Program Complot
(Version 2021-1)
by
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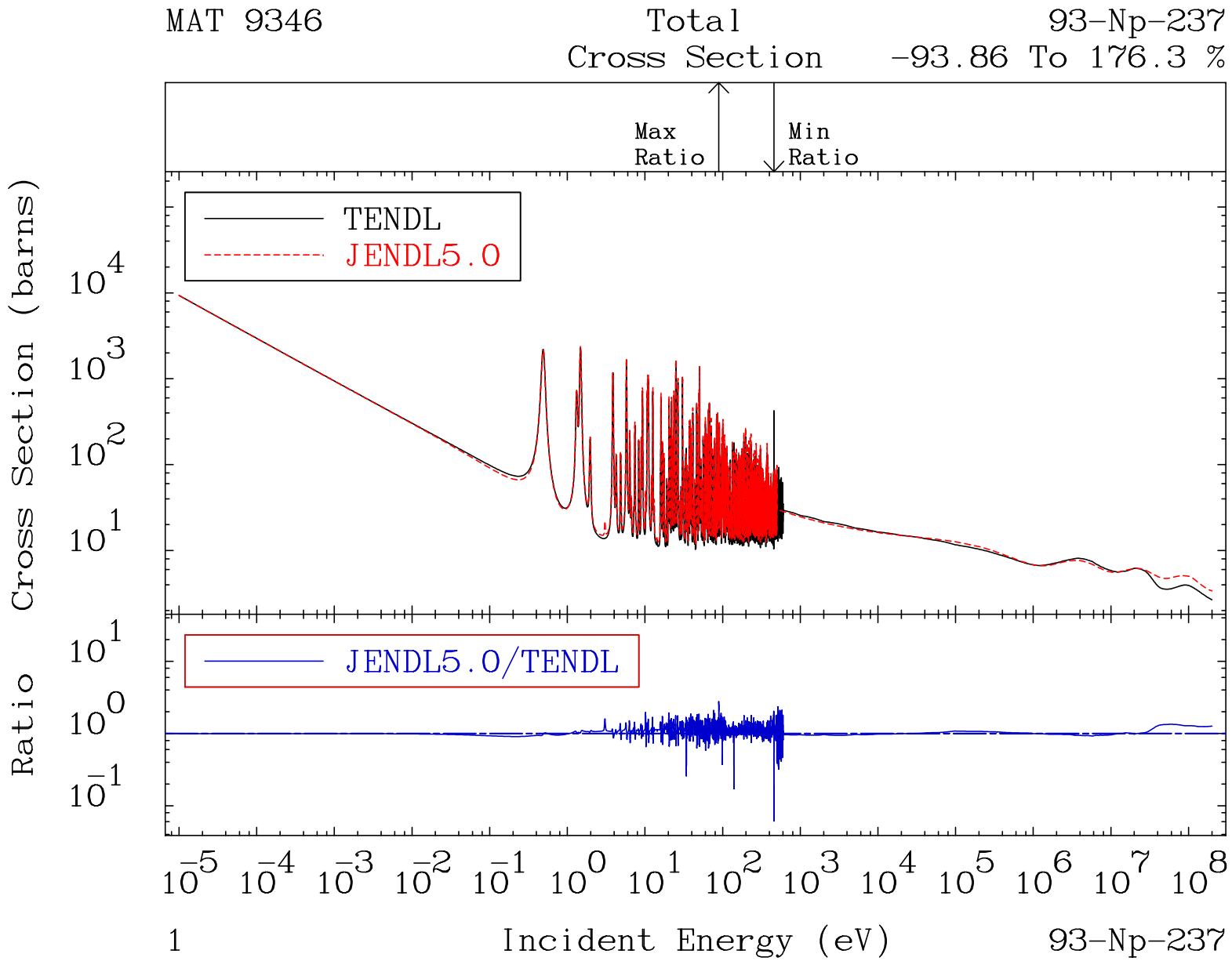
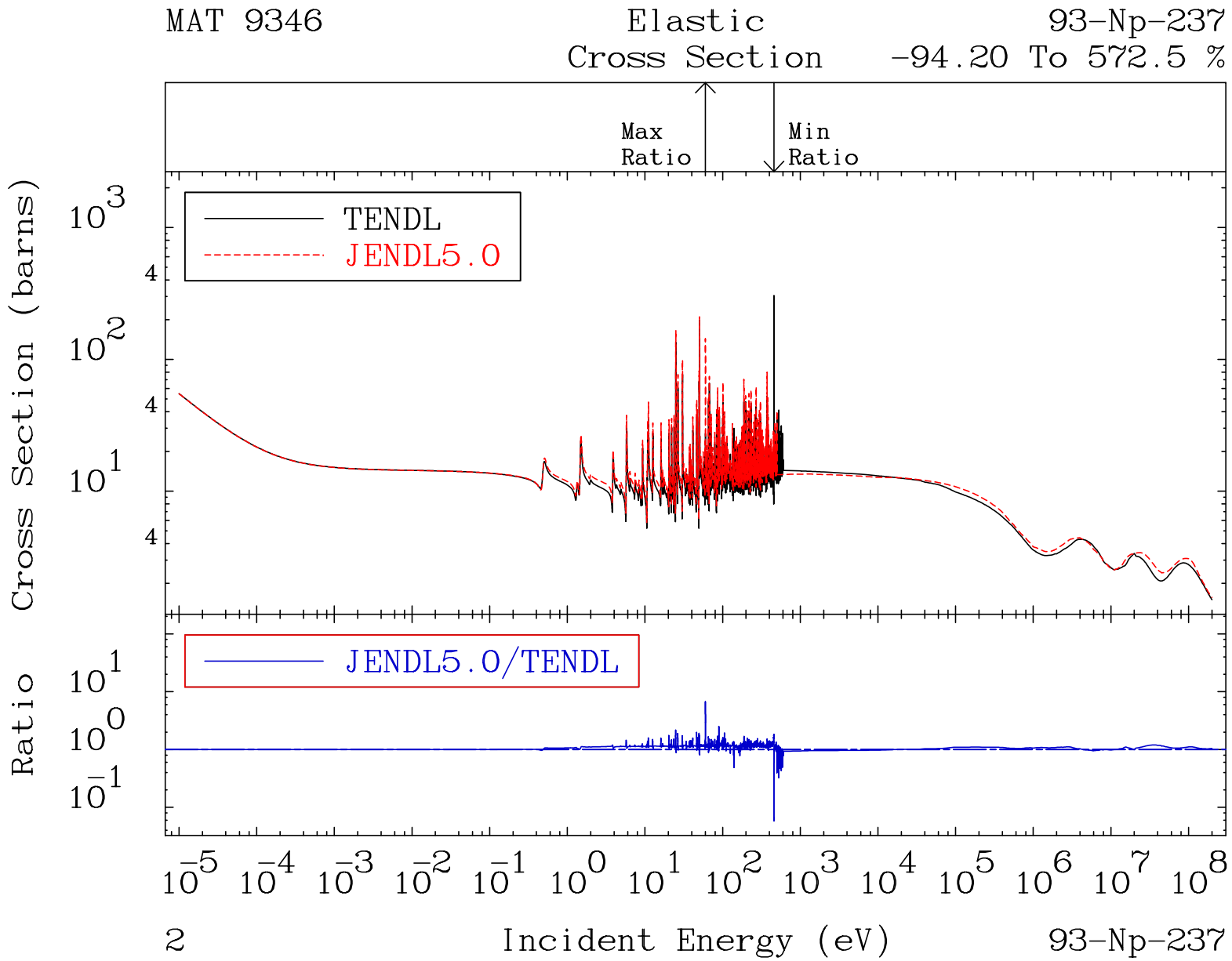
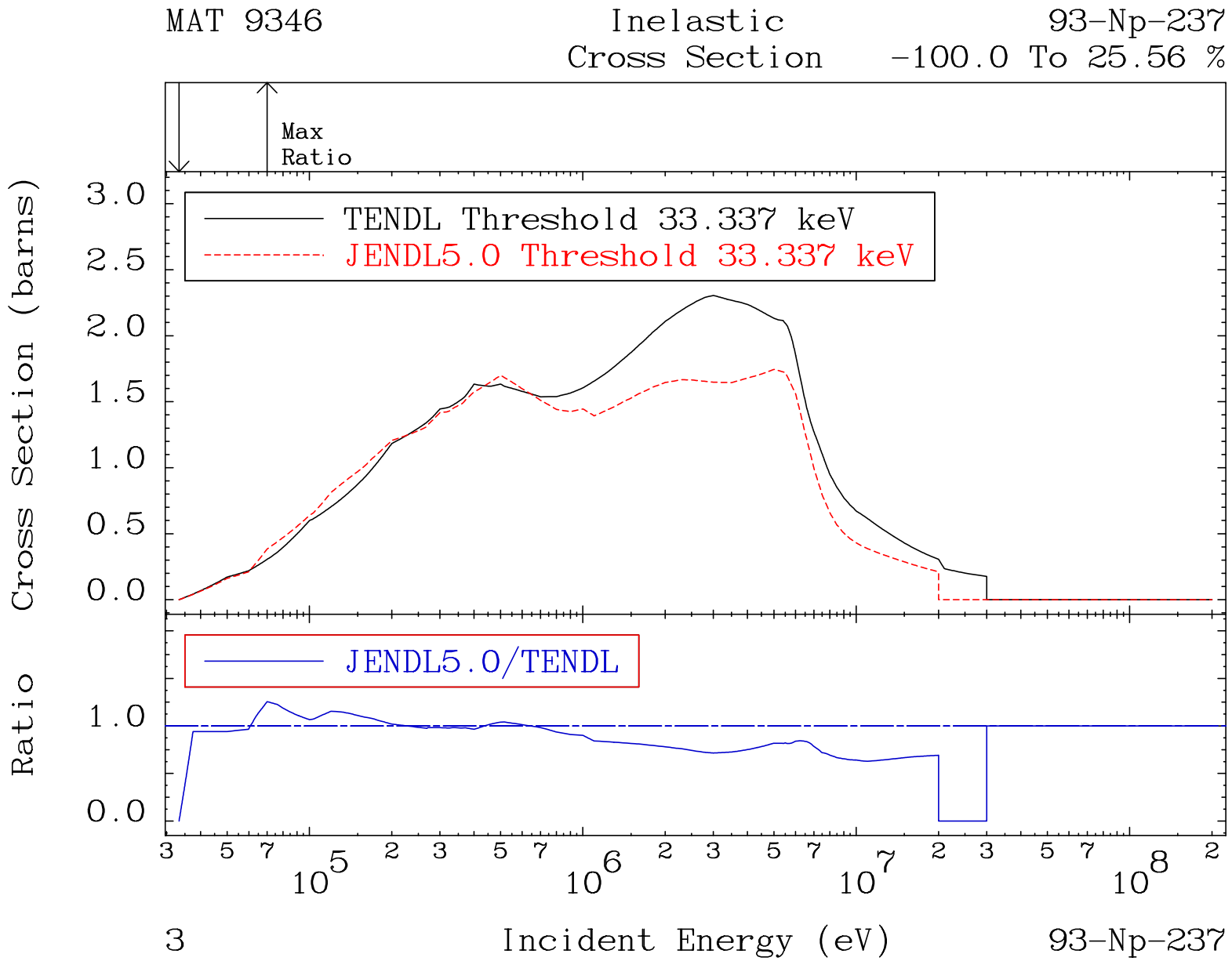
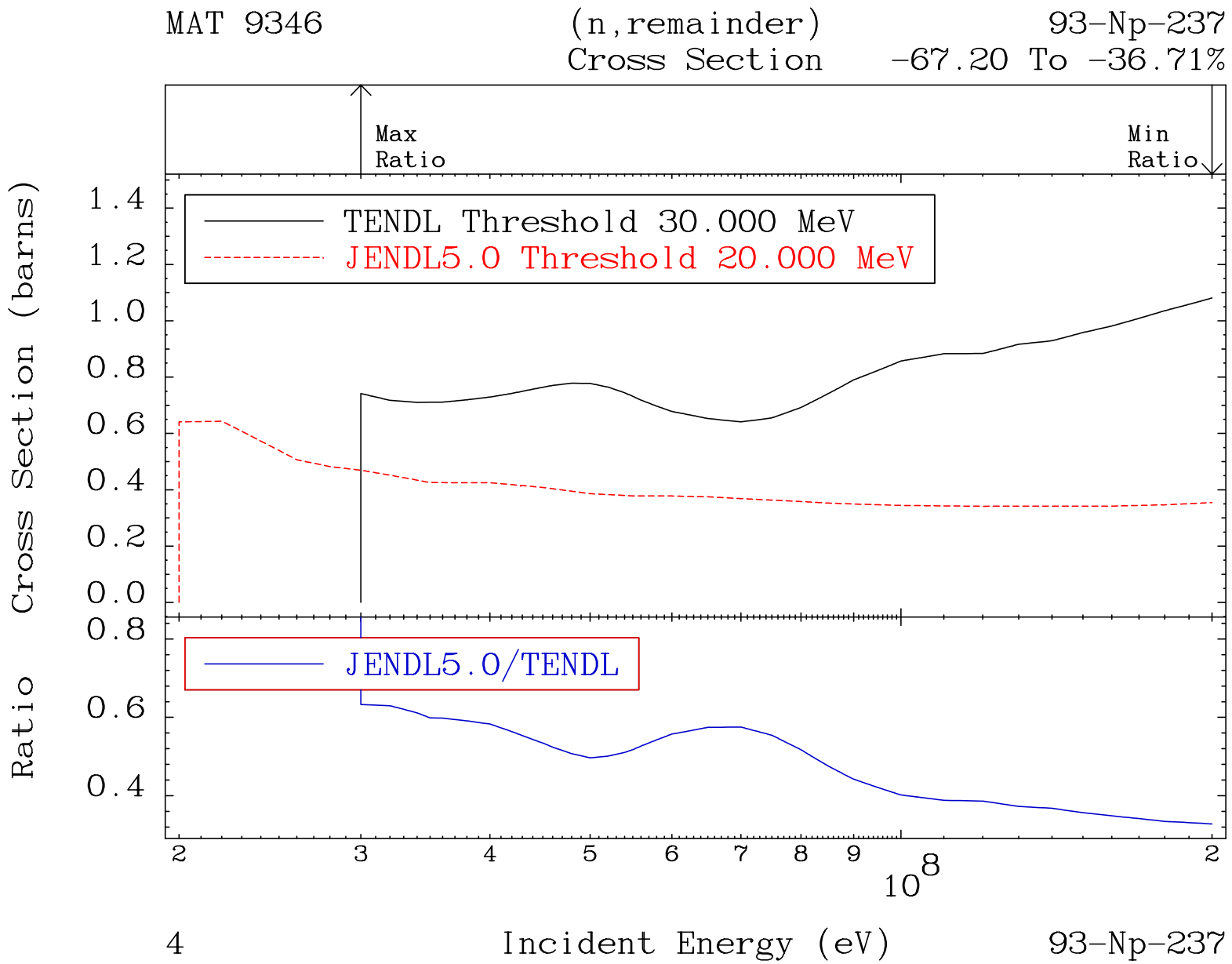
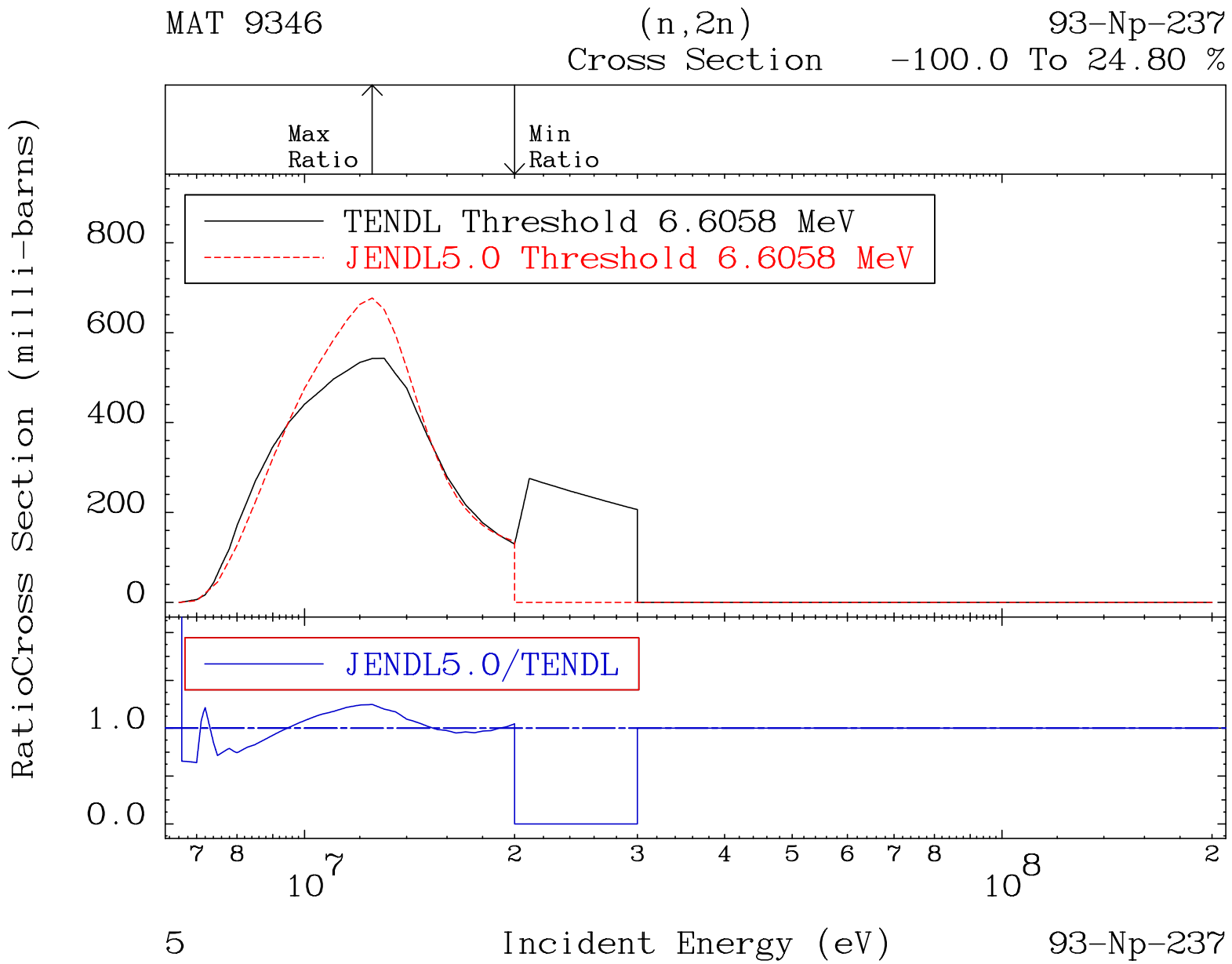
Press Mouse Button to Start

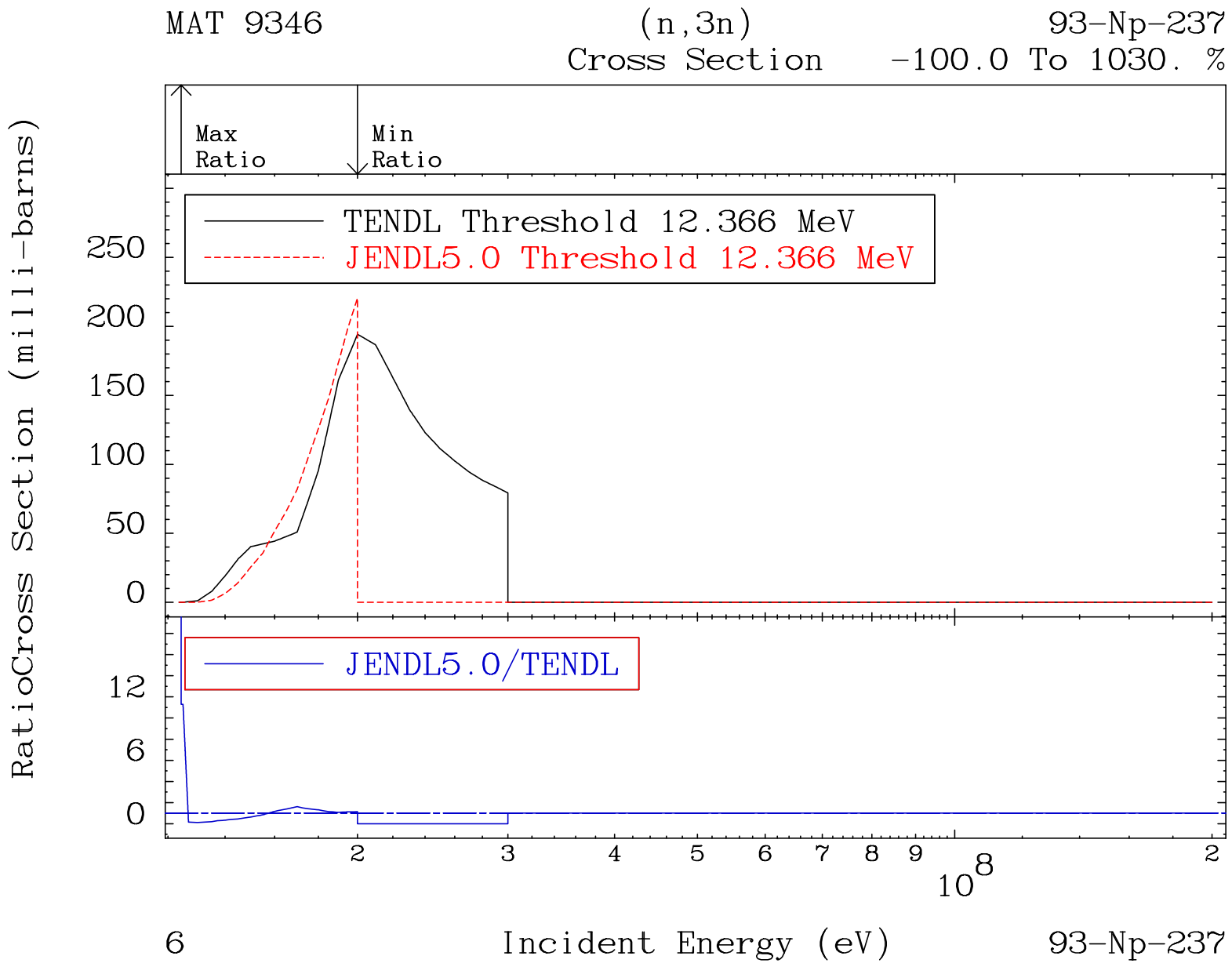

MAT 9346
Total
Cross Section
93-Np-237
-93.86 To 176.3 %
Max
Ratio
Min
Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
93-Np-237

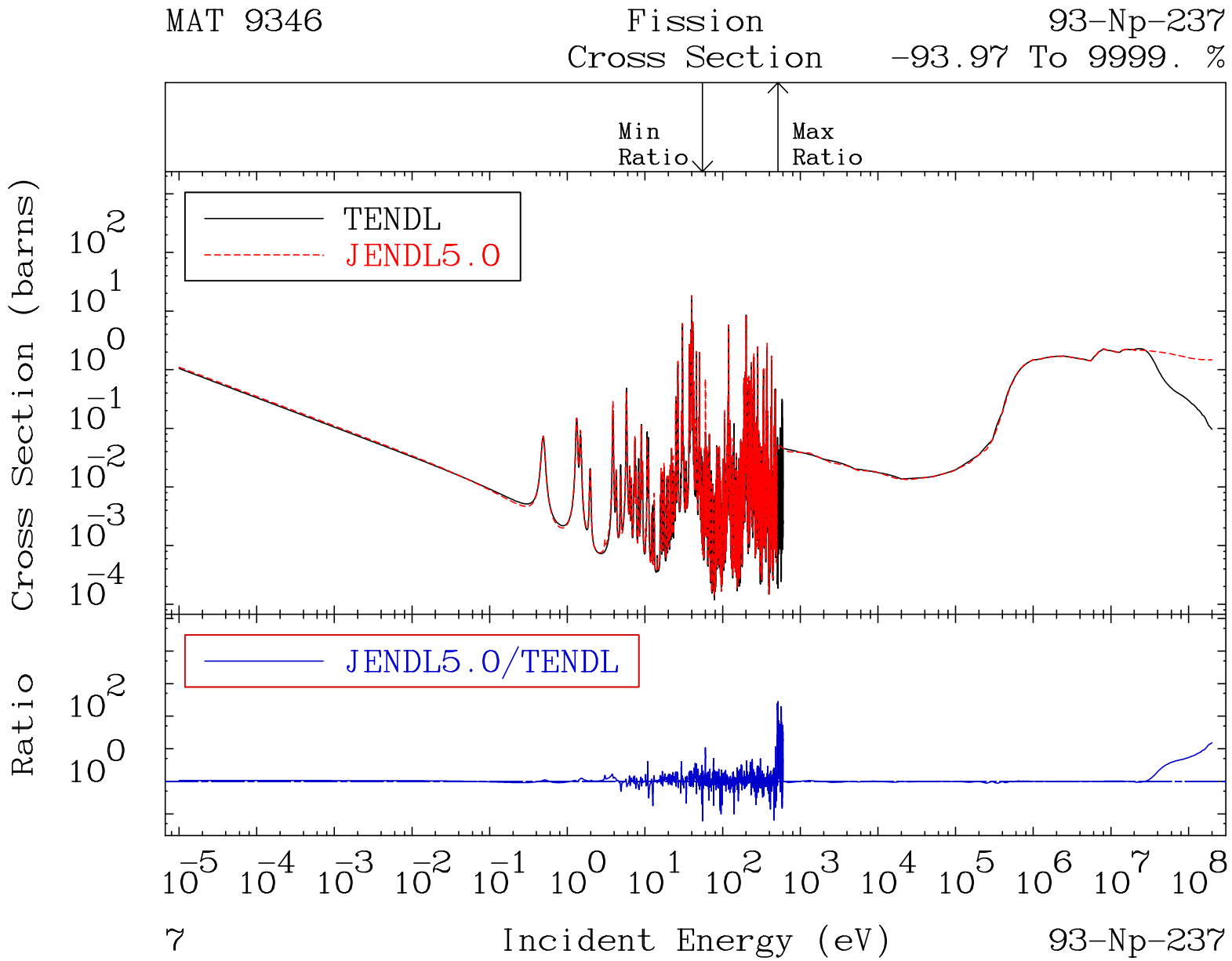

MAT 9346
Elastic
Cross Section
93-Np-237
-94.20 To 572.5 %
Max
Ratio
Min
Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
93-Np-237

