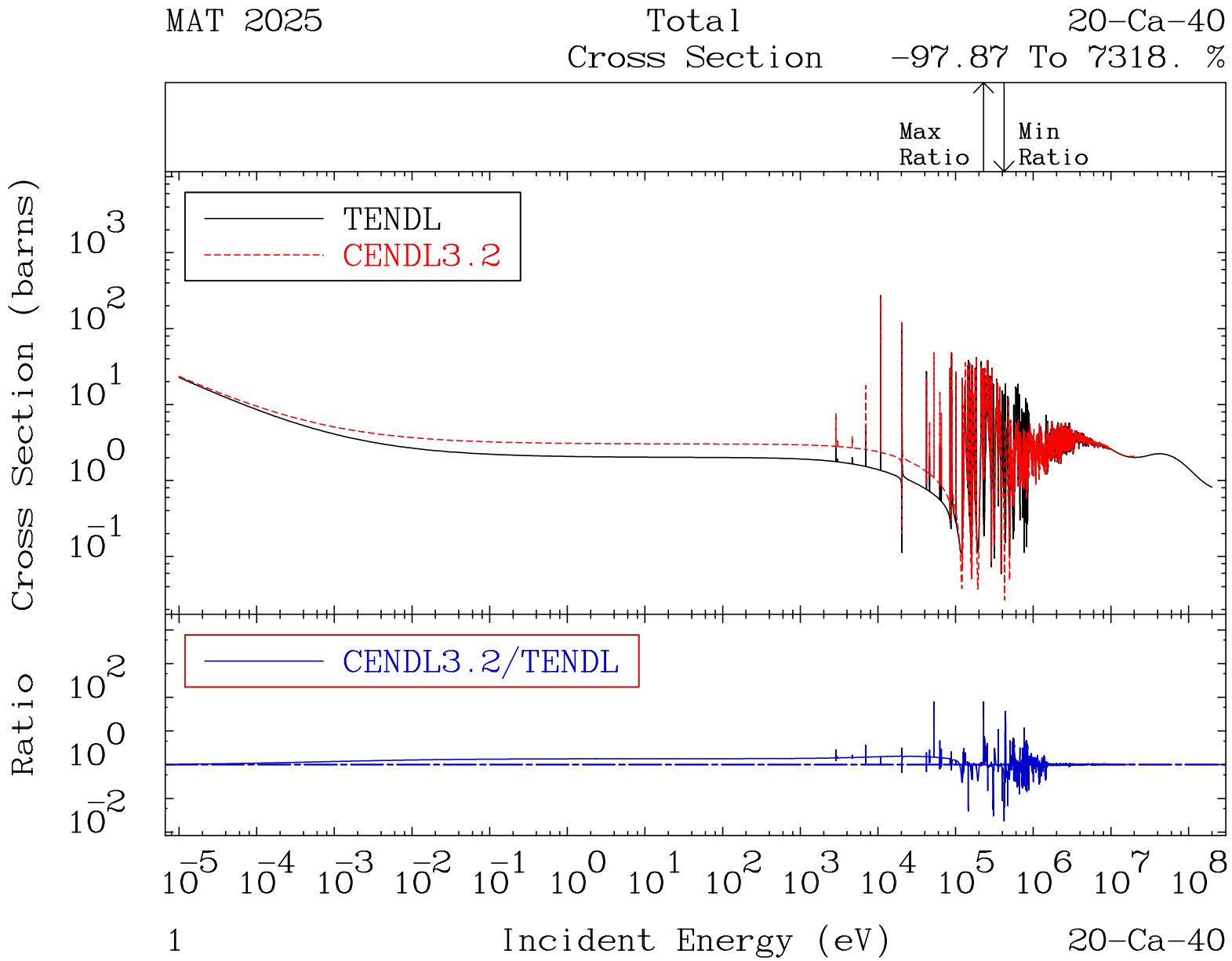
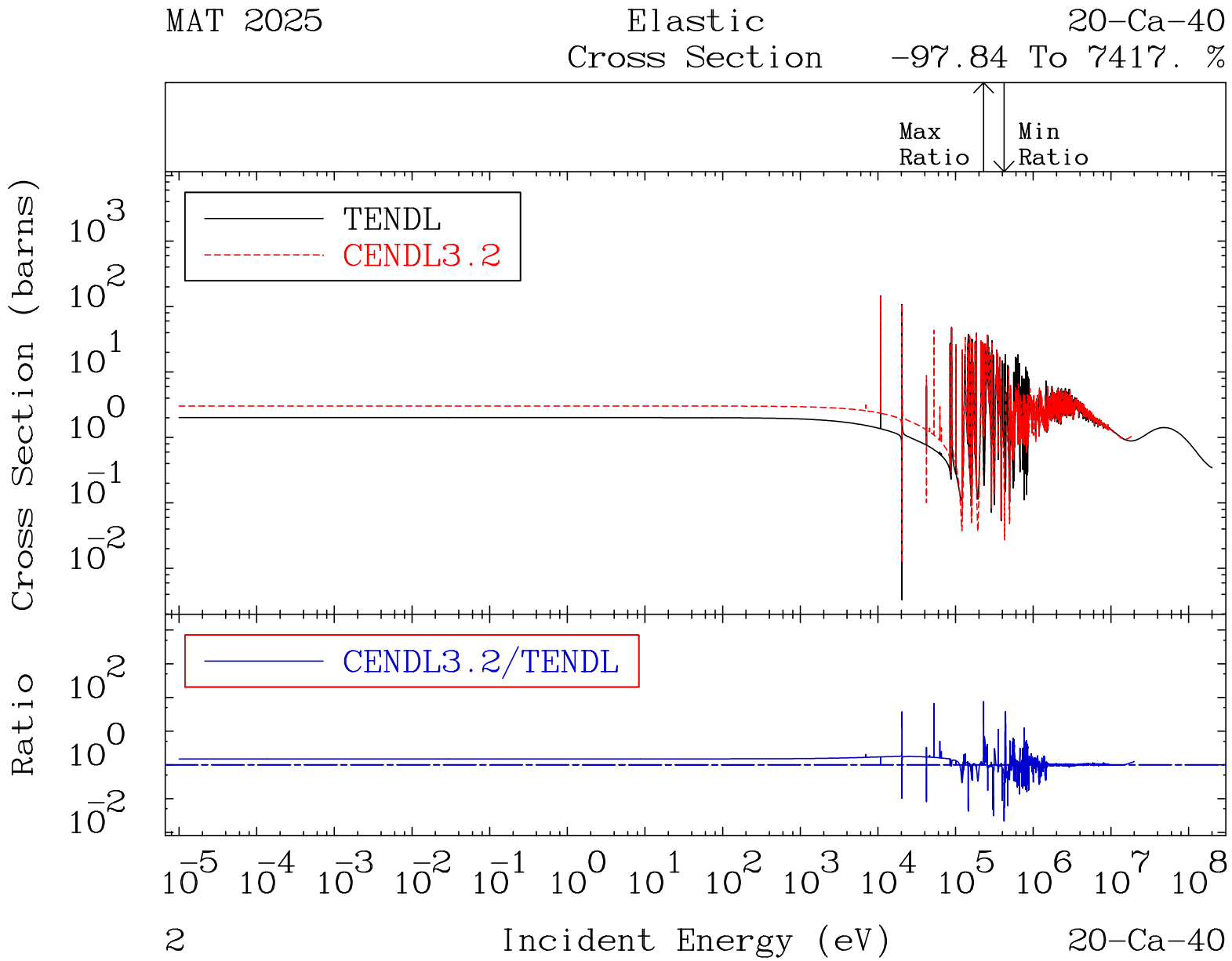
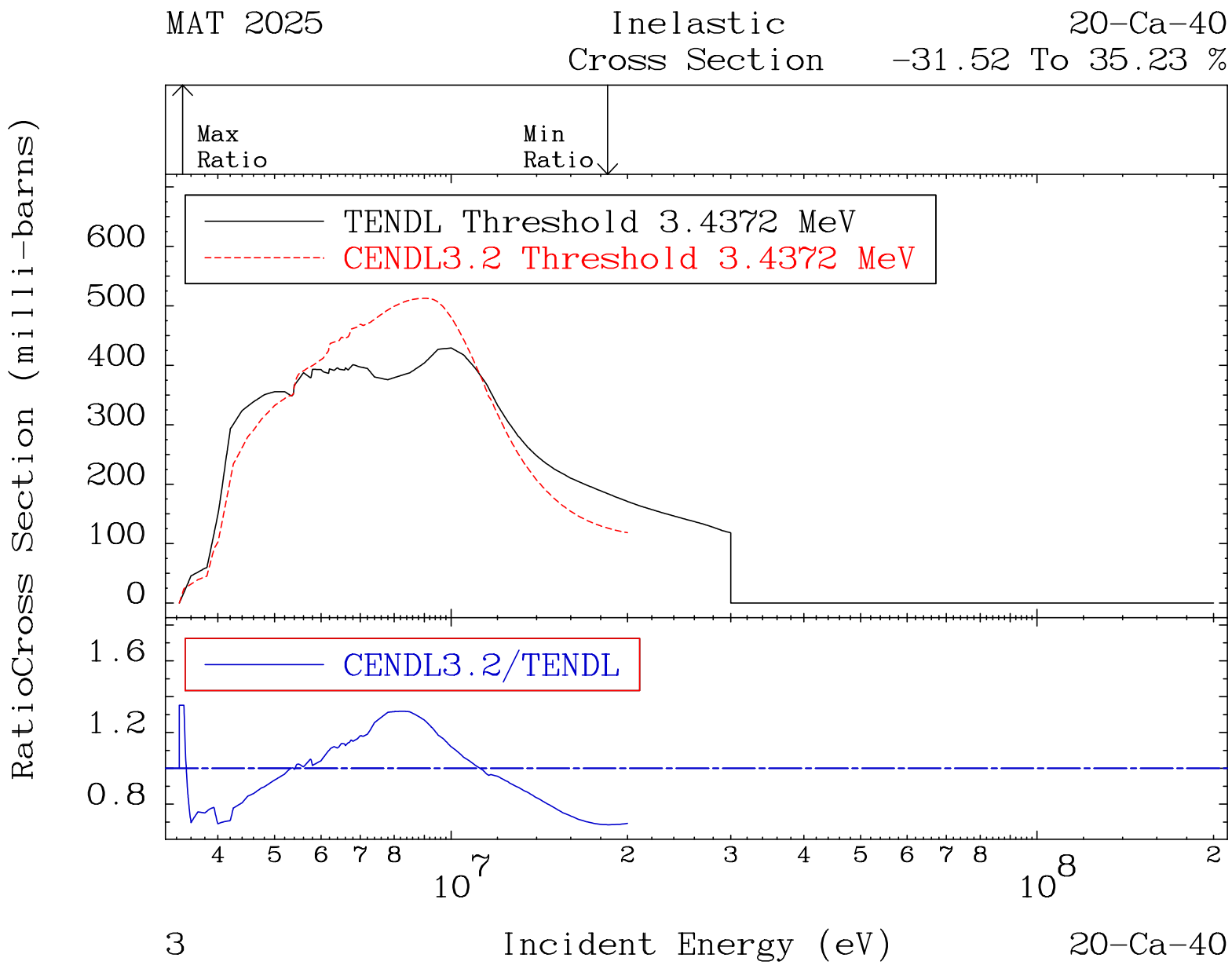
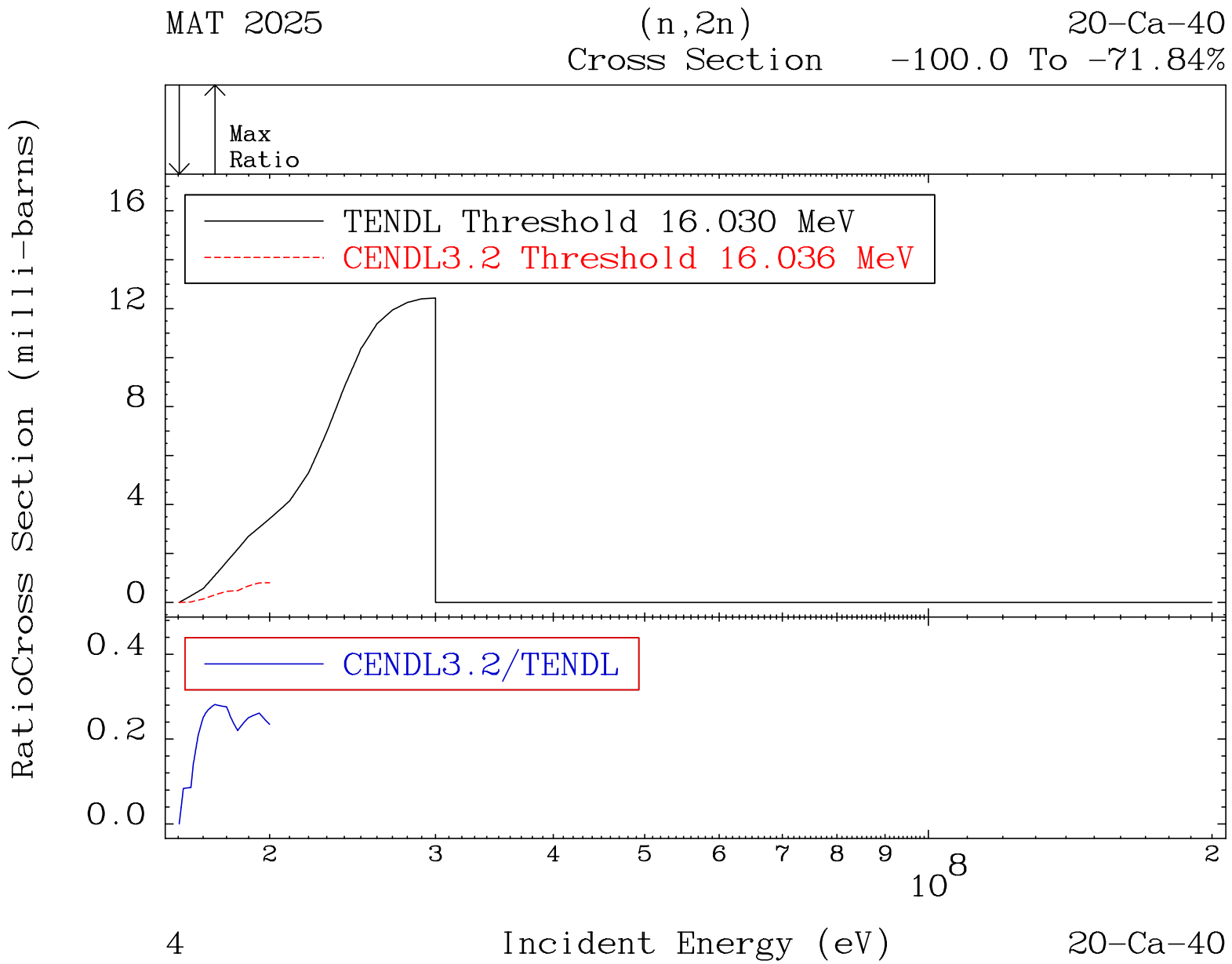
Program Complot
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

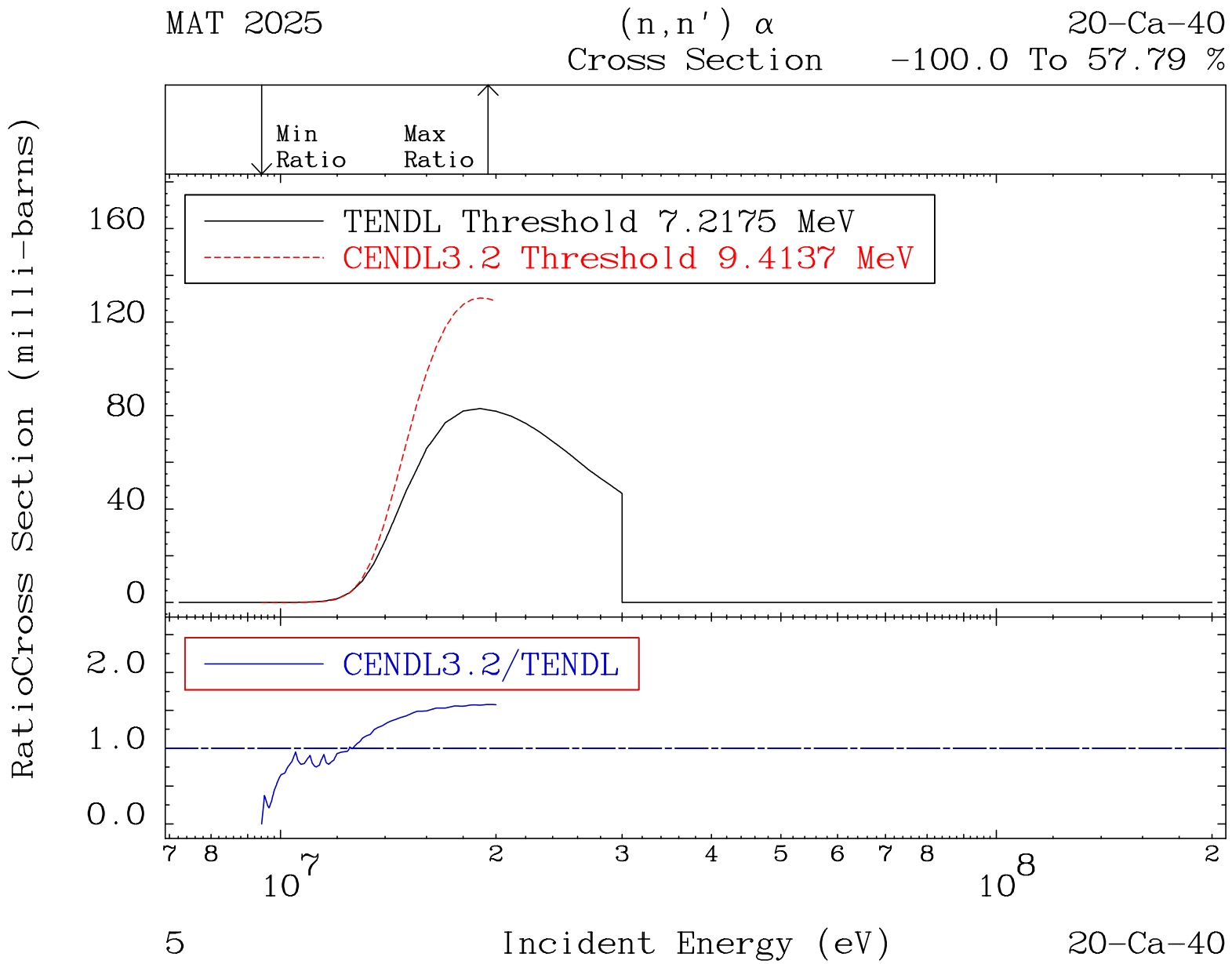
Press Mouse Button to Start

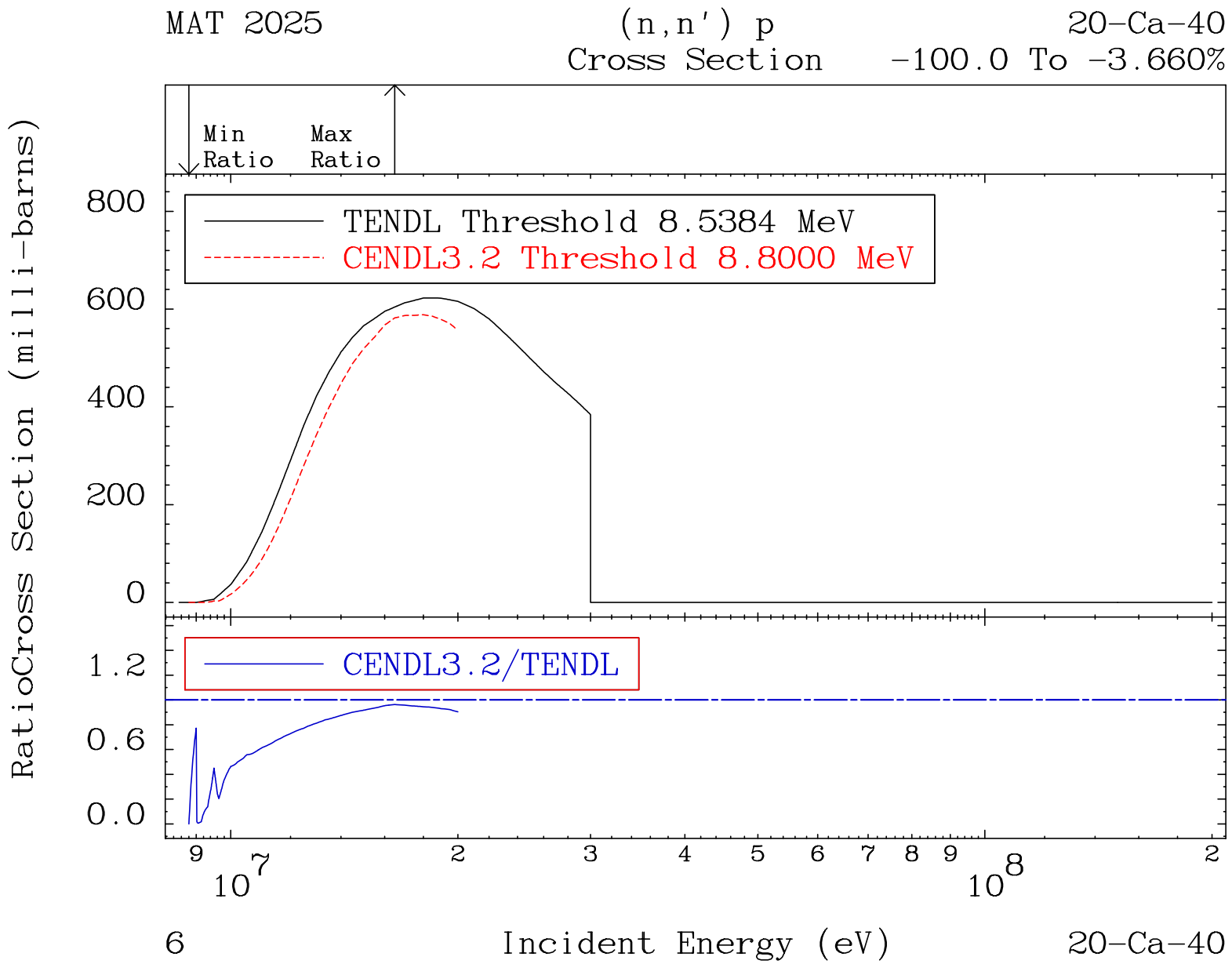

MAT 2025
Total
Cross Section
20-Ca-40
-97.87 To 7318. %
Max
Ratio
Min
Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
20-Ca-40

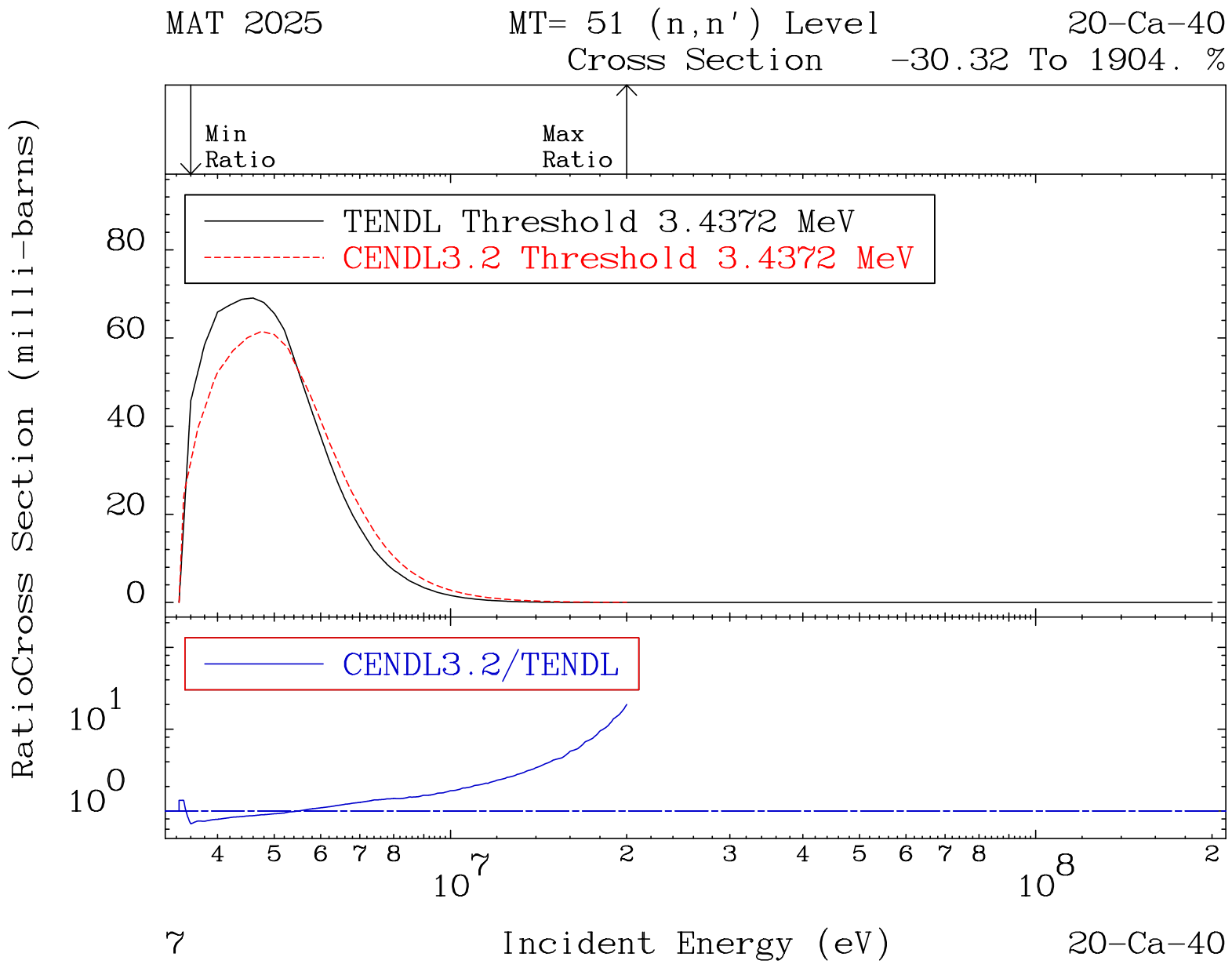

MAT 2025
Elastic
Cross Section
20-Ca-40
-97.84 To 7417. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
20-Ca-40

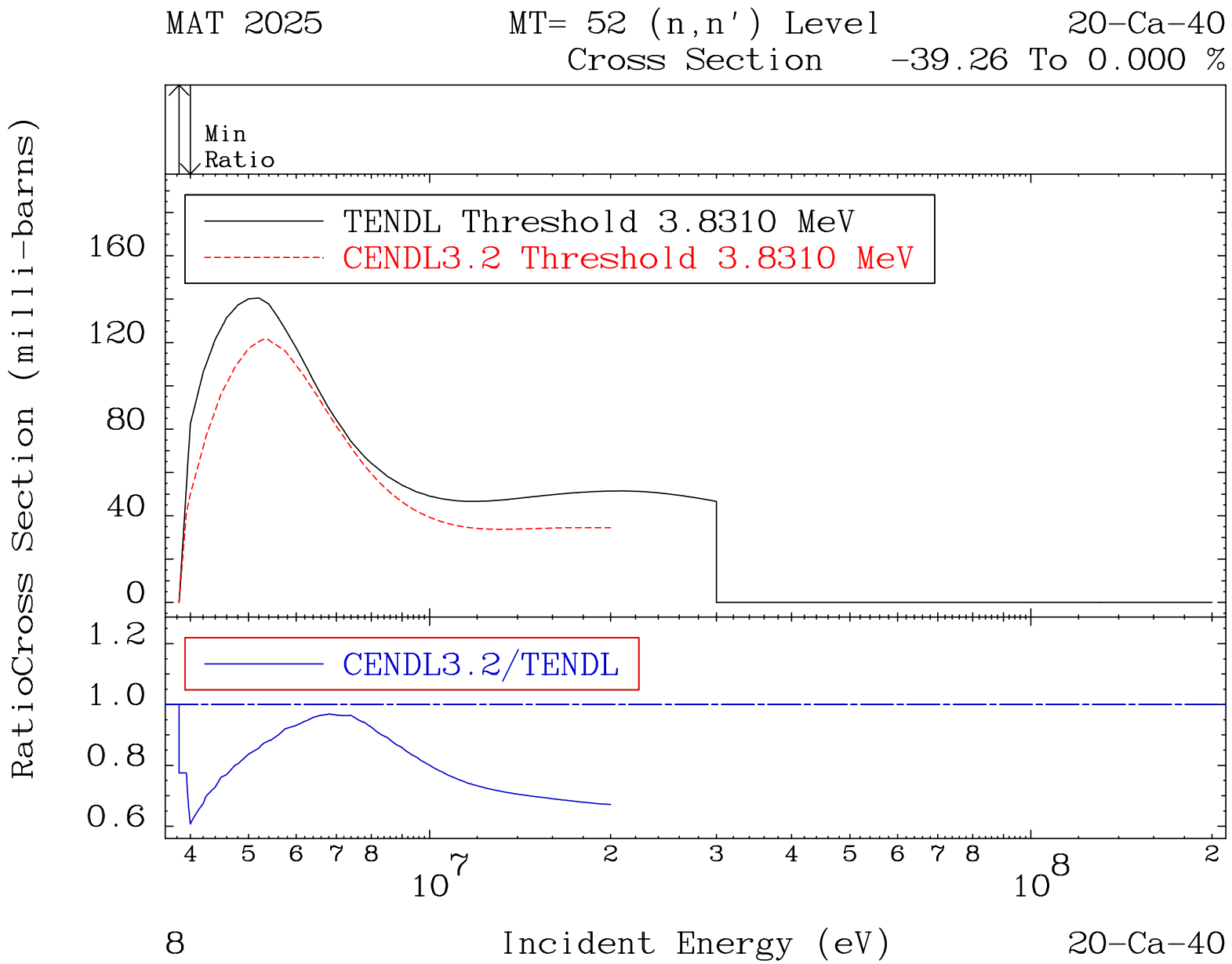

MAT 2025
Inelastic
Cross Section
20-Ca-40
-31.52 To 35.23 %
Max Ratio
Min Ratio
TENDL Threshold 3.4372 MeV
CENDL3.2 Threshold 3.4372 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
600
500
400
300
200
100
0
1.6
1.2
0.8
4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
3
Incident Energy (eV)
20-Ca-40

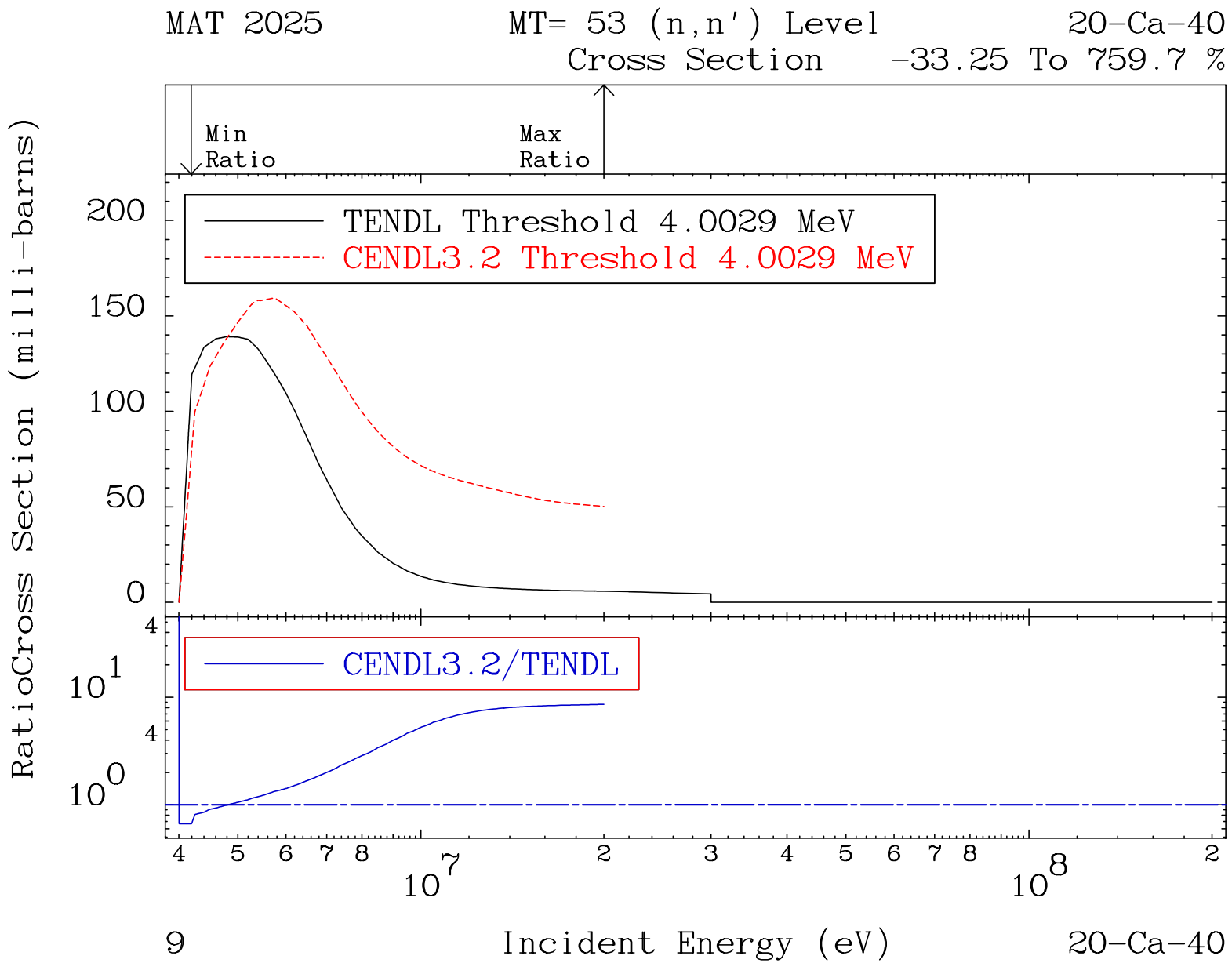

MAT 2025
(n,2n)
Cross Section
20-Ca-40
-100.0 To -71.84%
Max
Ratio
TENDL Threshold 16.030 MeV
CENDL3.2 Threshold 16.036 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
0.4
0.2
0.0
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
20-Ca-40

