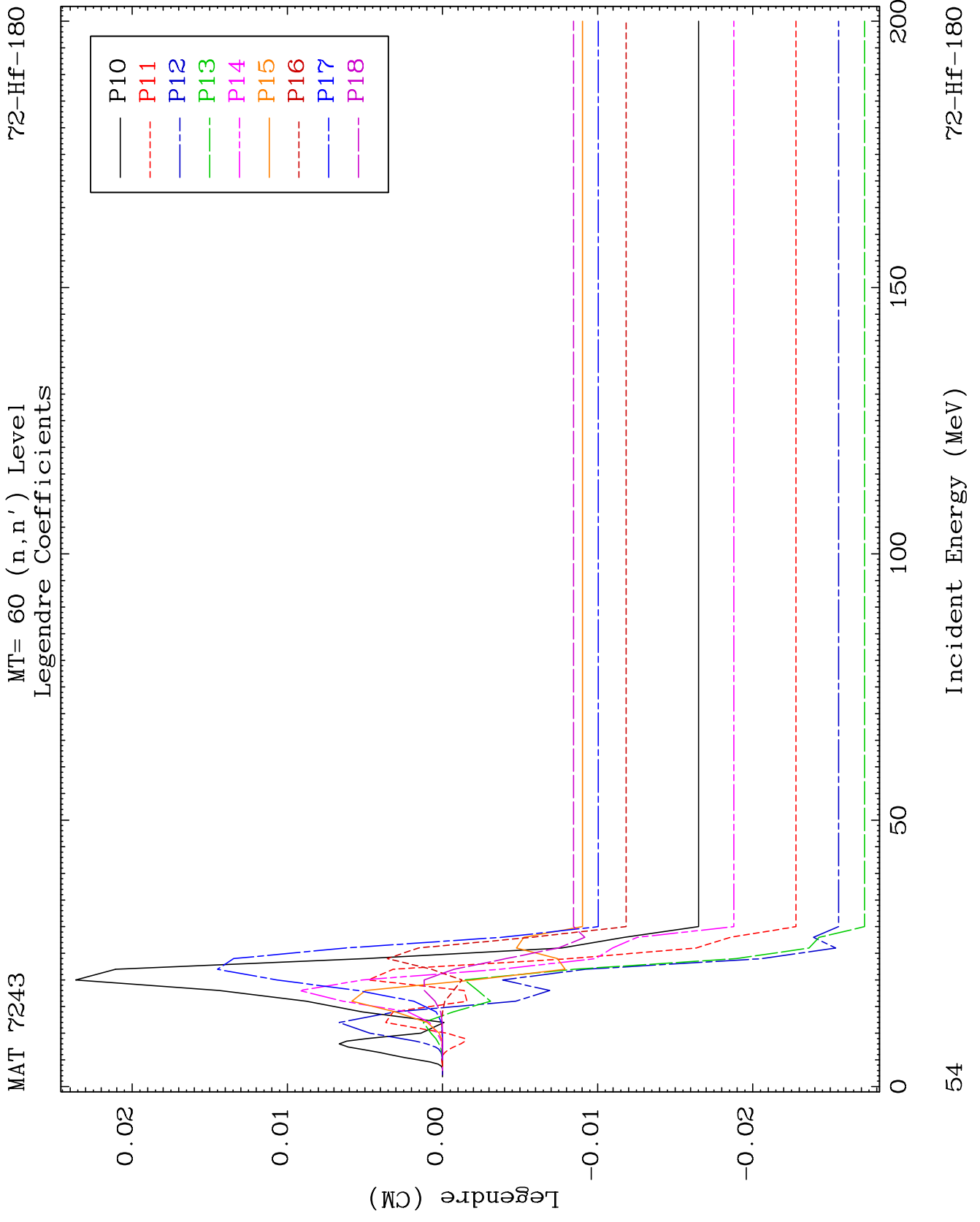
72-Hf-180



53

Incident Energy (MeV)

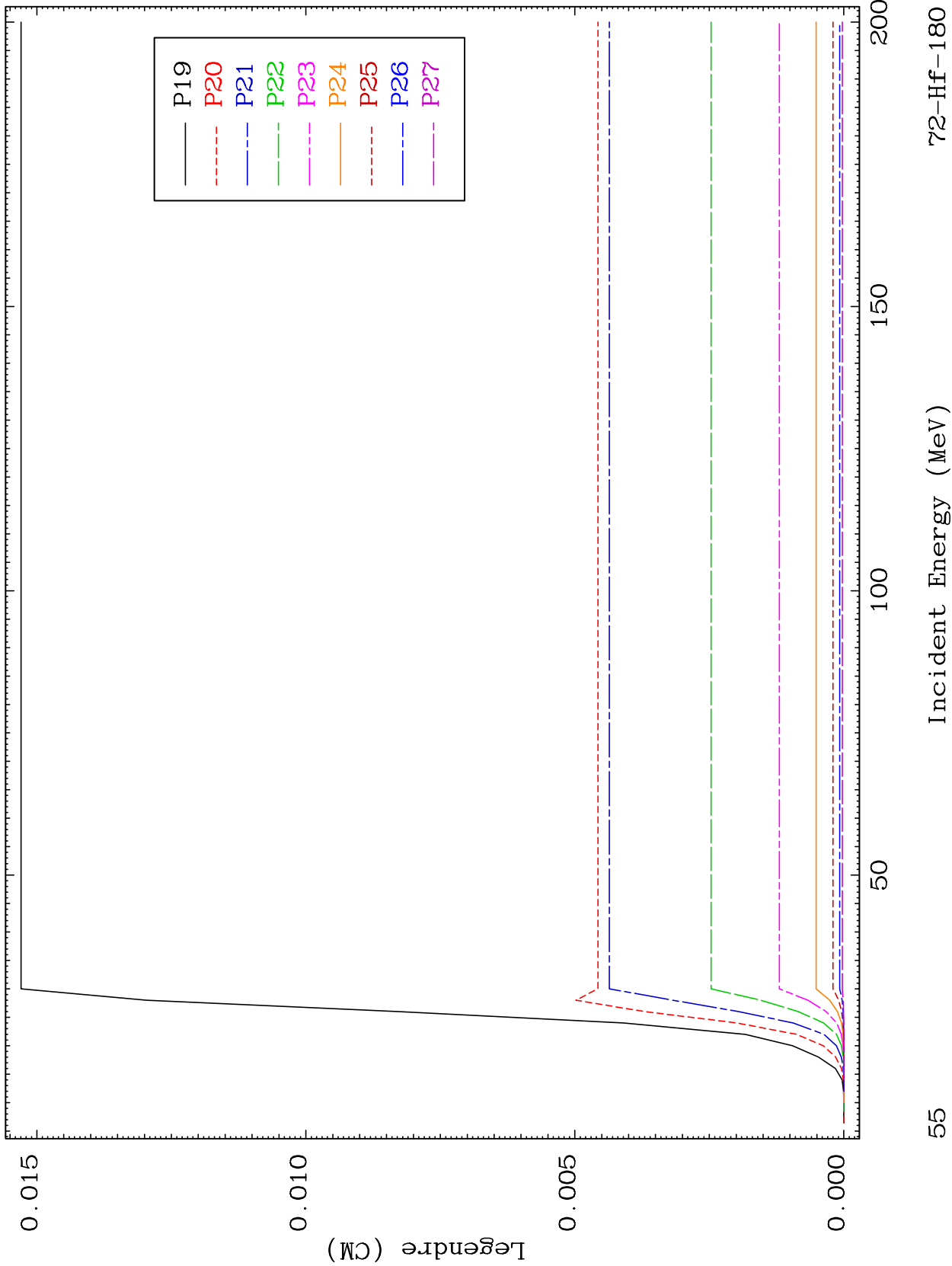
72-Hf-180



MAT 7243

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

72-Hf-180



55

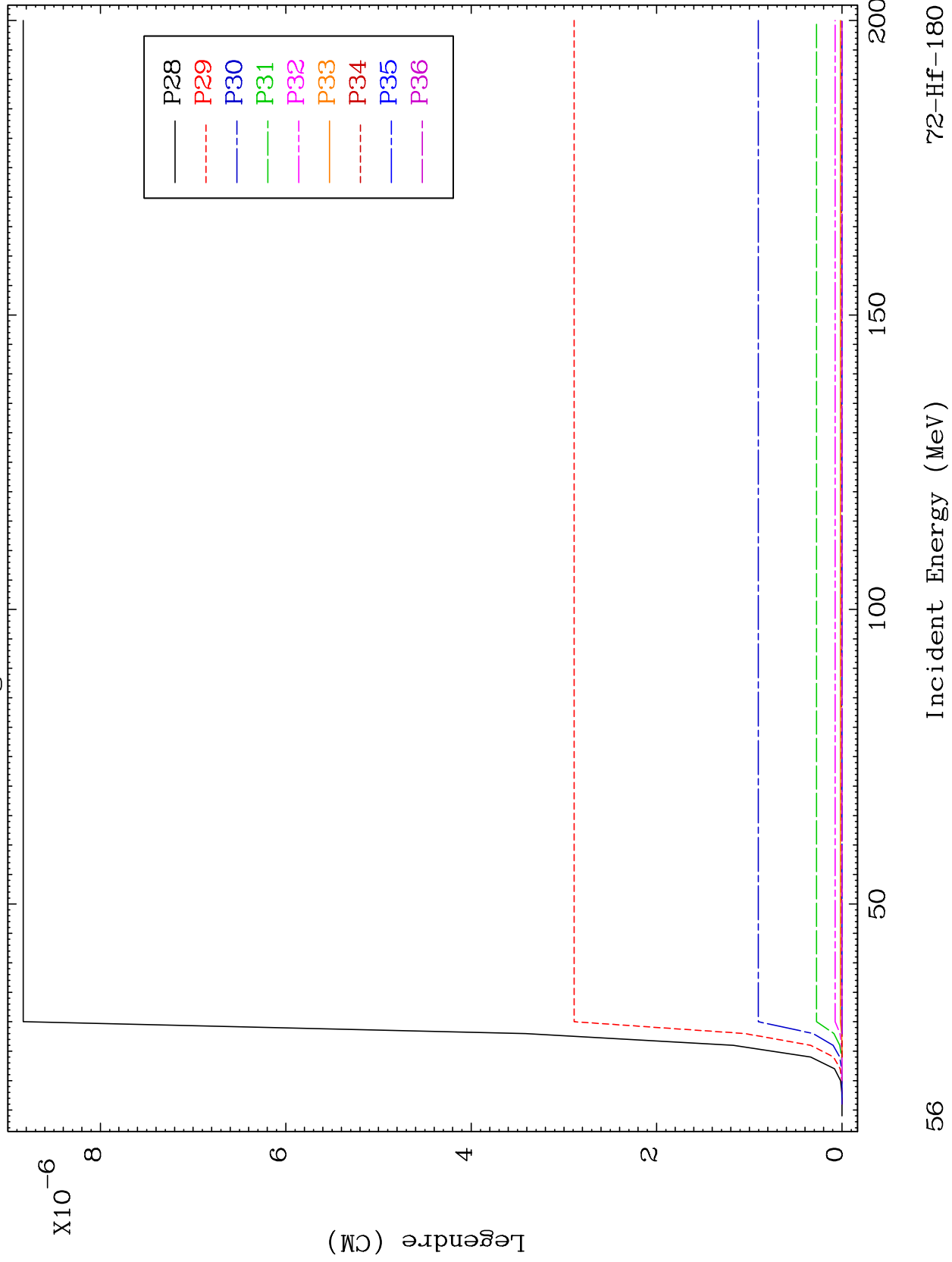
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

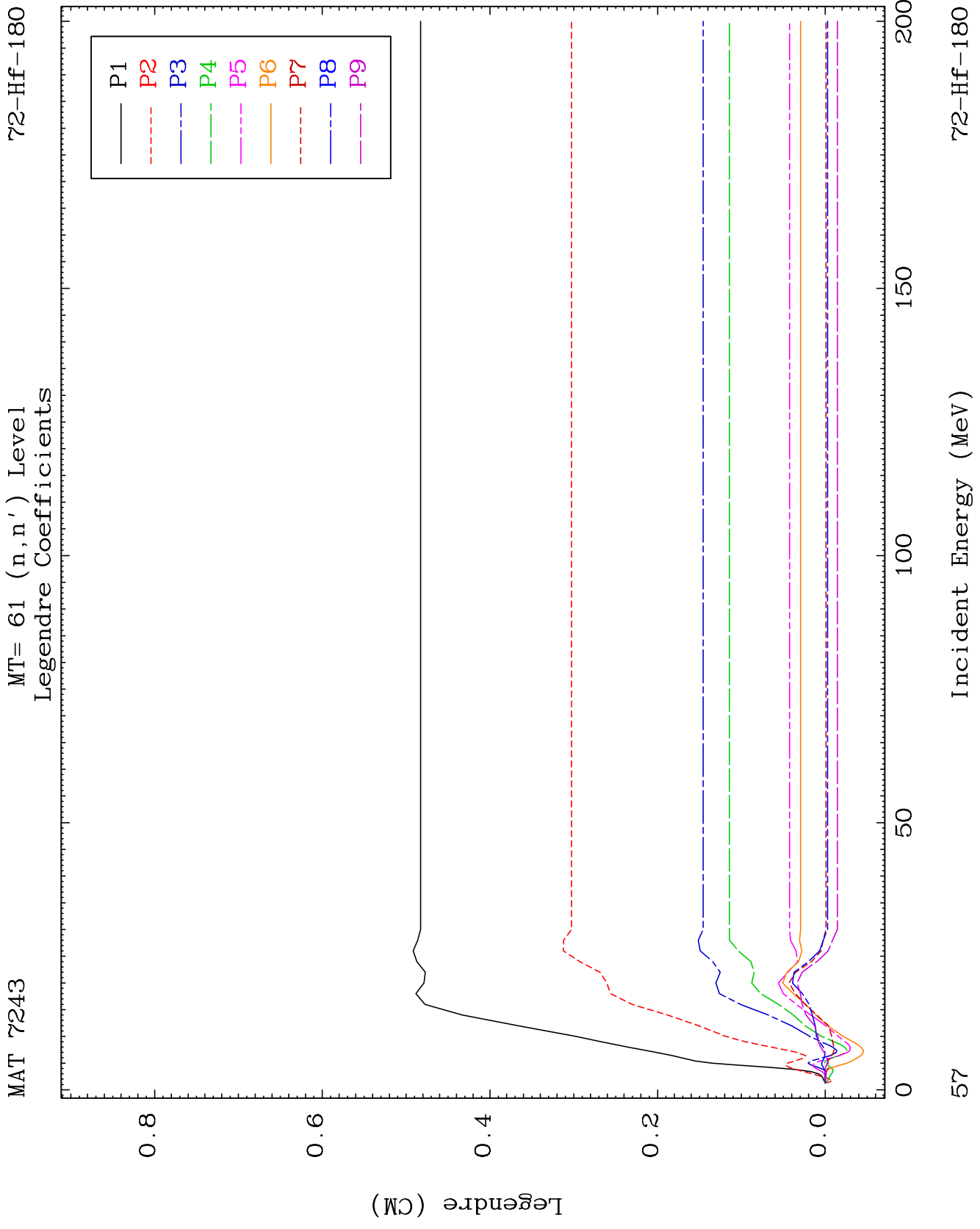
72-Hf-180

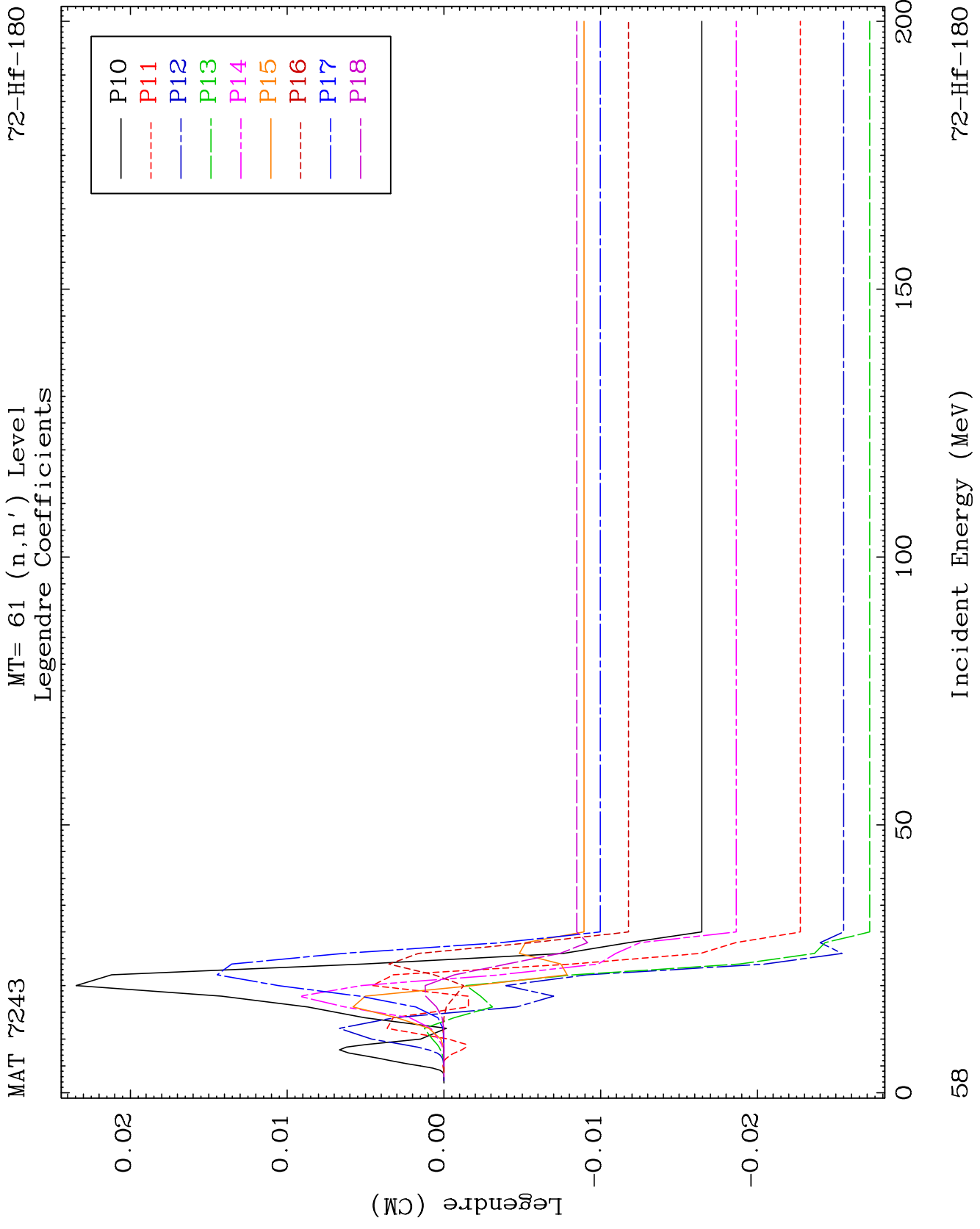


56

Incident Energy (MeV)

