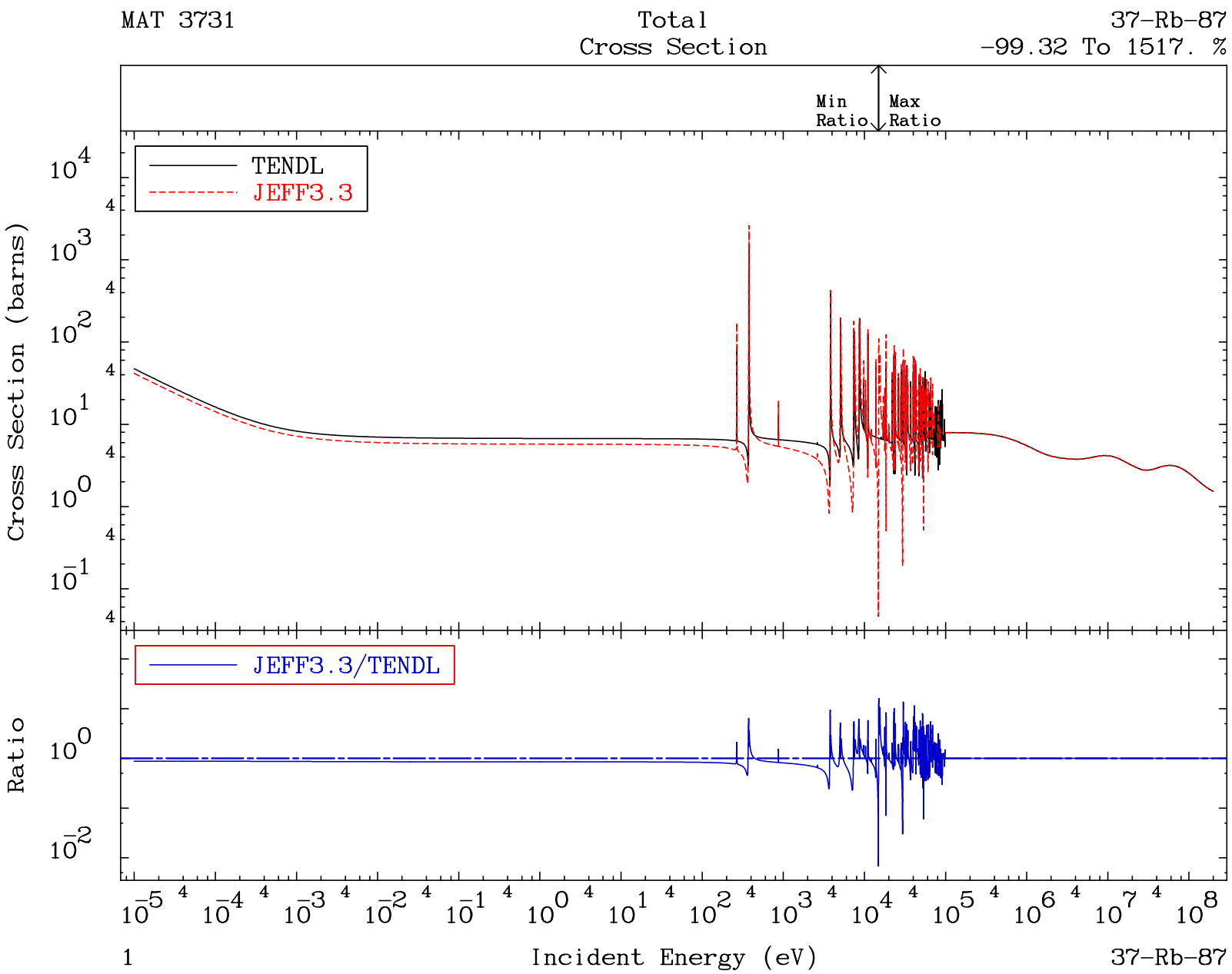
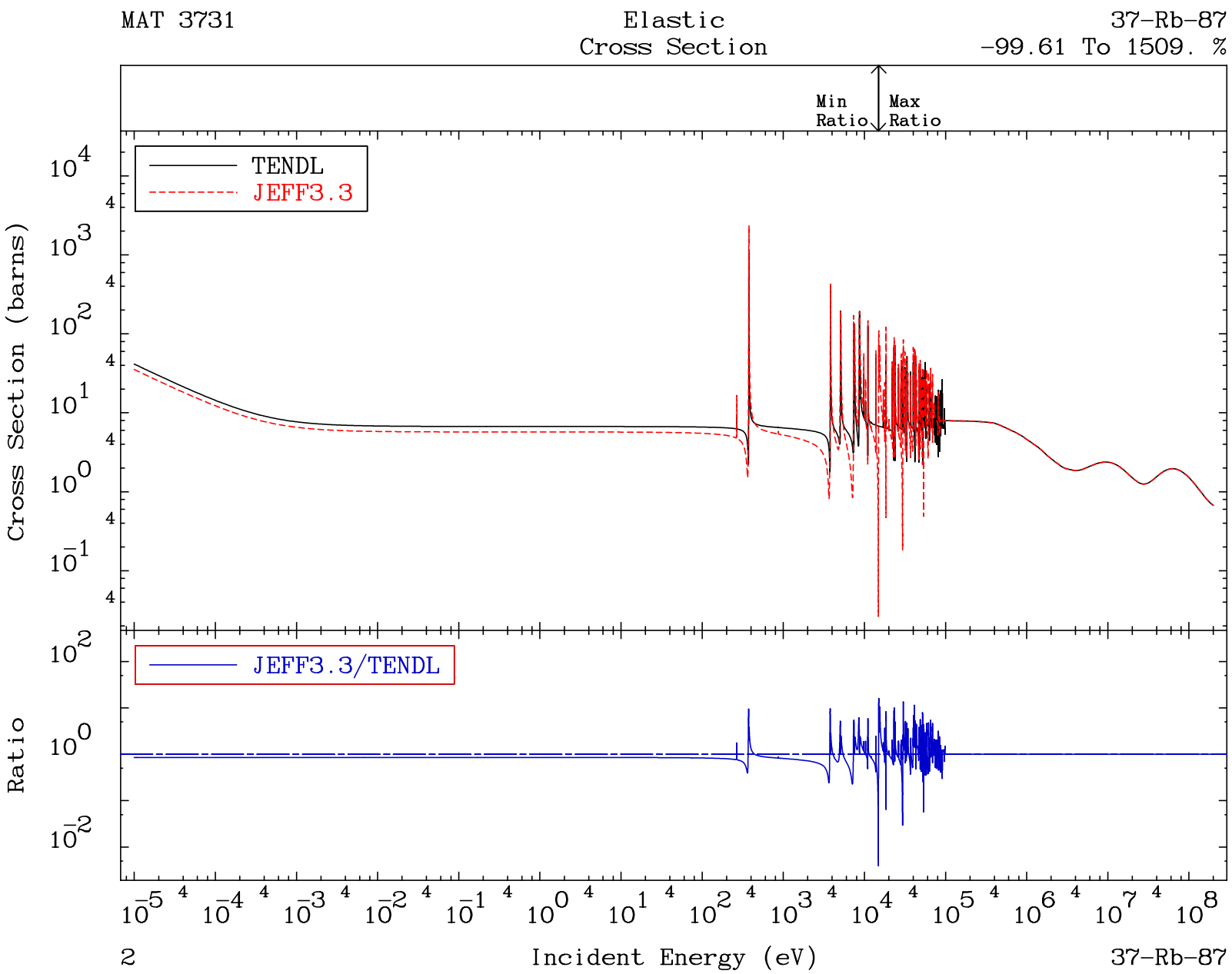
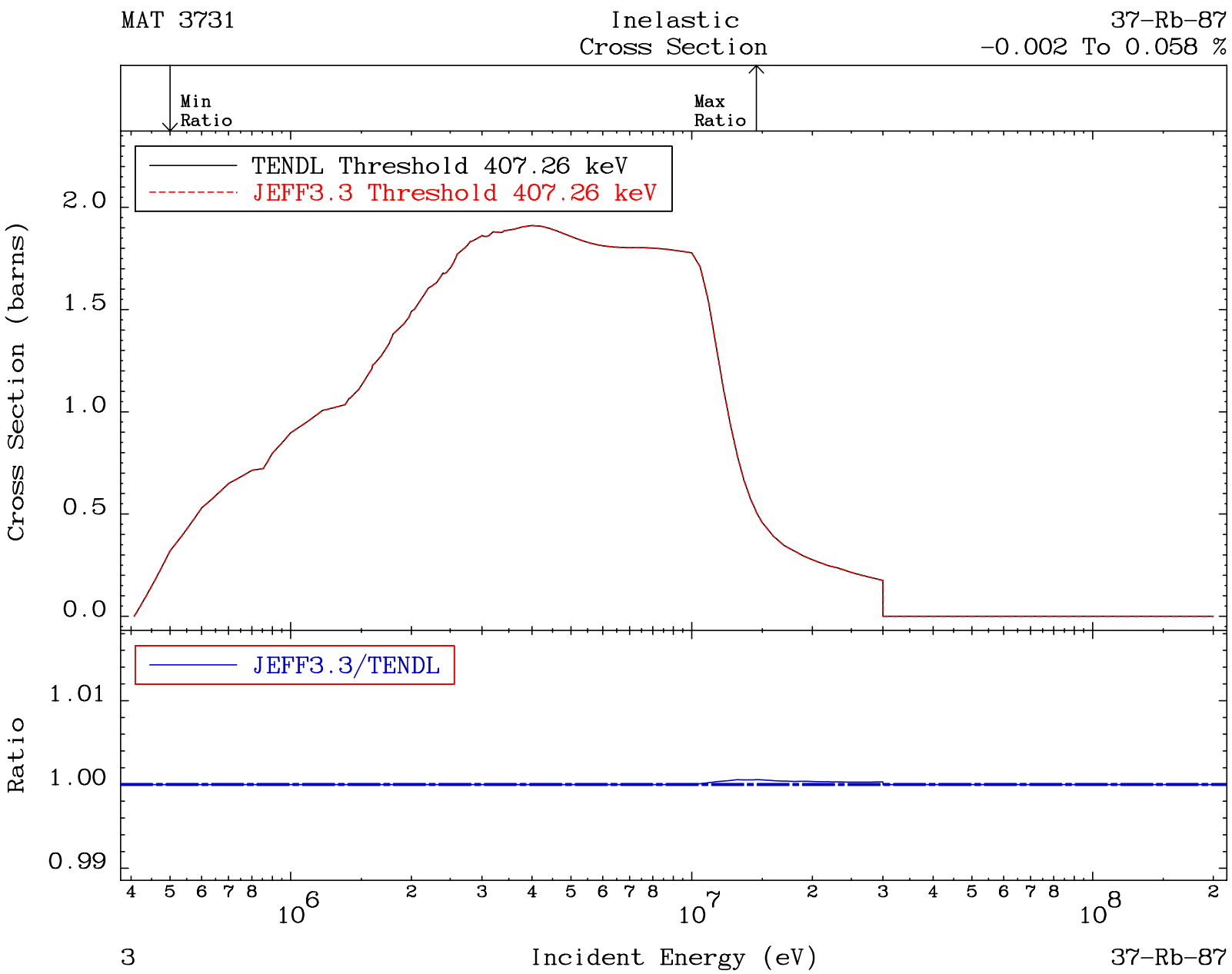
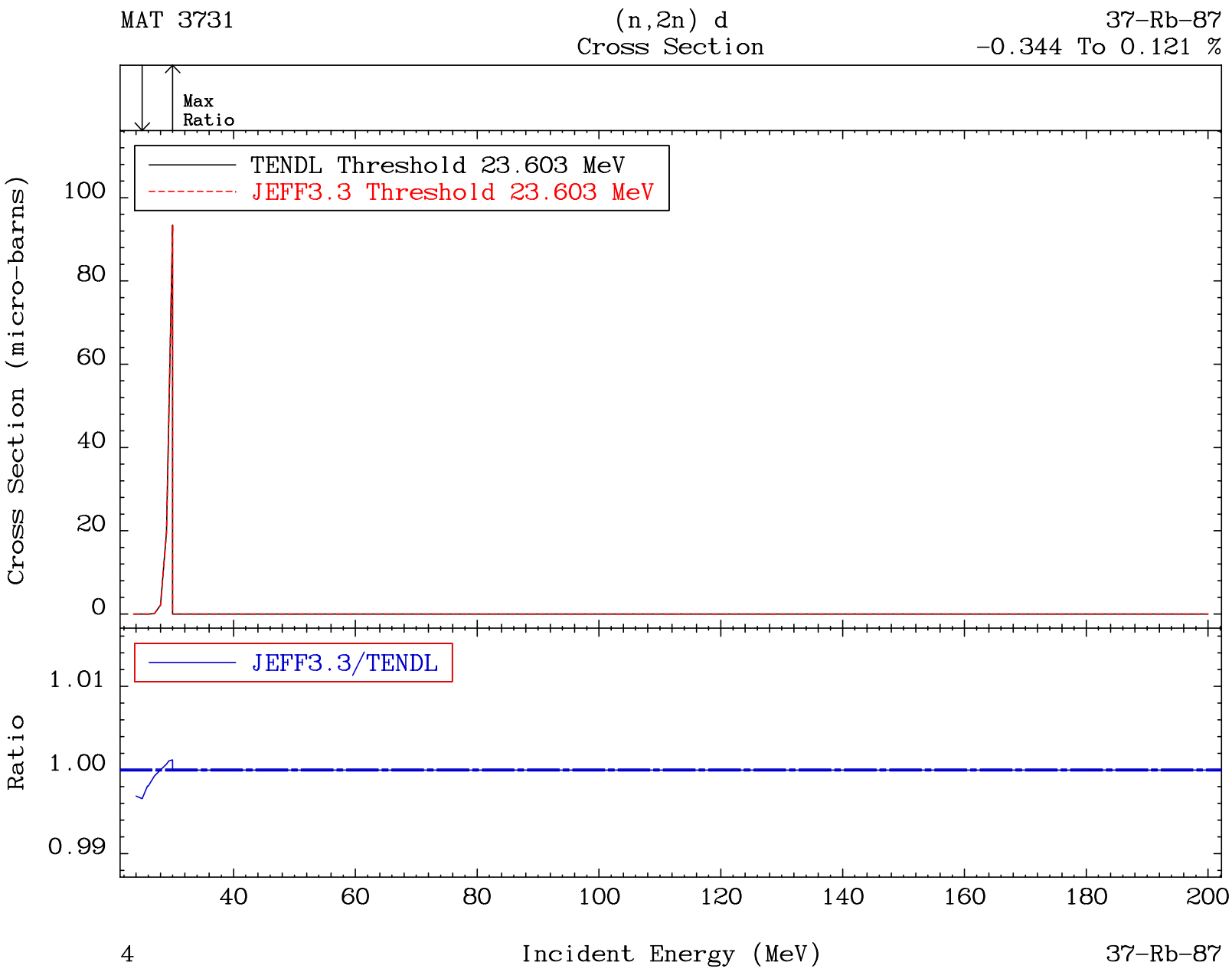
Program Complot
(Version 2018-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

