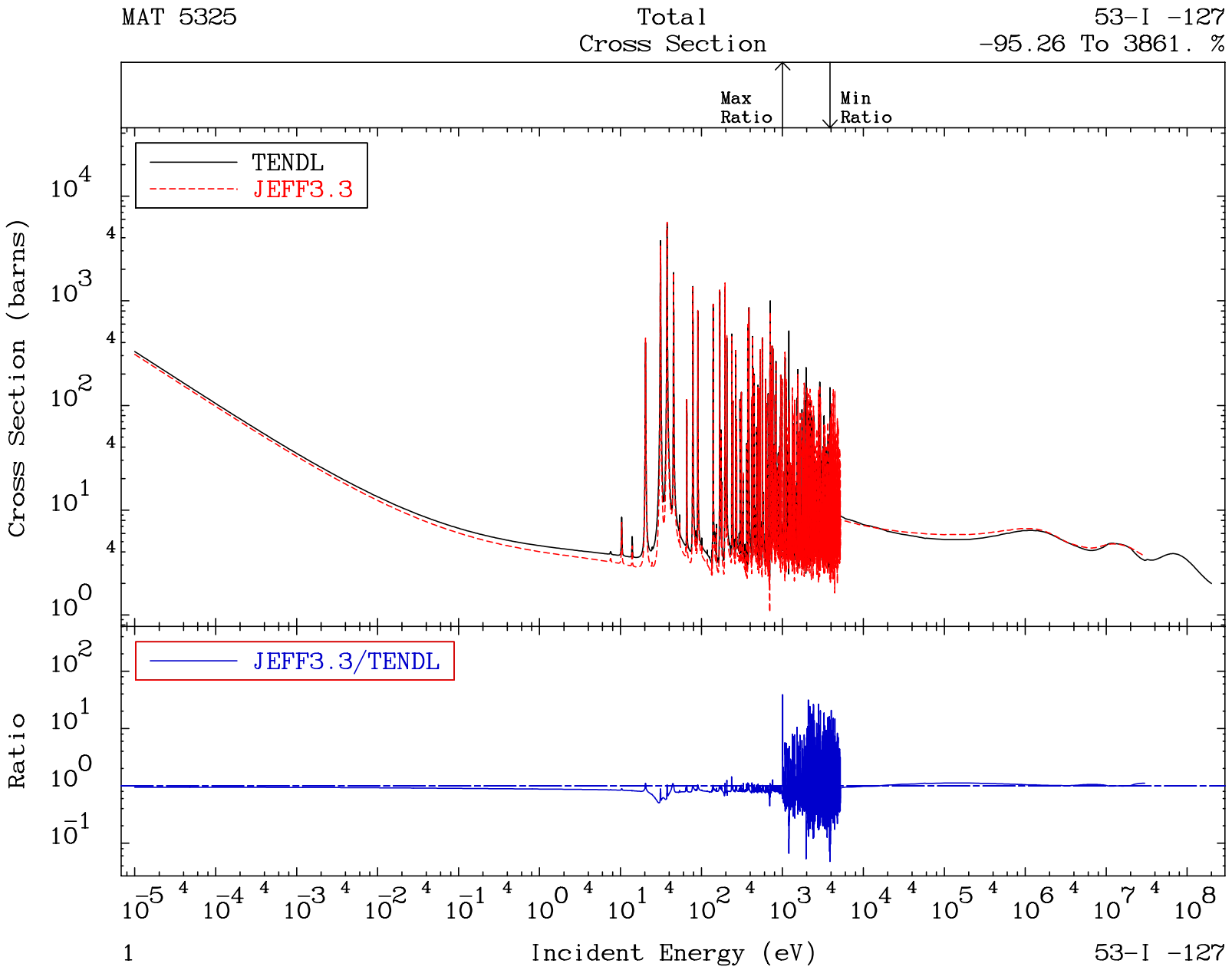
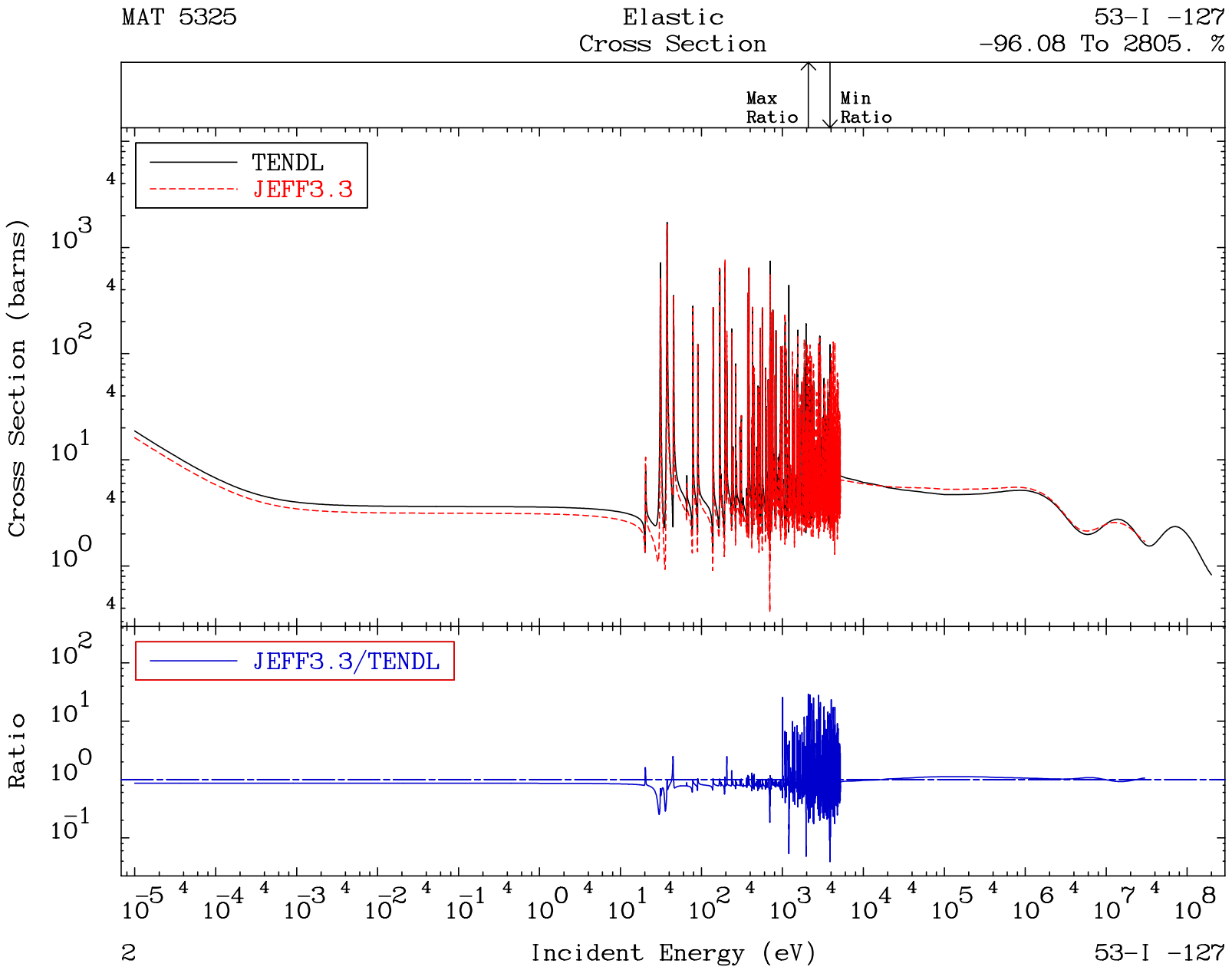
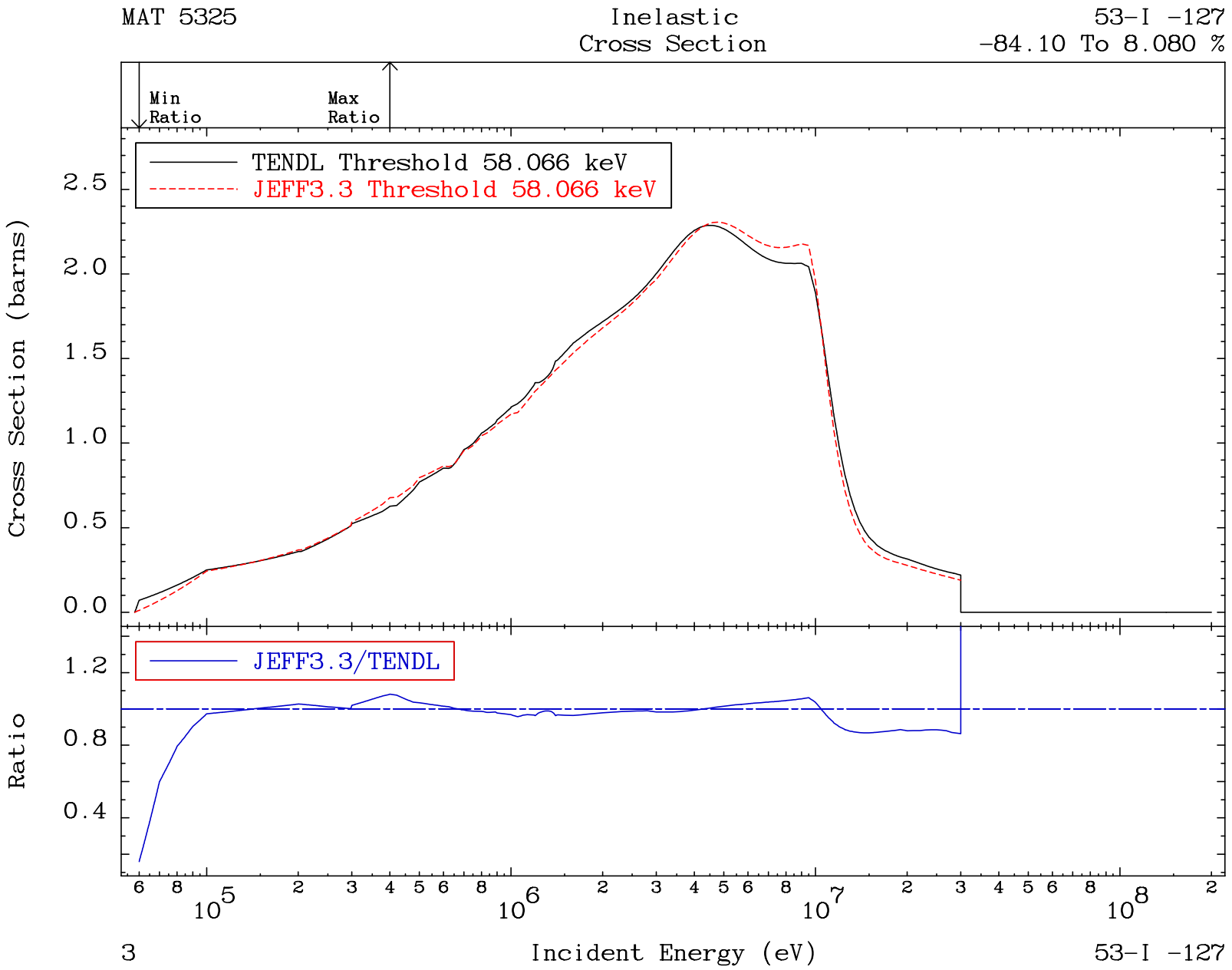
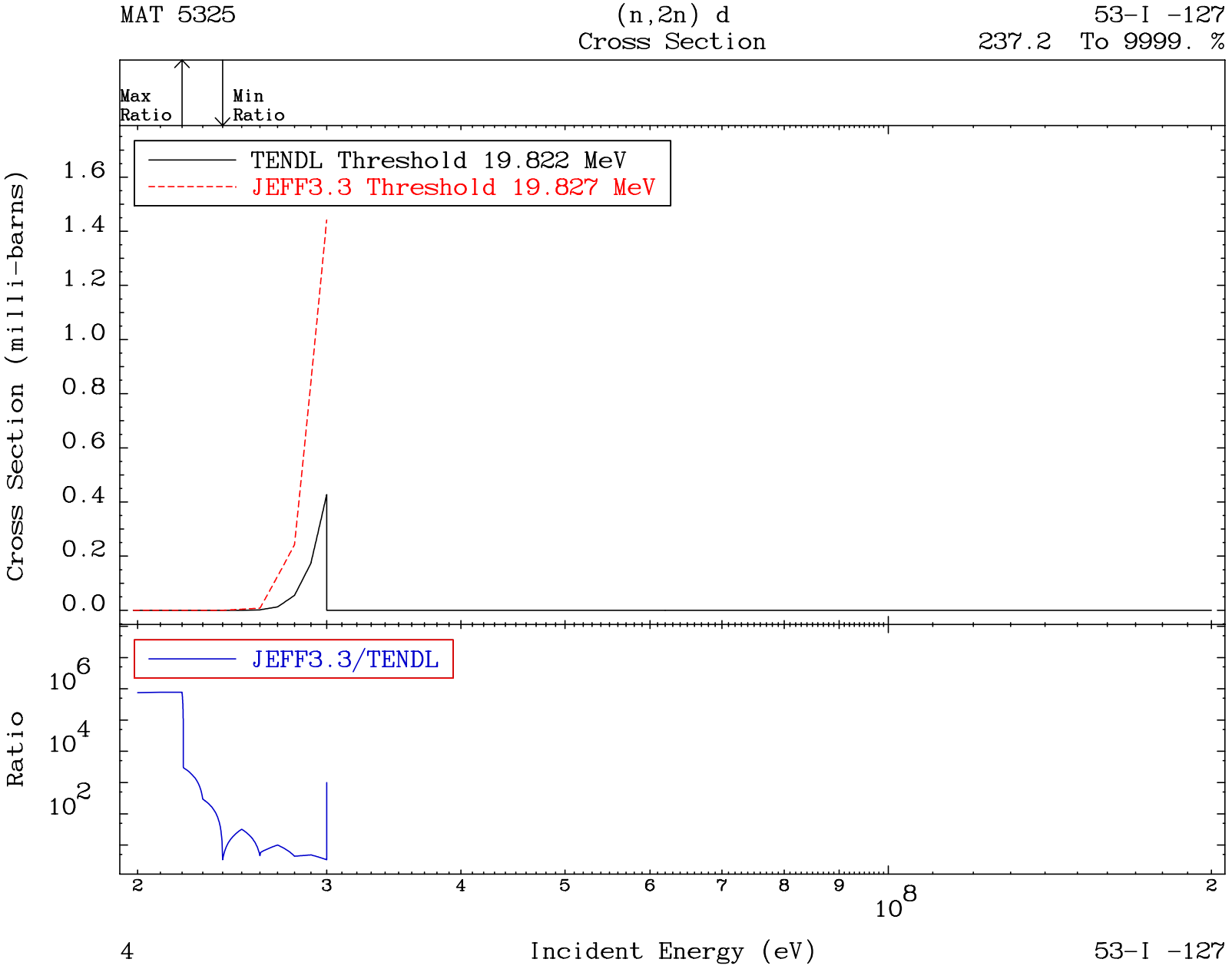
Program Complot
(Version 2018-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

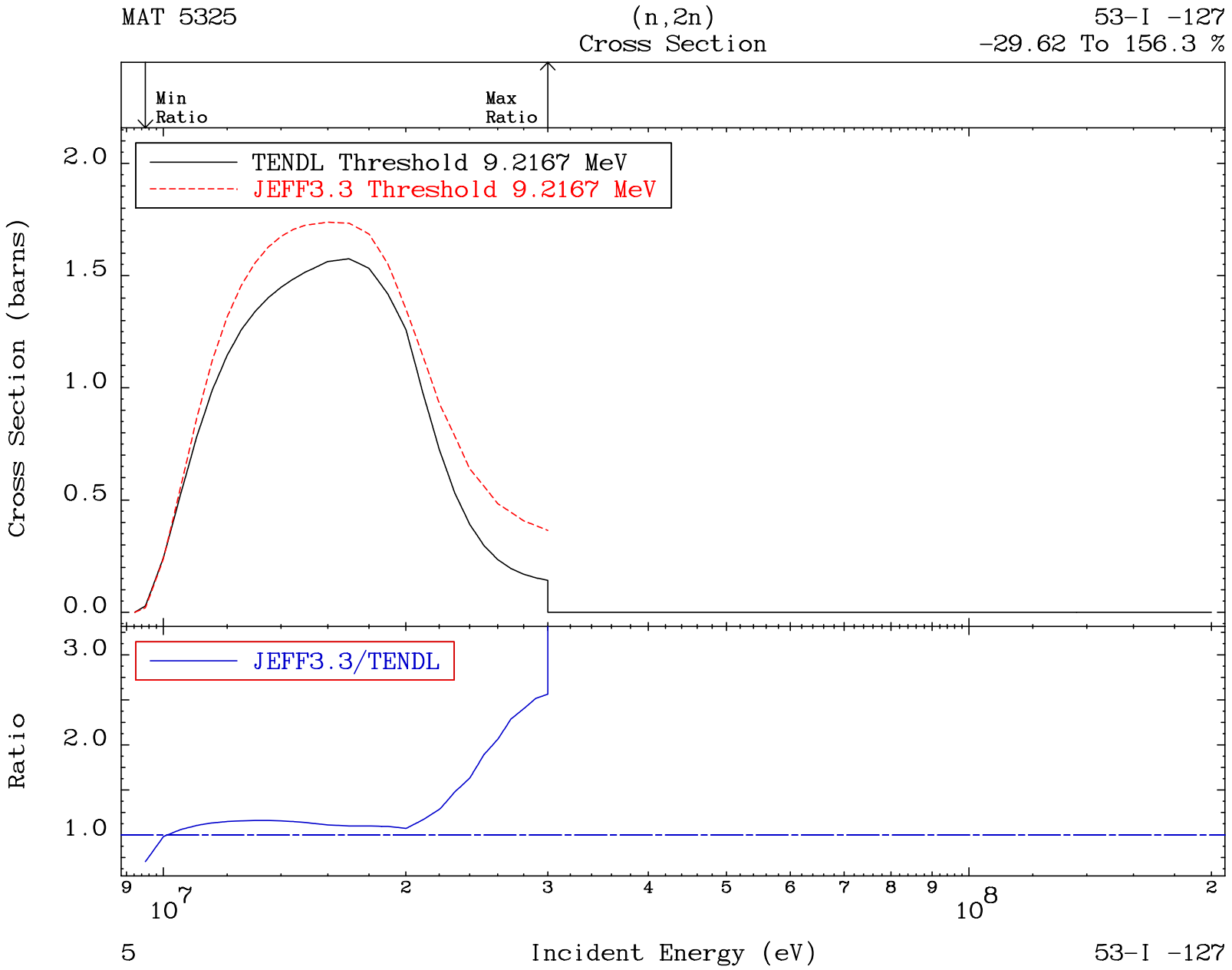
Press Mouse Button to Start

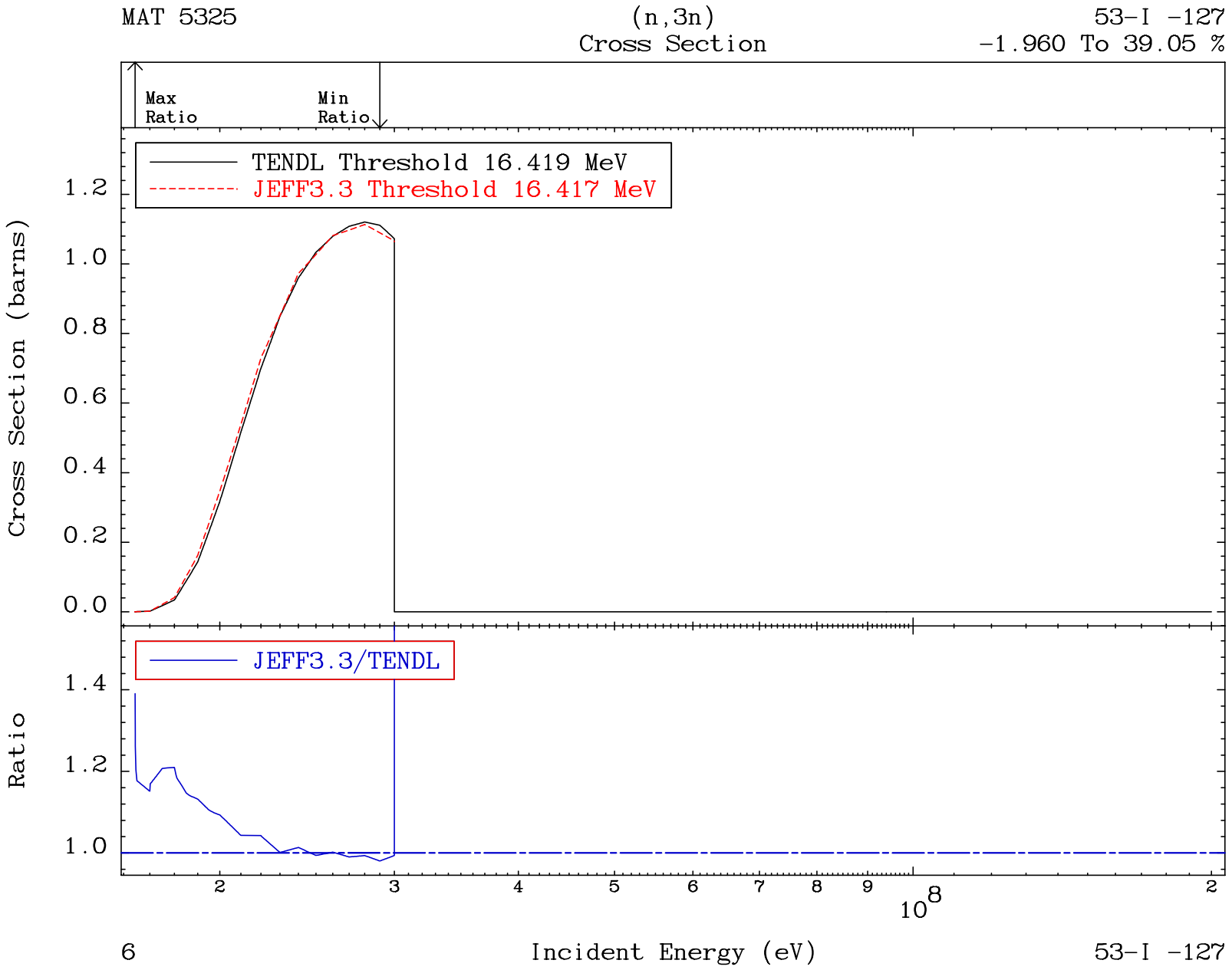

MAT 5325
Total
Cross Section
53-I -127
-95.26 To 3861. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
1
53-I -127

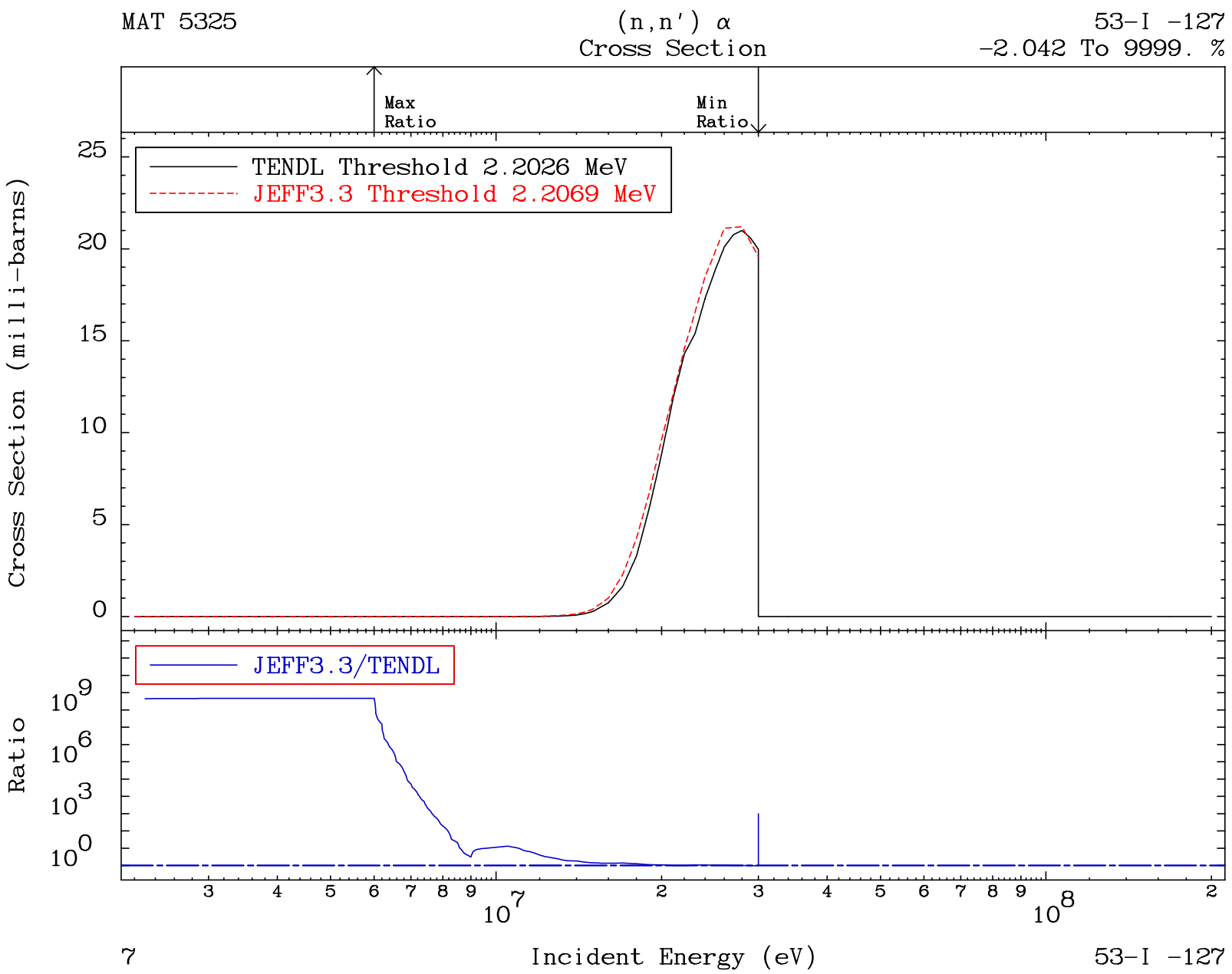

MAT 5325
Elastic
Cross Section
53-I -127
-96.08 To 2805. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
53-I -127

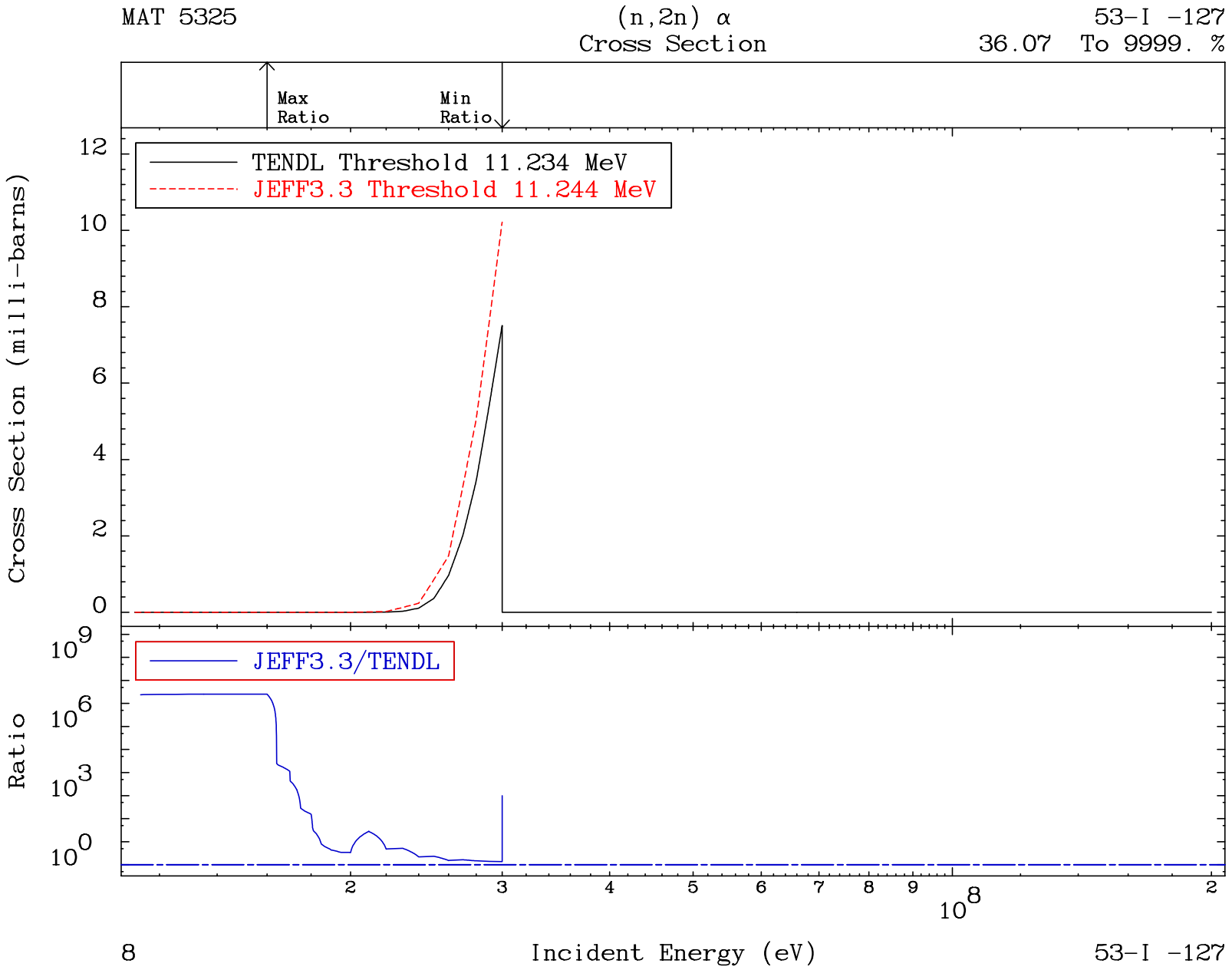

MAT 5325
Inelastic
Cross Section
53-I -127
-84.10 To 8.080 %
Min Ratio
Max Ratio
TENDL Threshold 58.066 keV
JEFF3.3 Threshold 58.066 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.2
0.8
0.4
6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
53-I -127

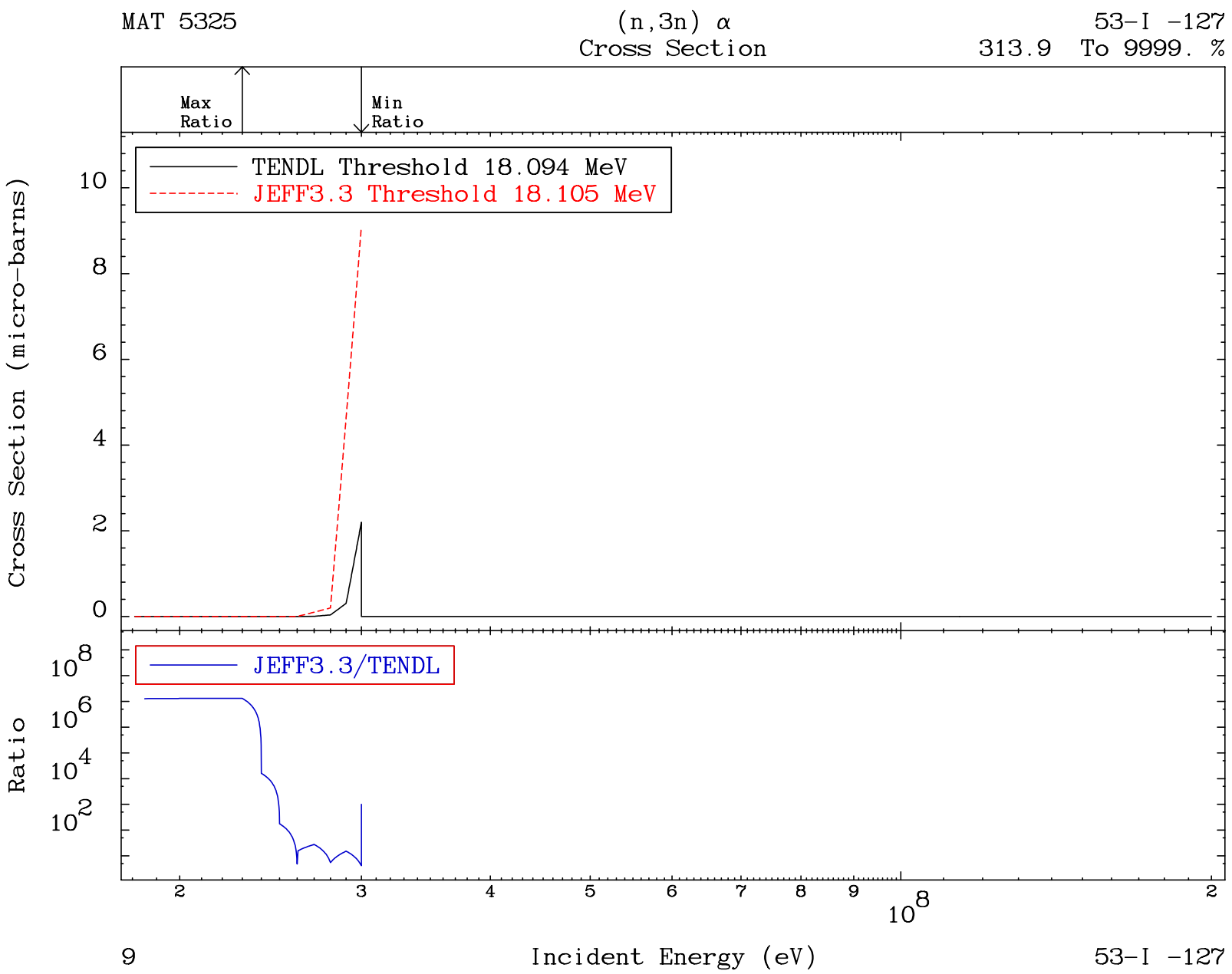

MAT 5325
(n,2n) d
Cross Section
53-I -127
237.2 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 19.822 MeV
JEFF3.3 Threshold 19.827 MeV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^6
10^4
10^2
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
53-I -127

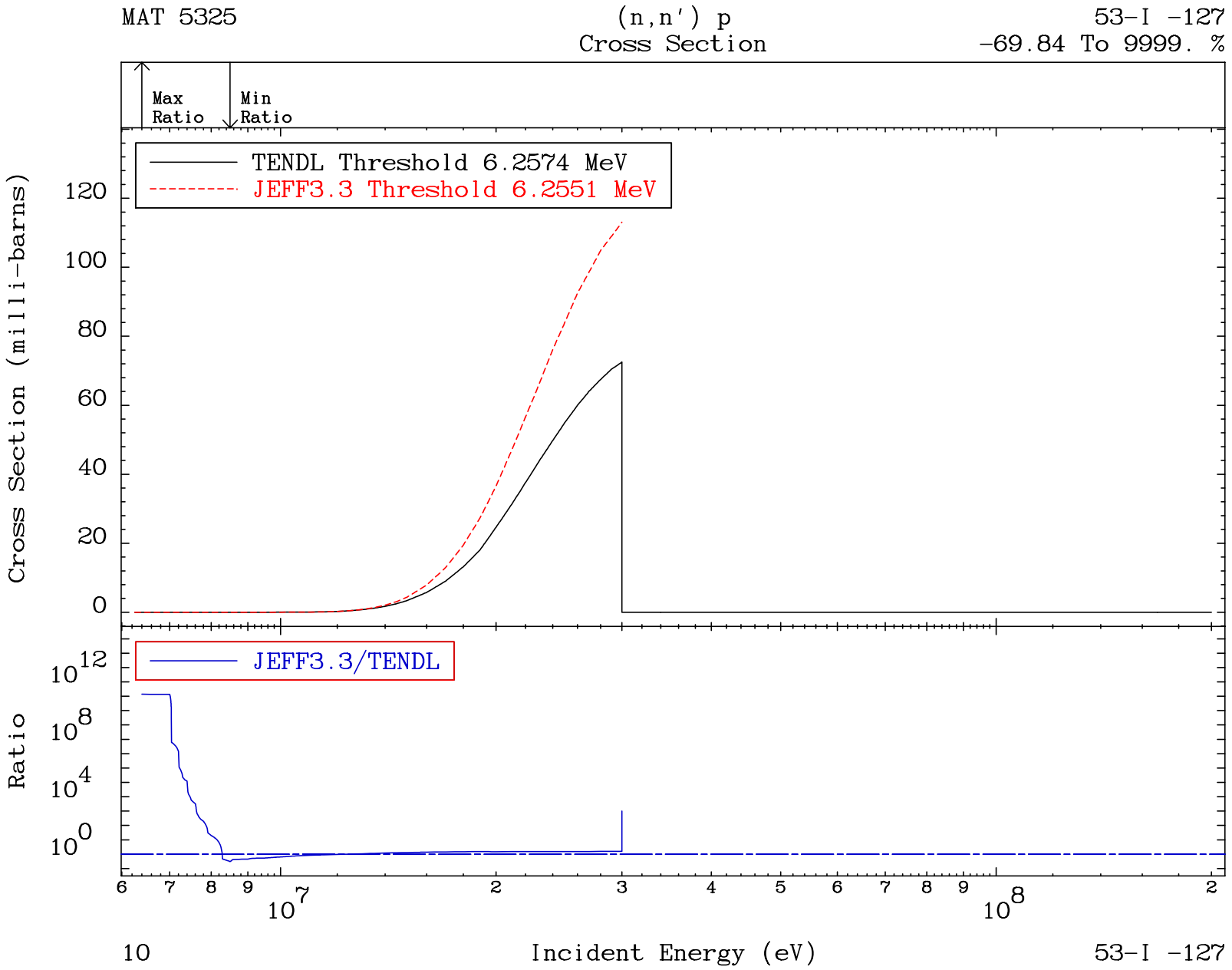

MAT 5325
(n,2n)
Cross Section
53-I -127
-29.62 To 156.3 %
Min Ratio
Max Ratio
TENDL Threshold 9.2167 MeV
JEFF3.3 Threshold 9.2167 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
53-I -127

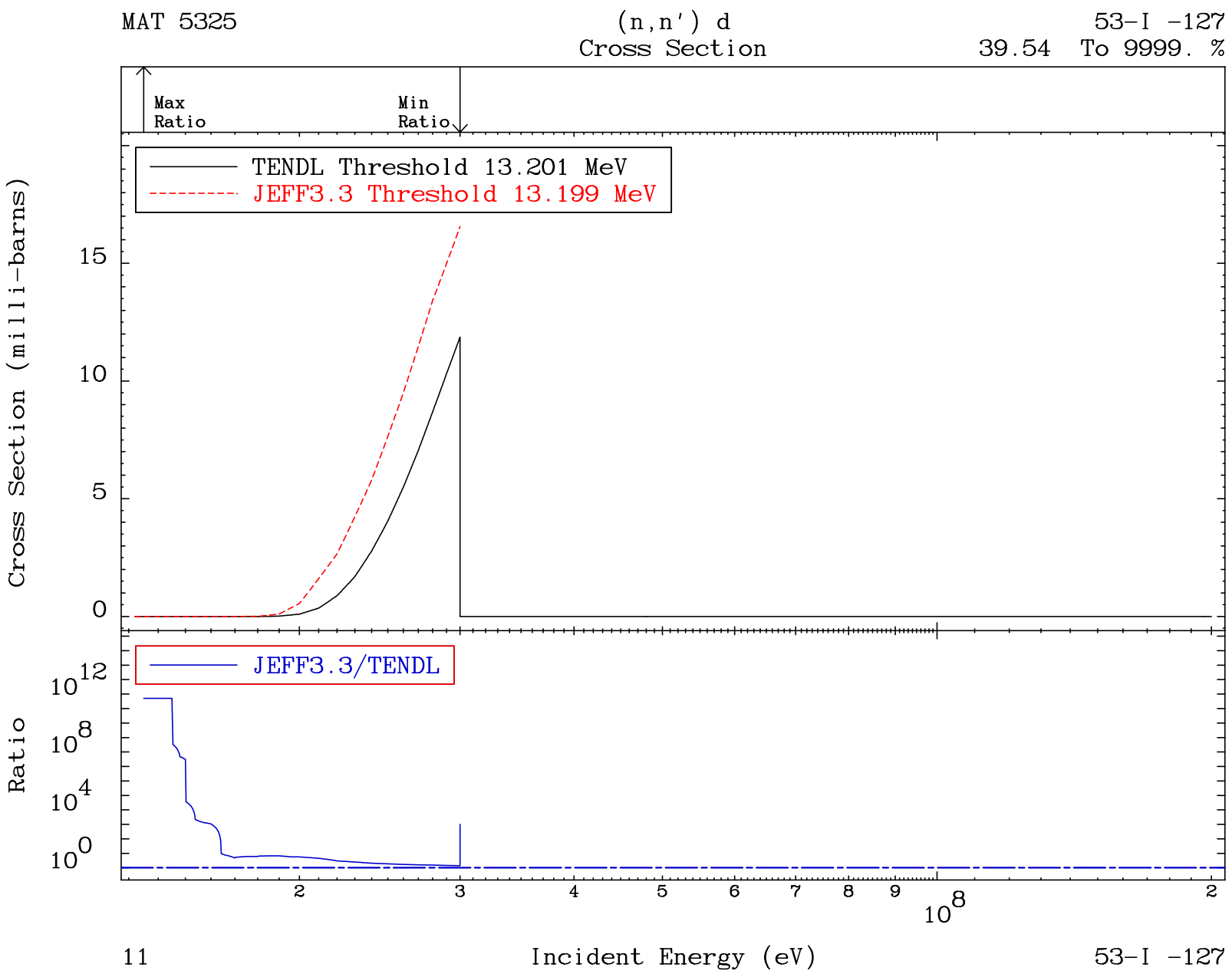

MAT 5325
(n,3n)
Cross Section
53-I -127
-1.960 To 39.05 %
Max Ratio
Min Ratio
TENDL Threshold 16.419 MeV
JEFF3.3 Threshold 16.417 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
53-I -127

