

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](mailto:redcullen1@comcast.net)

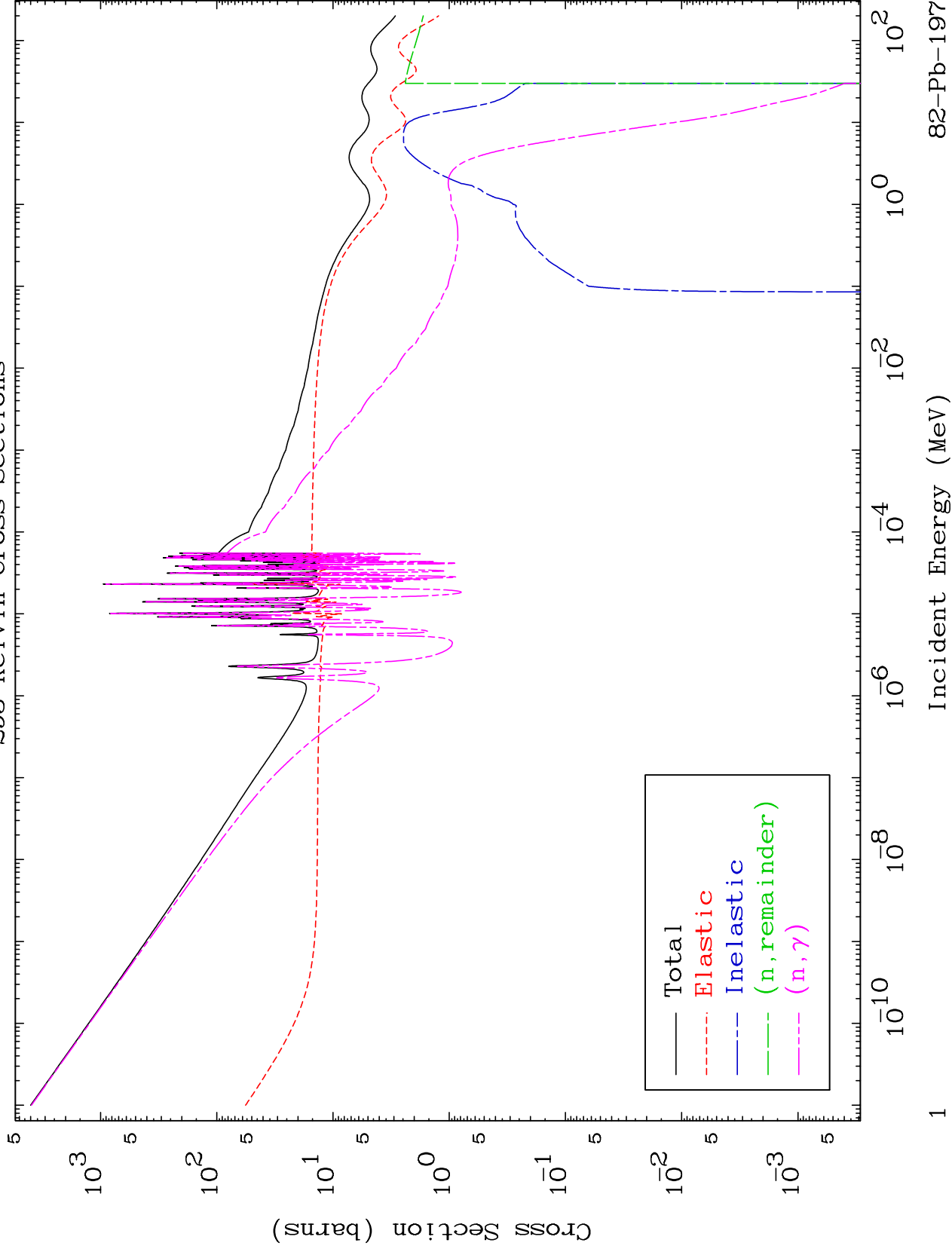
Web: [redcullen1.net/HOMEPAGE.NEW](http://redcullen1.net/HOMEPAGE.NEW)

Press Mouse Button to Start

MAT 8204

Major  
293 Kelvin Cross Sections

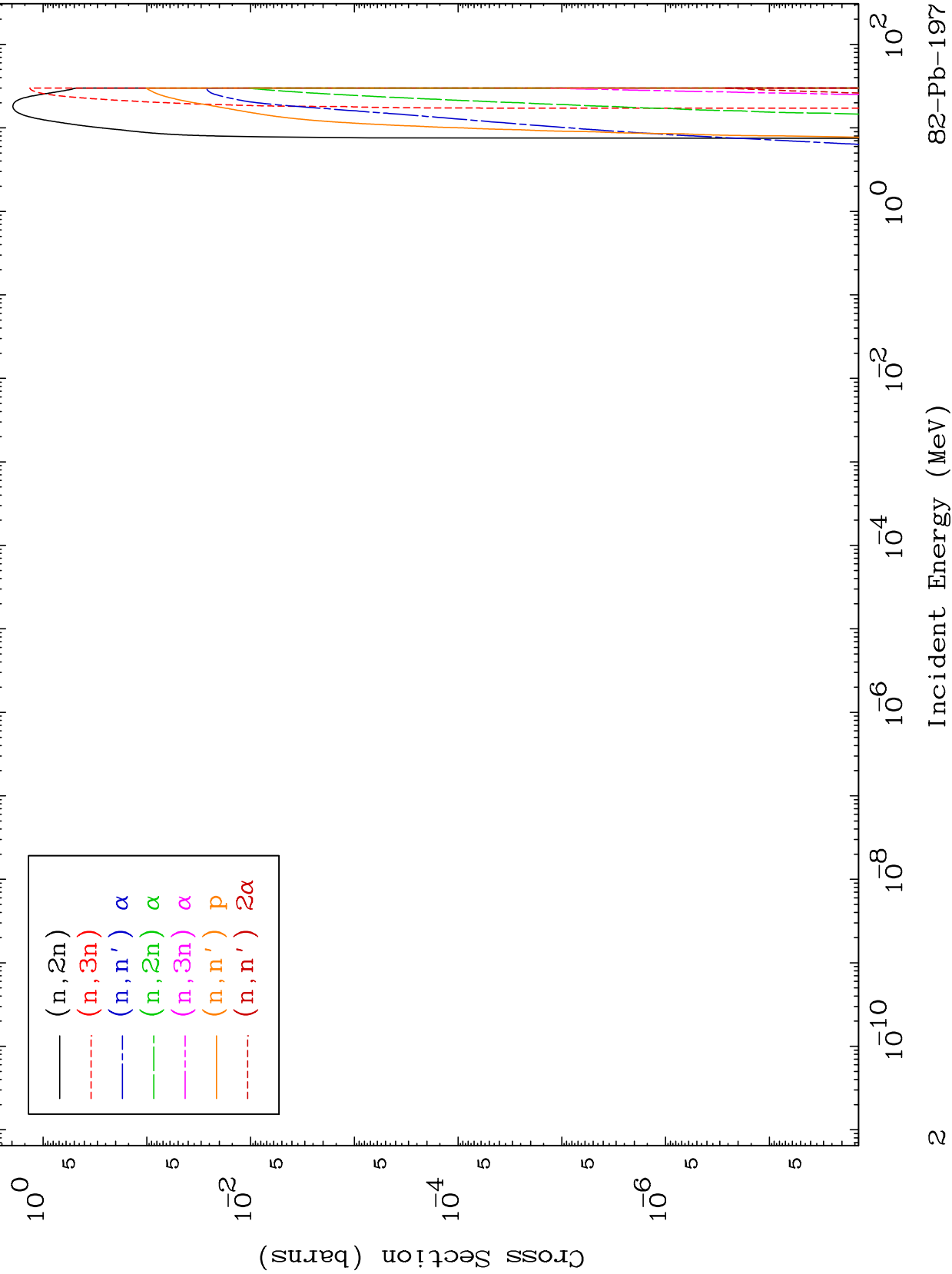
82-Pb-197

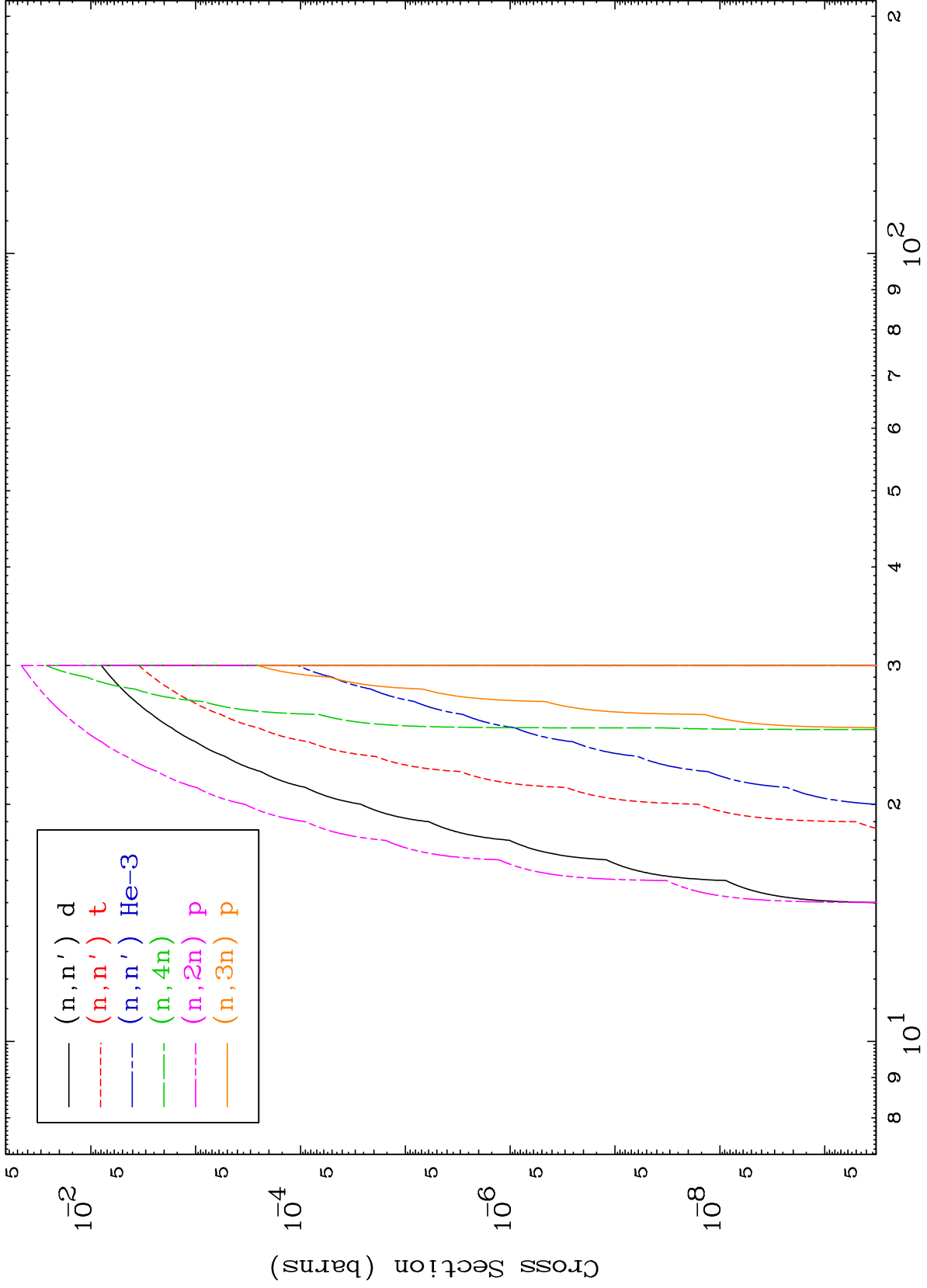


MAT 8204

Neutron Production  
293 Kelvin Cross Sections

82-Pb-197

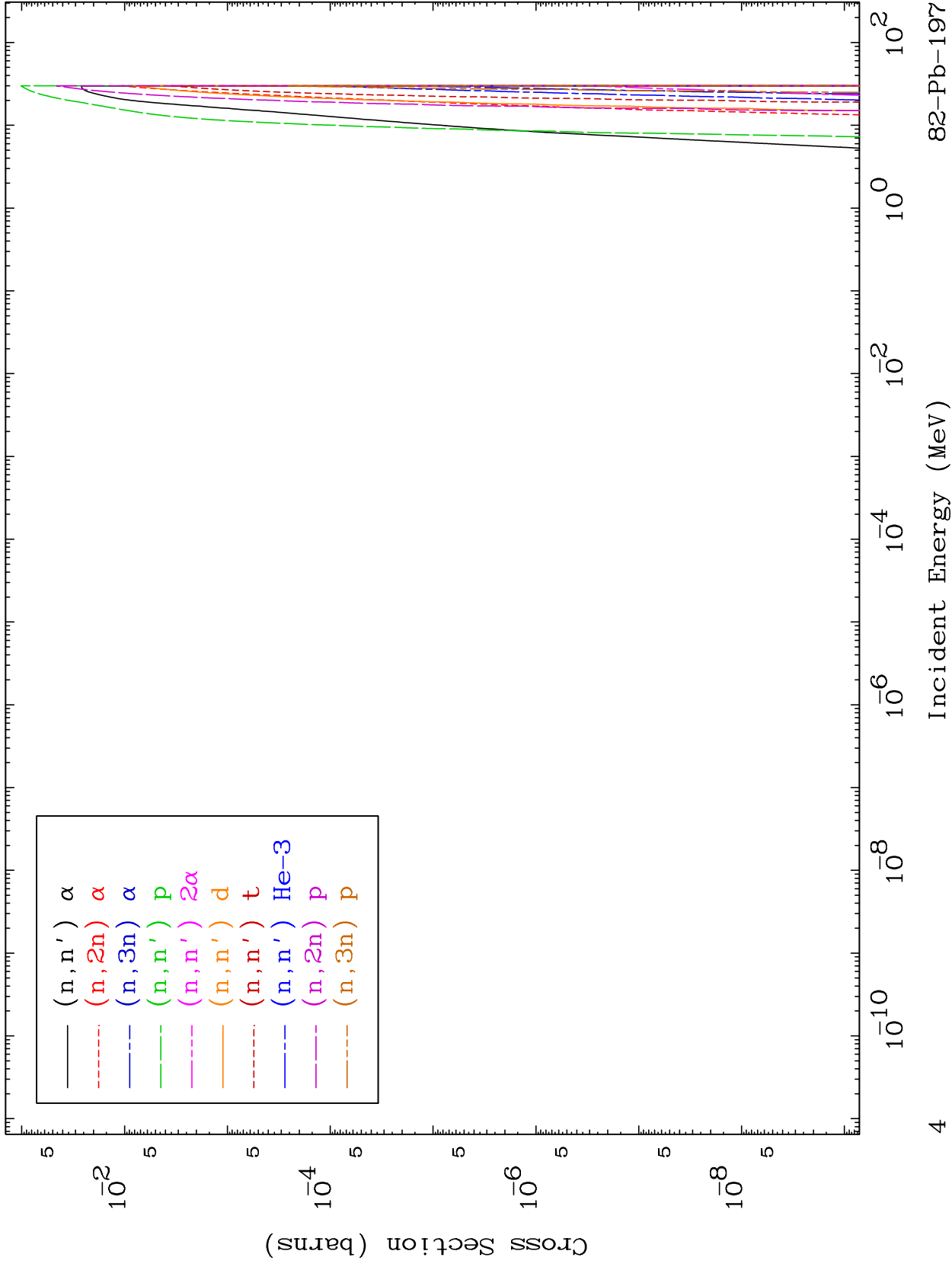




MAT 8204

Charged Particle  
293 Kelvin Cross Sections

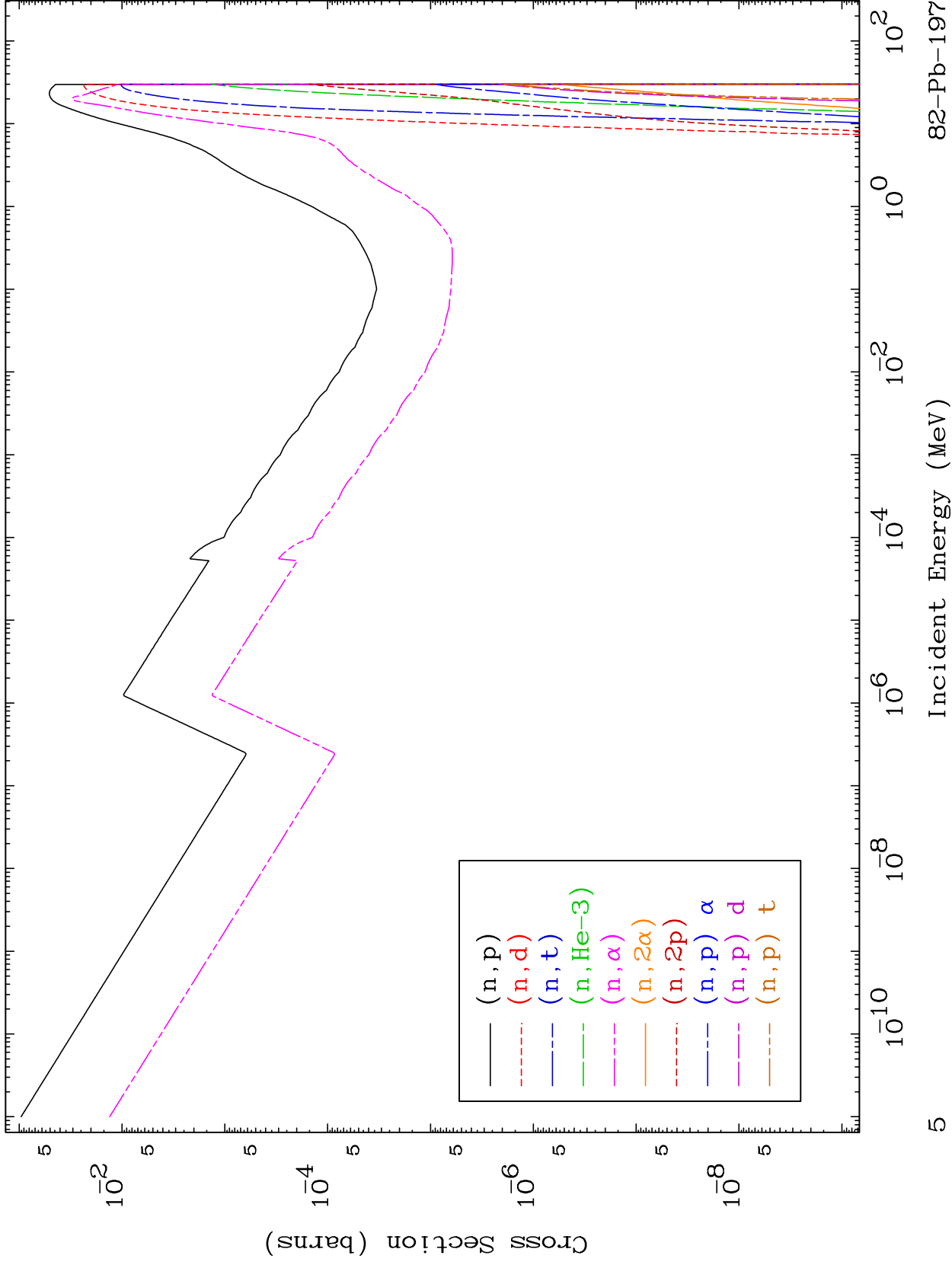
82-Pb-197



MAT 8204

Charged Particle  
293 Kelvin Cross Sections

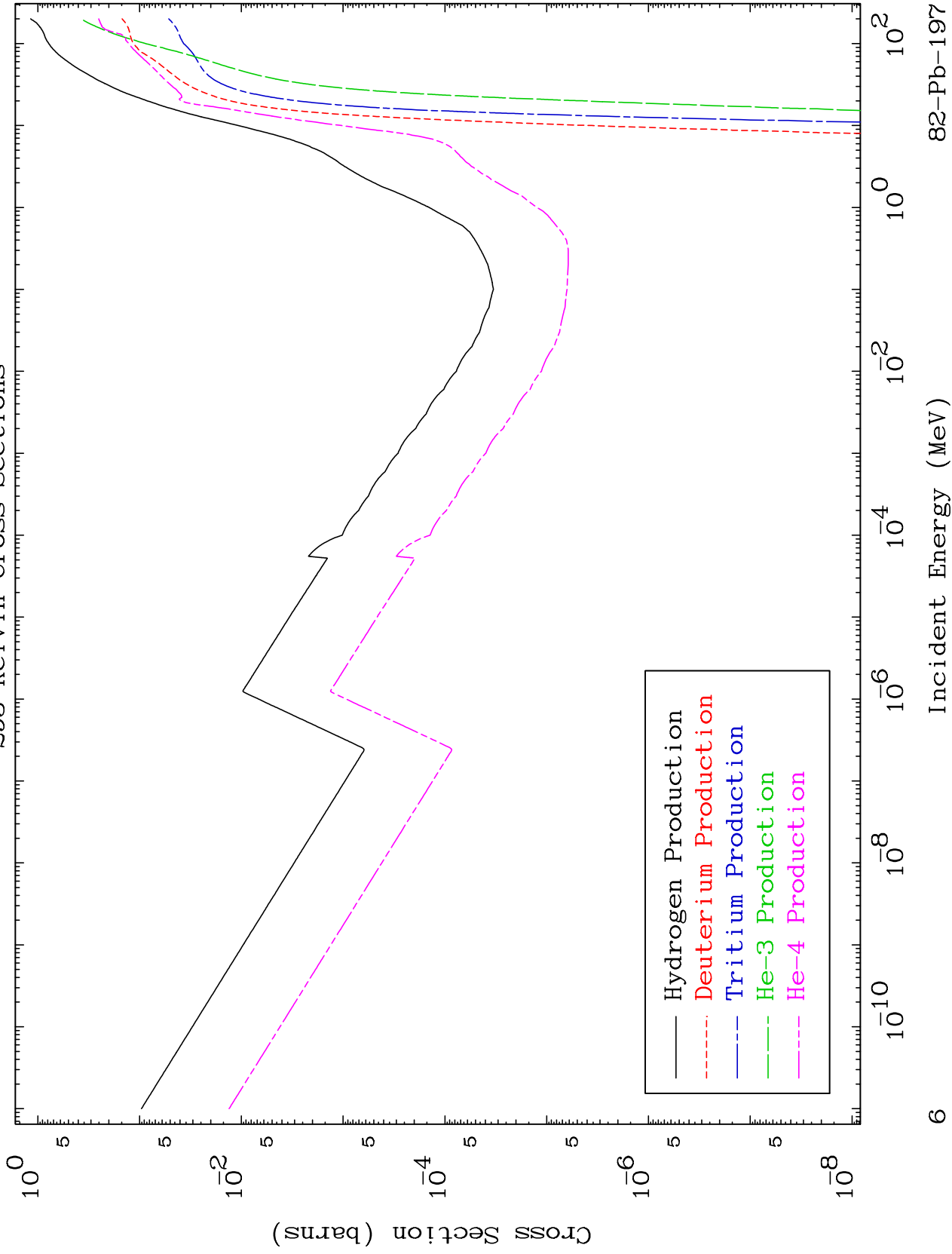
82-Pb-197

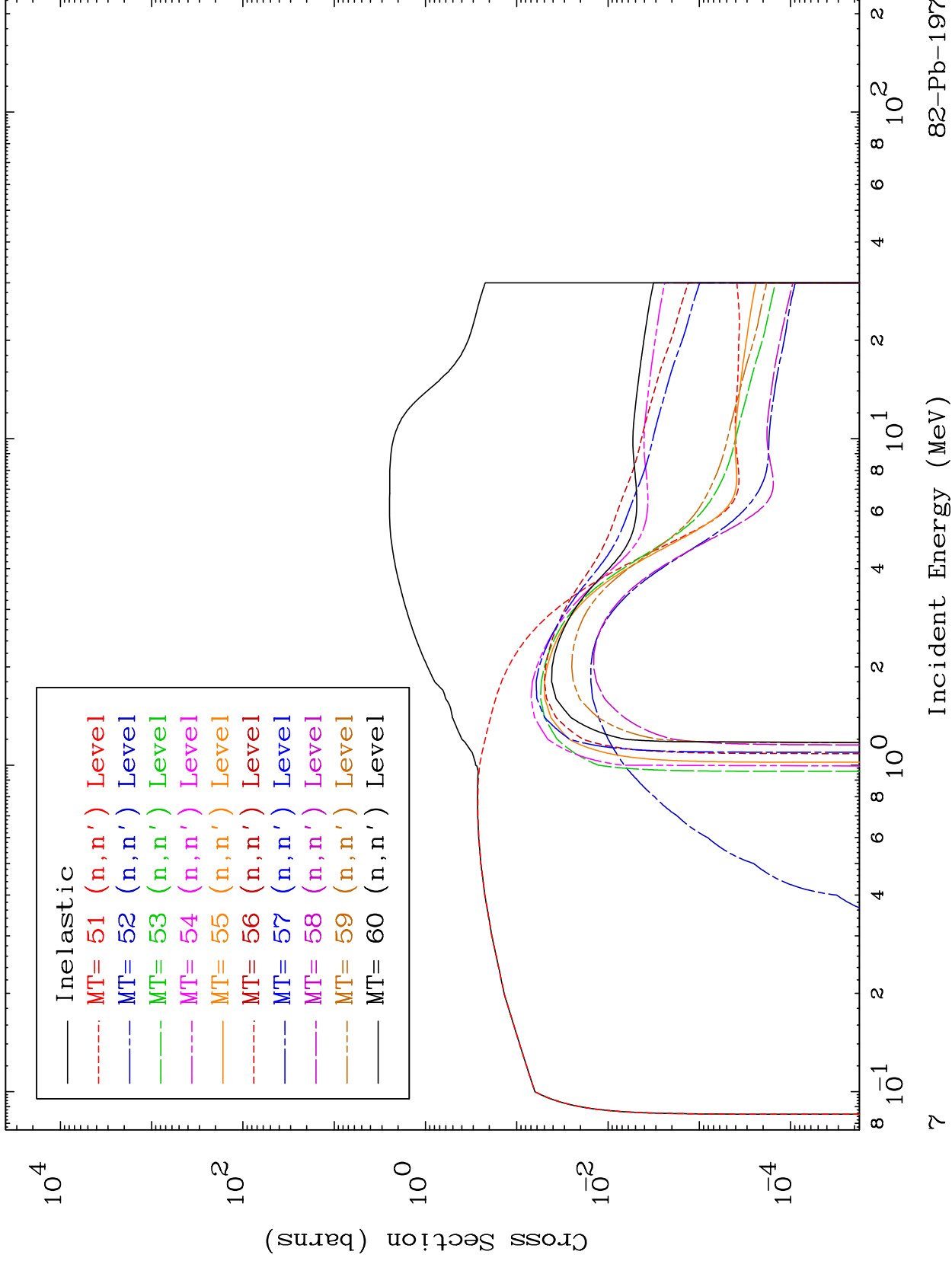


MAT 8204

Particle Production  
293 Kelvin Cross Sections

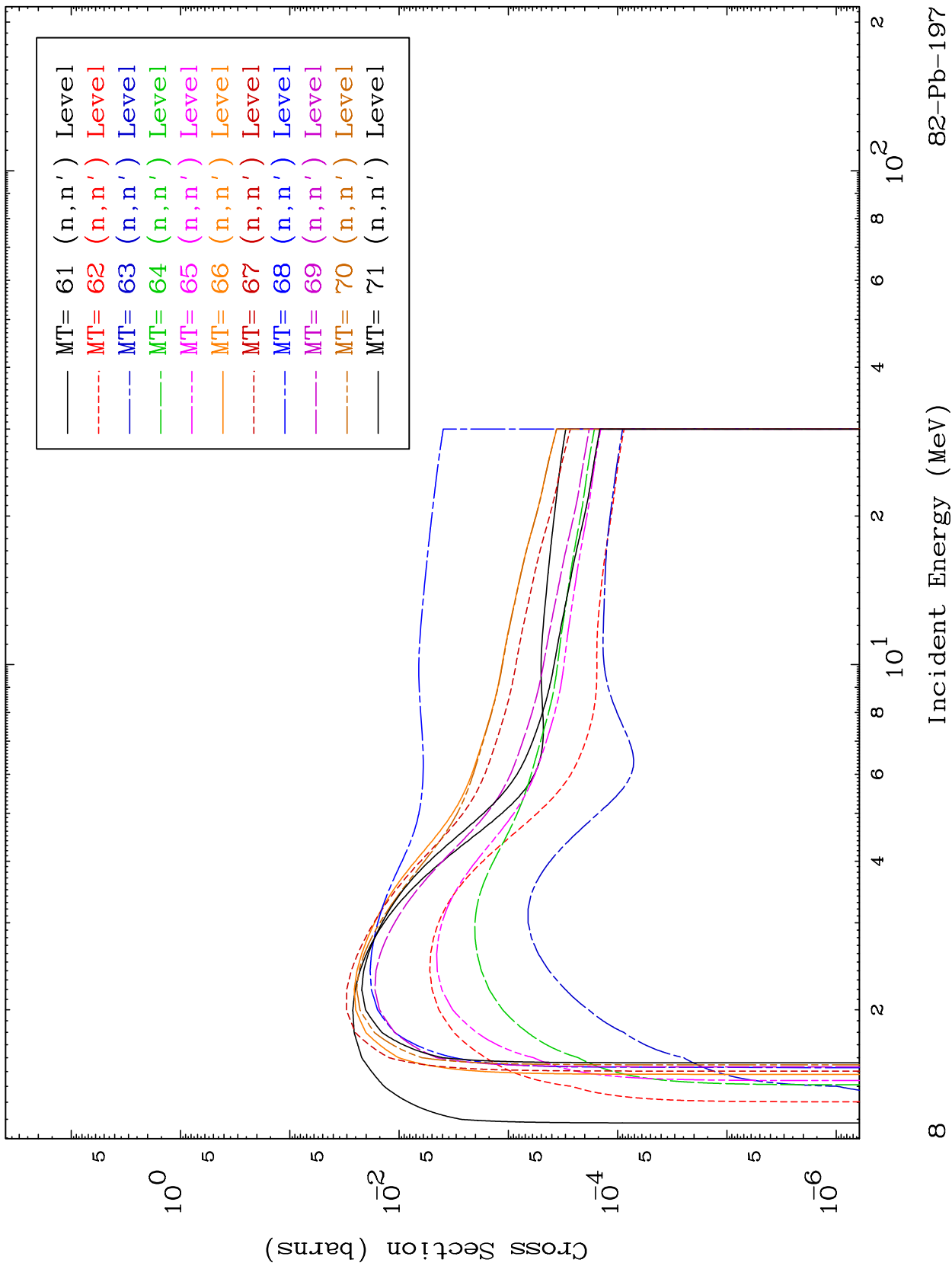
82-Pb-197







293 Kelvin Cross Sections

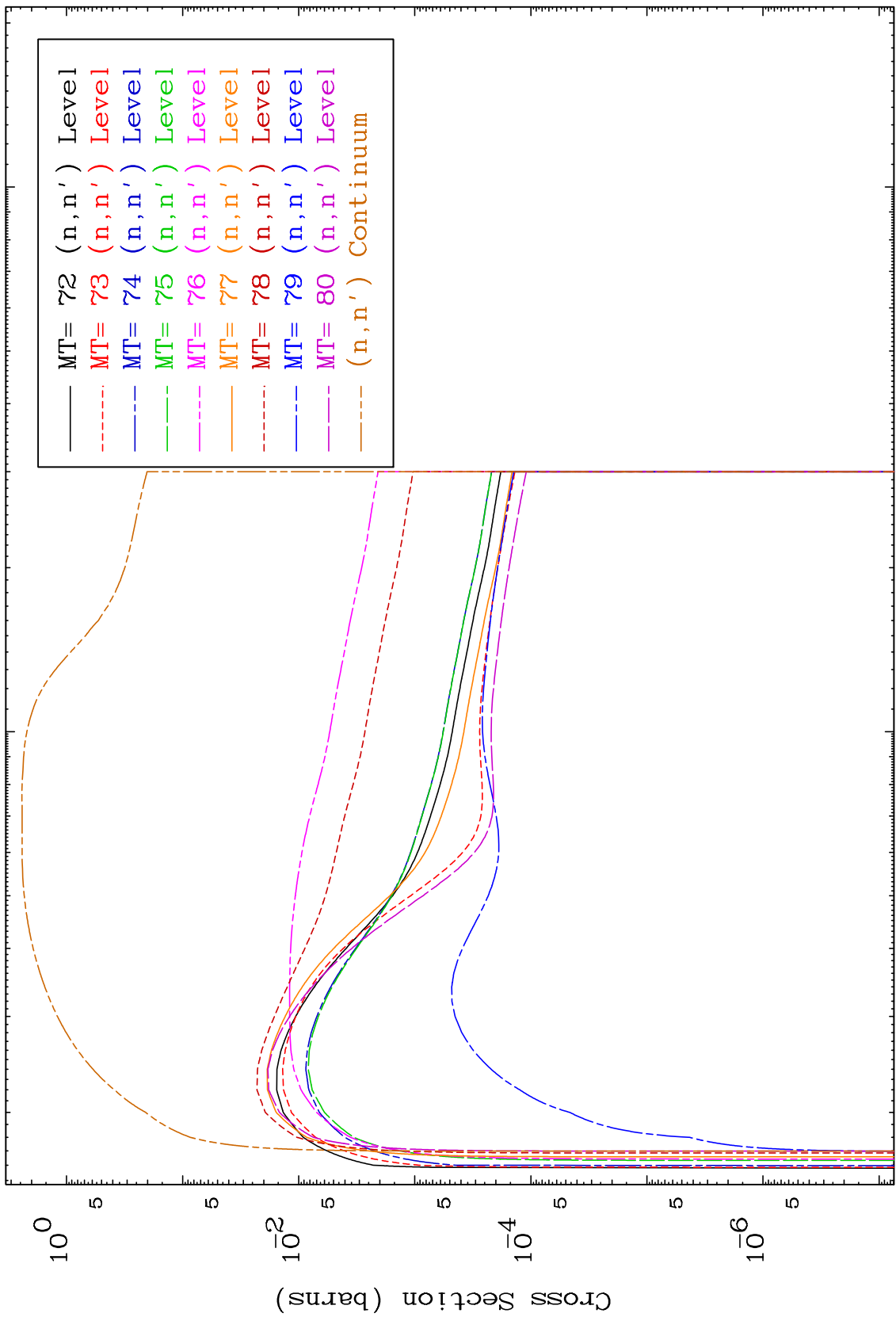


MAT 8204

(n,n') Level

82-Pb-197

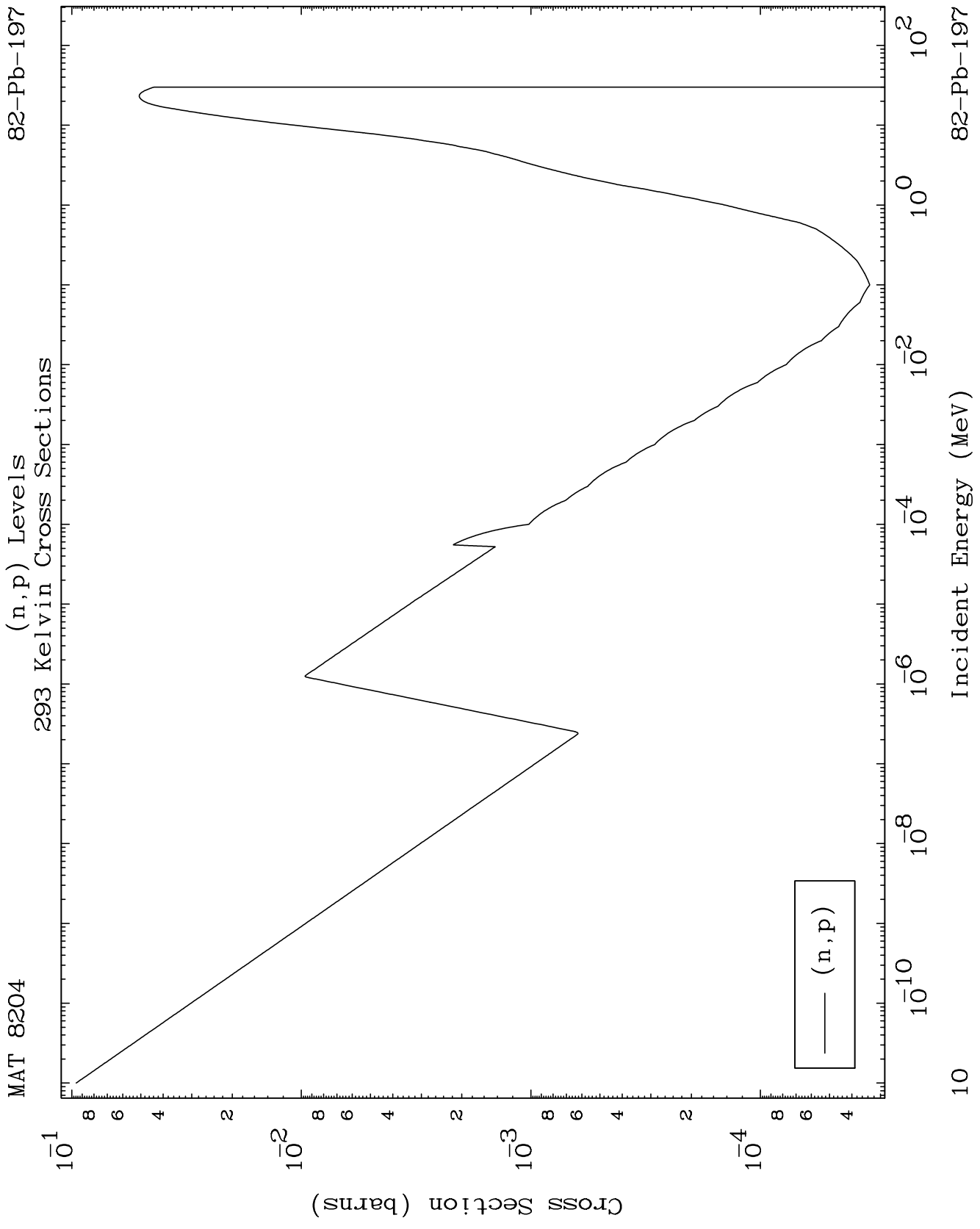
293 Kelvin Cross Sections



9

Incident Energy (MeV)

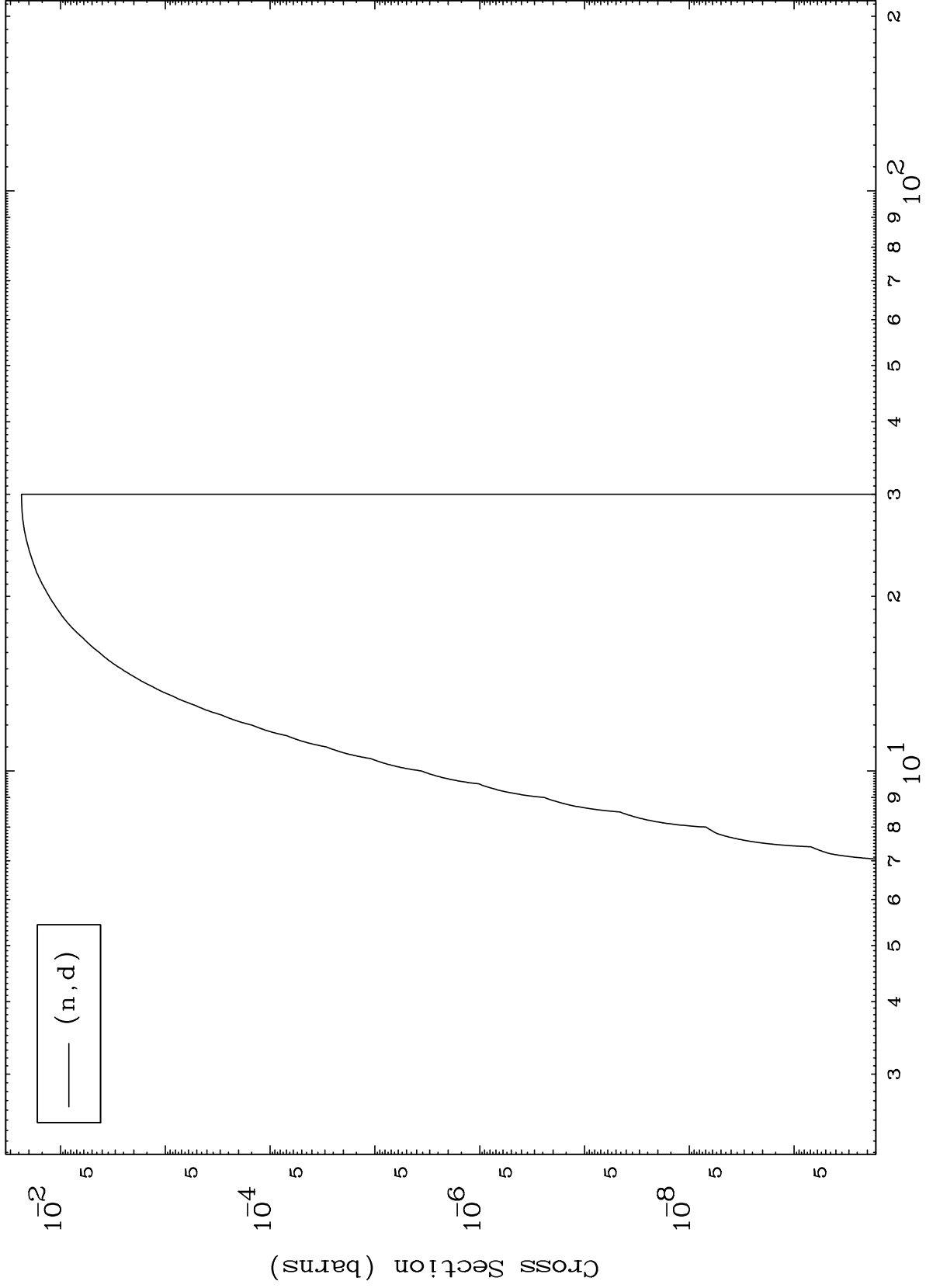
82-Pb-197



MAT 8204

(n,d) Levels  
293 Kelvin Cross Sections

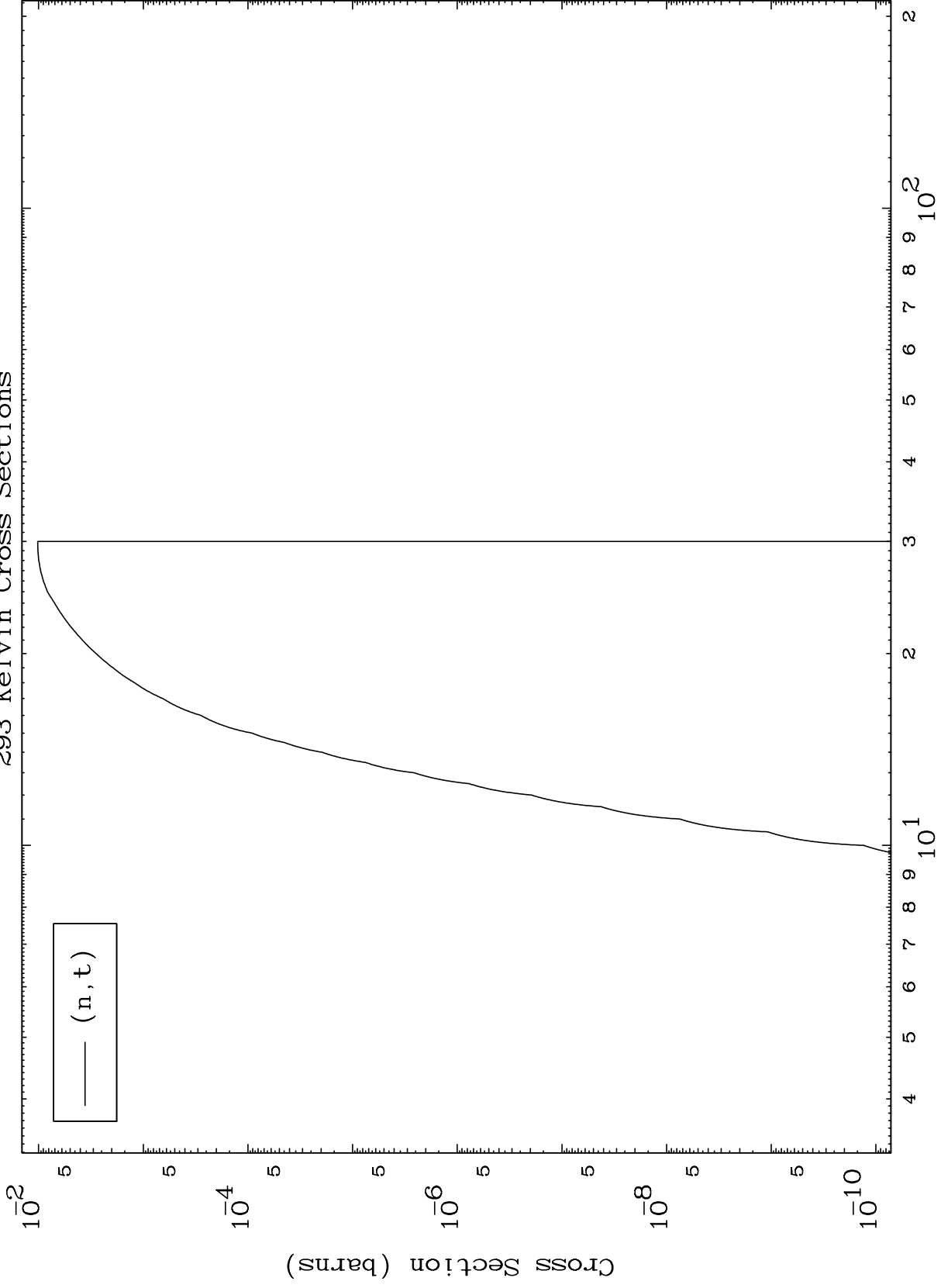
82-Pb-197



MAT 8204

(n,t) Levels  
293 Kelvin Cross Sections

82-Pb-197



12

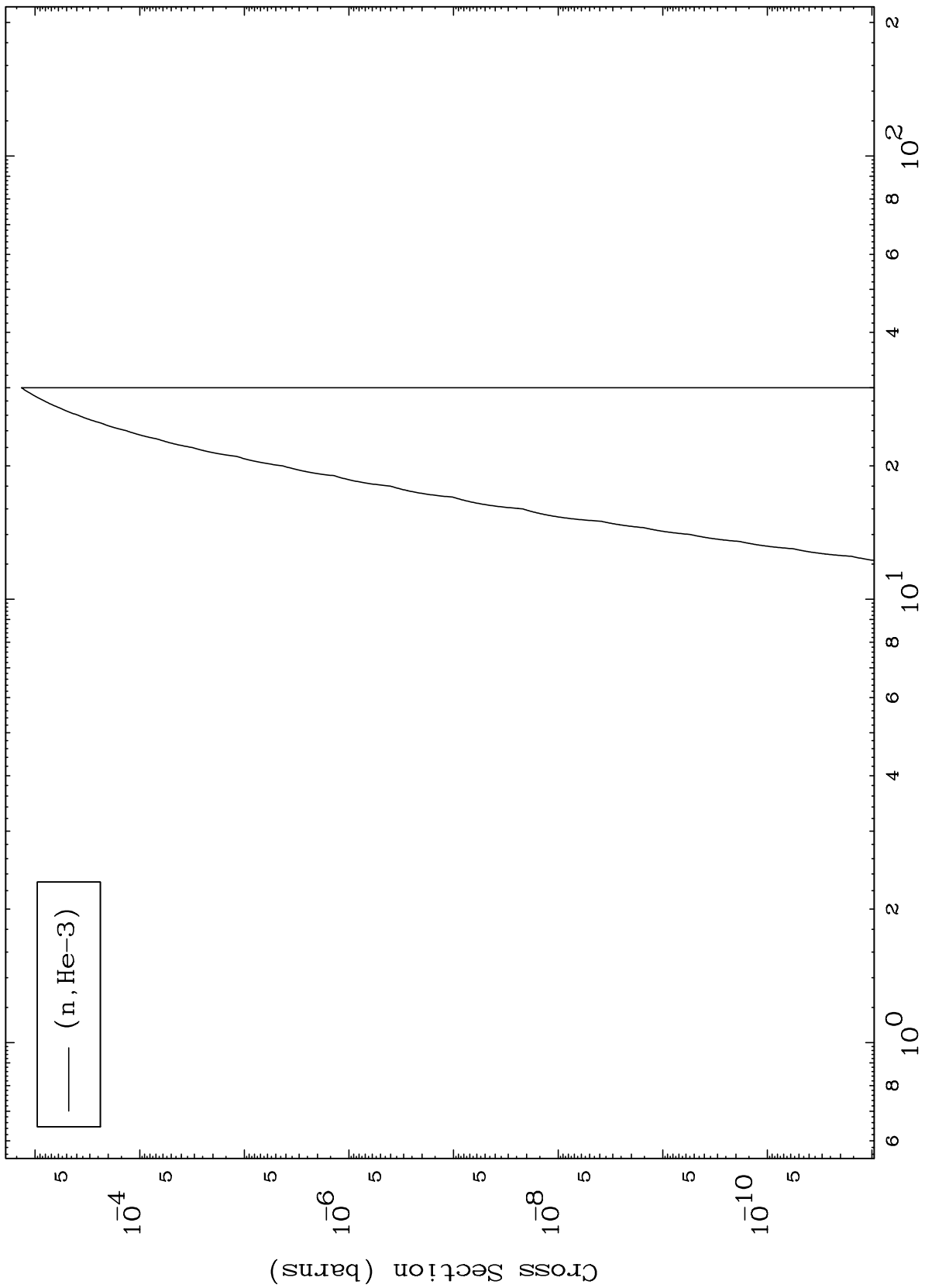
Incident Energy (MeV)

82-Pb-197

MAT 8204

(n,He3) Levels  
293 Kelvin Cross Sections

82-Pb-197



13

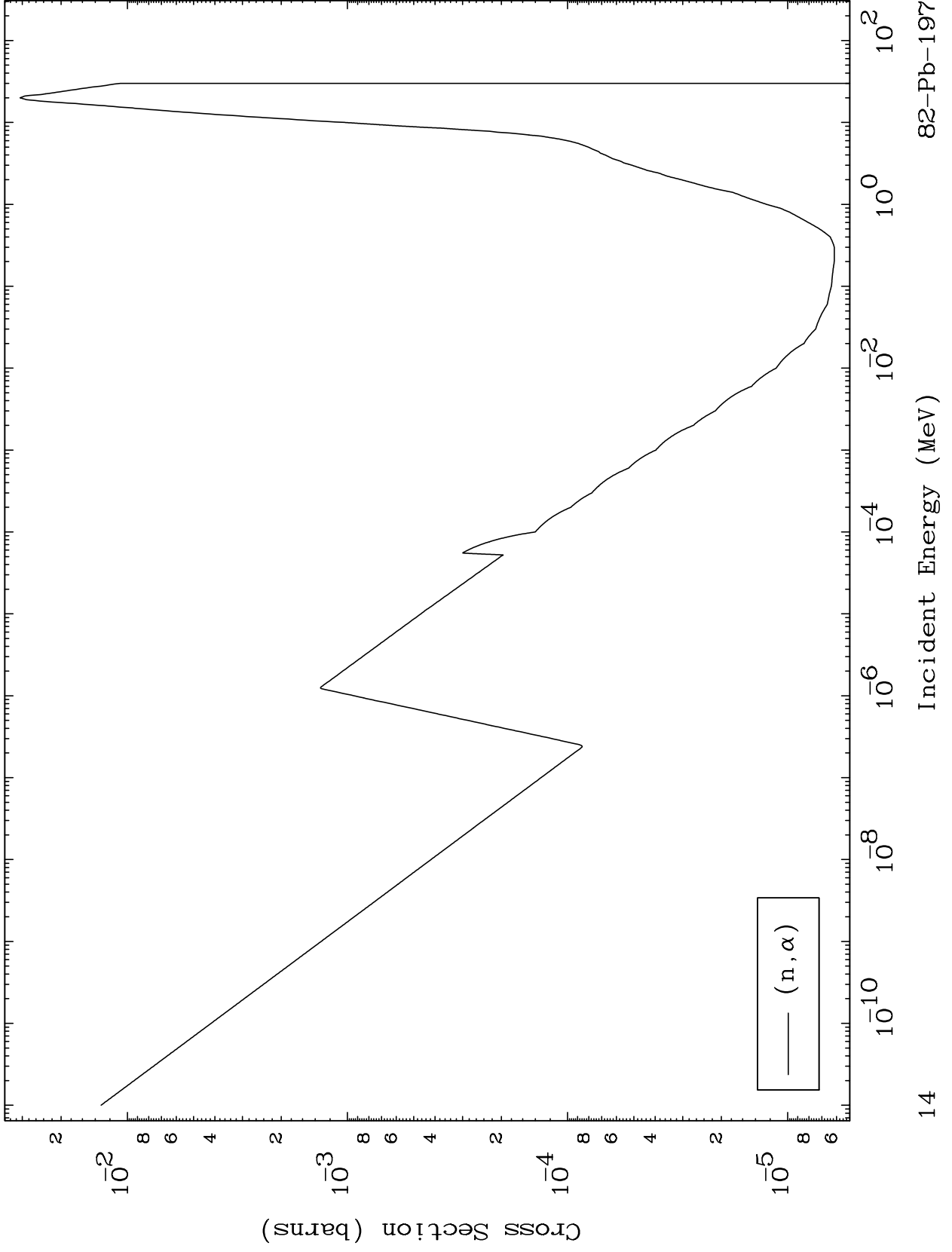
Incident Energy (MeV)

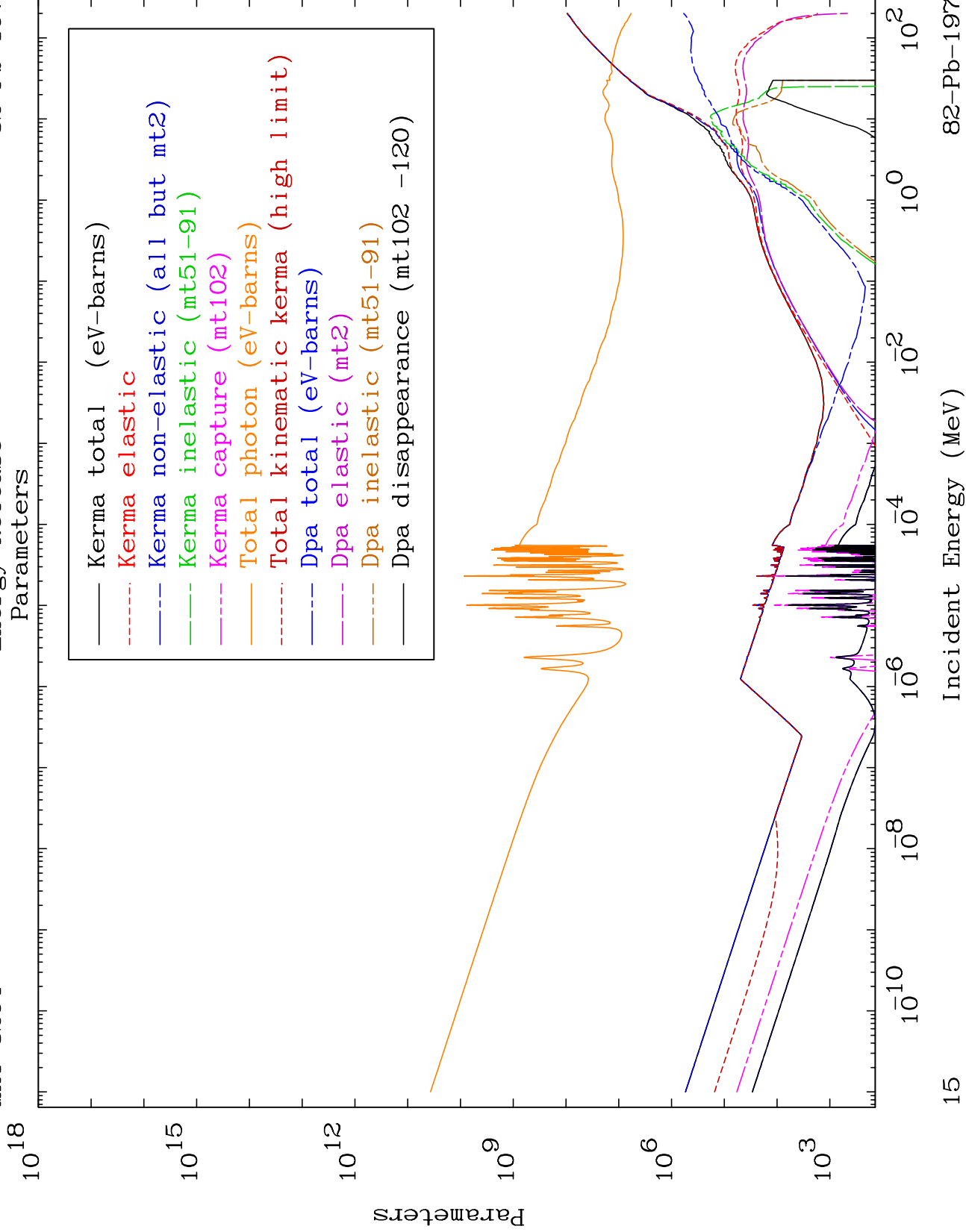
82-Pb-197

MAT 8204

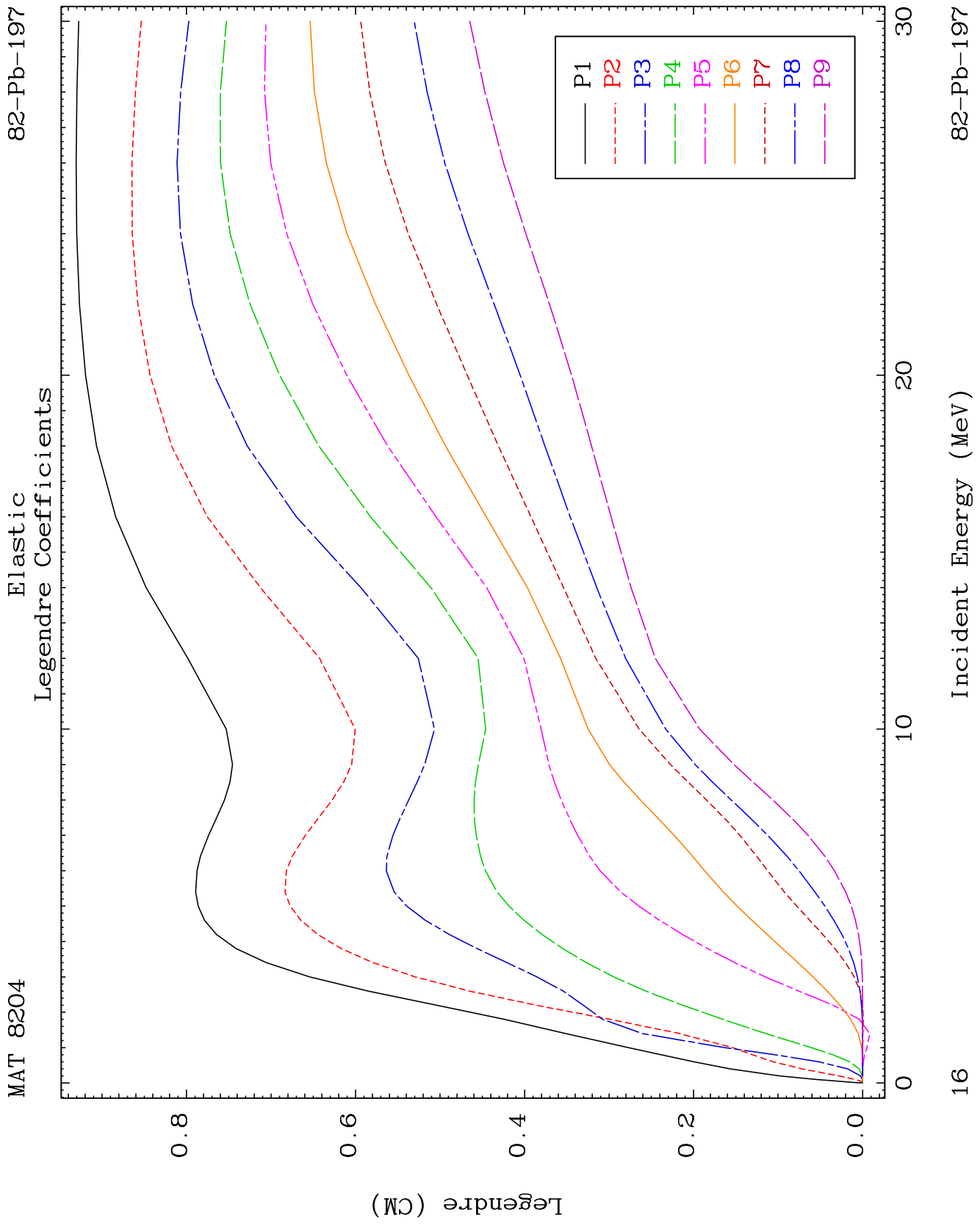
(n,  $\alpha$ ) Levels  
293 Kelvin Cross Sections

82-Pb-197









MAT 8204

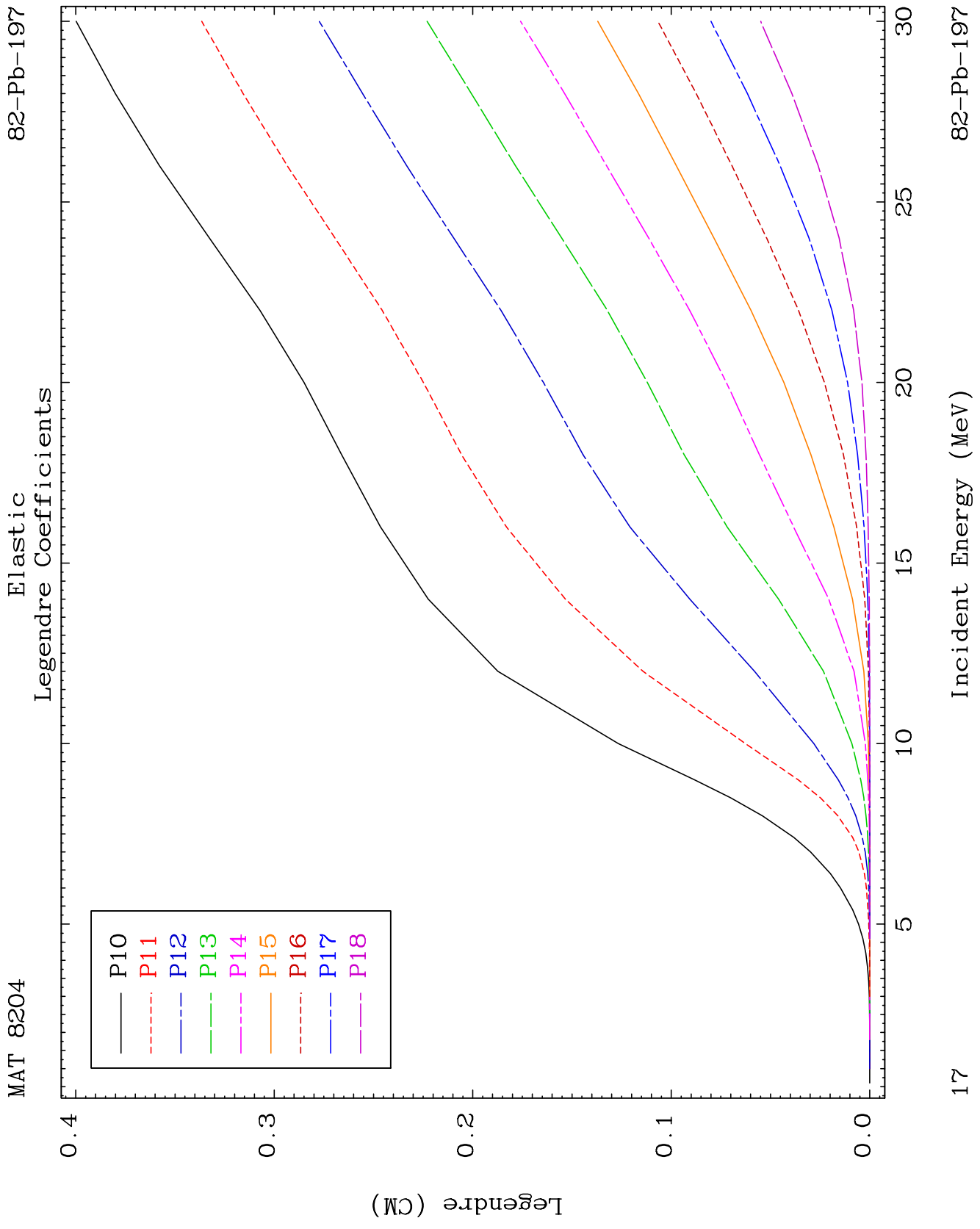
Elastic Legendre Coefficients

$^{82}\text{Pb-197}$

16

Incident Energy (MeV)

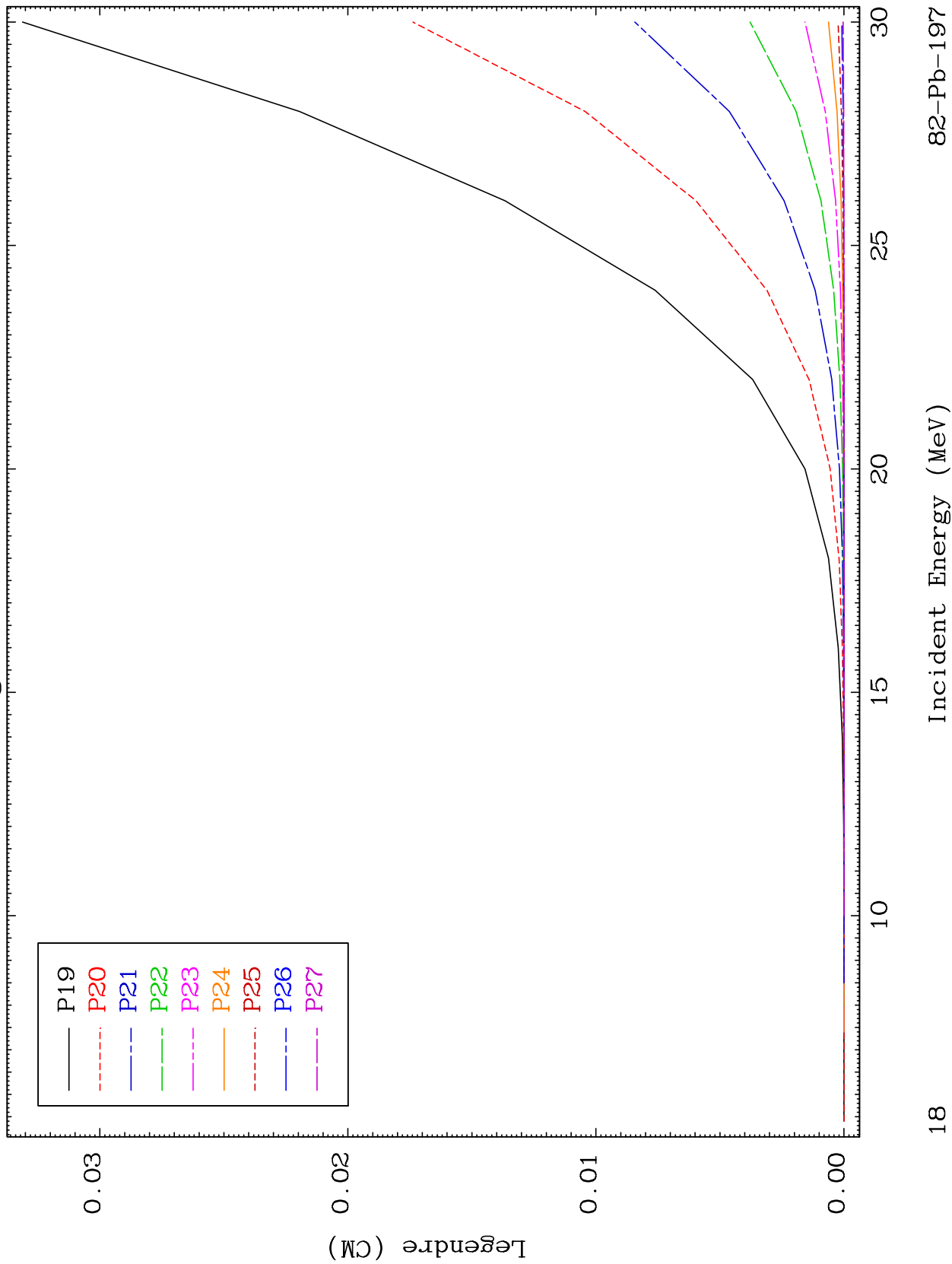
$^{82}\text{Pb-197}$



MAT 8204

### Elastic Legendre Coefficients

82-Pb-197



18

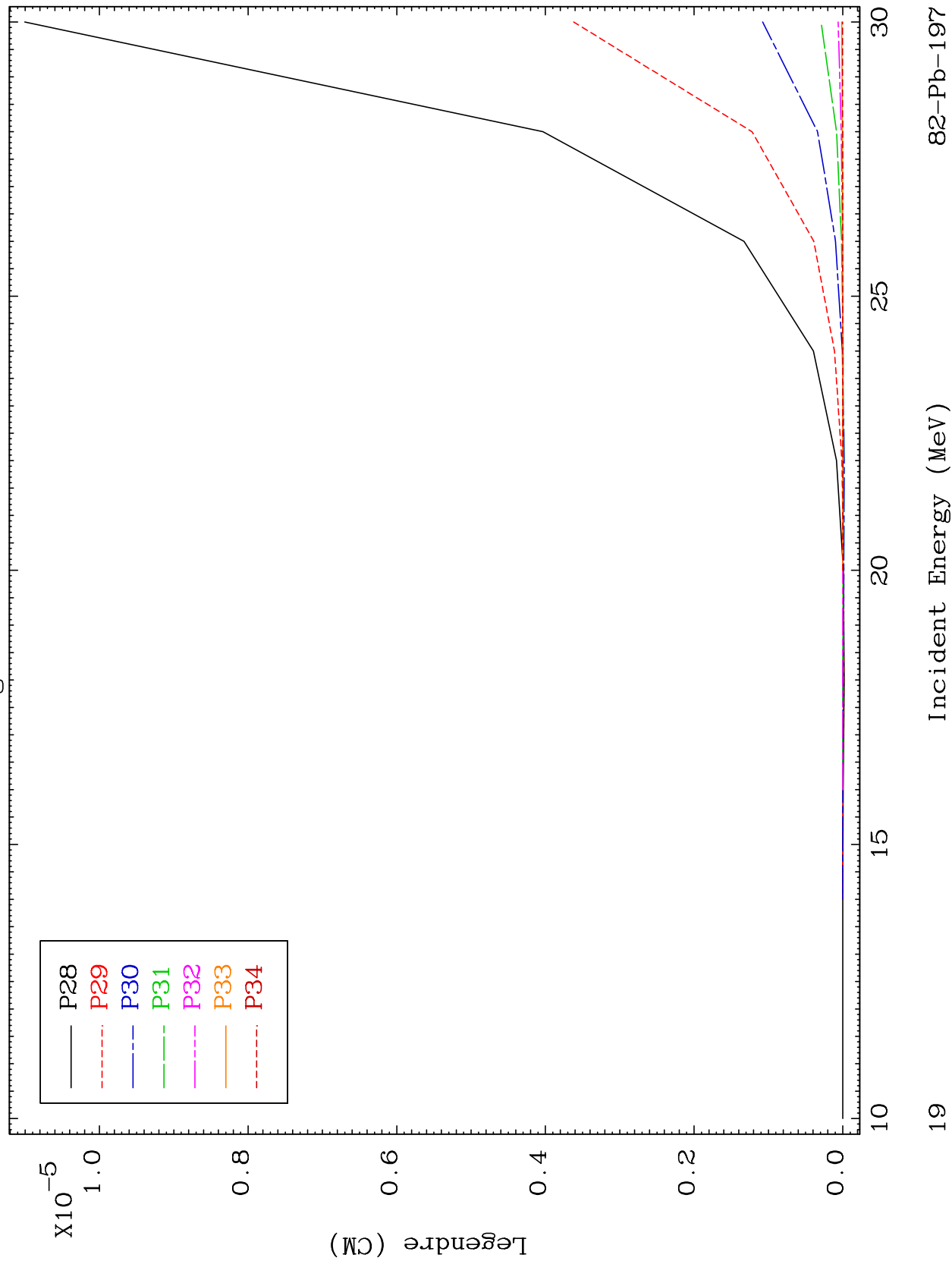
Incident Energy (MeV)