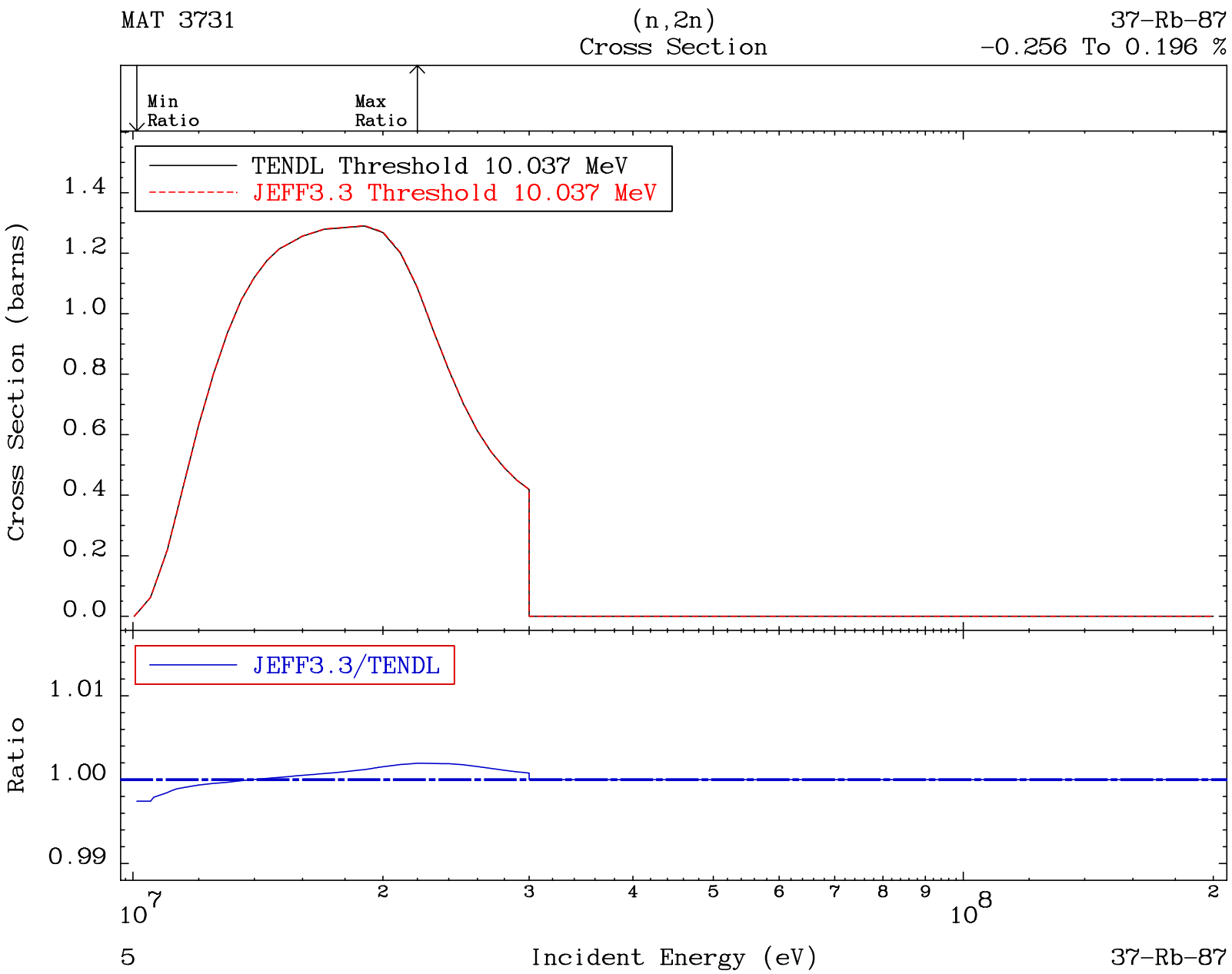
Press Mouse Button to Start

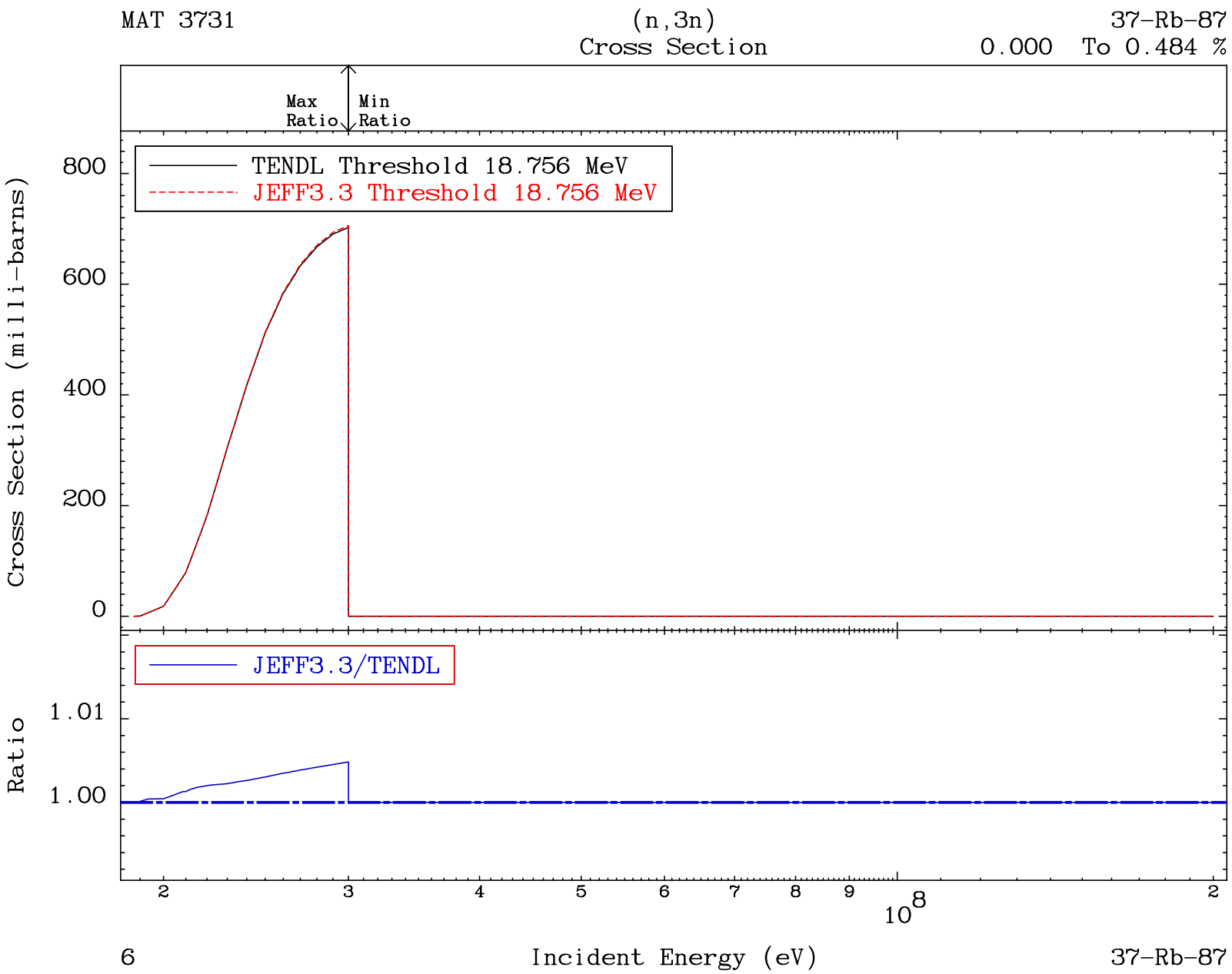

MAT 3731
Total
Cross Section
37-Rb-87
-99.32 To 1517. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
37-Rb-87

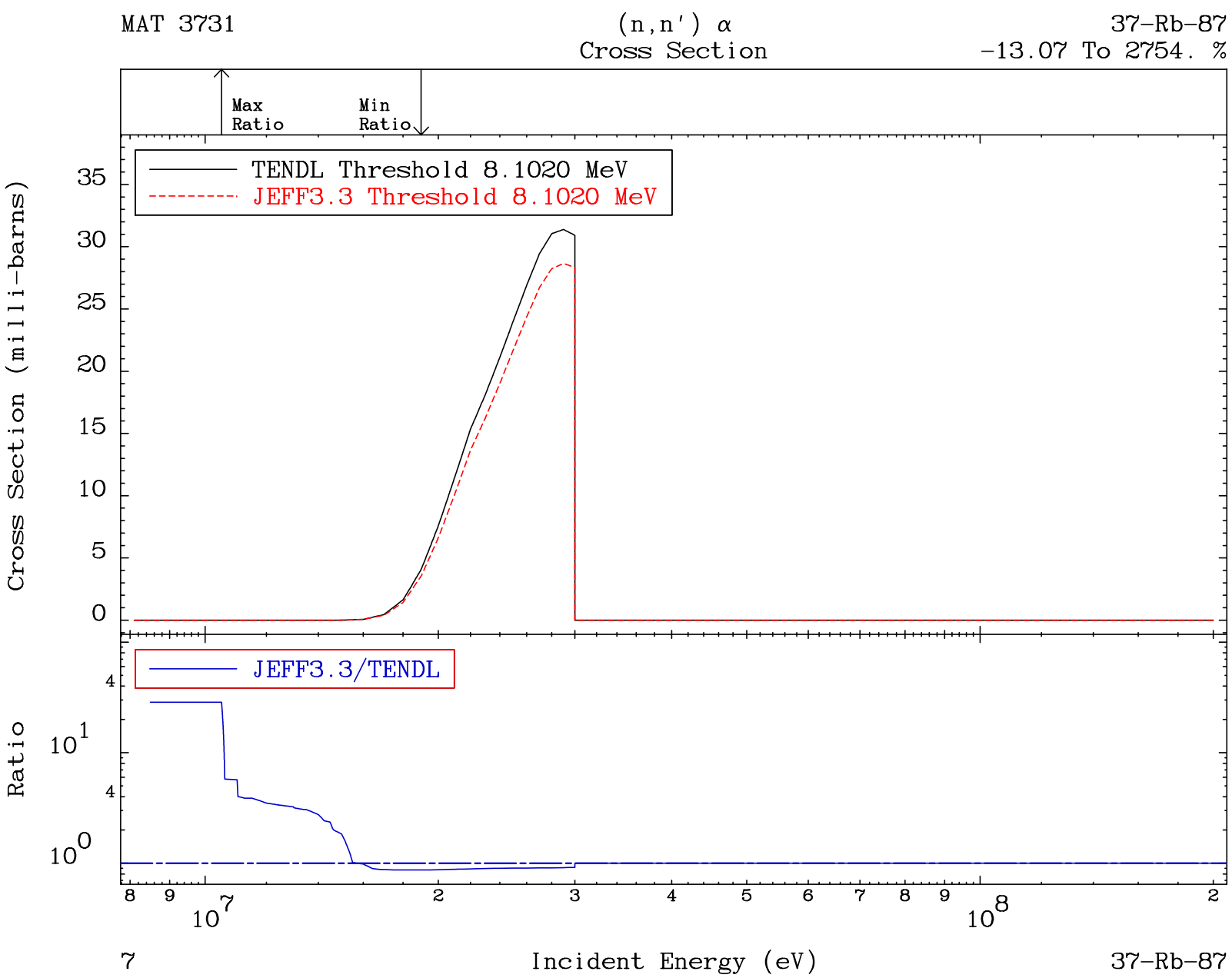

MAT 3731
Elastic
Cross Section
37-Rb-87
-99.61 To 1509. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
37-Rb-87

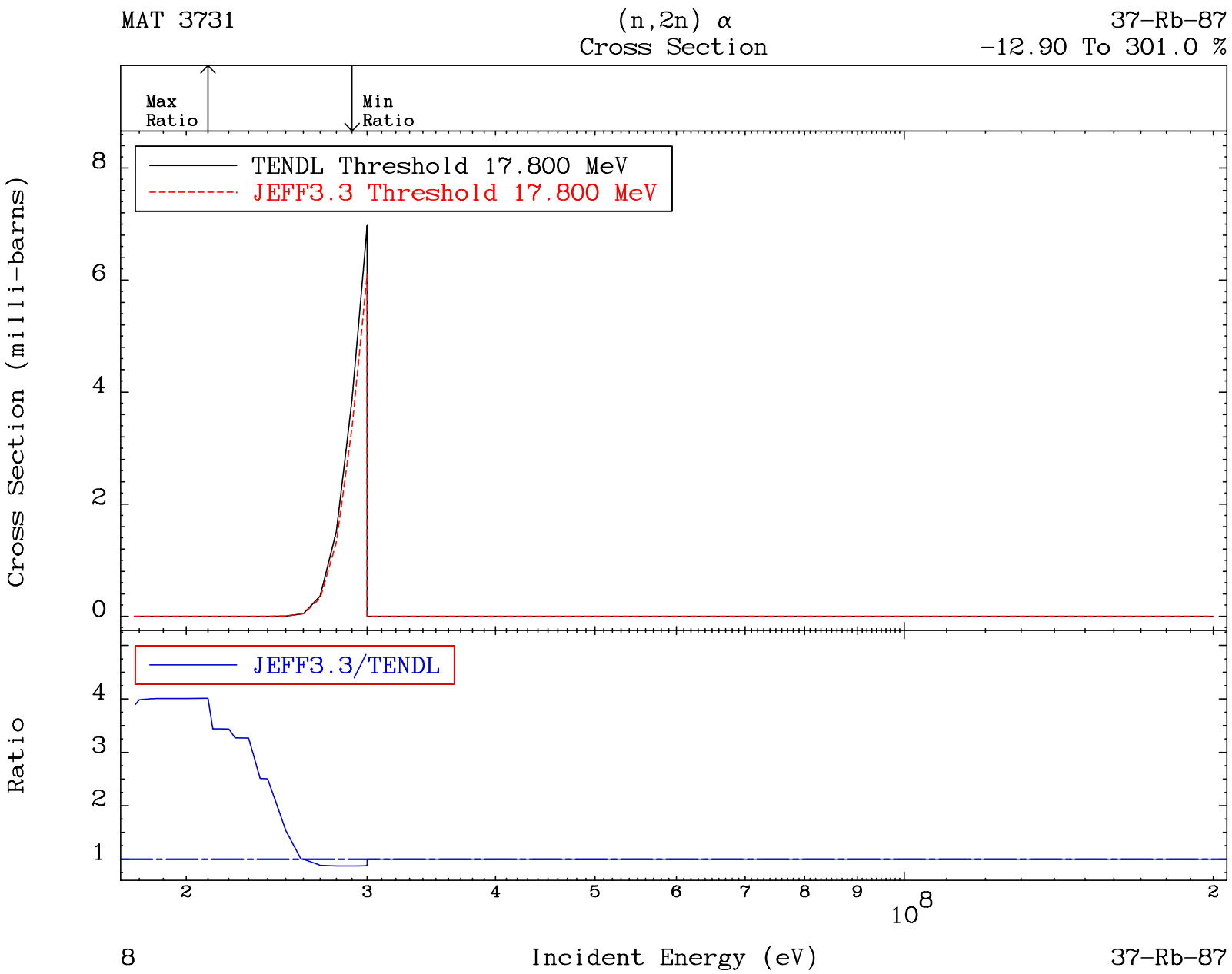

MAT 3731
Inelastic
Cross Section
37-Rb-87
-0.002 To 0.058 %
Min
Ratio
Max
Ratio
TENDL Threshold 407.26 keV
JEFF3.3 Threshold 407.26 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
3
37-Rb-87

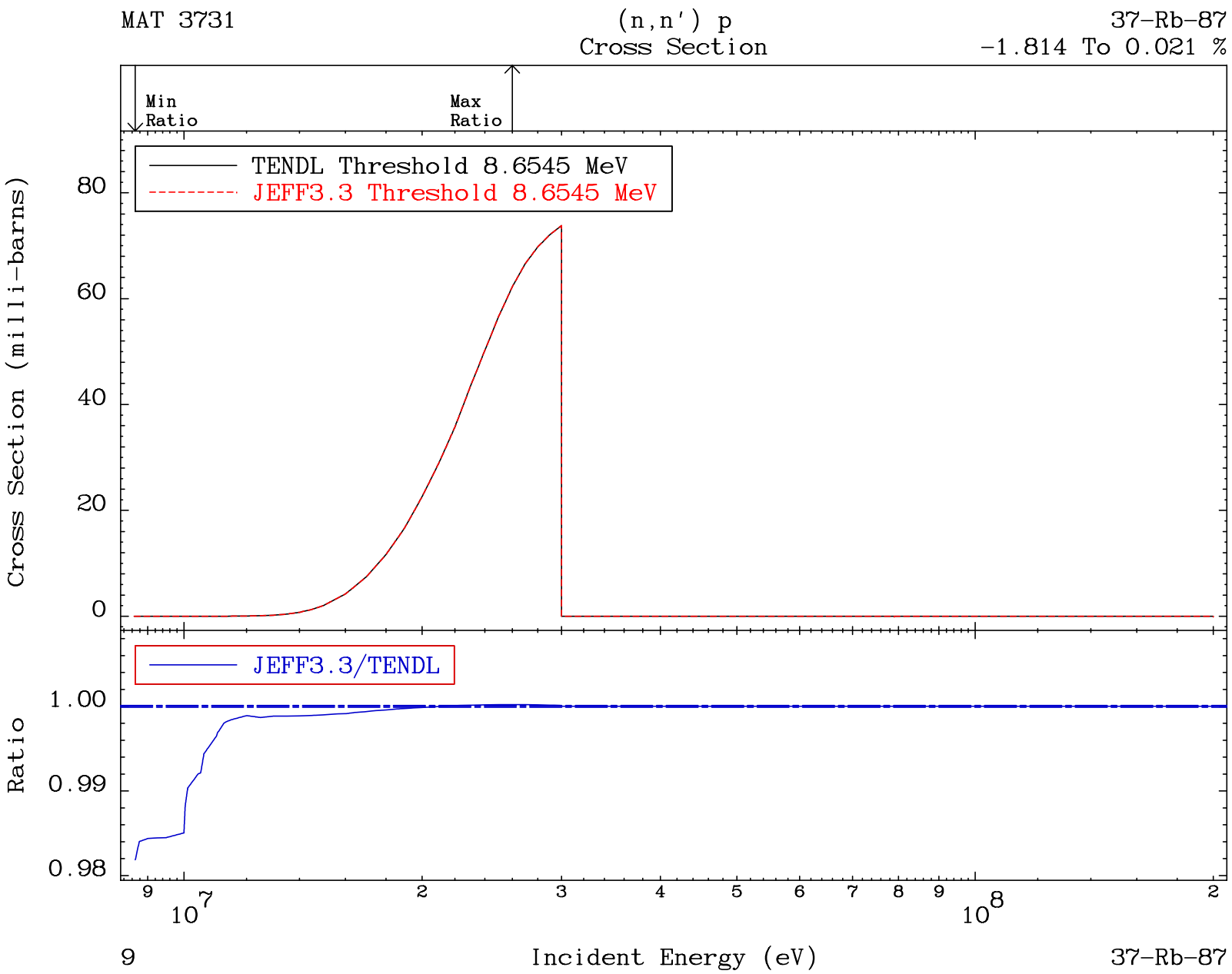

MAT 3731
(n,2n) d
Cross Section
37-Rb-87
-0.344 To 0.121 %
Max
Ratio
TENDL Threshold 23.603 MeV
JEFF3.3 Threshold 23.603 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
37-Rb-87