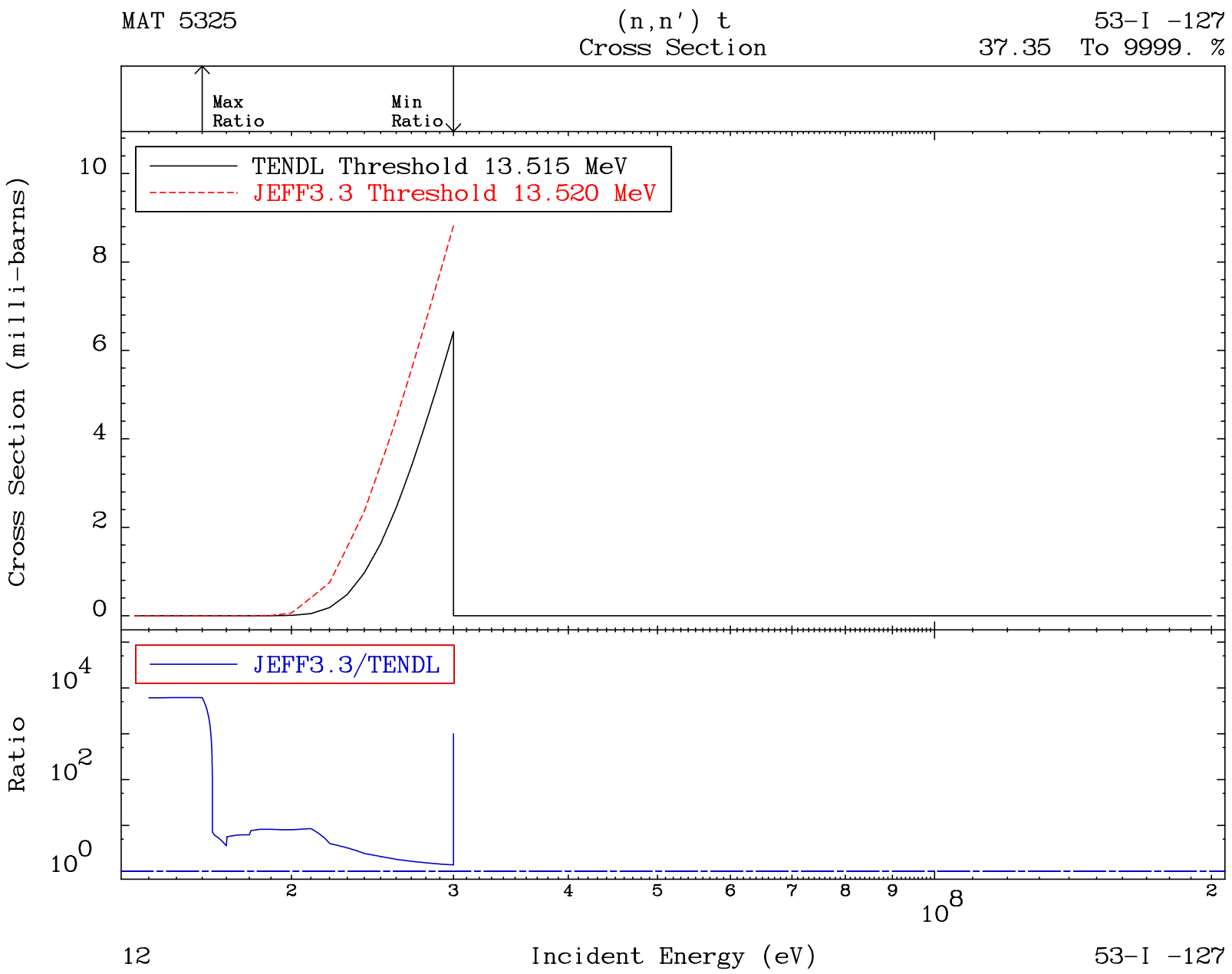

MAT 5325
(n,n') α
Cross Section
53-I -127
-2.042 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.2026 MeV
JEFF3.3 Threshold 2.2069 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
7
Incident Energy (eV)
53-I -127

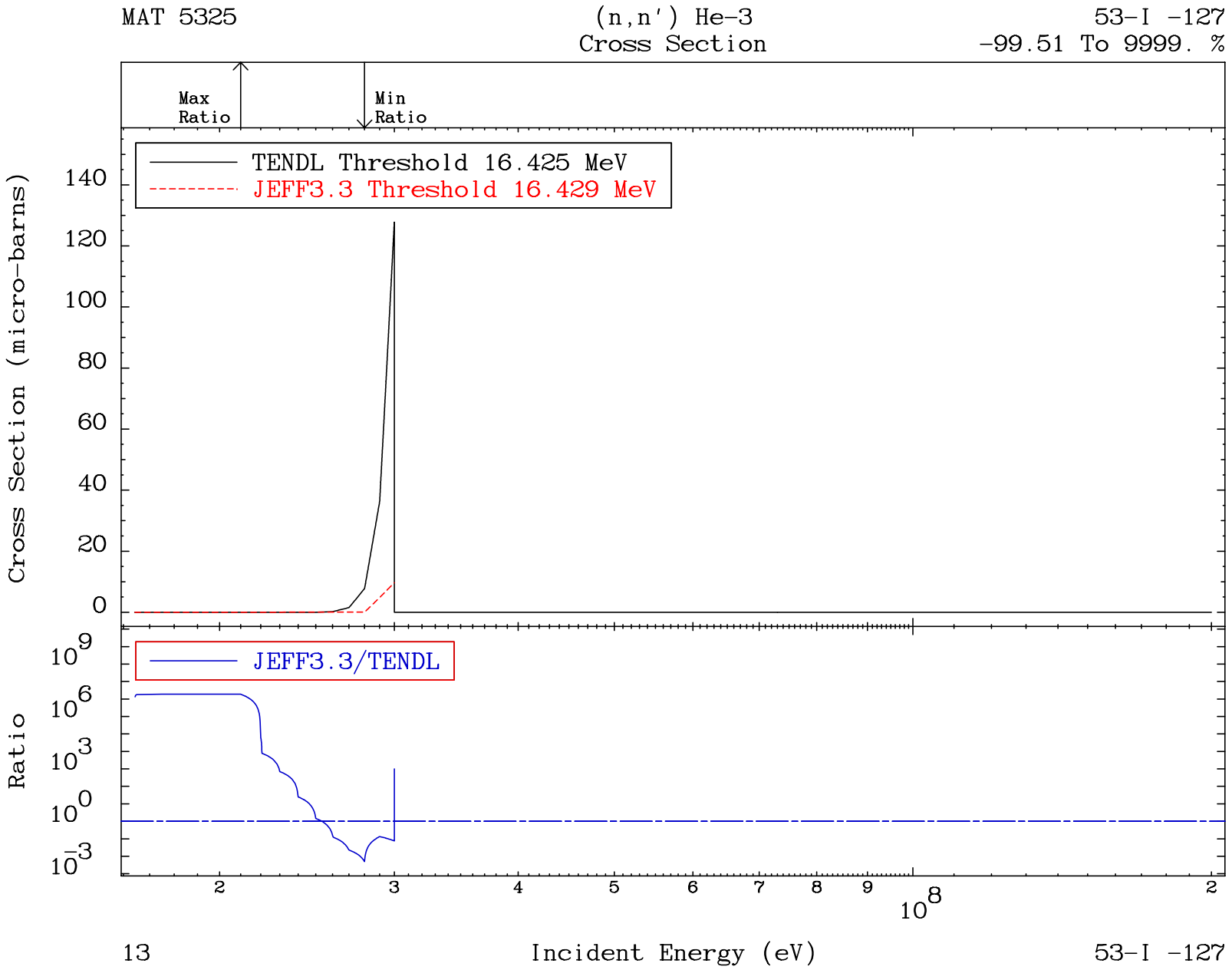

MAT 5325
(n,2n) α
Cross Section
53-I -127
36.07 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.234 MeV
JEFF3.3 Threshold 11.244 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
53-I -127

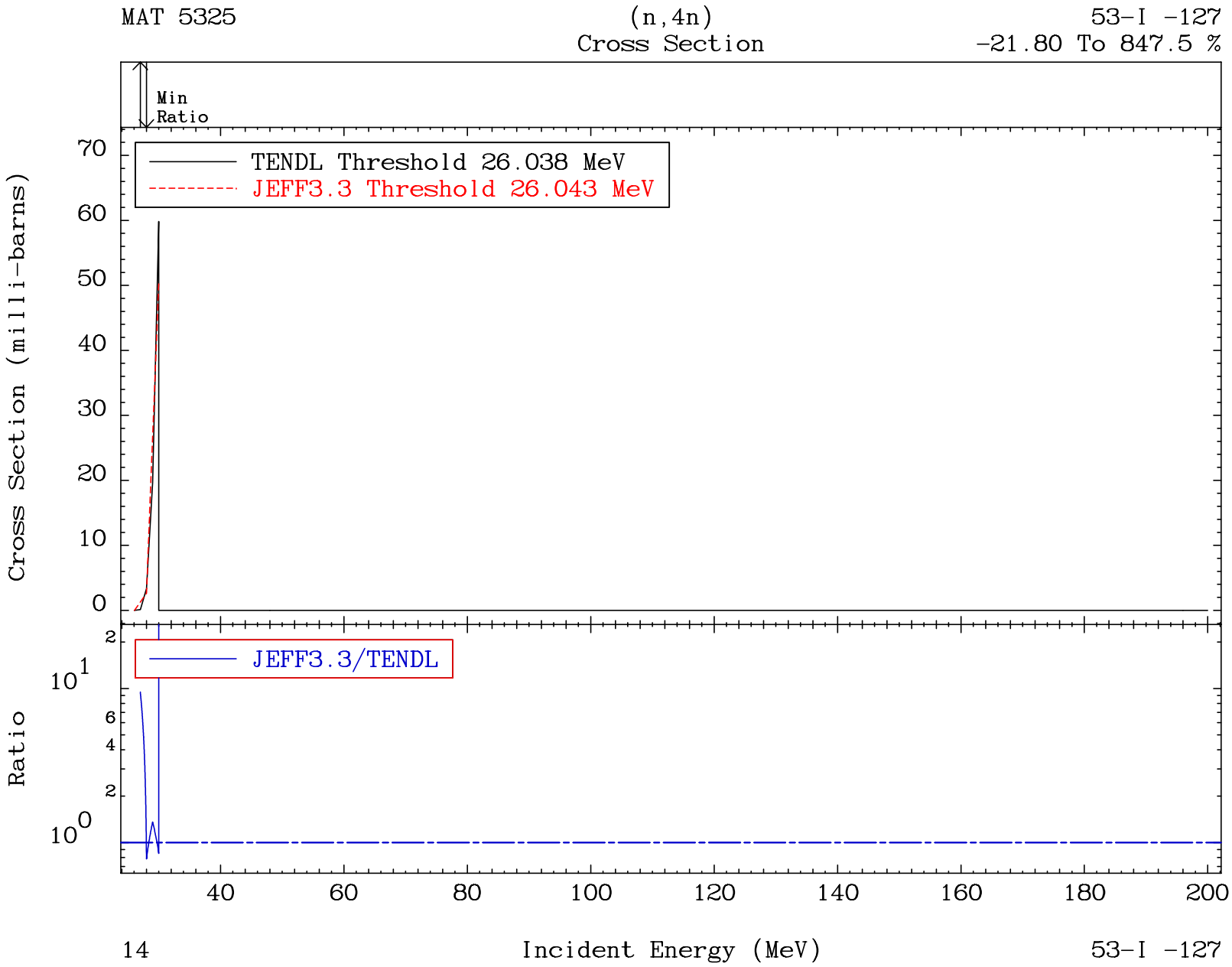

MAT 5325
(n,3n) α
Cross Section
53-I -127
313.9 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 18.094 MeV
JEFF3.3 Threshold 18.105 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
9
53-I -127

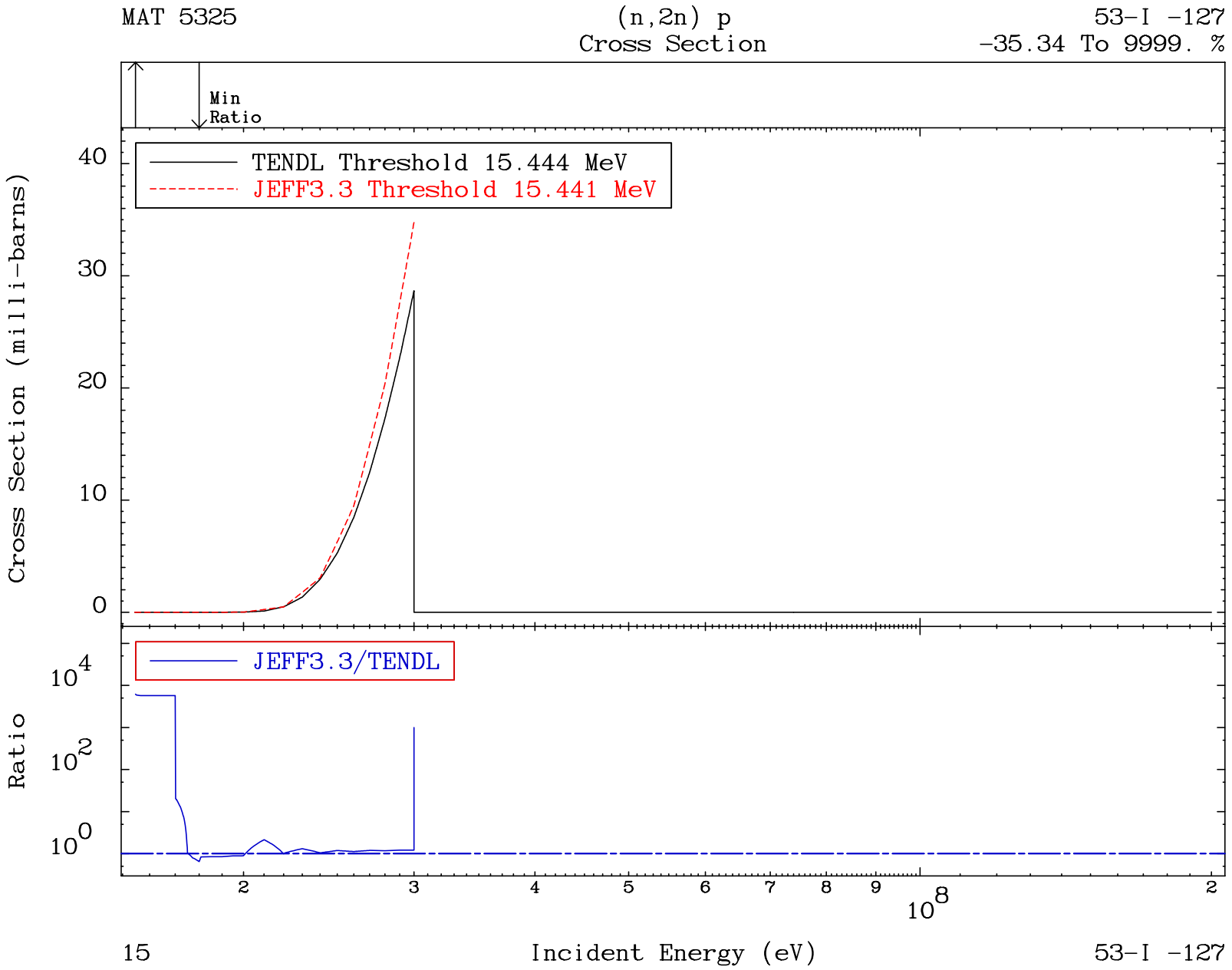

MAT 5325
(n,n') p
Cross Section
53-I -127
-69.84 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.2574 MeV
JEFF3.3 Threshold 6.2551 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^12
10^8
10^4
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
53-I -127

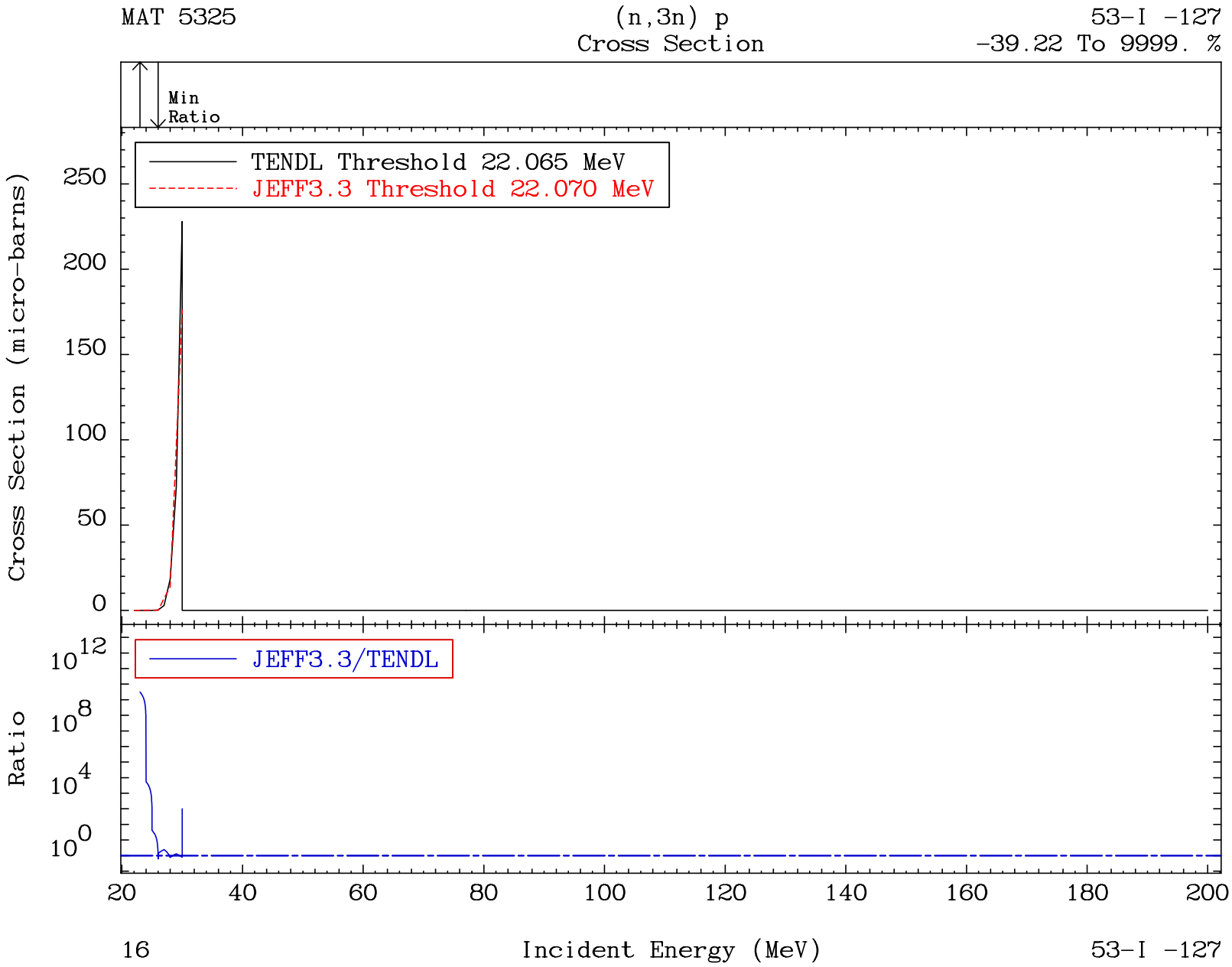

MAT 5325
(n,n') d
Cross Section
53-I -127
39.54 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.201 MeV
JEFF3.3 Threshold 13.199 MeV
Cross Section (milli-barns)
15
10
5
0
JEFF3.3/TENDL
Ratio
10^12
10^8
10^4
10^0
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
53-I -127

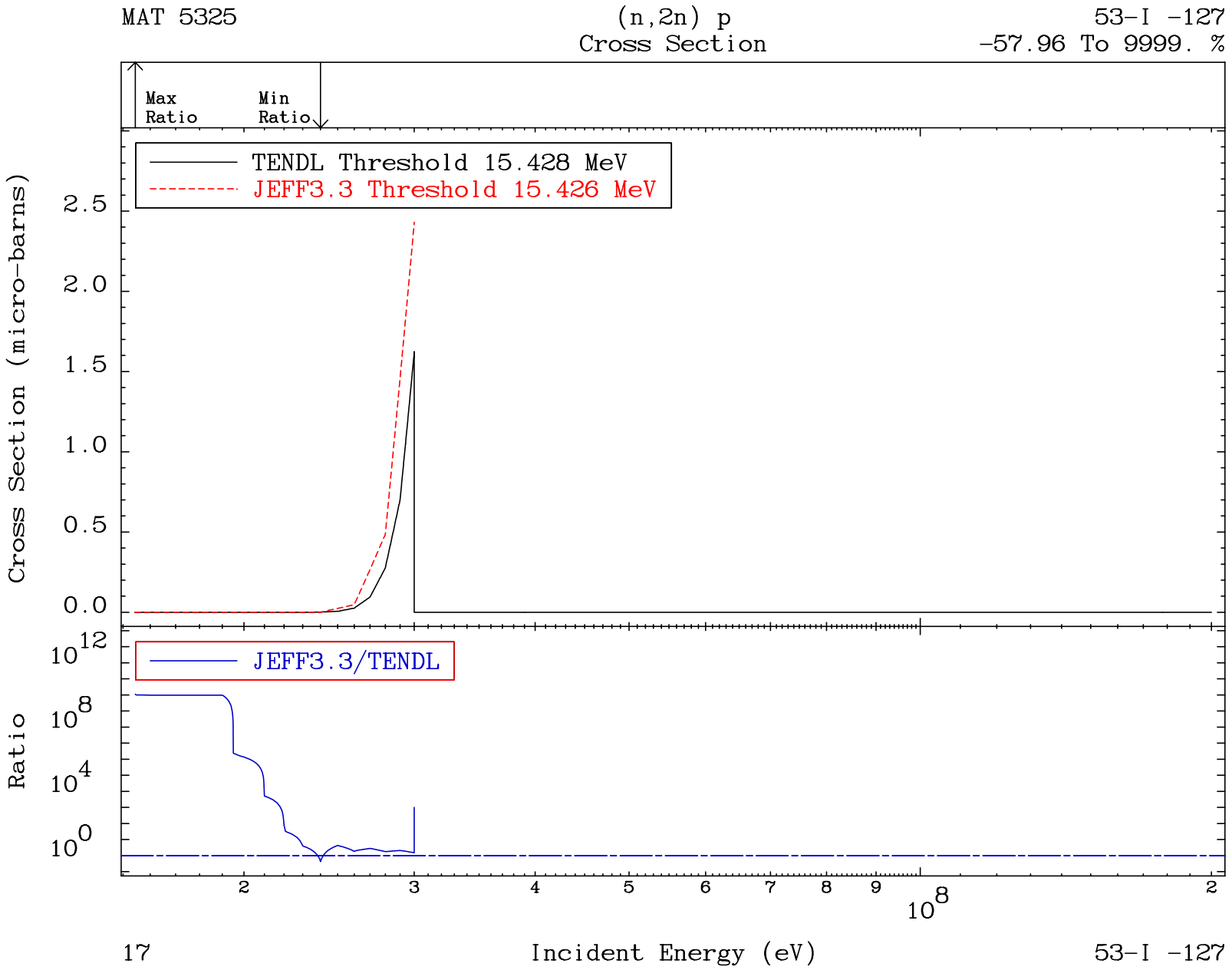

MAT 5325
(n,n') t
Cross Section
53-I -127
37.35 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.515 MeV
JEFF3.3 Threshold 13.520 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
12
53-I -127

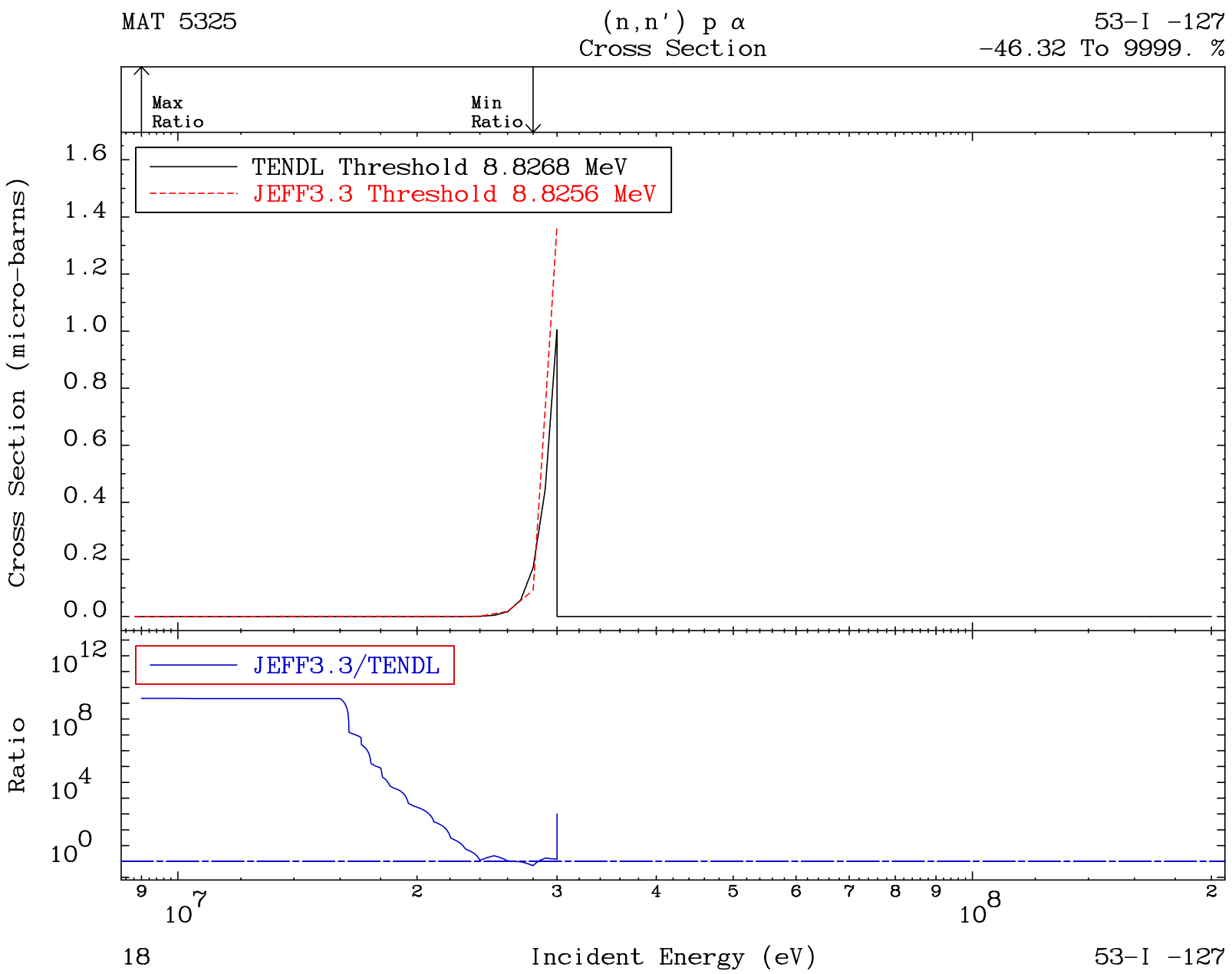

MAT 5325
(n,n') He-3
Cross Section
53-I -127
-99.51 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 16.425 MeV
JEFF3.3 Threshold 16.429 MeV
Cross Section (micro-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
10^-3
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
53-I -127

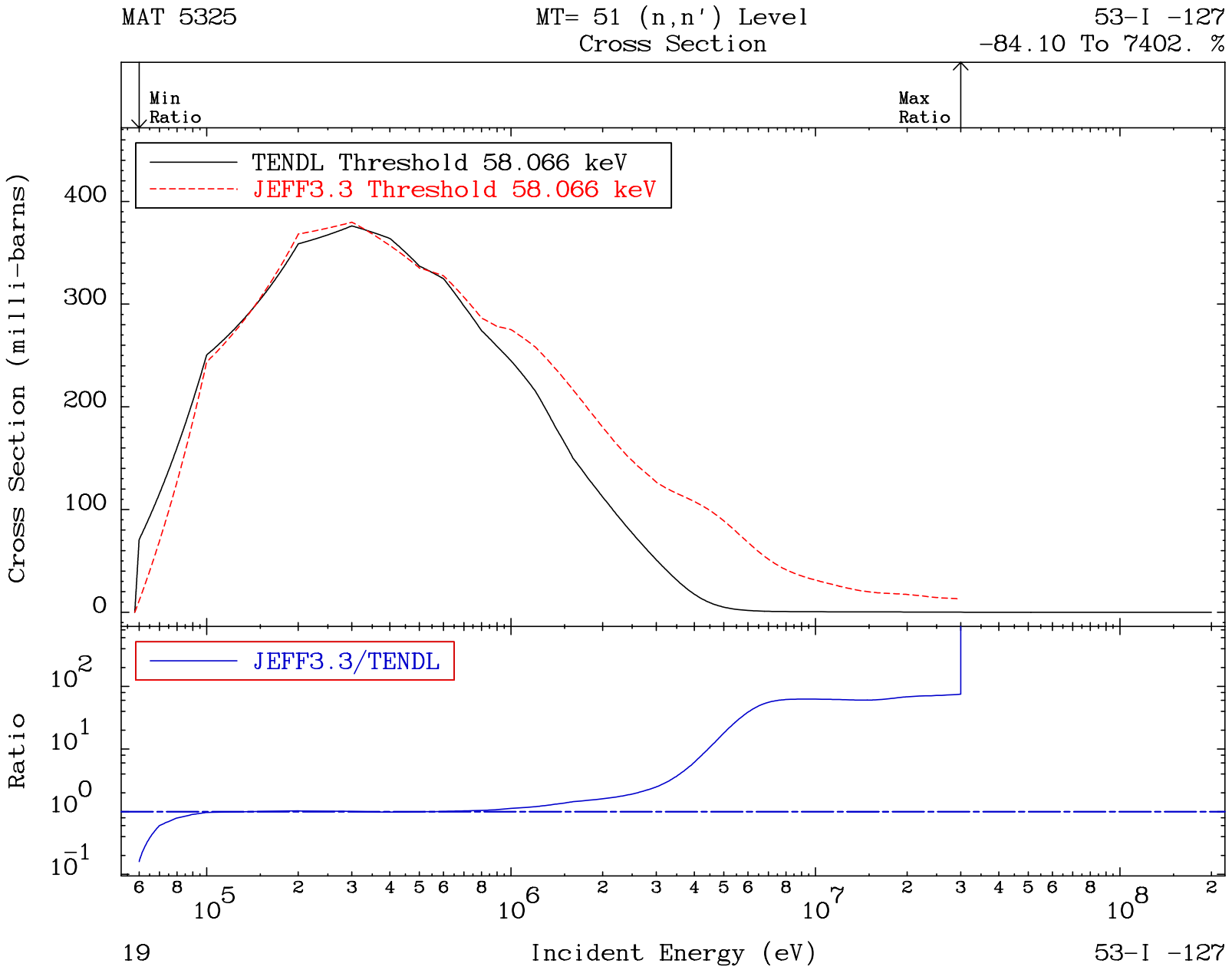

MAT 5325
(n,4n)
Cross Section
53-I -127
-21.80 To 847.5 %
Min
Ratio
TENDL Threshold 26.038 MeV
JEFF3.3 Threshold 26.043 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
2
10^1
6
4
2
10^0
40
60
80
100
120
140
160
180
200
14
Incident Energy (MeV)
53-I -127

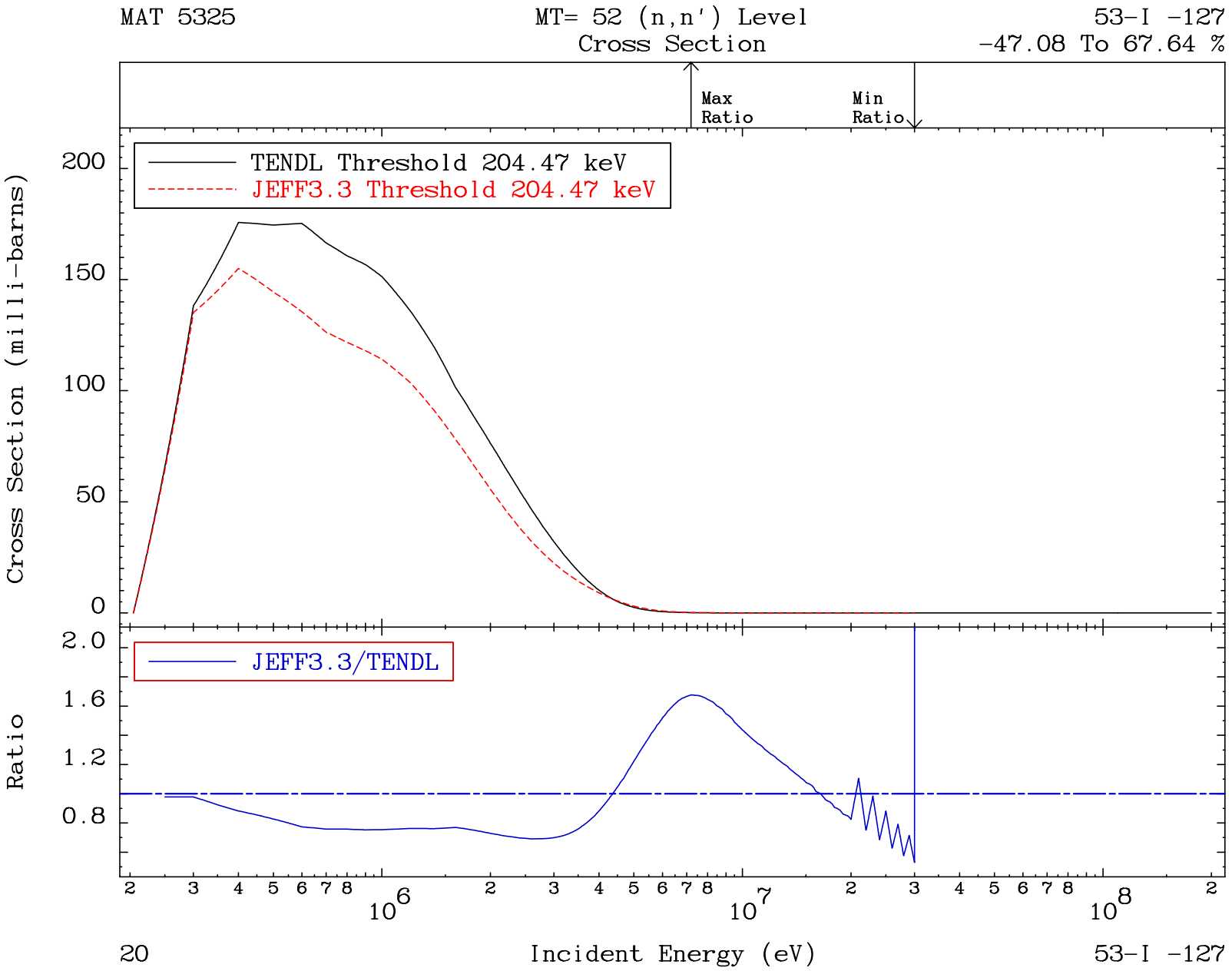

MAT 5325
(n,2n) p
Cross Section
53-I -127
-35.34 To 9999. %
Min
Ratio
TENDL Threshold 15.444 MeV
JEFF3.3 Threshold 15.441 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
53-I -127

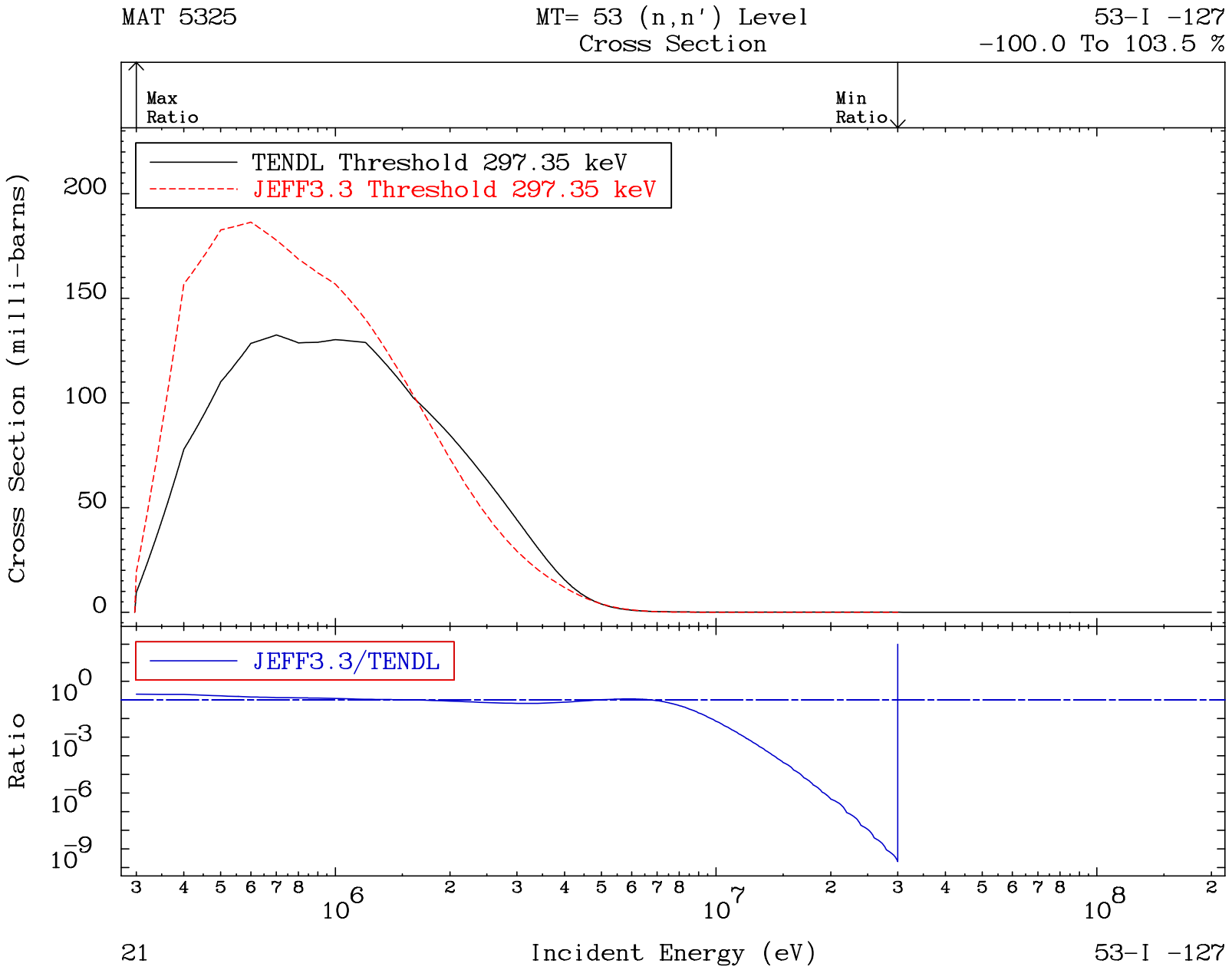

MAT 5325
(n,3n) p
Cross Section
53-I -127
-39.22 To 9999. %
Min
Ratio
TENDL Threshold 22.065 MeV
JEFF3.3 Threshold 22.070 MeV
Cross Section (micro-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
10^12
10^8
10^4
10^0
20
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
53-I -127

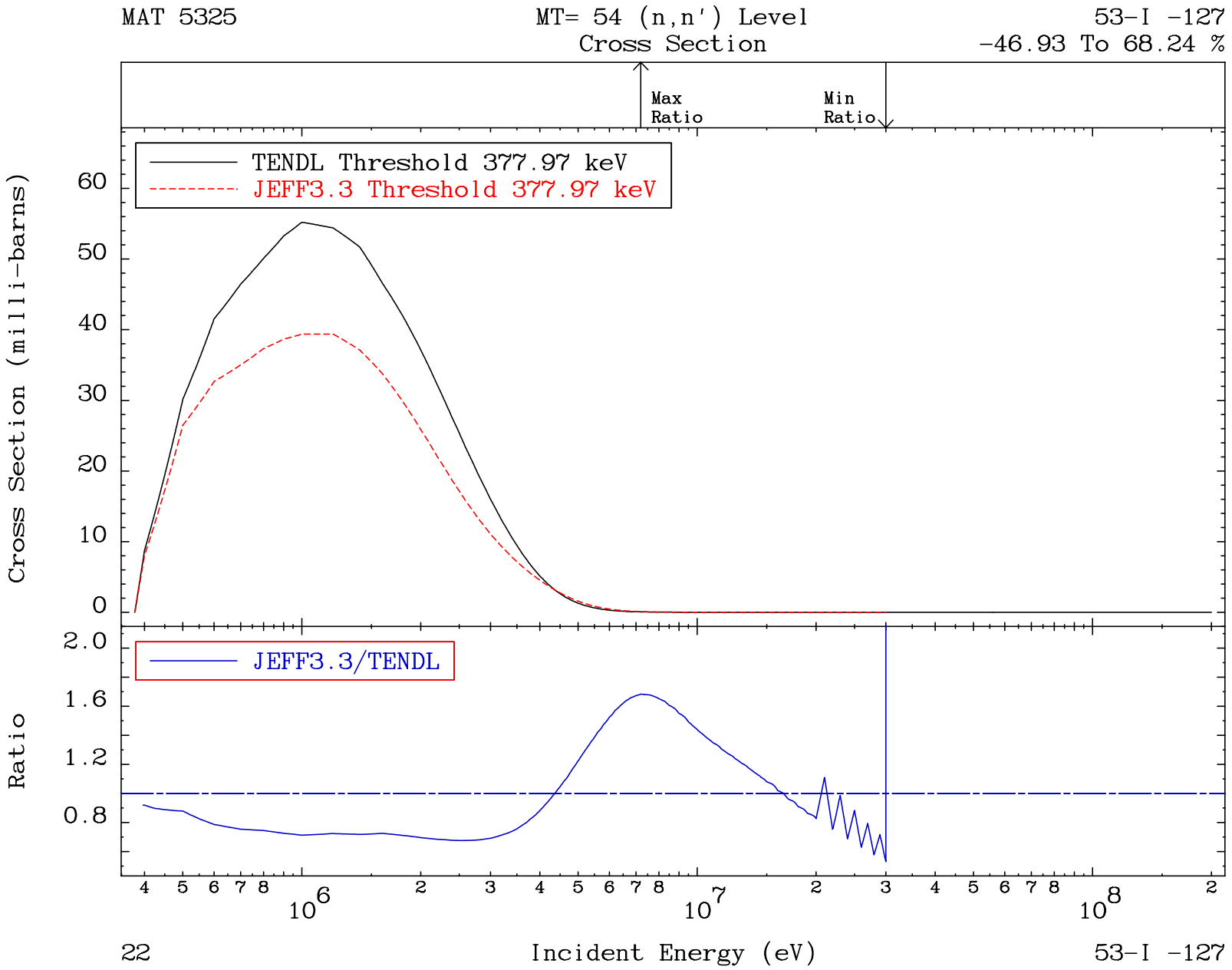

MAT 5325
(n,2n) p
Cross Section
53-I -127
-57.96 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 15.428 MeV
JEFF3.3 Threshold 15.426 MeV
Cross Section (micro-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^12
10^8
10^4
10^0
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
53-I -127

