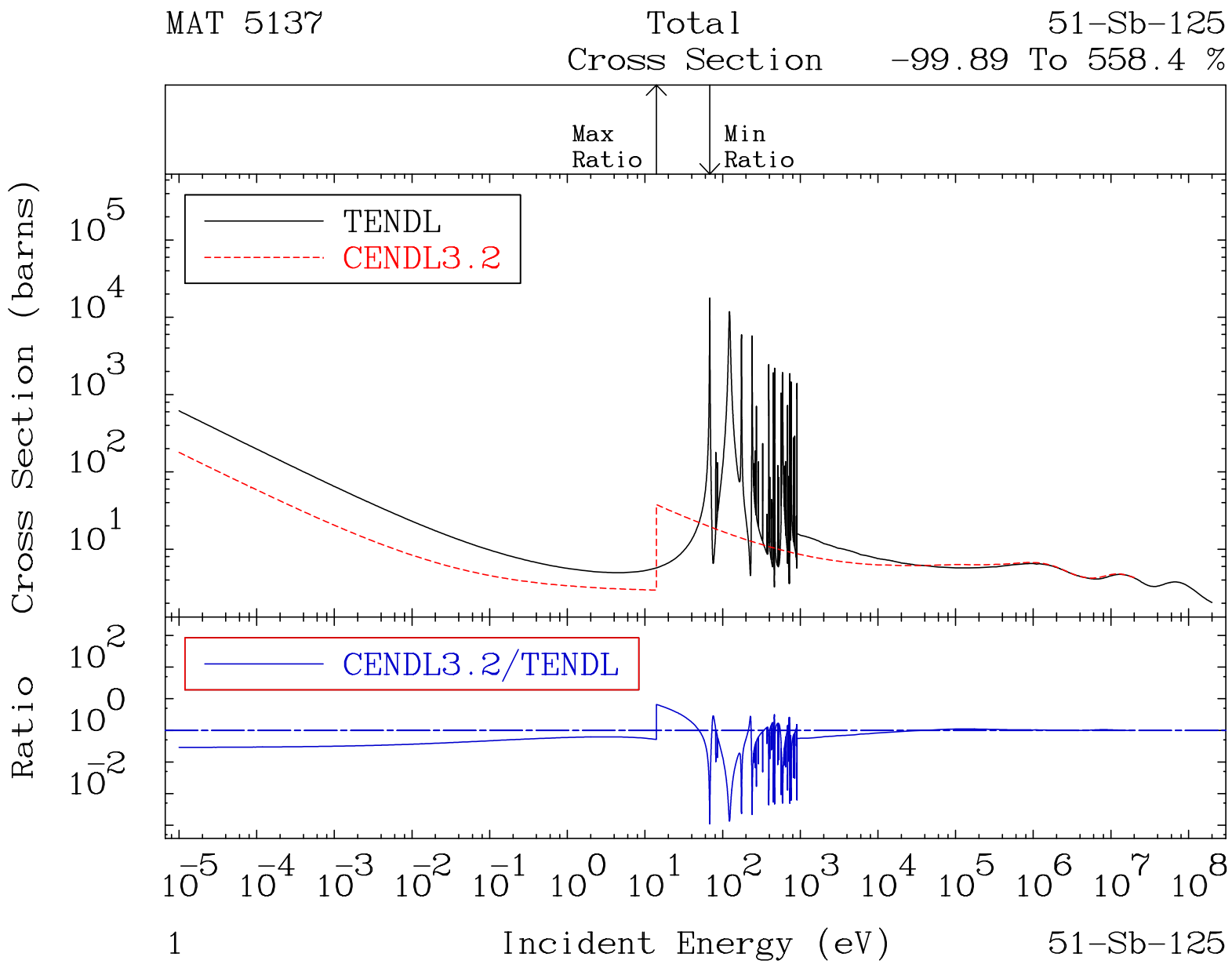
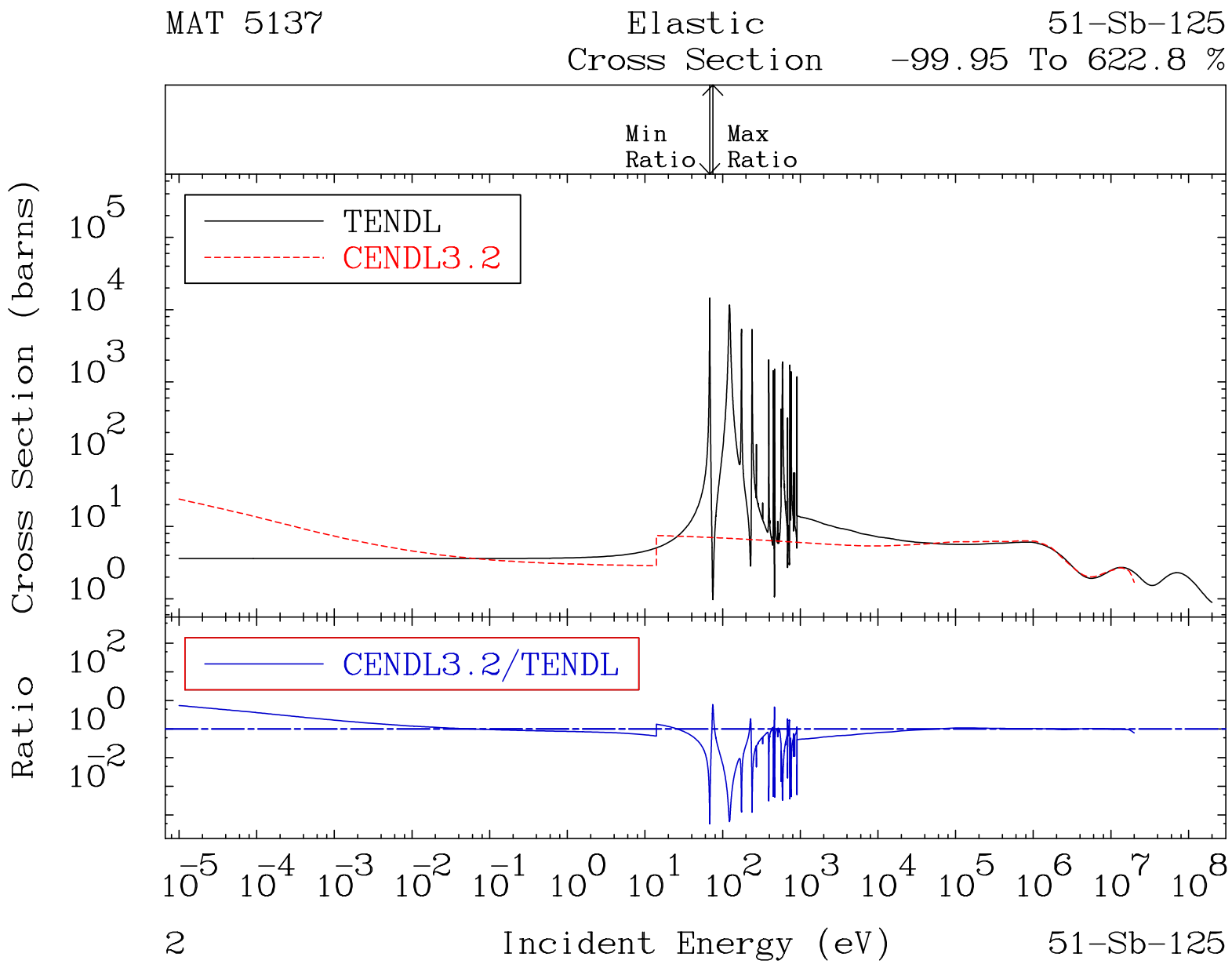
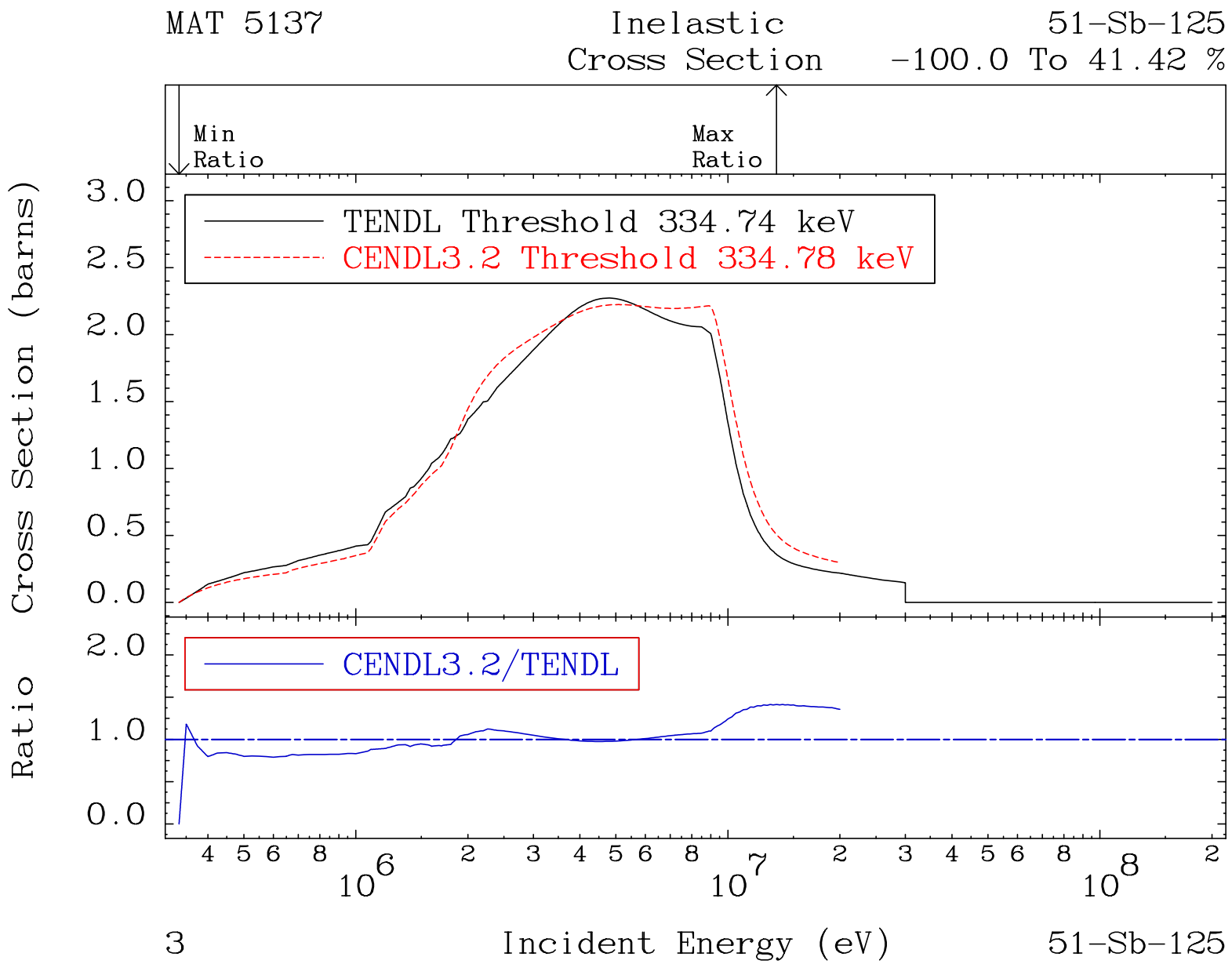
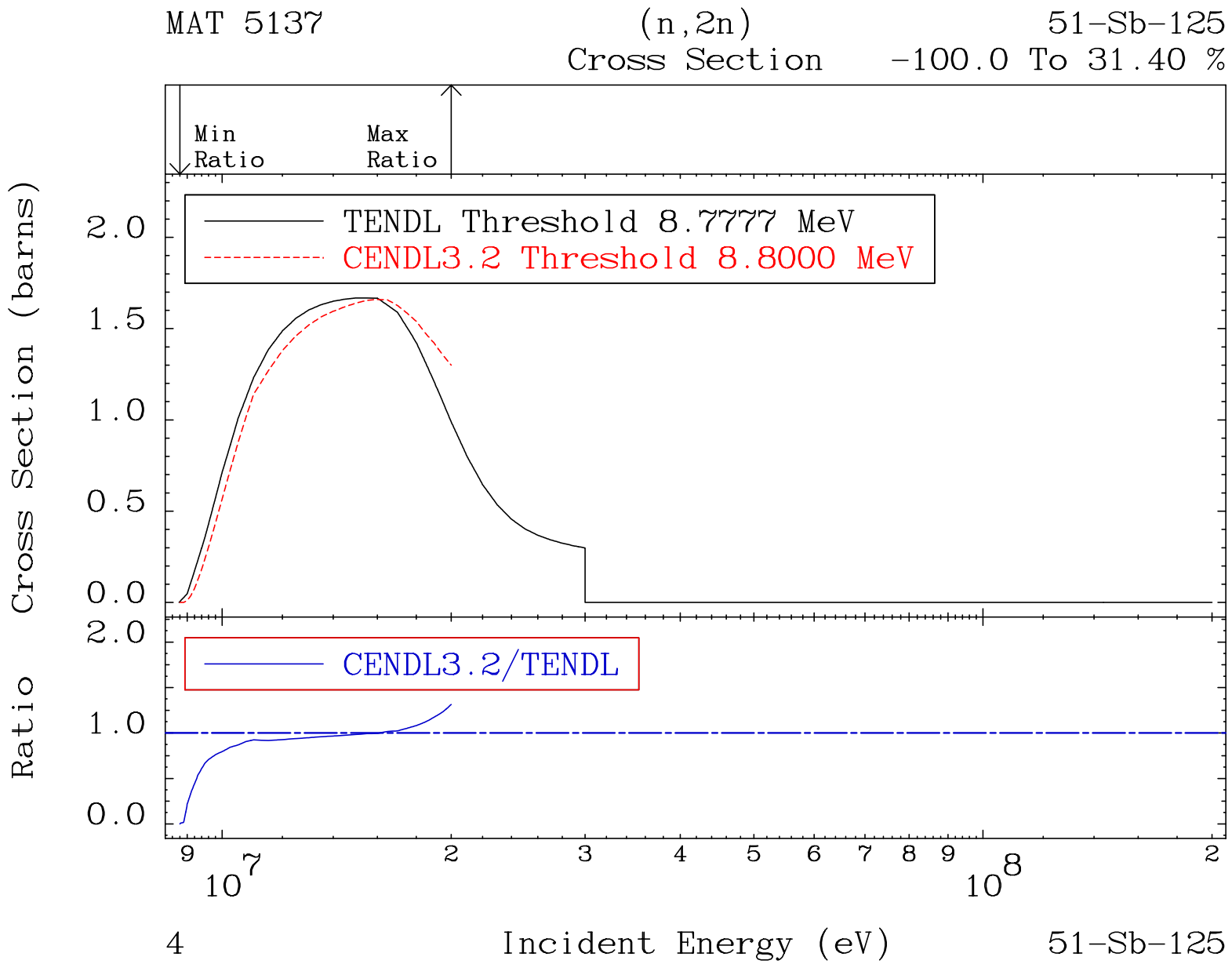
Program Complot
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

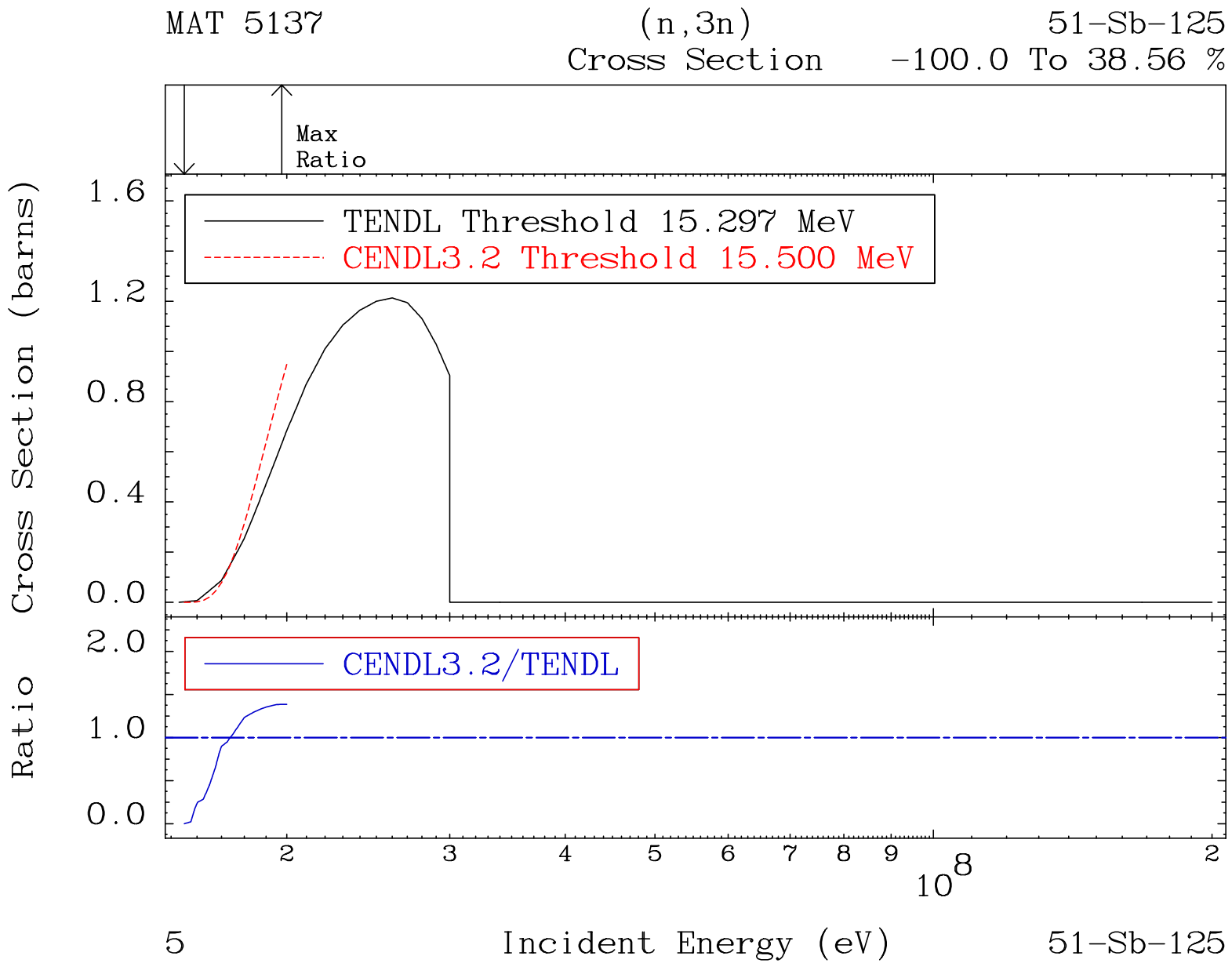
Press Mouse Button to Start

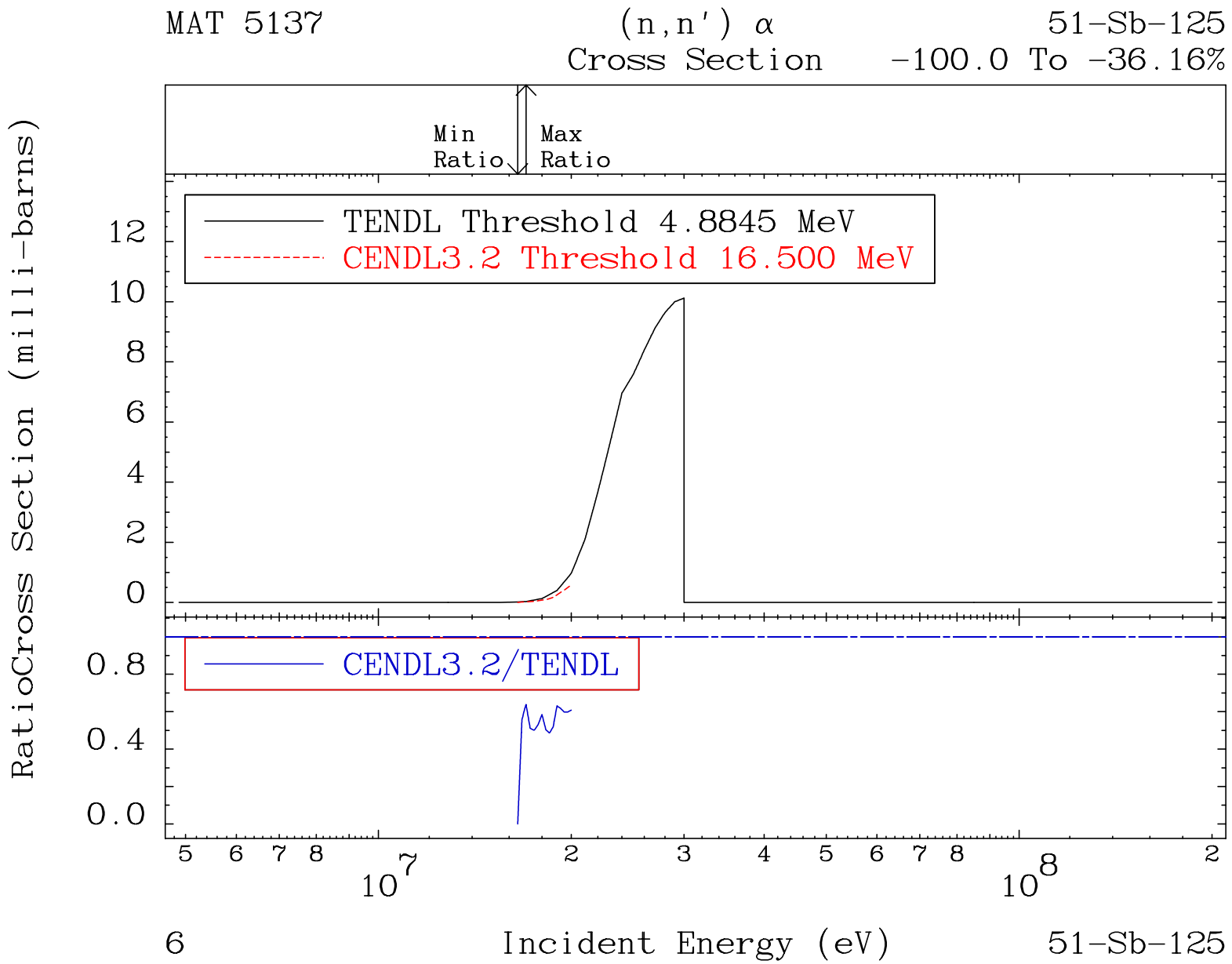

MAT 5137
Total
Cross Section
51-Sb-125
-99.89 To 558.4 %
Max
Ratio
Min
Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
51-Sb-125

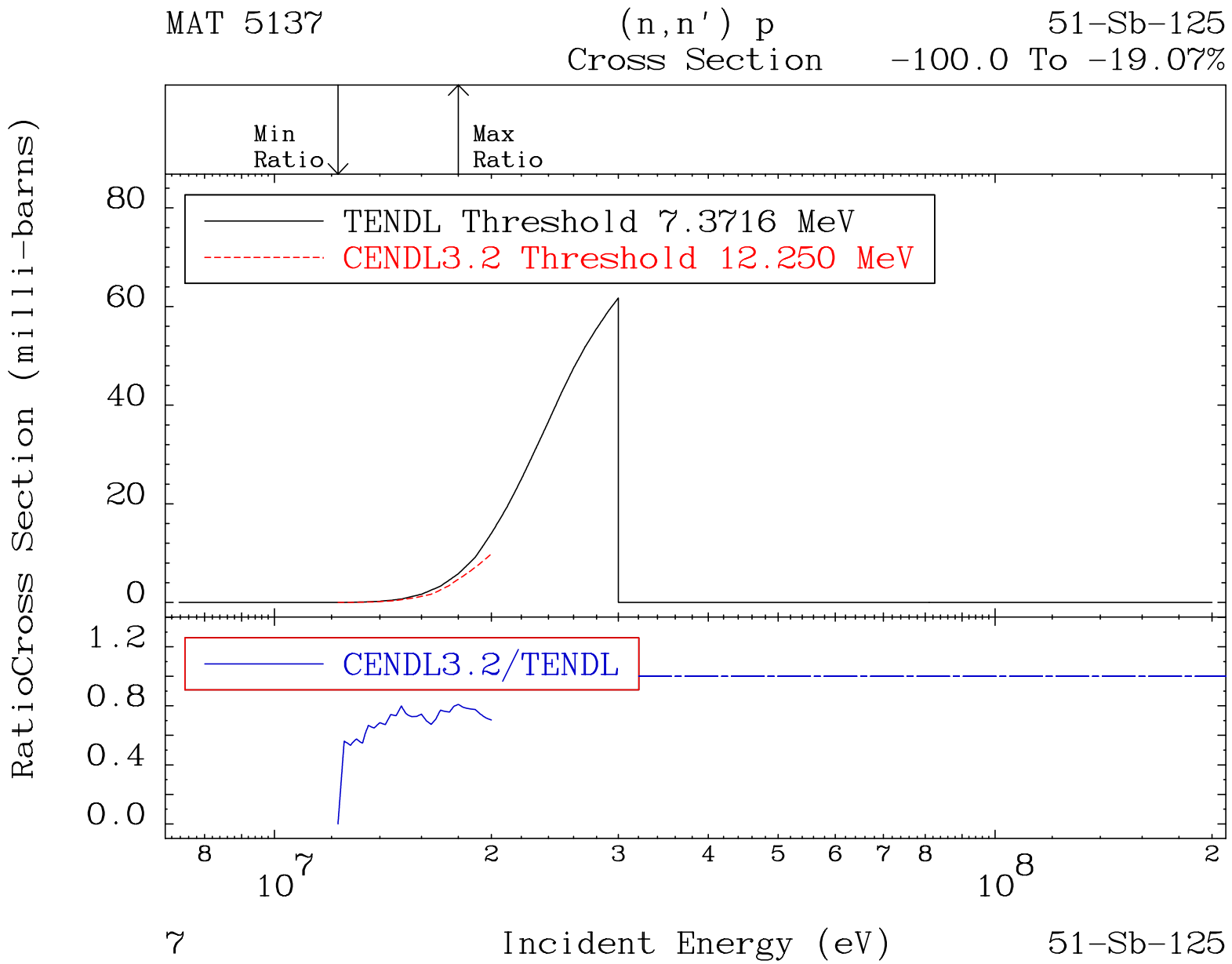

MAT 5137
Elastic
Cross Section
51-Sb-125
-99.95 To 622.8 %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
51-Sb-125

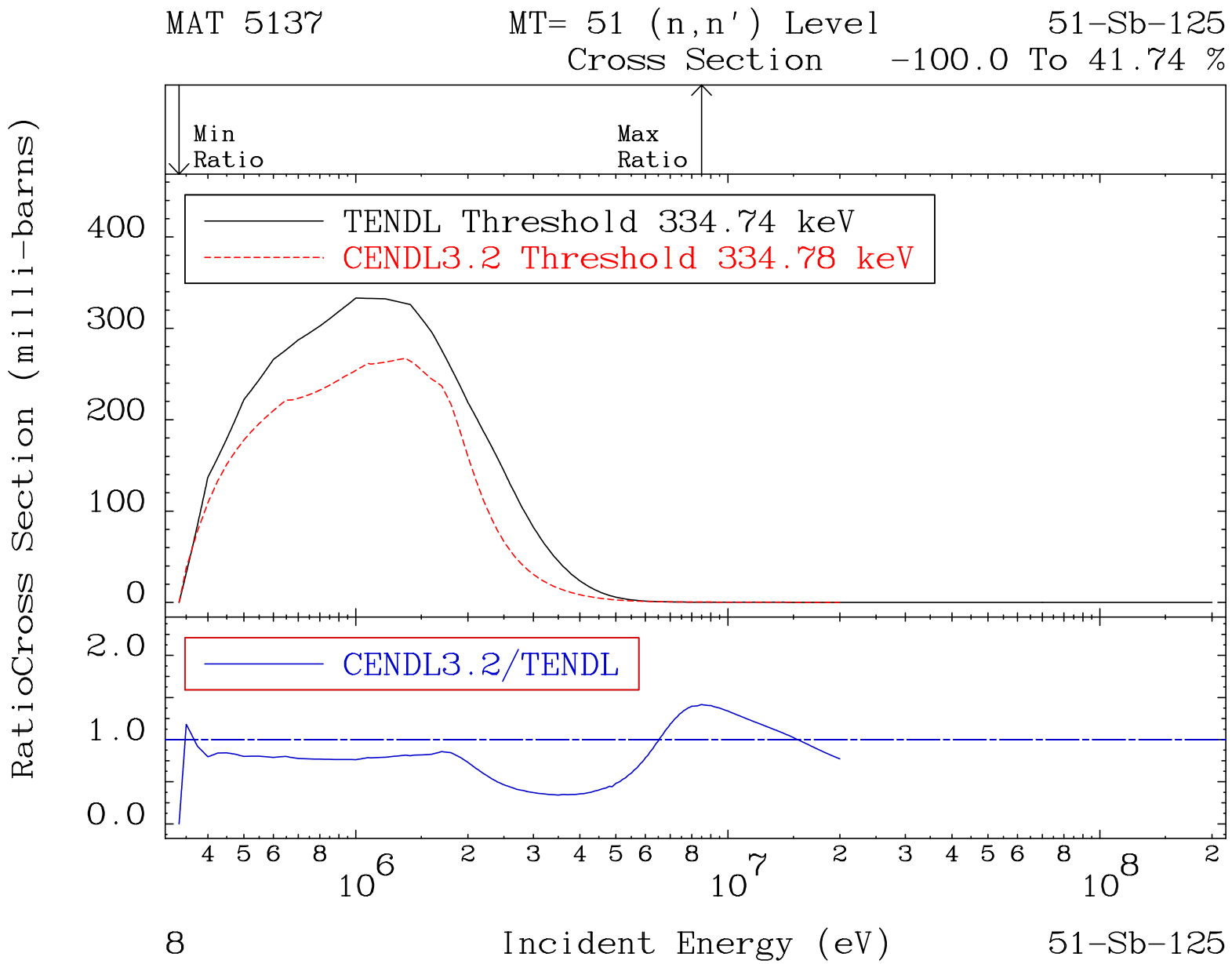

MAT 5137
Inelastic
Cross Section
51-Sb-125
-100.0 To 41.42 %
Min
Ratio
Max
Ratio
TENDL Threshold 334.74 keV
CENDL3.2 Threshold 334.78 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
3
51-Sb-125

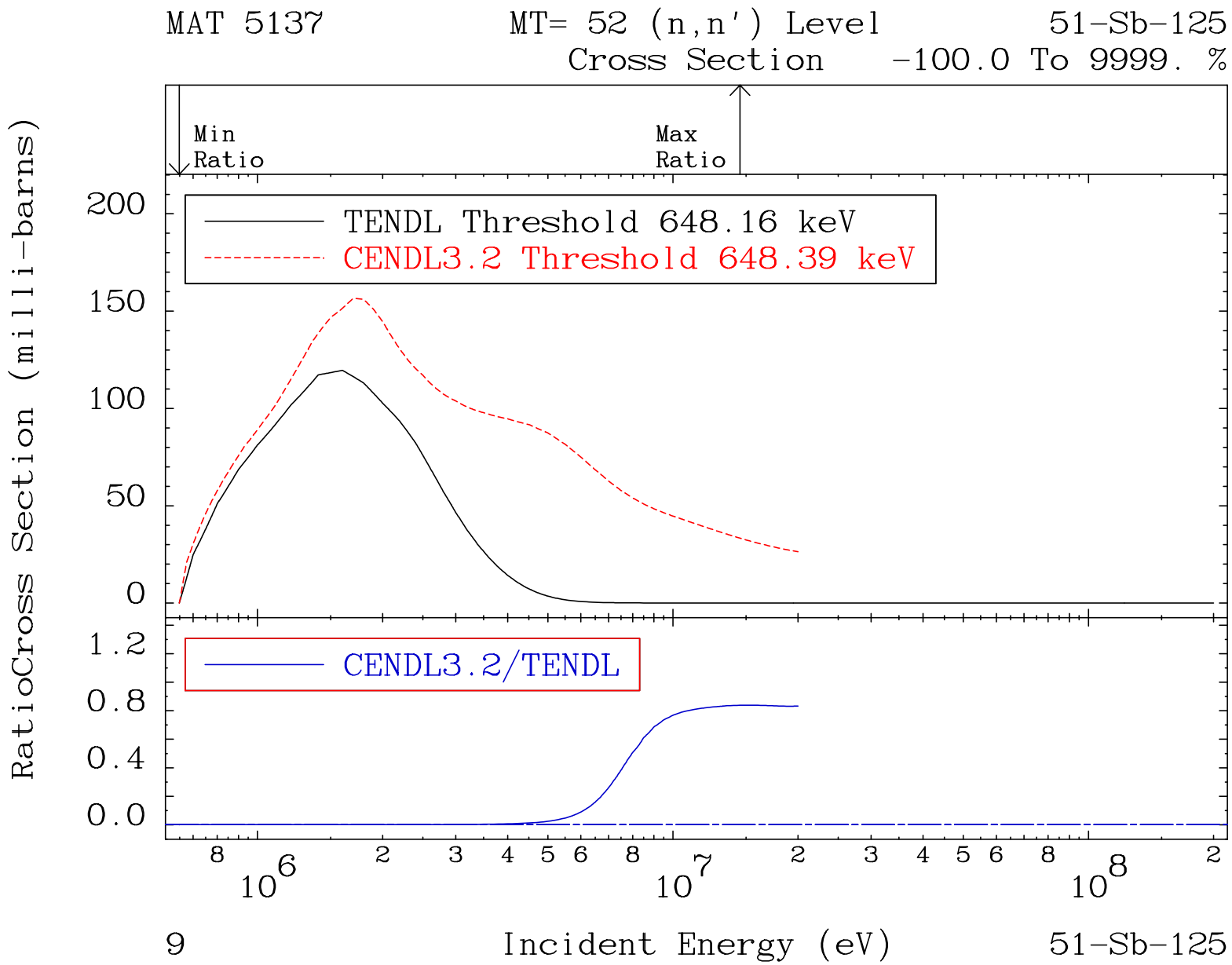

MAT 5137
(n,2n)
Cross Section
51-Sb-125
-100.0 To 31.40 %
Min Ratio
Max Ratio
TENDL Threshold 8.7777 MeV
CENDL3.2 Threshold 8.8000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.0
1.5
1.0
0.5
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
51-Sb-125

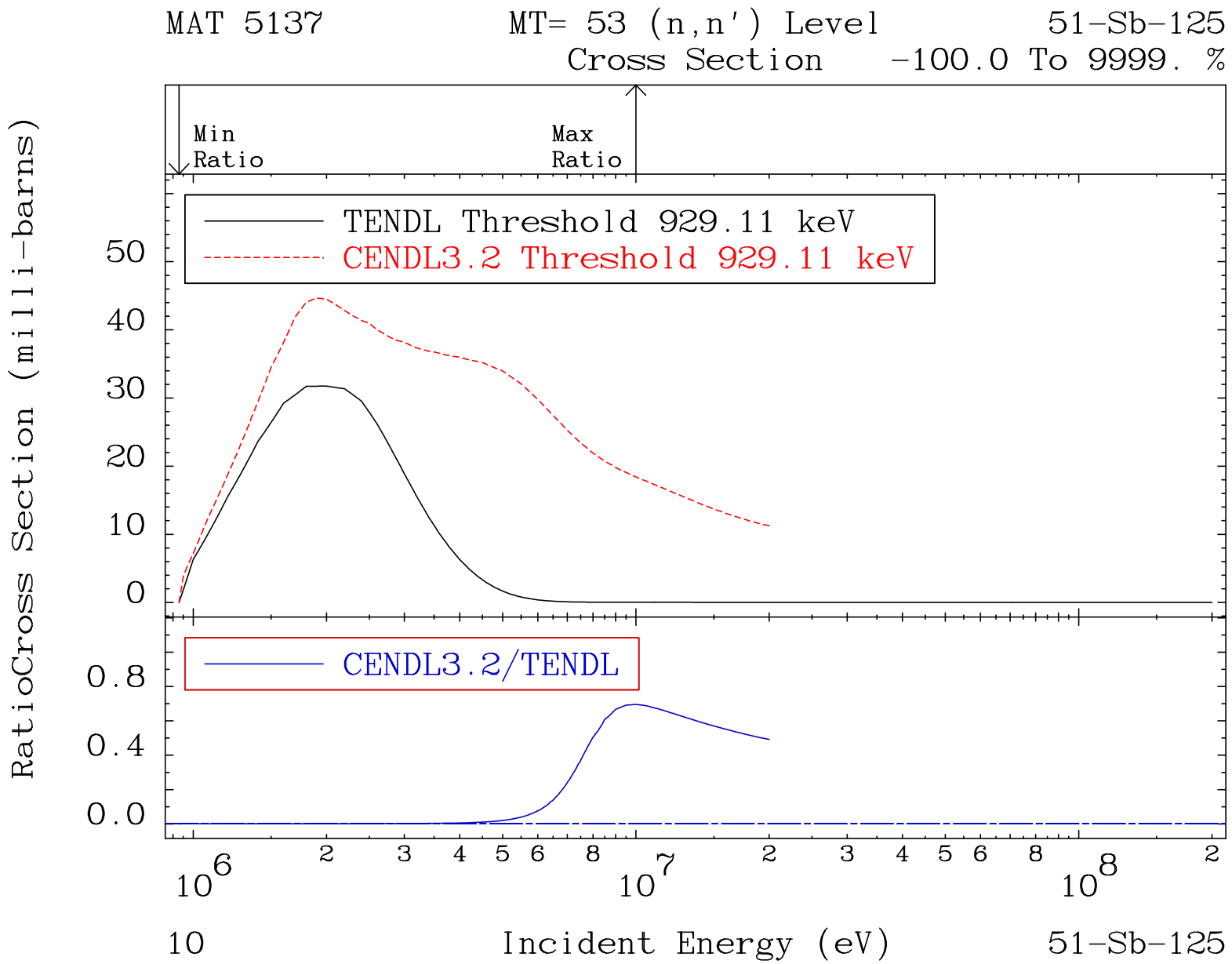

MAT 5137
(n,3n)
Cross Section
51-Sb-125
-100.0 To 38.56 %
Max
Ratio
TENDL Threshold 15.297 MeV
CENDL3.2 Threshold 15.500 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.6
1.2
0.8
0.4
0.0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
51-Sb-125

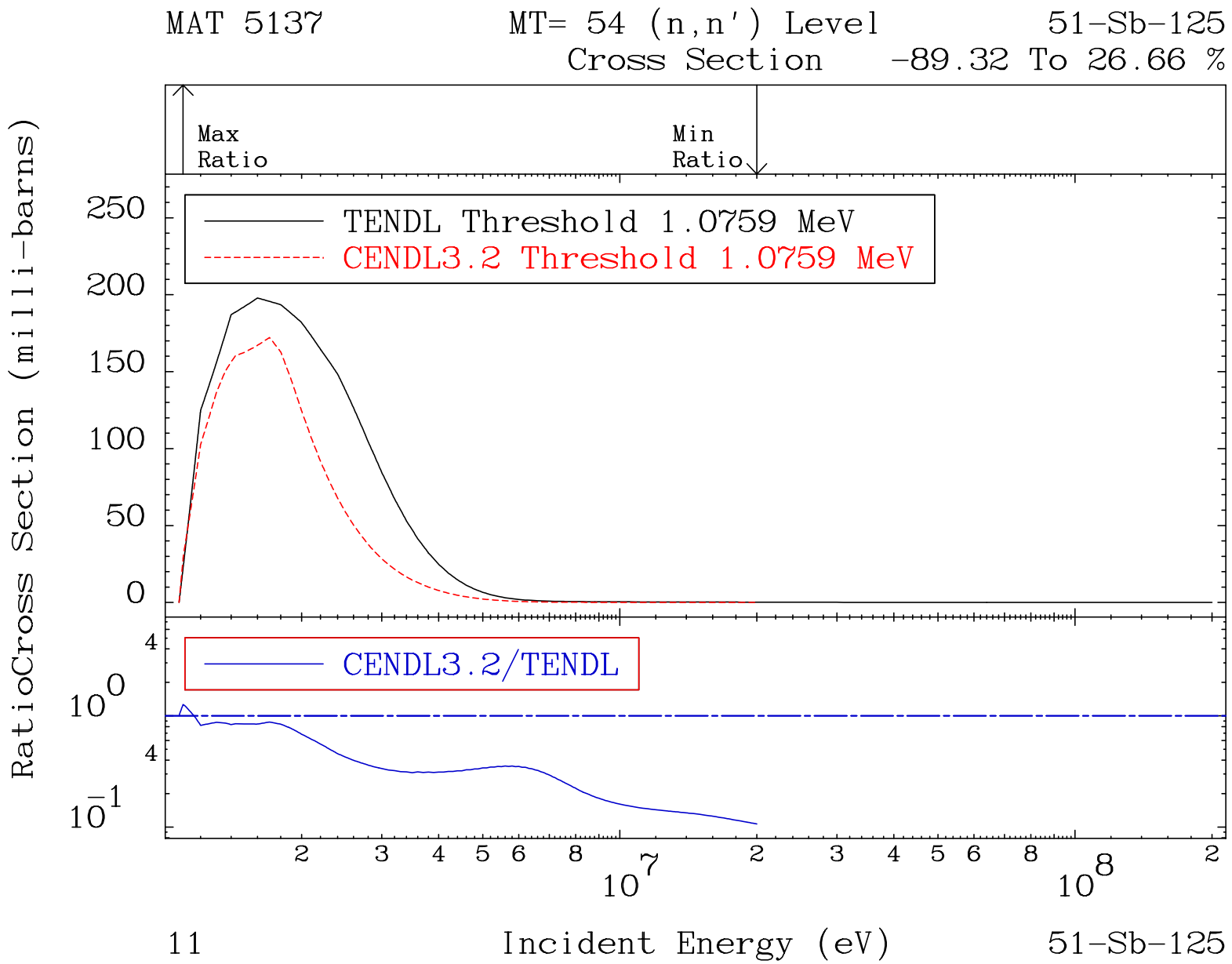

MAT 5137
(n,n') α
51-Sb-125
Cross Section
-100.0 To -36.16%
Min Ratio
Max Ratio
TENDL Threshold 4.8845 MeV
CENDL3.2 Threshold 16.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
0.8
0.4
0.0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
6
Incident Energy (eV)
51-Sb-125

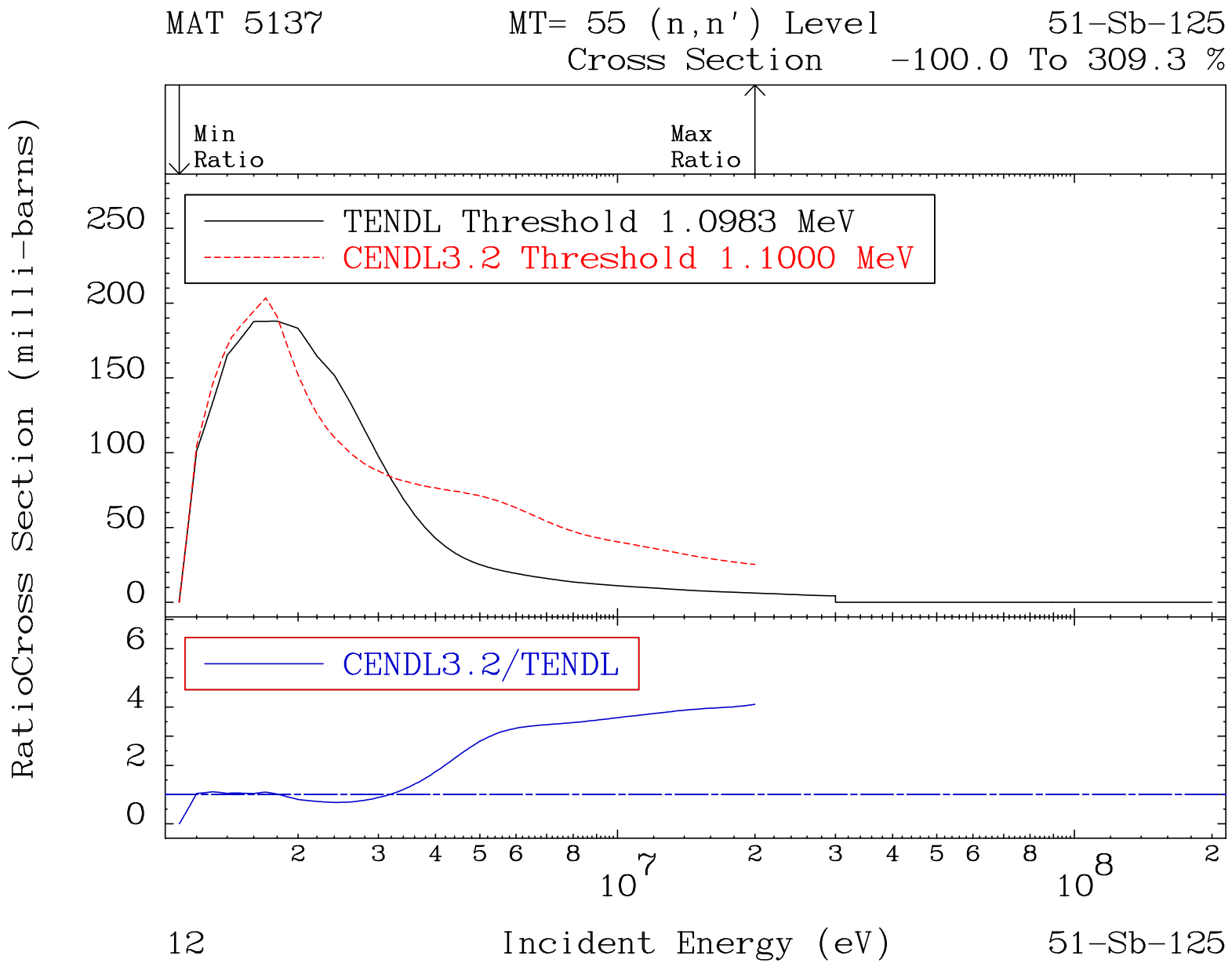

MAT 5137
(n,n') p
Cross Section
51-Sb-125
-100.0 To -19.07%
Min Ratio
Max Ratio
TENDL Threshold 7.3716 MeV
CENDL3.2 Threshold 12.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
1.2
0.8
0.4
0.0
8
10^7
2
3
4
5
6
7
8
10^8
2
7
Incident Energy (eV)
51-Sb-125

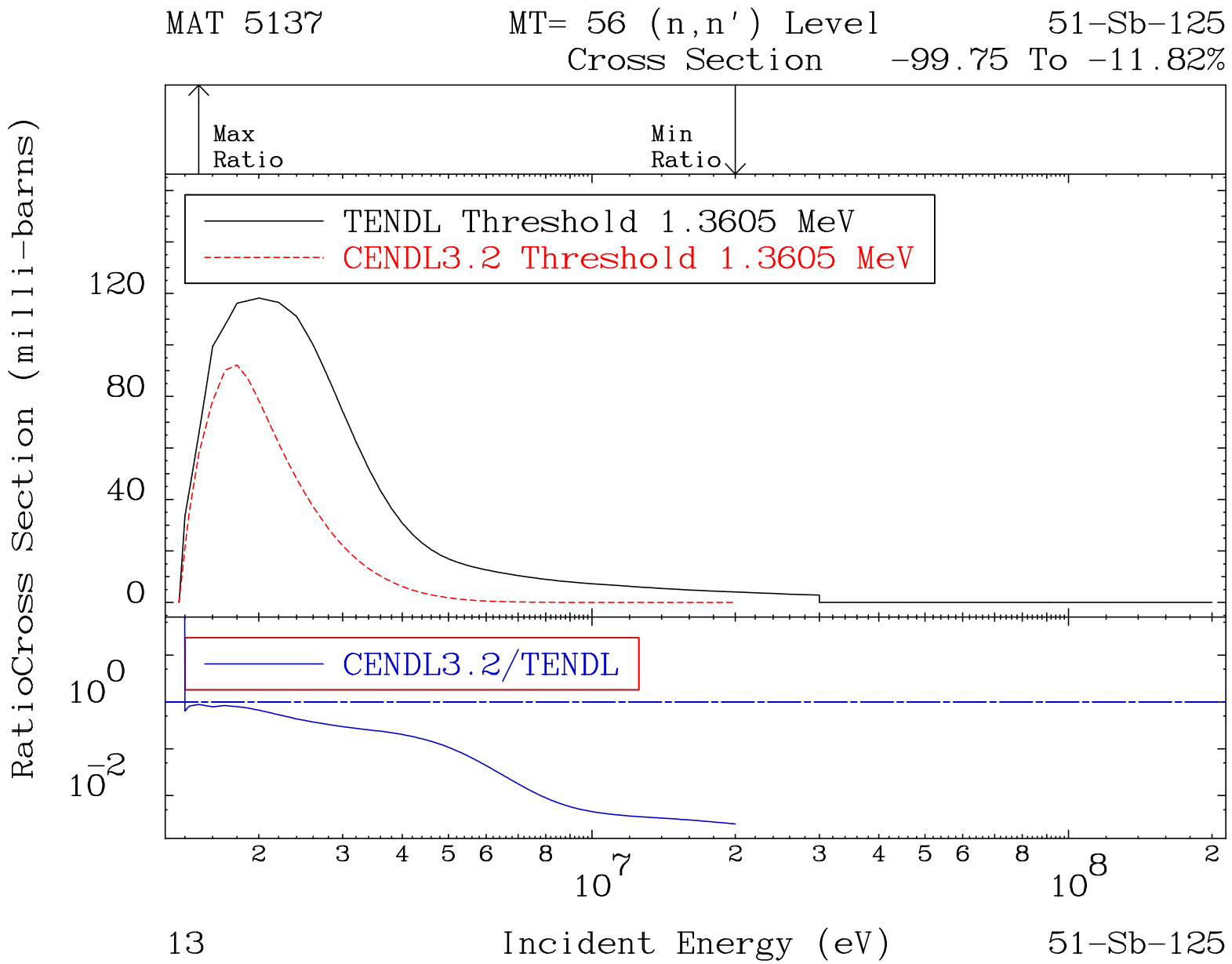

MAT 5137
MT= 51 (n,n') Level
51-Sb-125
Cross Section -100.0 To 41.74 %
Min Ratio
Max Ratio
TENDL Threshold 334.74 keV
CENDL3.2 Threshold 334.78 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
2.0
1.0
0.0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
8
51-Sb-125