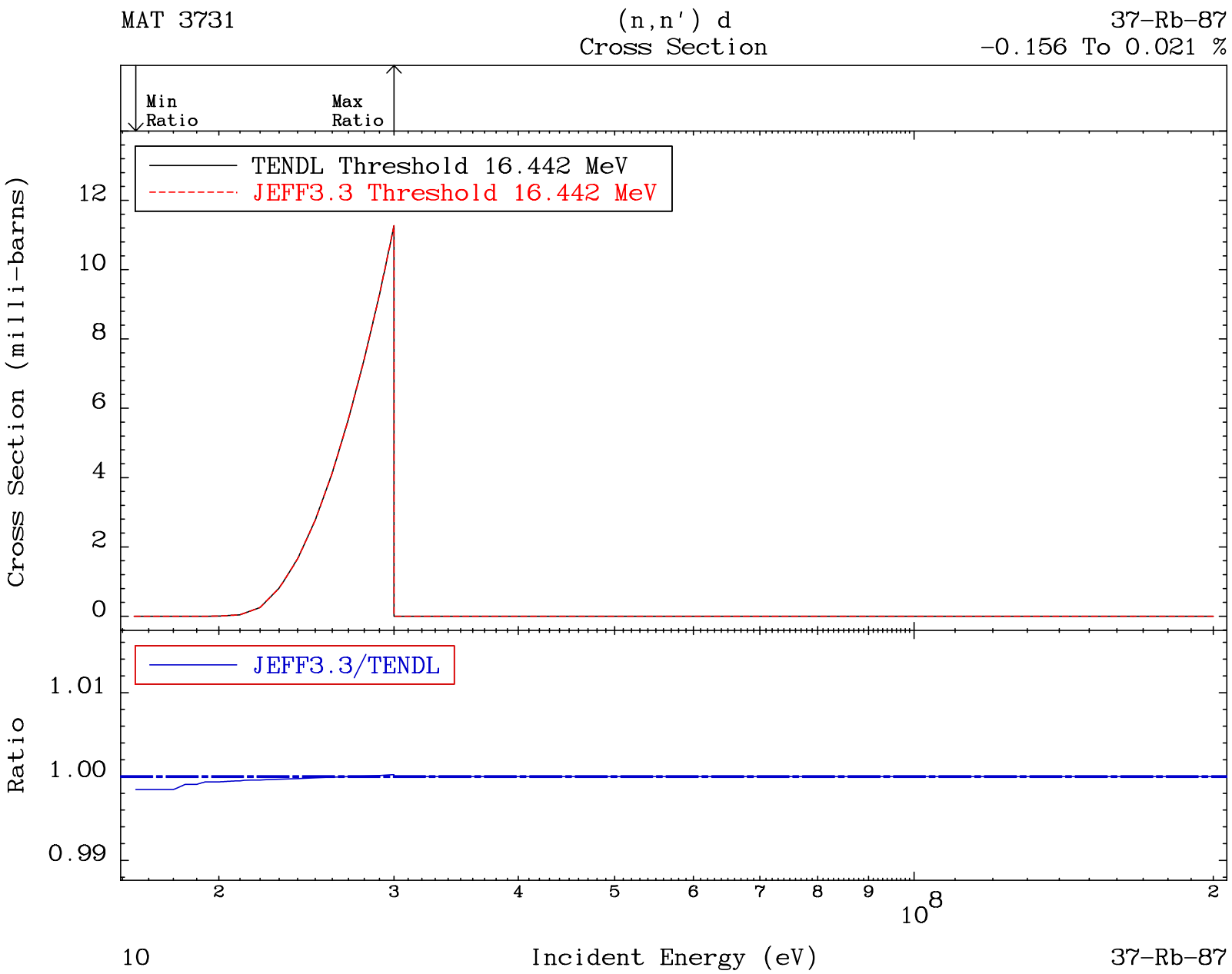

MAT 3731
(n,2n)
Cross Section
37-Rb-87
-0.256 To 0.196 %
Min Ratio
Max Ratio
TENDL Threshold 10.037 MeV
JEFF3.3 Threshold 10.037 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
37-Rb-87

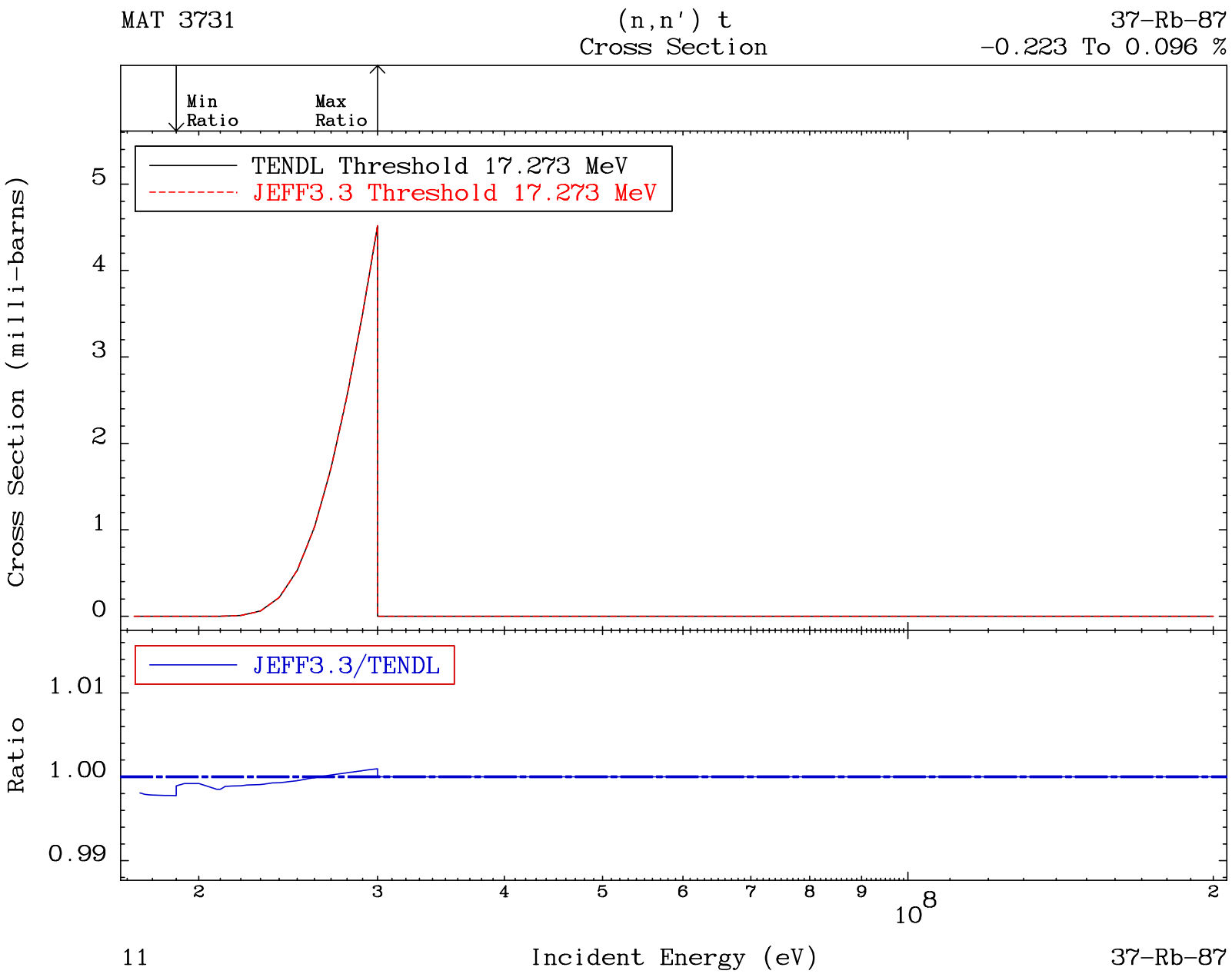

MAT 3731
(n,3n)
Cross Section
37-Rb-87
0.000 To 0.484 %
Max Ratio
Min Ratio
TENDL Threshold 18.756 MeV
JEFF3.3 Threshold 18.756 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
37-Rb-87

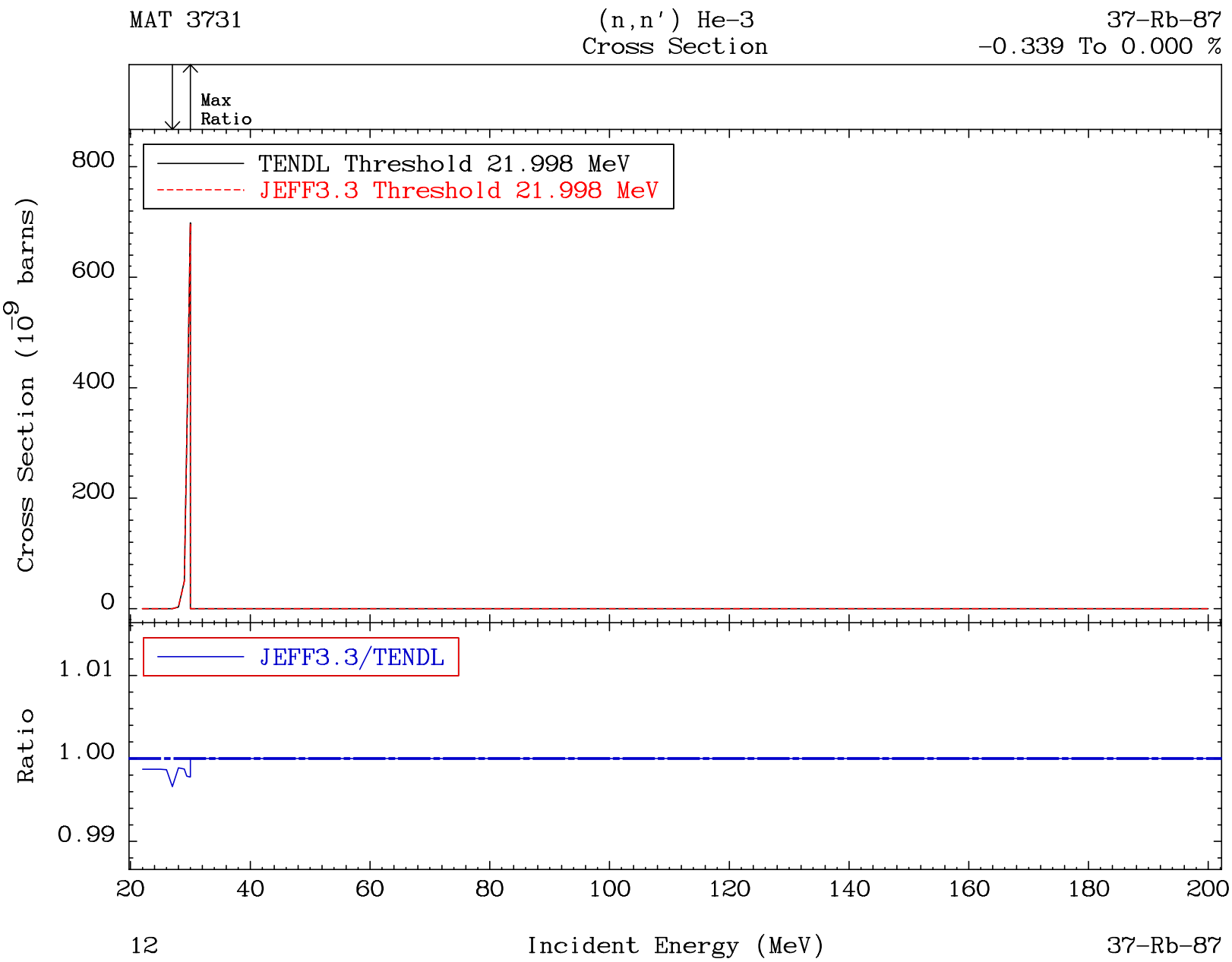

MAT 3731
(n,n') α
Cross Section
37-Rb-87
-13.07 To 2754. %
Max Ratio
Min Ratio
TENDL Threshold 8.1020 MeV
JEFF3.3 Threshold 8.1020 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^1
4
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
37-Rb-87

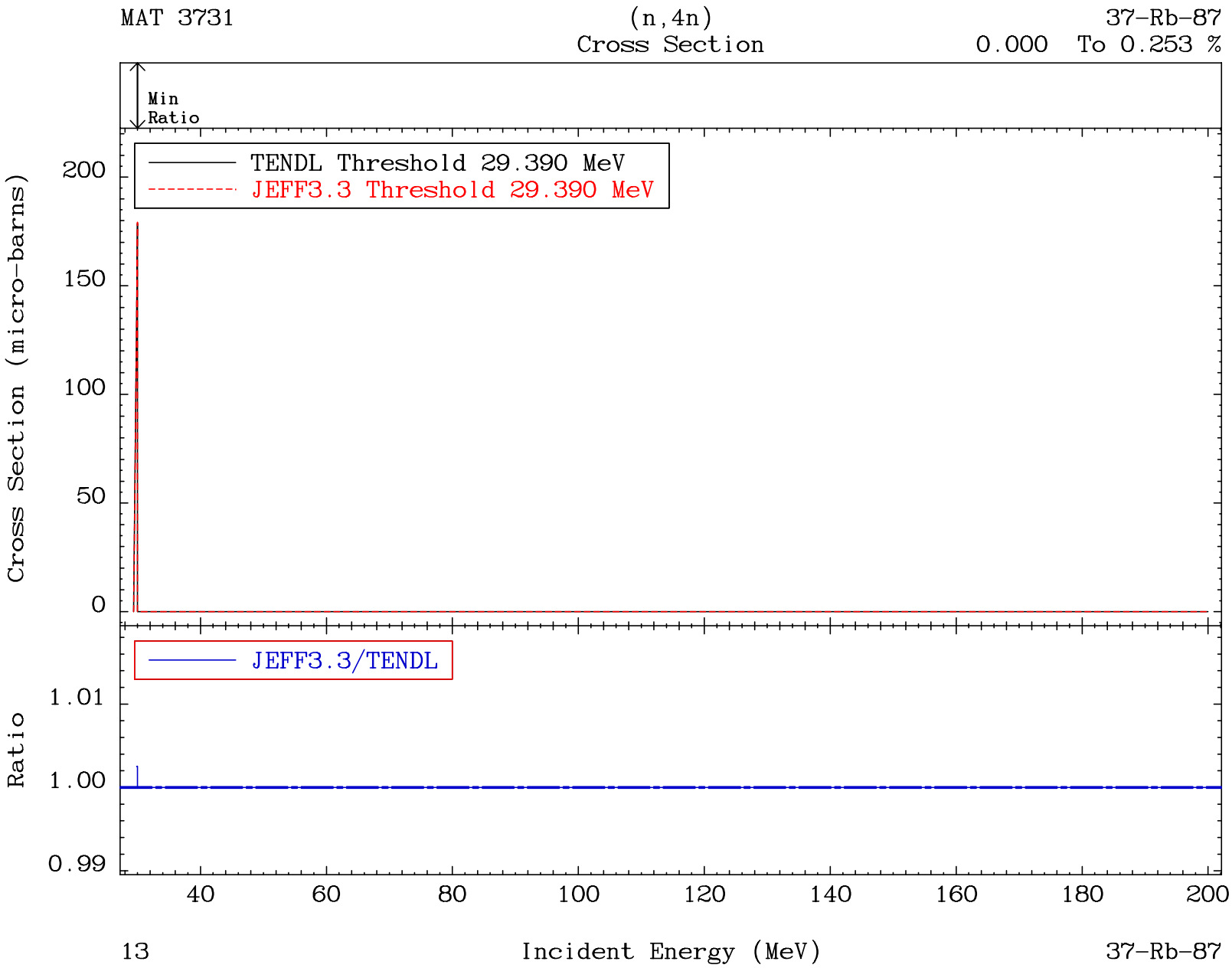

MAT 3731
(n,2n) α
Cross Section
37-Rb-87
-12.90 To 301.0 %
Max Ratio
Min Ratio
TENDL Threshold 17.800 MeV
JEFF3.3 Threshold 17.800 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
1
2
3
4
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
37-Rb-87

