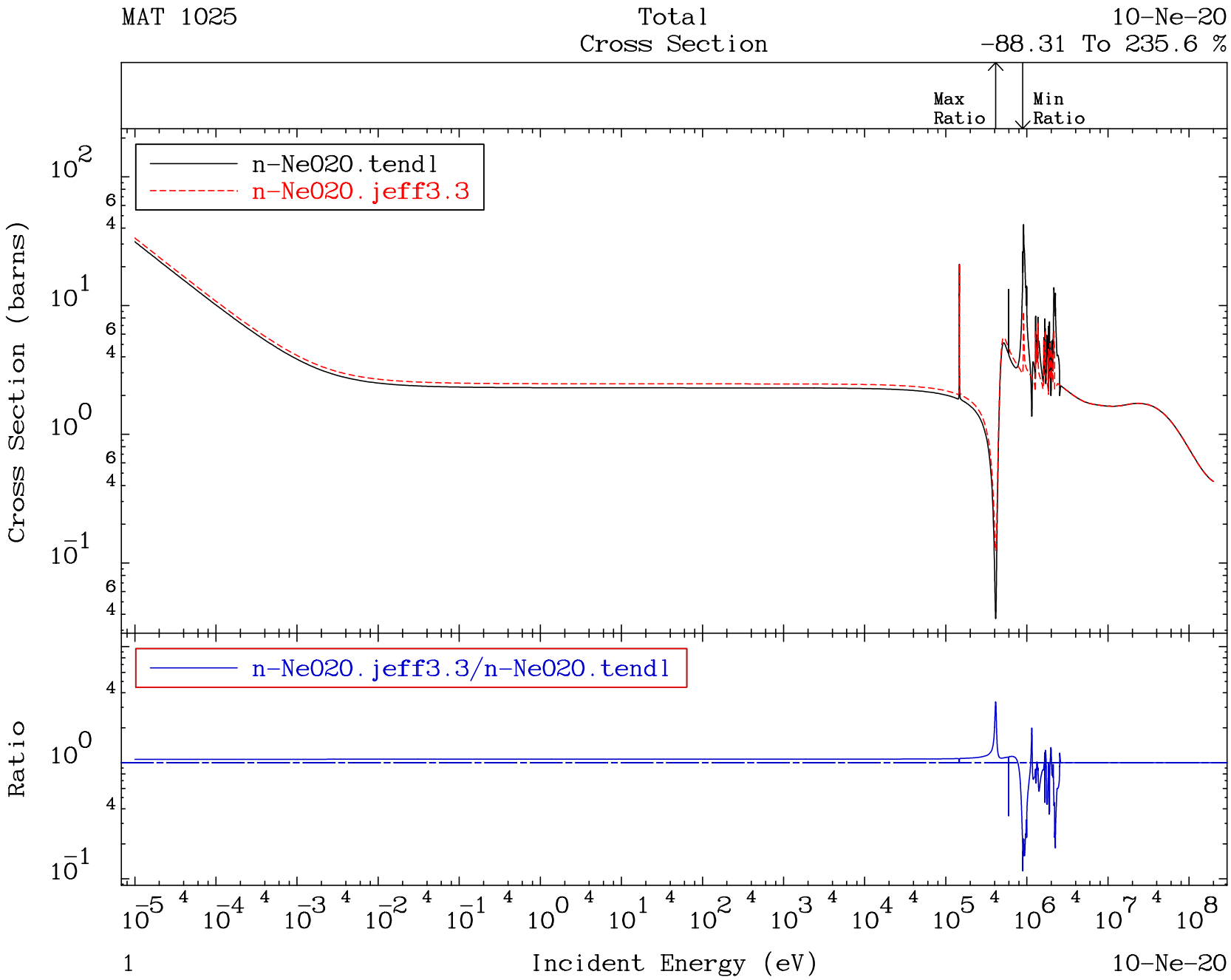
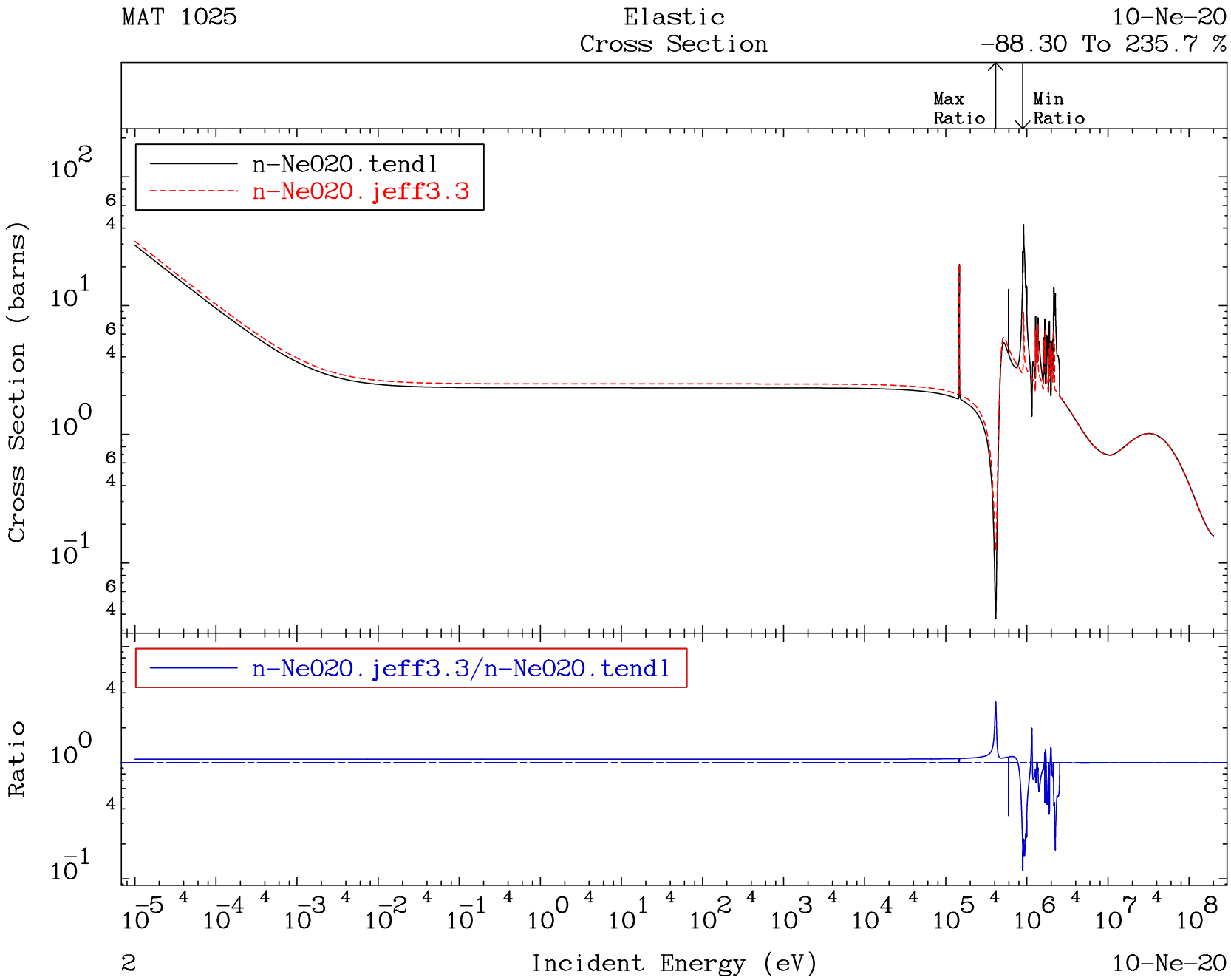
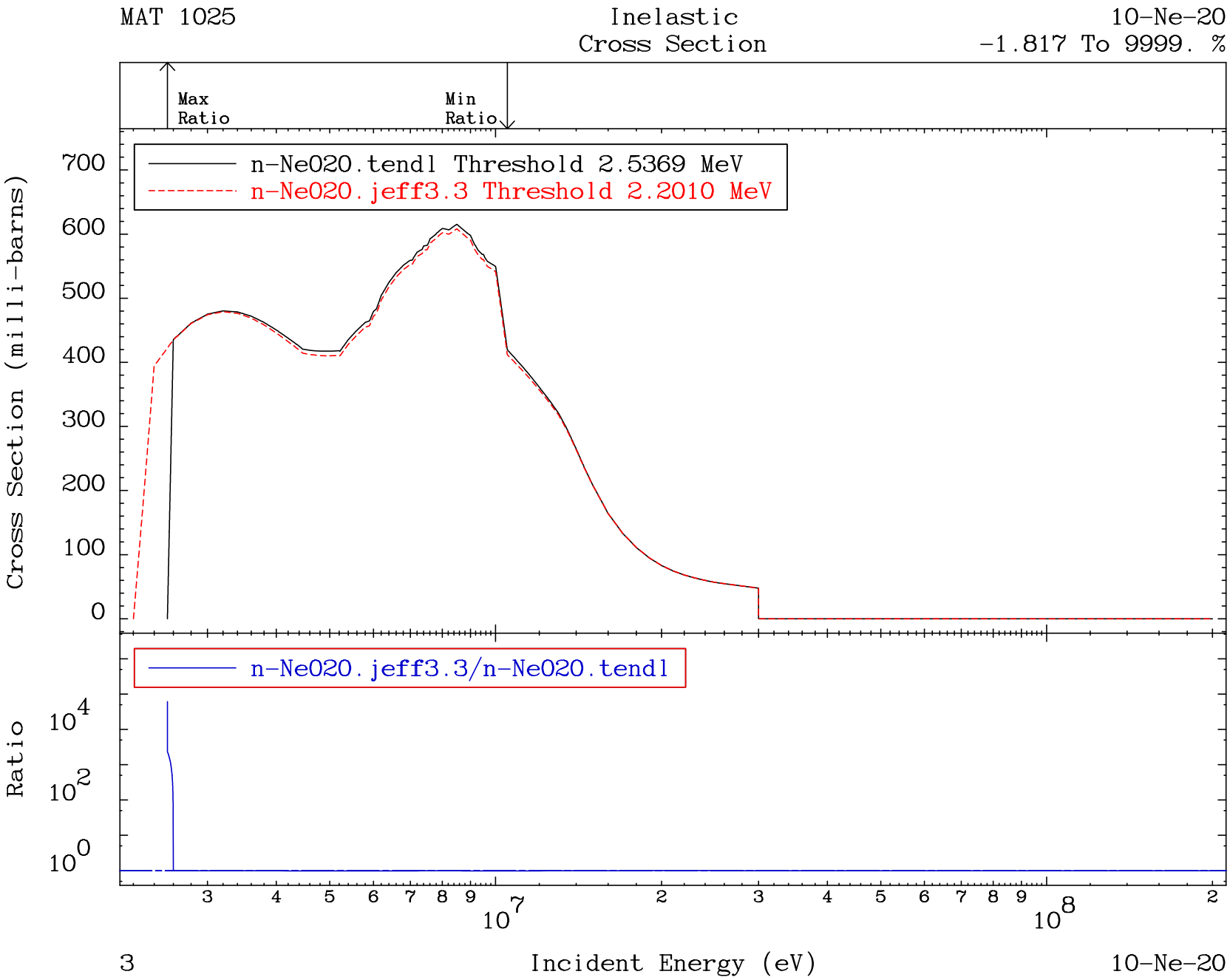
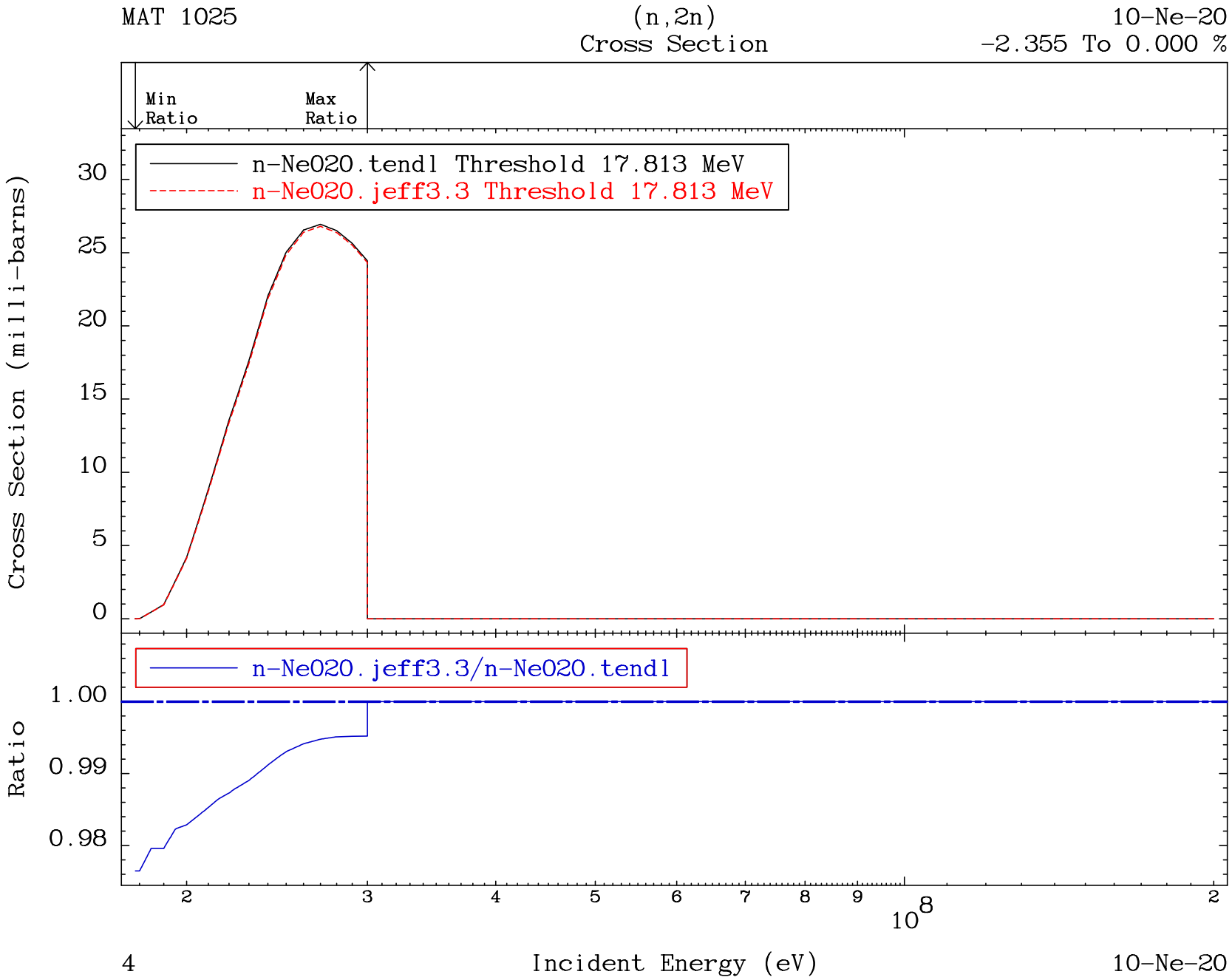
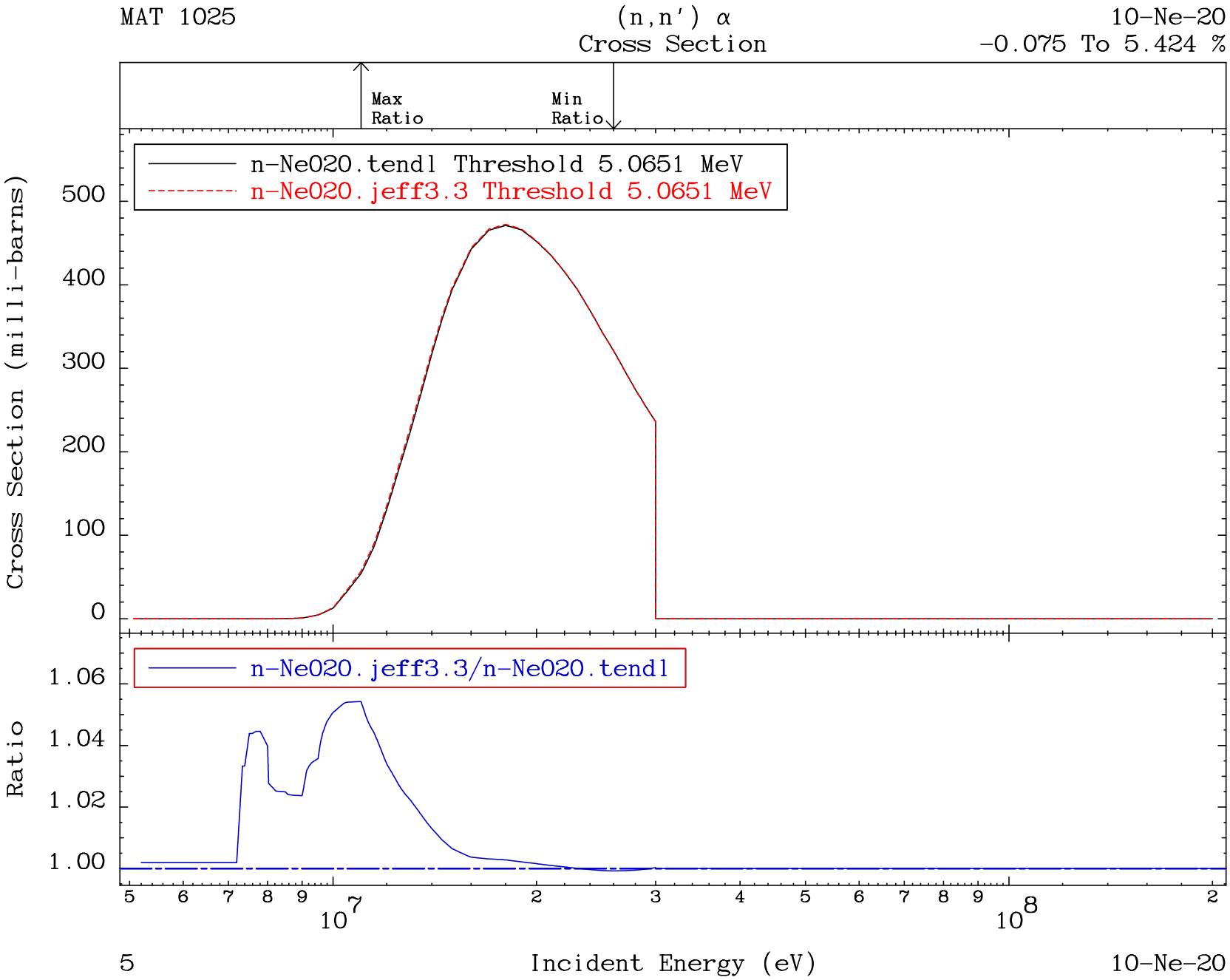
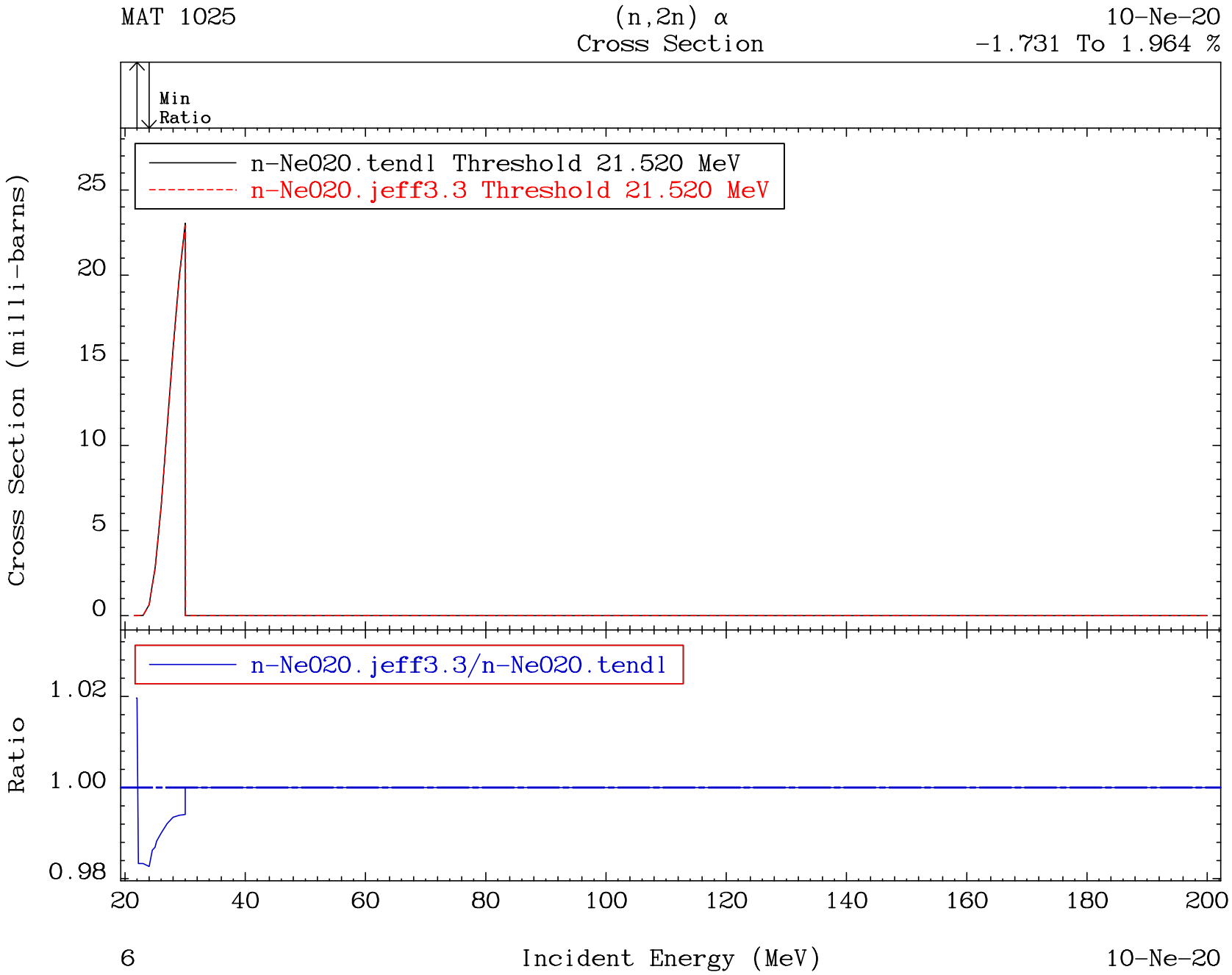

MAT 1025
Total
Cross Section
10-Ne-20
-88.31 To 235.6 %
Max
Ratio
Min
Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
1
10-Ne-20

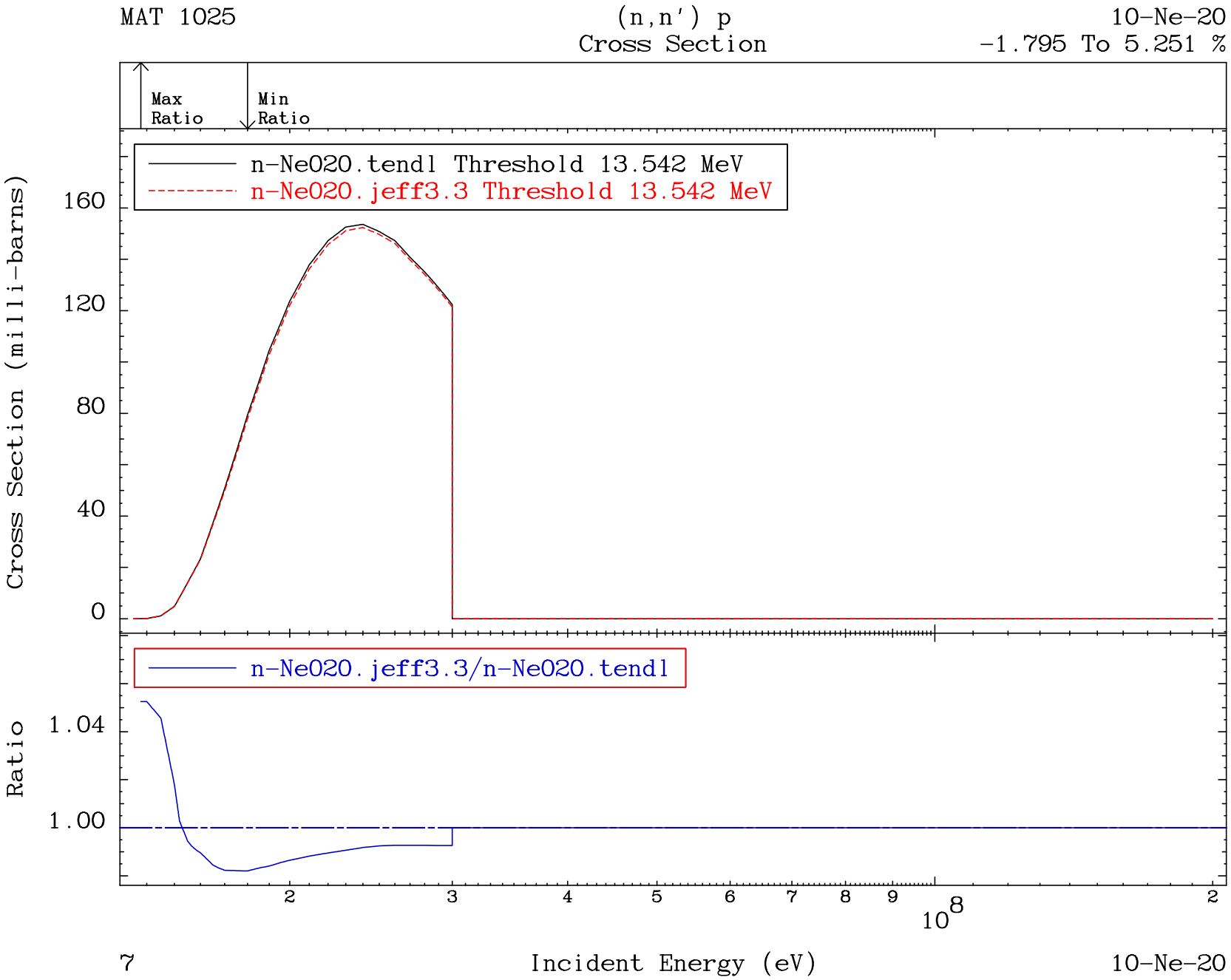

MAT 1025
Elastic
Cross Section
10-Ne-20
-88.30 To 235.7 %
Max Ratio
Min Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
2
10-Ne-20

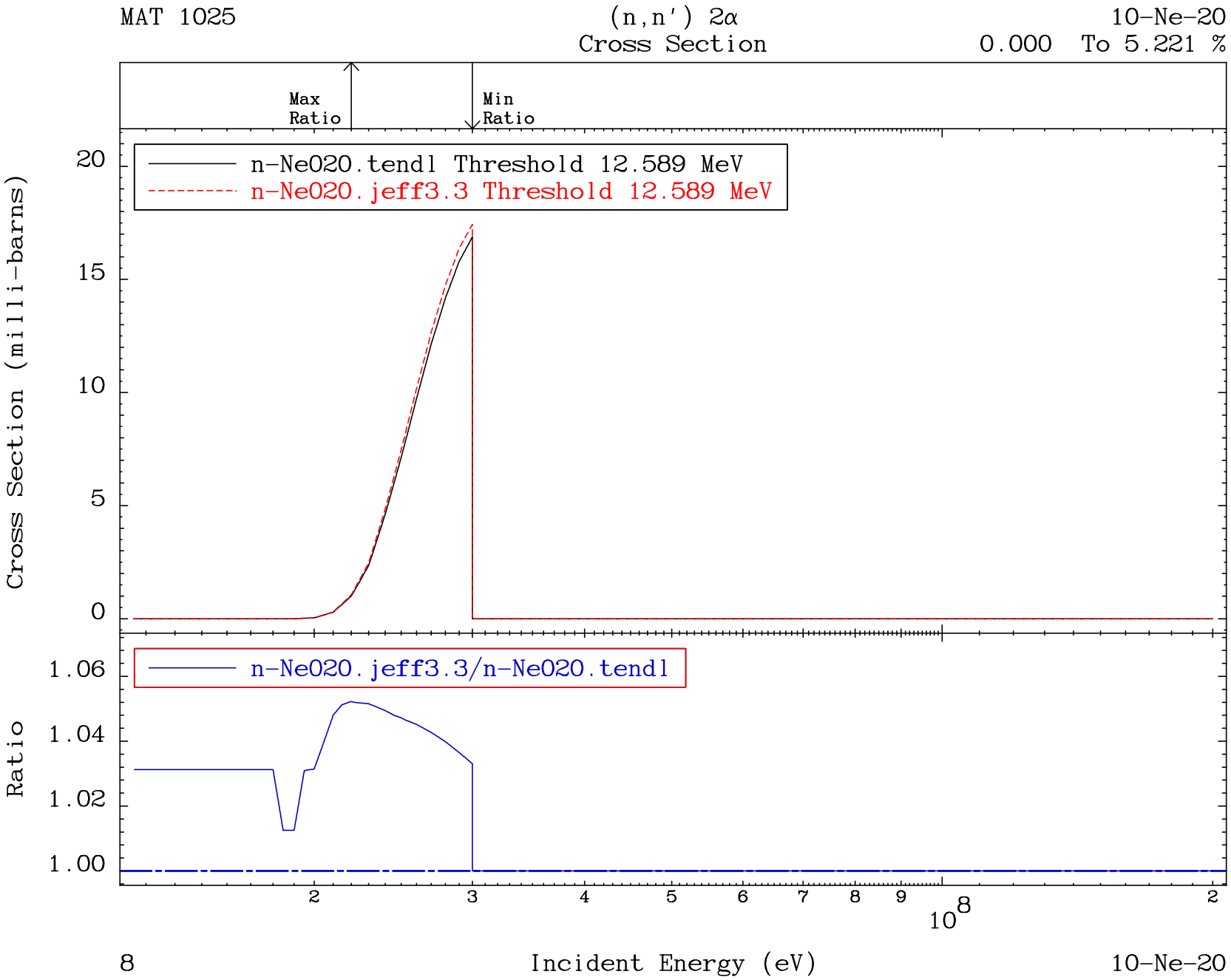

MAT 1025
Inelastic
Cross Section
10-Ne-20
-1.817 To 9999. %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 2.5369 MeV
n-Ne020.jeff3.3 Threshold 2.2010 MeV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
3
Incident Energy (eV)
10-Ne-20

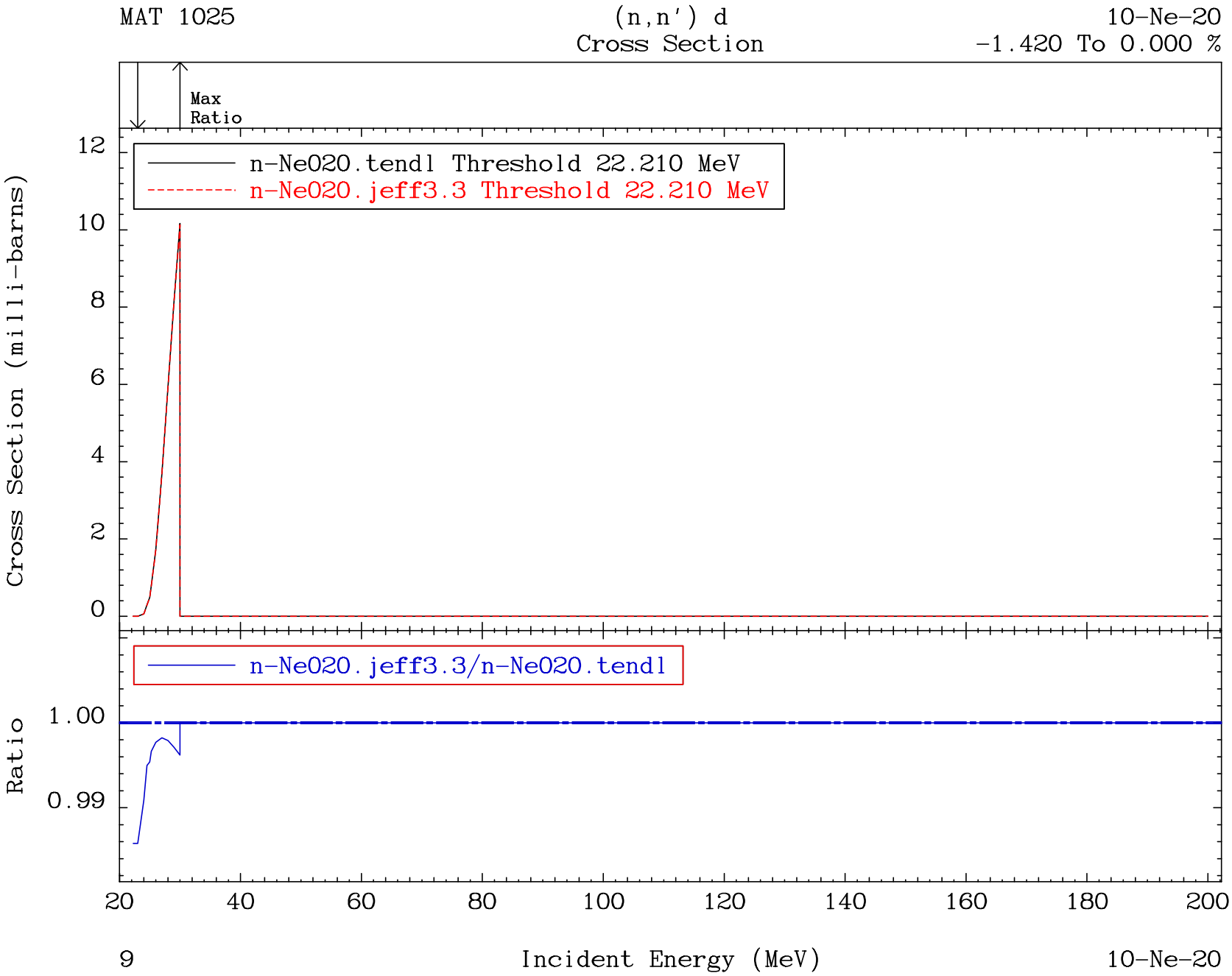

MAT 1025
(n,2n)
Cross Section
10-Ne-20
-2.355 To 0.000 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 17.813 MeV
n-Ne020.jeff3.3 Threshold 17.813 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.99
0.98
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
10-Ne-20

