

Program EVALPLOT
(Version 2018-1)

by

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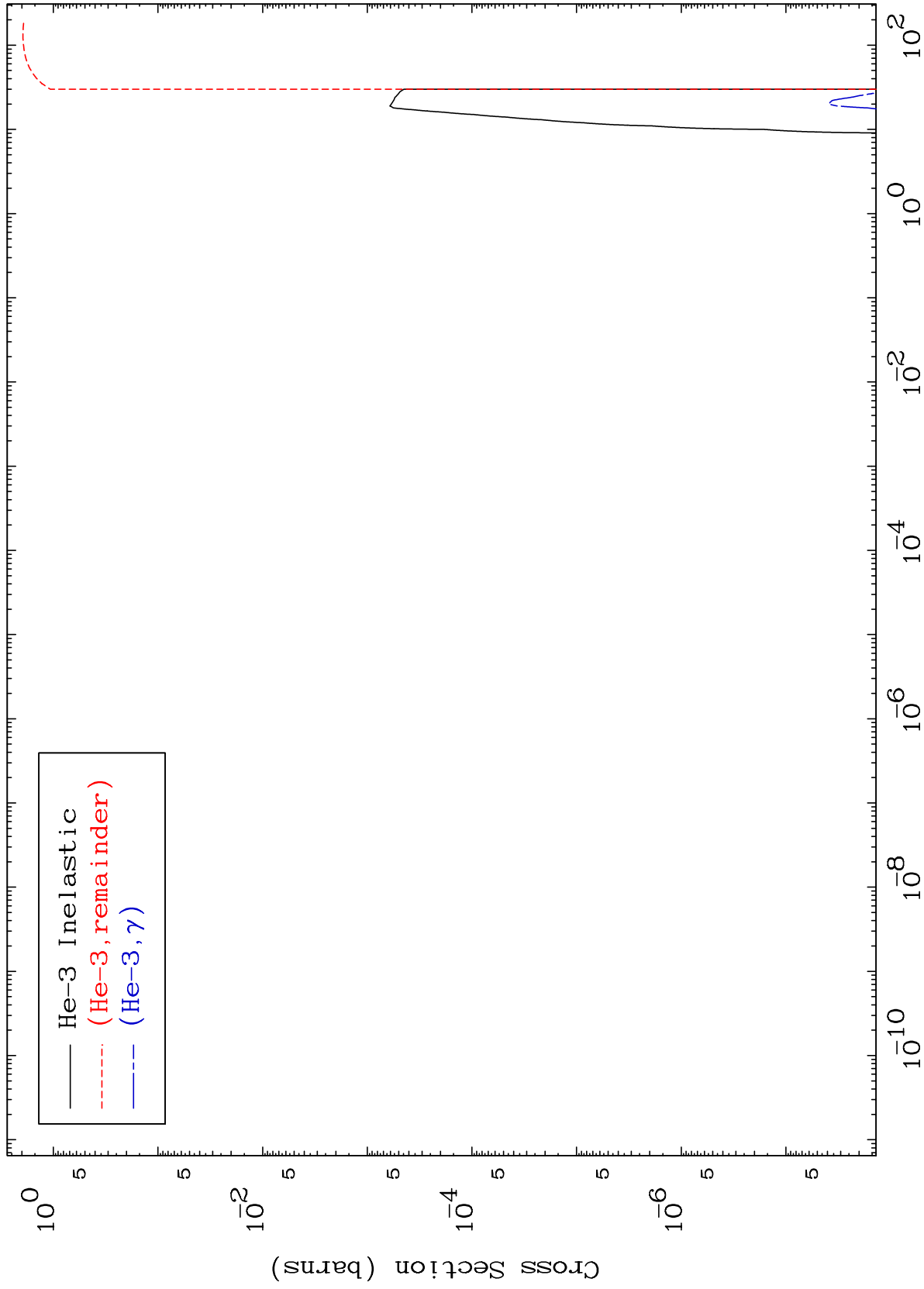
E.Mail: redcullen1@comcast.net
Web: redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 6193

He-3 Major
0 Kelvin Cross Sections

62-Sm-133



1

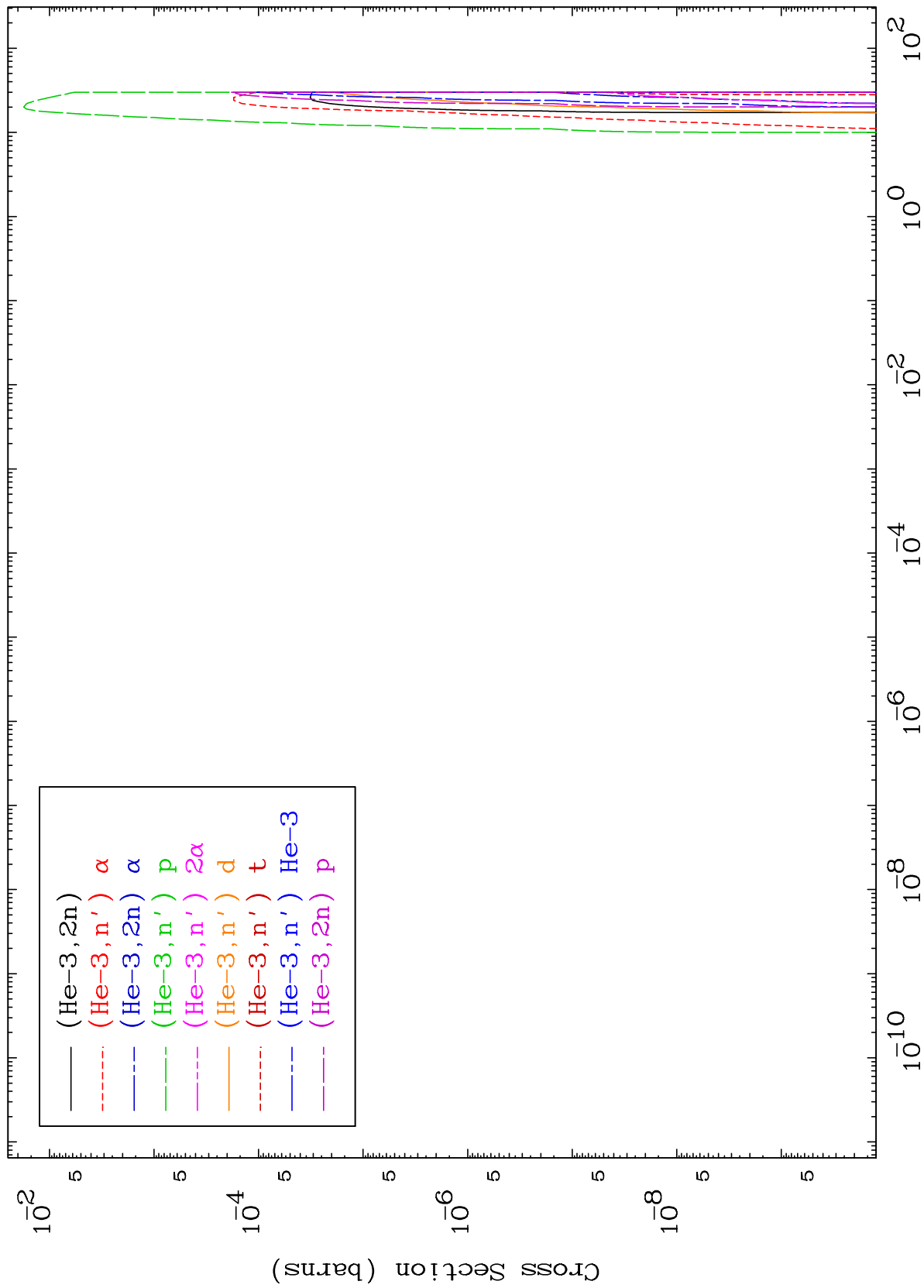
Incident Energy (MeV)

