

Program Complot  
(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

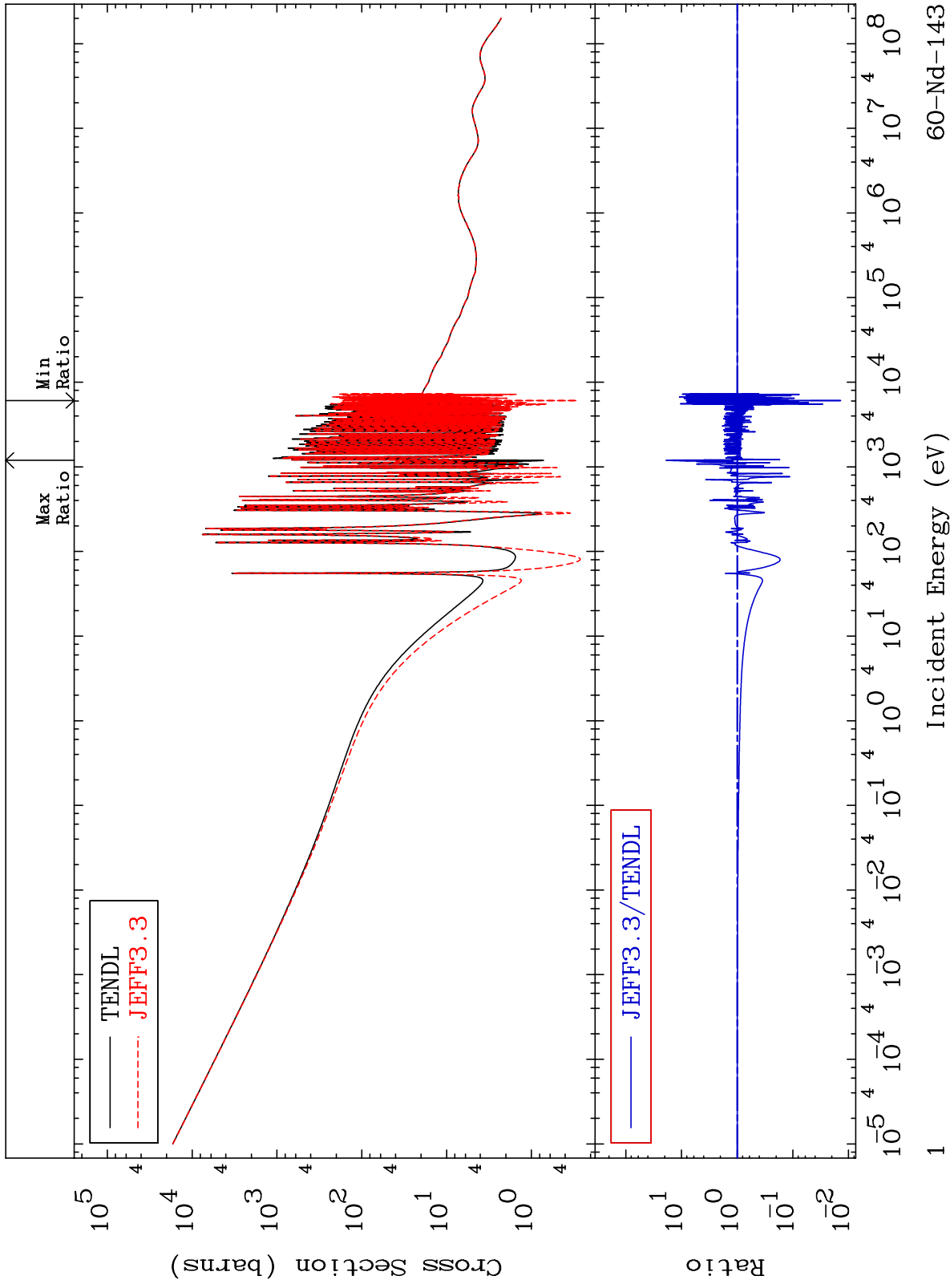
E.Mail:redcullen1@comcast.net  
Web:redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 6028

Total  
Cross Section

60-Nd-143  
-98.62 To 1805. %



60-Nd-143

Incident Energy (eV)

1

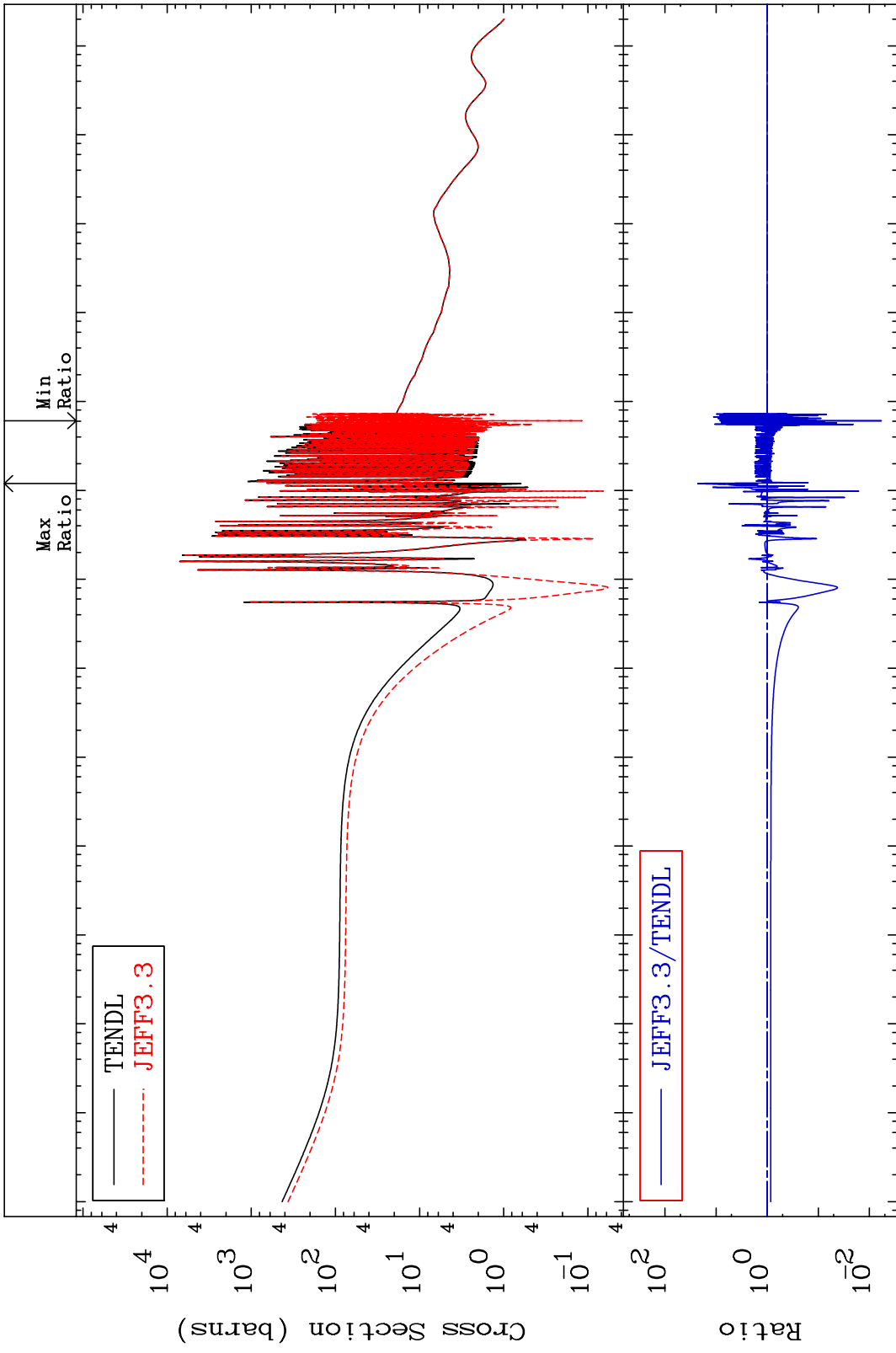
MAT 6028

Elastic

60-Nd-143

Cross Section

-99.42 To 2179. %



Incident Energy (eV)

60-Nd-143

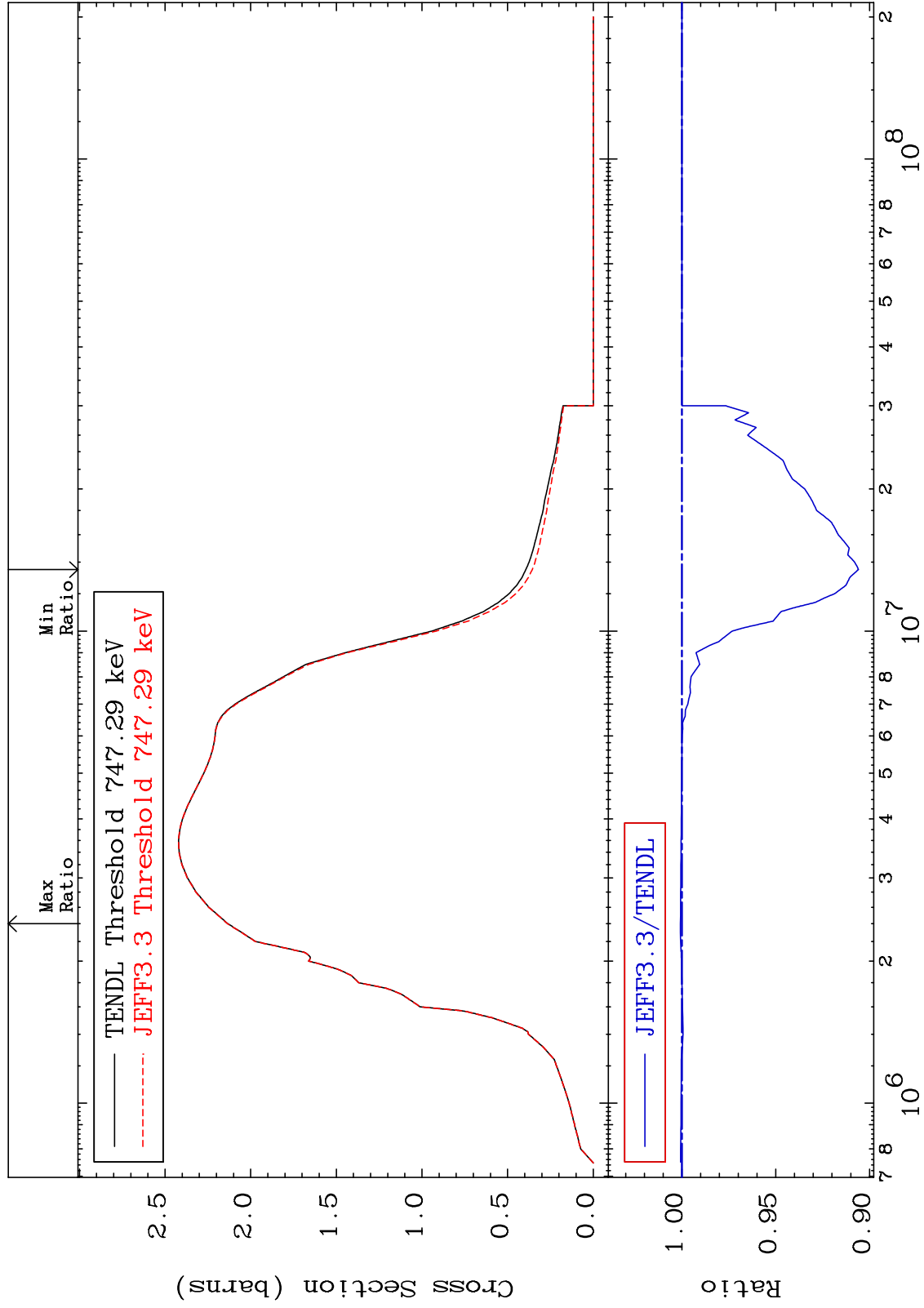
2

MAT 6028

Inelastic  
Cross Section

60-Nd-143

-9.413 To 0.079 %



Incident Energy (eV)

60-Nd-143

3

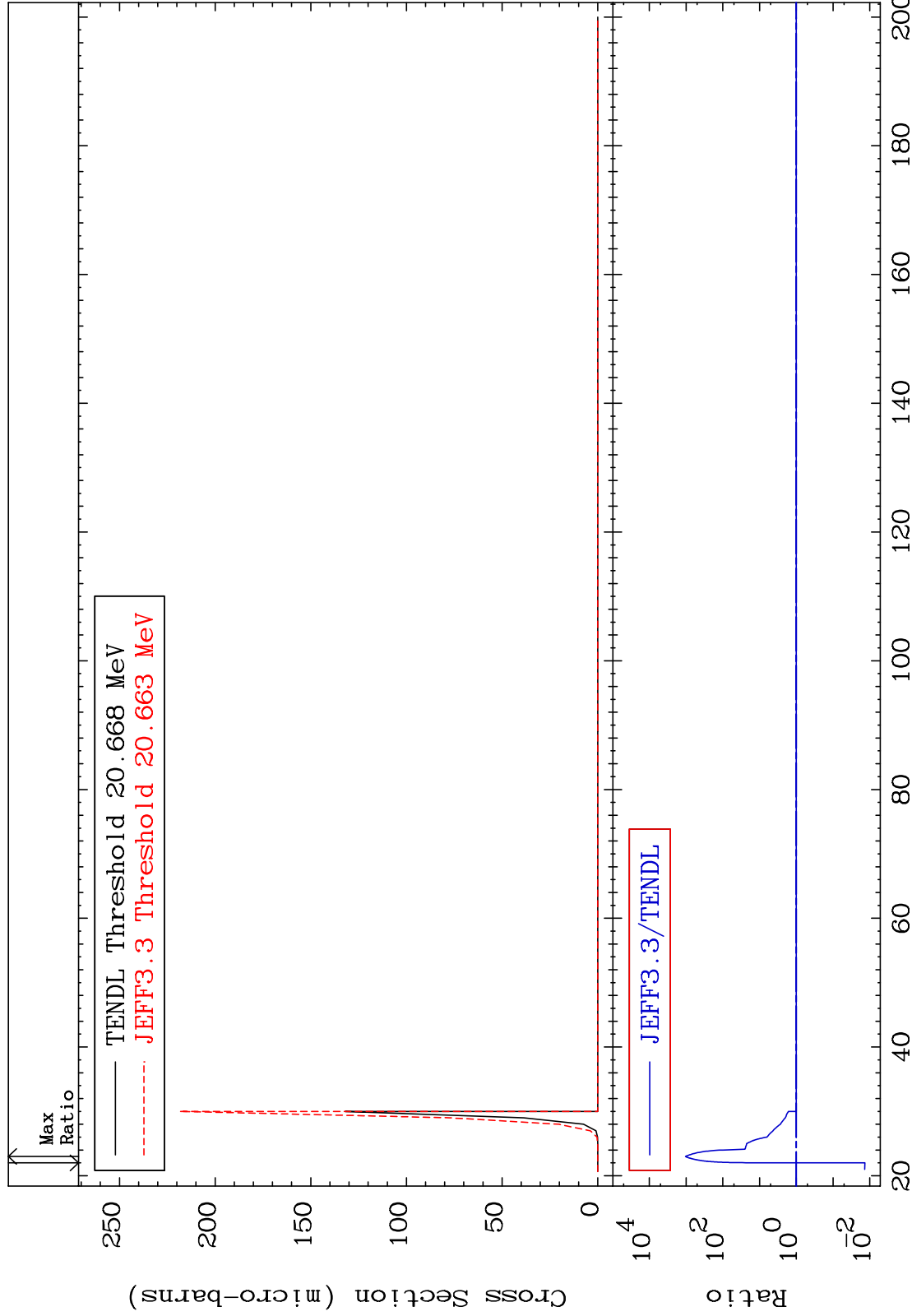
MAT 6028

(n,2n) d

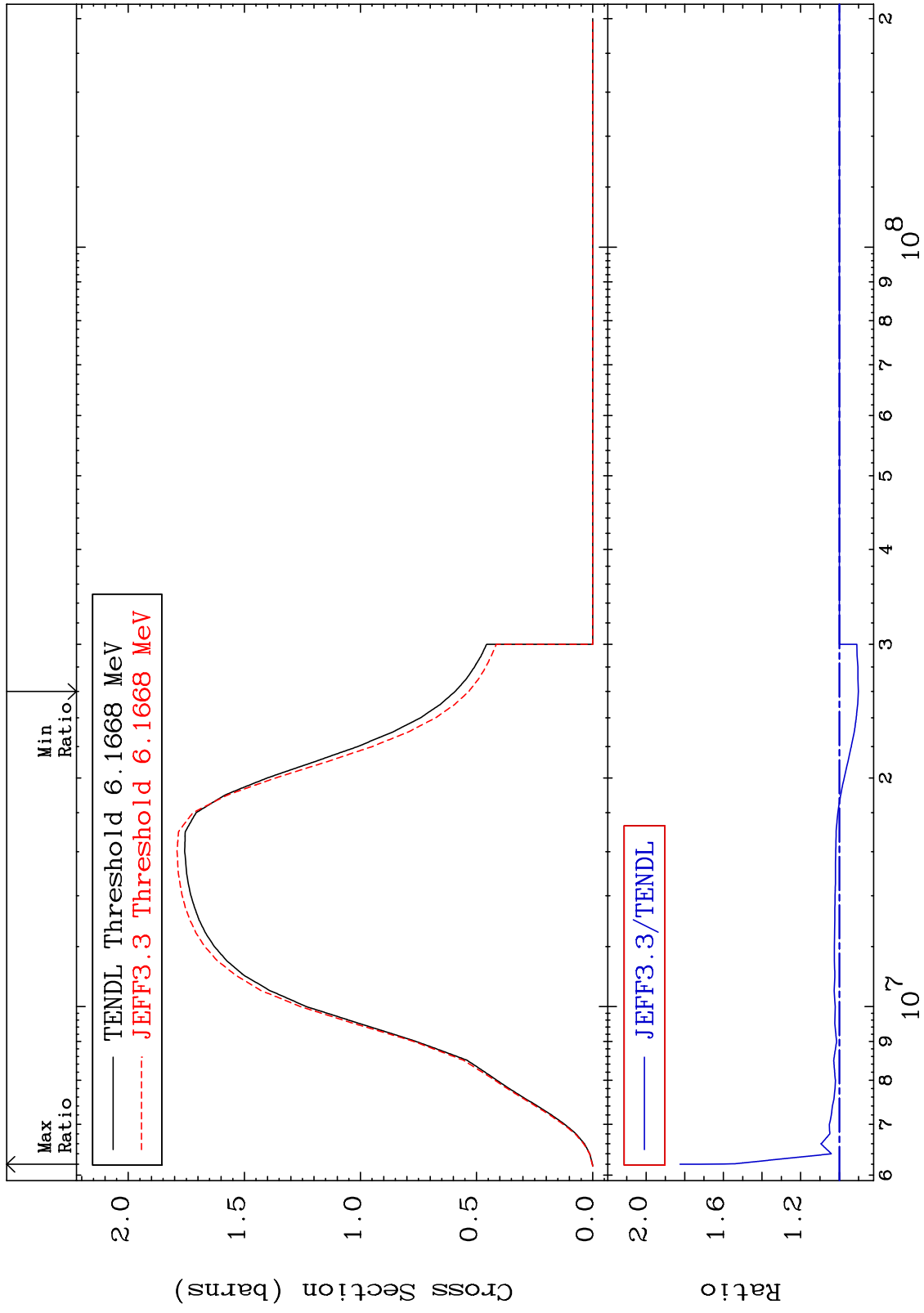
60-Nd-143

Cross Section

-98.65 To 9999. %



MAT 6028  $(n, 2n)$  Cross Section  $^{60}\text{Nd}-143$   $-9.880$  To  $82.42\%$



5  $^{60}\text{Nd}-143$

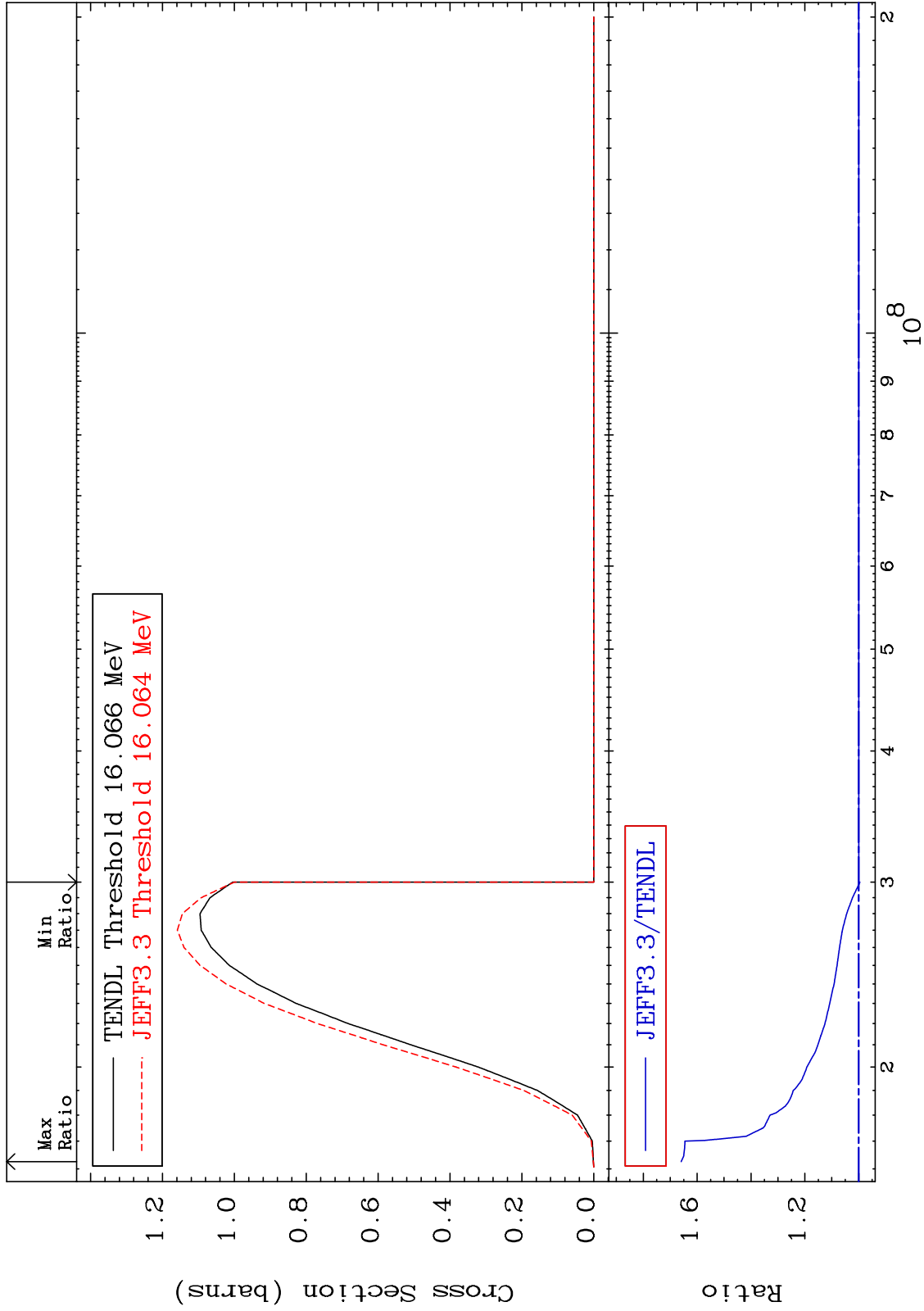
MAT 6028

(n, 3n)

60-Nd-143

Cross Section

-0.456 To 65.91 %



6

Incident Energy (eV)

60-Nd-143

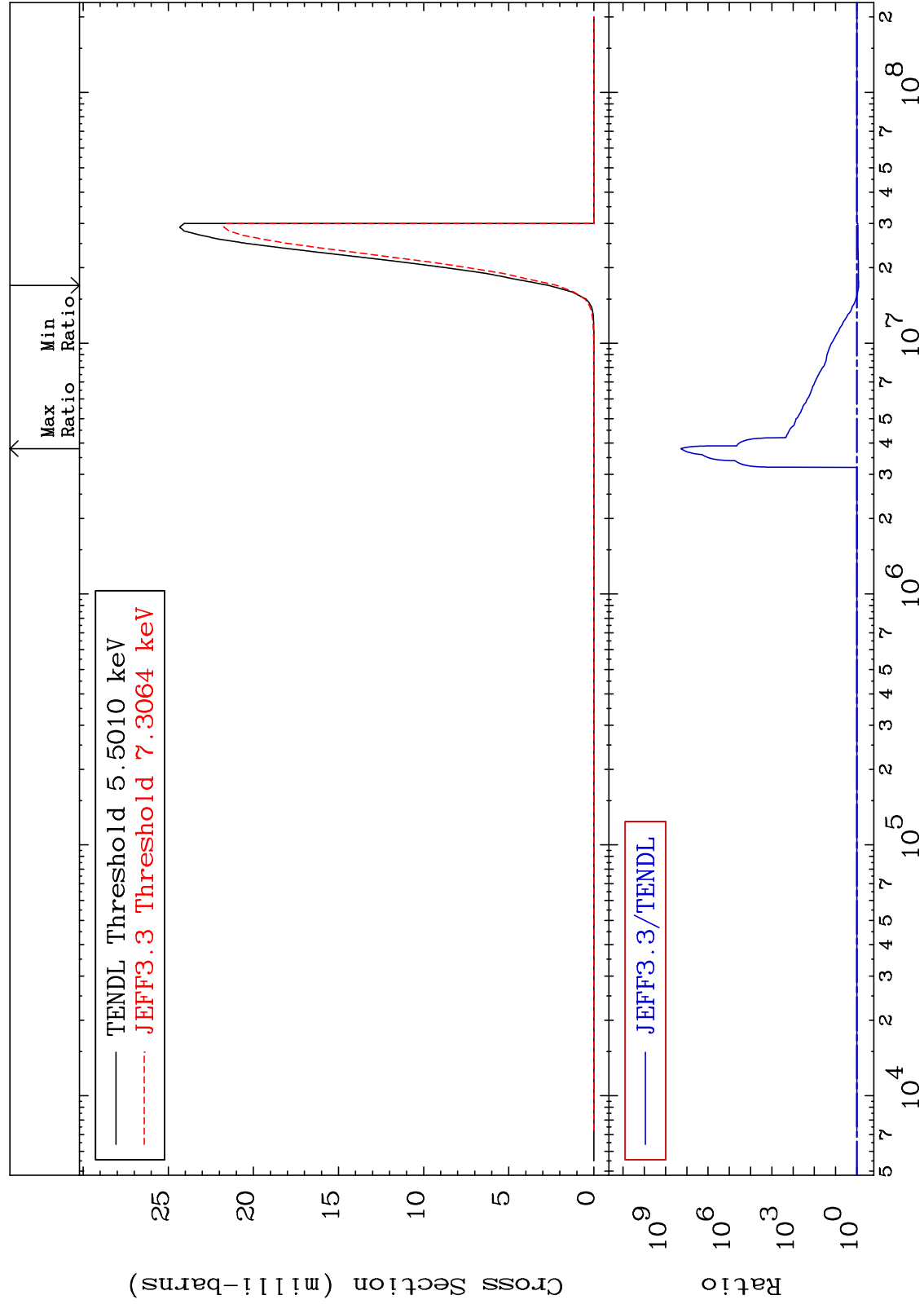
MAT 6028

$(n, n') \alpha$

60-Nd-143

Cross Section

-17.89 To 9999. %



Incident Energy (eV)

60-Nd-143



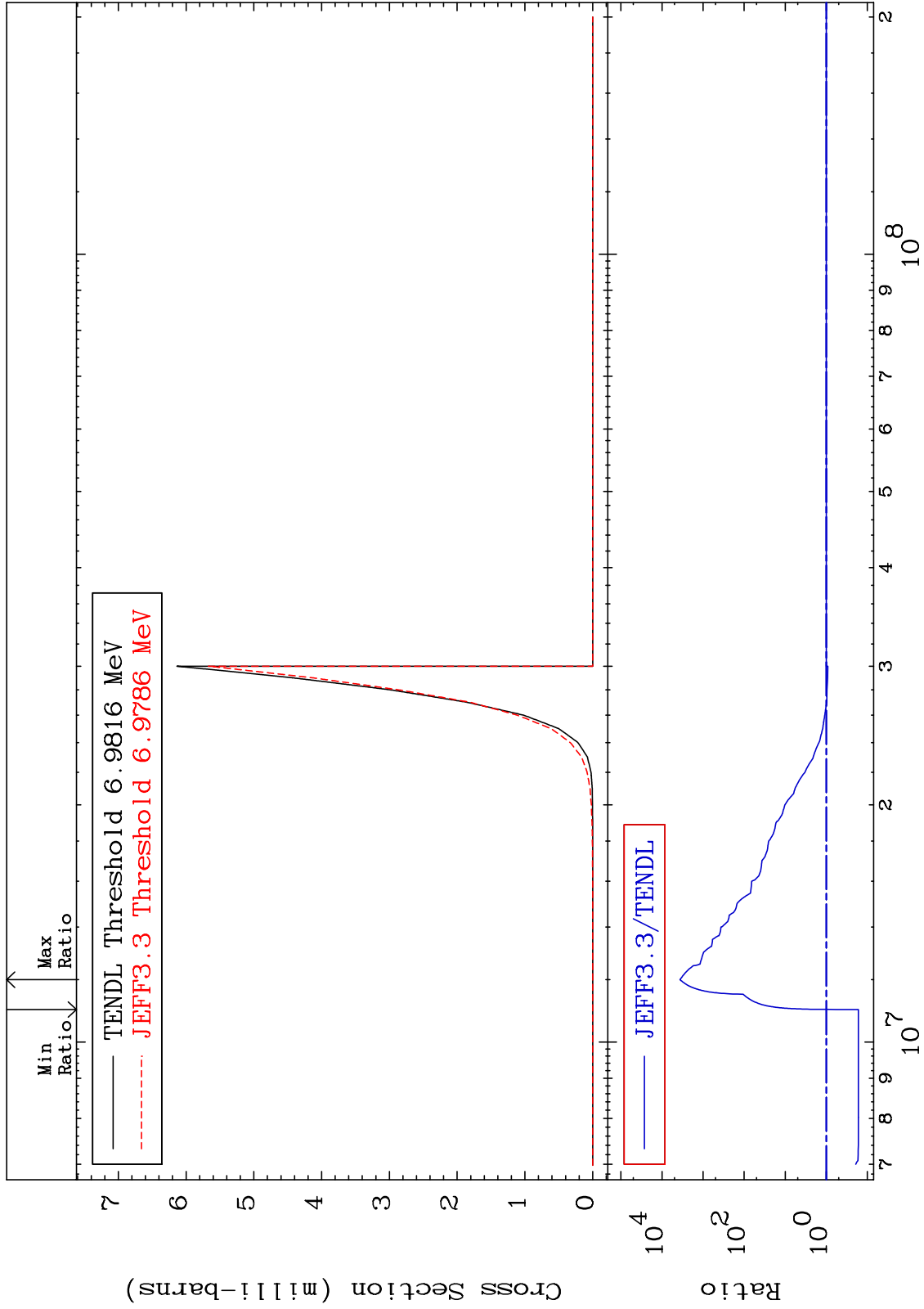
MAT 6028

(n,2n)  $\alpha$

60-Nd-143

Cross Section

-83.44 To 9999. %

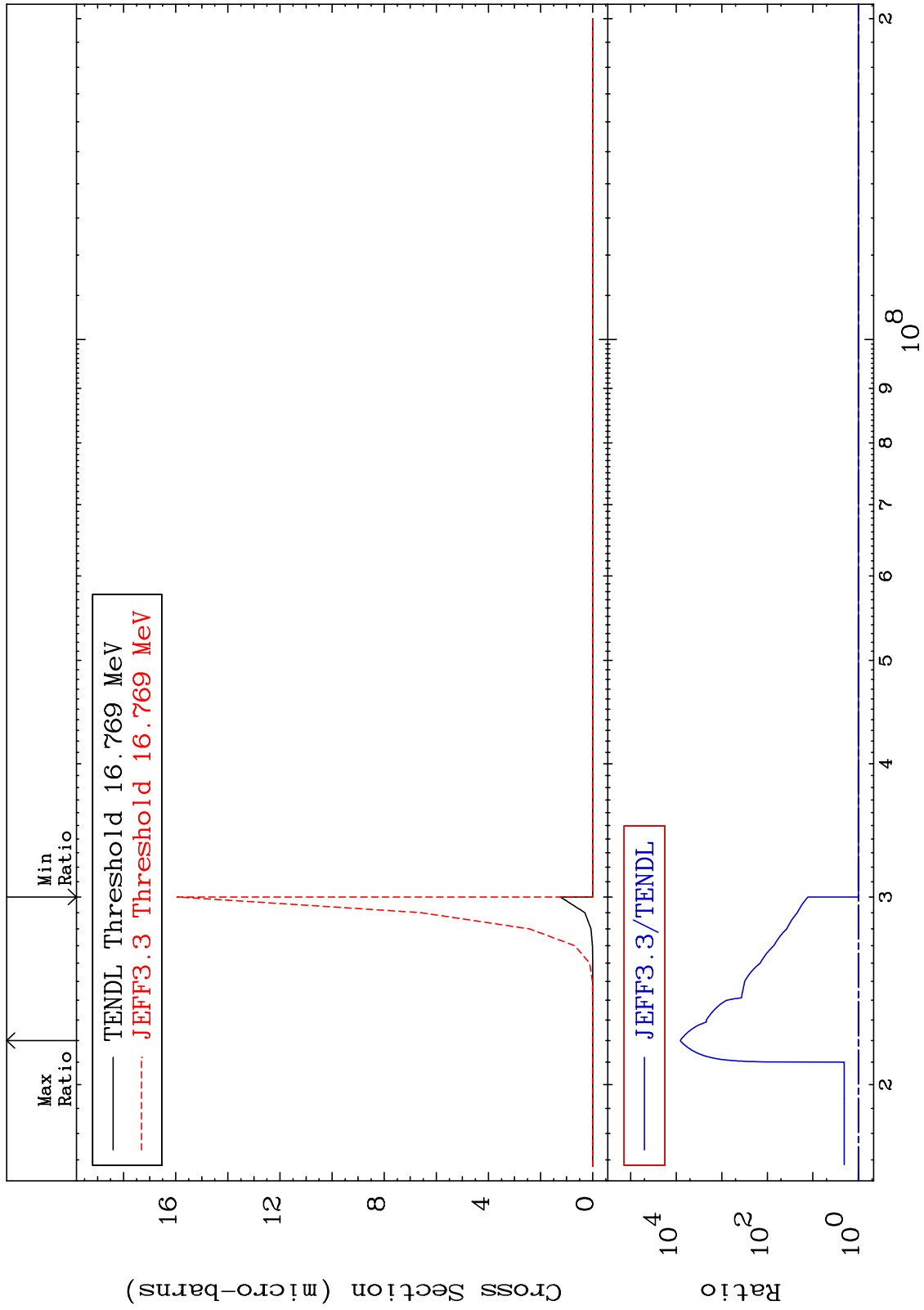


8

Incident Energy (eV)

60-Nd-143

MAT 6028 (n,3n)  $\alpha$  60-Nd-143  
Cross Section 0.000 To 9999. %



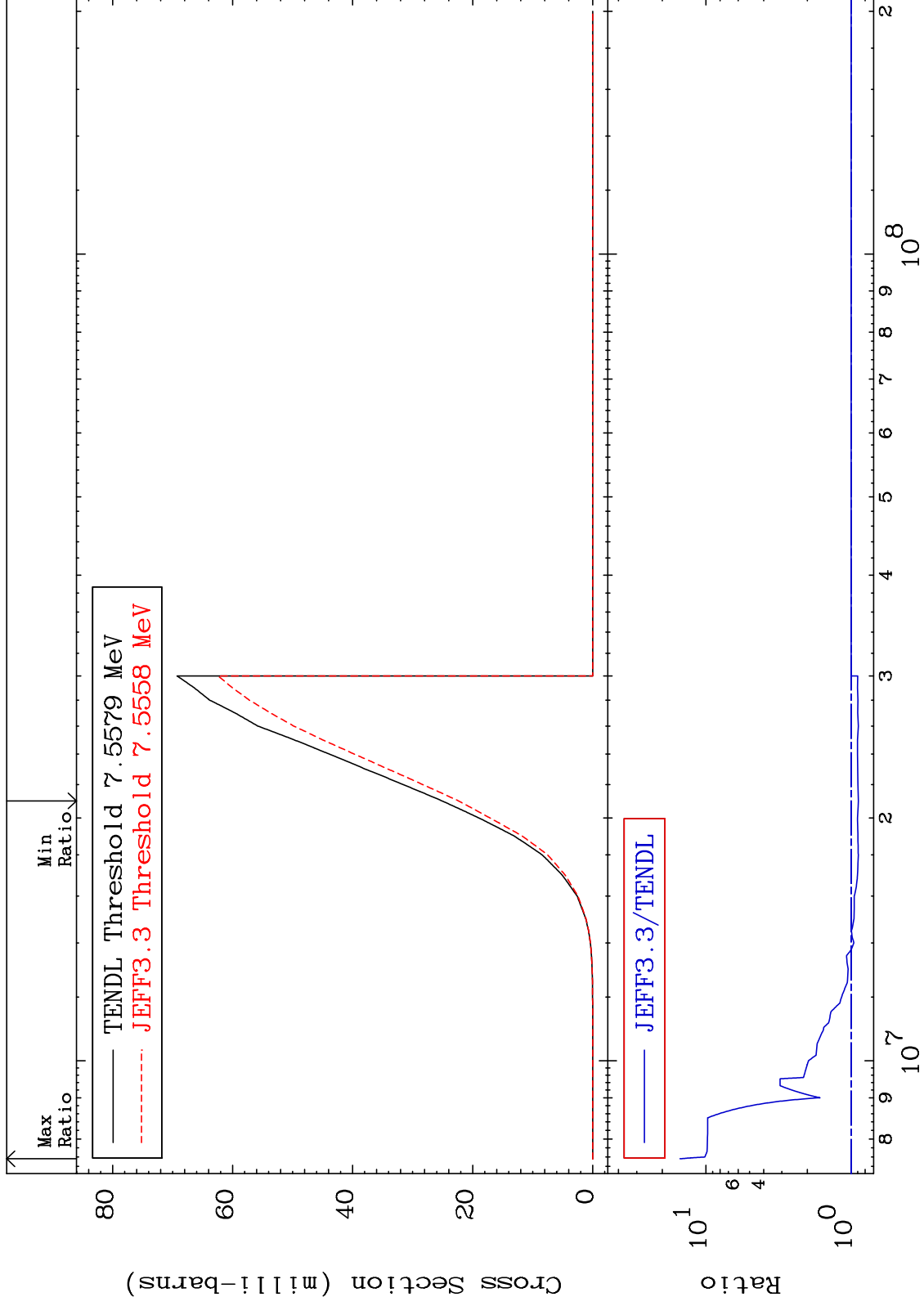
MAT 6028

(n,n') p

60-Nd-143

Cross Section

-10.92 To 1408. %



60-Nd-143

Incident Energy (eV)

10

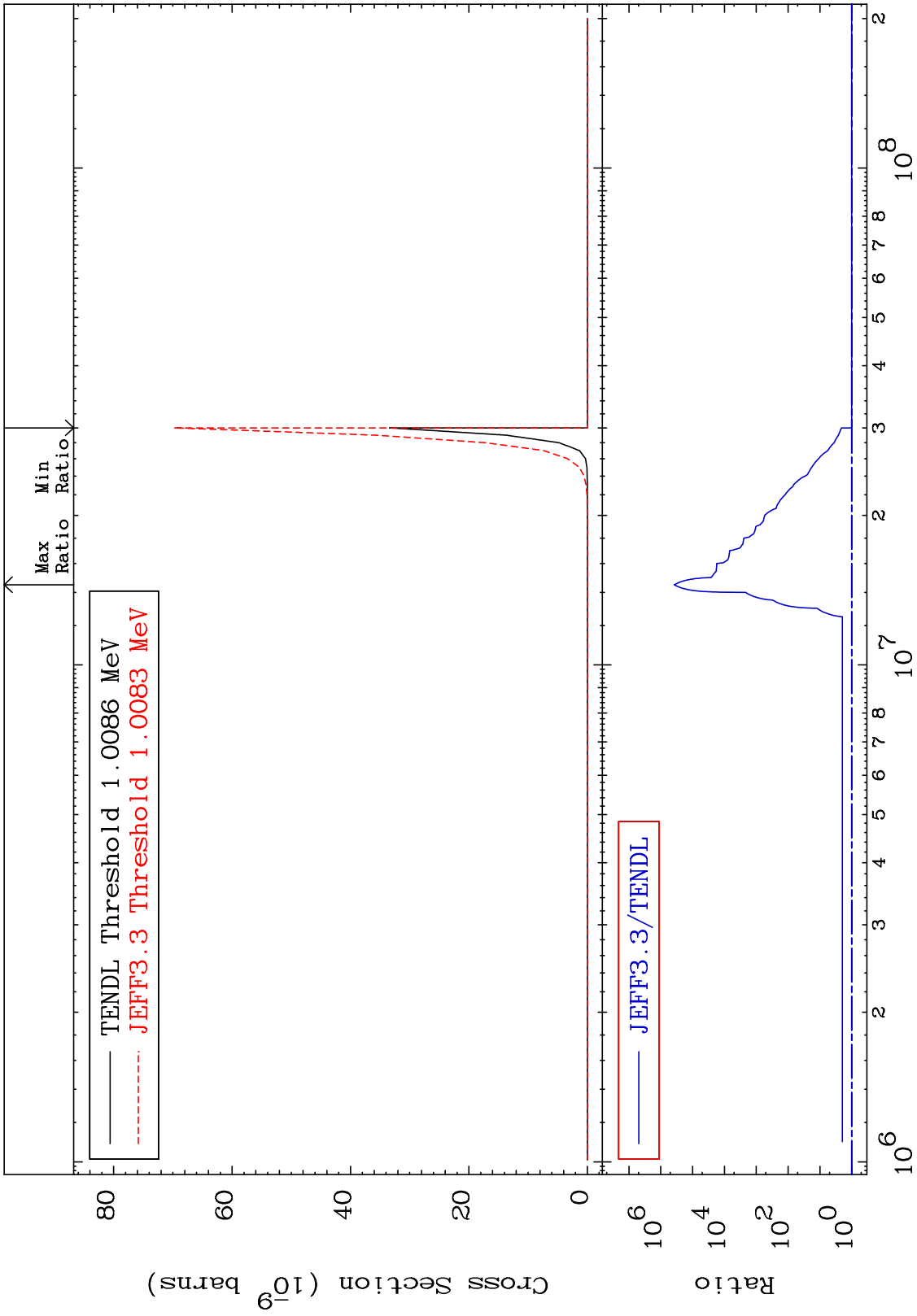
MAT 6028

(n, n')  $2\alpha$

60-Nd-143

0.000 To 9999. %

Cross Section



60-Nd-143

Incident Energy (eV)

