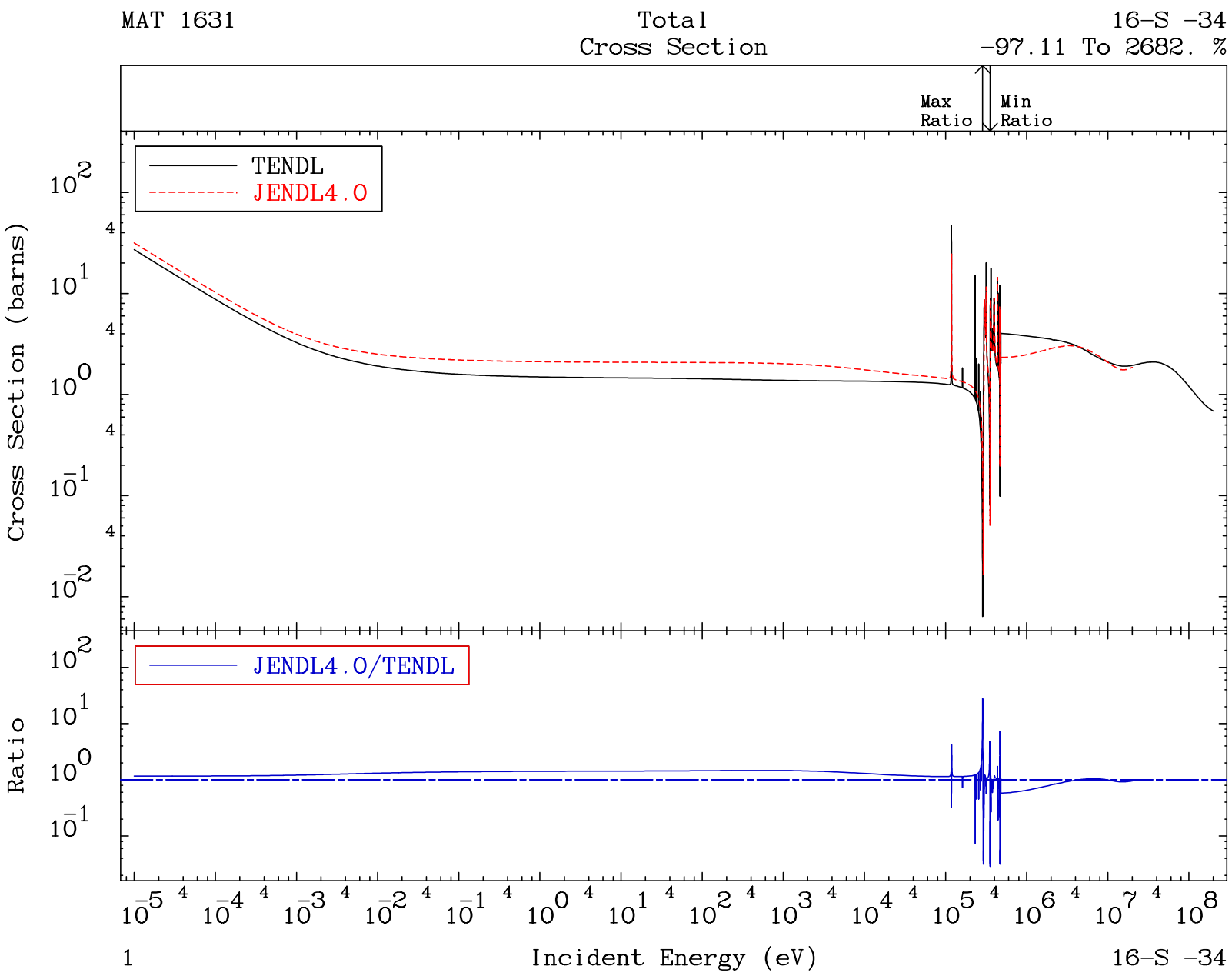
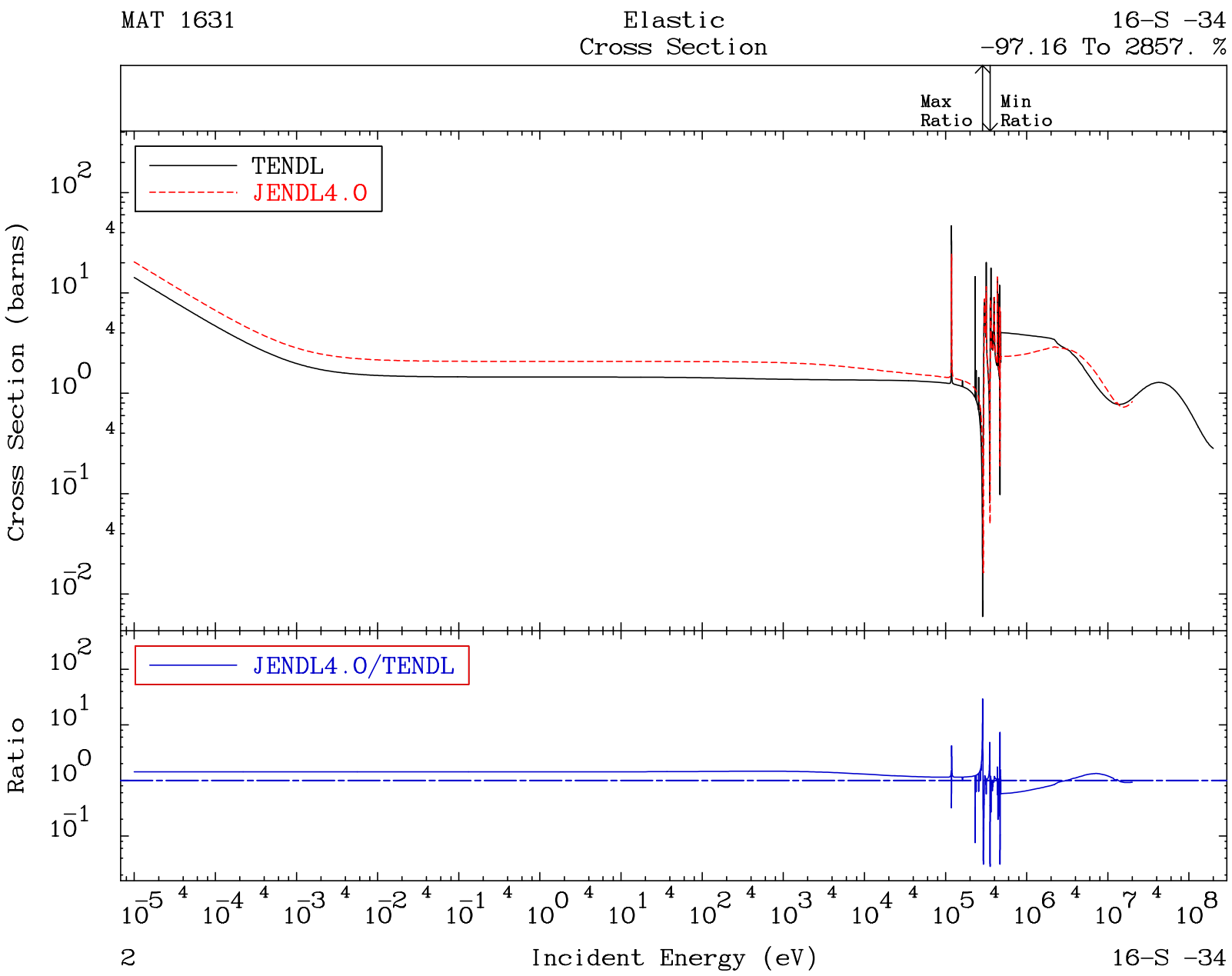
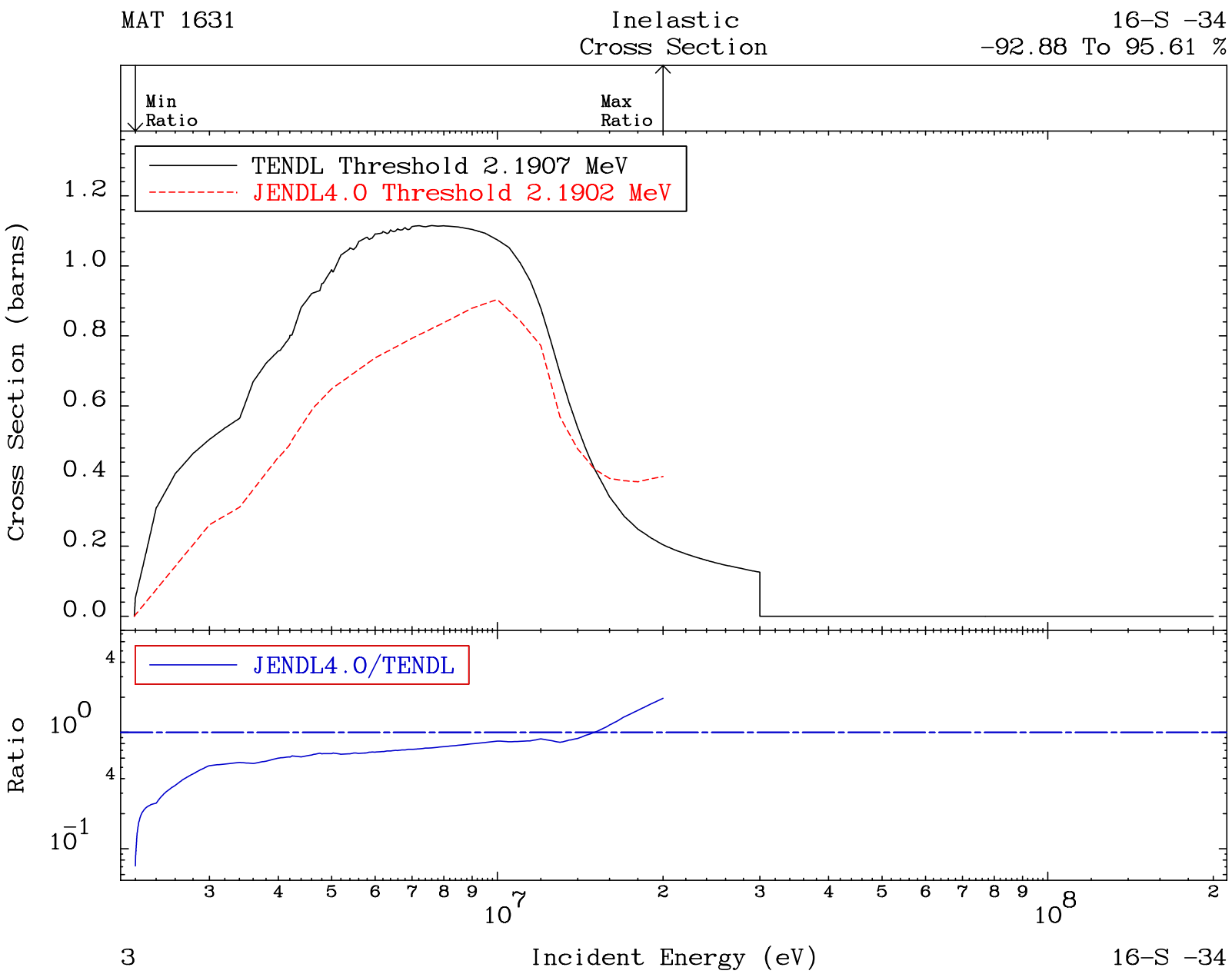
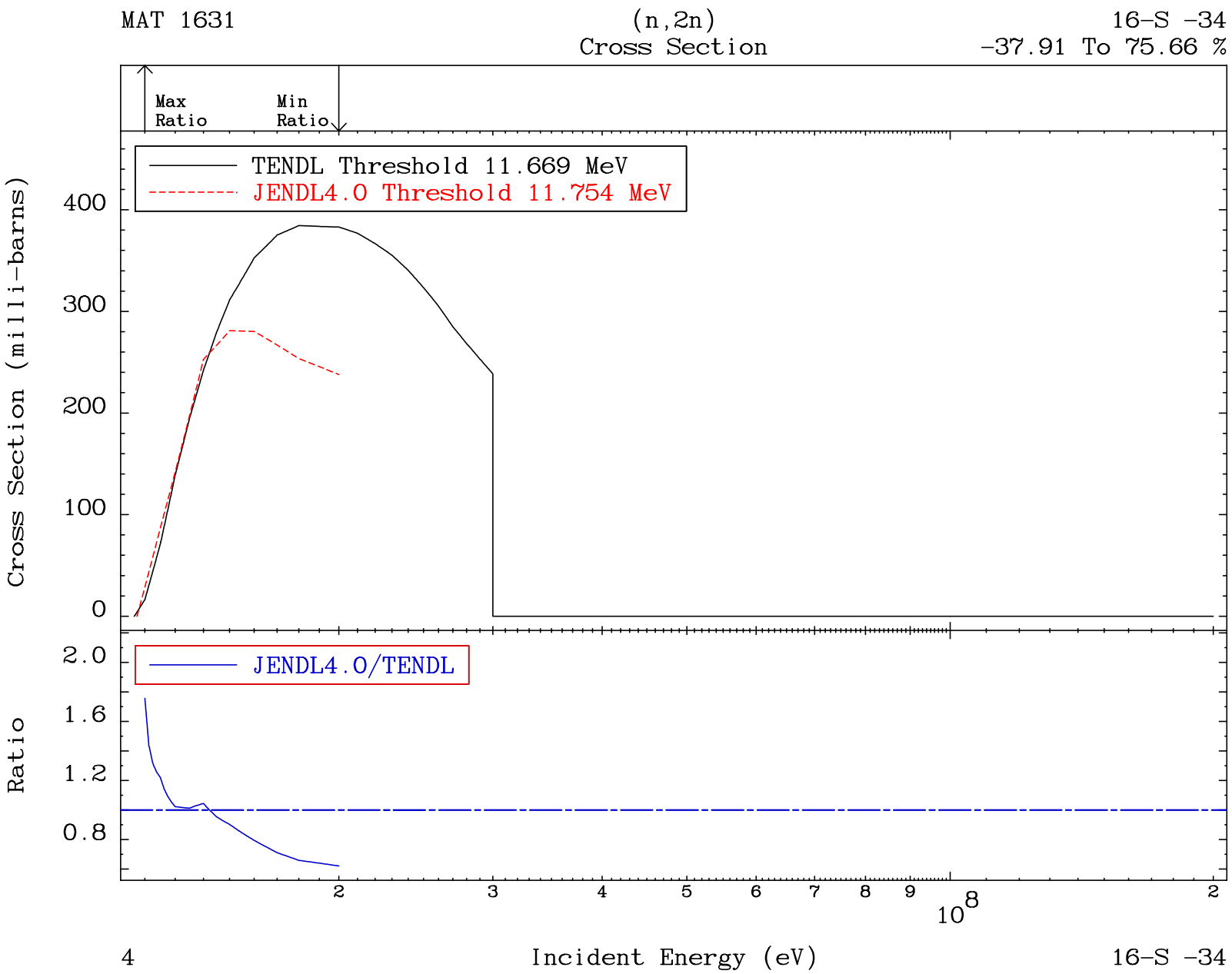
Program Complot
(Version 2018-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

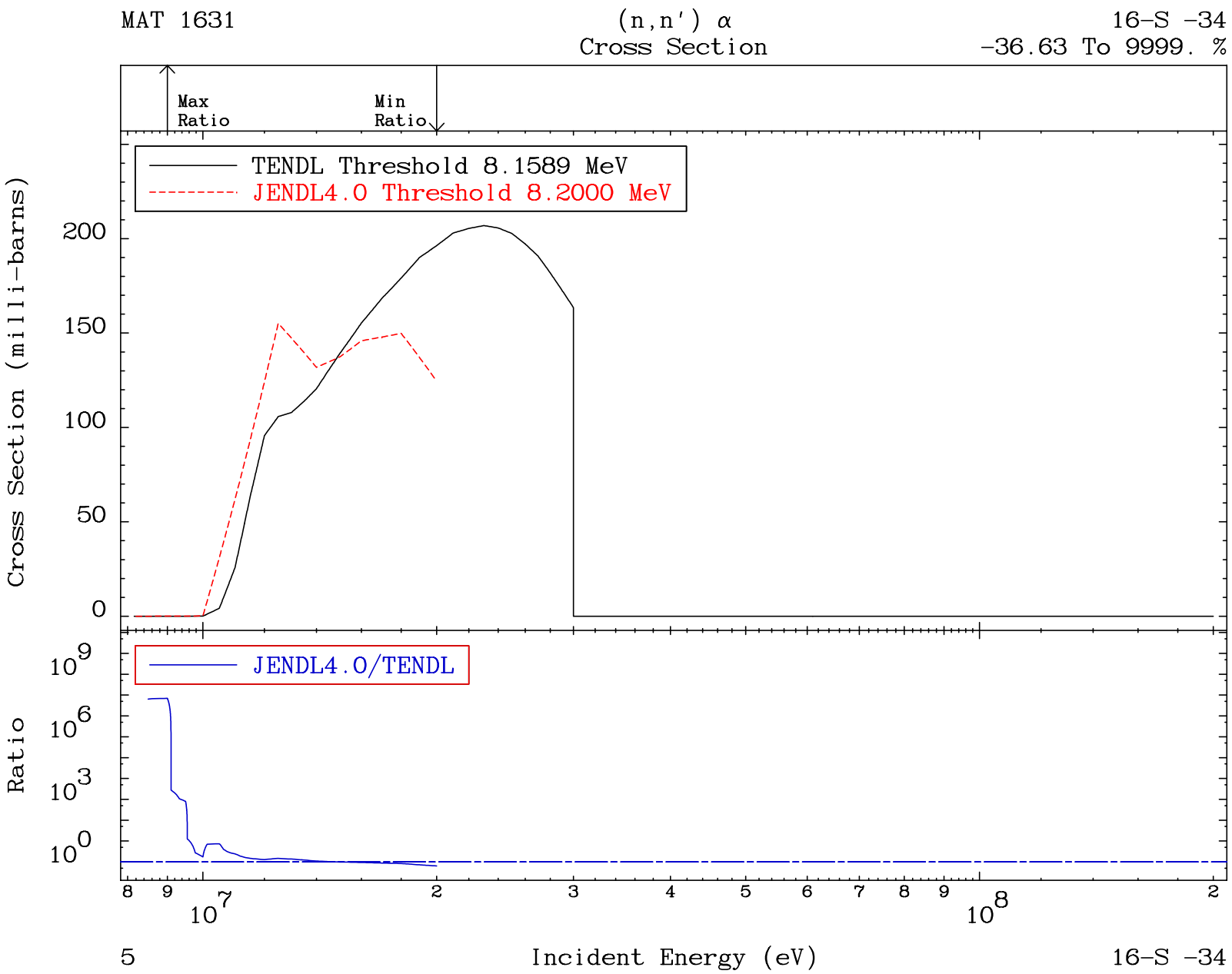
Press Mouse Button to Start

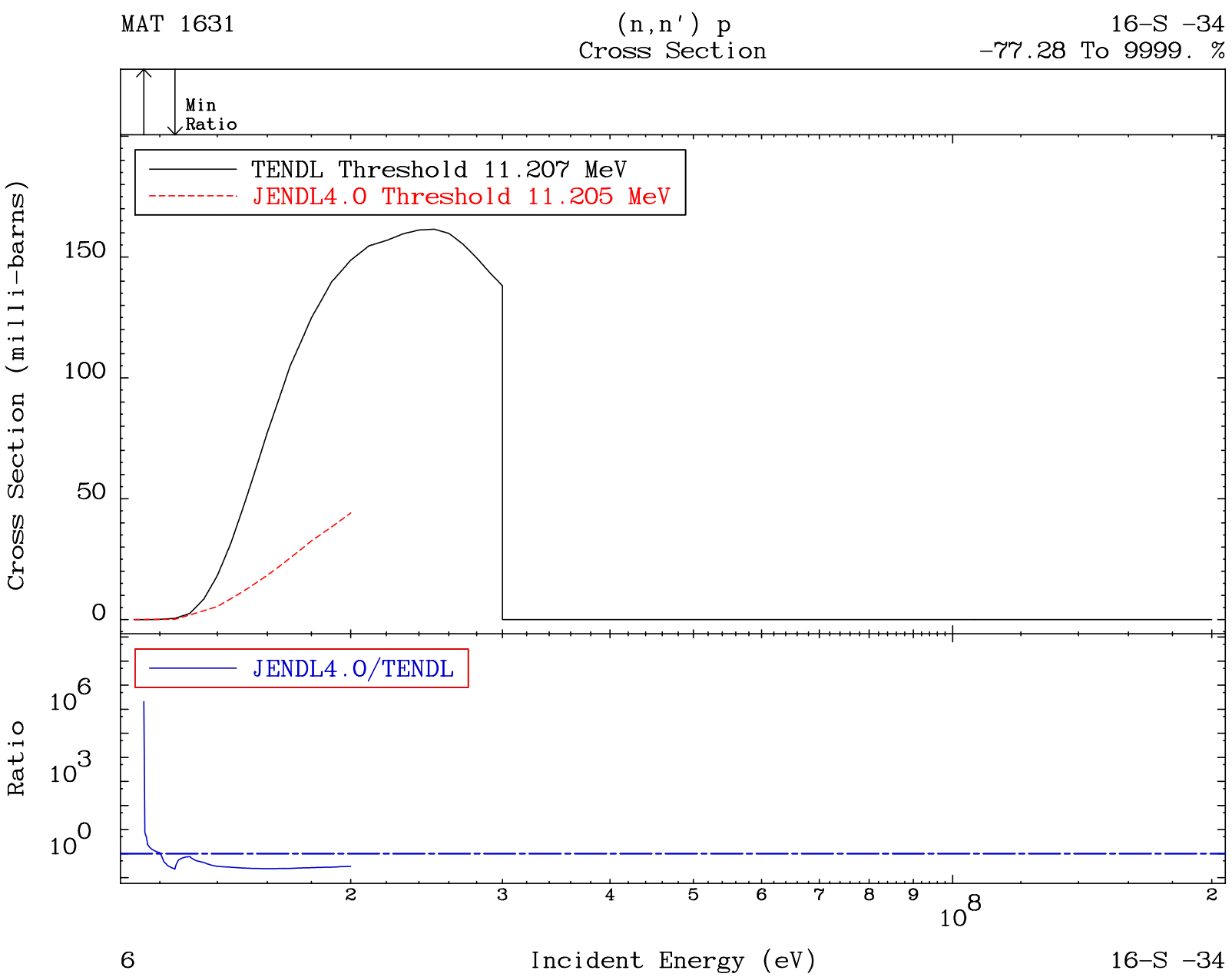

MAT 1631
Total
Cross Section
16-S -34
-97.11 To 2682. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
1
16-S -34

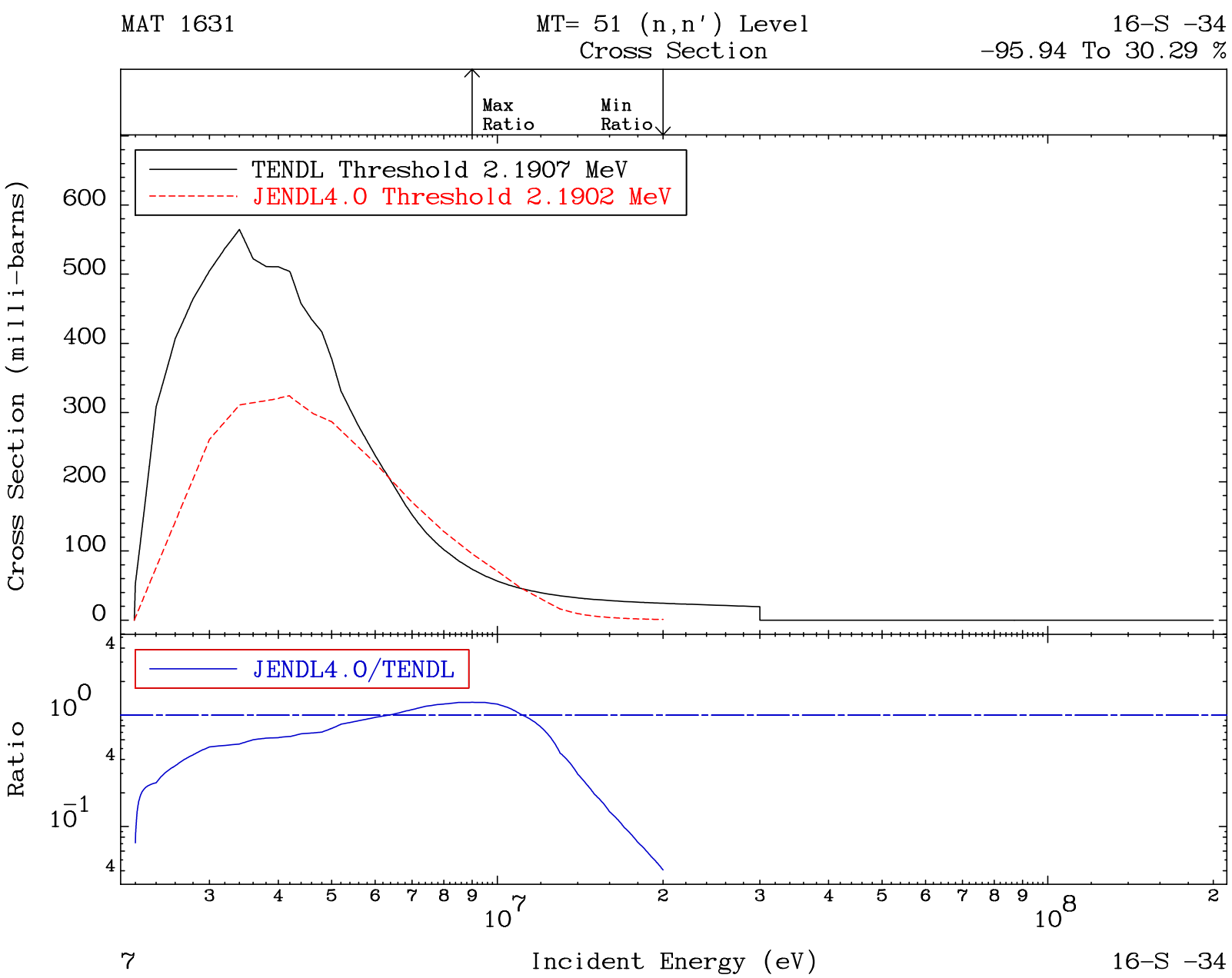

MAT 1631
Elastic
Cross Section
16-S -34
-97.16 To 2857. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
2
16-S -34

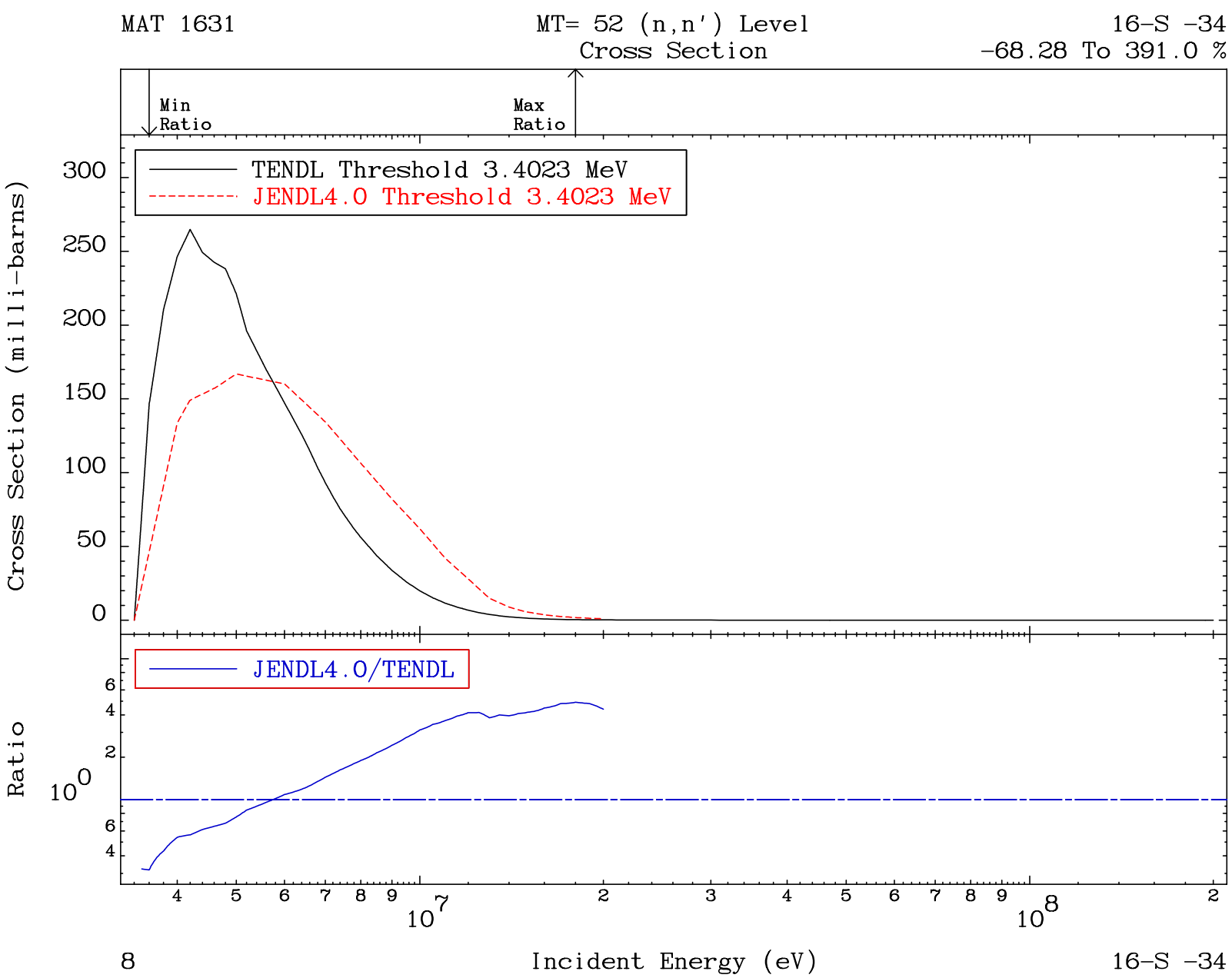

MAT 1631
Inelastic
Cross Section
16-S -34
-92.88 To 95.61 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.1907 MeV
JENDL4.0 Threshold 2.1902 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
4
10^0
4
10^-1
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
3
Incident Energy (eV)
16-S -34

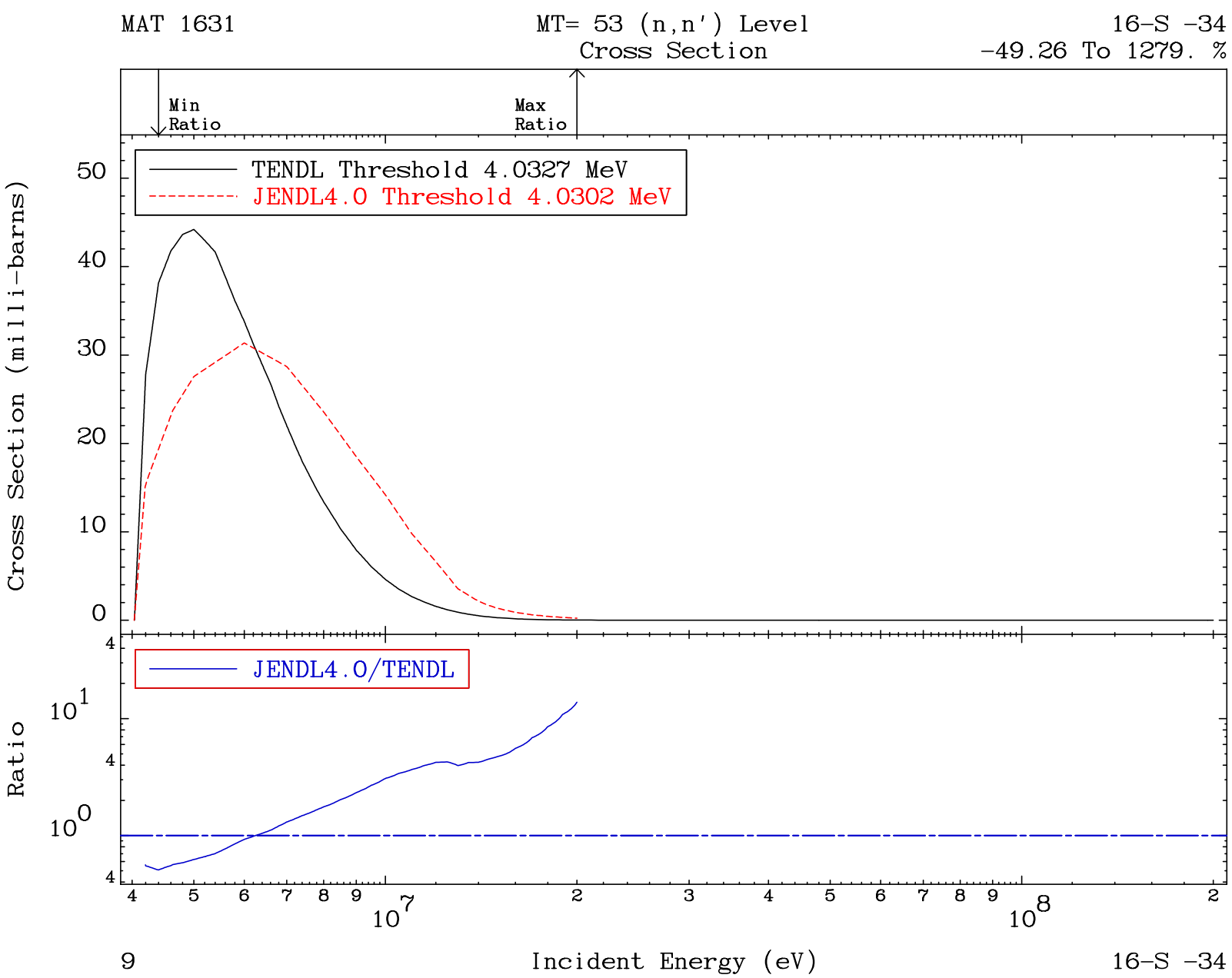

MAT 1631
(n,2n)
Cross Section
16-S -34
-37.91 To 75.66 %
Max Ratio
Min Ratio
TENDL Threshold 11.669 MeV
JENDL4.0 Threshold 11.754 MeV
Cross Section (milli-barns)
400
300
200
100
0
JENDL4.0/TENDL
Ratio
2.0
1.6
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
16-S -34

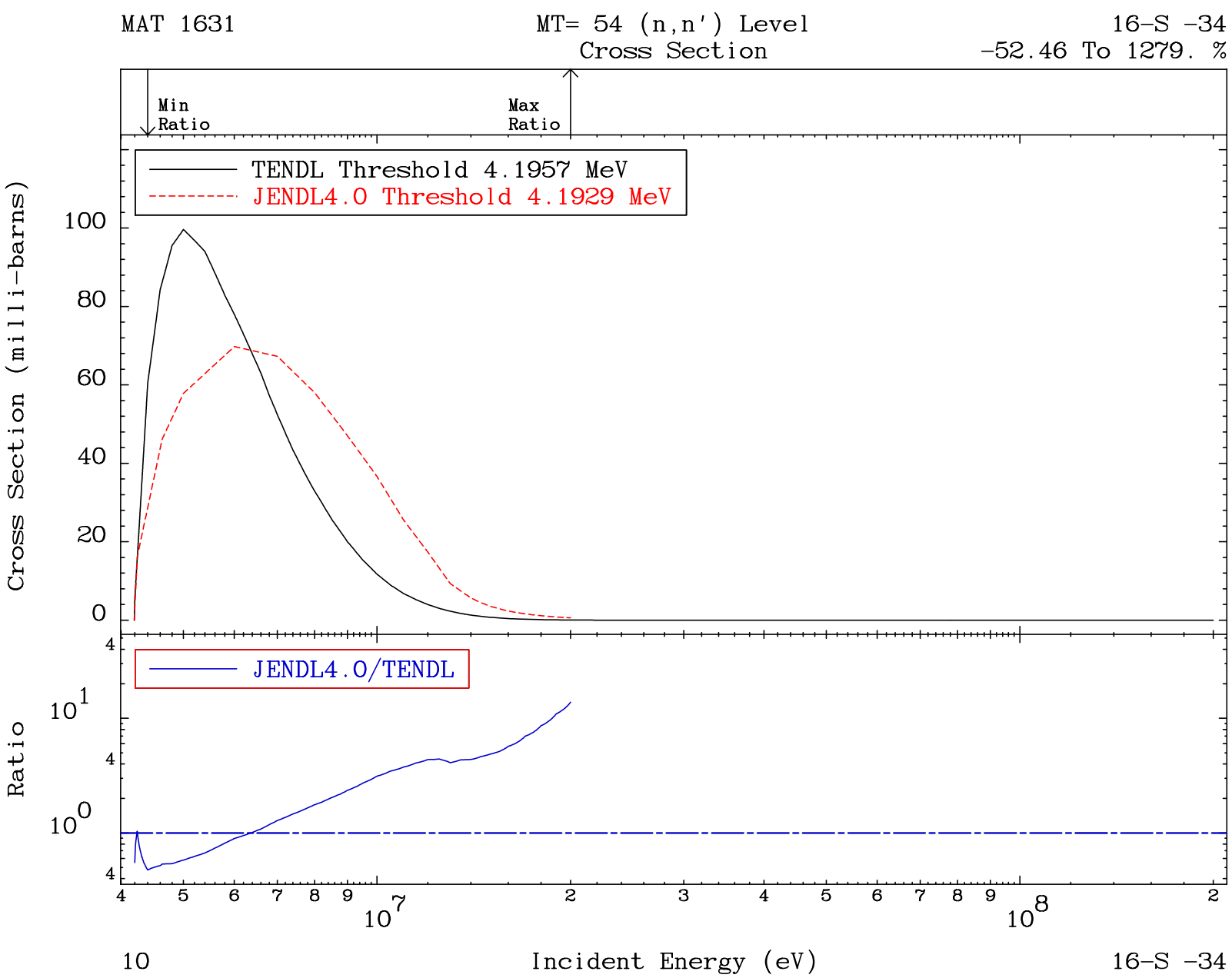

MAT 1631
(n,n') α
Cross Section
16-S -34
-36.63 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 8.1589 MeV
JENDL4.0 Threshold 8.2000 MeV
Cross Section (milli-barns)
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^9
10^6
10^3
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
16-S -34