72-Hf-180

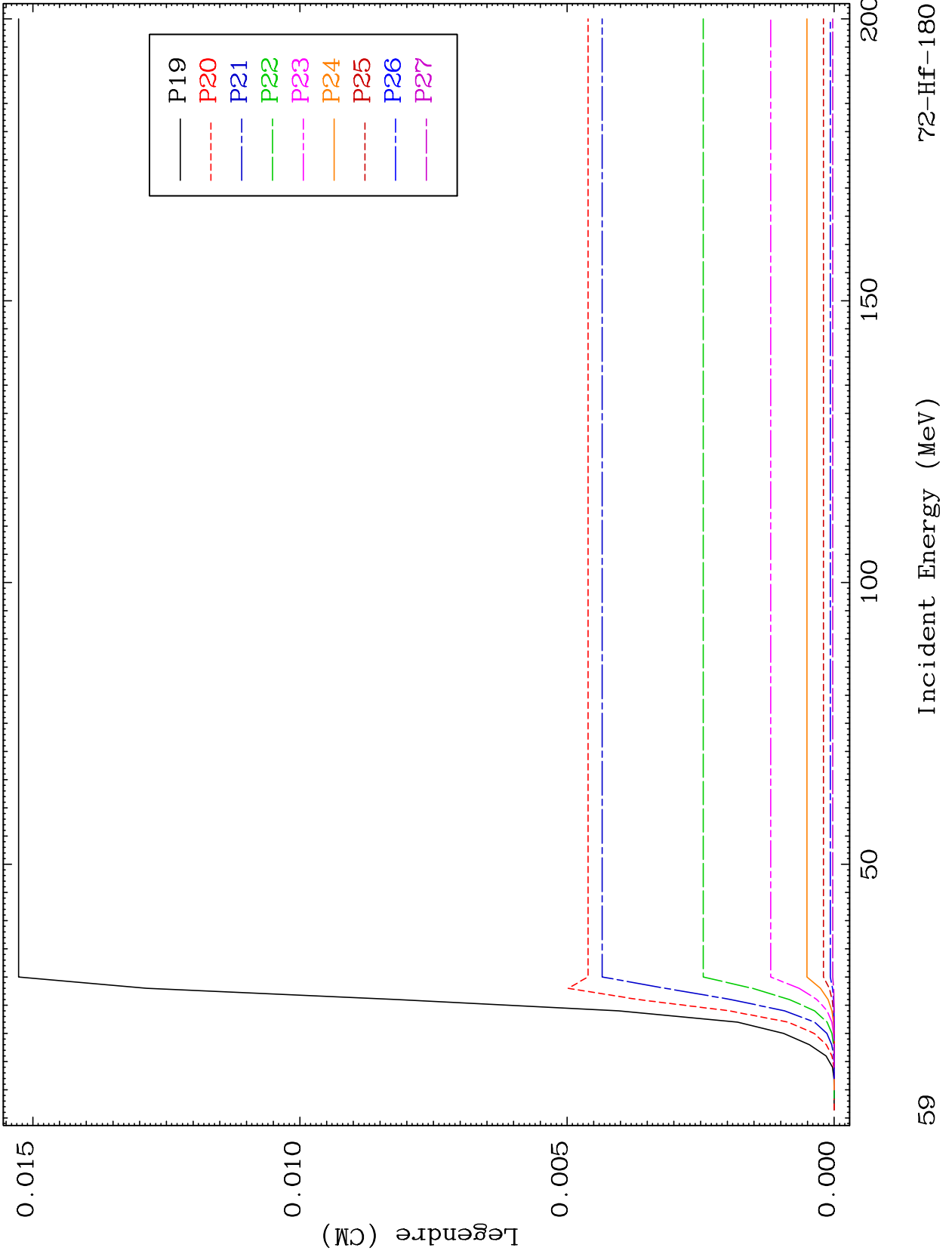




MAT 7243

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

72-Hf-180



59

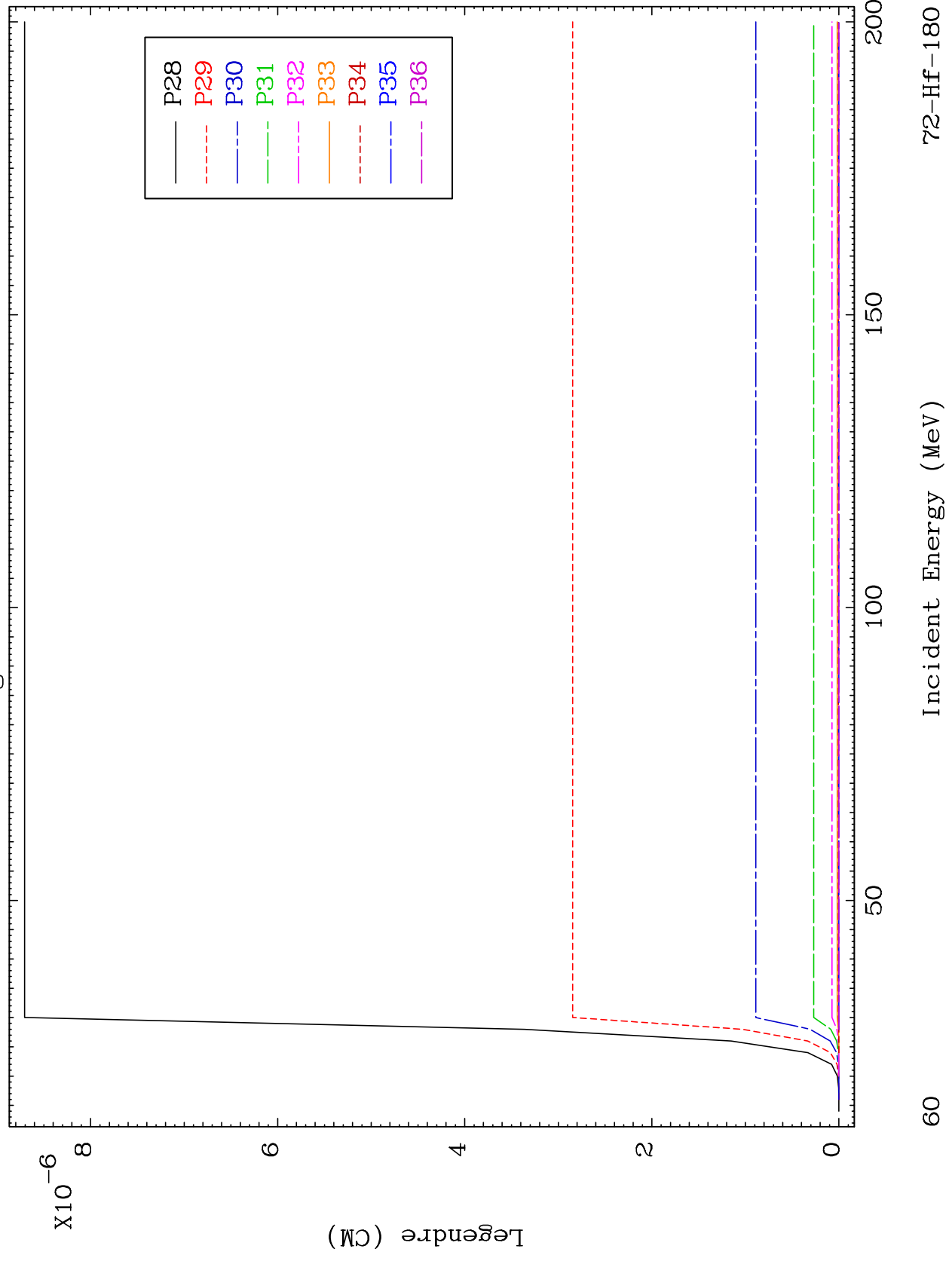
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

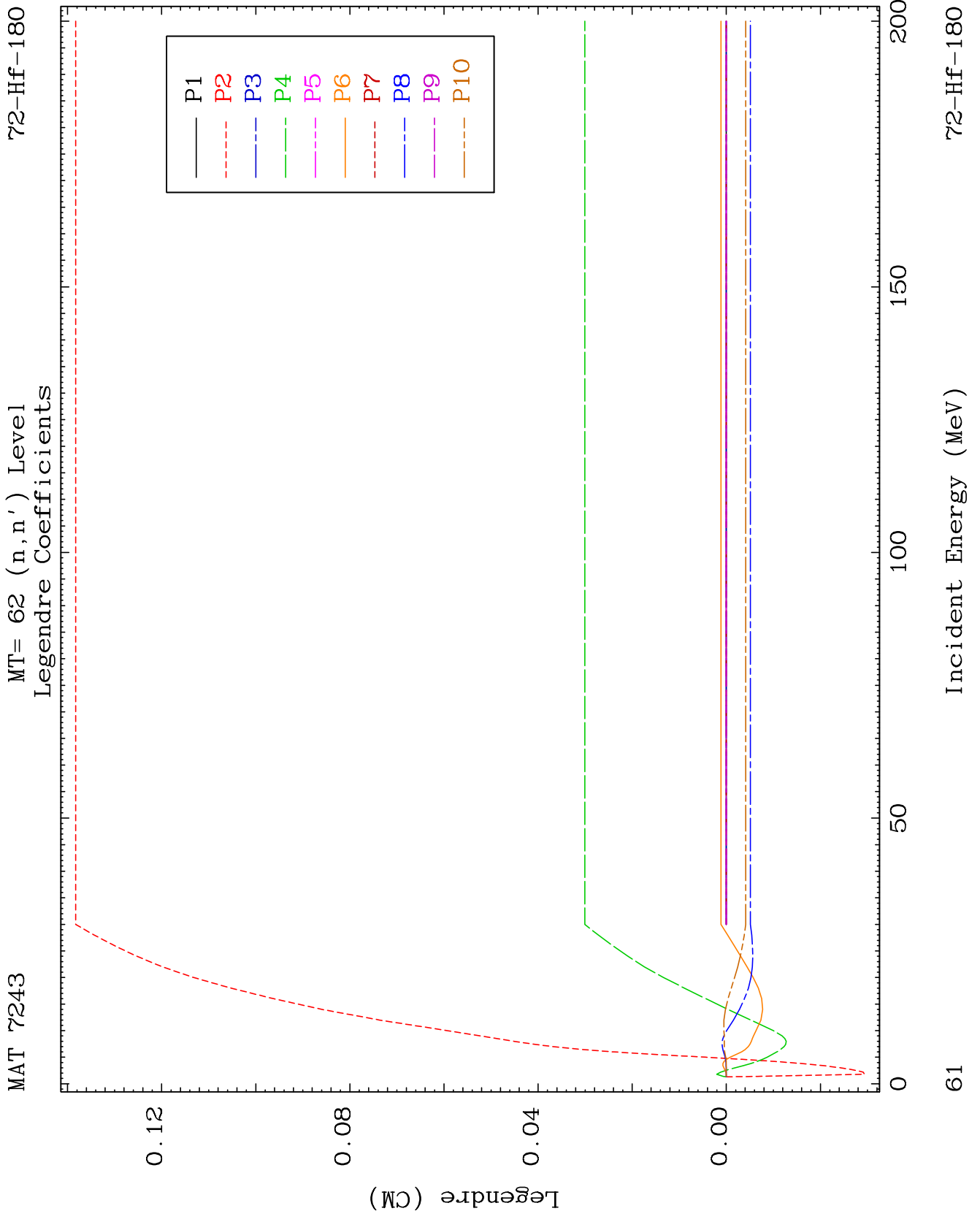
72-Hf-180



72-Hf-180

Incident Energy (MeV)

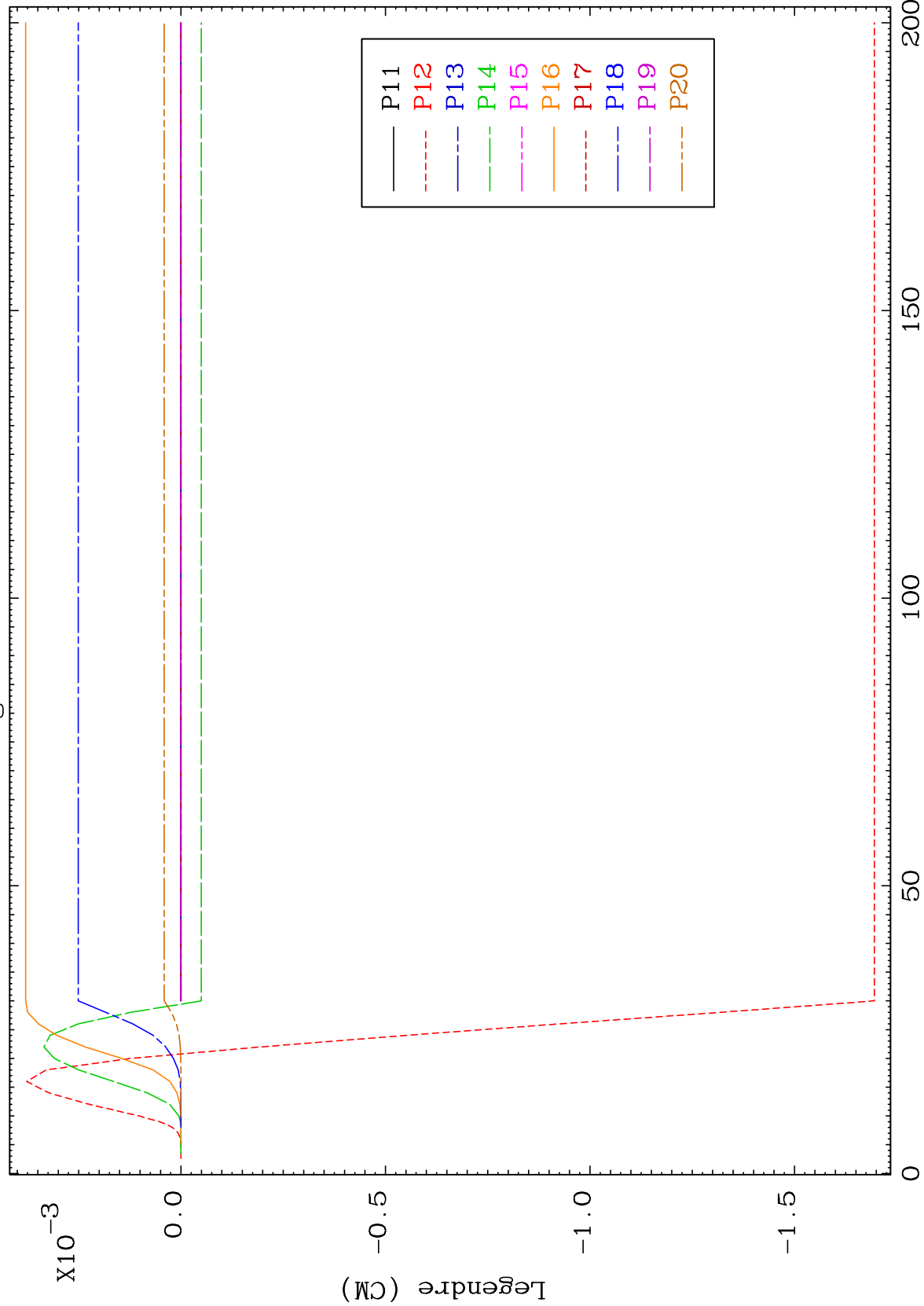
60



MAT 7243

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

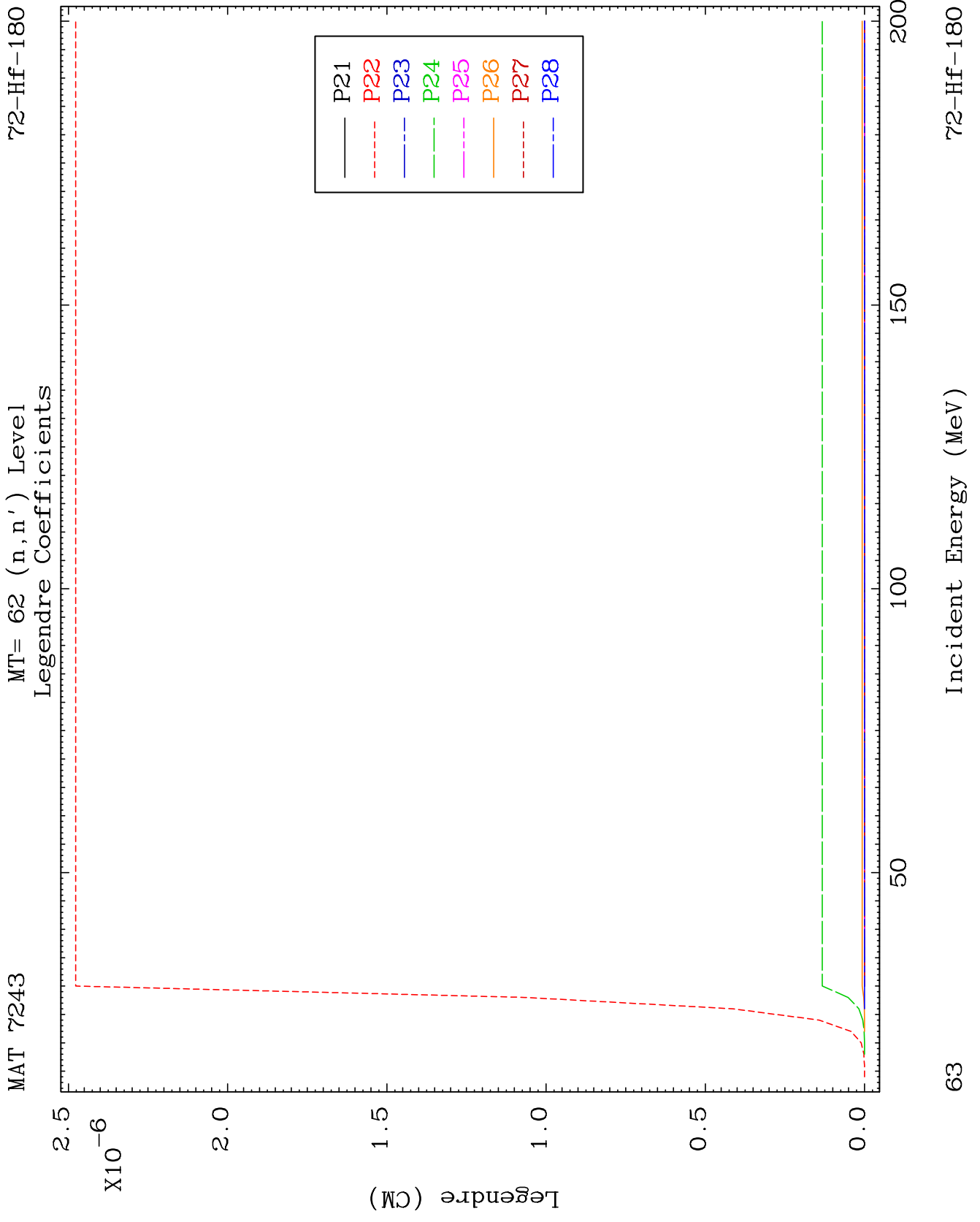
72-Hf-180



62

Incident Energy (MeV)