62-Sm-133

MAT 6193

He-3 Neutron Production
0 Kelvin Cross Sections

62-Sm-133



2

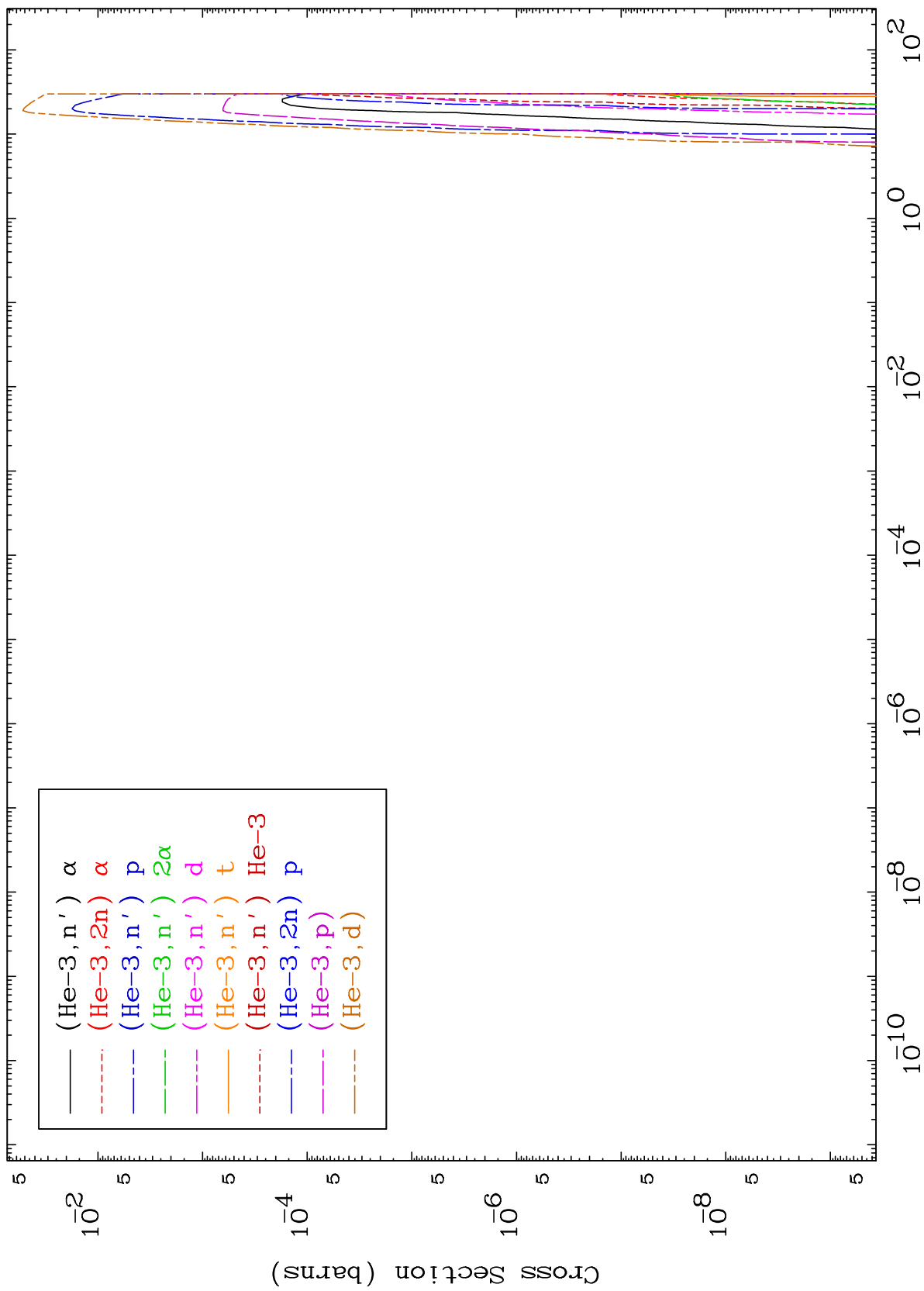
Incident Energy (MeV)