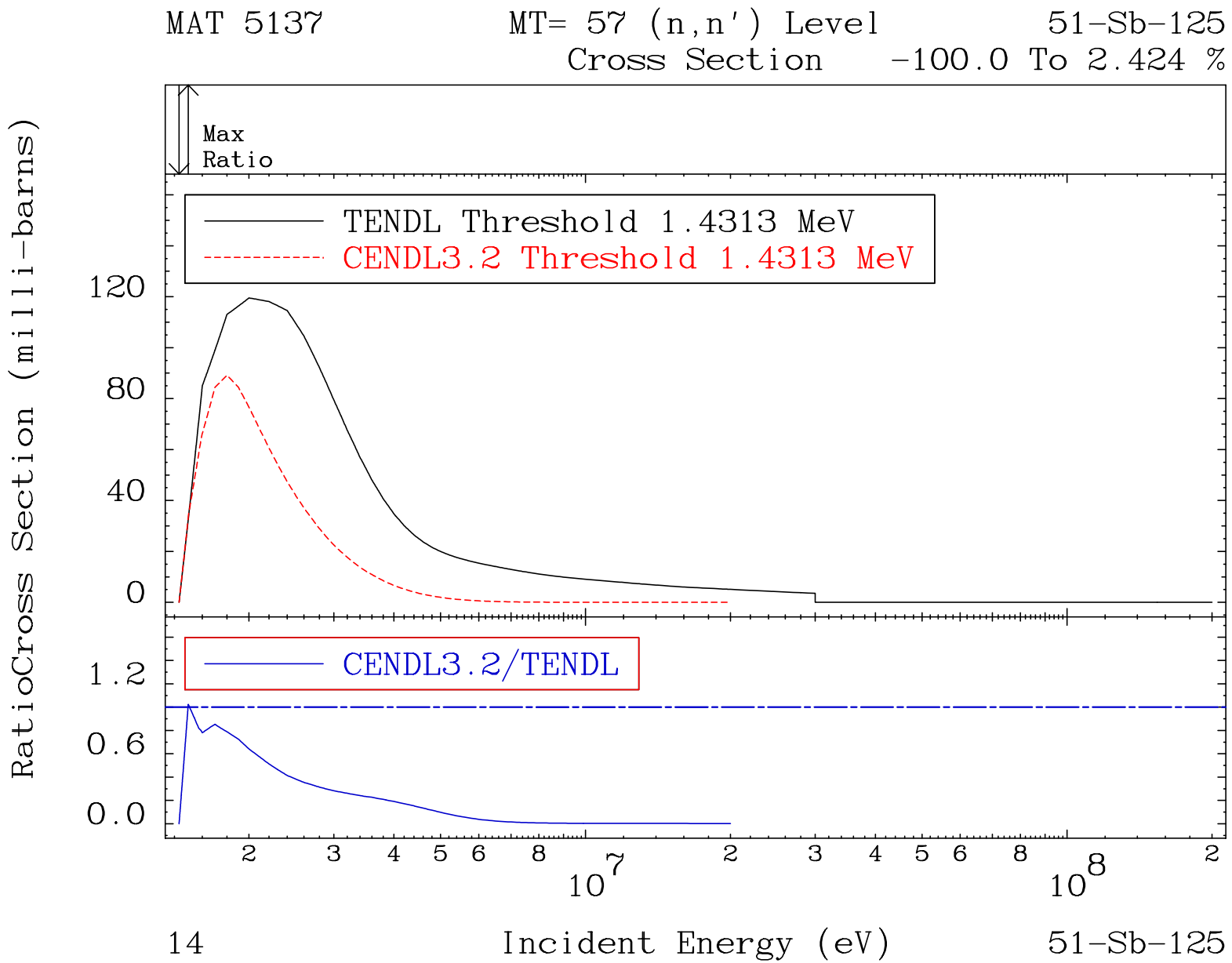

MAT 5137
MT= 52 (n,n') Level
51-Sb-125
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 648.16 keV
CENDL3.2 Threshold 648.39 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
1.2
0.8
0.4
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
9
Incident Energy (eV)
51-Sb-125

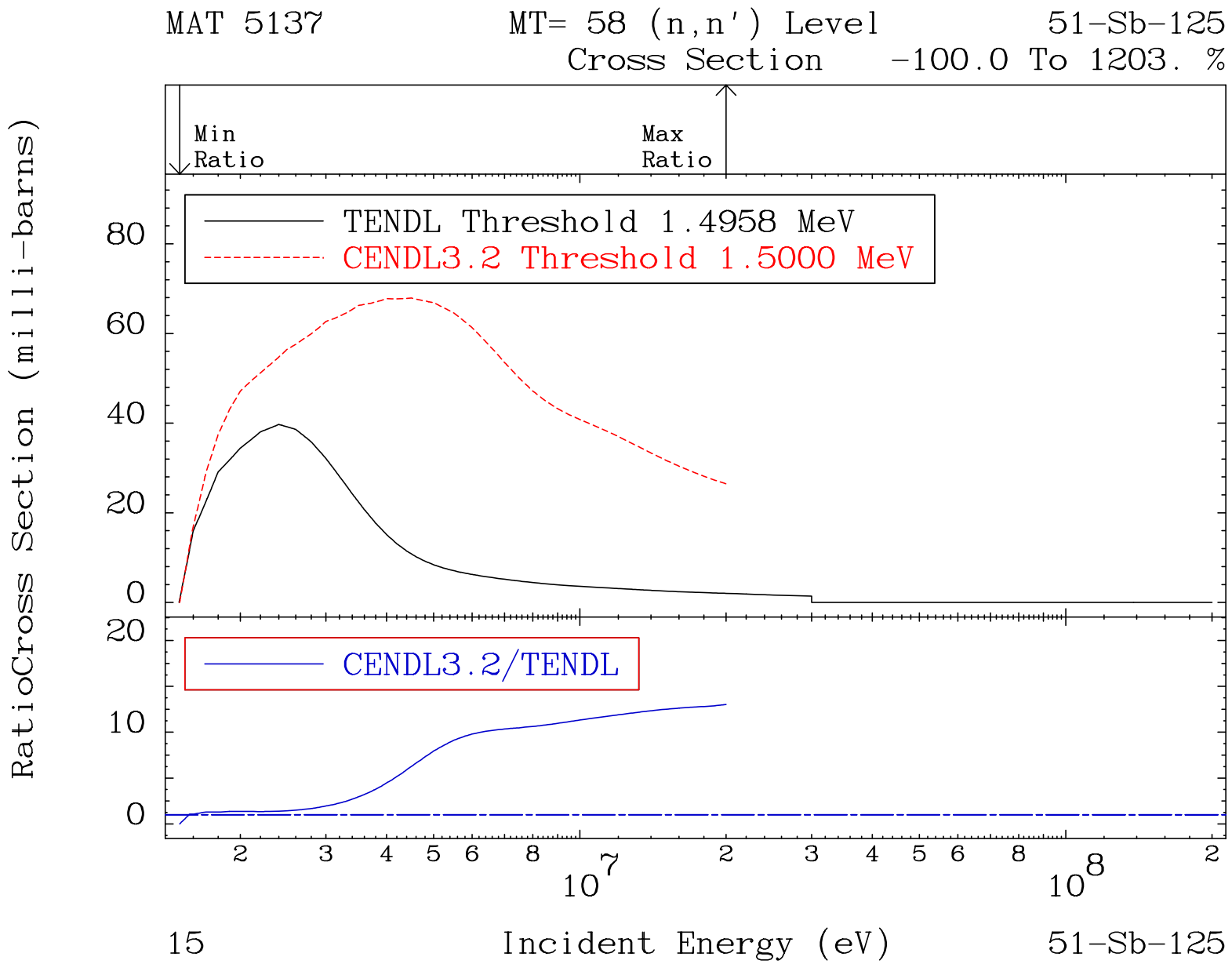

MAT 5137
MT= 53 (n,n') Level
51-Sb-125
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 929.11 keV
CENDL3.2 Threshold 929.11 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
0.8
0.4
0.0
10^6
10^7
10^8
Incident Energy (eV)
51-Sb-125

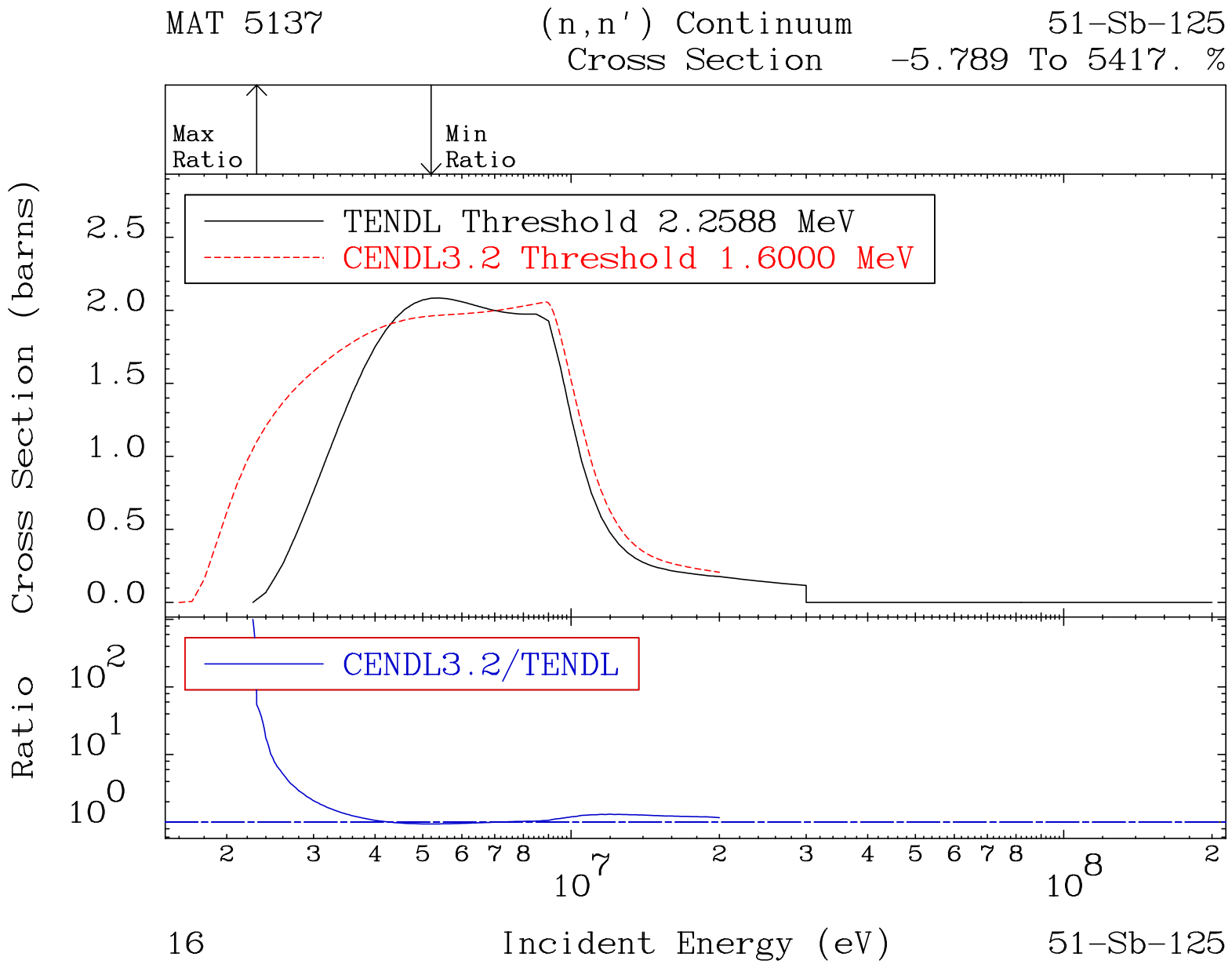

MAT 5137
MT= 54 (n,n') Level
51-Sb-125
Cross Section
-89.32 To 26.66 %
Max Ratio
Min Ratio
TENDL Threshold 1.0759 MeV
CENDL3.2 Threshold 1.0759 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
11
51-Sb-125

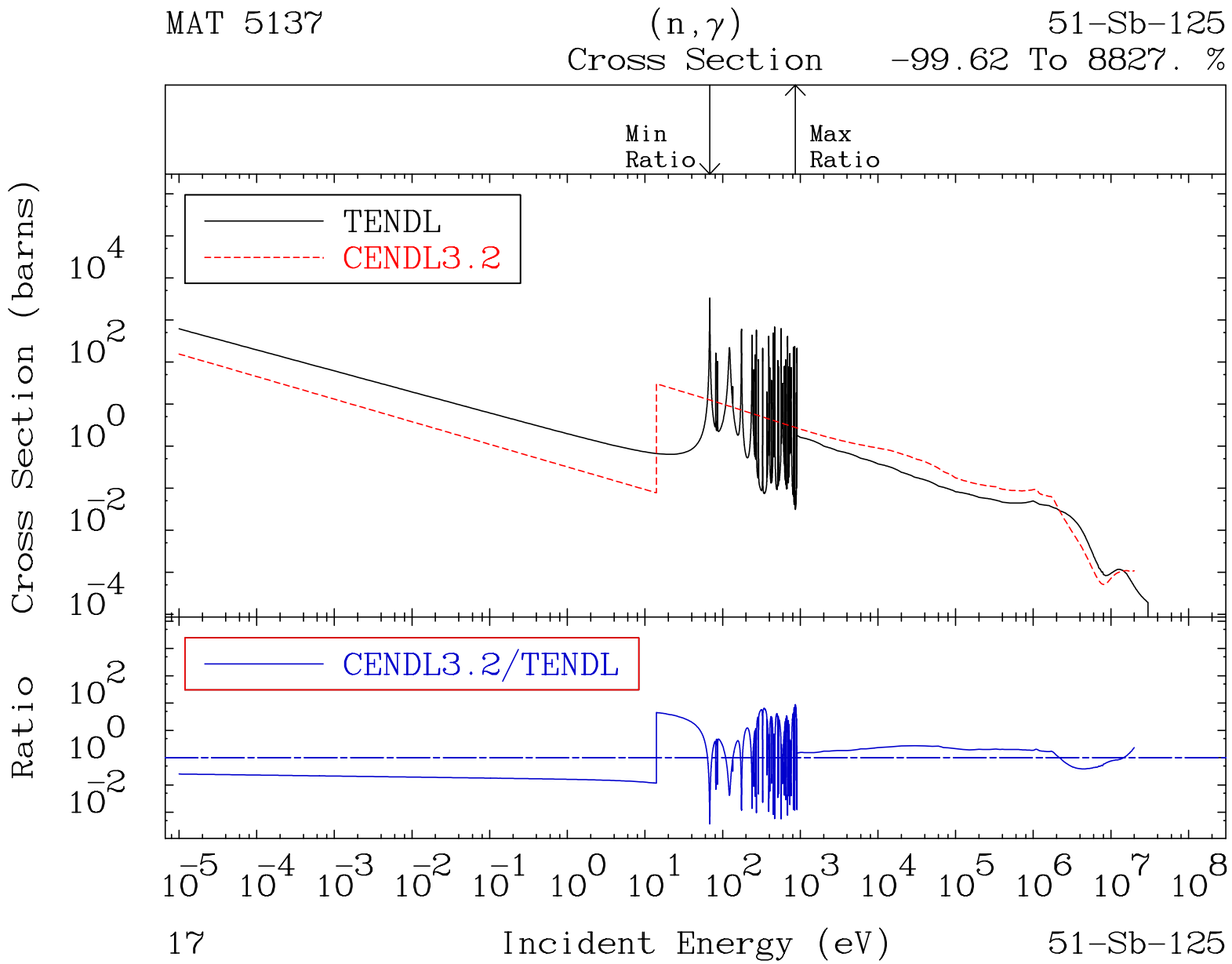

MAT 5137
MT= 55 (n,n') Level
51-Sb-125
Cross Section -100.0 To 309.3 %
Min Ratio
Max Ratio
TENDL Threshold 1.0983 MeV
CENDL3.2 Threshold 1.1000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
6
4
2
0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
12
Incident Energy (eV)
51-Sb-125

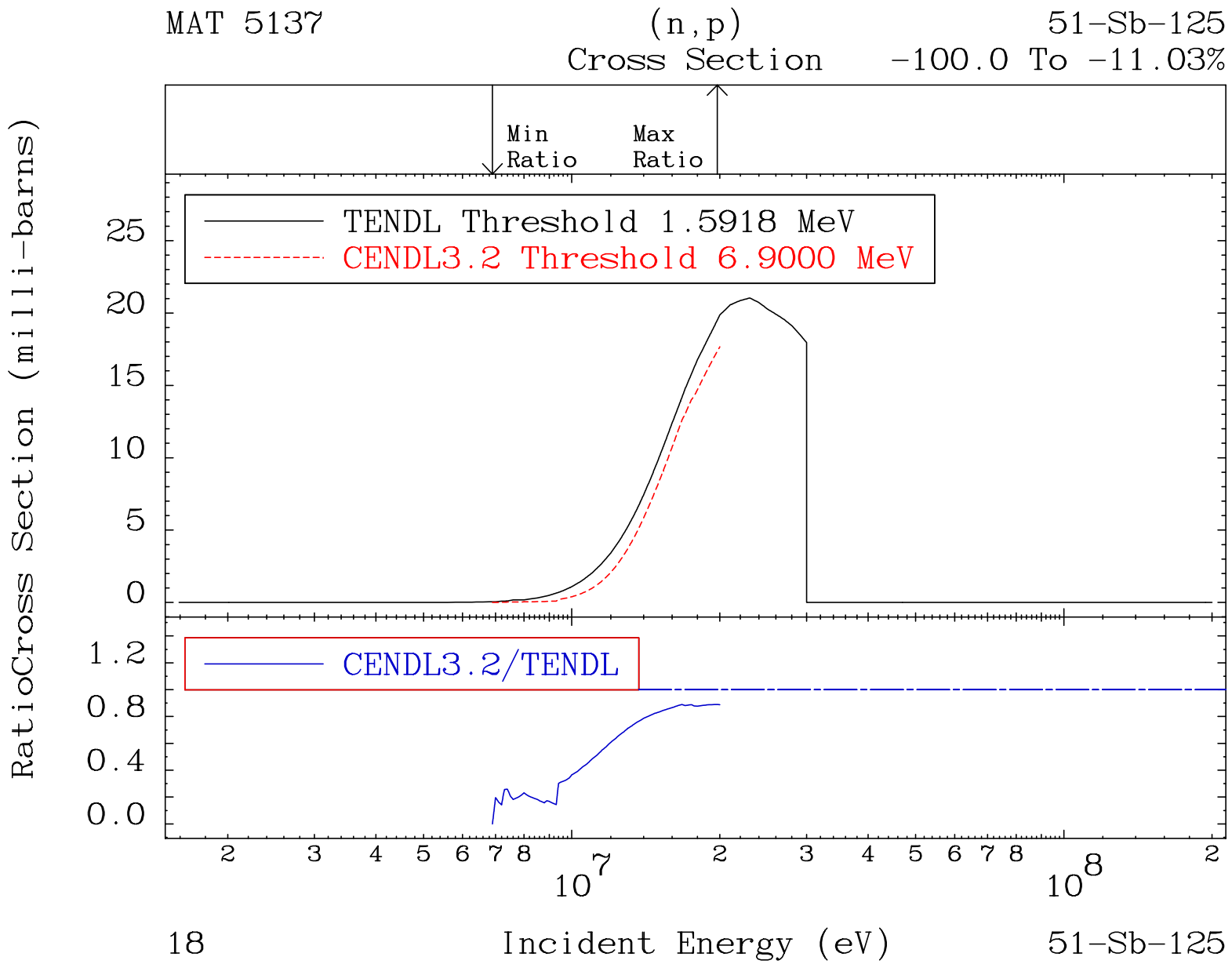

MAT 5137
MT= 56 (n,n') Level
51-Sb-125
Cross Section
-99.75 To -11.82%
Max Ratio
Min Ratio
TENDL Threshold 1.3605 MeV
CENDL3.2 Threshold 1.3605 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
80
40
0
10^0
10^-2
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
13
Incident Energy (eV)
51-Sb-125

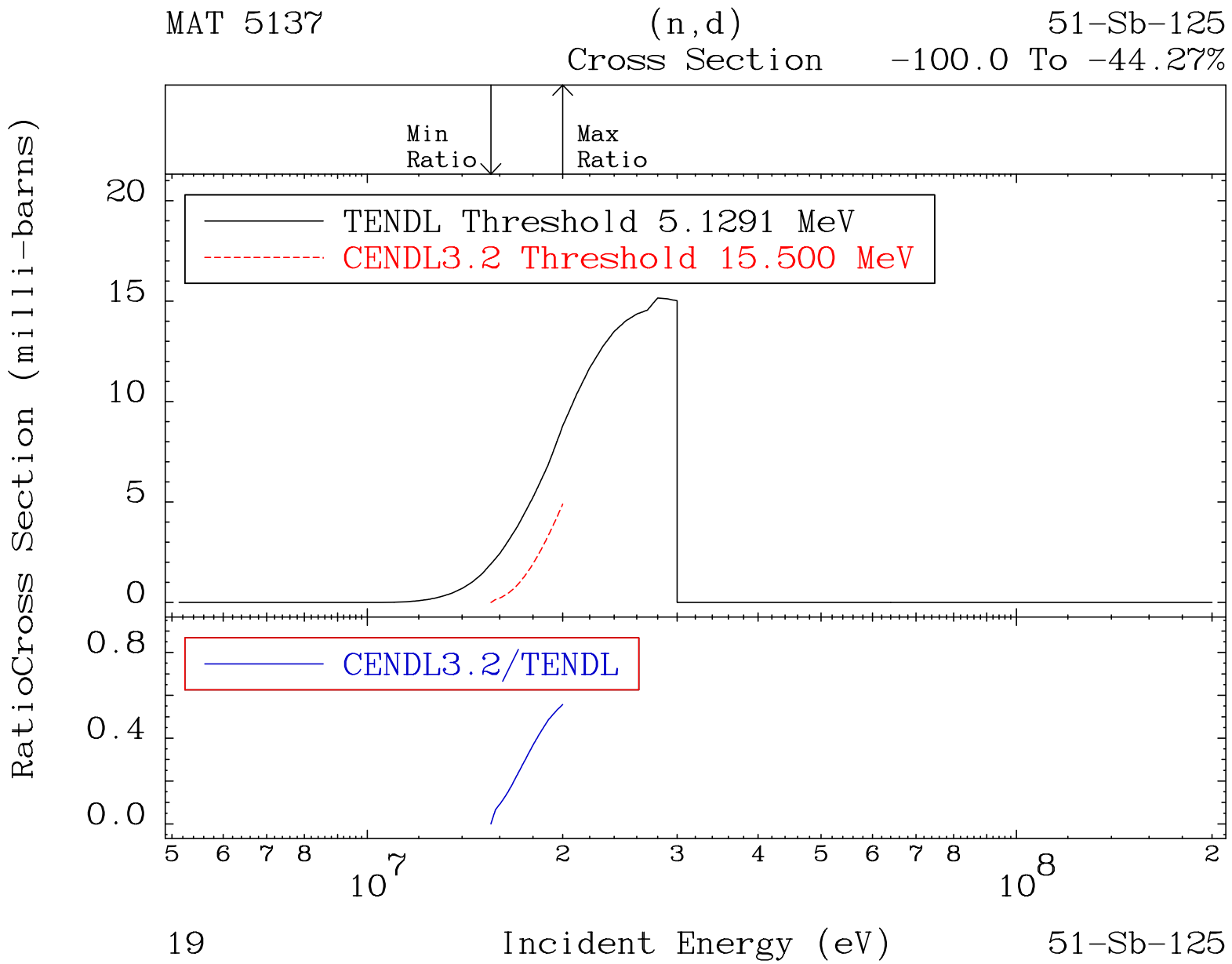

MAT 5137
MT= 57 (n,n') Level
51-Sb-125
Cross Section
-100.0 To 2.424 %
Max
Ratio
TENDL Threshold 1.4313 MeV
CENDL3.2 Threshold 1.4313 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
80
40
0
1.2
0.6
0.0
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
14
Incident Energy (eV)
51-Sb-125

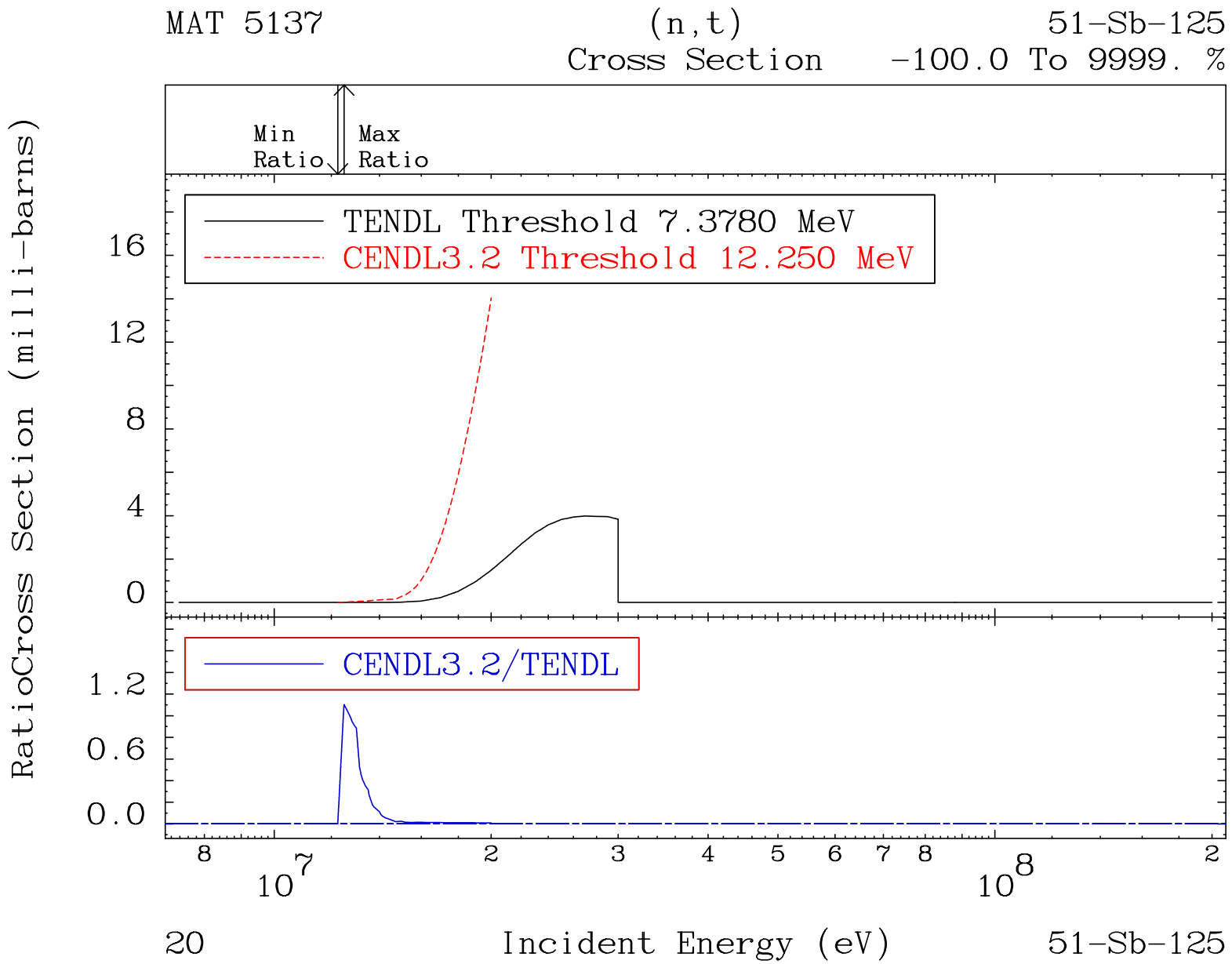

MAT 5137
MT= 58 (n,n') Level
51-Sb-125
Cross Section -100.0 To 1203. %
Min Ratio
Max Ratio
TENDL Threshold 1.4958 MeV
CENDL3.2 Threshold 1.5000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
20
10
0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
15
Incident Energy (eV)
51-Sb-125

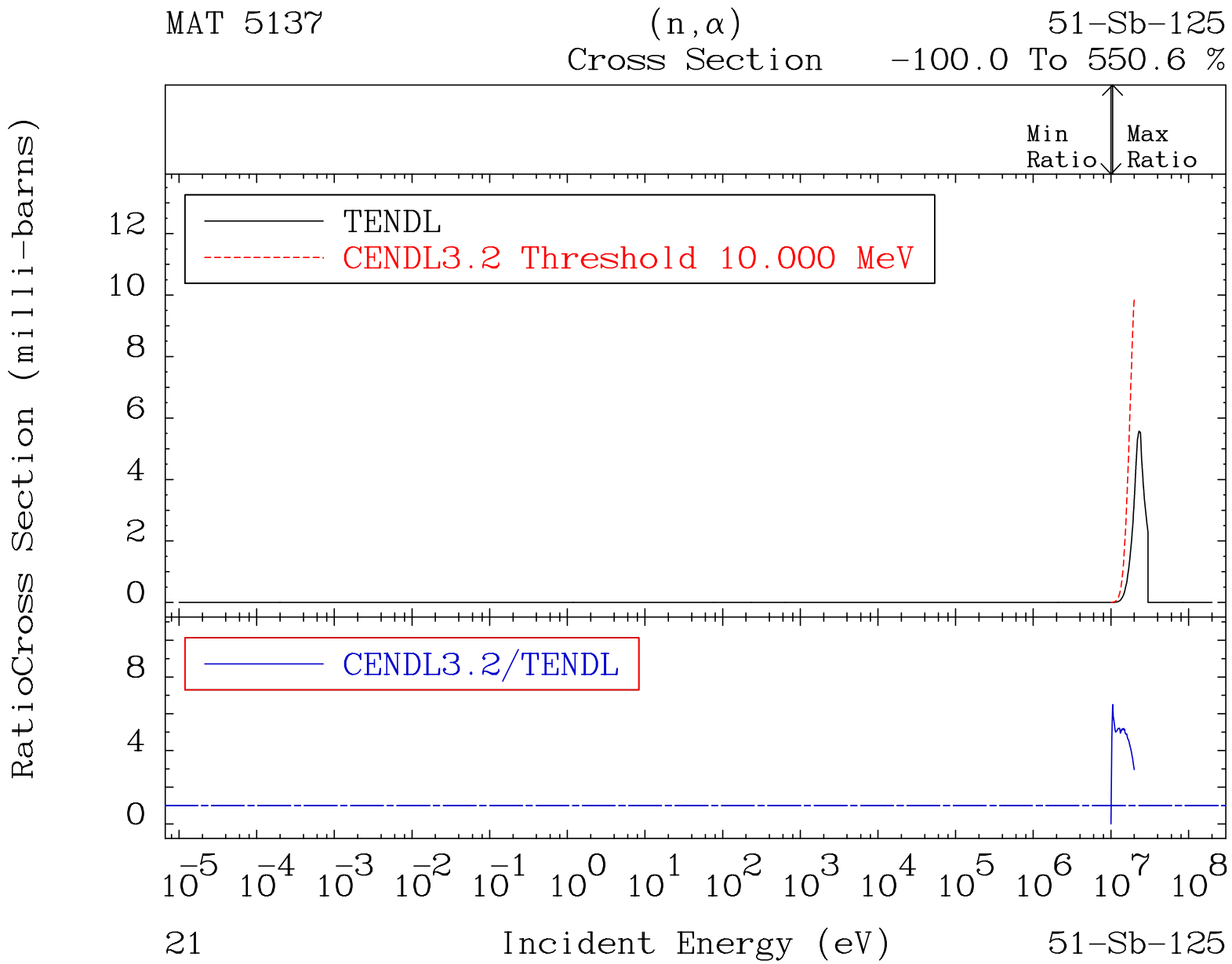

MAT 5137
(n,n') Continuum
Cross Section
51-Sb-125
-5.789 To 5417. %
Max Ratio
Min Ratio
TENDL Threshold 2.2588 MeV
CENDL3.2 Threshold 1.6000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
16
51-Sb-125

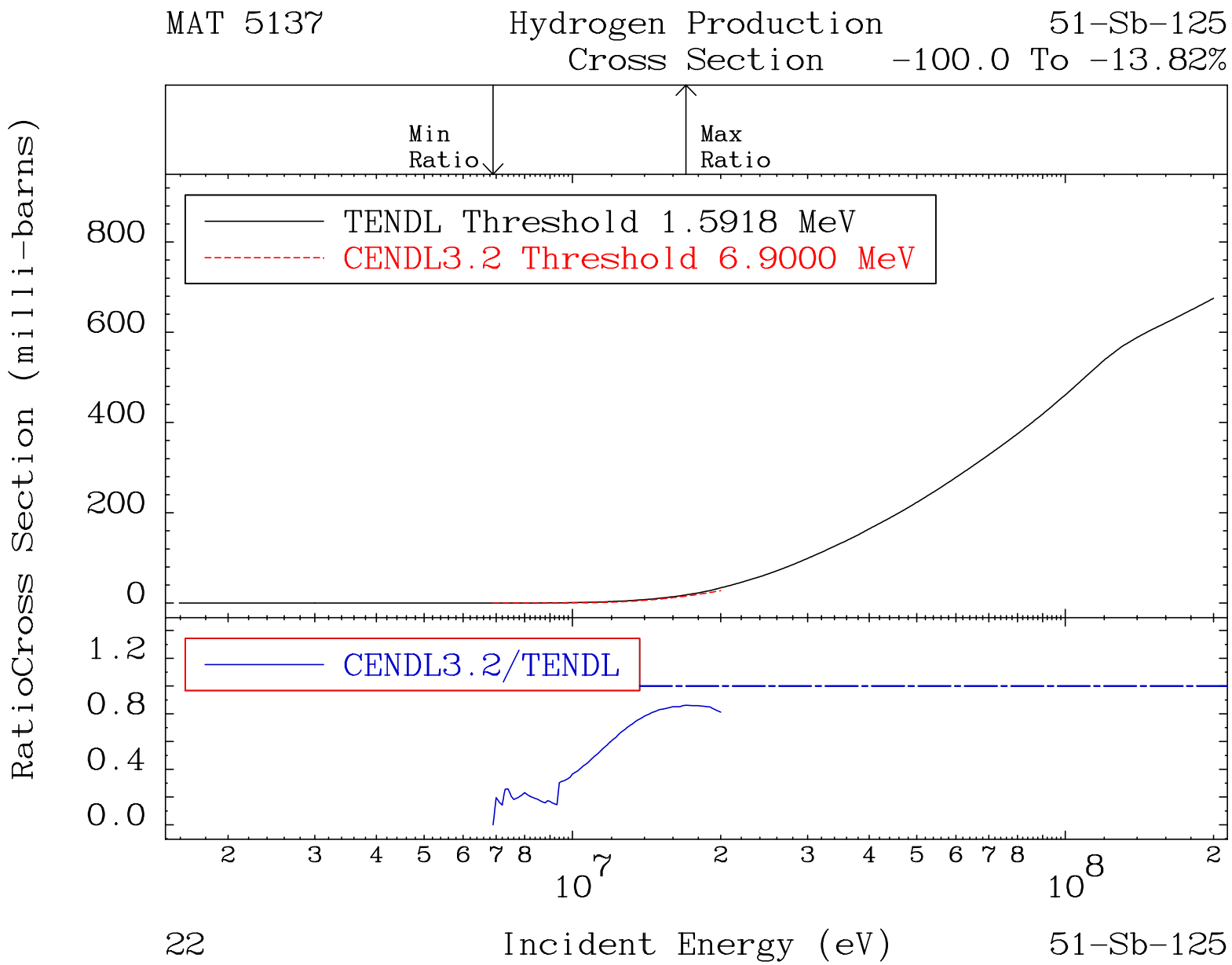

MAT 5137
(n,γ)
Cross Section
51-Sb-125
-99.62 To 8827. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
17
51-Sb-125

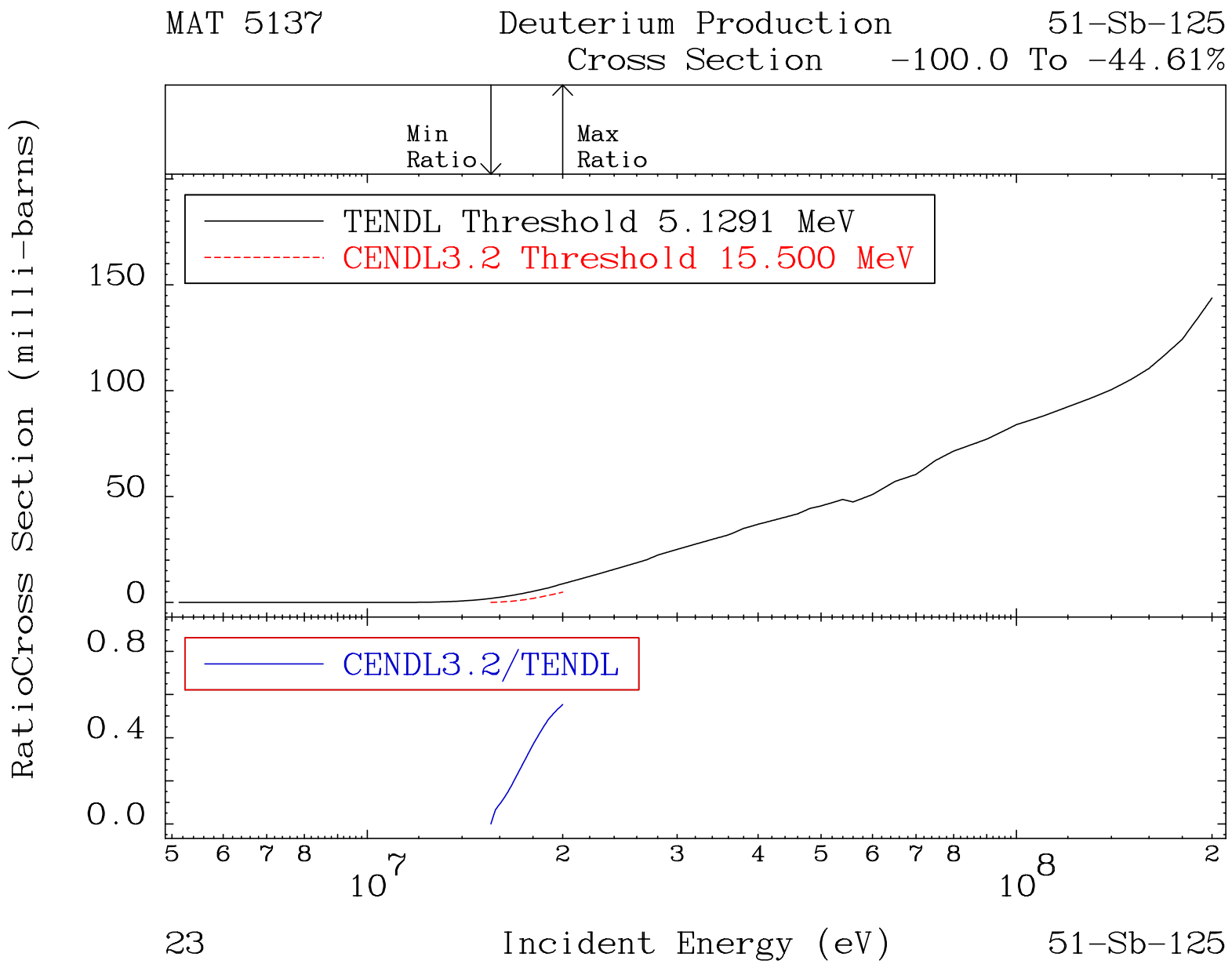

MAT 5137
(n,p)
Cross Section
51-Sb-125
-100.0 To -11.03%
Min Ratio
Max Ratio
TENDL Threshold 1.5918 MeV
CENDL3.2 Threshold 6.9000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
1.2
0.8
0.4
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
51-Sb-125

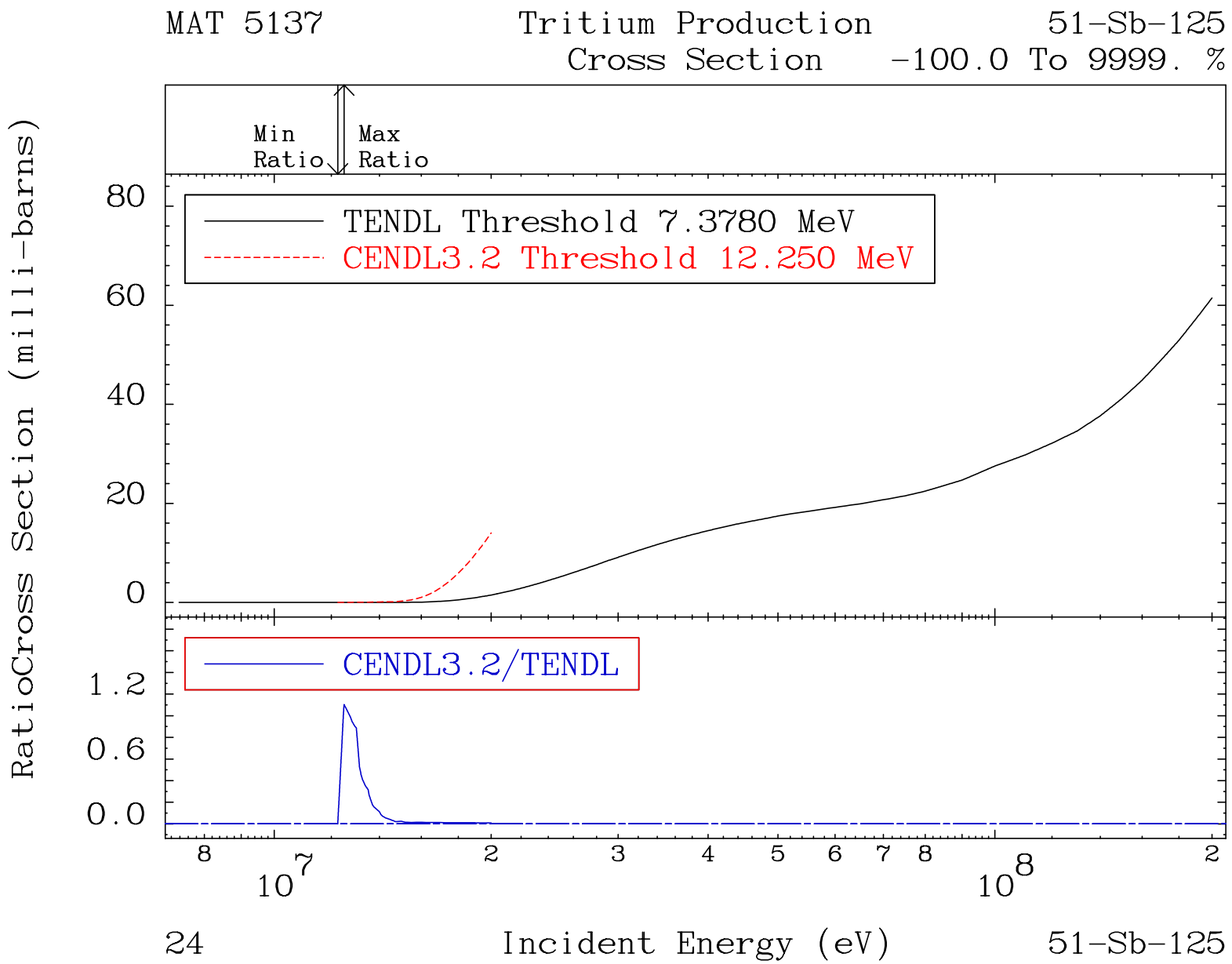

MAT 5137
(n,d)
51-Sb-125
Cross Section
-100.0 To -44.27%
Min Ratio
Max Ratio
TENDL Threshold 5.1291 MeV
CENDL3.2 Threshold 15.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
0.8
0.4
0.0
5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
51-Sb-125

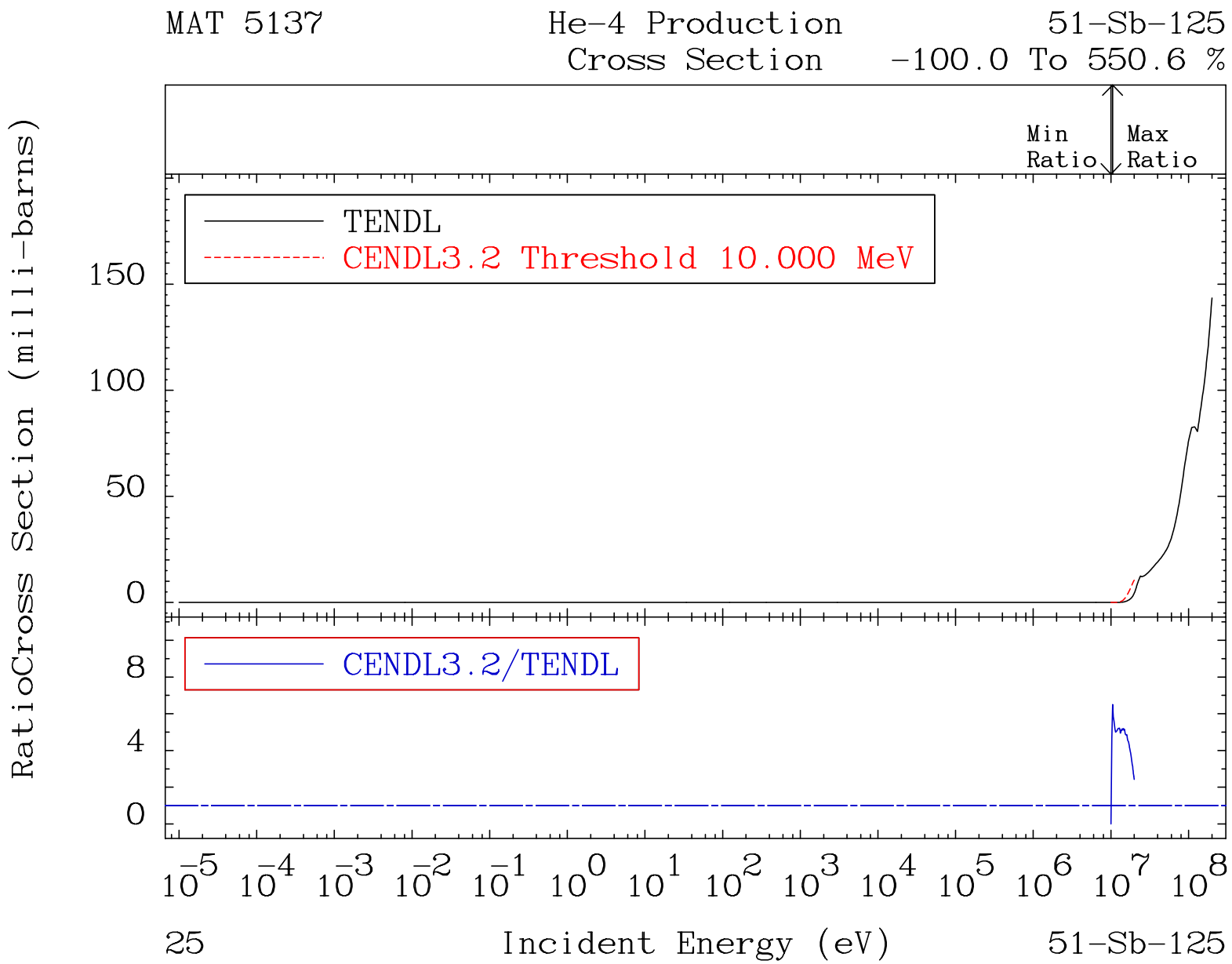

MAT 5137
(n,t)
Cross Section
51-Sb-125
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.3780 MeV
CENDL3.2 Threshold 12.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
1.2
0.6
0.0
8
10^7
2
3
4
5
6
7
8
10^8
2
20
Incident Energy (eV)
51-Sb-125

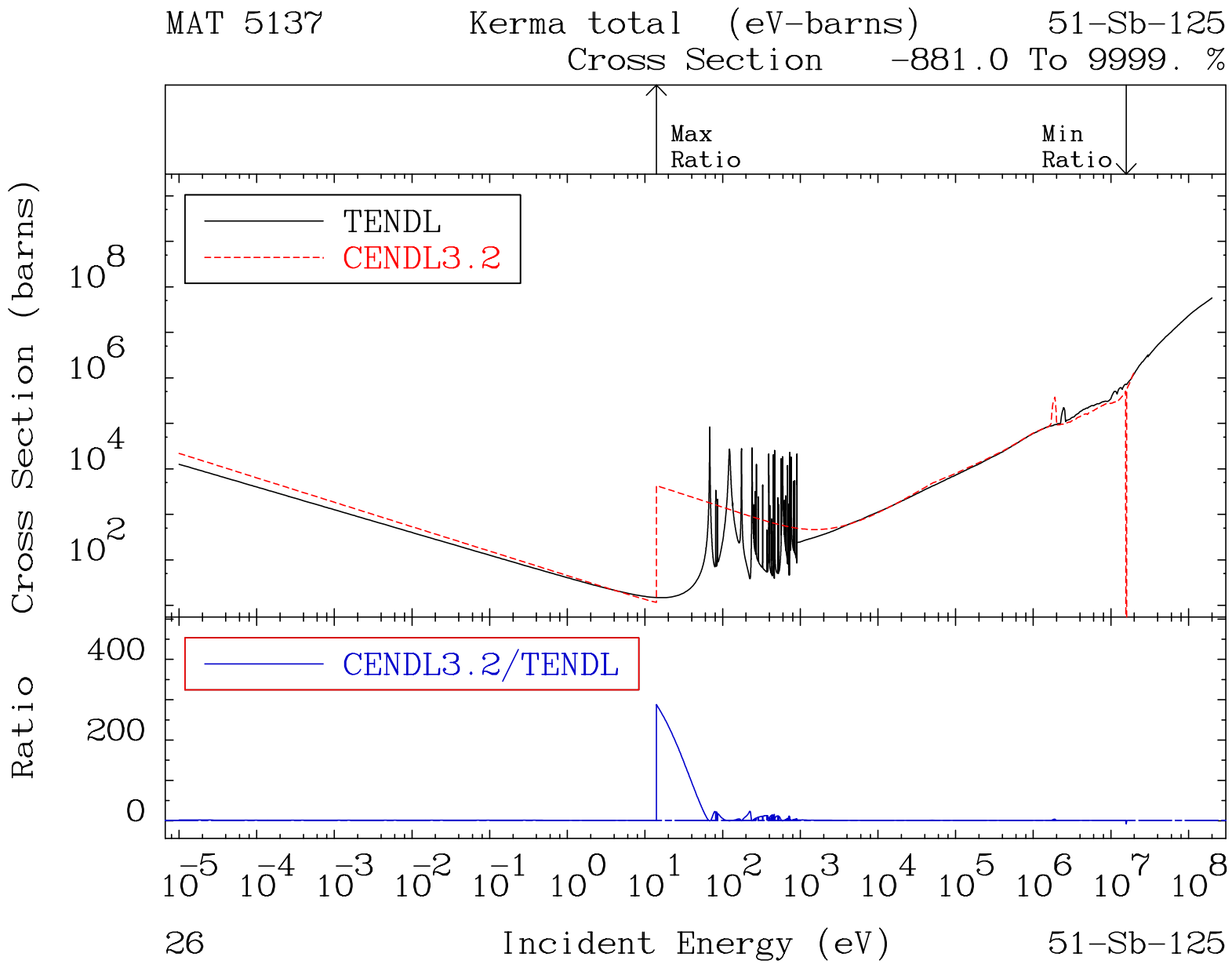

MAT 5137
(n,α)
Cross Section
51-Sb-125
-100.0 To 550.6 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 10.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
21
51-Sb-125