11

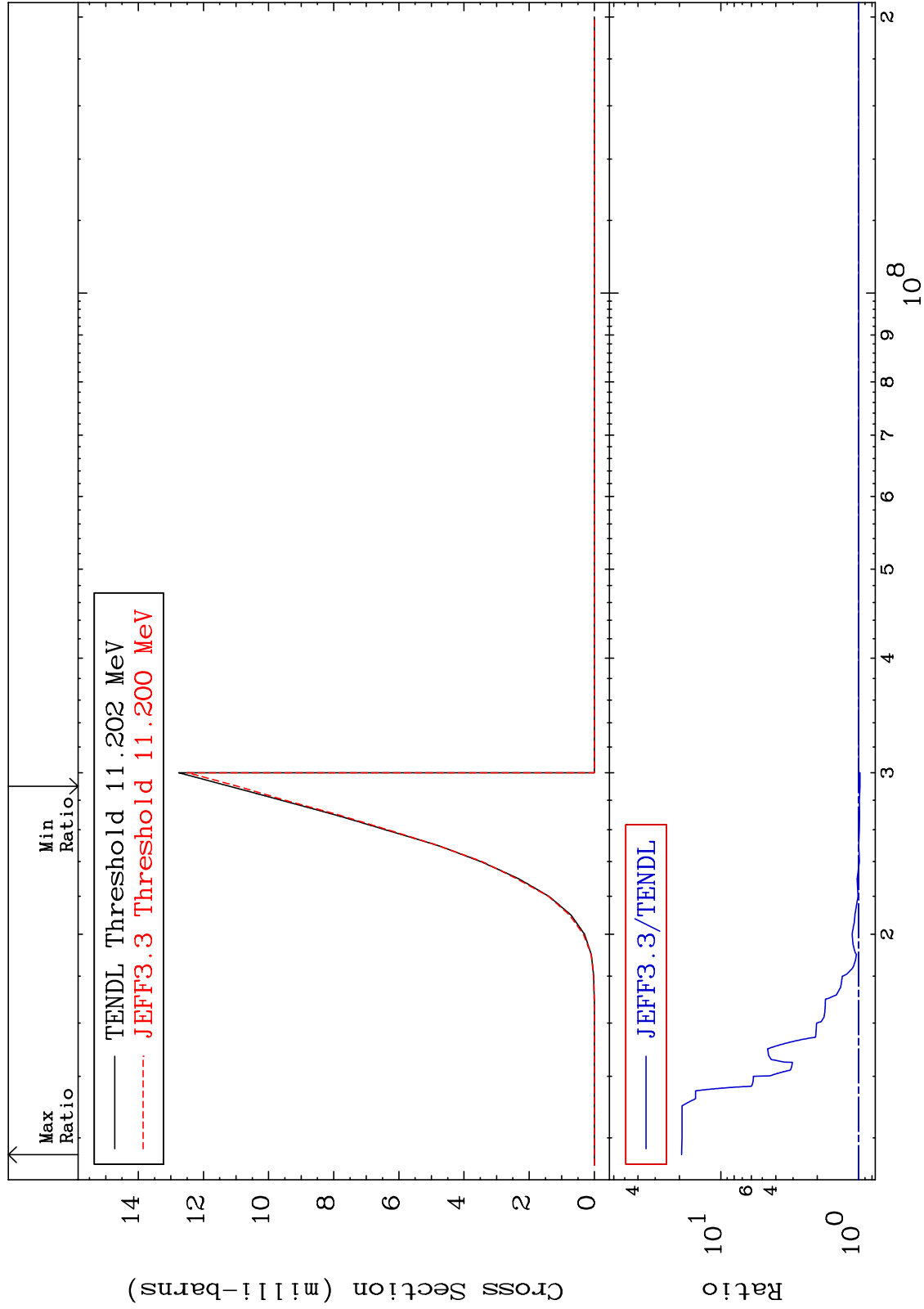
MAT 6028

(n,n') d

60-Nd-143

Cross Section

-2.246 To 1827. %



MAT 6028

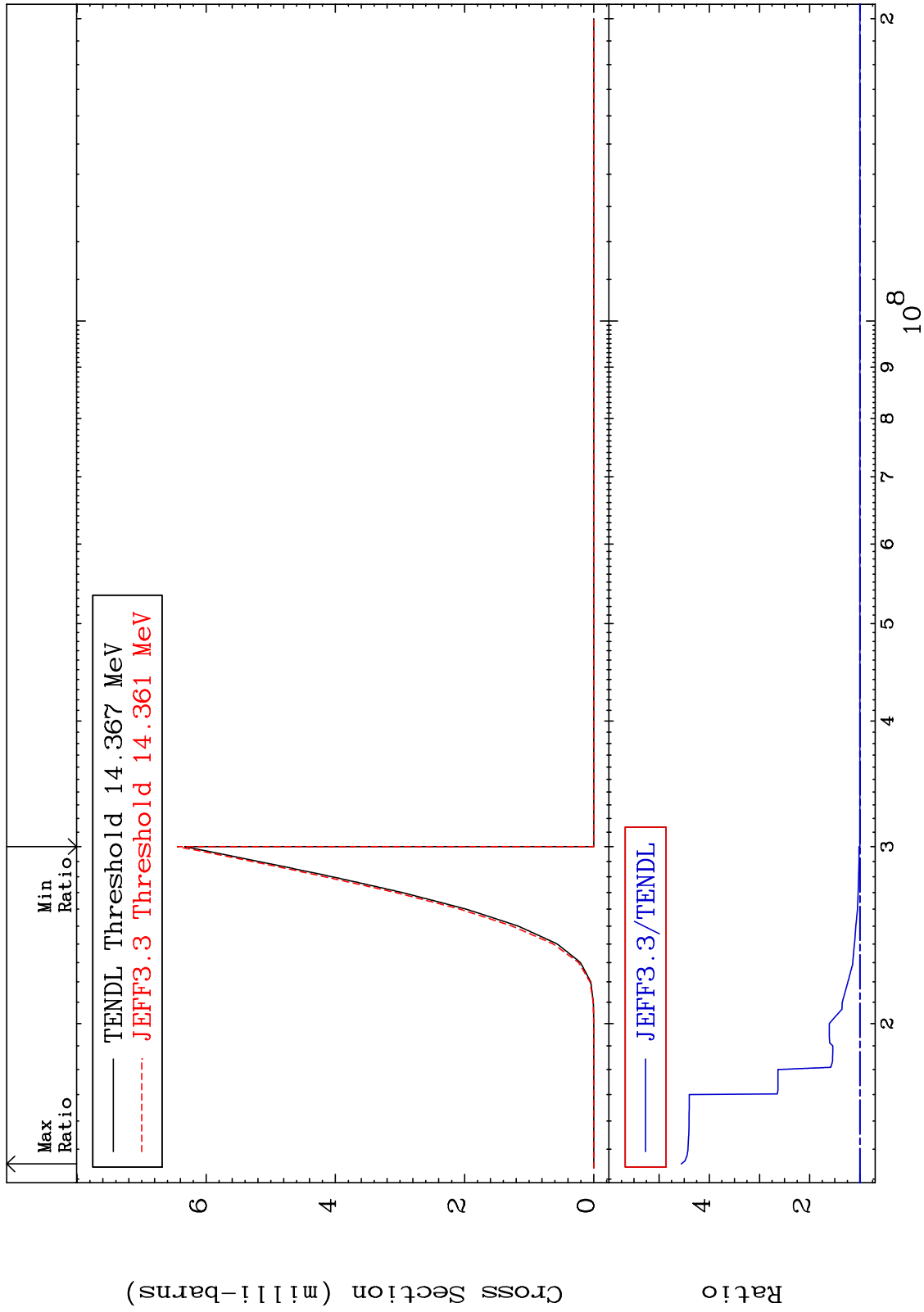
(n,n') t

60-Nd-143

Cross Section

0.000

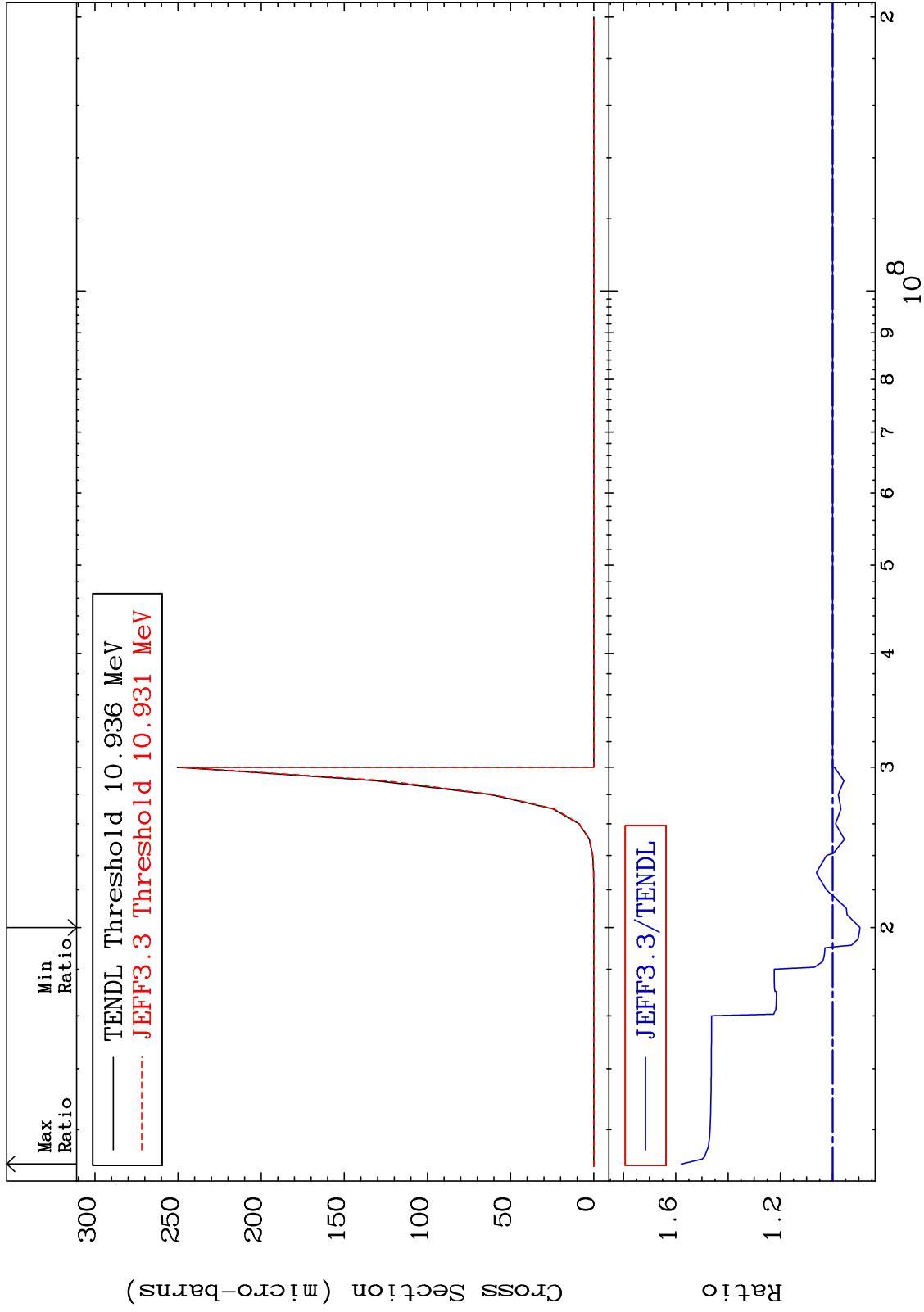
To 355.9 %



MAT 6028

(n, n') He-3  
Cross Section

60-Nd-143  
-10.43 To 57.90 %



MAT 6028

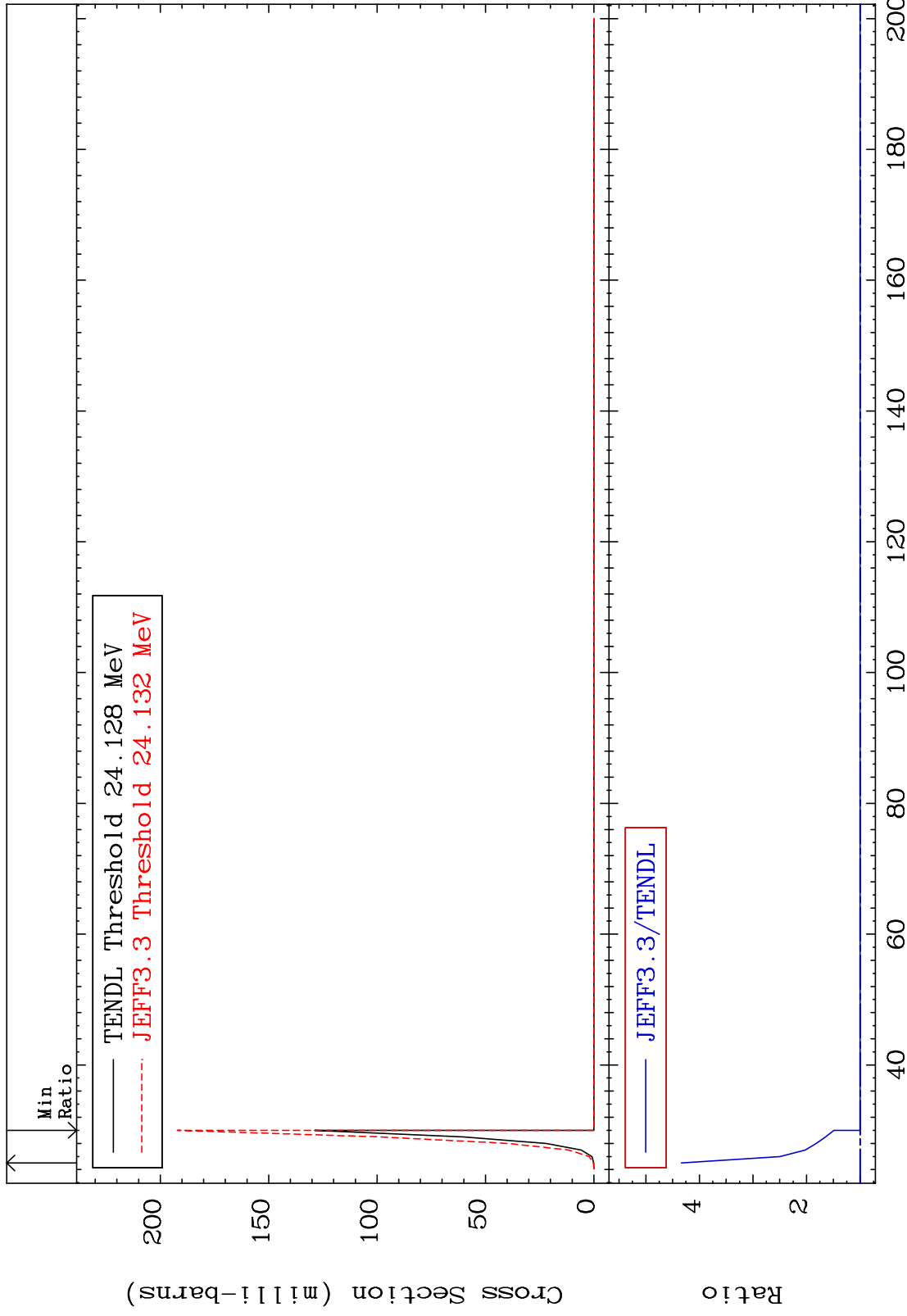
(n, 4n)

60-Nd-143

Cross Section

0.000

To 333.6 %

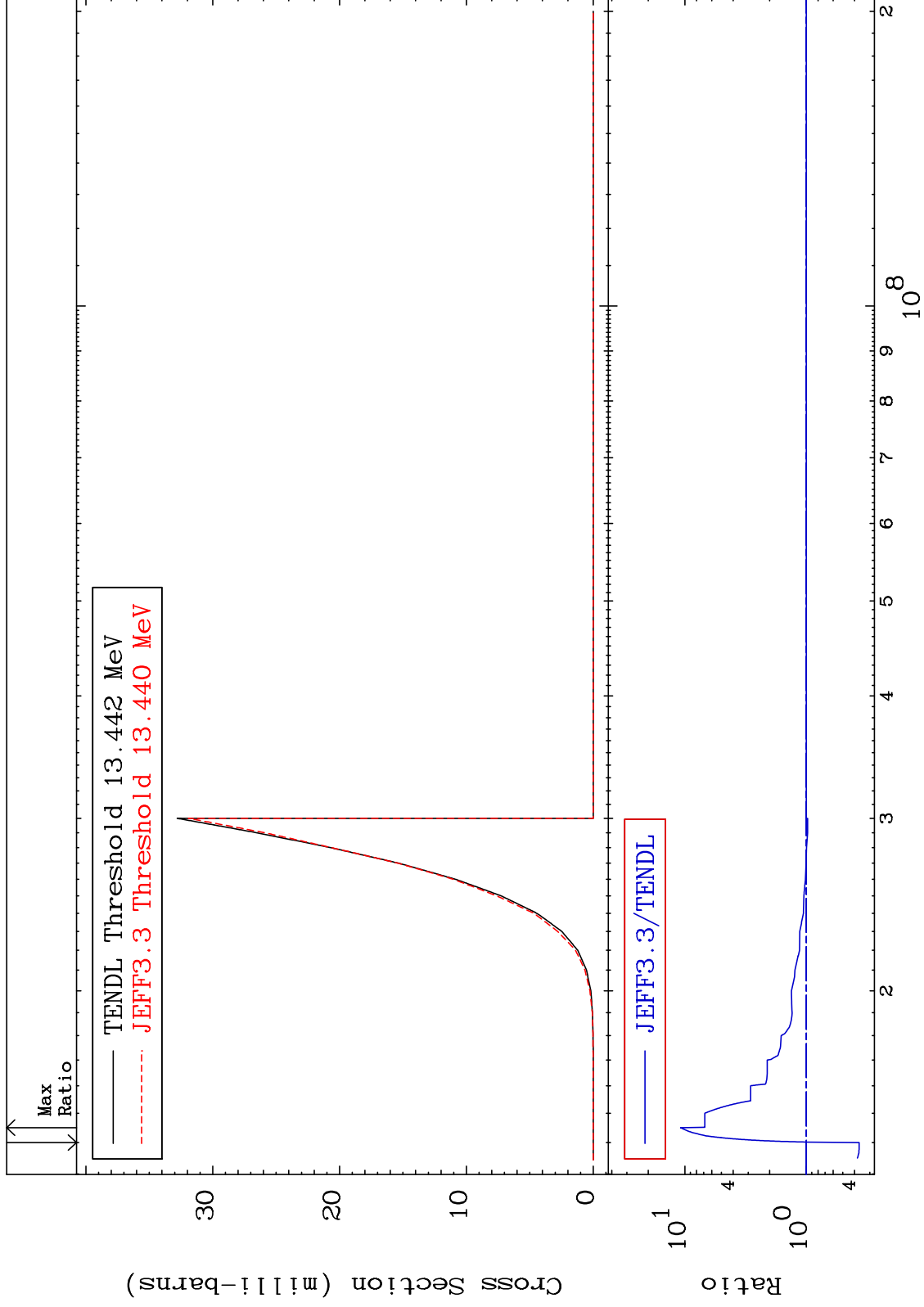




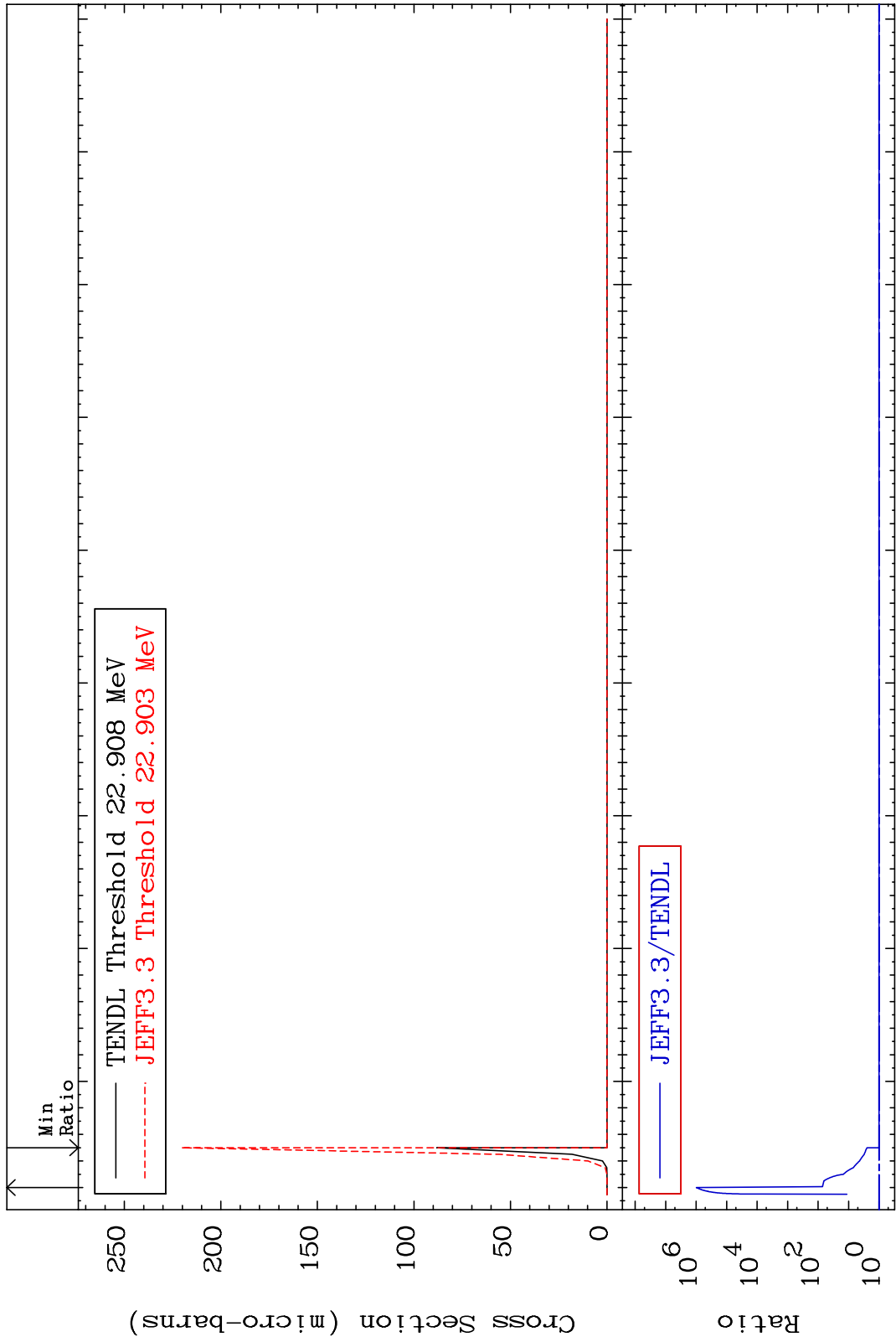
MAT 6028

(n,2n) p  
Cross Section

60-Nd-143  
-63.31 To 983.0 %



MAT 6028 (n,3n) p 60-Nd-143  
 Cross Section 0.000 To 9999. %

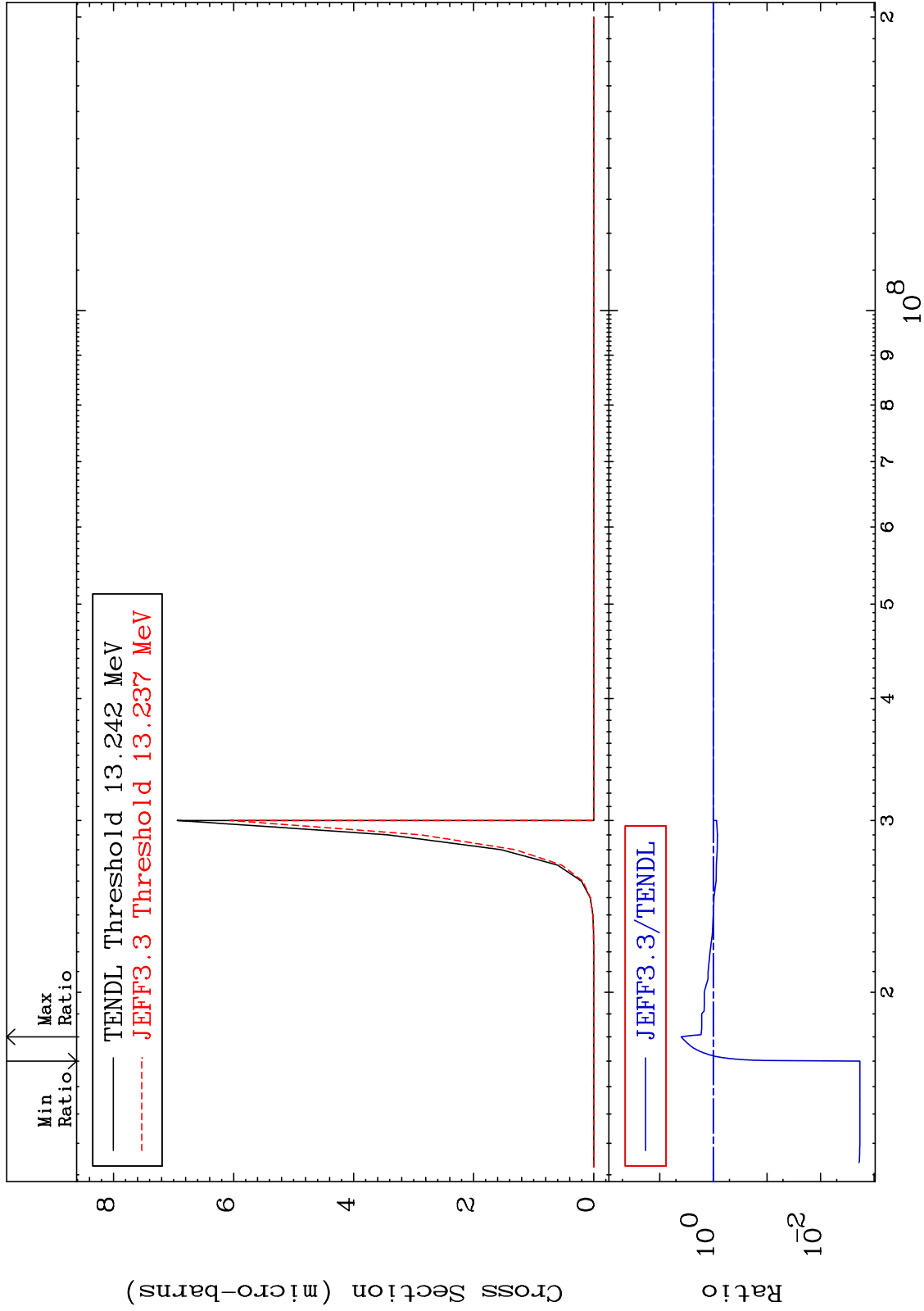


Incident Energy (MeV) 60-Nd-143

MAT 6028

(n,2n) p  
Cross Section

60-Nd-143  
-99.82 To 298.1 %



18

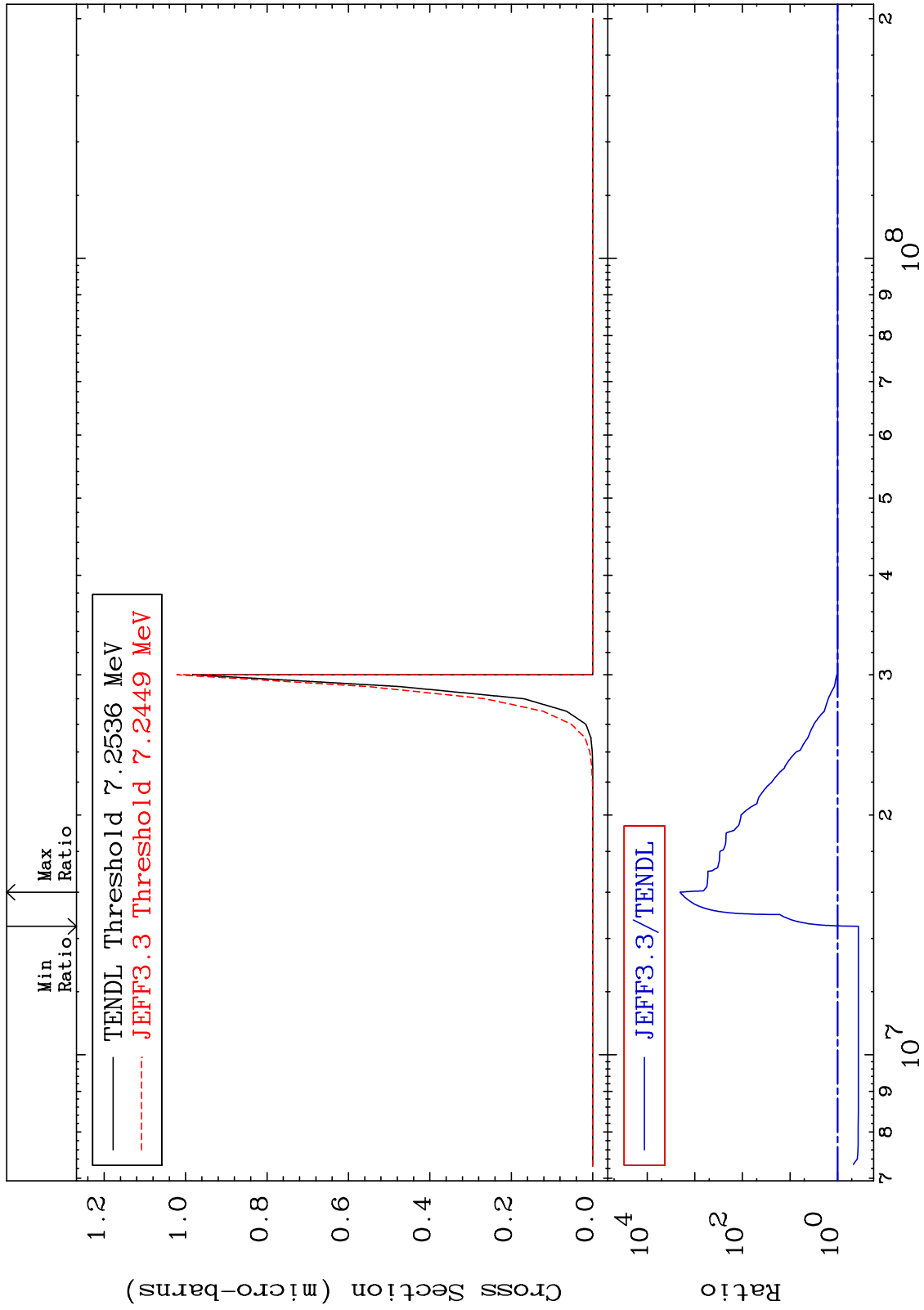
Incident Energy (eV)

60-Nd-143

MAT 6028

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

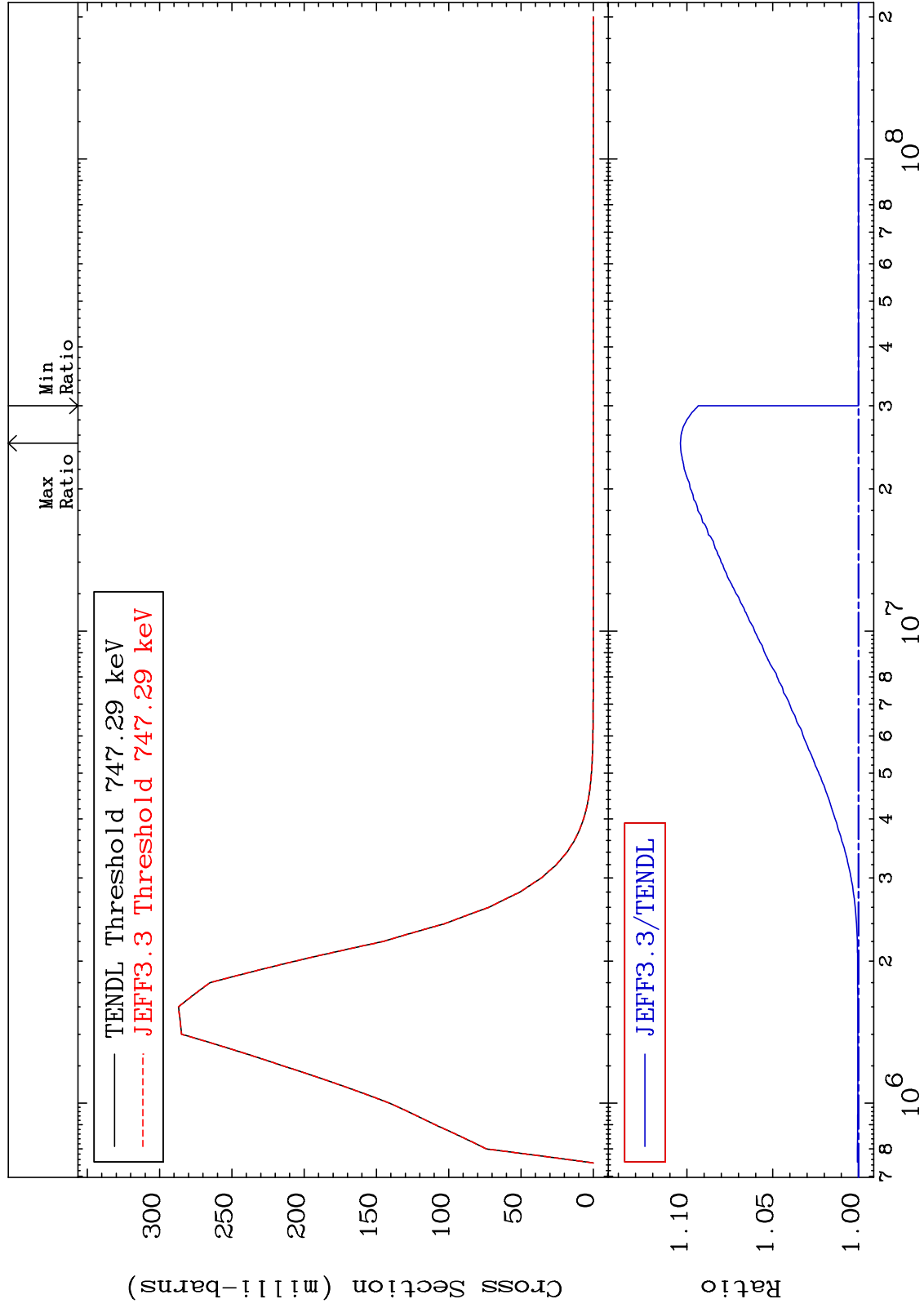
60-Nd-143  
-63.59 To 9999. %



MAT 6028

MT= 51 (n,n') Level  
Cross Section

60-Nd-143  
To 10.38 %  
0.000



20

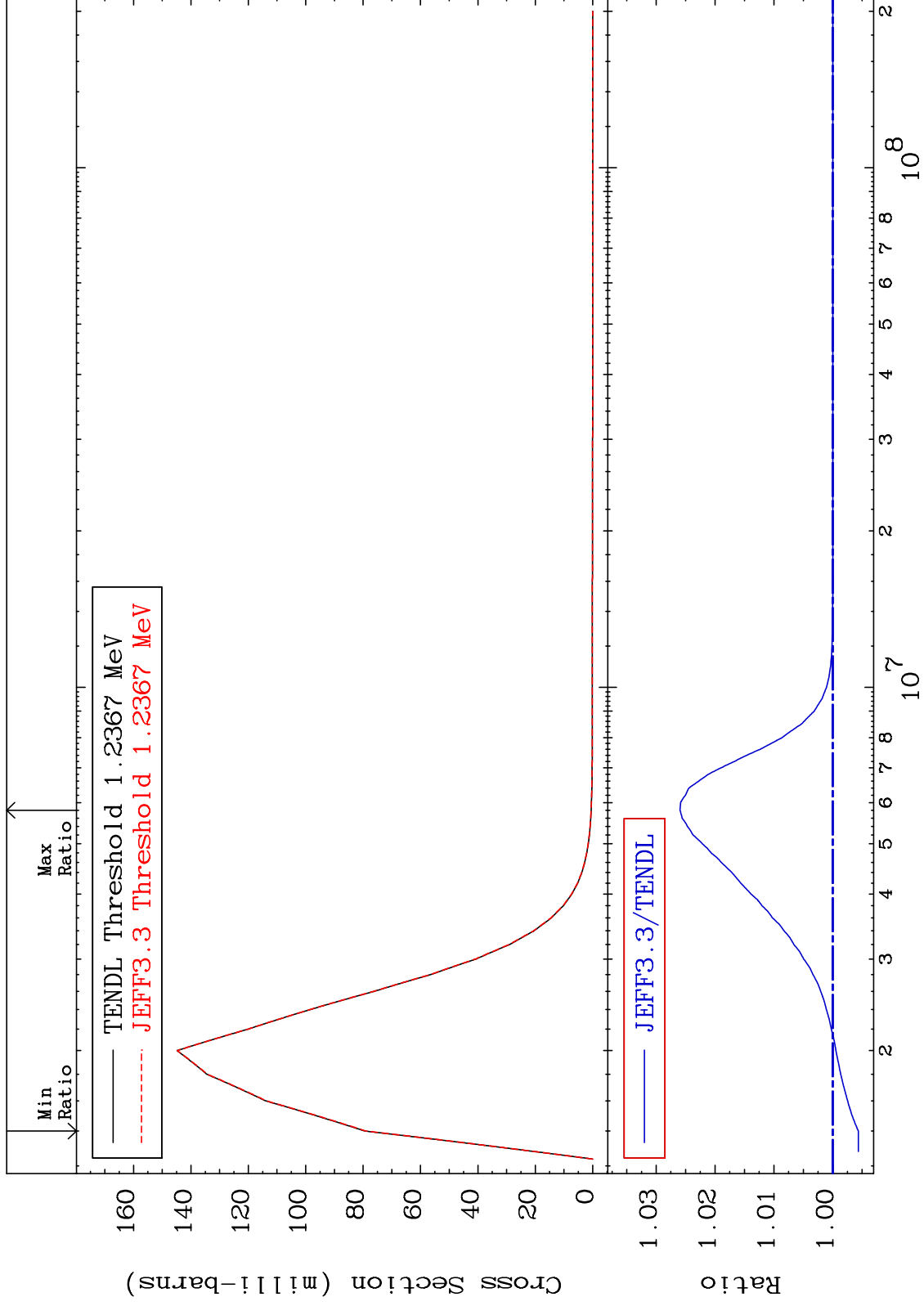
Incident Energy (eV)