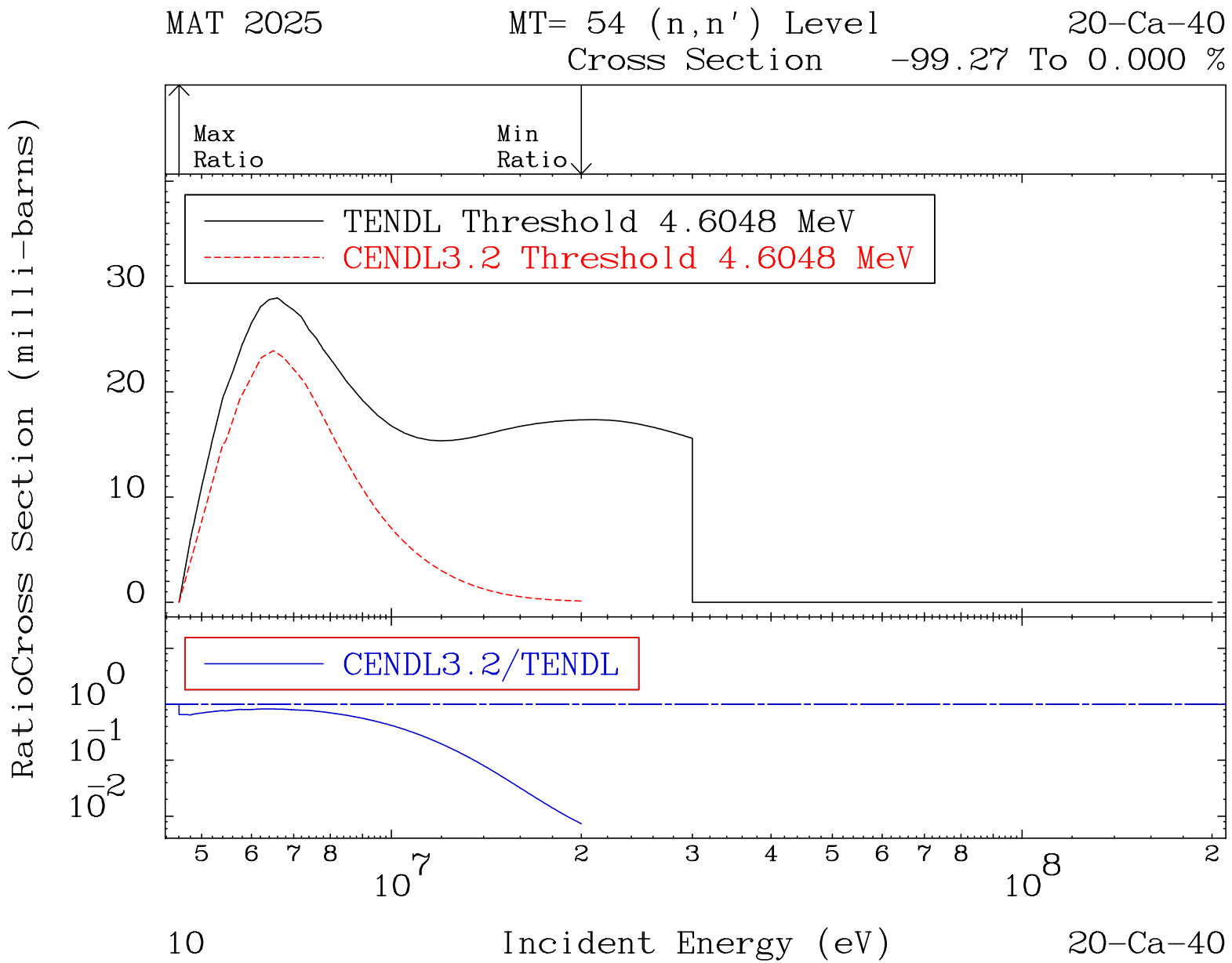

MAT 2025
(n,n') α
Cross Section
20-Ca-40
-100.0 To 57.79 %
Min Ratio
Max Ratio
TENDL Threshold 7.2175 MeV
CENDL3.2 Threshold 9.4137 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
2.0
1.0
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
5
20-Ca-40

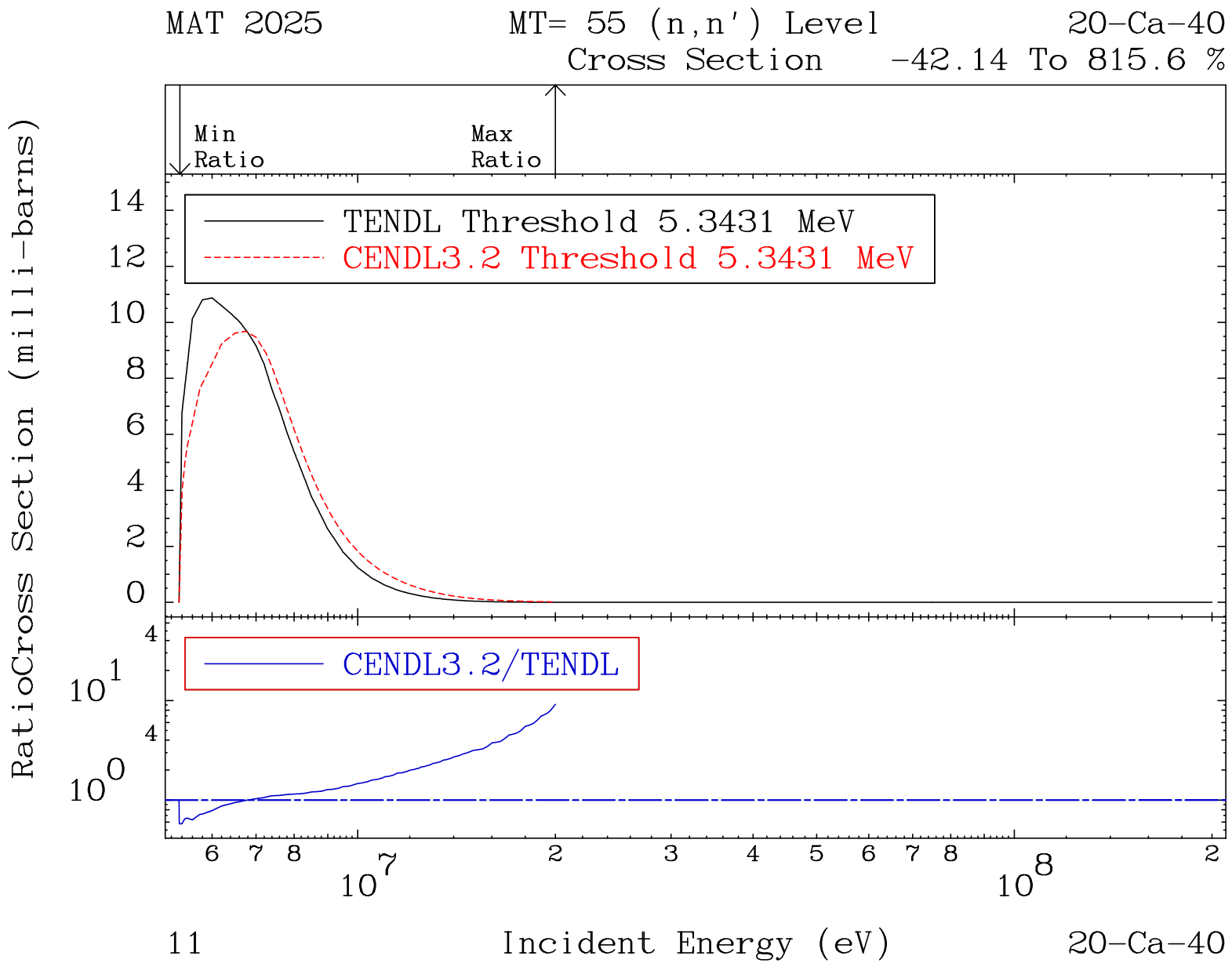

MAT 2025
(n,n') p
Cross Section
20-Ca-40
-100.0 To -3.660%
Min Ratio
Max Ratio
TENDL Threshold 8.5384 MeV
CENDL3.2 Threshold 8.8000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.2
0.6
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
Incident Energy (eV)
6
20-Ca-40

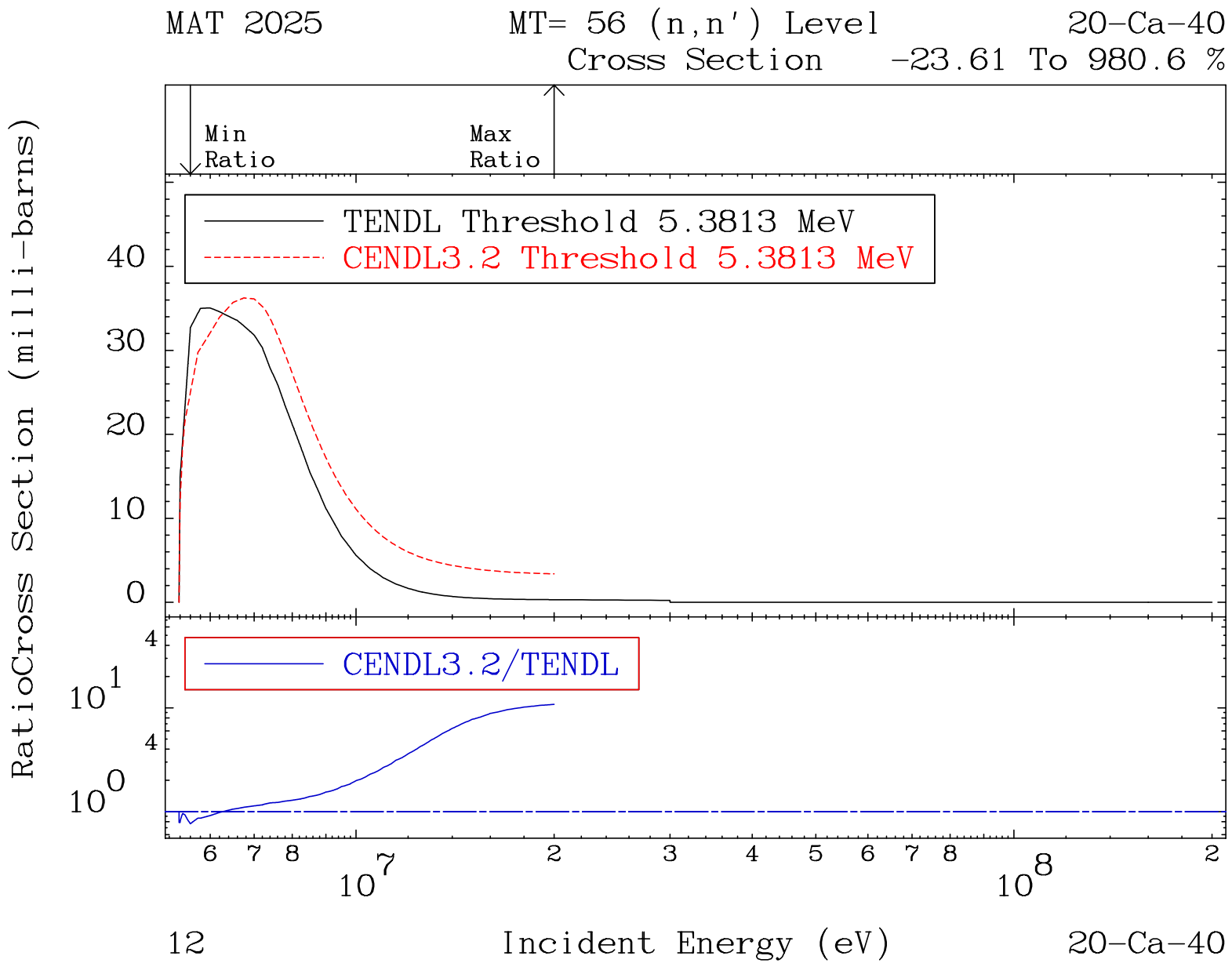

MAT 2025
MT= 51 (n,n') Level
20-Ca-40
Cross Section -30.32 To 1904. %
Min Ratio
Max Ratio
TENDL Threshold 3.4372 MeV
CENDL3.2 Threshold 3.4372 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
10^1
10^0
4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
7
Incident Energy (eV)
20-Ca-40

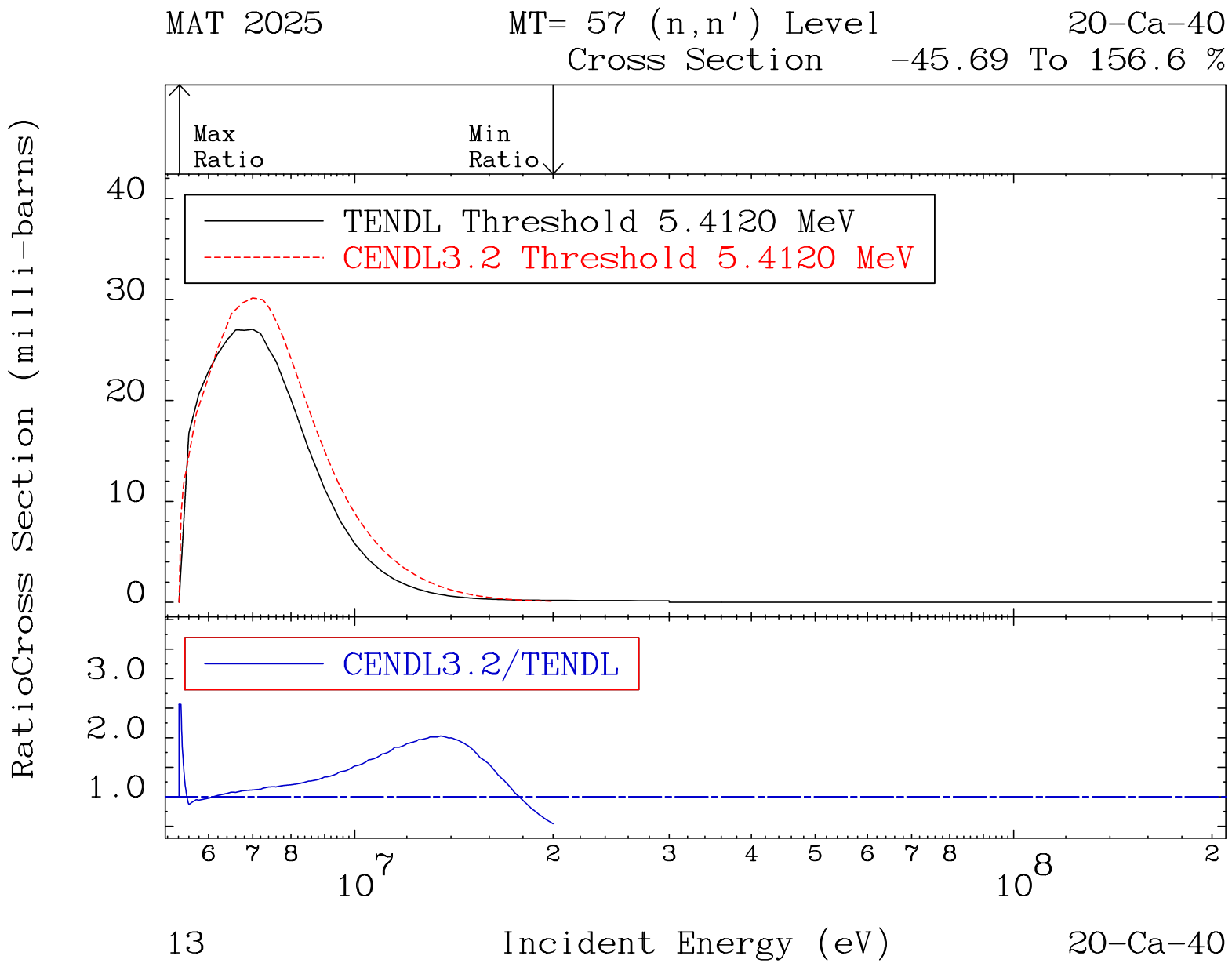

MAT 2025
MT= 52 (n,n') Level
20-Ca-40
Cross Section -39.26 To 0.000 %
Min
Ratio
TENDL Threshold 3.8310 MeV
CENDL3.2 Threshold 3.8310 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
1.2
1.0
0.8
0.6
4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
8
20-Ca-40

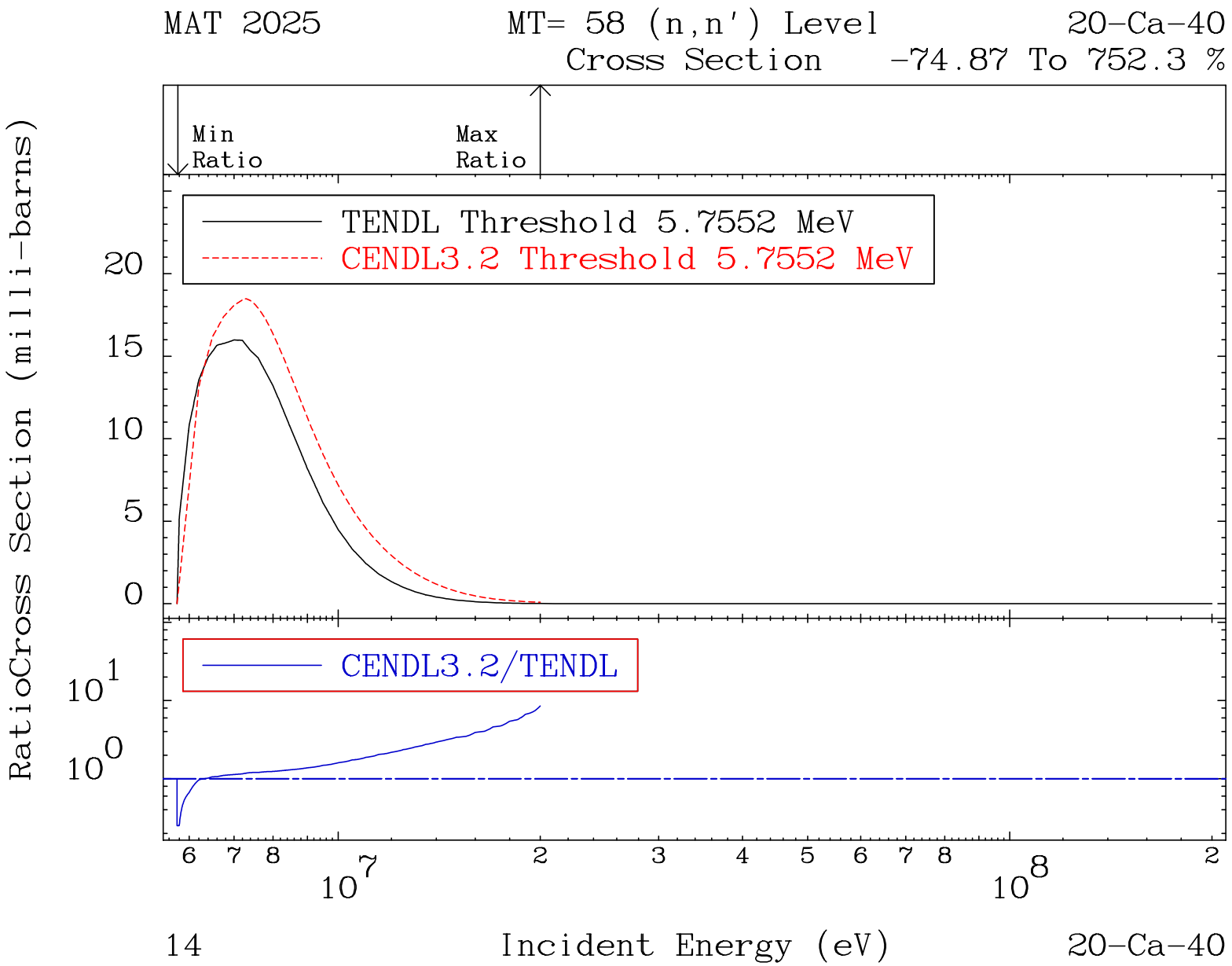

MAT 2025
MT= 53 (n,n') Level
Cross Section
20-Ca-40
-33.25 To 759.7 %
Min Ratio
Max Ratio
TENDL Threshold 4.0029 MeV
CENDL3.2 Threshold 4.0029 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
4
10^1
4
10^0
4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
9
Incident Energy (eV)
20-Ca-40

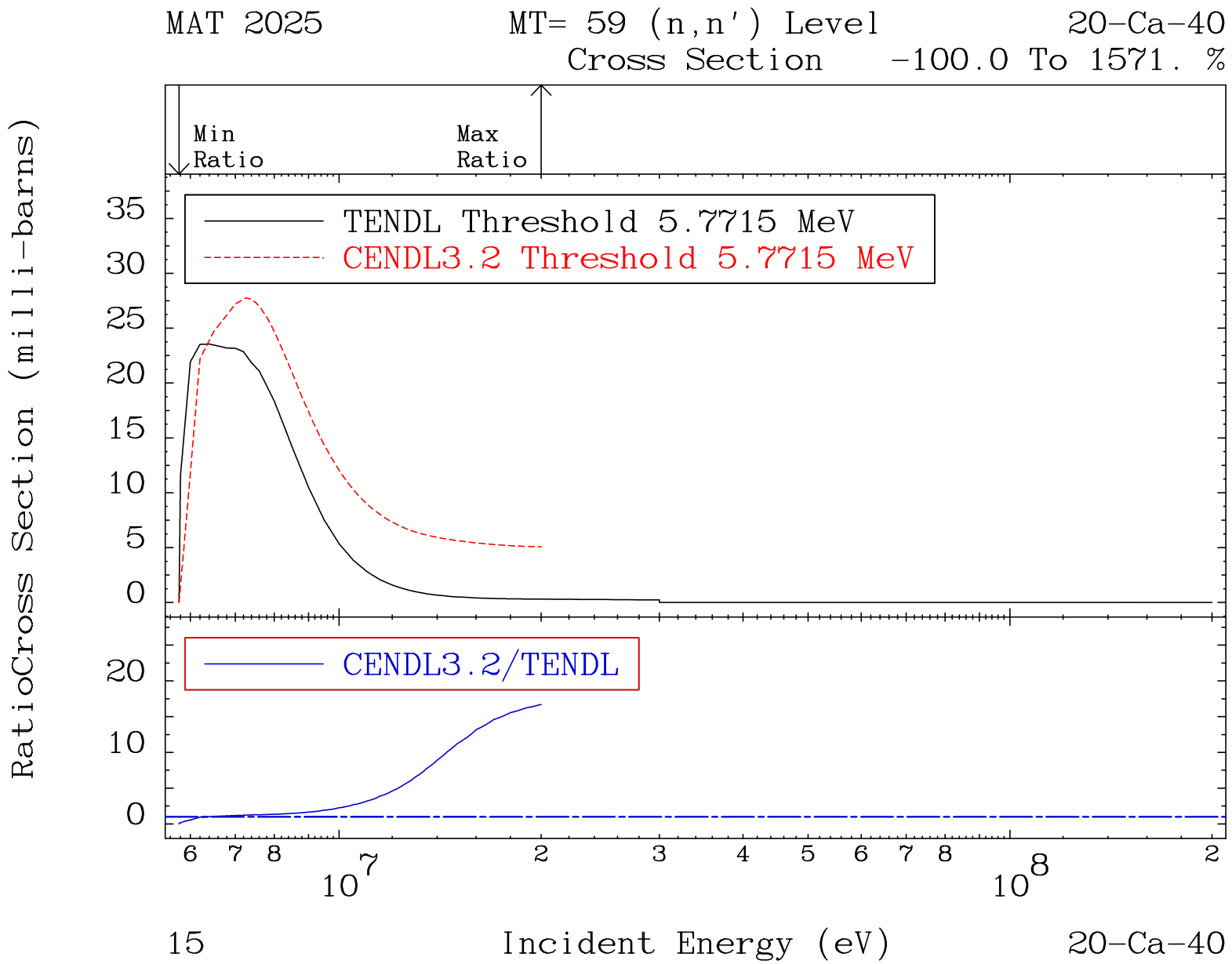

MAT 2025
MT= 54 (n,n') Level
20-Ca-40
Cross Section -99.27 To 0.000 %
Max Ratio
Min Ratio
TENDL Threshold 4.6048 MeV
CENDL3.2 Threshold 4.6048 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
10
20-Ca-40

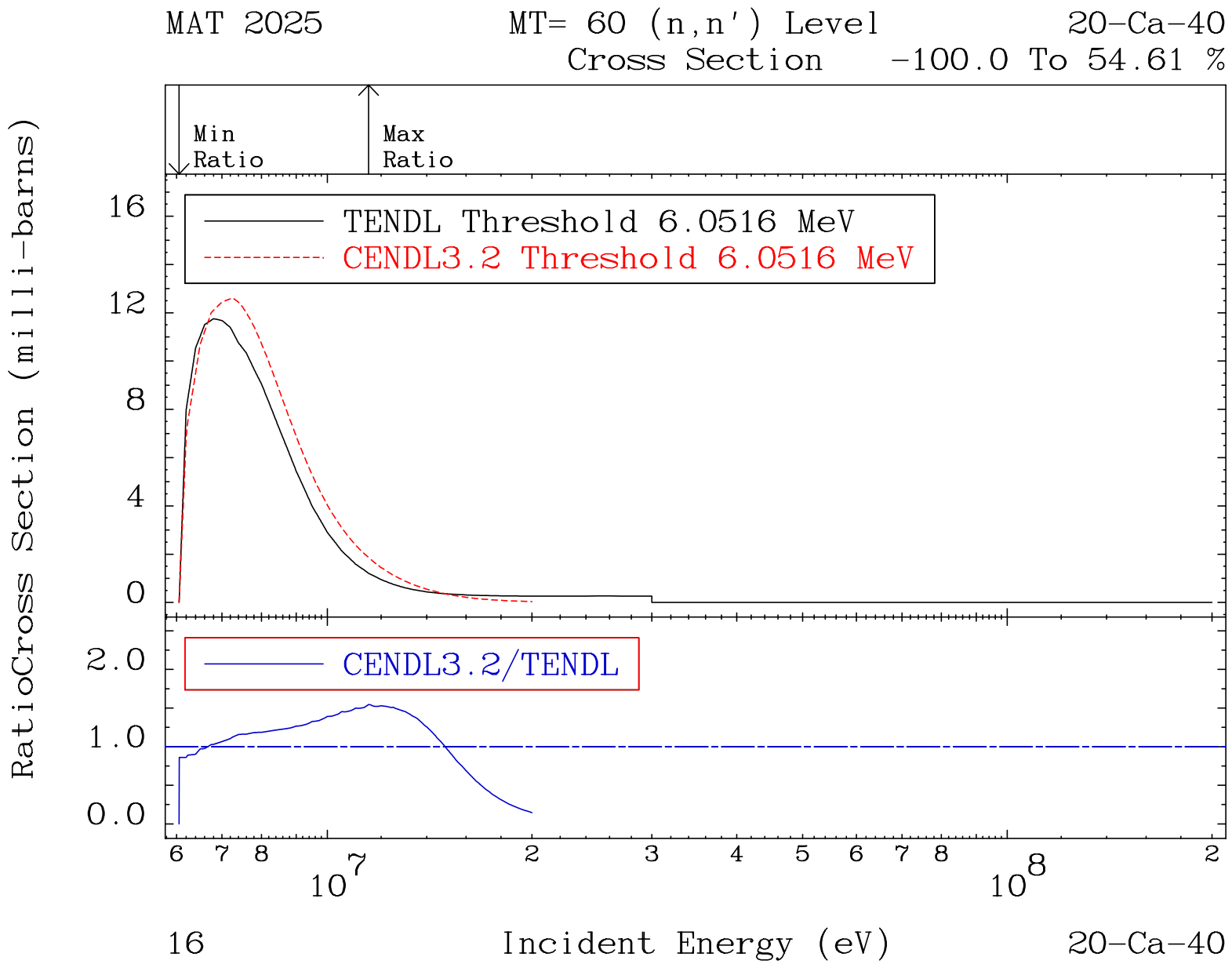

MAT 2025
MT= 55 (n,n') Level
20-Ca-40
Cross Section
-42.14 To 815.6 %
Min Ratio
Max Ratio
TENDL Threshold 5.3431 MeV
CENDL3.2 Threshold 5.3431 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
11
20-Ca-40

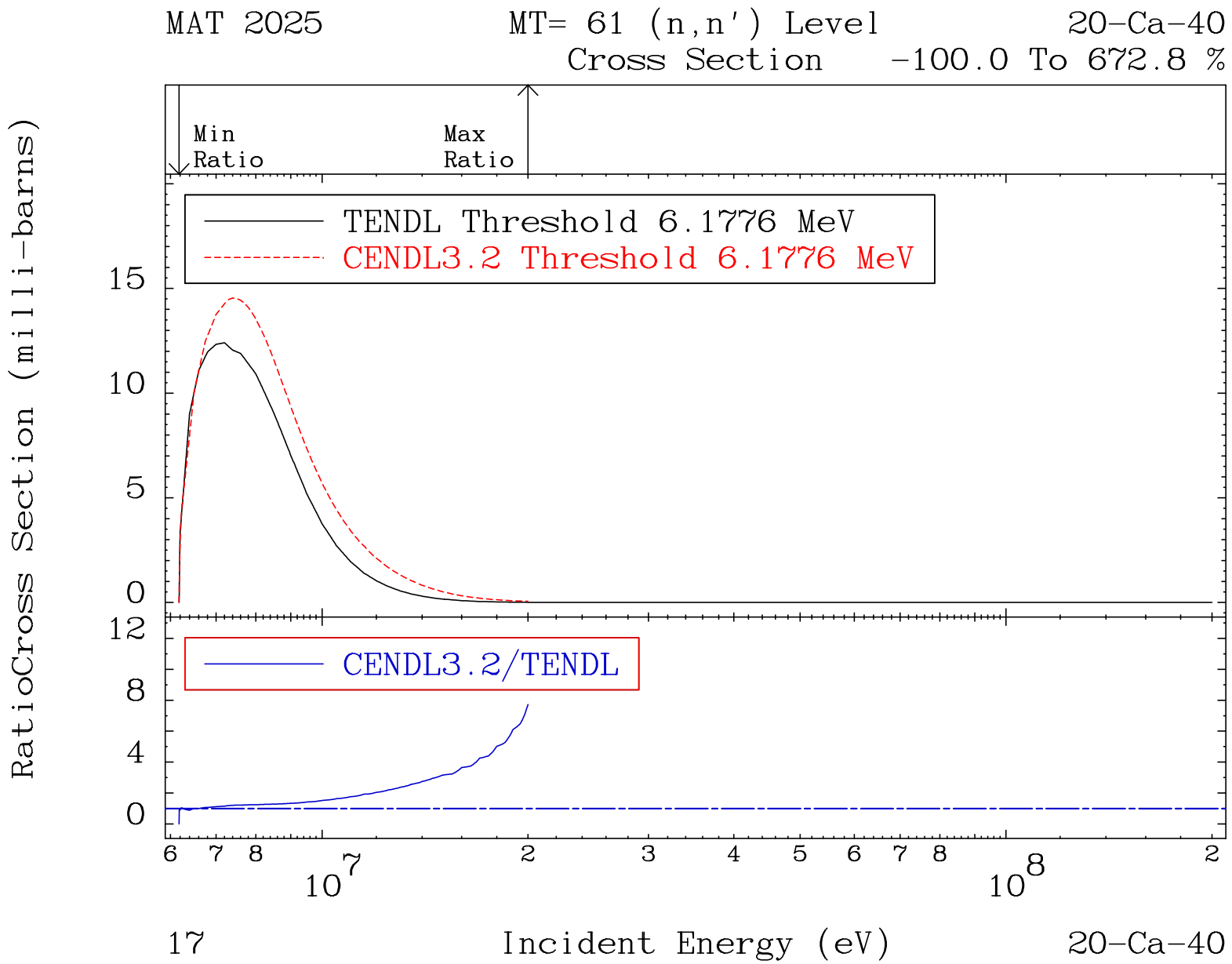

MAT 2025
MT= 56 (n,n') Level
20-Ca-40
Cross Section
-23.61 To 980.6 %
Min Ratio
Max Ratio
TENDL Threshold 5.3813 MeV
CENDL3.2 Threshold 5.3813 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
4
10^1
4
10^0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
20-Ca-40