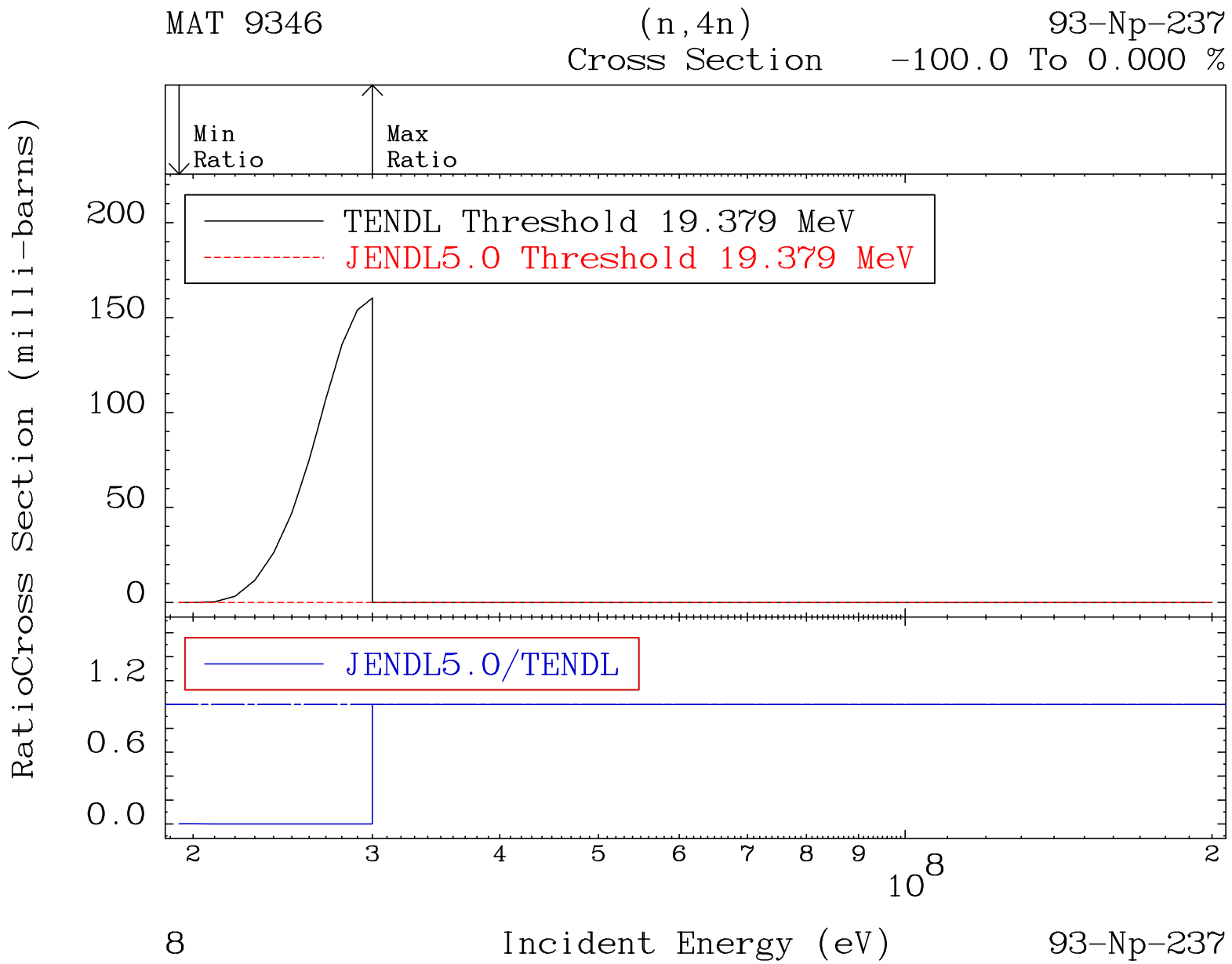

MAT 9346
Inelastic
Cross Section
93-Np-237
-100.0 To 25.56 %
Max
Ratio
TENDL Threshold 33.337 keV
JENDL5.0 Threshold 33.337 keV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
93-Np-237
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1.0
0.0
3
5
7
10^5
2
3
5
7
10^6
2
3
5
7
10^7
2
3
5
7
10^8
2

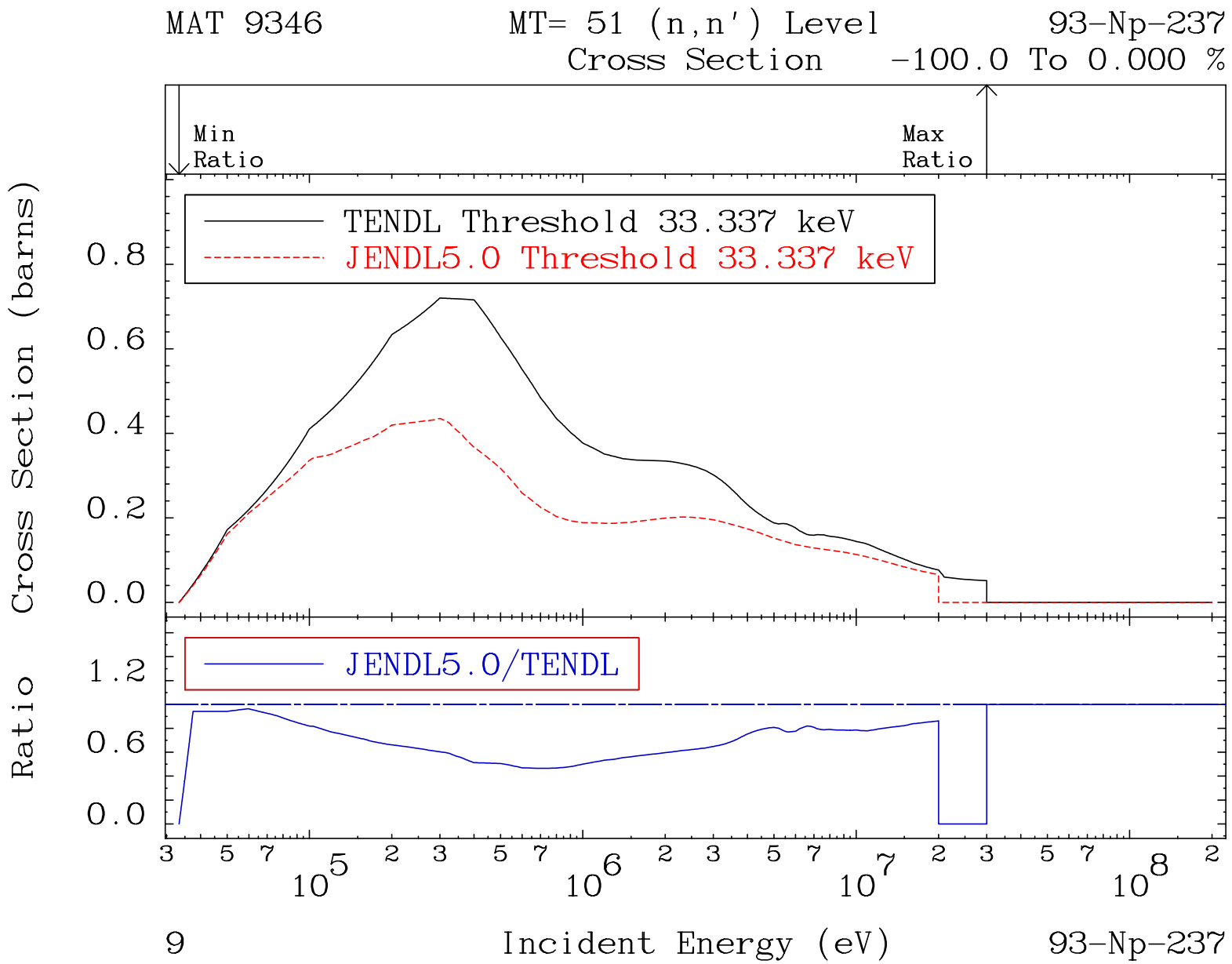

MAT 9346
(n,remainder)
Cross Section
93-Np-237
-67.20 To -36.71%
Max
Ratio
Min
Ratio
TENDL Threshold 30.000 MeV
JENDL5.0 Threshold 20.000 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.8
0.6
0.4
2
3
4
5
6
7
8
9
2
10^8
4
Incident Energy (eV)
93-Np-237

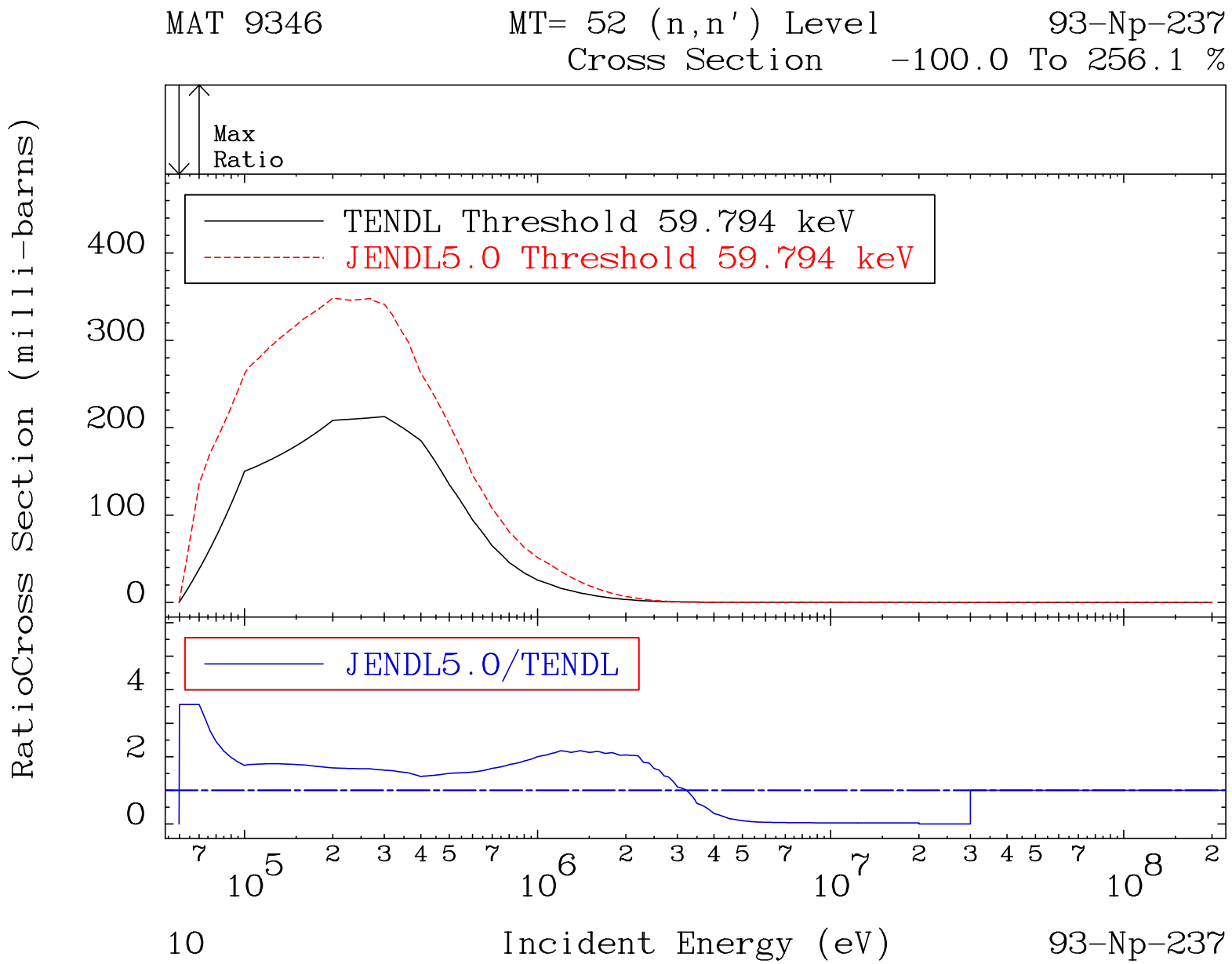

MAT 9346
(n,2n)
93-Np-237
Cross Section
-100.0 To 24.80 %
Max Ratio
Min Ratio
TENDL Threshold 6.6058 MeV
JENDL5.0 Threshold 6.6058 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.0
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
5
Incident Energy (eV)
93-Np-237

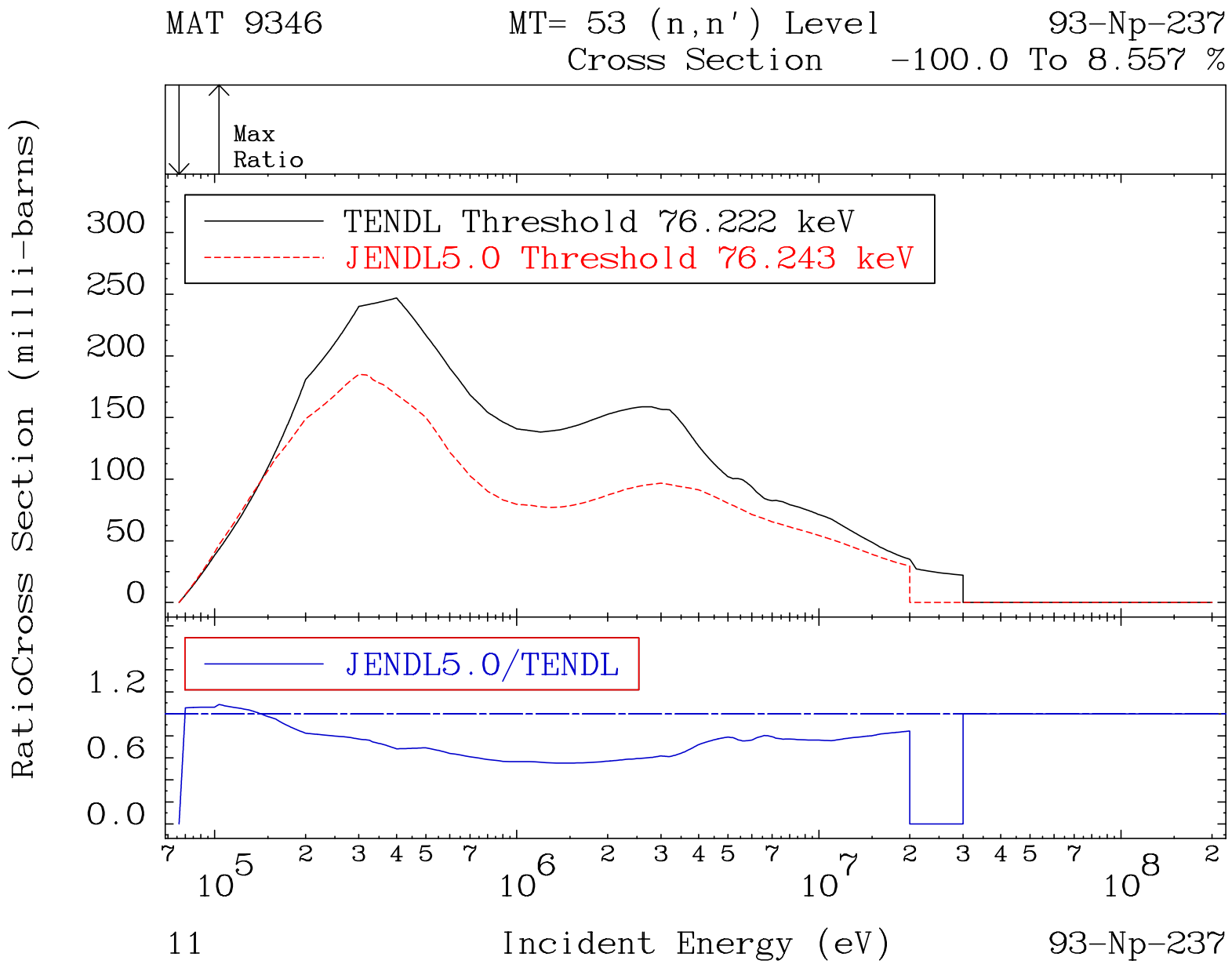

MAT 9346
(n,3n)
93-Np-237
Cross Section
-100.0 To 1030. %
Max Ratio
Min Ratio
TENDL Threshold 12.366 MeV
JENDL5.0 Threshold 12.366 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
12
6
0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
93-Np-237

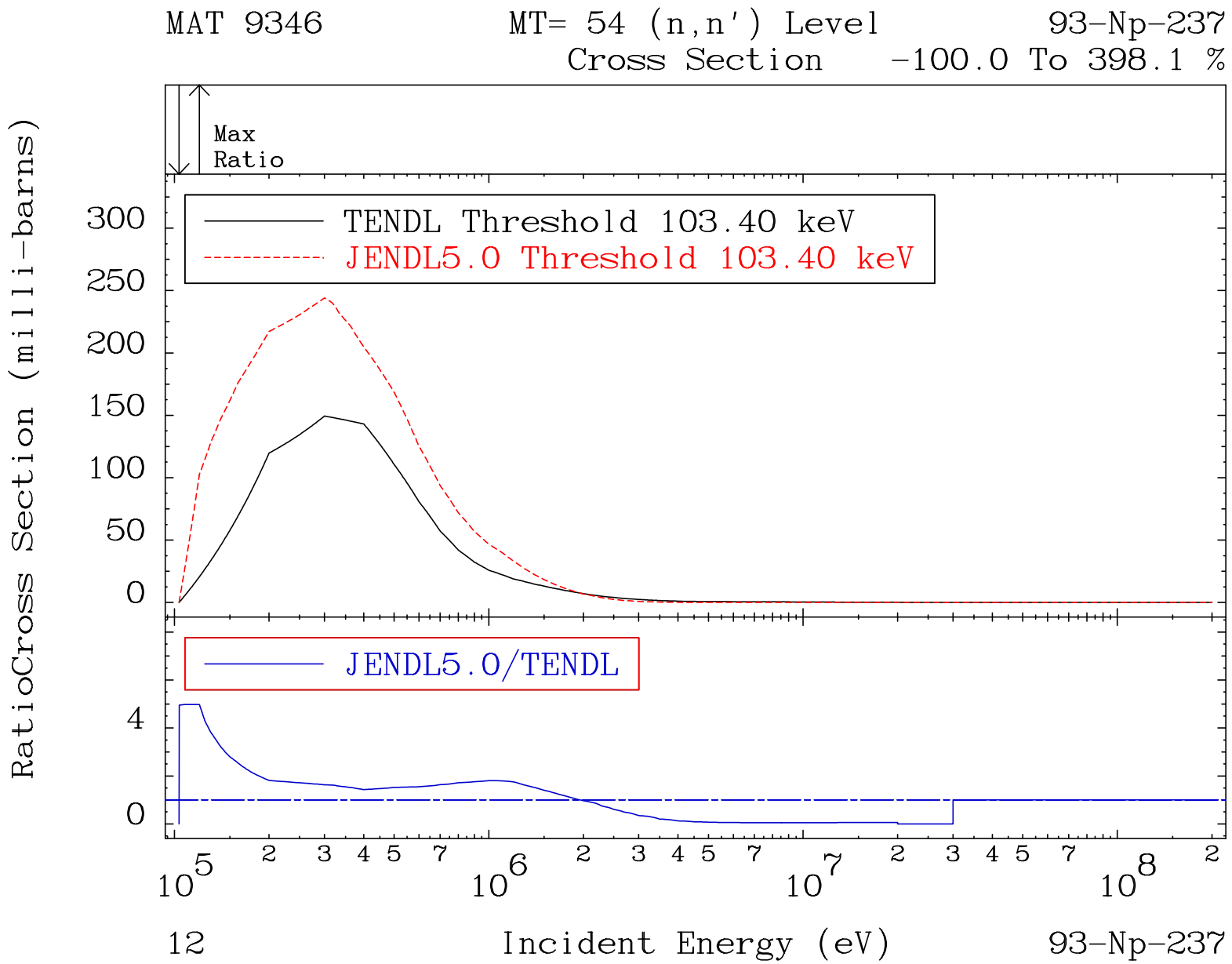

MAT 9346
Fission
Cross Section
93-Np-237
-93.97 To 9999. %
Min
Ratio
Max
Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
93-Np-237
7

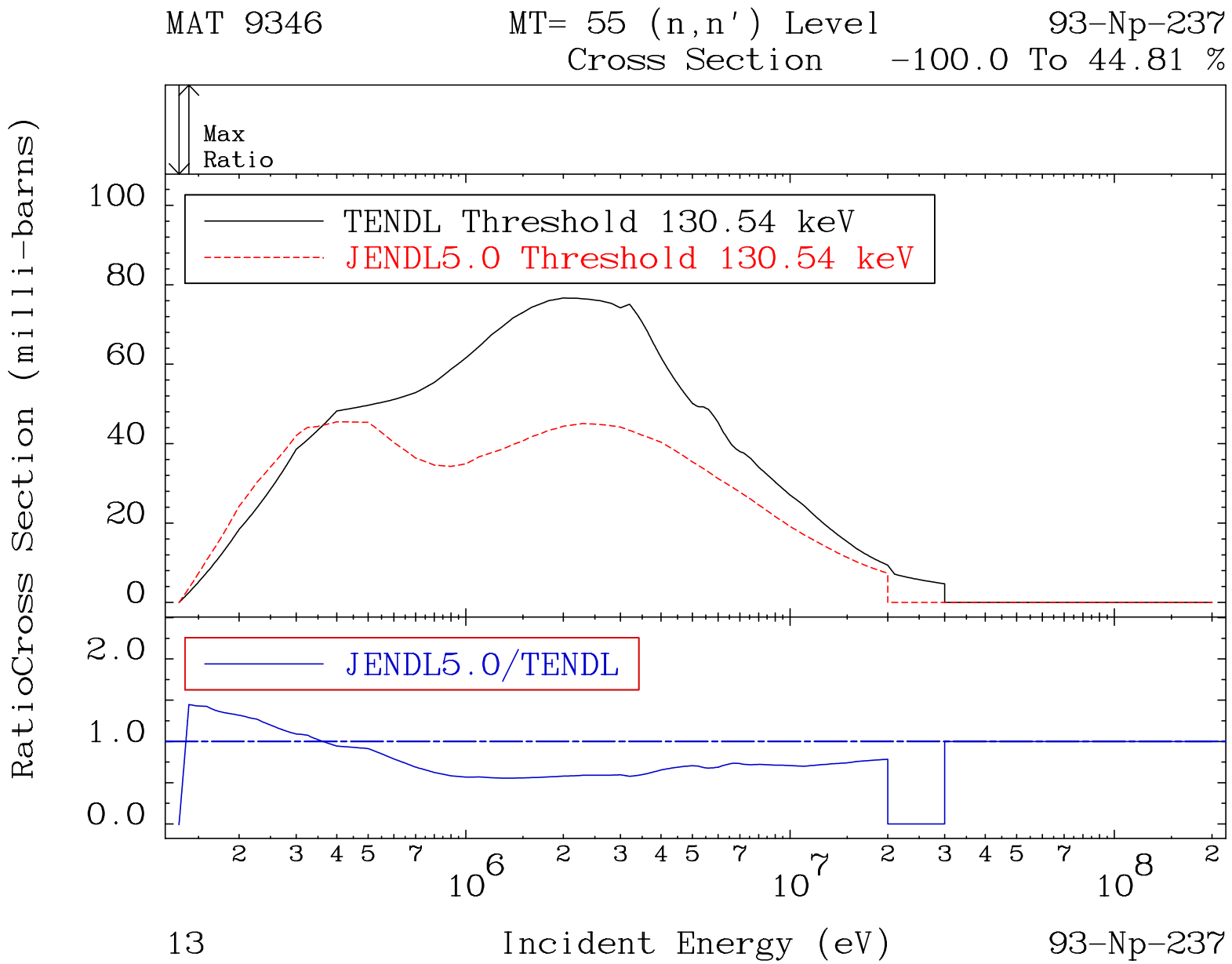

MAT 9346
(n,4n)
93-Np-237
Cross Section
-100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 19.379 MeV
JENDL5.0 Threshold 19.379 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
1.2
0.6
0.0
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
93-Np-237