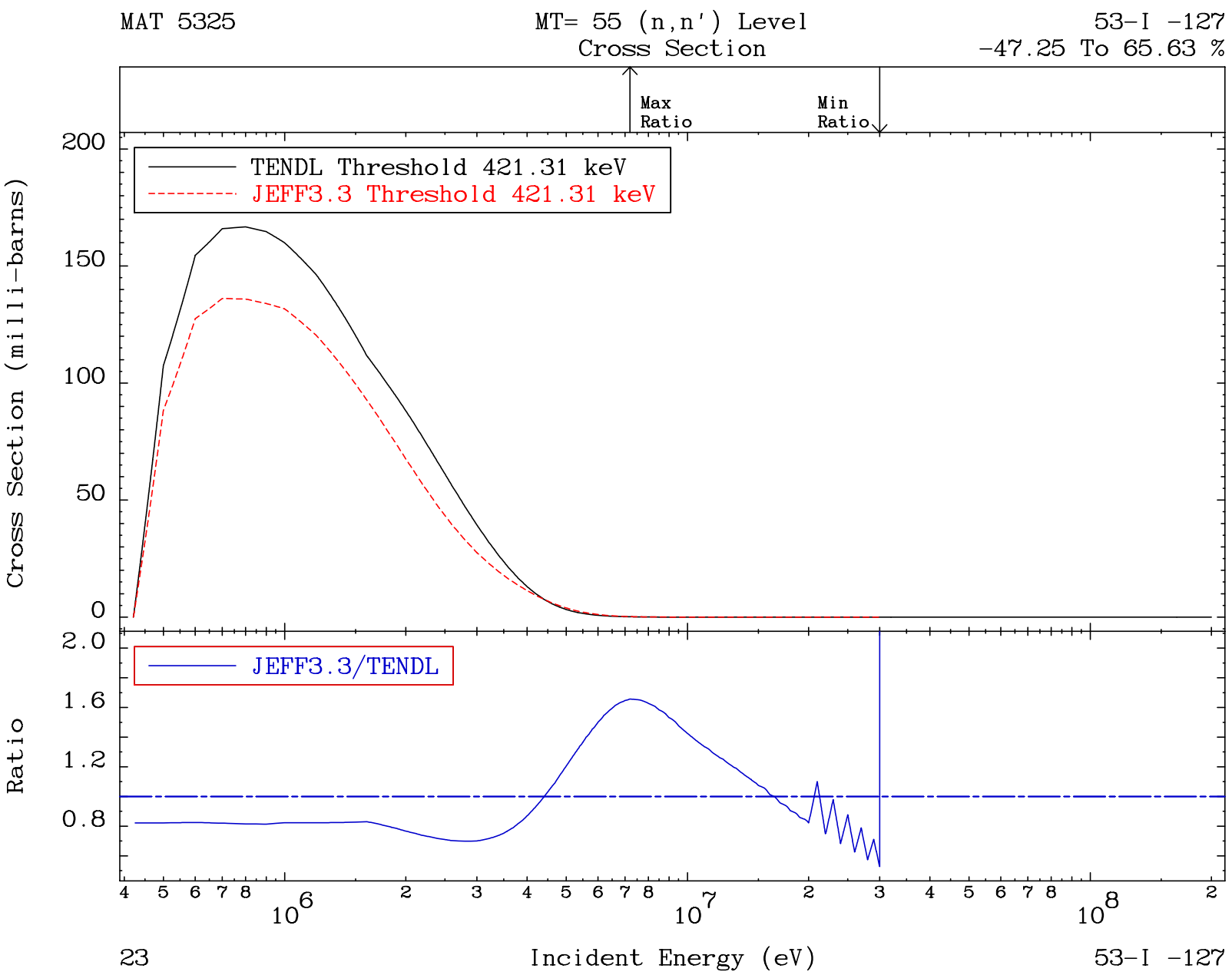

MAT 5325
(n,n') p α
Cross Section
53-I -127
-46.32 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 8.8268 MeV
JEFF3.3 Threshold 8.8256 MeV
Cross Section (micro-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^12
10^8
10^4
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
18
Incident Energy (eV)
53-I -127

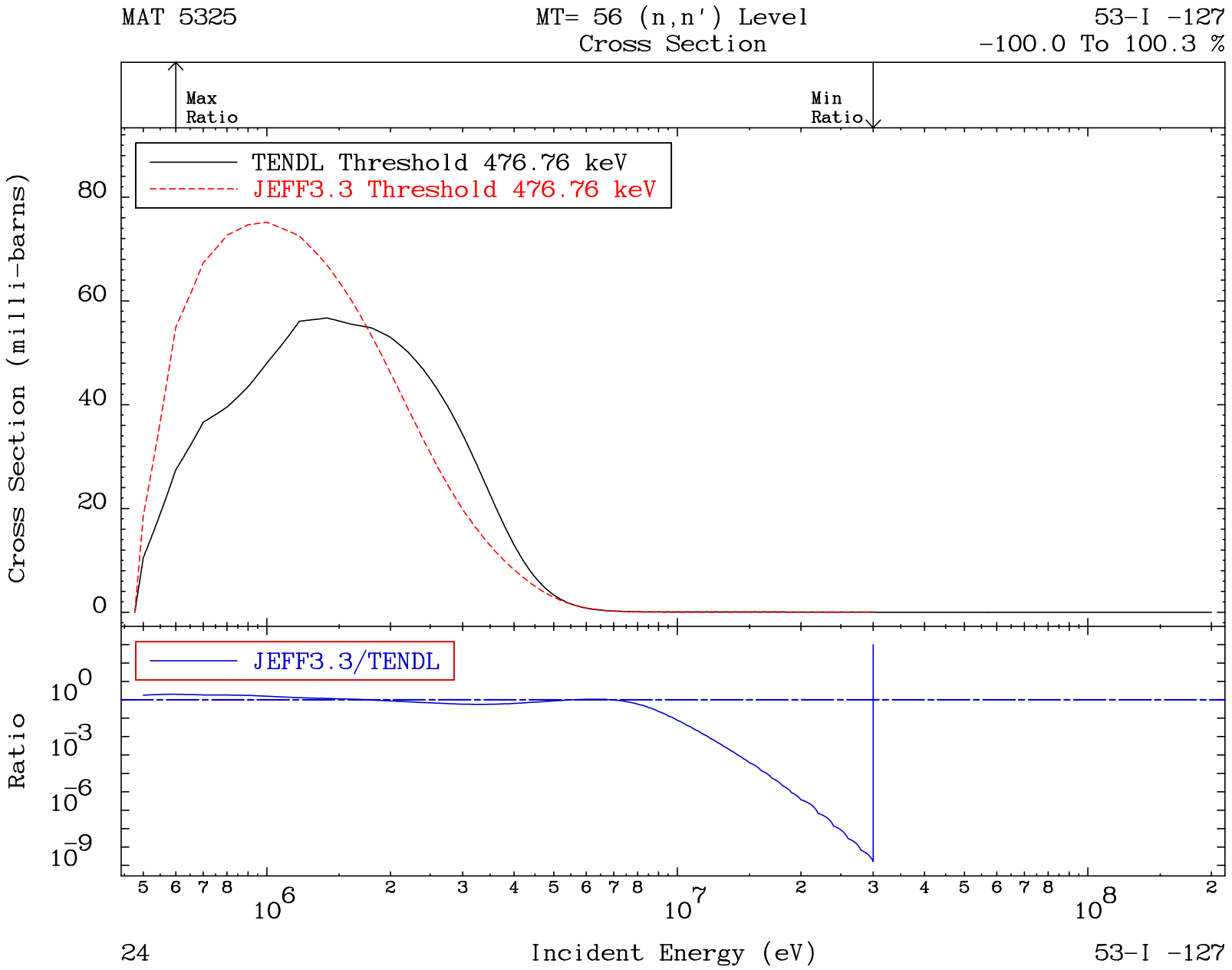

MAT 5325
MT= 51 (n,n') Level
Cross Section
53-I -127
-84.10 To 7402. %
Min
Ratio
Max
Ratio
TENDL Threshold 58.066 keV
JEFF3.3 Threshold 58.066 keV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
10^-1
6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
19
Incident Energy (eV)
53-I -127

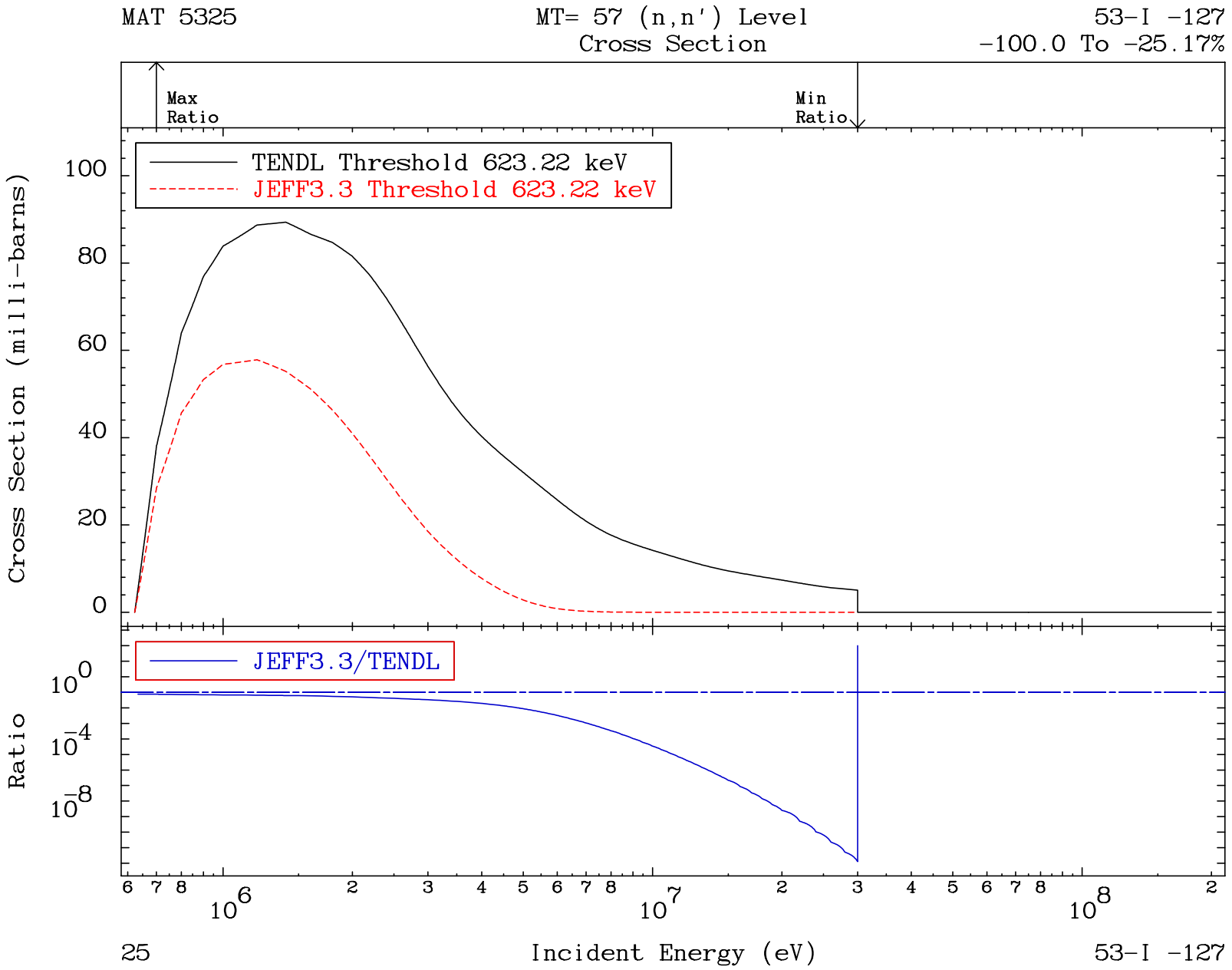

MAT 5325
MT= 52 (n,n') Level
Cross Section
53-I -127
-47.08 To 67.64 %
Max
Ratio
Min
Ratio
TENDL Threshold 204.47 keV
JEFF3.3 Threshold 204.47 keV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
0.8
2 3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
53-I -127

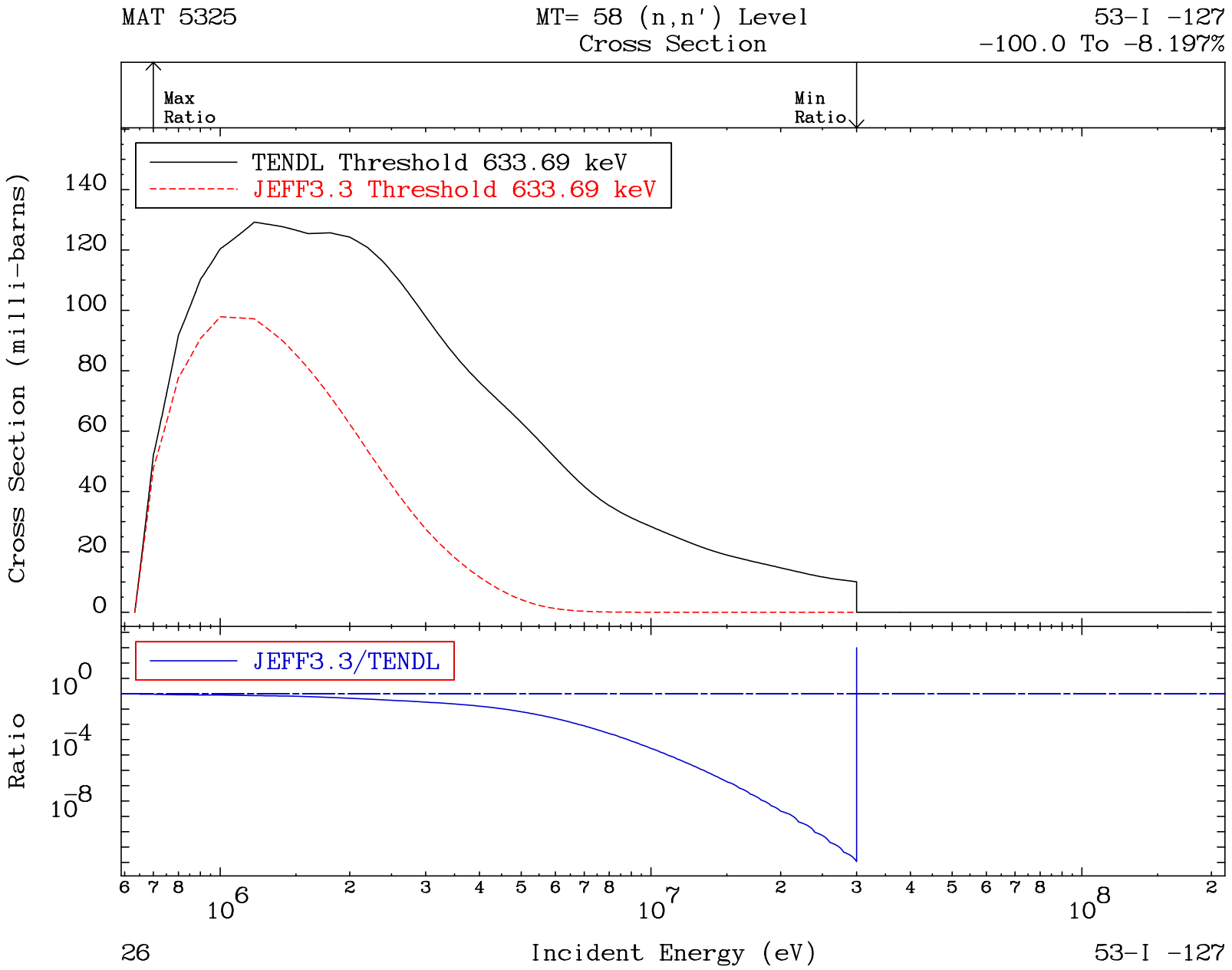

MAT 5325
MT= 53 (n,n') Level
Cross Section
53-I -127
-100.0 To 103.5 %
Max
Ratio
Min
Ratio
TENDL Threshold 297.35 keV
JEFF3.3 Threshold 297.35 keV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
10^0
10^-3
10^-6
10^-9
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
53-I -127

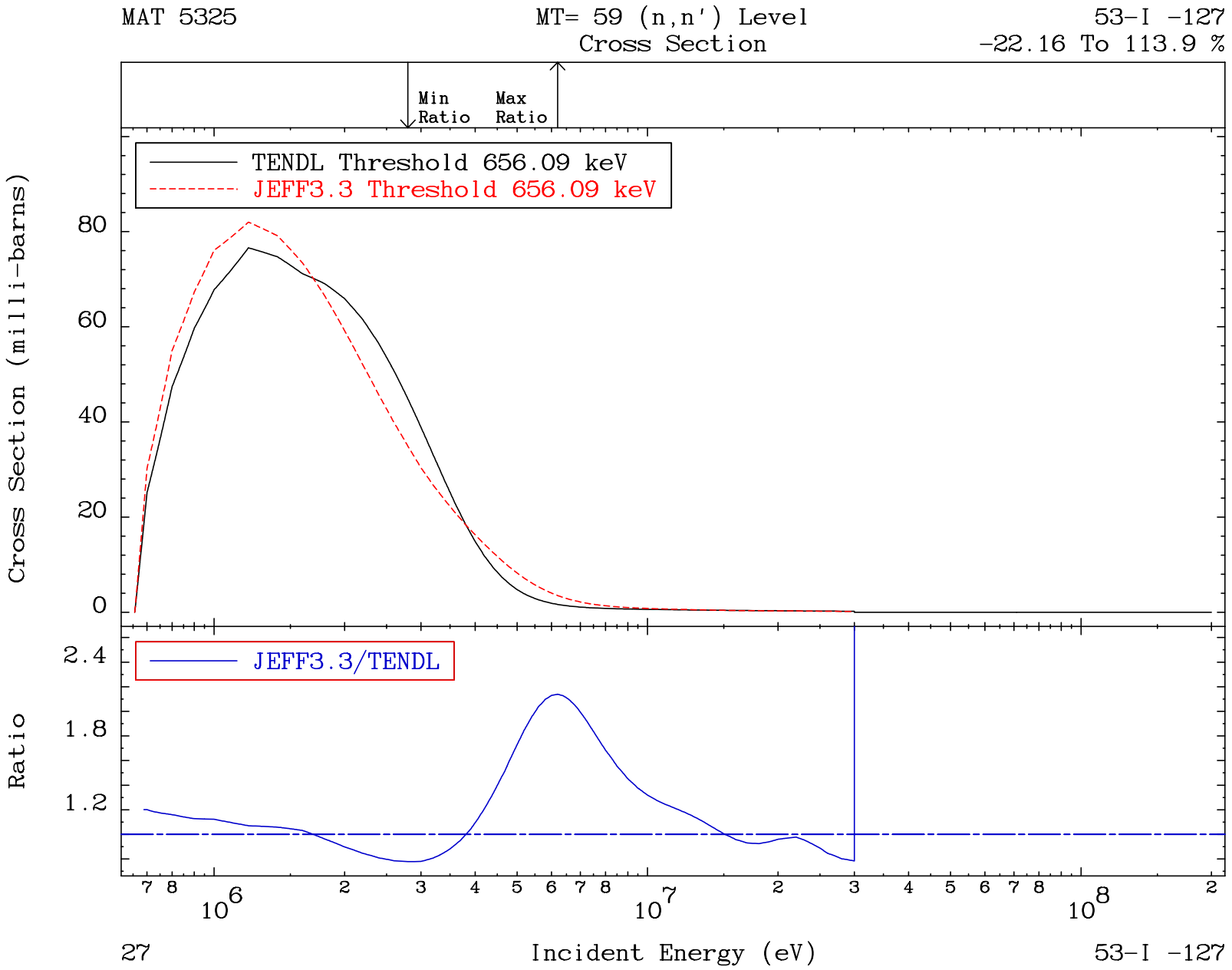

MAT 5325
MT= 54 (n,n') Level
Cross Section
53-I -127
-46.93 To 68.24 %
Max
Ratio
Min
Ratio
TENDL Threshold 377.97 keV
JEFF3.3 Threshold 377.97 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
0.8
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
53-I -127

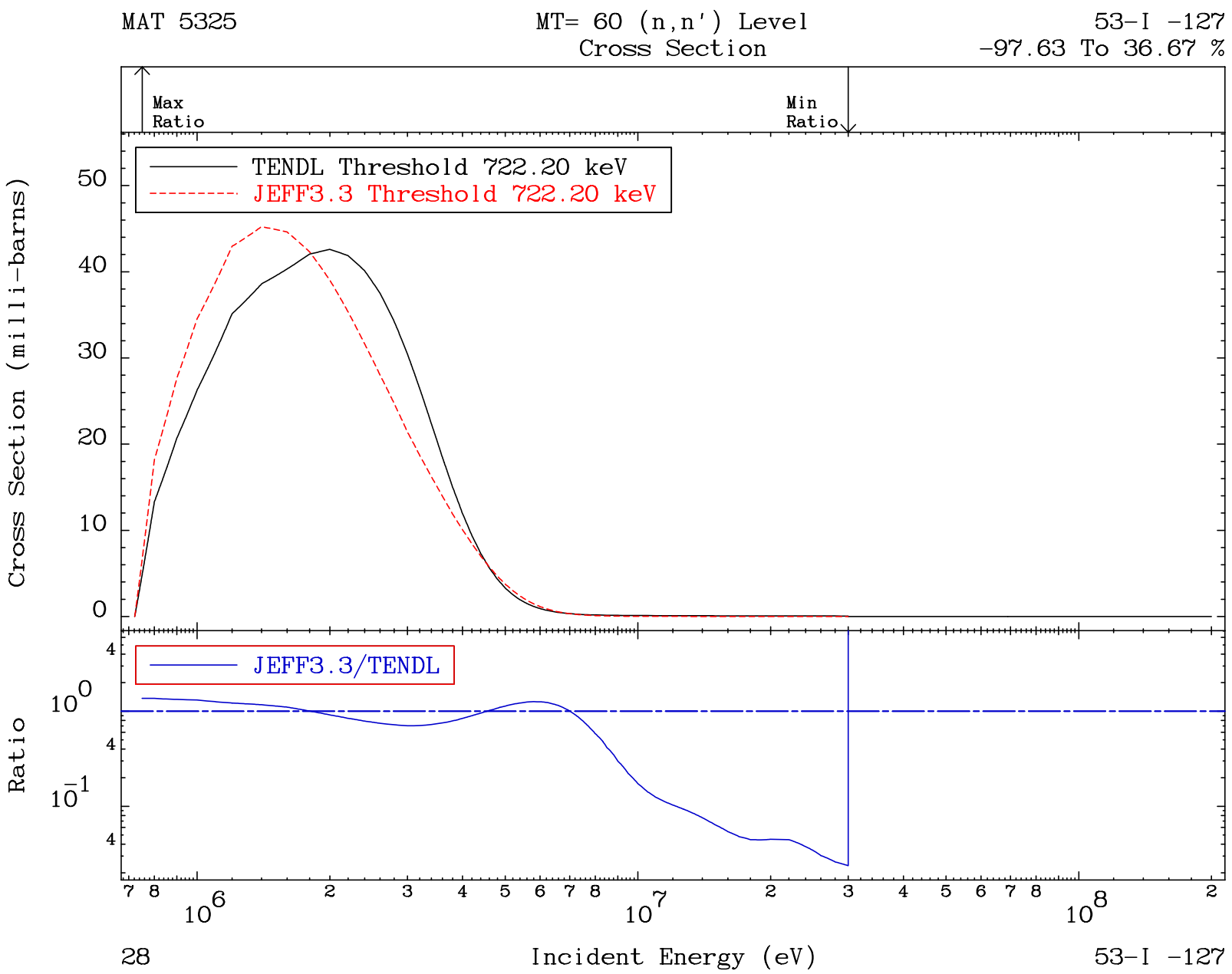

MAT 5325
MT= 55 (n,n') Level
Cross Section
53-I -127
-47.25 To 65.63 %
Max
Ratio
Min
Ratio
TENDL Threshold 421.31 keV
JEFF3.3 Threshold 421.31 keV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
0.8
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
53-I -127

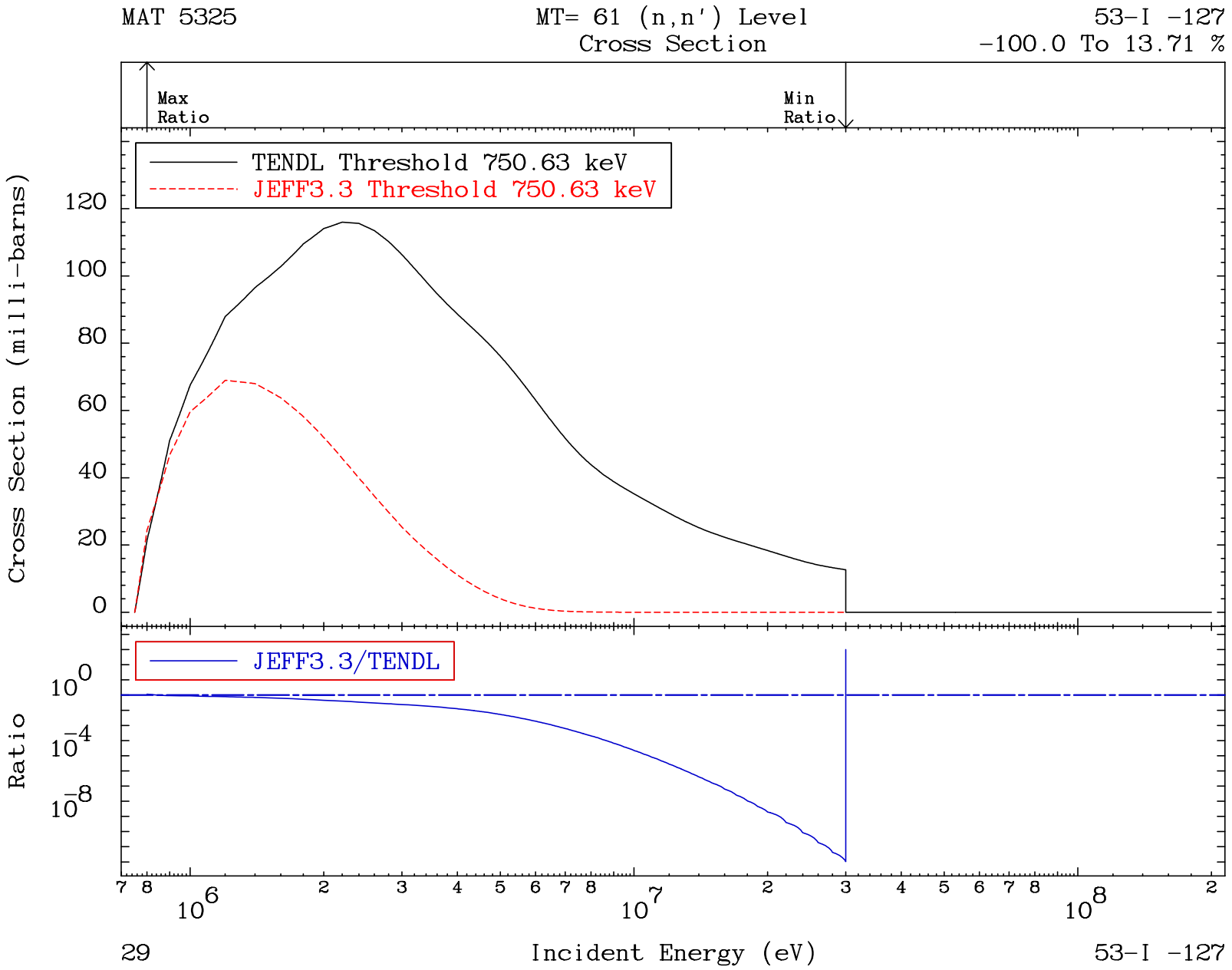

MAT 5325
MT= 56 (n,n') Level
Cross Section
53-I -127
-100.0 To 100.3 %
Max
Ratio
Min
Ratio
TENDL Threshold 476.76 keV
JEFF3.3 Threshold 476.76 keV
Cross Section (milli-barns)
0
20
40
60
80
JEFF3.3/TENDL
Ratio
10^0
10^-3
10^-6
10^-9
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
53-I -127

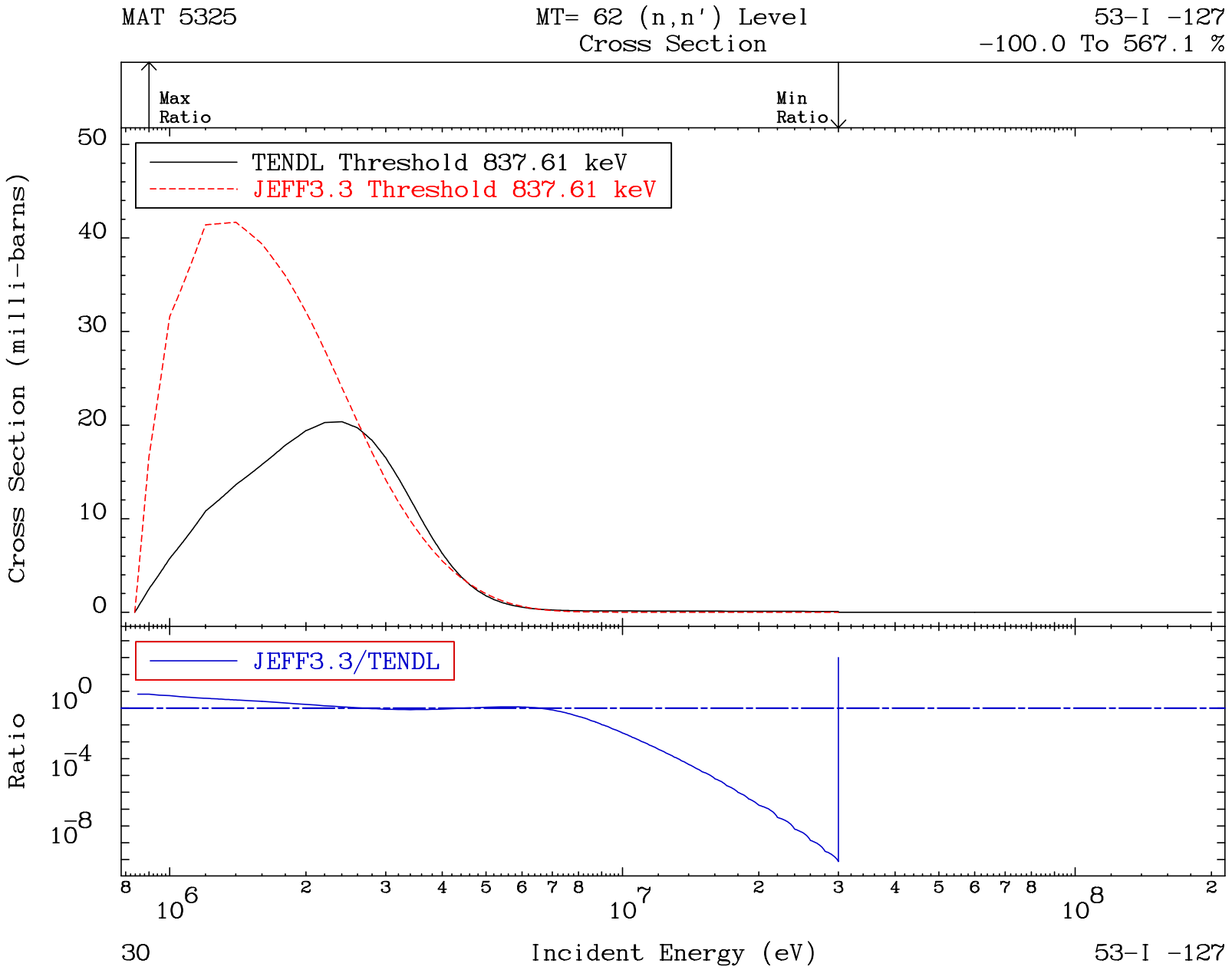

MAT 5325
MT= 57 (n,n') Level
Cross Section
53-I -127
-100.0 To -25.17%
Max
Ratio
Min
Ratio
TENDL Threshold 623.22 keV
JEFF3.3 Threshold 623.22 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^0
10^-4
10^-8
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
25
Incident Energy (eV)
53-I -127

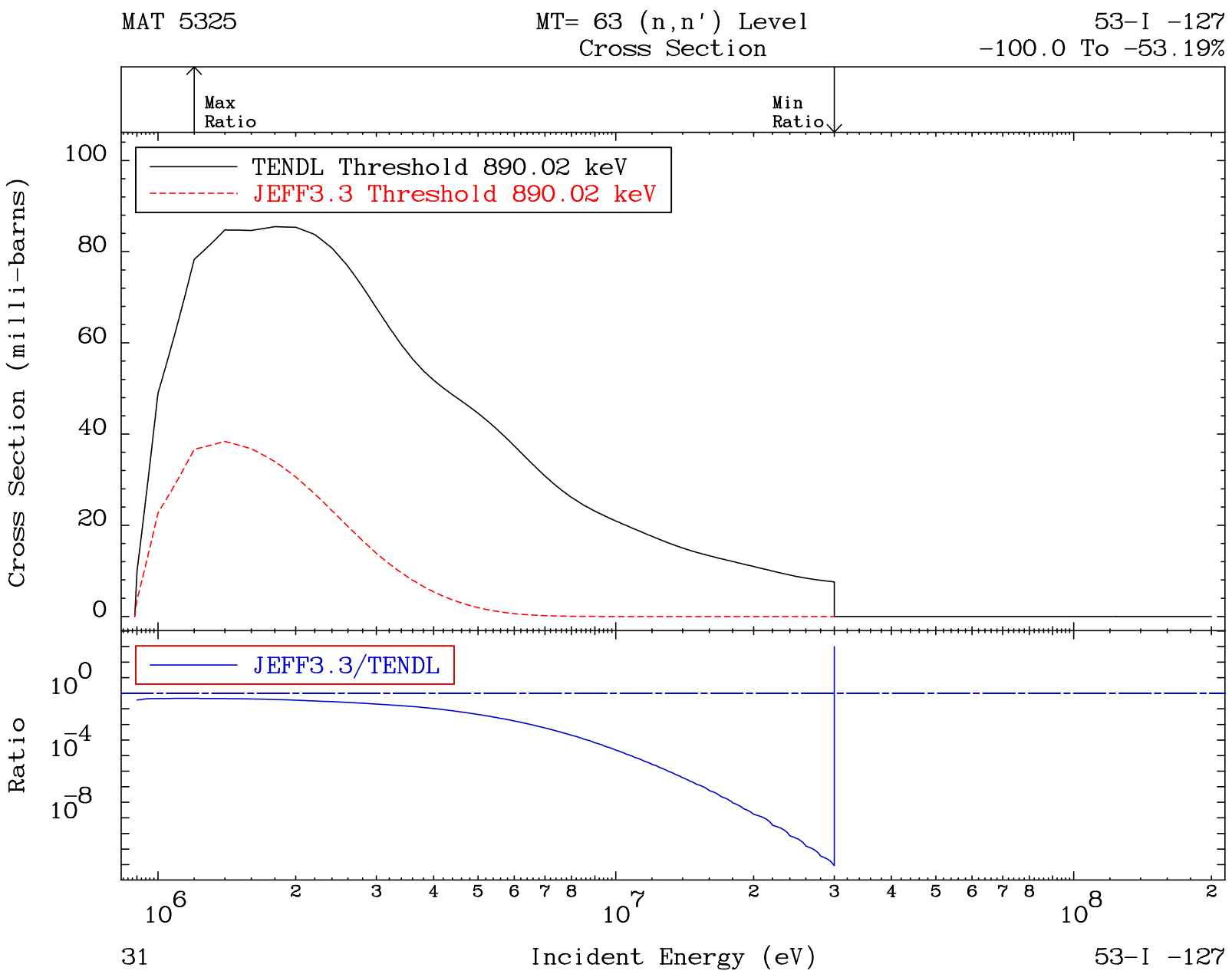

MAT 5325
MT= 58 (n,n') Level
Cross Section
53-I -127
-100.0 To -8.197%
Max
Ratio
Min
Ratio
TENDL Threshold 633.69 keV
JEFF3.3 Threshold 633.69 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^0
10^-4
10^-8
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
53-I -127

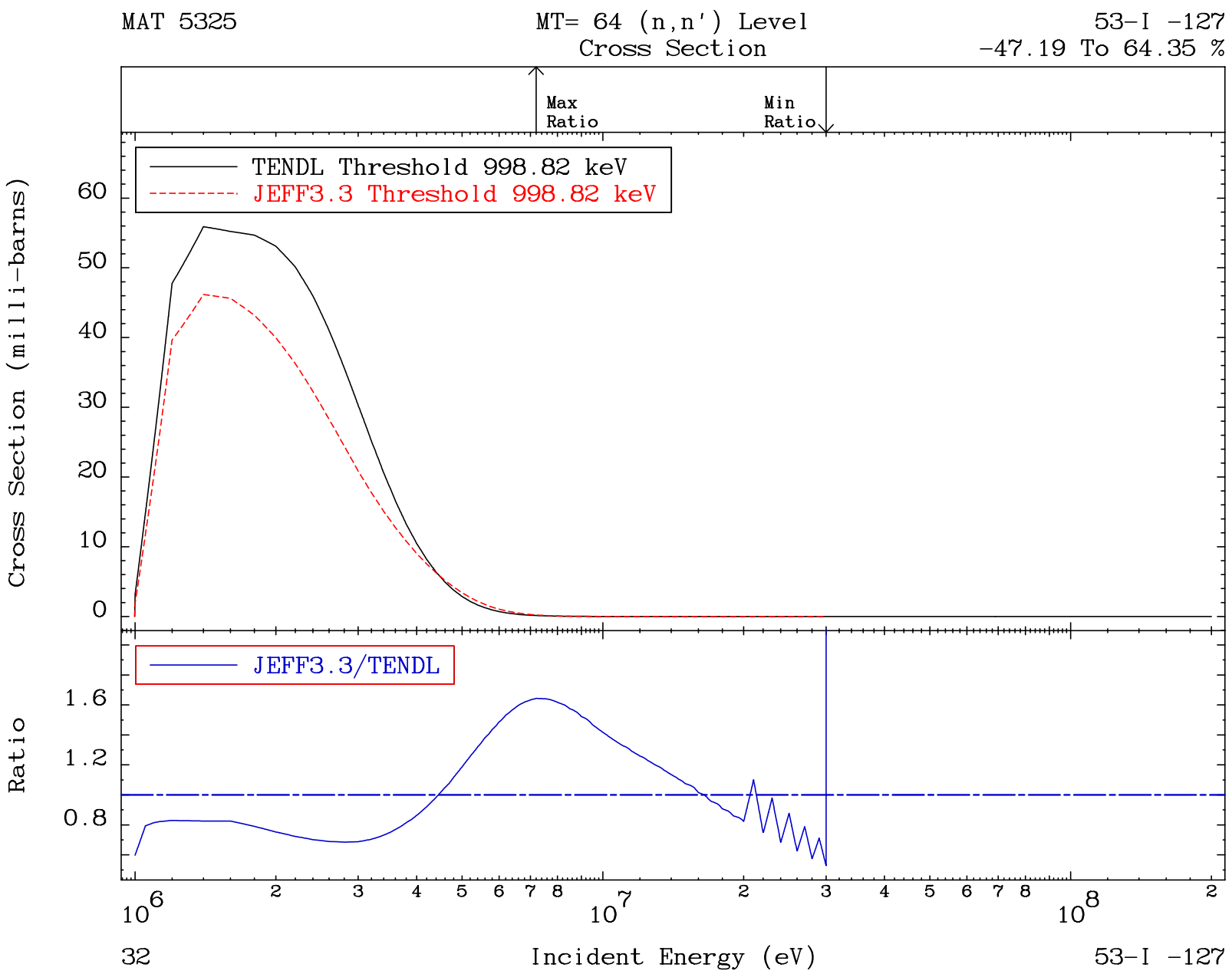

MAT 5325
MT= 59 (n,n') Level
Cross Section
53-I -127
-22.16 To 113.9 %
Min Ratio
Max Ratio
TENDL Threshold 656.09 keV
JEFF3.3 Threshold 656.09 keV
Cross Section (milli-barns)
0
20
40
60
80
JEFF3.3/TENDL
Ratio
1.2
1.8
2.4
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
27
Incident Energy (eV)
53-I -127