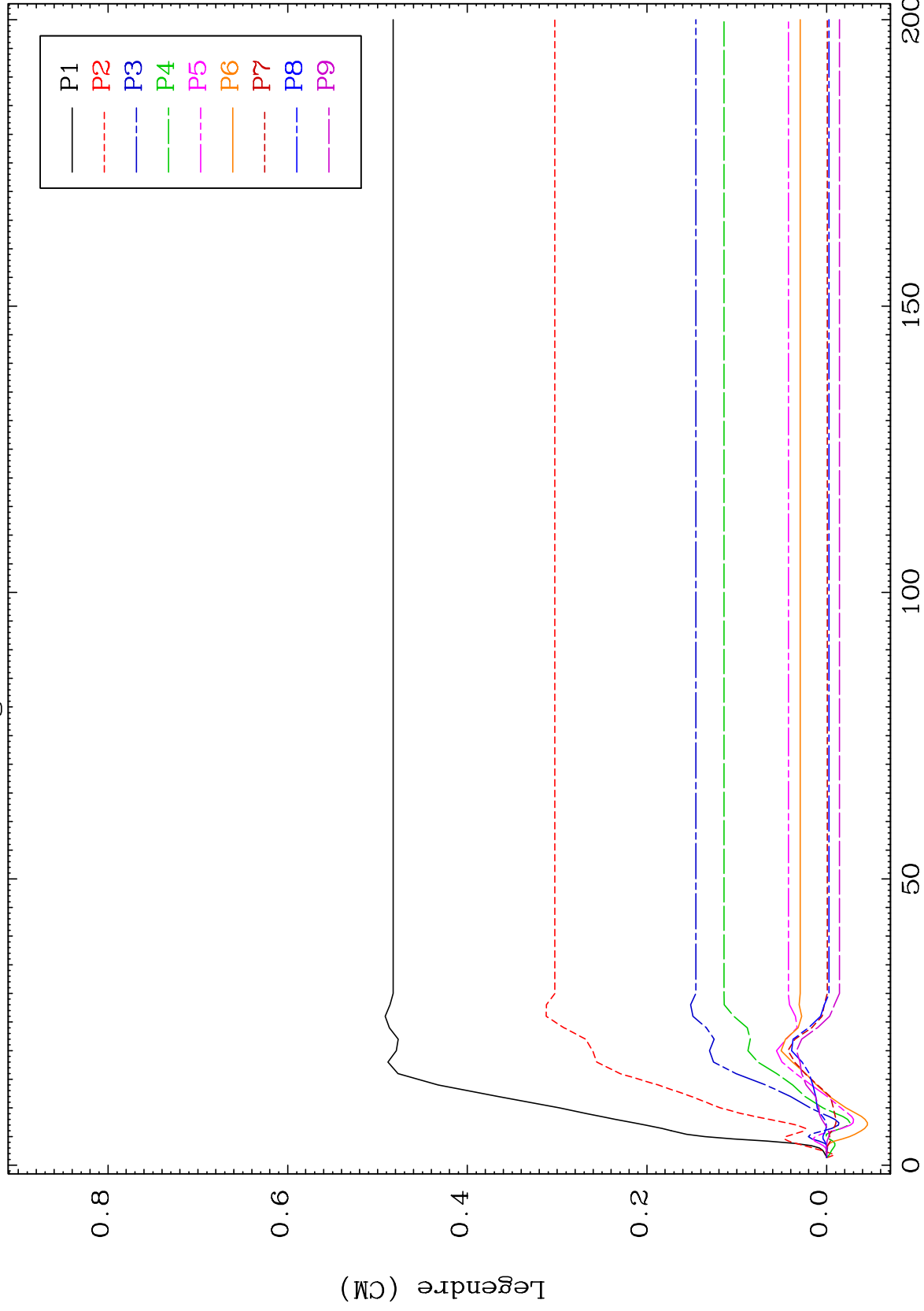
72-Hf-180



MAT 7243

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

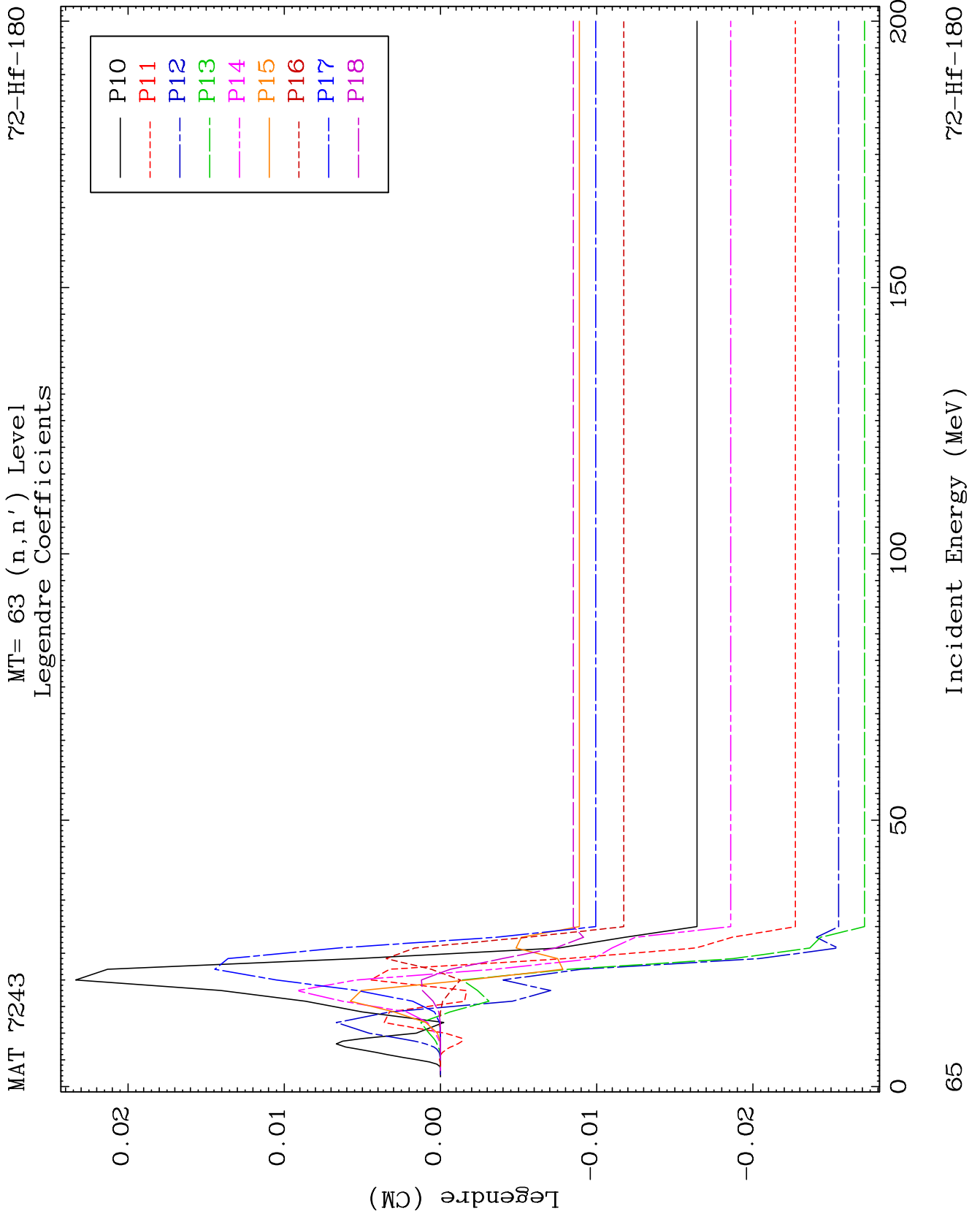
72-Hf-180



64

Incident Energy (MeV)

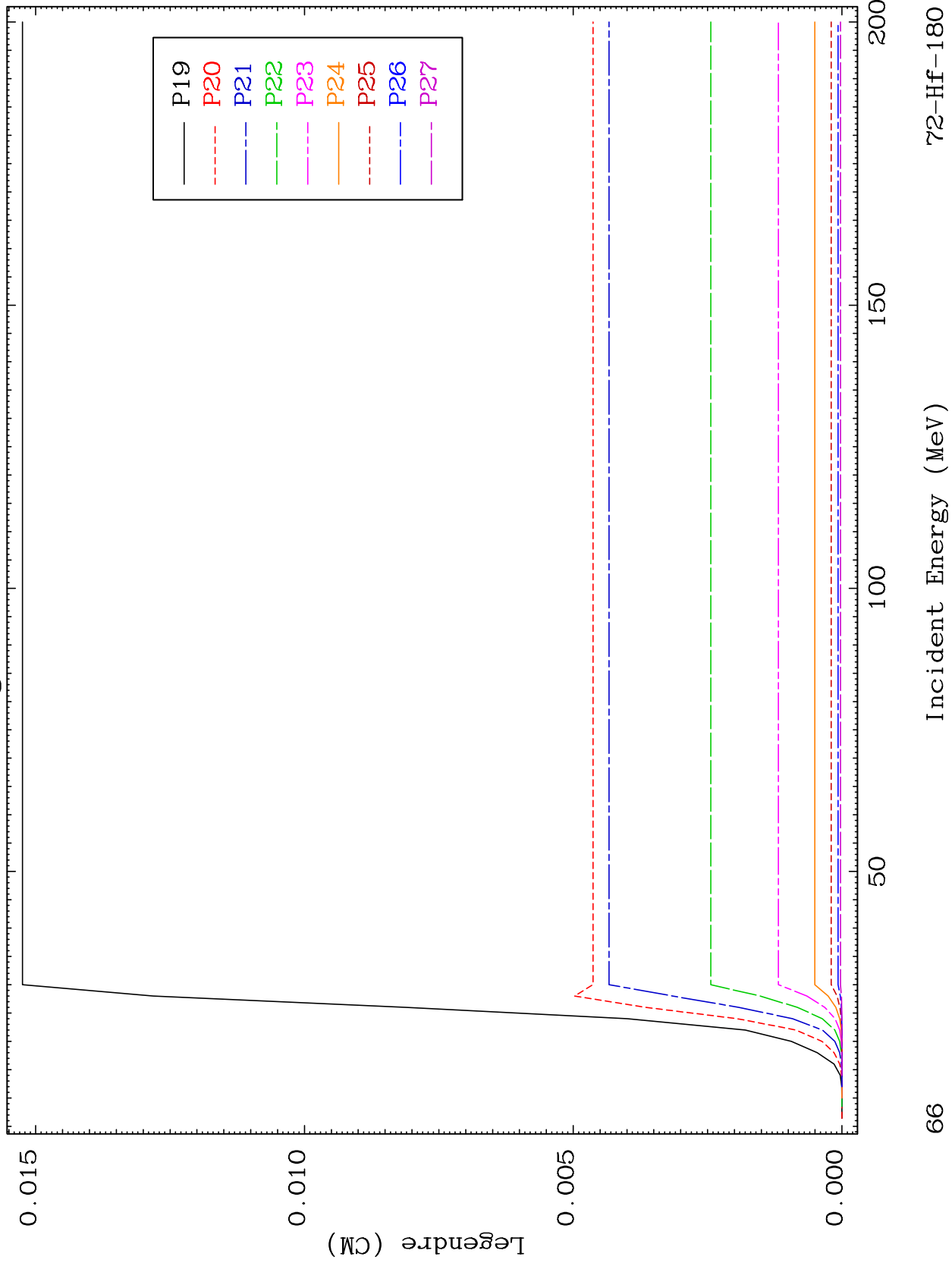
72-Hf-180



MAT 7243

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

72-Hf-180



66

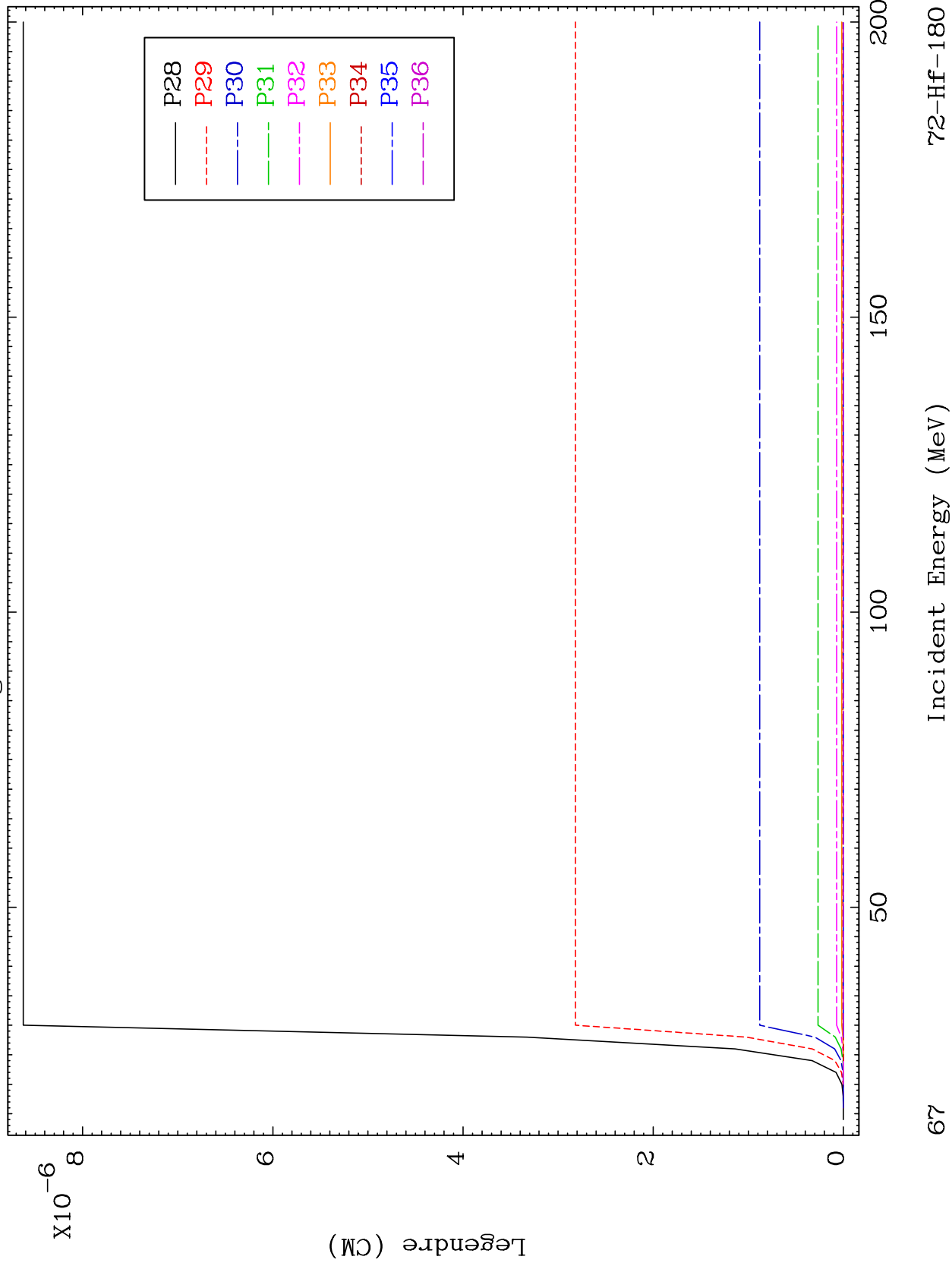
Incident Energy (MeV)