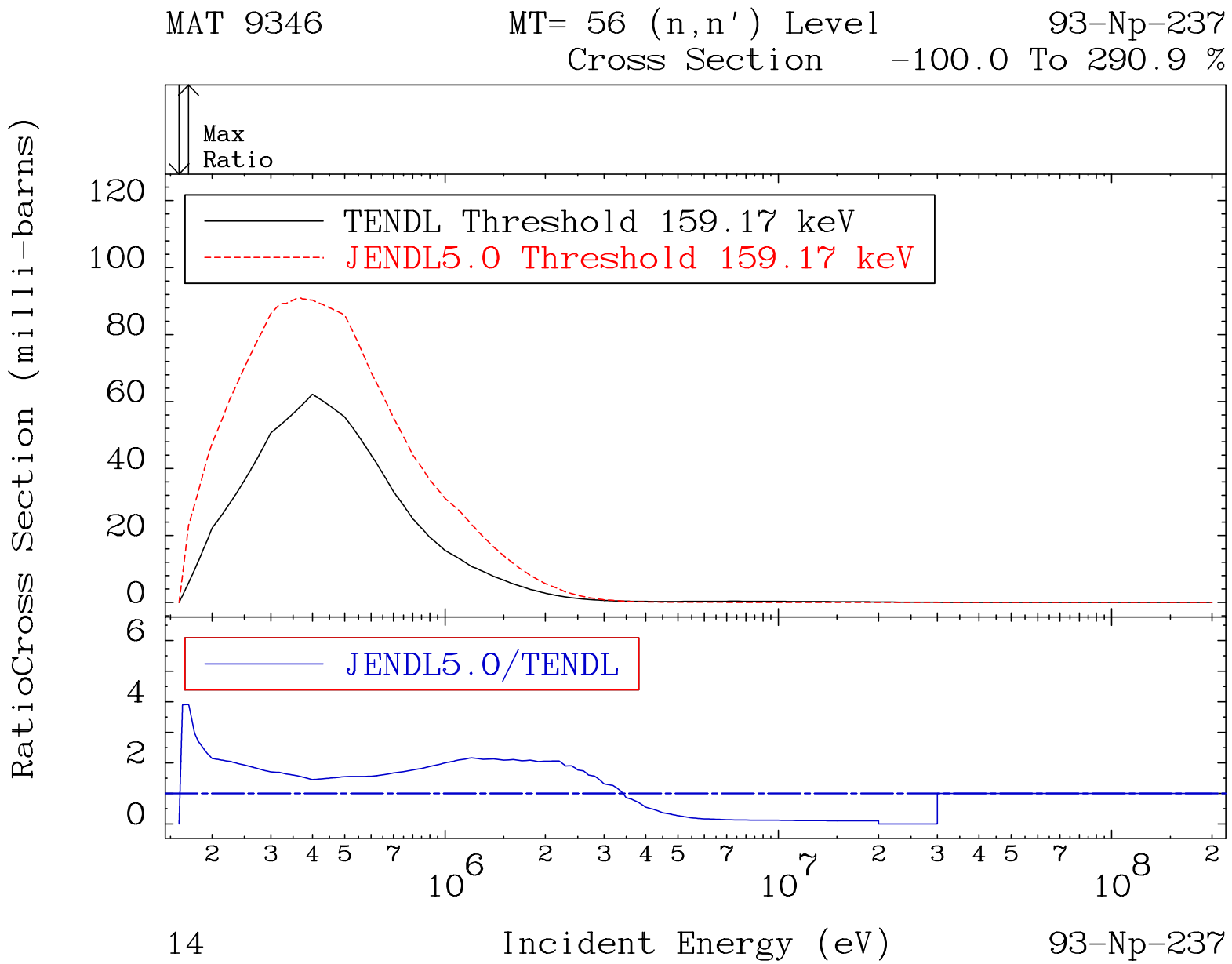

MAT 9346
MT= 51 (n,n') Level
93-Np-237
Cross Section
-100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 33.337 keV
JENDL5.0 Threshold 33.337 keV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
9
93-Np-237

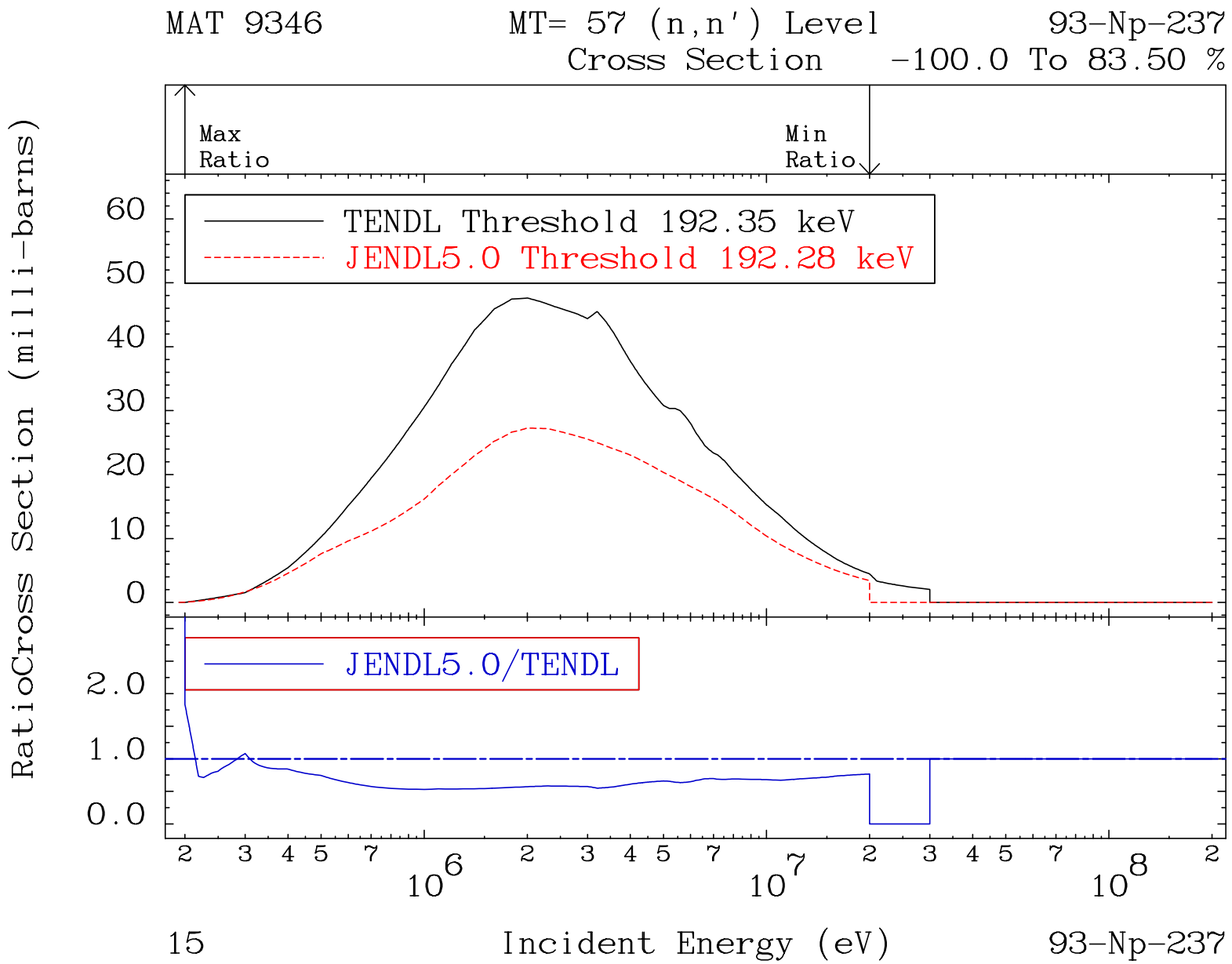

MAT 9346
MT= 52 (n,n') Level
Cross Section
93-Np-237
-100.0 To 256.1 %
Max
Ratio
TENDL Threshold 59.794 keV
JENDL5.0 Threshold 59.794 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
93-Np-237

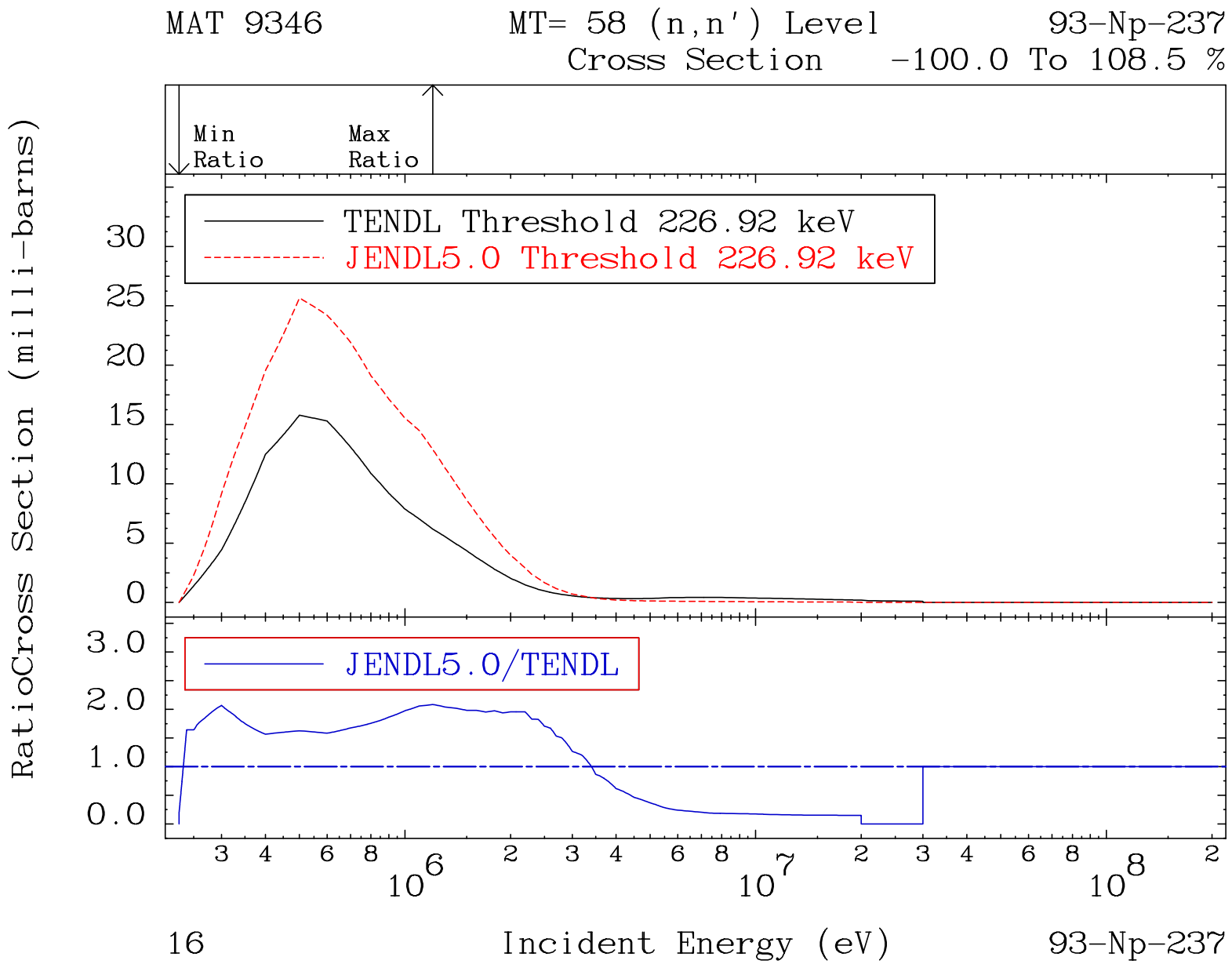

MAT 9346
MT= 53 (n,n') Level
Cross Section
93-Np-237
-100.0 To 8.557 %
Max
Ratio
TENDL Threshold 76.222 keV
JENDL5.0 Threshold 76.243 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
300
250
200
150
100
50
0
1.2
0.6
0.0
7
2
3
4
5
7
10^5
10^6
10^7
10^8
11
Incident Energy (eV)
93-Np-237

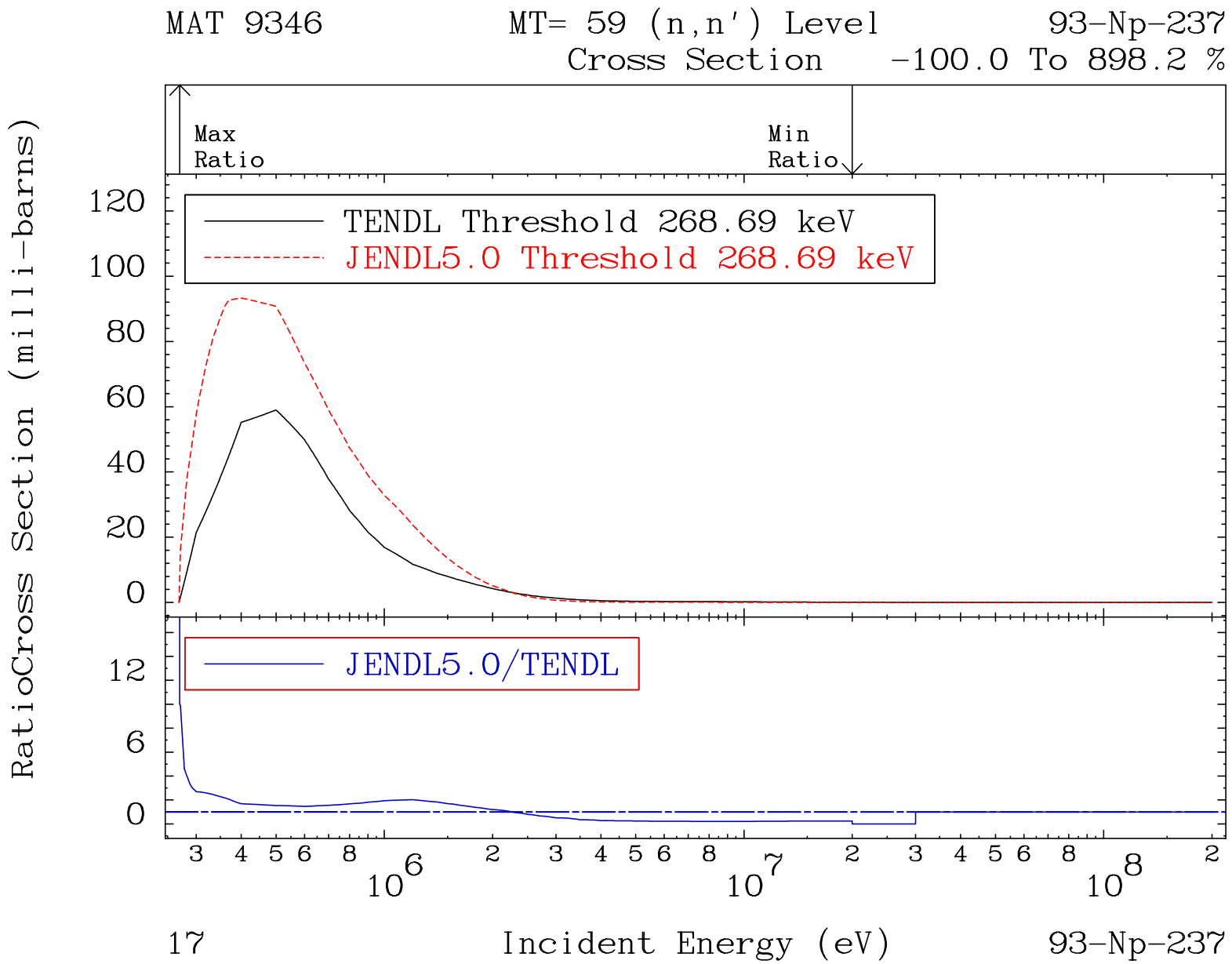

MAT 9346
MT= 54 (n,n') Level
Cross Section
93-Np-237
-100.0 To 398.1 %
Max
Ratio
TENDL Threshold 103.40 keV
JENDL5.0 Threshold 103.40 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
300
250
200
150
100
50
0
4
0
2 3 4 5 7
10^5
10^6
10^7
10^8
12
Incident Energy (eV)
93-Np-237

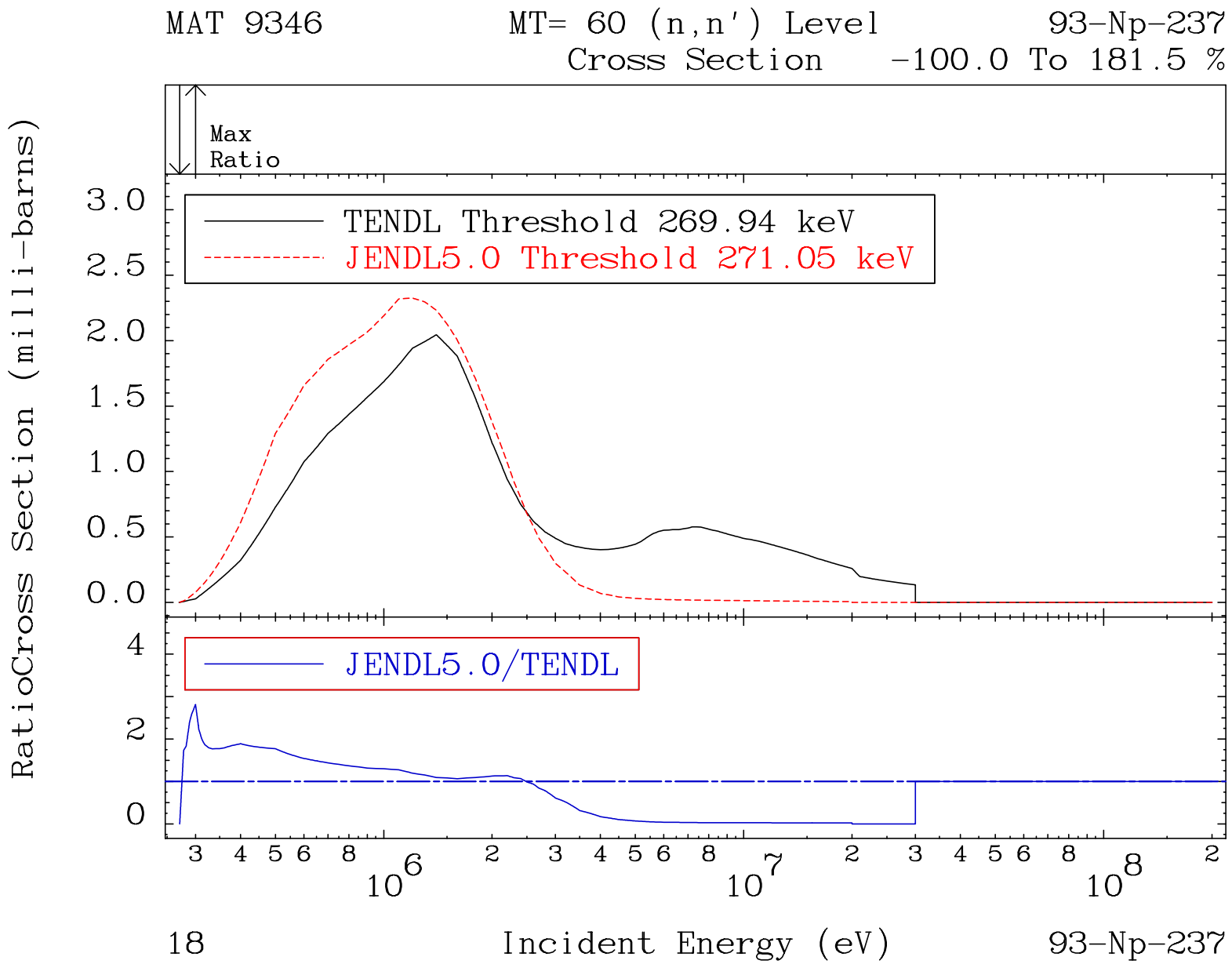

MAT 9346
MT= 55 (n,n') Level
93-Np-237
Cross Section
-100.0 To 44.81 %
Max
Ratio
TENDL Threshold 130.54 keV
JENDL5.0 Threshold 130.54 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
2.0
1.0
0.0
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
13
Incident Energy (eV)
93-Np-237

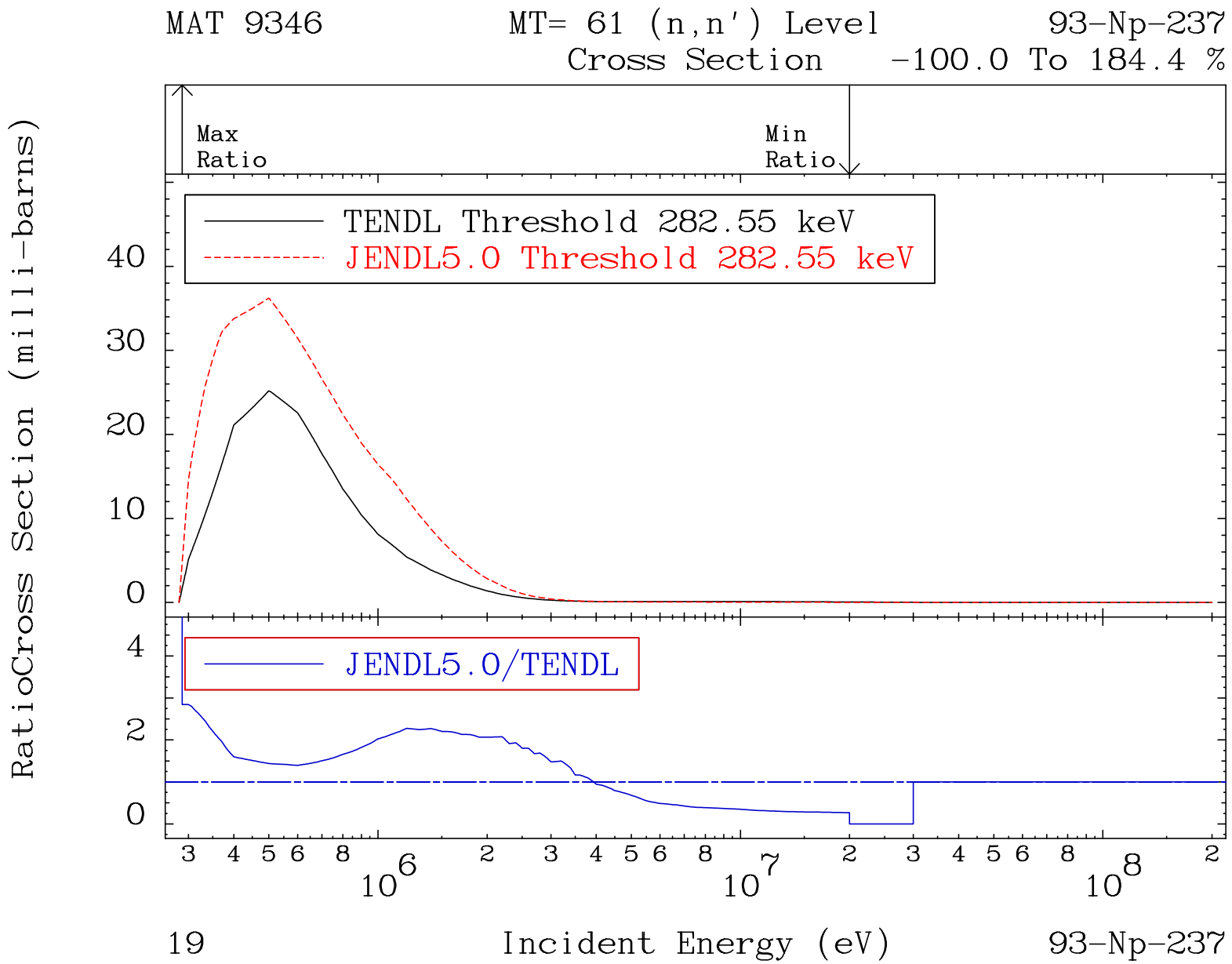

MAT 9346
MT= 56 (n,n') Level
93-Np-237
Cross Section
-100.0 To 290.9 %
Max
Ratio
TENDL Threshold 159.17 keV
JENDL5.0 Threshold 159.17 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
6
4
2
0
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
14
Incident Energy (eV)
93-Np-237