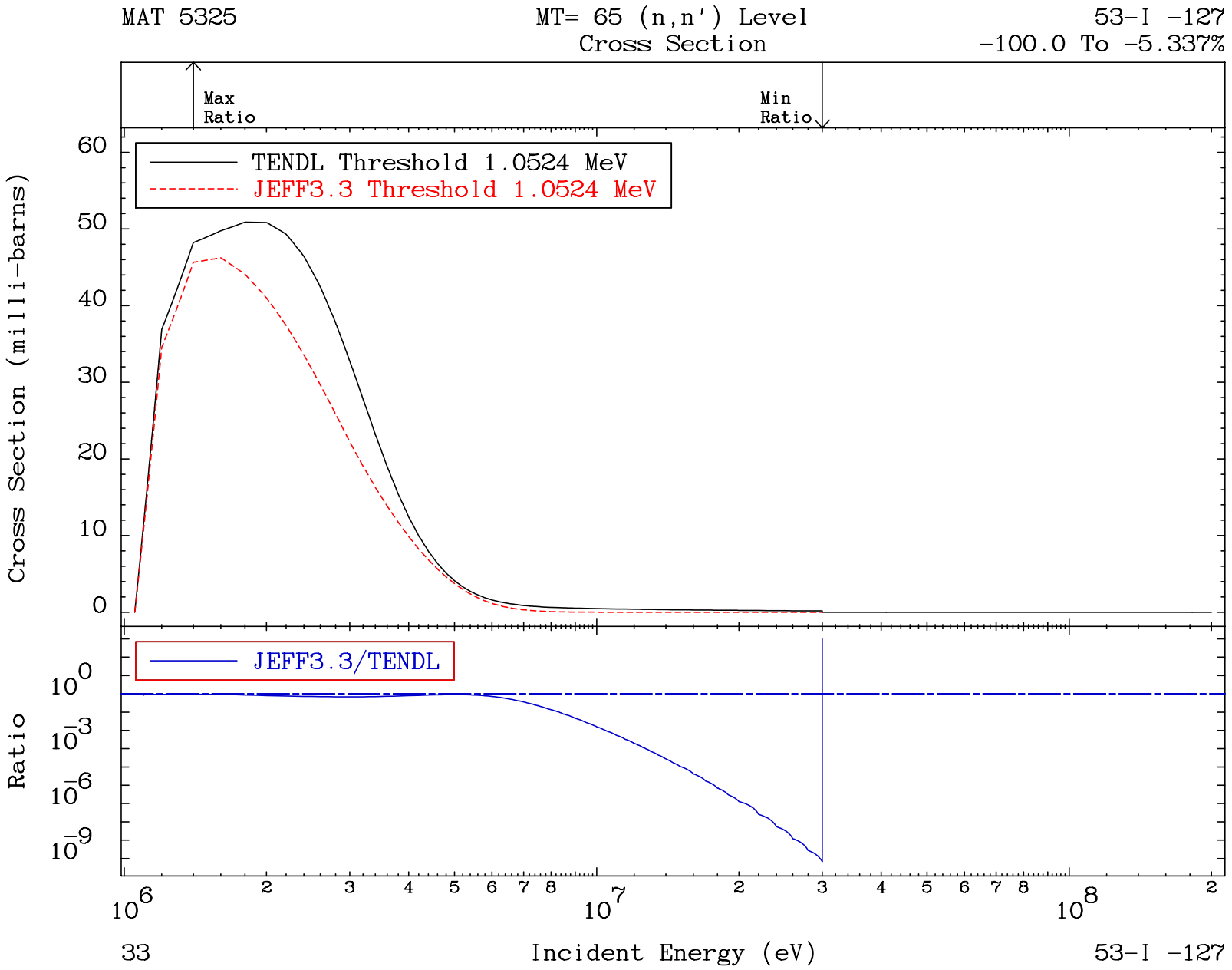

MAT 5325
MT= 60 (n,n') Level
Cross Section
53-I -127
-97.63 To 36.67 %
Max
Ratio
Min
Ratio
TENDL Threshold 722.20 keV
JEFF3.3 Threshold 722.20 keV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^0
10^-1
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
53-I -127

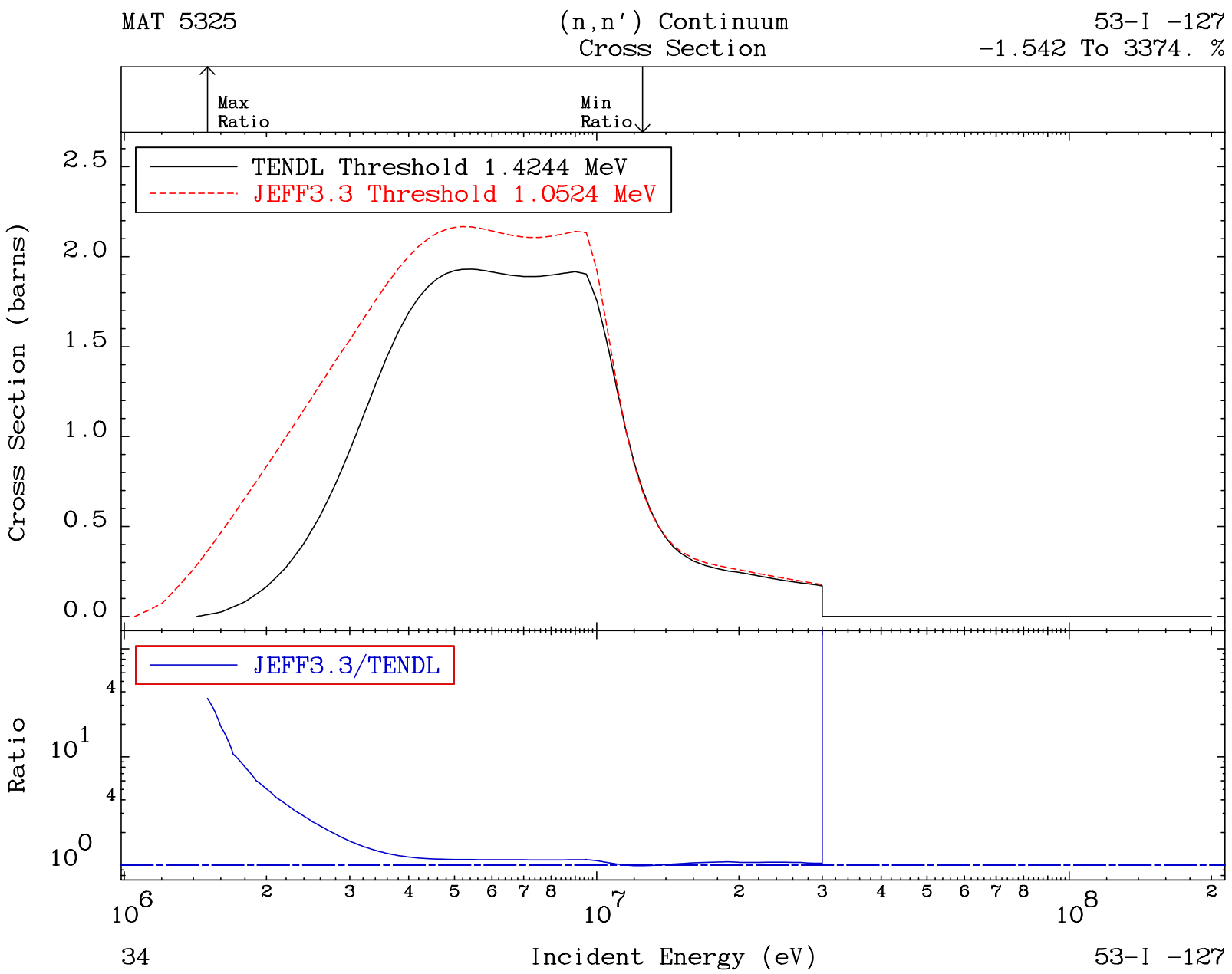

MAT 5325
MT= 61 (n,n') Level
Cross Section
53-I -127
-100.0 To 13.71 %
Max
Ratio
Min
Ratio
TENDL Threshold 750.63 keV
JEFF3.3 Threshold 750.63 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^0
10^-4
10^-8
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
29
Incident Energy (eV)
53-I -127

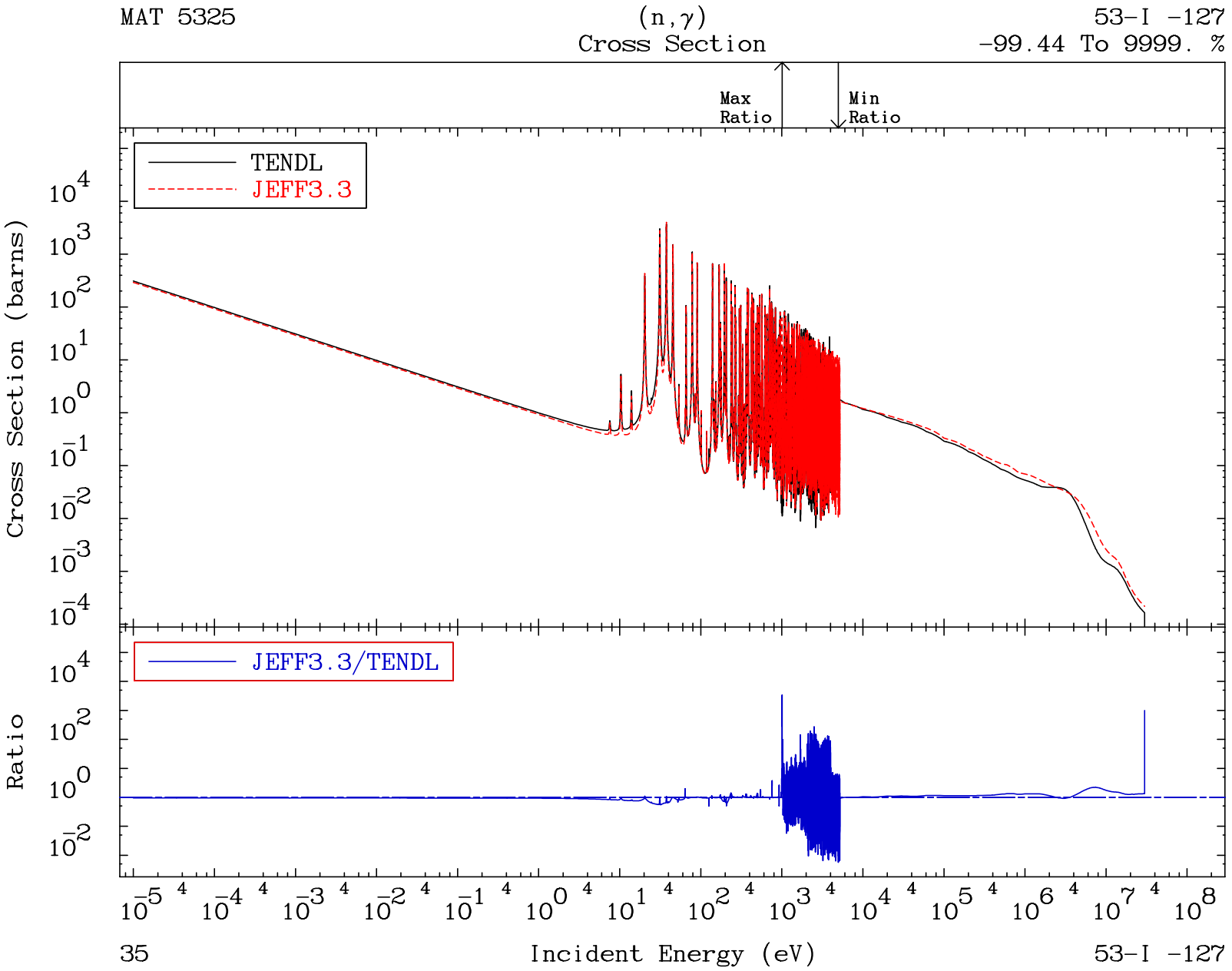

MAT 5325
MT= 62 (n,n') Level
Cross Section
53-I -127
-100.0 To 567.1 %
Max
Ratio
Min
Ratio
TENDL Threshold 837.61 keV
JEFF3.3 Threshold 837.61 keV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^0
10^-4
10^-8
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
30
Incident Energy (eV)
53-I -127

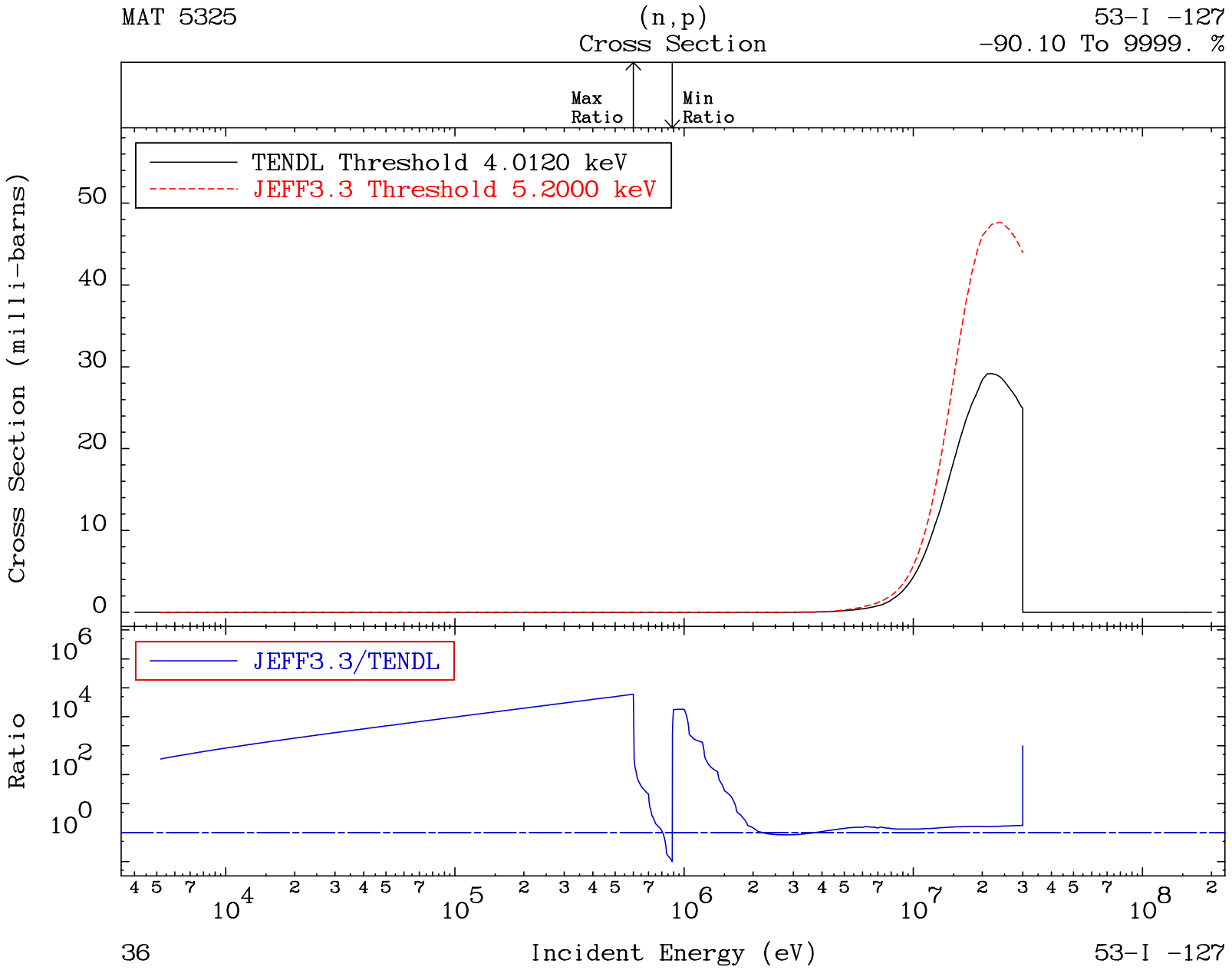

MAT 5325
MT= 63 (n,n') Level
Cross Section
53-I -127
-100.0 To -53.19%
Max
Ratio
Min
Ratio
TENDL Threshold 890.02 keV
JEFF3.3 Threshold 890.02 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^0
10^-4
10^-8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
31
Incident Energy (eV)
53-I -127

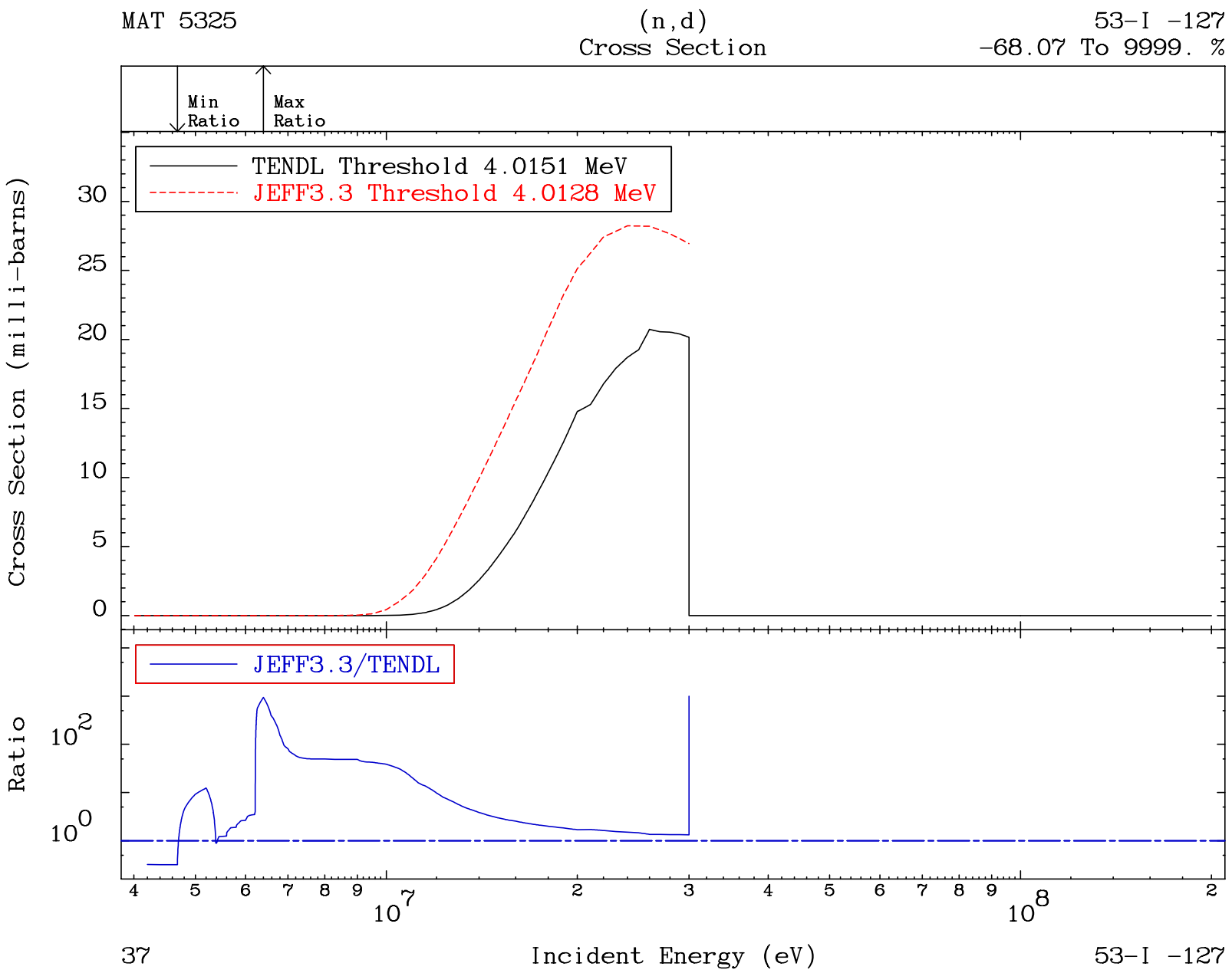

MAT 5325
MT= 64 (n,n') Level
Cross Section
53-I -127
-47.19 To 64.35 %
Max
Ratio
Min
Ratio
TENDL Threshold 998.82 keV
JEFF3.3 Threshold 998.82 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.6
1.2
0.8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
32
Incident Energy (eV)
53-I -127

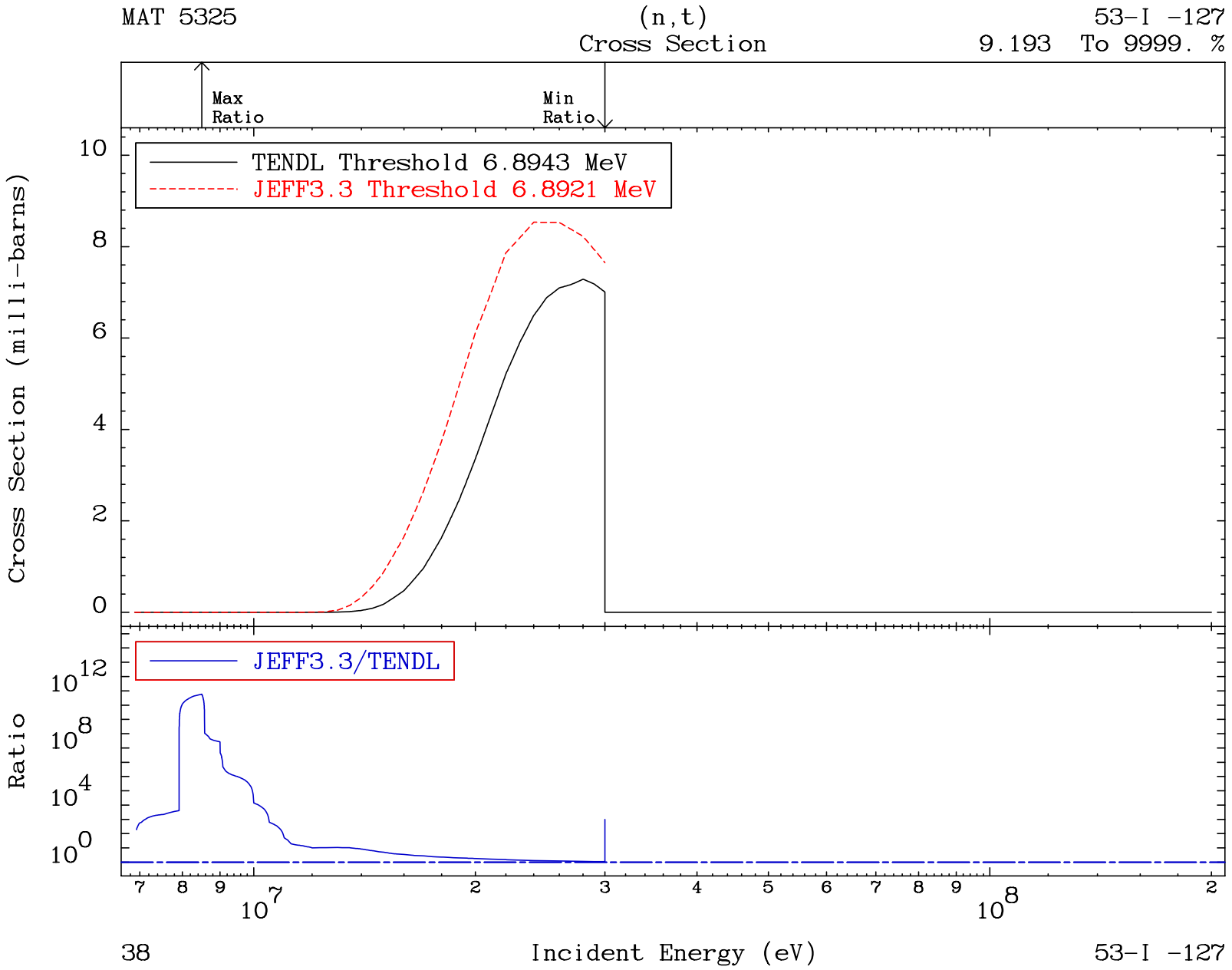

MAT 5325
MT= 65 (n,n') Level
Cross Section
53-I -127
-100.0 To -5.337%
Max
Ratio
Min
Ratio
TENDL Threshold 1.0524 MeV
JEFF3.3 Threshold 1.0524 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^0
10^-3
10^-6
10^-9
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
53-I -127

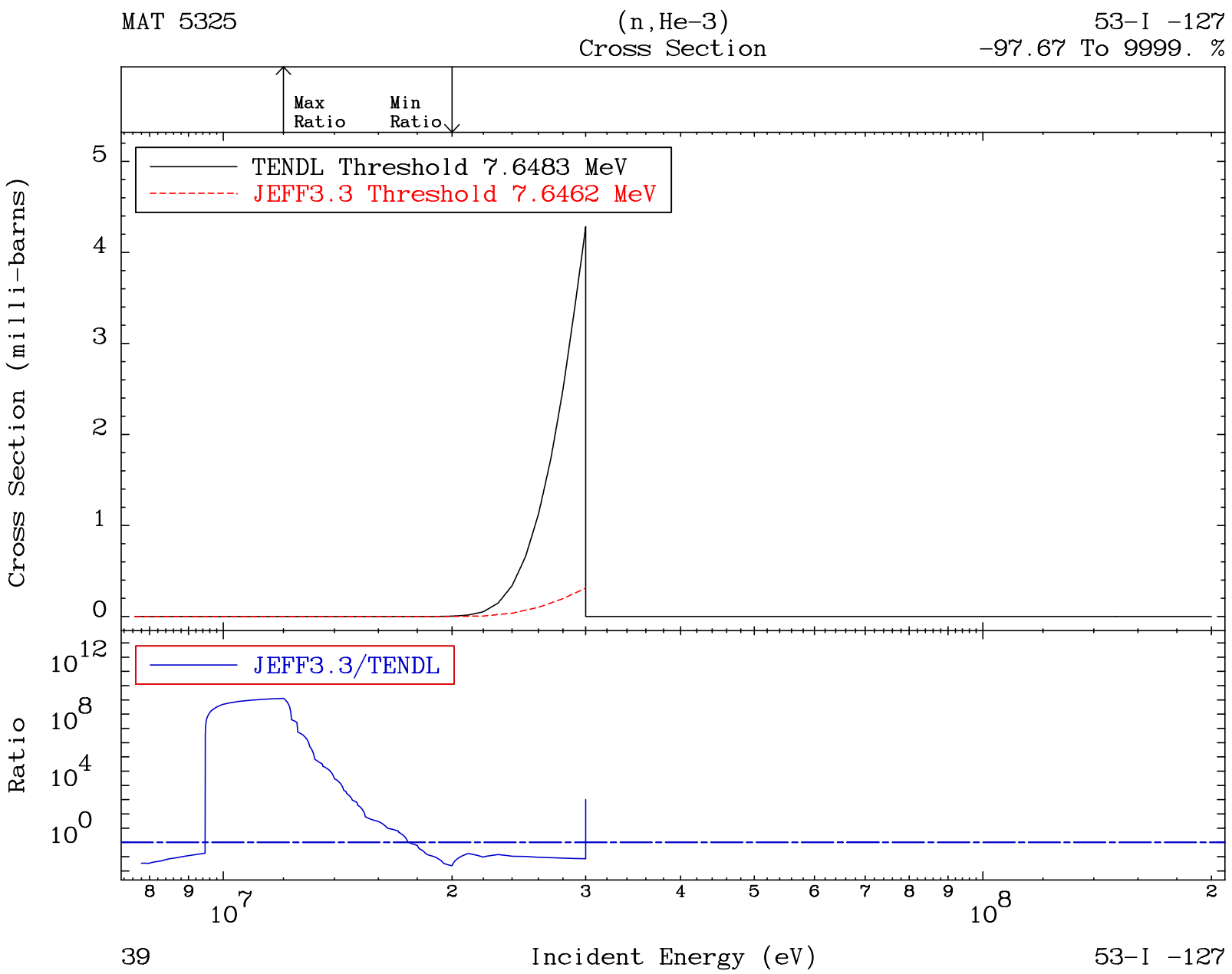

MAT 5325
(n,n') Continuum
Cross Section
53-I -127
-1.542 To 3374. %
Max
Ratio
Min
Ratio
TENDL Threshold 1.4244 MeV
JEFF3.3 Threshold 1.0524 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^1
10^0
10^6
10^7
10^8
34
Incident Energy (eV)
53-I -127

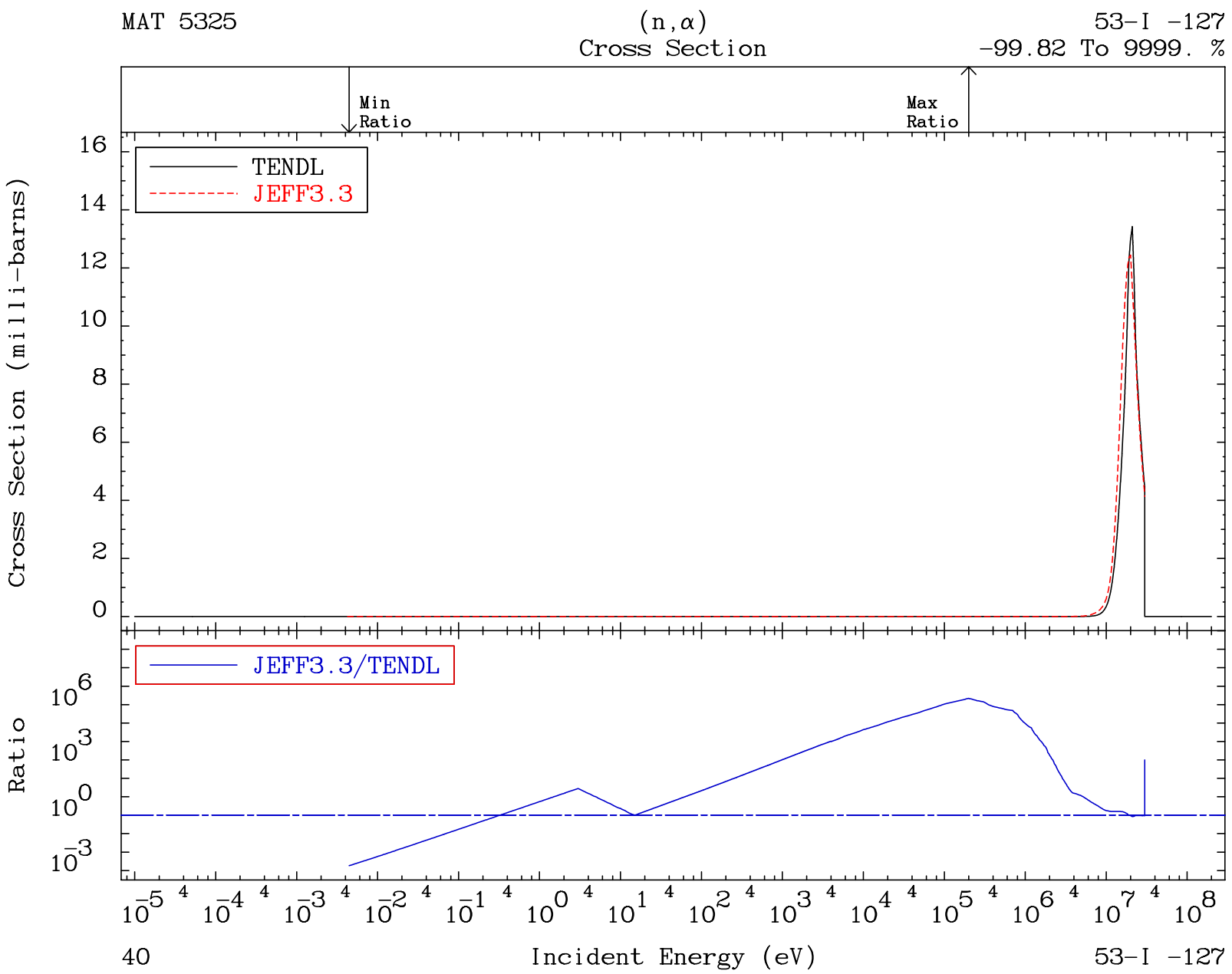

MAT 5325
(n,γ)
Cross Section
53-I -127
-99.44 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
35
53-I -127

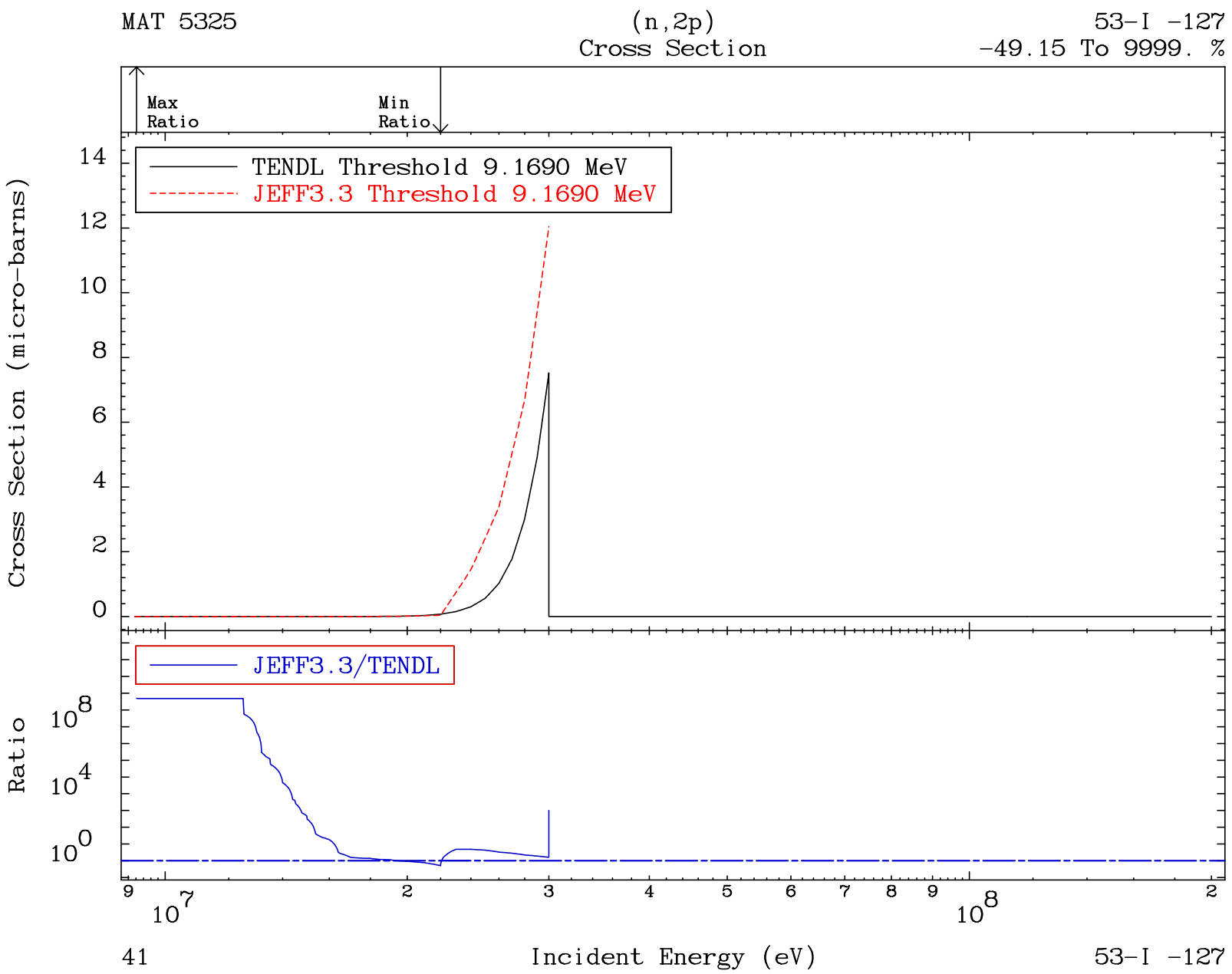

MAT 5325
(n,p)
Cross Section
53-I -127
-90.10 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 4.0120 keV
JEFF3.3 Threshold 5.2000 keV
Cross Section (milli-barns)
0
10
20
30
40
50
JEFF3.3/TENDL
Ratio
10^0
10^2
10^4
10^6
10^4
10^5
10^6
10^7
10^8
Incident Energy (eV)
36
53-I -127

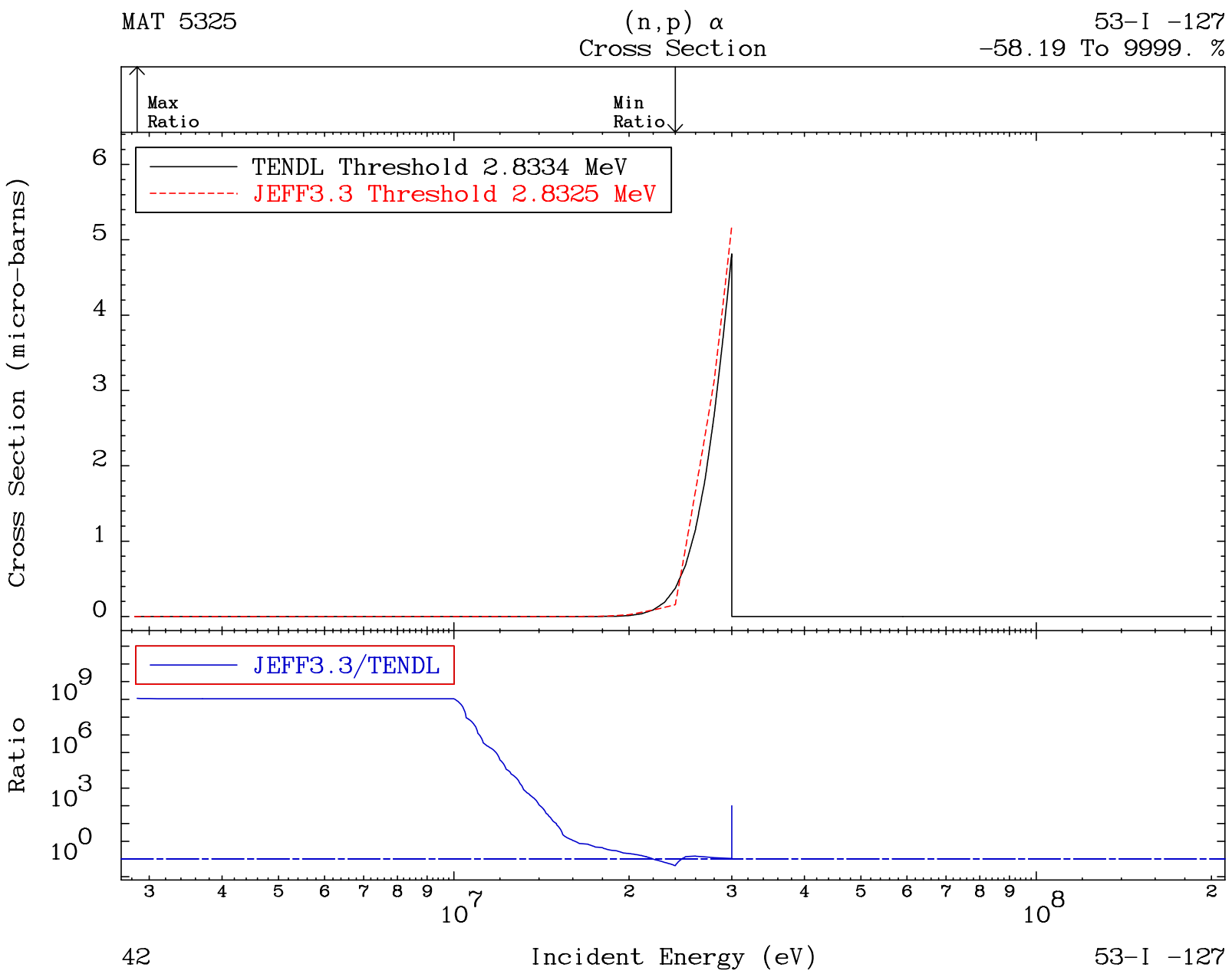

MAT 5325
(n,d)
Cross Section
53-I -127
-68.07 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 4.0151 MeV
JEFF3.3 Threshold 4.0128 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
37
53-I -127

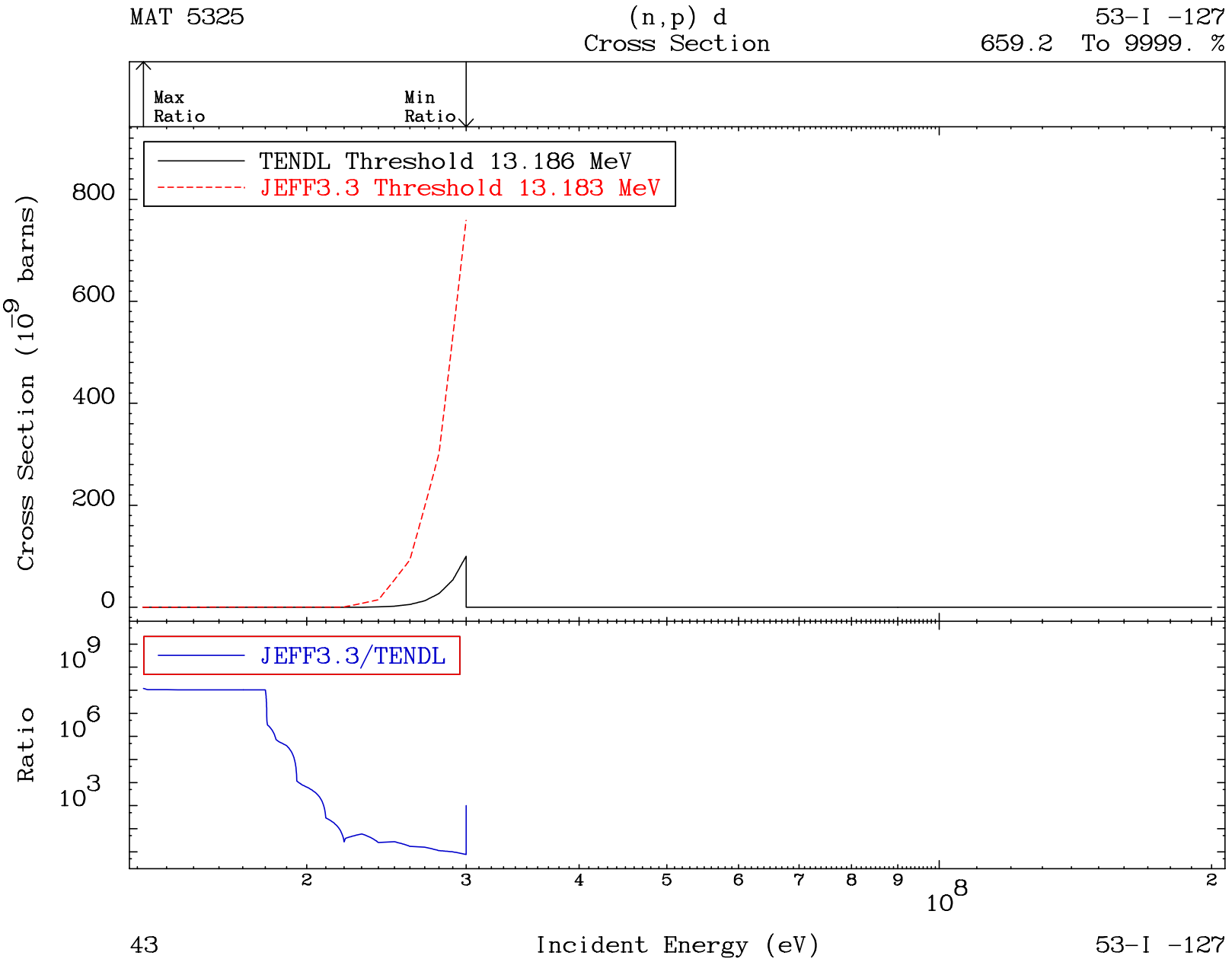

MAT 5325
(n,t)
Cross Section
53-I -127
9.193 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.8943 MeV
JEFF3.3 Threshold 6.8921 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
38
53-I -127