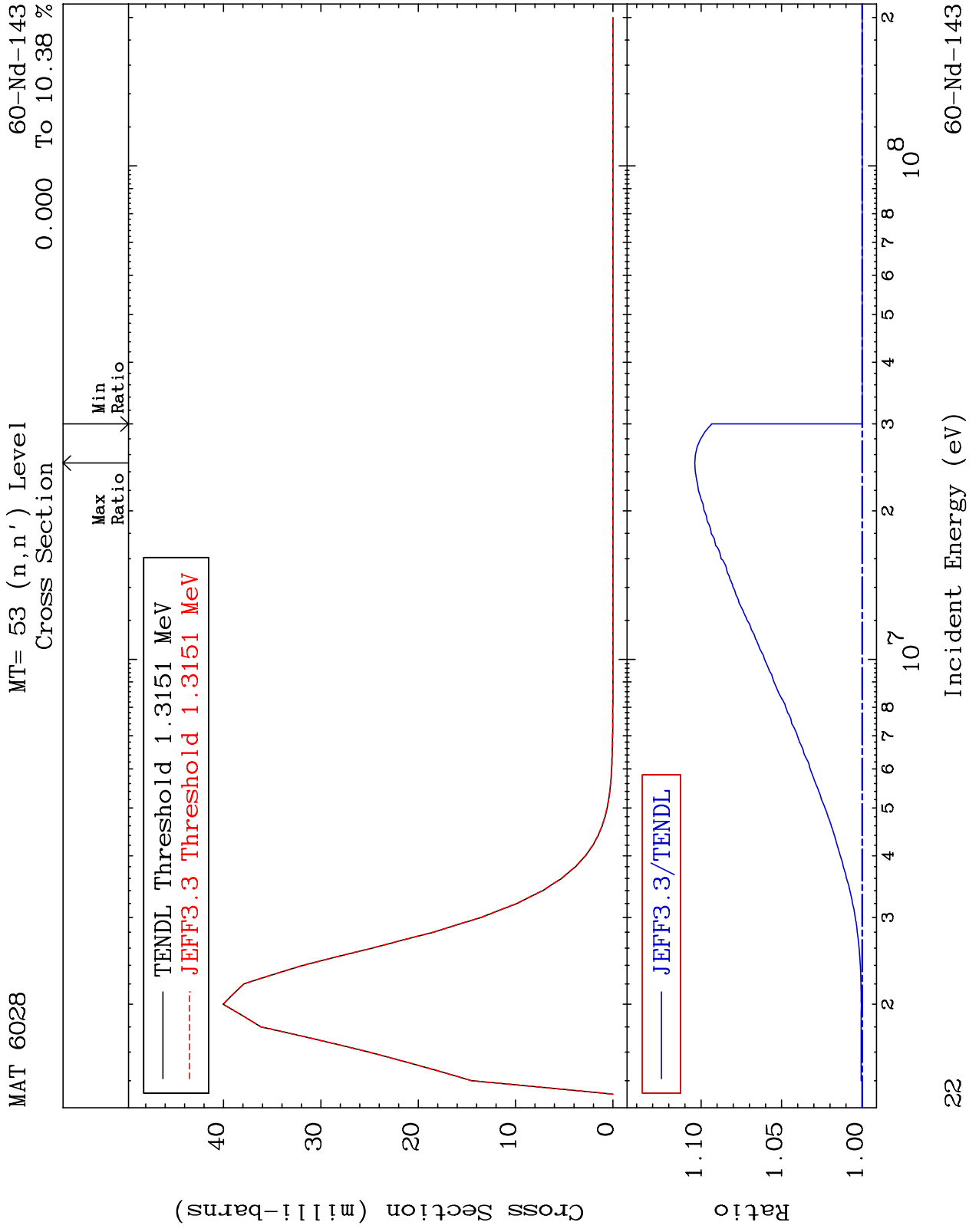
60-Nd-143

MAT 6028

MT= 52 (n,n') Level  
Cross Section

60-Nd-143  
-0.436 To 2.595 %

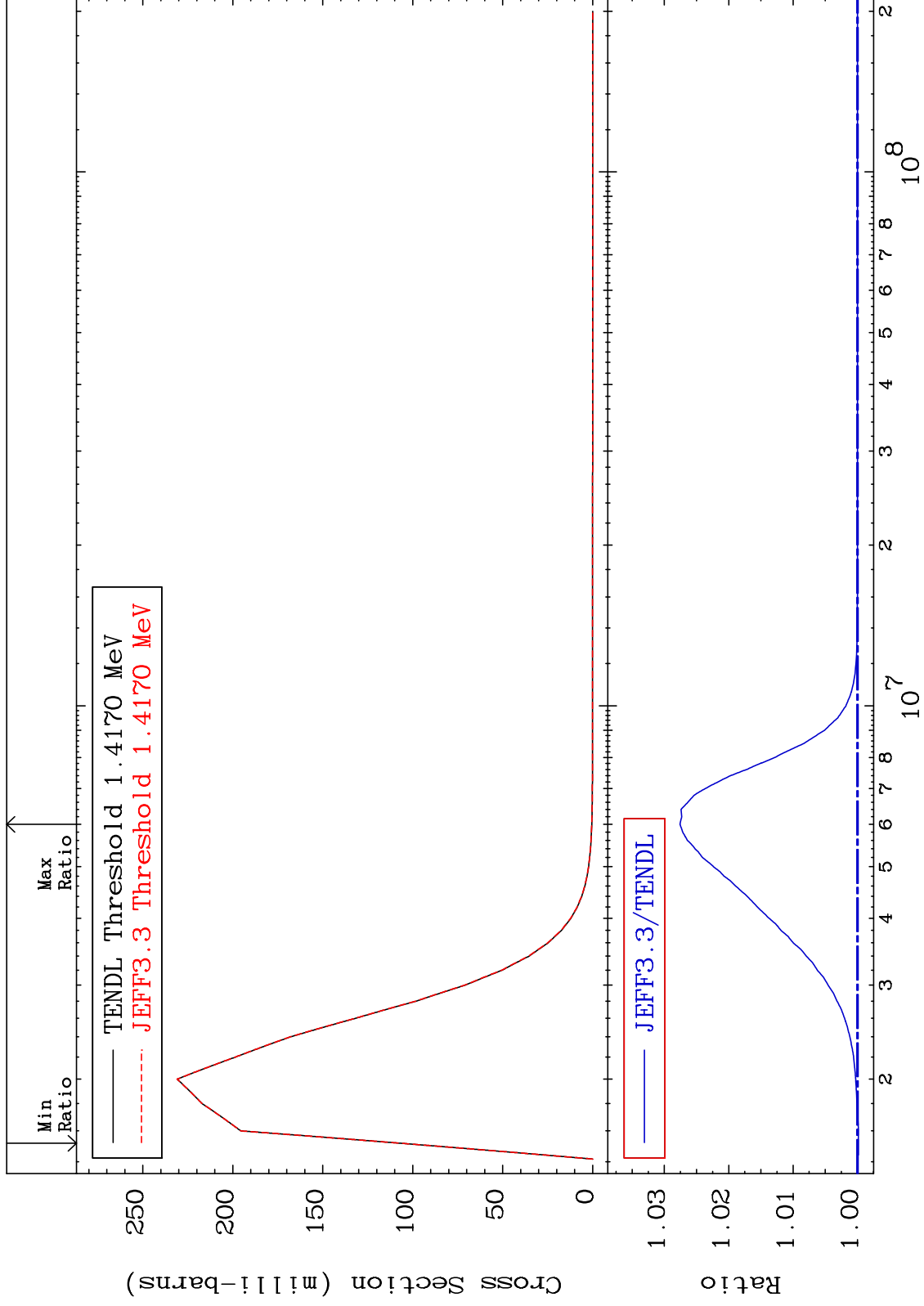




MAT 6028

MT= 54 (n,n') Level  
Cross Section

60-Nd-143  
-0.015 To 2.756 %

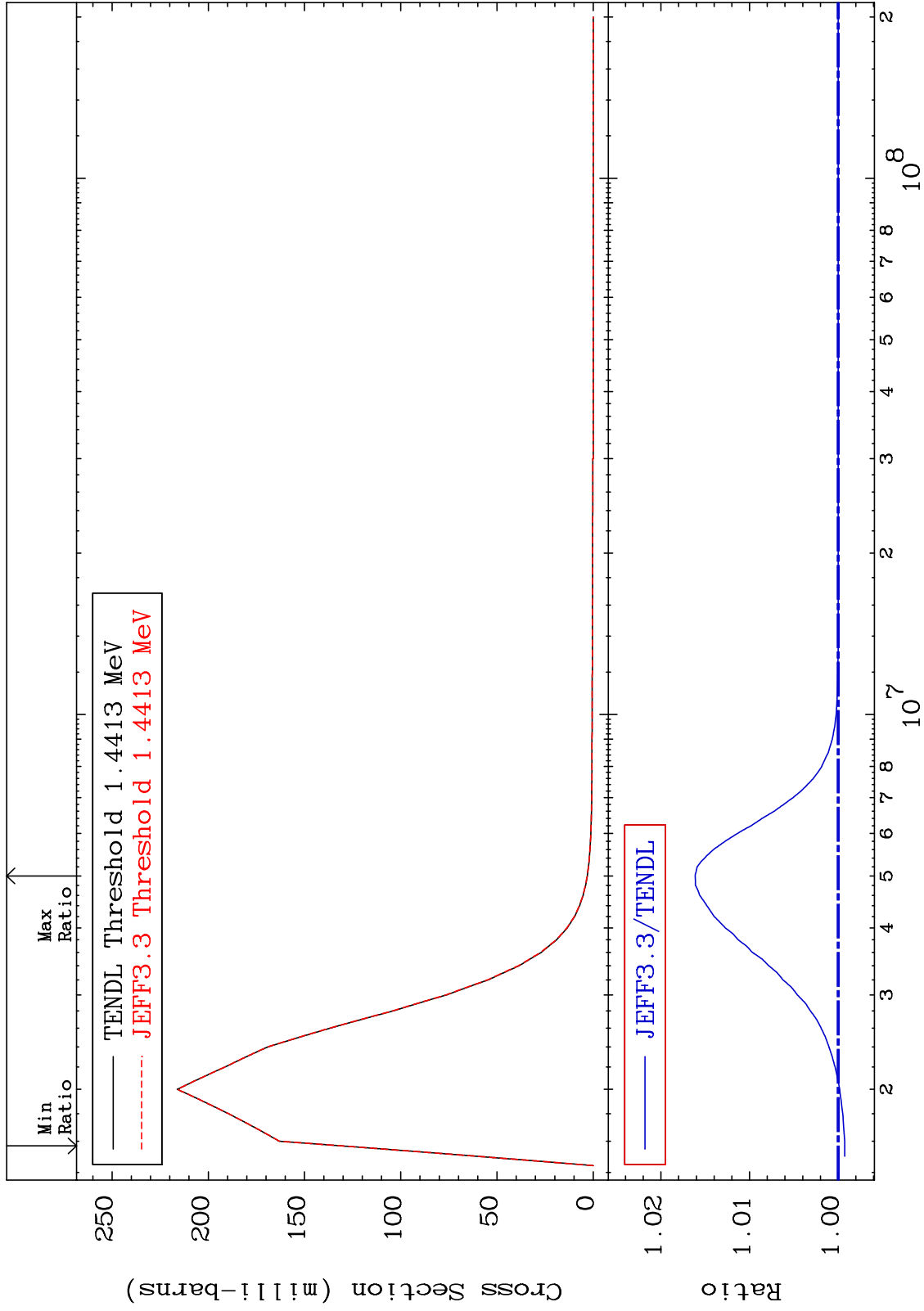




MAT 6028

MT= 55 (n,n') Level  
Cross Section

60-Nd-143  
-0.074 To 1.615 %



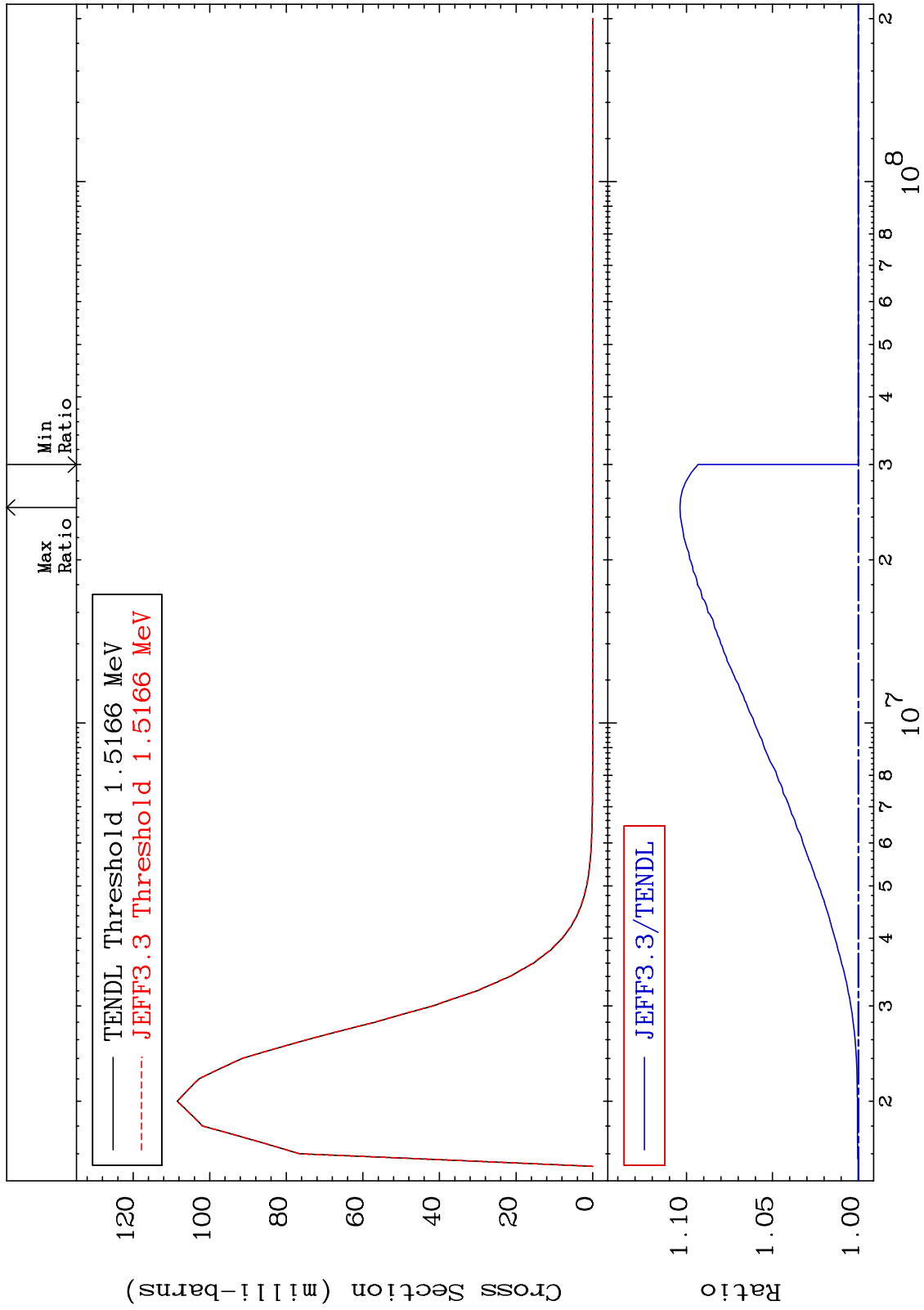
MAT 6028

MT= 56 (n, n') Level

60-Nd-143

Cross Section

0.000 To 10.38 %



25

Incident Energy (eV)

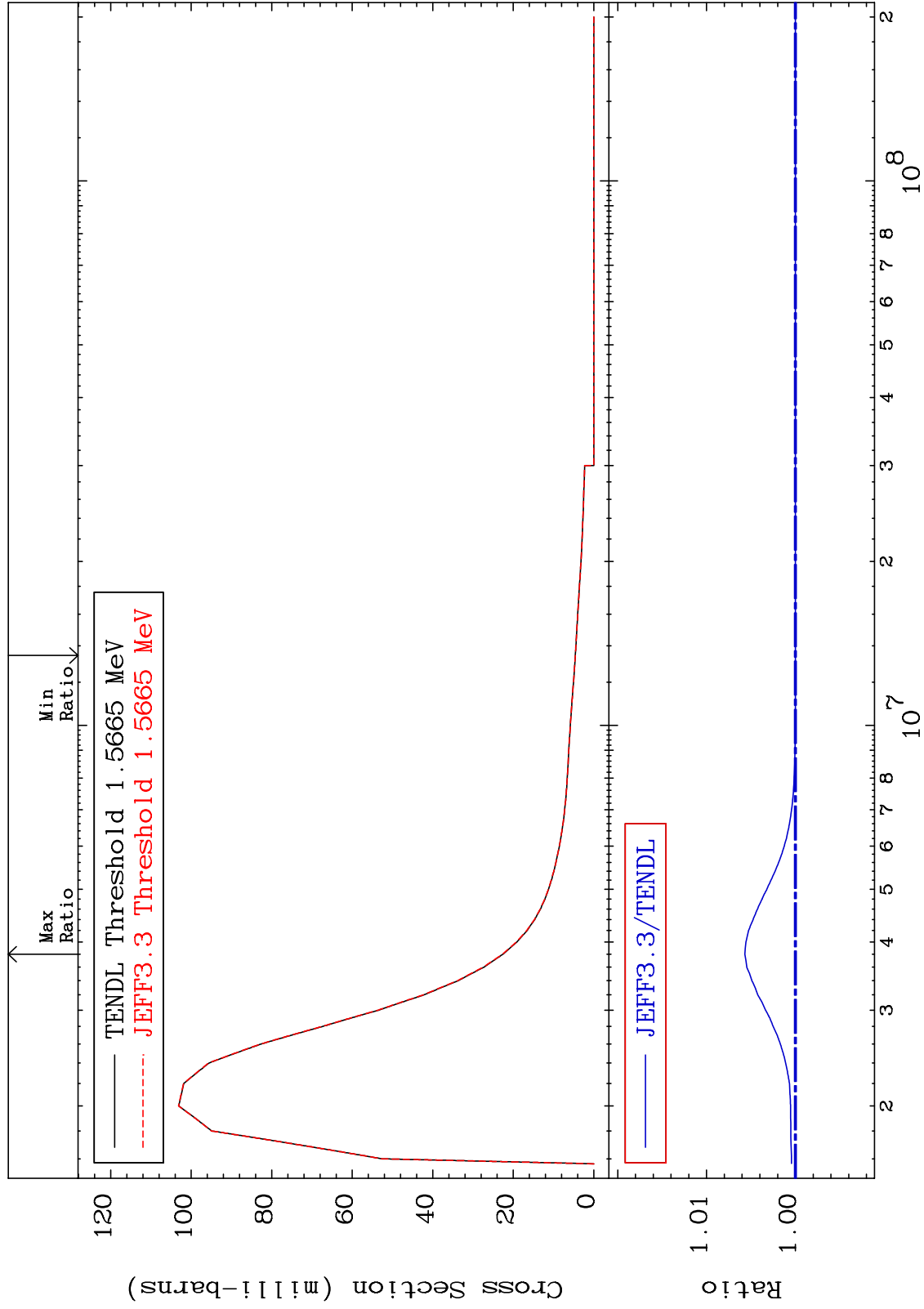
60-Nd-143

MAT 6028

MT= 57 (n,n') Level

60-Nd-143

Cross Section 0.000 To 0.568 %



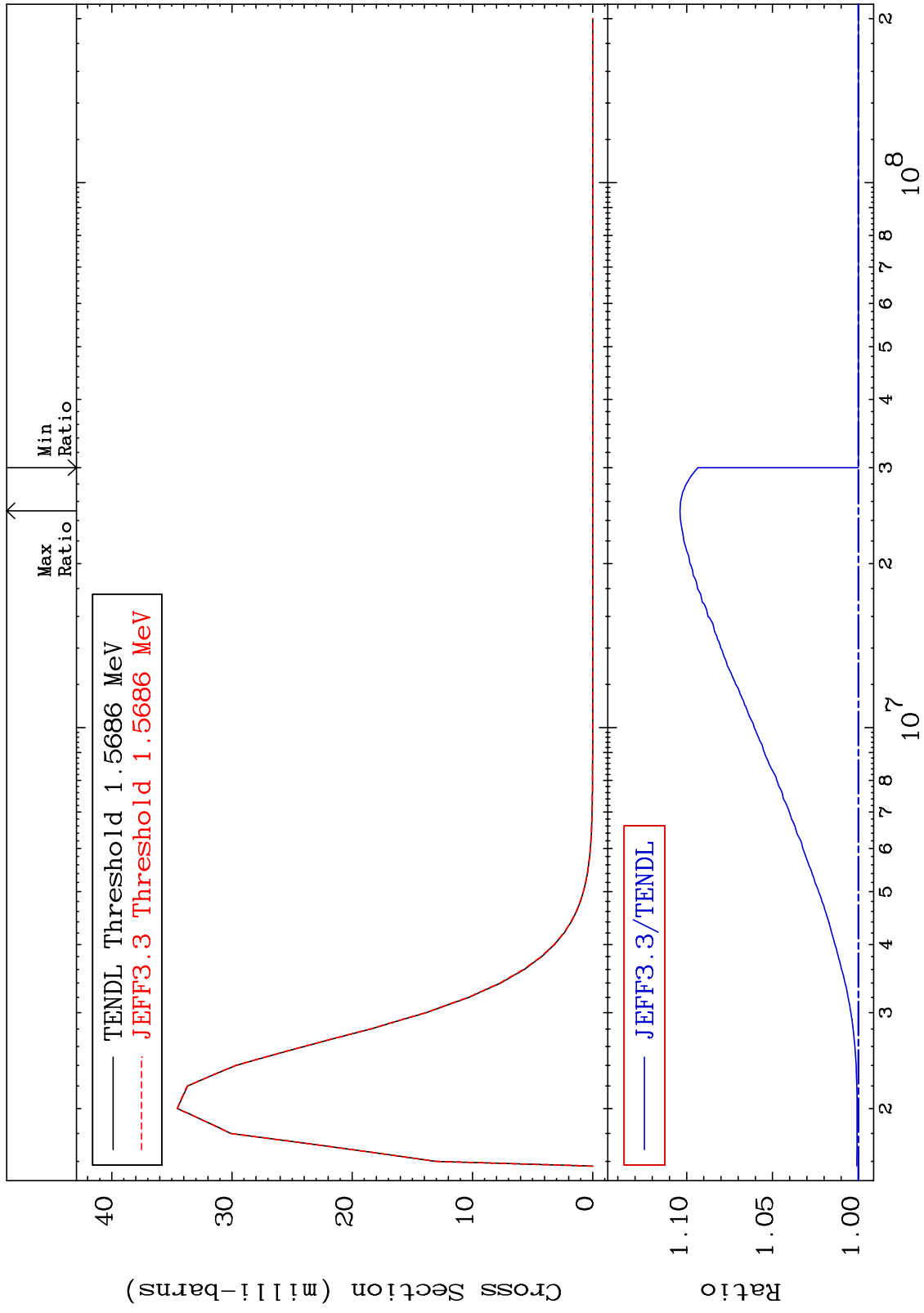
MAT 6028

MT= 58 (n, n') Level

60-Nd-143

Cross Section

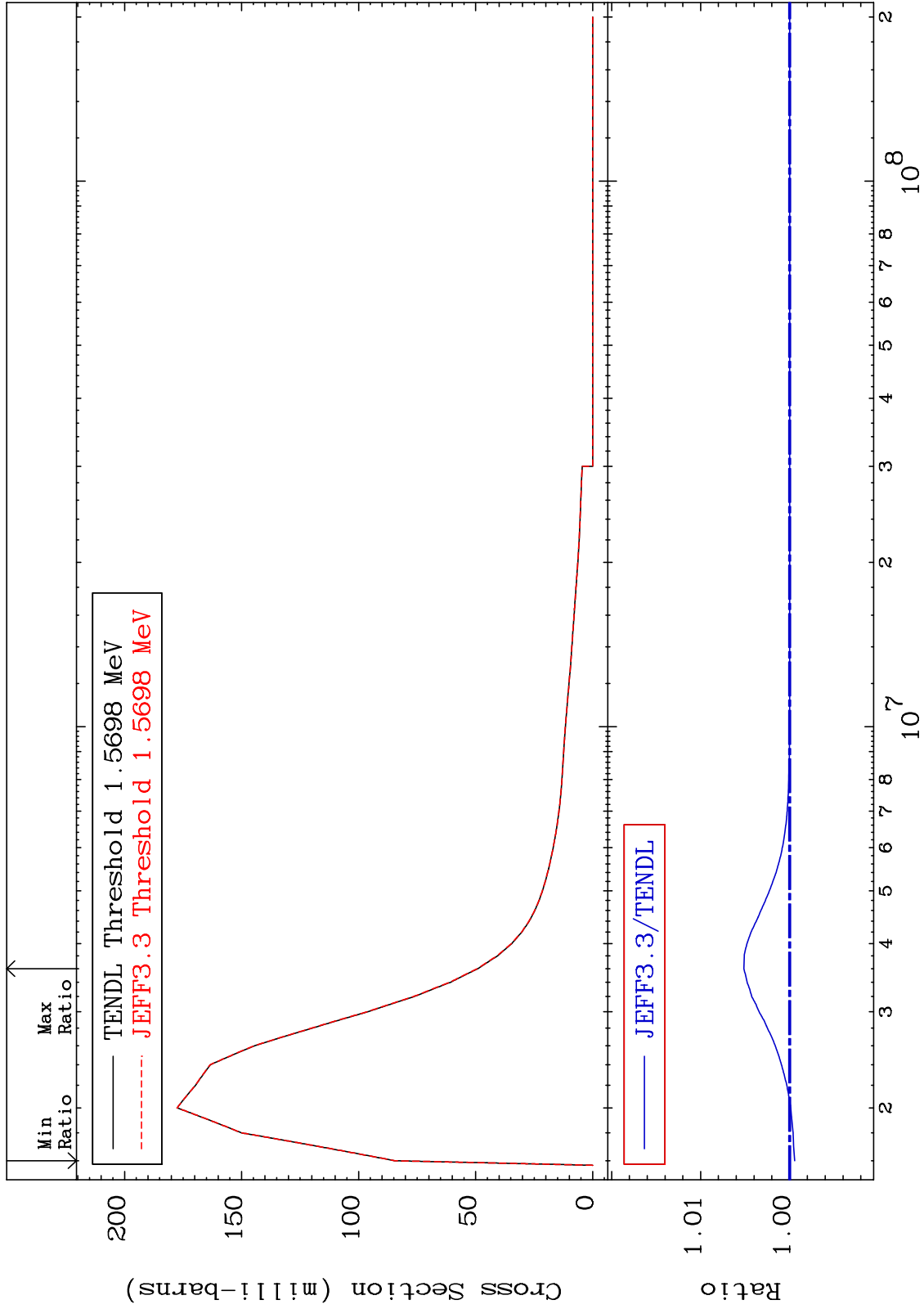
0.000 To 10.38 %



MAT 6028

MT= 59 (n,n') Level  
Cross Section

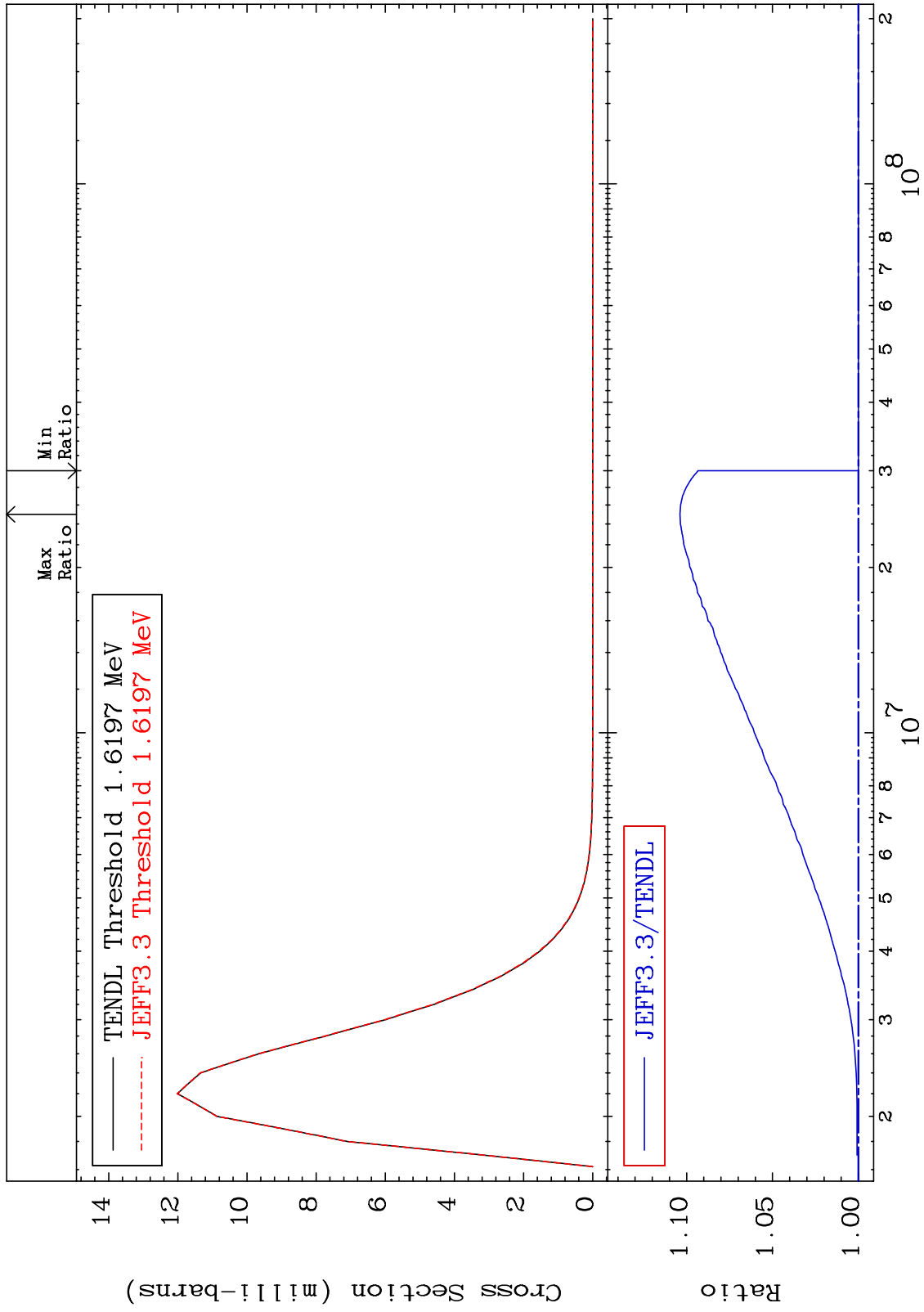
60-Nd-143  
-0.056 To 0.515 %



MAT 6028

MT= 60 (n,n') Level  
Cross Section

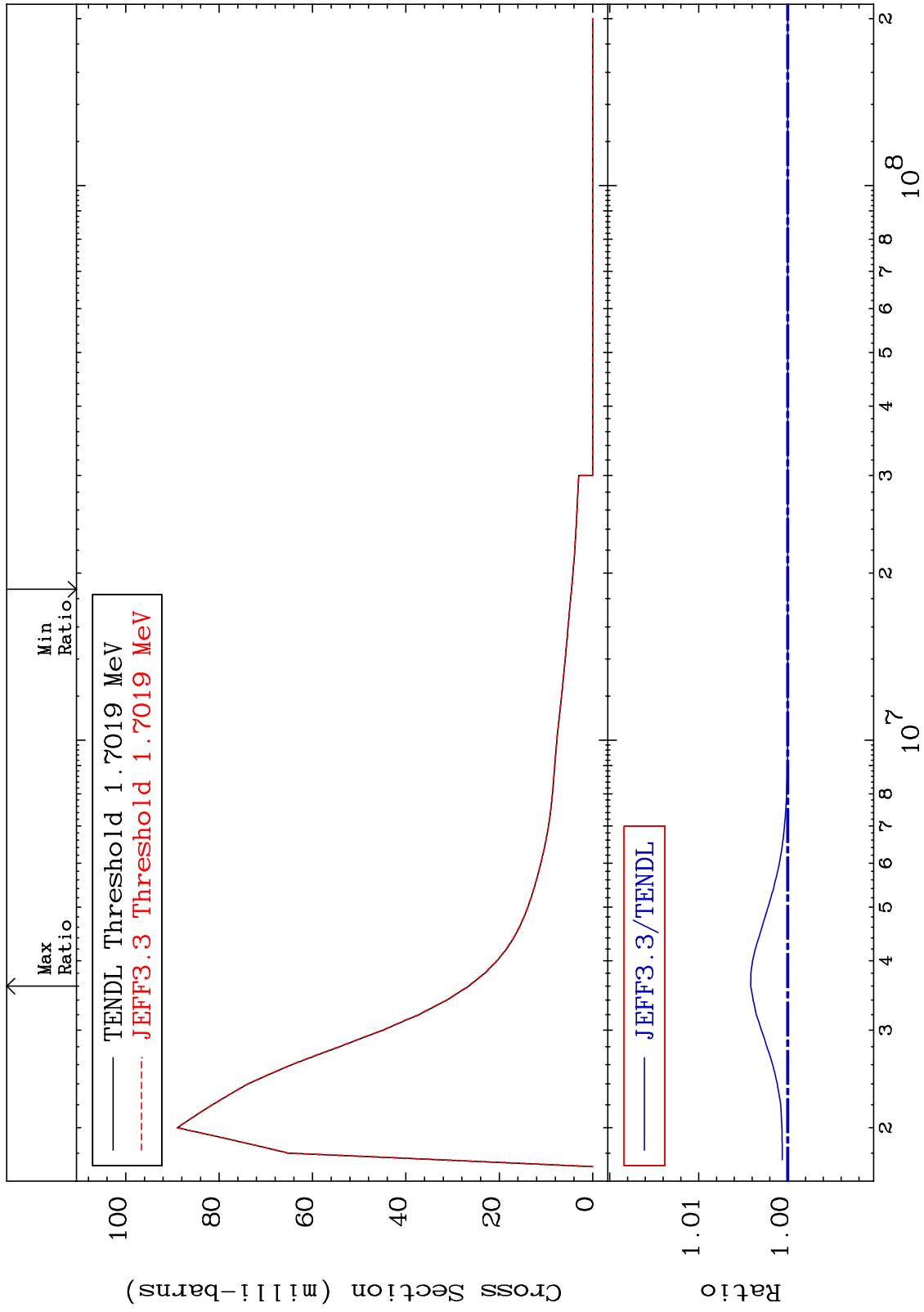
60-Nd-143  
To 10.38 %  
0.000



MAT 6028

MT= 61 (n,n') Level  
Cross Section

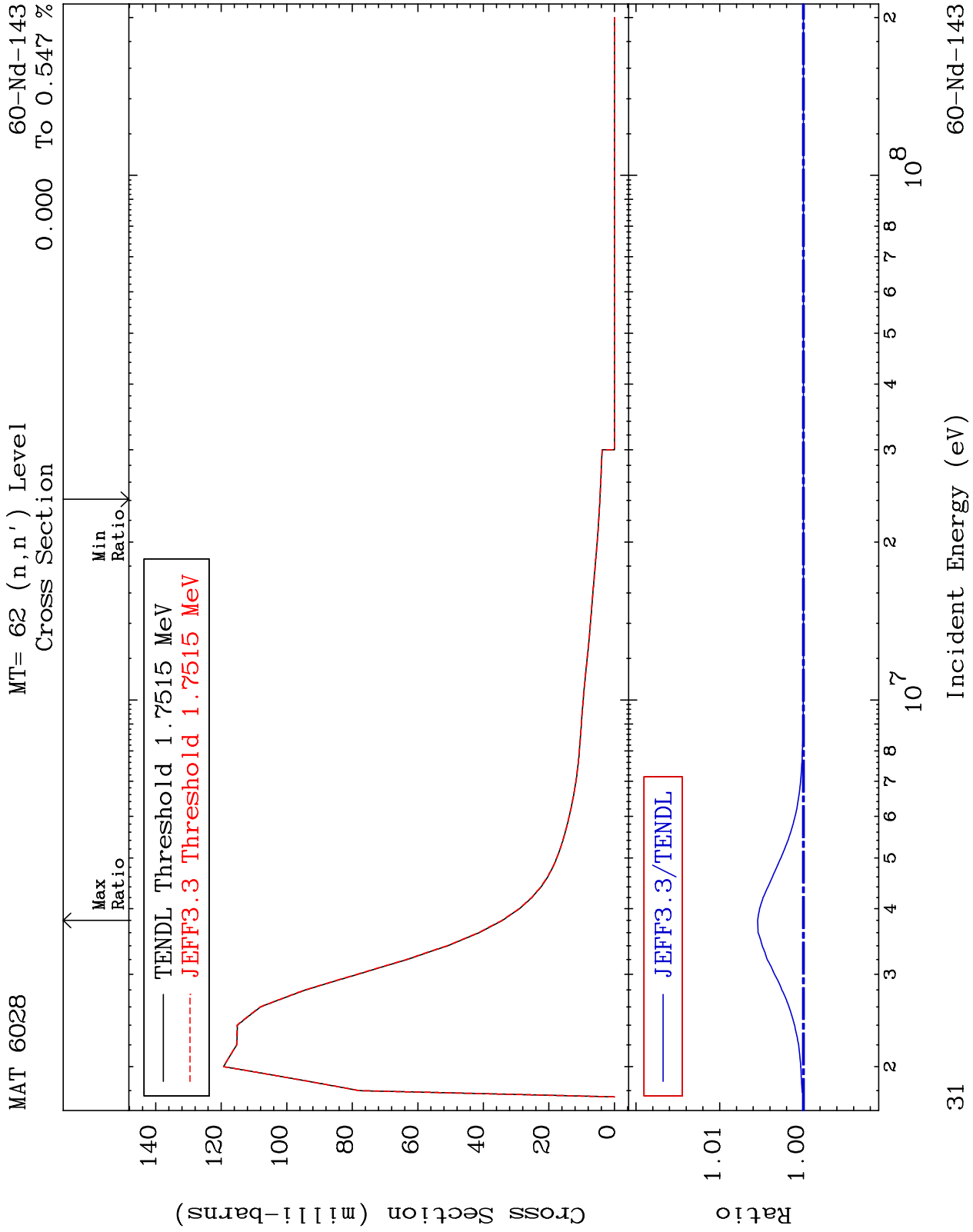
60-Nd-143  
0.000 To 0.416 %



30

60-Nd-143

60-Nd-143

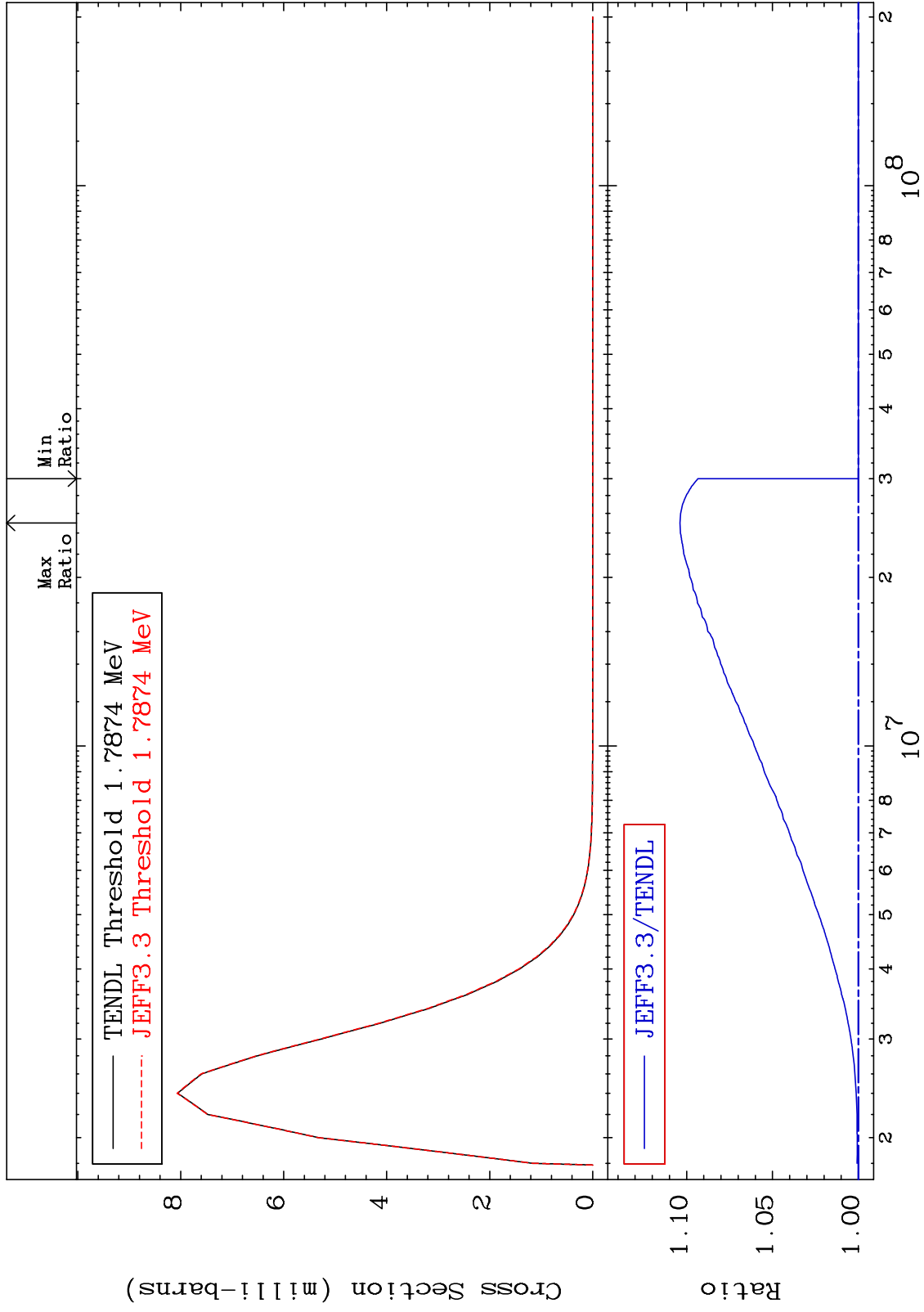




MAT 6028

MT= 63 (n,n') Level  
Cross Section

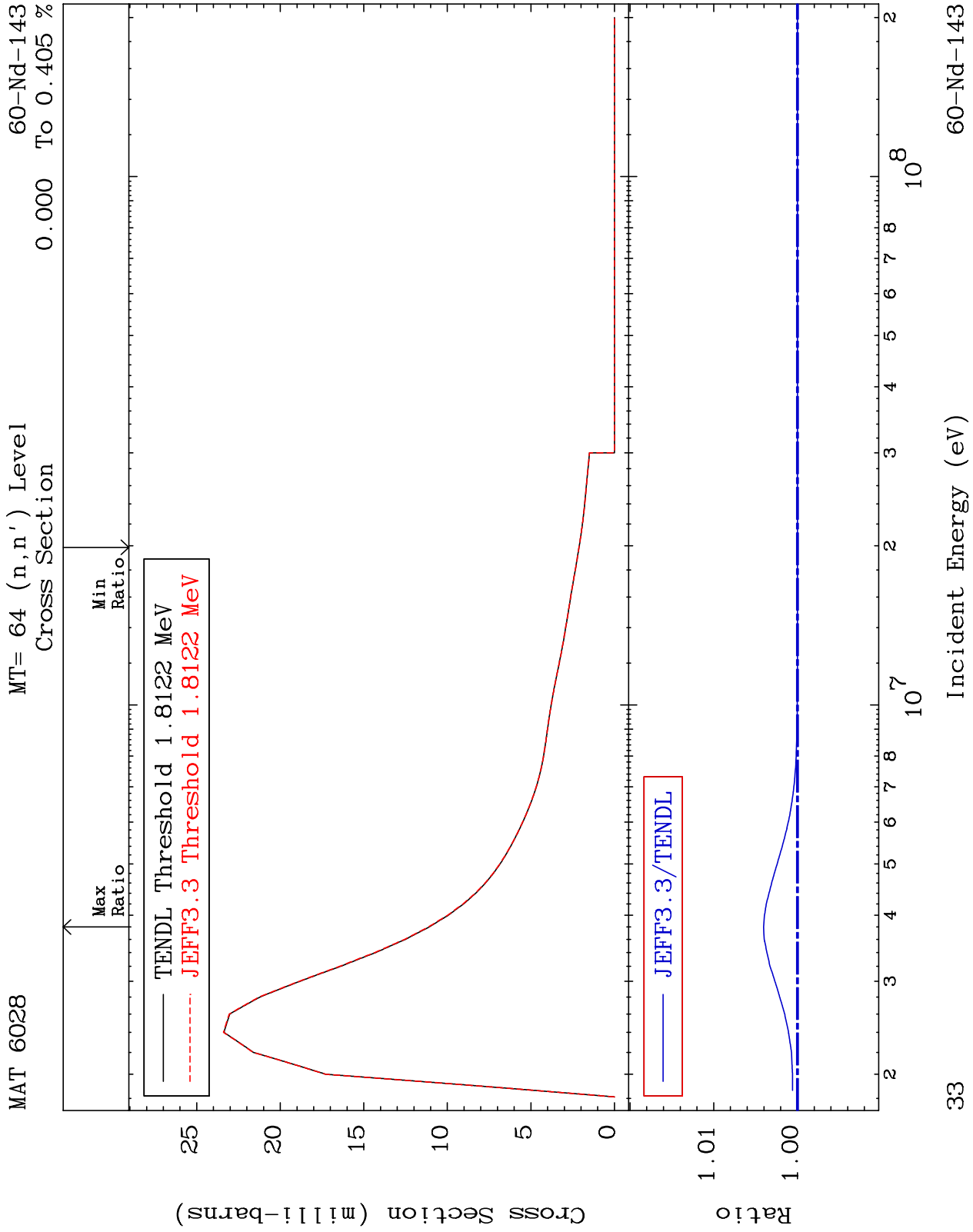
60-Nd-143  
To 10.38 %  
0.000



32

Incident Energy (eV)