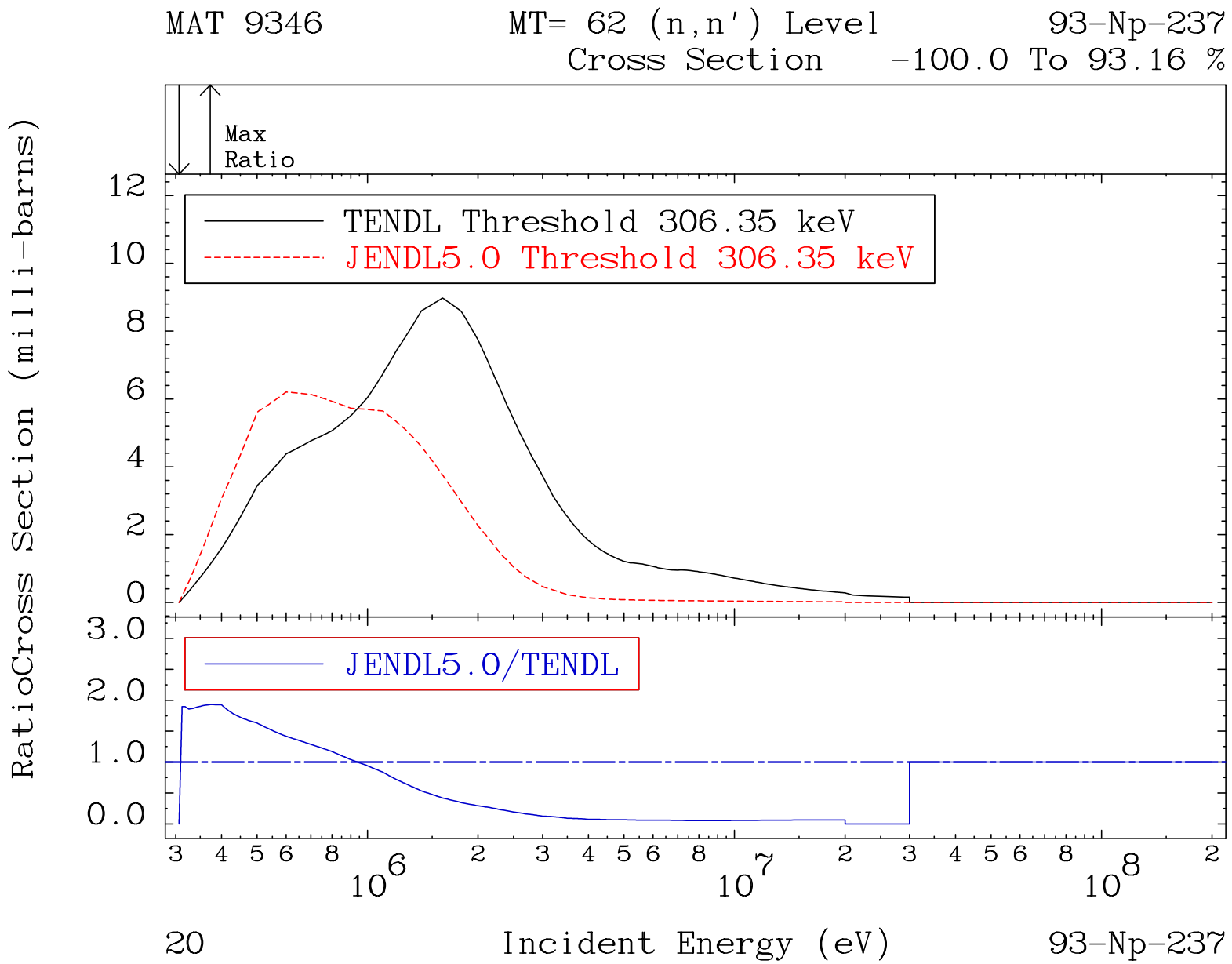

MAT 9346
MT= 57 (n,n') Level
Cross Section
93-Np-237
-100.0 To 83.50 %
Max Ratio
Min Ratio
TENDL Threshold 192.35 keV
JENDL5.0 Threshold 192.28 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
2.0
1.0
0.0
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
15
Incident Energy (eV)
93-Np-237

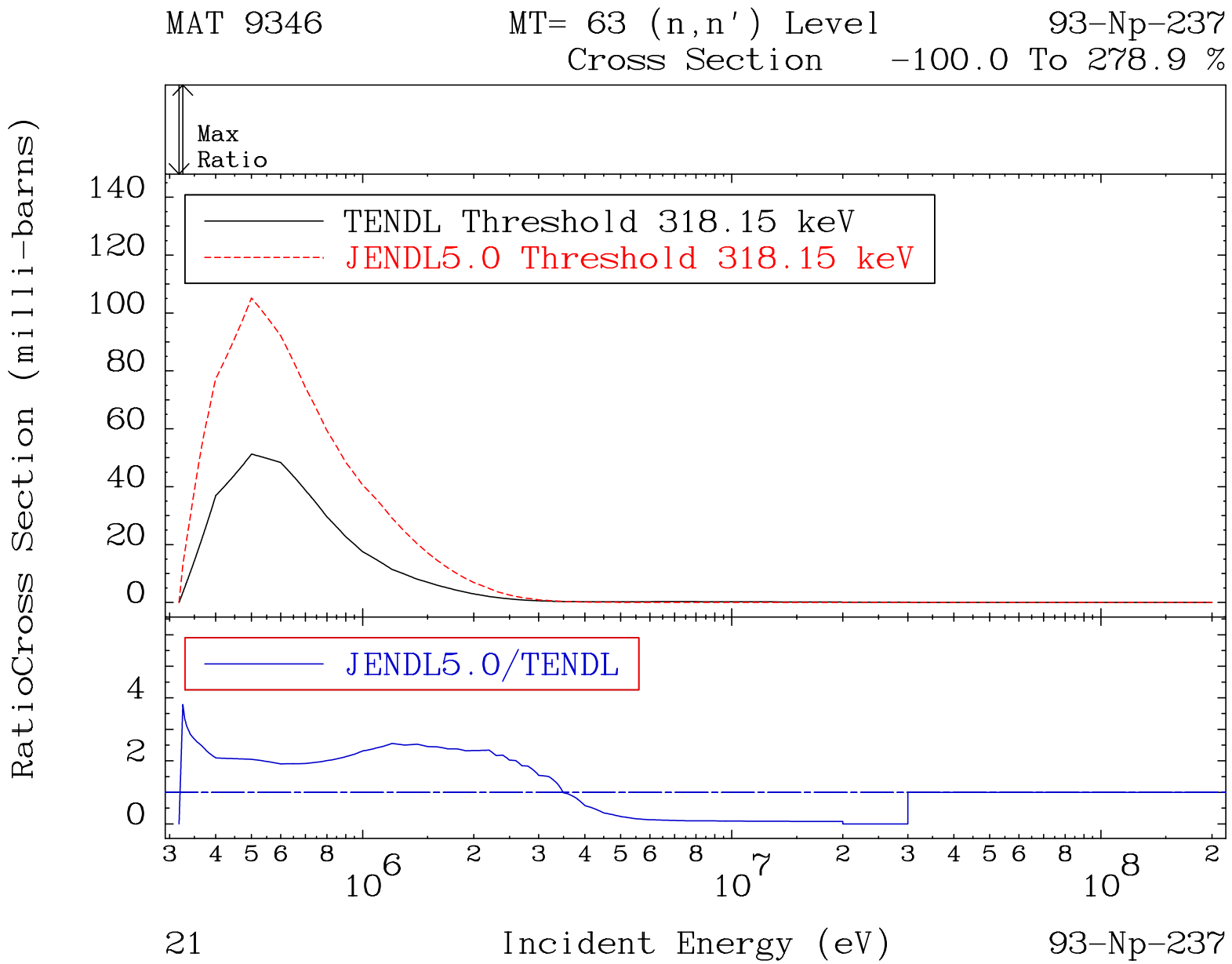

MAT 9346
MT= 58 (n,n') Level
93-Np-237
Cross Section
-100.0 To 108.5 %
Min Ratio
Max Ratio
TENDL Threshold 226.92 keV
JENDL5.0 Threshold 226.92 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
16
93-Np-237

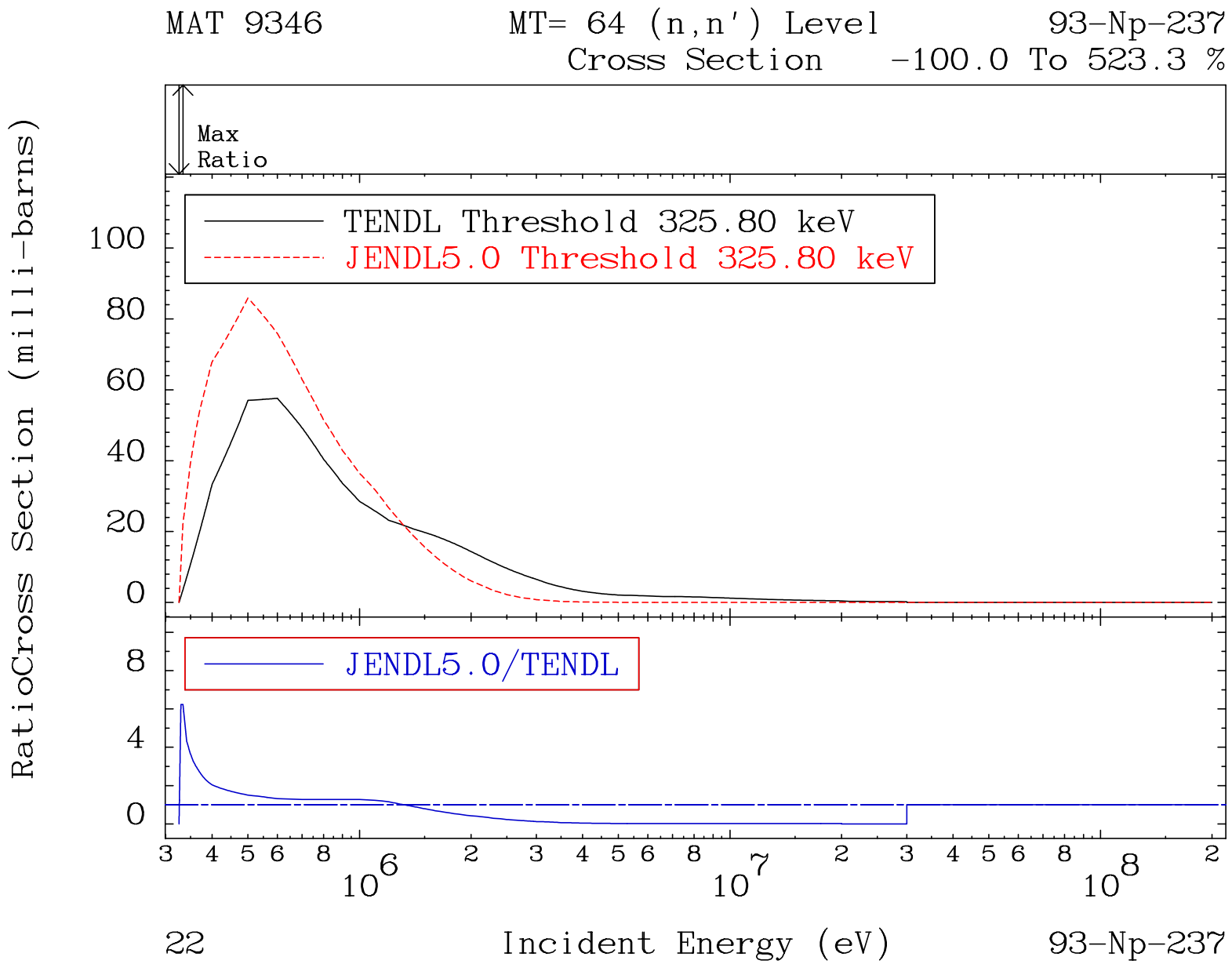

MAT 9346
MT= 59 (n,n') Level
93-Np-237
Cross Section
-100.0 To 898.2 %
Max Ratio
Min Ratio
TENDL Threshold 268.69 keV
JENDL5.0 Threshold 268.69 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
12
6
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
17
Incident Energy (eV)
93-Np-237

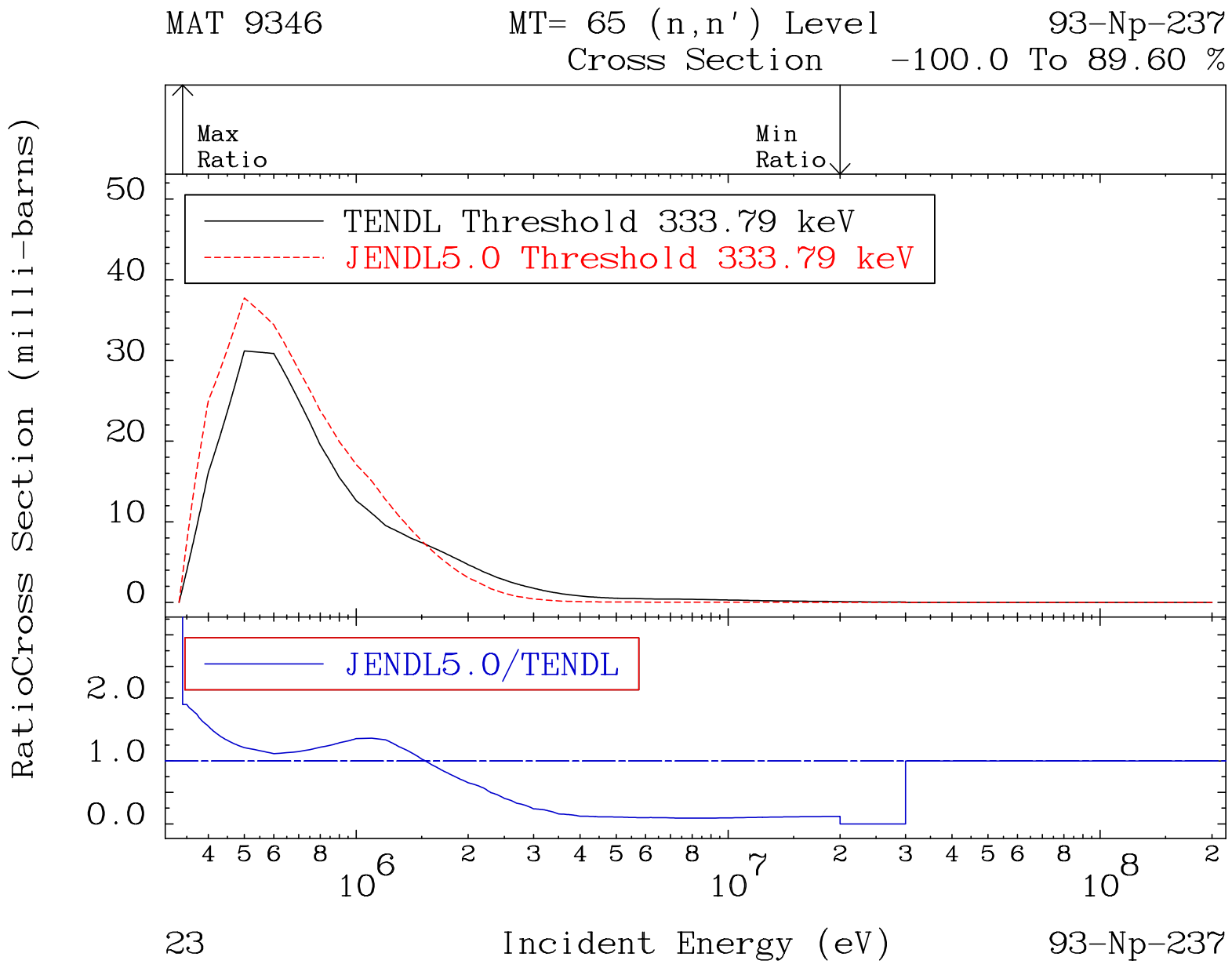

MAT 9346
MT= 60 (n,n') Level
93-Np-237
Cross Section
-100.0 To 181.5 %
Max
Ratio
TENDL Threshold 269.94 keV
JENDL5.0 Threshold 271.05 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
4
2
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
18
Incident Energy (eV)
93-Np-237

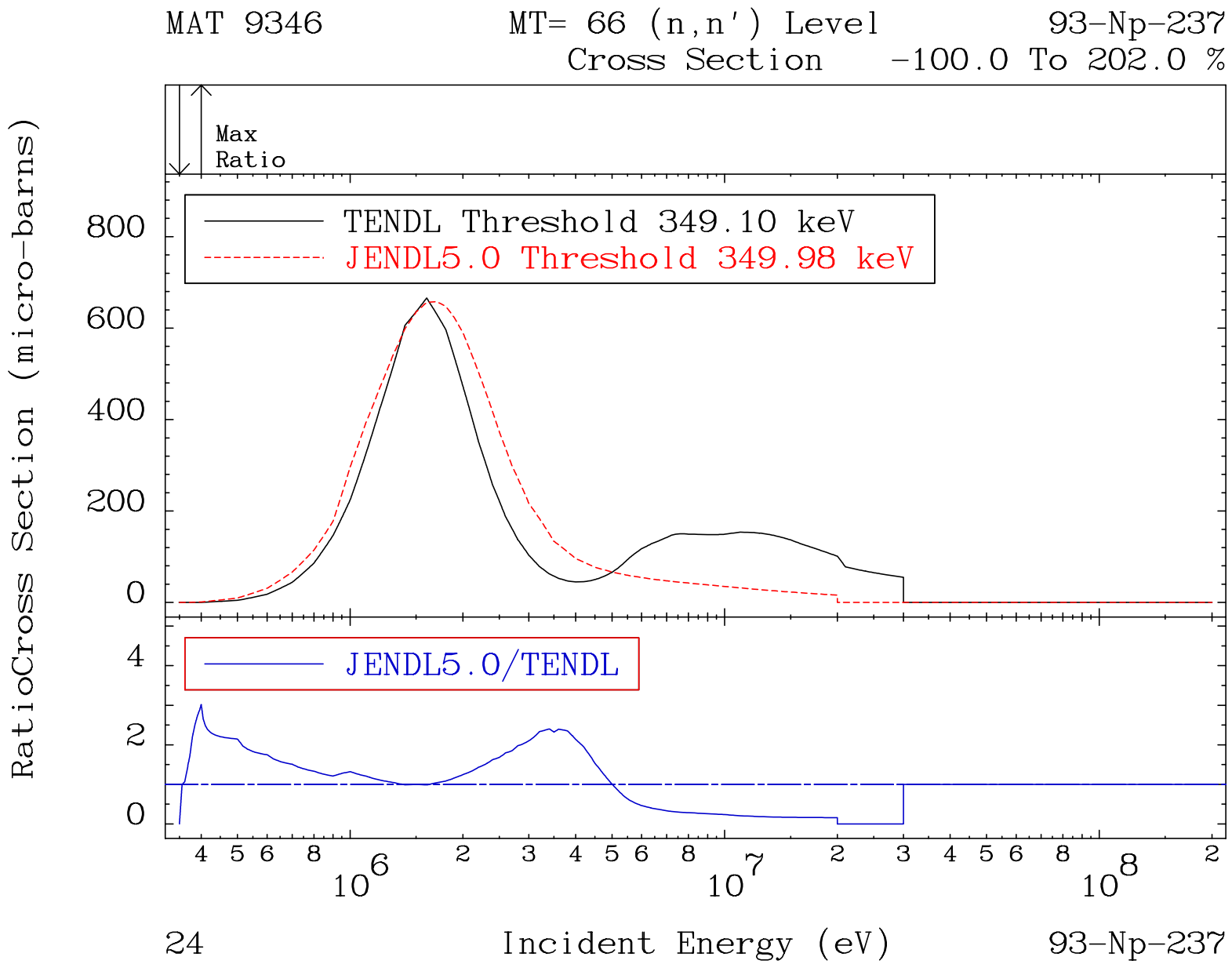

MAT 9346
MT= 61 (n,n') Level
93-Np-237
Cross Section
-100.0 To 184.4 %
Max Ratio
Min Ratio
TENDL Threshold 282.55 keV
JENDL5.0 Threshold 282.55 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
4
2
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
19
Incident Energy (eV)
93-Np-237

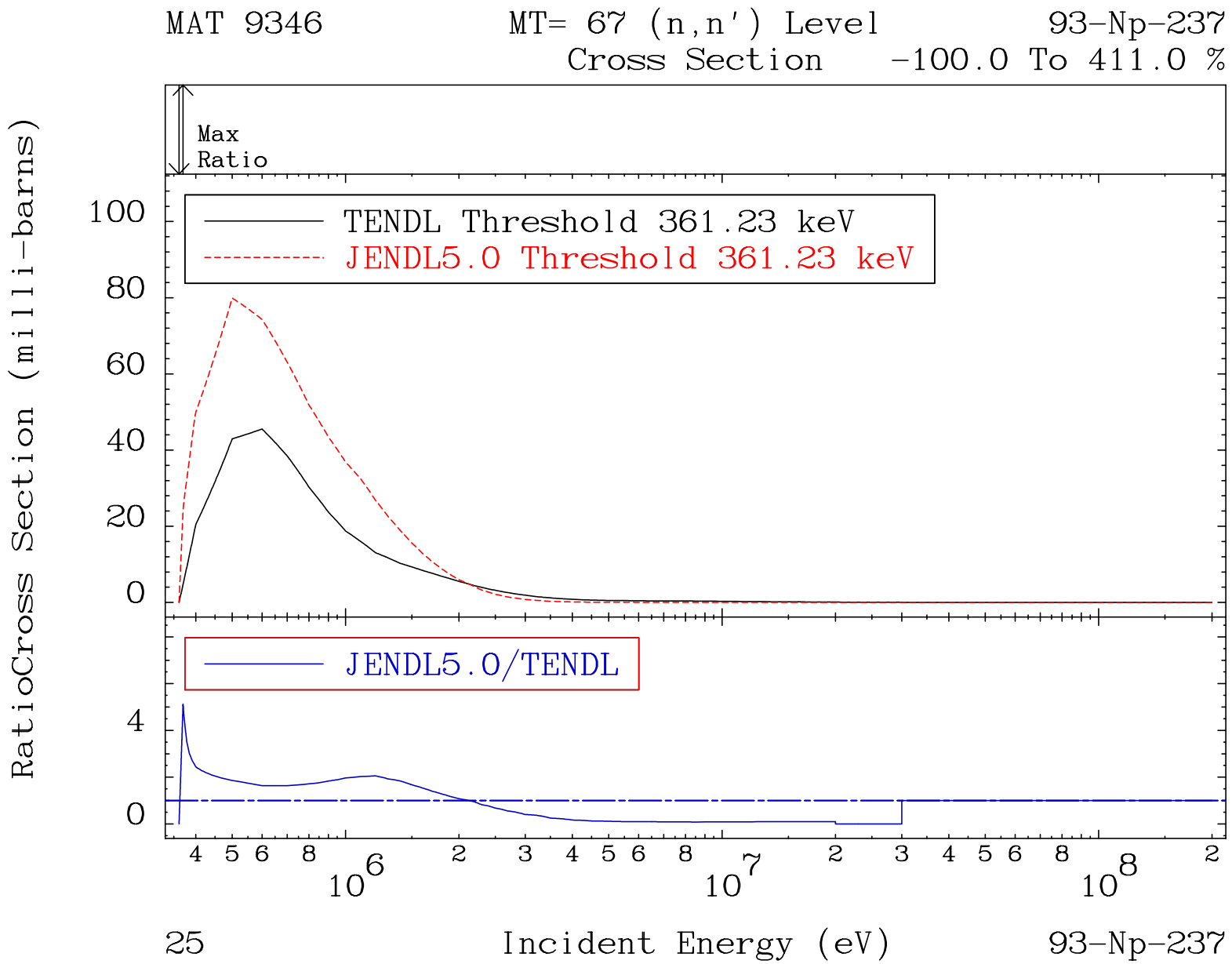

MAT 9346
MT= 62 (n,n') Level
Cross Section
93-Np-237
-100.0 To 93.16 %
Max
Ratio
TENDL Threshold 306.35 keV
JENDL5.0 Threshold 306.35 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
20
93-Np-237