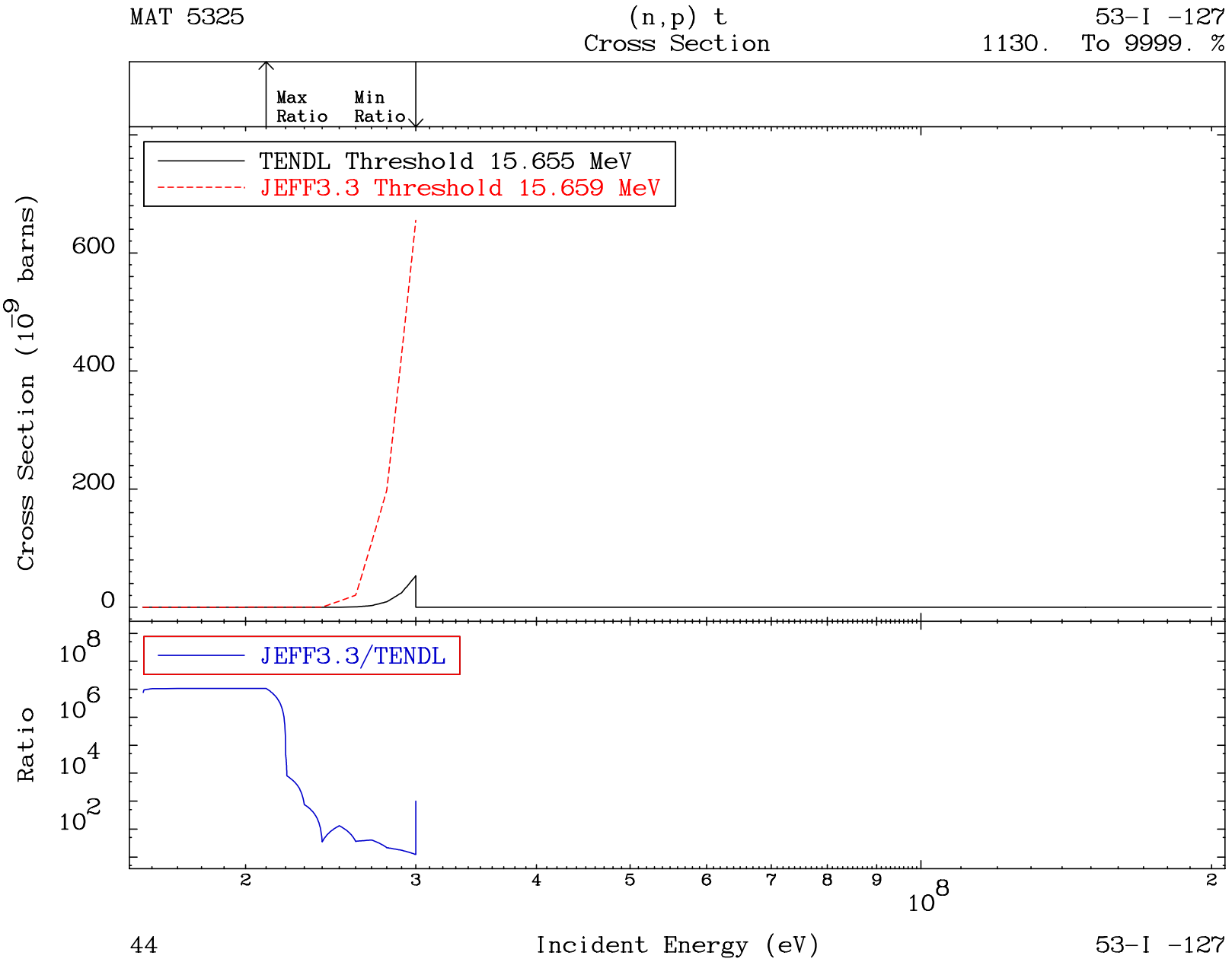

MAT 5325
(n,He-3)
Cross Section
53-I -127
-97.67 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.6483 MeV
JEFF3.3 Threshold 7.6462 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
39
53-I -127

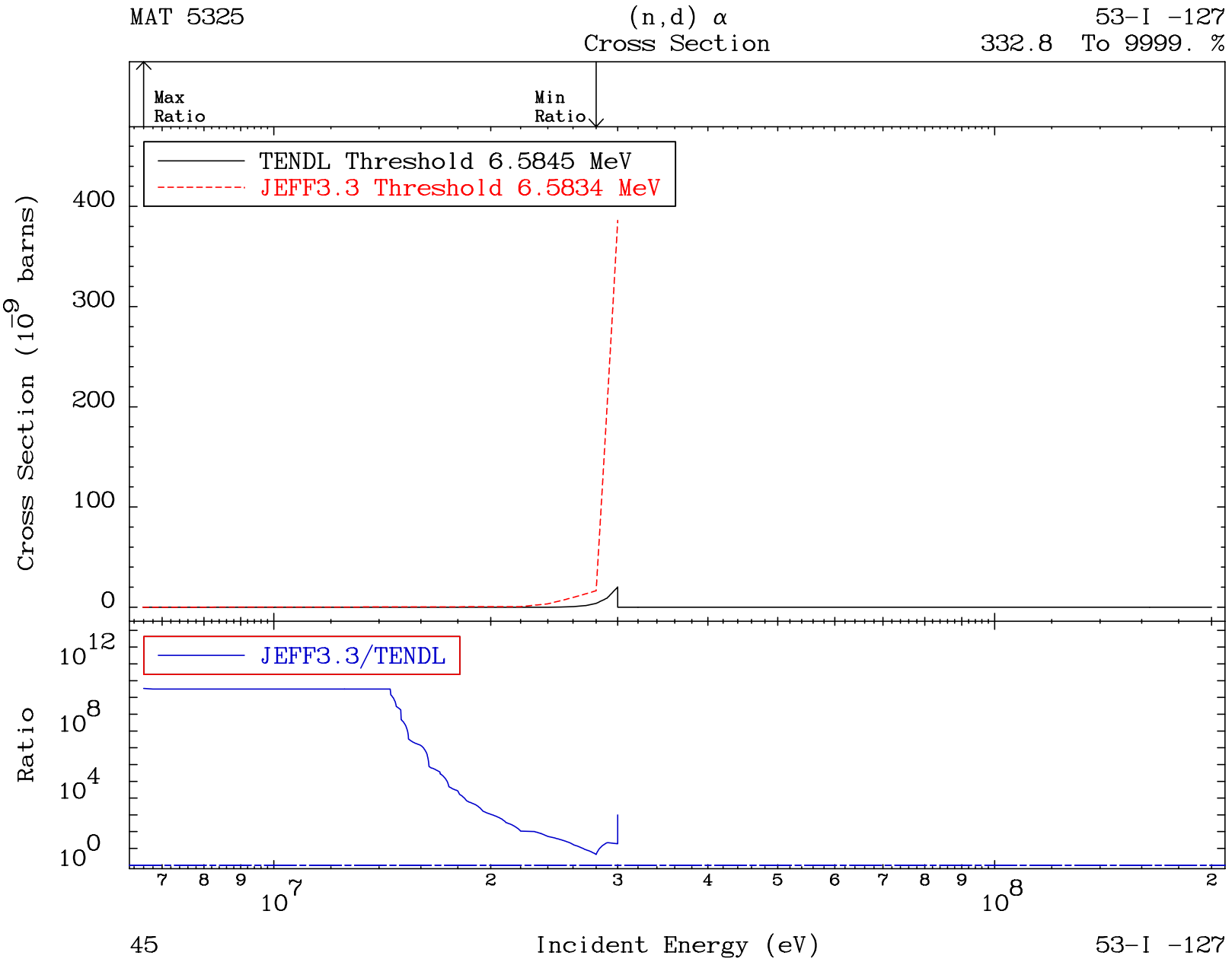

MAT 5325
(n,α)
Cross Section
53-I -127
-99.82 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
10^6
10^3
10^0
10^-3
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
40
Incident Energy (eV)
53-I -127

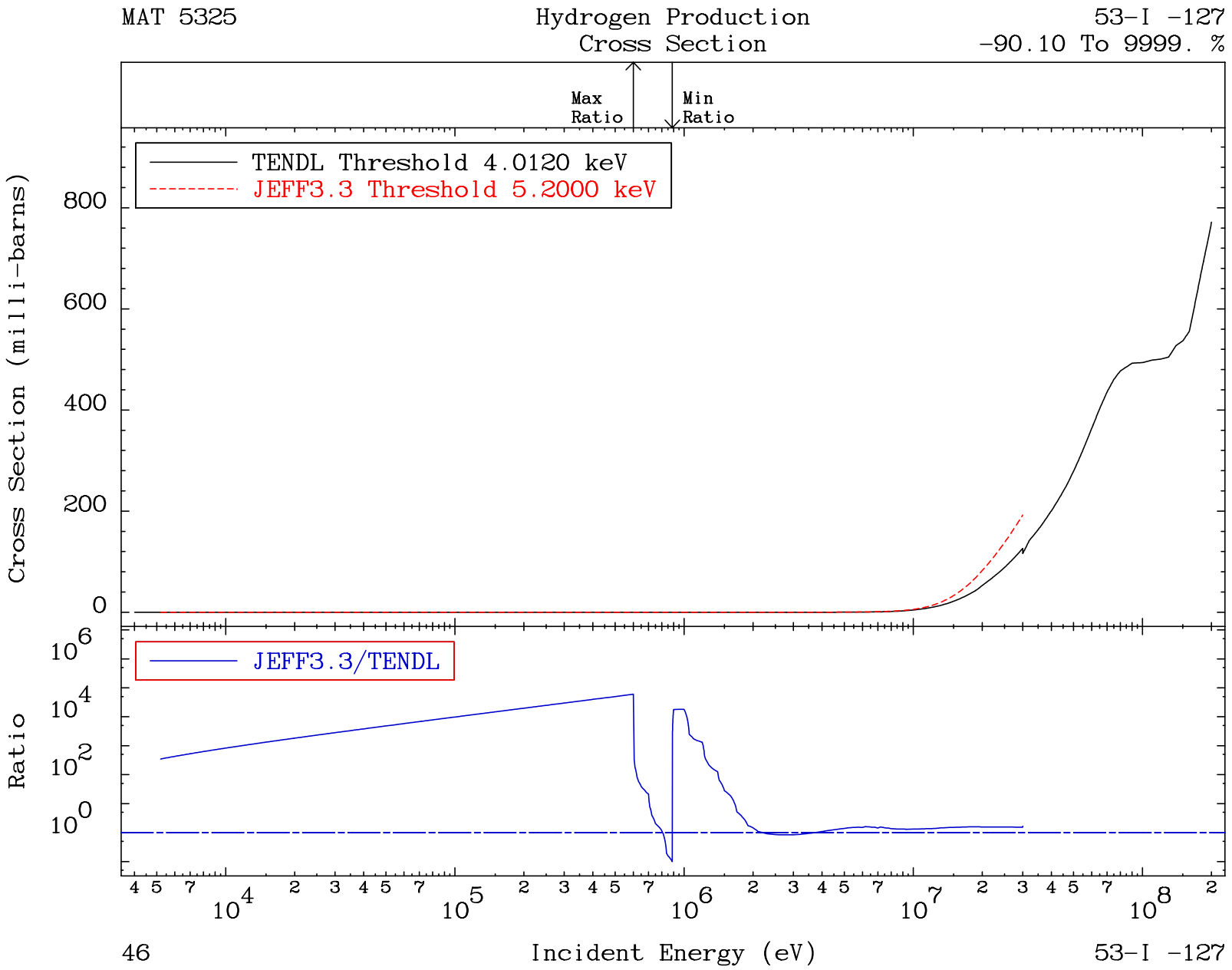

MAT 5325
(n,2p)
Cross Section
53-I -127
-49.15 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 9.1690 MeV
JEFF3.3 Threshold 9.1690 MeV
Cross Section (micro-barns)
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
10^8
10^4
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
41
Incident Energy (eV)
53-I -127

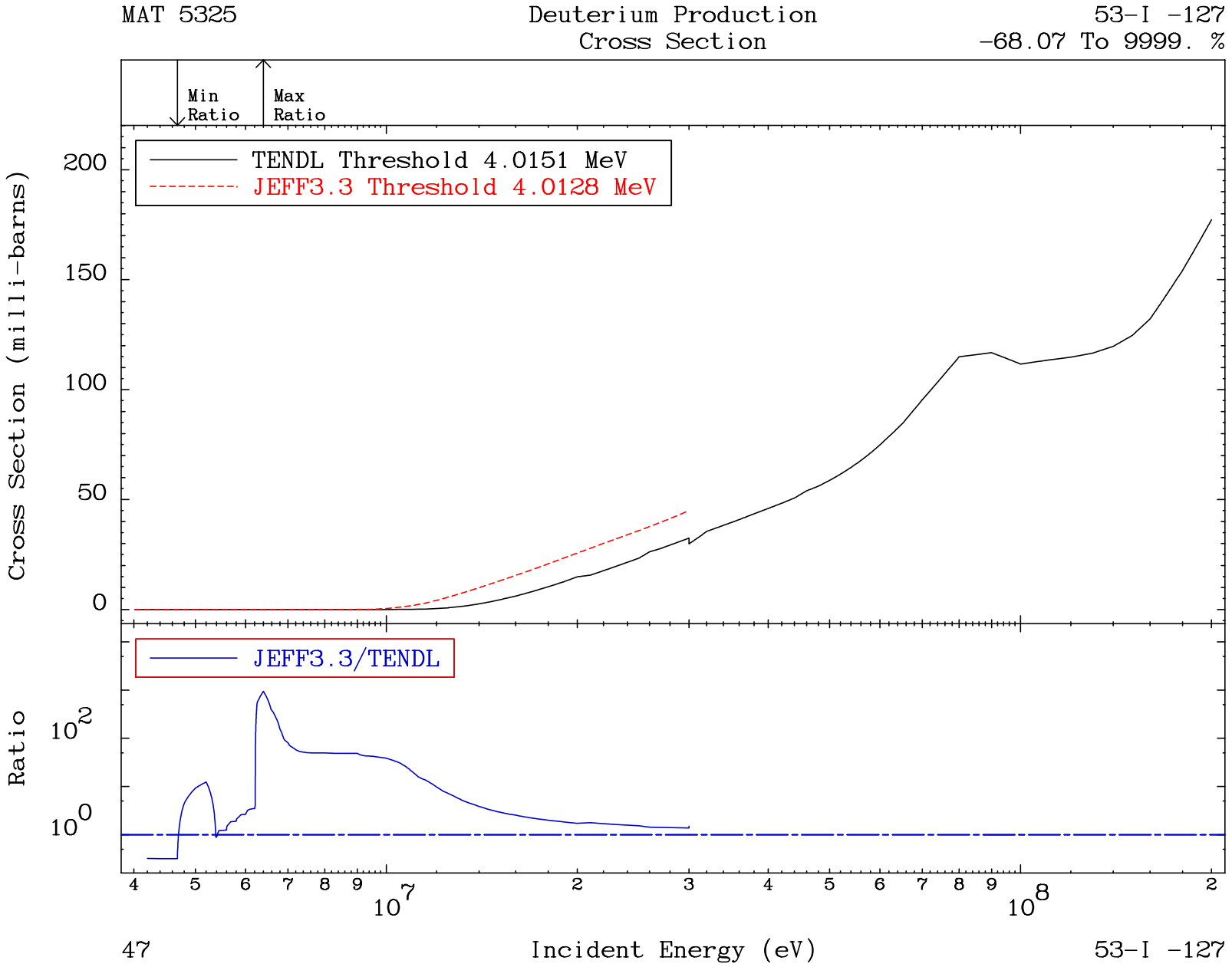

MAT 5325
(n,p) α
Cross Section
53-I -127
-58.19 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.8334 MeV
JEFF3.3 Threshold 2.8325 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
42
53-I -127

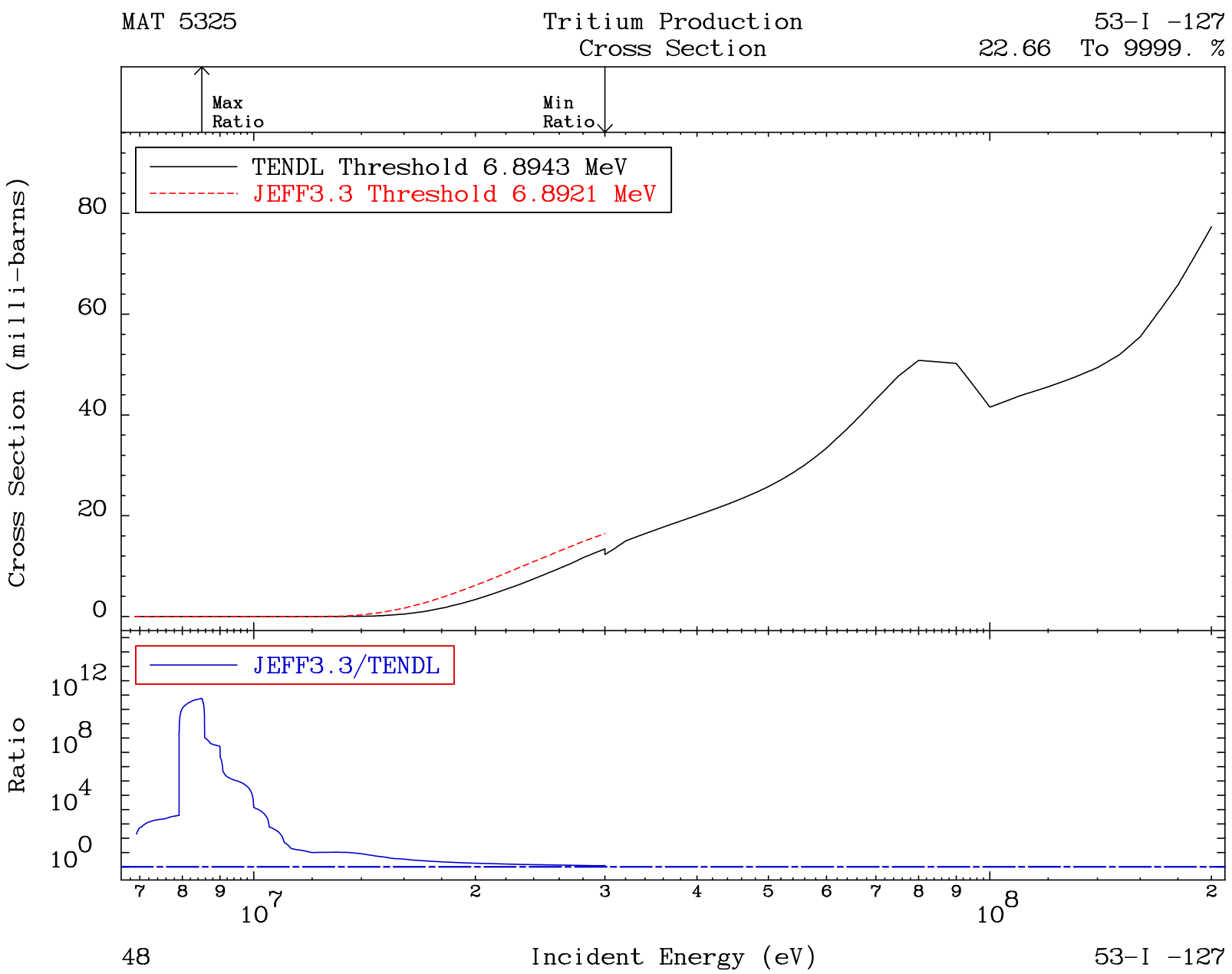

MAT 5325
(n,p) d
Cross Section
53-I -127
659.2 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.186 MeV
JEFF3.3 Threshold 13.183 MeV
Cross Section (10^{-9} barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
10^{9}
10^{6}
10^{3}
2
3
4
5
6
7
8
9
10^{8}
2
43
Incident Energy (eV)
53-I -127

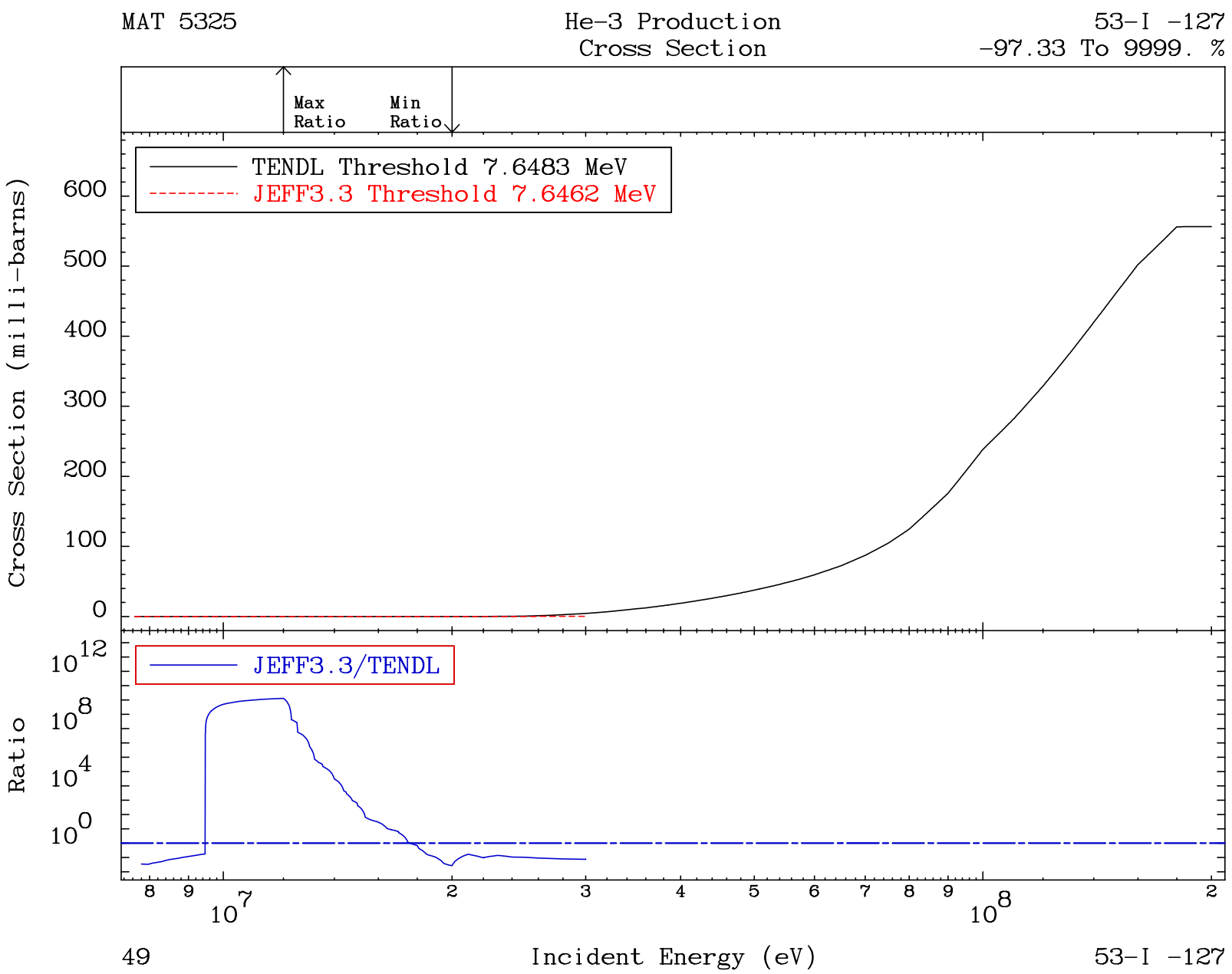

MAT 5325
(n,p) t
Cross Section
53-I -127
1130. To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 15.655 MeV
JEFF3.3 Threshold 15.659 MeV
Cross Section (10^{-9} barns)
600
400
200
0
JEFF3.3/TENDL
Ratio
10^{8}
10^{6}
10^{4}
10^{2}
2
3
4
5
6
7
8
9
10^{8}
2
44
Incident Energy (eV)
53-I -127

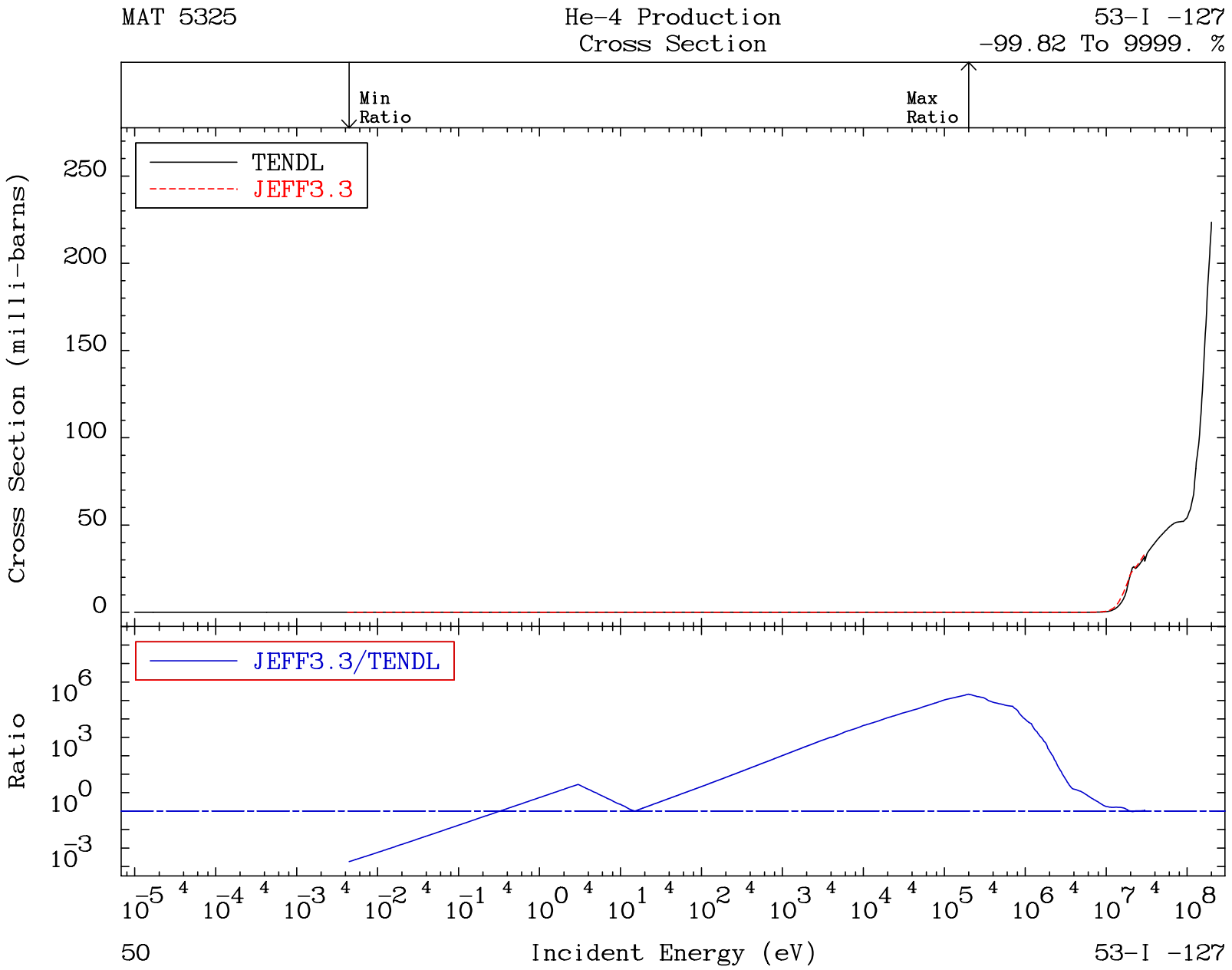

MAT 5325
(n,d) α
Cross Section
53-I -127
332.8 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.5845 MeV
JEFF3.3 Threshold 6.5834 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^{12}
10^{8}
10^{4}
10^{0}
7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
45
Incident Energy (eV)
53-I -127

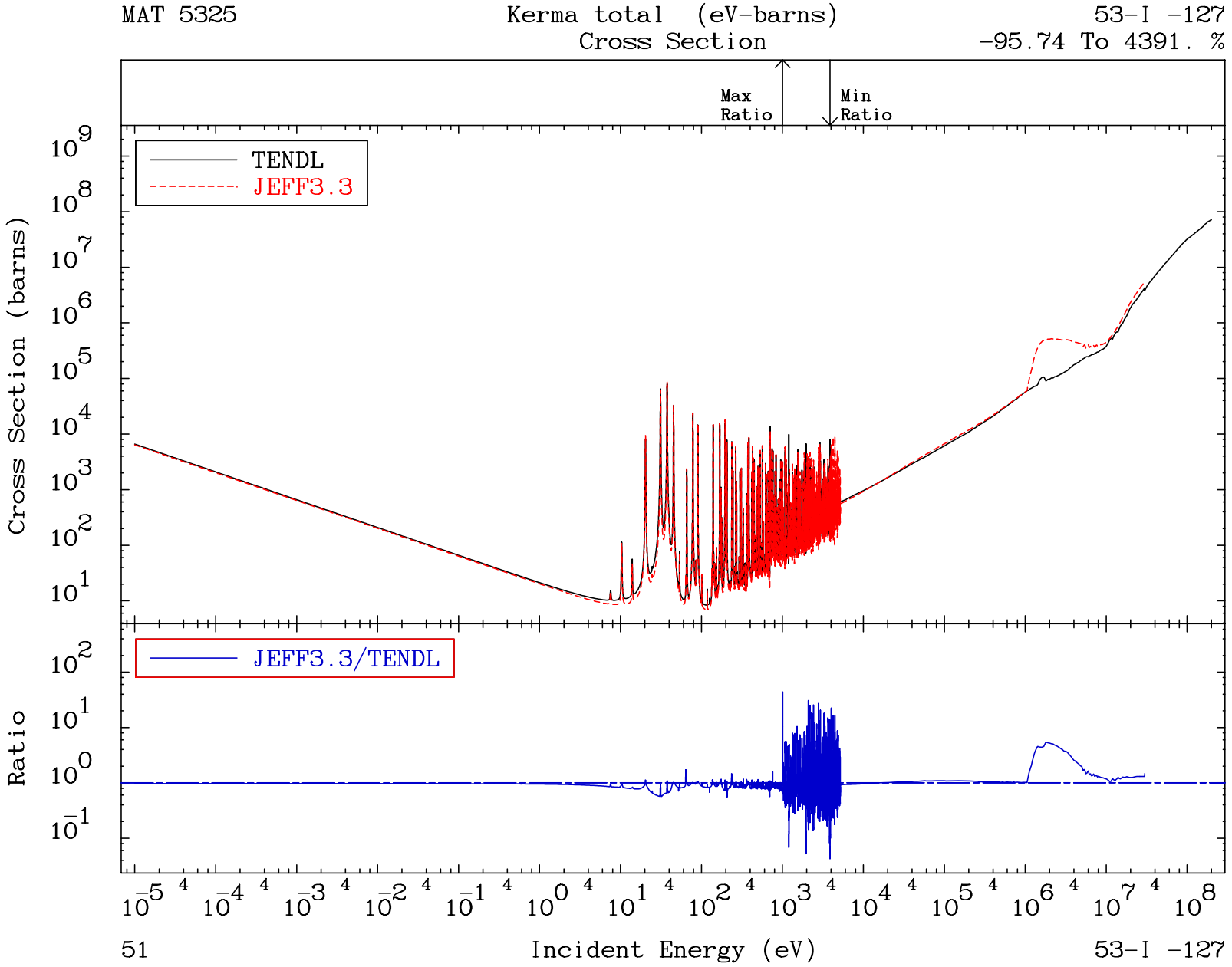

MAT 5325
Hydrogen Production
Cross Section
53-I -127
-90.10 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 4.0120 keV
JEFF3.3 Threshold 5.2000 keV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
10^6
10^4
10^2
10^0
10^4
10^5
10^6
10^7
10^8
Incident Energy (eV)
46
53-I -127

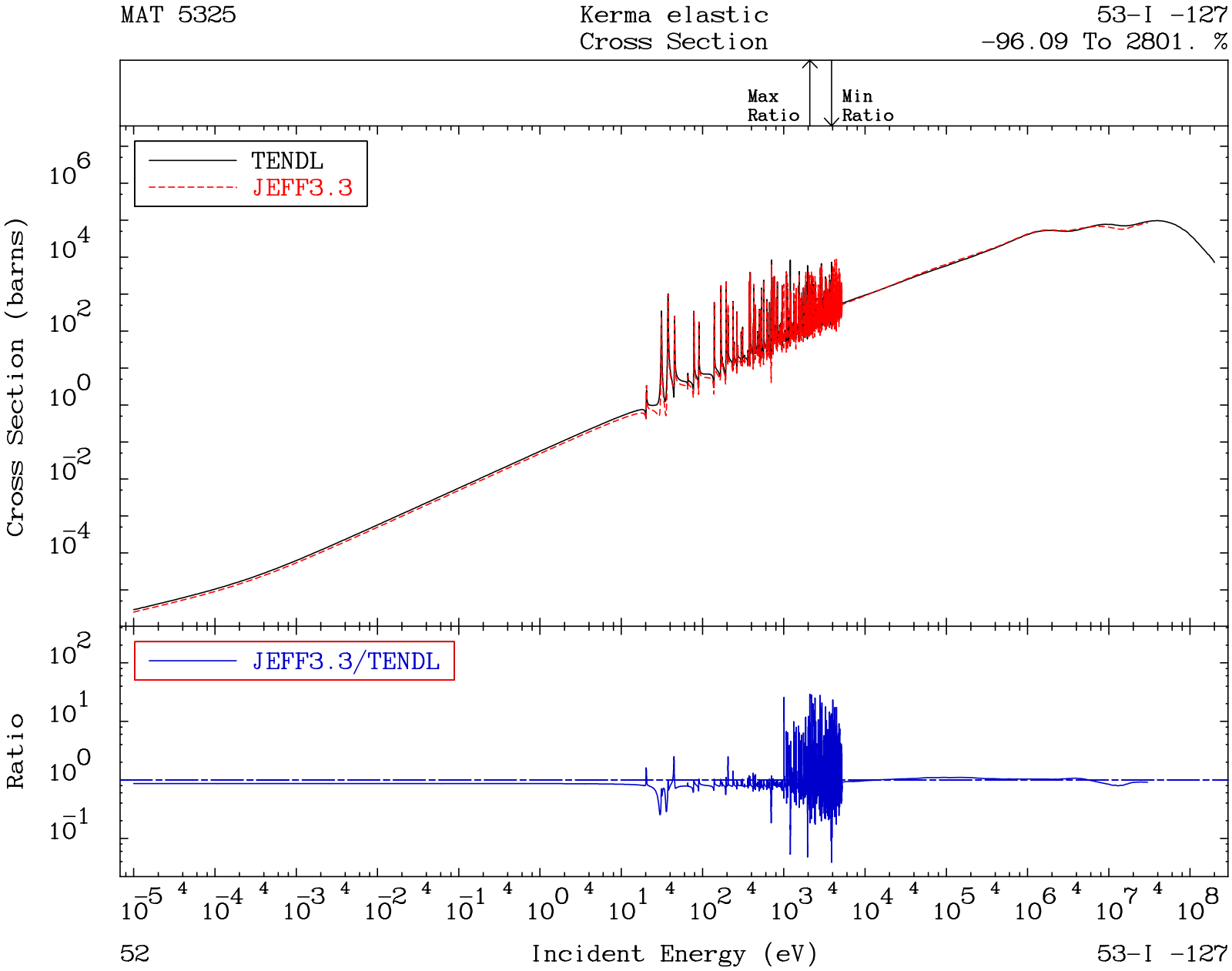

MAT 5325
Deuterium Production
Cross Section
53-I -127
-68.07 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 4.0151 MeV
JEFF3.3 Threshold 4.0128 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
10^2
10^0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
53-I -127

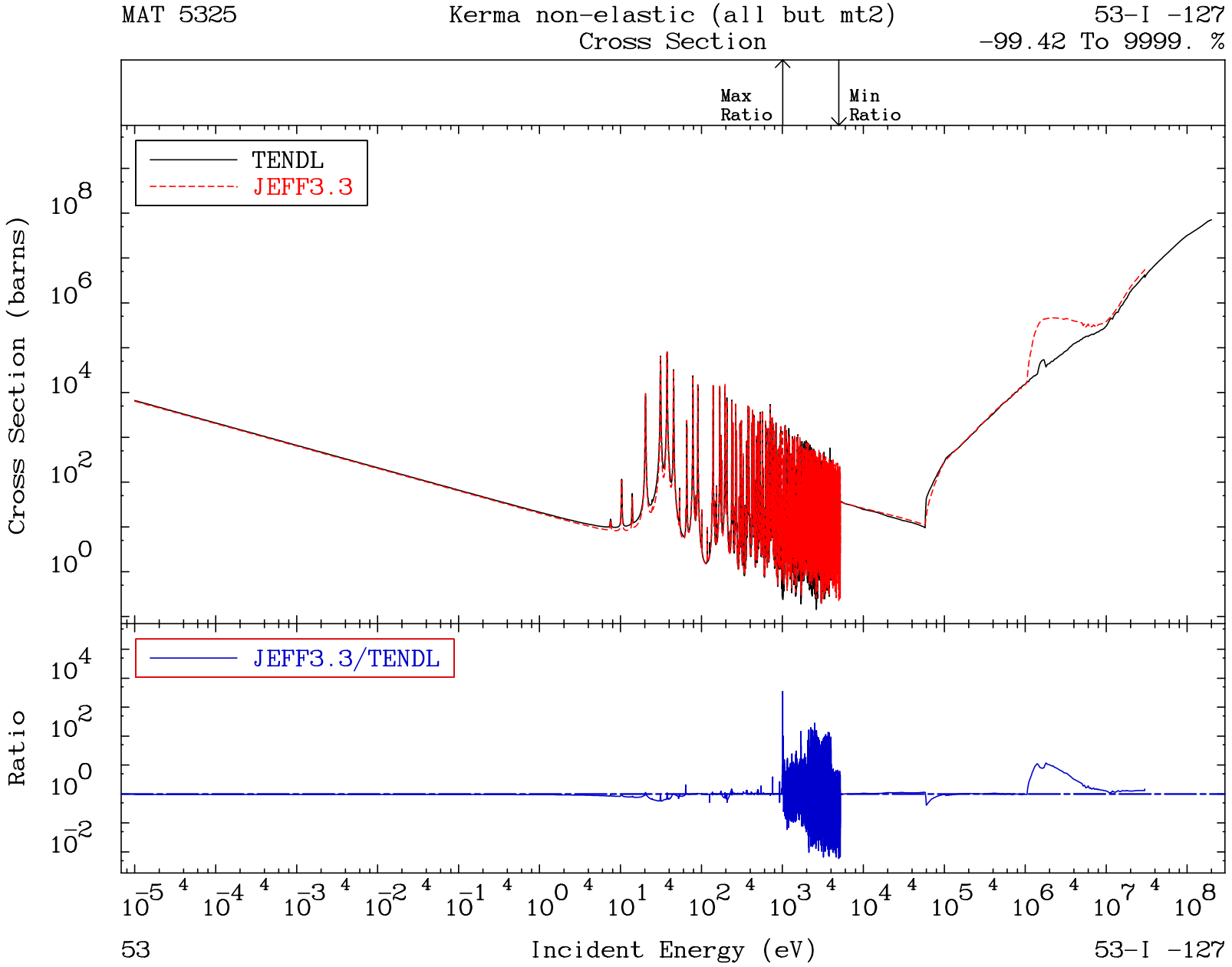

MAT 5325
Tritium Production
Cross Section
53-I -127
22.66 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.8943 MeV
JEFF3.3 Threshold 6.8921 MeV
Cross Section (milli-barns)
0
20
40
60
80
JEFF3.3/TENDL
Ratio
10^{0}
10^{4}
10^{8}
10^{12}
7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
48
Incident Energy (eV)
53-I -127

