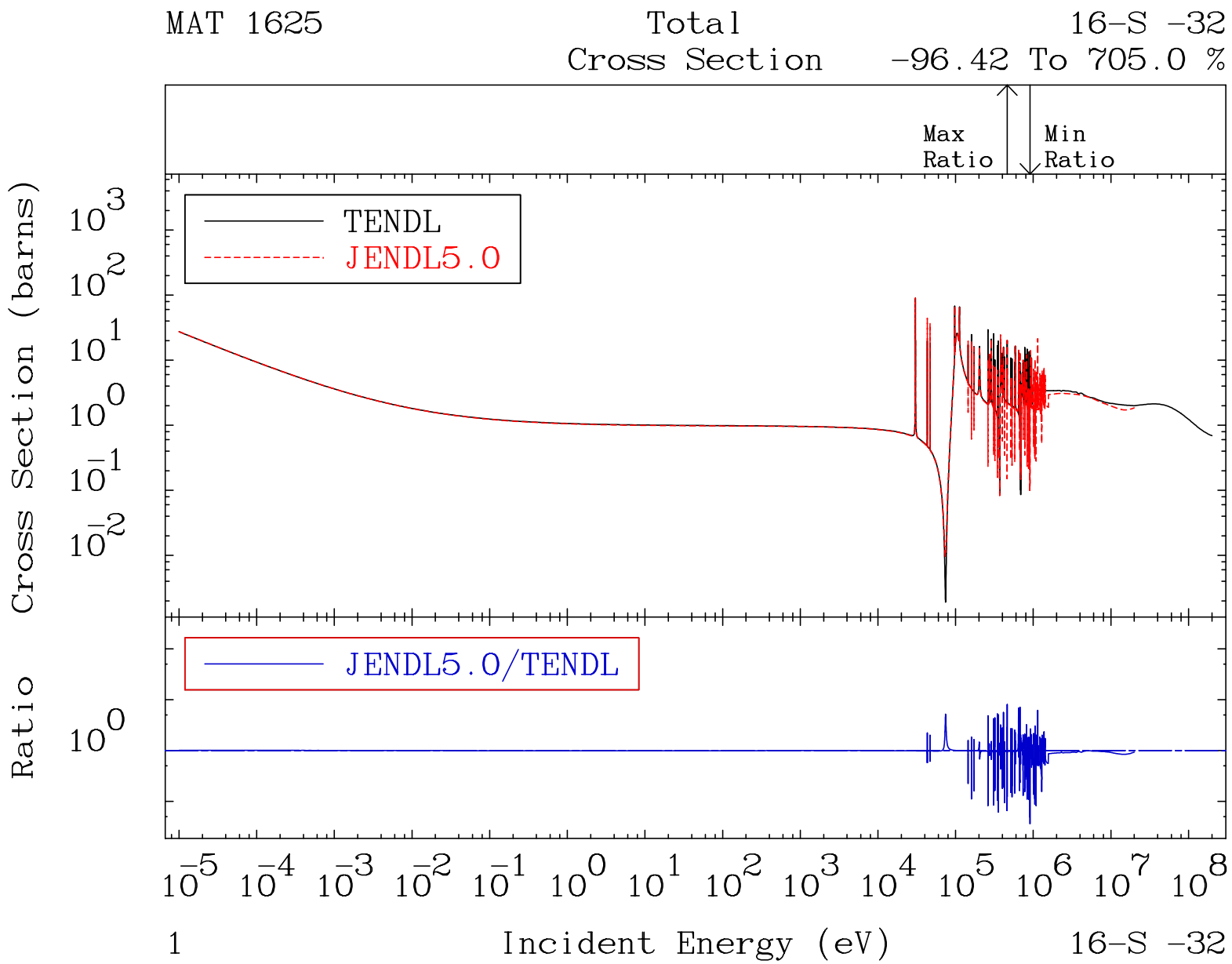
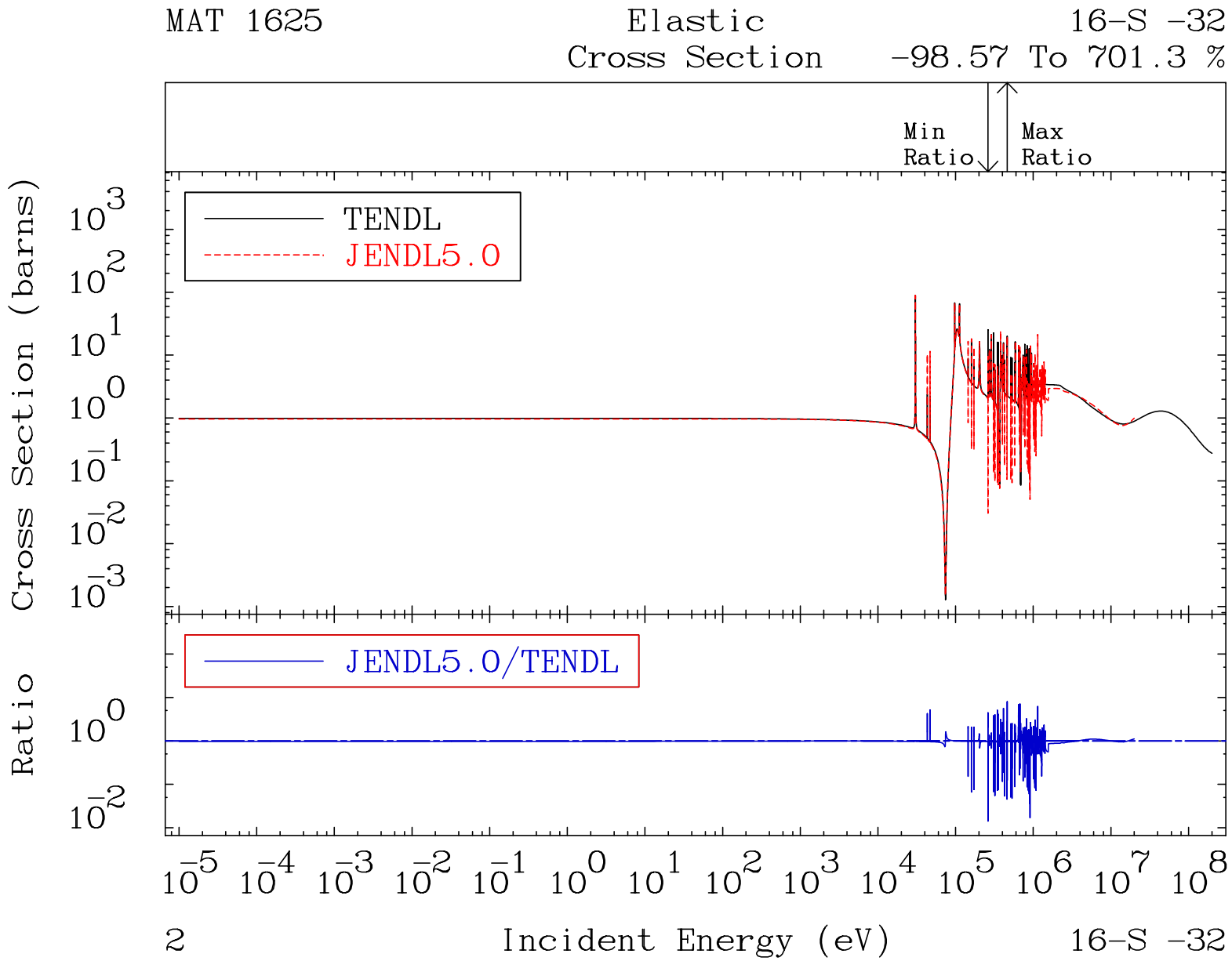
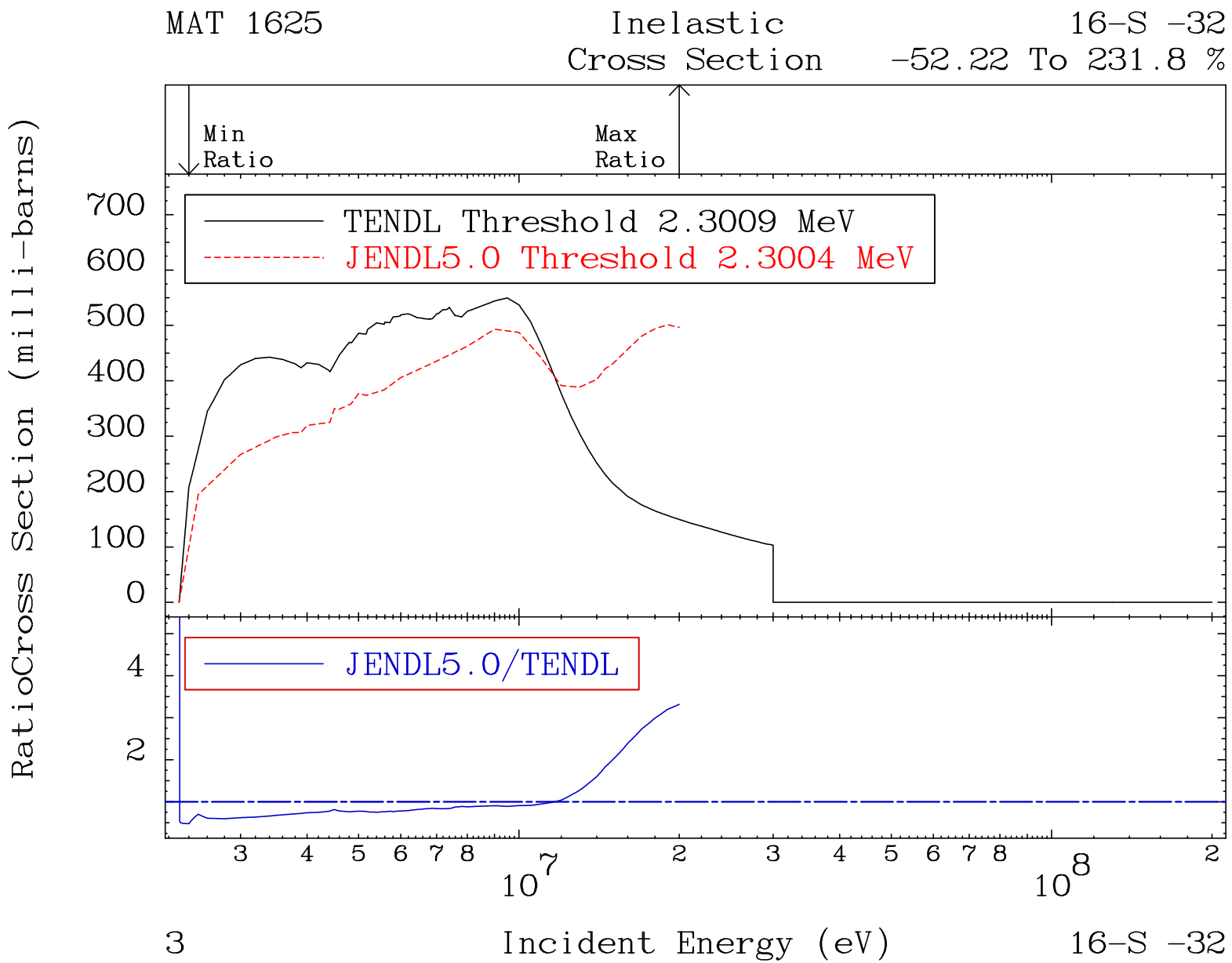
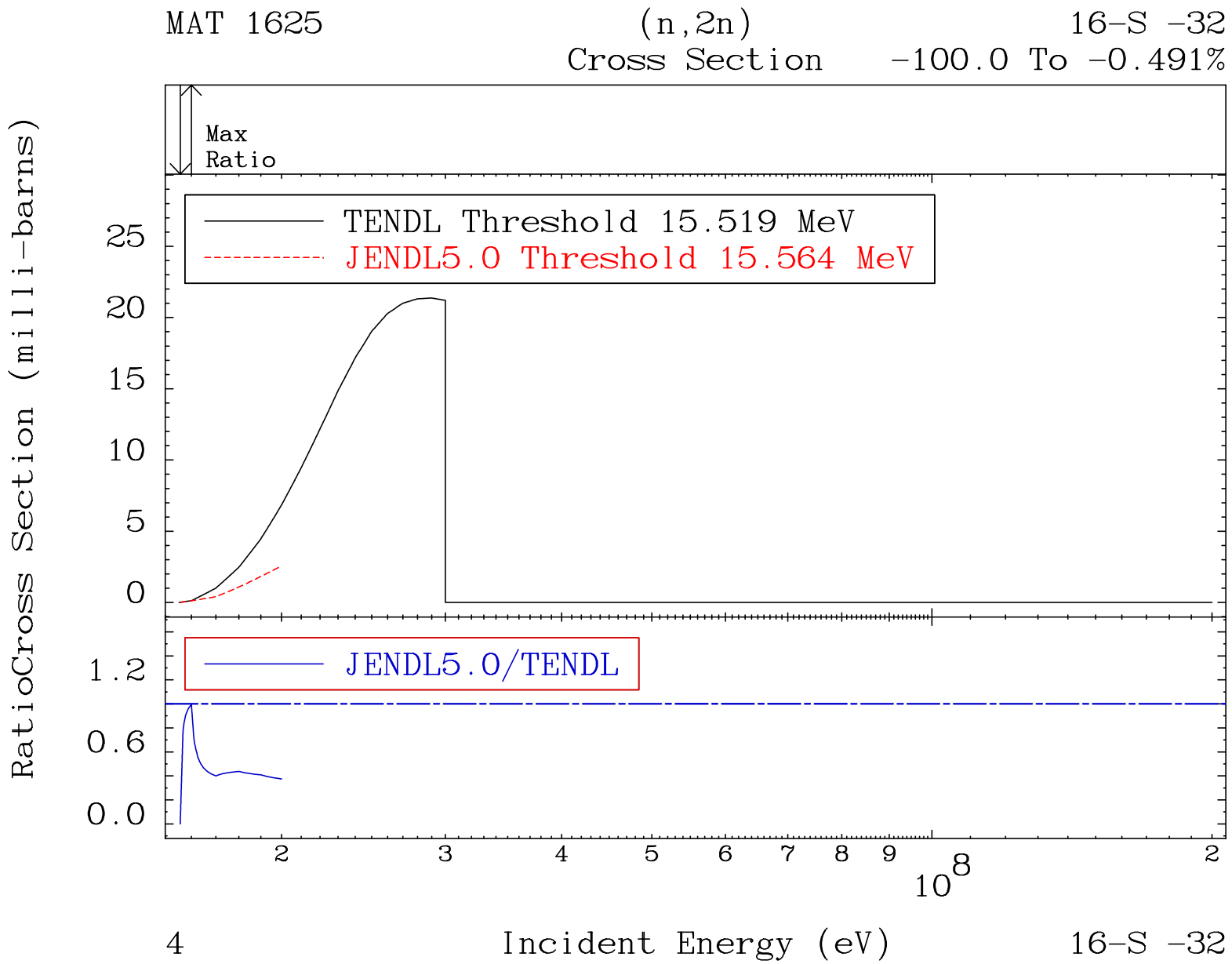
Program Complot
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

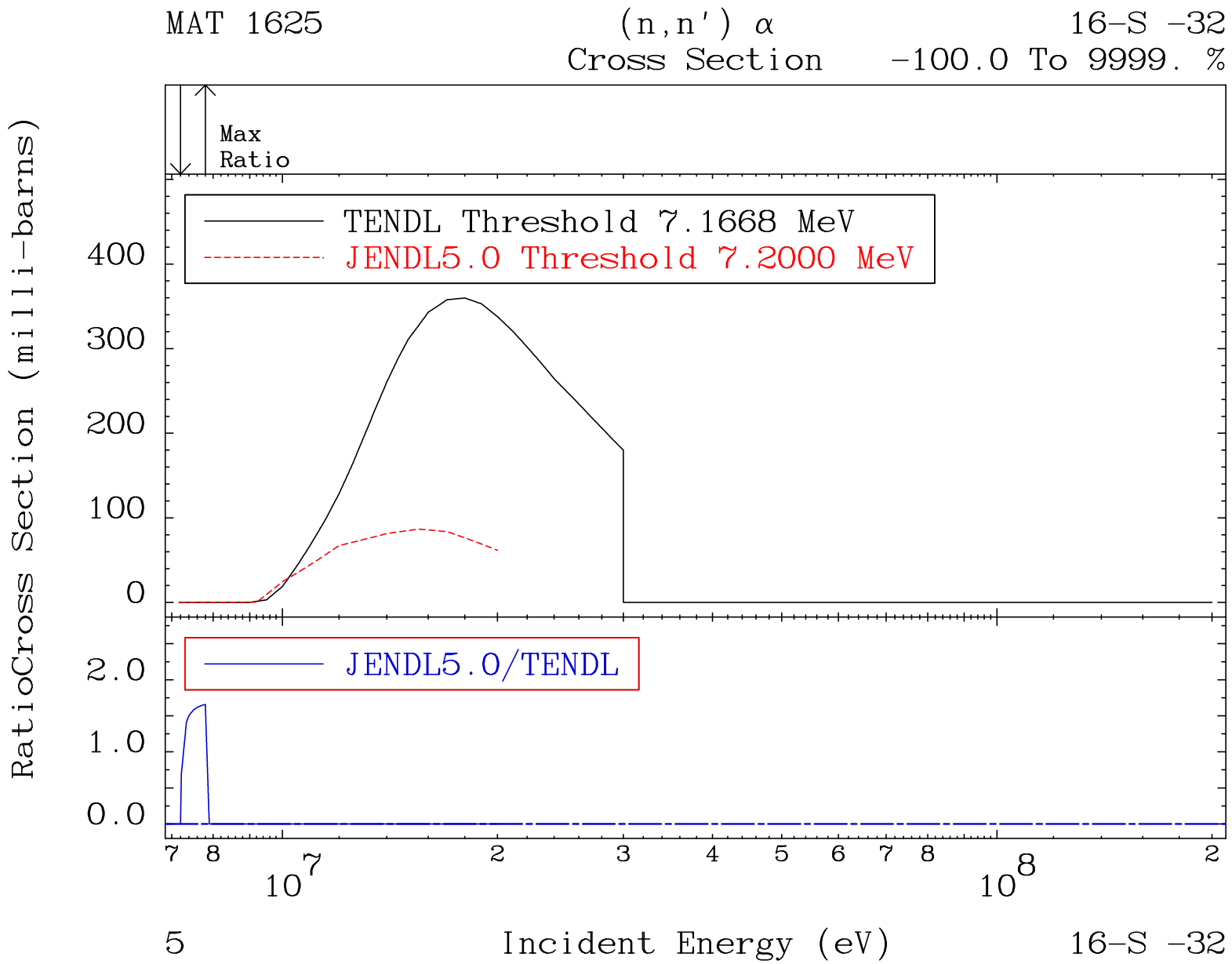
Press Mouse Button to Start

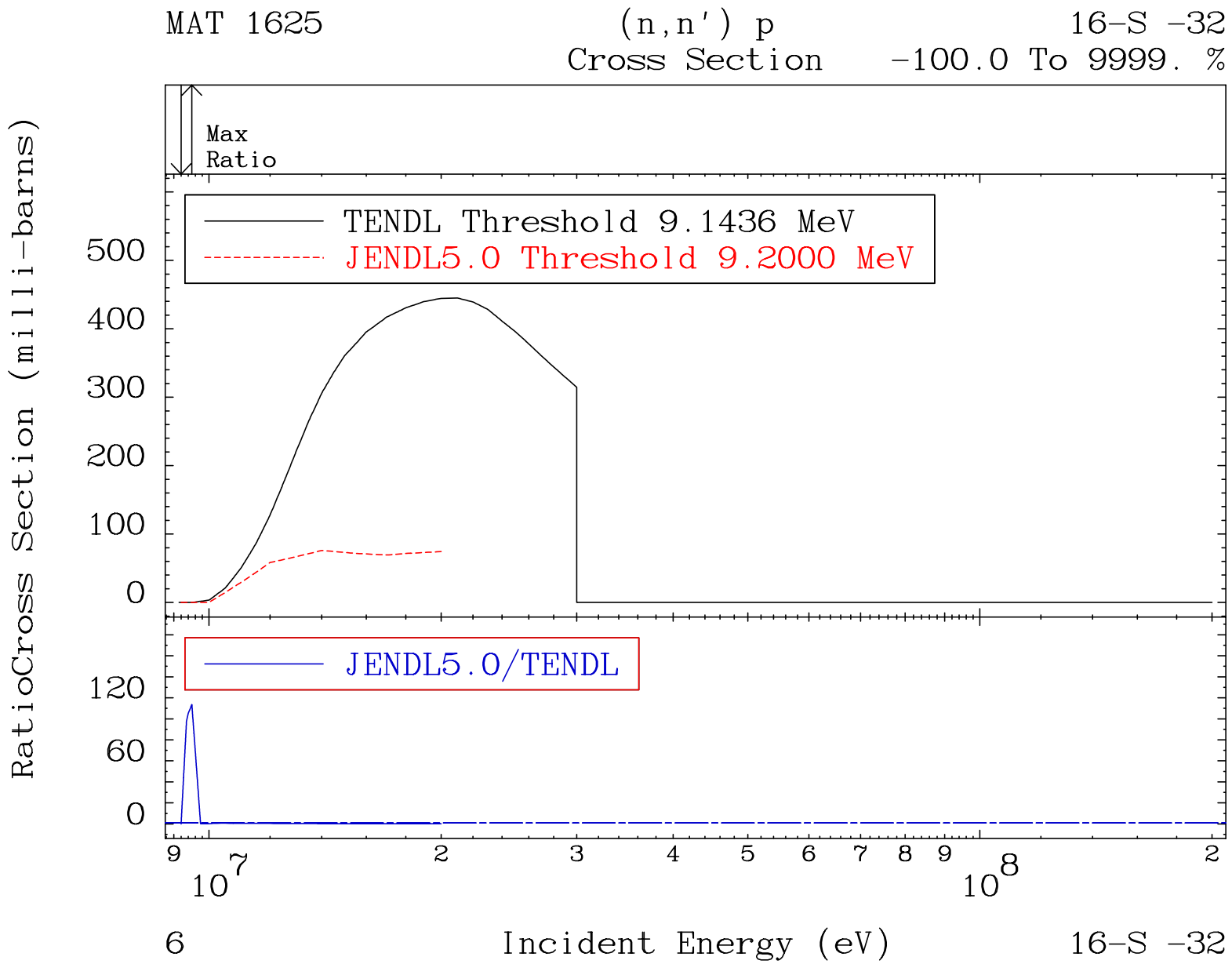

MAT 1625
Total
Cross Section
16-S -32
-96.42 To 705.0 %
Max
Ratio
Min
Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
16-S -32

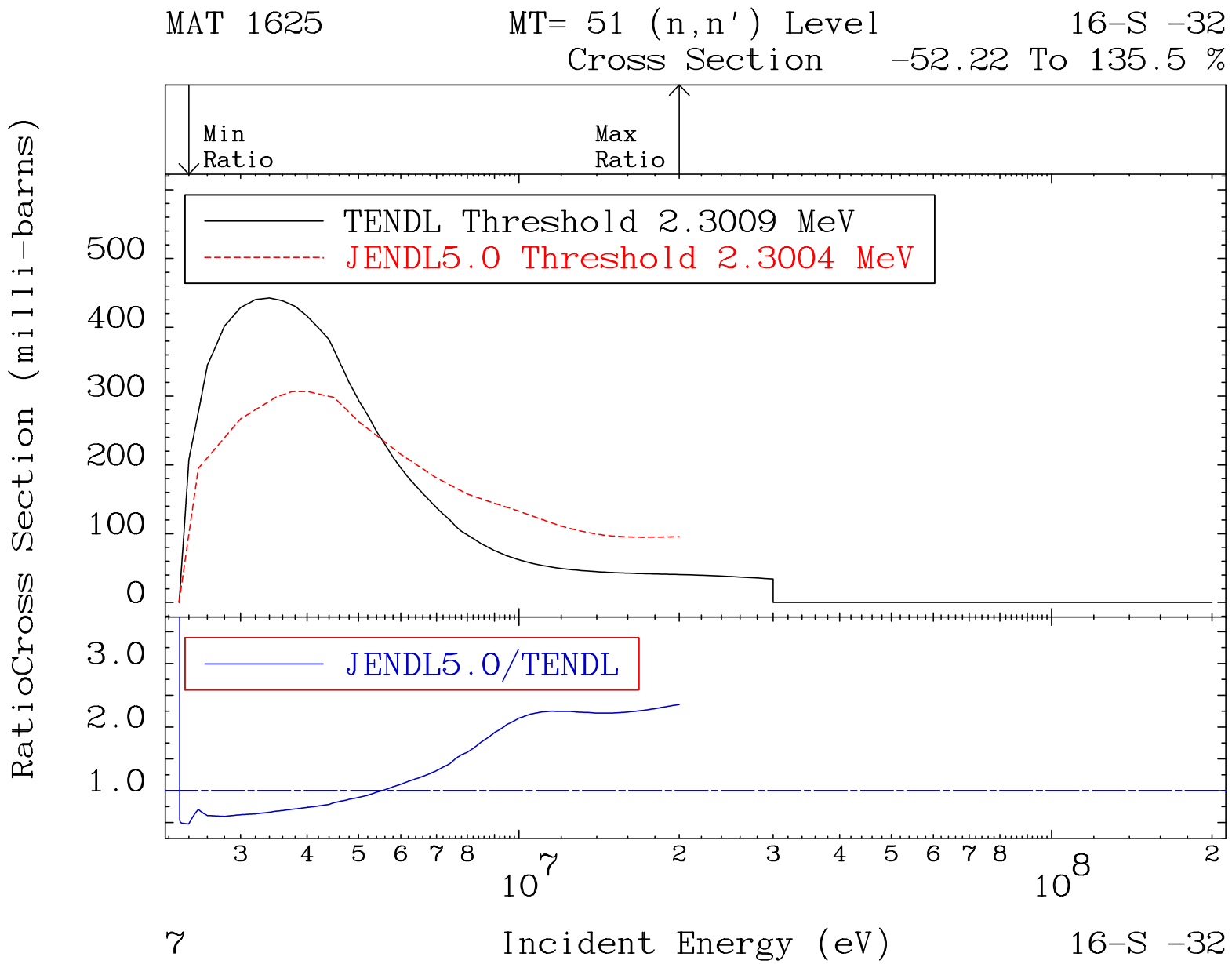

MAT 1625
Elastic
Cross Section
16-S -32
-98.57 To 701.3 %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
16-S -32

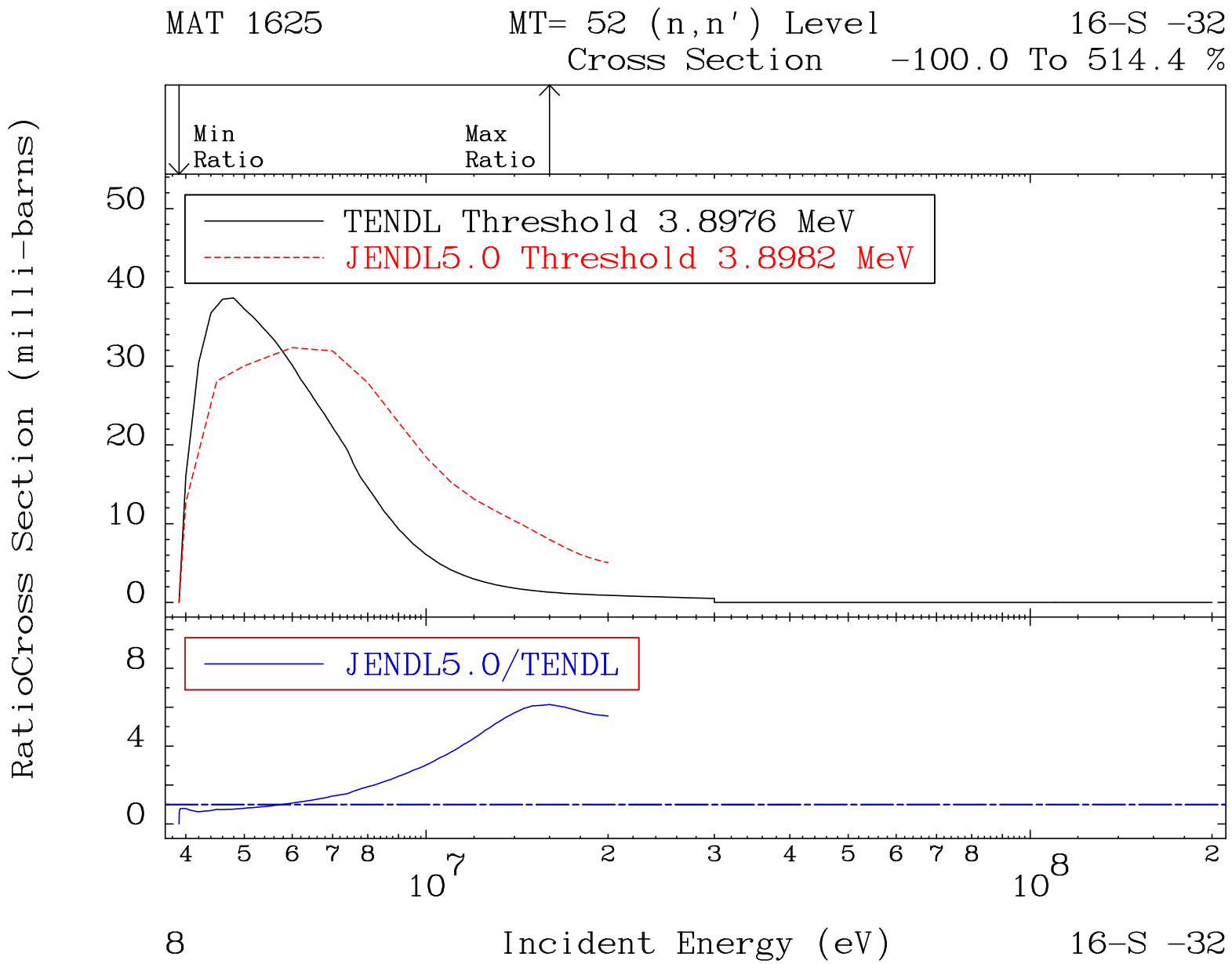

MAT 1625
Inelastic
Cross Section
16-S -32
-52.22 To 231.8 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.3009 MeV
JENDL5.0 Threshold 2.3004 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
700
600
500
400
300
200
100
0
4
2
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
3
Incident Energy (eV)
16-S -32