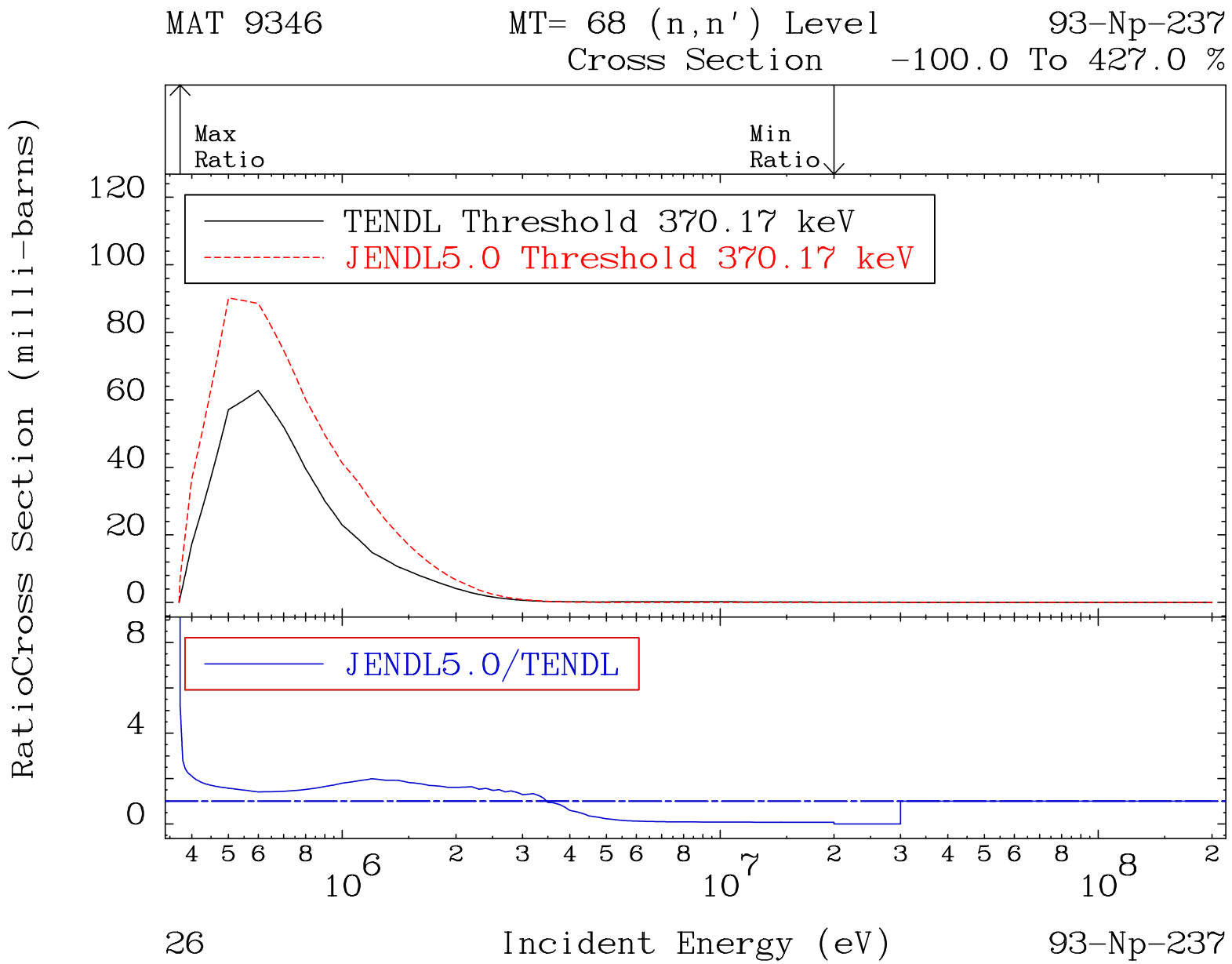

MAT 9346
MT= 63 (n,n') Level
93-Np-237
Cross Section
-100.0 To 278.9 %
Max
Ratio
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
TENDL Threshold 318.15 keV
JENDL5.0 Threshold 318.15 keV
JENDL5.0/TENDL
4
2
0
3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
21
Incident Energy (eV)
93-Np-237

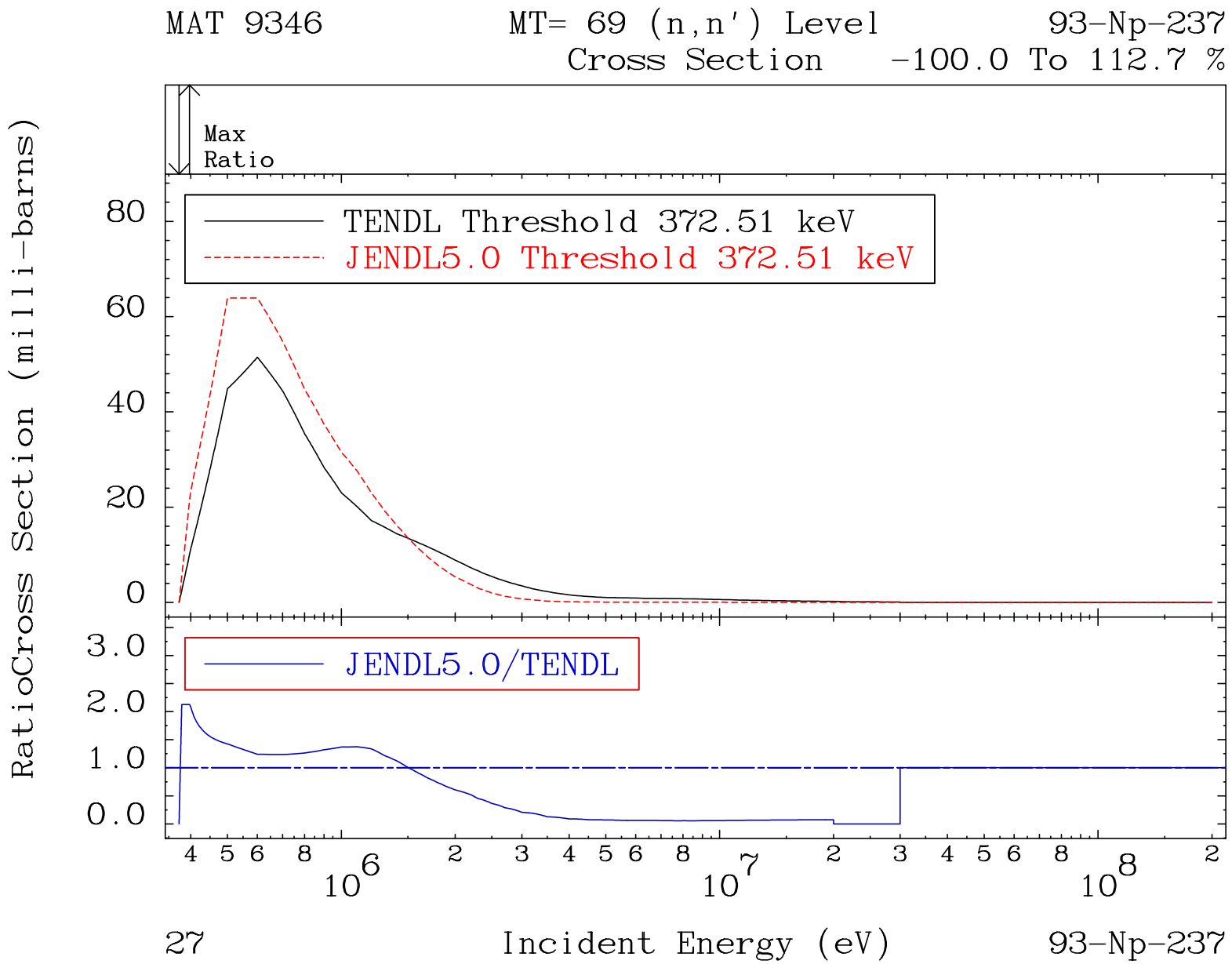

MAT 9346
MT= 64 (n,n') Level
93-Np-237
Cross Section -100.0 To 523.3 %
Max
Ratio
TENDL Threshold 325.80 keV
JENDL5.0 Threshold 325.80 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
8
4
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
22
Incident Energy (eV)
93-Np-237

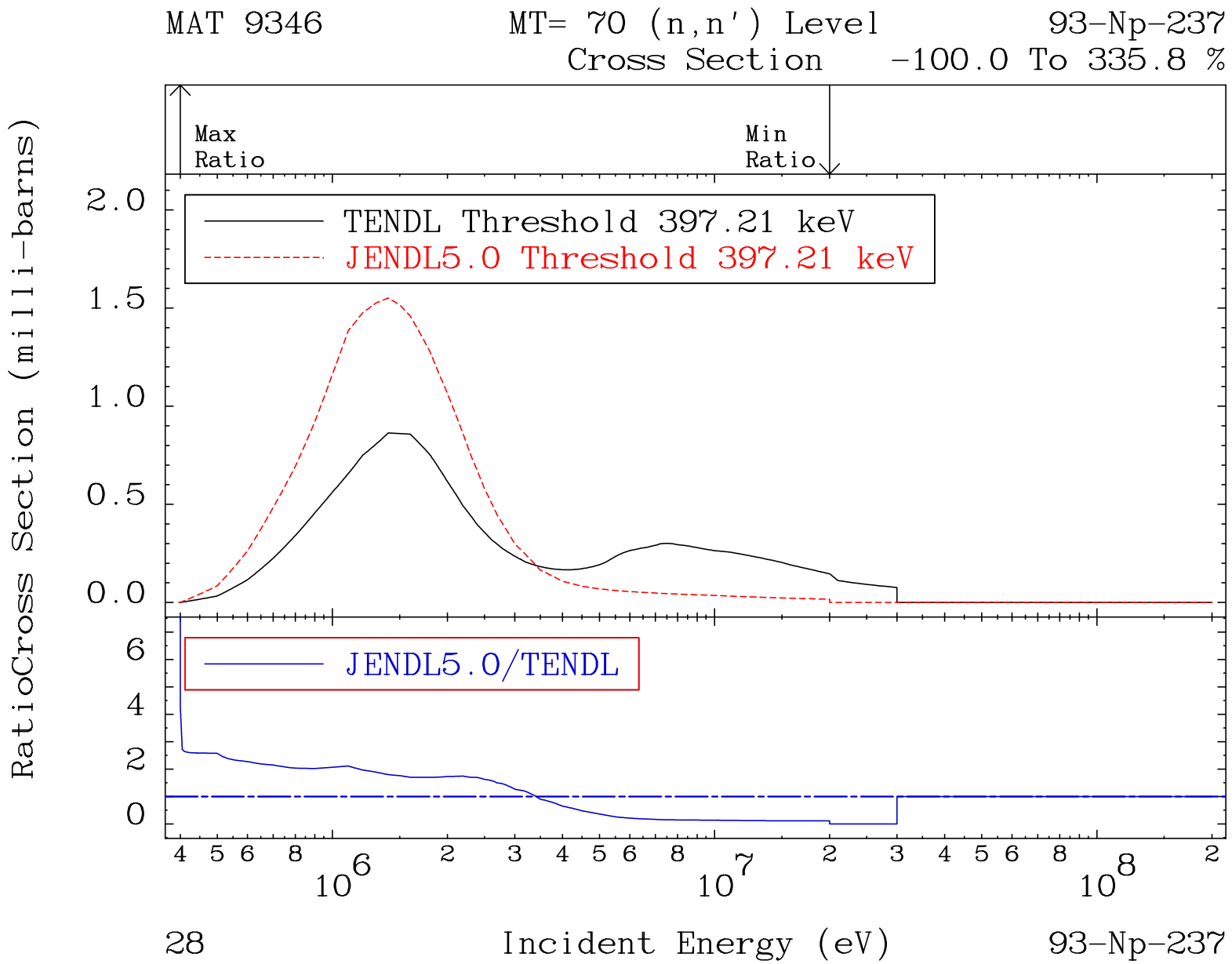

MAT 9346
MT= 65 (n,n') Level
93-Np-237
Cross Section
-100.0 To 89.60 %
Max Ratio
Min Ratio
TENDL Threshold 333.79 keV
JENDL5.0 Threshold 333.79 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
2.0
1.0
0.0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
23
Incident Energy (eV)
93-Np-237

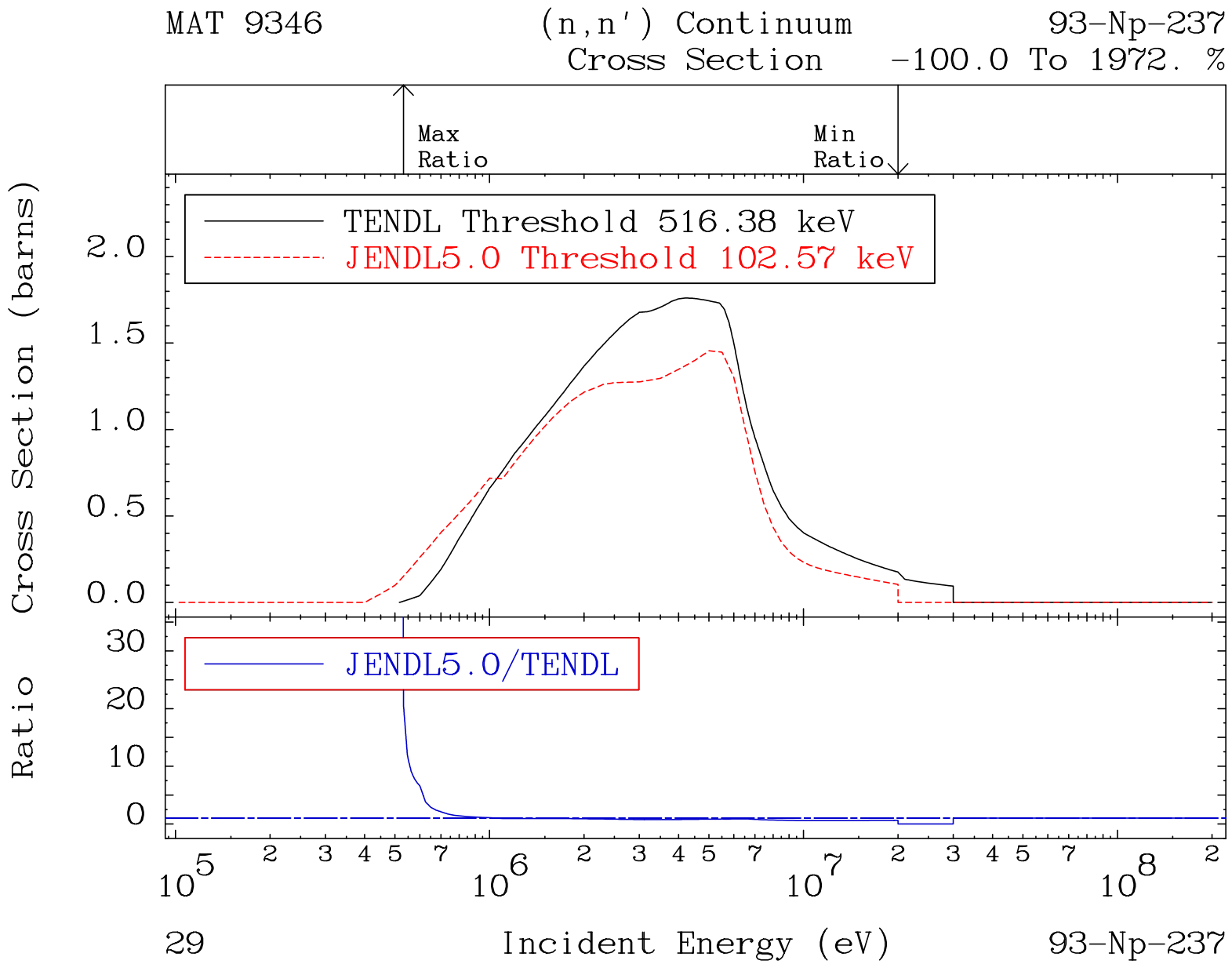

MAT 9346
MT= 66 (n,n') Level
93-Np-237
Cross Section
-100.0 To 202.0 %
Max
Ratio
TENDL Threshold 349.10 keV
JENDL5.0 Threshold 349.98 keV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
800
600
400
200
0
4
2
0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
24
Incident Energy (eV)
93-Np-237

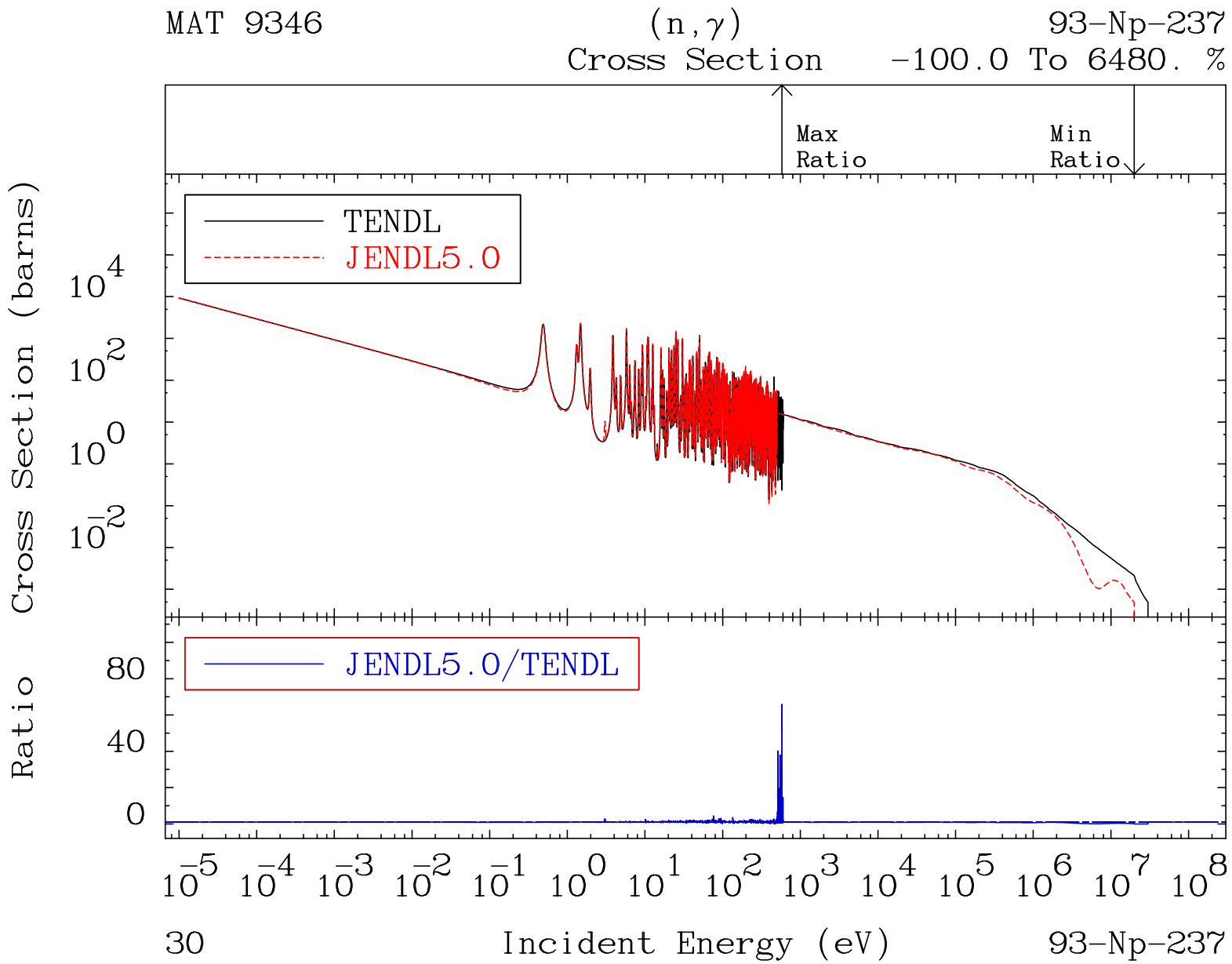

MAT 9346
MT= 67 (n,n') Level
93-Np-237
Cross Section
-100.0 To 411.0 %
Max
Ratio
TENDL Threshold 361.23 keV
JENDL5.0 Threshold 361.23 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
4
0
4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
25
Incident Energy (eV)
93-Np-237

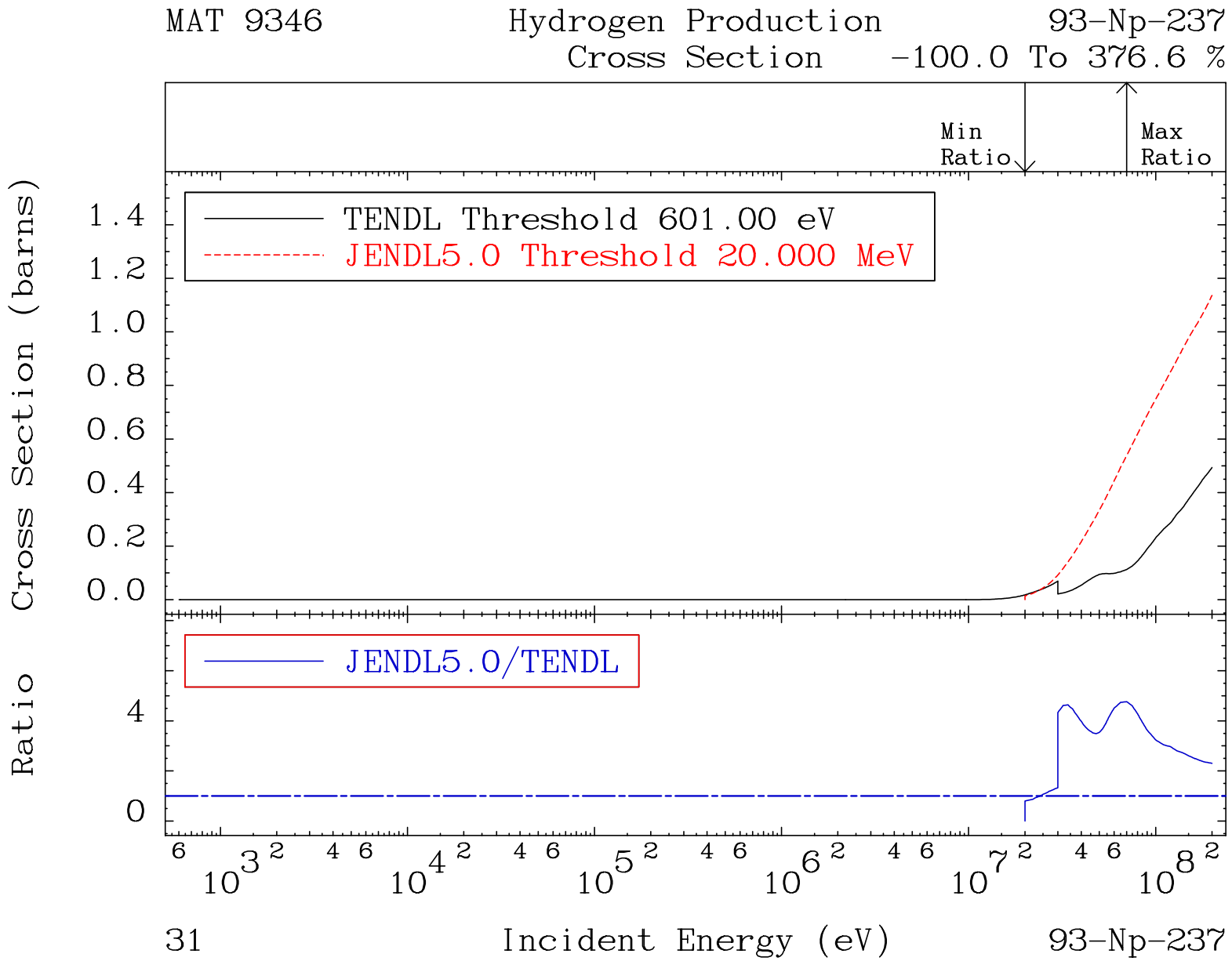

MAT 9346
MT= 68 (n,n') Level
93-Np-237
Cross Section
-100.0 To 427.0 %
Max Ratio
Min Ratio
TENDL Threshold 370.17 keV
JENDL5.0 Threshold 370.17 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
26
93-Np-237