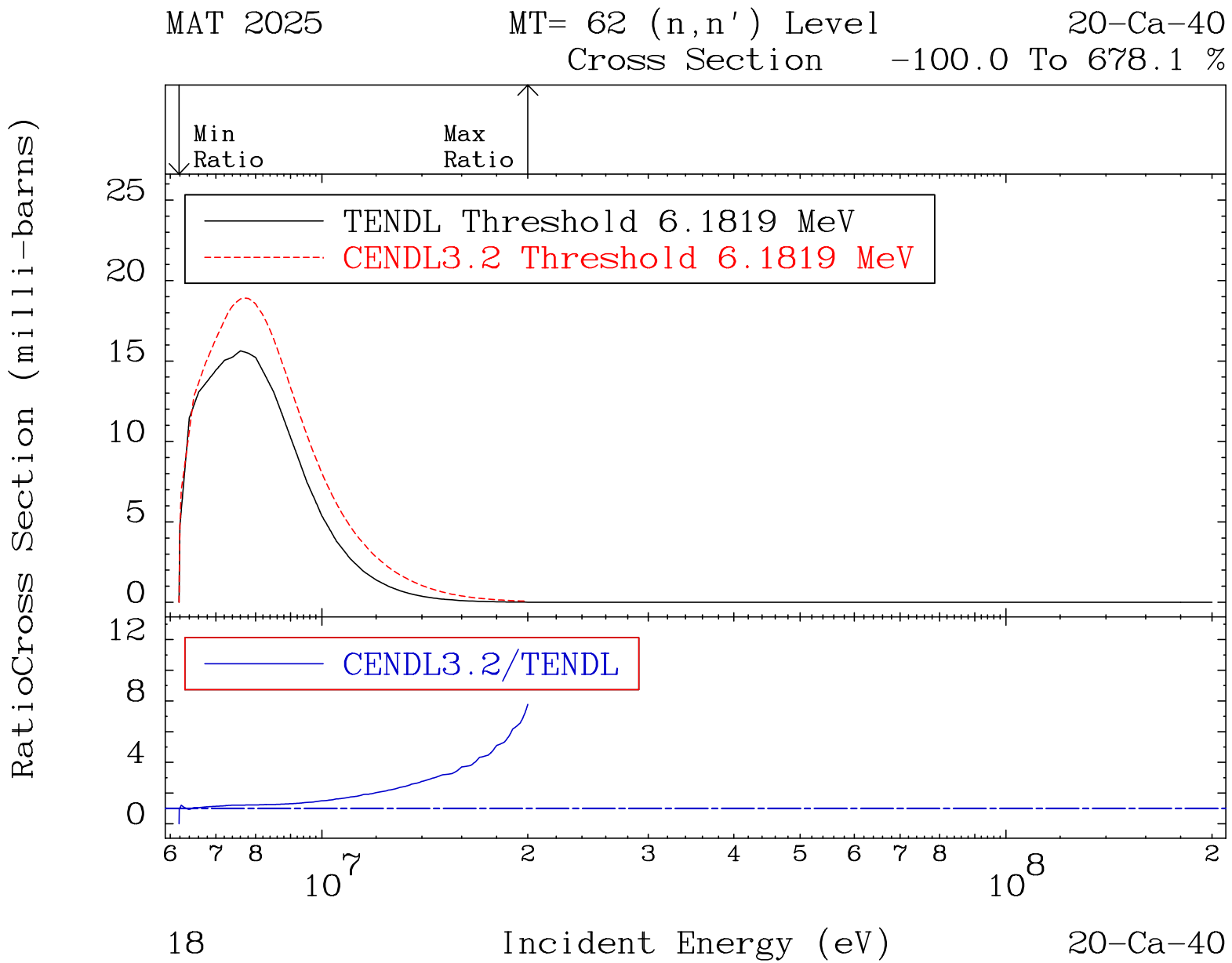

MAT 2025
MT= 57 (n,n') Level
20-Ca-40
Cross Section
-45.69 To 156.6 %
Max Ratio
Min Ratio
TENDL Threshold 5.4120 MeV
CENDL3.2 Threshold 5.4120 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
3.0
2.0
1.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
20-Ca-40

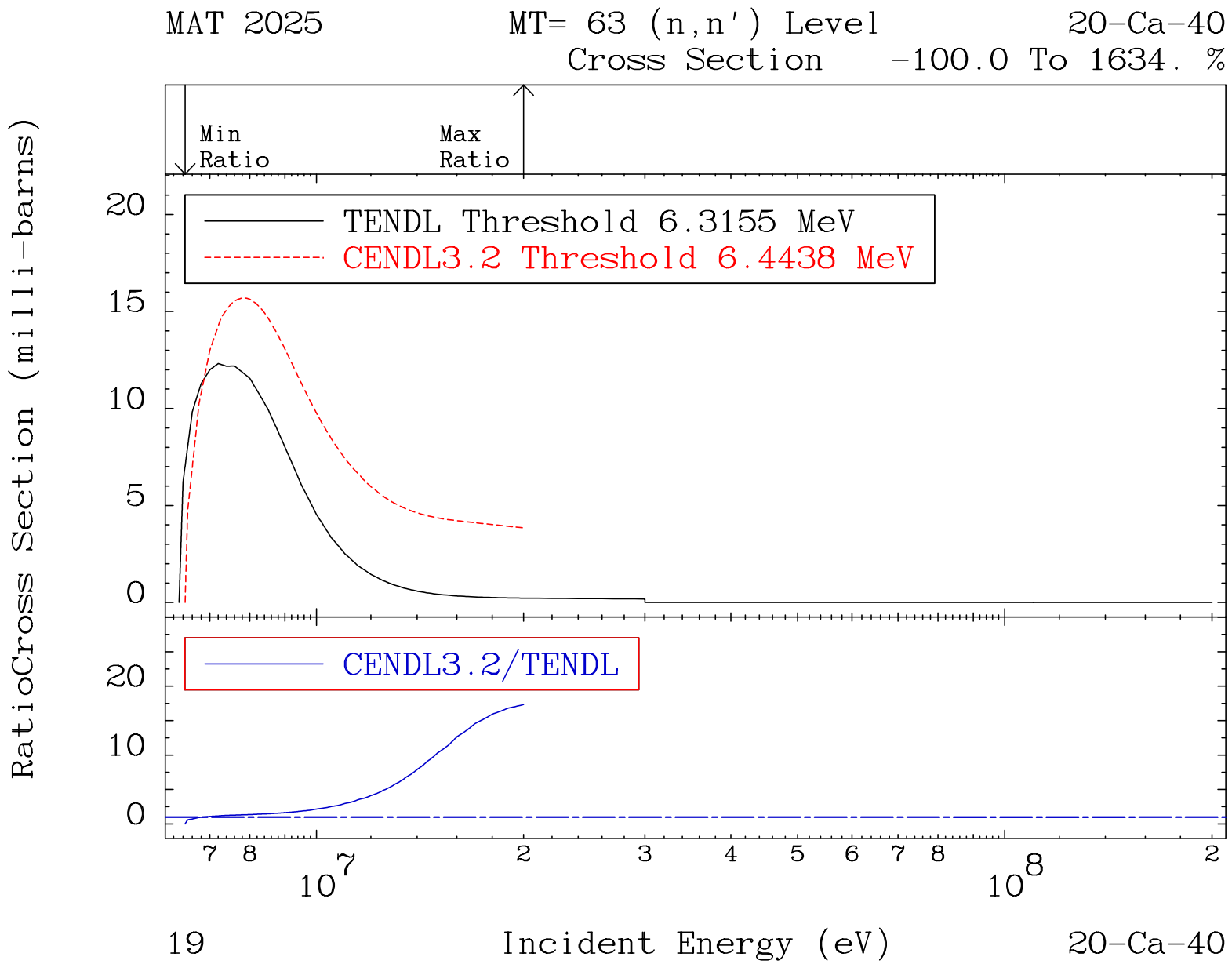

MAT 2025
MT= 58 (n,n') Level
20-Ca-40
Cross Section -74.87 To 752.3 %
Min Ratio
Max Ratio
TENDL Threshold 5.7552 MeV
CENDL3.2 Threshold 5.7552 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
14
20-Ca-40

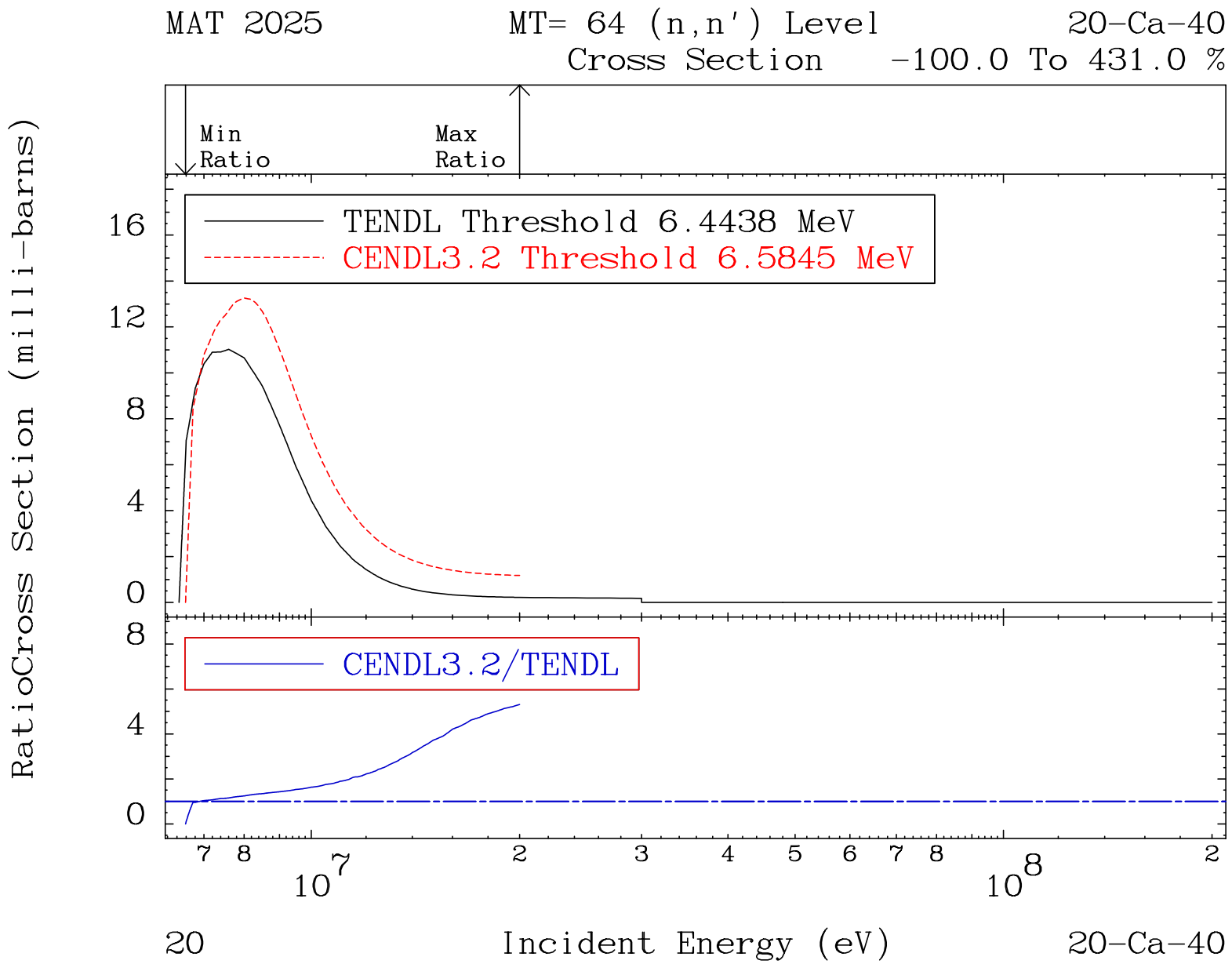

MAT 2025
MT= 59 (n,n') Level
20-Ca-40
Cross Section -100.0 To 1571. %
Min Ratio
Max Ratio
TENDL Threshold 5.7715 MeV
CENDL3.2 Threshold 5.7715 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
35
30
25
20
15
10
5
0
20
10
0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
20-Ca-40

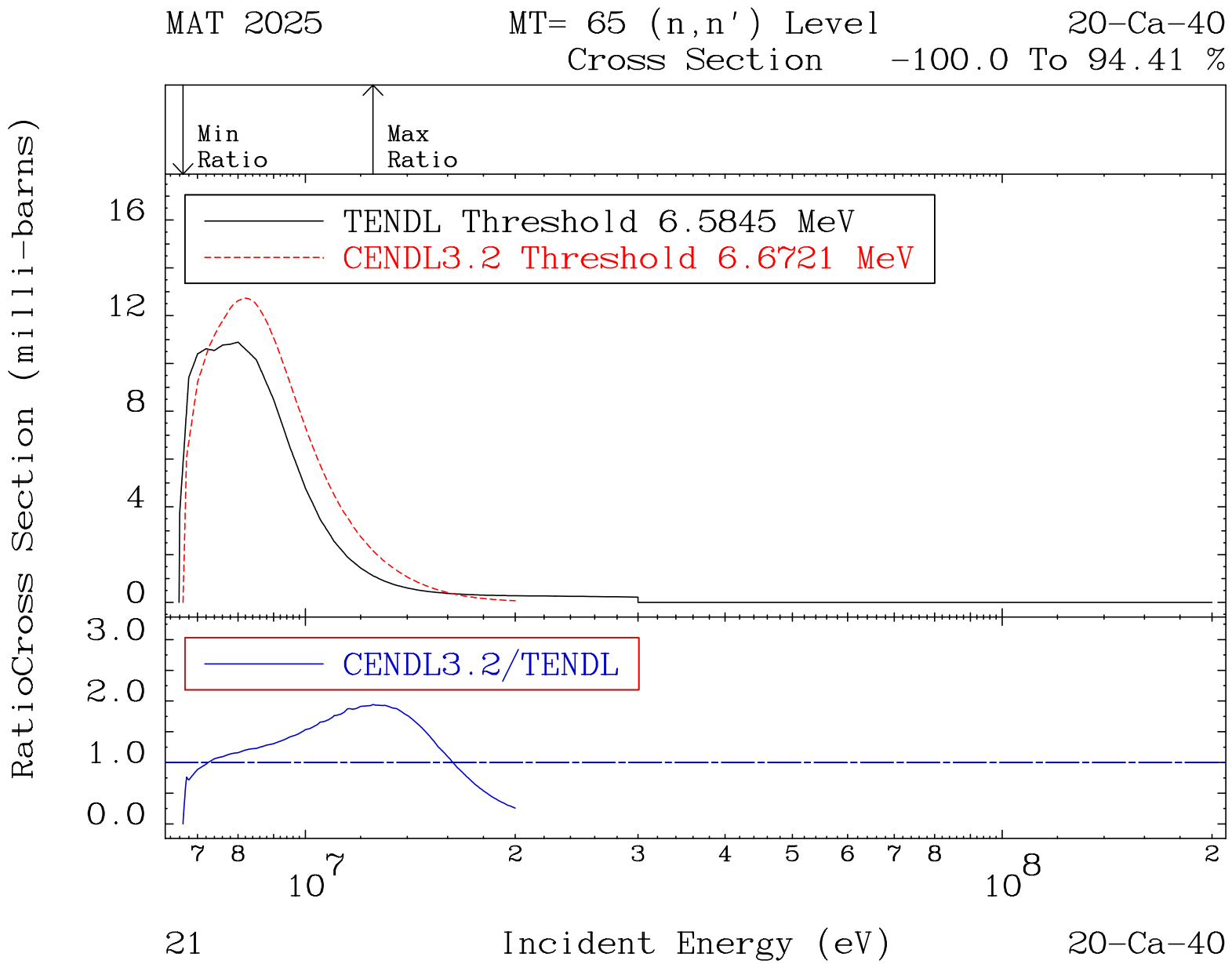

MAT 2025
MT= 60 (n,n') Level
20-Ca-40
Cross Section -100.0 To 54.61 %
Min Ratio
Max Ratio
TENDL Threshold 6.0516 MeV
CENDL3.2 Threshold 6.0516 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
2.0
1.0
0.0
6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
16
Incident Energy (eV)
20-Ca-40

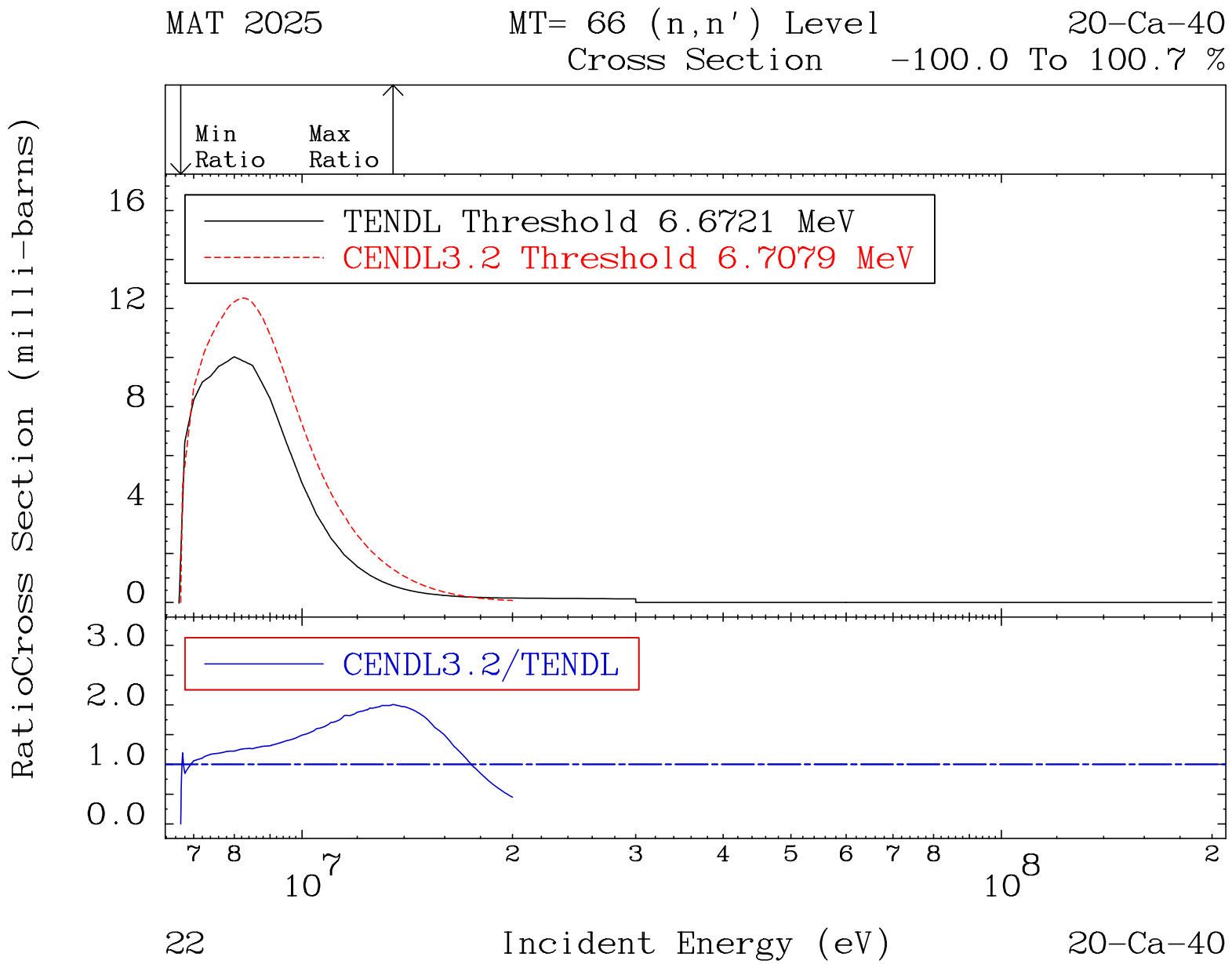

MAT 2025
MT= 61 (n,n') Level
20-Ca-40
Cross Section -100.0 To 672.8 %
Min Ratio
Max Ratio
TENDL Threshold 6.1776 MeV
CENDL3.2 Threshold 6.1776 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
15
10
5
0
12
8
4
0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
20-Ca-40

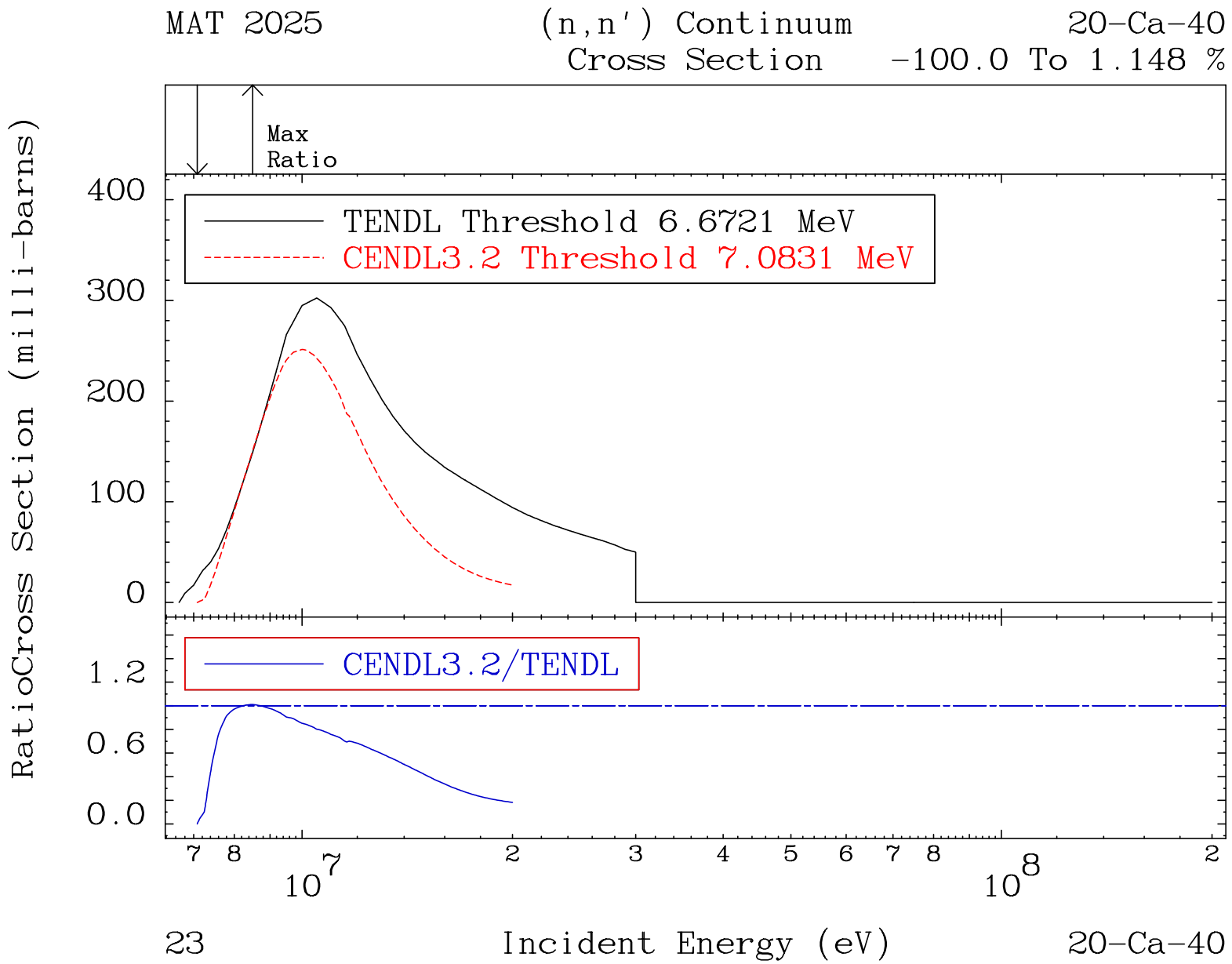

MAT 2025
MT= 62 (n,n') Level
20-Ca-40
Cross Section -100.0 To 678.1 %
Min Ratio
Max Ratio
TENDL Threshold 6.1819 MeV
CENDL3.2 Threshold 6.1819 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
18
20-Ca-40

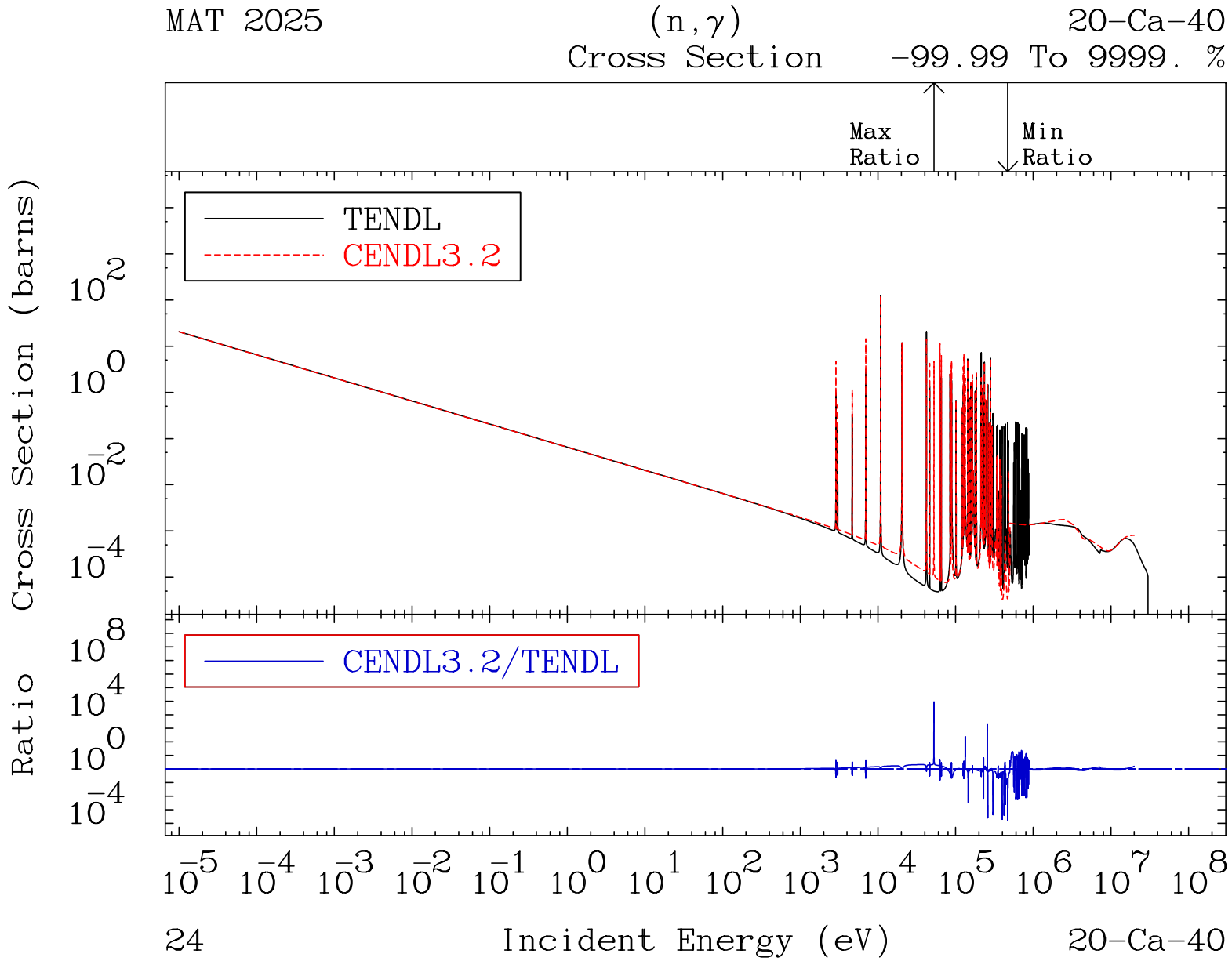

MAT 2025
MT= 63 (n,n') Level
20-Ca-40
Cross Section -100.0 To 1634. %
Min Ratio
Max Ratio
TENDL Threshold 6.3155 MeV
CENDL3.2 Threshold 6.4438 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
19
20-Ca-40

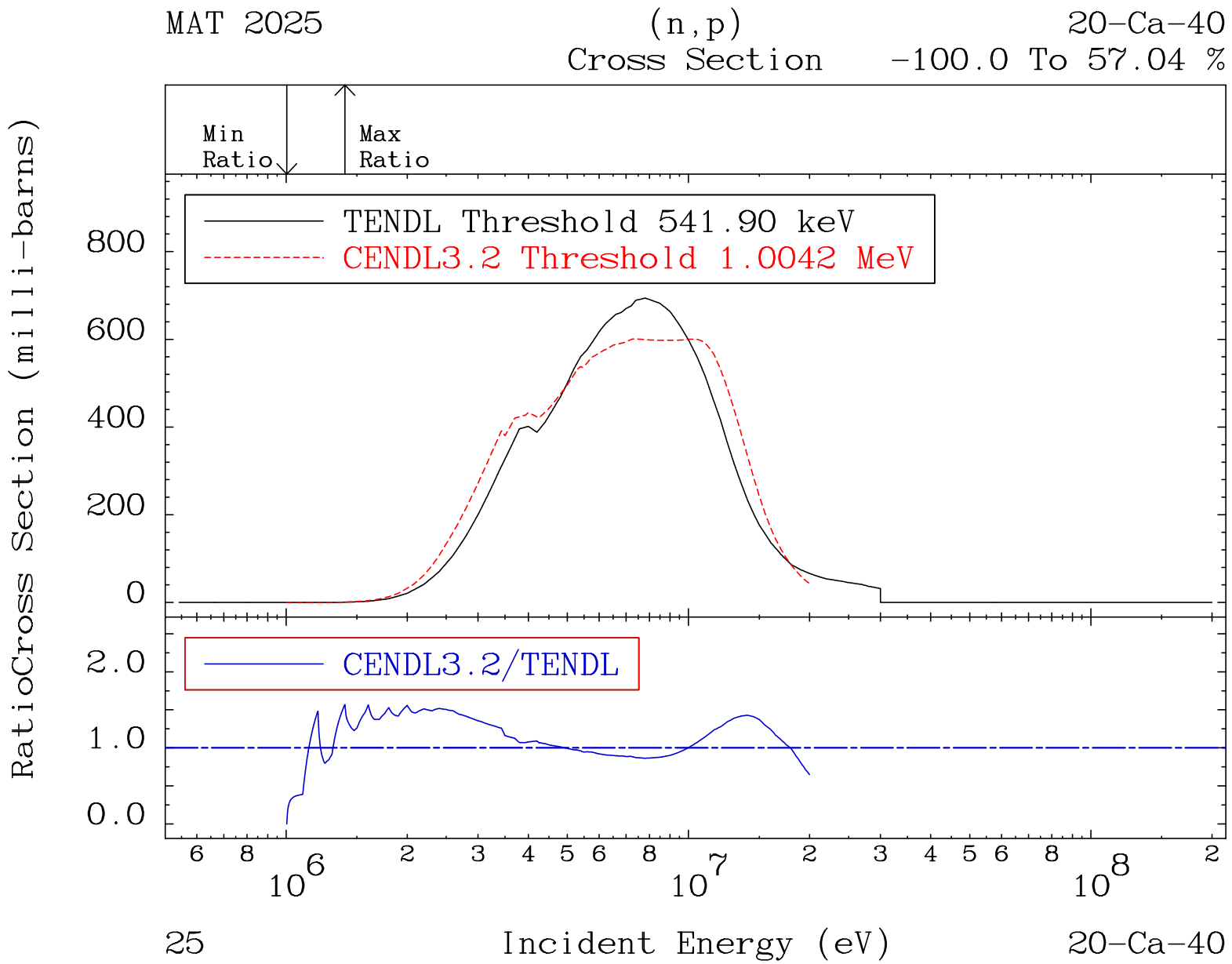

MAT 2025
MT= 64 (n,n') Level
20-Ca-40
Cross Section -100.0 To 431.0 %
Min Ratio
Max Ratio
TENDL Threshold 6.4438 MeV
CENDL3.2 Threshold 6.5845 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
8
4
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
20-Ca-40

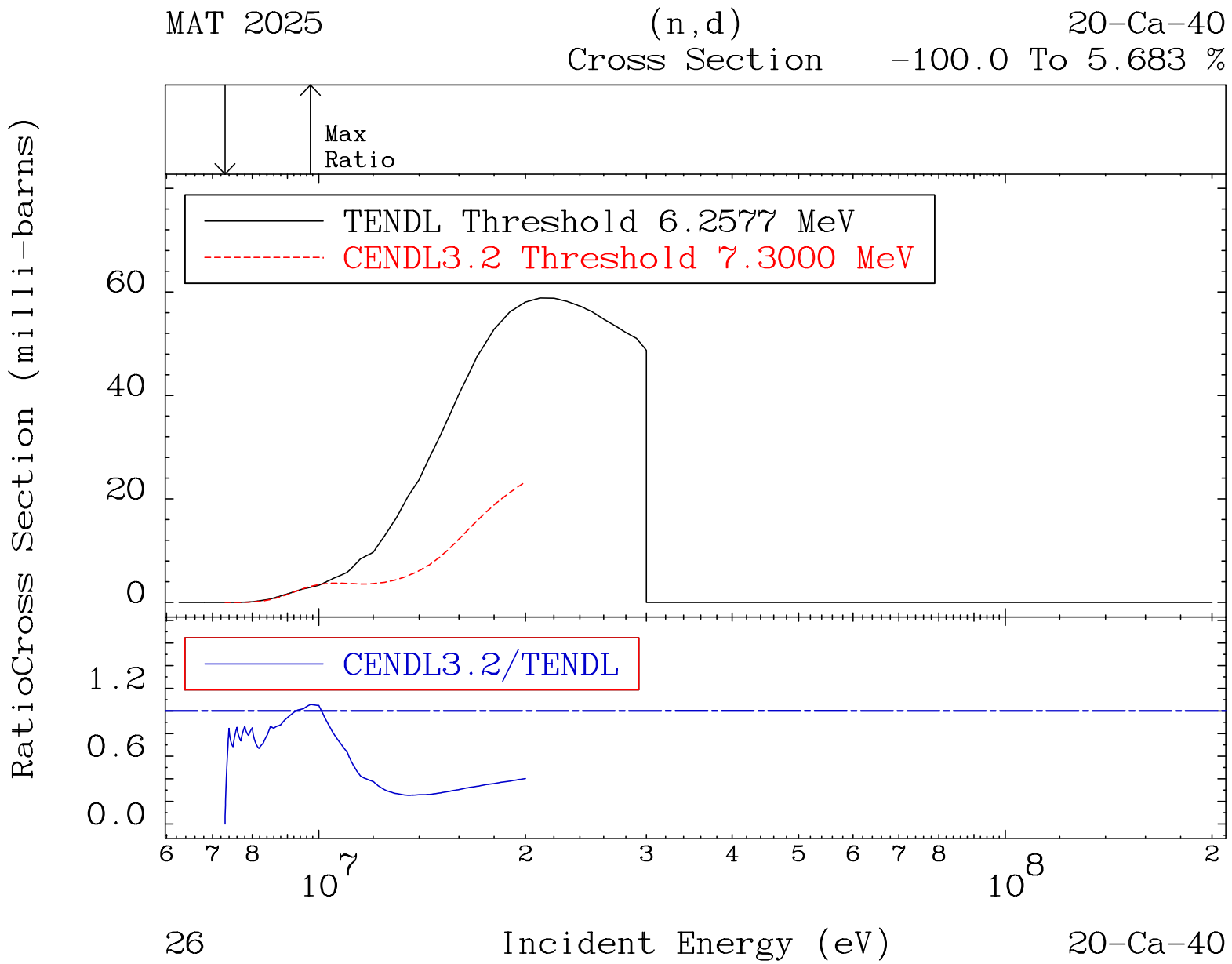

MAT 2025
MT= 65 (n,n') Level
20-Ca-40
Cross Section -100.0 To 94.41 %
Min Ratio
Max Ratio
TENDL Threshold 6.5845 MeV
CENDL3.2 Threshold 6.6721 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
3.0
2.0
1.0
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
20-Ca-40