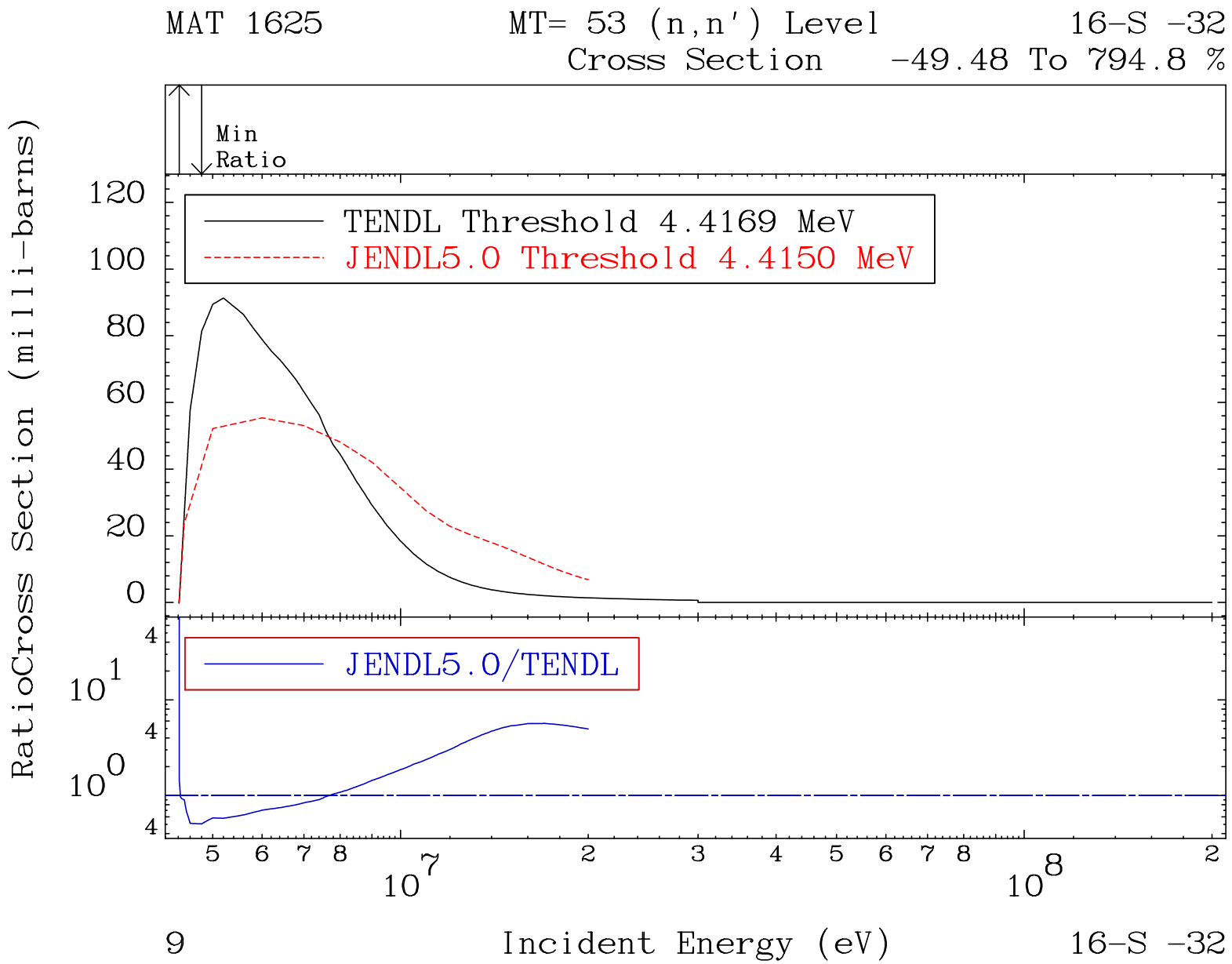

MAT 1625
(n,2n)
Cross Section
16-S -32
-100.0 To -0.491%
Max
Ratio
TENDL Threshold 15.519 MeV
JENDL5.0 Threshold 15.564 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
1.2
0.6
0.0
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
16-S -32

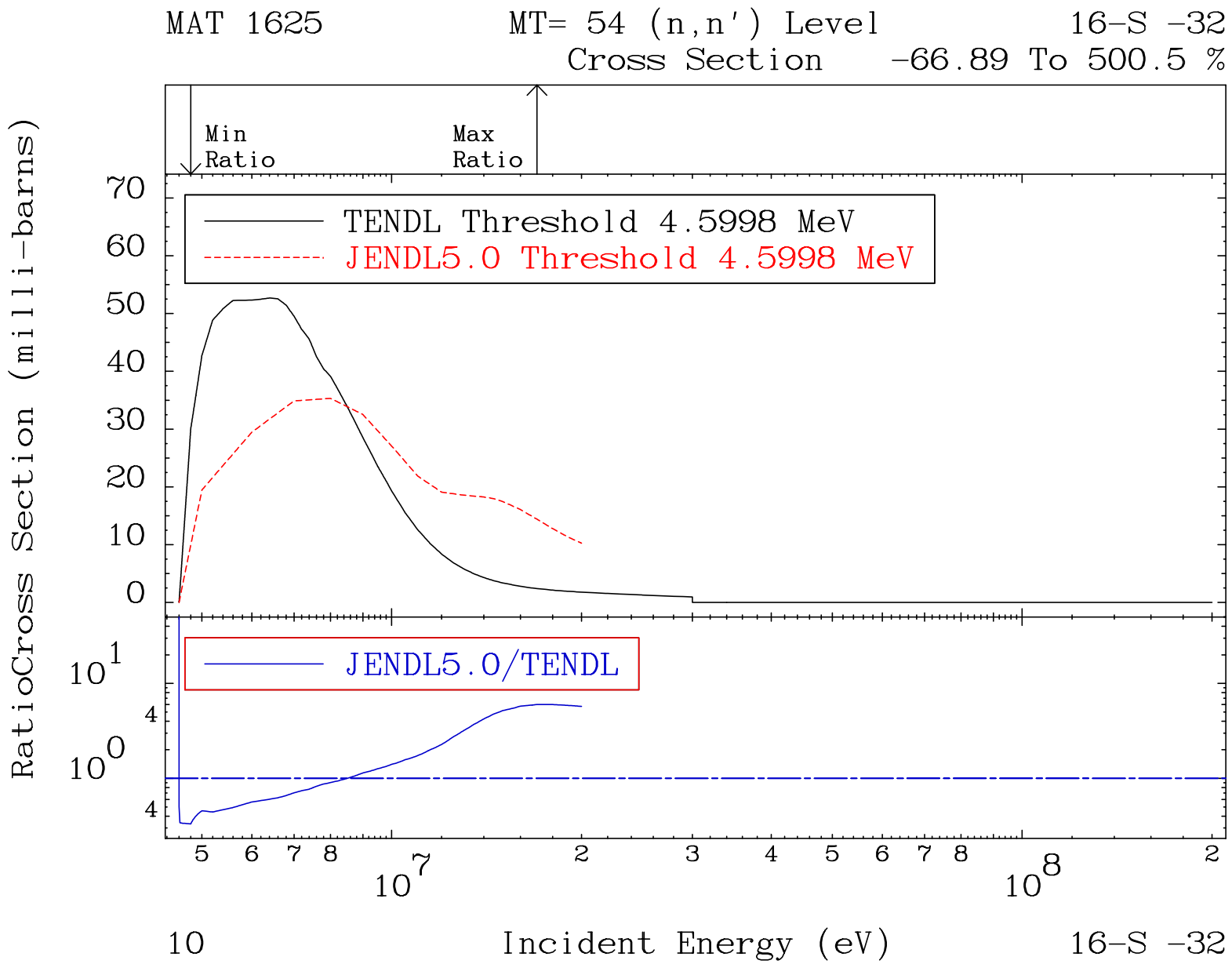

MAT 1625
(n,n') α
Cross Section
16-S -32
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 7.1668 MeV
JENDL5.0 Threshold 7.2000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
2.0
1.0
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
5
Incident Energy (eV)
16-S -32

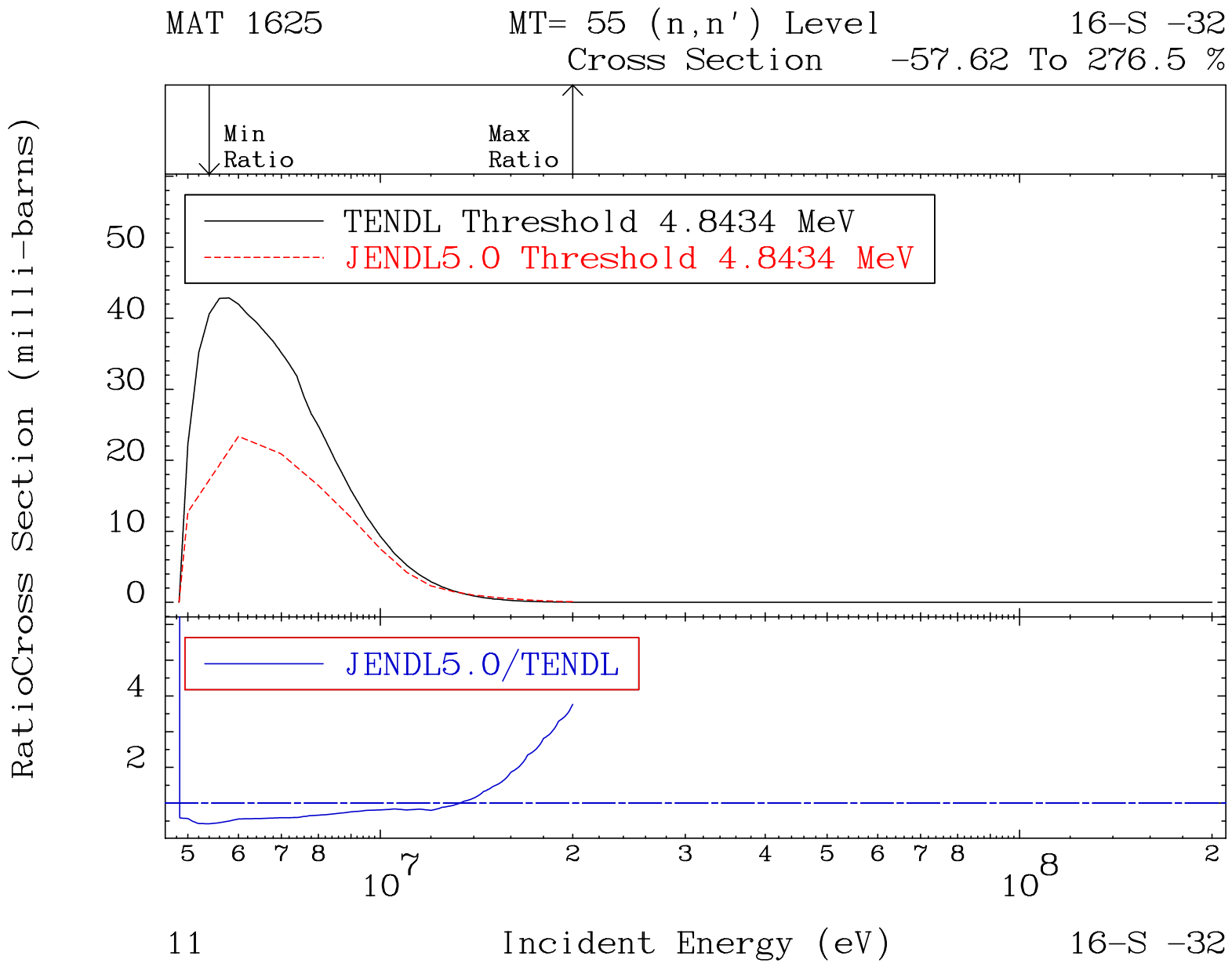

MAT 1625
(n,n') p
Cross Section
16-S -32
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 9.1436 MeV
JENDL5.0 Threshold 9.2000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
120
60
0
9
2
3
4
5
6
7
8
9
2
10^7
10^8
6
Incident Energy (eV)
16-S -32

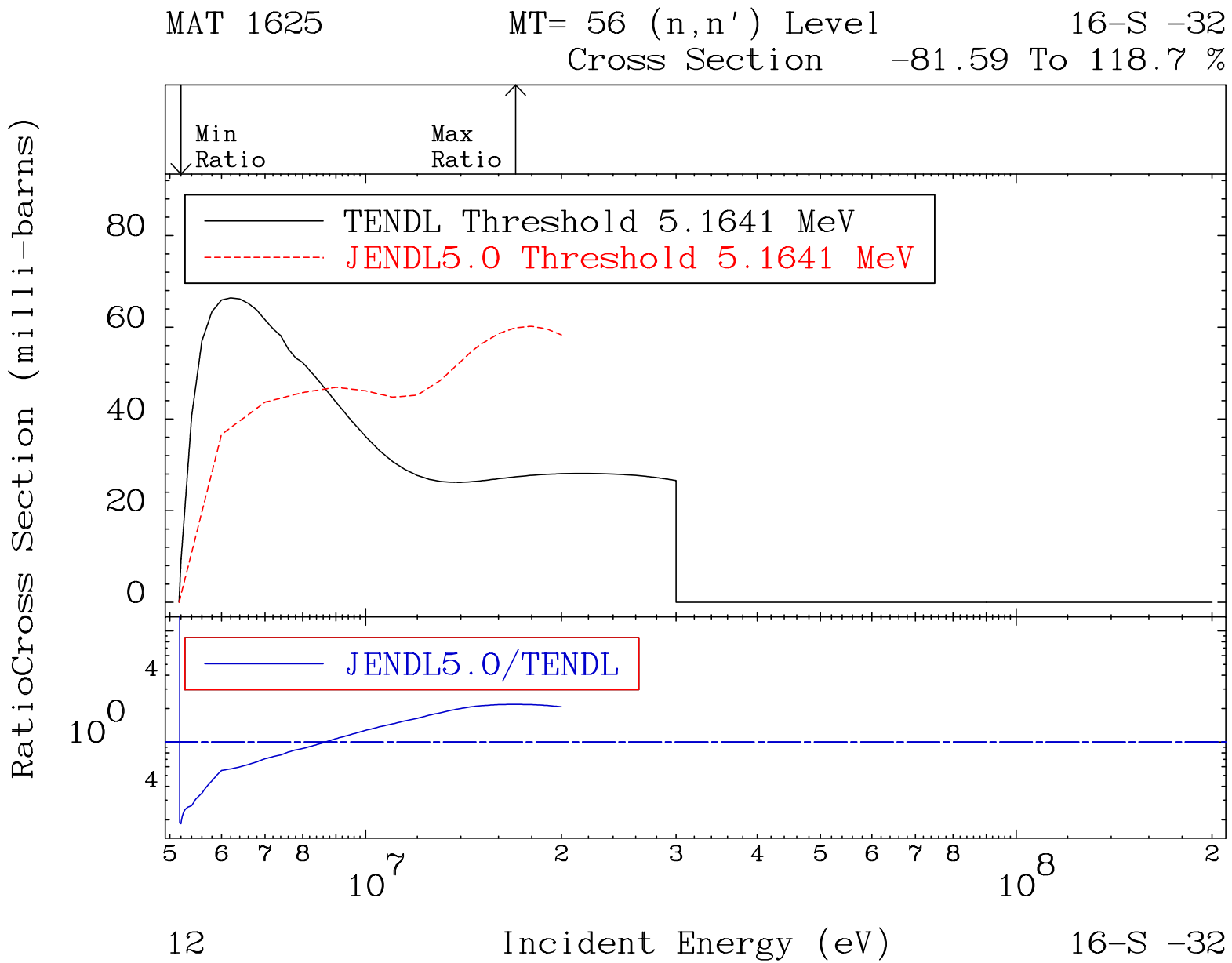

MAT 1625
MT= 51 (n,n') Level
16-S -32
Cross Section -52.22 To 135.5 %
Min Ratio
Max Ratio
TENDL Threshold 2.3009 MeV
JENDL5.0 Threshold 2.3004 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
3.0
2.0
1.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
7
Incident Energy (eV)
16-S -32

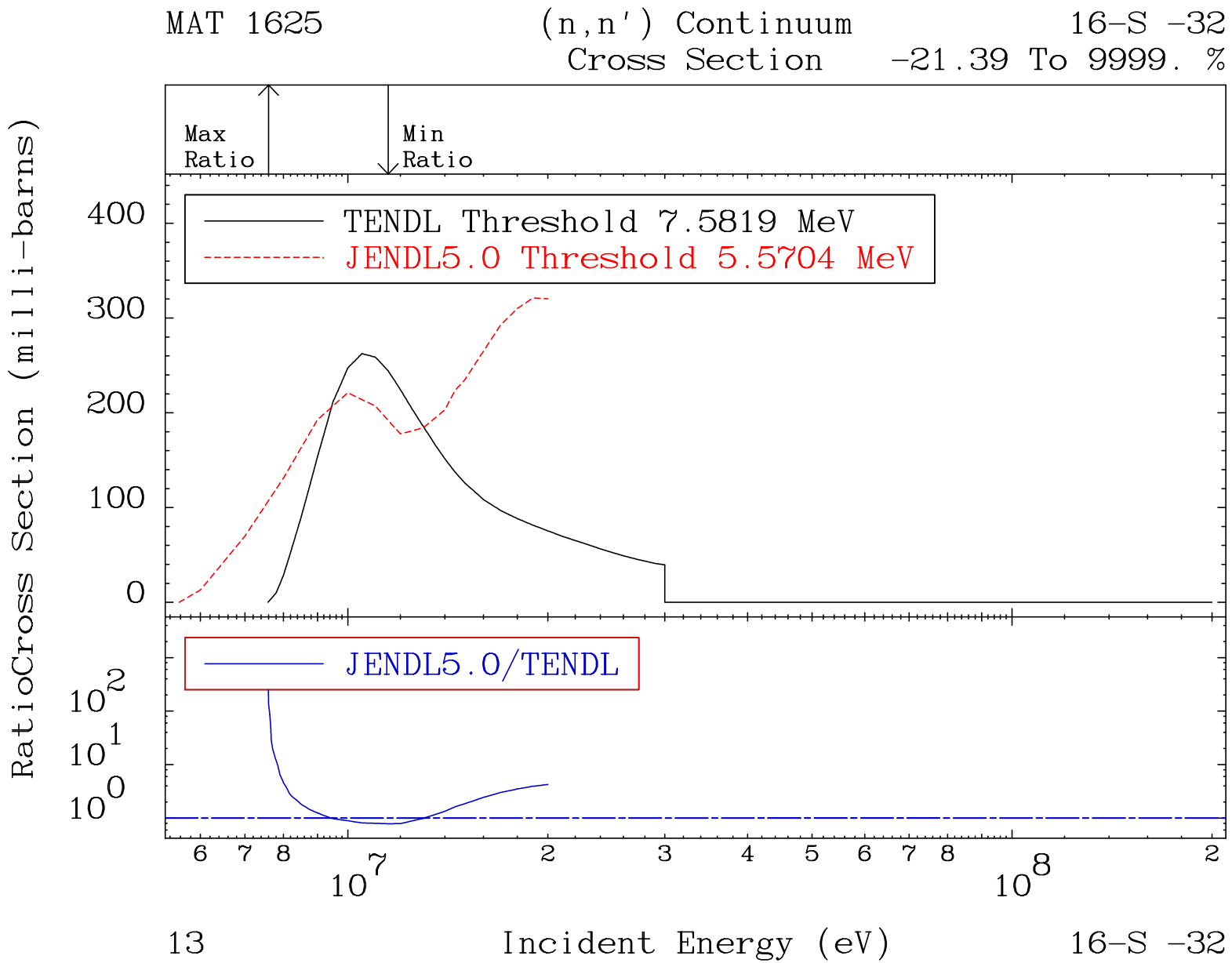

MAT 1625
MT= 52 (n,n') Level
16-S -32
Cross Section -100.0 To 514.4 %
Min Ratio
Max Ratio
TENDL Threshold 3.8976 MeV
JENDL5.0 Threshold 3.8982 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
8
16-S -32

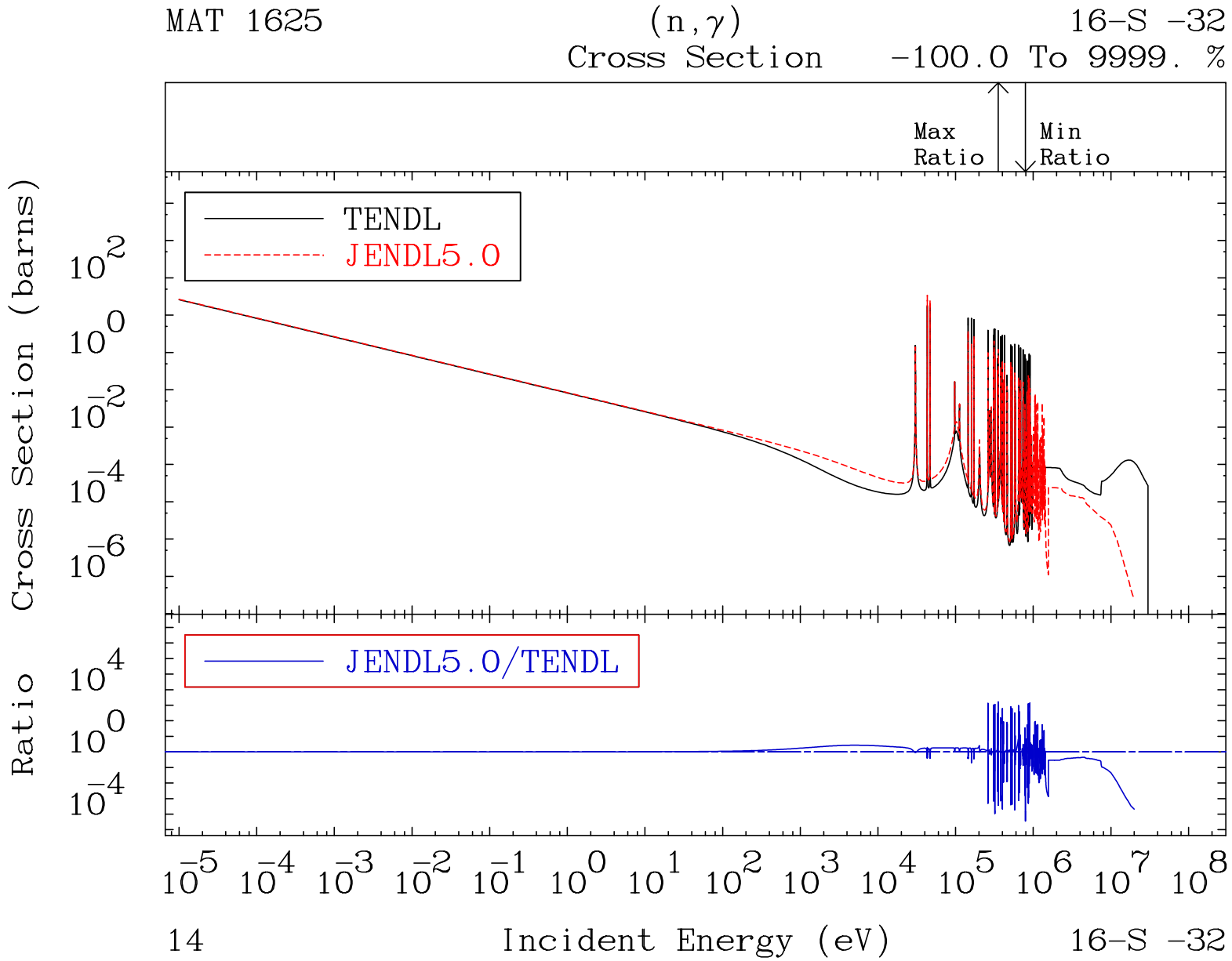

MAT 1625
MT= 53 (n,n') Level
16-S -32
Cross Section -49.48 To 794.8 %
Min
Ratio
120
100
80
60
40
20
0
TENDL Threshold 4.4169 MeV
JENDL5.0 Threshold 4.4150 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
9
16-S -32

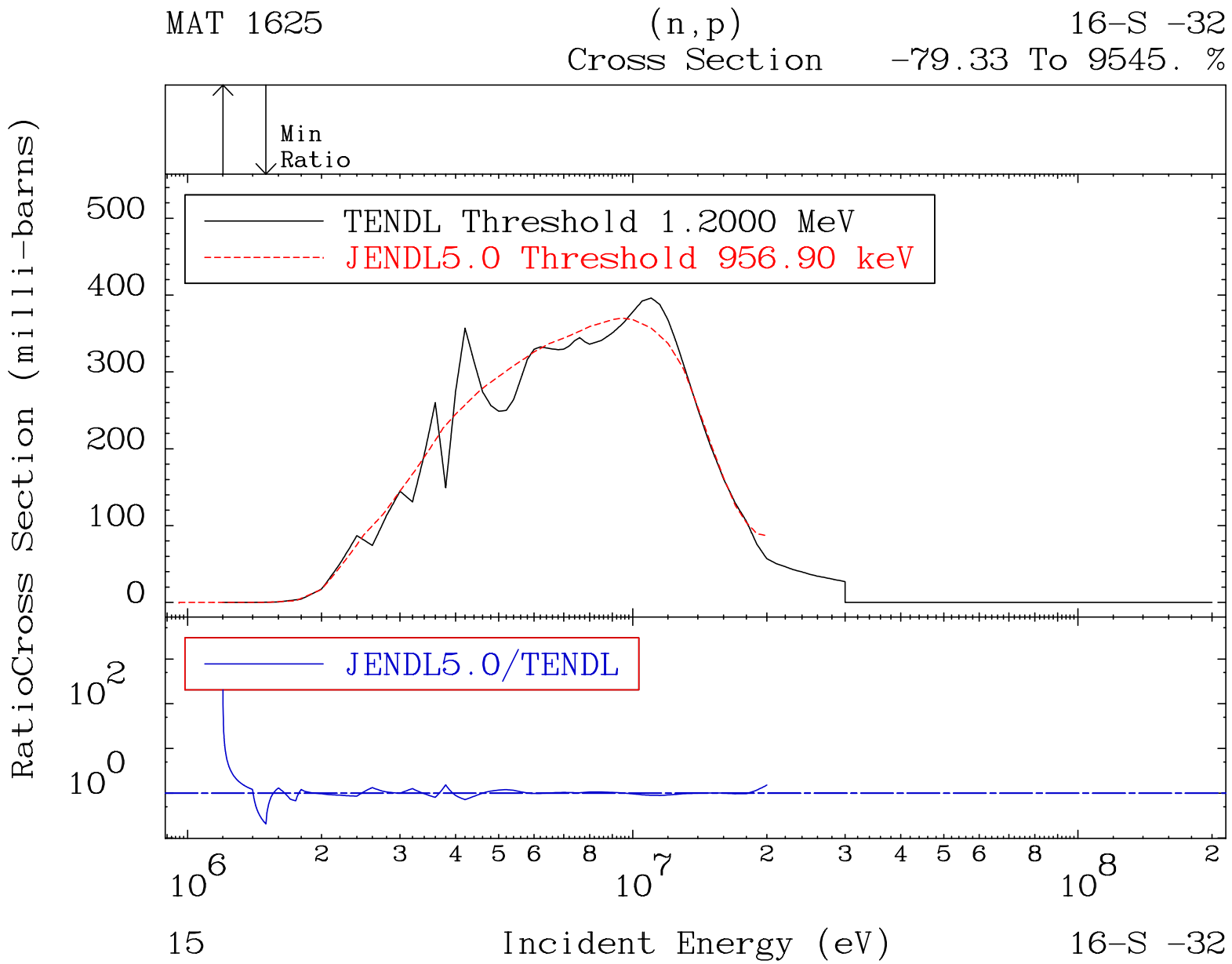

MAT 1625
MT= 54 (n,n') Level
16-S -32
Cross Section -66.89 To 500.5 %
Min Ratio
Max Ratio
TENDL Threshold 4.5998 MeV
JENDL5.0 Threshold 4.5998 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
16-S -32

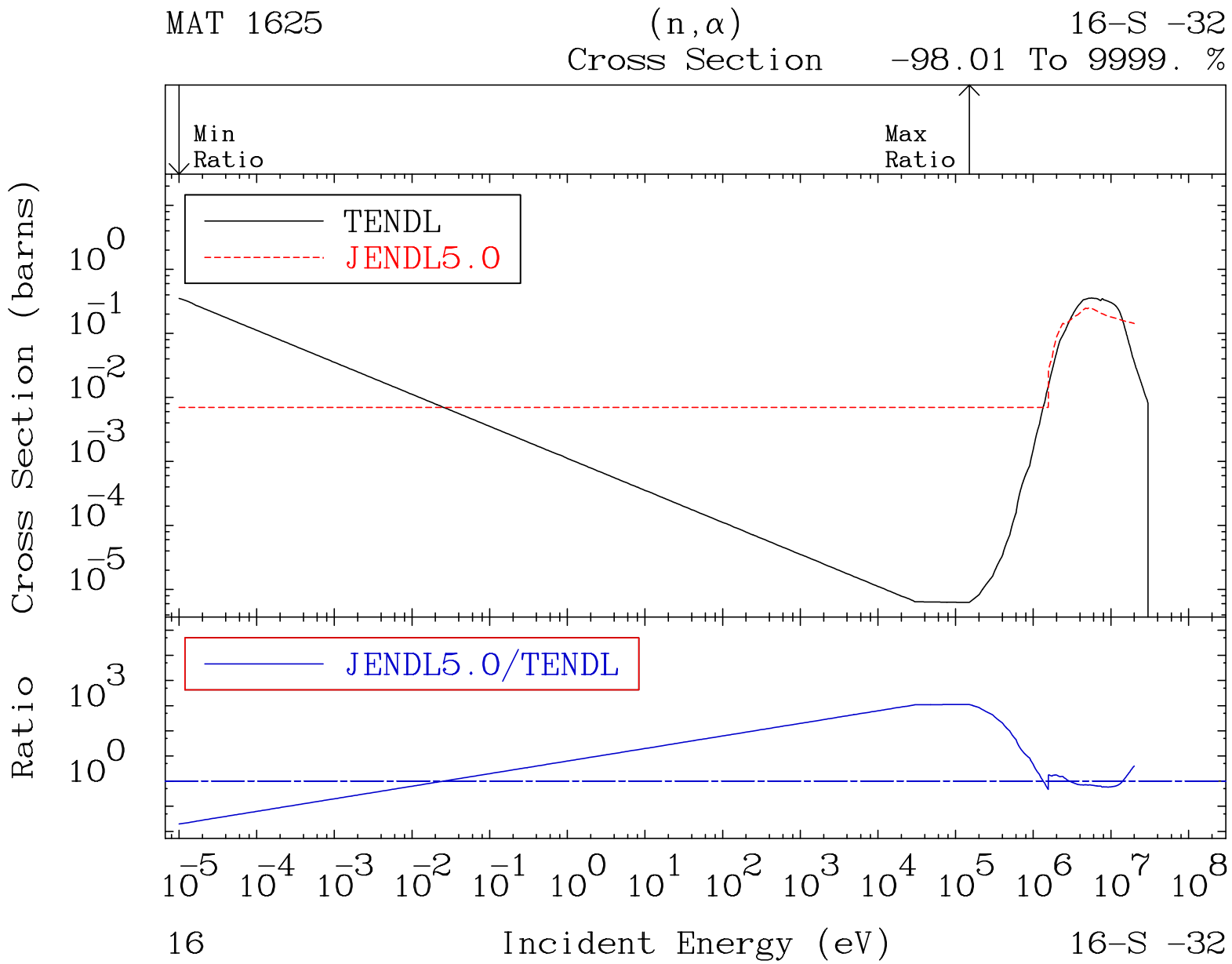

MAT 1625
MT= 55 (n,n') Level
16-S -32
Cross Section
-57.62 To 276.5 %
Min Ratio
Max Ratio
TENDL Threshold 4.8434 MeV
JENDL5.0 Threshold 4.8434 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
4
2
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
16-S -32