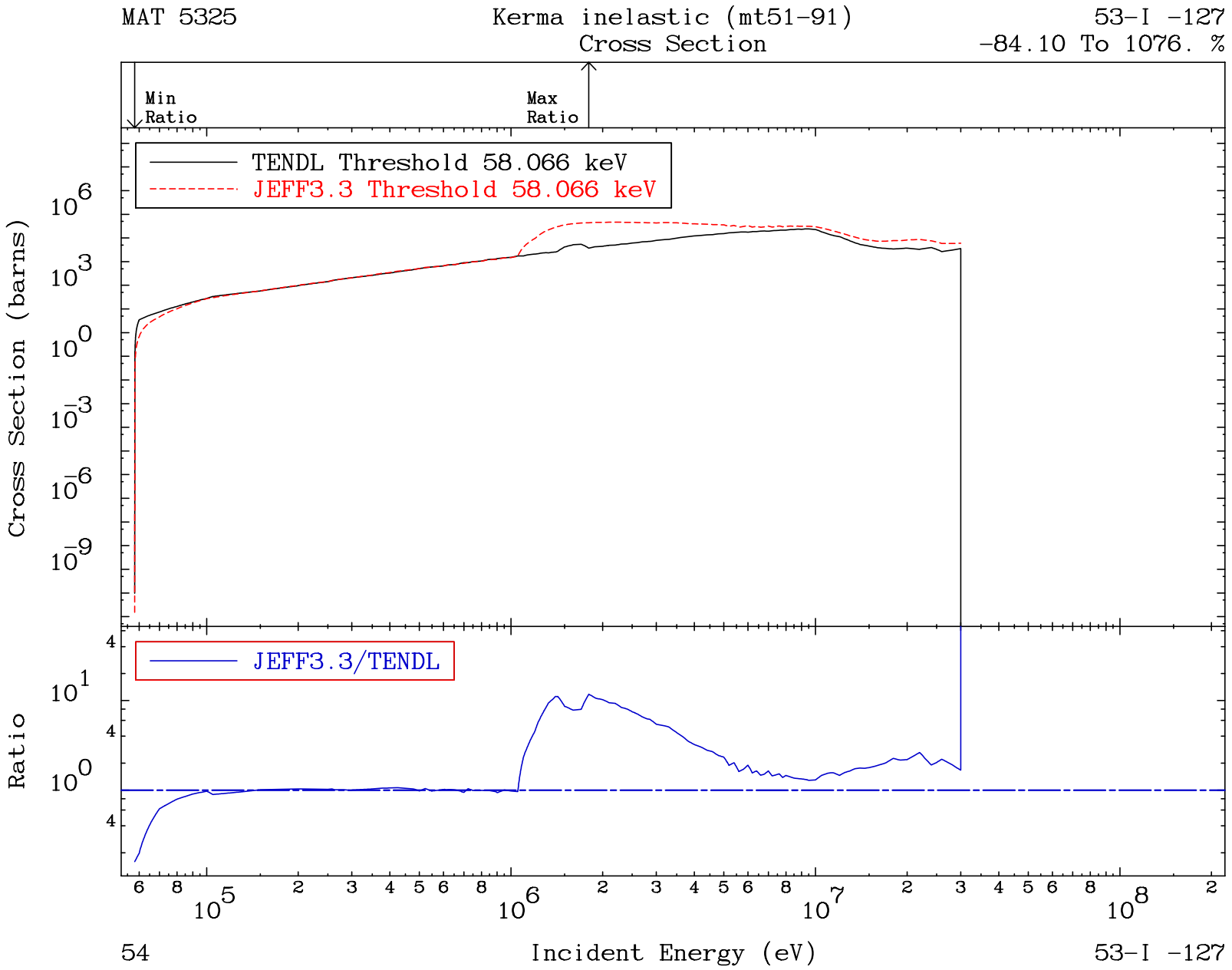

MAT 5325
He-3 Production
Cross Section
53-I -127
-97.33 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.6483 MeV
JEFF3.3 Threshold 7.6462 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^12
10^8
10^4
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
49
Incident Energy (eV)
53-I -127

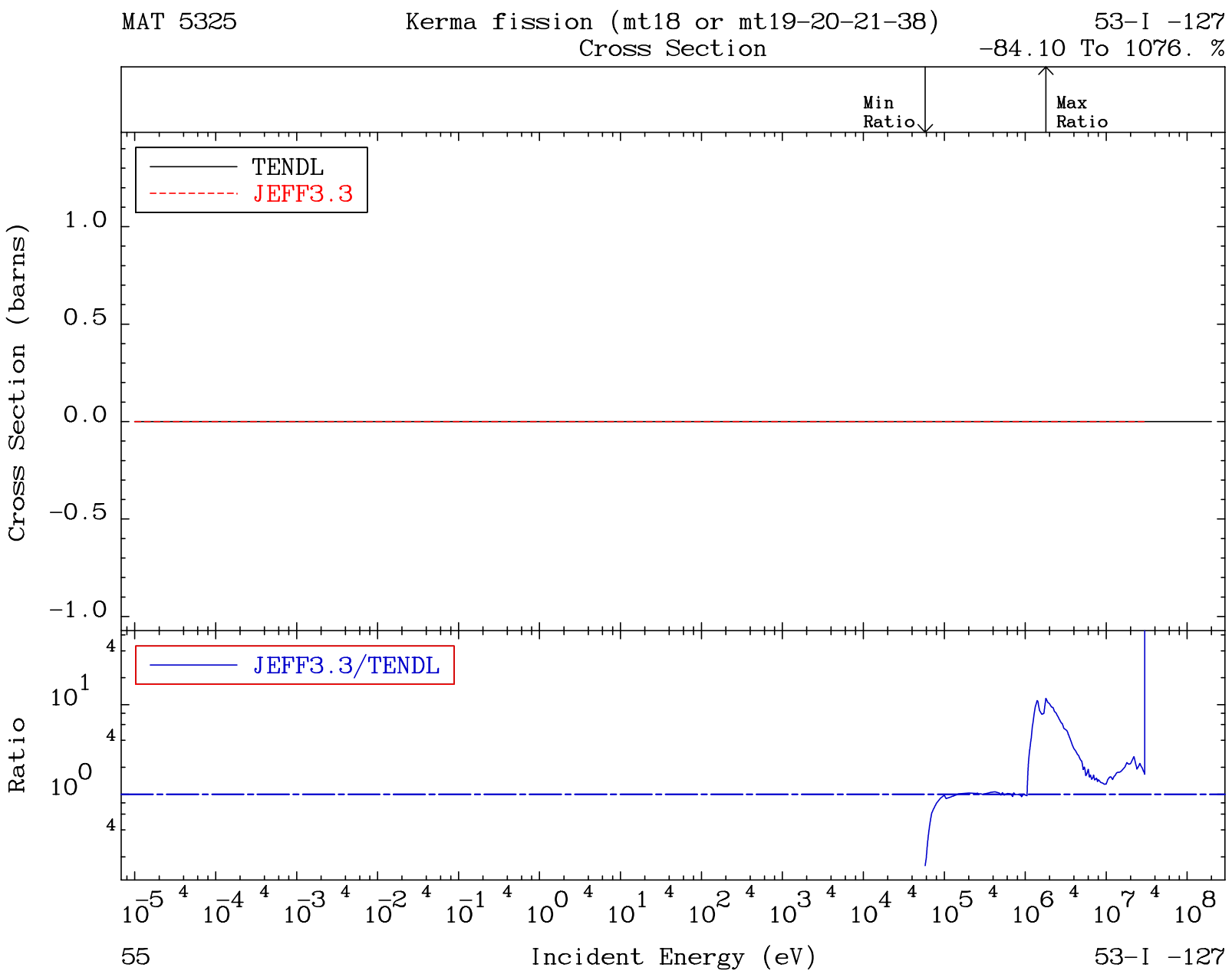

MAT 5325
He-4 Production
Cross Section
53-I -127
-99.82 To 9999. %
Min
Ratio
Max
Ratio
TENDL
JEFF3.3
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
10^6
10^3
10^0
10^-3
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
50
Incident Energy (eV)
53-I -127

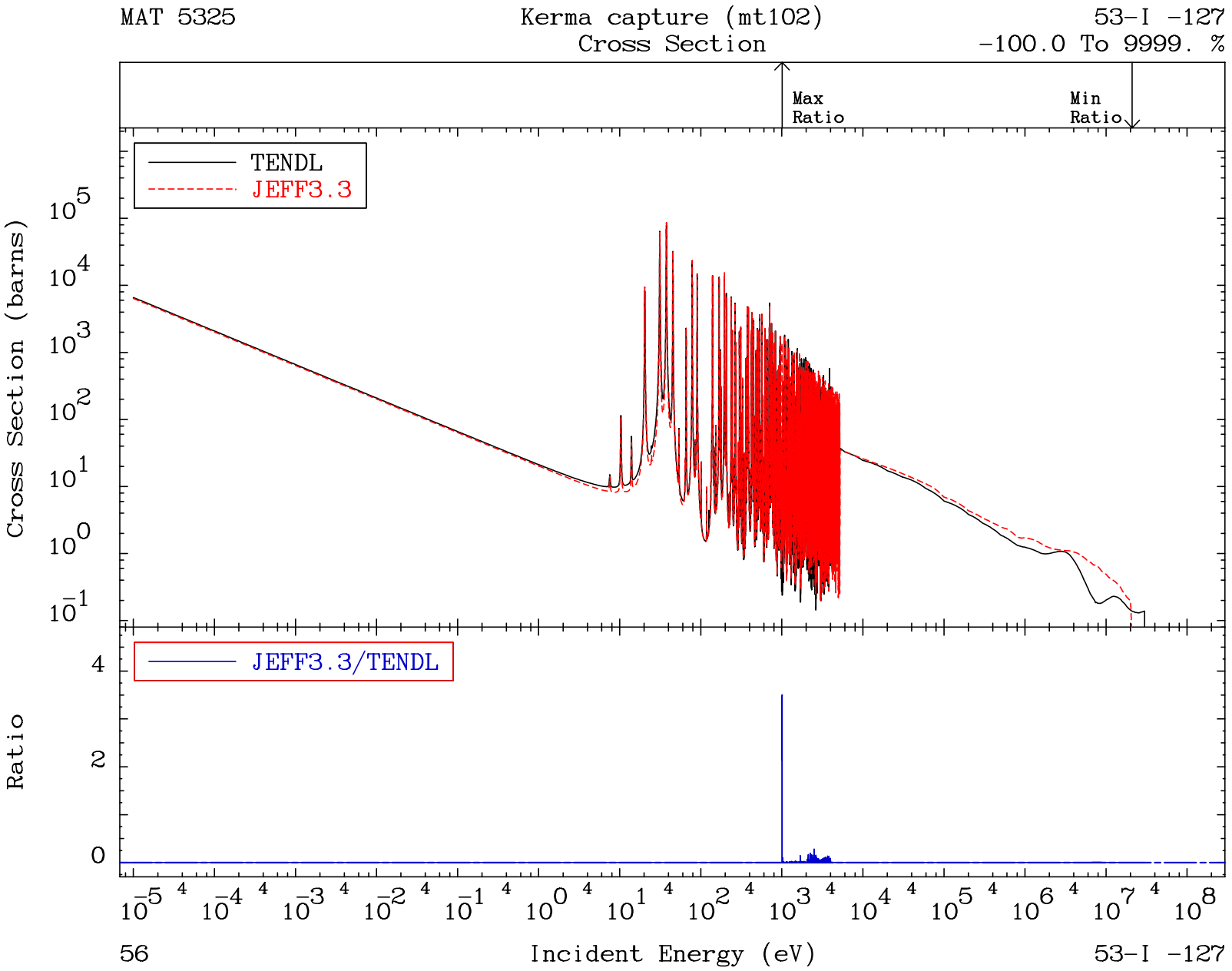

MAT 5325
Kerma total (eV-barns)
Cross Section
53-I -127
-95.74 To 4391. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
51
53-I -127

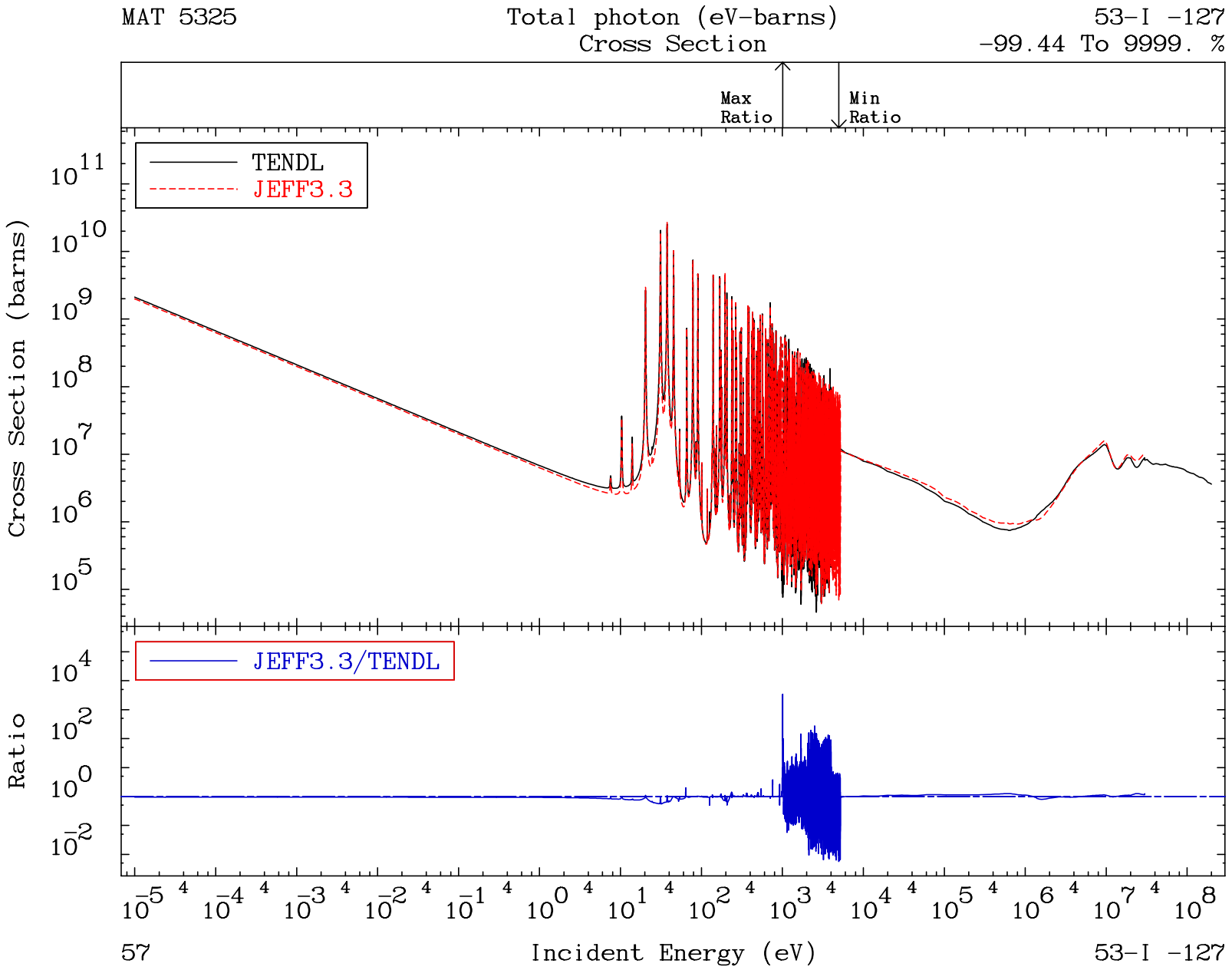

MAT 5325
Kerma elastic
Cross Section
53-I -127
-96.09 To 2801. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
52
53-I -127

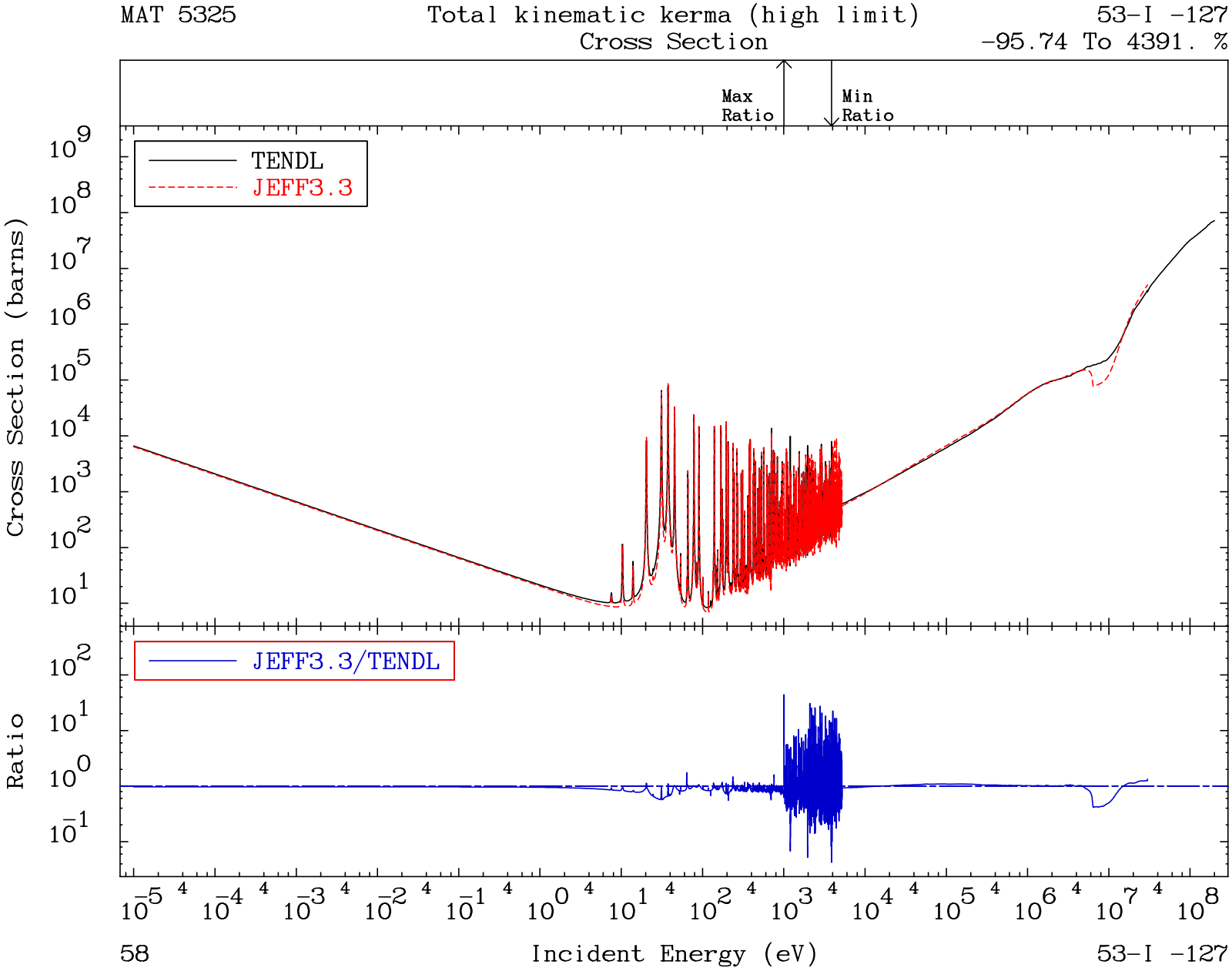

MAT 5325
Kerma non-elastic (all but mt2)
Cross Section
53-I -127
-99.42 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
53
53-I -127

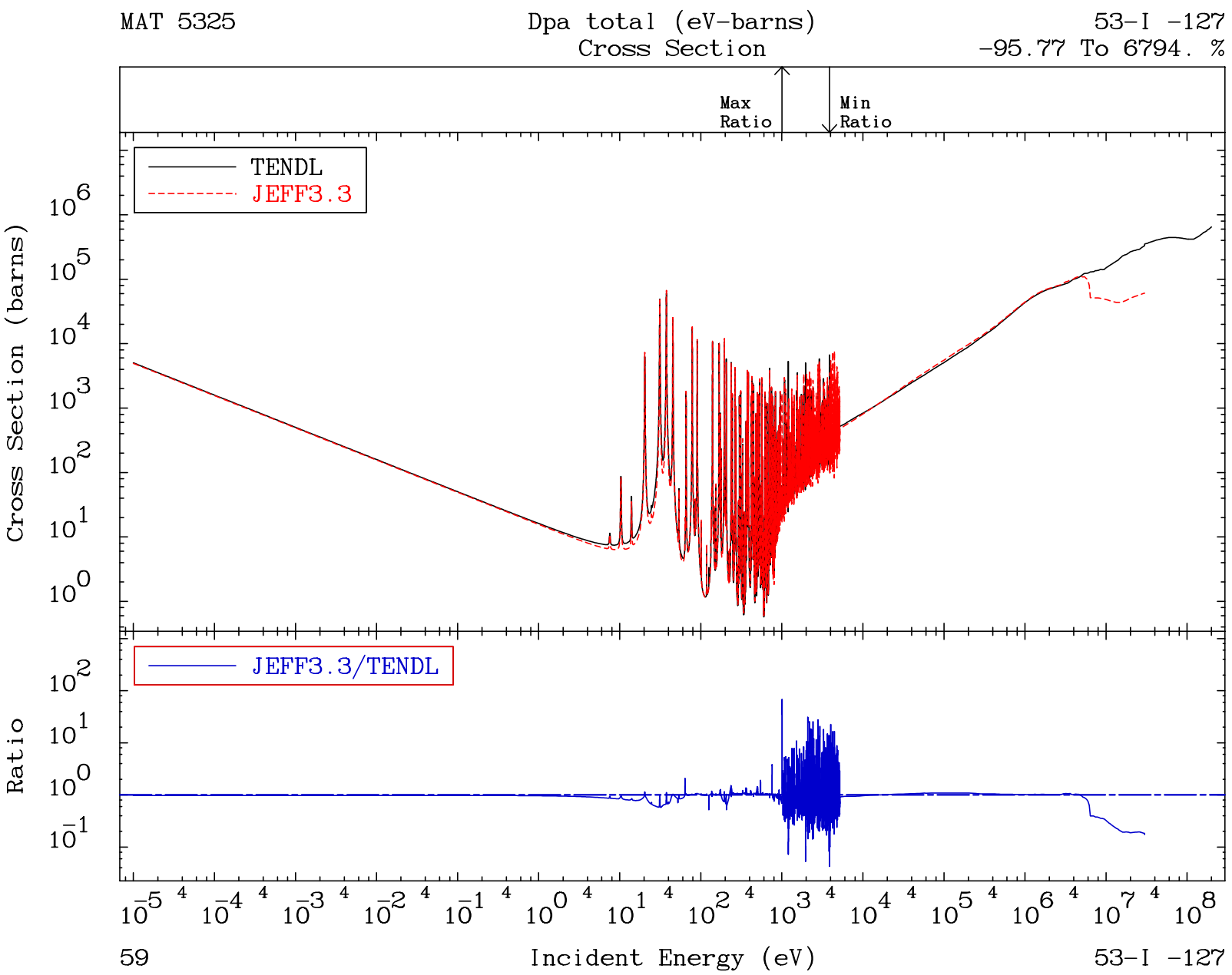

MAT 5325
Kerma inelastic (mt51-91)
Cross Section
53-I -127
-84.10 To 1076. %
Min Ratio
Max Ratio
TENDL Threshold 58.066 keV
JEFF3.3 Threshold 58.066 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
54
53-I -127

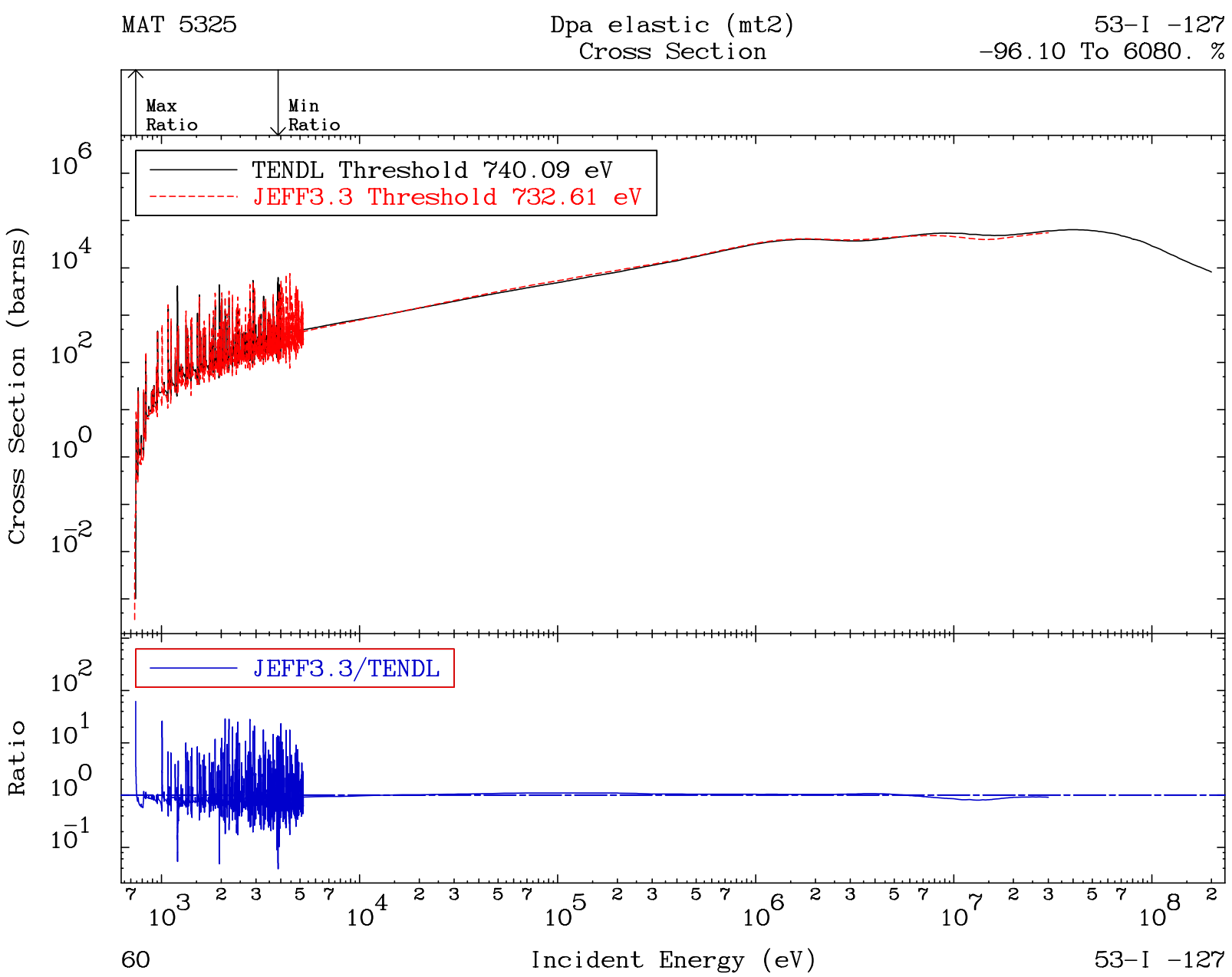

MAT 5325
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
53-I -127
-84.10 To 1076. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
55
53-I -127

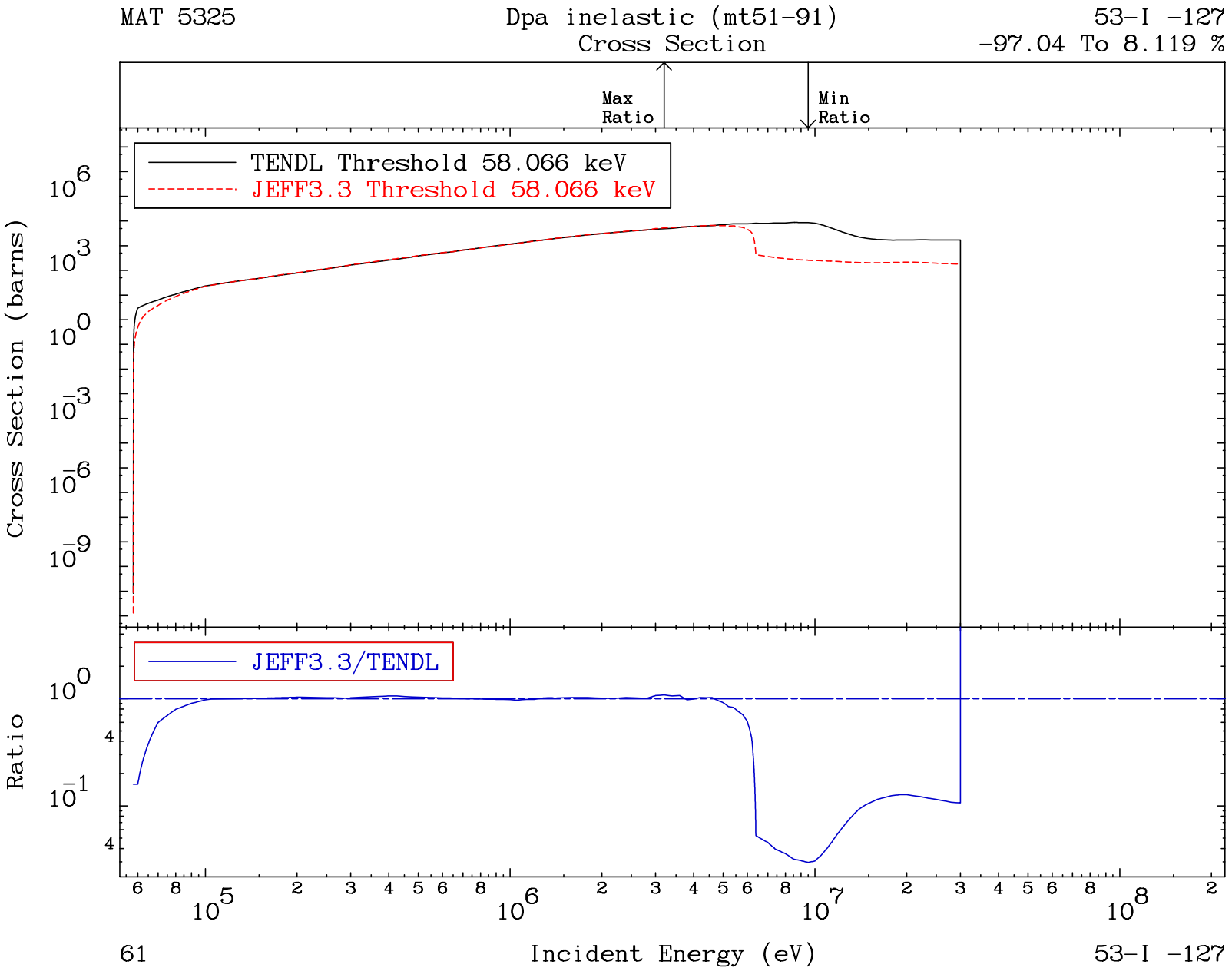

MAT 5325
Kerma capture (mt102)
Cross Section
53-I -127
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
56
53-I -127

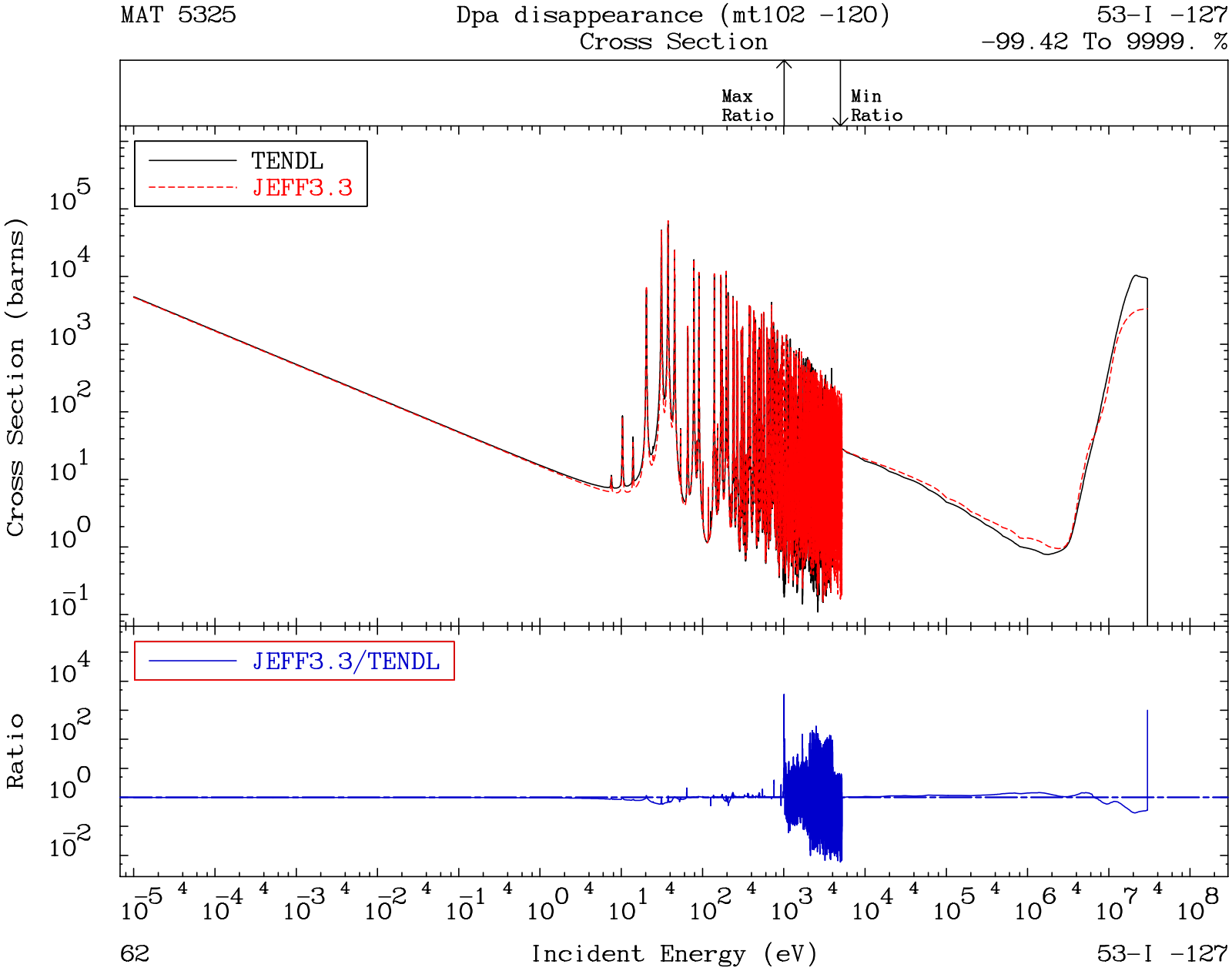

MAT 5325
Total photon (eV-barns)
Cross Section
53-I -127
-99.44 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
57
53-I -127

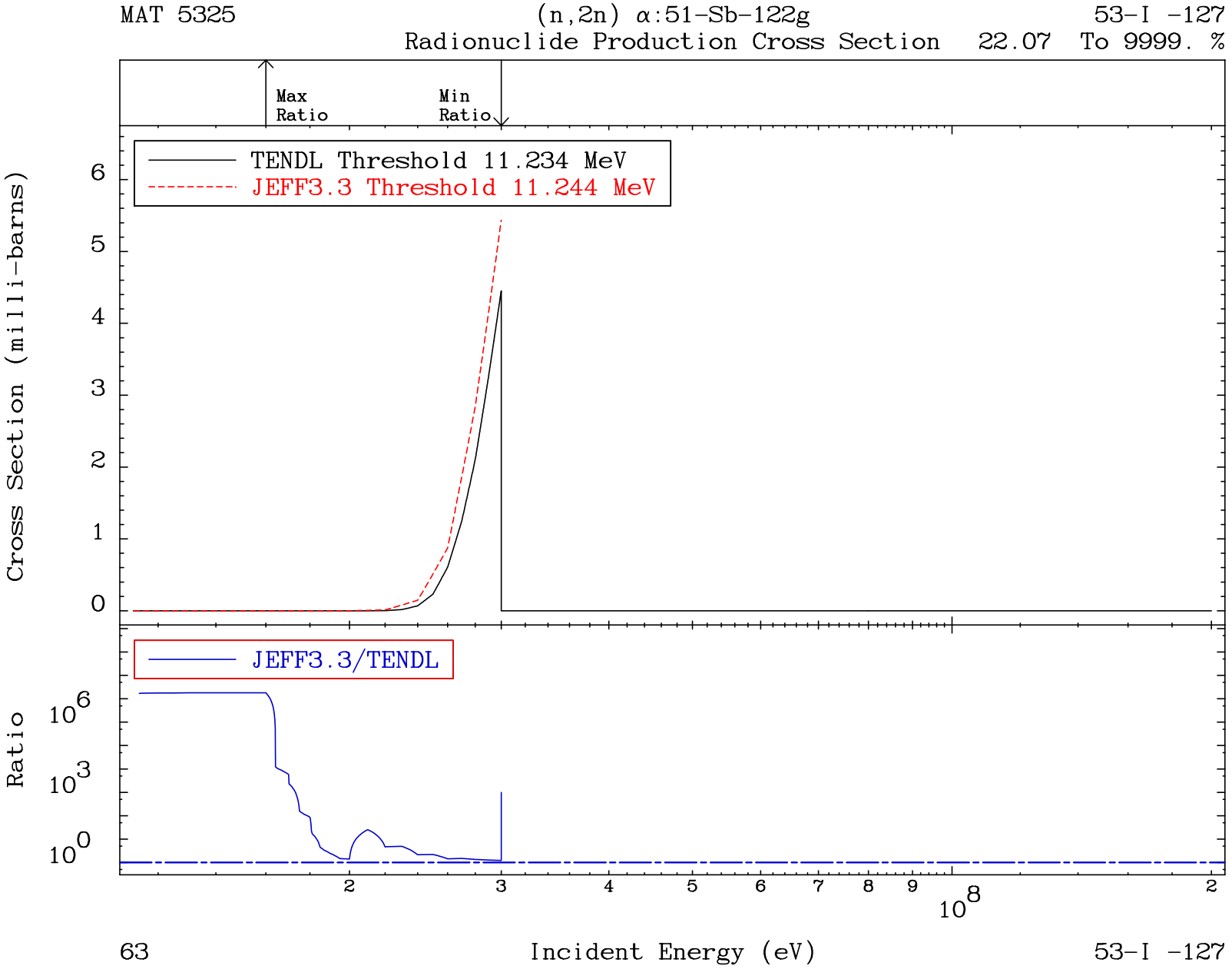

MAT 5325
Total kinematic kerma (high limit)
Cross Section
53-I -127
-95.74 To 4391. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
58
53-I -127

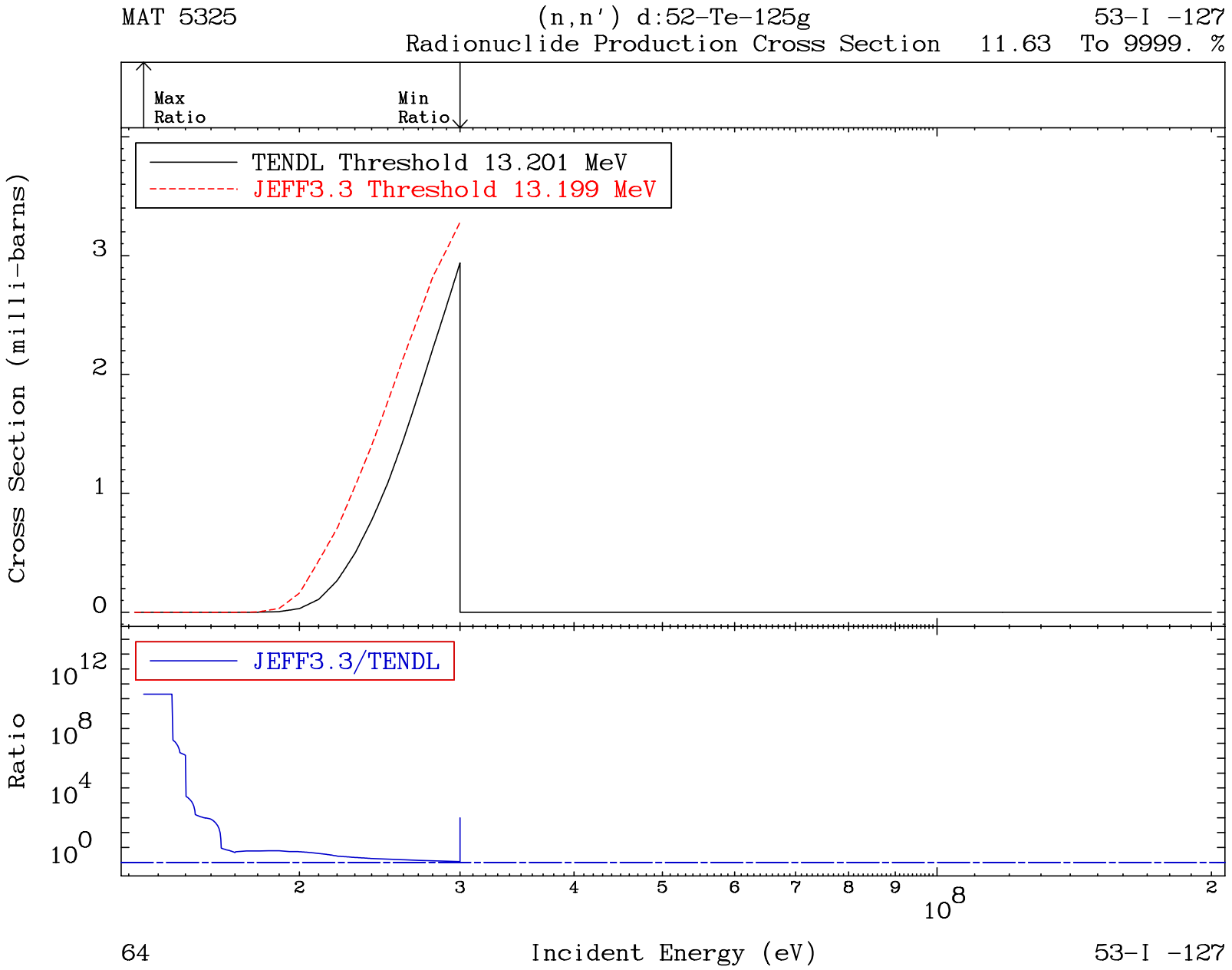

MAT 5325
Dpa total (eV-barns)
Cross Section
53-I -127
-95.77 To 6794. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
59
53-I -127