62-Sm-133

MAT 6193

He-3 Charged Particle
0 Kelvin Cross Sections

62-Sm-133



3

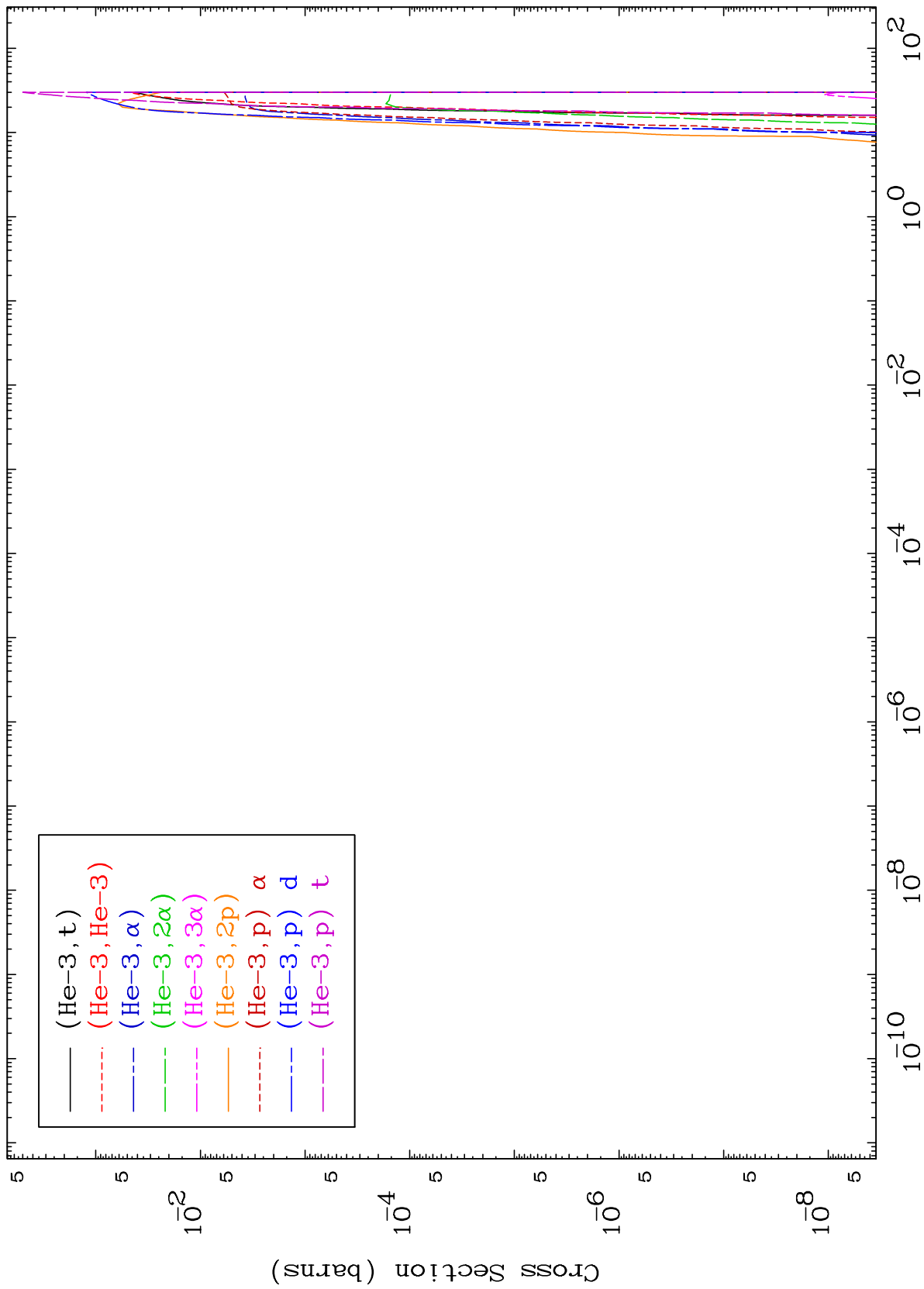
Incident Energy (MeV)

62-Sm-133

MAT 6193

He-3 Charged Particle
0 Kelvin Cross Sections

62-Sm-133



4

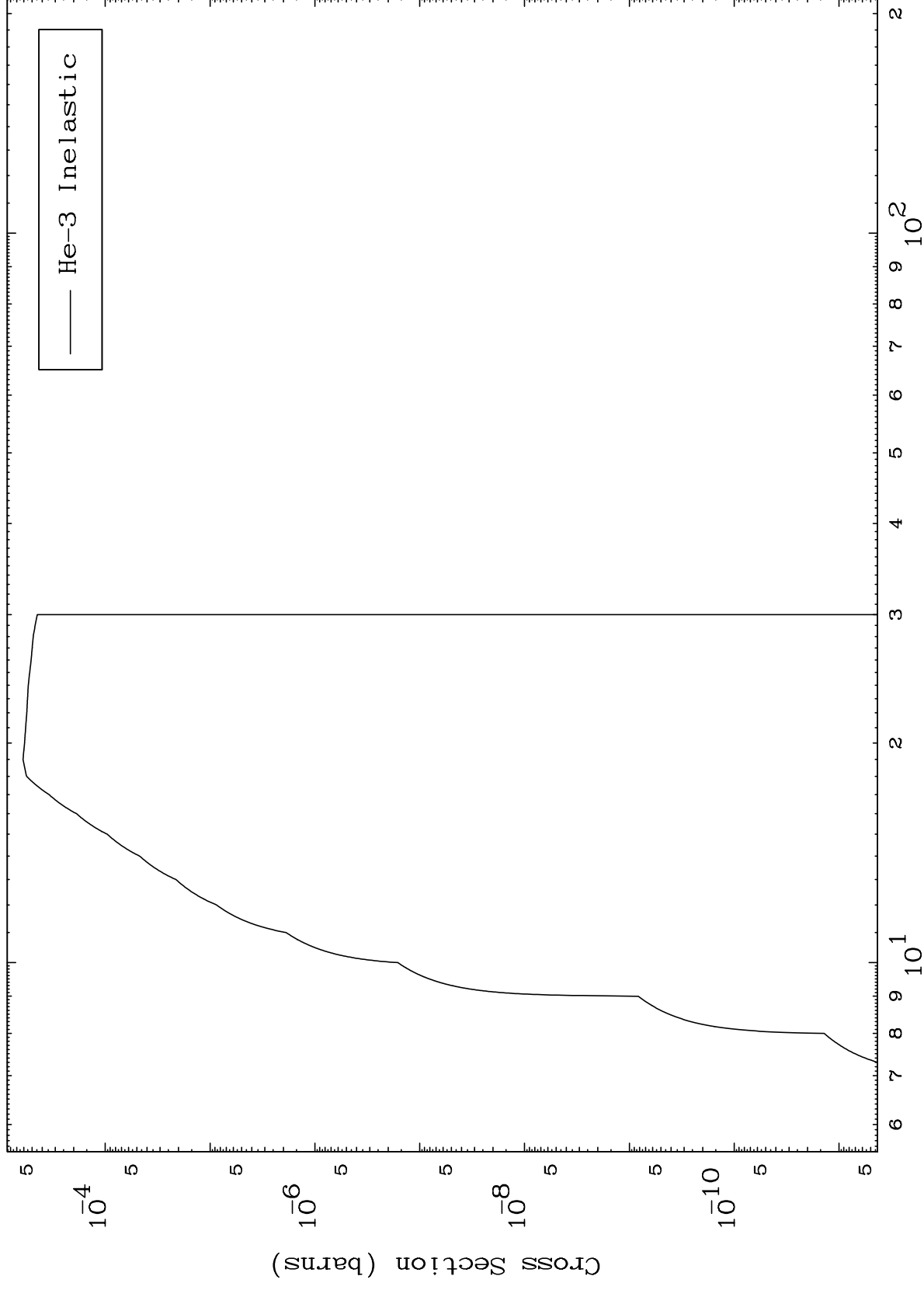
Incident Energy (MeV)