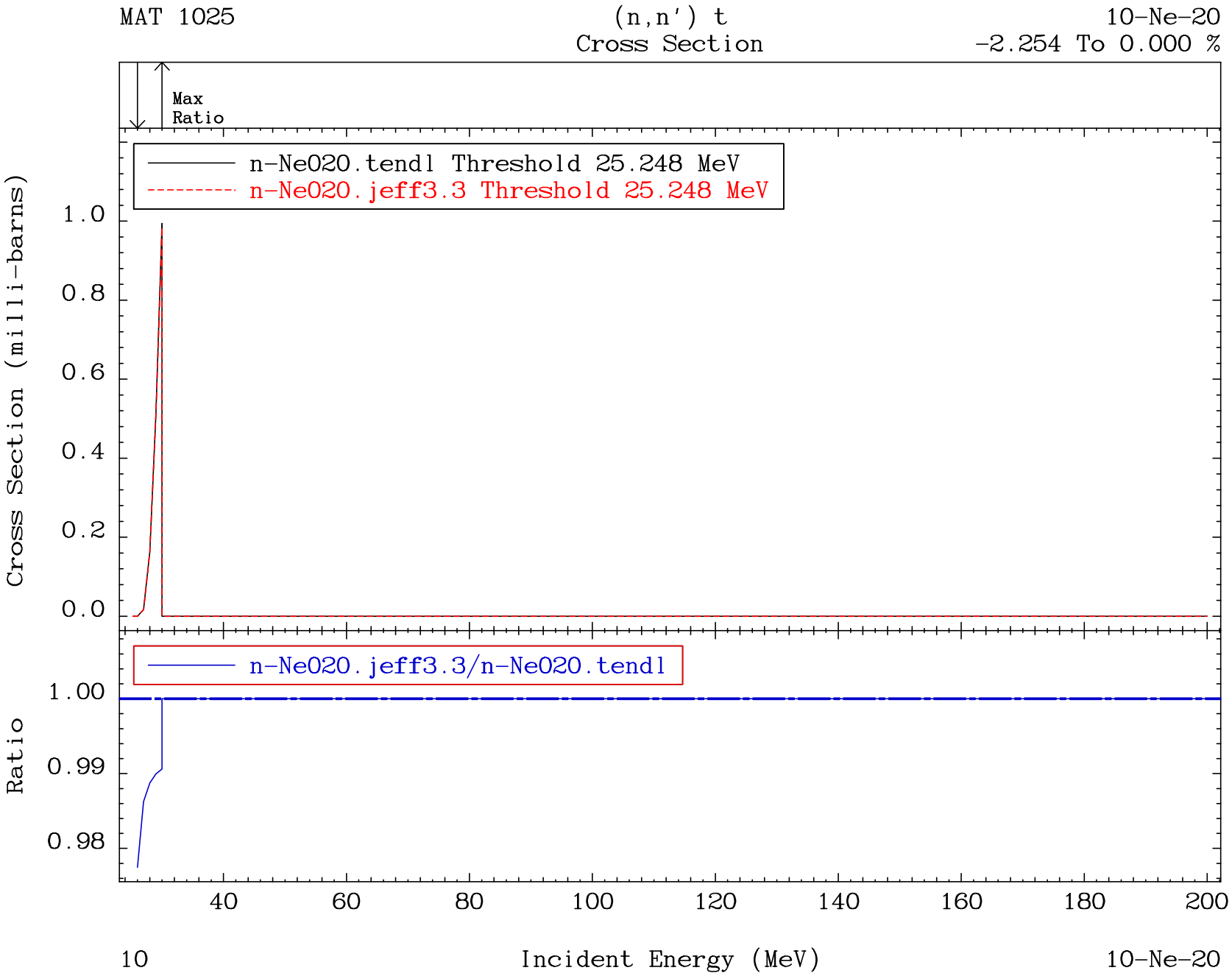

MAT 1025
(n,n') α
Cross Section
10-Ne-20
-0.075 To 5.424 %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 5.0651 MeV
n-Ne020.jeff3.3 Threshold 5.0651 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.06
1.04
1.02
1.00
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
10-Ne-20

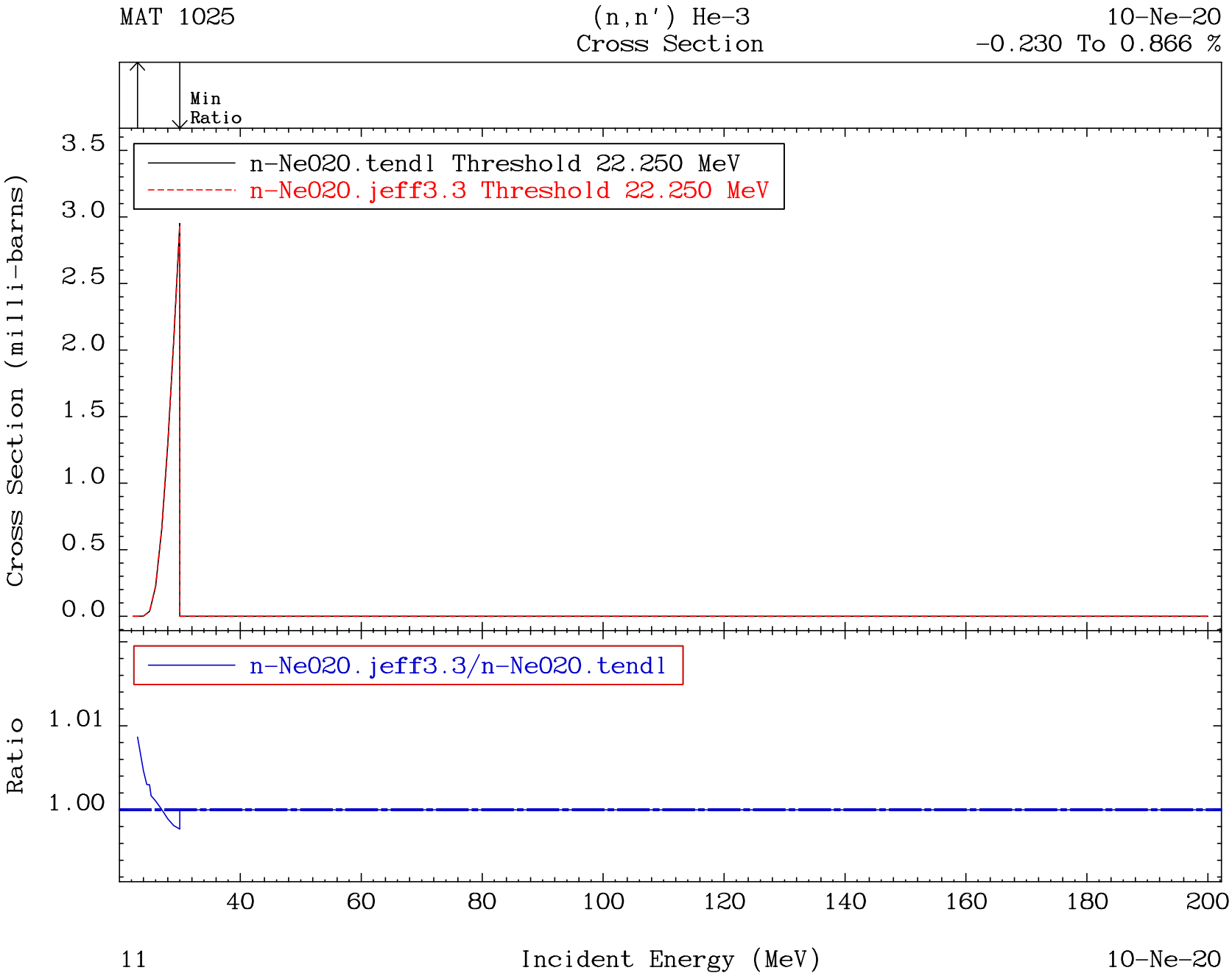

MAT 1025
(n,2n) α
Cross Section
10-Ne-20
-1.731 To 1.964 %
Min
Ratio
n-Ne020.tendl Threshold 21.520 MeV
n-Ne020.jeff3.3 Threshold 21.520 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.02
1.00
0.98
20
40
60
80
100
120
140
160
180
200
6
Incident Energy (MeV)
10-Ne-20

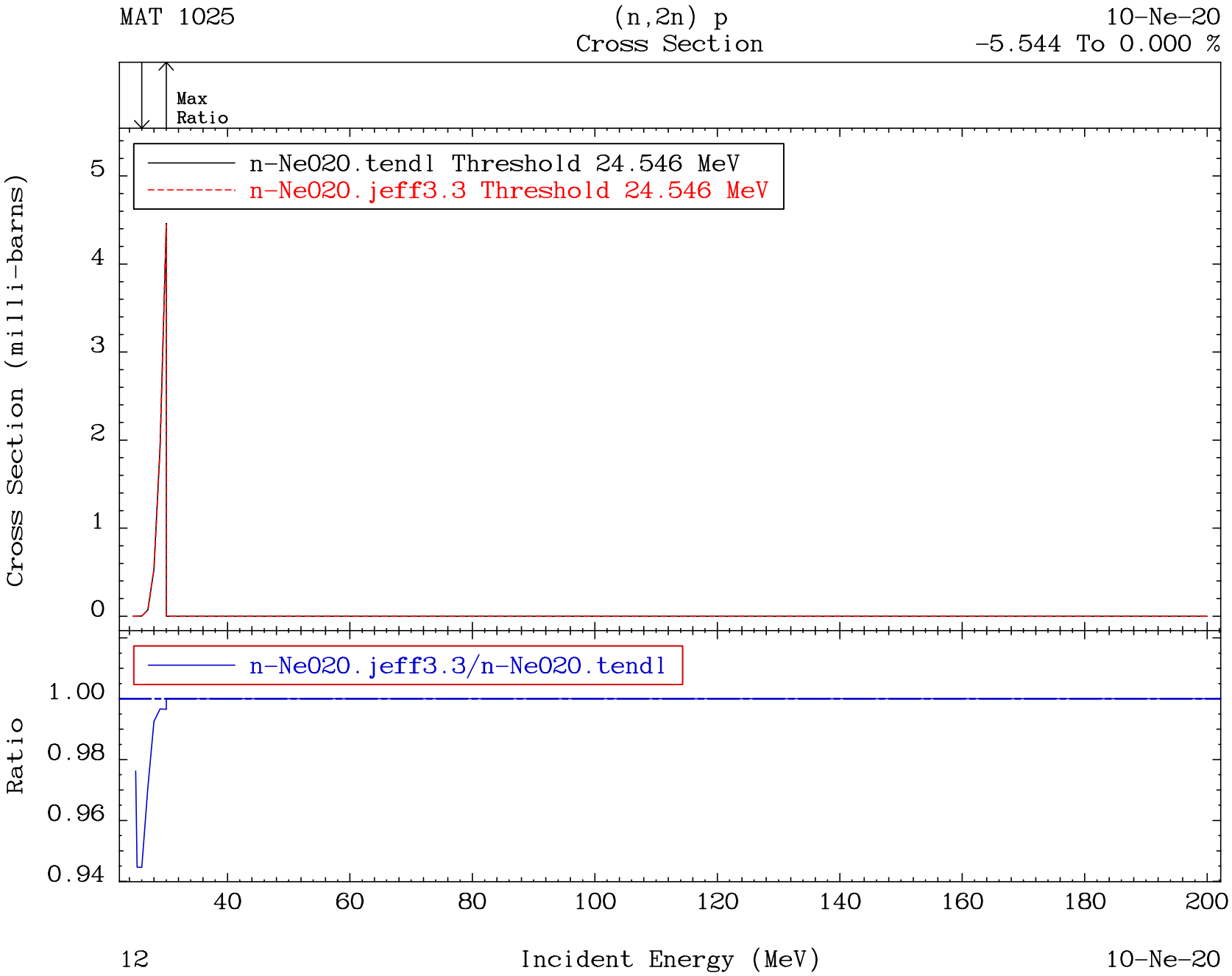

MAT 1025
(n,n') p
Cross Section
10-Ne-20
-1.795 To 5.251 %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 13.542 MeV
n-Ne020.jeff3.3 Threshold 13.542 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.04
1.00
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
10-Ne-20

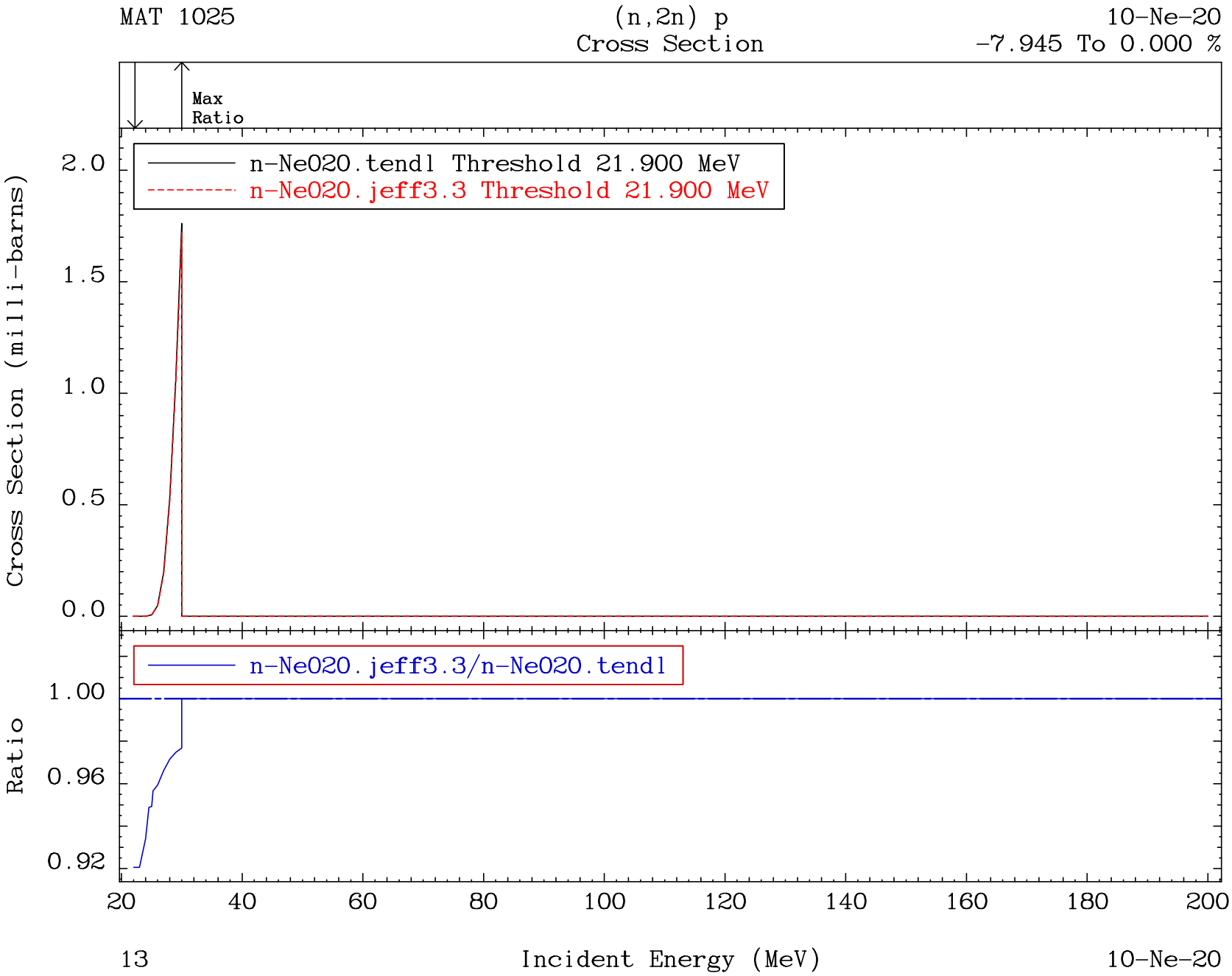

MAT 1025
(n,n') 2α
Cross Section
10-Ne-20
0.000 To 5.221 %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 12.589 MeV
n-Ne020.jeff3.3 Threshold 12.589 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.06
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
10-Ne-20

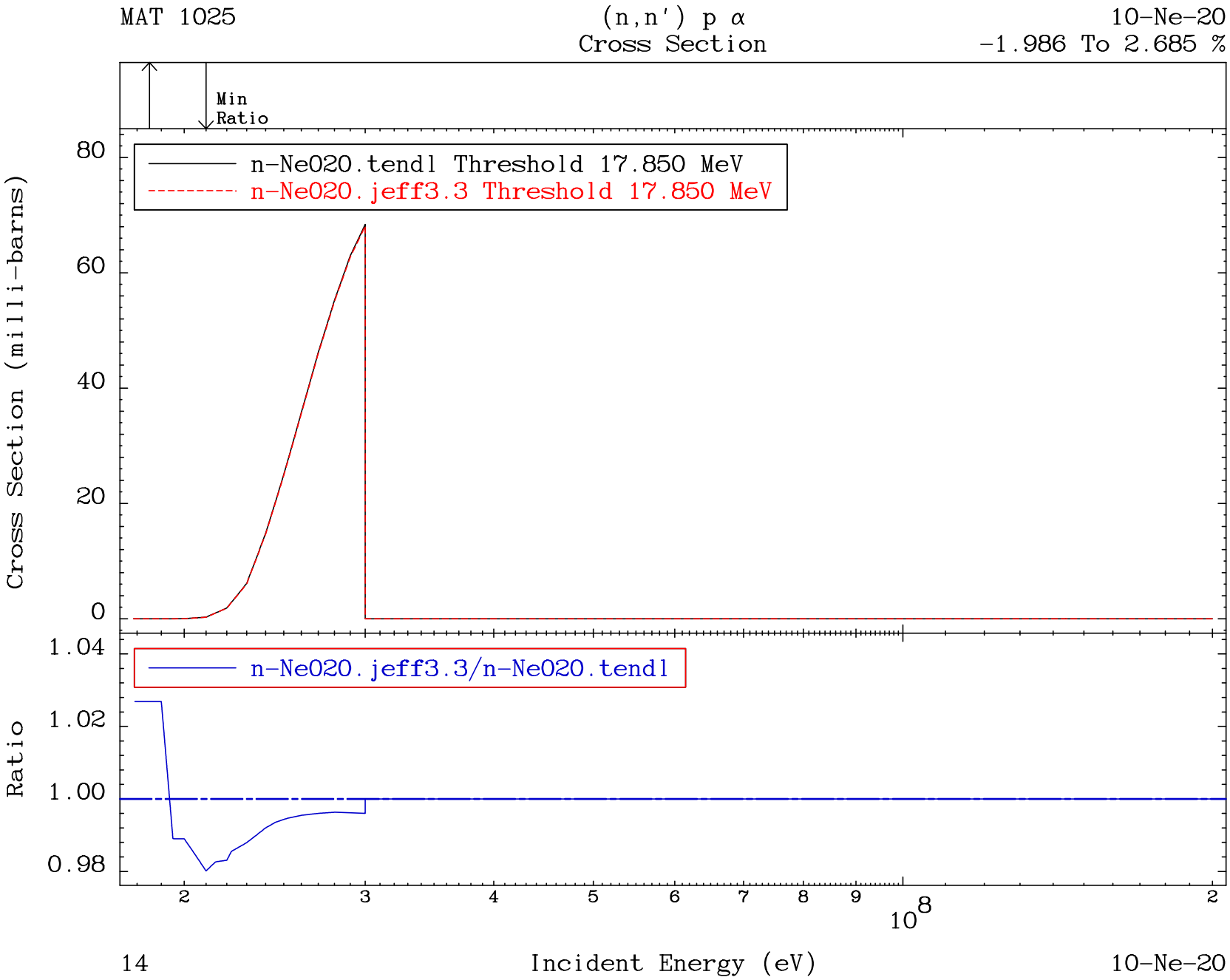

MAT 1025
(n,n') d
Cross Section
10-Ne-20
-1.420 To 0.000 %
Max
Ratio
n-Ne020.tendl Threshold 22.210 MeV
n-Ne020.jeff3.3 Threshold 22.210 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.99
20
40
60
80
100
120
140
160
180
200
9
Incident Energy (MeV)
10-Ne-20

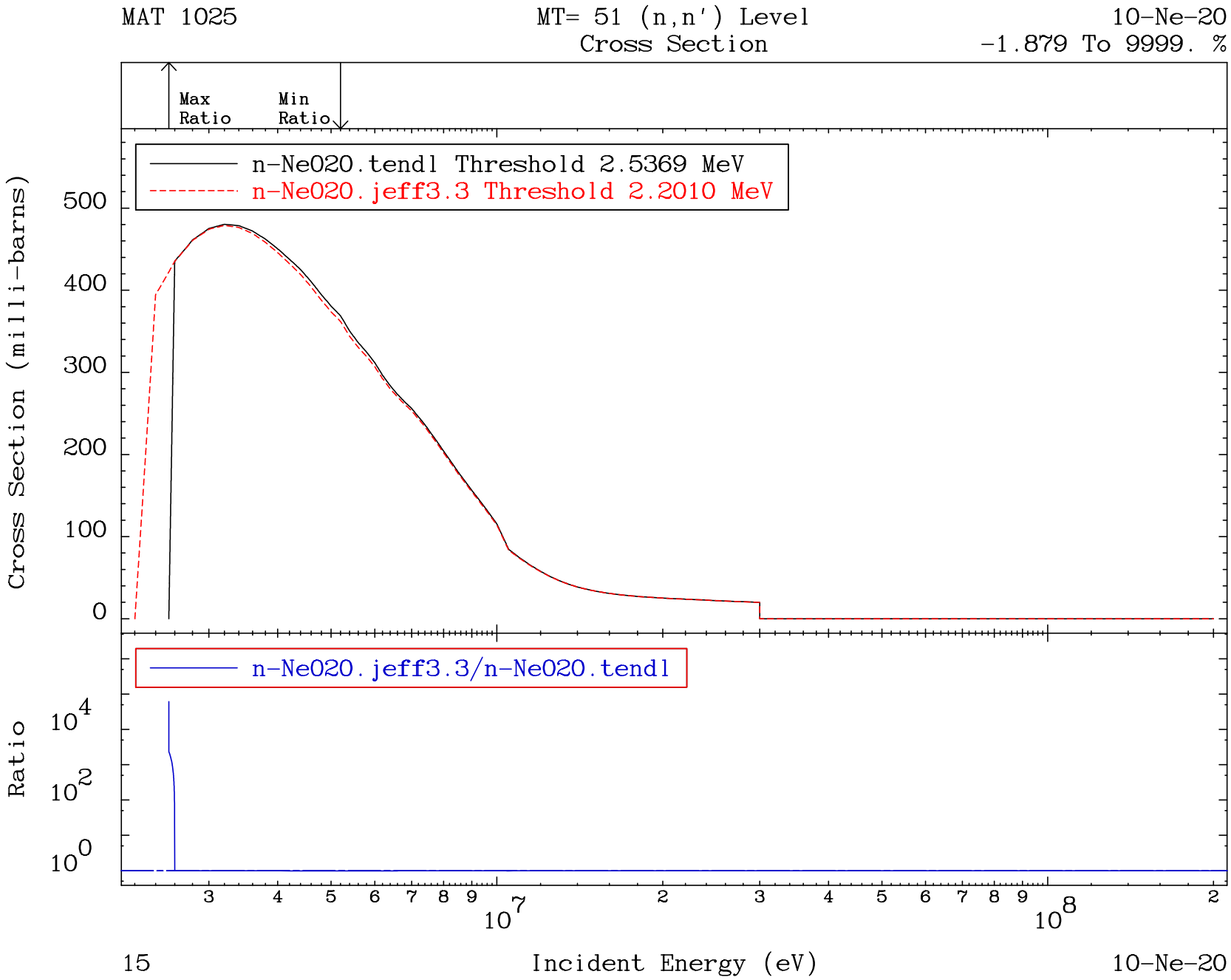

MAT 1025
(n,n') t
Cross Section
10-Ne-20
-2.254 To 0.000 %
Max
Ratio
n-Ne020.tendl Threshold 25.248 MeV
n-Ne020.jeff3.3 Threshold 25.248 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.99
0.98
40
60
80
100
120
140
160
180
200
10
Incident Energy (MeV)
10-Ne-20

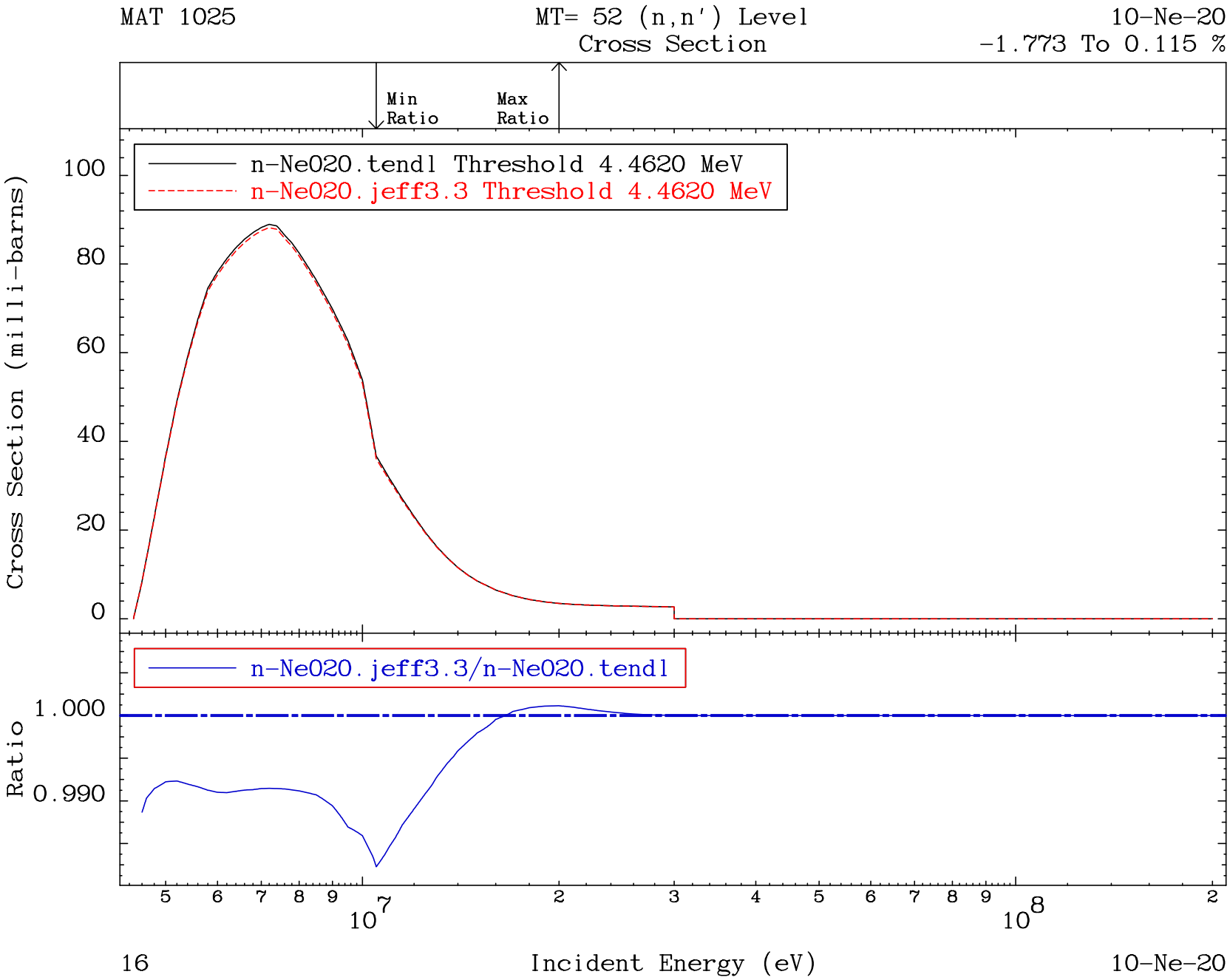

MAT 1025
(n,n') He-3
Cross Section
10-Ne-20
-0.230 To 0.866 %
Min
Ratio
n-Ne020.tendl Threshold 22.250 MeV
n-Ne020.jeff3.3 Threshold 22.250 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
40
60
80
100
120
140
160
180
200
11
Incident Energy (MeV)
10-Ne-20

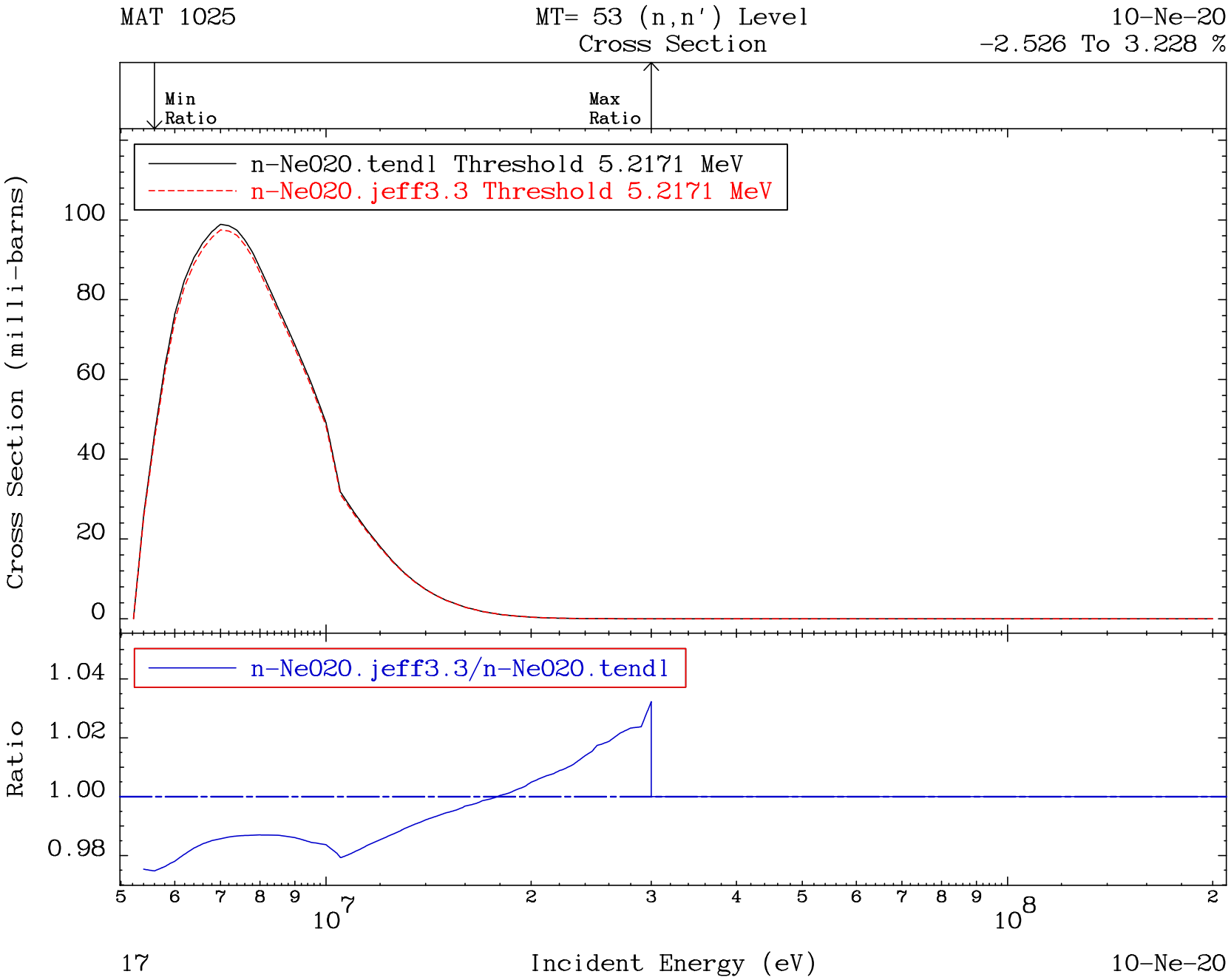

MAT 1025
(n,2n) p
Cross Section
10-Ne-20
-5.544 To 0.000 %
Max
Ratio
n-Ne020.tendl Threshold 24.546 MeV
n-Ne020.jeff3.3 Threshold 24.546 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.98
0.96
0.94
40
60
80
100
120
140
160
180
200
12
Incident Energy (MeV)
10-Ne-20