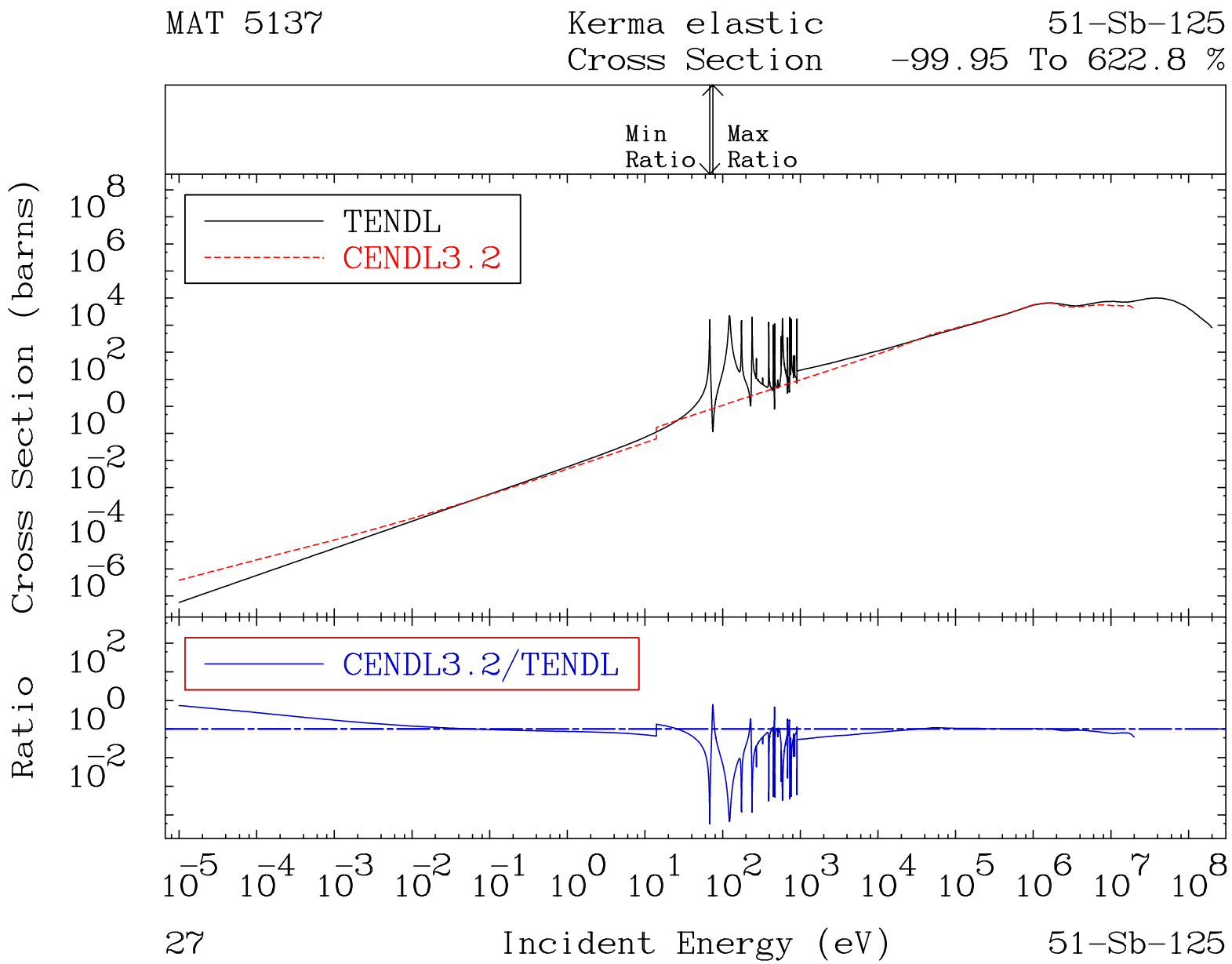

MAT 5137
Hydrogen Production
51-Sb-125
Cross Section
-100.0 To -13.82%
Min Ratio
Max Ratio
TENDL Threshold 1.5918 MeV
CENDL3.2 Threshold 6.9000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.2
0.8
0.4
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
51-Sb-125

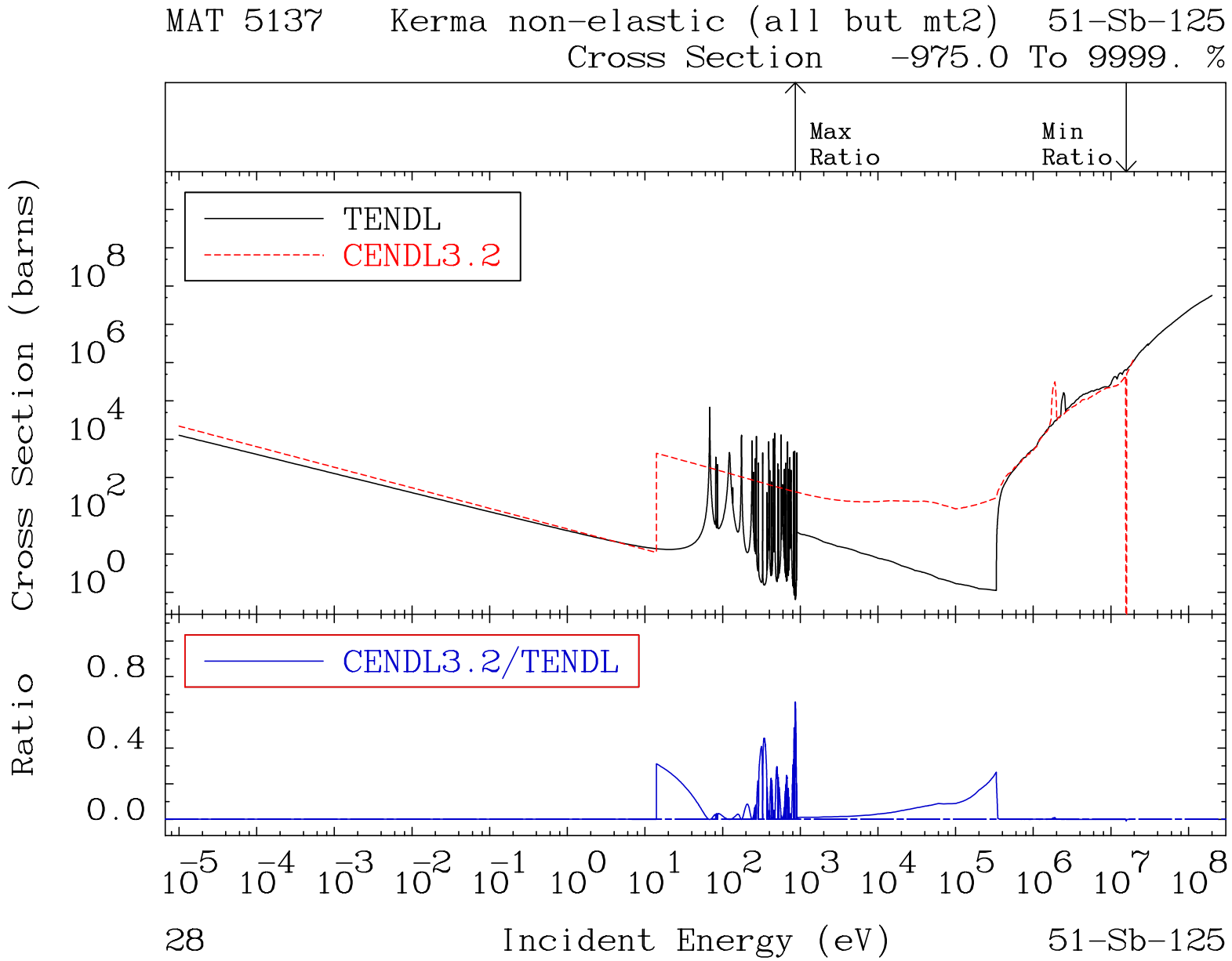

MAT 5137
Deuterium Production
51-Sb-125
Cross Section -100.0 To -44.61%
Min Ratio
Max Ratio
TENDL Threshold 5.1291 MeV
CENDL3.2 Threshold 15.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
150
100
50
0
0.8
0.4
0.0
5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
51-Sb-125

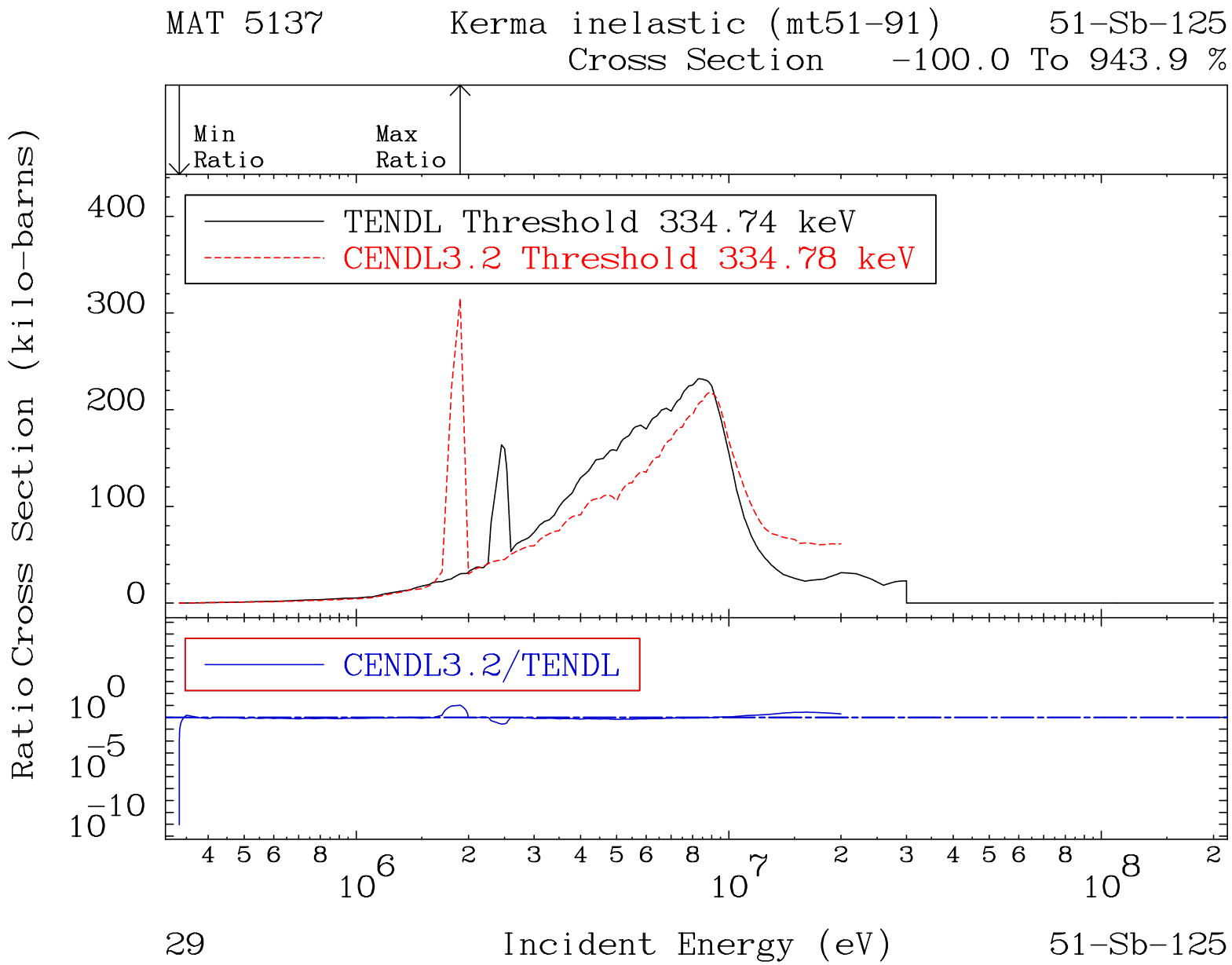

MAT 5137
Tritium Production
51-Sb-125
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.3780 MeV
CENDL3.2 Threshold 12.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
1.2
0.6
0.0
8
10^7
2
3
4
5
6
7
8
10^8
2
24
Incident Energy (eV)
51-Sb-125

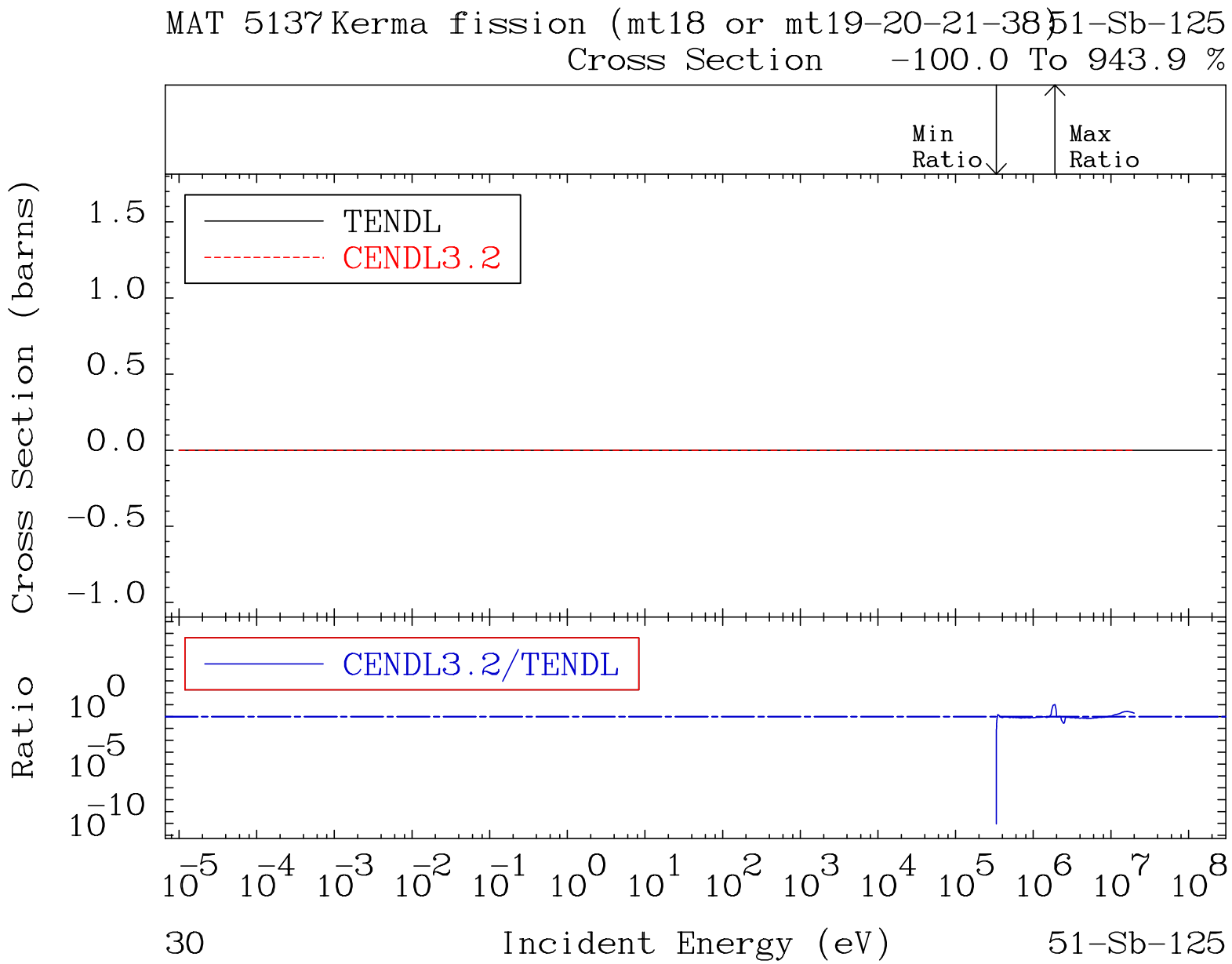

MAT 5137
He-4 Production
Cross Section
51-Sb-125
-100.0 To 550.6 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 10.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
150
100
50
0
8
4
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
25
Incident Energy (eV)
51-Sb-125

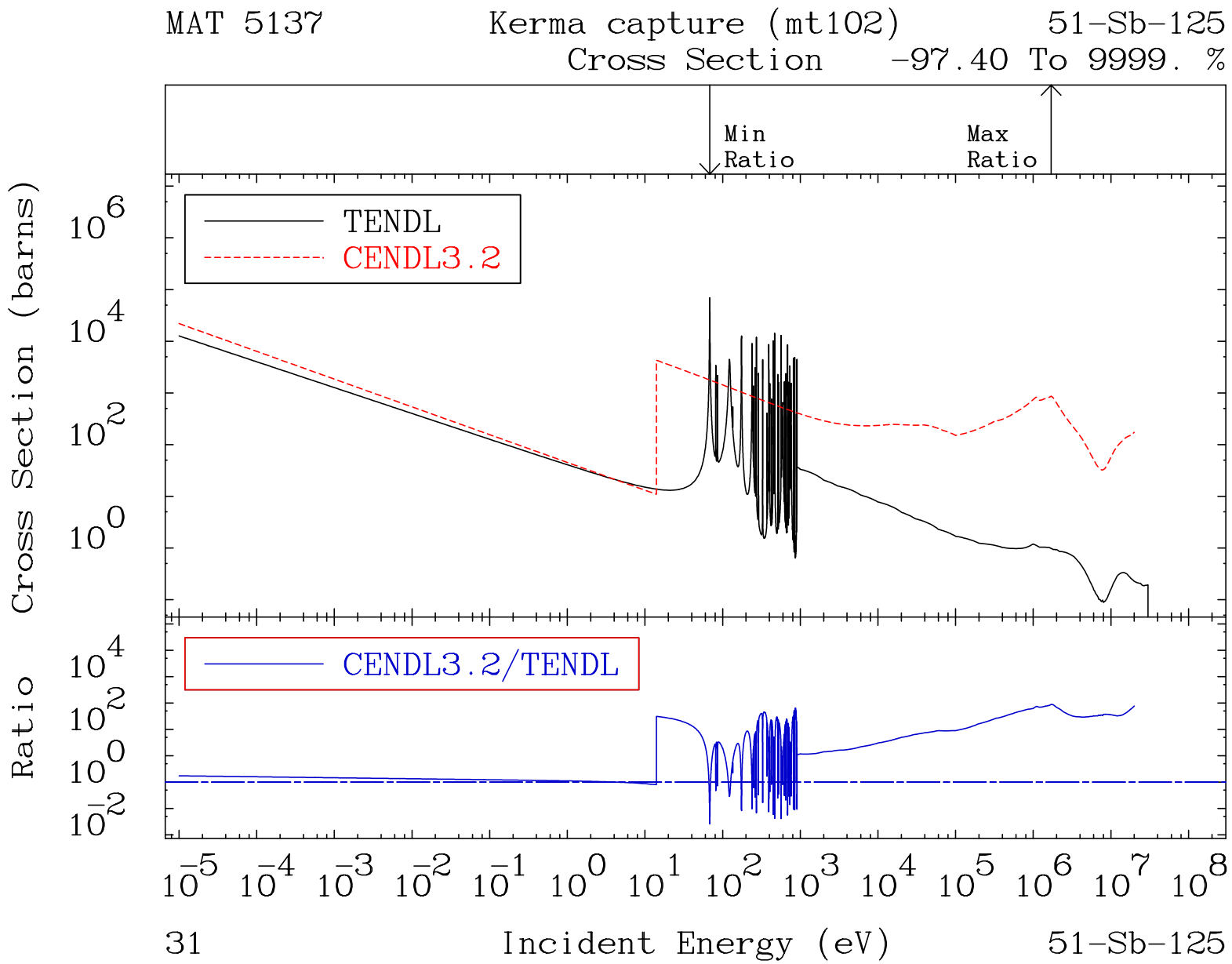

MAT 5137
Kerma total (eV-barns)
51-Sb-125
Cross Section -881.0 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
10^8
10^6
10^4
10^2
CENDL3.2/TENDL
Ratio
400
200
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
26
Incident Energy (eV)
51-Sb-125

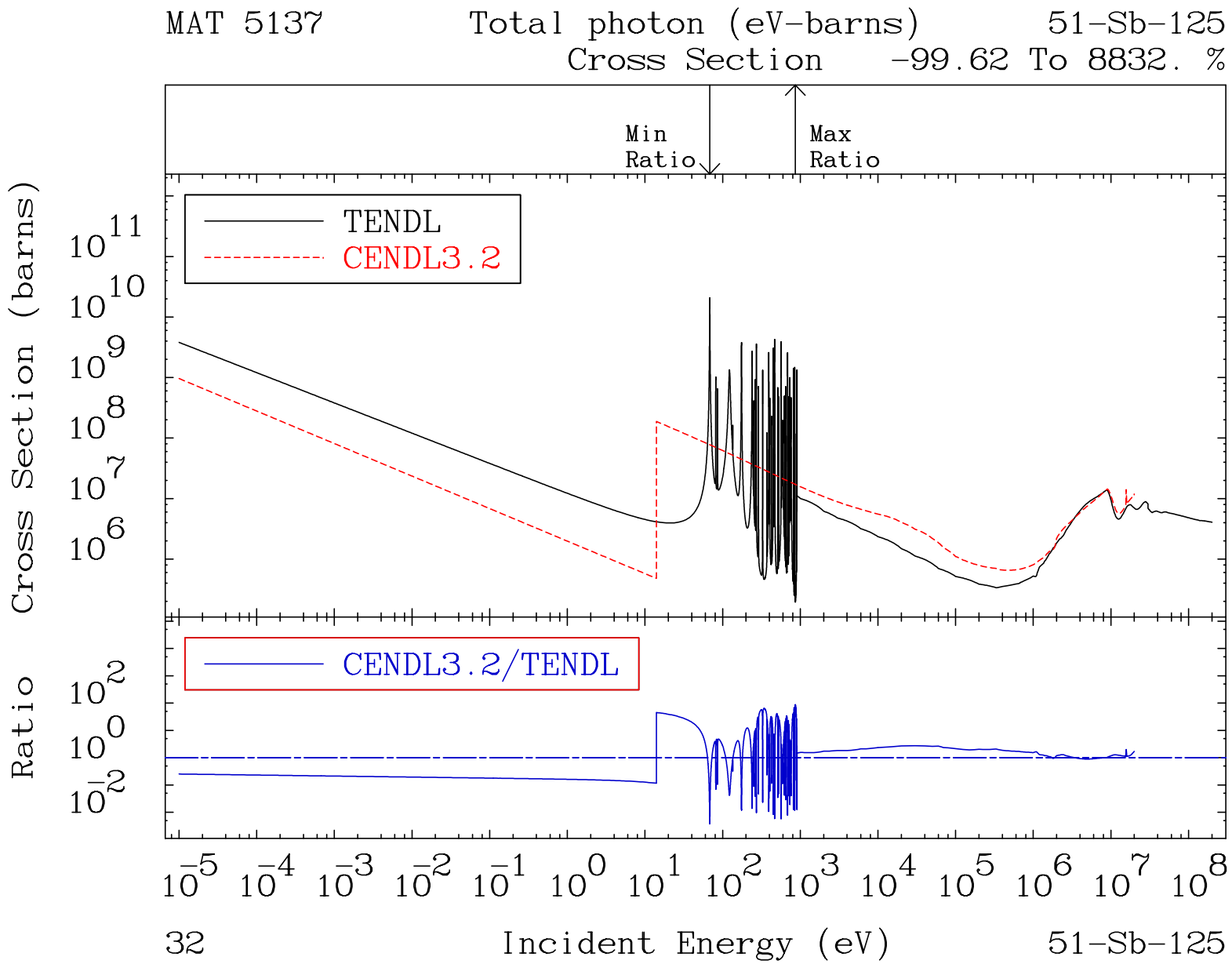

MAT 5137
Kerma elastic
Cross Section
51-Sb-125
-99.95 To 622.8 %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
27
51-Sb-125

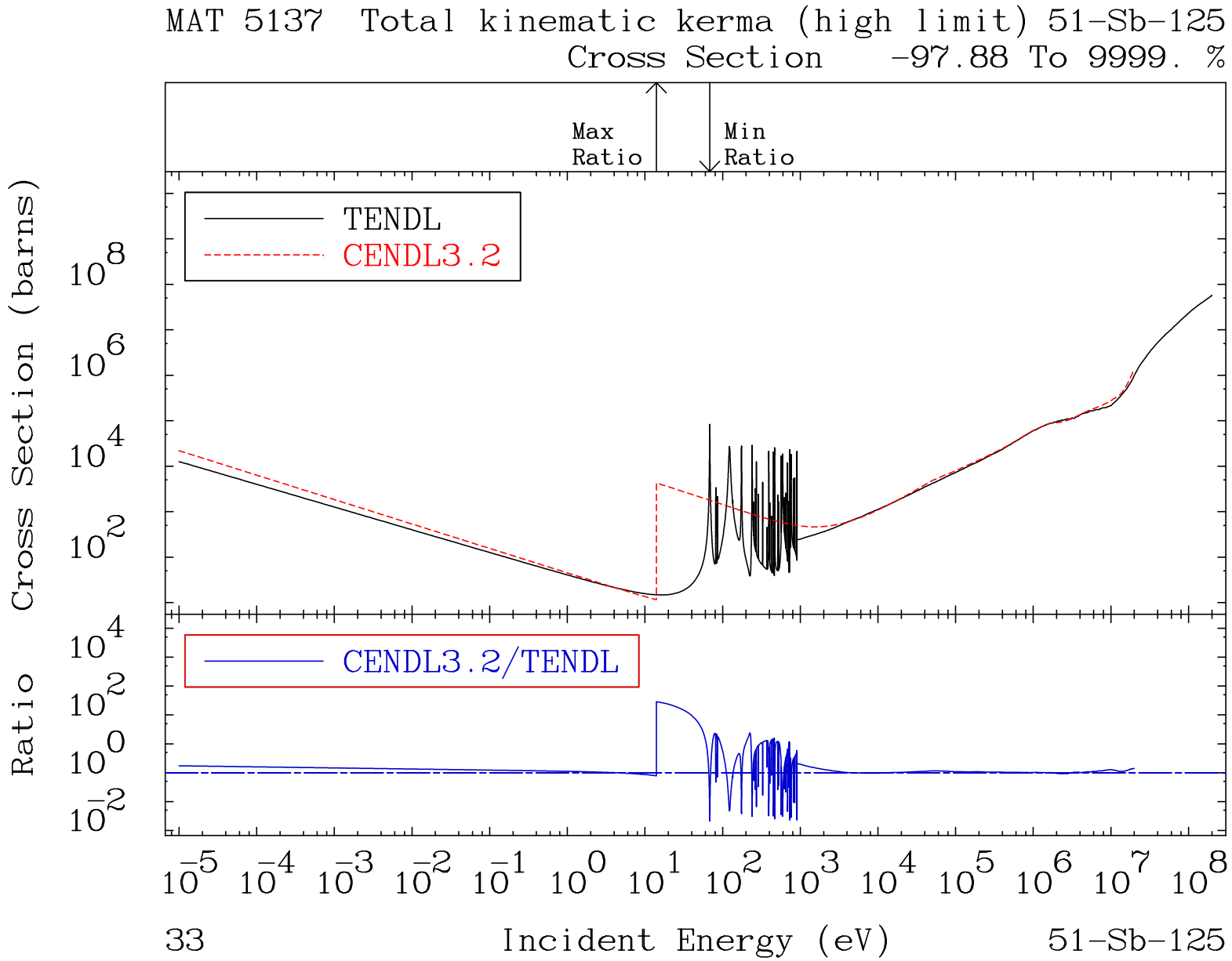

MAT 5137 Kerma non-elastic (all but mt2) 51-Sb-125
Cross Section -975.0 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
28
51-Sb-125

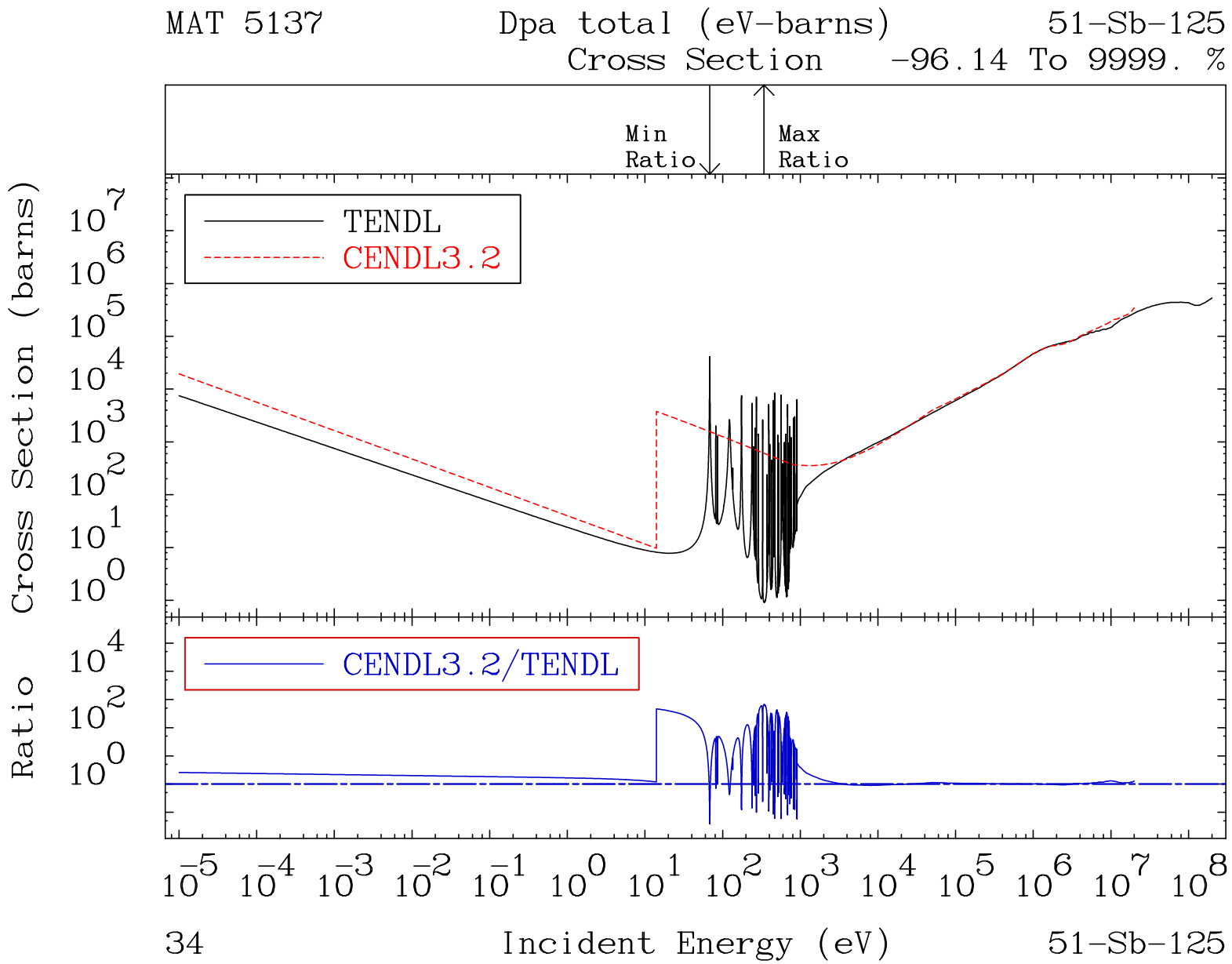

MAT 5137
Kerma inelastic (mt51-91)
51-Sb-125
Cross Section
-100.0 To 943.9 %
Min Ratio
Max Ratio
TENDL Threshold 334.74 keV
CENDL3.2 Threshold 334.78 keV
CENDL3.2/TENDL
Ratio Cross Section (kilo-barns)
Incident Energy (eV)
29
51-Sb-125

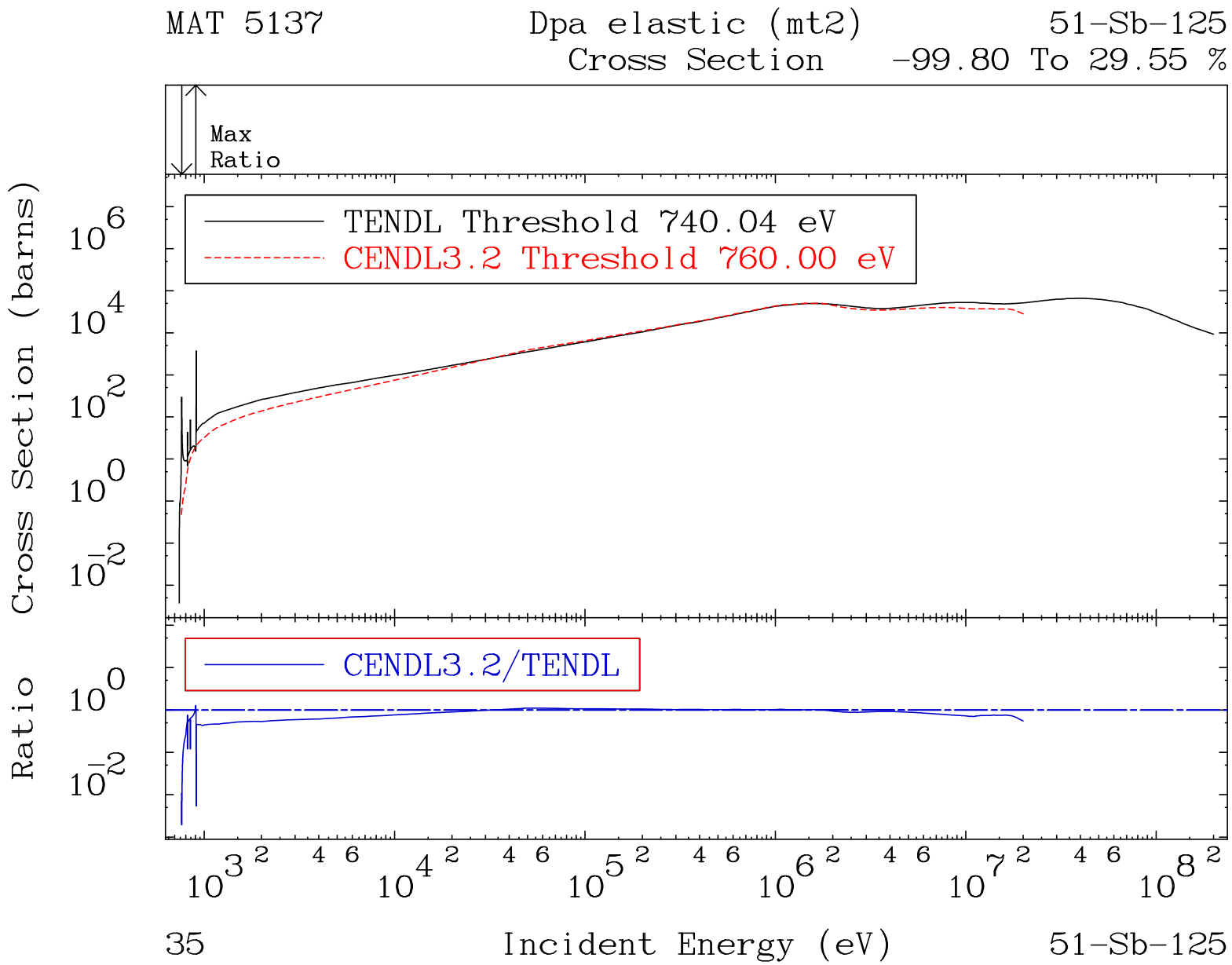

MAT 5137 Kerma fission (mt18 or mt19-20-21-38) 51-Sb-125
Cross Section -100.0 To 943.9 %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{0}
10^{-5}
10^{-10}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
30
Incident Energy (eV)
51-Sb-125

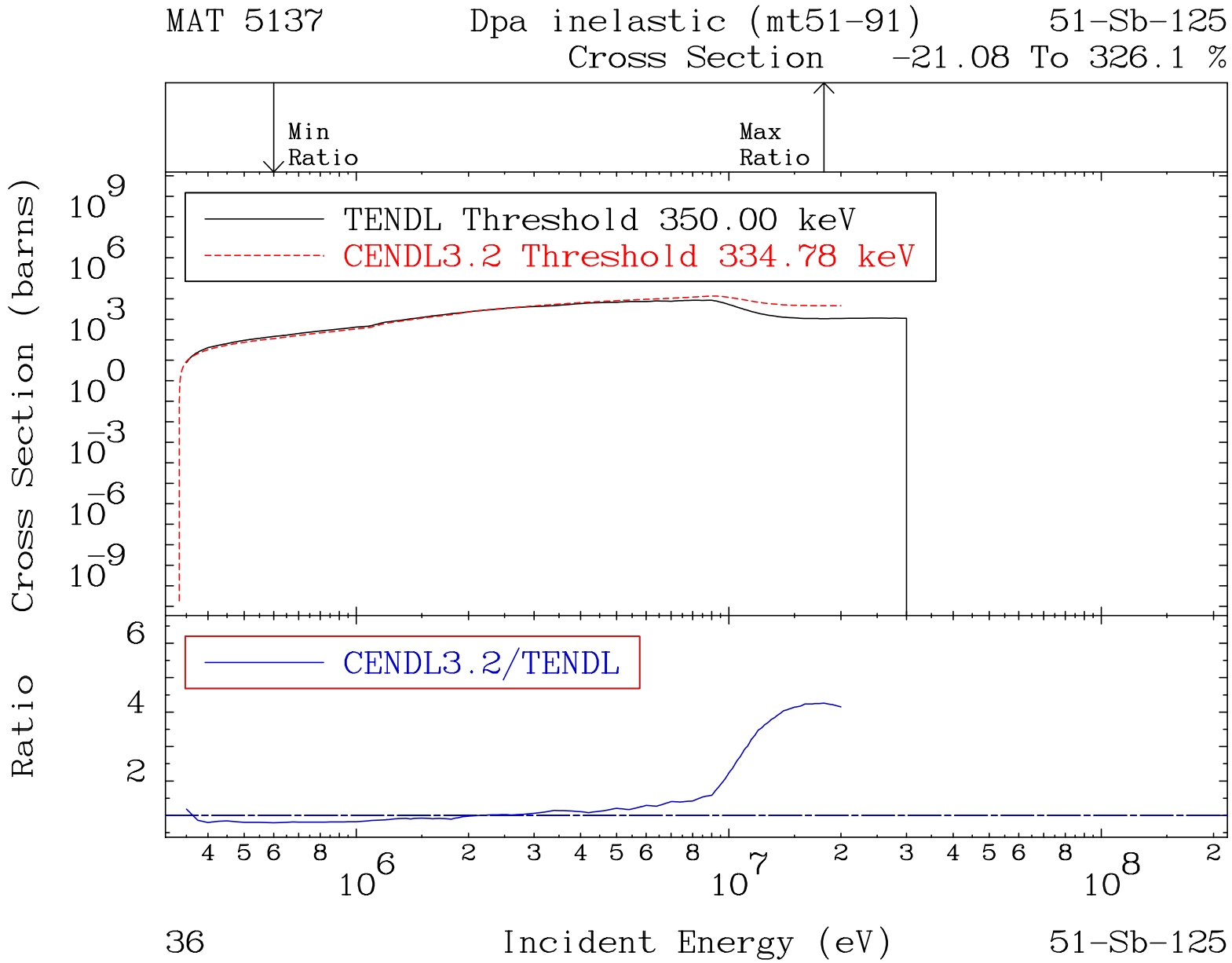

MAT 5137
Kerma capture (mt102)
51-Sb-125
Cross Section -97.40 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
31
51-Sb-125

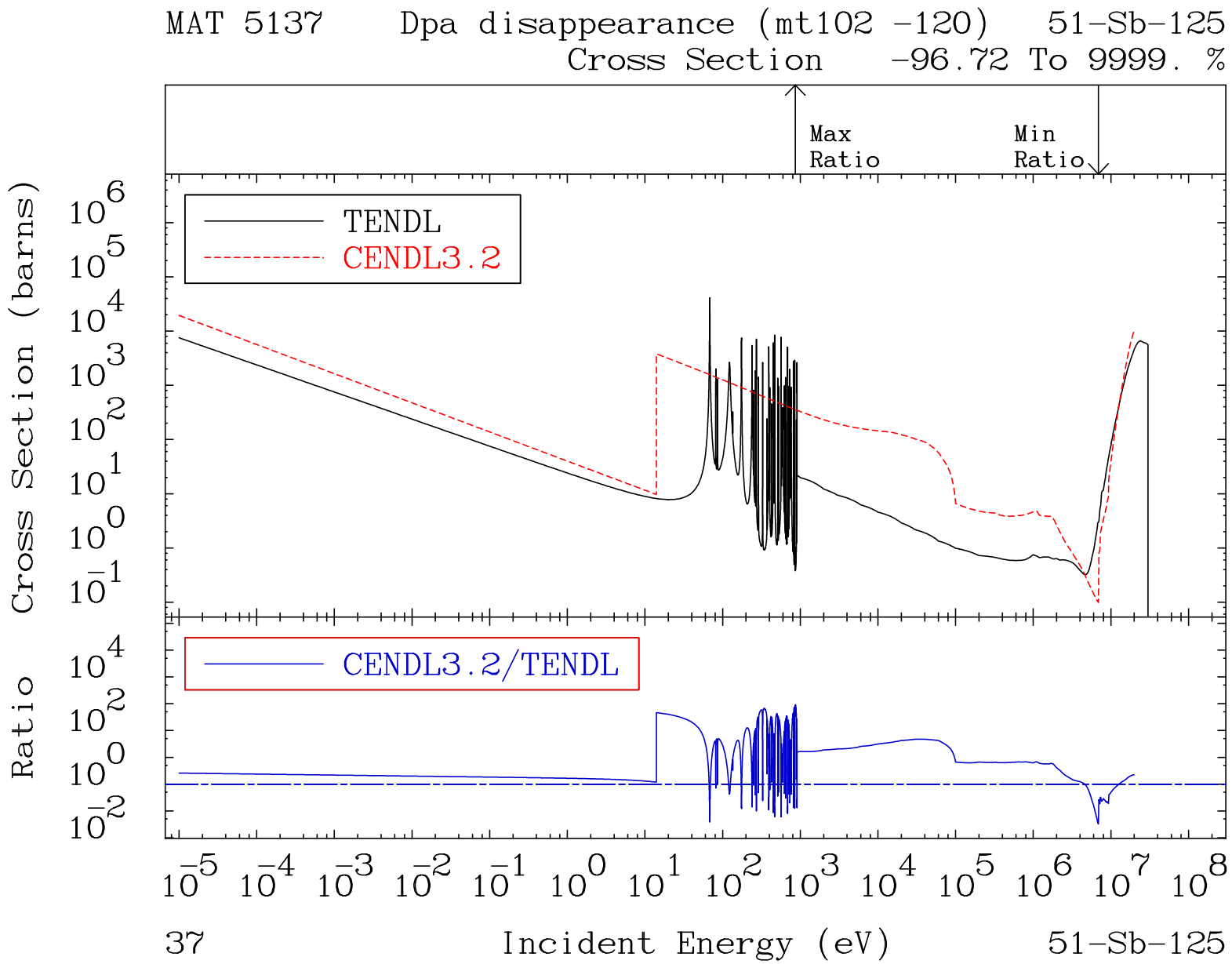

MAT 5137
Total photon (eV-barns)
51-Sb-125
Cross Section -99.62 To 8832. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
32
51-Sb-125

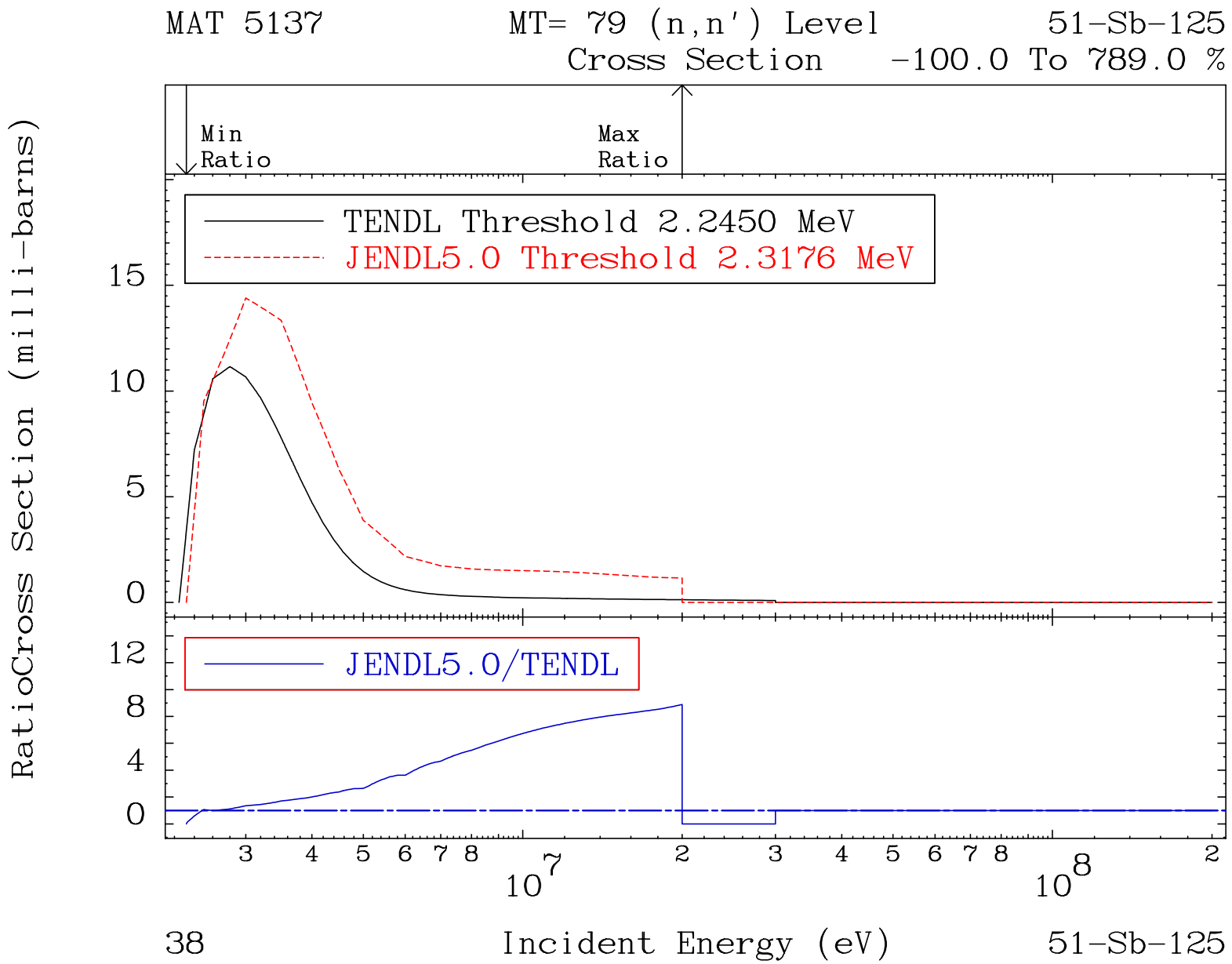

MAT 5137 Total kinematic kerma (high limit) 51-Sb-125
Cross Section -97.88 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
33
51-Sb-125

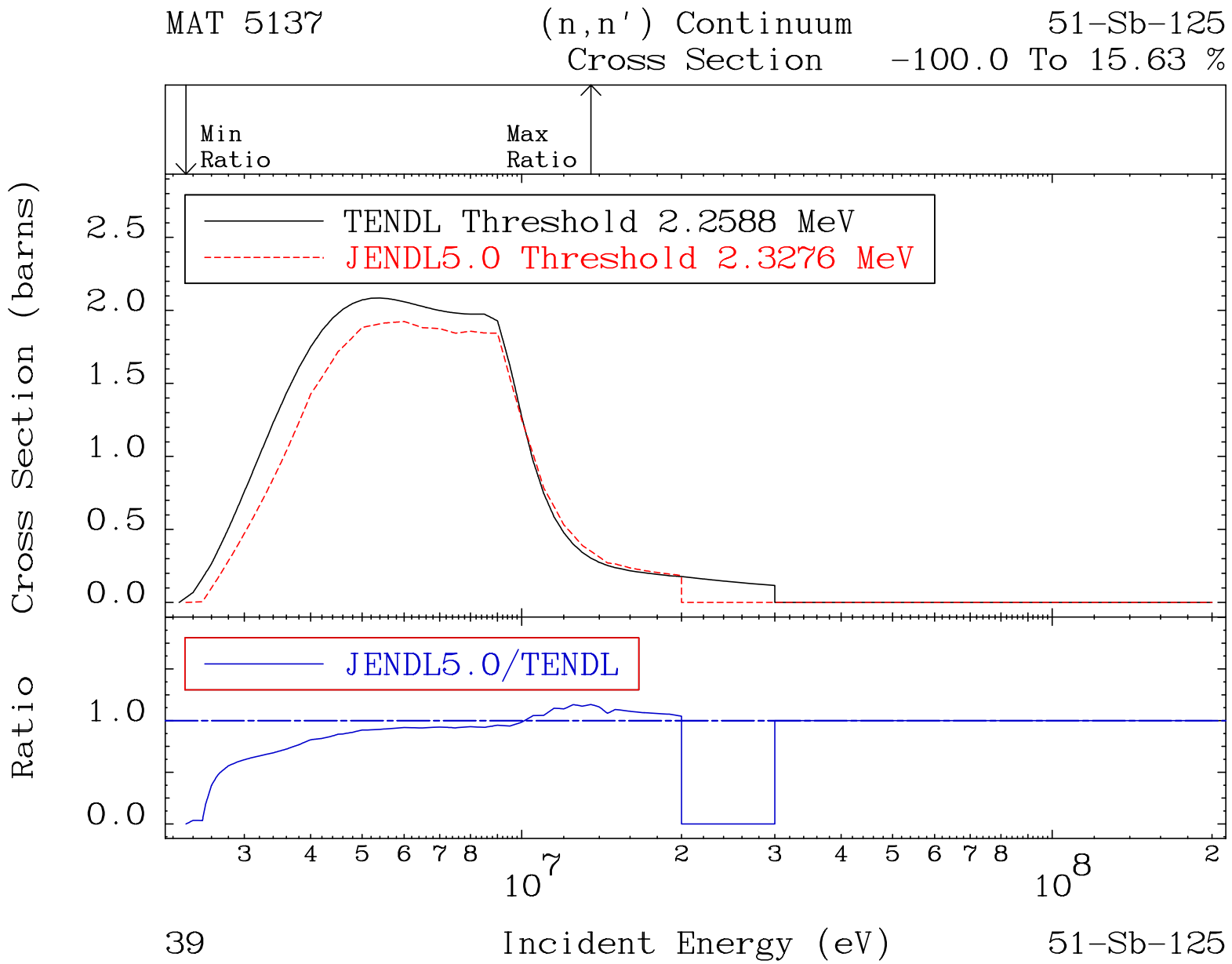

MAT 5137
Dpa total (eV-barns)
51-Sb-125
Cross Section -96.14 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
34
51-Sb-125