62-Sm-133

MAT 6193

(He-3, n') Level
0 Kelvin Cross Sections

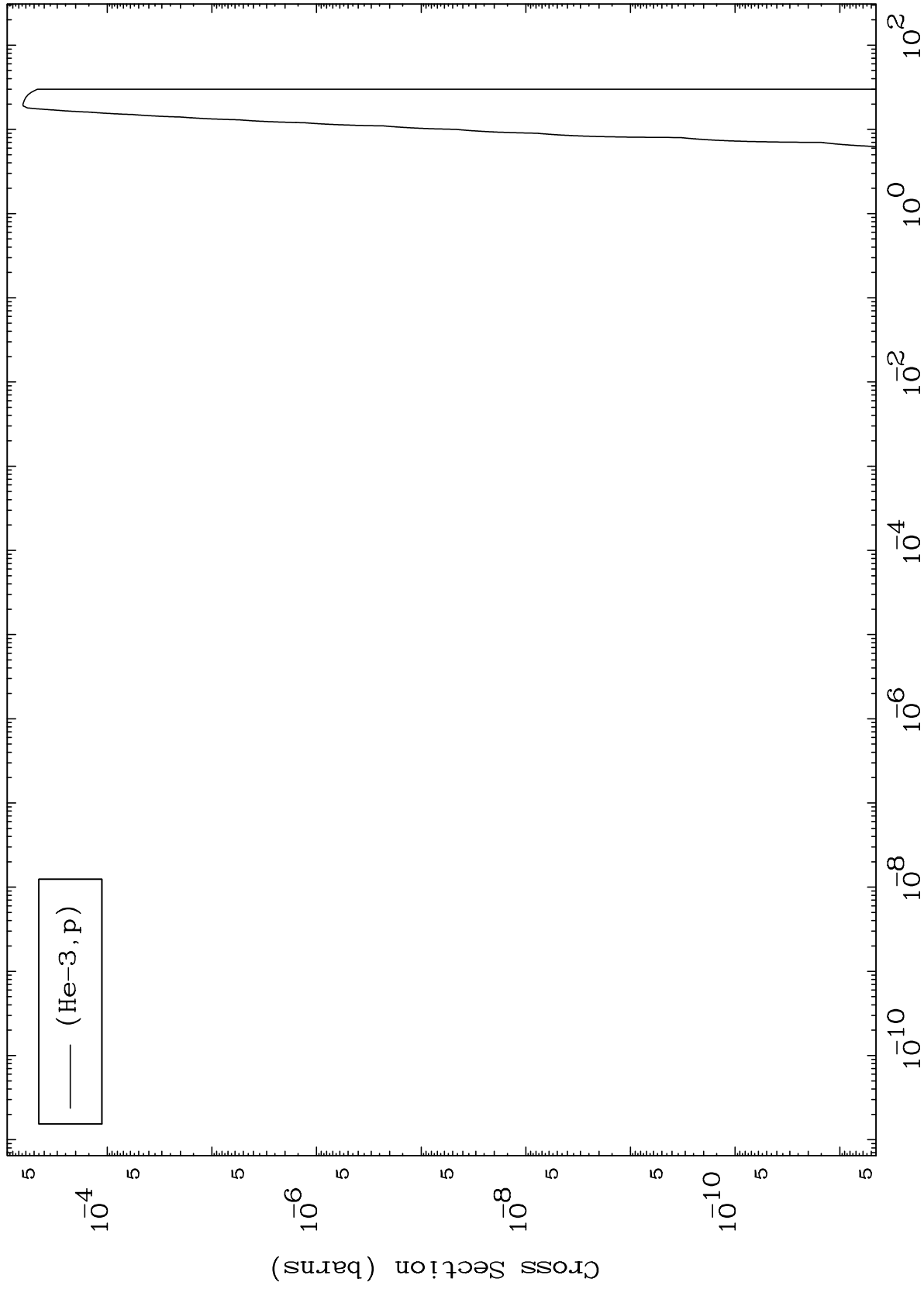
62-Sm-133



MAT 6193

(He-3,p) Levels
0 Kelvin Cross Sections

62-Sm-133



6