82-Pb-197

MAT 8204

Elastic Legendre Coefficients

82-Pb-197

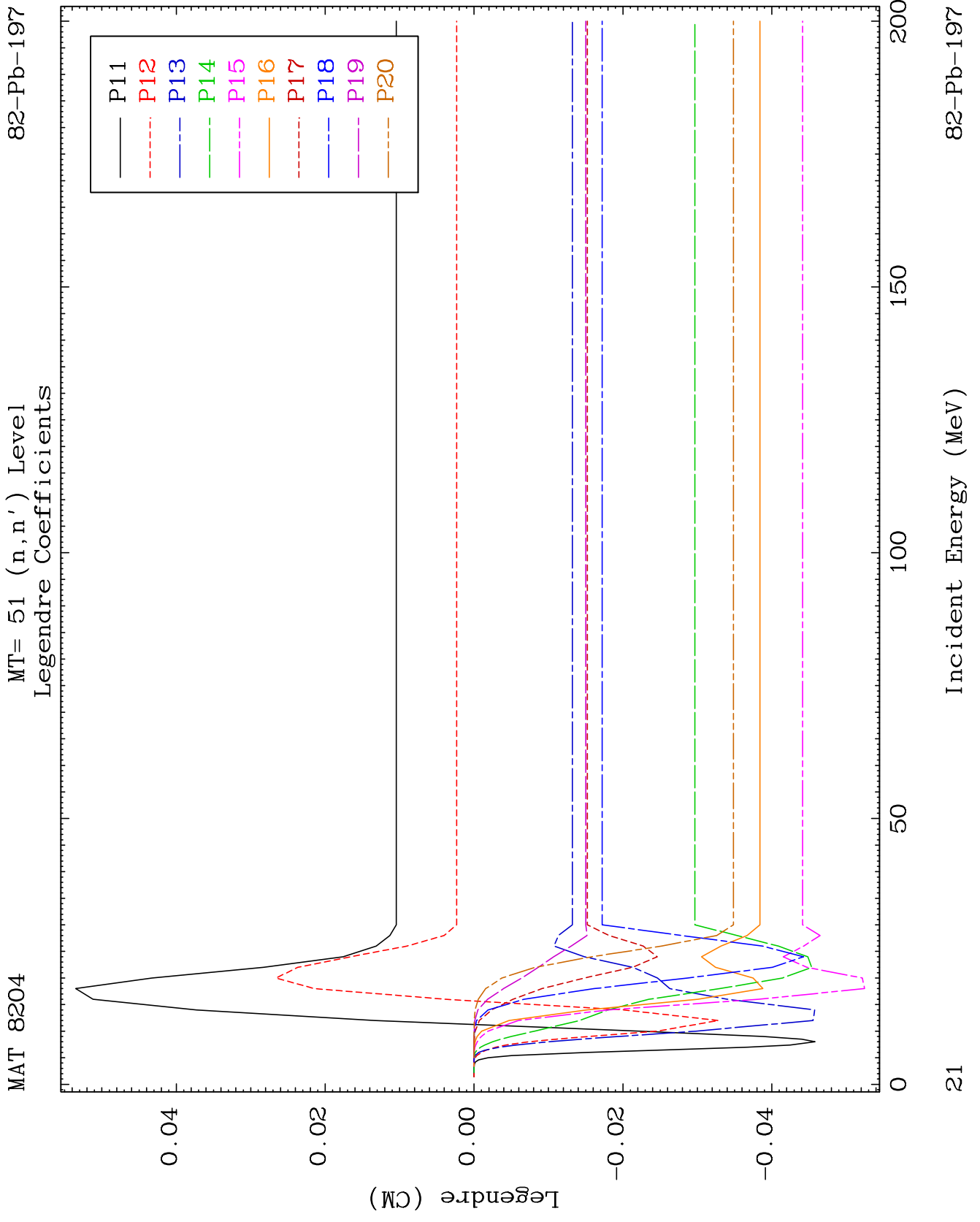


19

Incident Energy (MeV)

82-Pb-197

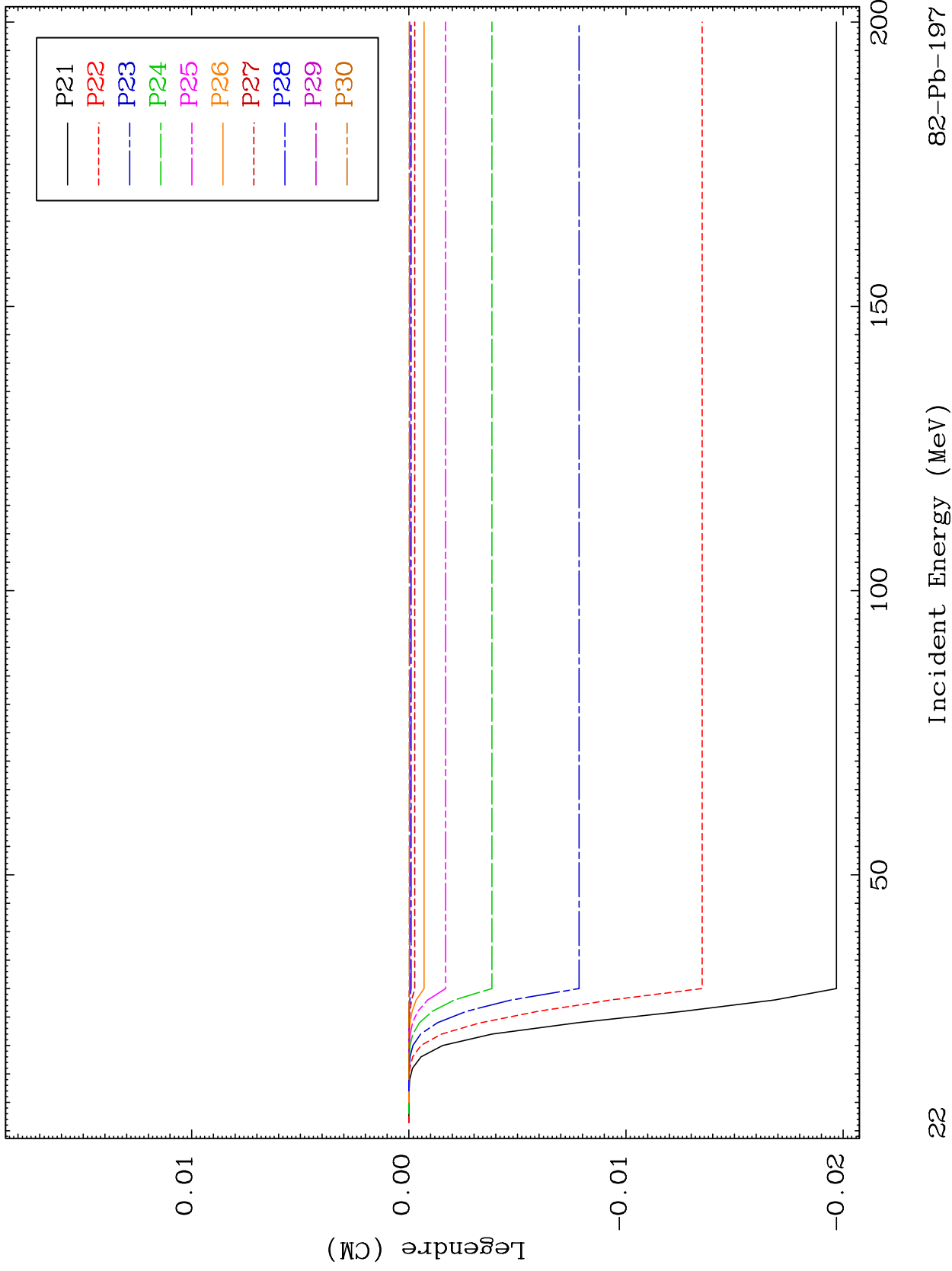




MAT 8204

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

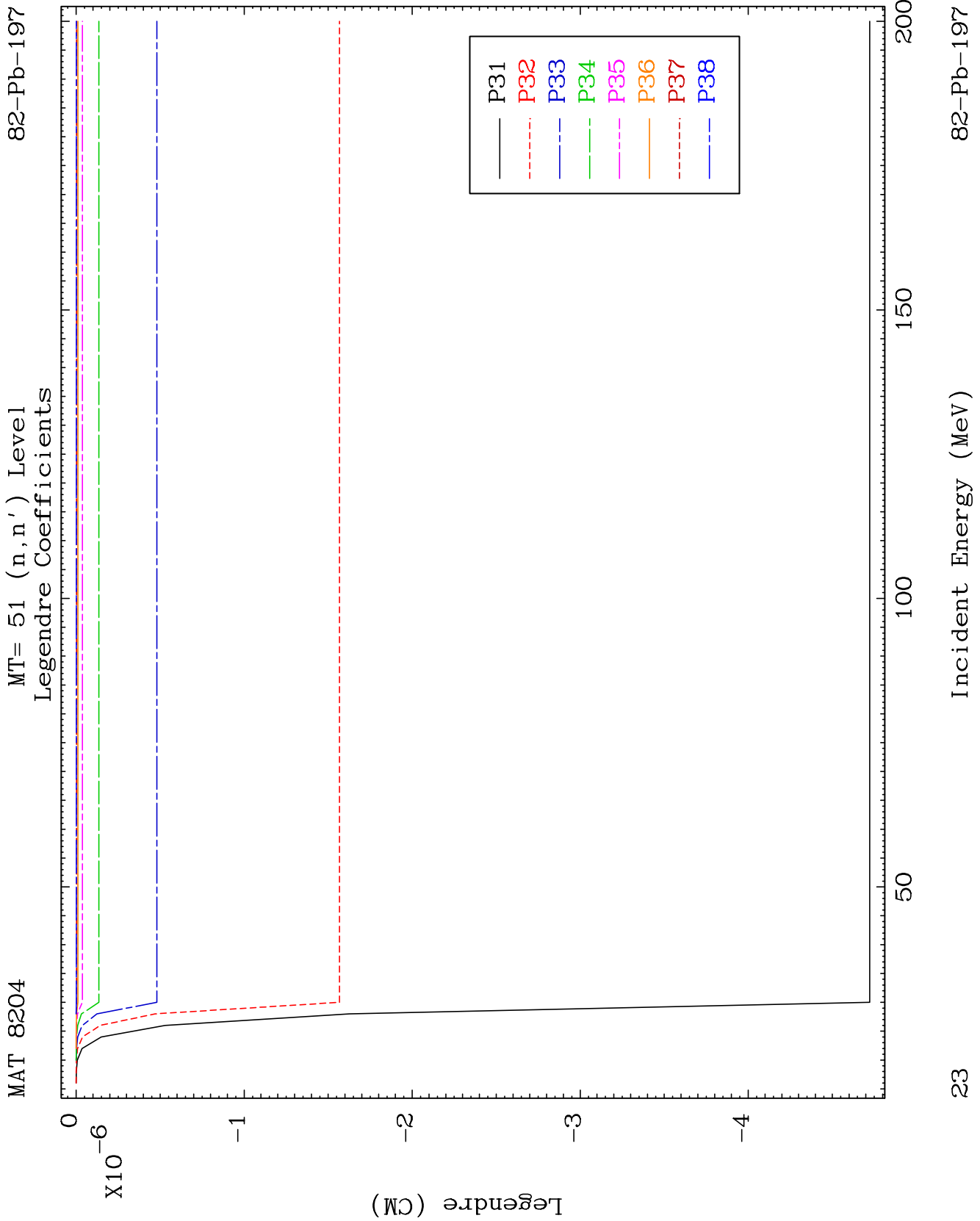
82-Pb-197



22

Incident Energy (MeV)

82-Pb-197

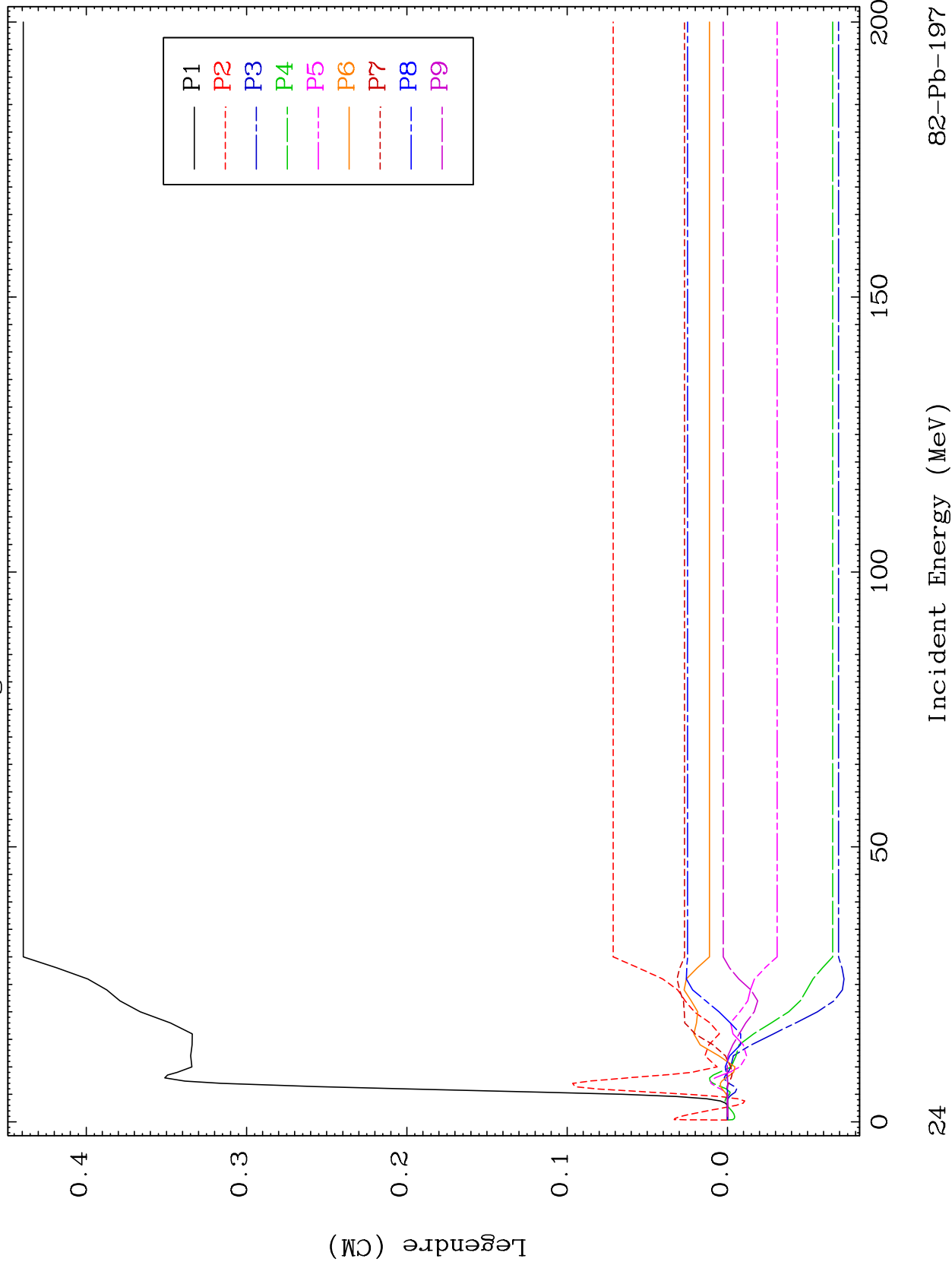




MAT 8204

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

82-Pb-197



82-Pb-197

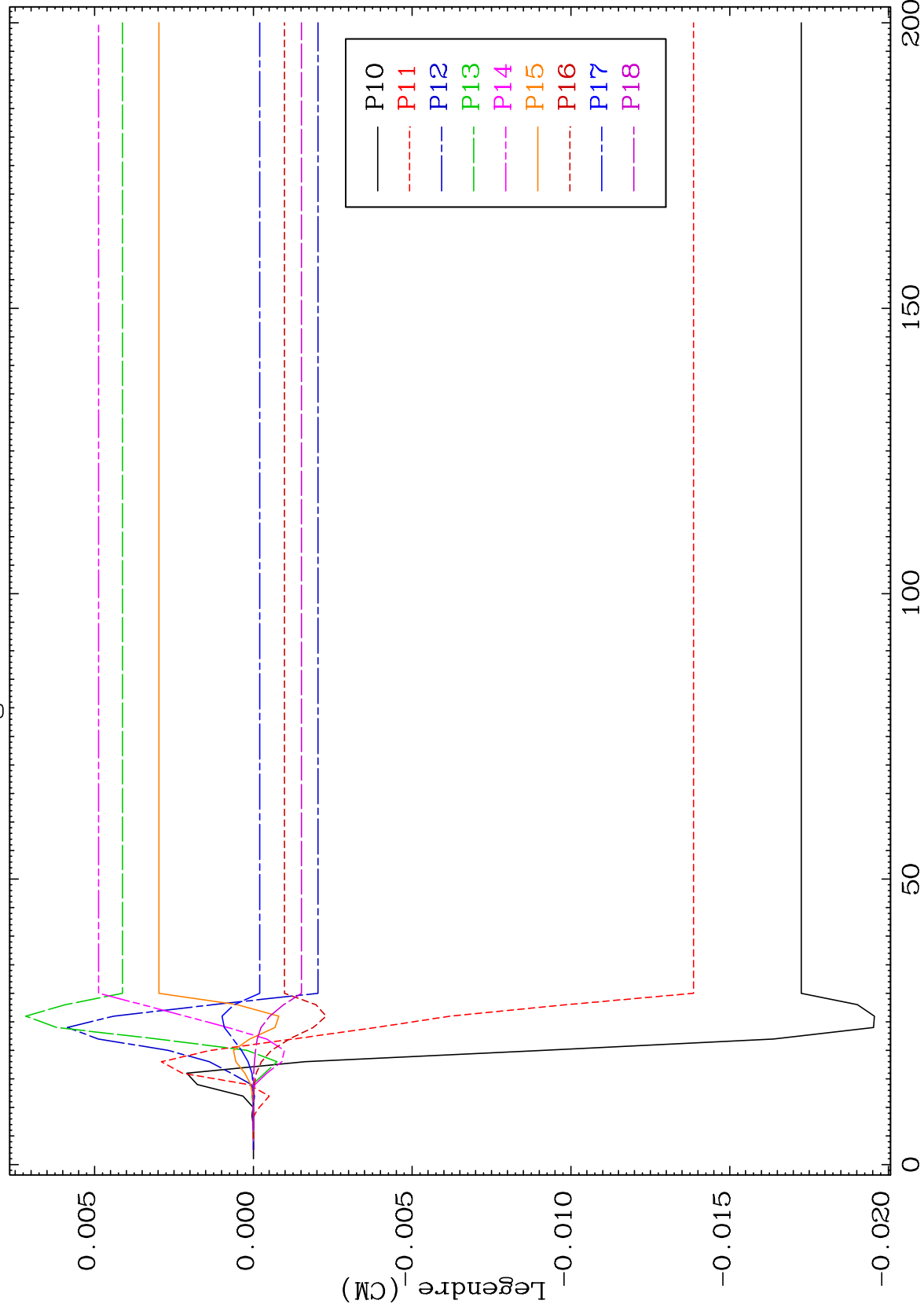
Incident Energy (MeV)

24

MAT 8204

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

82-Pb-197



82-Pb-197

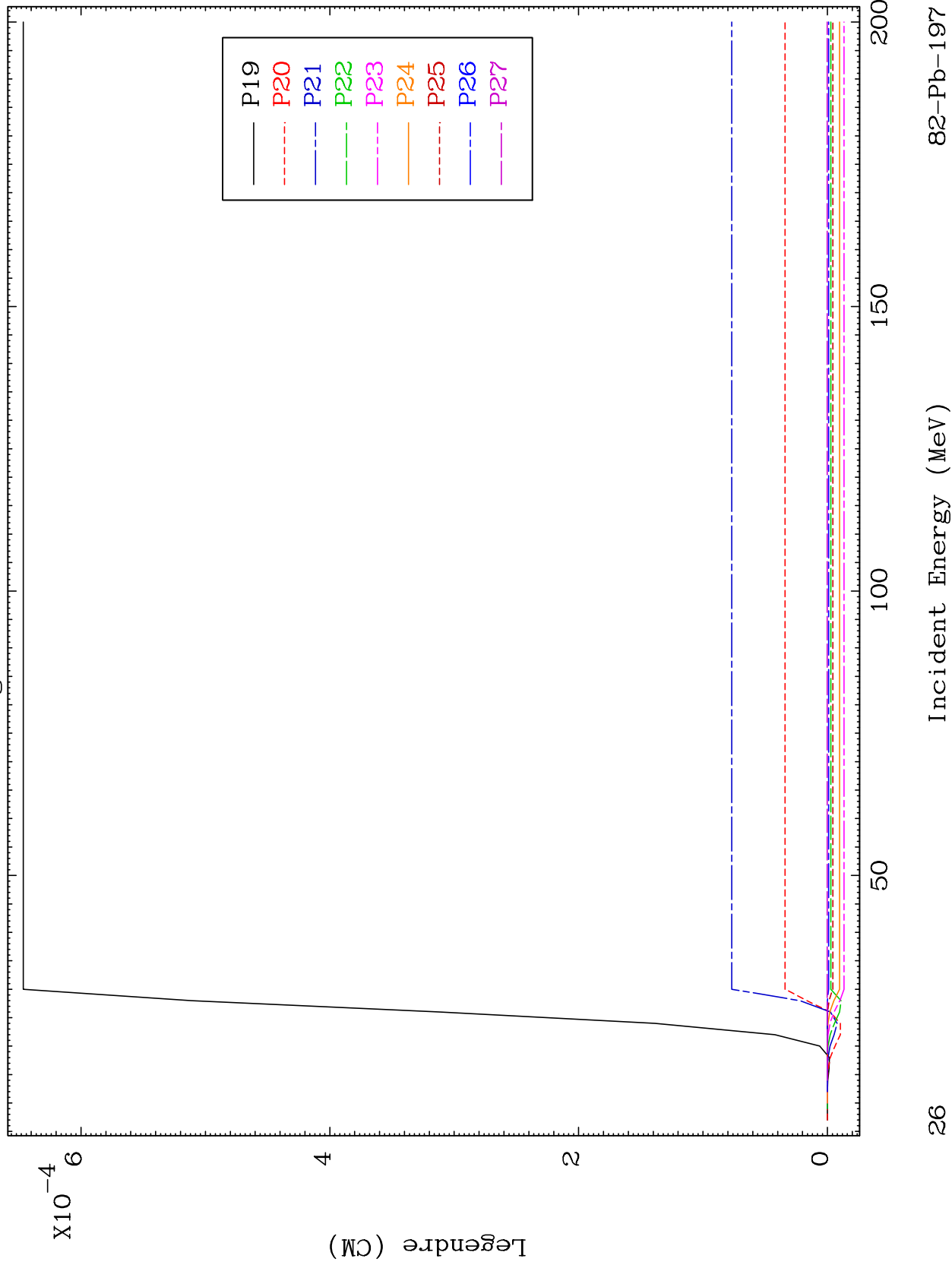
Incident Energy (MeV)

25

MAT 8204

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

82-Pb-197



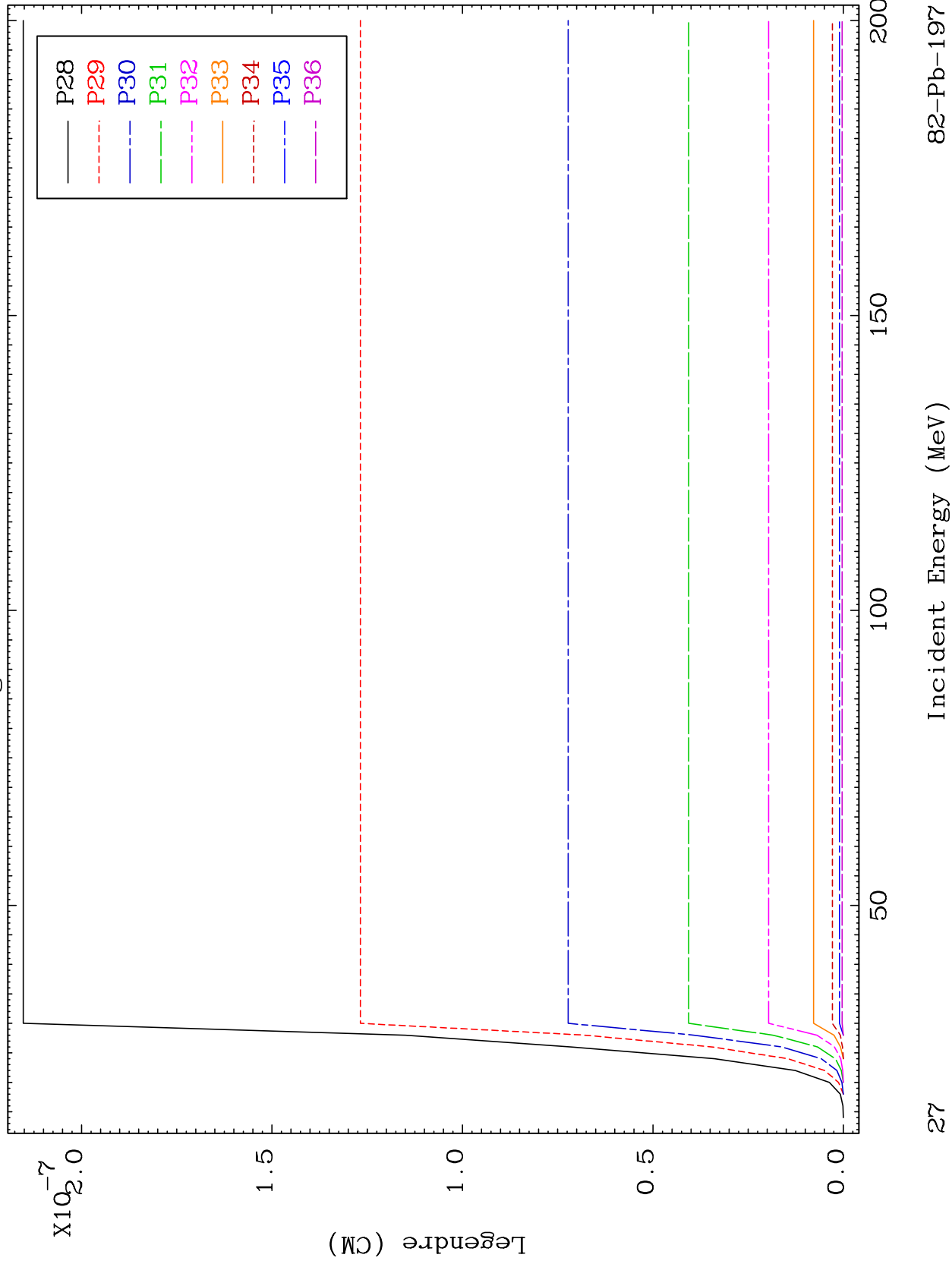
26

82-Pb-197

MAT 8204

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

82-Pb-197

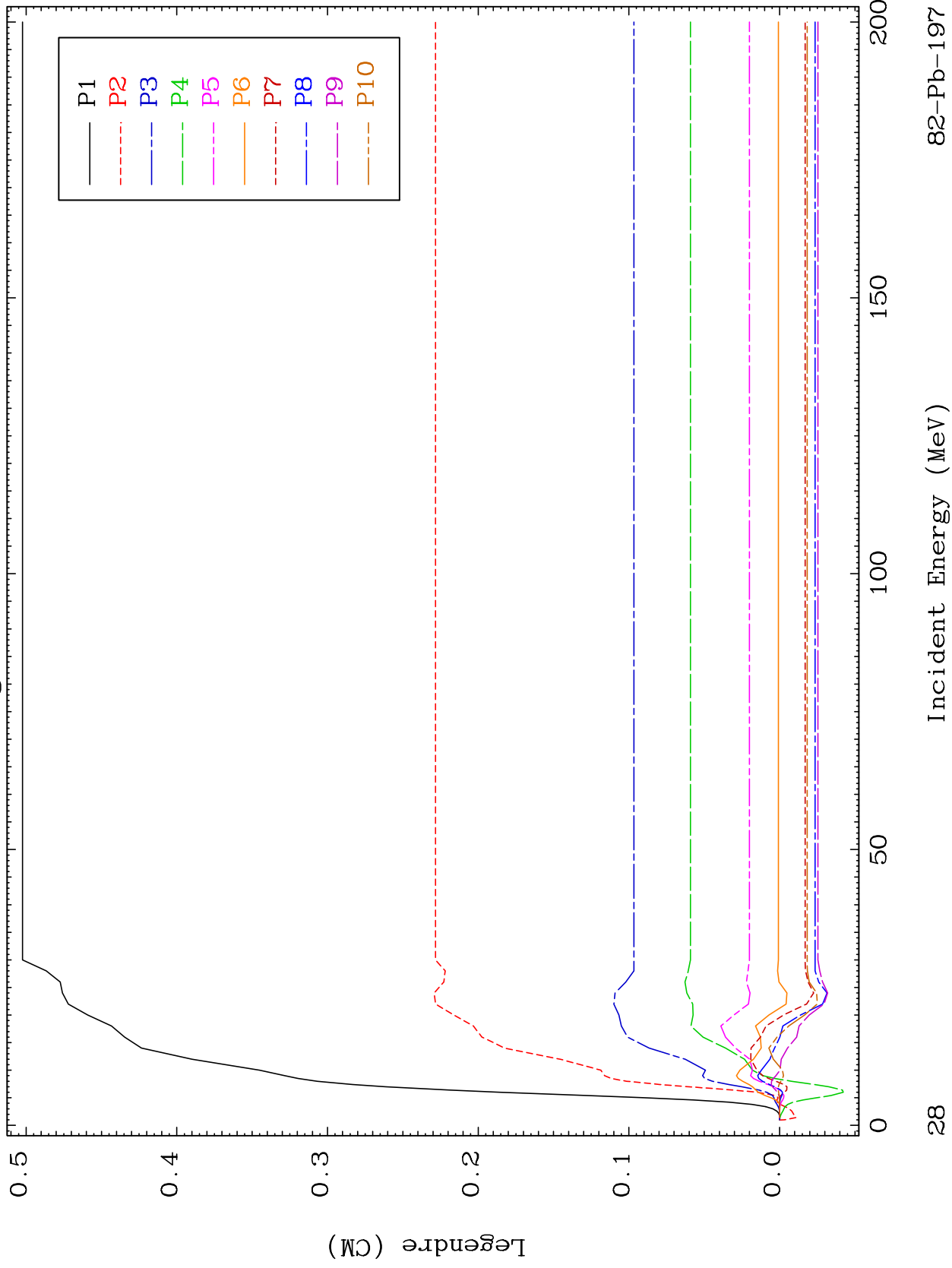


MAT 8204

MT= 53 (n,n') Level

82-Pb-197

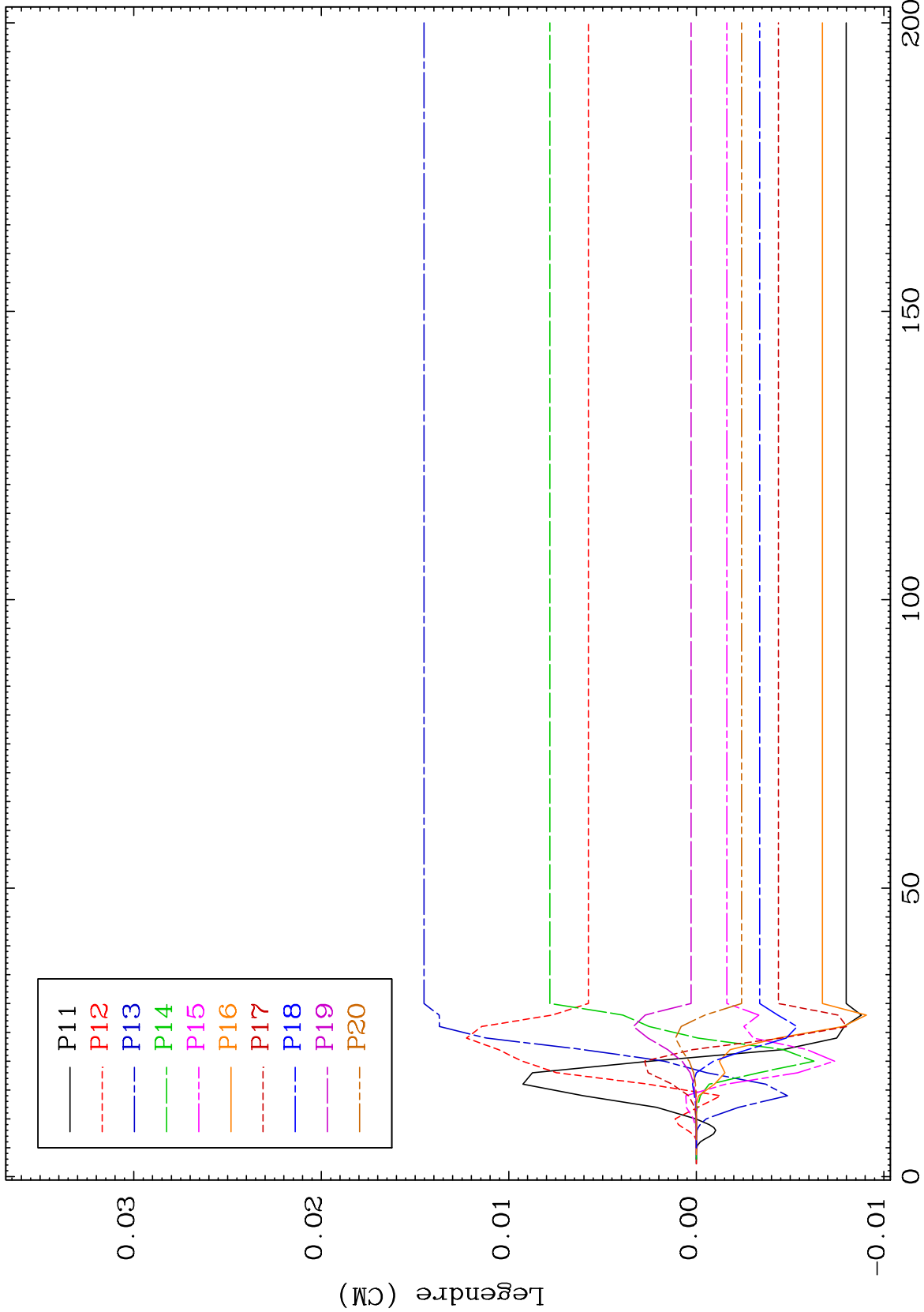
Legendre Coefficients



MAT 8204

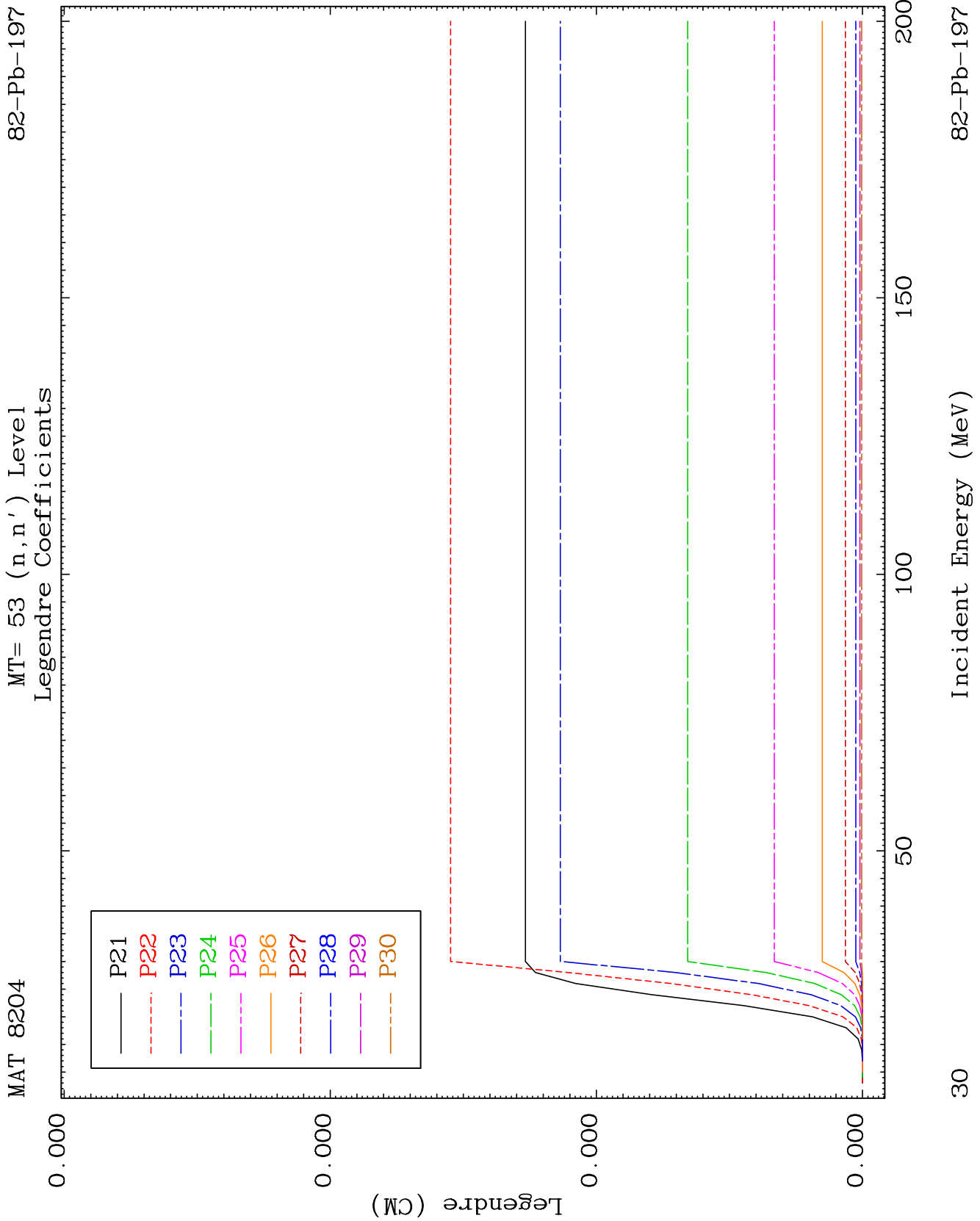
MT= 53 (n,n') Level  
Legendre Coefficients

82-Pb-197



29

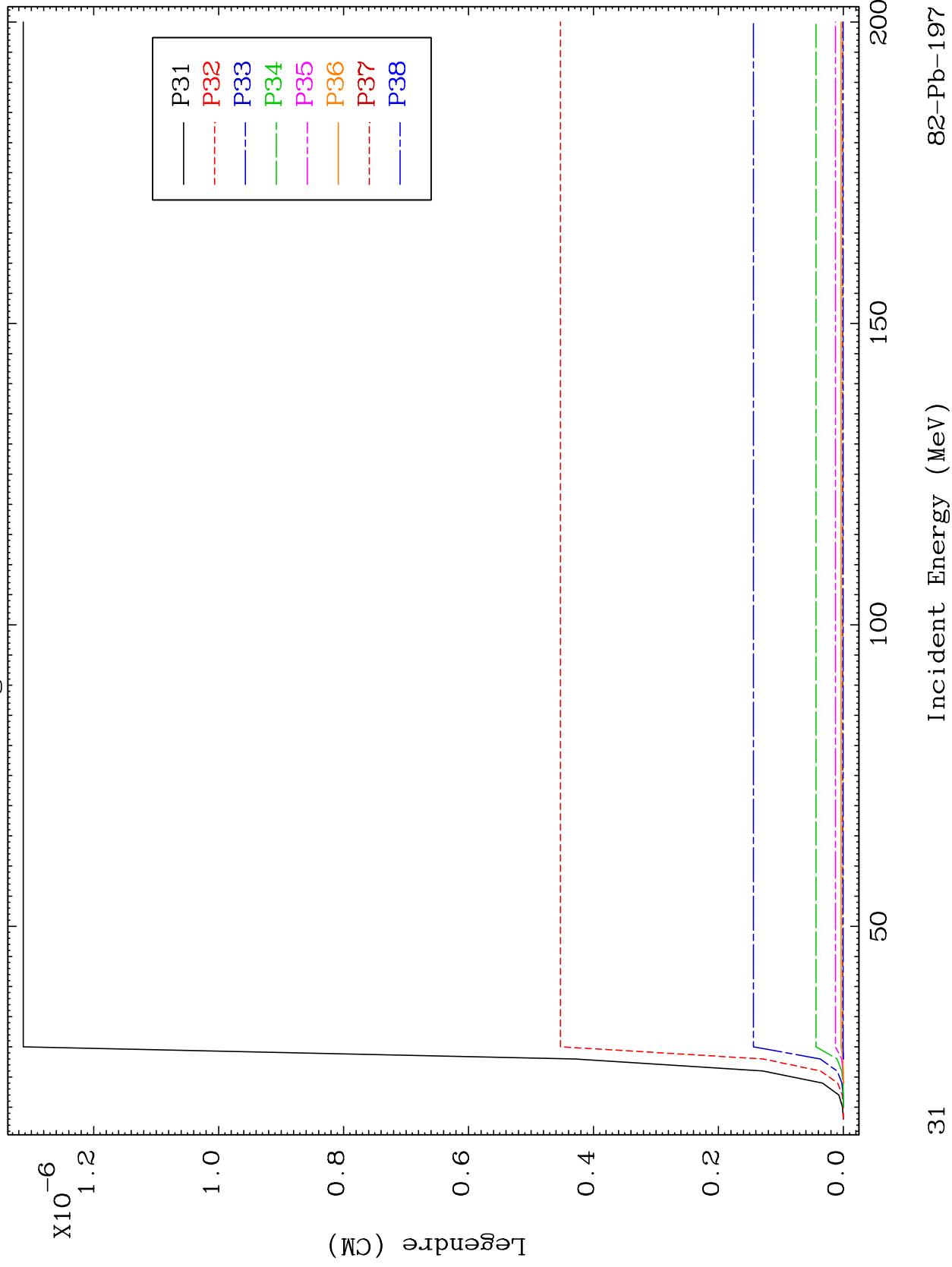
82-Pb-197



MAT 8204

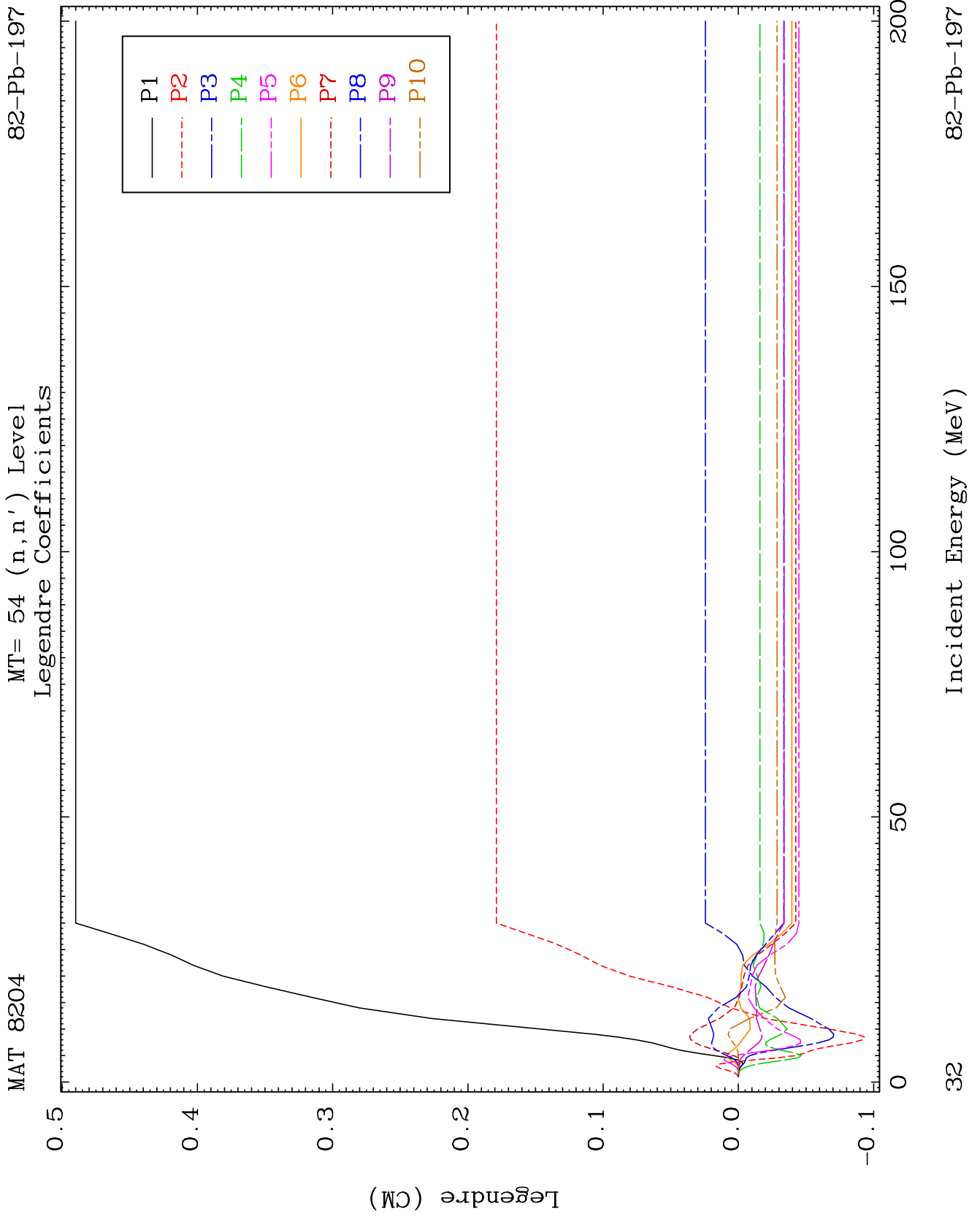
MT= 53 (n,n') Level  
Legendre Coefficients

82-Pb-197



31

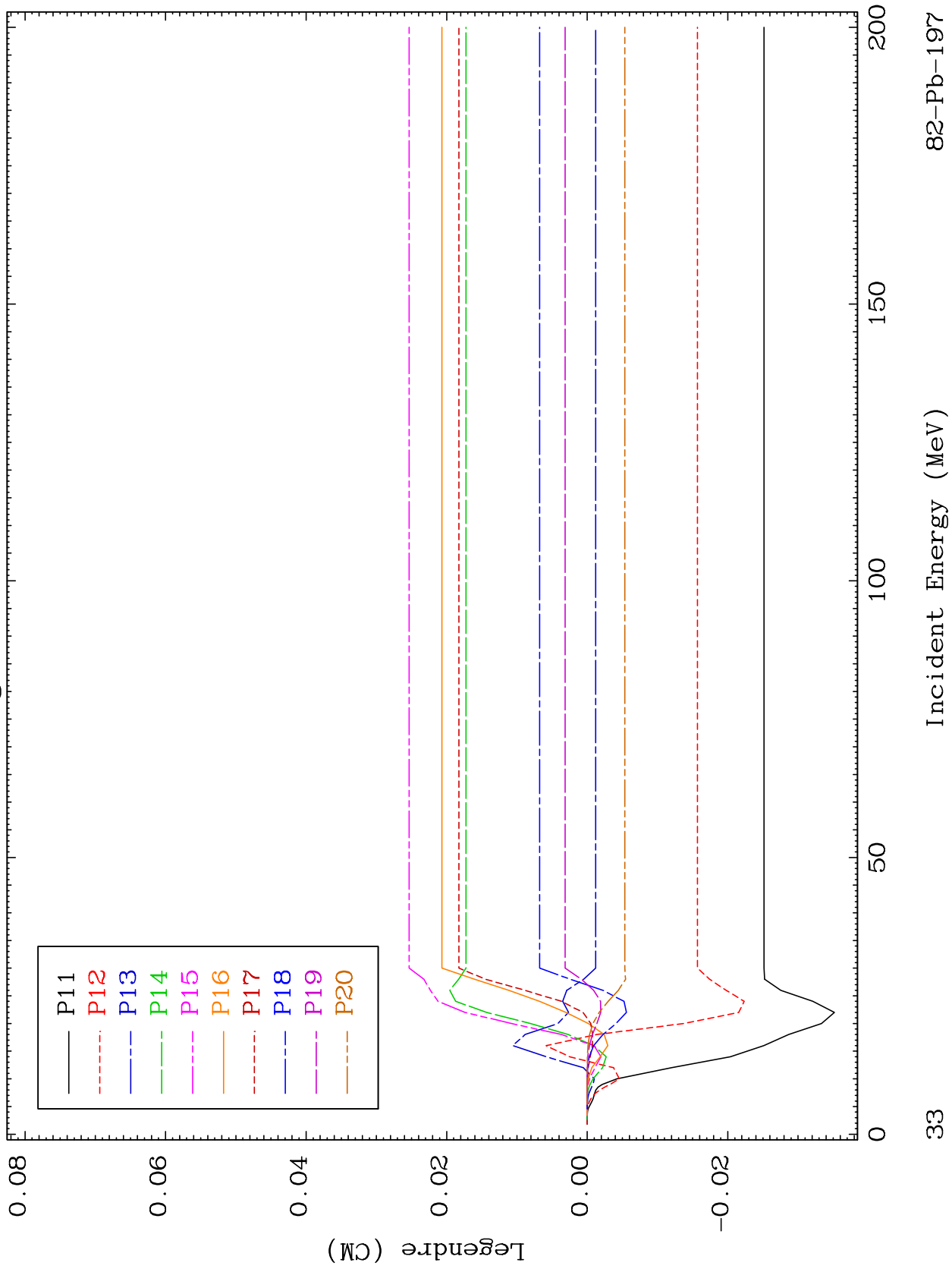




MAT 8204

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

82-Pb-197



33

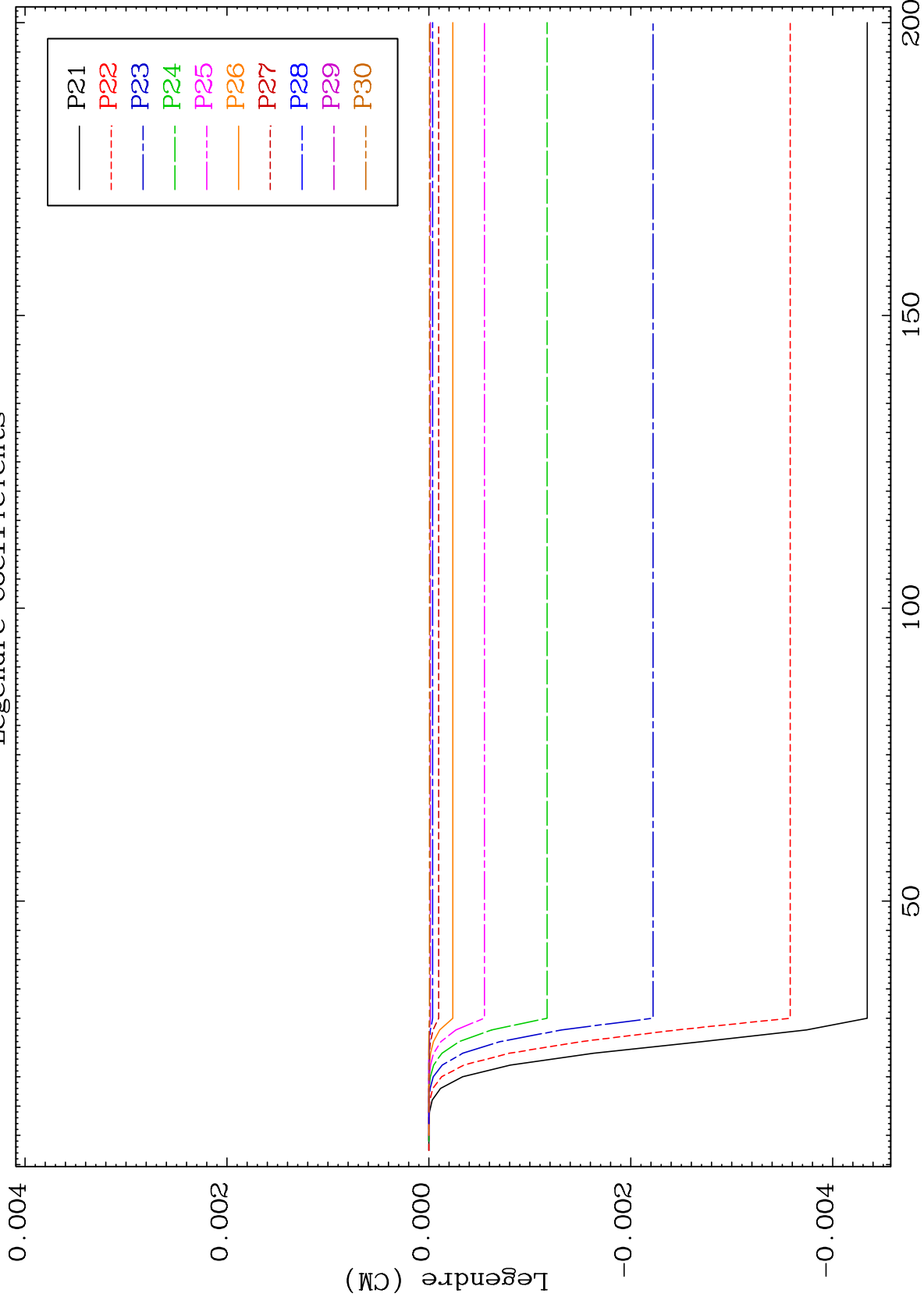
Incident Energy (MeV)

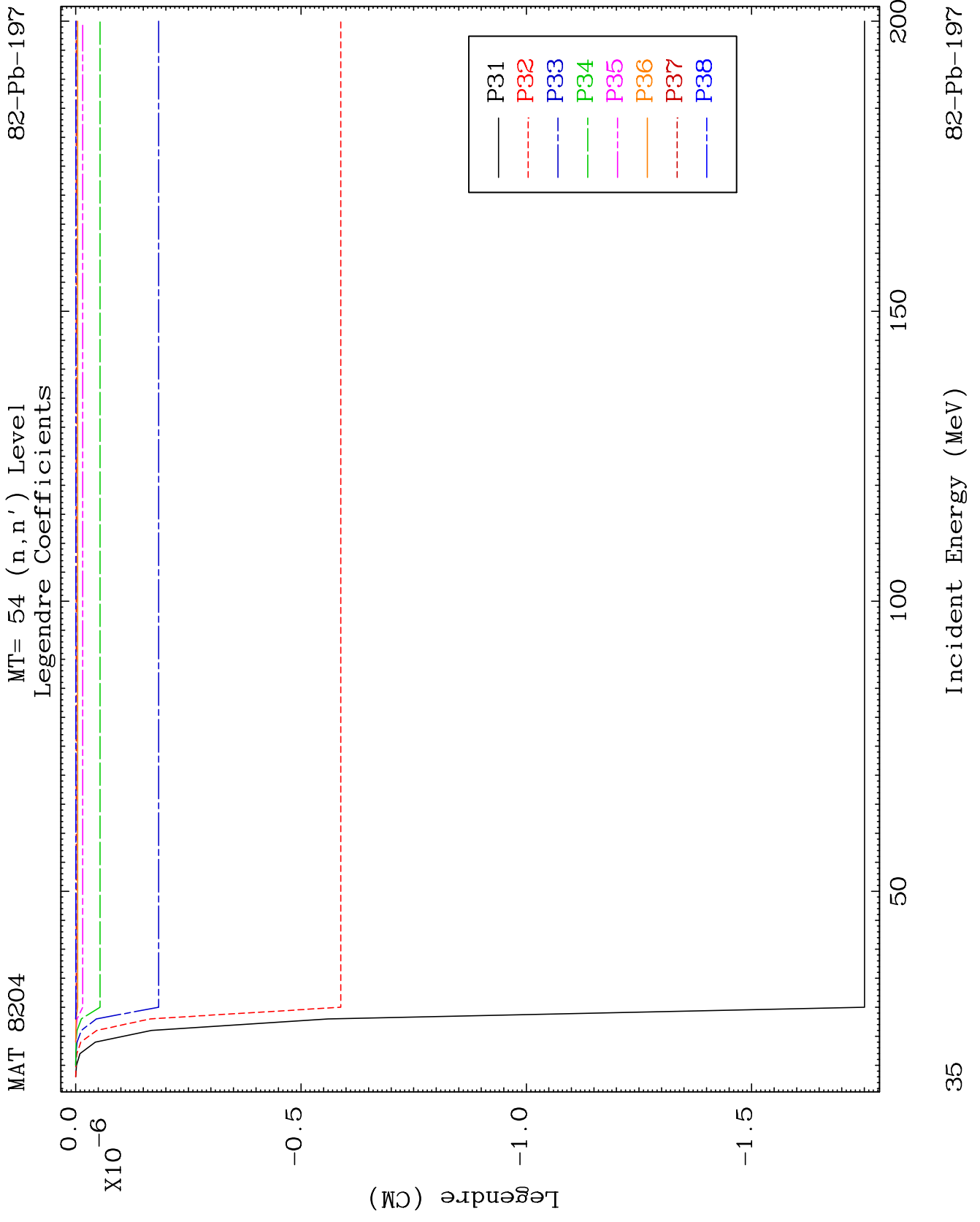
82-Pb-197

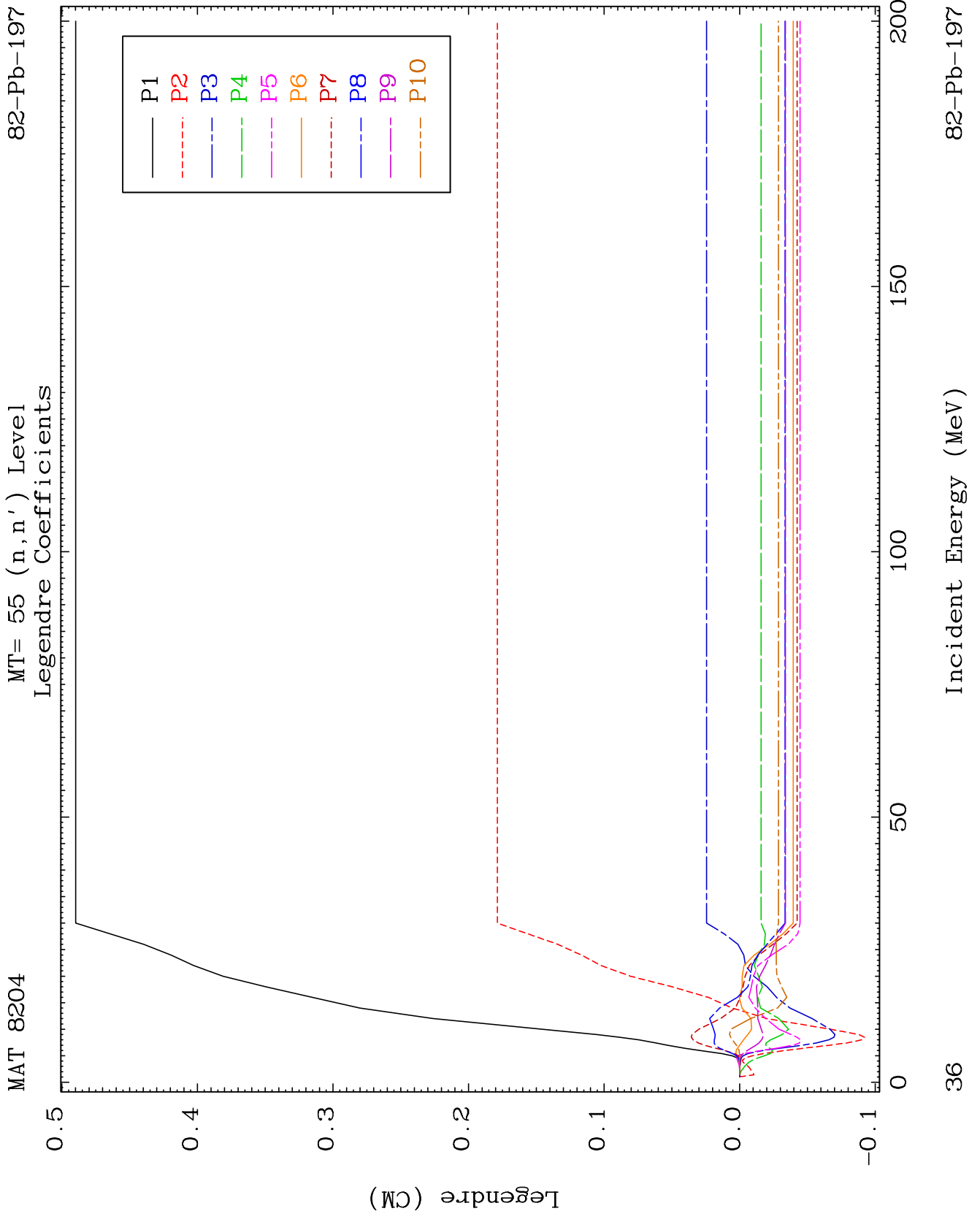
MAT 8204

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

82-Pb-197



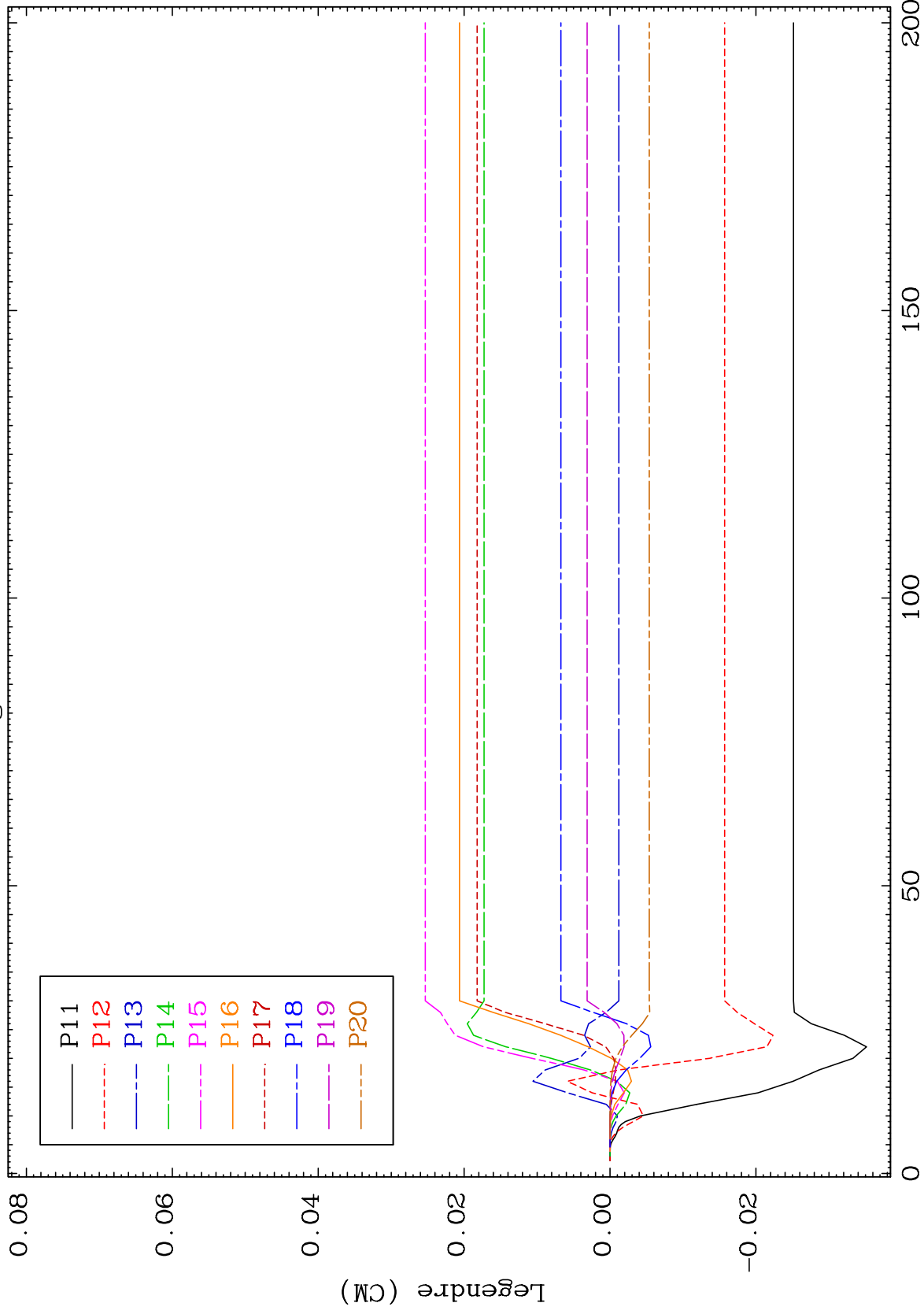




MAT 8204

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

82-Pb-197



37

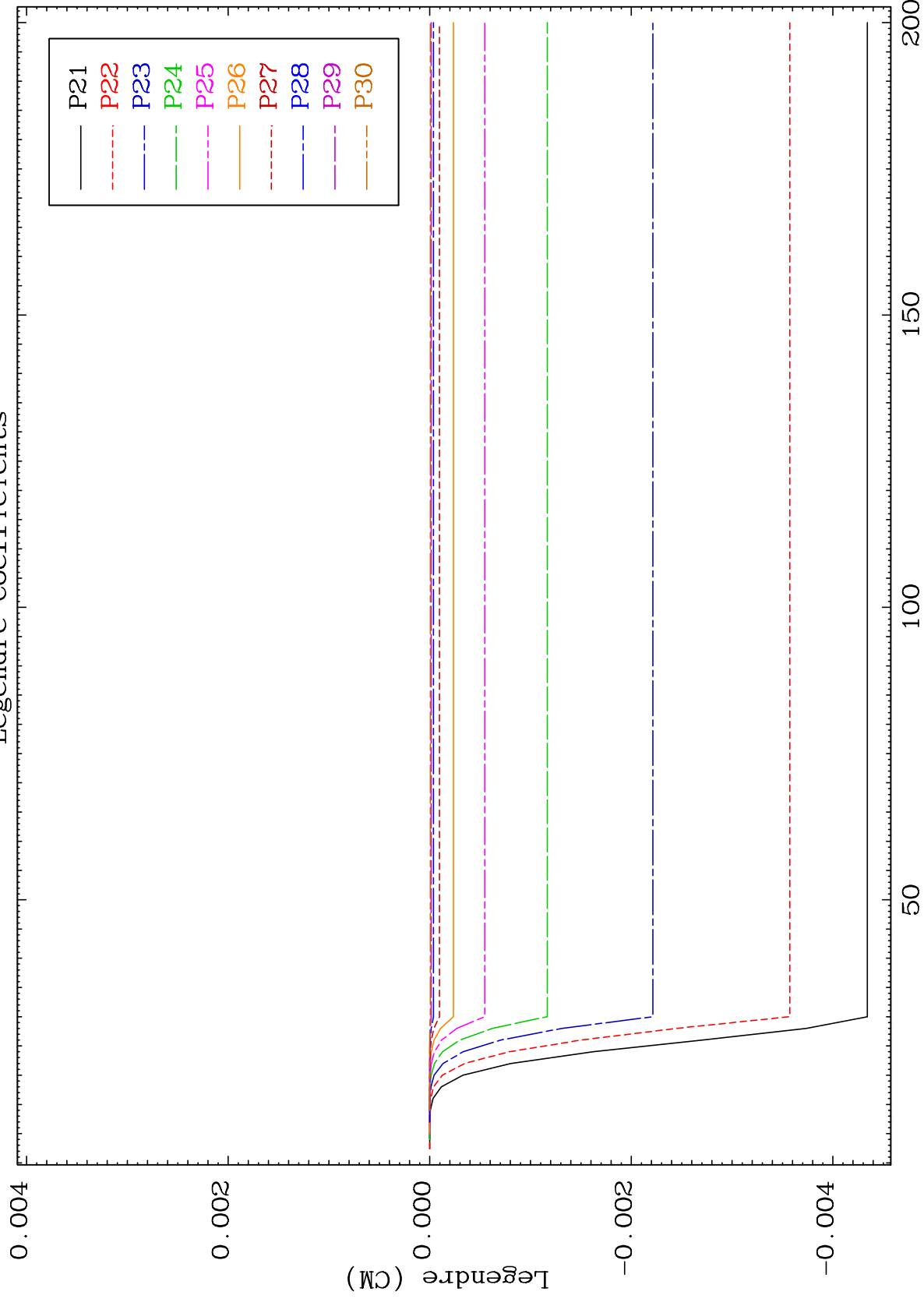
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

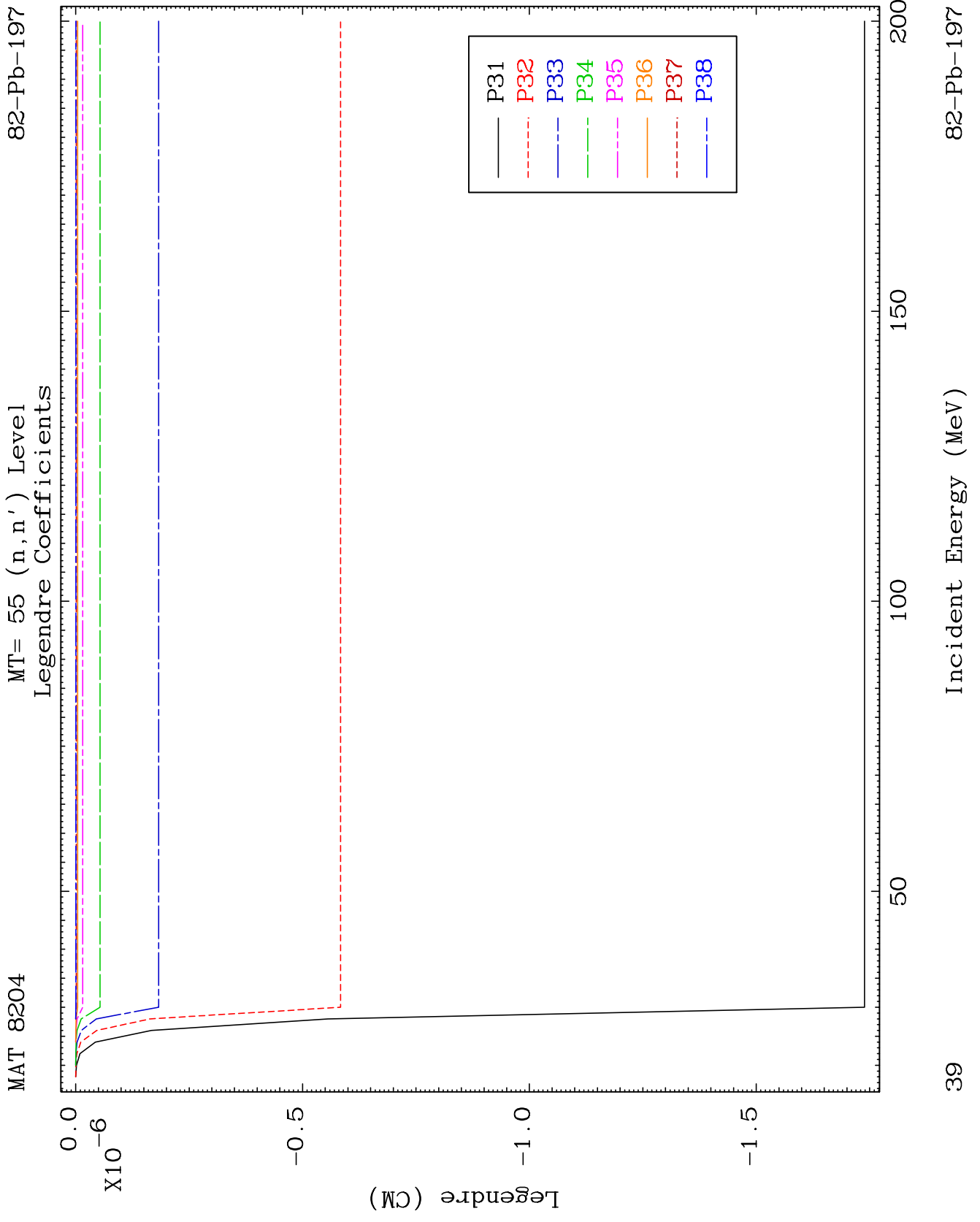
82-Pb-197



38

Incident Energy (MeV)