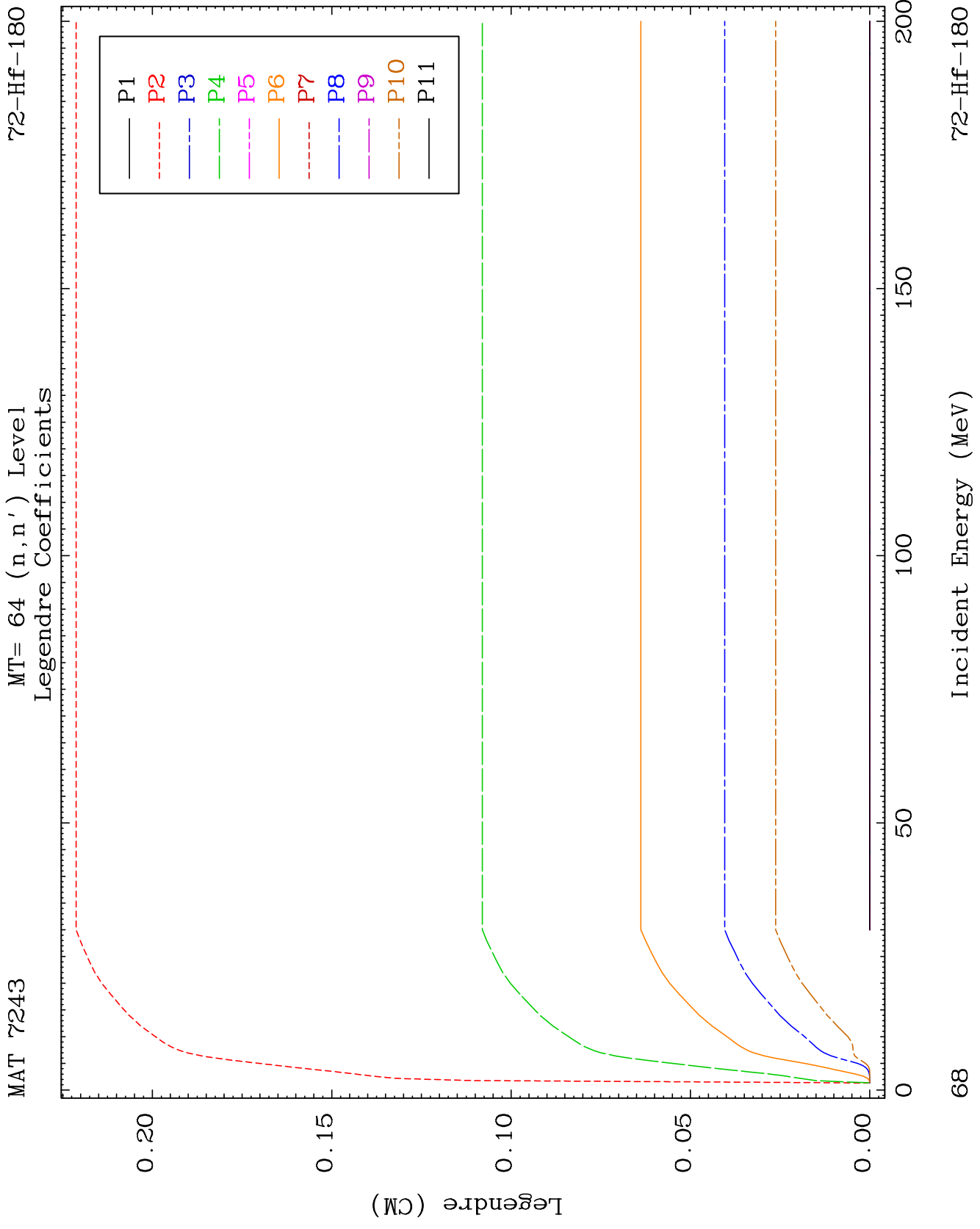
72-Hf-180

MAT 7243

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

72-Hf-180

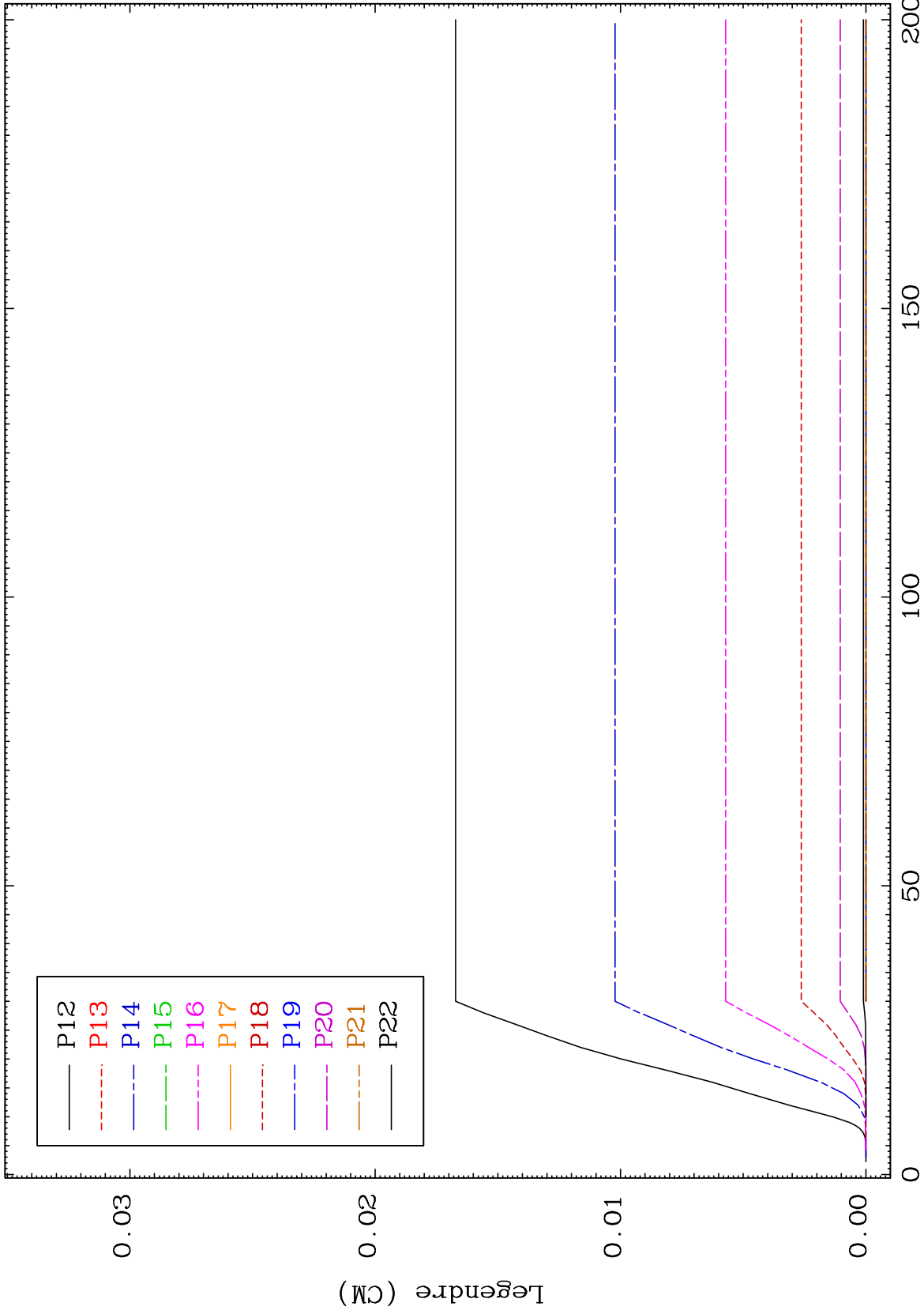




MAT 7243

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

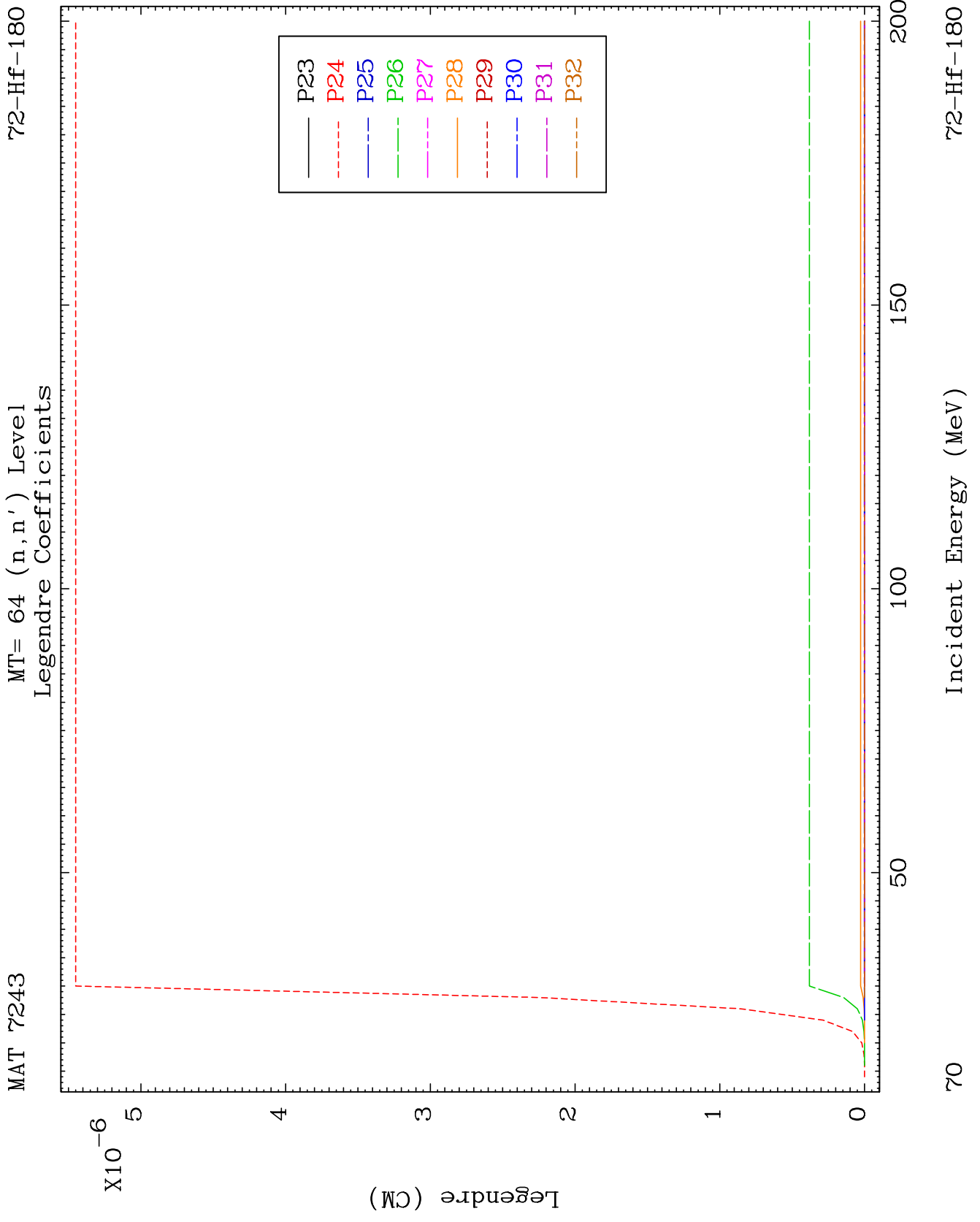
72-Hf-180

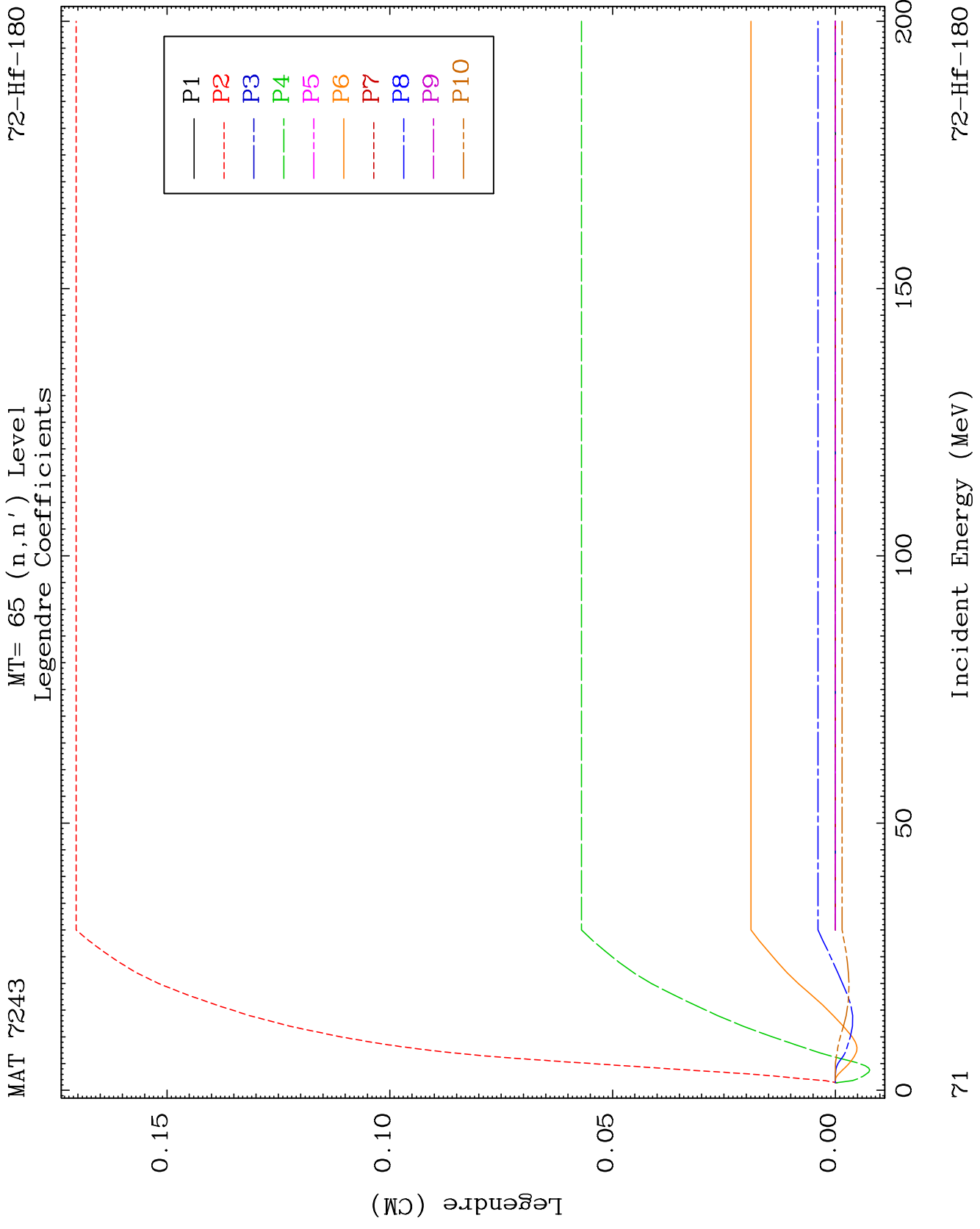


69

Incident Energy (MeV)

72-Hf-180

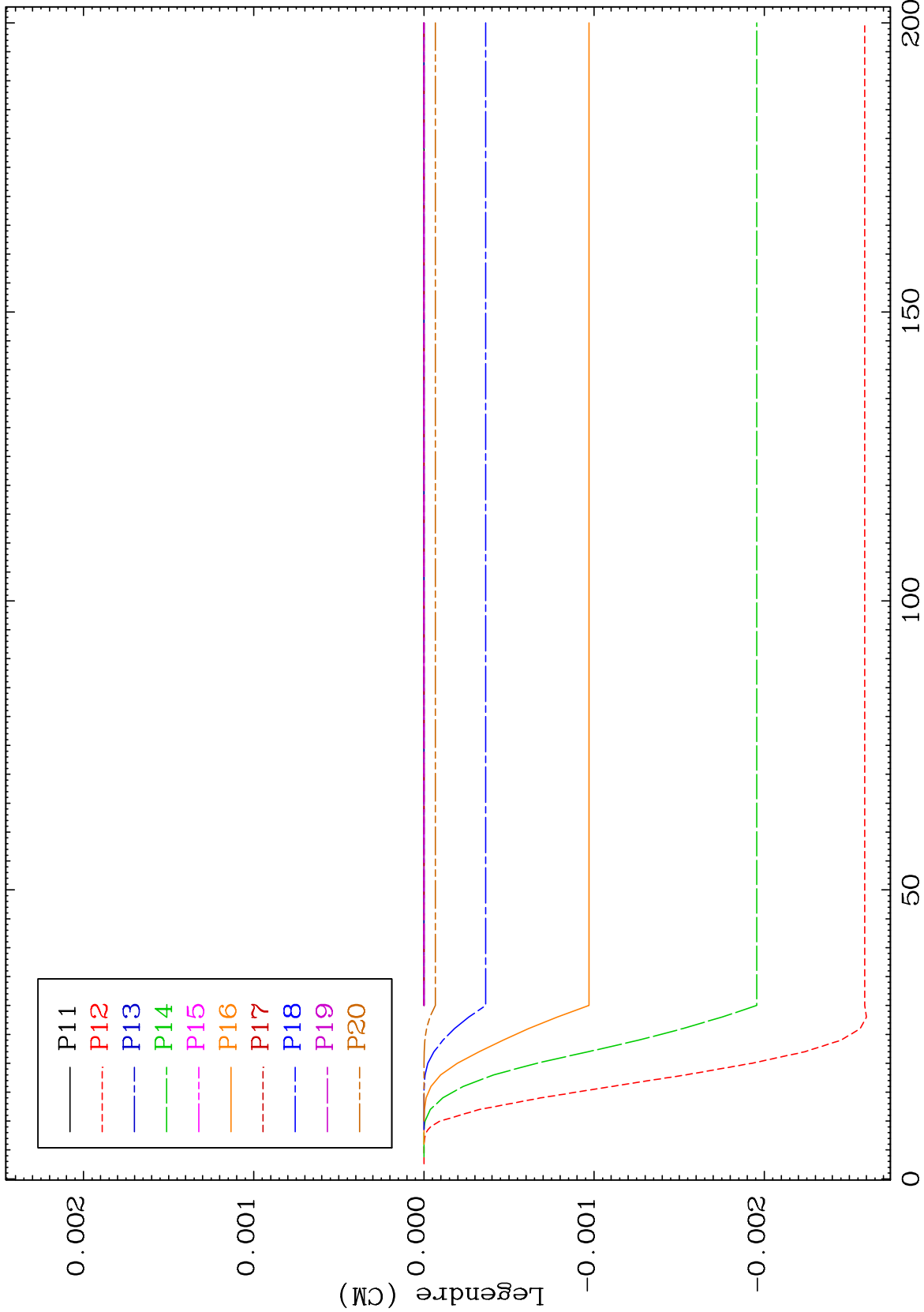




MAT 7243

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

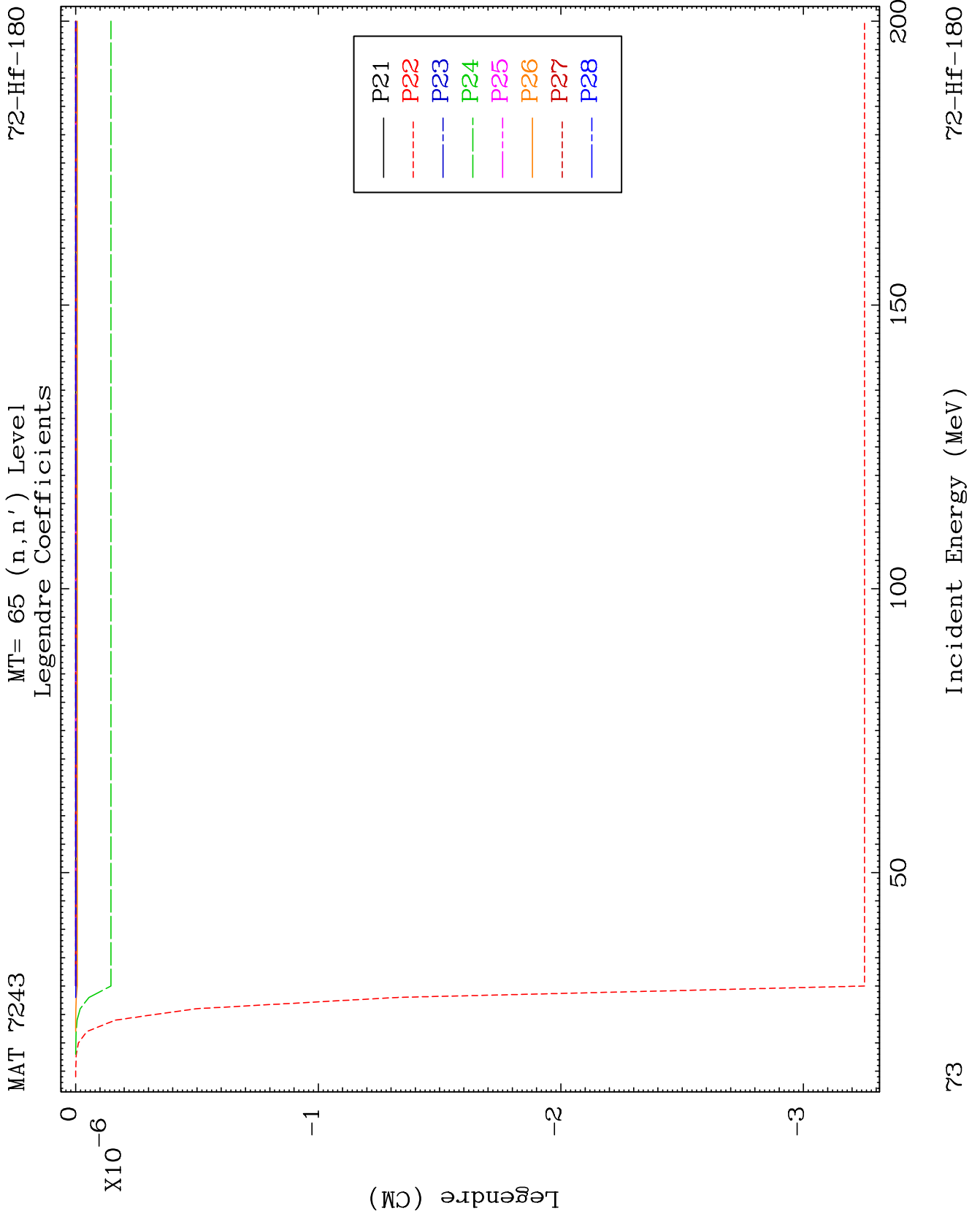
72-Hf-180

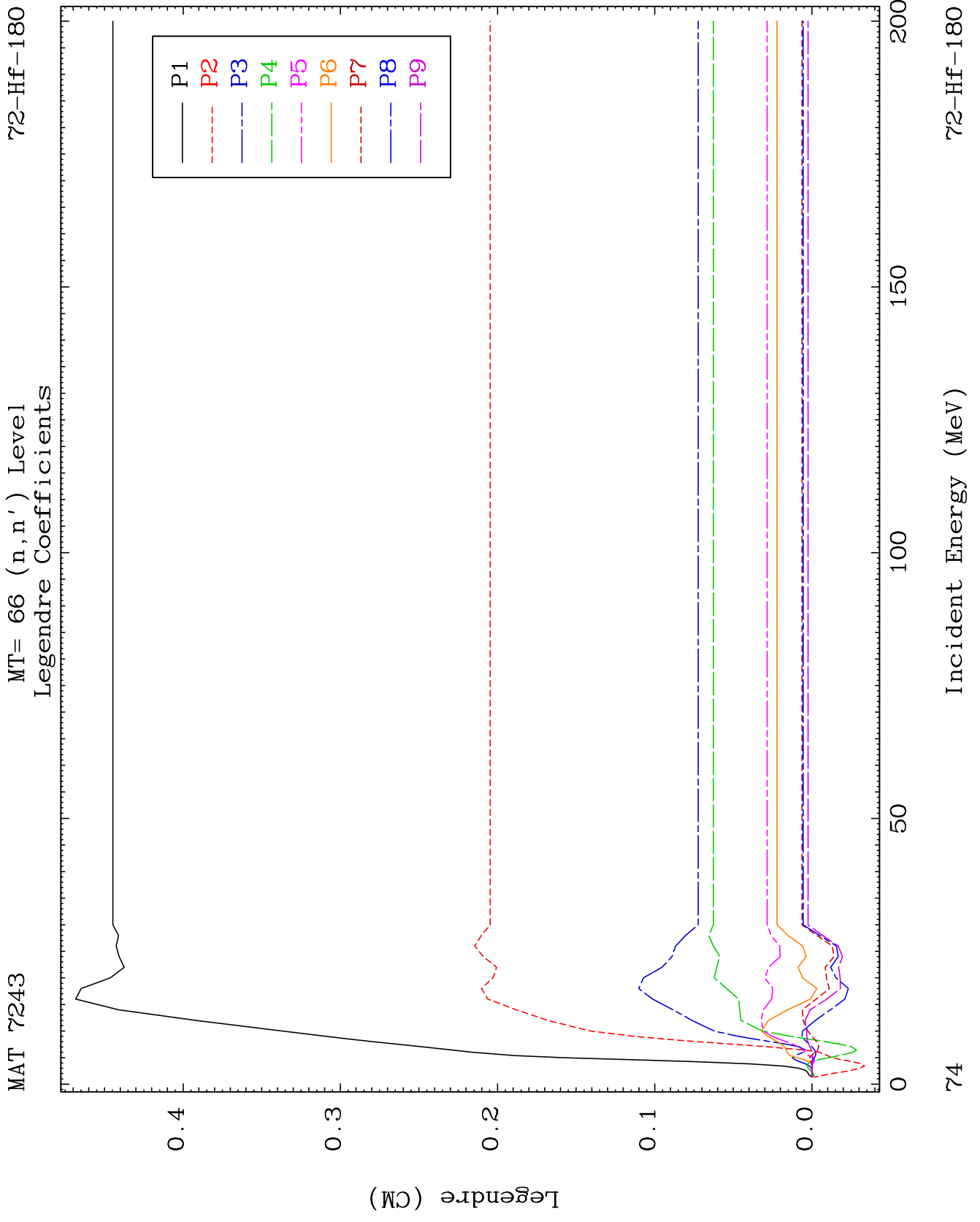


72

Incident Energy (MeV)

72-Hf-180

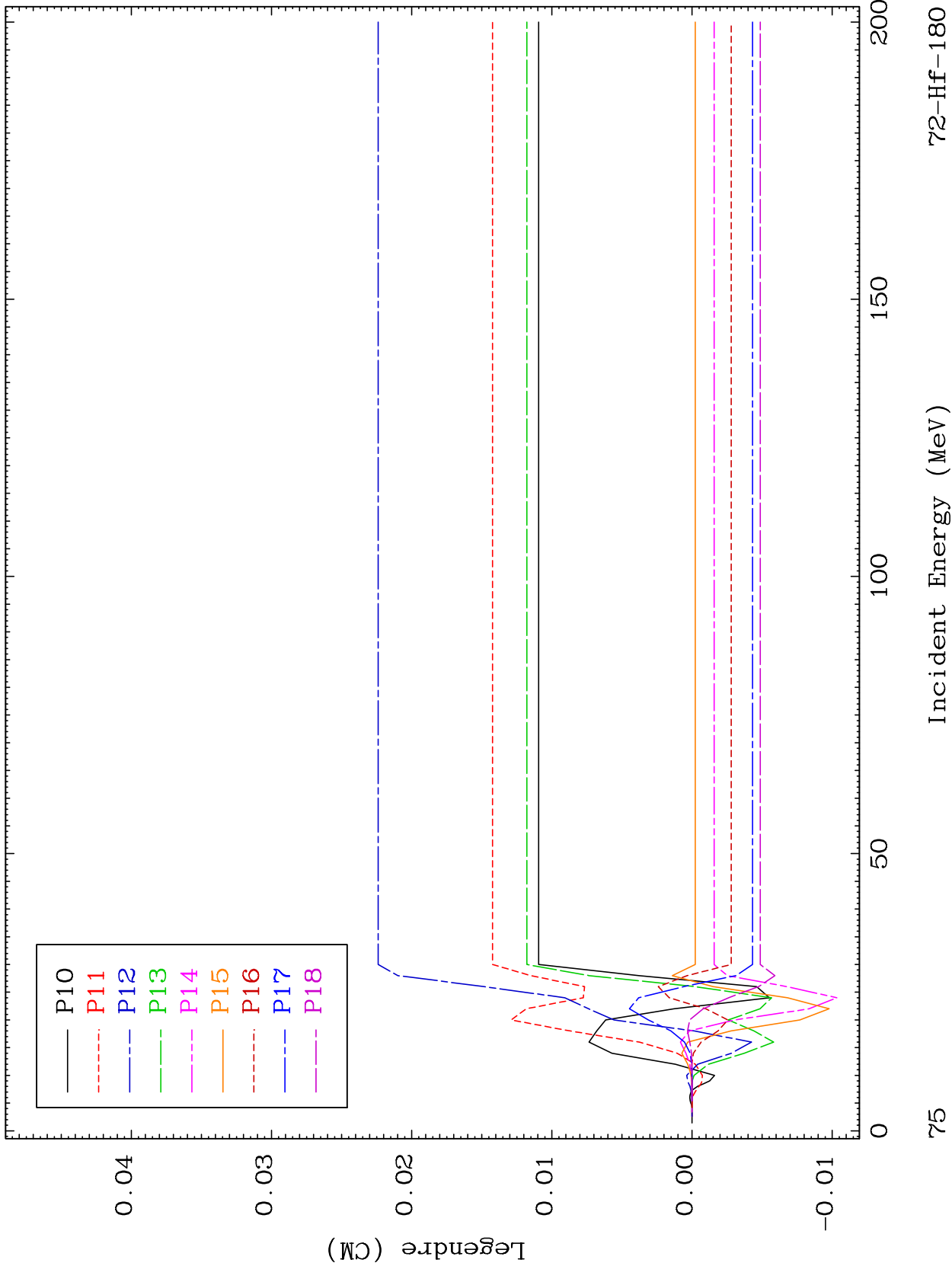




MAT 7243

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

72-Hf-180



72-Hf-180

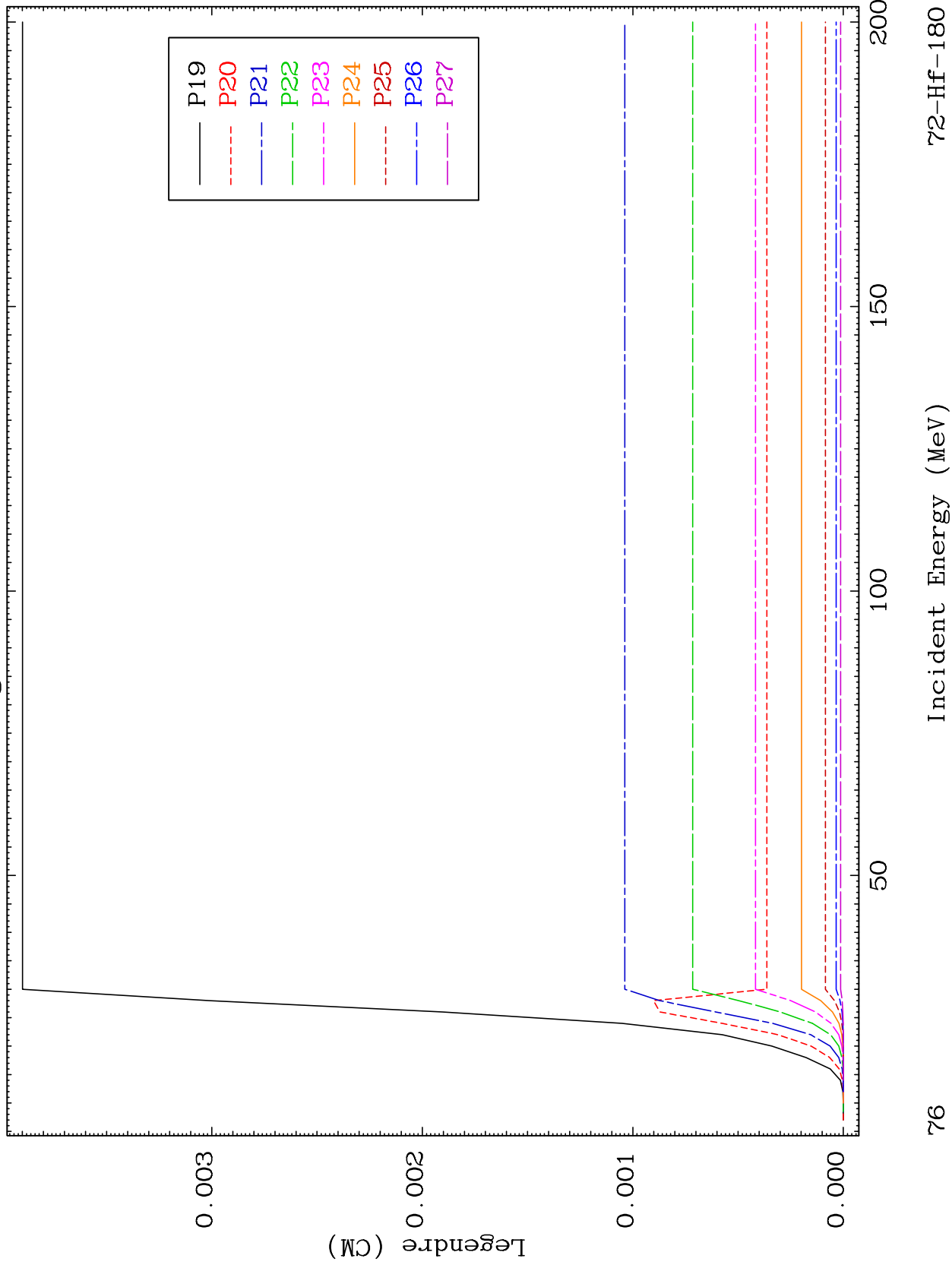
Incident Energy (MeV)