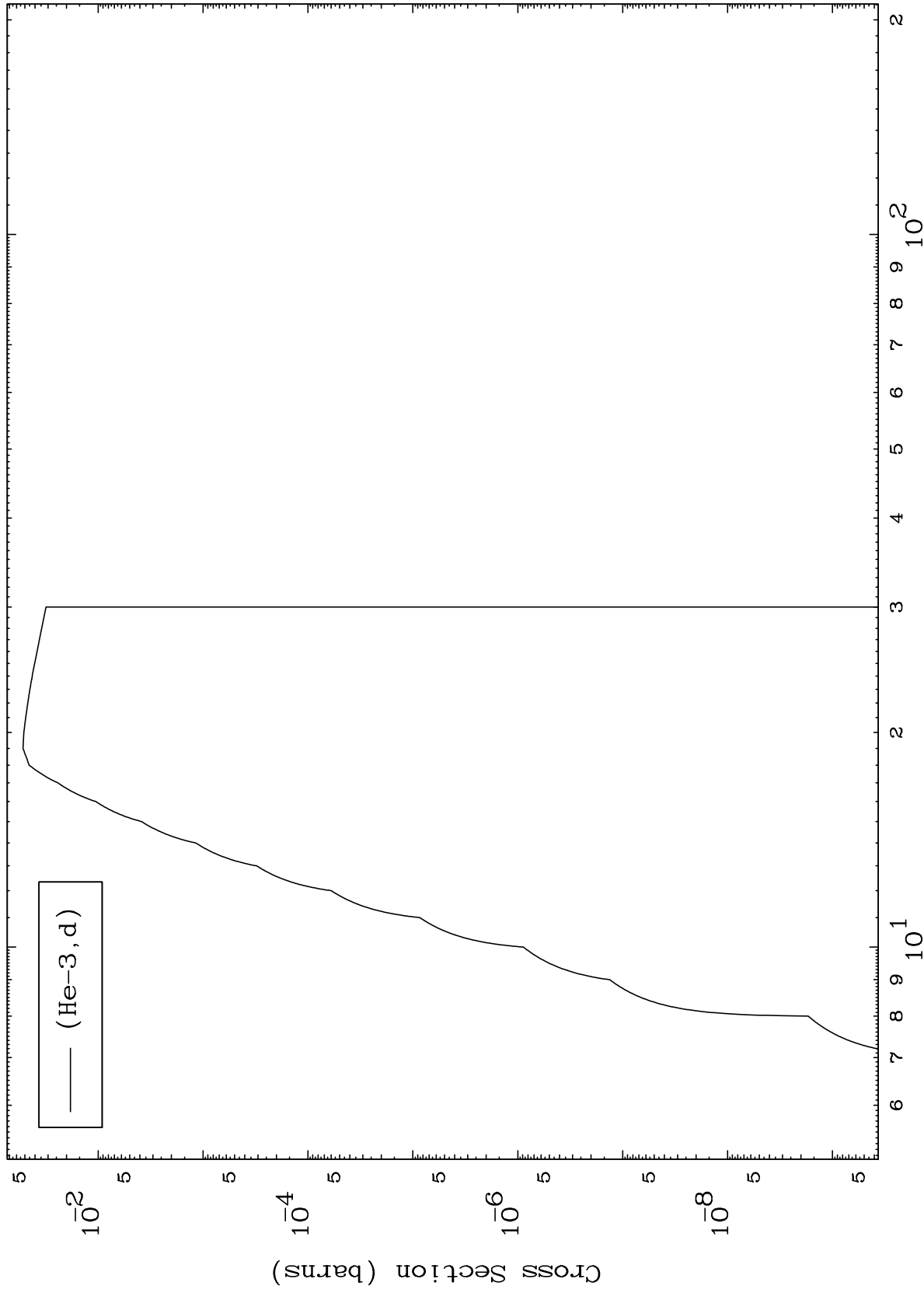
Incident Energy (MeV)

62-Sm-133

MAT 6193

(He-3,d) Levels
0 Kelvin Cross Sections

62-Sm-133



7

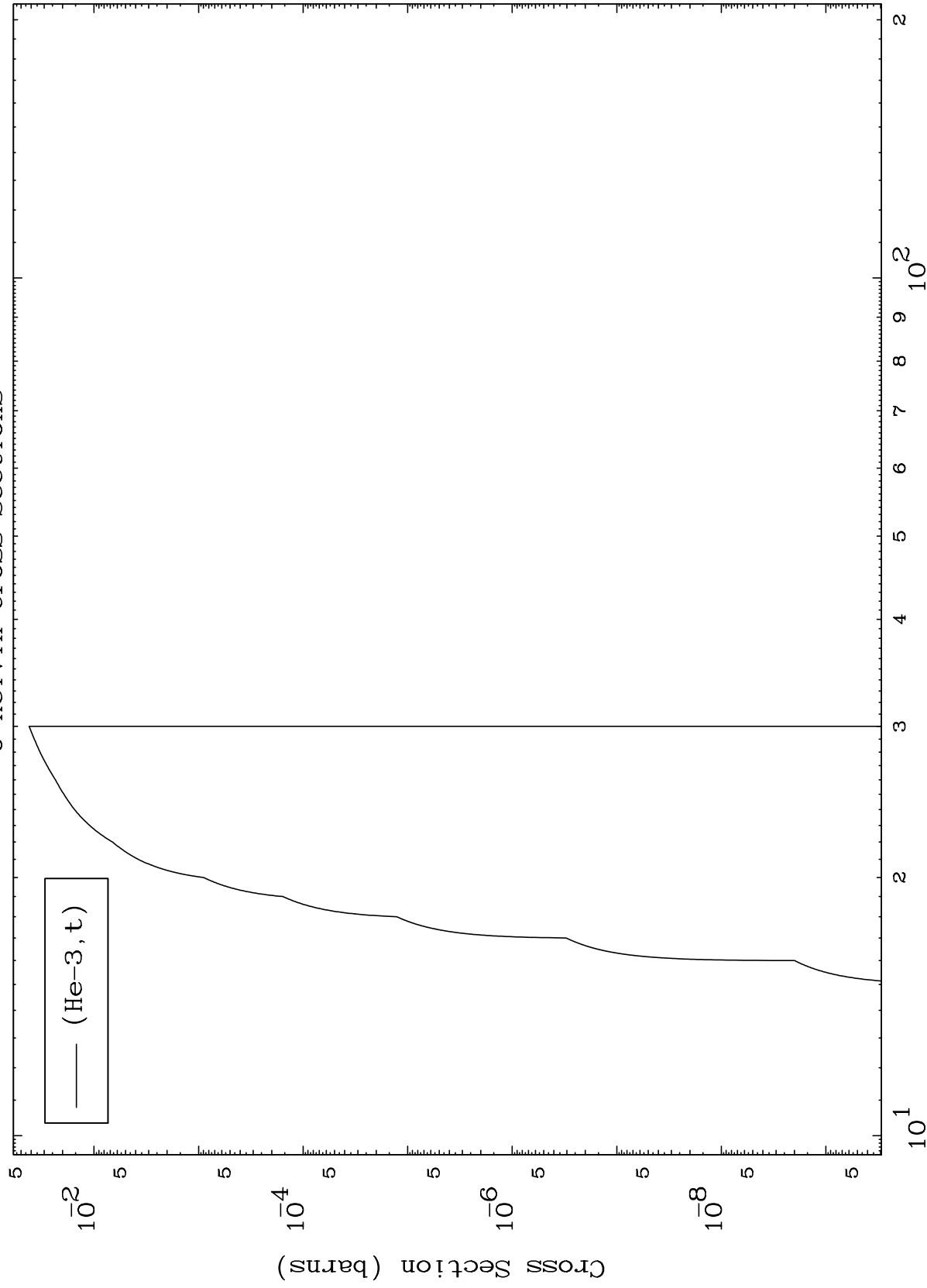
Incident Energy (MeV)

