

Program EVALPLOT  
(Version 2018-1)

by

Dermott E. Cullen  
(Present Contact Information)

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

Tele: 925-443-1911

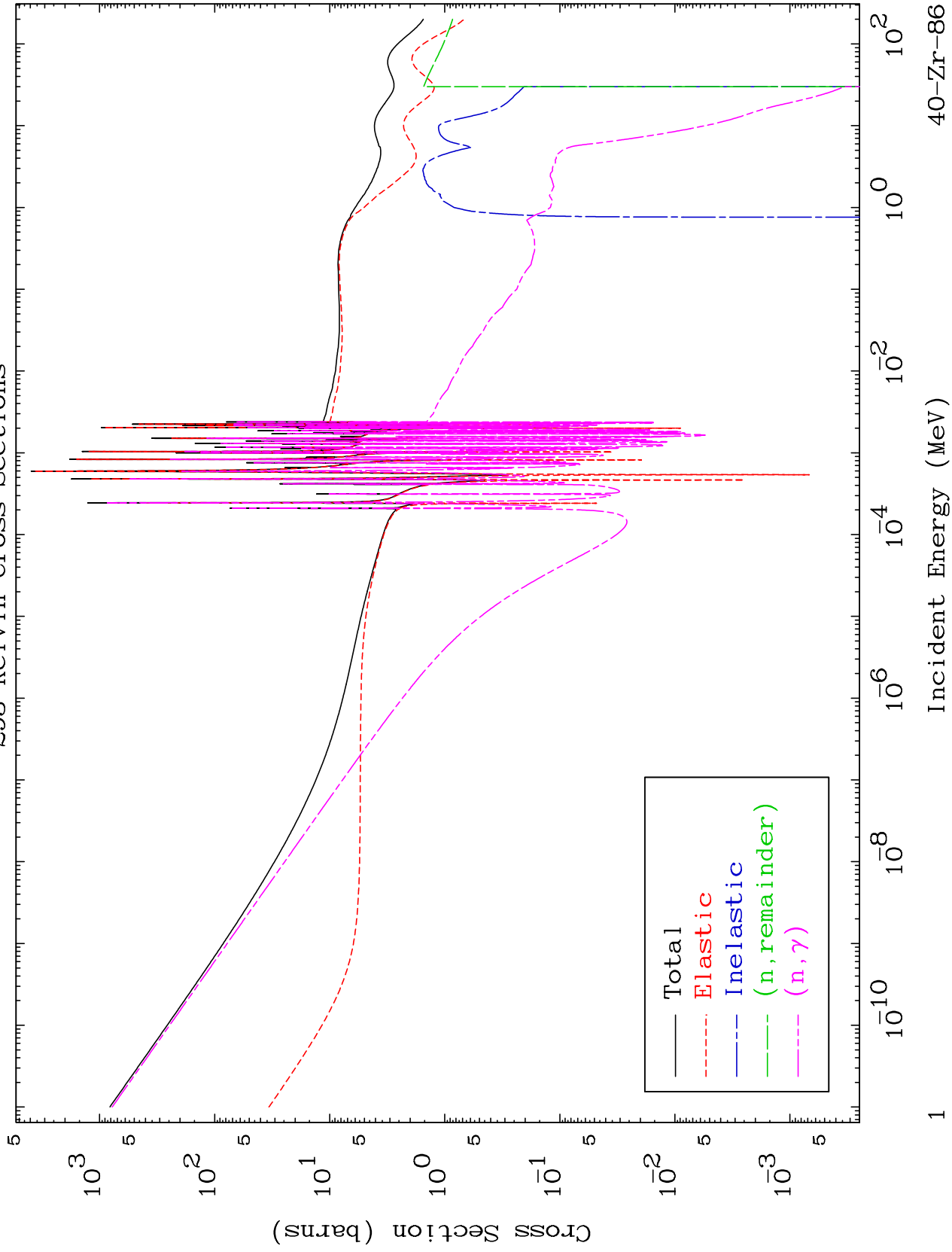
E.Mail:redcullen1@comcast.net  
Web:redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 4013

Major  
293 Kelvin Cross Sections

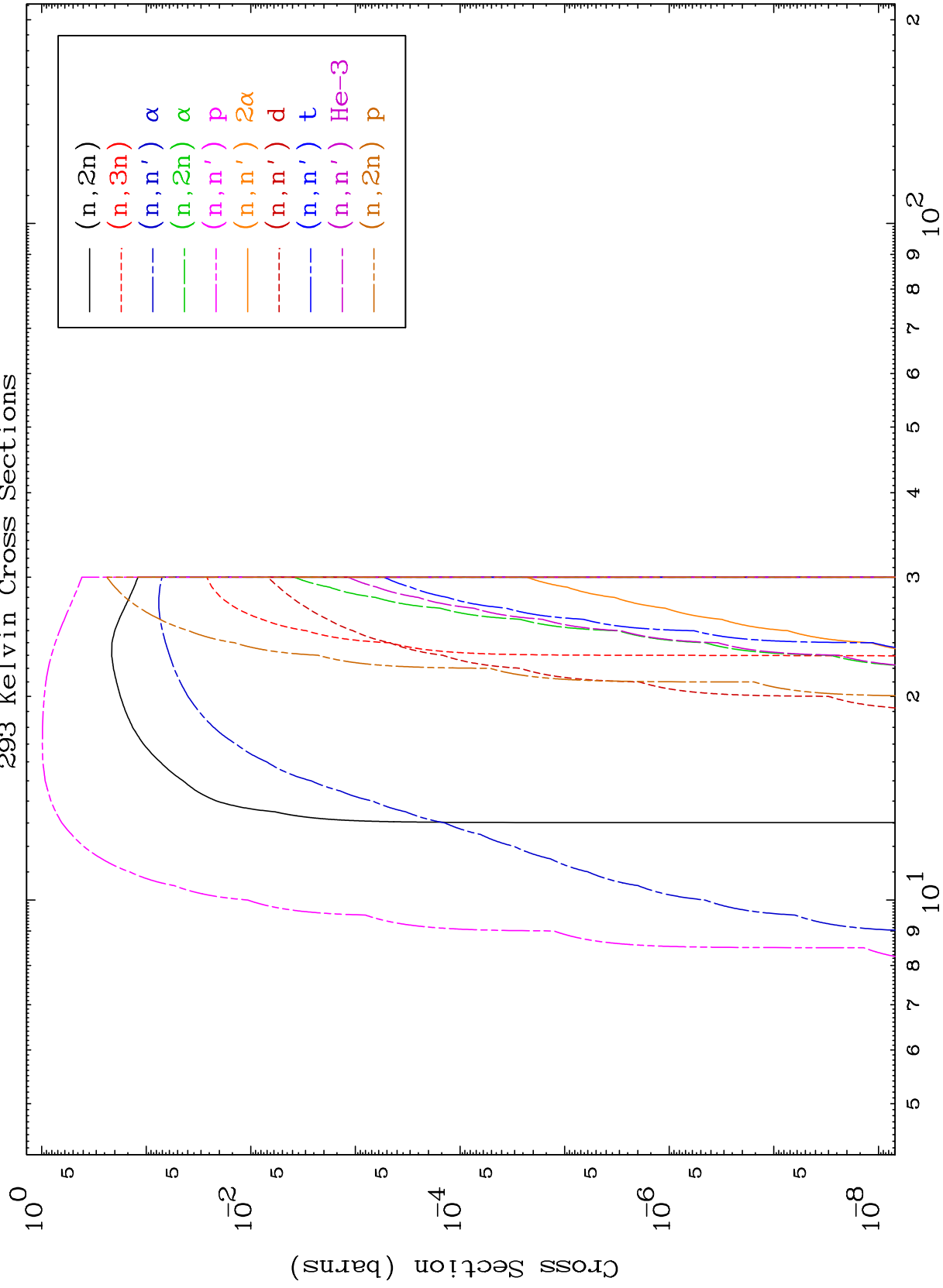
40-Zr-86



MAT 4013

Neutron Production  
293 Kelvin Cross Sections

40-Zr-86



2

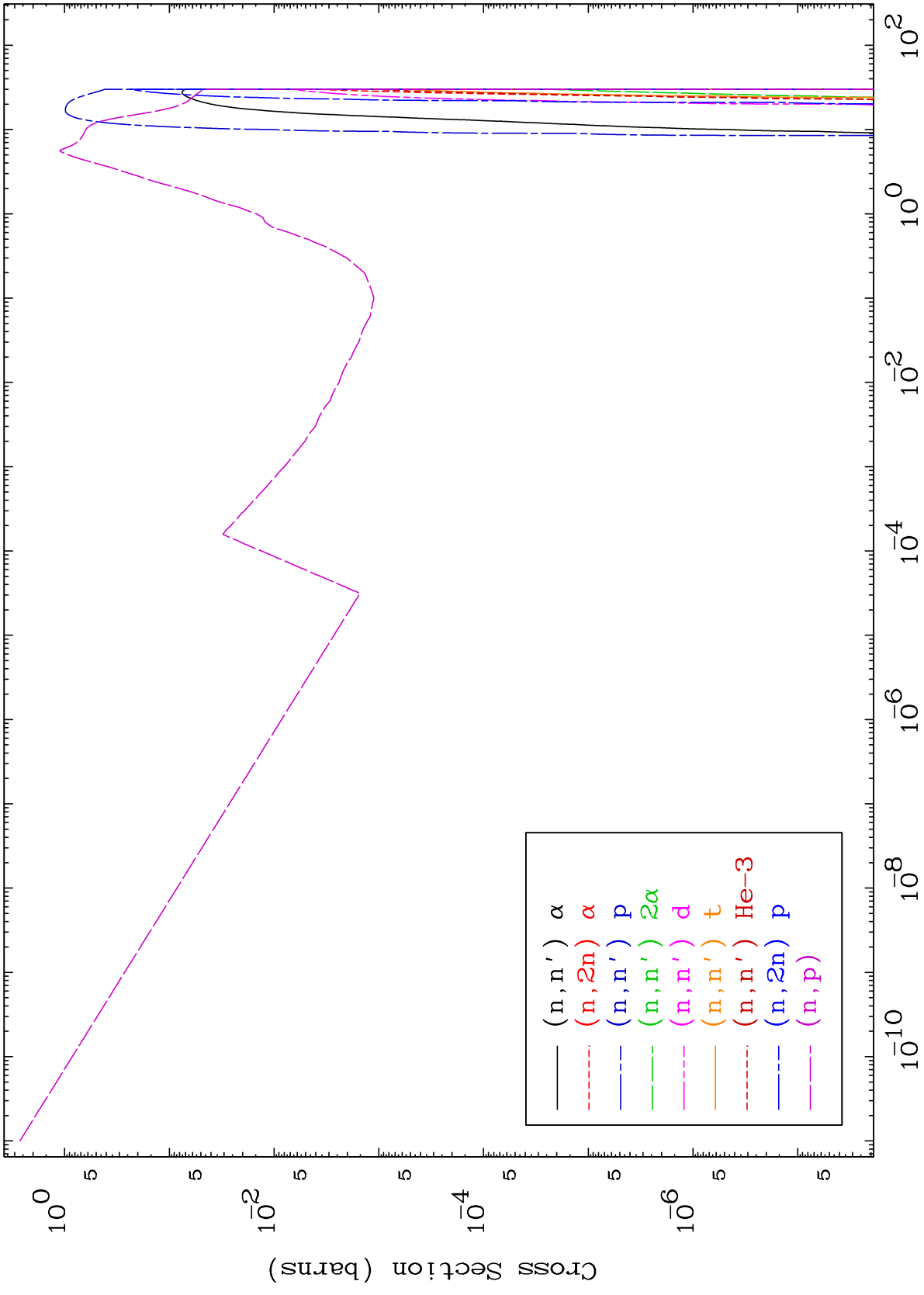
Incident Energy (MeV)

40-Zr-86

MAT 4013

293 Kelvin Cross Sections

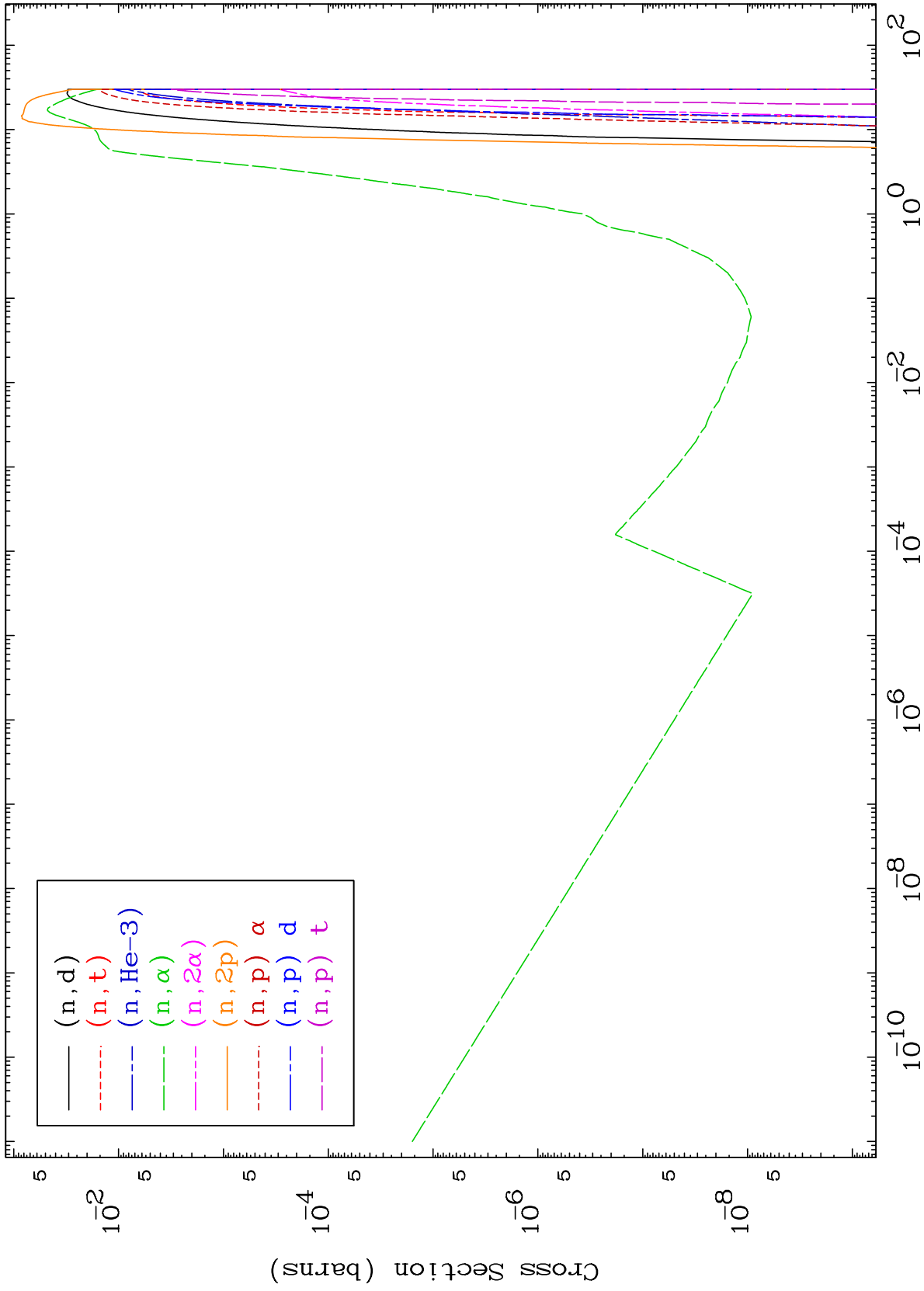
40-Zr-86



MAT 4013

293 Kelvin Cross Sections

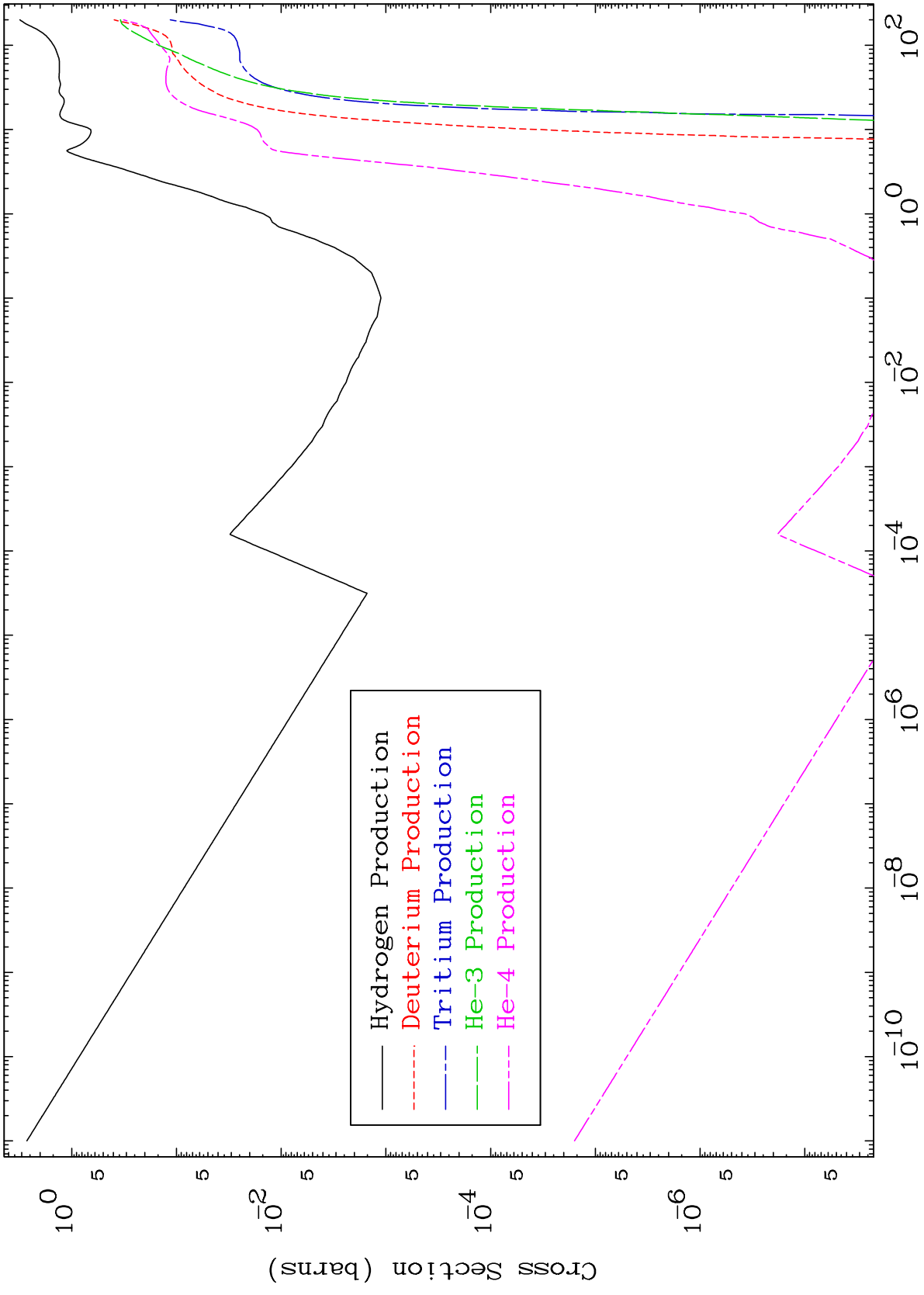
40-Zr-86



MAT 4013

Particle Production  
293 Kelvin Cross Sections

40-Zr-86

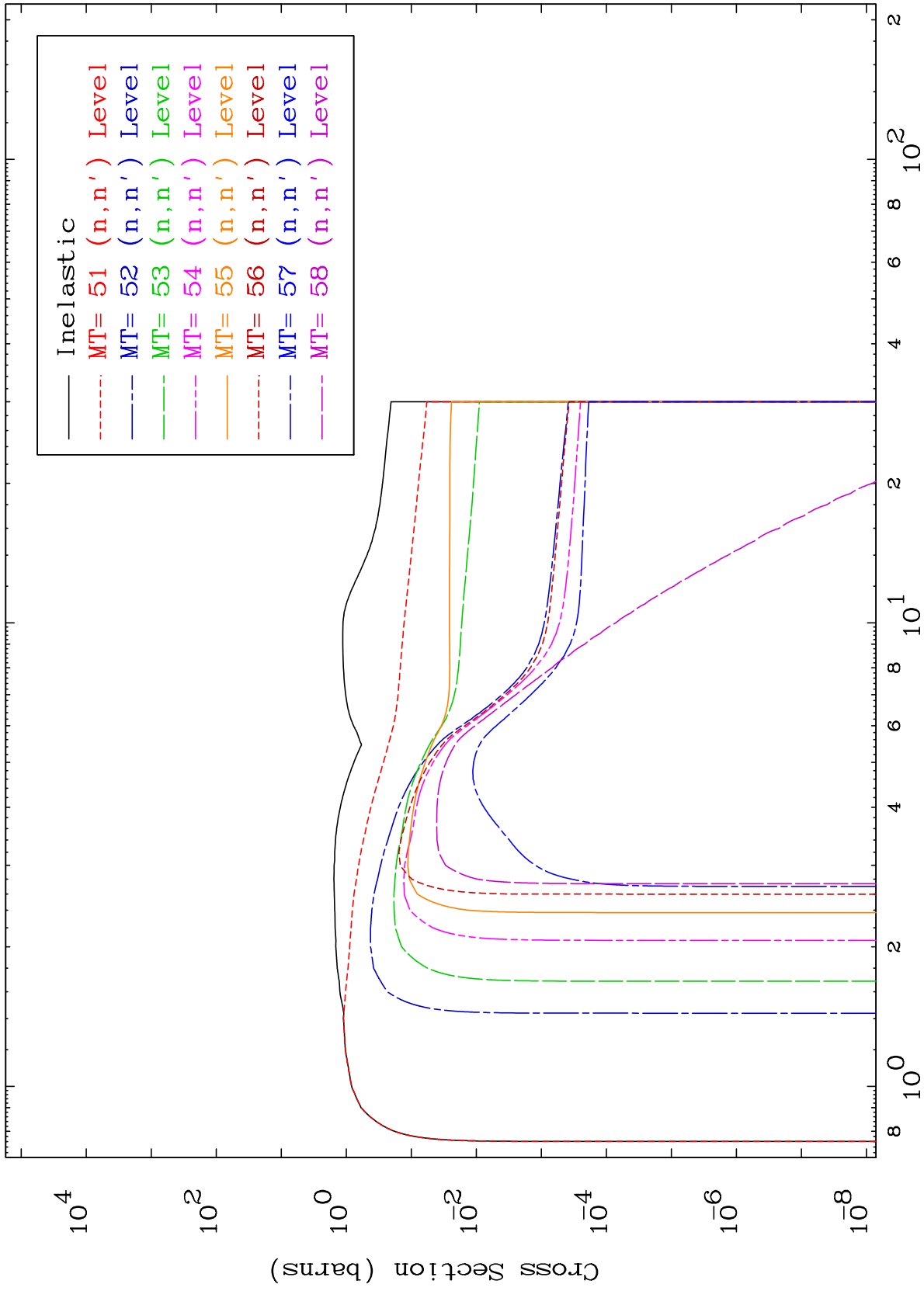


MAT 4013

(n,n') Level

40-Zr-86

293 Kelvin Cross Sections



6

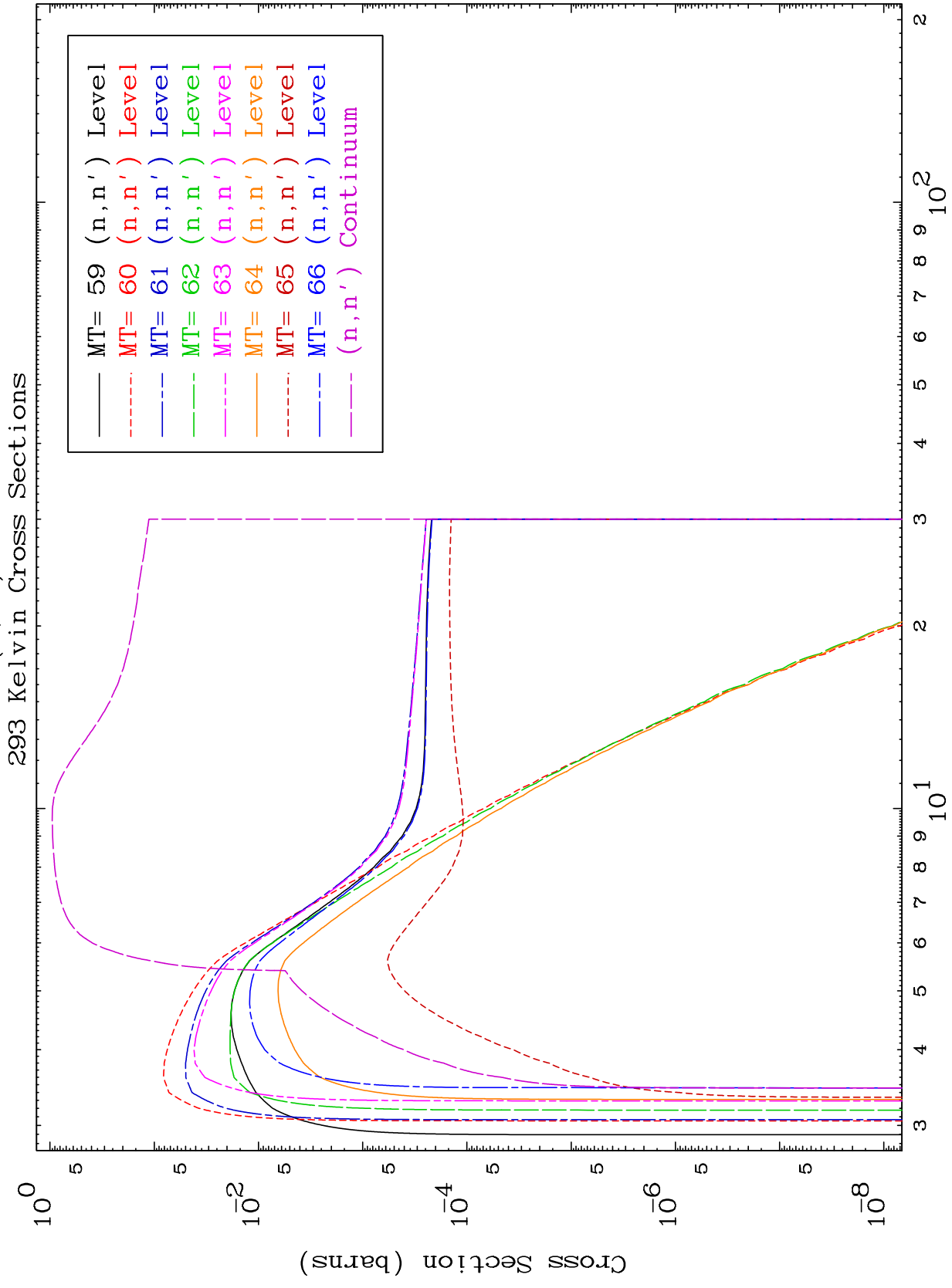
Incident Energy (MeV)

40-Zr-86

MAT 4013

(n,n') Level

40-Zr-86



7

Incident Energy (MeV)

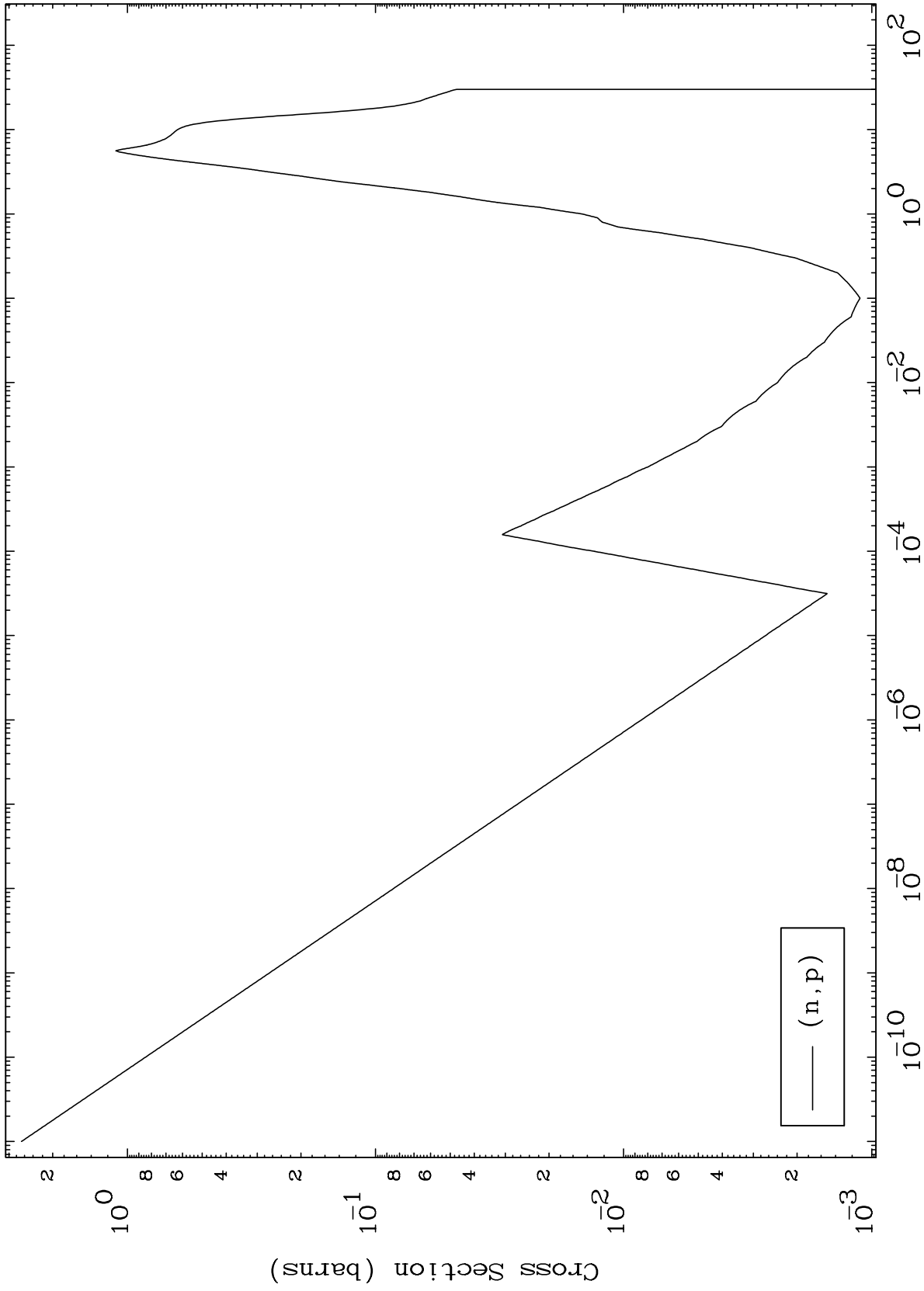
40-Zr-86



MAT 4013

(n,p) Levels  
293 Kelvin Cross Sections

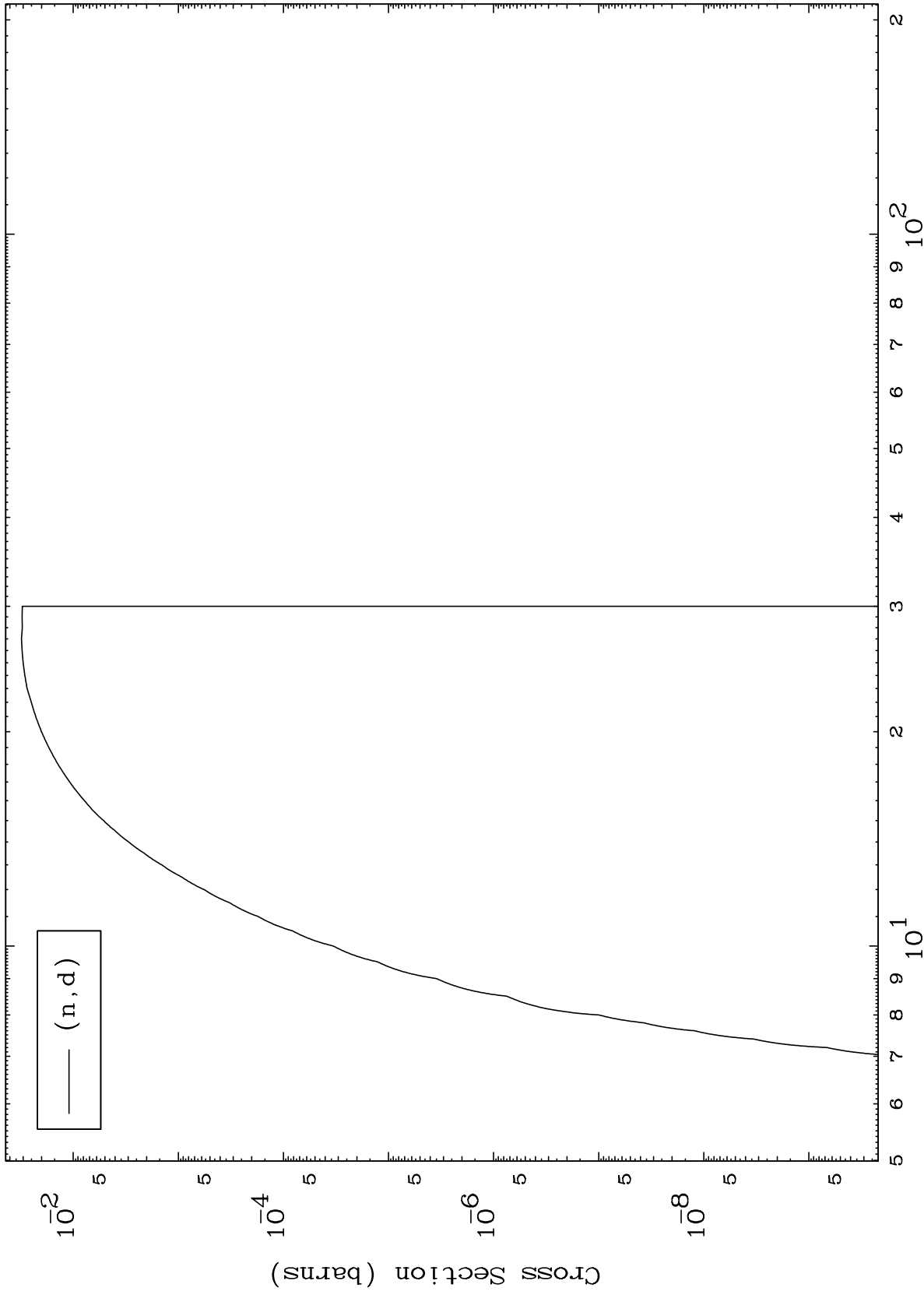
40-Zr-86



MAT 4013

(n,d) Levels  
293 Kelvin Cross Sections

40-Zr-86



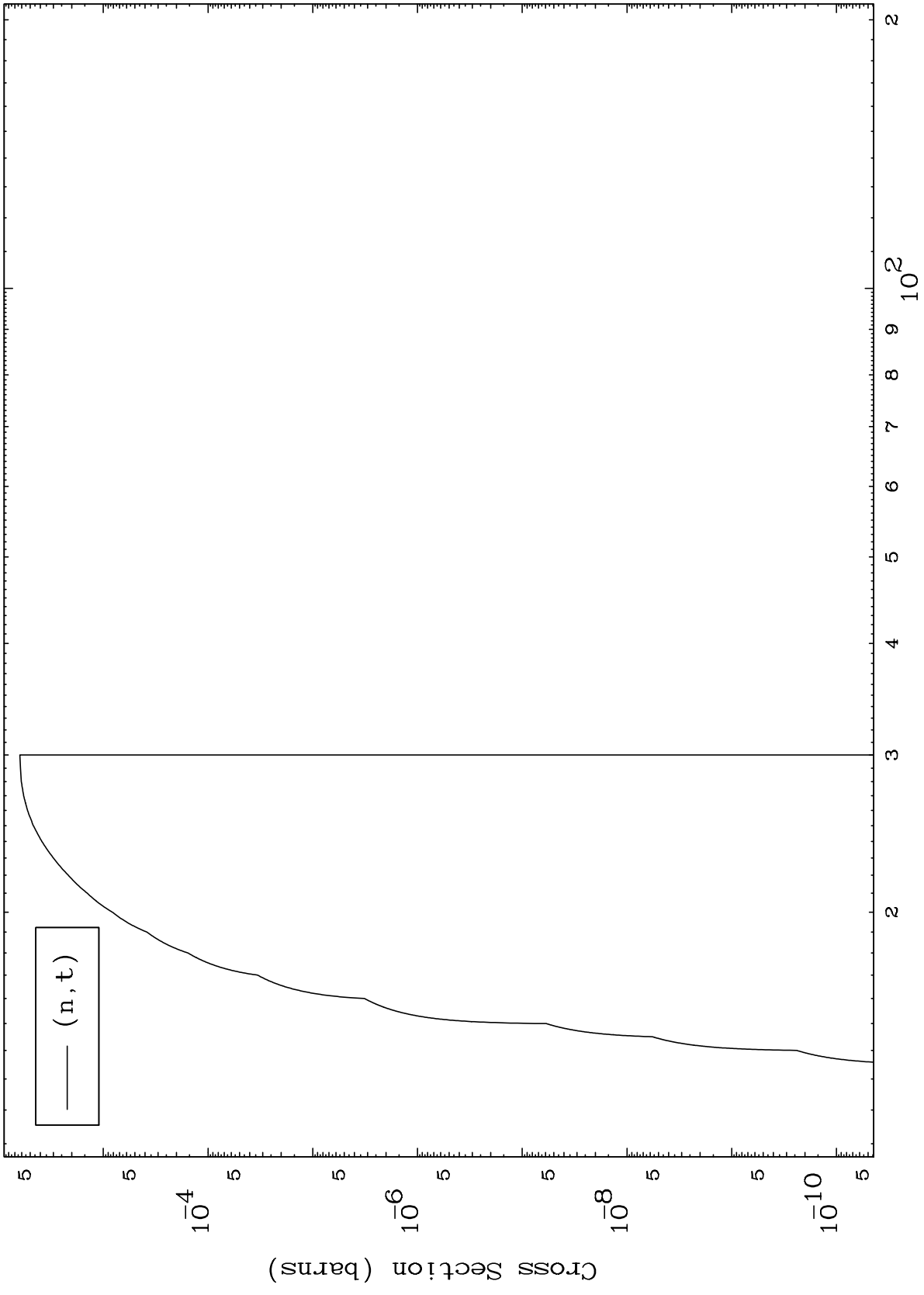
9

40-Zr-86

MAT 4013

(n,t) Levels  
293 Kelvin Cross Sections

40-Zr-86



10

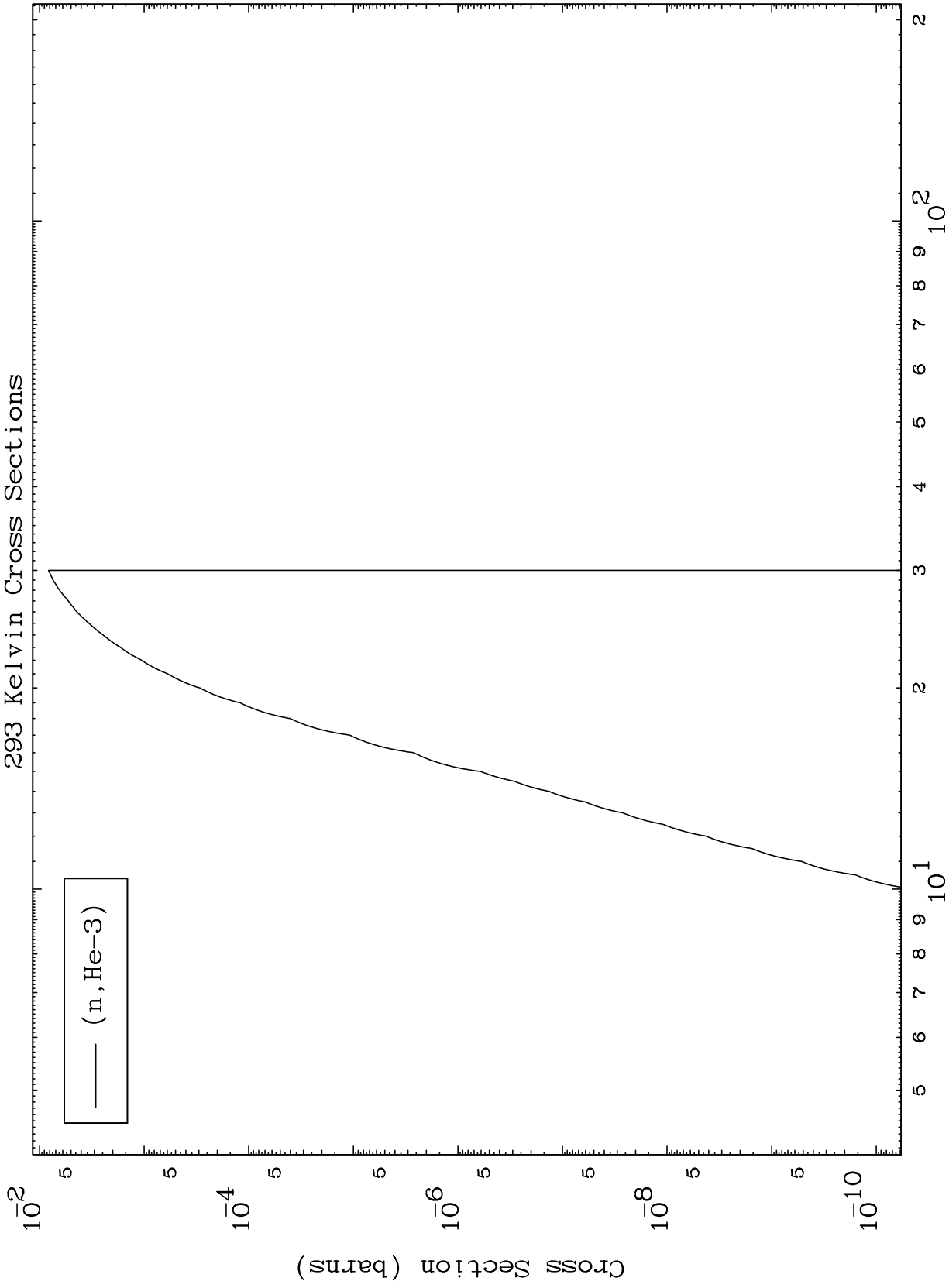
Incident Energy (MeV)