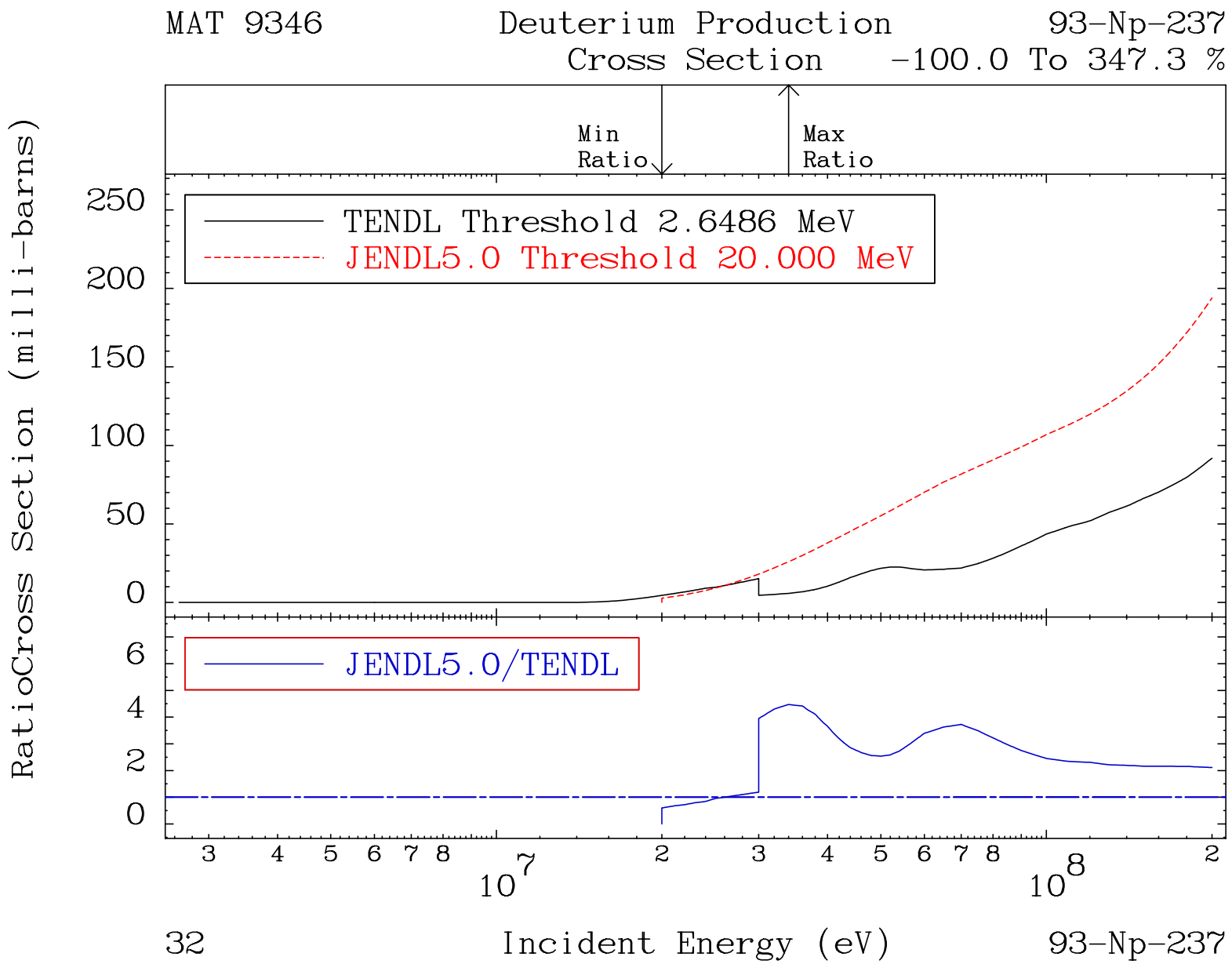

MAT 9346
MT= 69 (n,n') Level
93-Np-237
Cross Section
-100.0 To 112.7 %
Max
Ratio
TENDL Threshold 372.51 keV
JENDL5.0 Threshold 372.51 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
3.0
2.0
1.0
0.0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
27
93-Np-237

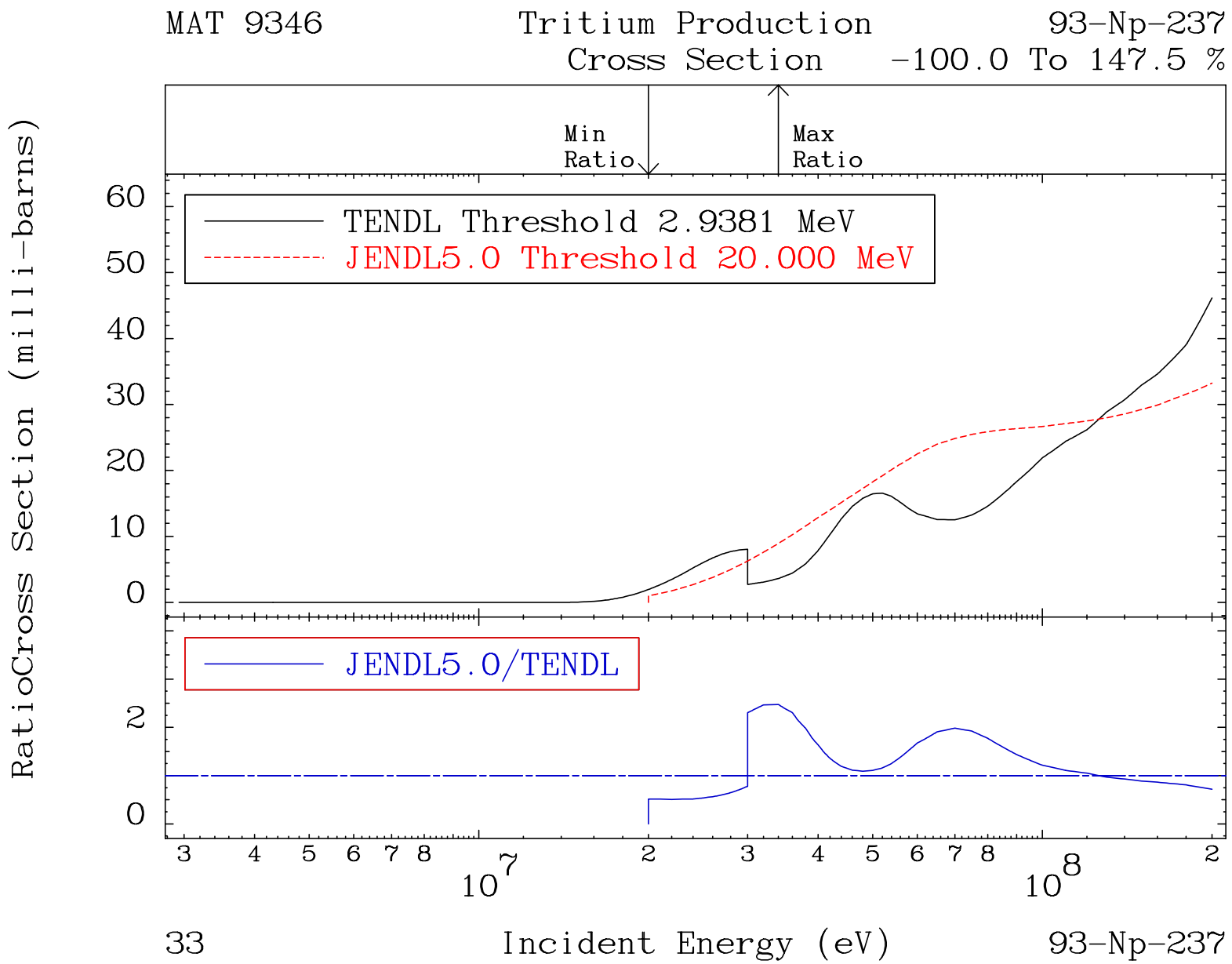

MAT 9346
MT= 70 (n,n') Level
Cross Section
93-Np-237
-100.0 To 335.8 %
Max Ratio
Min Ratio
TENDL Threshold 397.21 keV
JENDL5.0 Threshold 397.21 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
28
93-Np-237

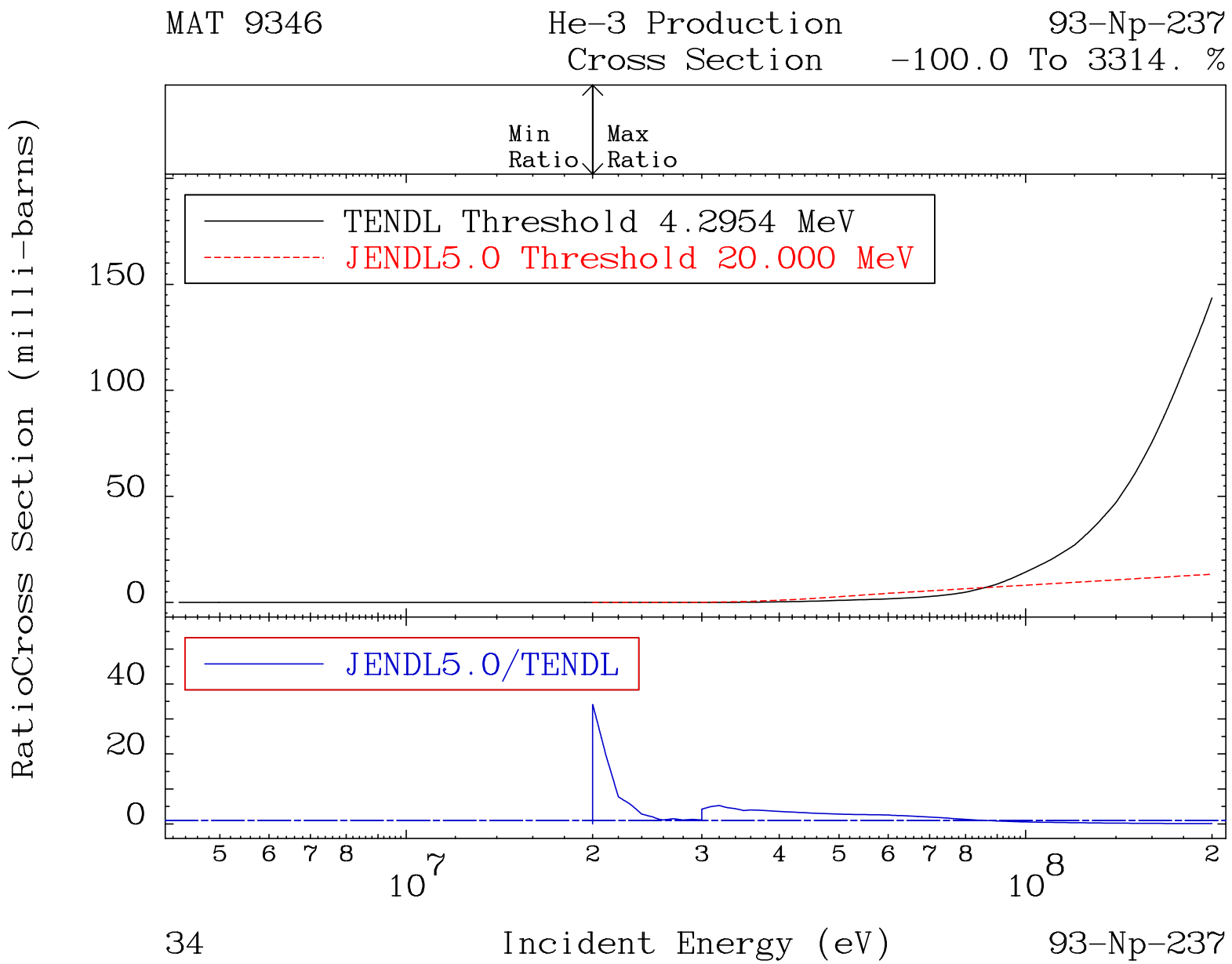

MAT 9346
(n,n') Continuum
Cross Section
93-Np-237
-100.0 To 1972. %
Max Ratio
Min Ratio
TENDL Threshold 516.38 keV
JENDL5.0 Threshold 102.57 keV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
2.0
1.5
1.0
0.5
0.0
30
20
10
0
10^5
10^6
10^7
10^8
2 3 4 5 7
Incident Energy (eV)
29
93-Np-237

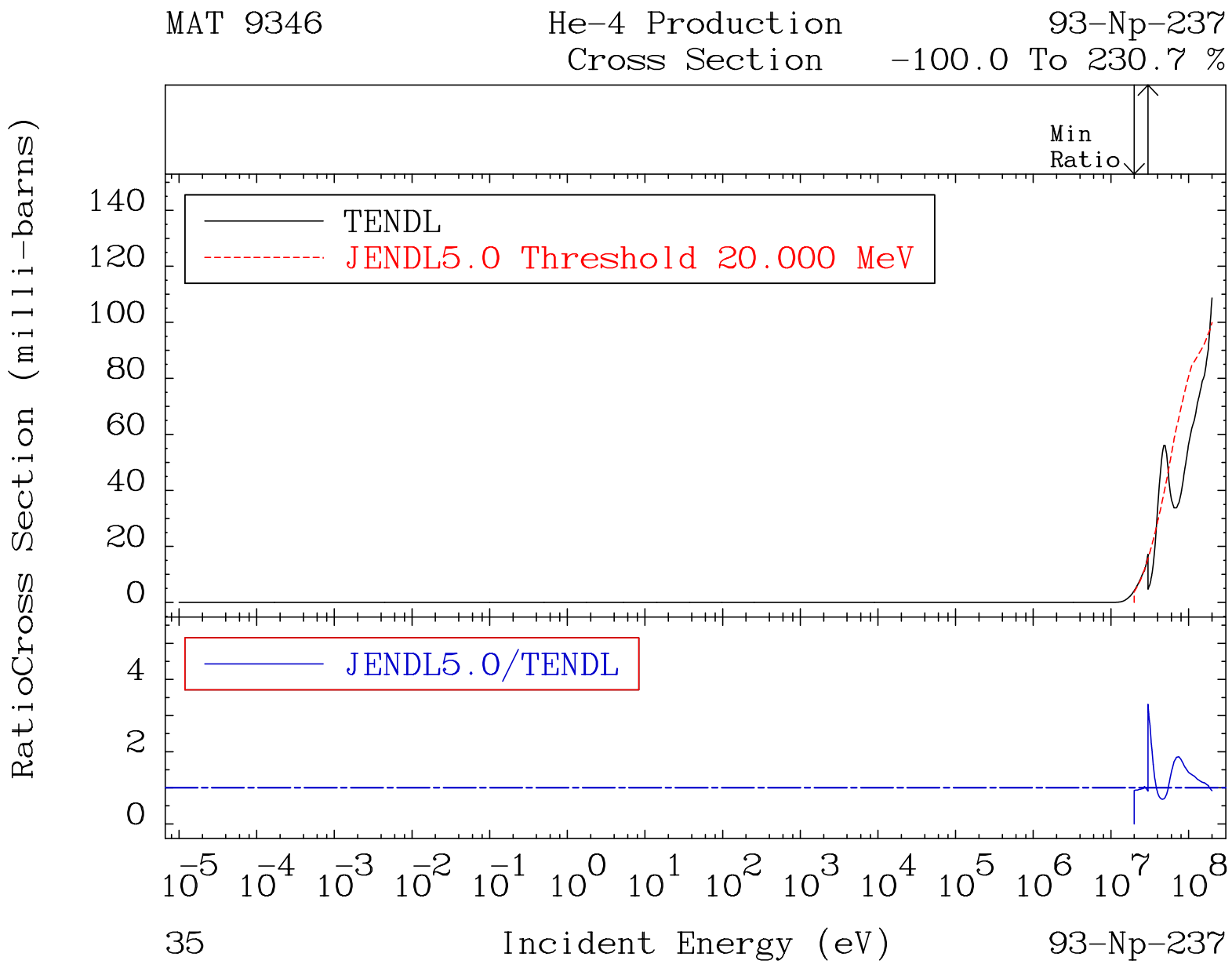

MAT 9346
(n,γ)
Cross Section
93-Np-237
-100.0 To 6480. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
10^4
10^2
10^0
10^-2
JENDL5.0/TENDL
Ratio
80
40
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
30
Incident Energy (eV)
93-Np-237

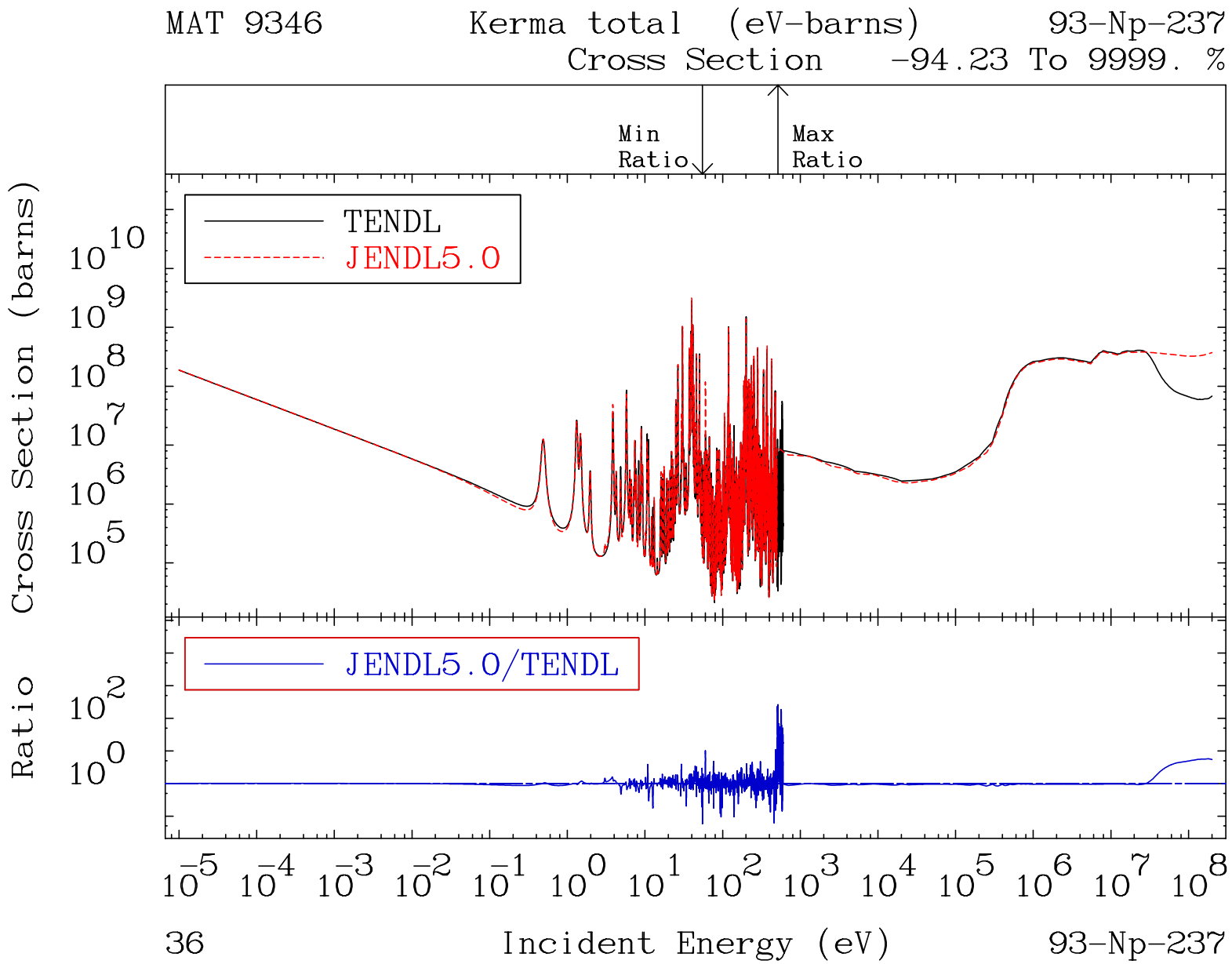

MAT 9346
Hydrogen Production
93-Np-237
Cross Section
-100.0 To 376.6 %
Min Ratio
Max Ratio
TENDL Threshold 601.00 eV
JENDL5.0 Threshold 20.000 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
4
0
6 10^3 2 4 6 10^4 2 4 6 10^5 2 4 6 10^6 2 4 6 10^7 2 4 6 10^8 2
31
Incident Energy (eV)
93-Np-237

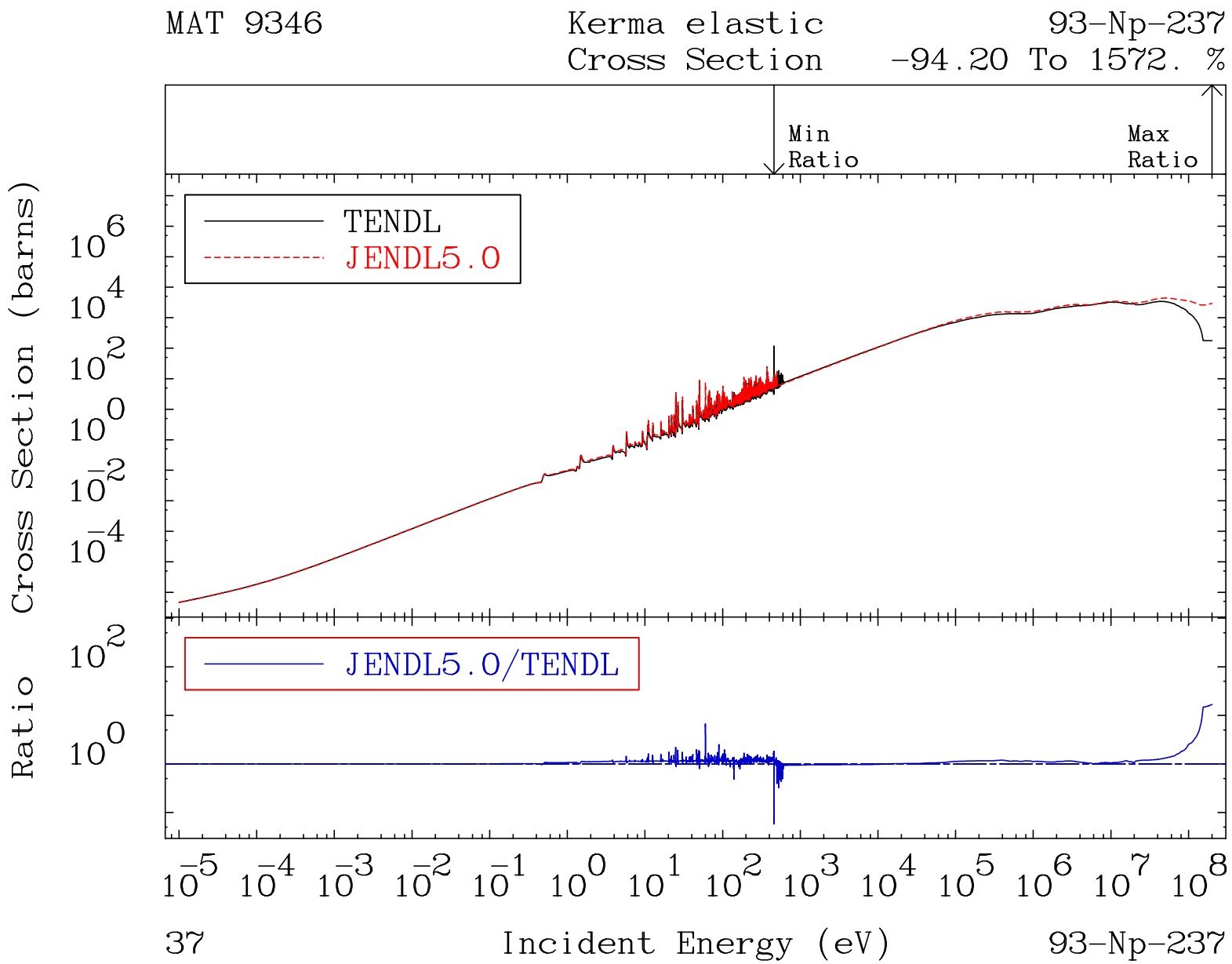

MAT 9346
Deuterium Production
93-Np-237
Cross Section
-100.0 To 347.3 %
Min Ratio
Max Ratio
TENDL Threshold 2.6486 MeV
JENDL5.0 Threshold 20.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
6
4
2
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
93-Np-237

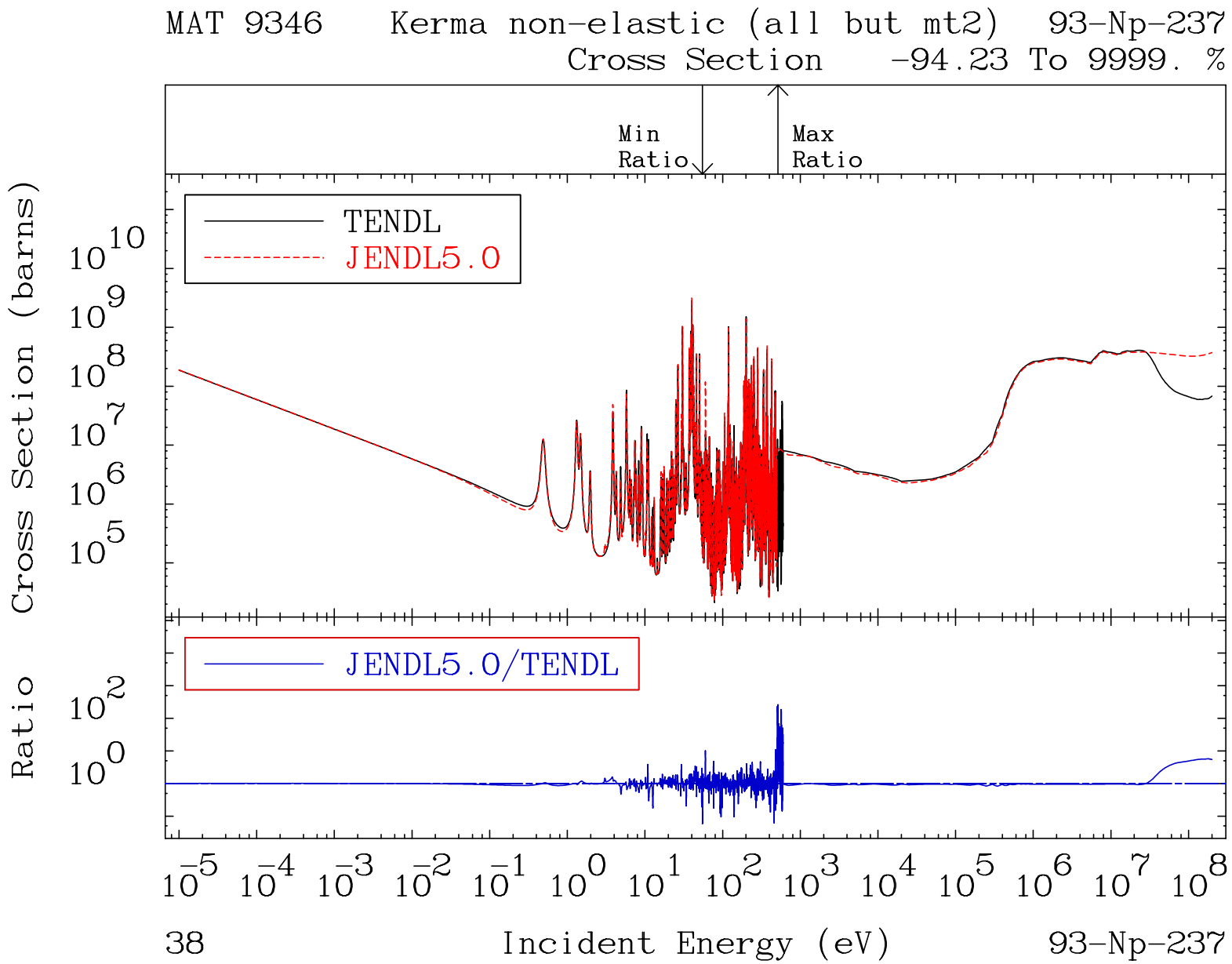

MAT 9346
Tritium Production
Cross Section
93-Np-237
-100.0 To 147.5 %
Min Ratio
Max Ratio
TENDL Threshold 2.9381 MeV
JENDL5.0 Threshold 20.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
2
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
93-Np-237