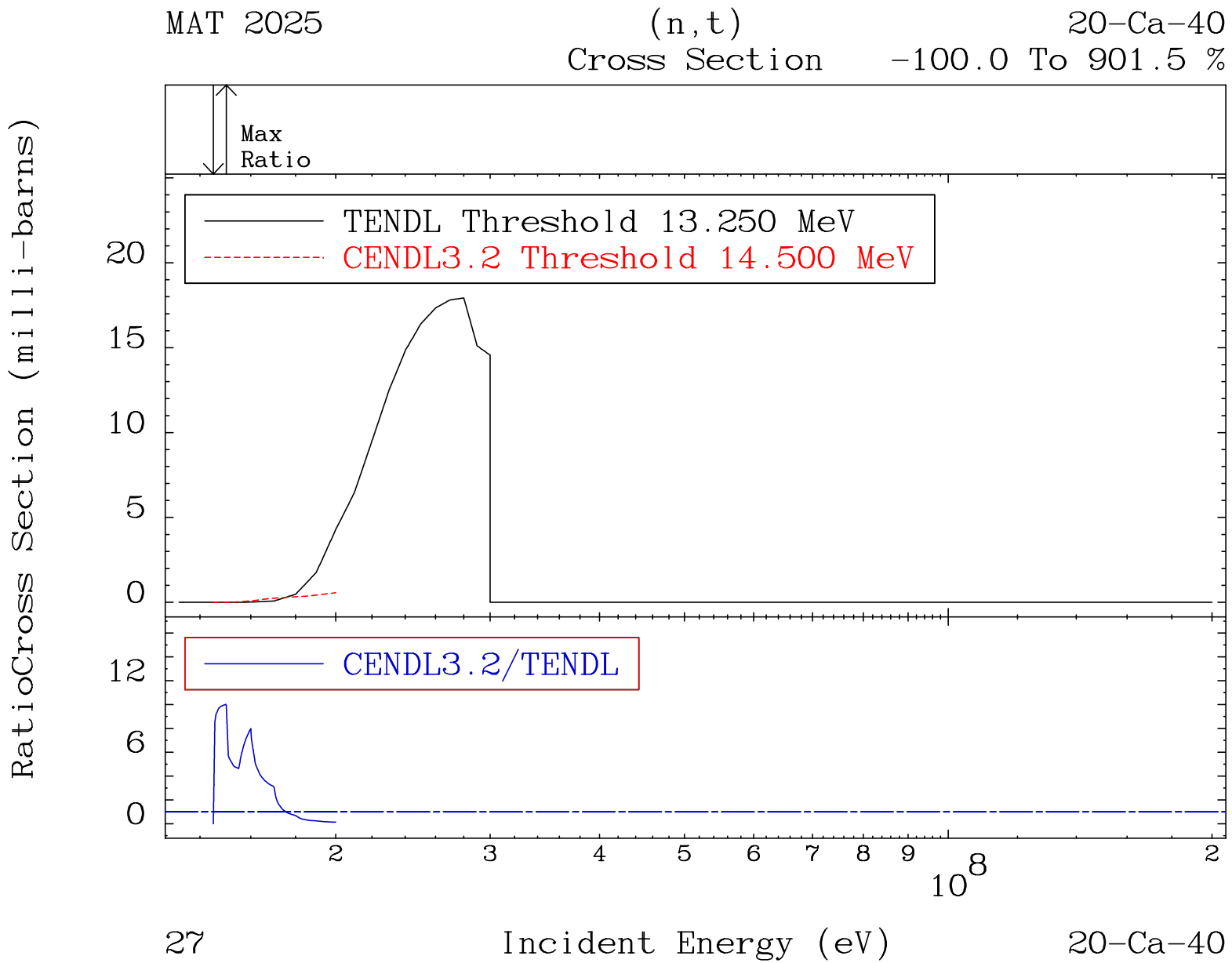

MAT 2025
MT= 66 (n,n') Level
20-Ca-40
Cross Section -100.0 To 100.7 %
Min Ratio
Max Ratio
TENDL Threshold 6.6721 MeV
CENDL3.2 Threshold 6.7079 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
3.0
2.0
1.0
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
20-Ca-40

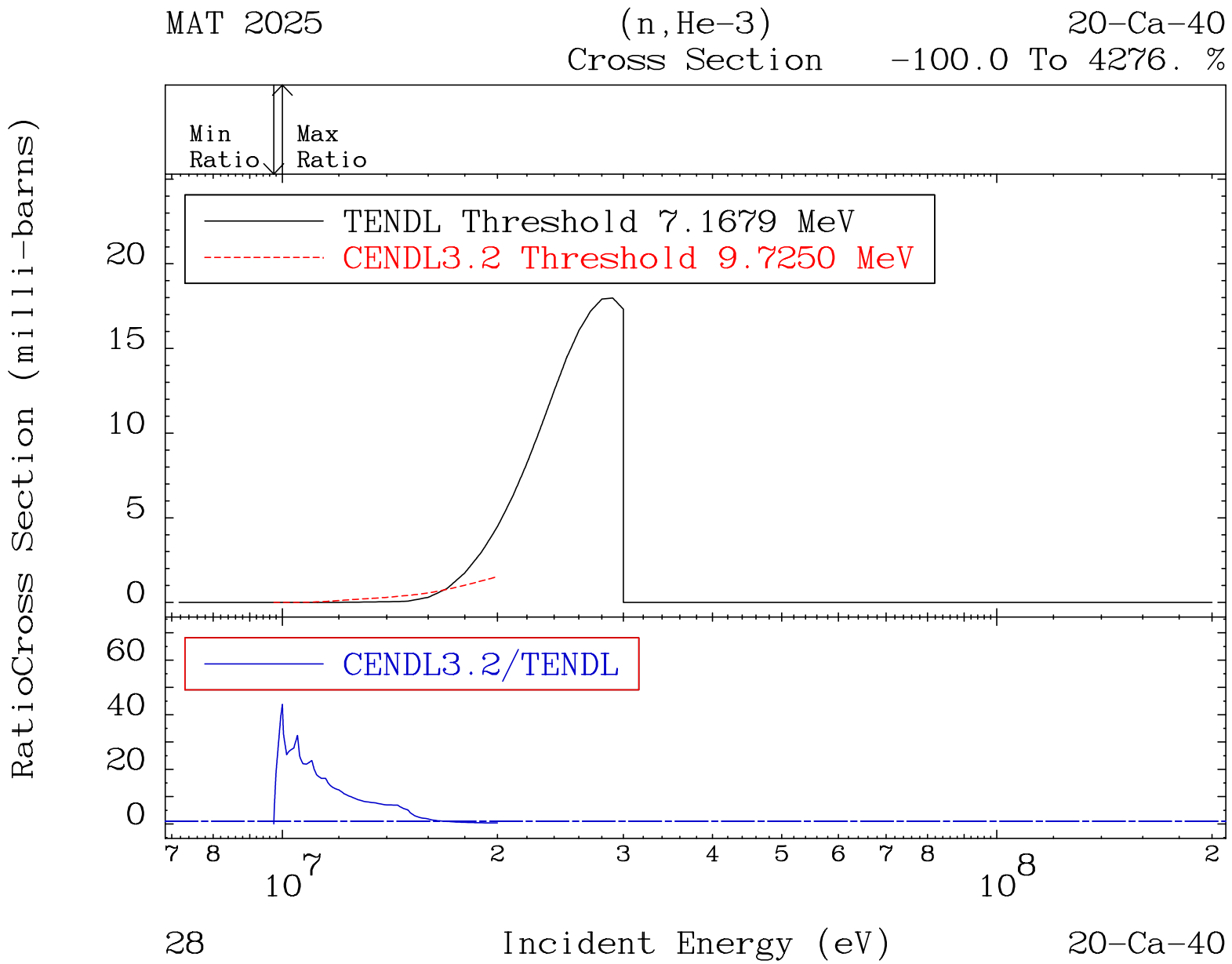

MAT 2025
(n,n') Continuum
Cross Section
20-Ca-40
-100.0 To 1.148 %
Max
Ratio
TENDL Threshold 6.6721 MeV
CENDL3.2 Threshold 7.0831 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
1.2
0.6
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
20-Ca-40

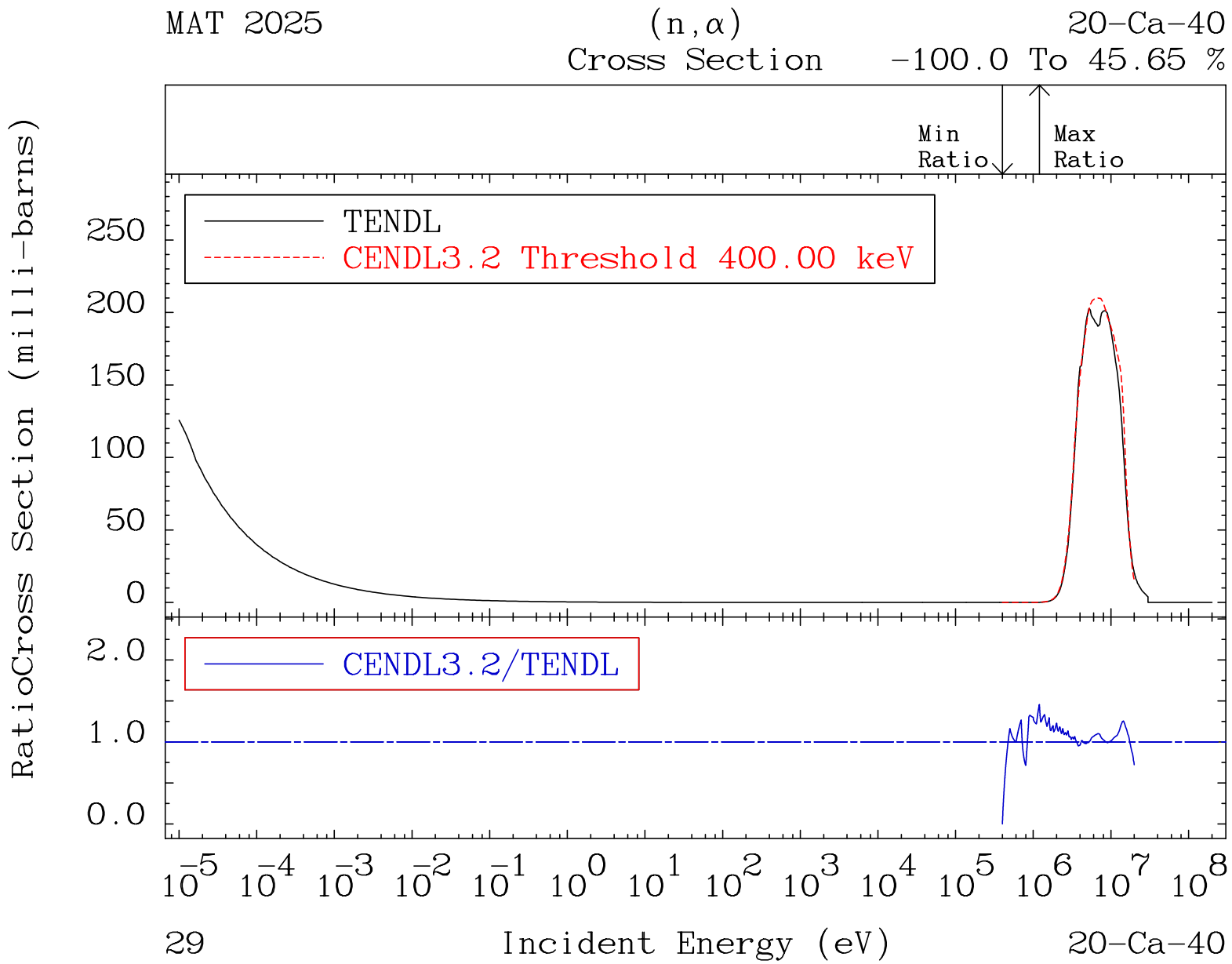

MAT 2025
(n,γ)
Cross Section
20-Ca-40
-99.99 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
24
20-Ca-40

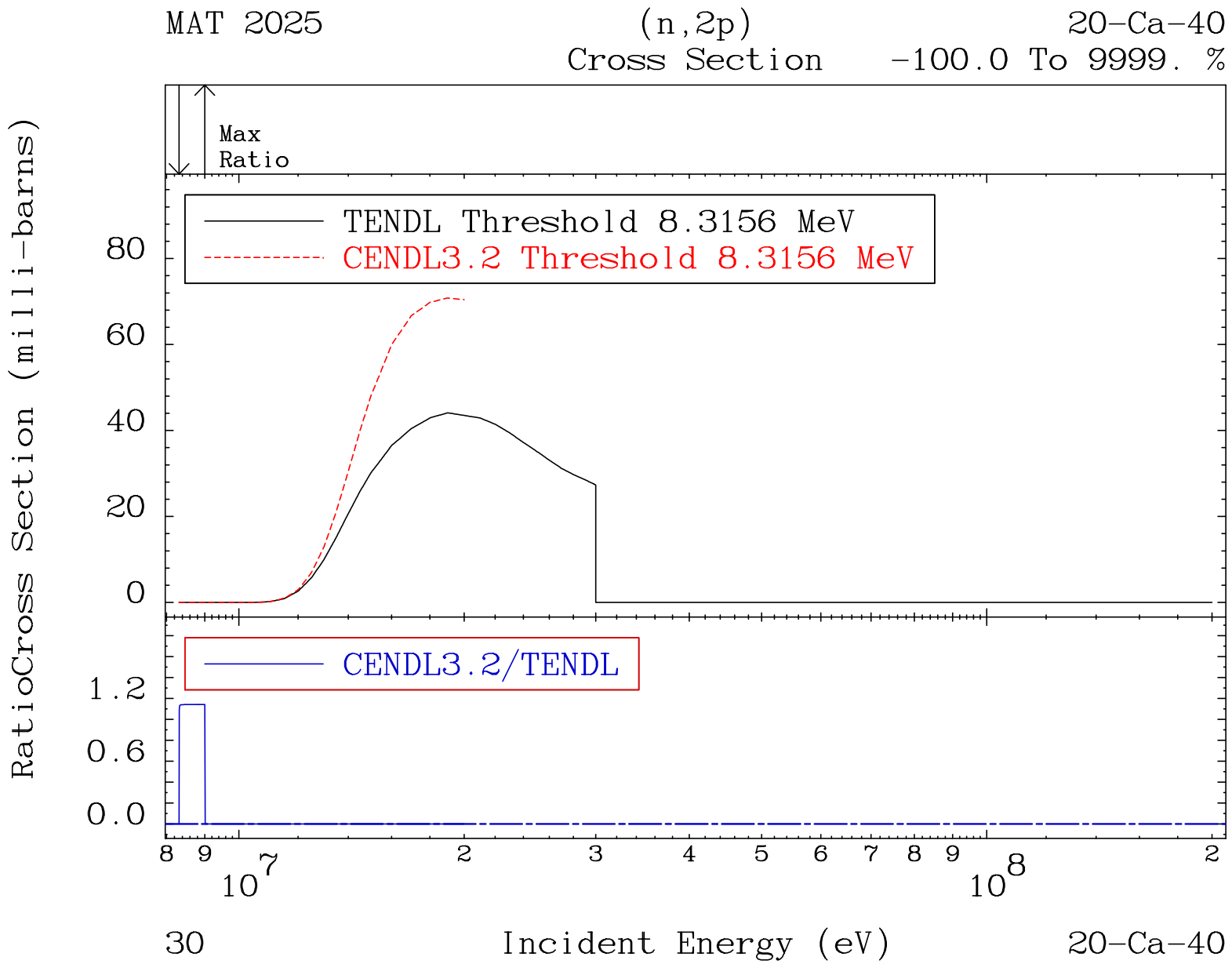

MAT 2025
(n,p)
Cross Section
20-Ca-40
-100.0 To 57.04 %
Min Ratio
Max Ratio
TENDL Threshold 541.90 keV
CENDL3.2 Threshold 1.0042 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
2.0
1.0
0.0
6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
25
Incident Energy (eV)
20-Ca-40

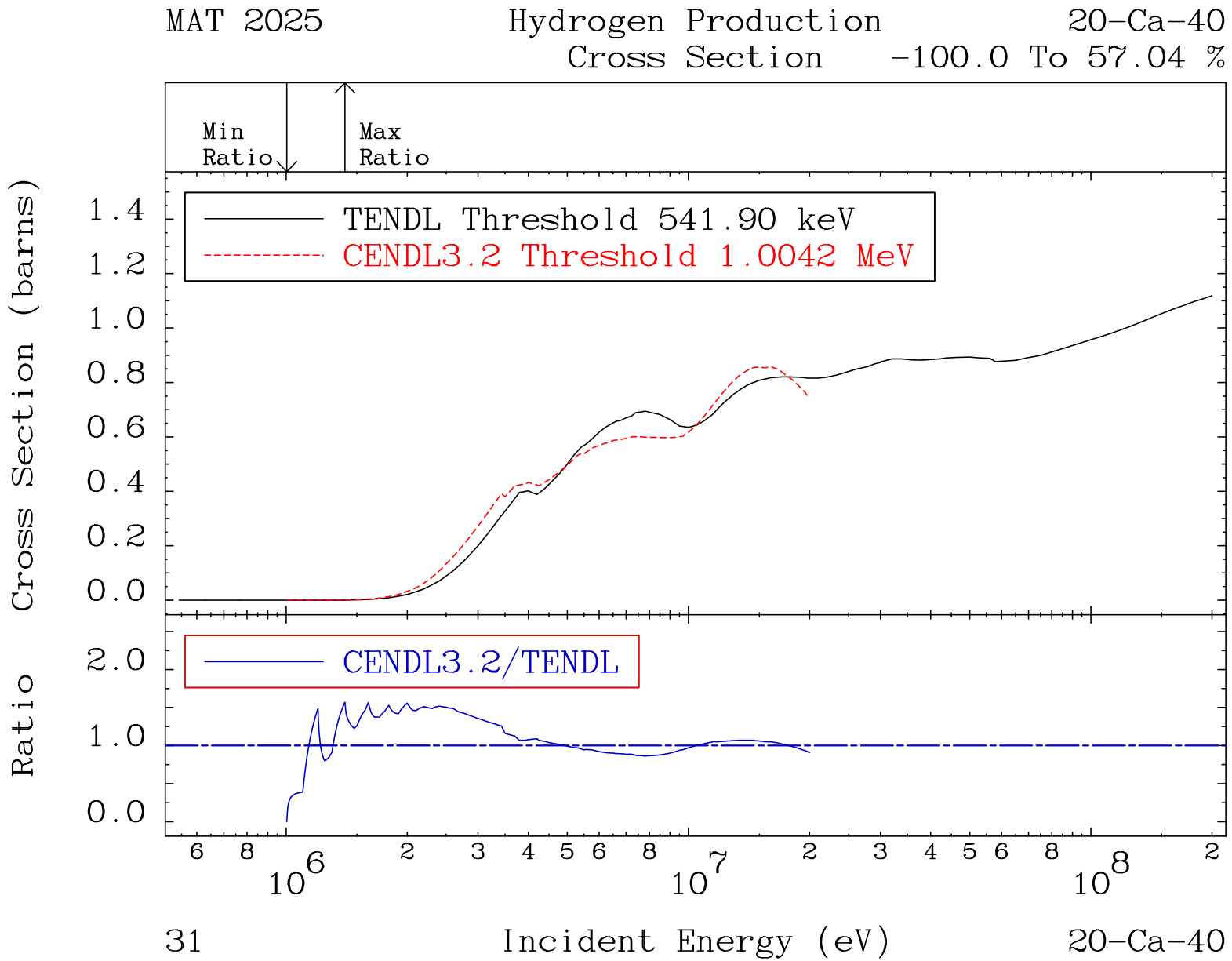

MAT 2025
(n,d)
20-Ca-40
Cross Section
-100.0 To 5.683 %
Max
Ratio
TENDL Threshold 6.2577 MeV
CENDL3.2 Threshold 7.3000 MeV
60
40
20
0
CENDL3.2/TENDL
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
RatioCross Section (milli-barns)
26
Incident Energy (eV)
20-Ca-40

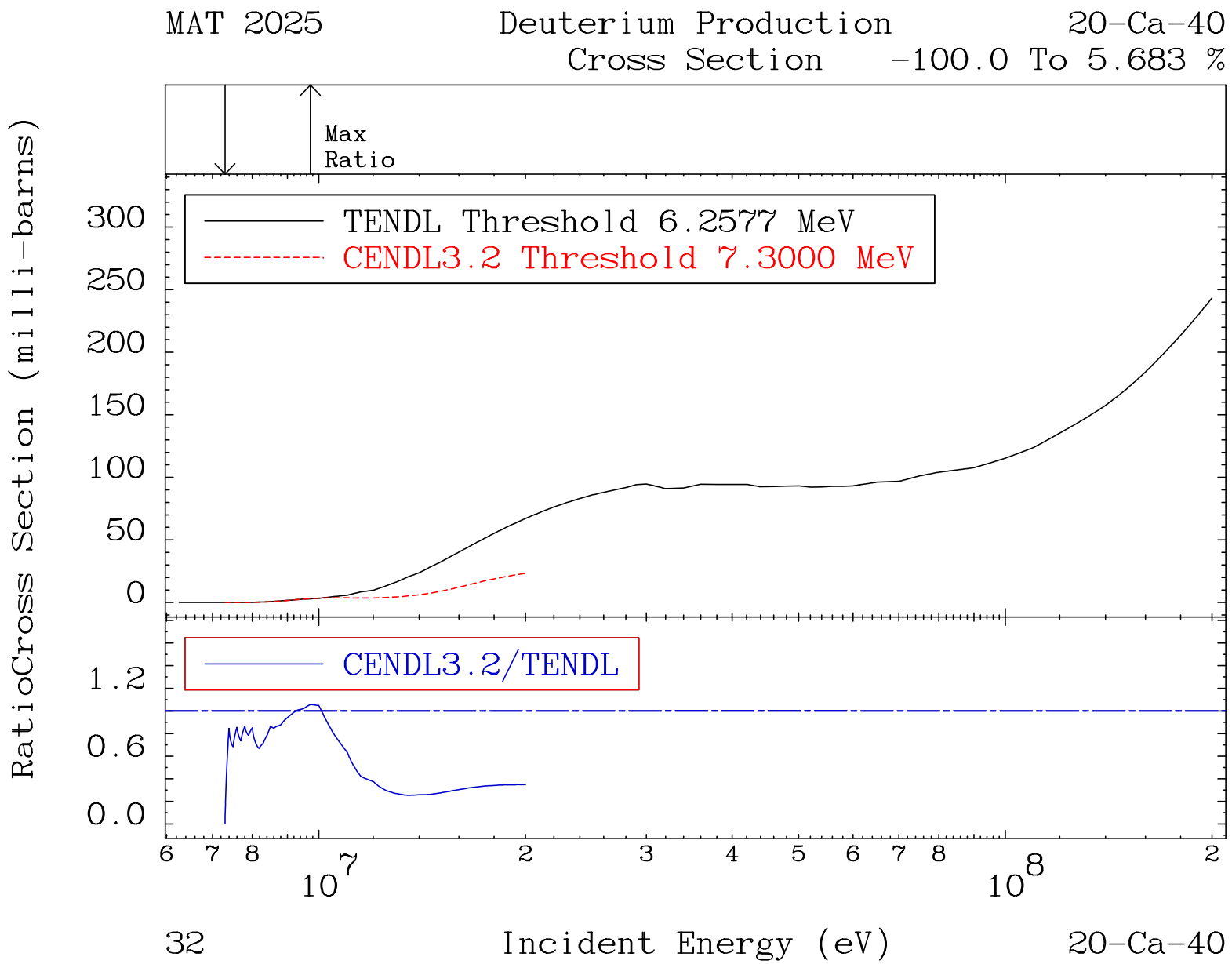

MAT 2025
(n,t)
Cross Section
20-Ca-40
-100.0 To 901.5 %
Max
Ratio
TENDL Threshold 13.250 MeV
CENDL3.2 Threshold 14.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
12
6
0
2
3
4
5
6
7
8
9
10^8
2
27
Incident Energy (eV)
20-Ca-40

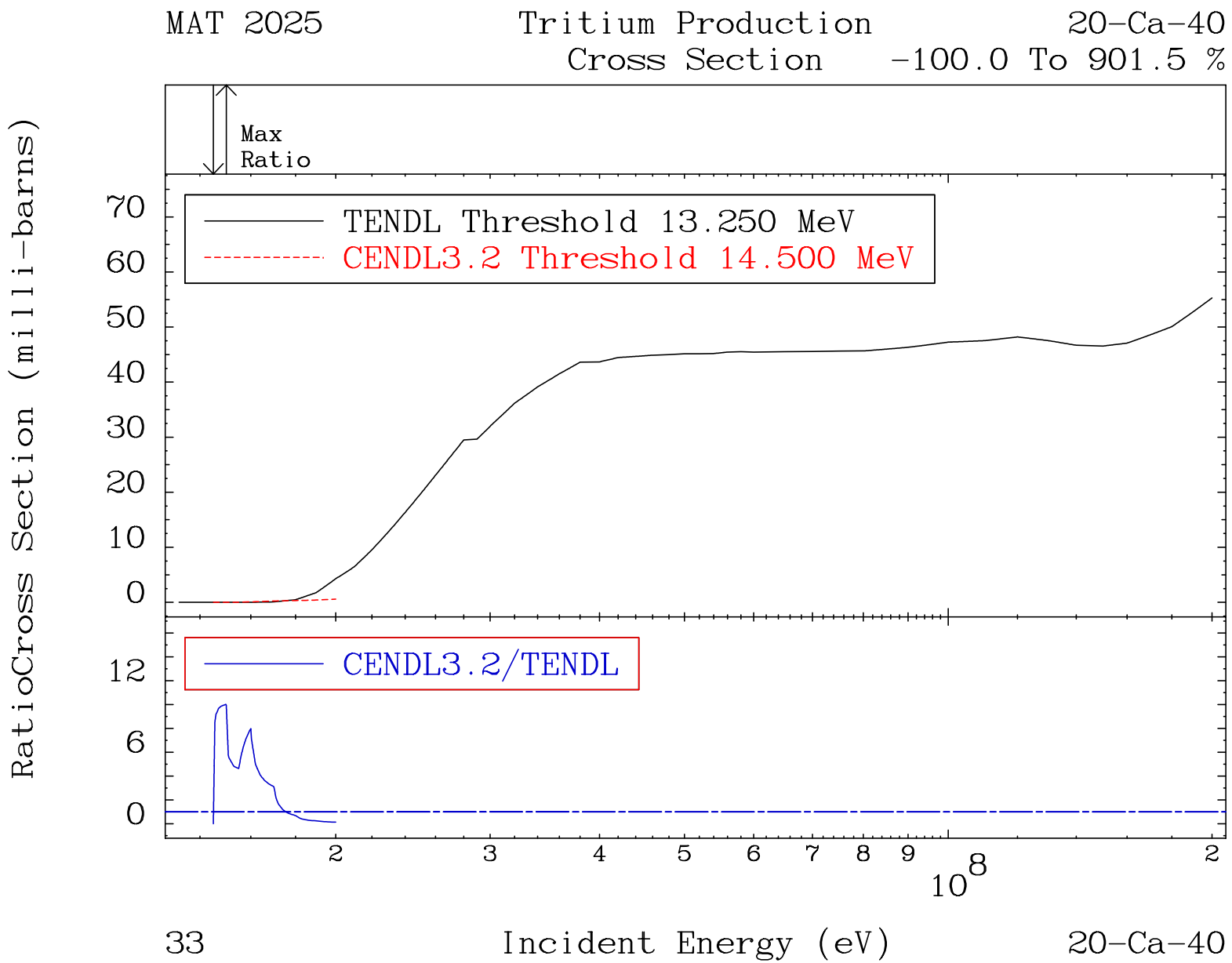

MAT 2025
(n,He-3)
Cross Section
20-Ca-40
-100.0 To 4276. %
Min Ratio
Max Ratio
TENDL Threshold 7.1679 MeV
CENDL3.2 Threshold 9.7250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
60
40
20
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
28
Incident Energy (eV)
20-Ca-40

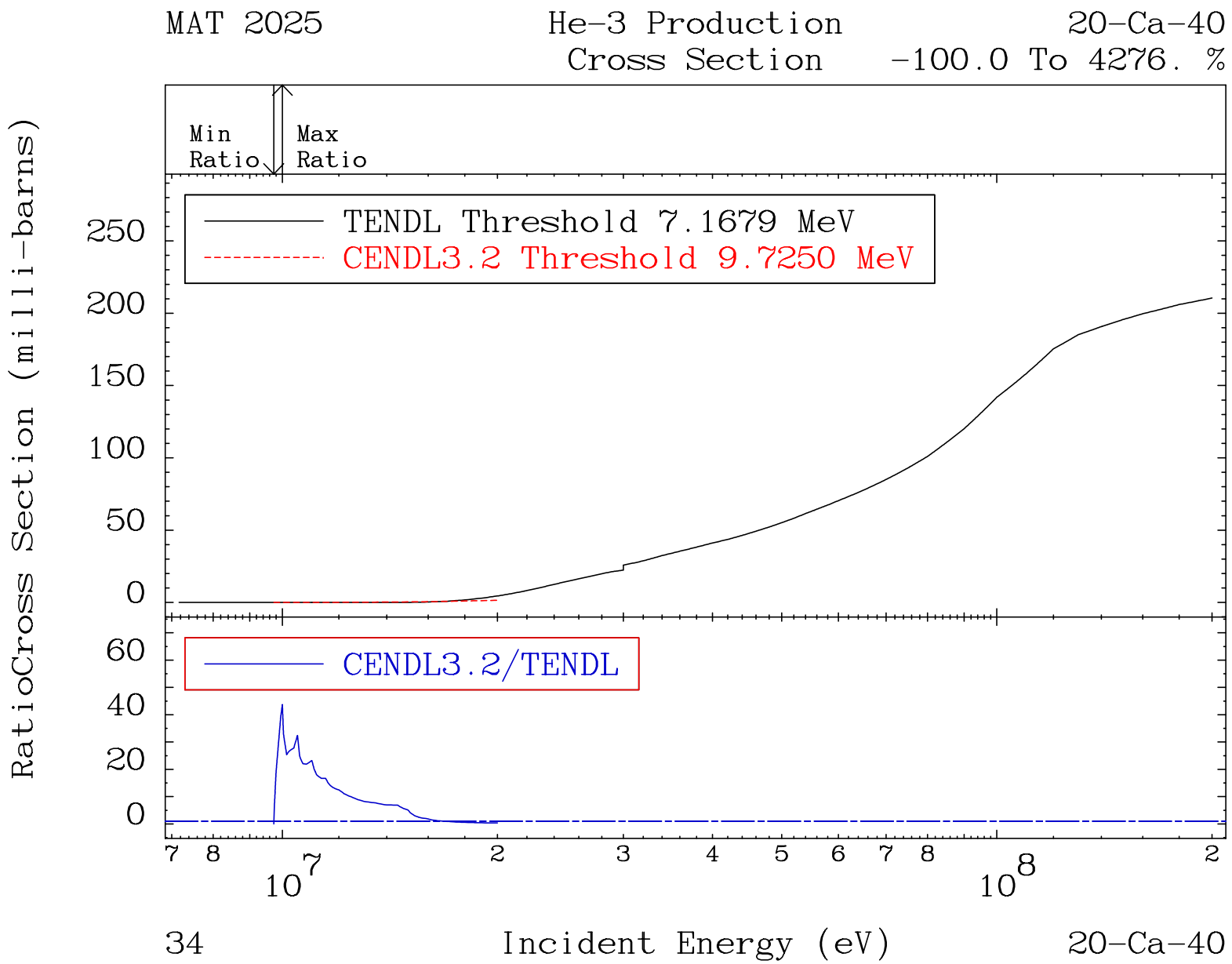

MAT 2025
(n,α)
Cross Section
20-Ca-40
-100.0 To 45.65 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 400.00 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
2.0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
29
Incident Energy (eV)
20-Ca-40