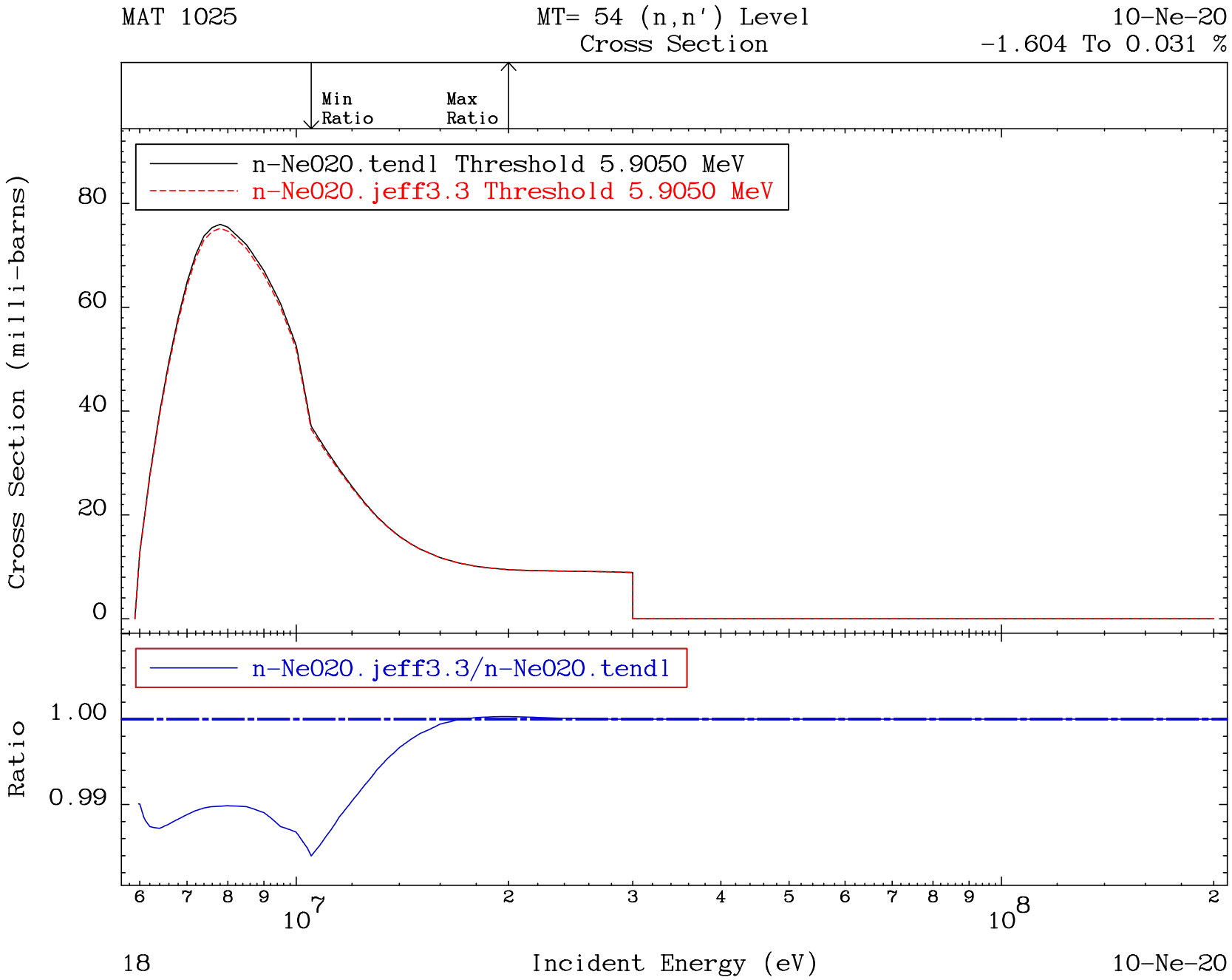

MAT 1025
(n,2n) p
Cross Section
10-Ne-20
-7.945 To 0.000 %
Max
Ratio
n-Ne020.tendl Threshold 21.900 MeV
n-Ne020.jeff3.3 Threshold 21.900 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.96
0.92
20
40
60
80
100
120
140
160
180
200
13
Incident Energy (MeV)
10-Ne-20

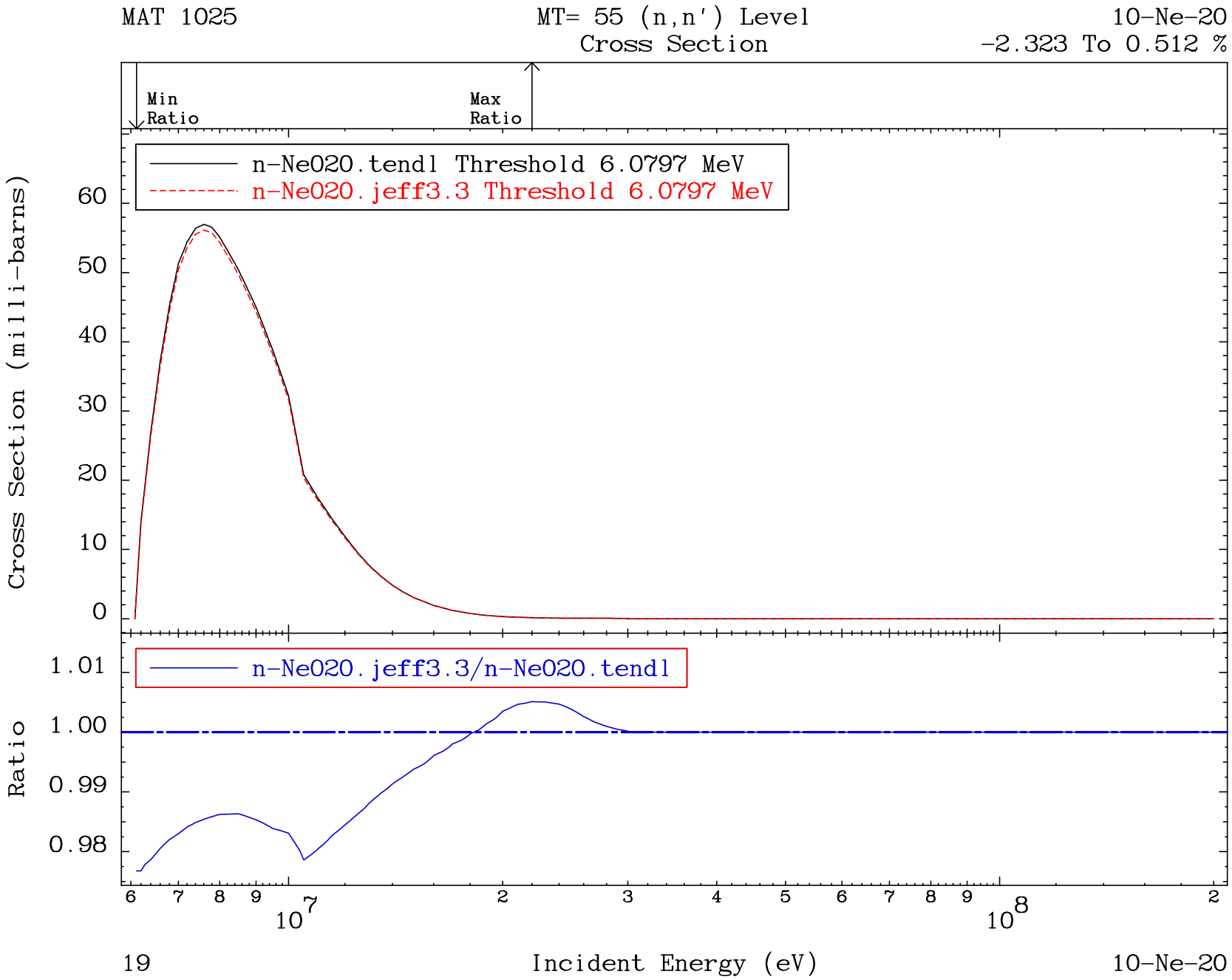

MAT 1025
(n,n') p α
Cross Section
10-Ne-20
-1.986 To 2.685 %
Min
Ratio
n-Ne020.tendl Threshold 17.850 MeV
n-Ne020.jeff3.3 Threshold 17.850 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.04
1.02
1.00
0.98
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
10-Ne-20

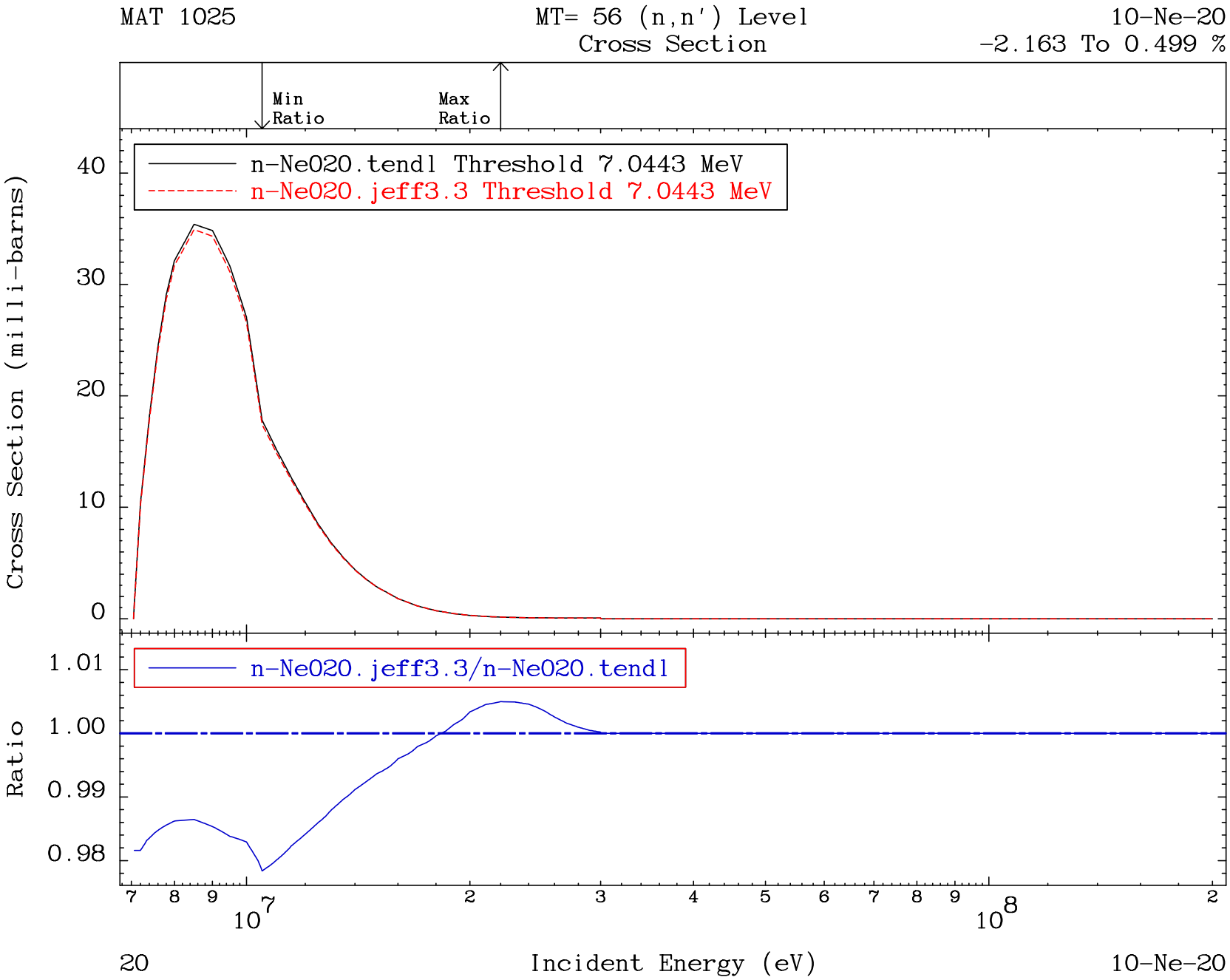

MAT 1025
MT= 51 (n,n') Level
Cross Section
10-Ne-20
-1.879 To 9999. %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 2.5369 MeV
n-Ne020.jeff3.3 Threshold 2.2010 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
15
Incident Energy (eV)
10-Ne-20

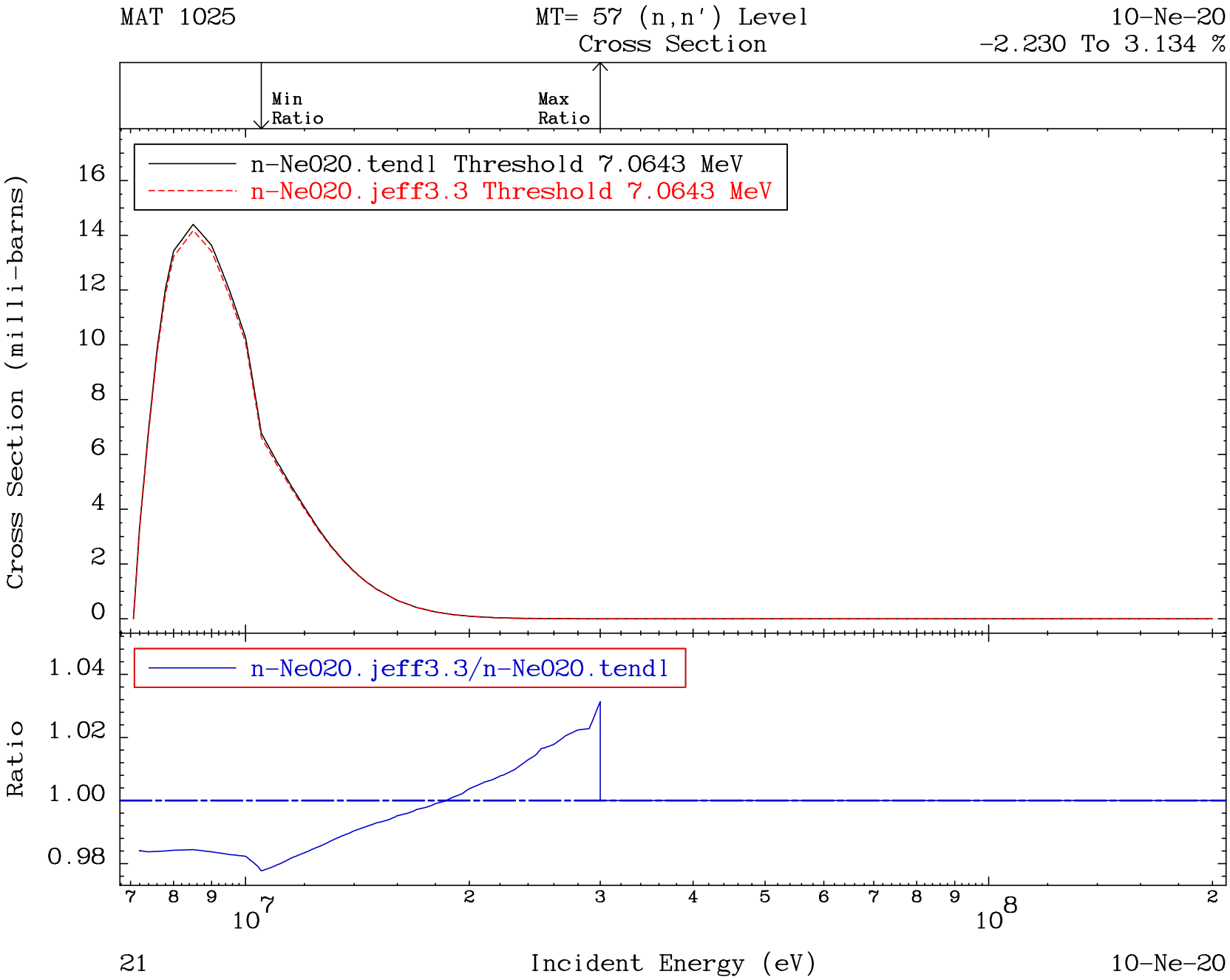

MAT 1025
MT= 52 (n,n') Level
Cross Section
10-Ne-20
-1.773 To 0.115 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 4.4620 MeV
n-Ne020.jeff3.3 Threshold 4.4620 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.000
0.990
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
10-Ne-20

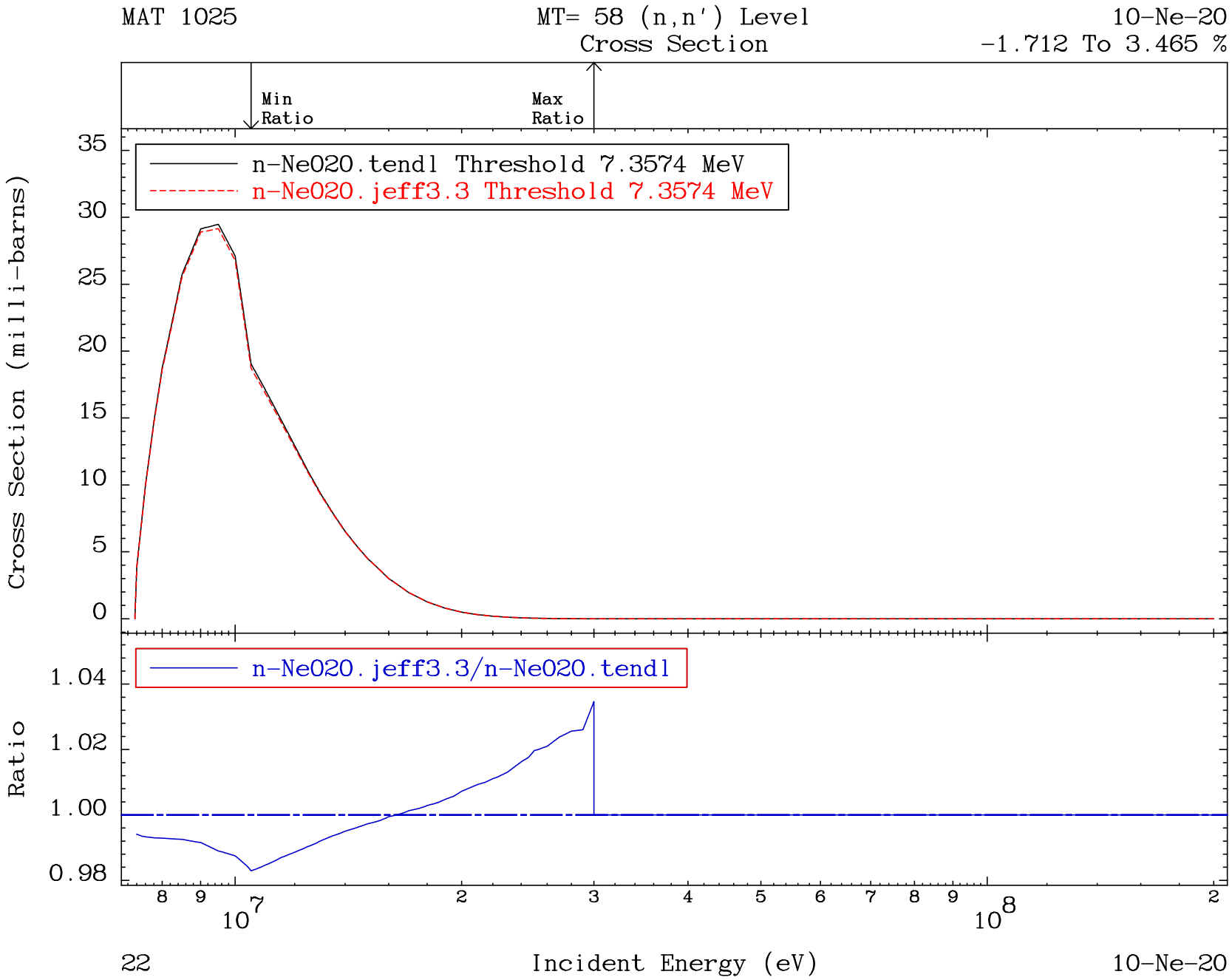

MAT 1025
MT= 53 (n,n') Level
Cross Section
10-Ne-20
-2.526 To 3.228 %
Min
Ratio
Max
Ratio
n-Ne020.tendl Threshold 5.2171 MeV
n-Ne020.jeff3.3 Threshold 5.2171 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.04
1.02
1.00
0.98
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
10-Ne-20

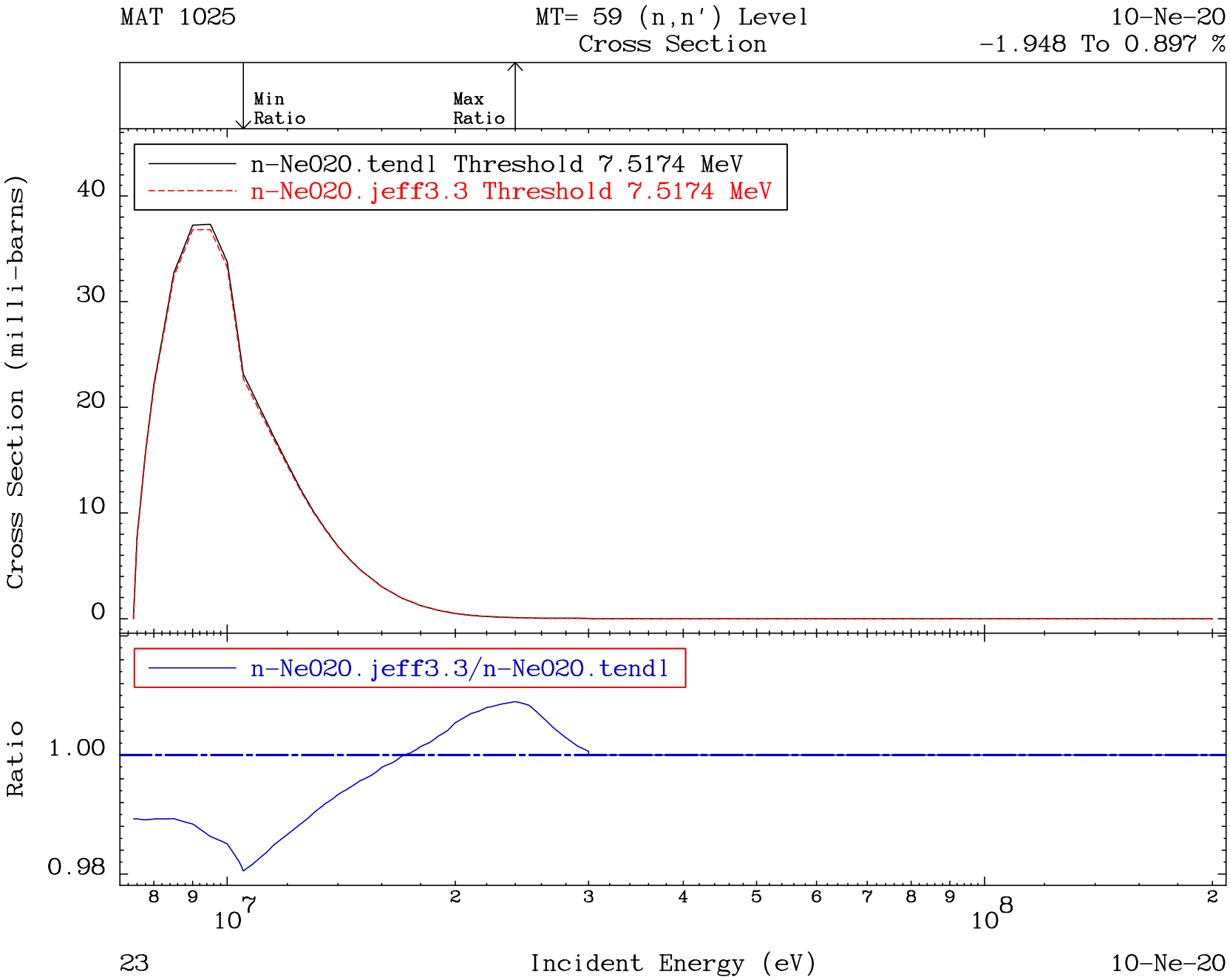

MAT 1025
MT= 54 (n,n') Level
Cross Section
10-Ne-20
-1.604 To 0.031 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 5.9050 MeV
n-Ne020.jeff3.3 Threshold 5.9050 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
10-Ne-20

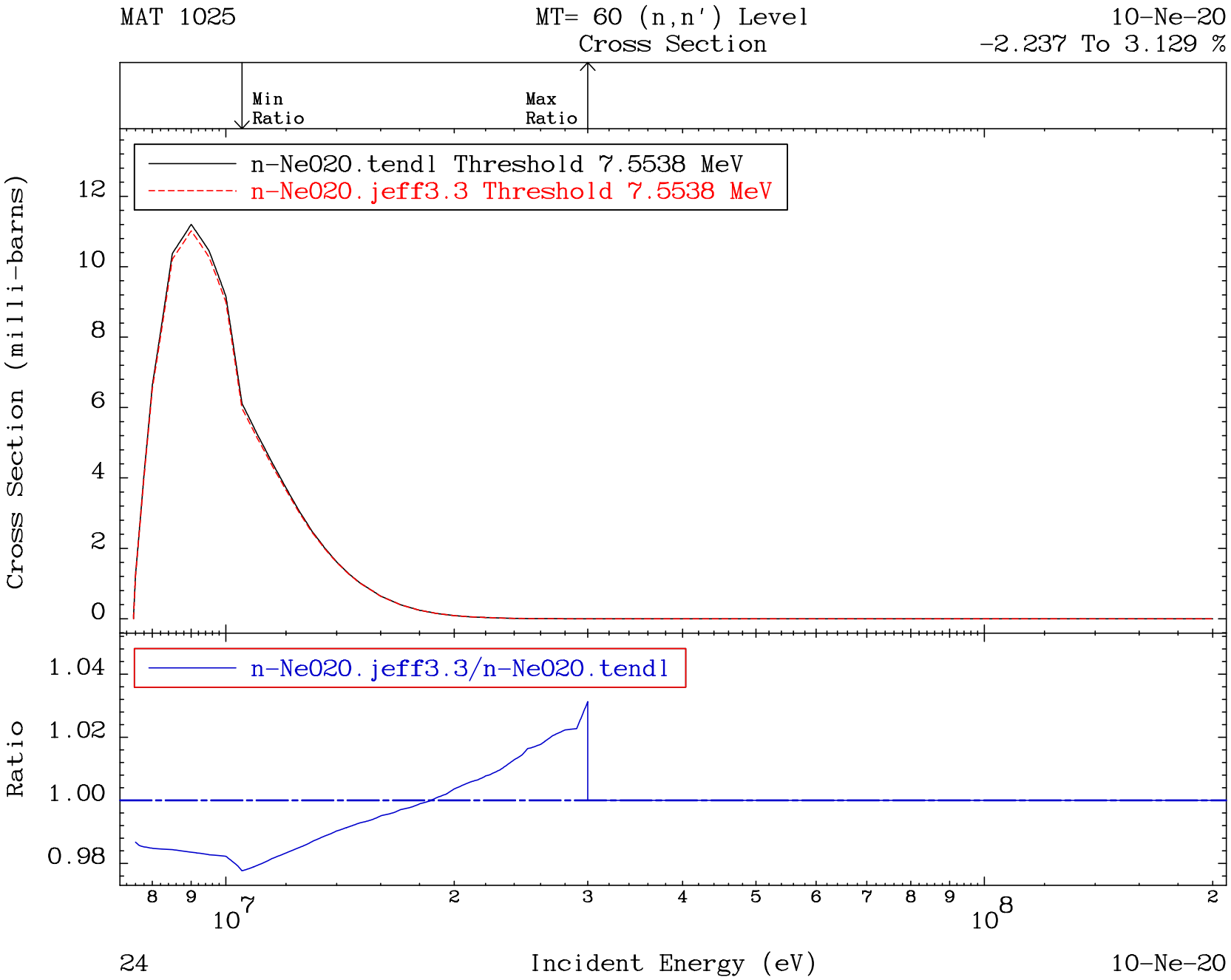

MAT 1025
MT= 55 (n,n') Level
Cross Section
10-Ne-20
-2.323 To 0.512 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 6.0797 MeV
n-Ne020.jeff3.3 Threshold 6.0797 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
10-Ne-20

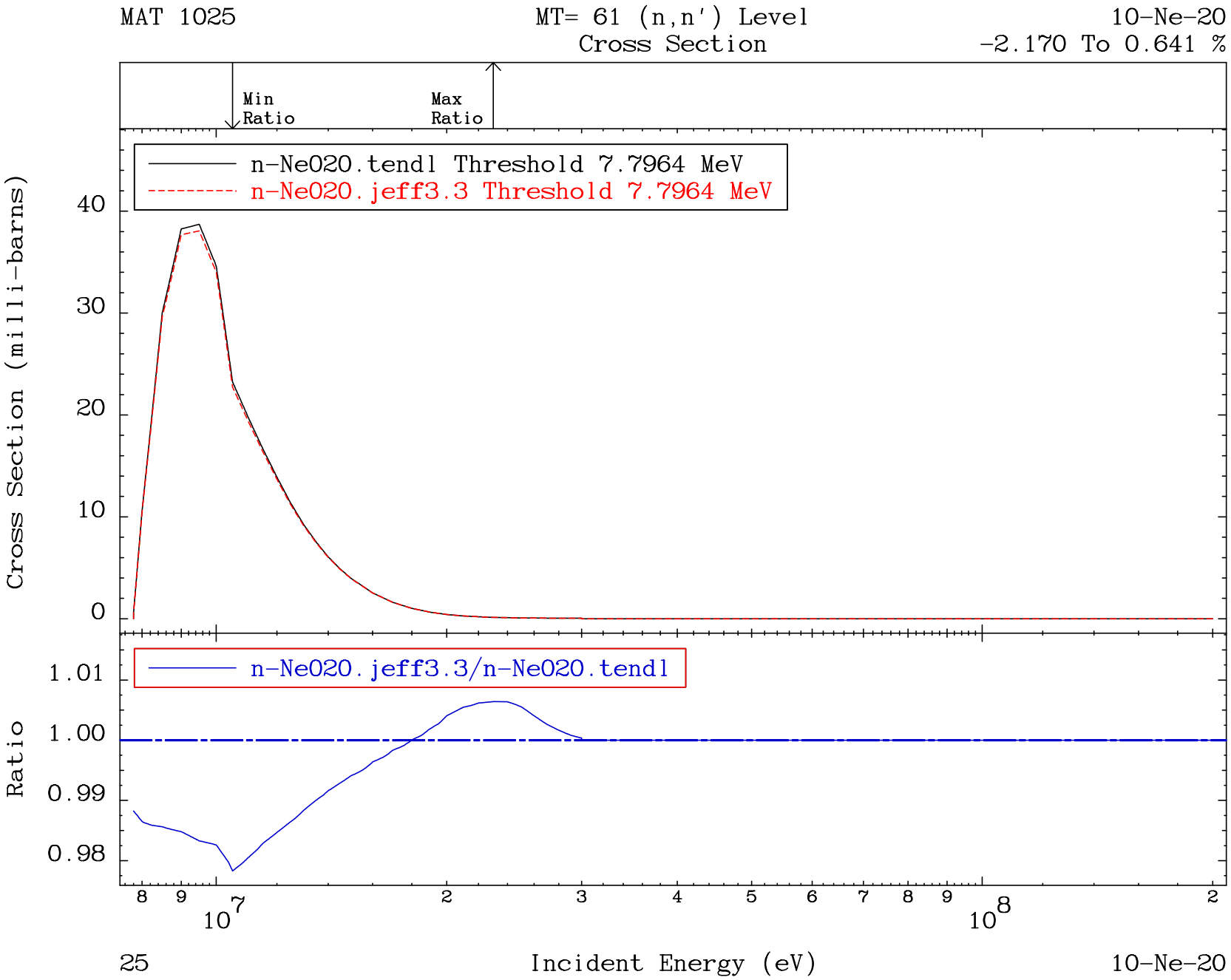

MAT 1025
MT= 56 (n,n') Level
Cross Section
10-Ne-20
-2.163 To 0.499 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 7.0443 MeV
n-Ne020.jeff3.3 Threshold 7.0443 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
10-Ne-20