75

MAT 7243

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

72-Hf-180



76

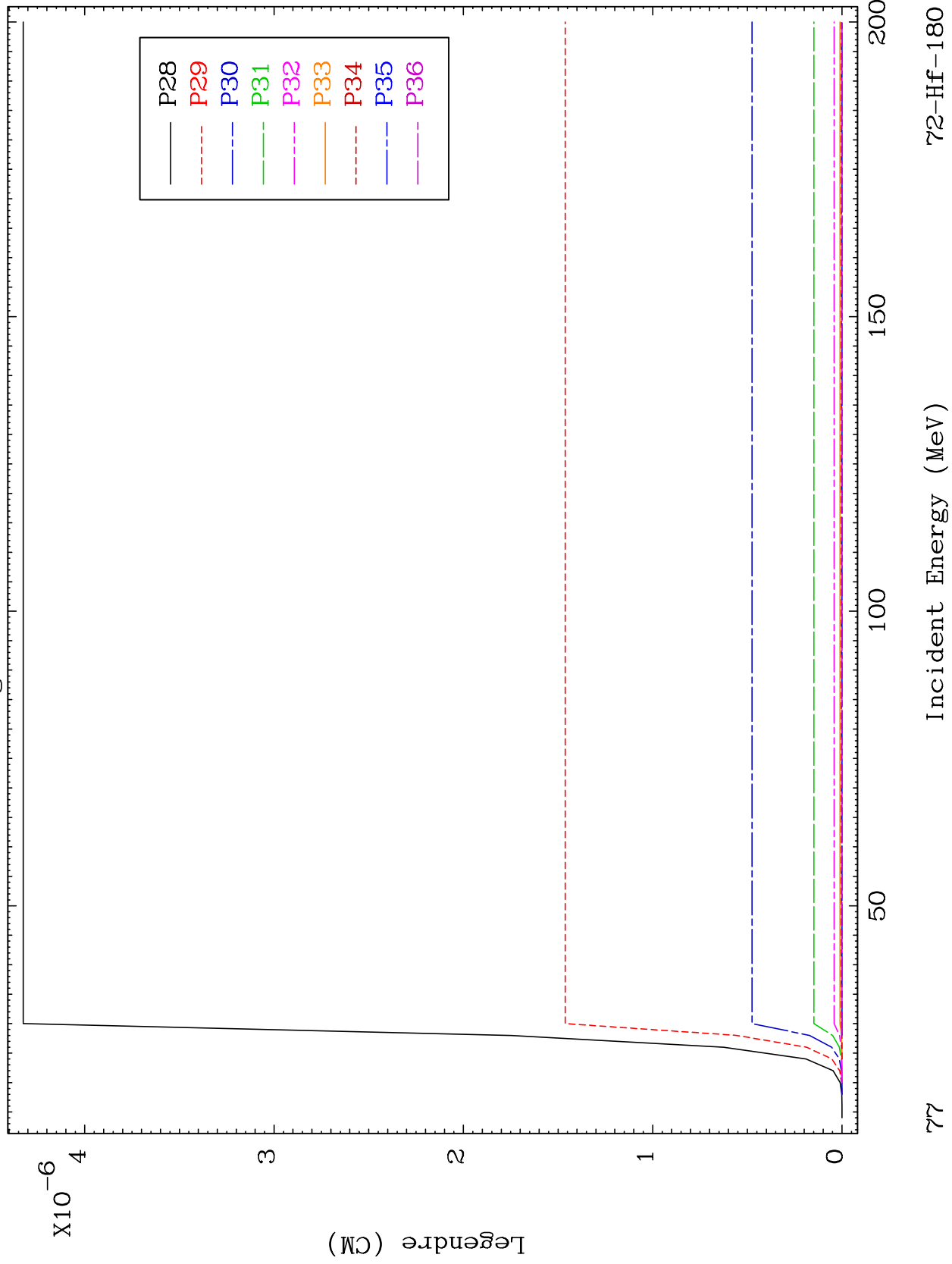
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

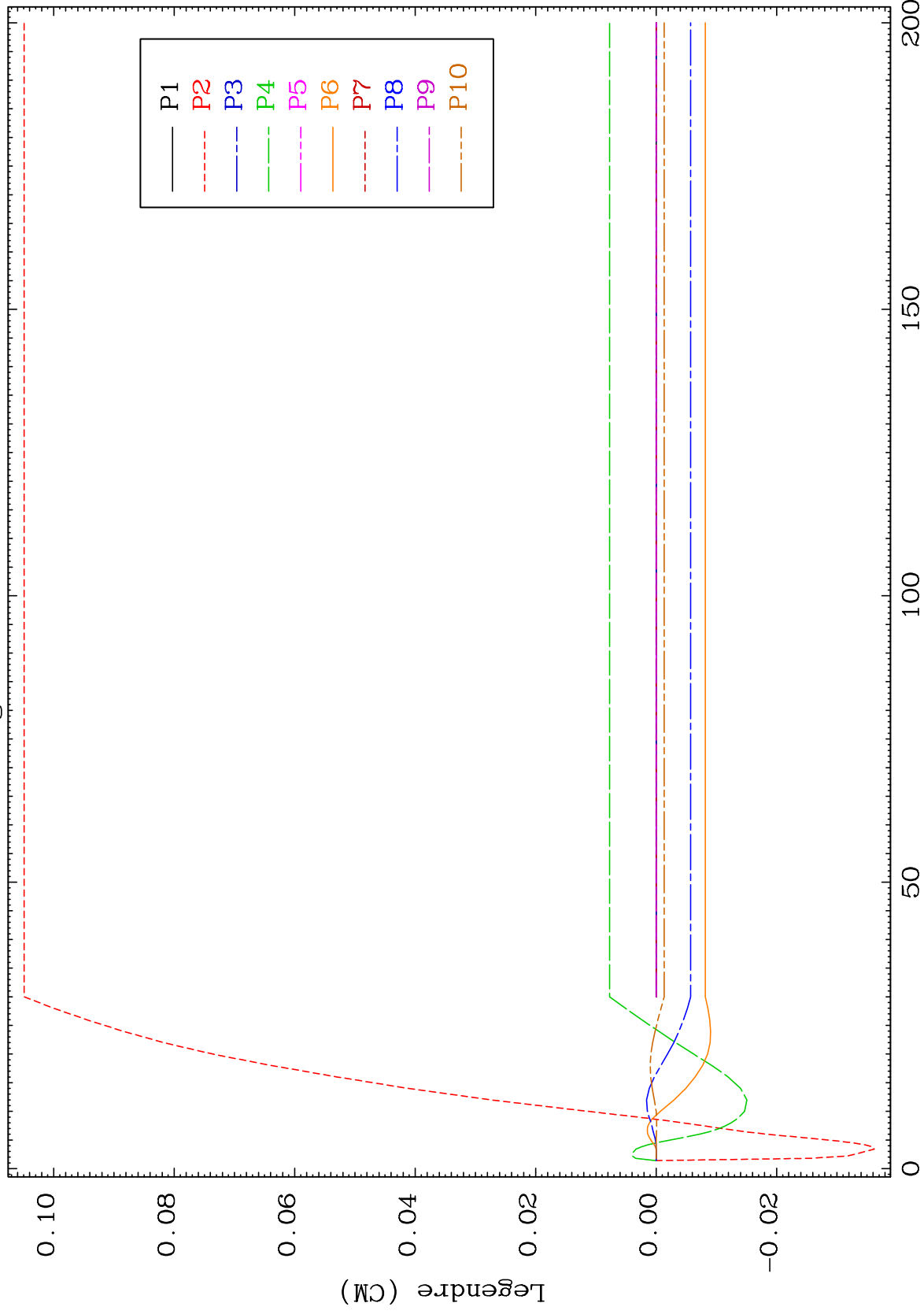
72-Hf-180



MAT 7243

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

72-Hf-180



72-Hf-180

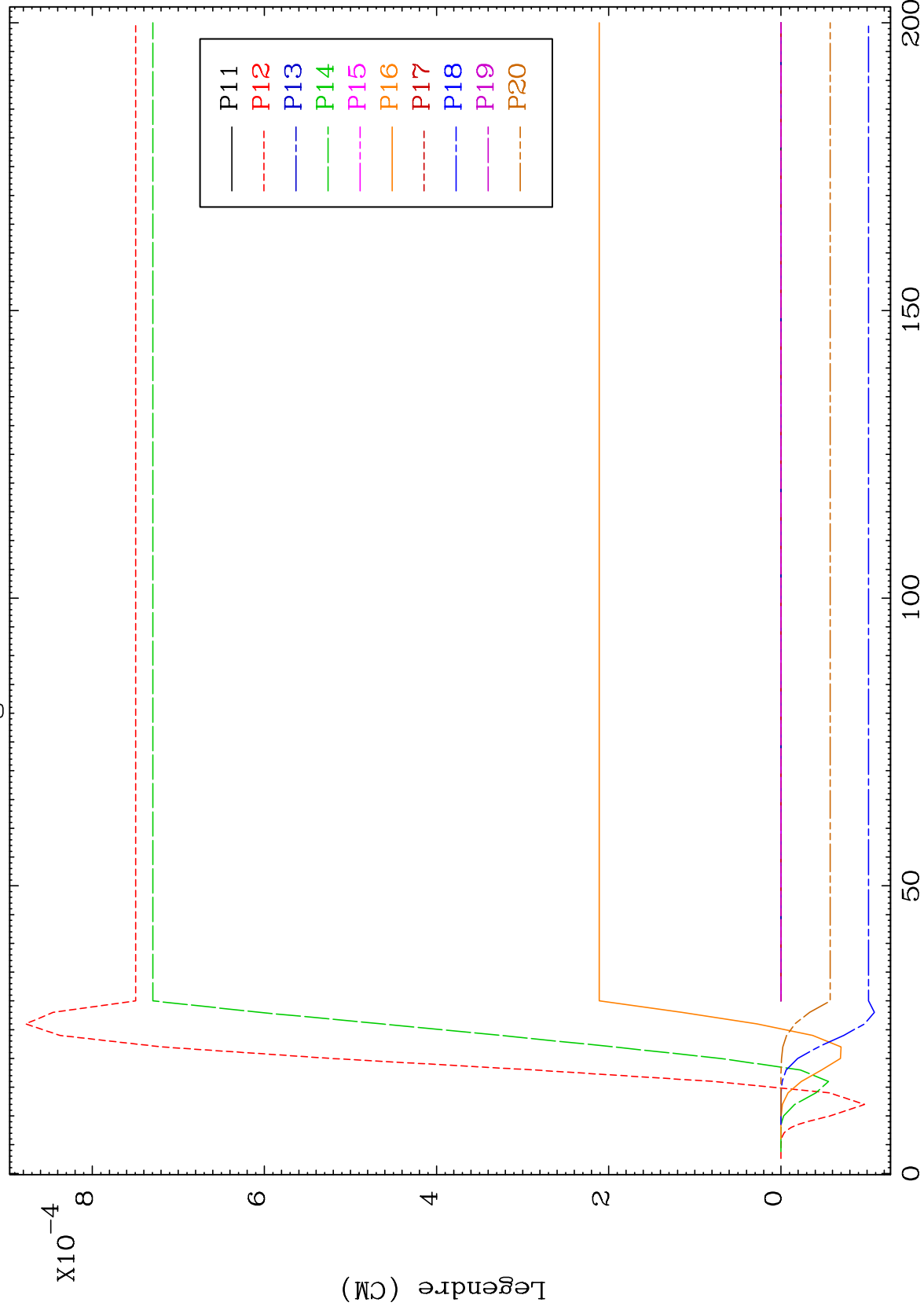
Incident Energy (MeV)

78

MAT 7243

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

72-Hf-180



79

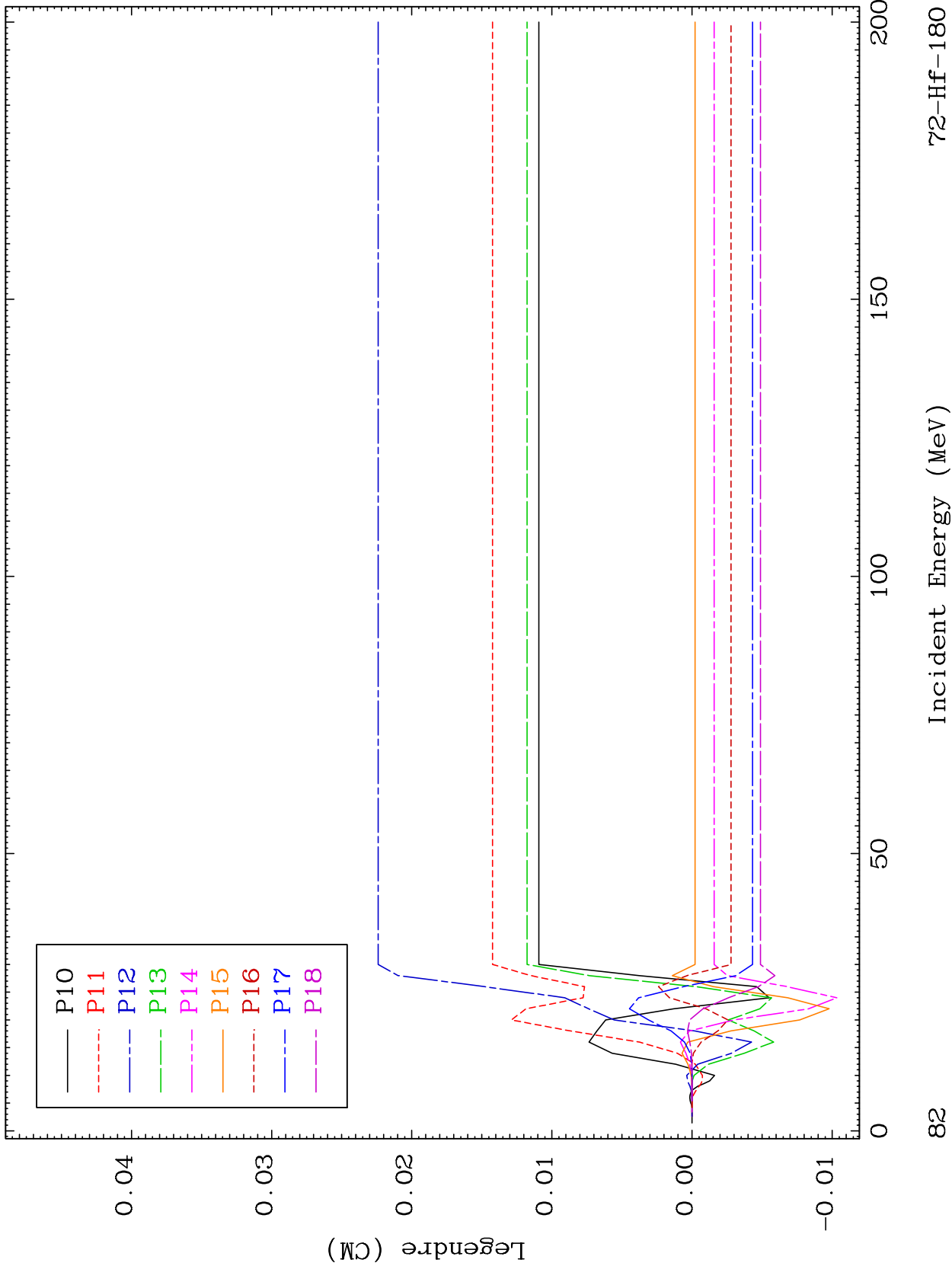
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

72-Hf-180



72-Hf-180

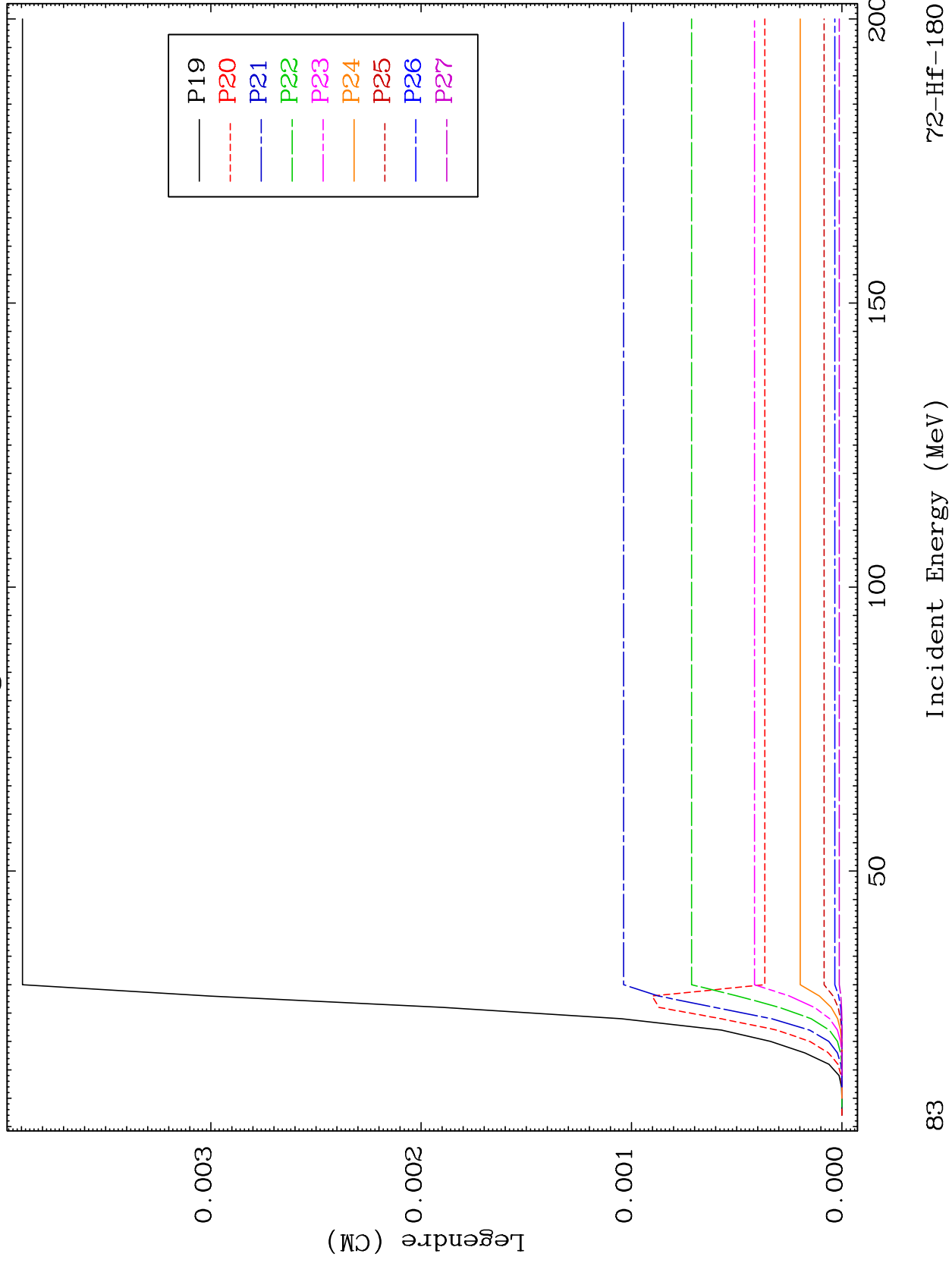
Incident Energy (MeV)