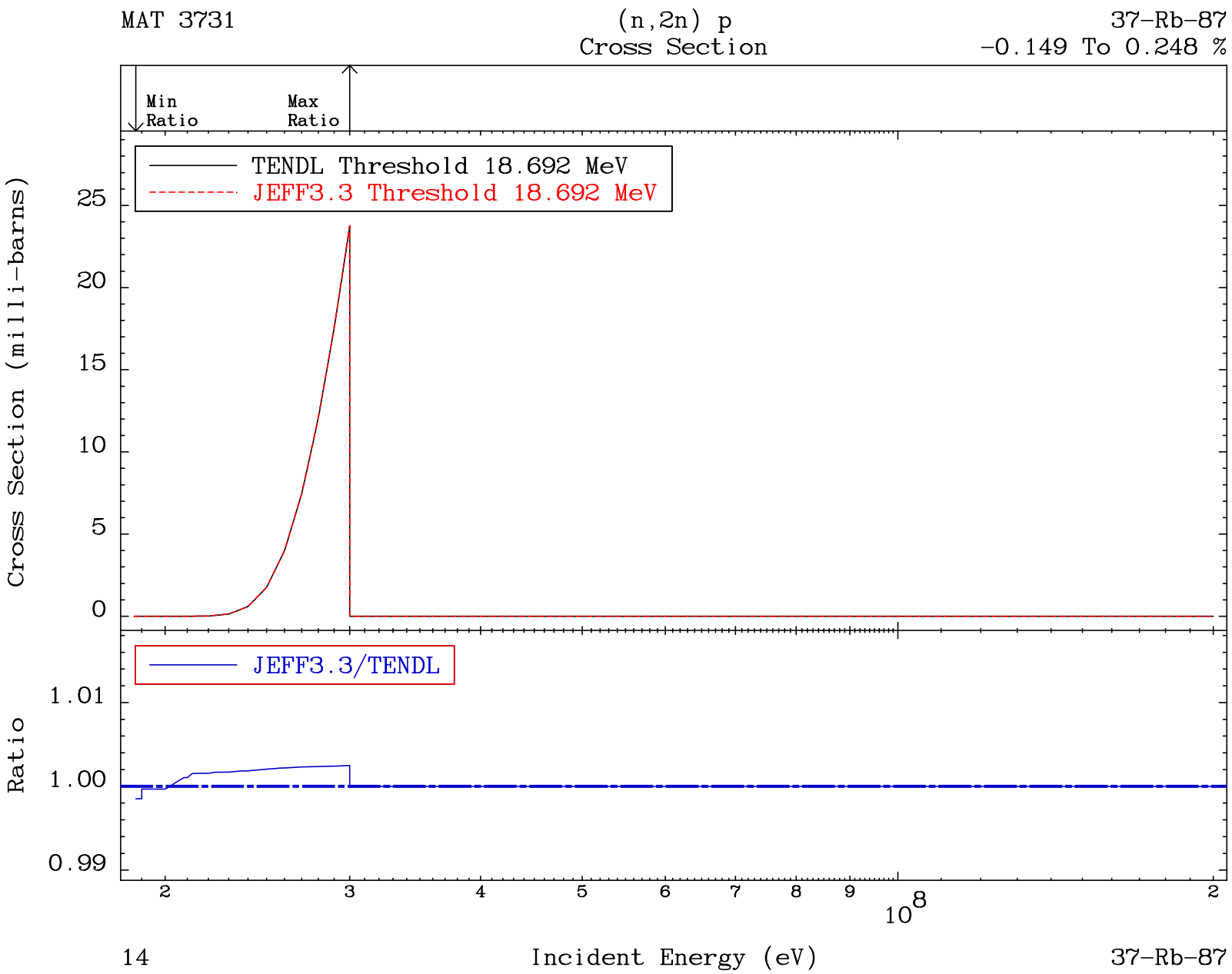

MAT 3731
(n,n') p
Cross Section
37-Rb-87
-1.814 To 0.021 %
Min Ratio
Max Ratio
TENDL Threshold 8.6545 MeV
JEFF3.3 Threshold 8.6545 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
9
10^7
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
37-Rb-87

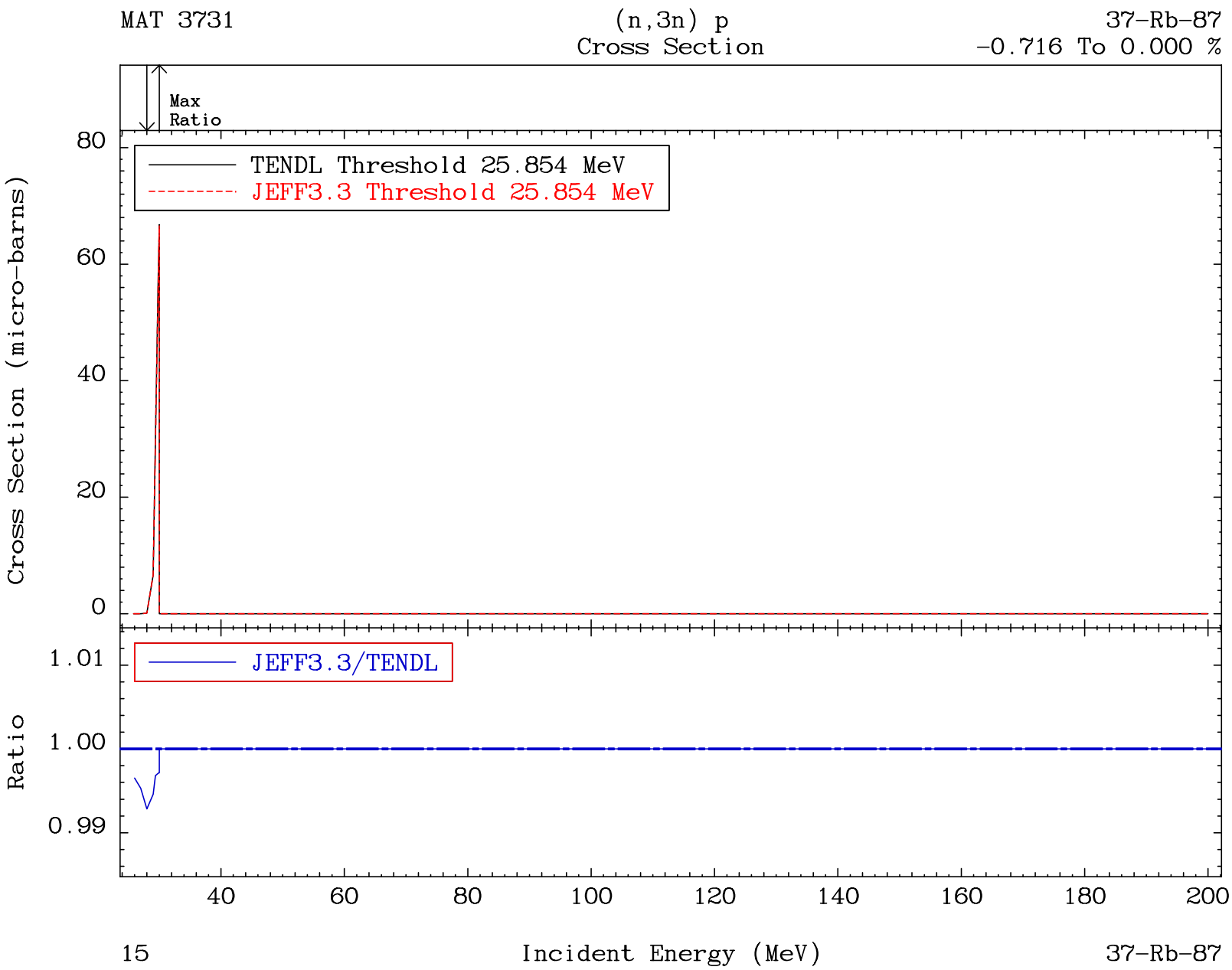

MAT 3731
(n,n') d
Cross Section
37-Rb-87
-0.156 To 0.021 %
Min Ratio
Max Ratio
TENDL Threshold 16.442 MeV
JEFF3.3 Threshold 16.442 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
37-Rb-87

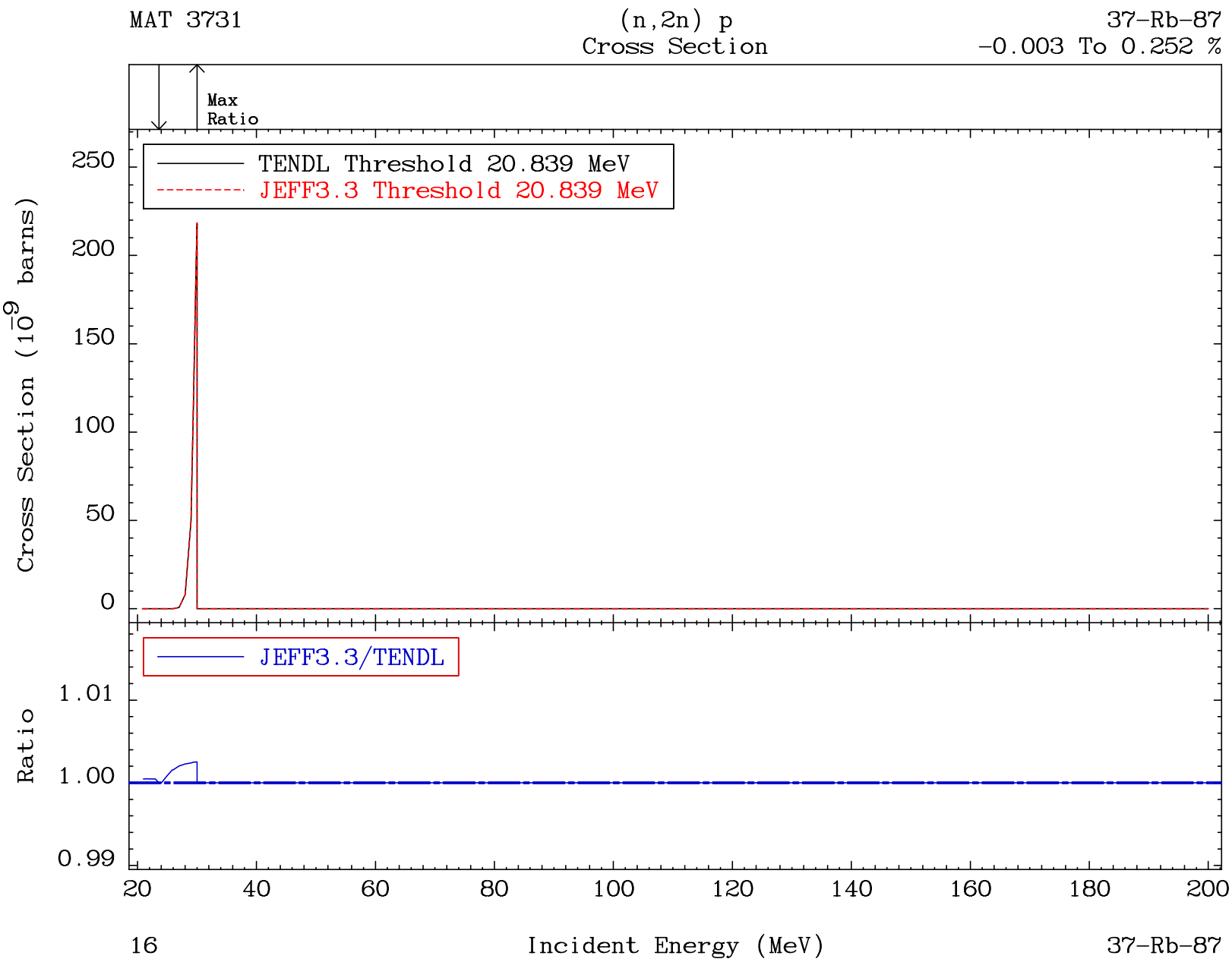

MAT 3731
(n,n') t
Cross Section
37-Rb-87
-0.223 To 0.096 %
Min Ratio
Max Ratio
TENDL Threshold 17.273 MeV
JEFF3.3 Threshold 17.273 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
37-Rb-87

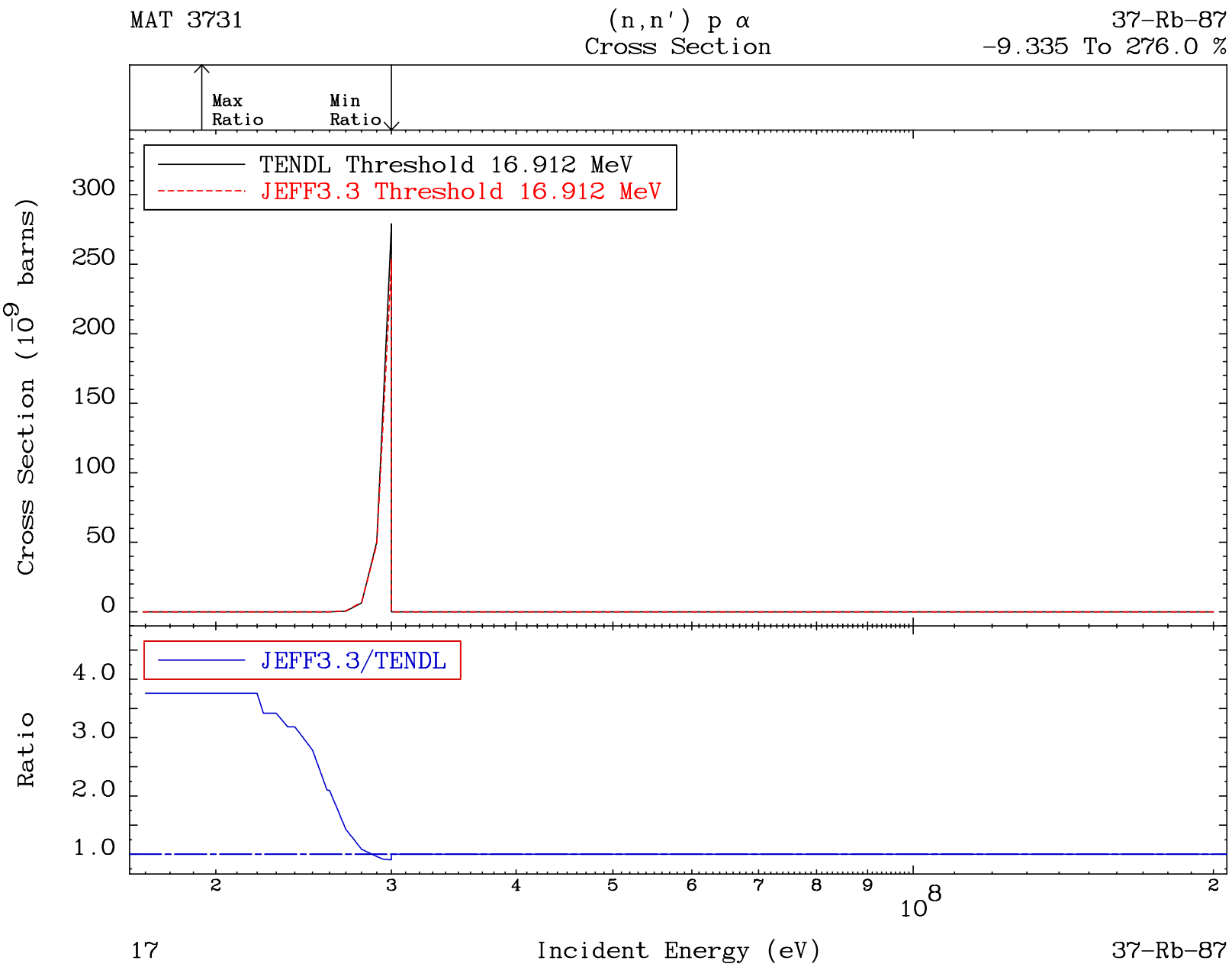

MAT 3731
(n,n') He-3
Cross Section
37-Rb-87
-0.339 To 0.000 %
Max
Ratio
TENDL Threshold 21.998 MeV
JEFF3.3 Threshold 21.998 MeV
Cross Section (10-9 barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
12
Incident Energy (MeV)
37-Rb-87