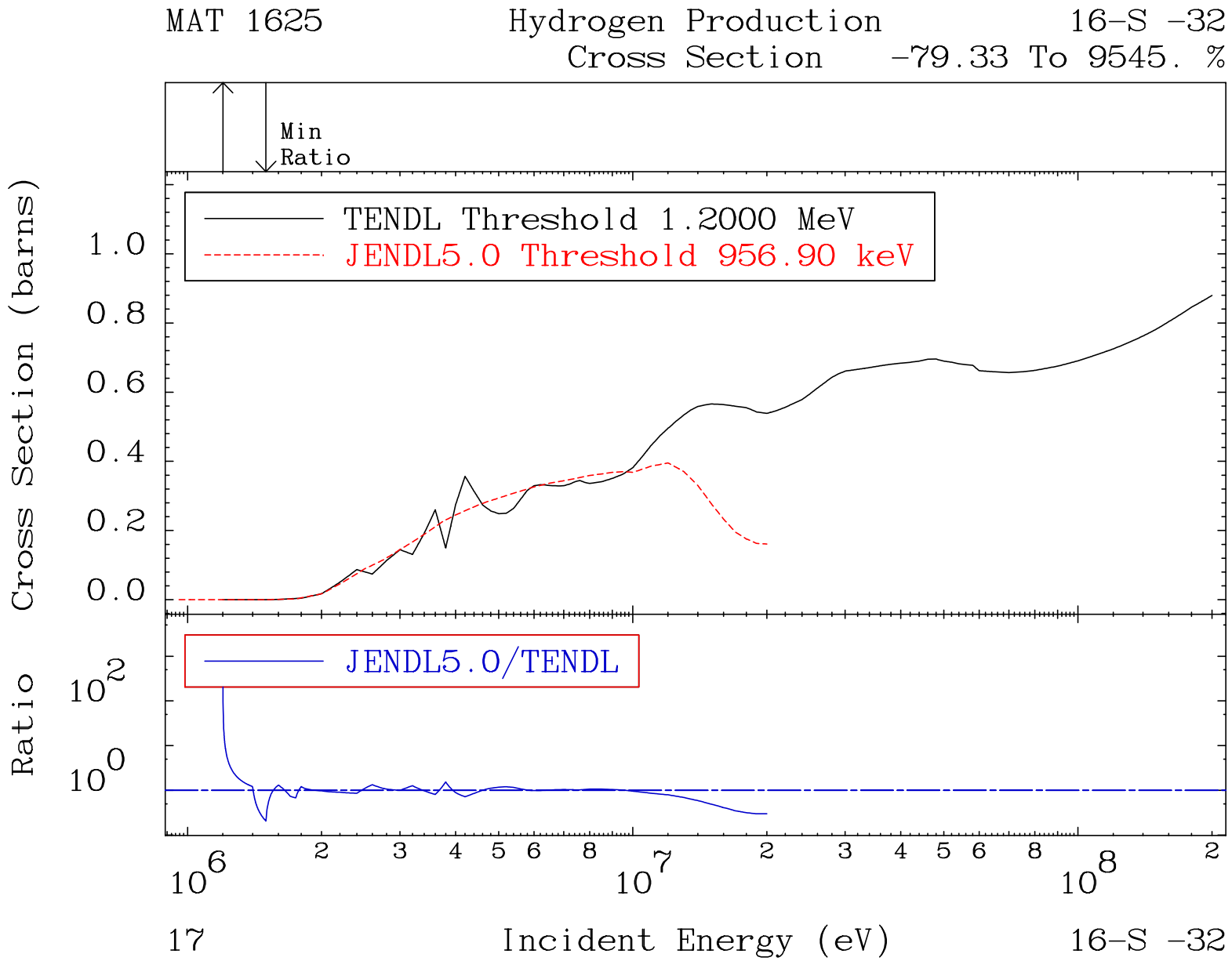

MAT 1625
MT= 56 (n,n') Level
16-S -32
Cross Section -81.59 To 118.7 %
Min Ratio
Max Ratio
TENDL Threshold 5.1641 MeV
JENDL5.0 Threshold 5.1641 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
4
10^0
4
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
16-S -32

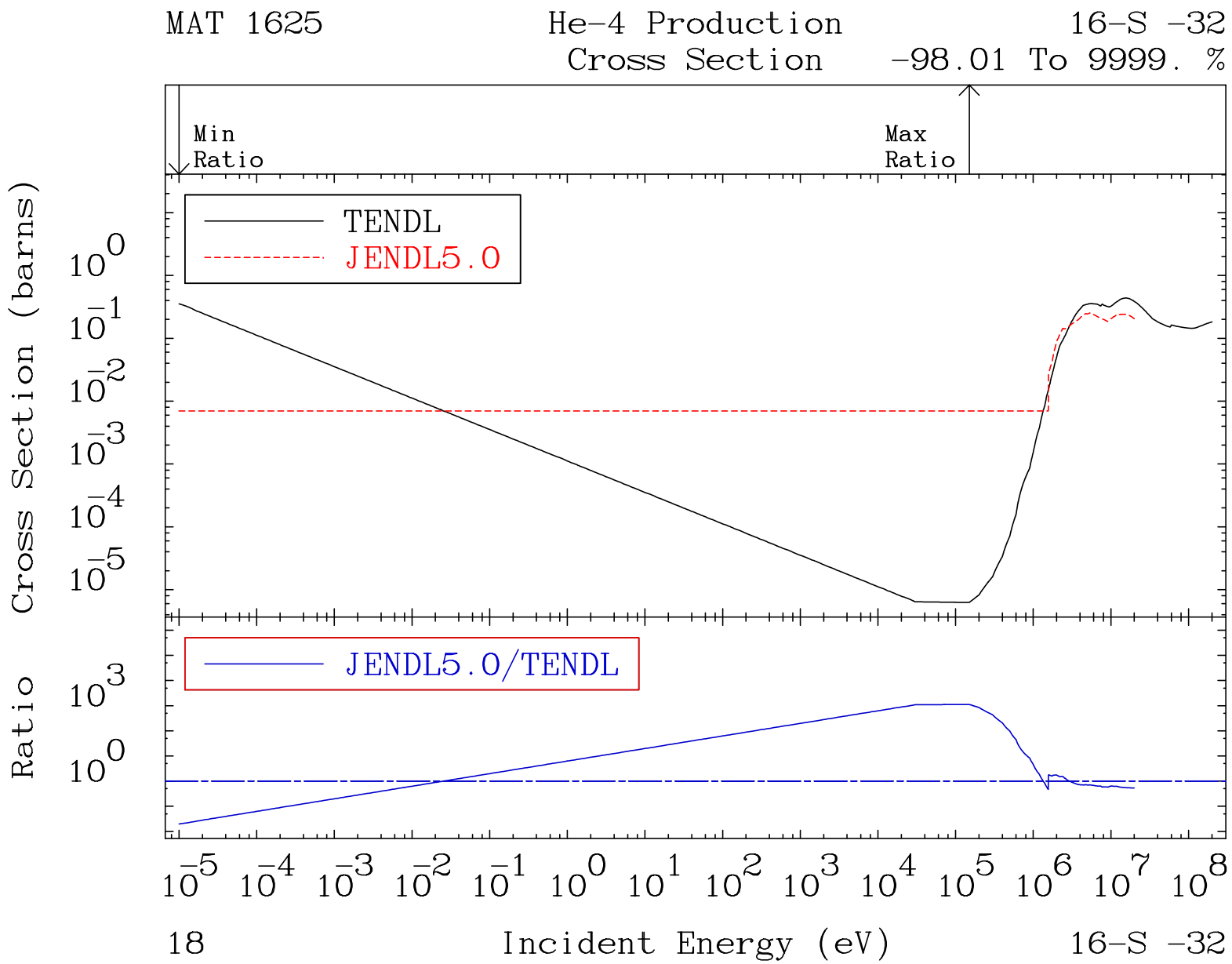

MAT 1625
(n,n') Continuum
Cross Section
16-S -32
-21.39 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.5819 MeV
JENDL5.0 Threshold 5.5704 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
10^2
10^1
10^0
6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
13
16-S -32

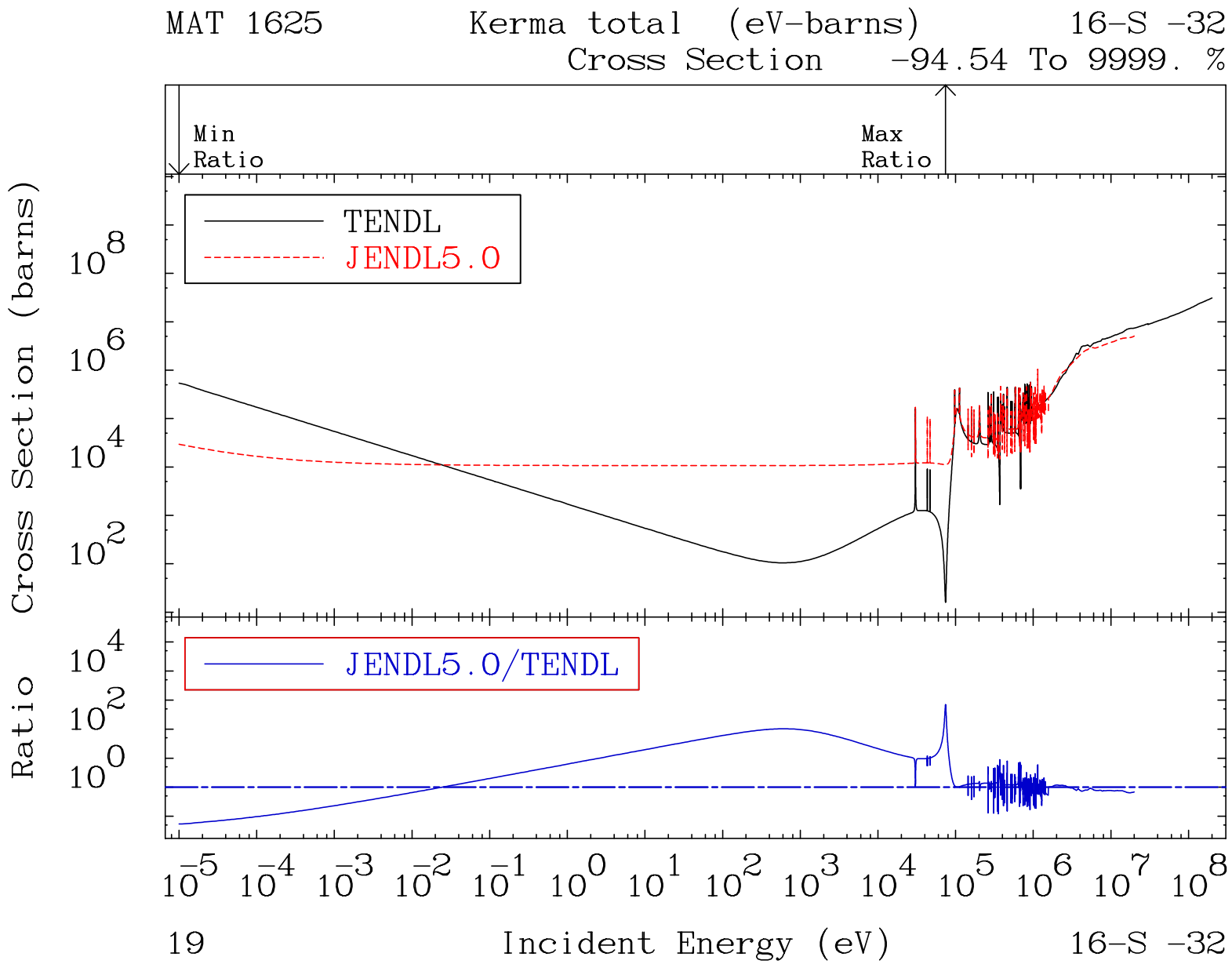

MAT 1625
(n,γ)
Cross Section
16-S -32
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
14
16-S -32

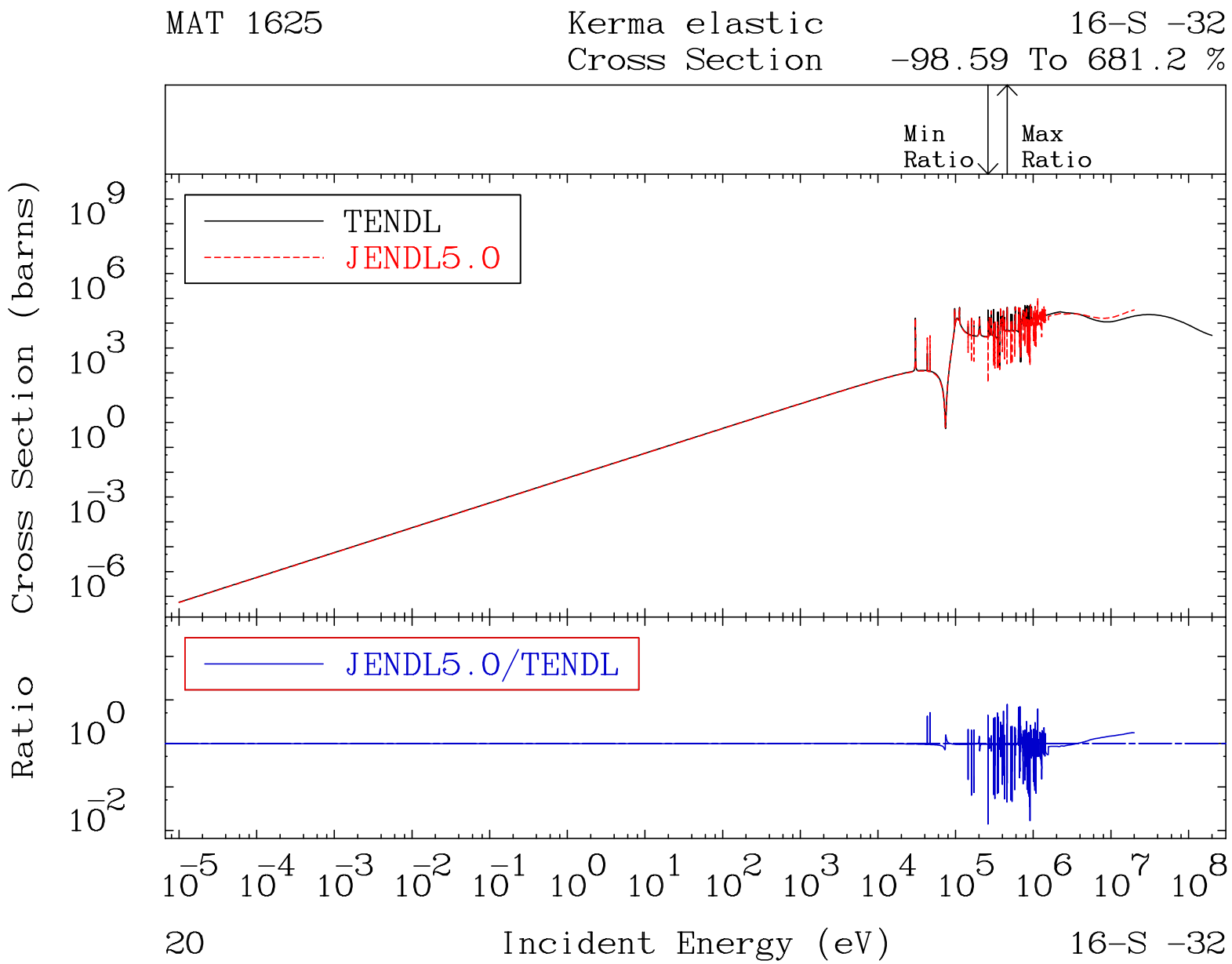

MAT 1625
(n,p)
16-S -32
Cross Section
-79.33 To 9545. %
Min
Ratio
TENDL Threshold 1.2000 MeV
JENDL5.0 Threshold 956.90 keV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
10^2
10^0
10^6
10^7
10^8
2
3
4
5
6
8
15
Incident Energy (eV)
16-S -32

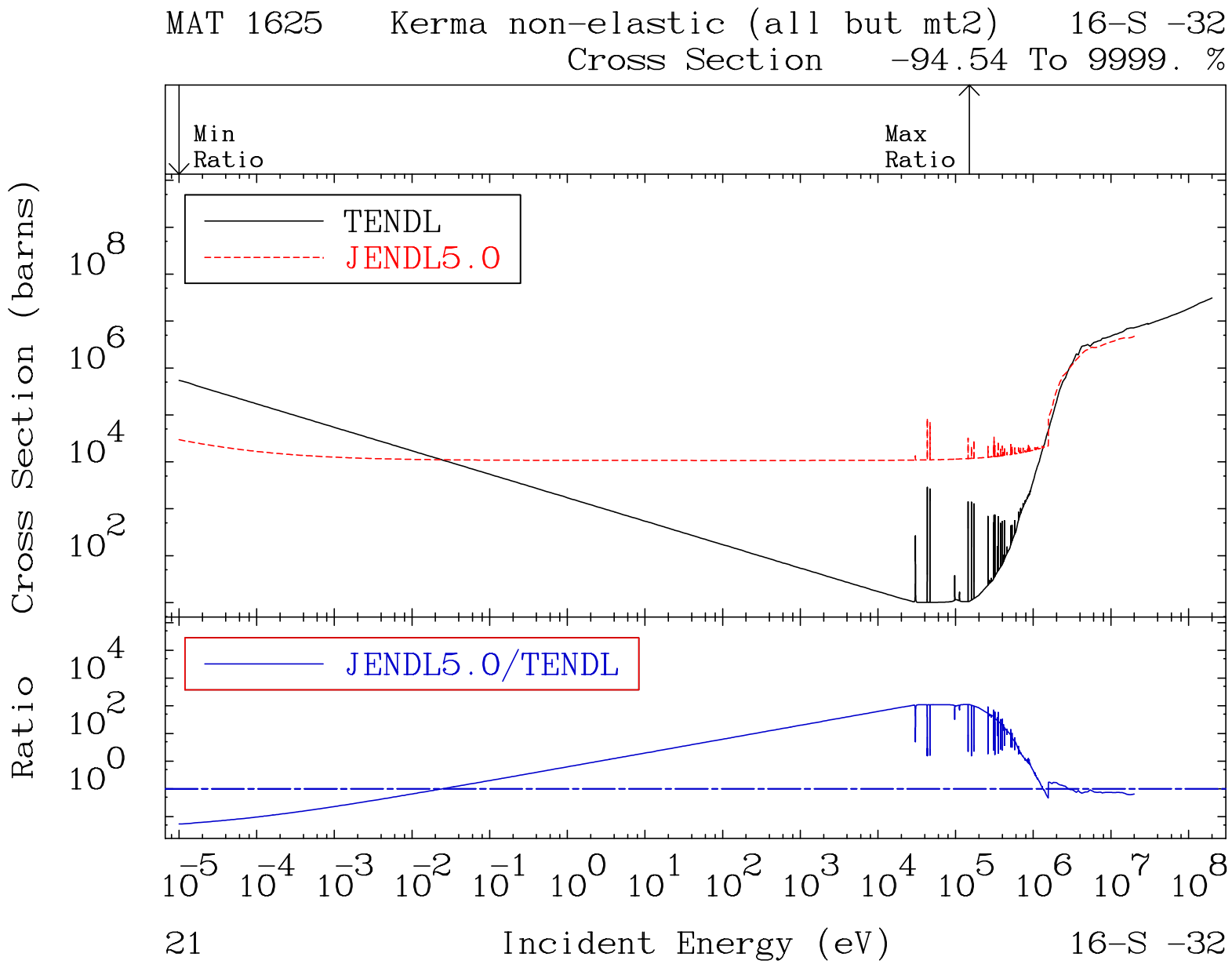

MAT 1625
(n,α)
Cross Section
16-S -32
-98.01 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
16
16-S -32

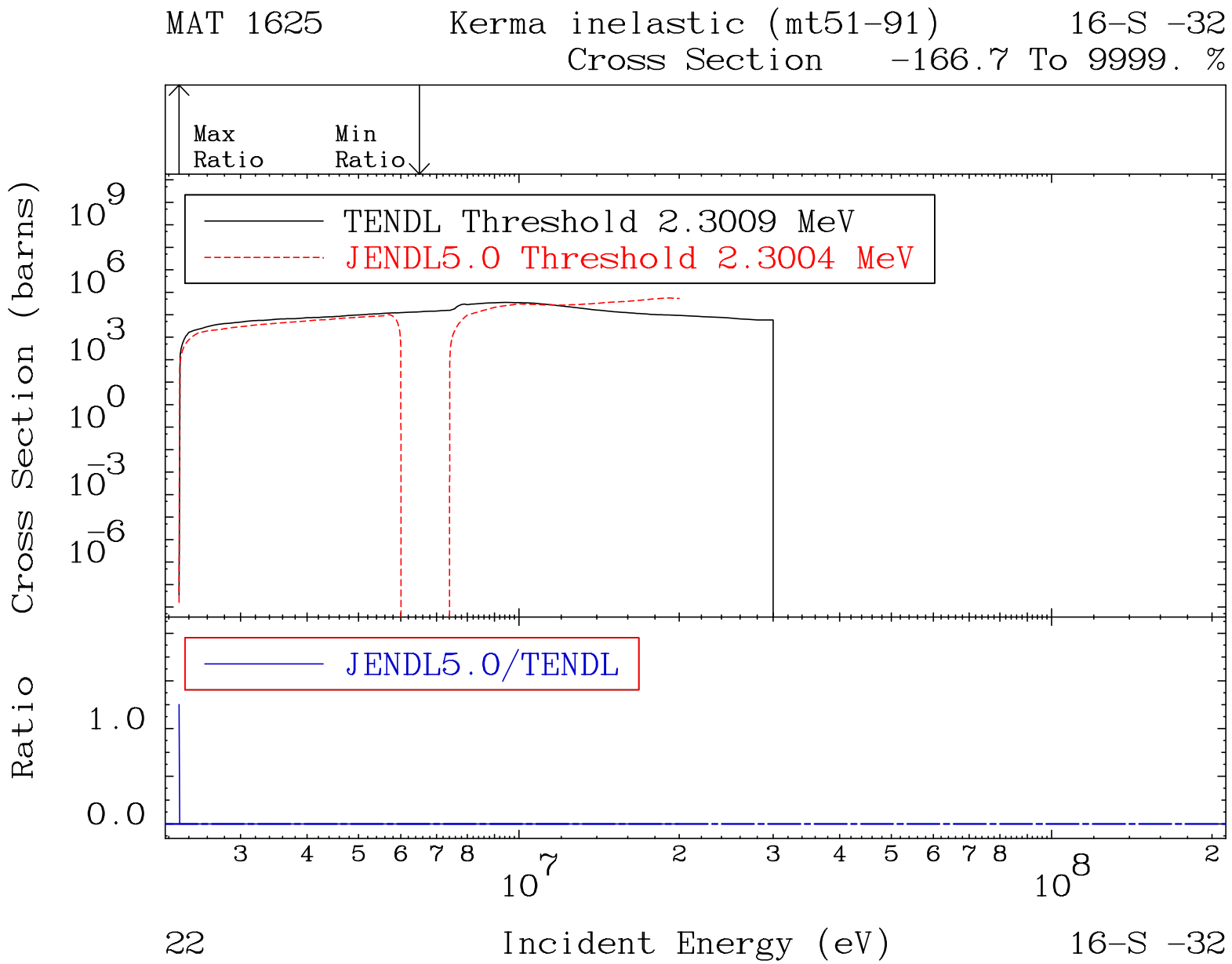

MAT 1625
Hydrogen Production
16-S -32
Cross Section
-79.33 To 9545. %
Min
Ratio
TENDL Threshold 1.2000 MeV
JENDL5.0 Threshold 956.90 keV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
JENDL5.0/TENDL
Ratio
10^2
10^0
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
17
Incident Energy (eV)
16-S -32

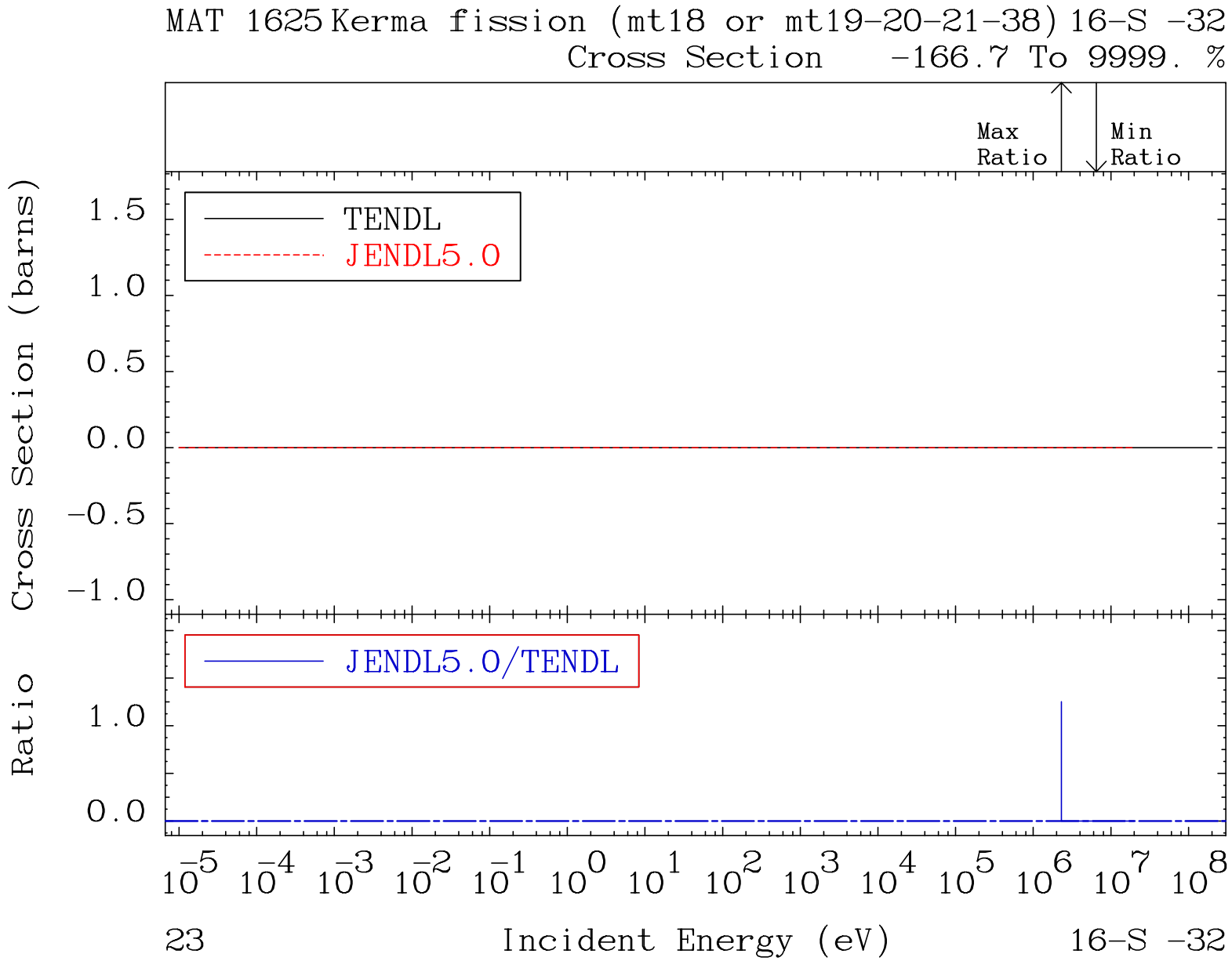

MAT 1625
He-4 Production
Cross Section
16-S -32
-98.01 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
18
16-S -32

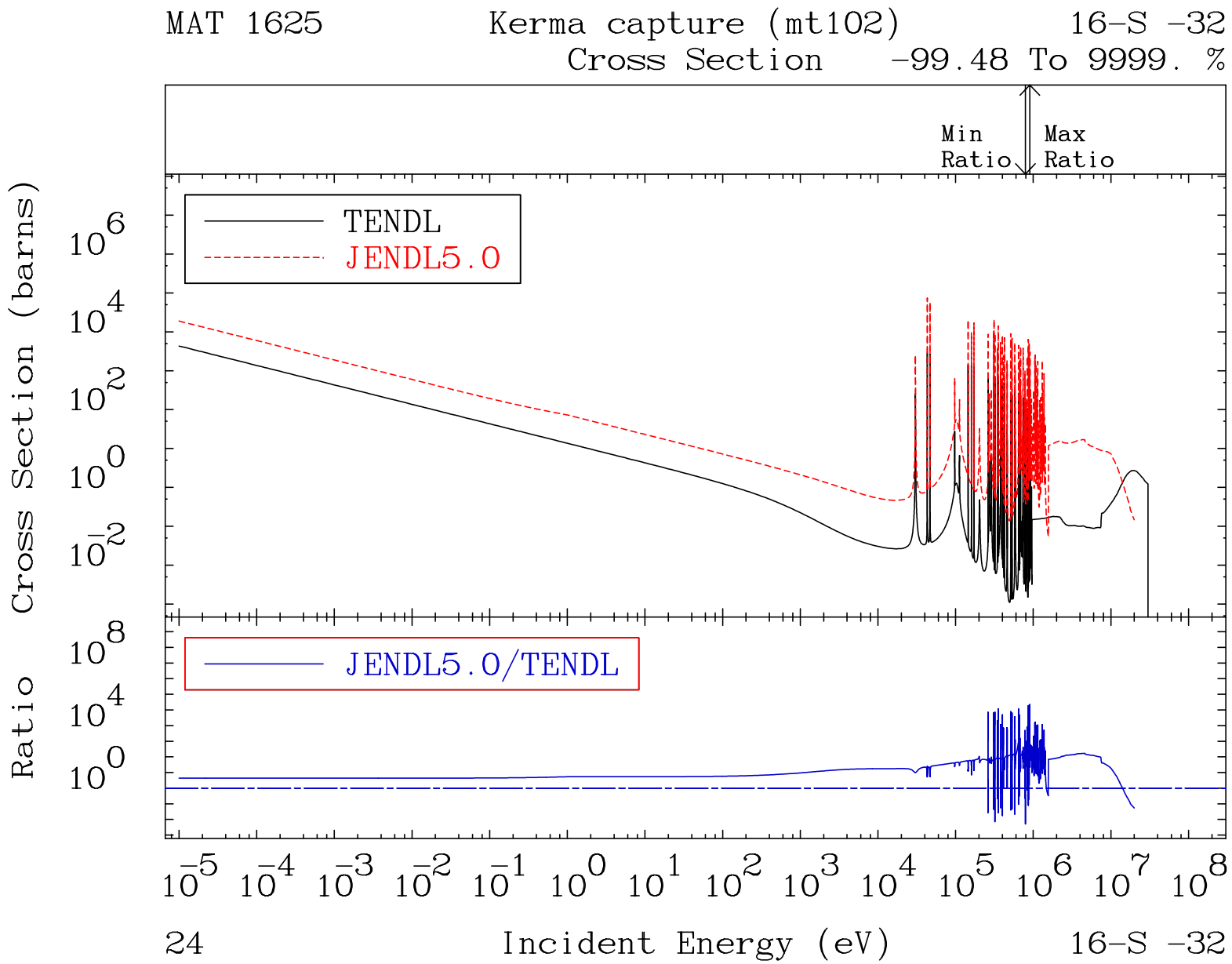

MAT 1625
Kerma total (eV-barns)
16-S -32
Cross Section -94.54 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
Ratio
JENDL5.0/TENDL
Incident Energy (eV)
19
16-S -32

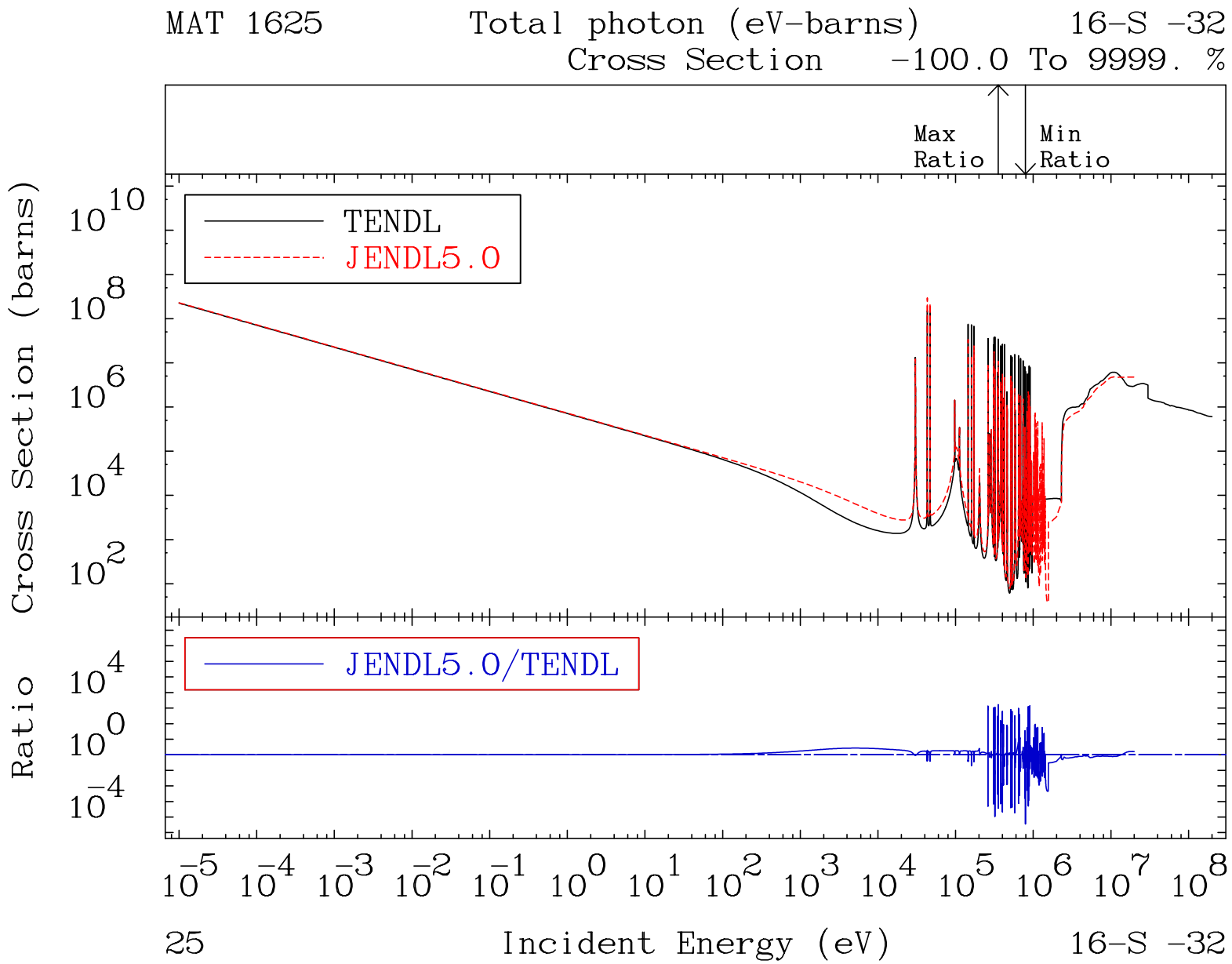

MAT 1625
Kerma elastic
Cross Section
16-S -32
-98.59 To 681.2 %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
20
16-S -32