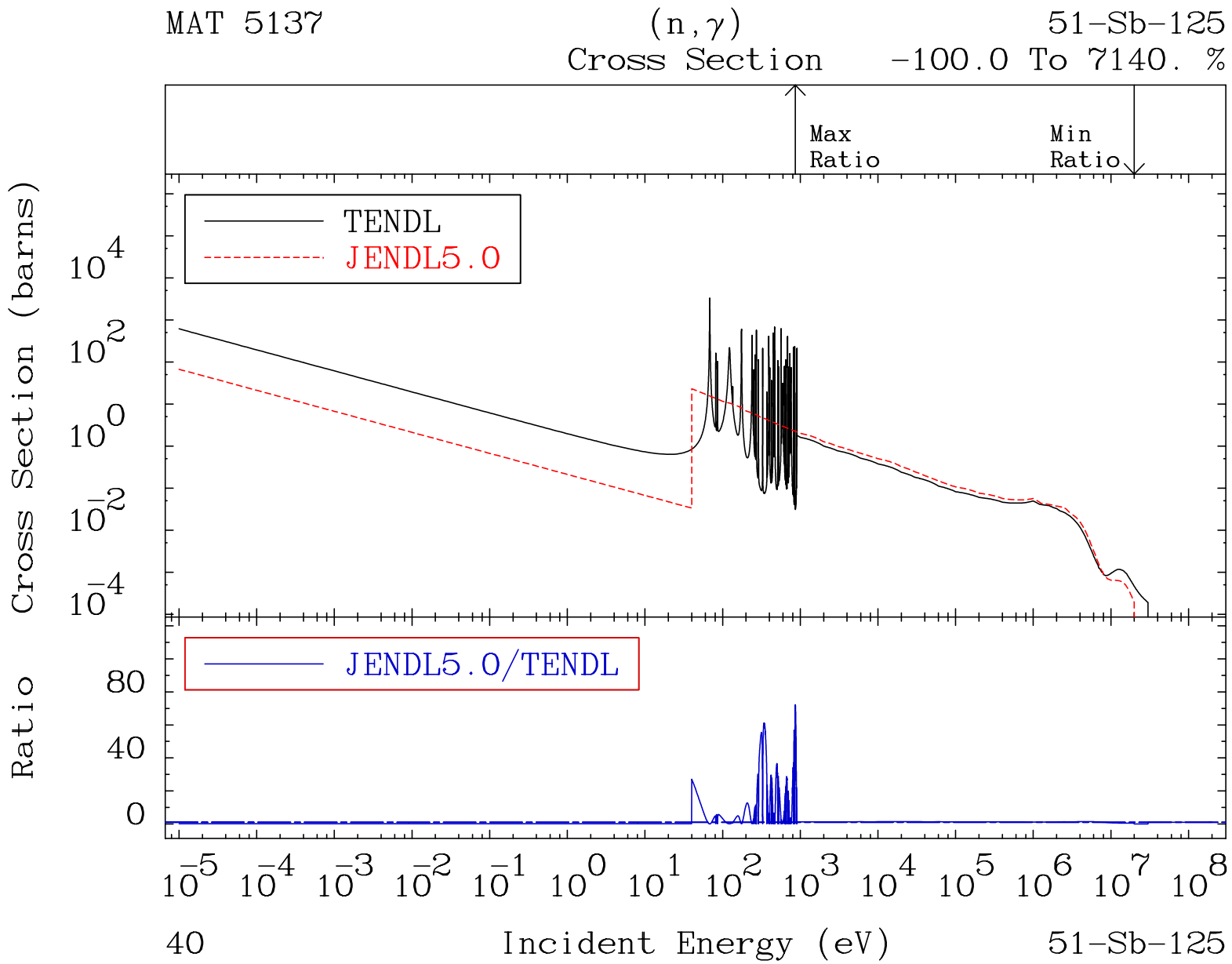

MAT 5137
Dpa elastic (mt2)
Cross Section
51-Sb-125
-99.80 To 29.55 %
Max
Ratio
TENDL Threshold 740.04 eV
CENDL3.2 Threshold 760.00 eV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
35
51-Sb-125

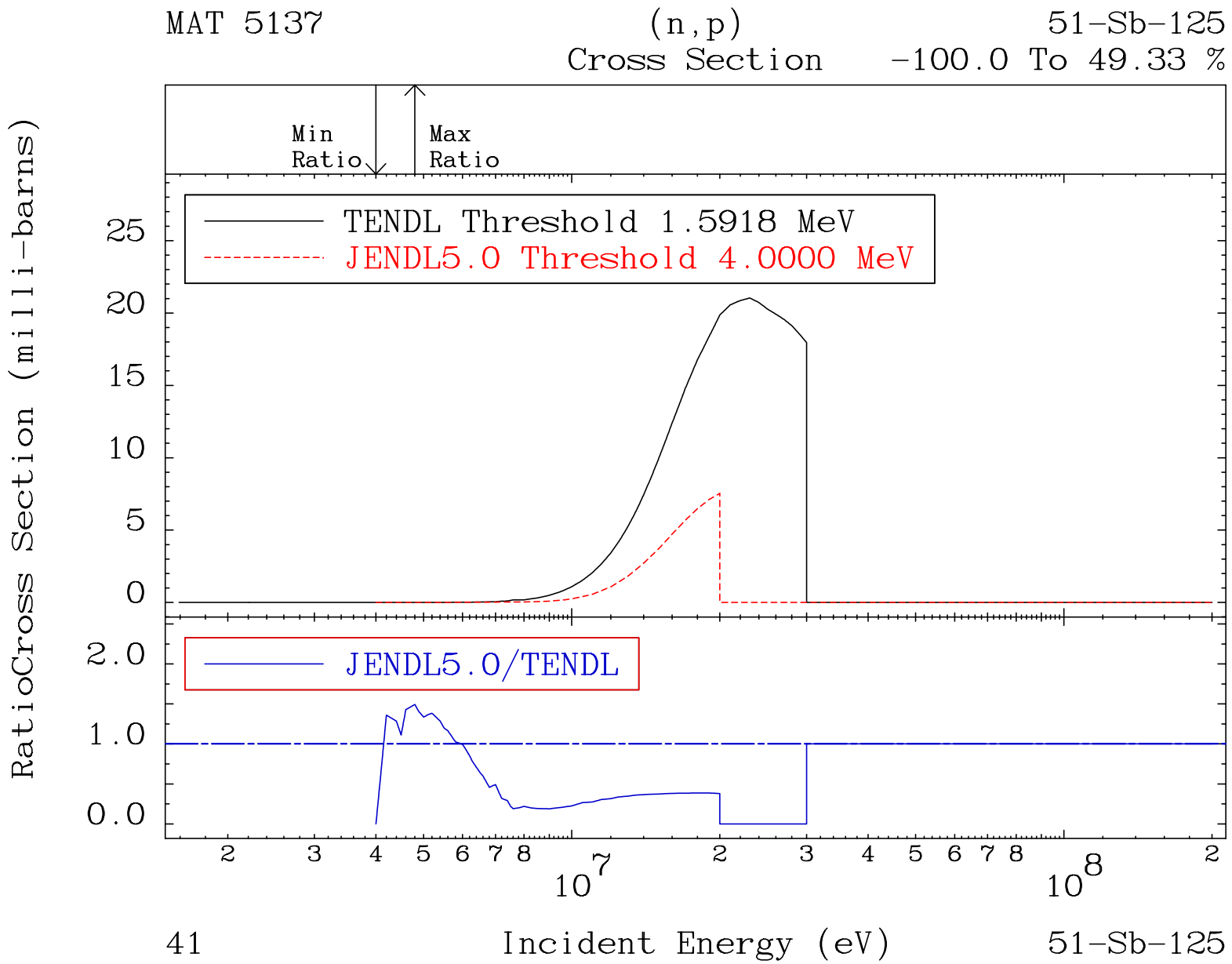

MAT 5137
Dpa inelastic (mt51-91)
51-Sb-125
Cross Section
-21.08 To 326.1 %
Min Ratio
Max Ratio
TENDL Threshold 350.00 keV
CENDL3.2 Threshold 334.78 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
36
51-Sb-125

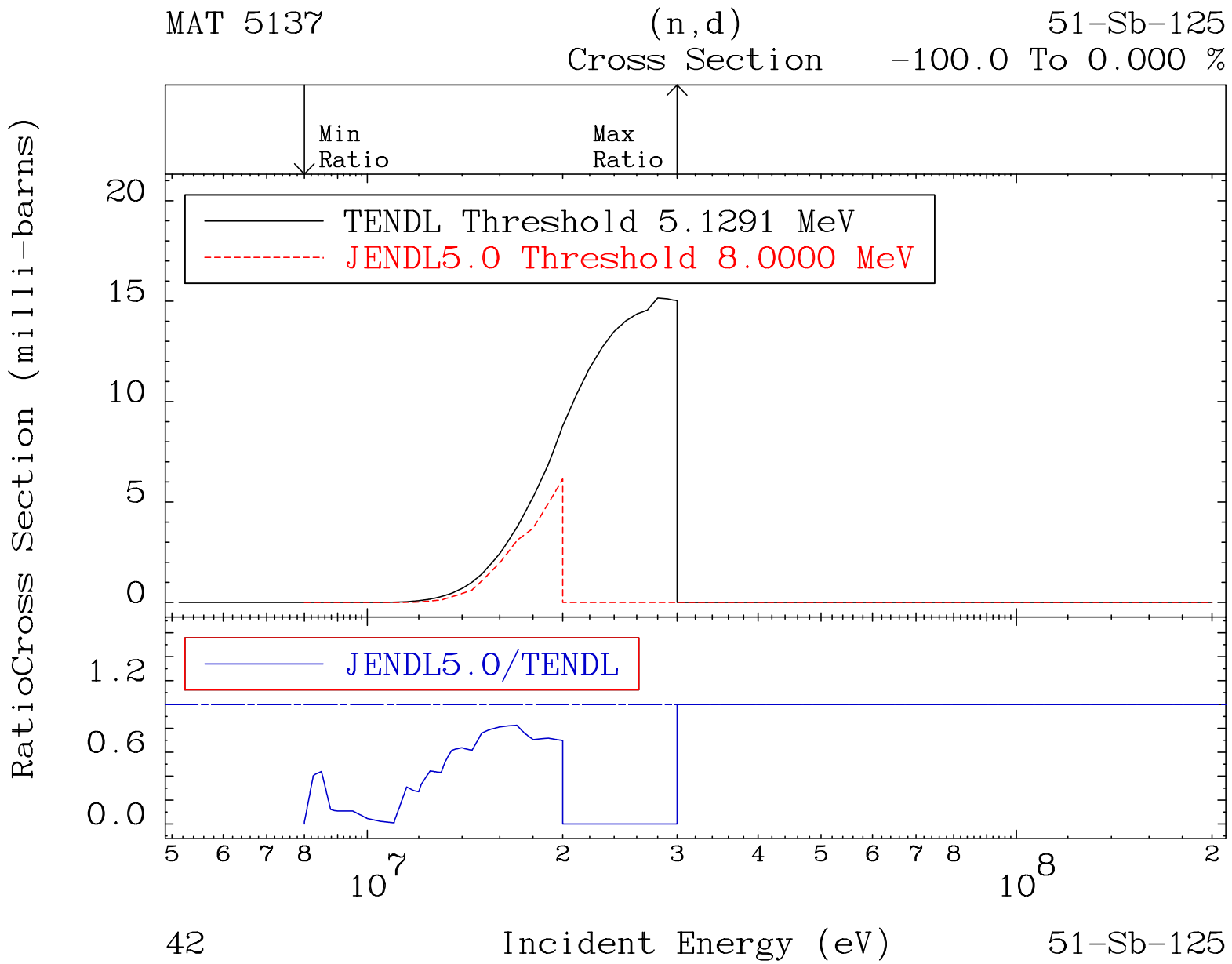

MAT 5137 Dpa disappearance (mt102 -120) 51-Sb-125
Cross Section -96.72 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
37
51-Sb-125

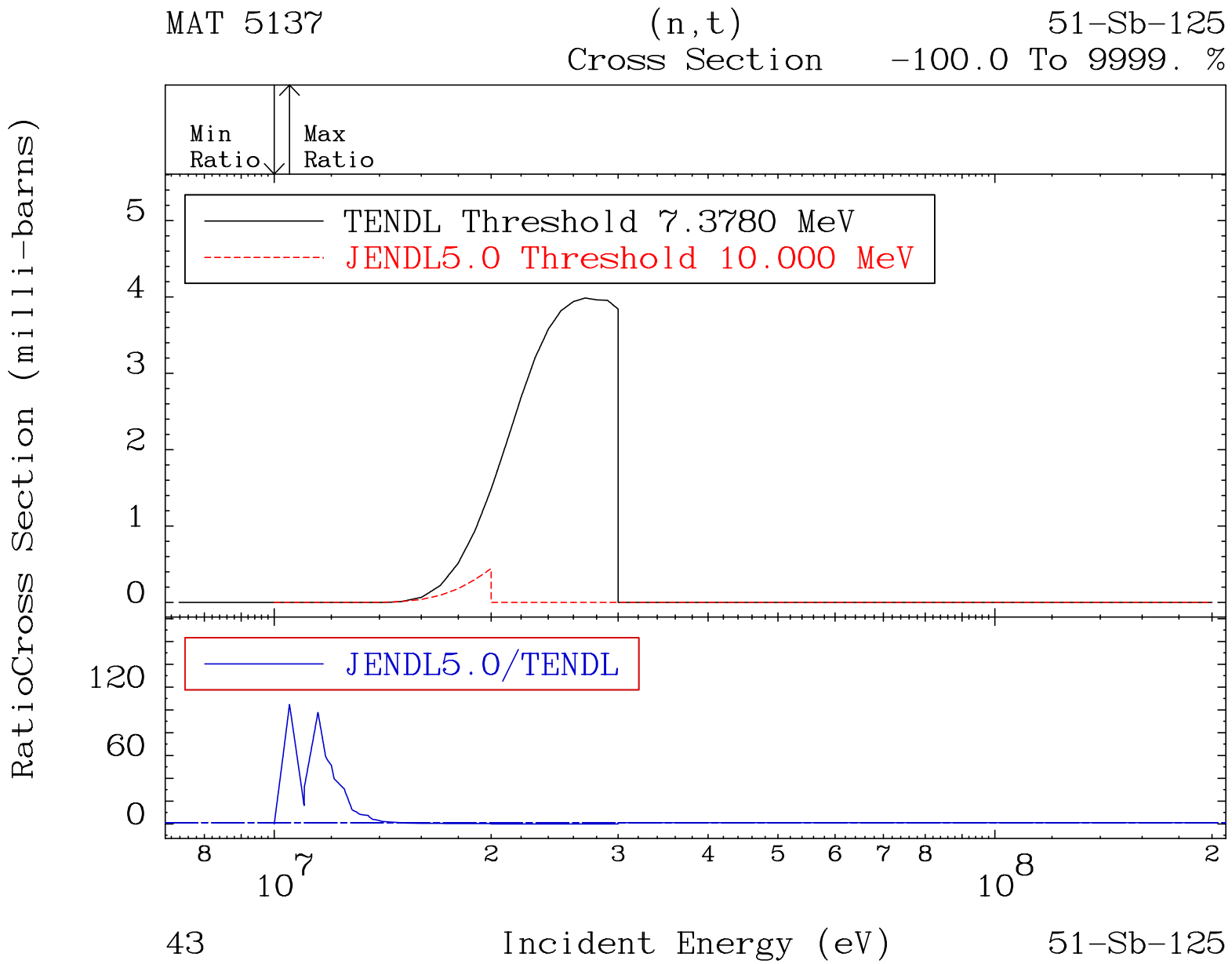

MAT 5137
MT= 79 (n,n') Level
51-Sb-125
Cross Section
-100.0 To 789.0 %
Min Ratio
Max Ratio
TENDL Threshold 2.2450 MeV
JENDL5.0 Threshold 2.3176 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
15
10
5
0
12
8
4
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
38
Incident Energy (eV)
51-Sb-125

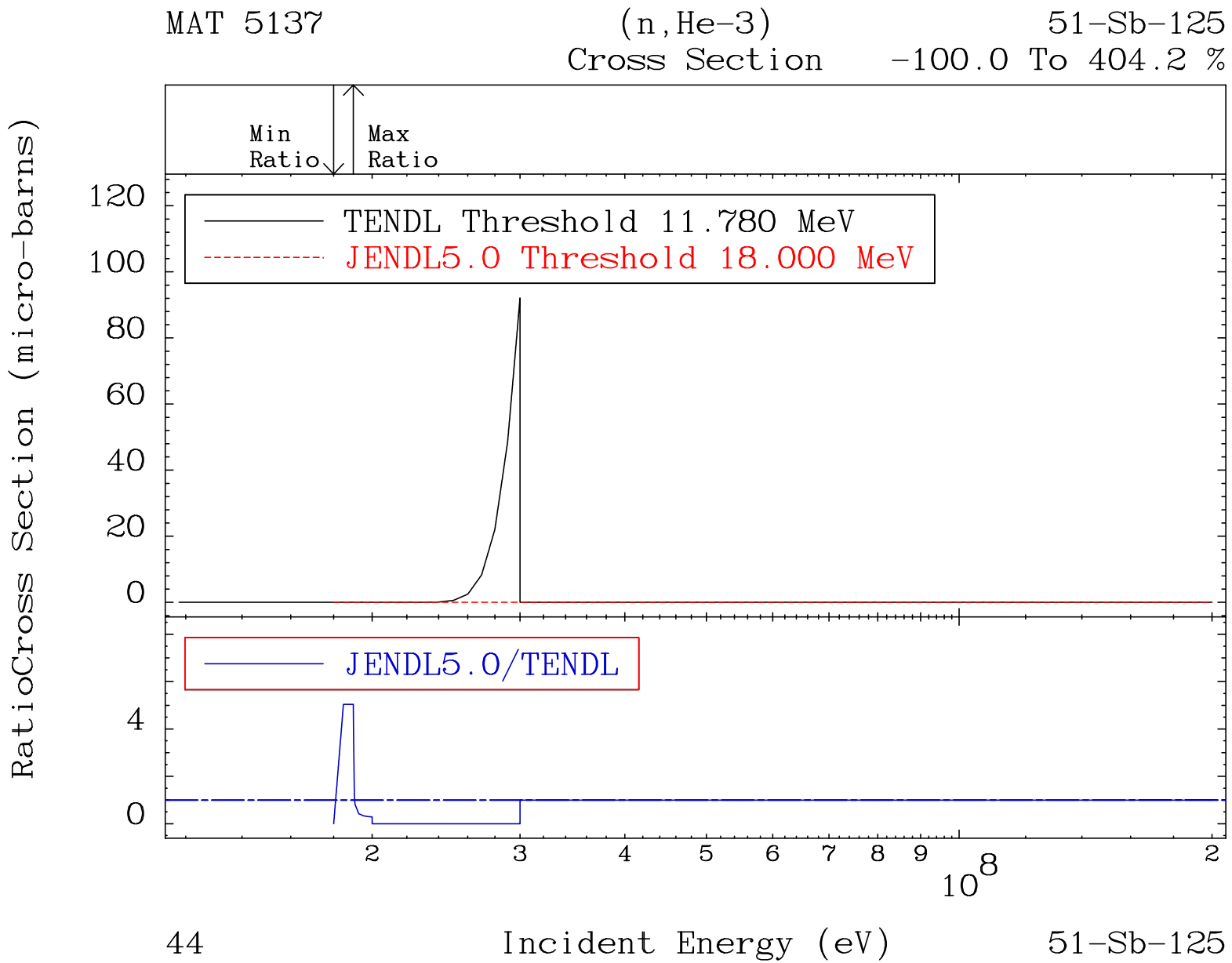

MAT 5137
(n,n') Continuum
Cross Section
51-Sb-125
-100.0 To 15.63 %
Min Ratio
Max Ratio
TENDL Threshold 2.2588 MeV
JENDL5.0 Threshold 2.3276 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
1.0
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
39
Incident Energy (eV)
51-Sb-125

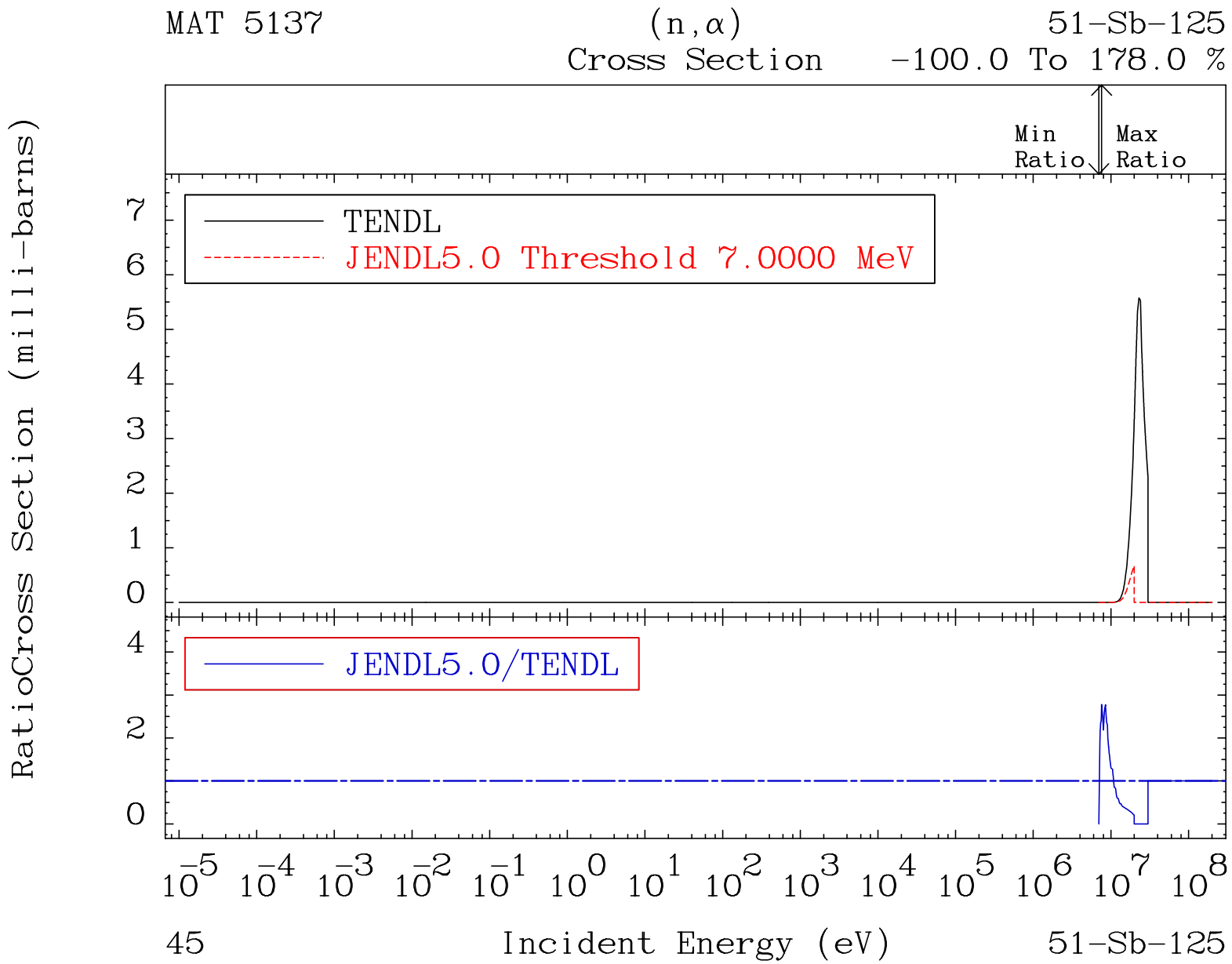

MAT 5137
(n,γ)
Cross Section
51-Sb-125
-100.0 To 7140. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
10^4
10^2
10^0
10^-2
10^-4
JENDL5.0/TENDL
Ratio
80
40
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
40
Incident Energy (eV)
51-Sb-125

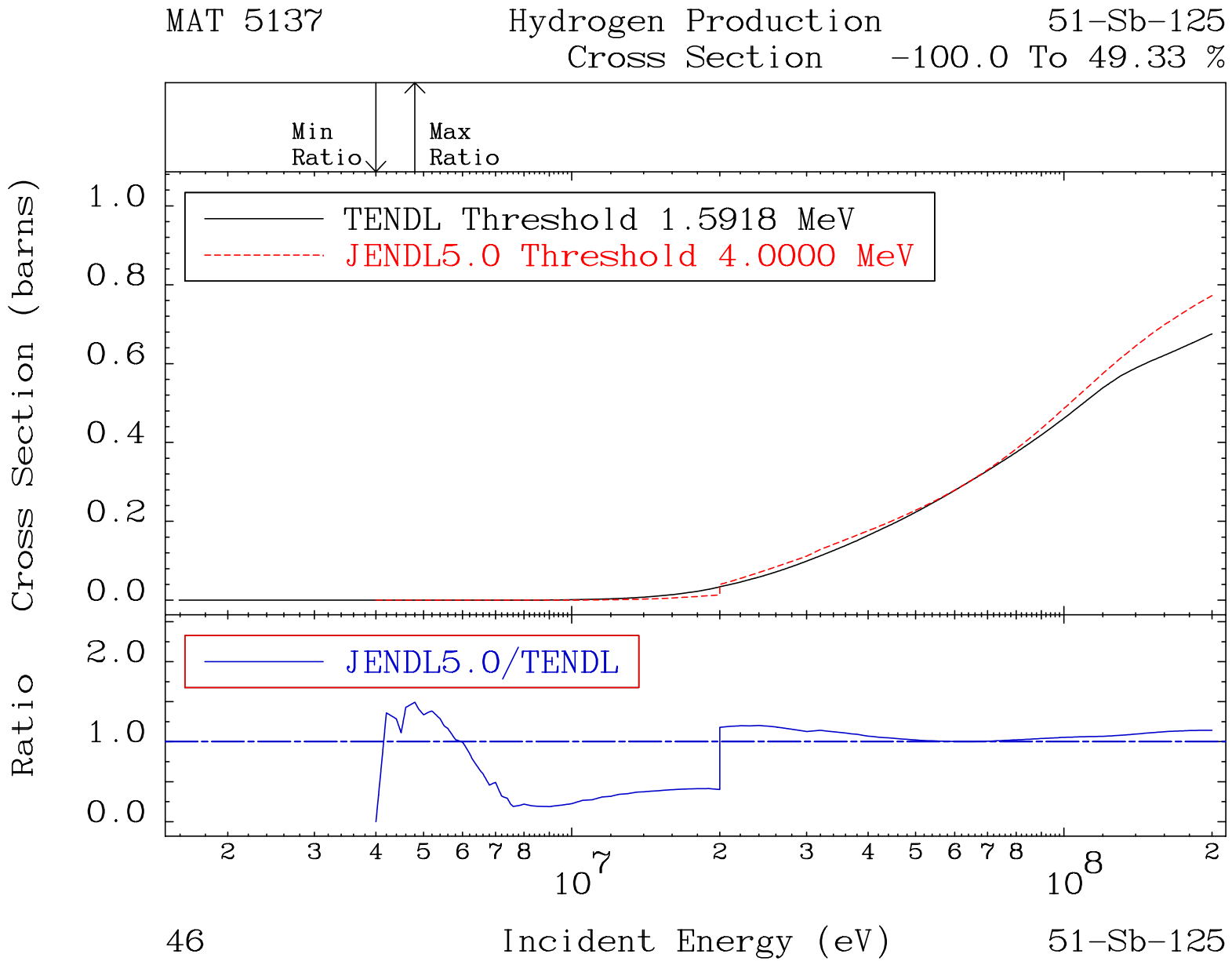

MAT 5137
(n,p)
51-Sb-125
Cross Section
-100.0 To 49.33 %
Min Ratio
Max Ratio
TENDL Threshold 1.5918 MeV
JENDL5.0 Threshold 4.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
2.0
1.0
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
41
Incident Energy (eV)
51-Sb-125

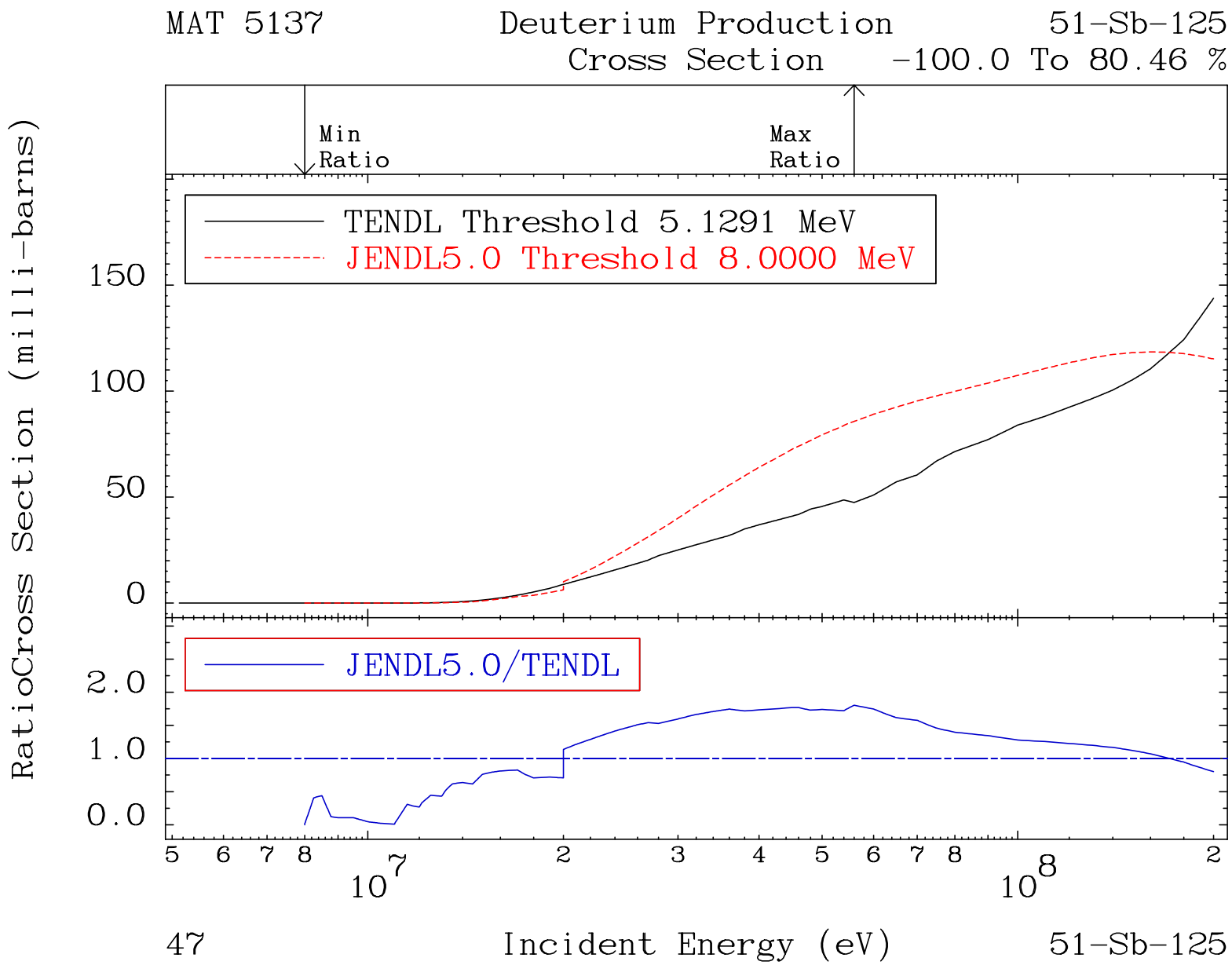

MAT 5137
(n,d)
51-Sb-125
Cross Section
-100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.1291 MeV
JENDL5.0 Threshold 8.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
42
51-Sb-125

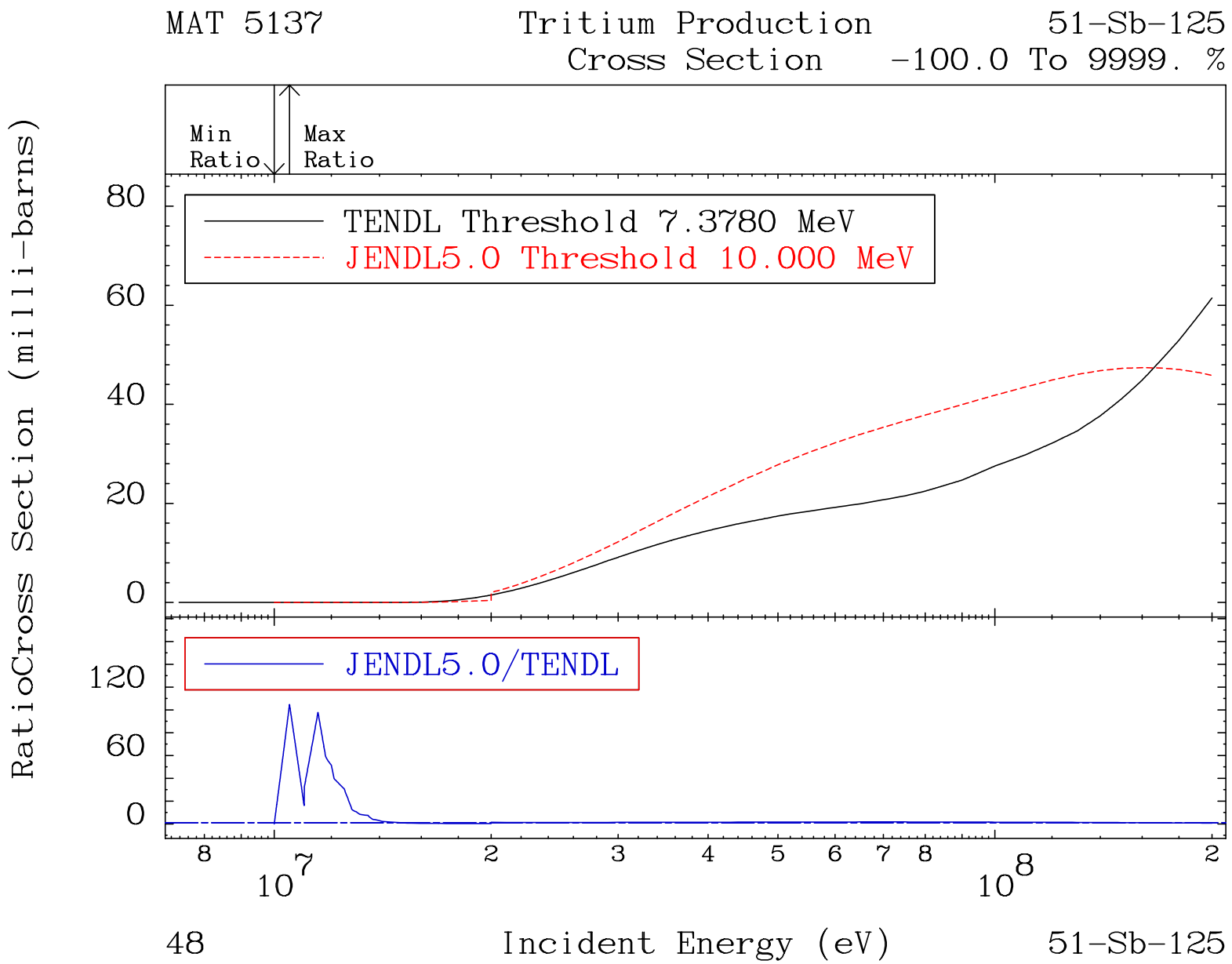

MAT 5137
(n,t)
Cross Section
51-Sb-125
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.3780 MeV
JENDL5.0 Threshold 10.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
43
51-Sb-125

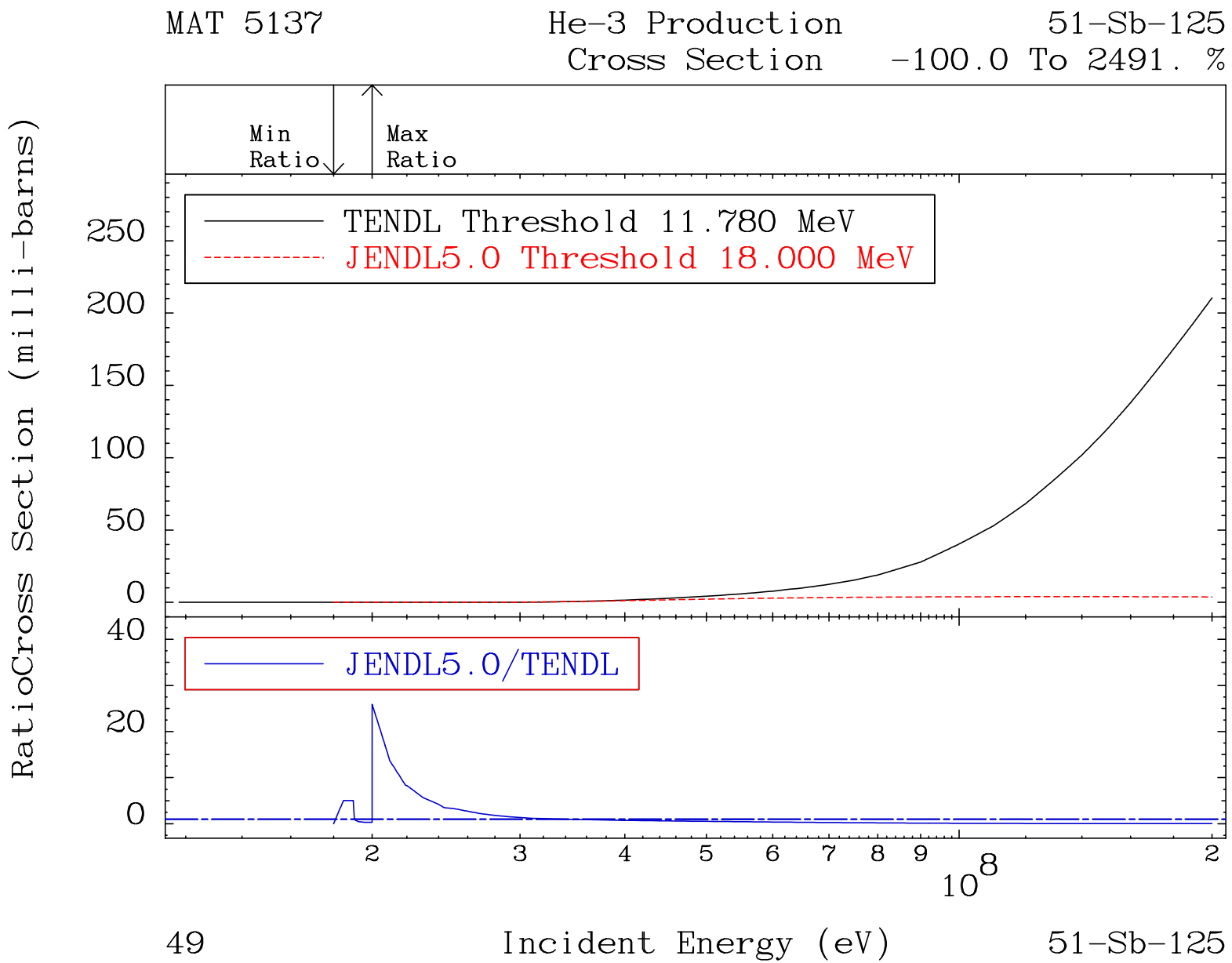

MAT 5137
(n,He-3)
Cross Section
51-Sb-125
-100.0 To 404.2 %
Min Ratio
Max Ratio
TENDL Threshold 11.780 MeV
JENDL5.0 Threshold 18.000 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
120
100
80
60
40
20
0
4
0
2
3
4
5
6
7
8
9
2
10^8
44
Incident Energy (eV)
51-Sb-125

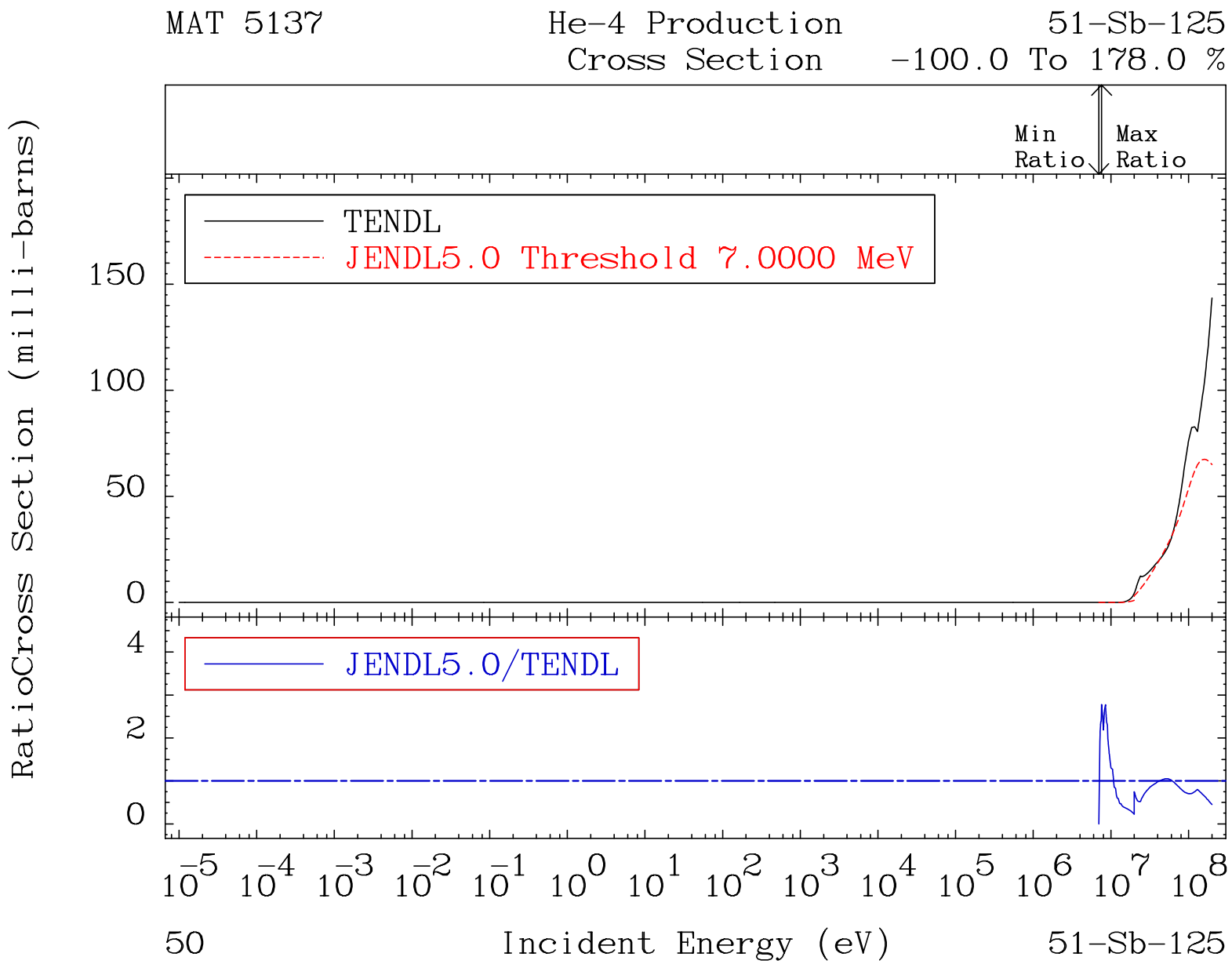

MAT 5137
(n,α)
51-Sb-125
Cross Section
-100.0 To 178.0 %
Min Ratio
Max Ratio
TENDL
JENDL5.0 Threshold 7.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
45
51-Sb-125

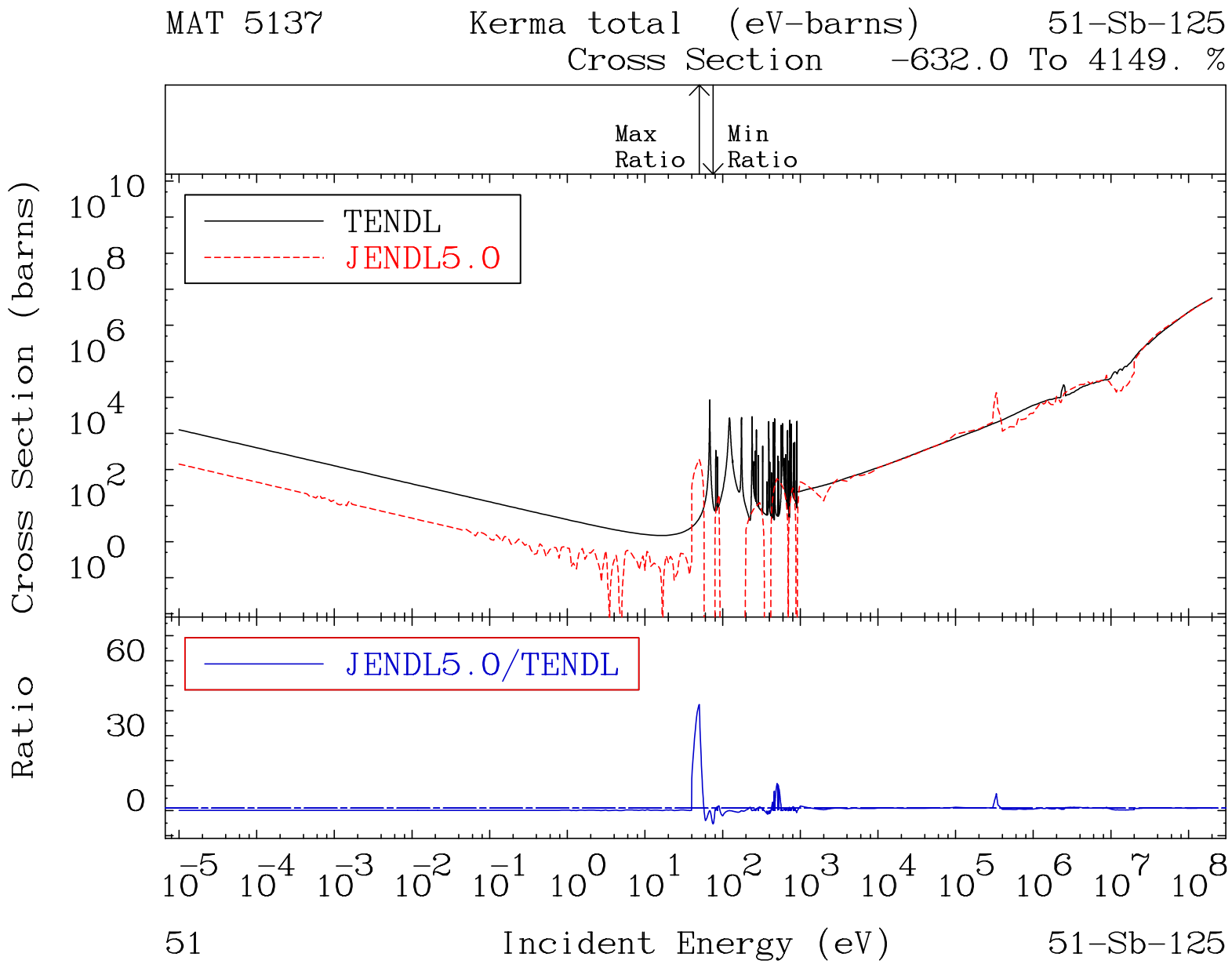

MAT 5137
Hydrogen Production
51-Sb-125
Cross Section
-100.0 To 49.33 %
Min Ratio
Max Ratio
TENDL Threshold 1.5918 MeV
JENDL5.0 Threshold 4.0000 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
46
Incident Energy (eV)
51-Sb-125

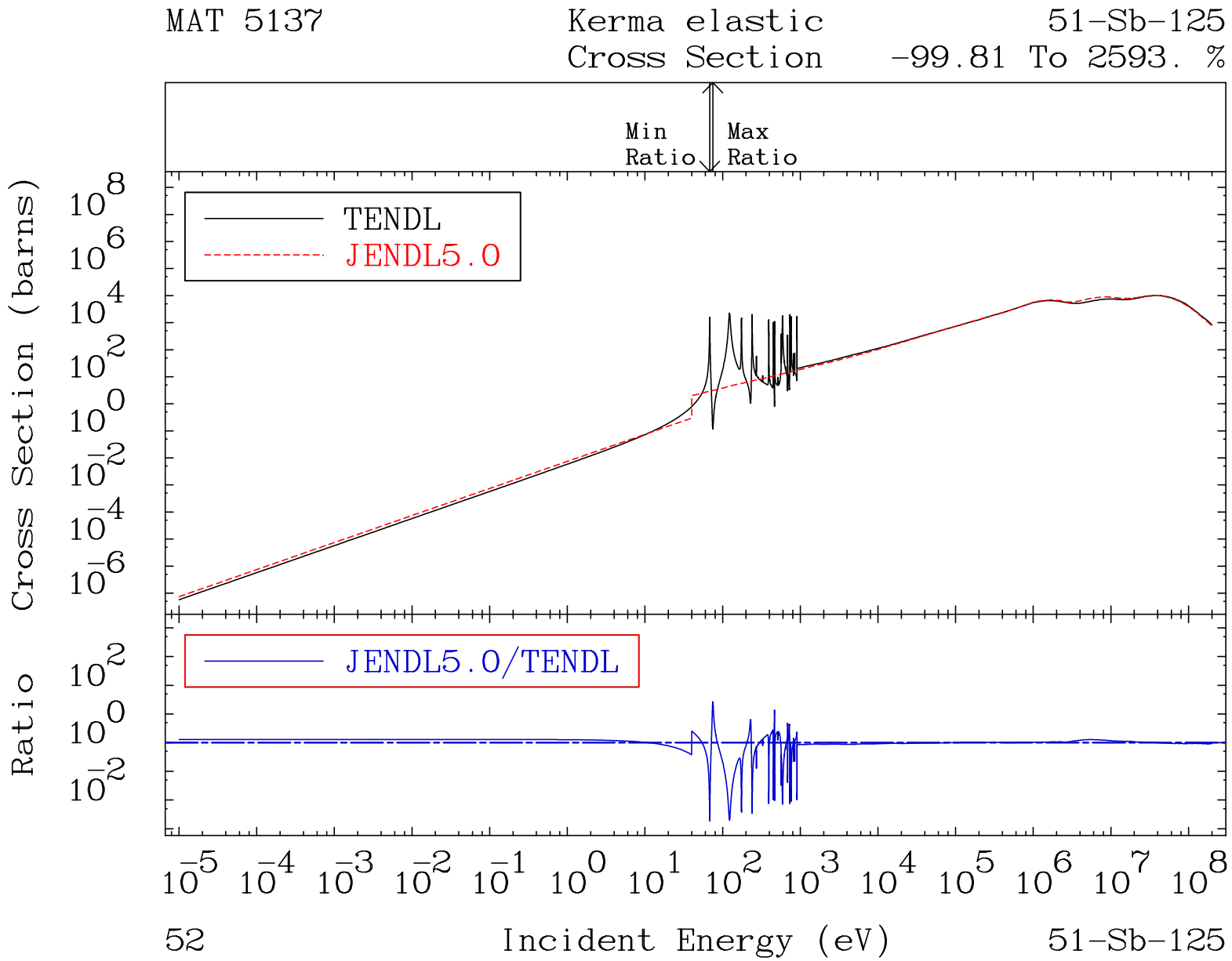

MAT 5137
Deuterium Production
51-Sb-125
Cross Section
-100.0 To 80.46 %
Min Ratio
Max Ratio
TENDL Threshold 5.1291 MeV
JENDL5.0 Threshold 8.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
150
100
50
0
2.0
1.0
0.0
5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
47
Incident Energy (eV)
51-Sb-125