40-Zr-86

MAT 4013

40-Zr-86

(n,He3) Levels  
293 Kelvin Cross Sections



11

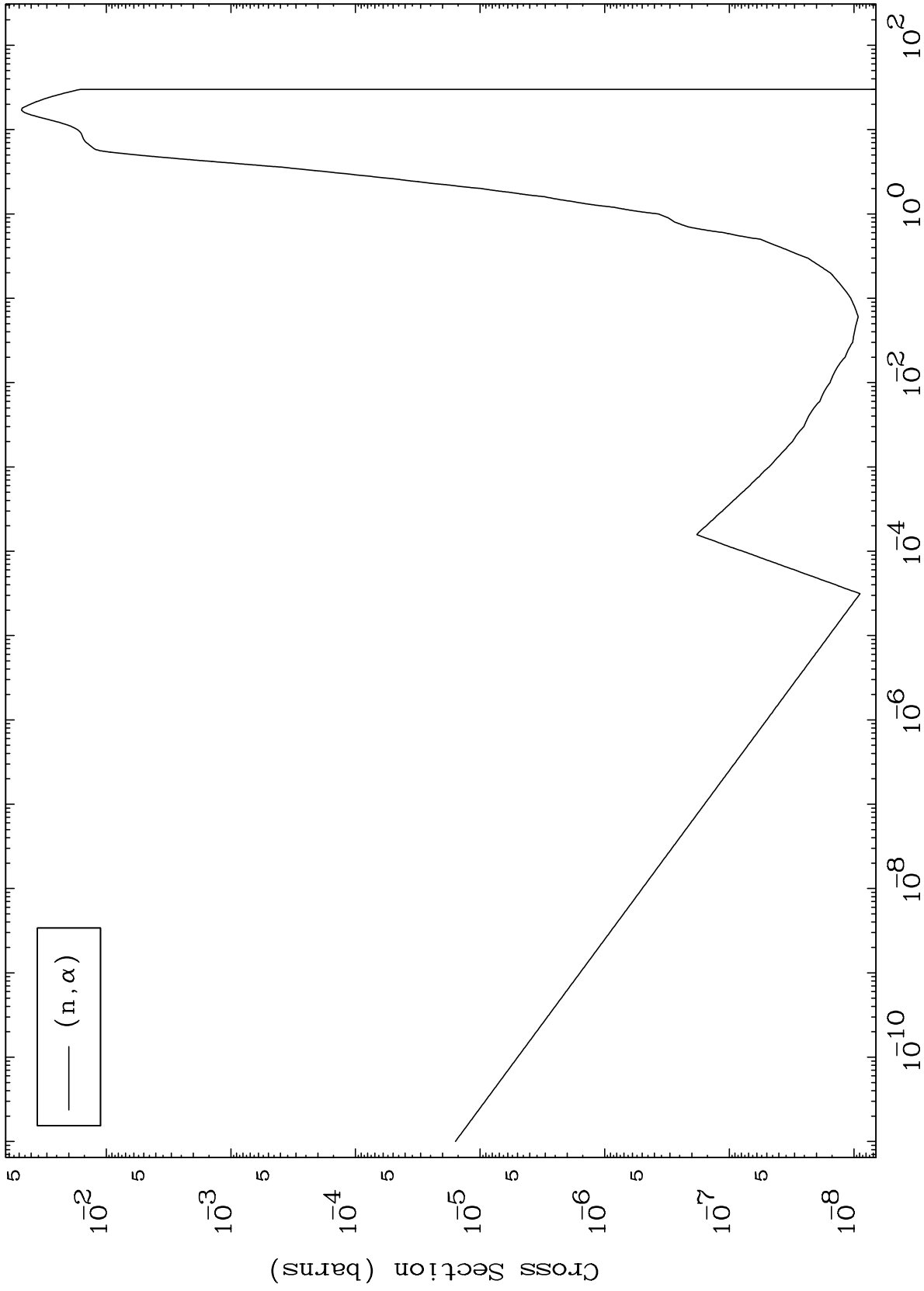
Incident Energy (MeV)

40-Zr-86

MAT 4013

(n,α) Levels  
293 Kelvin Cross Sections

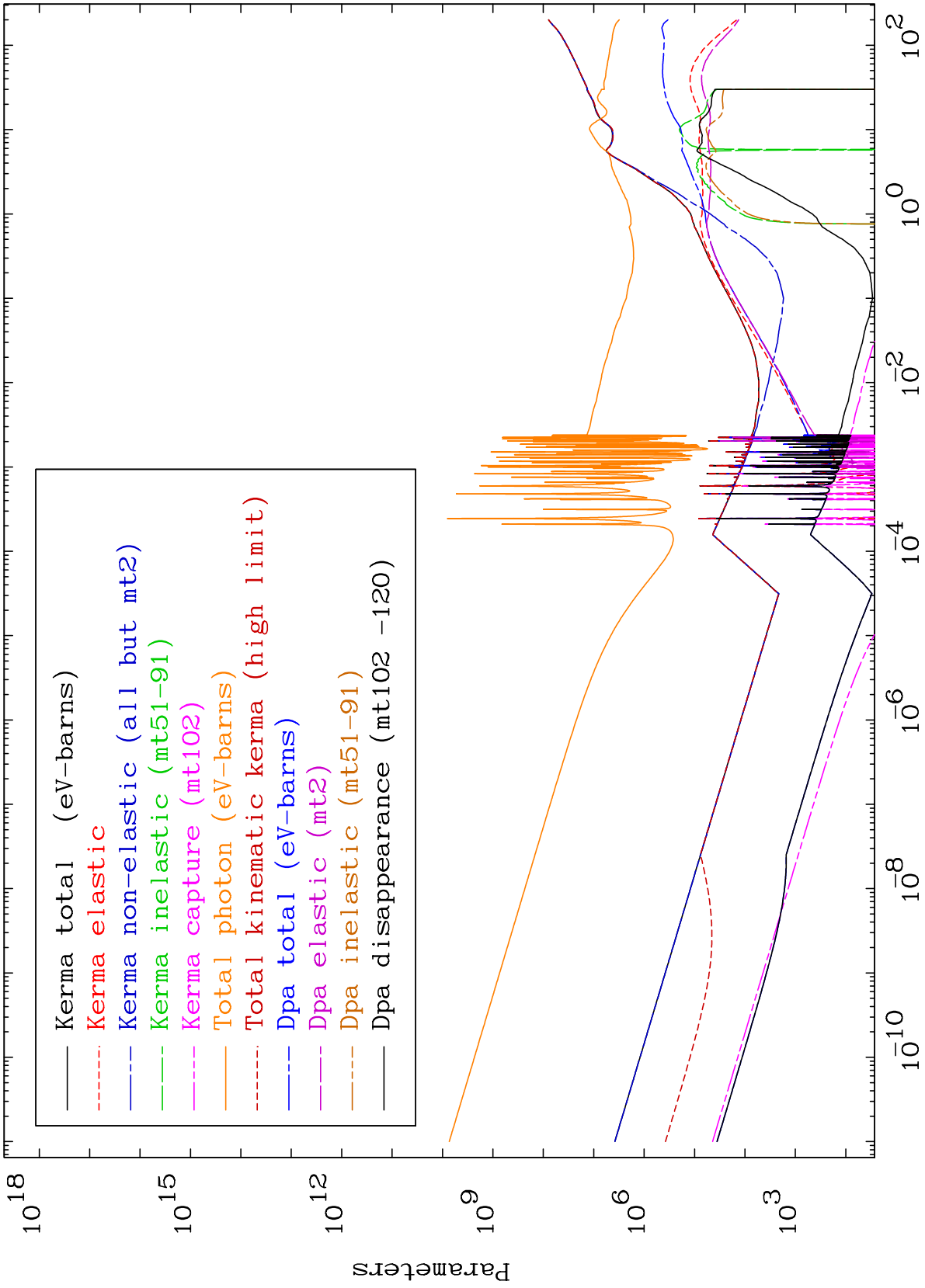
40-Zr-86



12

Incident Energy (MeV)

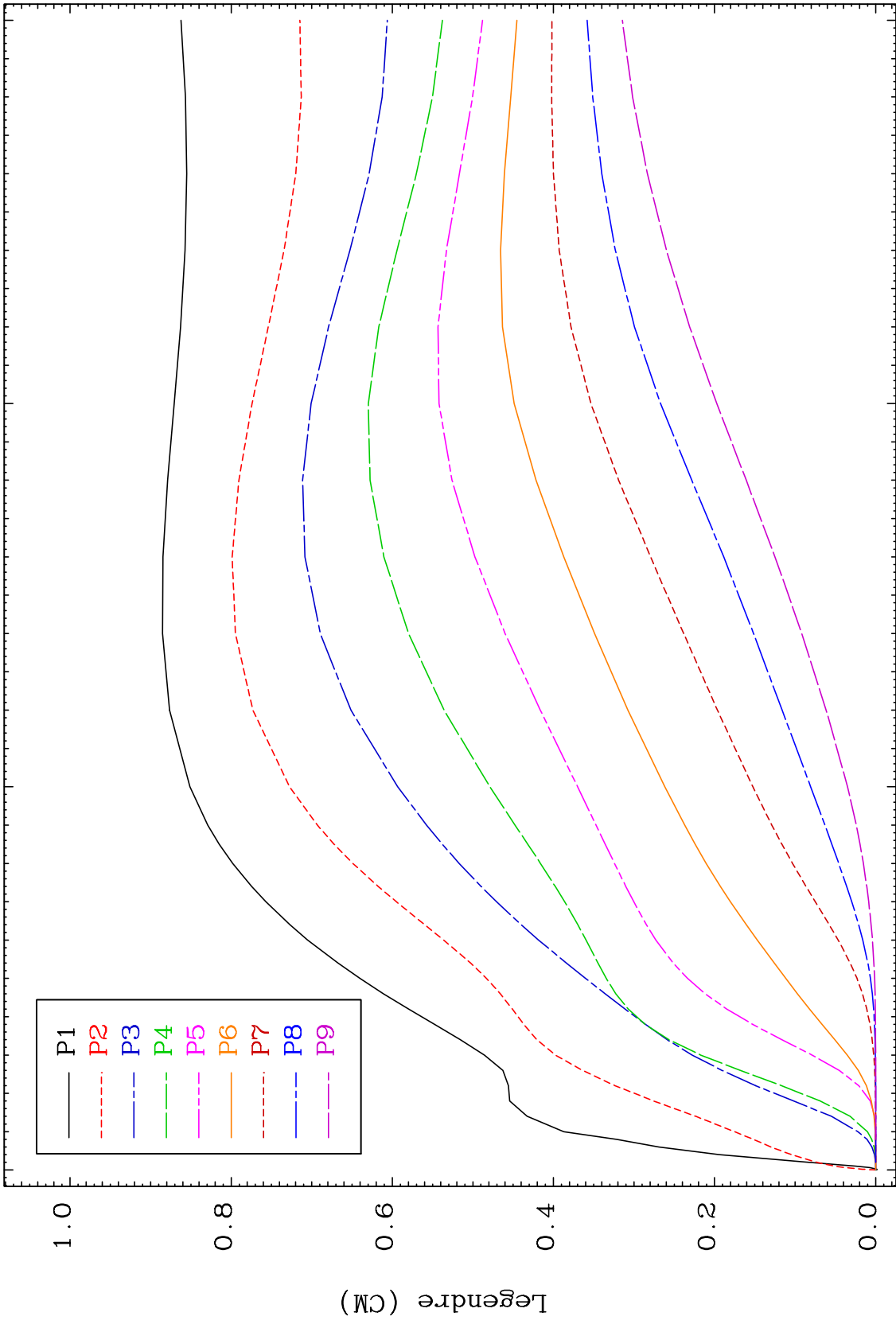
40-Zr-86



MAT 4013

Elastic Legendre Coefficients

40-Zr-86



14

Incident Energy (MeV)

40-Zr-86

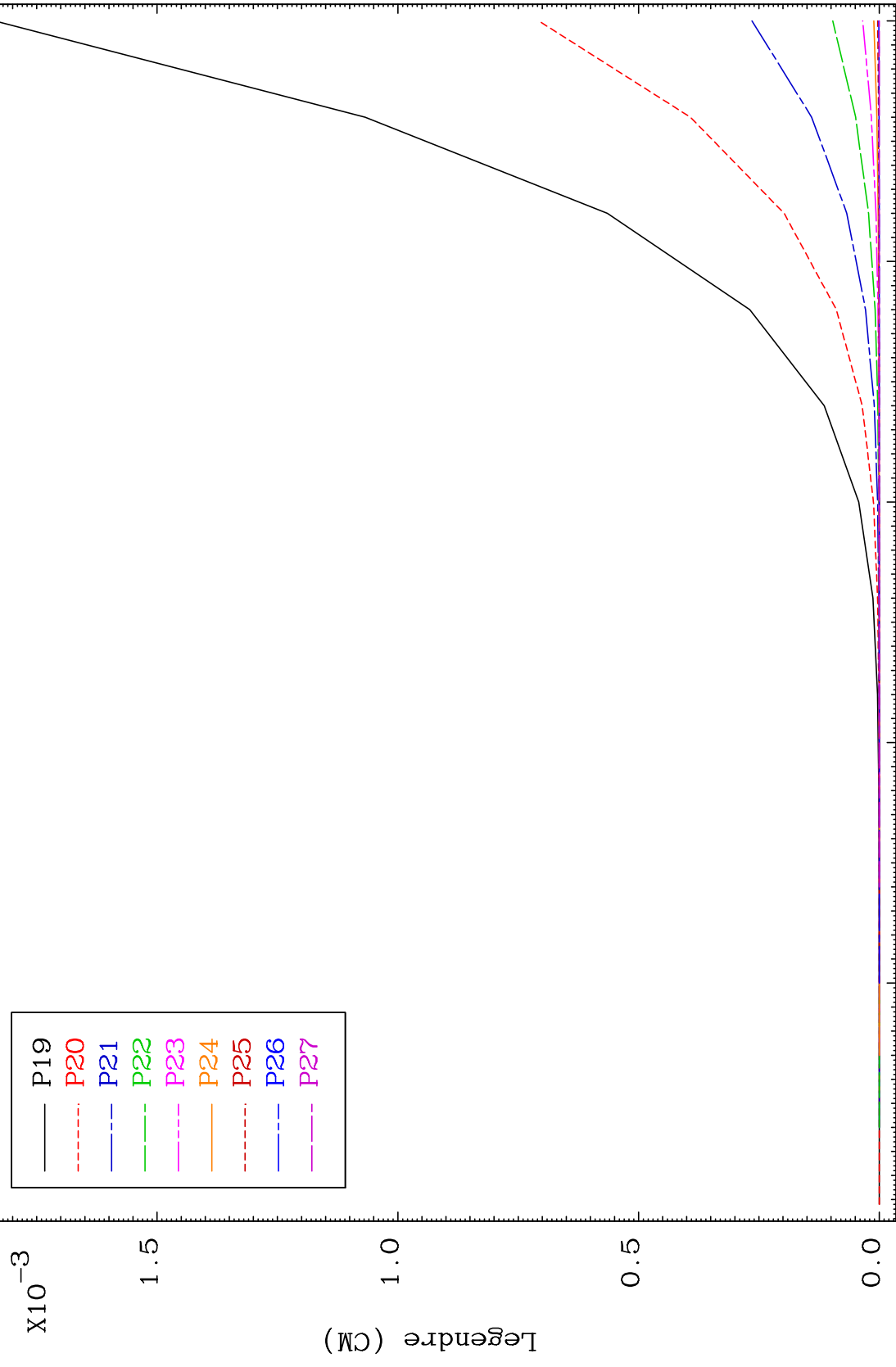




MAT 4013

Elastic Legendre Coefficients

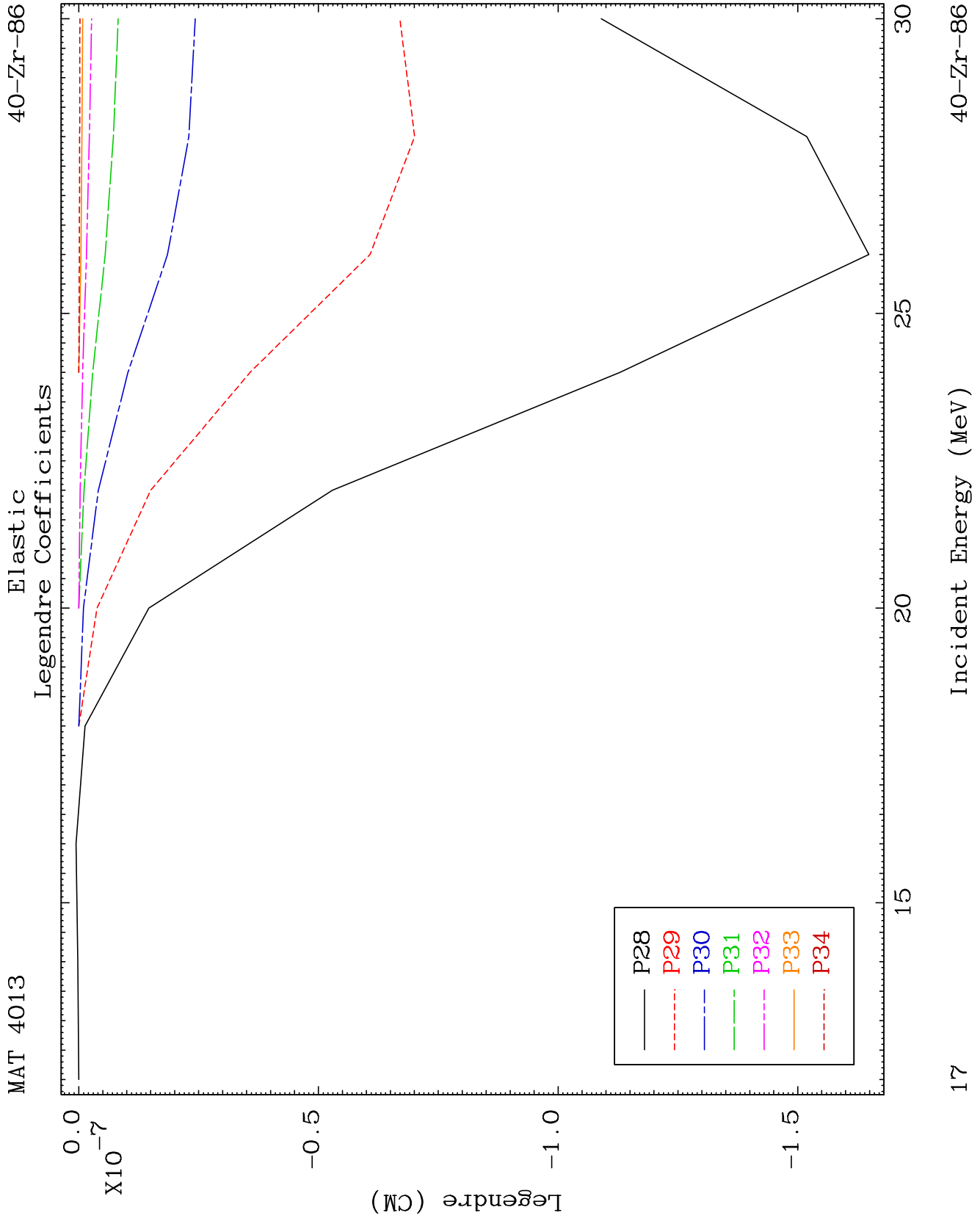
40-Zr-86



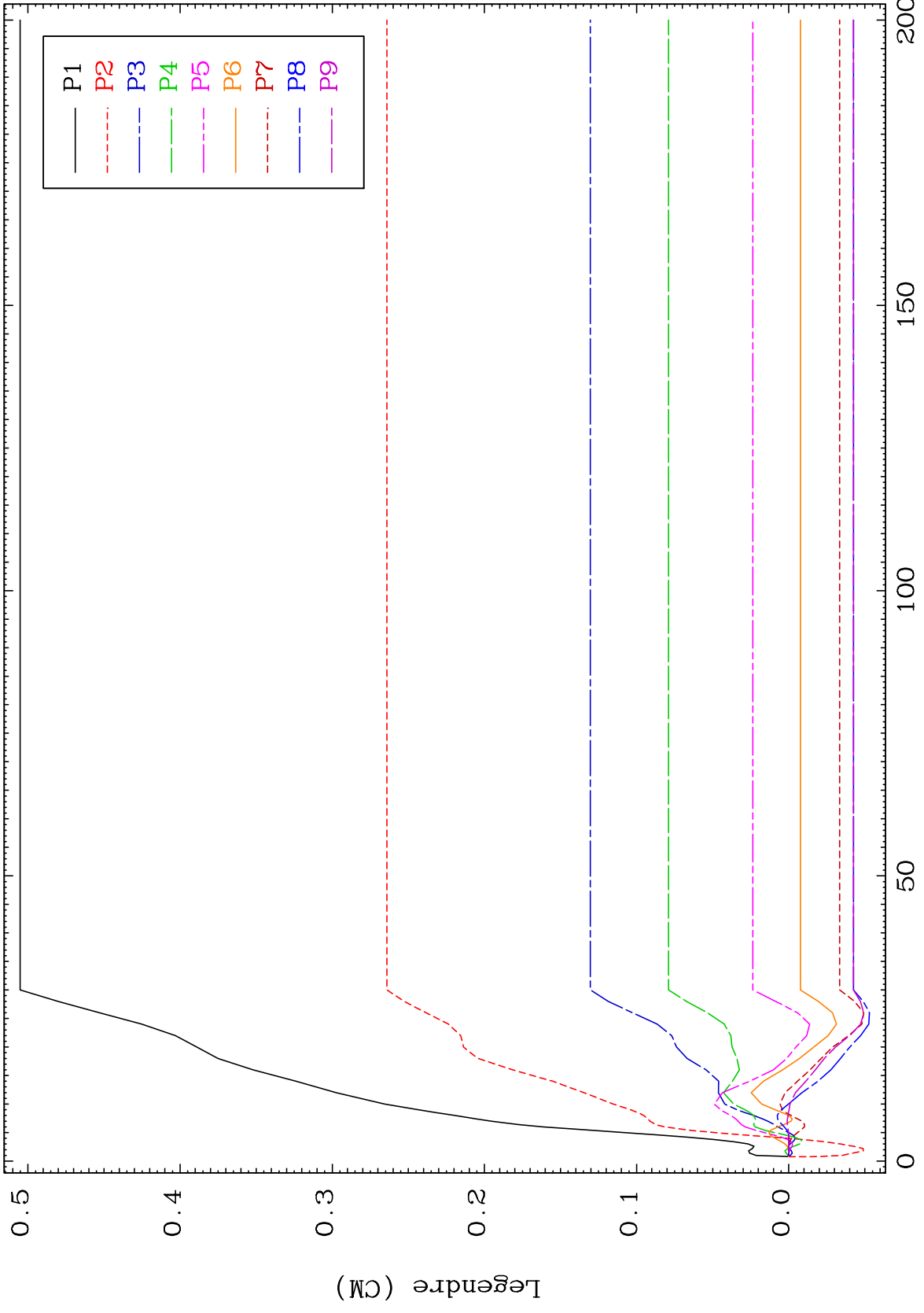
16

Incident Energy (MeV)

40-Zr-86



MAT 4013 MT= 51 (n,n') Level Legendre Coefficients 40-Zr-86

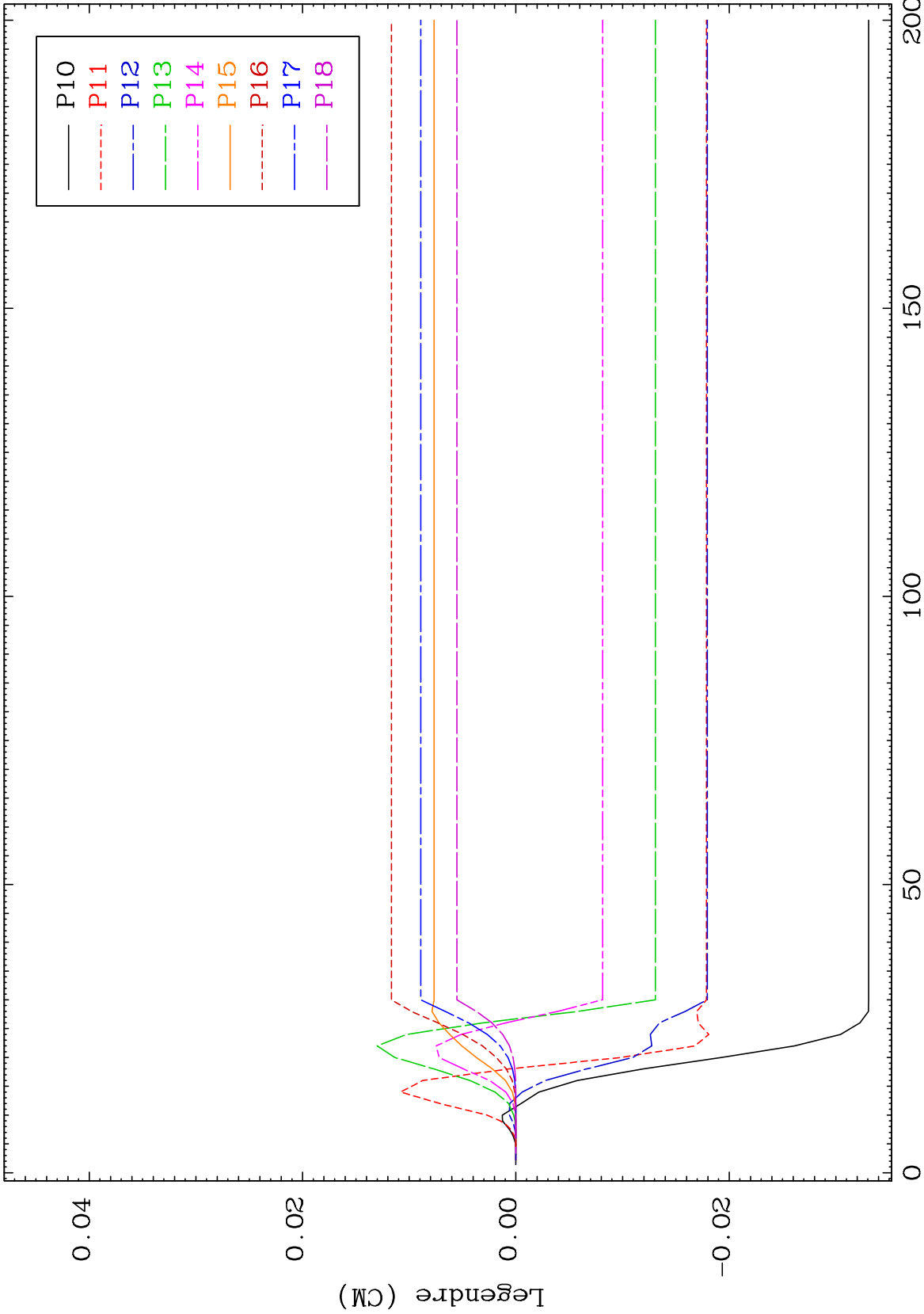


18 Incident Energy (MeV) 40-Zr-86

MAT 4013

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

40-Zr-86



19

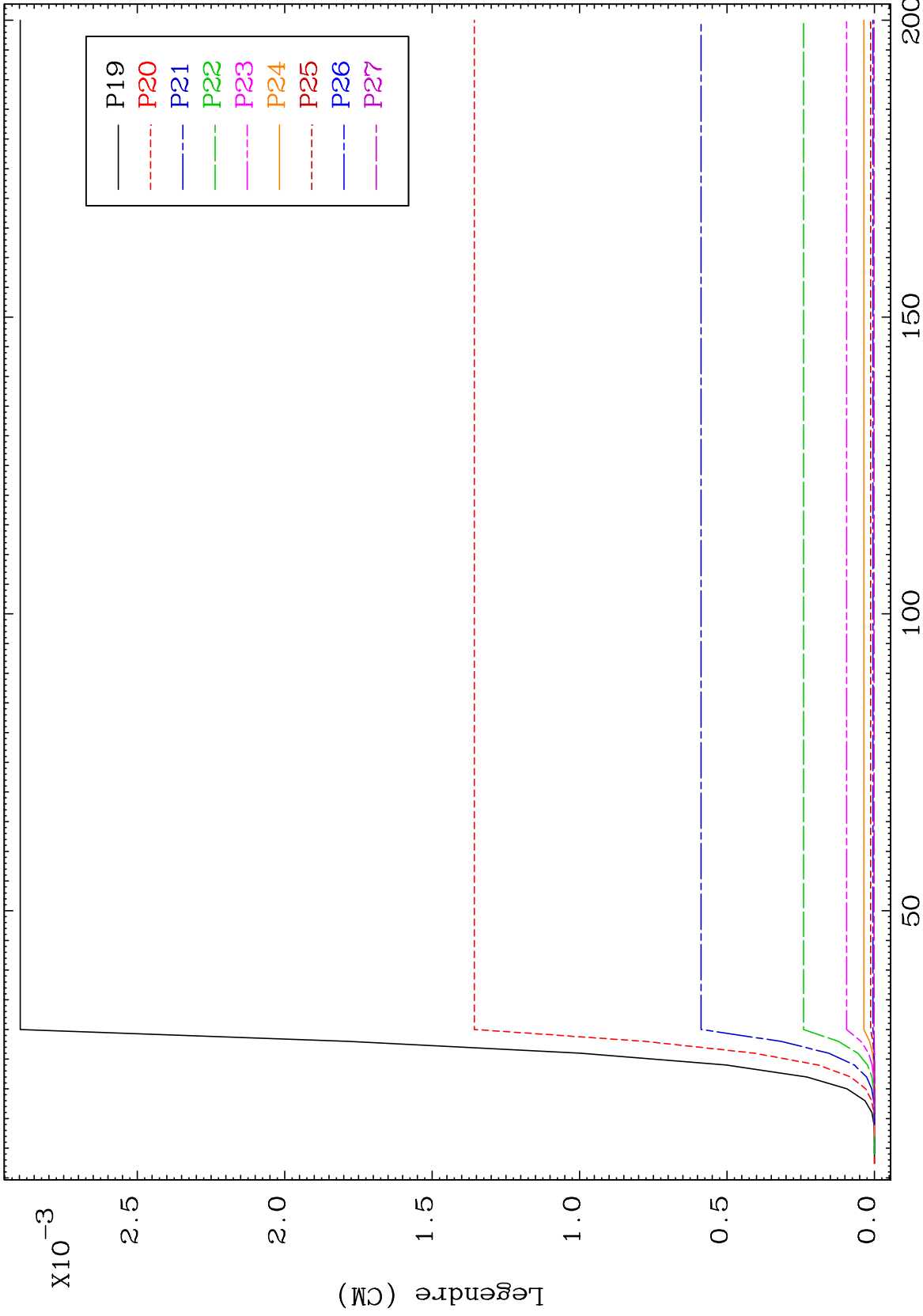
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86

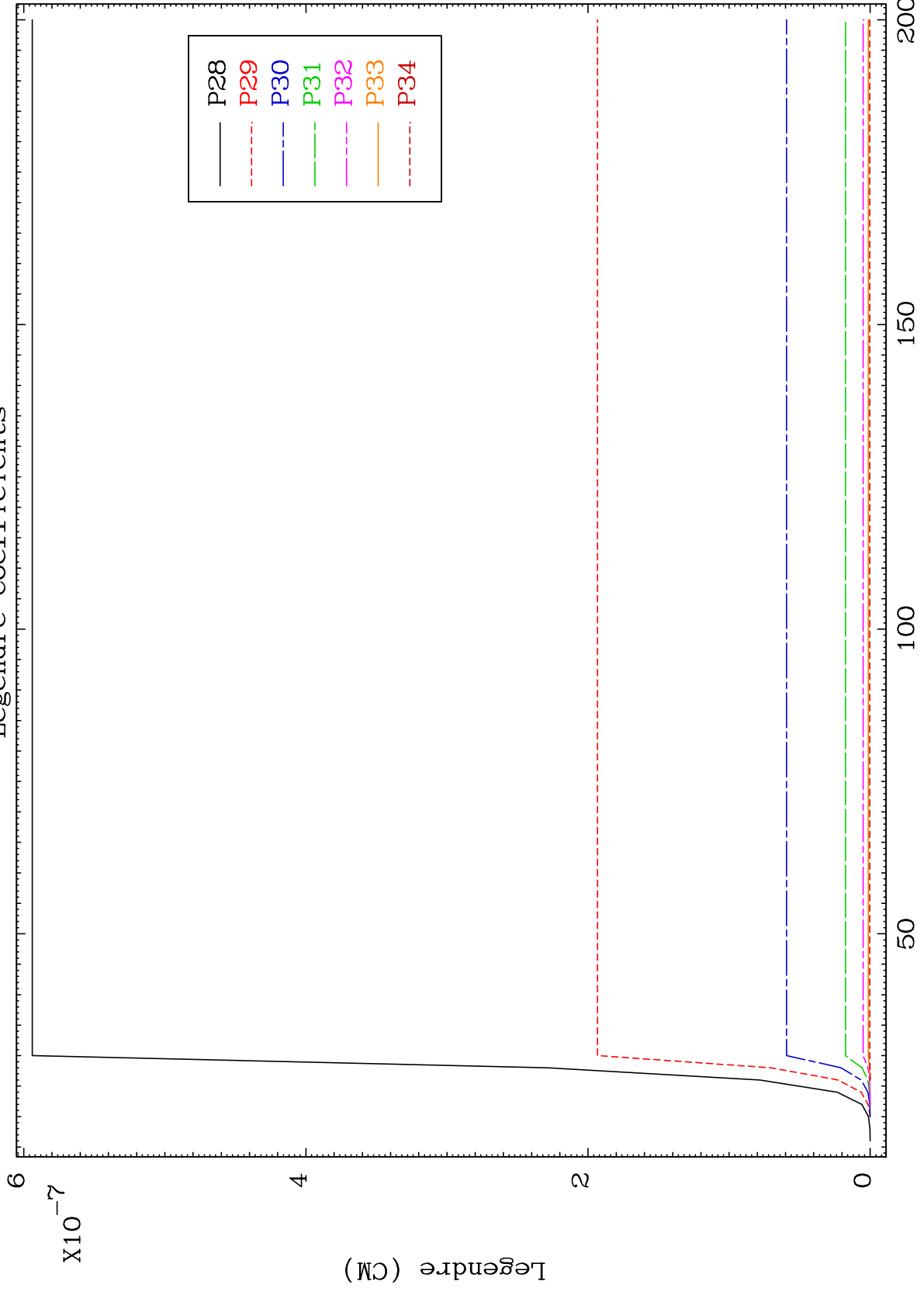


40-Zr-86

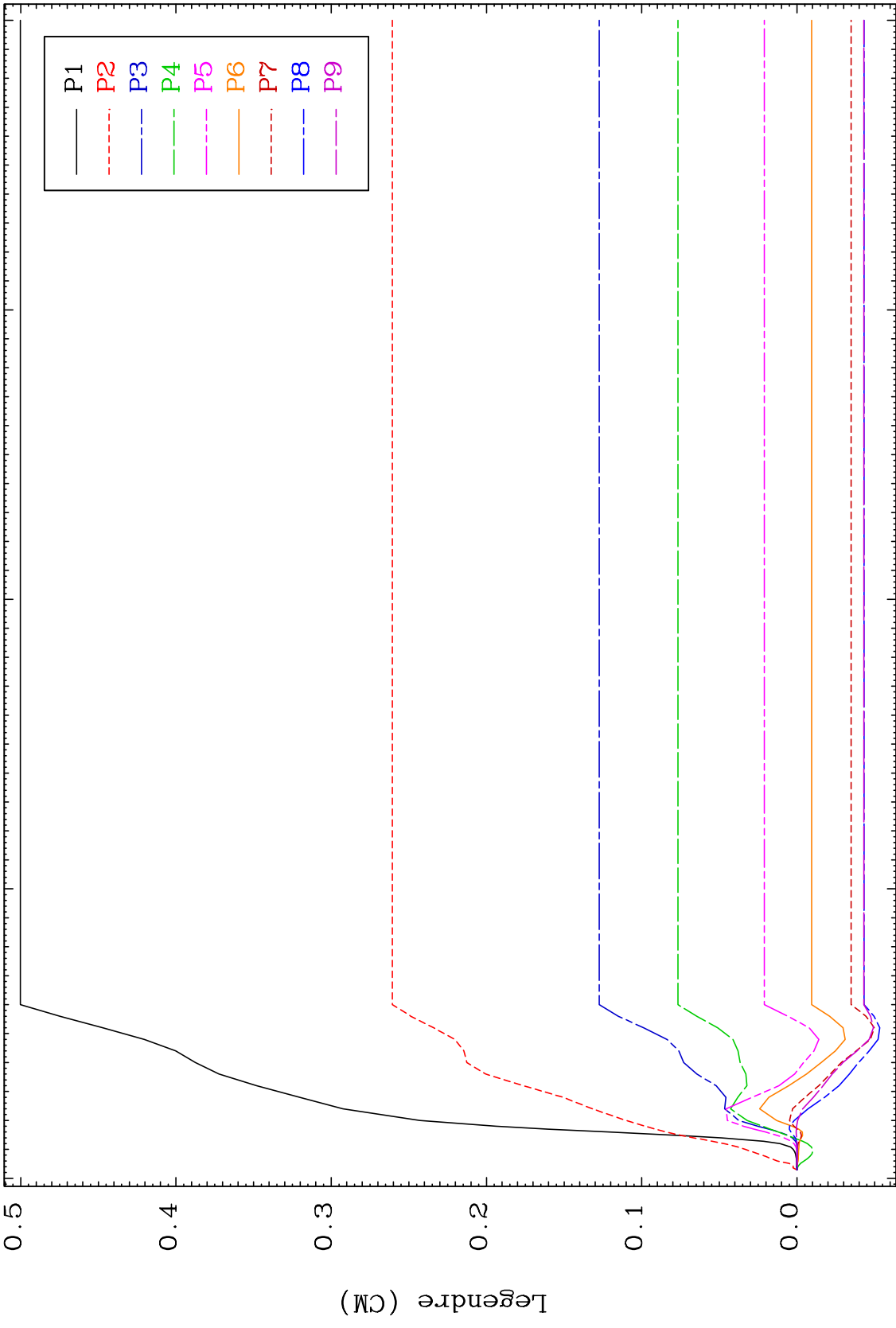
Incident Energy (MeV)

20

MAT 4013 MT= 51 (n,n') Level Legendre Coefficients 40-Zr-86



MAT 4013 MT= 52 (n,n') Level Legendre Coefficients 40-Zr-86

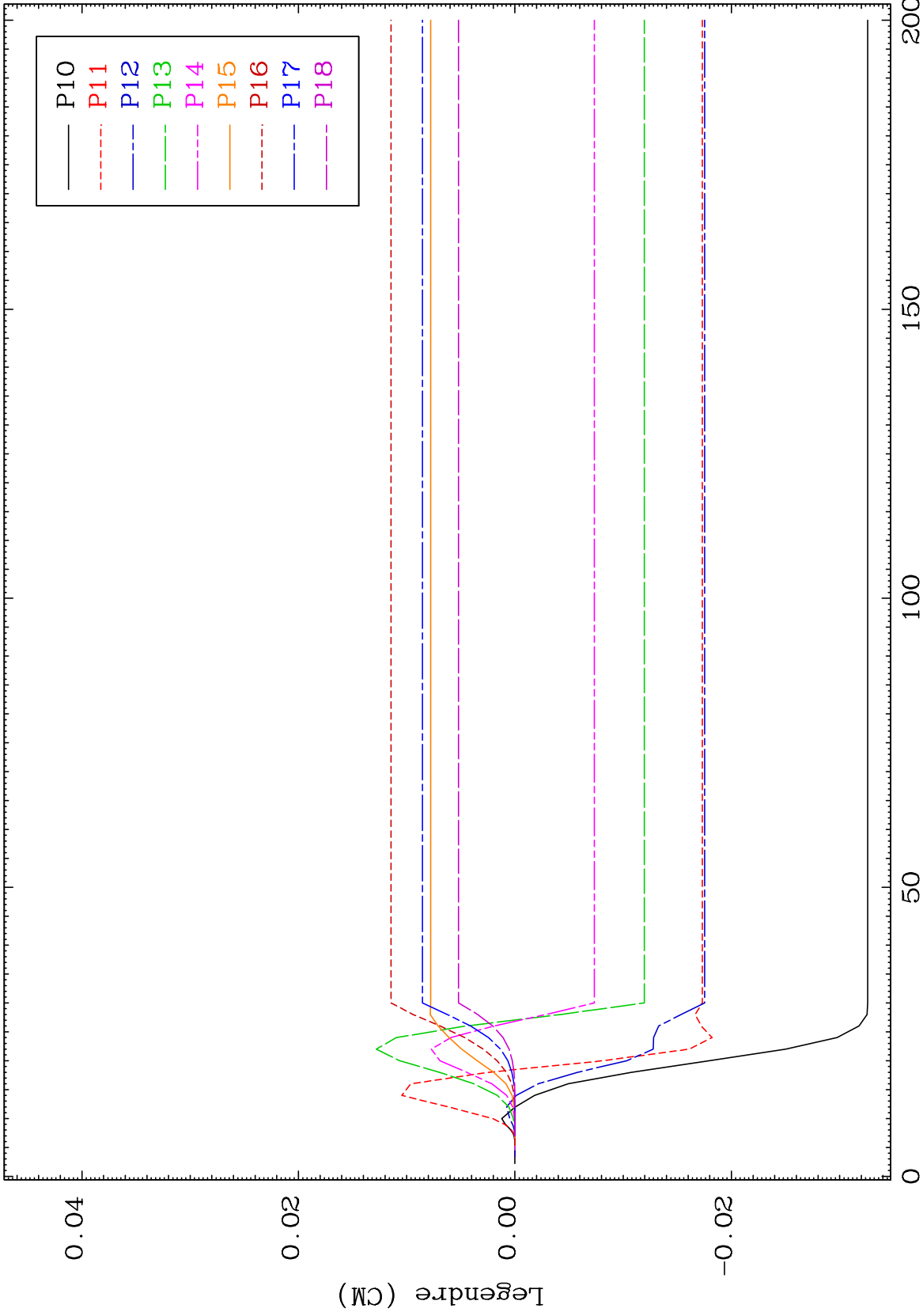


22 40-Zr-86

MAT 4013

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

40-Zr-86



23

Incident Energy (MeV)