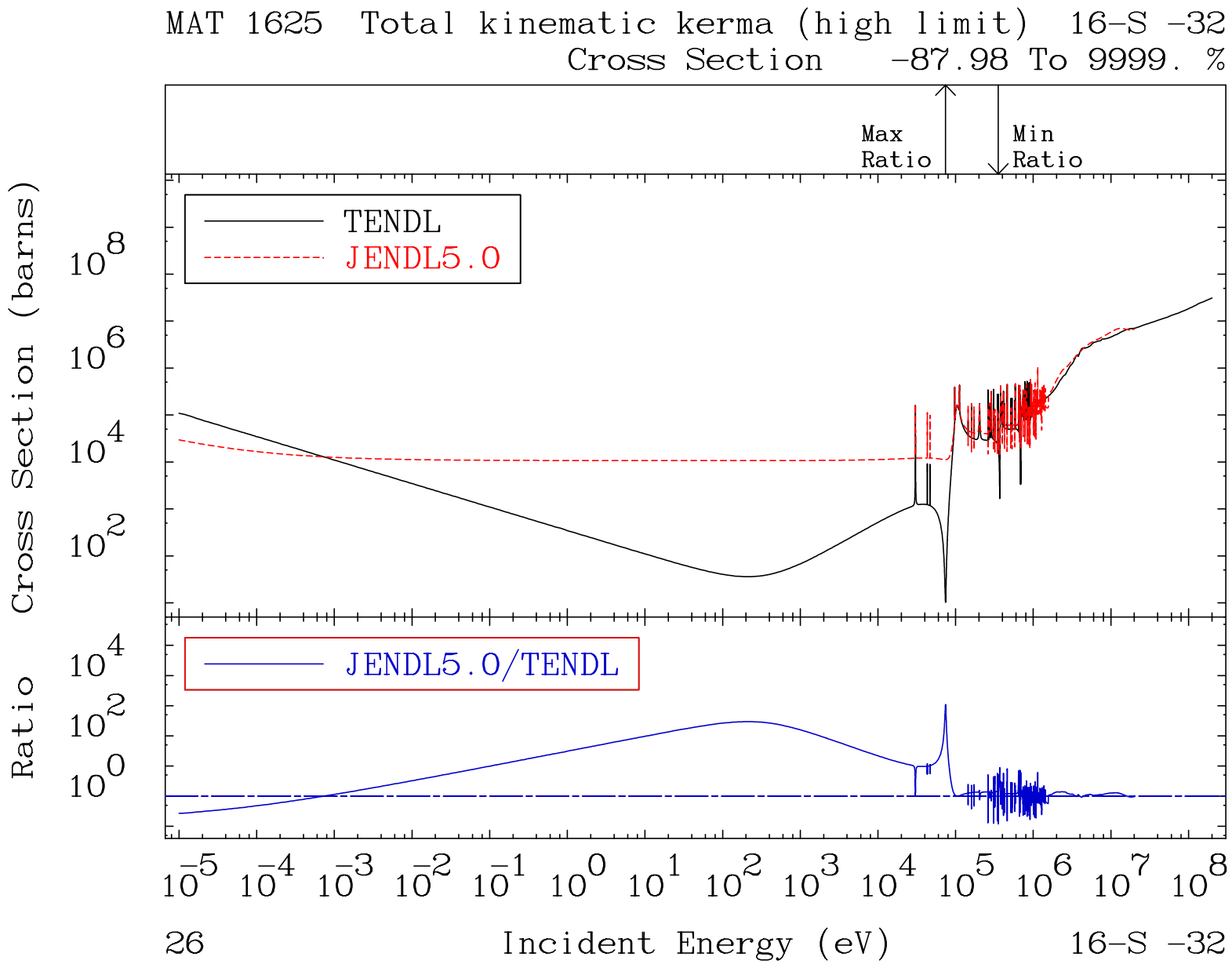

MAT 1625 Kerma non-elastic (all but mt2) 16-S -32
Cross Section -94.54 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
21
16-S -32

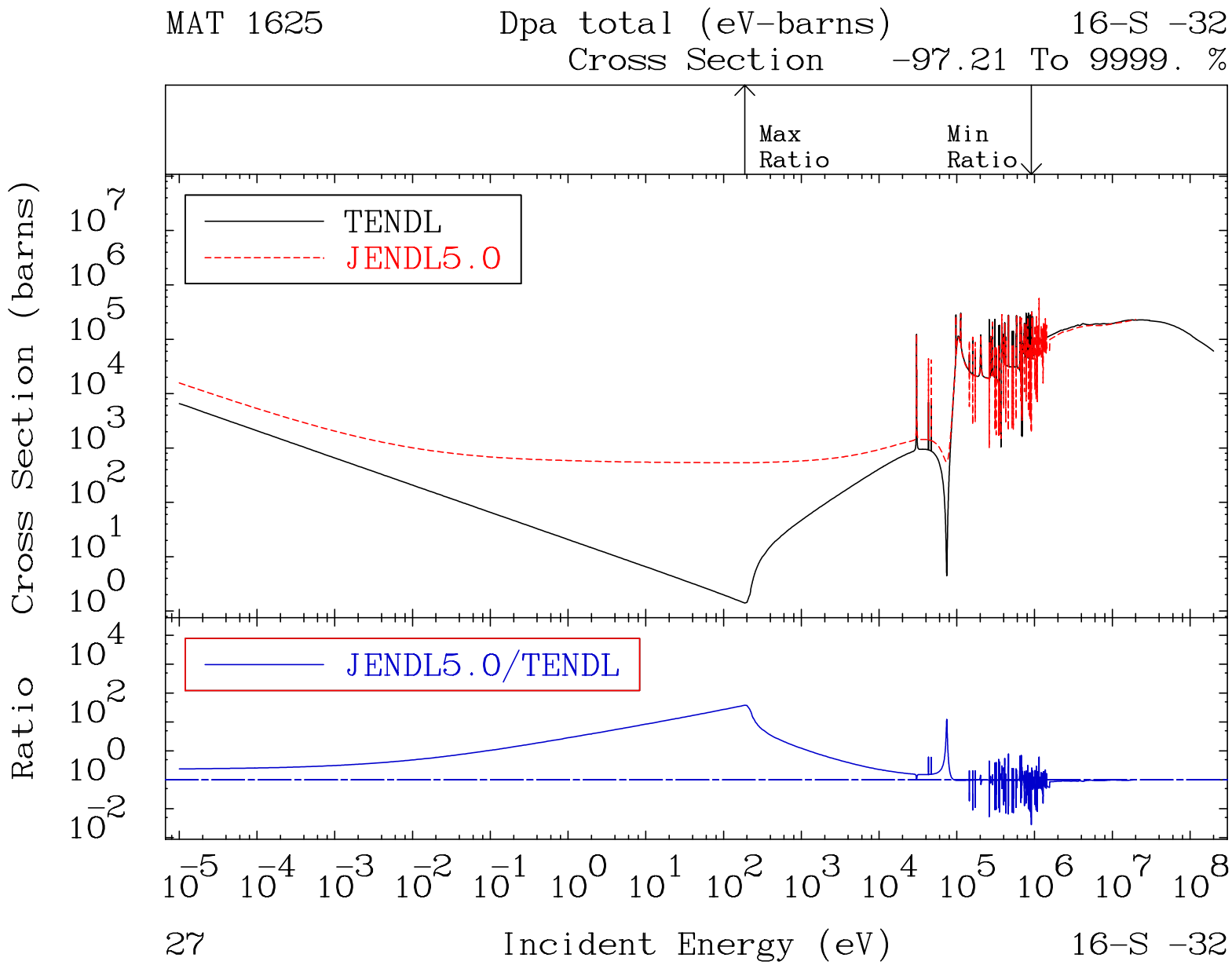

MAT 1625
Kerma inelastic (mt51-91)
16-S -32
Cross Section -166.7 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.3009 MeV
JENDL5.0 Threshold 2.3004 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
22
16-S -32

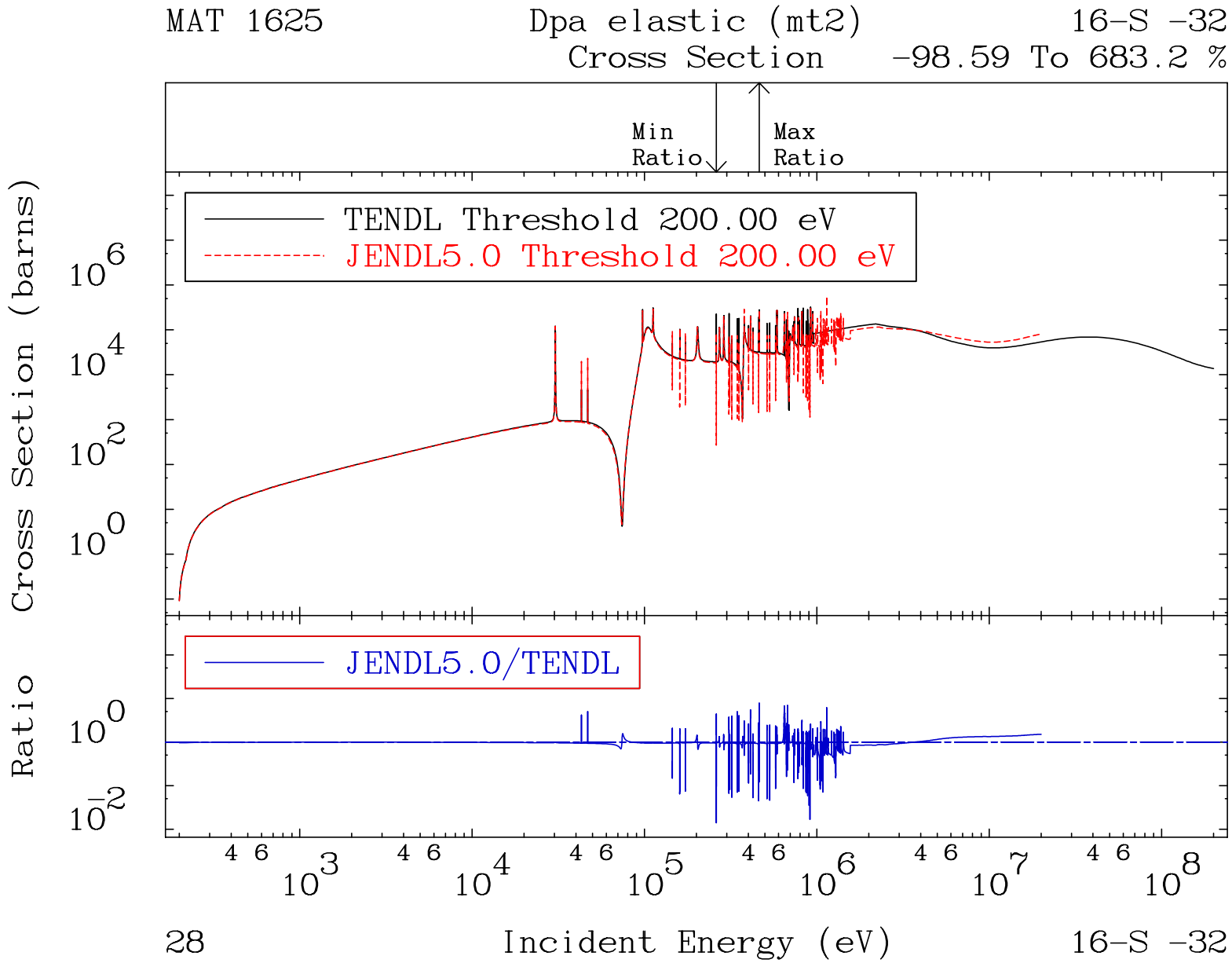

MAT 1625 Kerma fission (mt18 or mt19-20-21-38) 16-S -32
Cross Section -166.7 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
23
Incident Energy (eV)
16-S -32

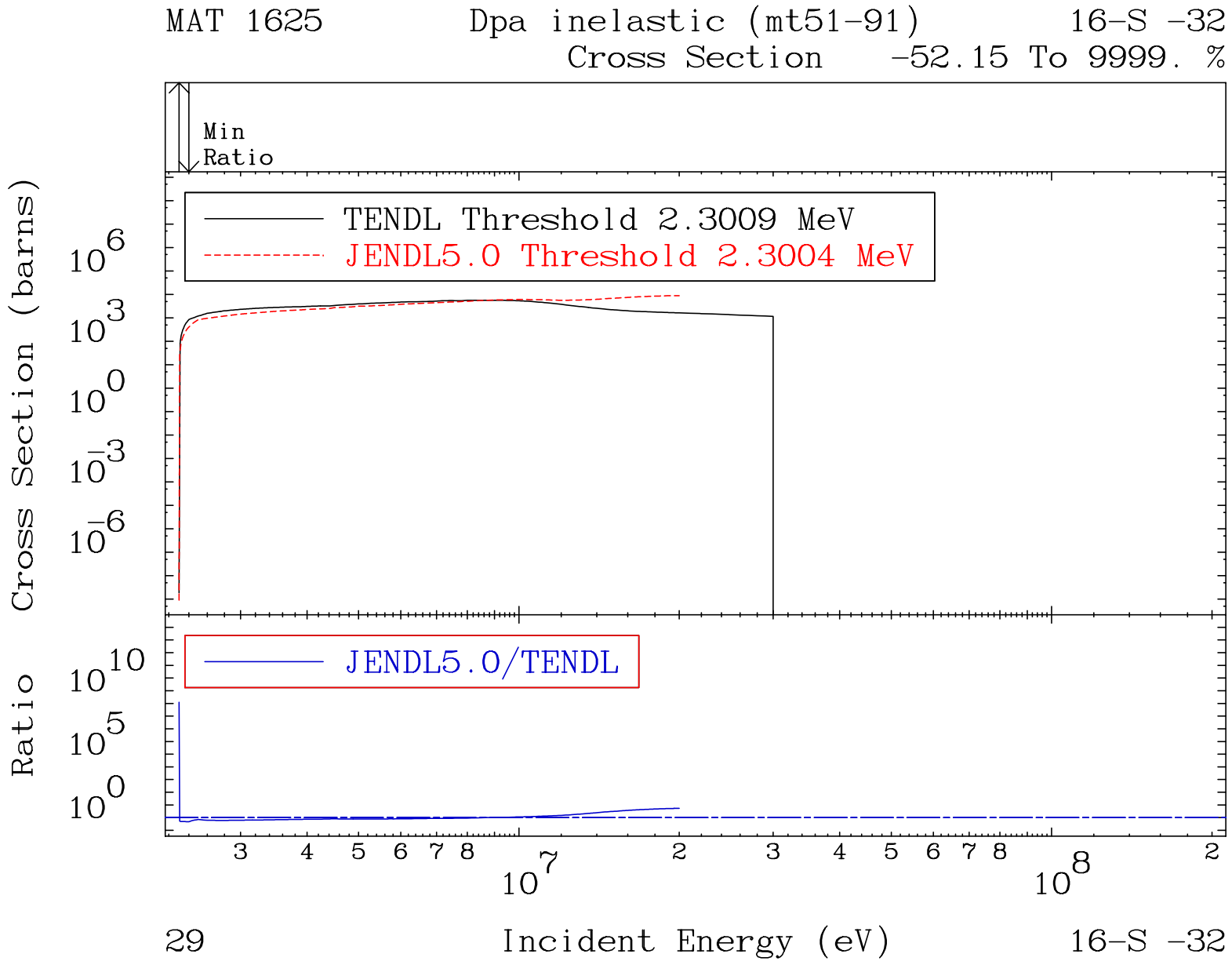

MAT 1625
Kerma capture (mt102)
16-S -32
Cross Section -99.48 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
24
16-S -32

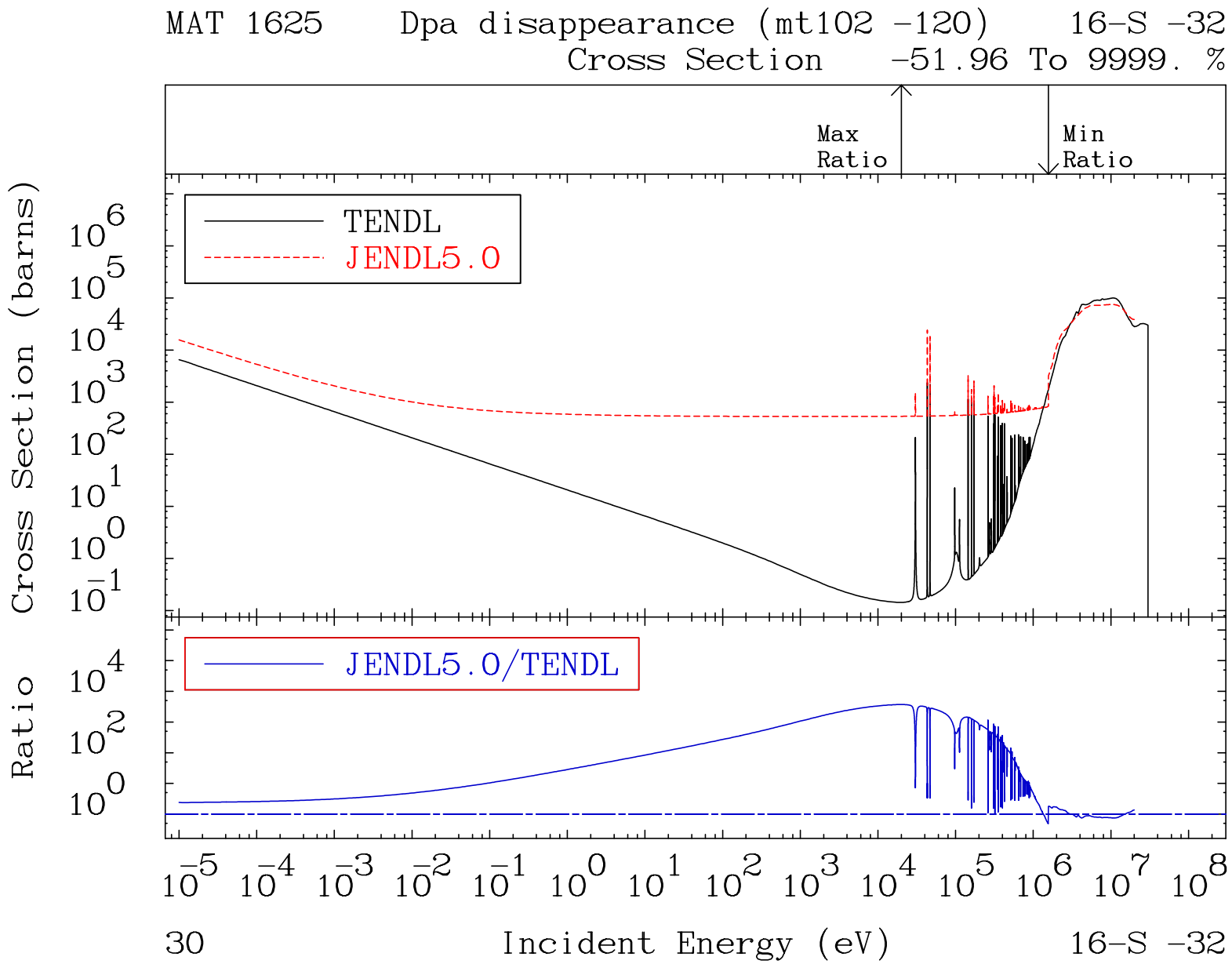

MAT 1625
Total photon (eV-barns)
16-S -32
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
25
16-S -32

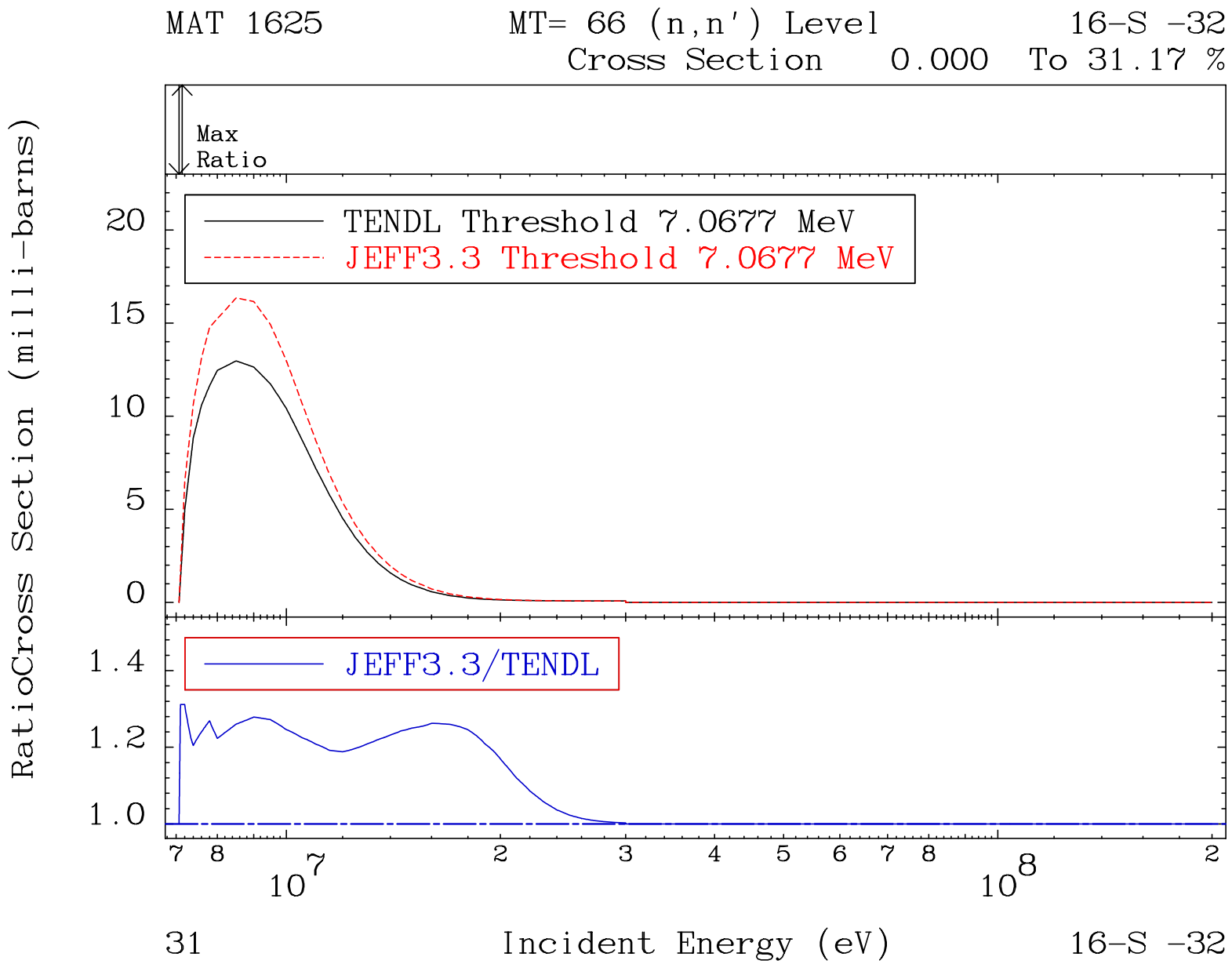

MAT 1625 Total kinematic kerma (high limit) 16-S -32
Cross Section -87.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
26
16-S -32

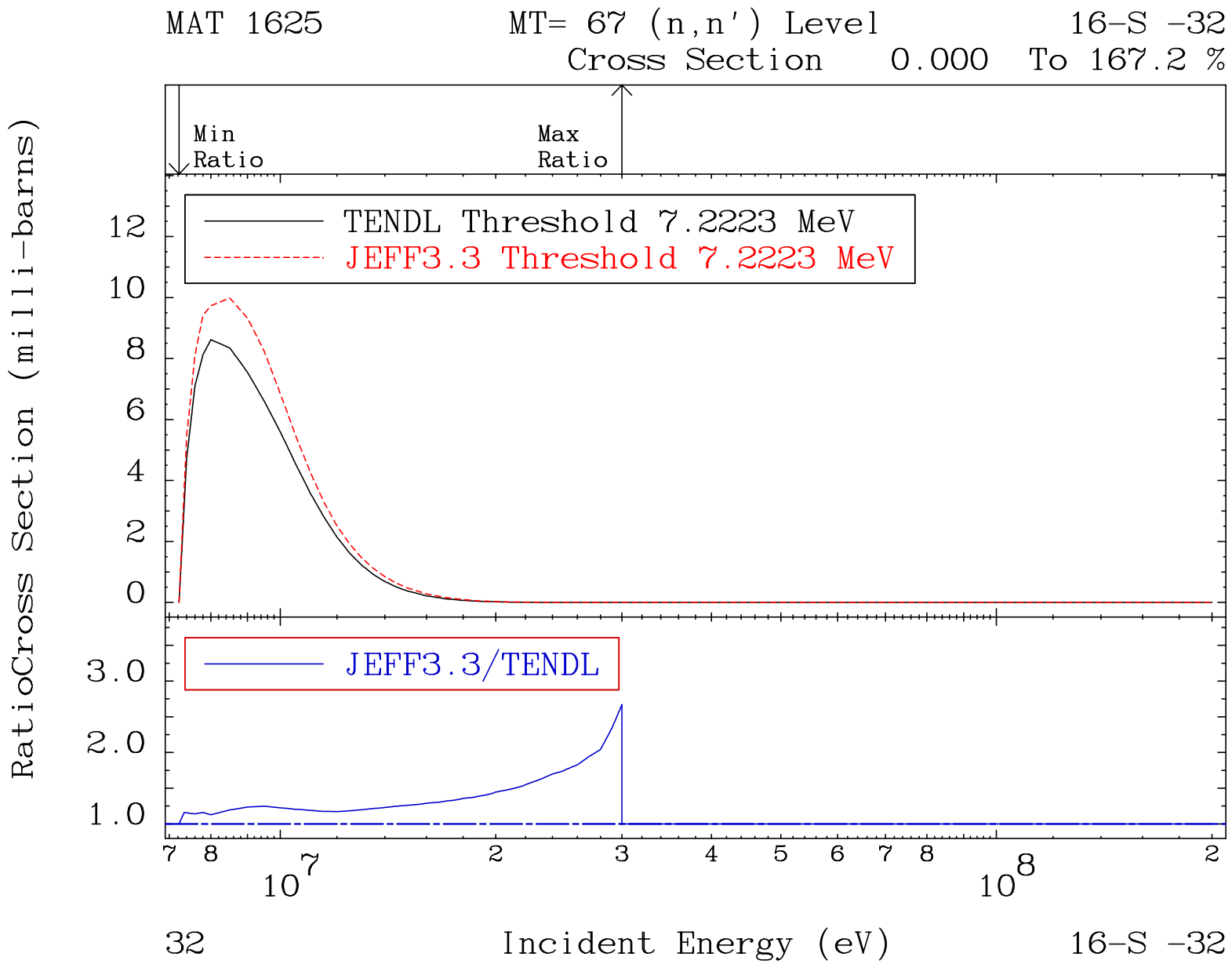

MAT 1625
Dpa total (eV-barns)
16-S -32
Cross Section -97.21 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
27
16-S -32

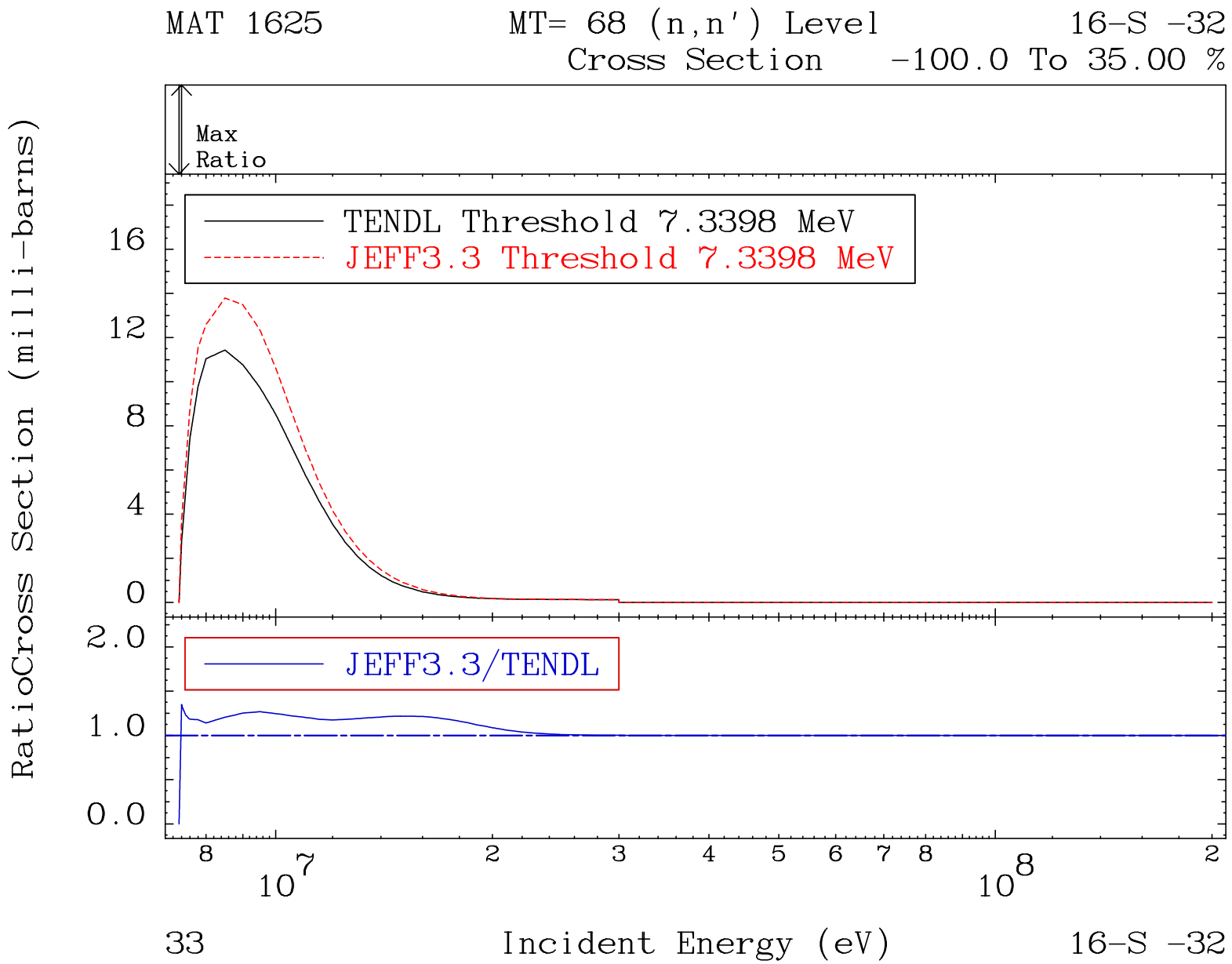

MAT 1625
Dpa elastic (mt2)
Cross Section
16-S -32
-98.59 To 683.2 %
Min Ratio
Max Ratio
TENDL Threshold 200.00 eV
JENDL5.0 Threshold 200.00 eV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
28
16-S -32