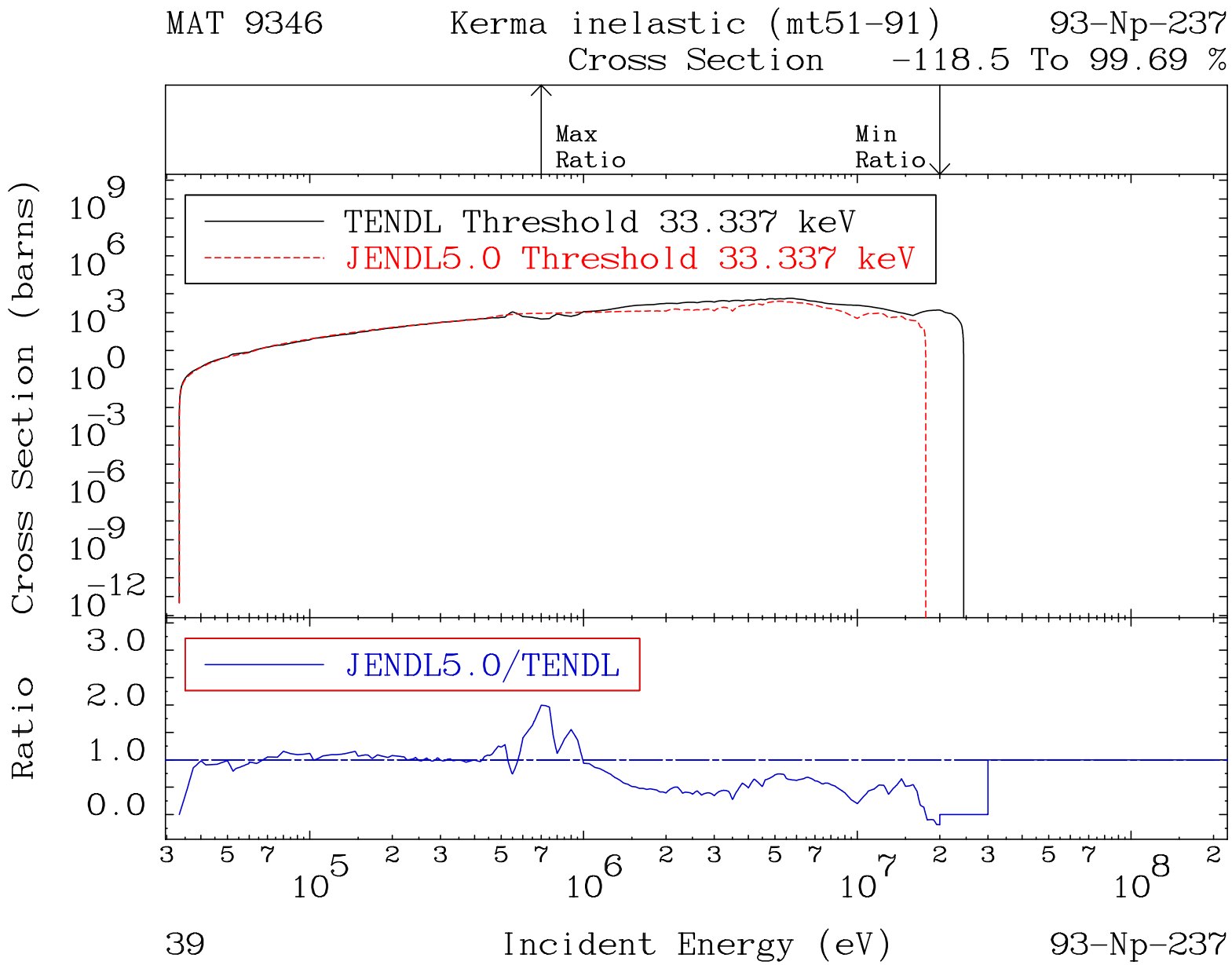

MAT 9346
He-3 Production
Cross Section
93-Np-237
-100.0 To 3314. %
Min Ratio
Max Ratio
TENDL Threshold 4.2954 MeV
JENDL5.0 Threshold 20.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
150
100
50
0
40
20
0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
34
Incident Energy (eV)
93-Np-237

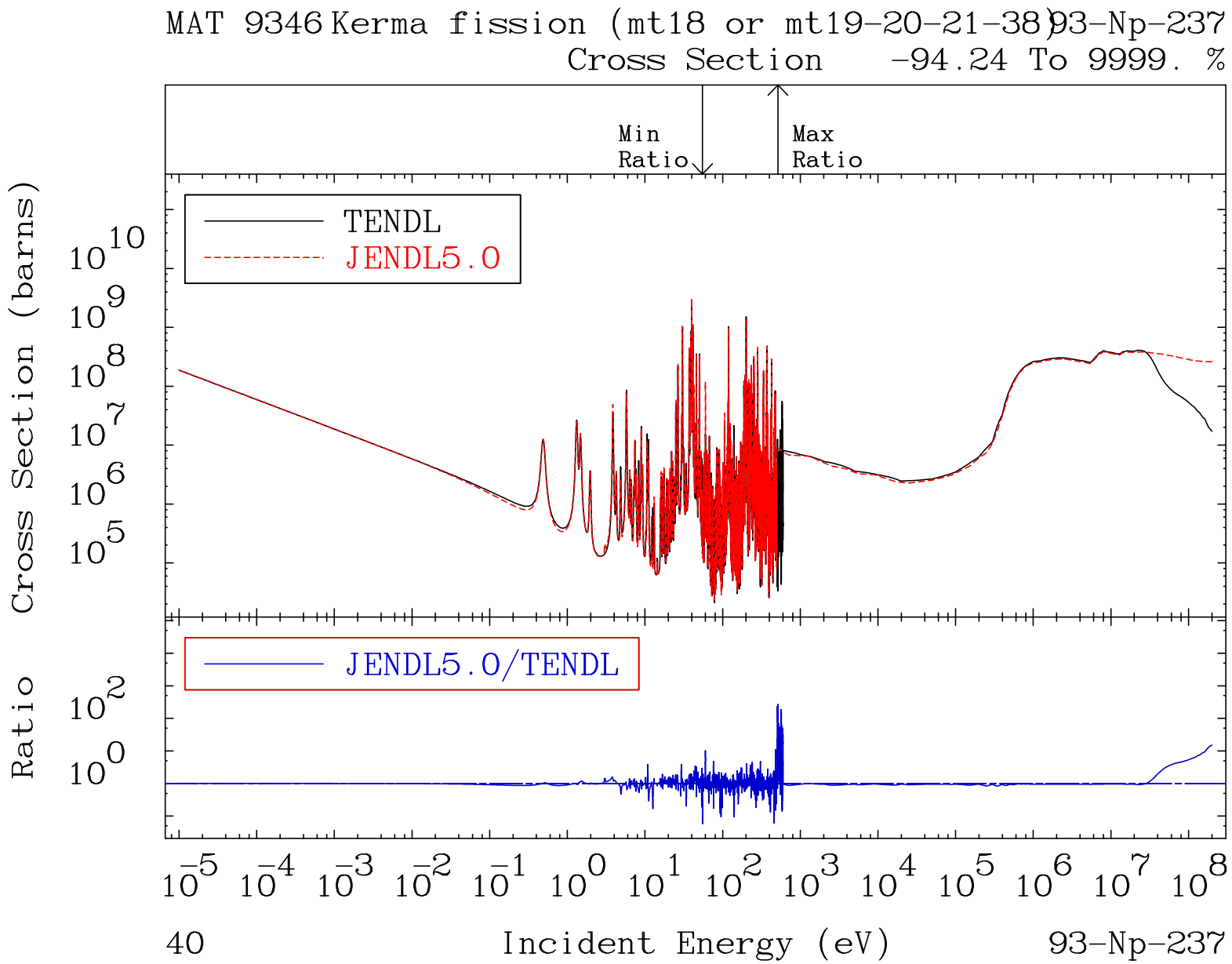

MAT 9346
He-4 Production
Cross Section
93-Np-237
-100.0 To 230.7 %
Min
Ratio
TENDL
JENDL5.0 Threshold 20.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
4
2
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
93-Np-237

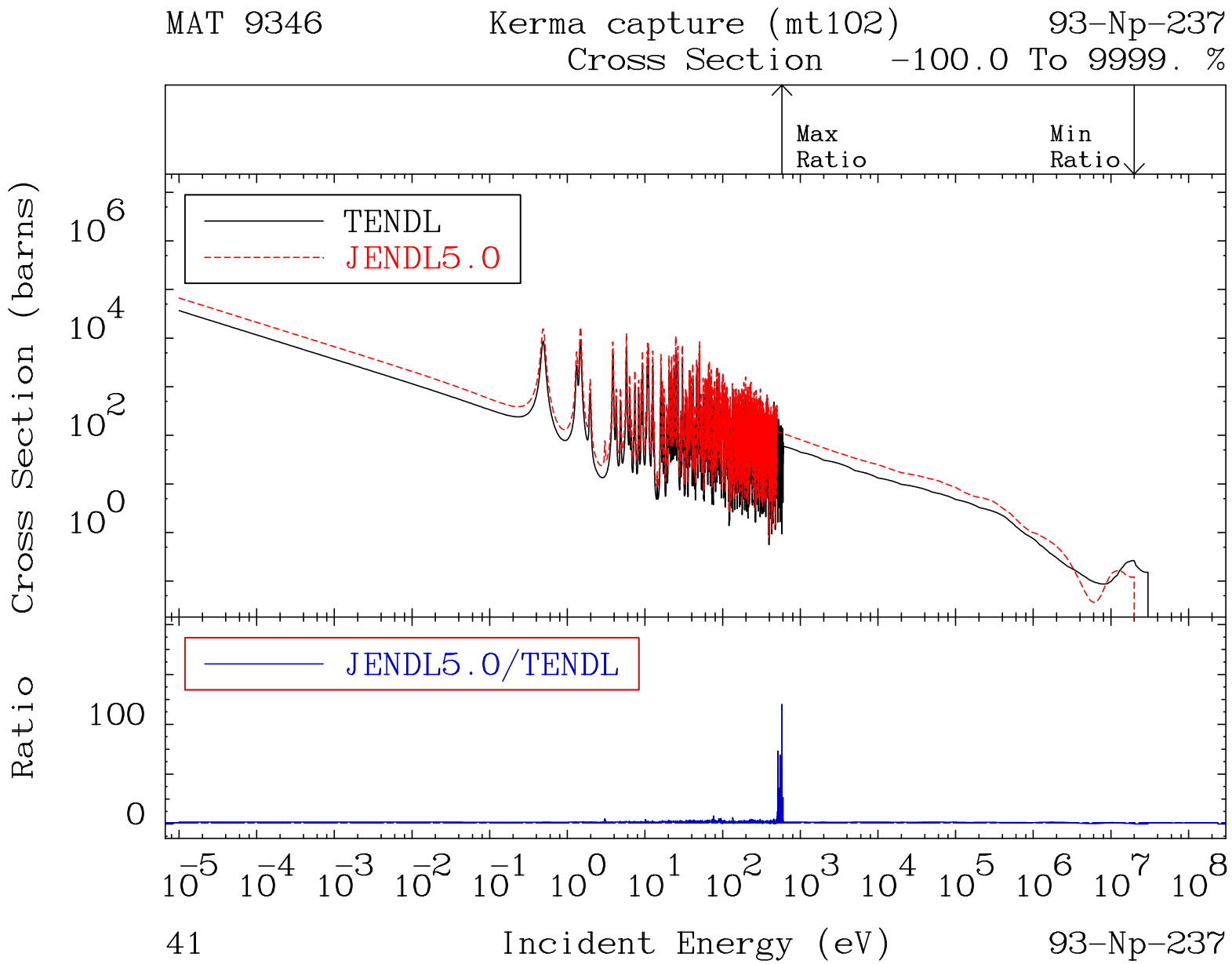

MAT 9346
Kerma total (eV-barns)
93-Np-237
Cross Section -94.23 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
36
93-Np-237

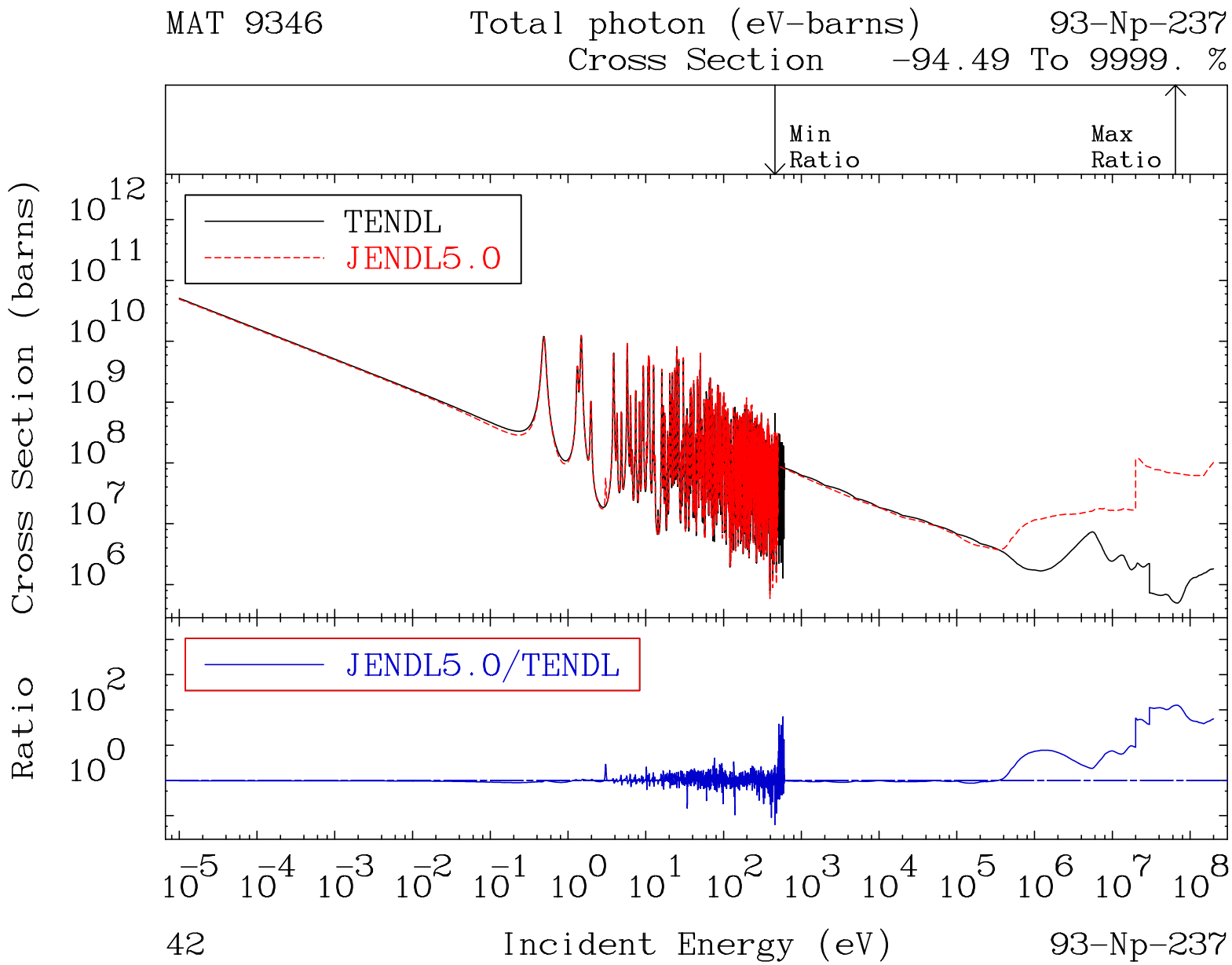

MAT 9346
Kerma elastic
Cross Section
93-Np-237
-94.20 To 1572. %
Min
Ratio
Max
Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
37
93-Np-237

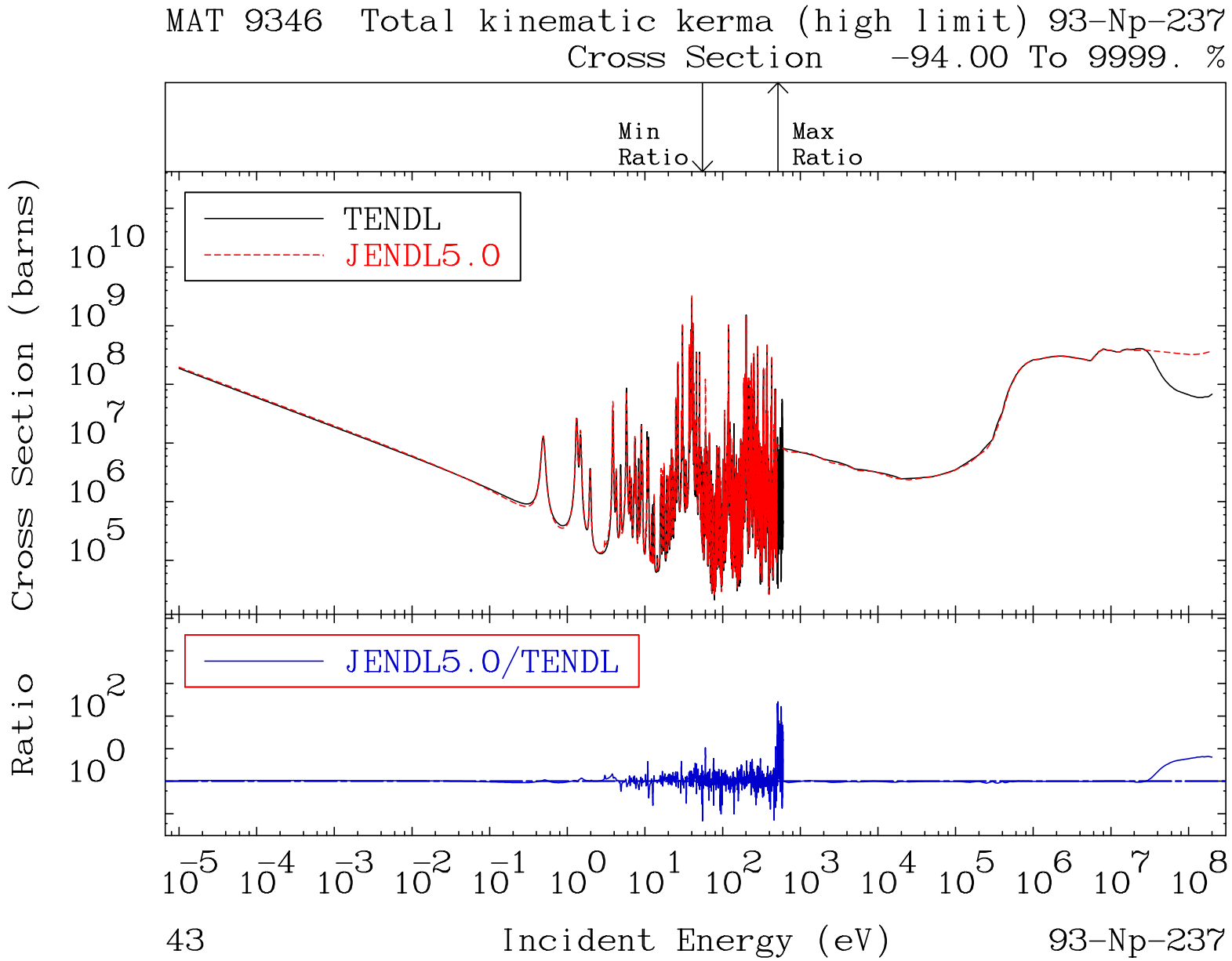

MAT 9346 Kerma non-elastic (all but mt2) 93-Np-237
Cross Section -94.23 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
38
93-Np-237

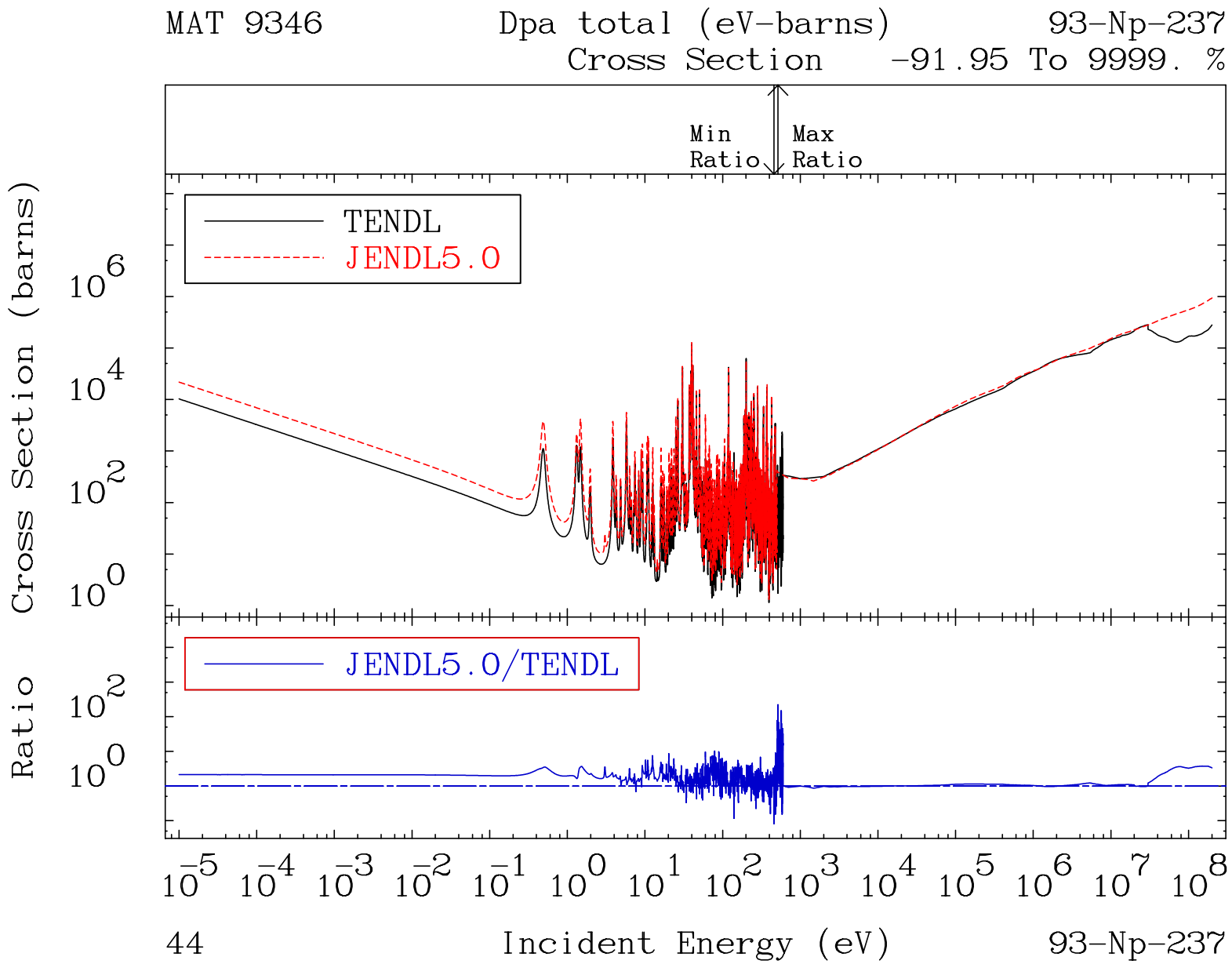

MAT 9346
Kerma inelastic (mt51-91)
93-Np-237
Cross Section -118.5 To 99.69 %
Max Ratio
Min Ratio
TENDL Threshold 33.337 keV
JENDL5.0 Threshold 33.337 keV
Cross Section (barns)
JENDL5.0/TENDL
Ratio
39
Incident Energy (eV)
93-Np-237