82

MAT 7243

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

72-Hf-180



83

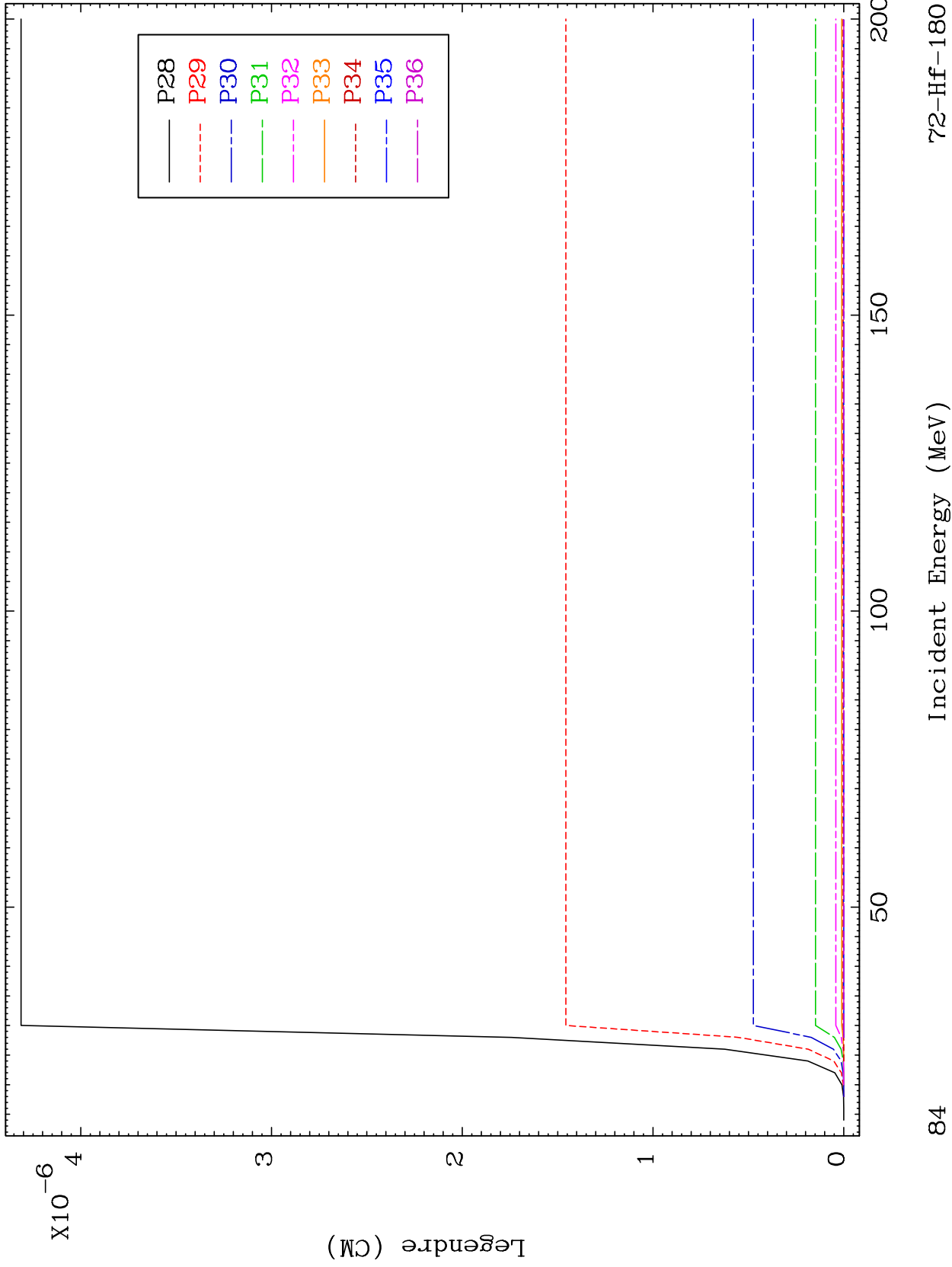
Incident Energy (MeV)

72-Hf-180

MAT 7243

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

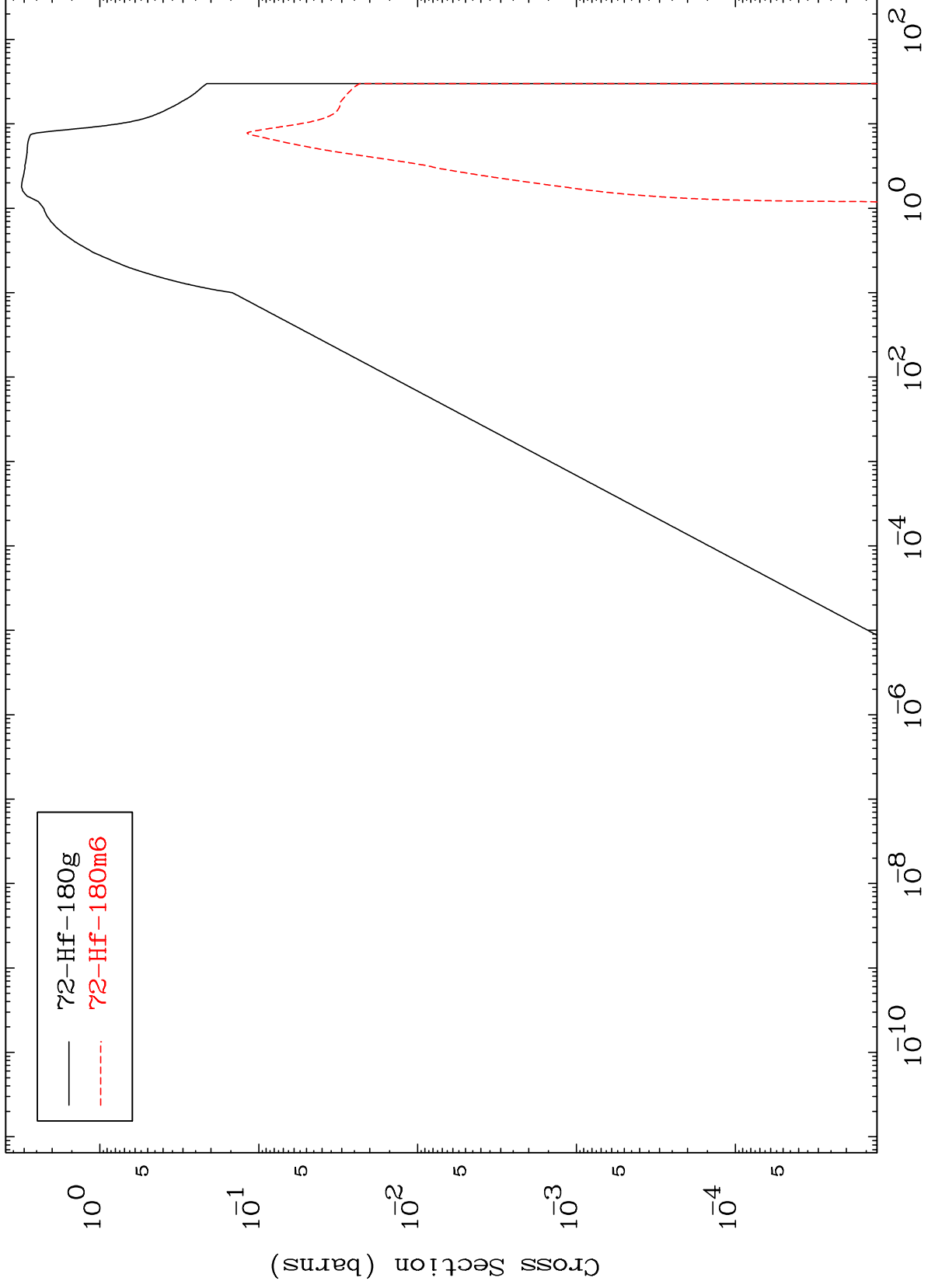
72-Hf-180



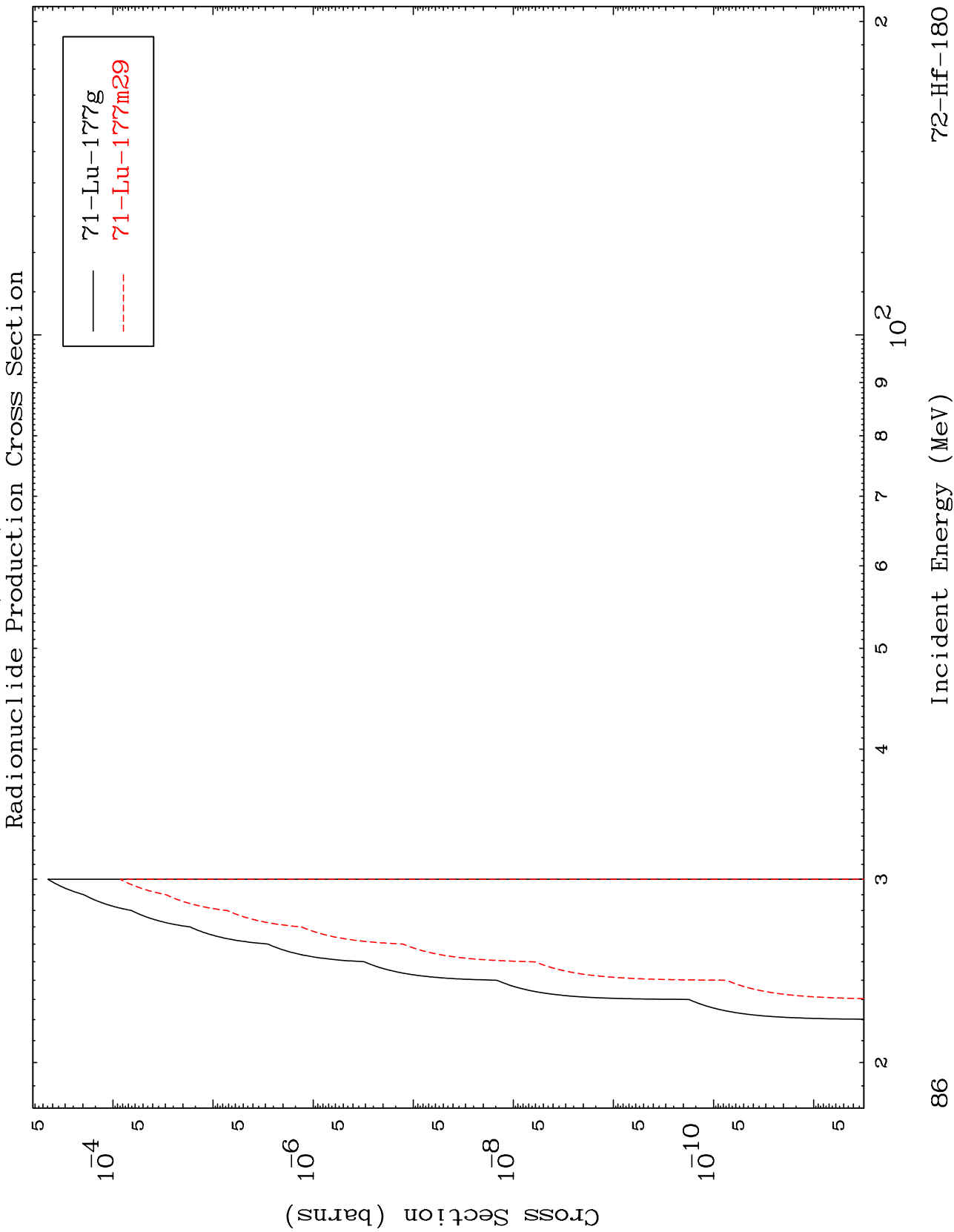
MAT 7243

Inelastic
Radionuclide Production Cross Section

72-Hf-180



72-Hf-180

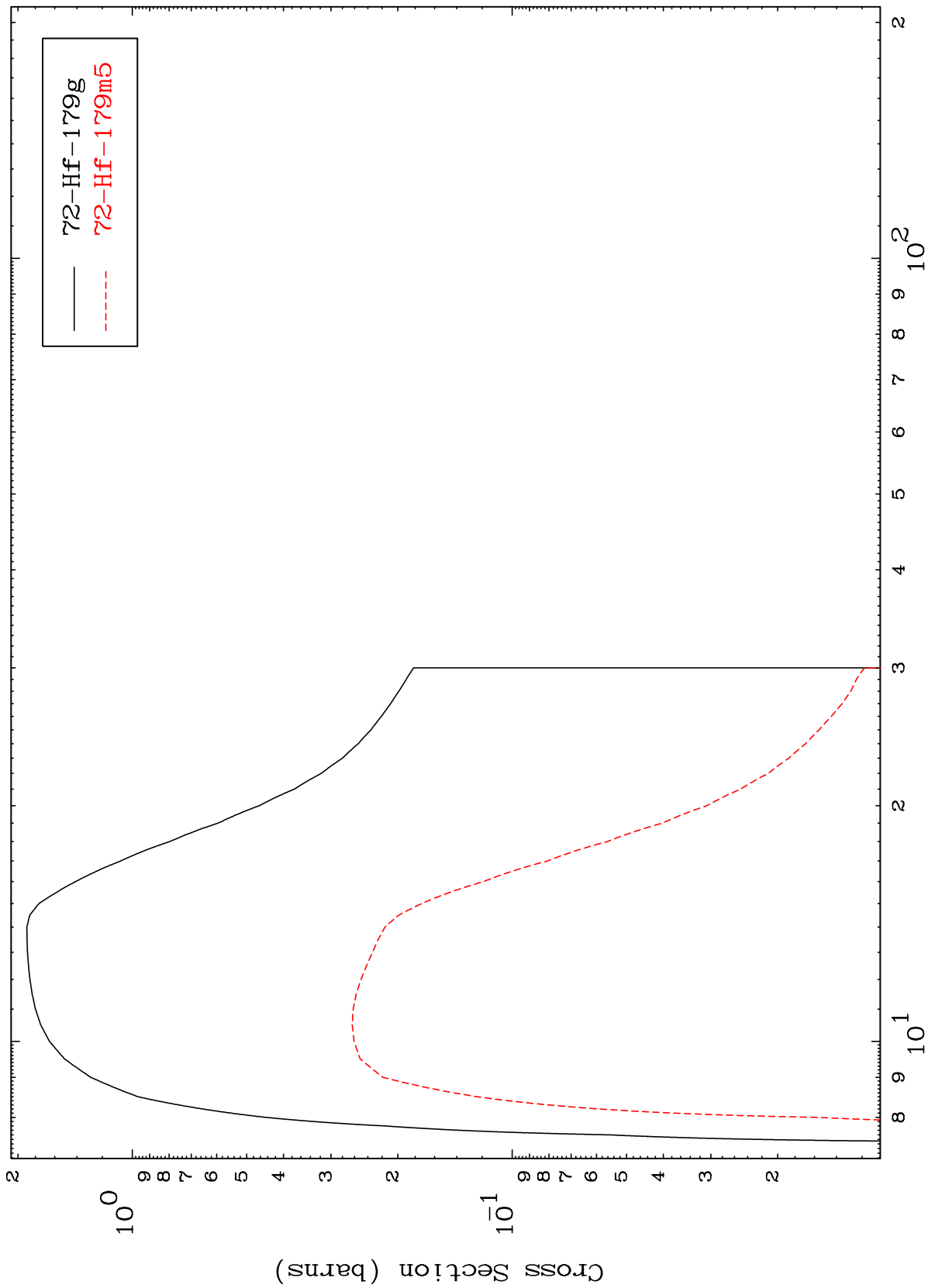


MAT 7243

72-Hf-180

(n,2n)

Radionuclide Production Cross Section

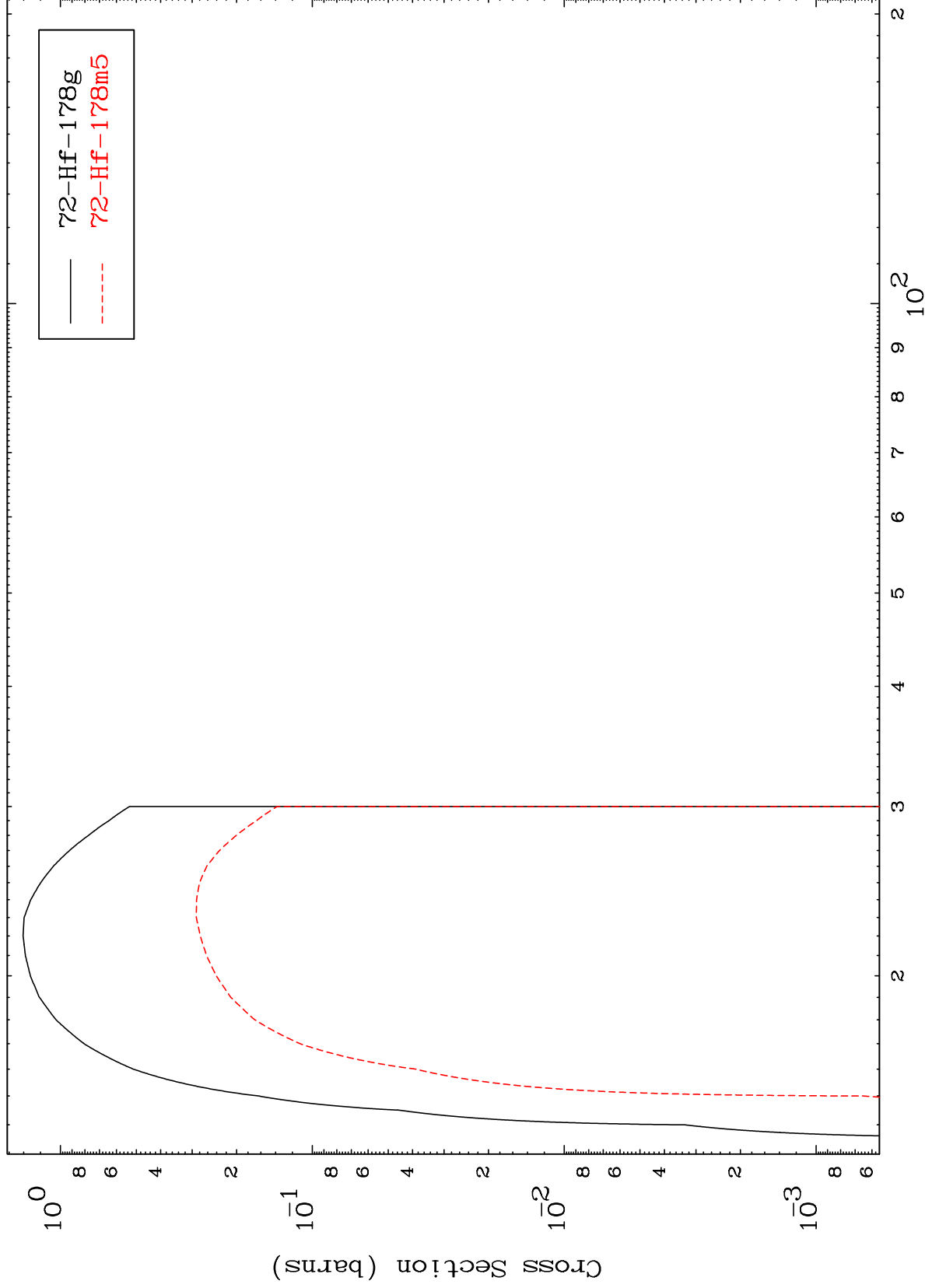


87

Incident Energy (MeV)