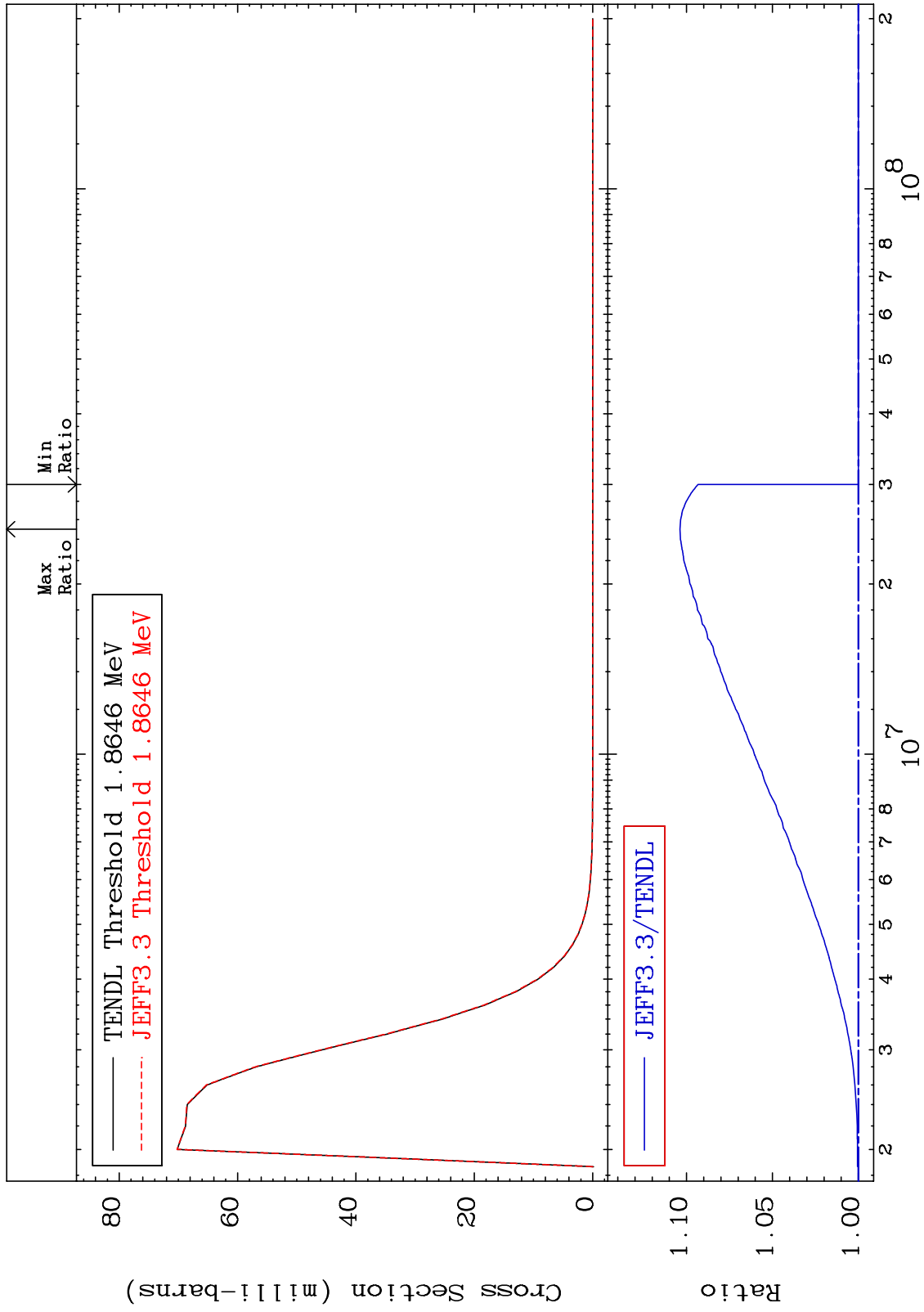
60-Nd-143



MAT 6028

MT= 65 (n,n') Level  
Cross Section

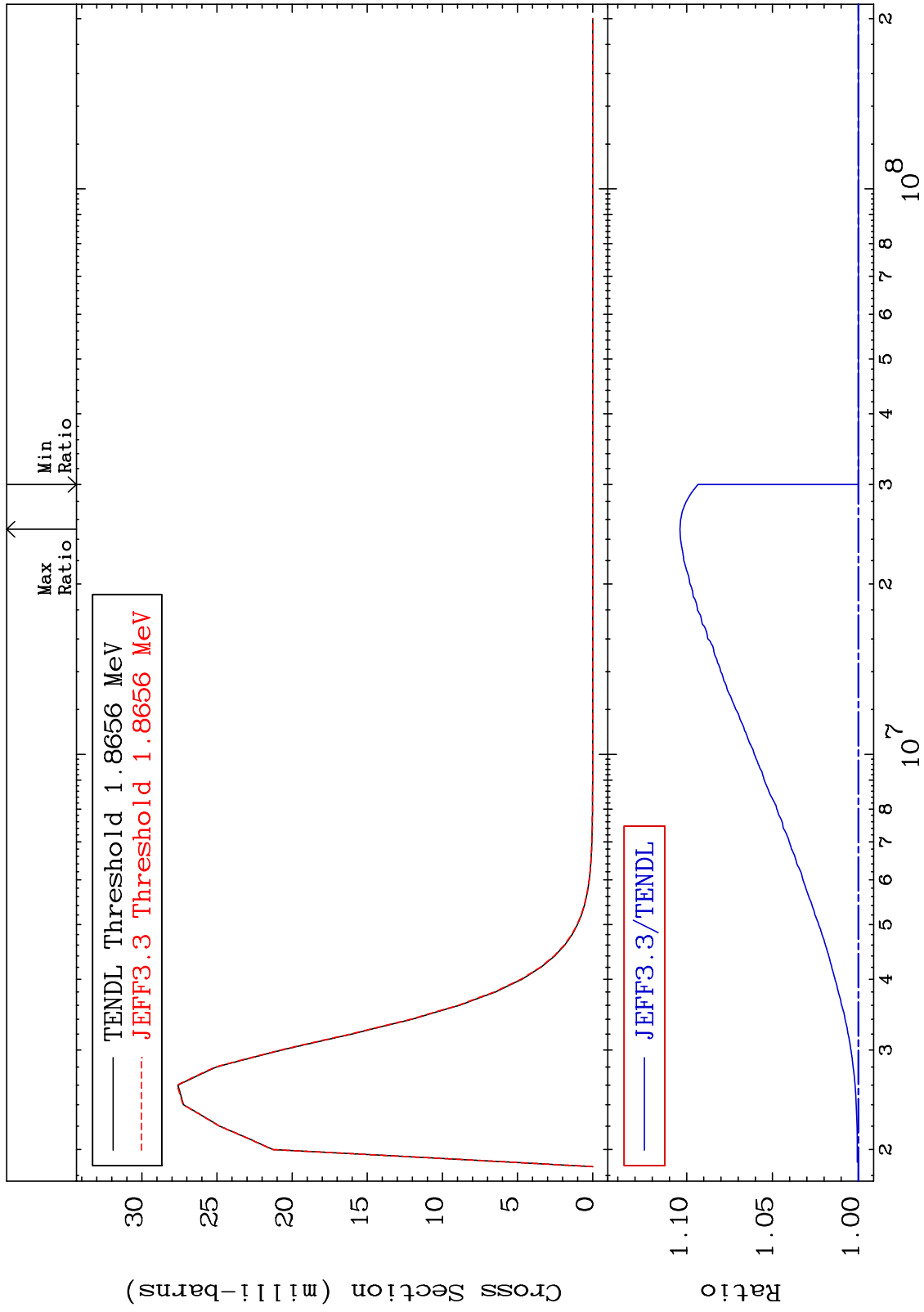
60-Nd-143  
To 10.38 %  
0.000



MAT 6028

MT= 66 (n,n') Level  
Cross Section

60-Nd-143  
0.000 To 10.38 %



35

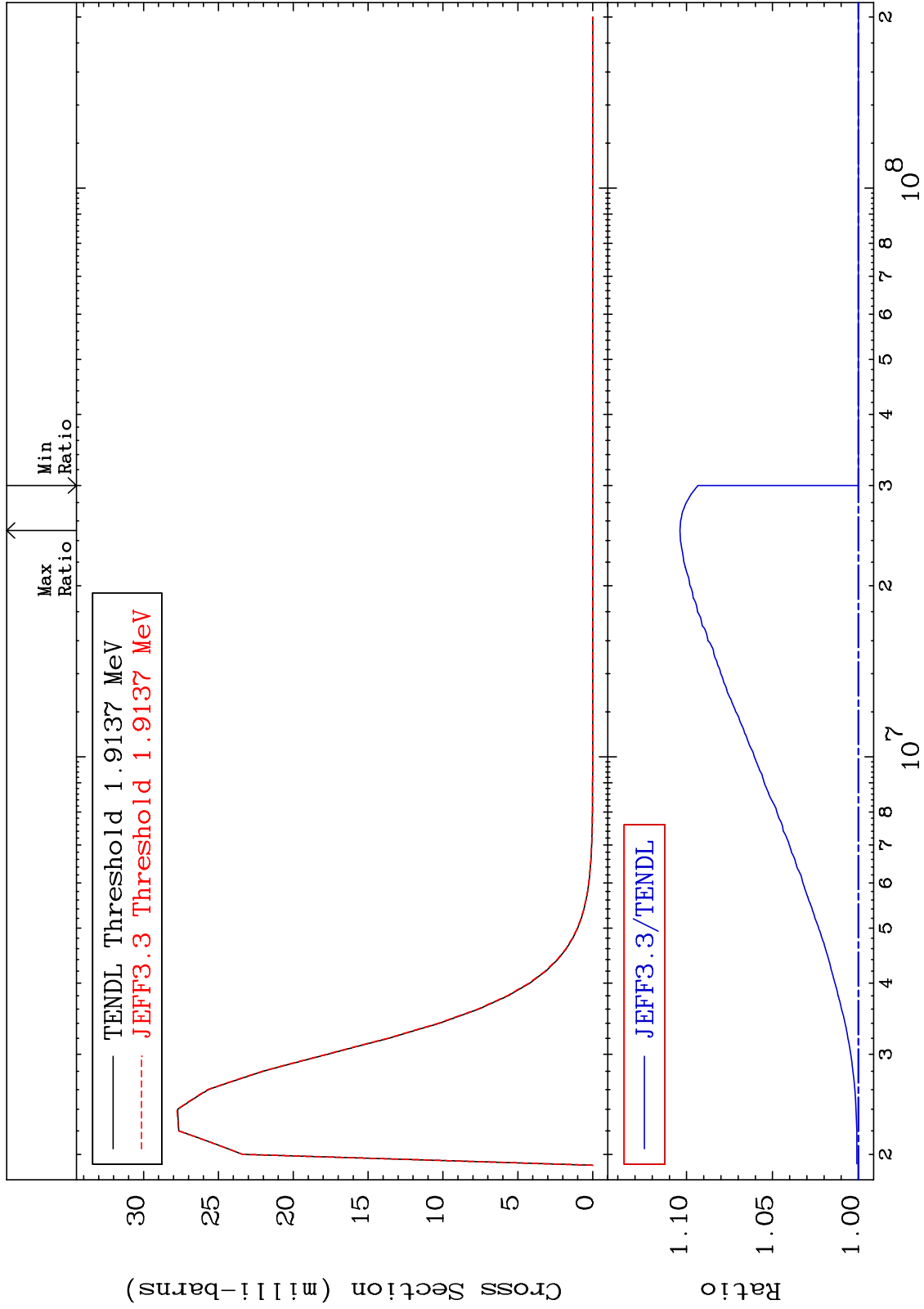
Incident Energy (eV)

60-Nd-143

MAT 6028

MT= 67 (n, n') Level  
Cross Section

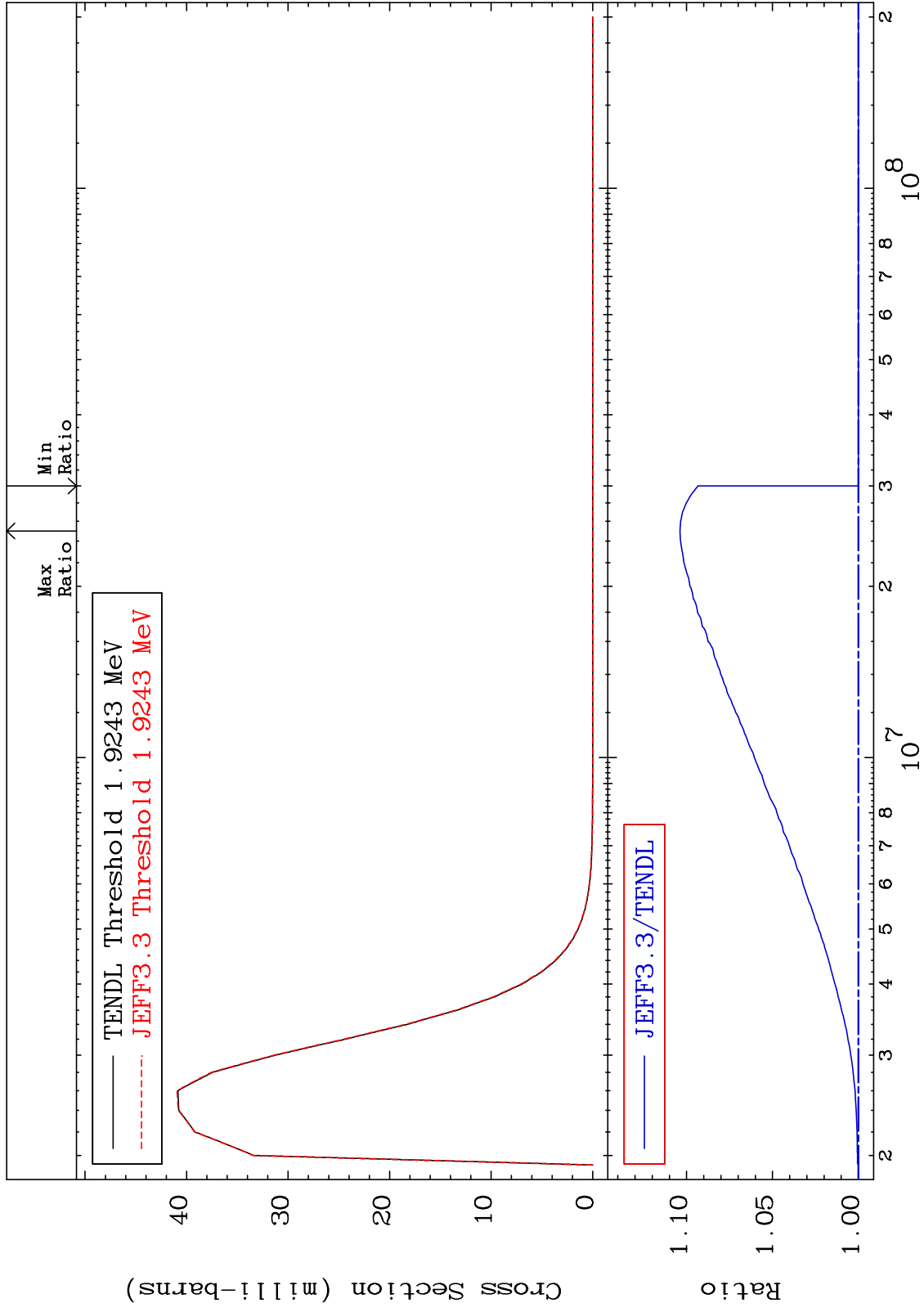
60-Nd-143  
To 10.38 %  
0.000



MAT 6028

MT= 68 (n, n') Level  
Cross Section

60-Nd-143  
0.000 To 10.38 %



37

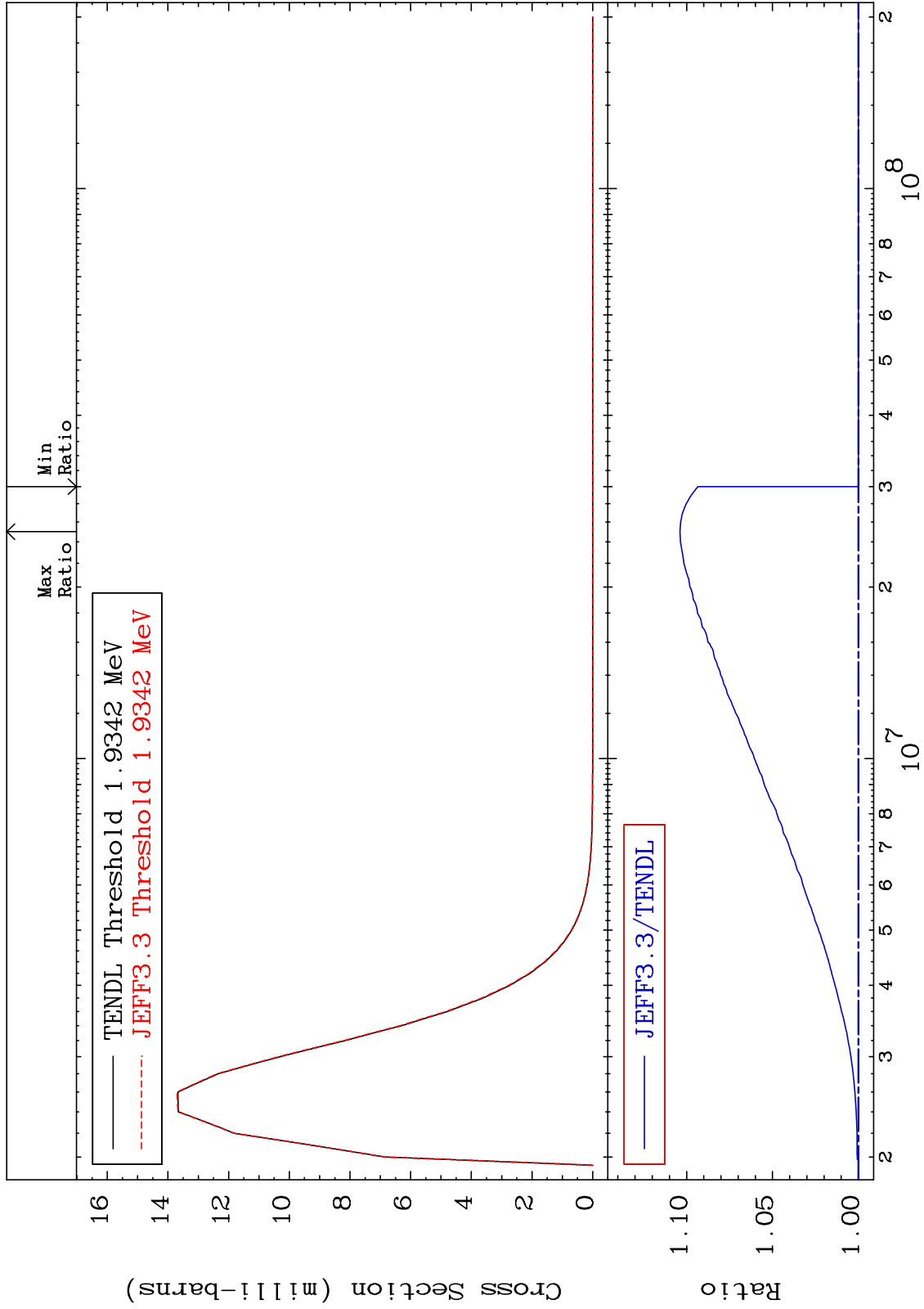
Incident Energy (eV)

60-Nd-143

MAT 6028

MT= 69 (n, n') Level  
Cross Section

60-Nd-143  
0.000 To 10.38 %



38

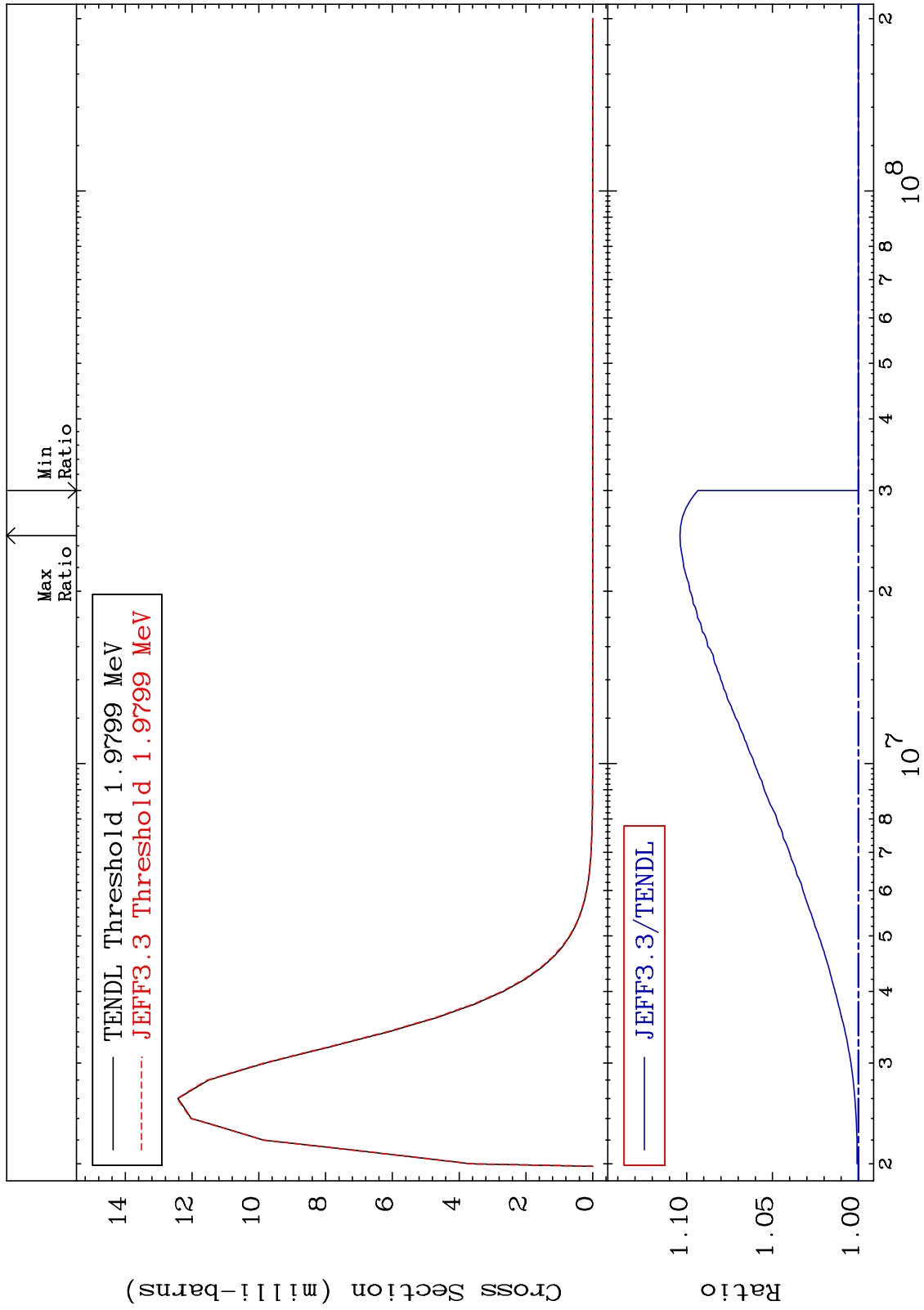
Incident Energy (eV)

60-Nd-143

MAT 6028

MT= 70 (n,n') Level  
Cross Section

60-Nd-143  
0.000 To 10.38 %

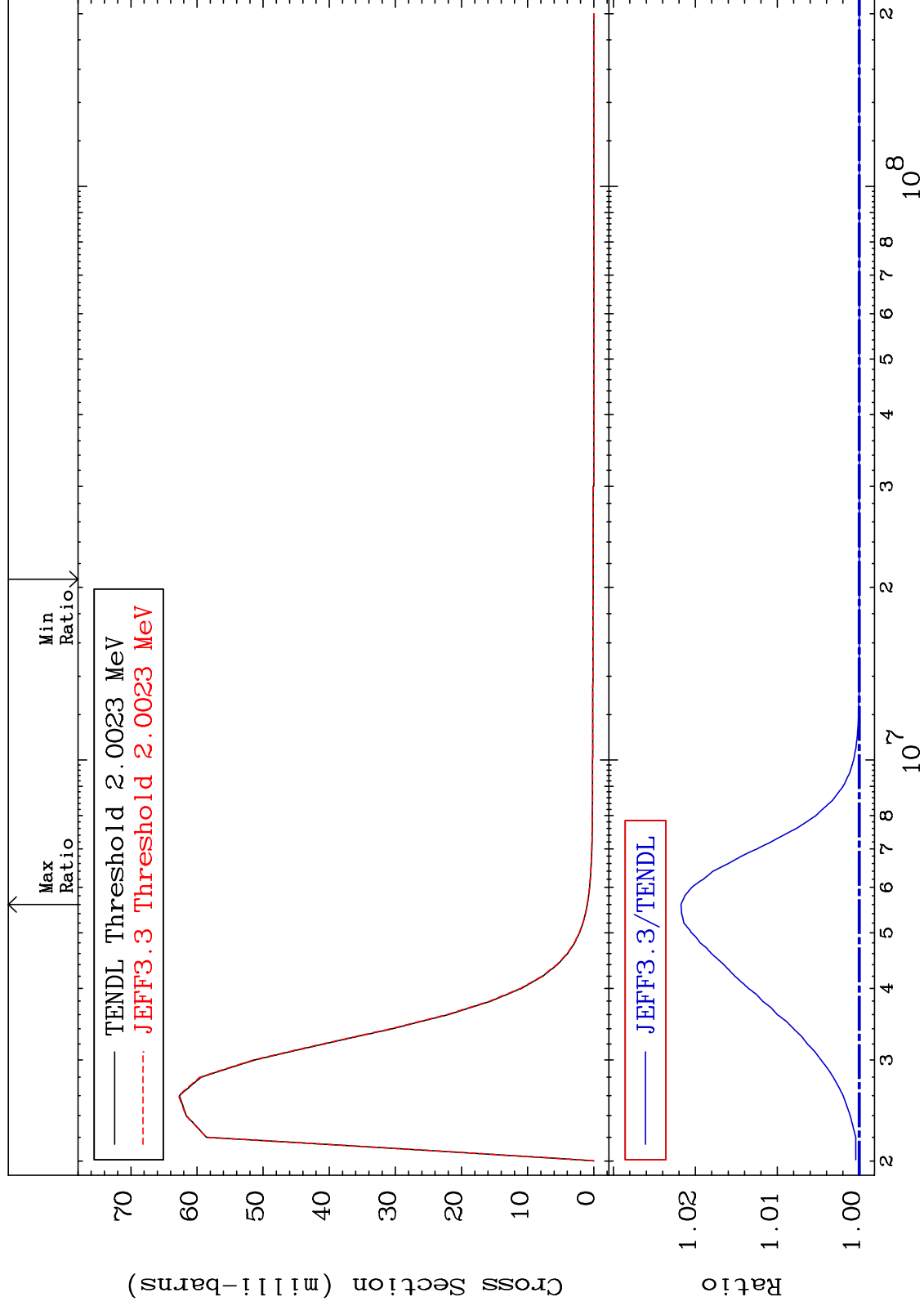




MAT 6028

MT= 71 (n,n') Level  
Cross Section

60-Nd-143  
0.000 To 2.175 %



40

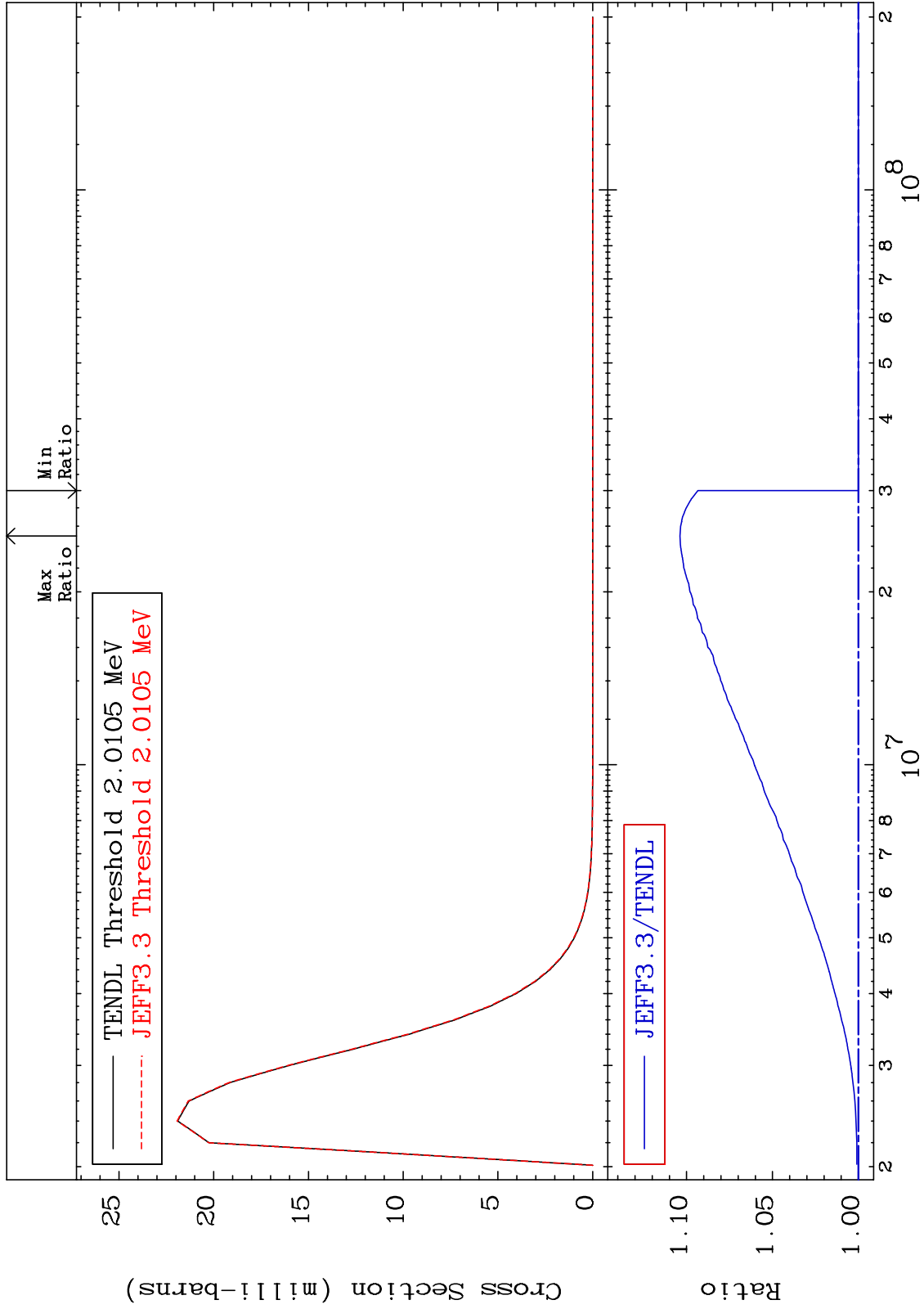
Incident Energy (eV)

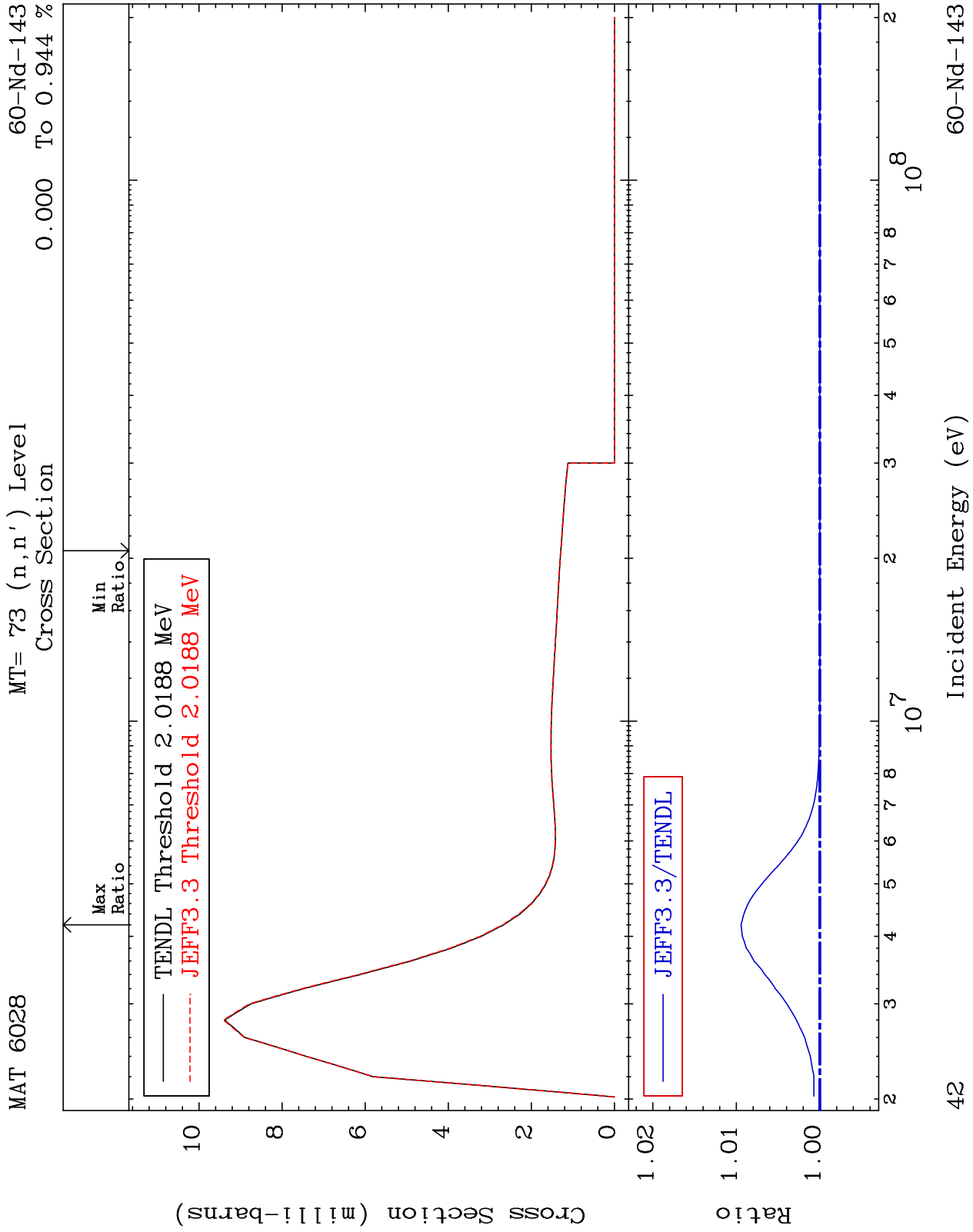
60-Nd-143

MAT 6028

MT= 72 (n, n') Level  
Cross Section

60-Nd-143  
0.000 To 10.38 %

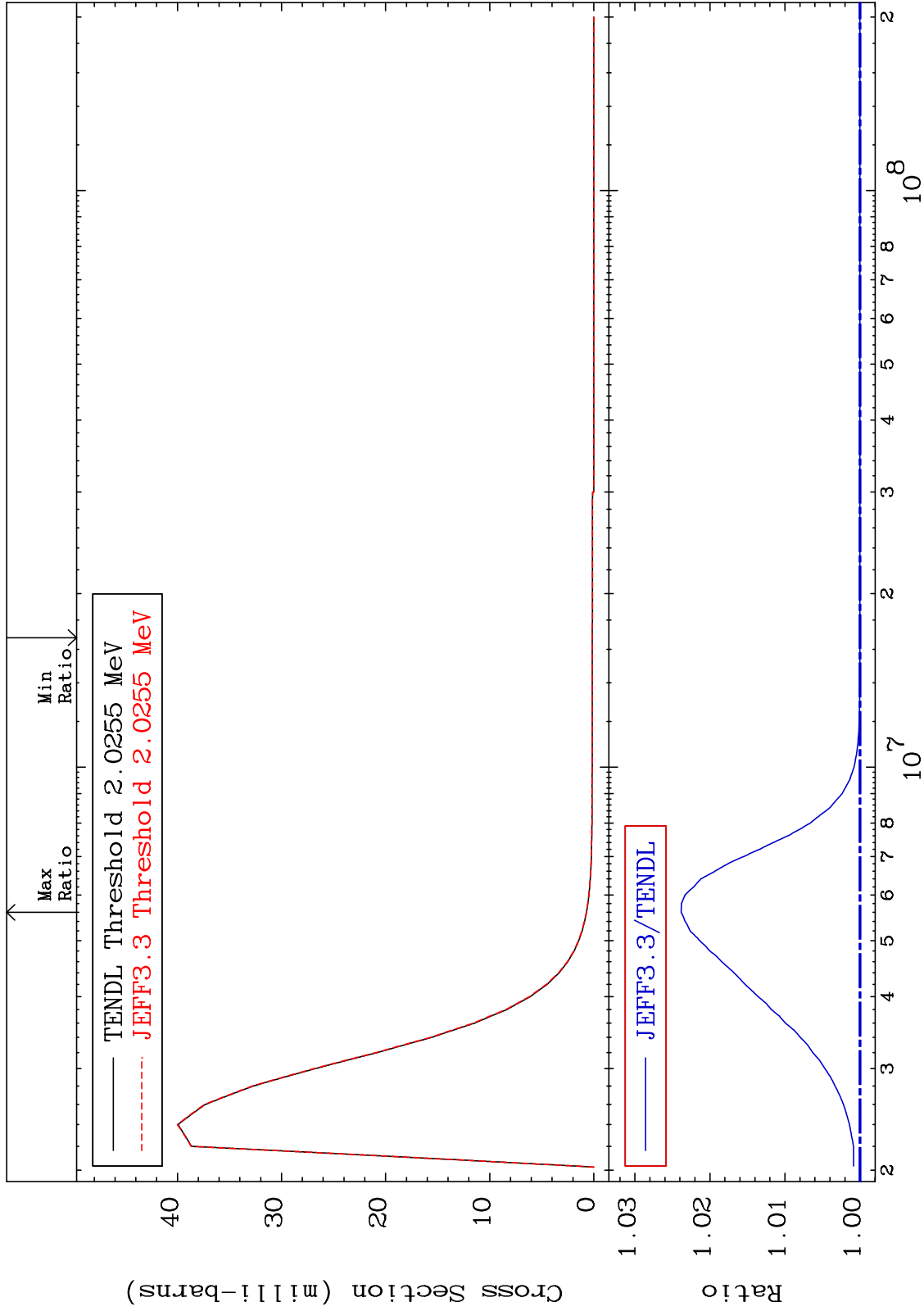




MAT 6028

MT= 74 (n,n') Level  
Cross Section

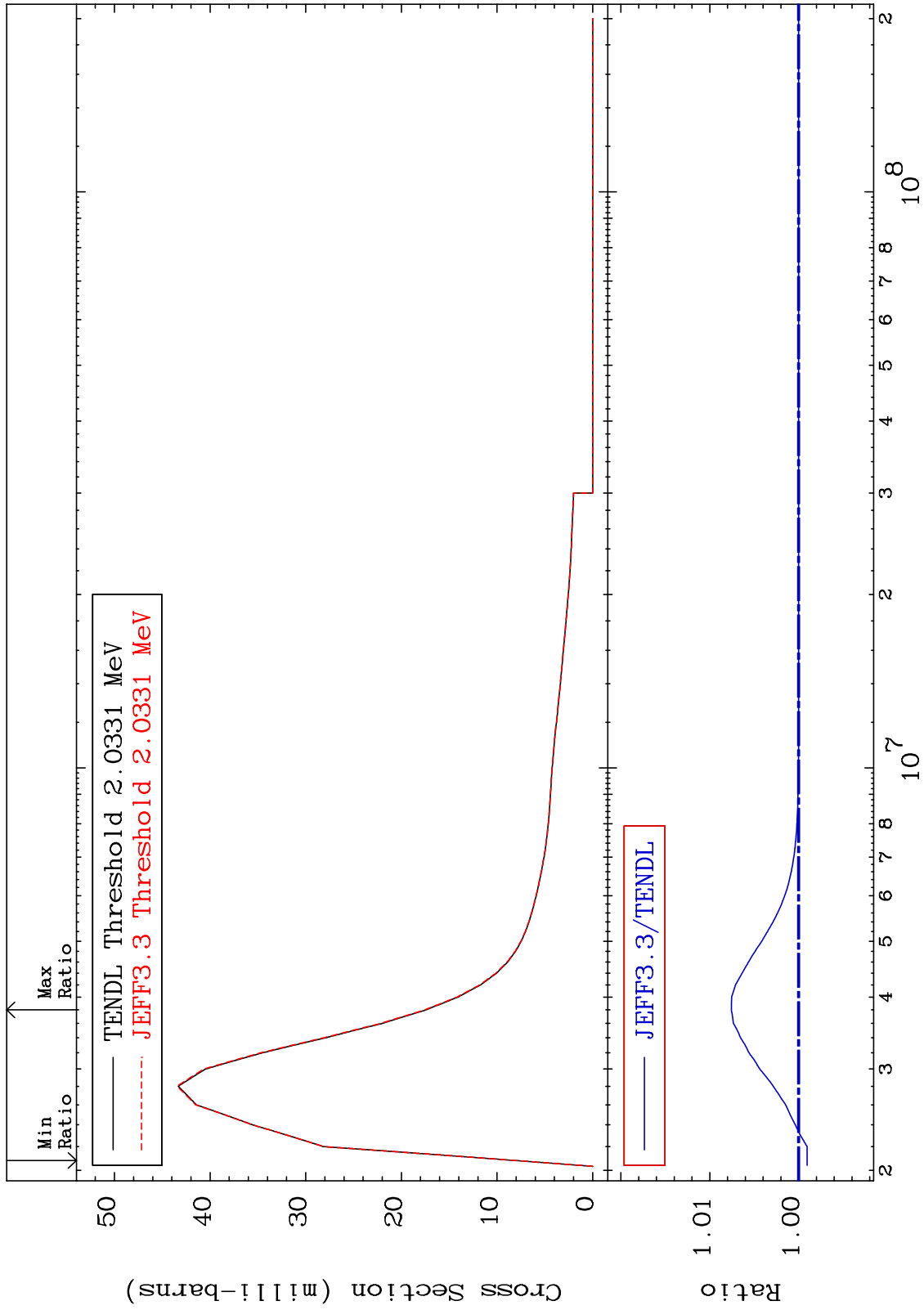
60-Nd-143  
0.000 To 2.383 %



MAT 6028

MT= 75 (n,n') Level  
Cross Section

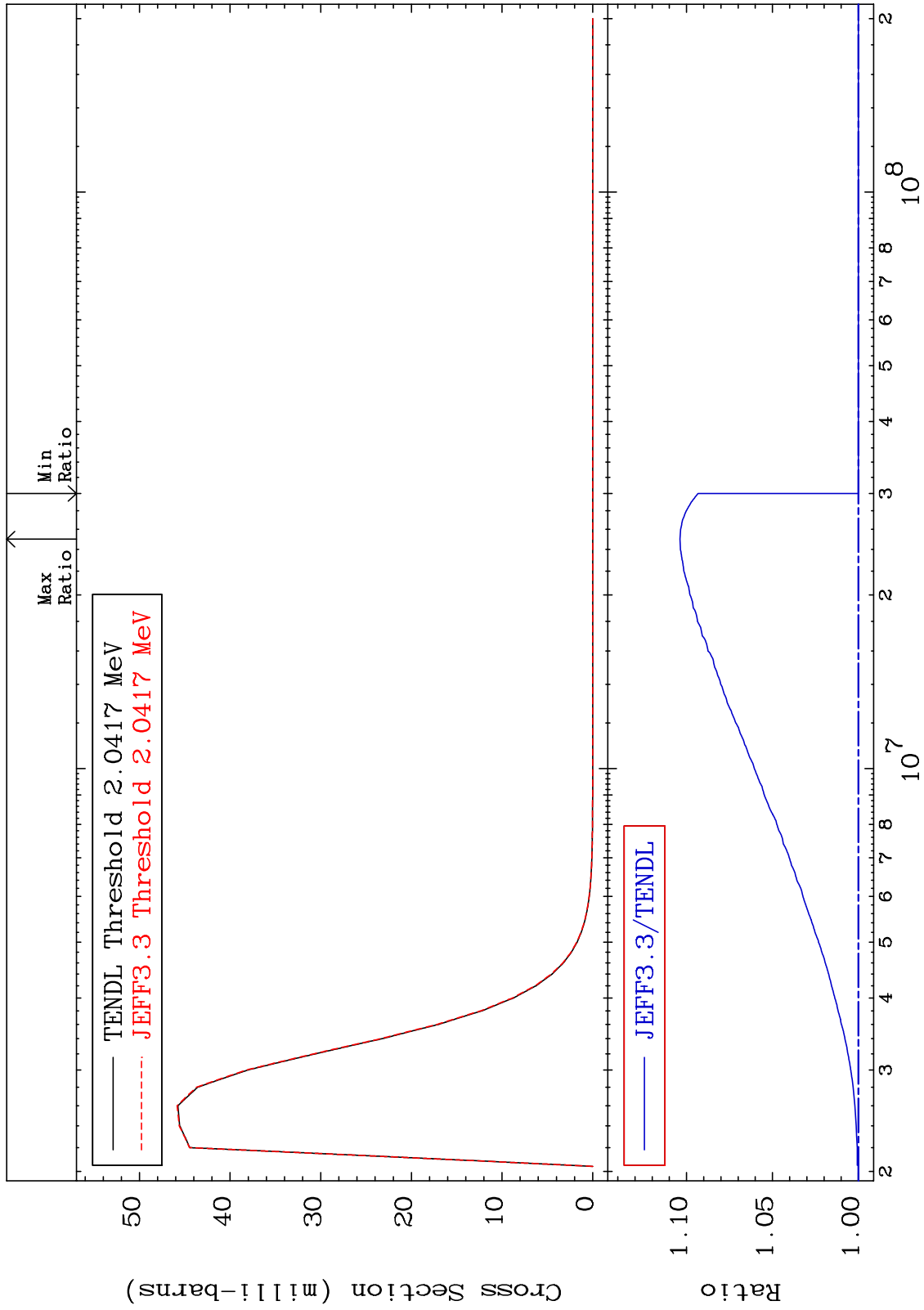
60-Nd-143  
-0.095 To 0.757 %



MAT 6028

MT= 76 (n,n') Level  
Cross Section

60-Nd-143  
To 10.38 %  
0.000



45

Incident Energy (eV)