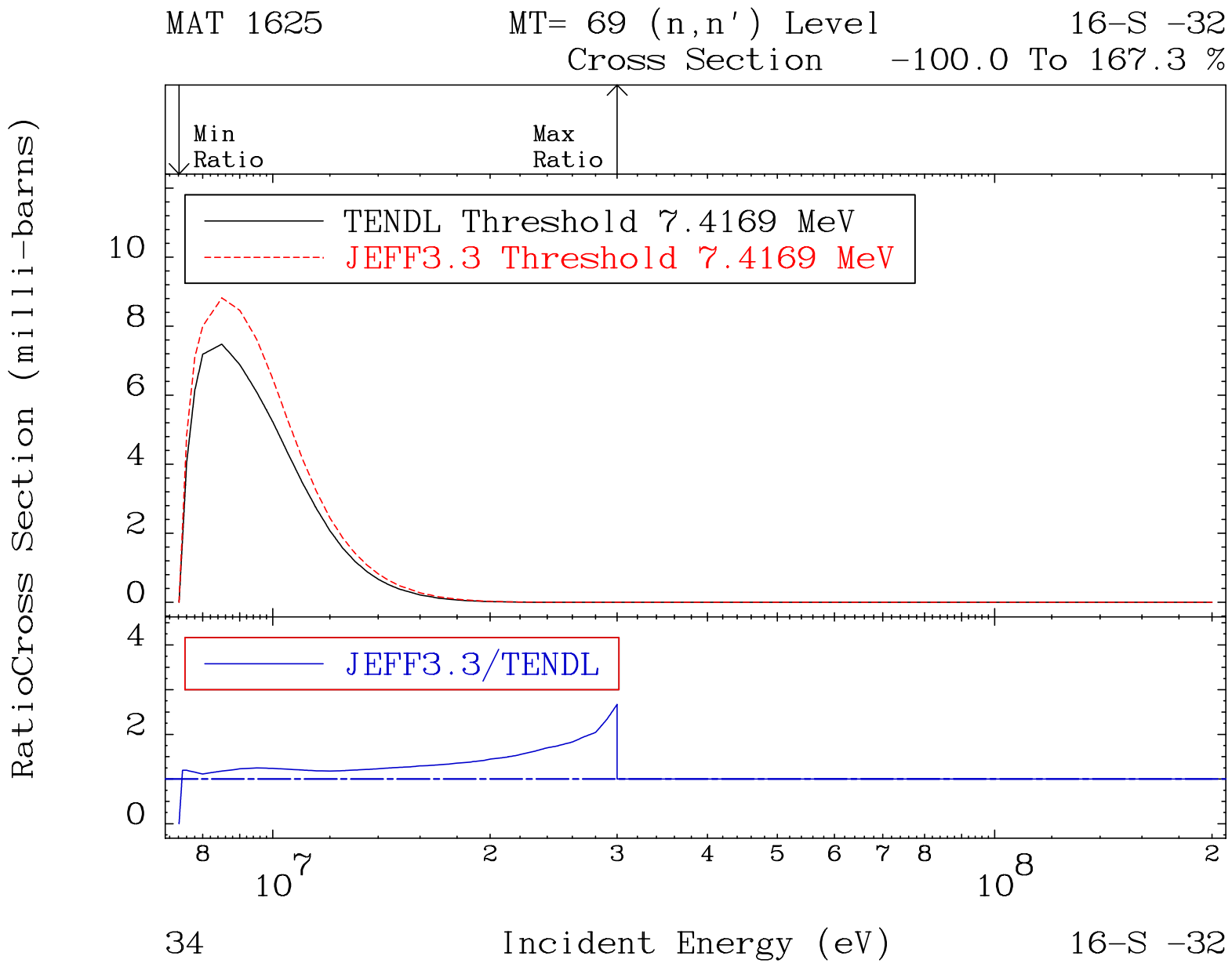

MAT 1625
Dpa inelastic (mt51-91)
16-S -32
Cross Section -52.15 To 9999. %
Min
Ratio
TENDL Threshold 2.3009 MeV
JENDL5.0 Threshold 2.3004 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
29
16-S -32

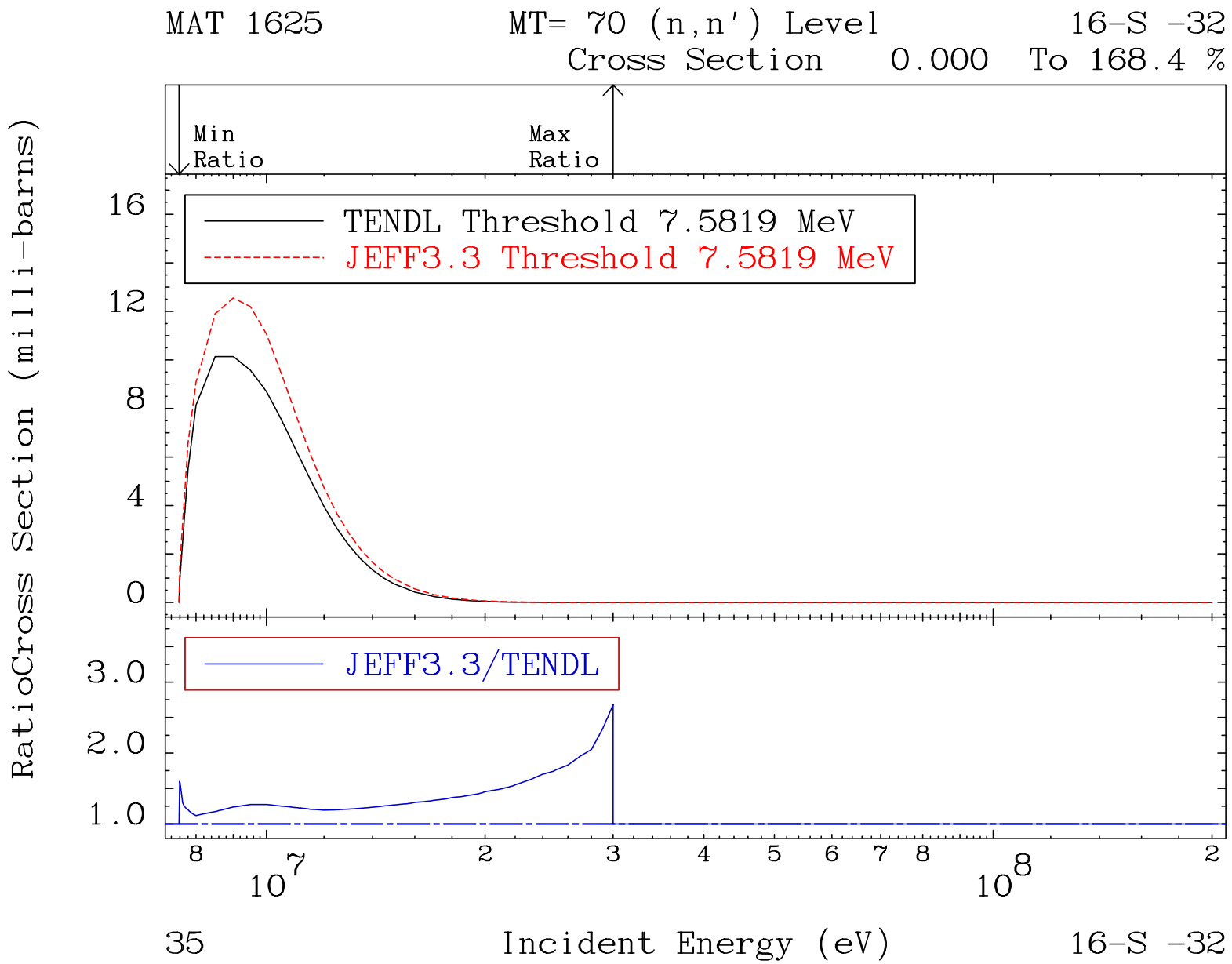

MAT 1625 Dpa disappearance (mt102 -120) 16-S -32
Cross Section -51.96 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
30
16-S -32

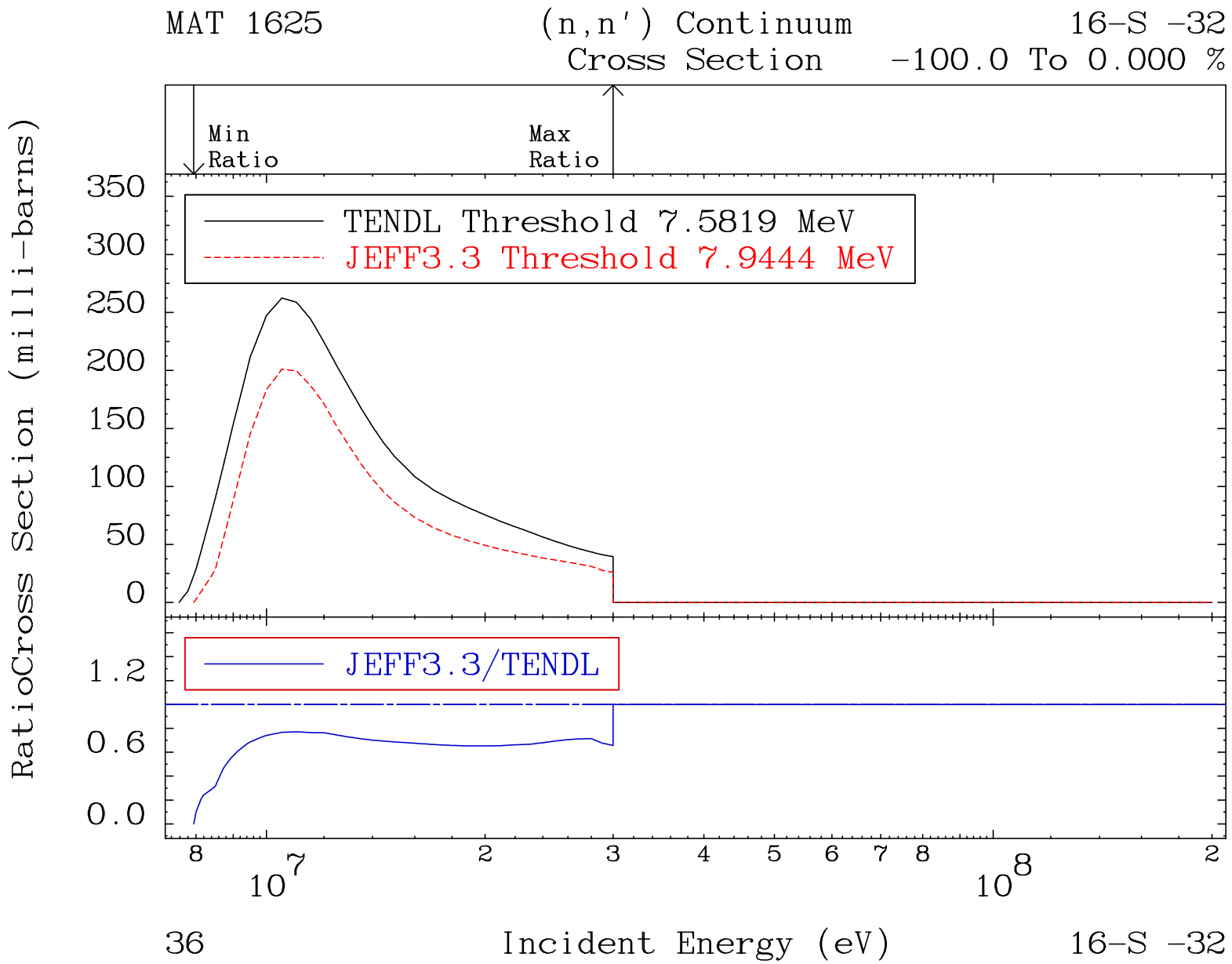

MAT 1625
MT= 66 (n,n') Level
16-S -32
Cross Section 0.000 To 31.17 %
Max
Ratio
TENDL Threshold 7.0677 MeV
JEFF3.3 Threshold 7.0677 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
1.4
1.2
1.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
16-S -32

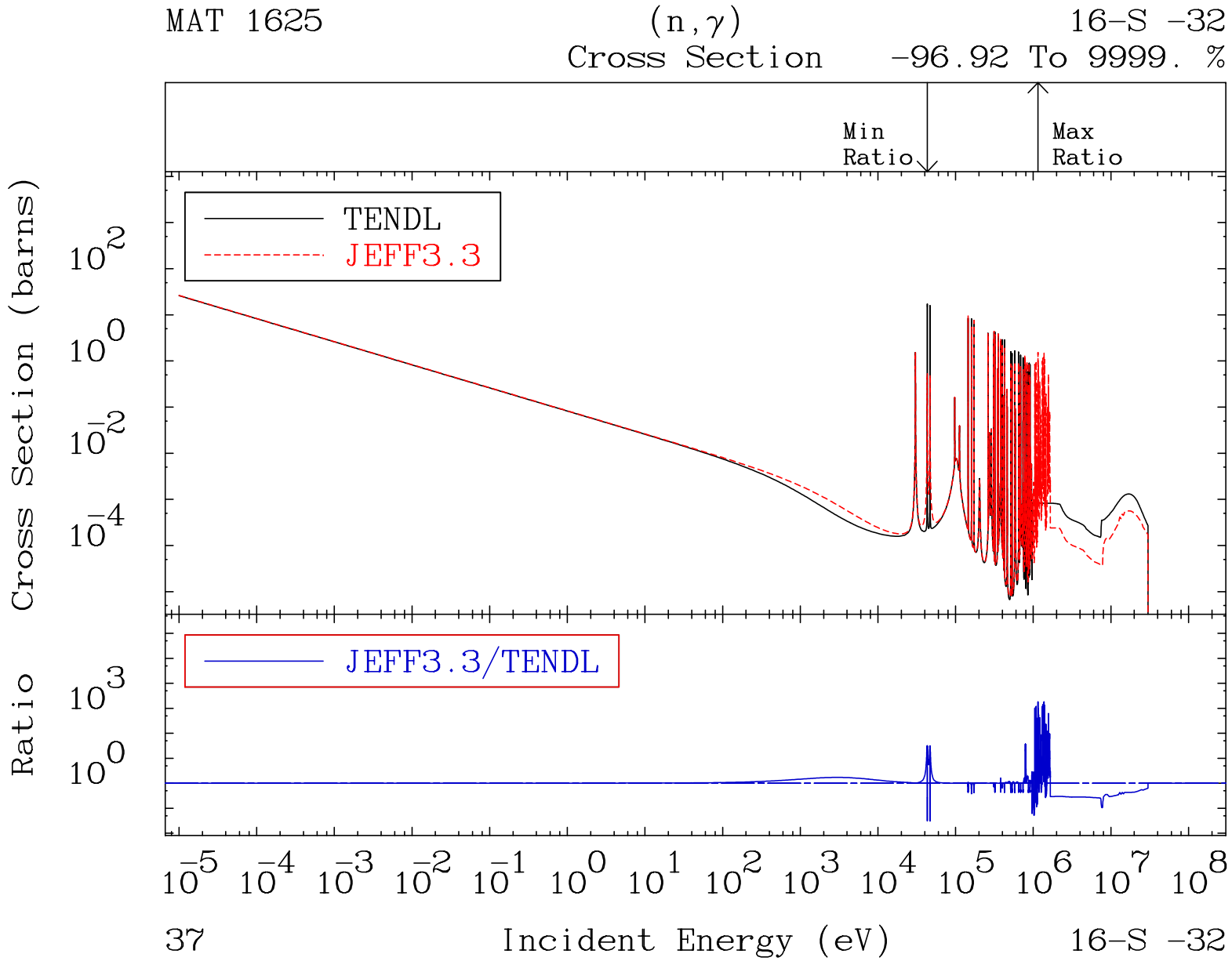

MAT 1625
MT= 67 (n,n') Level
16-S -32
Cross Section 0.000 To 167.2 %
Min Ratio
Max Ratio
TENDL Threshold 7.2223 MeV
JEFF3.3 Threshold 7.2223 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
32
16-S -32

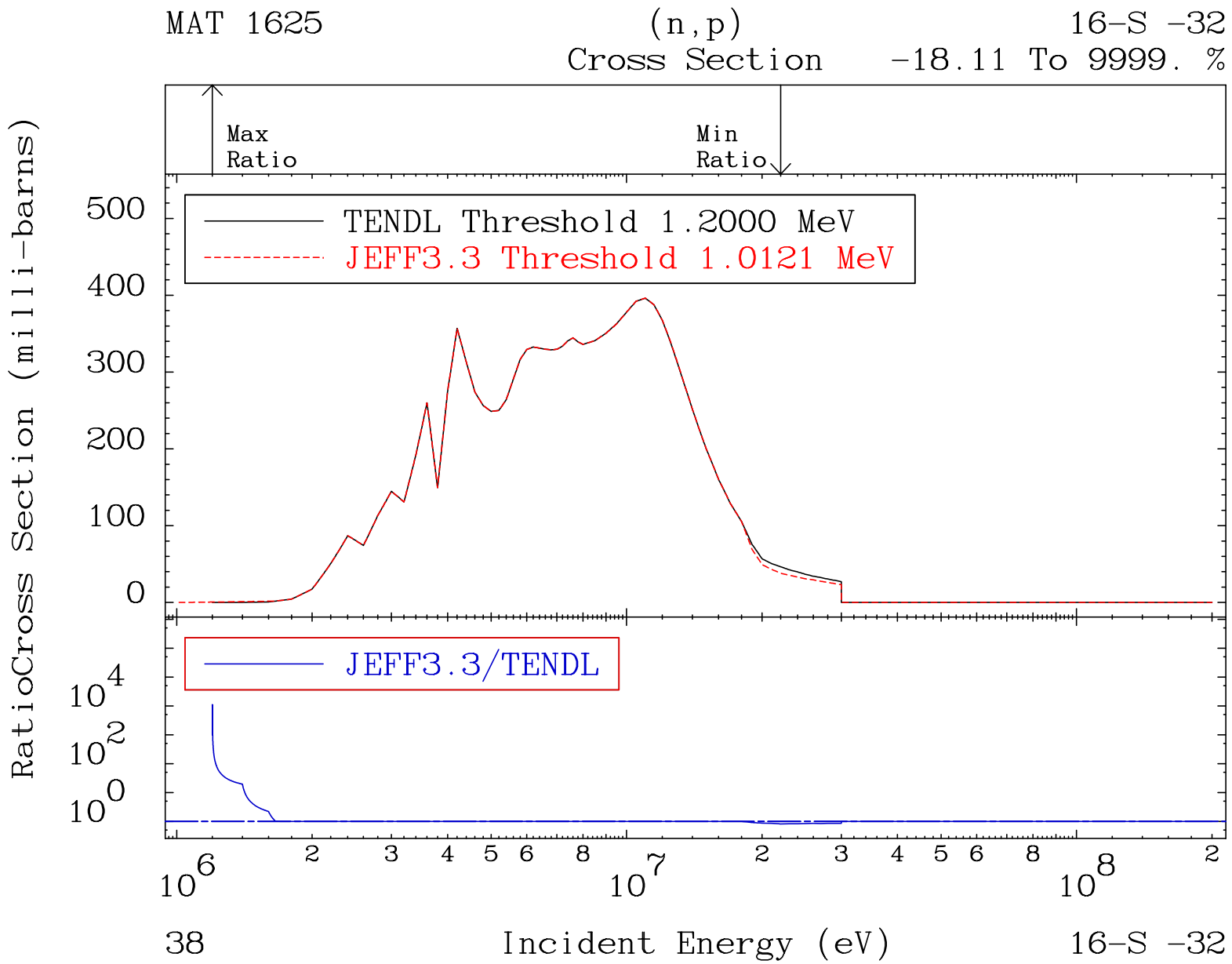

MAT 1625
MT= 68 (n,n') Level
16-S -32
Cross Section -100.0 To 35.00 %
Max
Ratio
TENDL Threshold 7.3398 MeV
JEFF3.3 Threshold 7.3398 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
2.0
1.0
0.0
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
16-S -32

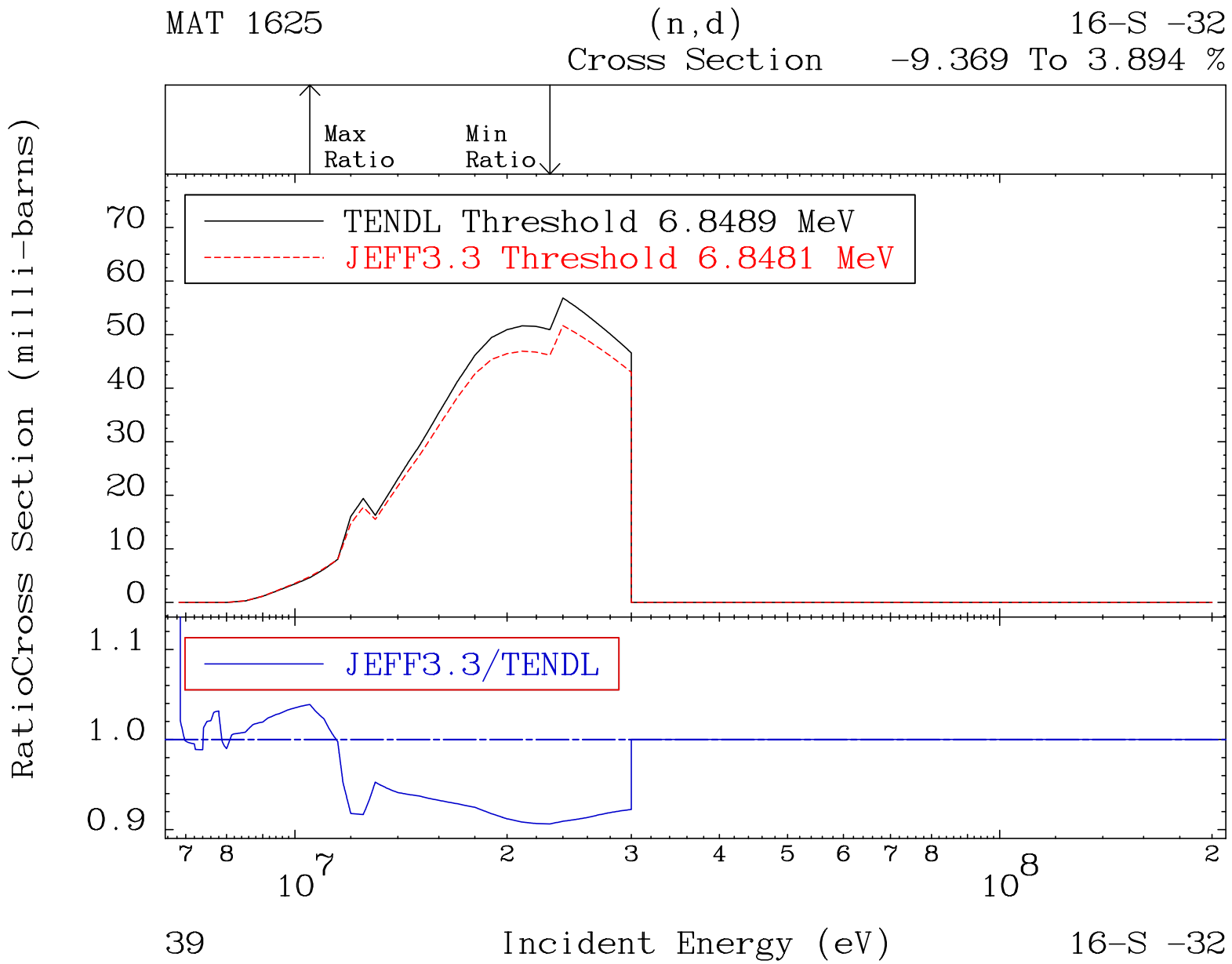

MAT 1625
MT= 69 (n,n') Level
16-S -32
Cross Section -100.0 To 167.3 %
Min Ratio
Max Ratio
TENDL Threshold 7.4169 MeV
JEFF3.3 Threshold 7.4169 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
34
16-S -32

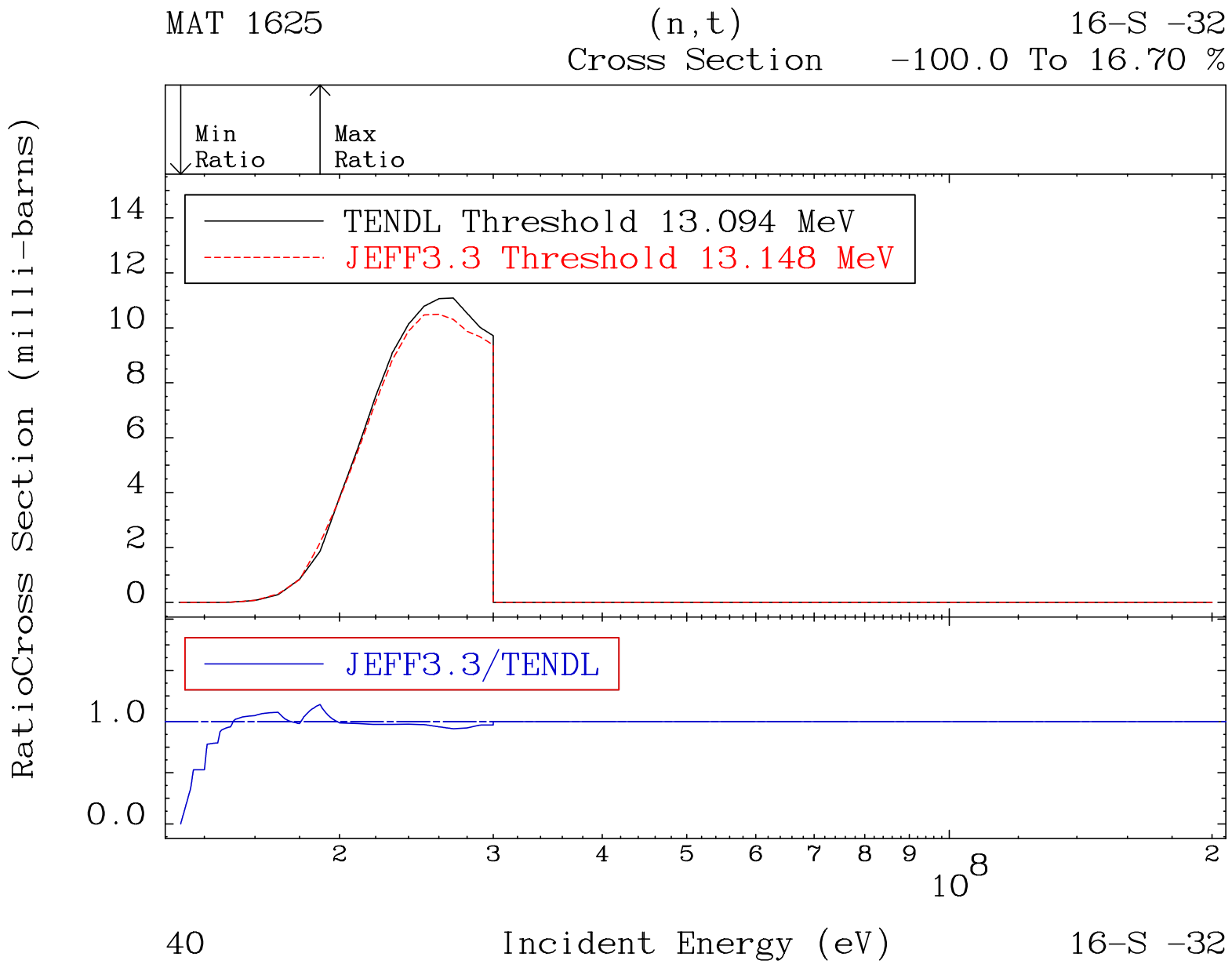

MAT 1625
MT= 70 (n,n') Level
16-S -32
Cross Section 0.000 To 168.4 %
Min Ratio
Max Ratio
TENDL Threshold 7.5819 MeV
JEFF3.3 Threshold 7.5819 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
3.0
2.0
1.0
8
10^7
2
3
4
5
6
7
8
10^8
2
35
Incident Energy (eV)
16-S -32

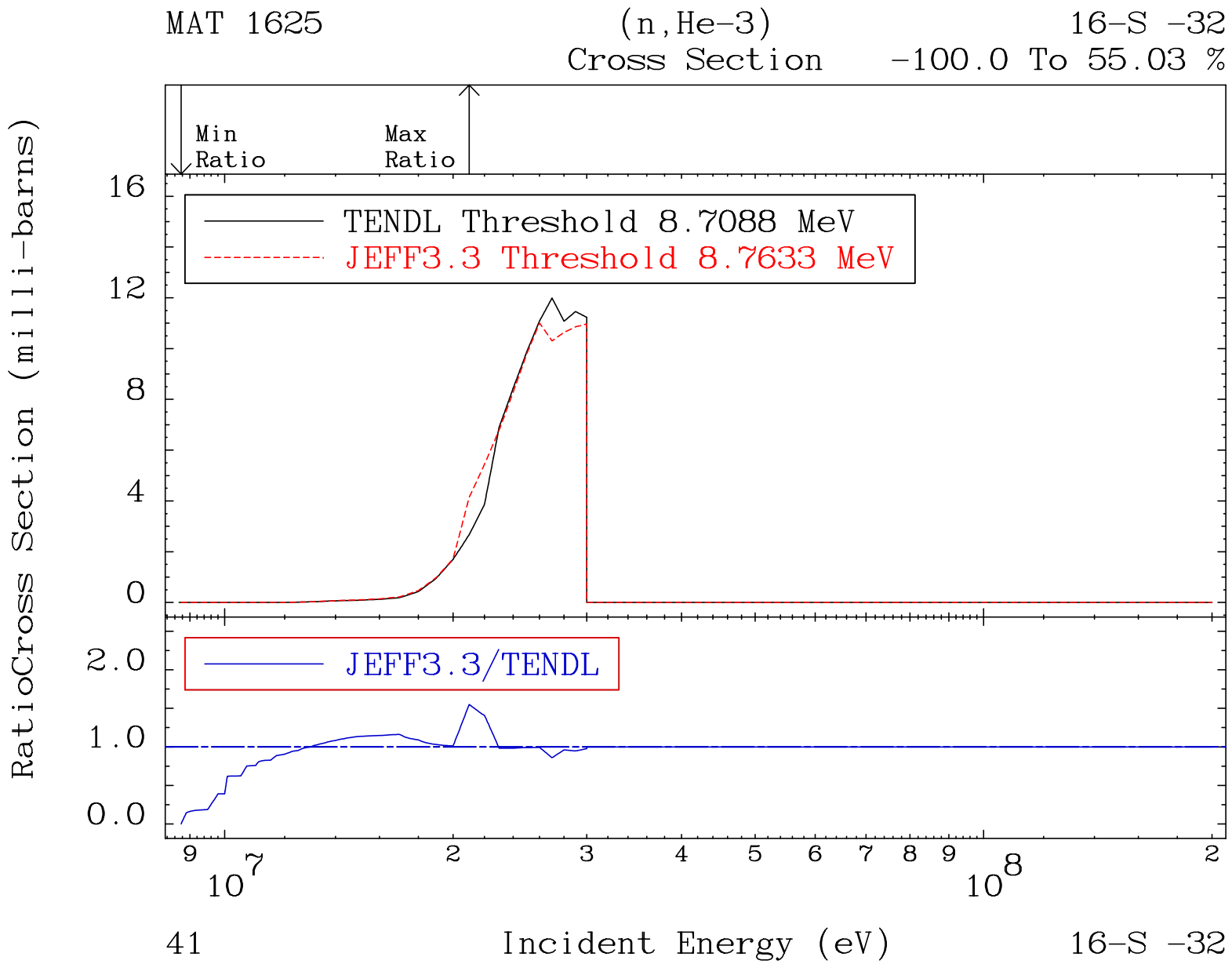

MAT 1625
(n,n') Continuum
Cross Section
16-S -32
-100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 7.5819 MeV
JEFF3.3 Threshold 7.9444 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
350
300
250
200
150
100
50
0
1.2
0.6
0.0
8
10^7
2
3
4
5
6
7
8
10^8
2
36
Incident Energy (eV)
16-S -32