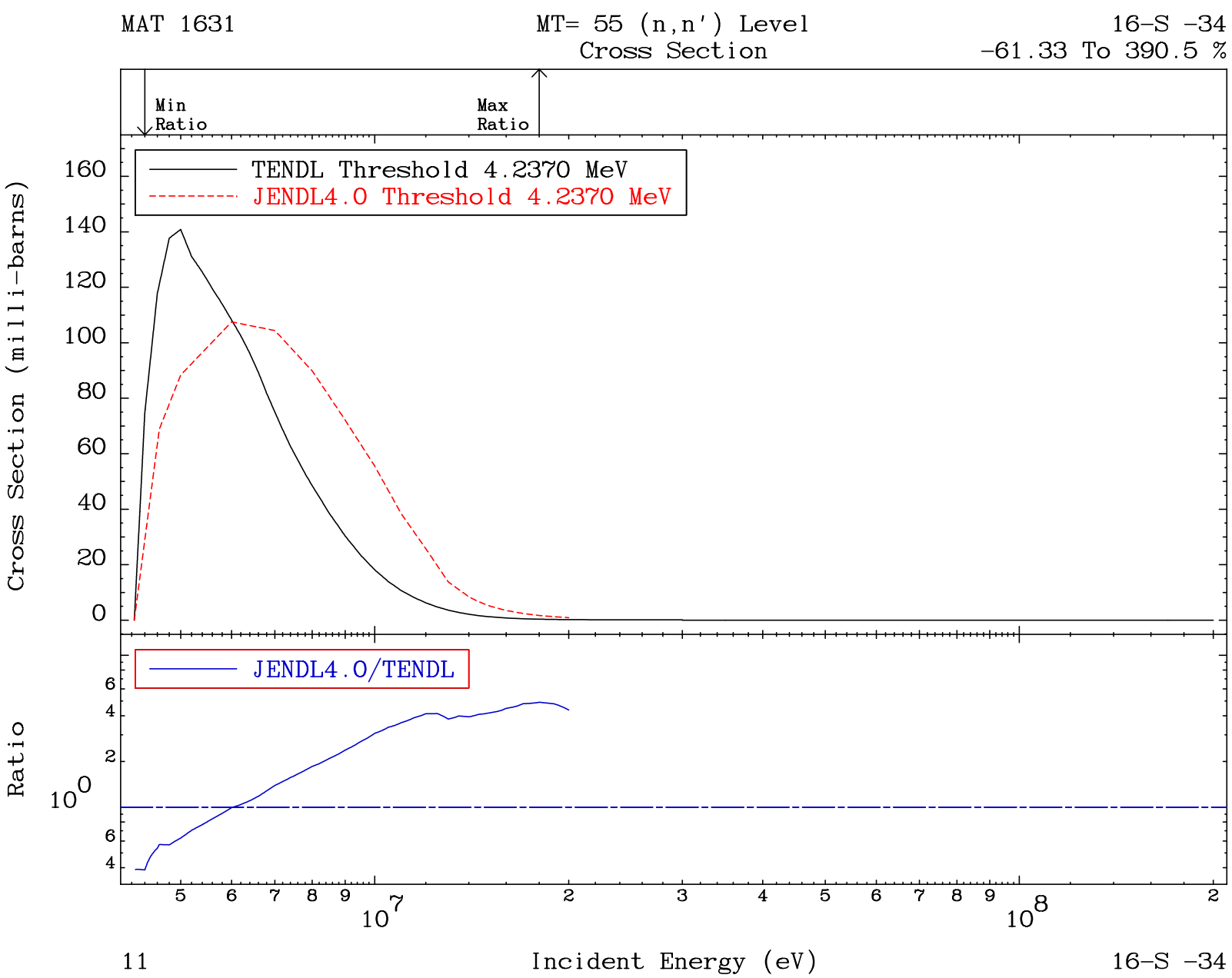

MAT 1631
(n,n') p
Cross Section
16-S -34
-77.28 To 9999. %
Min
Ratio
TENDL Threshold 11.207 MeV
JENDL4.0 Threshold 11.205 MeV
Cross Section (milli-barns)
150
100
50
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
16-S -34

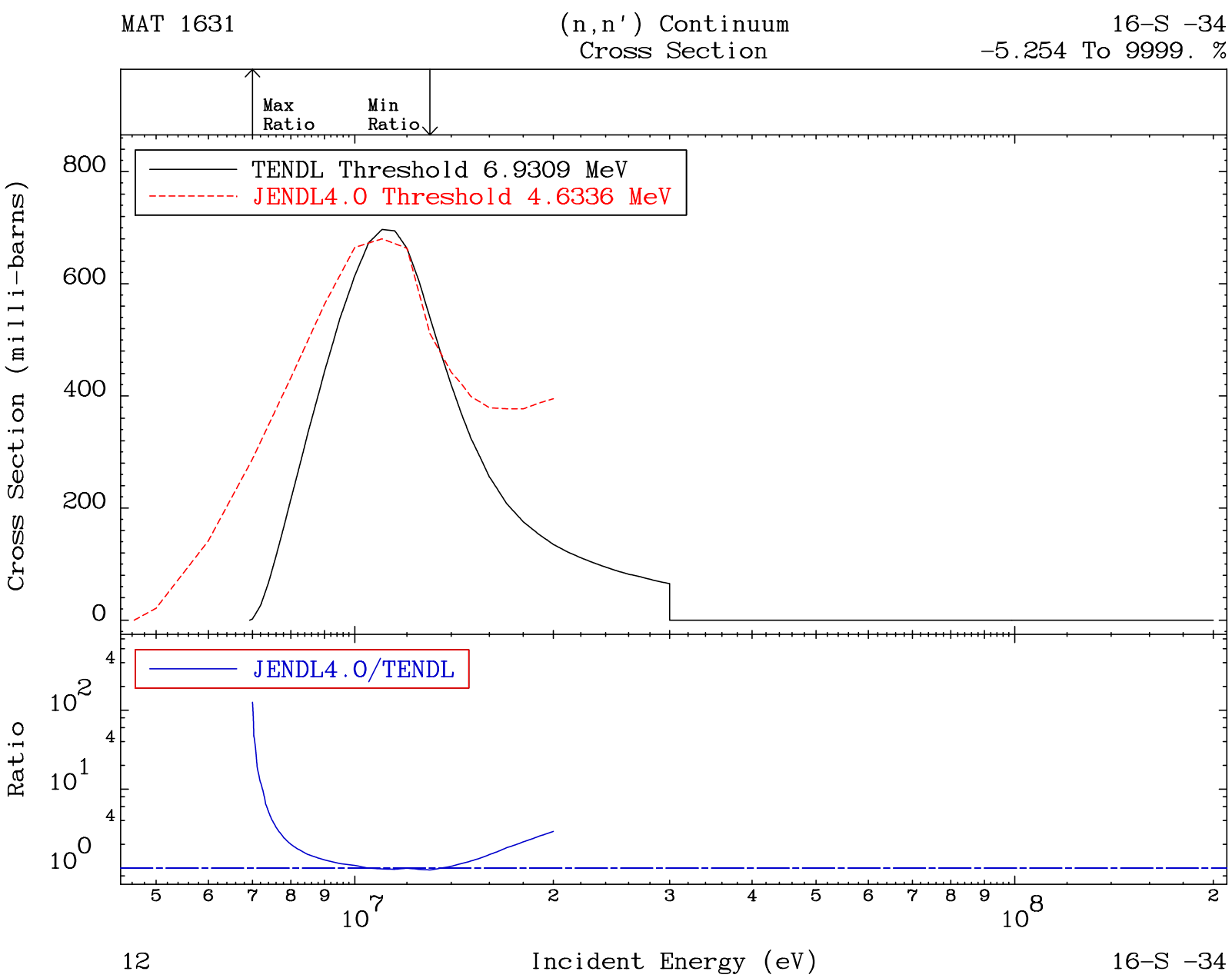

MAT 1631
MT= 51 (n,n') Level
Cross Section
16-S -34
-95.94 To 30.29 %
Max Ratio
Min Ratio
TENDL Threshold 2.1907 MeV
JENDL4.0 Threshold 2.1902 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
16-S -34

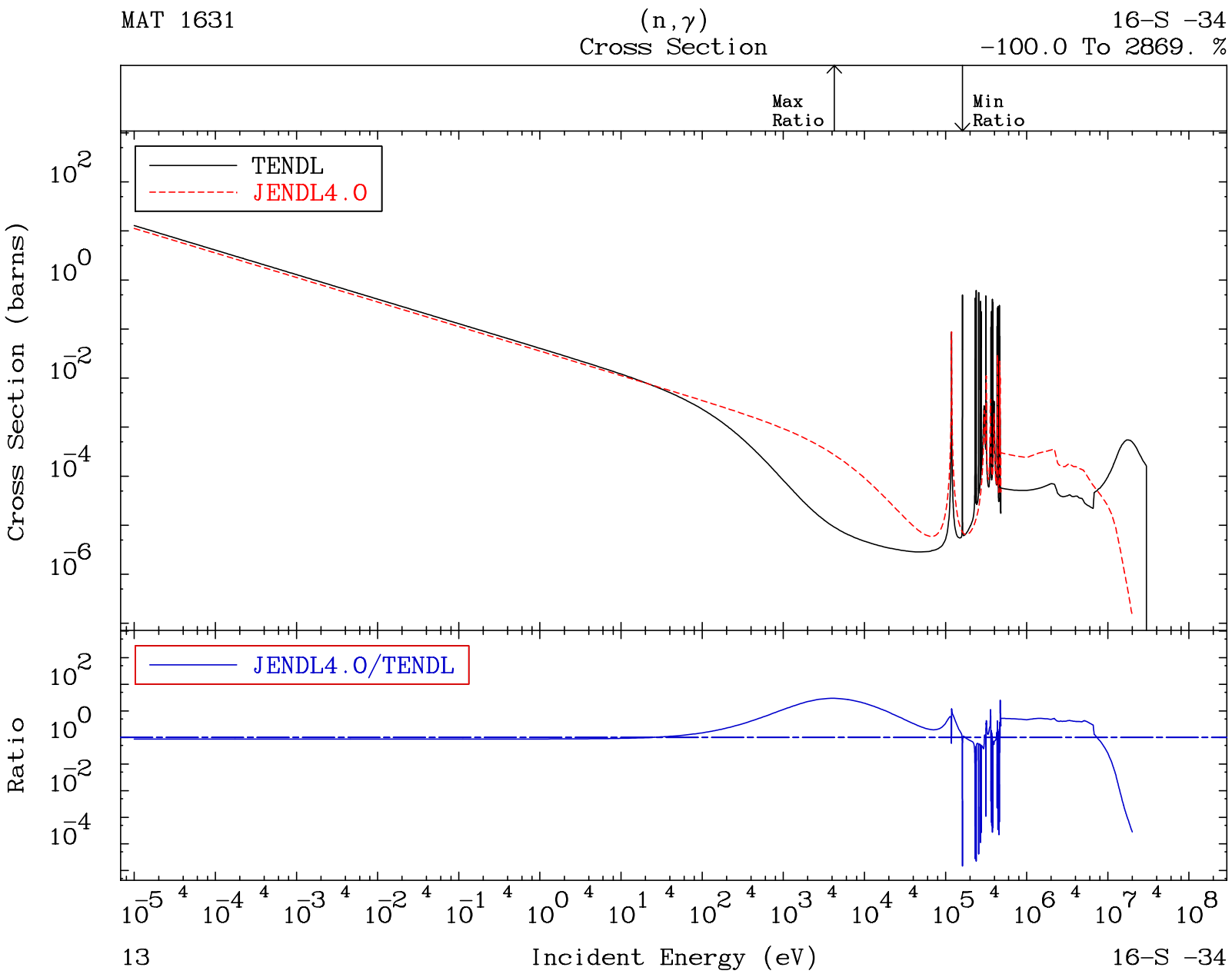

MAT 1631
MT= 52 (n,n') Level
Cross Section
16-S -34
-68.28 To 391.0 %
Min
Ratio
Max
Ratio
TENDL Threshold 3.4023 MeV
JENDL4.0 Threshold 3.4023 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^0
6
4
2
6
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
16-S -34

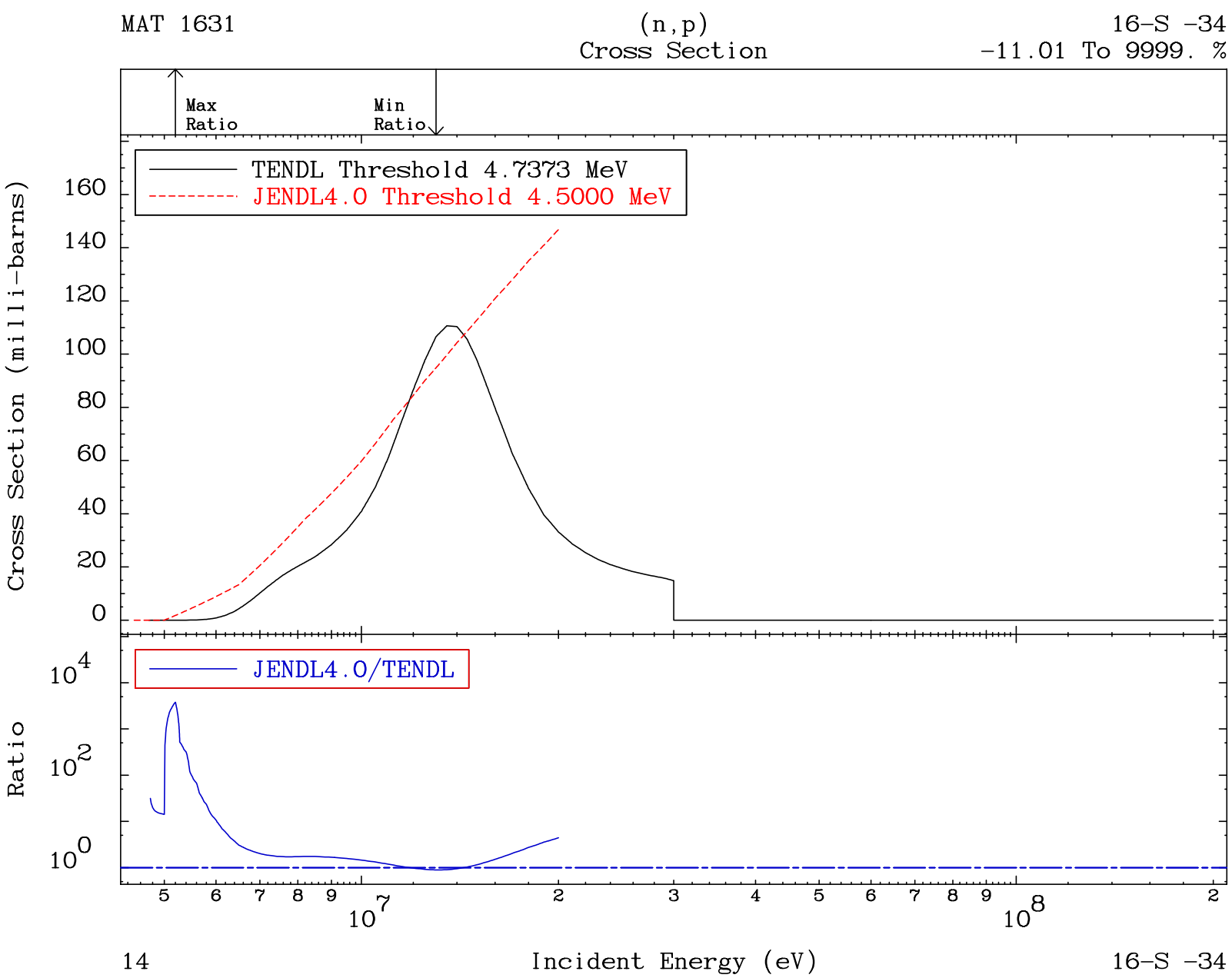

MAT 1631
MT= 53 (n,n') Level
Cross Section
16-S -34
-49.26 To 1279. %
Min
Ratio
Max
Ratio
TENDL Threshold 4.0327 MeV
JENDL4.0 Threshold 4.0302 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^1
10^0
4
4
4
4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
9
Incident Energy (eV)
16-S -34

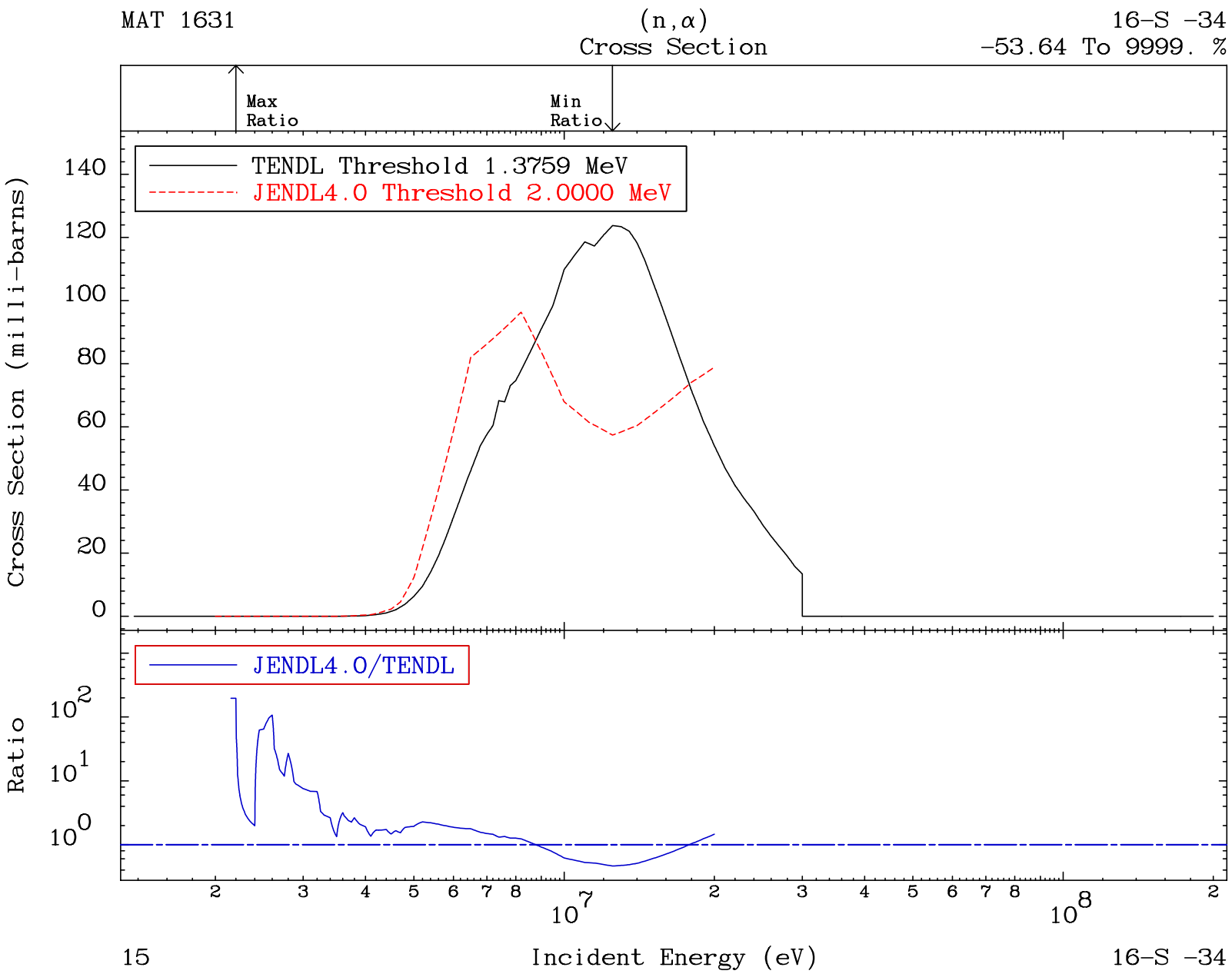

MAT 1631
MT= 54 (n,n') Level
Cross Section
16-S -34
-52.46 To 1279. %
Min
Ratio
Max
Ratio
TENDL Threshold 4.1957 MeV
JENDL4.0 Threshold 4.1929 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^1
10^0
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
16-S -34

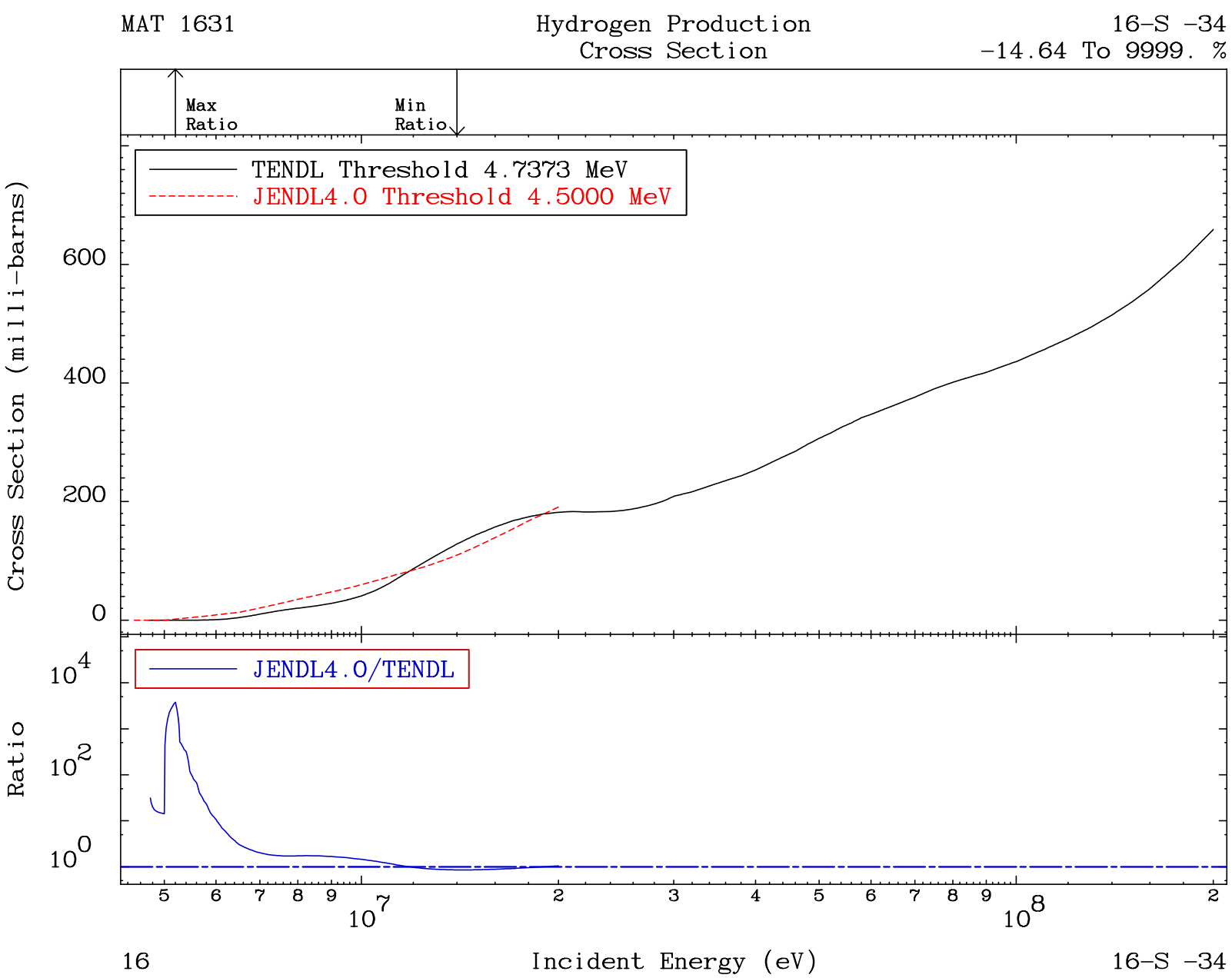

MAT 1631
MT= 55 (n,n') Level
Cross Section
16-S -34
-61.33 To 390.5 %
Min Ratio
Max Ratio
TENDL Threshold 4.2370 MeV
JENDL4.0 Threshold 4.2370 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^0
6
4
2
6
4
5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
11
Incident Energy (eV)
16-S -34

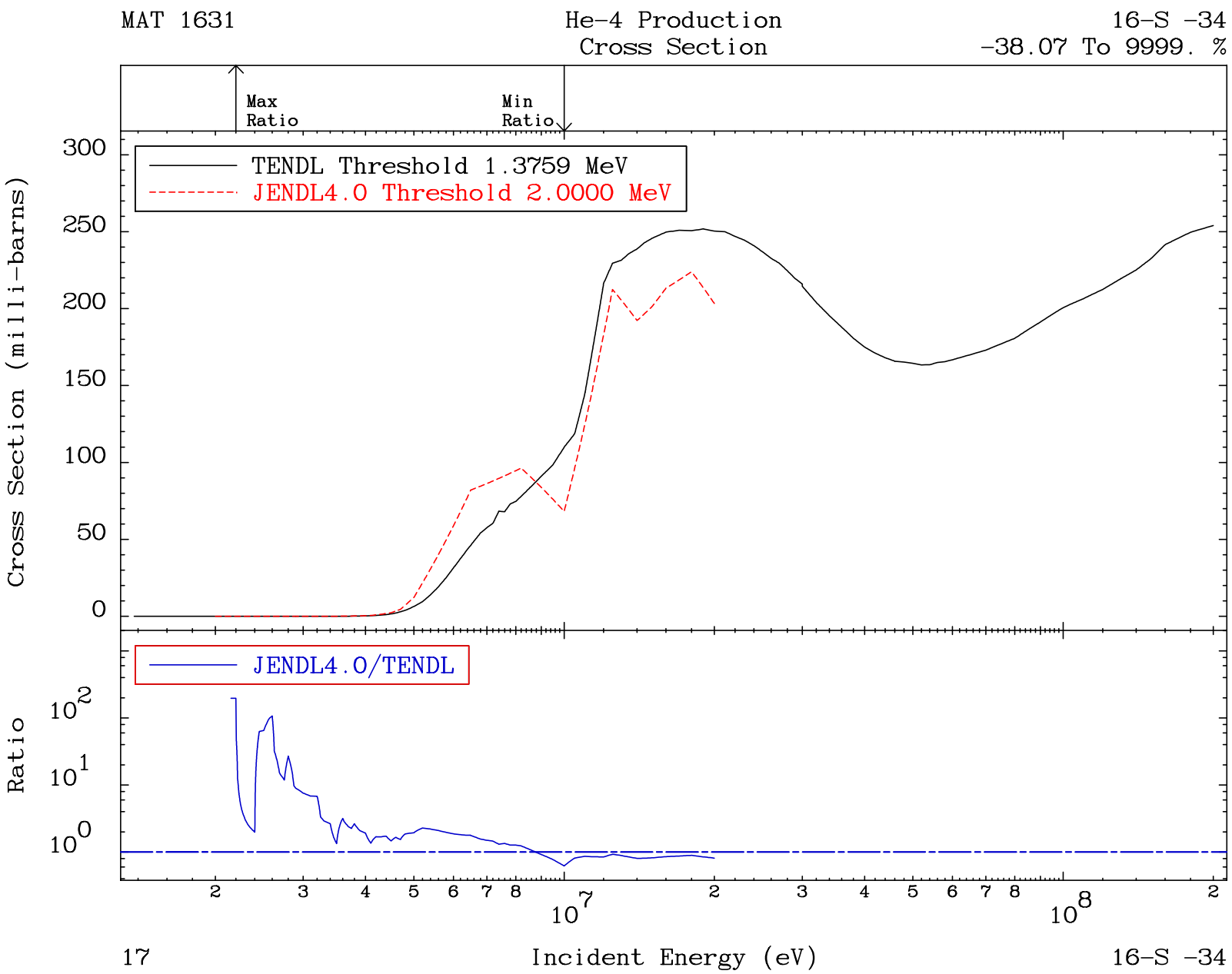

MAT 1631
(n,n') Continuum
Cross Section
16-S -34
-5.254 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.9309 MeV
JENDL4.0 Threshold 4.6336 MeV
Cross Section (milli-barns)
800
600
400
200
0
JENDL4.0/TENDL
Ratio
10^2
10^1
10^0
4
5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
12
Incident Energy (eV)
16-S -34

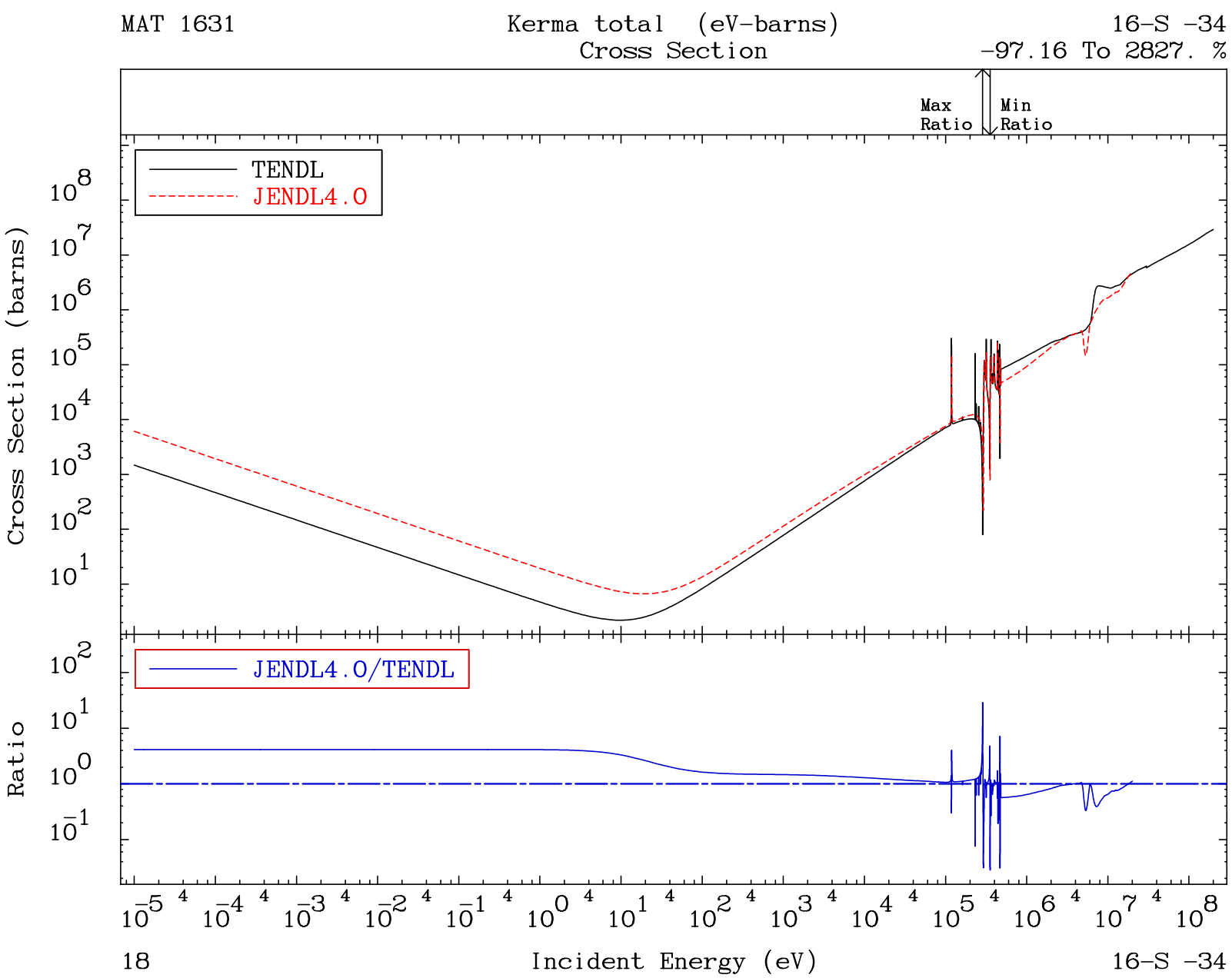

MAT 1631
(n,γ)
Cross Section
16-S -34
-100.0 To 2869. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
13
16-S -34

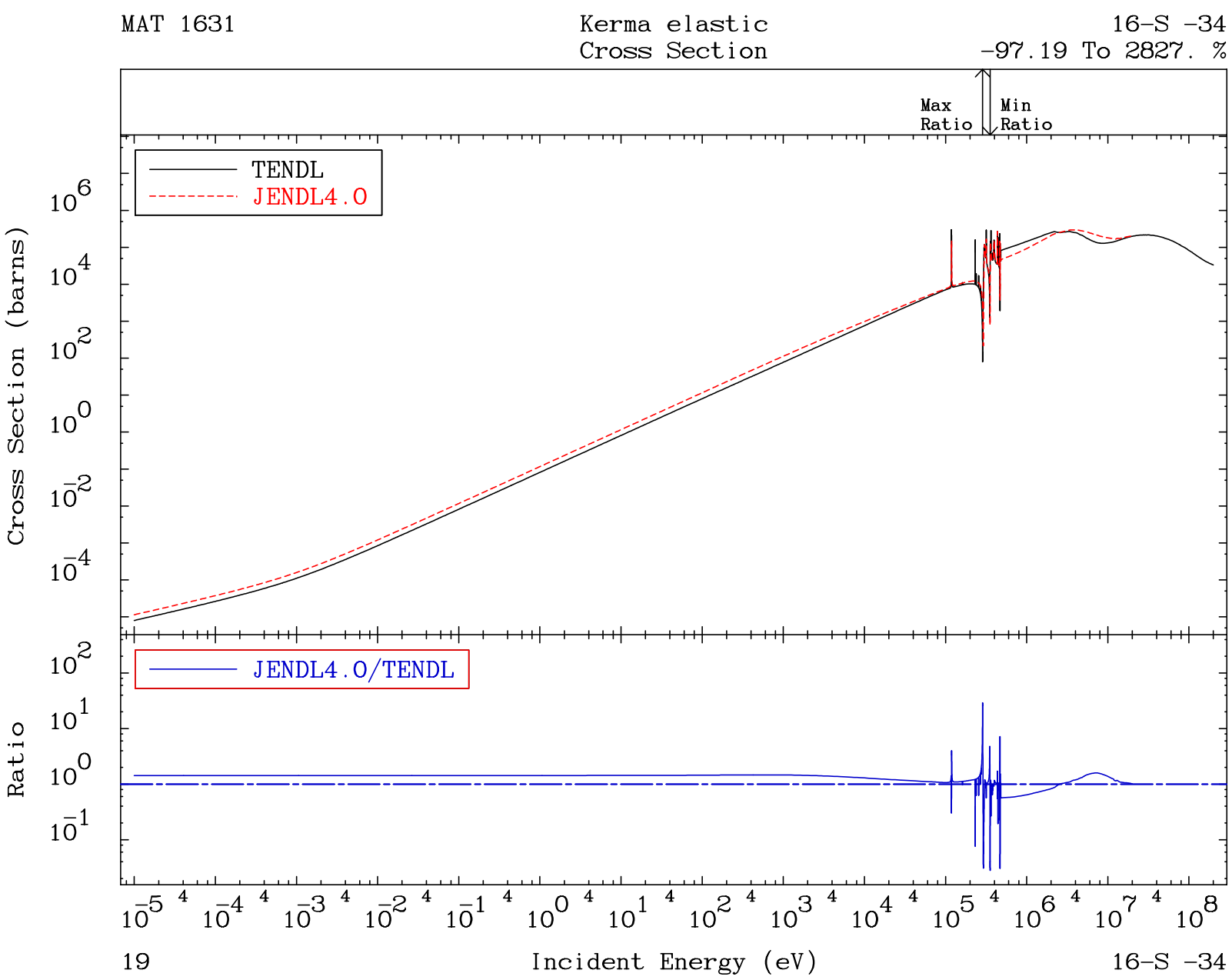

MAT 1631
(n,p)
Cross Section
16-S -34
-11.01 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 4.7373 MeV
JENDL4.0 Threshold 4.5000 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^4
10^2
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
14
Incident Energy (eV)
16-S -34