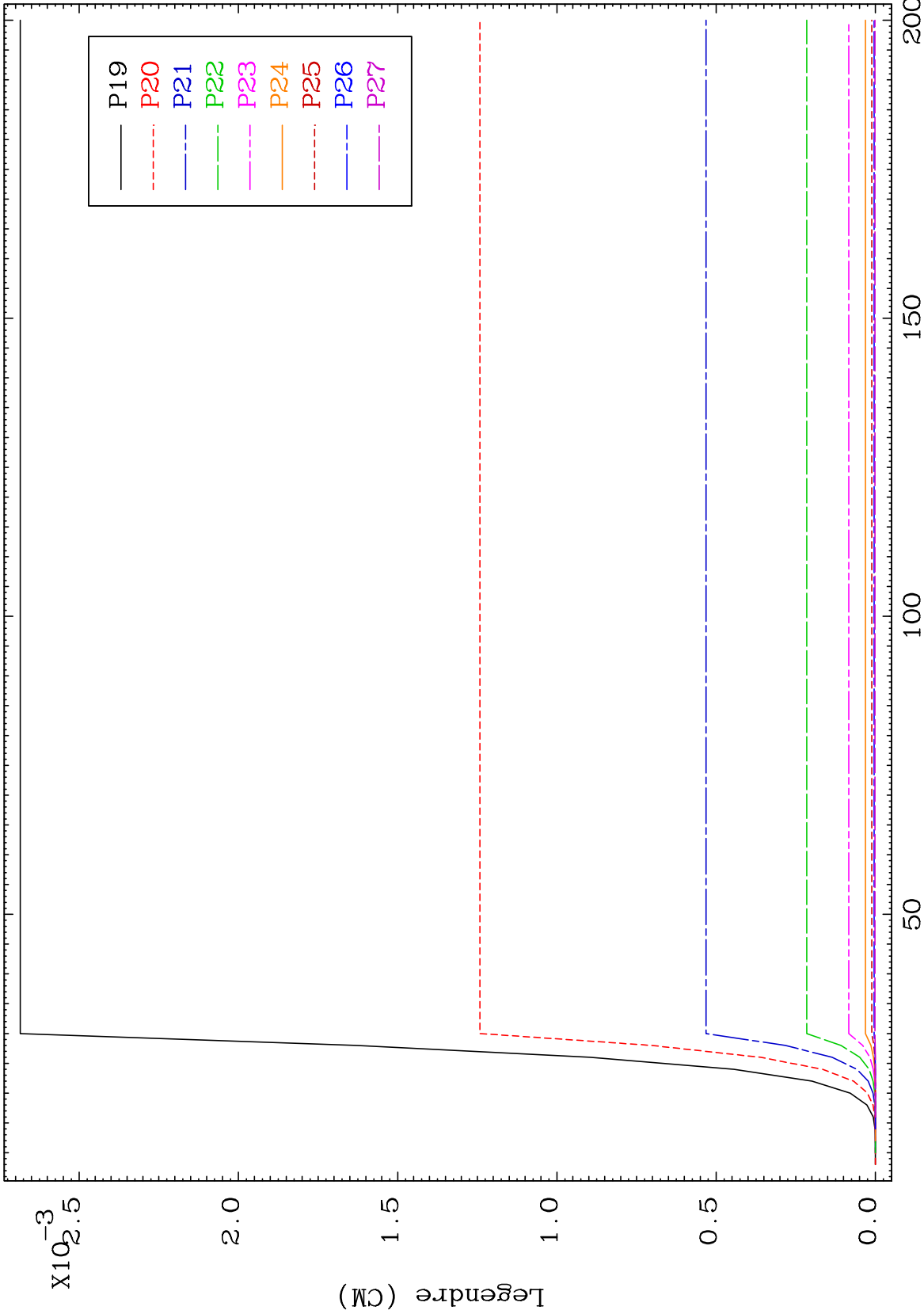
40-Zr-86



MAT 4013

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

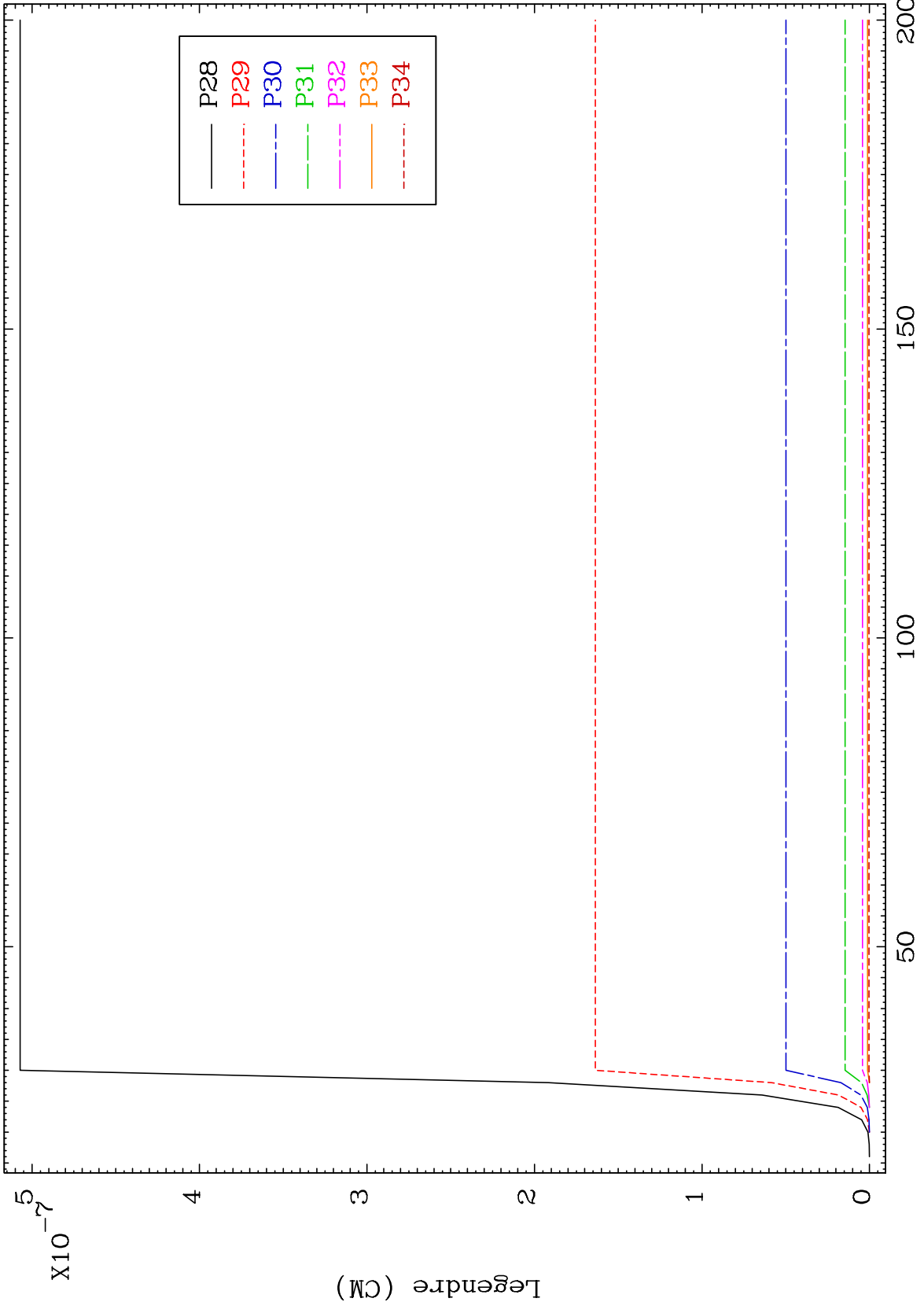
40-Zr-86



24

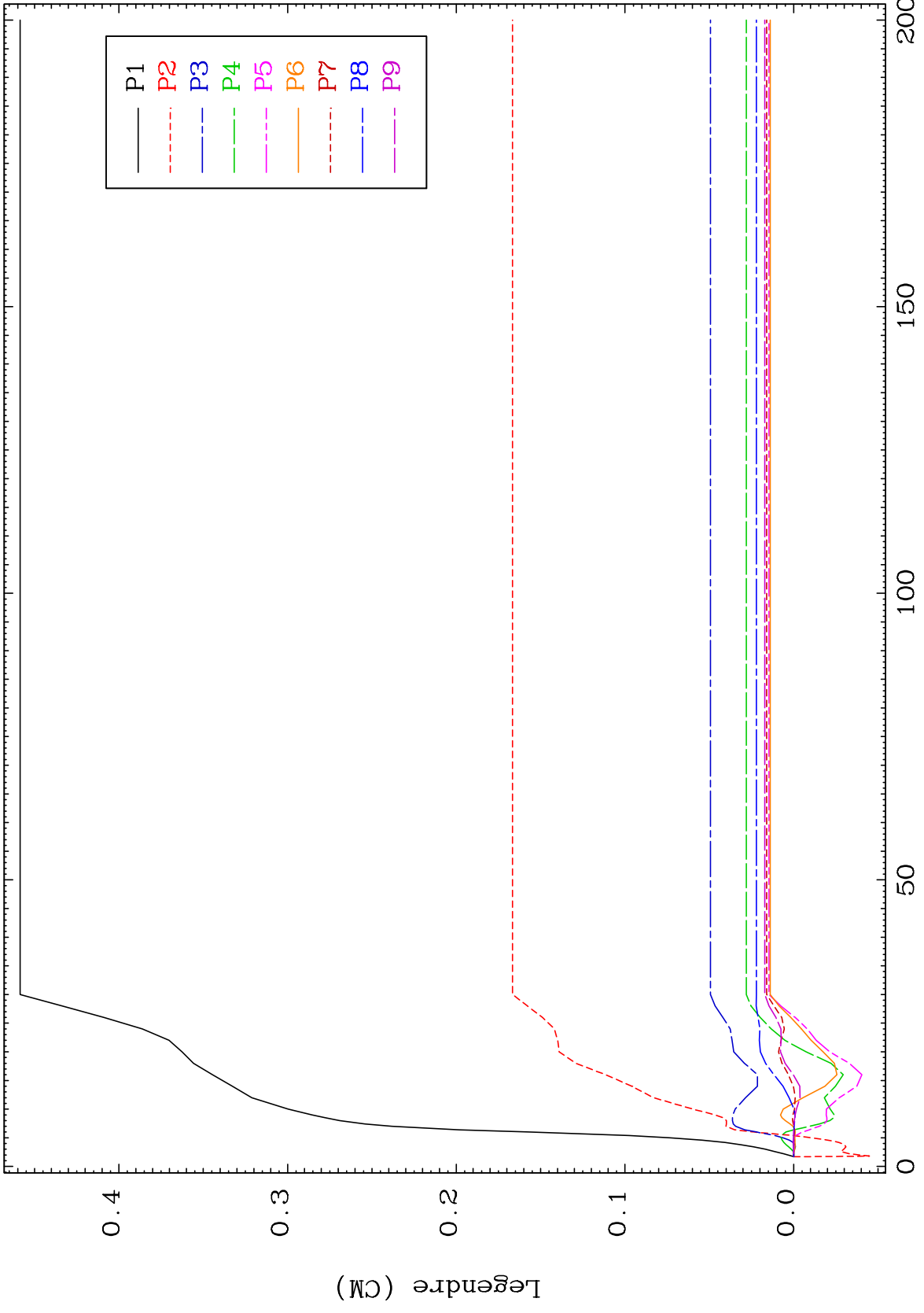
40-Zr-86

MAT 4013 MT= 52 (n,n') Level Legendre Coefficients 40-Zr-86



25 50 100 150 200 Incident Energy (MeV) 40-Zr-86

MAT 4013 MT= 53 (n,n') Level Legendre Coefficients 40-Zr-86

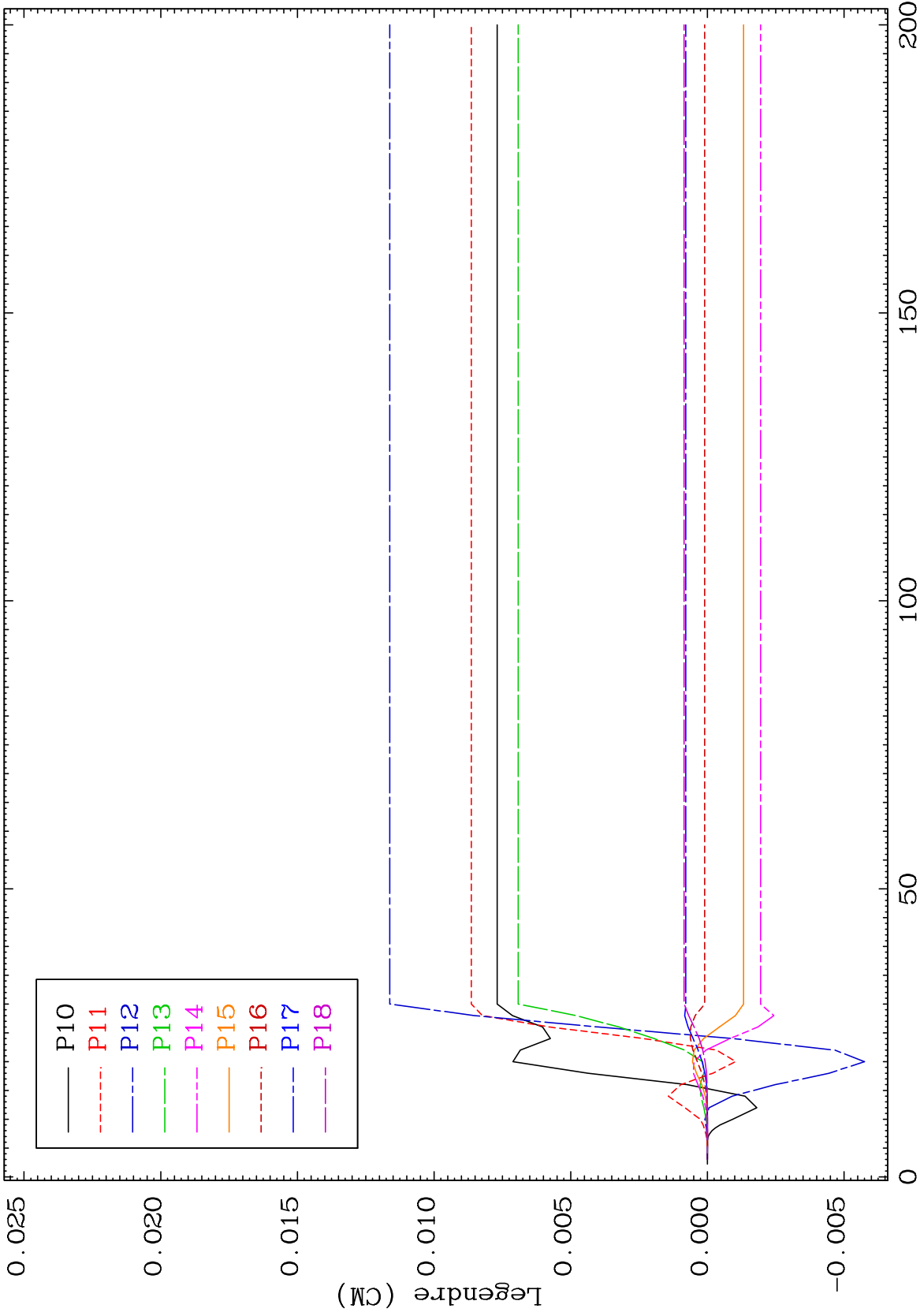


26 40-Zr-86

MAT 4013

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

40-Zr-86

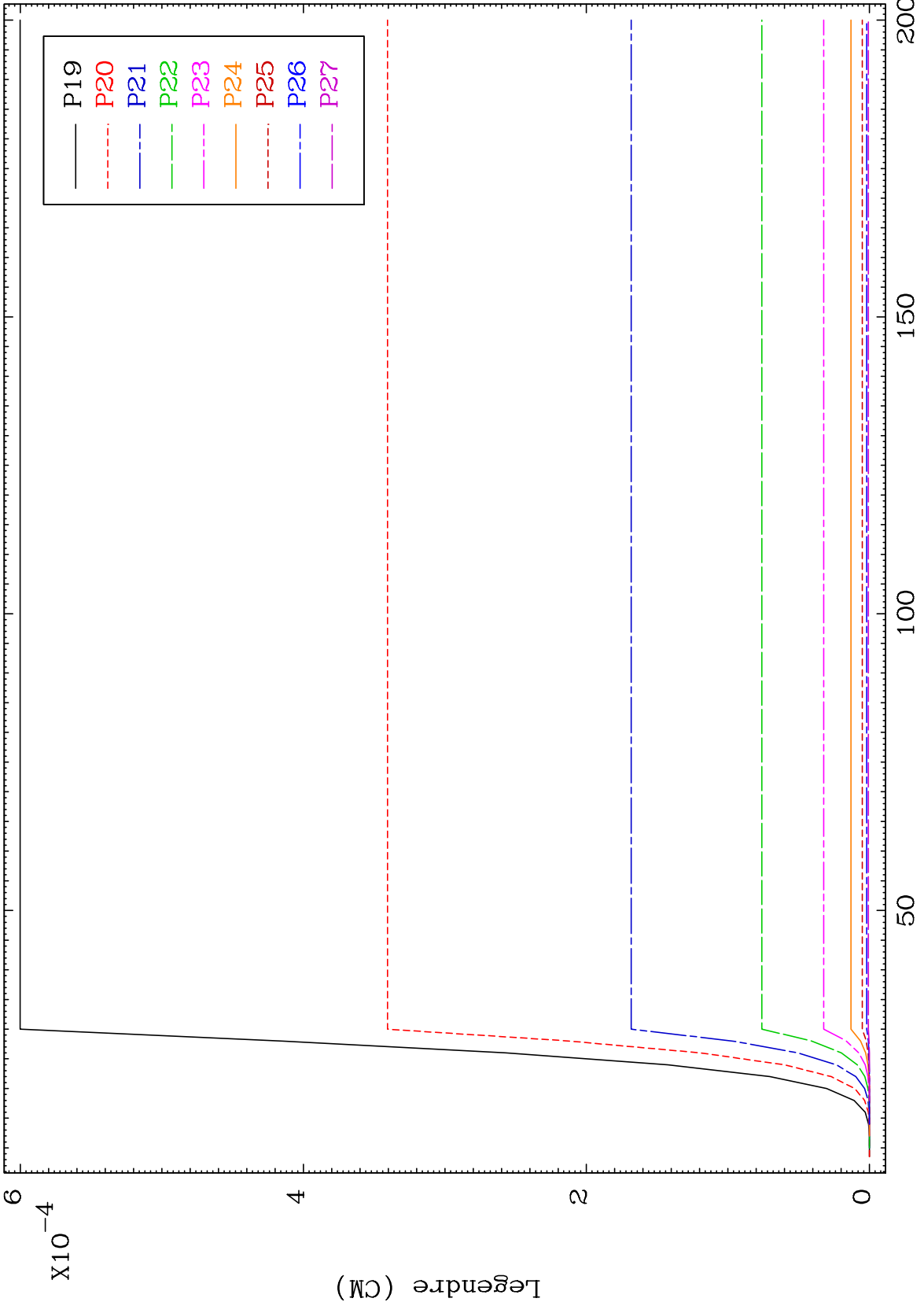


27

Incident Energy (MeV)

40-Zr-86

MAT 4013 MT= 53 (n,n') Level Legendre Coefficients 40-Zr-86

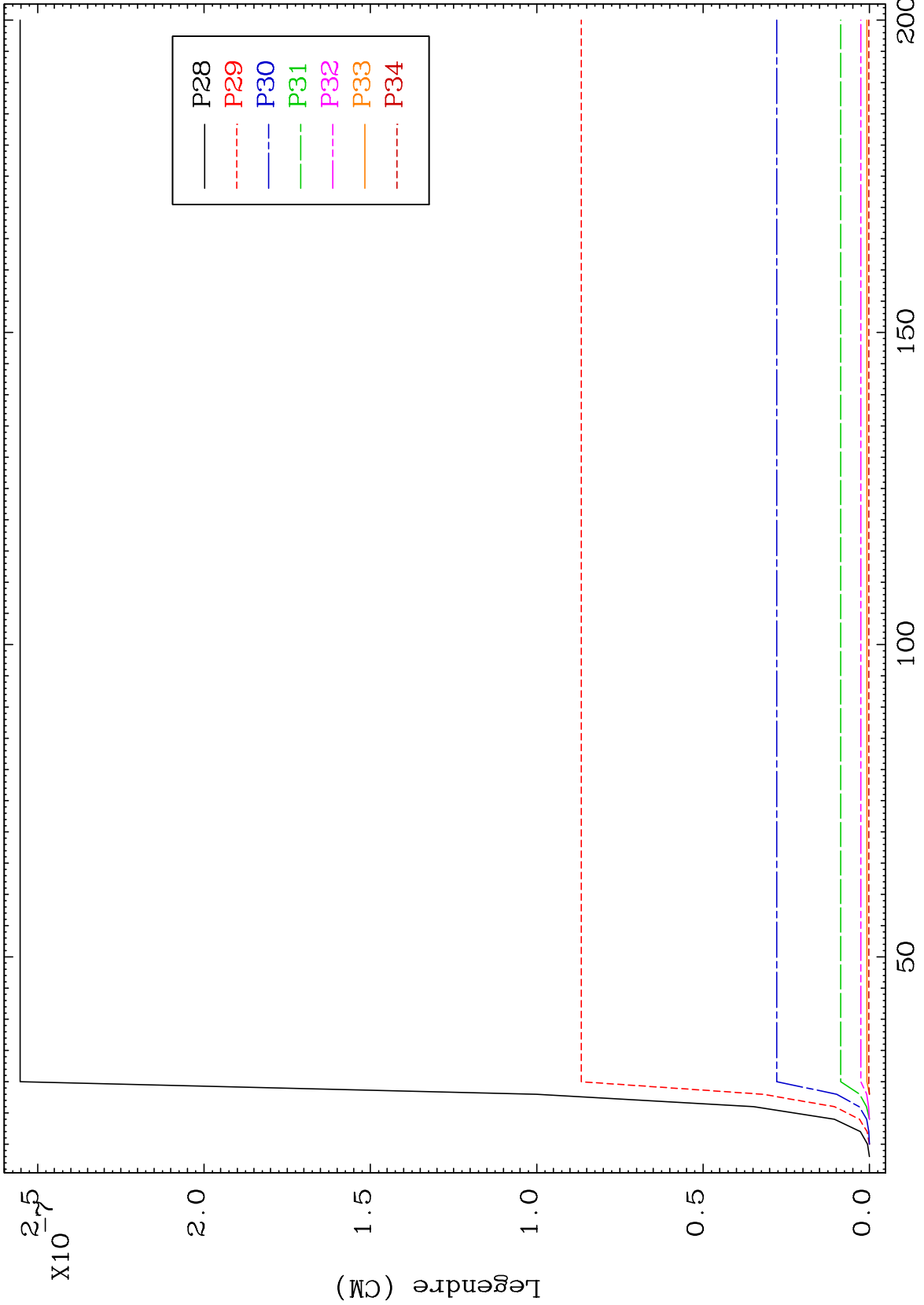


28 Incident Energy (MeV) 40-Zr-86

MAT 4013

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

40-Zr-86



29

Incident Energy (MeV)

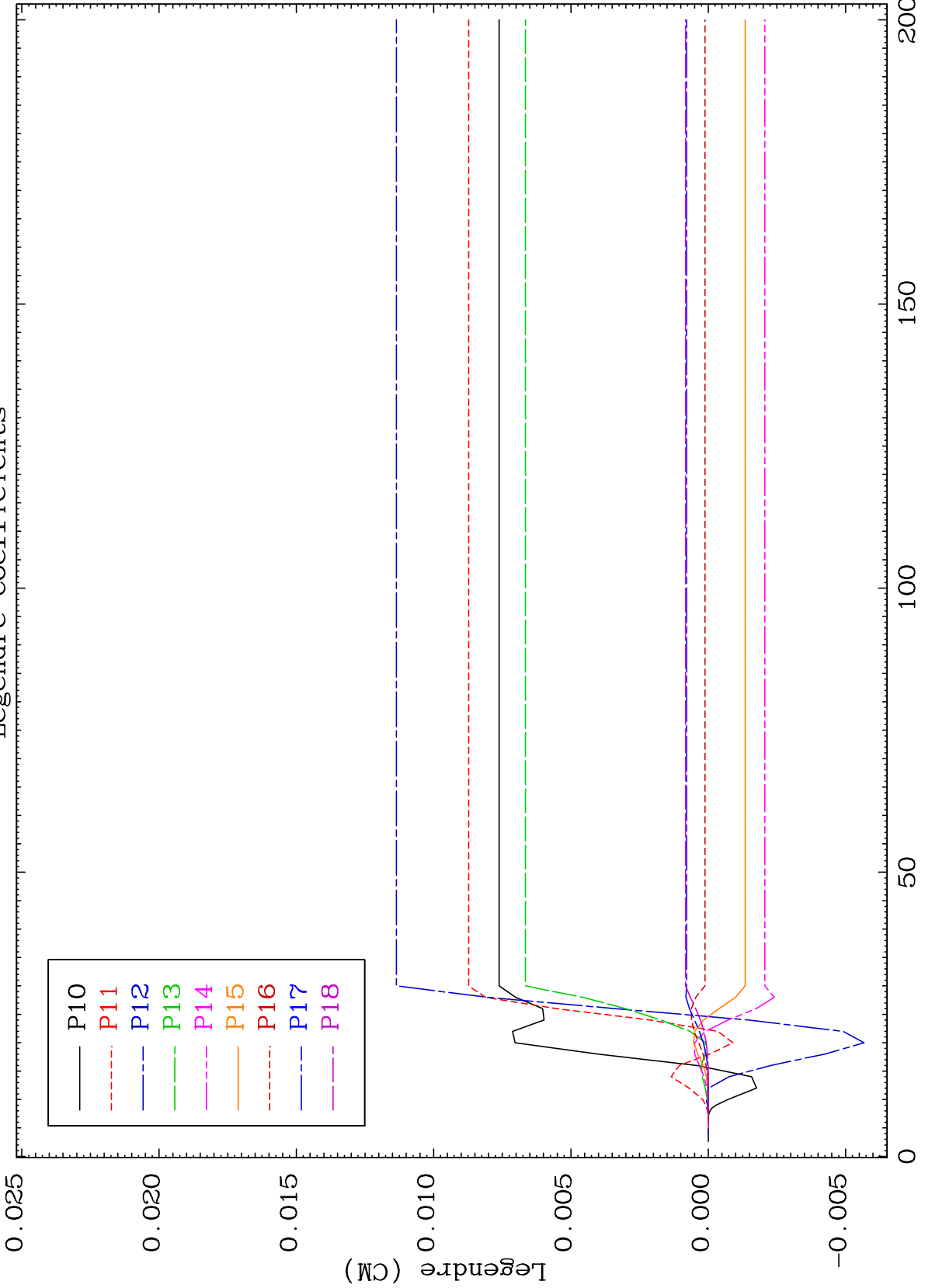
40-Zr-86



MAT 4013 MT= 54 (n,n') Level Legendre Coefficients

40-Zr-86

31



40-Zr-86

Incident Energy (MeV)

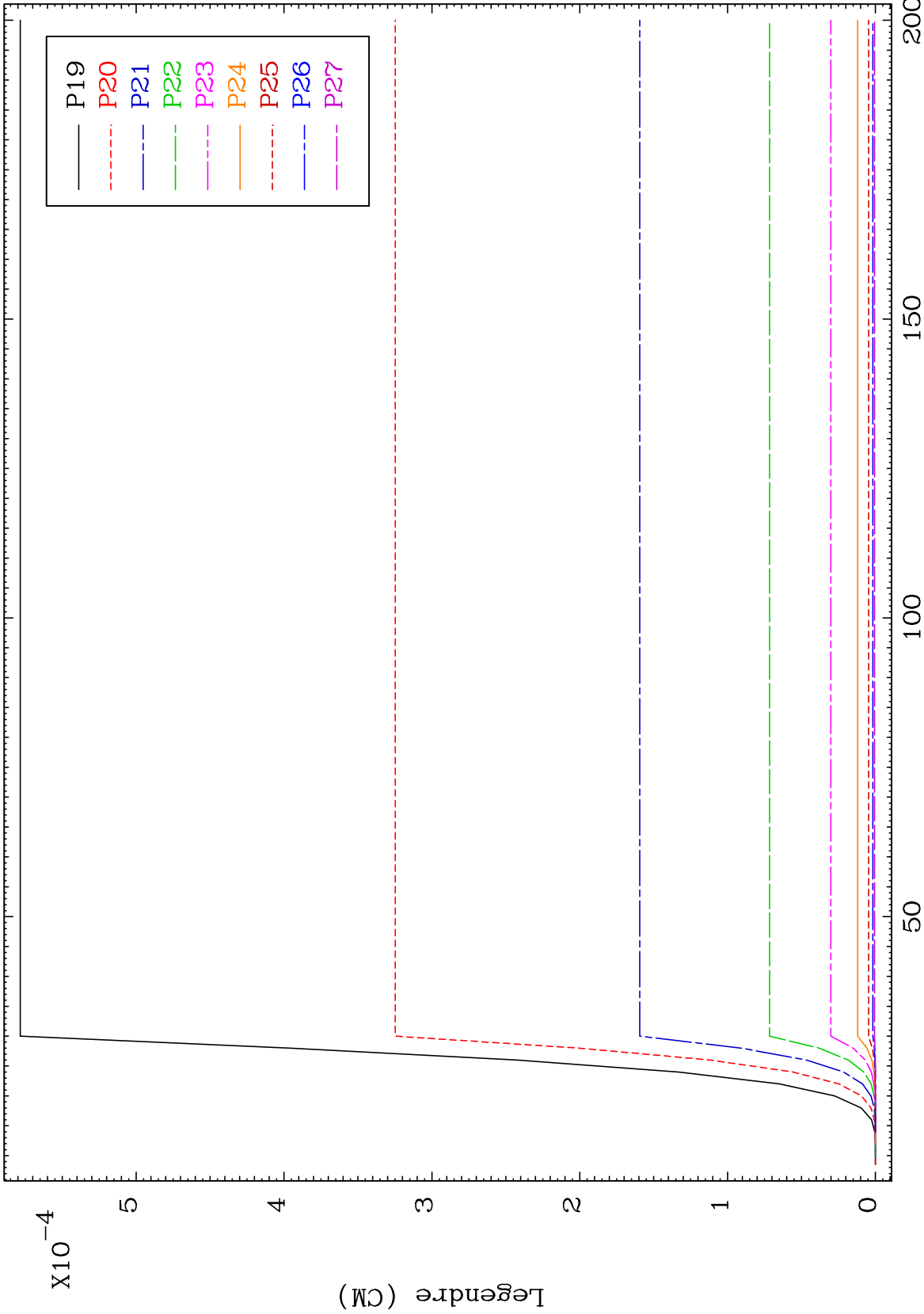
31



MAT 4013

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

40-Zr-86



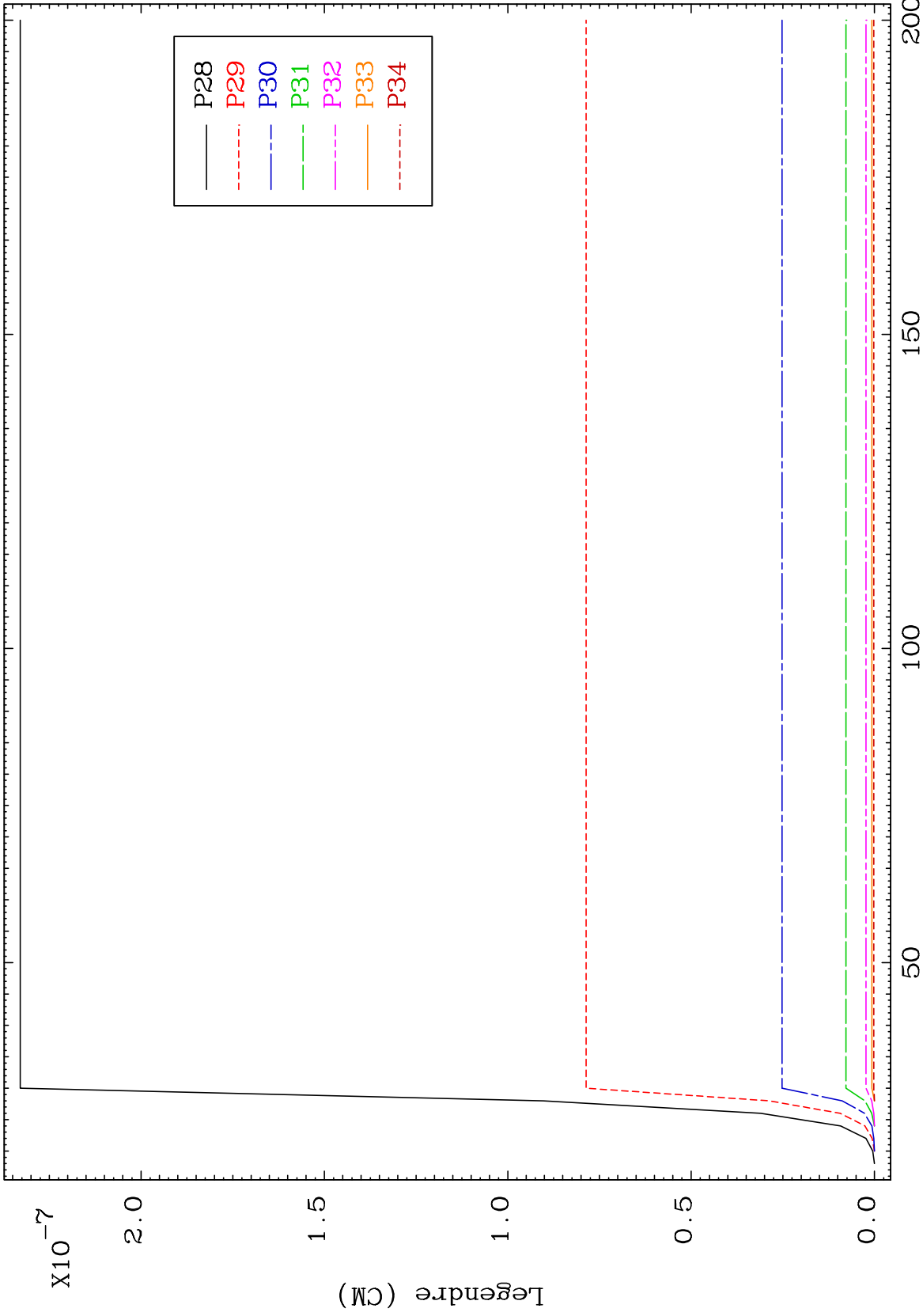
32

40-Zr-86

MAT 4013

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

40-Zr-86



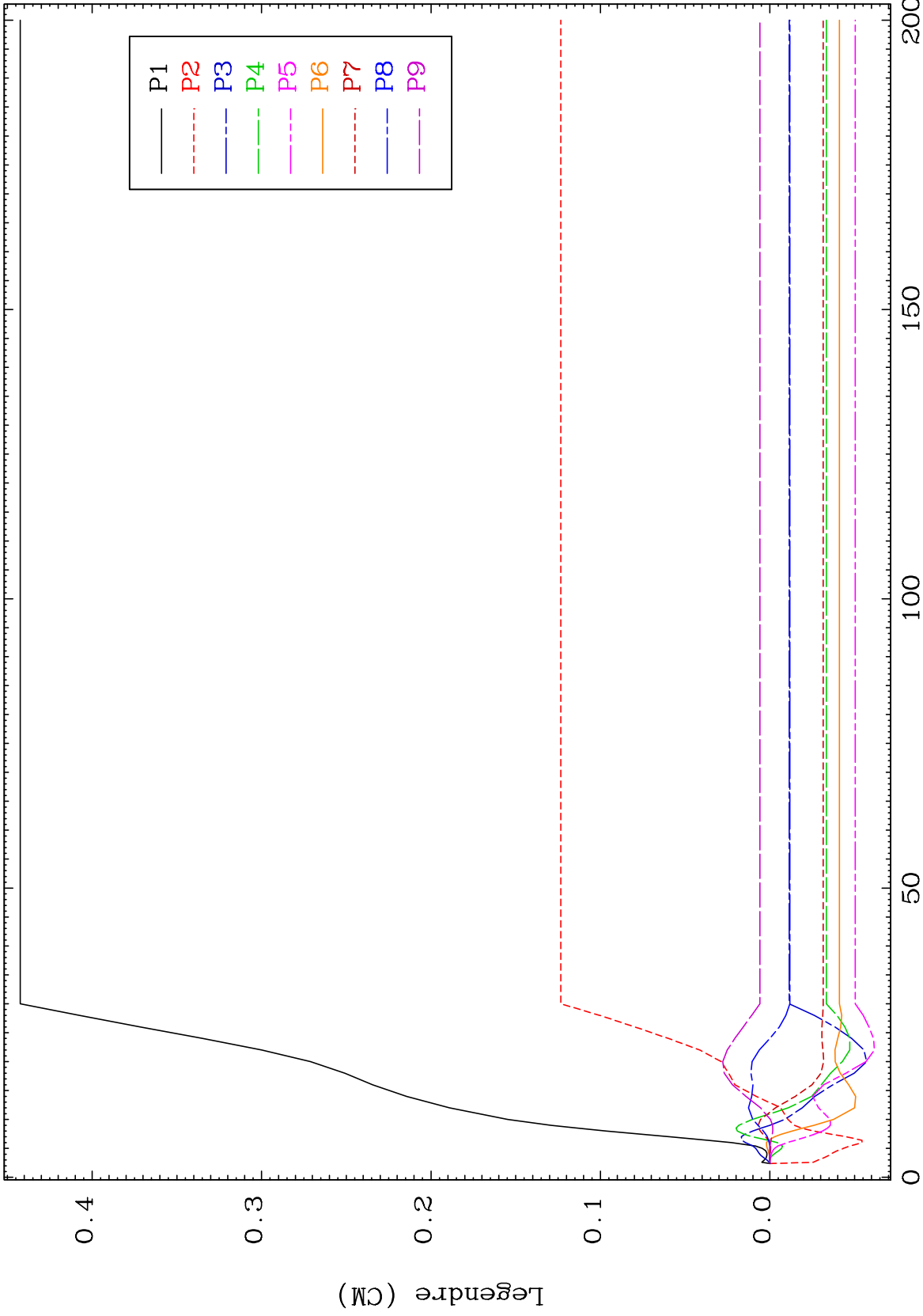
33

40-Zr-86

MAT 4013

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

40-Zr-86

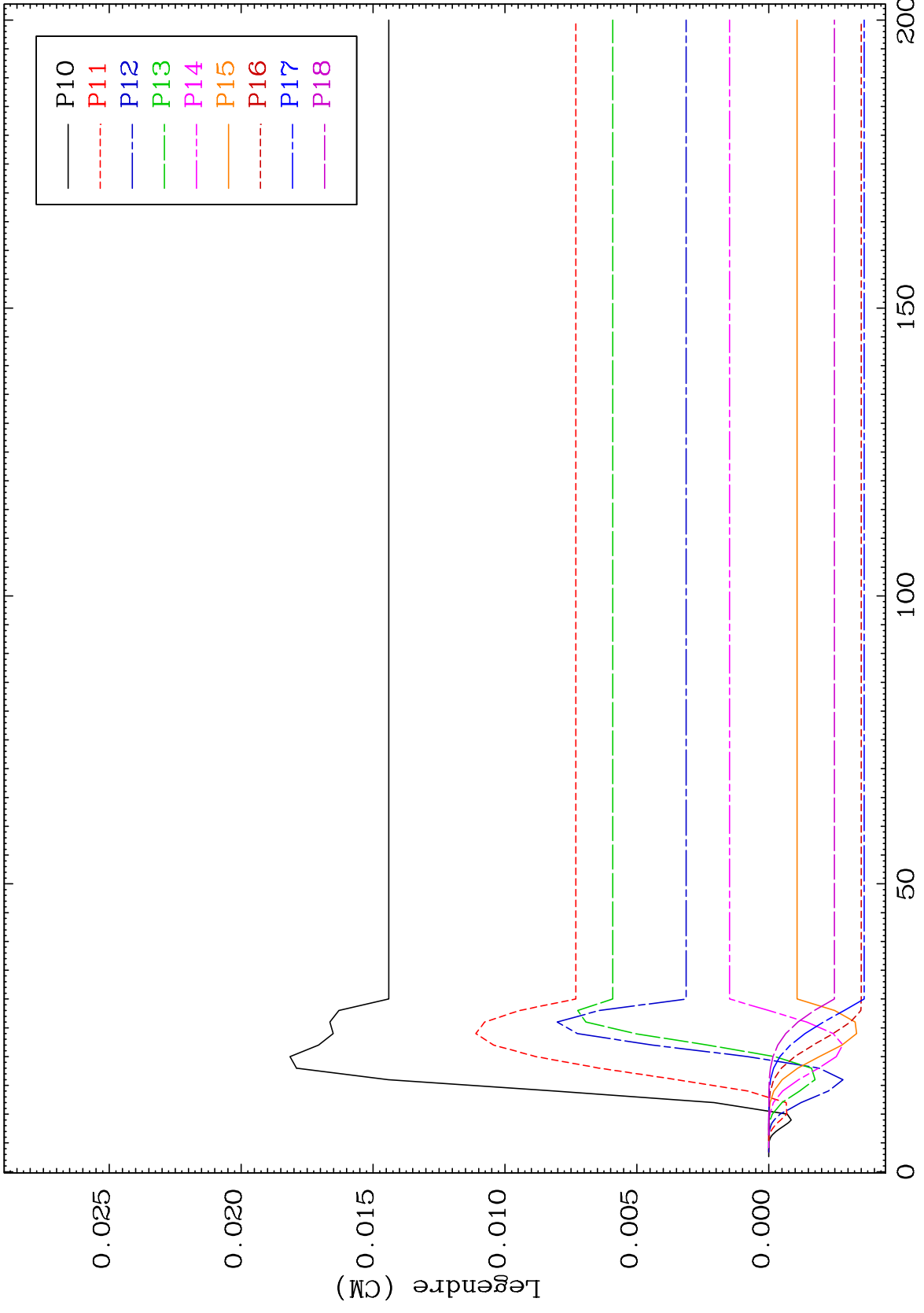


34

Incident Energy (MeV)