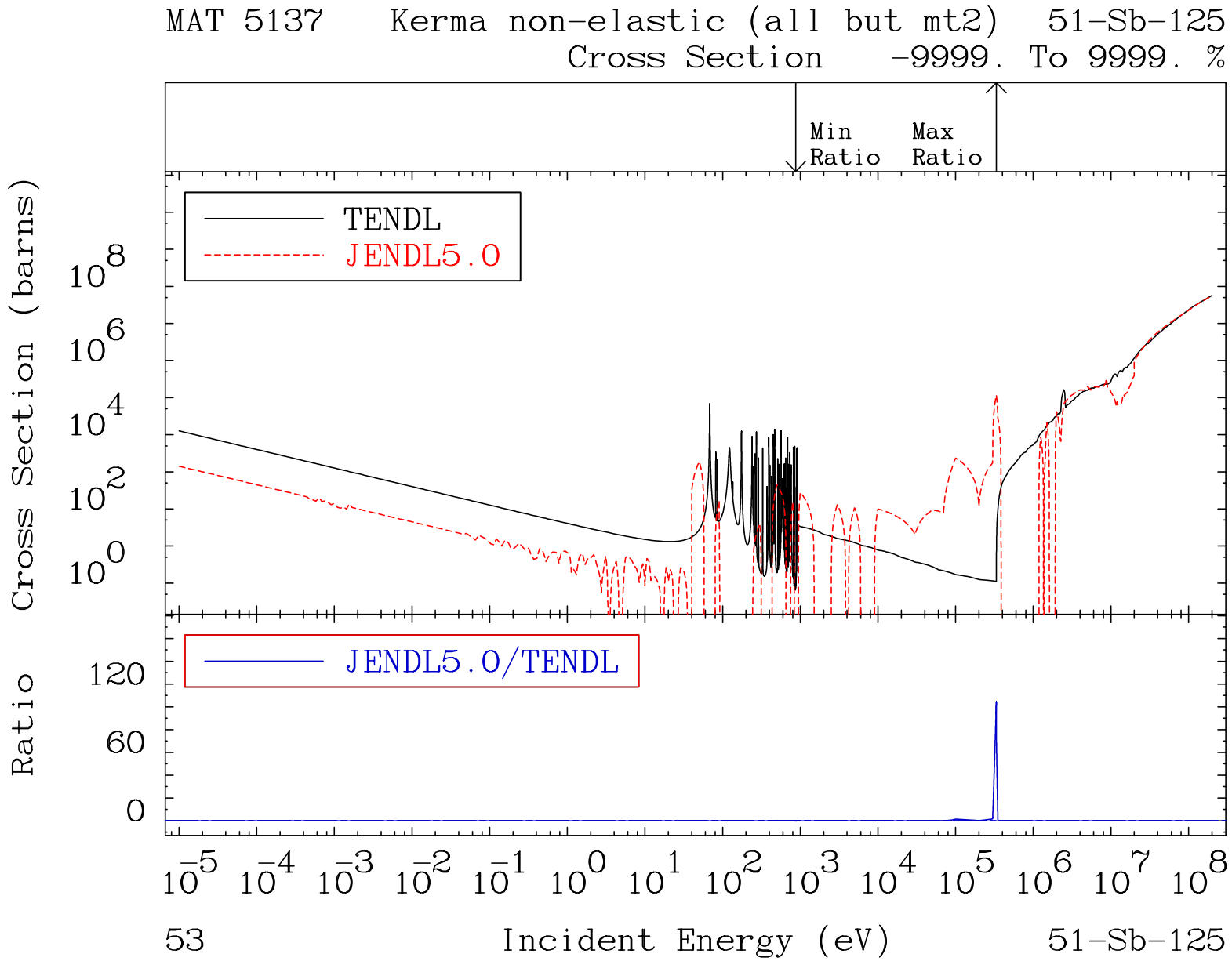

MAT 5137
Tritium Production
51-Sb-125
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.3780 MeV
JENDL5.0 Threshold 10.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
120
60
0
8
2
3
4
5
6
7
8
2
10^7
10^8
48
Incident Energy (eV)
51-Sb-125

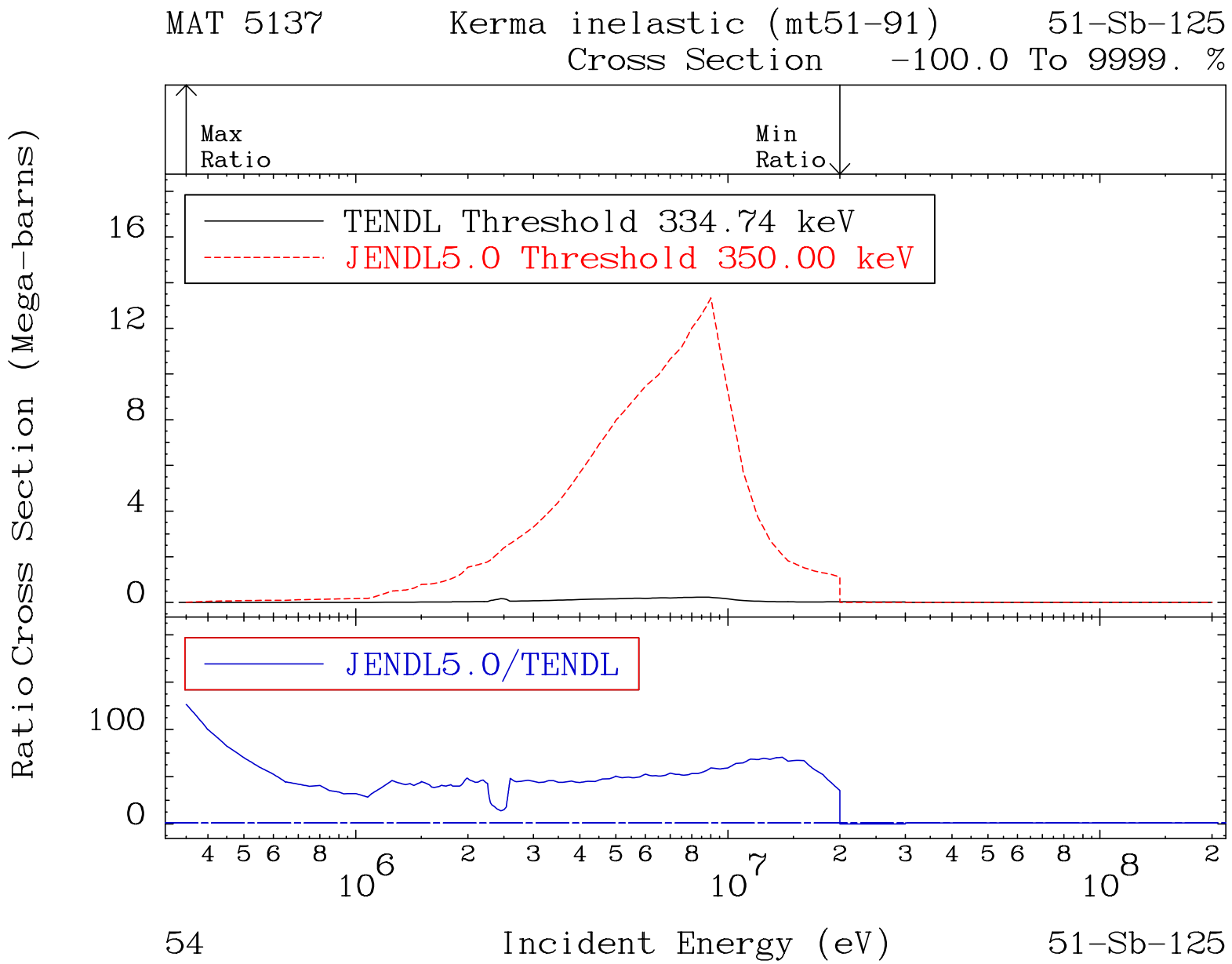

MAT 5137
He-3 Production
51-Sb-125
Cross Section
-100.0 To 2491. %
Min Ratio
Max Ratio
TENDL Threshold 11.780 MeV
JENDL5.0 Threshold 18.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
40
20
0
2
3
4
5
6
7
8
9
10^8
2
49
Incident Energy (eV)
51-Sb-125

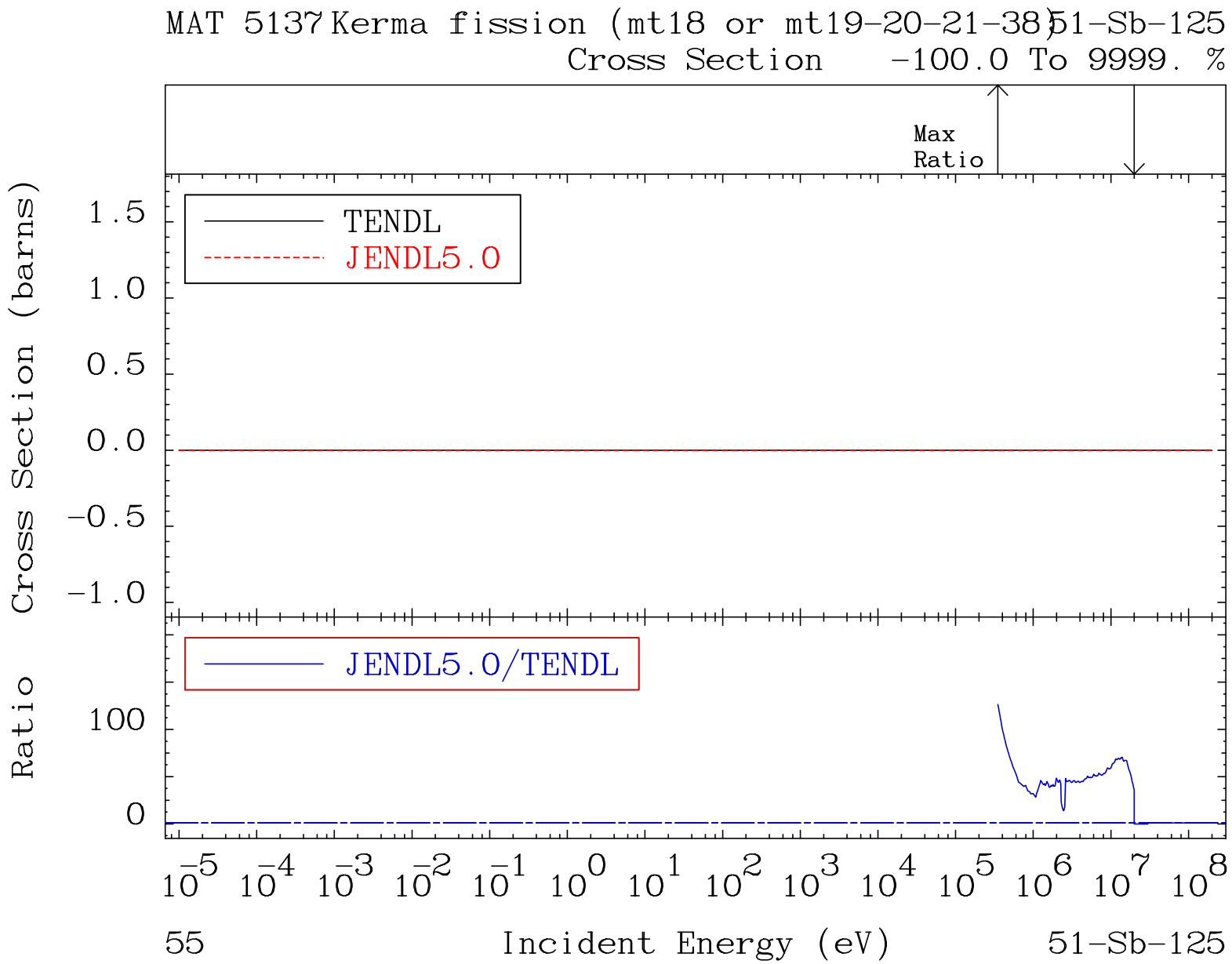

MAT 5137
He-4 Production
Cross Section
51-Sb-125
-100.0 To 178.0 %
Min Ratio
Max Ratio
TENDL
JENDL5.0 Threshold 7.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
150
100
50
0
4
2
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
50
Incident Energy (eV)
51-Sb-125

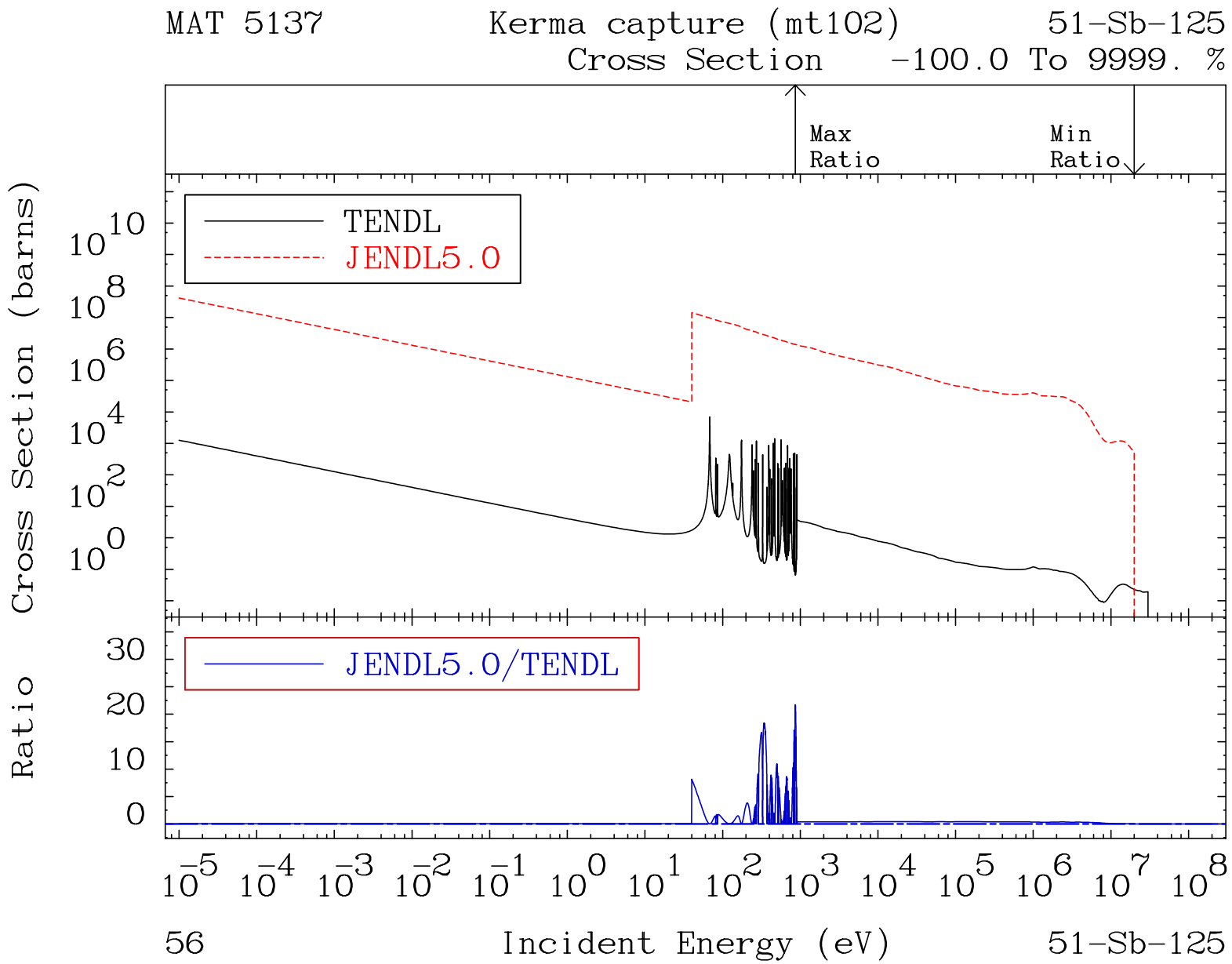

MAT 5137
Kerma total (eV-barns)
51-Sb-125
Cross Section -632.0 To 4149. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
51
51-Sb-125

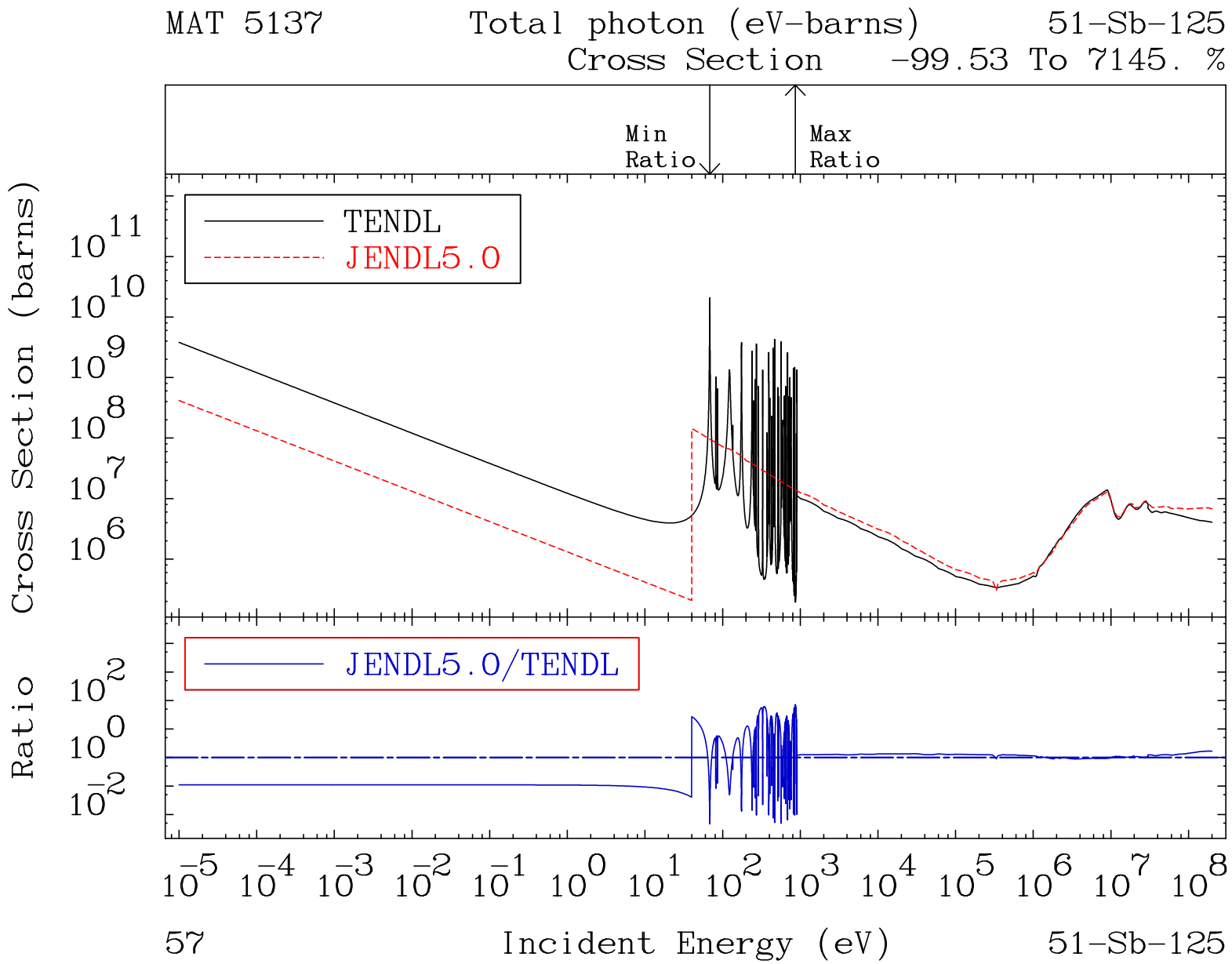

MAT 5137
Kerma elastic
Cross Section
51-Sb-125
-99.81 To 2593. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
52
51-Sb-125

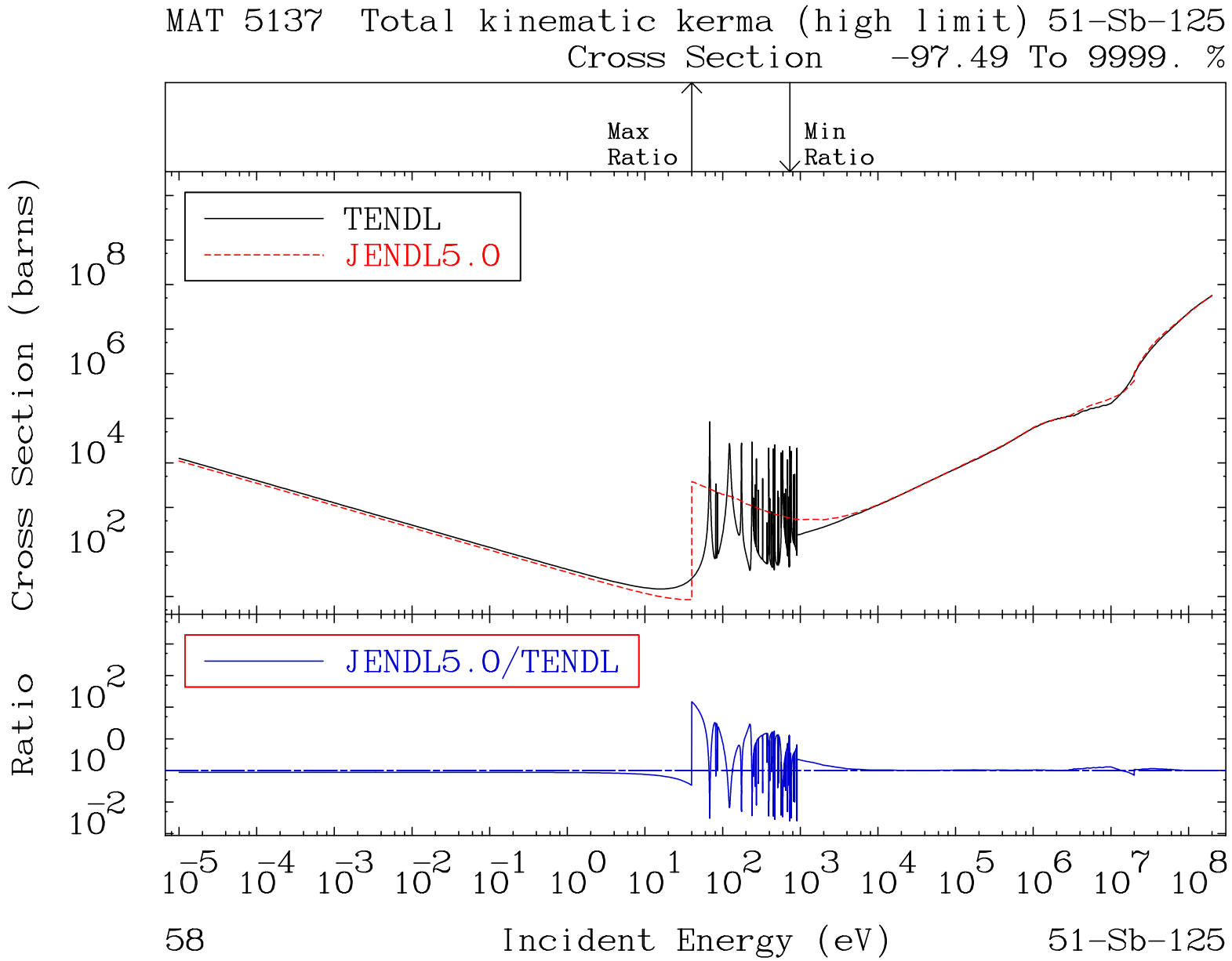

MAT 5137 Kerma non-elastic (all but mt2) 51-Sb-125
Cross Section -9999. To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
53
51-Sb-125

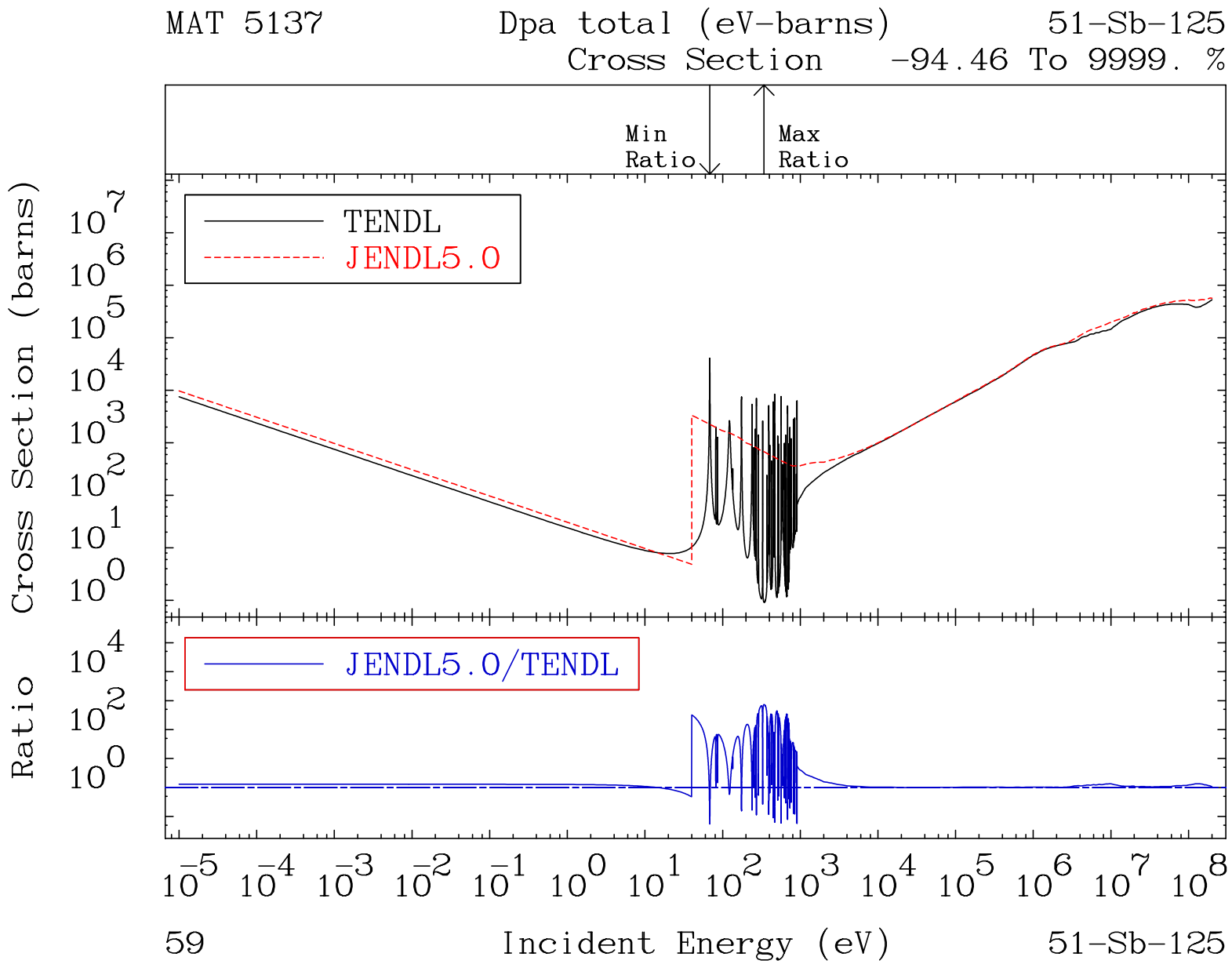

MAT 5137
Kerma inelastic (mt51-91)
51-Sb-125
Cross Section
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 334.74 keV
JENDL5.0 Threshold 350.00 keV
JENDL5.0/TENDL
Ratio Cross Section (Mega-barns)
16
12
8
4
0
100
0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
54
Incident Energy (eV)
51-Sb-125

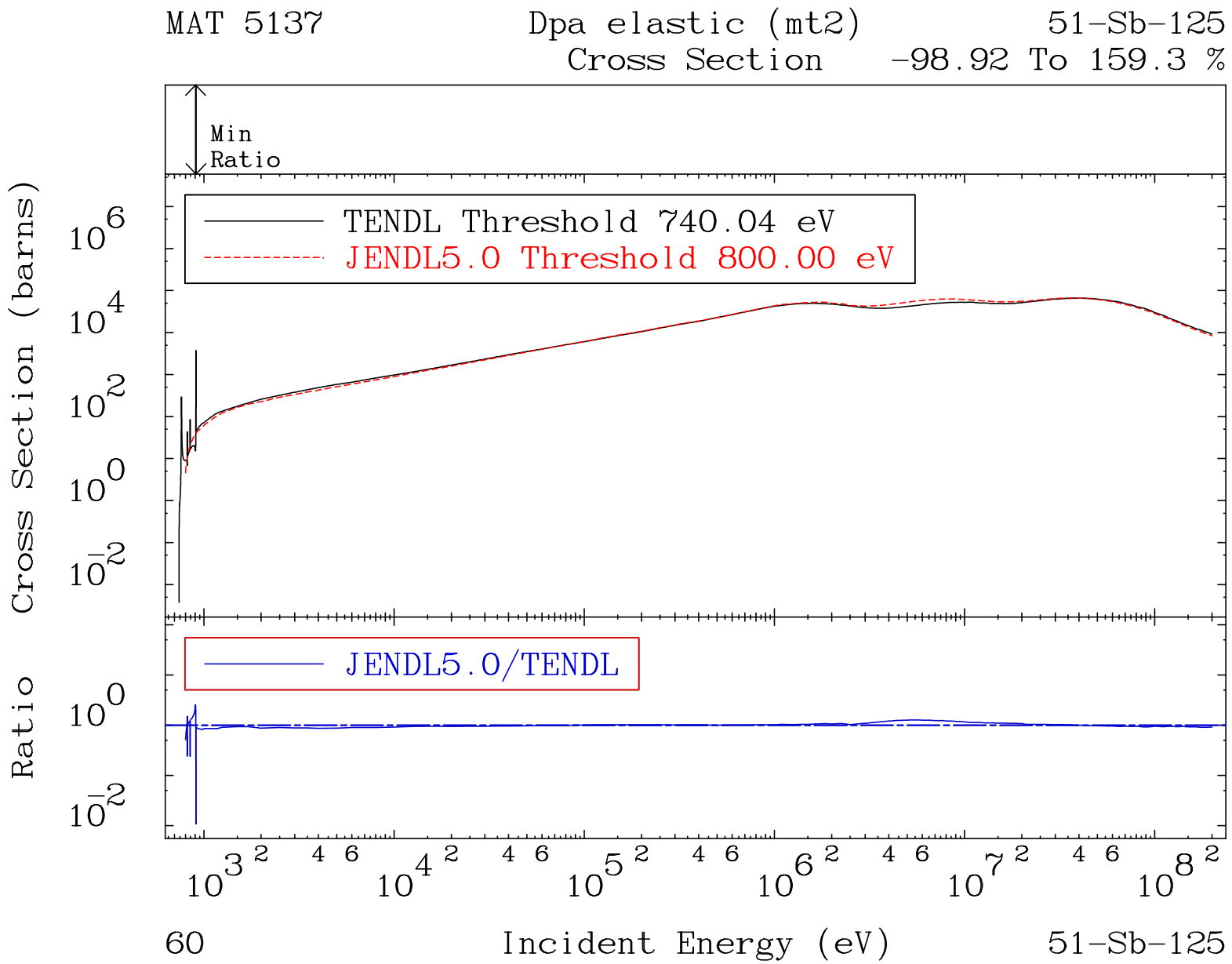

MAT 5137 Kerma fission (mt18 or mt19-20-21-38) 51-Sb-125
Cross Section -100.0 To 9999. %
Max
Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
100
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
55
Incident Energy (eV)
51-Sb-125

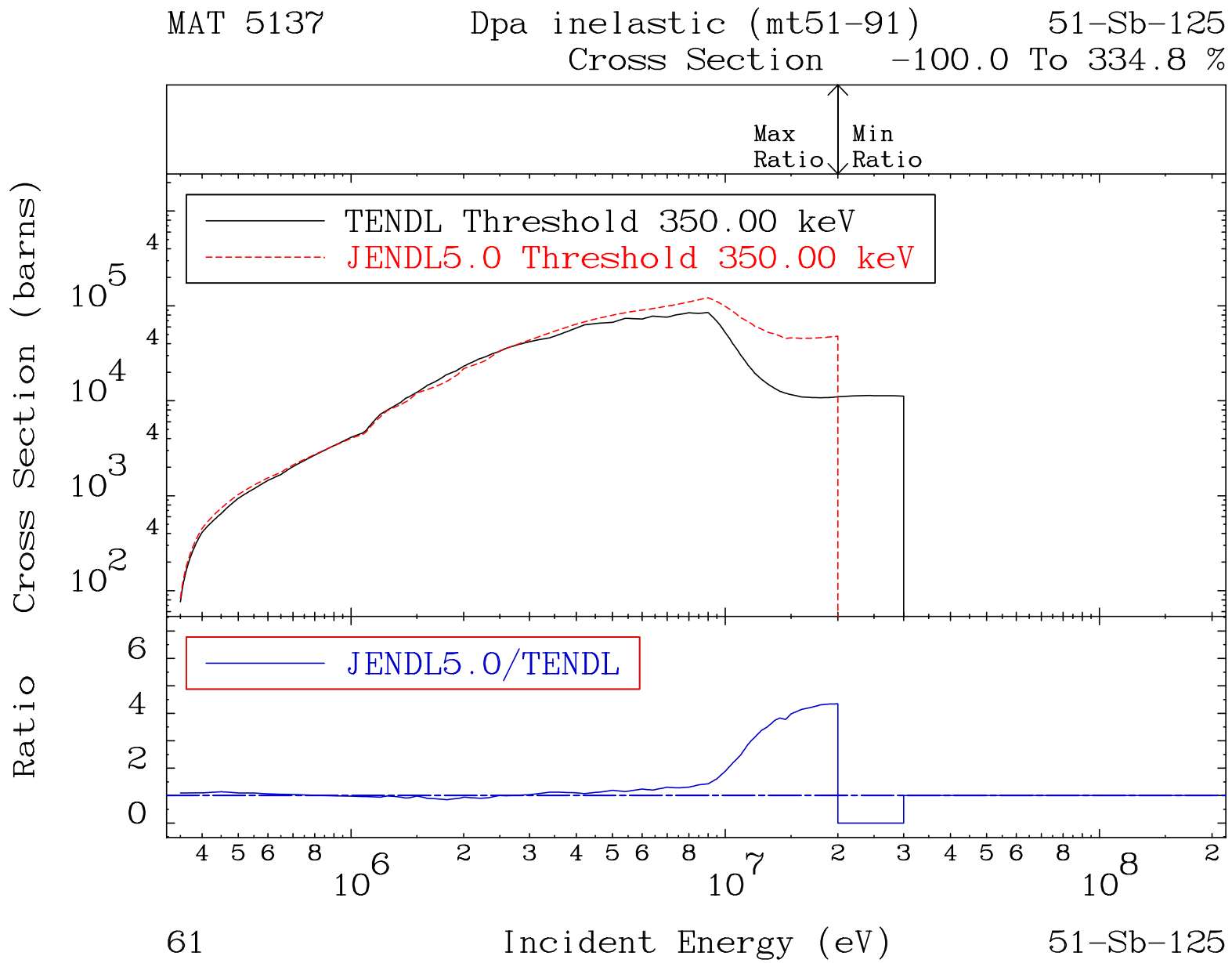

MAT 5137
Kerma capture (mt102)
51-Sb-125
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
56
51-Sb-125

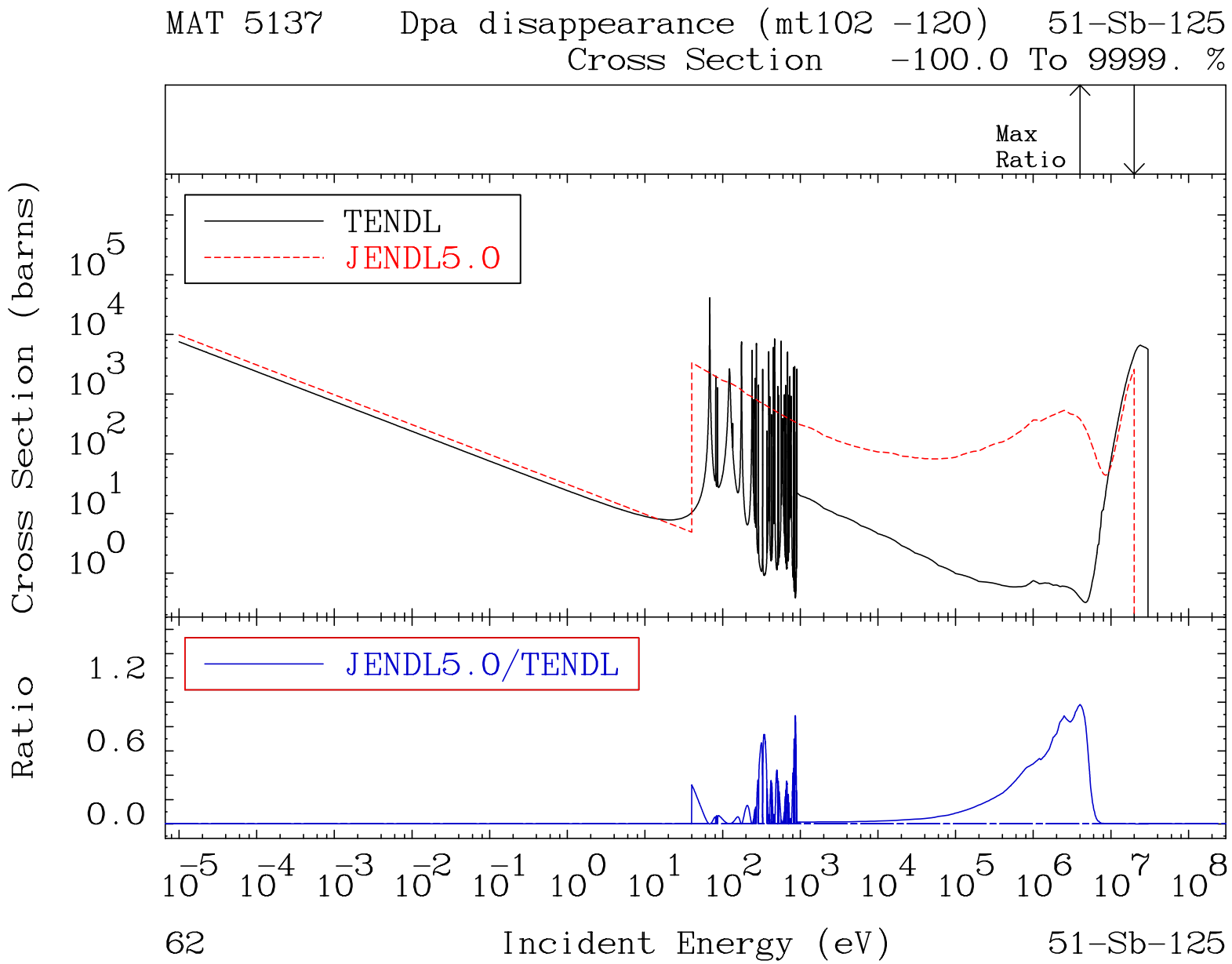

MAT 5137
Total photon (eV-barns)
51-Sb-125
Cross Section -99.53 To 7145. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
57
51-Sb-125

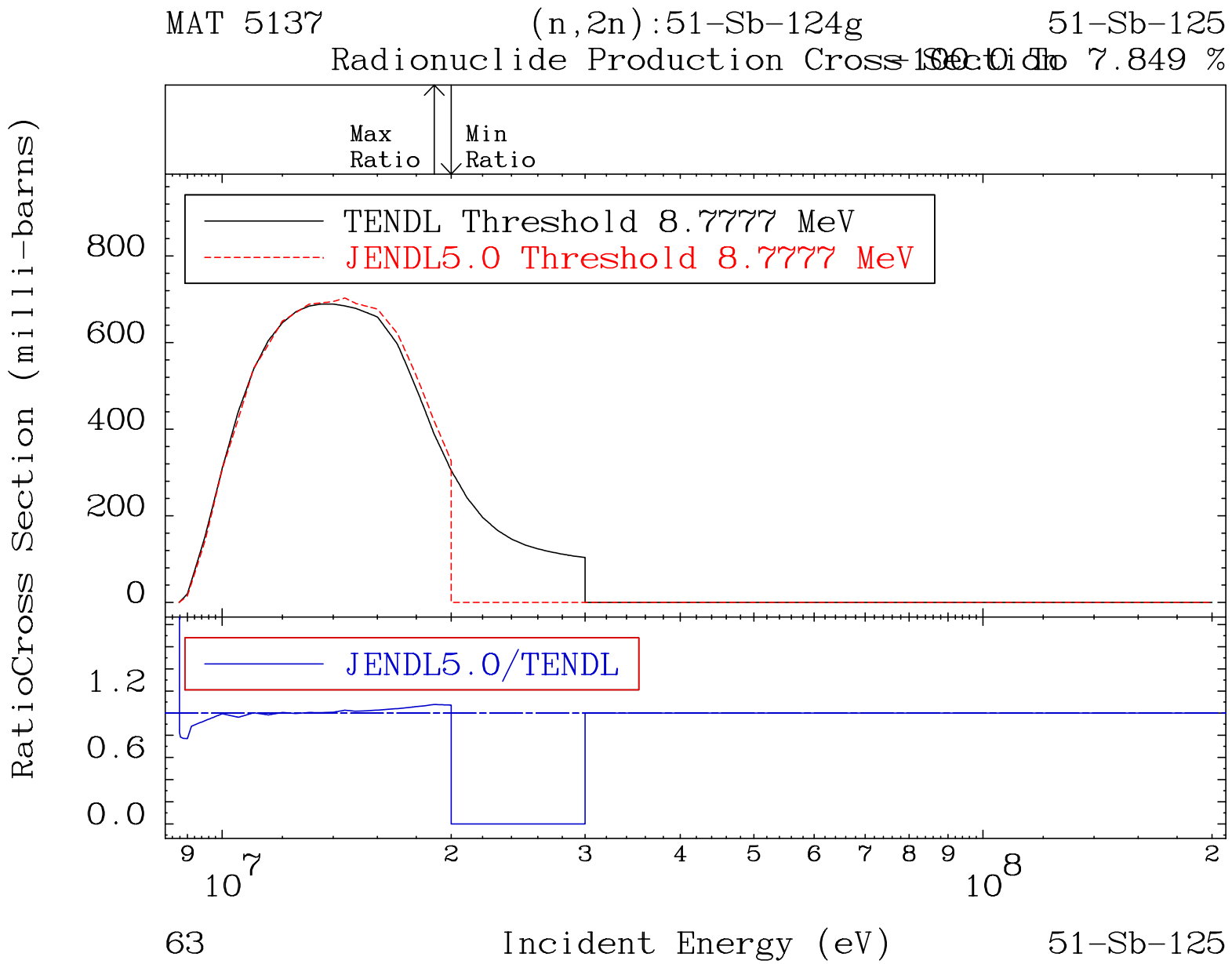

MAT 5137 Total kinematic kerma (high limit) 51-Sb-125
Cross Section -97.49 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
58
51-Sb-125

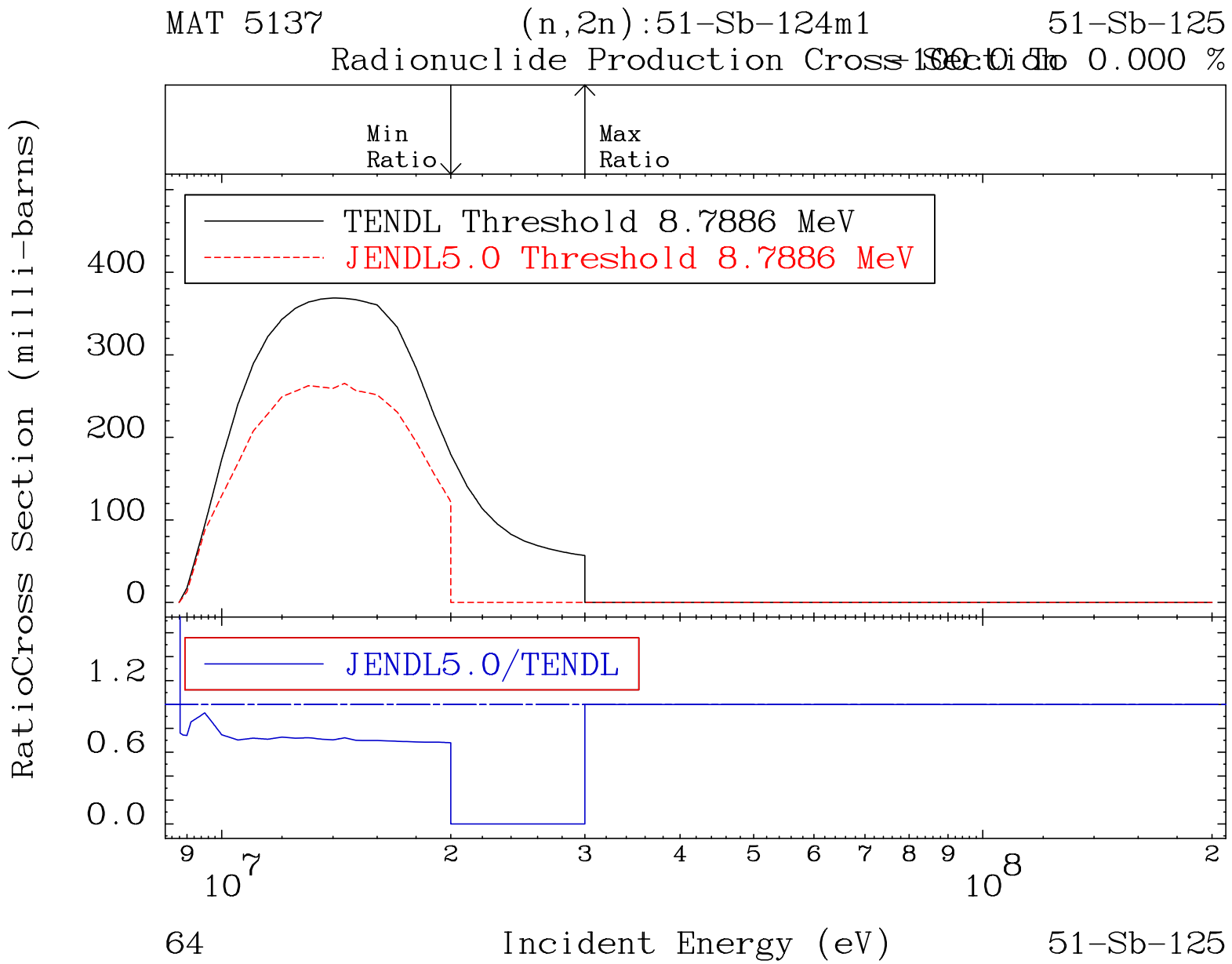

MAT 5137
Dpa total (eV-barns)
51-Sb-125
Cross Section -94.46 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
59
51-Sb-125

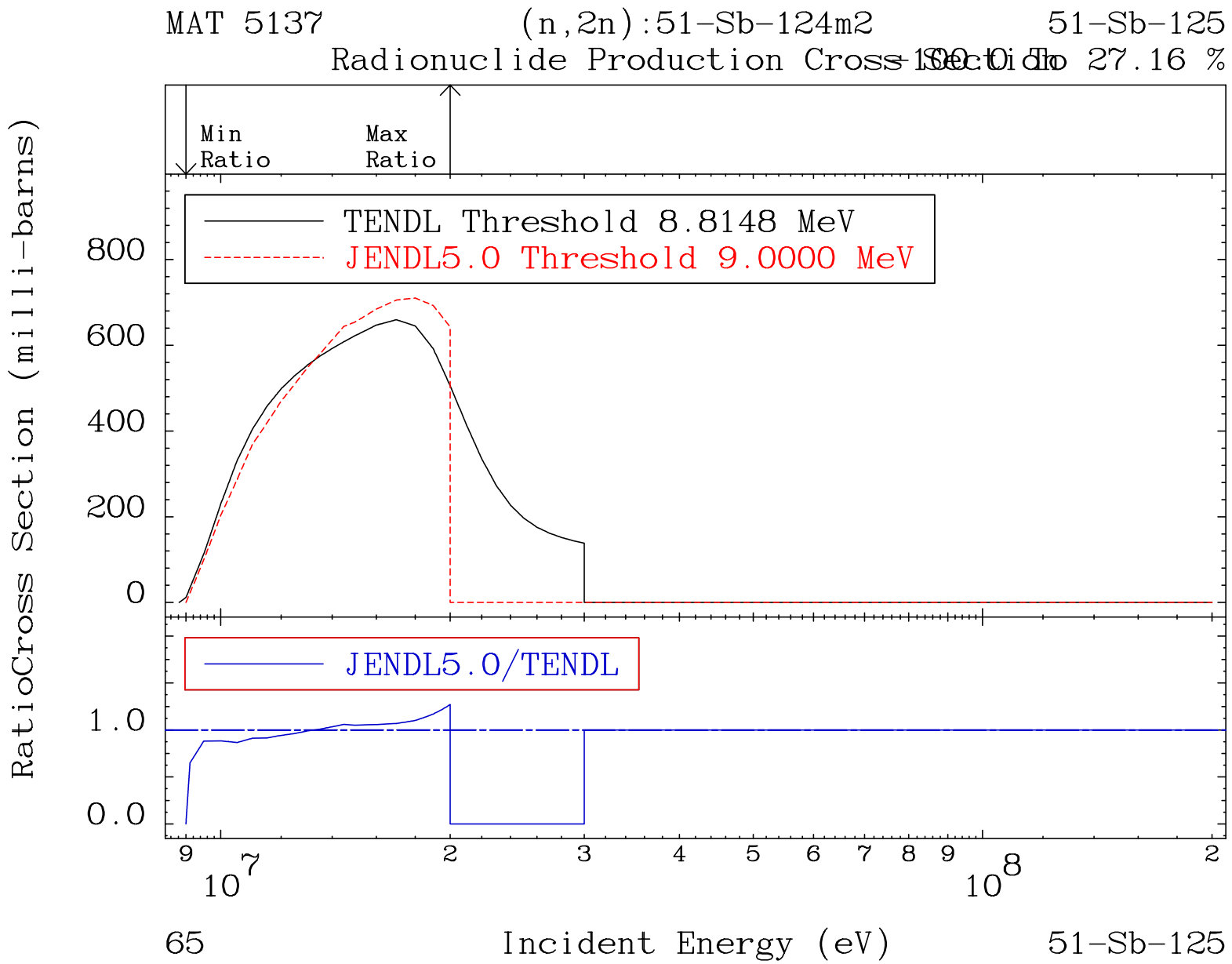

MAT 5137
Dpa elastic (mt2)
Cross Section
51-Sb-125
-98.92 To 159.3 %
Min
Ratio
TENDL Threshold 740.04 eV
JENDL5.0 Threshold 800.00 eV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
60
51-Sb-125

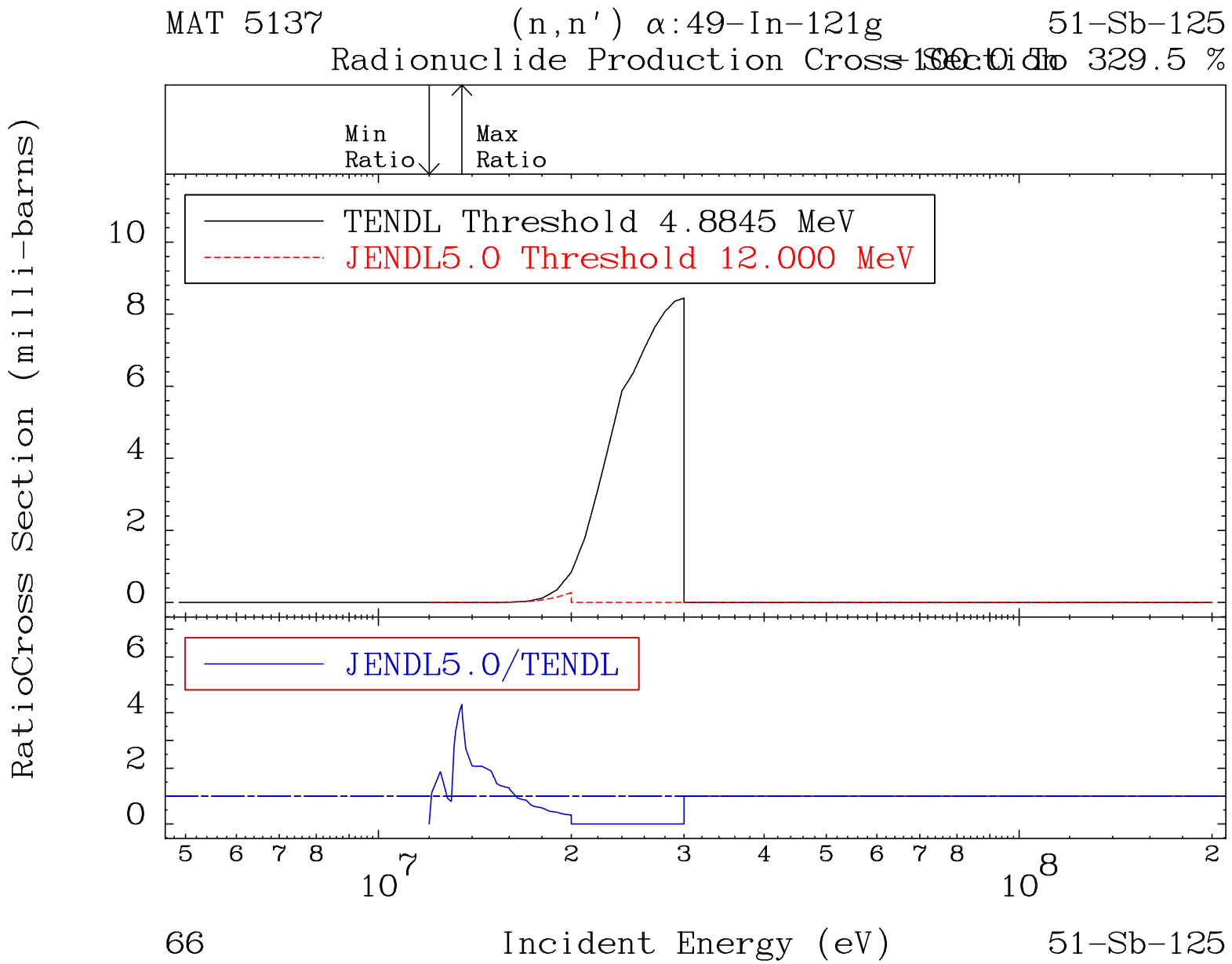

MAT 5137
Dpa inelastic (mt51-91)
51-Sb-125
Cross Section
-100.0 To 334.8 %
Max Ratio
Min Ratio
TENDL Threshold 350.00 keV
JENDL5.0 Threshold 350.00 keV
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
61
51-Sb-125