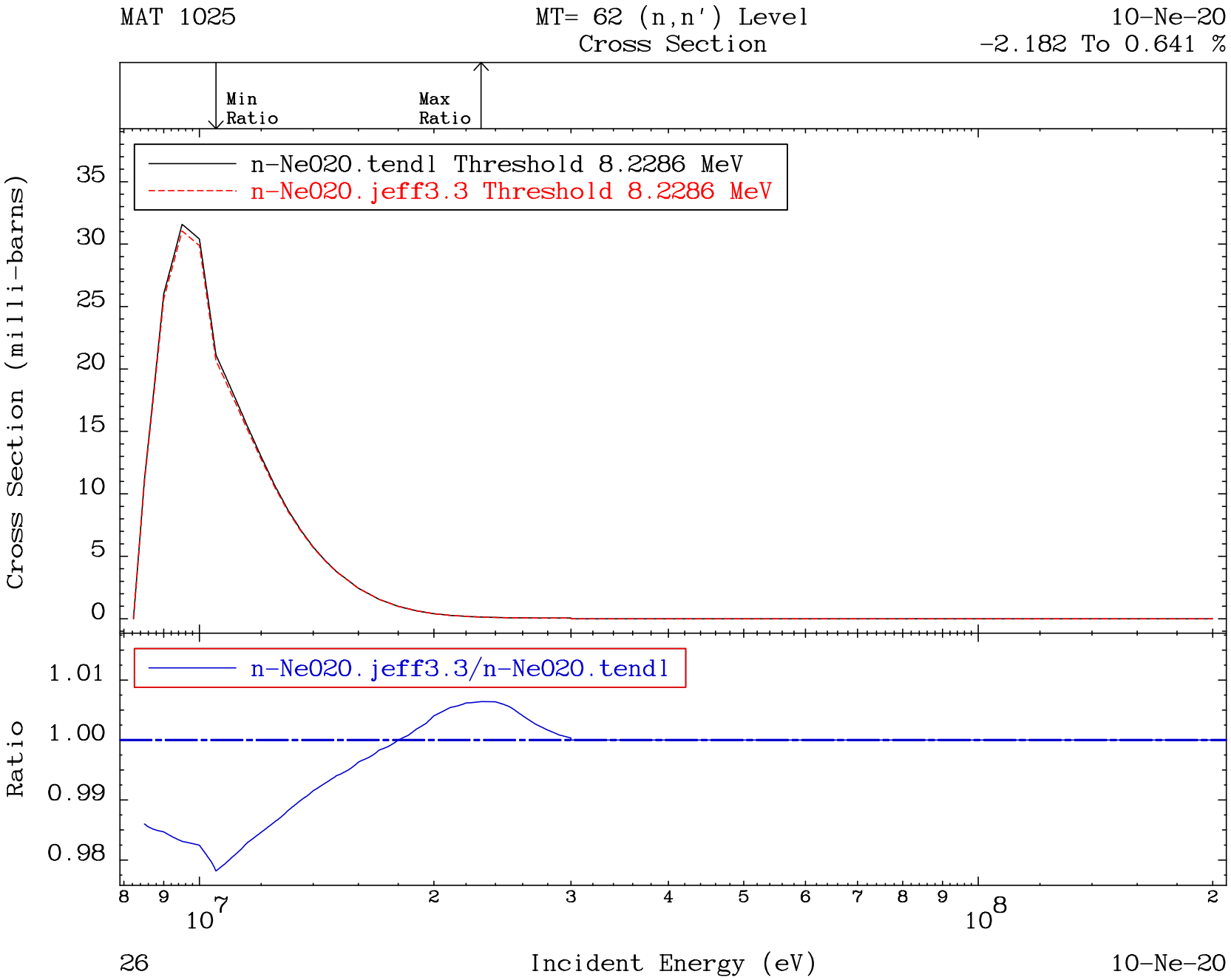

MAT 1025
MT= 57 (n,n') Level
Cross Section
10-Ne-20
-2.230 To 3.134 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 7.0643 MeV
n-Ne020.jeff3.3 Threshold 7.0643 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.04
1.02
1.00
0.98
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
10-Ne-20

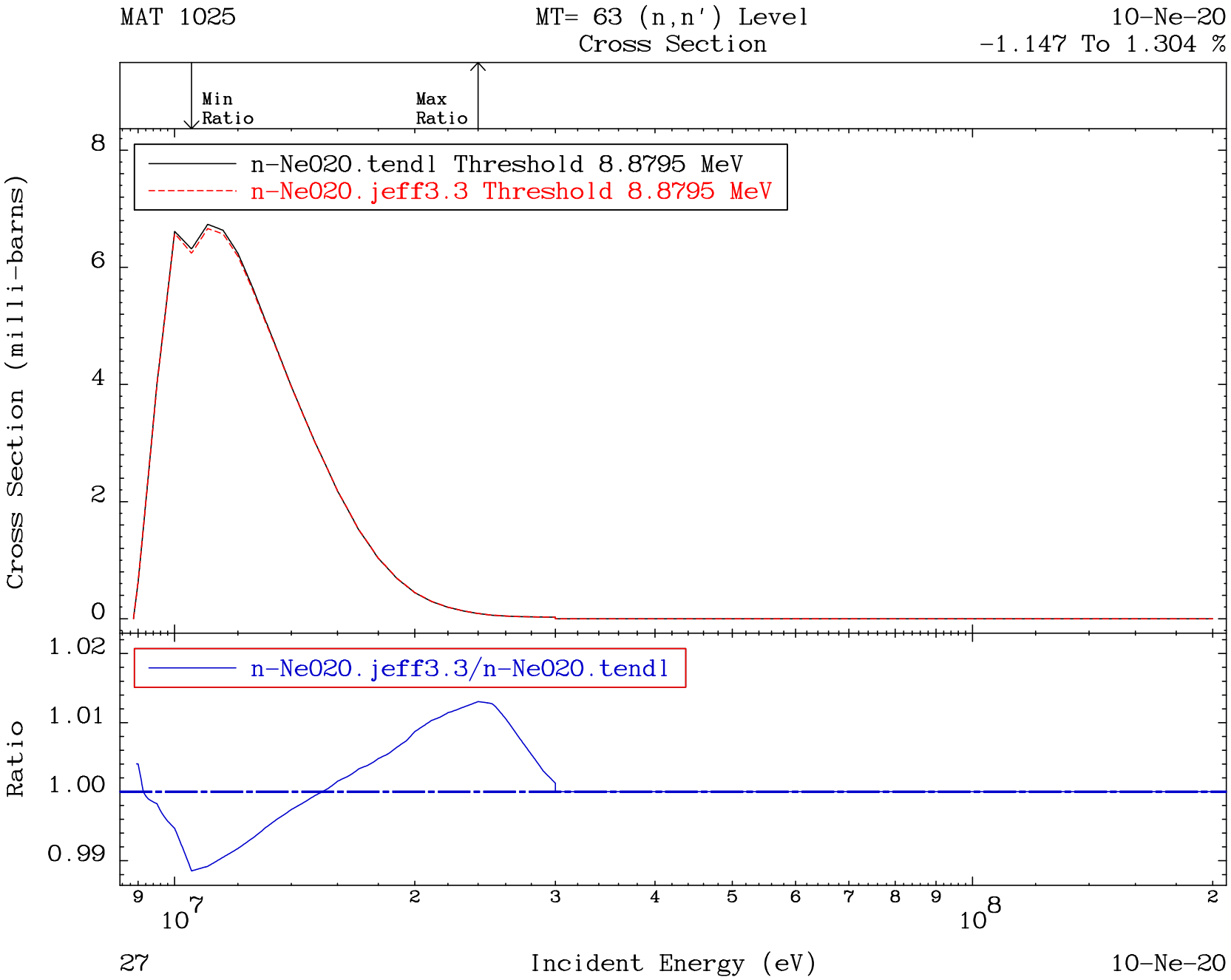

MAT 1025
MT= 58 (n,n') Level
Cross Section
10-Ne-20
-1.712 To 3.465 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 7.3574 MeV
n-Ne020.jeff3.3 Threshold 7.3574 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.04
1.02
1.00
0.98
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
22
Incident Energy (eV)
10-Ne-20

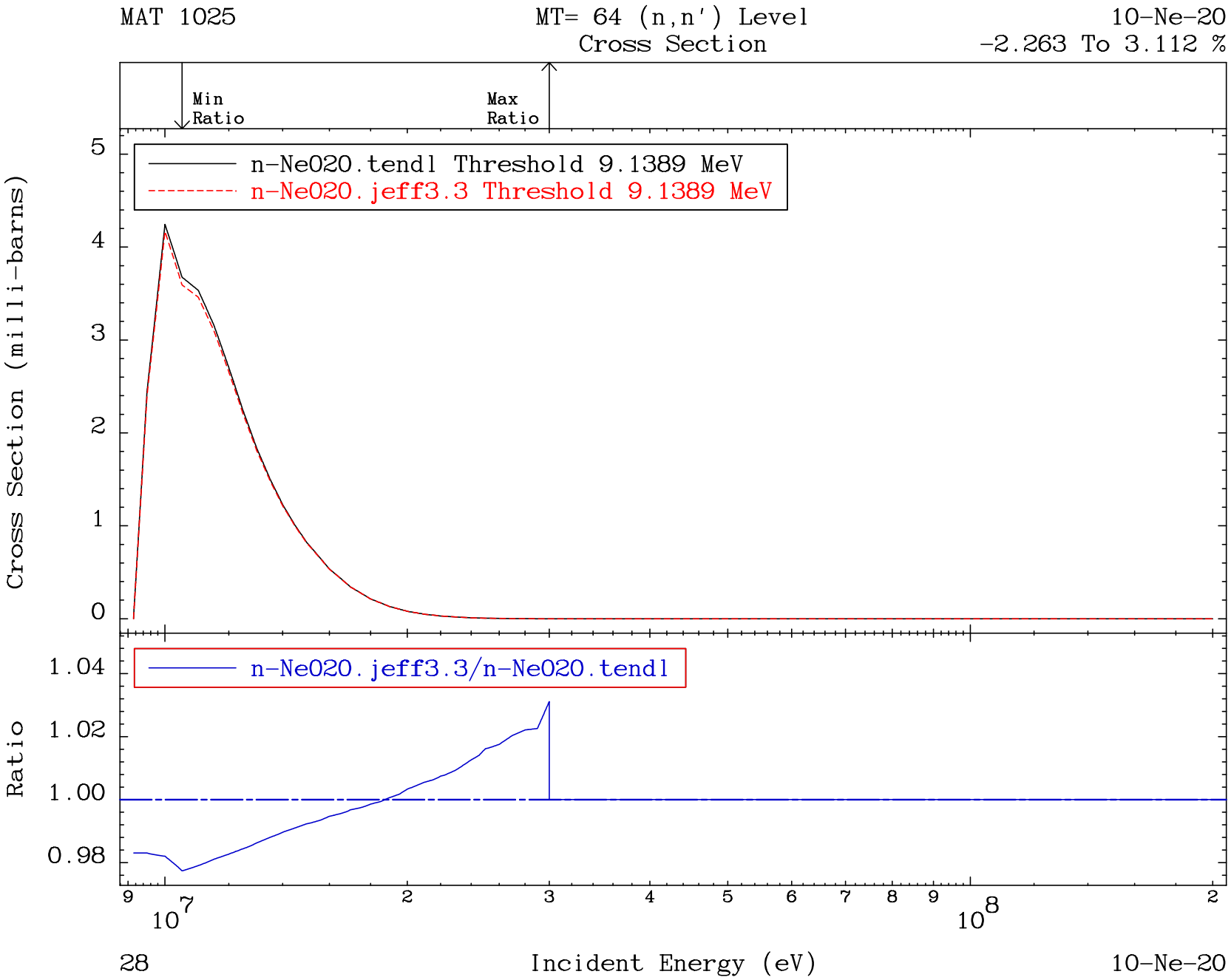

MAT 1025
MT= 59 (n,n') Level
Cross Section
10-Ne-20
-1.948 To 0.897 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 7.5174 MeV
n-Ne020.jeff3.3 Threshold 7.5174 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.98
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
10-Ne-20

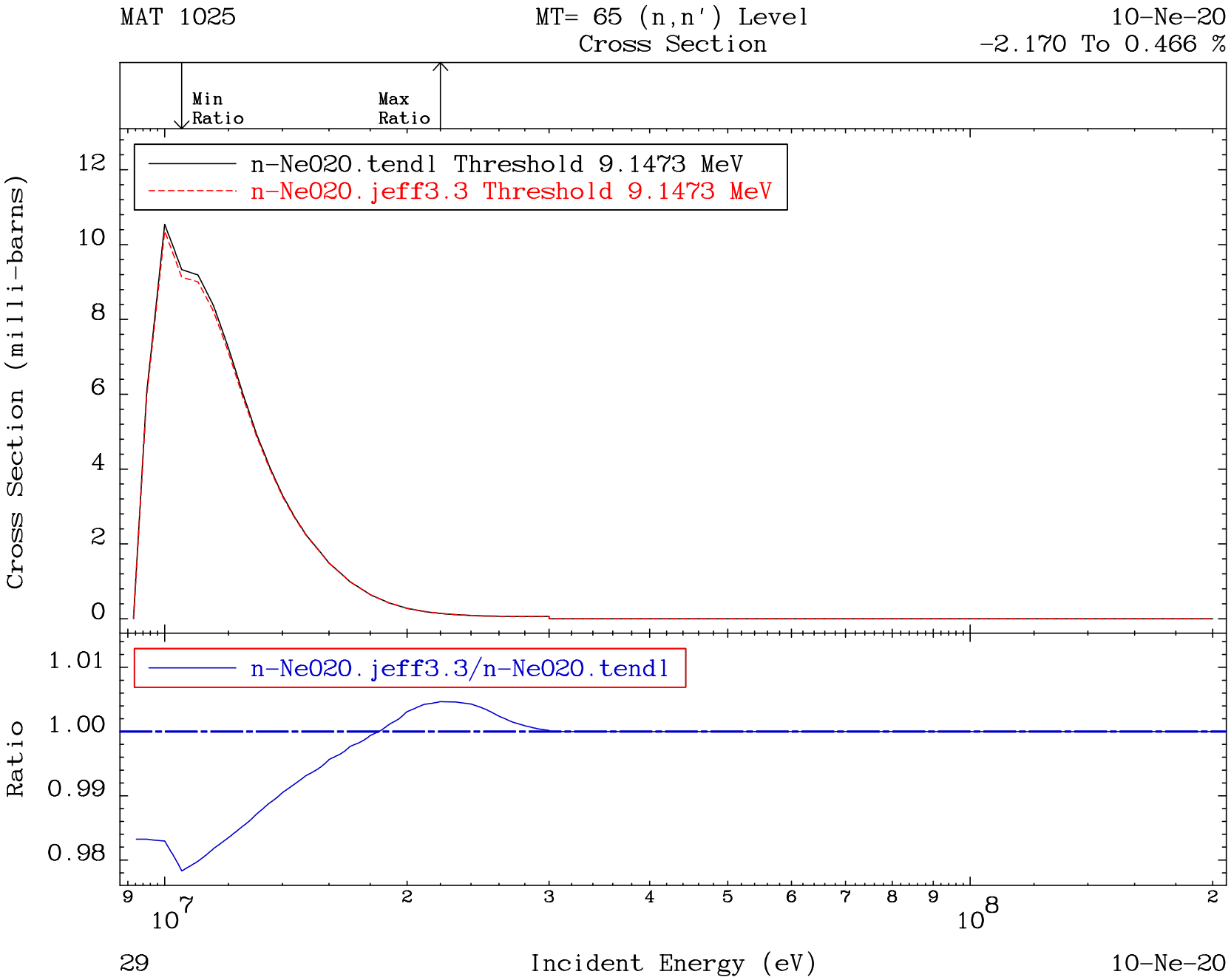

MAT 1025
MT= 60 (n,n') Level
Cross Section
10-Ne-20
-2.237 To 3.129 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 7.5538 MeV
n-Ne020.jeff3.3 Threshold 7.5538 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
0.98
1.00
1.02
1.04
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
10-Ne-20

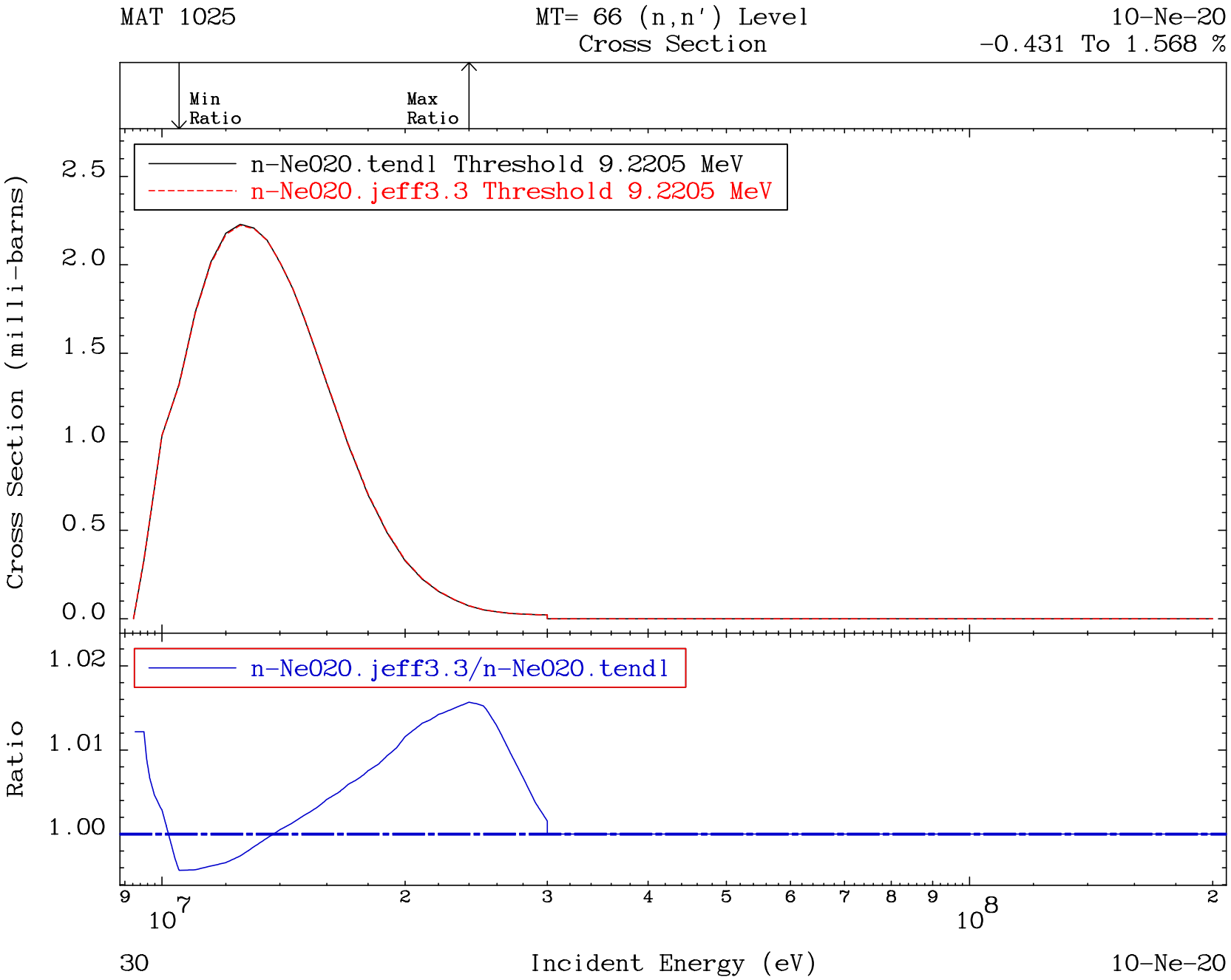

MAT 1025
MT= 61 (n,n') Level
Cross Section
10-Ne-20
-2.170 To 0.641 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 7.7964 MeV
n-Ne020.jeff3.3 Threshold 7.7964 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
10-Ne-20

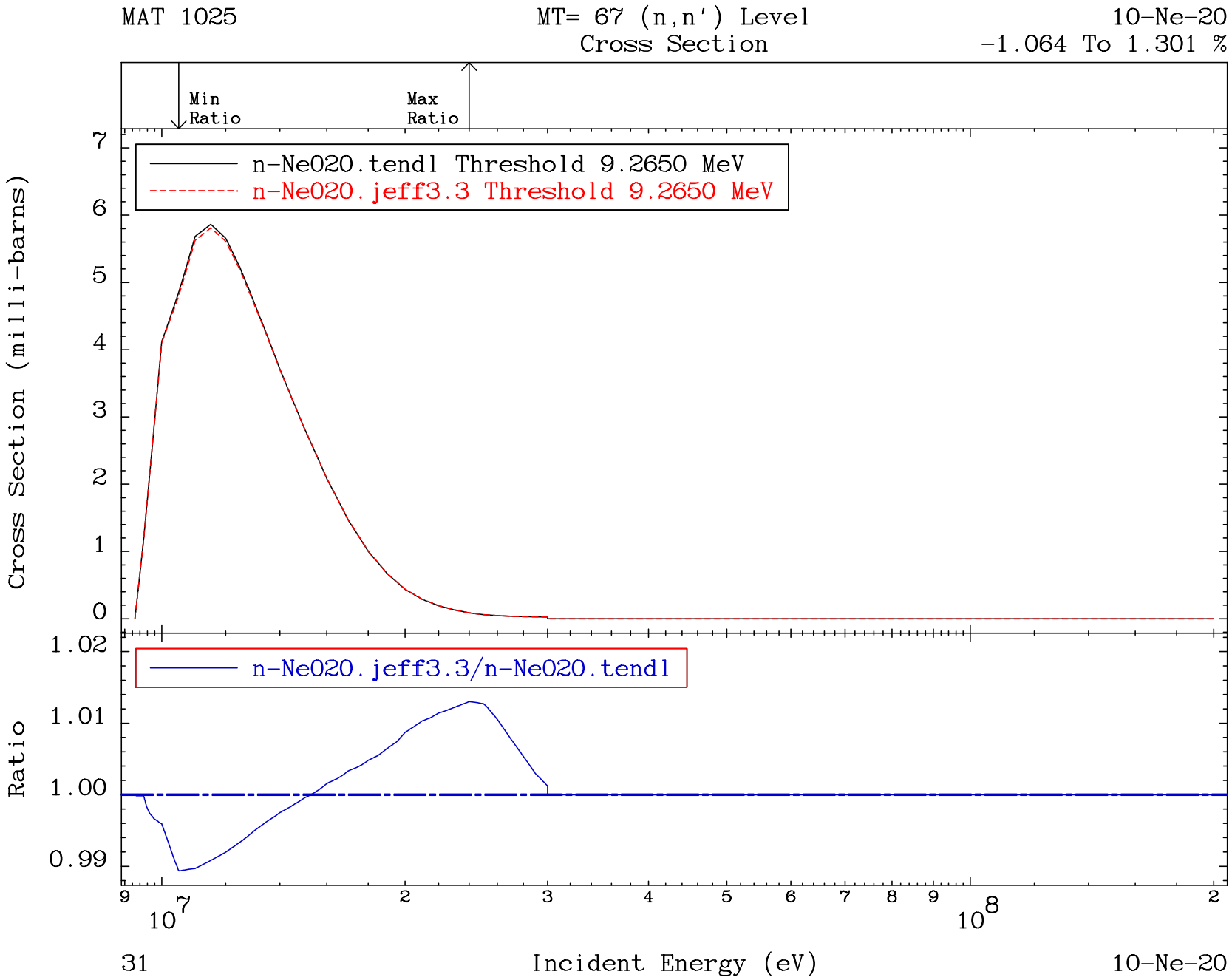

MAT 1025
MT= 62 (n,n') Level
Cross Section
10-Ne-20
-2.182 To 0.641 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 8.2286 MeV
n-Ne020.jeff3.3 Threshold 8.2286 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
10-Ne-20

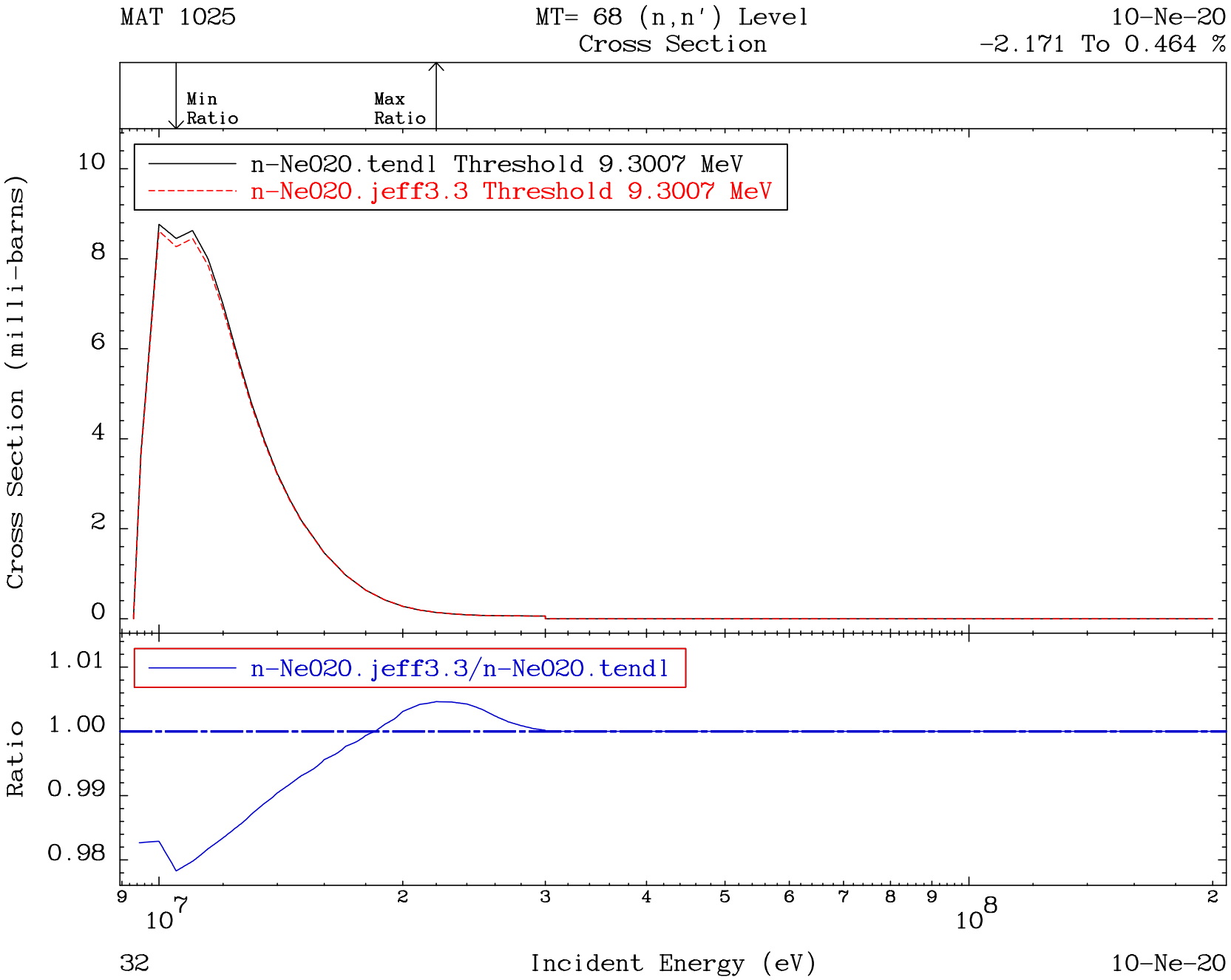

MAT 1025
MT= 63 (n,n') Level
Cross Section
10-Ne-20
-1.147 To 1.304 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 8.8795 MeV
n-Ne020.jeff3.3 Threshold 8.8795 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
0.99
1.00
1.01
1.02
9
10^7
2
3
4
5
6
7
8
9
10^8
2
27
Incident Energy (eV)
10-Ne-20

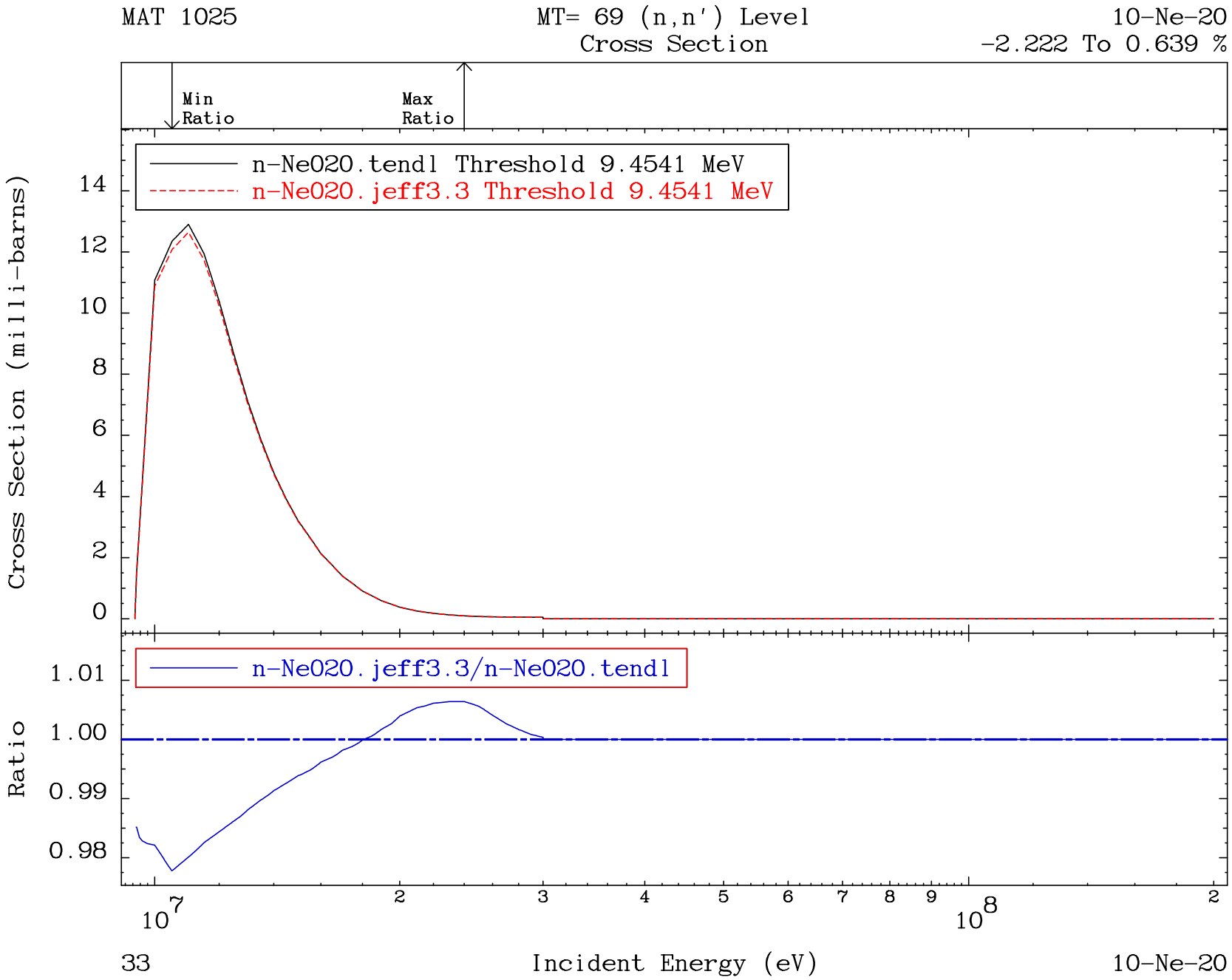

MAT 1025
MT= 64 (n,n') Level
Cross Section
10-Ne-20
-2.263 To 3.112 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.1389 MeV
n-Ne020.jeff3.3 Threshold 9.1389 MeV
Cross Section (milli-barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
28
10-Ne-20

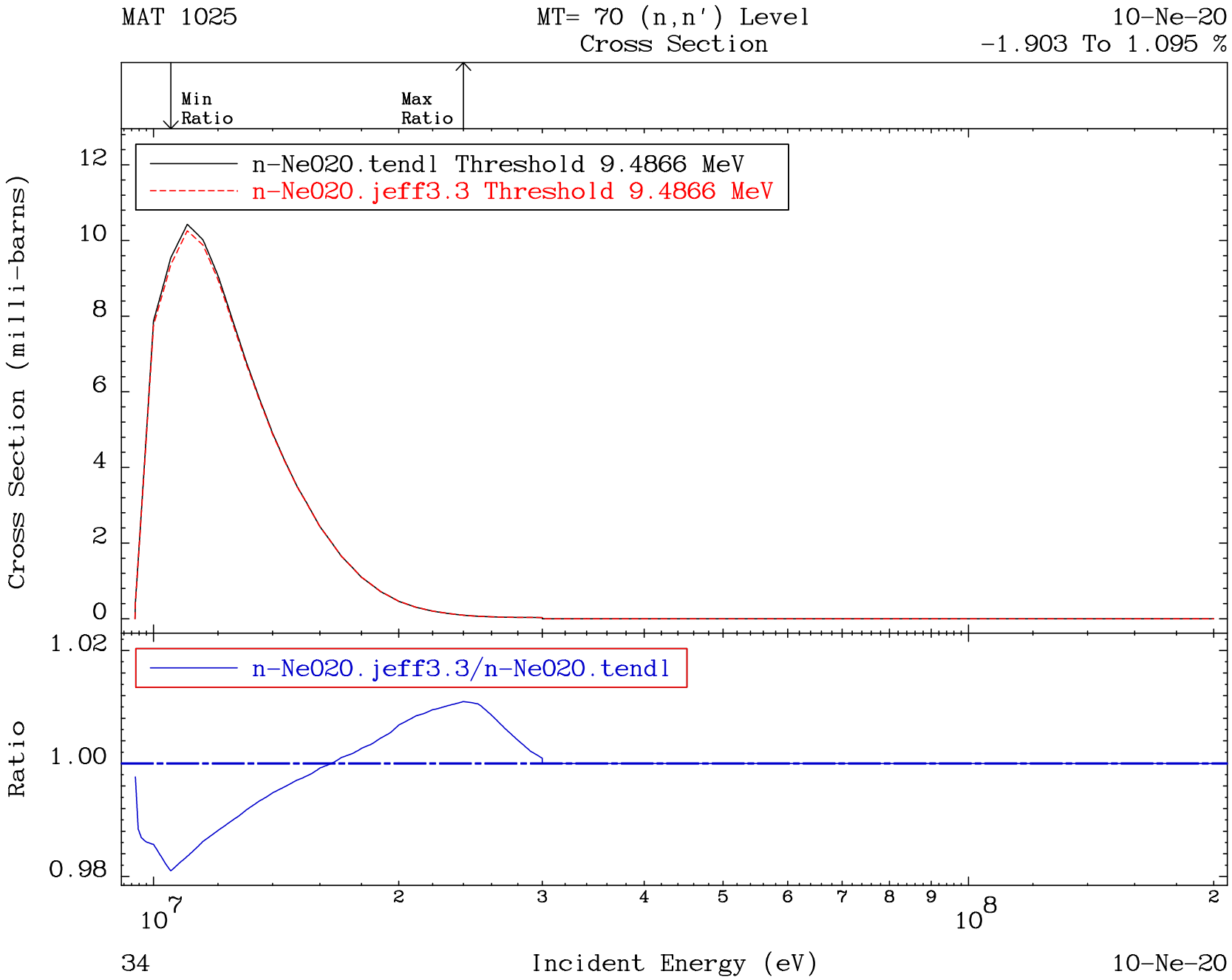

MAT 1025
MT= 65 (n,n') Level
Cross Section
10-Ne-20
-2.170 To 0.466 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.1473 MeV
n-Ne020.jeff3.3 Threshold 9.1473 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
9
2
3
4
5
6
7
8
9
2
10^7
10^8
29
Incident Energy (eV)
10-Ne-20