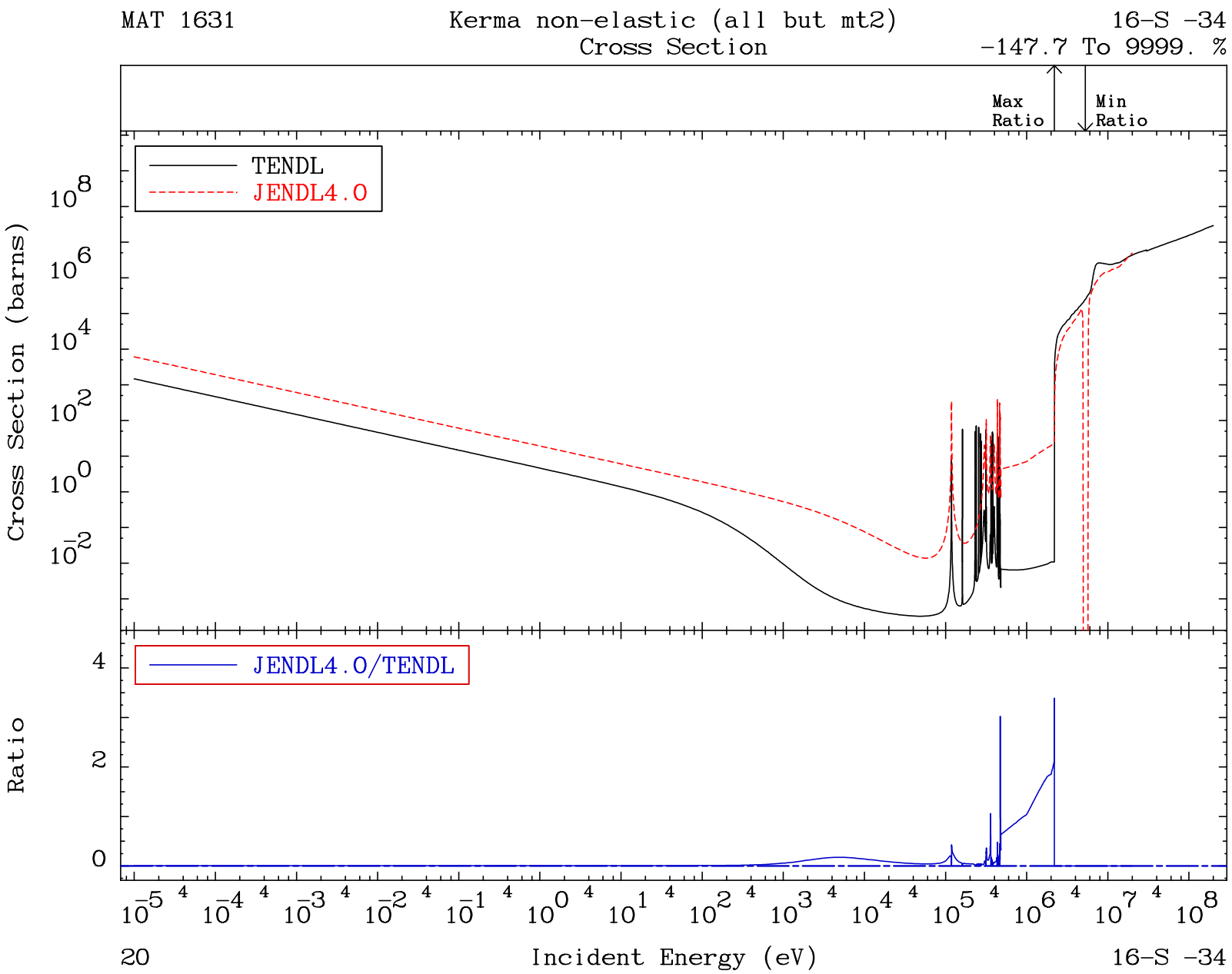

MAT 1631
(n,α)
Cross Section
16-S -34
-53.64 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.3759 MeV
JENDL4.0 Threshold 2.0000 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
16-S -34

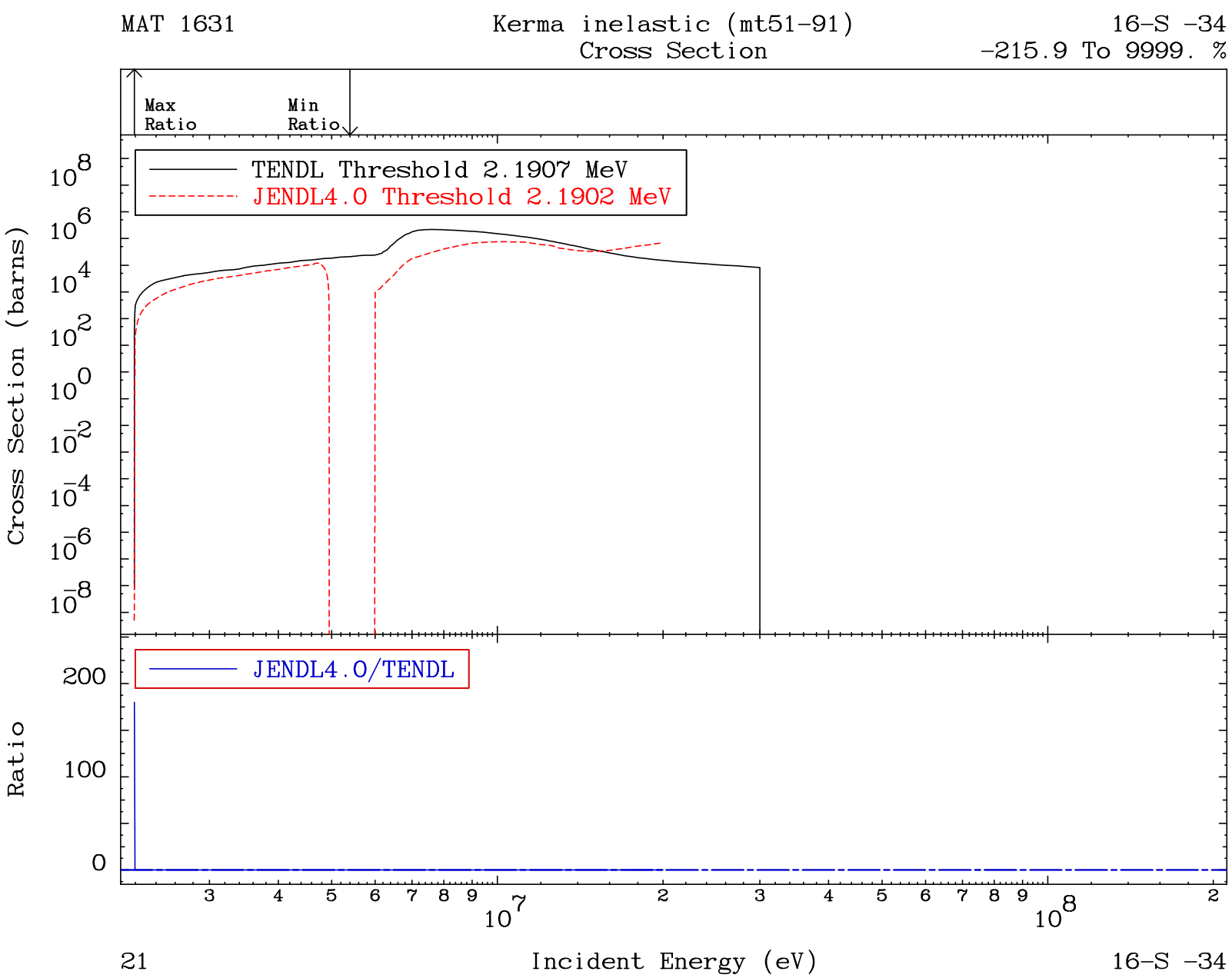

MAT 1631
Hydrogen Production
Cross Section
16-S -34
-14.64 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 4.7373 MeV
JENDL4.0 Threshold 4.5000 MeV
Cross Section (milli-barns)
600
400
200
0
JENDL4.0/TENDL
Ratio
10^4
10^2
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
16-S -34

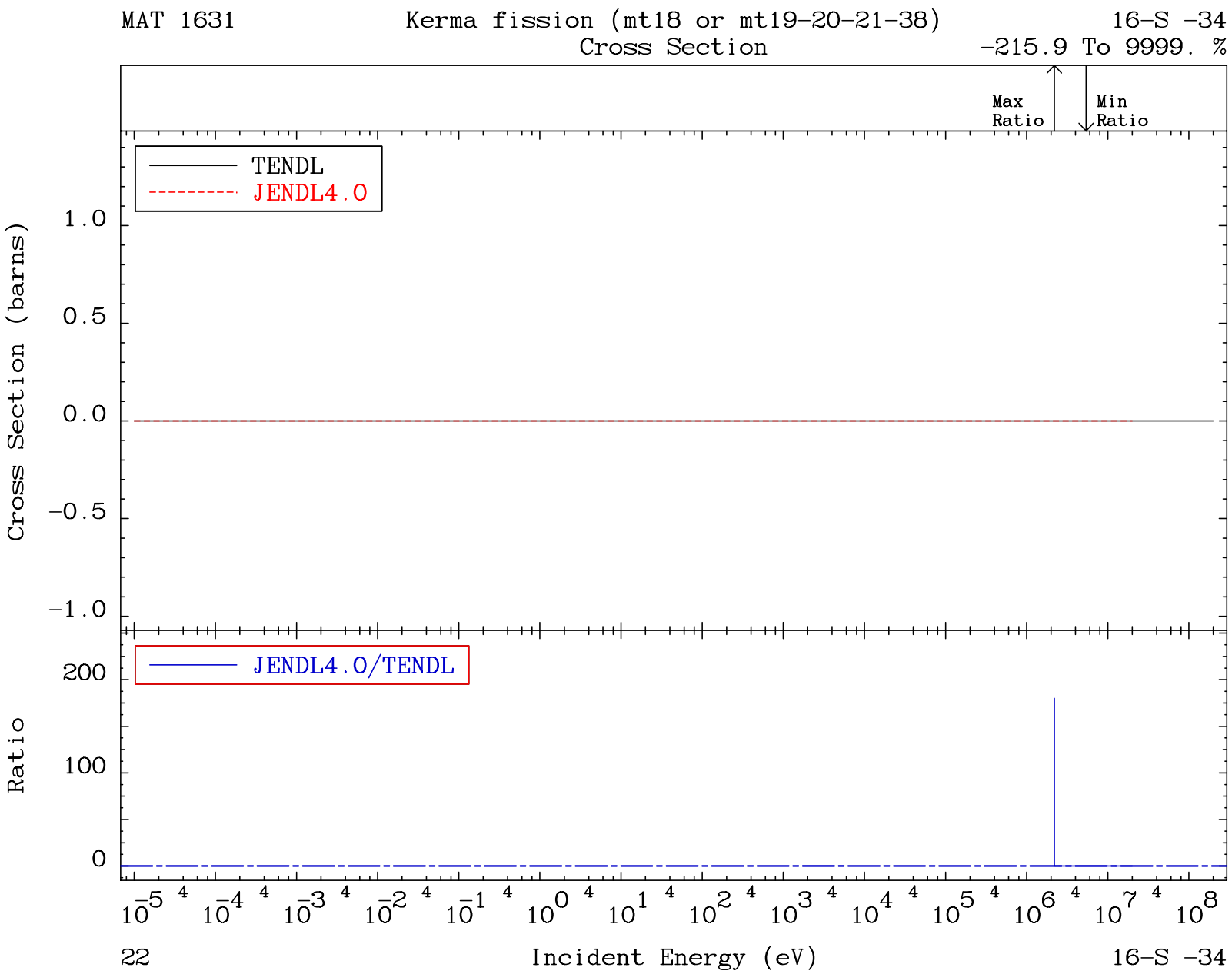

MAT 1631
He-4 Production
Cross Section
16-S -34
-38.07 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.3759 MeV
JENDL4.0 Threshold 2.0000 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
16-S -34

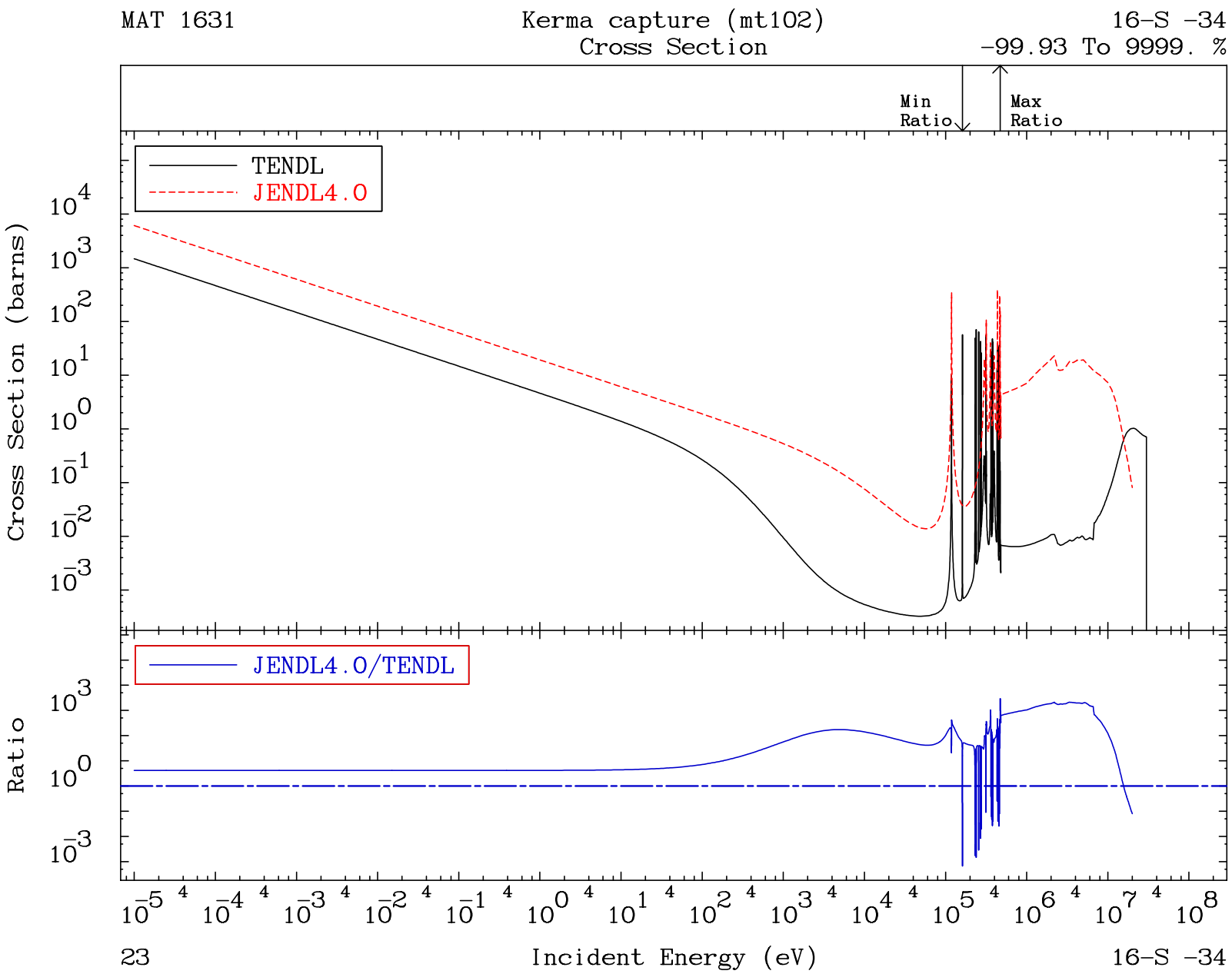

MAT 1631
Kerma total (eV-barns)
Cross Section
16-S -34
-97.16 To 2827. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
18
16-S -34

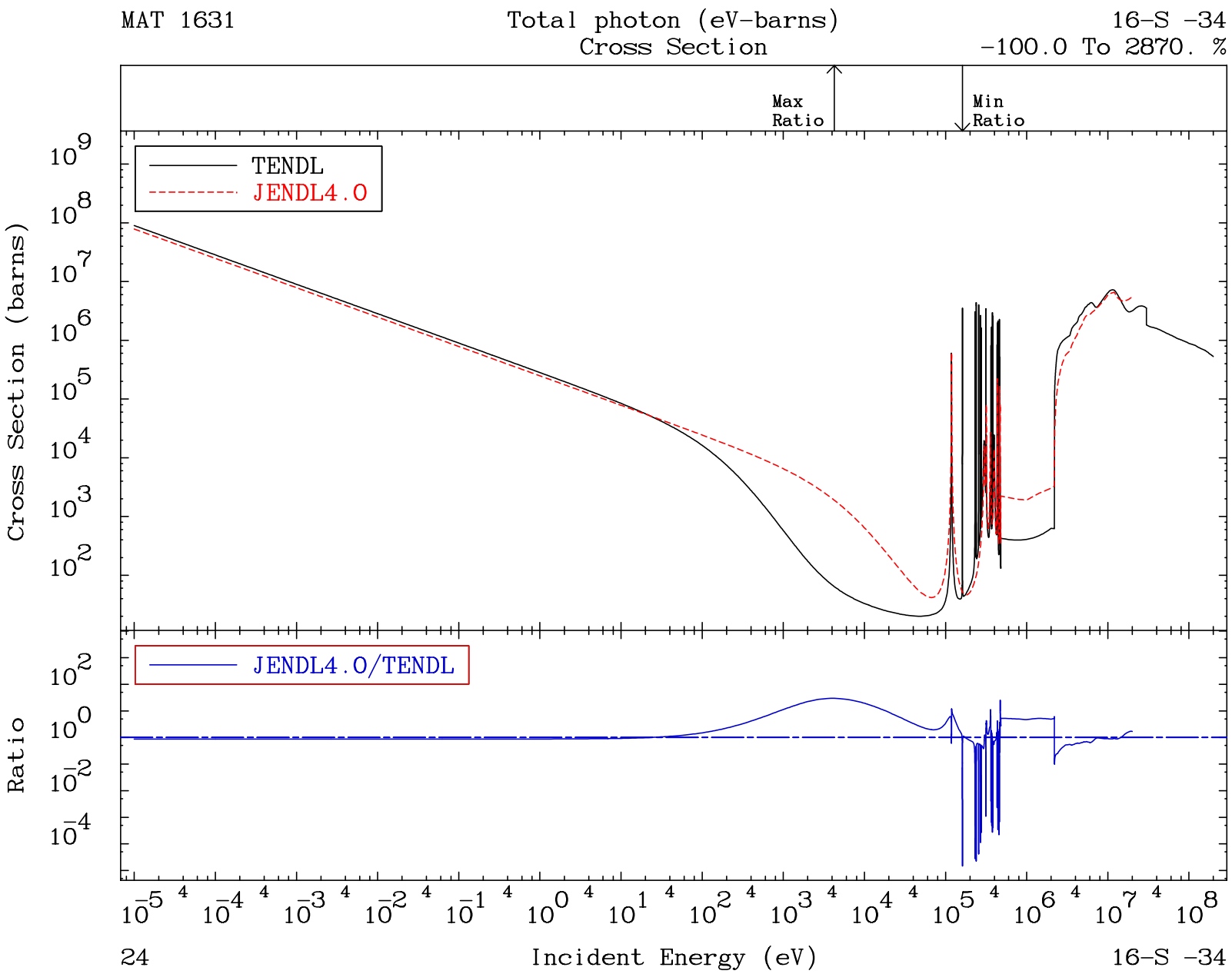

MAT 1631
Kerma elastic
Cross Section
16-S -34
-97.19 To 2827. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
19
16-S -34

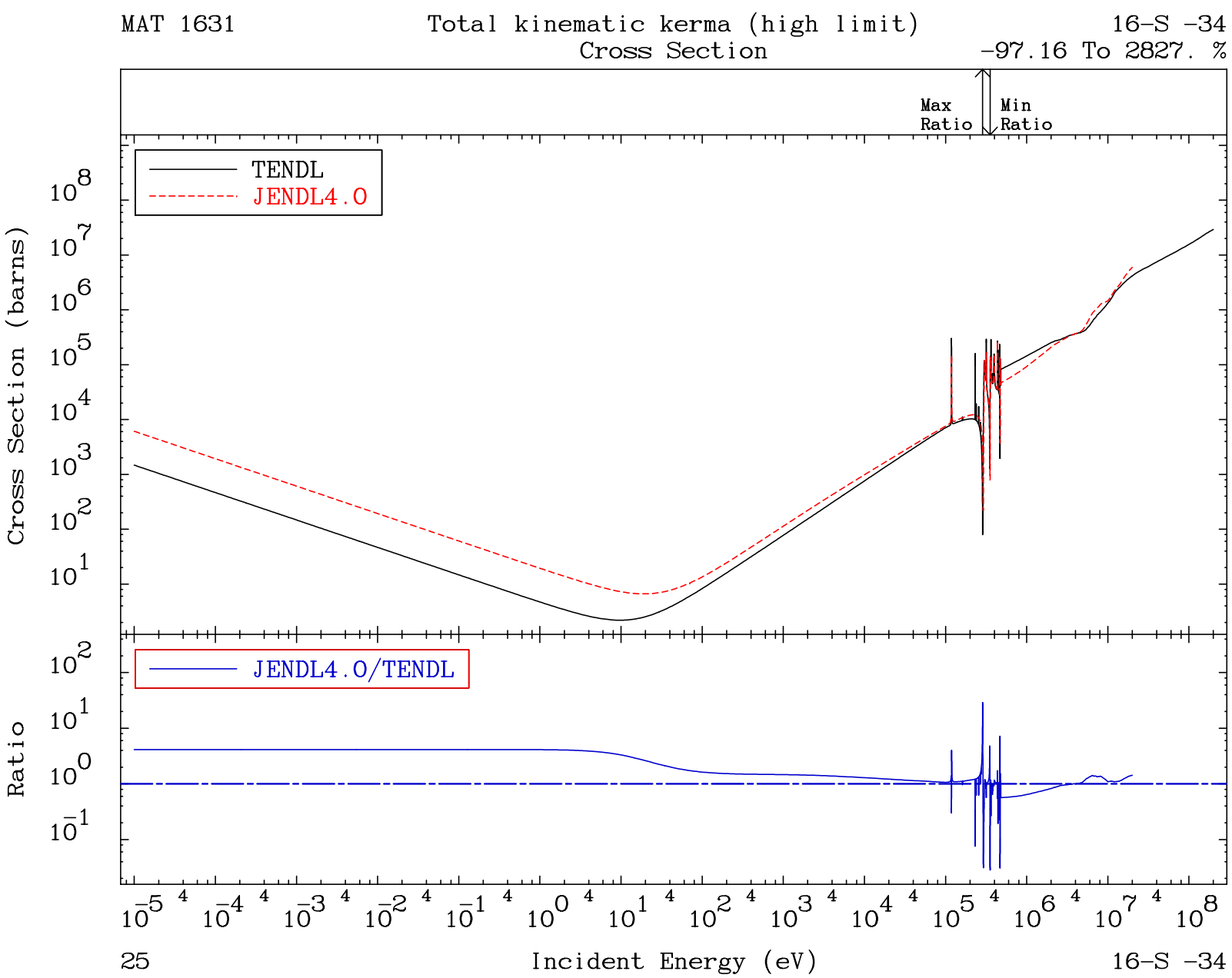

MAT 1631
Kerma non-elastic (all but mt2)
Cross Section
16-S -34
-147.7 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
20
16-S -34

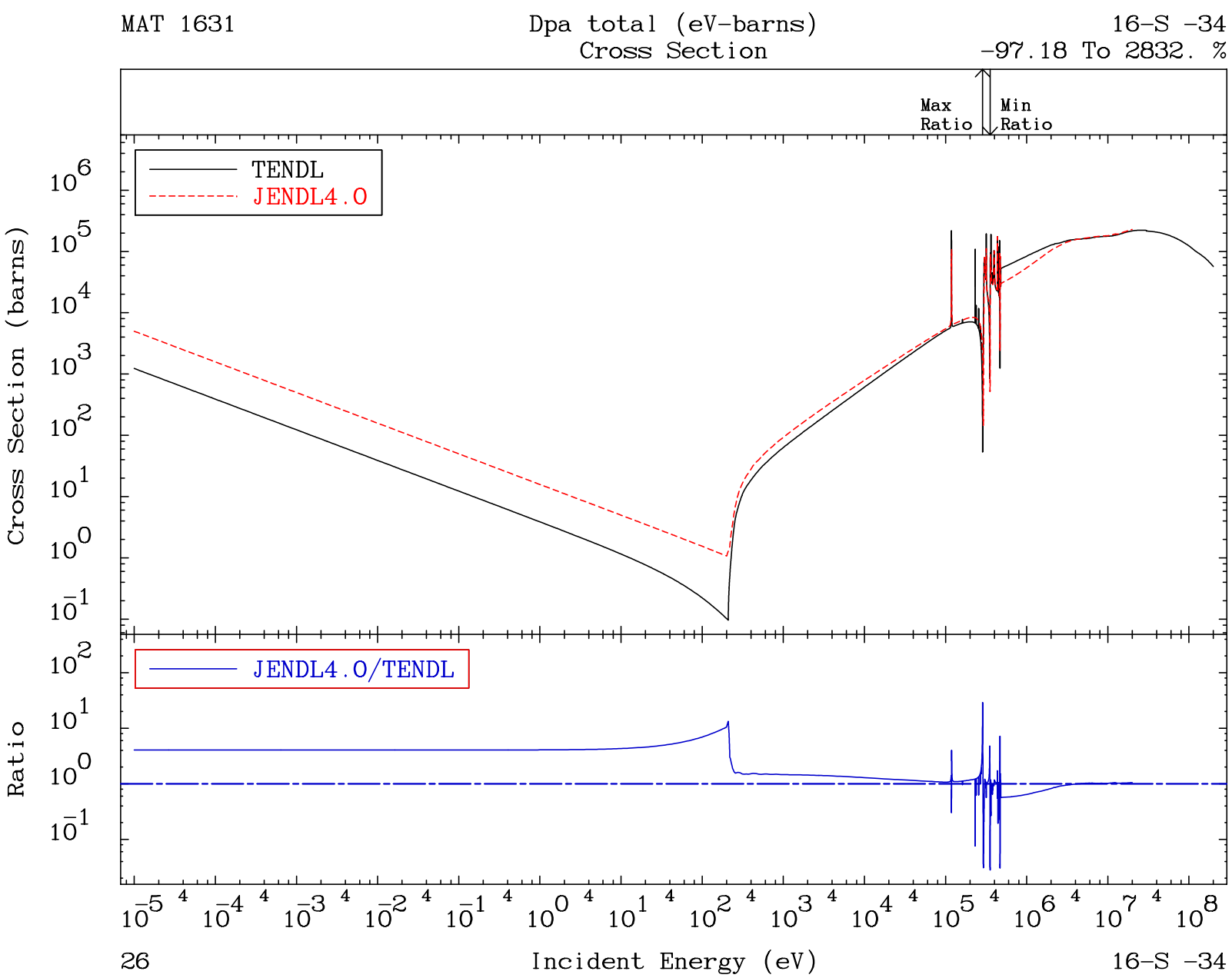

MAT 1631
Kerma inelastic (mt51-91)
Cross Section
16-S -34
-215.9 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.1907 MeV
JENDL4.0 Threshold 2.1902 MeV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
21
16-S -34

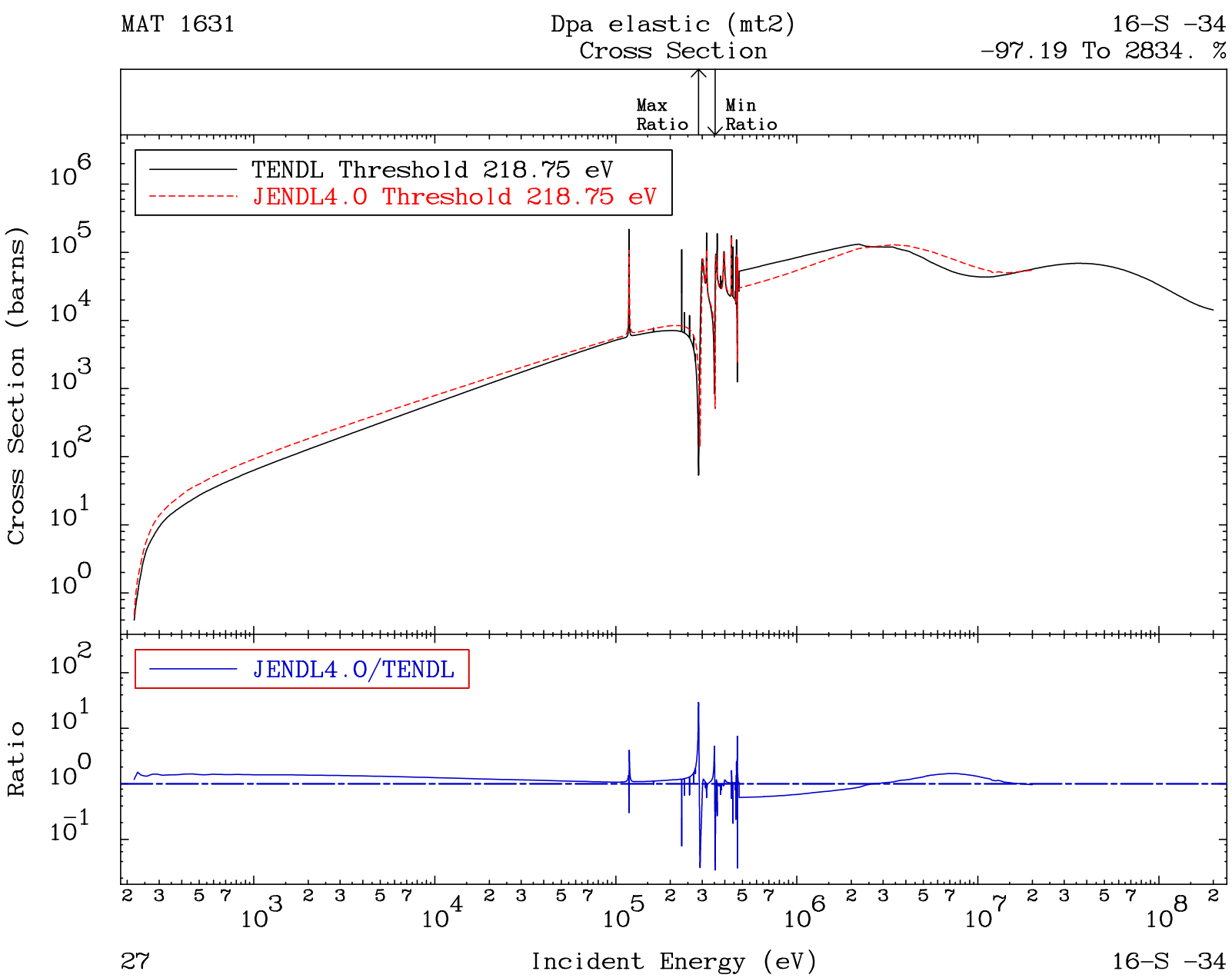

MAT 1631
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
16-S -34
-215.9 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JENDL4.0/TENDL
Ratio
200
100
0
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
22
Incident Energy (eV)
16-S -34

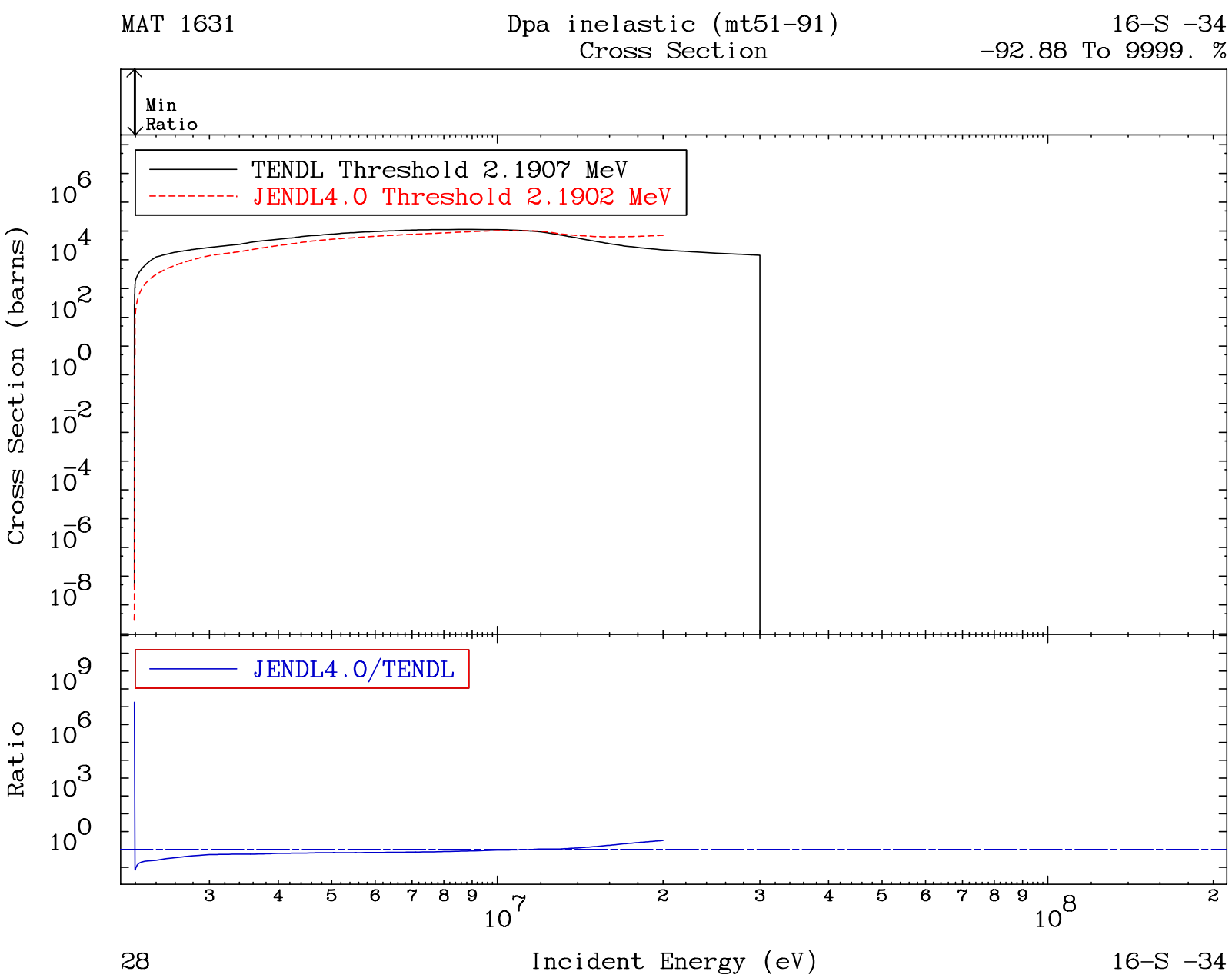

MAT 1631
Kerma capture (mt102)
Cross Section
16-S -34
-99.93 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
23
16-S -34

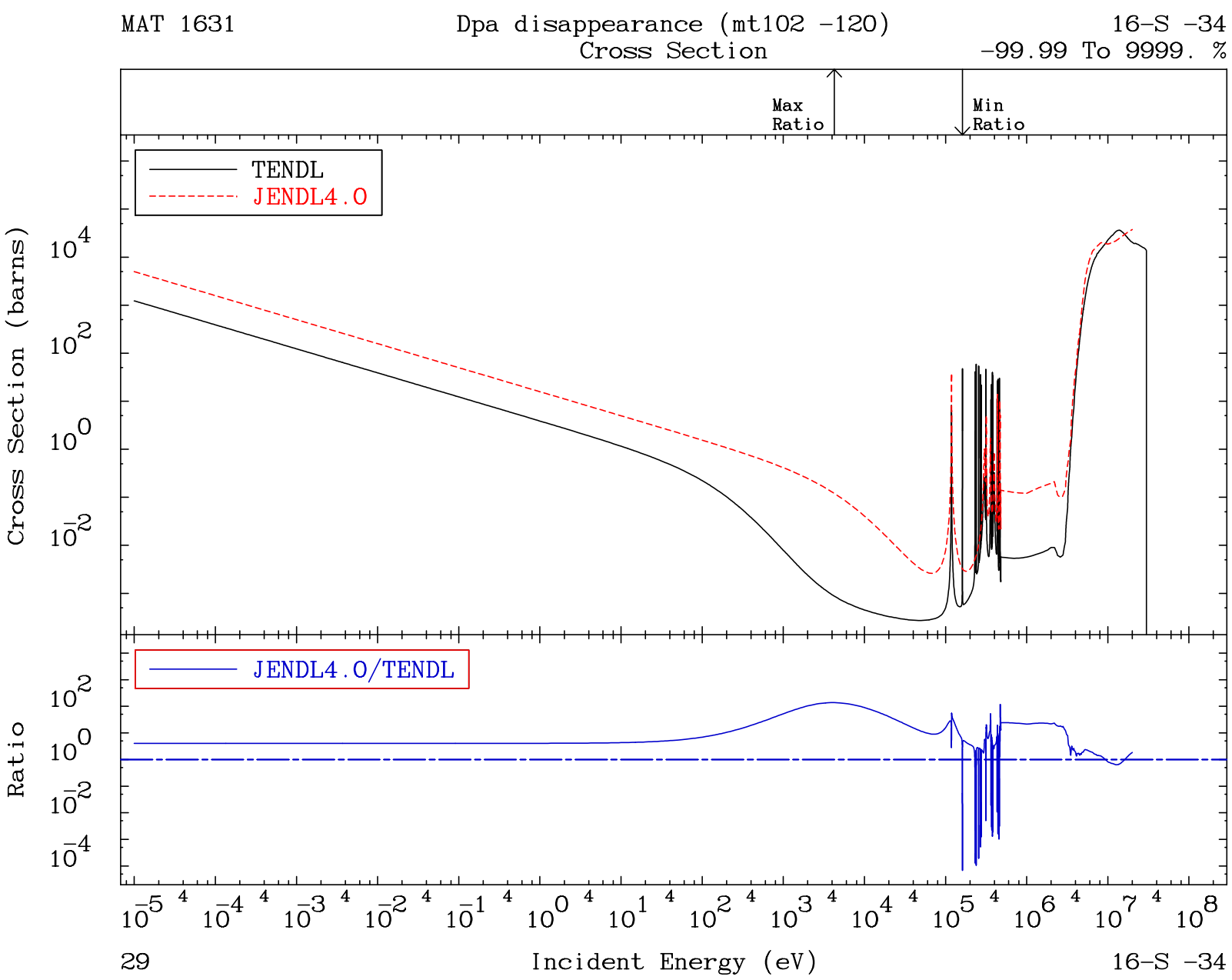

MAT 1631
Total photon (eV-barns)
Cross Section
16-S -34
-100.0 To 2870. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
24
16-S -34