82-Pb-197

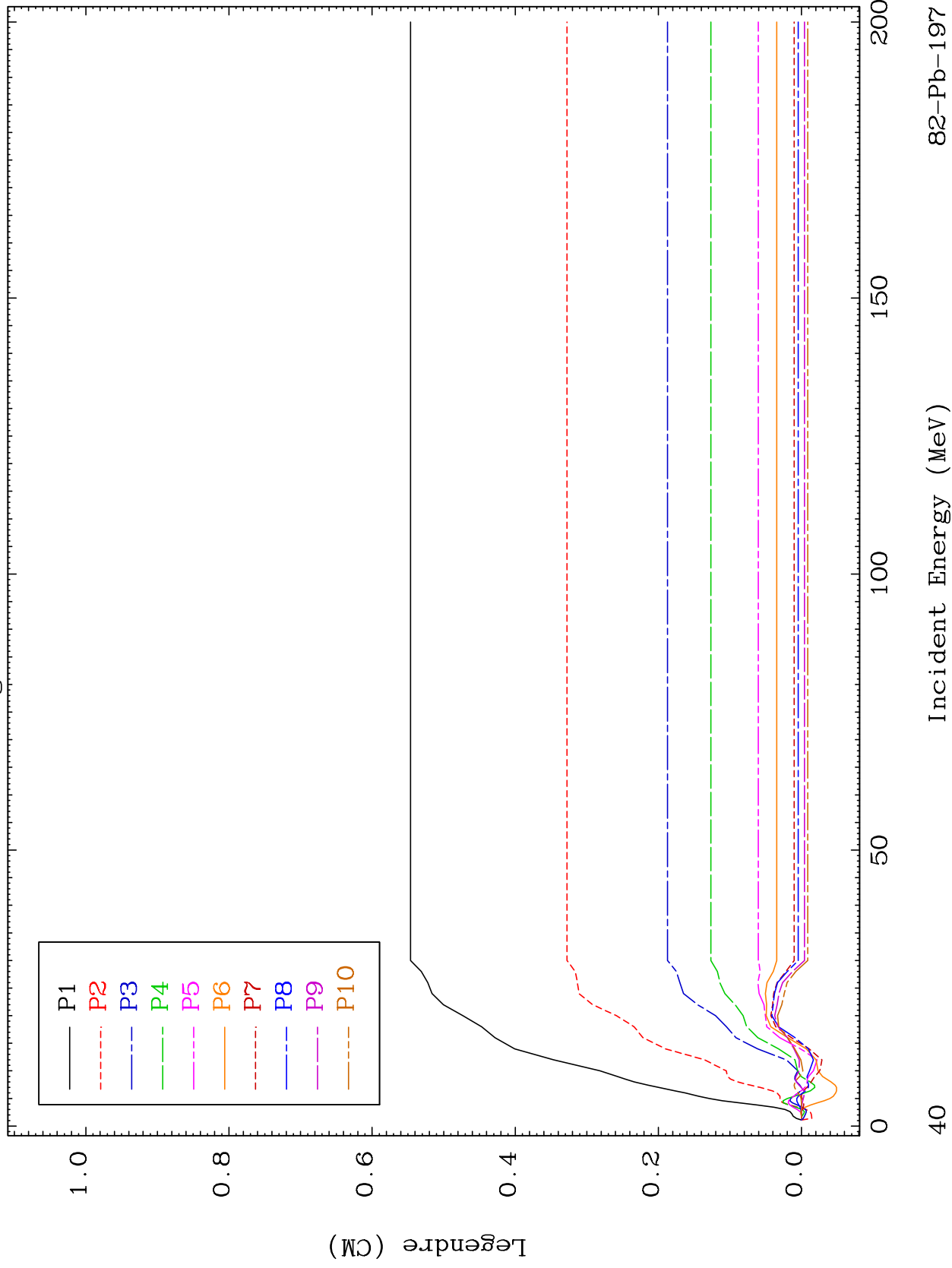




MAT 8204

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

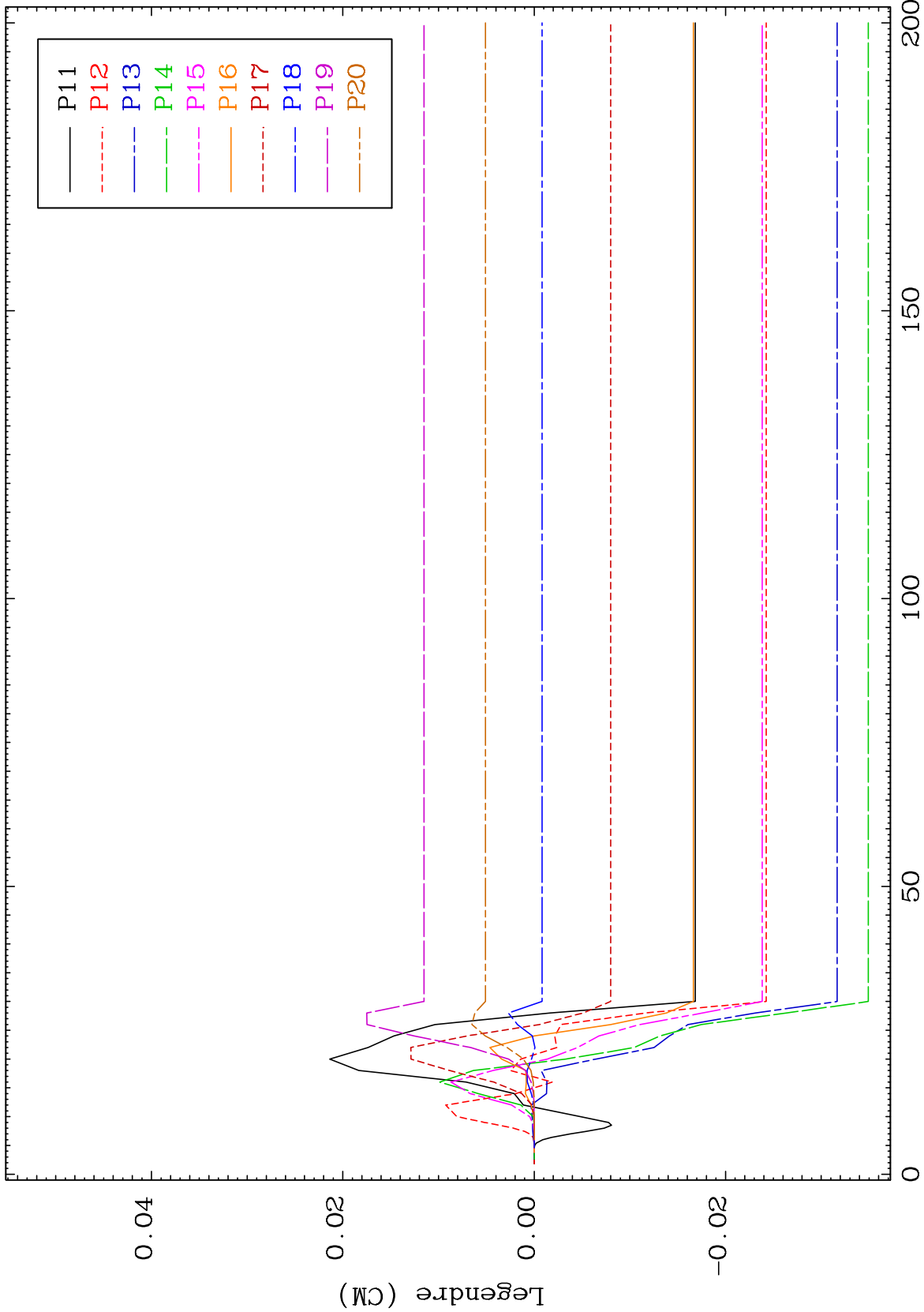
82-Pb-197



MAT 8204

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

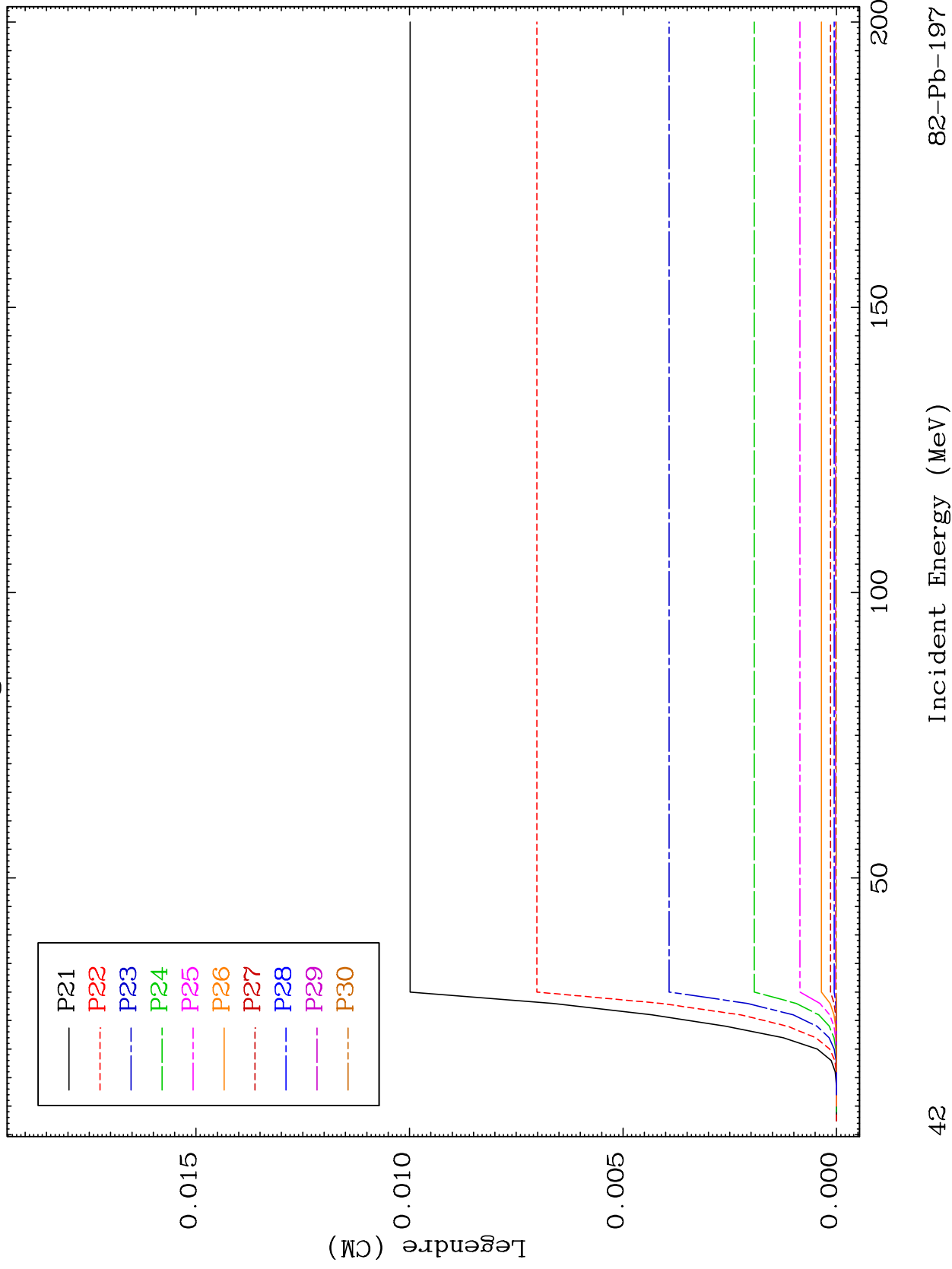
82-Pb-197



MAT 8204

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

82-Pb-197



42

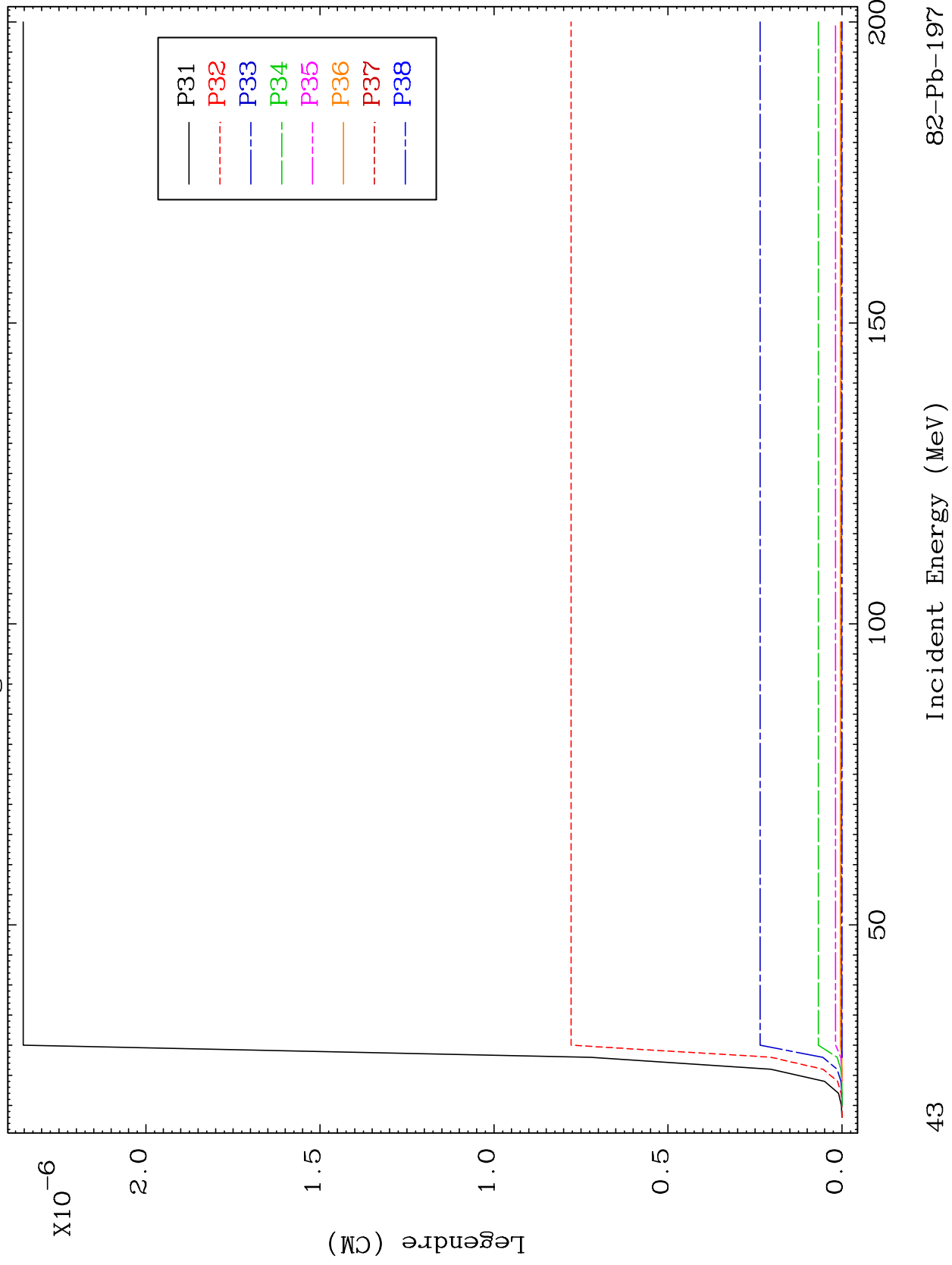
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

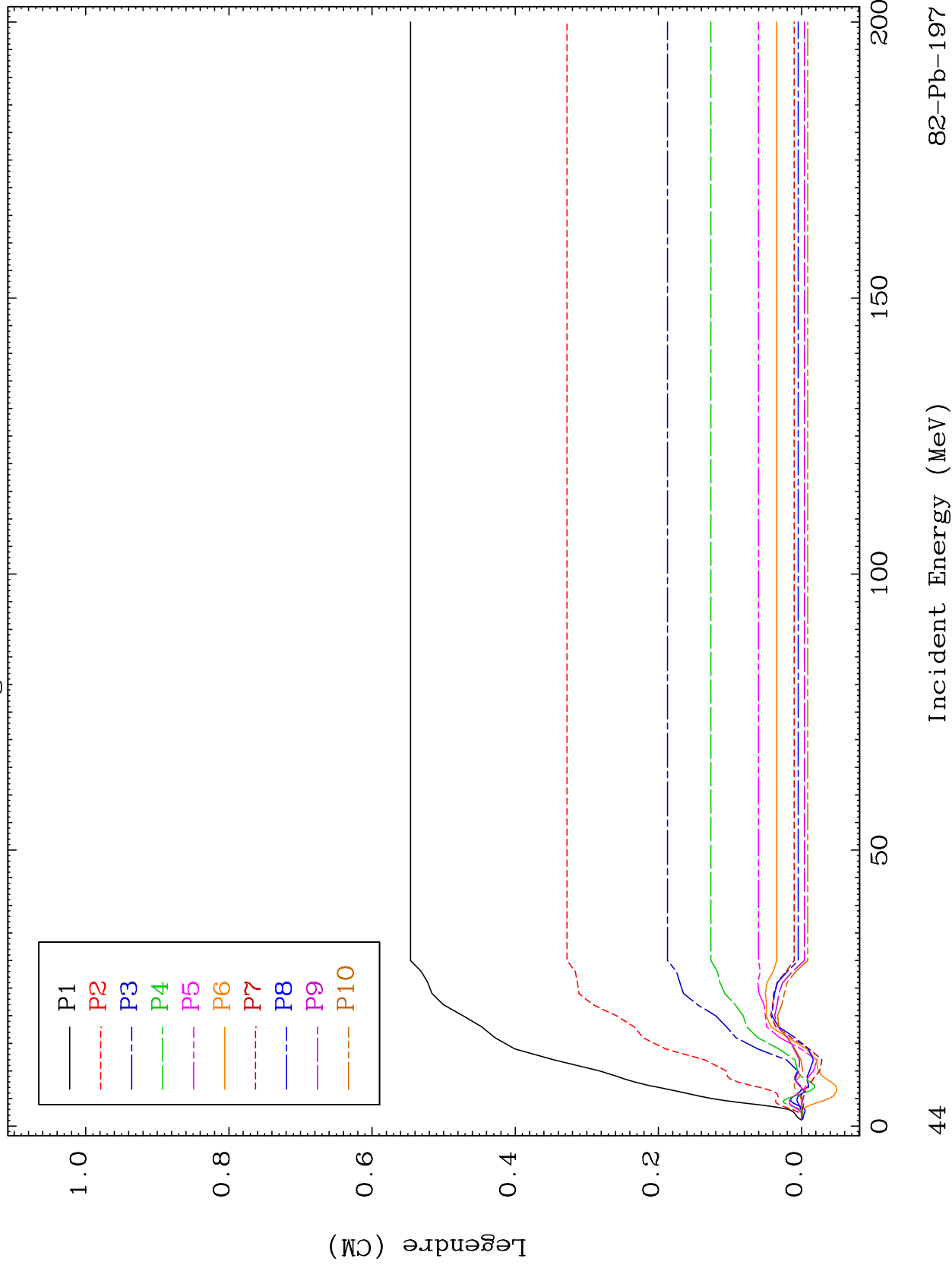
82-Pb-197



MAT 8204

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

82-Pb-197



44

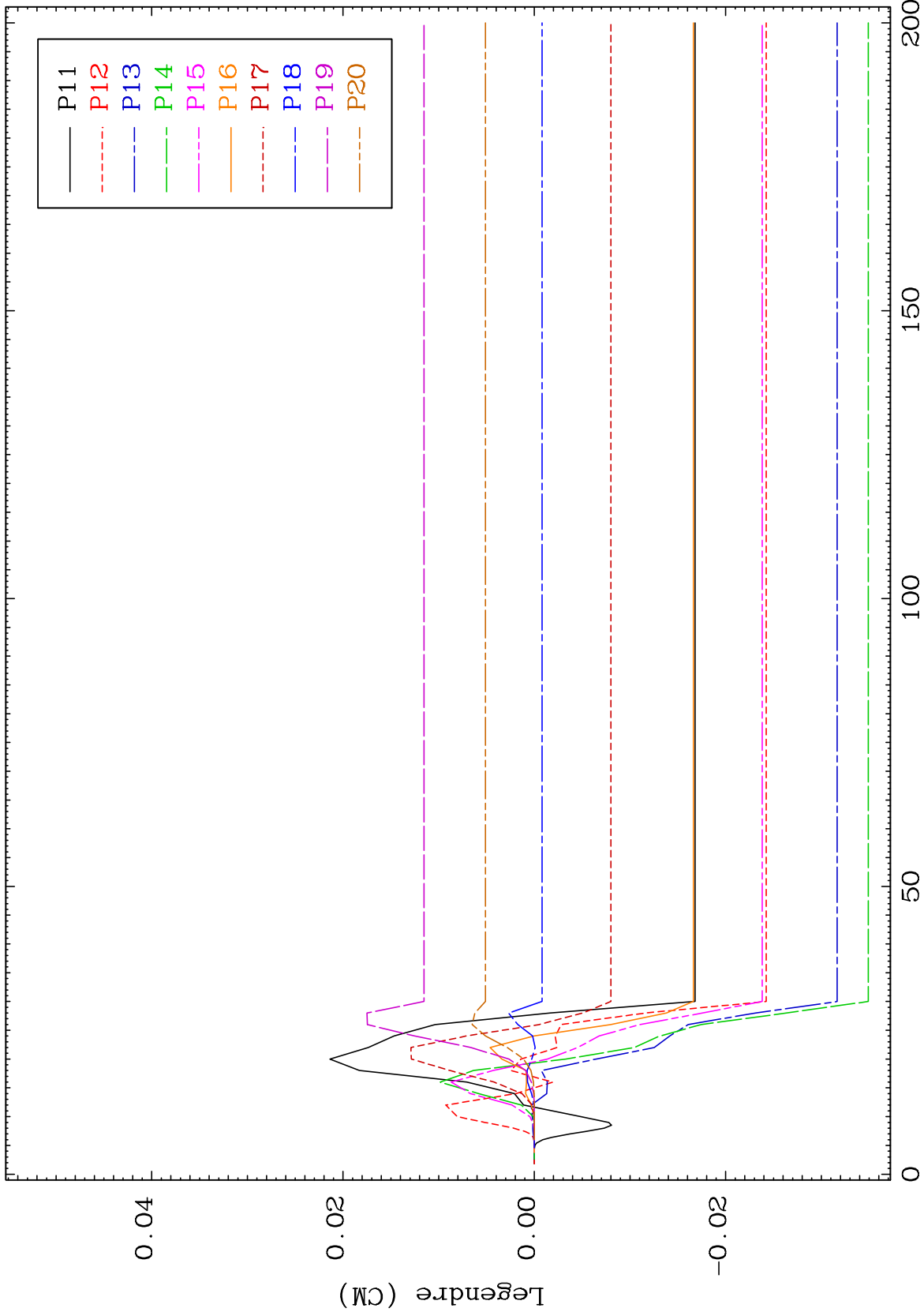
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



82-Pb-197

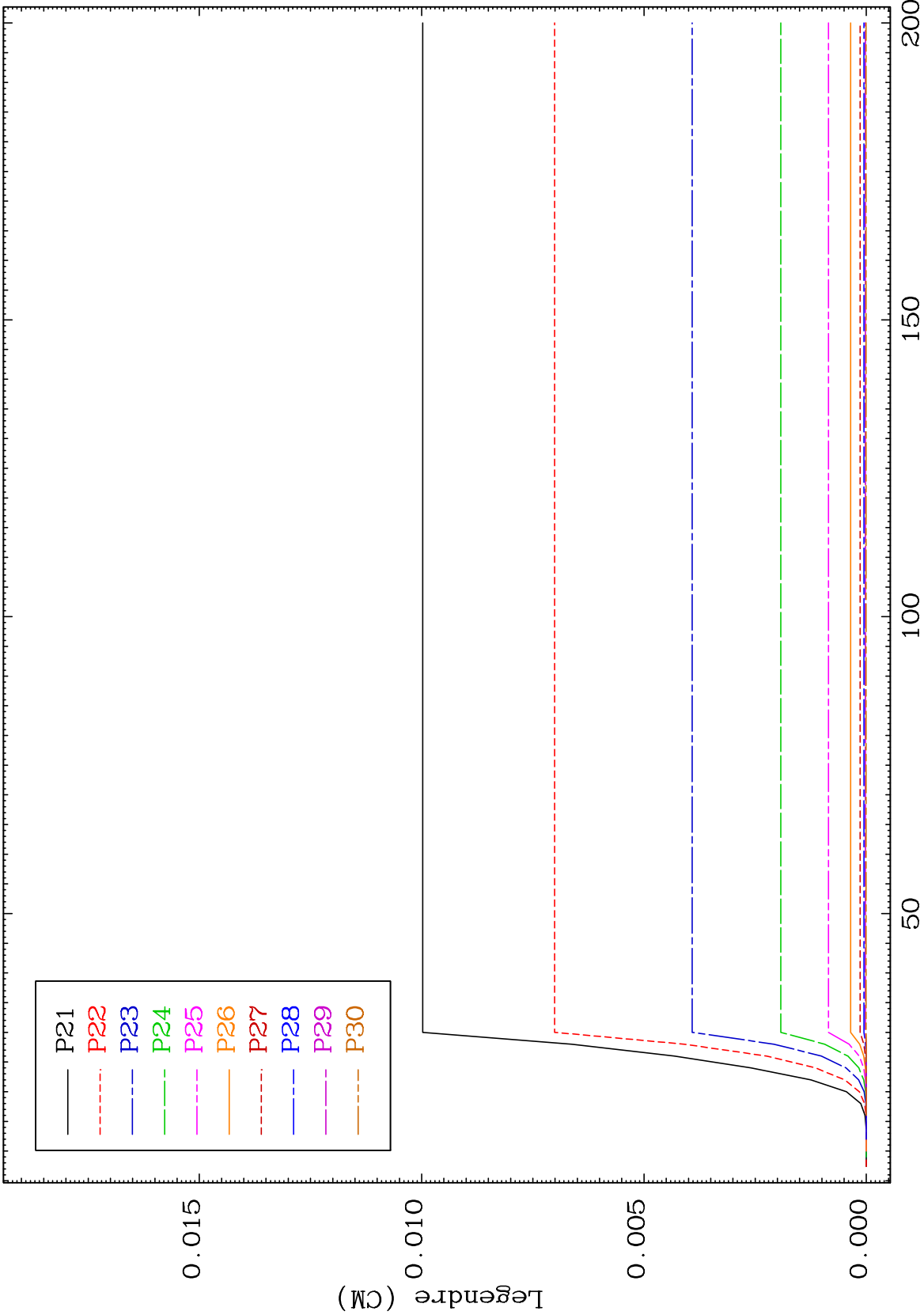
Incident Energy (MeV)

45

MAT 8204

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

82-Pb-197



46

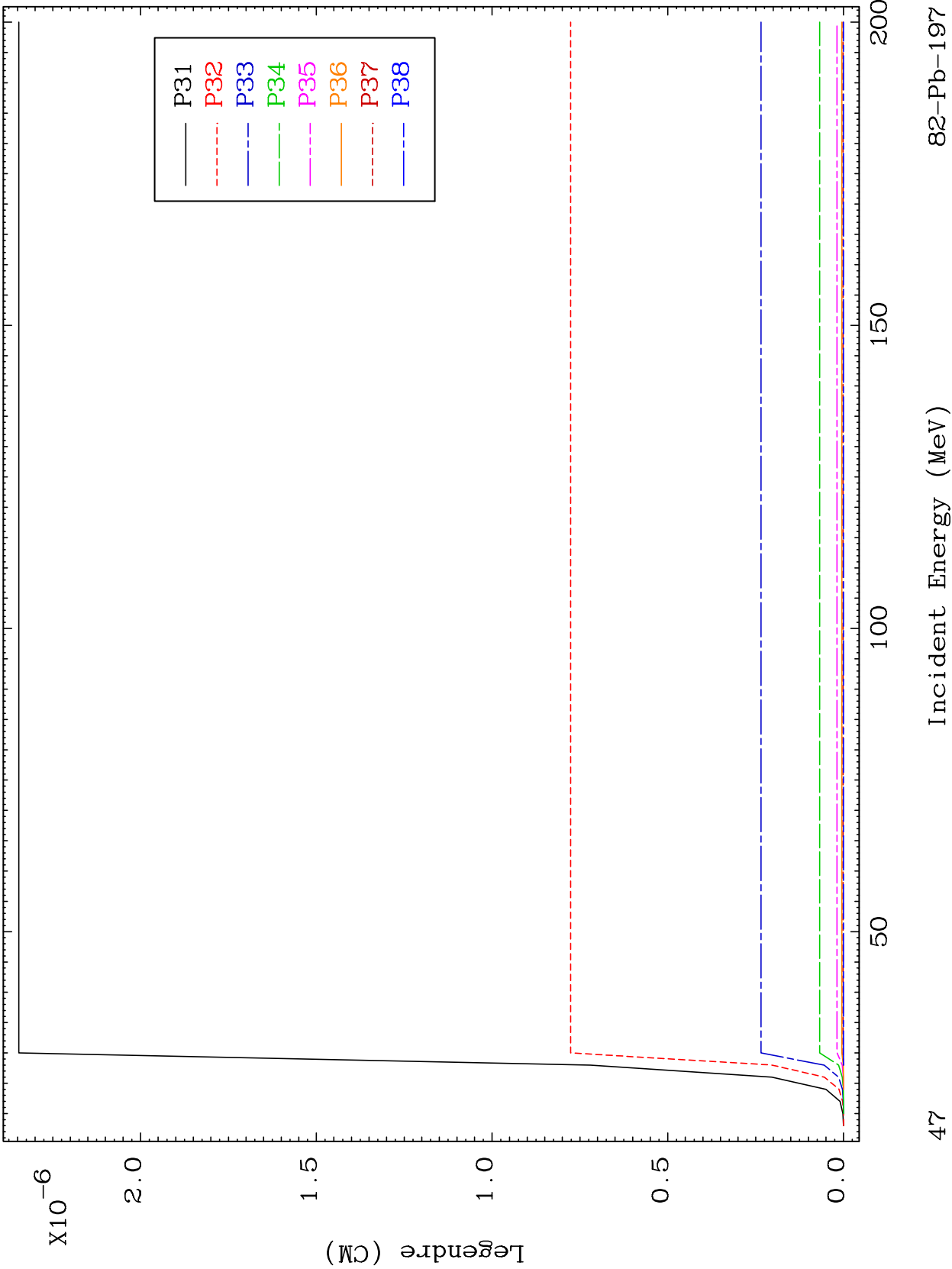
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



47

Incident Energy (MeV)

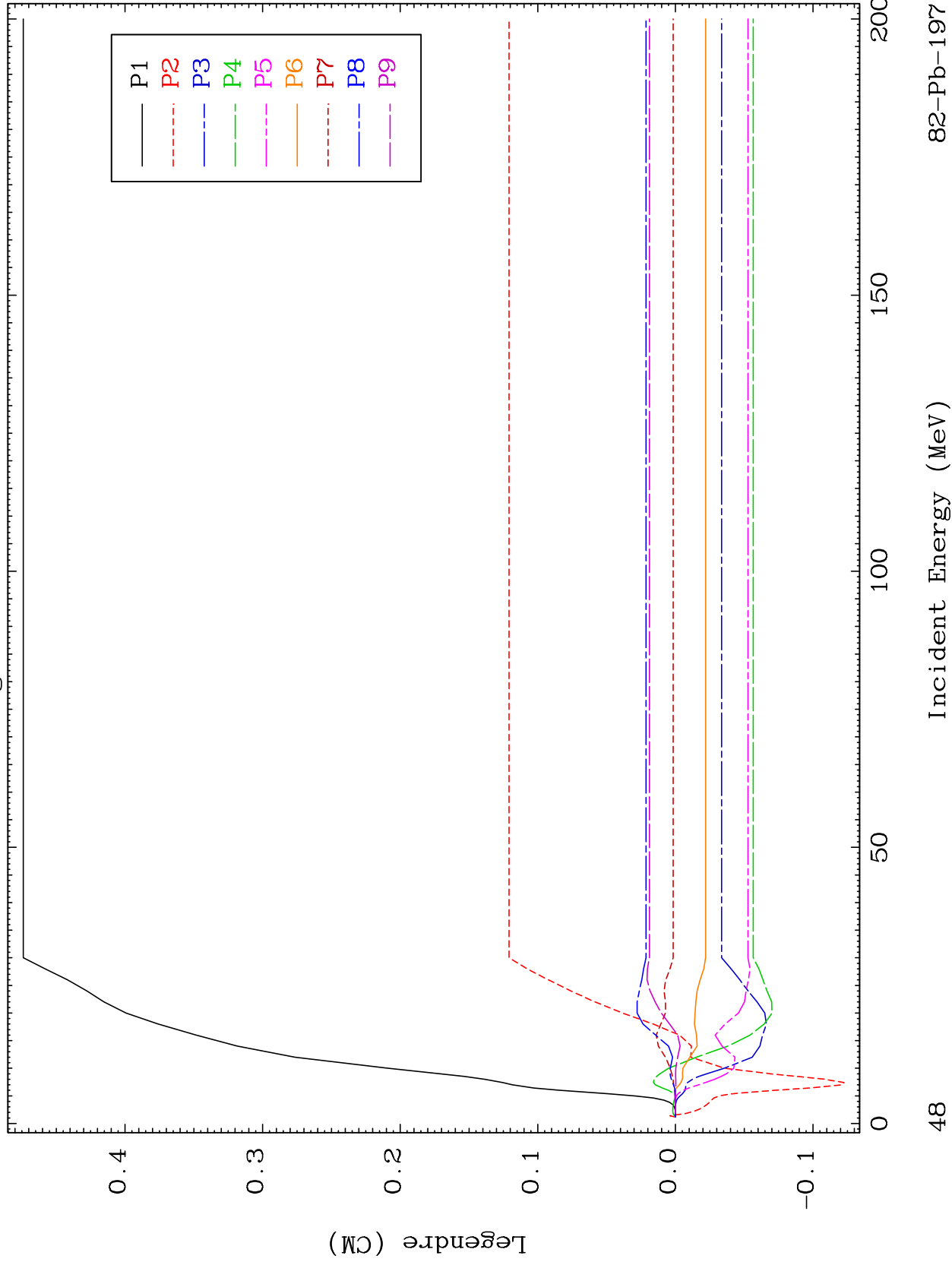
82-Pb-197



MAT 8204

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

82-Pb-197



82-Pb-197

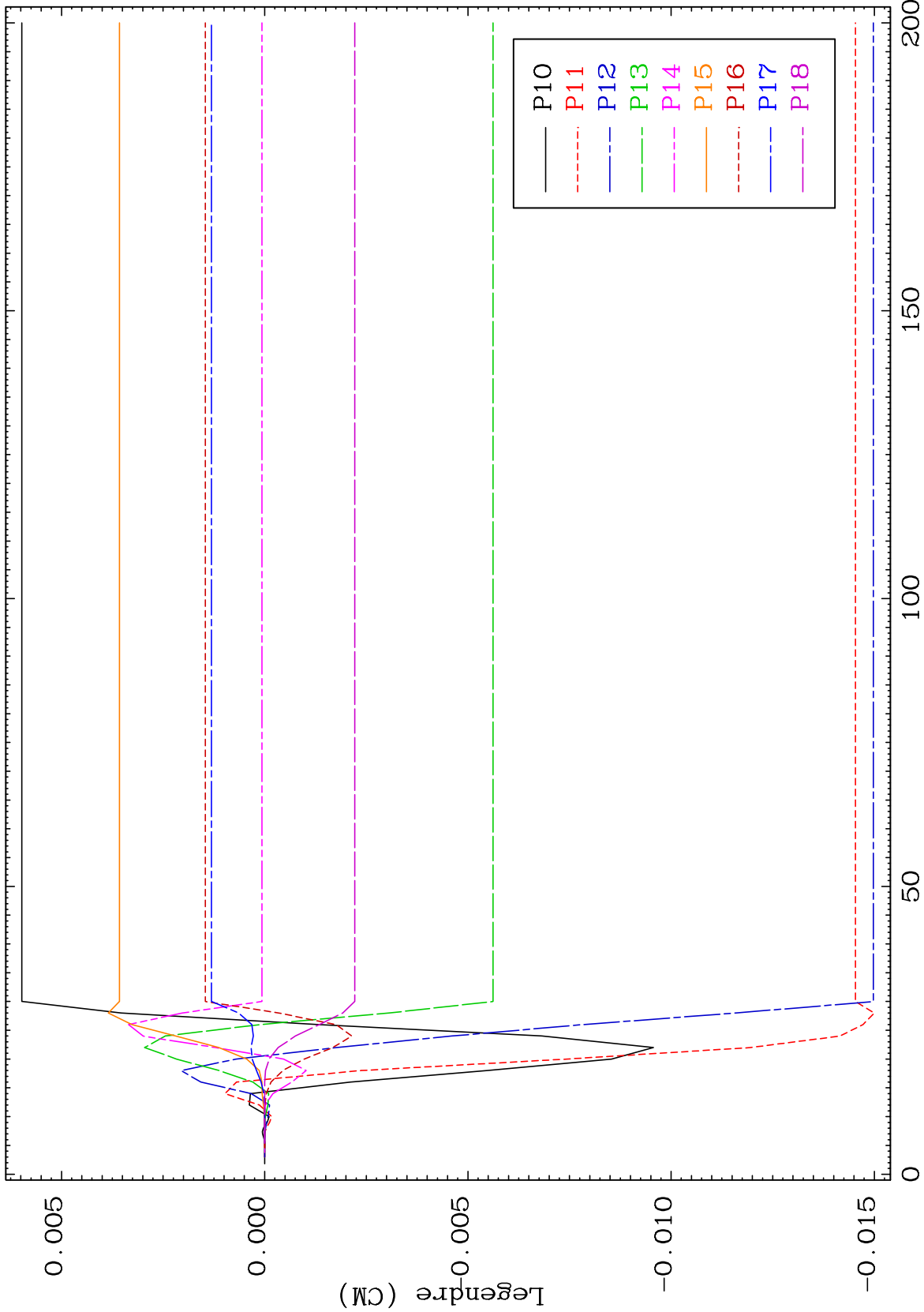
Incident Energy (MeV)

48

MAT 8204

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

82-Pb-197



49

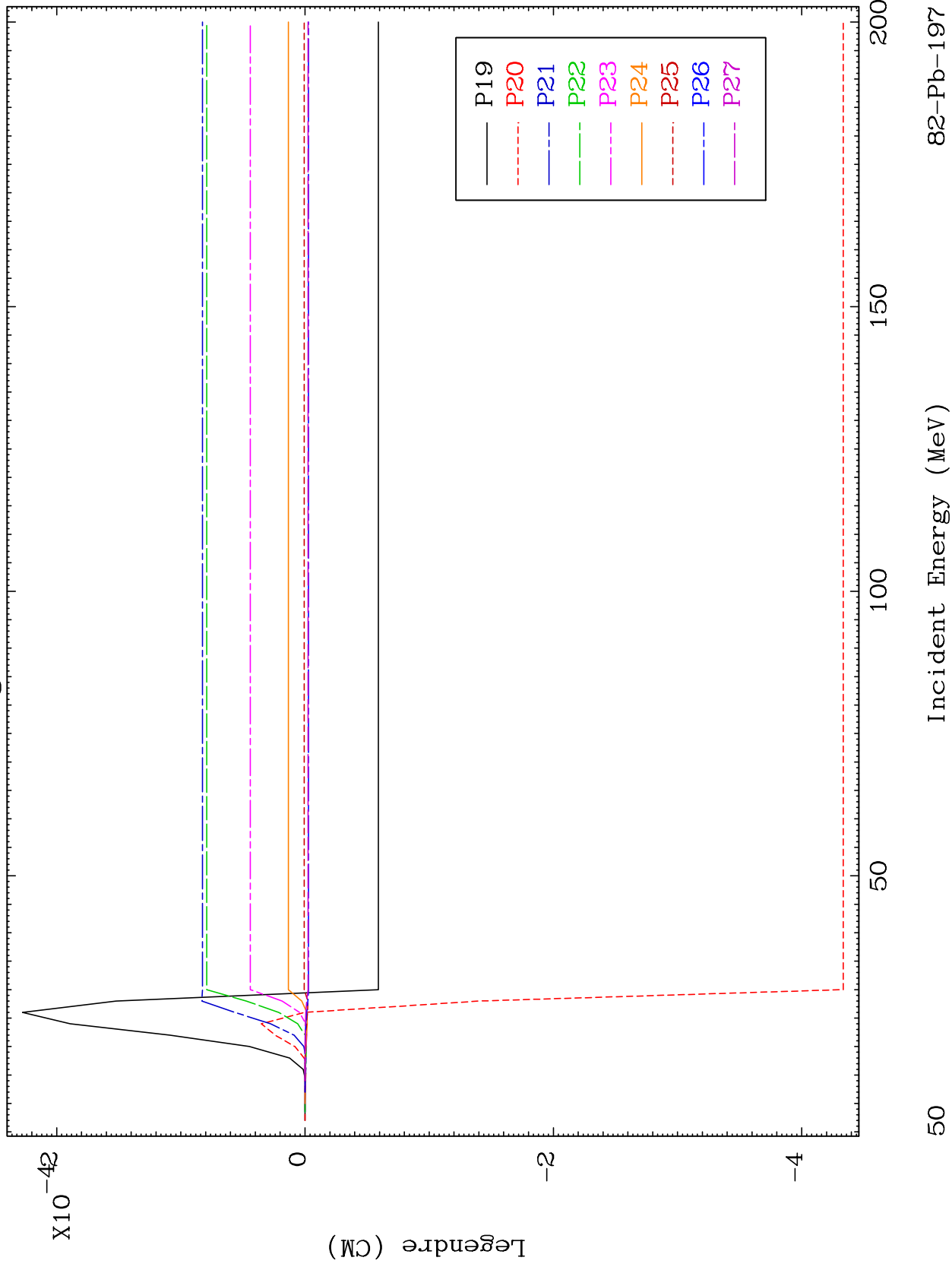
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

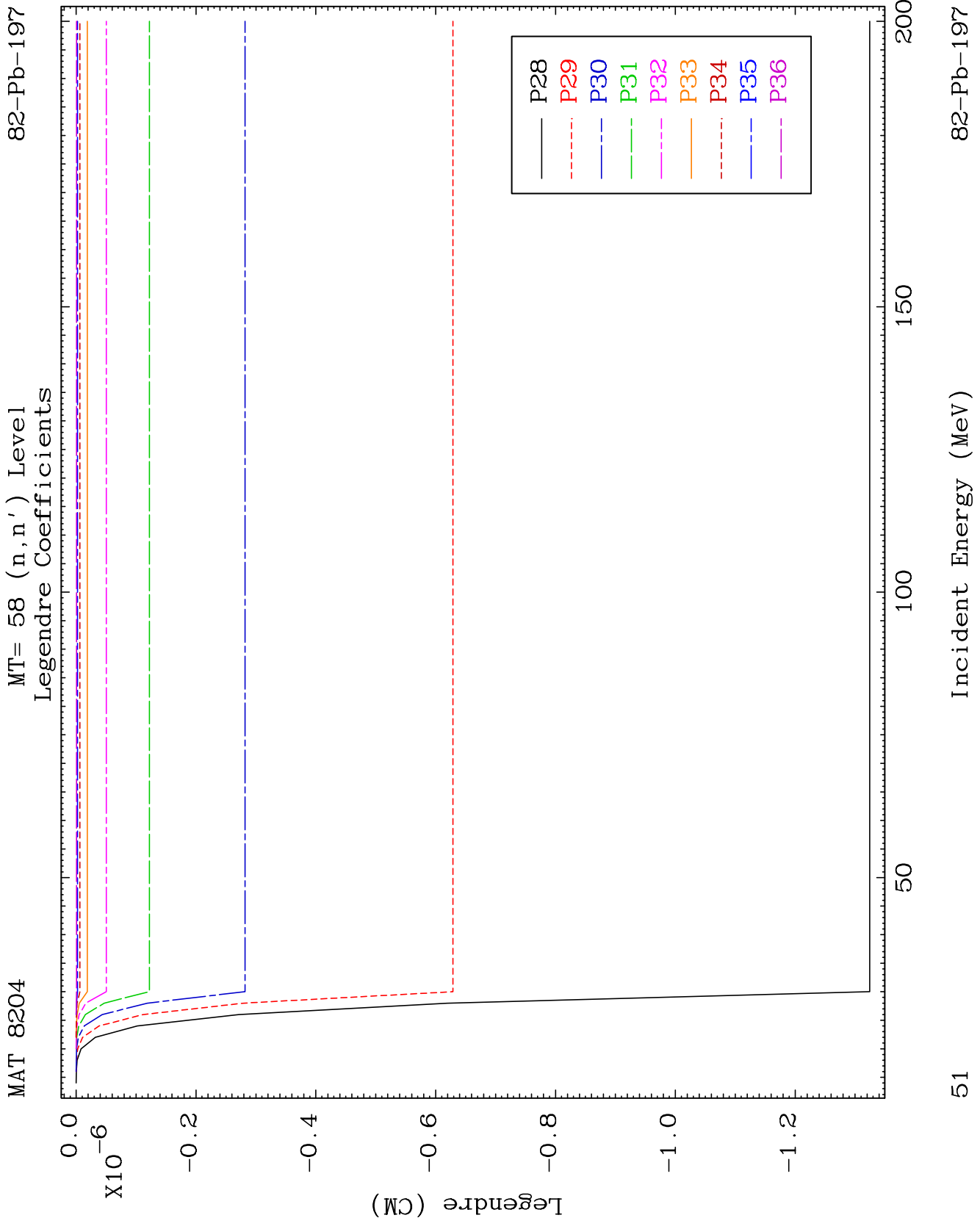
82-Pb-197



50

Incident Energy (MeV)

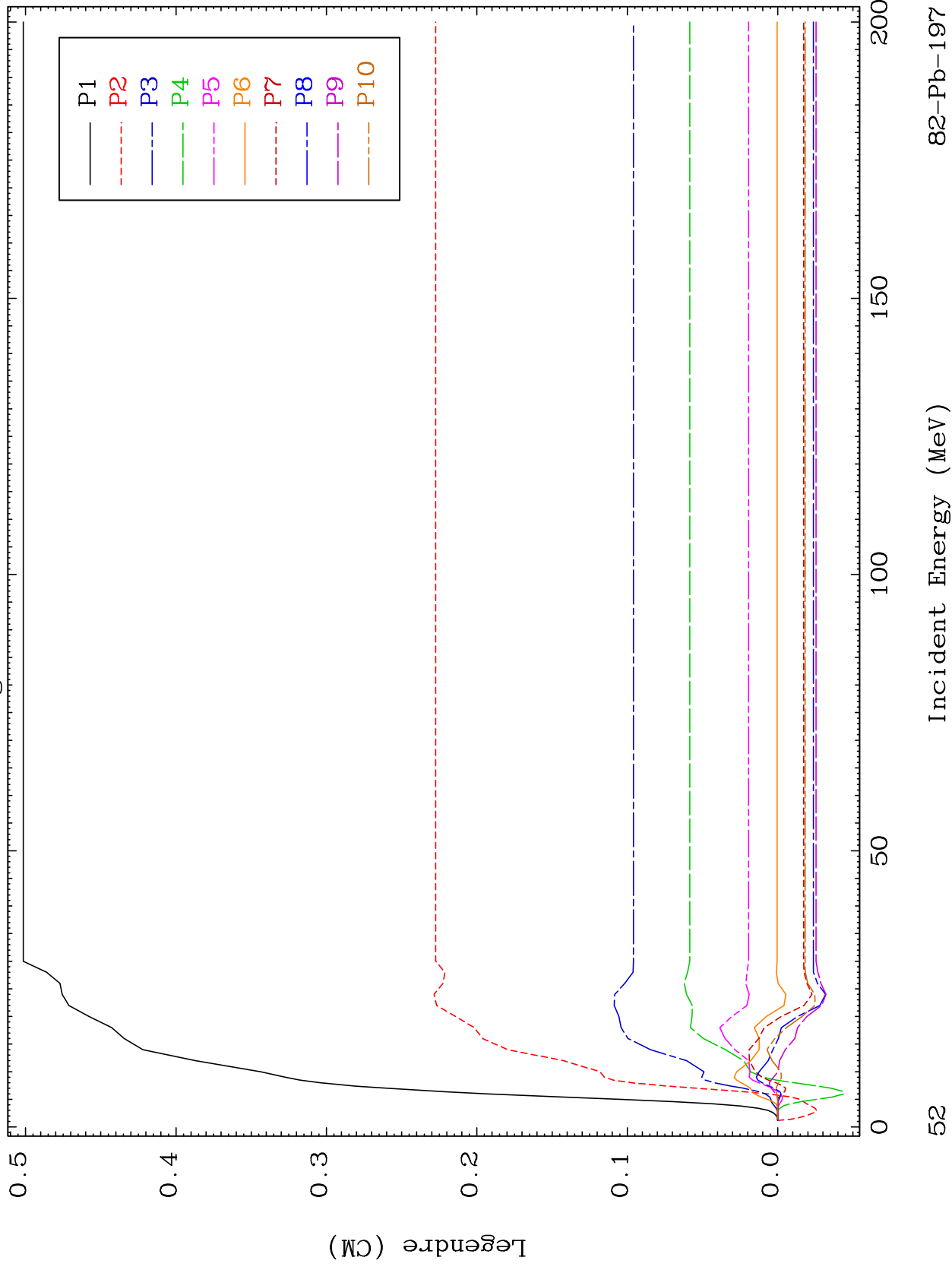
82-Pb-197



MAT 8204

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

82-Pb-197



82-Pb-197

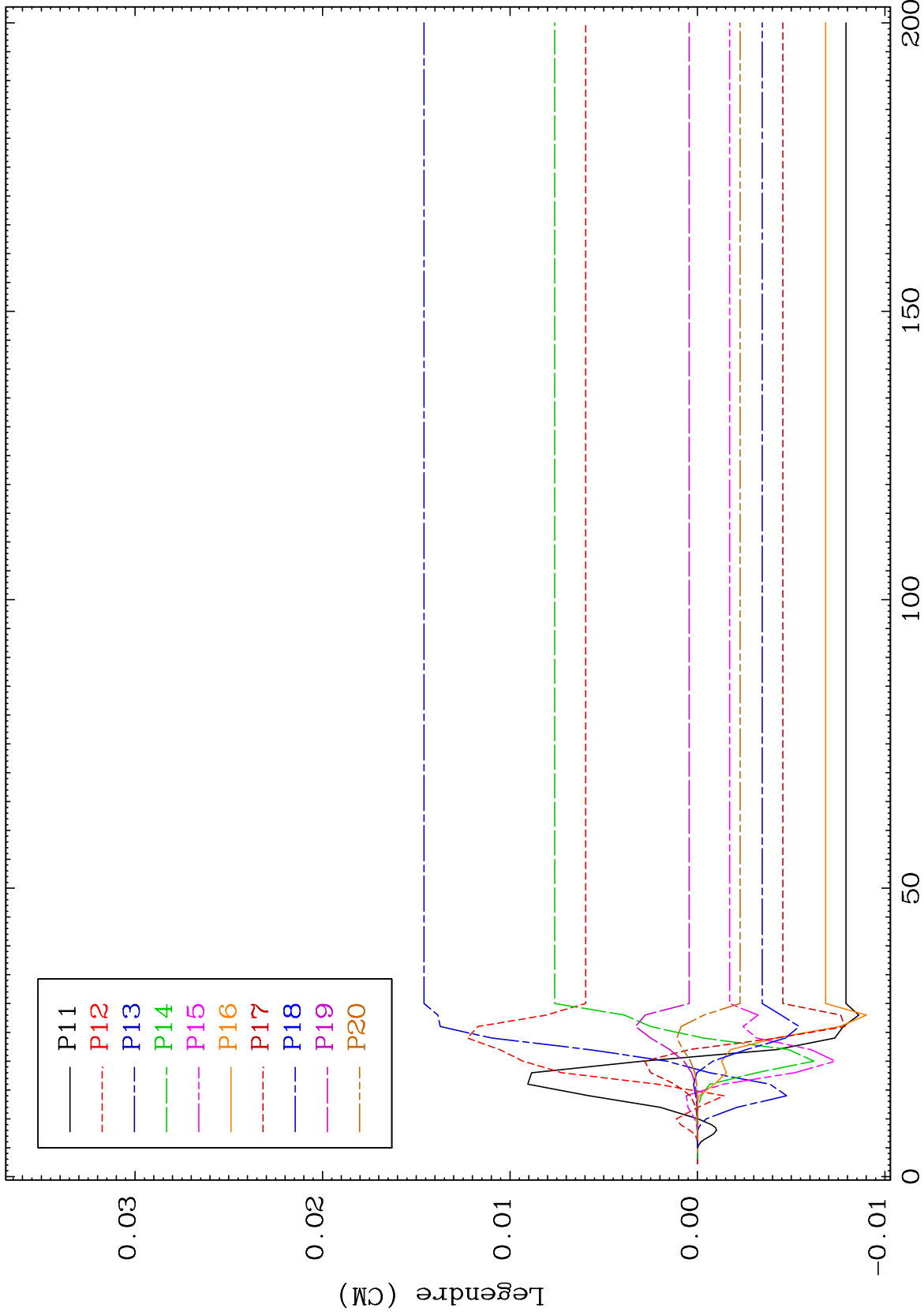
Incident Energy (MeV)

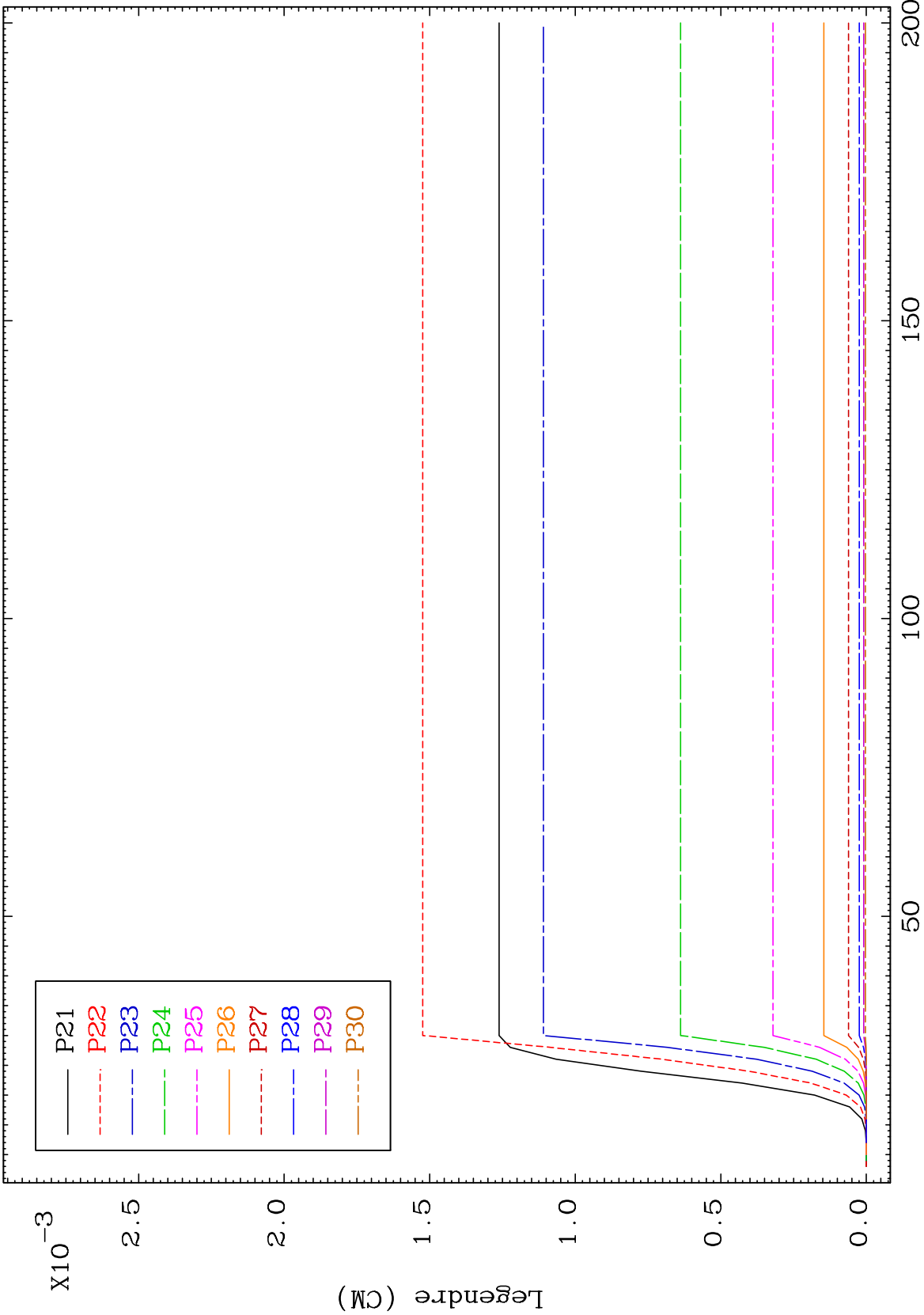
52

MAT 8204

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

82-Pb-197

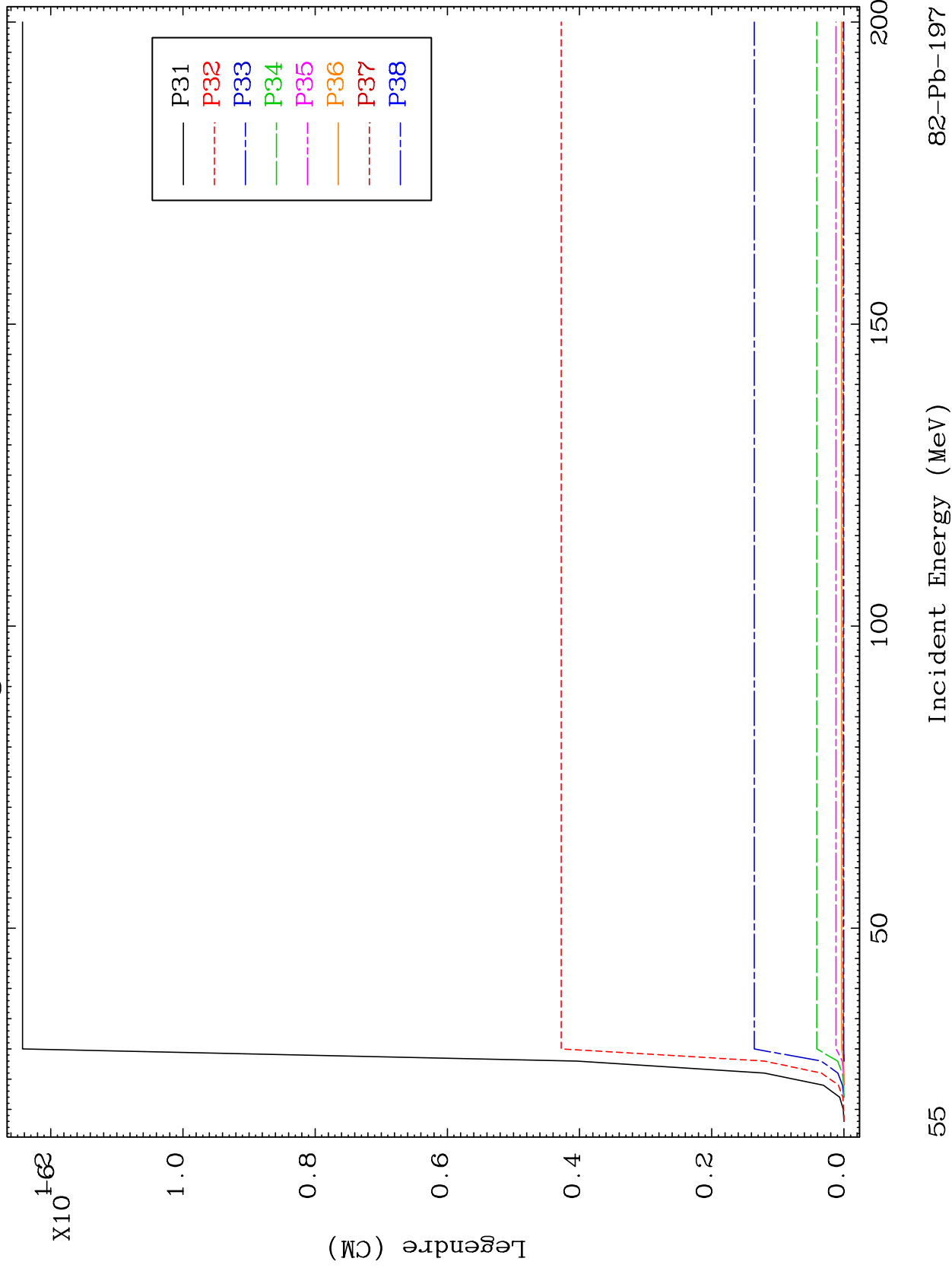




MAT 8204

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

82-Pb-197



55

Incident Energy (MeV)

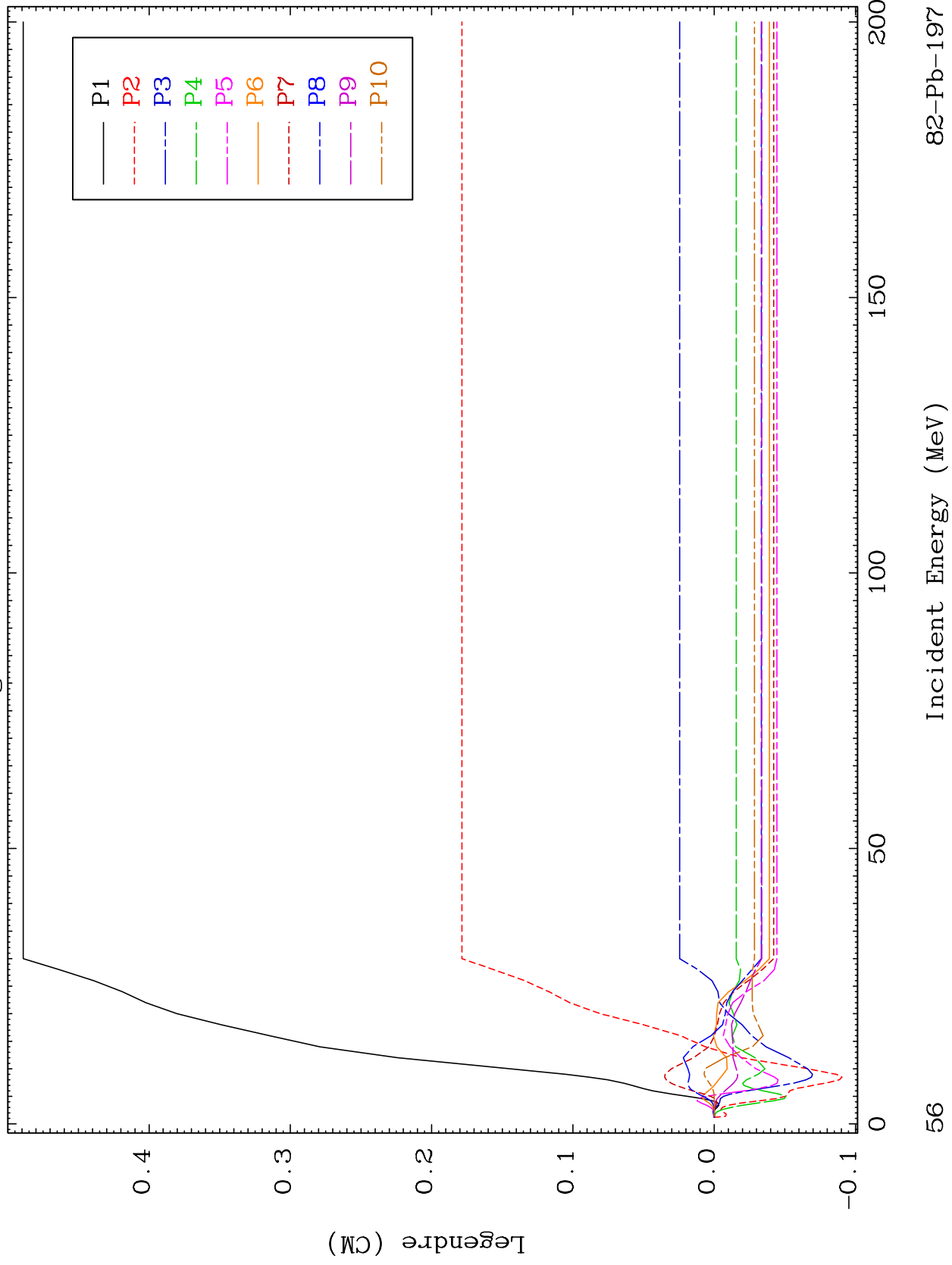
82-Pb-197



MAT 8204

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

82-Pb-197



82-Pb-197

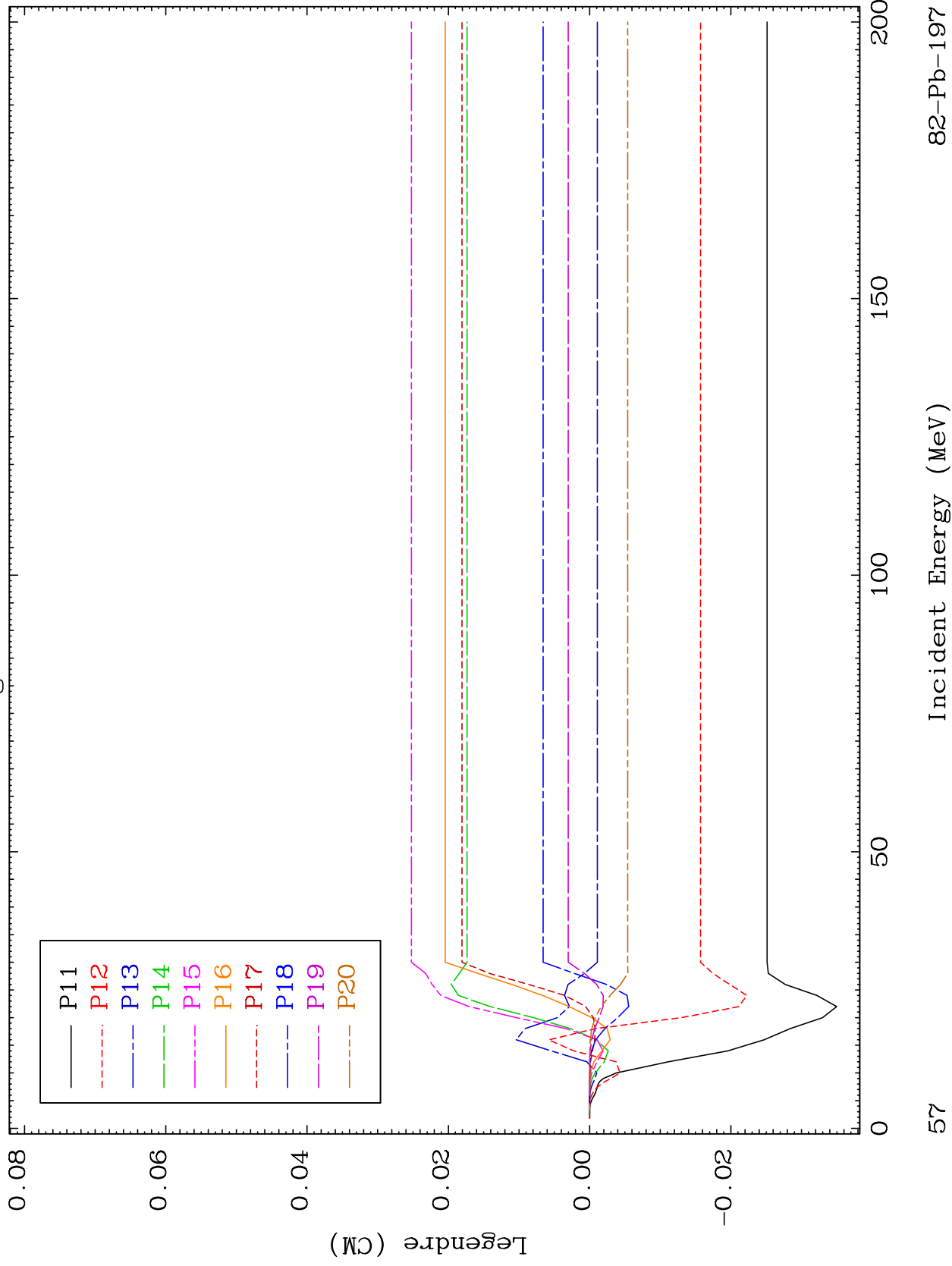
Incident Energy (MeV)

56

MAT 8204

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

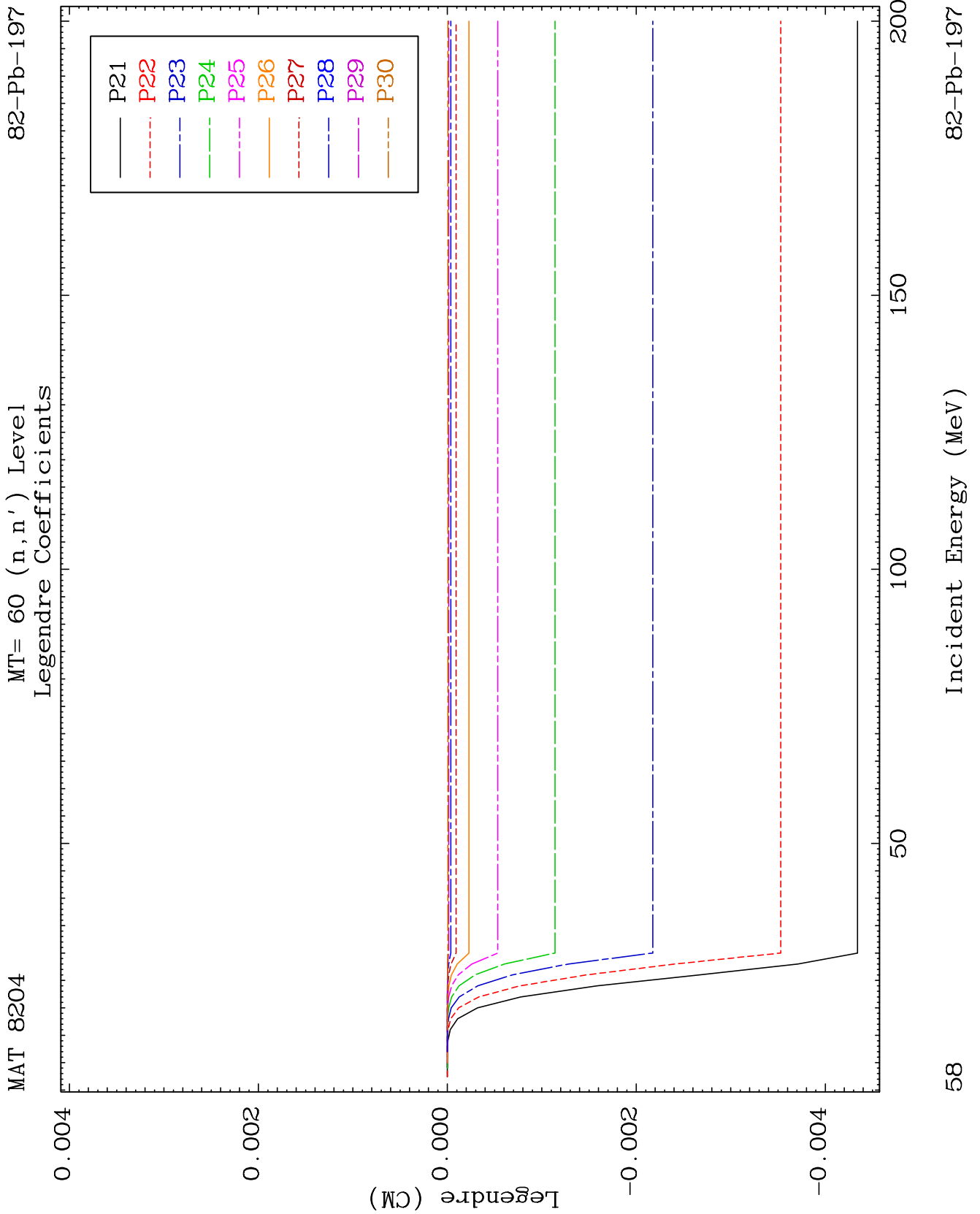
82-Pb-197

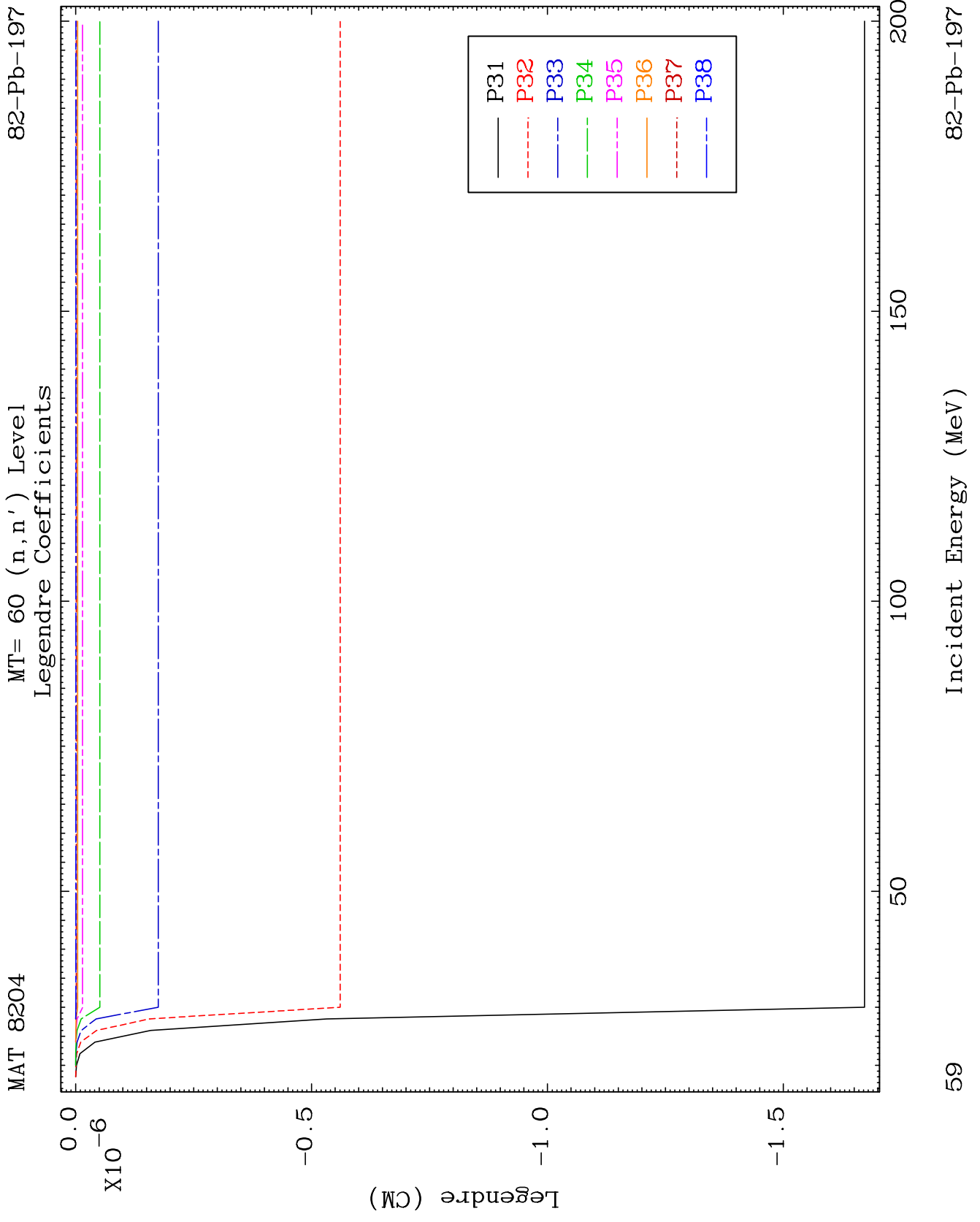


57

Incident Energy (MeV)