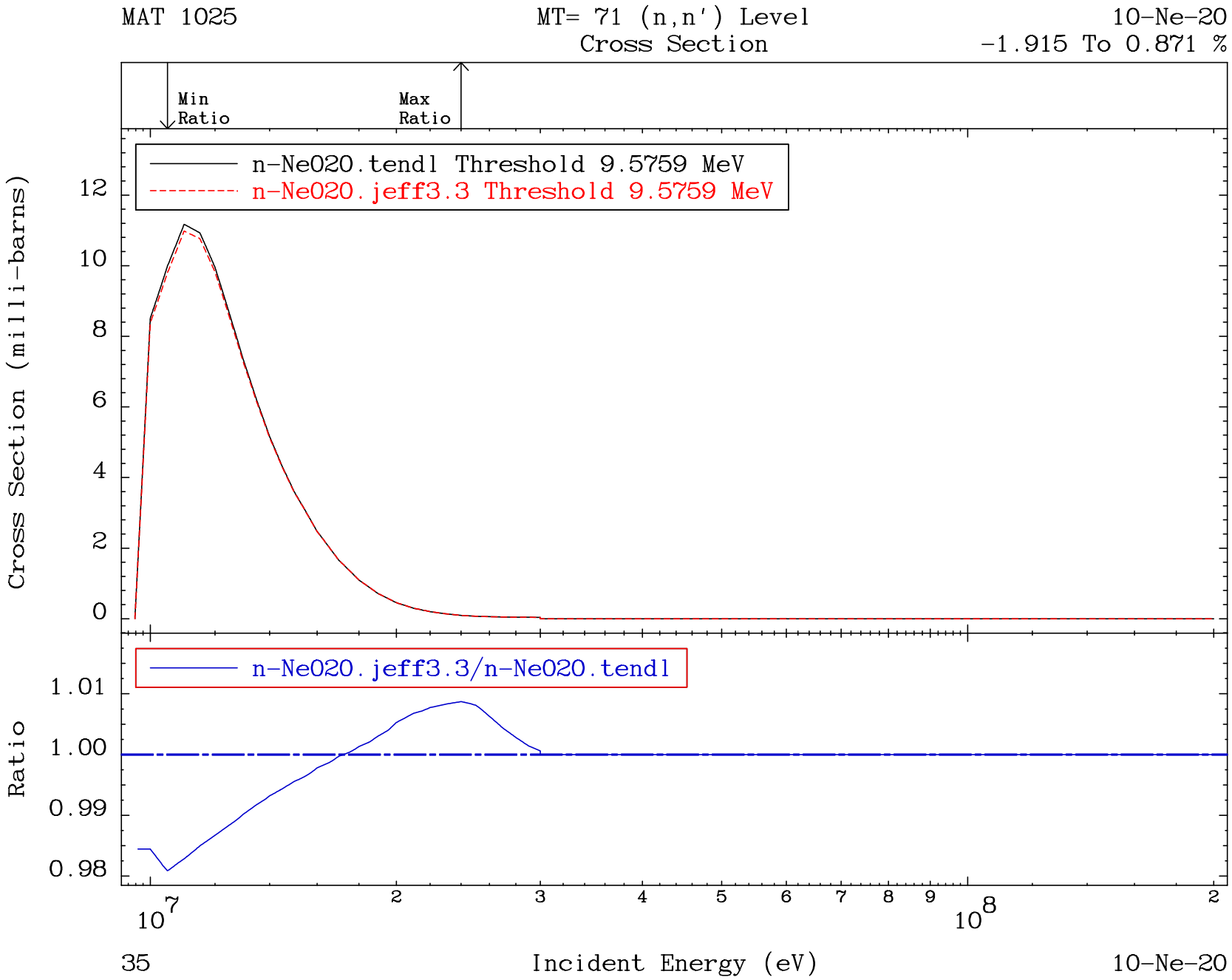

MAT 1025
MT= 66 (n,n') Level
Cross Section
10-Ne-20
-0.431 To 1.568 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.2205 MeV
n-Ne020.jeff3.3 Threshold 9.2205 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.02
1.01
1.00
9
10^7
2
3
4
5
6
7
8
9
10^8
2
30
Incident Energy (eV)
10-Ne-20

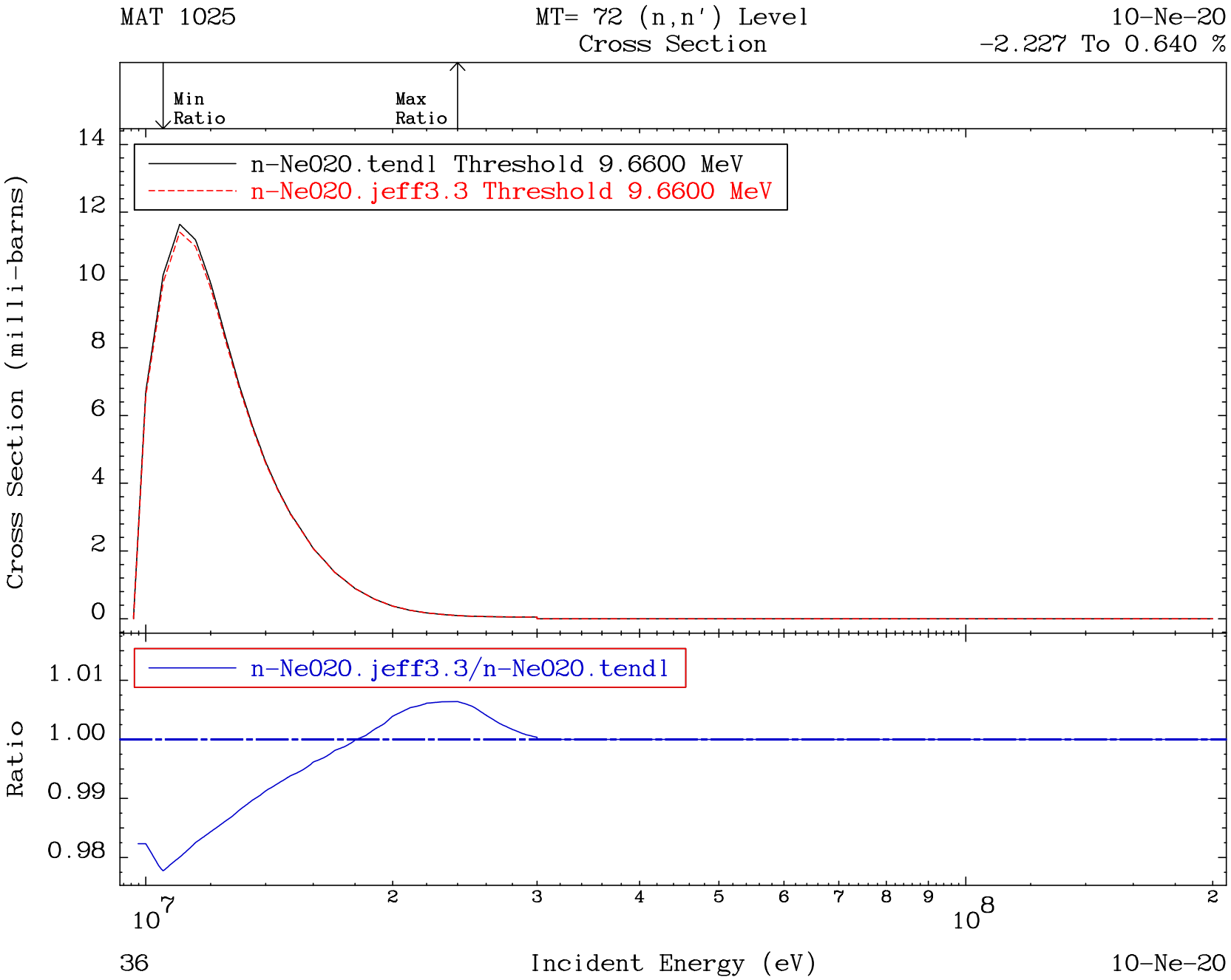

MAT 1025
MT= 67 (n,n') Level
Cross Section
10-Ne-20
-1.064 To 1.301 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.2650 MeV
n-Ne020.jeff3.3 Threshold 9.2650 MeV
Cross Section (milli-barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
31
10-Ne-20

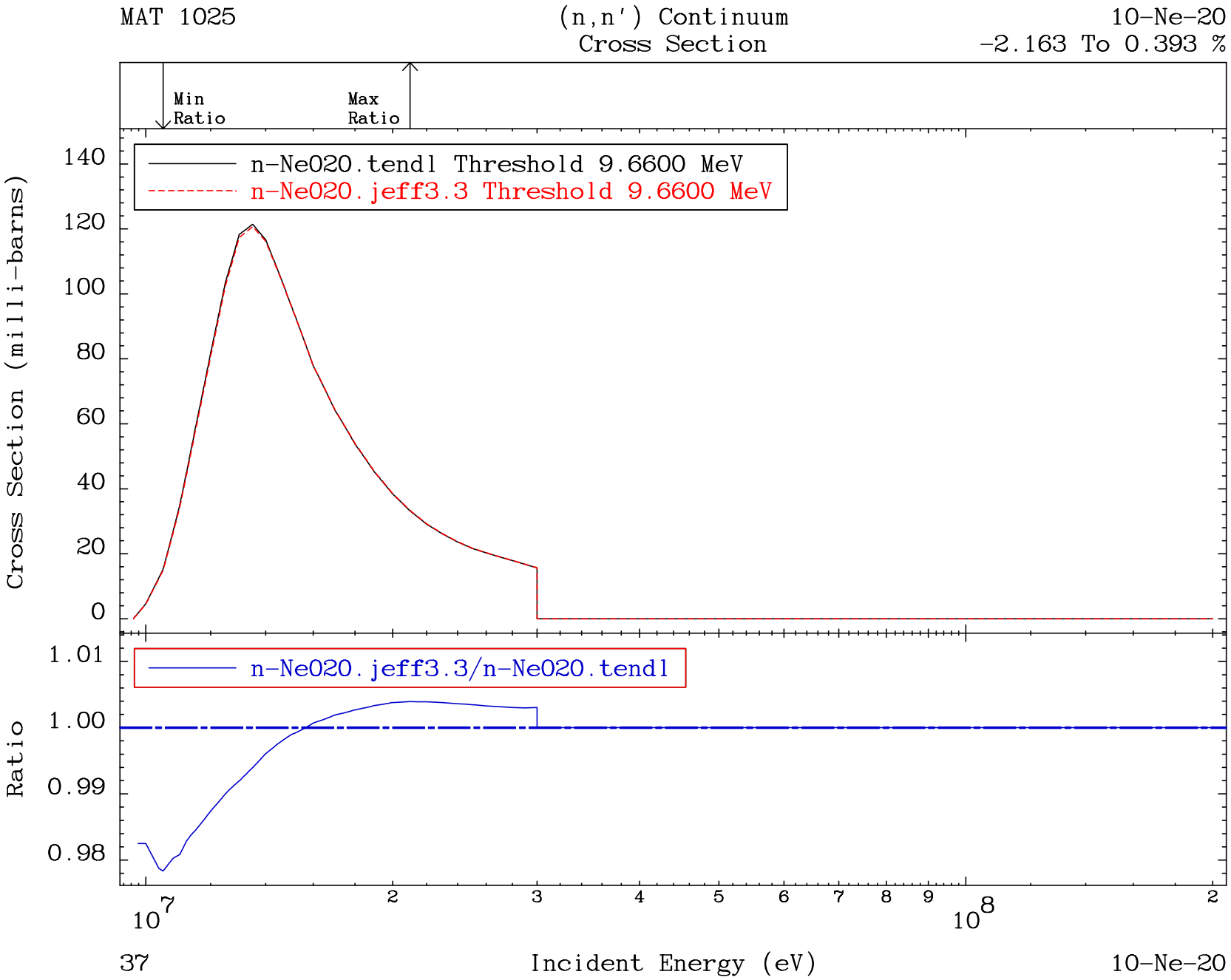

MAT 1025
MT= 68 (n,n') Level
Cross Section
10-Ne-20
-2.171 To 0.464 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.3007 MeV
n-Ne020.jeff3.3 Threshold 9.3007 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
9
10^7
2
3
4
5
6
7
8
9
10^8
2
32
Incident Energy (eV)
10-Ne-20

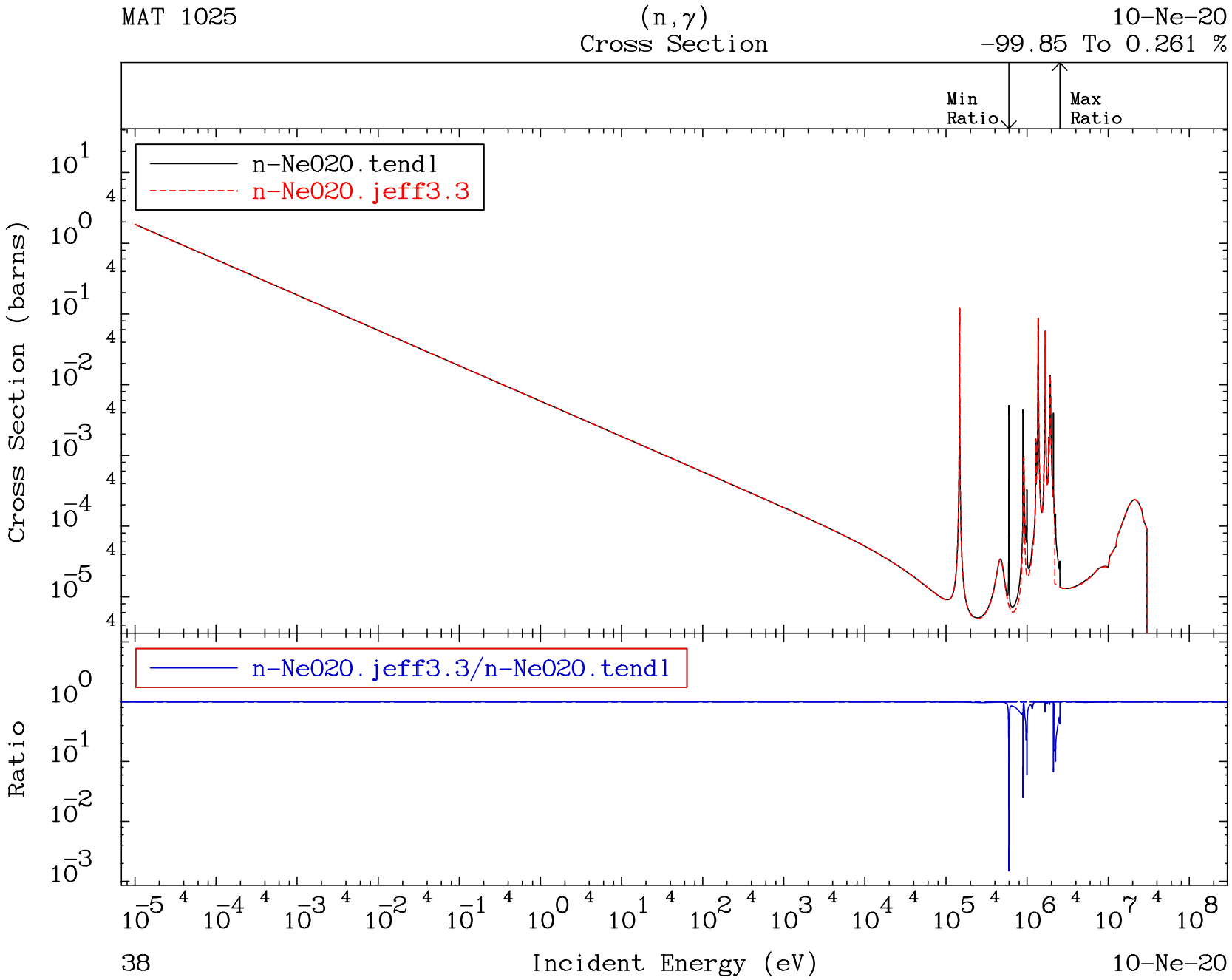

MAT 1025
MT= 69 (n,n') Level
Cross Section
10-Ne-20
-2.222 To 0.639 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.4541 MeV
n-Ne020.jeff3.3 Threshold 9.4541 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
10^7
2
3
4
5
6
7
8
9
10^8
2
33
Incident Energy (eV)
10-Ne-20

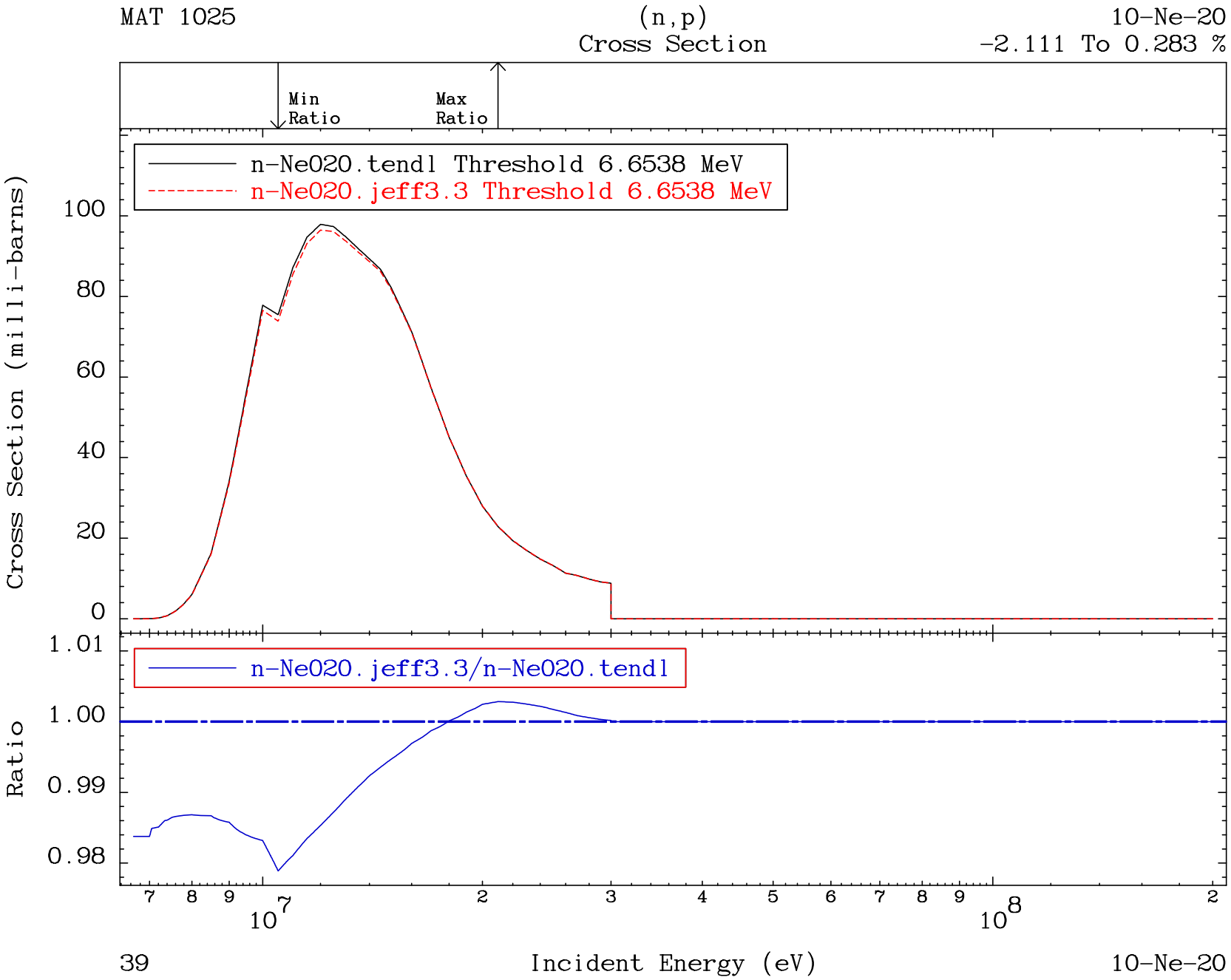

MAT 1025
MT= 70 (n,n') Level
Cross Section
10-Ne-20
-1.903 To 1.095 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.4866 MeV
n-Ne020.jeff3.3 Threshold 9.4866 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.02
1.00
0.98
10^7
2
3
4
5
6
7
8
9
10^8
2
34
Incident Energy (eV)
10-Ne-20

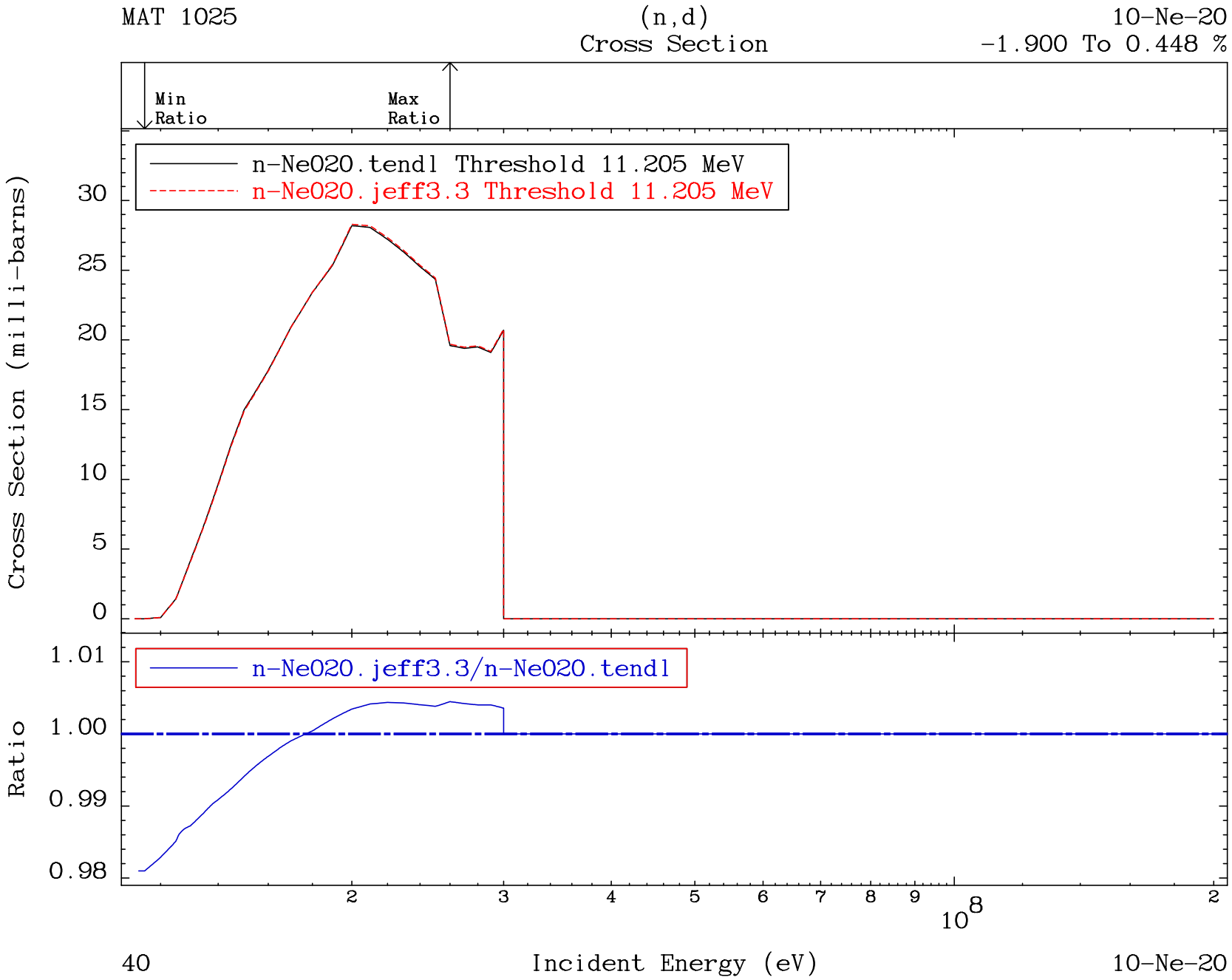

MAT 1025
MT= 71 (n,n') Level
Cross Section
10-Ne-20
-1.915 To 0.871 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.5759 MeV
n-Ne020.jeff3.3 Threshold 9.5759 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
10^7
2
3
4
5
6
7
8
9
10^8
2
35
Incident Energy (eV)
10-Ne-20

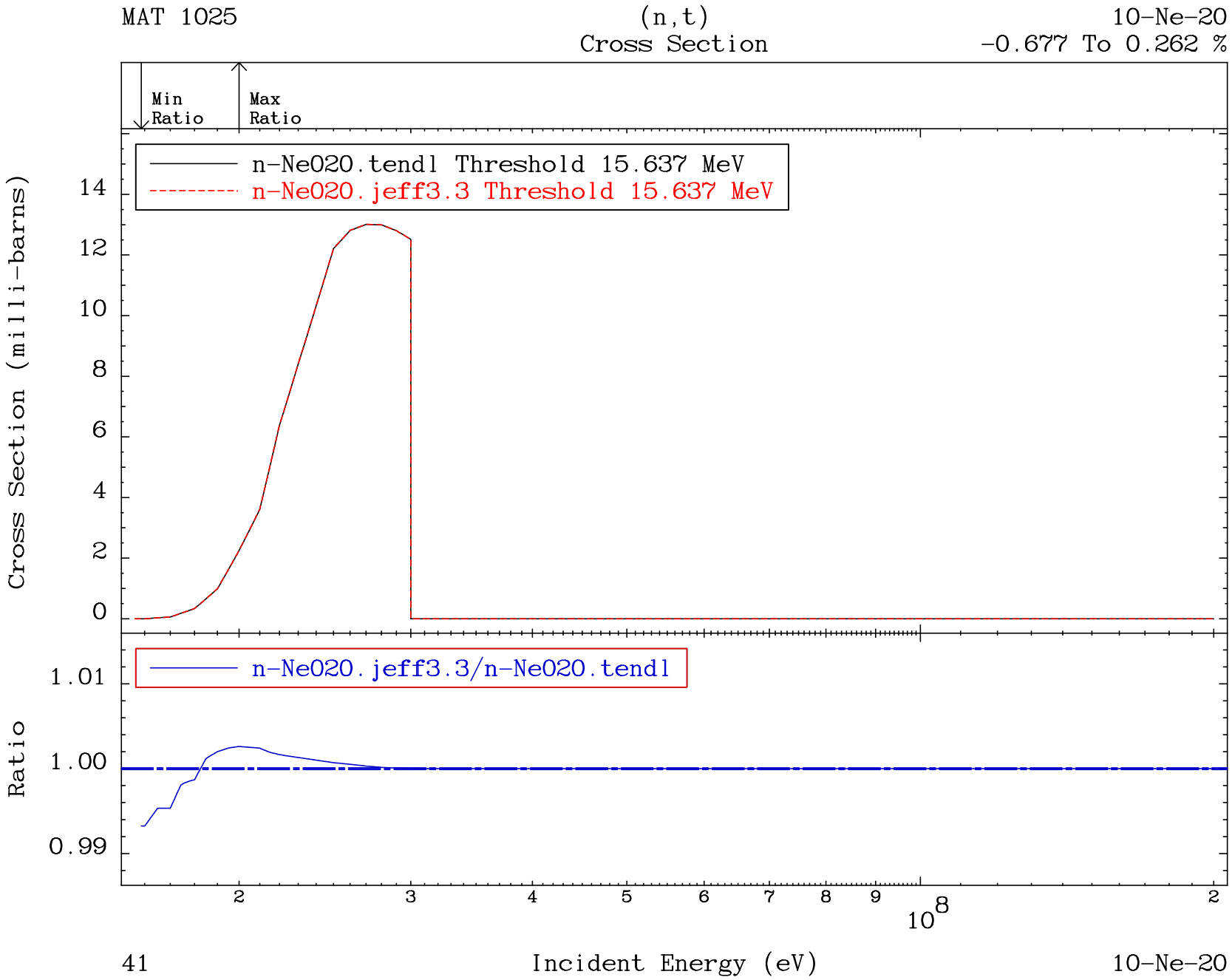

MAT 1025
MT= 72 (n,n') Level
Cross Section
10-Ne-20
-2.227 To 0.640 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.6600 MeV
n-Ne020.jeff3.3 Threshold 9.6600 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
10^7
2
3
4
5
6
7
8
9
10^8
2
36
Incident Energy (eV)
10-Ne-20

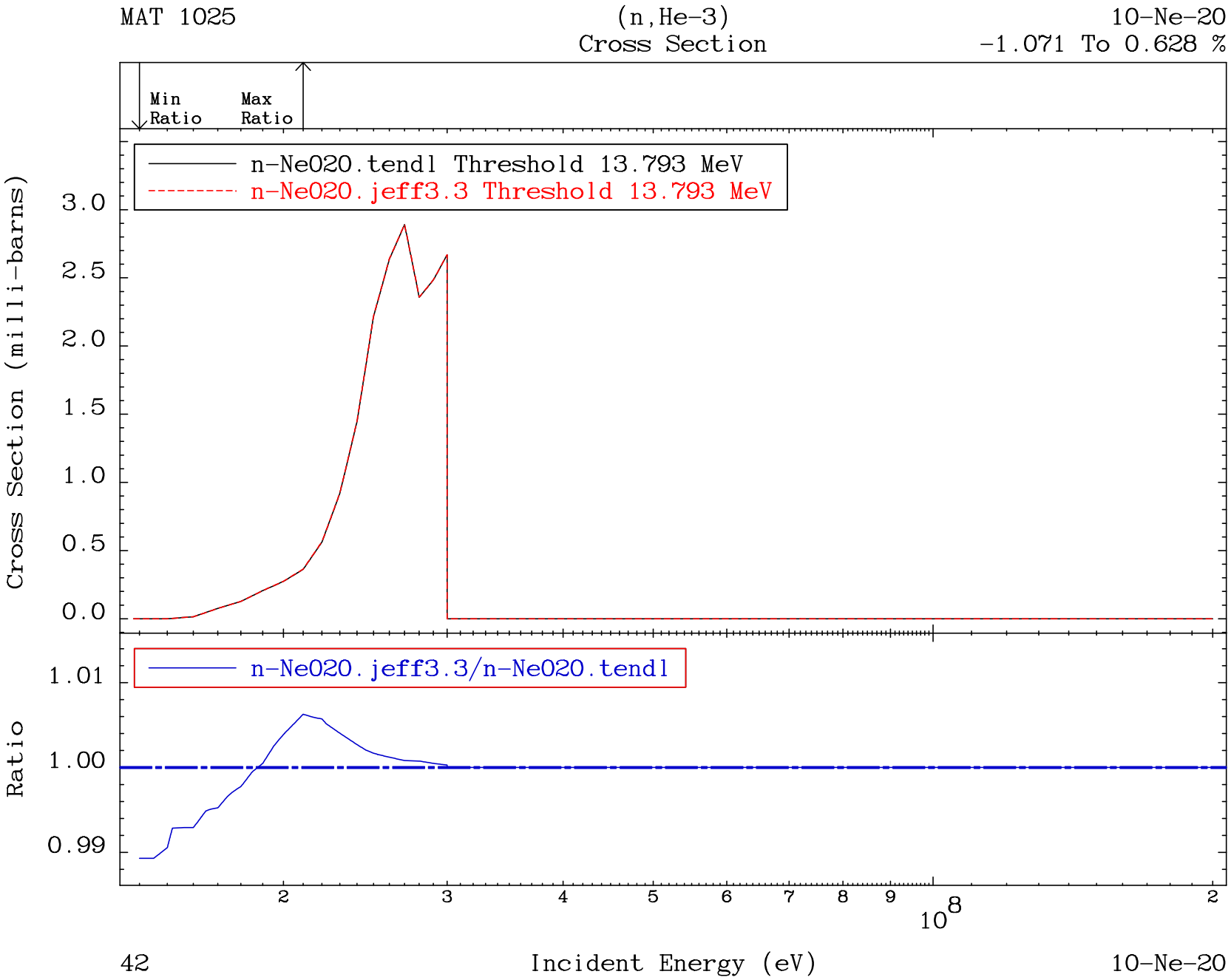

MAT 1025
(n,n') Continuum
Cross Section
10-Ne-20
-2.163 To 0.393 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 9.6600 MeV
n-Ne020.jeff3.3 Threshold 9.6600 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
10^7
2
3
4
5
6
7
8
9
10^8
2
37
Incident Energy (eV)
10-Ne-20