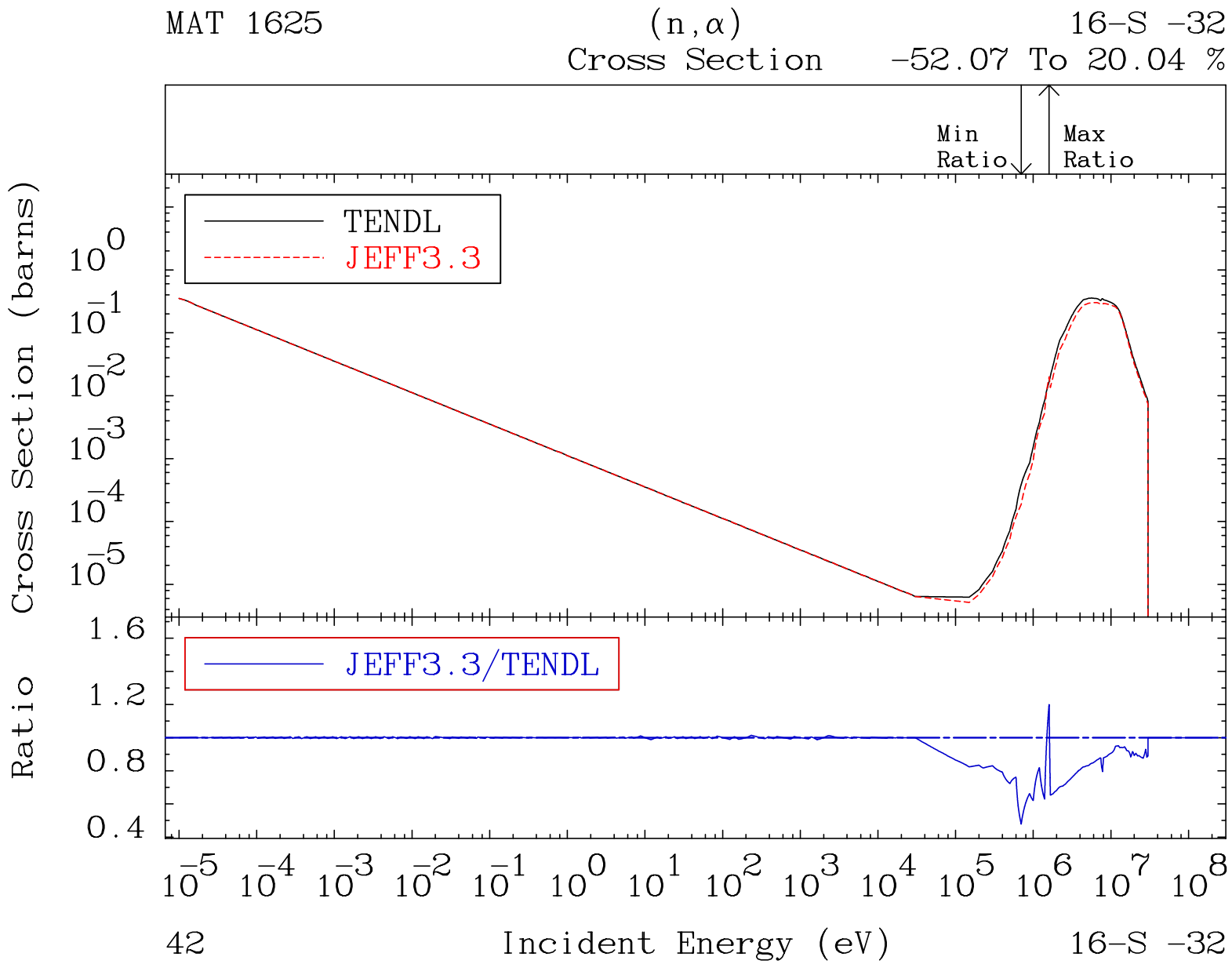

MAT 1625
(n,γ)
Cross Section
16-S -32
-96.92 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
37
16-S -32

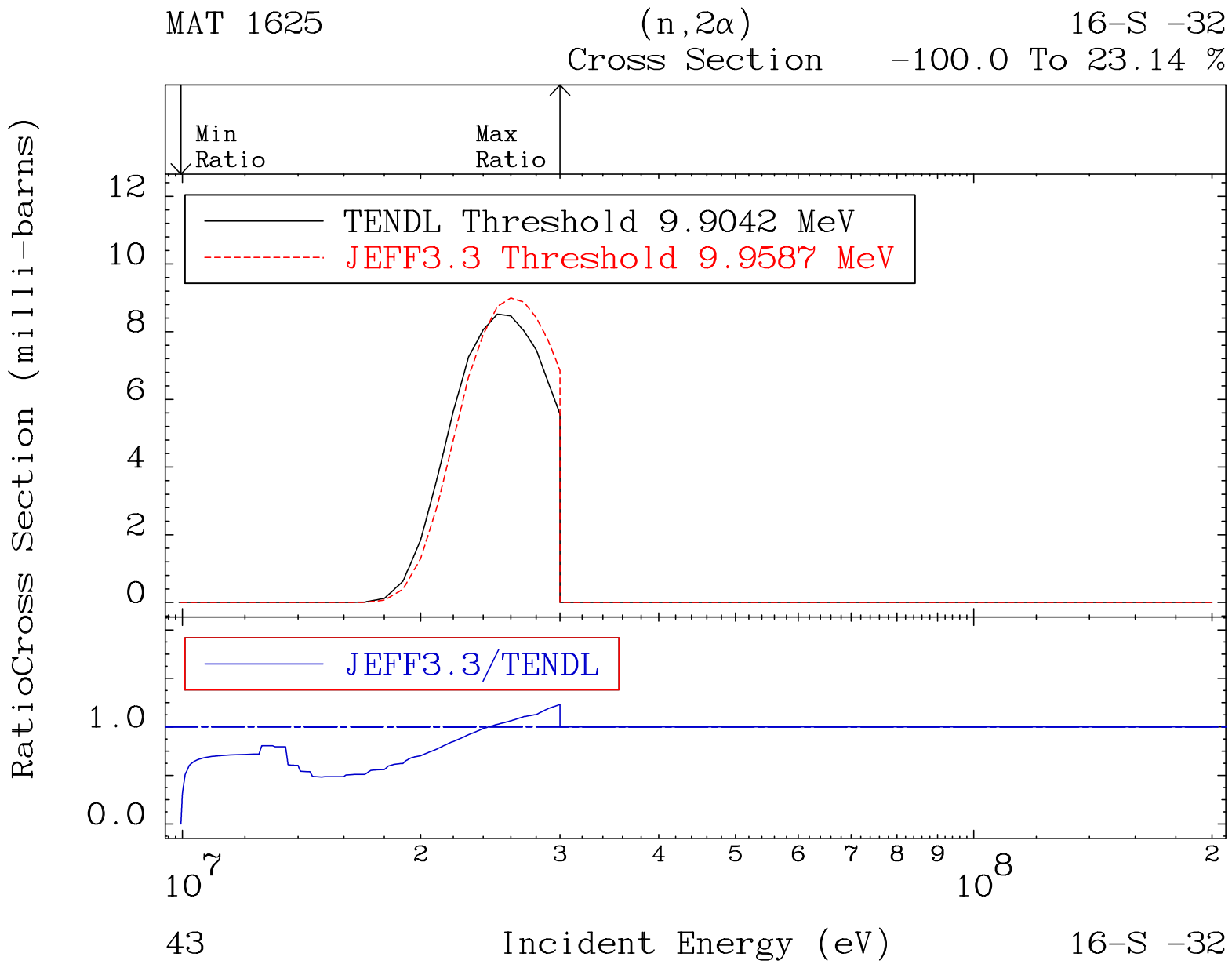

MAT 1625
(n,p)
16-S -32
Cross Section
-18.11 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.2000 MeV
JEFF3.3 Threshold 1.0121 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
10^4
10^2
10^0
10^6
10^7
10^8
2 3 4 5 6 8
38
Incident Energy (eV)
16-S -32

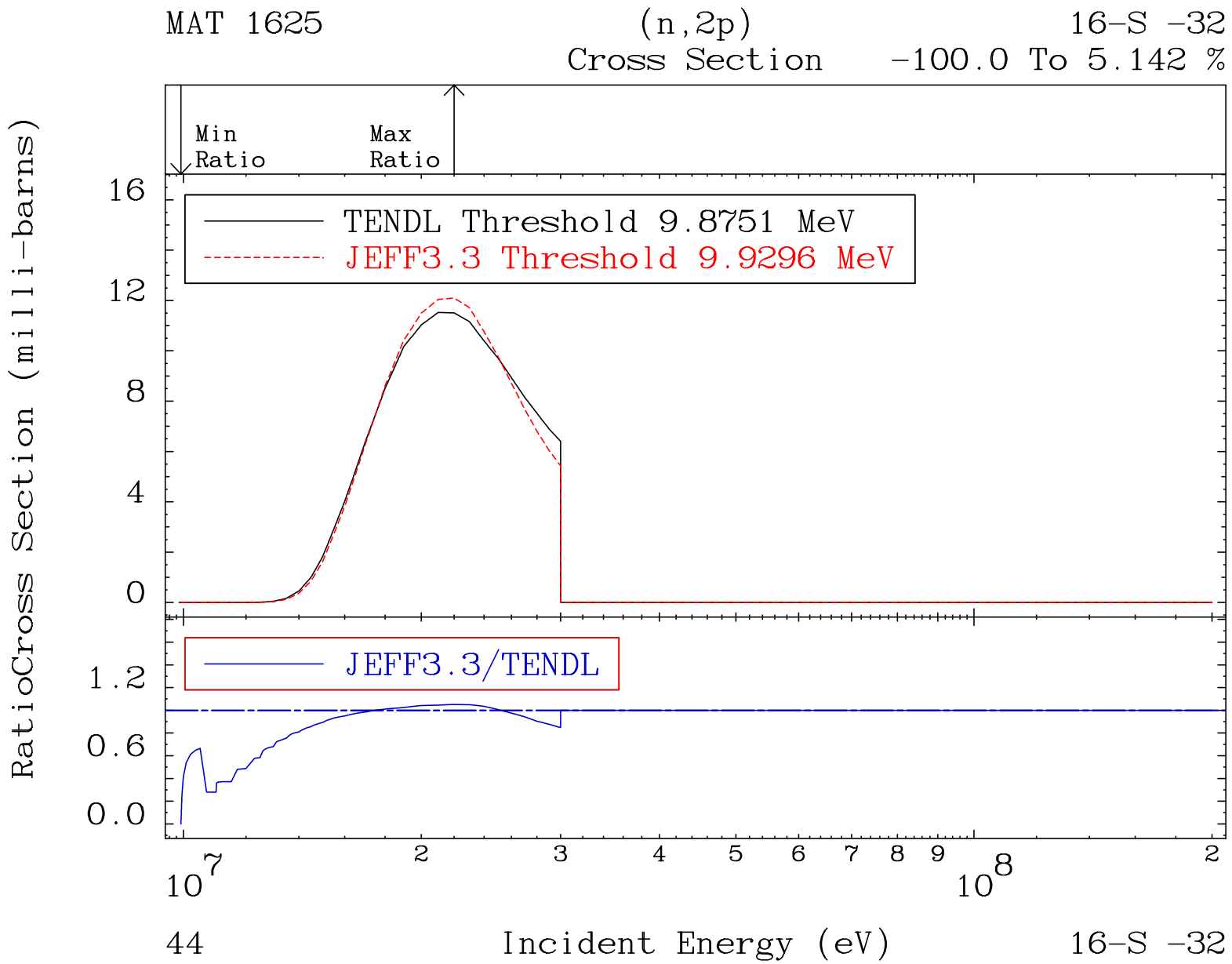

MAT 1625
(n,d)
16-S -32
Cross Section
-9.369 To 3.894 %
Max Ratio
Min Ratio
TENDL Threshold 6.8489 MeV
JEFF3.3 Threshold 6.8481 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
70
60
50
40
30
20
10
0
1.1
1.0
0.9
7 8 10^7 2 3 4 5 6 7 8 10^8 2
39
Incident Energy (eV)
16-S -32

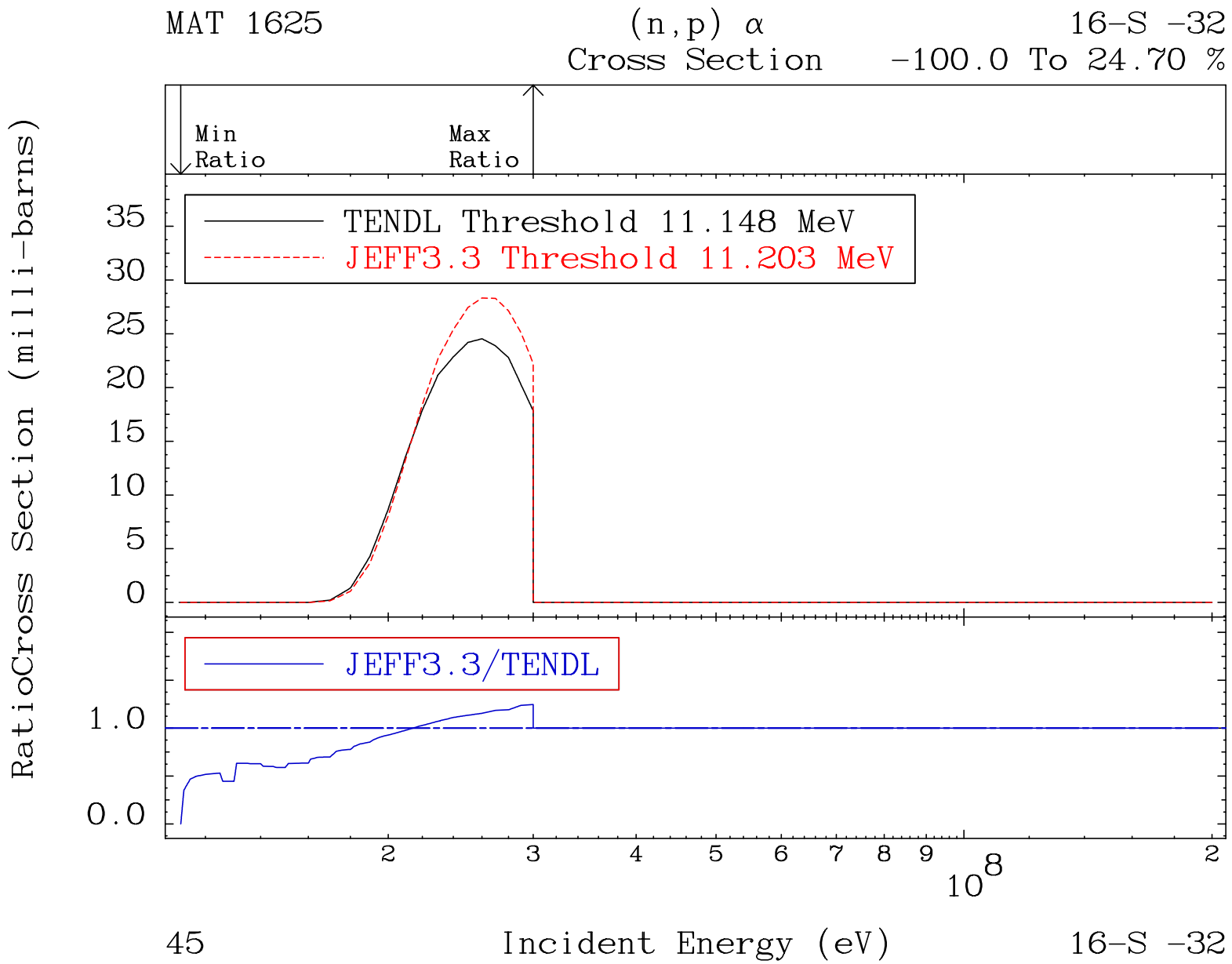

MAT 1625
(n,t)
16-S -32
Cross Section
-100.0 To 16.70 %
Min Ratio
Max Ratio
TENDL Threshold 13.094 MeV
JEFF3.3 Threshold 13.148 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
14
12
10
8
6
4
2
0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
40
Incident Energy (eV)
16-S -32

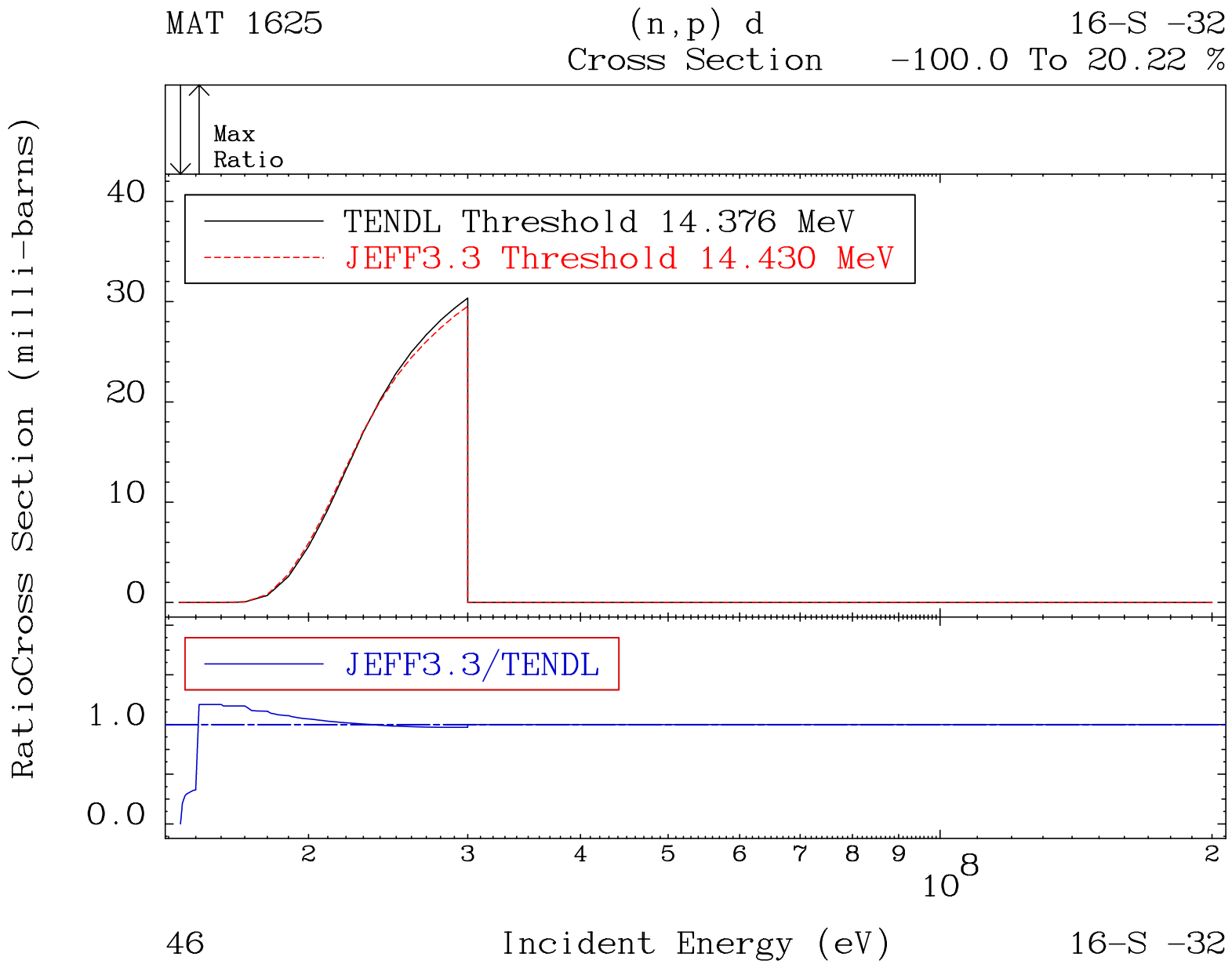

MAT 1625
(n,He-3)
16-S -32
Cross Section
-100.0 To 55.03 %
Min Ratio
Max Ratio
TENDL Threshold 8.7088 MeV
JEFF3.3 Threshold 8.7633 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
2.0
1.0
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
41
Incident Energy (eV)
16-S -32

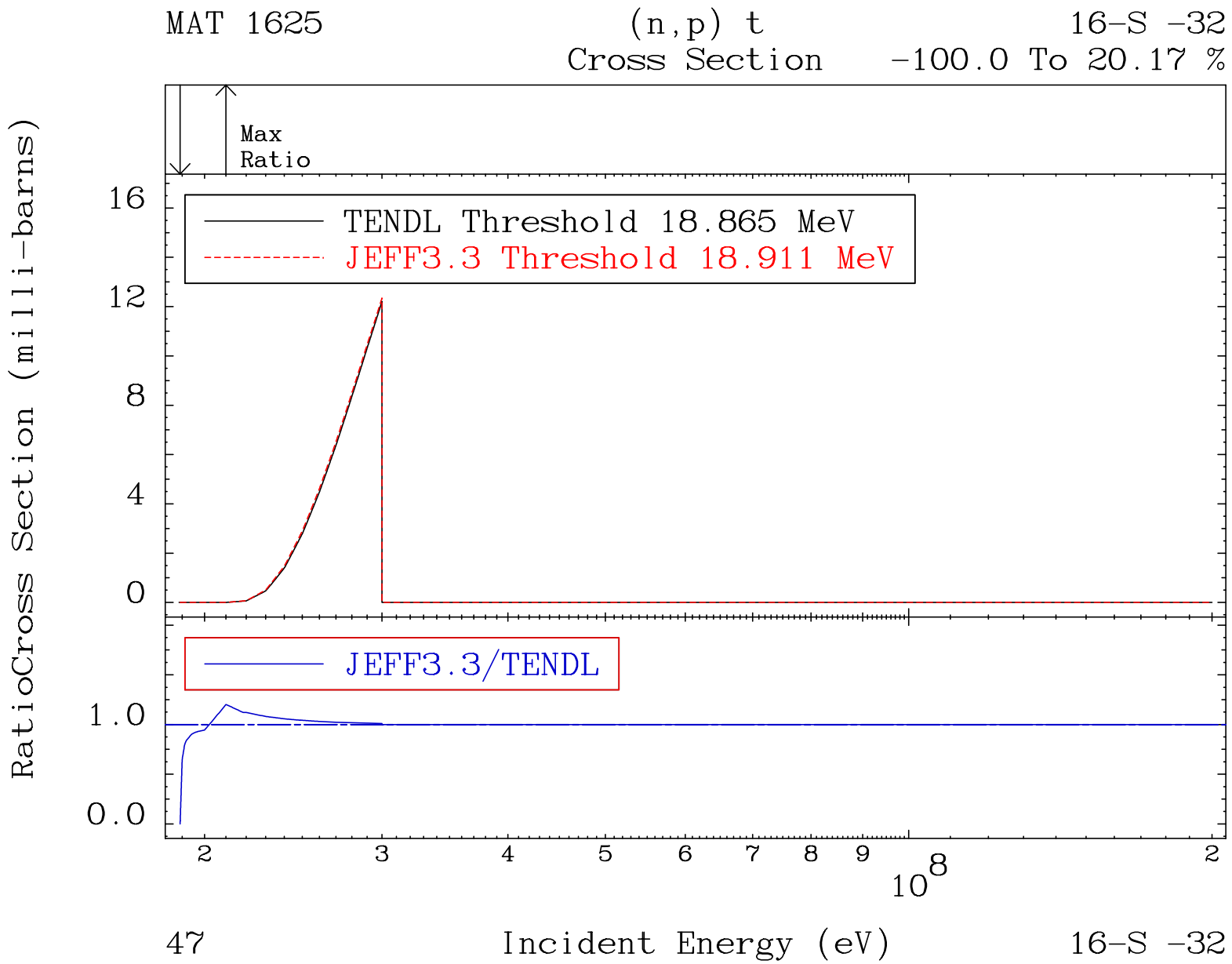

MAT 1625
(n,α)
Cross Section
16-S -32
-52.07 To 20.04 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
16-S -32

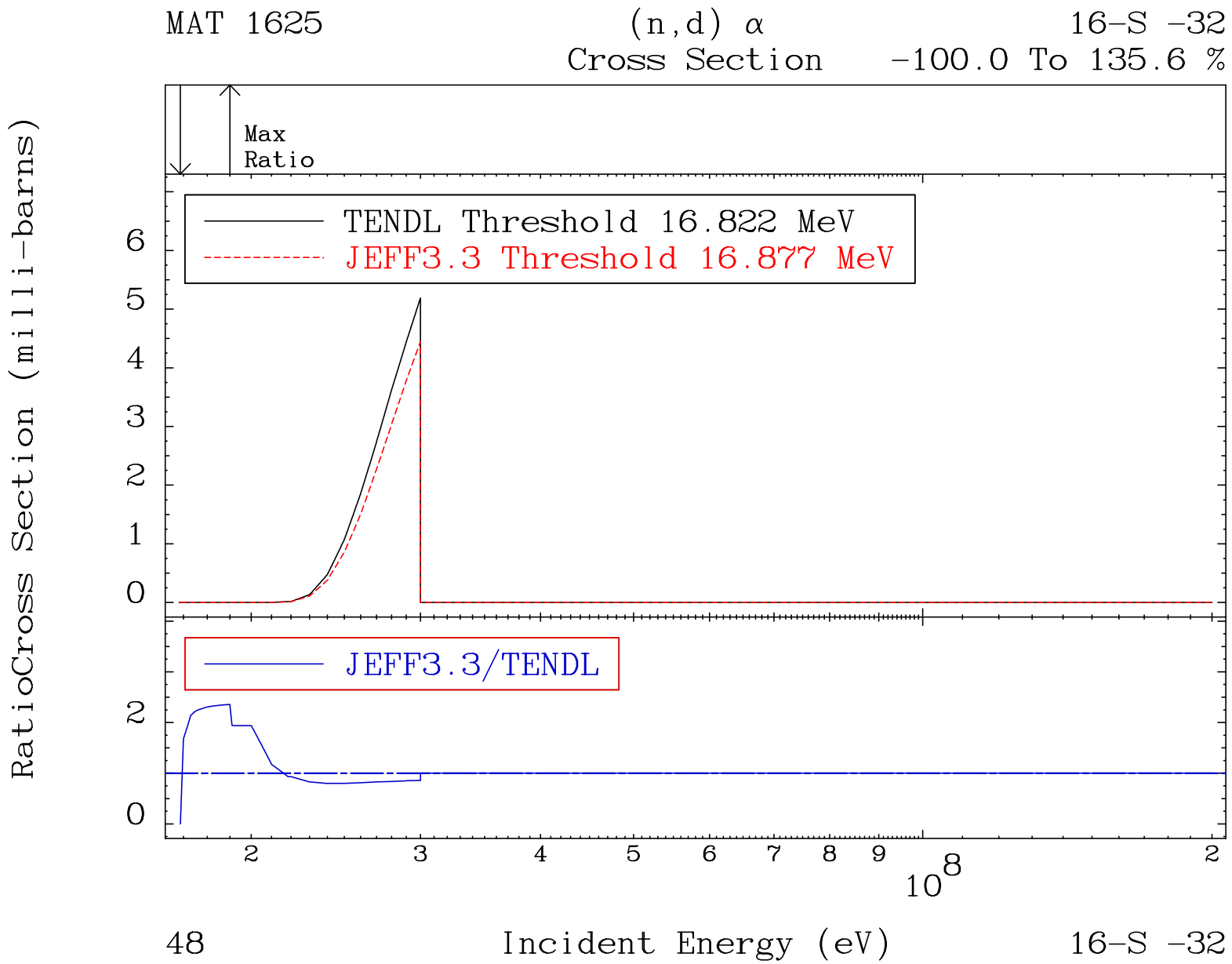

MAT 1625
(n,2α)
16-S -32
Cross Section
-100.0 To 23.14 %
Min Ratio
Max Ratio
TENDL Threshold 9.9042 MeV
JEFF3.3 Threshold 9.9587 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
43
Incident Energy (eV)
16-S -32

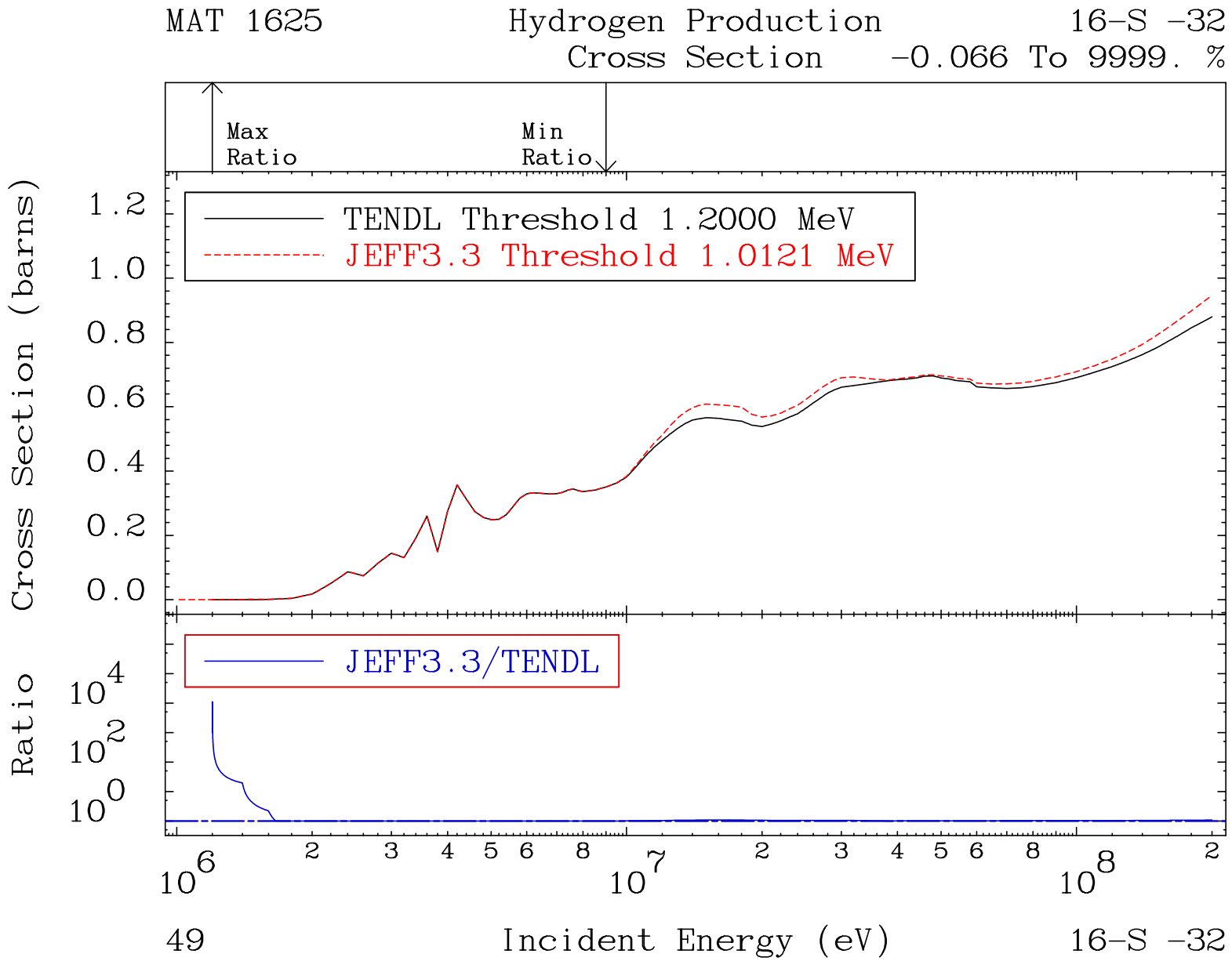

MAT 1625
(n,2p)
16-S -32
Cross Section
-100.0 To 5.142 %
Min Ratio
Max Ratio
TENDL Threshold 9.8751 MeV
JEFF3.3 Threshold 9.9296 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
1.2
0.6
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
44
Incident Energy (eV)
16-S -32