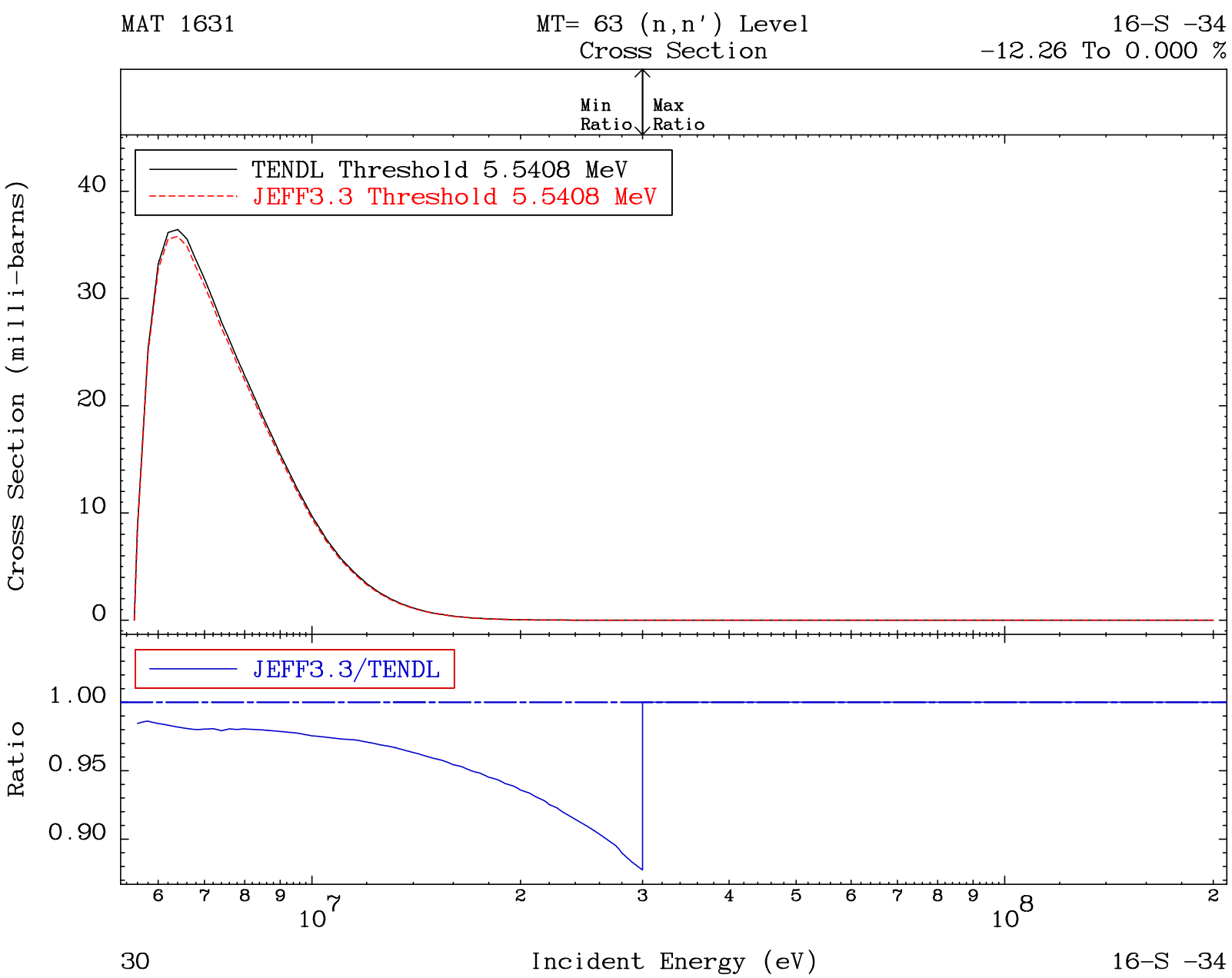

MAT 1631
Total kinematic kerma (high limit)
Cross Section
16-S -34
-97.16 To 2827. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
25
16-S -34

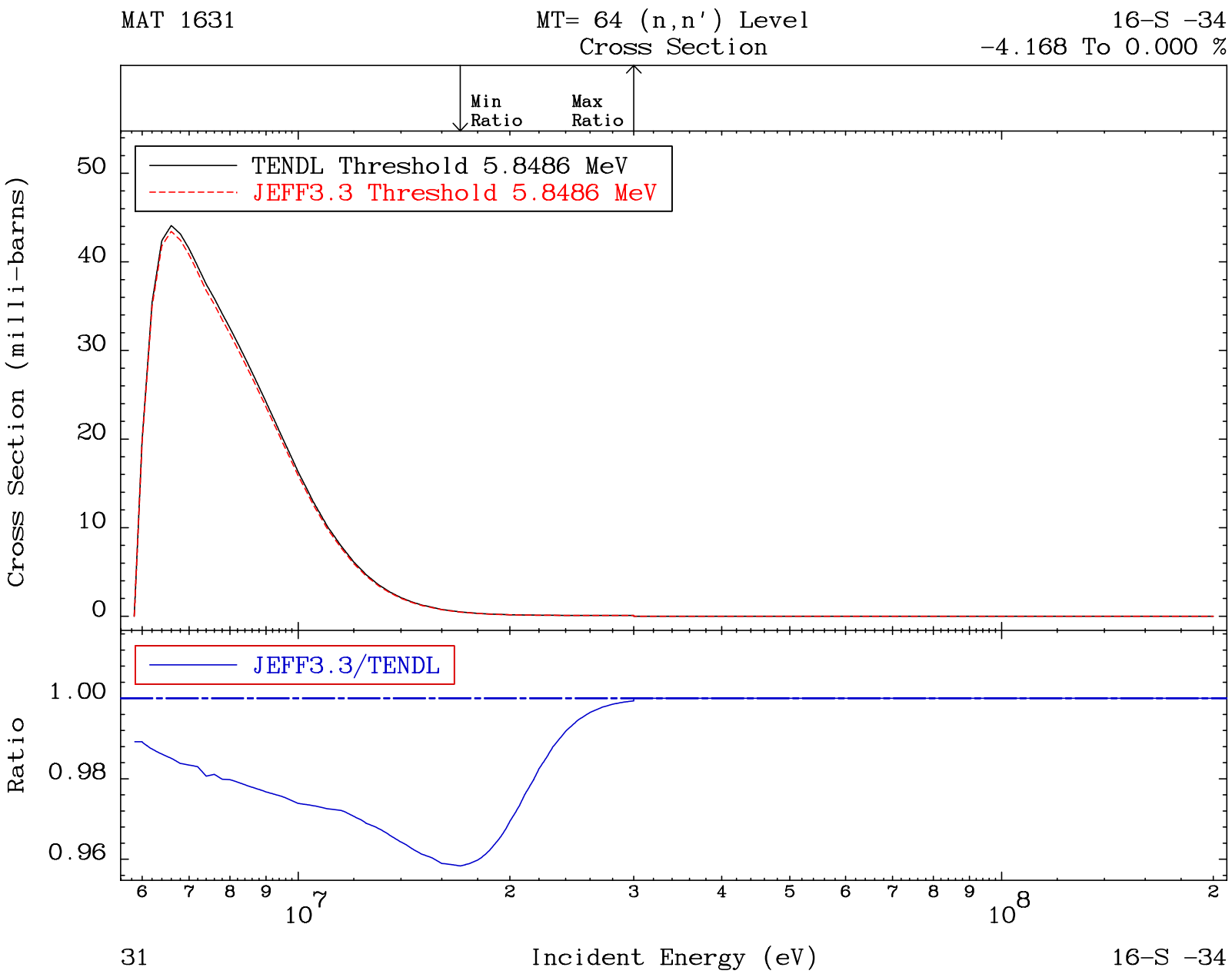

MAT 1631
Dpa total (eV-barns)
Cross Section
16-S -34
-97.18 To 2832. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
26
16-S -34

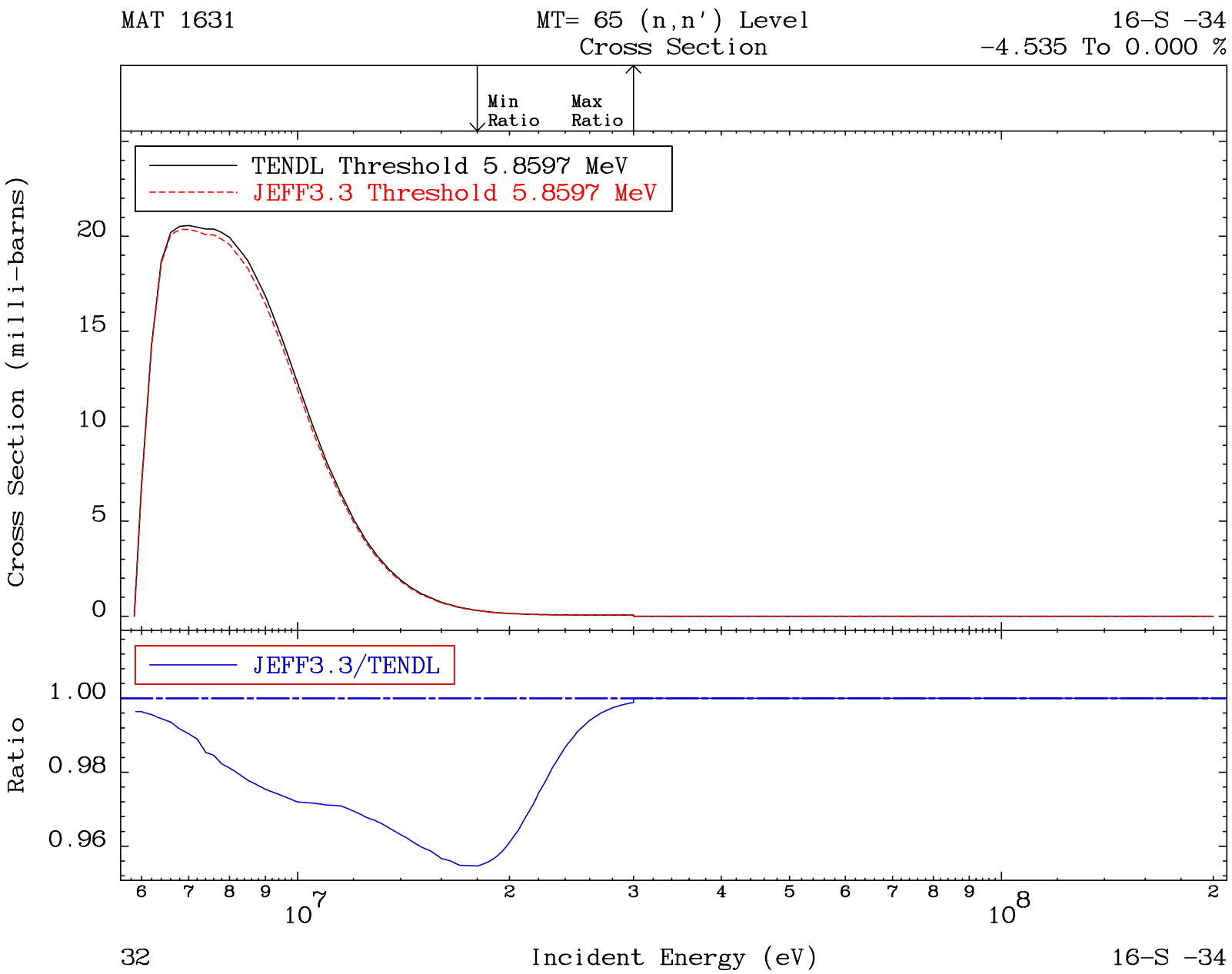

MAT 1631
Dpa elastic (mt2)
Cross Section
16-S -34
-97.19 To 2834. %
Max Ratio
Min Ratio
TENDL Threshold 218.75 eV
JENDL4.0 Threshold 218.75 eV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
27
16-S -34

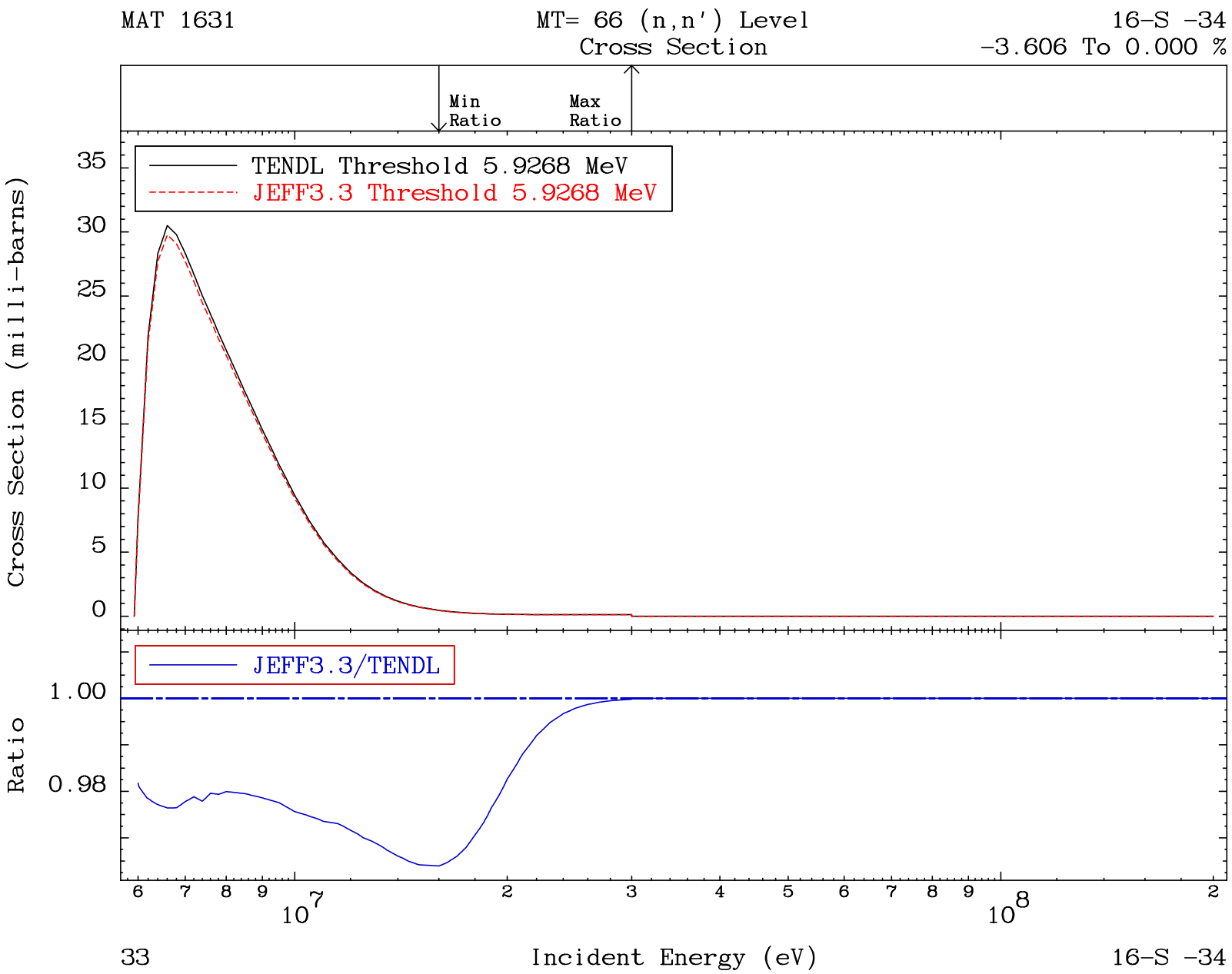

MAT 1631
Dpa inelastic (mt51-91)
Cross Section
16-S -34
-92.88 To 9999. %
Min
Ratio
TENDL Threshold 2.1907 MeV
JENDL4.0 Threshold 2.1902 MeV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
28
16-S -34

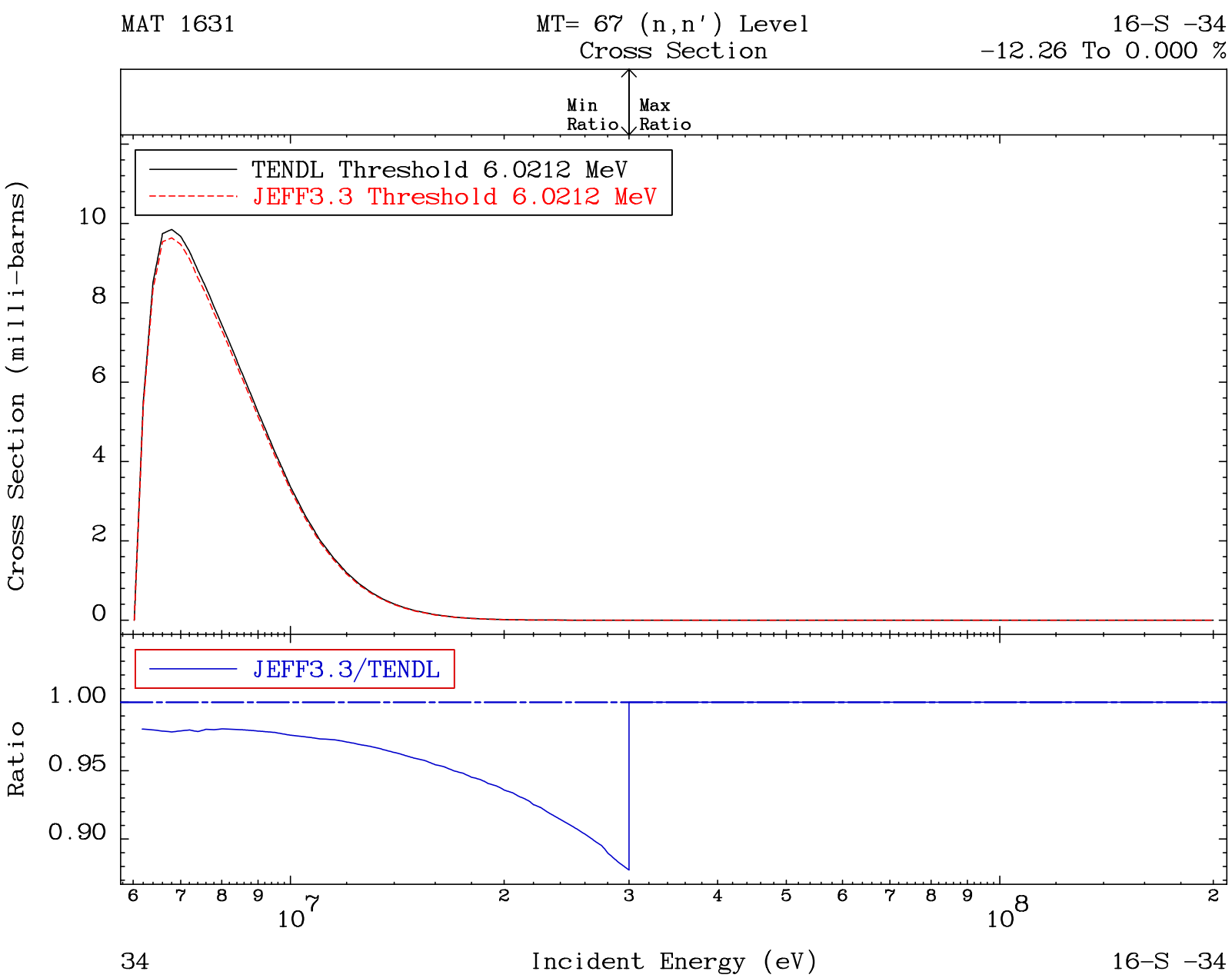

MAT 1631
Dpa disappearance (mt102 -120)
Cross Section
16-S -34
-99.99 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
29
16-S -34

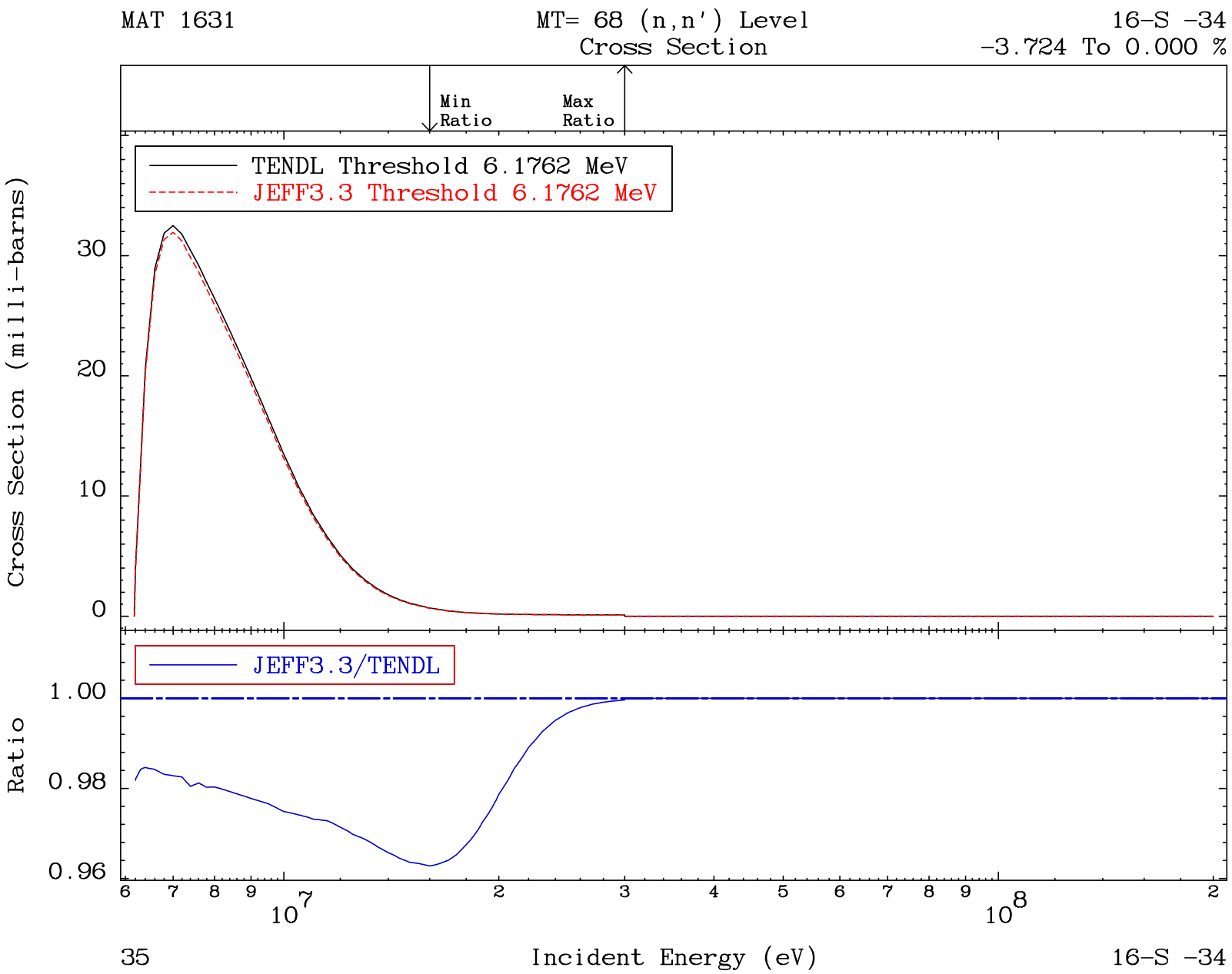

MAT 1631
MT= 63 (n,n') Level
Cross Section
16-S -34
-12.26 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.5408 MeV
JEFF3.3 Threshold 5.5408 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
30
Incident Energy (eV)
16-S -34

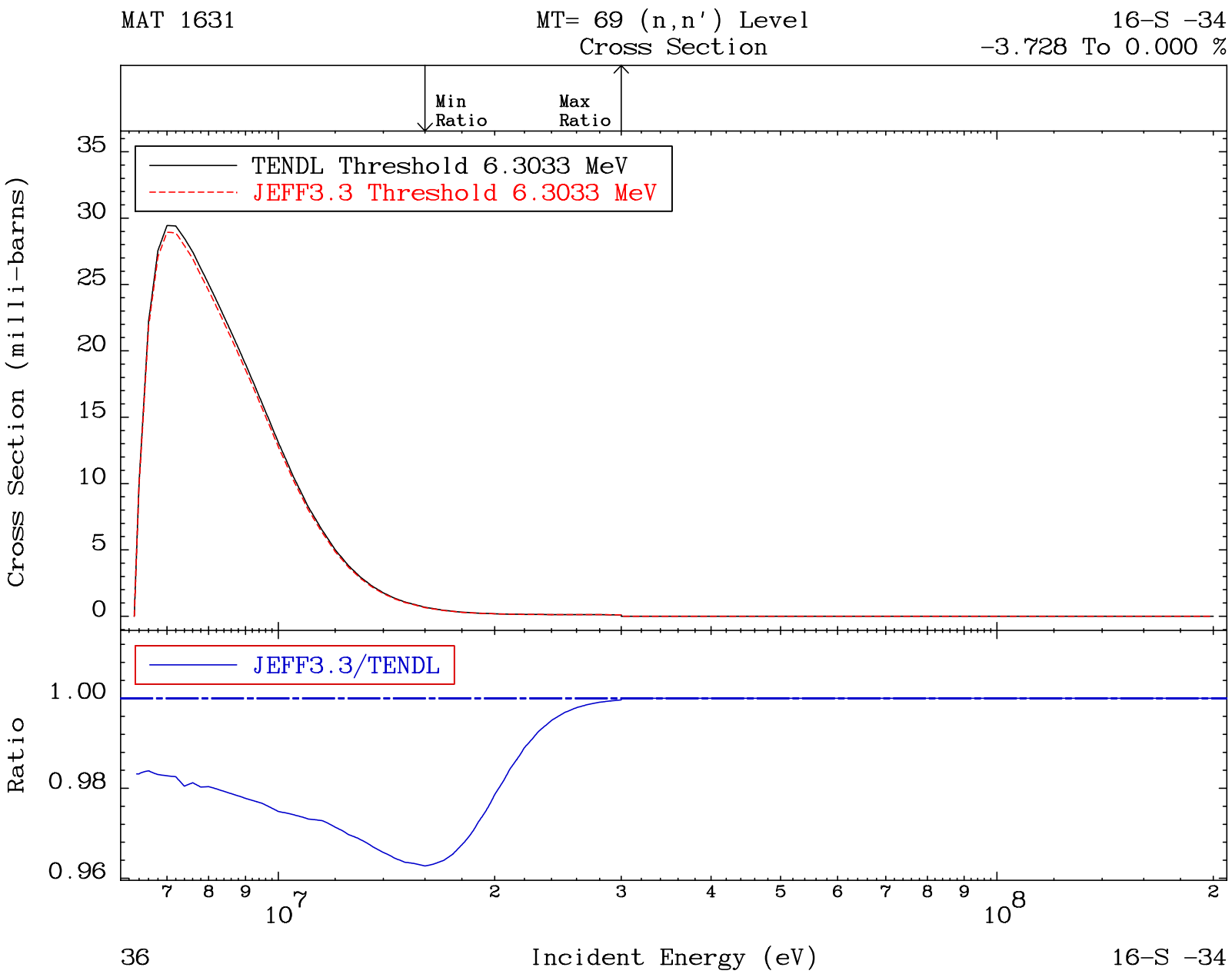

MAT 1631
MT= 64 (n,n') Level
Cross Section
16-S -34
-4.168 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.8486 MeV
JEFF3.3 Threshold 5.8486 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
16-S -34

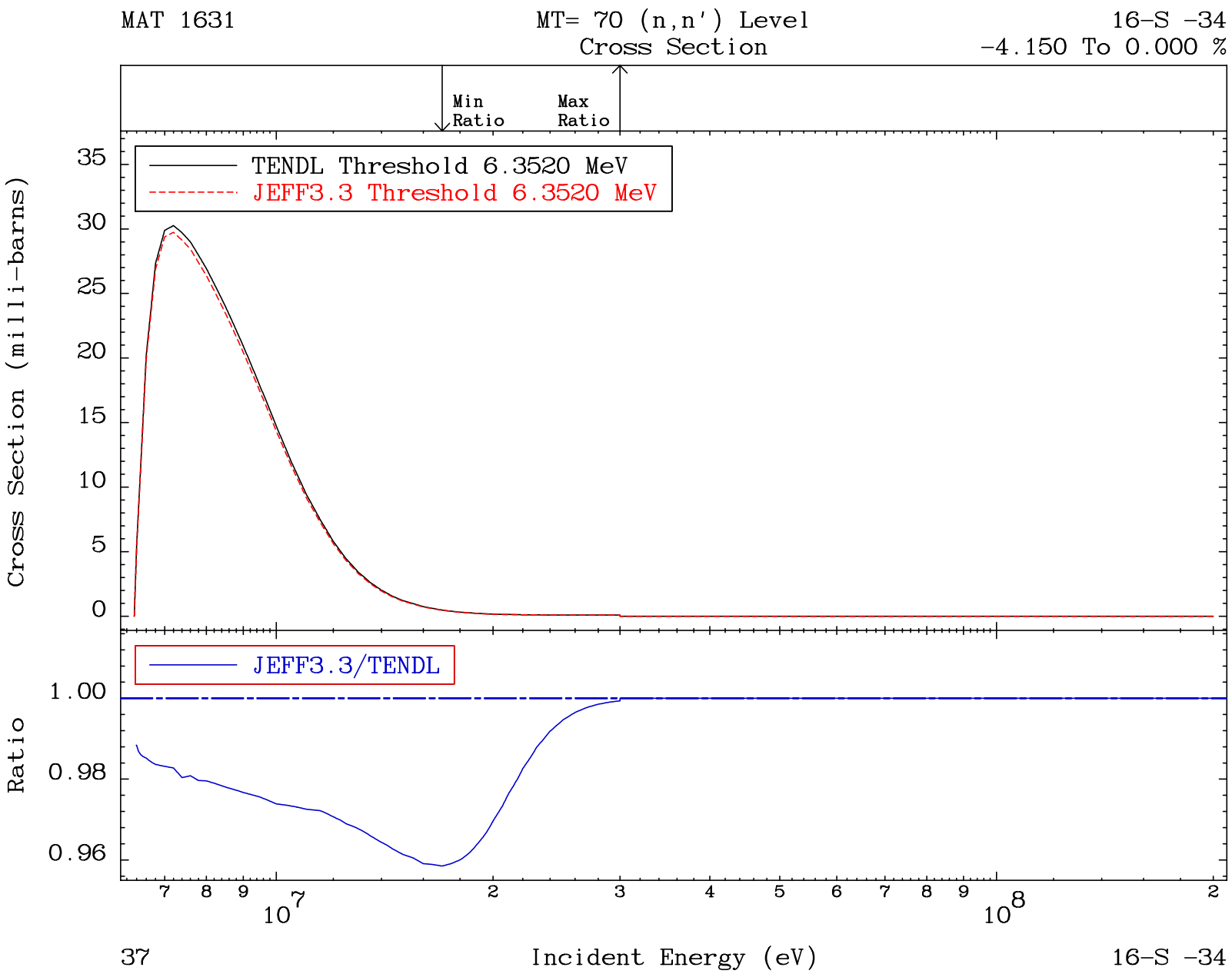

MAT 1631
MT= 65 (n,n') Level
Cross Section
16-S -34
-4.535 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.8597 MeV
JEFF3.3 Threshold 5.8597 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
32
Incident Energy (eV)
16-S -34

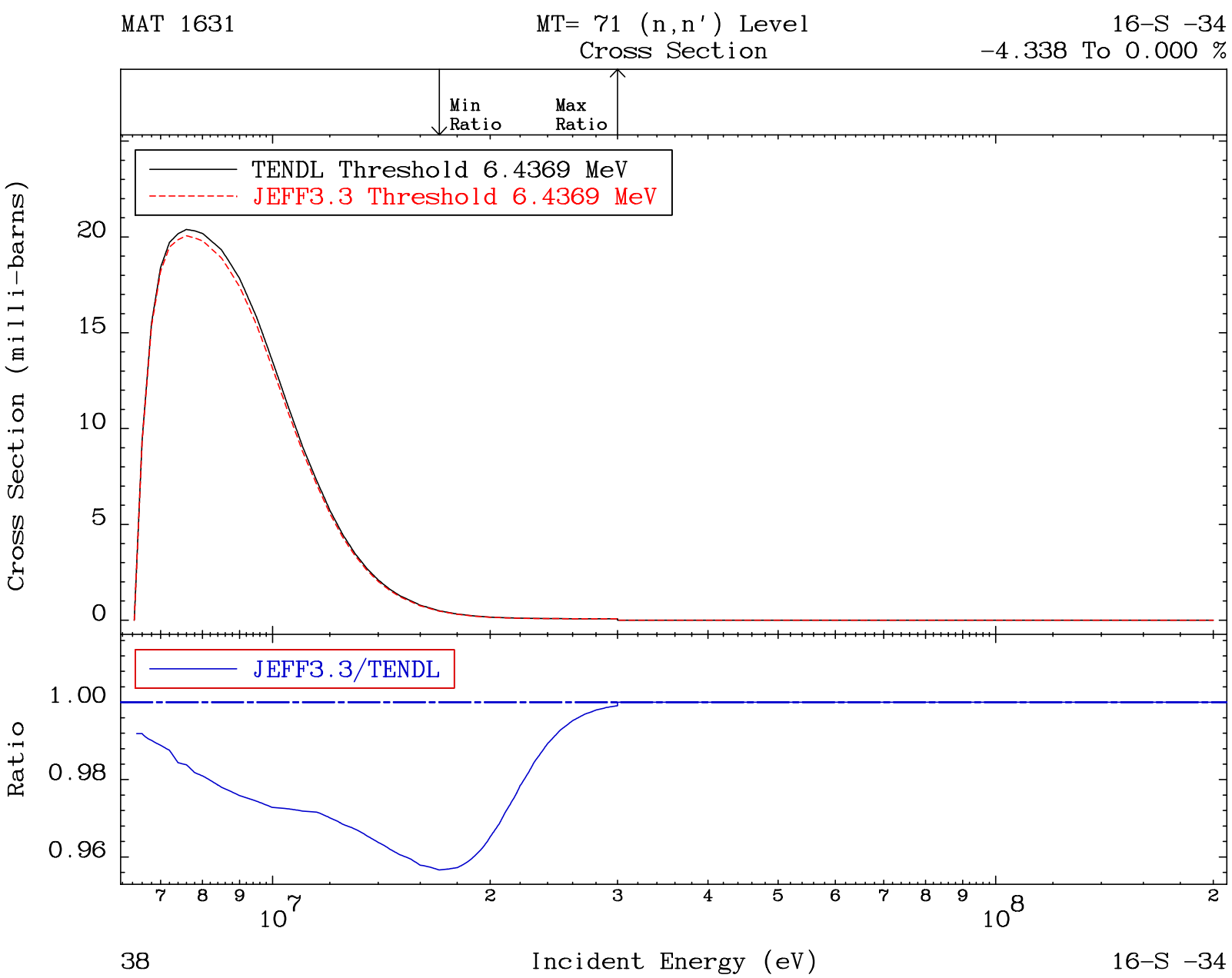

MAT 1631
MT= 66 (n,n') Level
Cross Section
16-S -34
-3.606 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.9268 MeV
JEFF3.3 Threshold 5.9268 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
33
Incident Energy (eV)
16-S -34

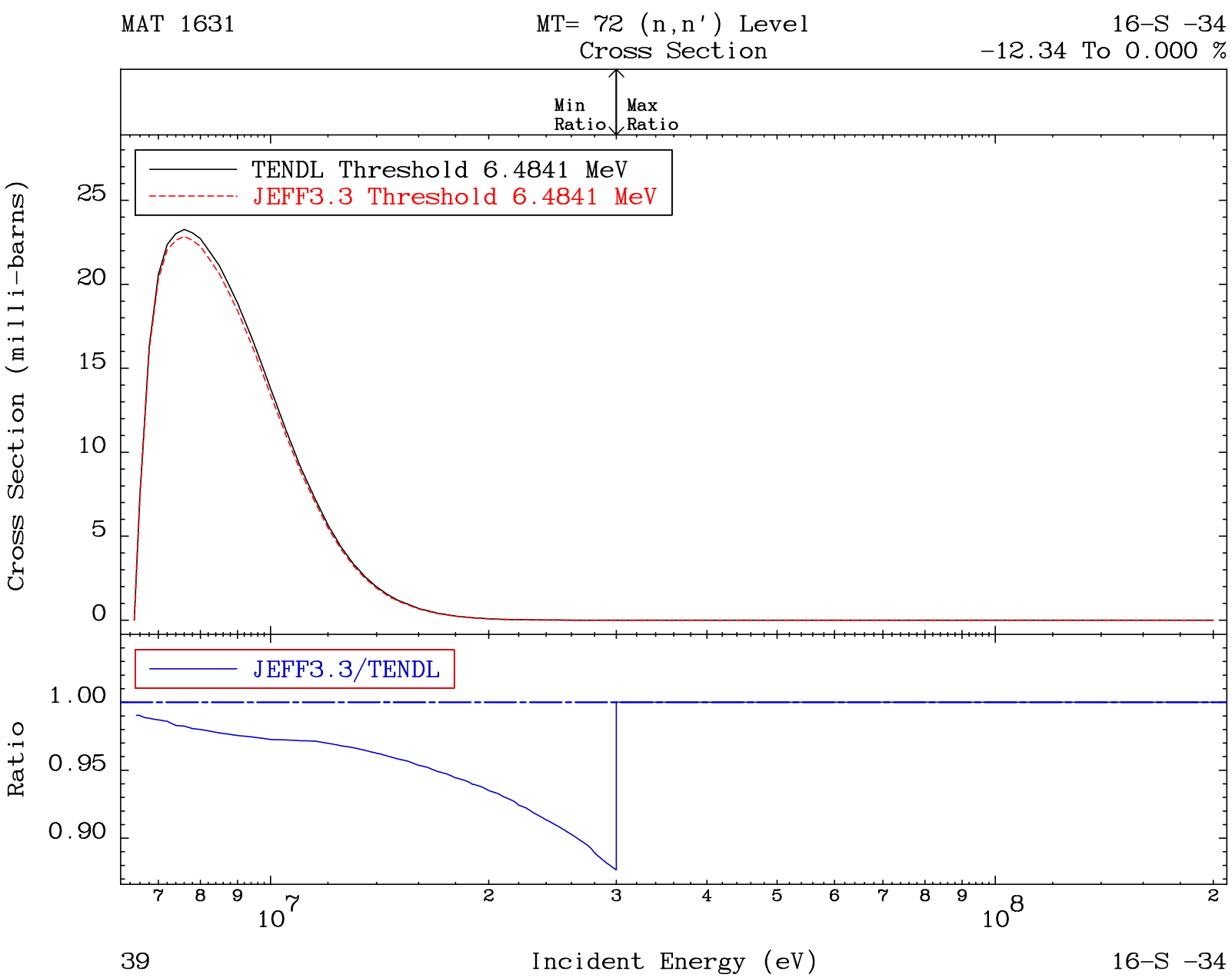

MAT 1631
MT= 67 (n,n') Level
Cross Section
16-S -34
-12.26 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.0212 MeV
JEFF3.3 Threshold 6.0212 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
34
Incident Energy (eV)
16-S -34