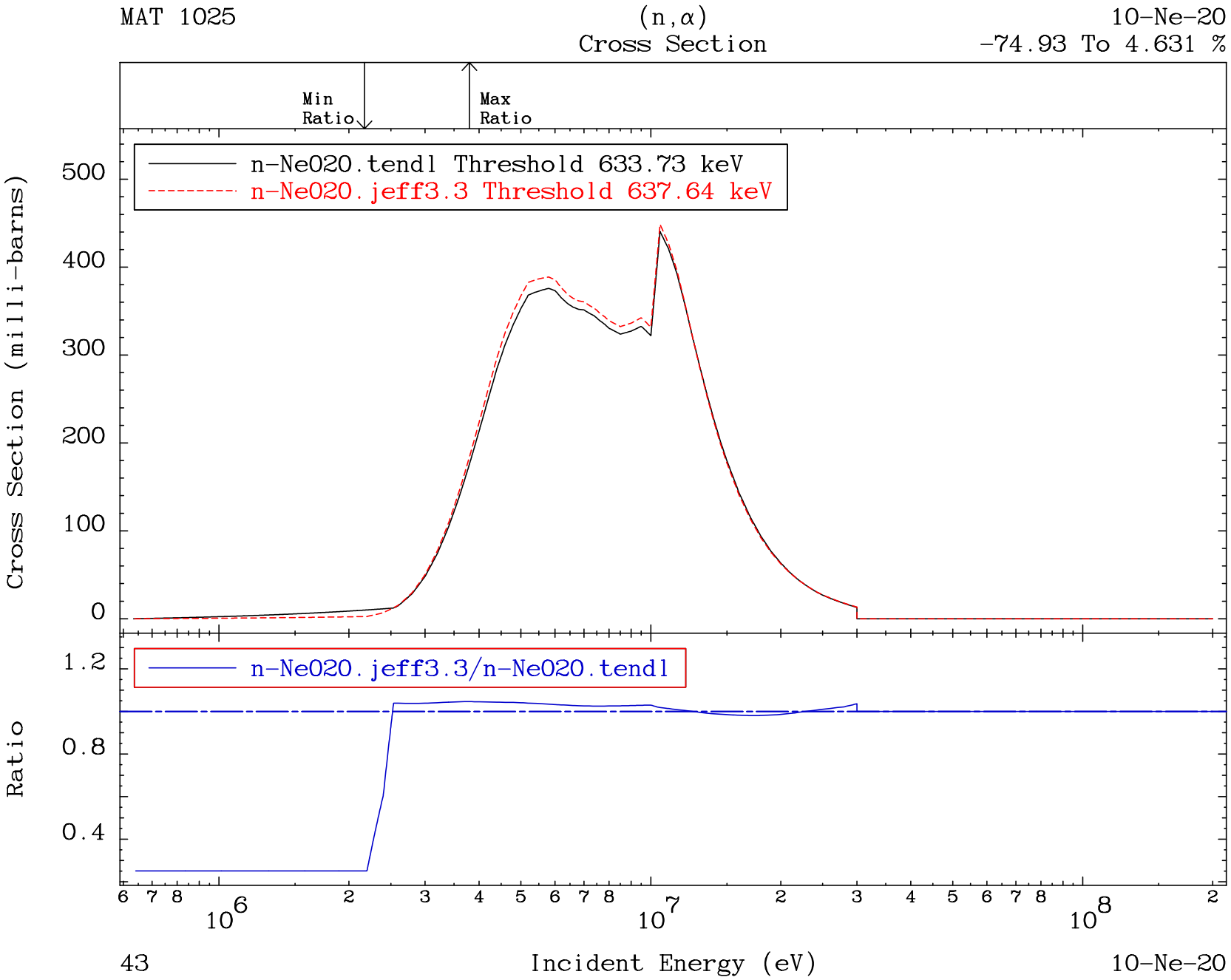

MAT 1025
(n,γ)
Cross Section
10-Ne-20
-99.85 To 0.261 %
Min Ratio
Max Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
38
10-Ne-20

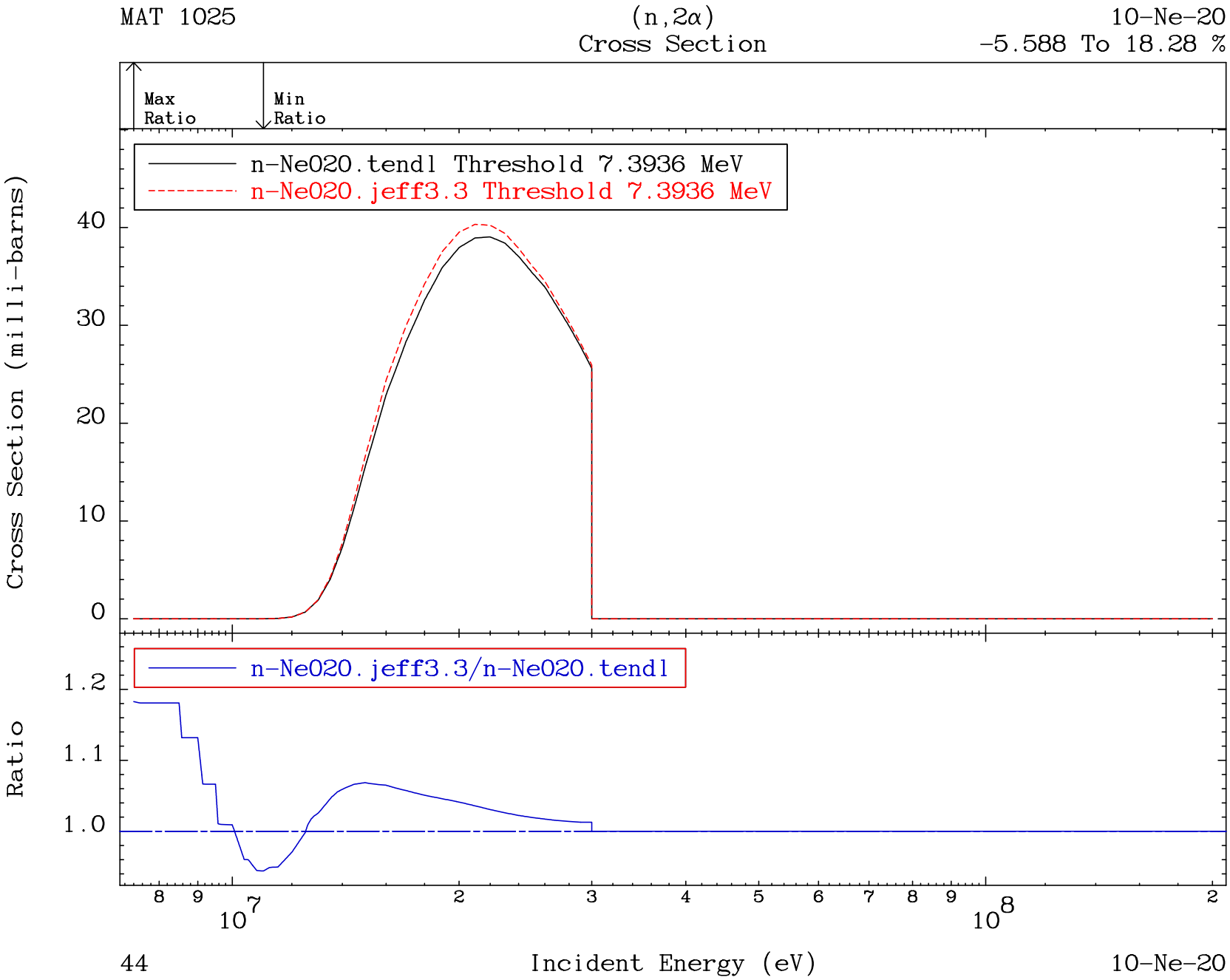

MAT 1025
(n,p)
Cross Section
10-Ne-20
-2.111 To 0.283 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 6.6538 MeV
n-Ne020.jeff3.3 Threshold 6.6538 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
39
Incident Energy (eV)
10-Ne-20

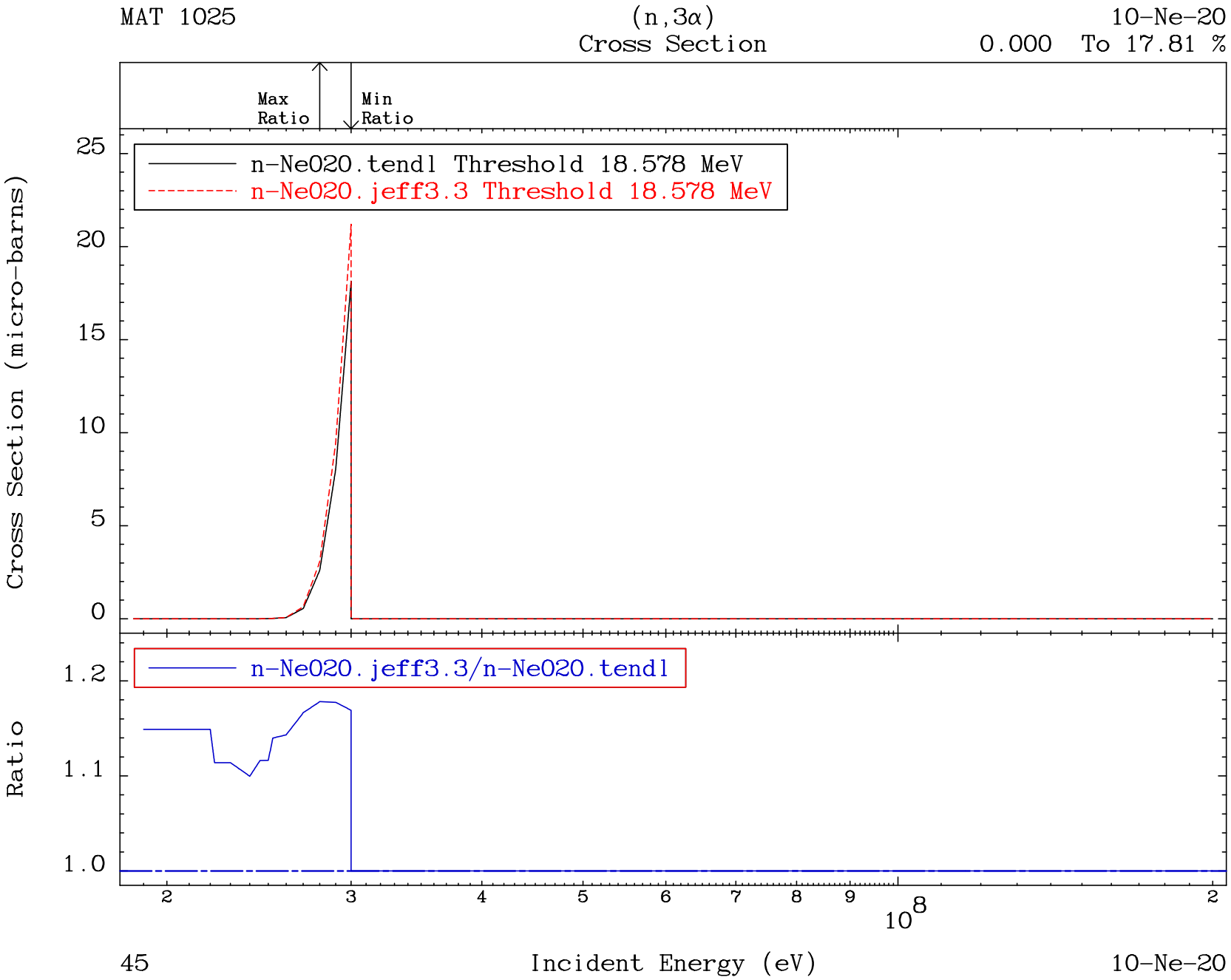

MAT 1025
(n,d)
Cross Section
10-Ne-20
-1.900 To 0.448 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 11.205 MeV
n-Ne020.jeff3.3 Threshold 11.205 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
0.98
2
3
4
5
6
7
8
9
10^8
2
40
Incident Energy (eV)
10-Ne-20

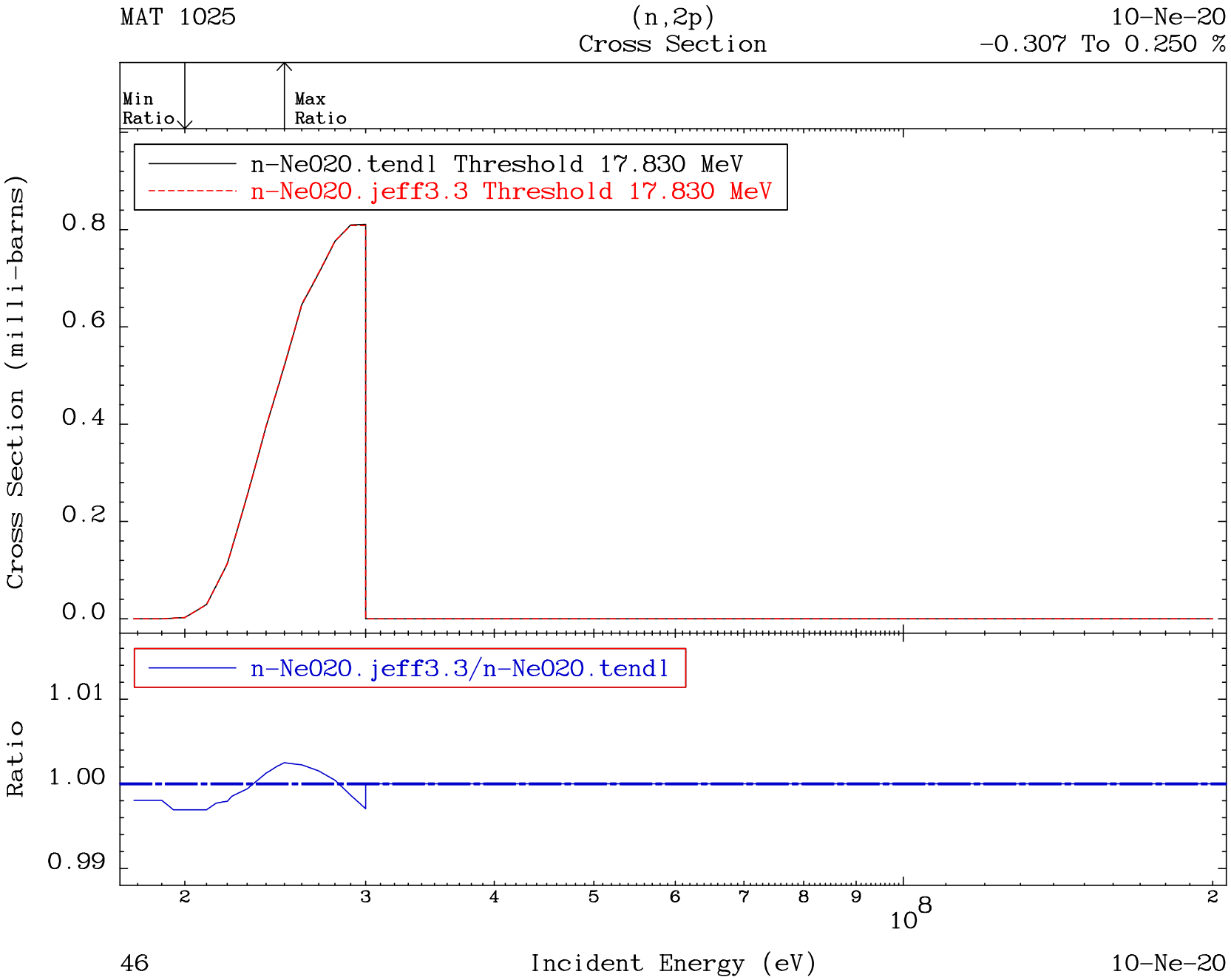

MAT 1025
(n,t)
Cross Section
10-Ne-20
-0.677 To 0.262 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 15.637 MeV
n-Ne020.jeff3.3 Threshold 15.637 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
41
Incident Energy (eV)
10-Ne-20

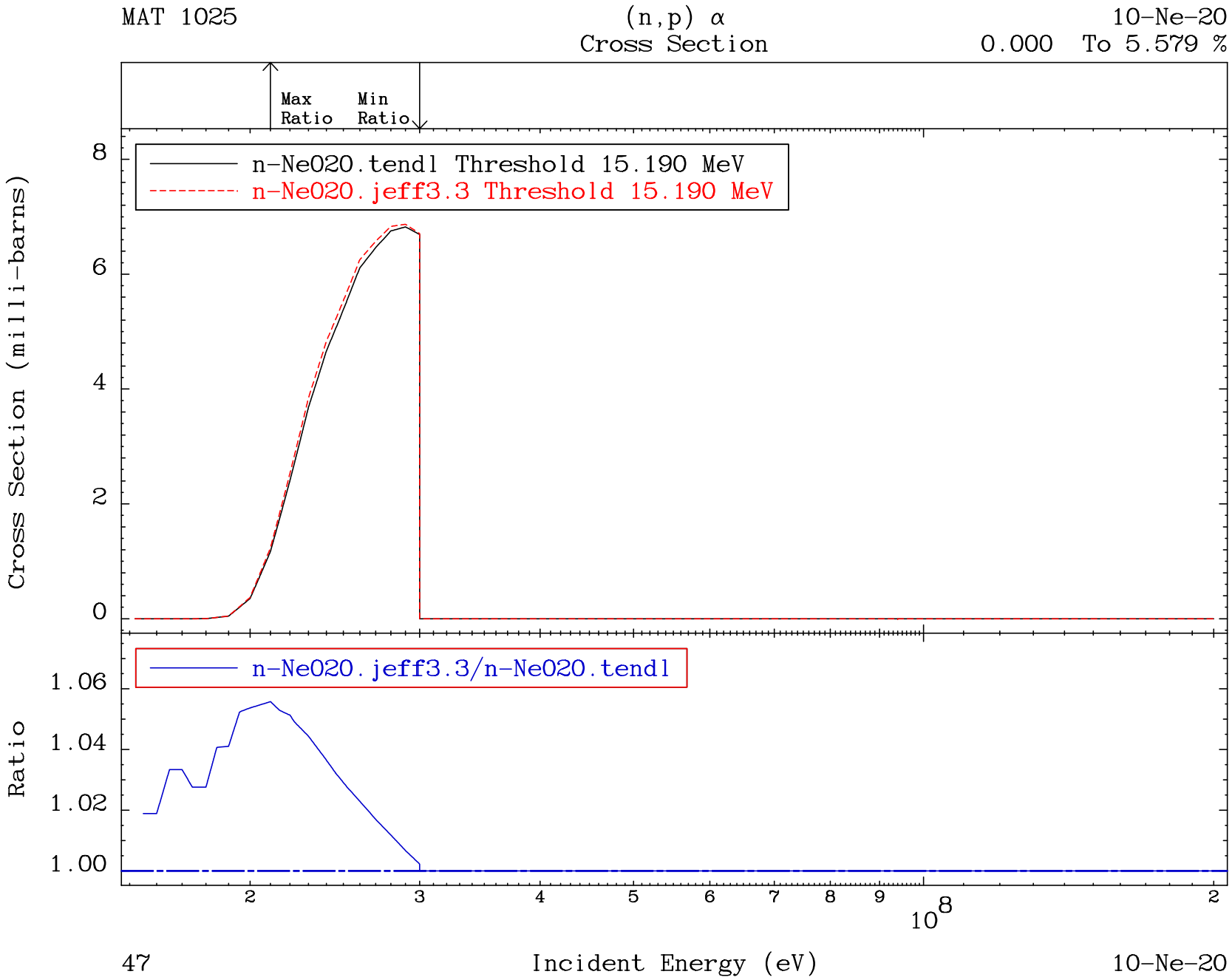

MAT 1025
(n,He-3)
Cross Section
10-Ne-20
-1.071 To 0.628 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 13.793 MeV
n-Ne020.jeff3.3 Threshold 13.793 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
42
Incident Energy (eV)
10-Ne-20

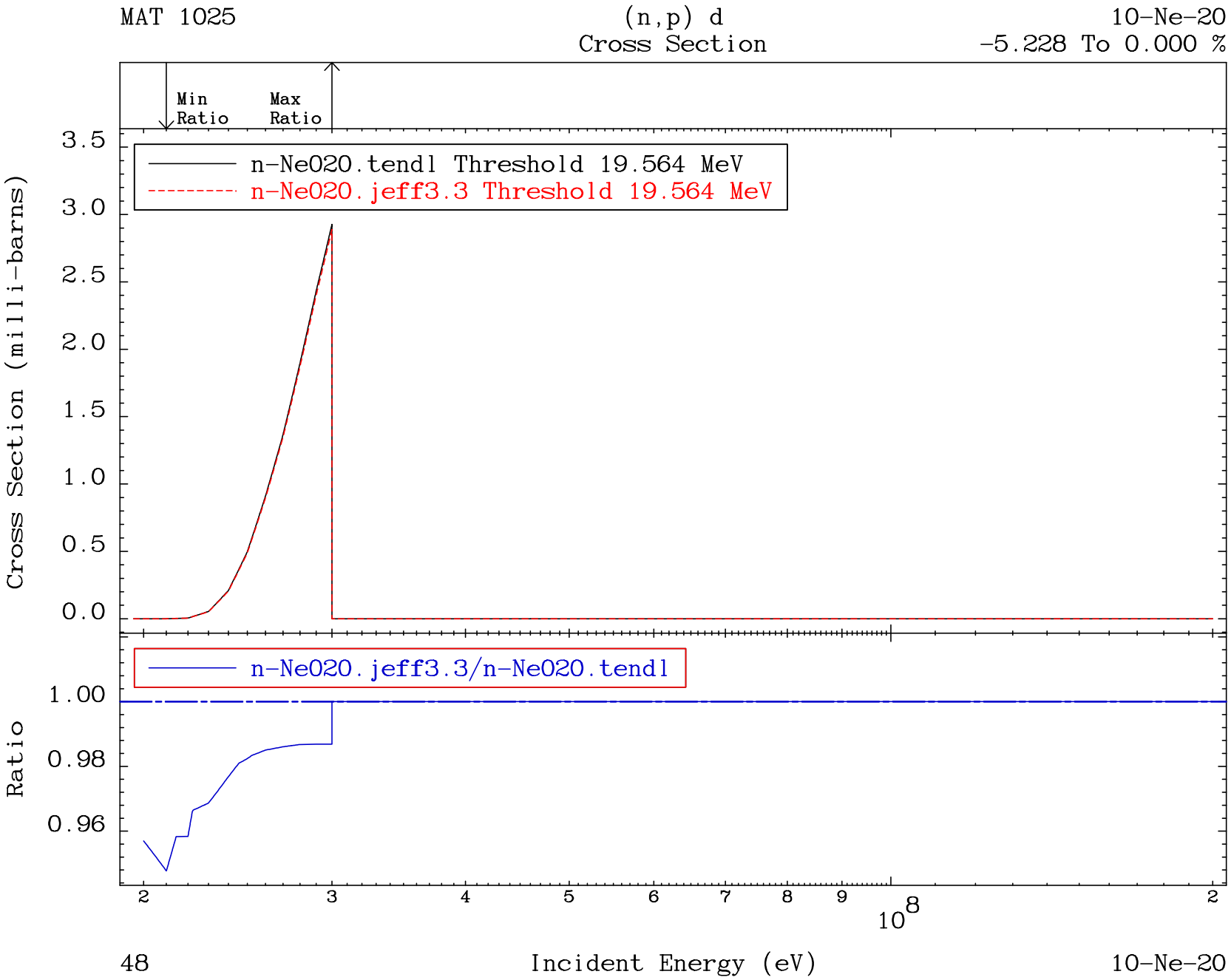

MAT 1025
(n,α)
Cross Section
10-Ne-20
-74.93 To 4.631 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 633.73 keV
n-Ne020.jeff3.3 Threshold 637.64 keV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.2
0.8
0.4
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
43
Incident Energy (eV)
10-Ne-20

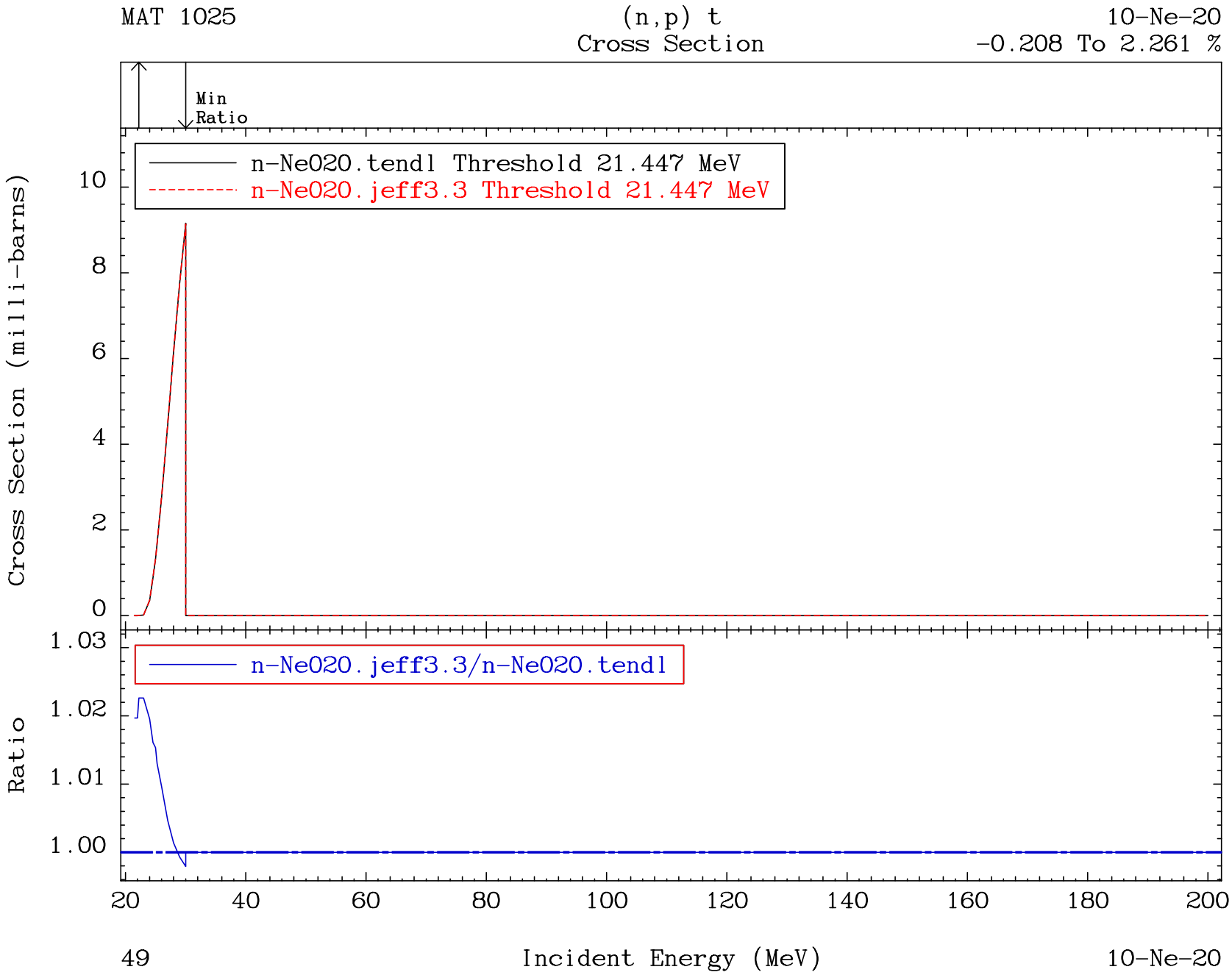

MAT 1025
(n,2α)
Cross Section
10-Ne-20
-5.588 To 18.28 %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 7.3936 MeV
n-Ne020.jeff3.3 Threshold 7.3936 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.2
1.1
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
10-Ne-20

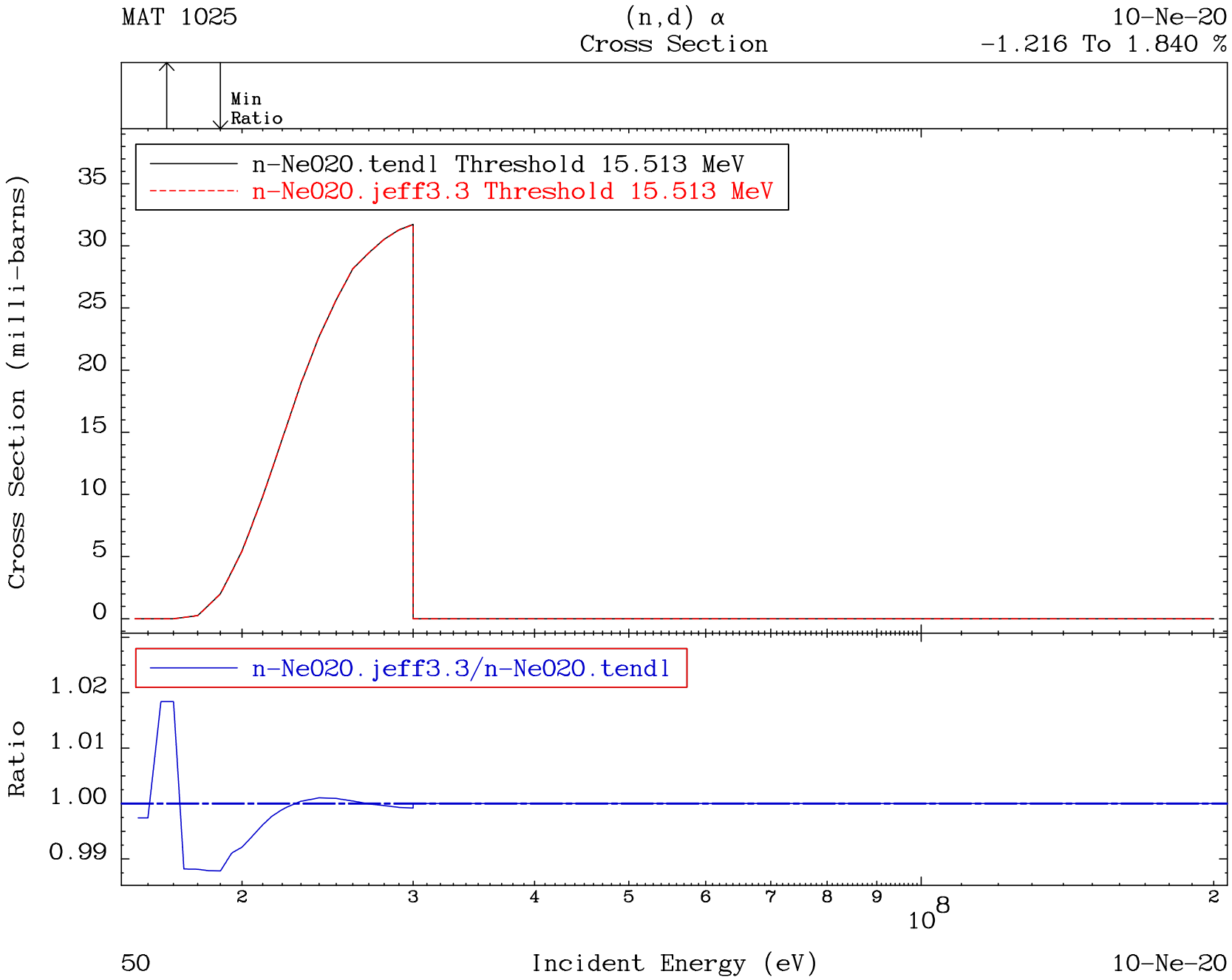

MAT 1025
(n,3α)
Cross Section
10-Ne-20
0.000 To 17.81 %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 18.578 MeV
n-Ne020.jeff3.3 Threshold 18.578 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.2
1.1
1.0
2
3
4
5
6
7
8
9
10^8
2
45
Incident Energy (eV)
10-Ne-20

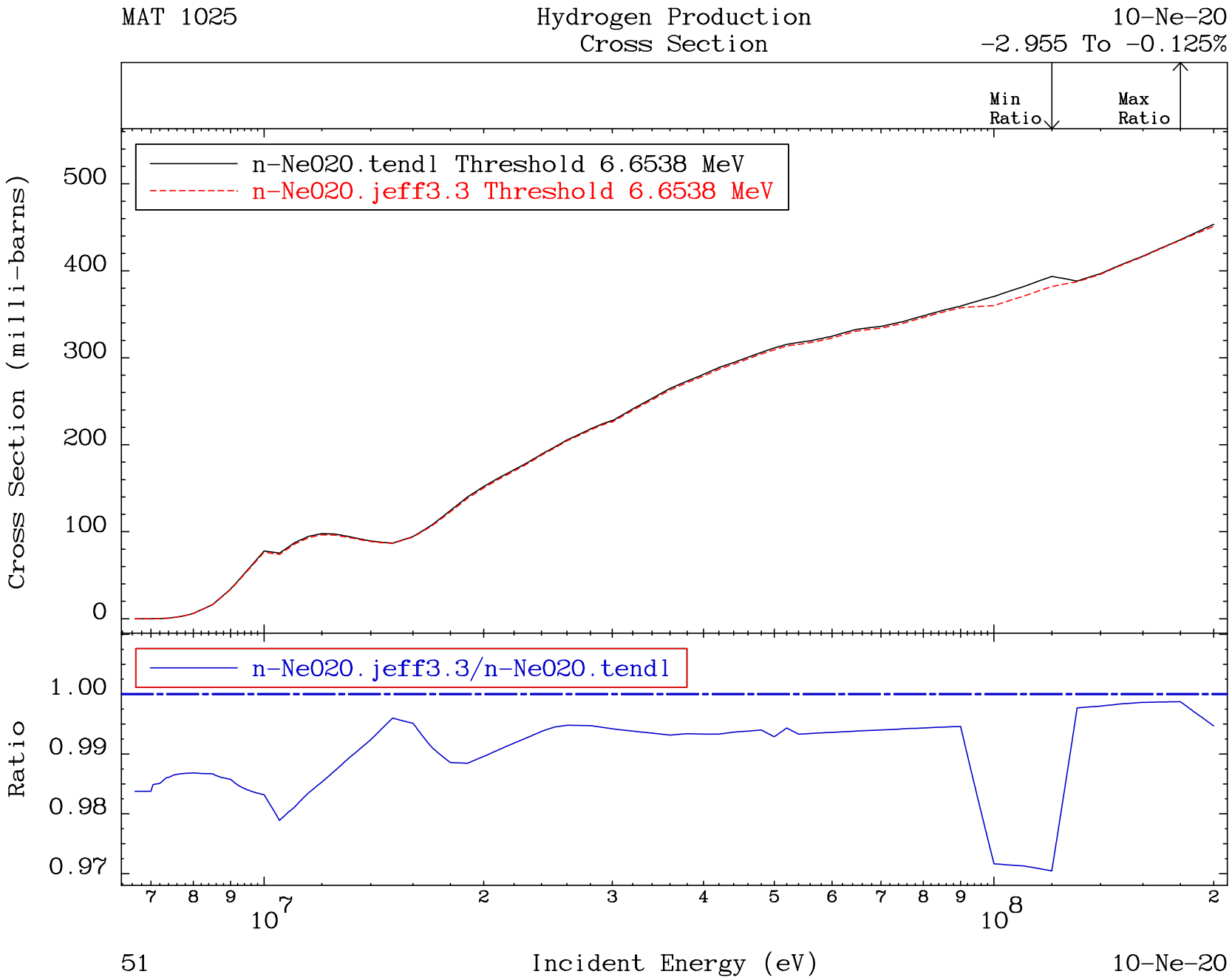

MAT 1025
(n,2p)
Cross Section
10-Ne-20
-0.307 To 0.250 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 17.830 MeV
n-Ne020.jeff3.3 Threshold 17.830 MeV
Cross Section (milli-barns)
0.0
0.2
0.4
0.6
0.8
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
46
Incident Energy (eV)
10-Ne-20