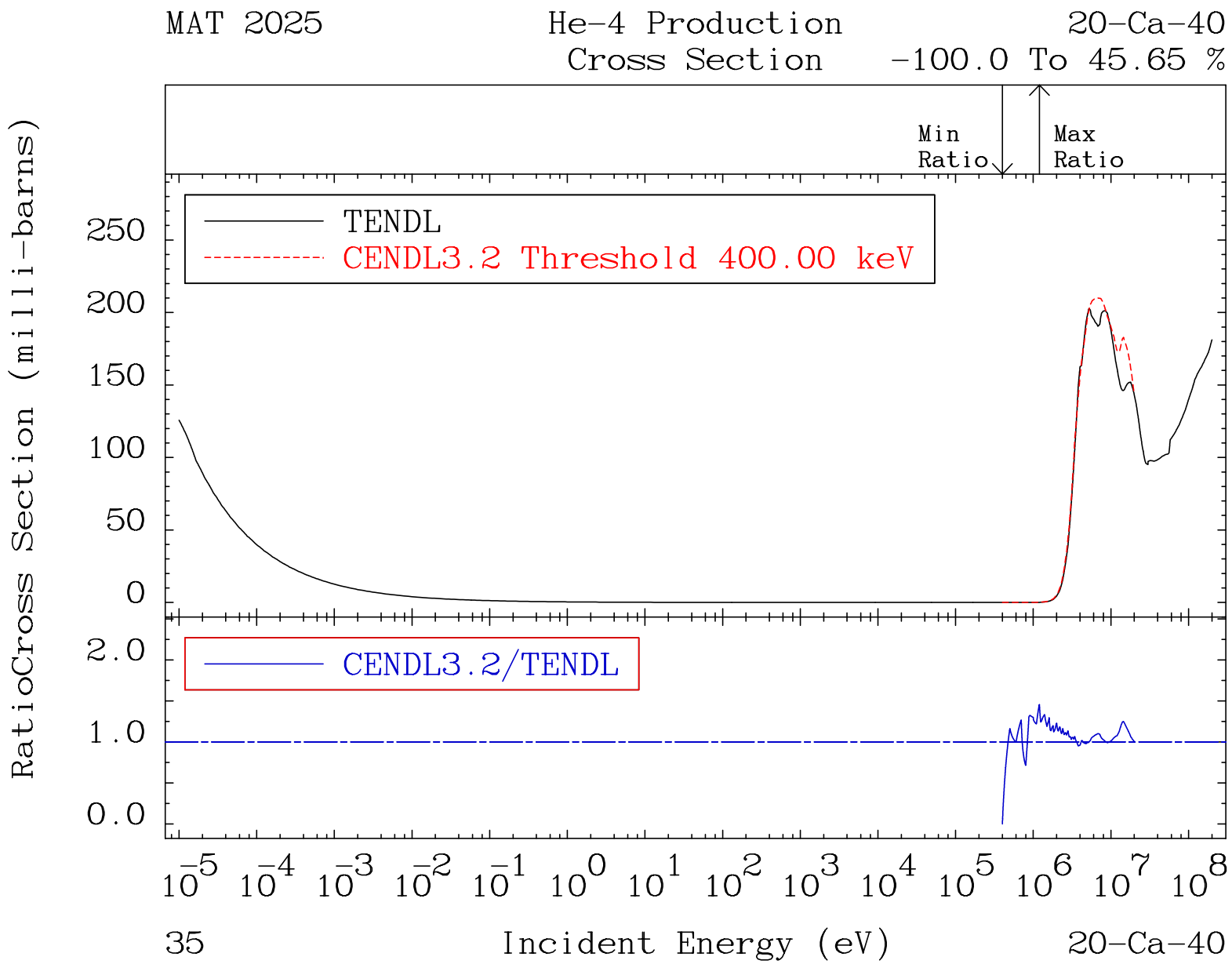

MAT 2025
(n,2p)
Cross Section
20-Ca-40
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 8.3156 MeV
CENDL3.2 Threshold 8.3156 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
1.2
0.6
0.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
30
Incident Energy (eV)
20-Ca-40

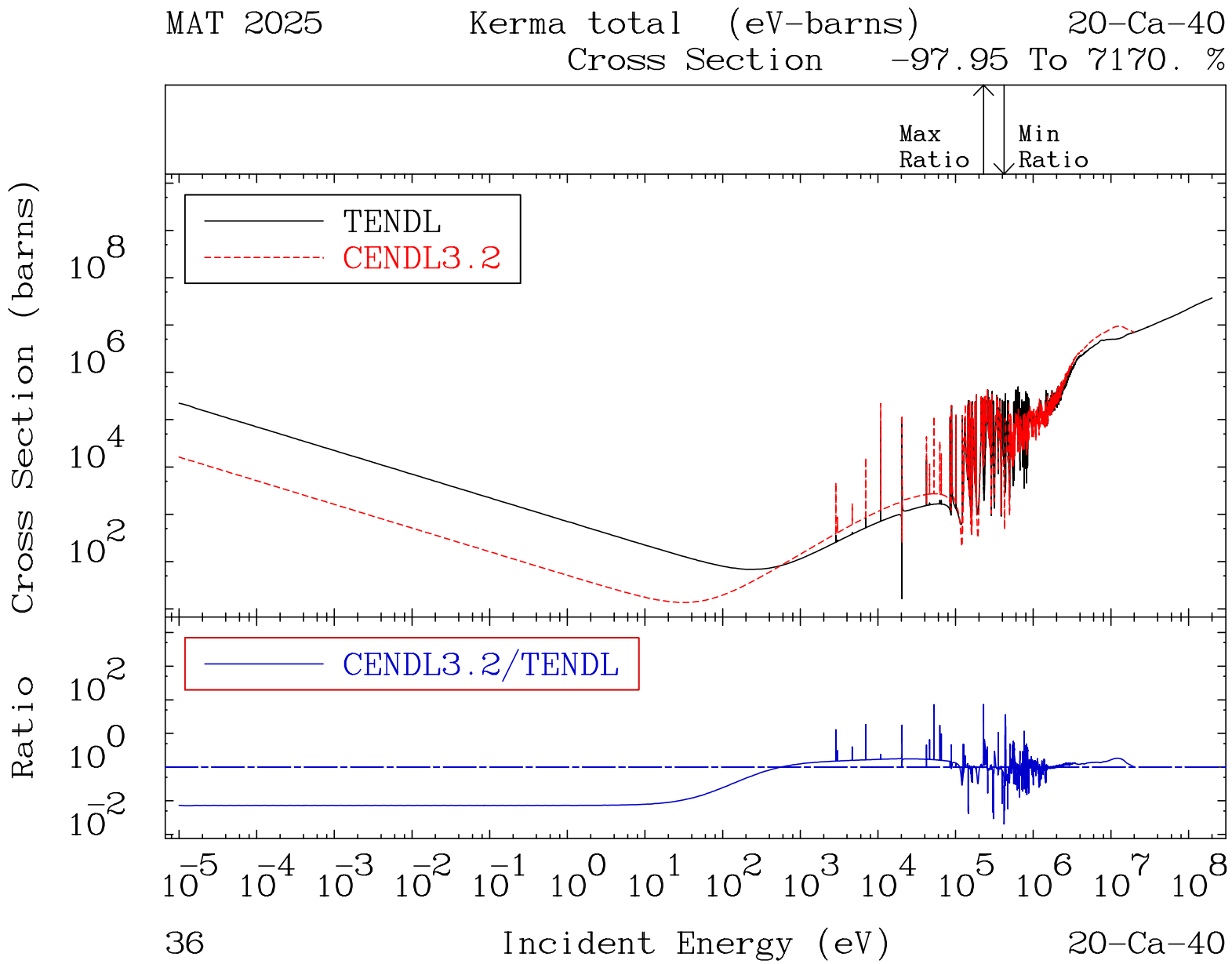

MAT 2025
Hydrogen Production
20-Ca-40
Cross Section
-100.0 To 57.04 %
Min Ratio
Max Ratio
TENDL Threshold 541.90 keV
CENDL3.2 Threshold 1.0042 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
31
Incident Energy (eV)
20-Ca-40

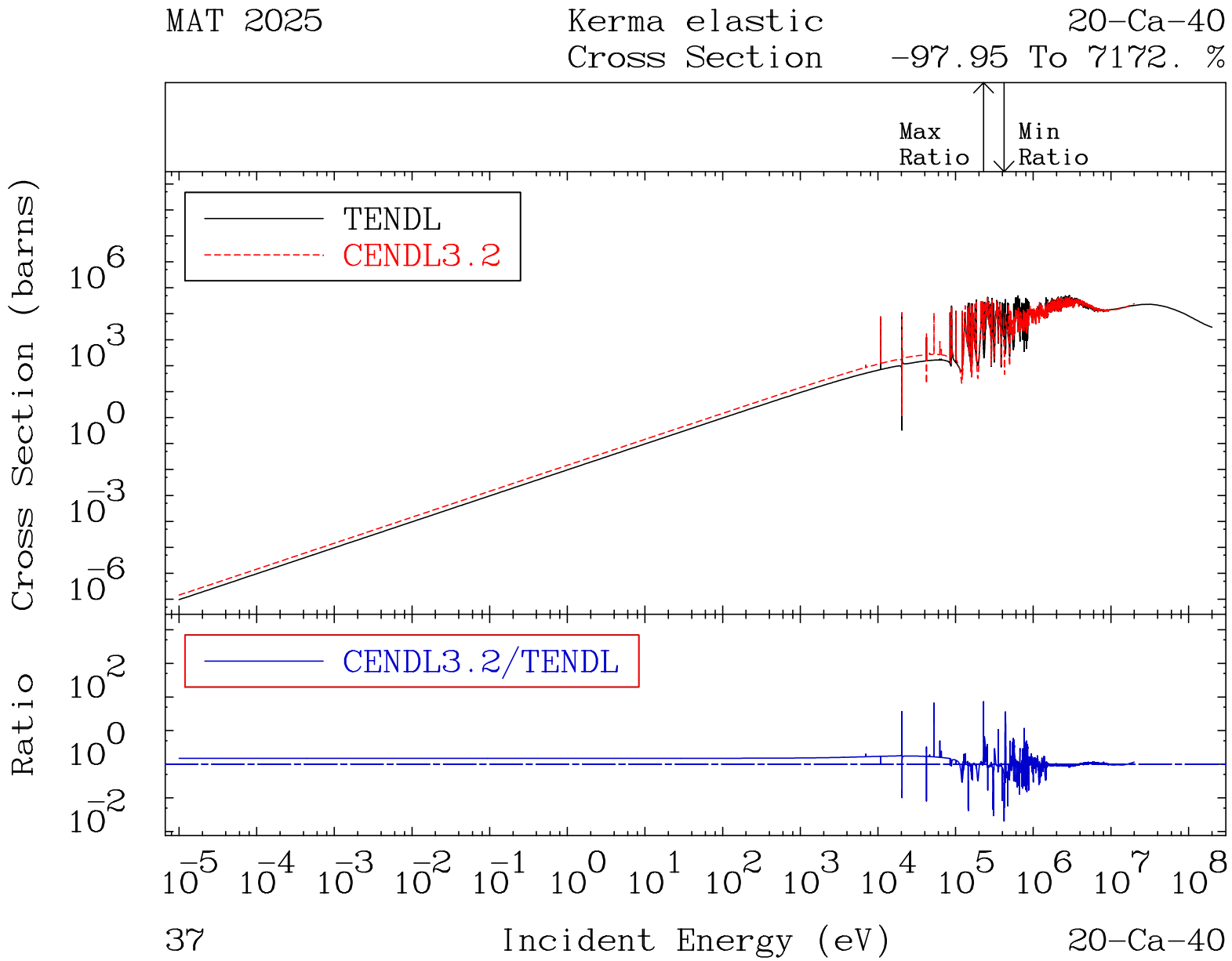

MAT 2025
Deuterium Production
20-Ca-40
Cross Section
-100.0 To 5.683 %
Max
Ratio
TENDL Threshold 6.2577 MeV
CENDL3.2 Threshold 7.3000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
300
250
200
150
100
50
0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
20-Ca-40

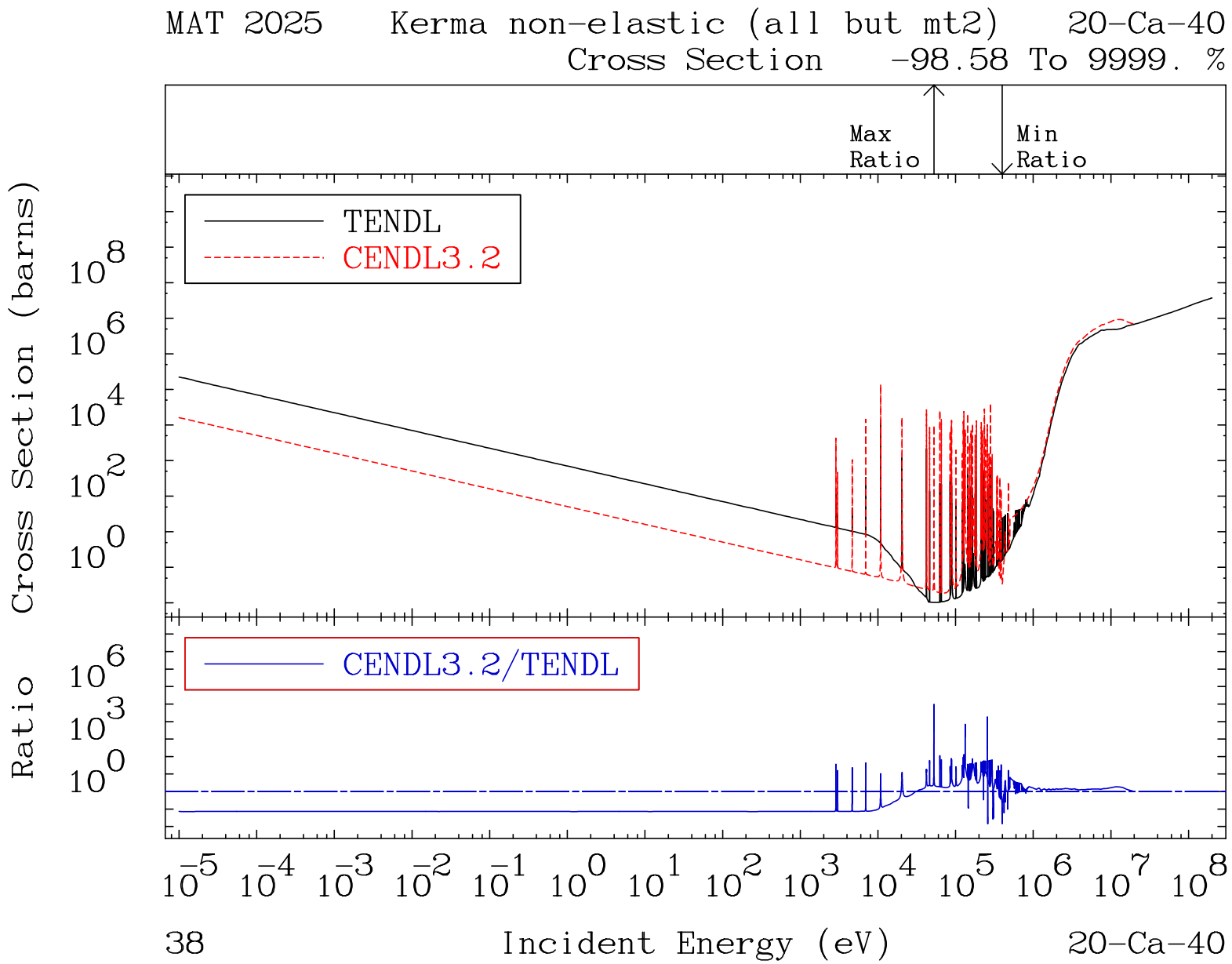

MAT 2025
Tritium Production
20-Ca-40
Cross Section
-100.0 To 901.5 %
Max
Ratio
TENDL Threshold 13.250 MeV
CENDL3.2 Threshold 14.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
70
60
50
40
30
20
10
0
12
6
0
2
3
4
5
6
7
8
9
10^8
2
33
Incident Energy (eV)
20-Ca-40

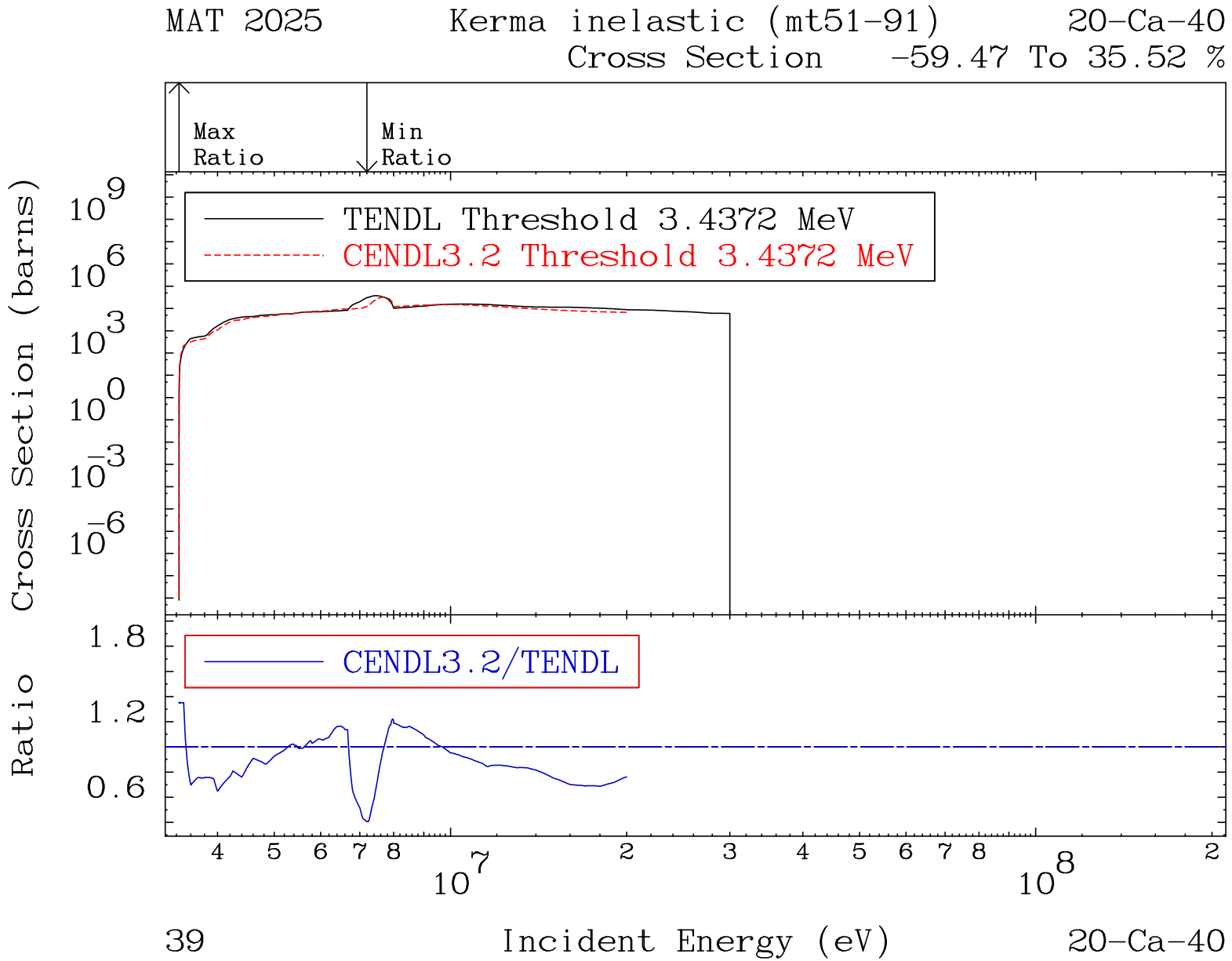

MAT 2025
He-3 Production
Cross Section
20-Ca-40
-100.0 To 4276. %
Min Ratio
Max Ratio
TENDL Threshold 7.1679 MeV
CENDL3.2 Threshold 9.7250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
60
40
20
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
34
Incident Energy (eV)
20-Ca-40

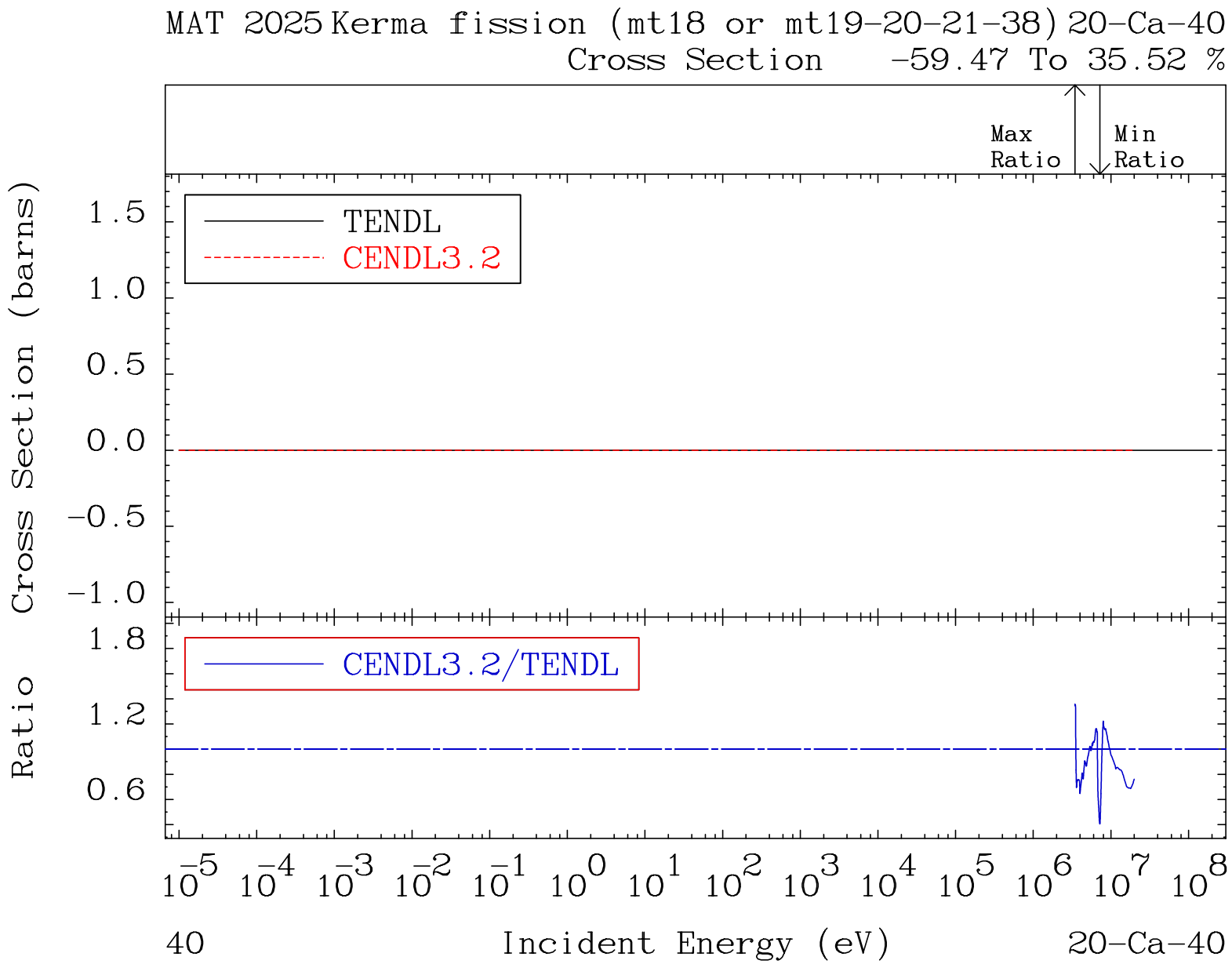

MAT 2025
He-4 Production
Cross Section
20-Ca-40
-100.0 To 45.65 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 400.00 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
2.0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
20-Ca-40

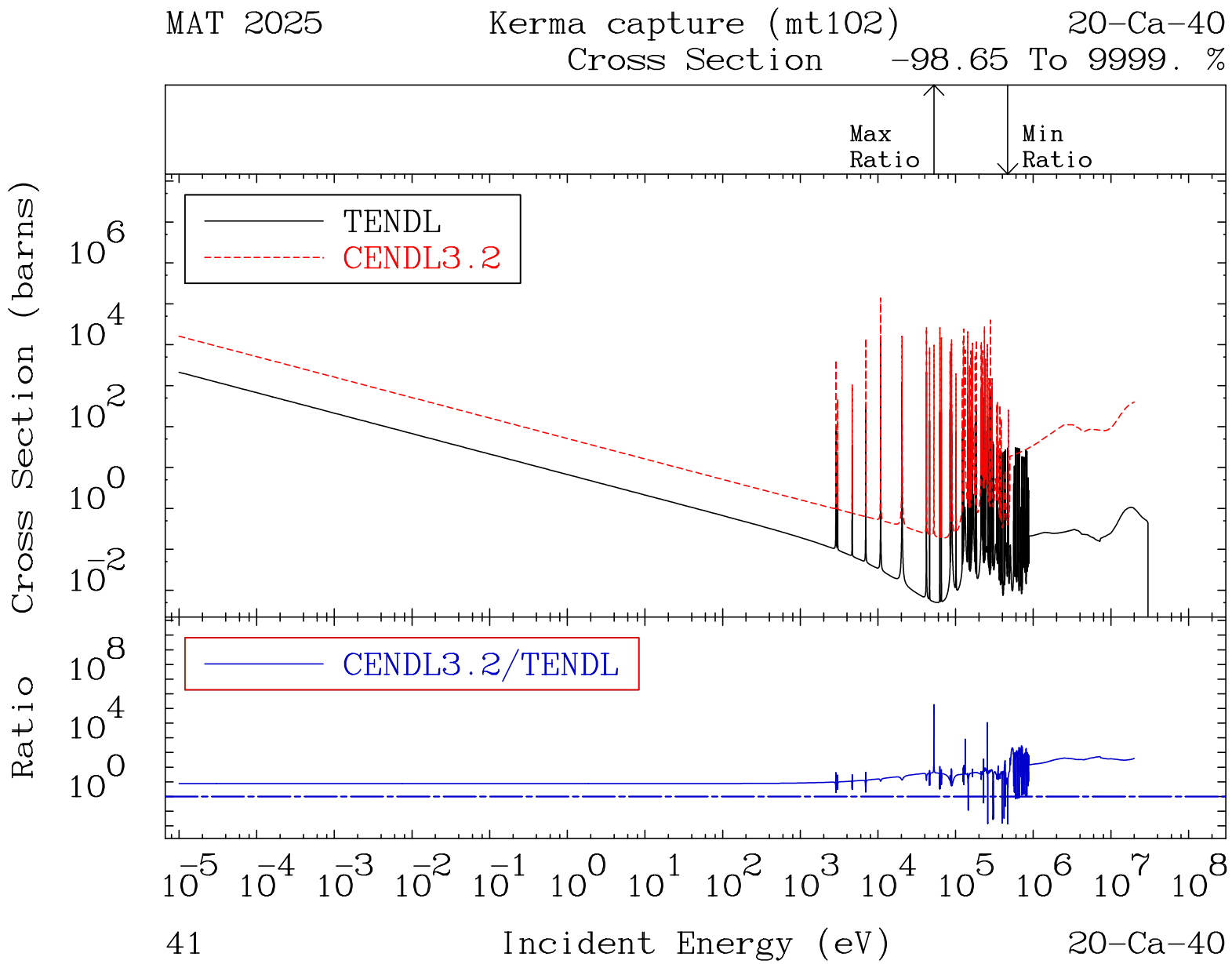

MAT 2025
Kerma total (eV-barns)
20-Ca-40
Cross Section -97.95 To 7170. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
36
20-Ca-40

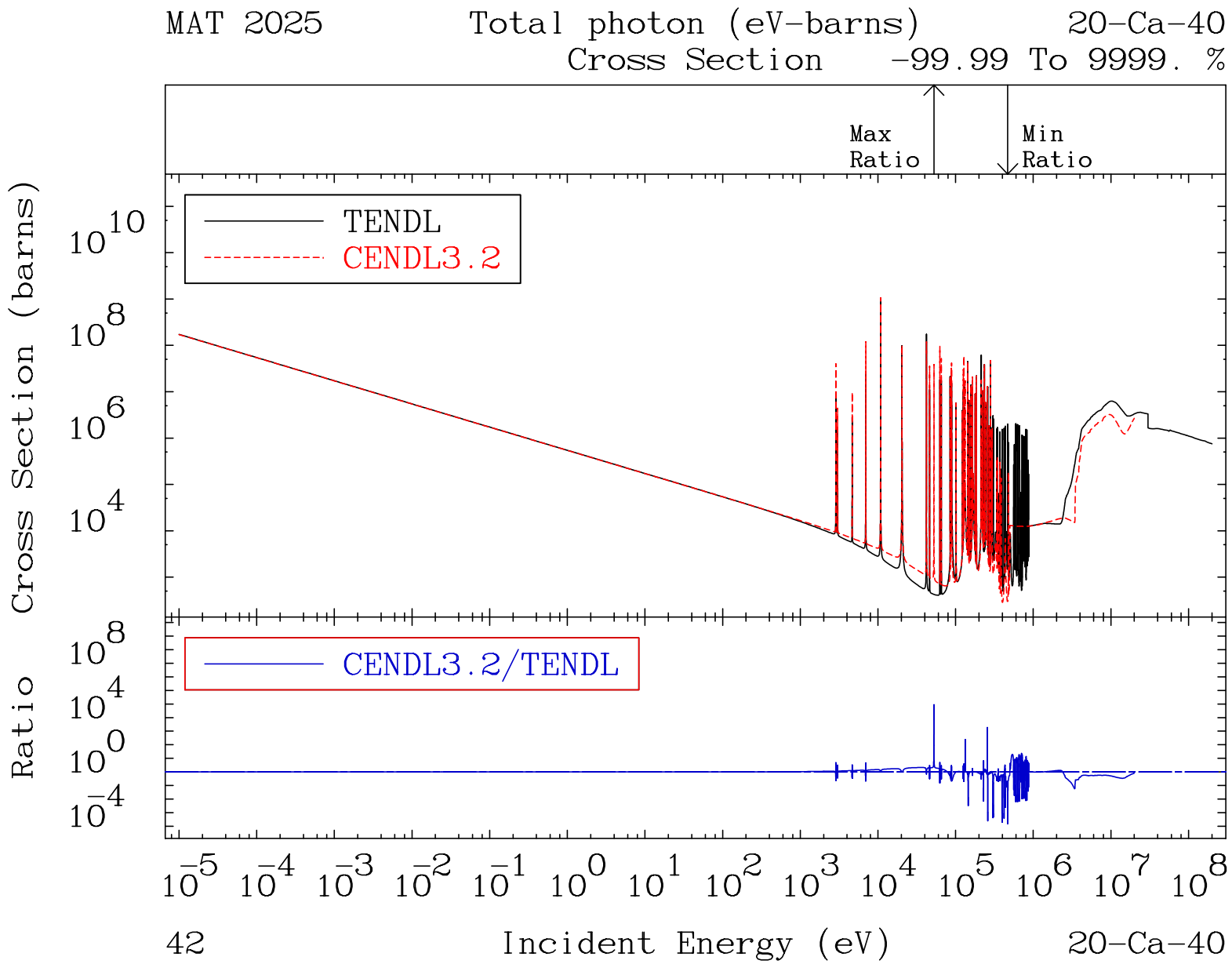

MAT 2025
Kerma elastic
Cross Section
20-Ca-40
-97.95 To 7172. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
37
20-Ca-40

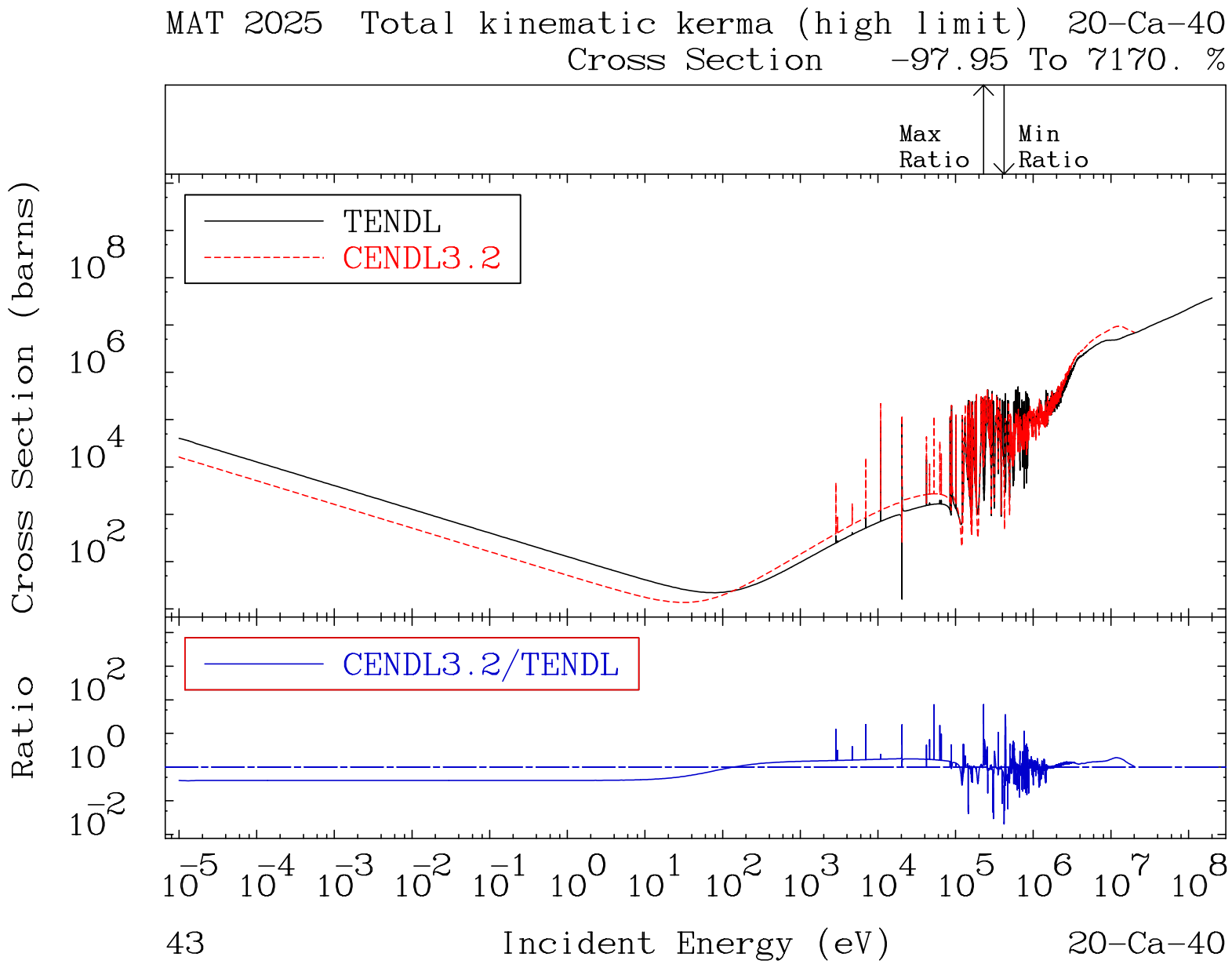

MAT 2025 Kerma non-elastic (all but mt2) 20-Ca-40
Cross Section -98.58 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
38
20-Ca-40