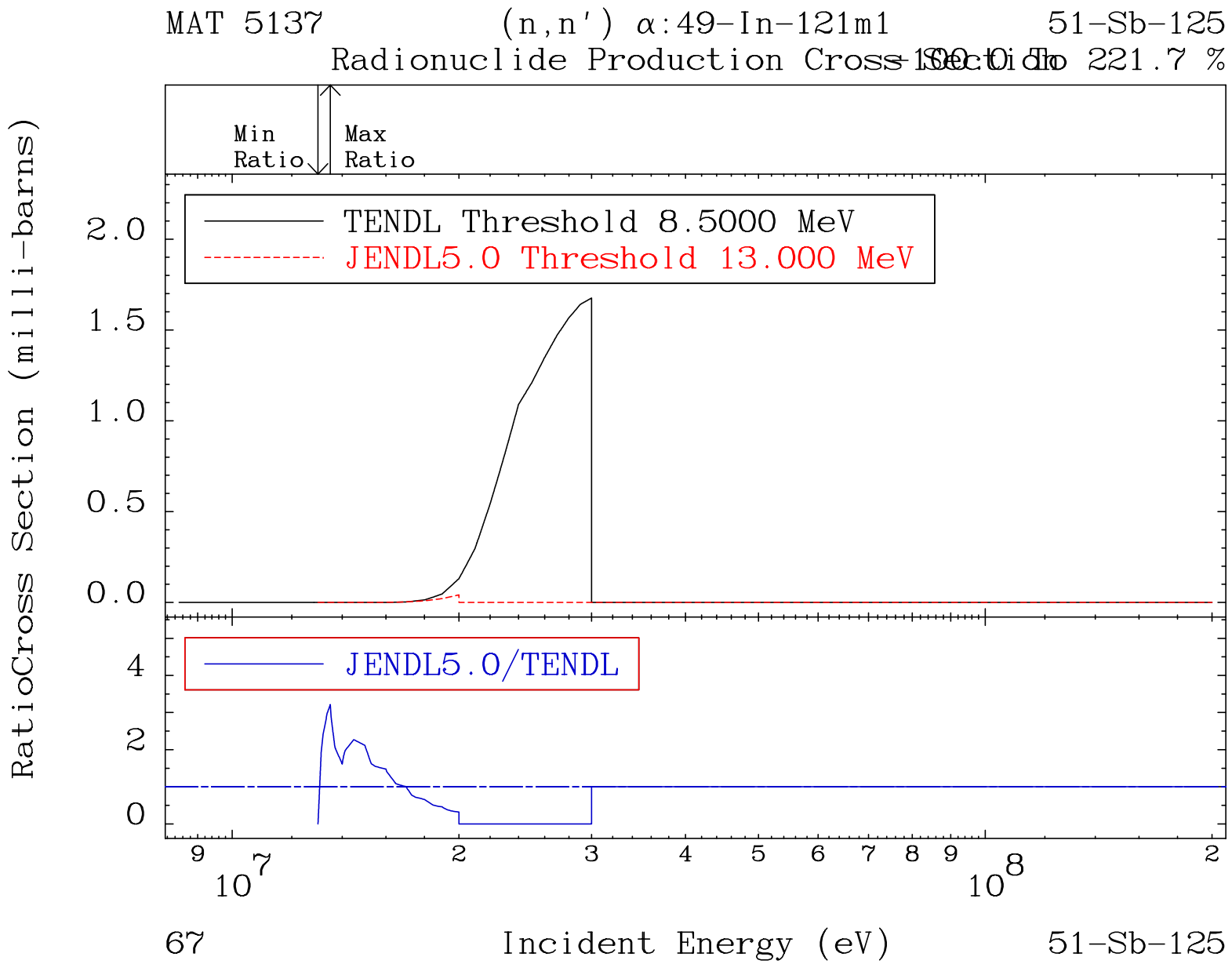

MAT 5137 Dpa disappearance (mt102 -120) 51-Sb-125
Cross Section -100.0 To 9999. %
Max
Ratio
TENDL
JENDL5.0
Cross Section (barns)
10^5
10^4
10^3
10^2
10^1
10^0
JENDL5.0/TENDL
Ratio
1.2
0.6
0.0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
62
Incident Energy (eV)
51-Sb-125

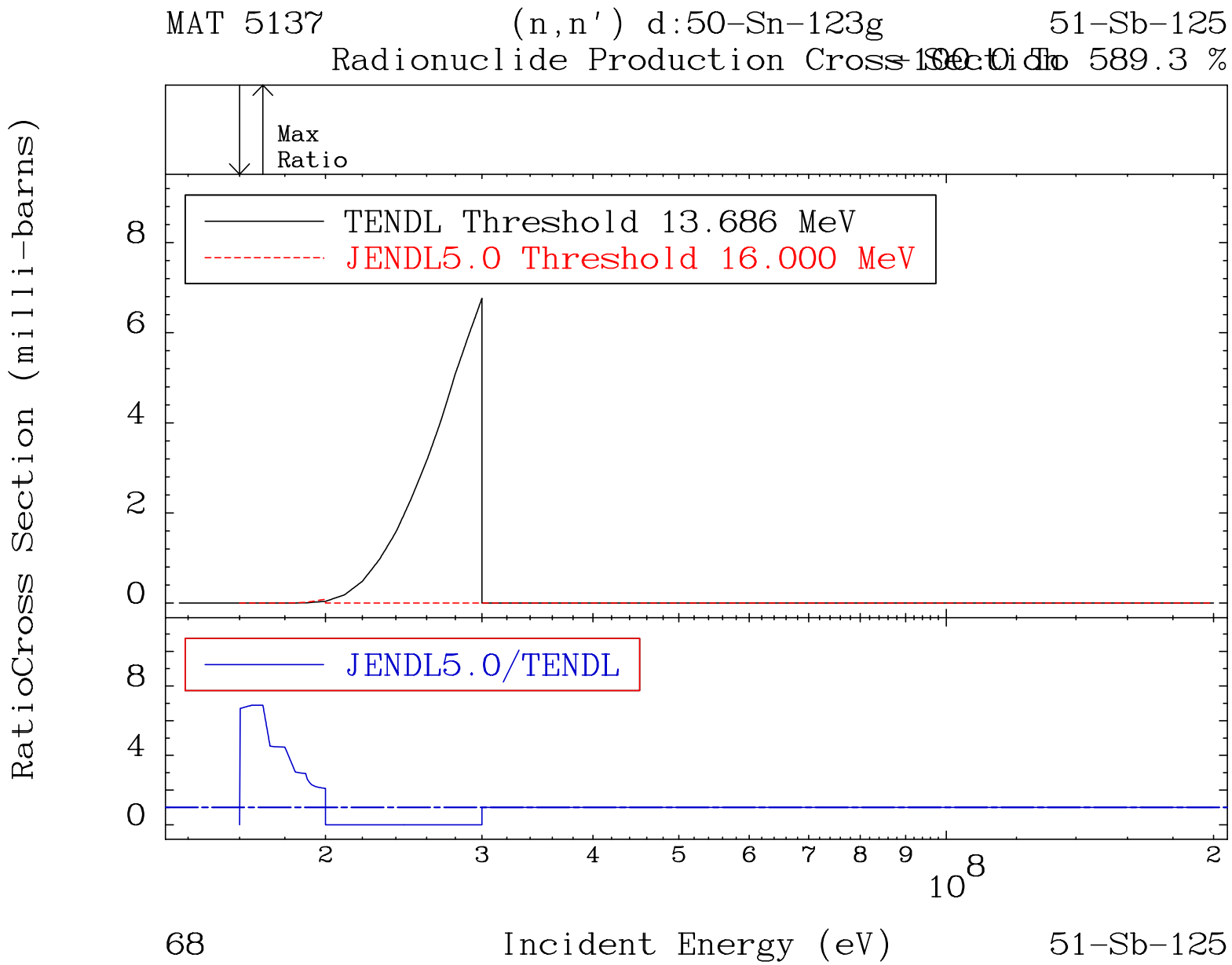

MAT 5137
(n,2n):51-Sb-124g
51-Sb-125
Radionuclide Production Cross Section To 7.849 %
Max Ratio
Min Ratio
TENDL Threshold 8.7777 MeV
JENDL5.0 Threshold 8.7777 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.2
0.6
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
51-Sb-125

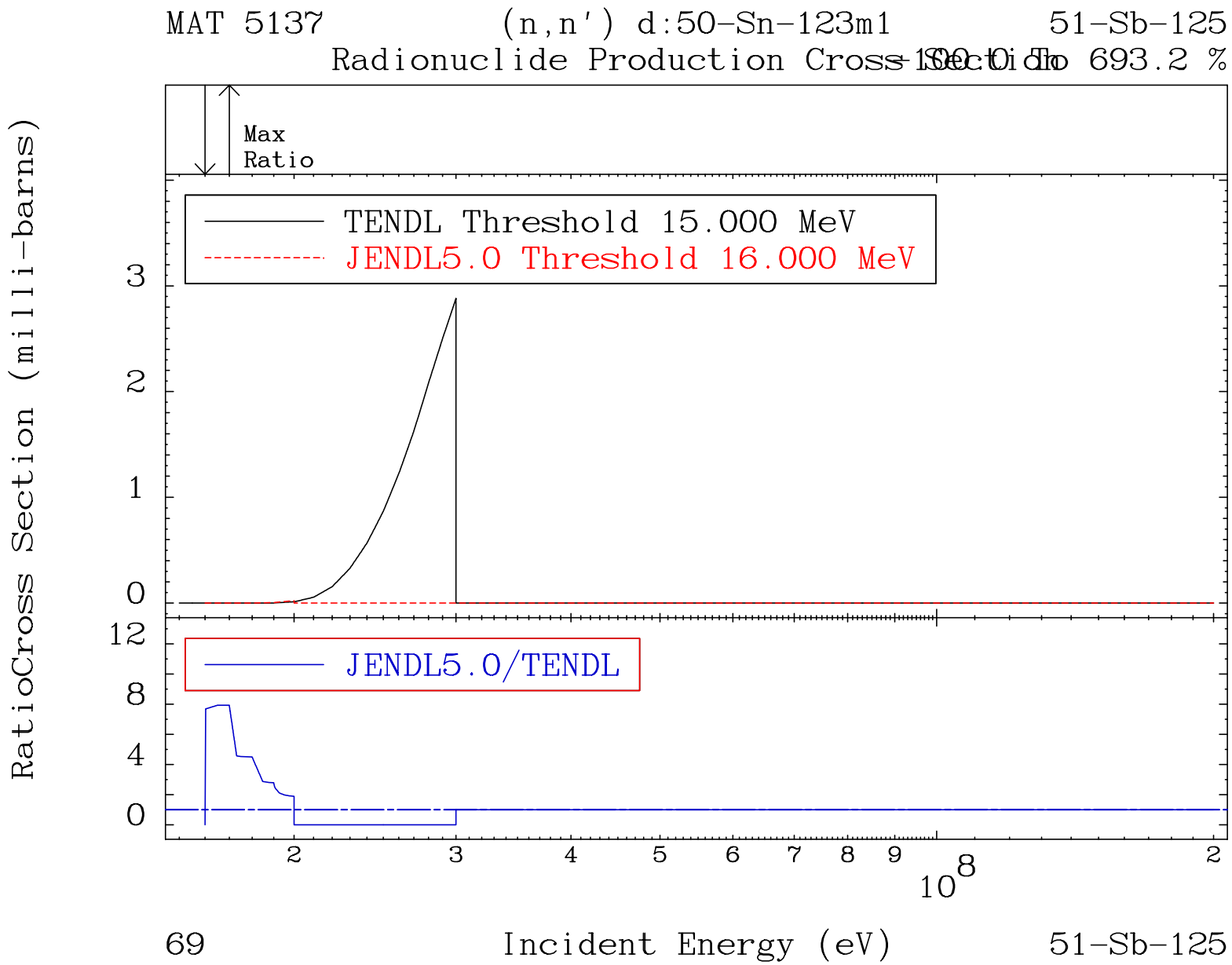

MAT 5137
(n,2n):51-Sb-124m1
51-Sb-125
Radionuclide Production Cross Section
Uncertainty 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 8.7886 MeV
JENDL5.0 Threshold 8.7886 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
1.2
0.6
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
51-Sb-125

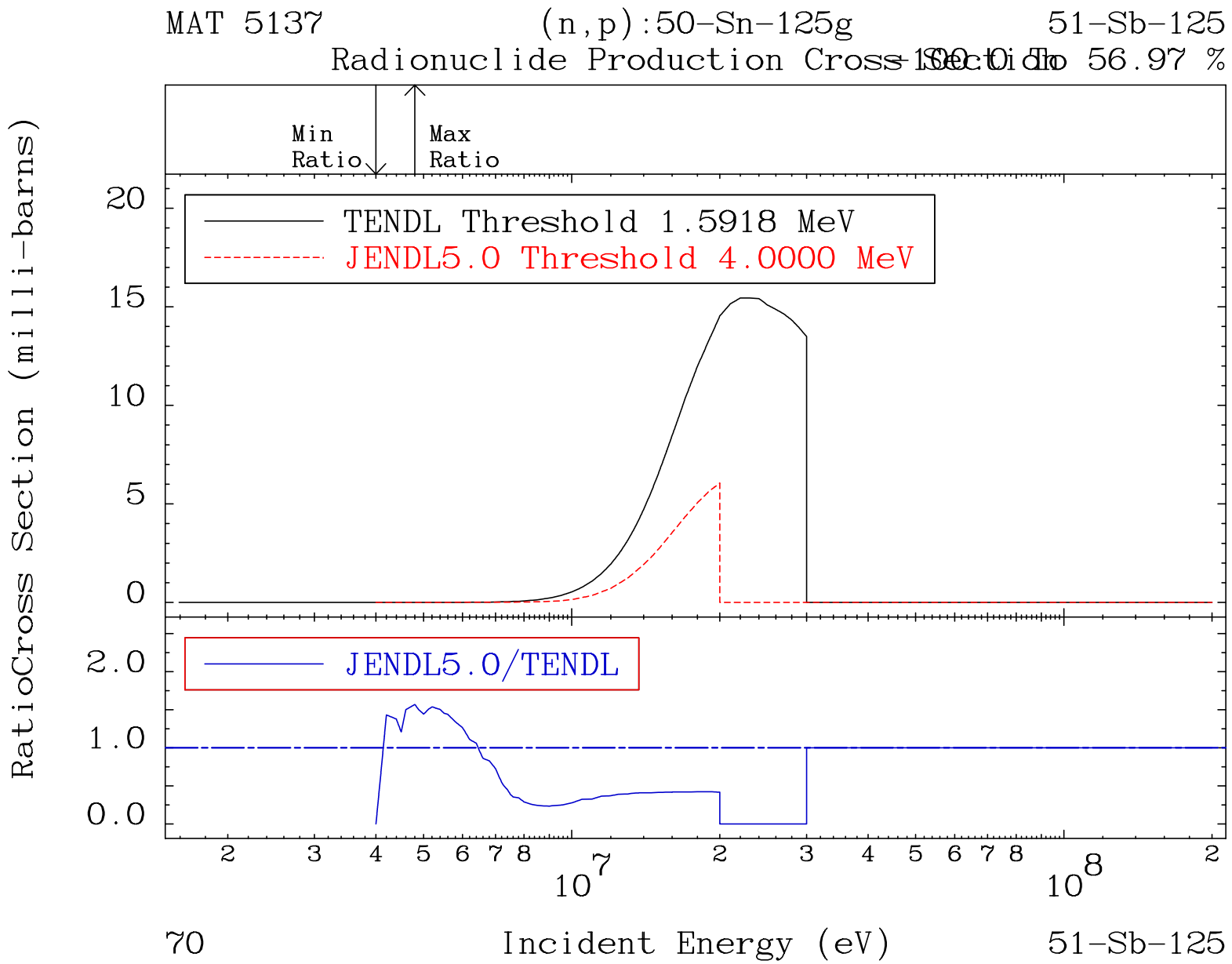

MAT 5137
(n,2n):51-Sb-124m2
51-Sb-125
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 8.8148 MeV
JENDL5.0 Threshold 9.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.0
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
51-Sb-125

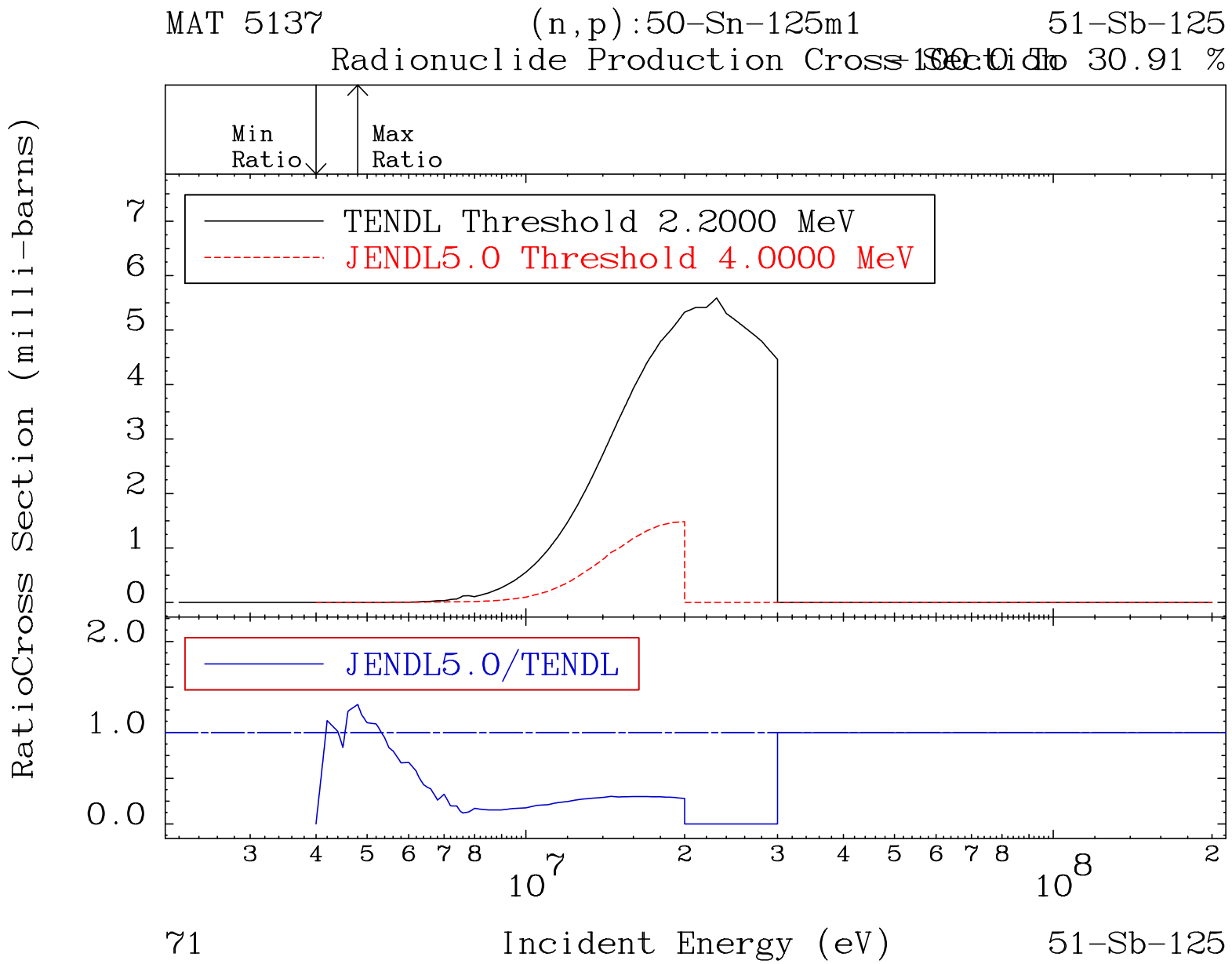

MAT 5137
(n,n') α:49-In-121g
51-Sb-125
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 4.8845 MeV
JENDL5.0 Threshold 12.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
66
51-Sb-125

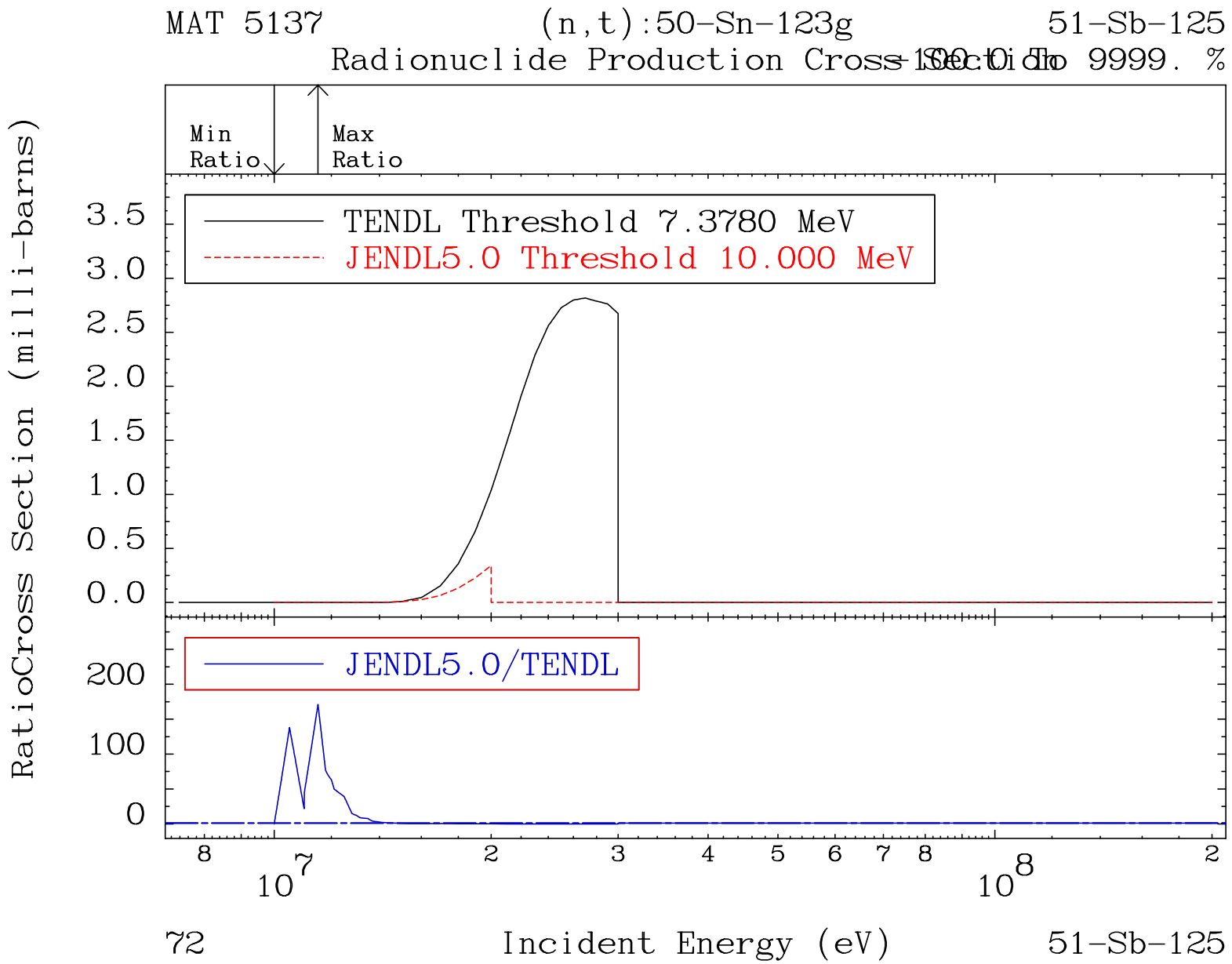

MAT 5137
(n,n') α:49-In-121m1
51-Sb-125
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 8.5000 MeV
JENDL5.0 Threshold 13.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
67
51-Sb-125

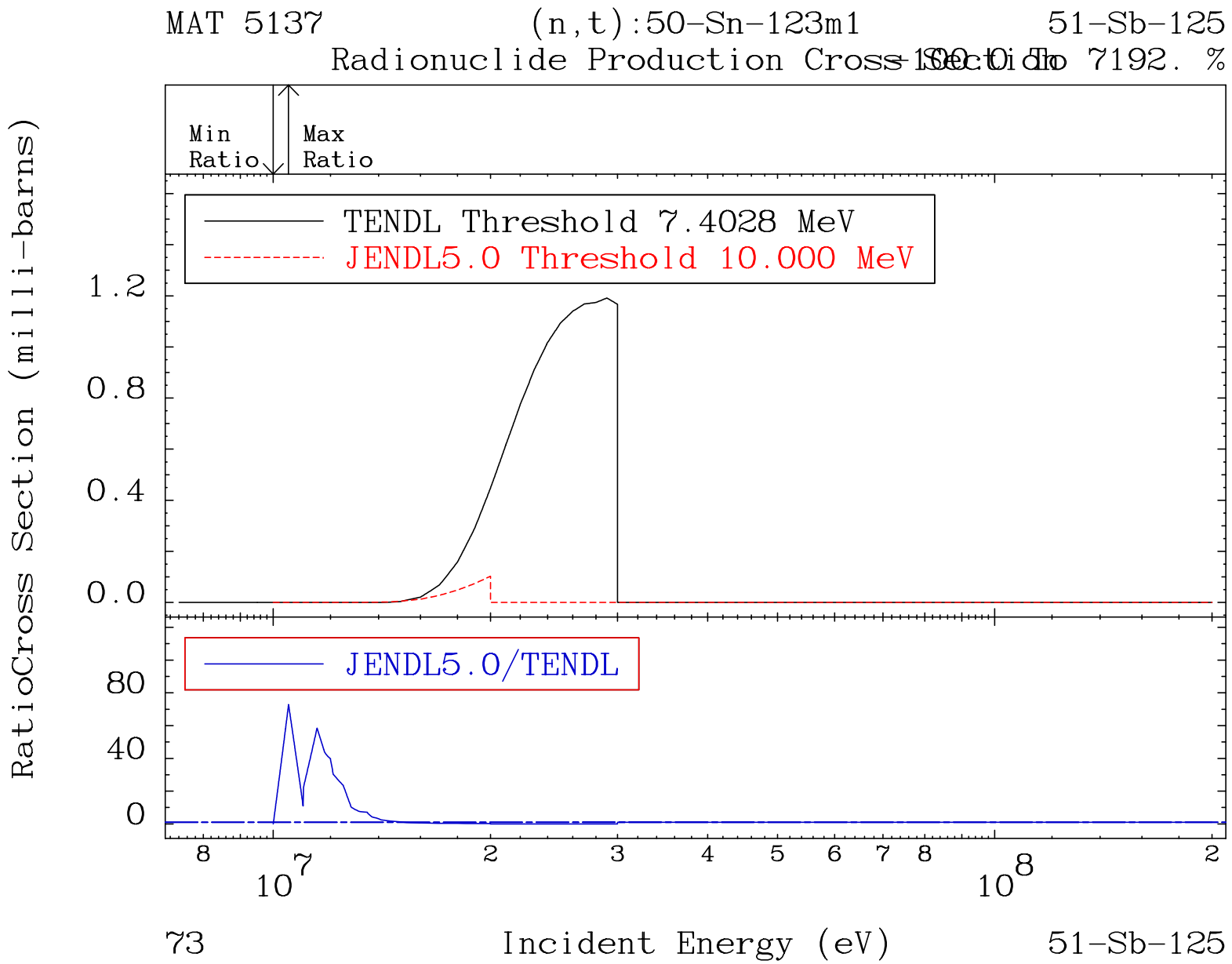

MAT 5137
(n,n') d:50-Sn-123g
51-Sb-125
Radionuclide Production Cross Section
Max
Ratio
TENDL Threshold 13.686 MeV
JENDL5.0 Threshold 16.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
68
51-Sb-125

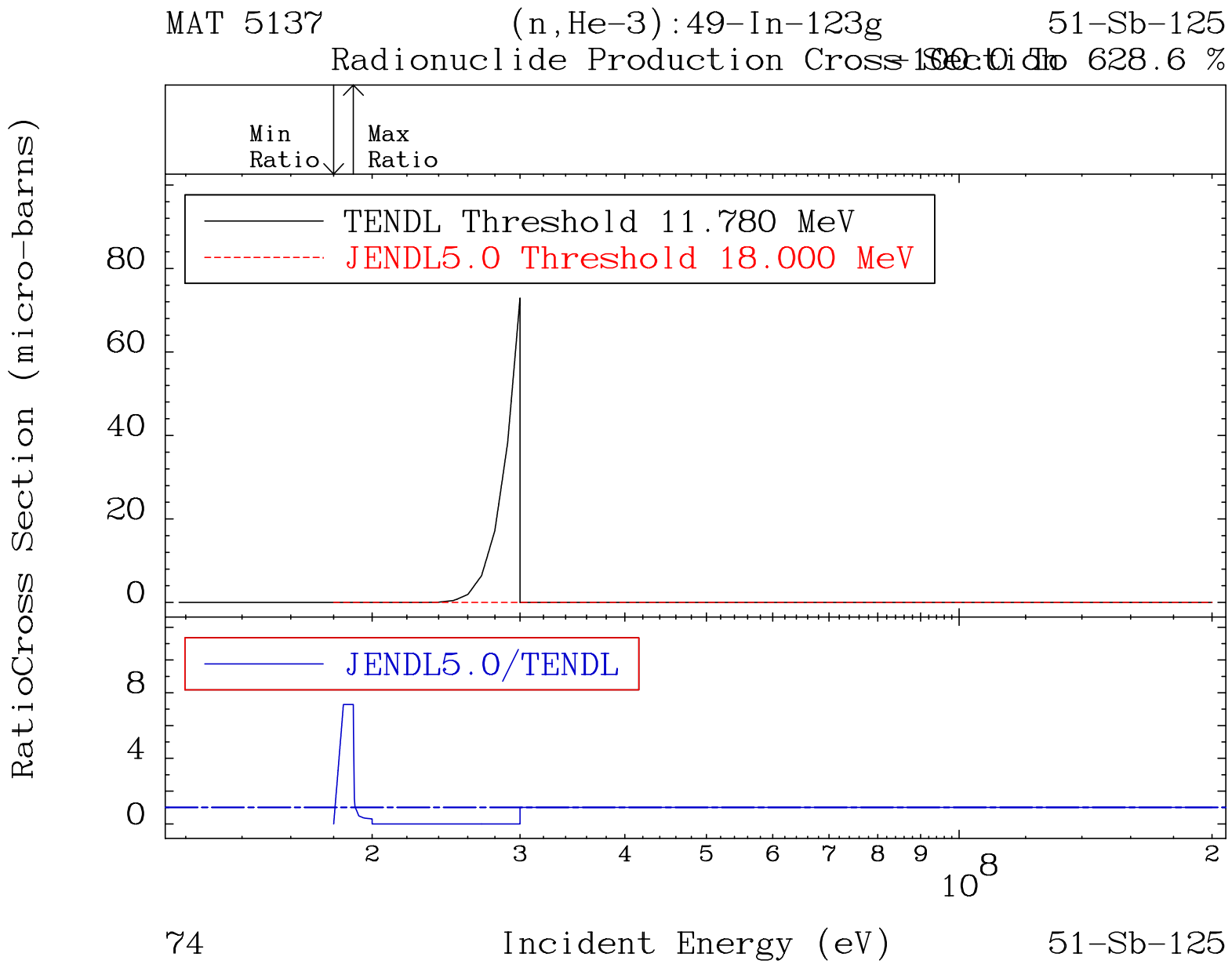

MAT 5137
(n,n') d:50-Sn-123m1
51-Sb-125
Radionuclide Production Cross Section To 693.2 %
Max
Ratio
TENDL Threshold 15.000 MeV
JENDL5.0 Threshold 16.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
69
51-Sb-125

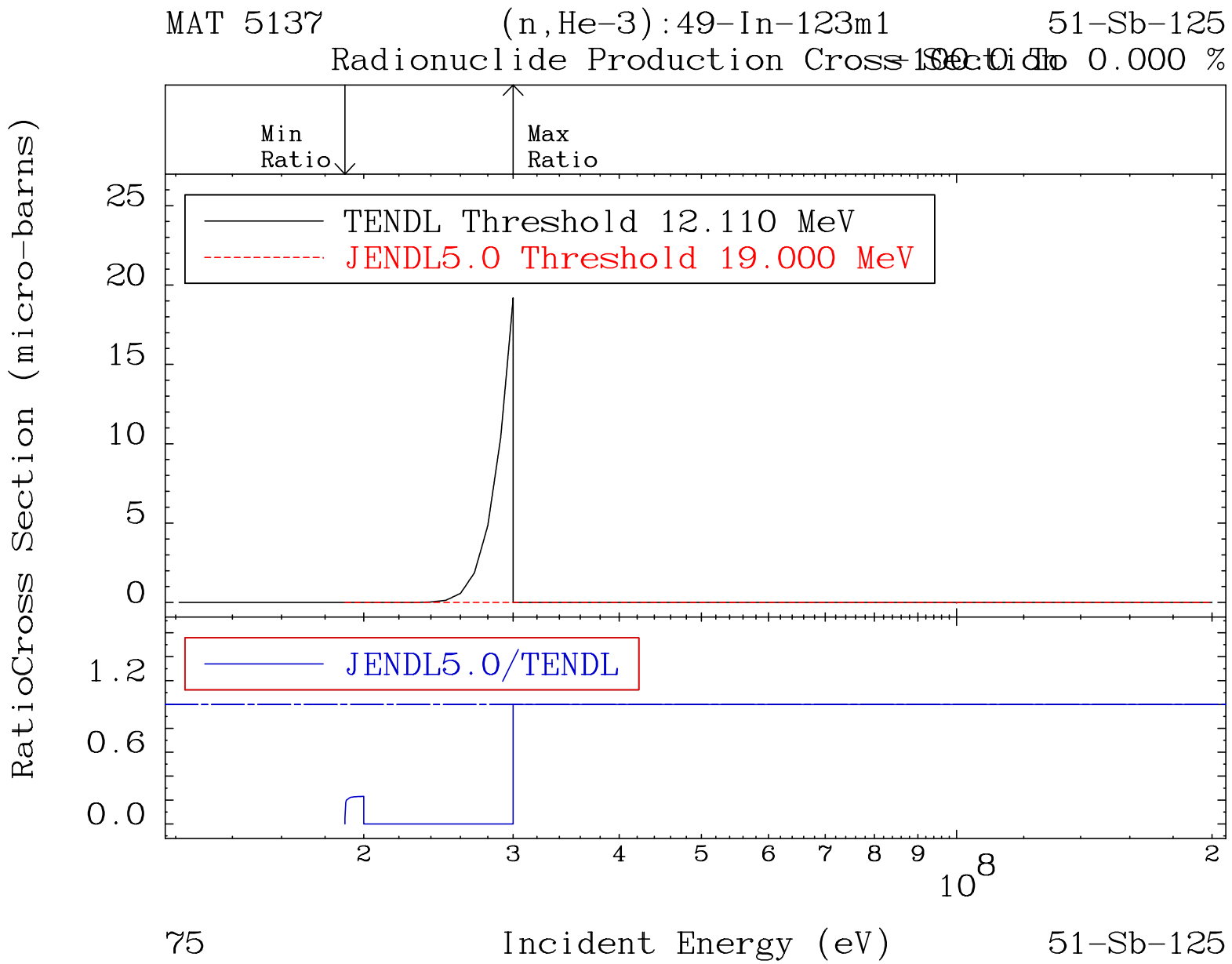

MAT 5137
(n,p):50-Sn-125g
51-Sb-125
Radionuclide Production Cross Section To 56.97 %
Min Ratio
Max Ratio
TENDL Threshold 1.5918 MeV
JENDL5.0 Threshold 4.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
70
51-Sb-125

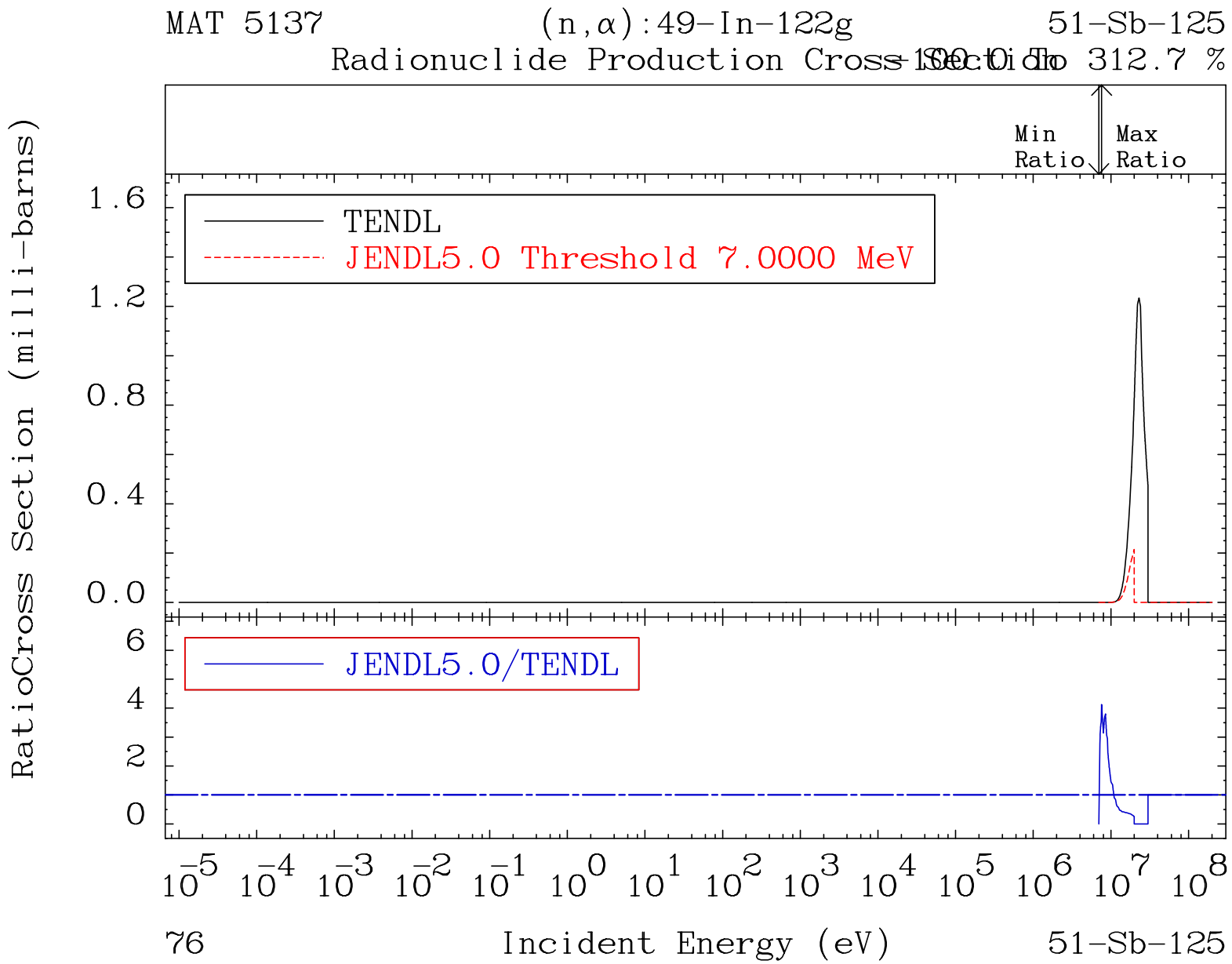

MAT 5137
(n,p):50-Sn-125m1
51-Sb-125
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 2.2000 MeV
JENDL5.0 Threshold 4.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
71
51-Sb-125

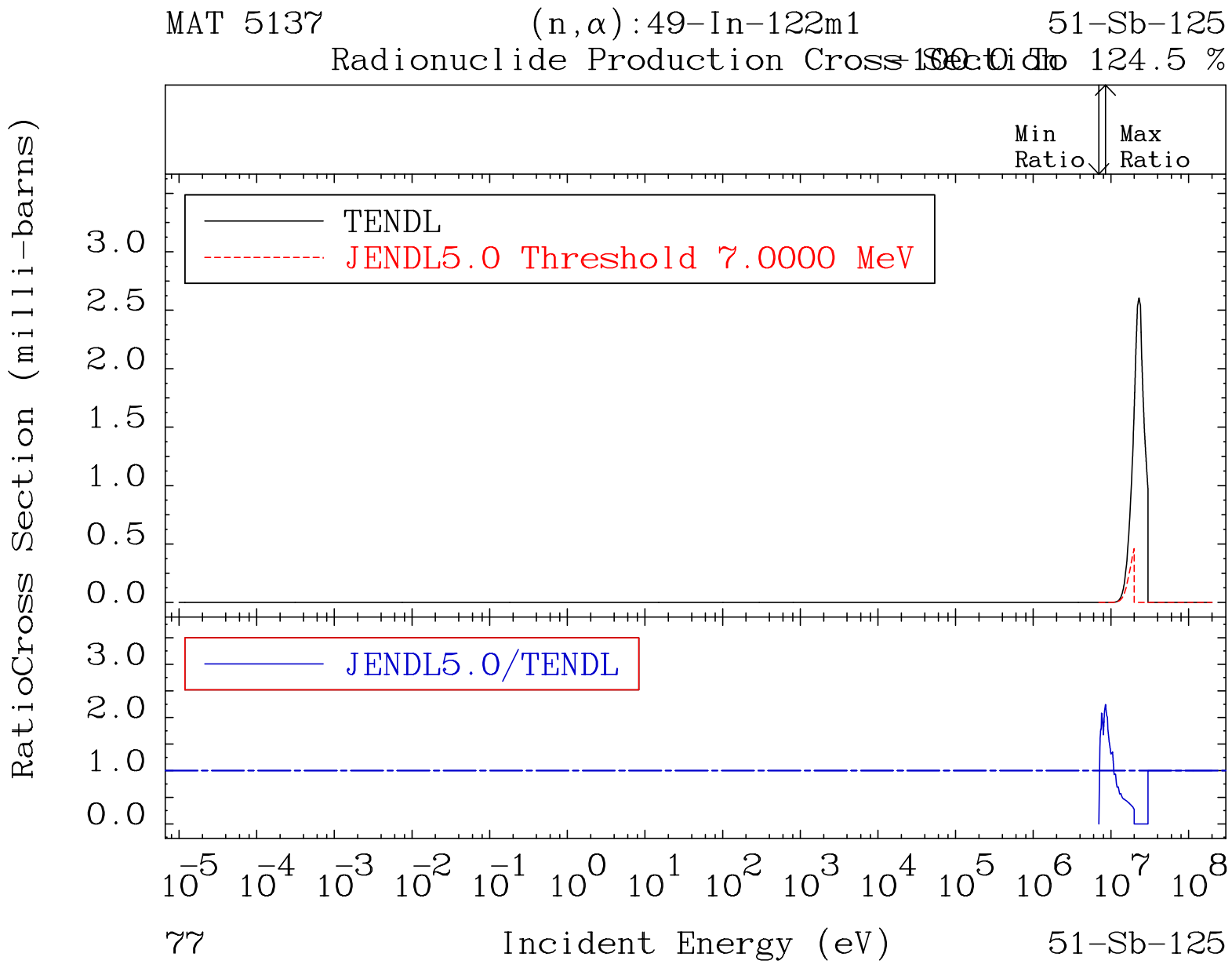

MAT 5137
(n,t):50-Sn-123g
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.3780 MeV
JENDL5.0 Threshold 10.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
200
100
0
8
2
3
4
5
6
7
8
2
10^7
10^8
72
Incident Energy (eV)
51-Sb-125

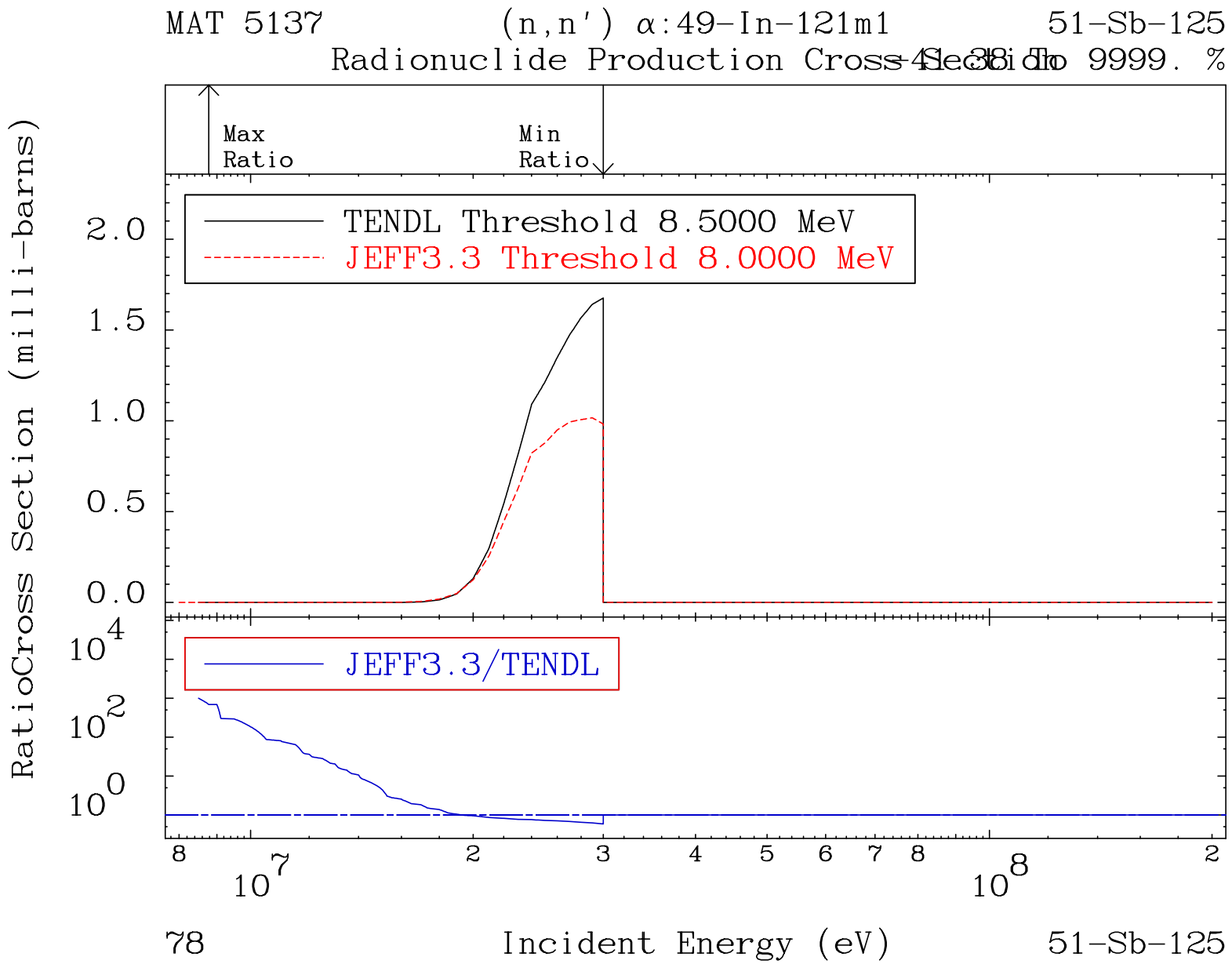

MAT 5137
(n,t):50-Sn-123m1
51-Sb-125
Radionuclide Production Cross Section To 7192. %
Min Ratio
Max Ratio
TENDL Threshold 7.4028 MeV
JENDL5.0 Threshold 10.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
1.2
0.8
0.4
0.0
80
40
0
8
10^7
2
3
4
5
6
7
8
10^8
2
73
Incident Energy (eV)
51-Sb-125

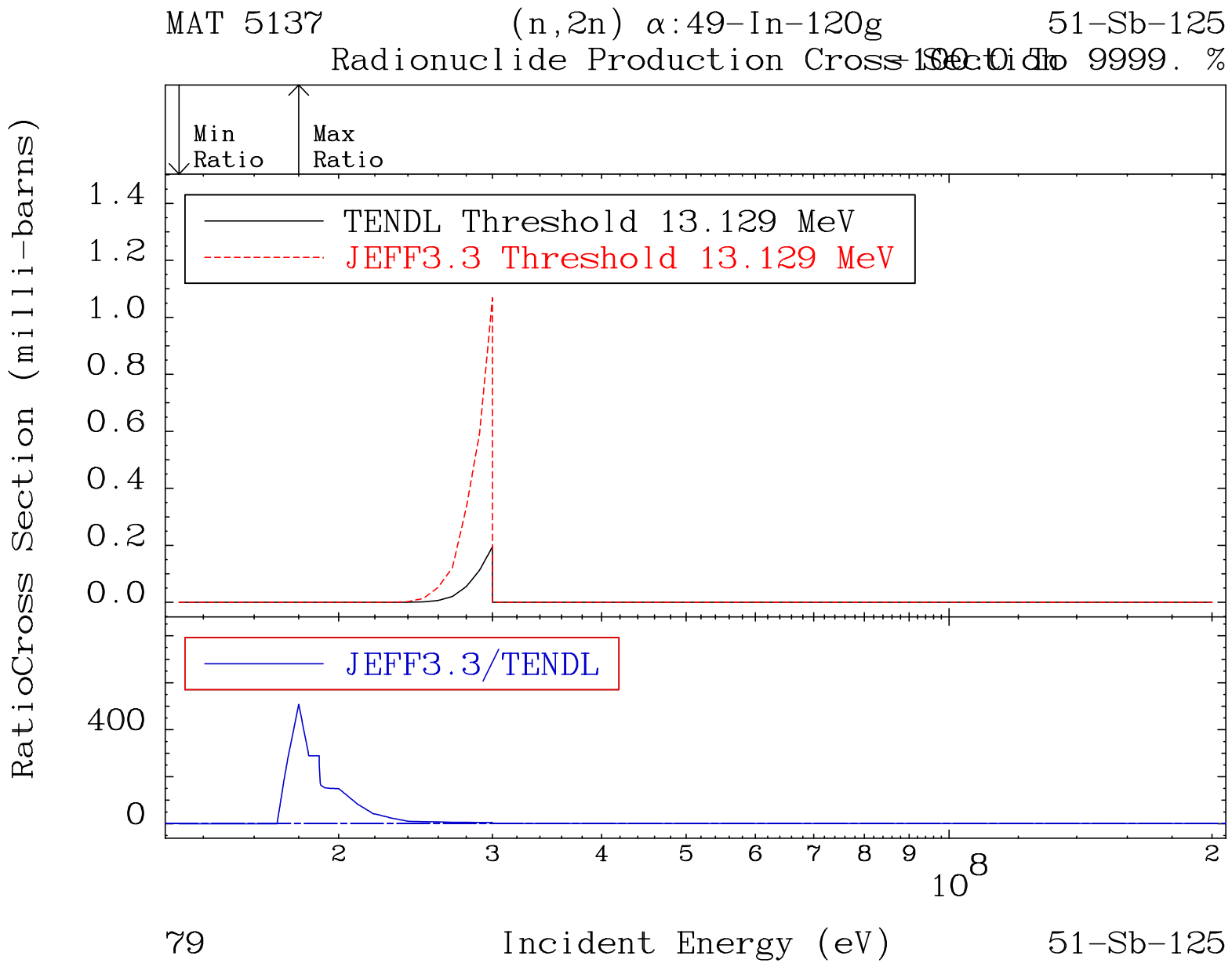

MAT 5137
(n,He-3):49-In-123g
51-Sb-125
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 11.780 MeV
JENDL5.0 Threshold 18.000 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
74
51-Sb-125