82-Pb-197

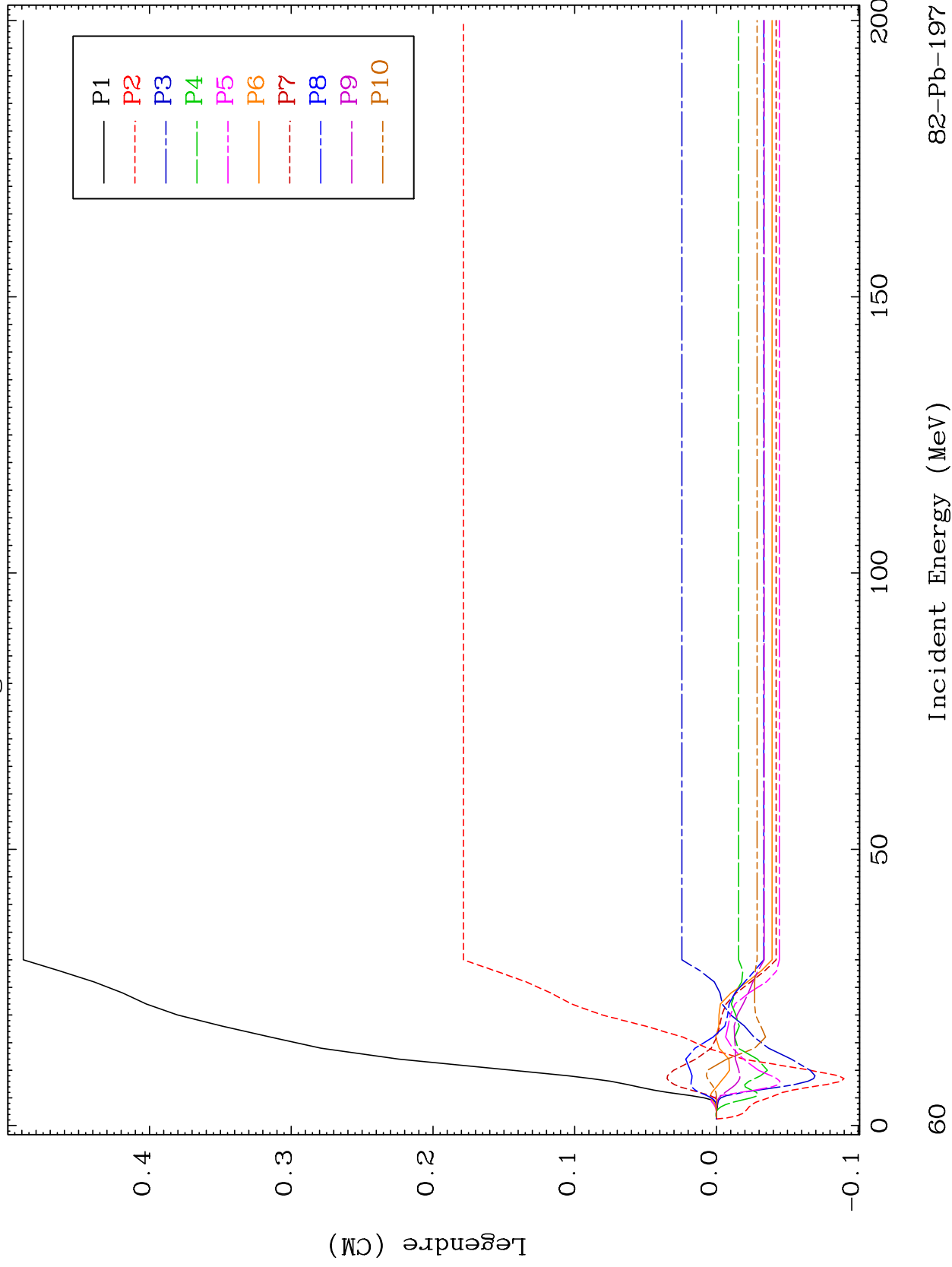




MAT 8204

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

82-Pb-197



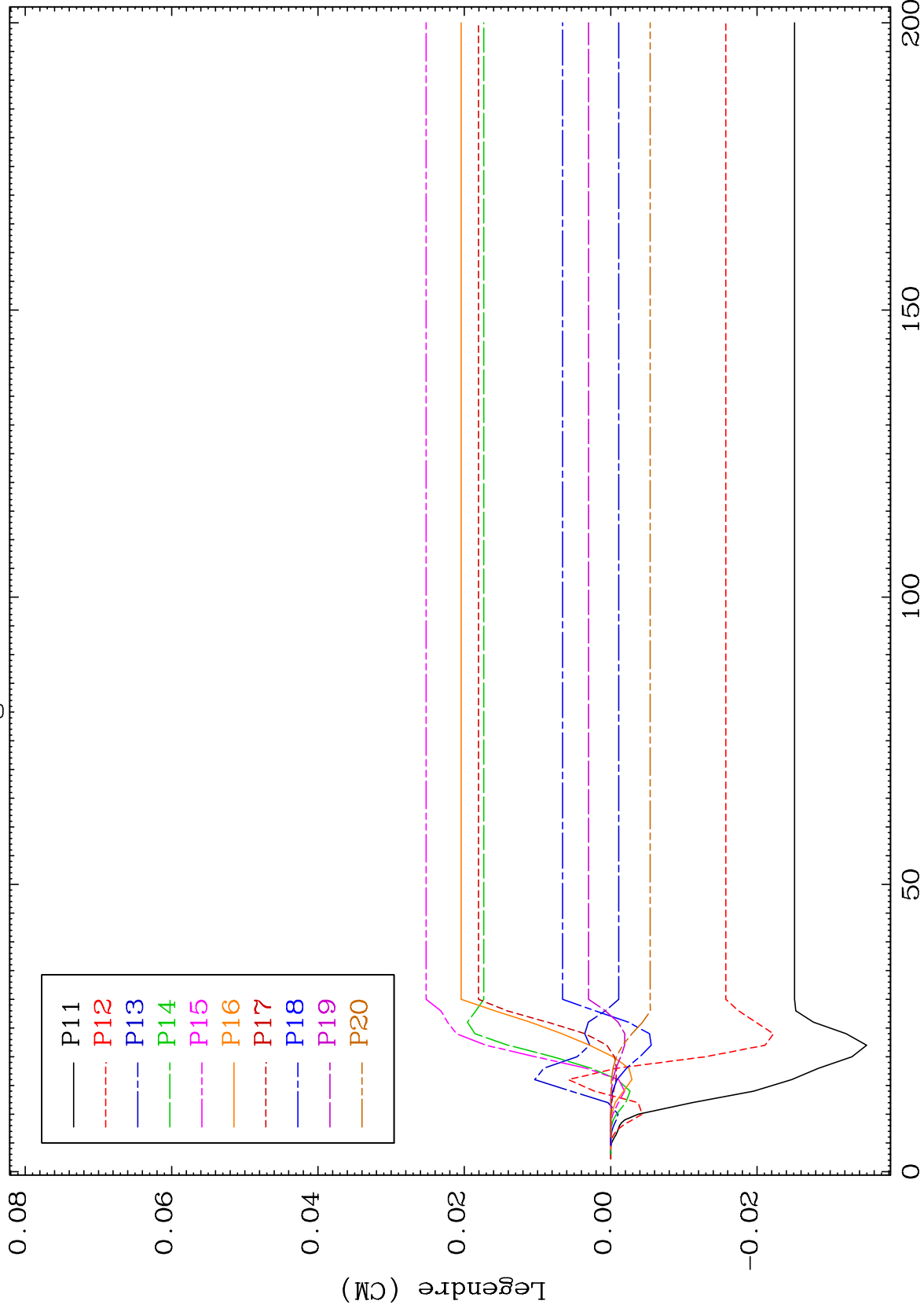
82-Pb-197

Incident Energy (MeV)

MAT 8204

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

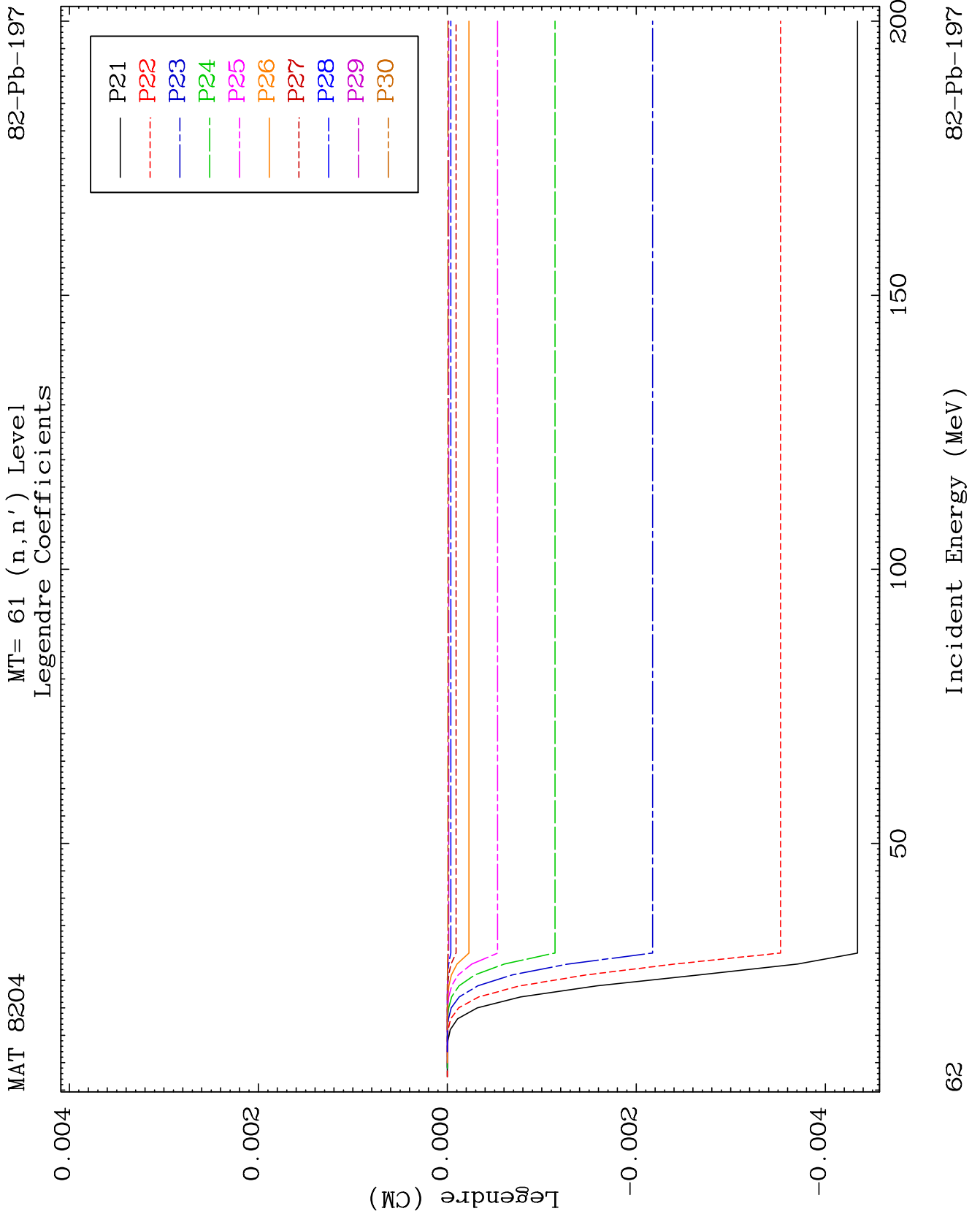
82-Pb-197

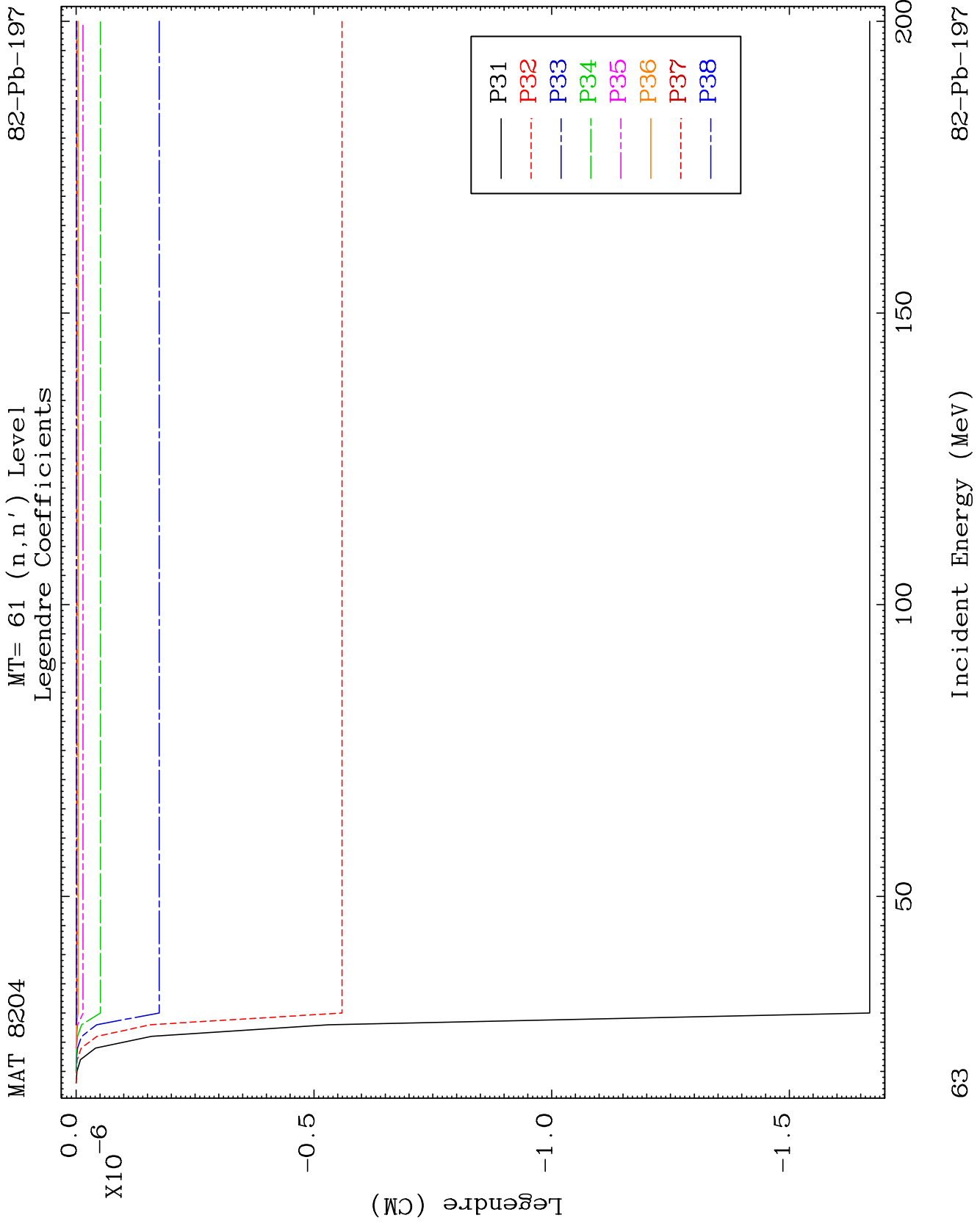


61

Incident Energy (MeV)

82-Pb-197



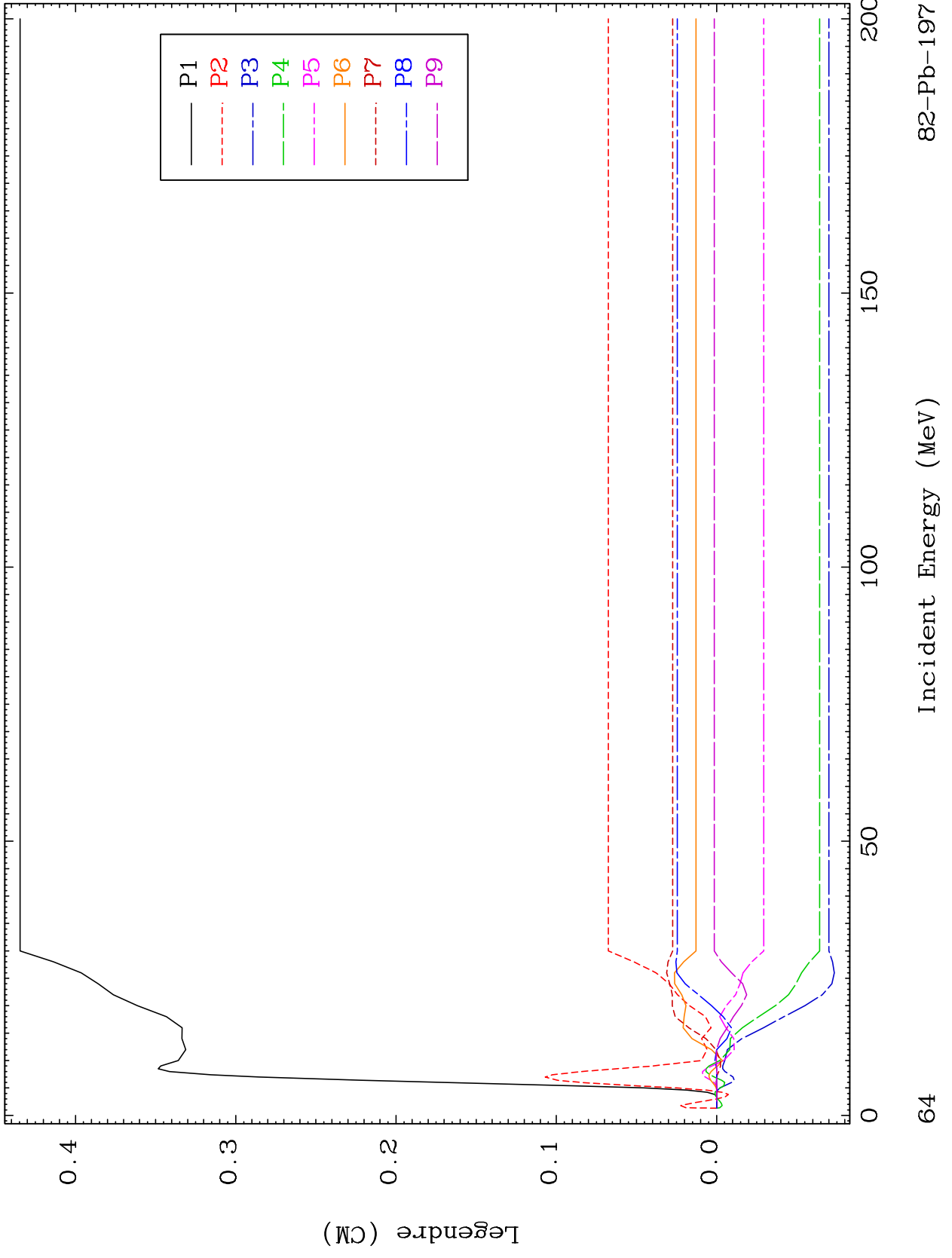




MAT 8204

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

82-Pb-197



82-Pb-197

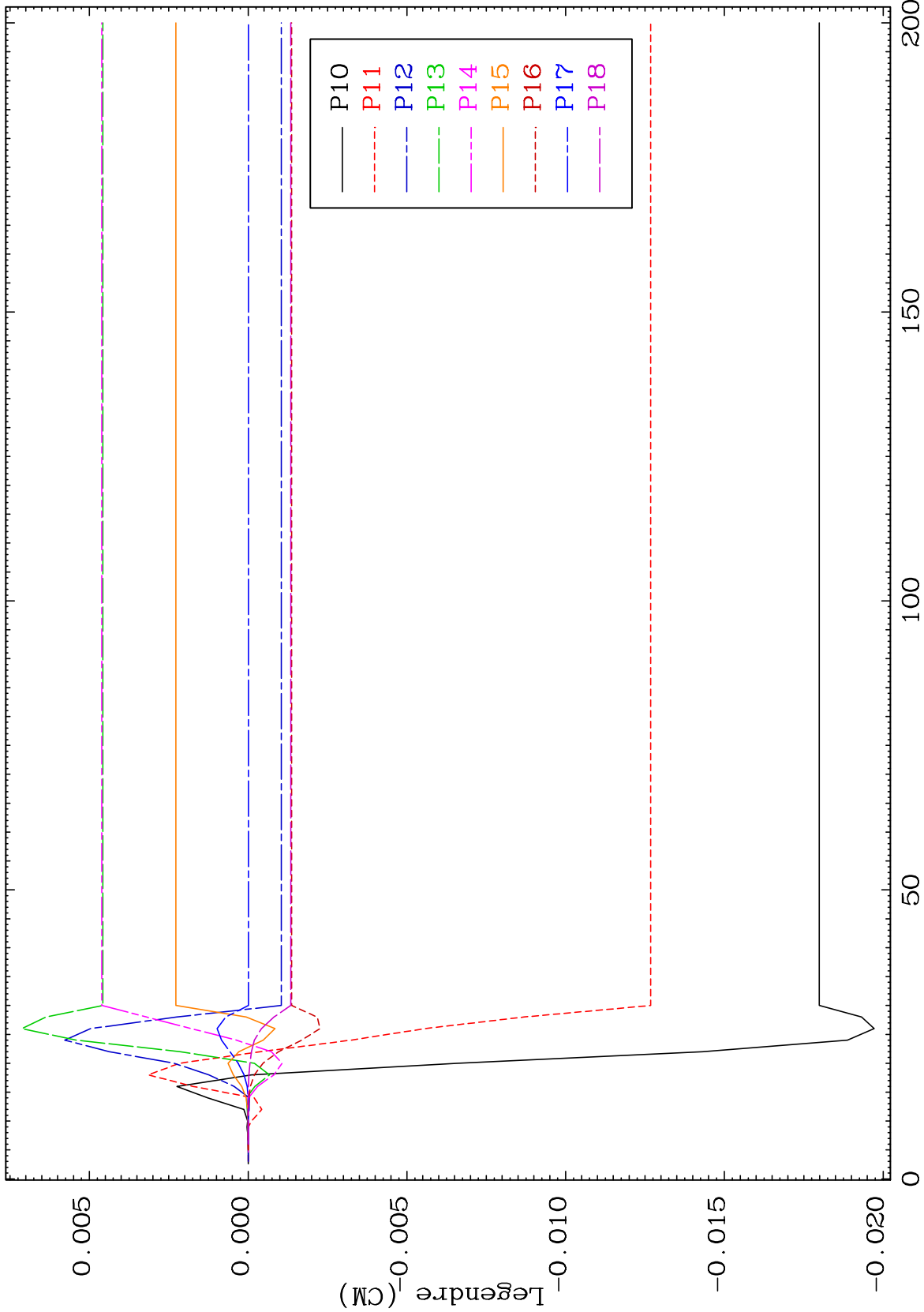
Incident Energy (MeV)

64

MAT 8204

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

82-Pb-197



65

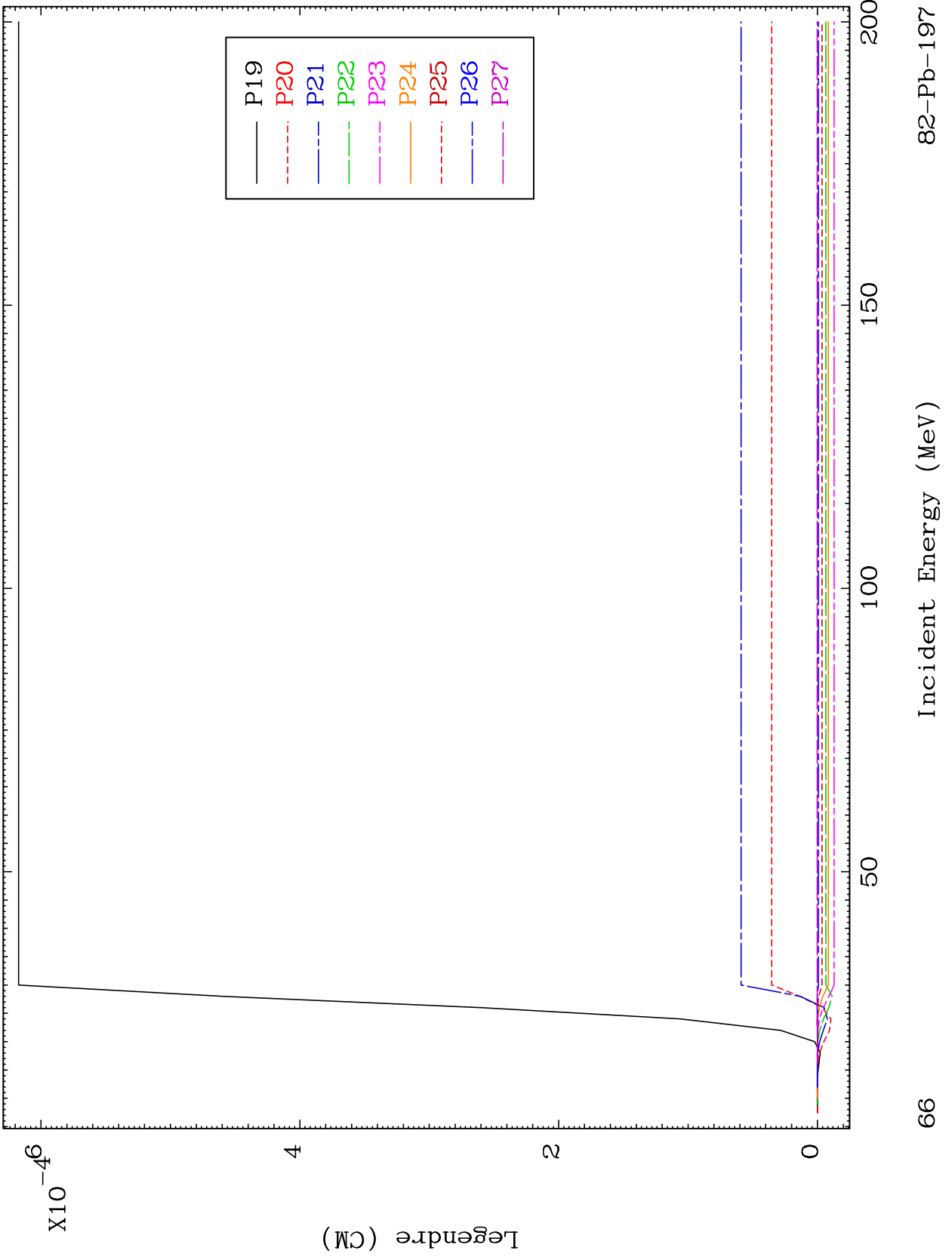
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

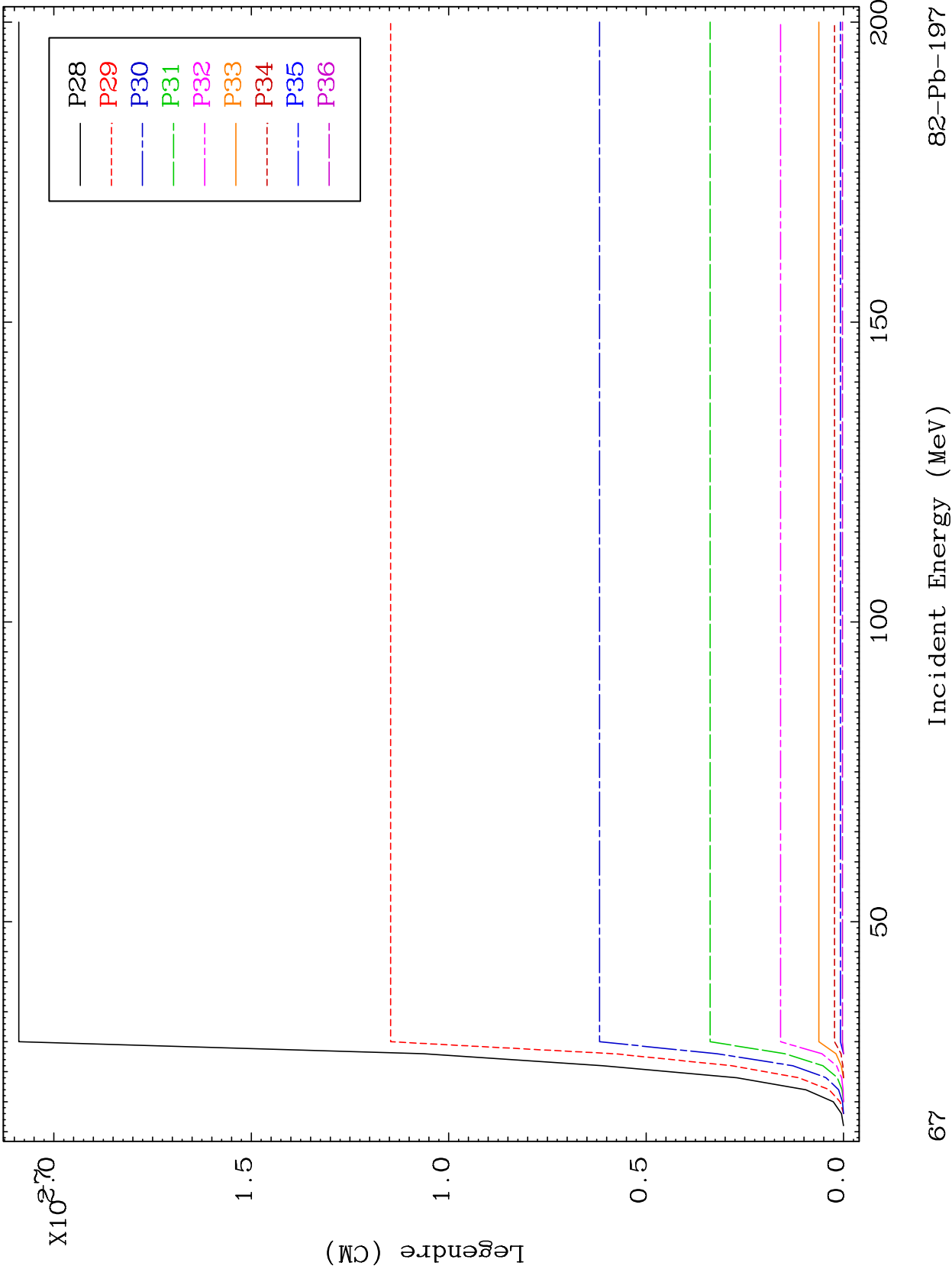
82-Pb-197



MAT 8204

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

82-Pb-197



67

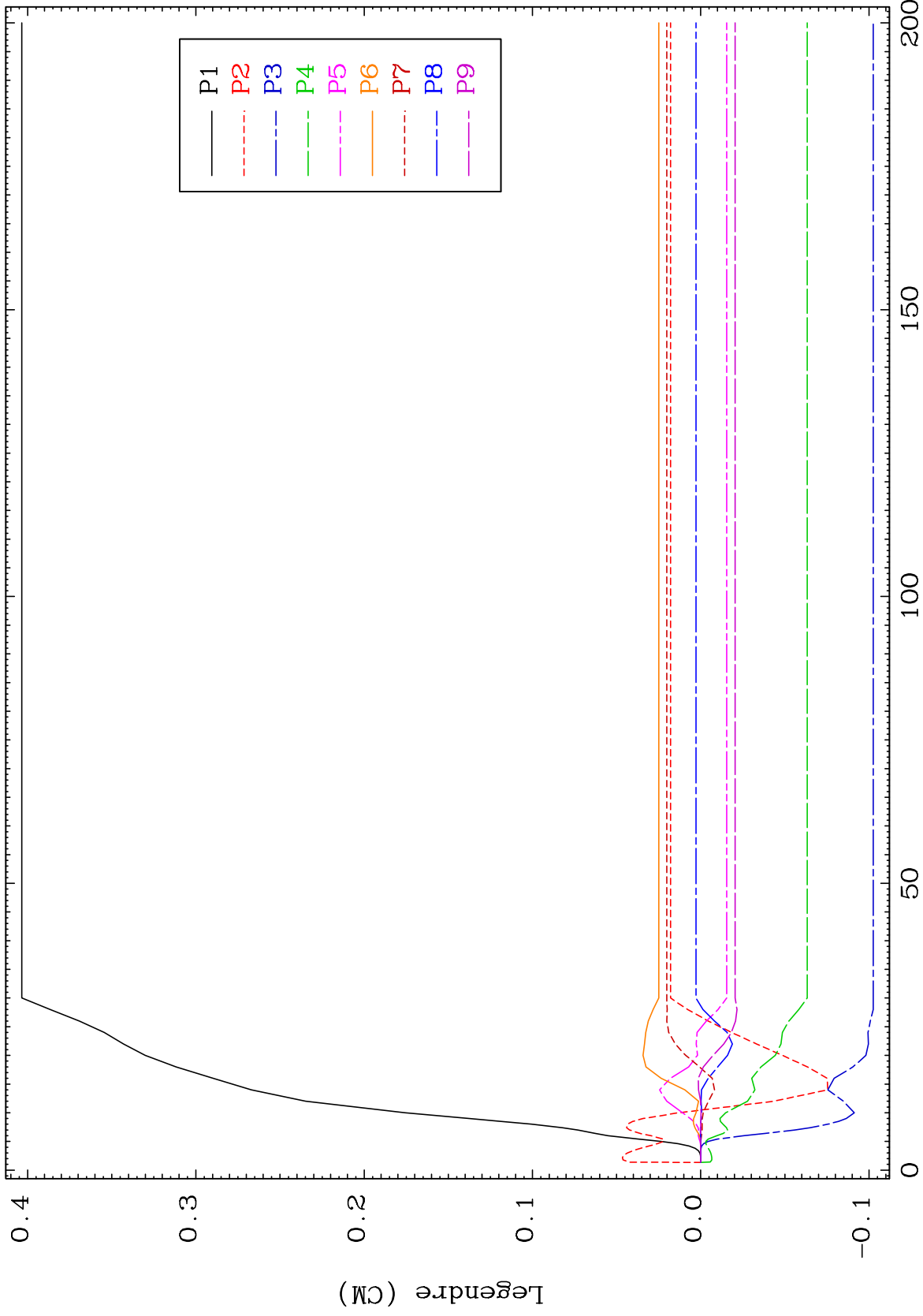
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



68

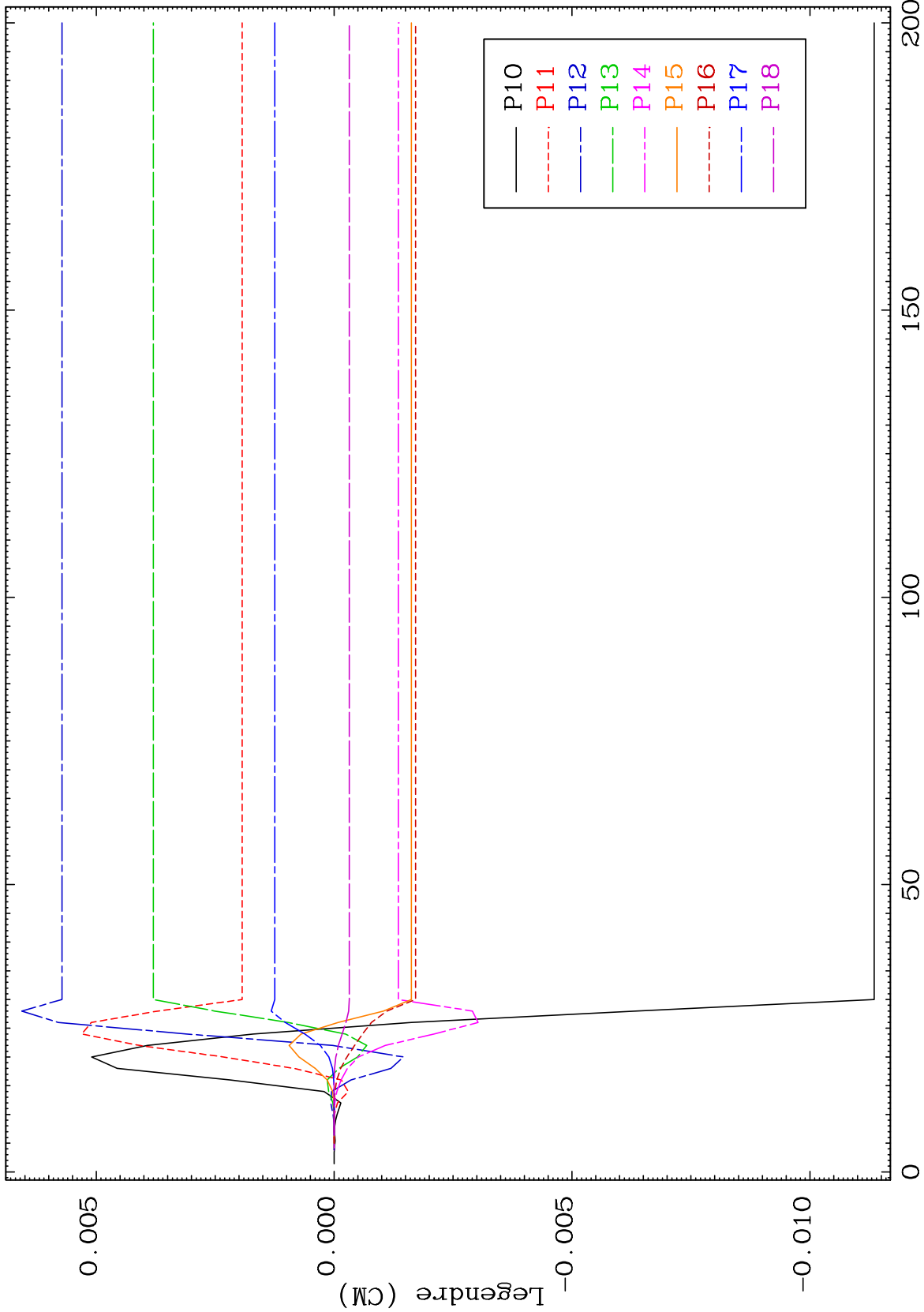
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



69

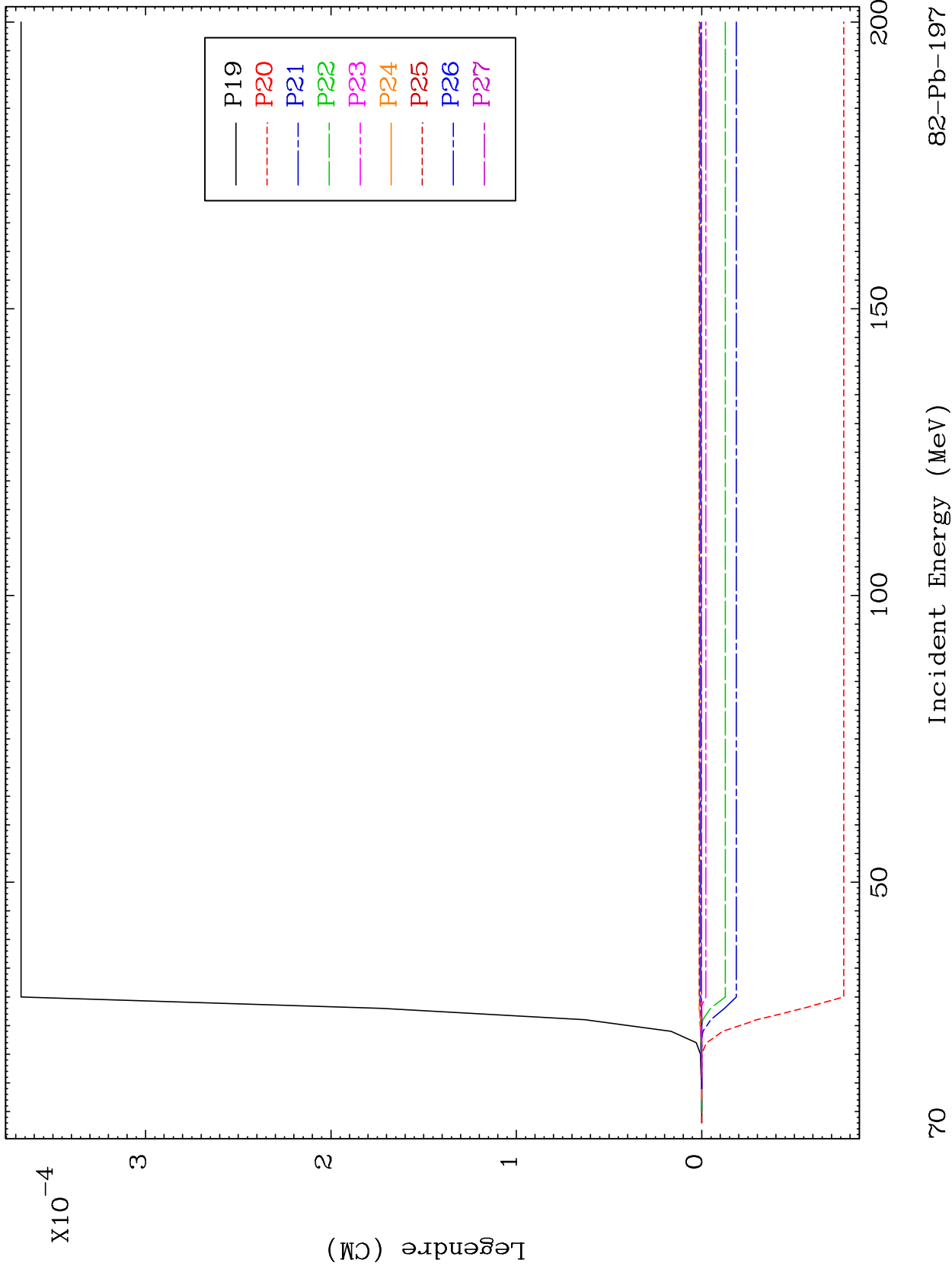
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



70

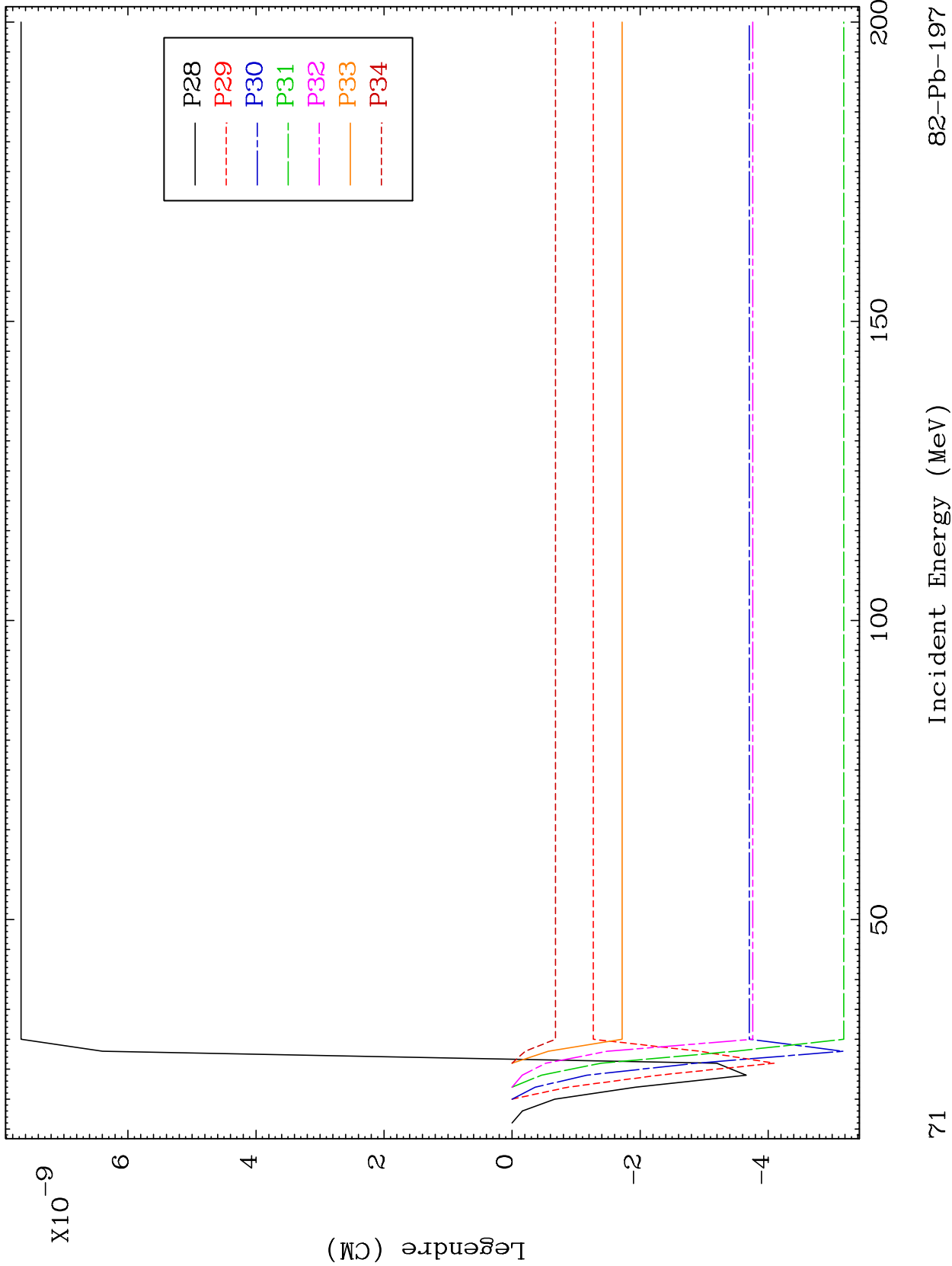
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197

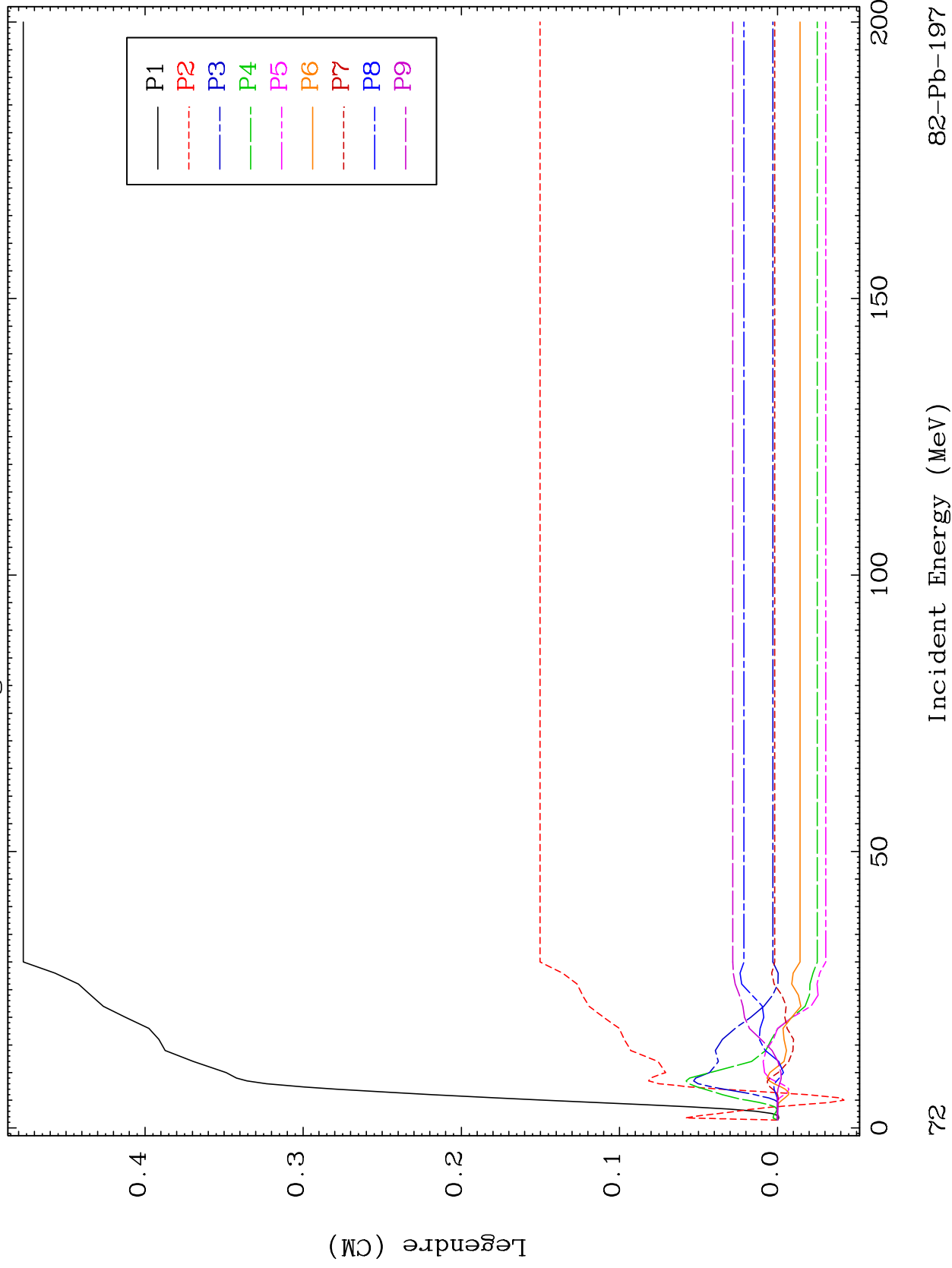




MAT 8204

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

82-Pb-197



82-Pb-197

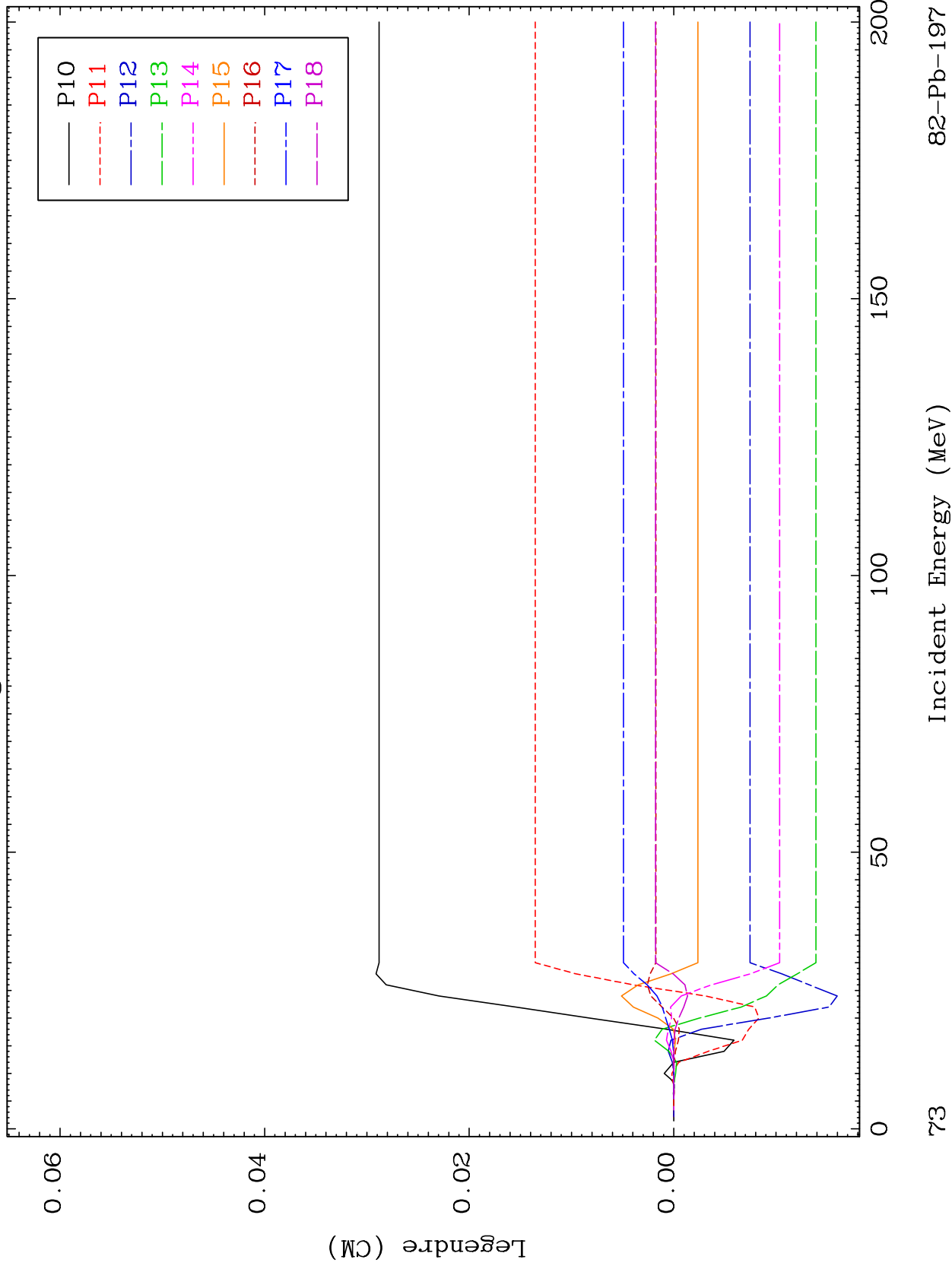
Incident Energy (MeV)

72

MAT 8204

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

82-Pb-197



82-Pb-197

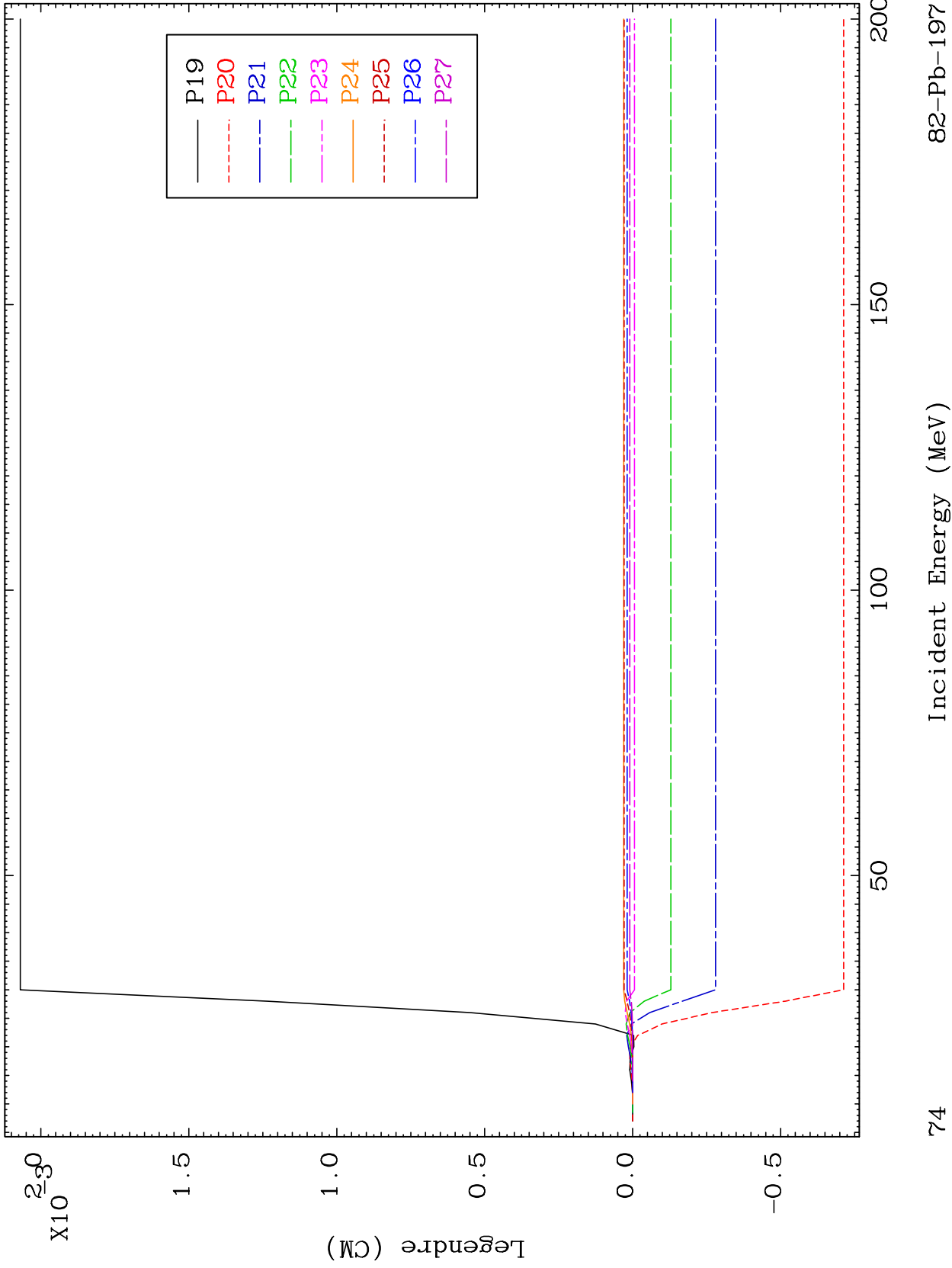
Incident Energy (MeV)

73

MAT 8204

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

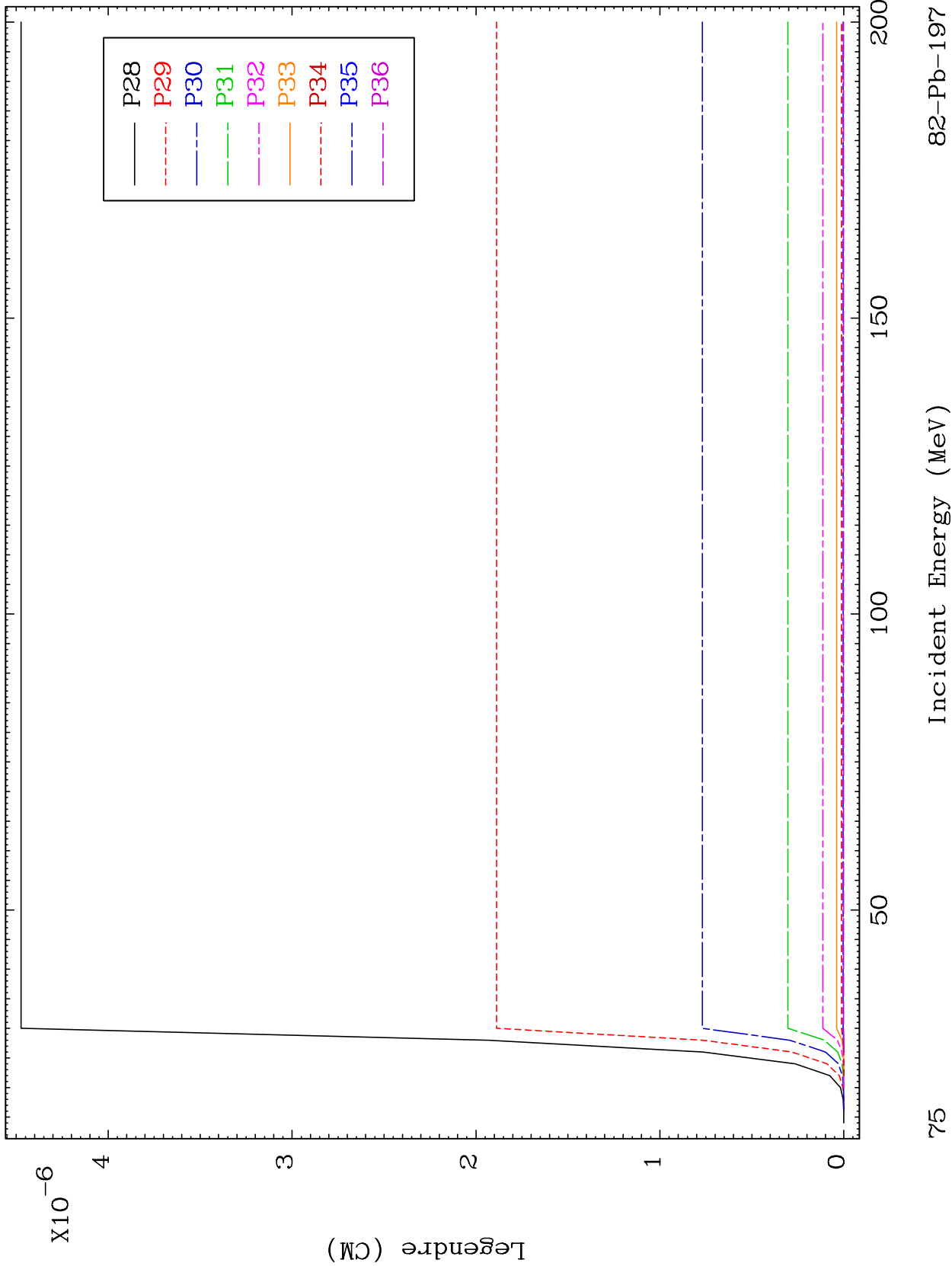
82-Pb-197



MAT 8204

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

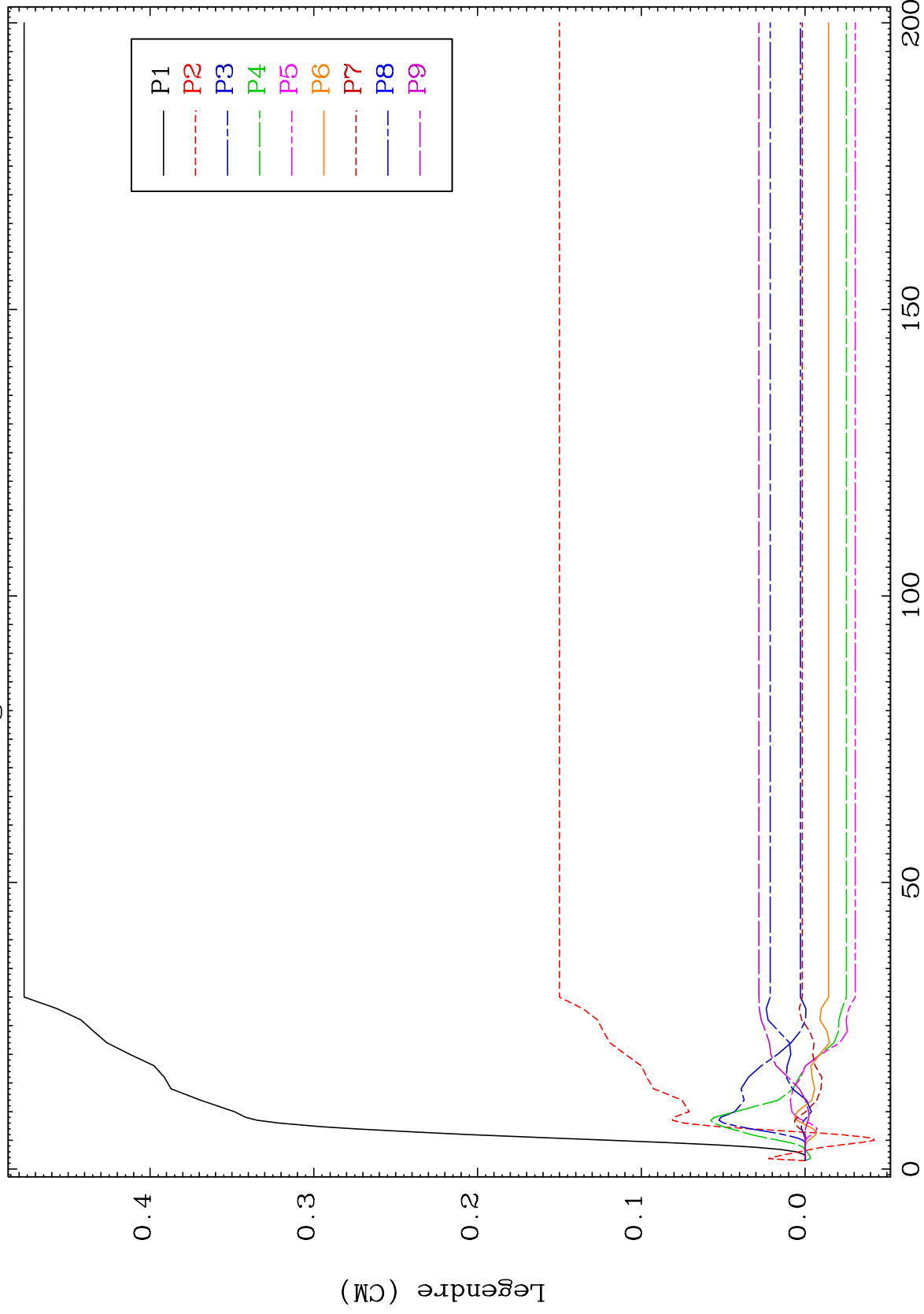
82-Pb-197



MAT 8204

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

82-Pb-197



76

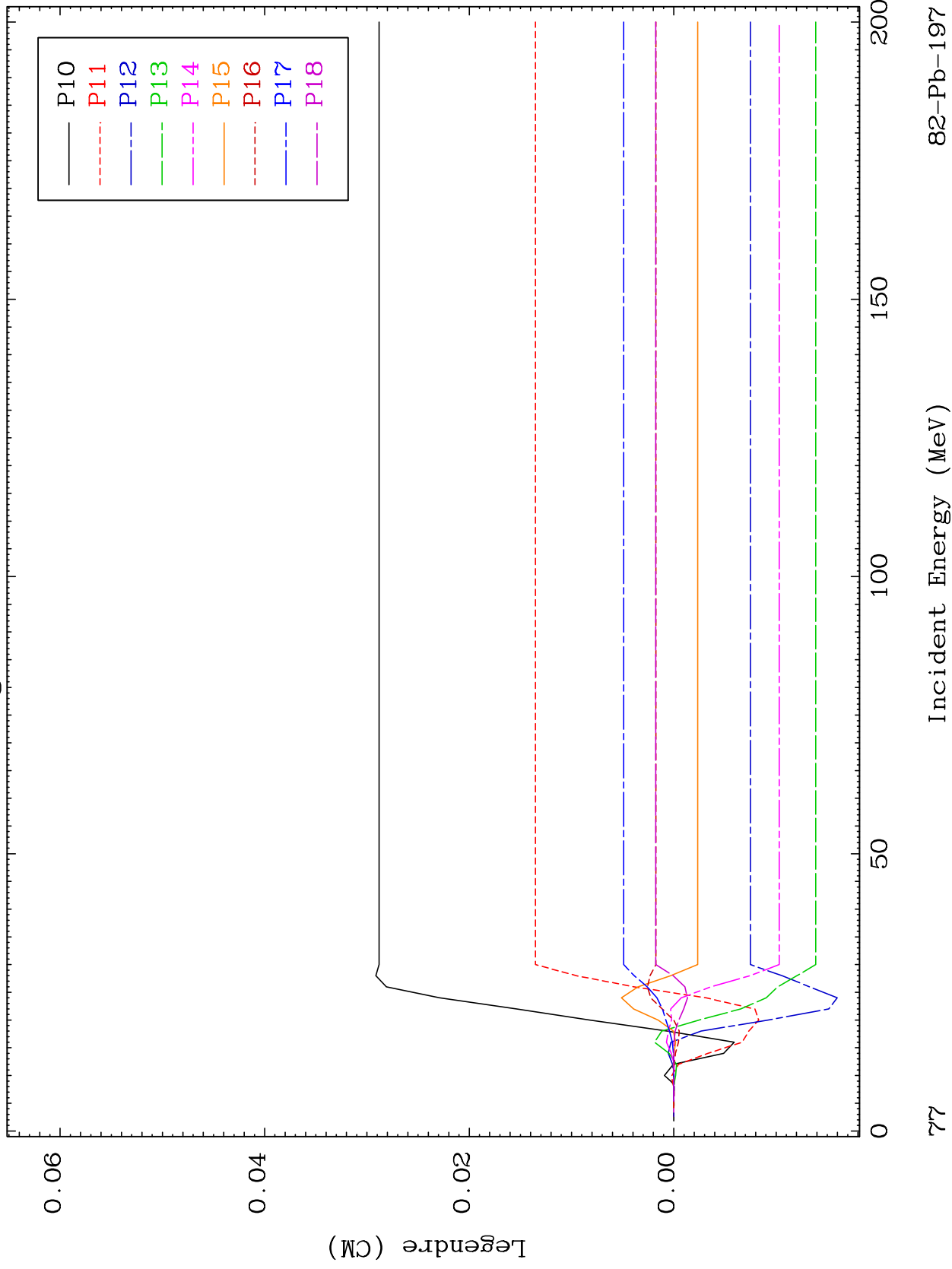
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



77

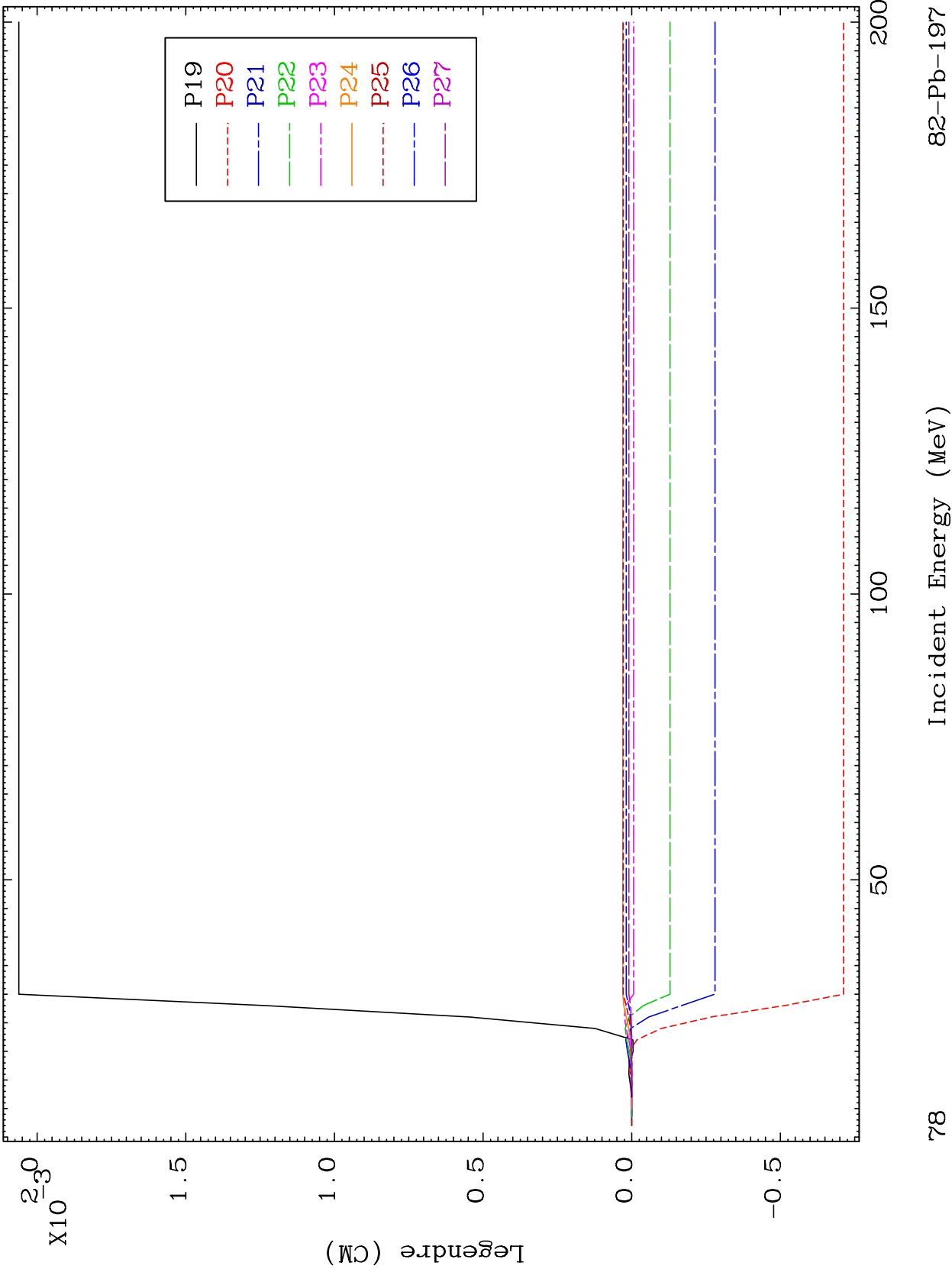
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