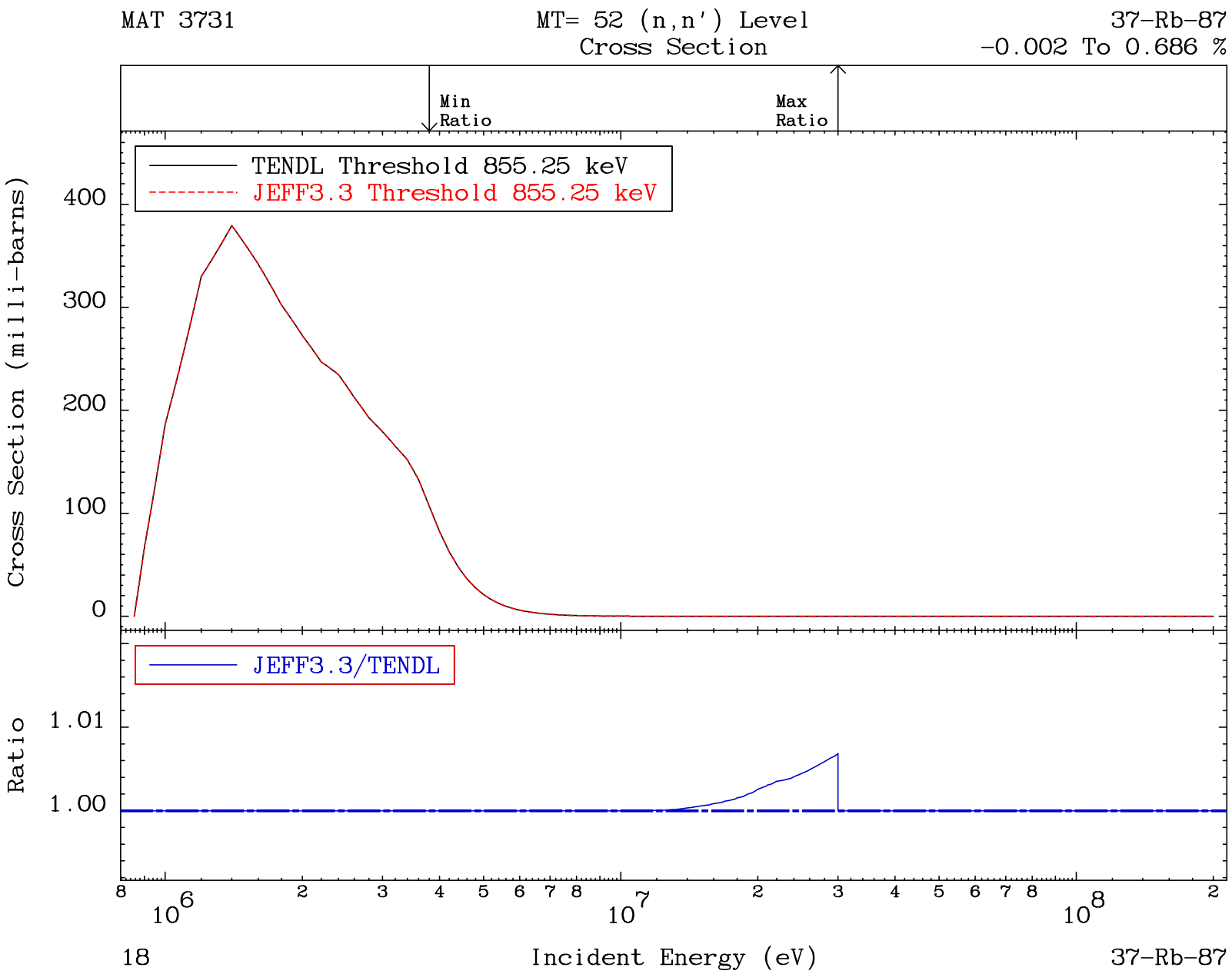

MAT 3731
(n,4n)
Cross Section
37-Rb-87
0.000 To 0.253 %
Min
Ratio
TENDL Threshold 29.390 MeV
JEFF3.3 Threshold 29.390 MeV
Cross Section (micro-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
13
Incident Energy (MeV)
37-Rb-87

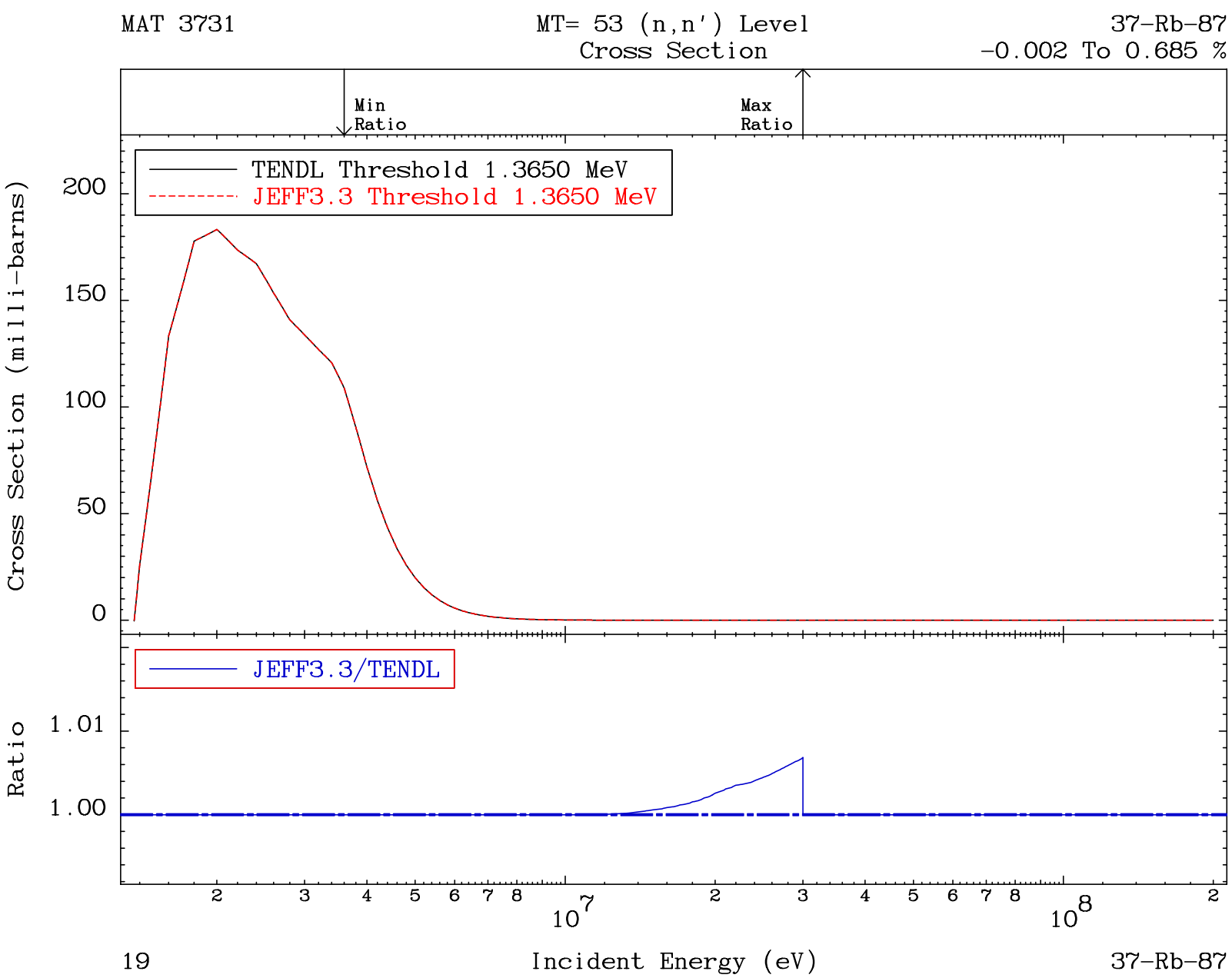

MAT 3731
(n,2n) p
Cross Section
37-Rb-87
-0.149 To 0.248 %
Min Ratio
Max Ratio
TENDL Threshold 18.692 MeV
JEFF3.3 Threshold 18.692 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
37-Rb-87

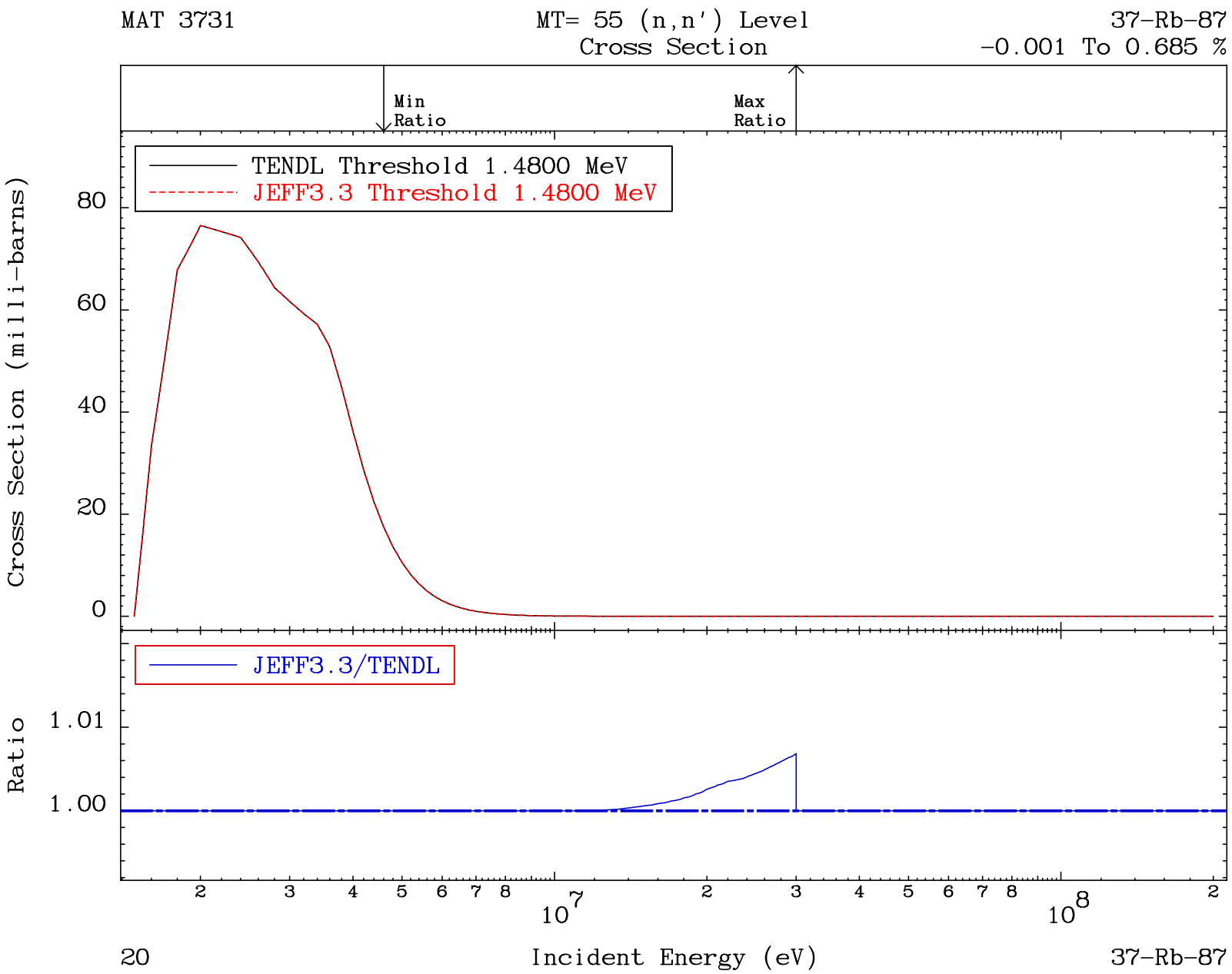

MAT 3731
(n,3n) p
Cross Section
37-Rb-87
-0.716 To 0.000 %
Max
Ratio
TENDL Threshold 25.854 MeV
JEFF3.3 Threshold 25.854 MeV
Cross Section (micro-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
37-Rb-87

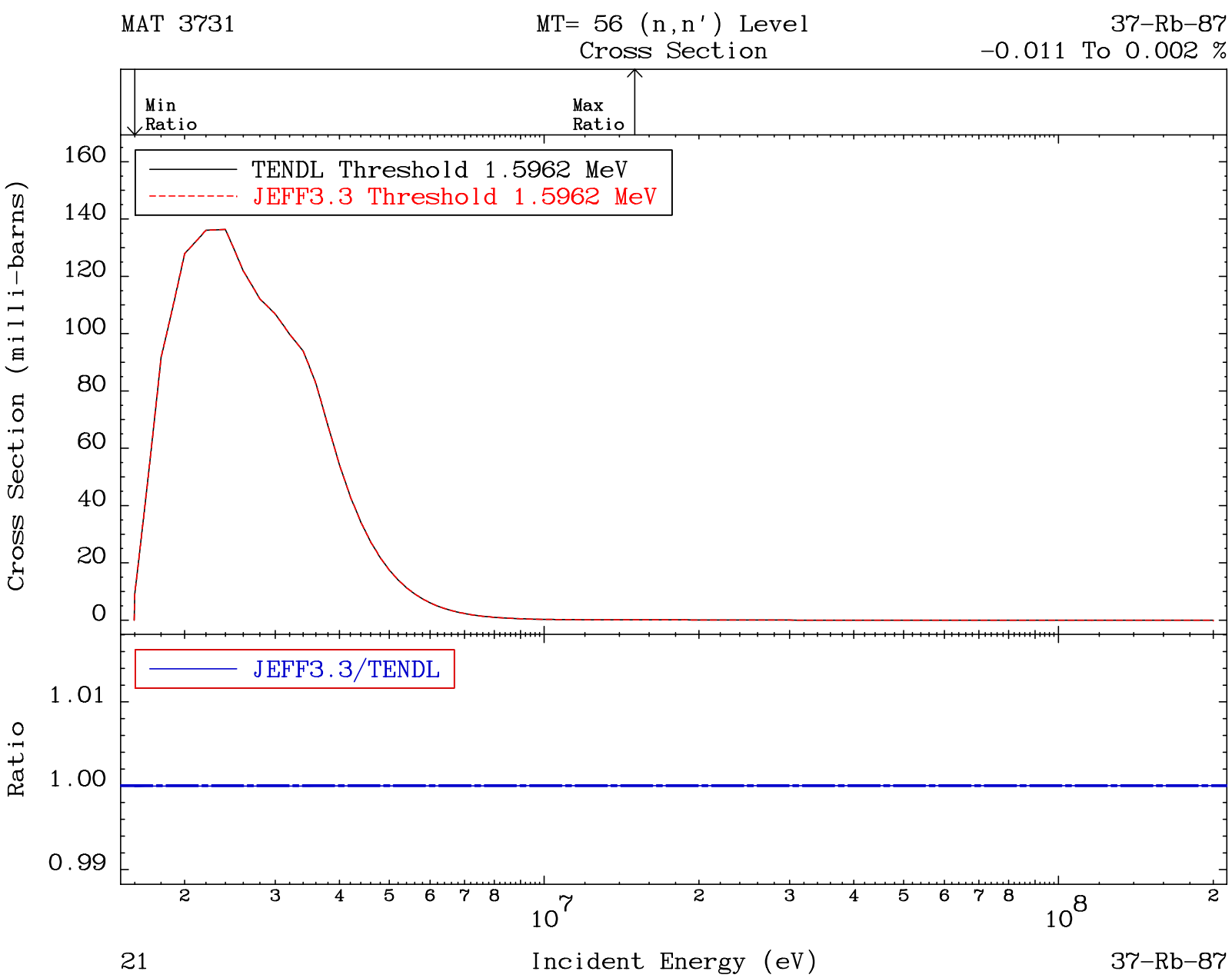

MAT 3731
(n,2n) p
Cross Section
37-Rb-87
-0.003 To 0.252 %
Max
Ratio
TENDL Threshold 20.839 MeV
JEFF3.3 Threshold 20.839 MeV
Cross Section (10-9 barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
37-Rb-87