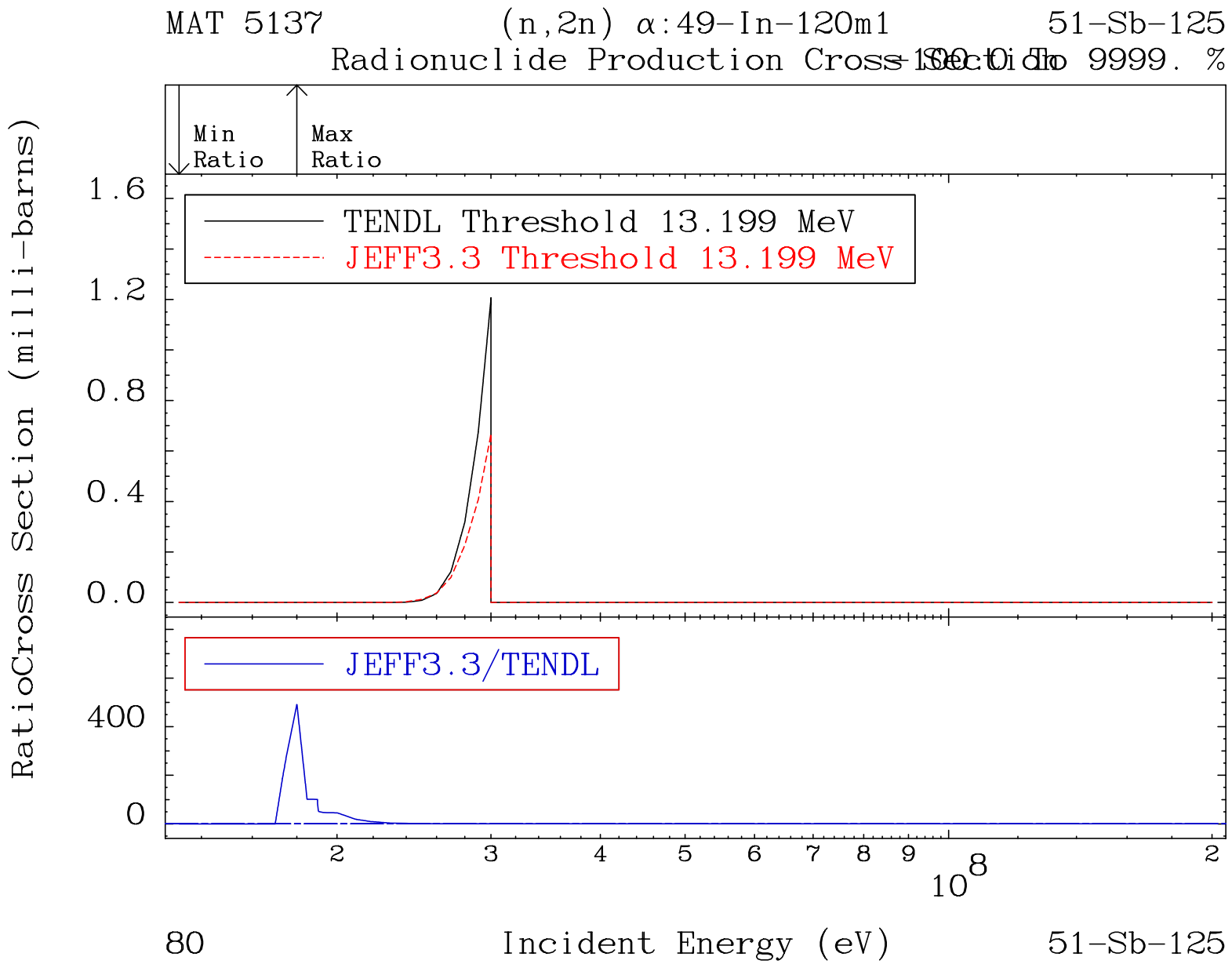

MAT 5137
(n,He-3):49-In-123m1
51-Sb-125
Radionuclide Production Cross Section
Uncertainty 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 12.110 MeV
JENDL5.0 Threshold 19.000 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
25
20
15
10
5
0
1.2
0.6
0.0
2
3
4
5
6
7
8
9
10^8
2
75
Incident Energy (eV)
51-Sb-125

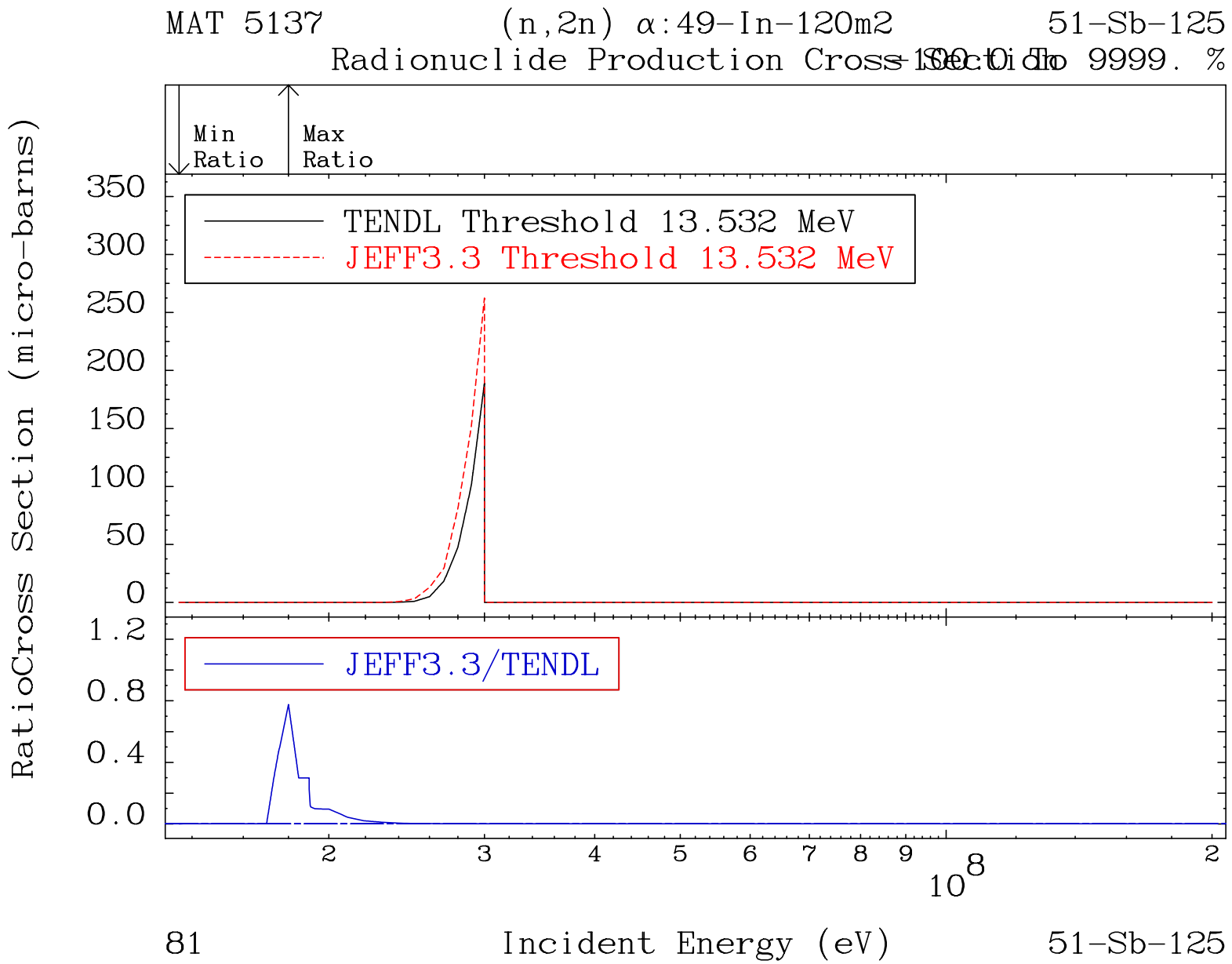

MAT 5137
(n,α):49-In-122g
51-Sb-125
Radionuclide Production Cross Section
Min Ratio = 100.0 To Max Ratio = 312.7 %
Min Ratio
Max Ratio
TENDL
JENDL5.0 Threshold 7.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
1.6
1.2
0.8
0.4
0.0
6
4
2
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
76
Incident Energy (eV)
51-Sb-125

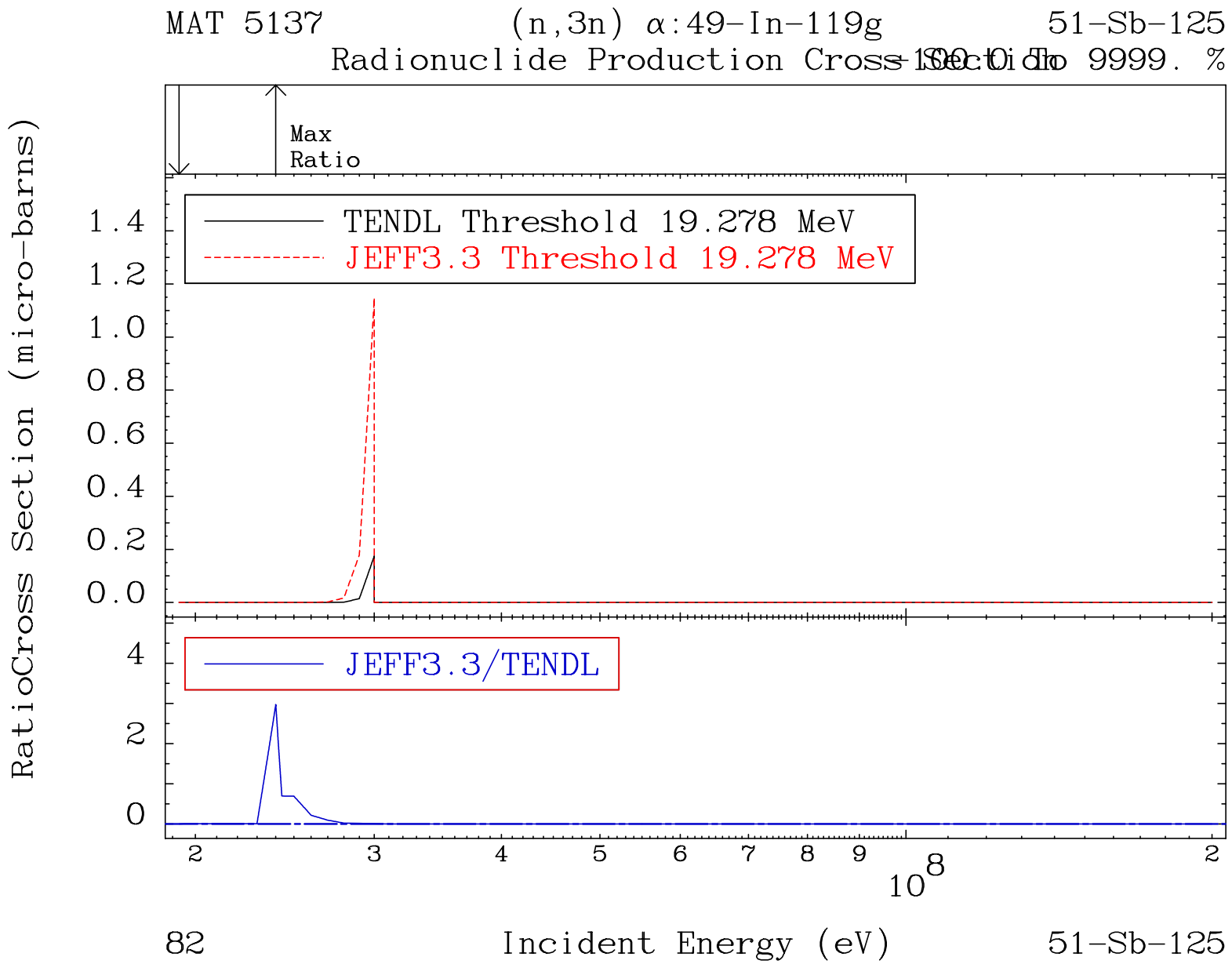

MAT 5137
(n,α):49-In-122m1
51-Sb-125
Radionuclide Production Cross Section To 124.5 %
Min Ratio
Max Ratio
TENDL
JENDL5.0 Threshold 7.0000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
3.0
2.0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
77
Incident Energy (eV)
51-Sb-125

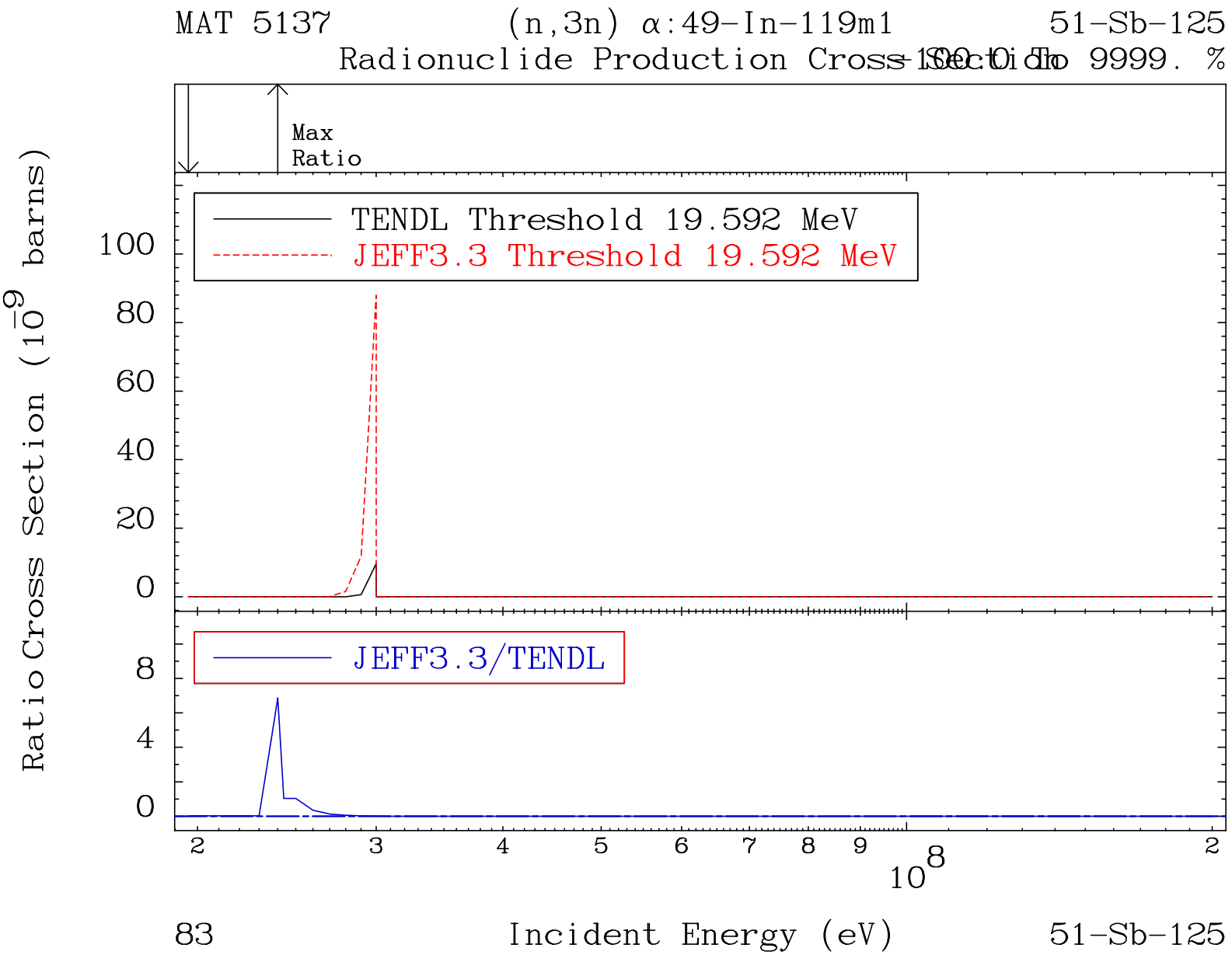

MAT 5137
(n,n') α:49-In-121m1
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 8.5000 MeV
JEFF3.3 Threshold 8.0000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
10^4
10^2
10^0
8
10^7
2
3
4
5
6
7
8
10^8
2
78
Incident Energy (eV)
51-Sb-125

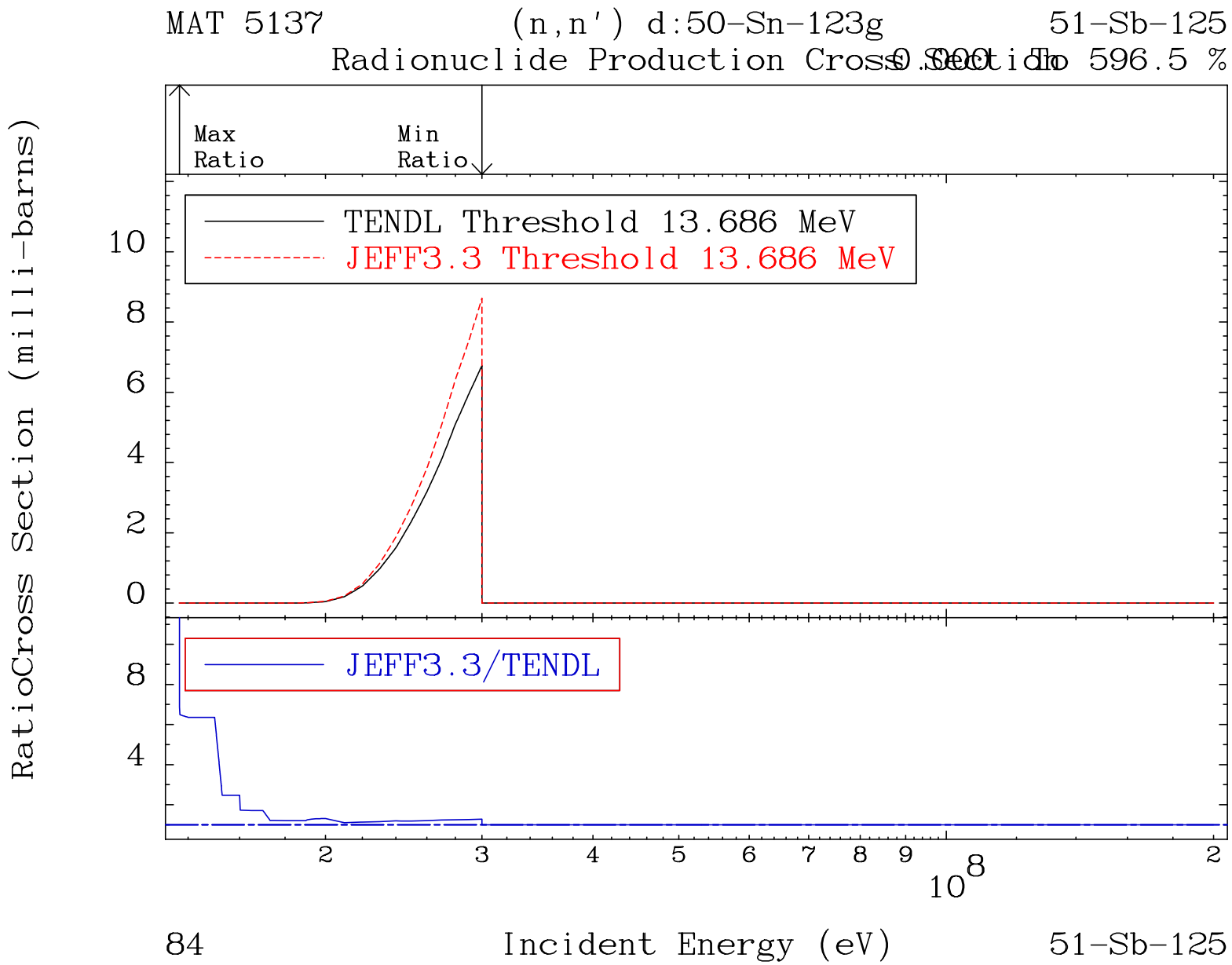

MAT 5137
(n,2n) α:49-In-120g
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 13.129 MeV
JEFF3.3 Threshold 13.129 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
400
0
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
51-Sb-125

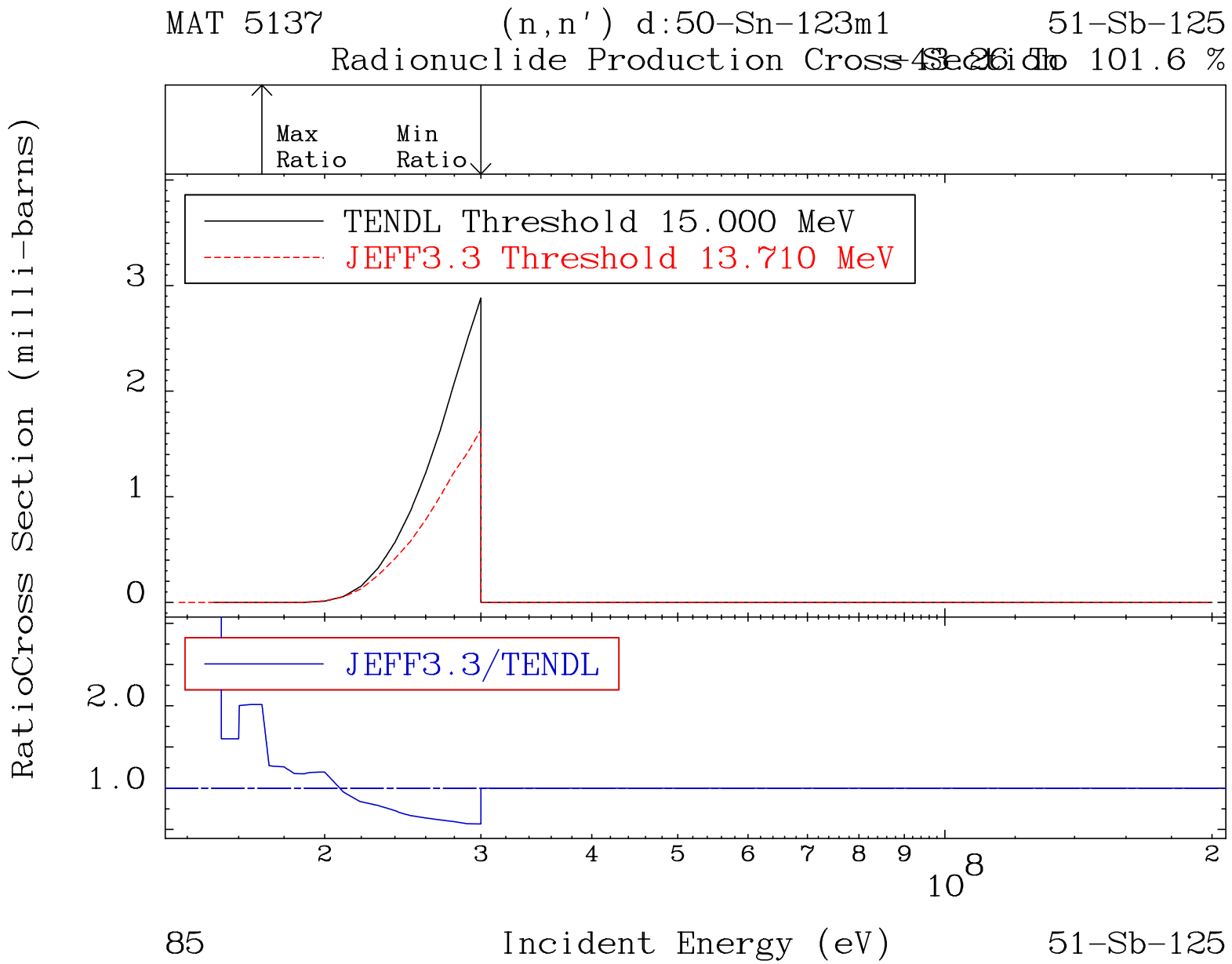

MAT 5137
(n,2n) α:49-In-120m1
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 13.199 MeV
JEFF3.3 Threshold 13.199 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.6
1.2
0.8
0.4
0.0
400
0
2
3
4
5
6
7
8
9
2
10^8
80
Incident Energy (eV)
51-Sb-125

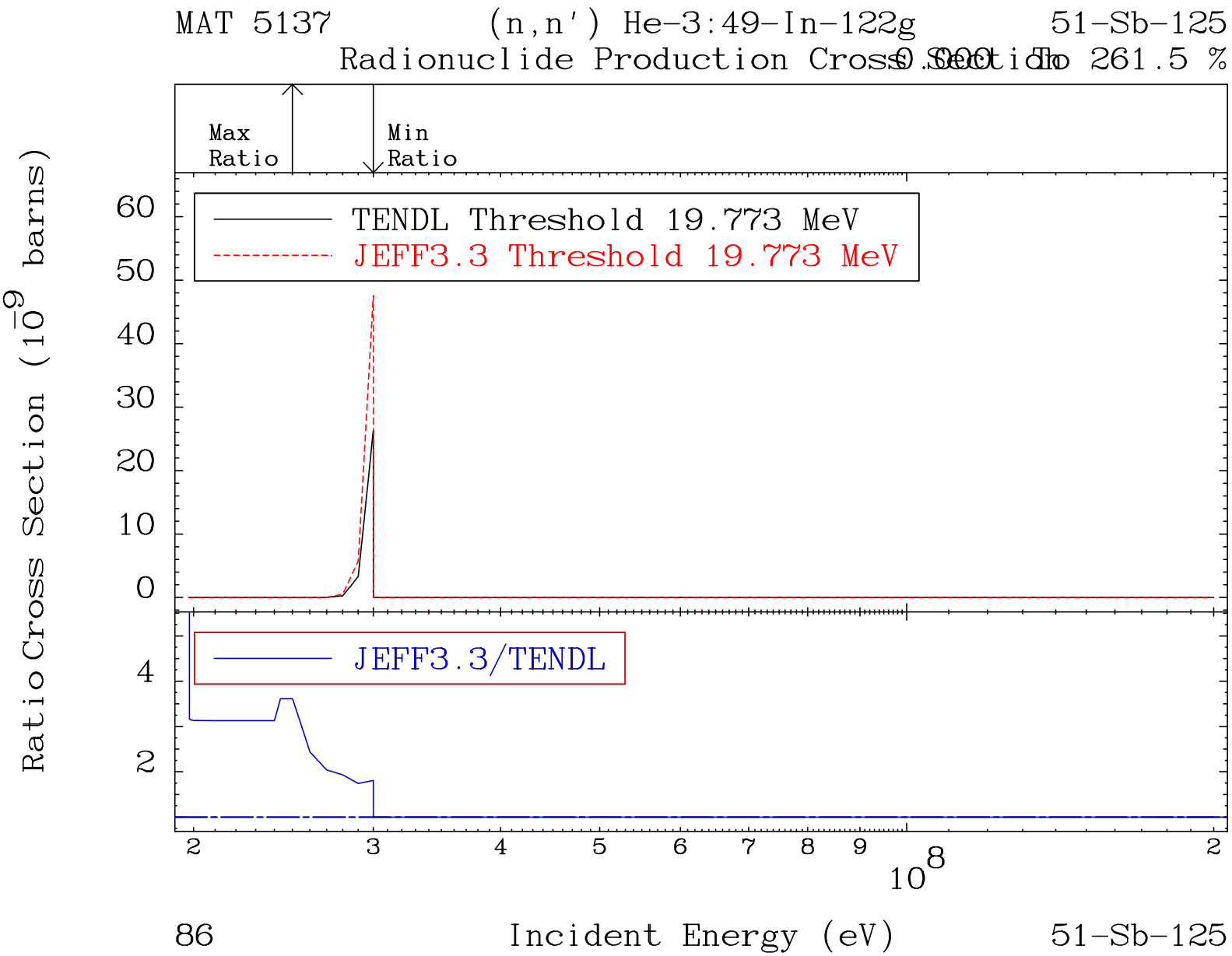

MAT 5137
(n,2n) α:49-In-120m2
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 13.532 MeV
JEFF3.3 Threshold 13.532 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
350
300
250
200
150
100
50
0
1.2
0.8
0.4
0.0
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
51-Sb-125

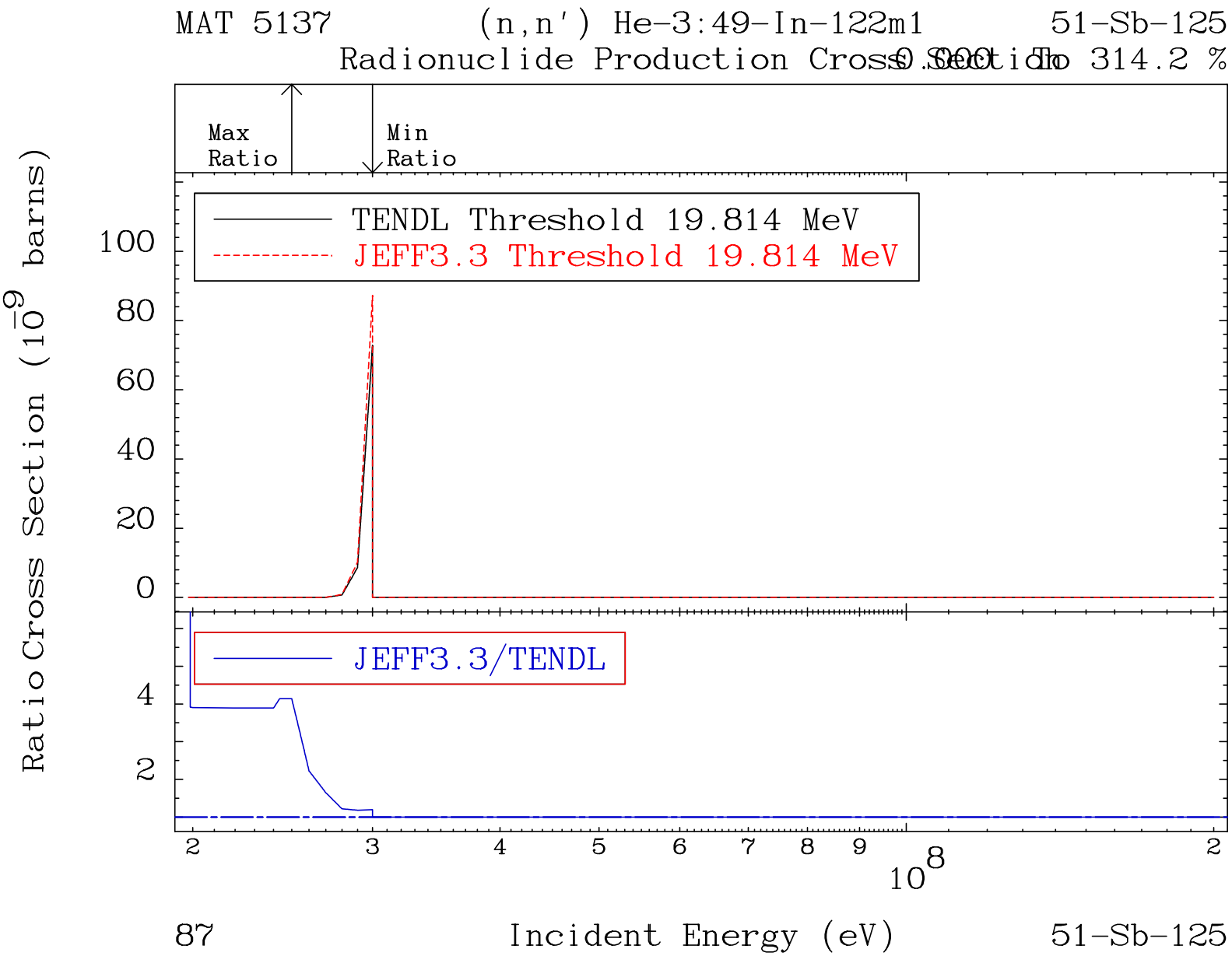

MAT 5137
(n,3n) α:49-In-119g
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Max
Ratio
TENDL Threshold 19.278 MeV
JEFF3.3 Threshold 19.278 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
4
2
0
2
3
4
5
6
7
8
9
10^8
2
82
Incident Energy (eV)
51-Sb-125

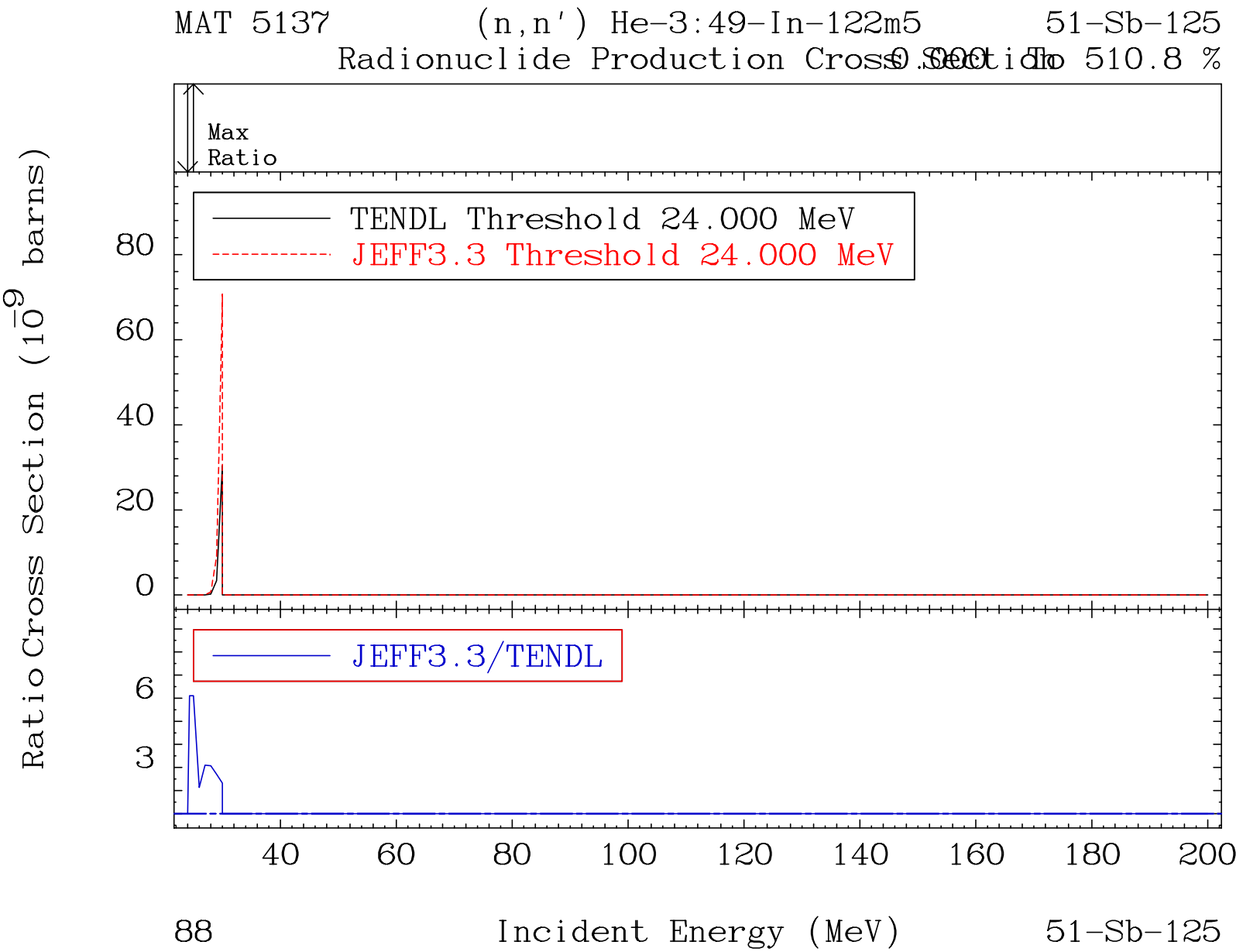

MAT 5137
(n,3n) α:49-In-119m1
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Max
Ratio
TENDL Threshold 19.592 MeV
JEFF3.3 Threshold 19.592 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
100
80
60
40
20
0
8
4
0
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
51-Sb-125

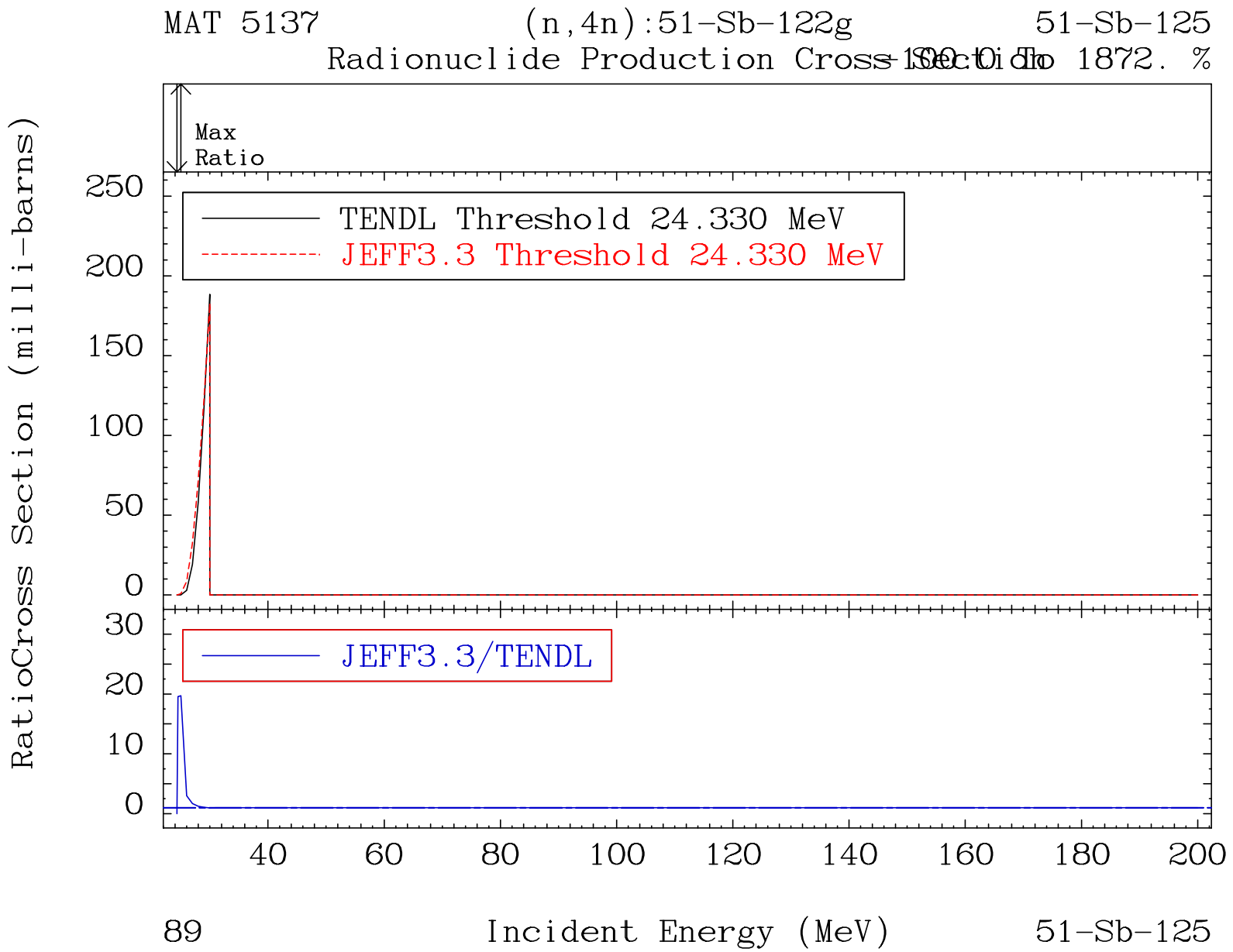

MAT 5137
(n,n') d:50-Sn-123g
51-Sb-125
Radionuclide Production Cross Section
0.000 To 596.5 %
Max Ratio
Min Ratio
TENDL Threshold 13.686 MeV
JEFF3.3 Threshold 13.686 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
10
8
6
4
2
0
8
4
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
51-Sb-125

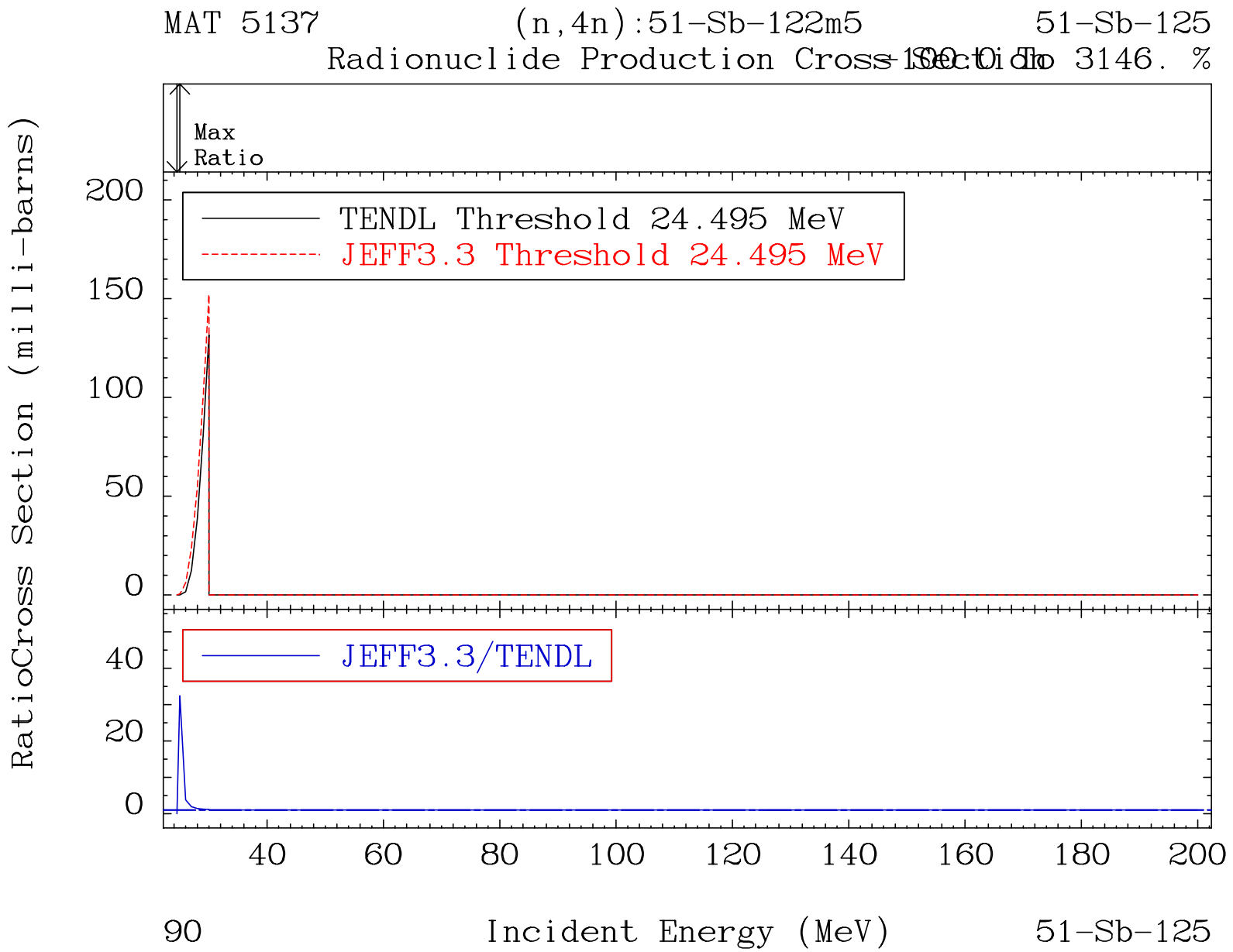

MAT 5137 (n,n') d:50-Sn-123m1 51-Sb-125
Radionuclide Production Cross Section To 101.6 %
Max Ratio
Min Ratio
TENDL Threshold 15.000 MeV
JEFF3.3 Threshold 13.710 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
85
51-Sb-125

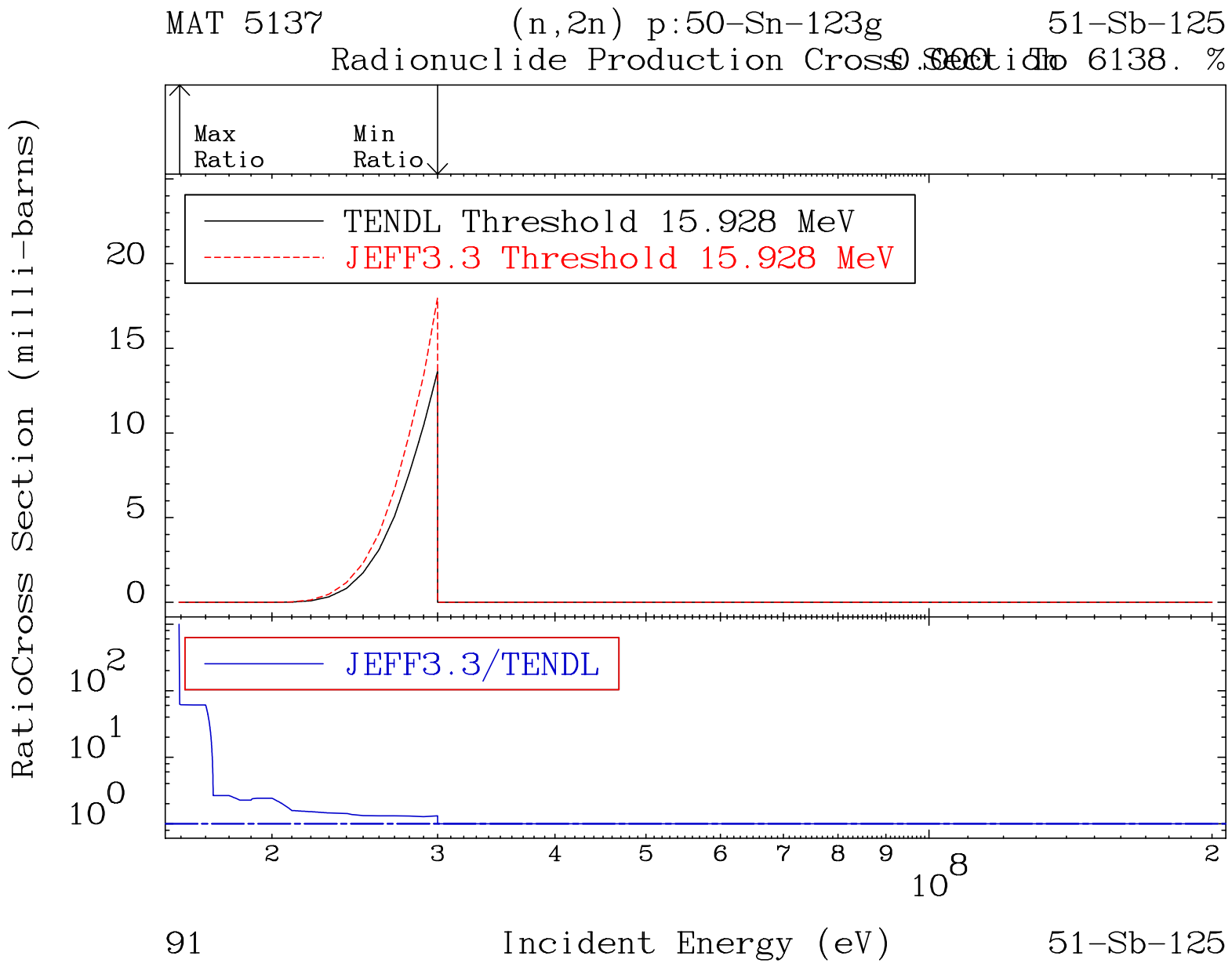

MAT 5137 (n,n') He-3:49-In-122g 51-Sb-125
Radionuclide Production Cross Section
0.000 To 261.5 %
Max Ratio
Min Ratio
TENDL Threshold 19.773 MeV
JEFF3.3 Threshold 19.773 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
60
50
40
30
20
10
0
4
2
2
3
4
5
6
7
8
9
10^8
2
86
Incident Energy (eV)
51-Sb-125

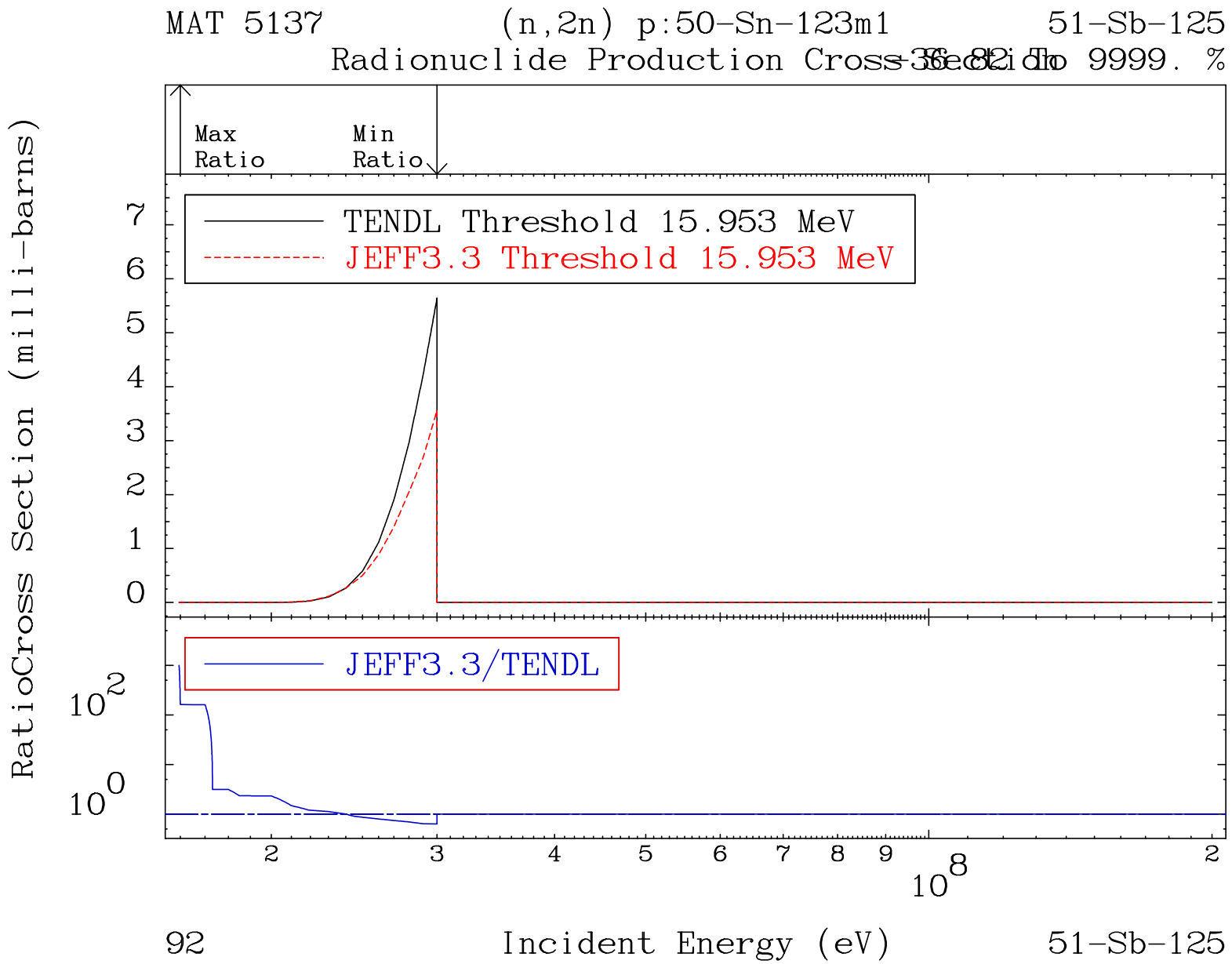

MAT 5137 (n,n') He-3:49-In-122m1 51-Sb-125
Radionuclide Production Cross Section
0.000 To 314.2 %
Max Ratio
Min Ratio
TENDL Threshold 19.814 MeV
JEFF3.3 Threshold 19.814 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
100
80
60
40
20
0
4
2
2
3
4
5
6
7
8
9
10^8
2
87
Incident Energy (eV)
51-Sb-125