60-Nd-143

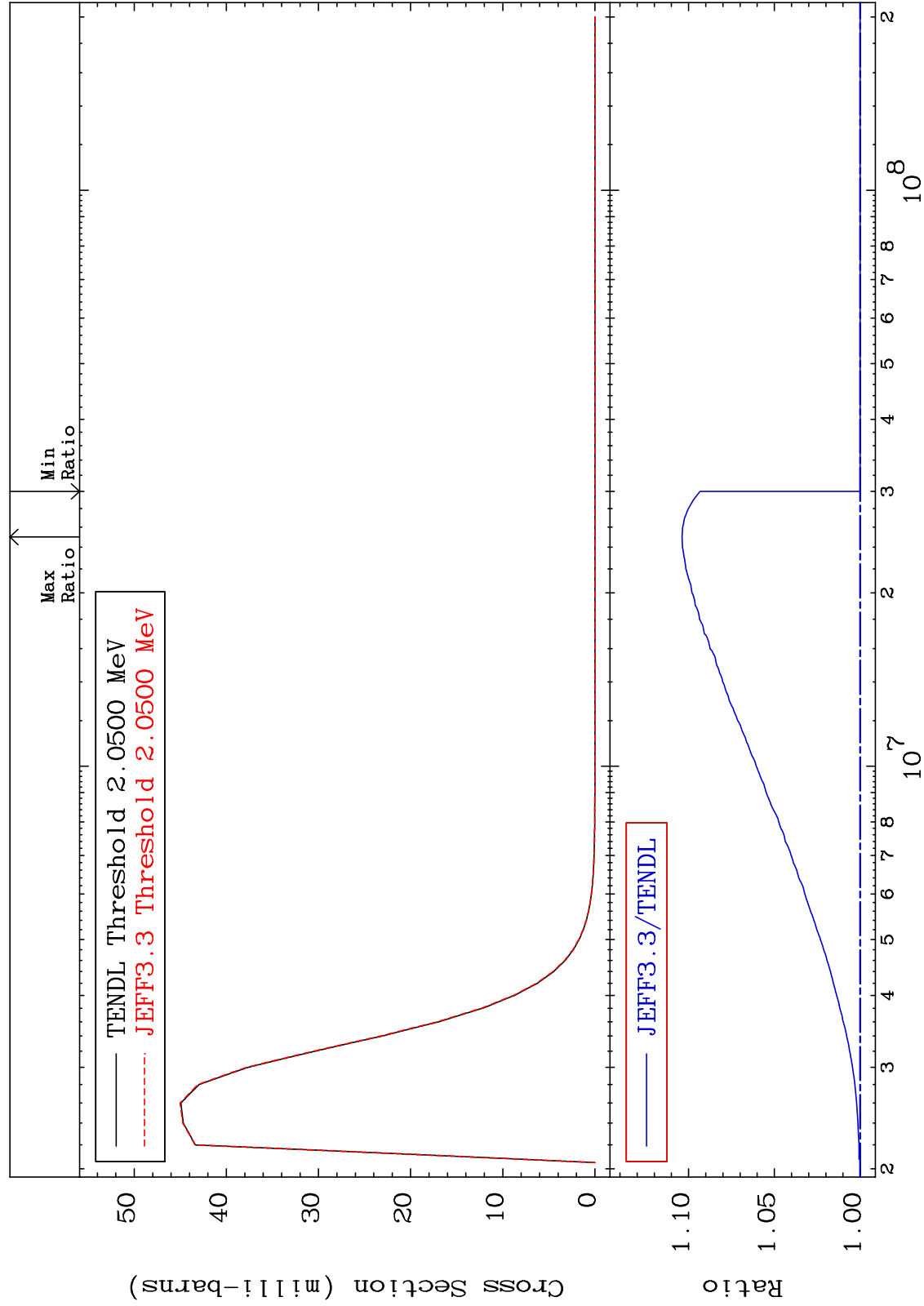
MAT 6028

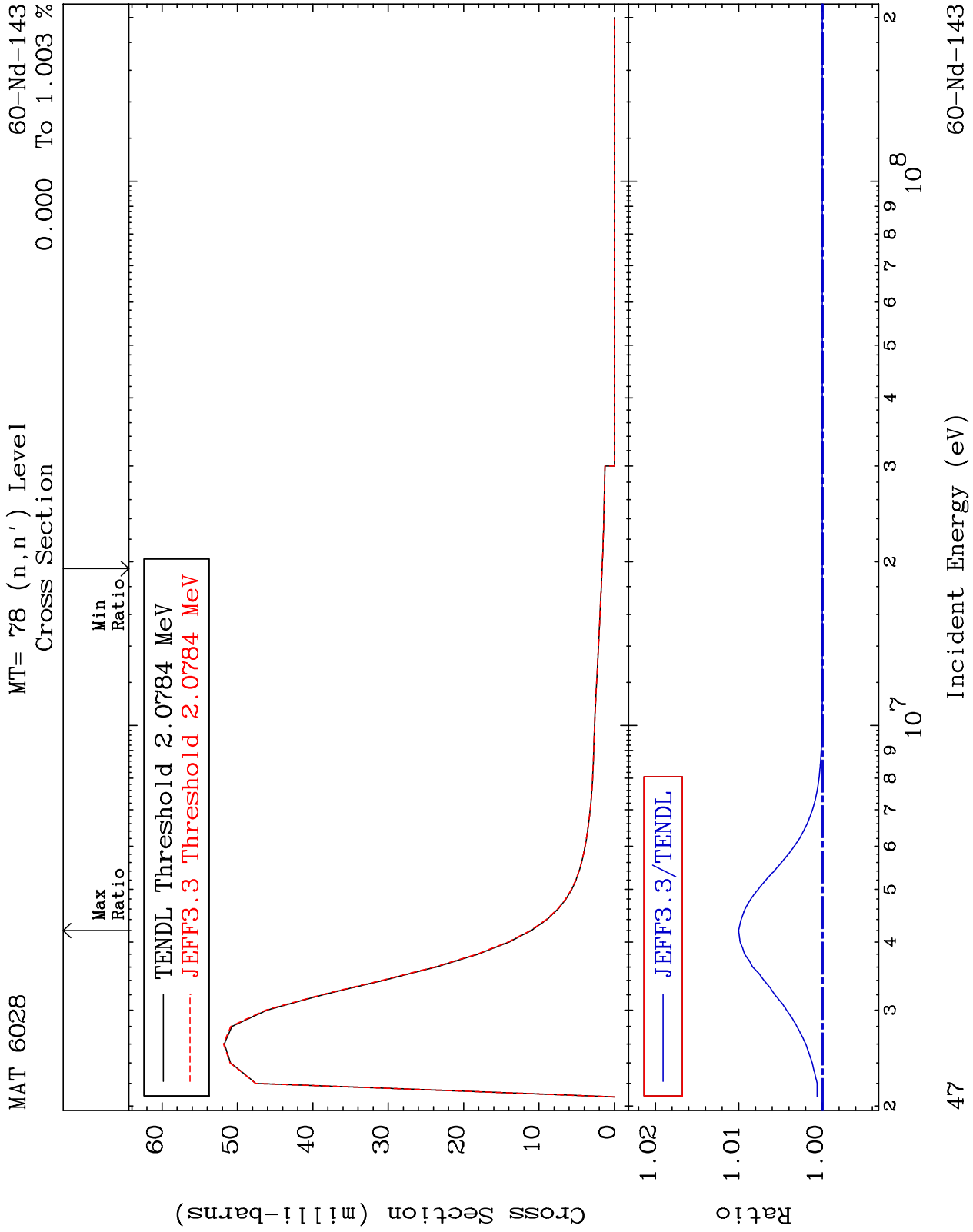
MT= 77 (n, n') Level

60-Nd-143

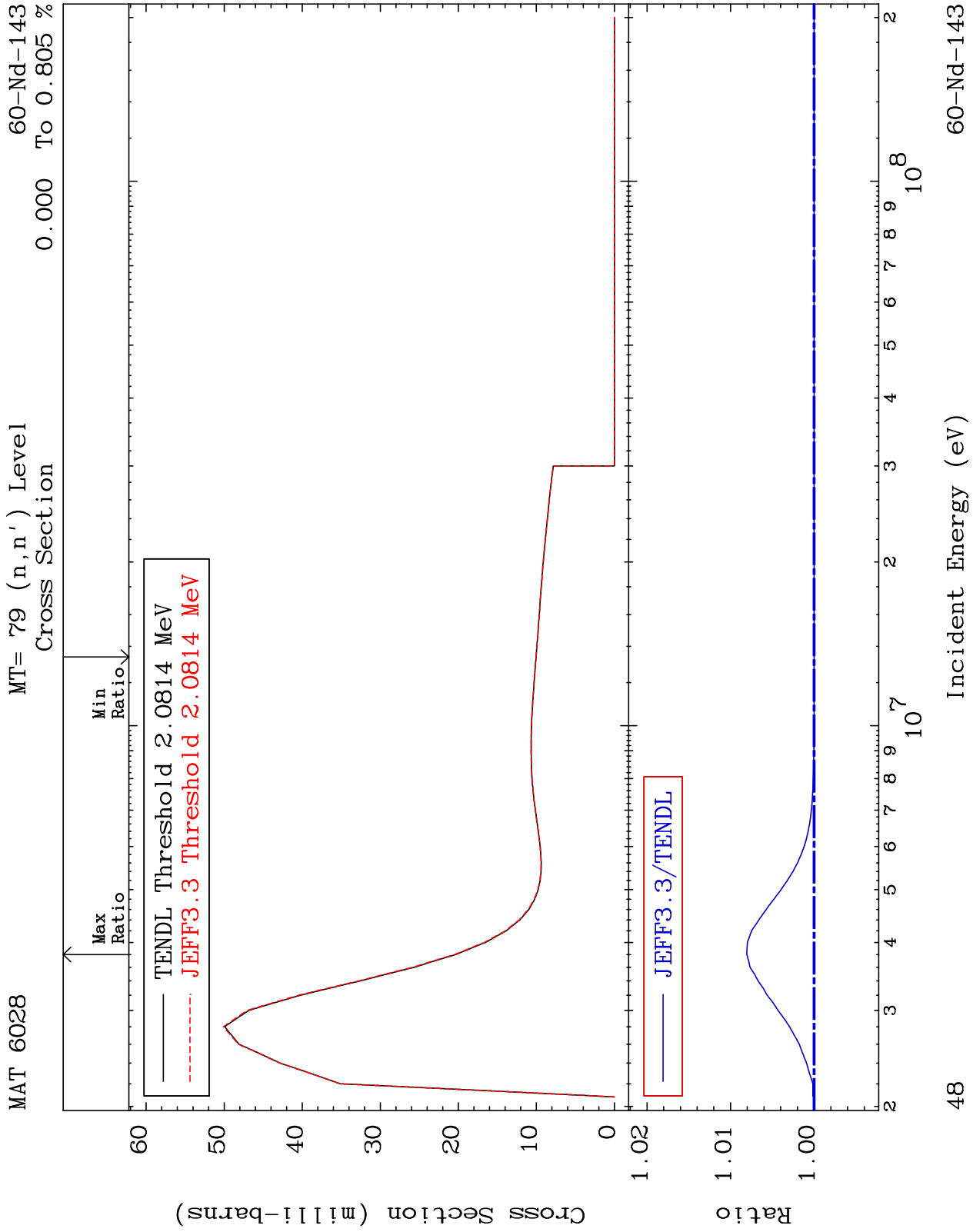
Cross Section

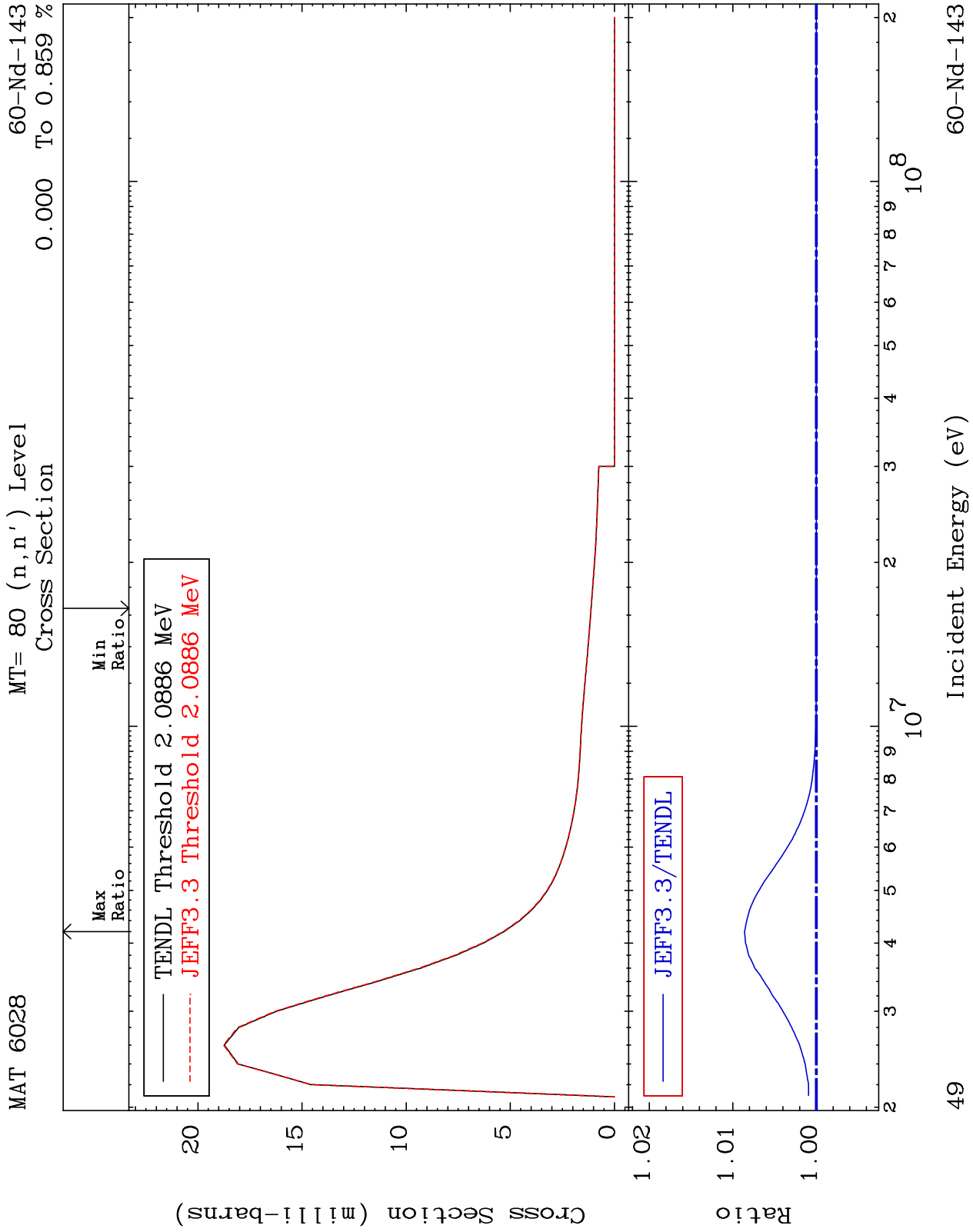
0.000 To 10.38 %







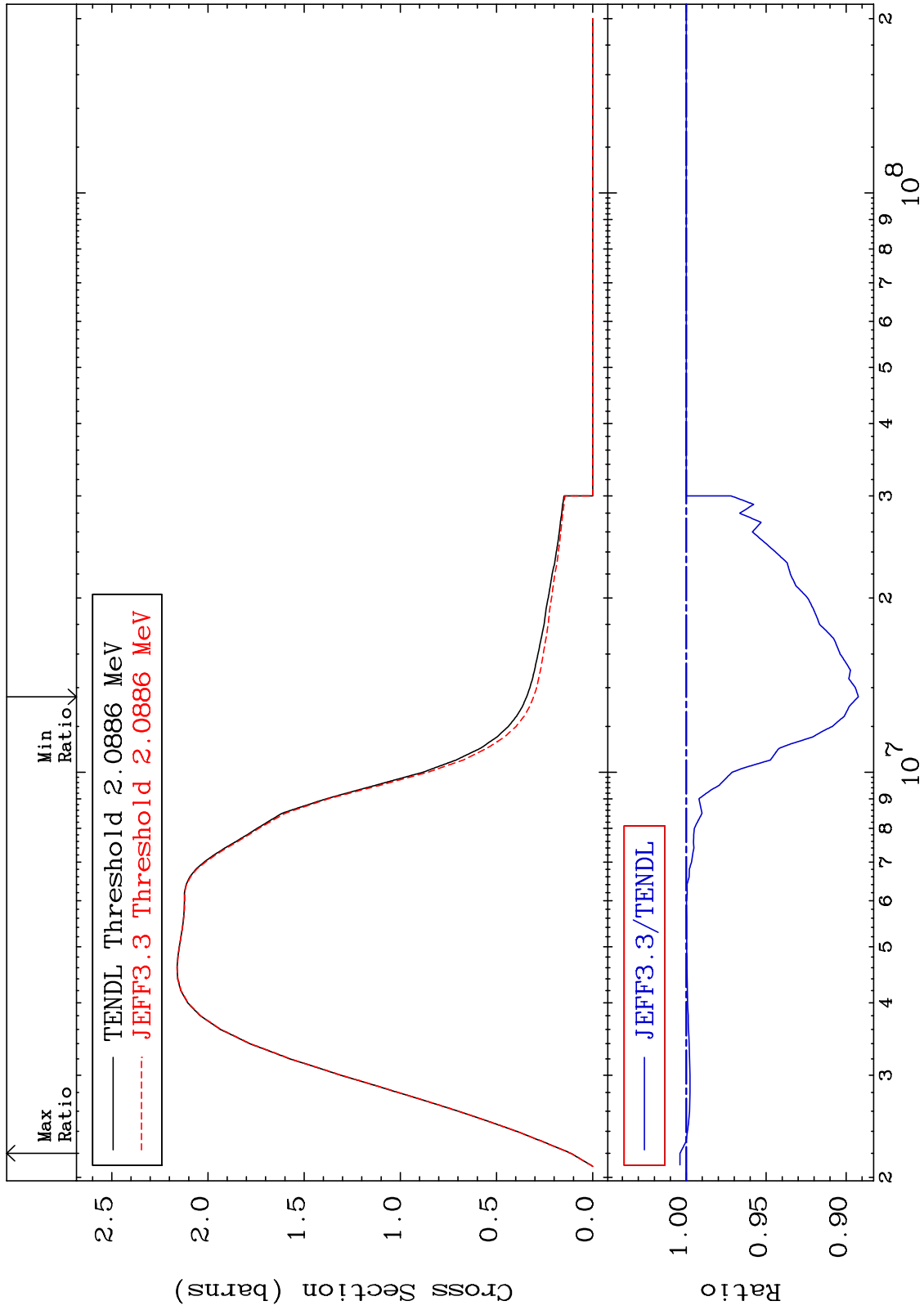




MAT 6028

(n,n') Continuum  
Cross Section

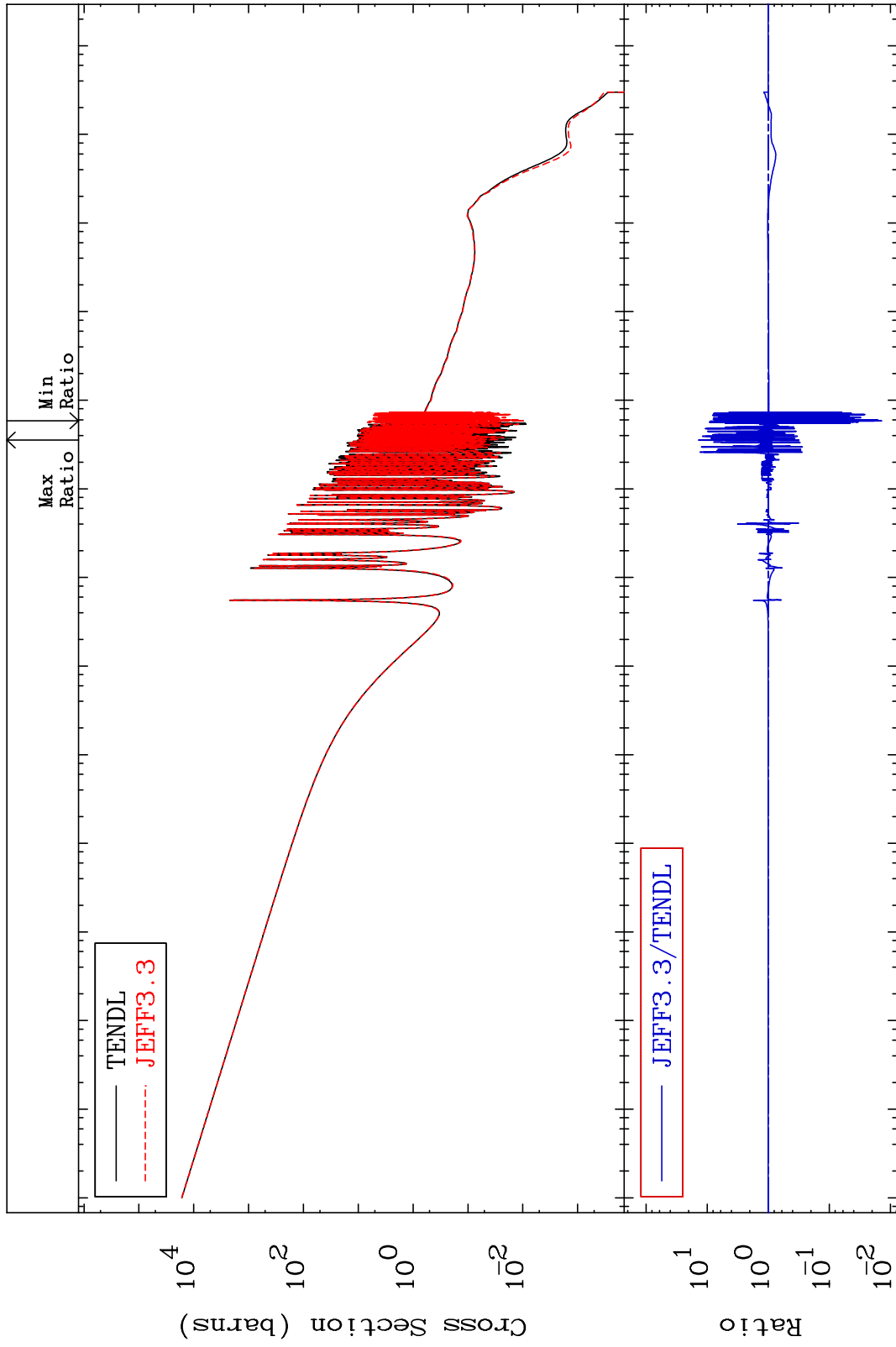
60-Nd-143  
-10.77 To 0.393 %



MAT 6028

(n,  $\gamma$ )  
Cross Section

60-Nd-143  
-98.60 To 1293. %

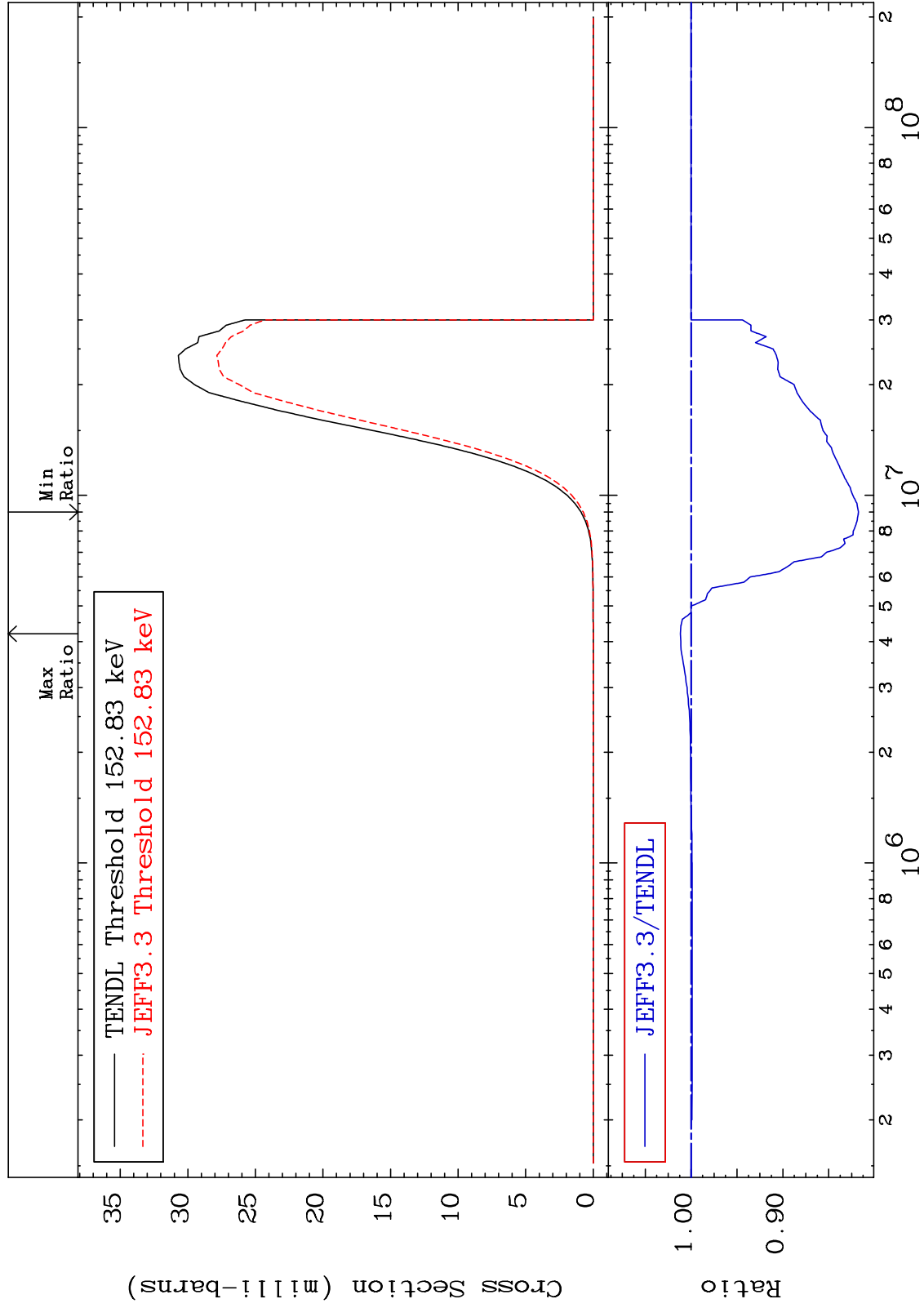


Incident Energy (eV)

60-Nd-143

MAT 6028

(n,p) Cross Section  
60-Nd-143  
-18.25 To 1.164 %



52

Incident Energy (eV)

60-Nd-143

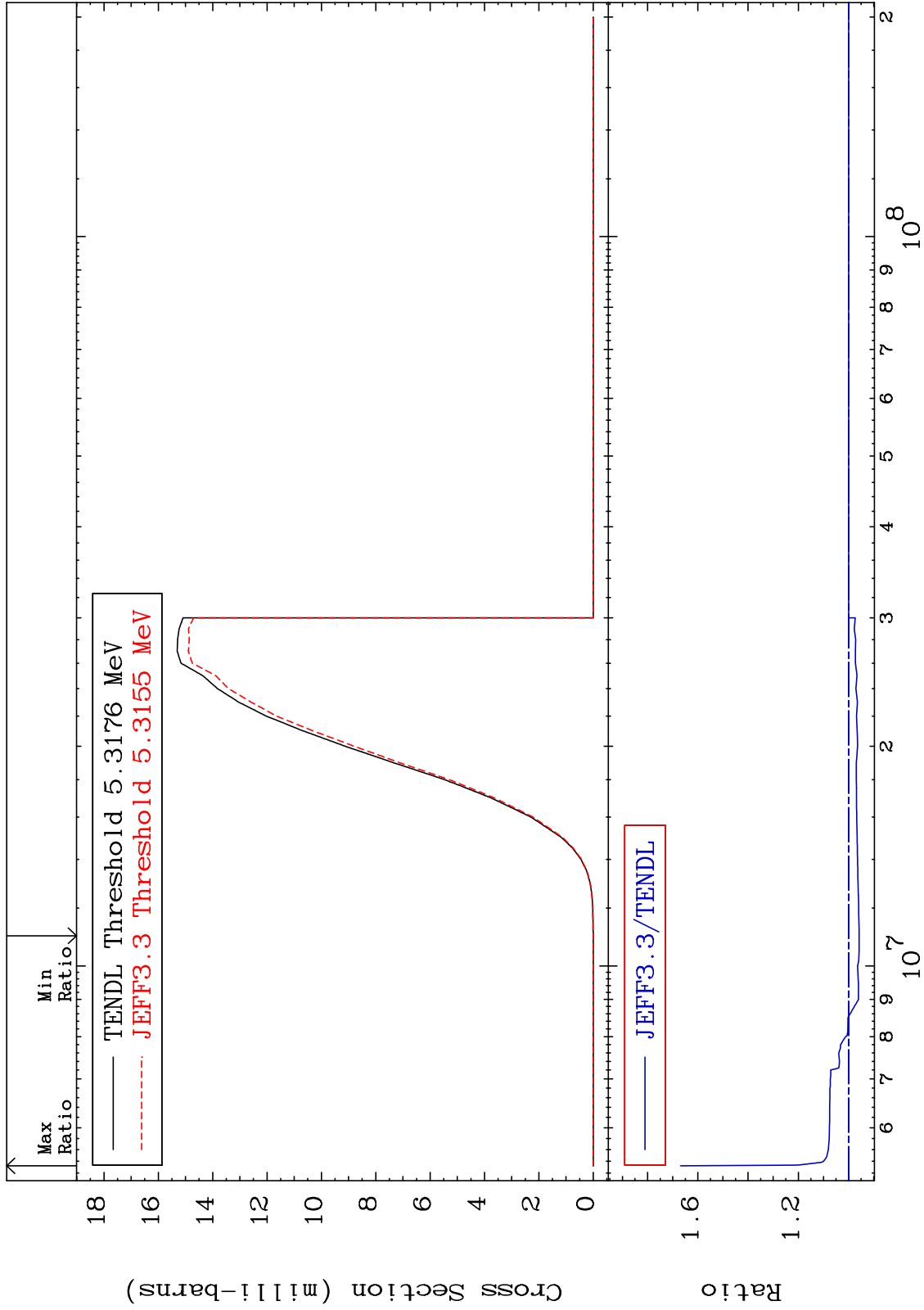
MAT 6028

(n, d)

60-Nd-143

Cross Section

-4.210 To 66.85 %



53

Incident Energy (eV)

60-Nd-143

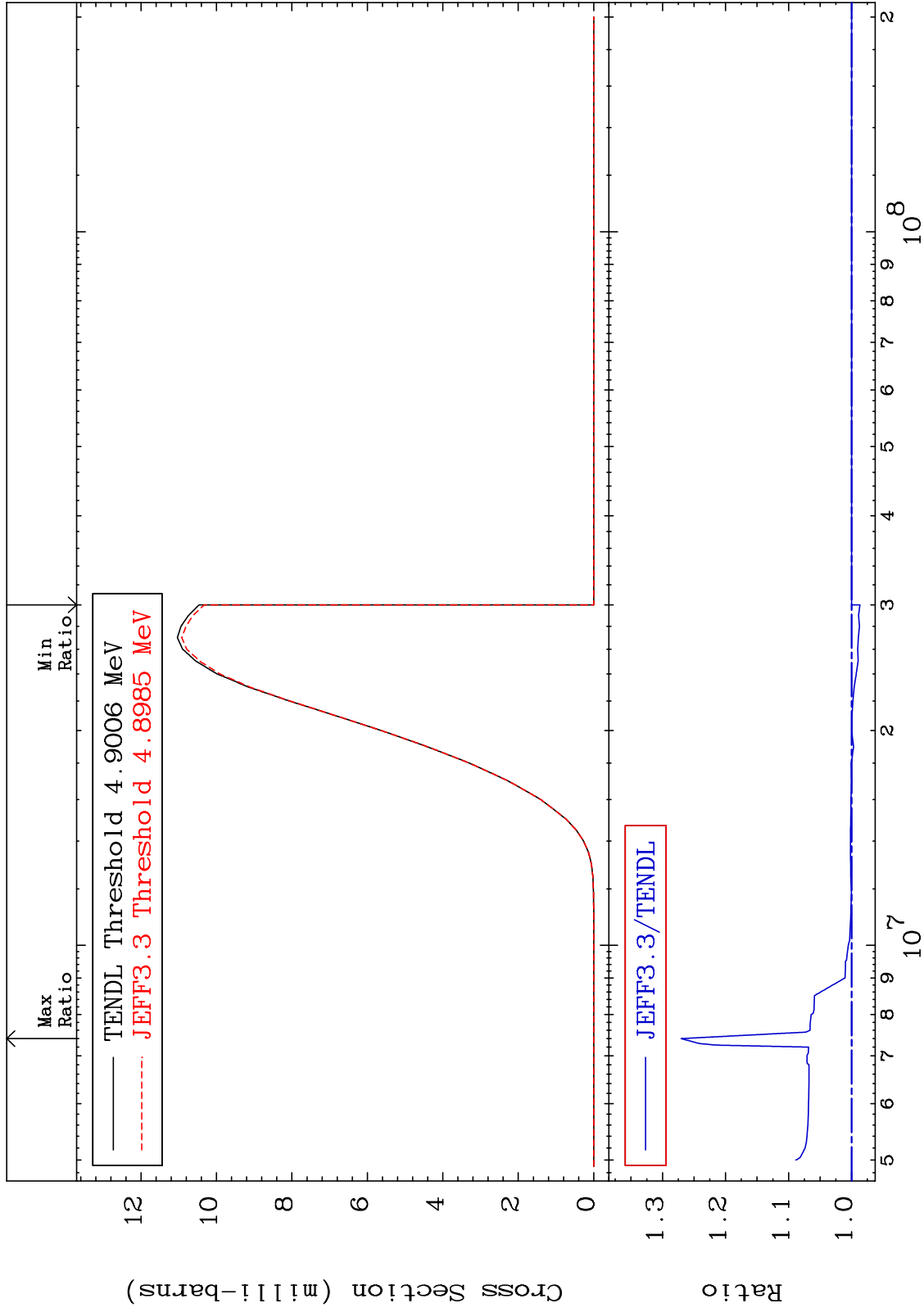
MAT 6028

(n, t)

60-Nd-143

Cross Section

-1.321 To 27.03 %



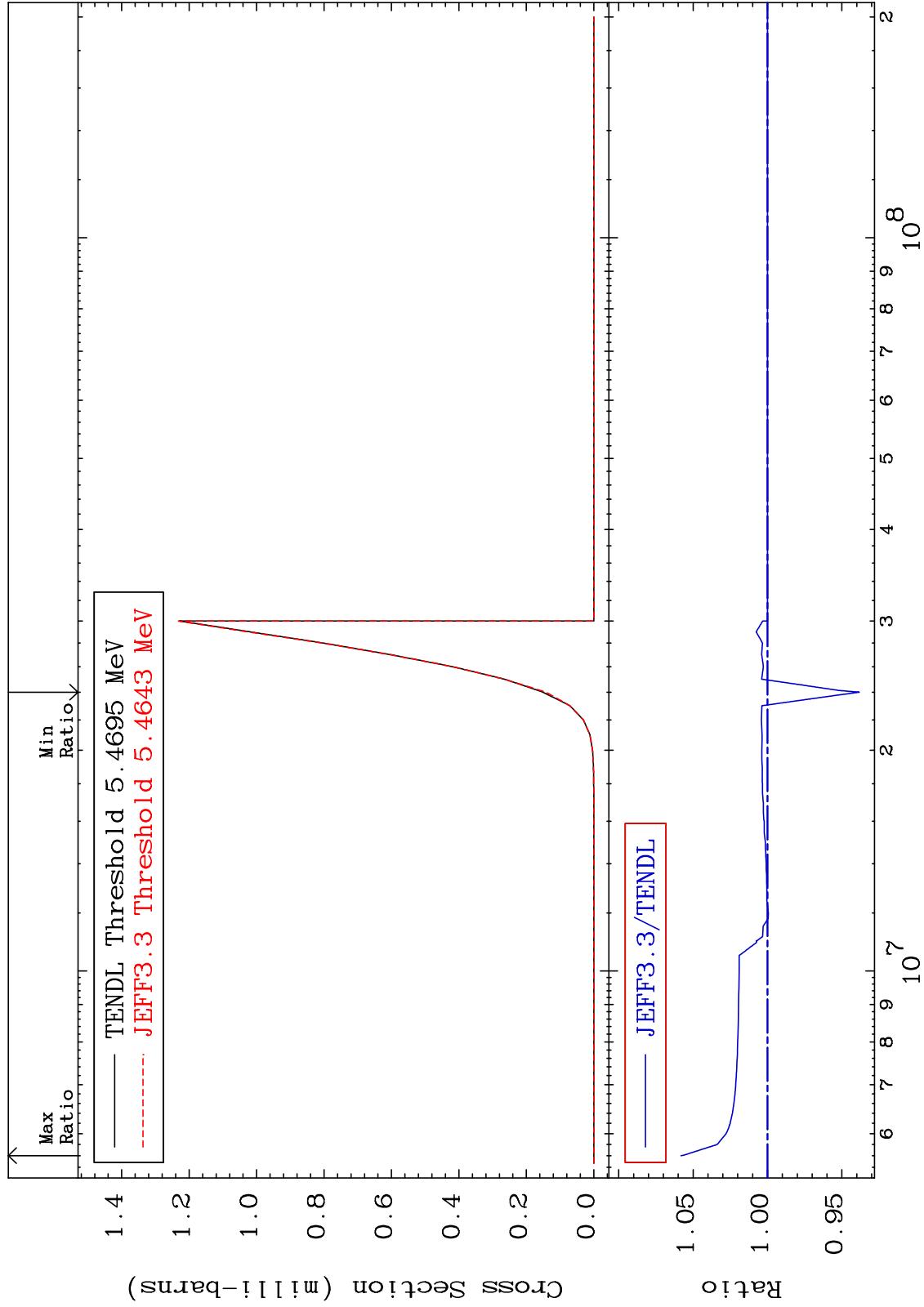
MAT 6028

(n, He-3)

60-Nd-143

Cross Section

-6.169 To 5.811 %



55

Incident Energy (eV)