40-Zr-86

MAT 4013 MT= 55 (n,n') Level Legendre Coefficients 40-Zr-86

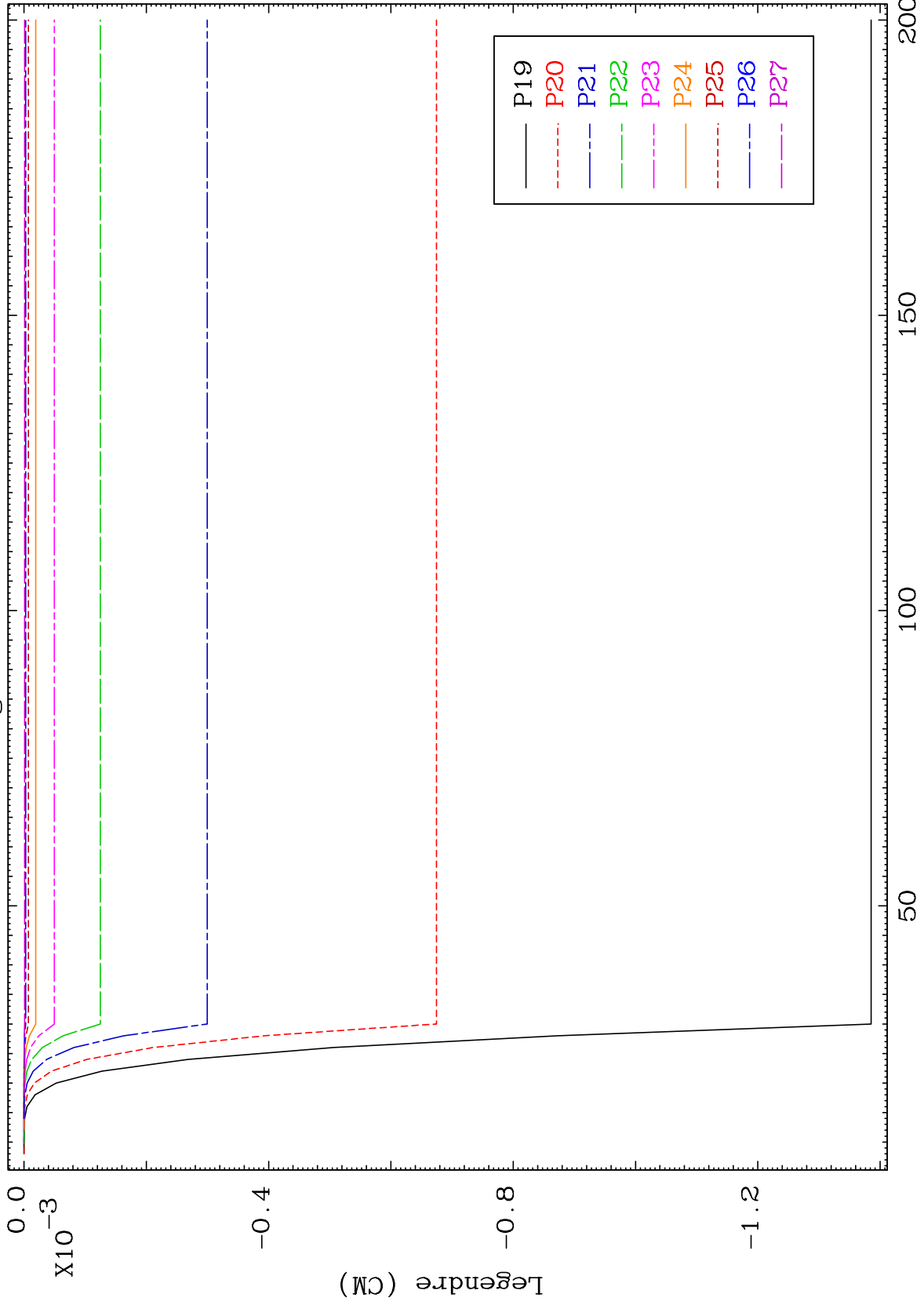


35 Incident Energy (MeV) 40-Zr-86

MAT 4013

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

40-Zr-86

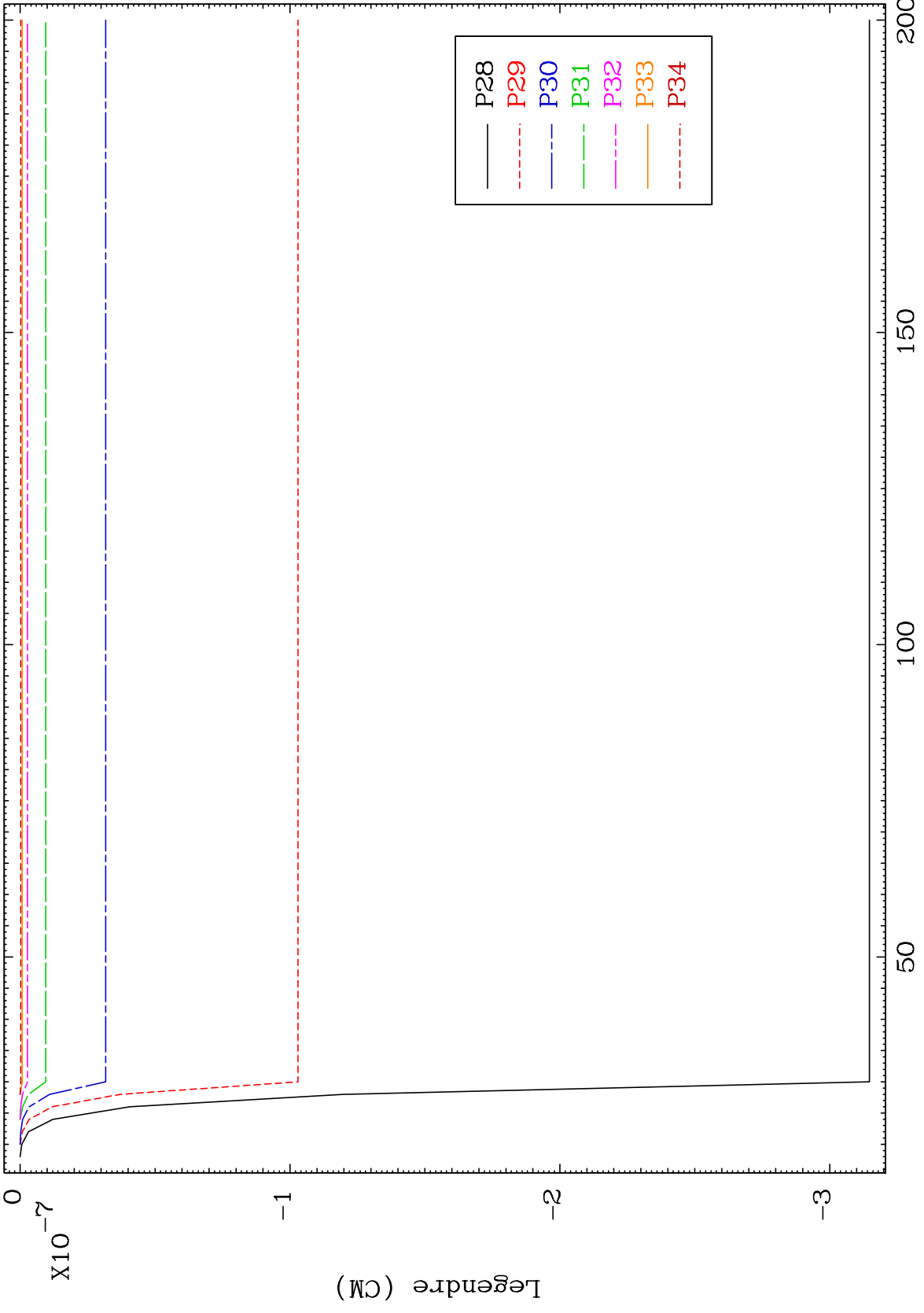


40-Zr-86

Incident Energy (MeV)

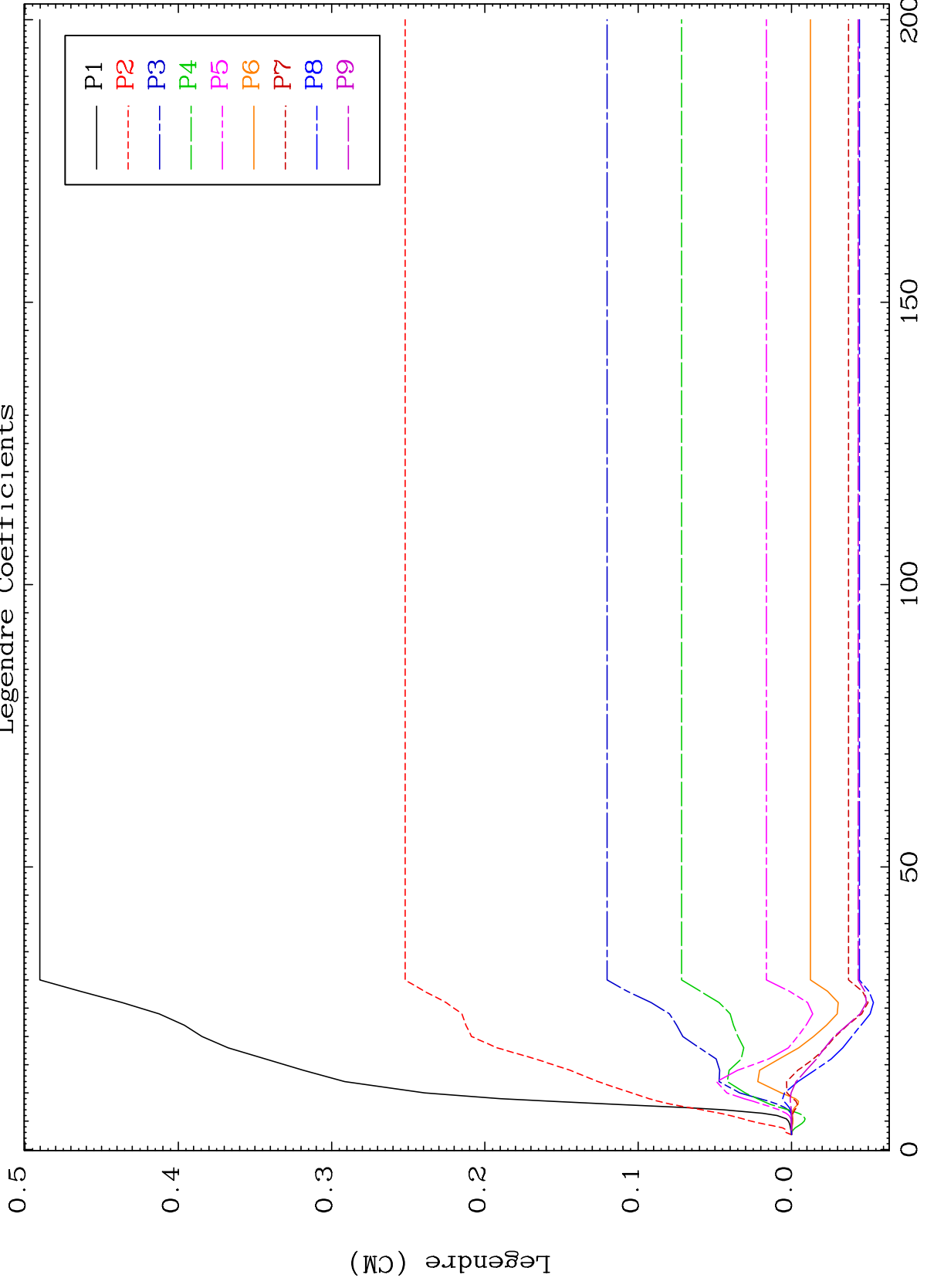
36

MAT 4013 MT= 55 (n,n') Level Legendre Coefficients 40-Zr-86



37 Incident Energy (MeV) 40-Zr-86

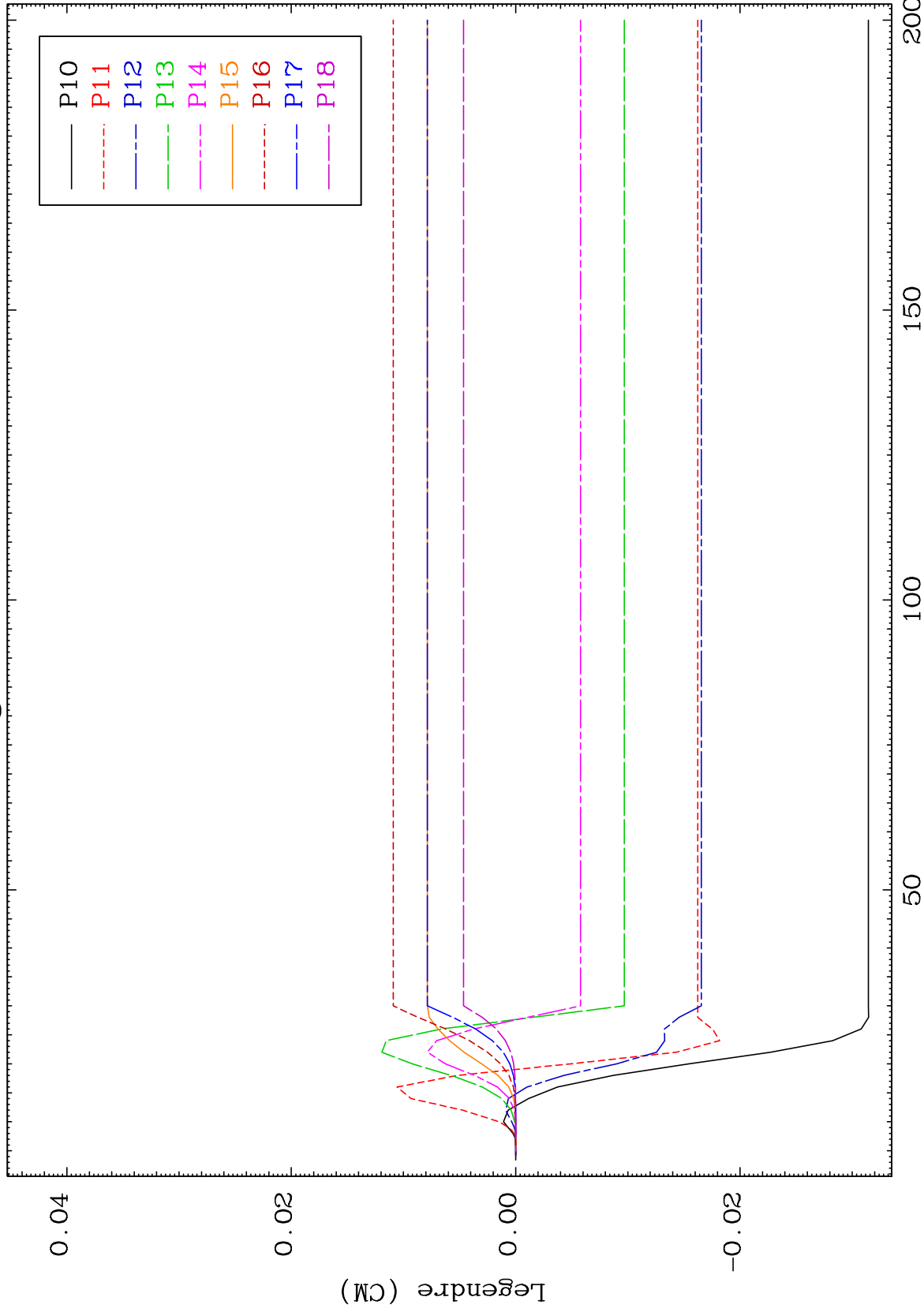
MAT 4013 MT= 56 (n,n') Level Legendre Coefficients 40-Zr-86



MAT 4013

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

40-Zr-86



39

Incident Energy (MeV)

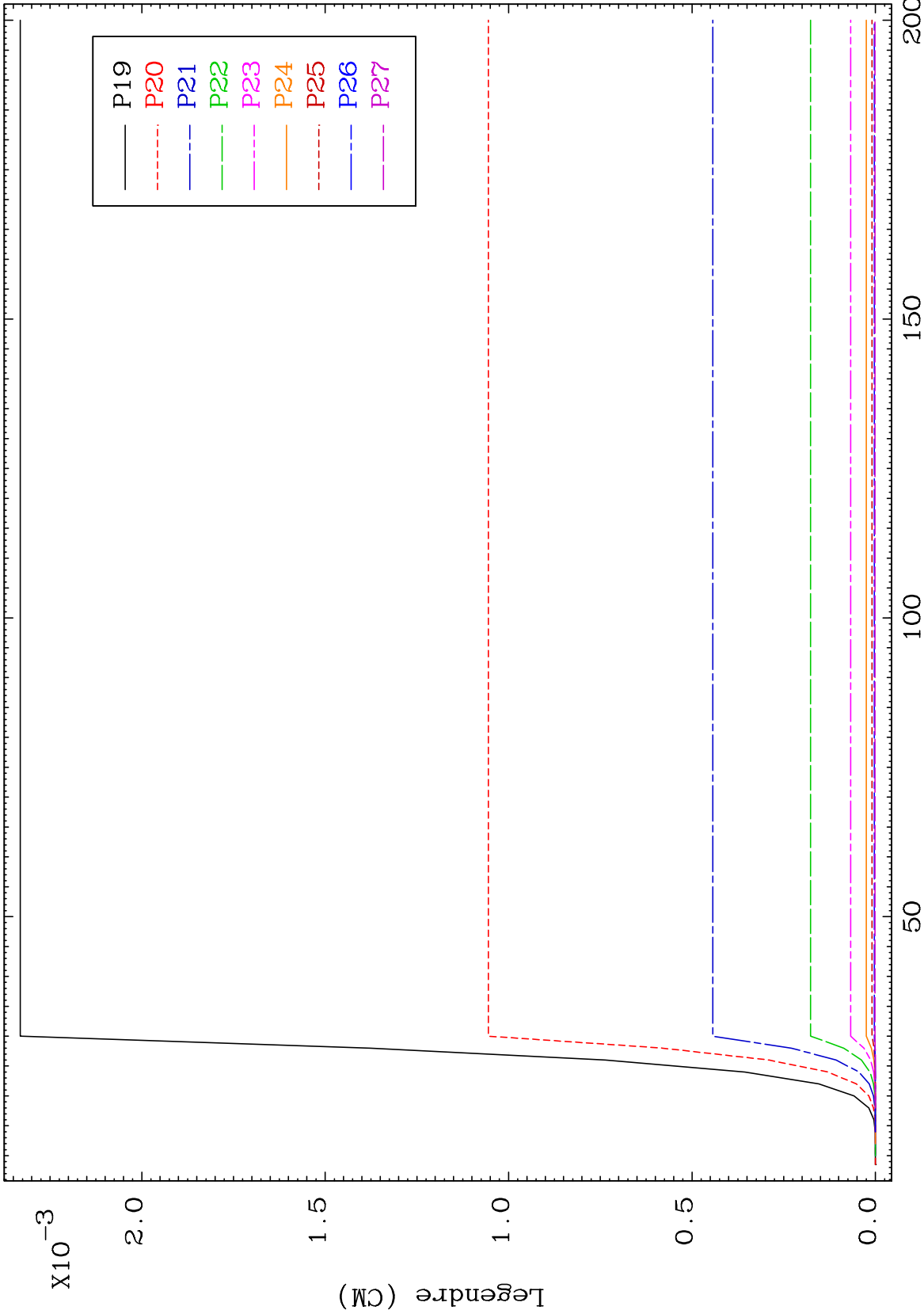
40-Zr-86



MAT 4013

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

40-Zr-86



40

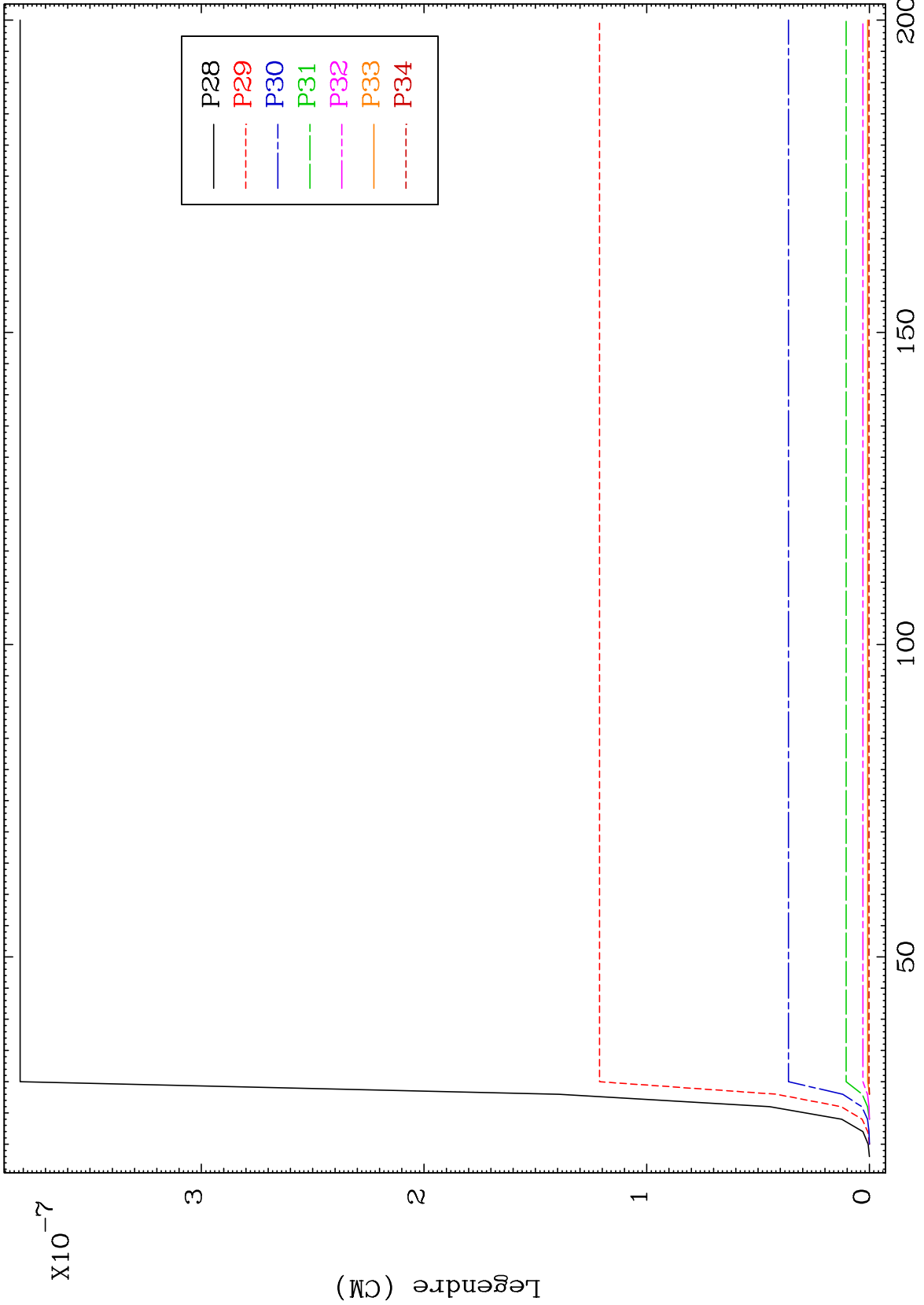
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86

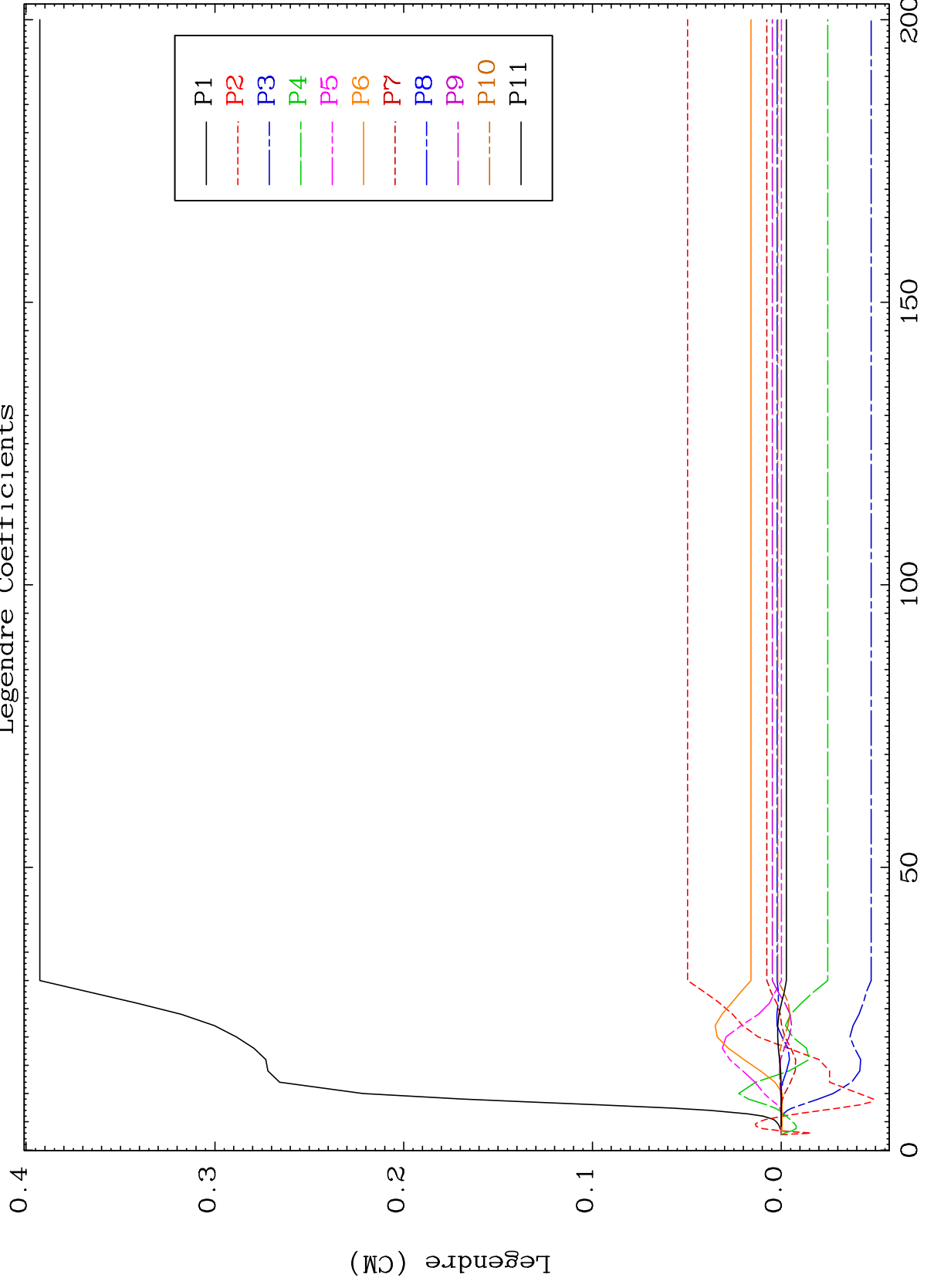


41

Incident Energy (MeV)

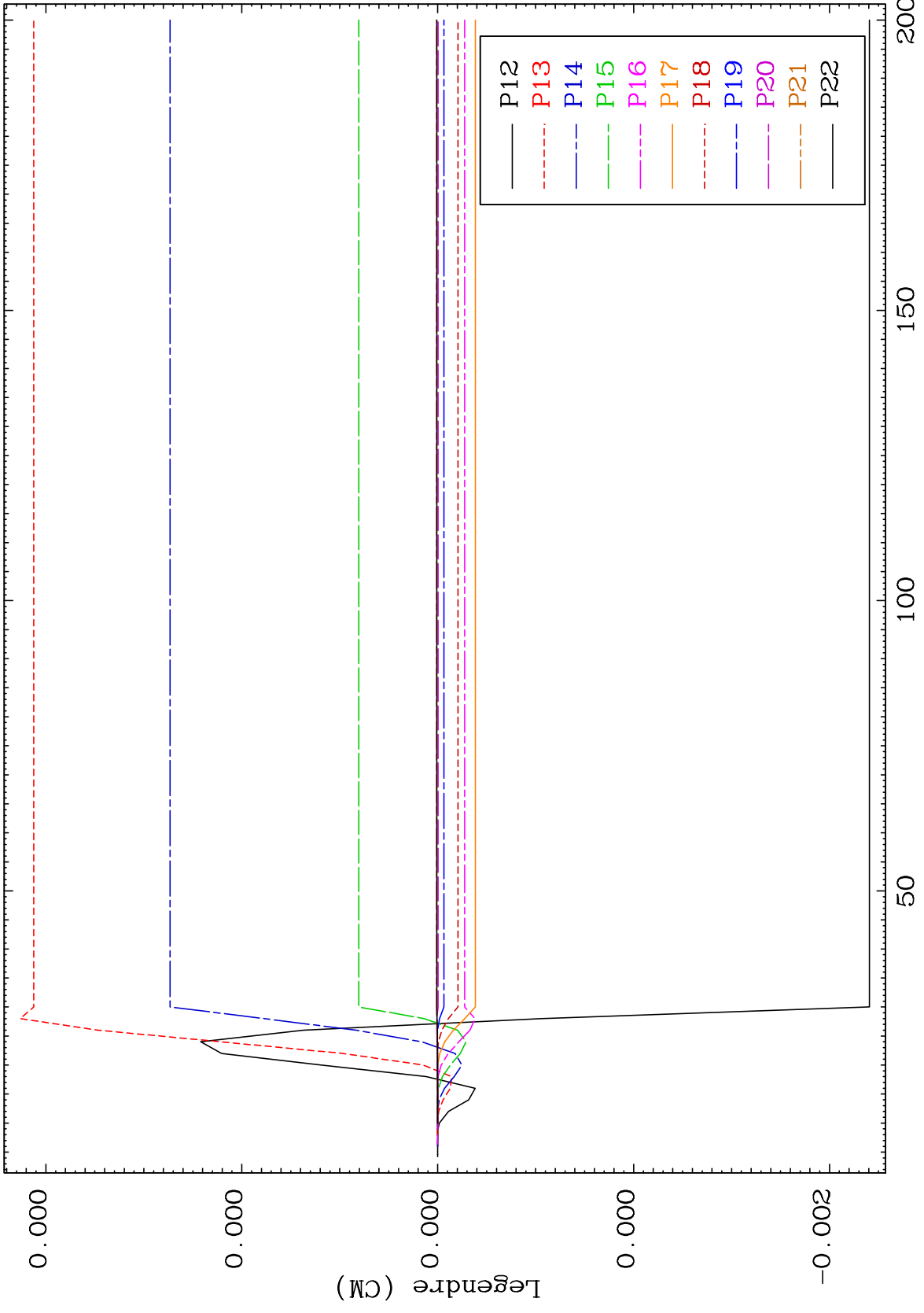
40-Zr-86

MAT 4013 MT= 57 (n,n') Level Legendre Coefficients 40-Zr-86



42 40-Zr-86

MAT 4013 MT= 57 (n,n') Level Legendre Coefficients 40-Zr-86

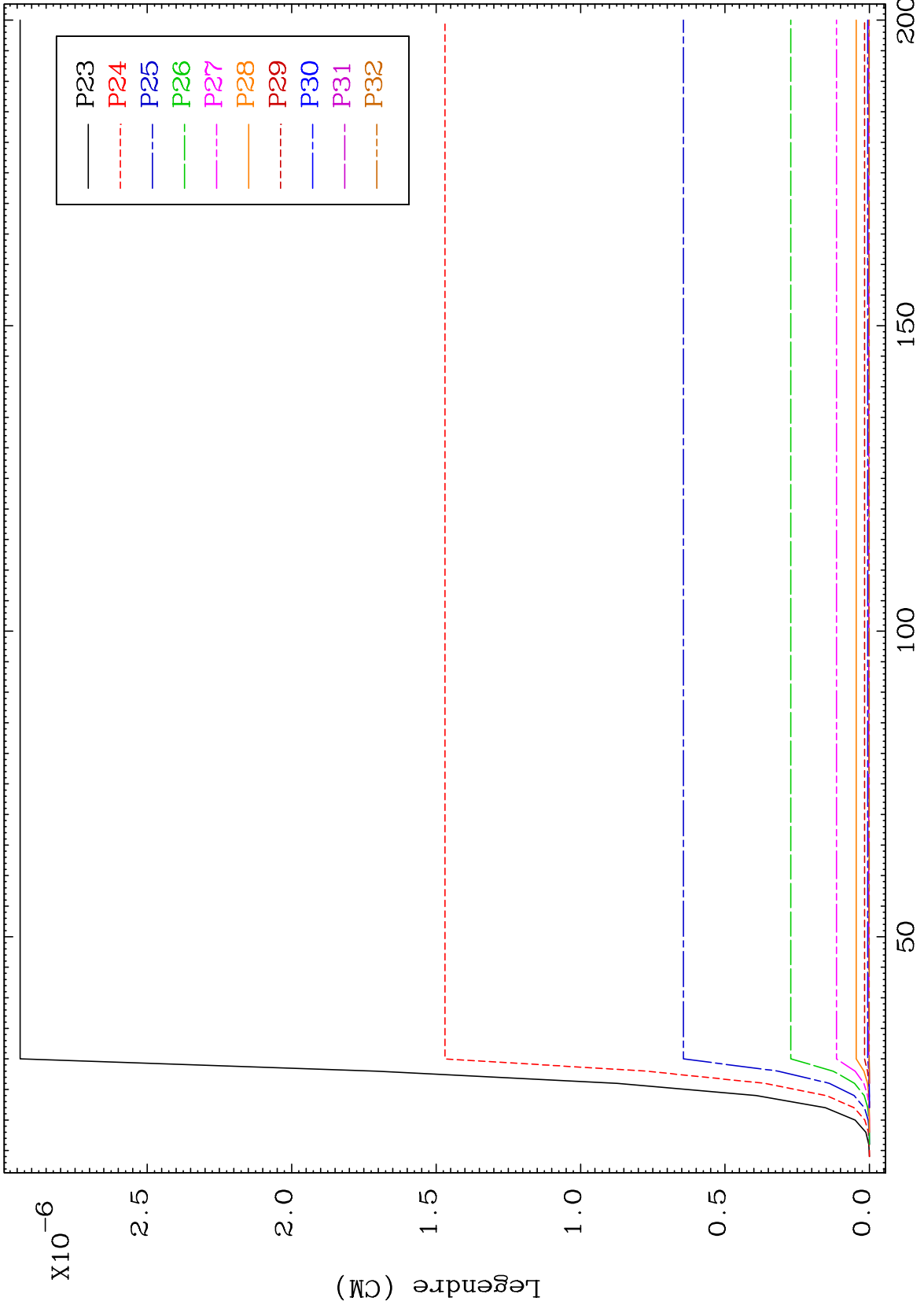


43 40-Zr-86

MAT 4013

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

40-Zr-86

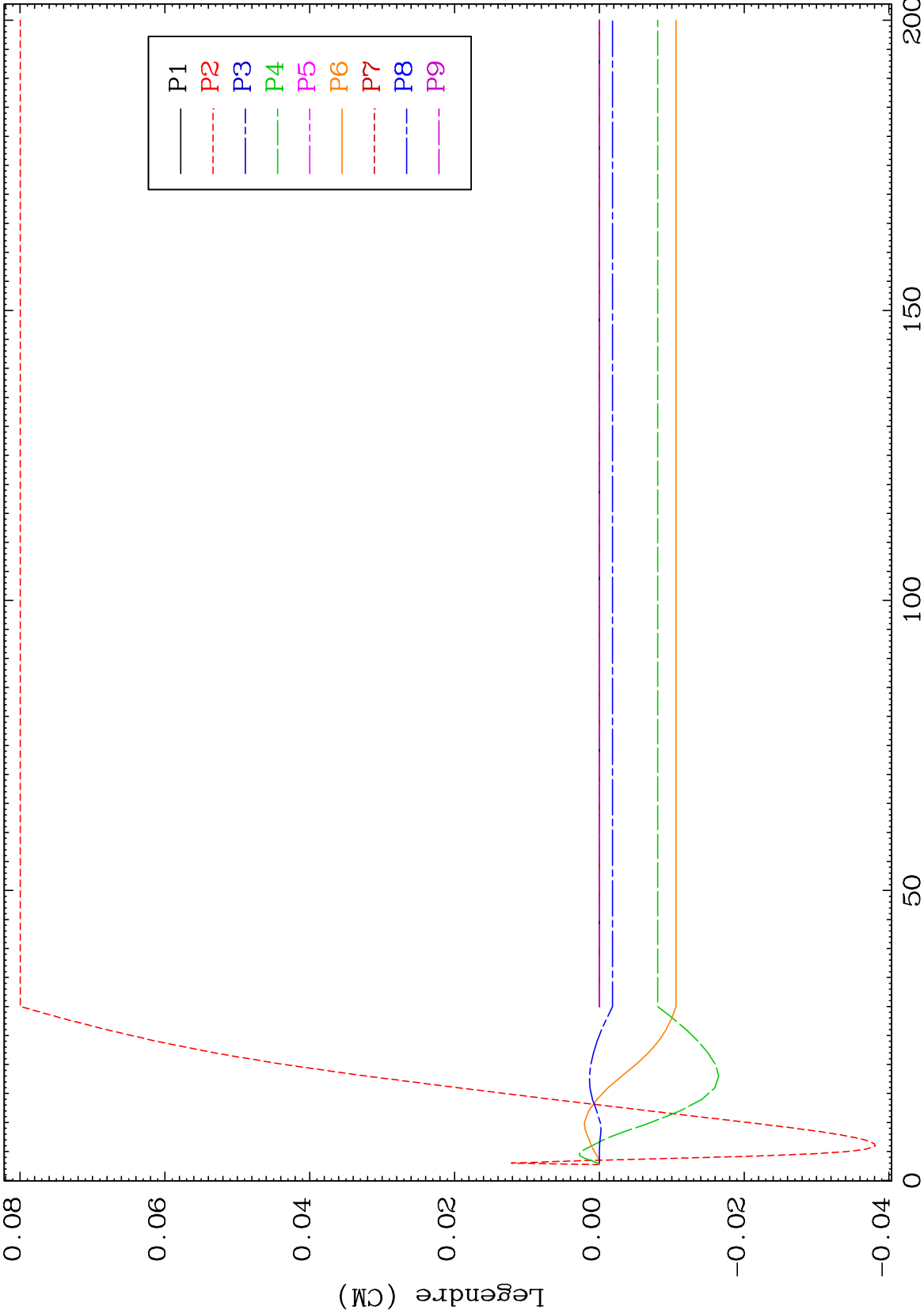


44

40-Zr-86

MAT 4013 MT= 58 (n,n') Level Legendre Coefficients

40-Zr-86



40-Zr-86

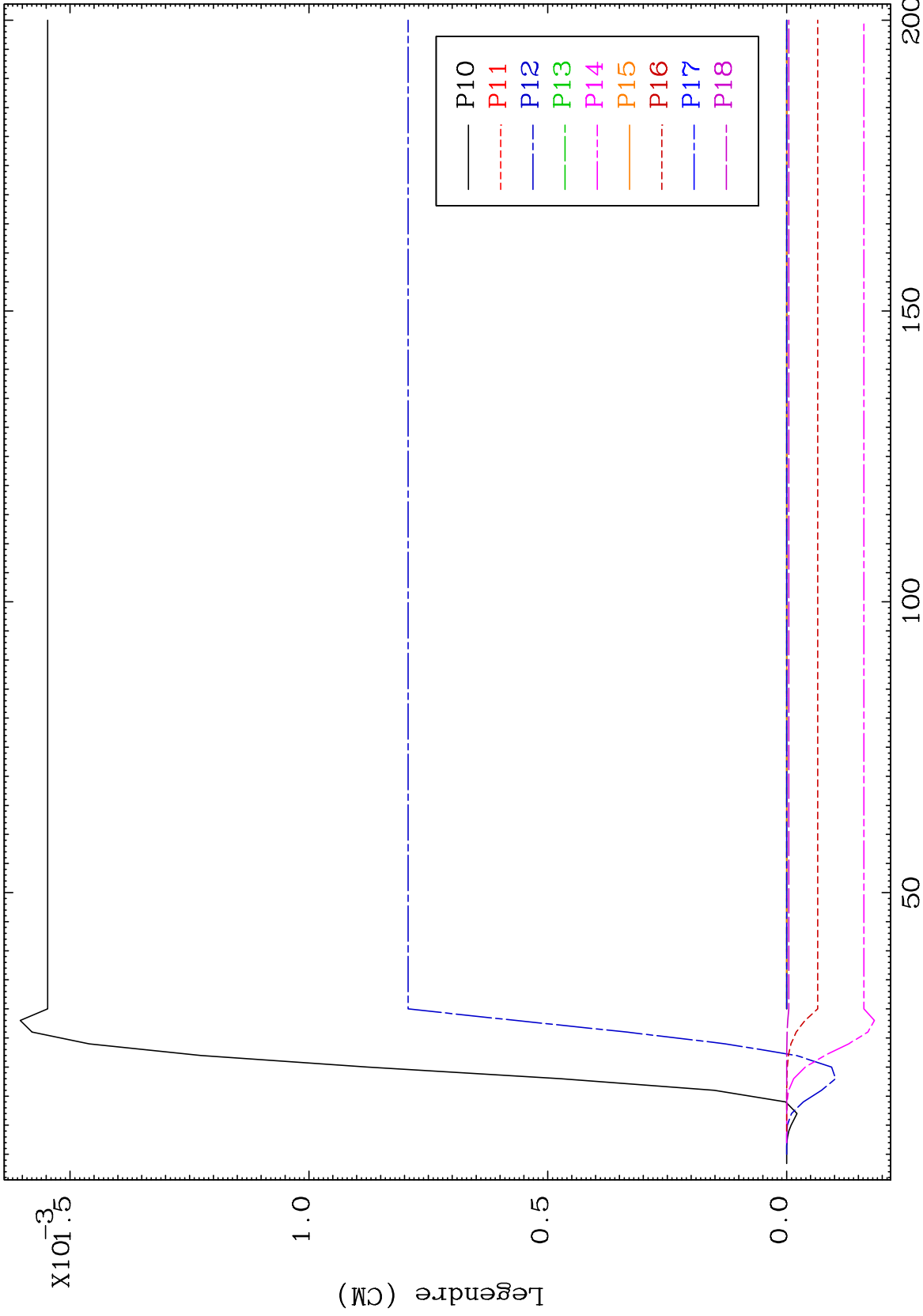
Incident Energy (MeV)