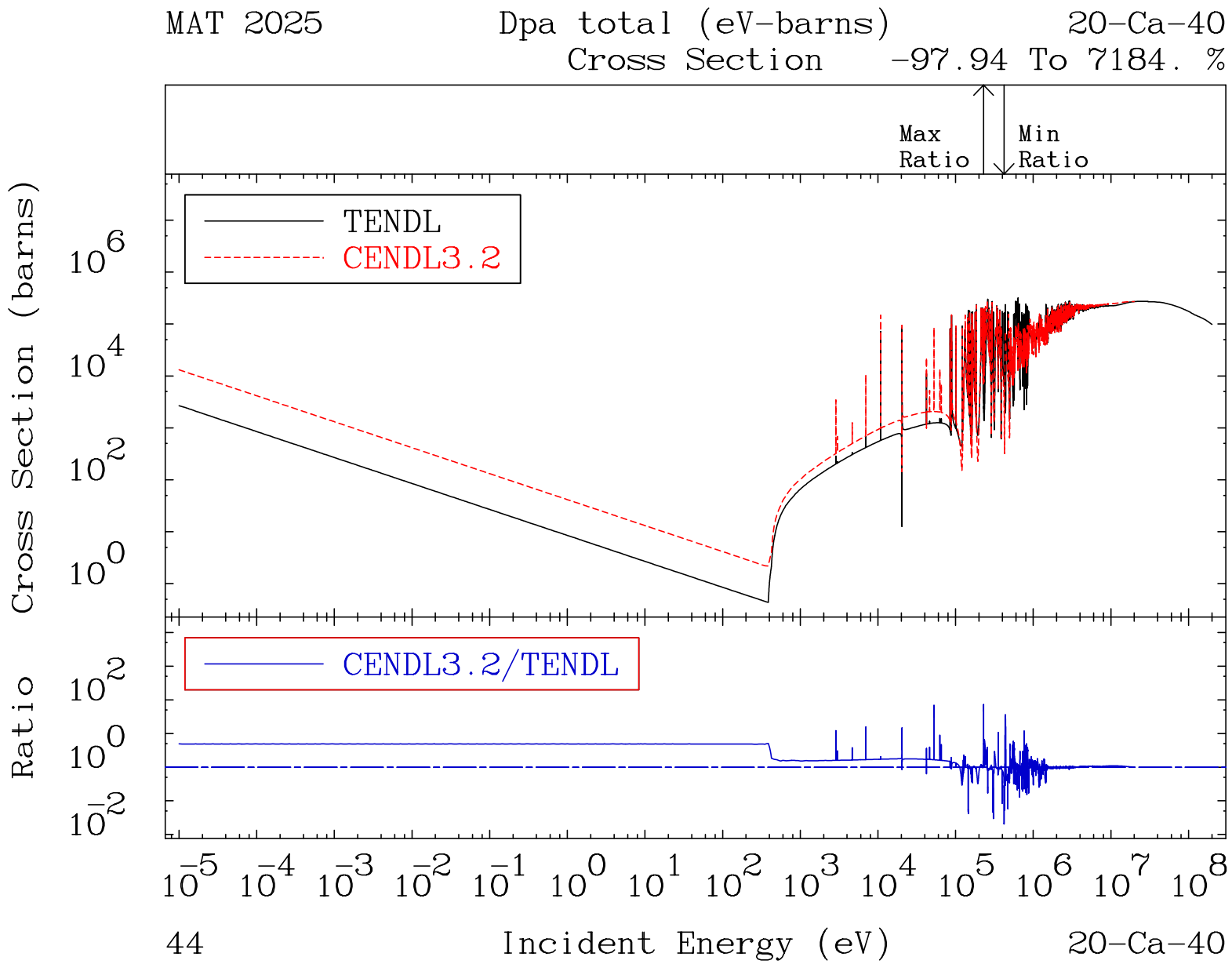

MAT 2025
Kerma inelastic (mt51-91)
20-Ca-40
Cross Section -59.47 To 35.52 %
Max Ratio
Min Ratio
TENDL Threshold 3.4372 MeV
CENDL3.2 Threshold 3.4372 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
39
20-Ca-40

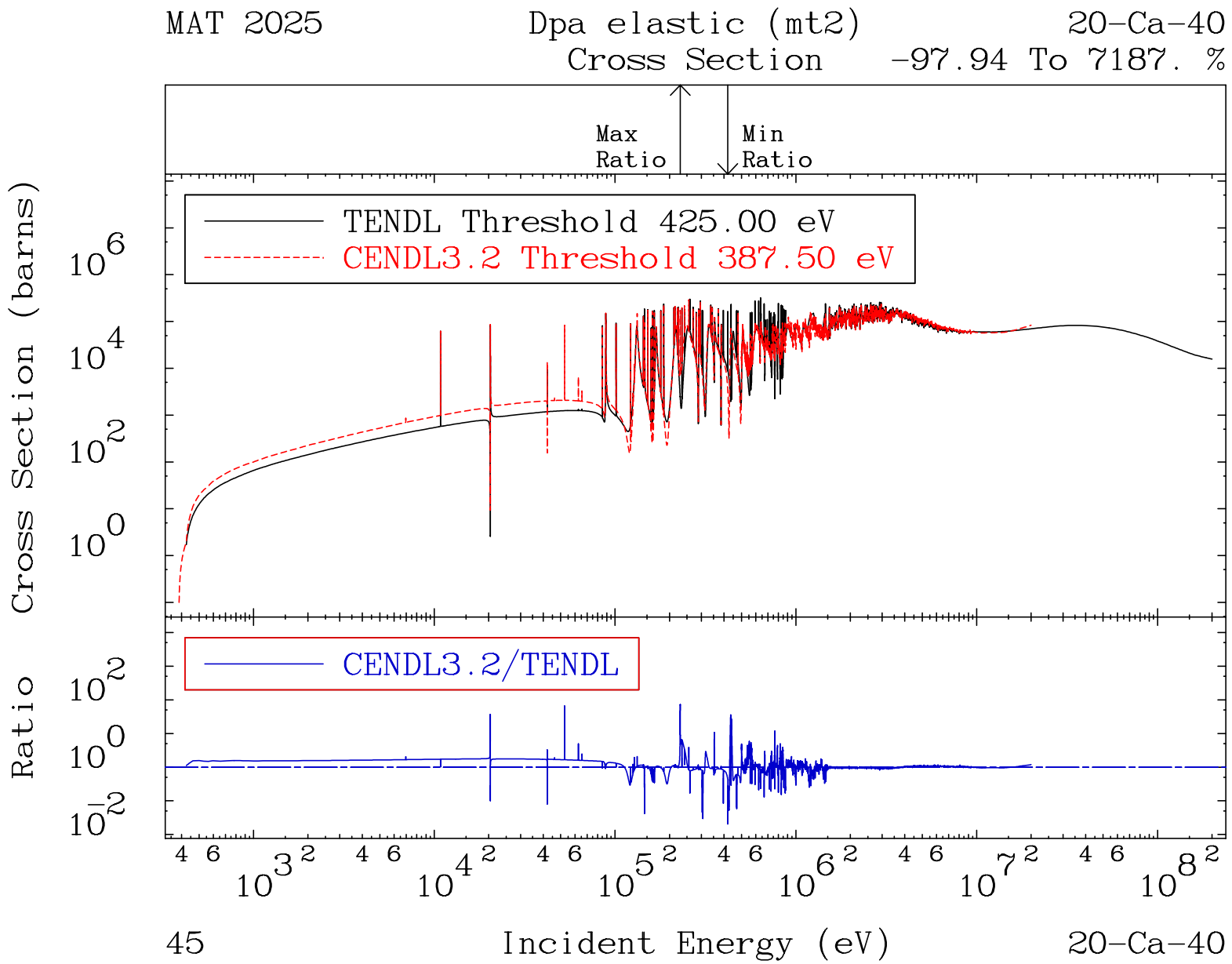

MAT 2025 Kerma fission (mt18 or mt19-20-21-38) 20-Ca-40
Cross Section -59.47 To 35.52 %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
1.8
1.2
0.6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
40
Incident Energy (eV)
20-Ca-40

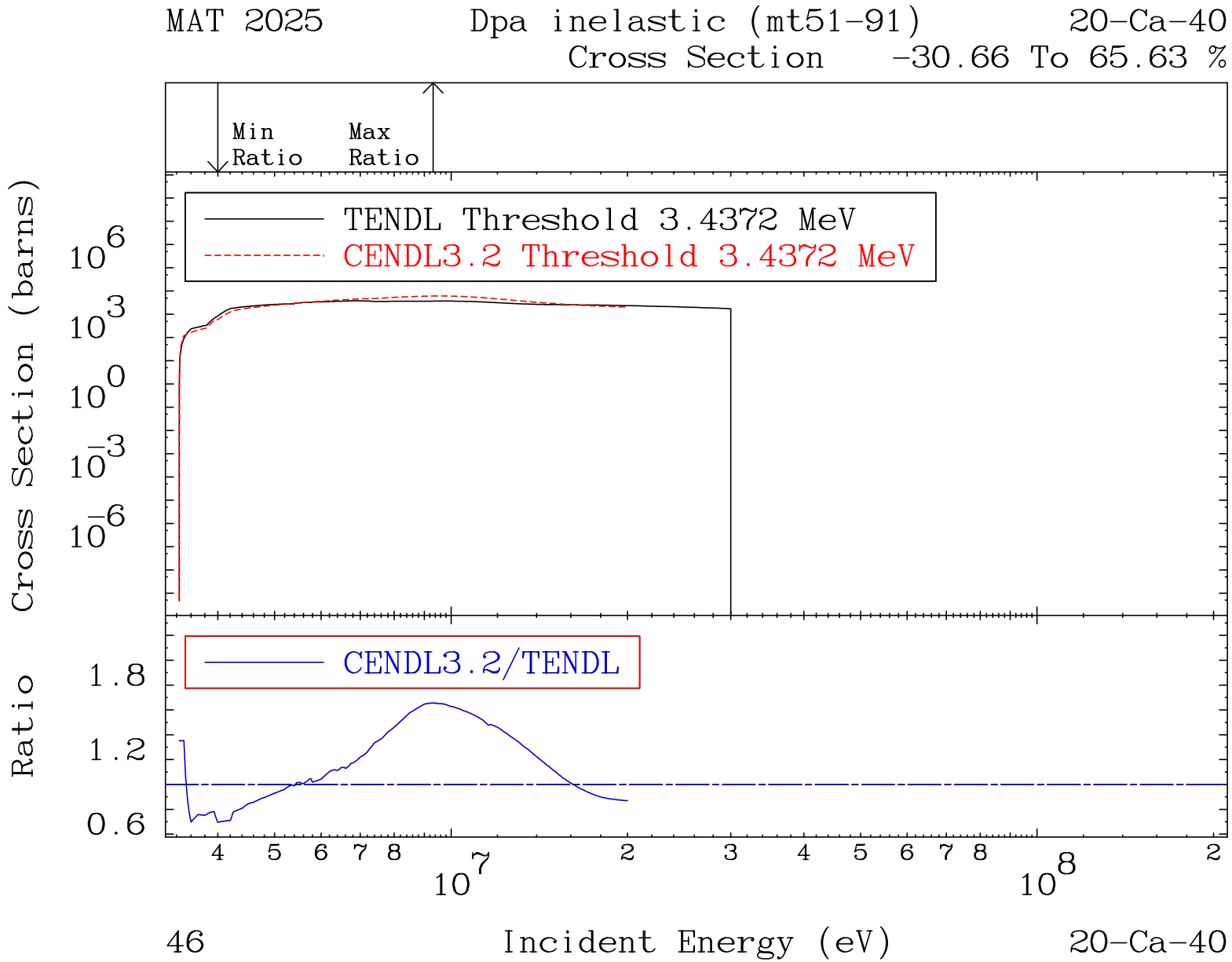

MAT 2025
Kerma capture (mt102)
20-Ca-40
Cross Section -98.65 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
41
20-Ca-40

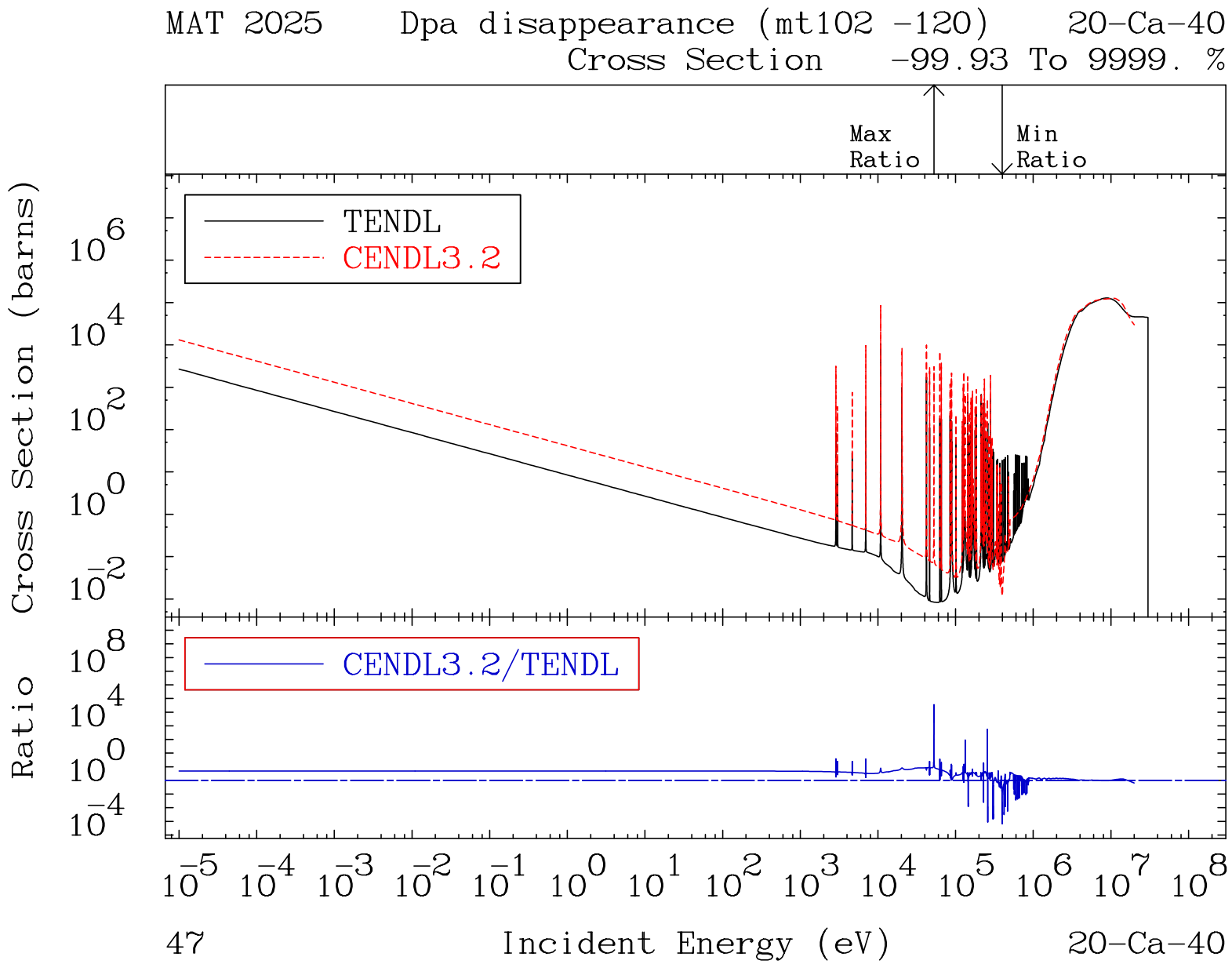

MAT 2025
Total photon (eV-barns)
20-Ca-40
Cross Section -99.99 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
20-Ca-40

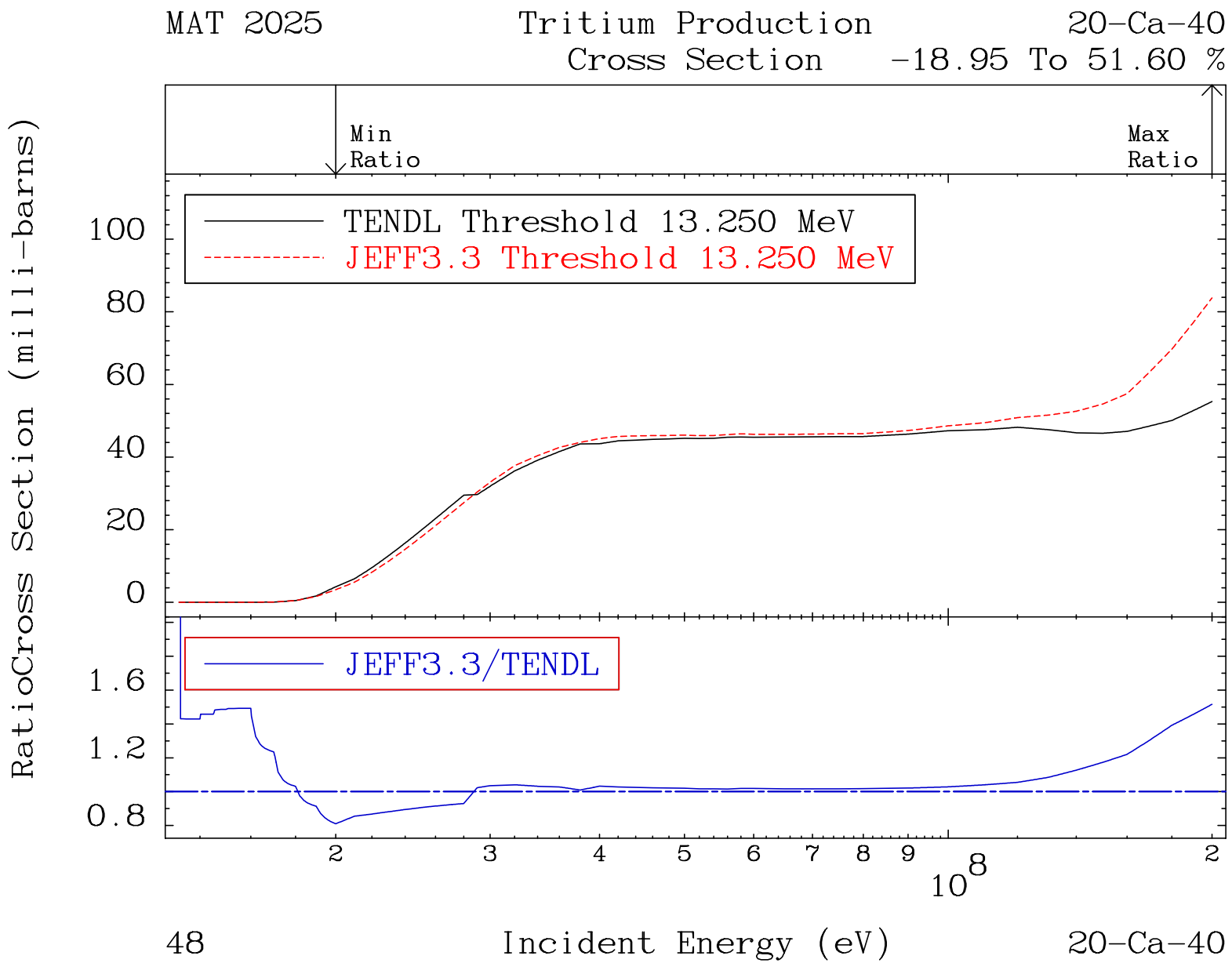

MAT 2025 Total kinematic kerma (high limit) 20-Ca-40
Cross Section -97.95 To 7170. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
43
20-Ca-40

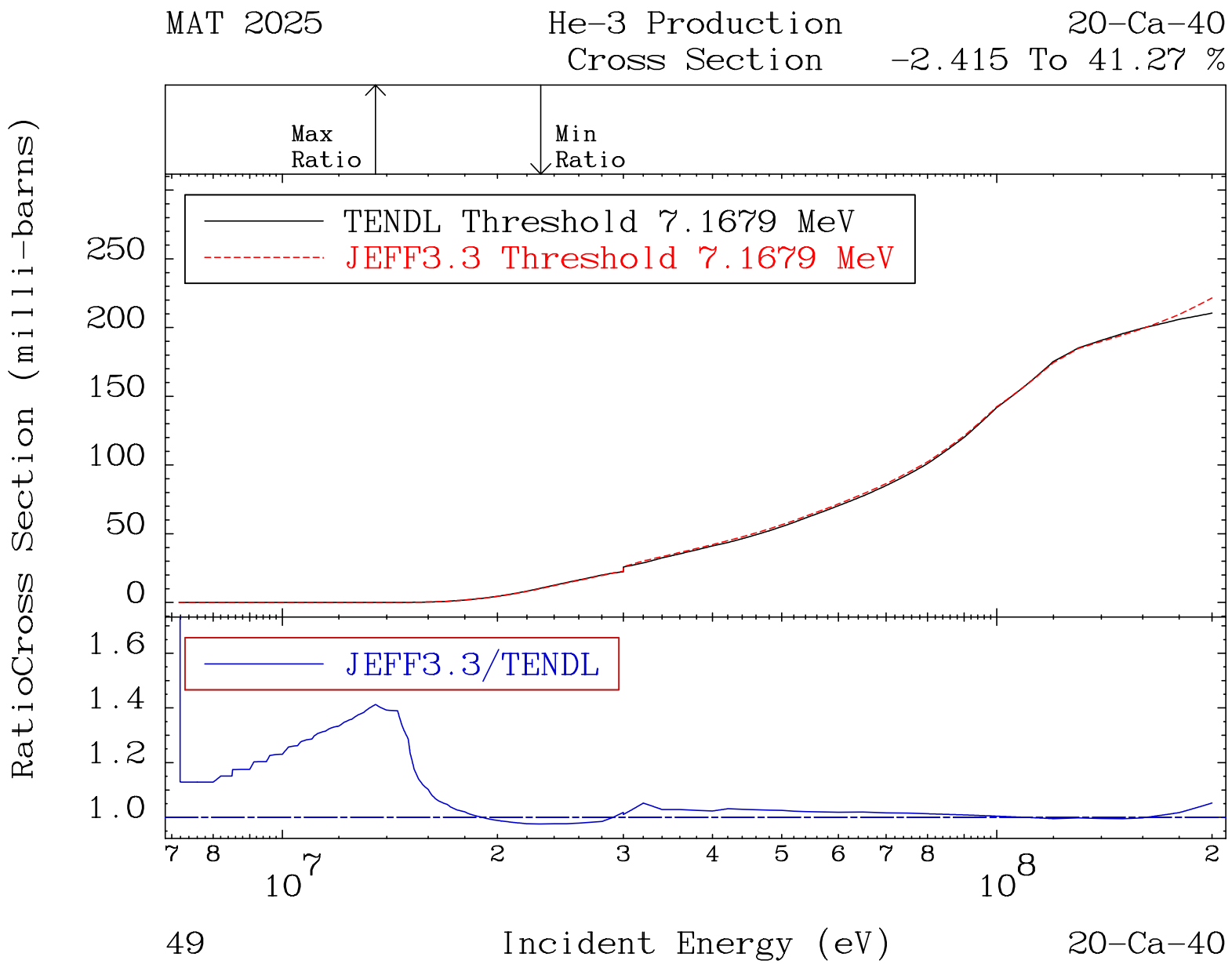

MAT 2025
Dpa total (eV-barns)
20-Ca-40
Cross Section -97.94 To 7184. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
44
20-Ca-40

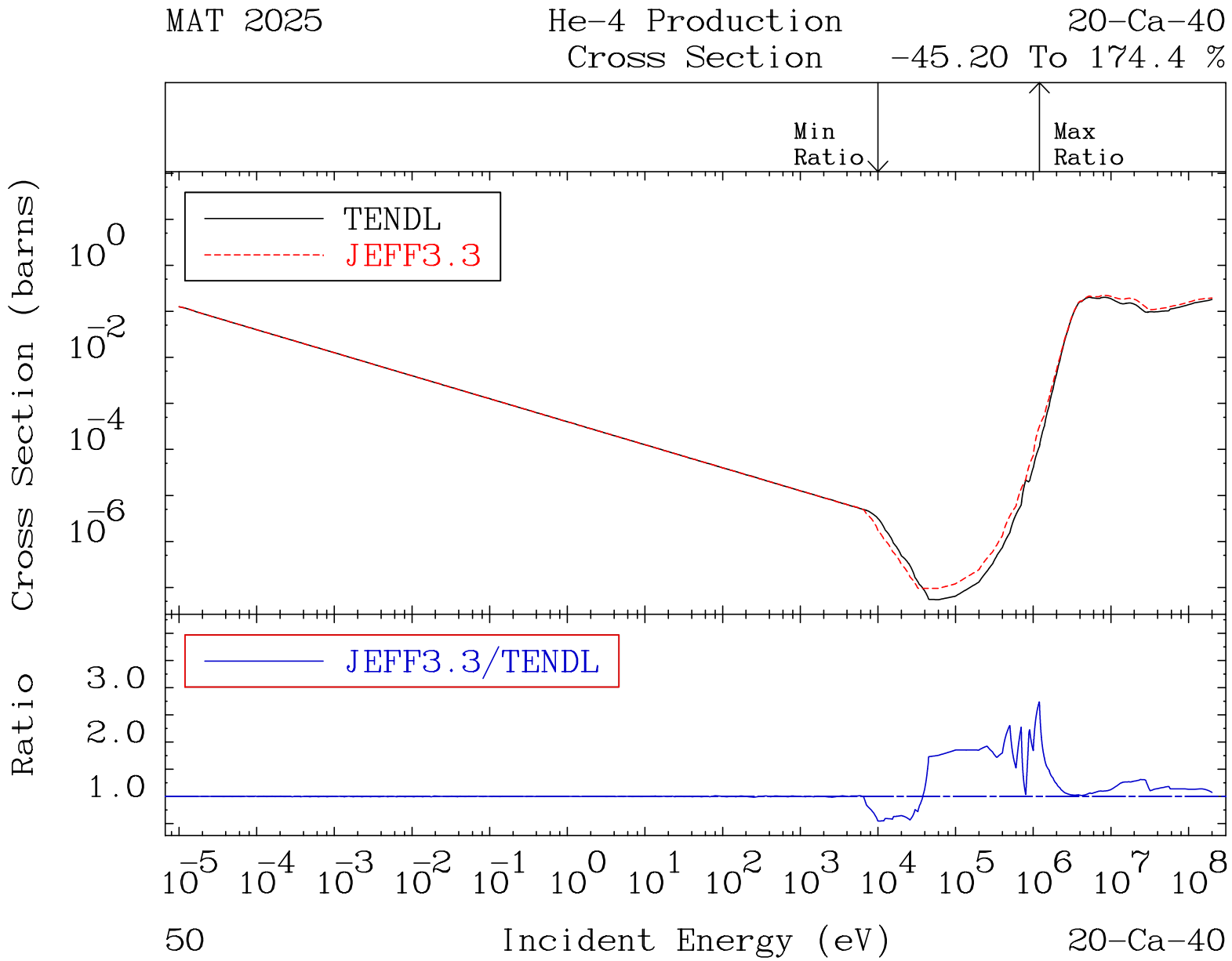

MAT 2025
Dpa elastic (mt2)
Cross Section
20-Ca-40
-97.94 To 7187. %
Max Ratio
Min Ratio
TENDL Threshold 425.00 eV
CENDL3.2 Threshold 387.50 eV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
45
20-Ca-40

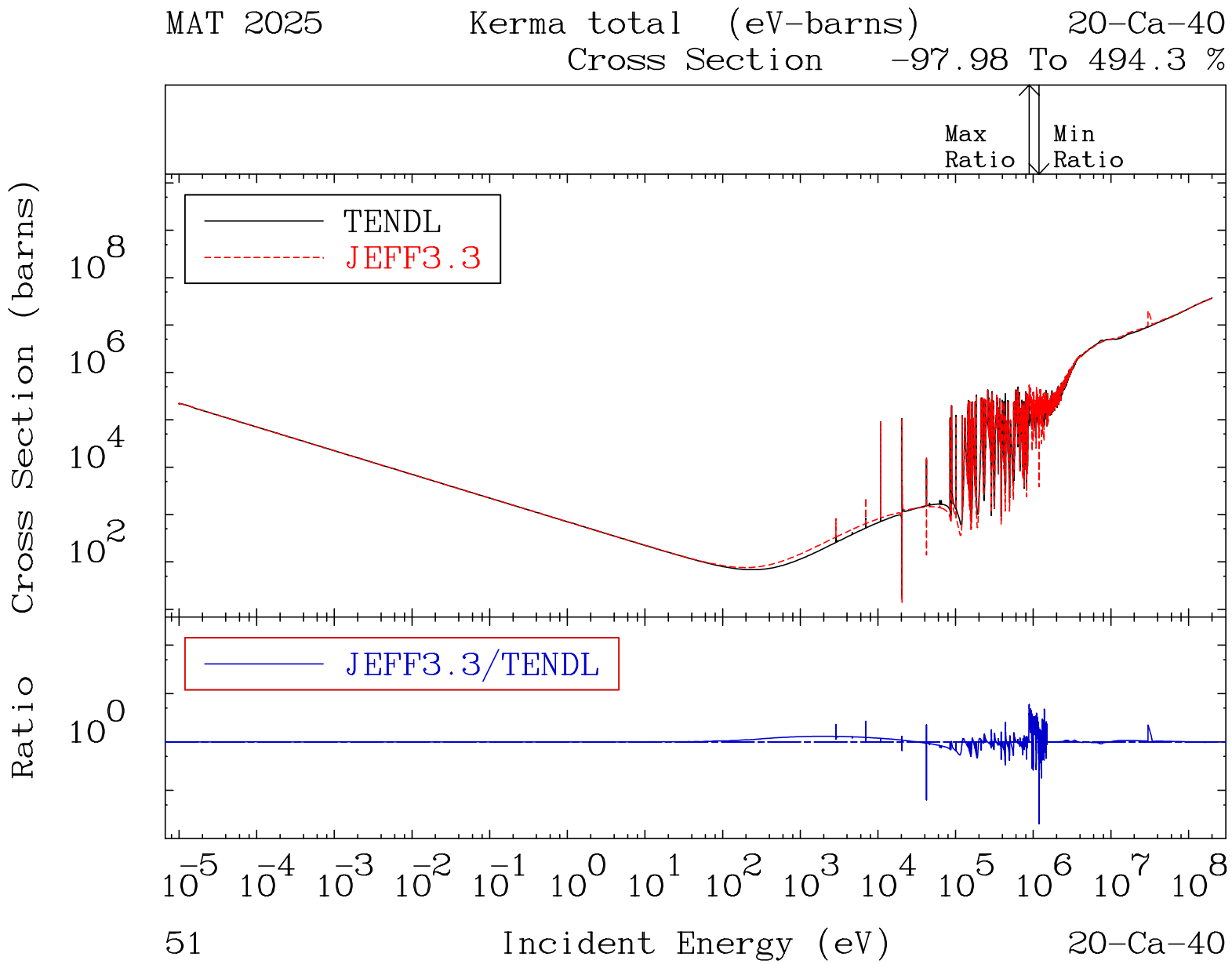

MAT 2025
Dpa inelastic (mt51-91)
20-Ca-40
Cross Section
-30.66 To 65.63 %
Min Ratio
Max Ratio
TENDL Threshold 3.4372 MeV
CENDL3.2 Threshold 3.4372 MeV
Cross Section (barns)
10^6
10^3
10^0
10^-3
10^-6
CENDL3.2/TENDL
Ratio
1.8
1.2
0.6
4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
46
Incident Energy (eV)
20-Ca-40