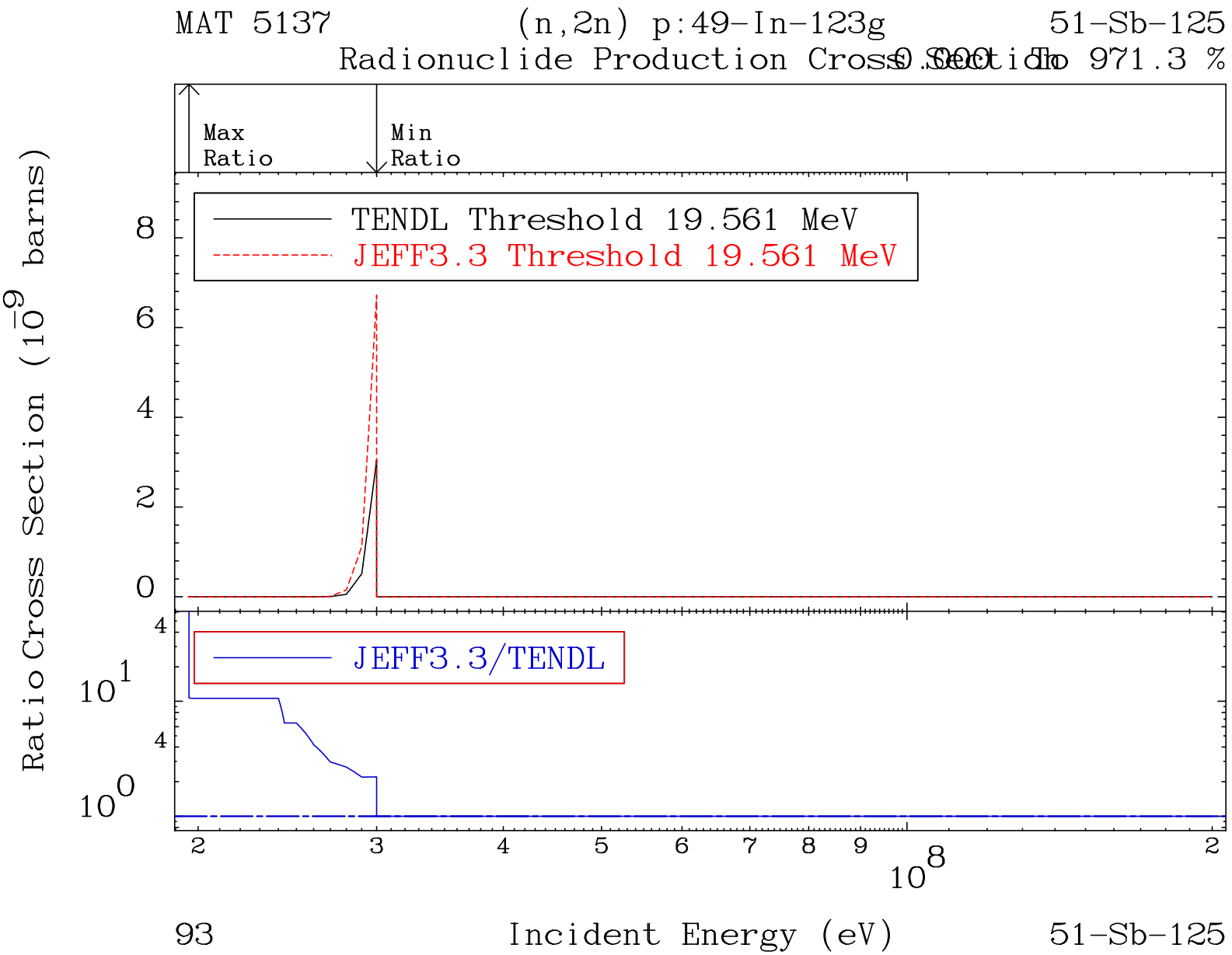

MAT 5137 (n,n') He-3:49-In-122m5 51-Sb-125
Radionuclide Production Cross Section
0.000 To 510.8 %
Max
Ratio
TENDL Threshold 24.000 MeV
JEFF3.3 Threshold 24.000 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
80
60
40
20
0
6
3
40
60
80
100
120
140
160
180
200
88
Incident Energy (MeV)
51-Sb-125

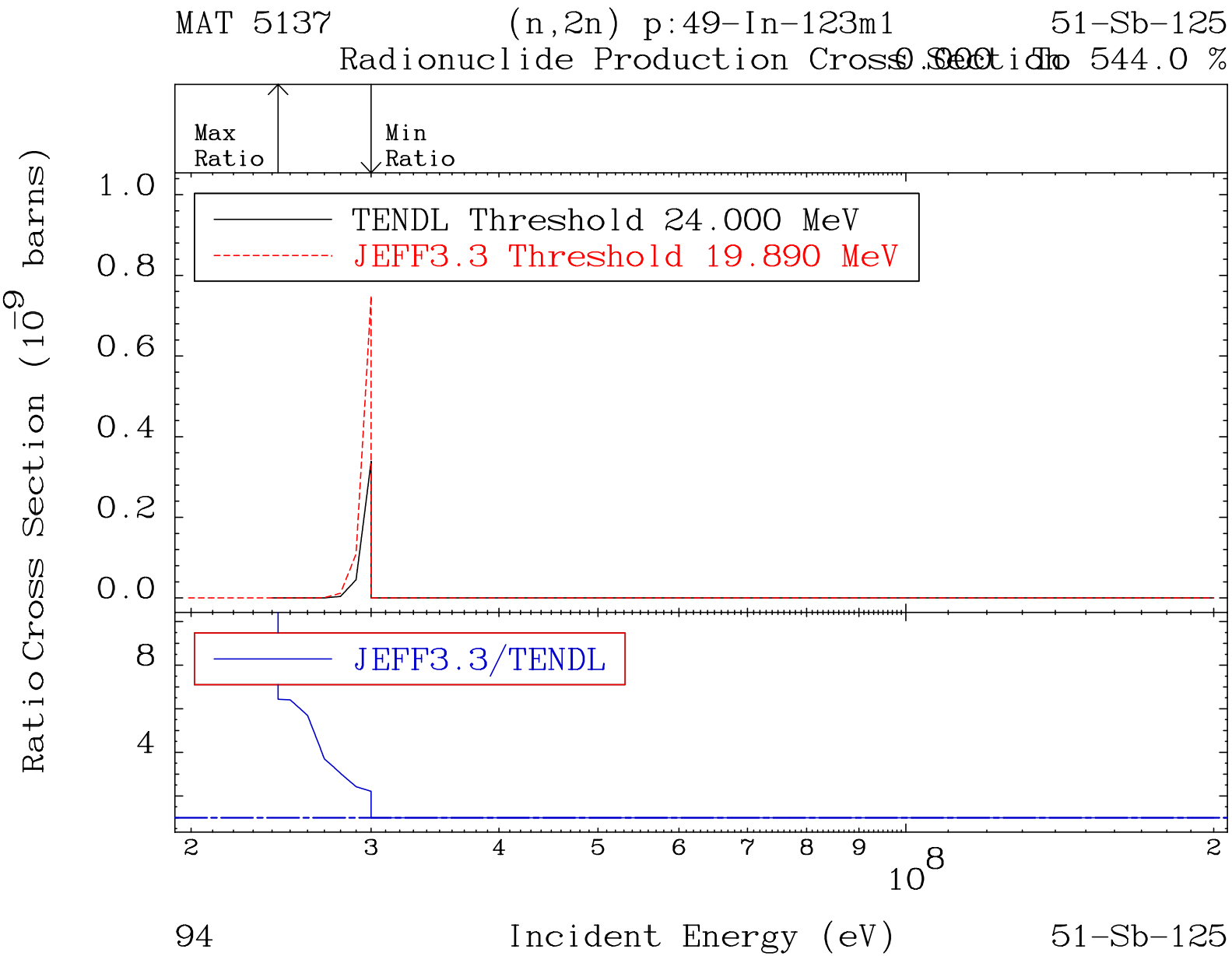

MAT 5137
(n,4n):51-Sb-122g
51-Sb-125
Radionuclide Production Cross Section
1.000 To 1872. %
Max
Ratio
TENDL Threshold 24.330 MeV
JEFF3.3 Threshold 24.330 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
30
20
10
0
40
60
80
100
120
140
160
180
200
89
Incident Energy (MeV)
51-Sb-125

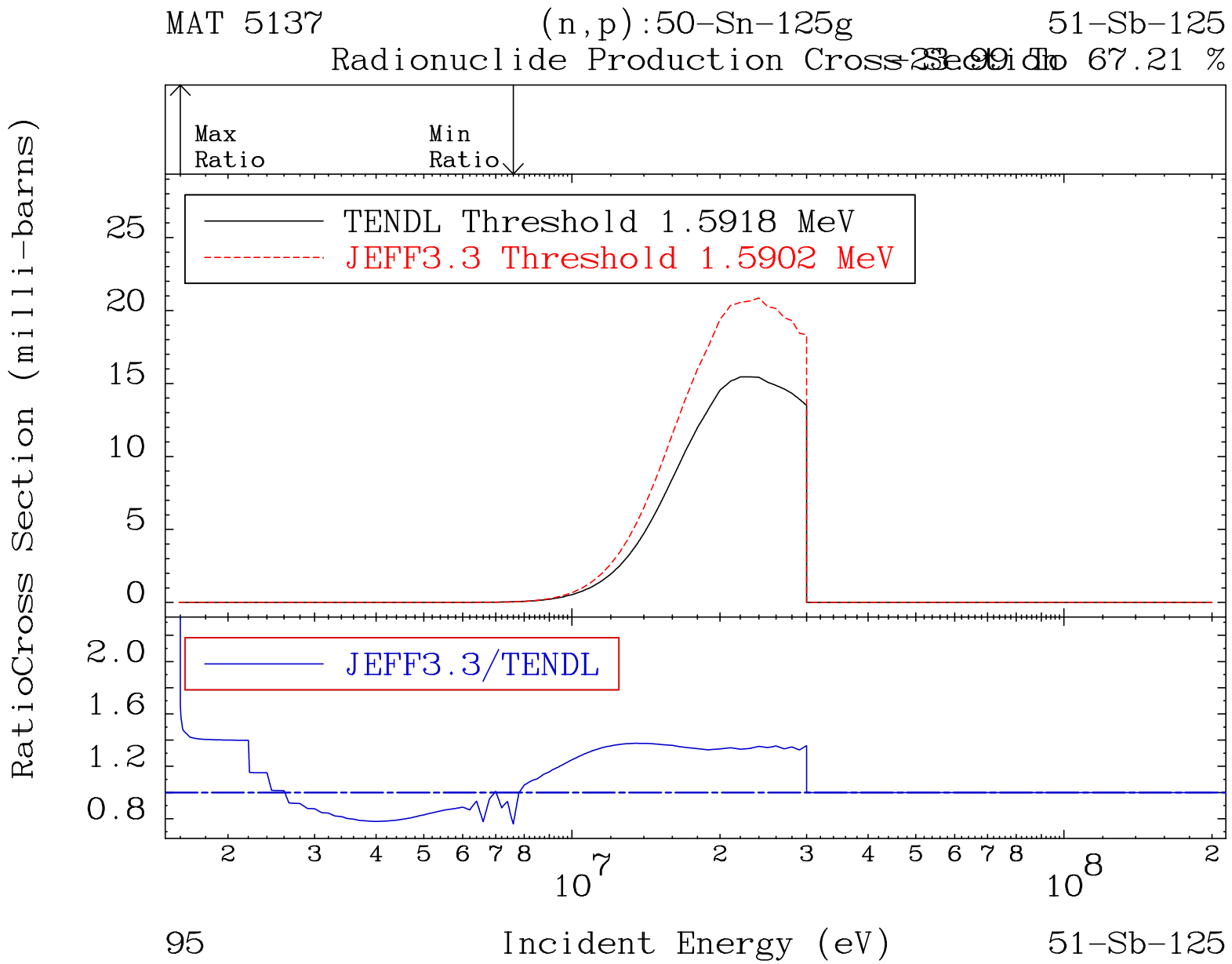

MAT 5137
(n,4n):51-Sb-122m5
51-Sb-125
Radionuclide Production Cross Section To 3146. %
Max
Ratio
TENDL Threshold 24.495 MeV
JEFF3.3 Threshold 24.495 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
40
20
0
40
60
80
100
120
140
160
180
200
90
Incident Energy (MeV)
51-Sb-125

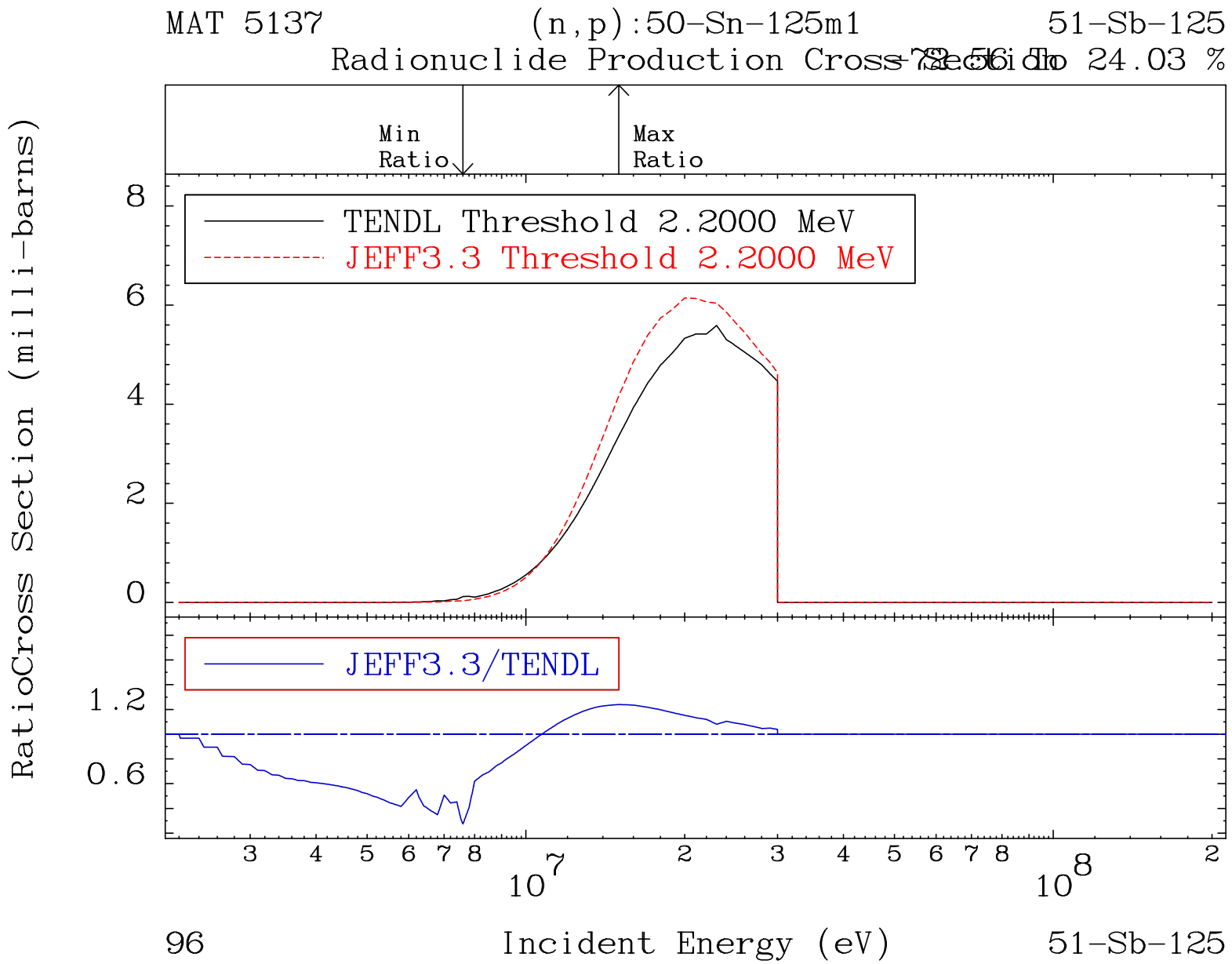

MAT 5137
(n,2n) p:50-Sn-123g
51-Sb-125
Radionuclide Production Cross Section
0.000 To 6138. %
Max Ratio
Min Ratio
TENDL Threshold 15.928 MeV
JEFF3.3 Threshold 15.928 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
51-Sb-125

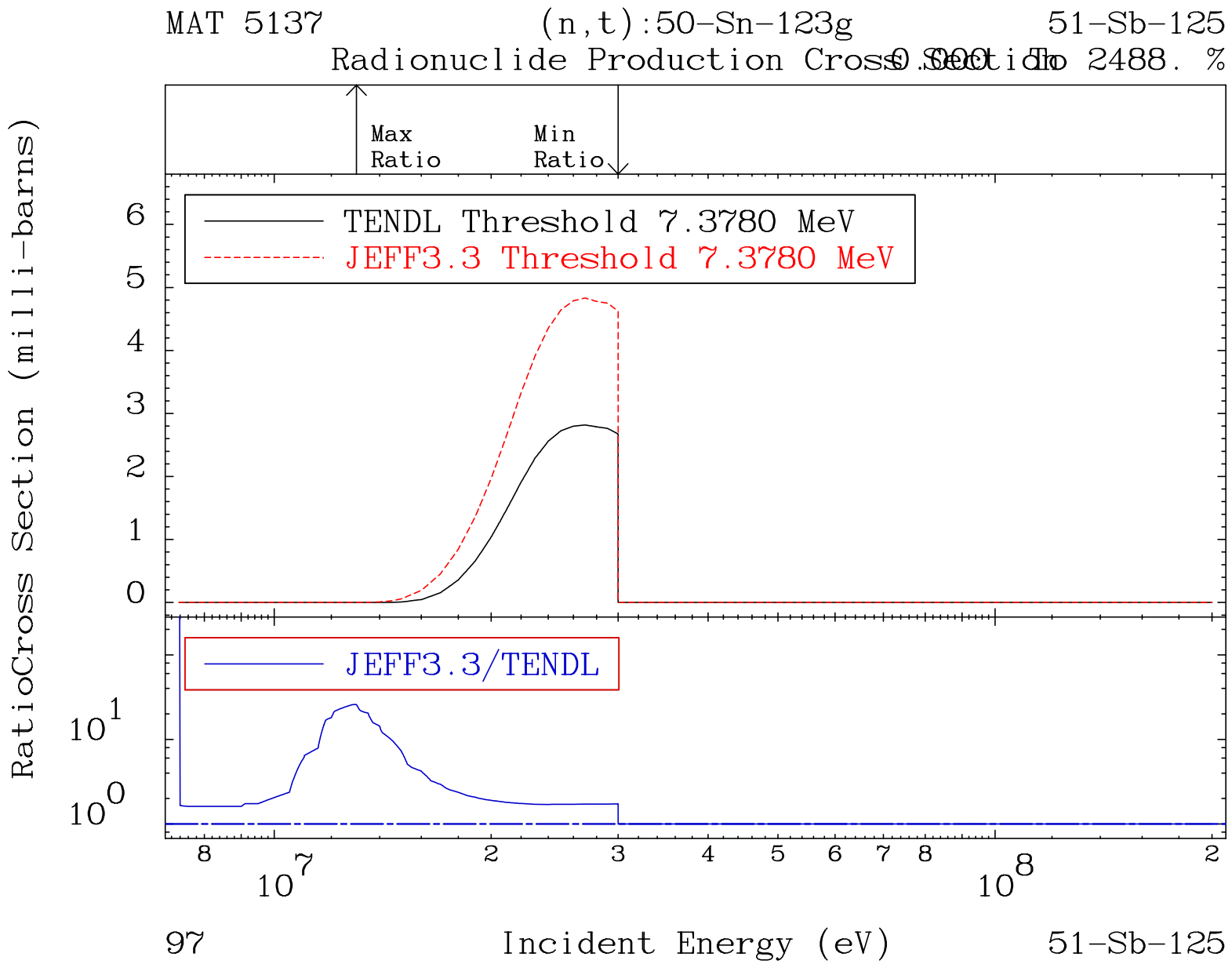

MAT 5137
(n,2n) p:50-Sn-123m1
51-Sb-125
Radionuclide Production Cross Section To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 15.953 MeV
JEFF3.3 Threshold 15.953 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
92
51-Sb-125

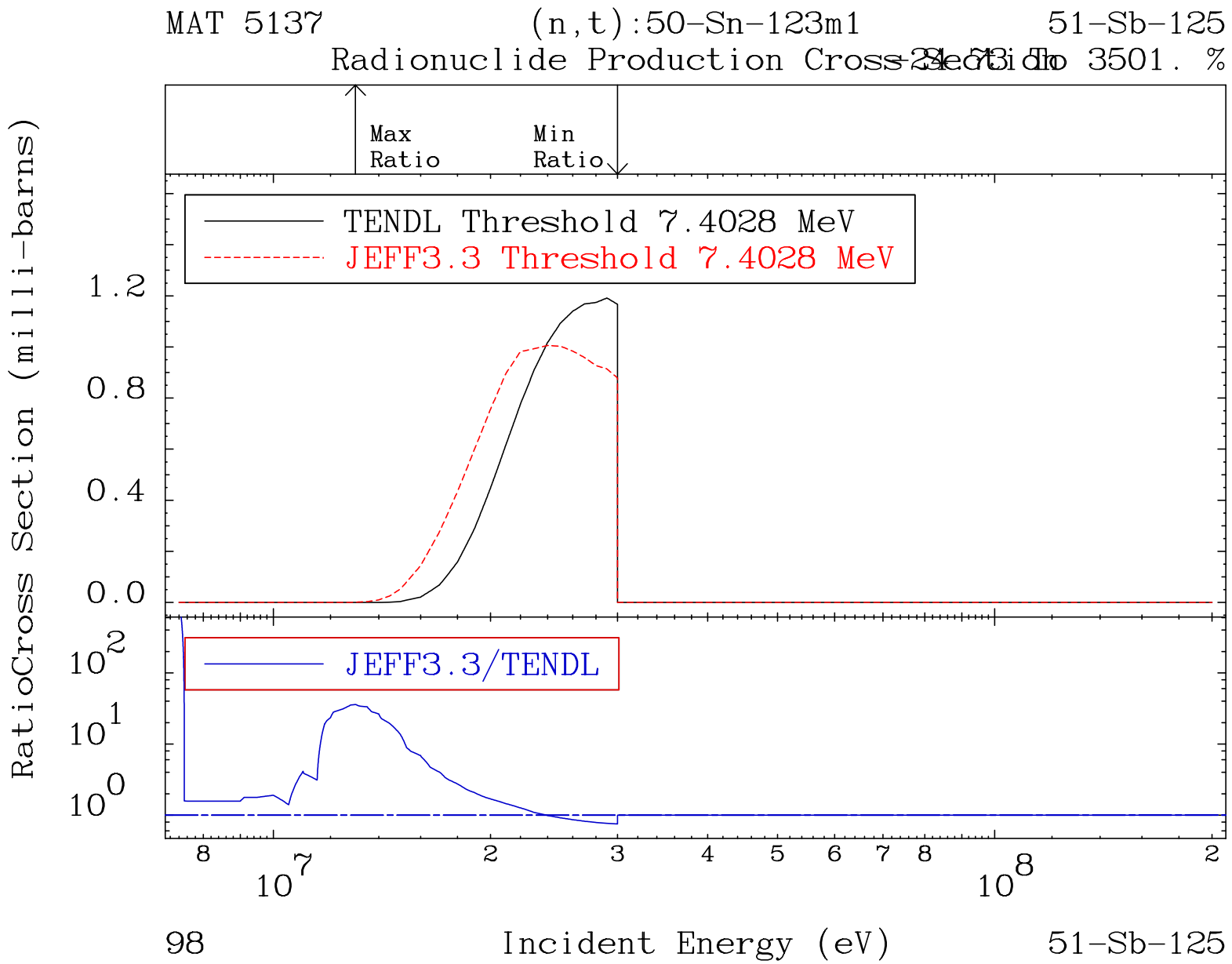

MAT 5137
(n,2n) p:49-In-123g
51-Sb-125
Radionuclide Production Cross Section
0.000 To 971.3 %
Max Ratio
Min Ratio
TENDL Threshold 19.561 MeV
JEFF3.3 Threshold 19.561 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
Incident Energy (eV)
93
51-Sb-125

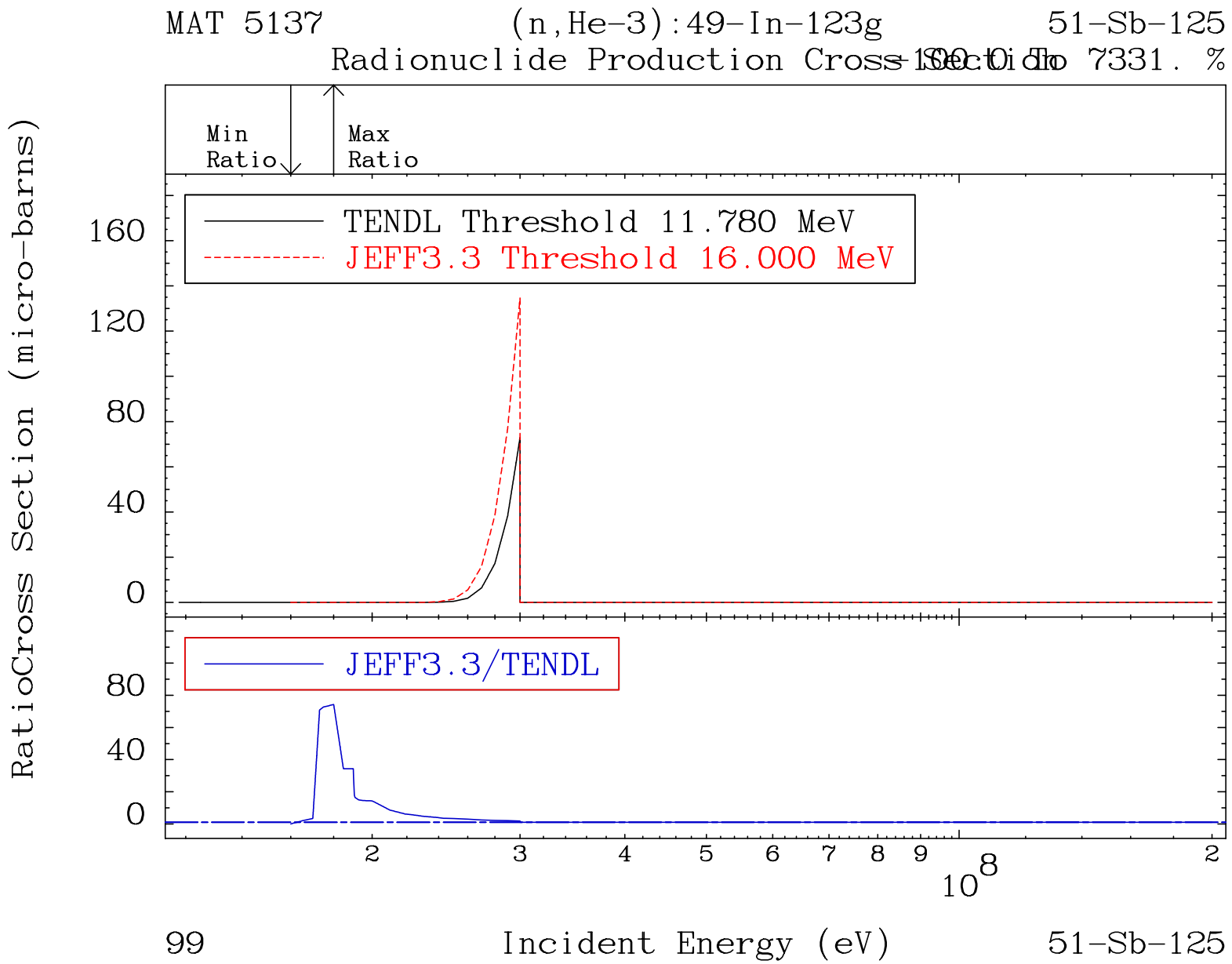

MAT 5137
(n,2n) p:49-In-123m1
51-Sb-125
Radionuclide Production Cross Section
0.000 To 544.0 %
Max Ratio
Min Ratio
TENDL Threshold 24.000 MeV
JEFF3.3 Threshold 19.890 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
1.0
0.8
0.6
0.4
0.2
0.0
8
4
2
3
4
5
6
7
8
9
2
10^8
94
Incident Energy (eV)
51-Sb-125

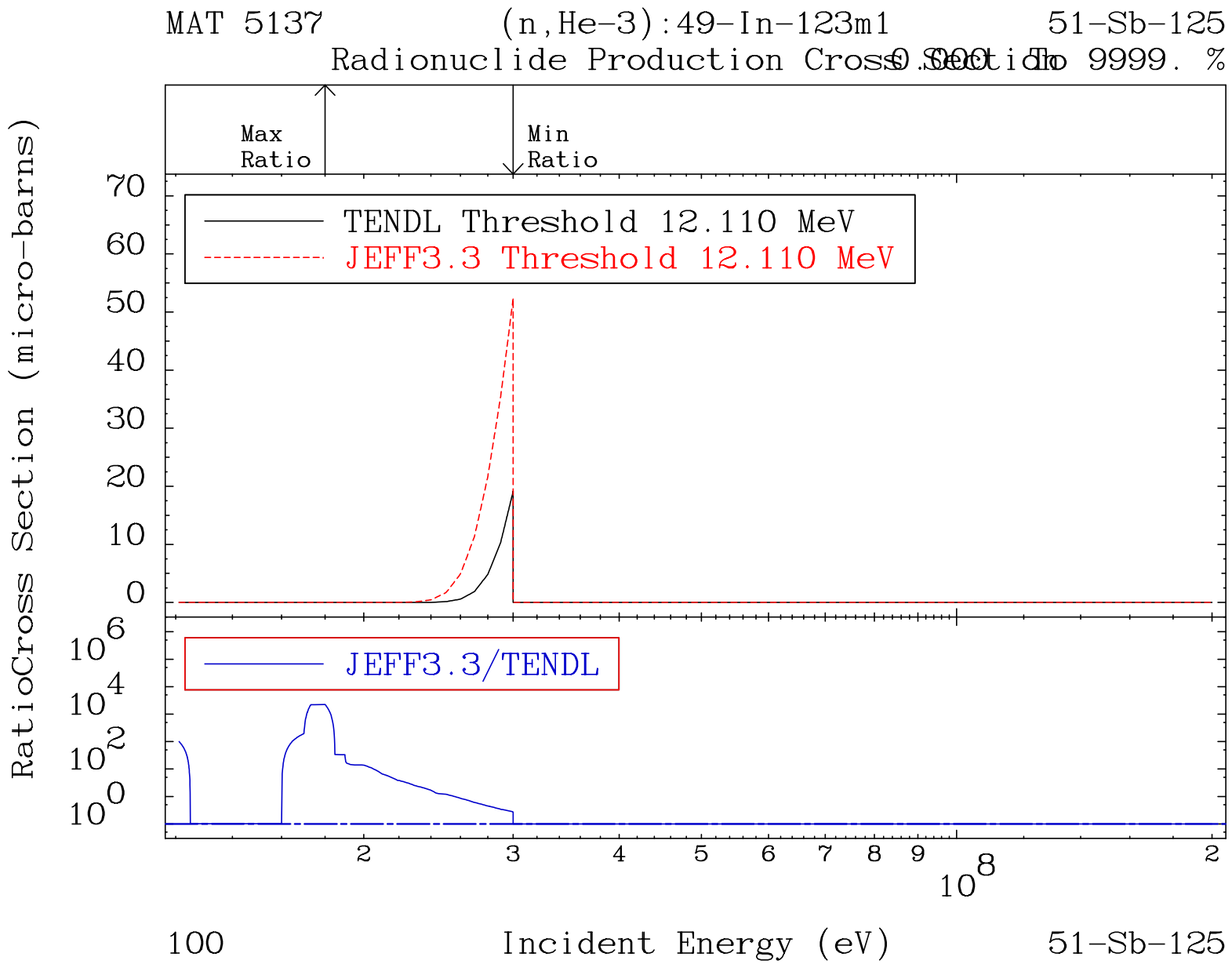

MAT 5137
(n,p):50-Sn-125g
51-Sb-125
Radionuclide Production Cross Section To 67.21 %
Max Ratio
Min Ratio
TENDL Threshold 1.5918 MeV
JEFF3.3 Threshold 1.5902 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
2.0
1.6
1.2
0.8
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
95
Incident Energy (eV)
51-Sb-125

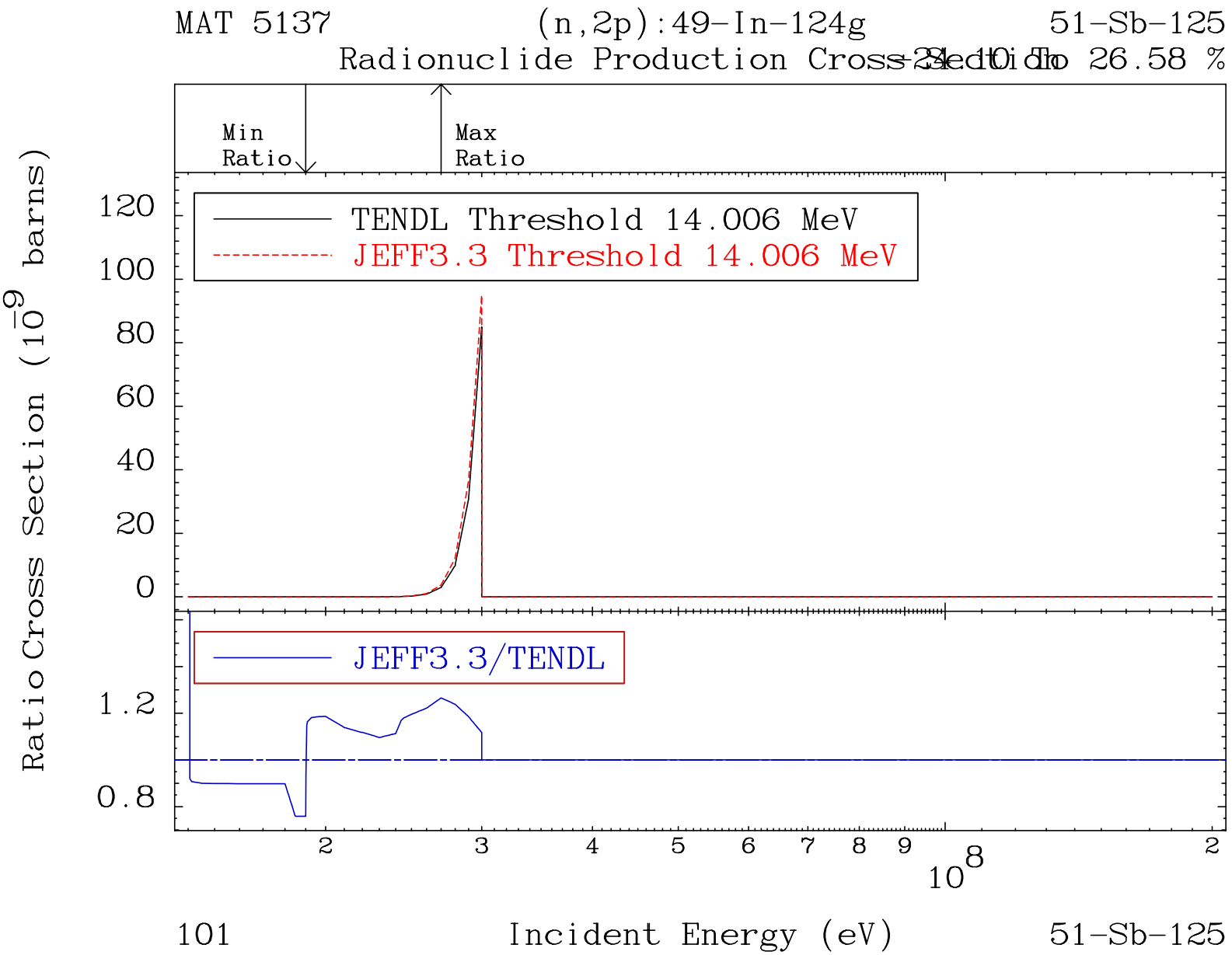

MAT 5137
(n,p):50-Sn-125m1
51-Sb-125
Radionuclide Production Cross Section To 24.03 %
Min Ratio
Max Ratio
TENDL Threshold 2.2000 MeV
JEFF3.3 Threshold 2.2000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
96
51-Sb-125

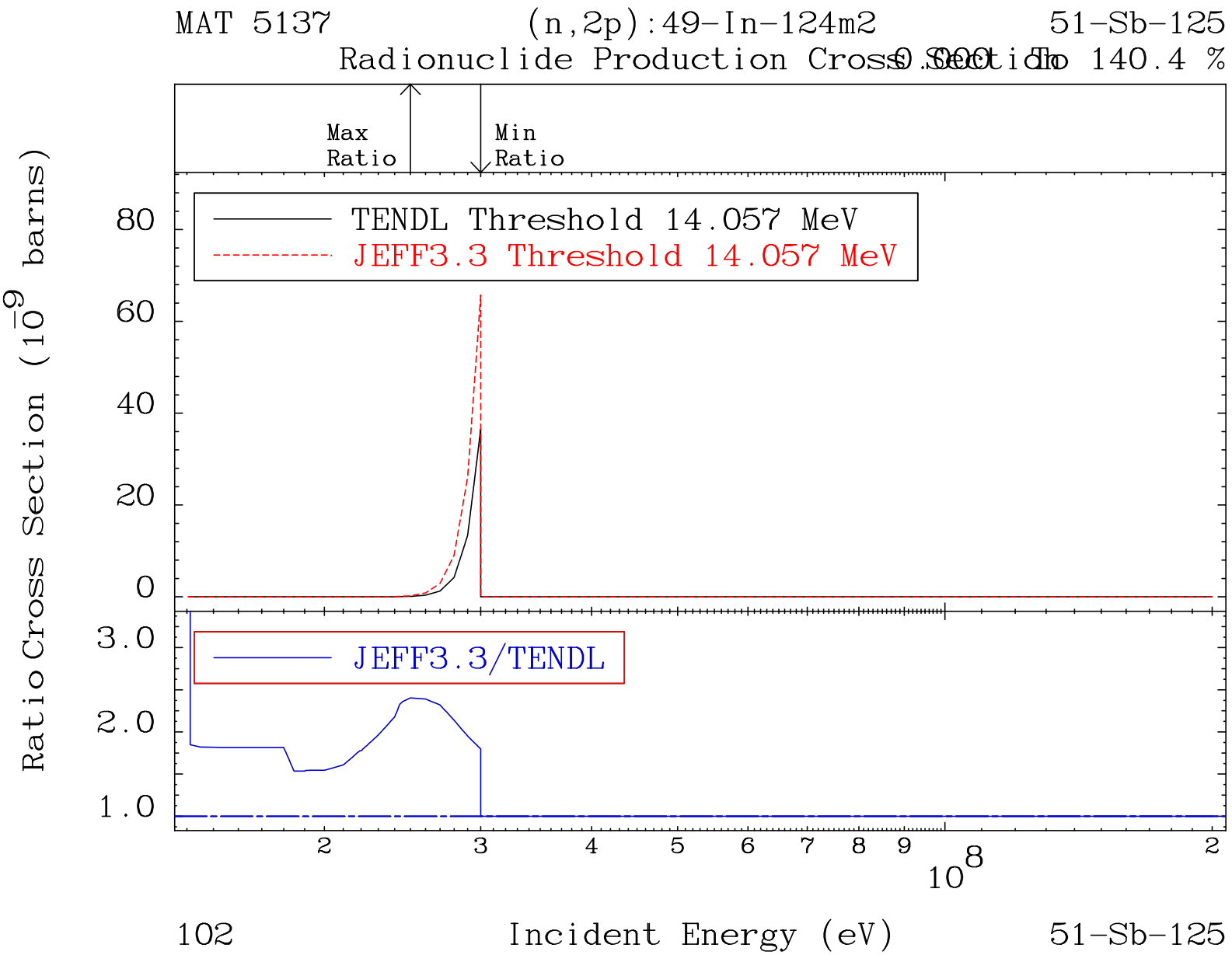

MAT 5137
(n,t):50-Sn-123g
51-Sb-125
Radionuclide Production Cross Section
0.000 To 2488. %
Max Ratio
Min Ratio
TENDL Threshold 7.3780 MeV
JEFF3.3 Threshold 7.3780 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
97
51-Sb-125

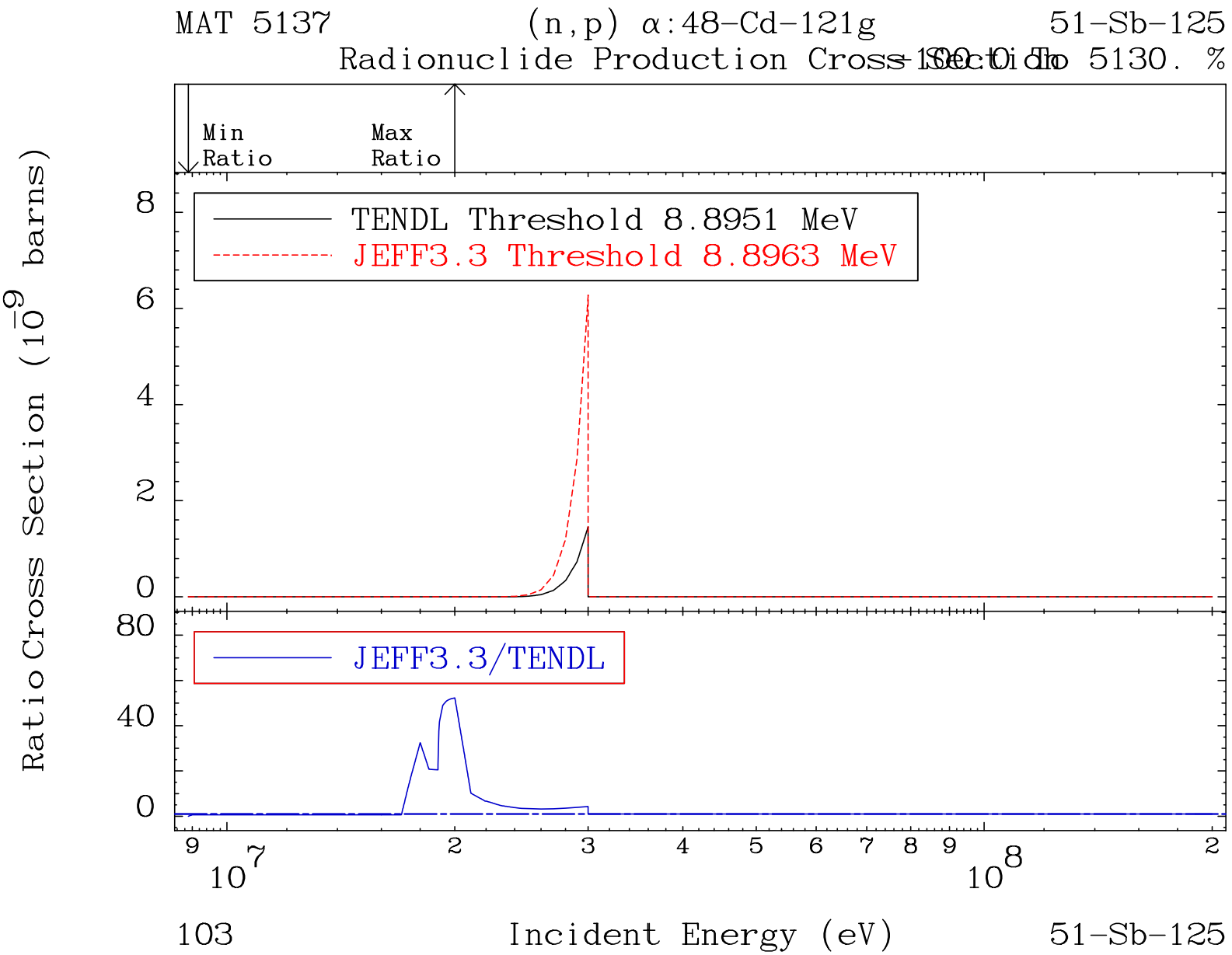

MAT 5137
(n,t):50-Sn-123m1
51-Sb-125
Radionuclide Production Cross Section To 3501. %
Max Ratio
Min Ratio
TENDL Threshold 7.4028 MeV
JEFF3.3 Threshold 7.4028 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.2
0.8
0.4
0.0
10^2
10^1
10^0
8
10^7
2
3
4
5
6
7
8
10^8
2
98
Incident Energy (eV)
51-Sb-125

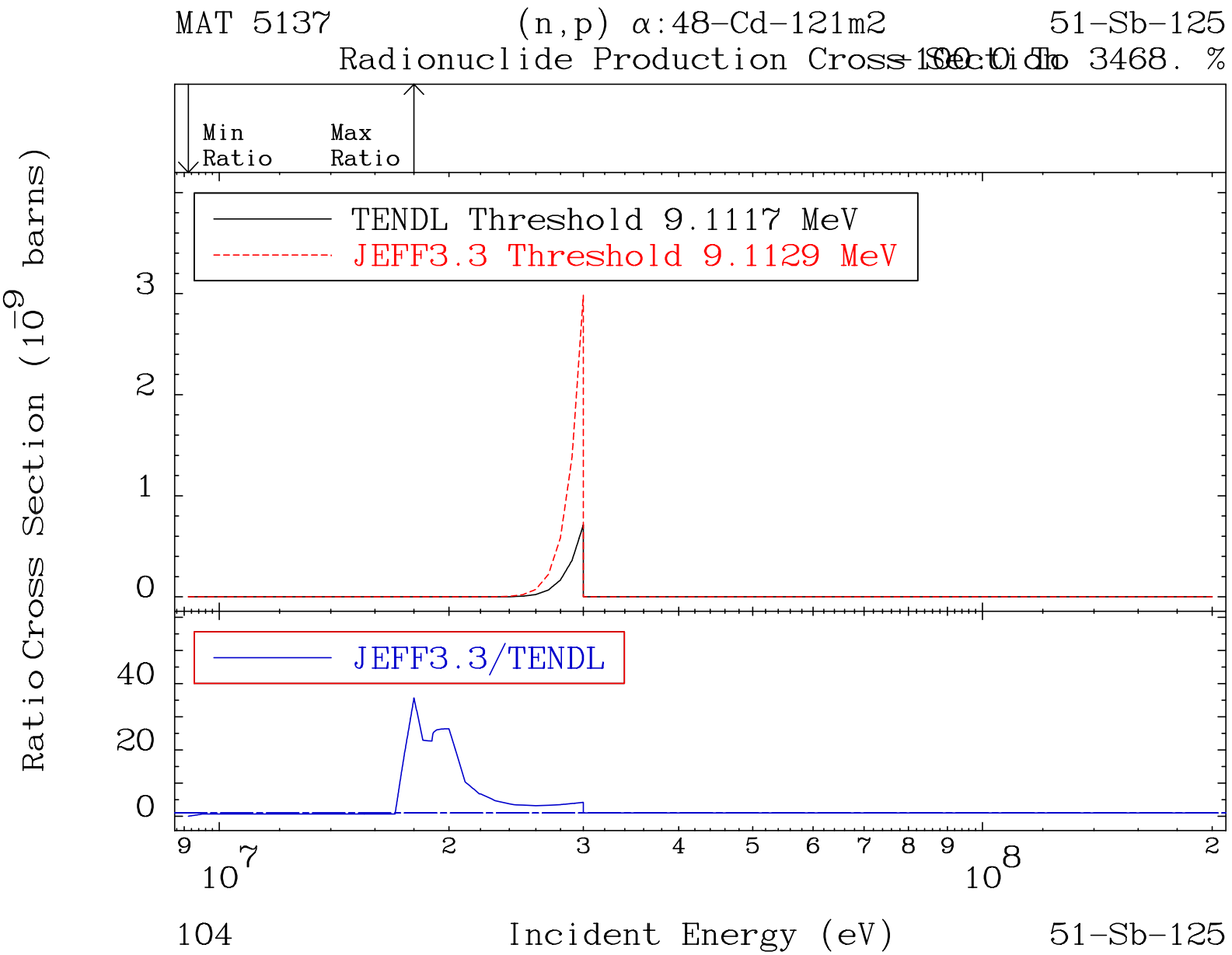

MAT 5137
(n,He-3):49-In-123g
51-Sb-125
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 11.780 MeV
JEFF3.3 Threshold 16.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
99
51-Sb-125


MAT 5137
(n,He-3):49-In-123m1
51-Sb-125
Radionuclide Production Cross Section
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 12.110 MeV
JEFF3.3 Threshold 12.110 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
70
60
50
40
30
20
10
0
10^6
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
100
Incident Energy (eV)
51-Sb-125


MAT 5137
(n,2p):49-In-124g
51-Sb-125
Radionuclide Production Cross Section To 26.58 %
Min Ratio
Max Ratio
TENDL Threshold 14.006 MeV
JEFF3.3 Threshold 14.006 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
120
100
80
60
40
20
0
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
101
Incident Energy (eV)
51-Sb-125


MAT 5137
(n,2p):49-In-124m2
51-Sb-125
Radionuclide Production Cross Section
0.000 To 140.4 %
Max Ratio
Min Ratio
TENDL Threshold 14.057 MeV
JEFF3.3 Threshold 14.057 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
80
60
40
20
0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
102
Incident Energy (eV)
51-Sb-125


MAT 5137
(n,p) α:48-Cd-121g
51-Sb-125
Radionuclide Production Cross Section To 5130. %
Min Ratio
Max Ratio
TENDL Threshold 8.8951 MeV
JEFF3.3 Threshold 8.8963 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
Incident Energy (eV)
103
51-Sb-125


MAT 5137
(n,p) α:48-Cd-121m2
51-Sb-125
Radionuclide Production Cross Section To 3468. %
Min Ratio
Max Ratio
TENDL Threshold 9.1117 MeV
JEFF3.3 Threshold 9.1129 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
Incident Energy (eV)
104
51-Sb-125