45

MAT 4013

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

40-Zr-86

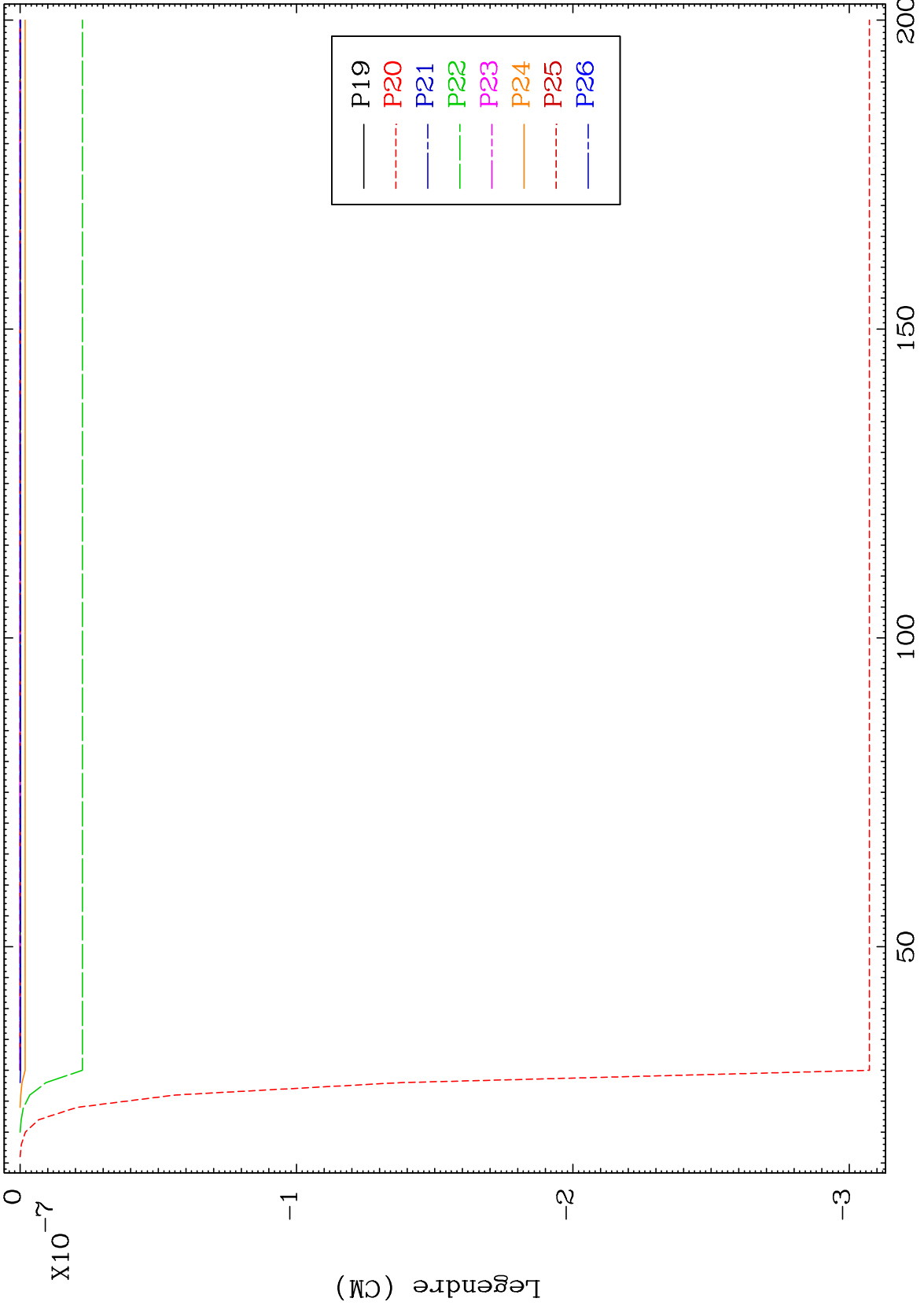


46

Incident Energy (MeV)

40-Zr-86

MAT 4013 MT= 58 (n,n') Level Legendre Coefficients 40-Zr-86



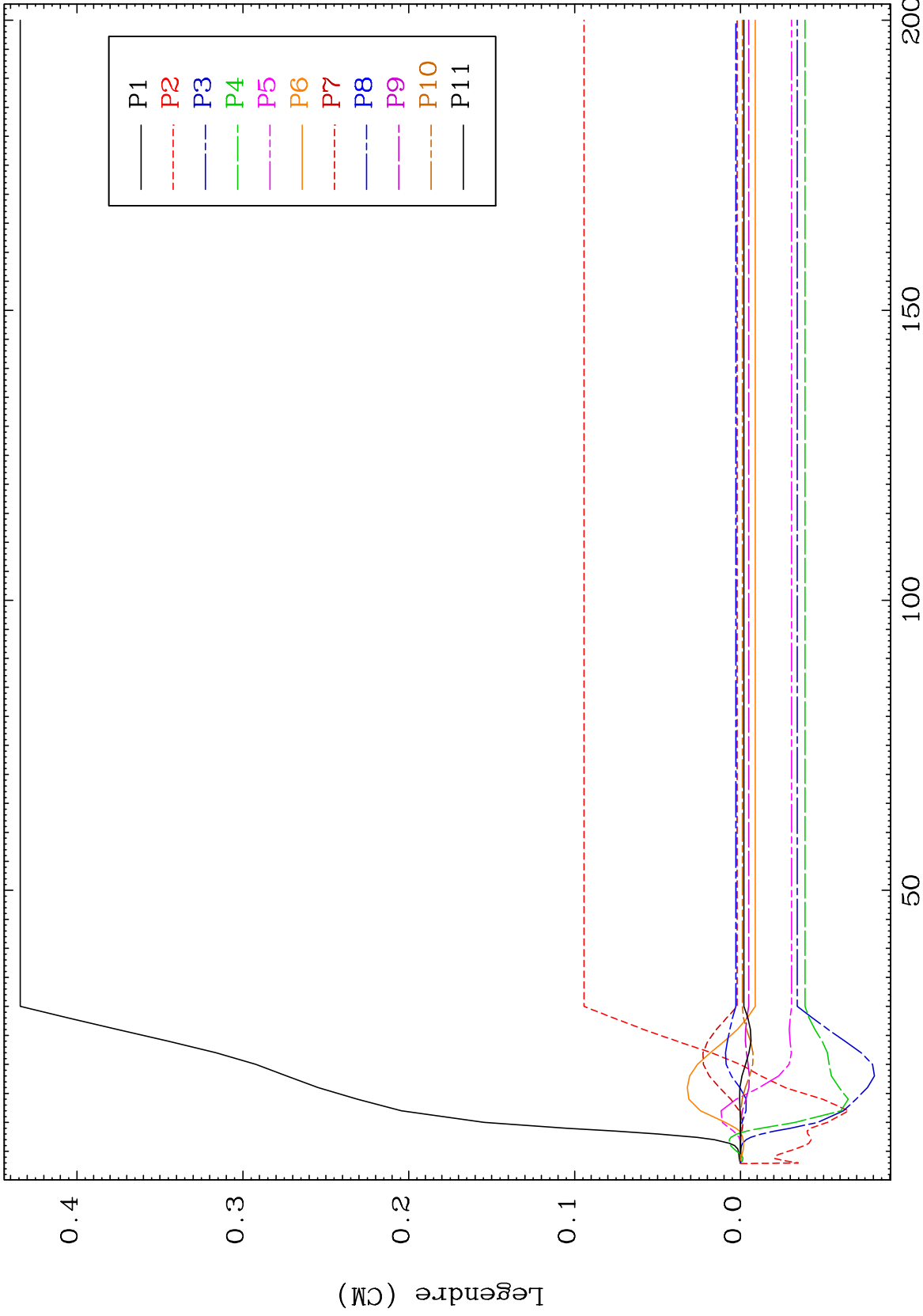
47 40-Zr-86



MAT 4013

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

40-Zr-86



48

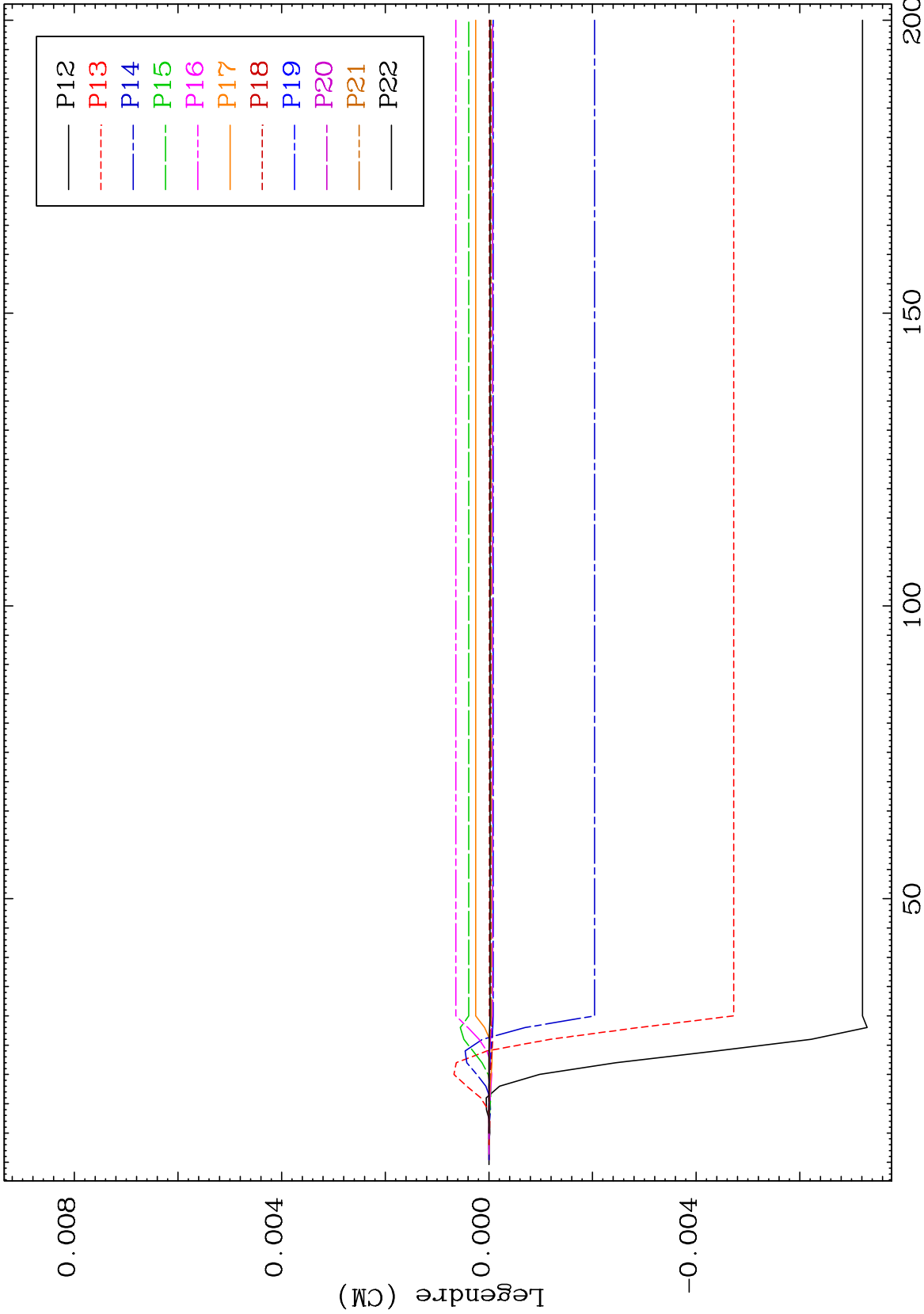
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86



49

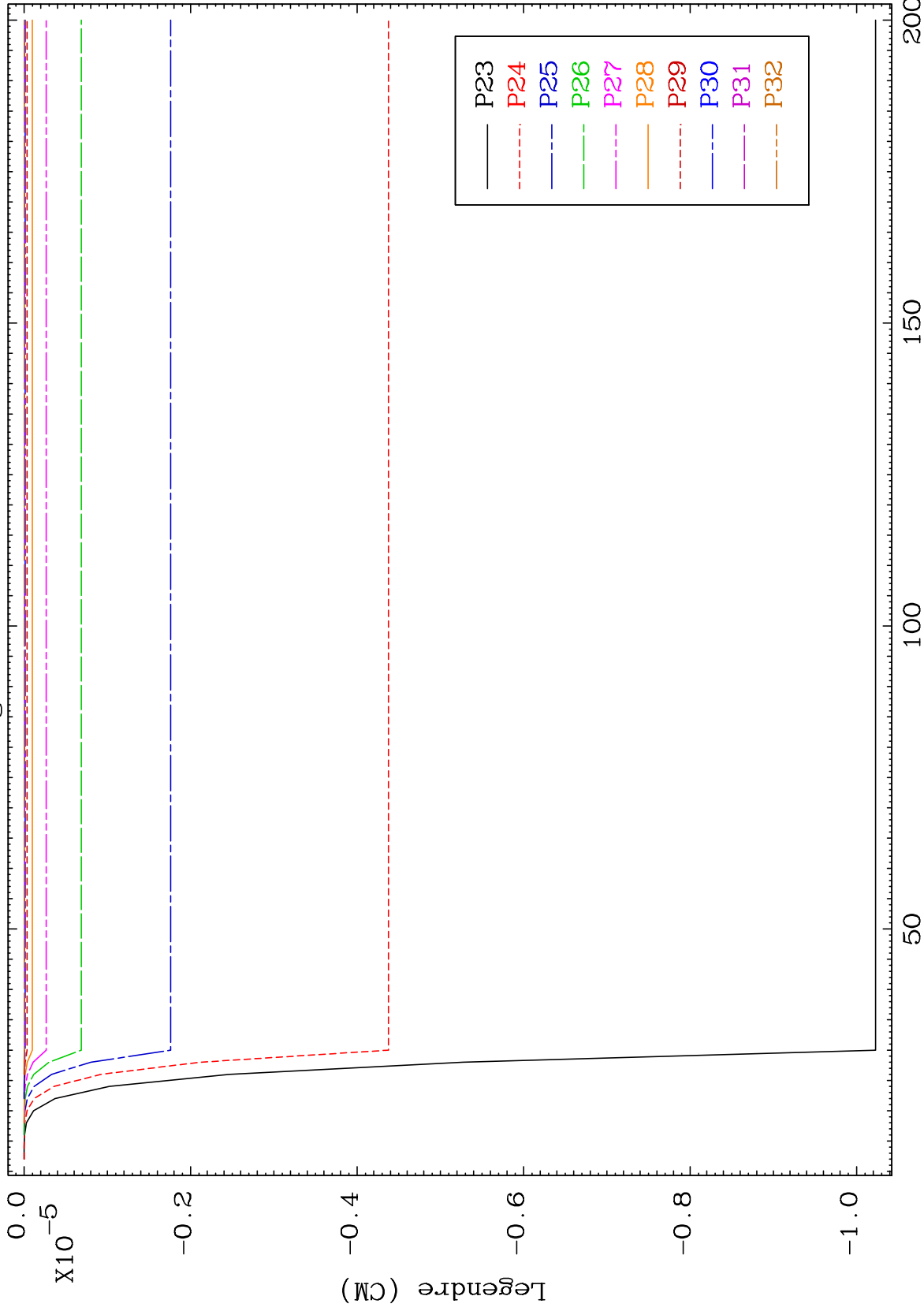
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86

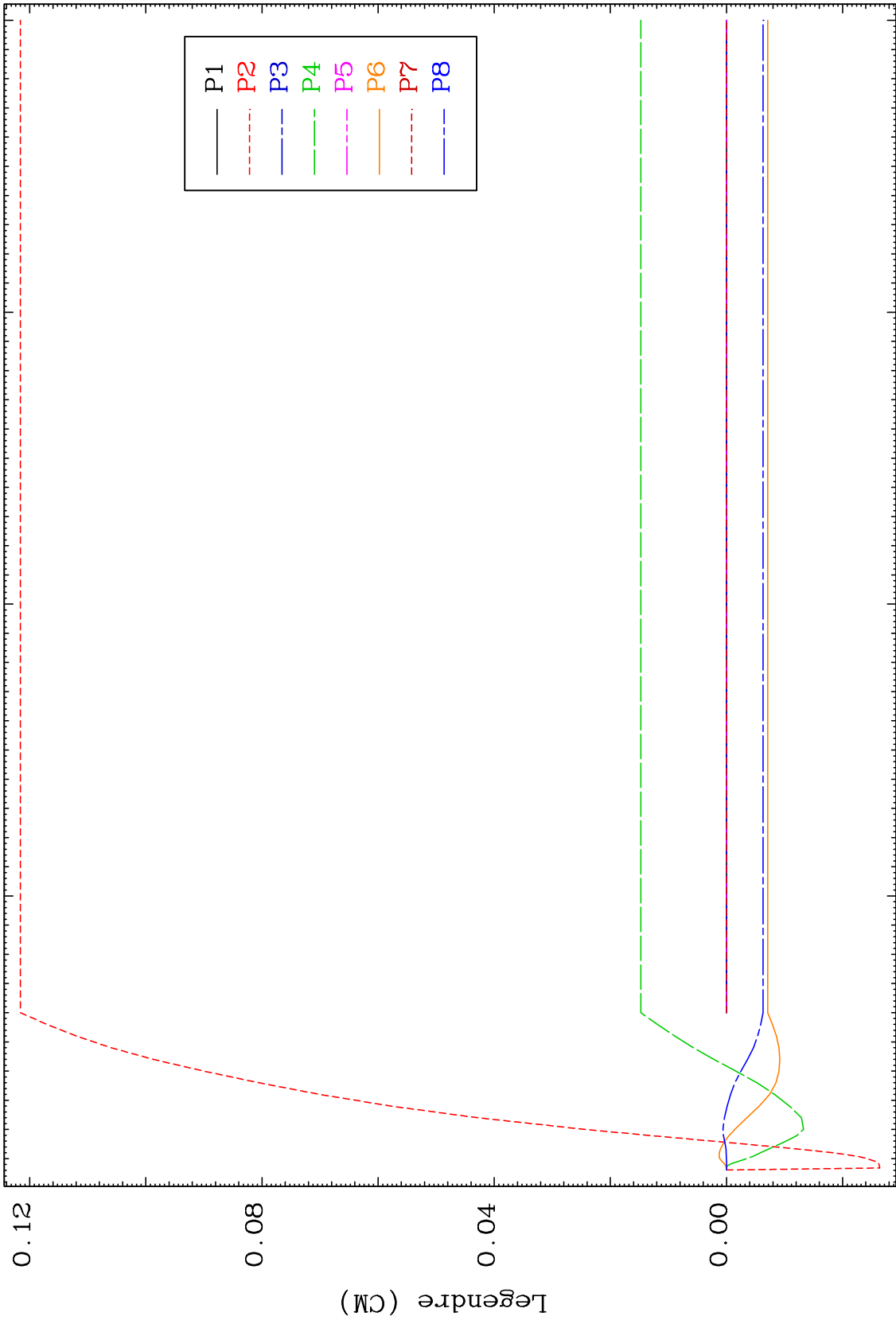


40-Zr-86

Incident Energy (MeV)

50

MAT 4013 MT= 60 (n,n') Level Legendre Coefficients 40-Zr-86

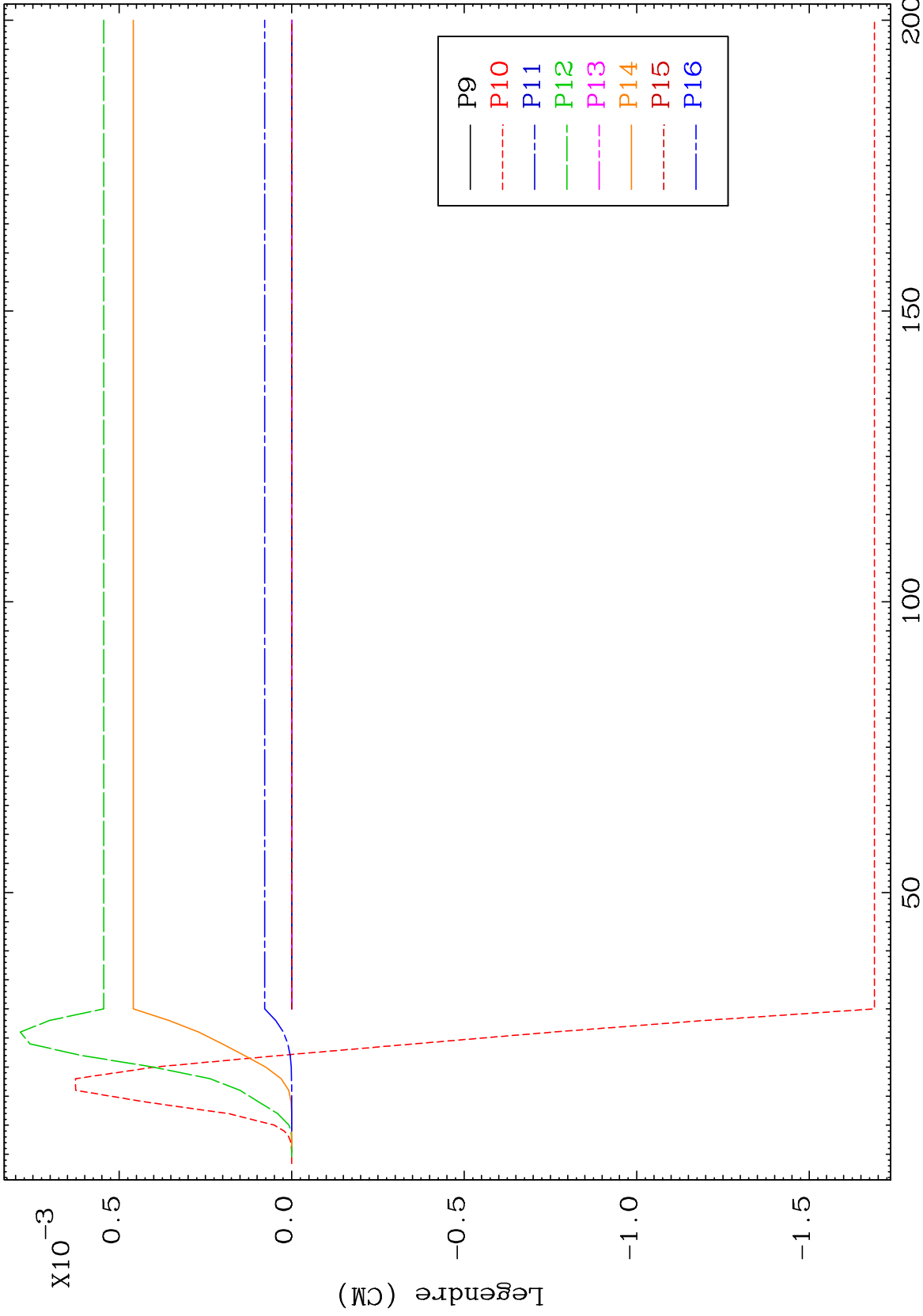


51 Incident Energy (MeV) 40-Zr-86

MAT 4013

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

40-Zr-86

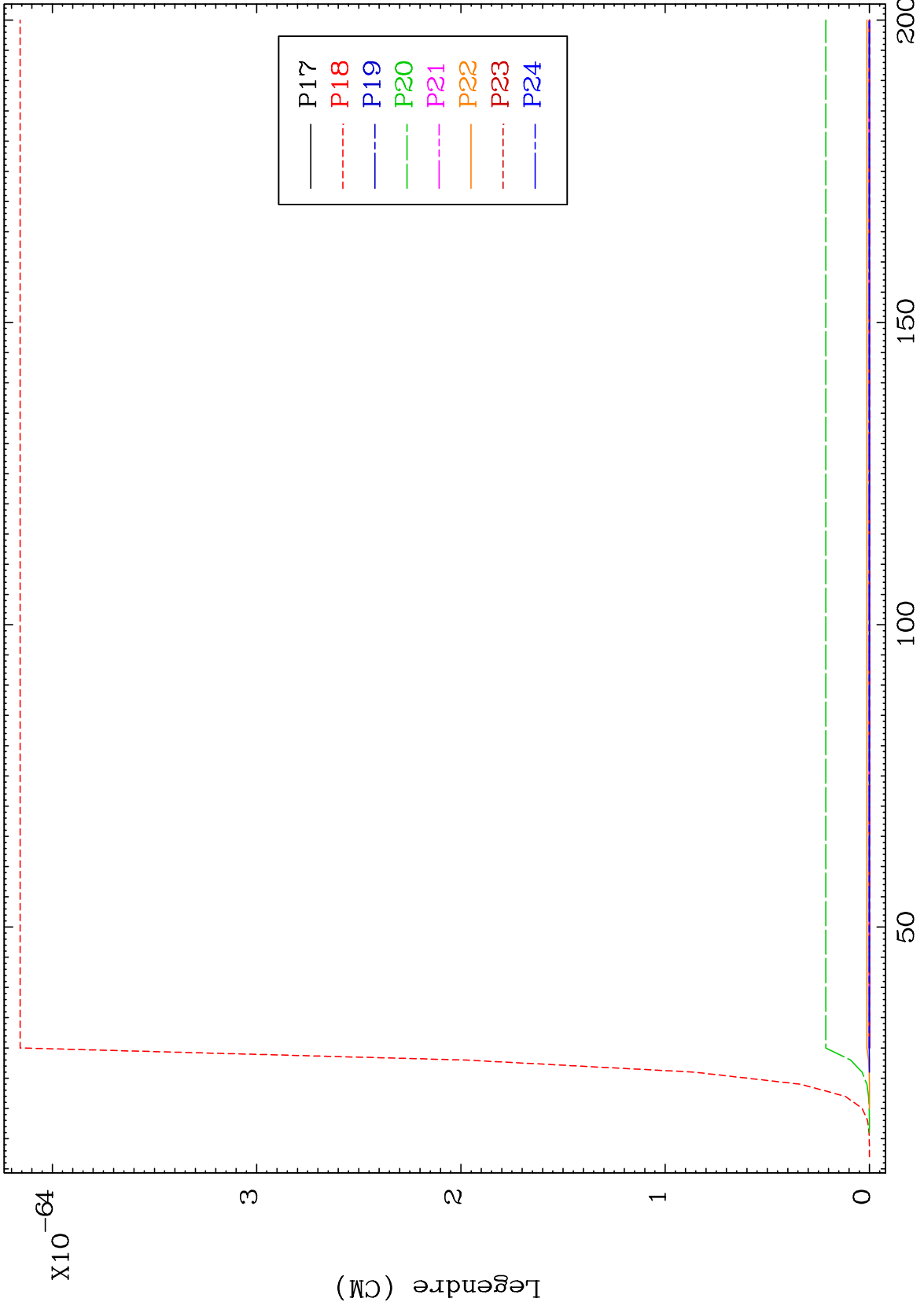


52

Incident Energy (MeV)

40-Zr-86

MAT 4013 MT= 60 (n,n') Level Legendre Coefficients 40-Zr-86

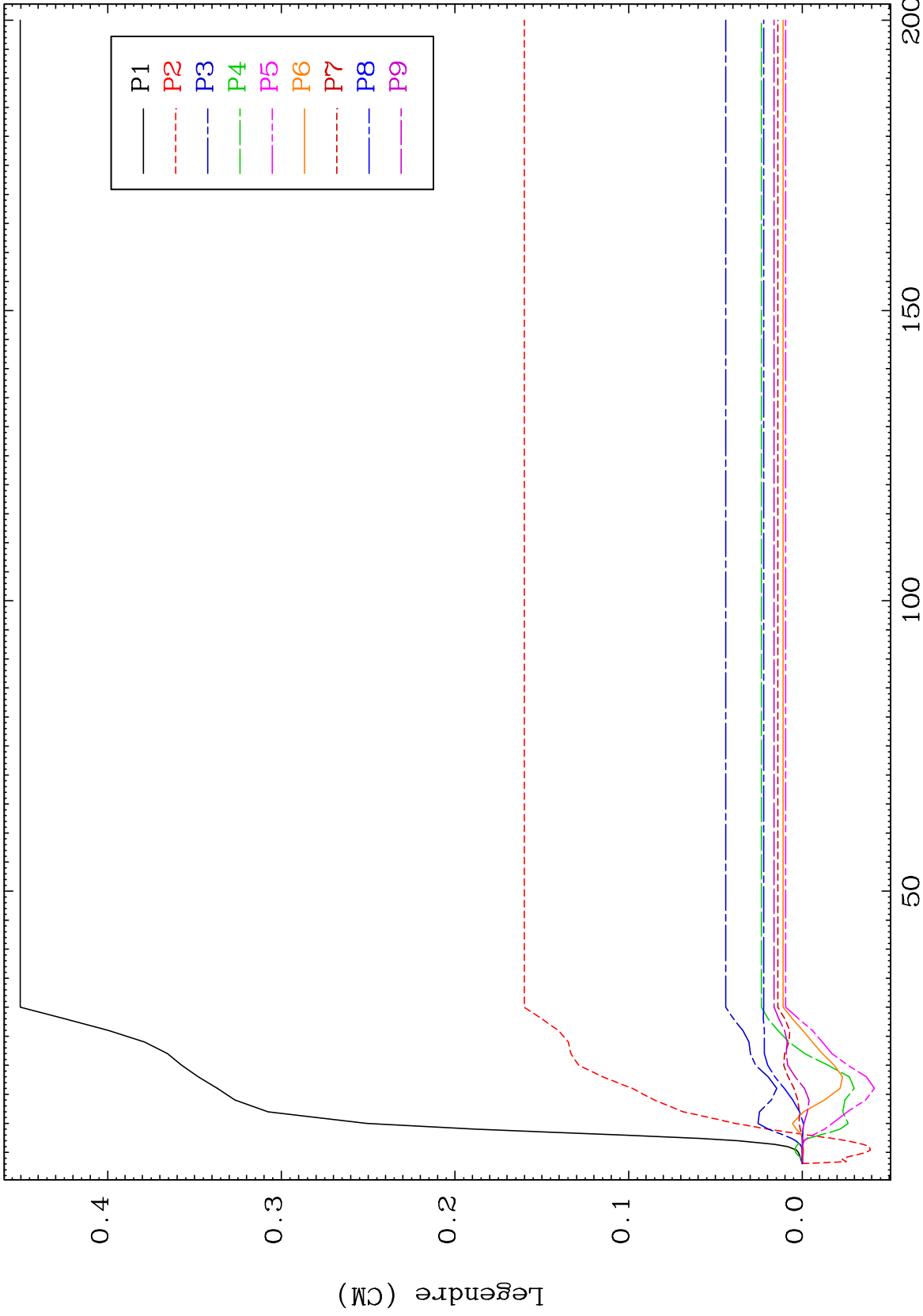


53 100 150 200 40-Zr-86

MAT 4013

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

40-Zr-86



54

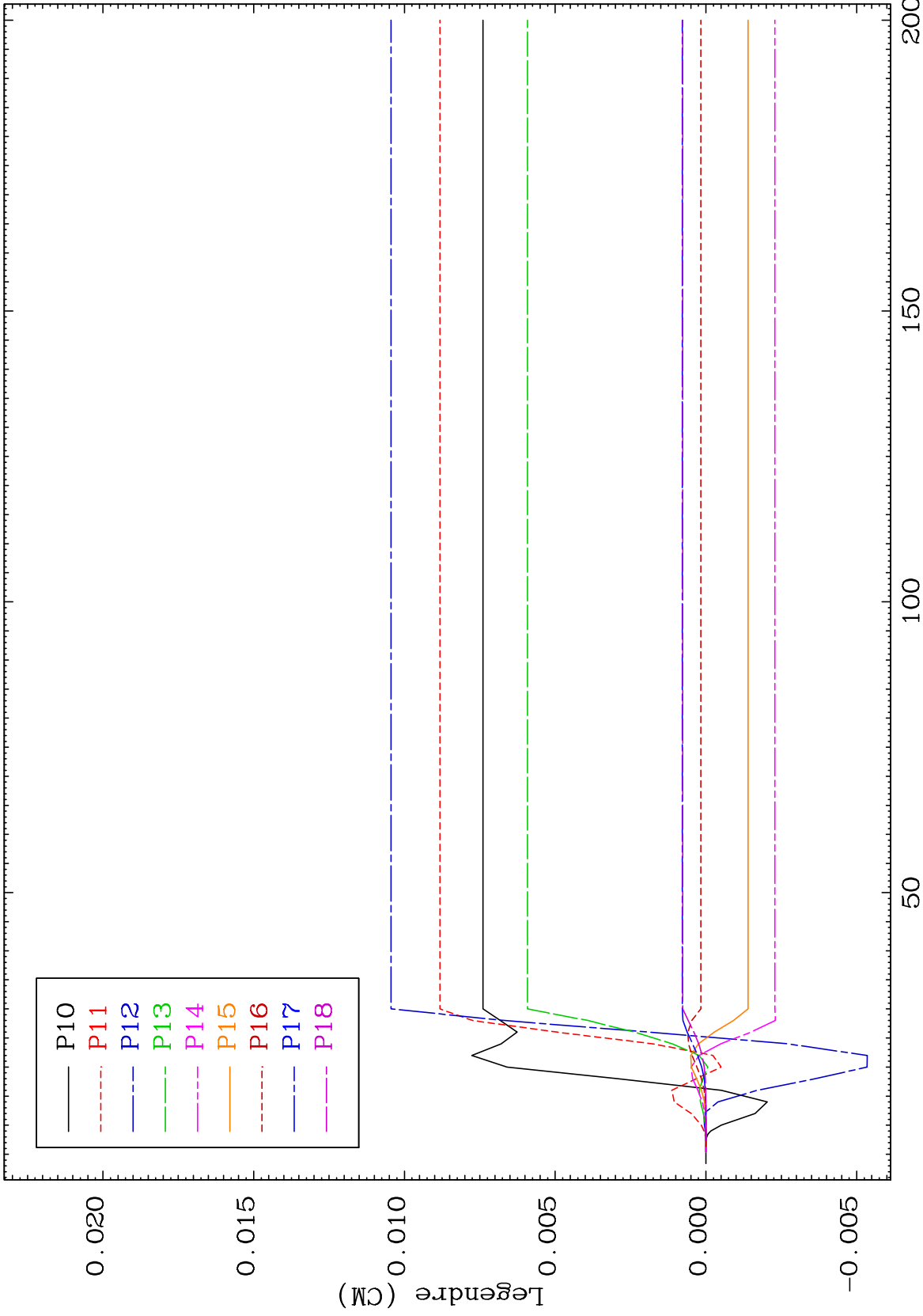
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86



55

Incident Energy (MeV)

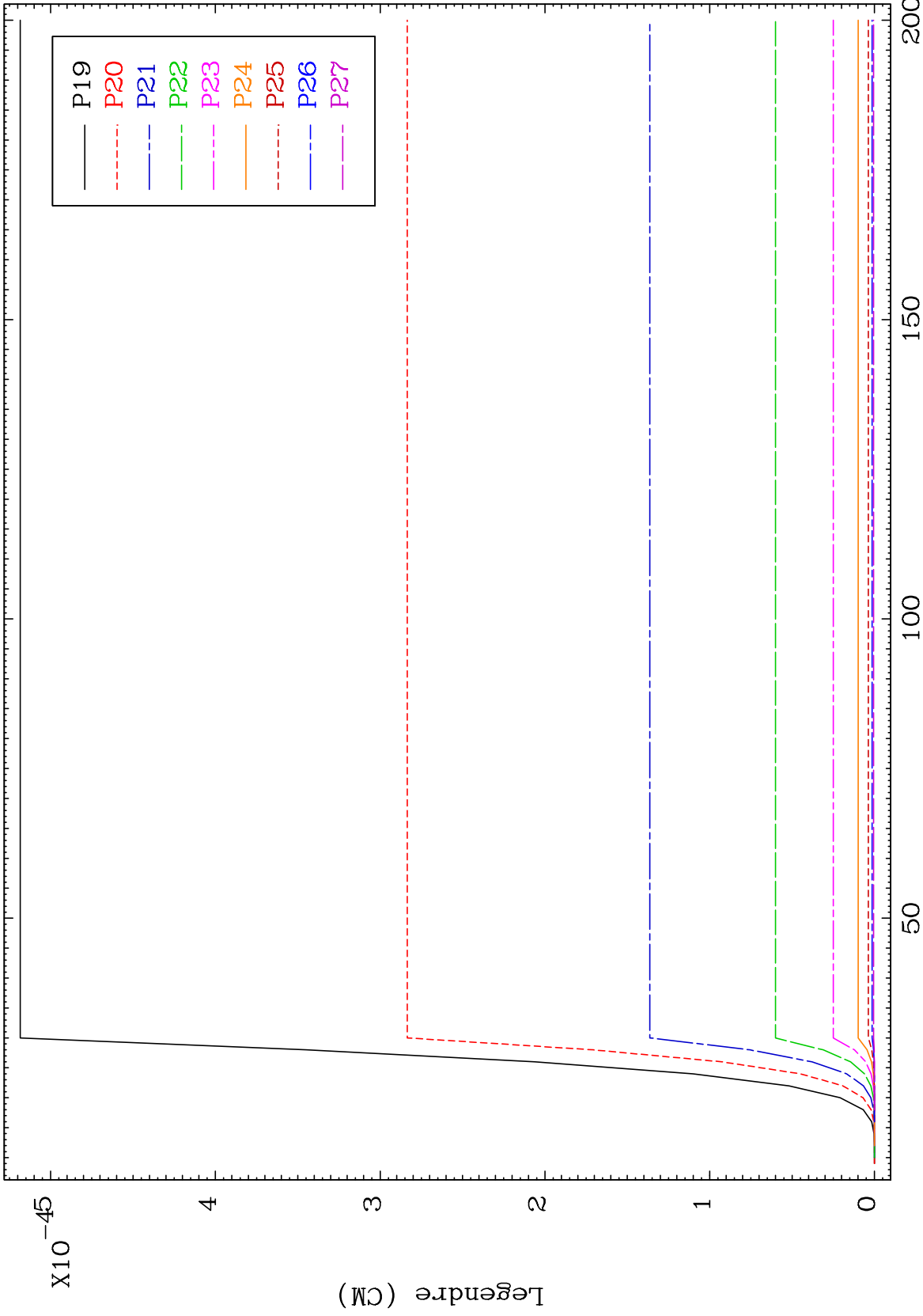
40-Zr-86



MAT 4013

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

40-Zr-86



56

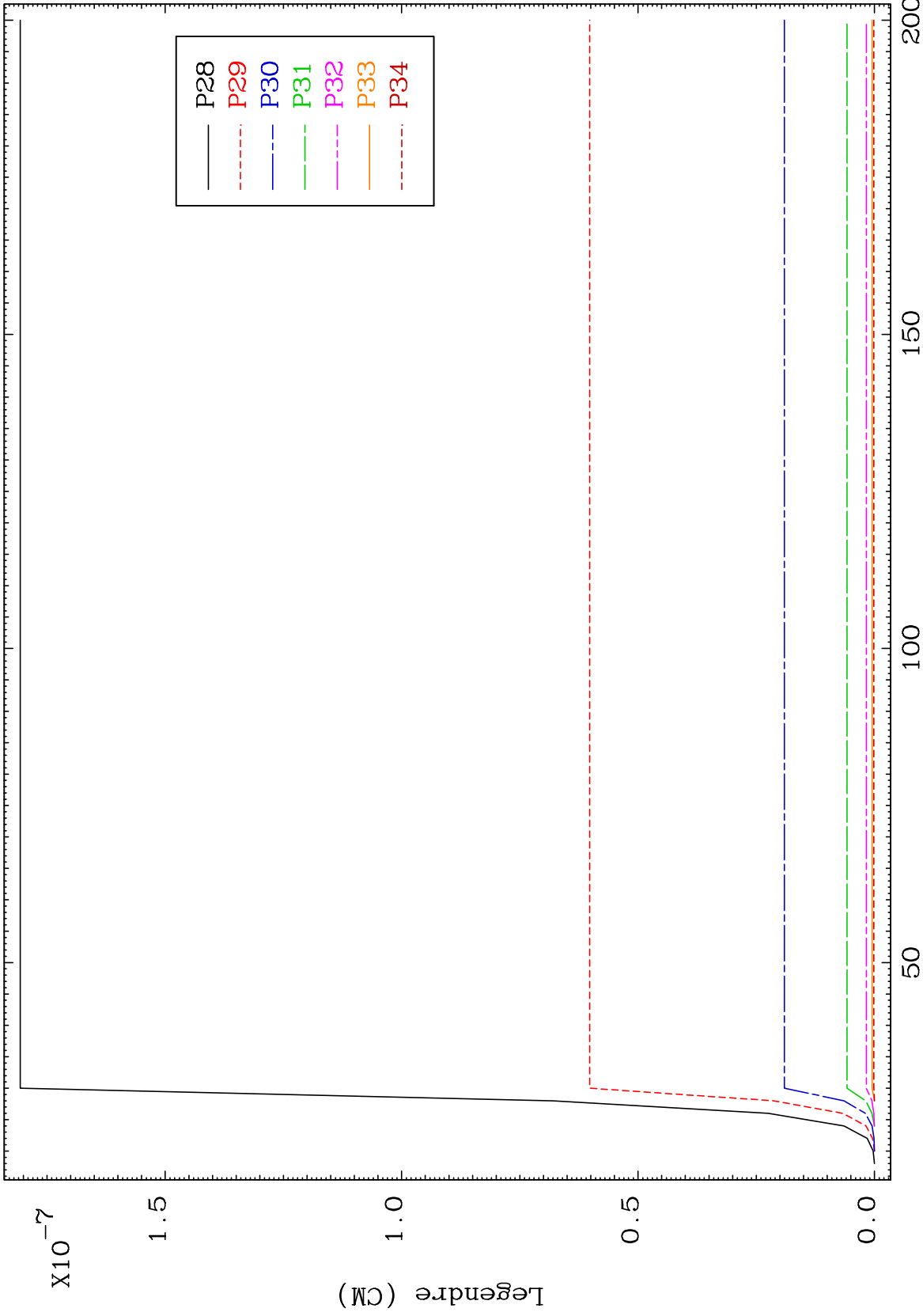
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86