78

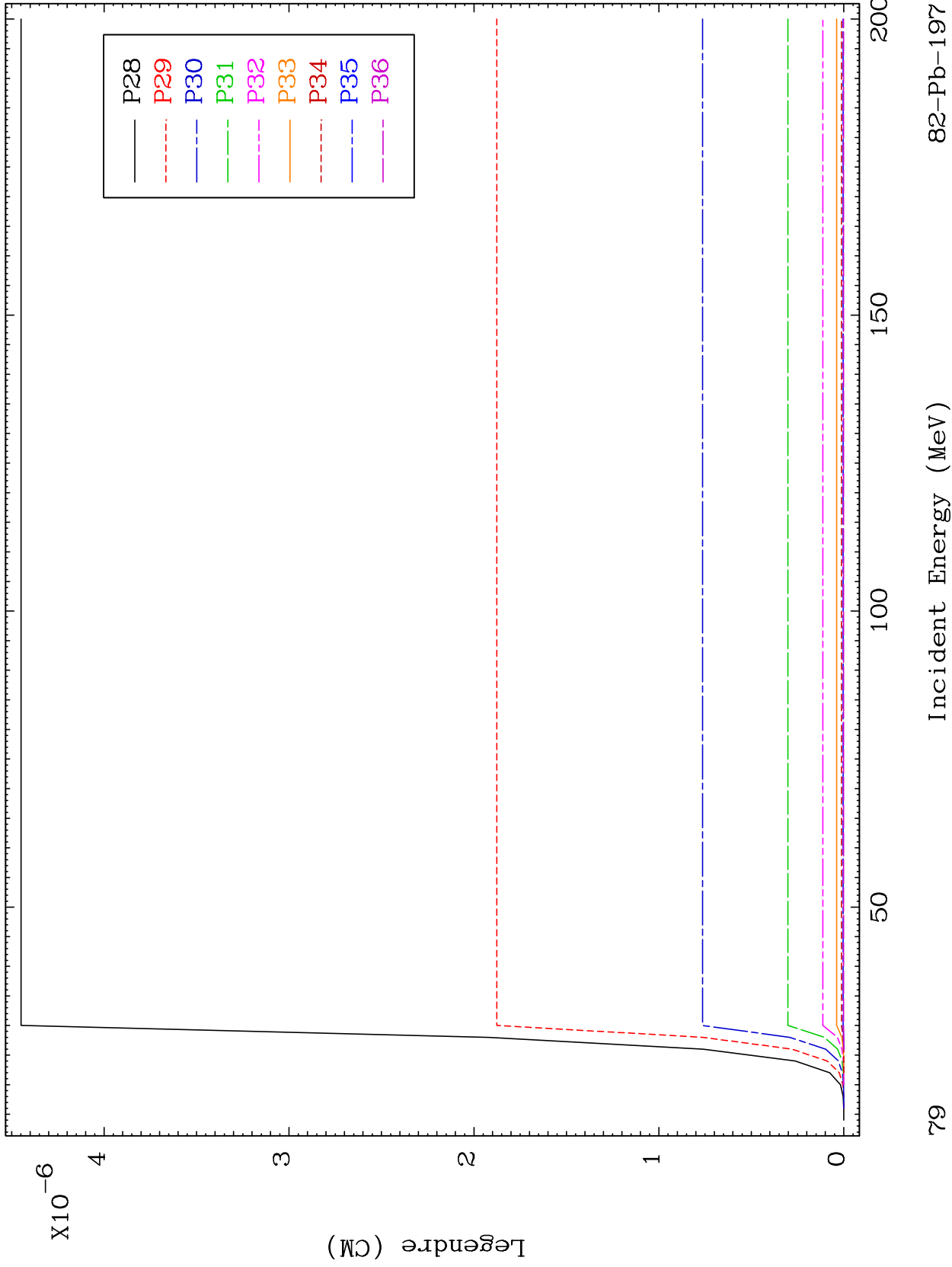
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197

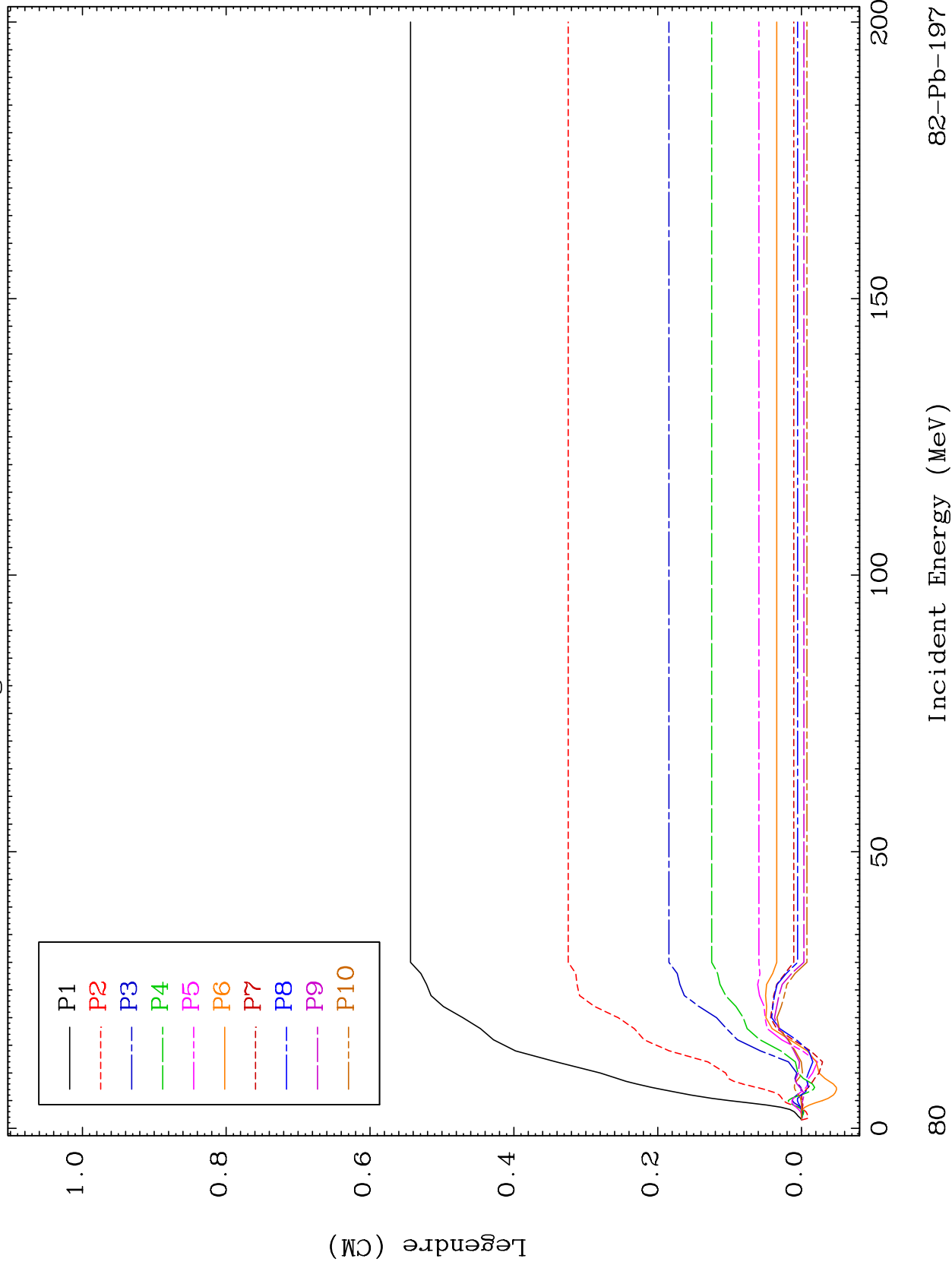




MAT 8204

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

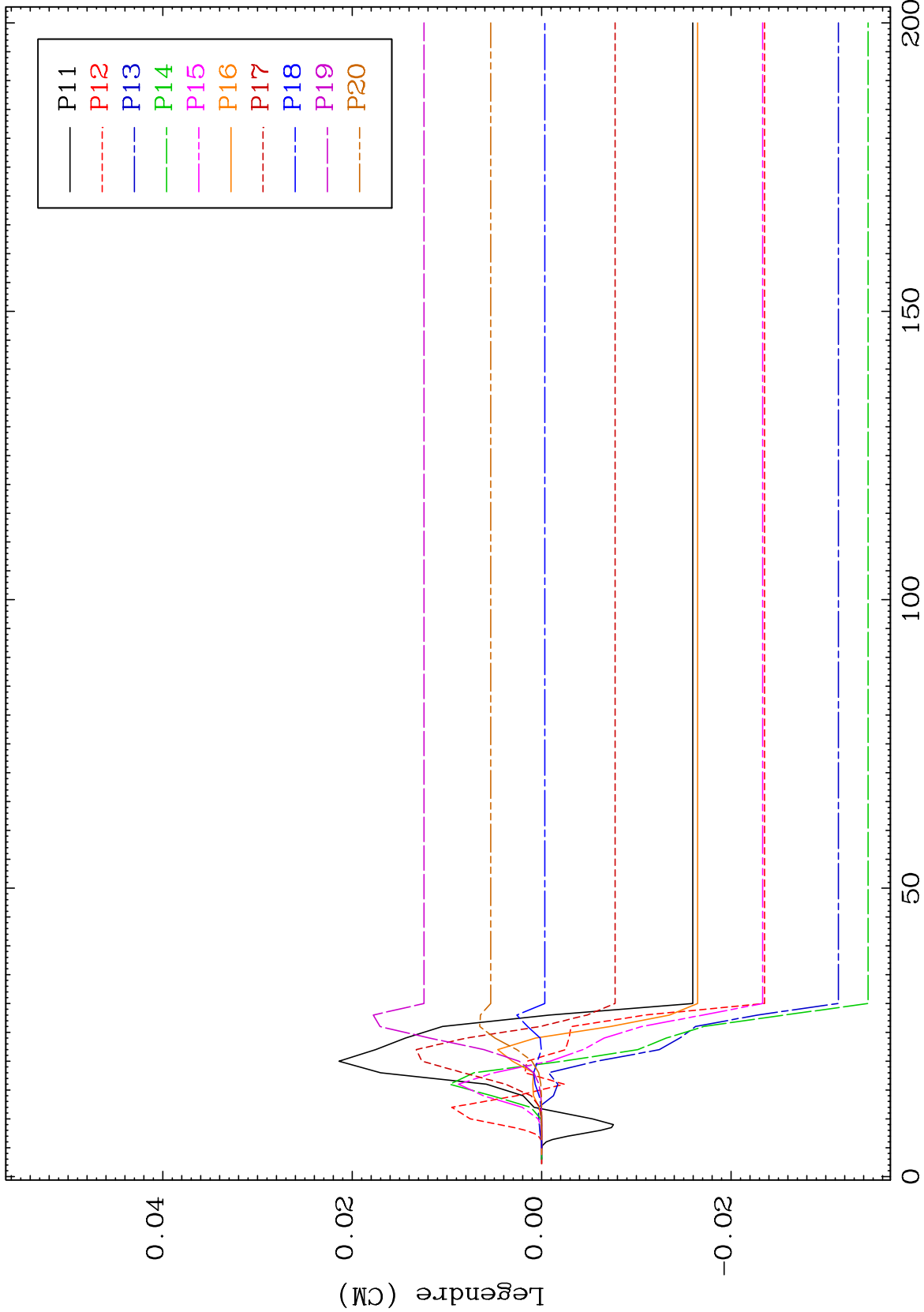
82-Pb-197



MAT 8204

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

82-Pb-197



81

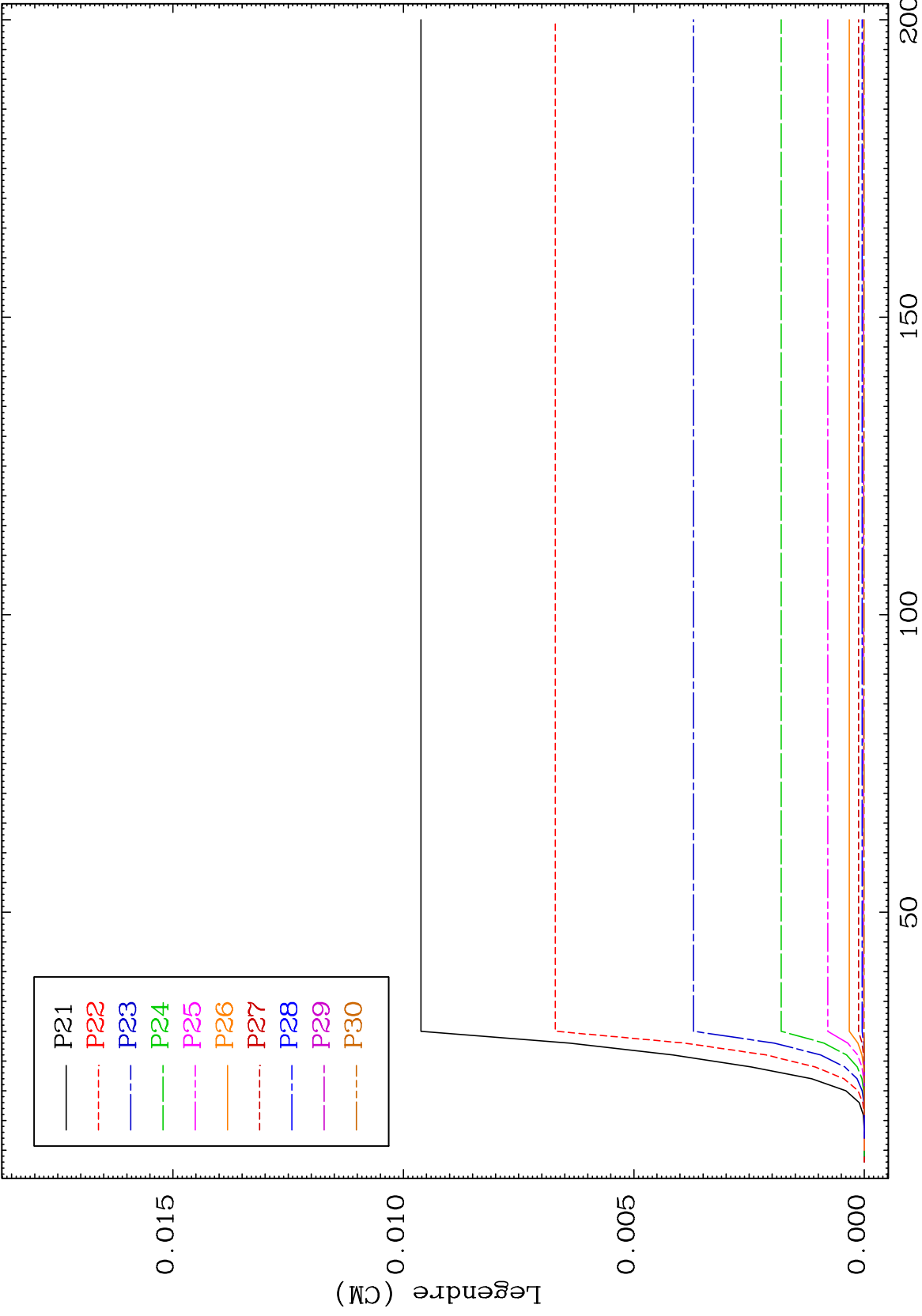
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



82

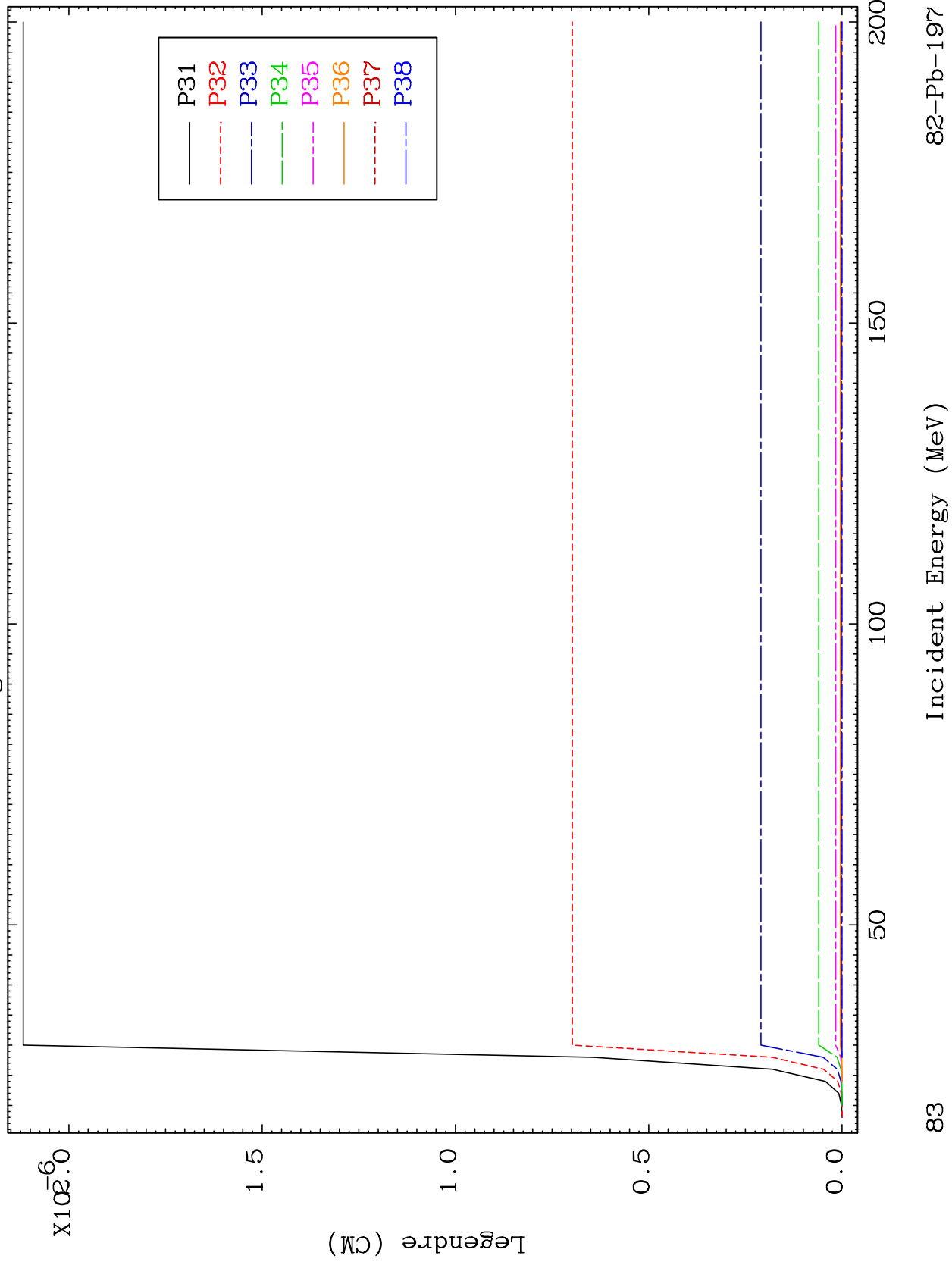
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



83

Incident Energy (MeV)

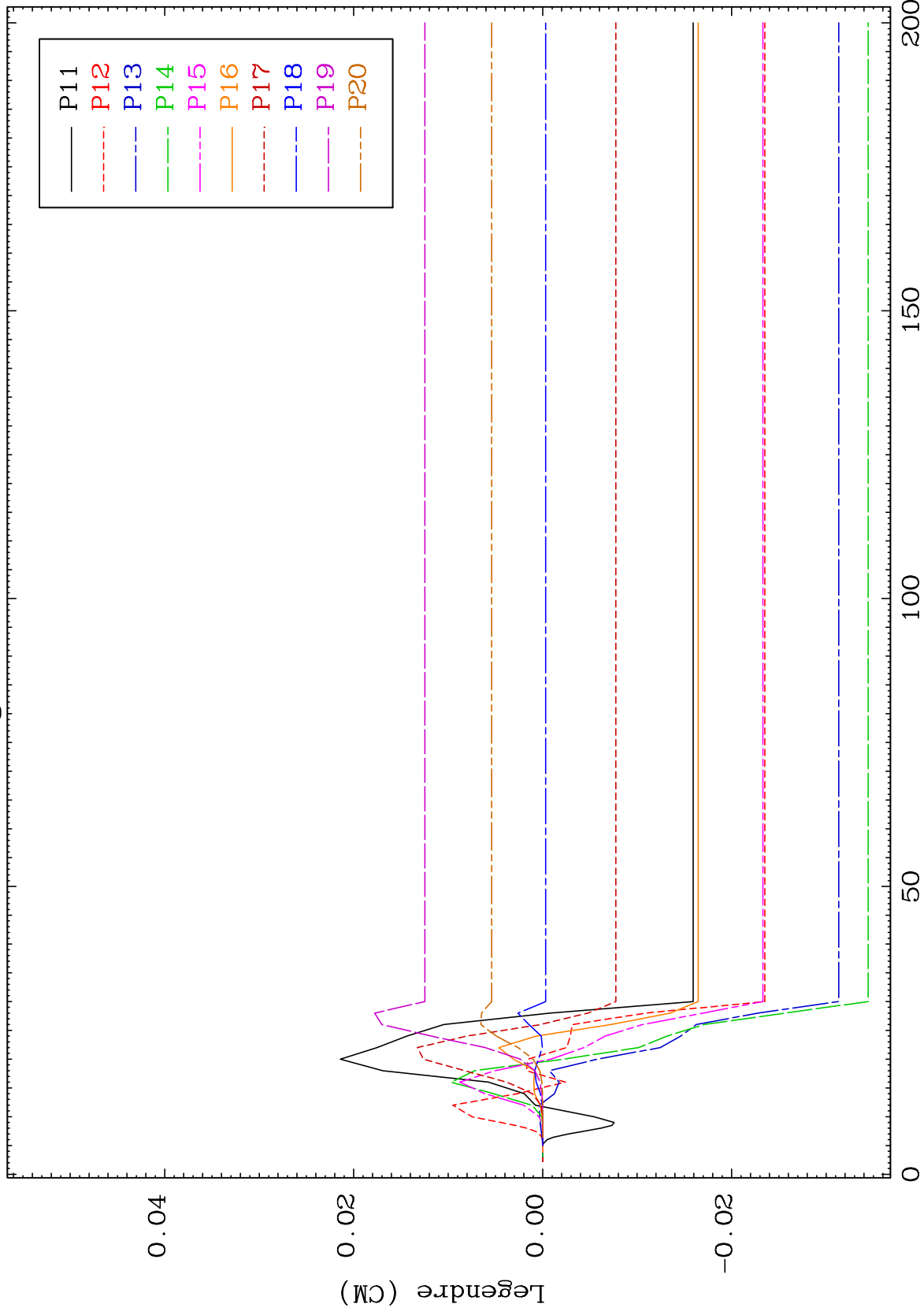
82-Pb-197



MAT 8204

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

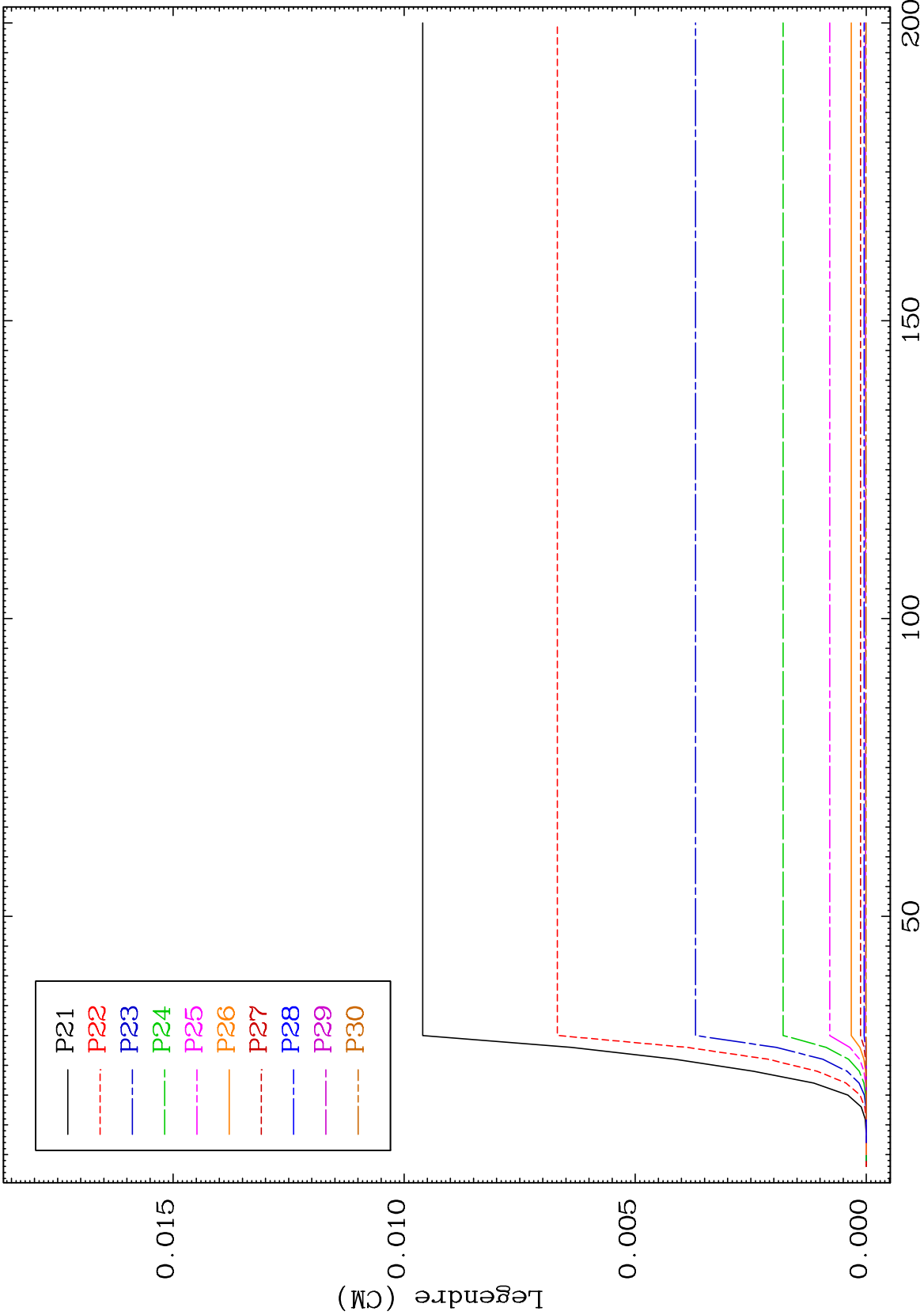
82-Pb-197



85

Incident Energy (MeV)

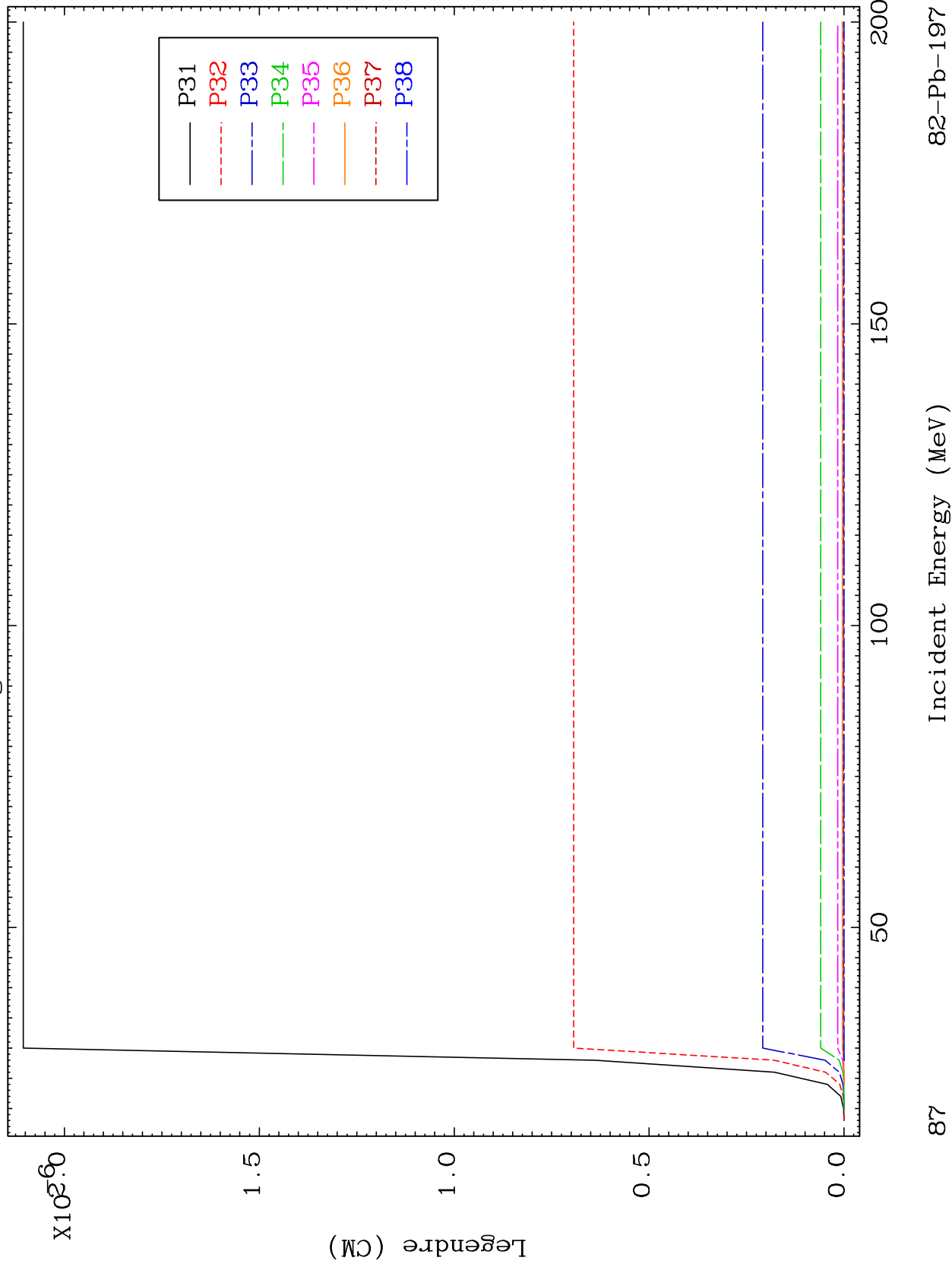
82-Pb-197



MAT 8204

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

82-Pb-197

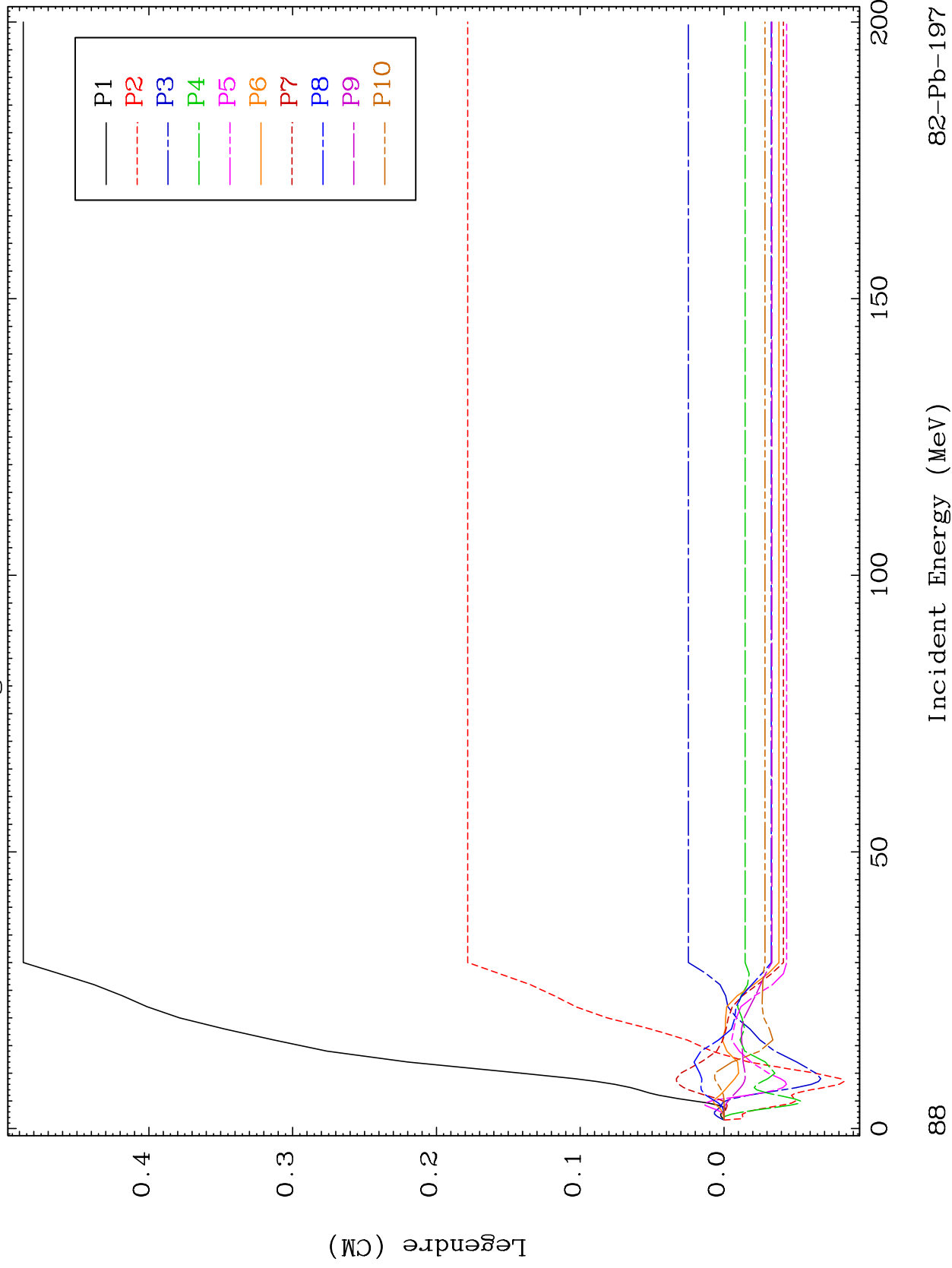




MAT 8204

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

82-Pb-197

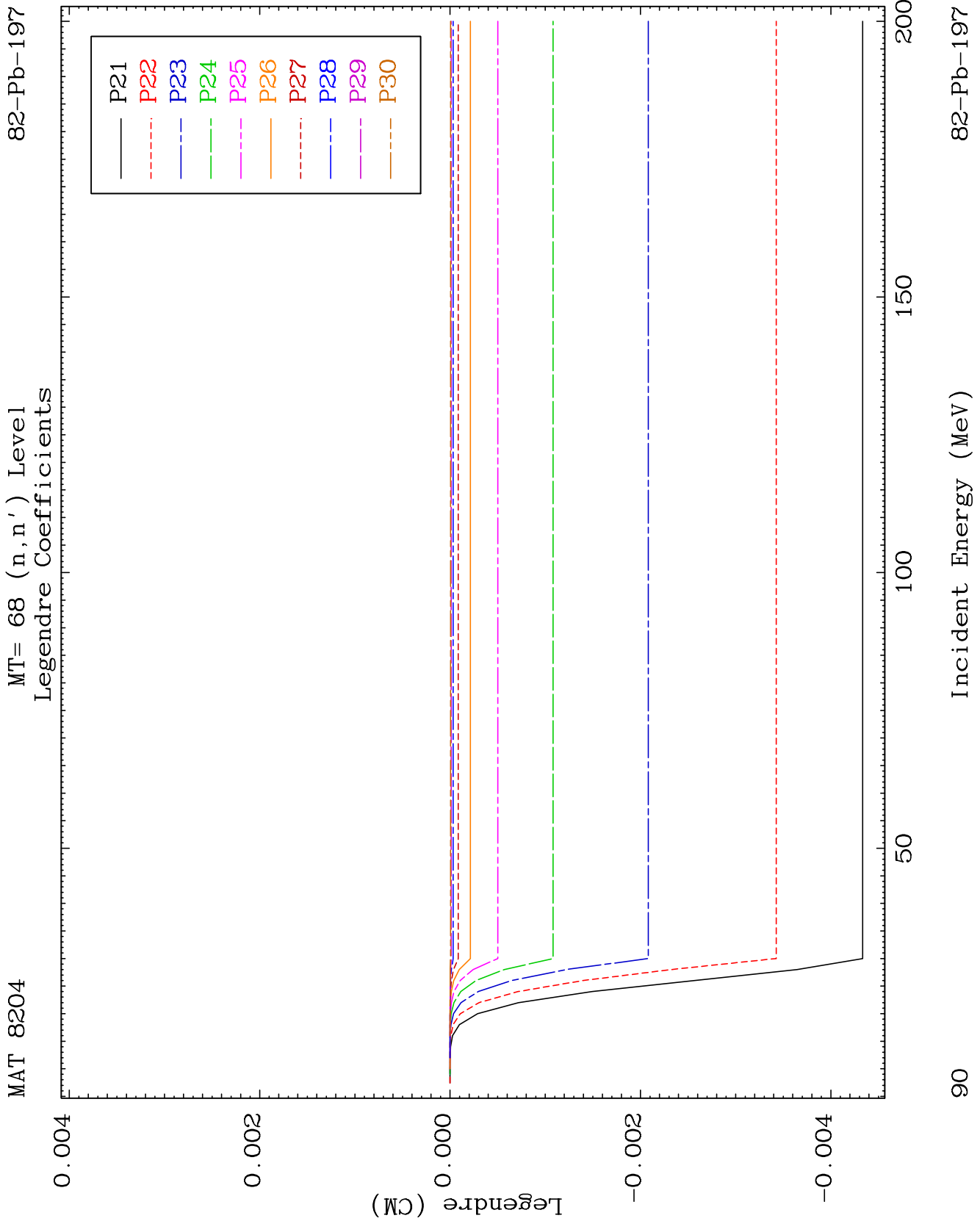


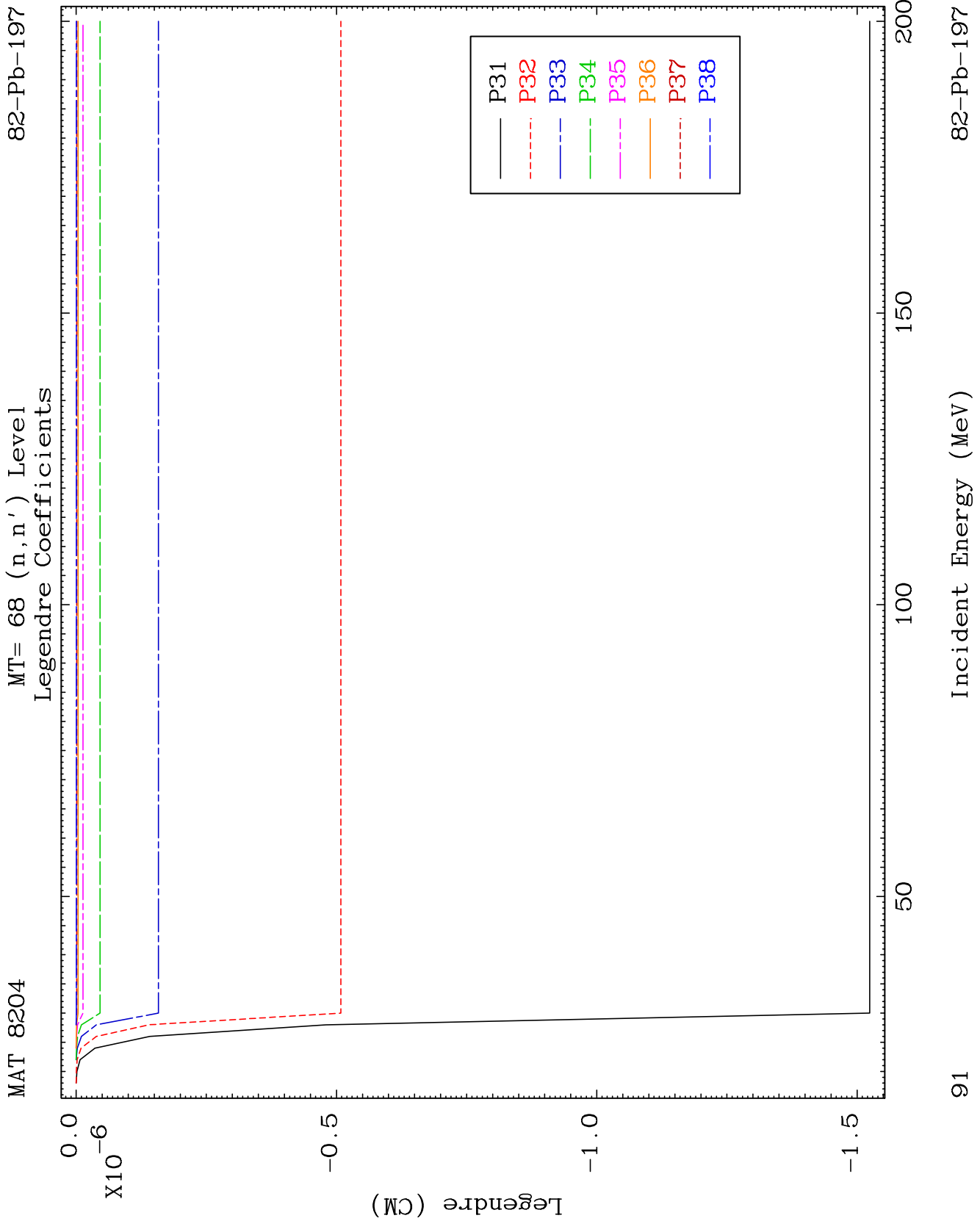
82-Pb-197

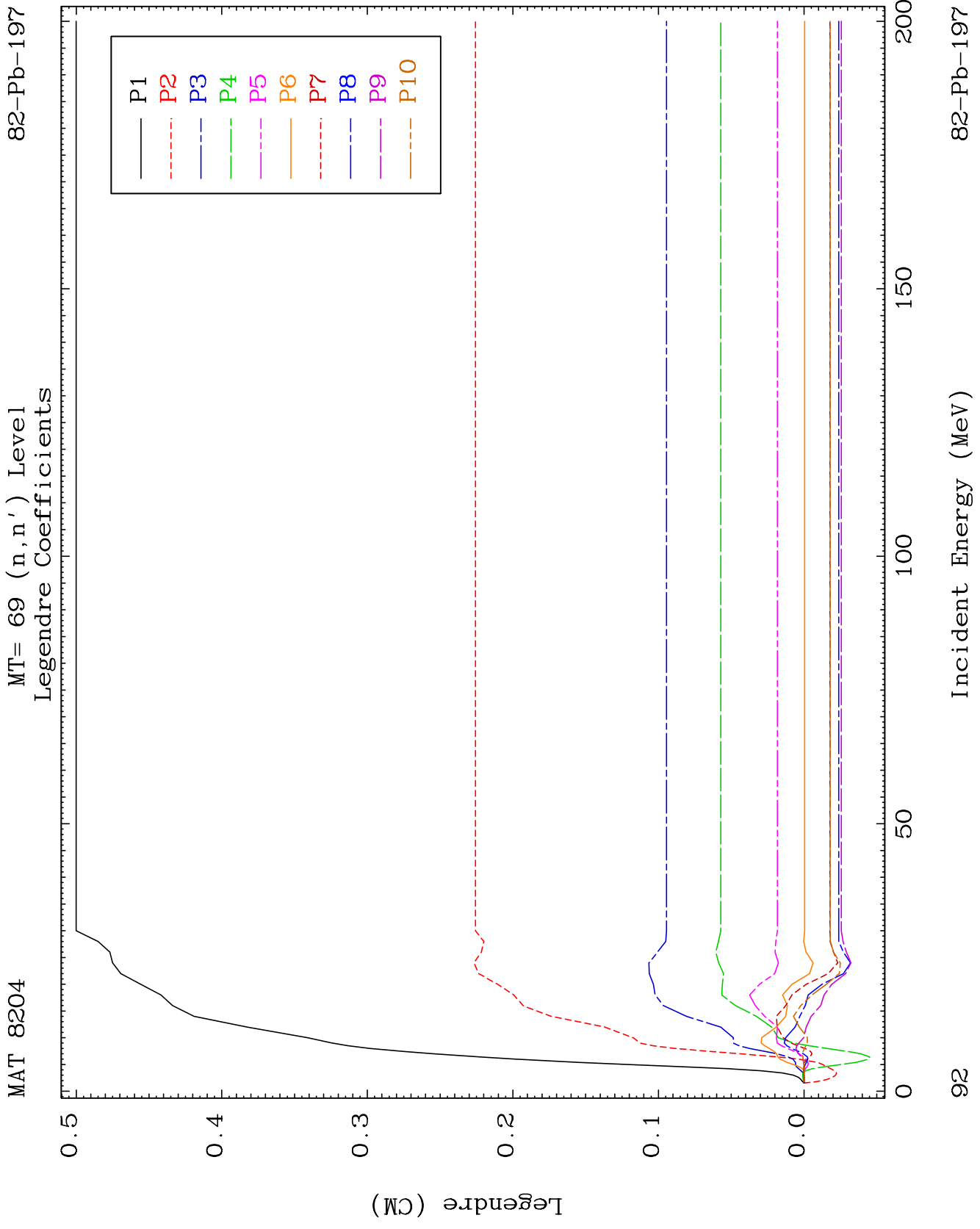
Incident Energy (MeV)

88





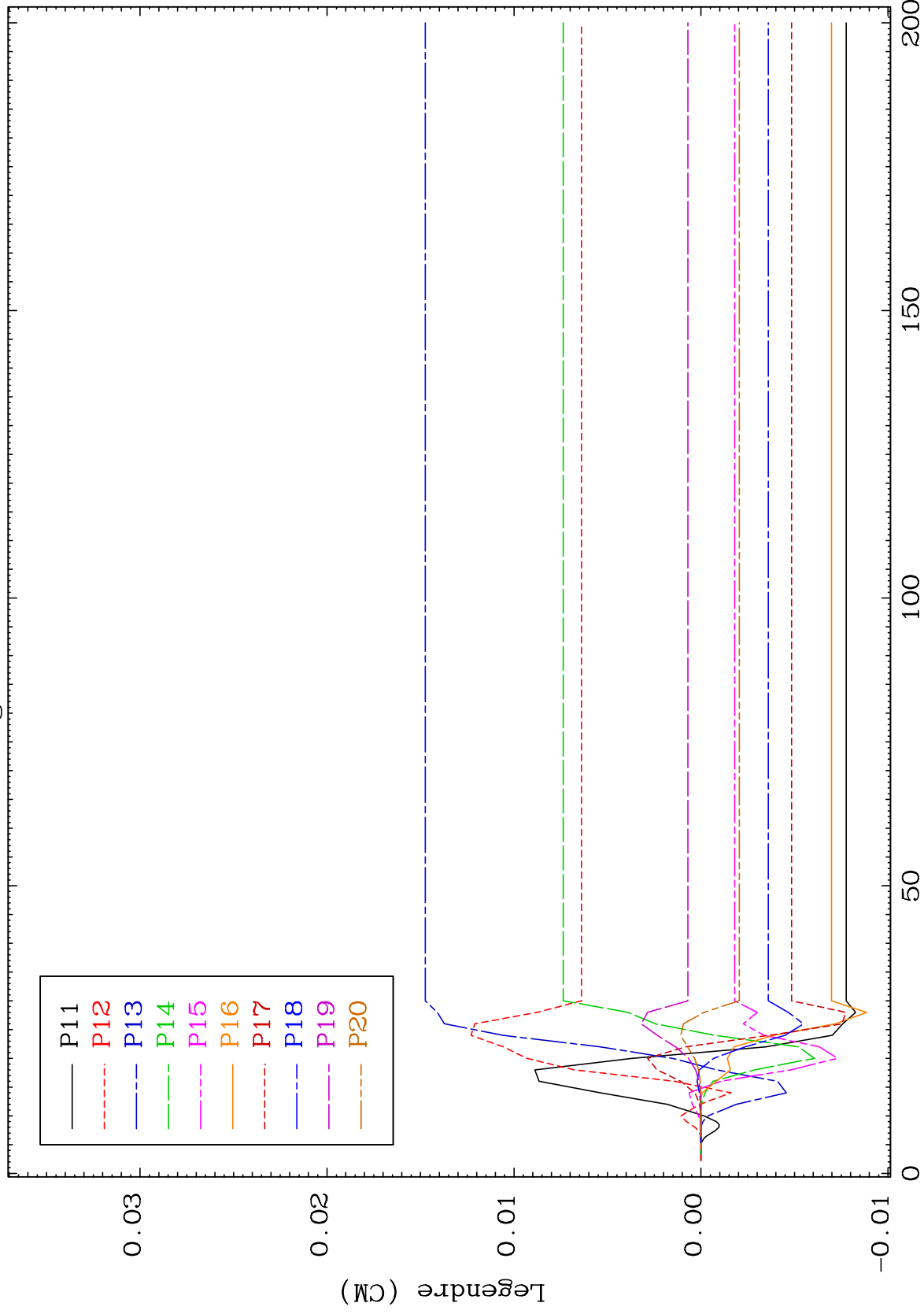




MAT 8204

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

82-Pb-197



93

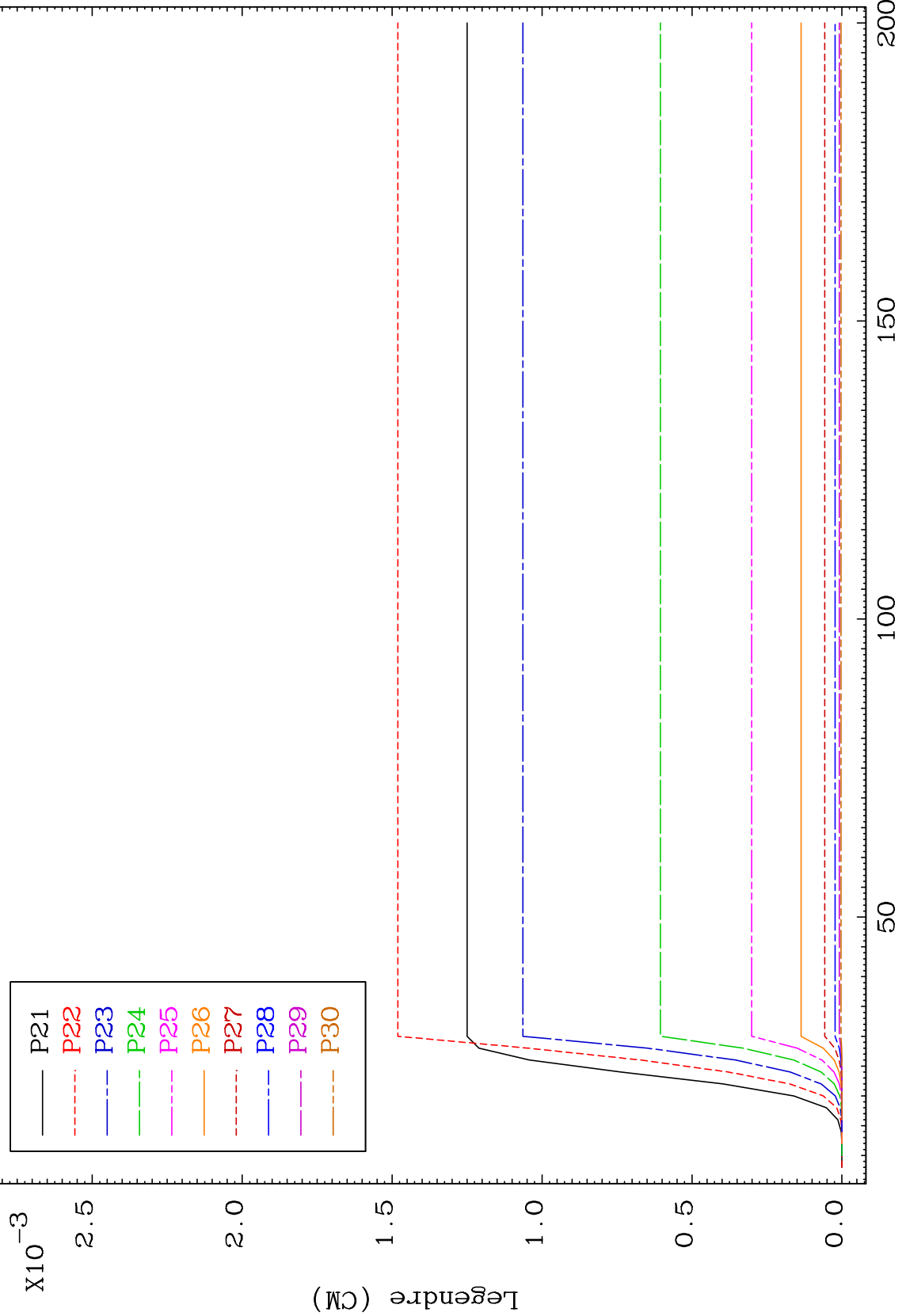
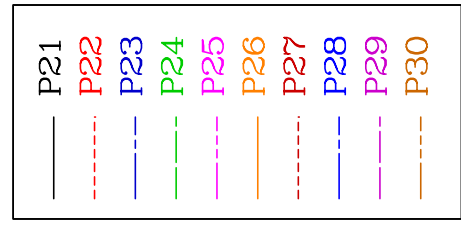
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

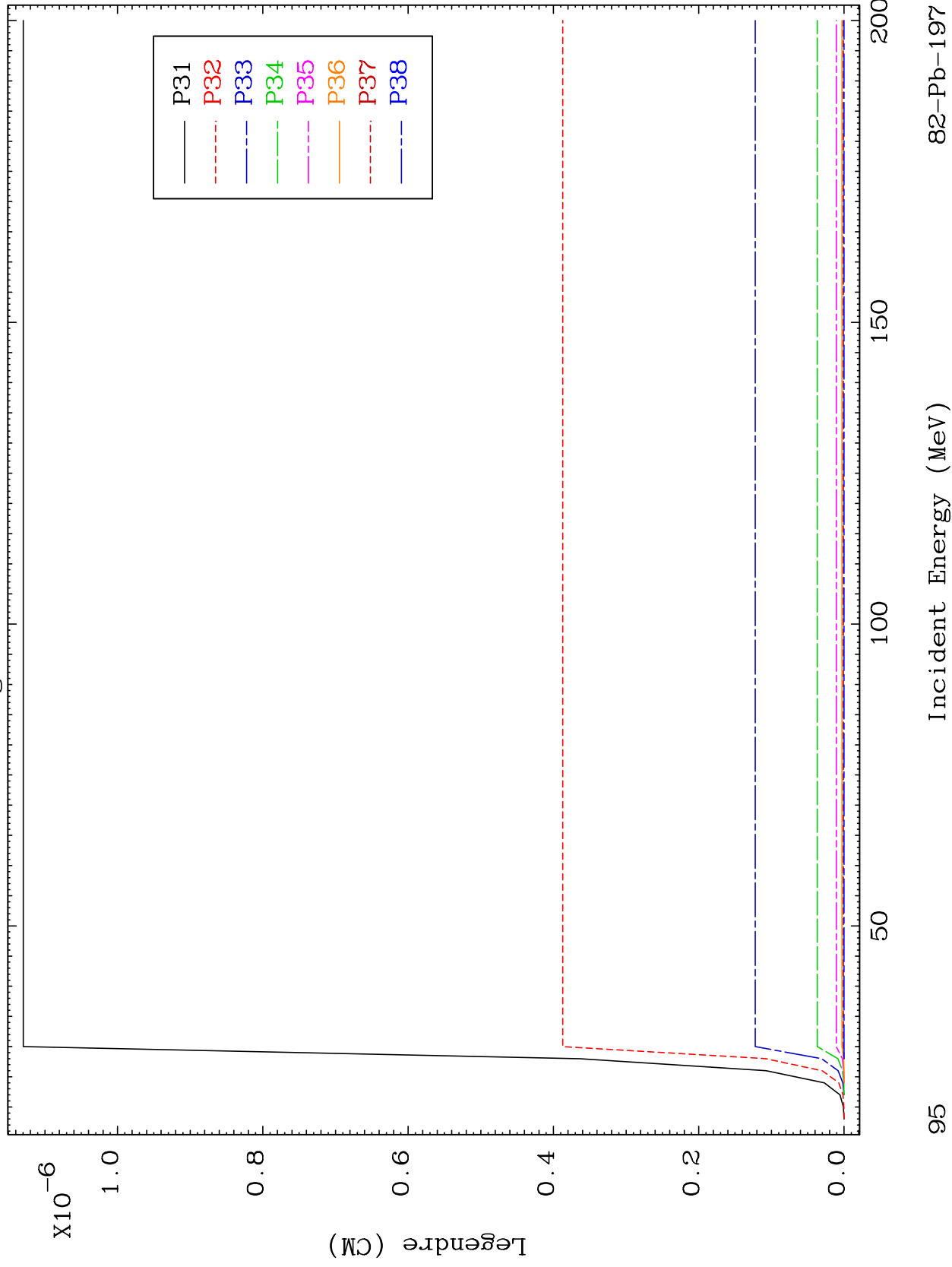
82-Pb-197



MAT 8204

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

82-Pb-197

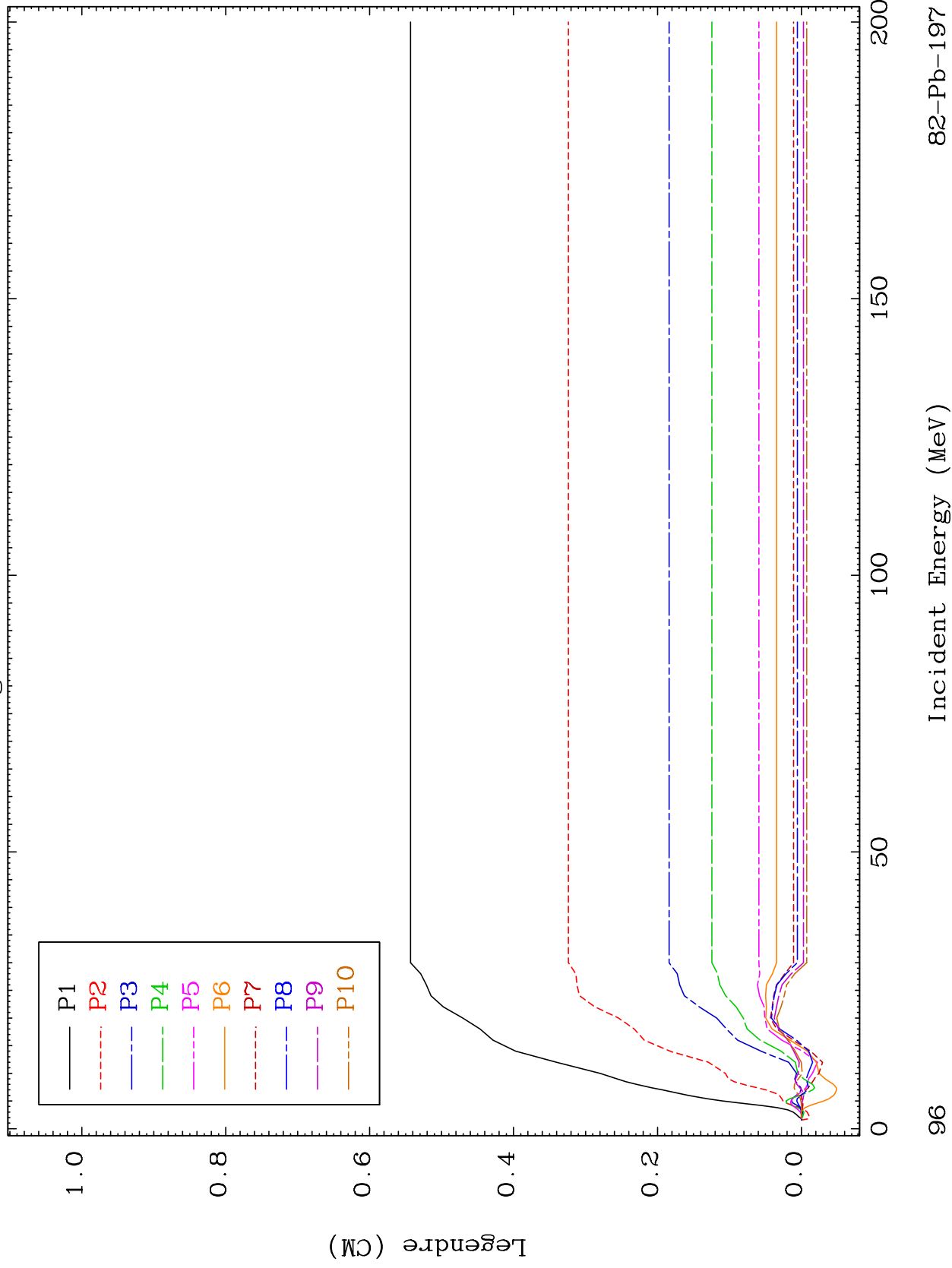




MAT 8204

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

82-Pb-197



82-Pb-197

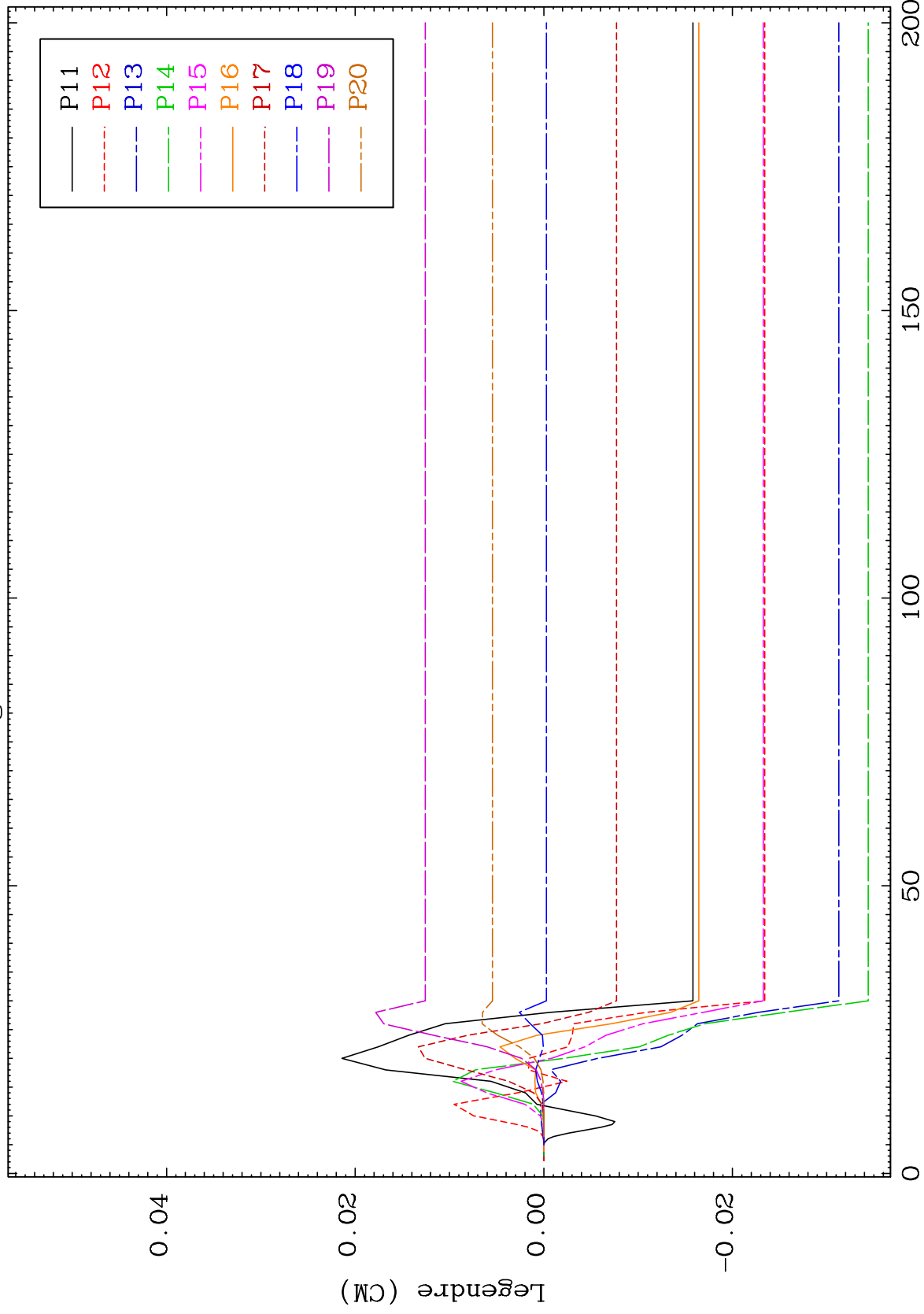
Incident Energy (MeV)

96

MAT 8204

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

82-Pb-197



97

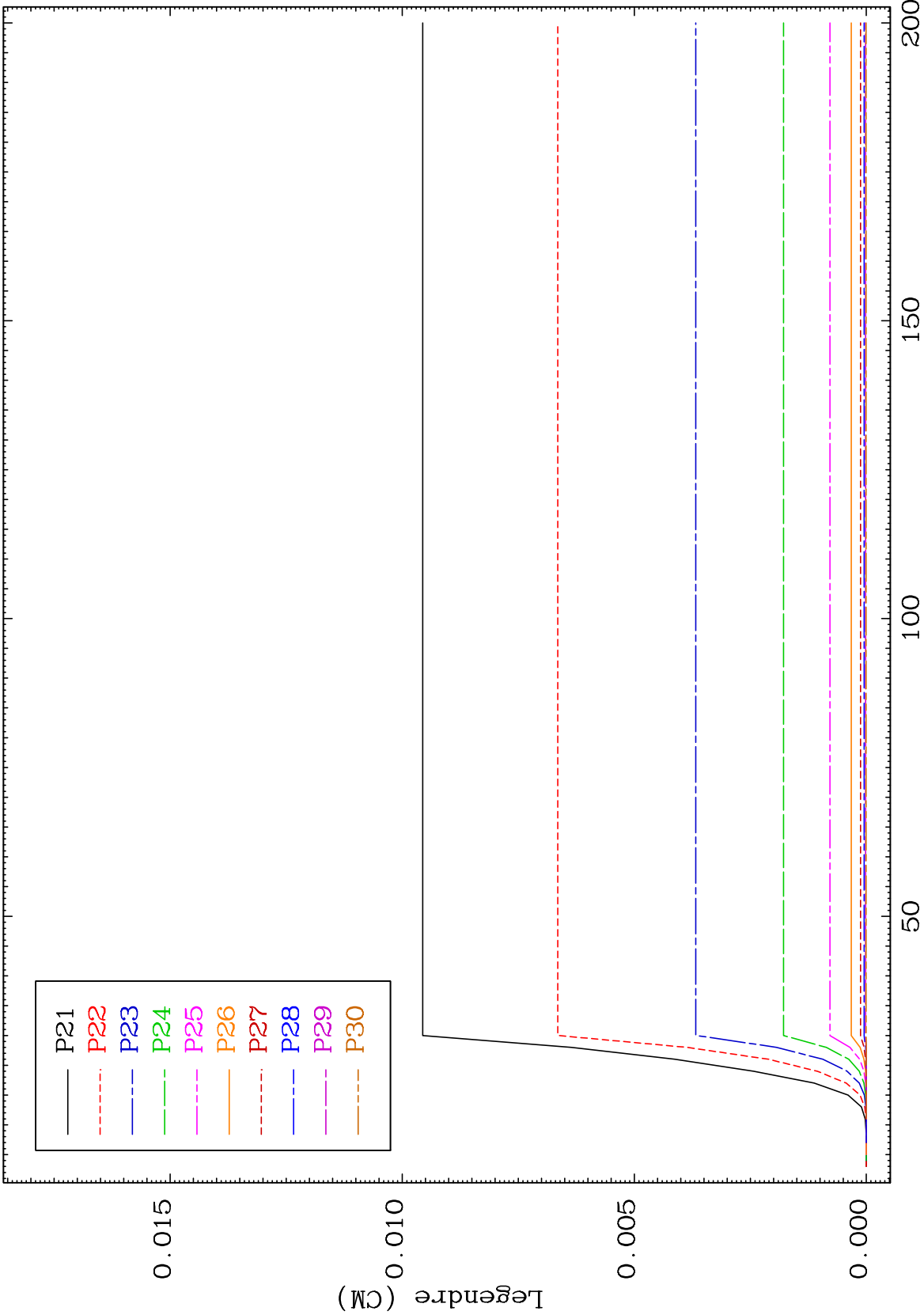
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



98

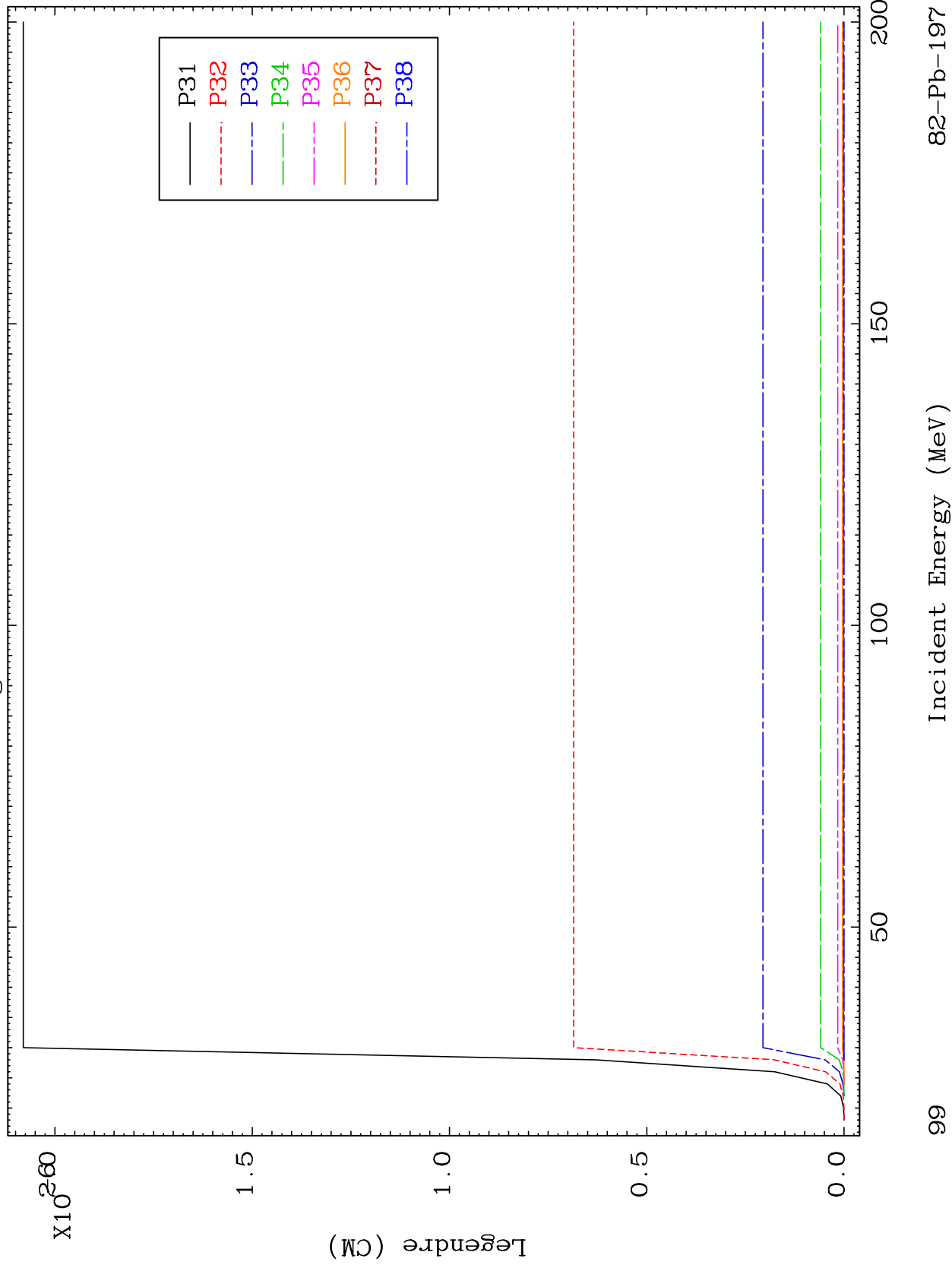
Incident Energy (MeV)