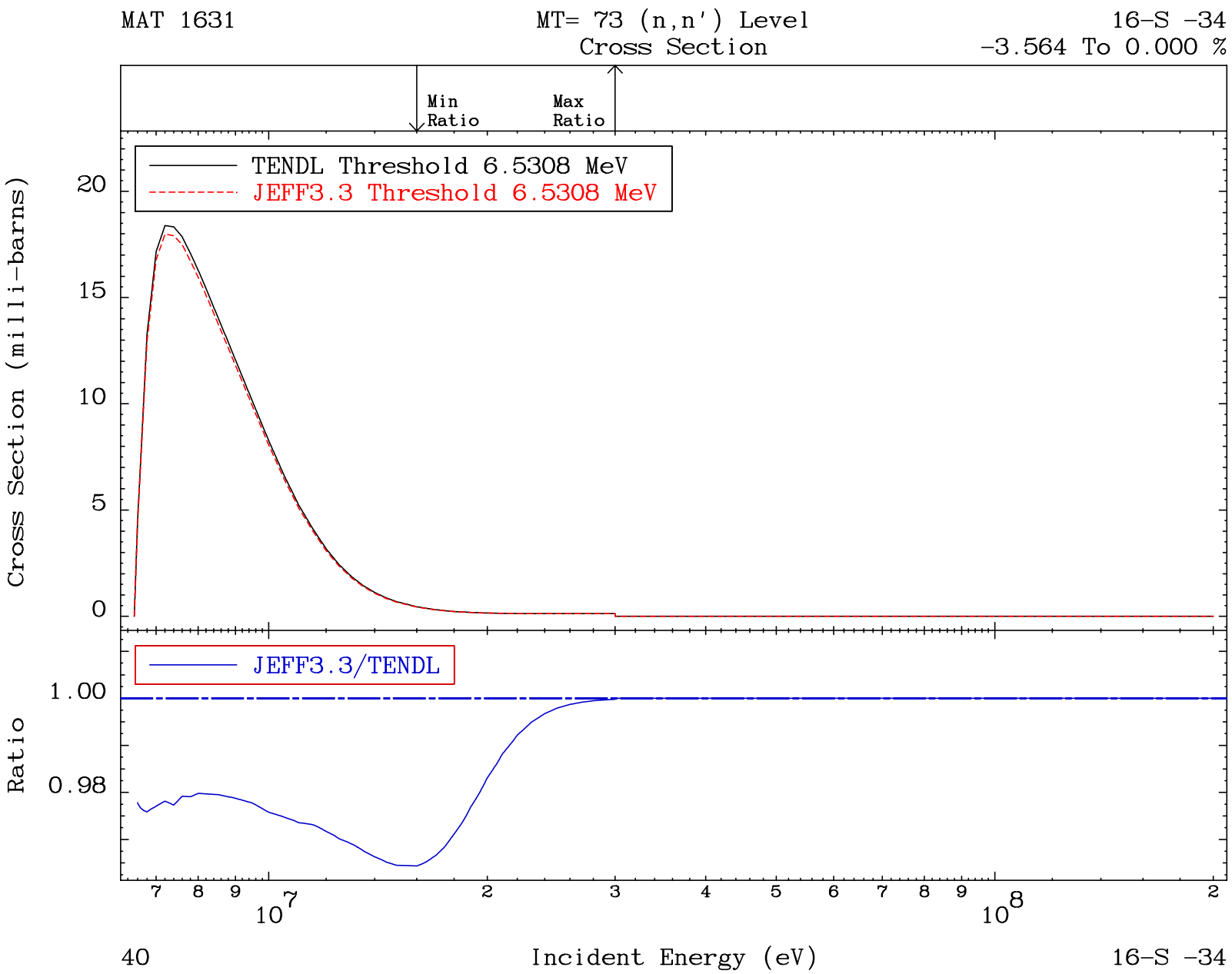

MAT 1631
MT= 68 (n,n') Level
Cross Section
16-S -34
-3.724 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.1762 MeV
JEFF3.3 Threshold 6.1762 MeV
Cross Section (milli-barns)
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
35
Incident Energy (eV)
16-S -34

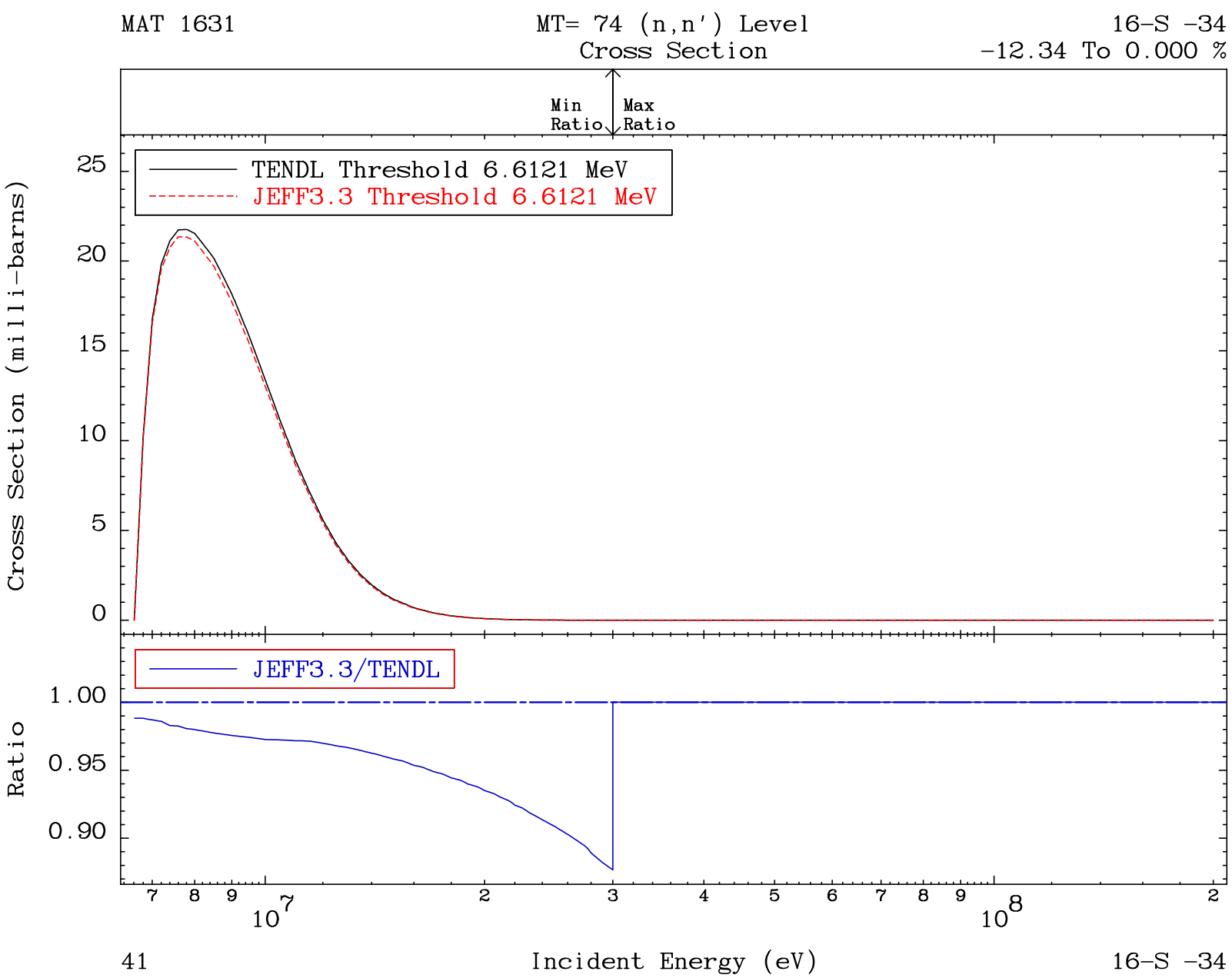

MAT 1631
MT= 69 (n,n') Level
Cross Section
16-S -34
-3.728 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.3033 MeV
JEFF3.3 Threshold 6.3033 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
36
Incident Energy (eV)
16-S -34

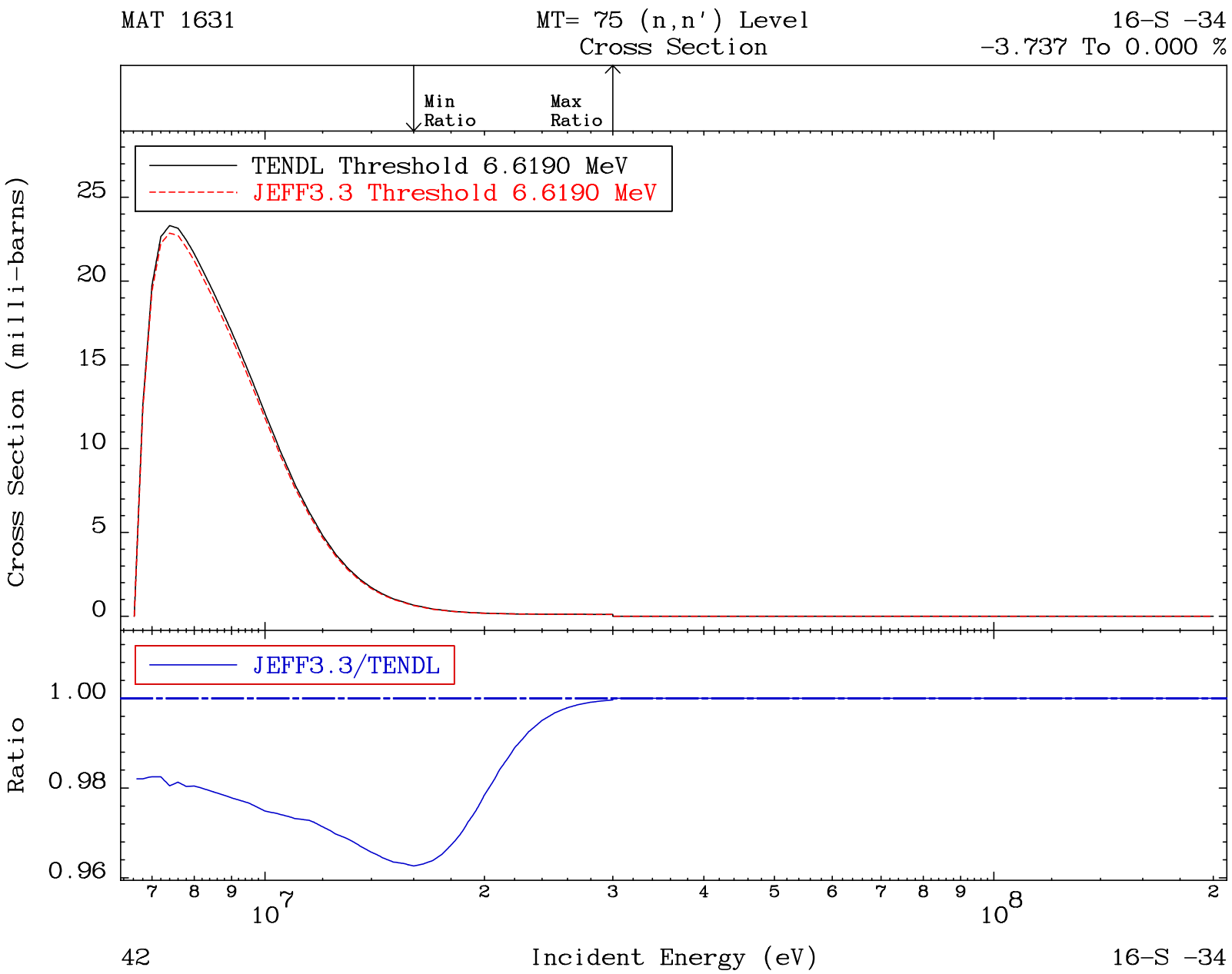

MAT 1631
MT= 70 (n,n') Level
Cross Section
16-S -34
-4.150 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.3520 MeV
JEFF3.3 Threshold 6.3520 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
16-S -34

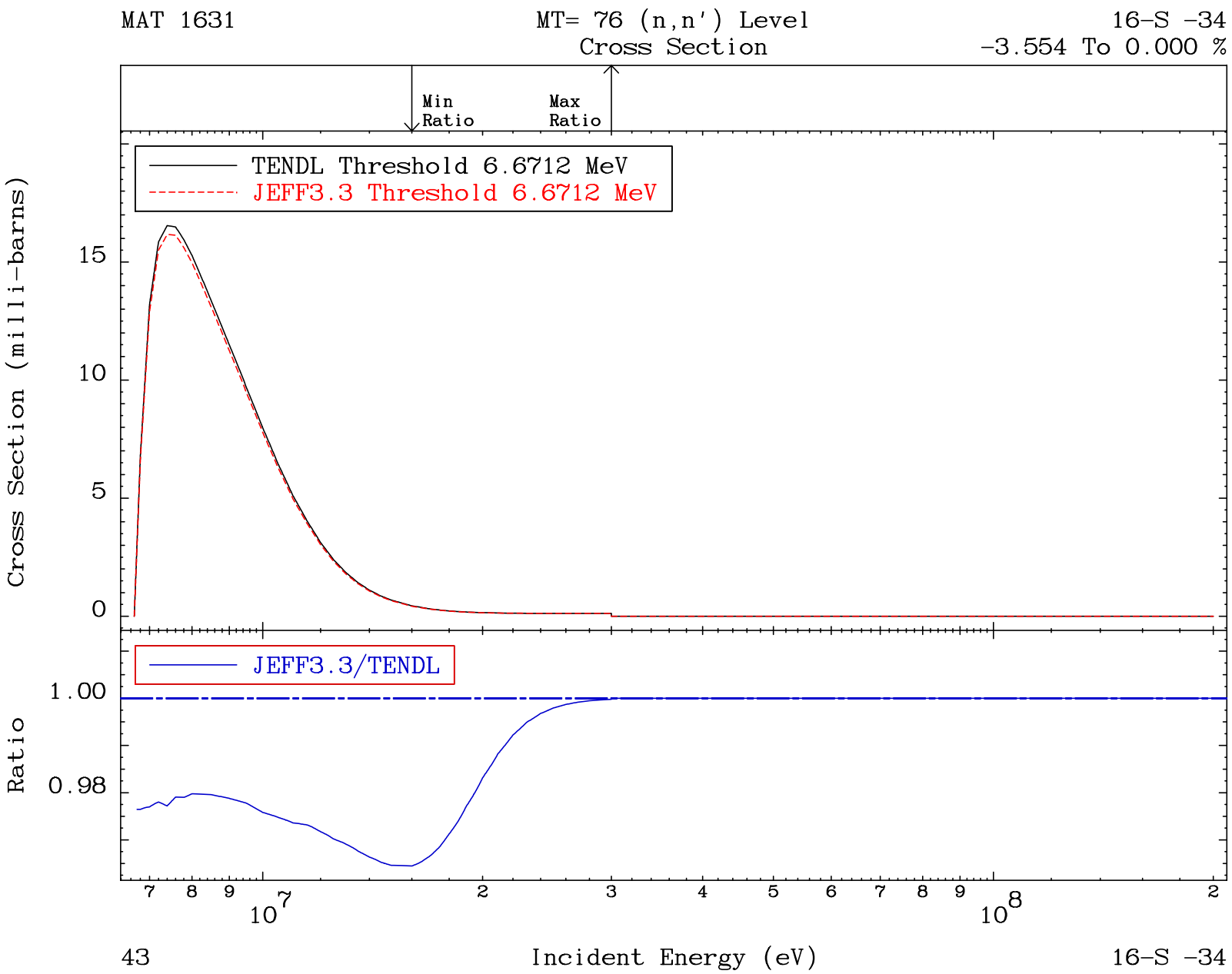

MAT 1631
MT= 71 (n,n') Level
Cross Section
16-S -34
-4.338 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.4369 MeV
JEFF3.3 Threshold 6.4369 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
38
Incident Energy (eV)
16-S -34

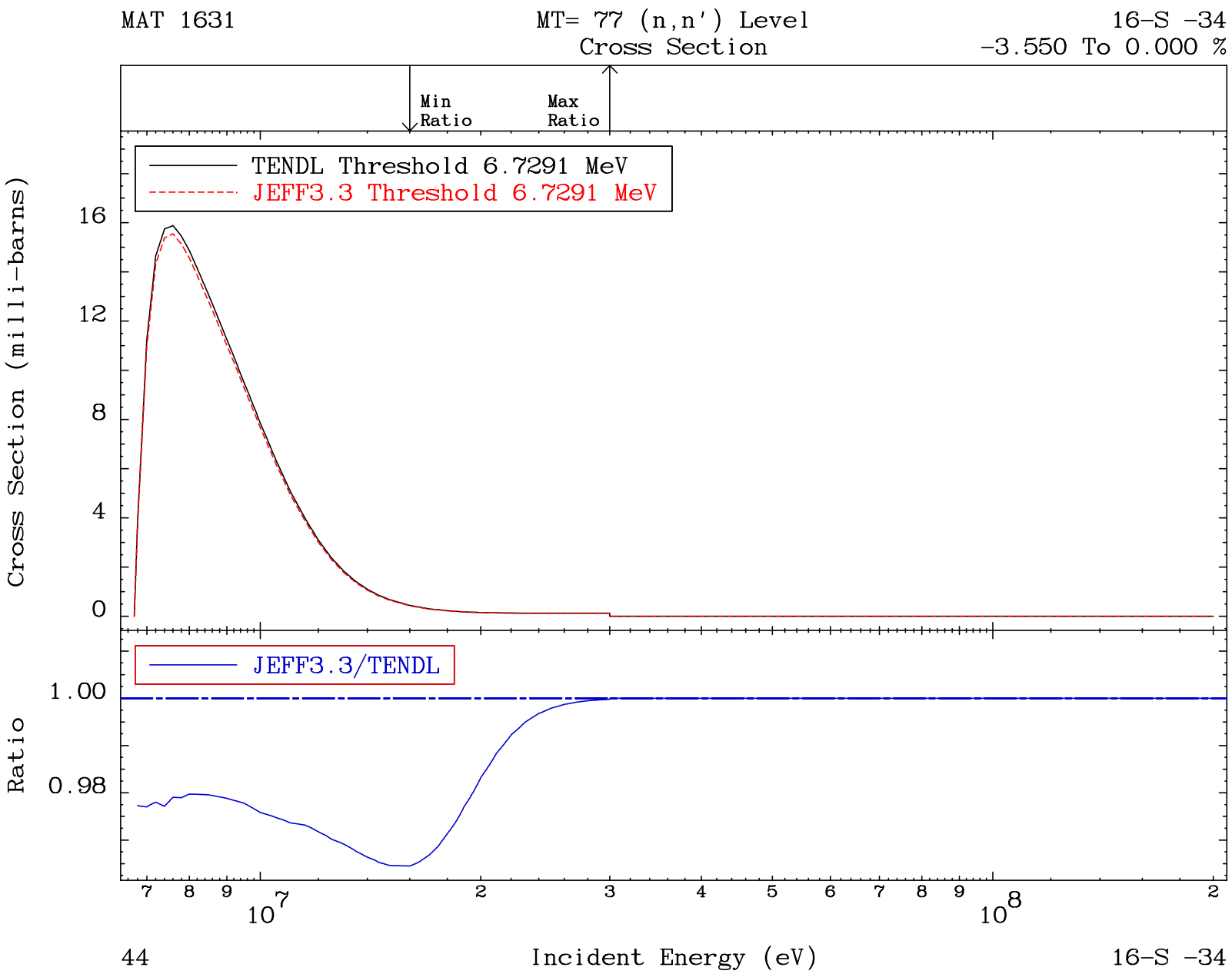

MAT 1631
MT= 72 (n,n') Level
Cross Section
16-S -34
-12.34 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.4841 MeV
JEFF3.3 Threshold 6.4841 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
39
Incident Energy (eV)
16-S -34

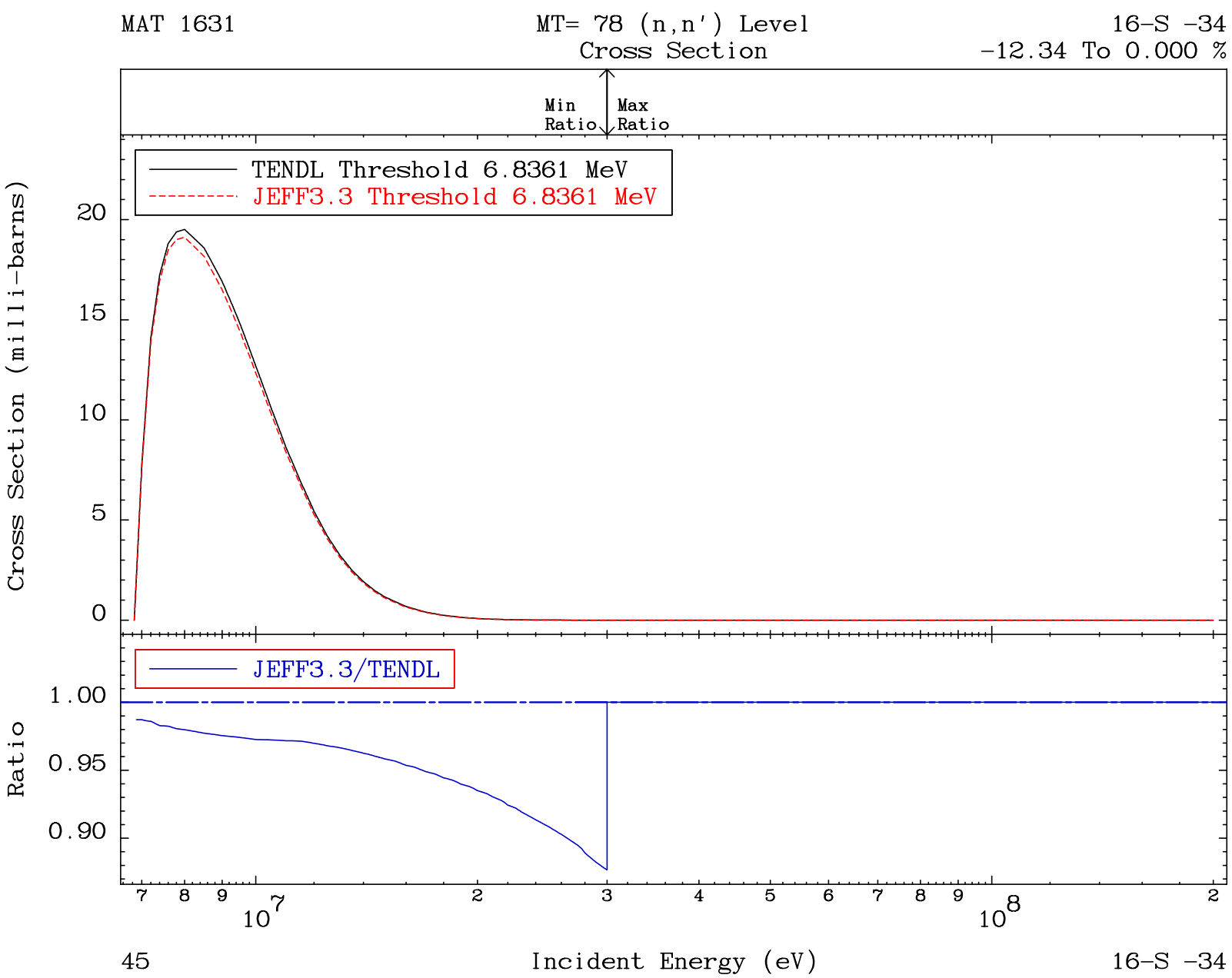

MAT 1631
MT= 73 (n,n') Level
Cross Section
16-S -34
-3.564 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.5308 MeV
JEFF3.3 Threshold 6.5308 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
40
Incident Energy (eV)
16-S -34

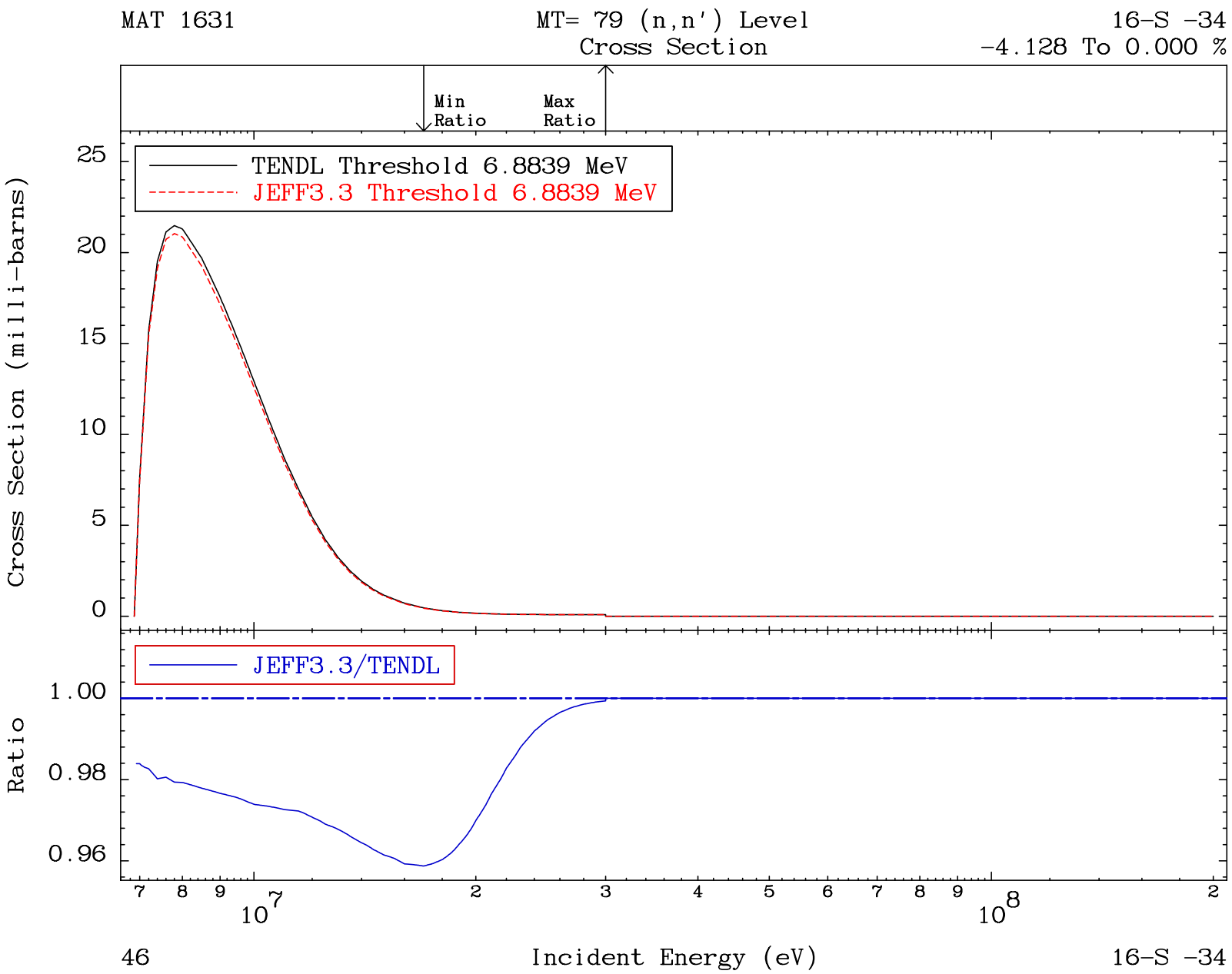

MAT 1631
MT= 74 (n,n') Level
Cross Section
16-S -34
-12.34 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.6121 MeV
JEFF3.3 Threshold 6.6121 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
16-S -34

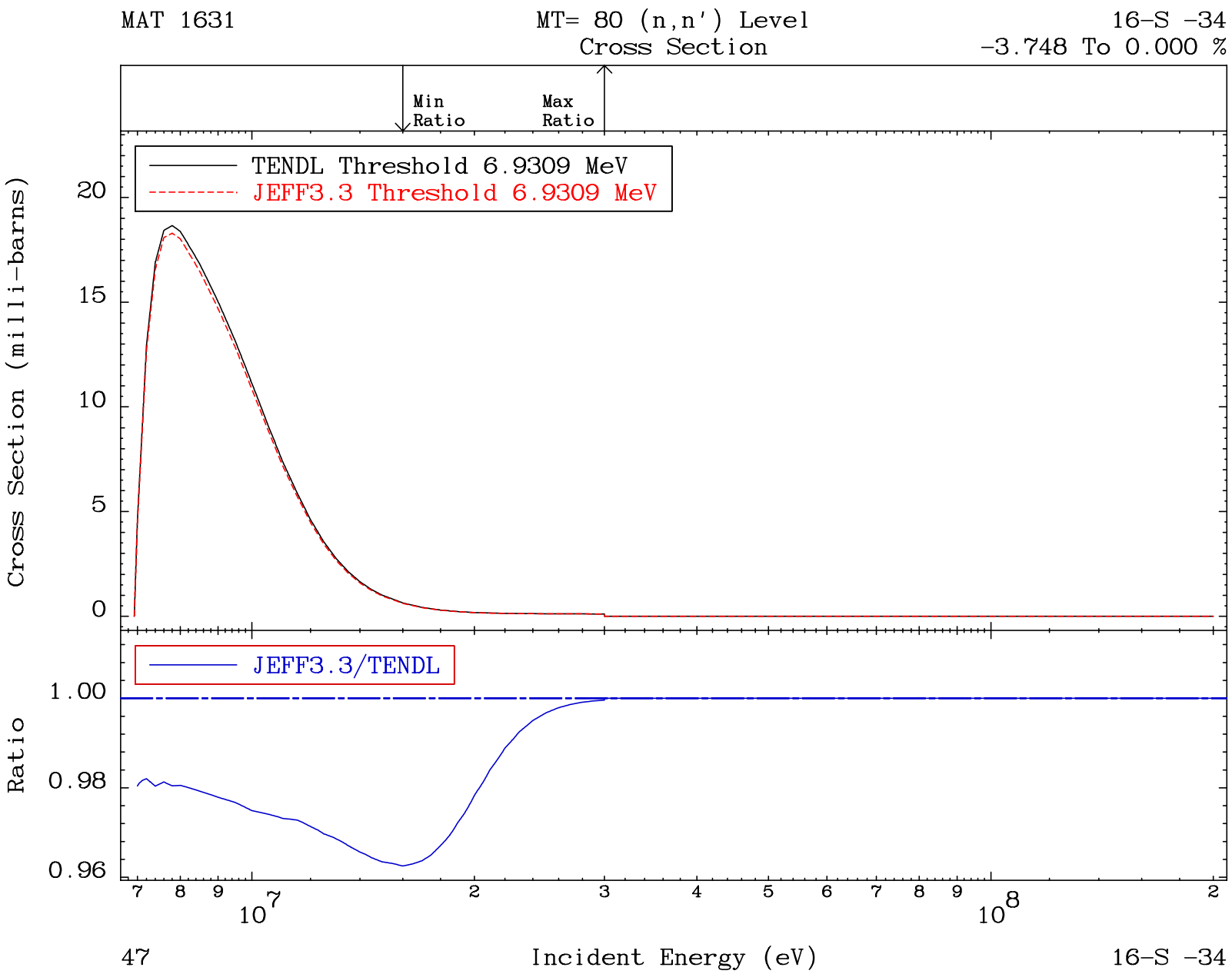

MAT 1631
MT= 75 (n,n') Level
Cross Section
16-S -34
-3.737 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.6190 MeV
JEFF3.3 Threshold 6.6190 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
42
Incident Energy (eV)
16-S -34

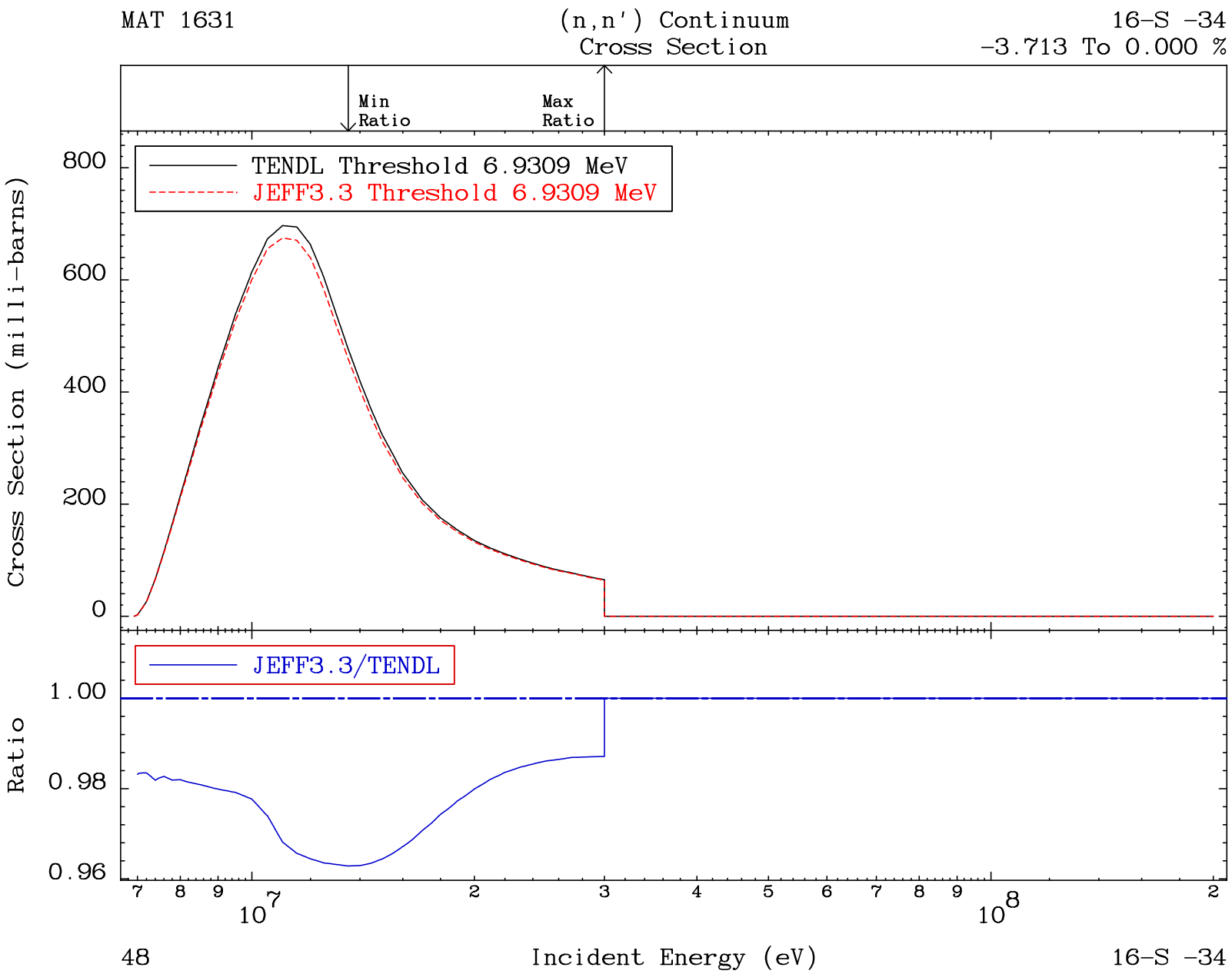

MAT 1631
MT= 76 (n,n') Level
Cross Section
16-S -34
-3.554 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.6712 MeV
JEFF3.3 Threshold 6.6712 MeV
Cross Section (milli-barns)
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
43
Incident Energy (eV)
16-S -34