60-Nd-143



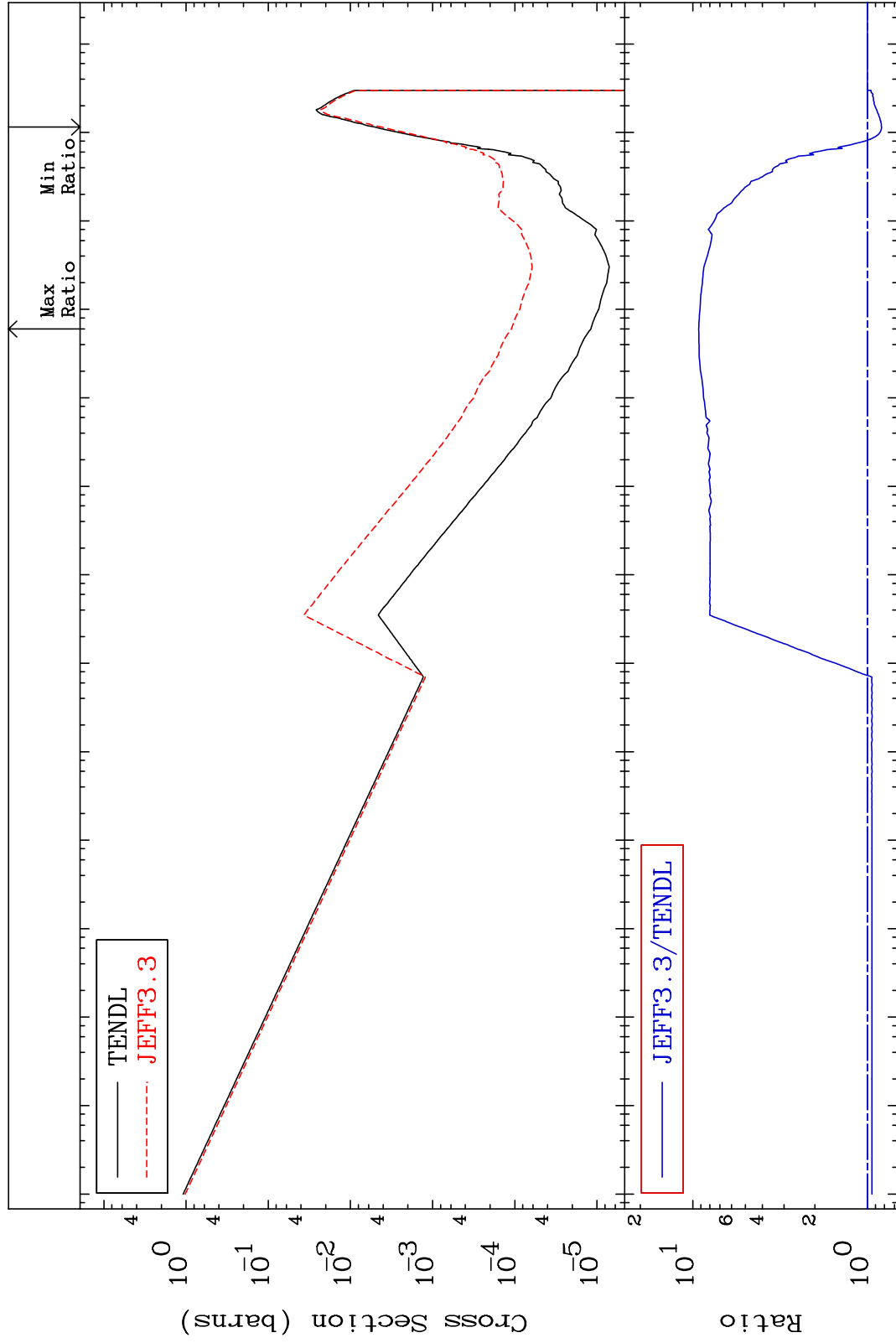
MAT 6028

(n,  $\alpha$ )

60-Nd-143

Cross Section

-17.02 To 825.4 %



Incident Energy (eV)

60-Nd-143

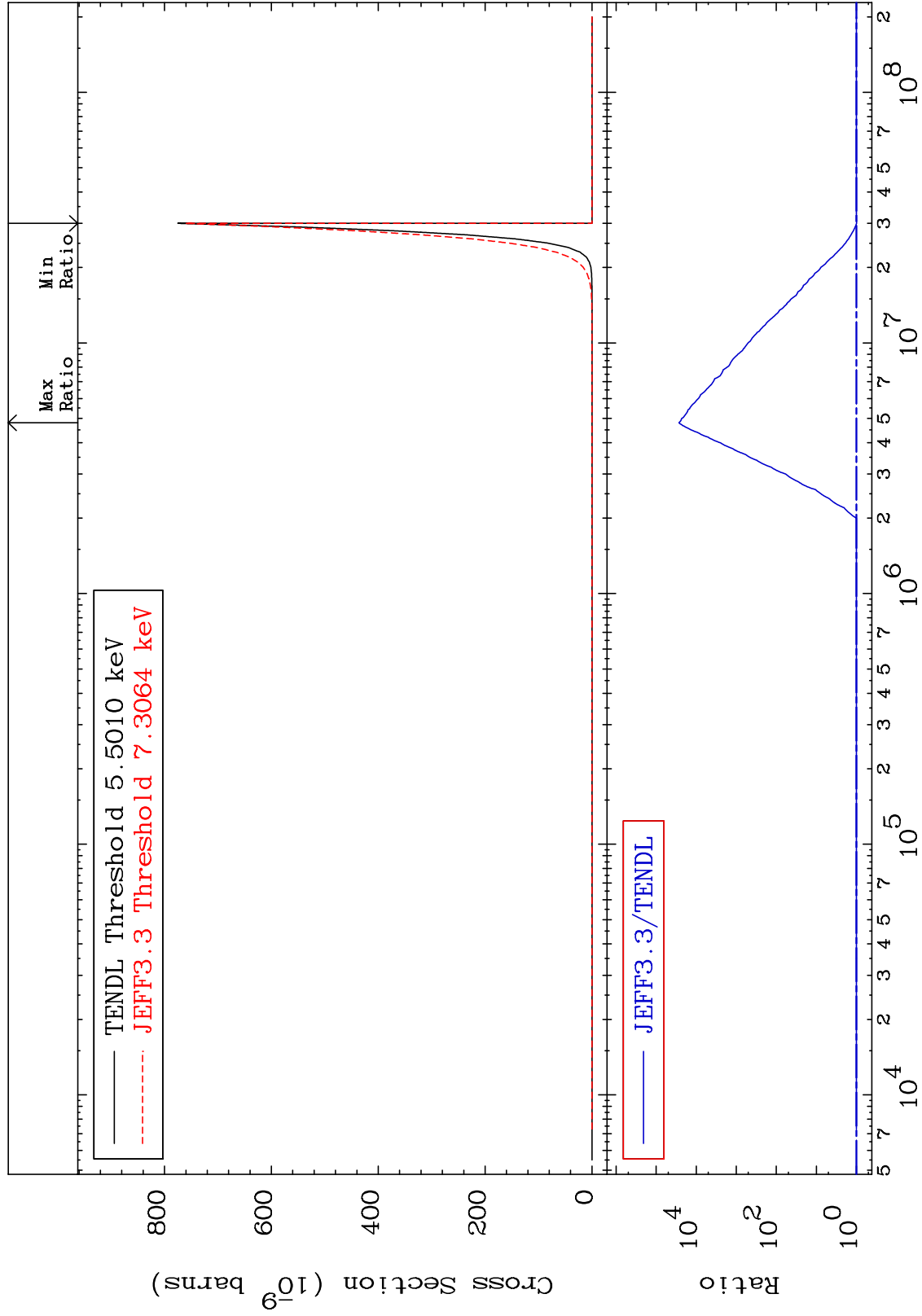
MAT 6028

(n, 2α)

60-Nd-143

Cross Section

-1.698 To 9999. %



57

Incident Energy (eV)

60-Nd-143

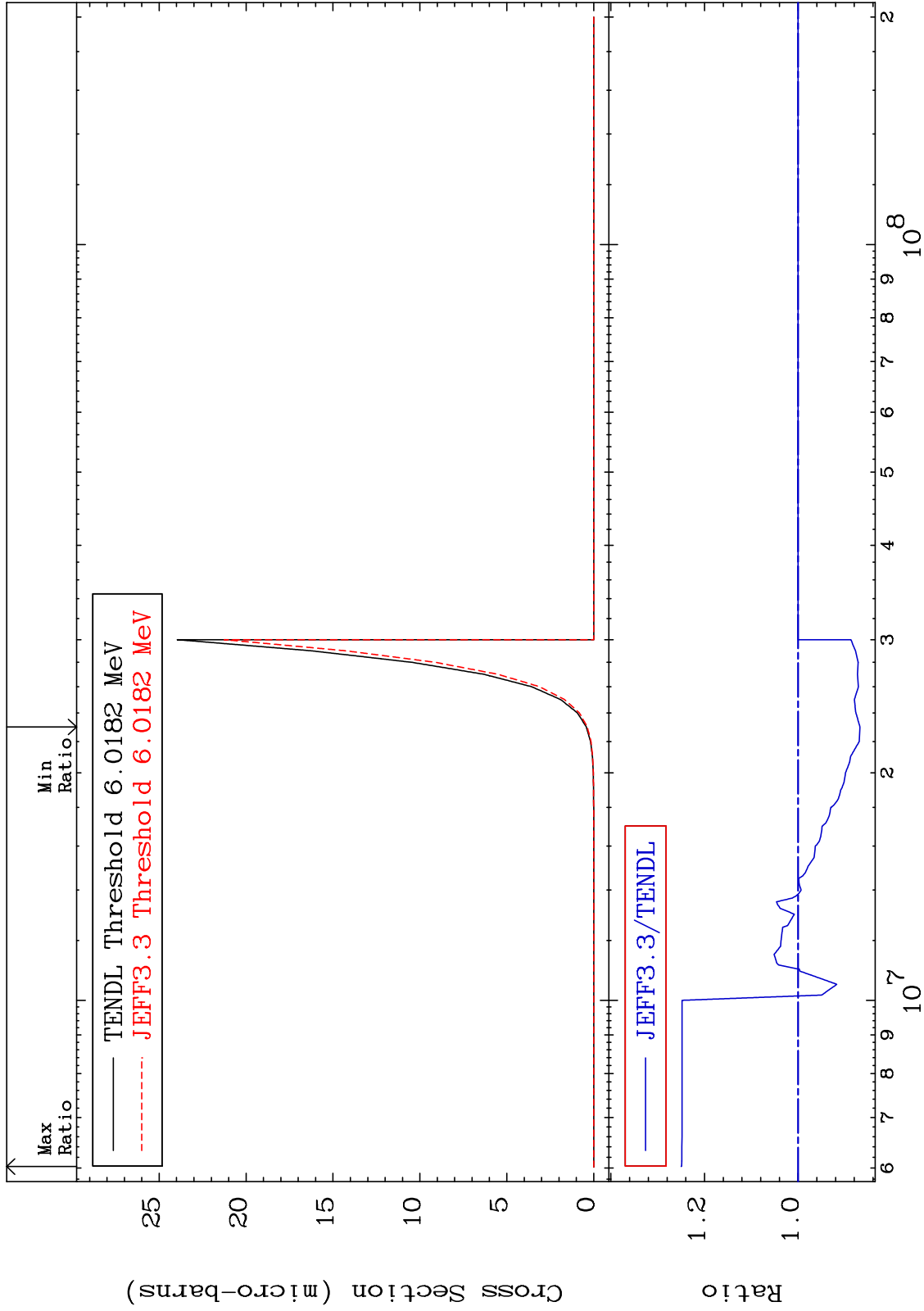
MAT 6028

(n,2p)

60-Nd-143

Cross Section

-13.20 To 24.98 %



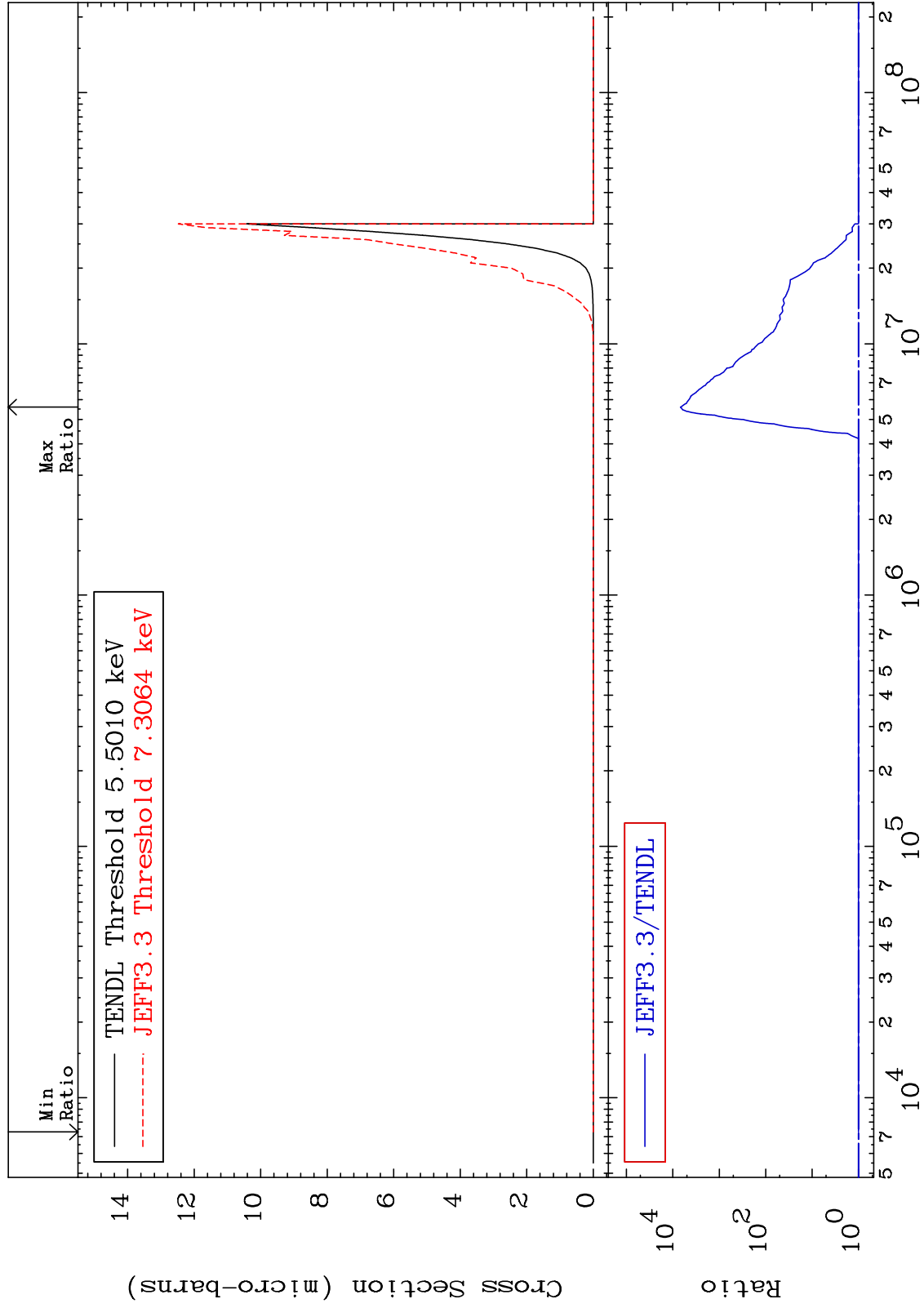
MAT 6028

(n,p)  $\alpha$

60-Nd-143

Cross Section

0.000 To 9999. %



59

60-Nd-143

60-Nd-143

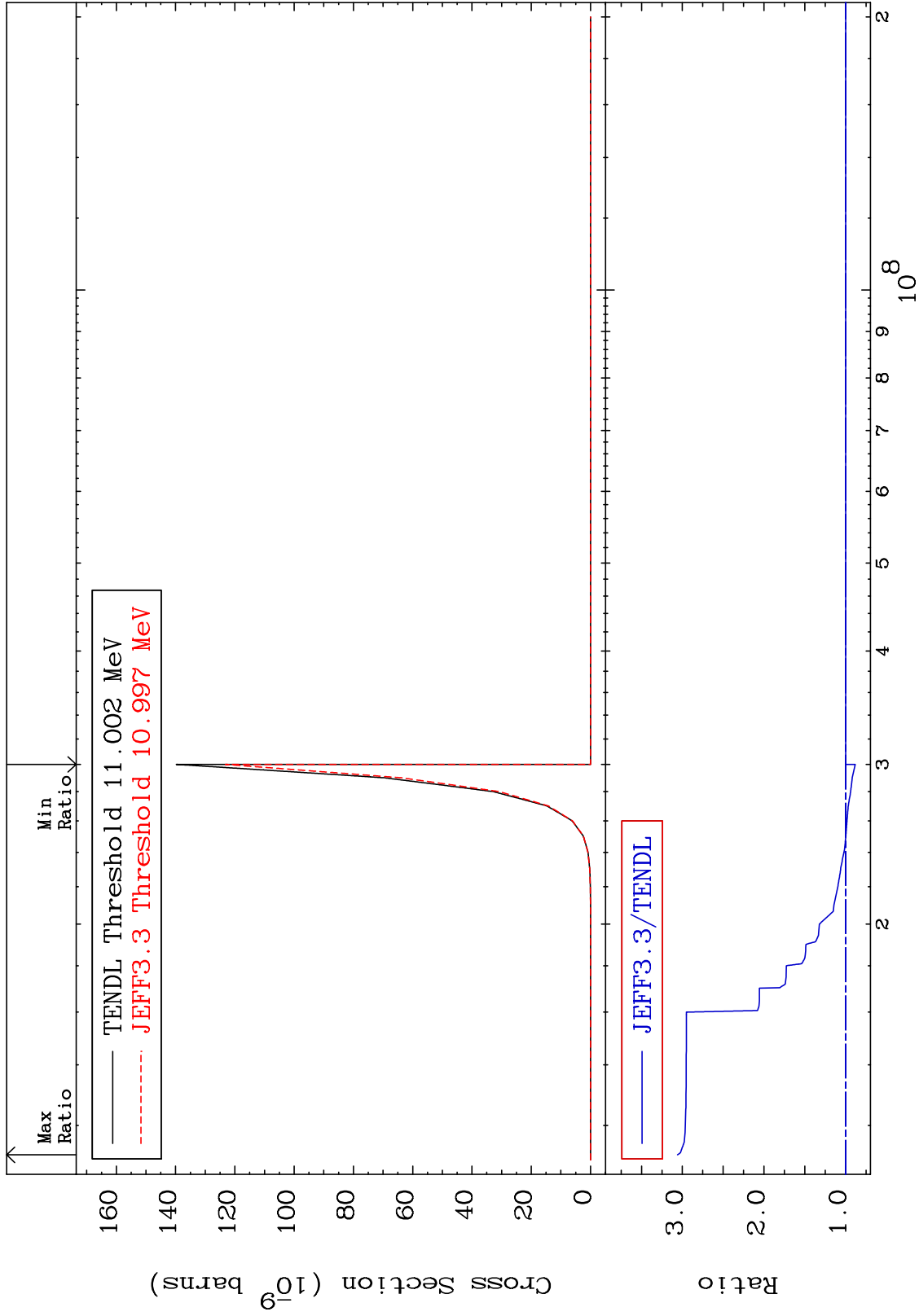
MAT 6028

(n,p) d

60-Nd-143

Cross Section

-11.84 To 205.9 %



60

Incident Energy (eV)

60-Nd-143

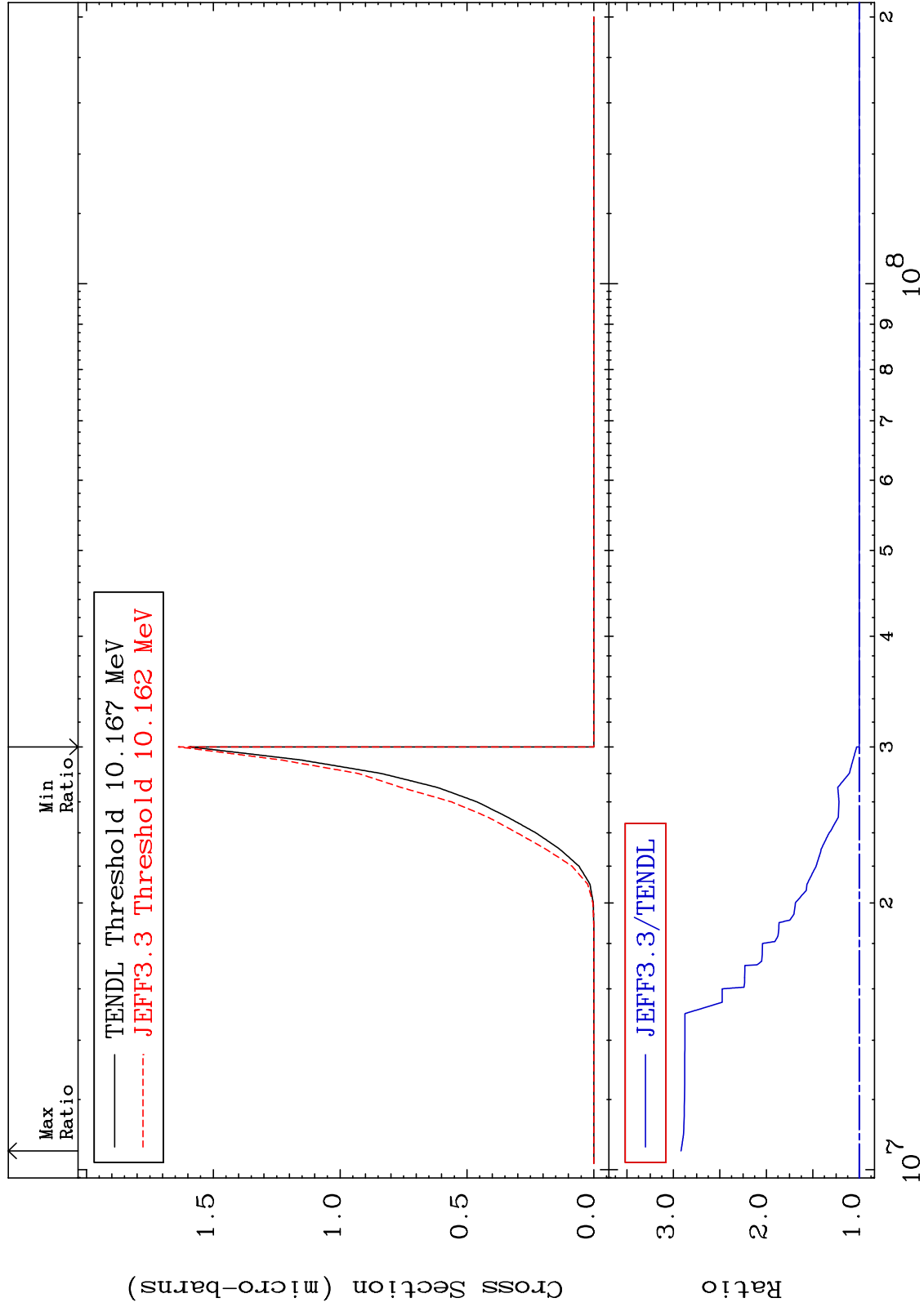
MAT 6028

(n,p) t

60-Nd-143

Cross Section

0.000 To 191.8 %



61

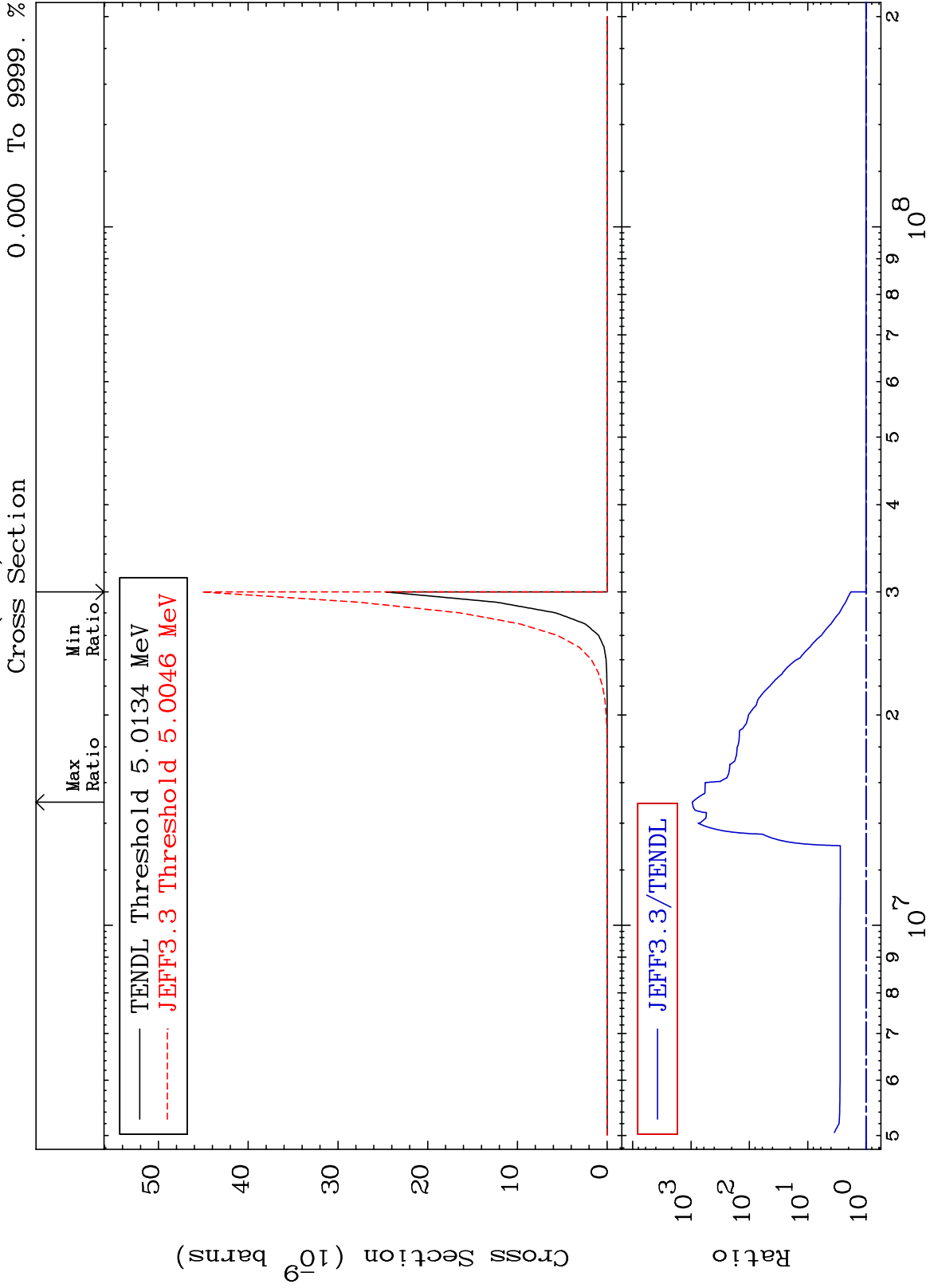
Incident Energy (eV)

60-Nd-143

MAT 6028

(n,d)  $\alpha$

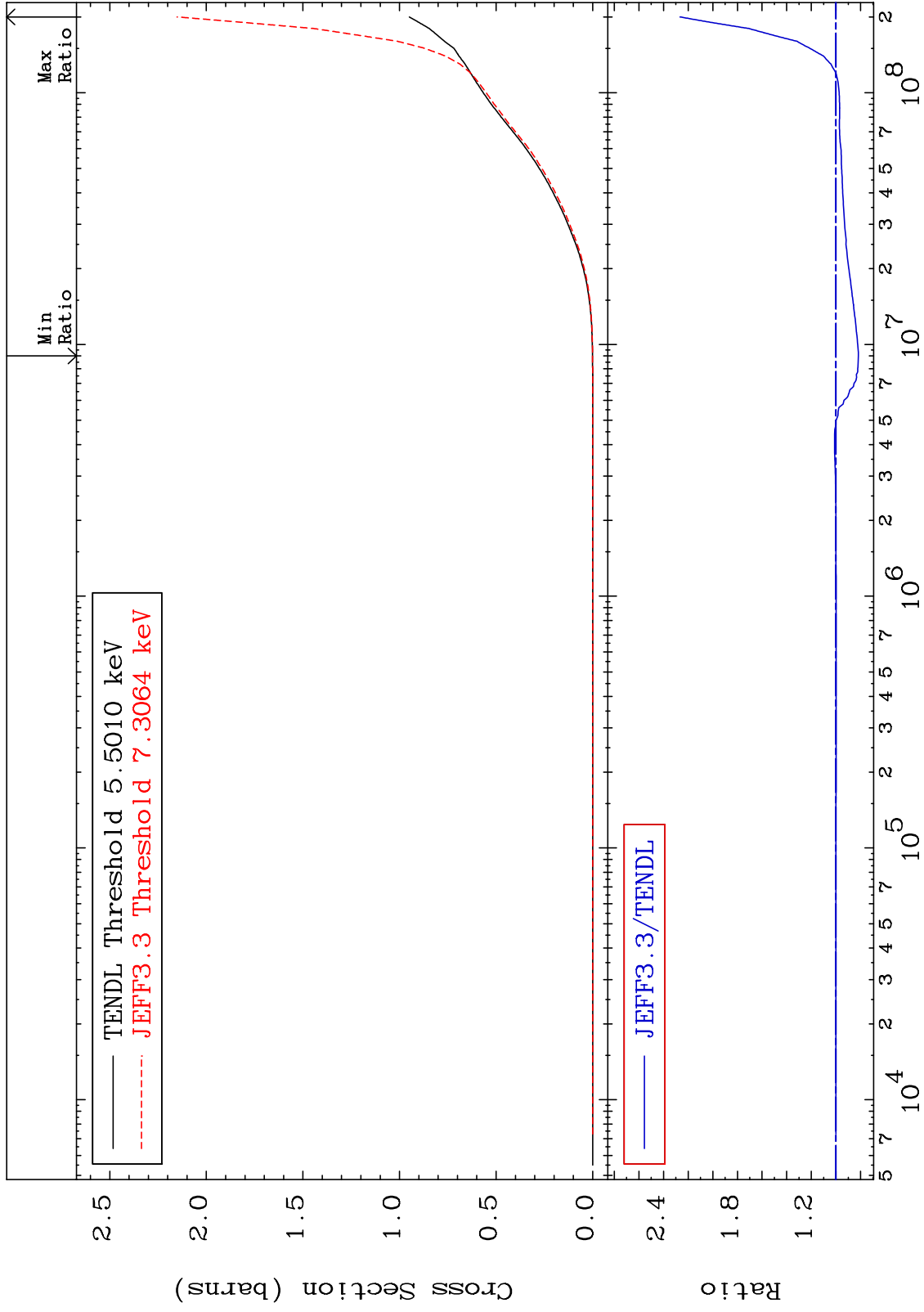
60-Nd-143  
To 9999. %  
0.000



MAT 6028

Hydrogen Production  
Cross Section

60-Nd-143  
-18.25 To 126.6 %



63

Incident Energy (eV)

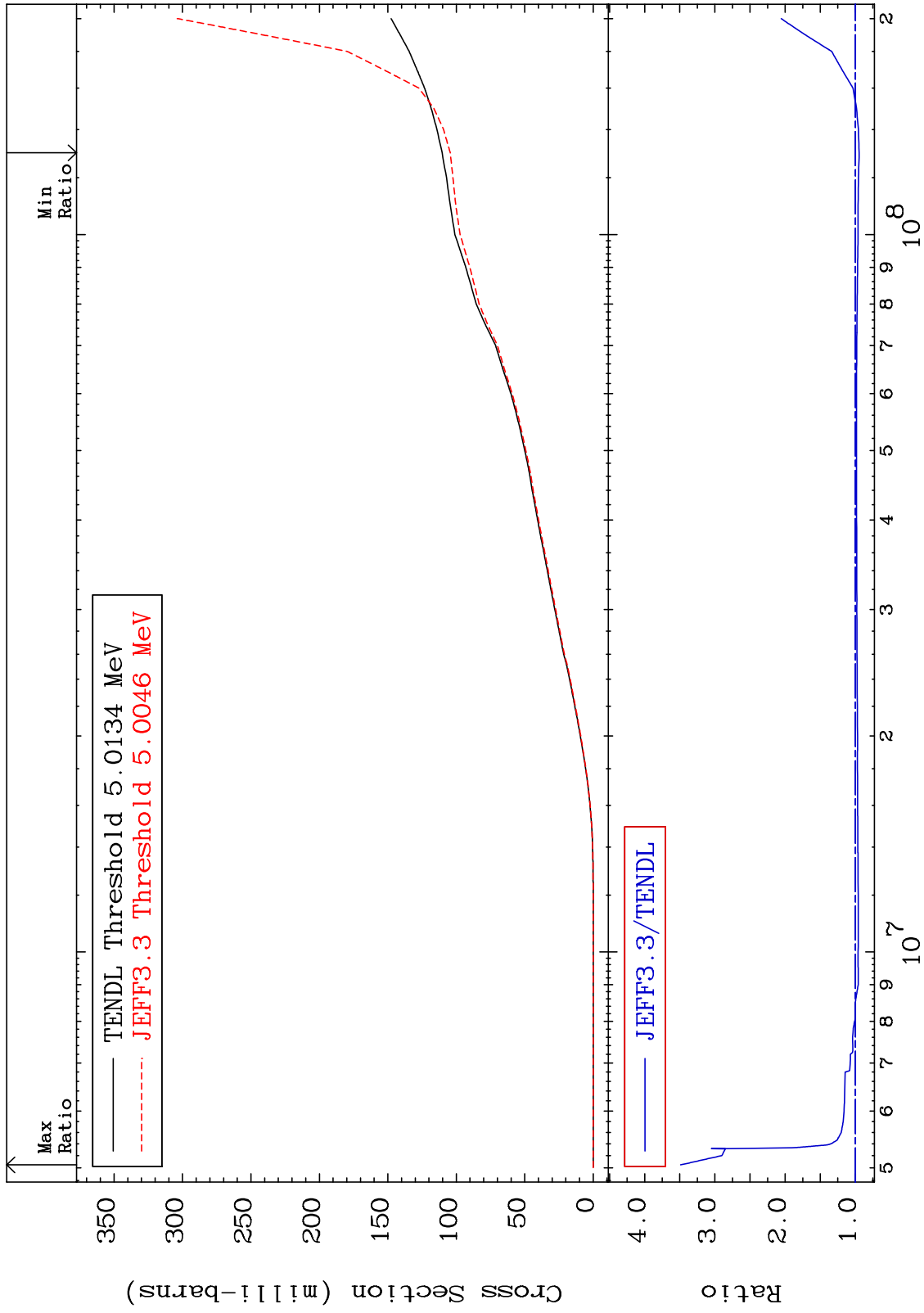
60-Nd-143



MAT 6028

Deuterium Production  
Cross Section

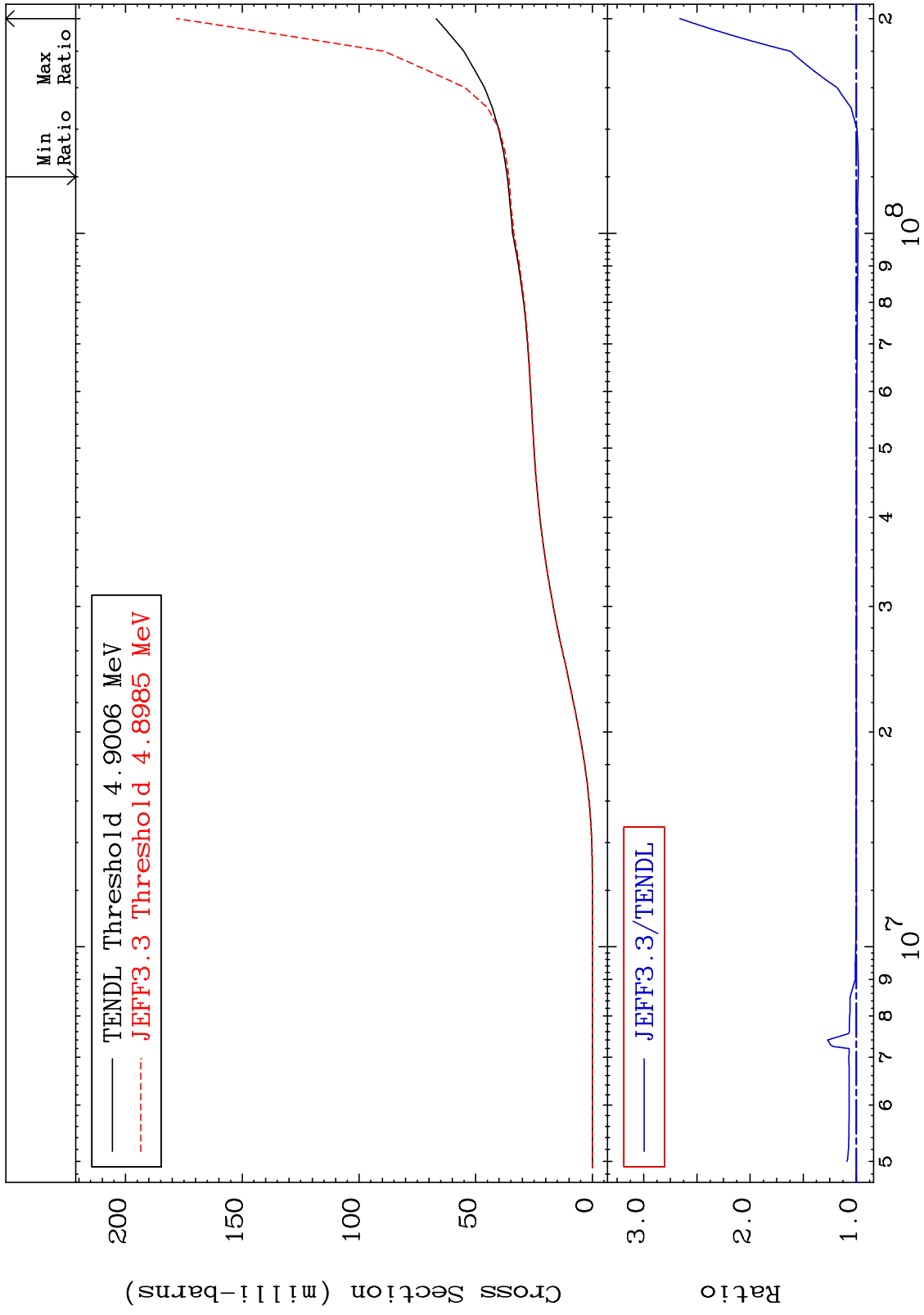
60-Nd-143  
-5.379 To 248.8 %



MAT 6028

Tritium Production  
Cross Section

60-Nd-143  
-1.894 To 166.1 %



65

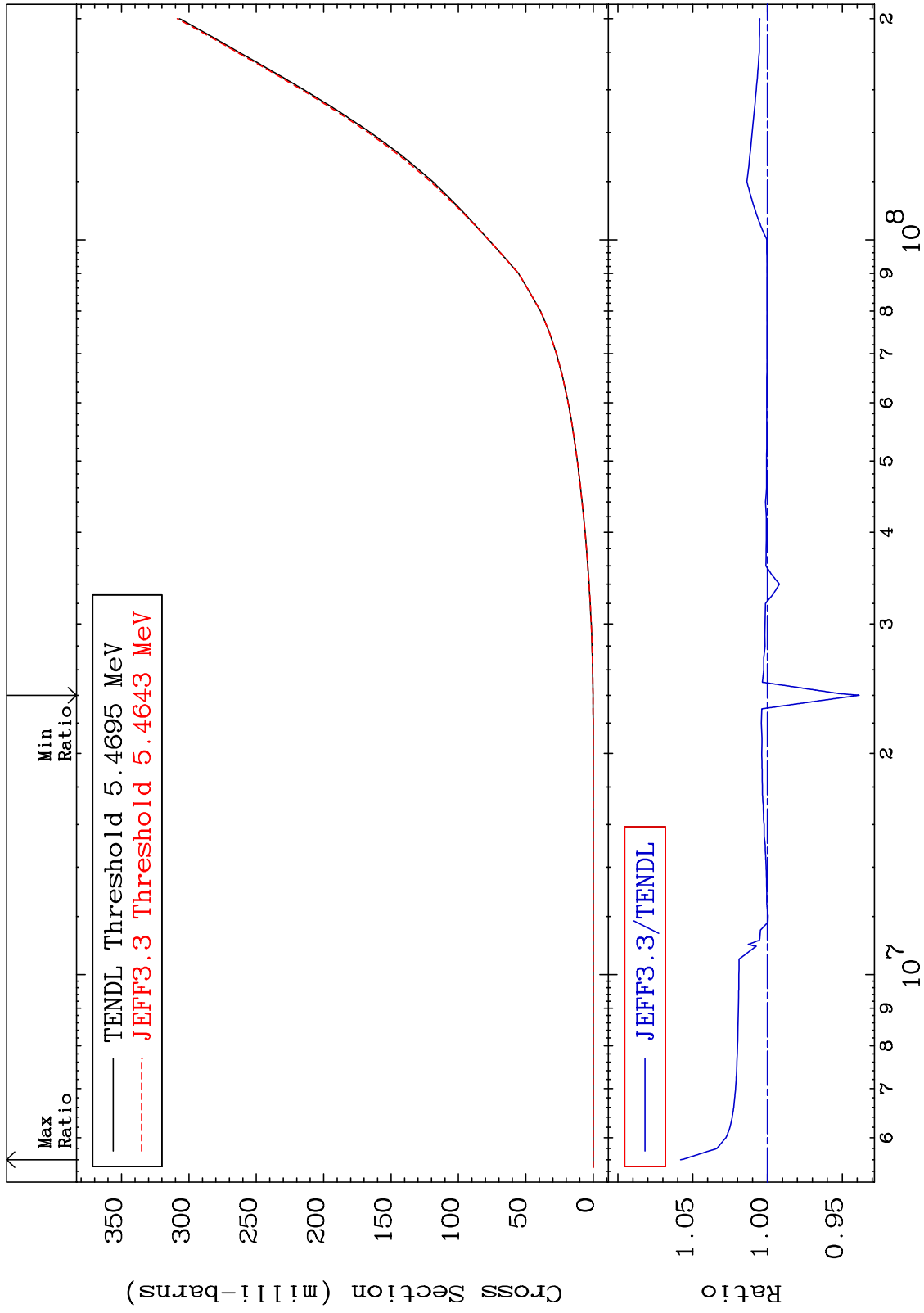
Incident Energy (eV)