82-Pb-197

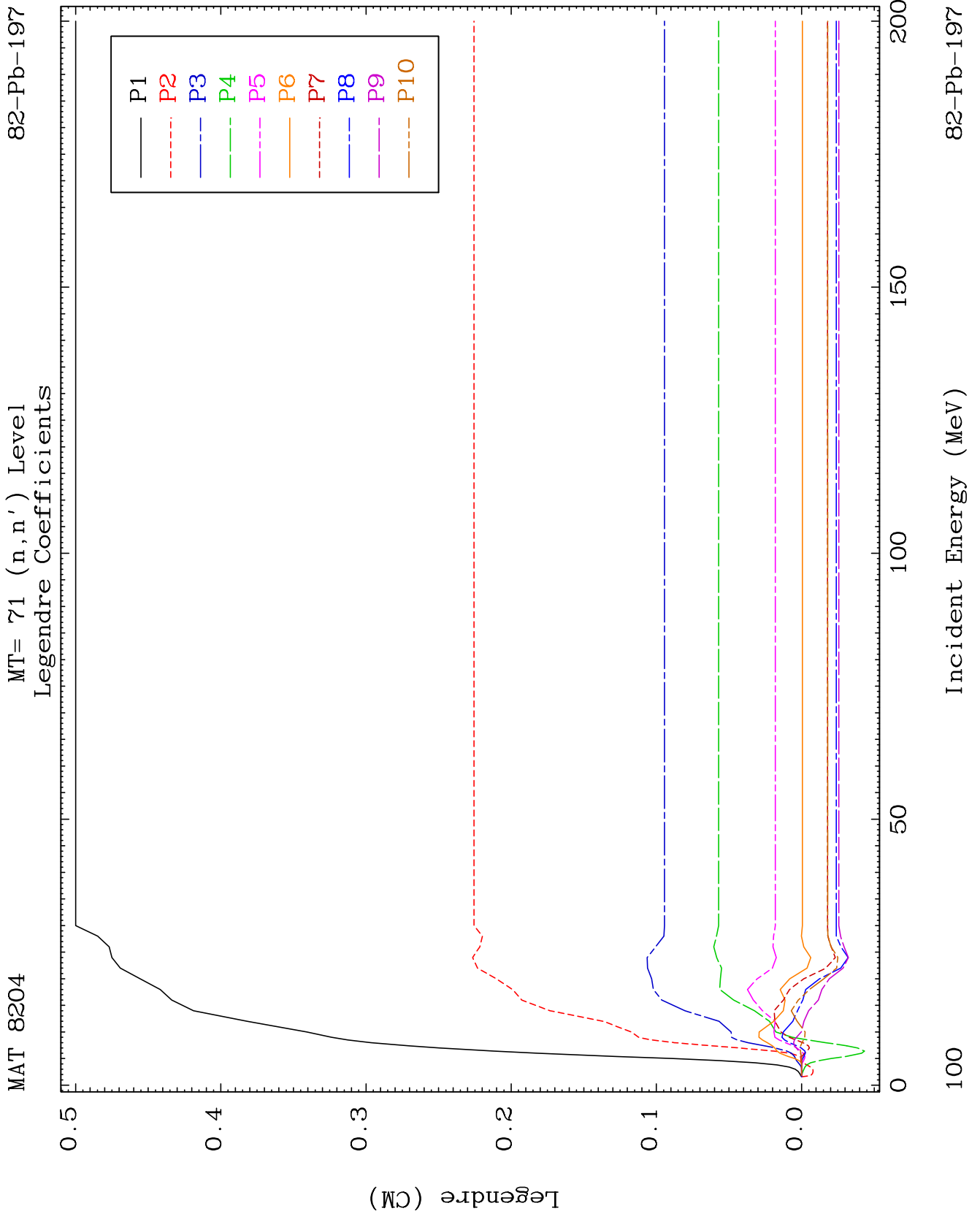
MAT 8204

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

82-Pb-197



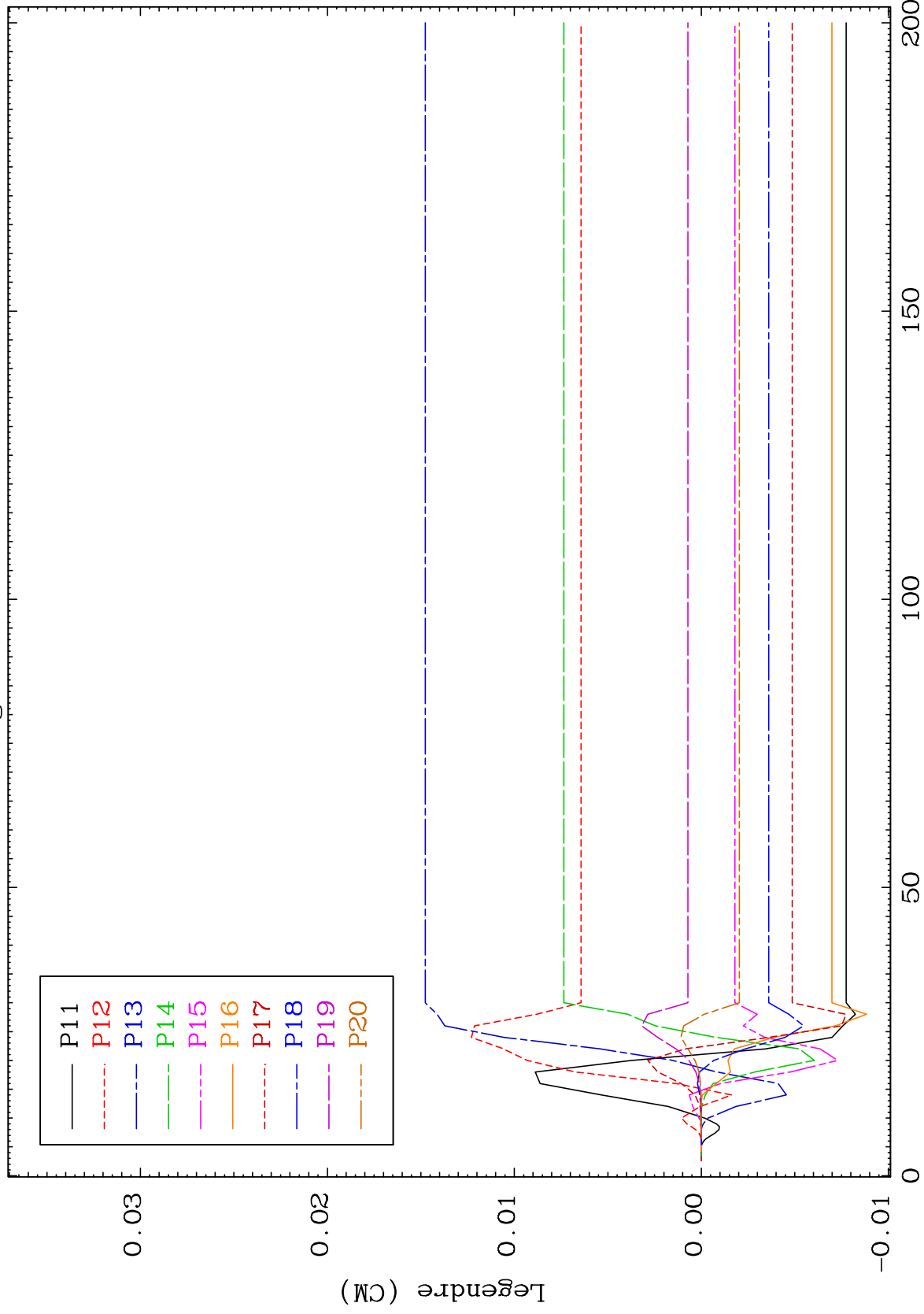
99



MAT 8204

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

82-Pb-197



101

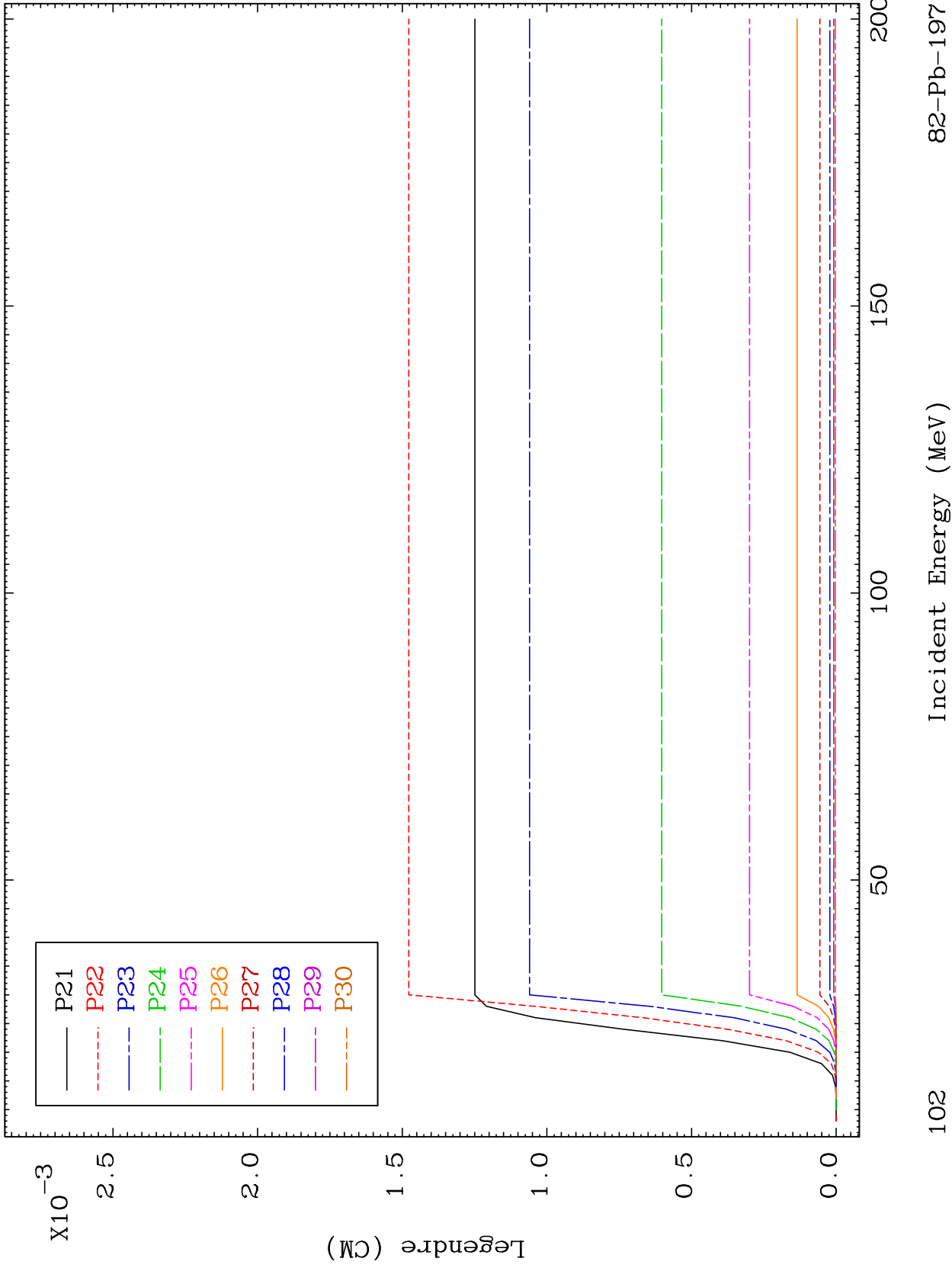
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



102

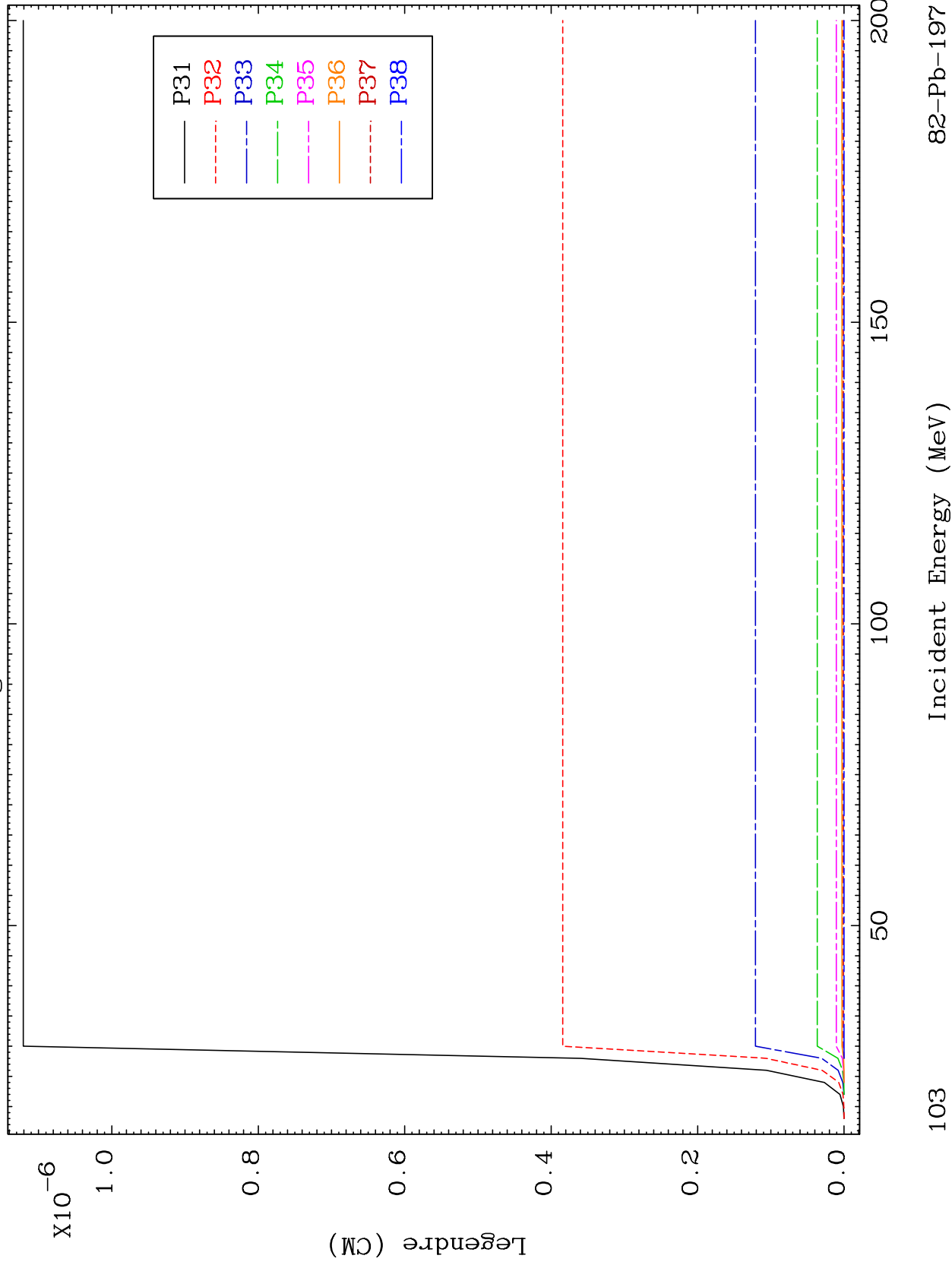
Incident Energy (MeV)

82-Pb-197

MAT 8204

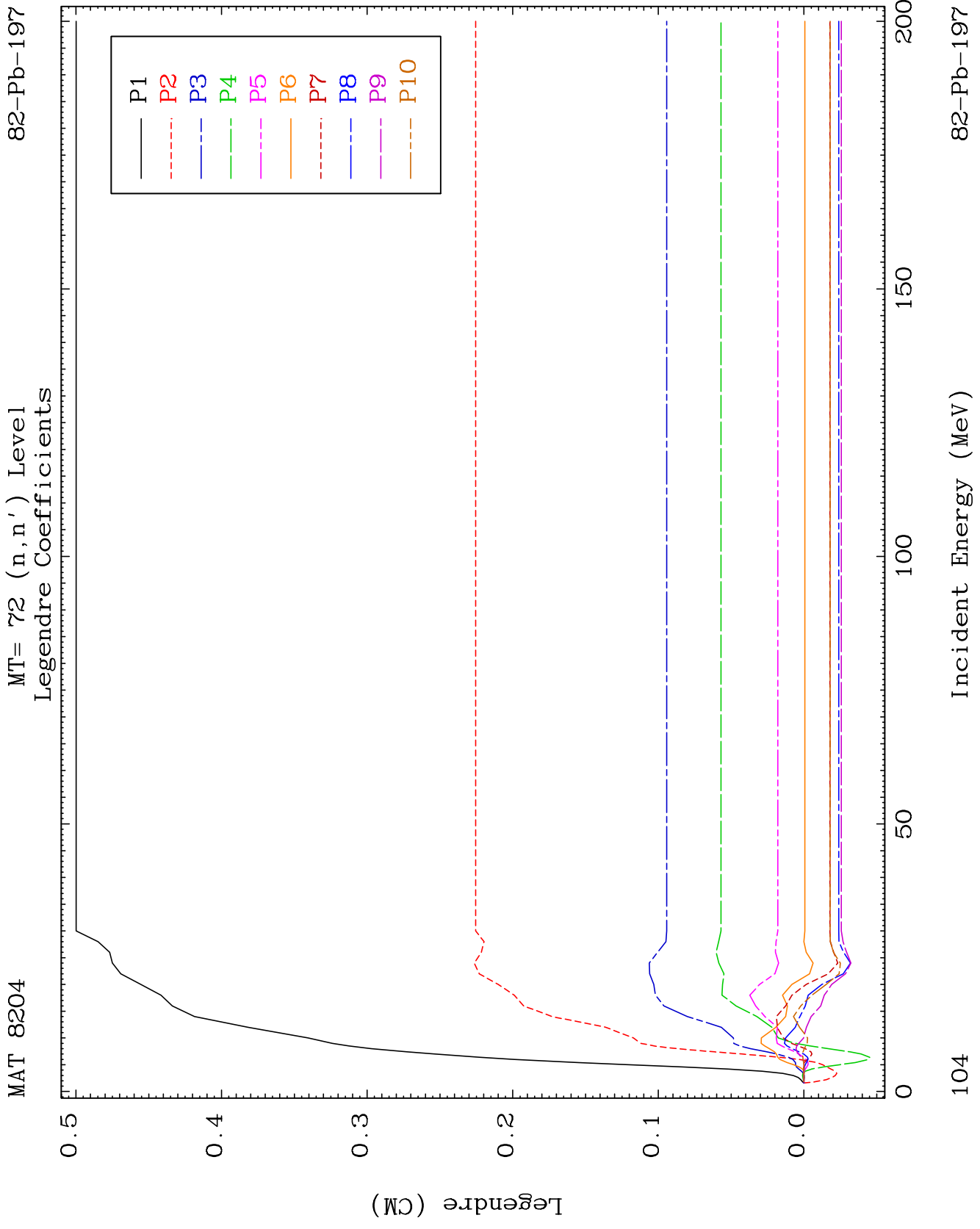
MT= 71 (n,n') Level  
Legendre Coefficients

82-Pb-197



103

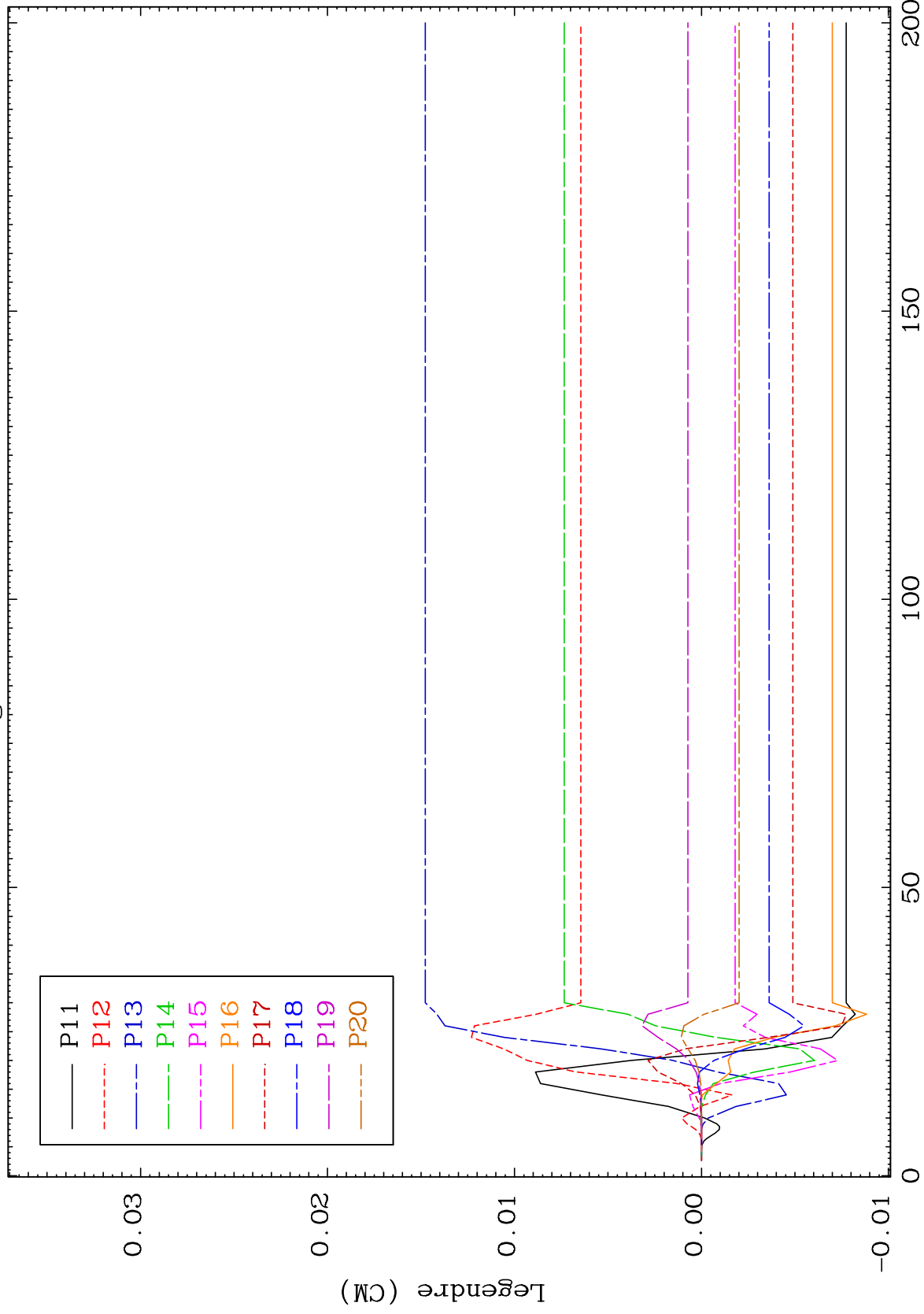




MAT 8204

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

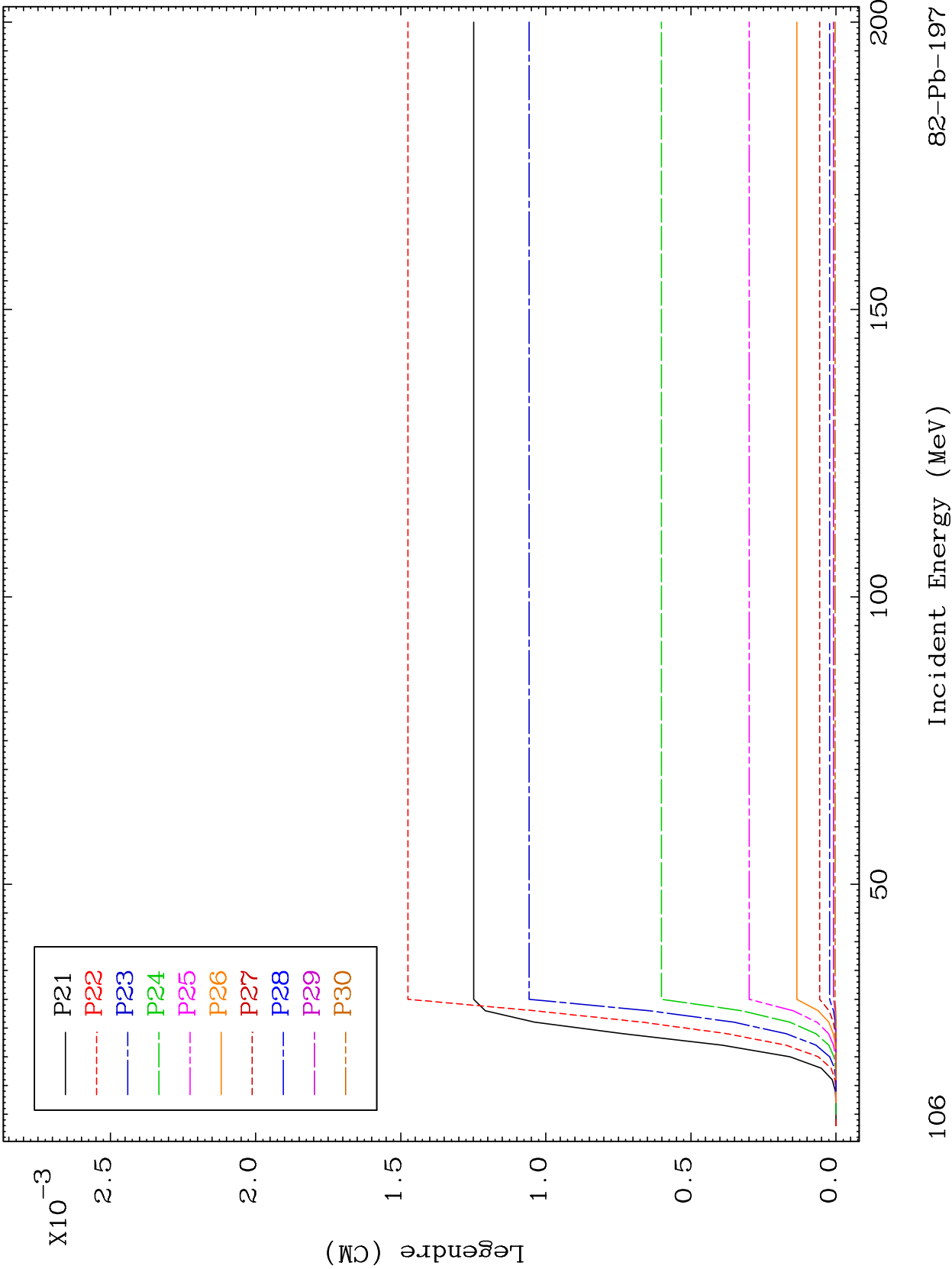
82-Pb-197



105

Incident Energy (MeV)

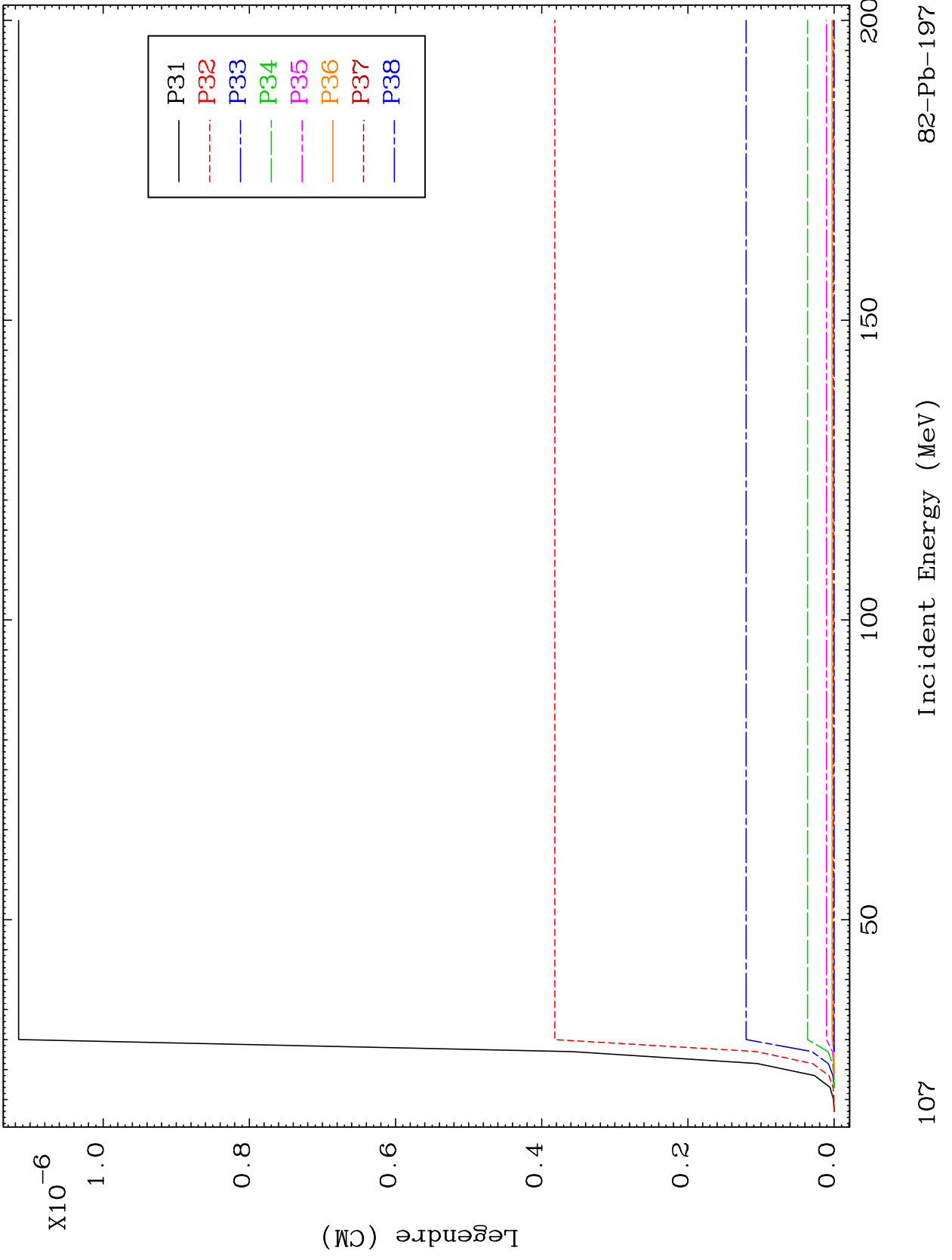
82-Pb-197



MAT 8204

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

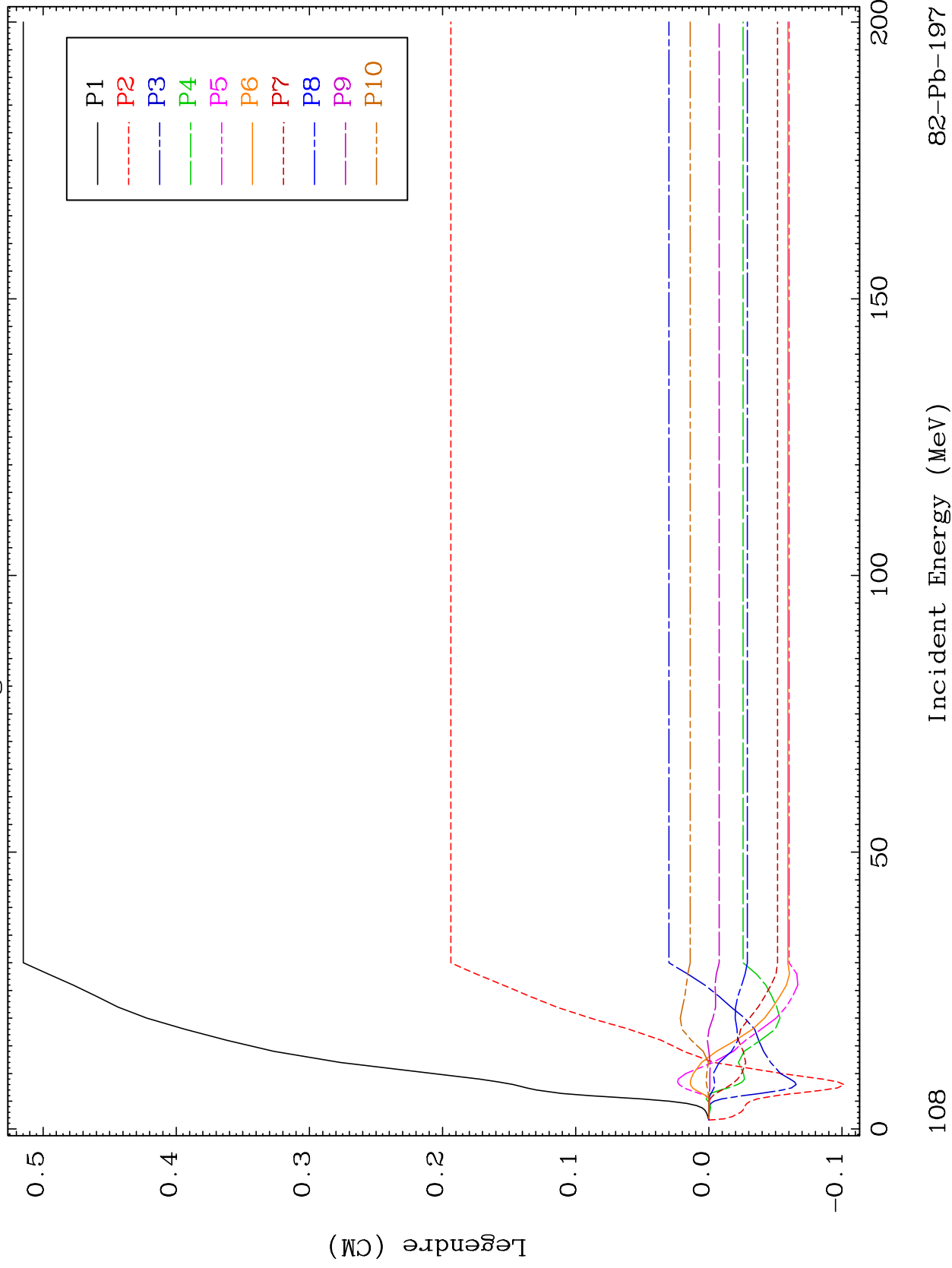
82-Pb-197



MAT 8204

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

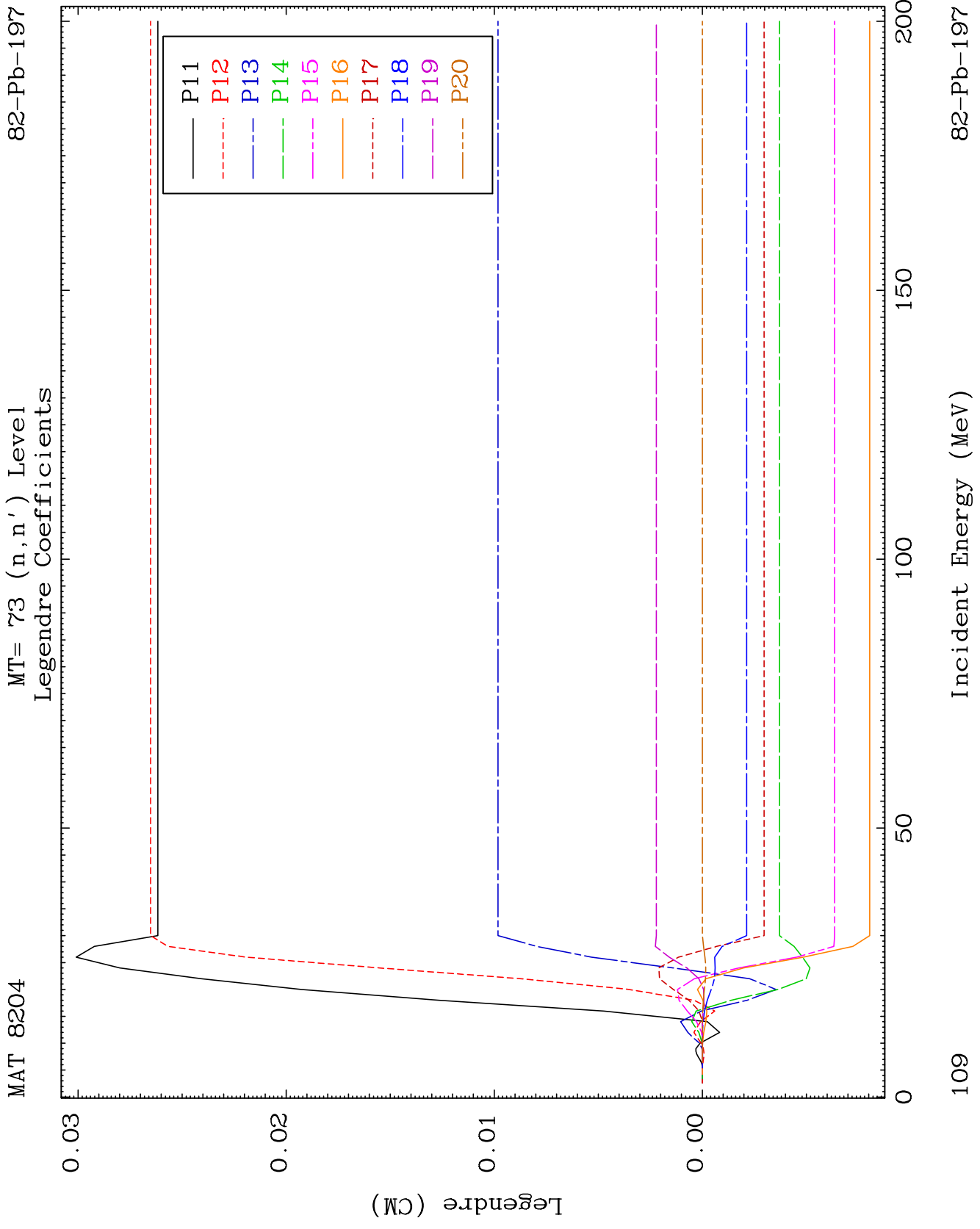
82-Pb-197



82-Pb-197

Incident Energy (MeV)

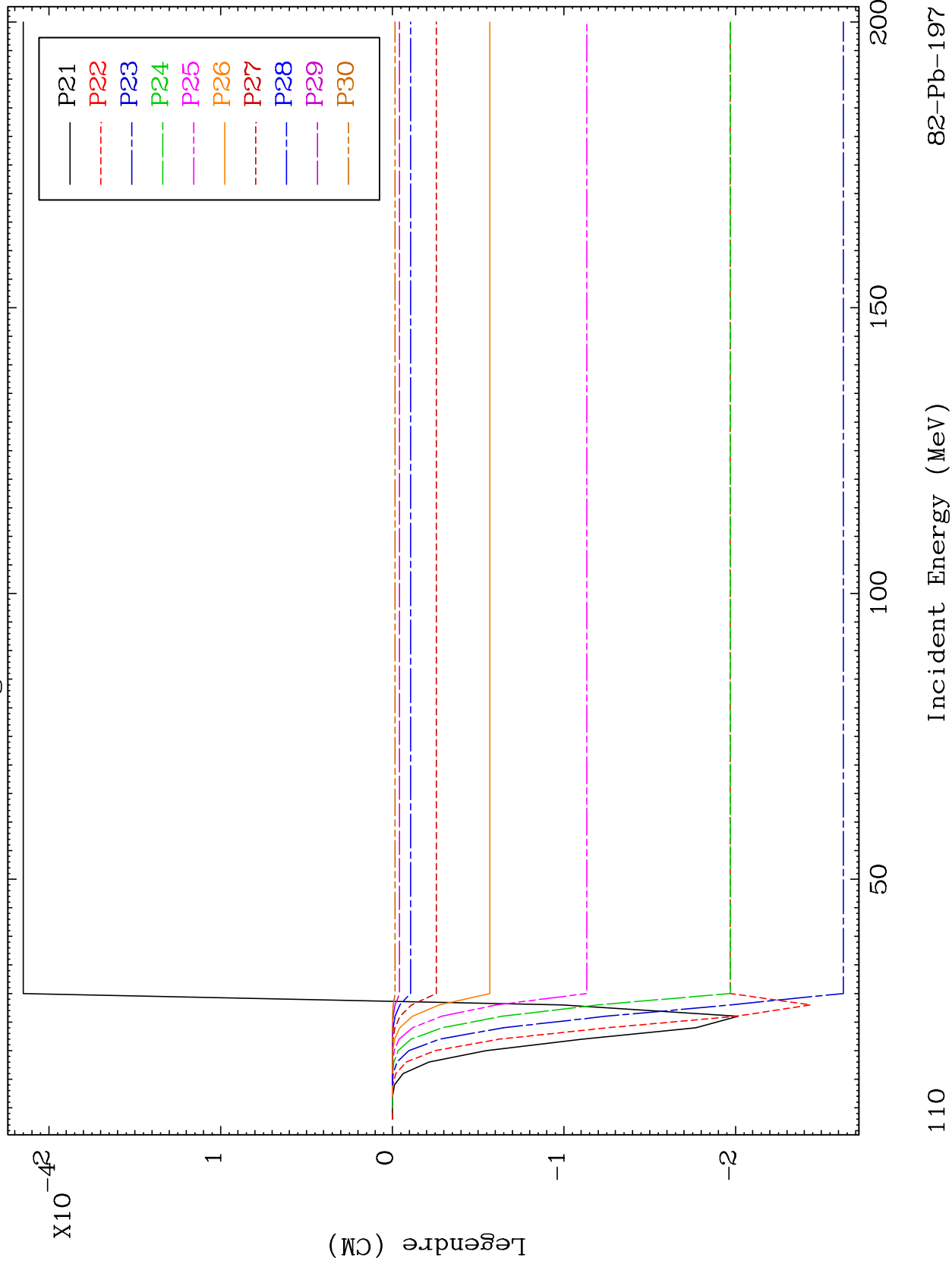
108

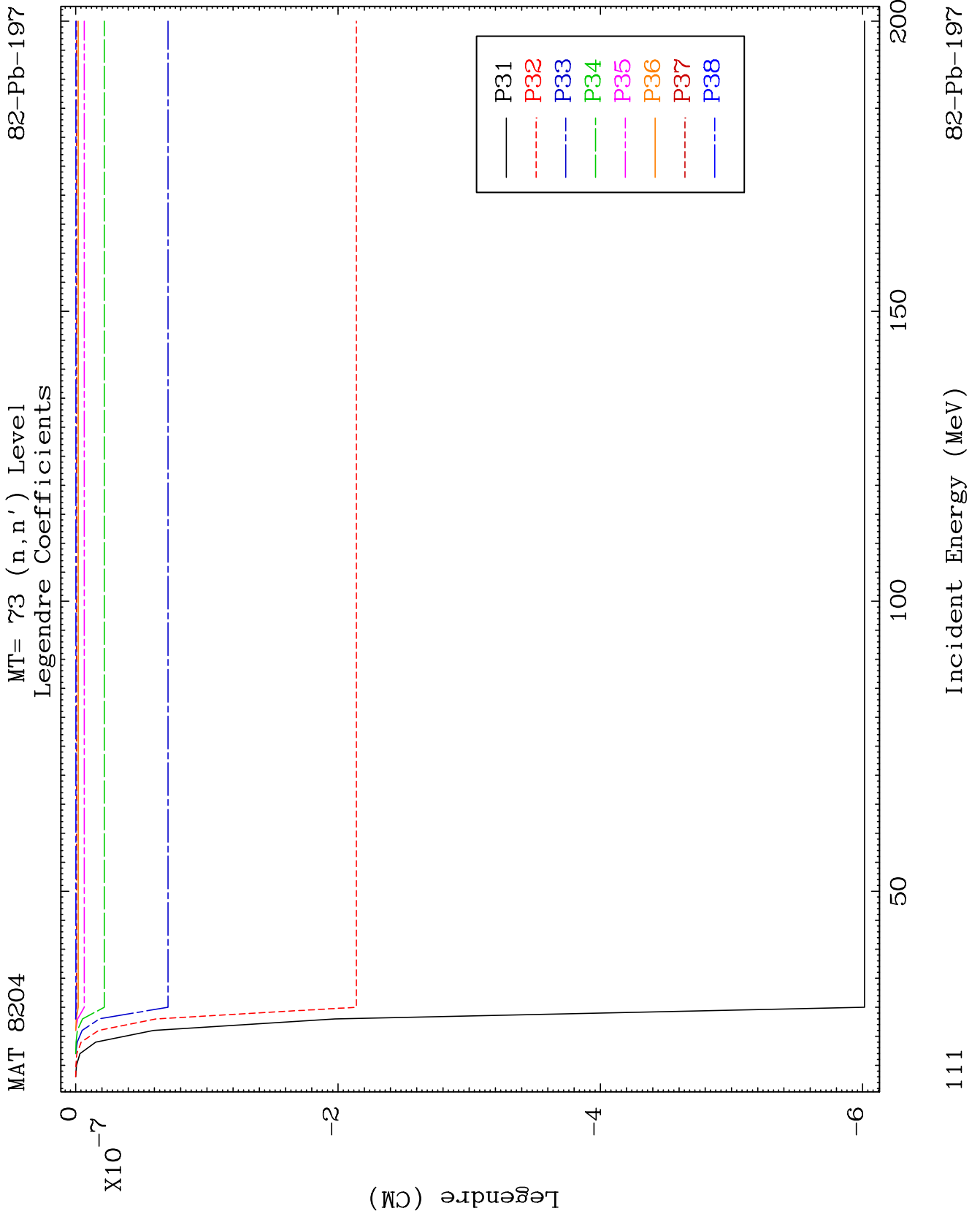


MAT 8204

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

82-Pb-197





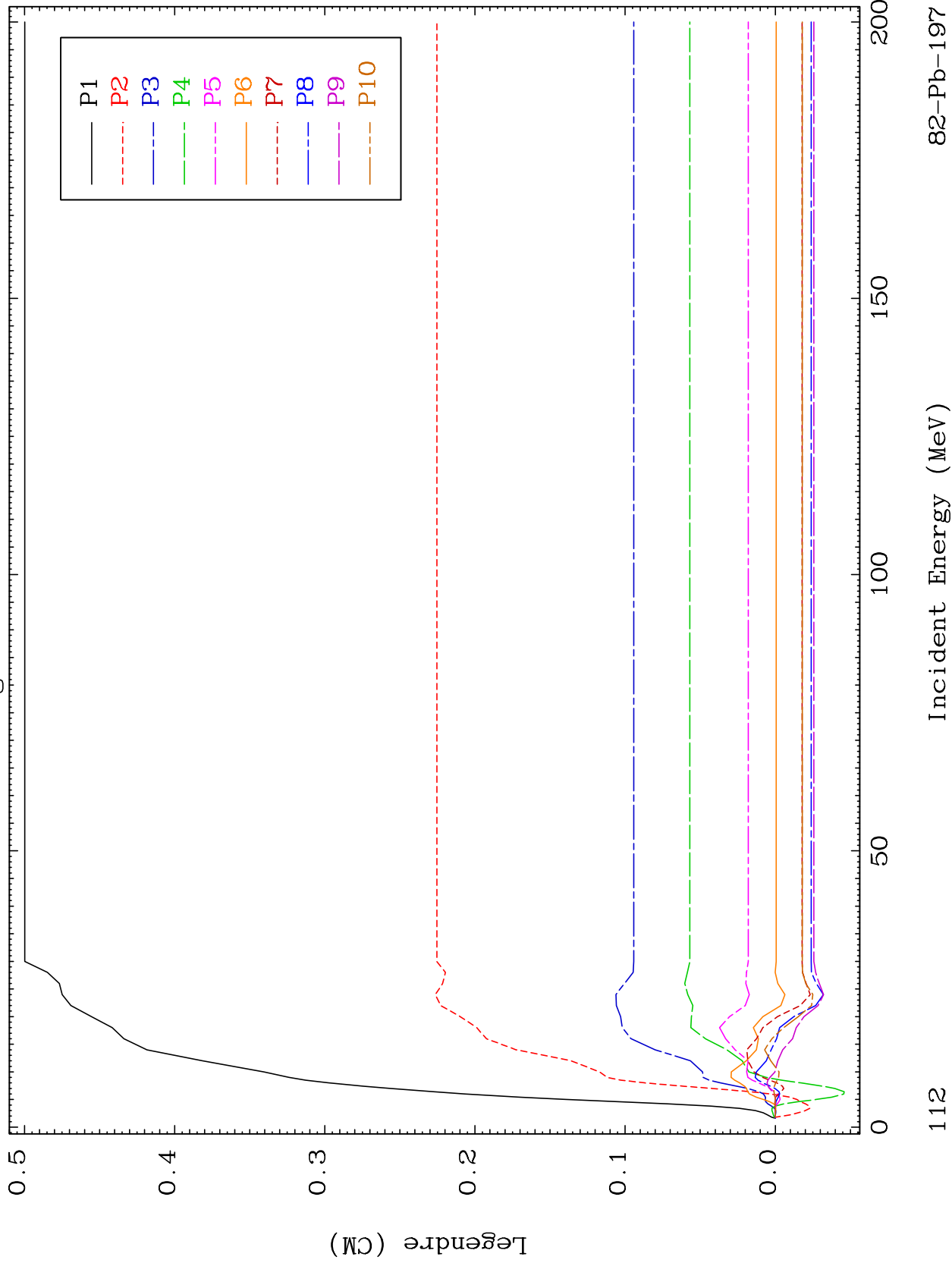


MAT 8204

MT= 74 (n,n') Level

82-Pb-197

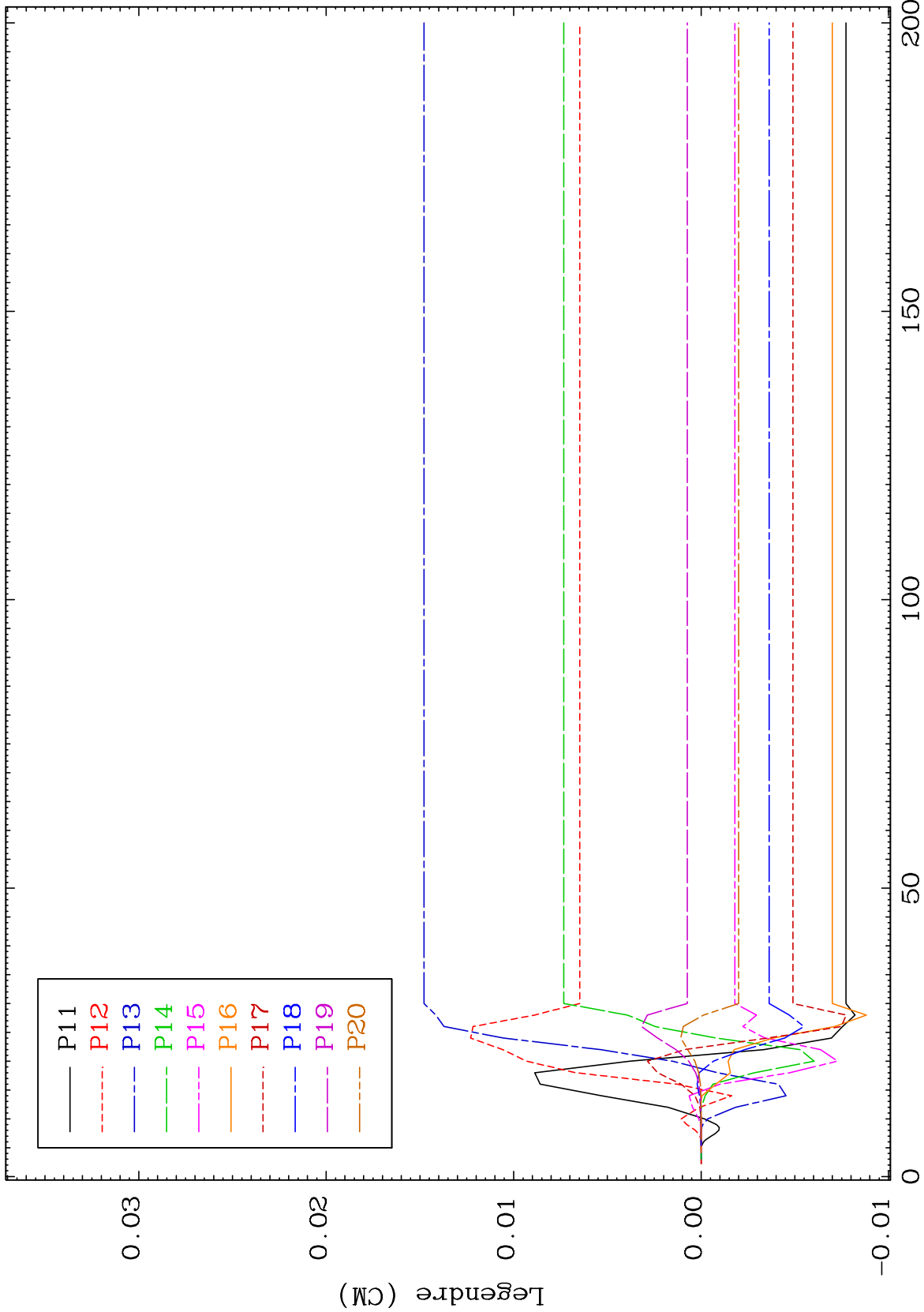
Legendre Coefficients



MAT 8204

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

82-Pb-197



113

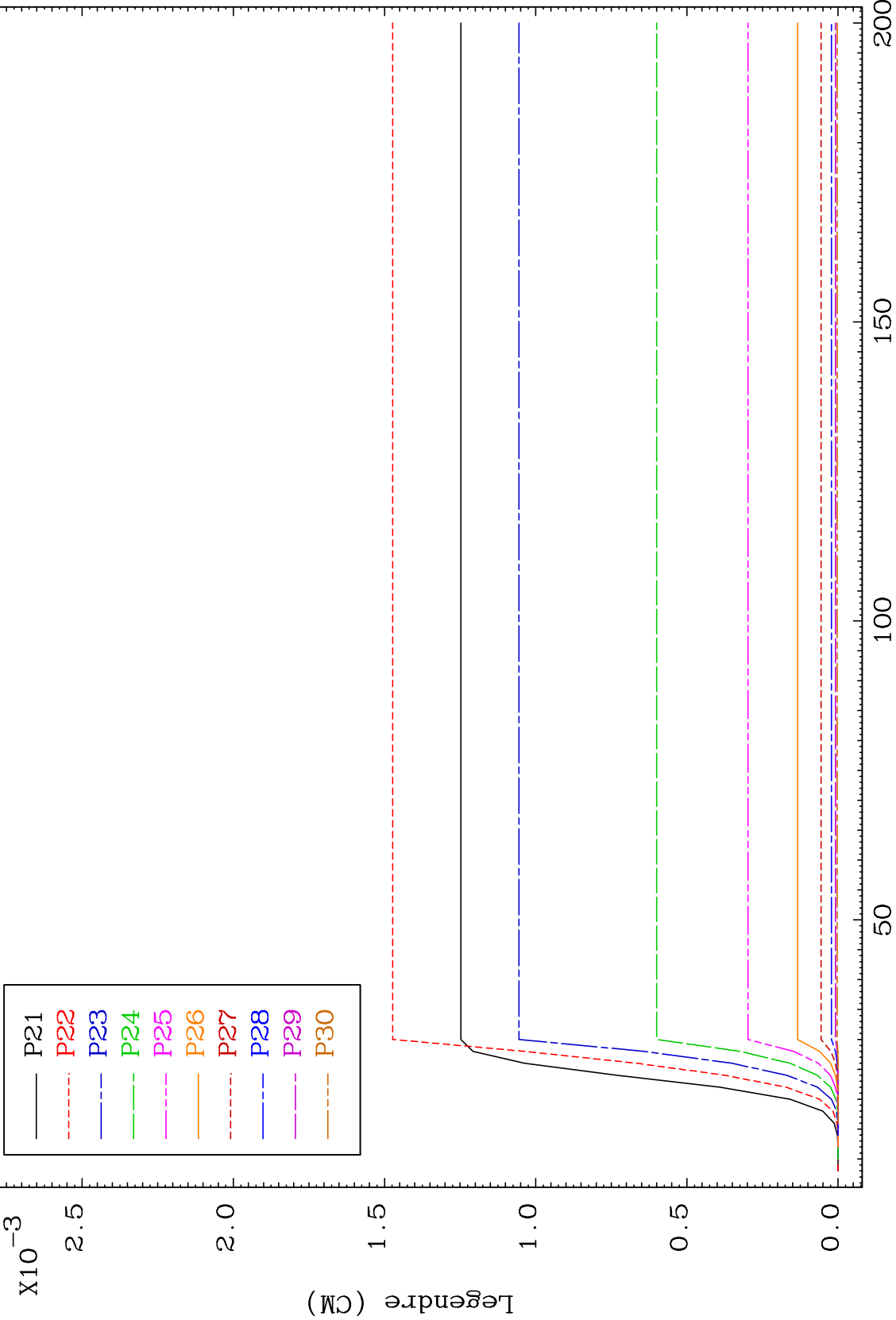
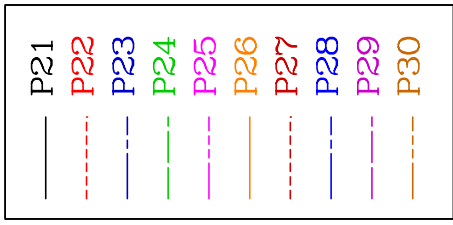
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



114

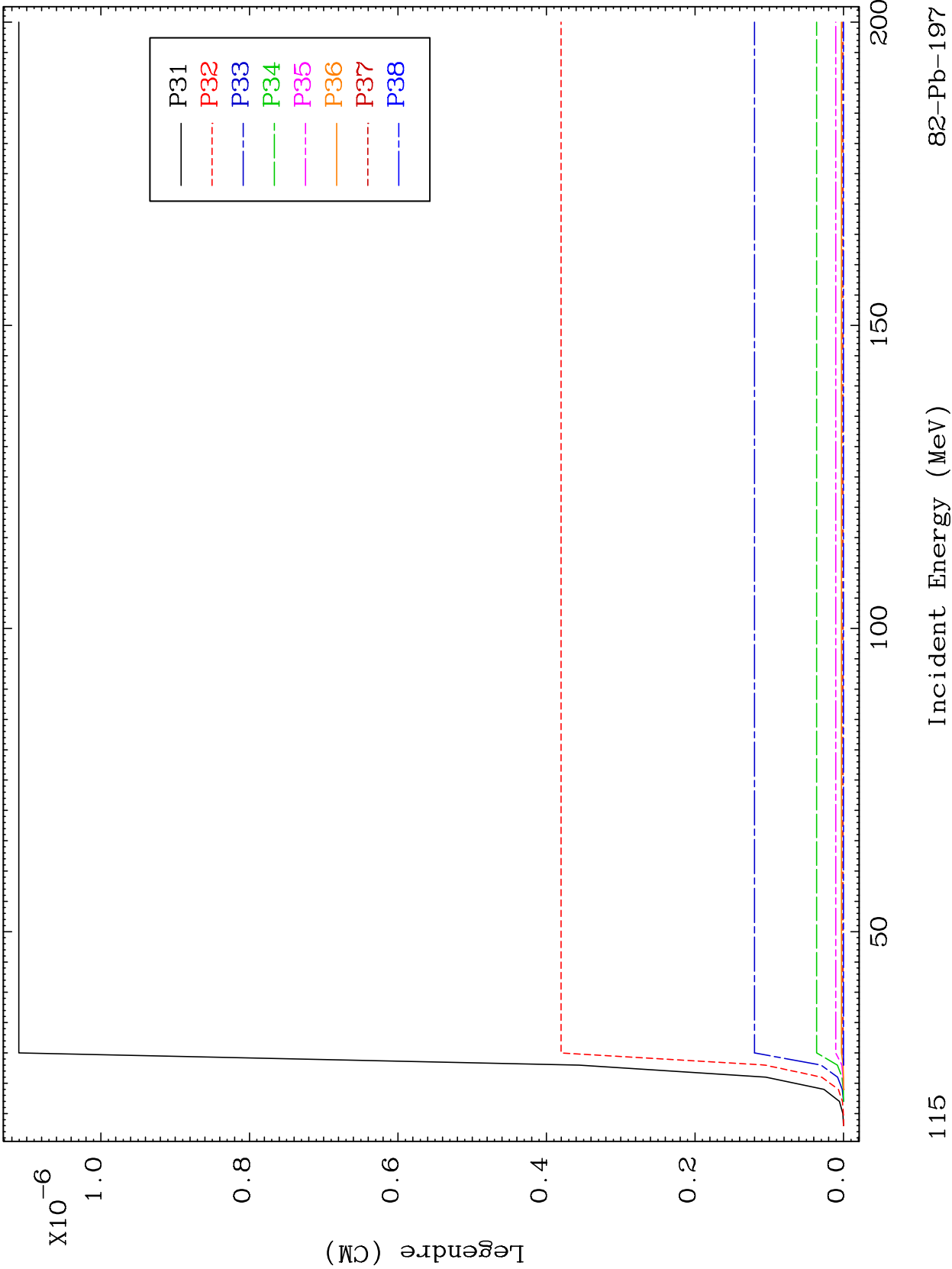
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



115

Incident Energy (MeV)

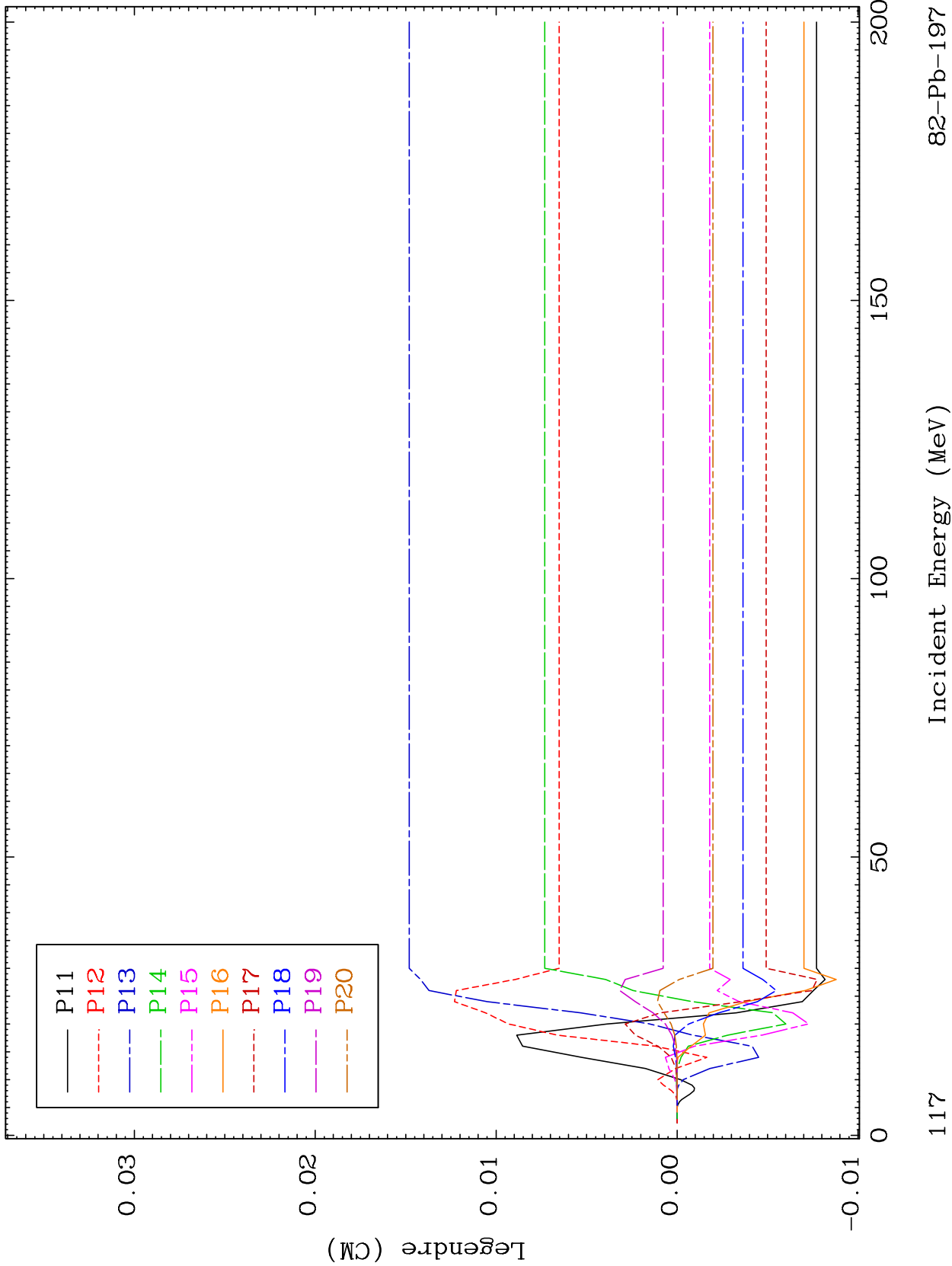
82-Pb-197



MAT 8204

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

82-Pb-197



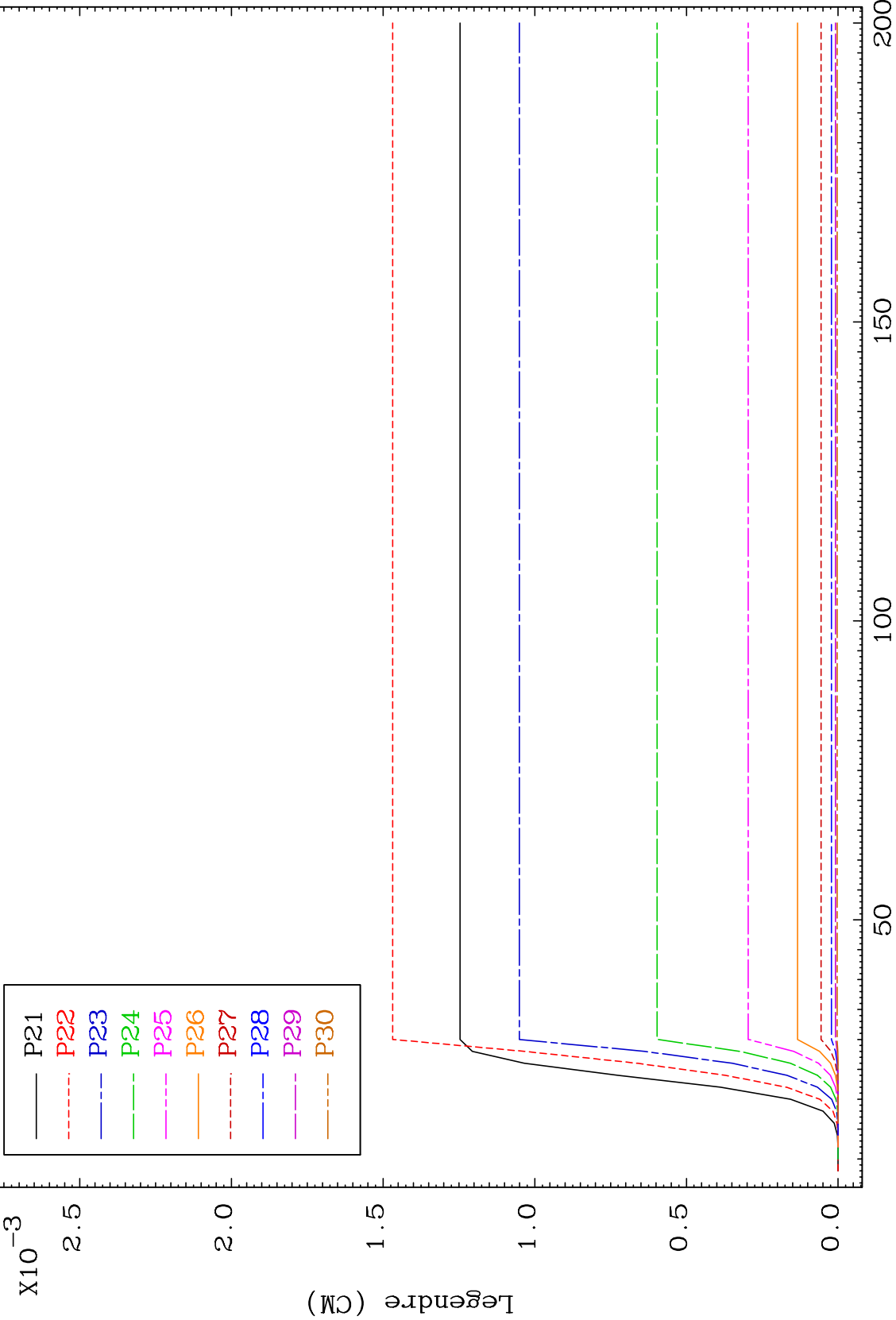
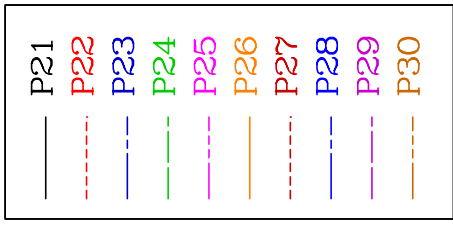
117

82-Pb-197

MAT 8204

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

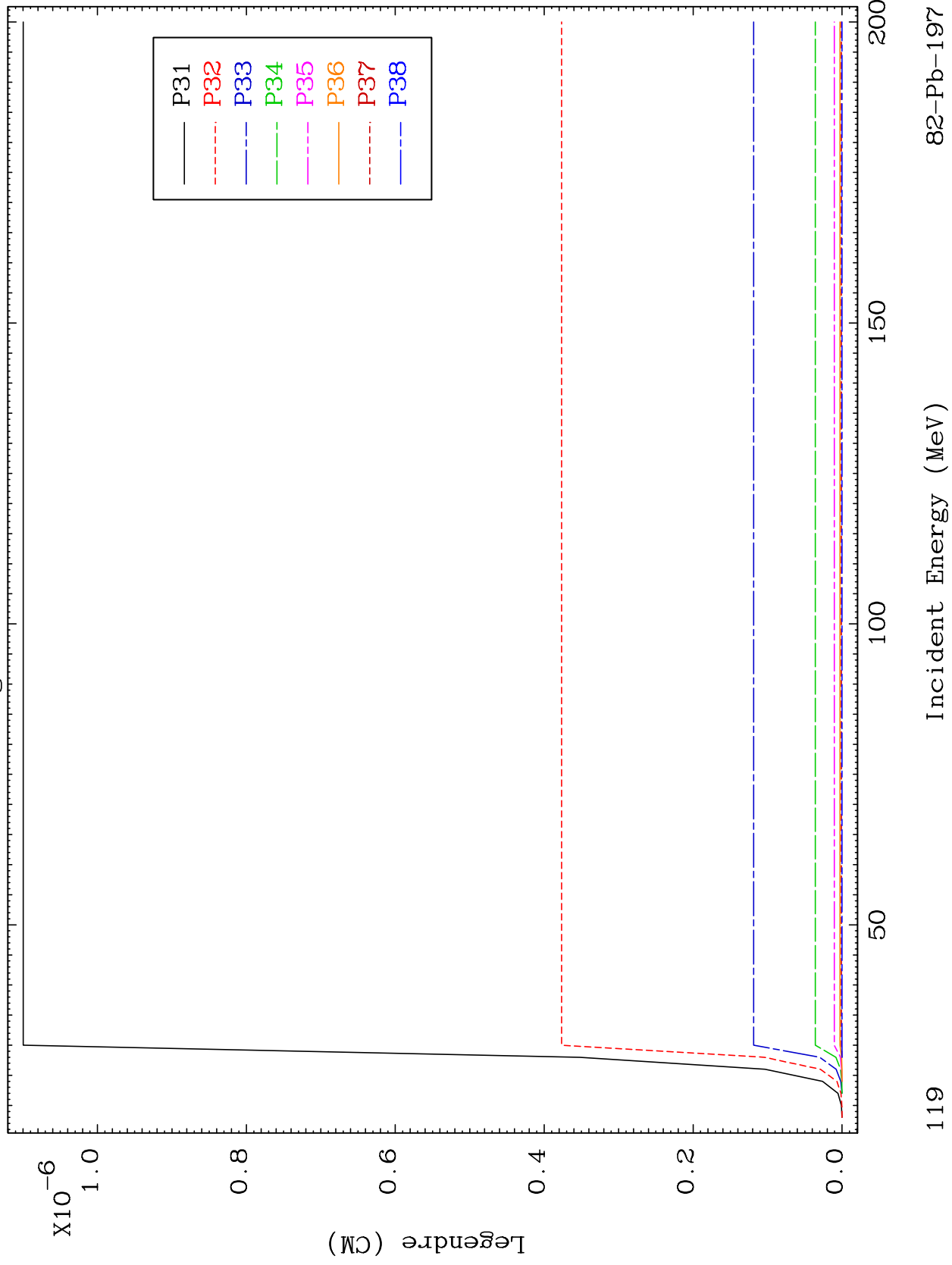
82-Pb-197



MAT 8204

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

82-Pb-197



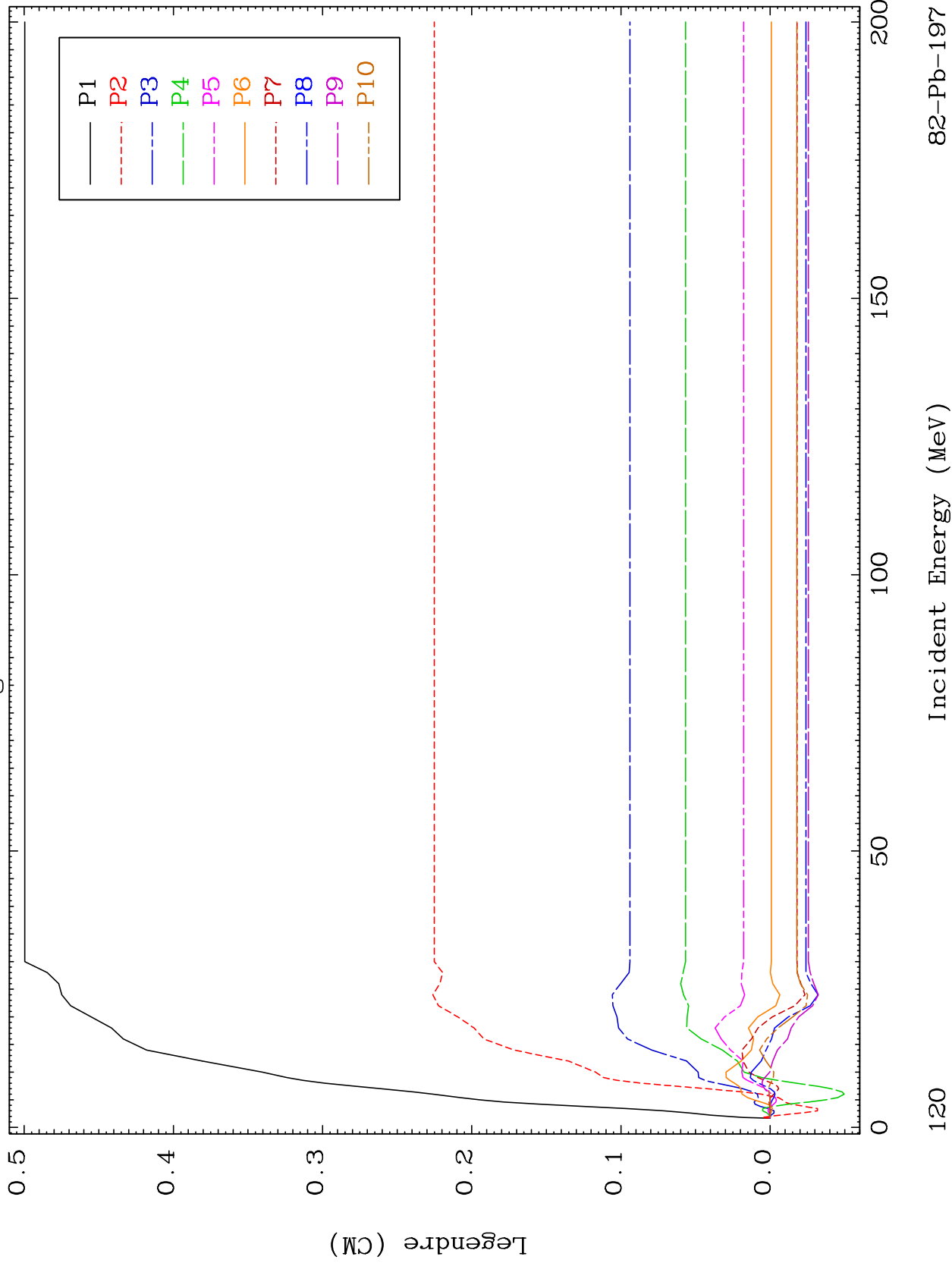
119



MAT 8204

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

82-Pb-197



82-Pb-197

Incident Energy (MeV)