72-Hf-180

Radionuclide Production Cross Section

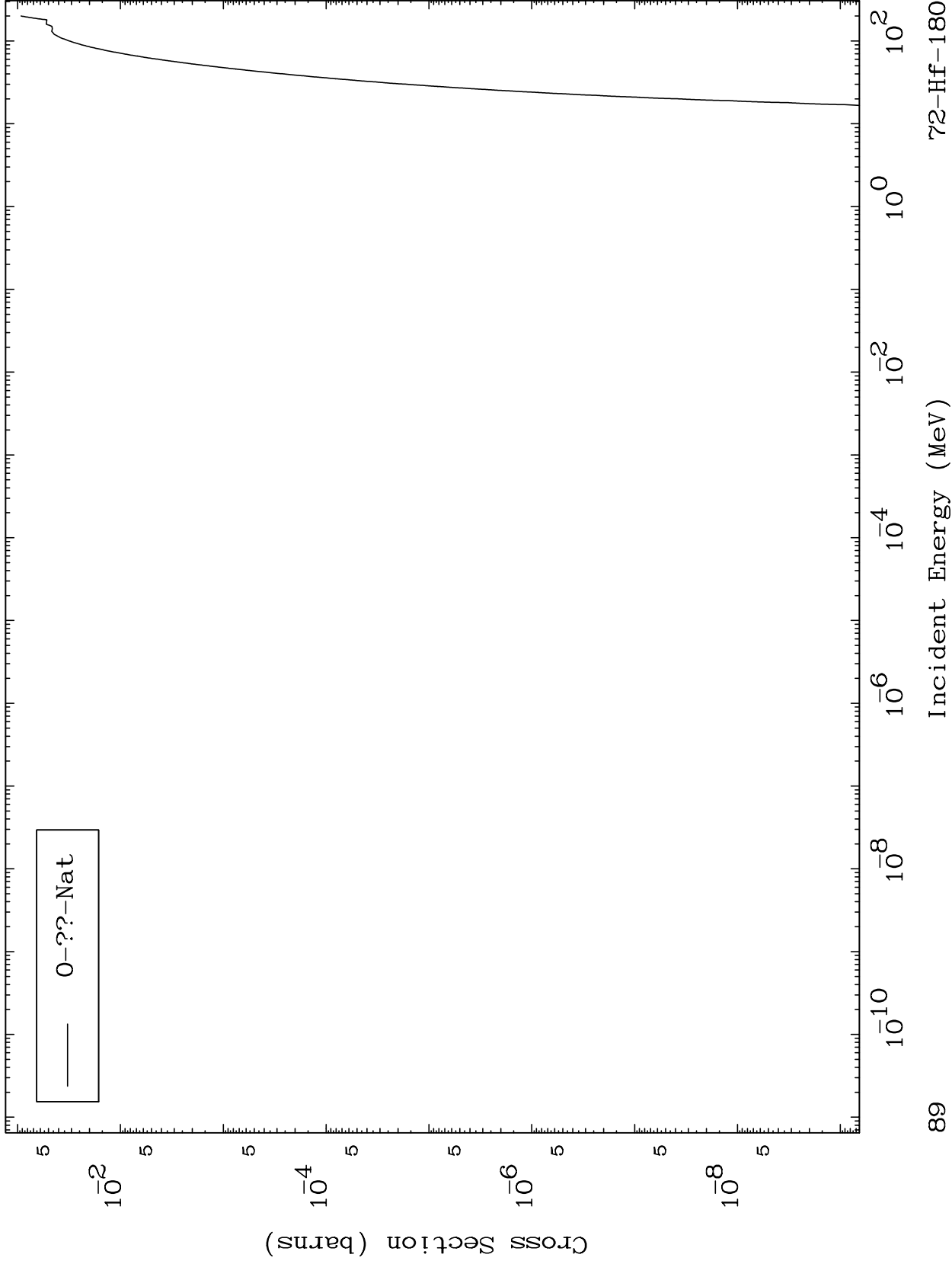


MAT 7243

Fission

72-Hf-180

Radionuclide Production Cross Section



89

Incident Energy (MeV)

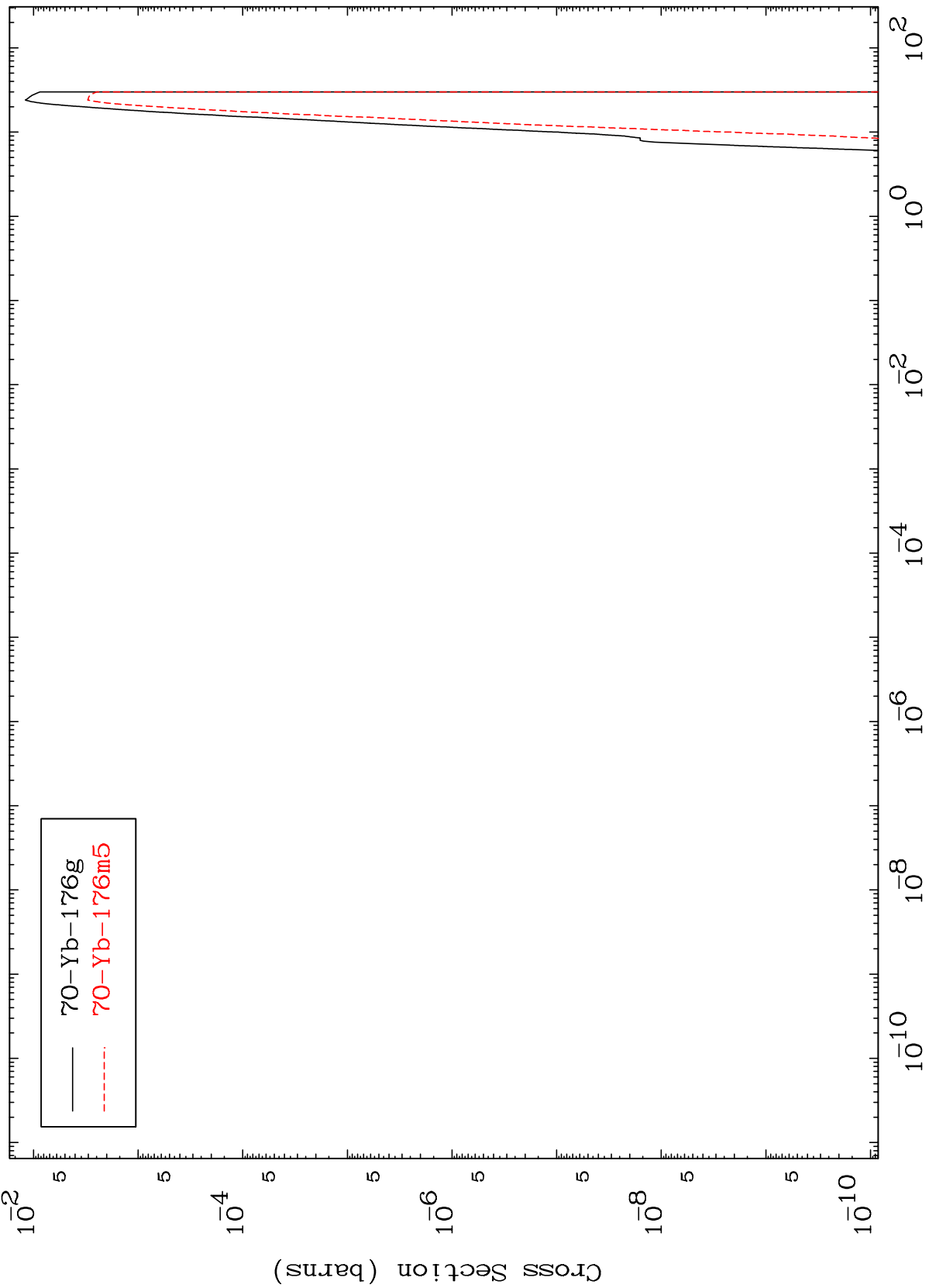
72-Hf-180

MAT 7243

$(n, n') \alpha$

72-Hf-180

Radionuclide Production Cross Section

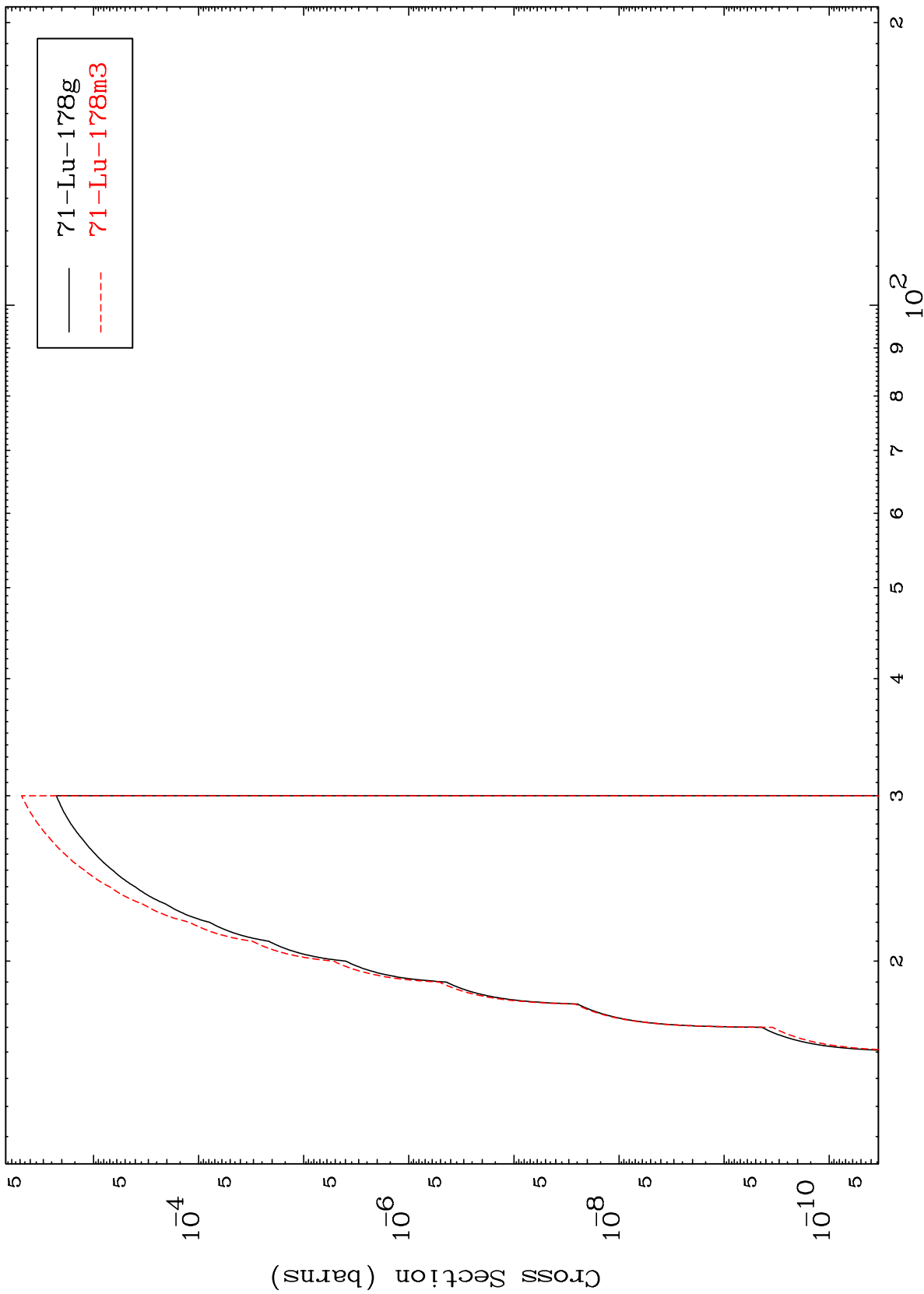


90

Incident Energy (MeV)

72-Hf-180

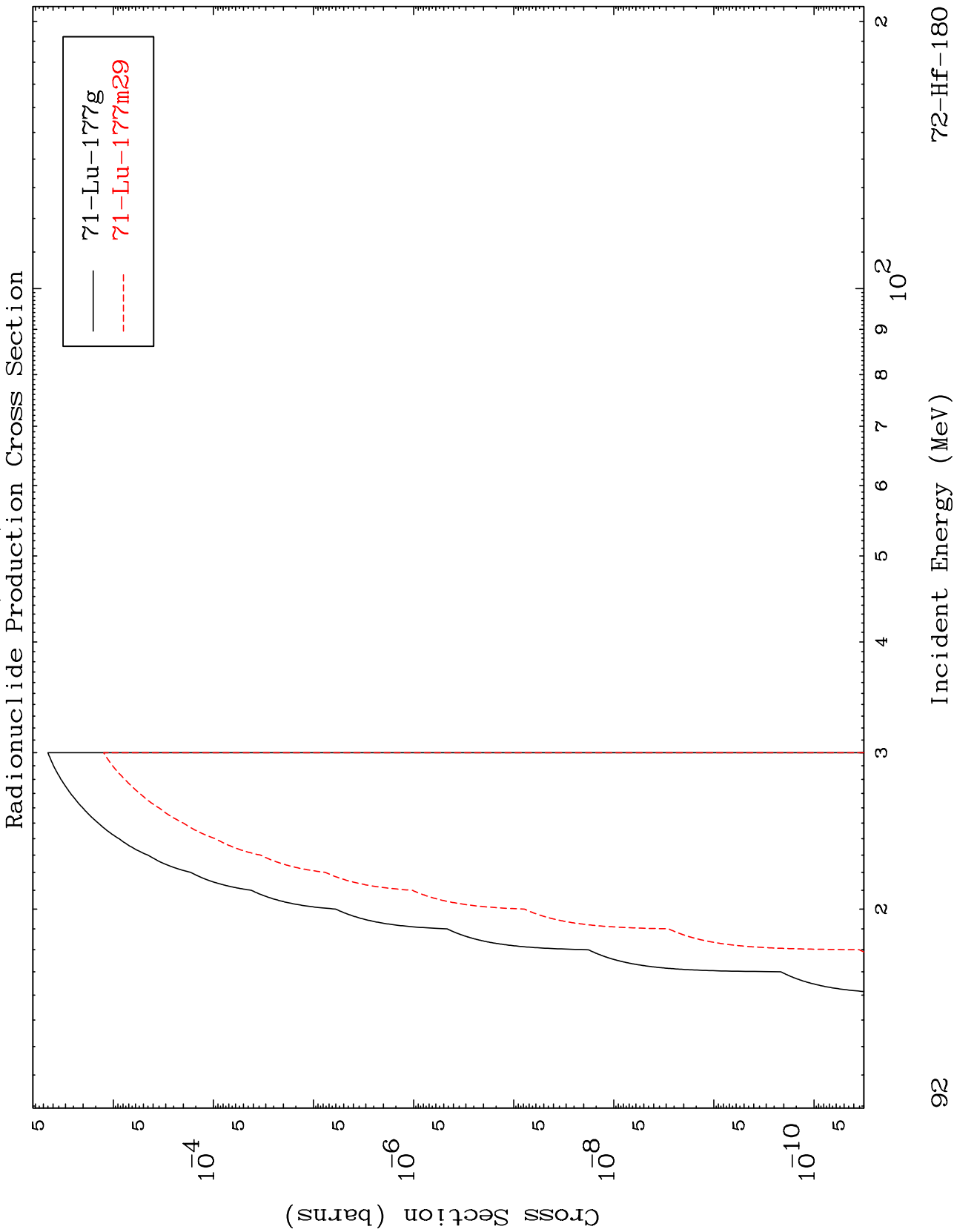
Radionuclide Production Cross Section



MAT 7243

(n,n') t

72-Hf-180



92

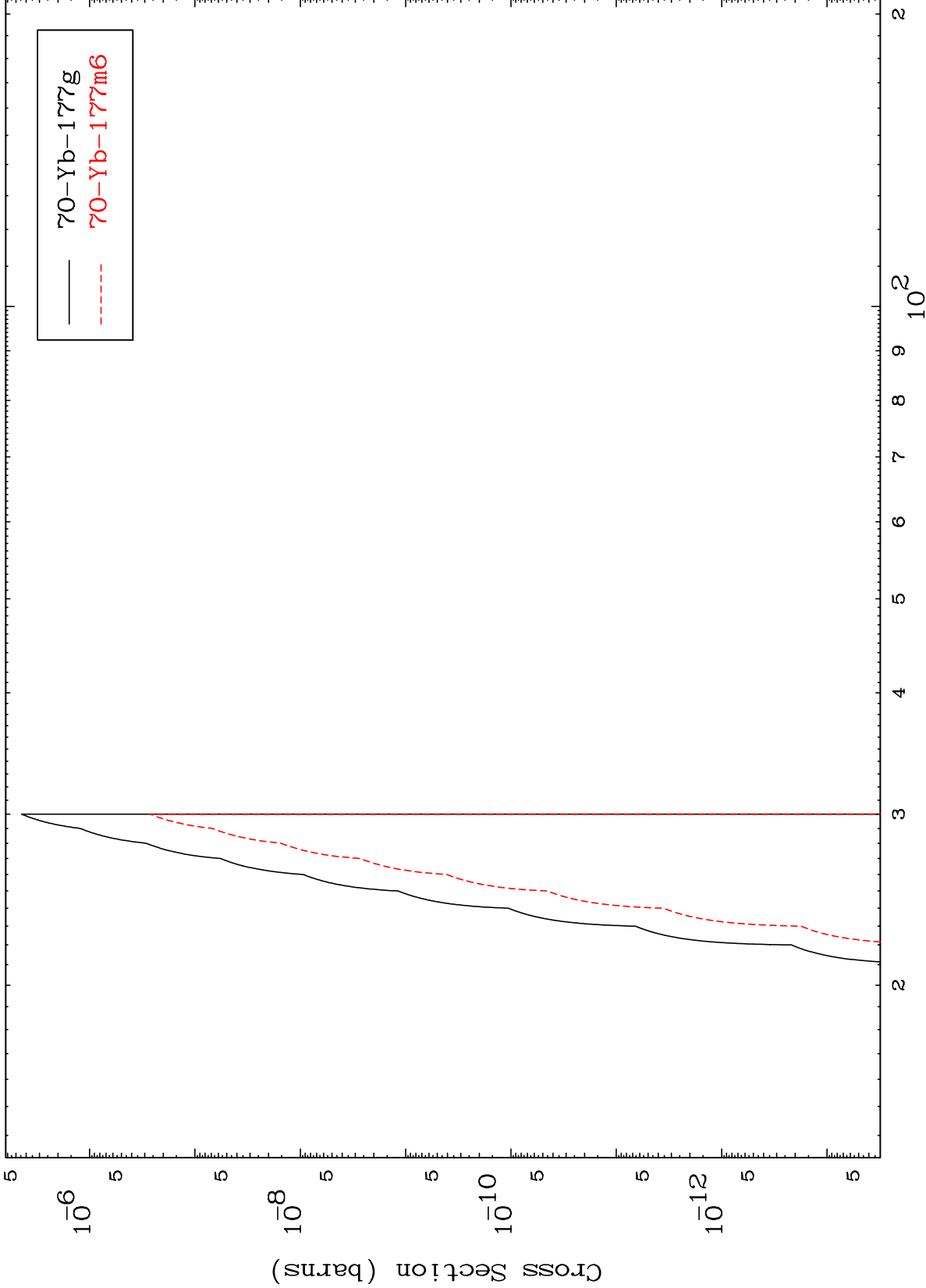
72-Hf-180

MAT 7243

(n,n') He-3

72-Hf-180

Radionuclide Production Cross Section

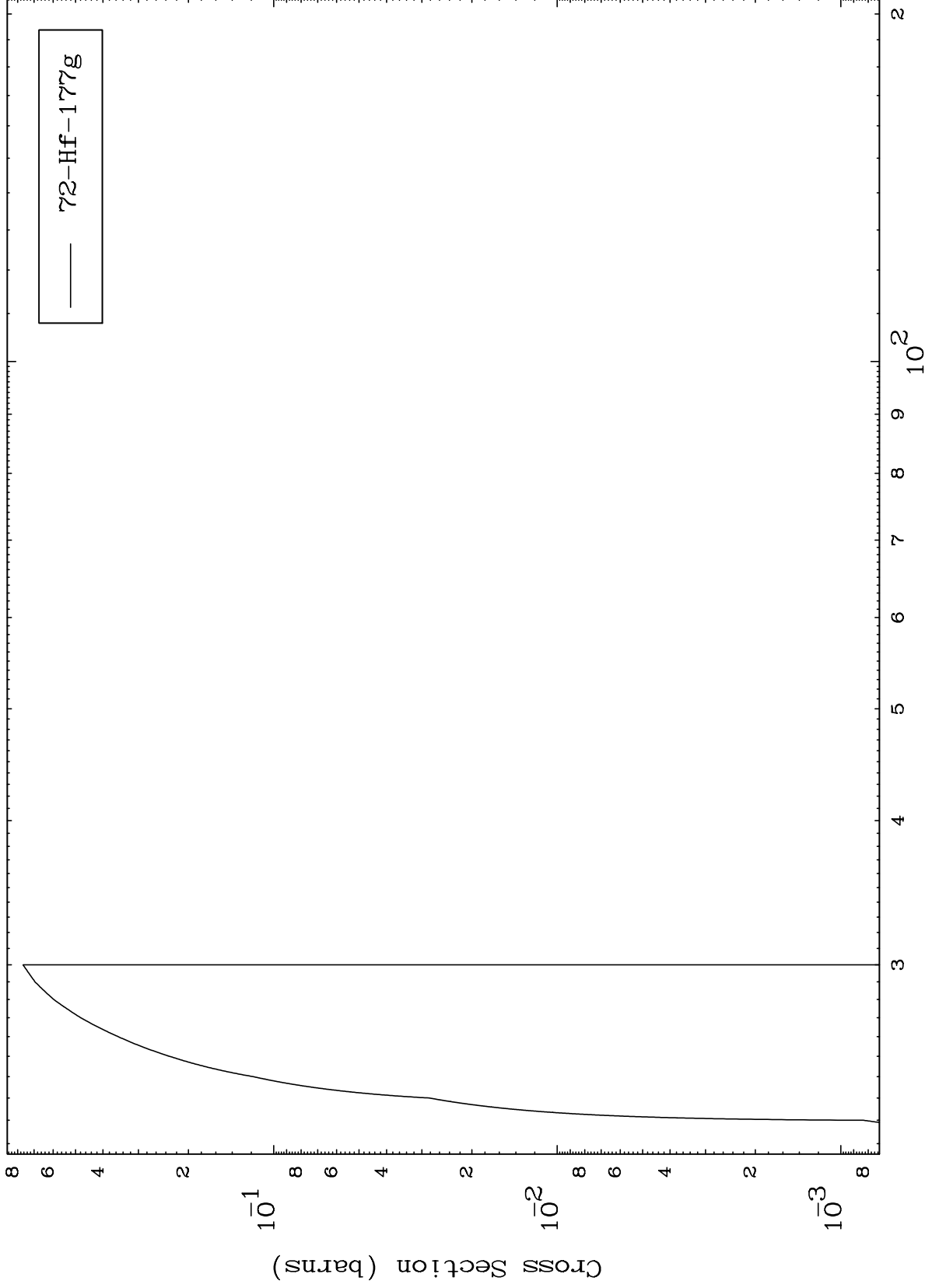


MAT 7243

(n,4n)