60-Nd-143

MAT 6028

He-3 Production  
Cross Section

60-Nd-143  
-6.133 To 5.811 %



66

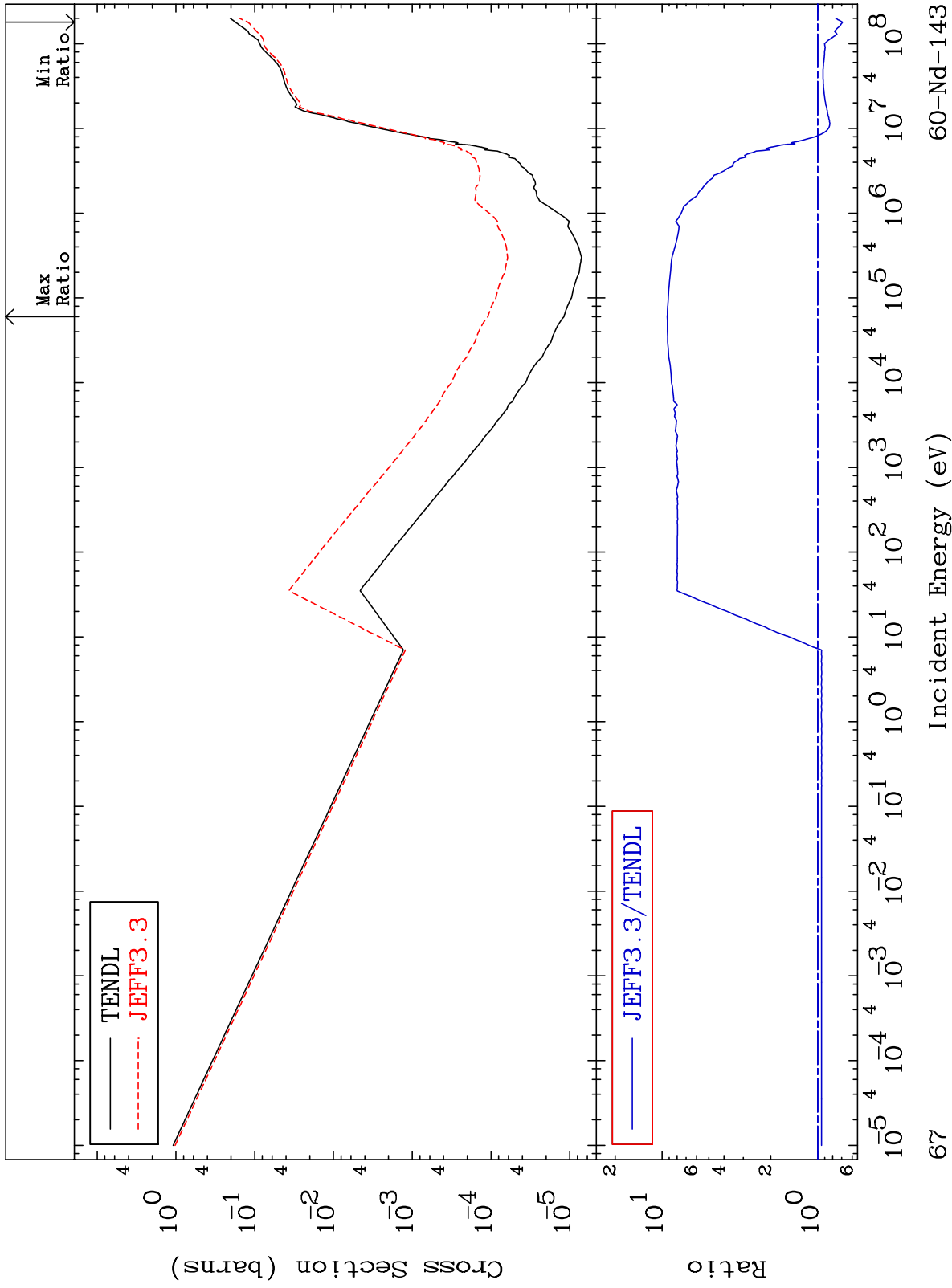
Incident Energy (eV)

60-Nd-143

MAT 6028

He-4 Production  
Cross Section

60-Nd-143  
-30.86 To 825.4 %



67

Incident Energy (eV)

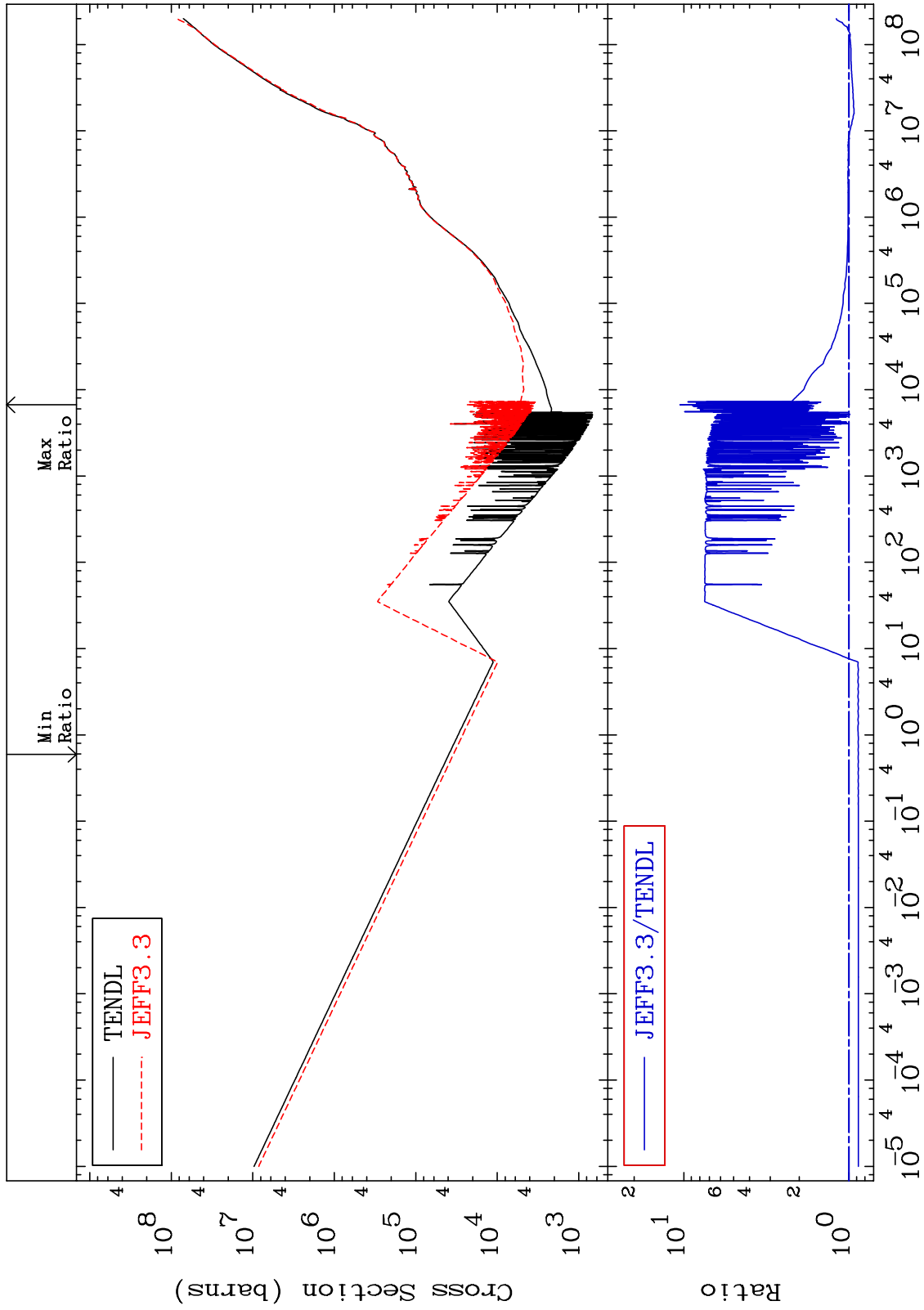
60-Nd-143

MAT 6028

Kerma total (eV-barns)  
Cross Section

60-Nd-143

-12.32 To 954.3 %



68

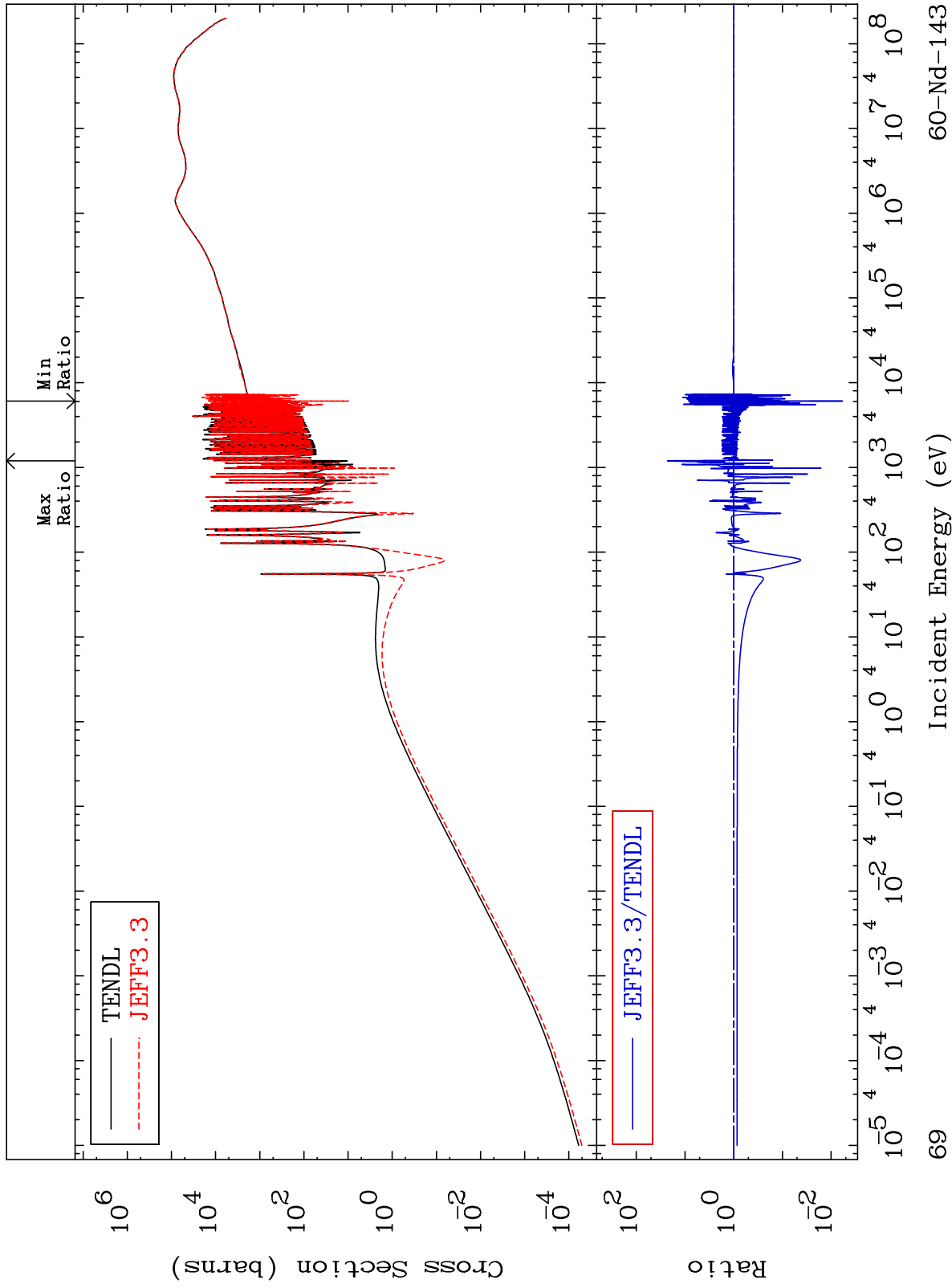
Incident Energy (eV)

60-Nd-143

MAT 6028

Kerma elastic  
Cross Section

60-Nd-143  
-99.42 To 2179. %



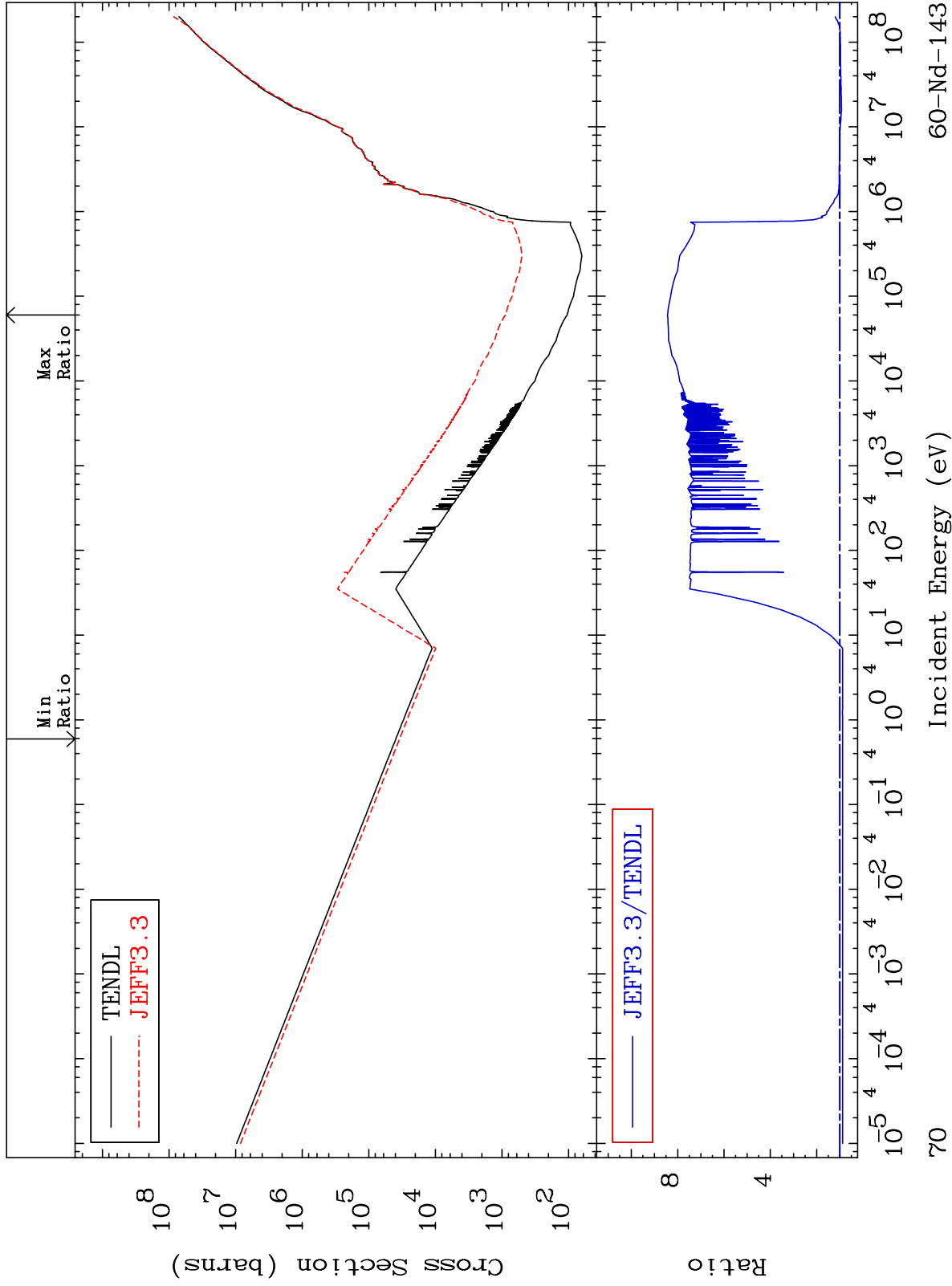
— TENDL  
- - - JEFF3.3

— JEFF3.3/TENDL

MAT 6028

Kerma non-elastic (all but mt2)  
Cross Section

60-Nd-143  
-12.32 To 743.7 %



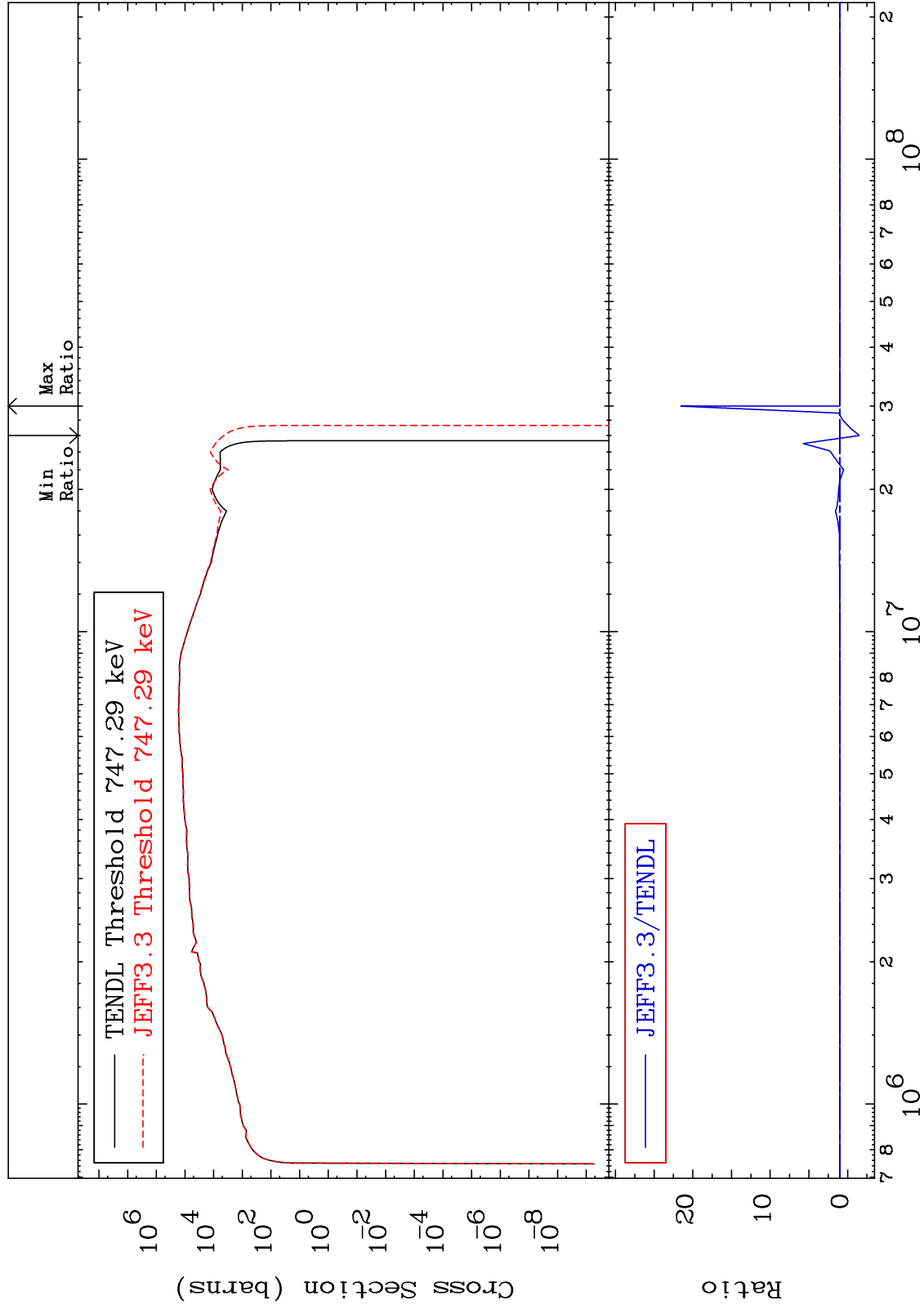
70

60-Nd-143

MAT 6028

Kerma inelastic (mt51-91)  
Cross Section

60-Nd-143  
-251.1 To 2052. %



71

Incident Energy (eV)

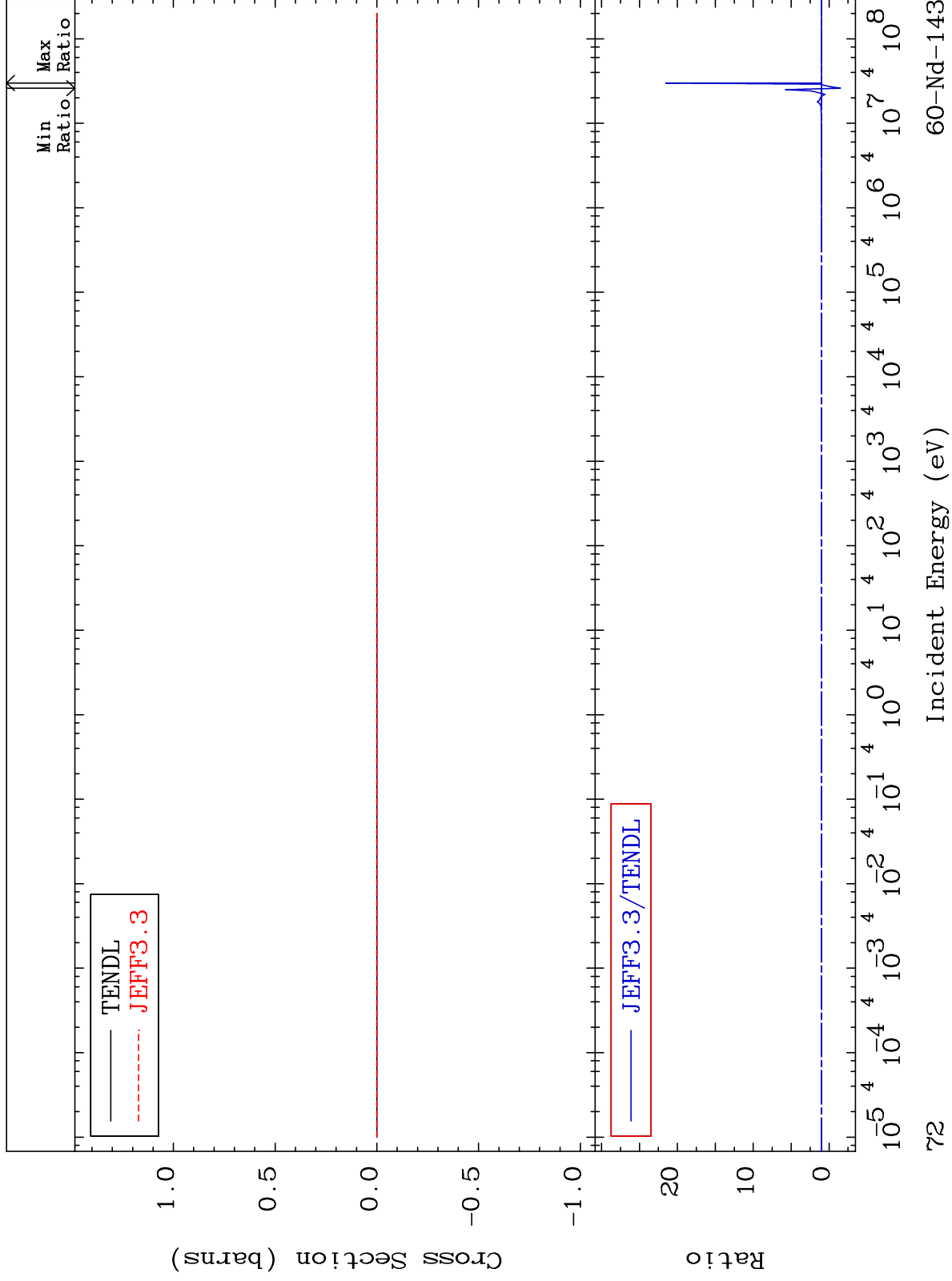
60-Nd-143



MAT 6028

Kerma fission (mt18 or mt19-20-21-38)  
Cross Section

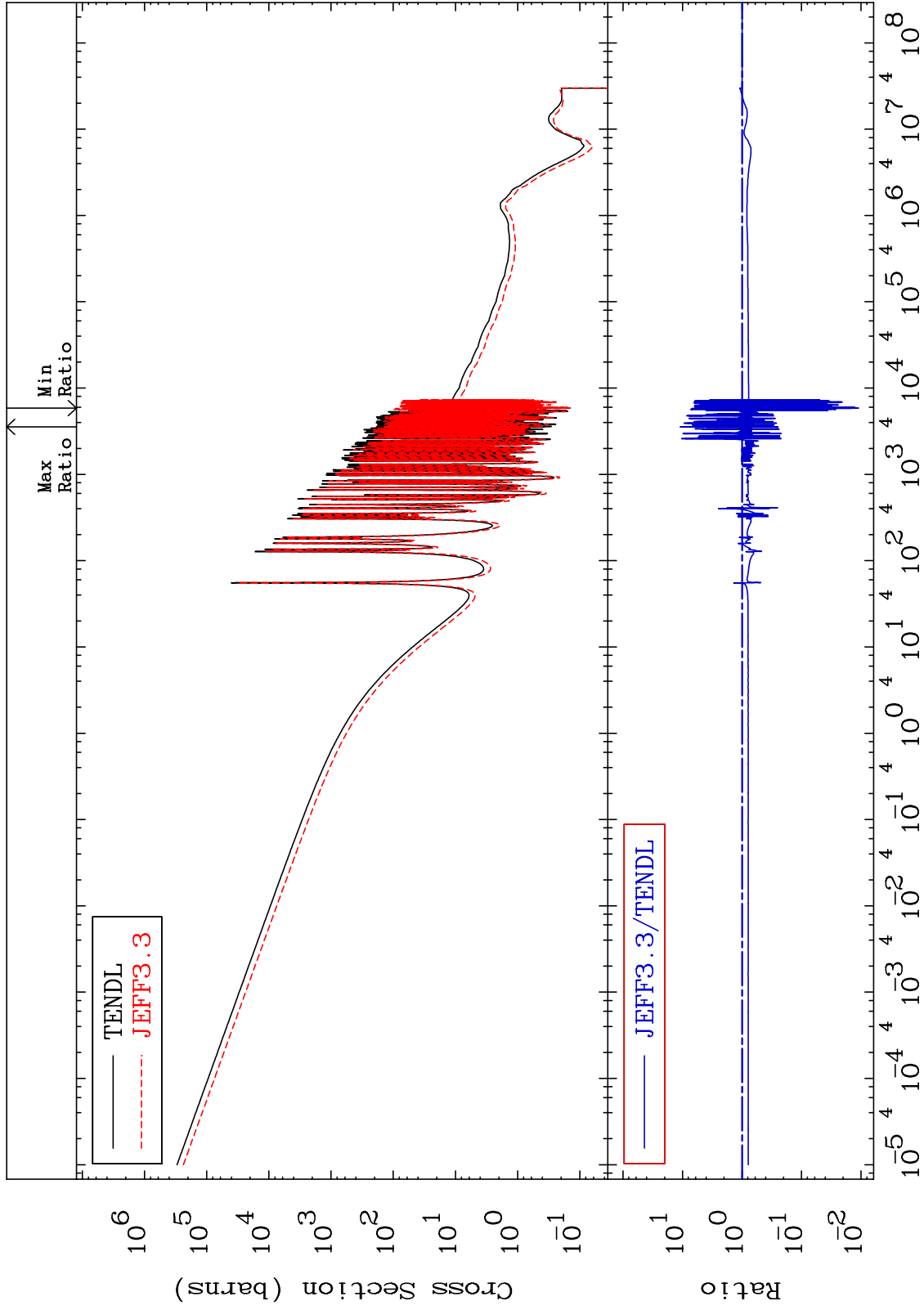
60-Nd-143  
-251.1 To 2052. %



MAT 6028

Kerma capture (mt102)  
Cross Section

60-Nd-143  
-98.89 To 1001. %



73

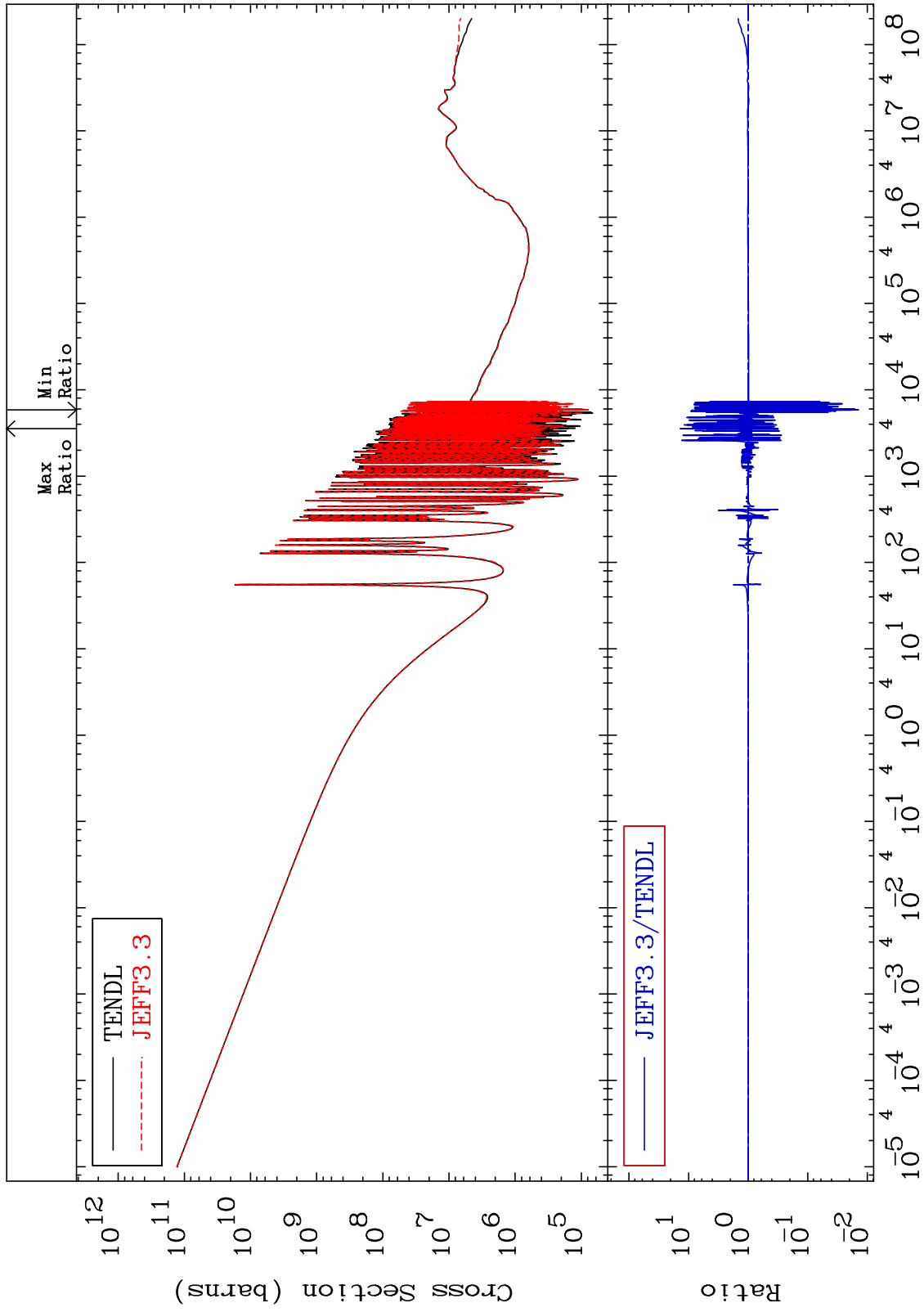
Incident Energy (eV)

60-Nd-143

MAT 6028

Total photon (eV-barns)  
Cross Section

60-Nd-143  
-98.59 To 1293. %



74

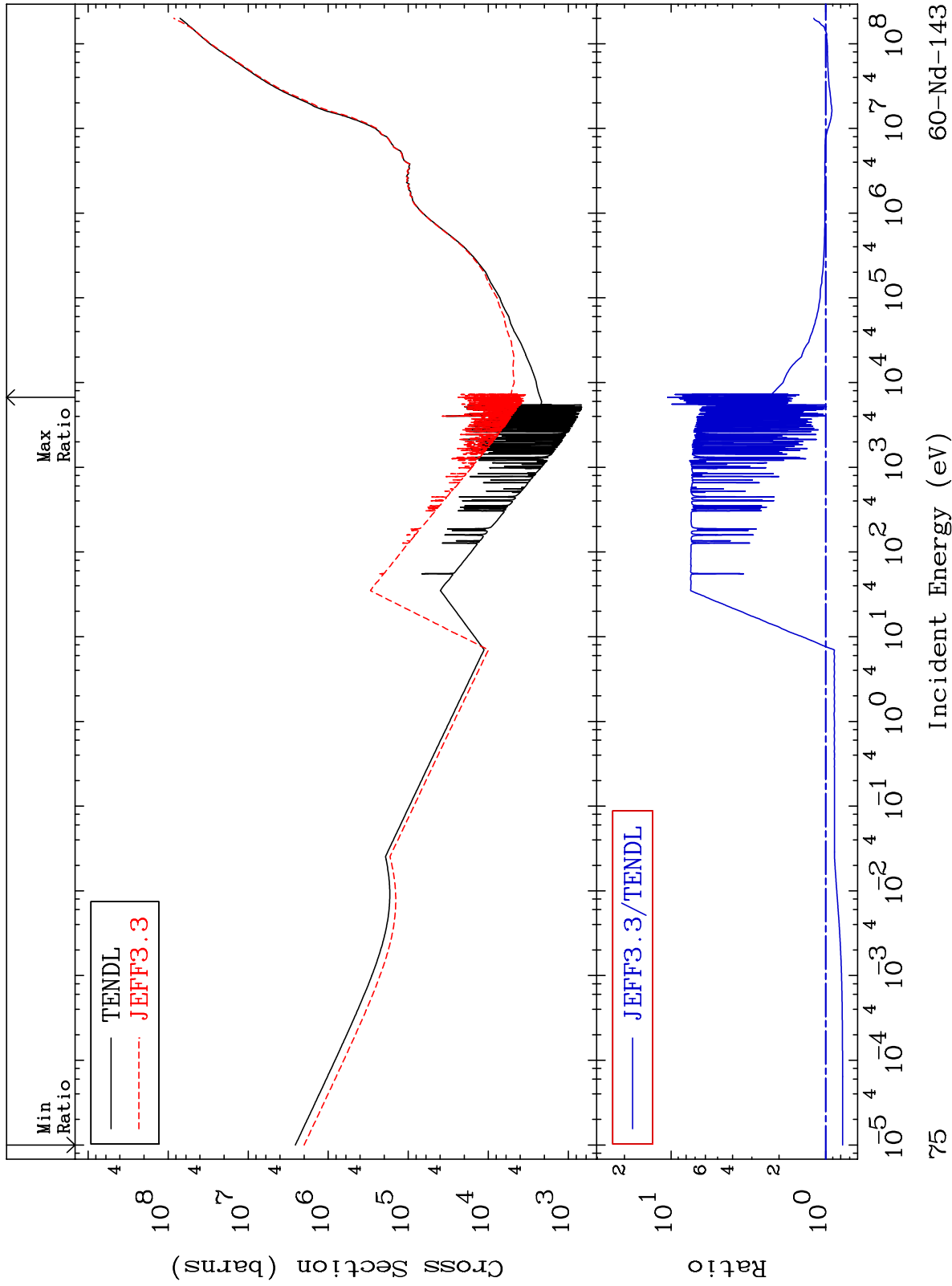
Incident Energy (eV)

60-Nd-143

MAT 6028

Total kinematic kerma (high limit)  
Cross Section

60-Nd-143  
-22.36 To 953.7 %



75

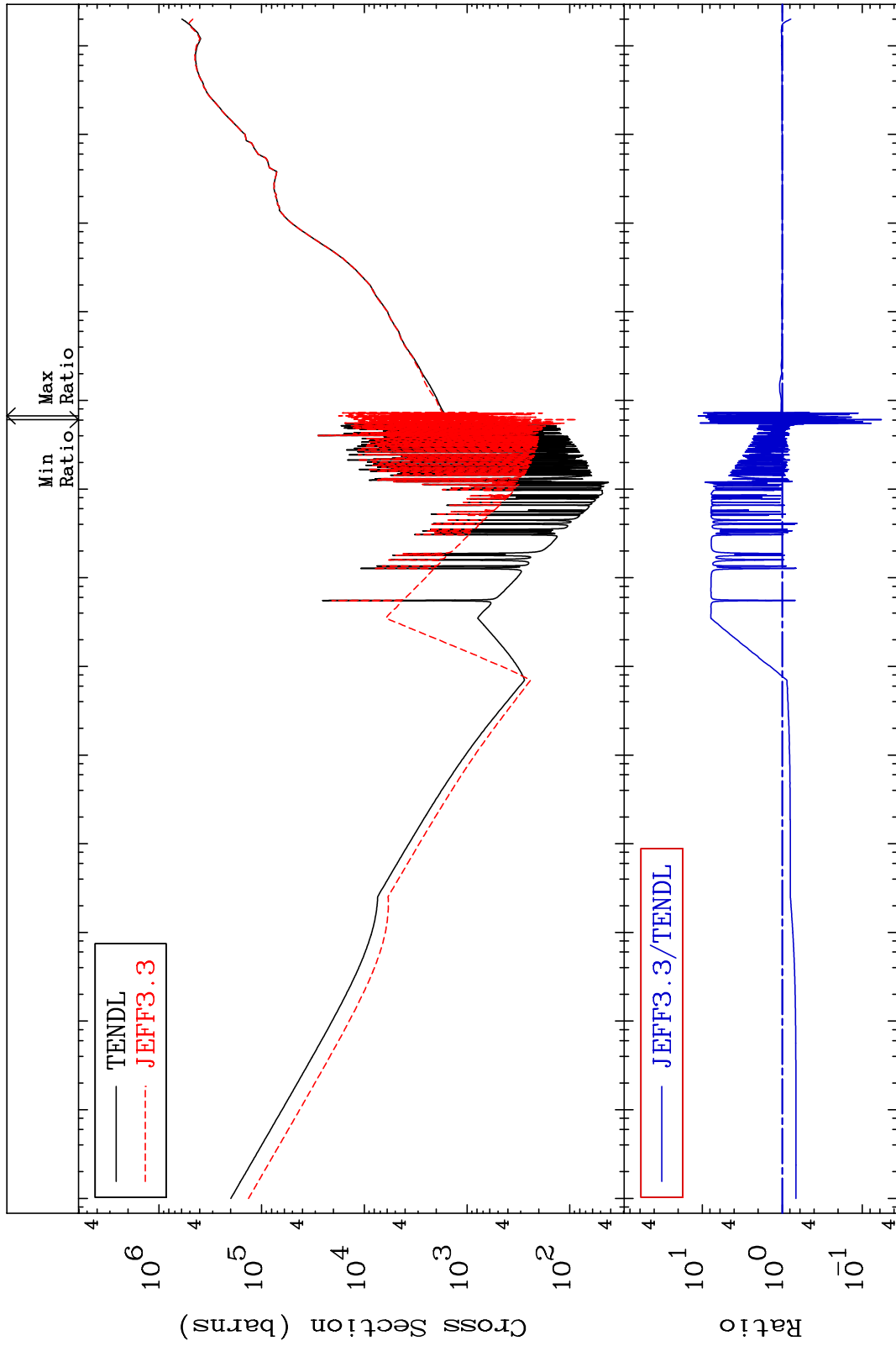
Incident Energy (eV)

60-Nd-143

MAT 6028

Dpa total (eV-barns)  
Cross Section

60-Nd-143  
-94.27 To 1019. %



76

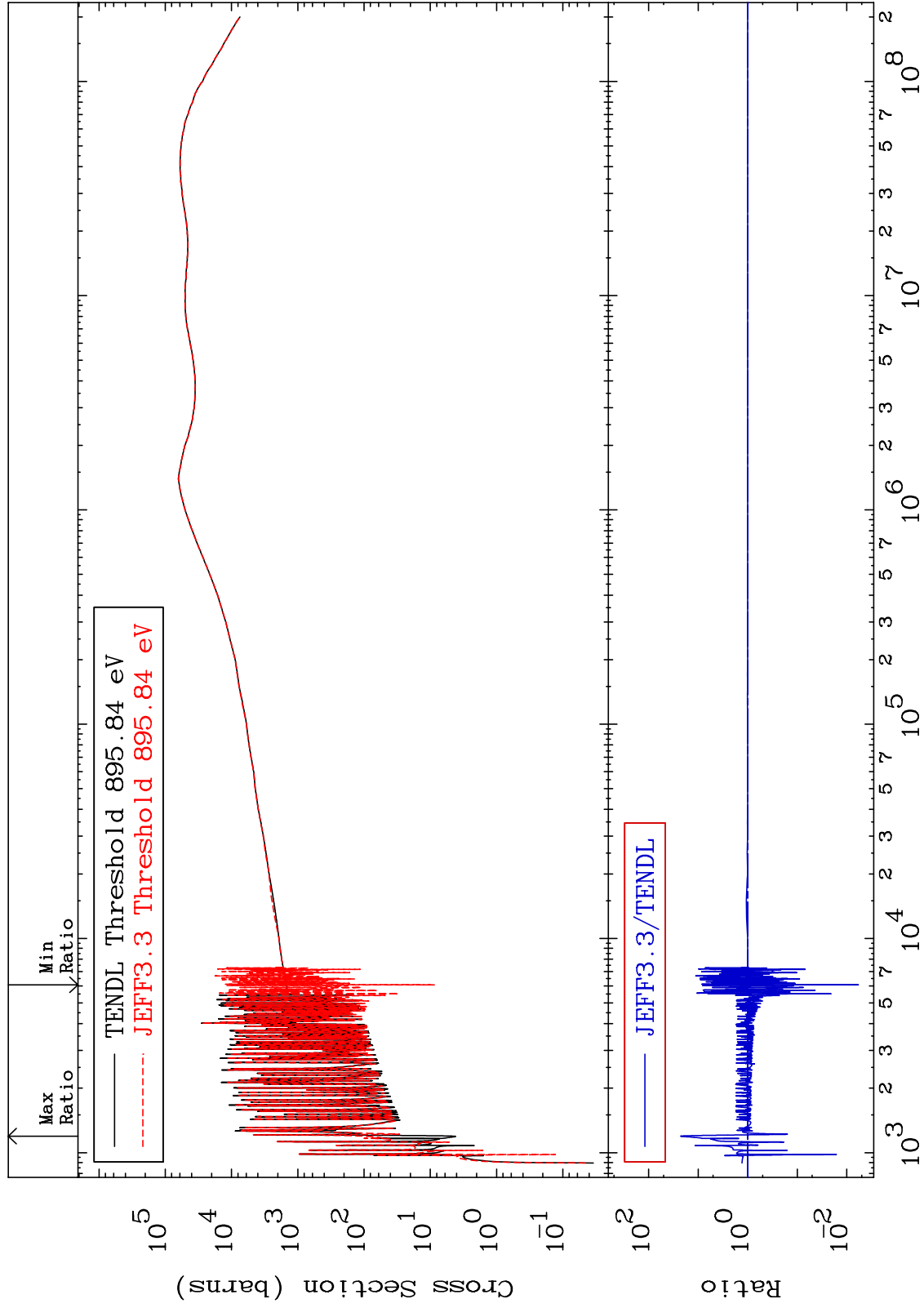
Incident Energy (eV)