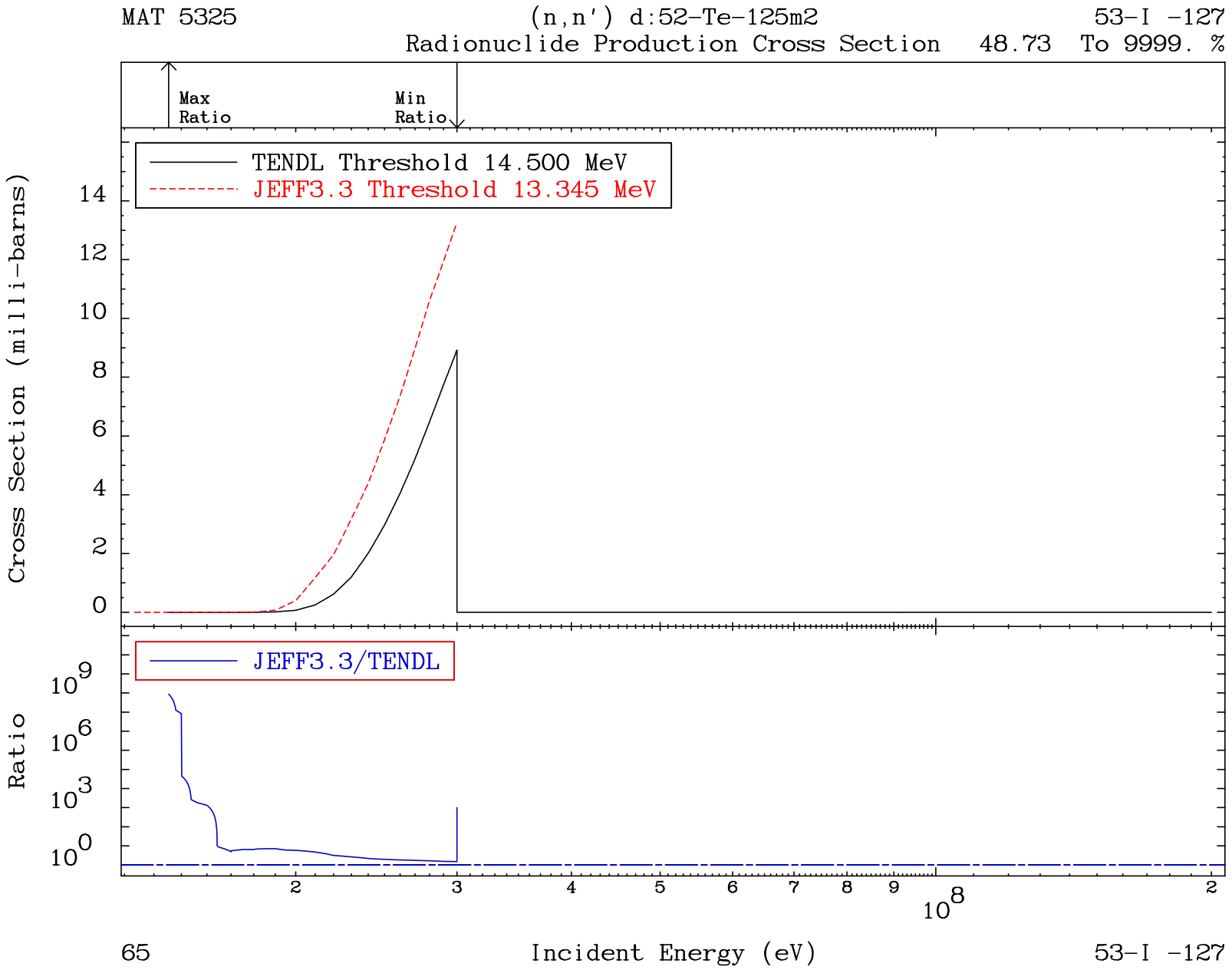

MAT 5325
Dpa elastic (mt2)
Cross Section
53-I -127
-96.10 To 6080. %
Max Ratio
Min Ratio
TENDL Threshold 740.09 eV
JEFF3.3 Threshold 732.61 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
60
53-I -127

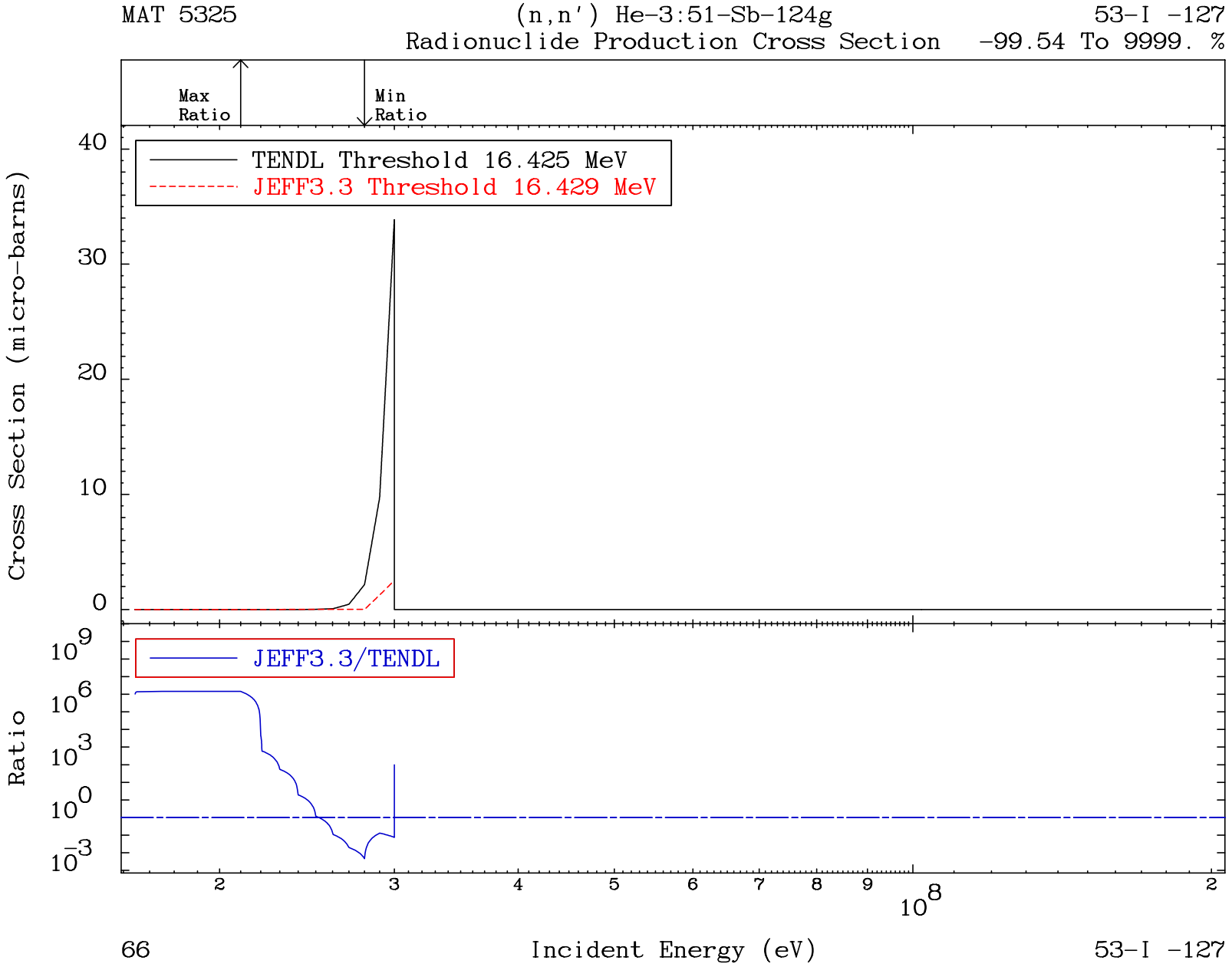

MAT 5325
Dpa inelastic (mt51-91)
Cross Section
53-I -127
-97.04 To 8.119 %
Max Ratio
Min Ratio
TENDL Threshold 58.066 keV
JEFF3.3 Threshold 58.066 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
61
53-I -127

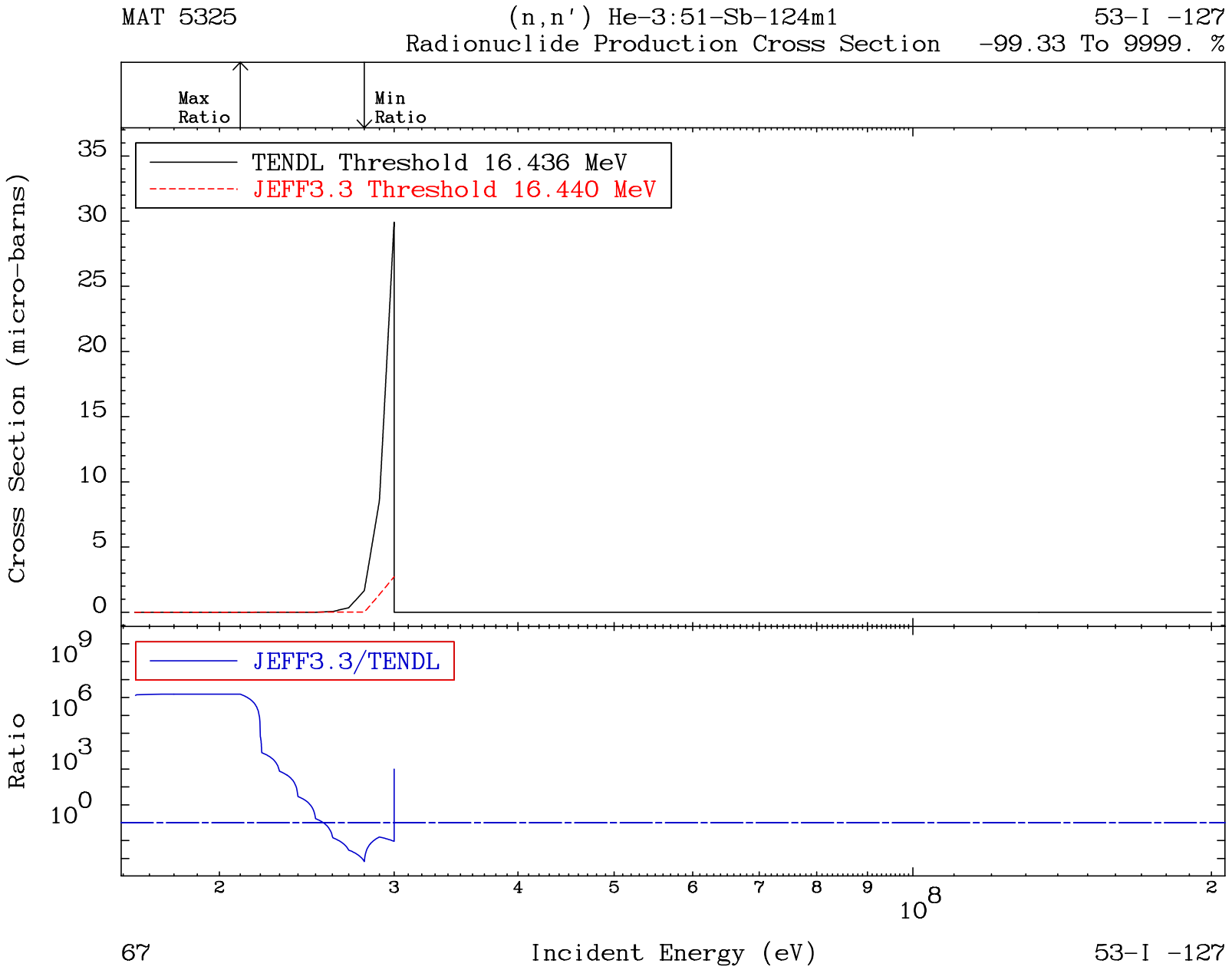

MAT 5325
Dpa disappearance (mt102 -120)
Cross Section
53-I -127
-99.42 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
62
53-I -127

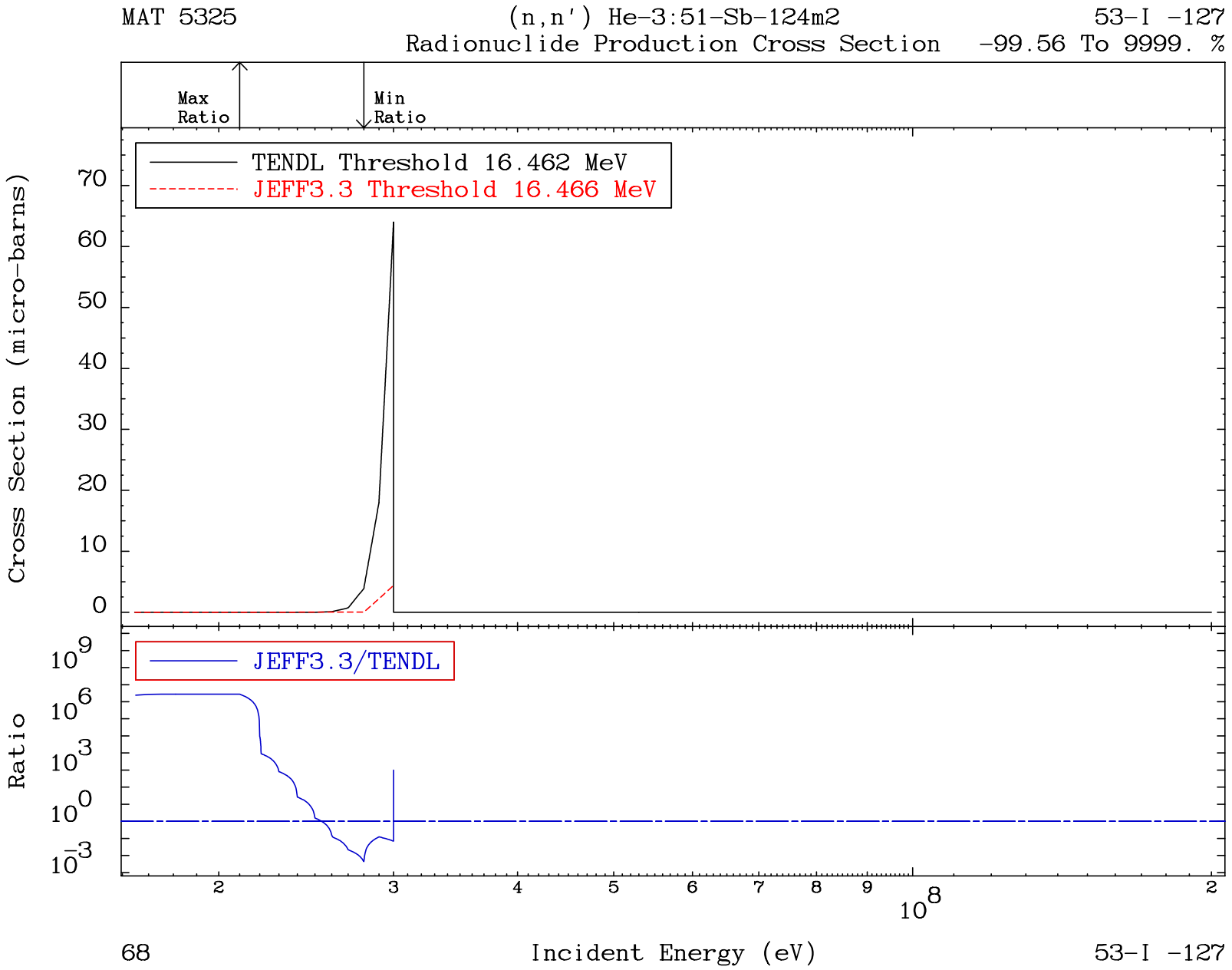

MAT 5325
(n,2n) α:51-Sb-122g
53-I -127
Radionuclide Production Cross Section 22.07 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.234 MeV
JEFF3.3 Threshold 11.244 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
JEFF3.3/TENDL
Ratio
10^6
10^3
10^0
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
53-I -127

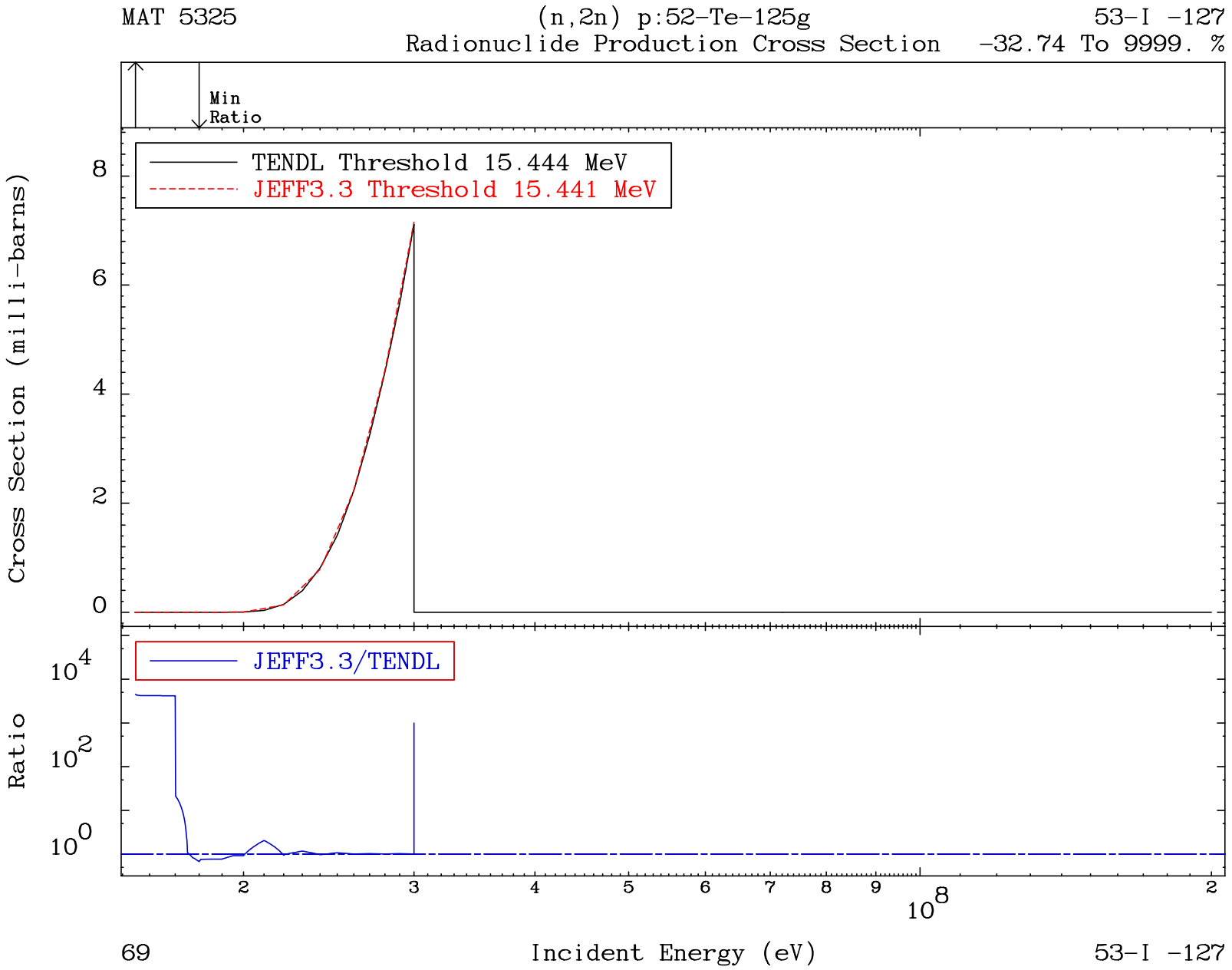

MAT 5325
(n,n') d:52-Te-125g
53-I -127
Radionuclide Production Cross Section 11.63 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.201 MeV
JEFF3.3 Threshold 13.199 MeV
Cross Section (milli-barns)
0
1
2
3
JEFF3.3/TENDL
Ratio
10^12
10^8
10^4
10^0
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
53-I -127

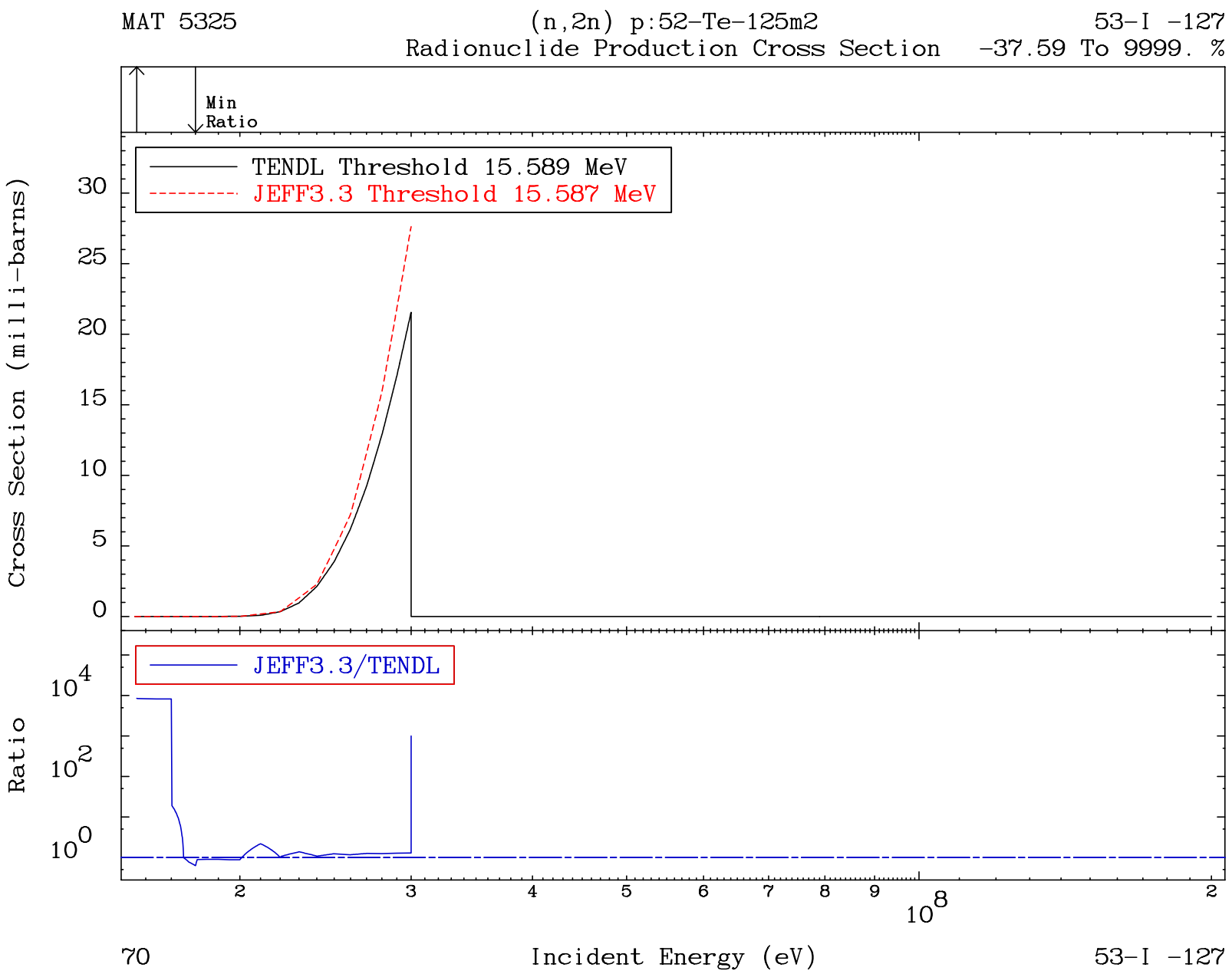

MAT 5325
(n,n') d:52-Te-125m2
53-I -127
Radionuclide Production Cross Section 48.73 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 14.500 MeV
JEFF3.3 Threshold 13.345 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
JEFF3.3/TENDL
Ratio
10^0
10^3
10^6
10^9
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
53-I -127

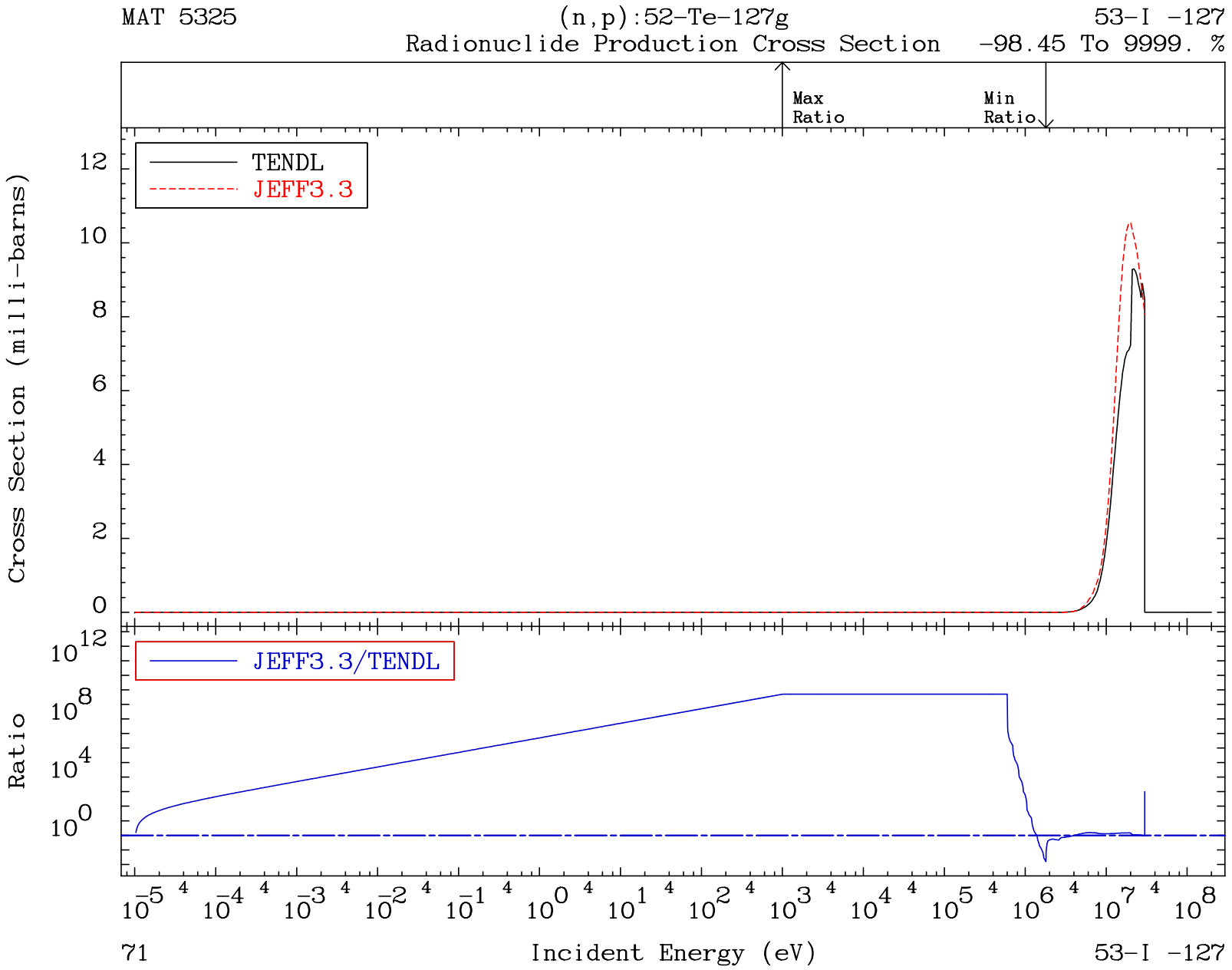

MAT 5325
(n,n') He-3:51-Sb-124g
53-I -127
Radionuclide Production Cross Section -99.54 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 16.425 MeV
JEFF3.3 Threshold 16.429 MeV
Cross Section (micro-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
10^-3
2
3
4
5
6
7
8
9
10^8
2
66
Incident Energy (eV)
53-I -127

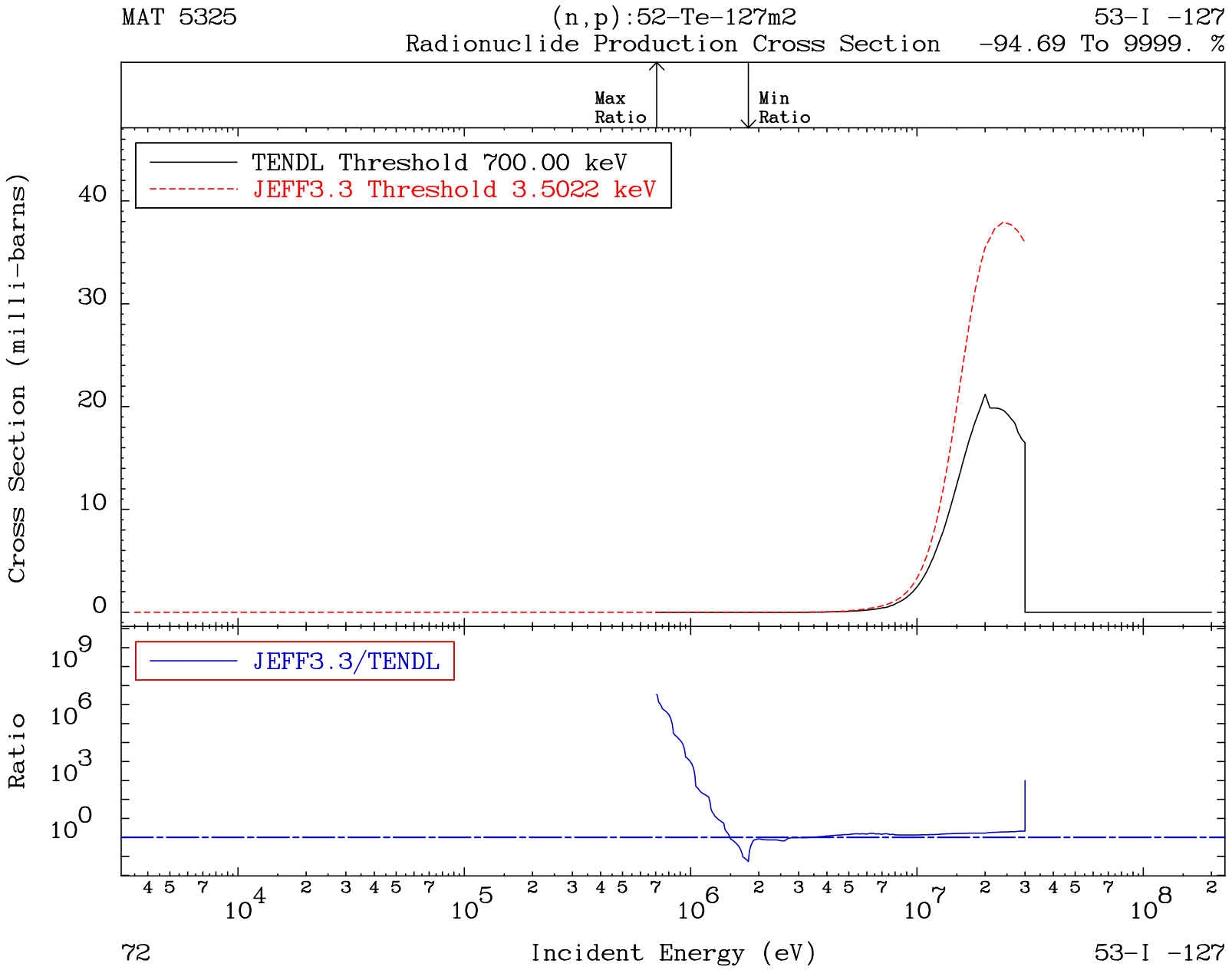

MAT 5325
(n,n') He-3:51-Sb-124m1
53-I -127
Radionuclide Production Cross Section
-99.33 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 16.436 MeV
JEFF3.3 Threshold 16.440 MeV
Cross Section (micro-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
2
3
4
5
6
7
8
9
10^8
2
67
Incident Energy (eV)
53-I -127

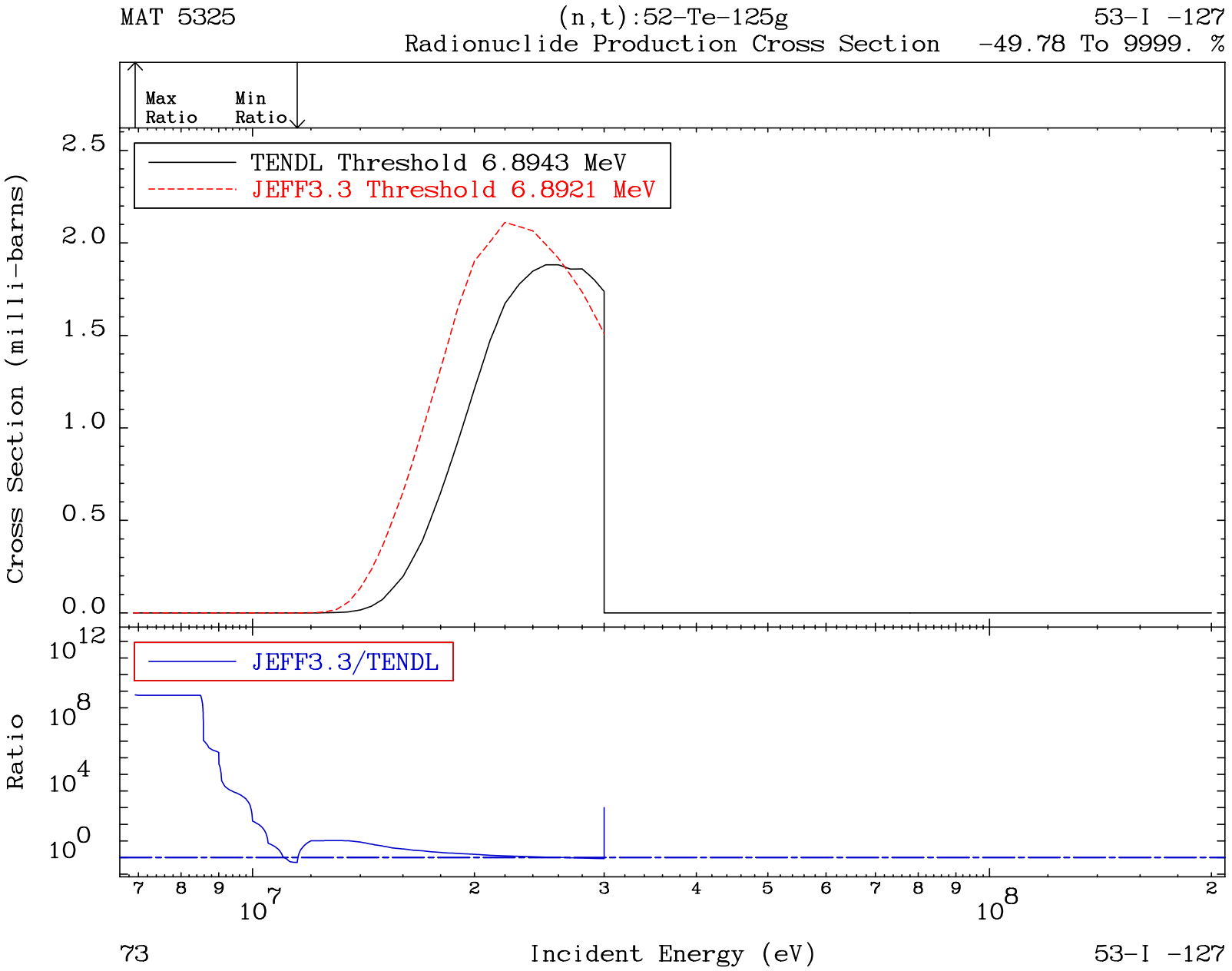

MAT 5325
(n,n') He-3:51-Sb-124m2
53-I -127
Radionuclide Production Cross Section
-99.56 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 16.462 MeV
JEFF3.3 Threshold 16.466 MeV
Cross Section (micro-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
10^-3
2
3
4
5
6
7
8
9
10^8
2
68
Incident Energy (eV)
53-I -127

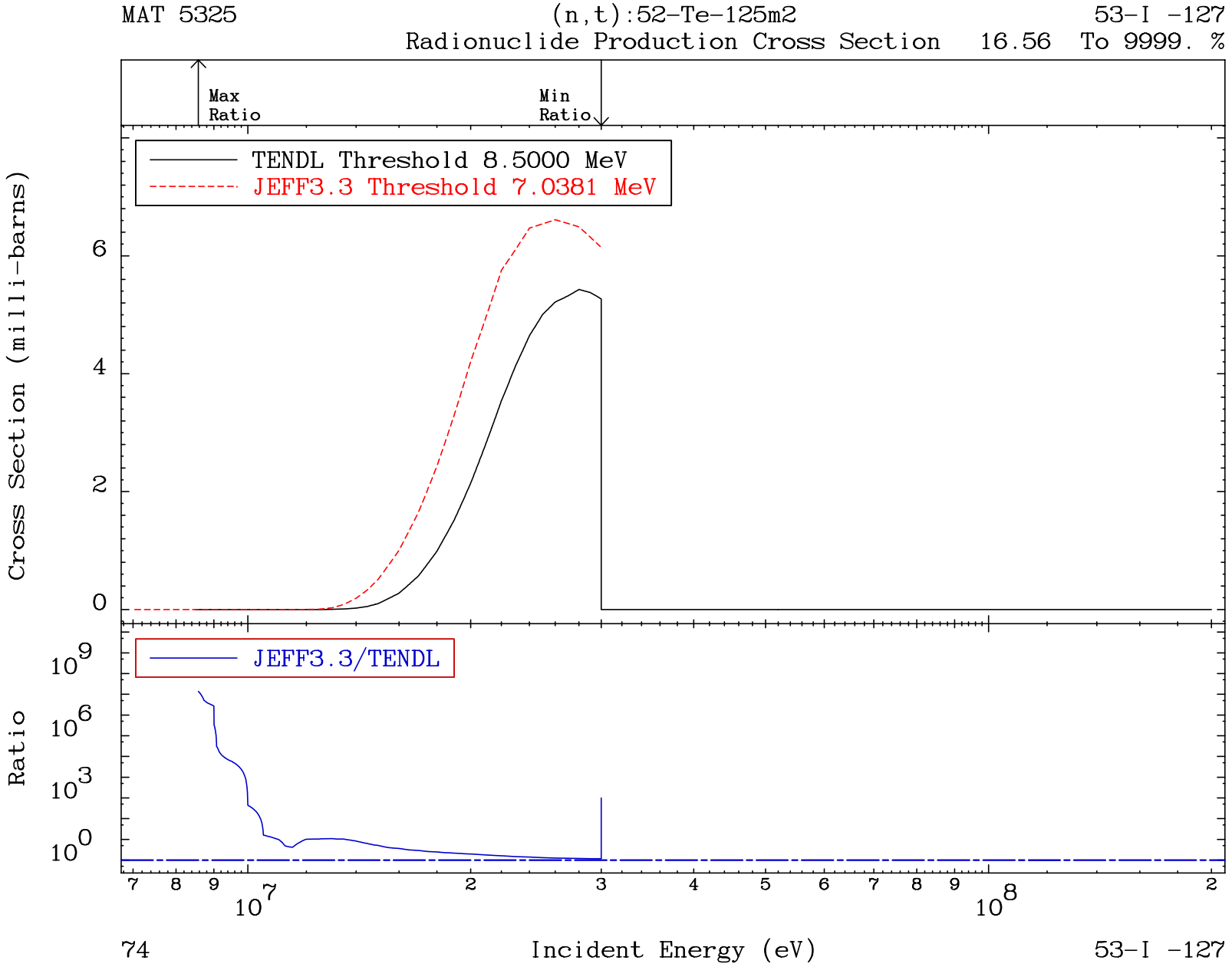

MAT 5325
(n,2n) p:52-Te-125g
53-I -127
Radionuclide Production Cross Section
-32.74 To 9999. %
Min
Ratio
TENDL Threshold 15.444 MeV
JEFF3.3 Threshold 15.441 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
10^0
10^2
10^4
2
3
4
5
6
7
8
9
10^8
2
69
Incident Energy (eV)
53-I -127

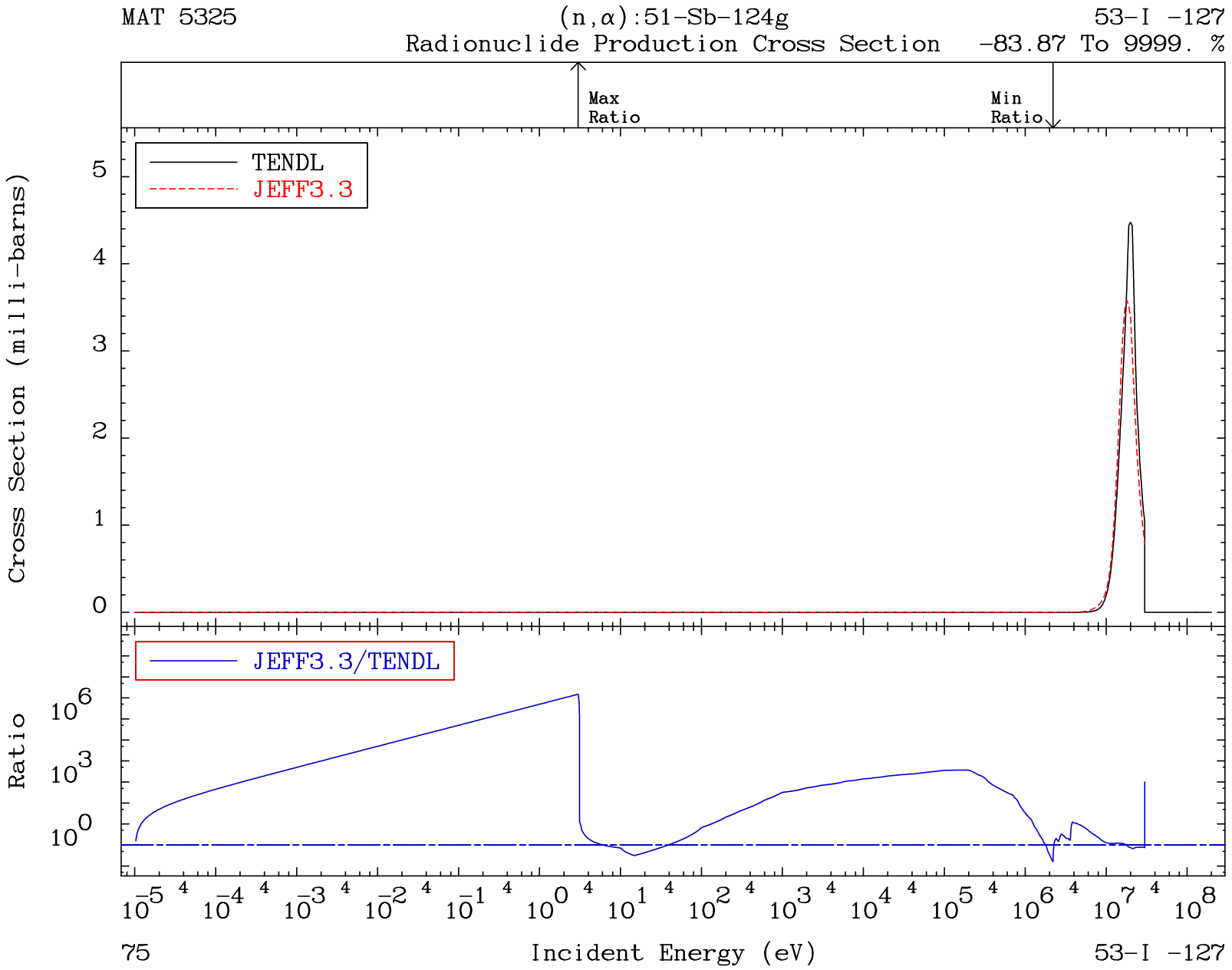

MAT 5325
(n,2n) p:52-Te-125m2
53-I -127
Radionuclide Production Cross Section
-37.59 To 9999. %
Min
Ratio
TENDL Threshold 15.589 MeV
JEFF3.3 Threshold 15.587 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
70
Incident Energy (eV)
53-I -127