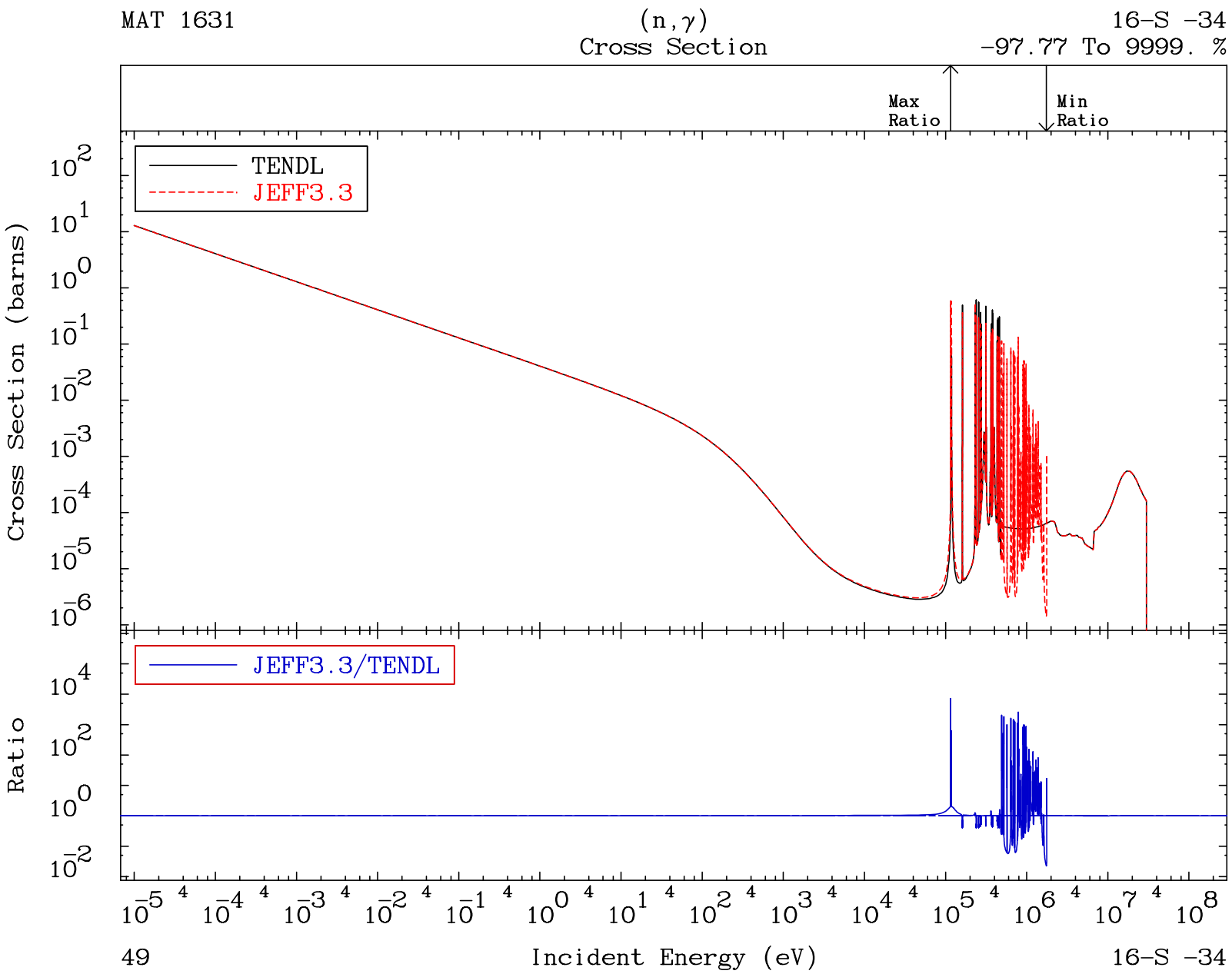

MAT 1631
MT= 77 (n,n') Level
Cross Section
16-S -34
-3.550 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.7291 MeV
JEFF3.3 Threshold 6.7291 MeV
Cross Section (milli-barns)
16
12
8
4
0
JEFF3.3/TENDL
Ratio
1.00
0.98
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
16-S -34

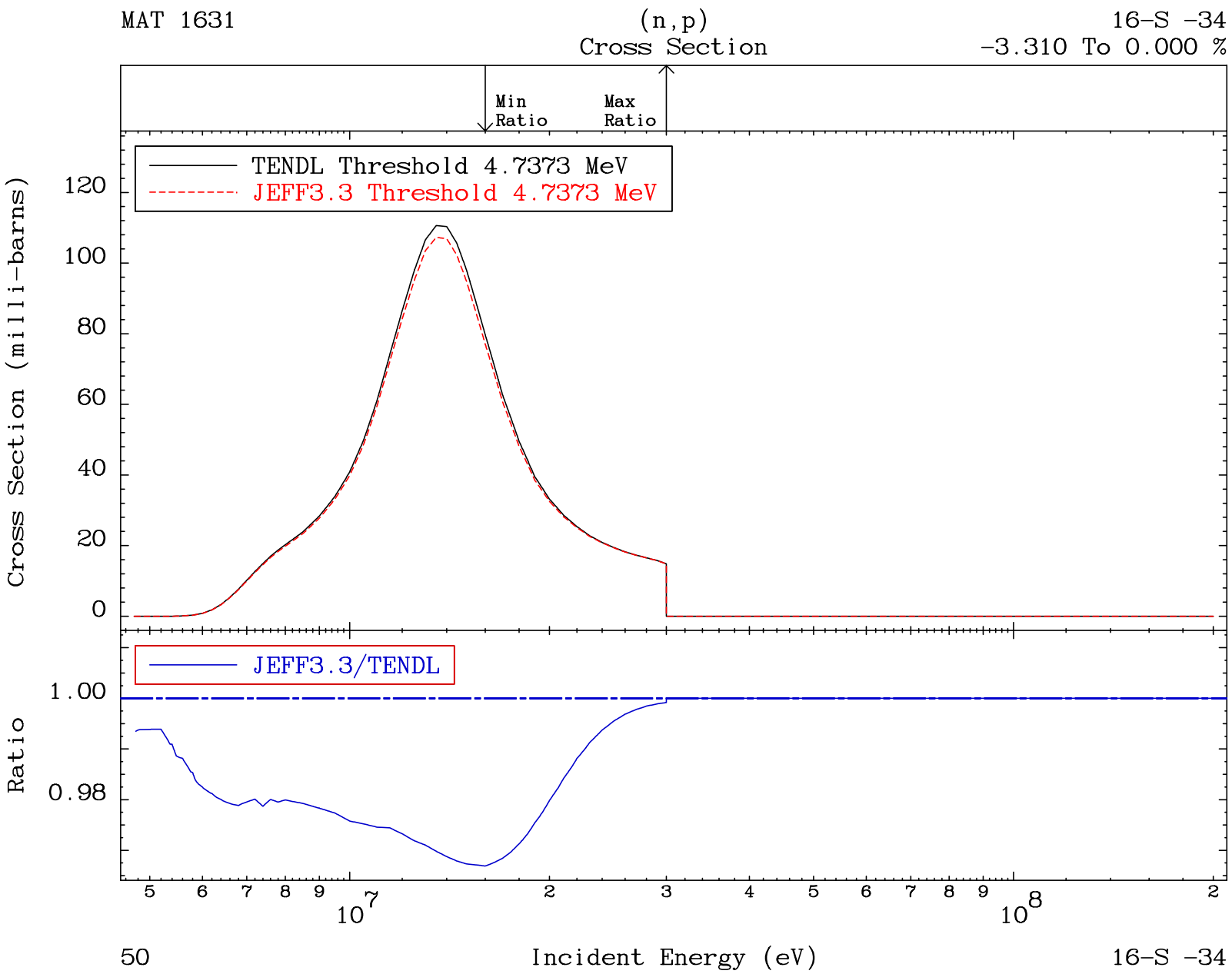

MAT 1631
MT= 78 (n,n') Level
Cross Section
16-S -34
-12.34 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.8361 MeV
JEFF3.3 Threshold 6.8361 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
45
Incident Energy (eV)
16-S -34

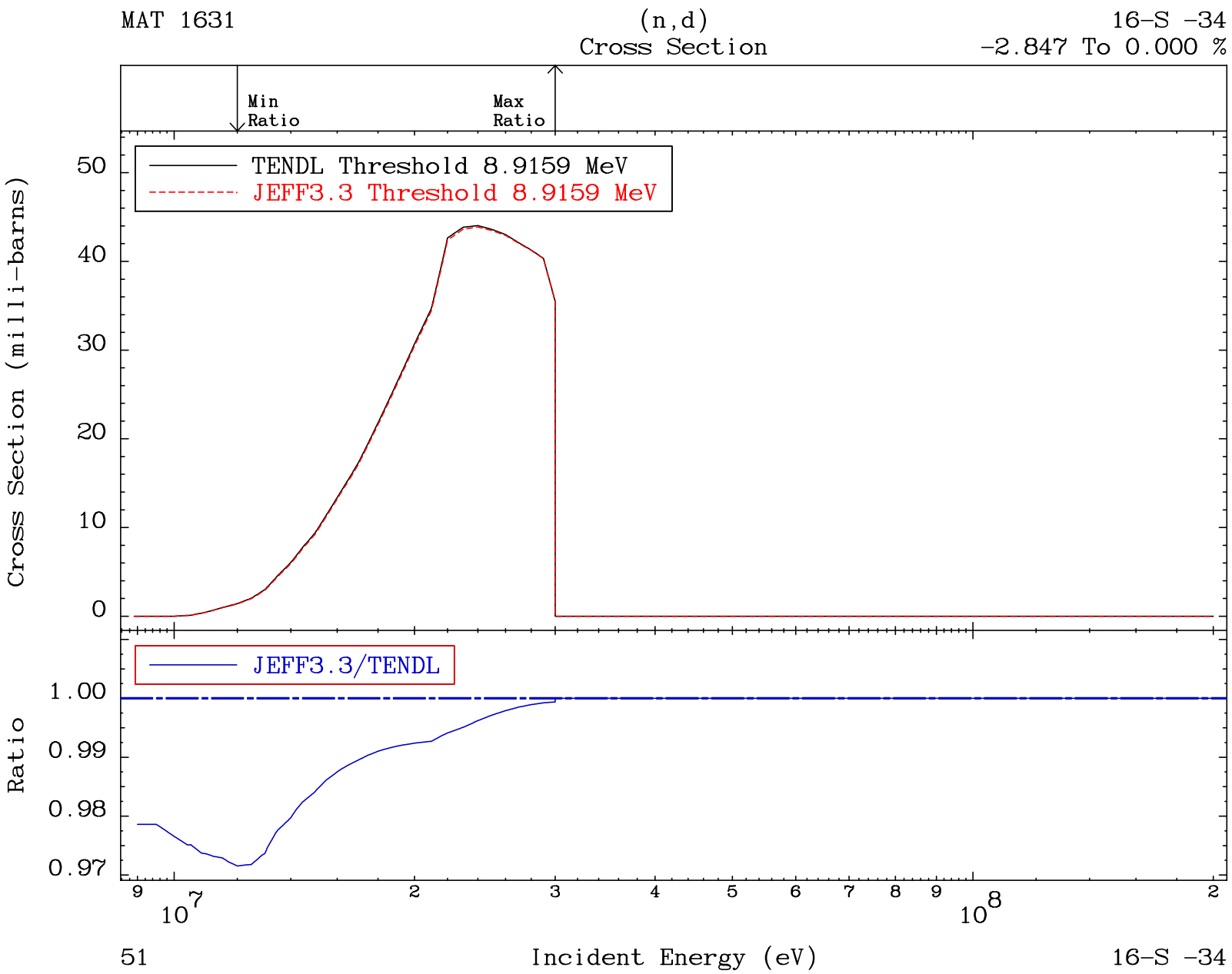

MAT 1631
MT= 79 (n,n') Level
Cross Section
16-S -34
-4.128 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.8839 MeV
JEFF3.3 Threshold 6.8839 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
16-S -34

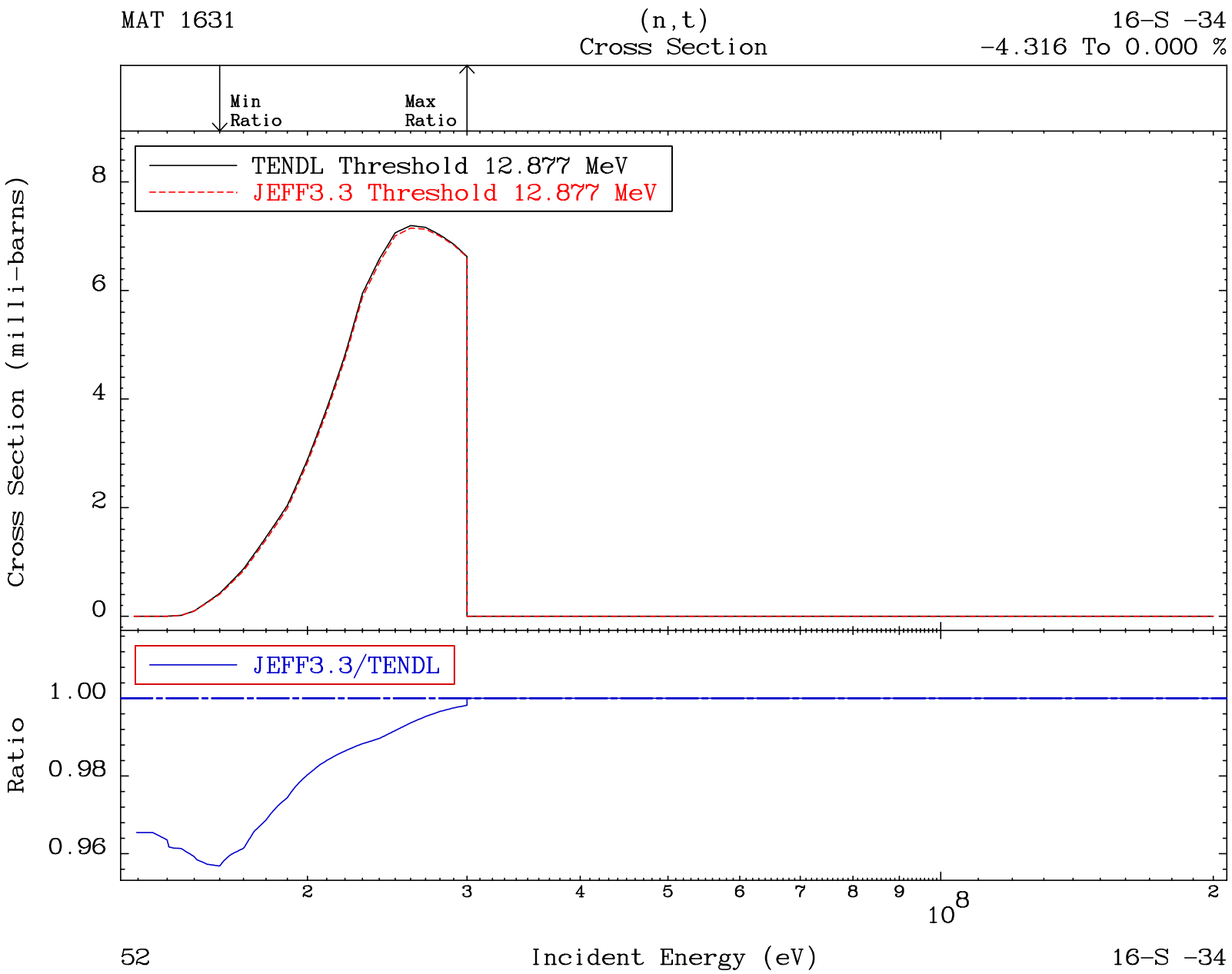

MAT 1631
MT= 80 (n,n') Level
Cross Section
16-S -34
-3.748 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 6.9309 MeV
JEFF3.3 Threshold 6.9309 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
16-S -34

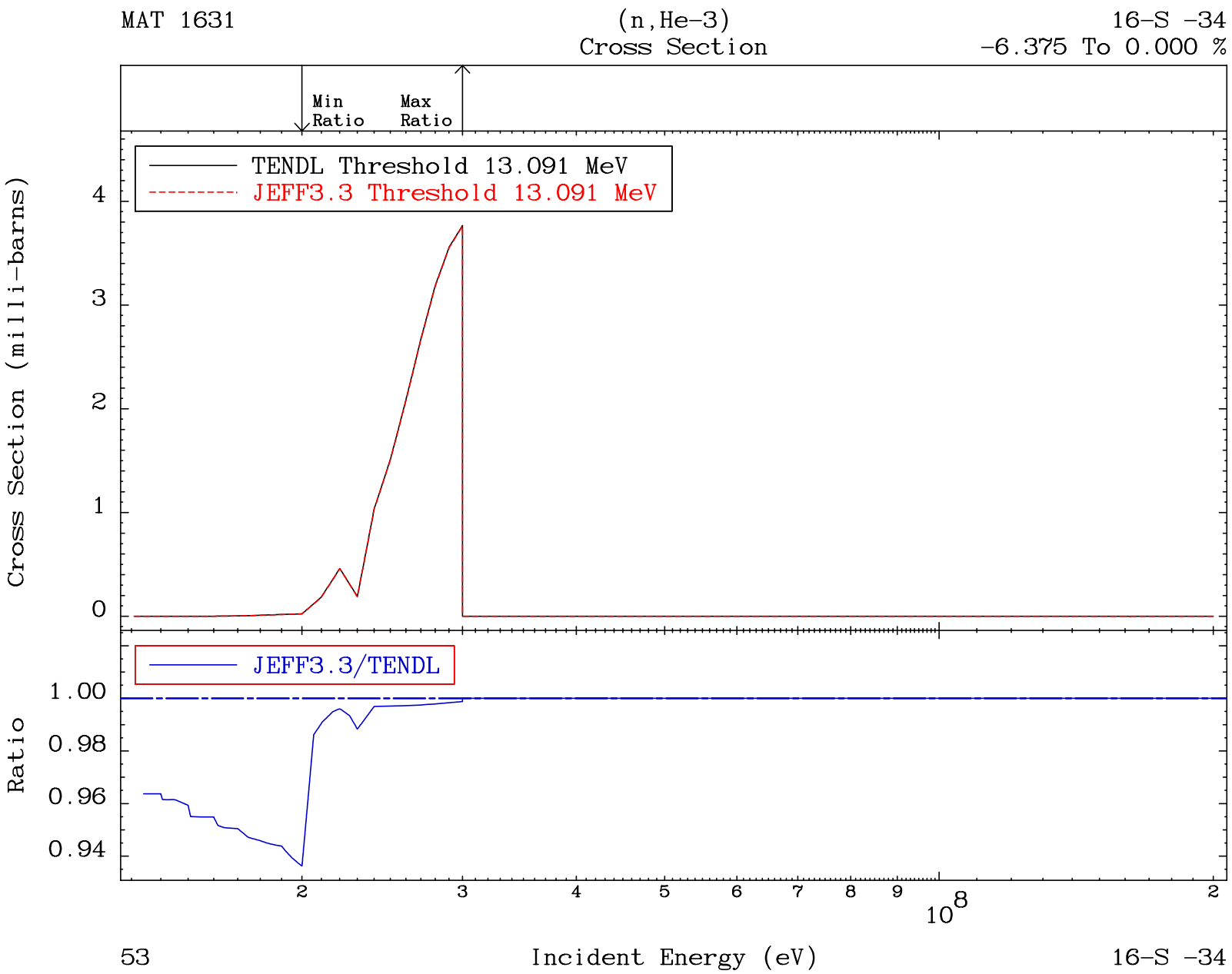

MAT 1631
(n,n') Continuum
Cross Section
16-S -34
-3.713 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 6.9309 MeV
JEFF3.3 Threshold 6.9309 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
48
Incident Energy (eV)
16-S -34

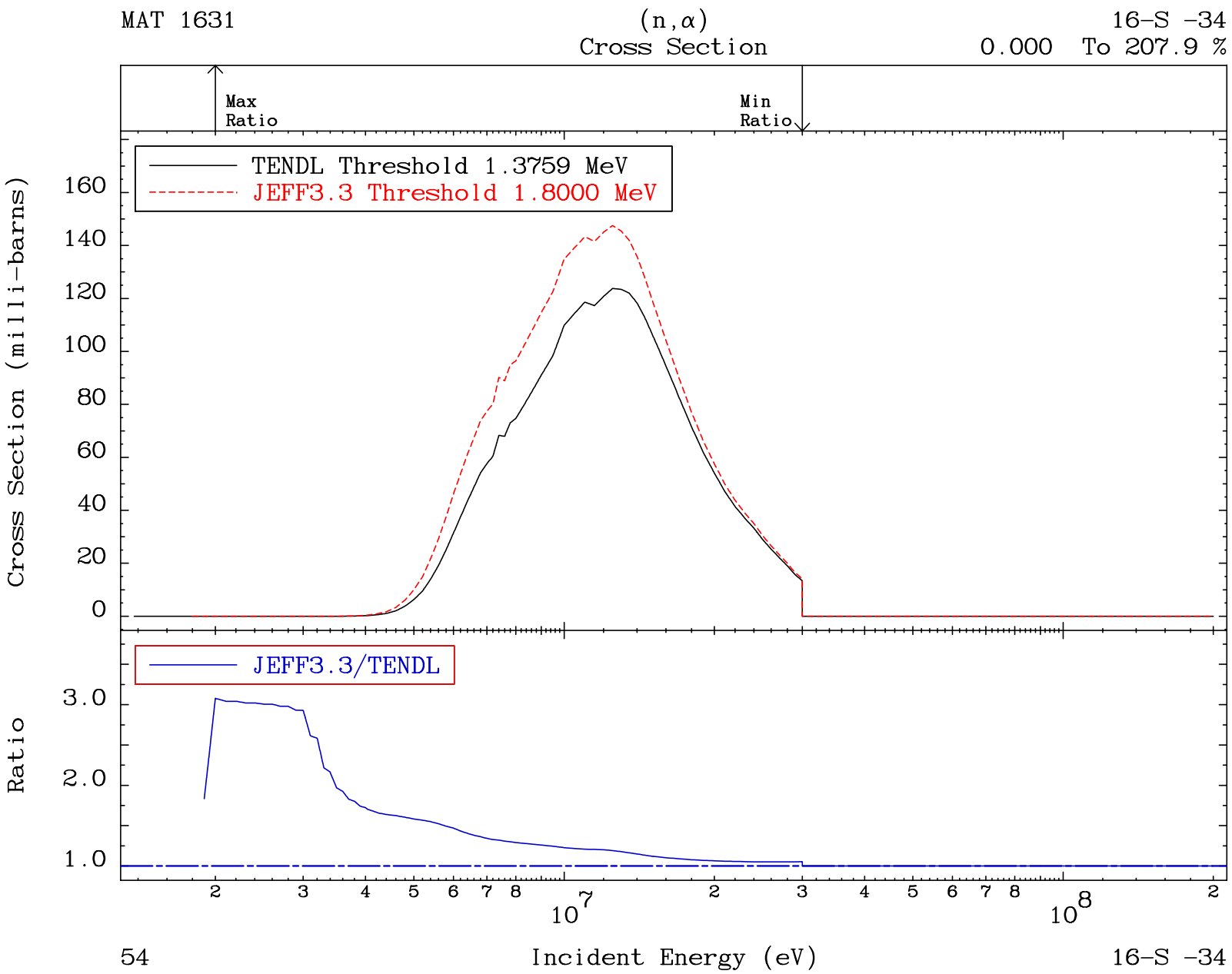

MAT 1631
(n,γ)
Cross Section
16-S -34
-97.77 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
49
16-S -34

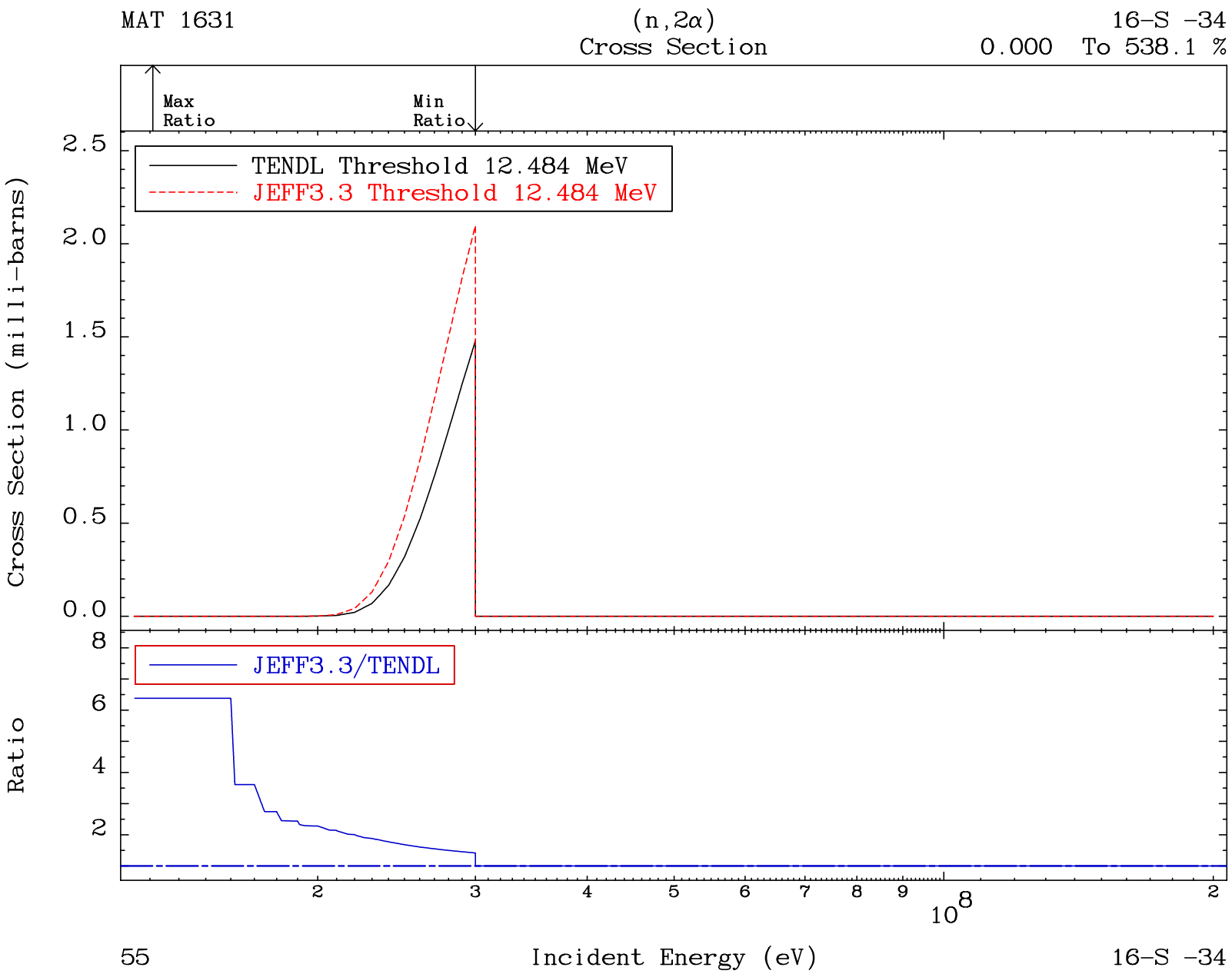

MAT 1631
(n,p)
Cross Section
16-S -34
-3.310 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 4.7373 MeV
JEFF3.3 Threshold 4.7373 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.98
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
50
Incident Energy (eV)
16-S -34

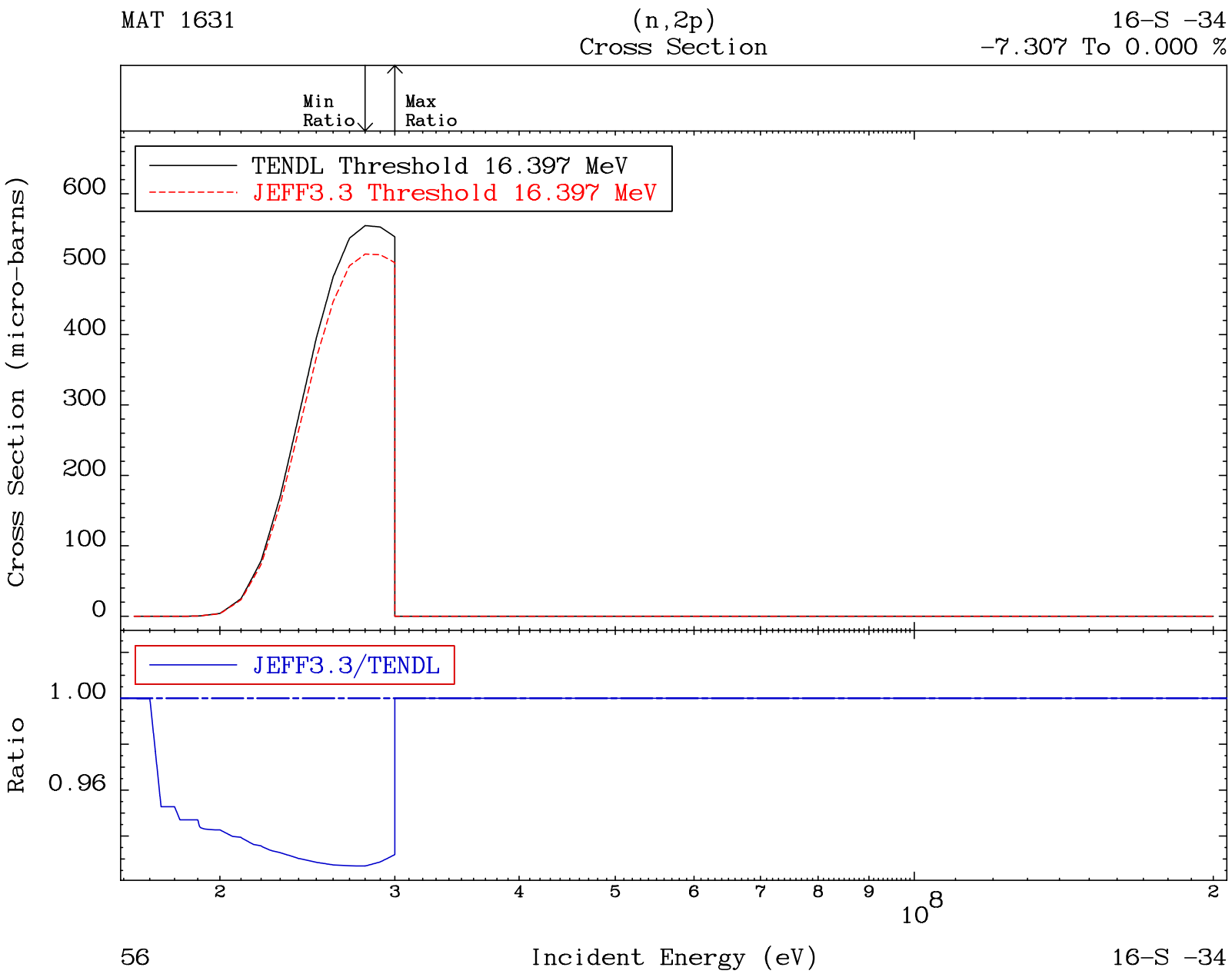

MAT 1631
(n,d)
Cross Section
16-S -34
-2.847 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 8.9159 MeV
JEFF3.3 Threshold 8.9159 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
0.97
9
10^7
2
3
4
5
6
7
8
9
10^8
2
51
Incident Energy (eV)
16-S -34

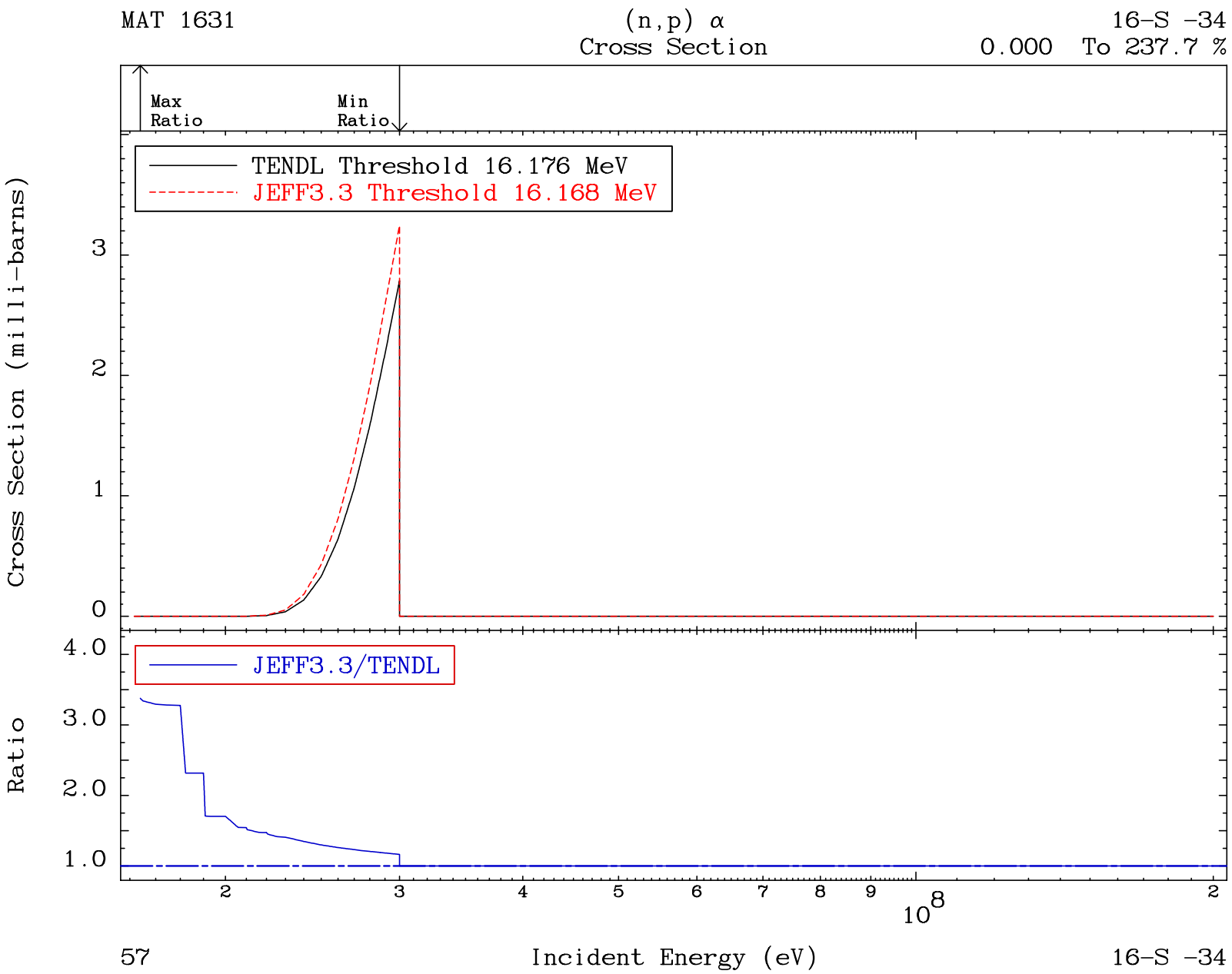

MAT 1631
(n,t)
Cross Section
16-S -34
-4.316 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 12.877 MeV
JEFF3.3 Threshold 12.877 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
0.96
0.98
1.00
2
3
4
5
6
7
8
9
10^8
2
52
Incident Energy (eV)
16-S -34

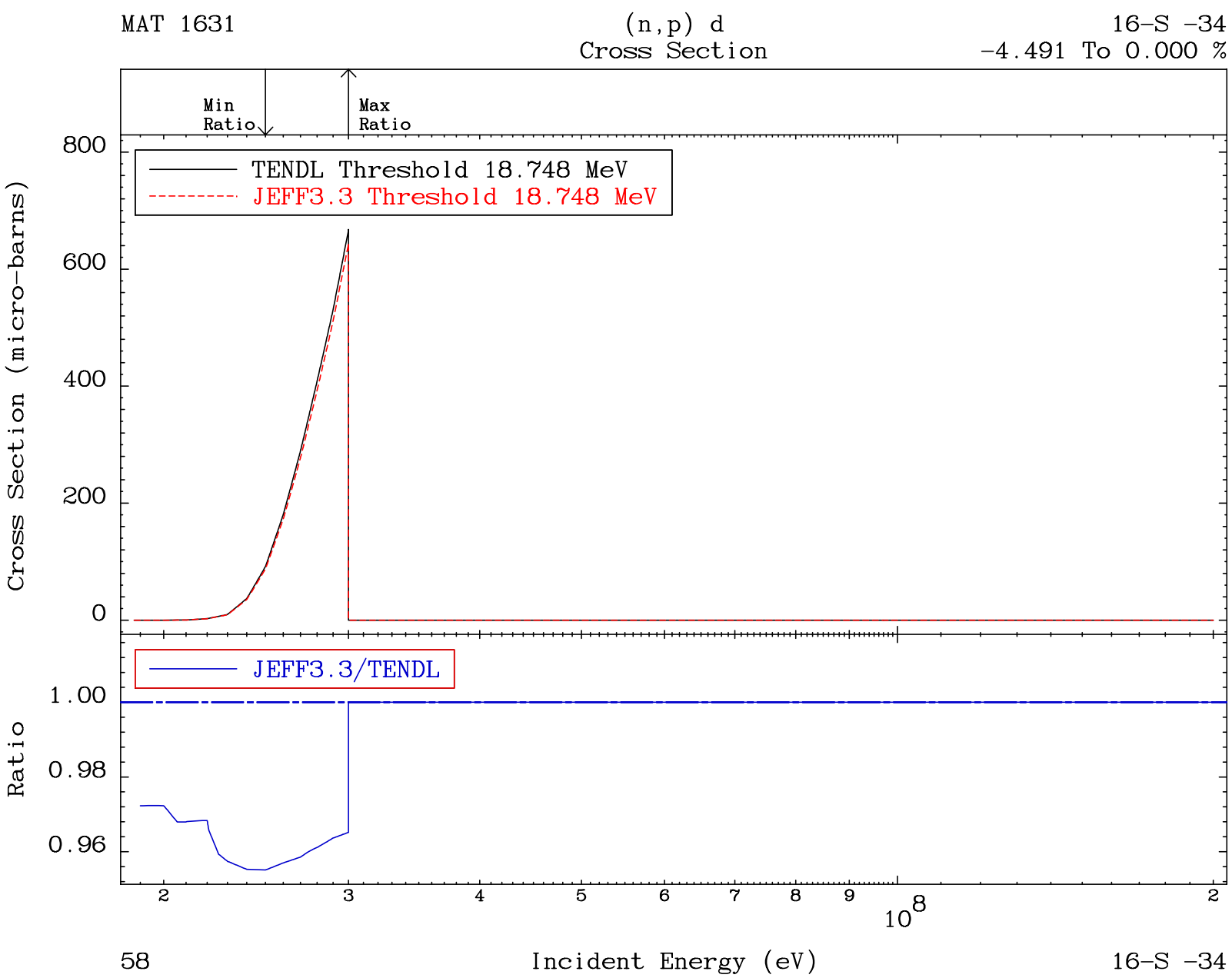

MAT 1631
(n,He-3)
Cross Section
16-S -34
-6.375 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 13.091 MeV
JEFF3.3 Threshold 13.091 MeV
Cross Section (milli-barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2
3
4
5
6
7
8
9
10^8
2
53
Incident Energy (eV)
16-S -34