62-Sm-133

MAT 6193

(He-3,t) Levels
0 Kelvin Cross Sections

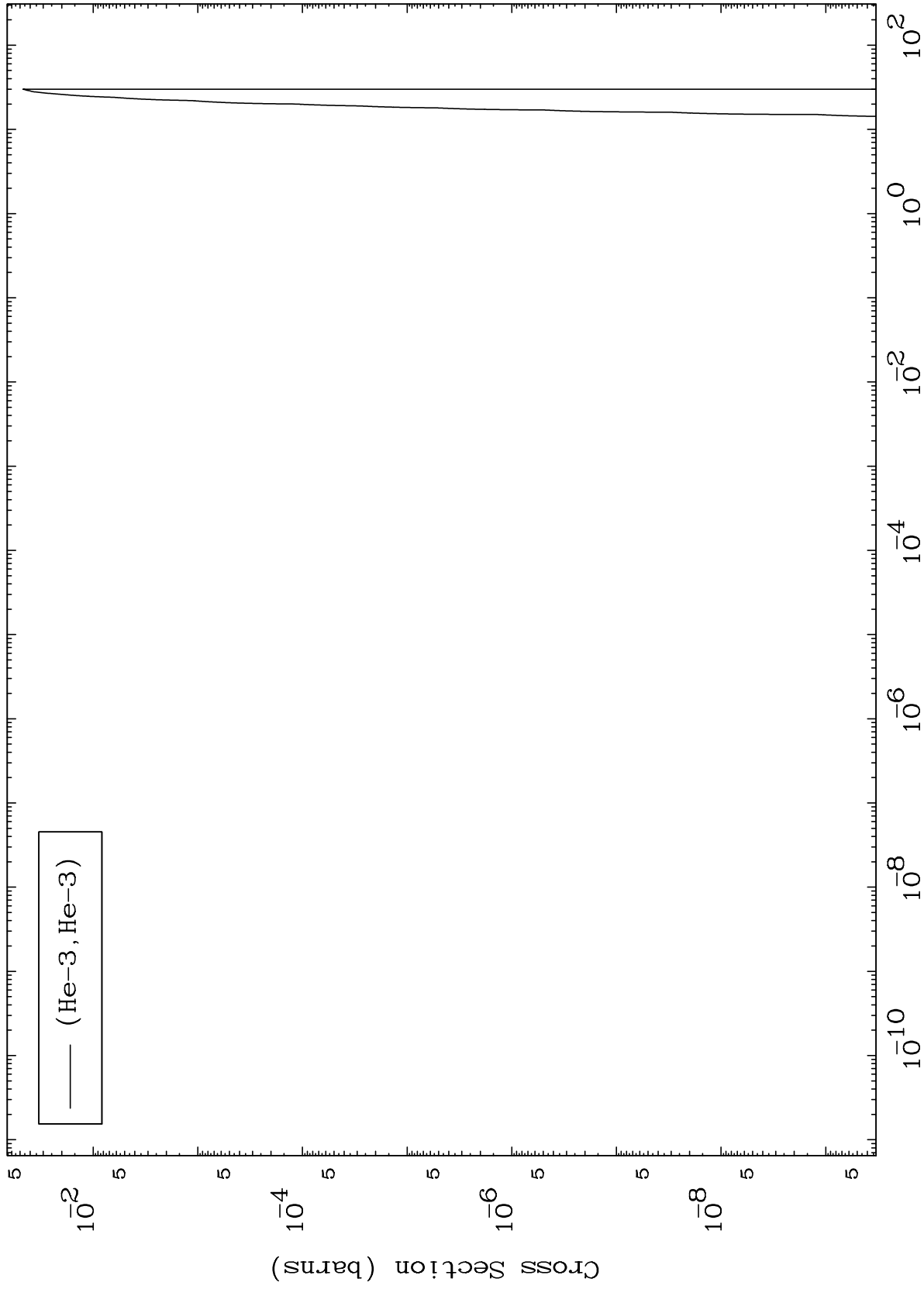
62-Sm-133



MAT 6193

(He-3, He3) Levels
0 Kelvin Cross Sections

62-Sm-133



9

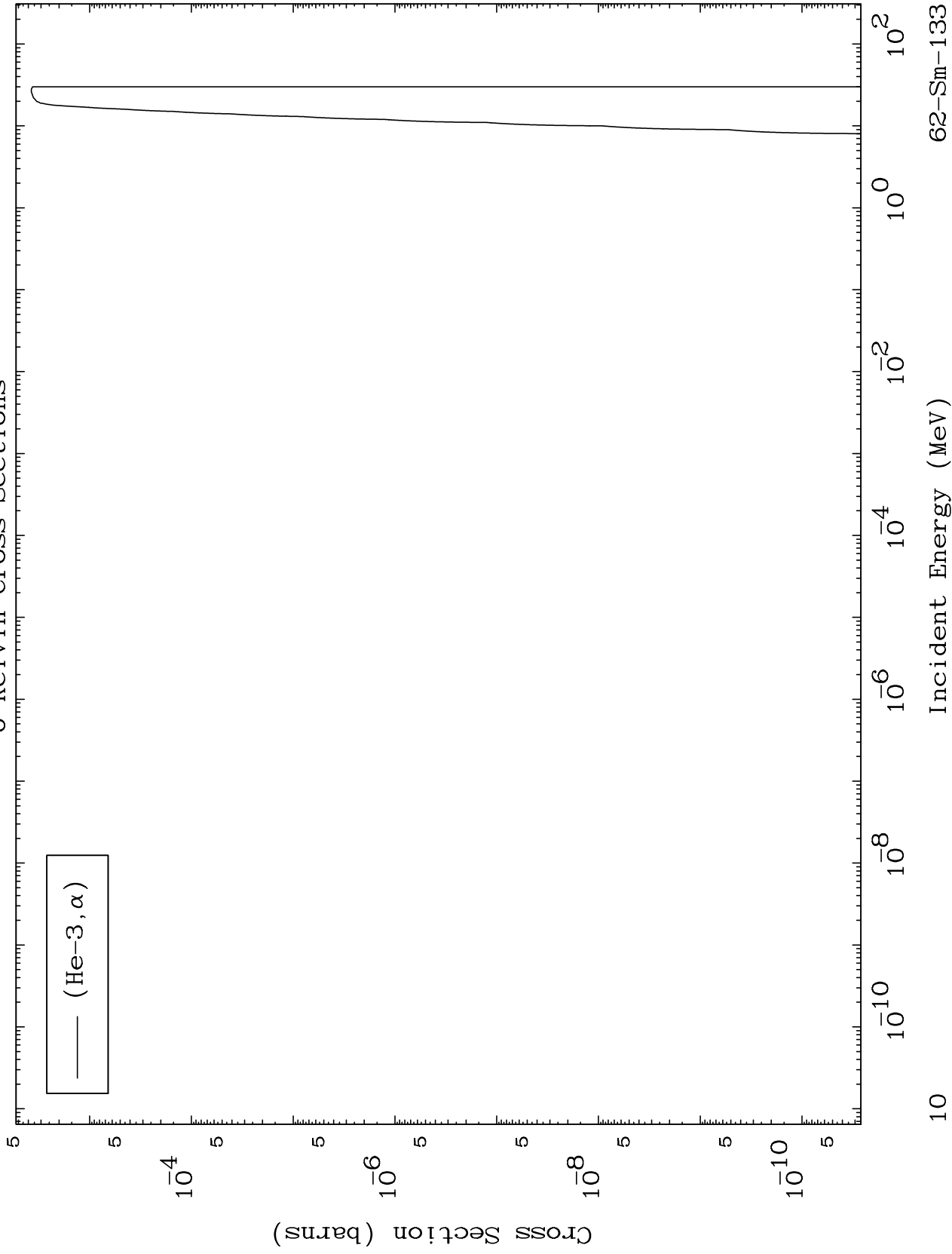
Incident Energy (MeV)