0

50

100

150

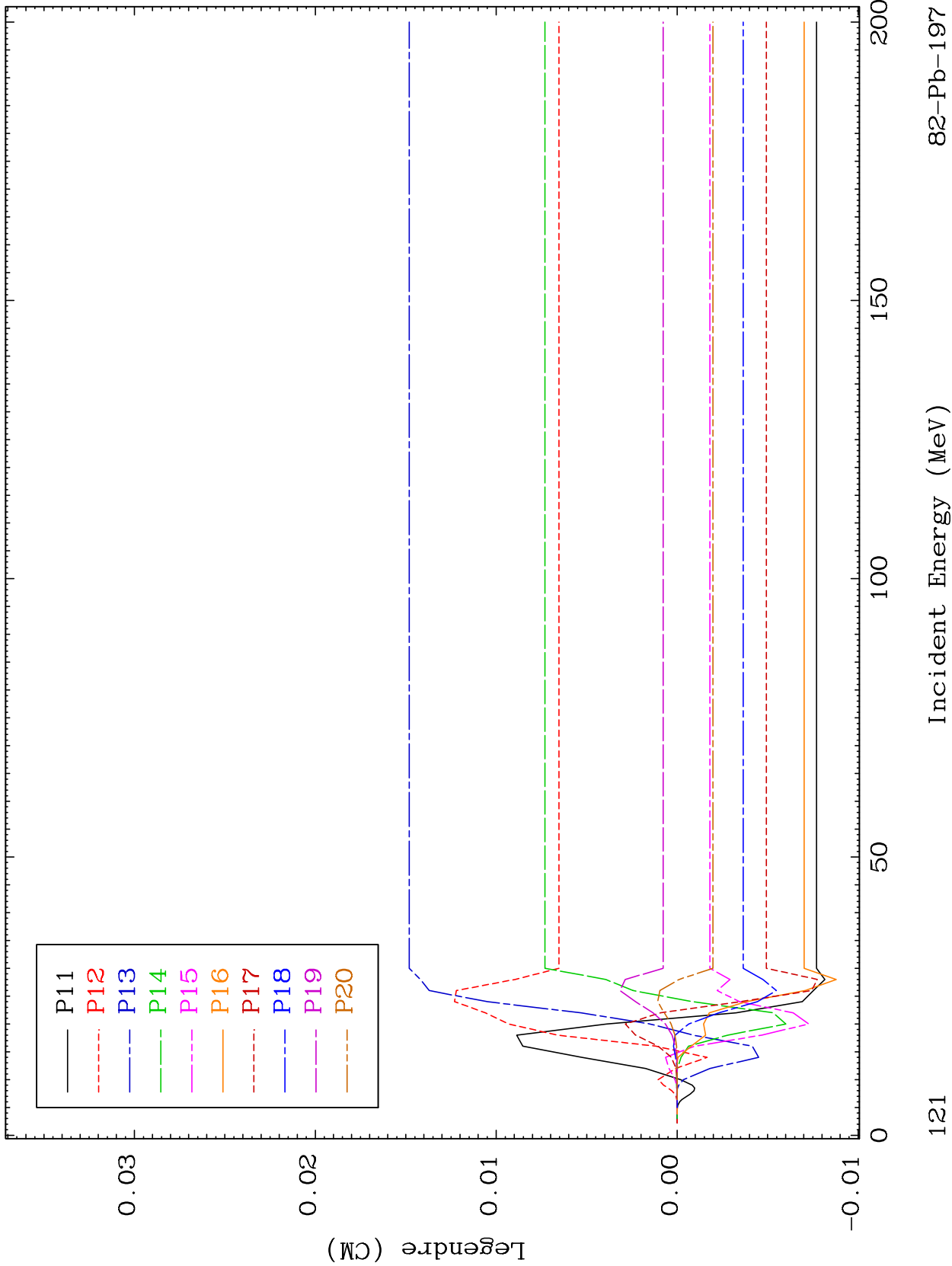
200

Legendre (CM)

MAT 8204

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

82-Pb-197

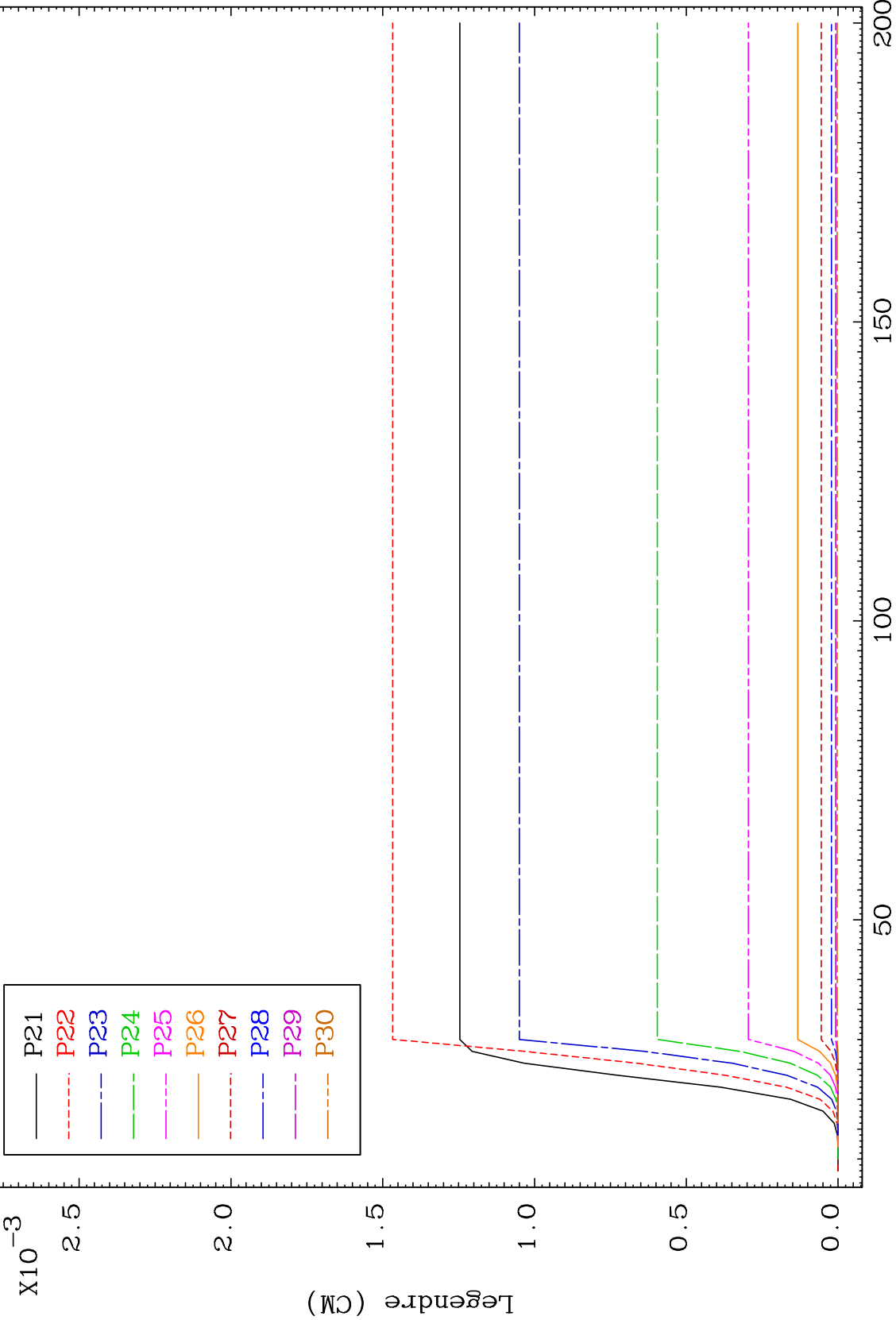
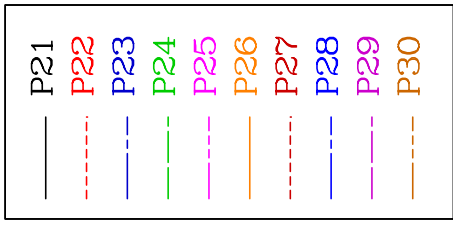


121

MAT 8204

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

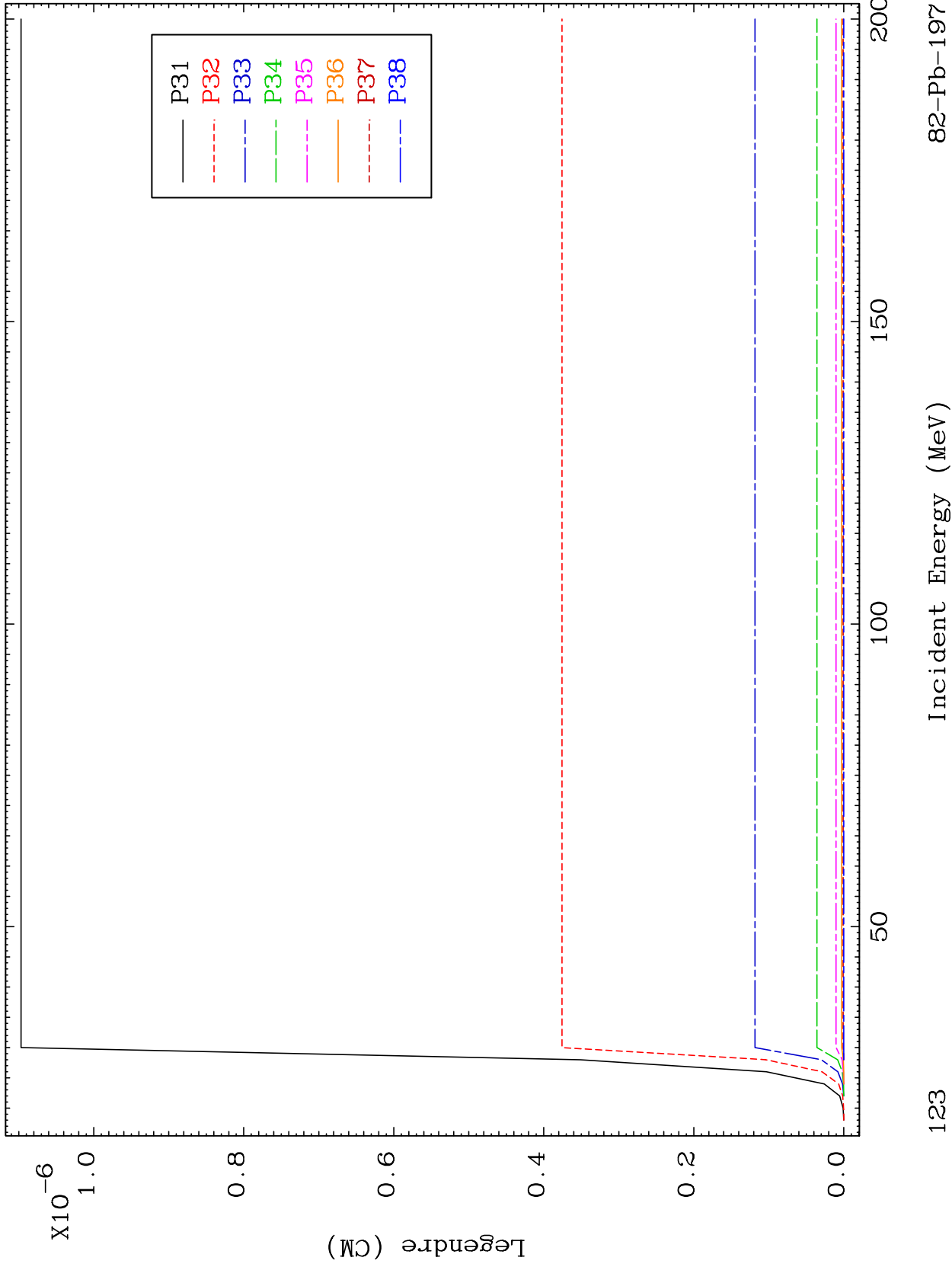
82-Pb-197



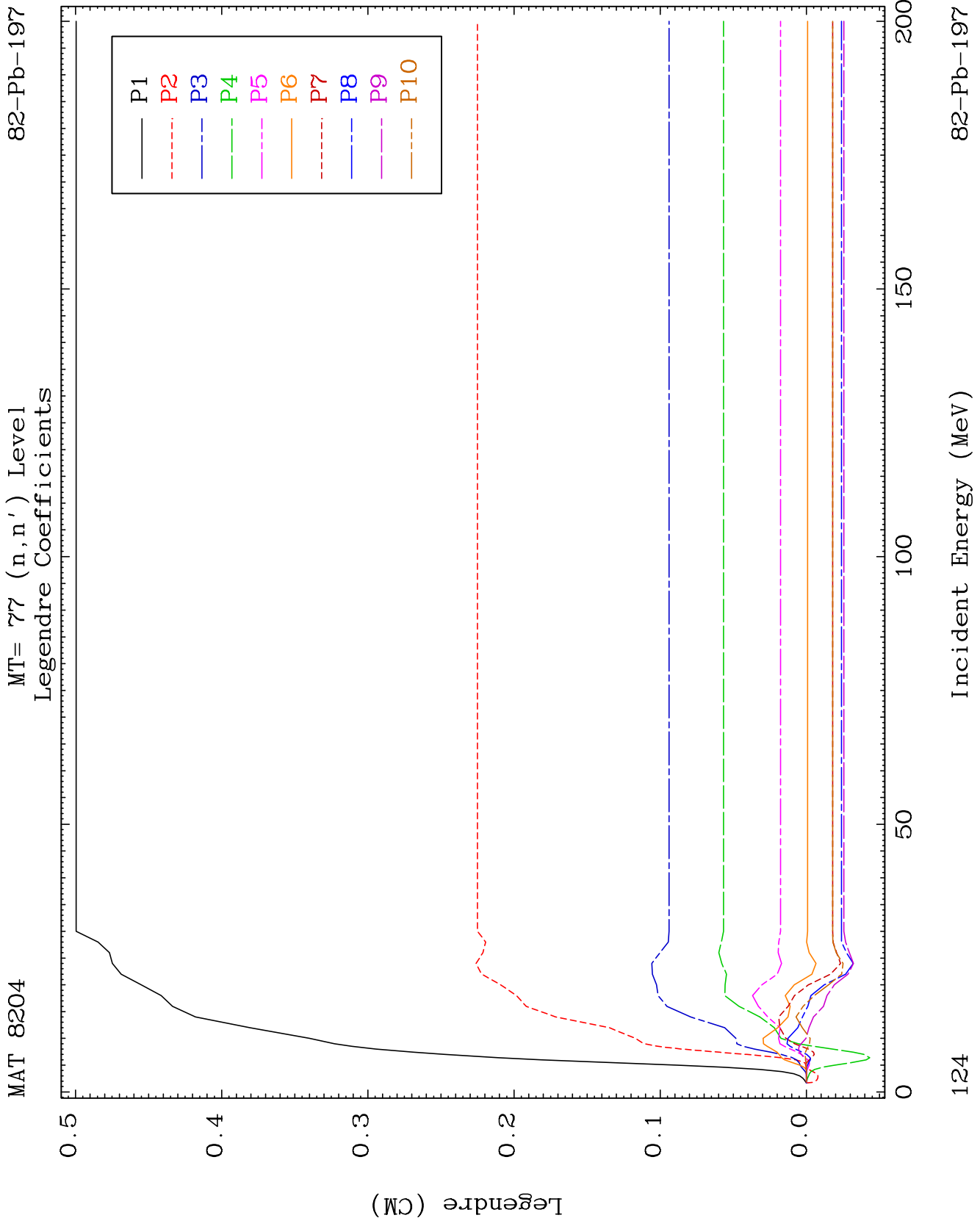
MAT 8204

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

82-Pb-197



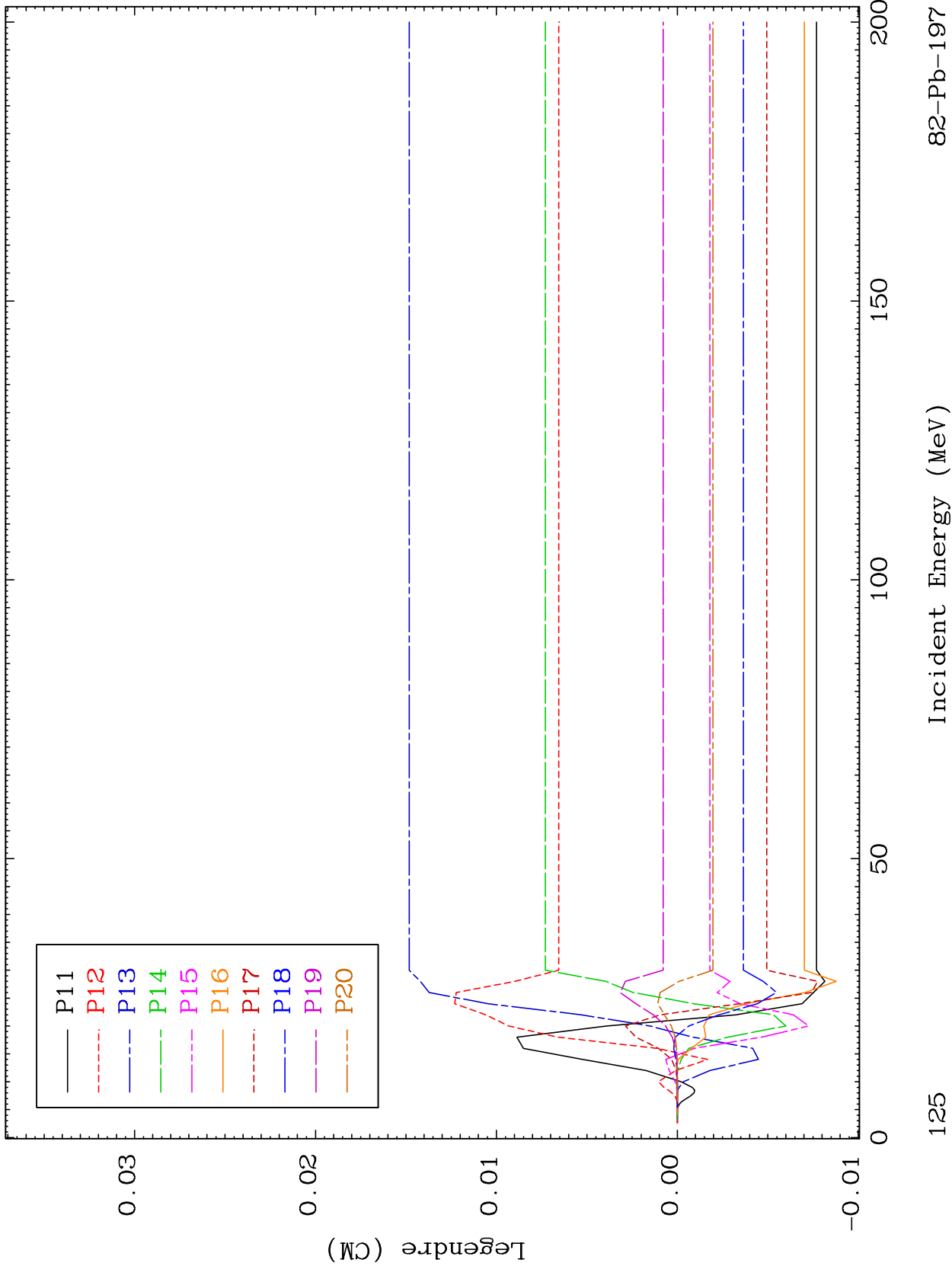
123



MAT 8204

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

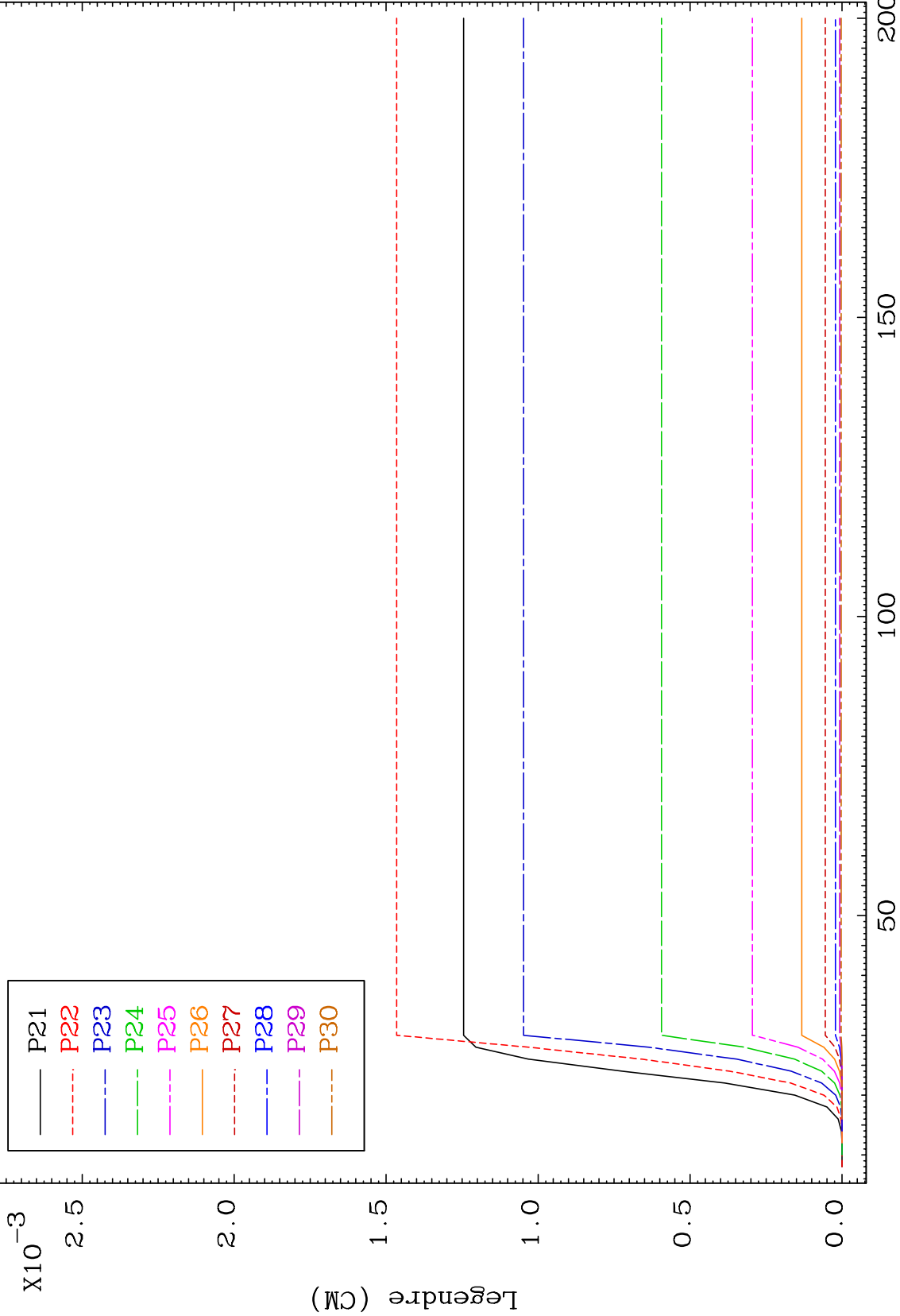
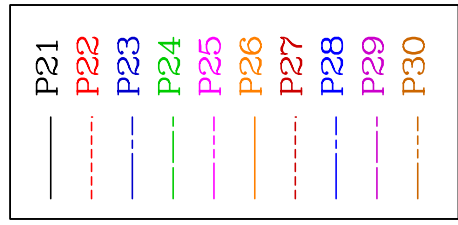
82-Pb-197



82-Pb-197

Incident Energy (MeV)

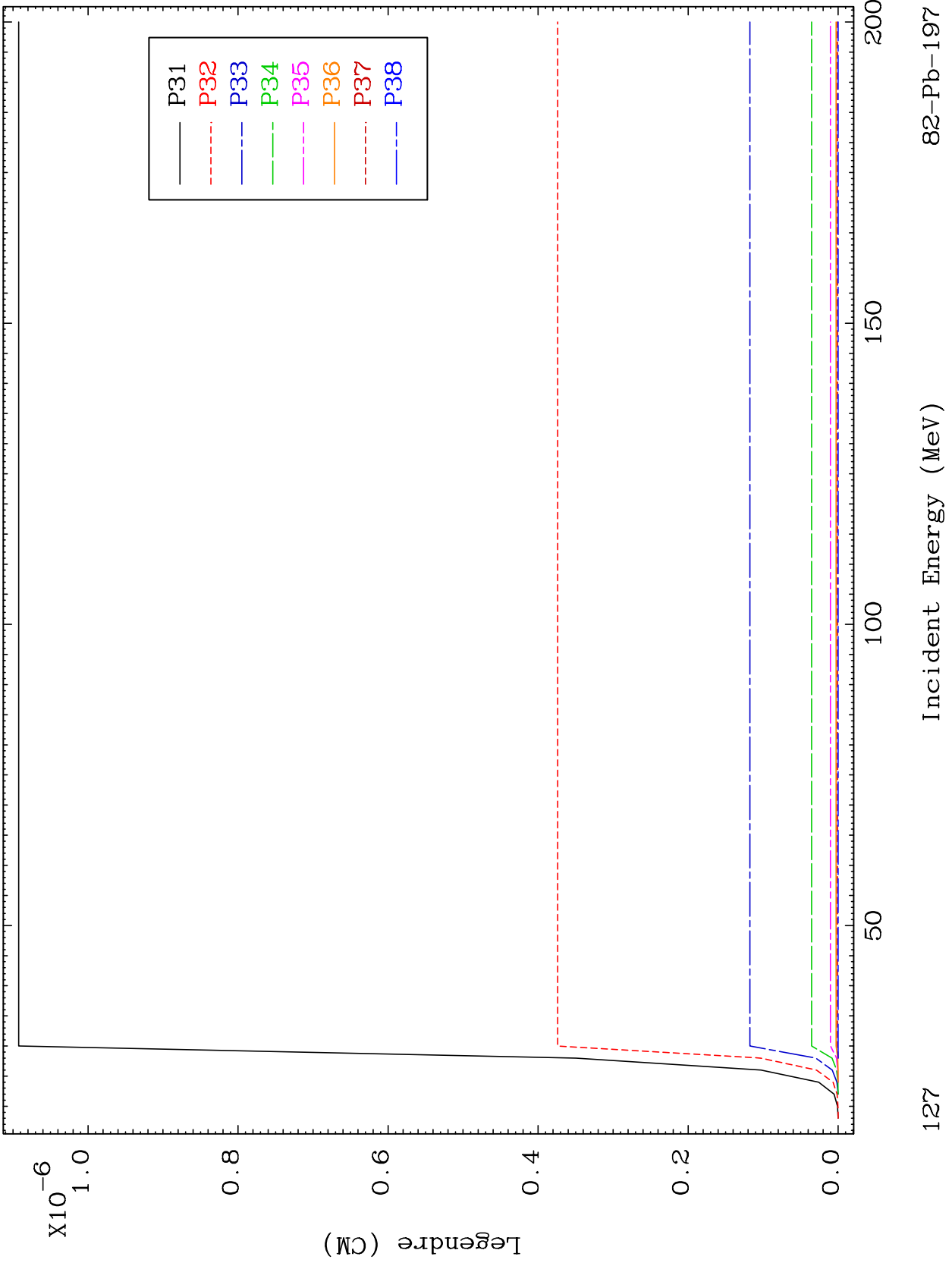
125



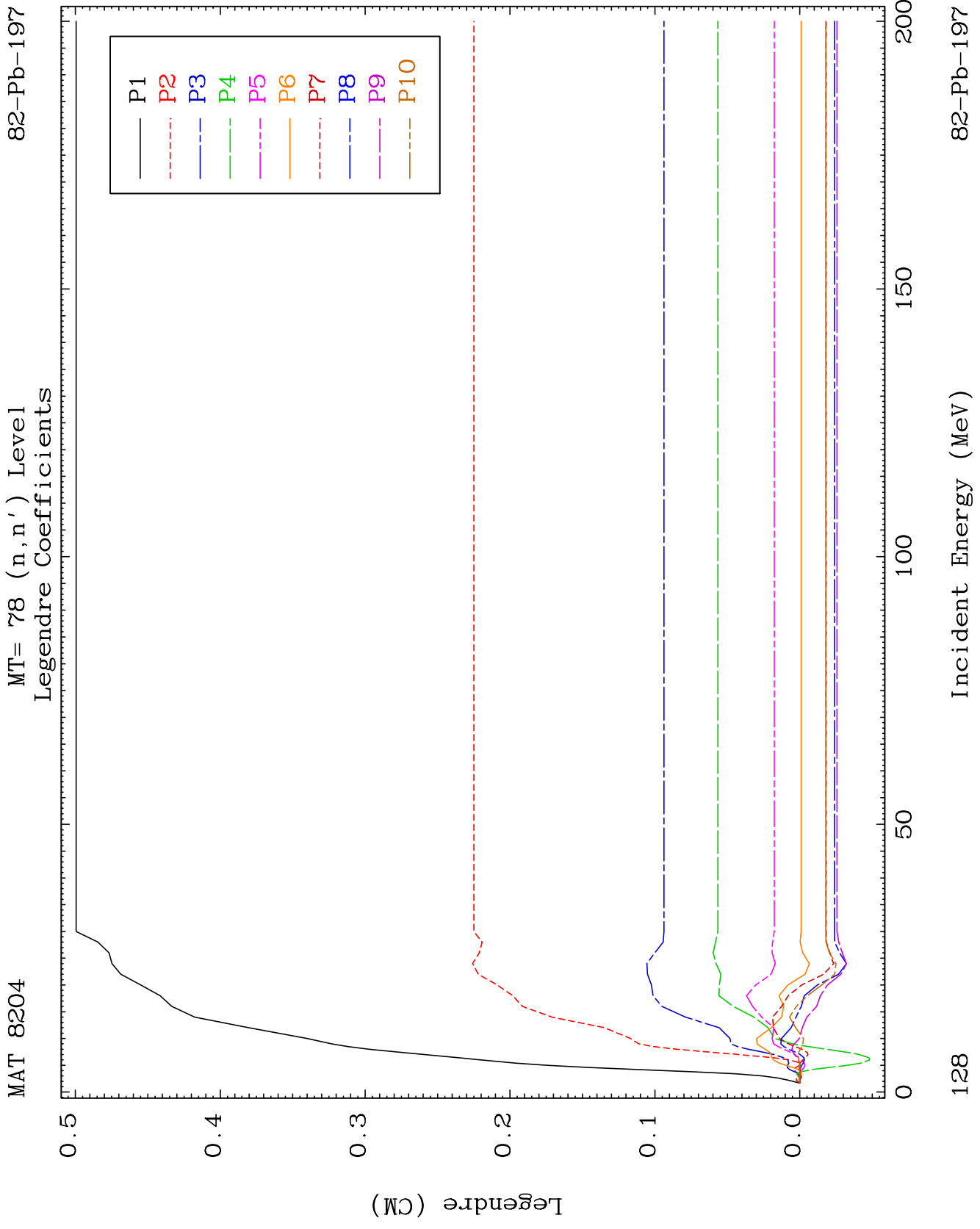
MAT 8204

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

82-Pb-197



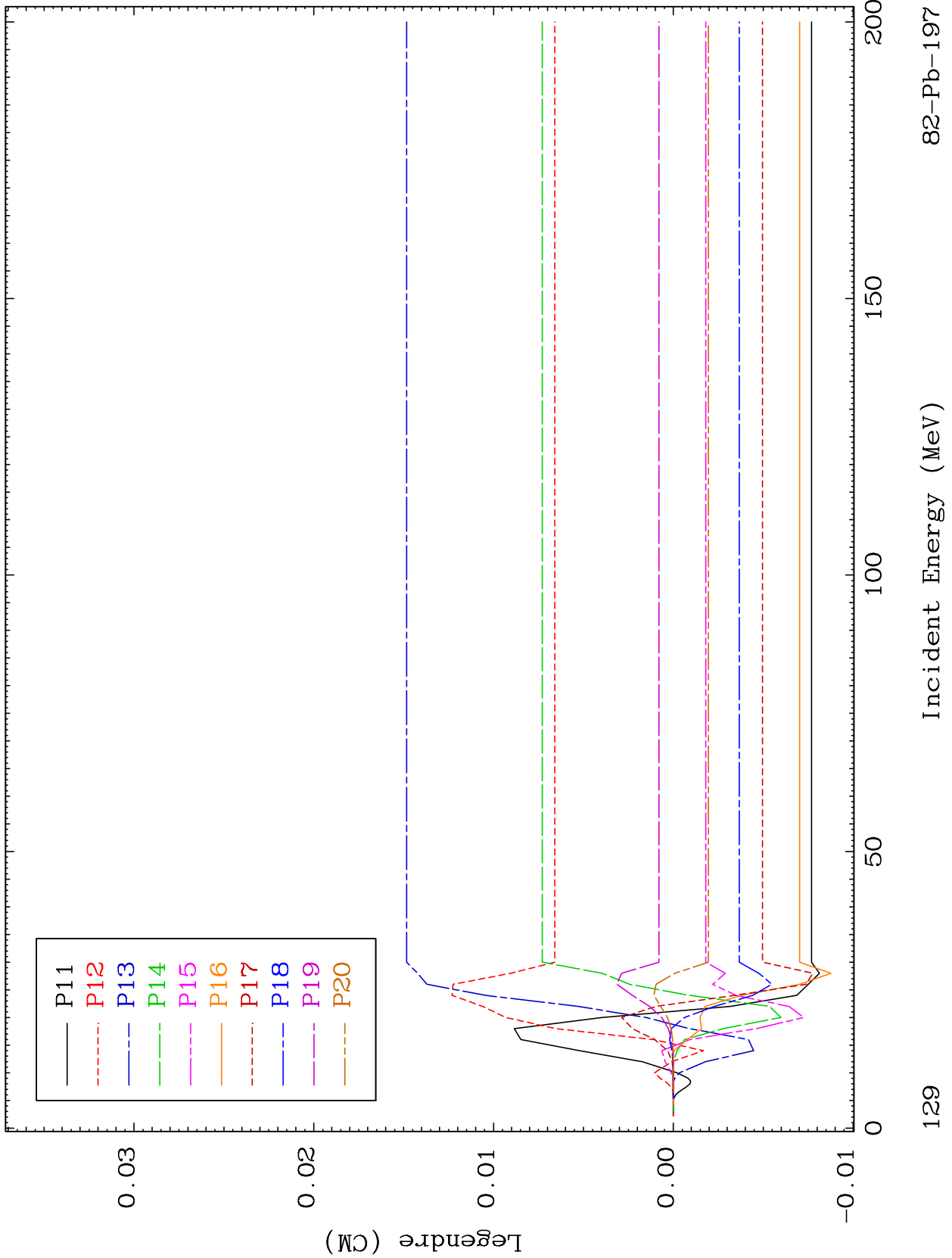




MAT 8204

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

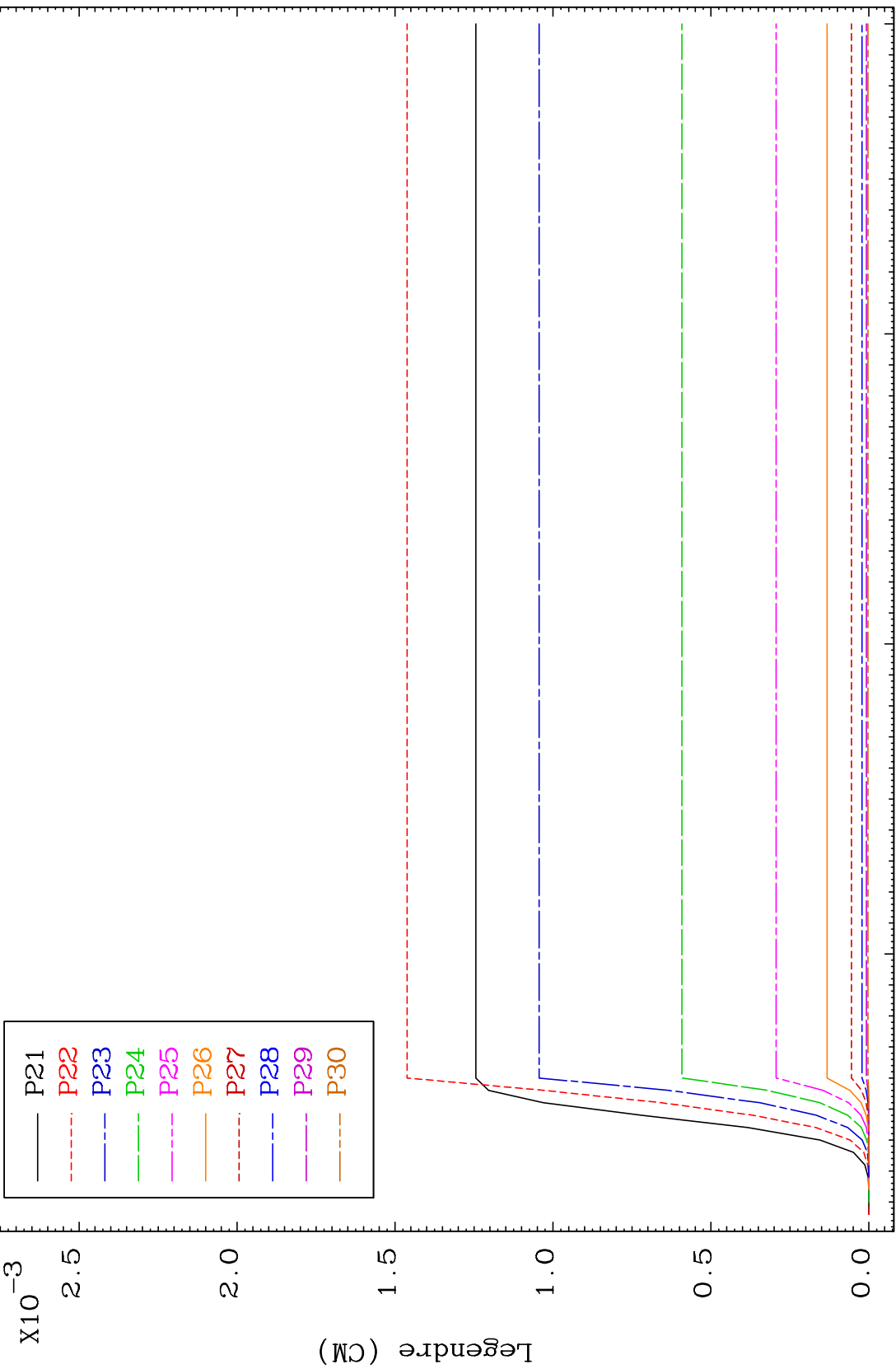
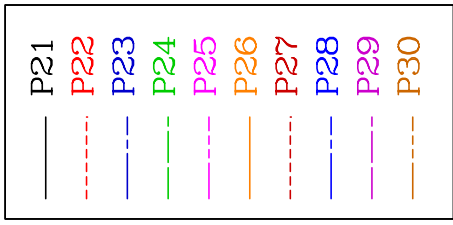
82-Pb-197



MAT 8204

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

82-Pb-197



130

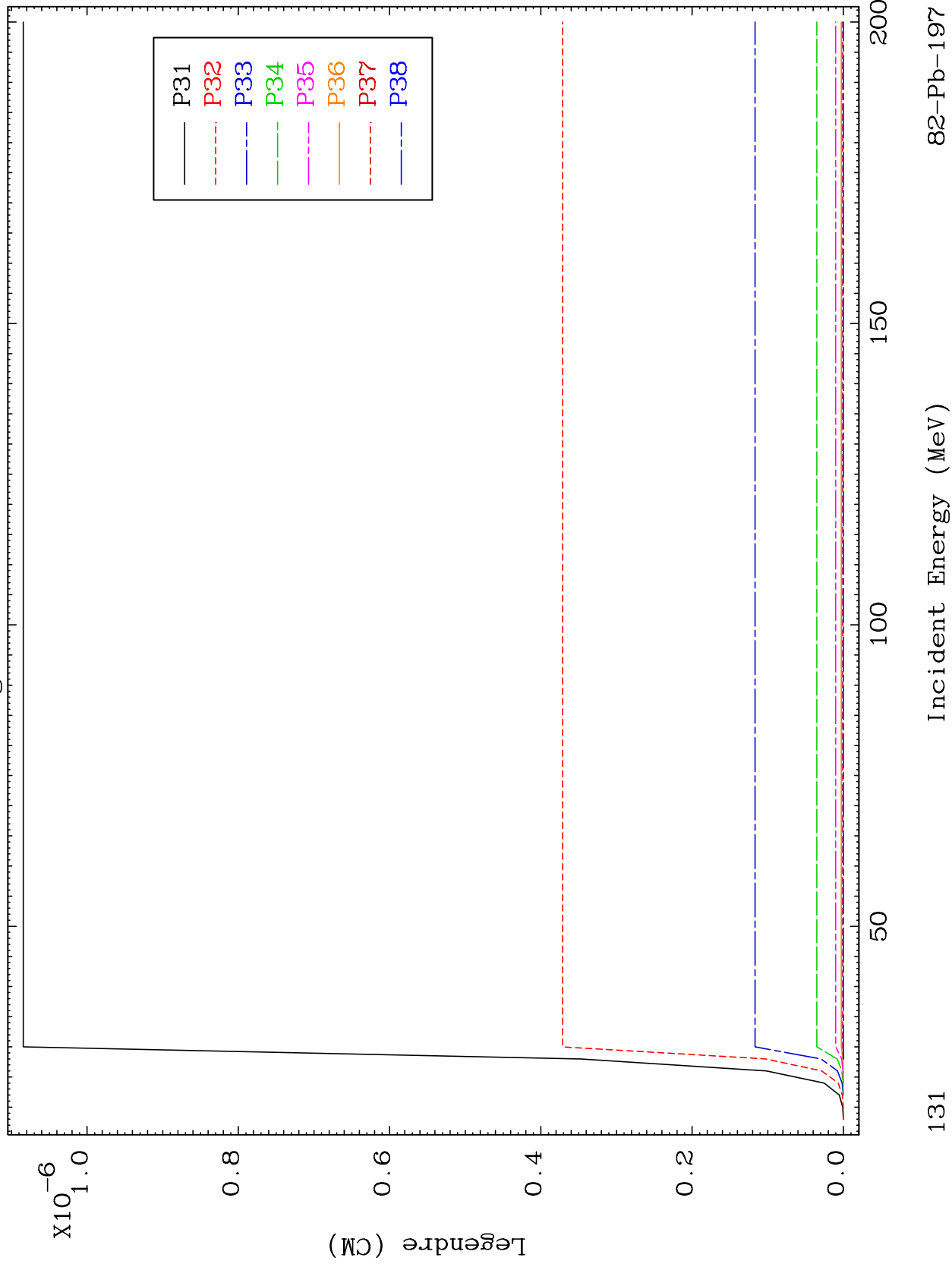
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



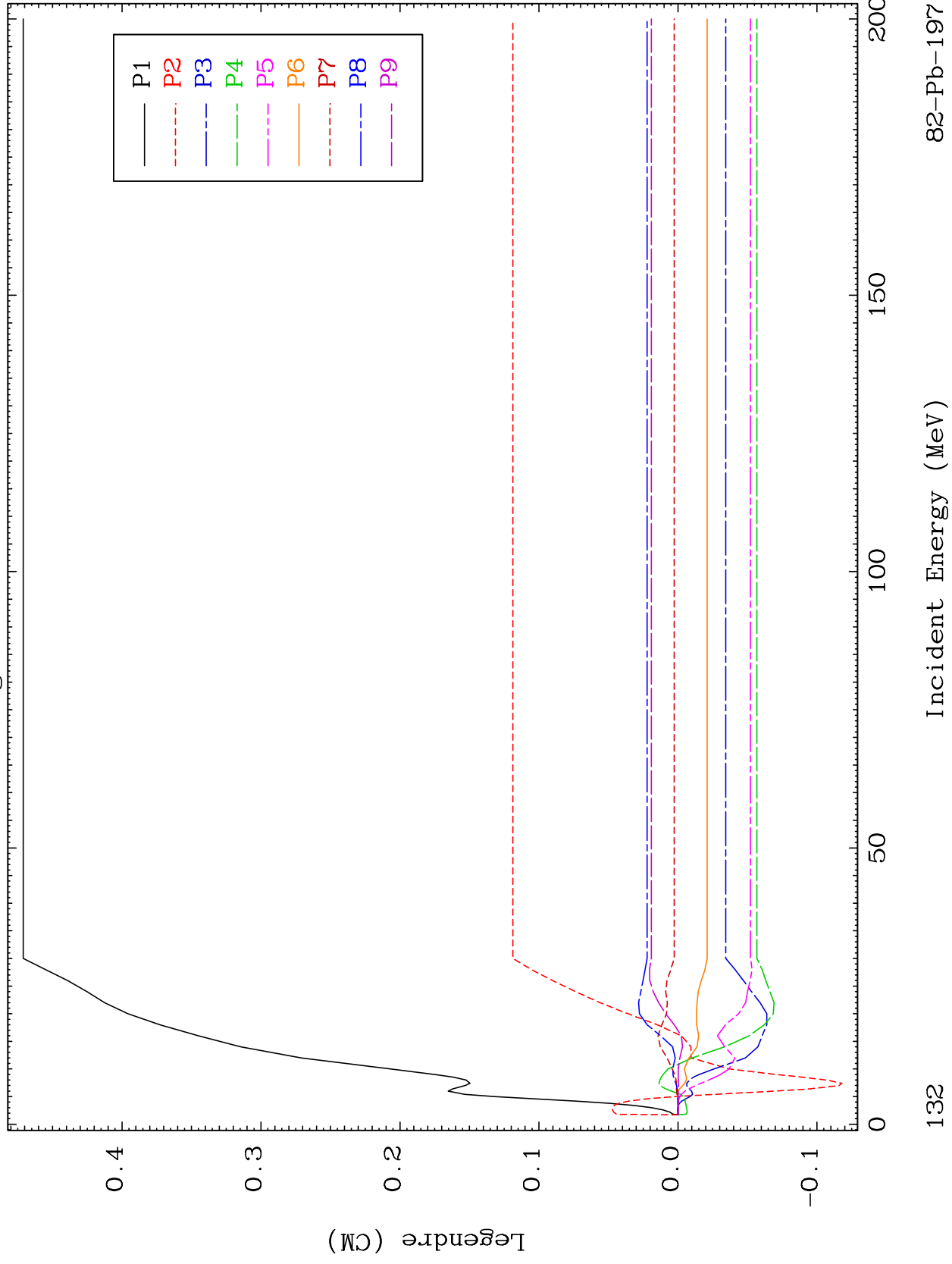
131

82-Pb-197

MAT 8204

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

82-Pb-197



82-Pb-197

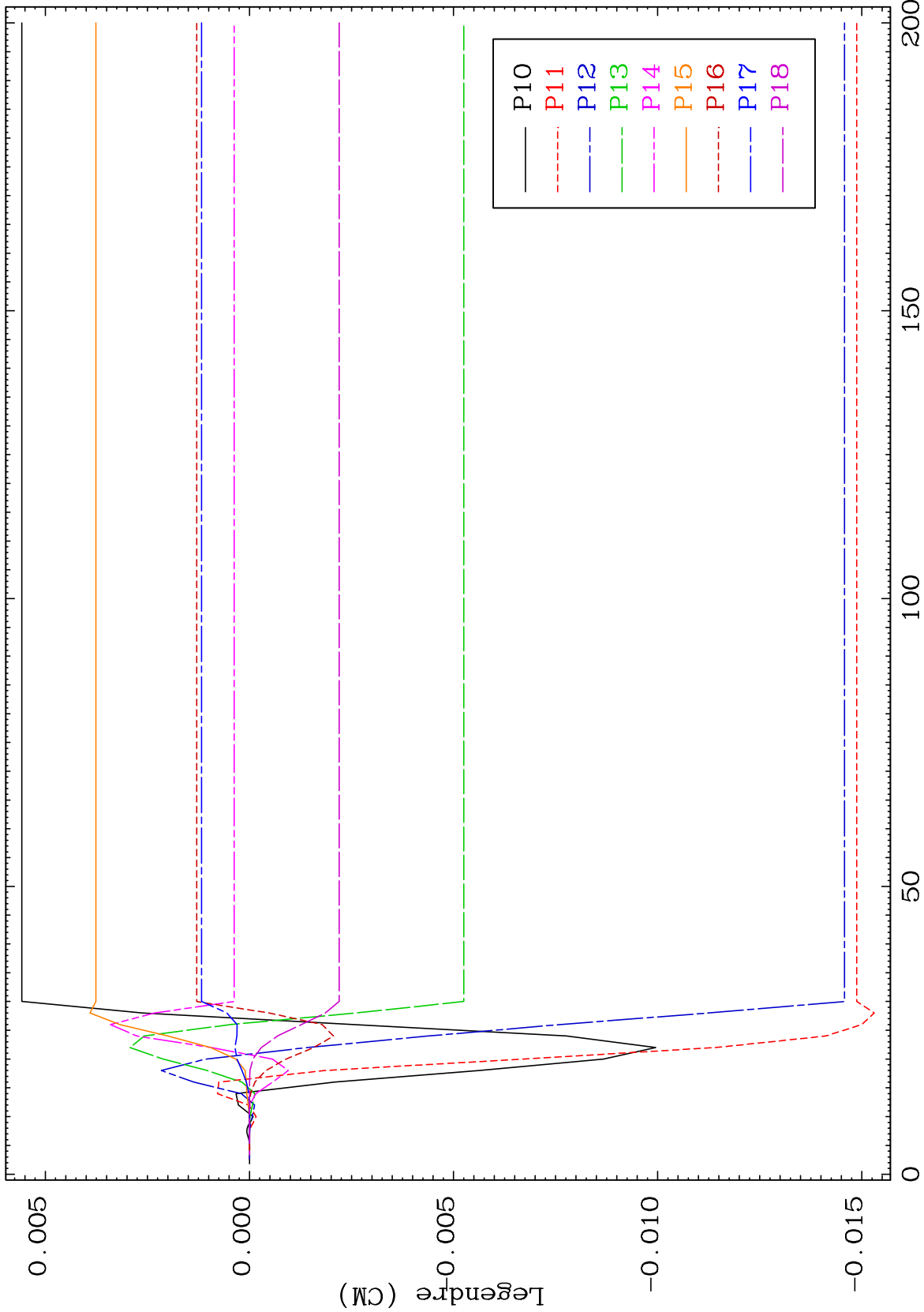
Incident Energy (MeV)

132

MAT 8204

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

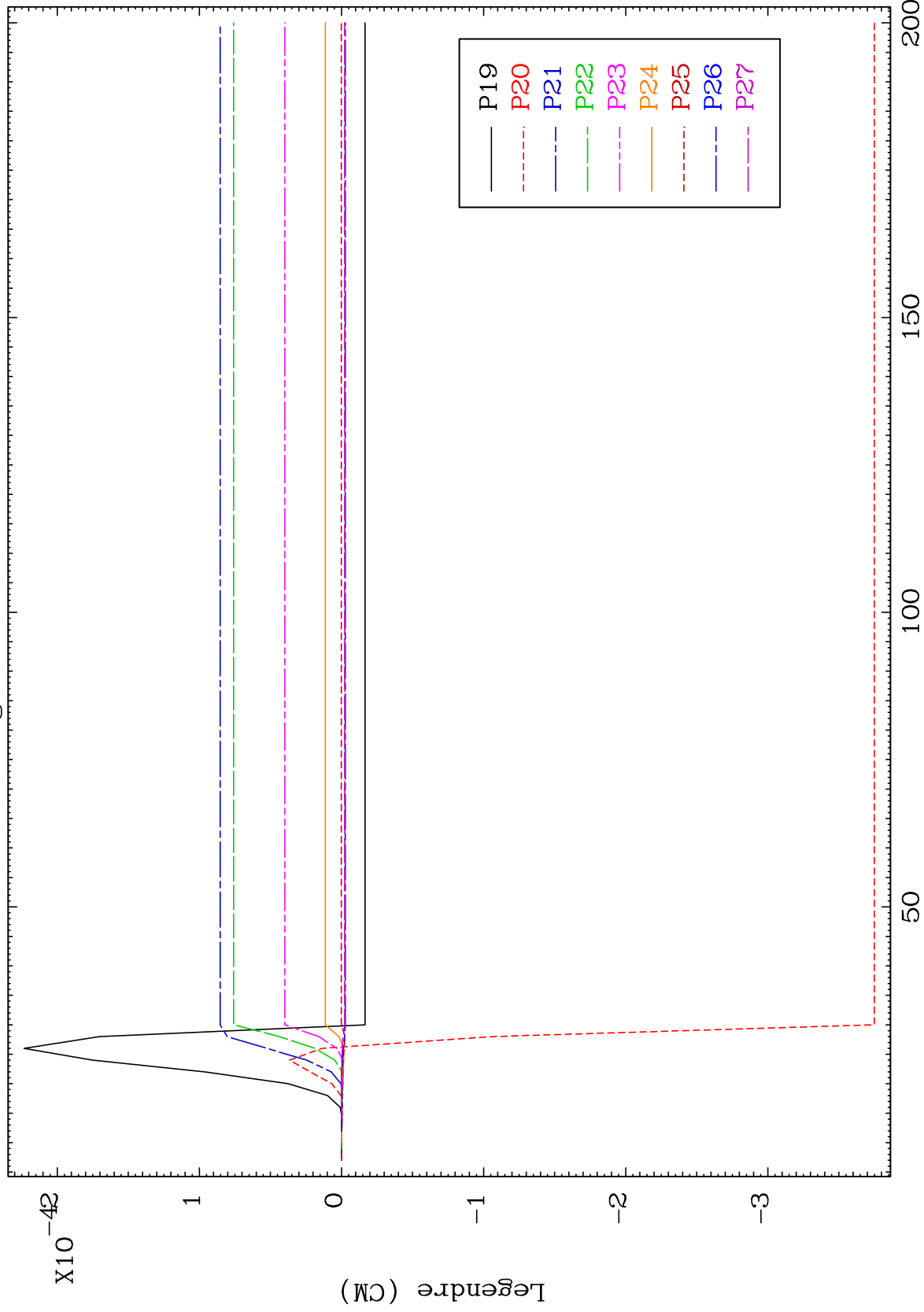
82-Pb-197



MAT 8204

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

82-Pb-197



134

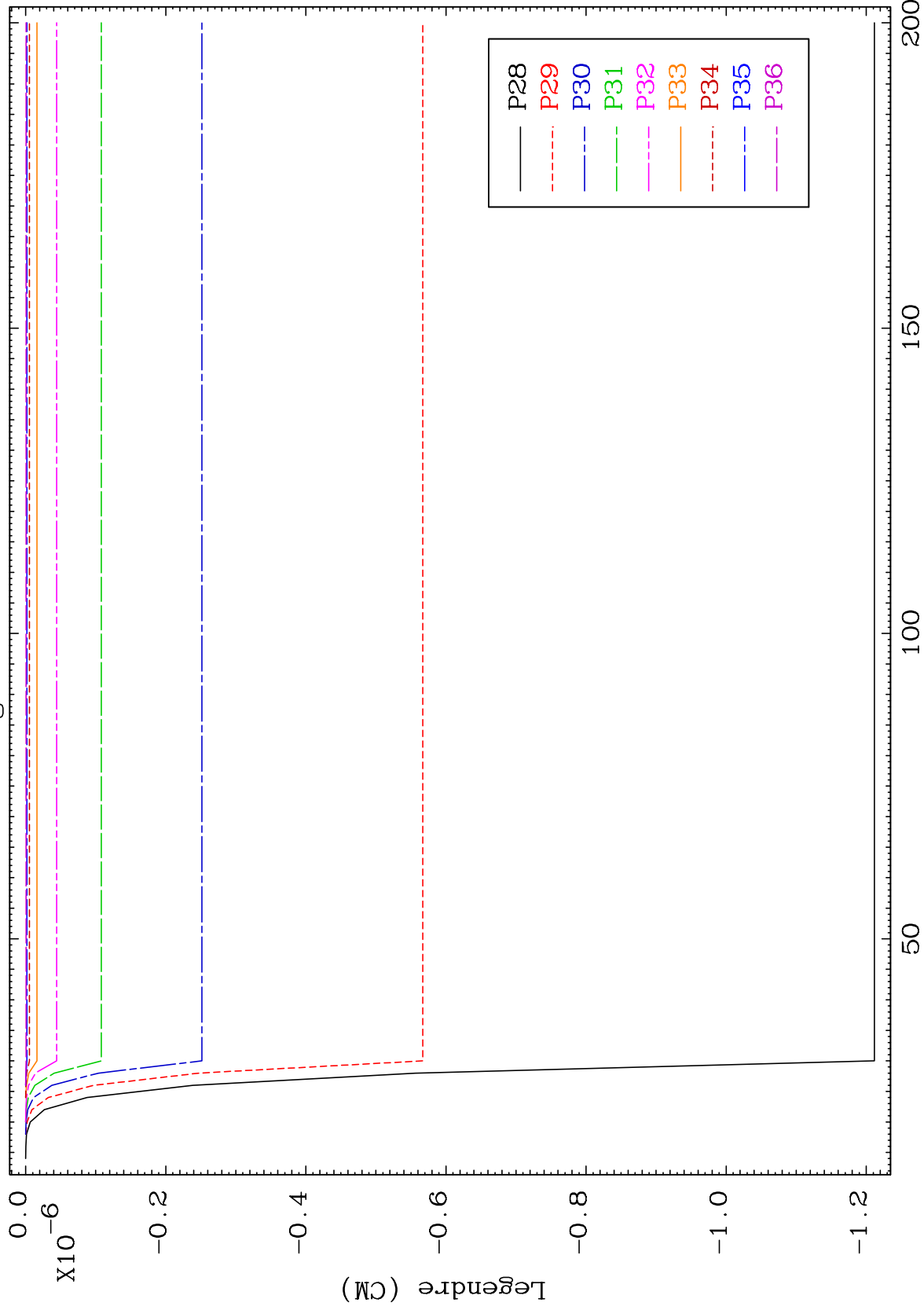
Incident Energy (MeV)

82-Pb-197

MAT 8204

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

82-Pb-197



135

Incident Energy (MeV)

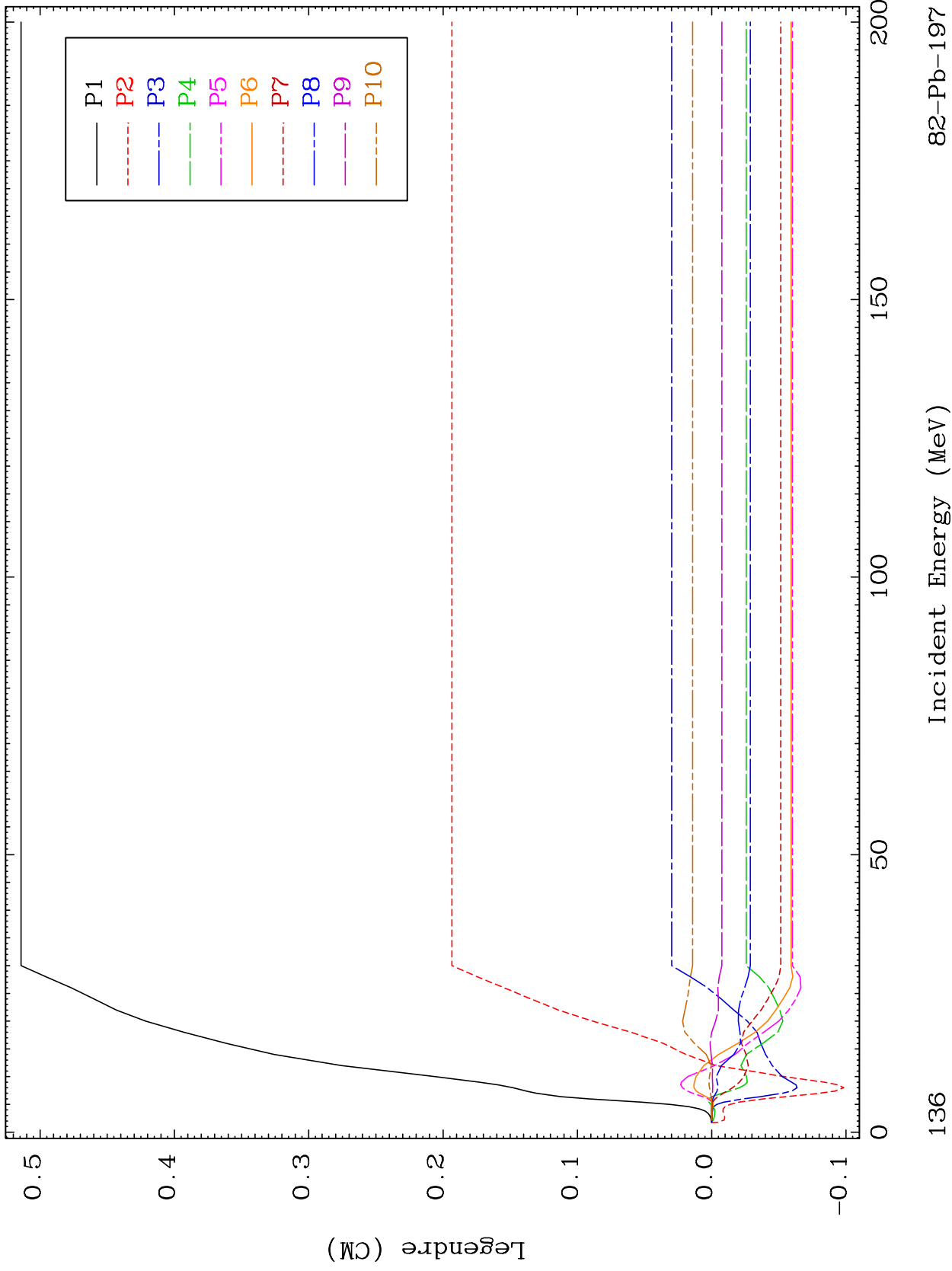
82-Pb-197



MAT 8204

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

82-Pb-197

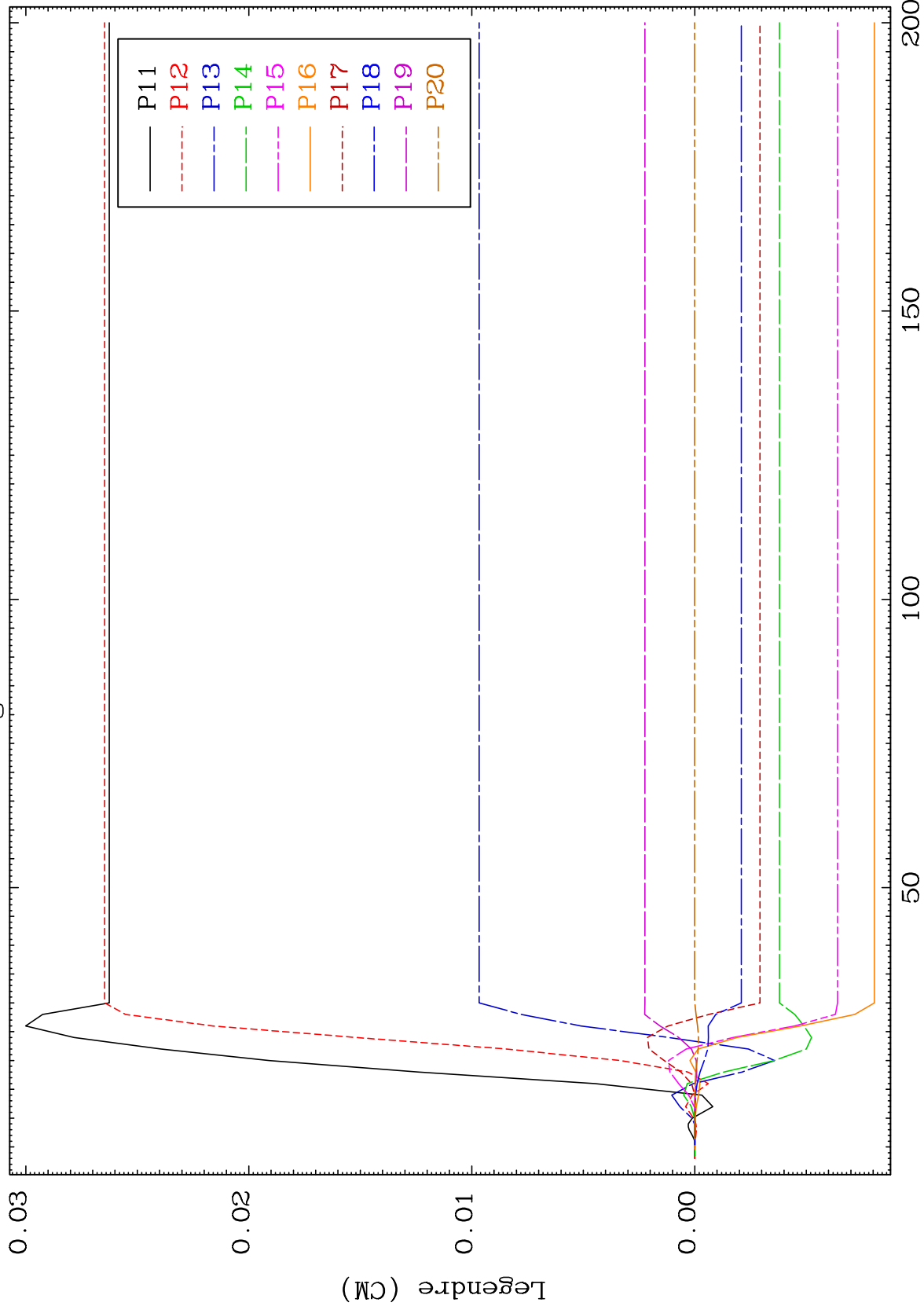


82-Pb-197

Incident Energy (MeV)

136

MAT 8204 MT= 80 (n,n') Level Legendre Coefficients 82-Pb-197

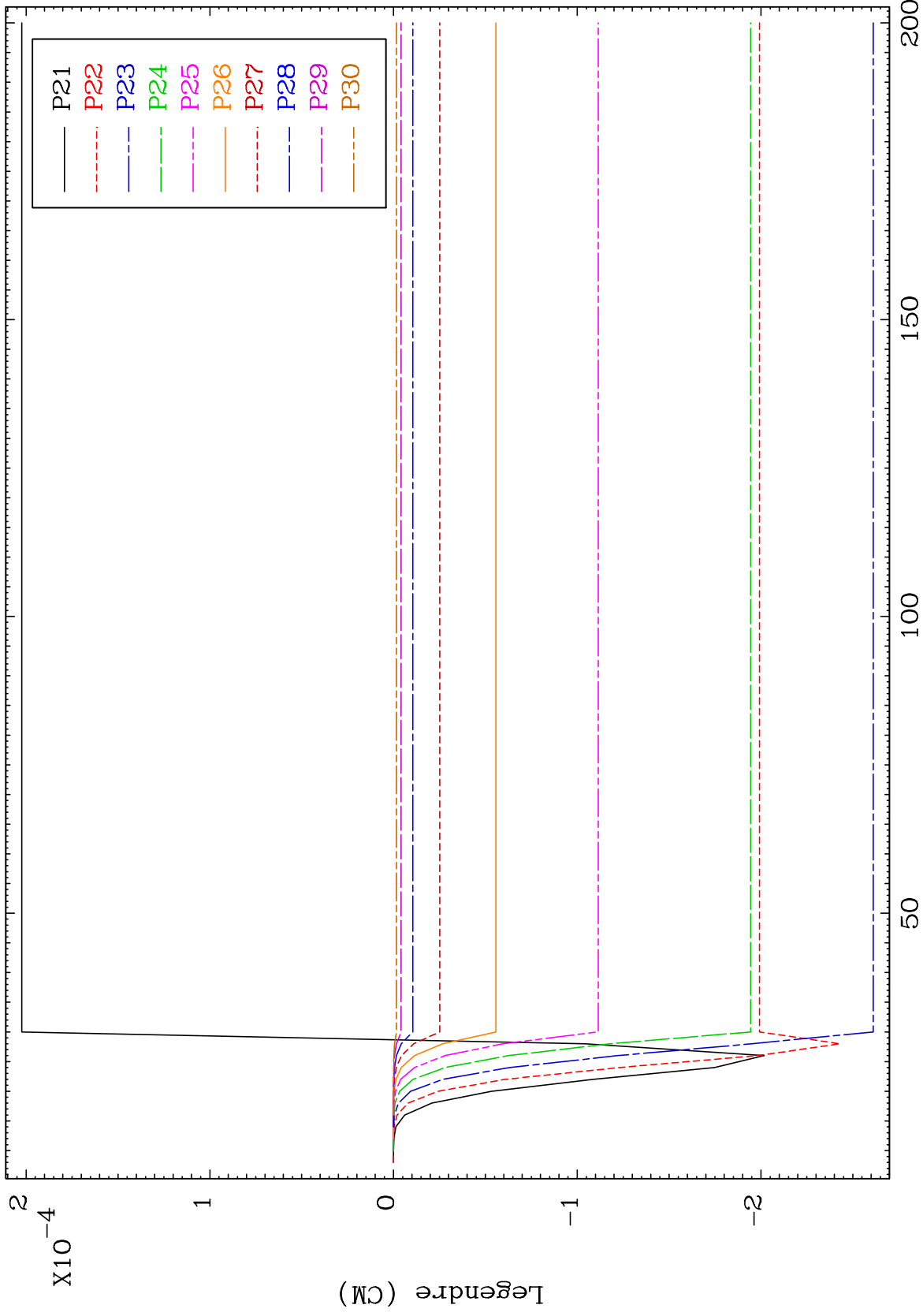


137 82-Pb-197

MAT 8204

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

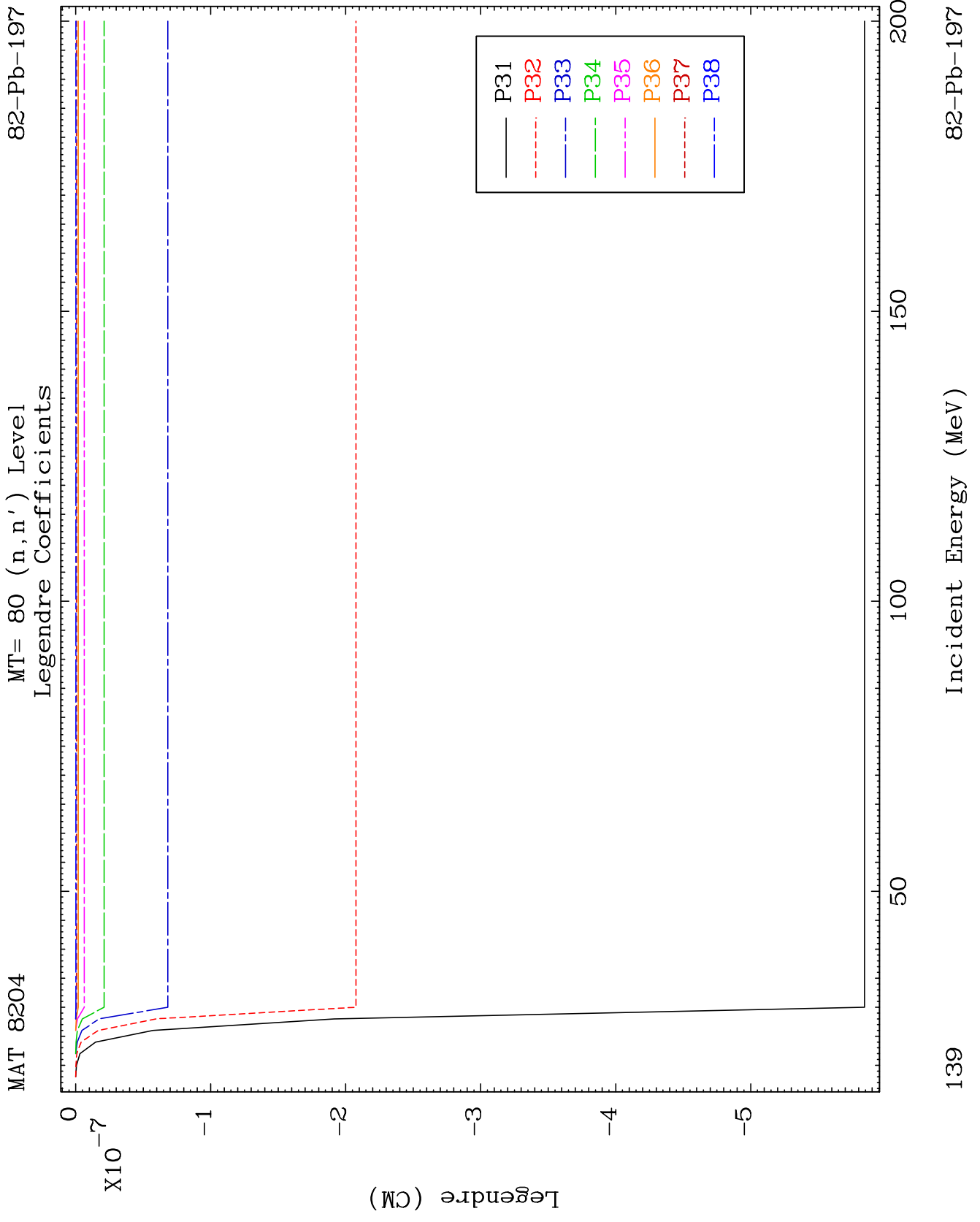
82-Pb-197



138

Incident Energy (MeV)