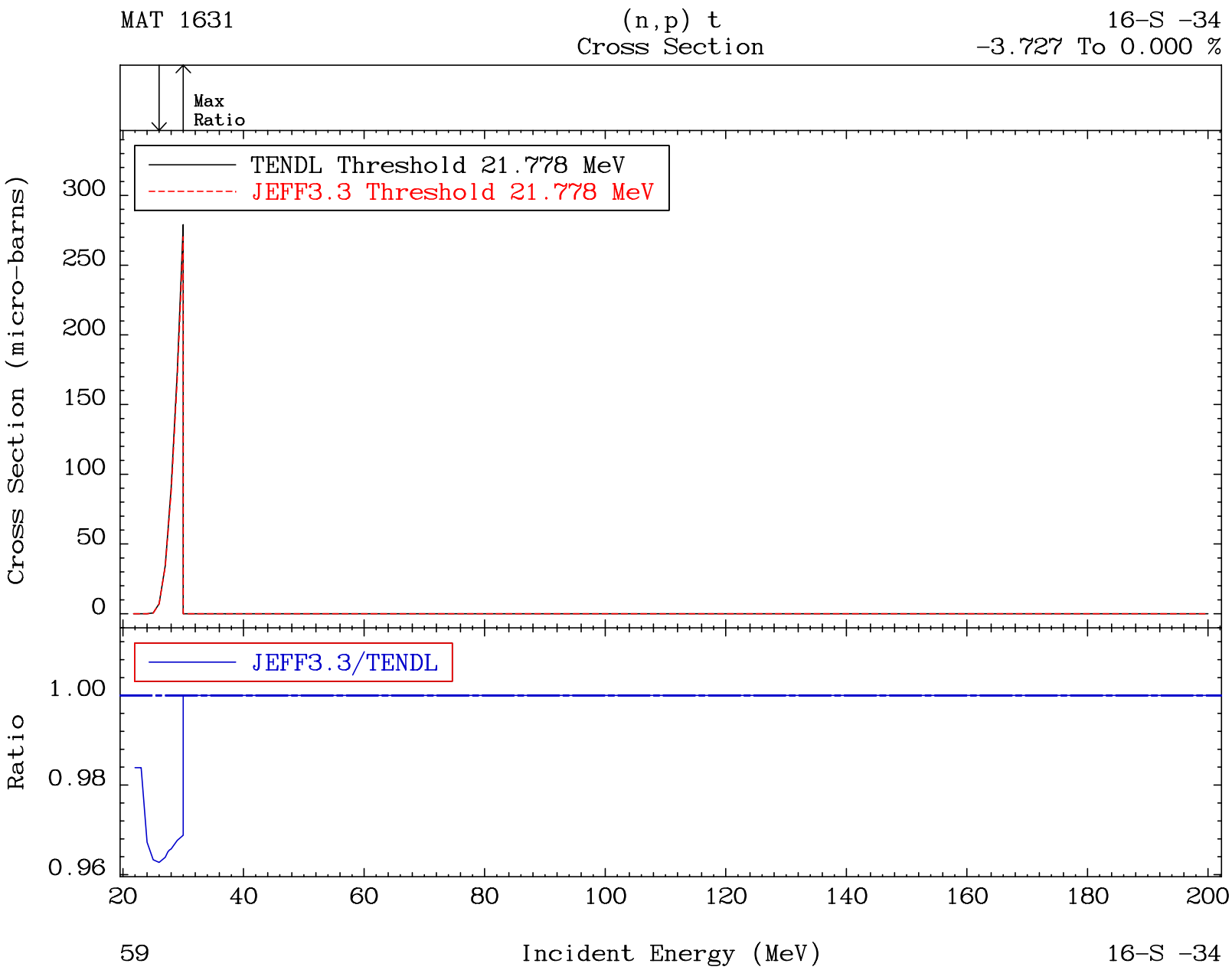

MAT 1631
(n,α)
Cross Section
16-S -34
0.000 To 207.9 %
Max Ratio
Min Ratio
TENDL Threshold 1.3759 MeV
JEFF3.3 Threshold 1.8000 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
54
Incident Energy (eV)
16-S -34

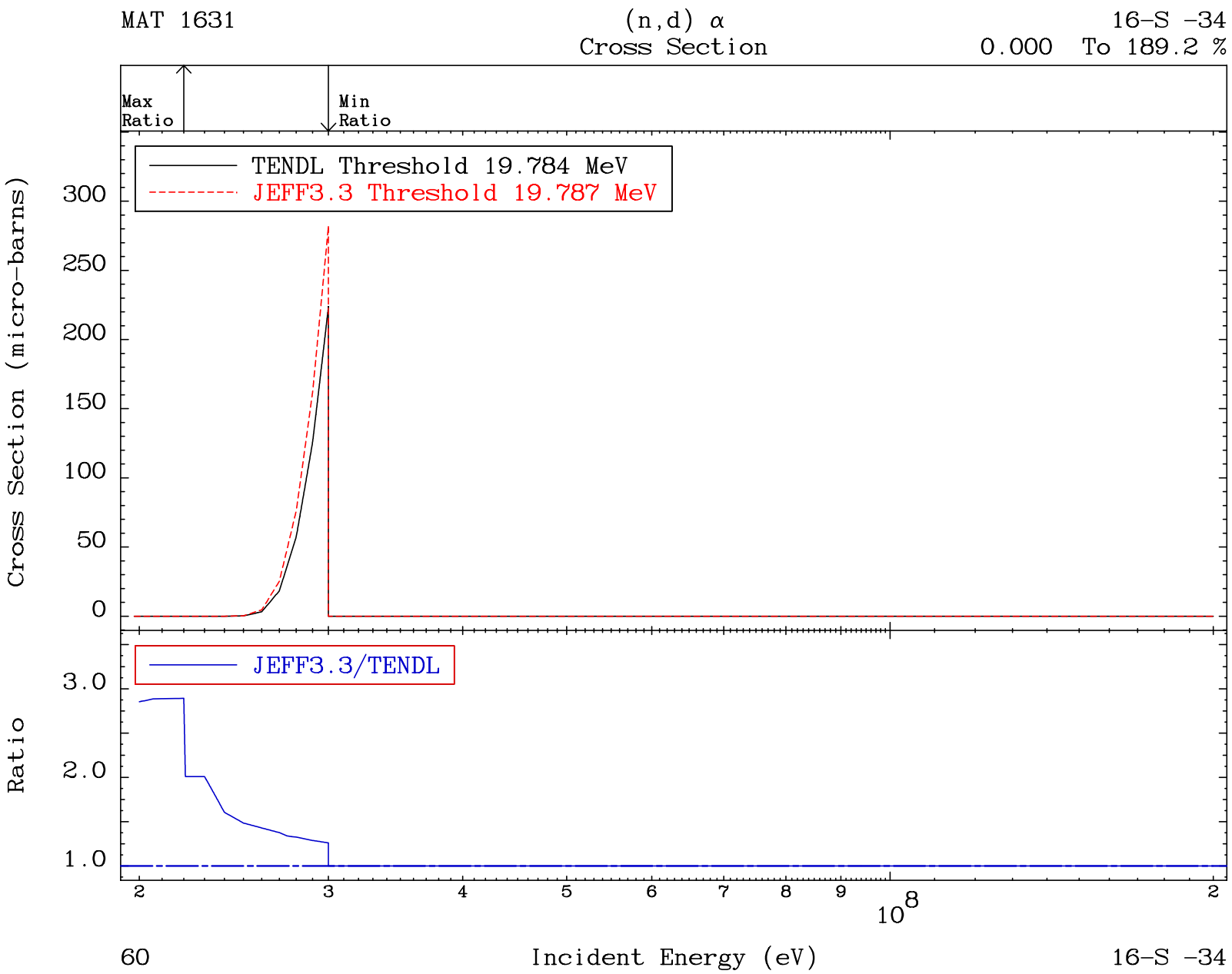

MAT 1631
(n,2α)
Cross Section
16-S -34
0.000 To 538.1 %
Max Ratio
Min Ratio
TENDL Threshold 12.484 MeV
JEFF3.3 Threshold 12.484 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
8
6
4
2
2
3
4
5
6
7
8
9
10^8
2
55
Incident Energy (eV)
16-S -34

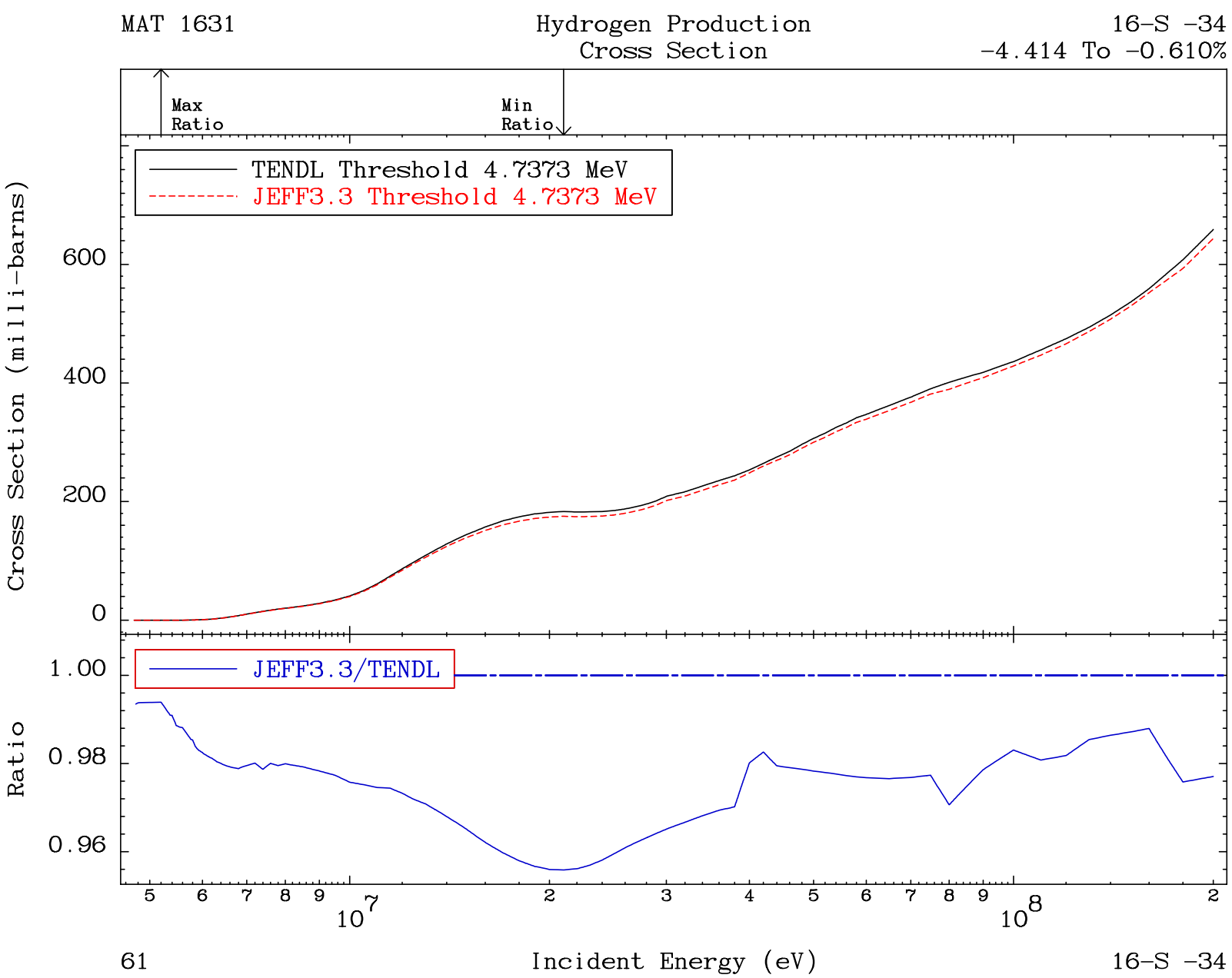

MAT 1631
(n,2p)
Cross Section
16-S -34
-7.307 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 16.397 MeV
JEFF3.3 Threshold 16.397 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.00
0.96
2
3
4
5
6
7
8
9
10^8
2
56
Incident Energy (eV)
16-S -34

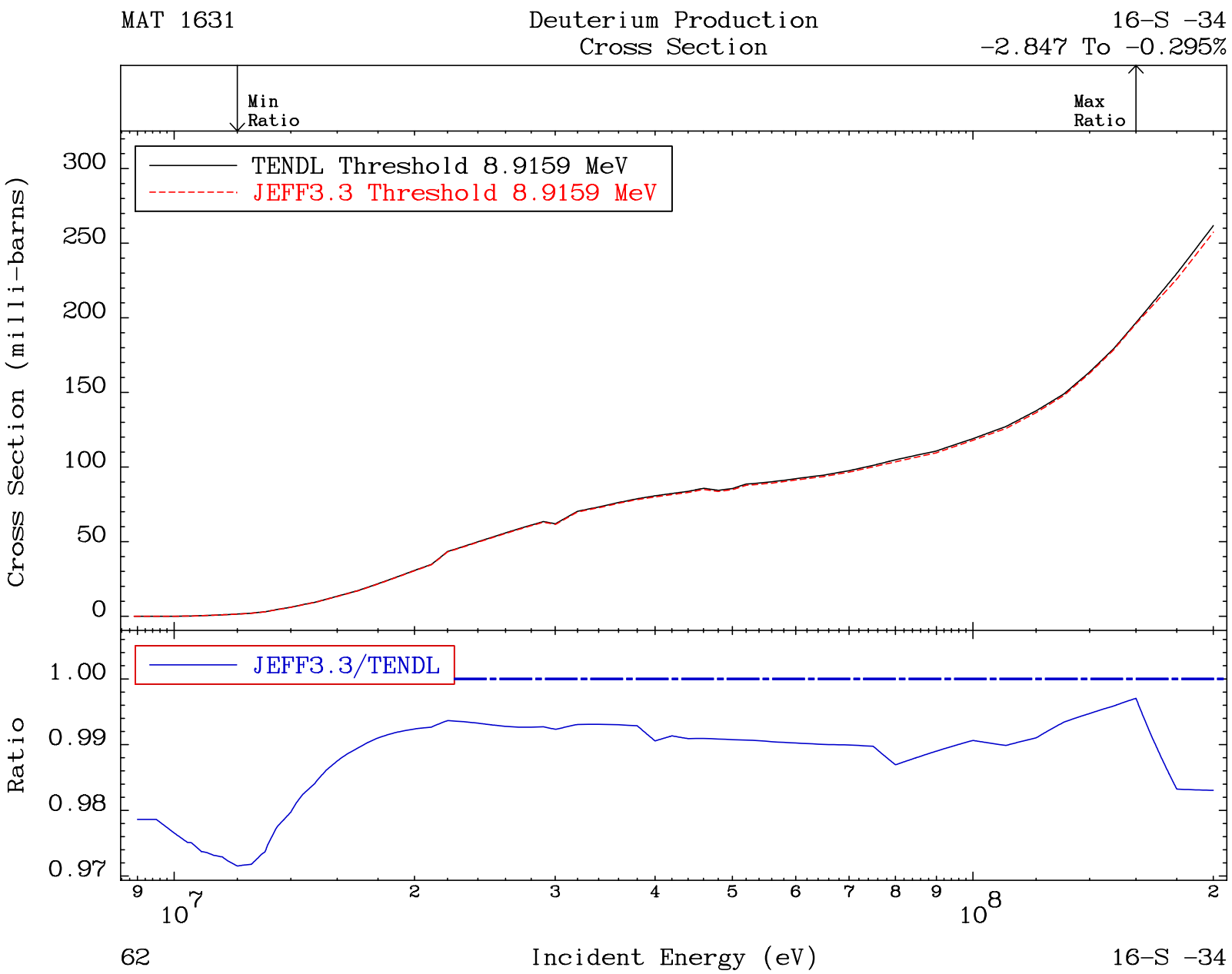

MAT 1631
(n,p) α
Cross Section
16-S -34
0.000 To 237.7 %
Max Ratio
Min Ratio
TENDL Threshold 16.176 MeV
JEFF3.3 Threshold 16.168 MeV
Cross Section (milli-barns)
0
1
2
3
JEFF3.3/TENDL
Ratio
1.0
2.0
3.0
4.0
2
3
4
5
6
7
8
9
10^8
2
57
Incident Energy (eV)
16-S -34

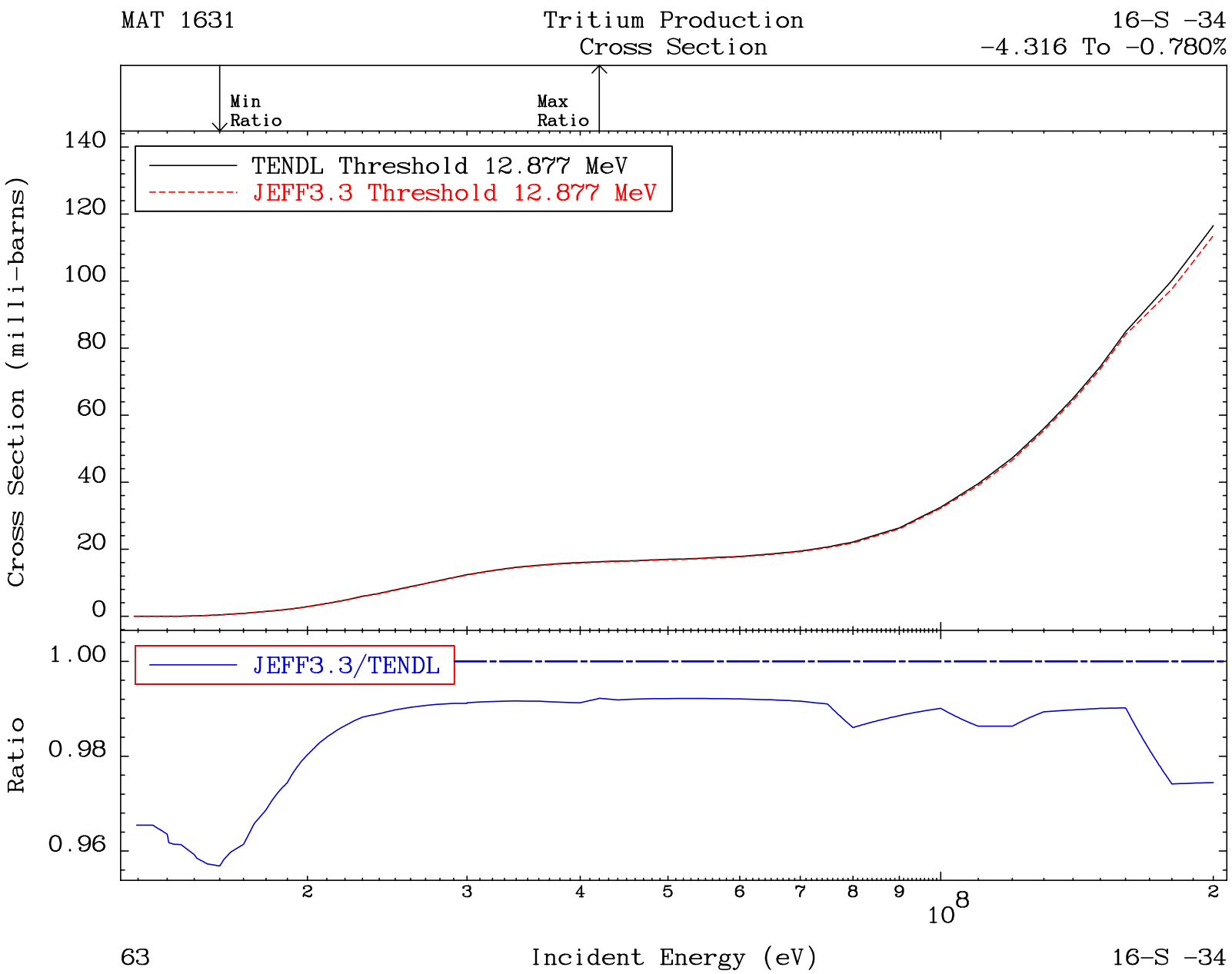

MAT 1631
(n,p) d
Cross Section
16-S -34
-4.491 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 18.748 MeV
JEFF3.3 Threshold 18.748 MeV
Cross Section (micro-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
16-S -34

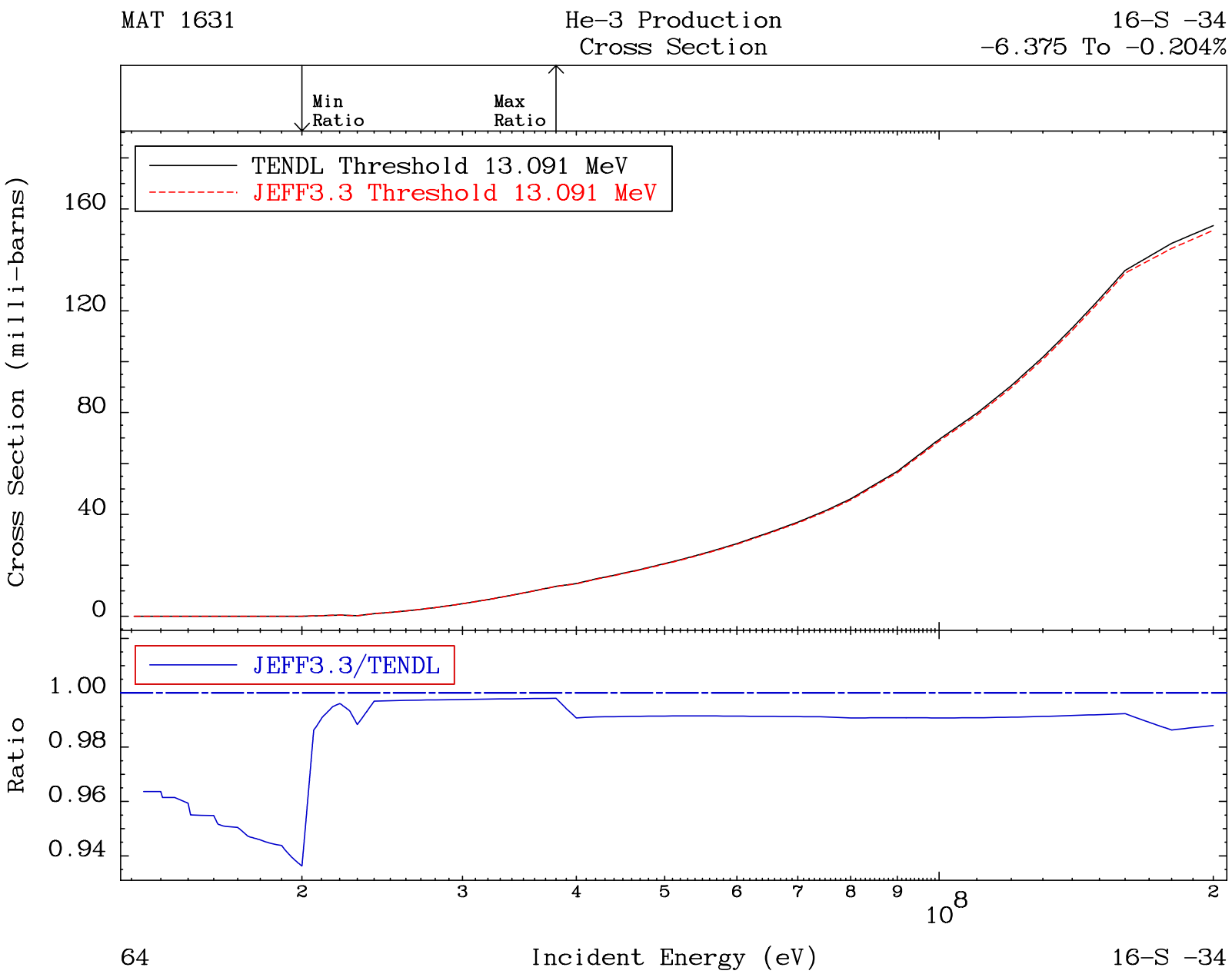

MAT 1631
(n,p) t
Cross Section
16-S -34
-3.727 To 0.000 %
Max
Ratio
TENDL Threshold 21.778 MeV
JEFF3.3 Threshold 21.778 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
20
40
60
80
100
120
140
160
180
200
59
Incident Energy (MeV)
16-S -34

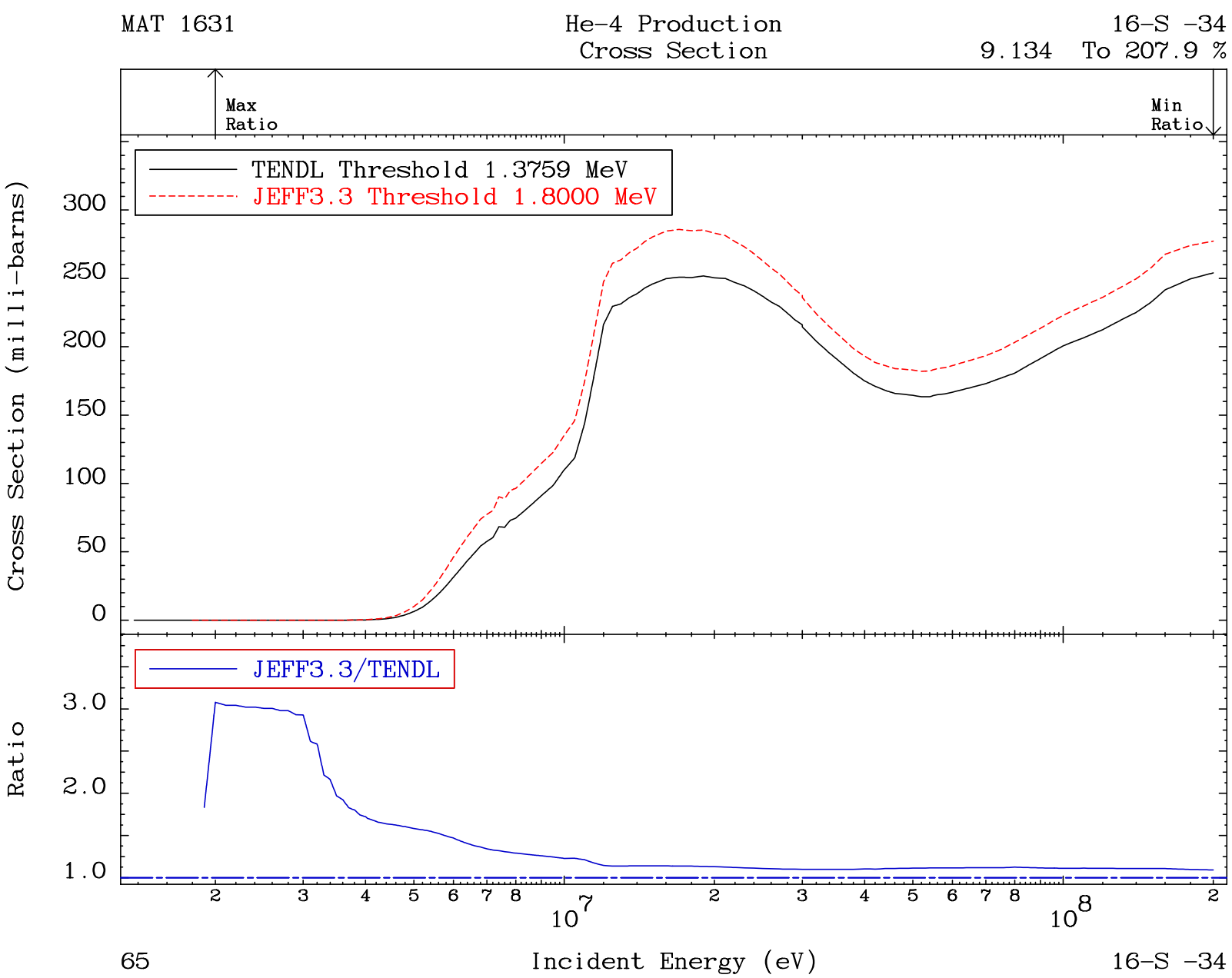

MAT 1631
(n,d) α
Cross Section
16-S -34
0.000 To 189.2 %
Max Ratio
Min Ratio
TENDL Threshold 19.784 MeV
JEFF3.3 Threshold 19.787 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
60
Incident Energy (eV)
16-S -34

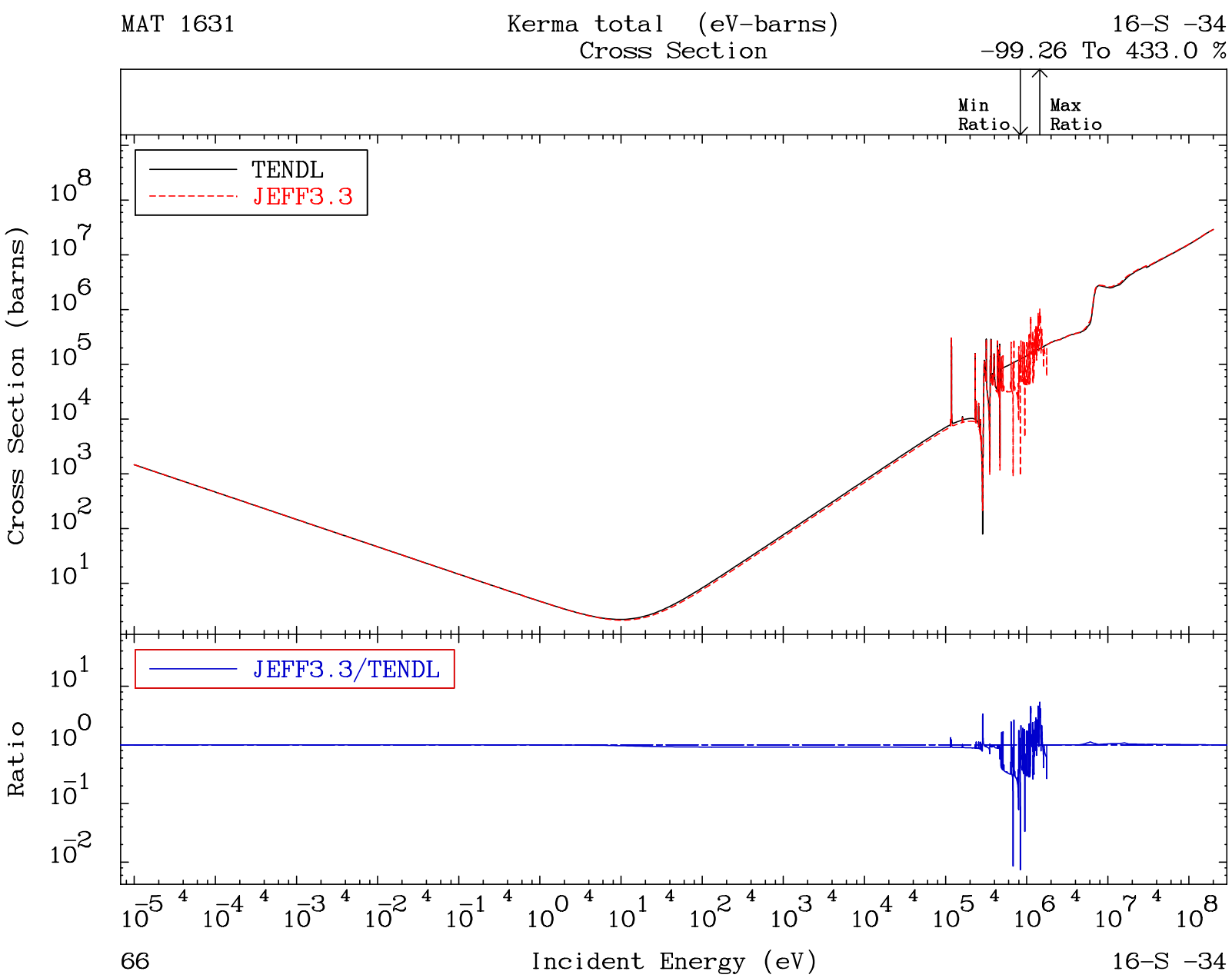

MAT 1631
Hydrogen Production
Cross Section
16-S -34
-4.414 To -0.610%
Max Ratio
Min Ratio
TENDL Threshold 4.7373 MeV
JEFF3.3 Threshold 4.7373 MeV
Cross Section (milli-barns)
600
400
200
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
61
Incident Energy (eV)
16-S -34

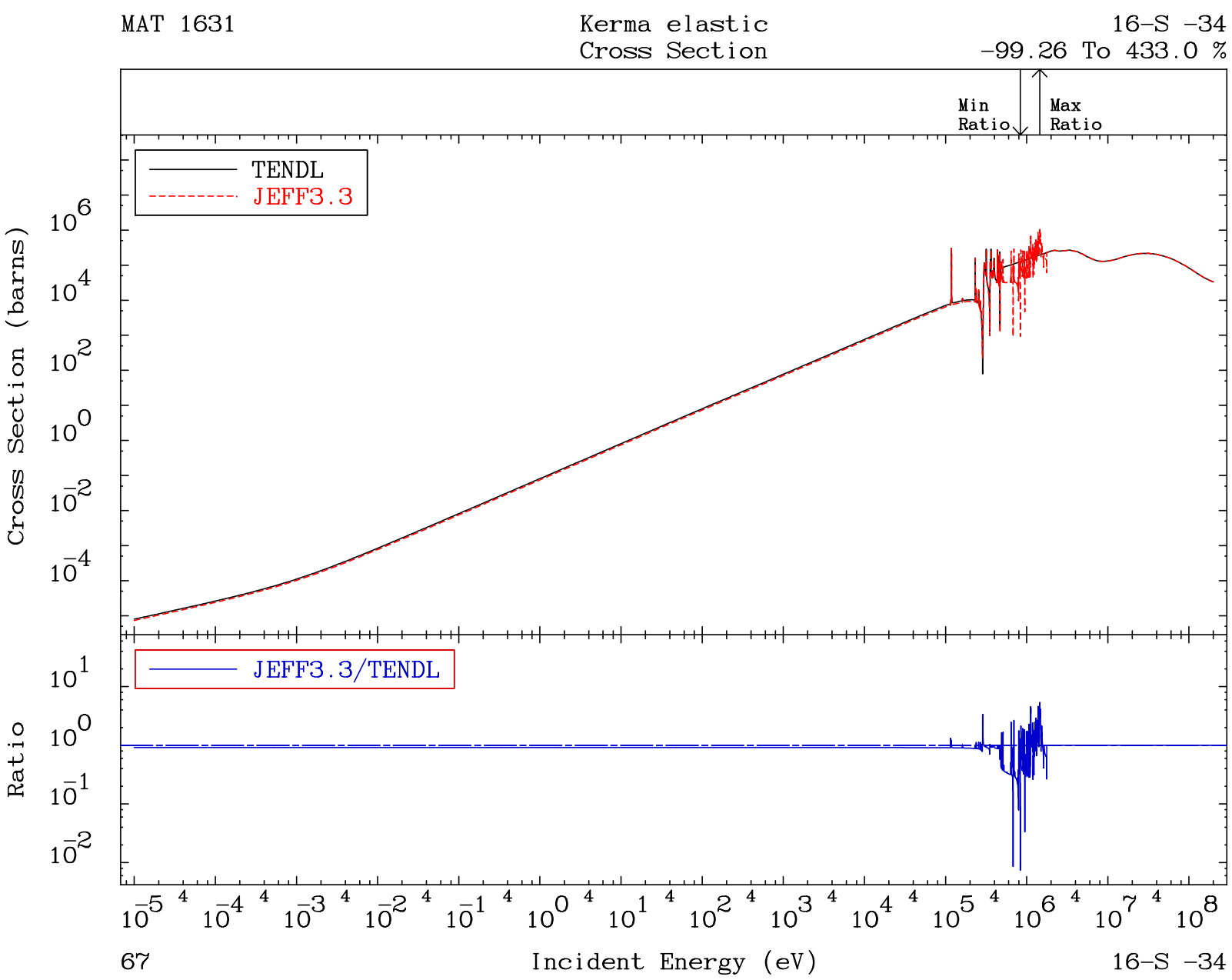

MAT 1631
Deuterium Production
Cross Section
16-S -34
-2.847 To -0.295%
Min
Ratio
Max
Ratio
TENDL Threshold 8.9159 MeV
JEFF3.3 Threshold 8.9159 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
0.97
9
10^7
2
3
4
5
6
7
8
9
10^8
2
62
Incident Energy (eV)
16-S -34

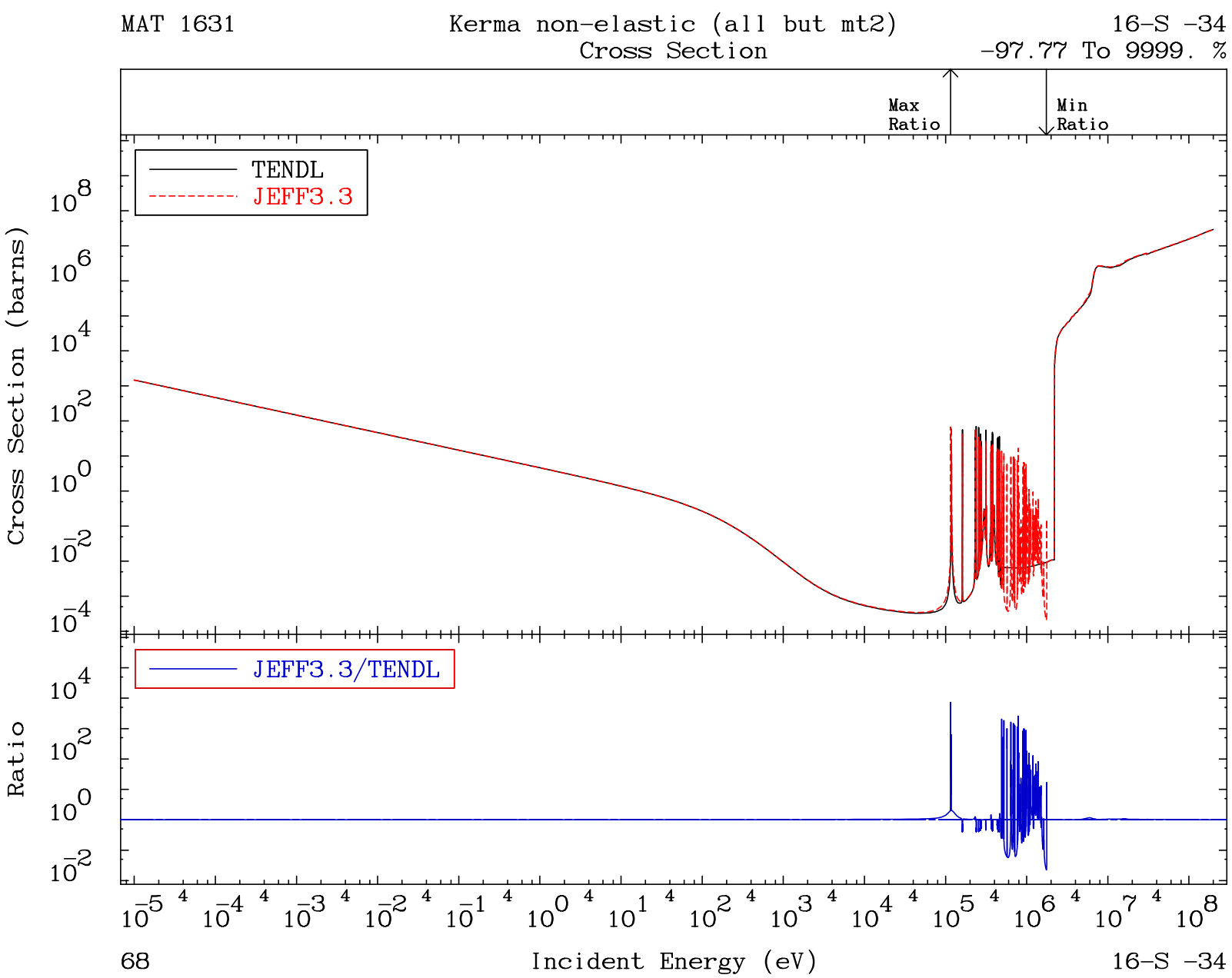

MAT 1631
Tritium Production
Cross Section
16-S -34
-4.316 To -0.780%
Min
Ratio
Max
Ratio
TENDL Threshold 12.877 MeV
JEFF3.3 Threshold 12.877 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
16-S -34