62-Sm-133

MAT 6193

(He-3, α) Levels
0 Kelvin Cross Sections

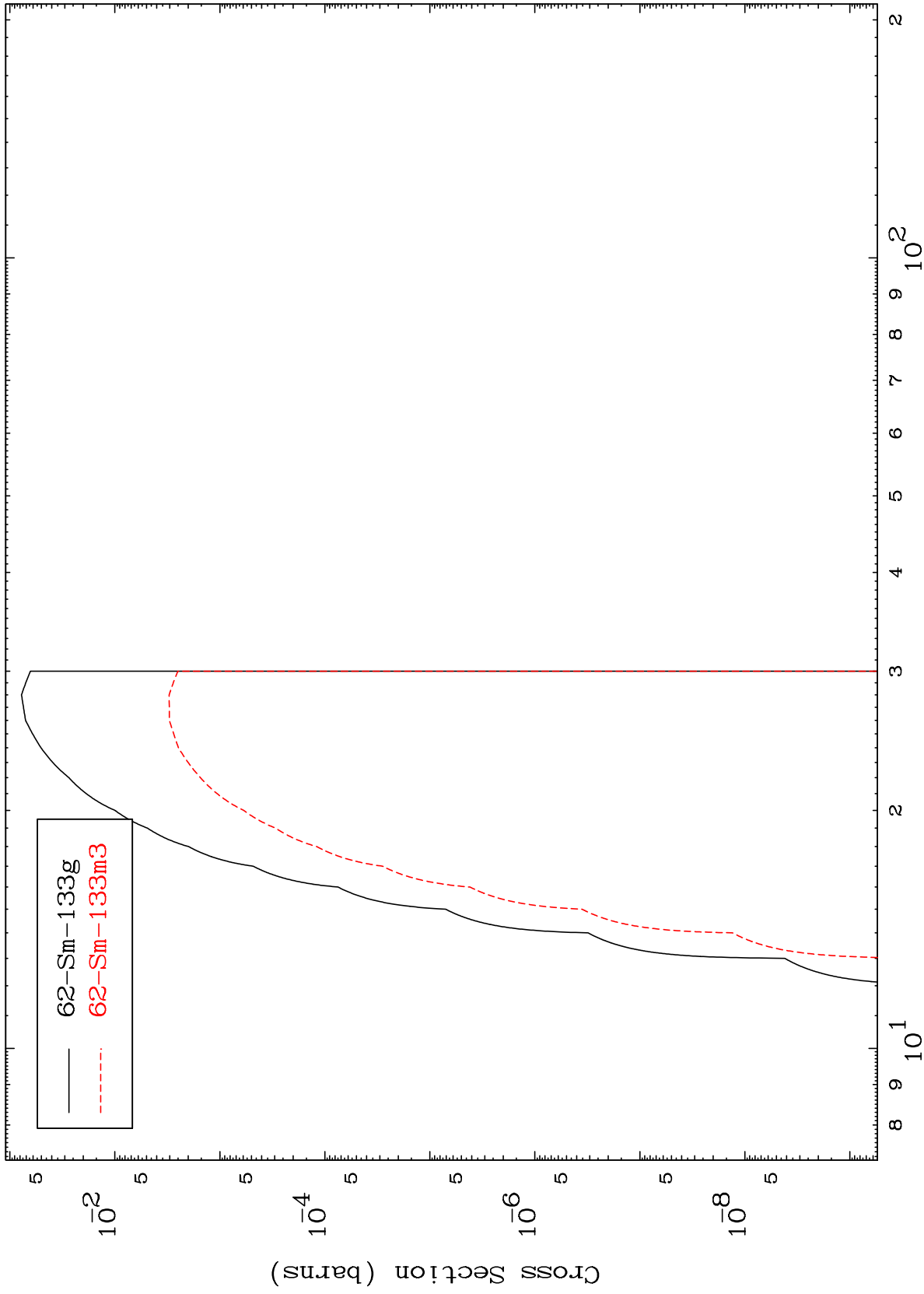
62-Sm-133



MAT 6193

Radionuclide Production Cross Section
(He-3,2n) p

62-Sm-133



11

Incident Energy (MeV)

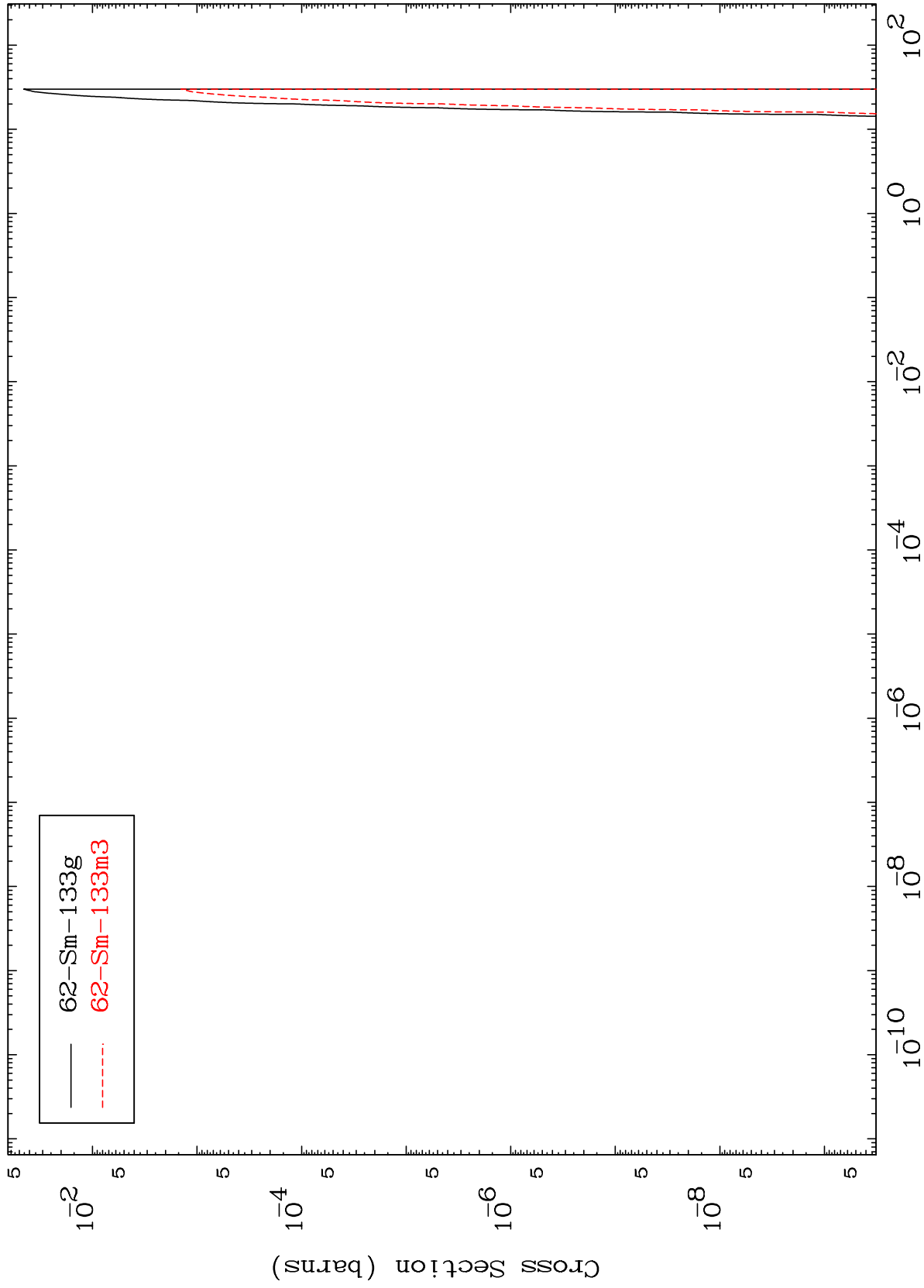
62-Sm-133

MAT 6193

(He-3,He-3)

62-Sm-133

Radionuclide Production Cross Section



12

Incident Energy (MeV)

62-Sm-133

62-Sm-133

 $(\text{He-3}, p)$ d

Figure 1 is a log-linear plot showing the cross section (in barns) versus the mass number A for the $^{62}\text{Sm}-^{133}\text{g}$ (solid black line) and $^{62}\text{Sm}-^{133}\text{m3}$ (dashed red line) isotopes. The x-axis ranges from 6 to 10, and the y-axis ranges from 10^{-8} to 10^{-2} barns. The $^{62}\text{Sm}-^{133}\text{g}$ cross section is consistently higher than the $^{62}\text{Sm}-^{133}\text{m3}$ cross section, with both showing a sharp increase around $A=3$.

62-Sm-133

Incident Energy (MeV)