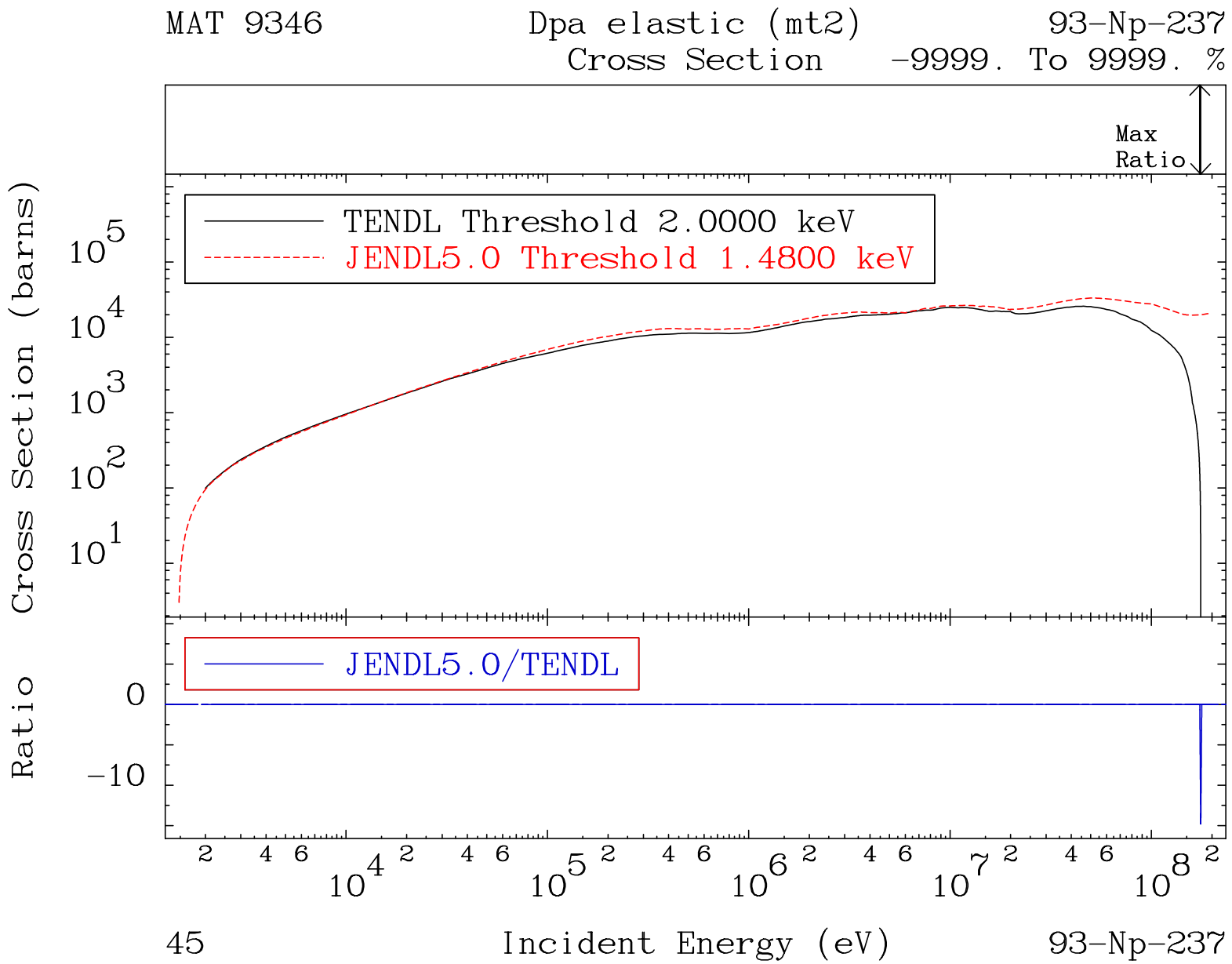

MAT 9346 Kerma fission (mt18 or mt19-20-21-38) 93-Np-237
Cross Section -94.24 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
40
93-Np-237

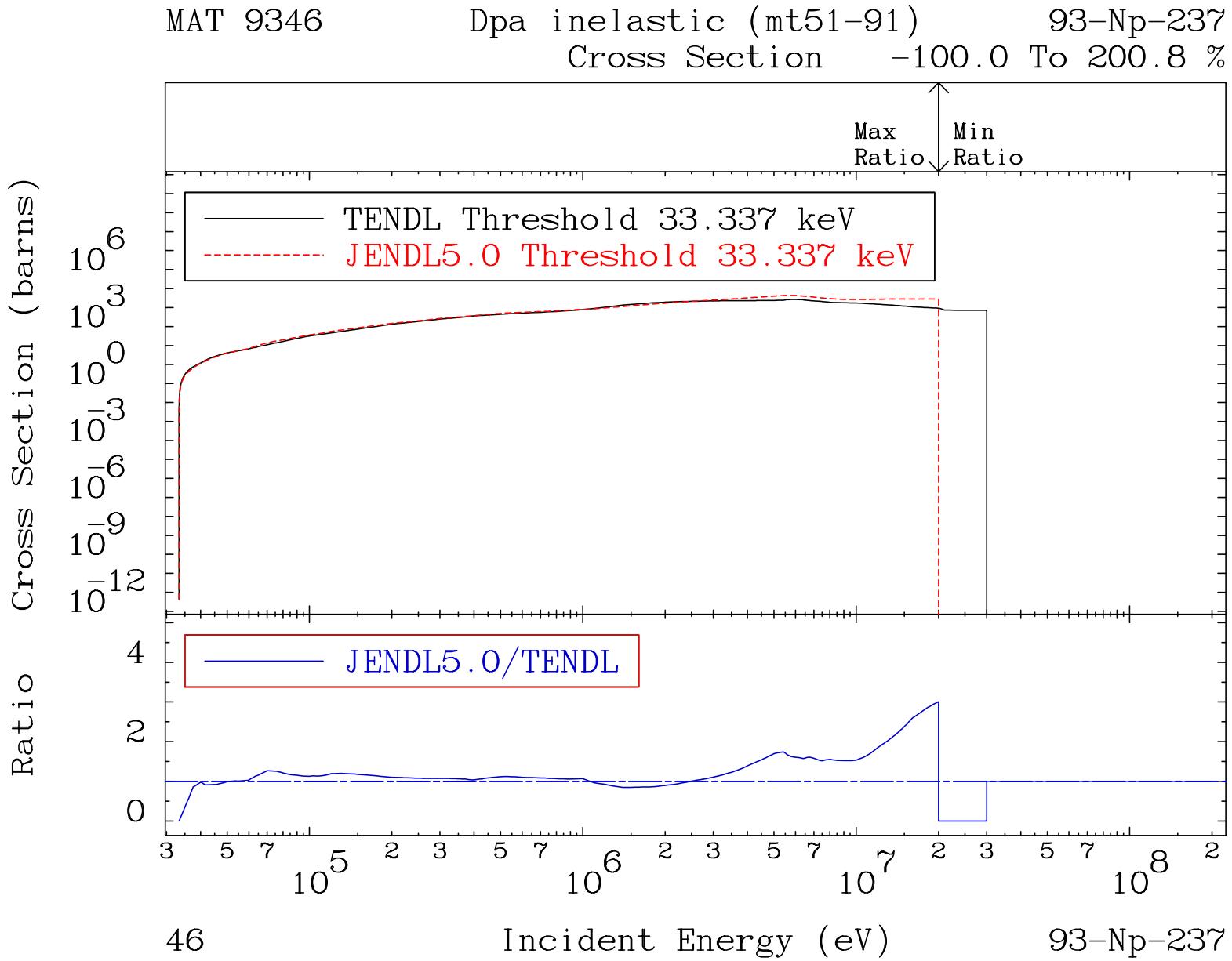

MAT 9346
Kerma capture (mt102)
93-Np-237
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
41
93-Np-237

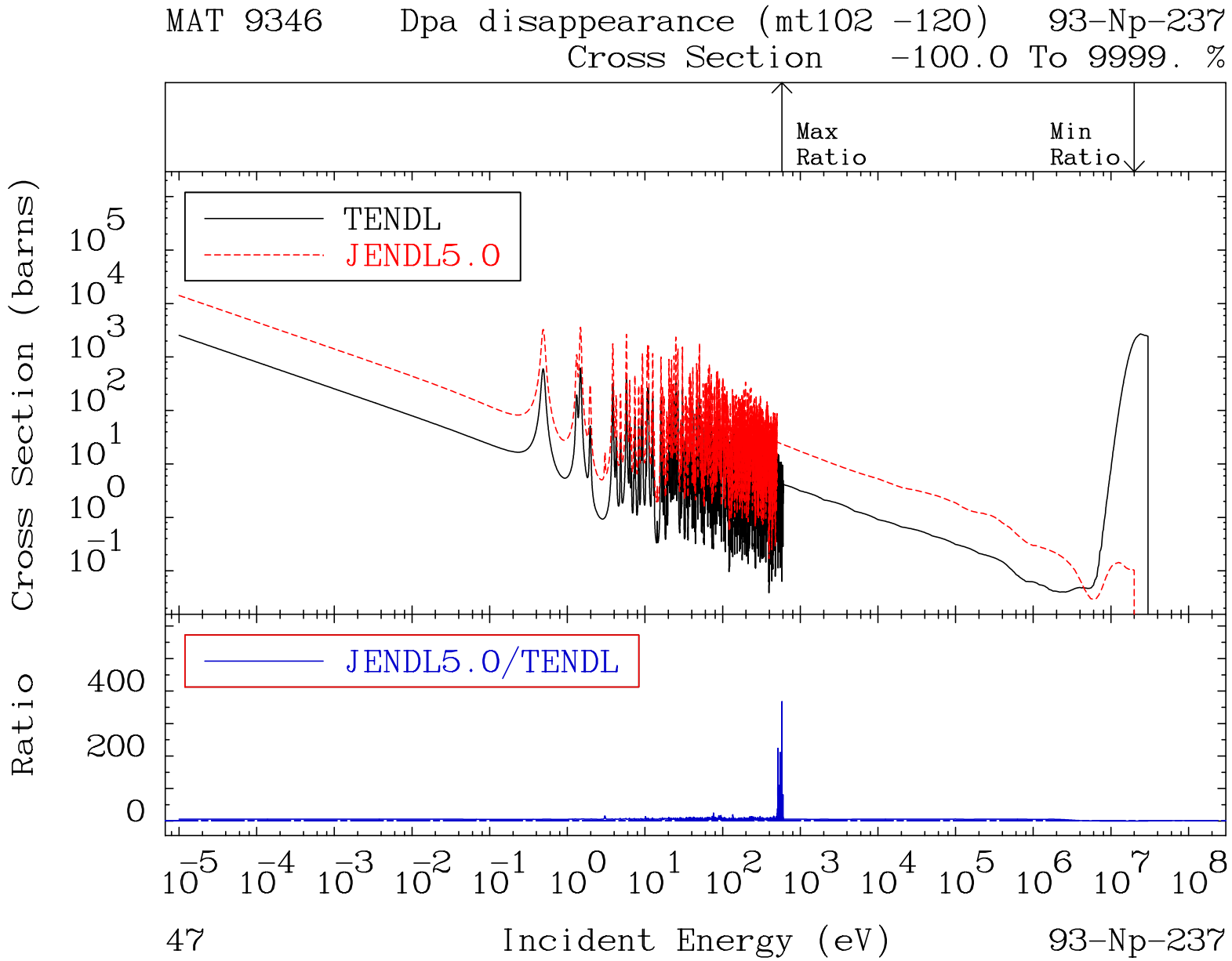

MAT 9346
Total photon (eV-barns)
93-Np-237
Cross Section -94.49 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
42
93-Np-237

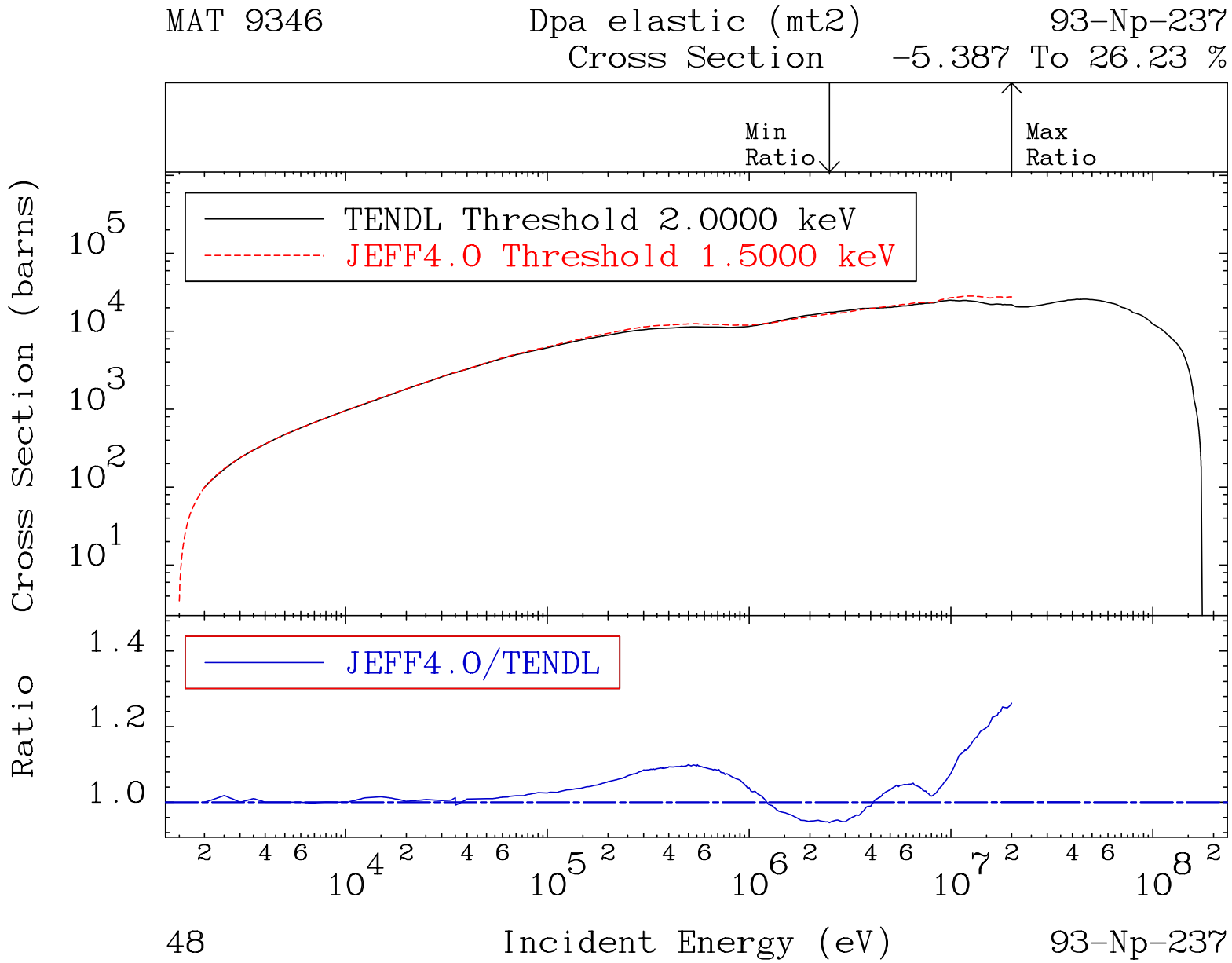

MAT 9346 Total kinematic kerma (high limit) 93-Np-237
Cross Section -94.00 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
43
93-Np-237

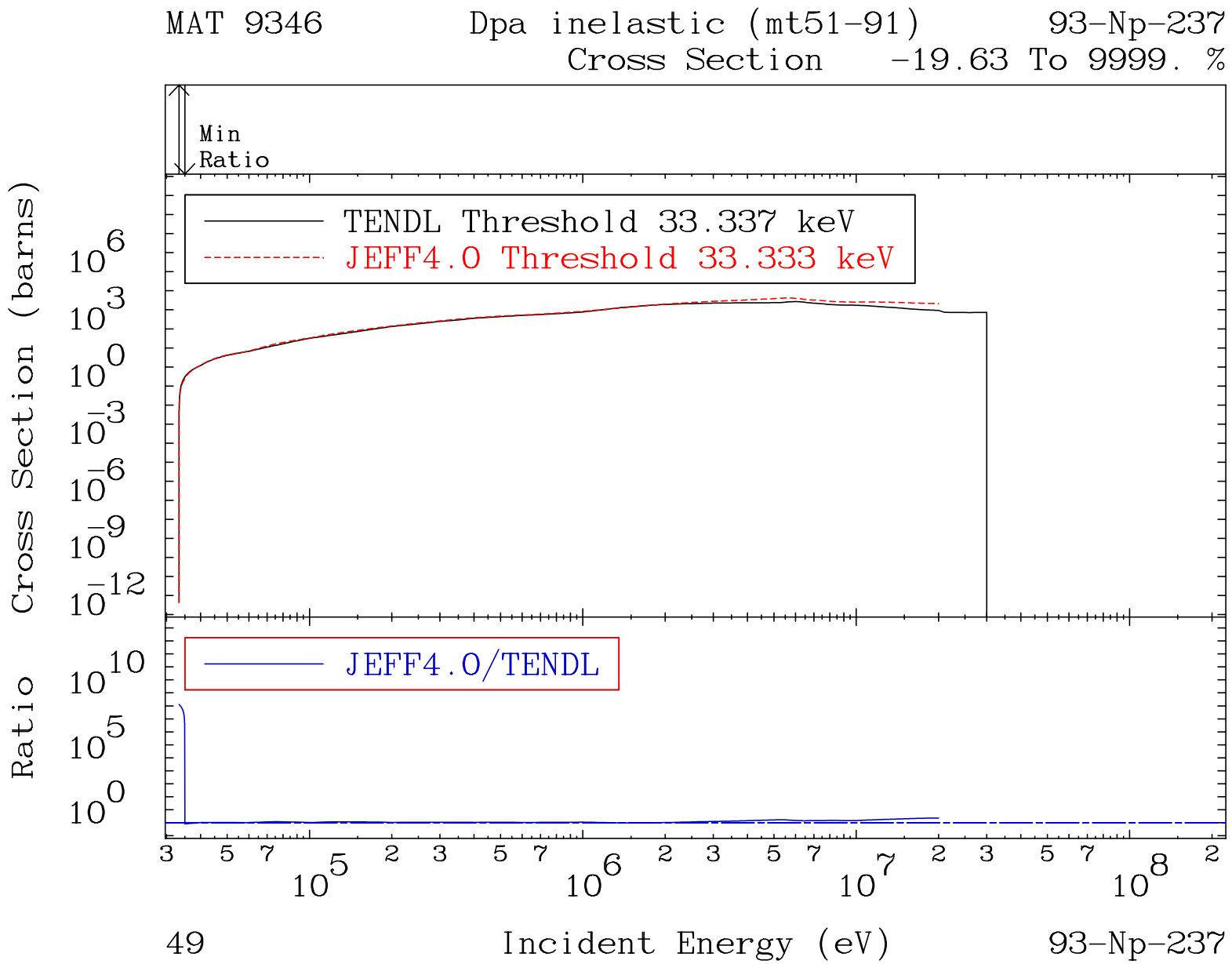

MAT 9346
Dpa total (eV-barns)
93-Np-237
Cross Section
-91.95 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
44
93-Np-237

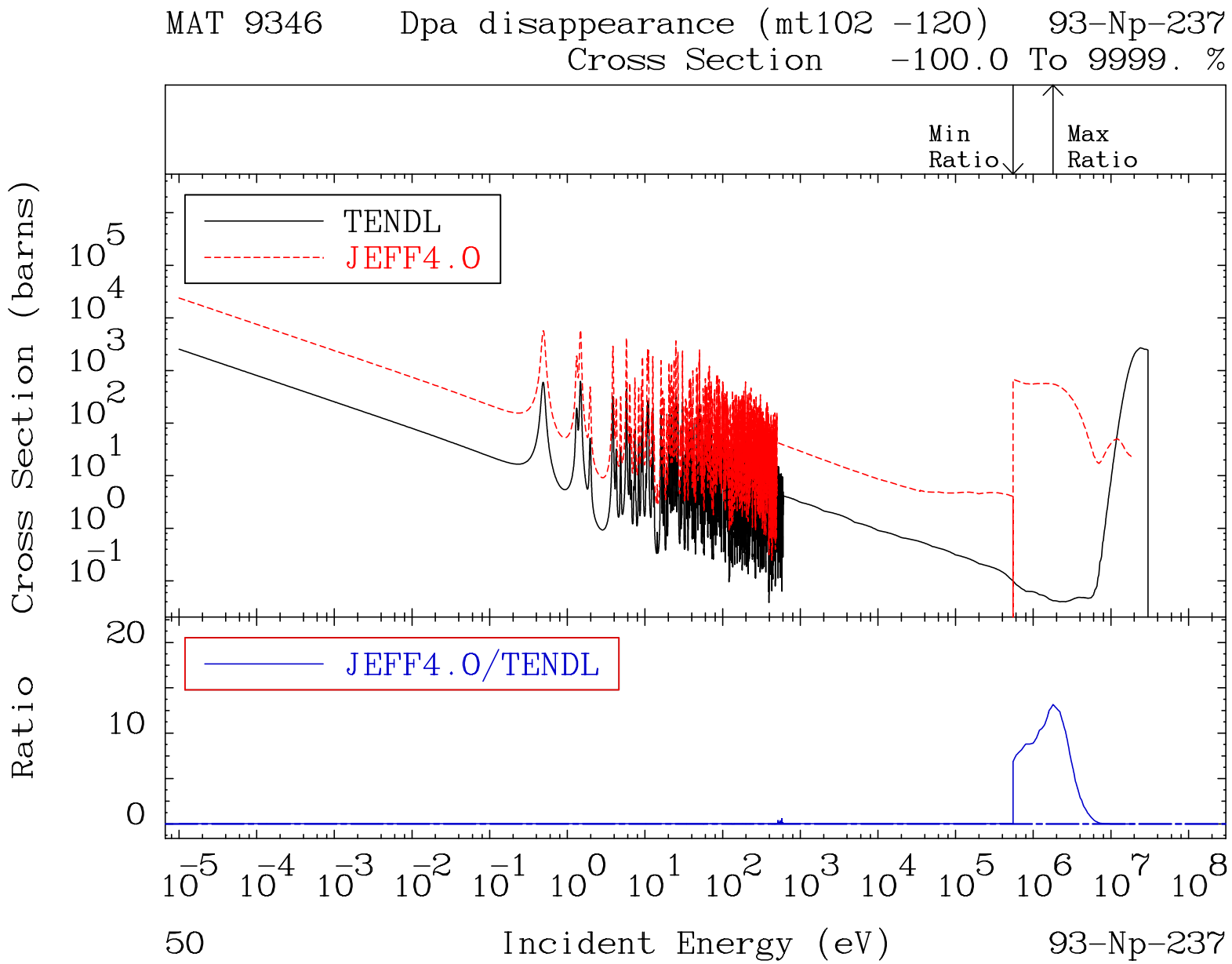

MAT 9346
Dpa elastic (mt2)
Cross Section
93-Np-237
-9999. To 9999. %
Max
Ratio
TENDL Threshold 2.0000 keV
JENDL5.0 Threshold 1.4800 keV
Cross Section (barns)
10^5
10^4
10^3
10^2
10^1
JENDL5.0/TENDL
Ratio
0
-10
2 4 6 10^4 2 4 6 10^5 2 4 6 10^6 2 4 6 10^7 2 4 6 10^8 2
45
Incident Energy (eV)
93-Np-237


MAT 9346
Dpa inelastic (mt51-91)
93-Np-237
Cross Section
-100.0 To 200.8 %
Max Ratio
Min Ratio
TENDL Threshold 33.337 keV
JENDL5.0 Threshold 33.337 keV
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
46
93-Np-237


MAT 9346 Dpa disappearance (mt102 -120) 93-Np-237
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
47
93-Np-237


MAT 9346
Dpa elastic (mt2)
Cross Section
93-Np-237
-5.387 To 26.23 %
Min Ratio
Max Ratio
TENDL Threshold 2.0000 keV
JEFF4.0 Threshold 1.5000 keV
JEFF4.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
48
93-Np-237


MAT 9346
Dpa inelastic (mt51-91)
93-Np-237
Cross Section -19.63 To 9999. %
Min
Ratio
TENDL Threshold 33.337 keV
JEFF4.0 Threshold 33.333 keV
JEFF4.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
49
93-Np-237


MAT 9346 Dpa disappearance (mt102 -120) 93-Np-237
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF4.0
Cross Section (barns)
JEFF4.0/TENDL
Ratio
Incident Energy (eV)
50
93-Np-237