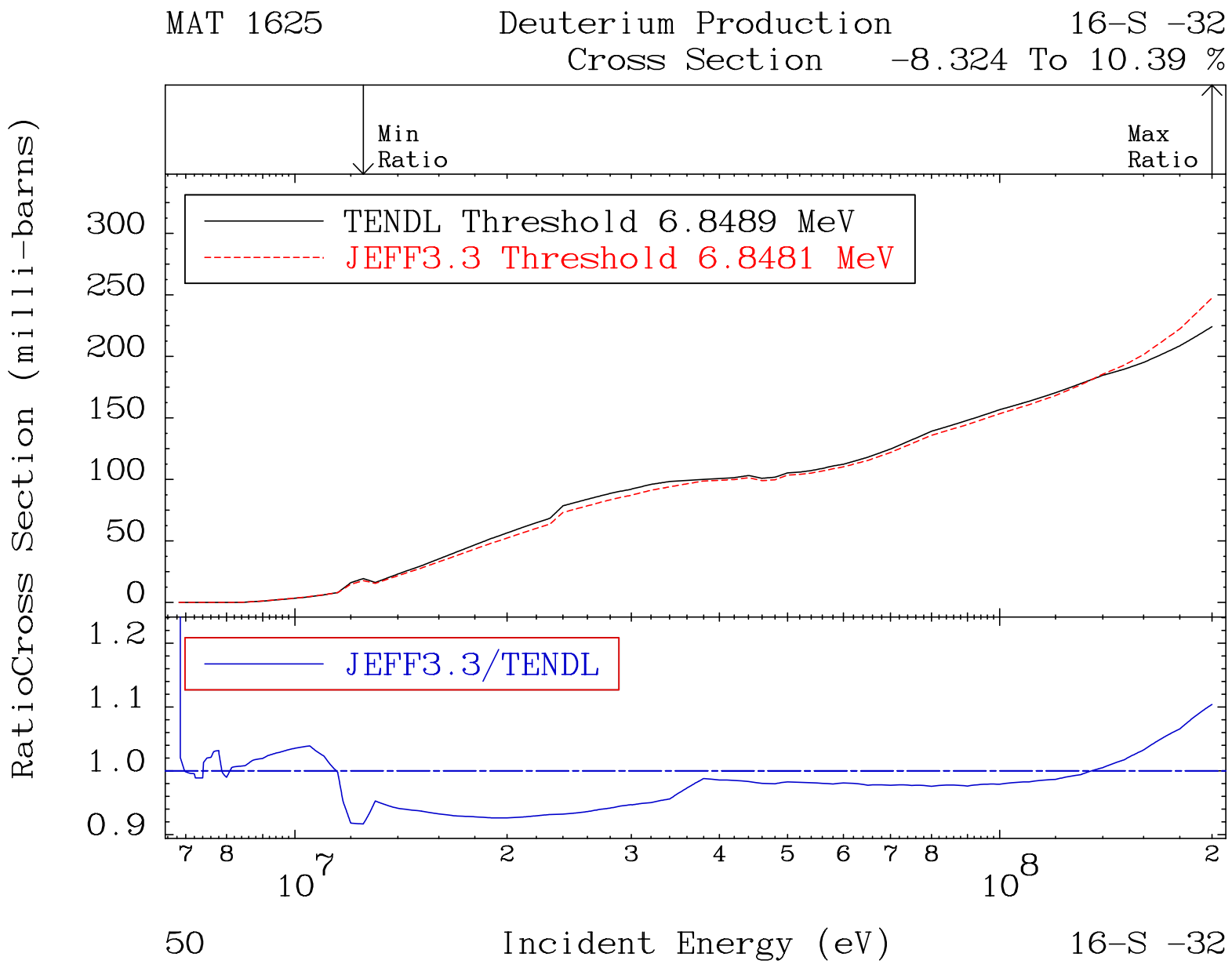

MAT 1625
(n,p) α
16-S -32
Cross Section
-100.0 To 24.70 %
Min Ratio
Max Ratio
TENDL Threshold 11.148 MeV
JEFF3.3 Threshold 11.203 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
35
30
25
20
15
10
5
0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
45
Incident Energy (eV)
16-S -32

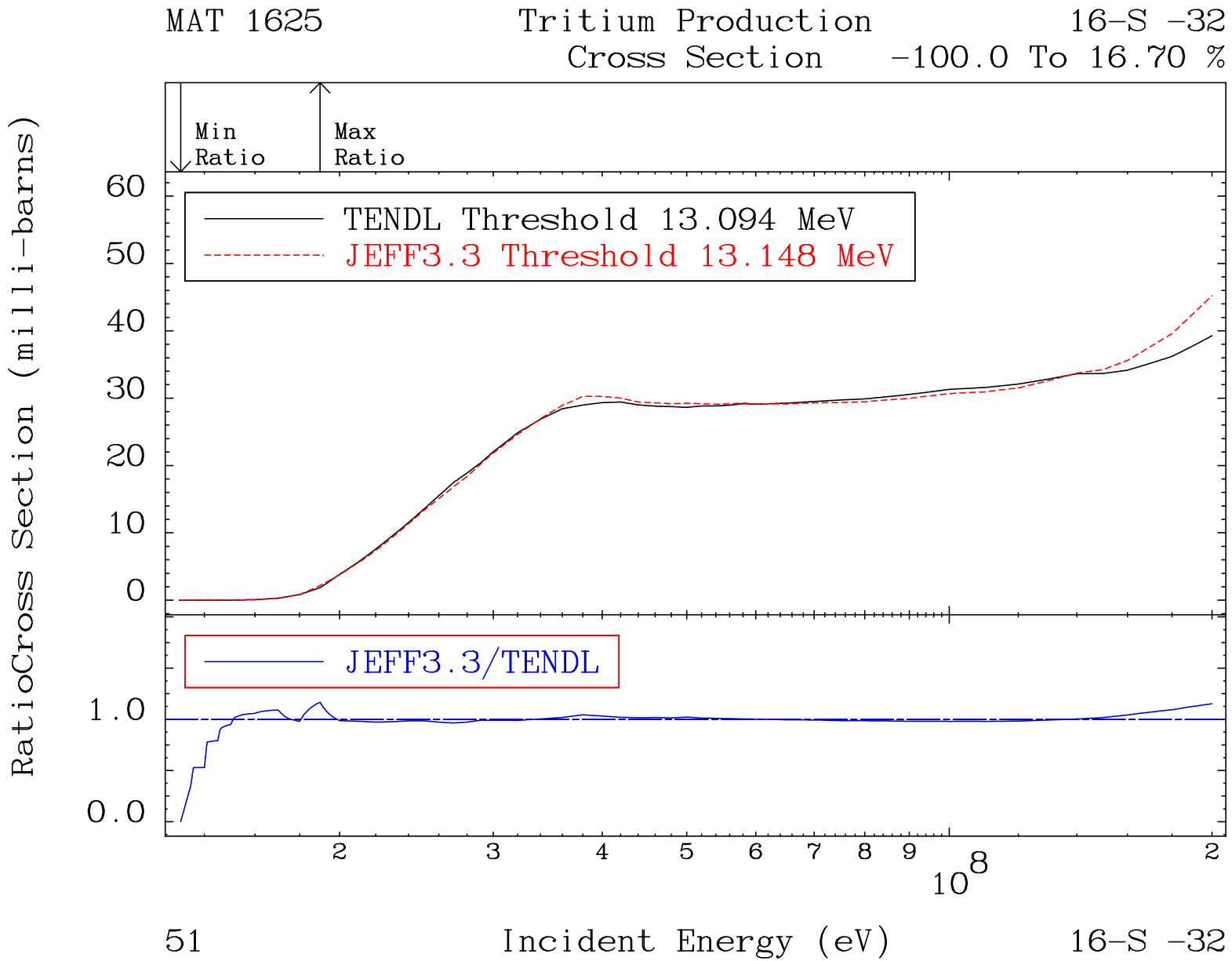

MAT 1625
(n,p) d
Cross Section
16-S -32
-100.0 To 20.22 %
Max
Ratio
TENDL Threshold 14.376 MeV
JEFF3.3 Threshold 14.430 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
46
Incident Energy (eV)
16-S -32

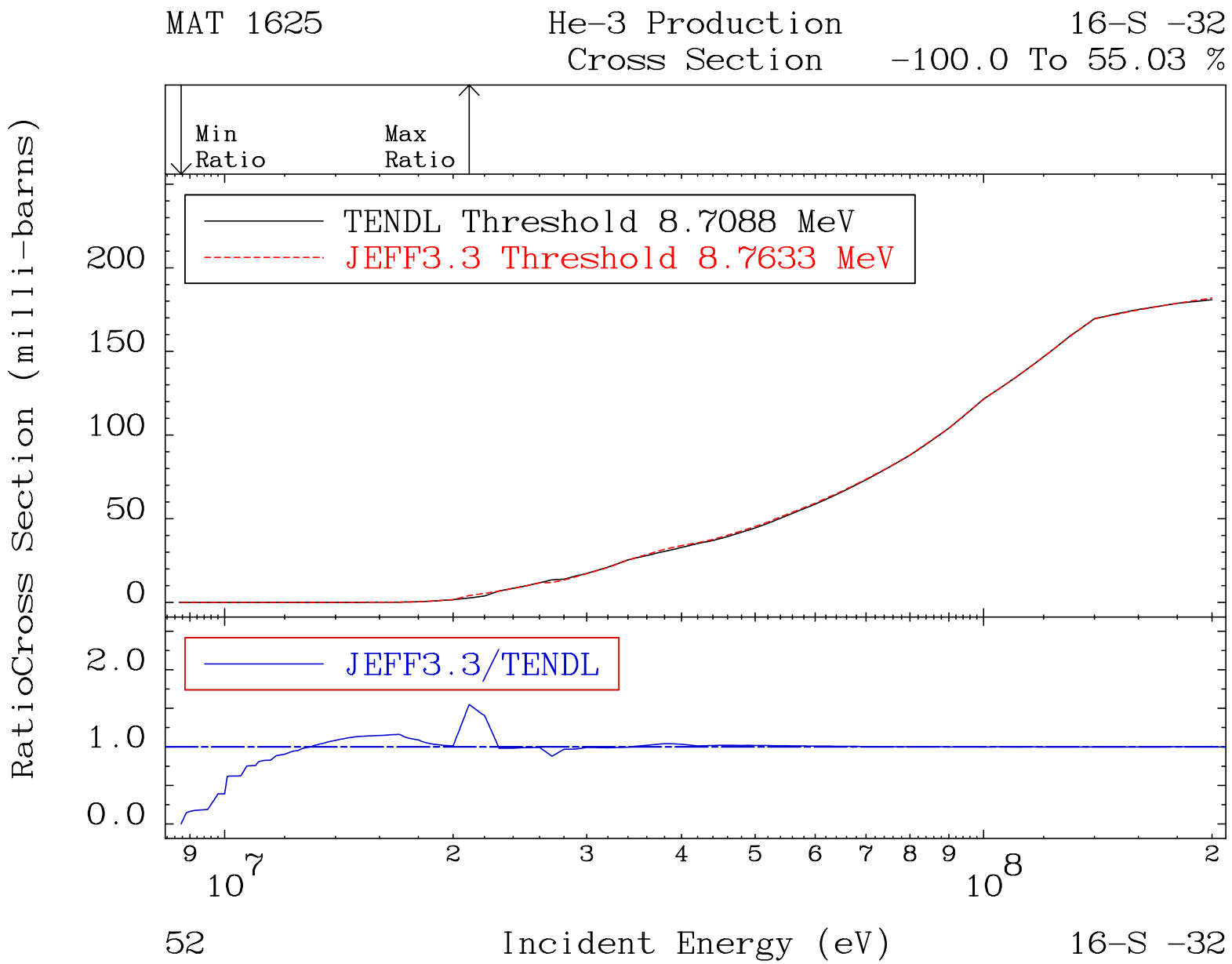

MAT 1625
(n,p) t
Cross Section
16-S -32
-100.0 To 20.17 %
Max
Ratio
TENDL Threshold 18.865 MeV
JEFF3.3 Threshold 18.911 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
47
Incident Energy (eV)
16-S -32

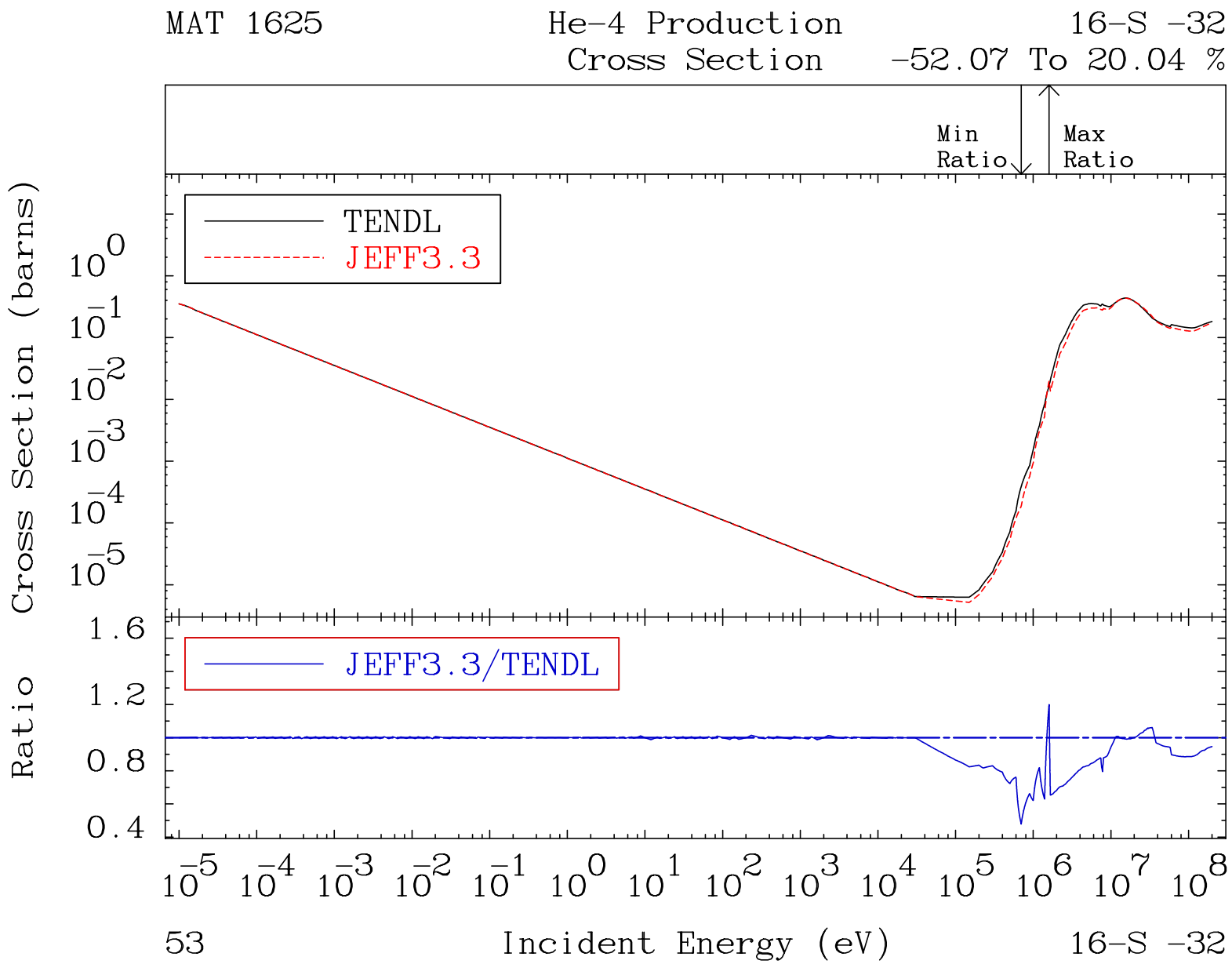

MAT 1625
(n,d) α
Cross Section
16-S -32
-100.0 To 135.6 %
Max
Ratio
TENDL Threshold 16.822 MeV
JEFF3.3 Threshold 16.877 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
48
16-S -32

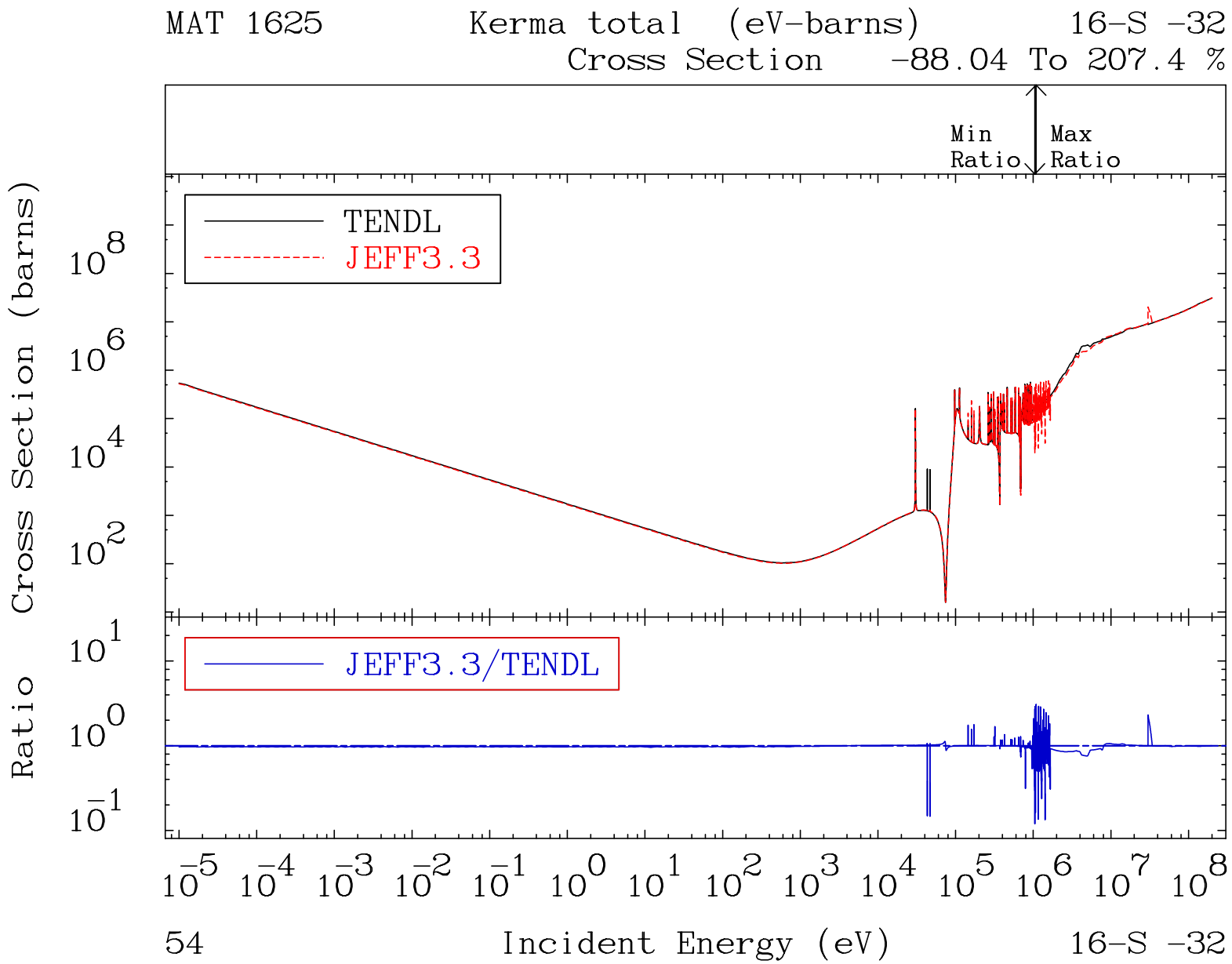

MAT 1625
Hydrogen Production
16-S -32
Cross Section
-0.066 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.2000 MeV
JEFF3.3 Threshold 1.0121 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2 3 4 5 6 8
10^6
10^7
10^8
49
Incident Energy (eV)
16-S -32

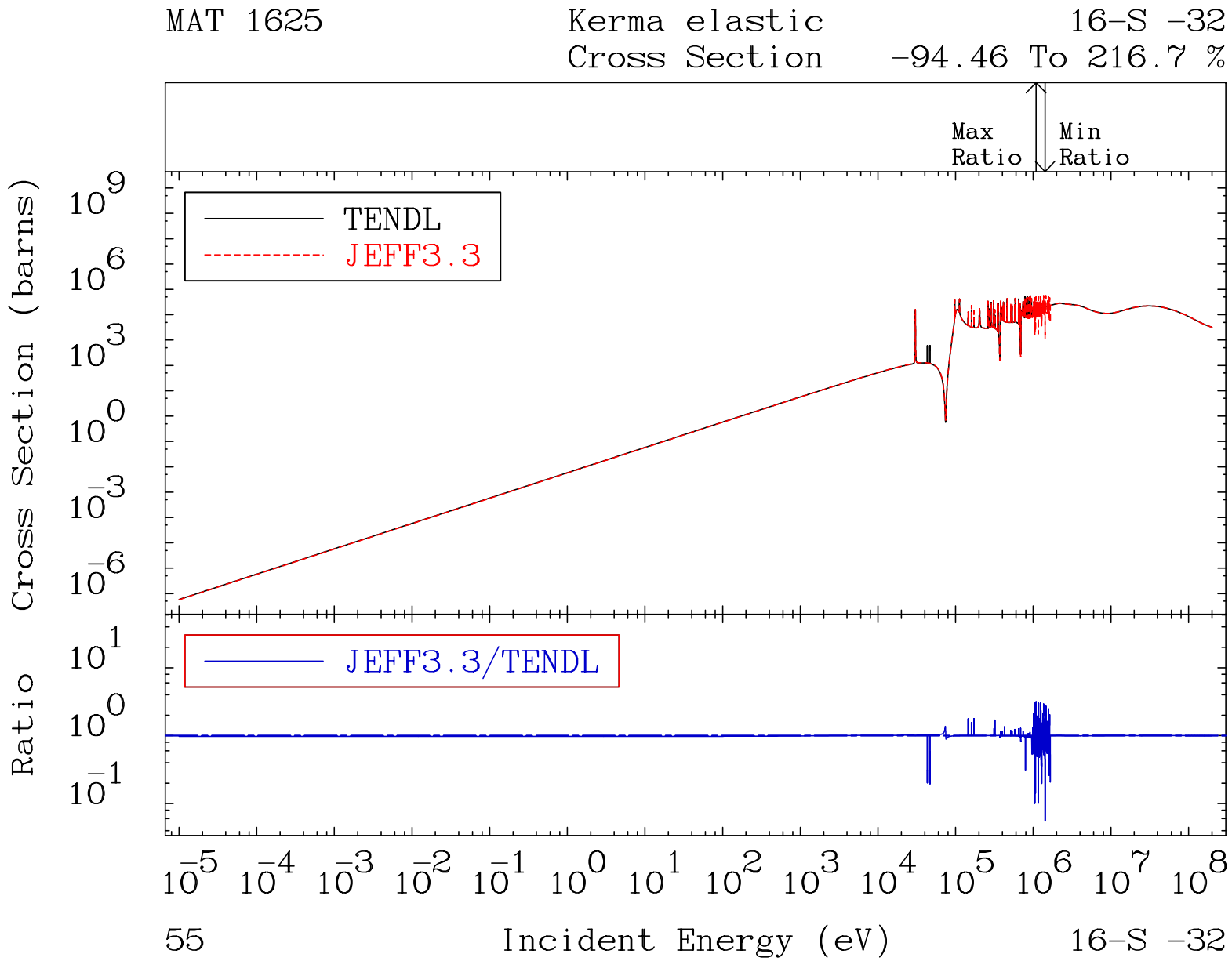

MAT 1625
Deuterium Production
16-S -32
Cross Section
-8.324 To 10.39 %
Min
Ratio
Max
Ratio
TENDL Threshold 6.8489 MeV
JEFF3.3 Threshold 6.8481 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
300
250
200
150
100
50
0
1.2
1.1
1.0
0.9
7 8
10^7
2 3 4 5 6 7 8
10^8
2
50
Incident Energy (eV)
16-S -32

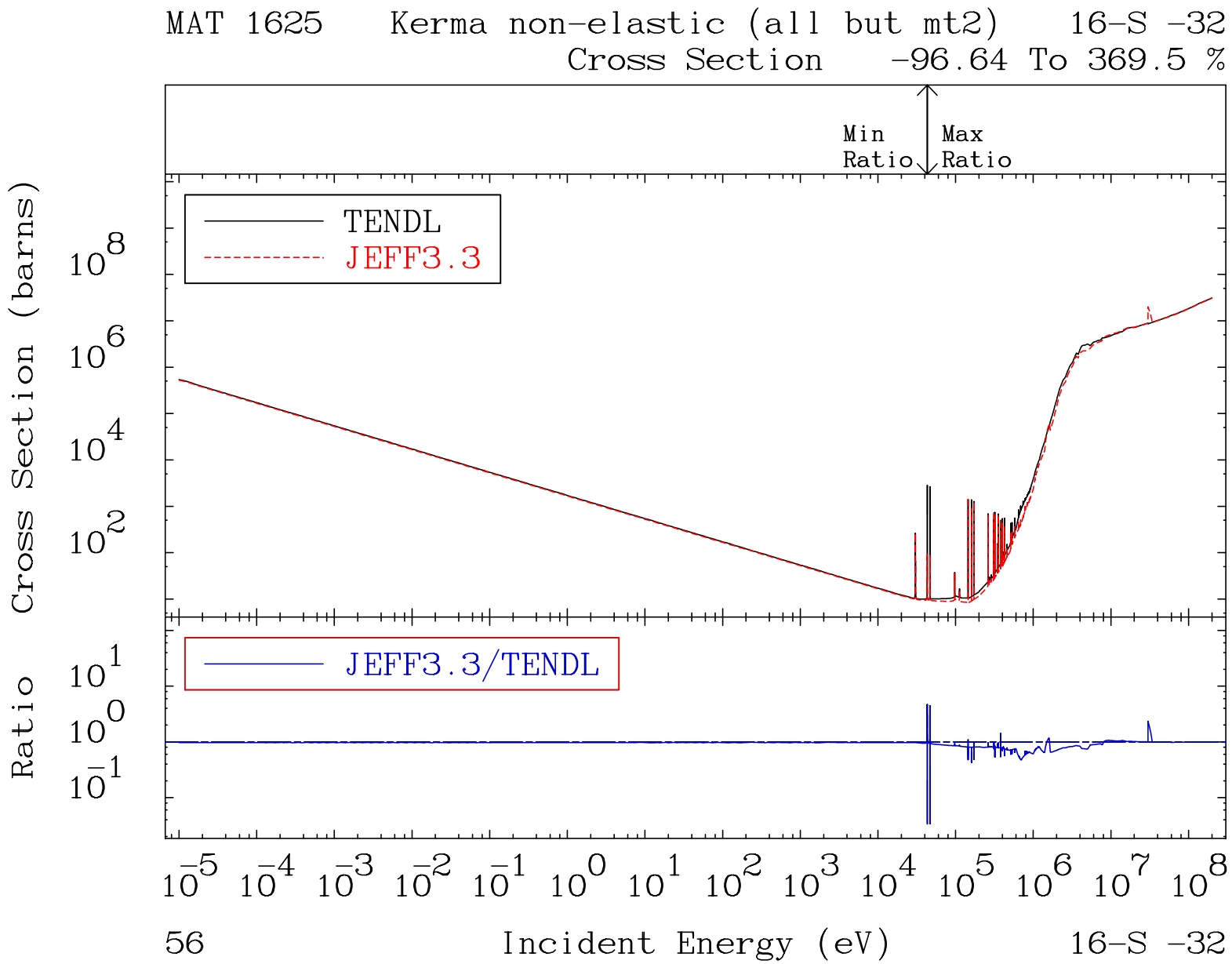

MAT 1625
Tritium Production
16-S -32
Cross Section
-100.0 To 16.70 %
Min Ratio
Max Ratio
TENDL Threshold 13.094 MeV
JEFF3.3 Threshold 13.148 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
51
Incident Energy (eV)
16-S -32

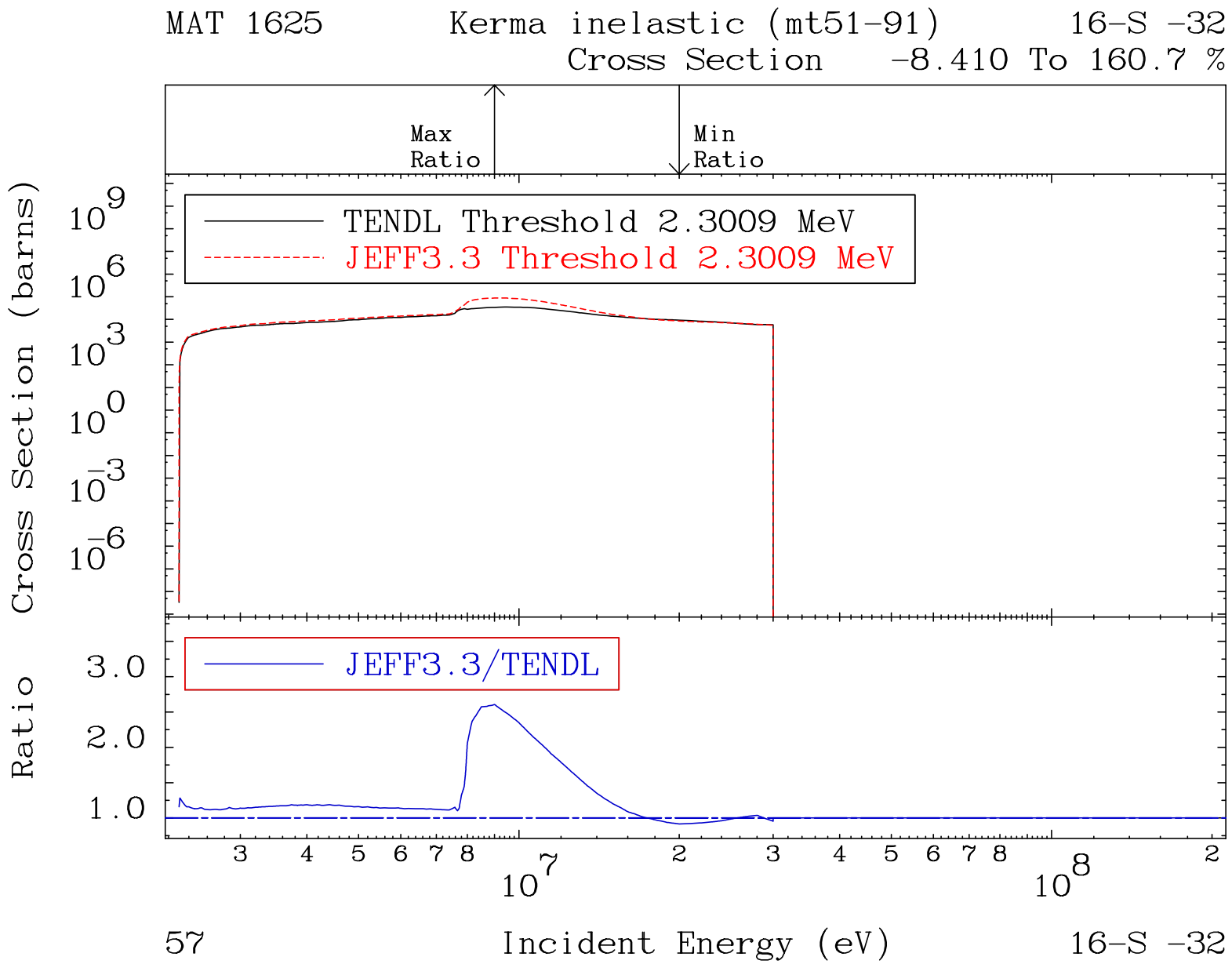

MAT 1625
He-3 Production
Cross Section
16-S -32
-100.0 To 55.03 %
Min Ratio
Max Ratio
TENDL Threshold 8.7088 MeV
JEFF3.3 Threshold 8.7633 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
2.0
1.0
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
52
Incident Energy (eV)
16-S -32