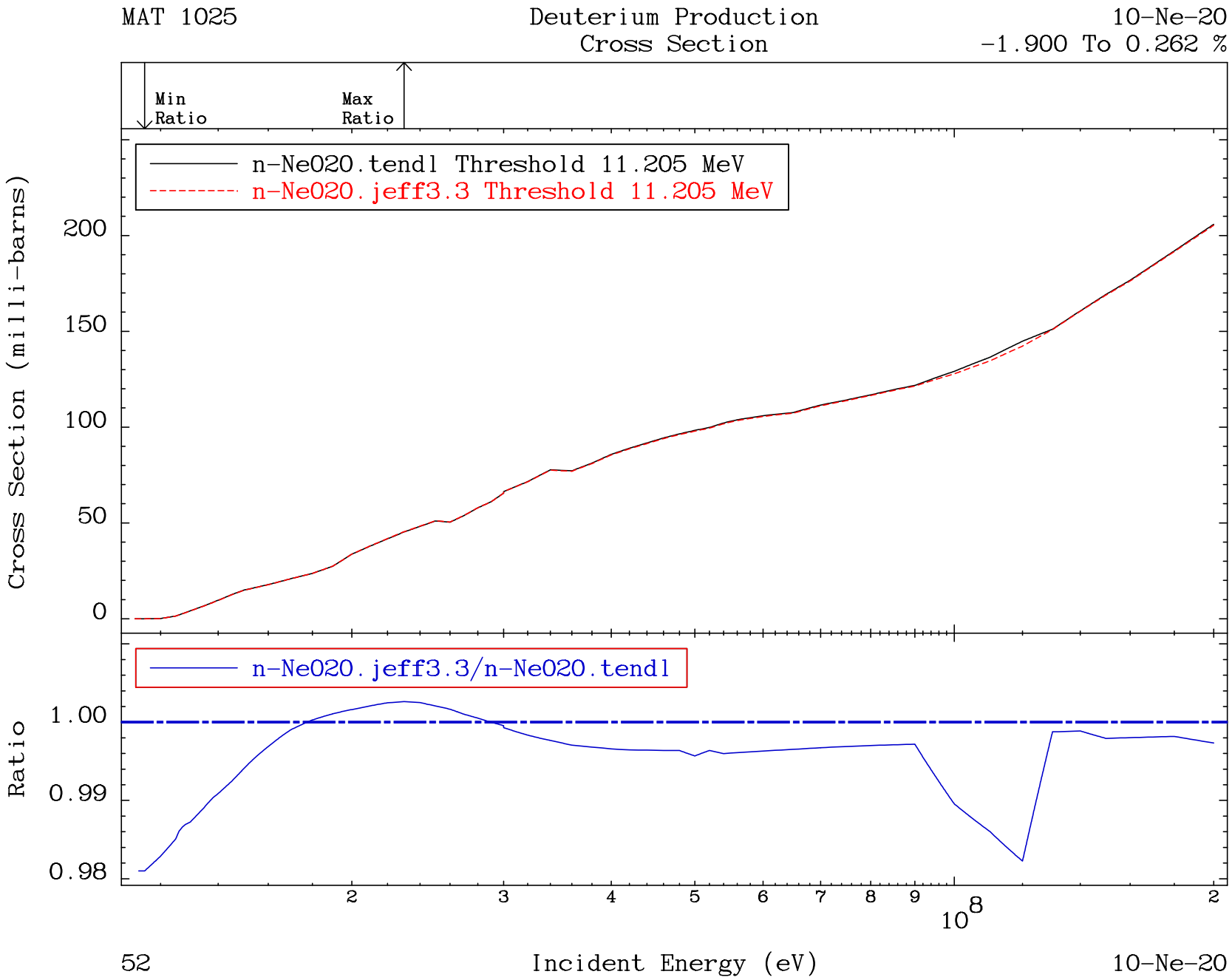

MAT 1025
(n,p) α
Cross Section
10-Ne-20
0.000 To 5.579 %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 15.190 MeV
n-Ne020.jeff3.3 Threshold 15.190 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
1.02
1.04
1.06
2
3
4
5
6
7
8
9
10^8
2
47
Incident Energy (eV)
10-Ne-20

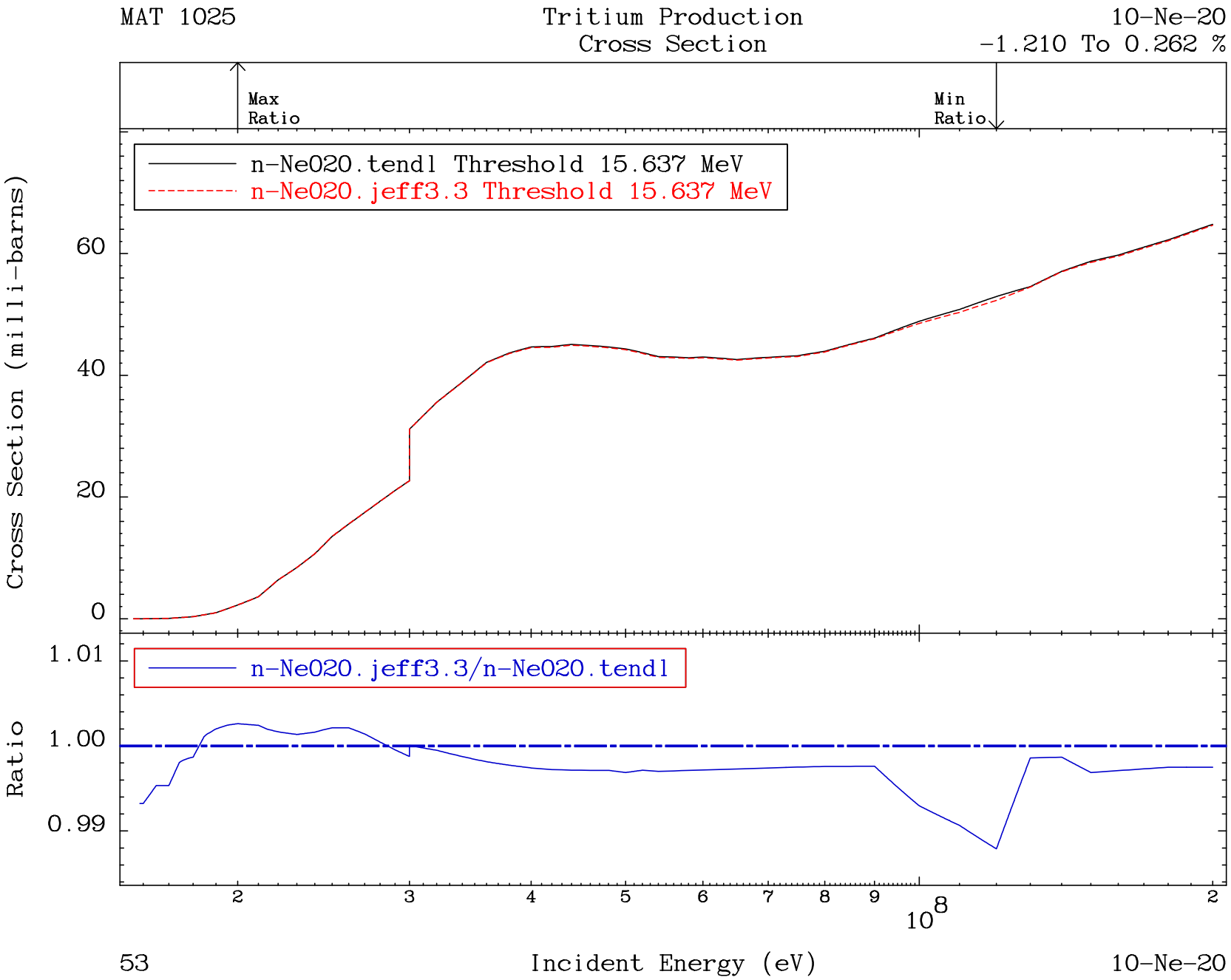

MAT 1025
(n,p) d
Cross Section
10-Ne-20
-5.228 To 0.000 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 19.564 MeV
n-Ne020.jeff3.3 Threshold 19.564 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.98
0.96
2
3
4
5
6
7
8
9
10^8
2
48
Incident Energy (eV)
10-Ne-20

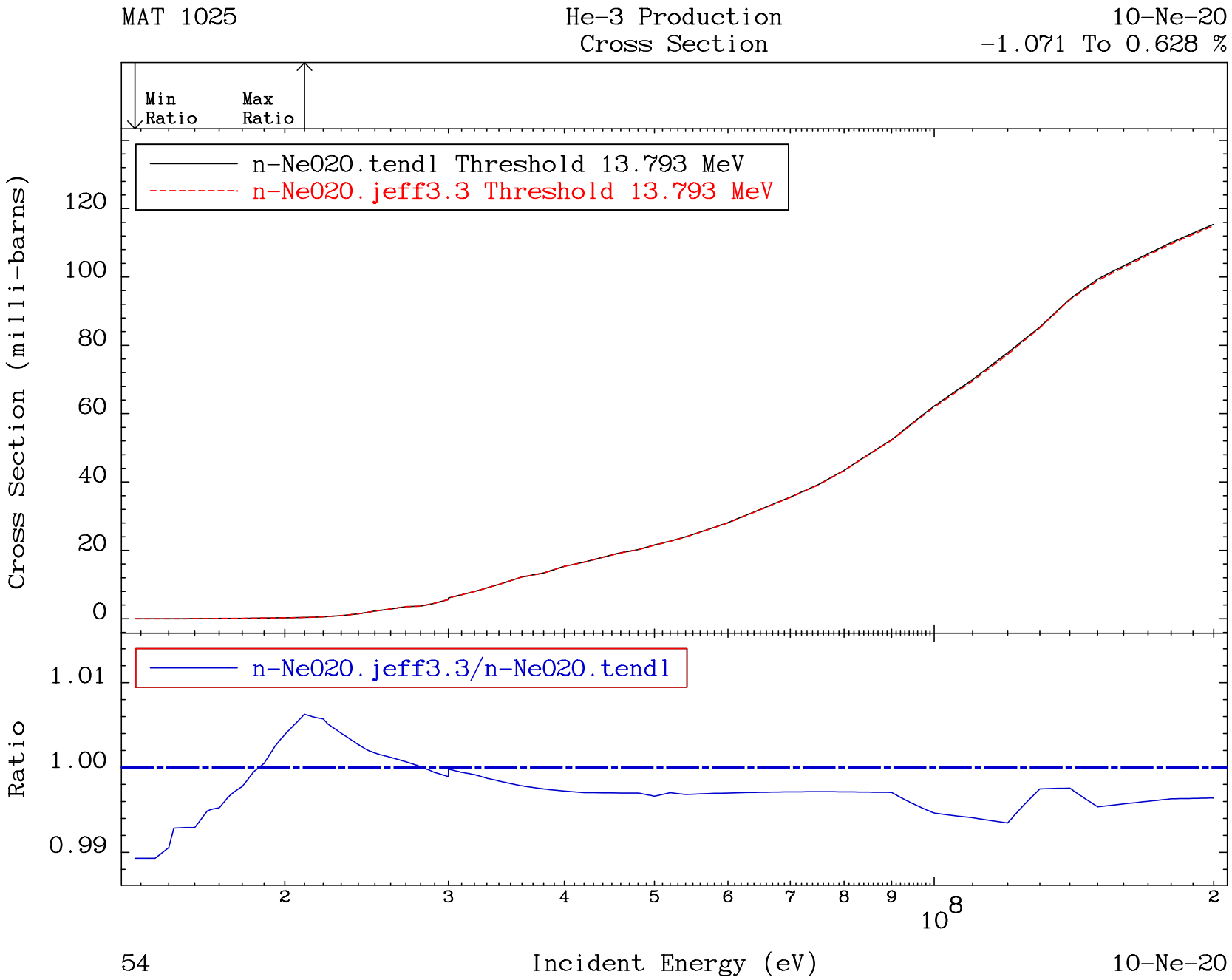

MAT 1025
(n,p) t
Cross Section
10-Ne-20
-0.208 To 2.261 %
Min
Ratio
n-Ne020.tendl Threshold 21.447 MeV
n-Ne020.jeff3.3 Threshold 21.447 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
1.01
1.02
1.03
20
40
60
80
100
120
140
160
180
200
49
Incident Energy (MeV)
10-Ne-20

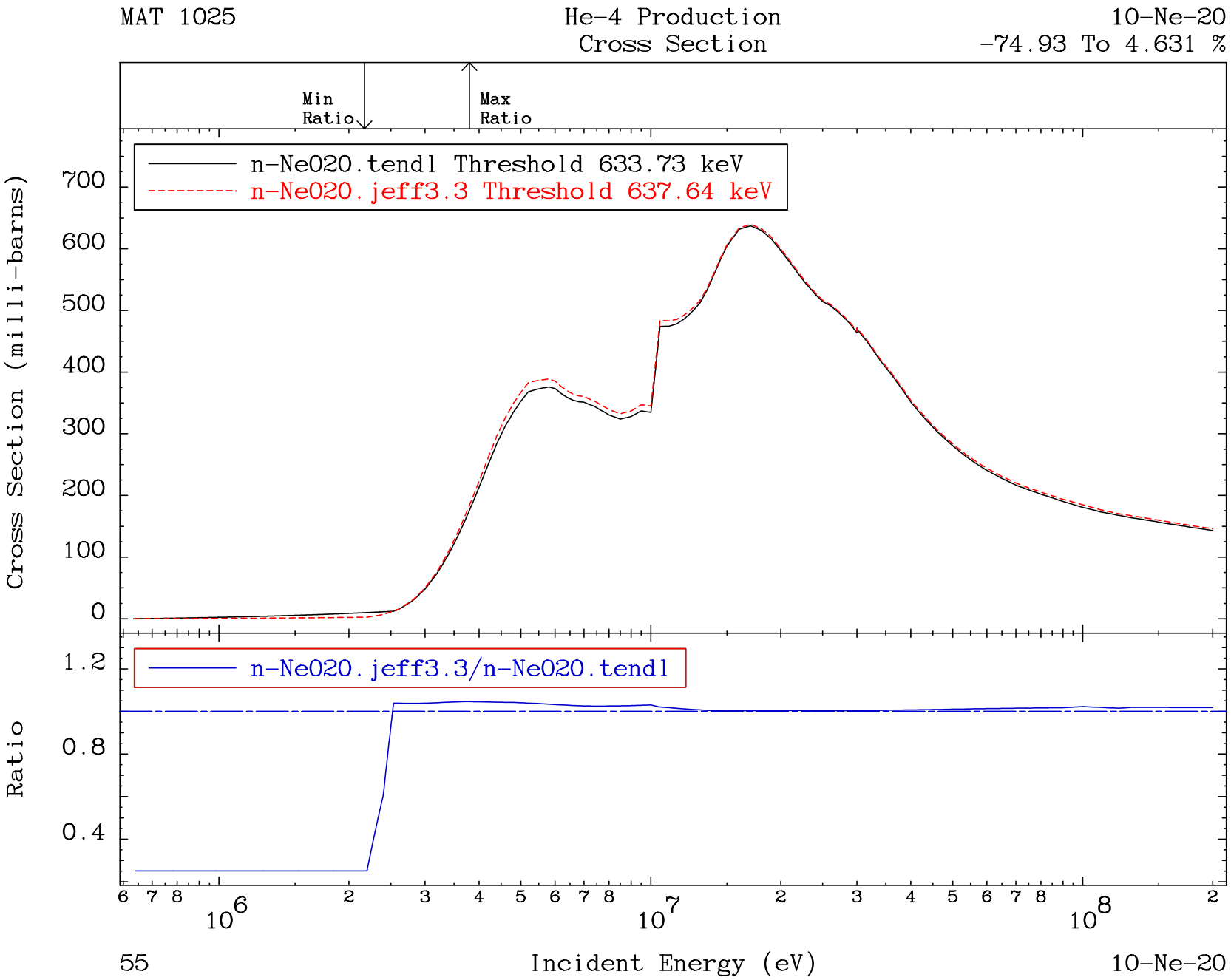

MAT 1025
(n,d) α
Cross Section
10-Ne-20
-1.216 To 1.840 %
Min
Ratio
n-Ne020.tendl Threshold 15.513 MeV
n-Ne020.jeff3.3 Threshold 15.513 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.02
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
50
Incident Energy (eV)
10-Ne-20

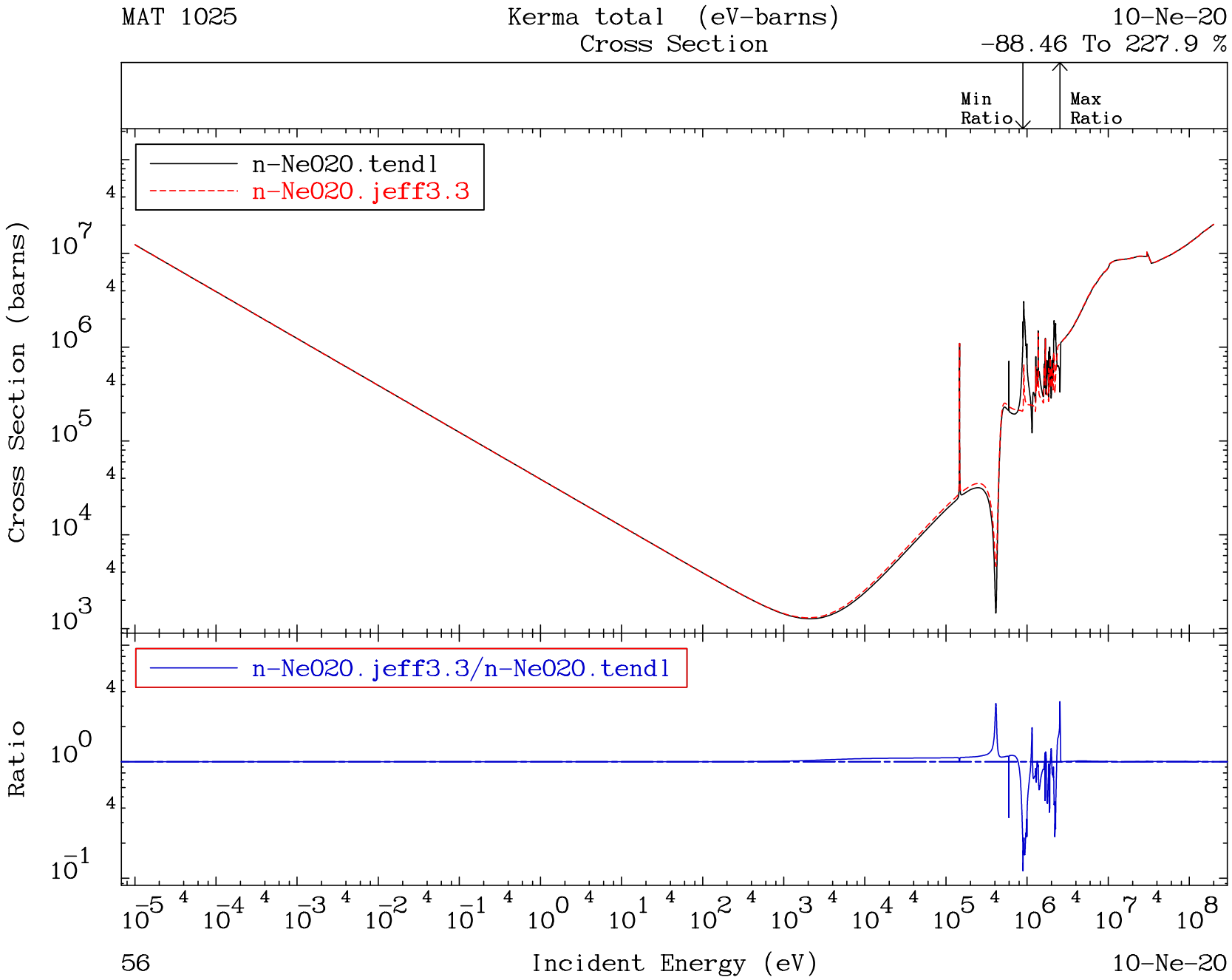

MAT 1025
Hydrogen Production
Cross Section
10-Ne-20
-2.955 To -0.125%
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 6.6538 MeV
n-Ne020.jeff3.3 Threshold 6.6538 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.99
0.98
0.97
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
51
Incident Energy (eV)
10-Ne-20

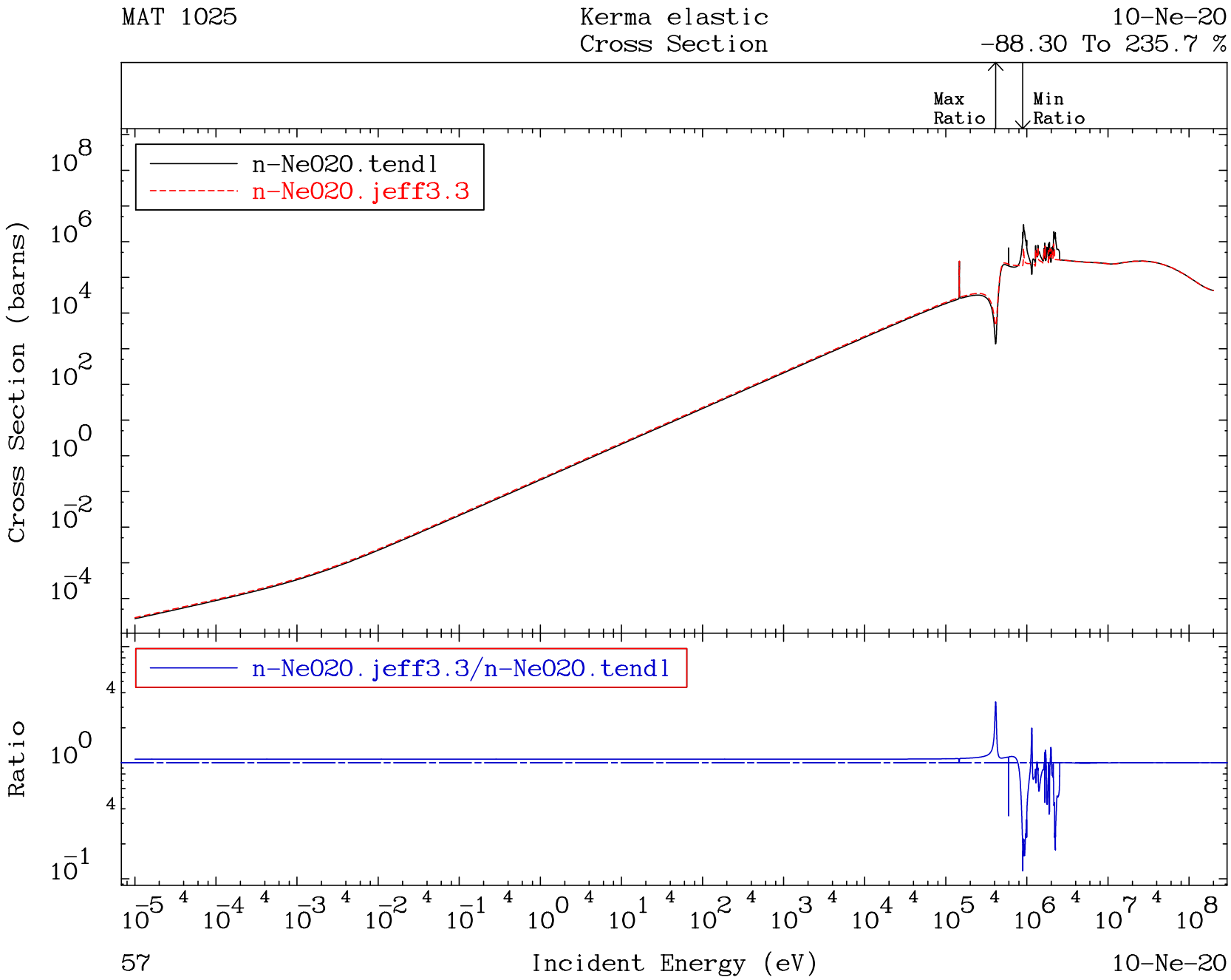

MAT 1025
Deuterium Production
Cross Section
10-Ne-20
-1.900 To 0.262 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 11.205 MeV
n-Ne020.jeff3.3 Threshold 11.205 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.00
0.99
0.98
2
3
4
5
6
7
8
9
10^8
2
52
Incident Energy (eV)
10-Ne-20

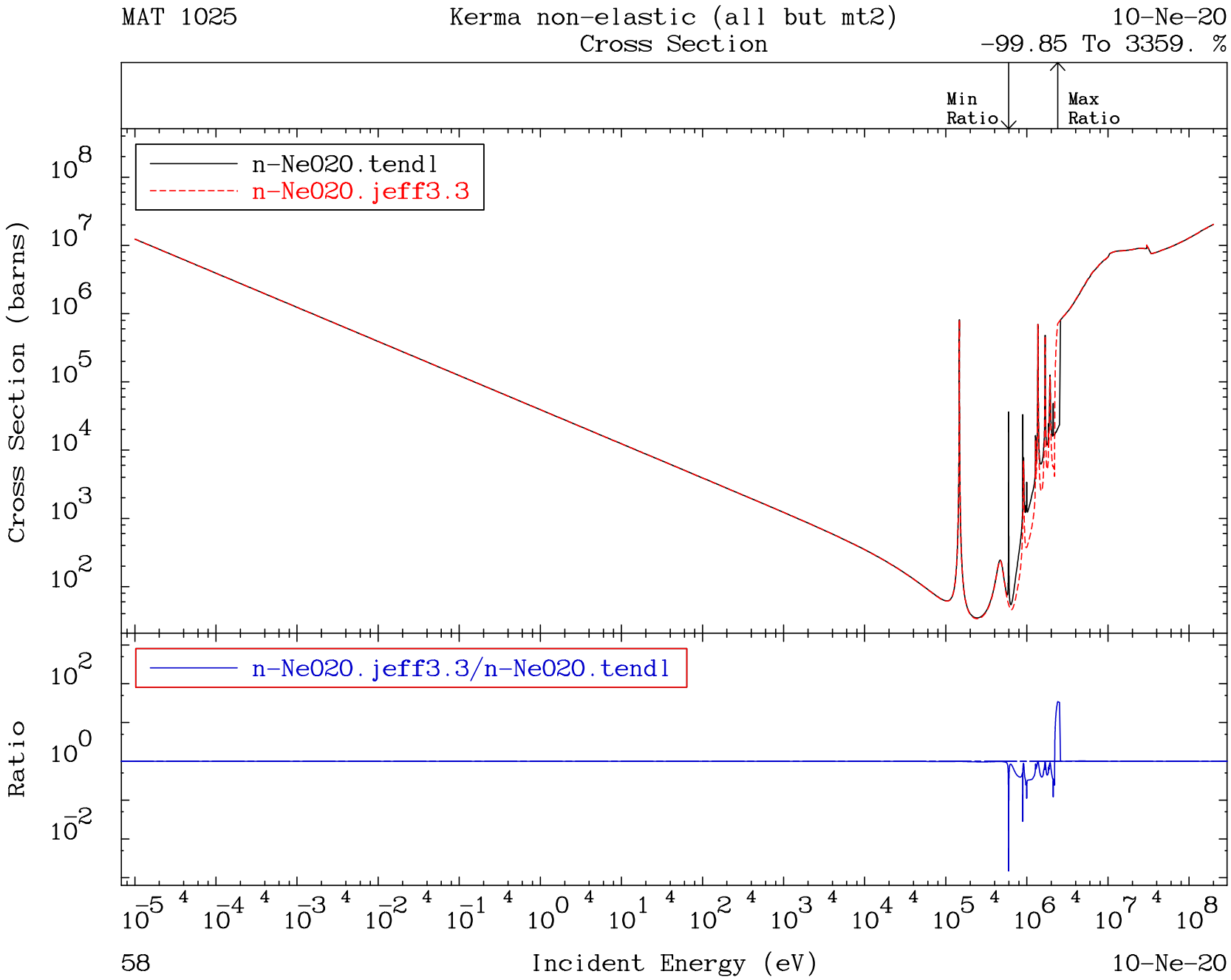

MAT 1025
Tritium Production
Cross Section
10-Ne-20
-1.210 To 0.262 %
Max
Ratio
Min
Ratio
n-Ne020.tendl Threshold 15.637 MeV
n-Ne020.jeff3.3 Threshold 15.637 MeV
Cross Section (milli-barns)
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
53
Incident Energy (eV)
10-Ne-20

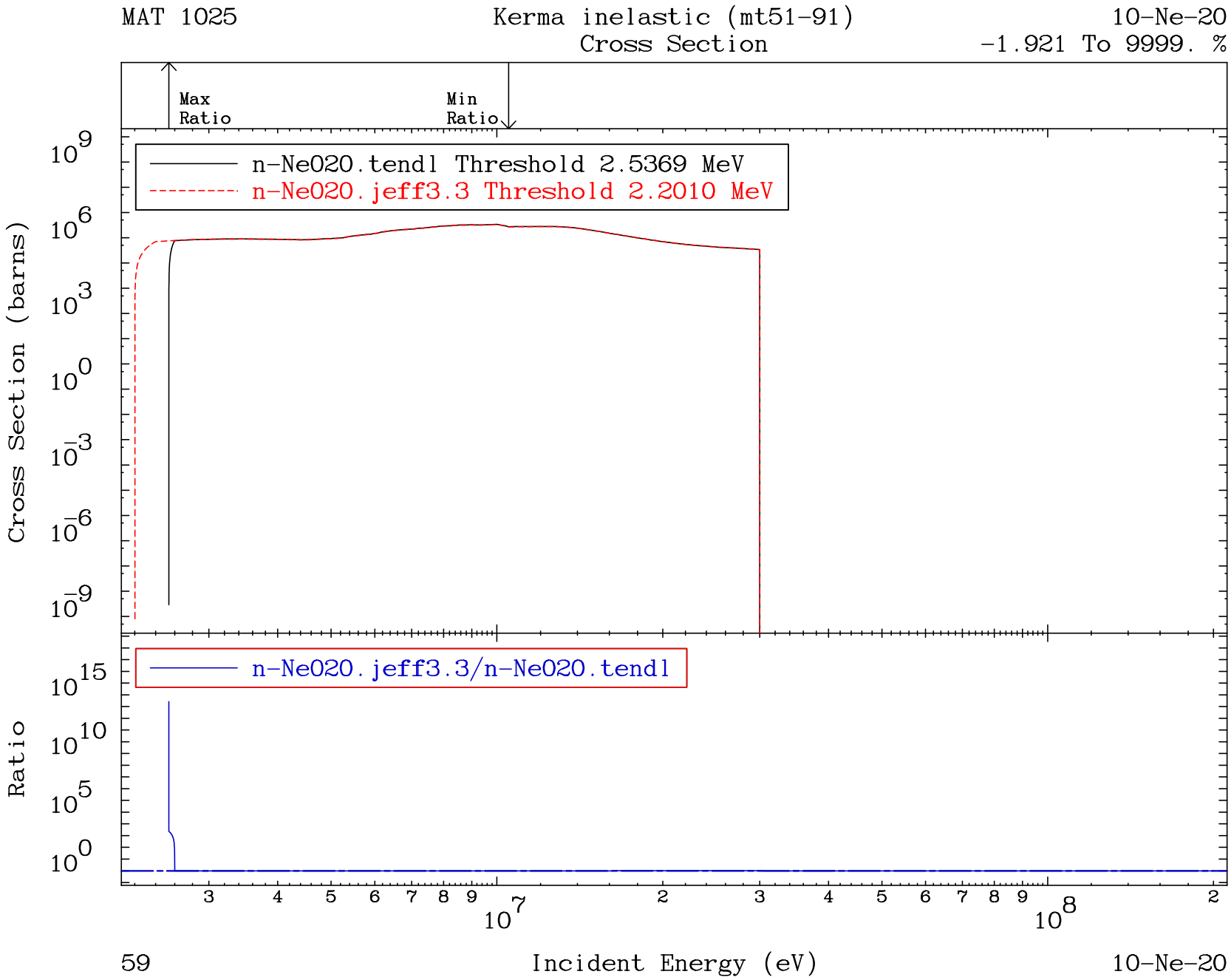

MAT 1025
He-3 Production
Cross Section
10-Ne-20
-1.071 To 0.628 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 13.793 MeV
n-Ne020.jeff3.3 Threshold 13.793 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
10-Ne-20