57

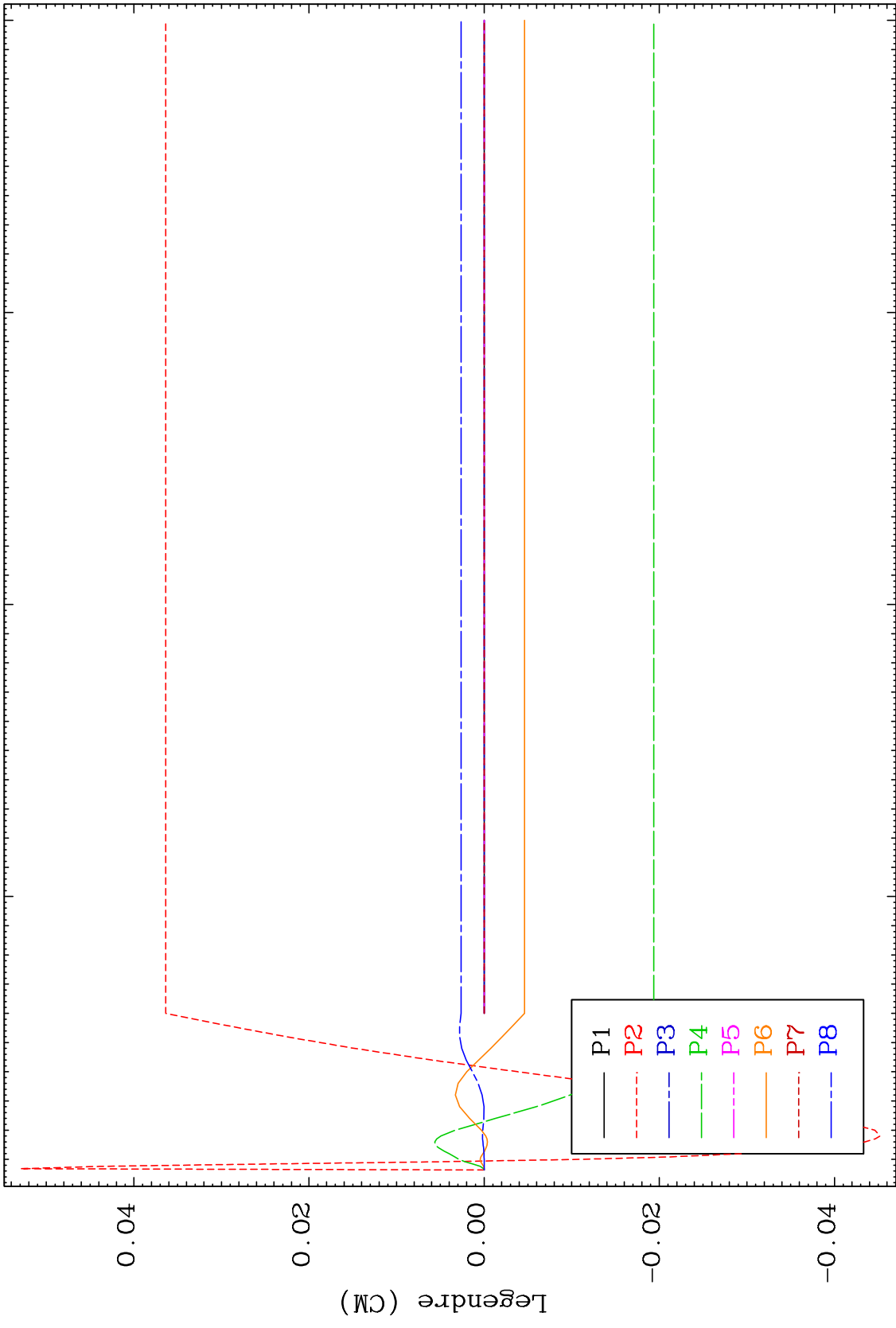
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86



58

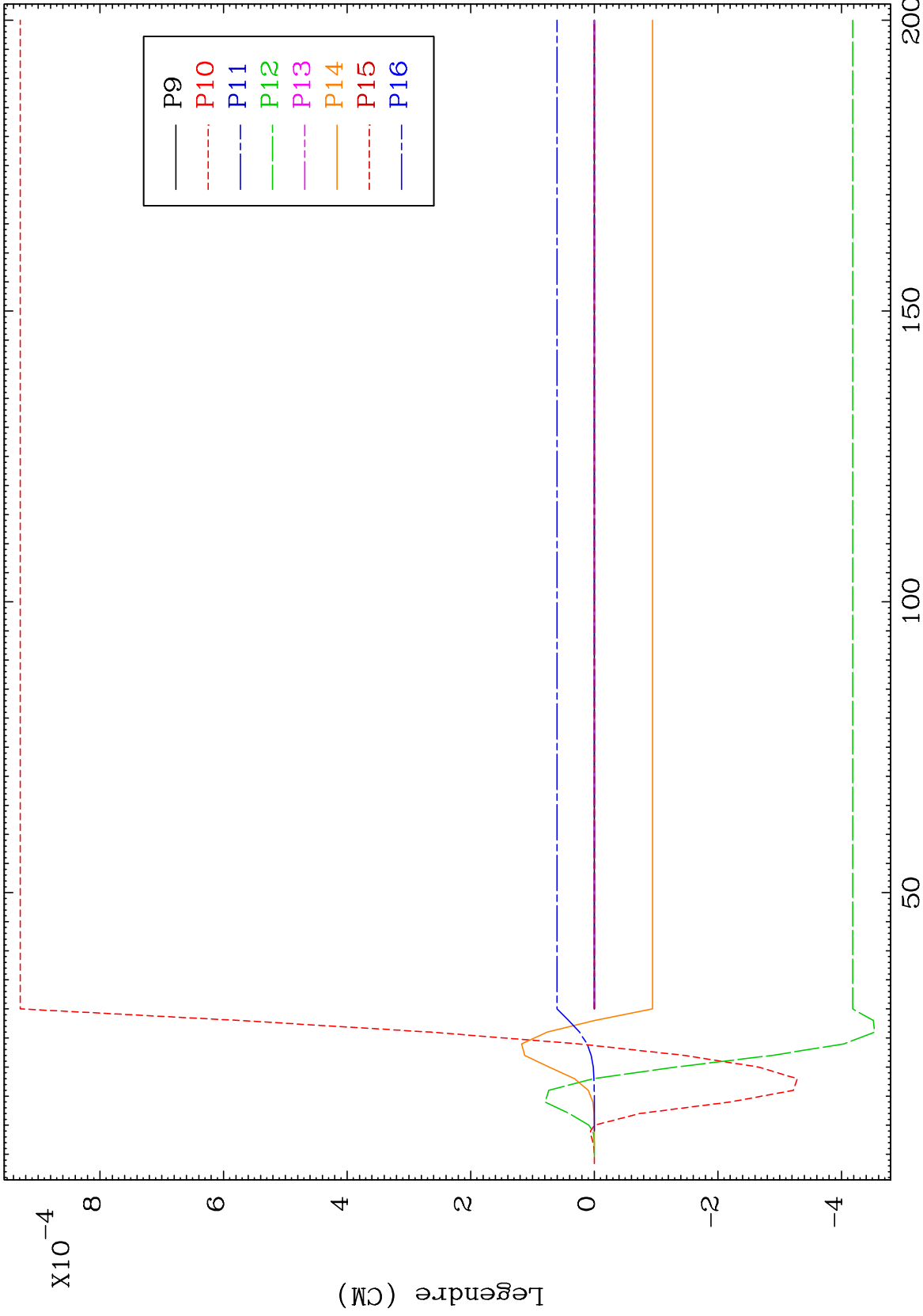
40-Zr-86

Incident Energy (MeV)

MAT 4013

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

40-Zr-86



59

Incident Energy (MeV)

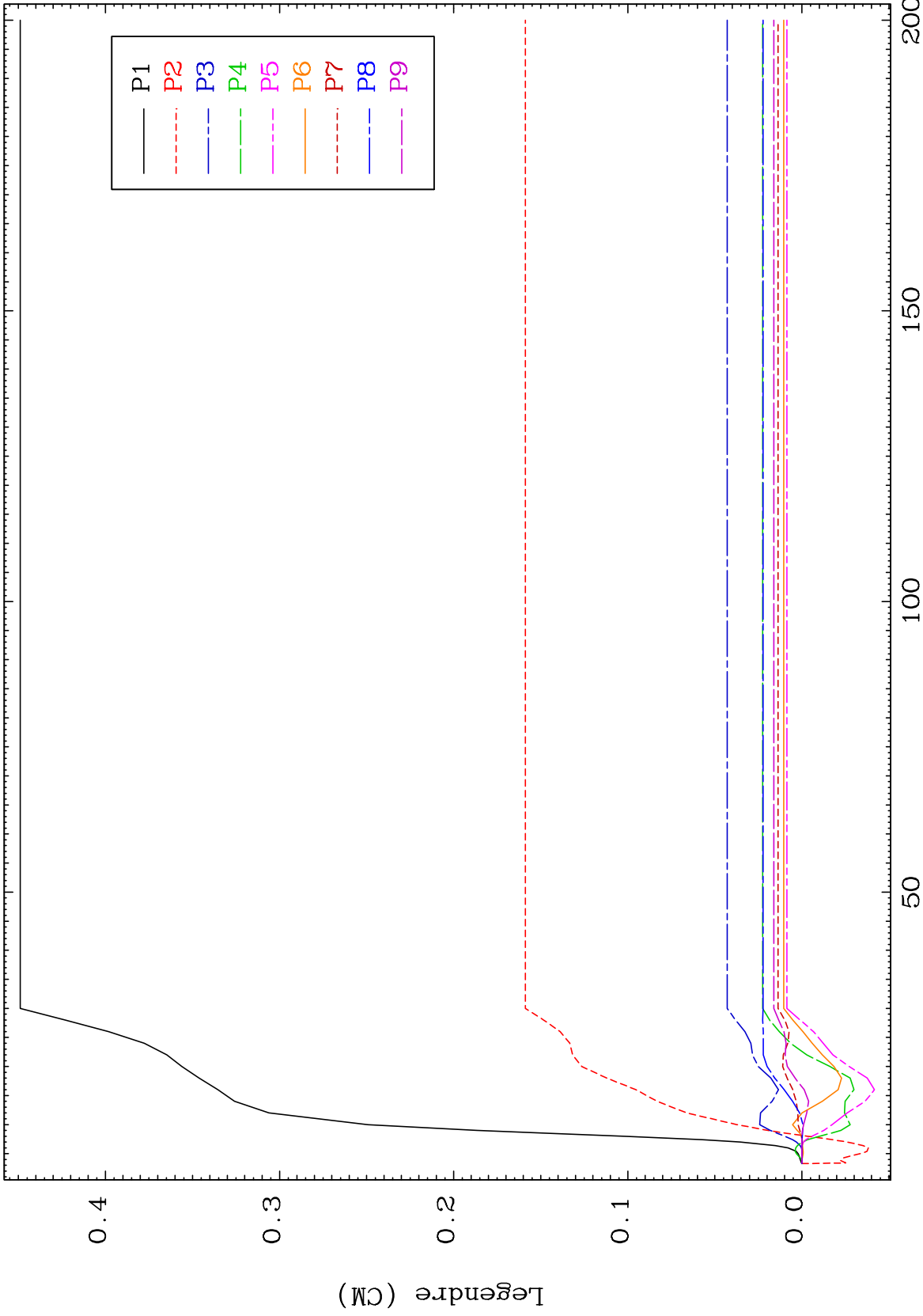
40-Zr-86



MAT 4013

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

40-Zr-86



61

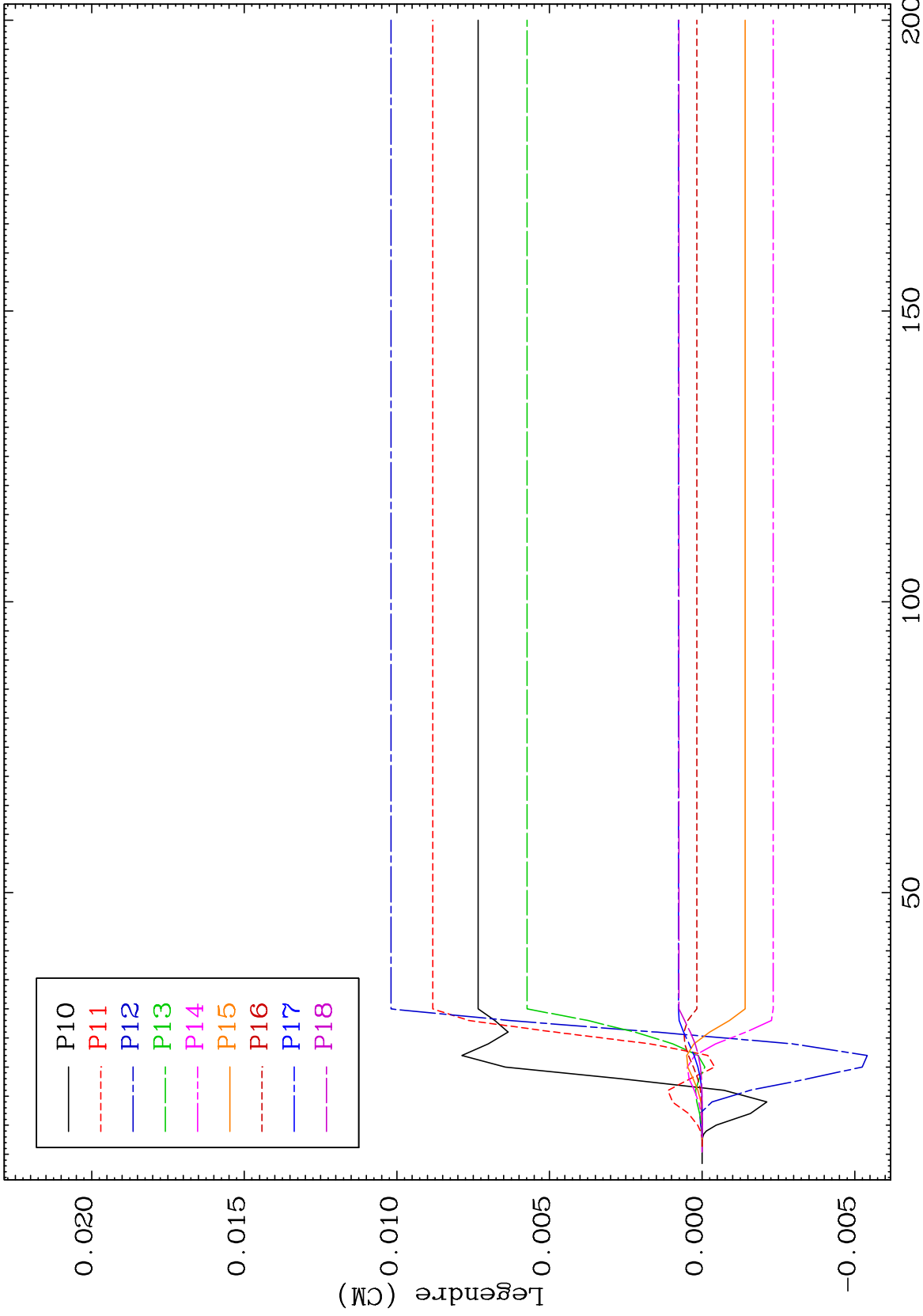
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86



62

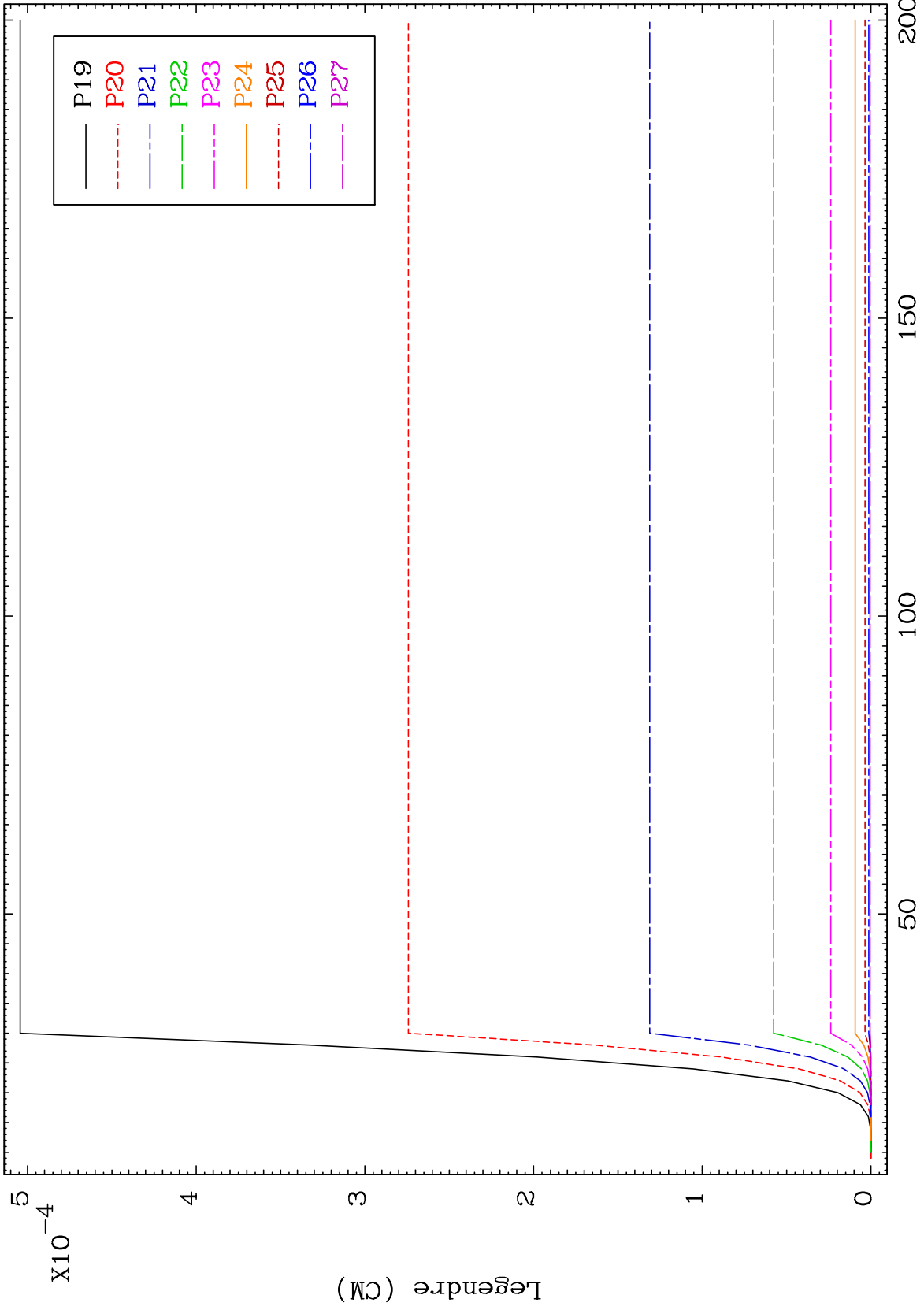
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86



40-Zr-86

Incident Energy (MeV)

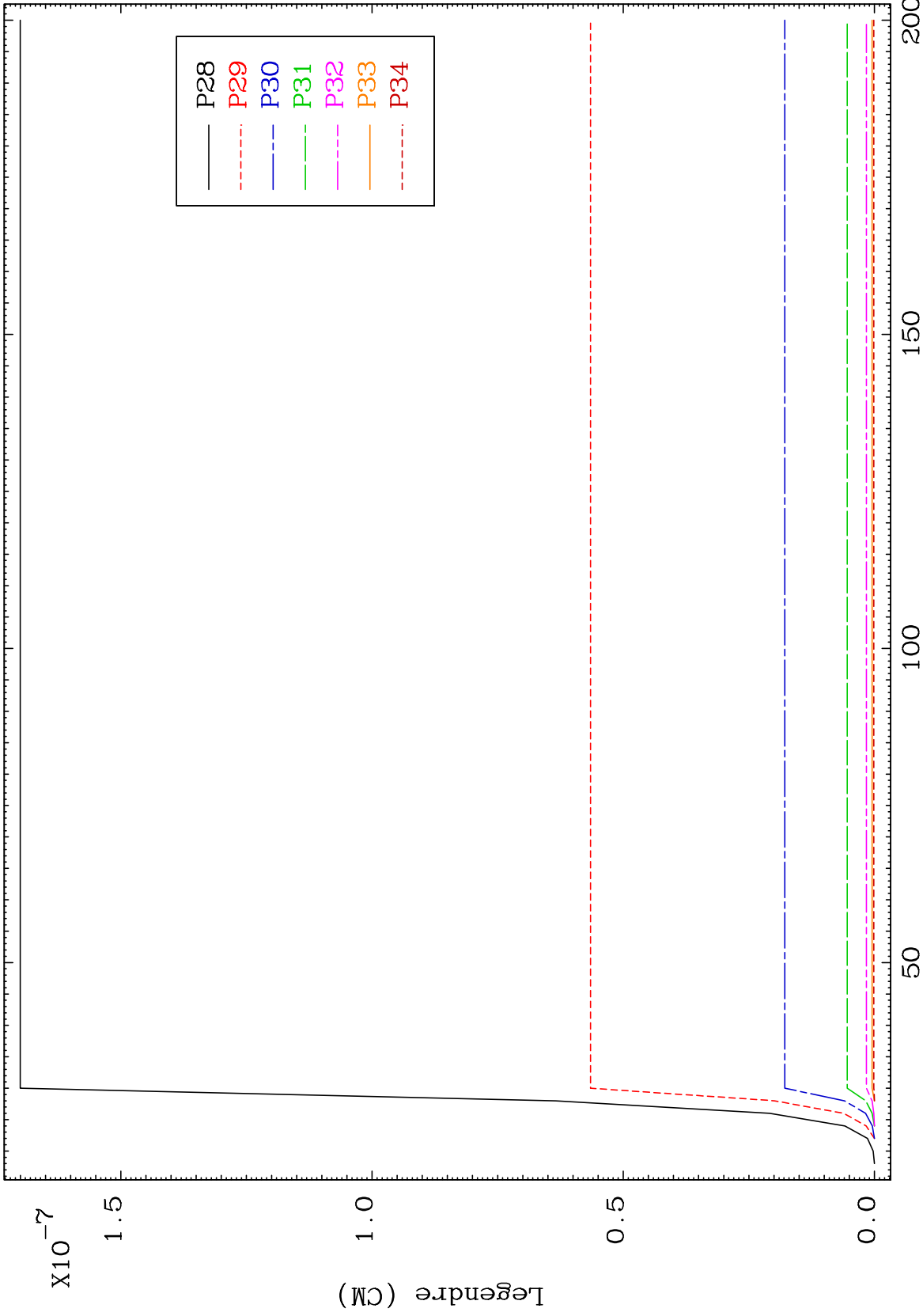
63



MAT 4013

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

40-Zr-86



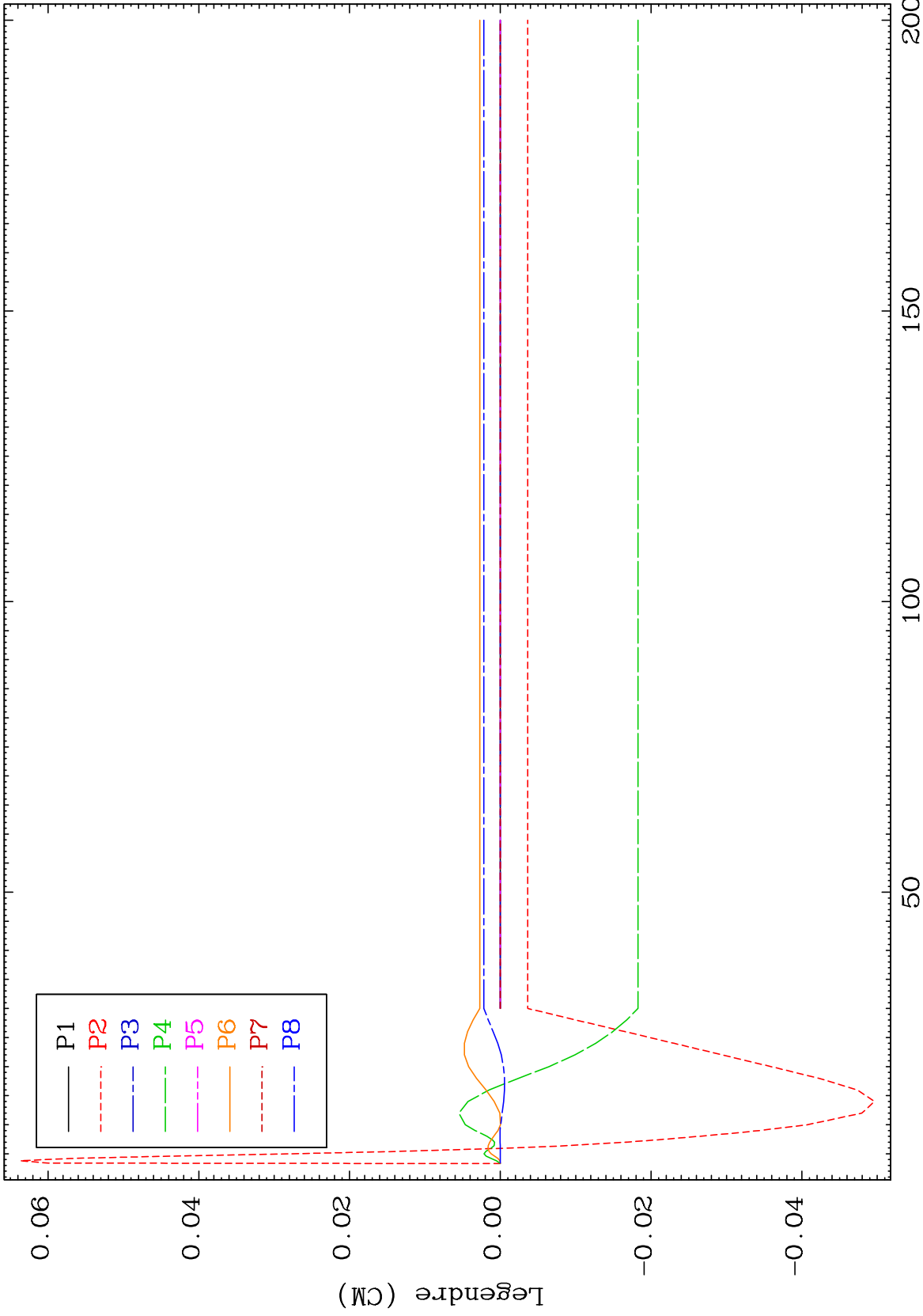
64

40-Zr-86

MAT 4013

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

40-Zr-86



65

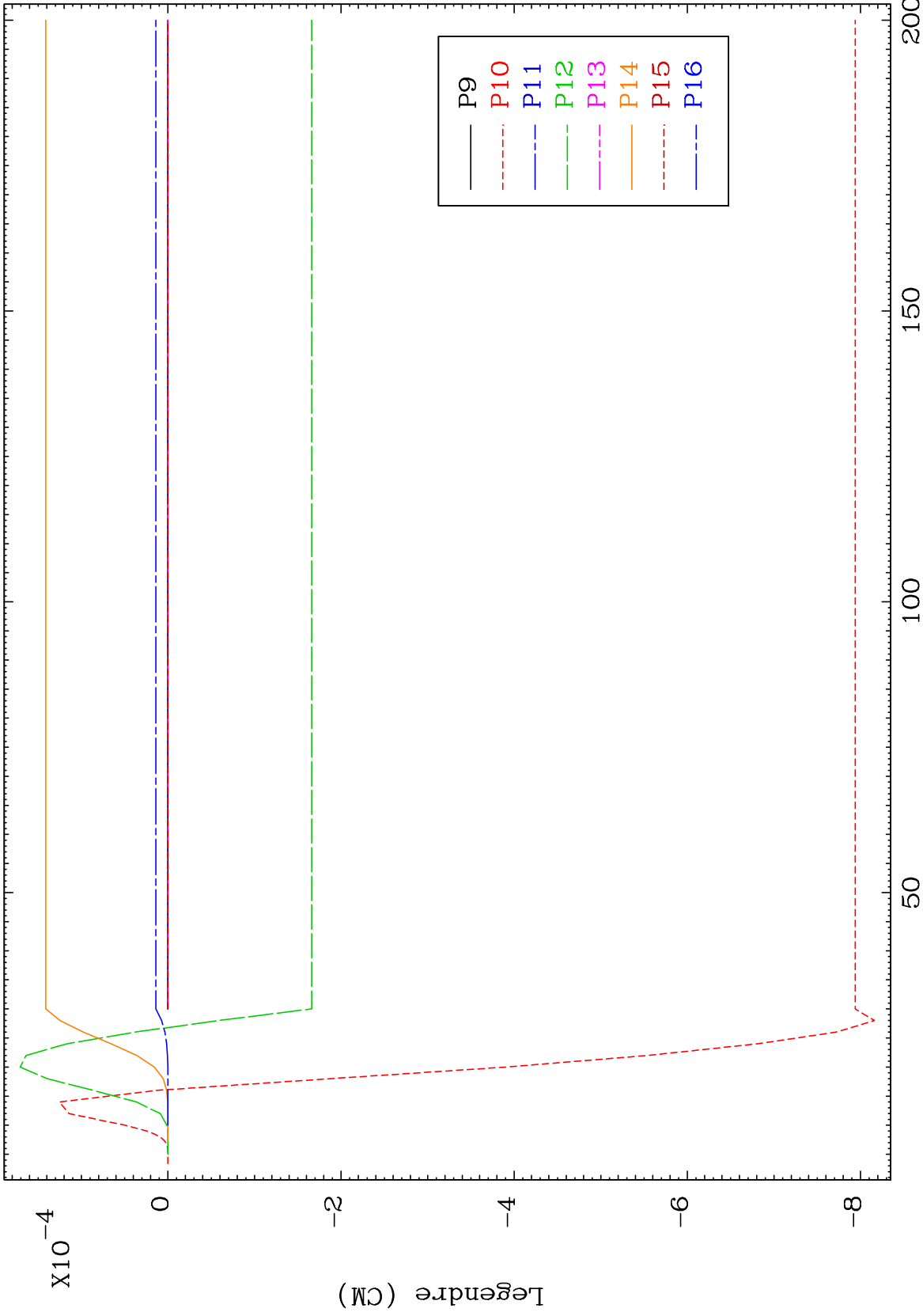
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

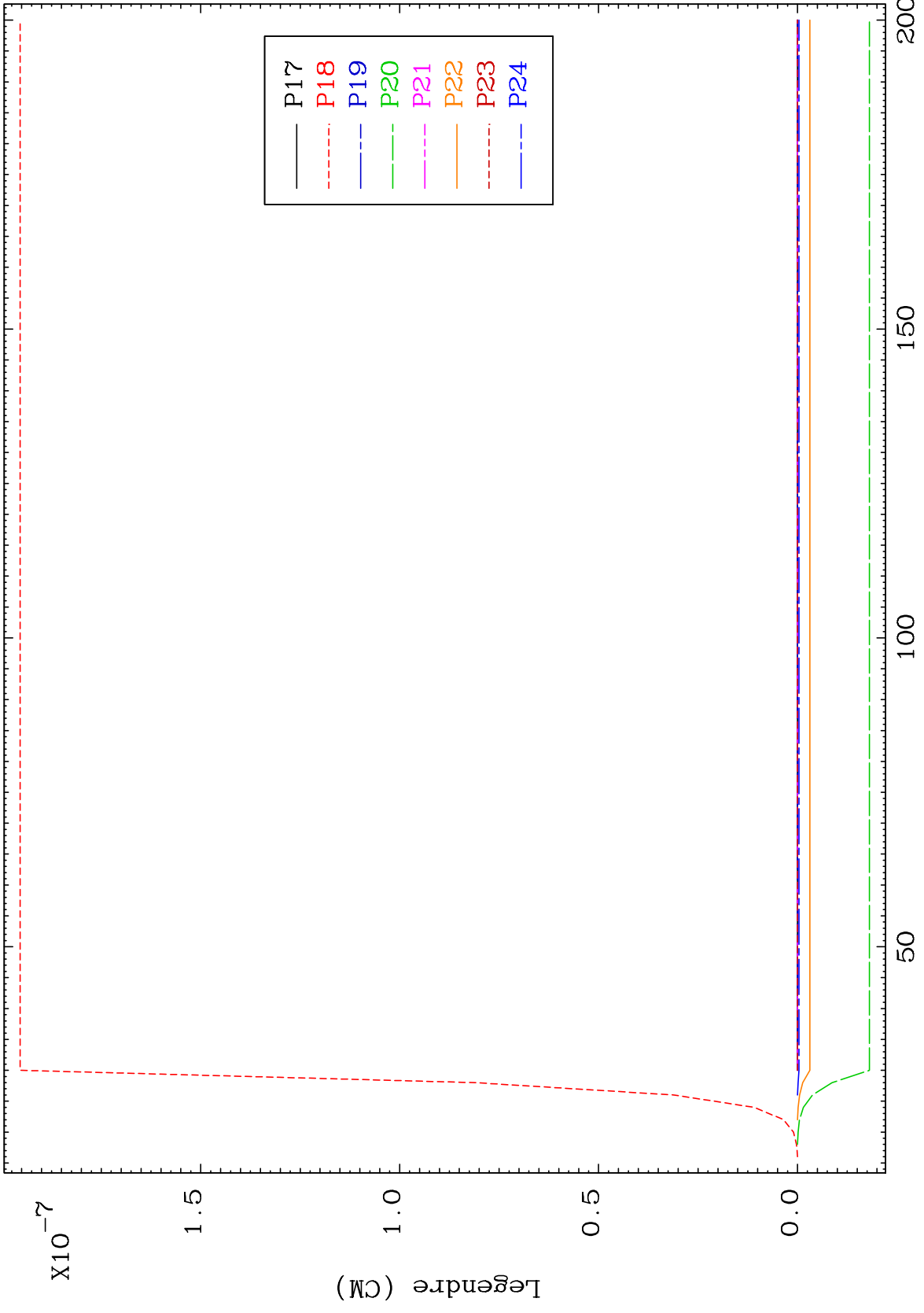
40-Zr-86



66

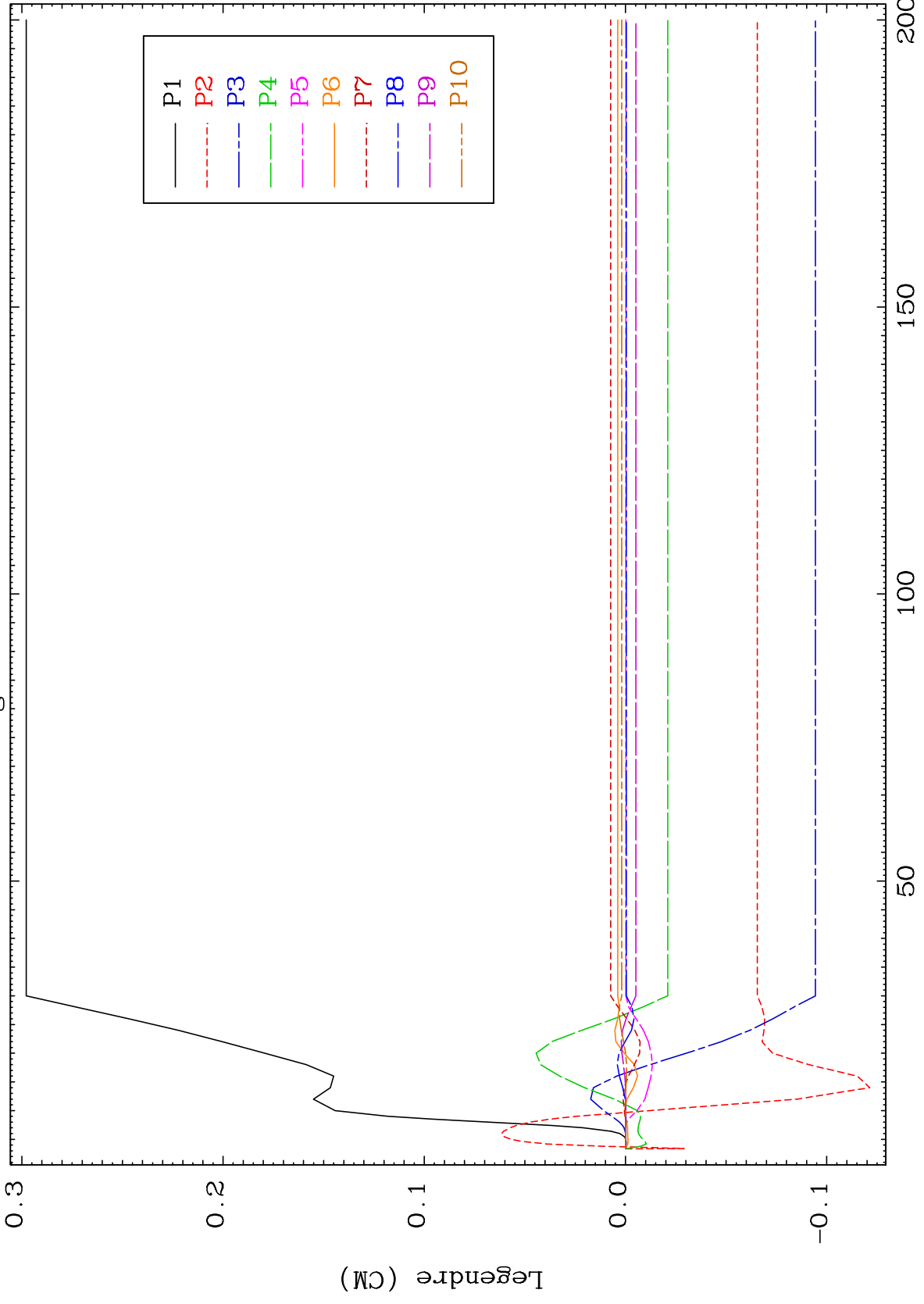
40-Zr-86

MAT 4013 MT= 64 (n,n') Level Legendre Coefficients 40-Zr-86



67 40-Zr-86

MAT 4013 MT= 65 (n,n') Level Legendre Coefficients 40-Zr-86

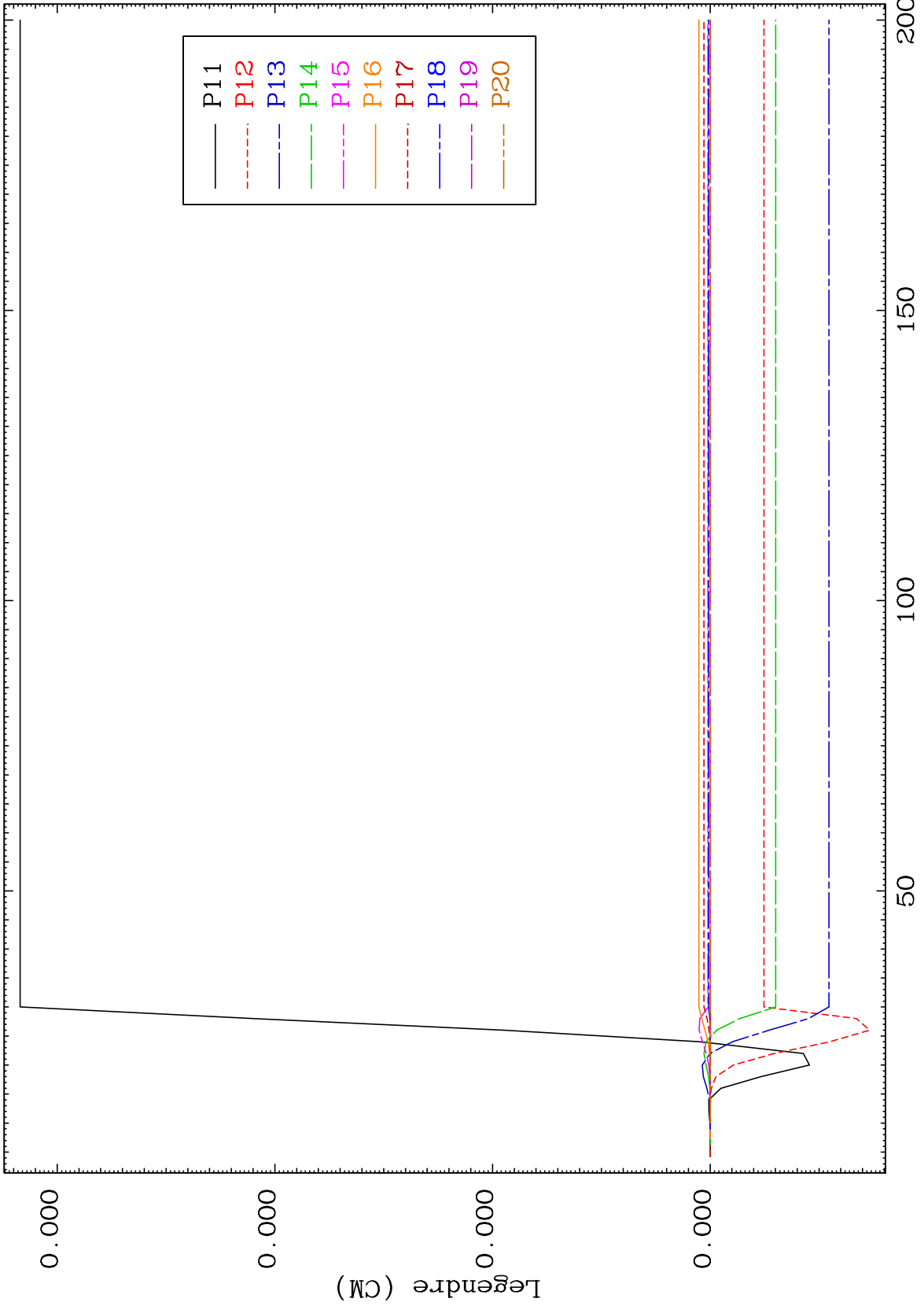


68 Incident Energy (MeV) 40-Zr-86

MAT 4013

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

40-Zr-86



69

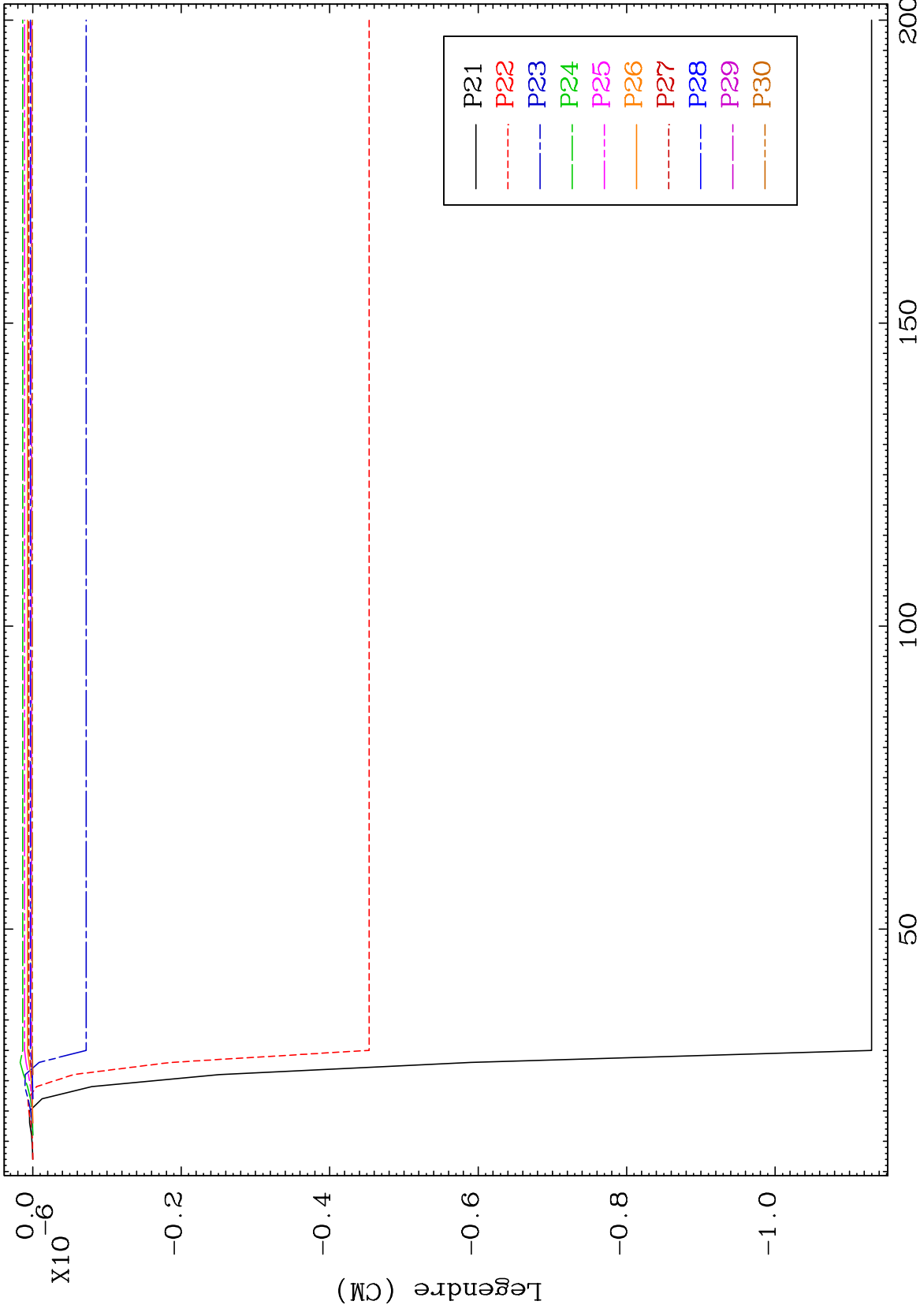
Incident Energy (MeV)