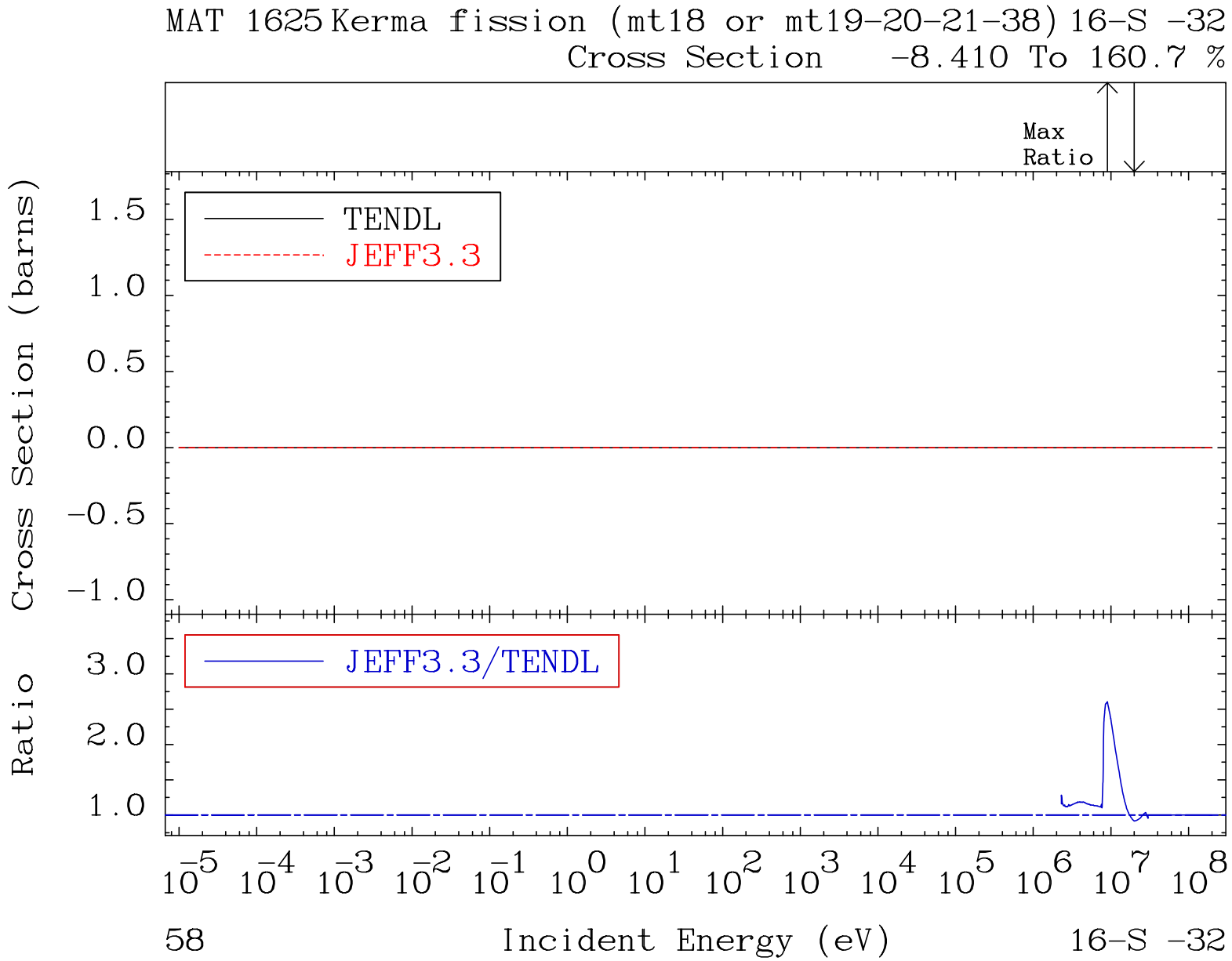

MAT 1625
He-4 Production
Cross Section
16-S -32
-52.07 To 20.04 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
53
16-S -32

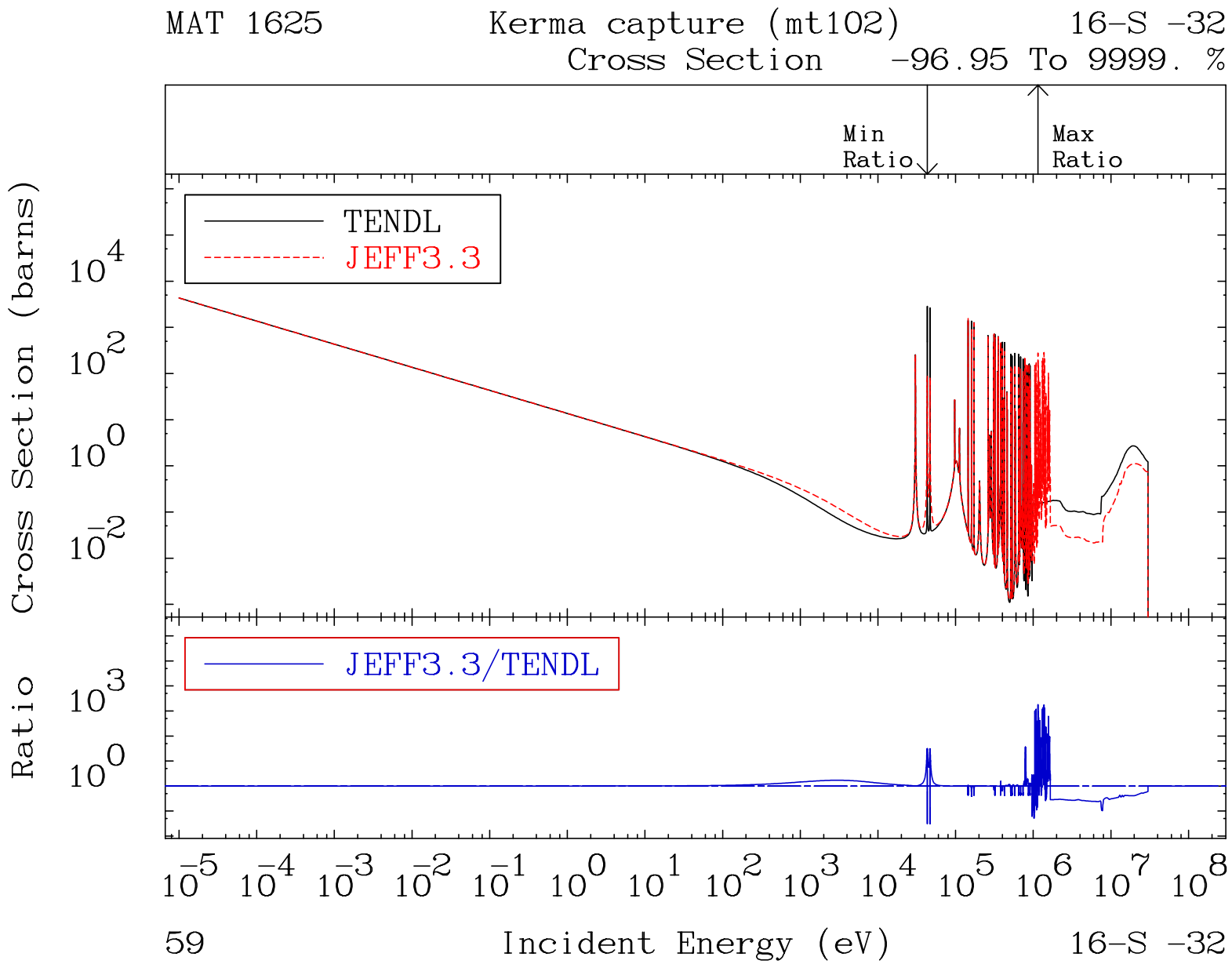

MAT 1625
Kerma total (eV-barns)
16-S -32
Cross Section -88.04 To 207.4 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
54
16-S -32

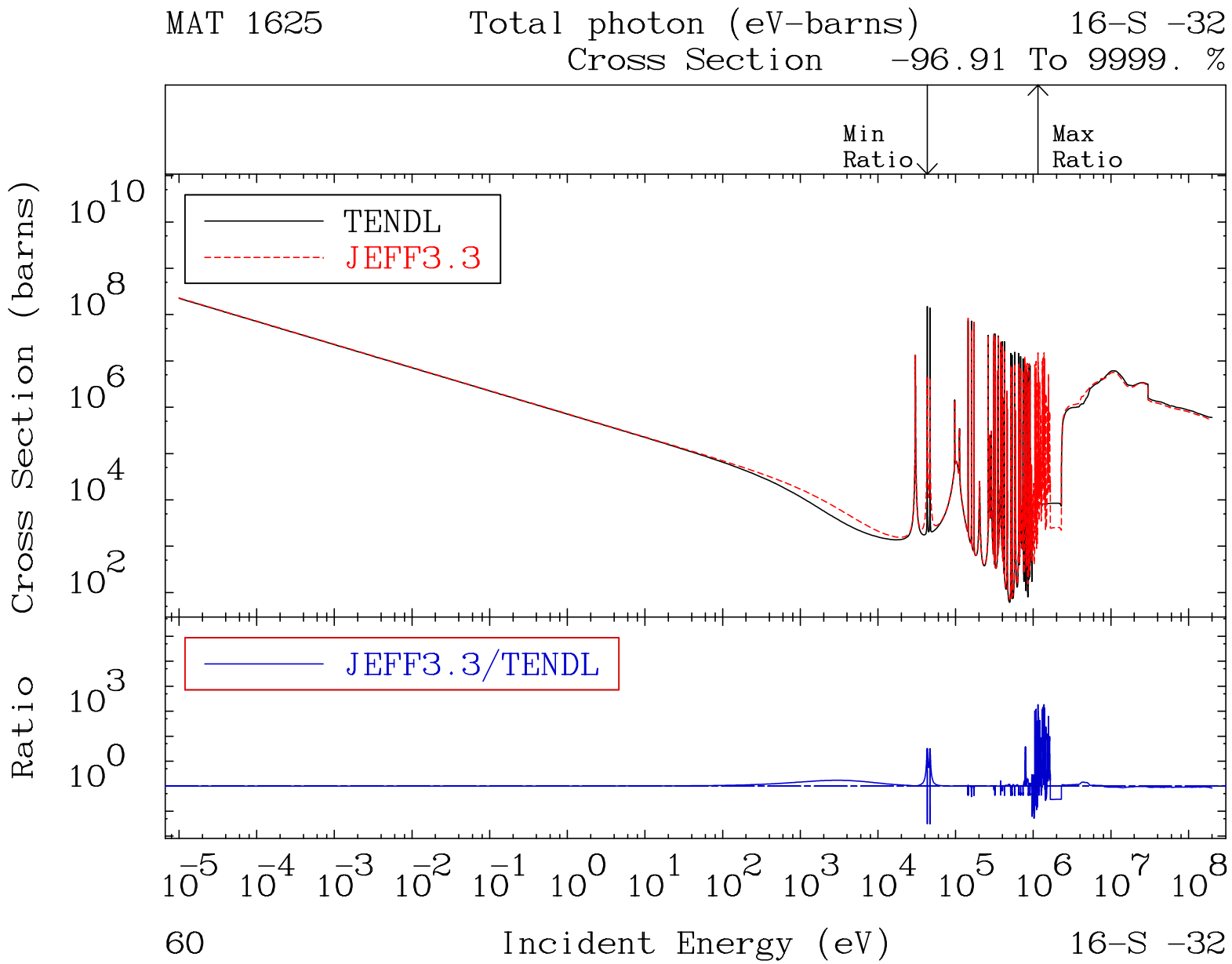

MAT 1625
Kerma elastic
Cross Section
16-S -32
-94.46 To 216.7 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
55
16-S -32

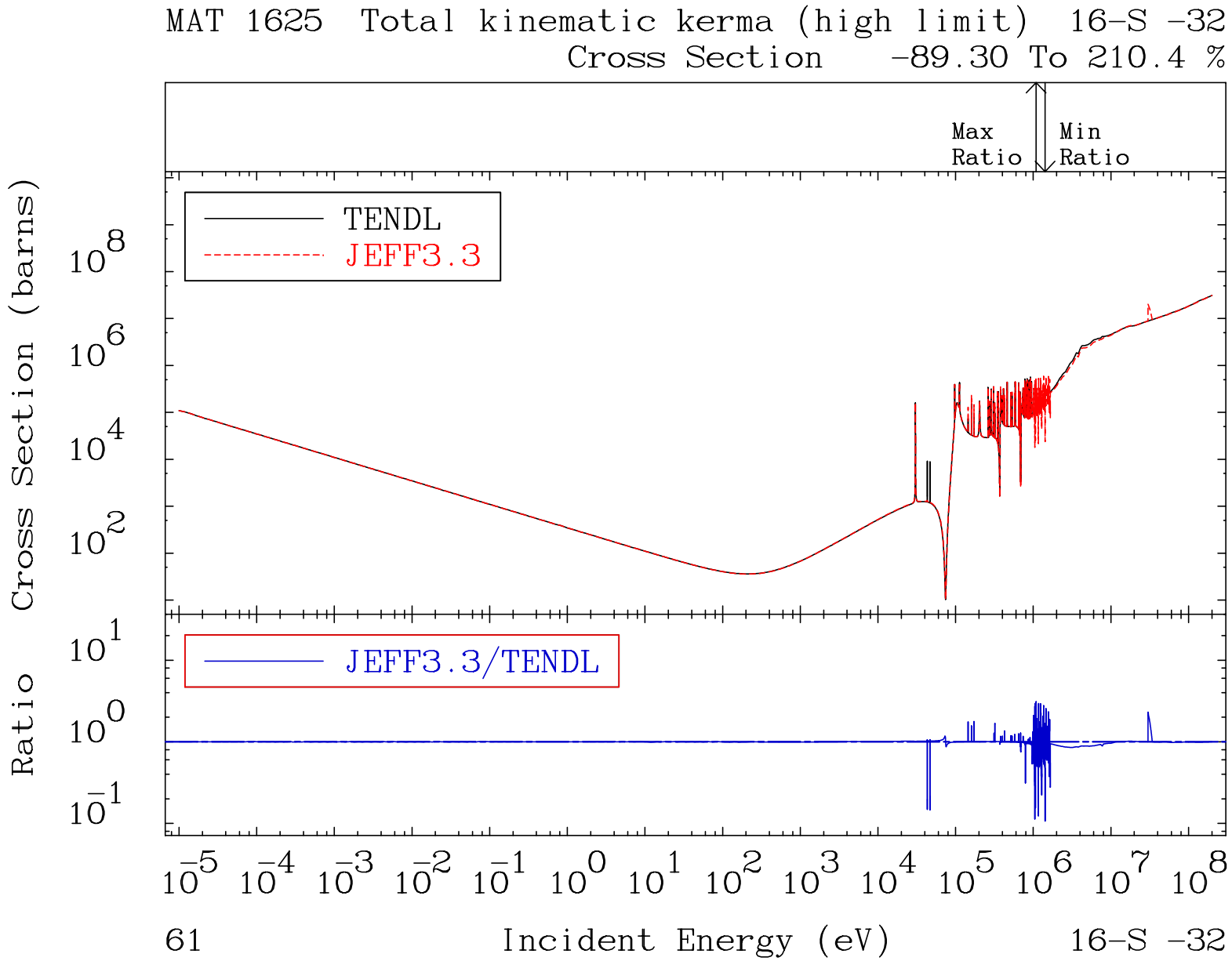

MAT 1625 Kerma non-elastic (all but mt2) 16-S -32
Cross Section -96.64 To 369.5 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
56
16-S -32

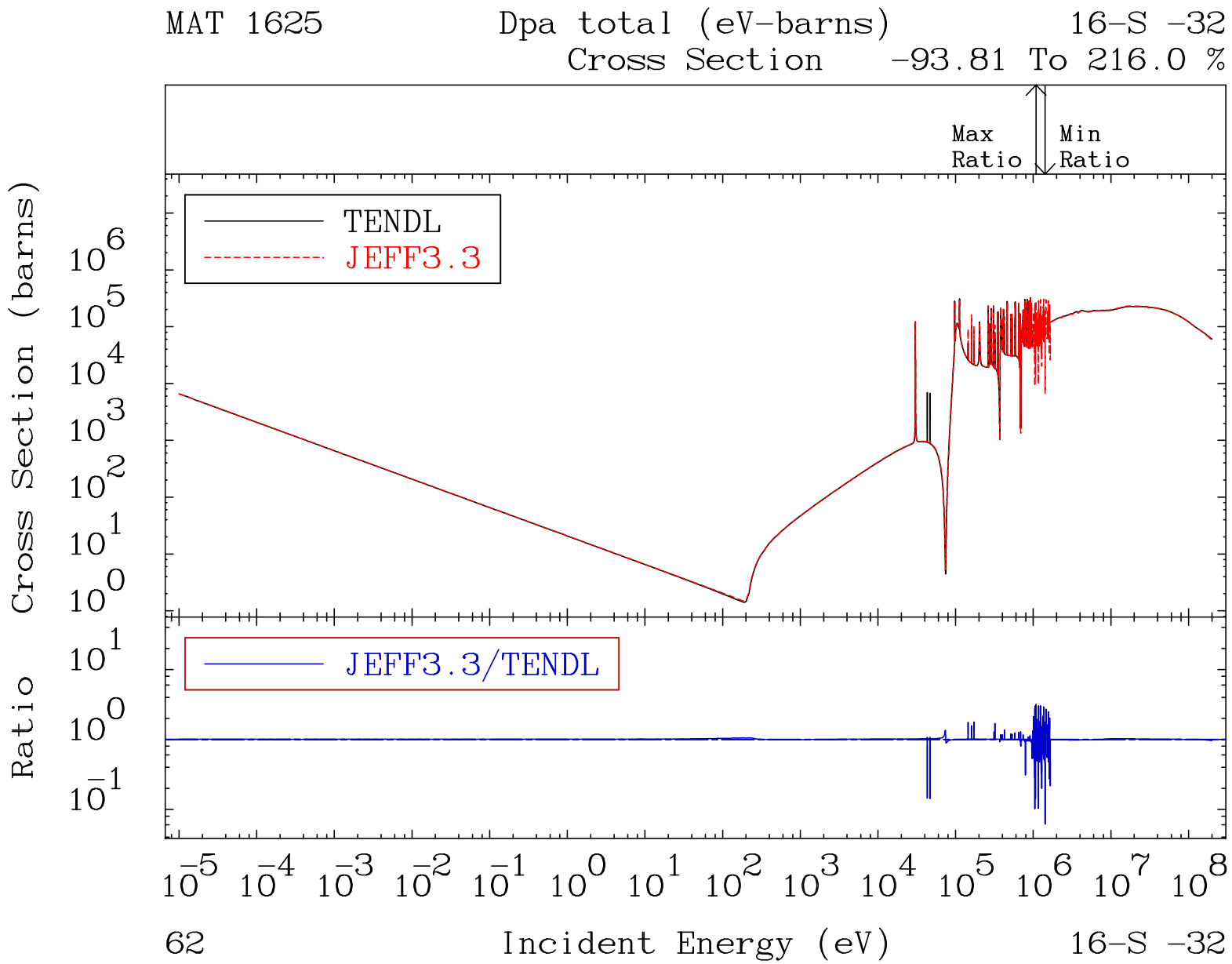

MAT 1625
Kerma inelastic (mt51-91)
16-S -32
Cross Section -8.410 To 160.7 %
Max Ratio
Min Ratio
TENDL Threshold 2.3009 MeV
JEFF3.3 Threshold 2.3009 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
57
16-S -32

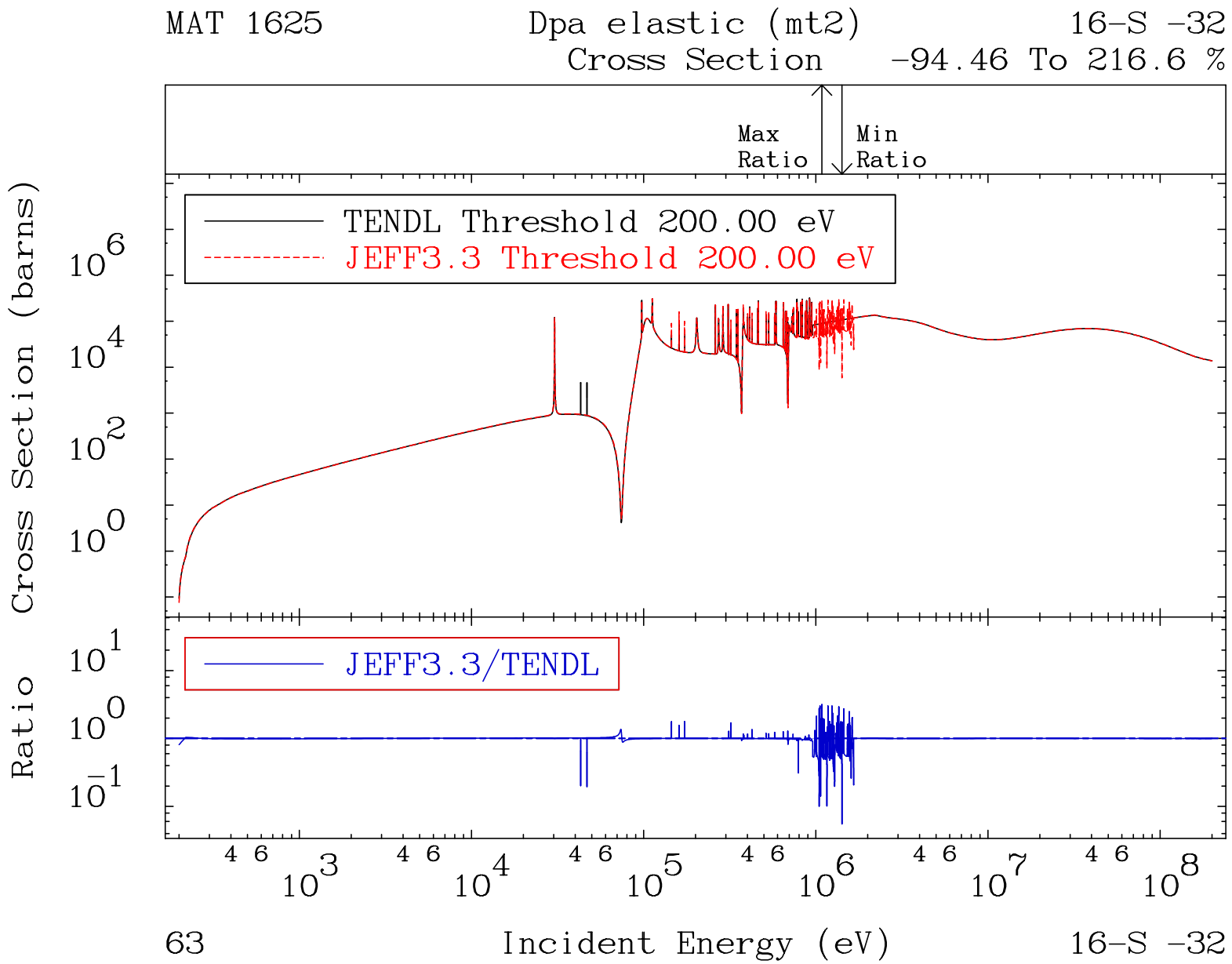

MAT 1625 Kerma fission (mt18 or mt19-20-21-38) 16-S -32
Cross Section -8.410 To 160.7 %
Max
Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
3.0
2.0
1.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
58
Incident Energy (eV)
16-S -32

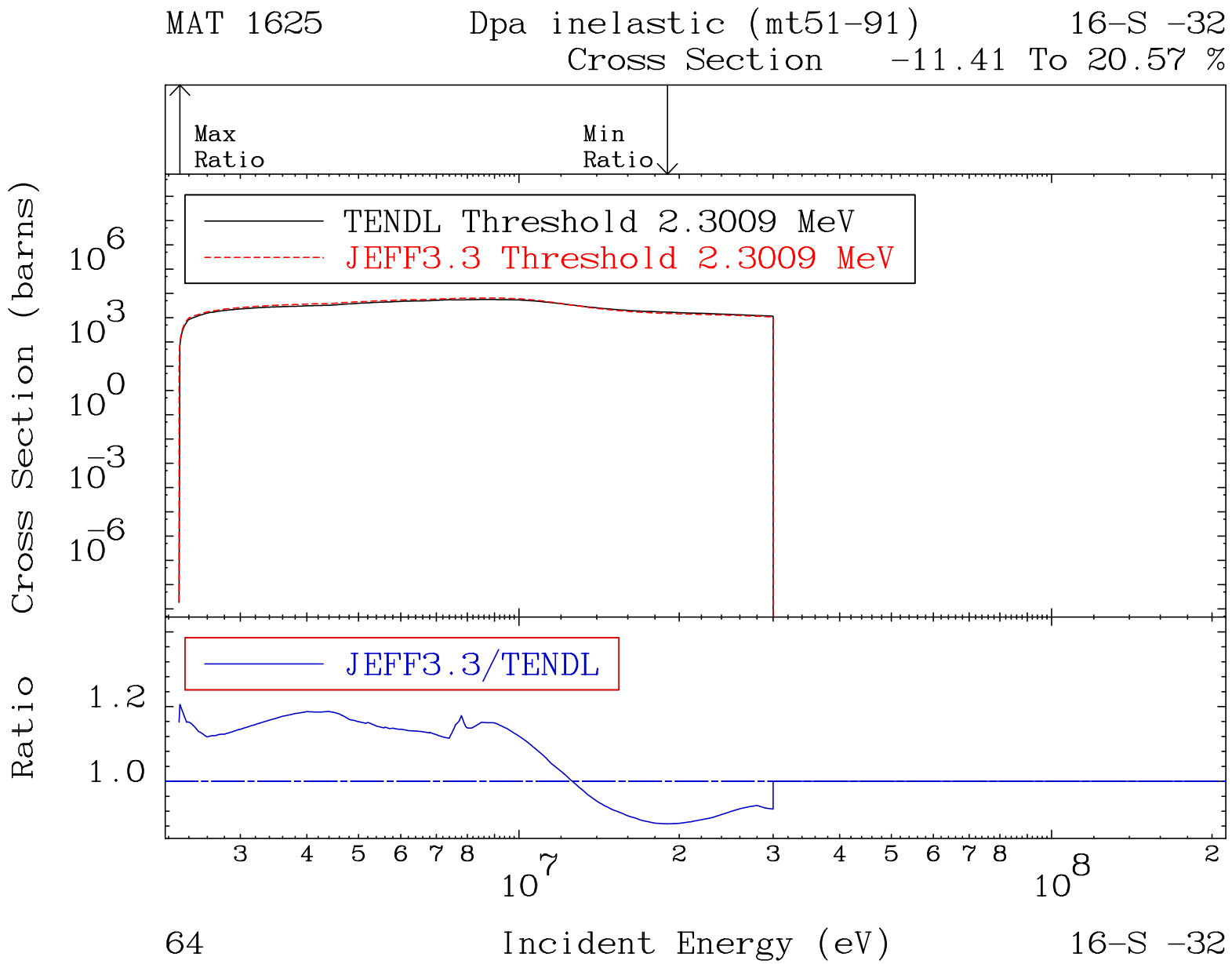

MAT 1625
Kerma capture (mt102)
16-S -32
Cross Section -96.95 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
59
16-S -32

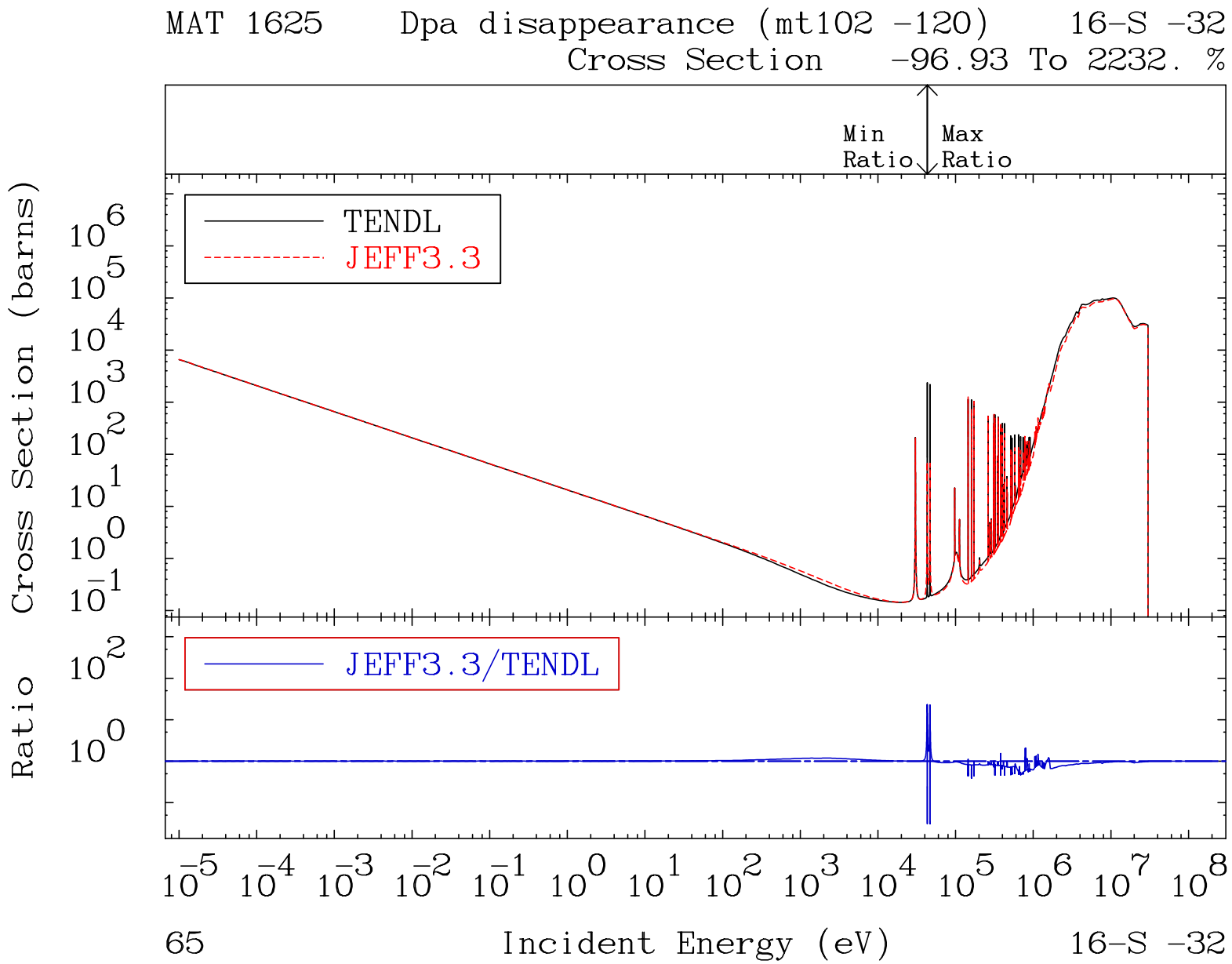

MAT 1625
Total photon (eV-barns)
16-S -32
Cross Section -96.91 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
60
16-S -32


MAT 1625 Total kinematic kerma (high limit) 16-S -32
Cross Section -89.30 To 210.4 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
61
16-S -32


MAT 1625
Dpa total (eV-barns)
16-S -32
Cross Section -93.81 To 216.0 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
62
16-S -32


MAT 1625
Dpa elastic (mt2)
Cross Section
16-S -32
-94.46 To 216.6 %
Max Ratio
Min Ratio
TENDL Threshold 200.00 eV
JEFF3.3 Threshold 200.00 eV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
63
16-S -32


MAT 1625
Dpa inelastic (mt51-91)
16-S -32
Cross Section -11.41 To 20.57 %
Max Ratio
Min Ratio
TENDL Threshold 2.3009 MeV
JEFF3.3 Threshold 2.3009 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
64
16-S -32


MAT 1625 Dpa disappearance (mt102 -120) 16-S -32
Cross Section -96.93 To 2232. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
65
16-S -32