72-Hf-180

Radionuclide Production Cross Section



94

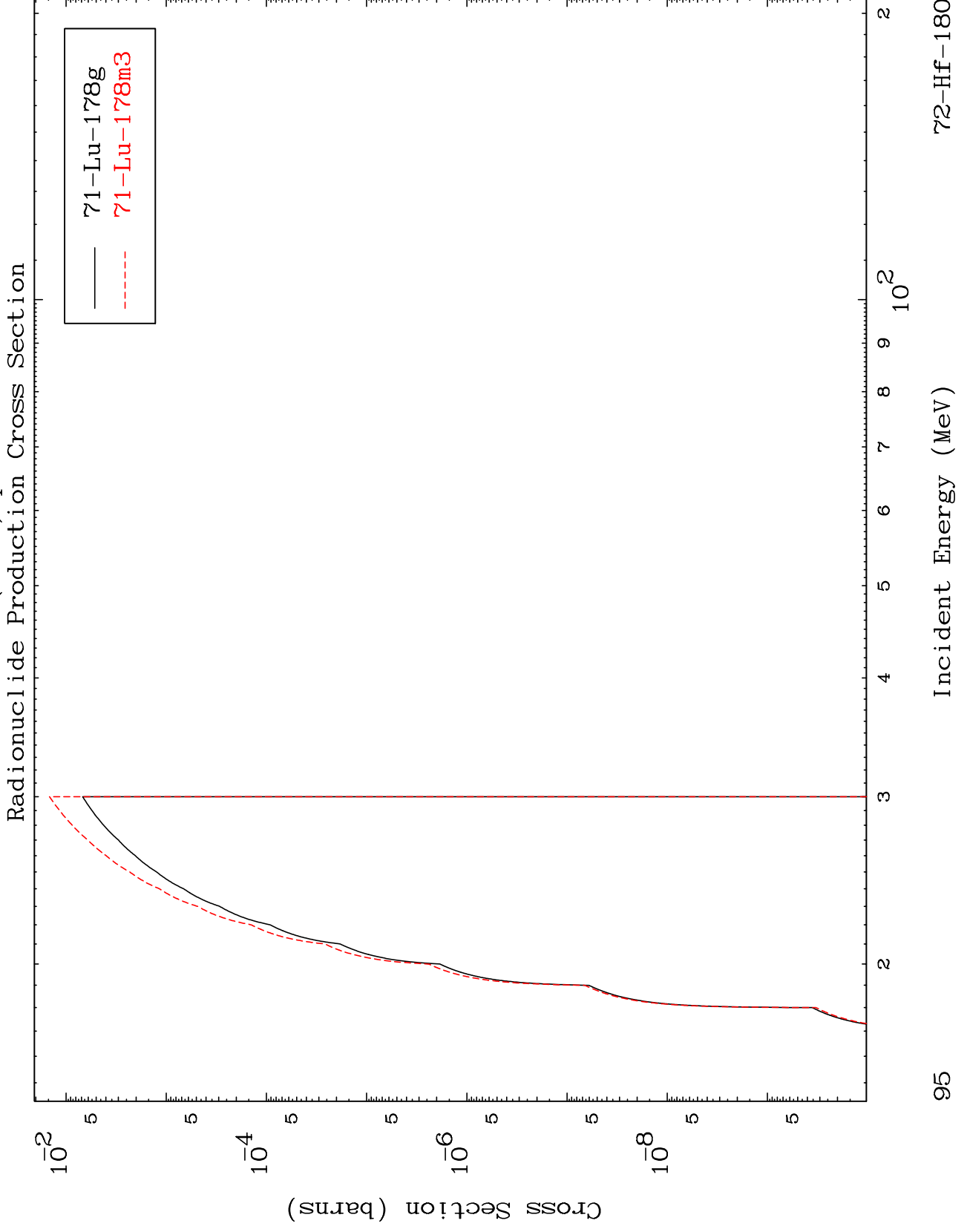
Incident Energy (MeV)

72-Hf-180

MAT 7243

(n,2n) p

72-Hf-180



95

Incident Energy (MeV)

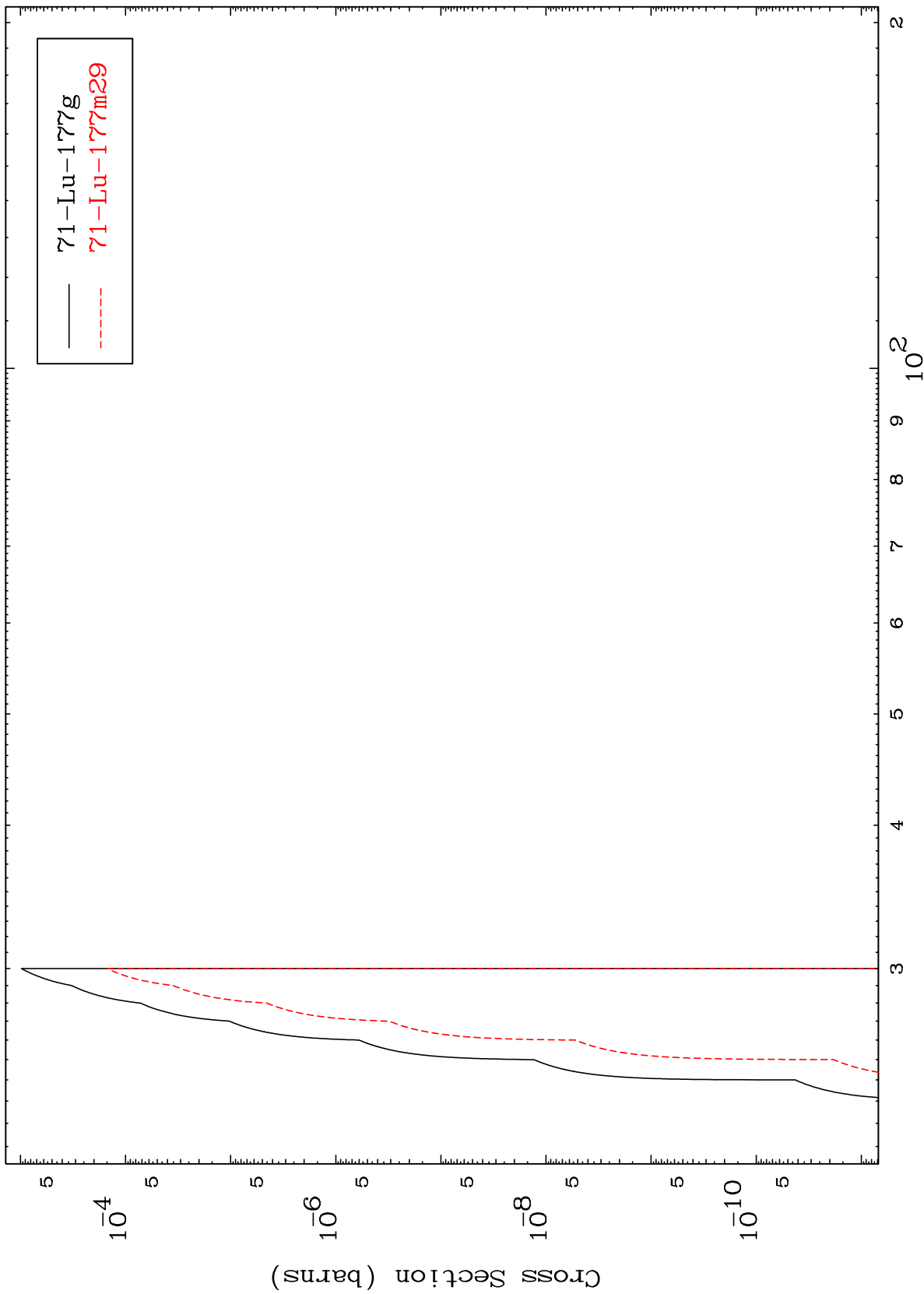
72-Hf-180

MAT 7243

(n,3n) p

72-Hf-180

Radionuclide Production Cross Section



71-Lu-177g
71-Lu-177m29

96

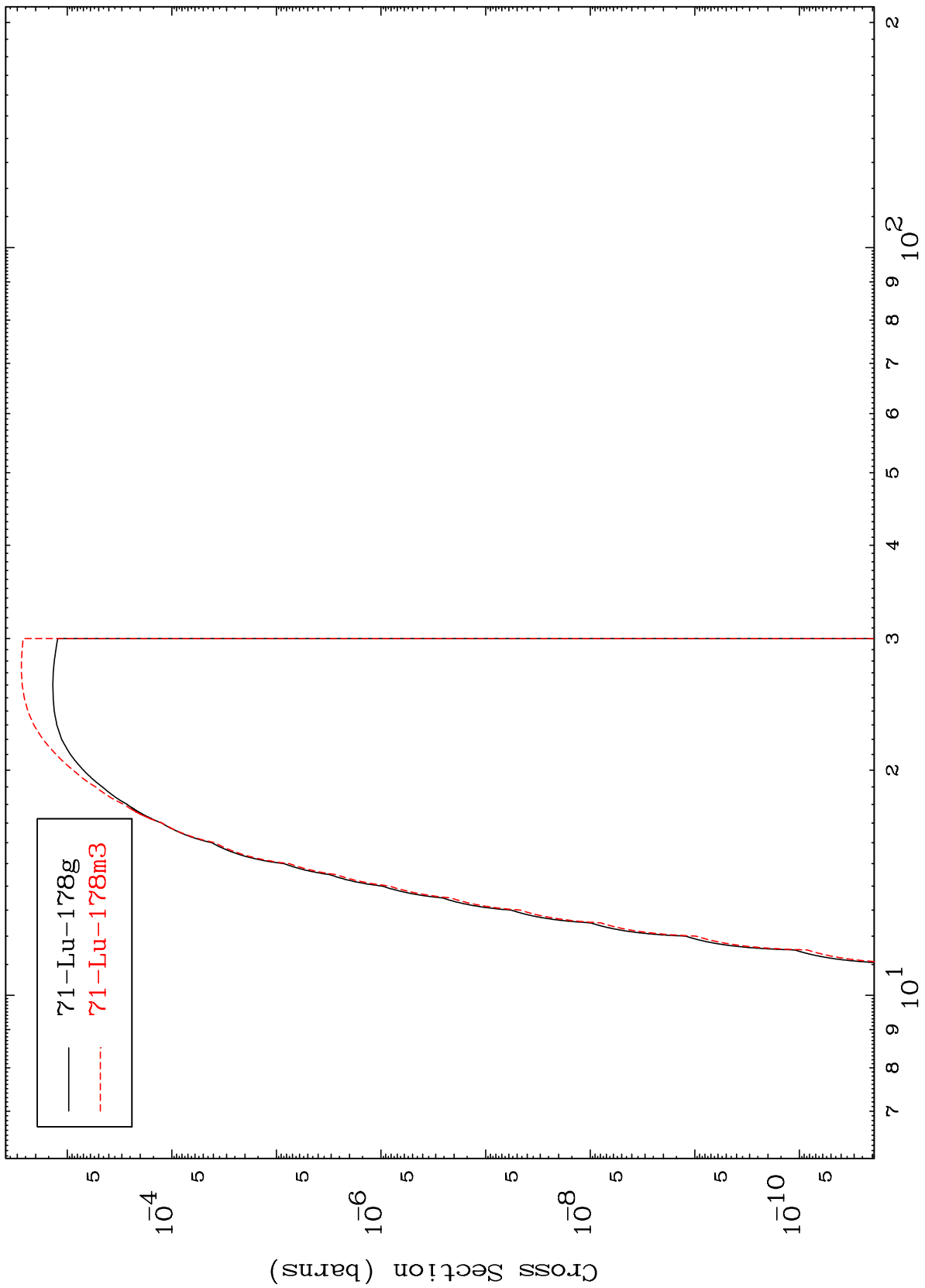
Incident Energy (MeV)

72-Hf-180

MAT 7243

72-Hf-180

(n, t)
Radionuclide Production Cross Section



97

Incident Energy (MeV)

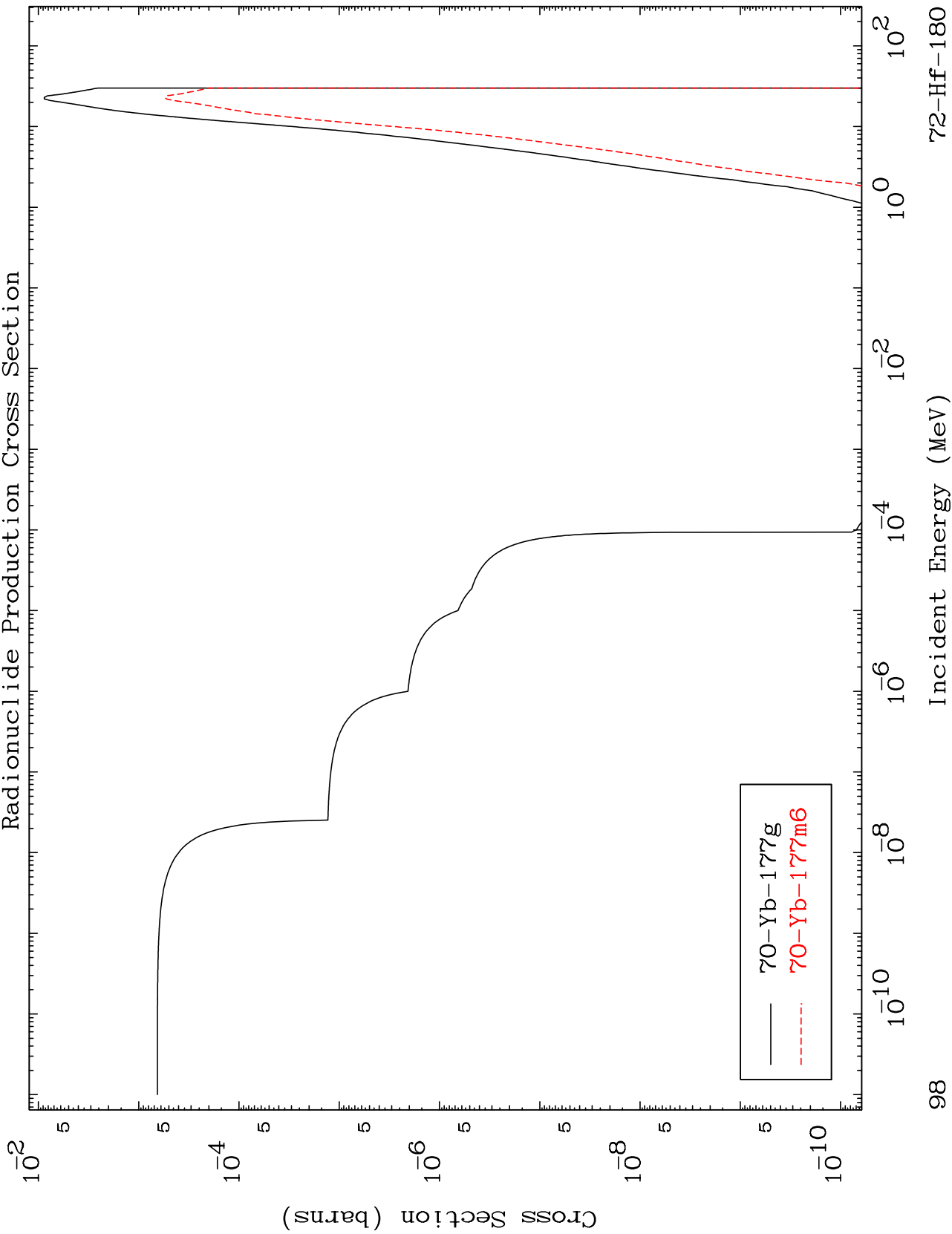
72-Hf-180

MAT 7243

(n, α)

72-Hf-180

Radionuclide Production Cross Section

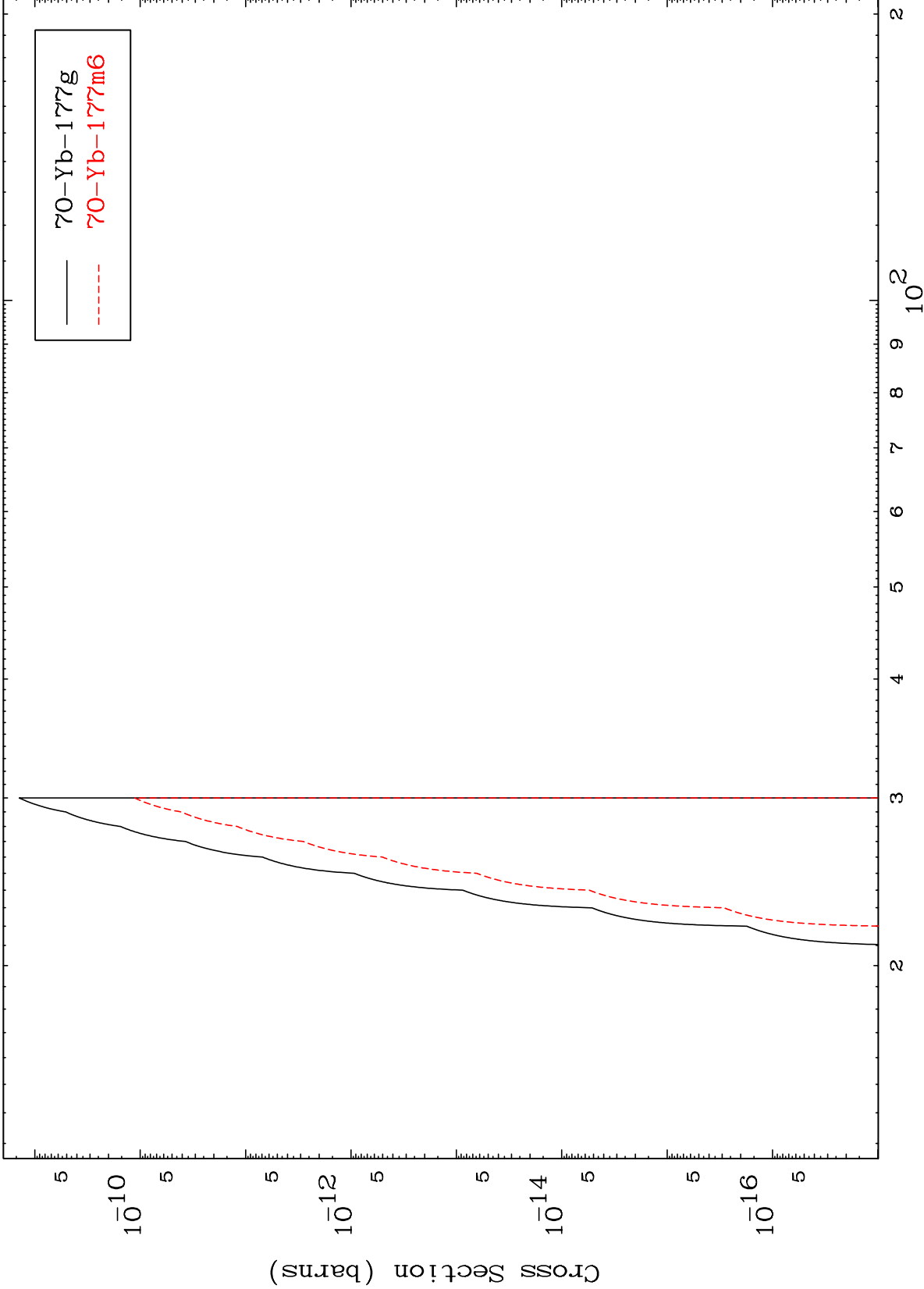


MAT 7243

(n,p) t

72-Hf-180

Radionuclide Production Cross Section



99

Incident Energy (MeV)

72-Hf-180