40-Zr-86

MAT 4013

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

40-Zr-86



40-Zr-86

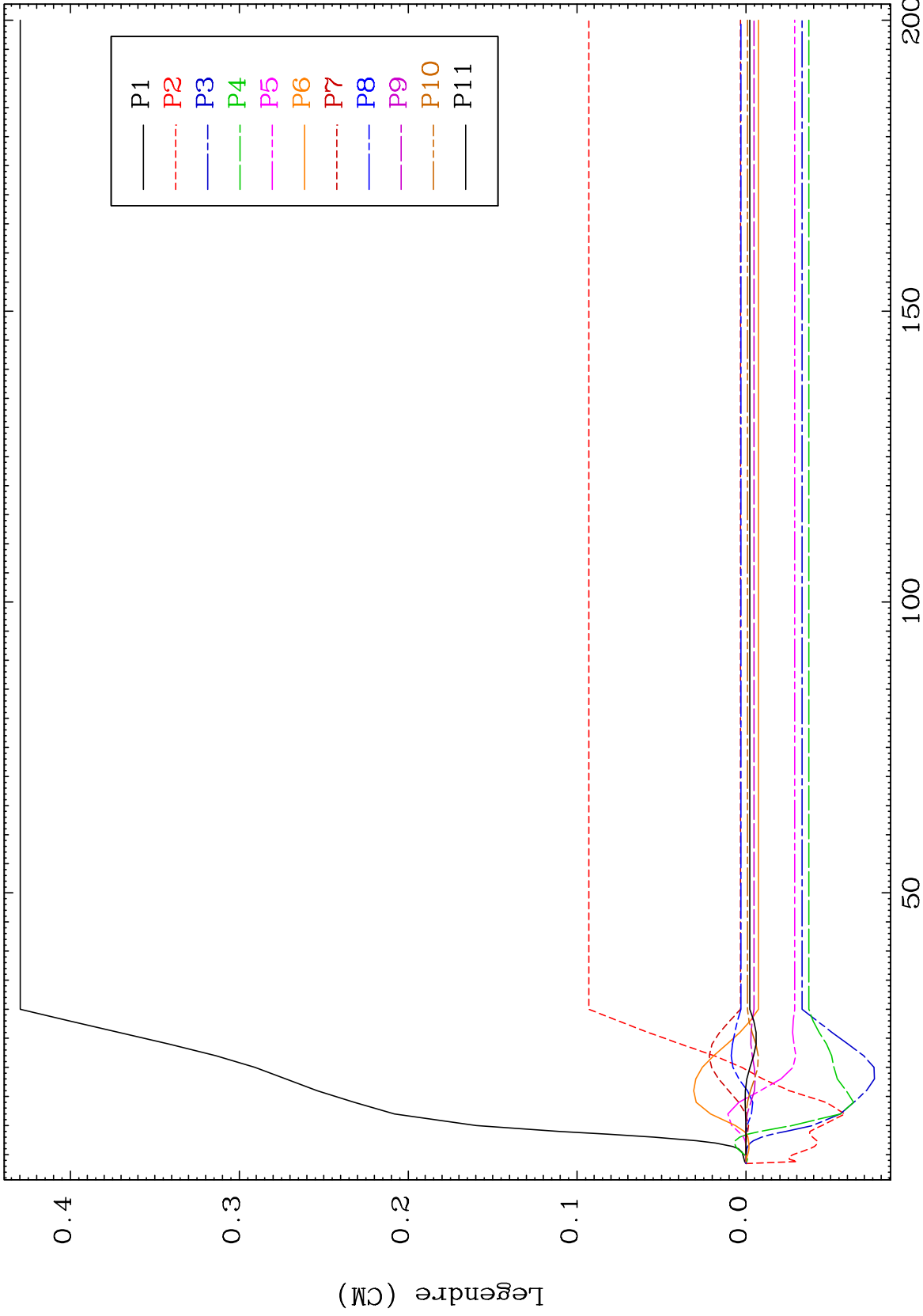
Incident Energy (MeV)

70

MAT 4013

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

40-Zr-86



71

Incident Energy (MeV)

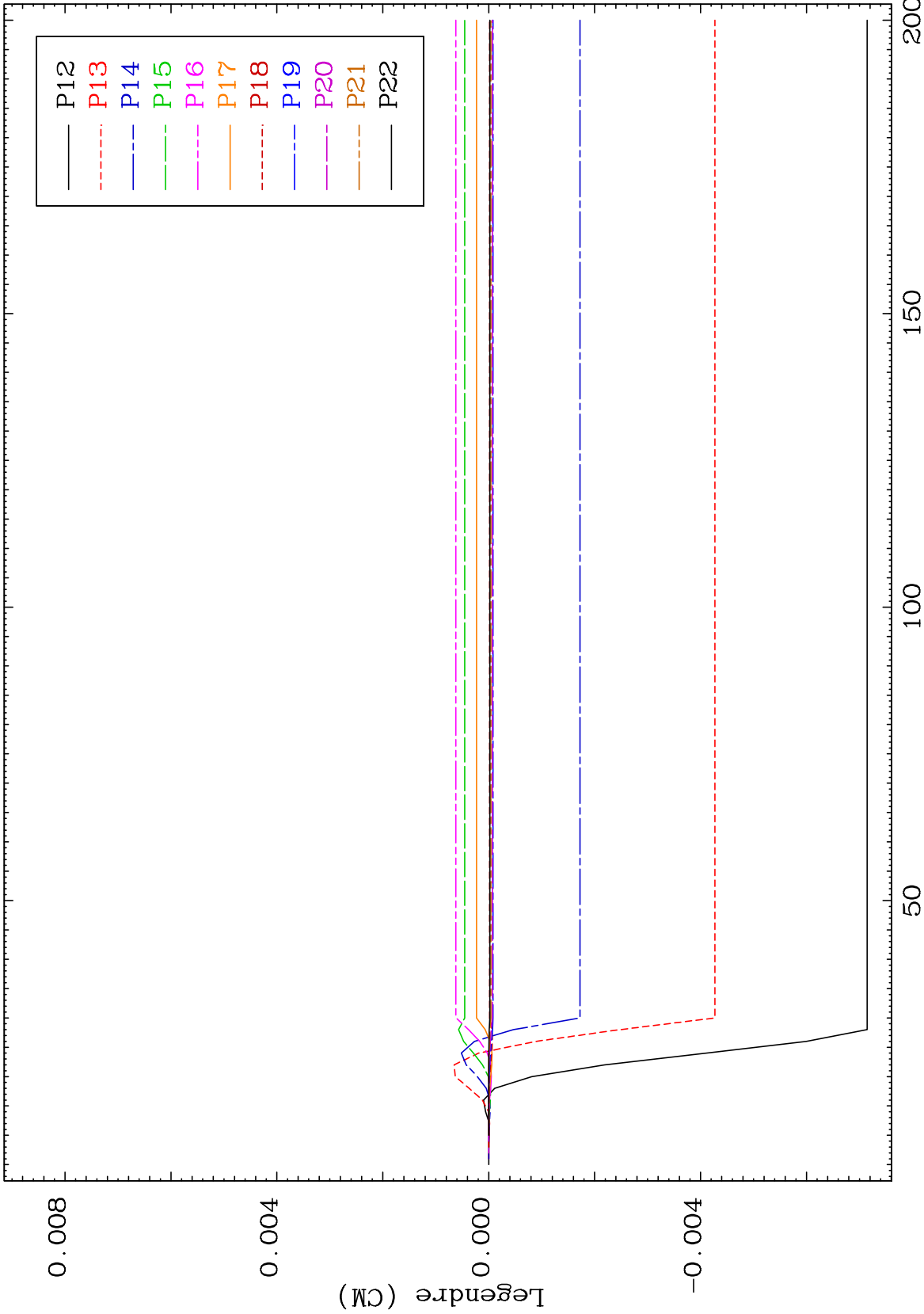
40-Zr-86



MAT 4013

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

40-Zr-86

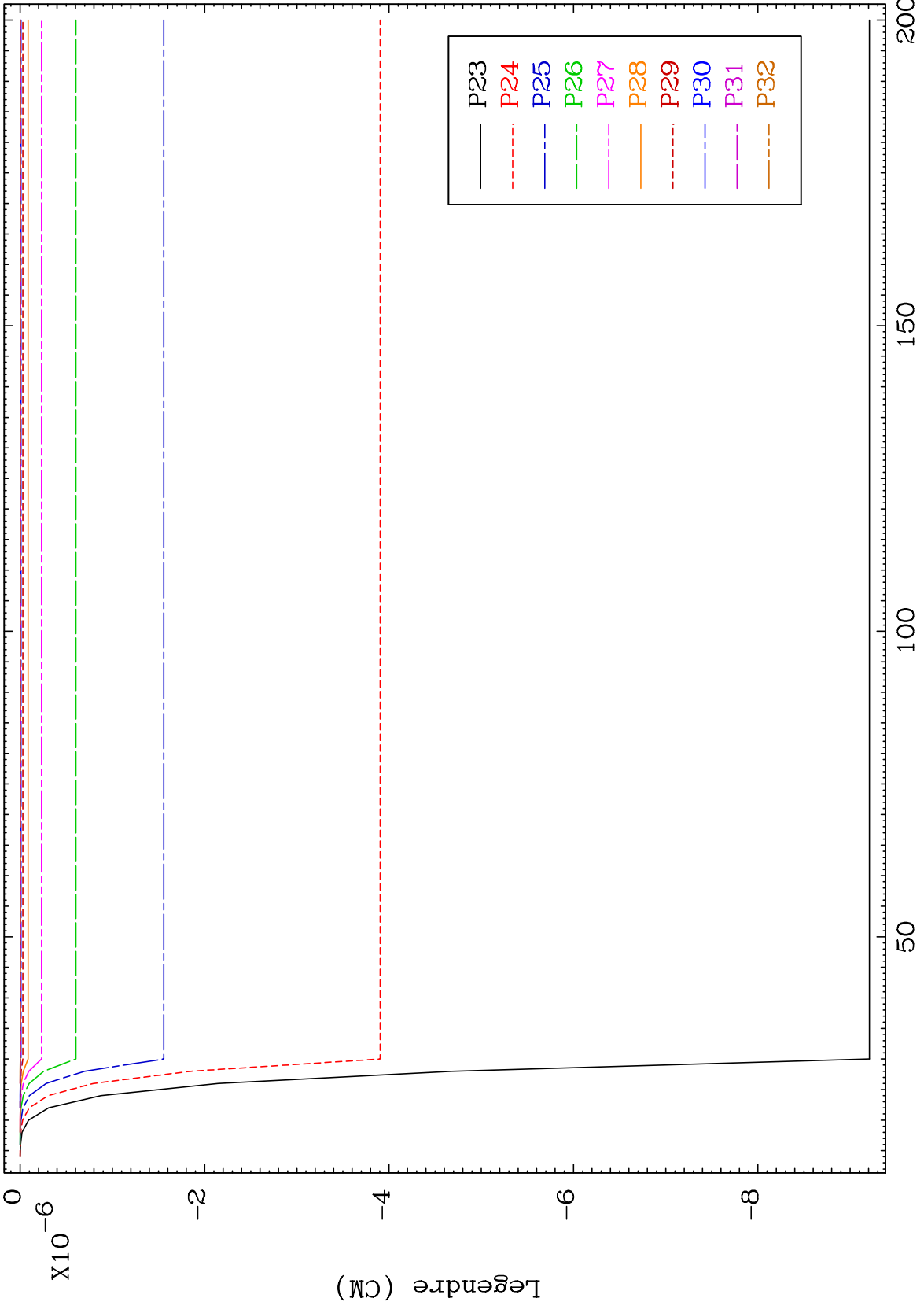


72

Incident Energy (MeV)

40-Zr-86

MAT 4013 MT= 66 (n,n') Level Legendre Coefficients 40-Zr-86

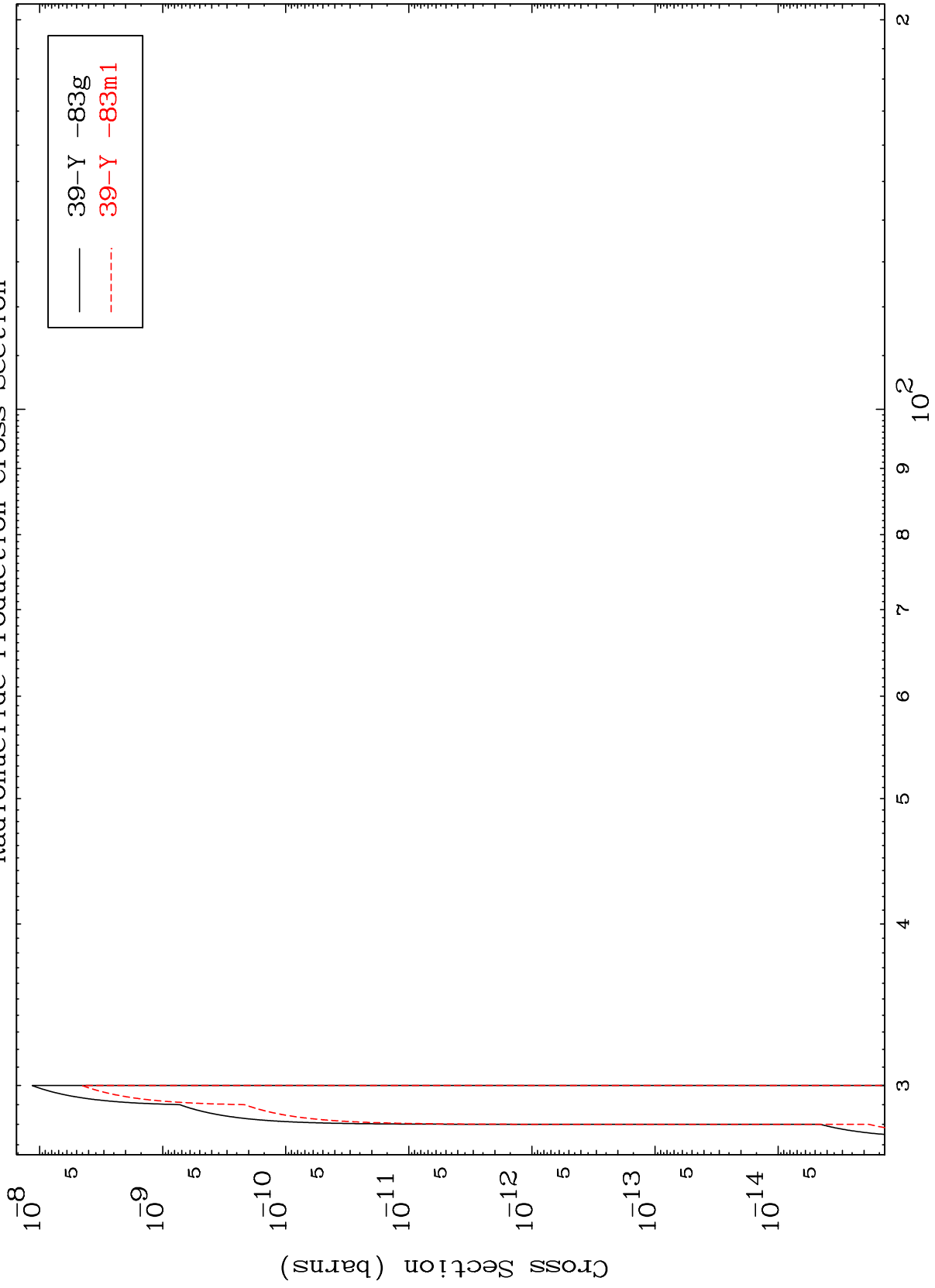


MAT 4013

(n,2n) d

40-Zr-86

Radionuclide Production Cross Section



74

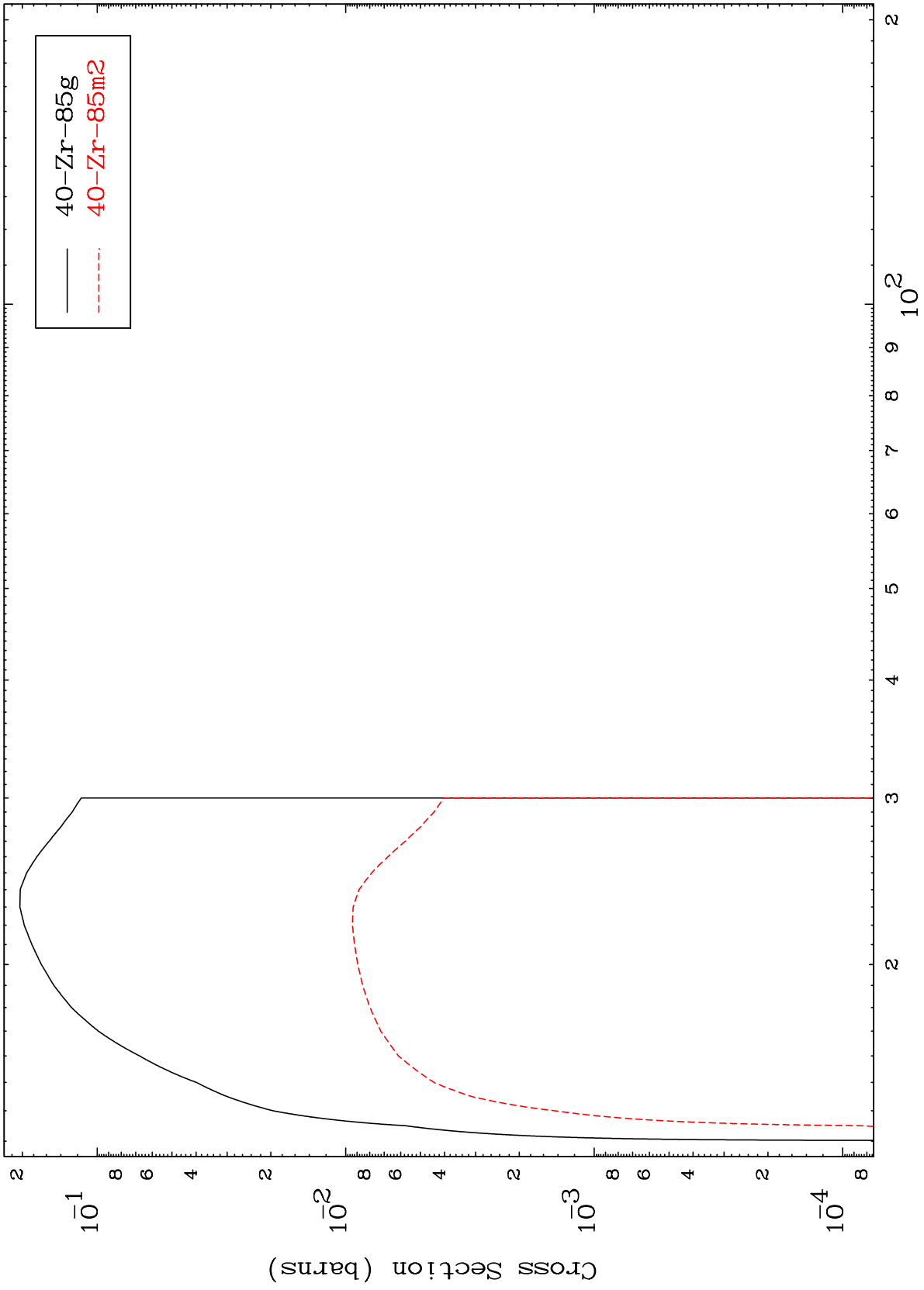
Incident Energy (MeV)

40-Zr-86

MAT 4013

40-Zr-86

(n,2n)  
Radionuclide Production Cross Section



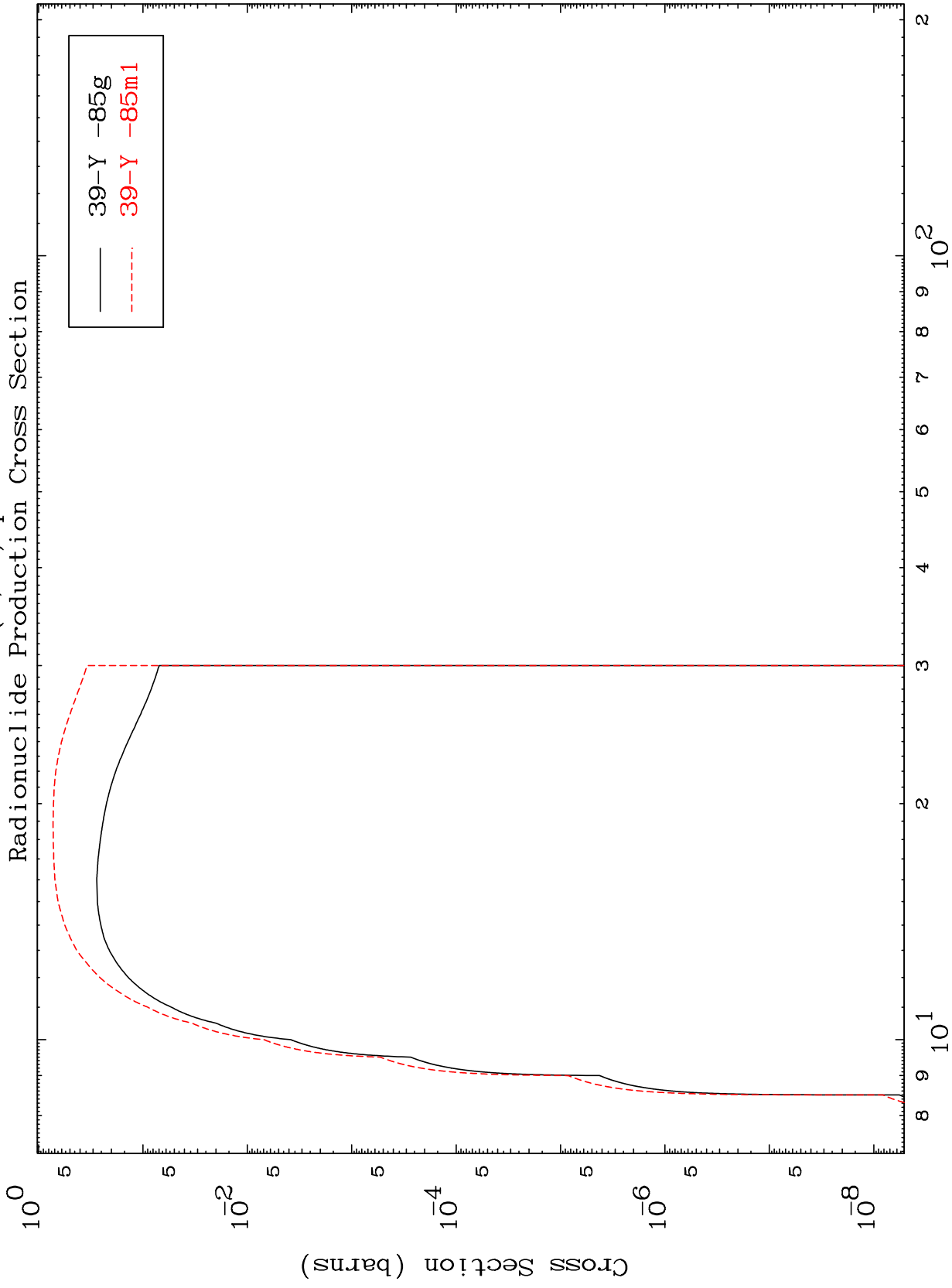
75

40-Zr-86

MAT 4013

(n,n') p

40-Zr-86

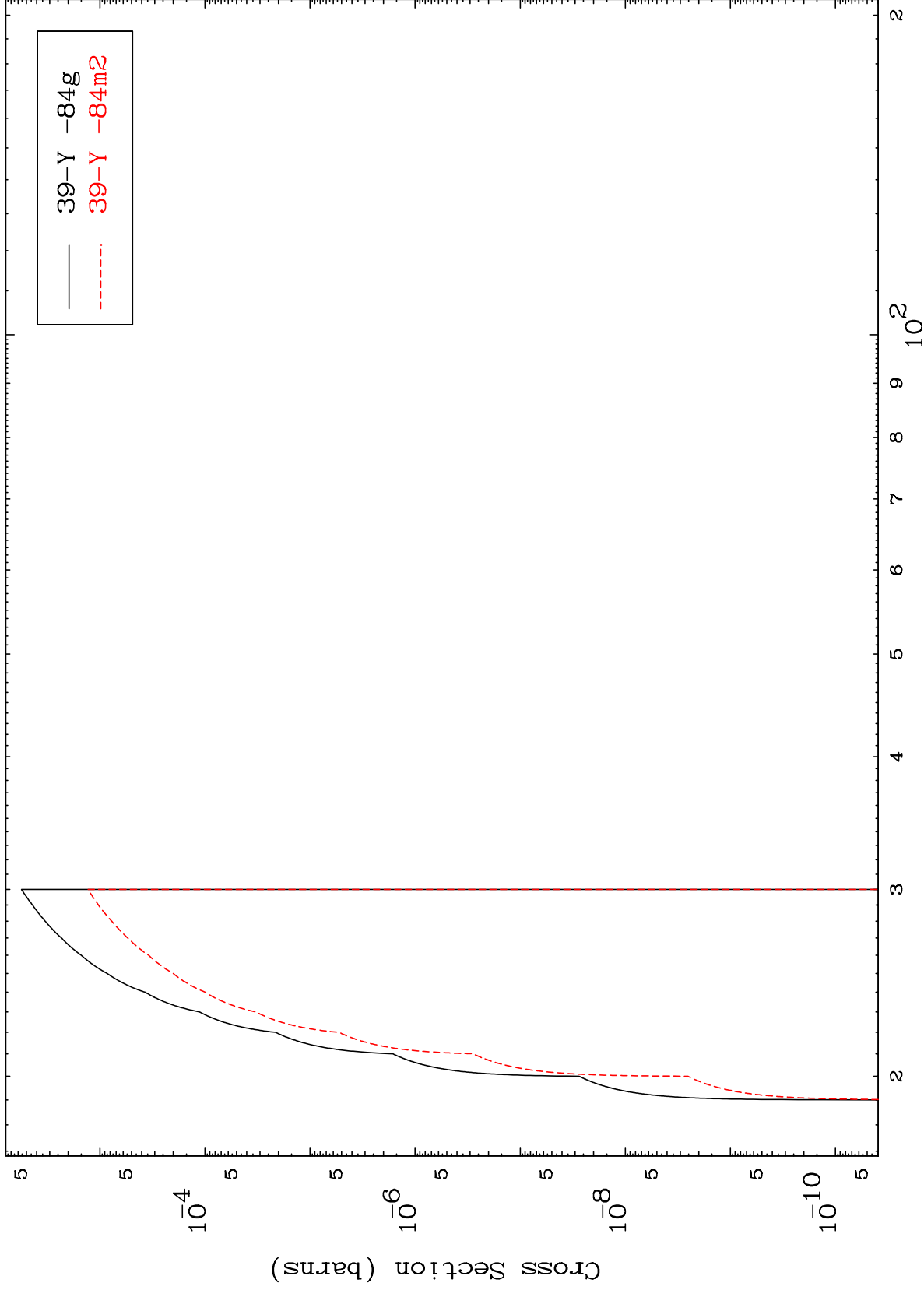


MAT 4013

(n,n') d

40-Zr-86

Radionuclide Production Cross Section



77

Incident Energy (MeV)

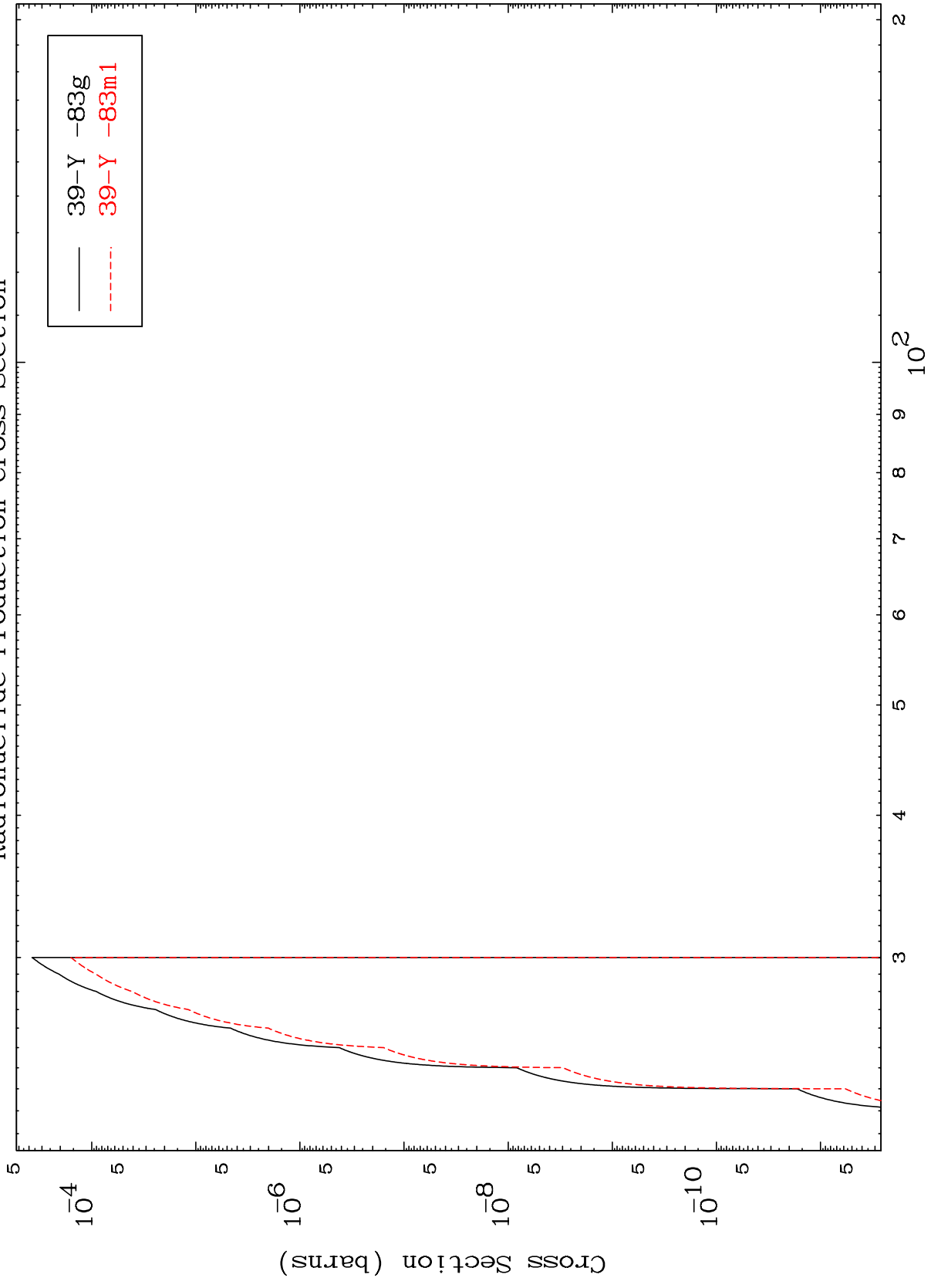
40-Zr-86

MAT 4013

(n,n') t

40-Zr-86

Radionuclide Production Cross Section



39-Y -83g  
39-Y -83m1

78

Incident Energy (MeV)

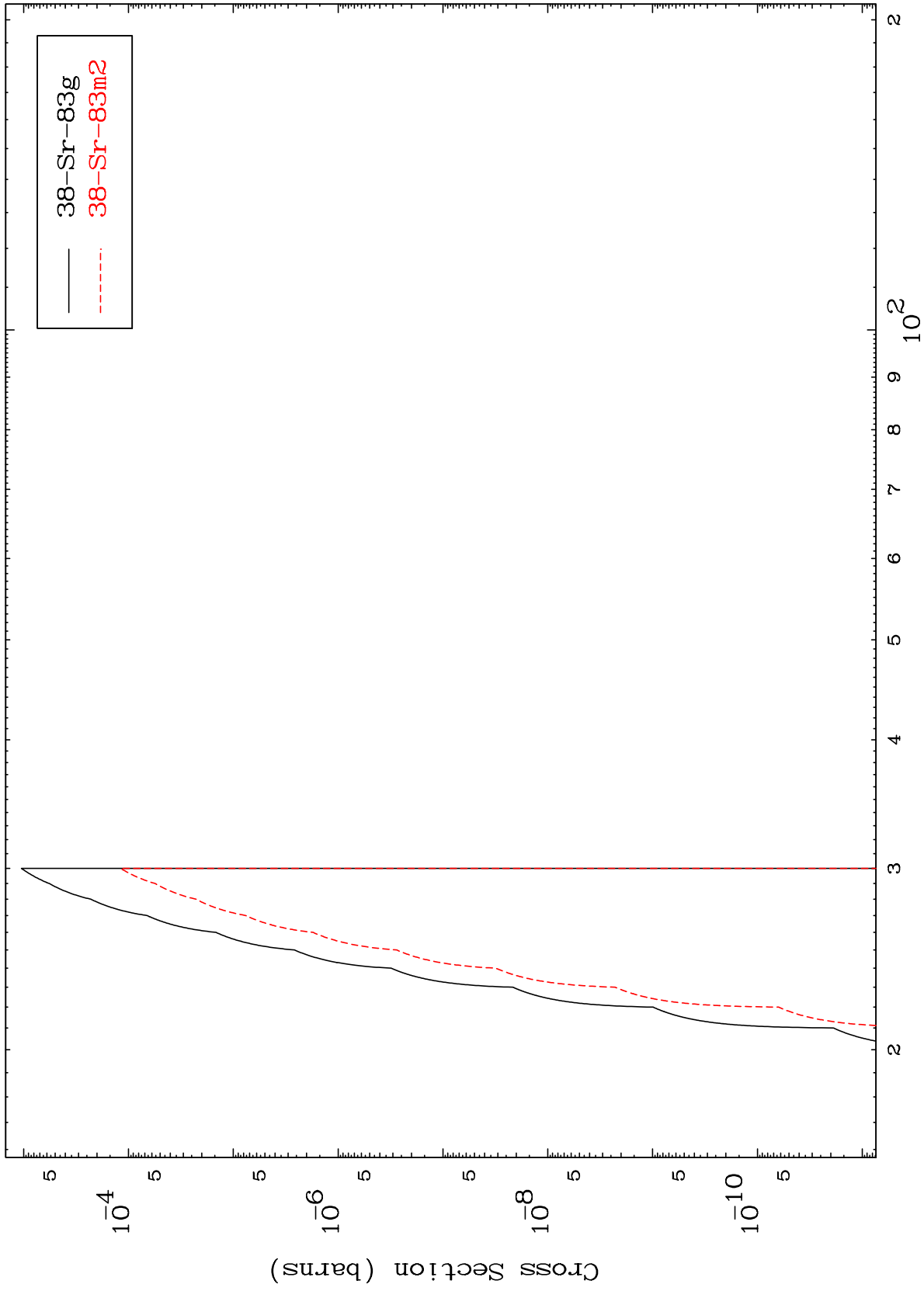
40-Zr-86

MAT 4013

(n, n') He-3

40-Zr-86

Radionuclide Production Cross Section



79

Incident Energy (MeV)

40-Zr-86

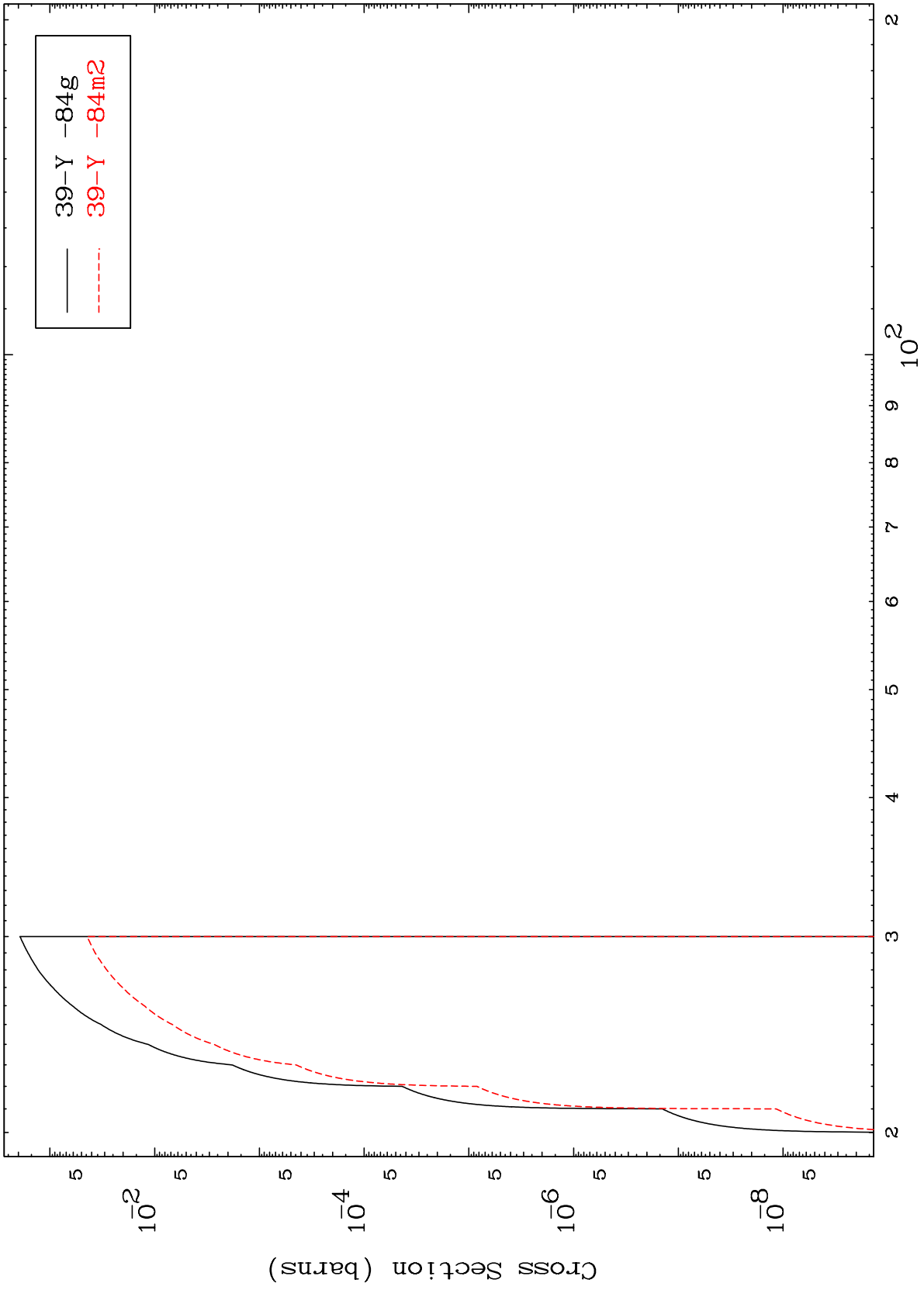


MAT 4013

(n,2n) p

40-Zr-86

Radionuclide Production Cross Section



80

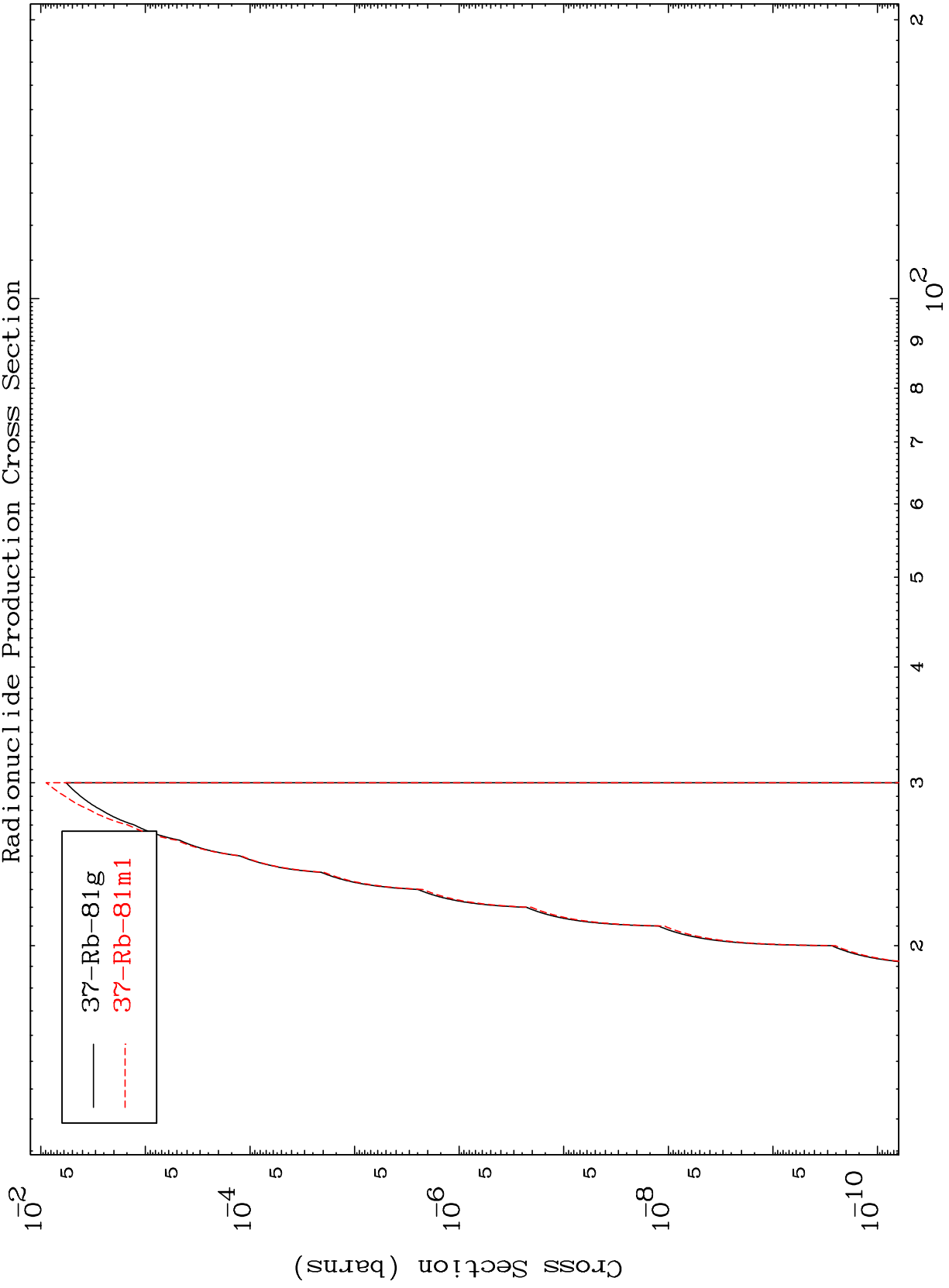
Incident Energy (MeV)