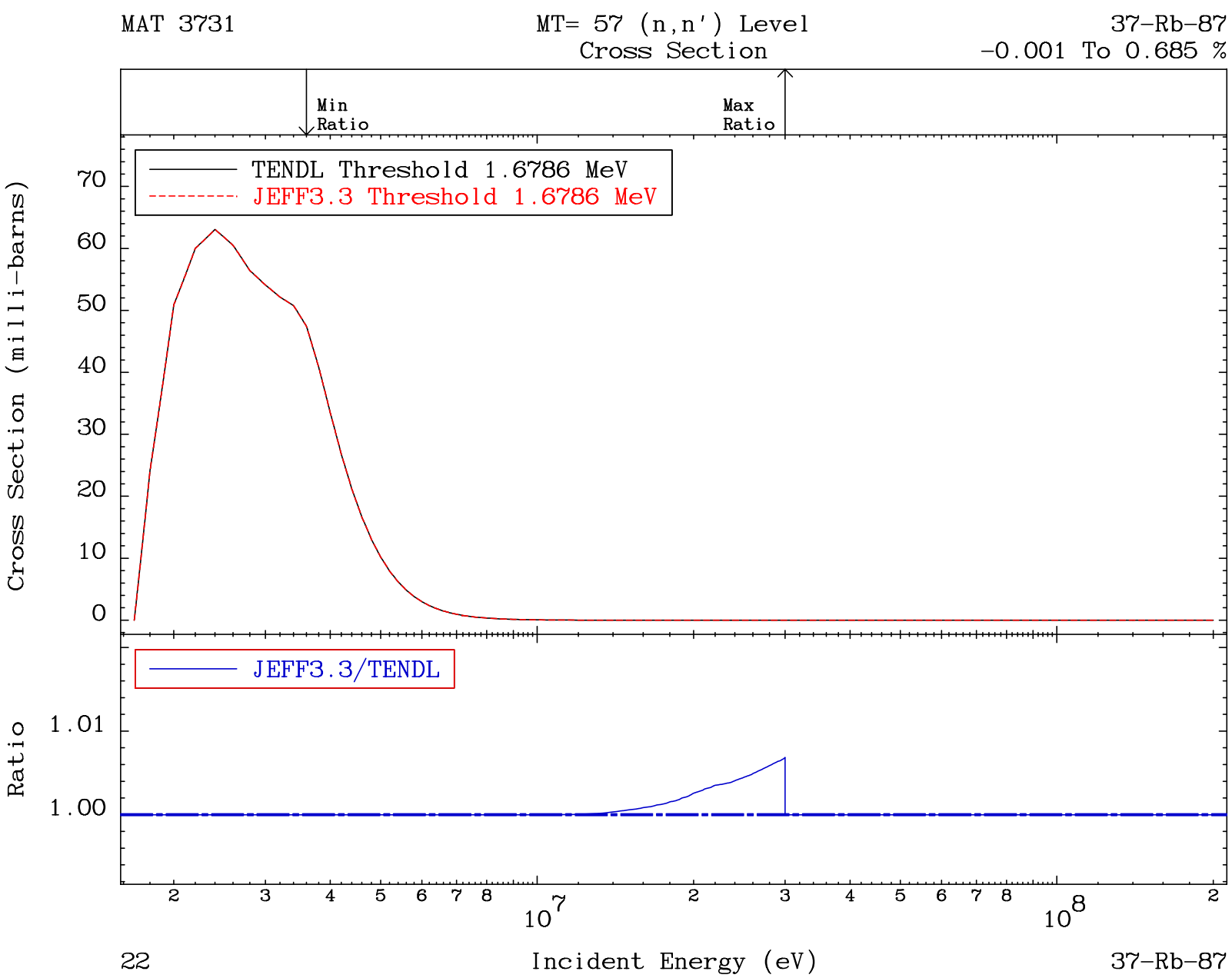

MAT 3731
(n,n') p α
Cross Section
37-Rb-87
-9.335 To 276.0 %
Max Ratio
Min Ratio
TENDL Threshold 16.912 MeV
JEFF3.3 Threshold 16.912 MeV
Cross Section (10-9 barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10 8
2
17
Incident Energy (eV)
37-Rb-87

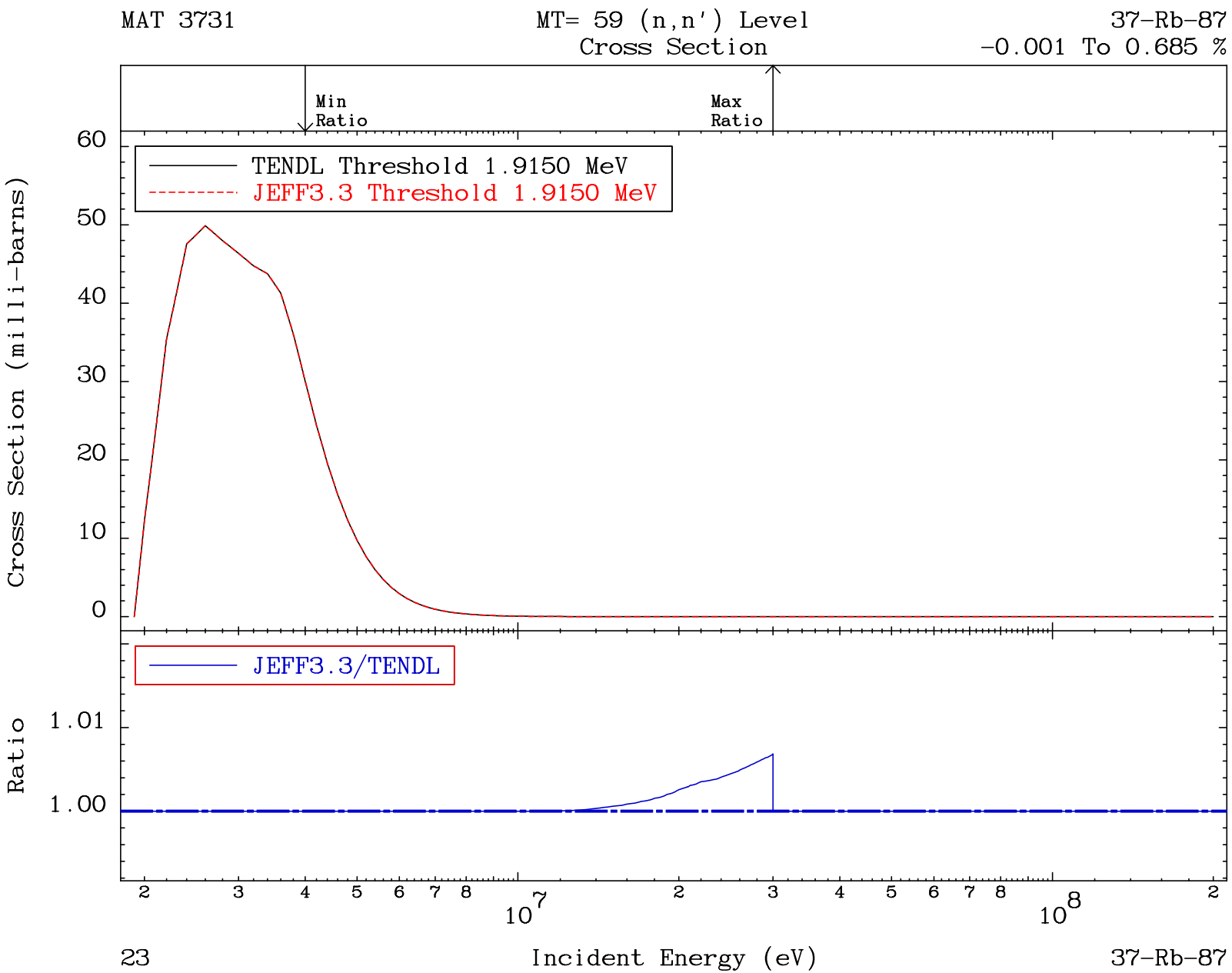

MAT 3731
MT= 52 (n,n') Level
Cross Section
37-Rb-87
-0.002 To 0.686 %
Min
Ratio
Max
Ratio
TENDL Threshold 855.25 keV
JEFF3.3 Threshold 855.25 keV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.01
1.00
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
18
Incident Energy (eV)
37-Rb-87

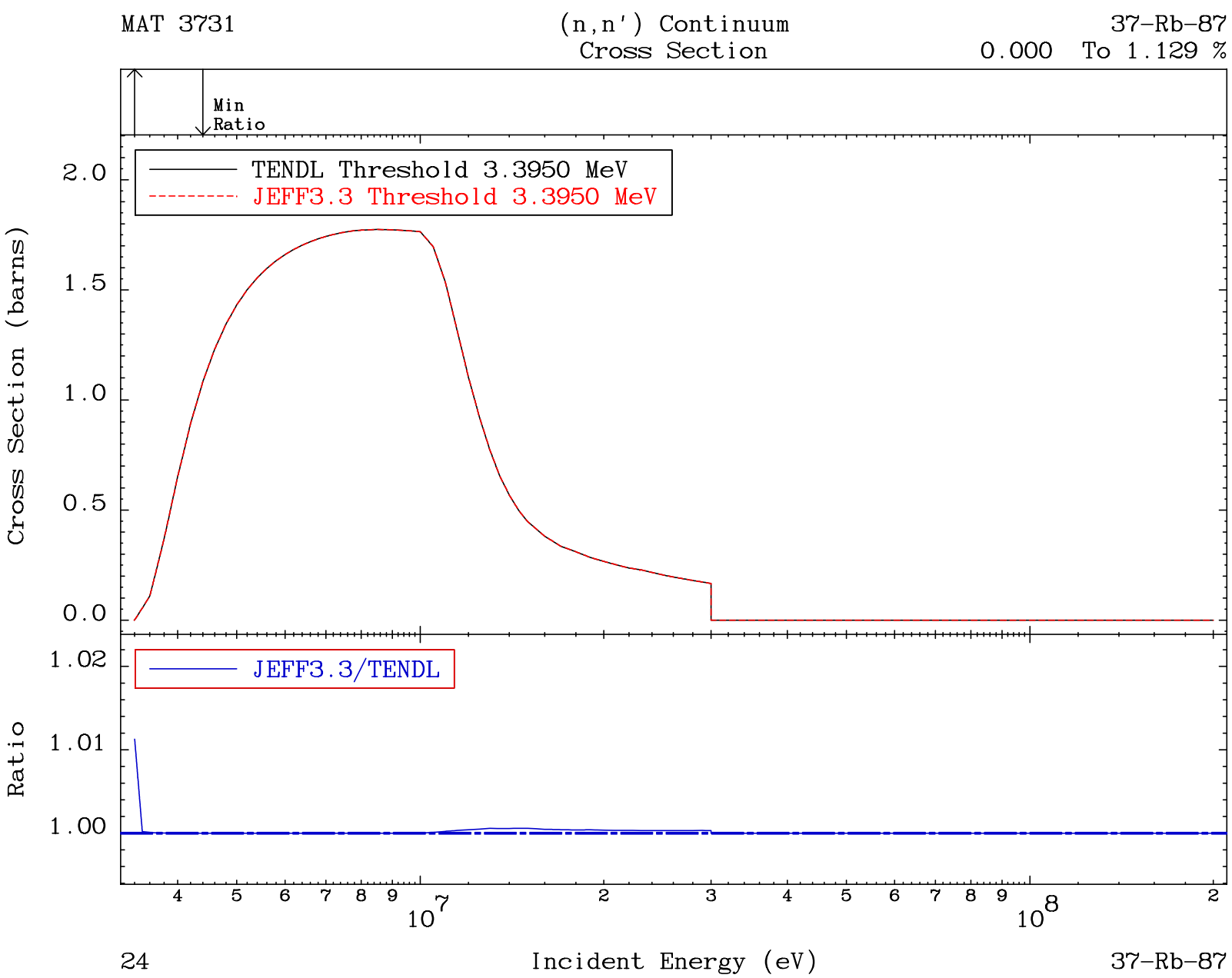

MAT 3731
MT= 53 (n,n') Level
Cross Section
37-Rb-87
-0.002 To 0.685 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.3650 MeV
JEFF3.3 Threshold 1.3650 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
19
Incident Energy (eV)
37-Rb-87

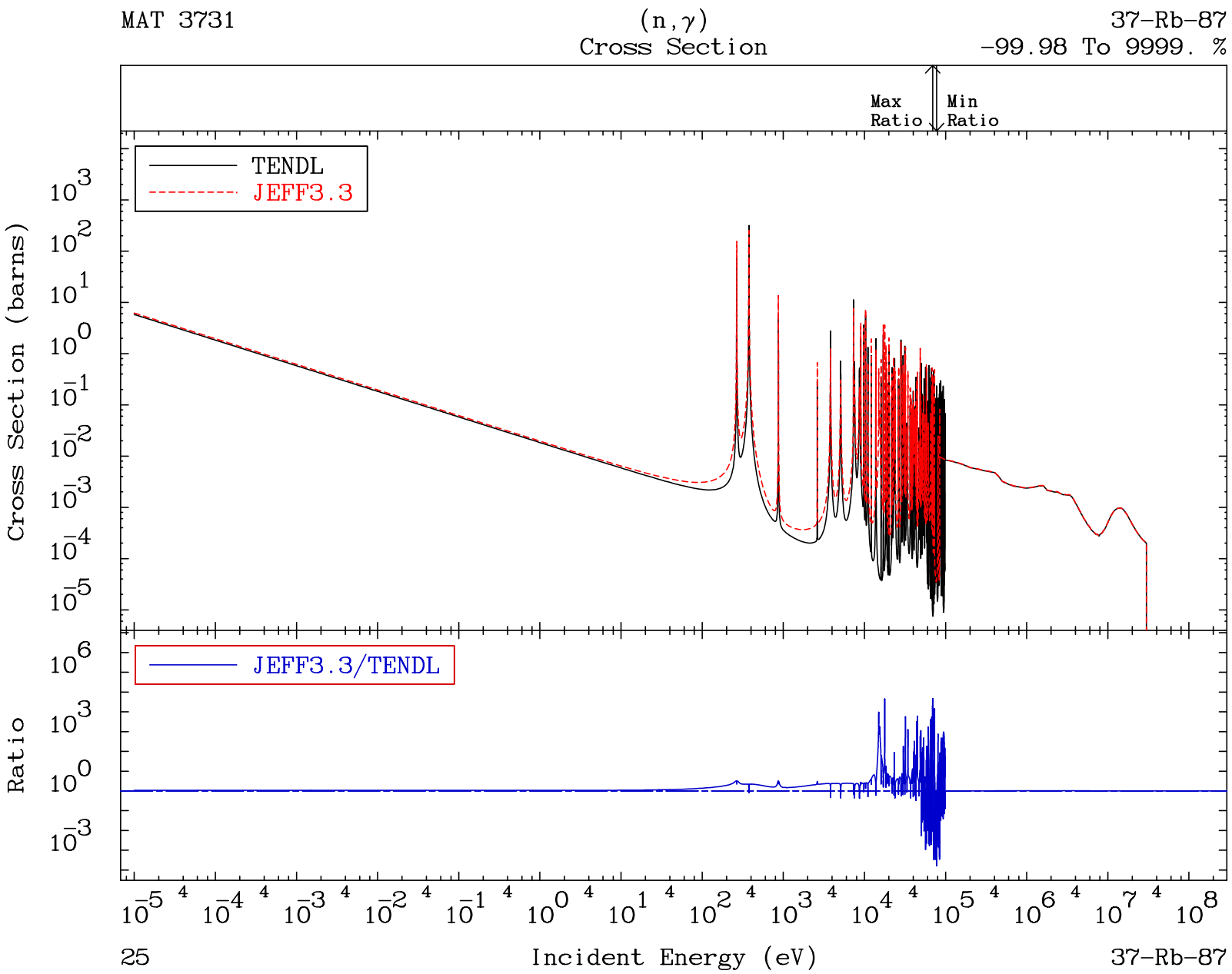

MAT 3731
MT= 55 (n,n') Level
Cross Section
37-Rb-87
-0.001 To 0.685 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4800 MeV
JEFF3.3 Threshold 1.4800 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
20
Incident Energy (eV)
37-Rb-87

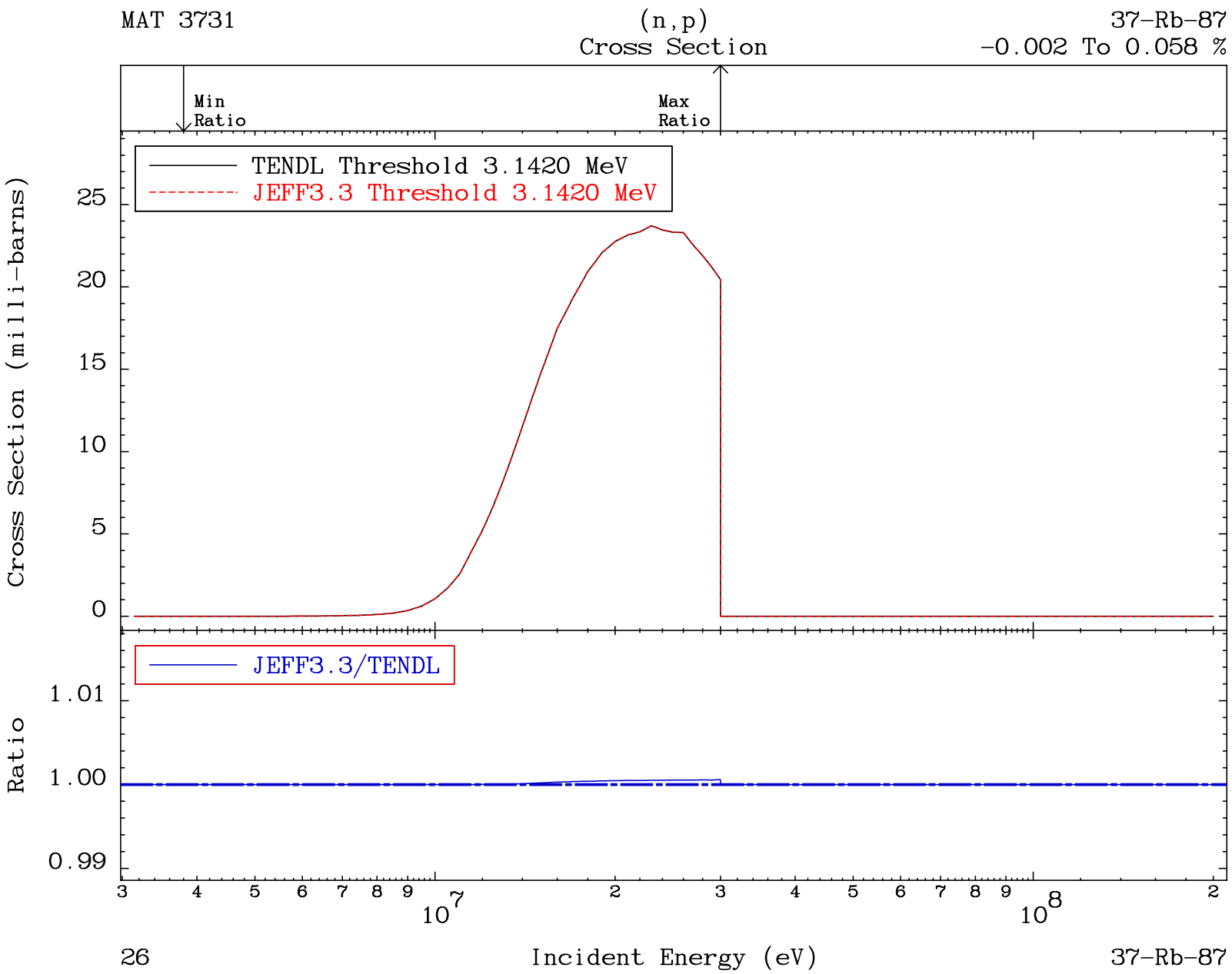

MAT 3731
MT= 56 (n,n') Level
Cross Section
37-Rb-87
-0.011 To 0.002 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.5962 MeV
JEFF3.3 Threshold 1.5962 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
21
Incident Energy (eV)
37-Rb-87