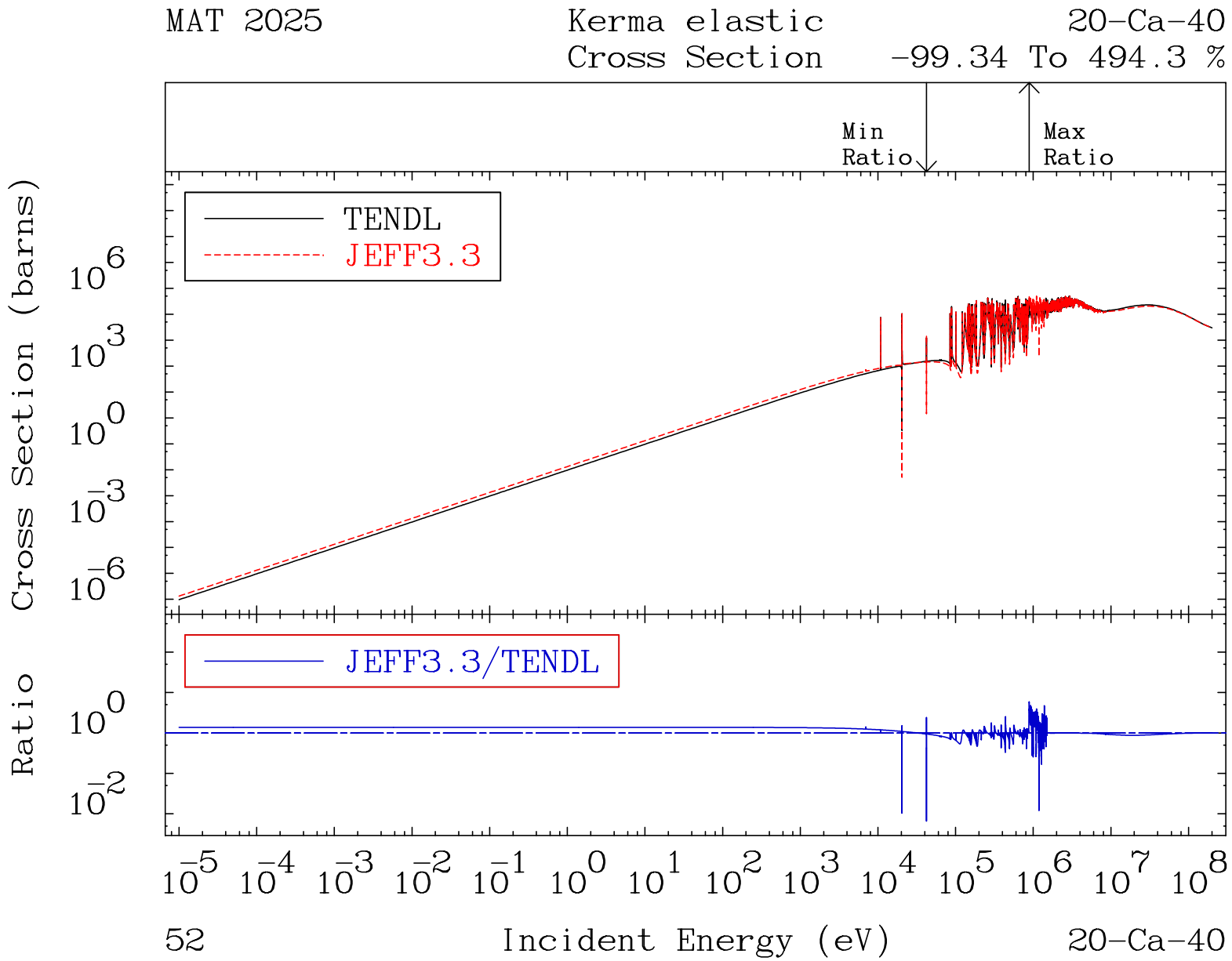

MAT 2025 Dpa disappearance (mt102 -120) 20-Ca-40
Cross Section -99.93 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
47
20-Ca-40

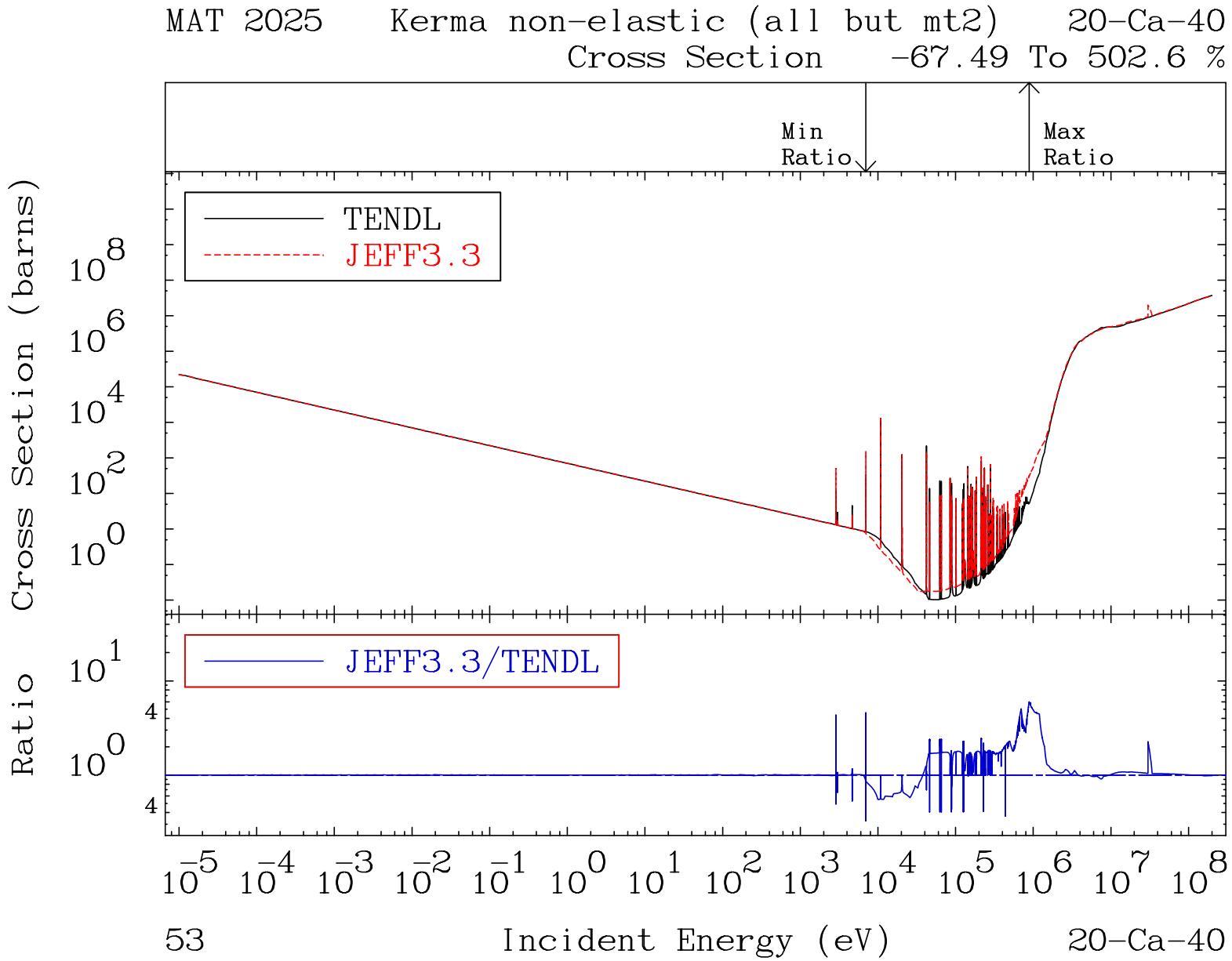

MAT 2025
Tritium Production
20-Ca-40
Cross Section
-18.95 To 51.60 %
Min Ratio
Max Ratio
TENDL Threshold 13.250 MeV
JEFF3.3 Threshold 13.250 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
1.6
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
48
Incident Energy (eV)
20-Ca-40

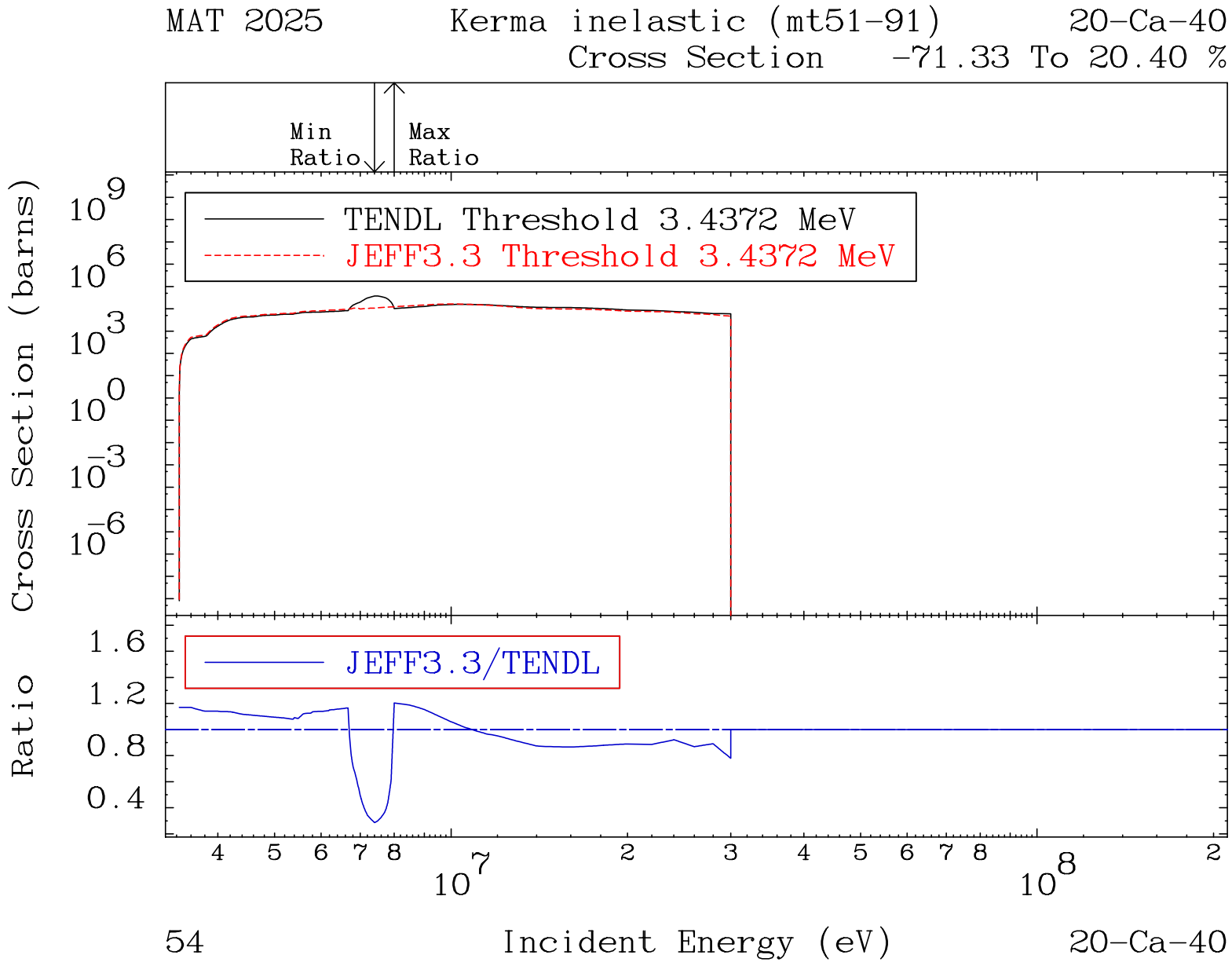

MAT 2025
He-3 Production
Cross Section
20-Ca-40
-2.415 To 41.27 %
Max Ratio
Min Ratio
TENDL Threshold 7.1679 MeV
JEFF3.3 Threshold 7.1679 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
1.6
1.4
1.2
1.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
49
Incident Energy (eV)
20-Ca-40

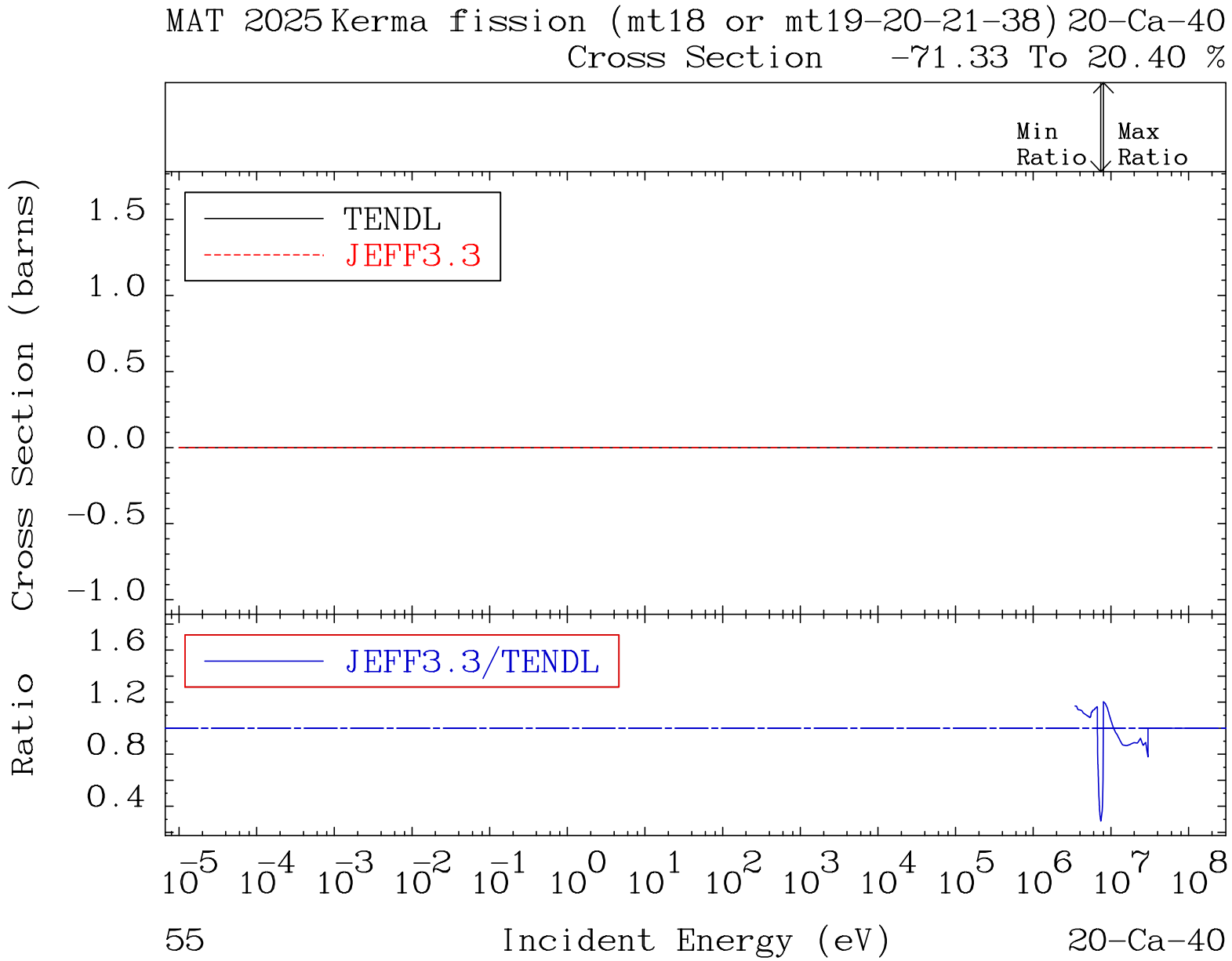

MAT 2025
He-4 Production
Cross Section
20-Ca-40
-45.20 To 174.4 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
50
20-Ca-40

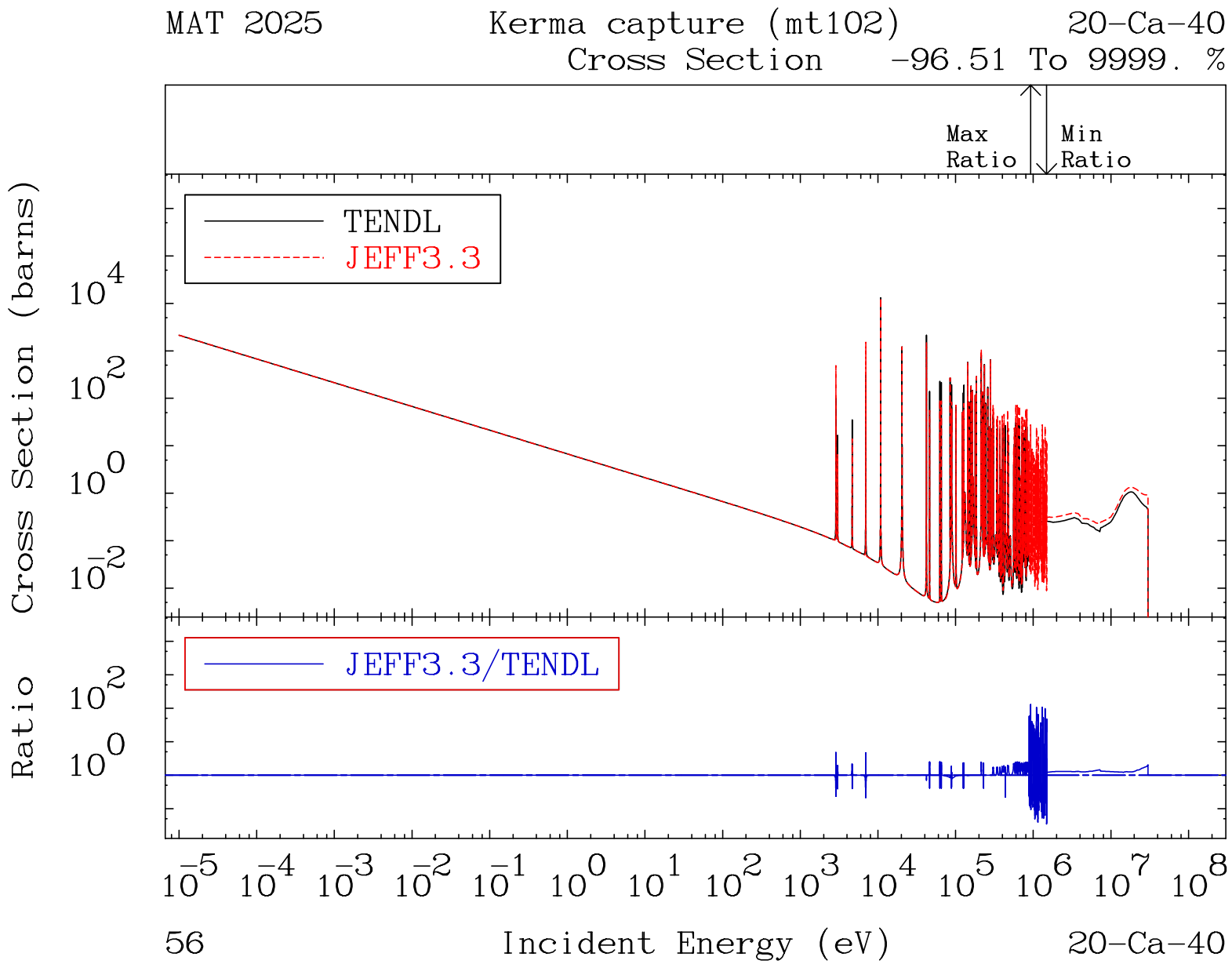

MAT 2025
Kerma total (eV-barns)
20-Ca-40
Cross Section -97.98 To 494.3 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
10^8
10^6
10^4
10^2
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
51
Incident Energy (eV)
20-Ca-40

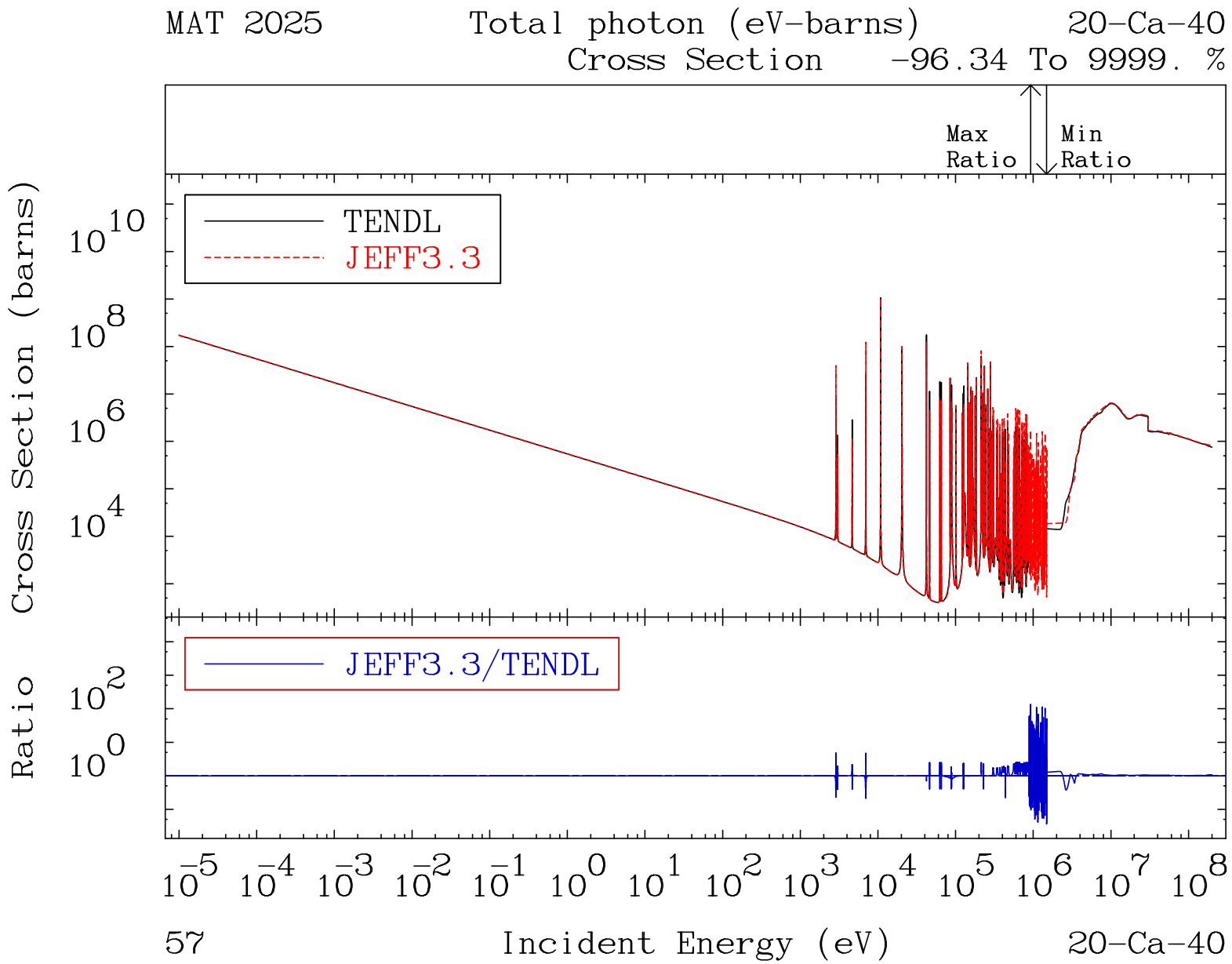

MAT 2025
Kerma elastic
Cross Section
20-Ca-40
-99.34 To 494.3 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
52
20-Ca-40

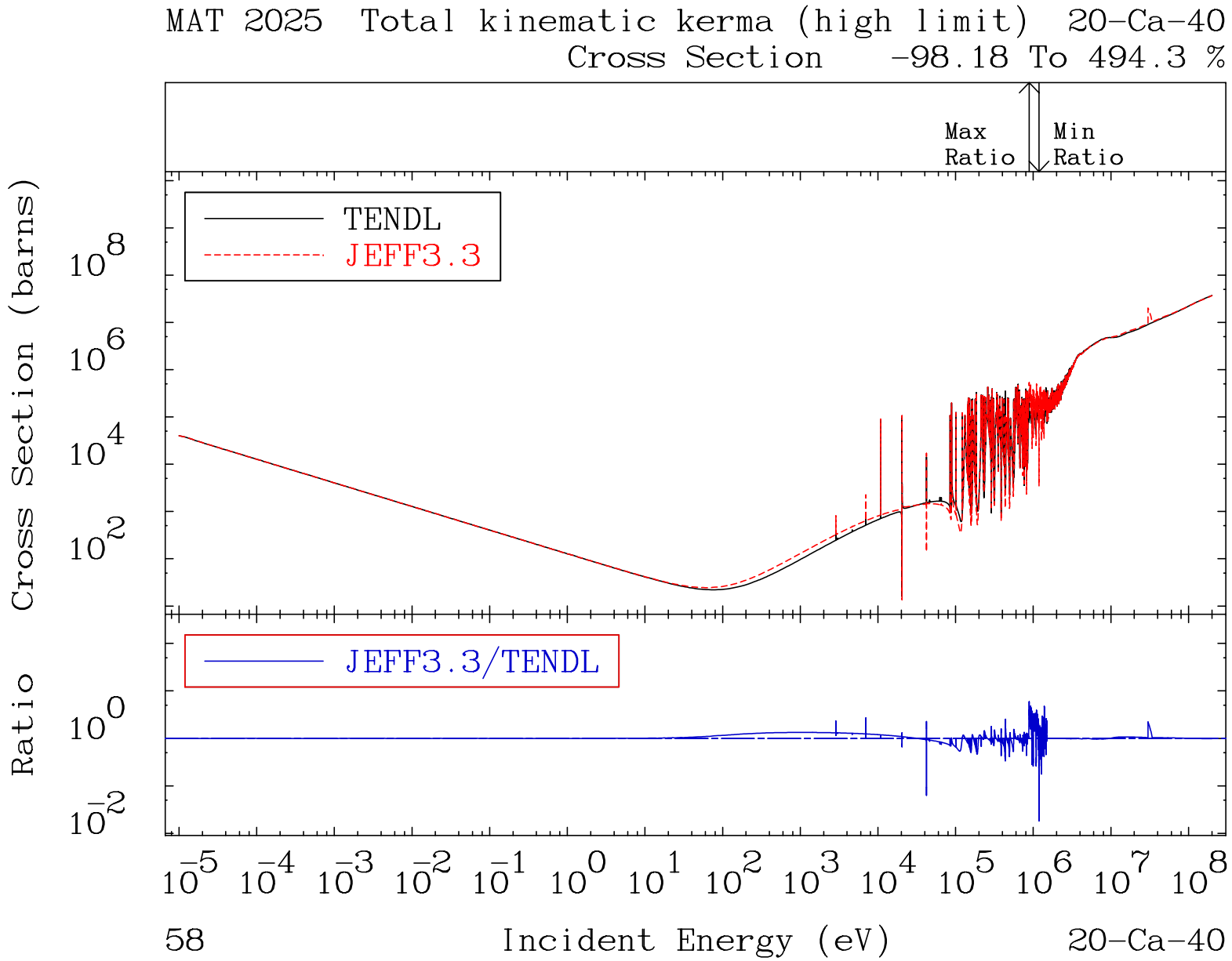

MAT 2025 Kerma non-elastic (all but mt2) 20-Ca-40
Cross Section -67.49 To 502.6 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
53
20-Ca-40

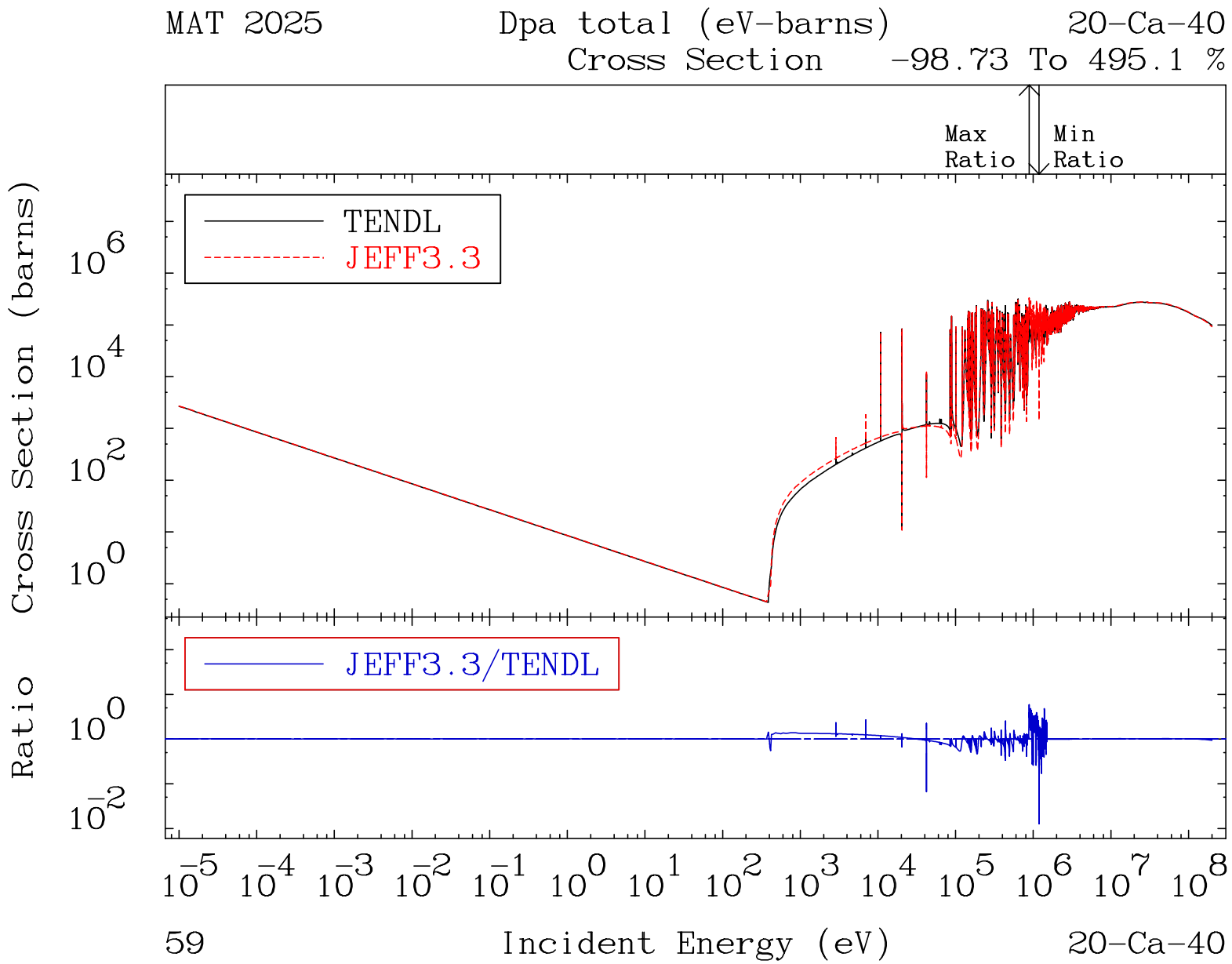

MAT 2025
Kerma inelastic (mt51-91)
20-Ca-40
Cross Section -71.33 To 20.40 %
Min Ratio
Max Ratio
TENDL Threshold 3.4372 MeV
JEFF3.3 Threshold 3.4372 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
54
20-Ca-40

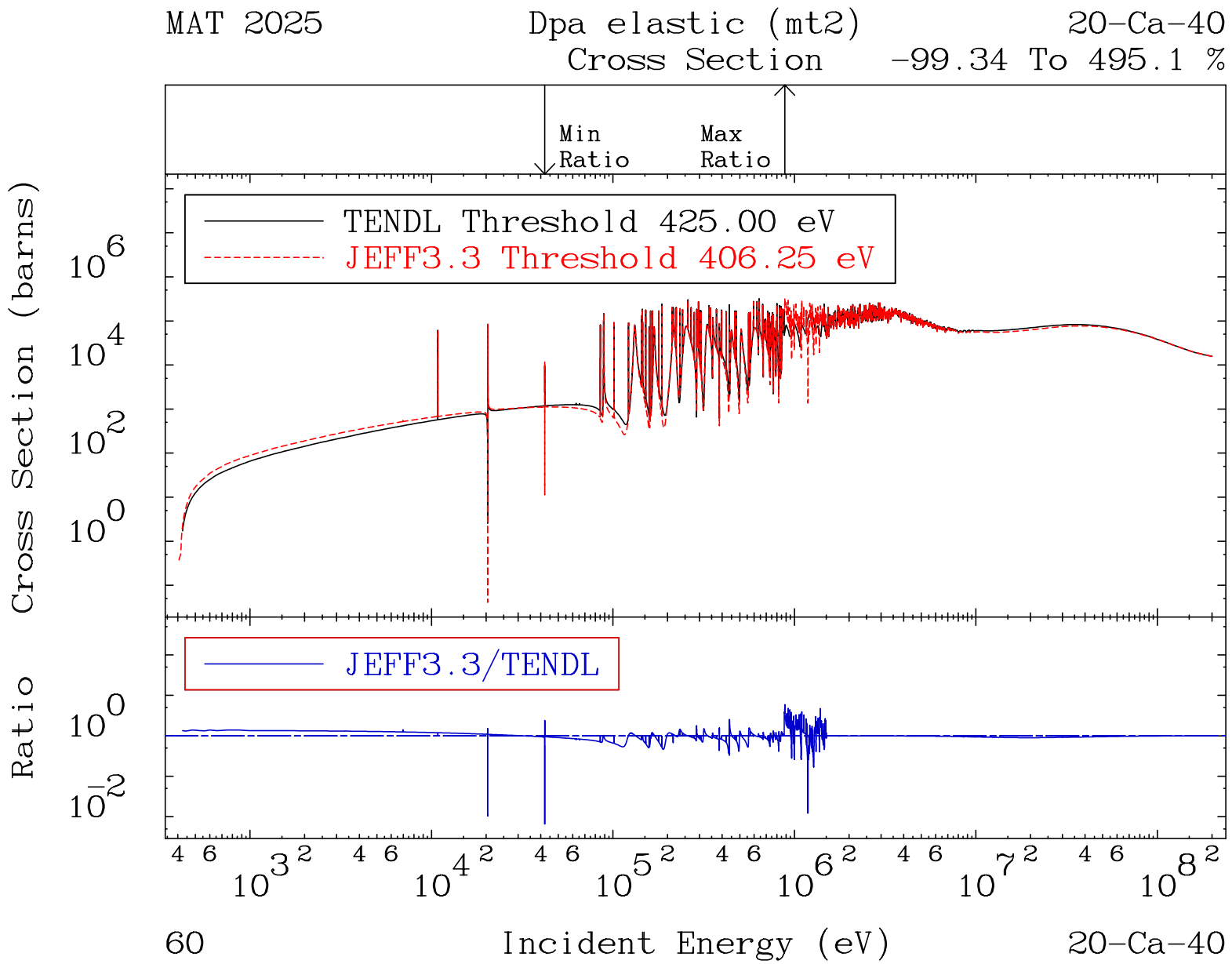

MAT 2025 Kerma fission (mt18 or mt19-20-21-38) 20-Ca-40
Cross Section -71.33 To 20.40 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
1.6
1.2
0.8
0.4
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
55
Incident Energy (eV)
20-Ca-40