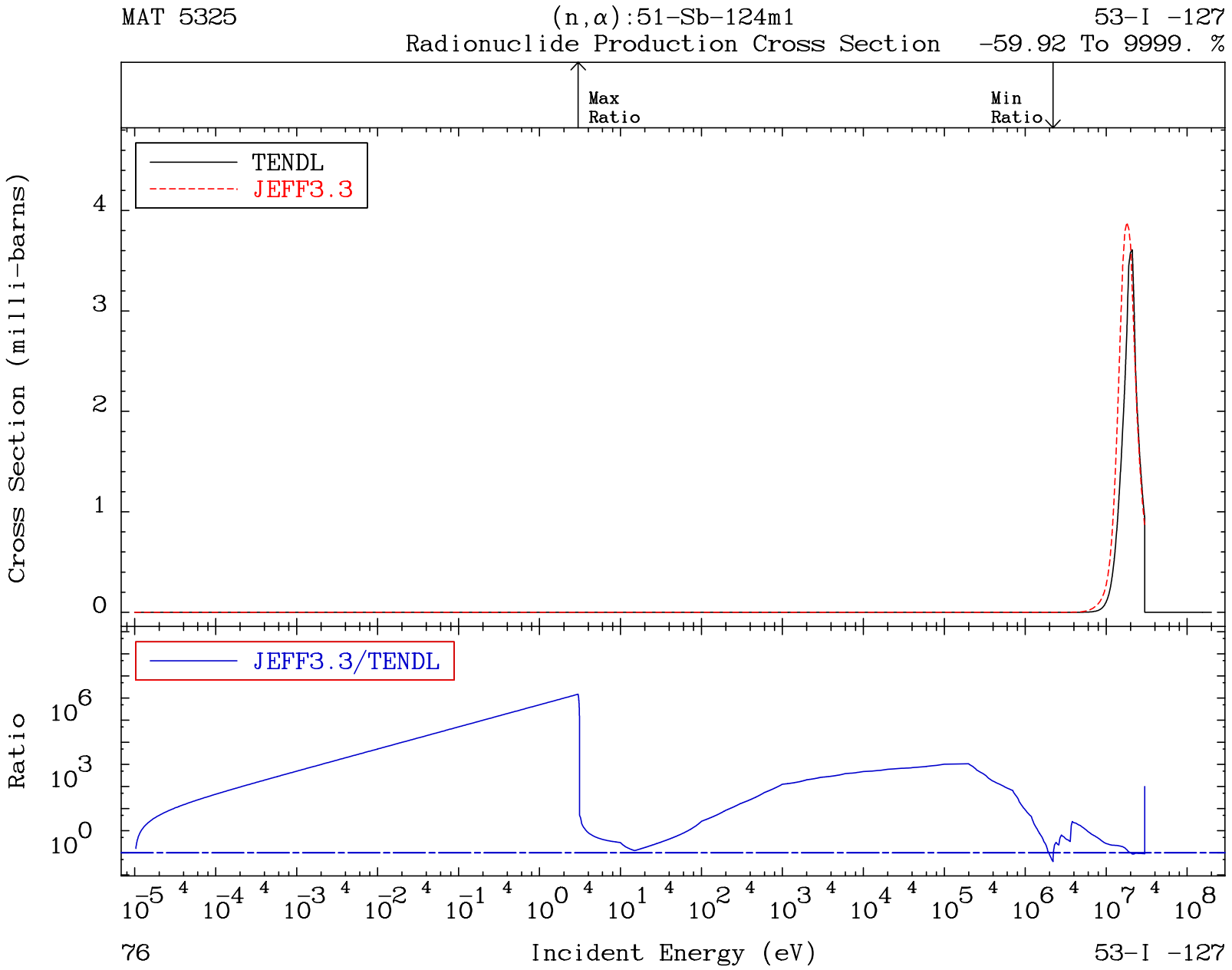

MAT 5325
(n,p):52-Te-127g
53-I -127
Radionuclide Production Cross Section
-98.45 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
53-I -127

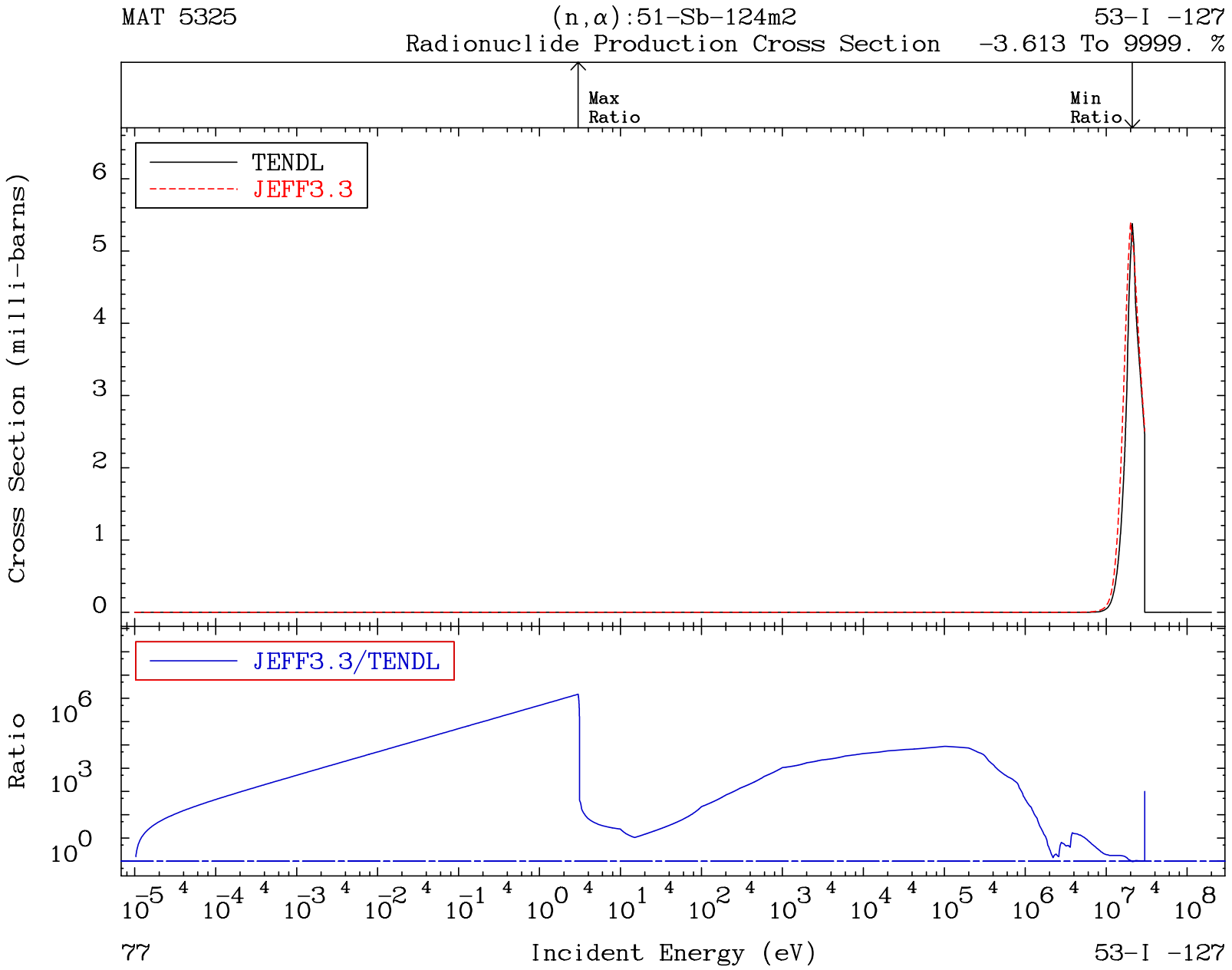

MAT 5325
(n,p):52-Te-127m2
53-I -127
Radionuclide Production Cross Section
-94.69 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 700.00 keV
JEFF3.3 Threshold 3.5022 keV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
4 5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
72
Incident Energy (eV)
53-I -127

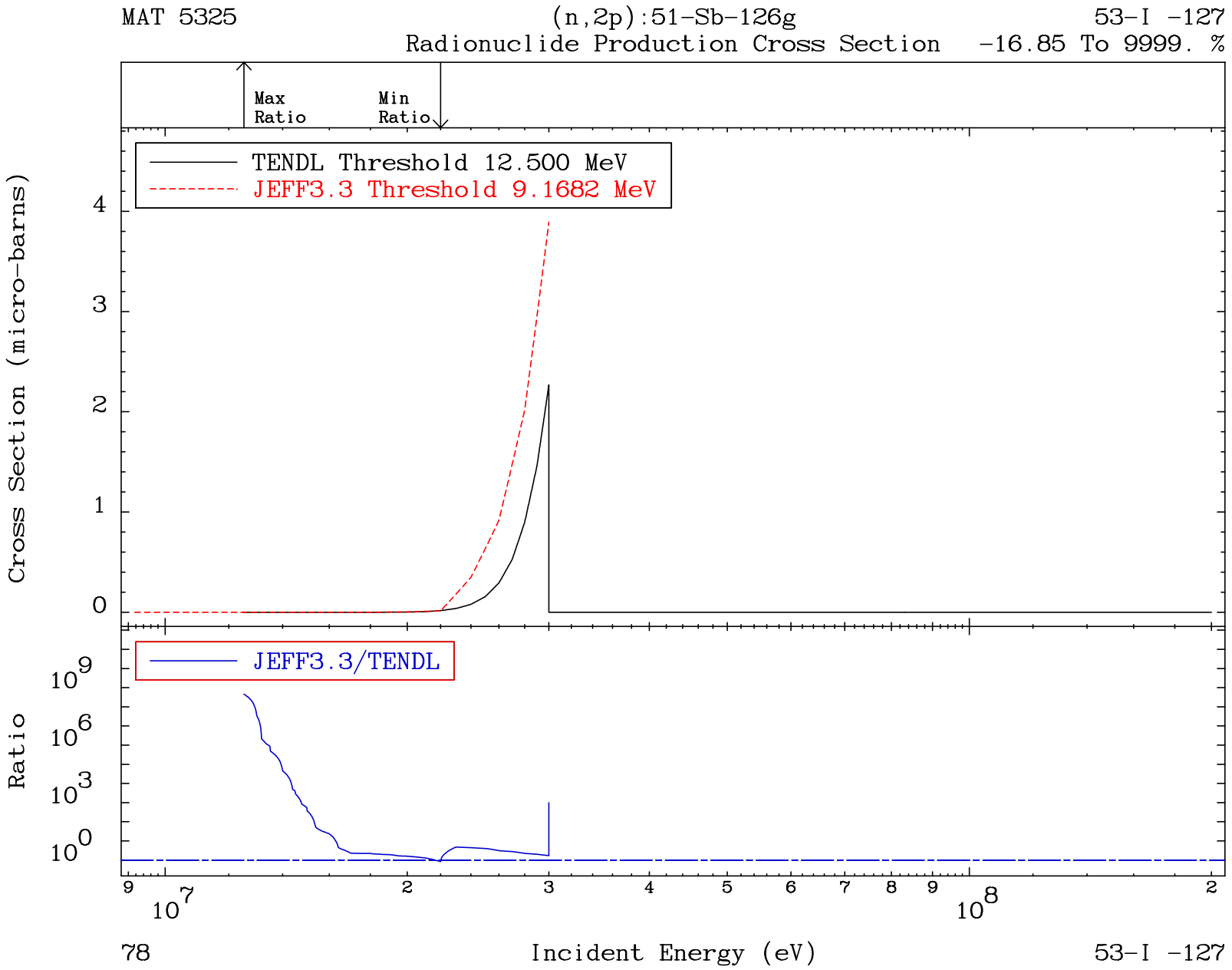

MAT 5325
(n,t):52-Te-125g
53-I -127
Radionuclide Production Cross Section -49.78 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.8943 MeV
JEFF3.3 Threshold 6.8921 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^{12}
10^{8}
10^{4}
10^{0}
7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
73
Incident Energy (eV)
53-I -127

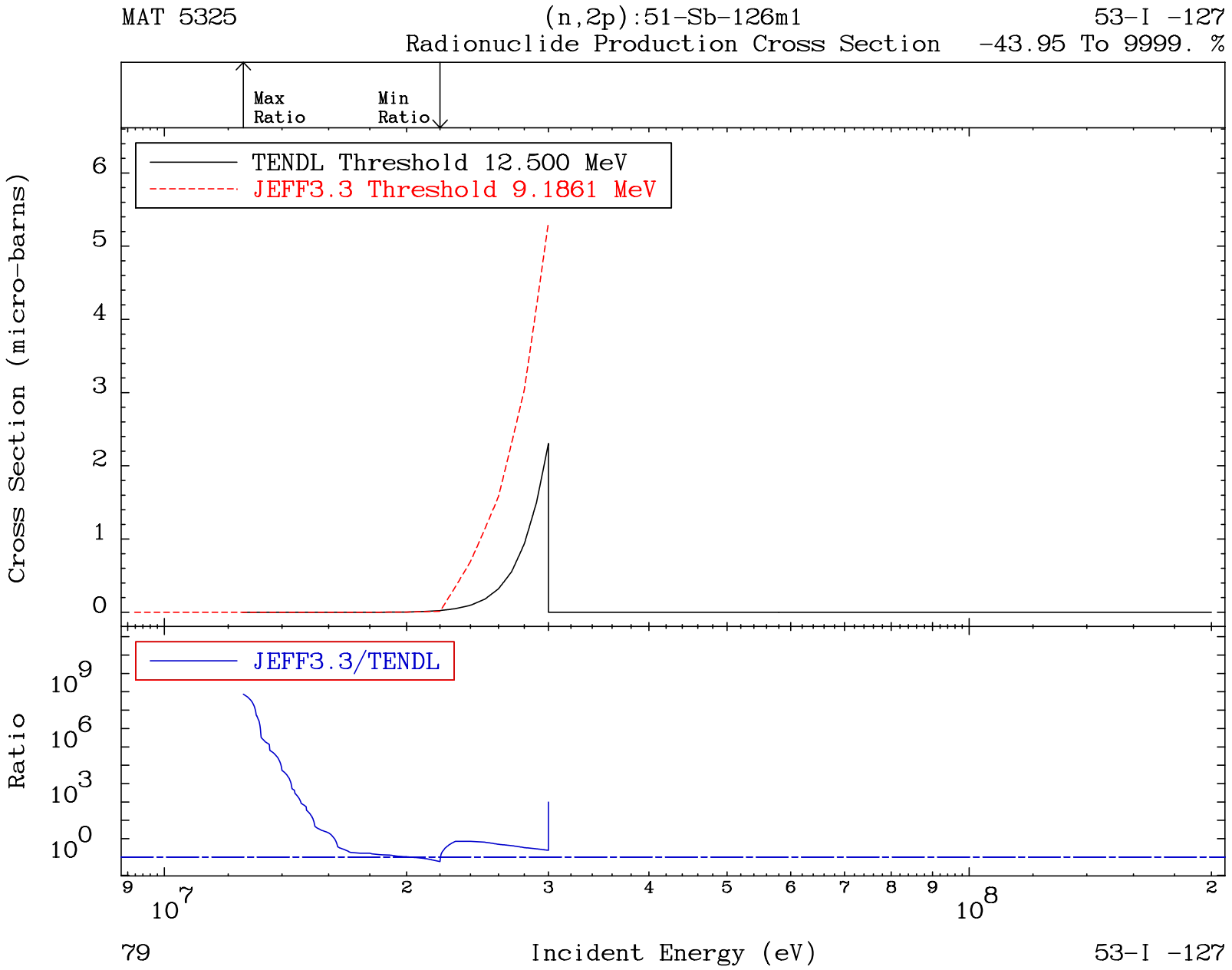

MAT 5325
(n,t):52-Te-125m2
53-I -127
Radionuclide Production Cross Section 16.56 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 8.5000 MeV
JEFF3.3 Threshold 7.0381 MeV
Cross Section (milli-barns)
0
2
4
6
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
74
Incident Energy (eV)
53-I -127

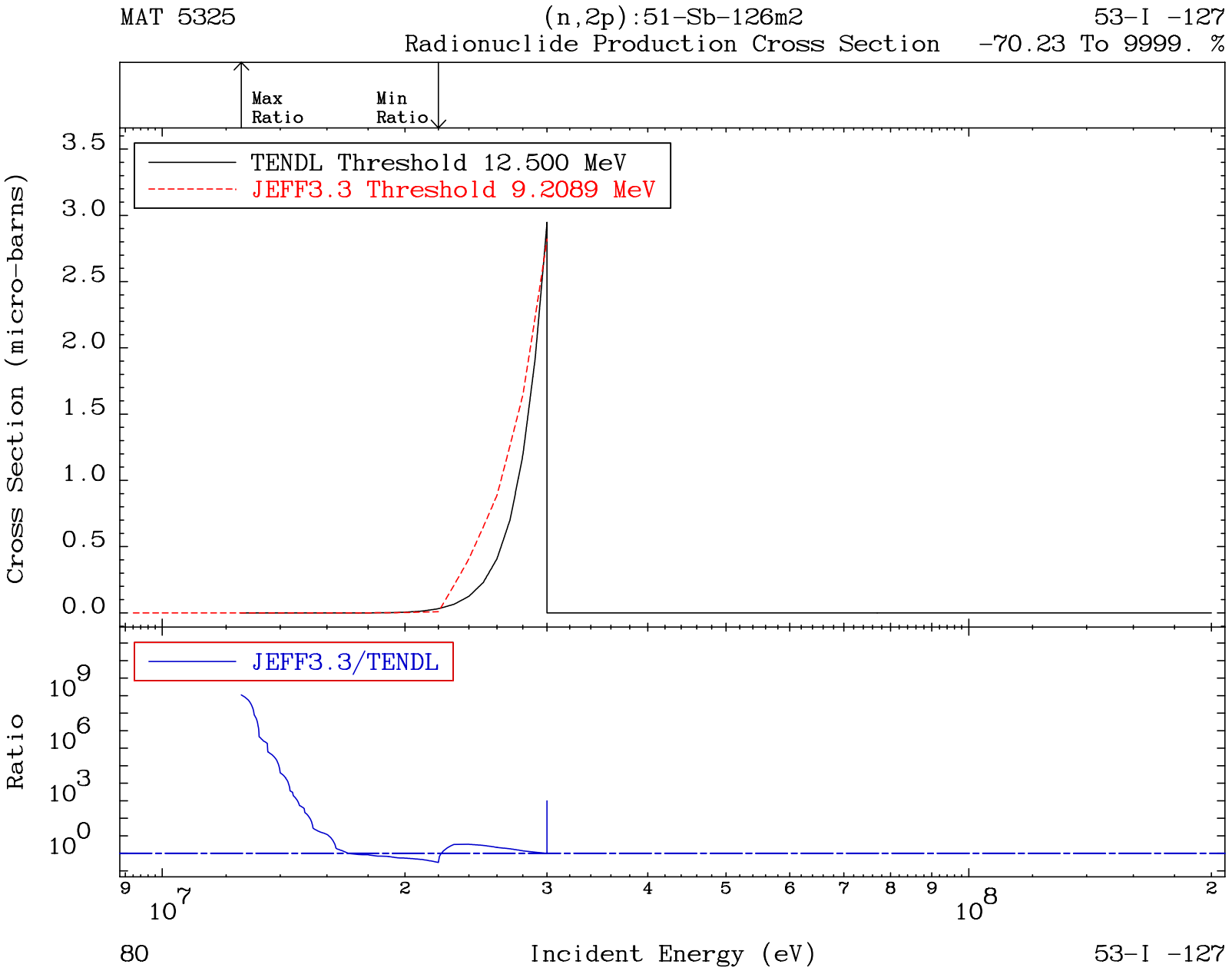

MAT 5325
(n,α):51-Sb-124g
53-I -127
Radionuclide Production Cross Section
-83.87 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
75
53-I -127

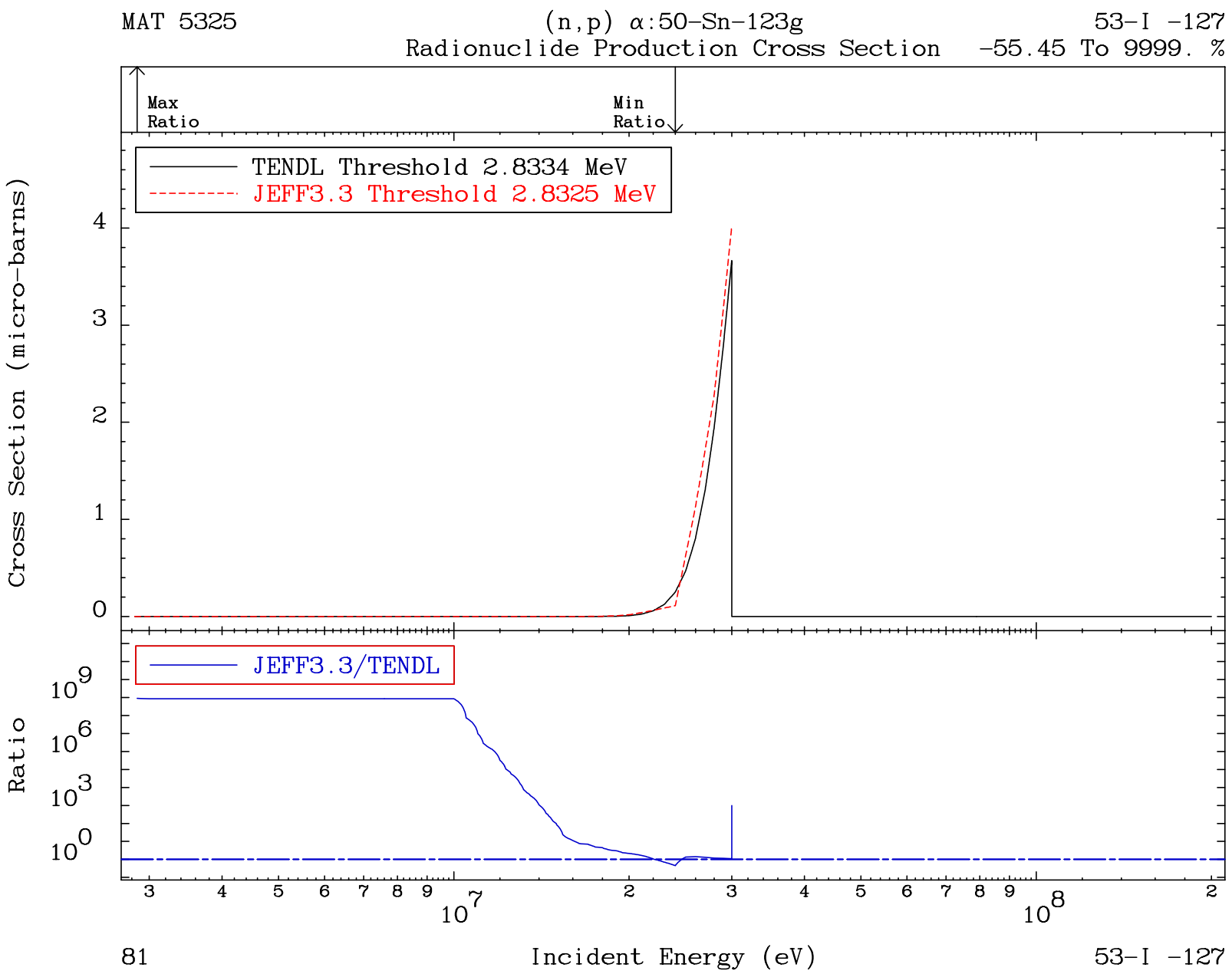

MAT 5325
(n,α):51-Sb-124m1
53-I -127
Radionuclide Production Cross Section
-59.92 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
53-I -127

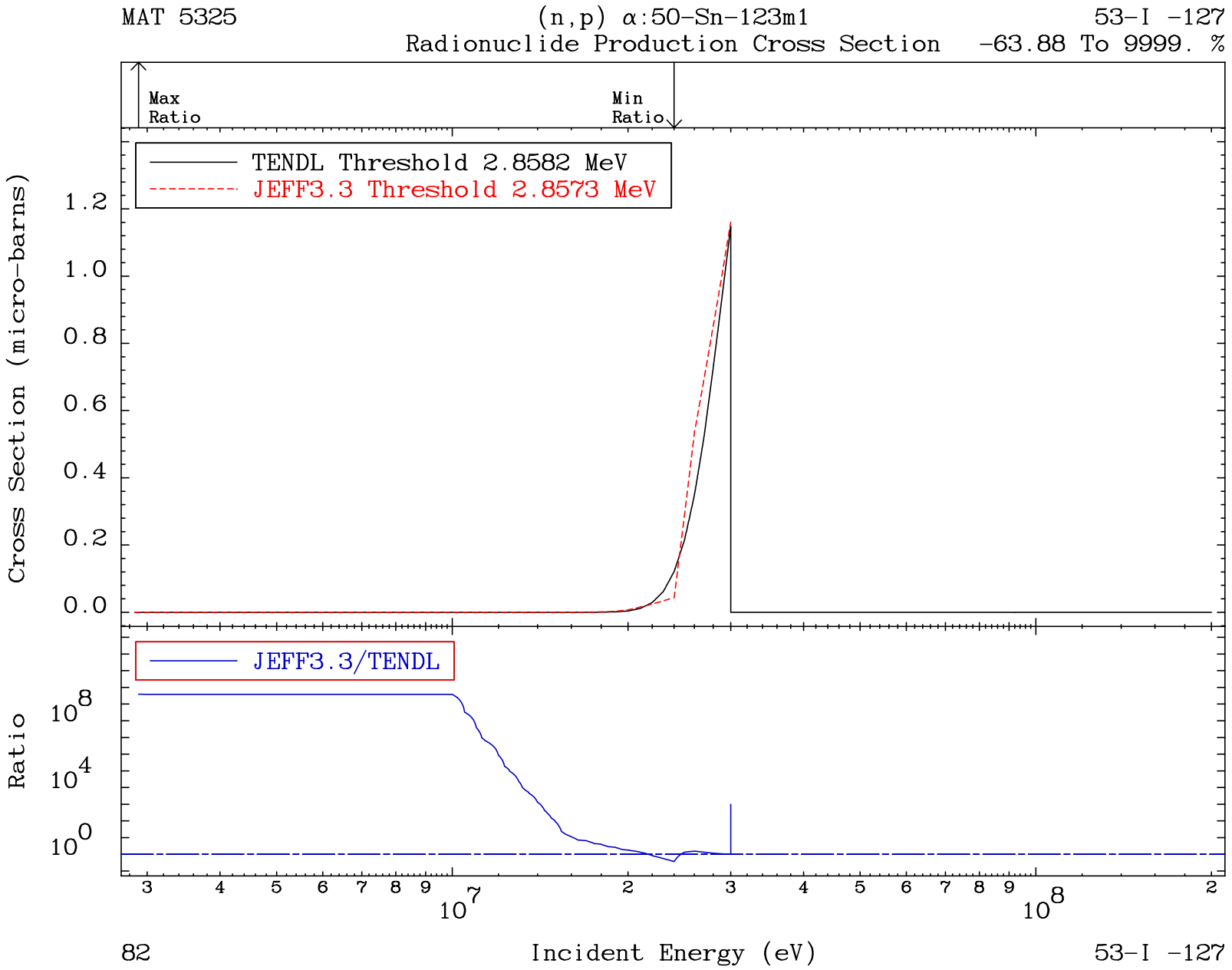

MAT 5325
(n,α):51-Sb-124m2
53-I -127
Radionuclide Production Cross Section
-3.613 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (milli-barns)
0
1
2
3
4
5
6
JEFF3.3/TENDL
Ratio
10^6
10^3
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
77
Incident Energy (eV)
53-I -127

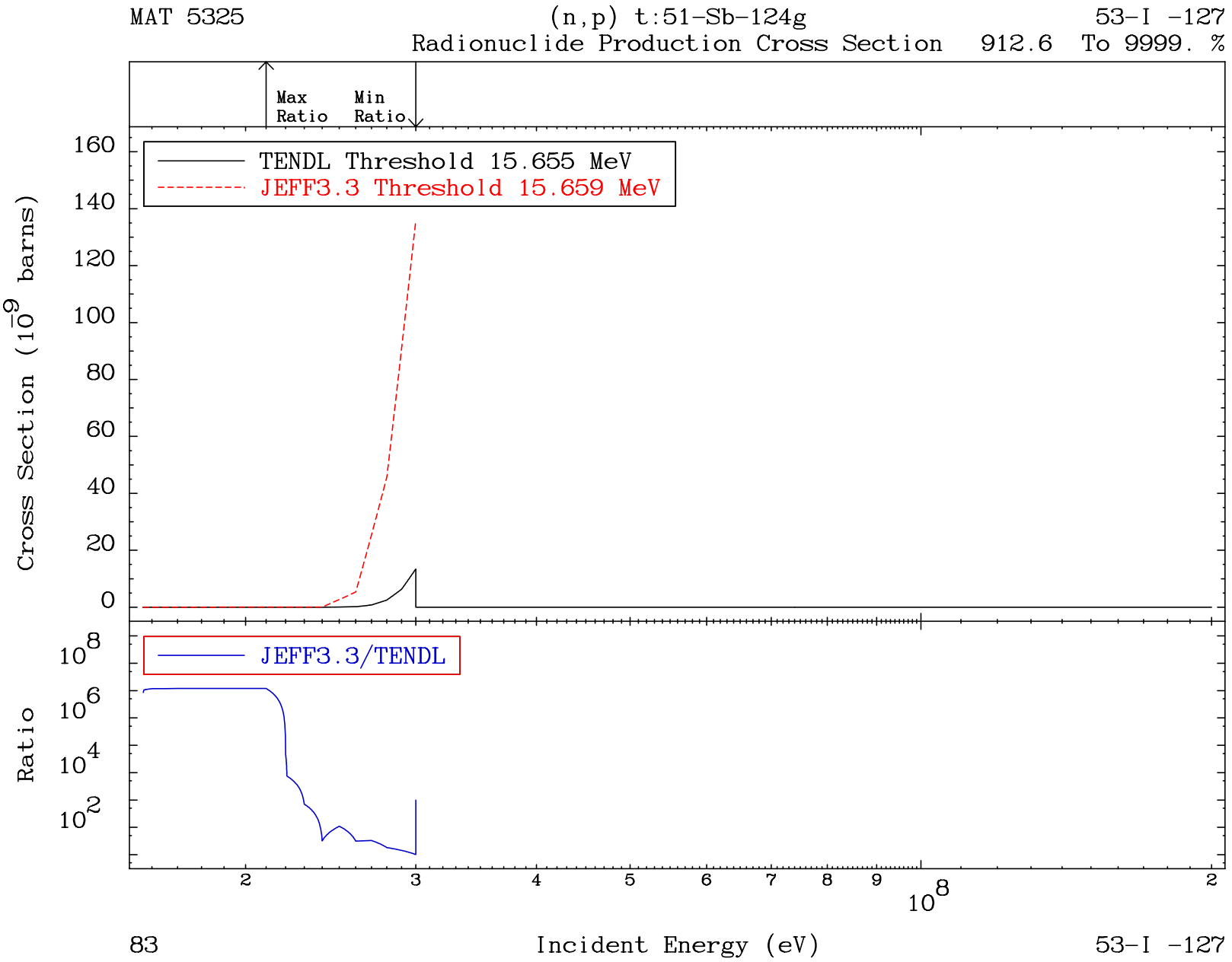

MAT 5325
(n,2p):51-Sb-126g
53-I -127
Radionuclide Production Cross Section -16.85 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 12.500 MeV
JEFF3.3 Threshold 9.1682 MeV
Cross Section (micro-barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
53-I -127

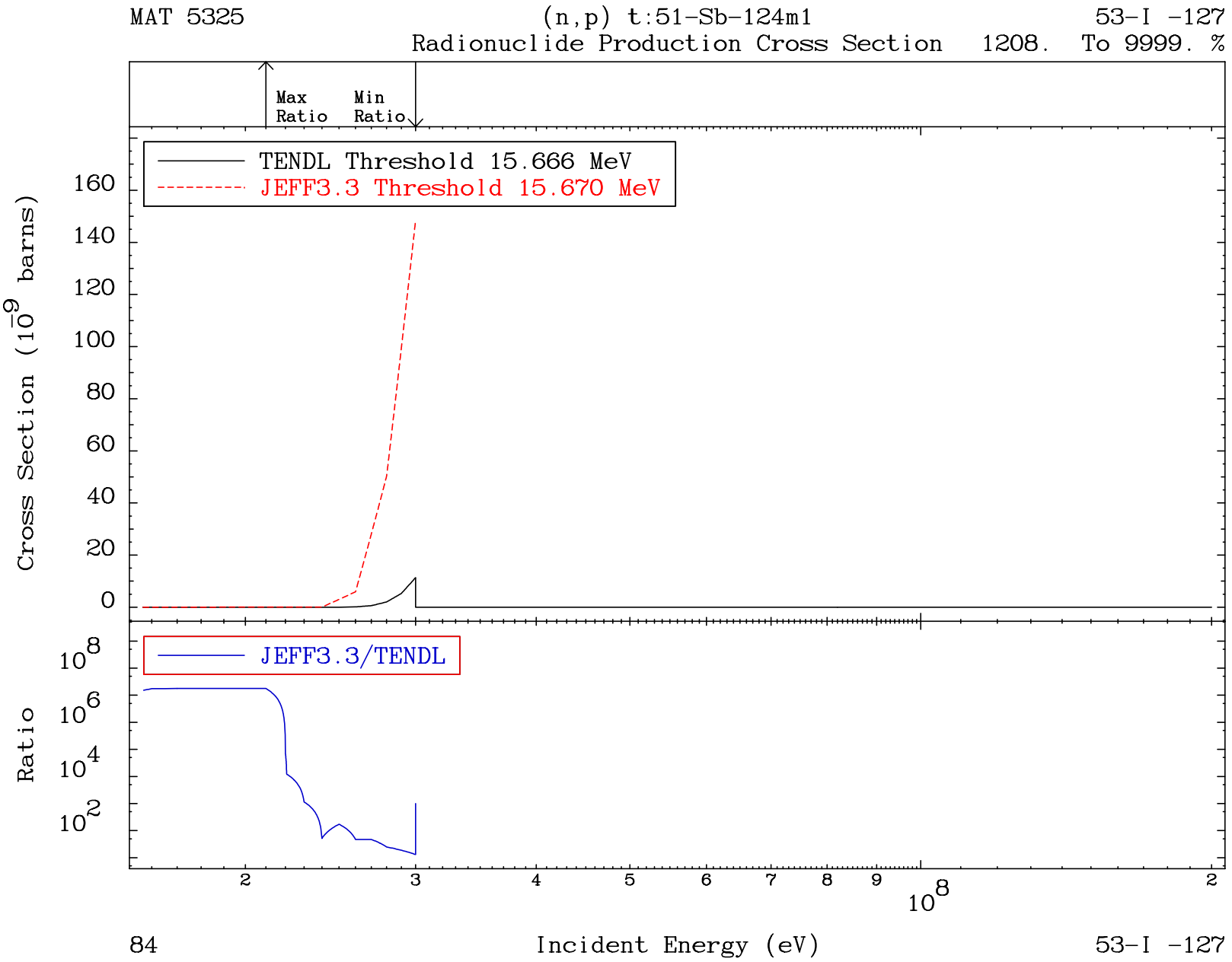

MAT 5325
(n,2p):51-Sb-126m1
53-I -127
Radionuclide Production Cross Section -43.95 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 12.500 MeV
JEFF3.3 Threshold 9.1861 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
53-I -127

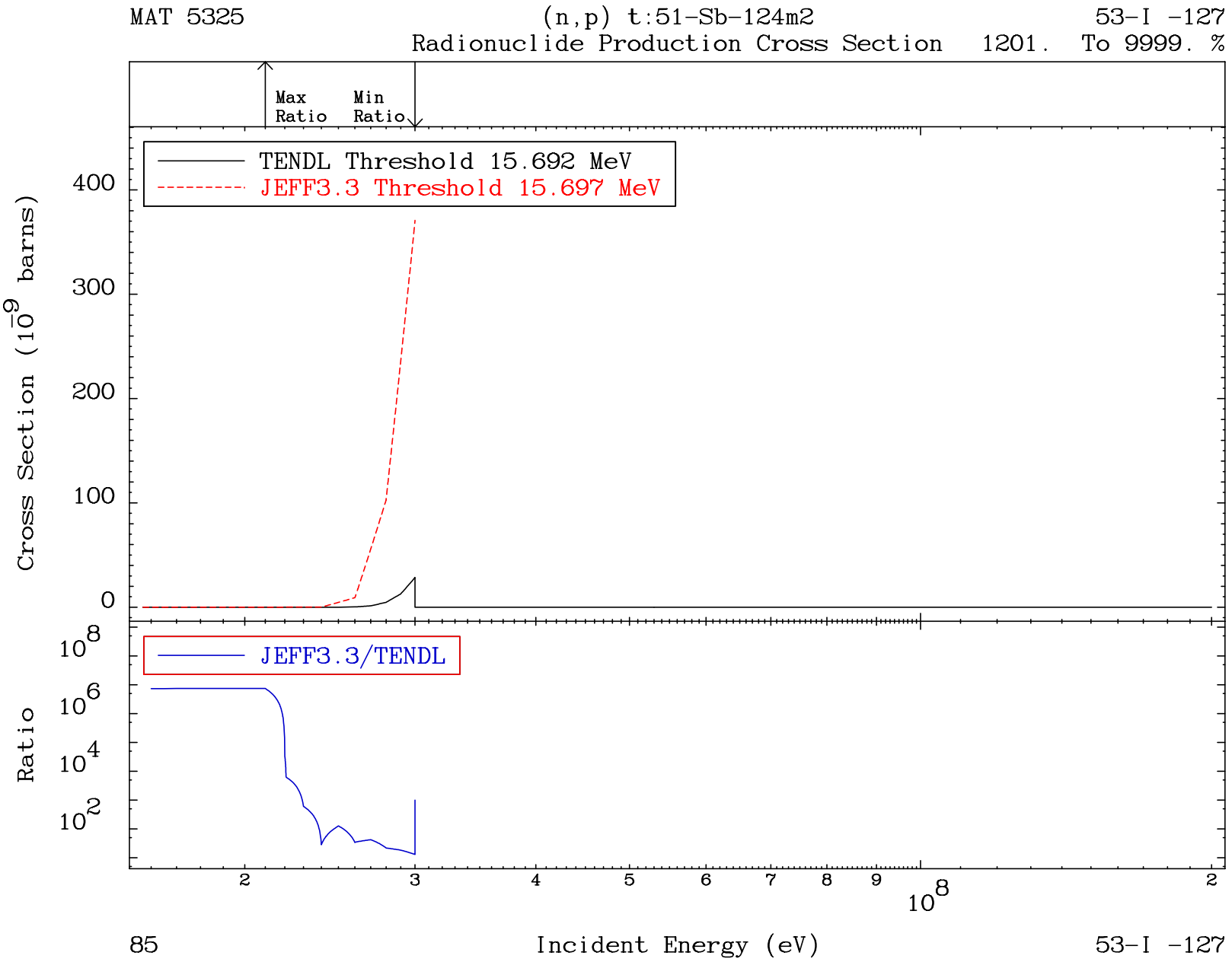

MAT 5325
(n,2p):51-Sb-126m2
53-I -127
Radionuclide Production Cross Section -70.23 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 12.500 MeV
JEFF3.3 Threshold 9.2089 MeV
Cross Section (micro-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
53-I -127


MAT 5325
(n,p) α:50-Sn-123g
53-I -127
Radionuclide Production Cross Section -55.45 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.8334 MeV
JEFF3.3 Threshold 2.8325 MeV
Cross Section (micro-barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
81
Incident Energy (eV)
53-I -127


MAT 5325
(n,p) α:50-Sn-123m1
53-I -127
Radionuclide Production Cross Section
-63.88 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.8582 MeV
JEFF3.3 Threshold 2.8573 MeV
Cross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^8
10^4
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
82
Incident Energy (eV)
53-I -127


MAT 5325
(n,p) t:51-Sb-124g
53-I -127
Radionuclide Production Cross Section 912.6 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 15.655 MeV
JEFF3.3 Threshold 15.659 MeV
Cross Section (10^{-9} barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^{8}
10^{6}
10^{4}
10^{2}
2
3
4
5
6
7
8
9
10^{8}
2
83
Incident Energy (eV)
53-I -127


MAT 5325
(n,p) t:51-Sb-124m1
53-I -127
Radionuclide Production Cross Section 1208. To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 15.666 MeV
JEFF3.3 Threshold 15.670 MeV
Cross Section (10^{-9} barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^{8}
10^{6}
10^{4}
10^{2}
2
3
4
5
6
7
8
9
10^{8}
2
84
Incident Energy (eV)
53-I -127


MAT 5325
(n,p) t:51-Sb-124m2
53-I -127
Radionuclide Production Cross Section 1201. To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 15.692 MeV
JEFF3.3 Threshold 15.697 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^8
10^6
10^4
10^2
2
3
4
5
6
7
8
9
10^8
2
85
Incident Energy (eV)
53-I -127