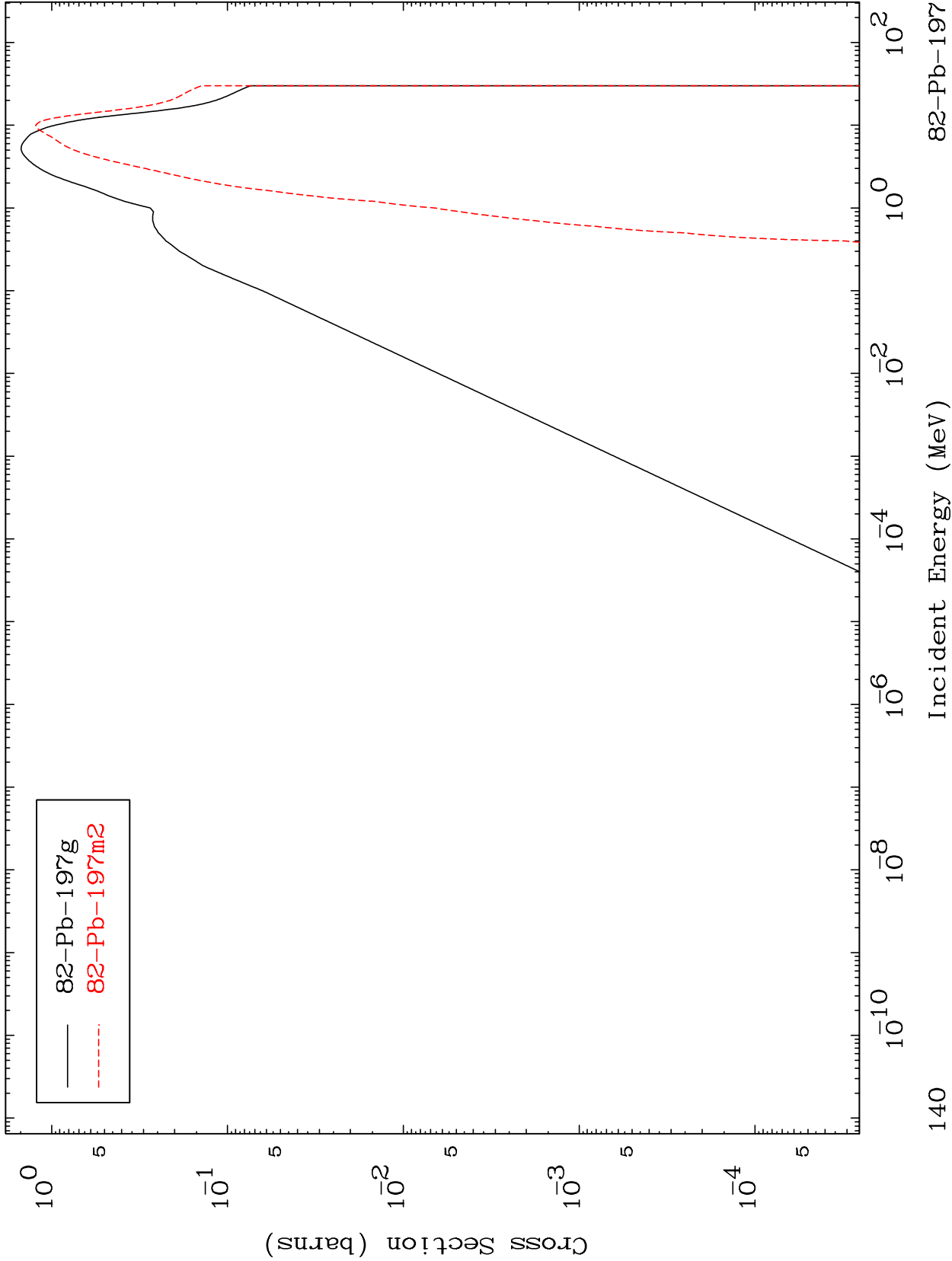
82-Pb-197



MAT 8204

Inelastic  
Radionuclide Production Cross Section

82-Pb-197

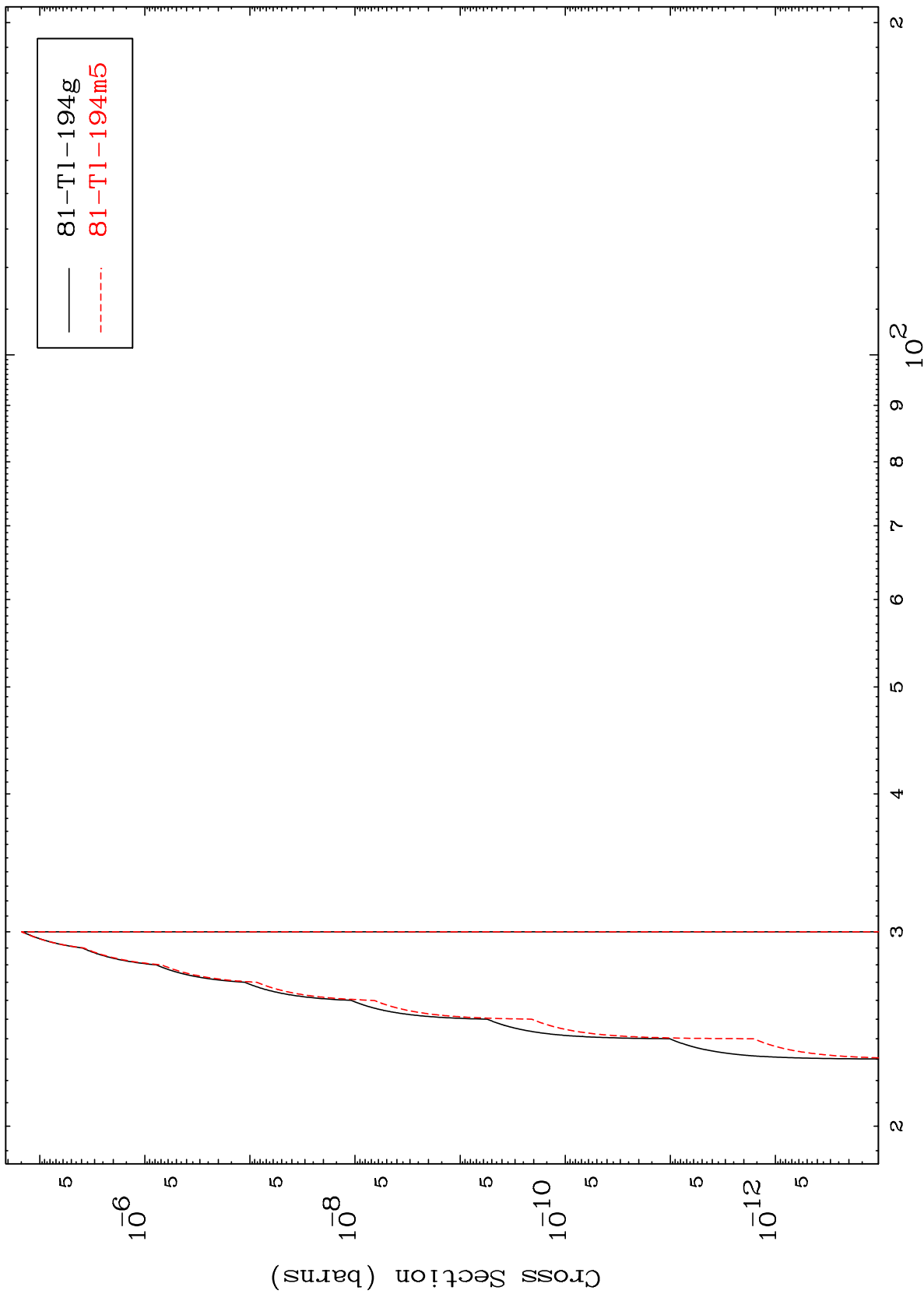


MAT 8204

(n,2n) d

82-Pb-197

Radionuclide Production Cross Section



141

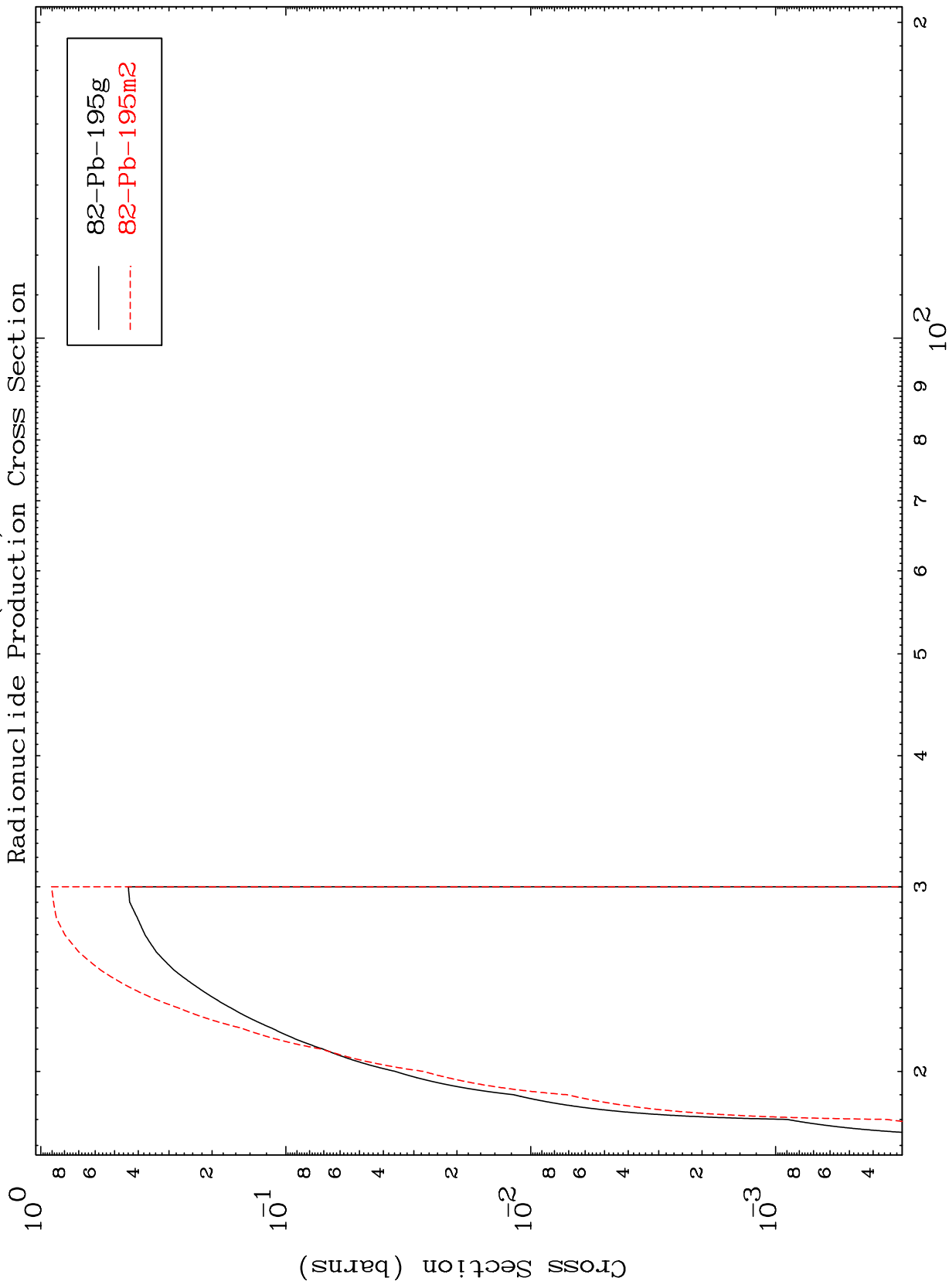
Incident Energy (MeV)

82-Pb-197

MAT 8204

82-Pb-197

(n,3n)  
Radionuclide Production Cross Section



82-Pb-197

Incident Energy (MeV)

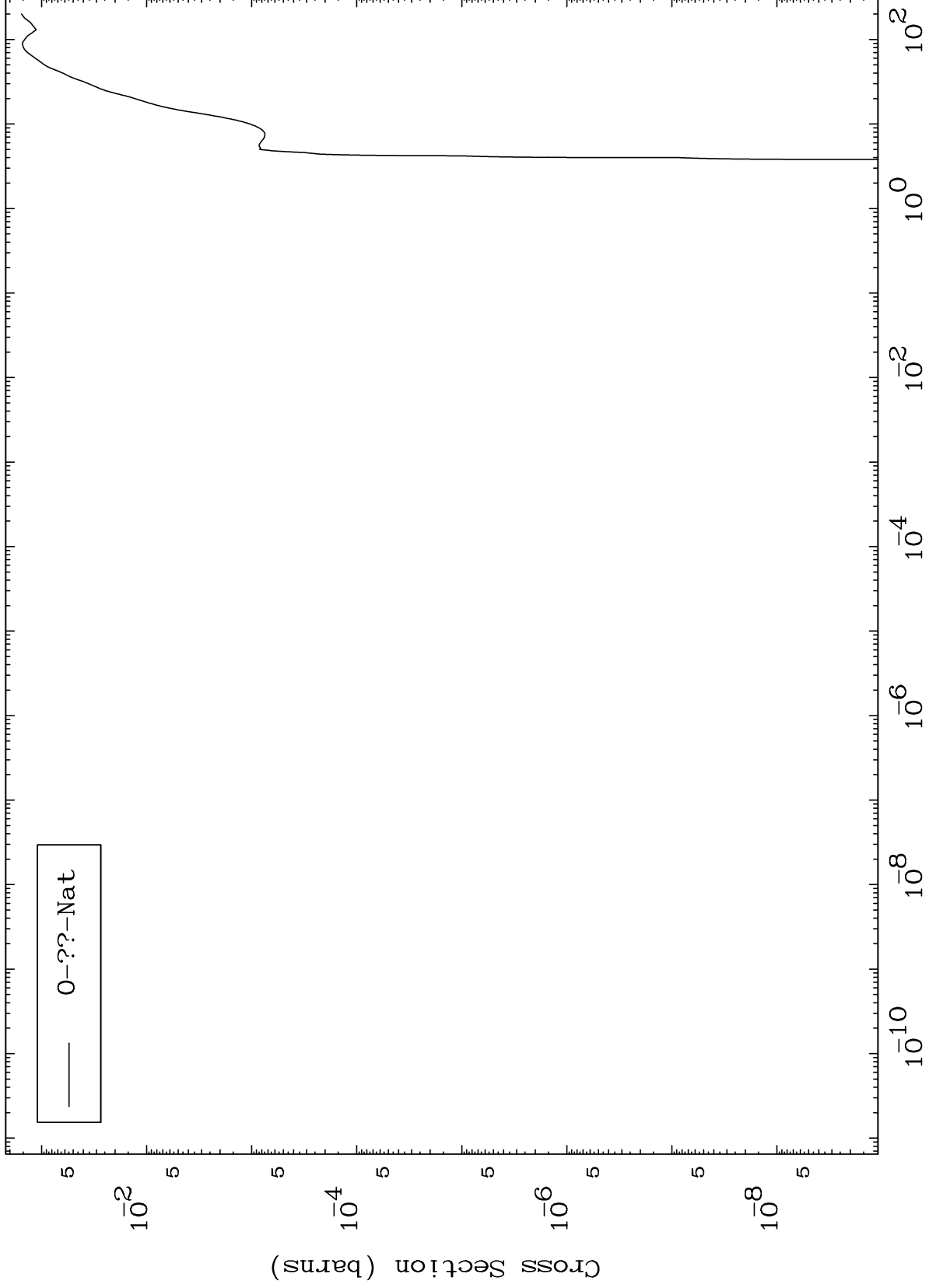
142

MAT 8204

Fission

82-Pb-197

Radionuclide Production Cross Section



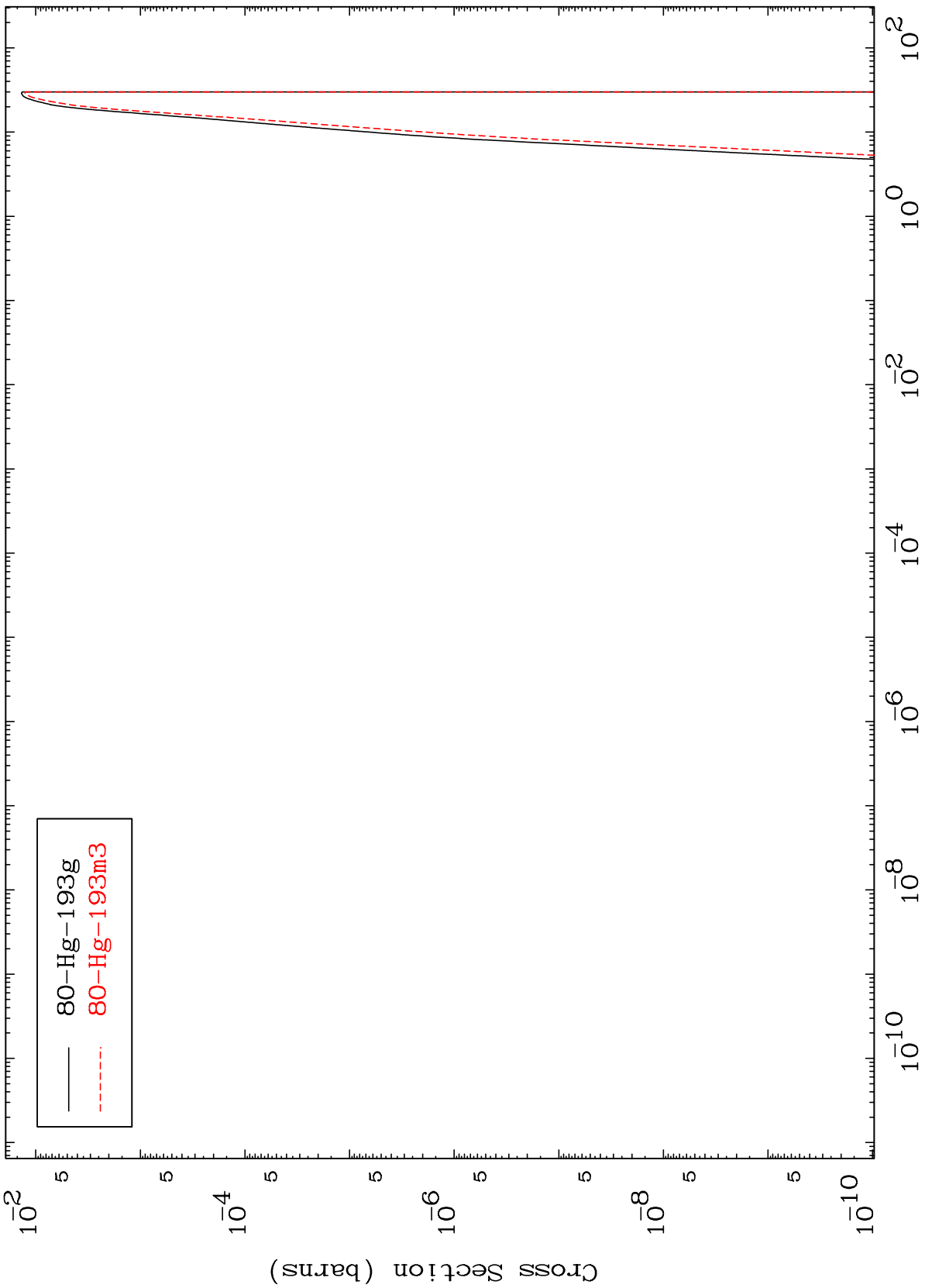


MAT 8204

$(n, n') \alpha$

82-Pb-197

Radionuclide Production Cross Section



144

Incident Energy (MeV)

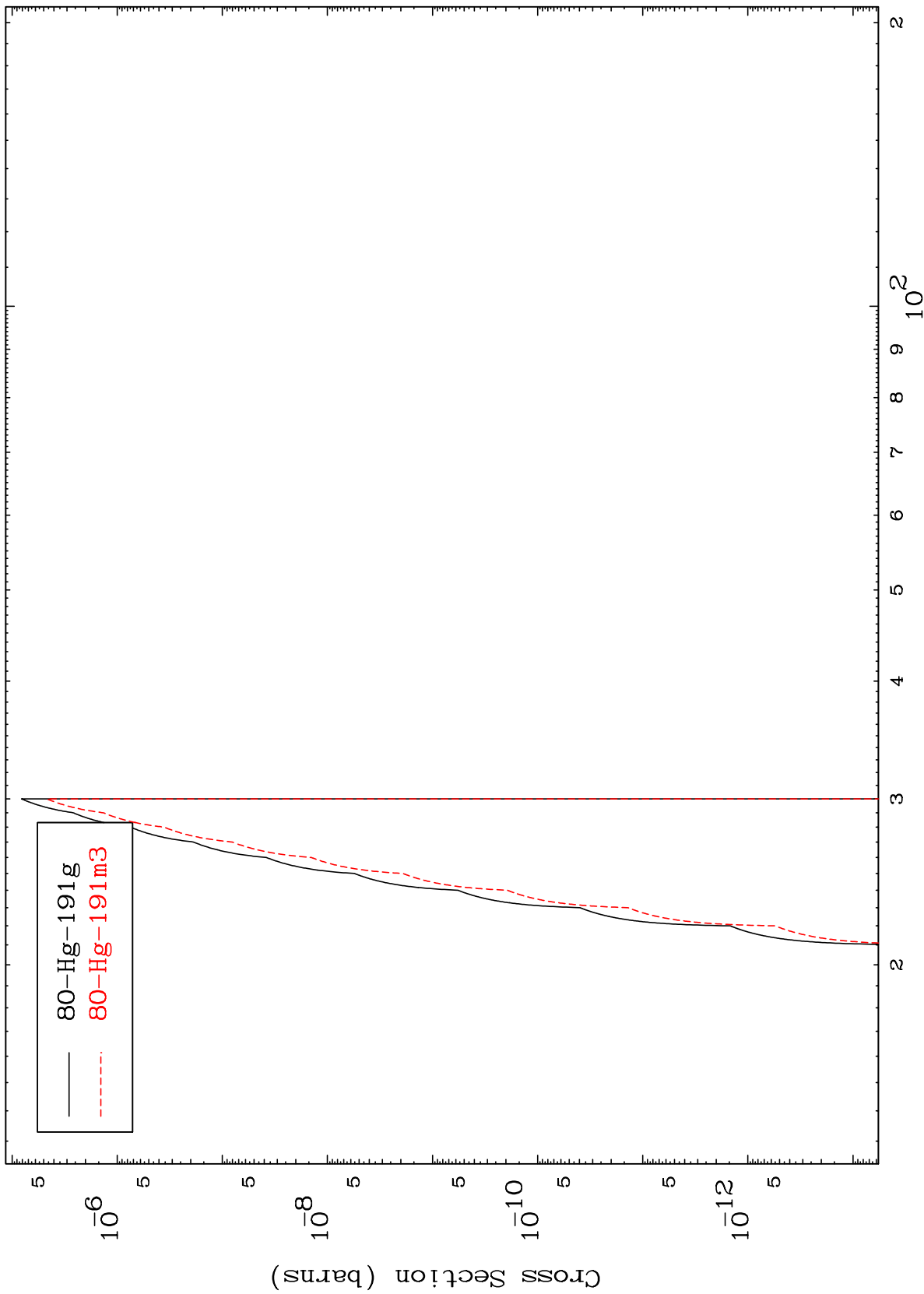
82-Pb-197

MAT 8204

(n,3n)  $\alpha$

82-Pb-197

Radionuclide Production Cross Section



145

Incident Energy (MeV)

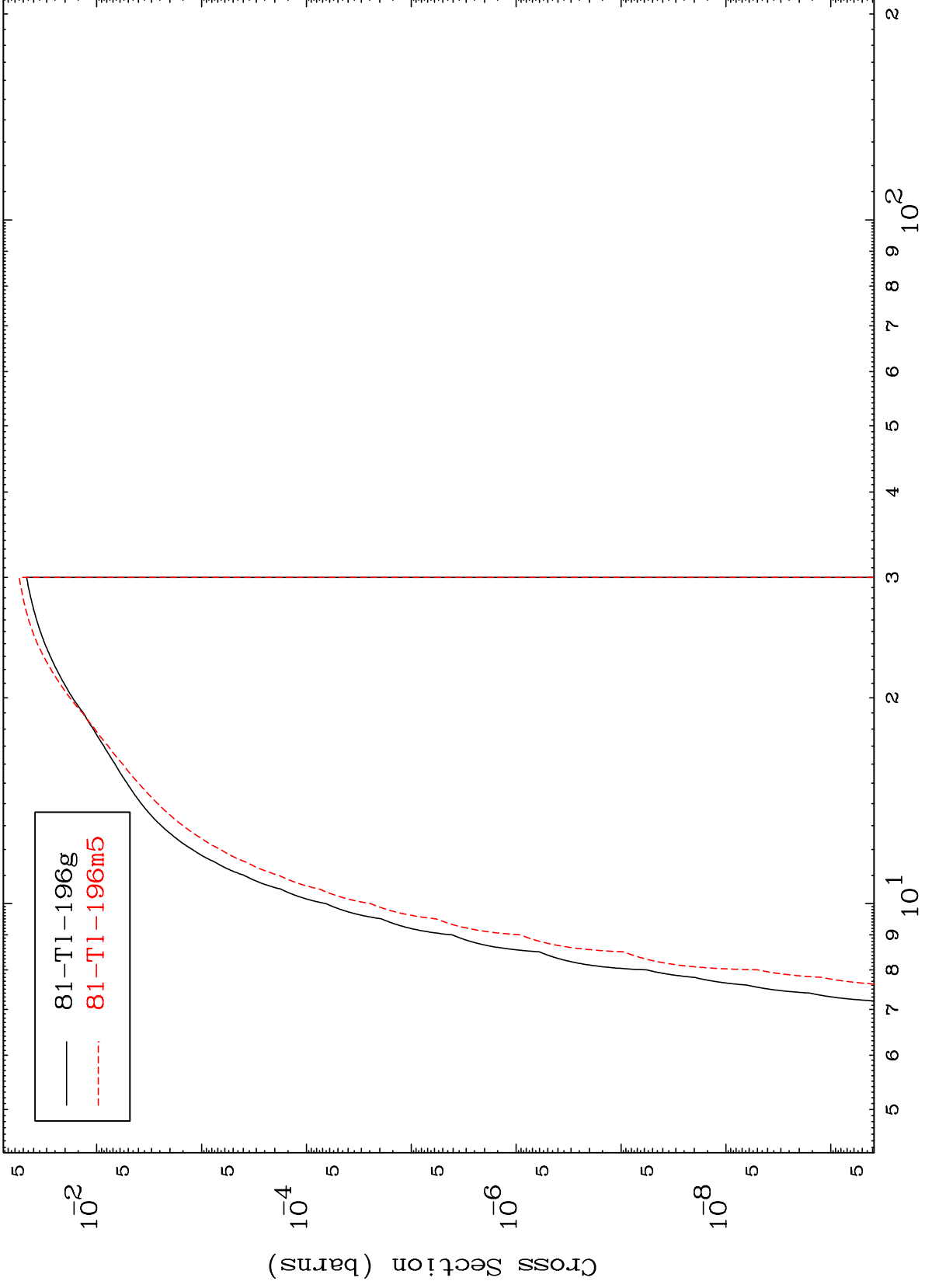
82-Pb-197

MAT 8204

(n,n') p

82-Pb-197

Radionuclide Production Cross Section



146

Incident Energy (MeV)

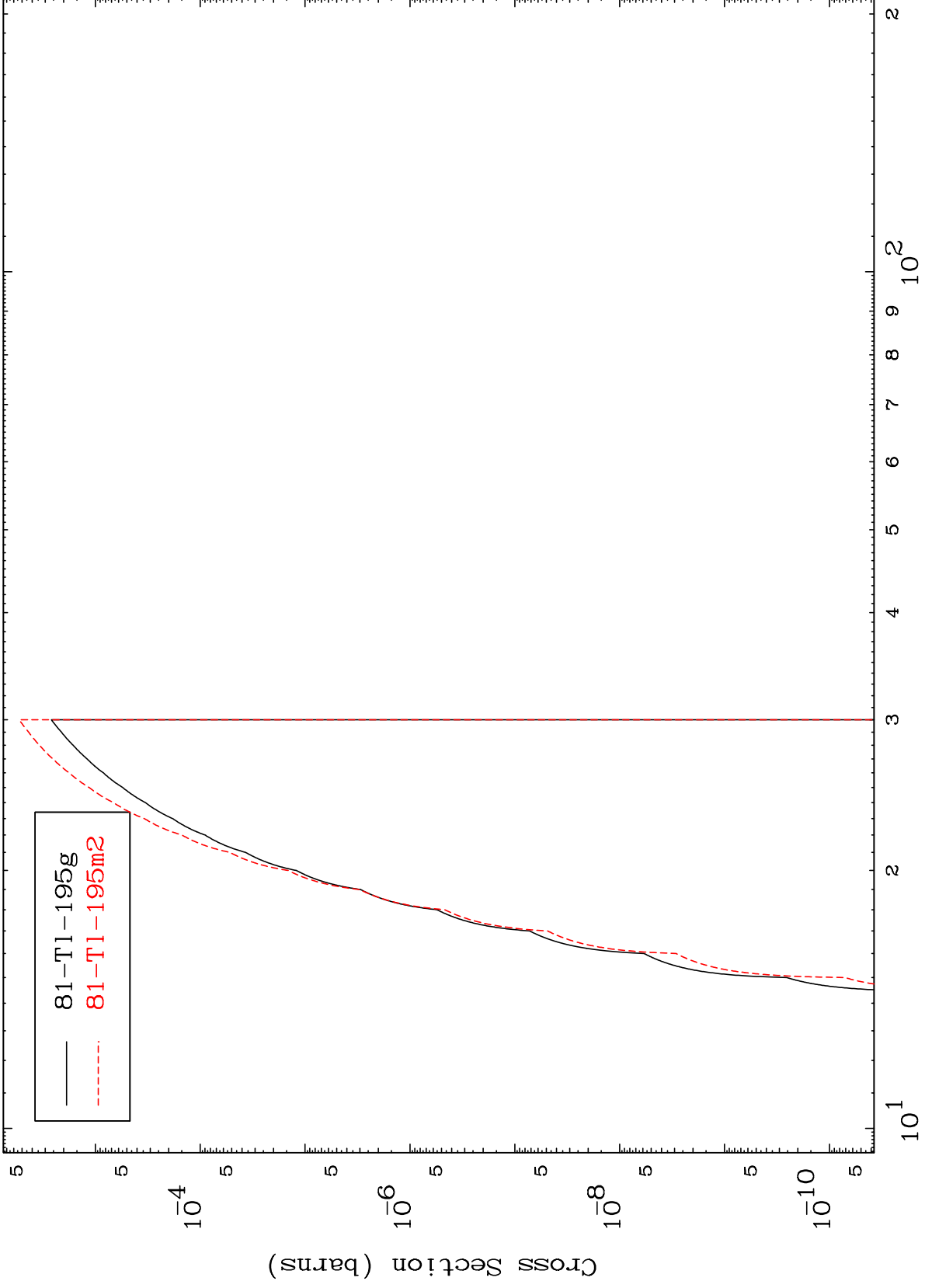
82-Pb-197

MAT 8204

(n,n') d

82-Pb-197

Radionuclide Production Cross Section

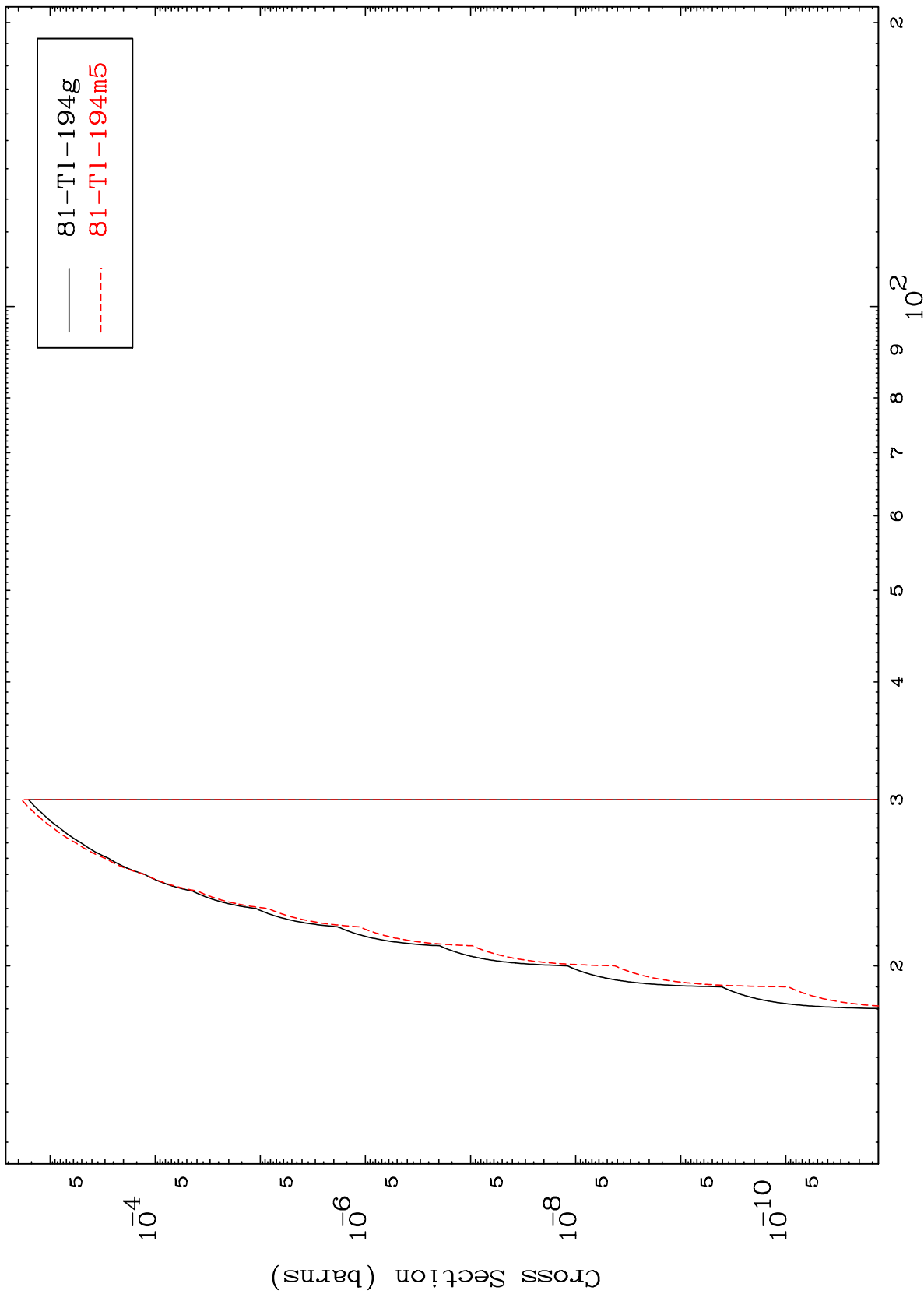


147

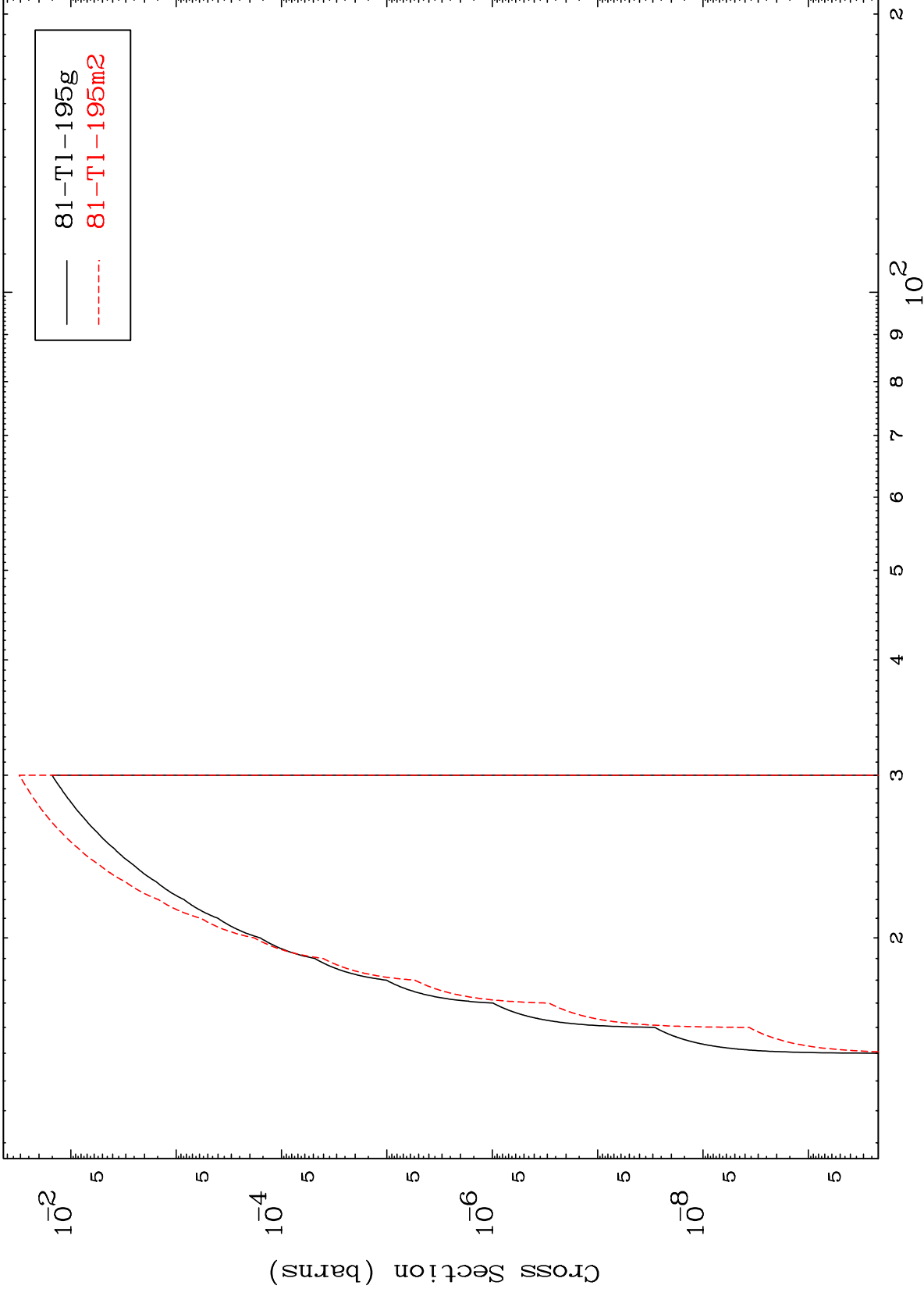
Incident Energy (MeV)

82-Pb-197

Radionuclide Production Cross Section



Radionuclide Production Cross Section



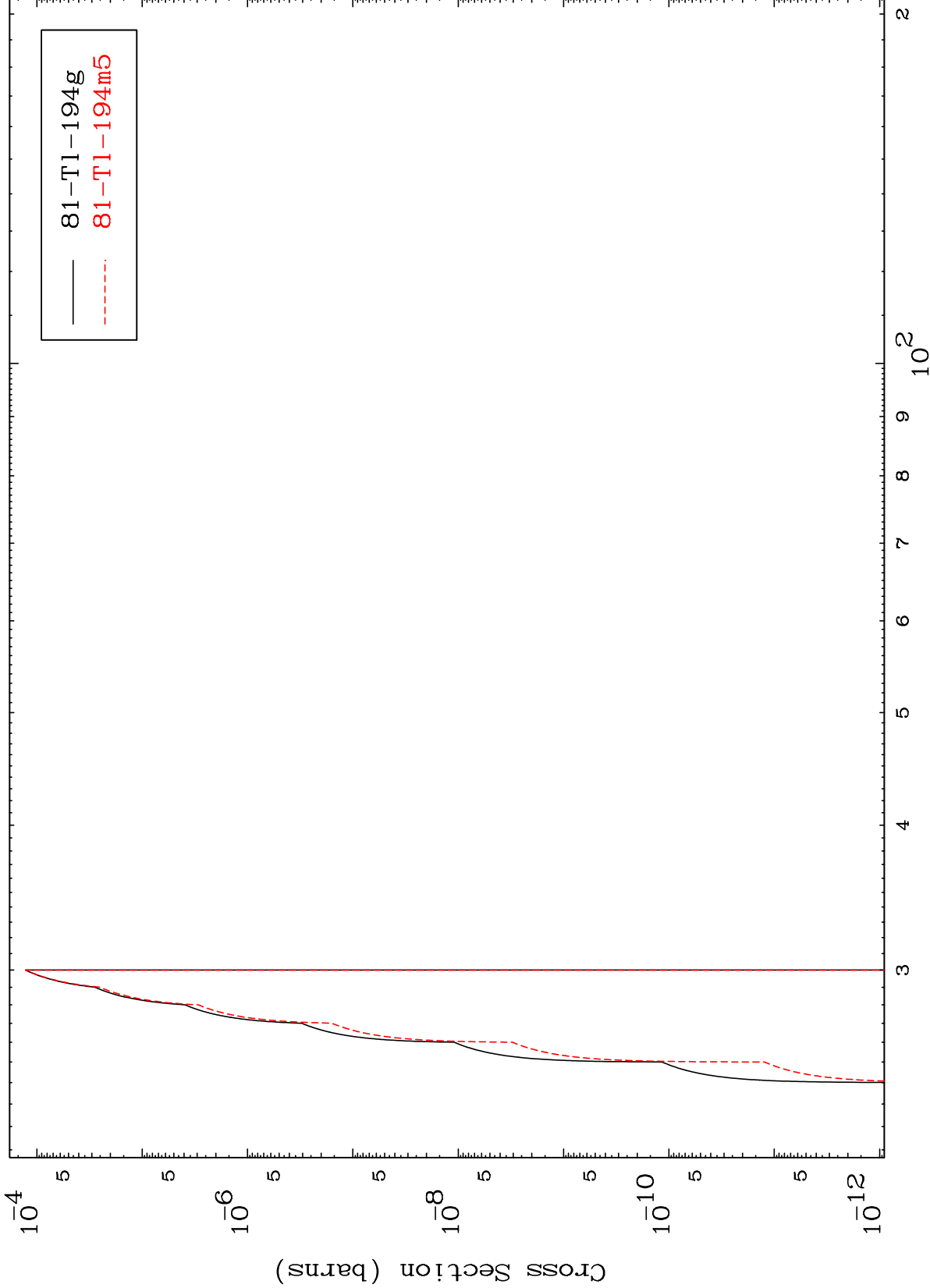
81-Tl-195g  
81-Tl-195m2

MAT 8204

(n,3n) p

82-Pb-197

Radionuclide Production Cross Section



150

Incident Energy (MeV)

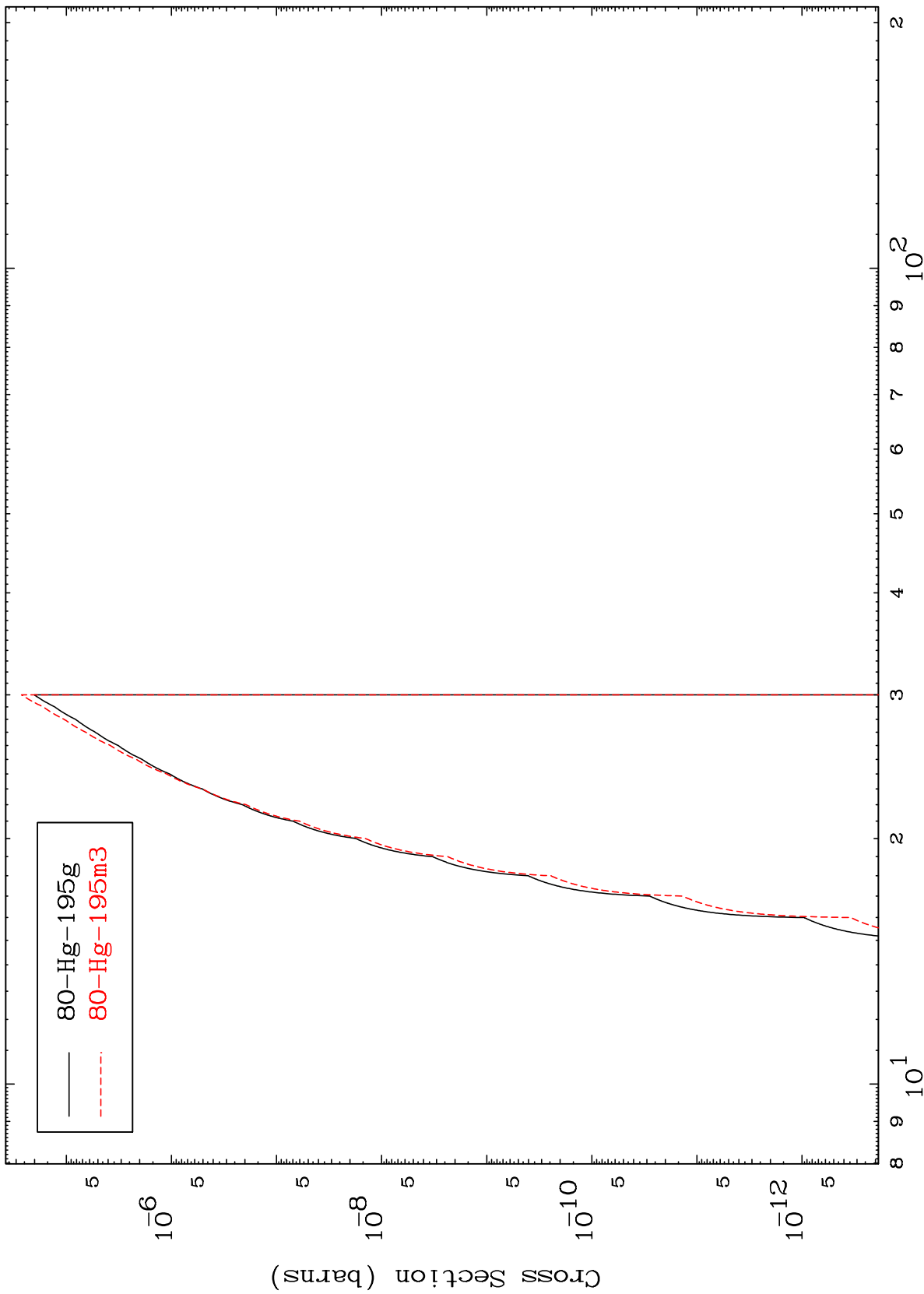
82-Pb-197

MAT 8204

(n,2n) p

82-Pb-197

Radionuclide Production Cross Section



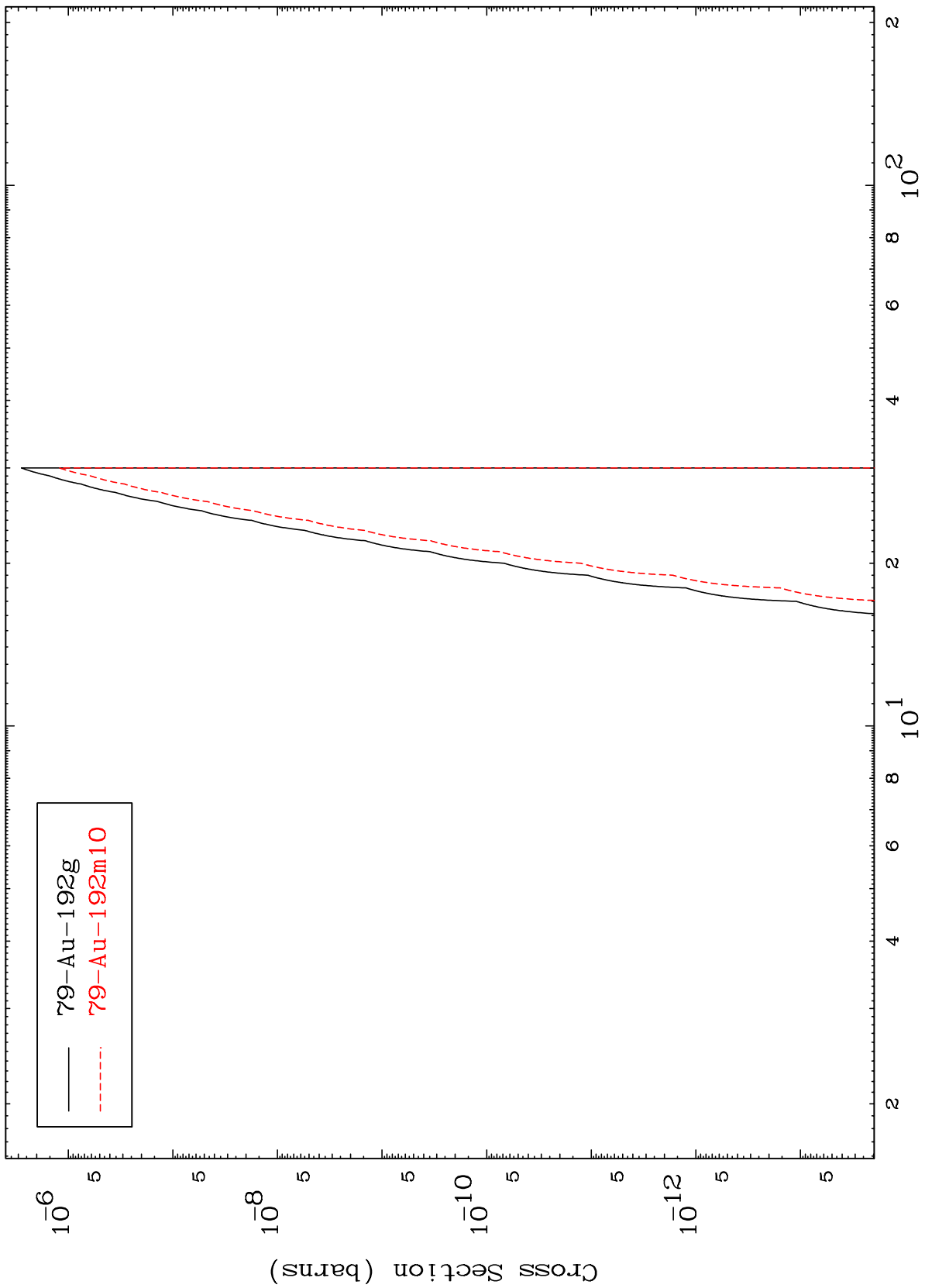
151

Incident Energy (MeV)

82-Pb-197



Radionuclide Production Cross Section

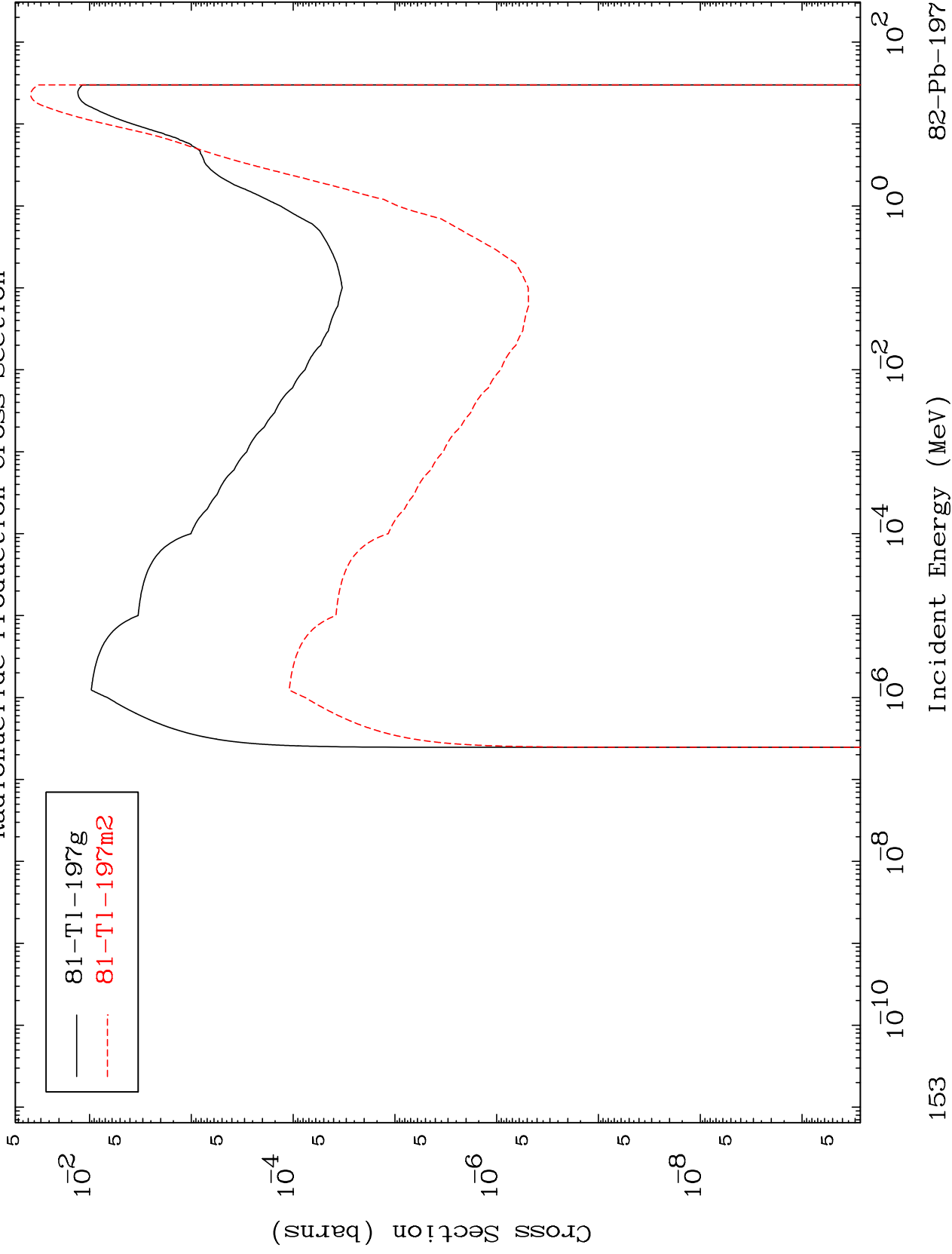


— 79-Au-192g  
- - - 79-Au-192m10

MAT 8204

82-Pb-197

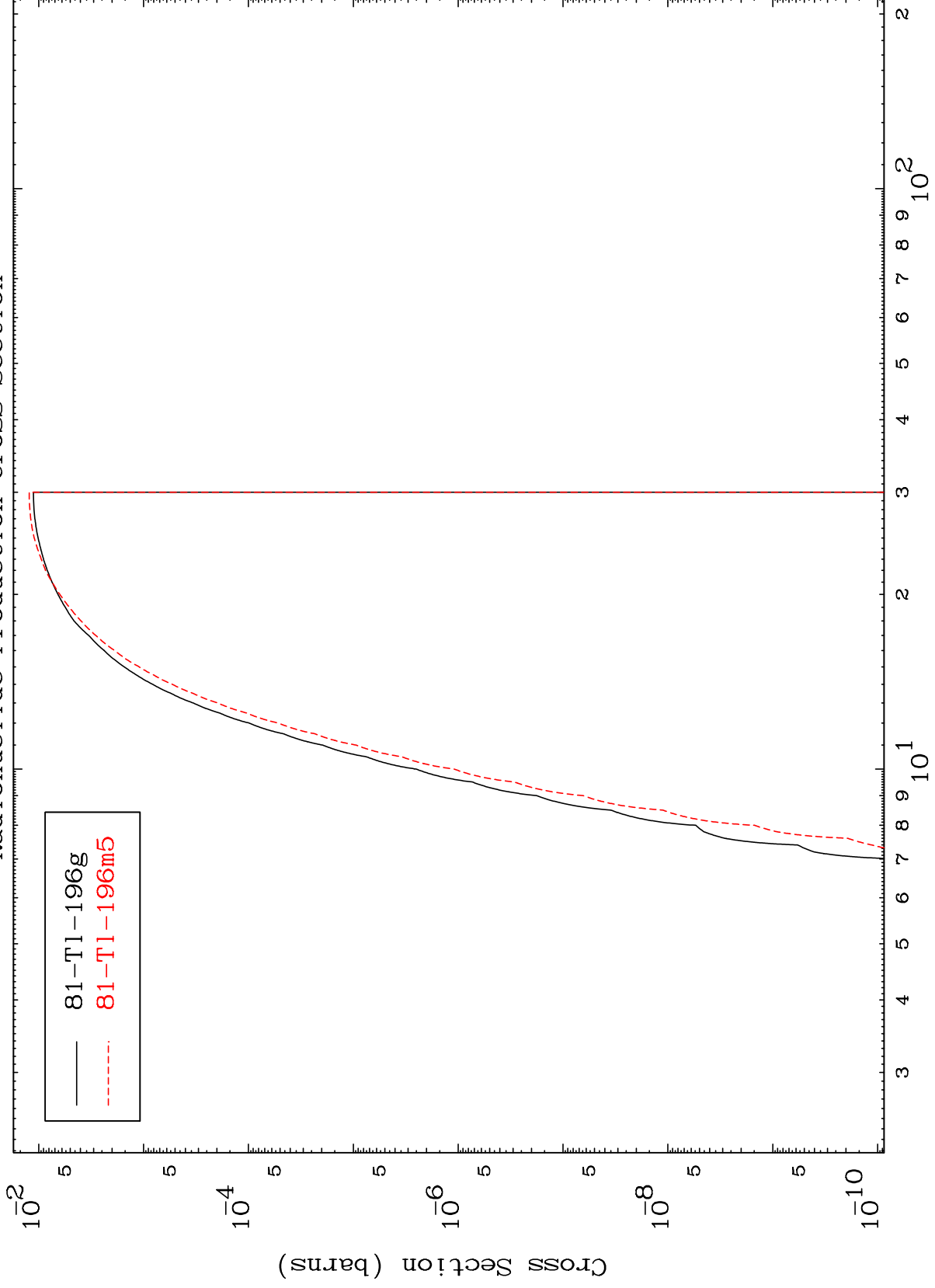
(n,p)  
Radionuclide Production Cross Section



MAT 8204

82-Pb-197

(n,d)  
Radionuclide Production Cross Section



154

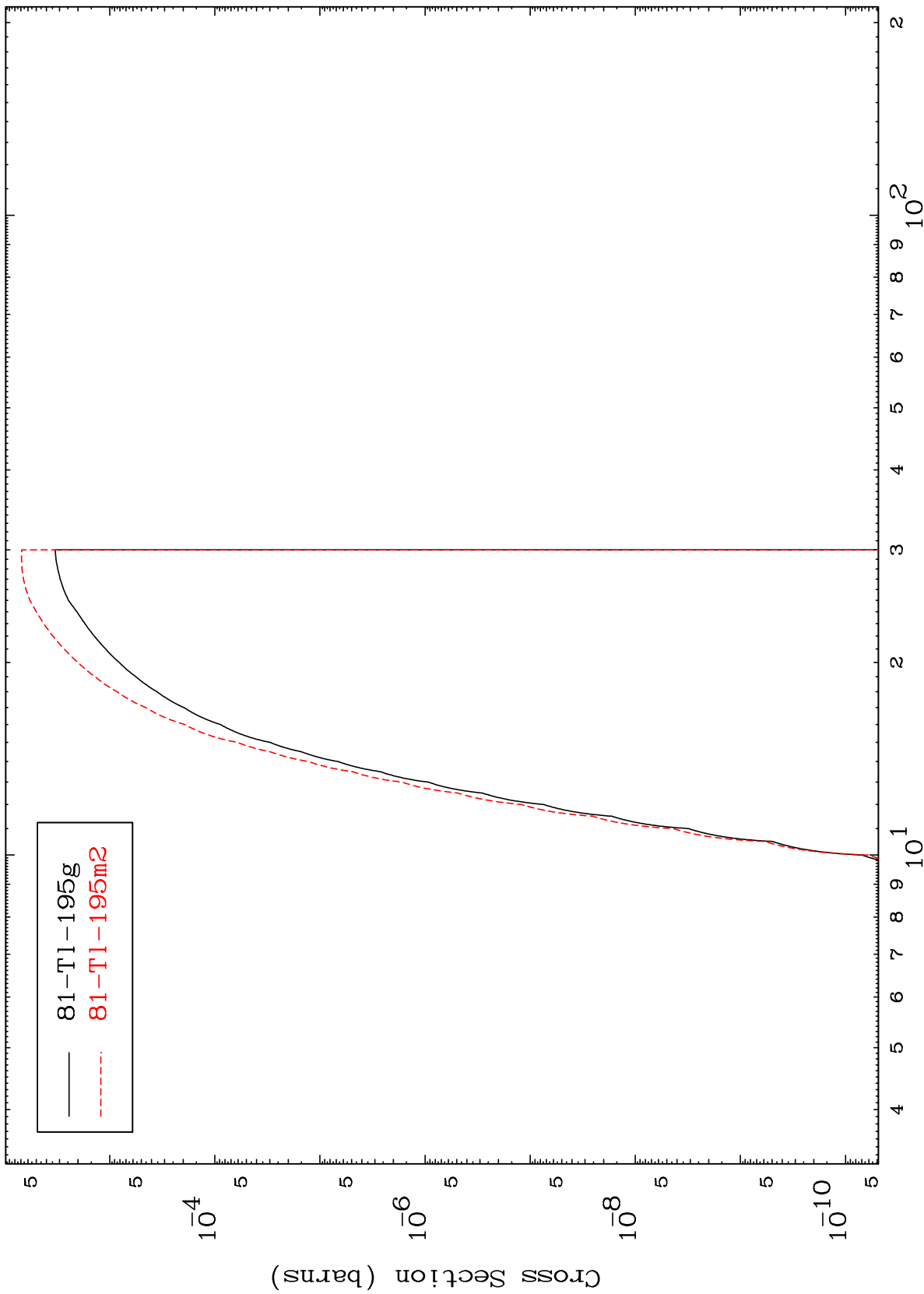
Incident Energy (MeV)

82-Pb-197

MAT 8204

82-Pb-197

(n, t)  
Radionuclide Production Cross Section



155

Incident Energy (MeV)

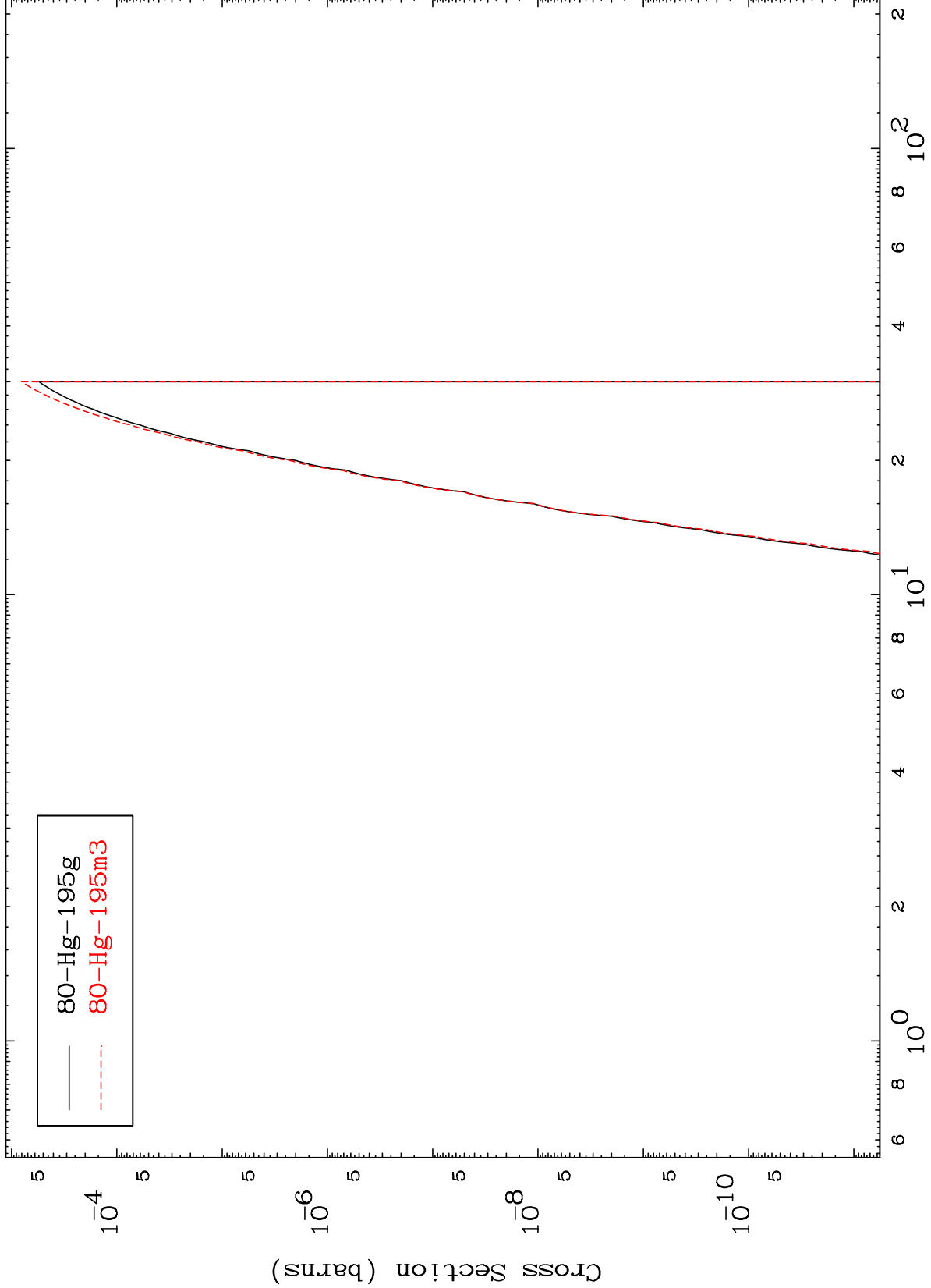
82-Pb-197

MAT 8204

(n,He-3)

82-Pb-197

Radionuclide Production Cross Section



80-Hg-195g  
80-Hg-195m3

156

Incident Energy (MeV)

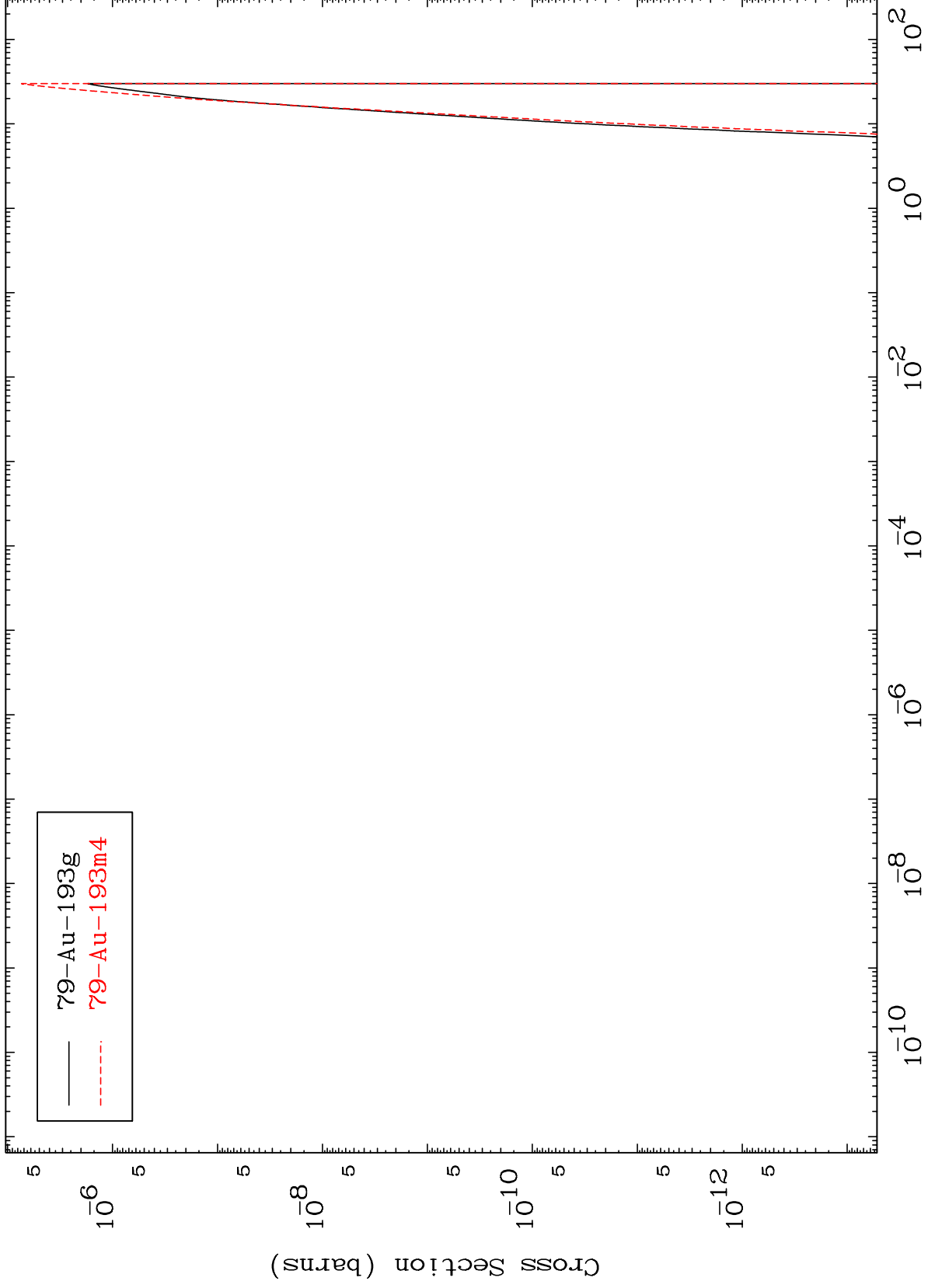
82-Pb-197

MAT 8204

(n,p)  $\alpha$

82-Pb-197

Radionuclide Production Cross Section



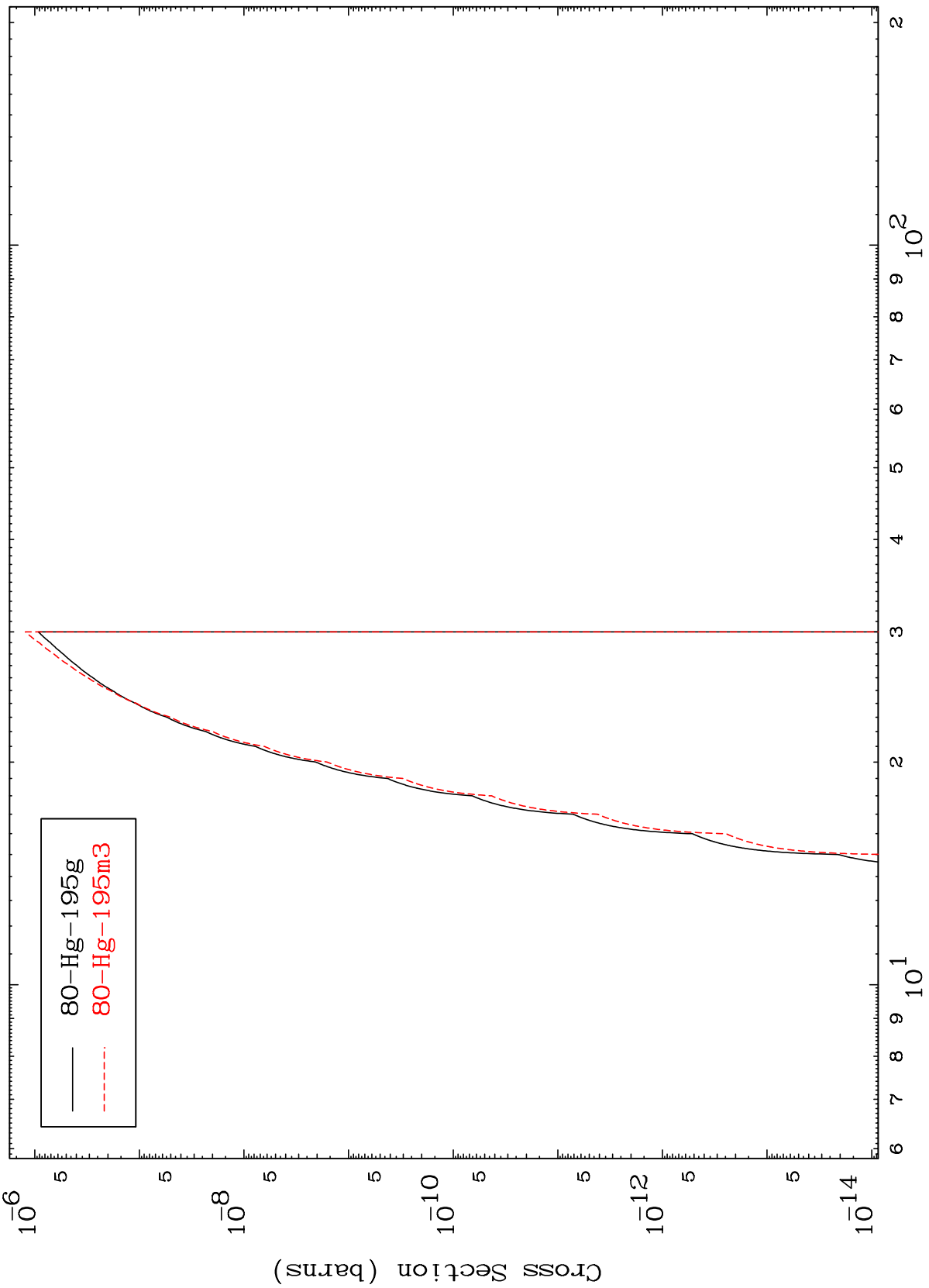
—  $^{79}\text{Au-193g}$   
- - -  $^{79}\text{Au-193m4}$

MAT 8204

(n,p) d

82-Pb-197

Radionuclide Production Cross Section



158

Incident Energy (MeV)

82-Pb-197

MAT 8204

(n,d)  $\alpha$

82-Pb-197

Radionuclide Production Cross Section