40-Zr-86

MAT 4013

40-Zr-86

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



81

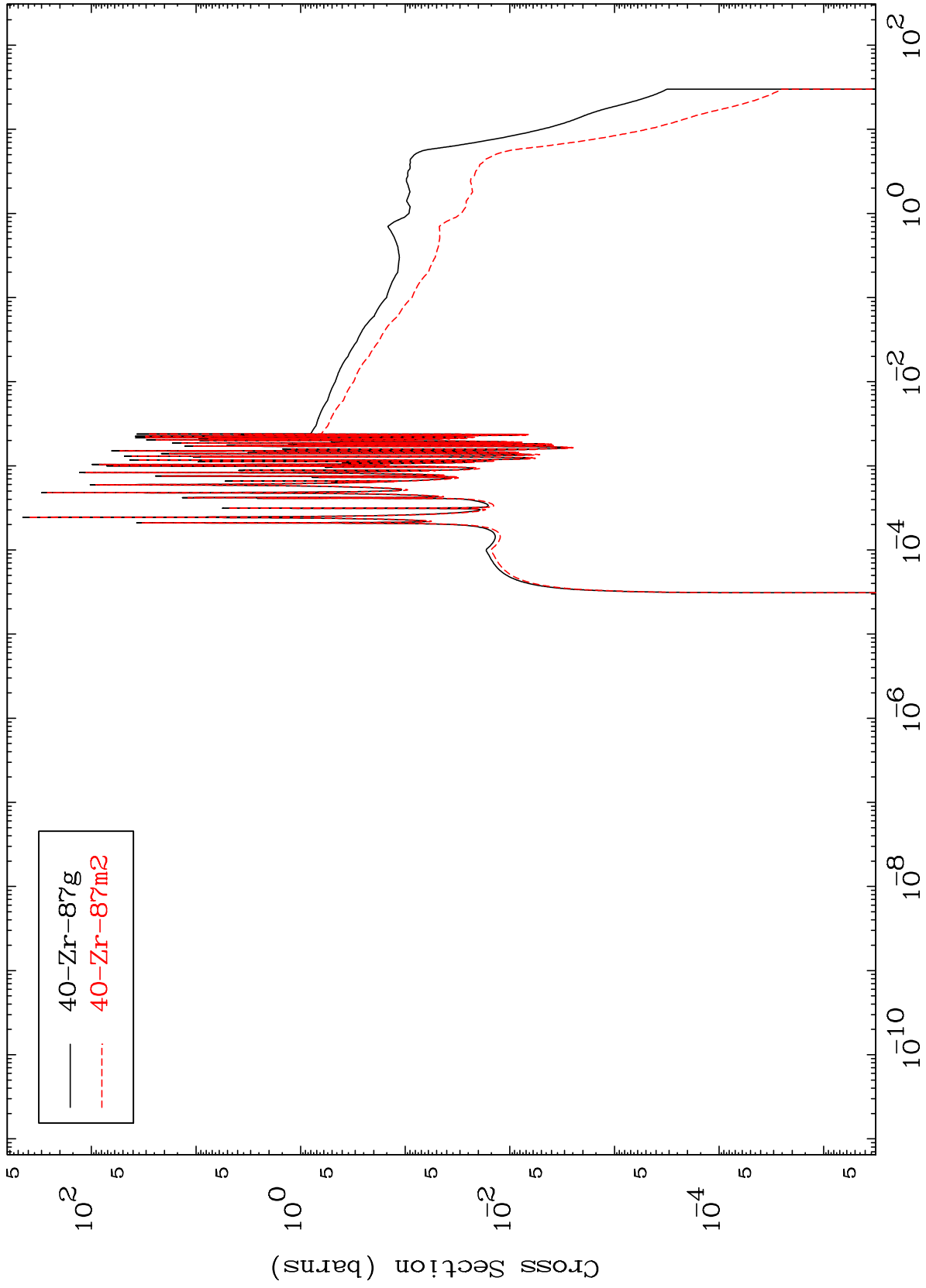
40-Zr-86

Incident Energy (MeV)

MAT 4013

40-Zr-86

Radionuclide Production Cross Section (n,γ)



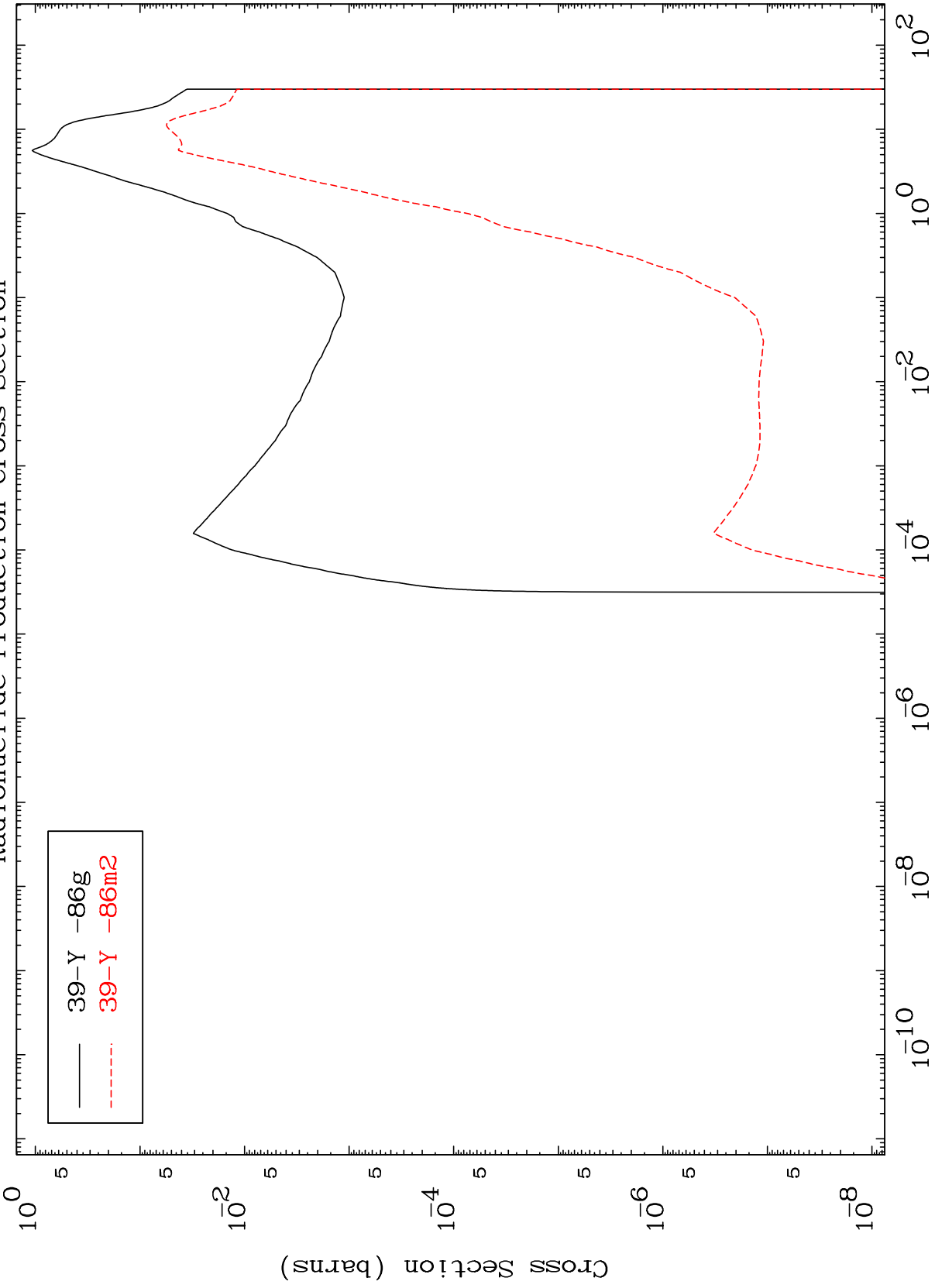
82

40-Zr-86

MAT 4013

(n,p)  
Radionuclide Production Cross Section

40-Zr-86



— 39-Y -86g  
- - - 39-Y -86m2

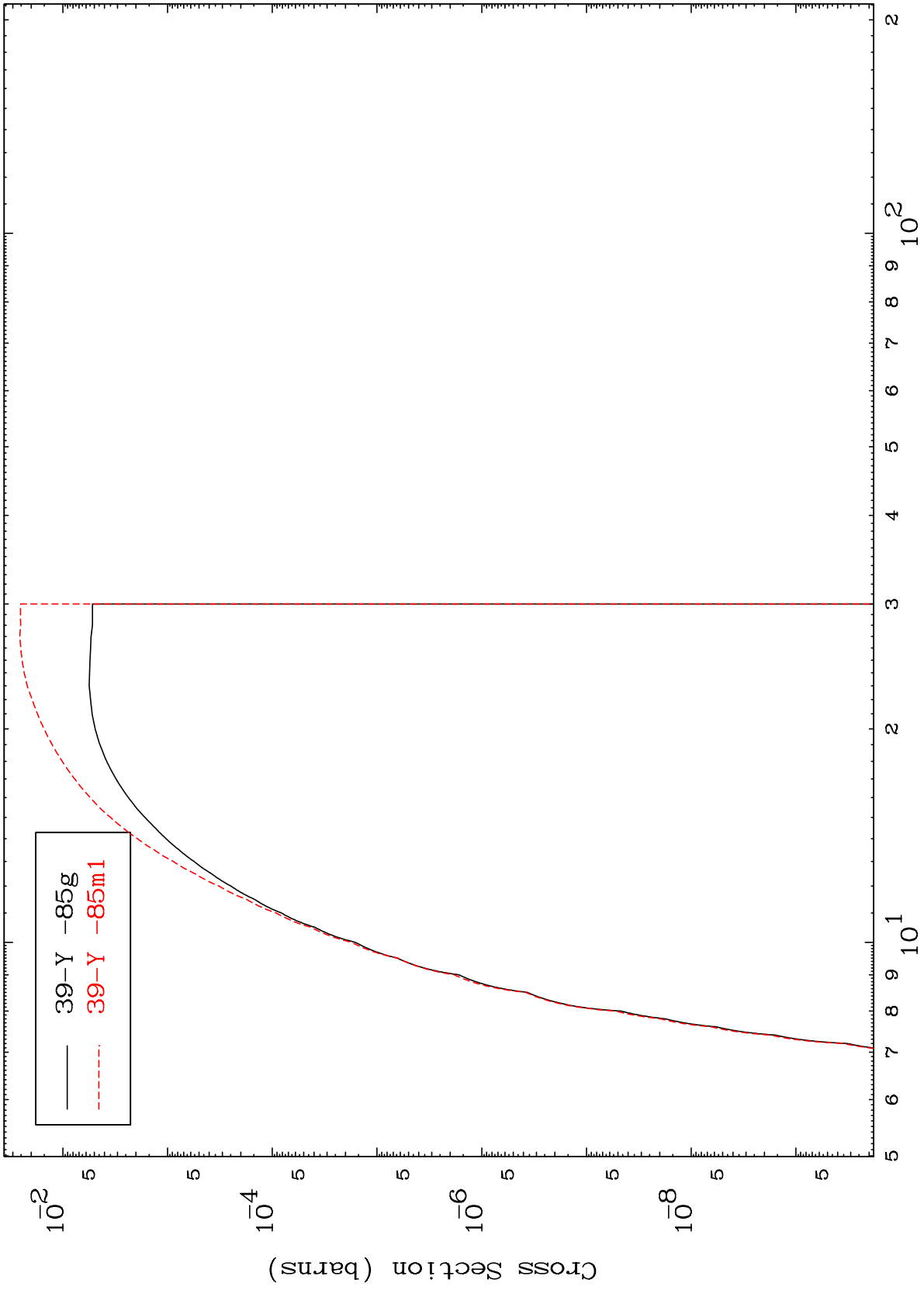
83

40-Zr-86

MAT 4013

40-Zr-86

(n,d)  
Radionuclide Production Cross Section



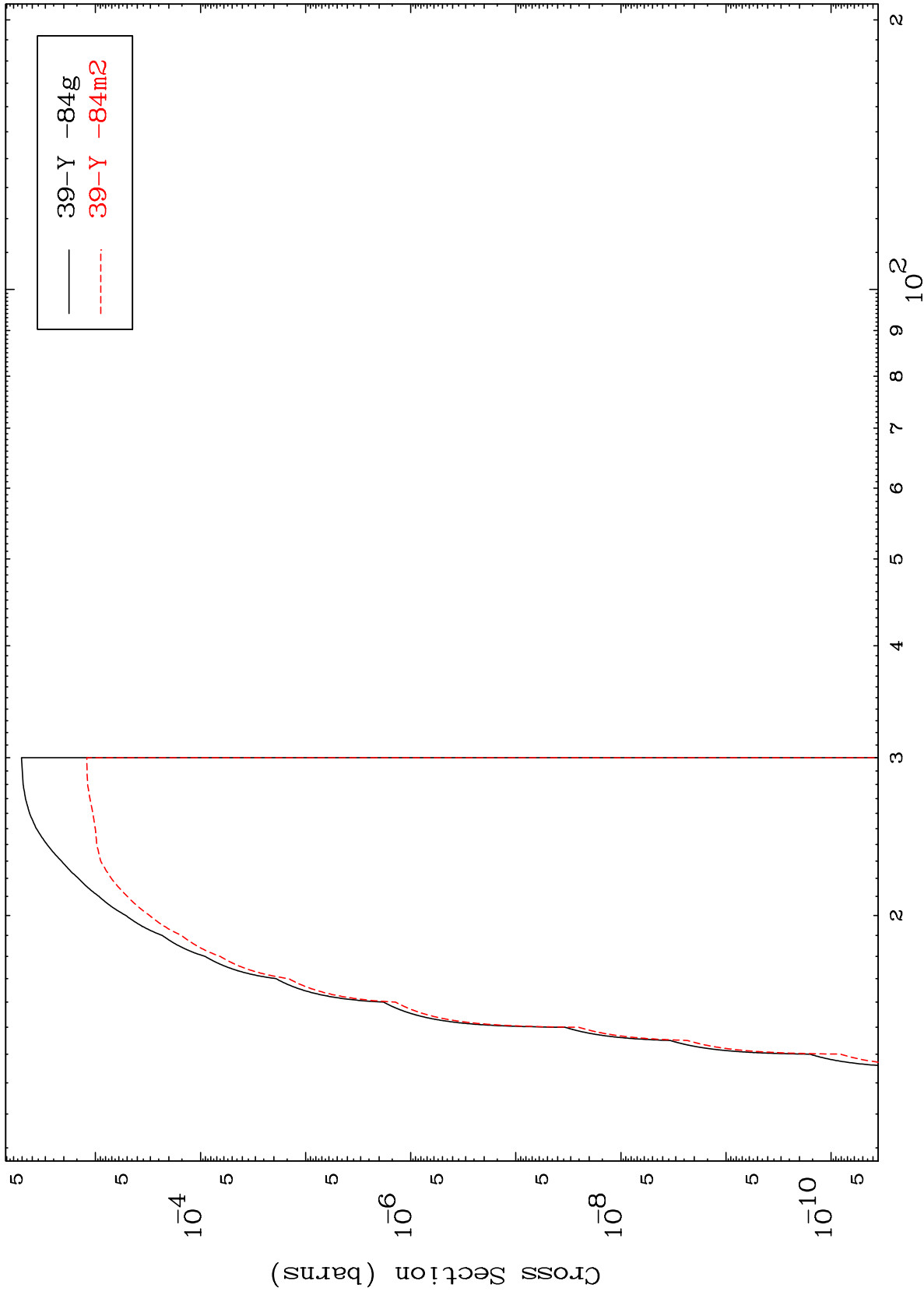
84

40-Zr-86

MAT 4013

40-Zr-86

(n, t)  
Radionuclide Production Cross Section



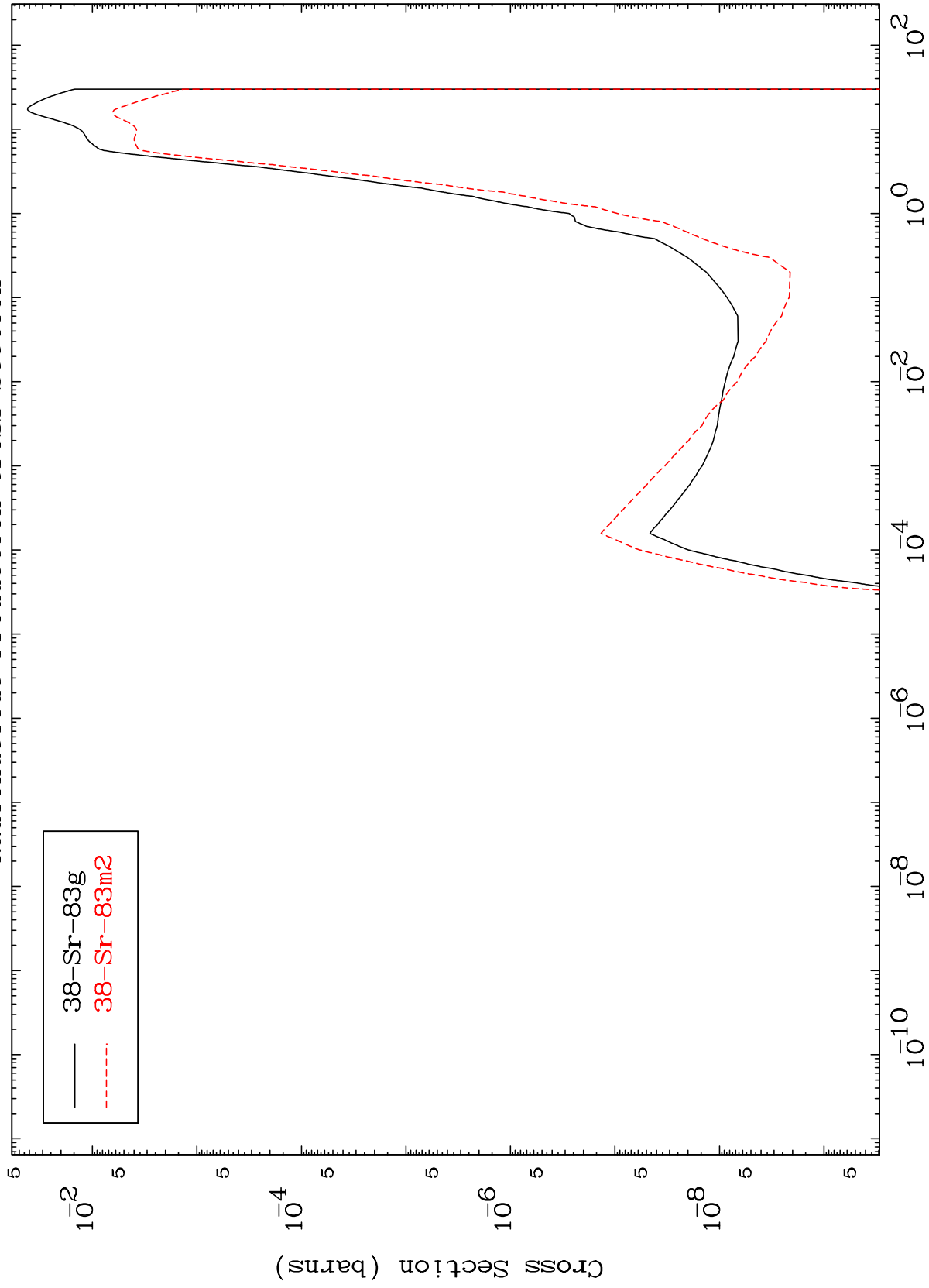
85

40-Zr-86

MAT 4013

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

40-Zr-86



86

Incident Energy (MeV)

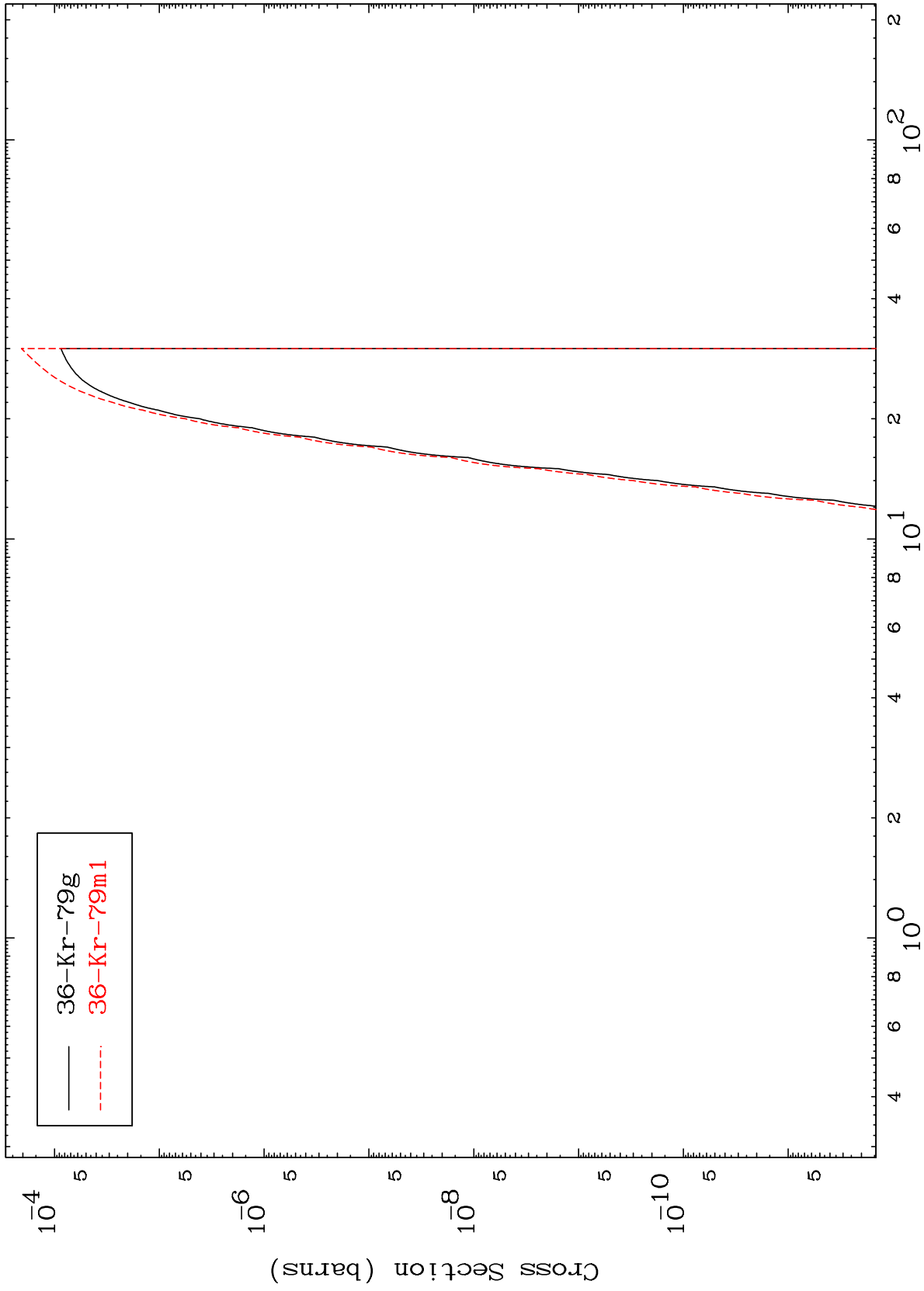
40-Zr-86

MAT 4013

(n,2α)

40-Zr-86

Radionuclide Production Cross Section



87

Incident Energy (MeV)

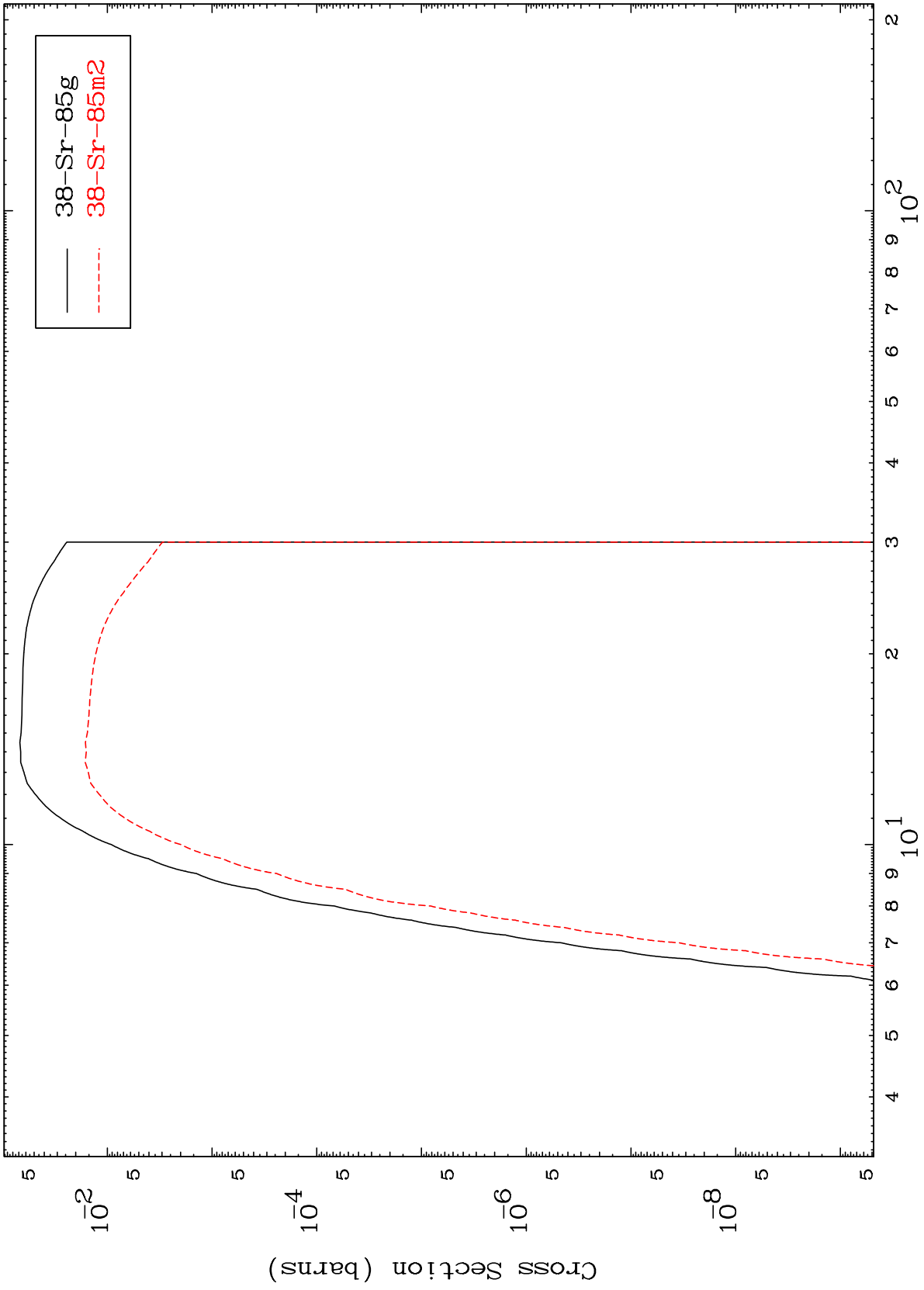
40-Zr-86



MAT 4013

40-Zr-86

Radionuclide Production Cross Section  
(n,2p)



88

Incident Energy (MeV)

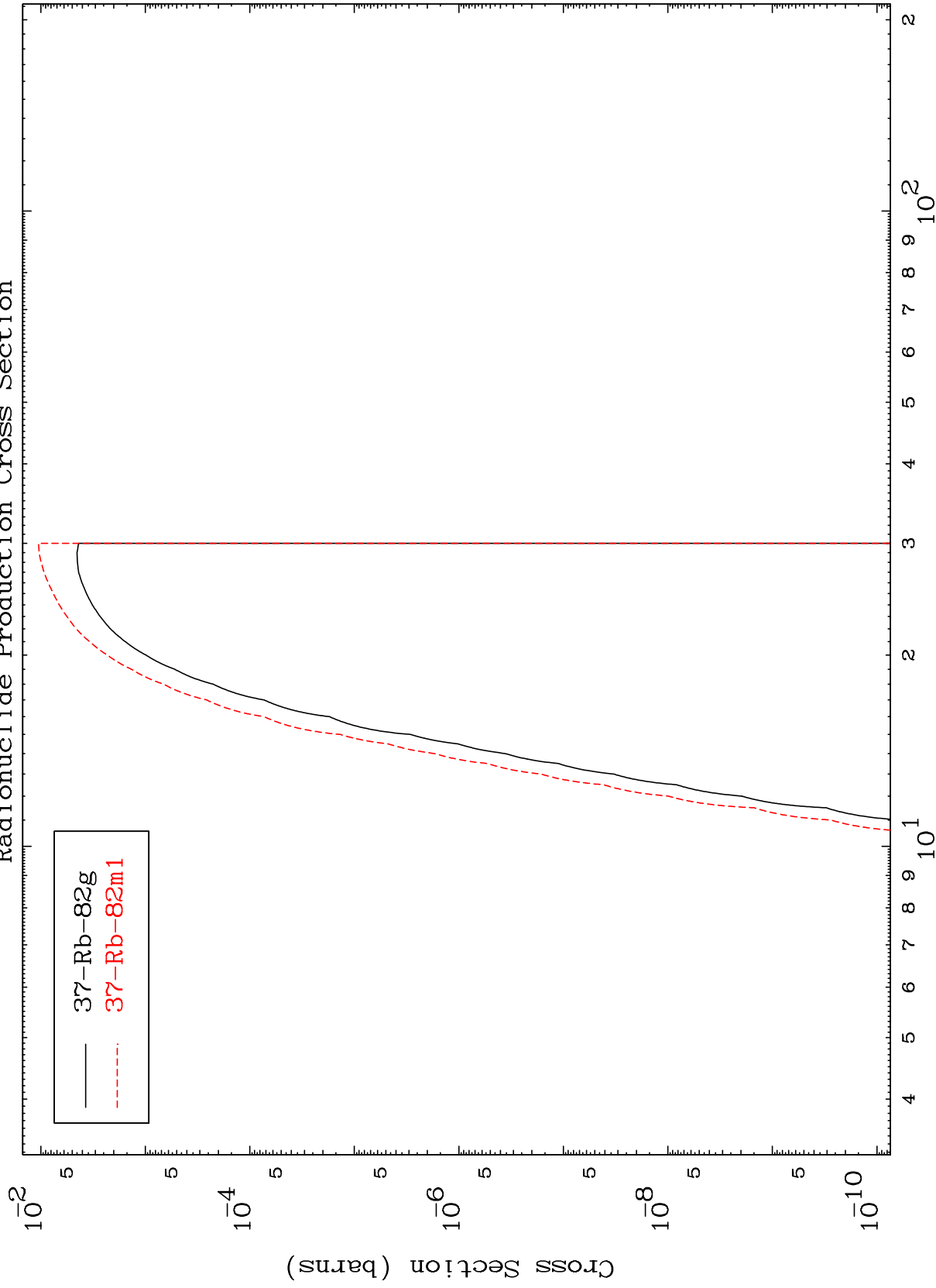
40-Zr-86

MAT 4013

(n,p)  $\alpha$

40-Zr-86

Radionuclide Production Cross Section



37-Rb-82g  
37-Rb-82m1

89

Incident Energy (MeV)

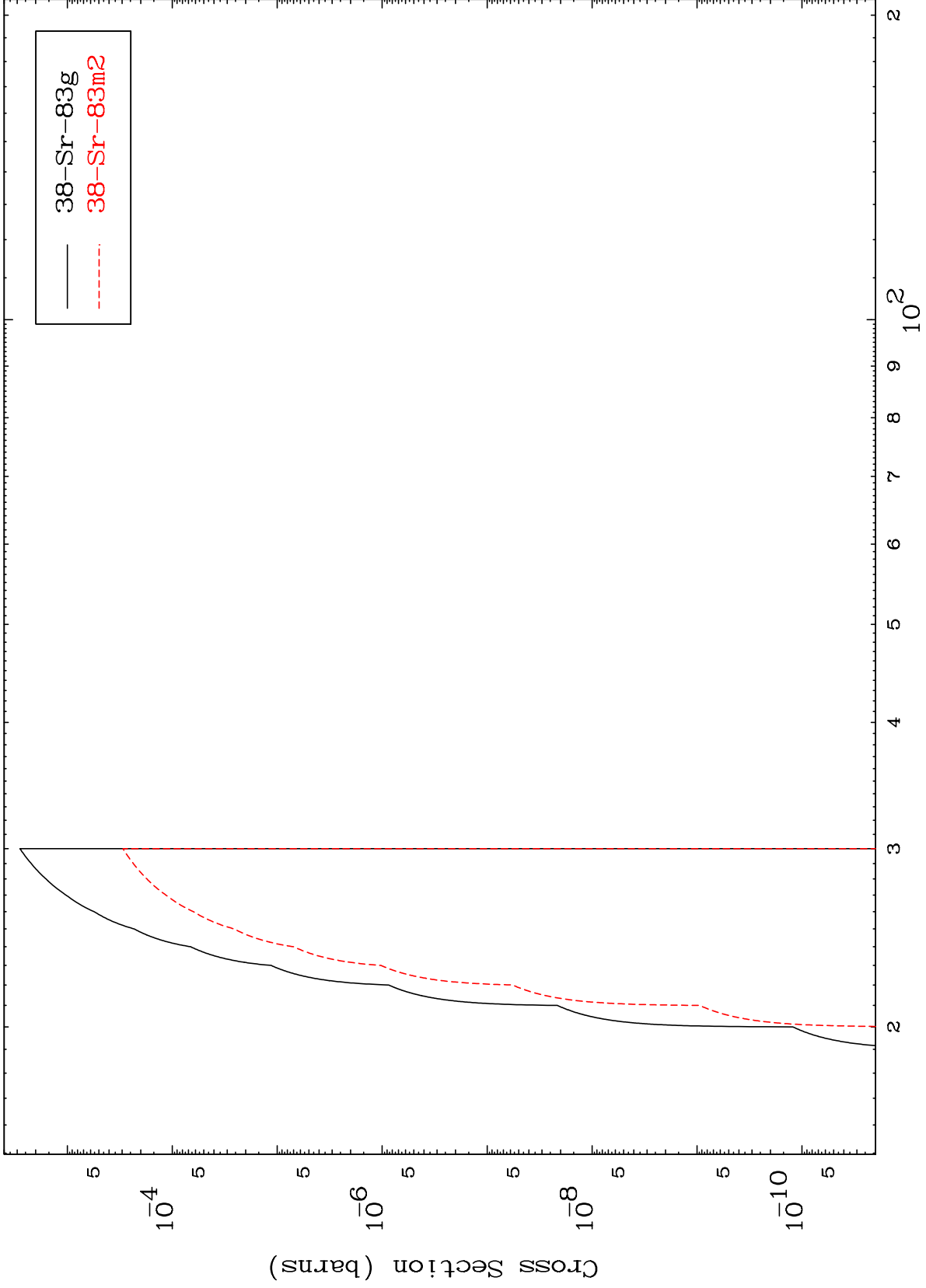
40-Zr-86

MAT 4013

(n,p) t

40-Zr-86

Radionuclide Production Cross Section



90

Incident Energy (MeV)

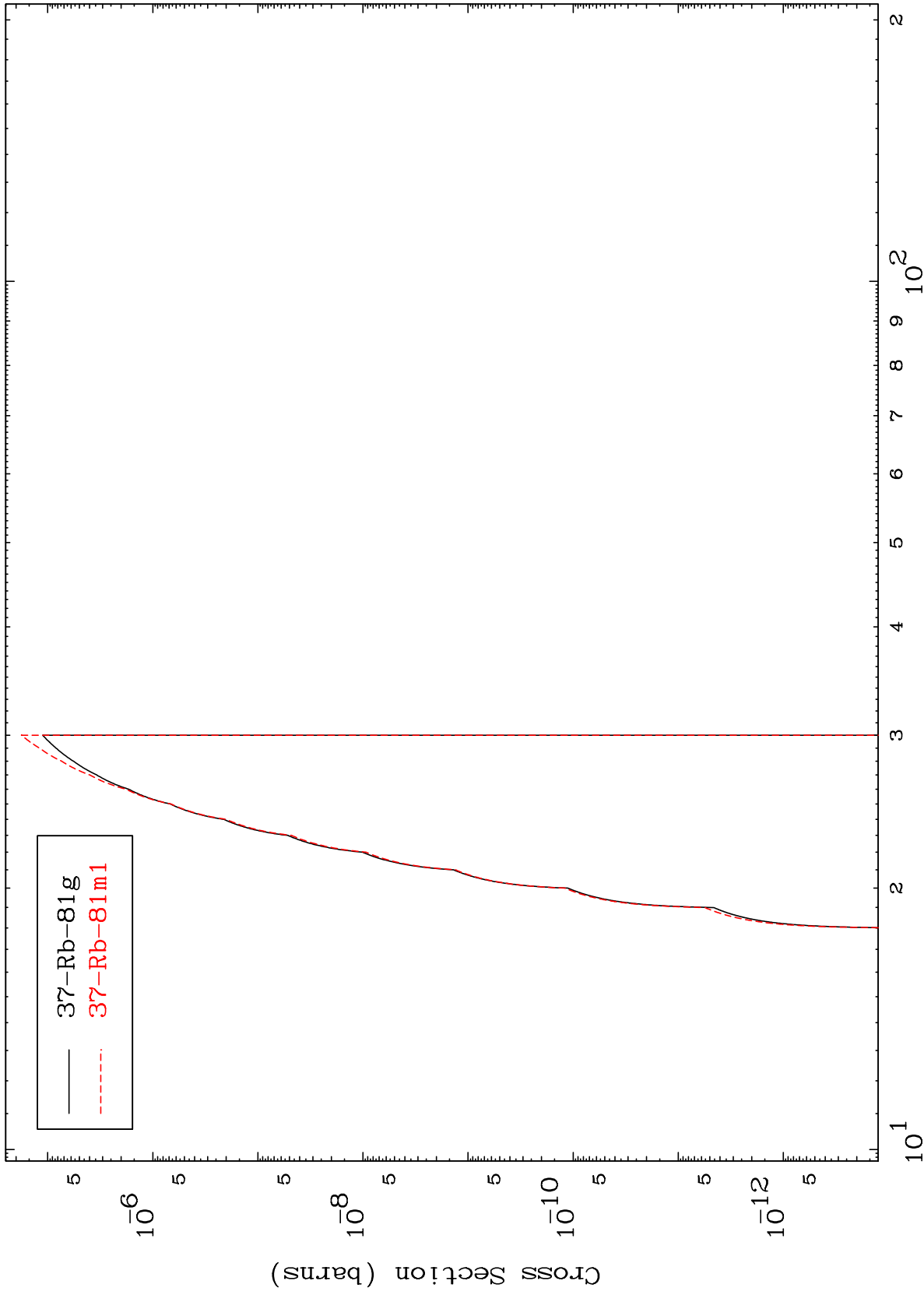
40-Zr-86

MAT 4013

(n,d)  $\alpha$

40-Zr-86

Radionuclide Production Cross Section



91

Incident Energy (MeV)

40-Zr-86