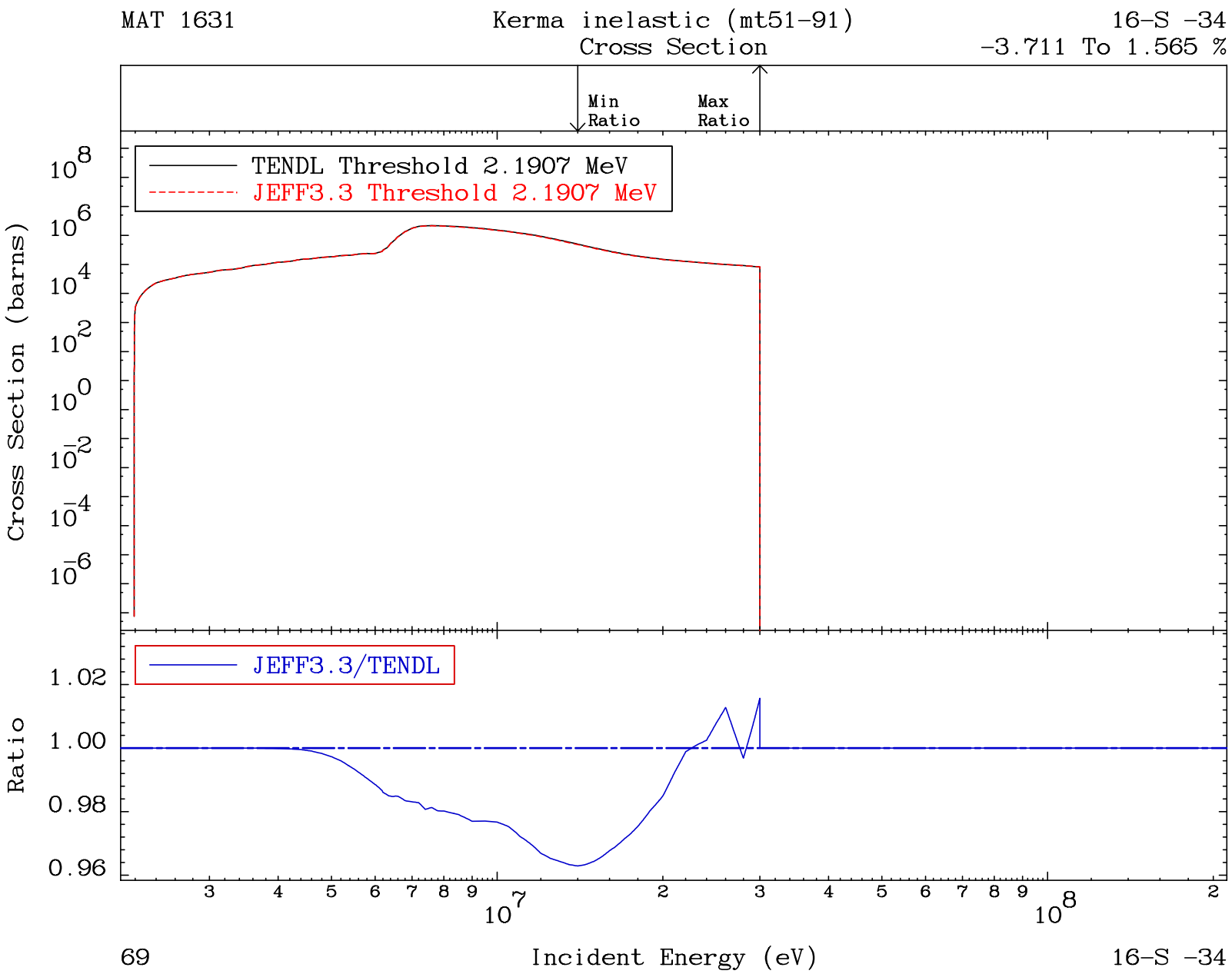

MAT 1631
He-3 Production
Cross Section
16-S -34
-6.375 To -0.204%
Min Ratio
Max Ratio
TENDL Threshold 13.091 MeV
JEFF3.3 Threshold 13.091 MeV
Cross Section (milli-barns)
160
120
80
40
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
16-S -34

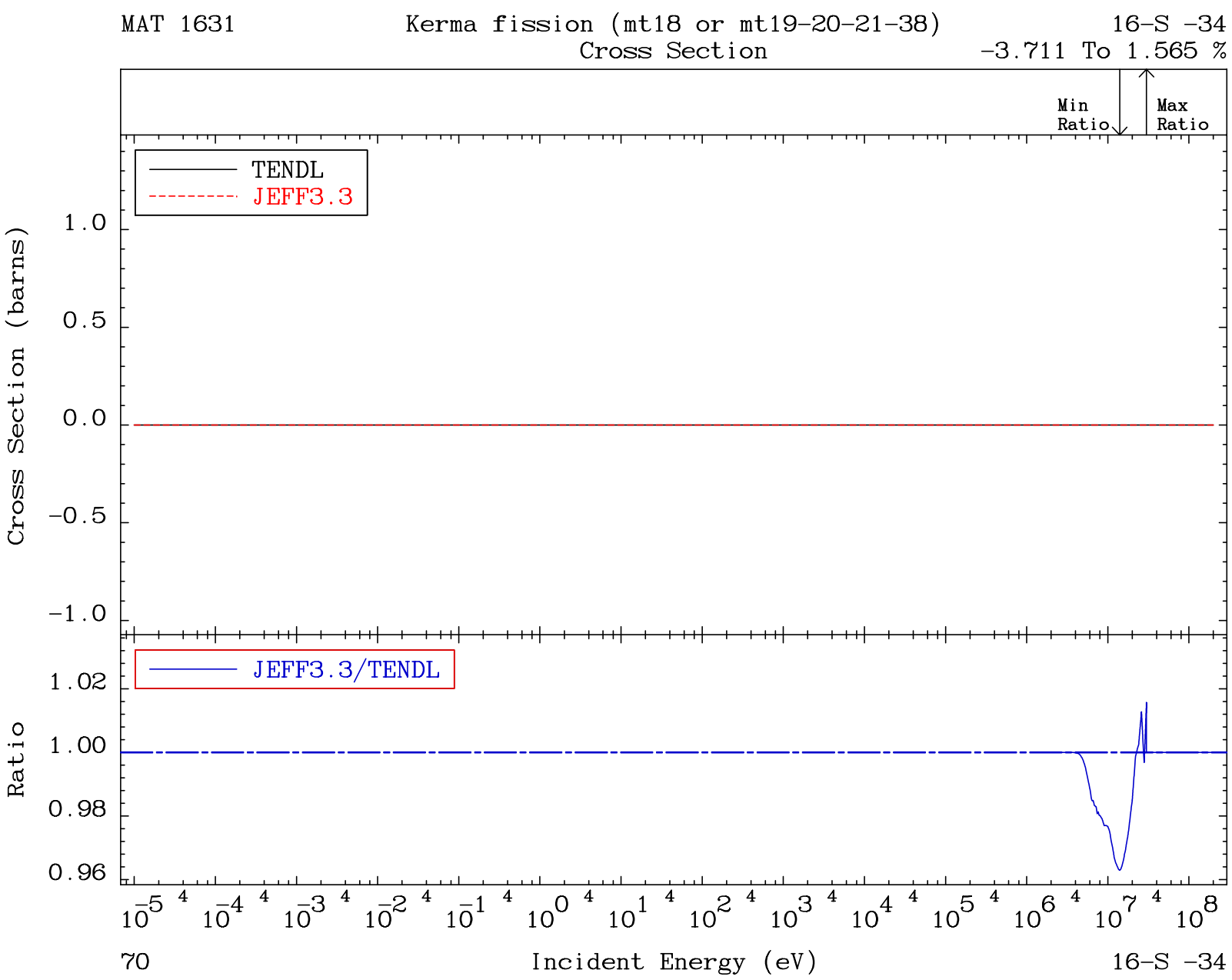

MAT 1631
He-4 Production
Cross Section
16-S -34
9.134 To 207.9 %
Max Ratio
Min Ratio
TENDL Threshold 1.3759 MeV
JEFF3.3 Threshold 1.8000 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
65
Incident Energy (eV)
16-S -34

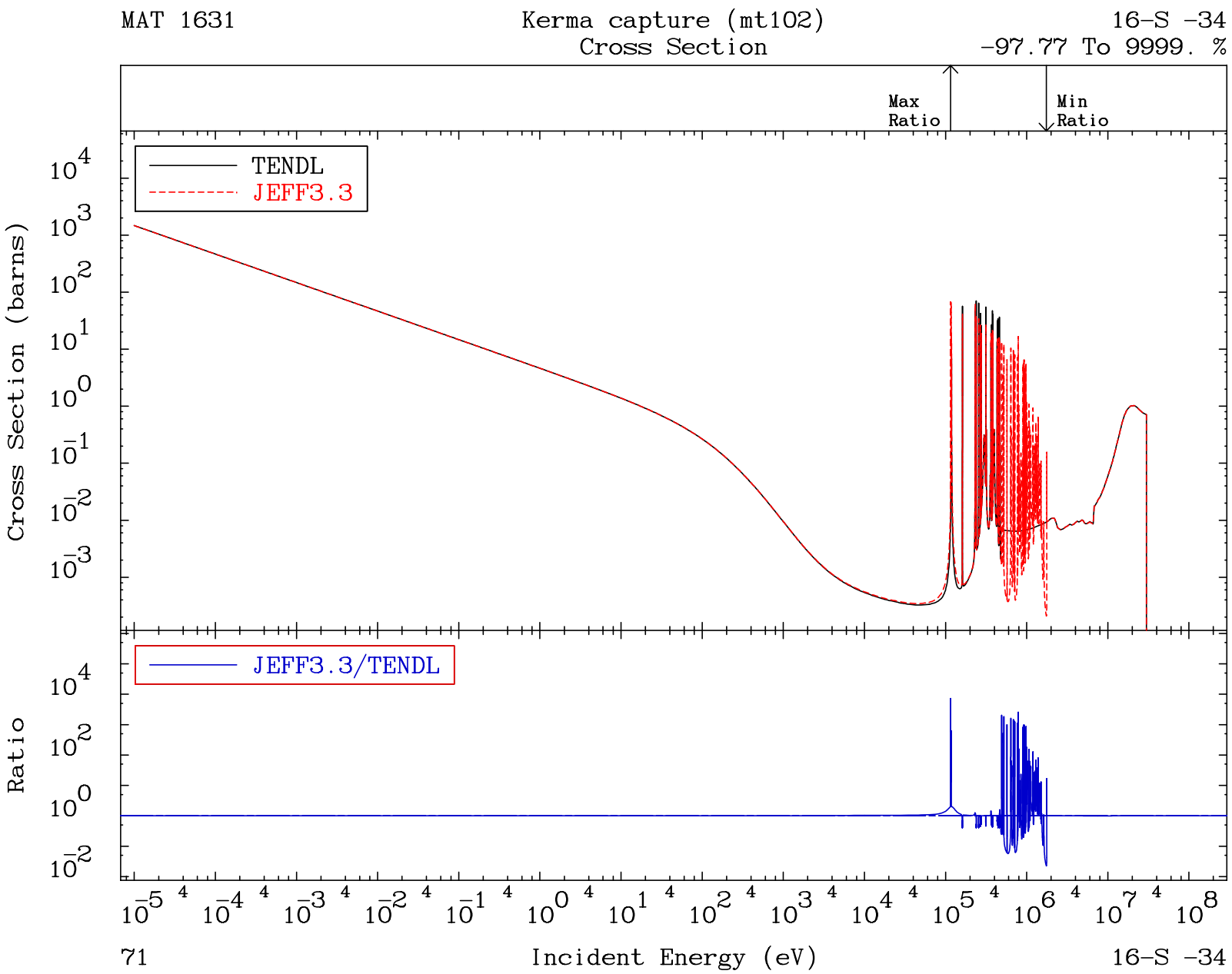

MAT 1631
Kerma total (eV-barns)
Cross Section
16-S -34
-99.26 To 433.0 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
66
16-S -34

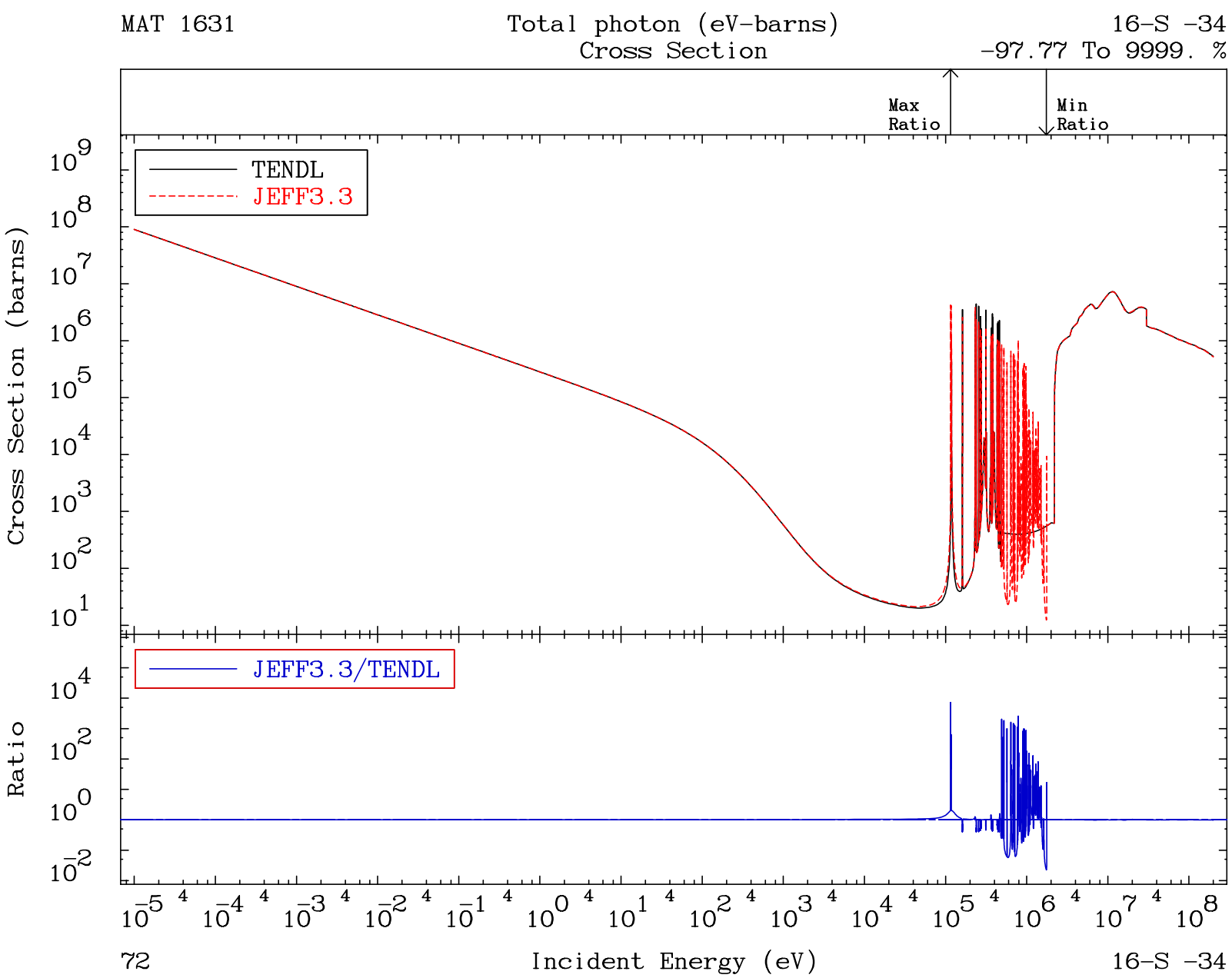

MAT 1631
Kerma elastic
Cross Section
16-S -34
-99.26 To 433.0 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
16-S -34

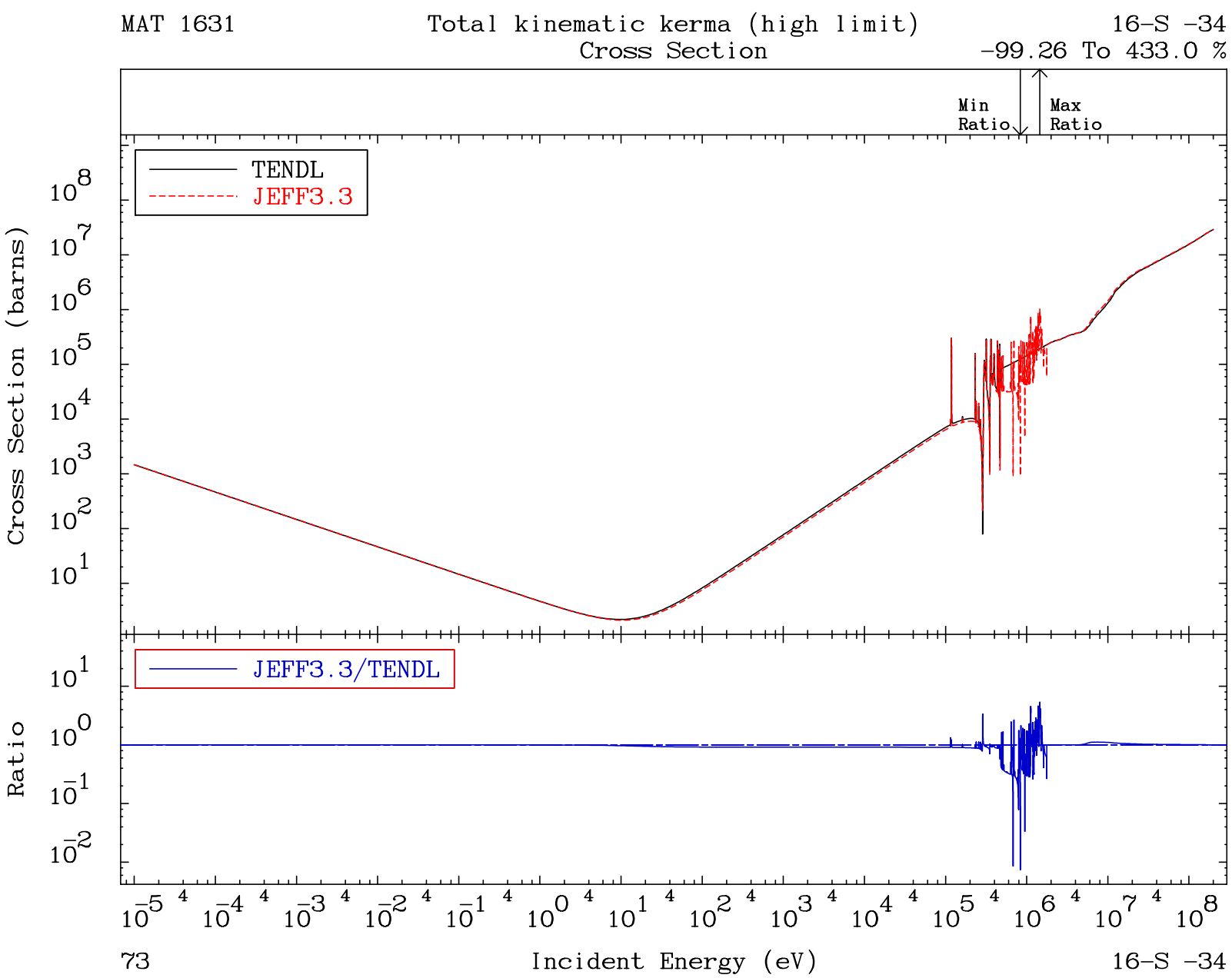

MAT 1631
Kerma non-elastic (all but mt2)
Cross Section
16-S -34
-97.77 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
16-S -34

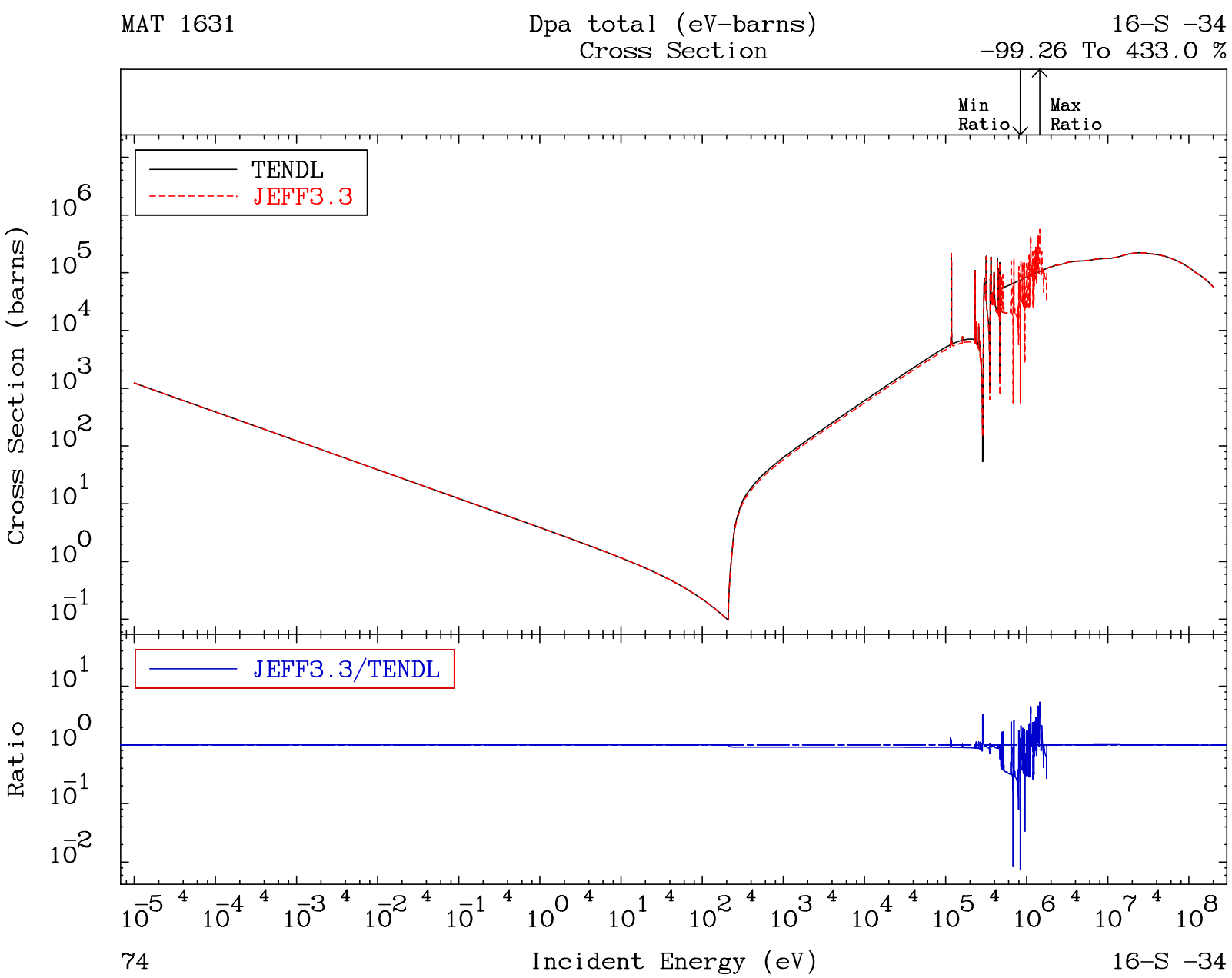

MAT 1631
Kerma inelastic (mt51-91)
Cross Section
16-S -34
-3.711 To 1.565 %
Min Ratio
Max Ratio
TENDL Threshold 2.1907 MeV
JEFF3.3 Threshold 2.1907 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
69
16-S -34

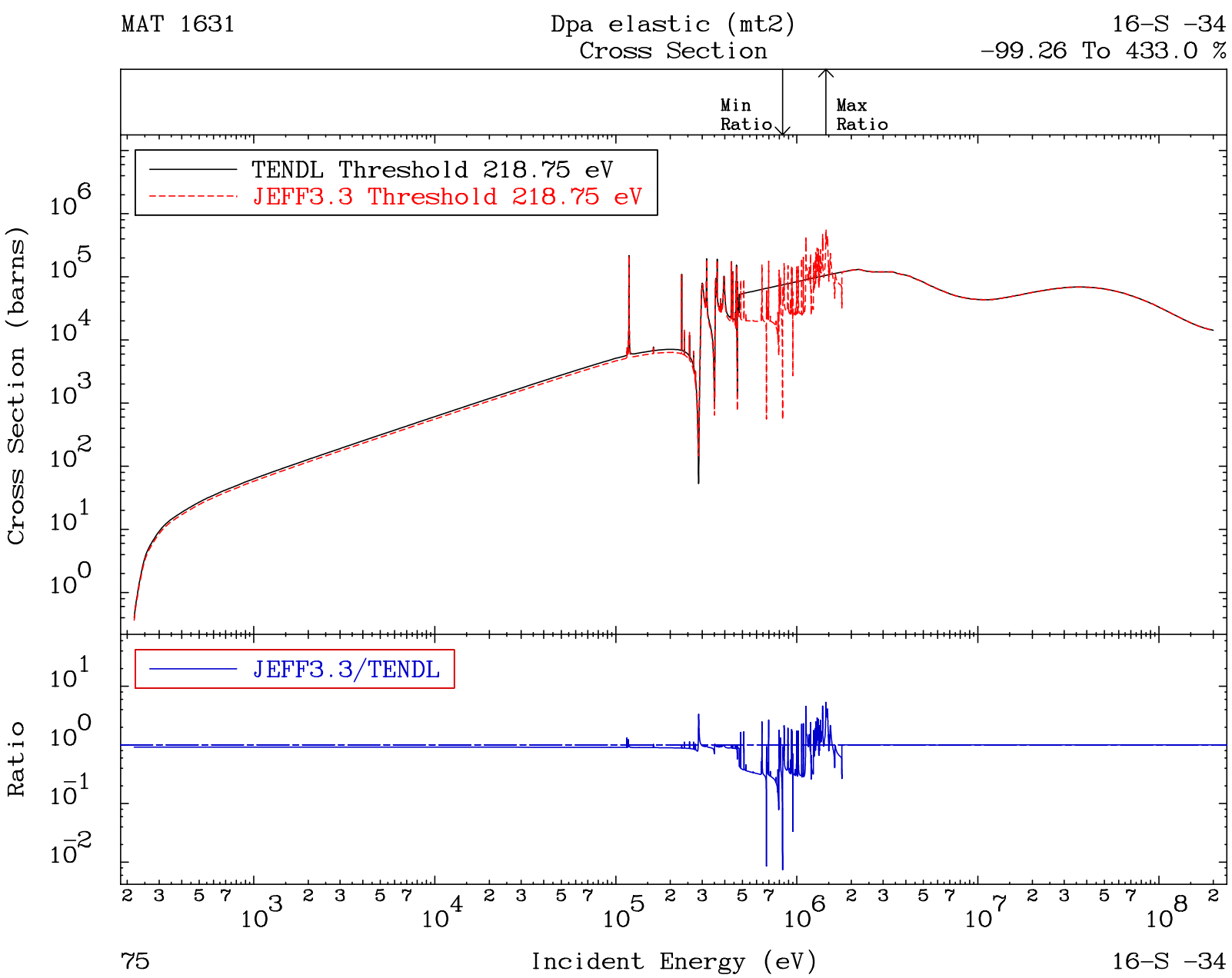

MAT 1631
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
16-S -34
-3.711 To 1.565 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.02
1.00
0.98
0.96
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
70
Incident Energy (eV)
16-S -34

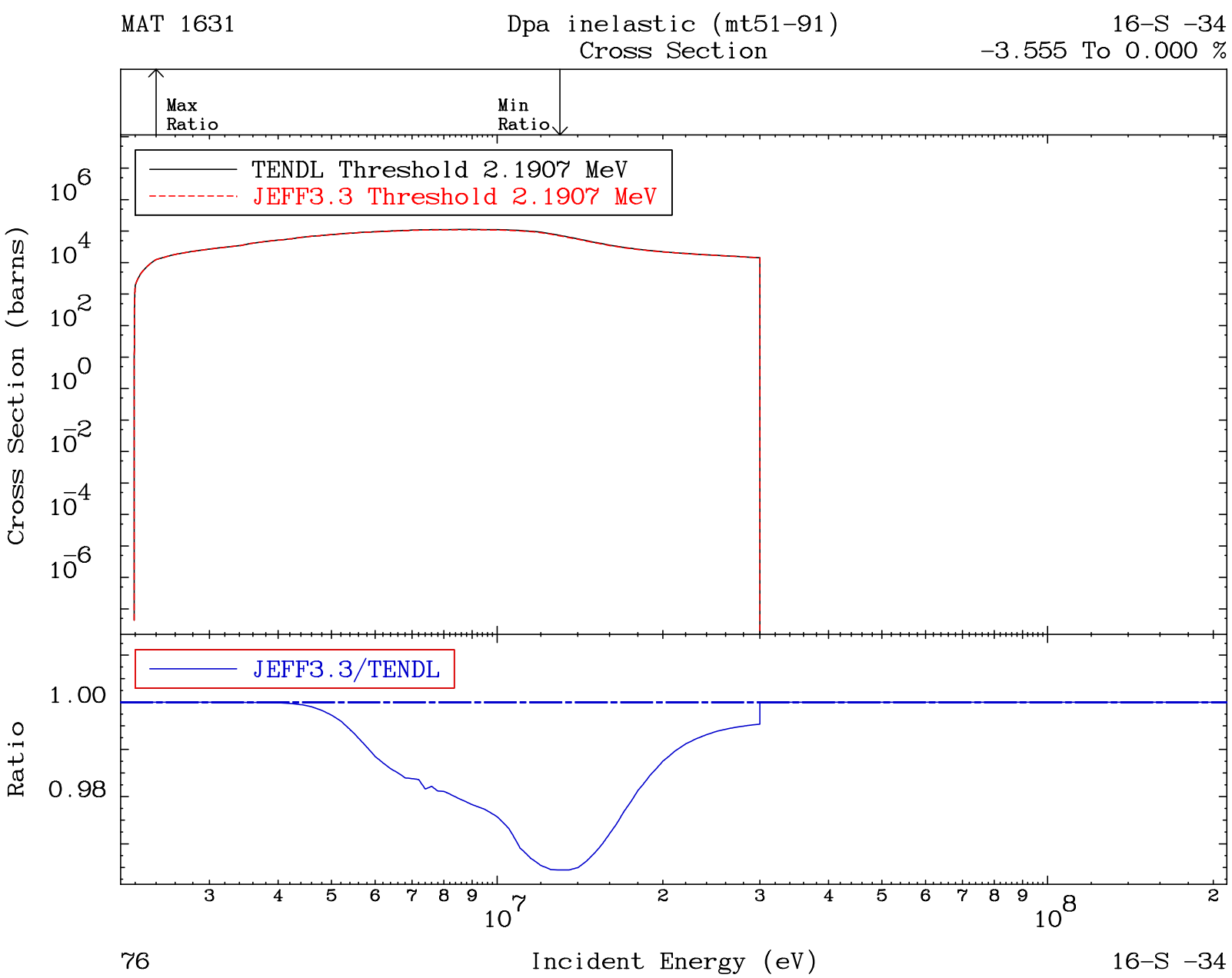

MAT 1631
Kerma capture (mt102)
Cross Section
16-S -34
-97.77 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
16-S -34

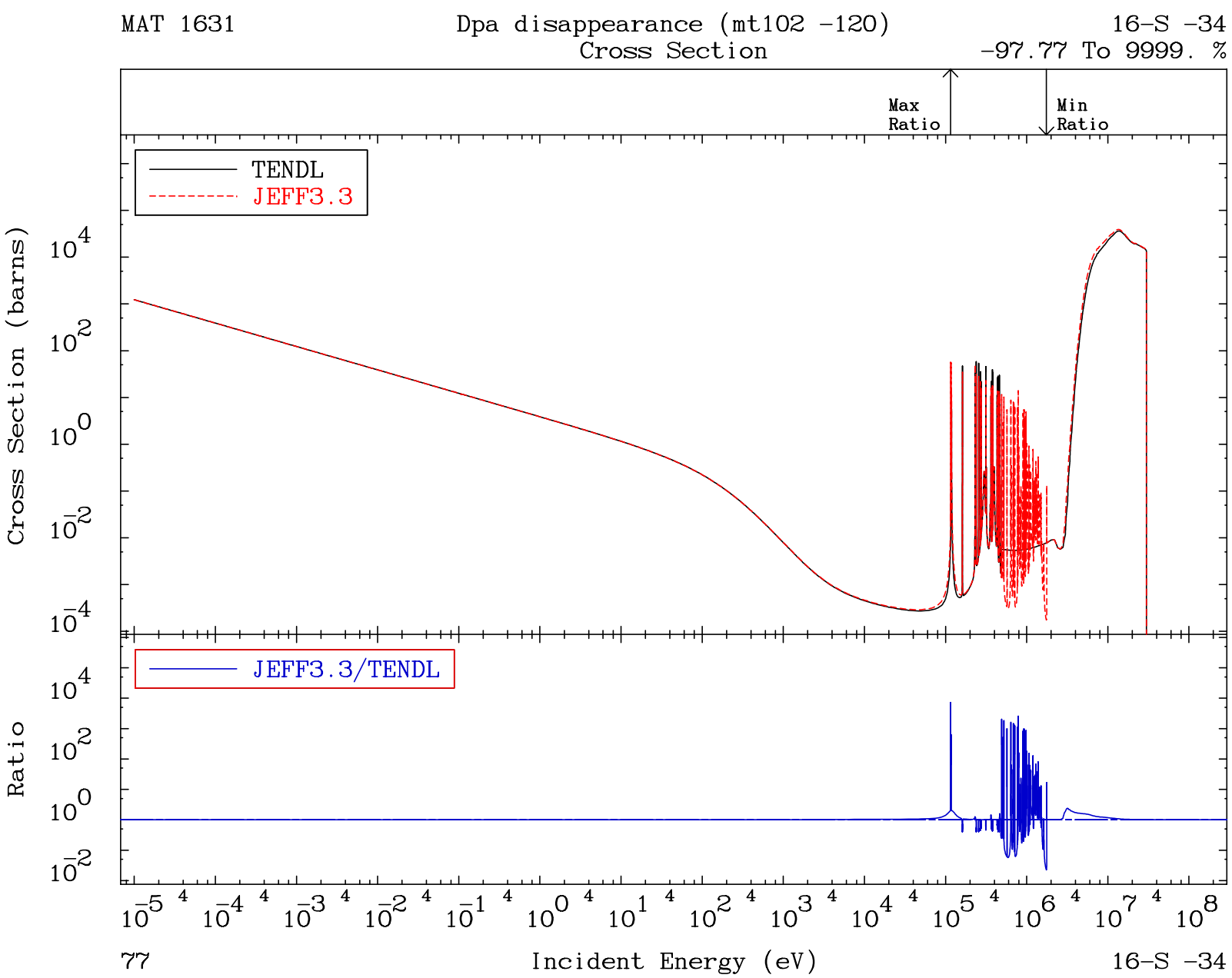

MAT 1631
Total photon (eV-barns)
Cross Section
16-S -34
-97.77 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
72
16-S -34


MAT 1631
Total kinematic kerma (high limit)
Cross Section
16-S -34
-99.26 To 433.0 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
73
16-S -34


MAT 1631
Dpa total (eV-barns)
Cross Section
16-S -34
-99.26 To 433.0 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
74
16-S -34


MAT 1631
Dpa elastic (mt2)
Cross Section
16-S -34
-99.26 To 433.0 %
Min Ratio
Max Ratio
TENDL Threshold 218.75 eV
JEFF3.3 Threshold 218.75 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
75
16-S -34


MAT 1631
Dpa inelastic (mt51-91)
Cross Section
16-S -34
-3.555 To 0.000 %
Max Ratio
Min Ratio
TENDL Threshold 2.1907 MeV
JEFF3.3 Threshold 2.1907 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
16-S -34


MAT 1631
Dpa disappearance (mt102 -120)
Cross Section
16-S -34
-97.77 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
77
16-S -34