60-Nd-143

MAT 6028

Dpa elastic (mt2)  
Cross Section

60-Nd-143  
-99.42 To 2179. %



77

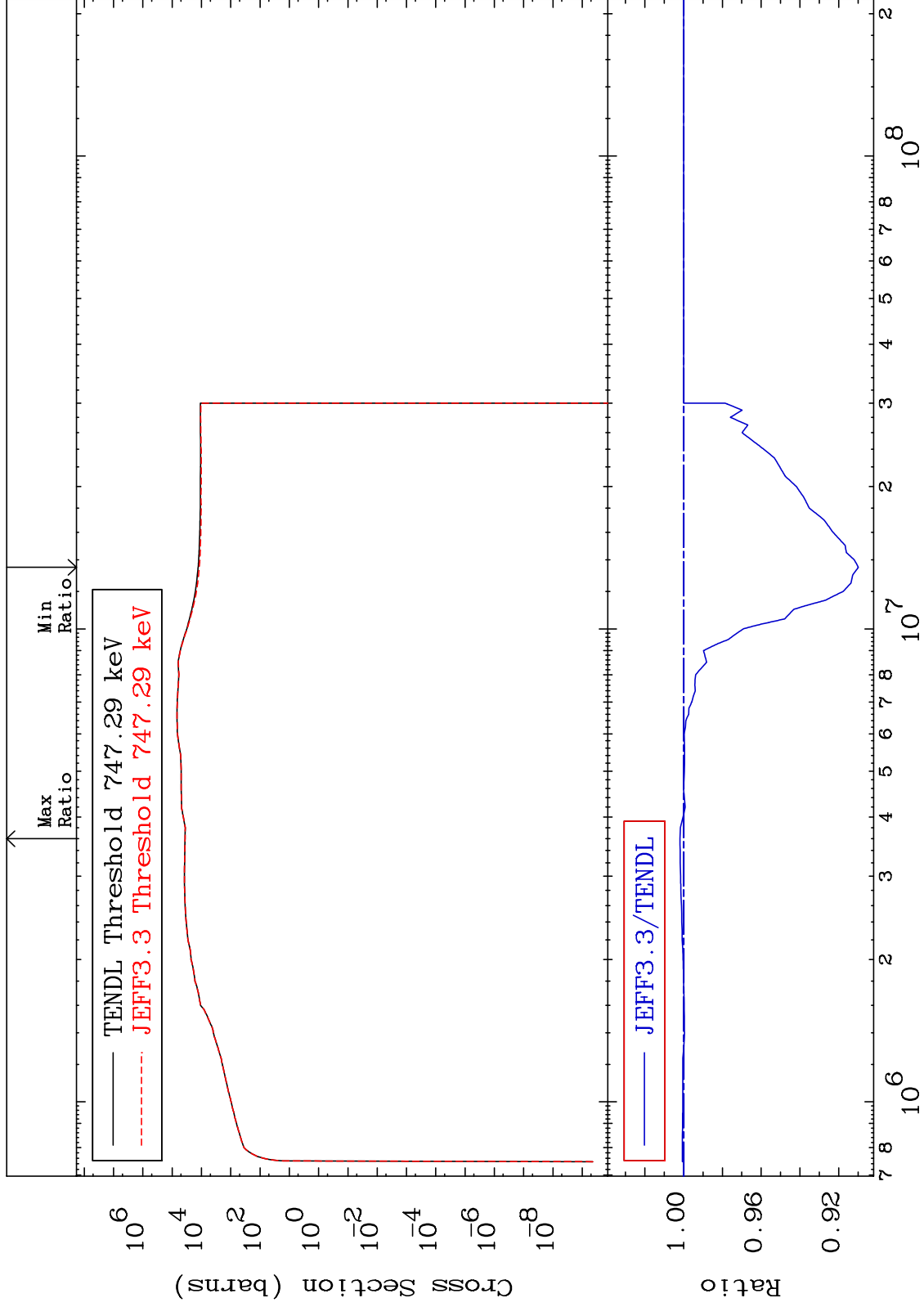
Incident Energy (eV)

60-Nd-143

MAT 6028

Dpa inelastic (mt51-91)  
Cross Section

60-Nd-143  
-9.014 To 0.184 %



78

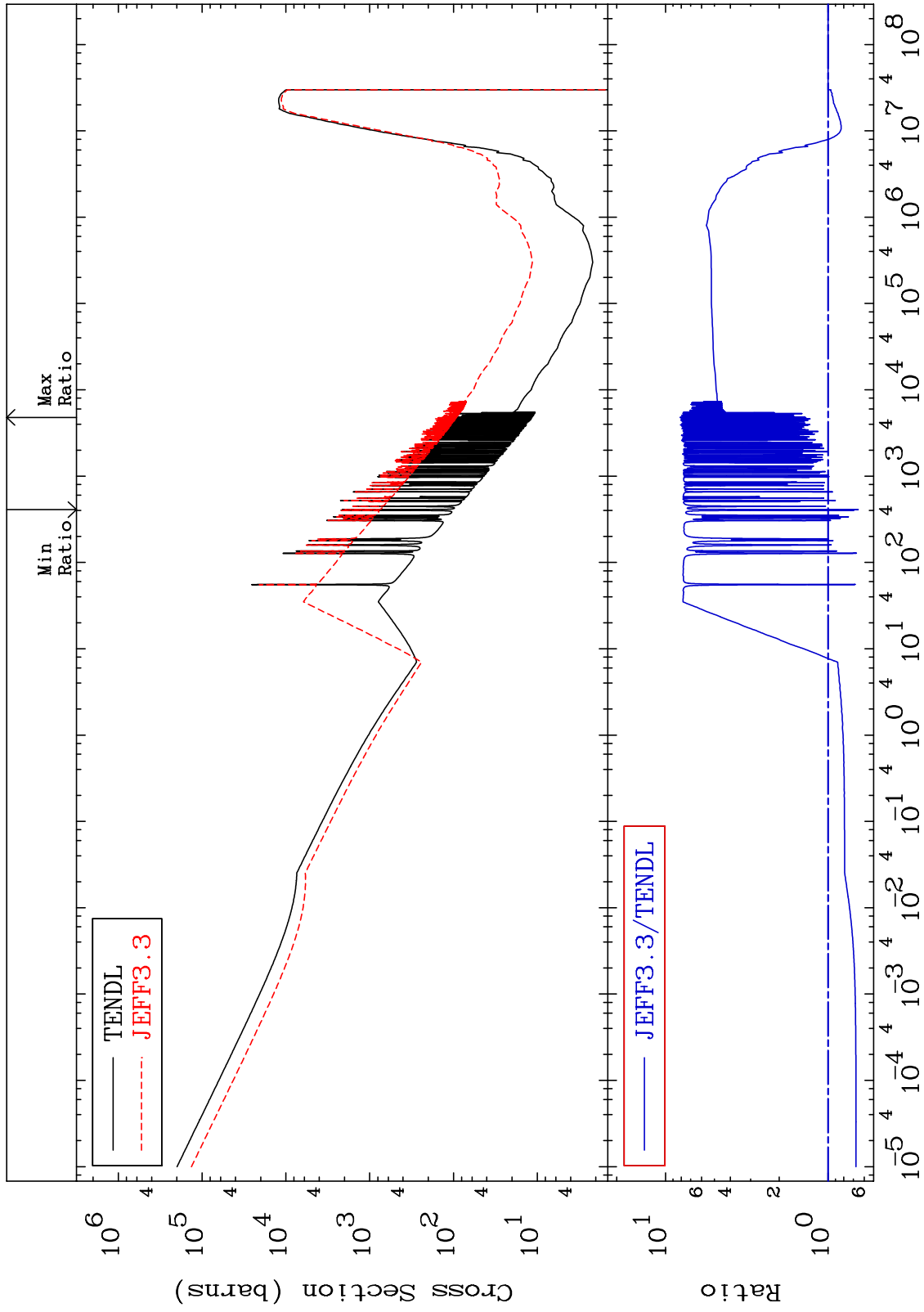
Incident Energy (eV)

60-Nd-143

MAT 6028

Dpa disappearance (mt102 -120)  
Cross Section

60-Nd-143  
-34.92 To 714.7 %



79

Incident Energy (eV)

60-Nd-143

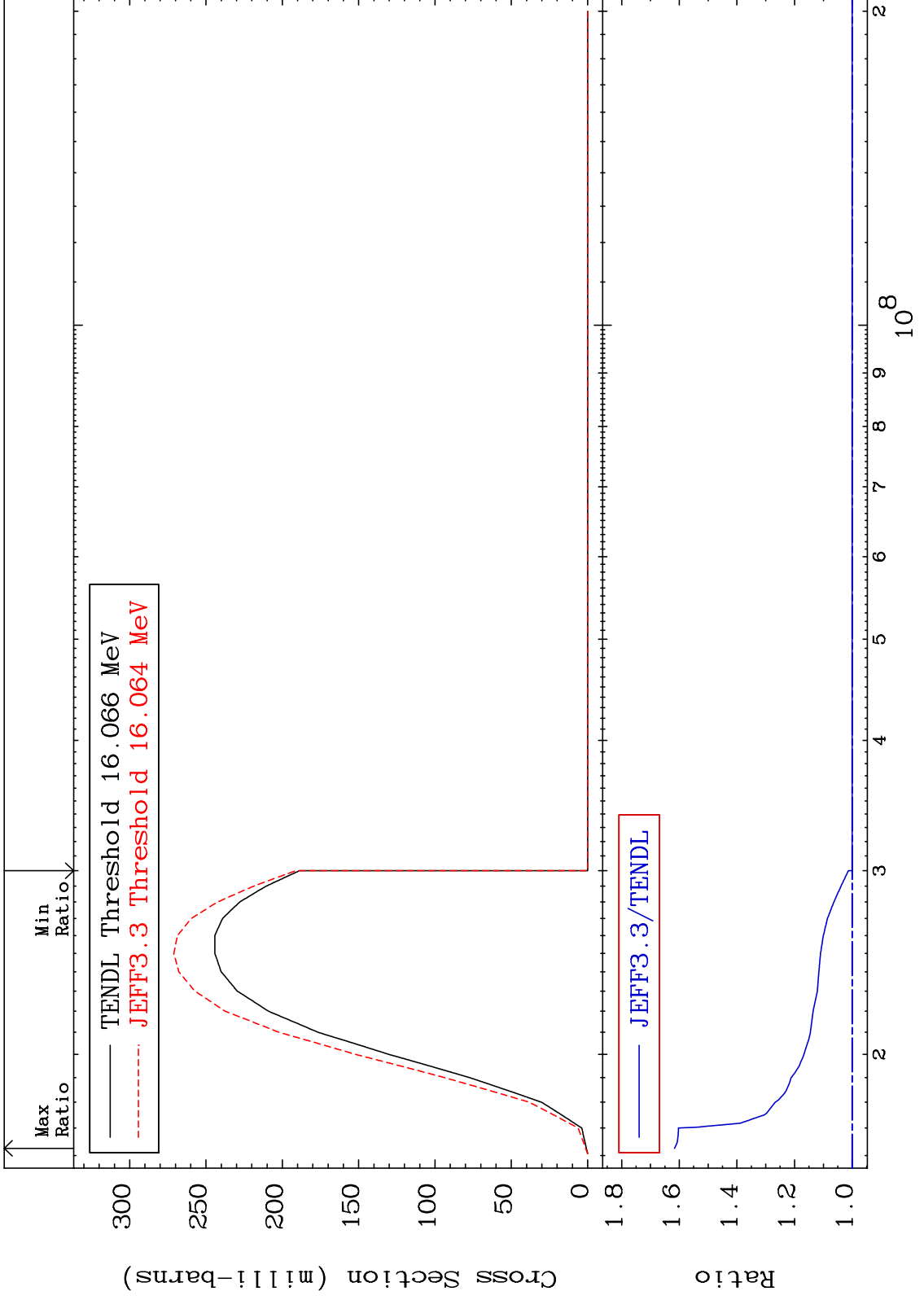


MAT 6028

(n,3n):60-Nd-141g

60-Nd-143

Radionuclide Production Cross Section 0.000 To 61.64 %



80

Incident Energy (eV)

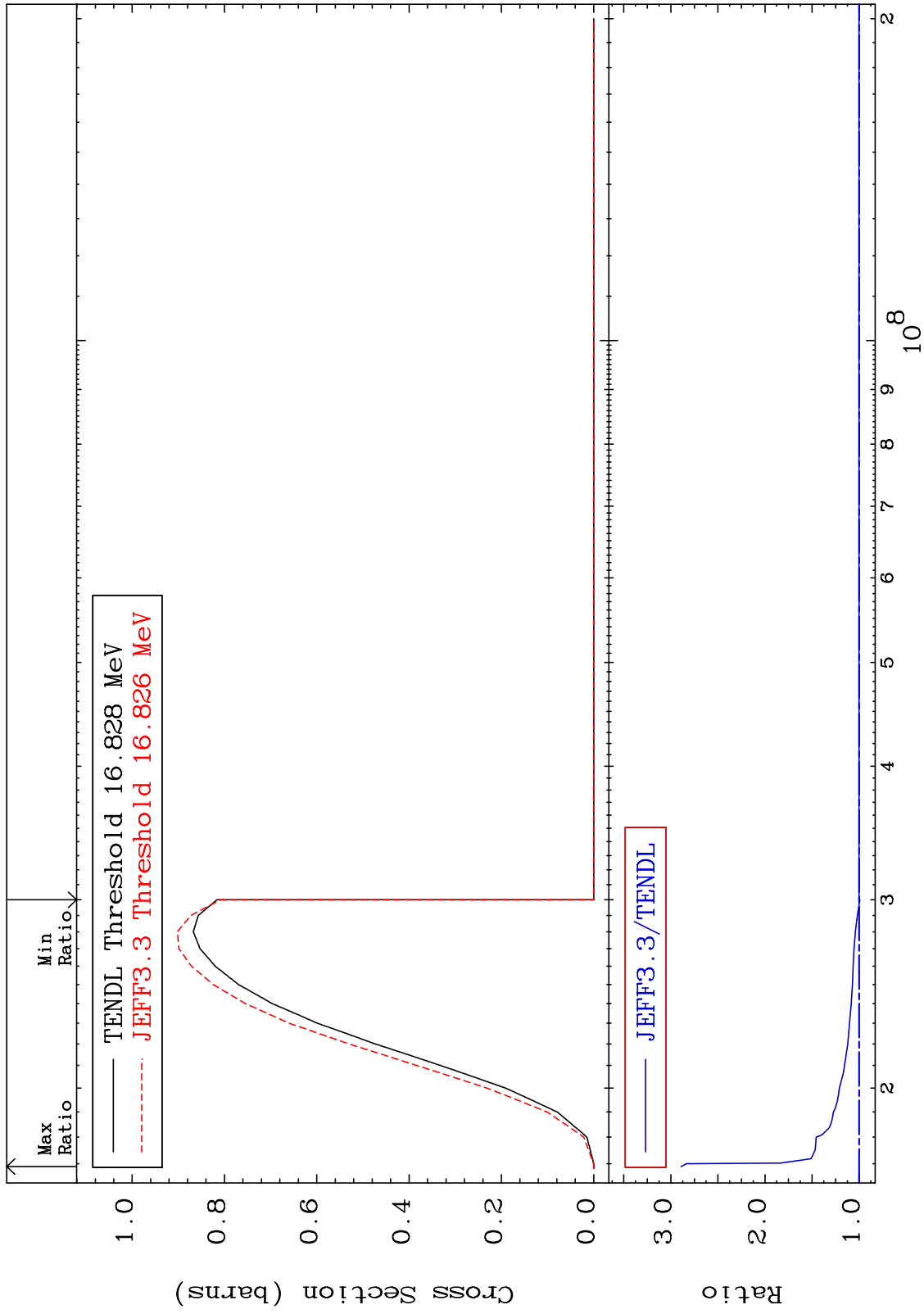
60-Nd-143

MAT 6028

(n,3n):60-Nd-141m2

60-Nd-143

Radionuclide Production Cross Section -0.865 To 189.0 %

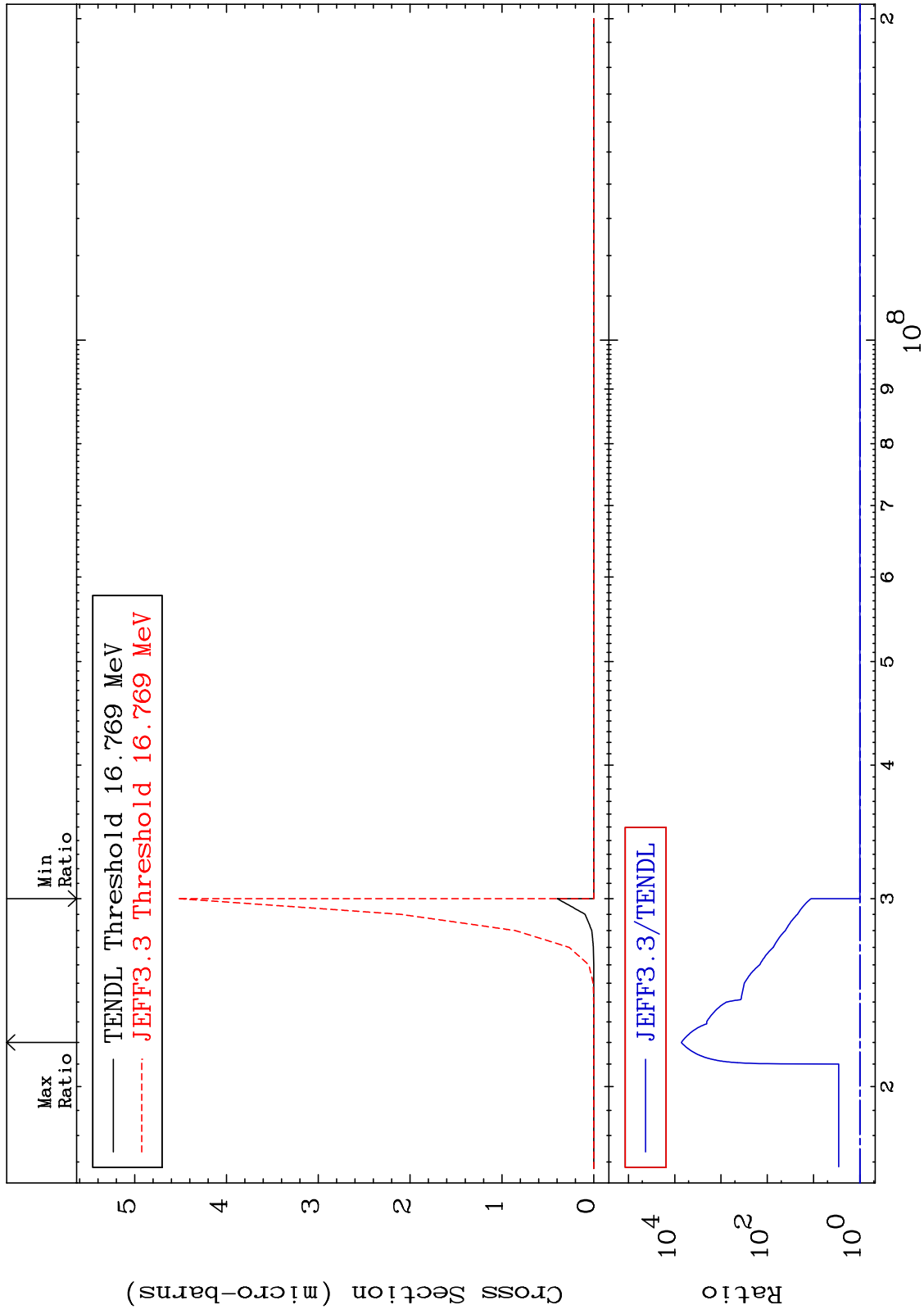


MAT 6028

(n,3n)  $\alpha$ :58-Ce-137g

60-Nd-143

Radionuclide Production Cross Section 0.000 To 9999. %

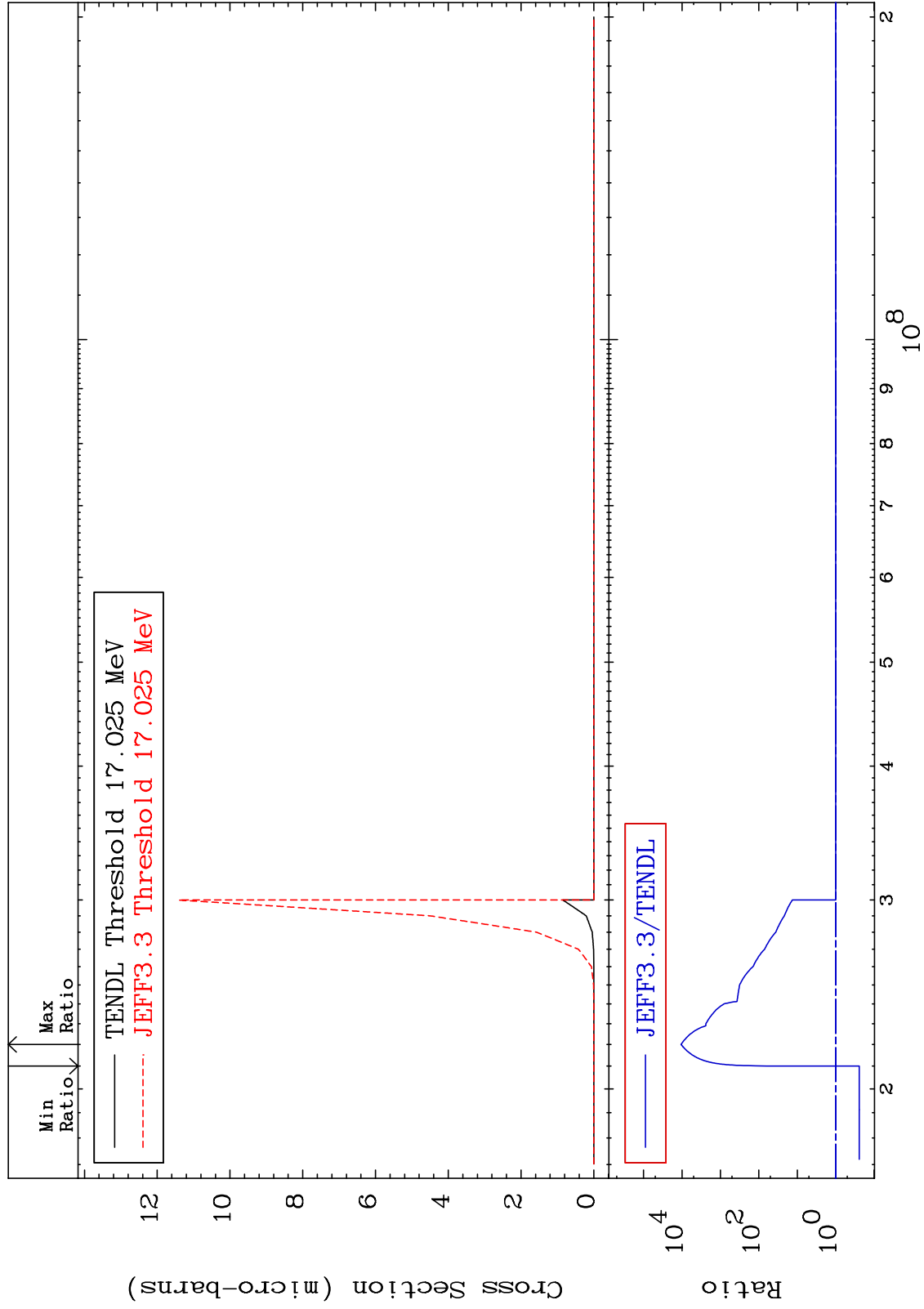


MAT 6028

(n,3n)  $\alpha$ :58-Ce-137m2

60-Nd-143

Radionuclide Production Cross Section -75.73 To 9999. %



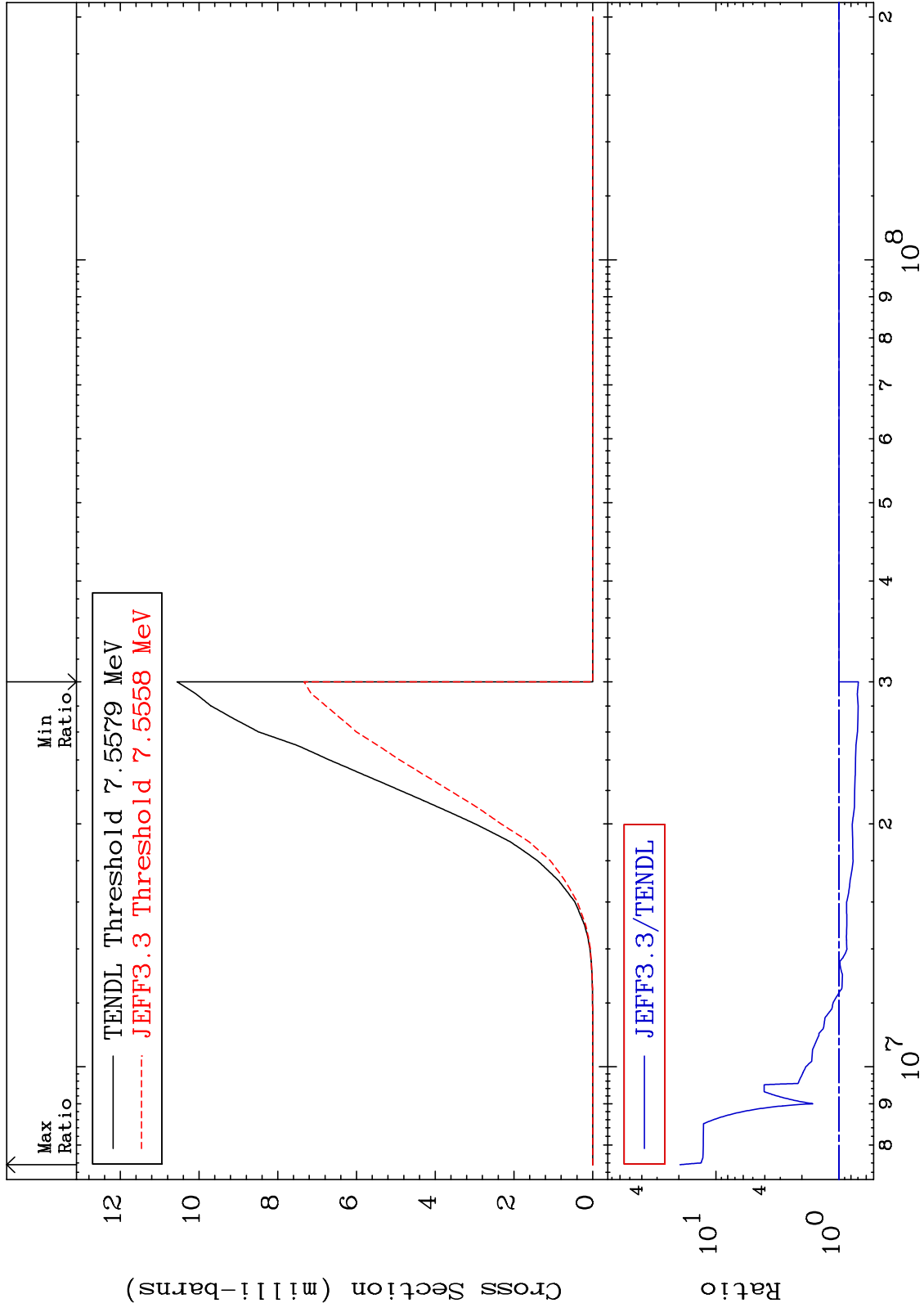
MAT 6028

(n, n') p:59-Pr-142g

60-Nd-143

Radionuclide Production Cross Section

-30.54 To 1855. %



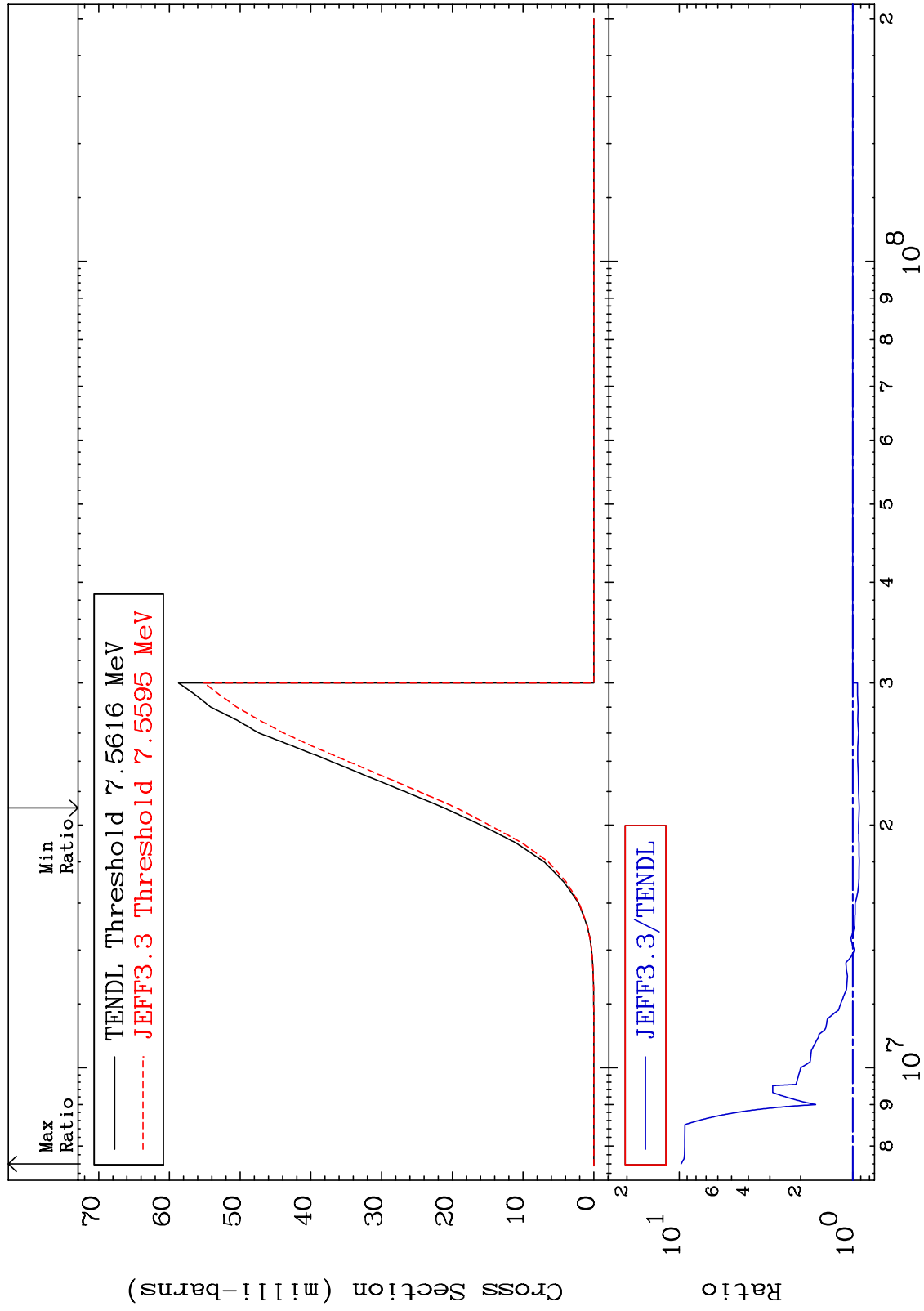
MAT 6028

(n, n') p:59-Pr-142m1

60-Nd-143

Radionuclide Production Cross Section

-8.292 To 876.1 %



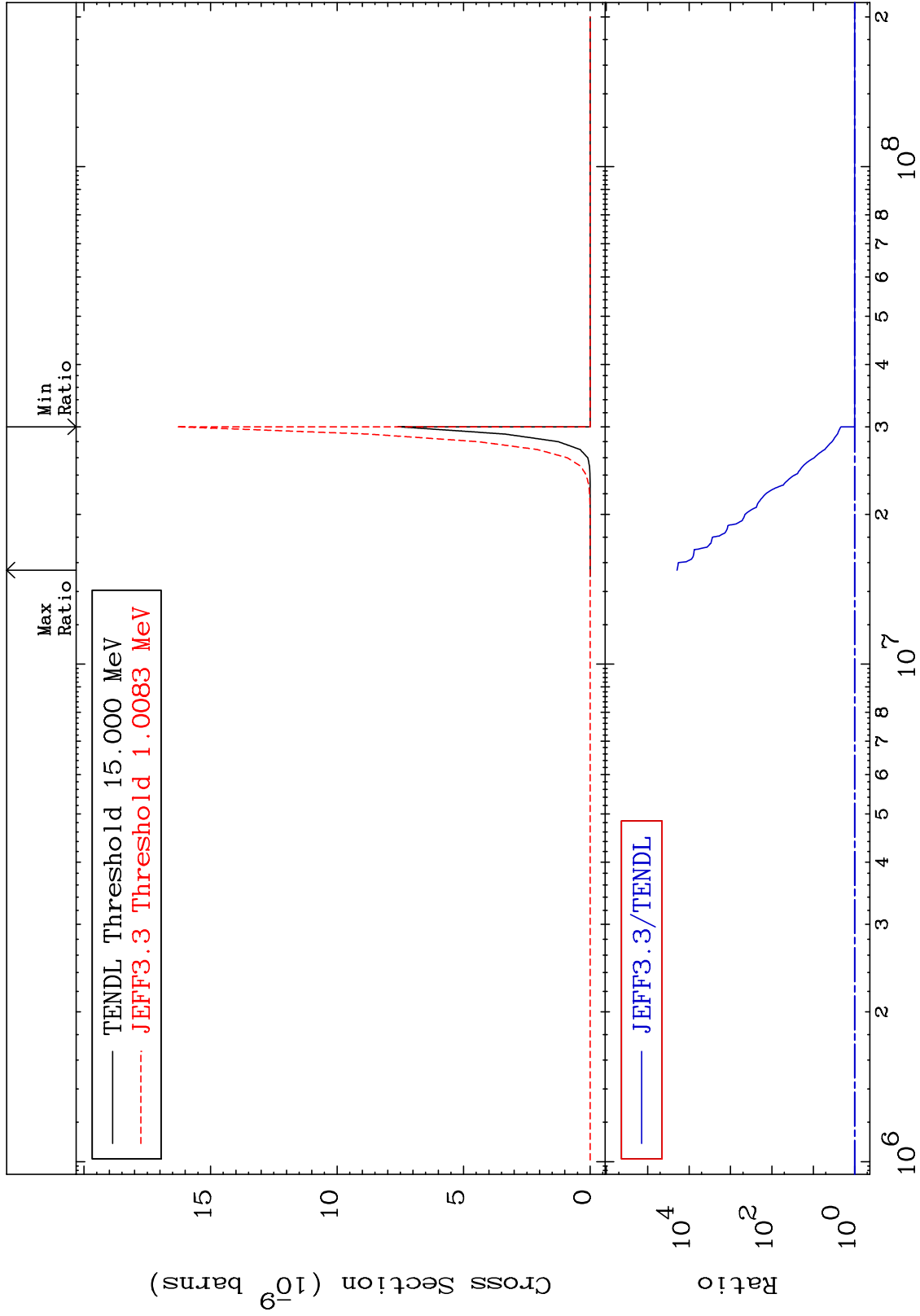
85

Incident Energy (eV)

60-Nd-143

MAT 6028

(n, n') 2α:56-Ba-135g 60-Nd-143  
Radionuclide Production Cross Section 0.000 To 9999. %



86

Incident Energy (eV)

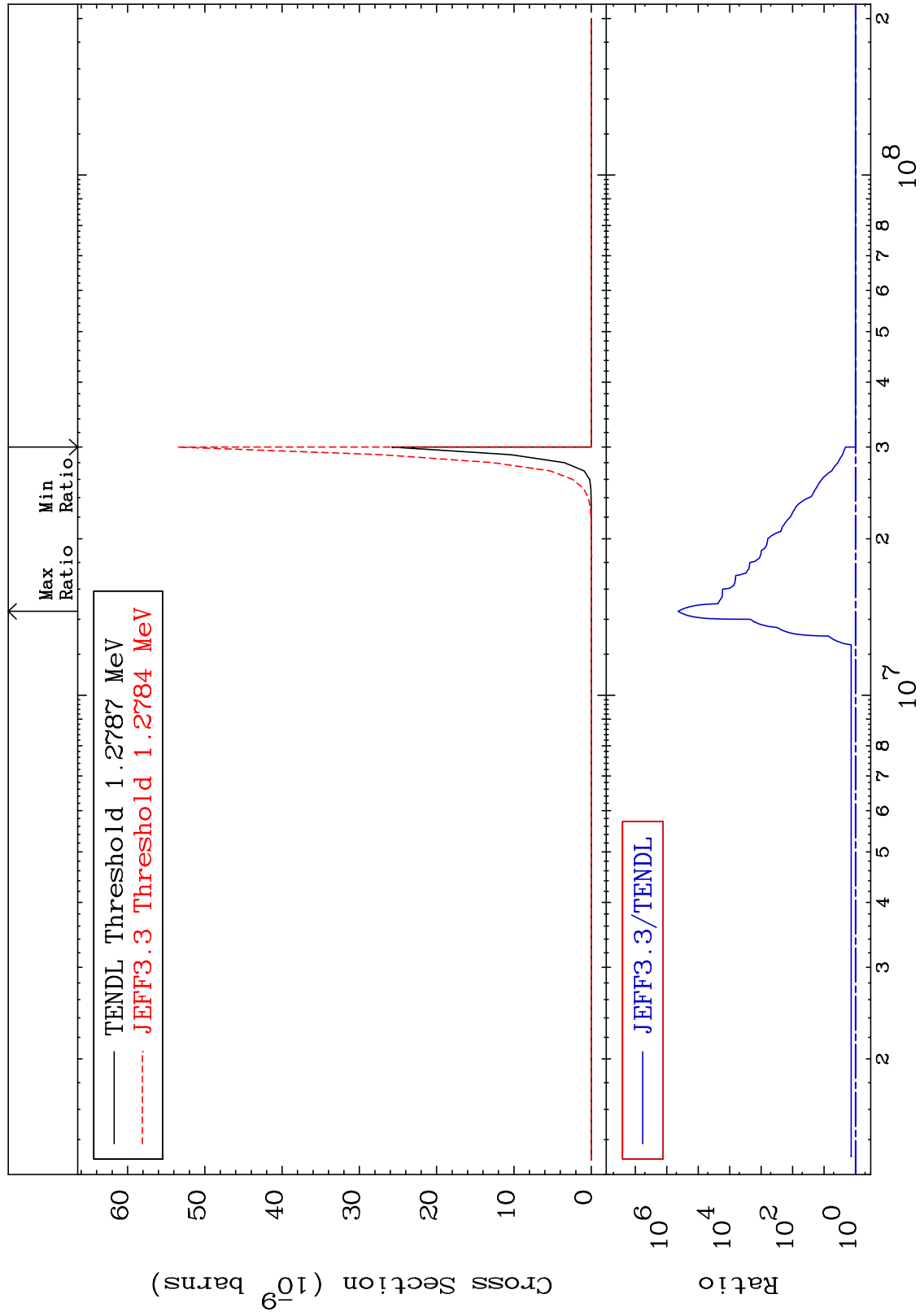
60-Nd-143

MAT 6028

(n, n') 2α:56-Ba-135m2

60-Nd-143

Radionuclide Production Cross Section 0.000 To 9999. %



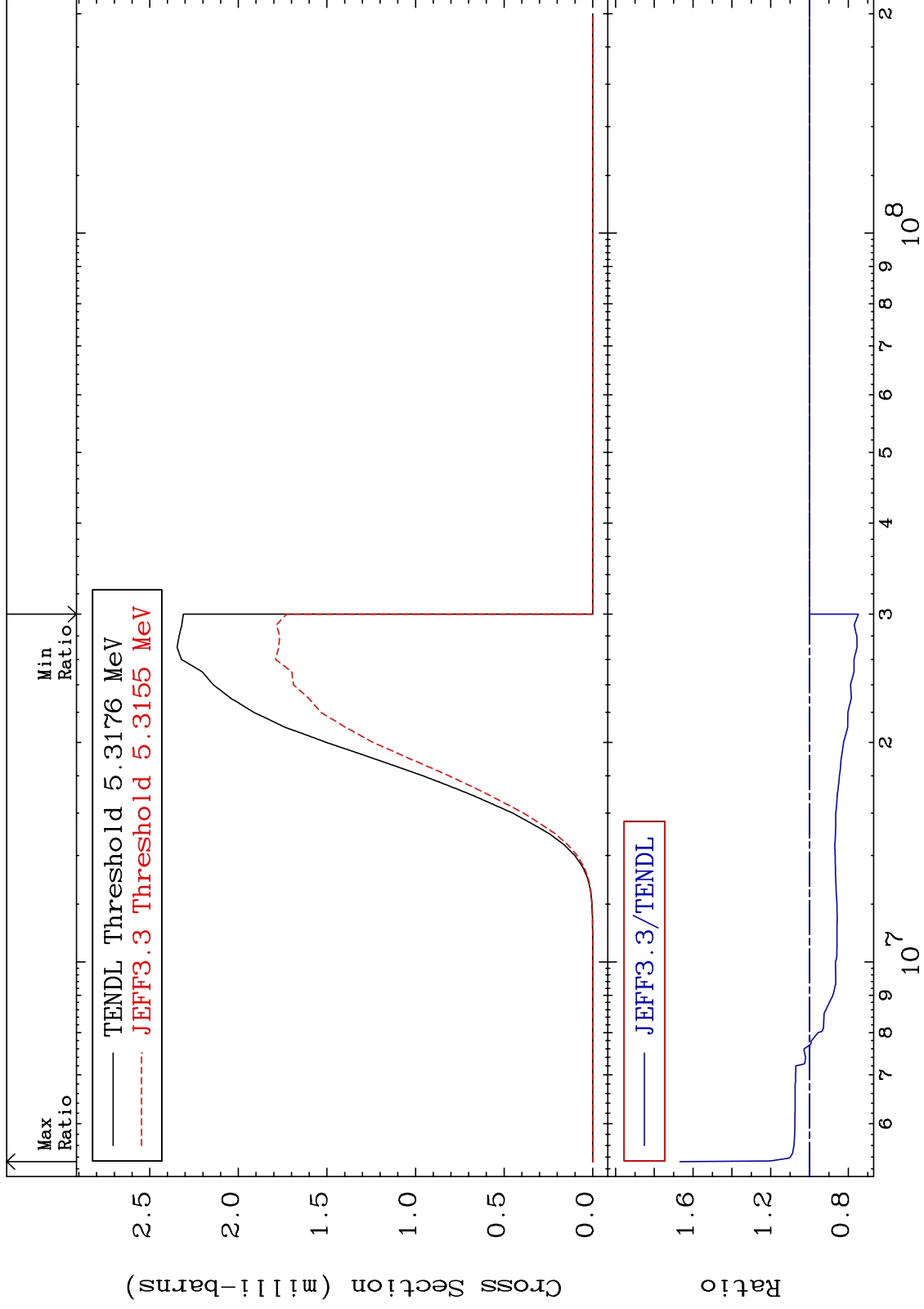


MAT 6028

(n,d):59-Pr-142g

60-Nd-143

Radionuclide Production Cross Section -25.21 To 66.75 %



MAT 6028

(n, d) : 59-Pr-142m1

60-Nd-143

Radionuclide Production Cross Section -0.834 To 23.03 %