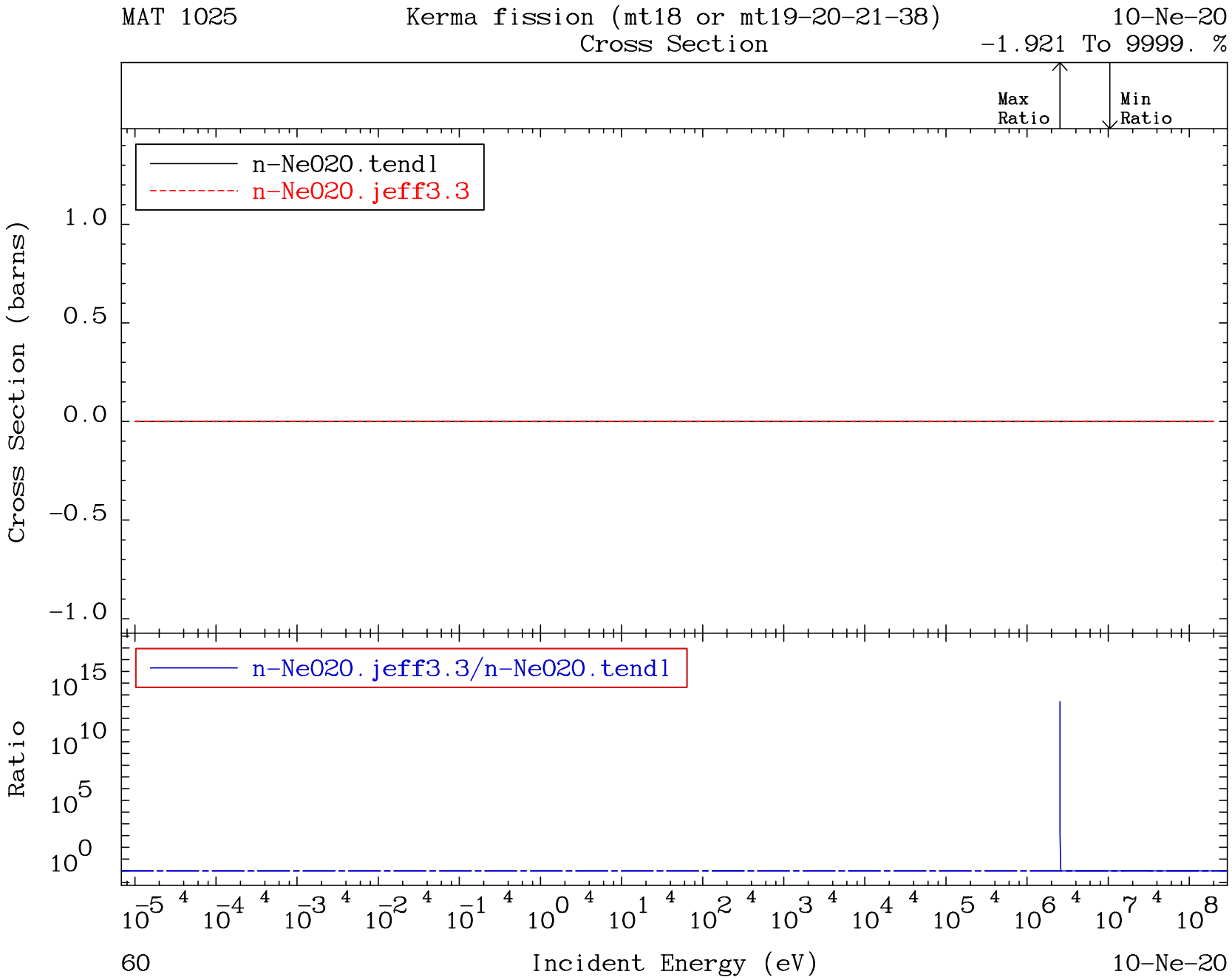

MAT 1025
He-4 Production
Cross Section
10-Ne-20
-74.93 To 4.631 %
Min Ratio
Max Ratio
n-Ne020.tendl Threshold 633.73 keV
n-Ne020.jeff3.3 Threshold 637.64 keV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
1.2
0.8
0.4
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
55
Incident Energy (eV)
10-Ne-20

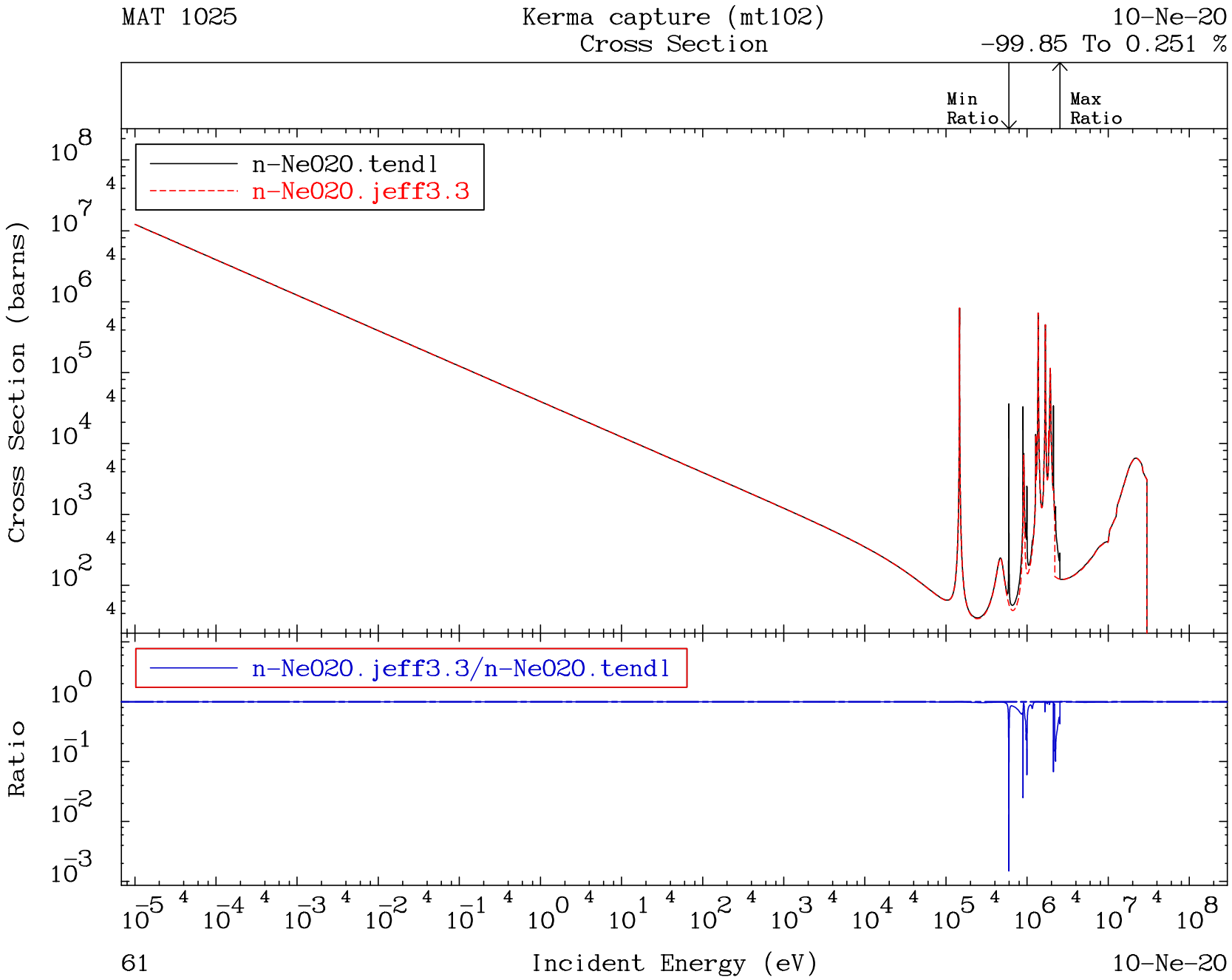

MAT 1025
Kerma total (eV-barns)
Cross Section
10-Ne-20
-88.46 To 227.9 %
Min Ratio
Max Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
56
10-Ne-20

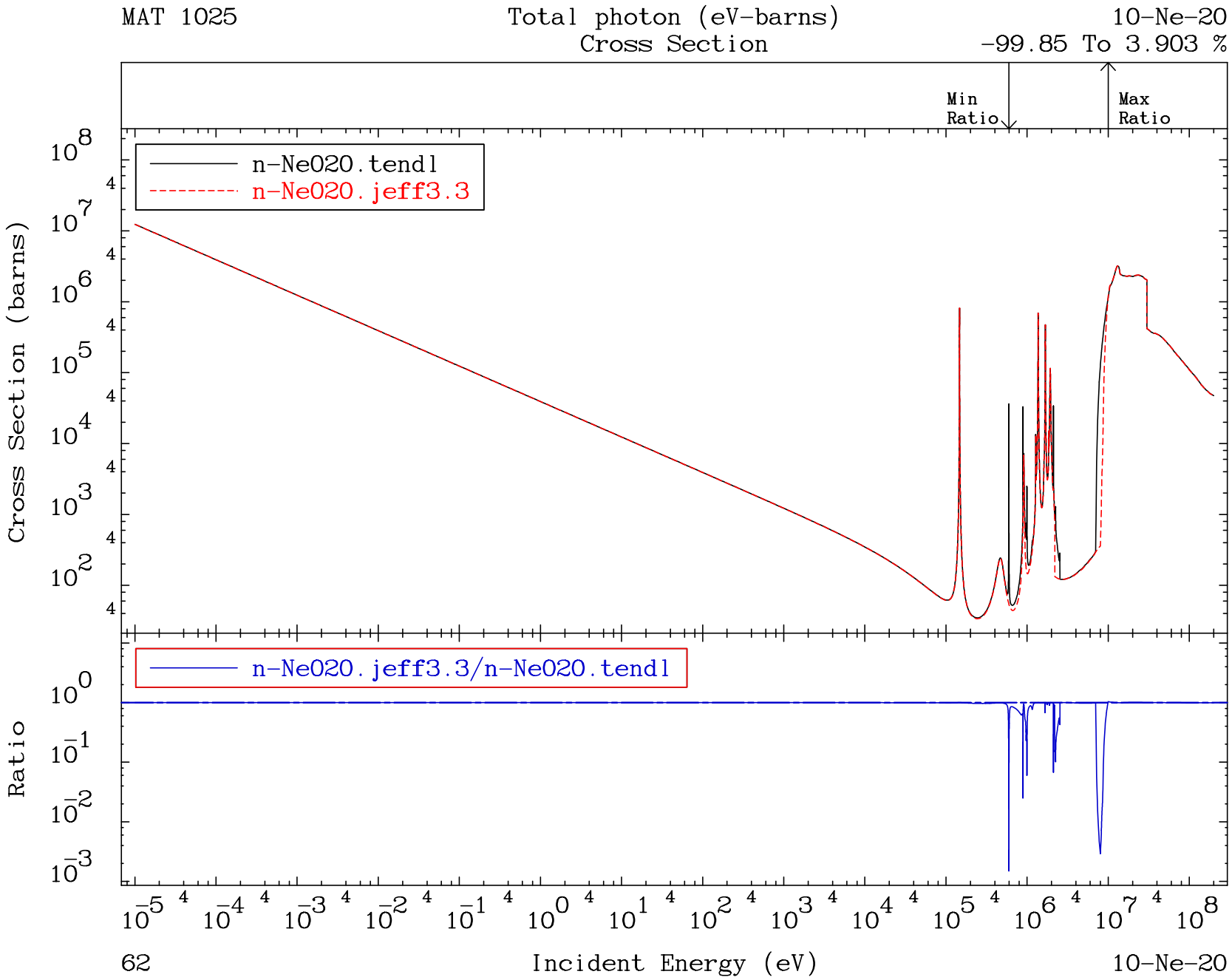

MAT 1025
Kerma elastic
Cross Section
10-Ne-20
-88.30 To 235.7 %
Max Ratio
Min Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
57
10-Ne-20

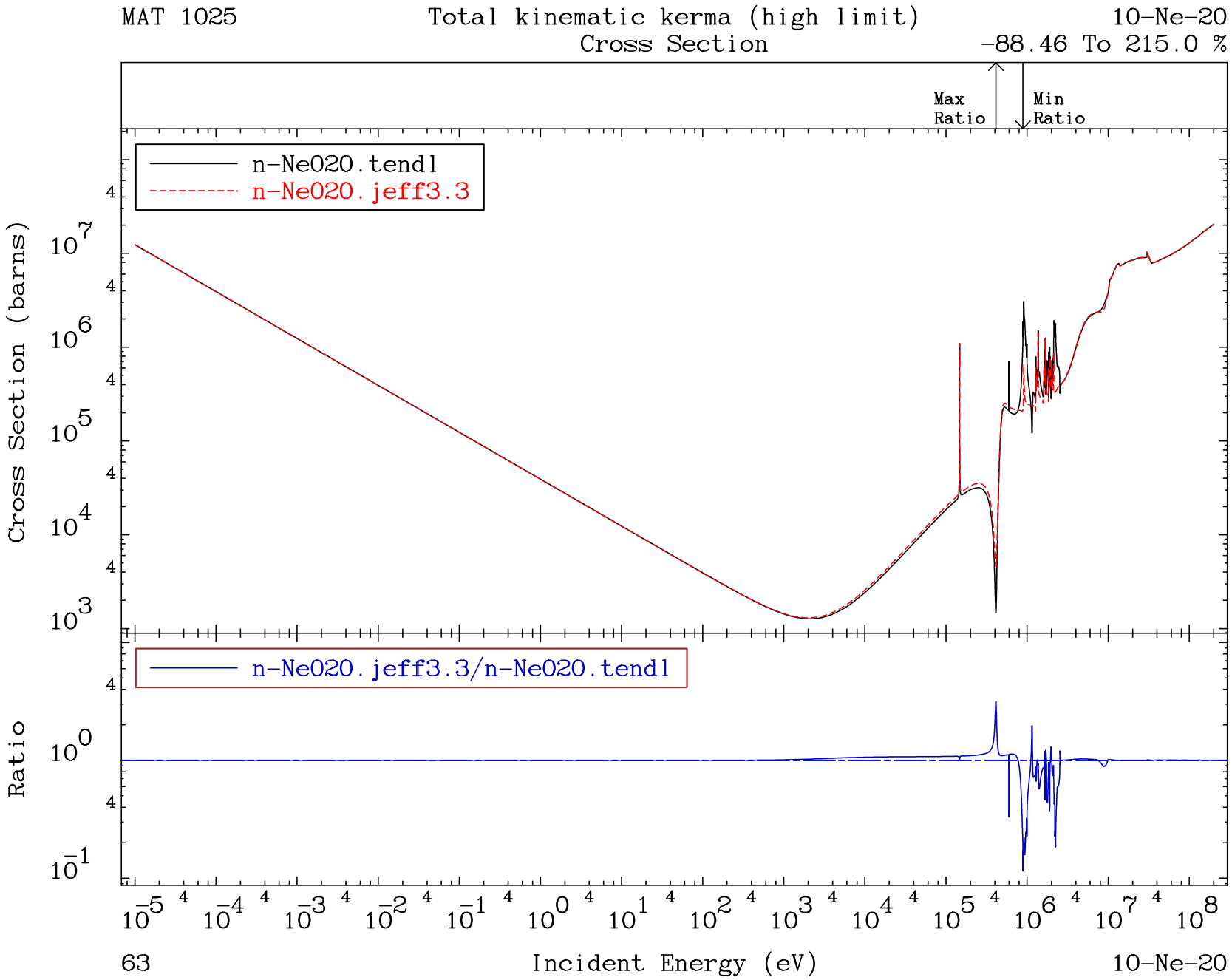

MAT 1025
Kerma non-elastic (all but mt2)
Cross Section
10-Ne-20
-99.85 To 3359. %
Min Ratio
Max Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
58
10-Ne-20

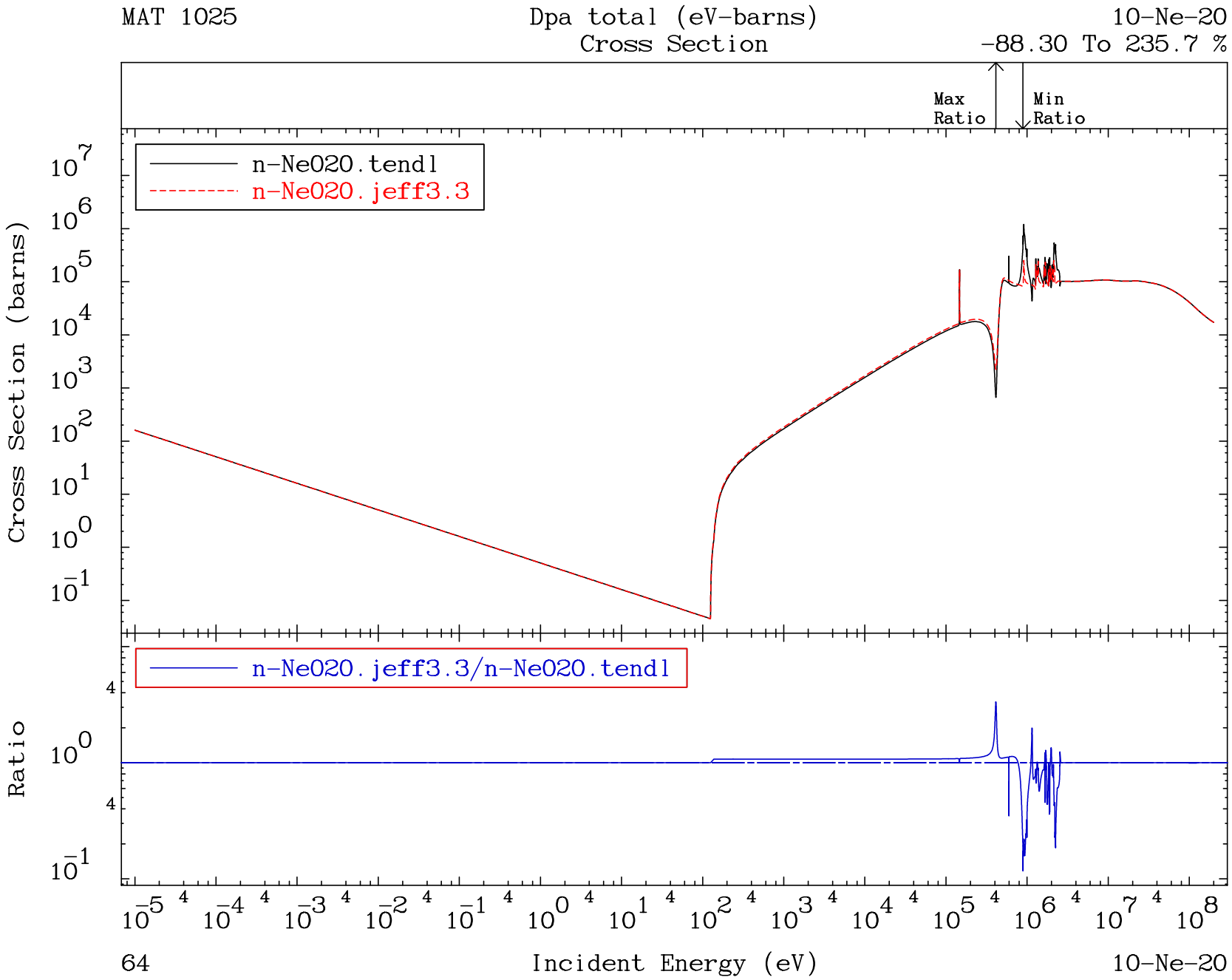

MAT 1025
Kerma inelastic (mt51-91)
Cross Section
10-Ne-20
-1.921 To 9999. %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 2.5369 MeV
n-Ne020.jeff3.3 Threshold 2.2010 MeV
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
59
10-Ne-20

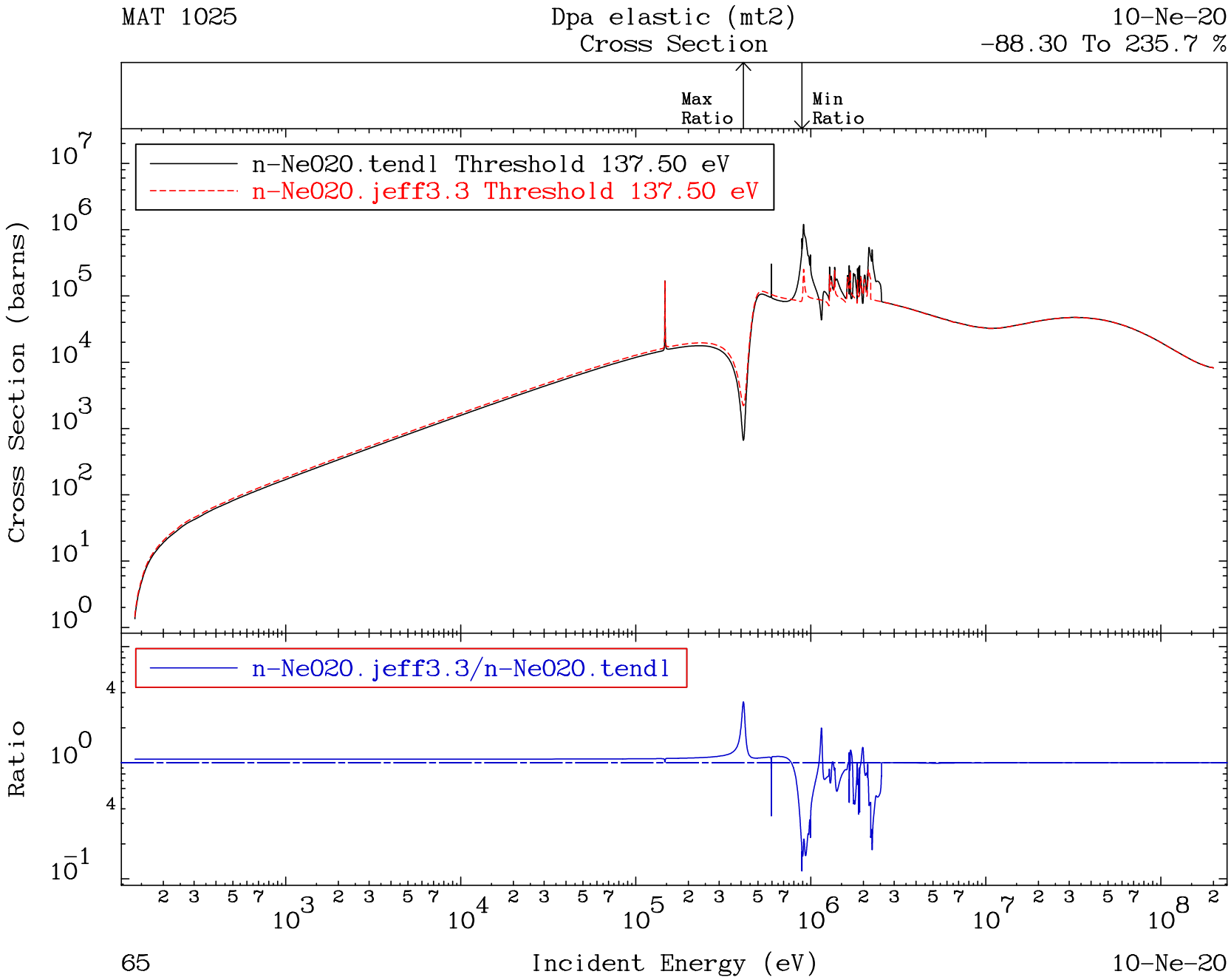

MAT 1025
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
10-Ne-20
-1.921 To 9999. %
Max Ratio
Min Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
10^15
10^10
10^5
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
60
Incident Energy (eV)
10-Ne-20

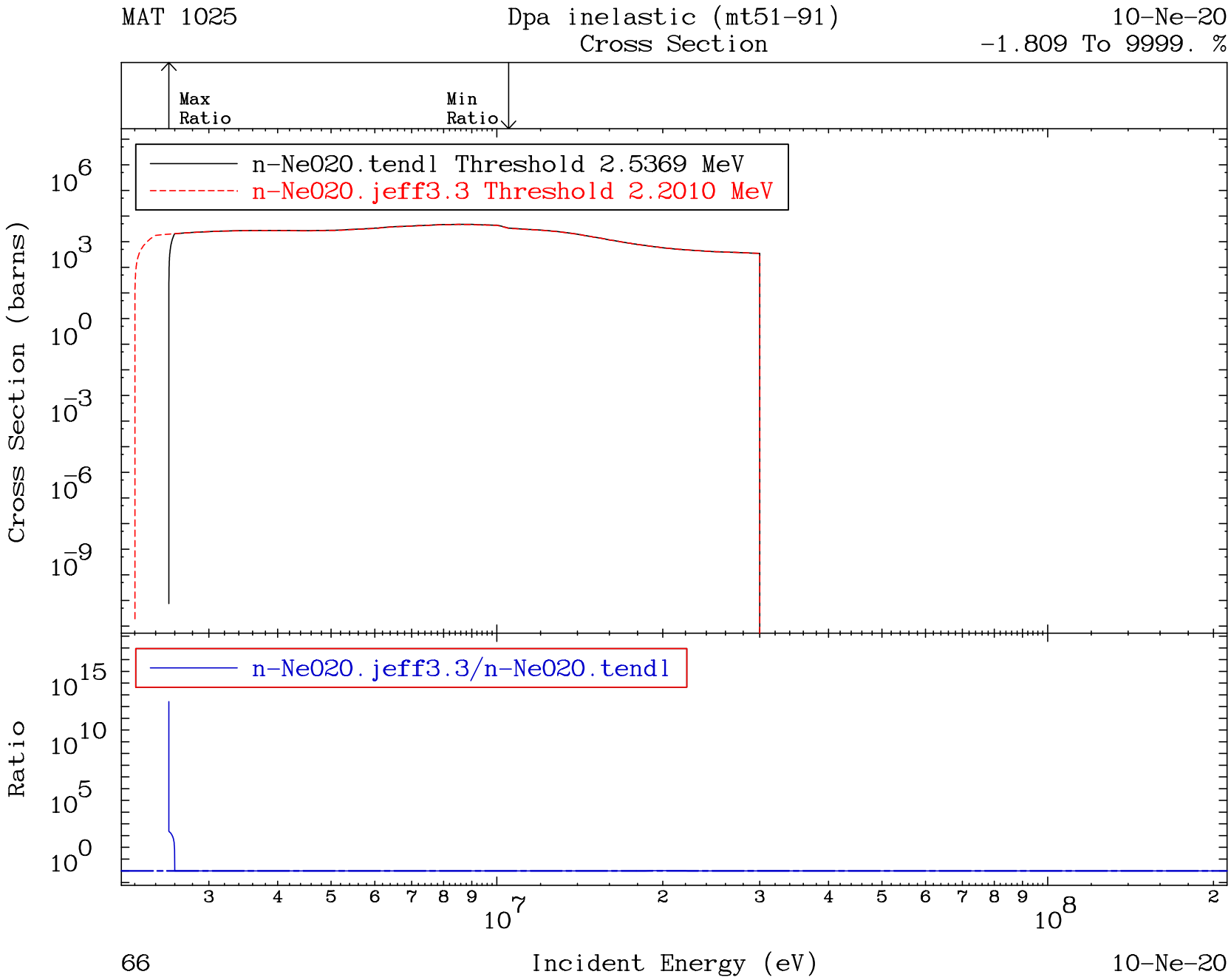

MAT 1025
Kerma capture (mt102)
Cross Section
10-Ne-20
-99.85 To 0.251 %
Min Ratio
Max Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
61
10-Ne-20

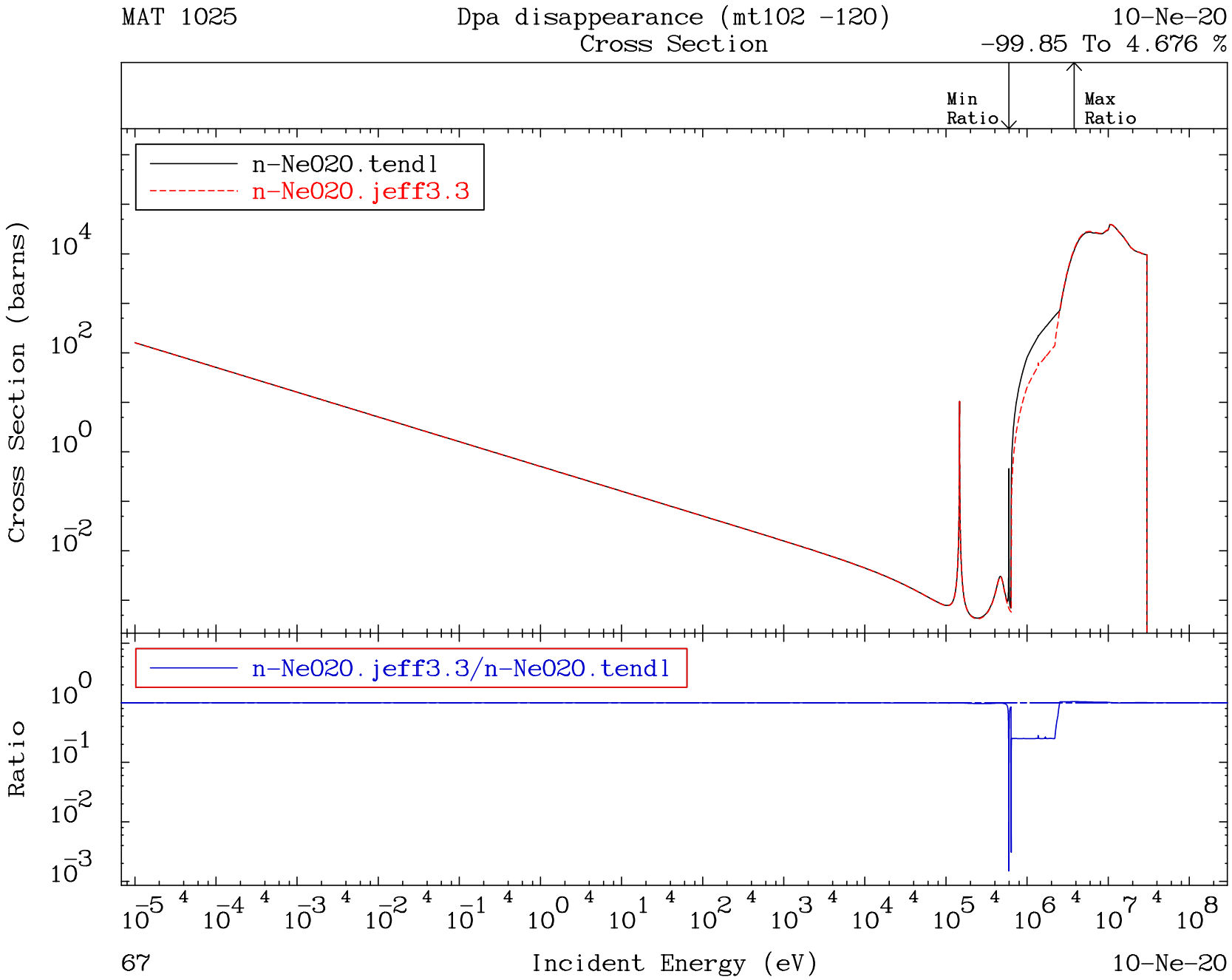

MAT 1025
Total photon (eV-barns)
Cross Section
10-Ne-20
-99.85 To 3.903 %
Min Ratio
Max Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
62
10-Ne-20


MAT 1025
Total kinematic kerma (high limit)
Cross Section
10-Ne-20
-88.46 To 215.0 %
Max Ratio
Min Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
63
10-Ne-20


MAT 1025
Dpa total (eV-barns)
Cross Section
10-Ne-20
-88.30 To 235.7 %
Max Ratio
Min Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
64
10-Ne-20


MAT 1025
Dpa elastic (mt2)
Cross Section
10-Ne-20
-88.30 To 235.7 %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 137.50 eV
n-Ne020.jeff3.3 Threshold 137.50 eV
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
65
10-Ne-20


MAT 1025
Dpa inelastic (mt51-91)
Cross Section
10-Ne-20
-1.809 To 9999. %
Max Ratio
Min Ratio
n-Ne020.tendl Threshold 2.5369 MeV
n-Ne020.jeff3.3 Threshold 2.2010 MeV
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
66
10-Ne-20


MAT 1025
Dpa disappearance (mt102 -120)
Cross Section
10-Ne-20
-99.85 To 4.676 %
Min Ratio
Max Ratio
n-Ne020.tendl
n-Ne020.jeff3.3
Cross Section (barns)
n-Ne020.jeff3.3/n-Ne020.tendl
Ratio
Incident Energy (eV)
67
10-Ne-20