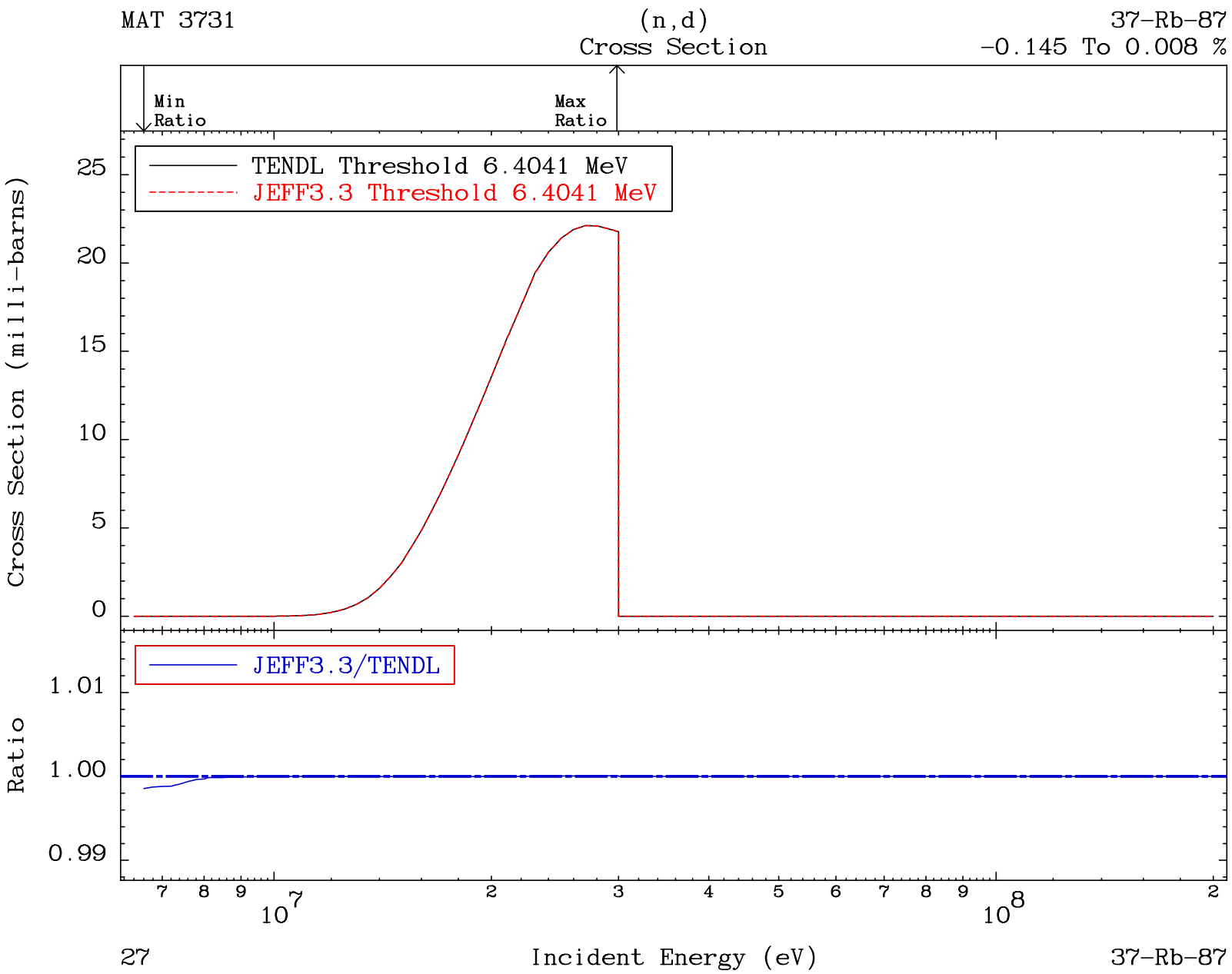

MAT 3731
MT= 57 (n,n') Level
Cross Section
37-Rb-87
-0.001 To 0.685 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.6786 MeV
JEFF3.3 Threshold 1.6786 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
22
Incident Energy (eV)
37-Rb-87

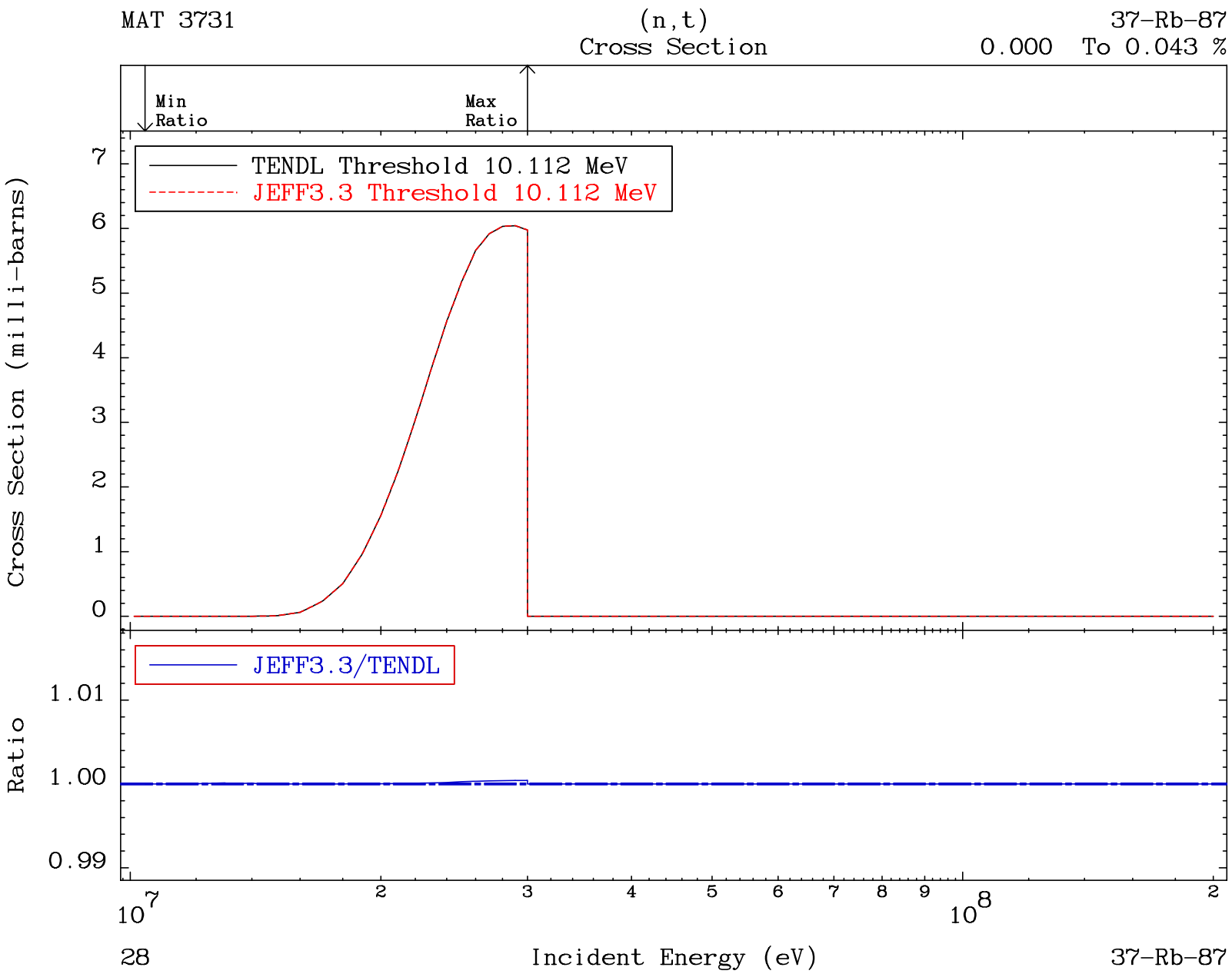

MAT 3731
MT= 59 (n,n') Level
Cross Section
37-Rb-87
-0.001 To 0.685 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.9150 MeV
JEFF3.3 Threshold 1.9150 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
23
Incident Energy (eV)
37-Rb-87

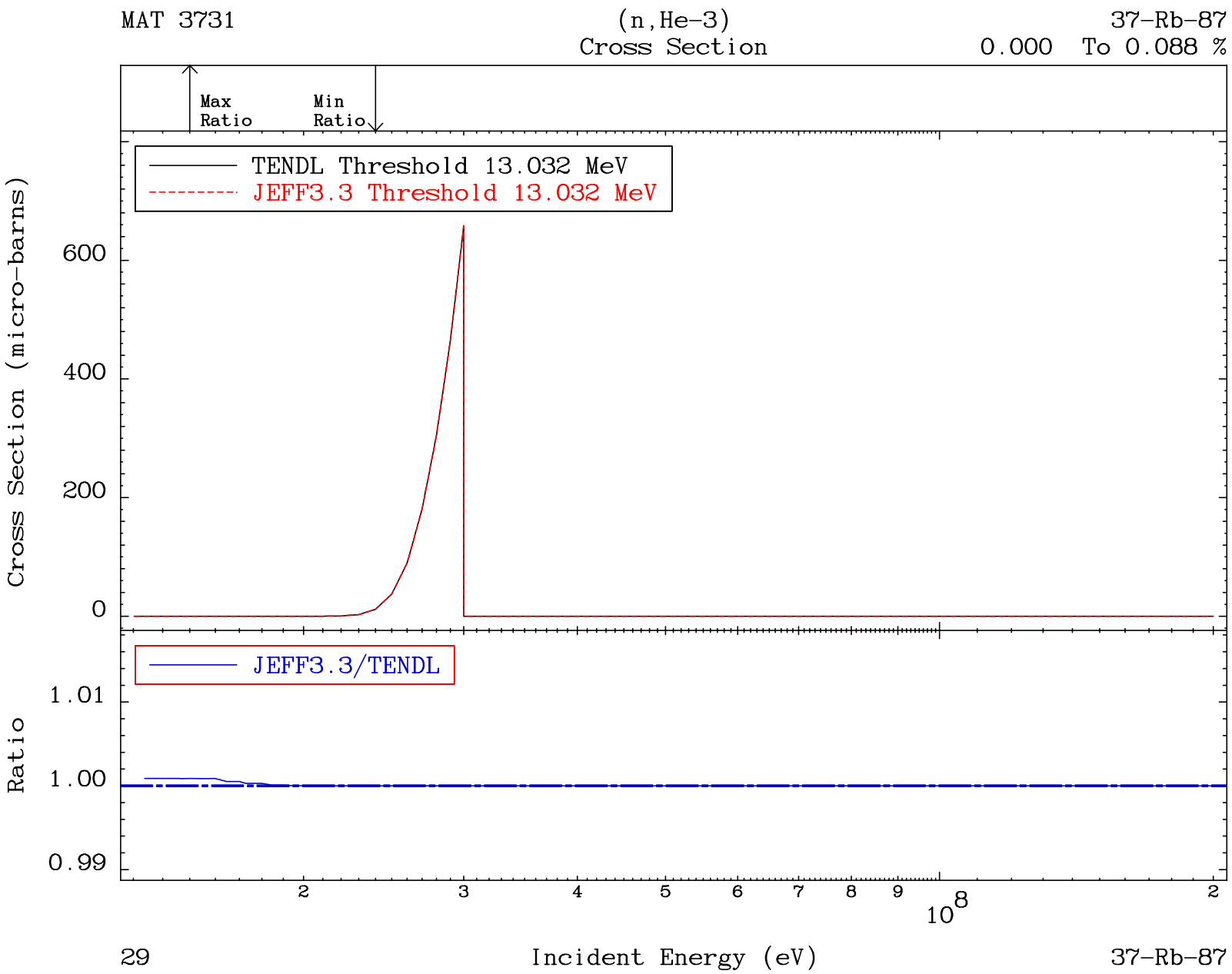

MAT 3731
(n,n') Continuum
Cross Section
37-Rb-87
0.000 To 1.129 %
Min
Ratio
TENDL Threshold 3.3950 MeV
JEFF3.3 Threshold 3.3950 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
37-Rb-87

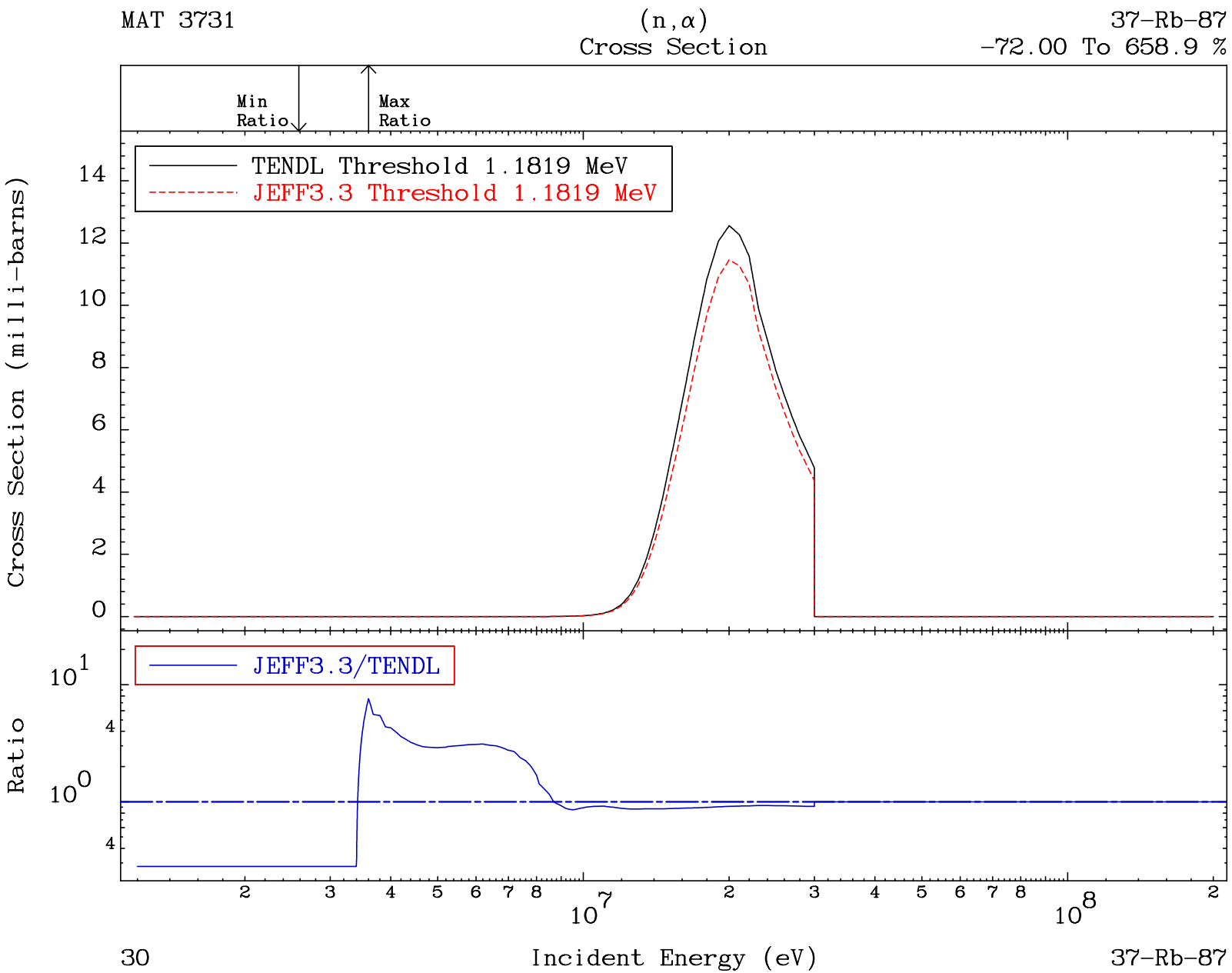

MAT 3731
(n,γ)
Cross Section
37-Rb-87
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
25
37-Rb-87