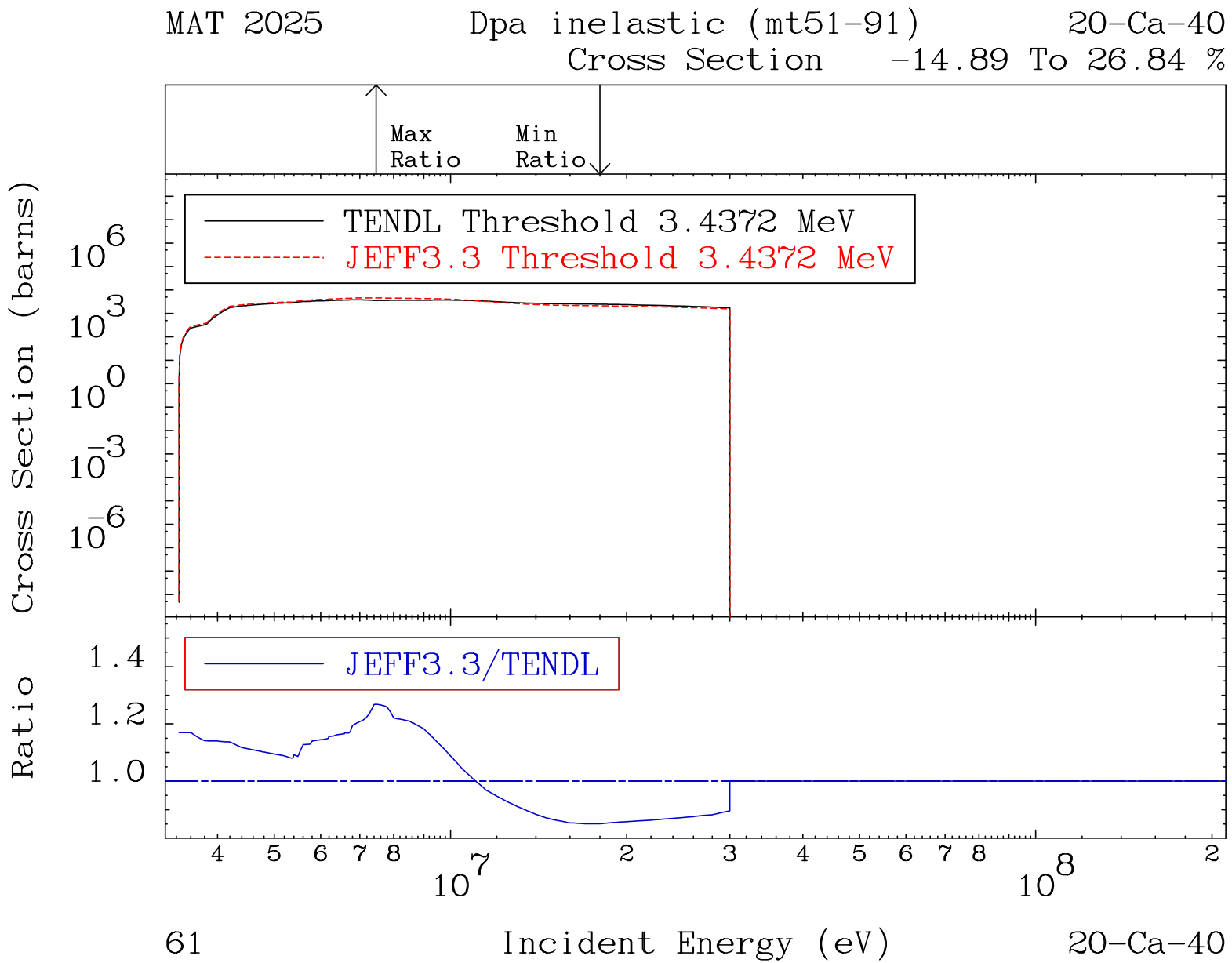

MAT 2025
Kerma capture (mt102)
20-Ca-40
Cross Section -96.51 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
56
20-Ca-40

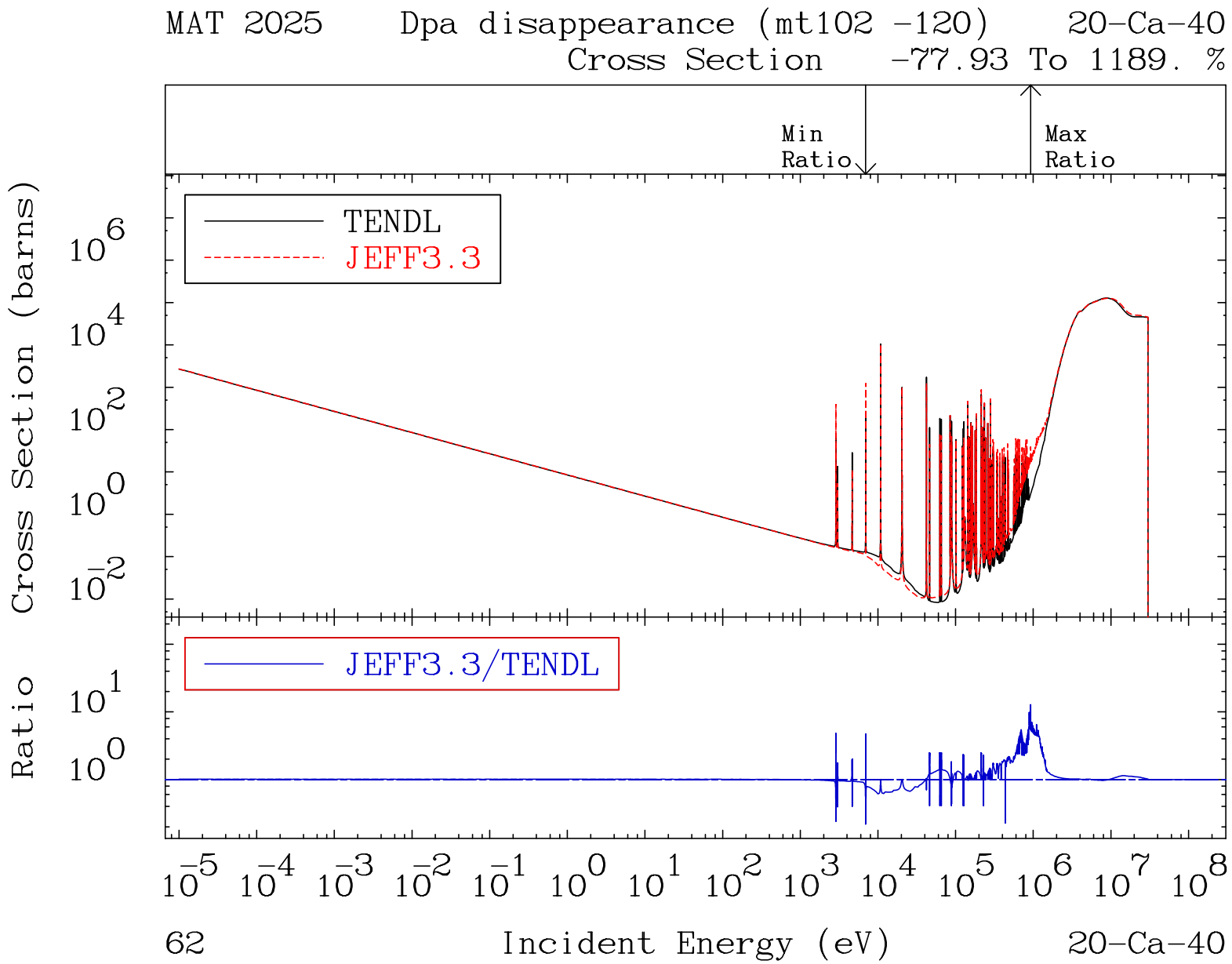

MAT 2025
Total photon (eV-barns)
20-Ca-40
Cross Section -96.34 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
57
20-Ca-40

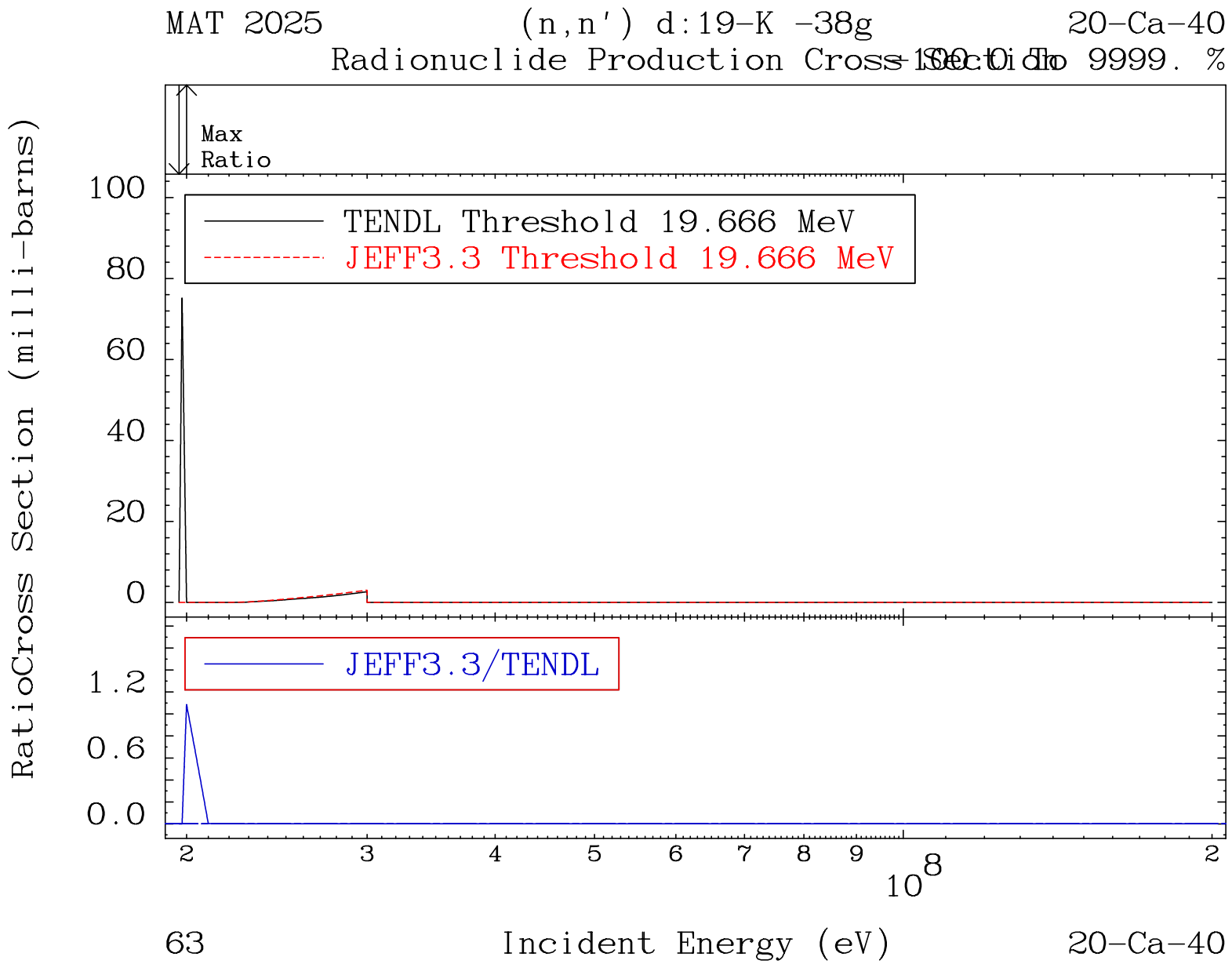

MAT 2025 Total kinematic kerma (high limit) 20-Ca-40
Cross Section -98.18 To 494.3 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
58
20-Ca-40

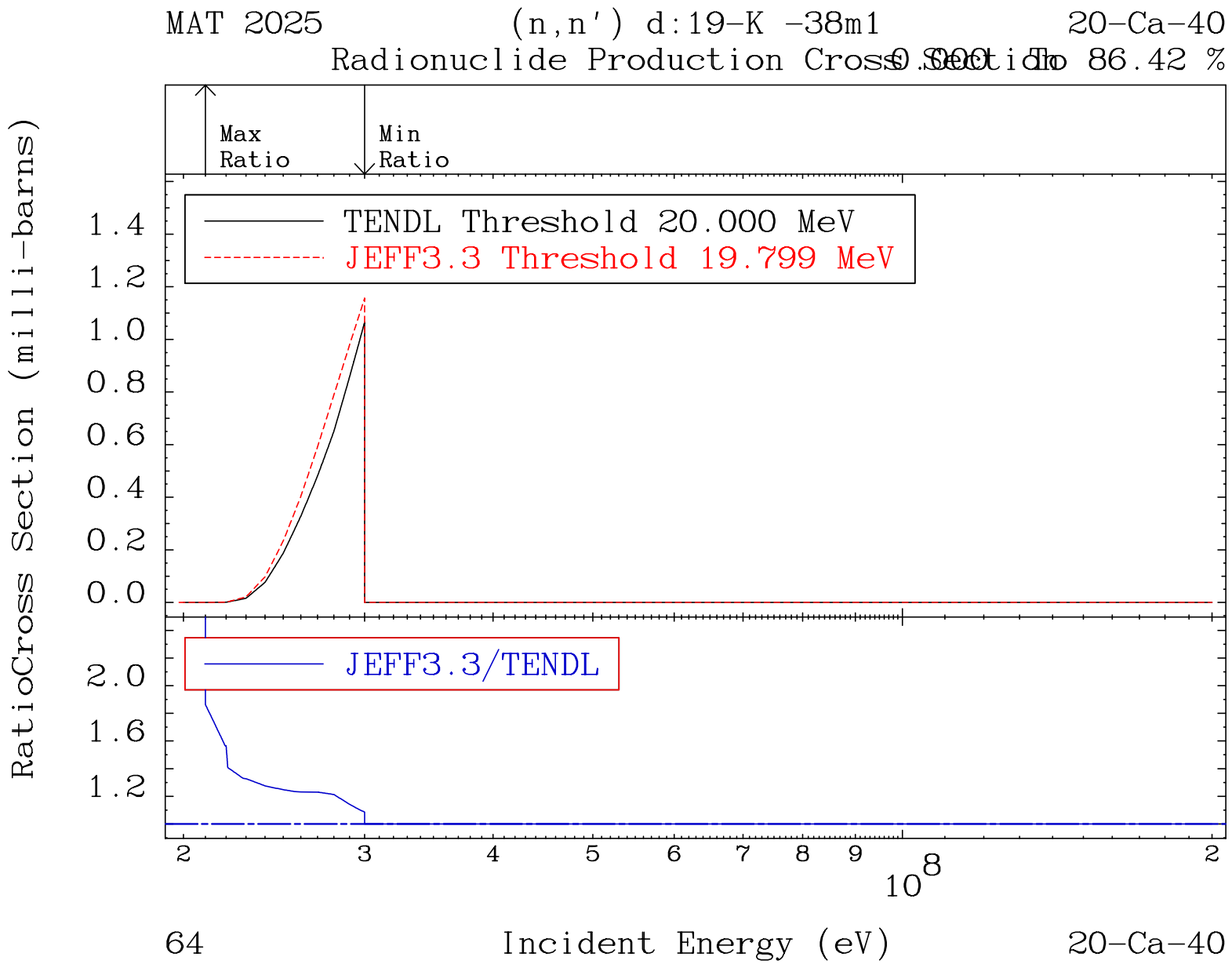

MAT 2025
Dpa total (eV-barns)
20-Ca-40
Cross Section -98.73 To 495.1 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
59
20-Ca-40

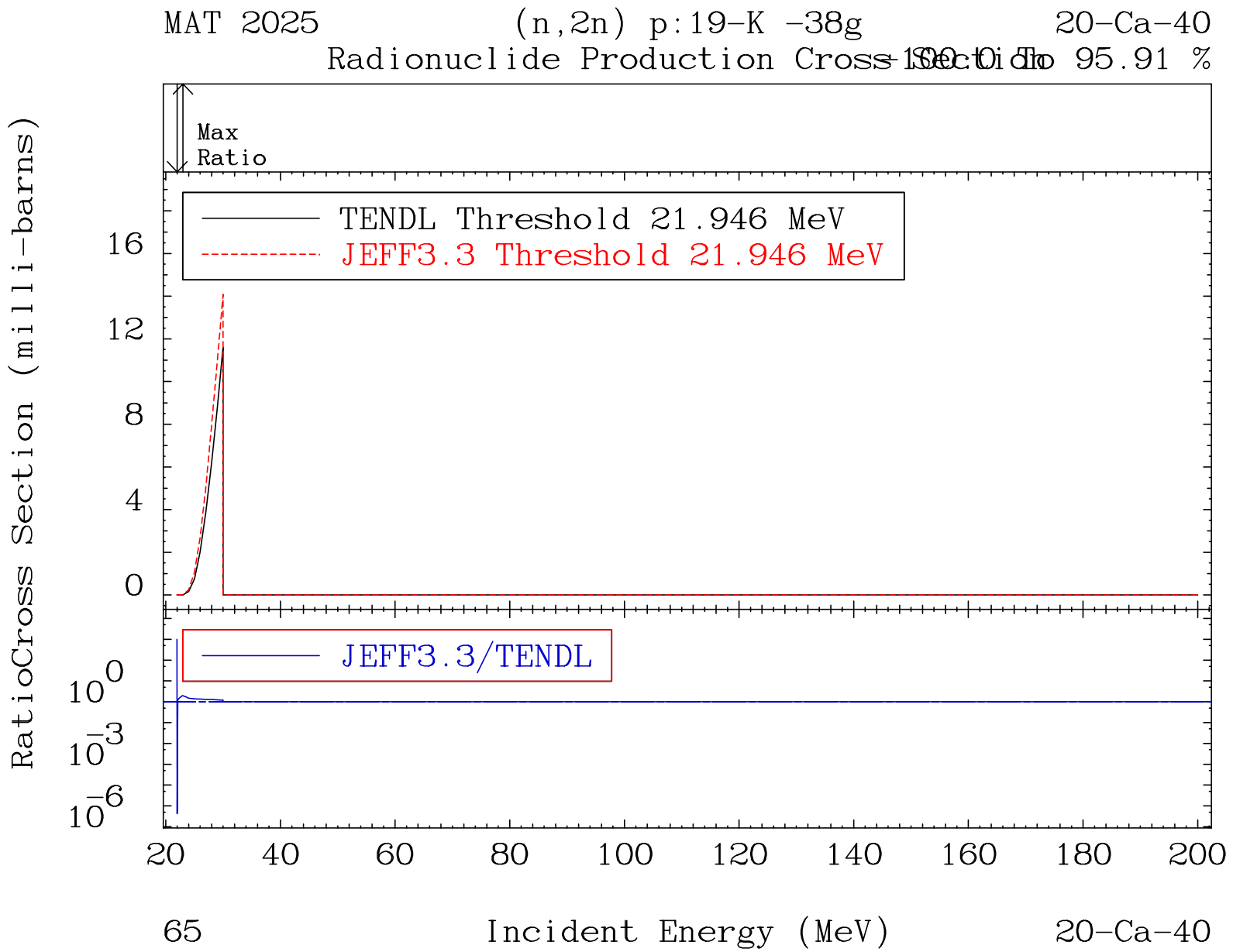

MAT 2025
Dpa elastic (mt2)
Cross Section
20-Ca-40
-99.34 To 495.1 %
Min Ratio
Max Ratio
TENDL Threshold 425.00 eV
JEFF3.3 Threshold 406.25 eV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
60
20-Ca-40

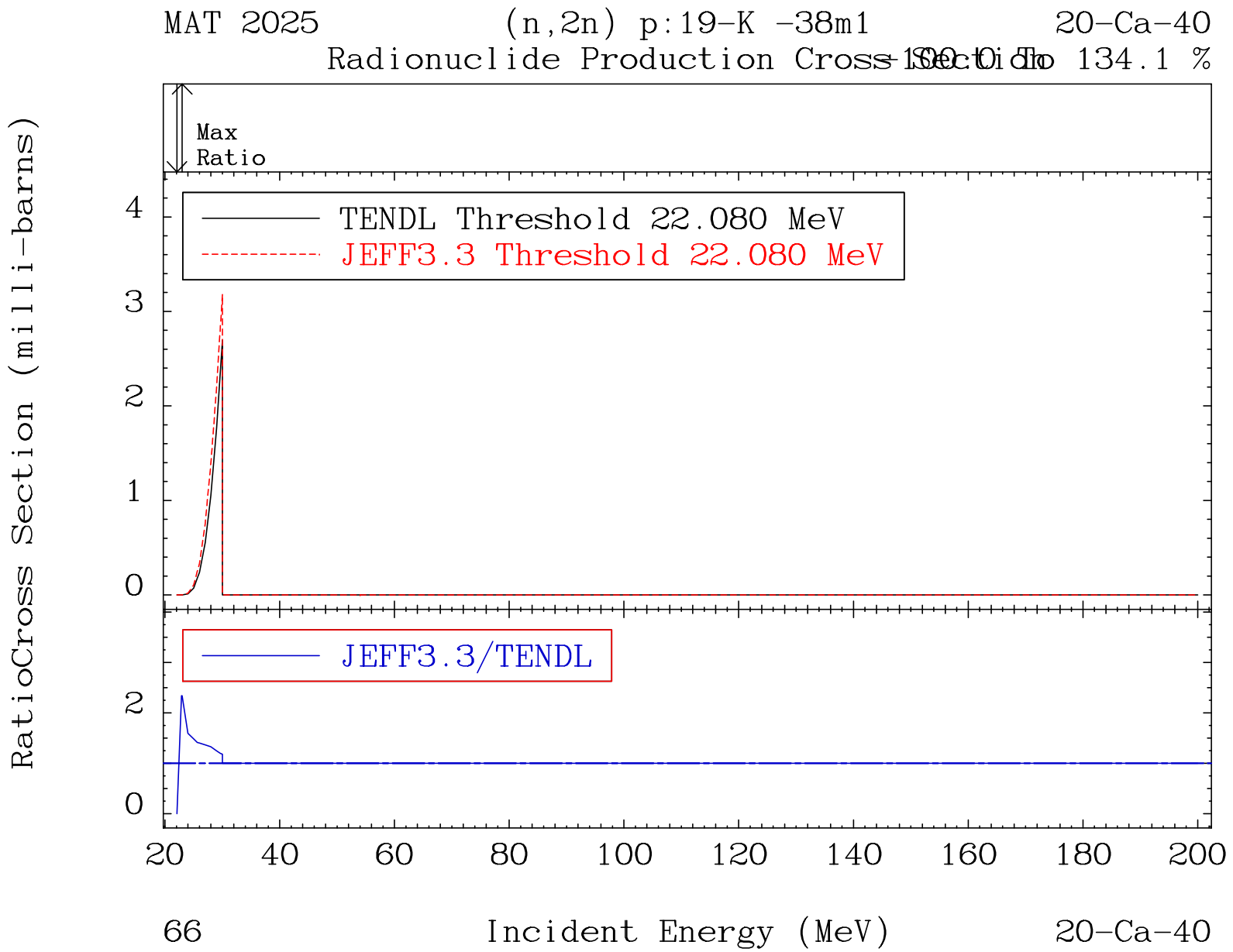

MAT 2025
Dpa inelastic (mt51-91)
20-Ca-40
Cross Section -14.89 To 26.84 %
Max Ratio
Min Ratio
TENDL Threshold 3.4372 MeV
JEFF3.3 Threshold 3.4372 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
61
20-Ca-40

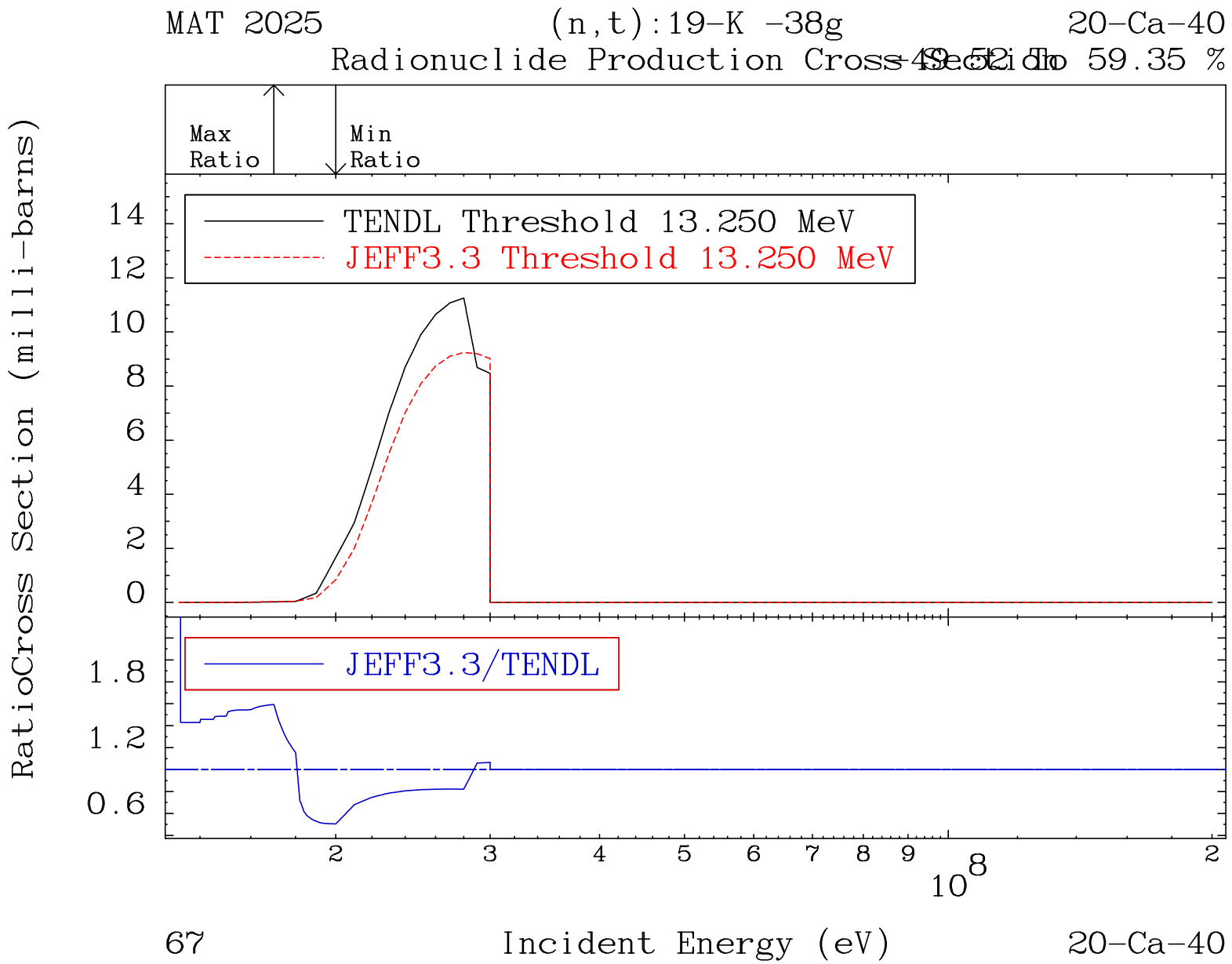

MAT 2025 Dpa disappearance (mt102 -120) 20-Ca-40
Cross Section -77.93 To 1189. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
62
20-Ca-40

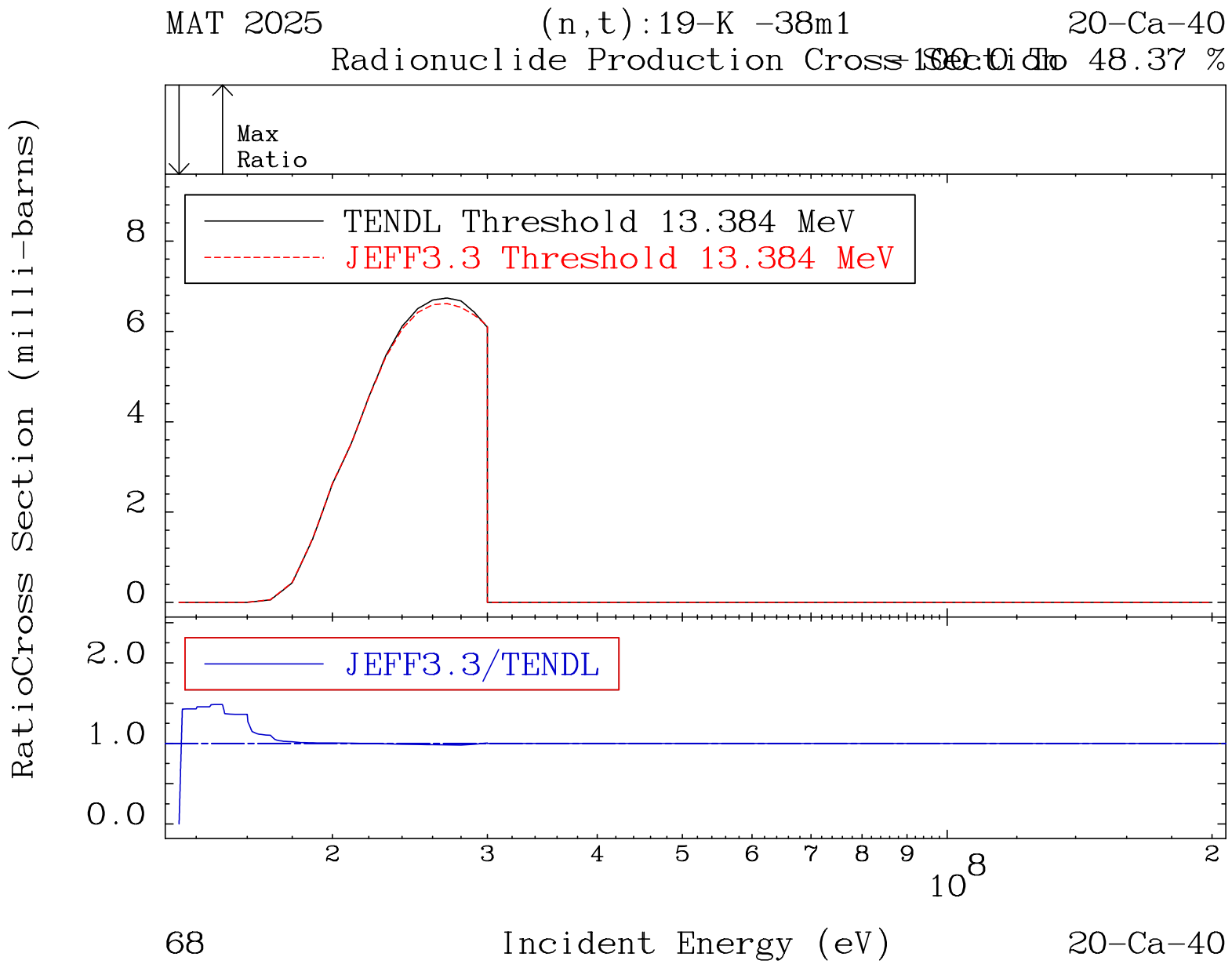

MAT 2025
(n,n') d:19-K -38g
20-Ca-40
Radionuclide Production Cross Section To 9999. %
Max
Ratio
100
80
60
40
20
0
TENDL Threshold 19.666 MeV
JEFF3.3 Threshold 19.666 MeV
1.2
0.6
0.0
JEFF3.3/TENDL
2
3
4
5
6
7
8
9
10^8
2
RatioCross Section (milli-barns)
63
Incident Energy (eV)
20-Ca-40


MAT 2025
(n,n') d:19-K -38m1
20-Ca-40
Radionuclide Production Cross Section
0.000 To 86.42 %
Max Ratio
Min Ratio
TENDL Threshold 20.000 MeV
JEFF3.3 Threshold 19.799 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
20-Ca-40


MAT 2025
(n,2n) p:19-K -38g
20-Ca-40
Radionuclide Production Cross Section To 95.91 %
Max
Ratio
TENDL Threshold 21.946 MeV
JEFF3.3 Threshold 21.946 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
10^0
10^-3
10^-6
20
40
60
80
100
120
140
160
180
200
65
Incident Energy (MeV)
20-Ca-40


MAT 2025
(n,2n) p:19-K -38m1
20-Ca-40
Radionuclide Production Cross Section To 134.1 %
Max
Ratio
TENDL Threshold 22.080 MeV
JEFF3.3 Threshold 22.080 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (MeV)
66
20-Ca-40


MAT 2025
(n,t):19-K -38g
20-Ca-40
Radionuclide Production Cross-Section To 59.35 %
Max Ratio
Min Ratio
TENDL Threshold 13.250 MeV
JEFF3.3 Threshold 13.250 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
14
12
10
8
6
4
2
0
1.8
1.2
0.6
2
3
4
5
6
7
8
9
10^8
2
67
Incident Energy (eV)
20-Ca-40


MAT 2025
(n,t):19-K -38m1
20-Ca-40
Radionuclide Production Cross Section To 48.37 %
Max
Ratio
TENDL Threshold 13.384 MeV
JEFF3.3 Threshold 13.384 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
8
6
4
2
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
68
Incident Energy (eV)
20-Ca-40