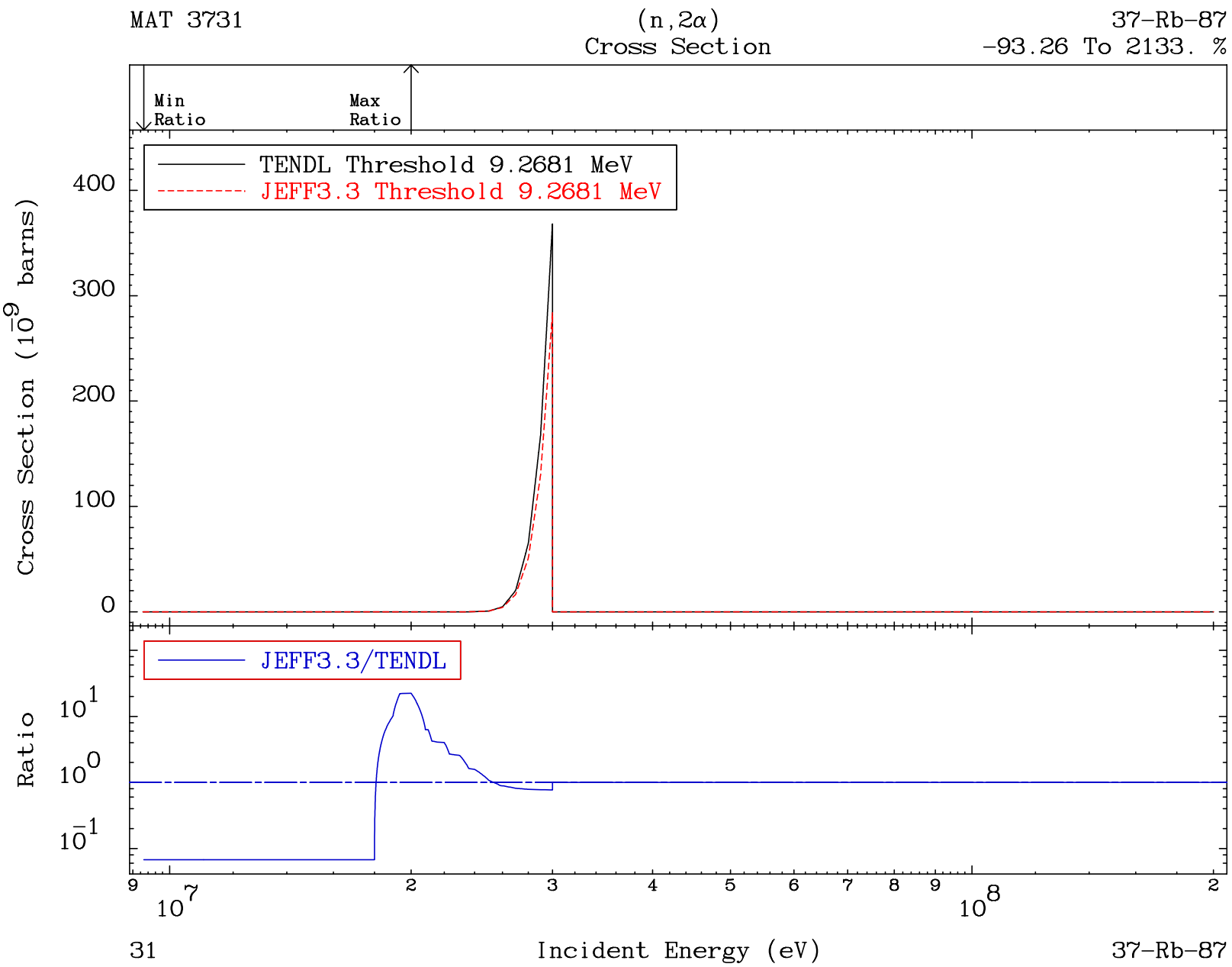

MAT 3731
(n,p)
Cross Section
37-Rb-87
-0.002 To 0.058 %
Min Ratio
Max Ratio
TENDL Threshold 3.1420 MeV
JEFF3.3 Threshold 3.1420 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
37-Rb-87

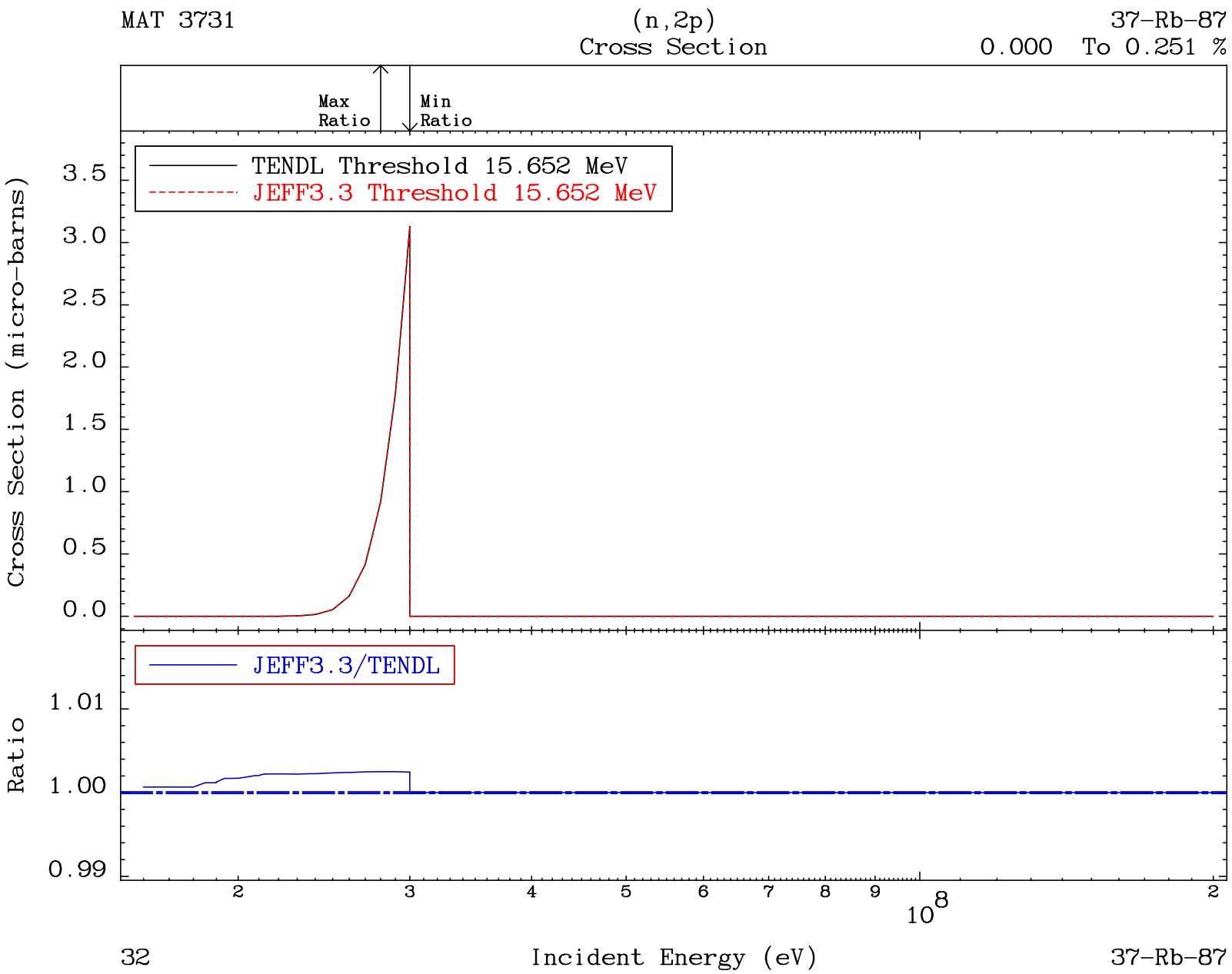

MAT 3731
(n,d)
Cross Section
37-Rb-87
-0.145 To 0.008 %
Min Ratio
Max Ratio
TENDL Threshold 6.4041 MeV
JEFF3.3 Threshold 6.4041 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
37-Rb-87

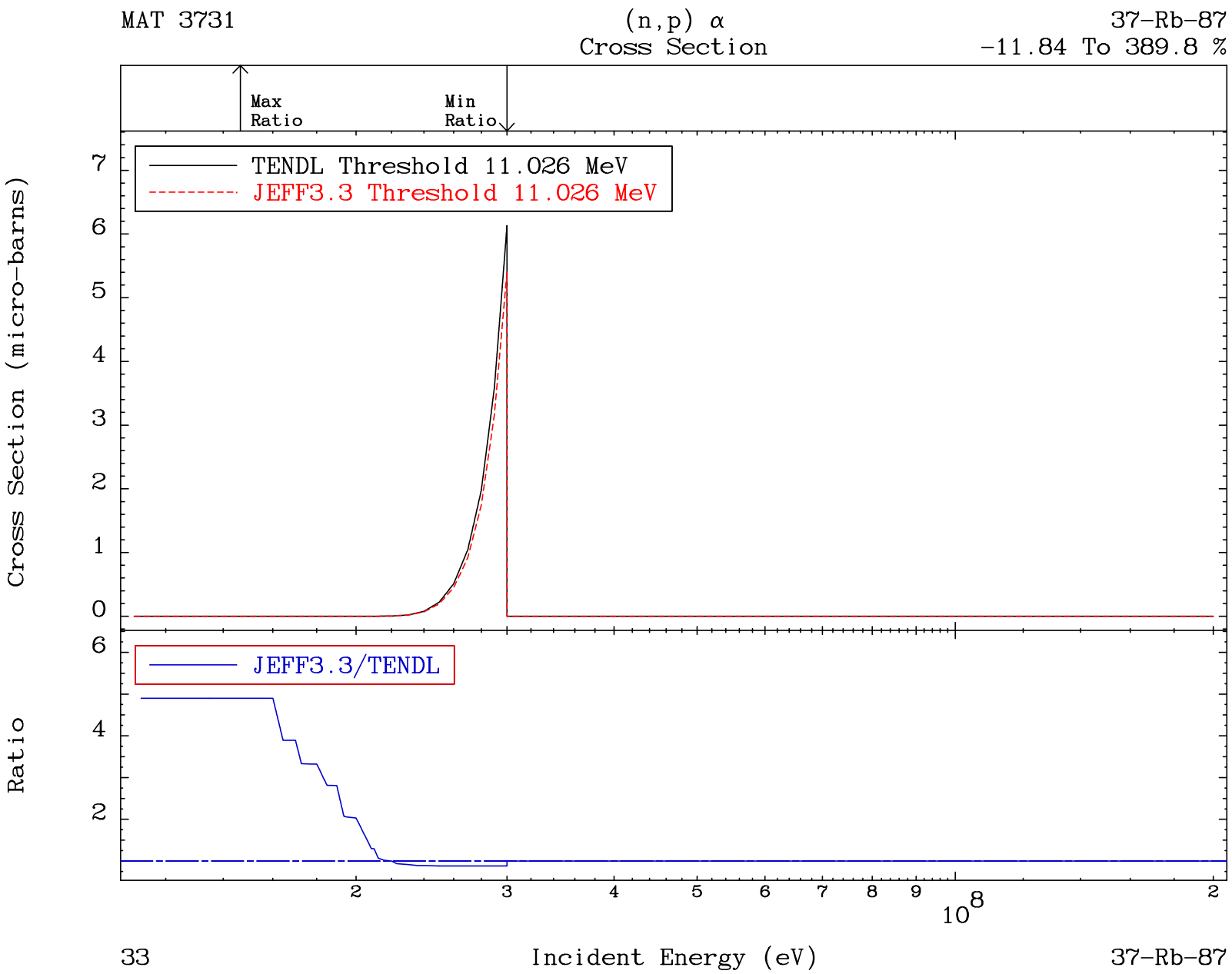

MAT 3731
(n,t)
Cross Section
37-Rb-87
0.000 To 0.043 %
Min Ratio
Max Ratio
TENDL Threshold 10.112 MeV
JEFF3.3 Threshold 10.112 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
0.99
1.00
1.01
10^7
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
37-Rb-87

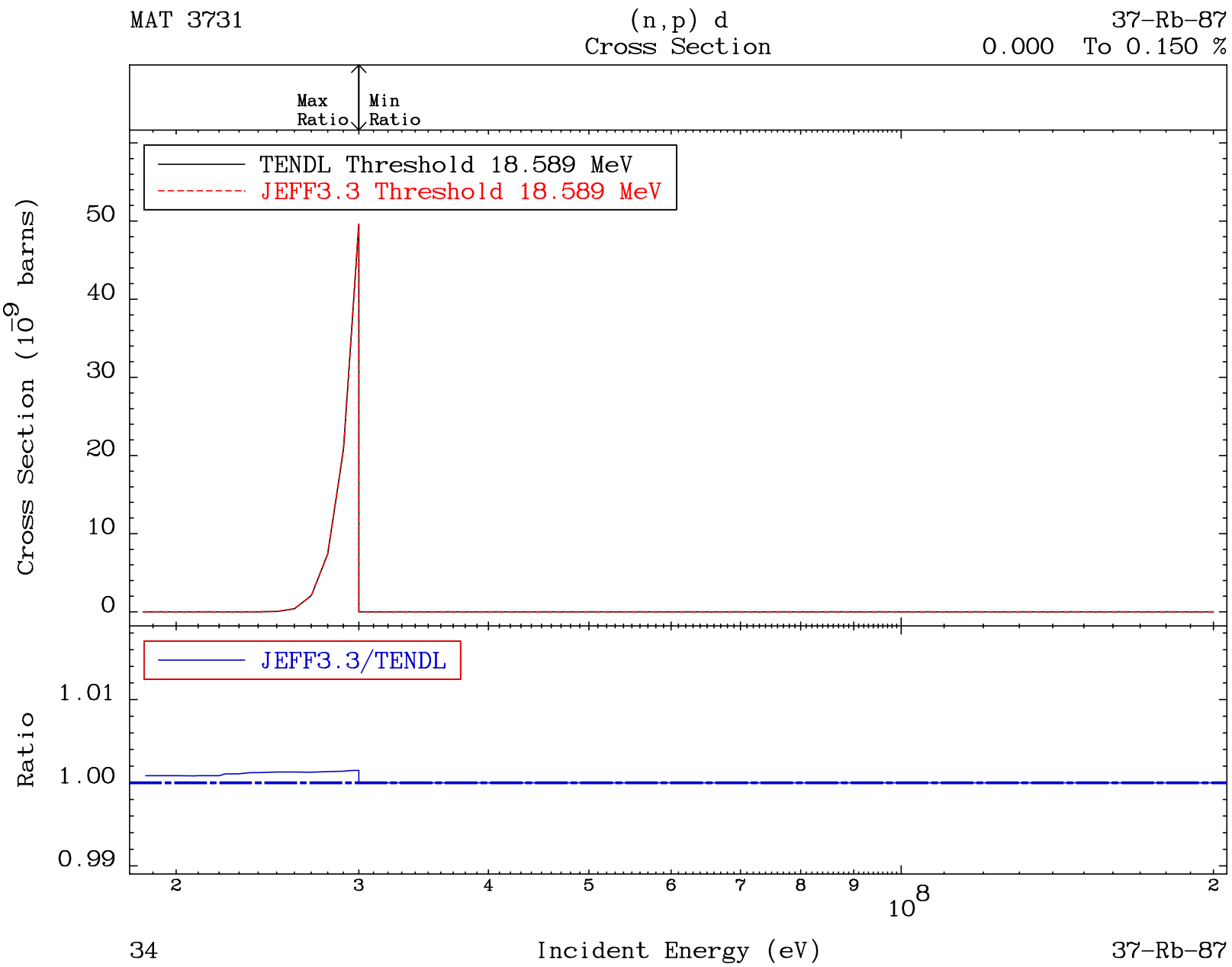

MAT 3731
(n,He-3)
Cross Section
37-Rb-87
0.000 To 0.088 %
Max Ratio
Min Ratio
TENDL Threshold 13.032 MeV
JEFF3.3 Threshold 13.032 MeV
Cross Section (micro-barns)
600
400
200
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
29
Incident Energy (eV)
37-Rb-87

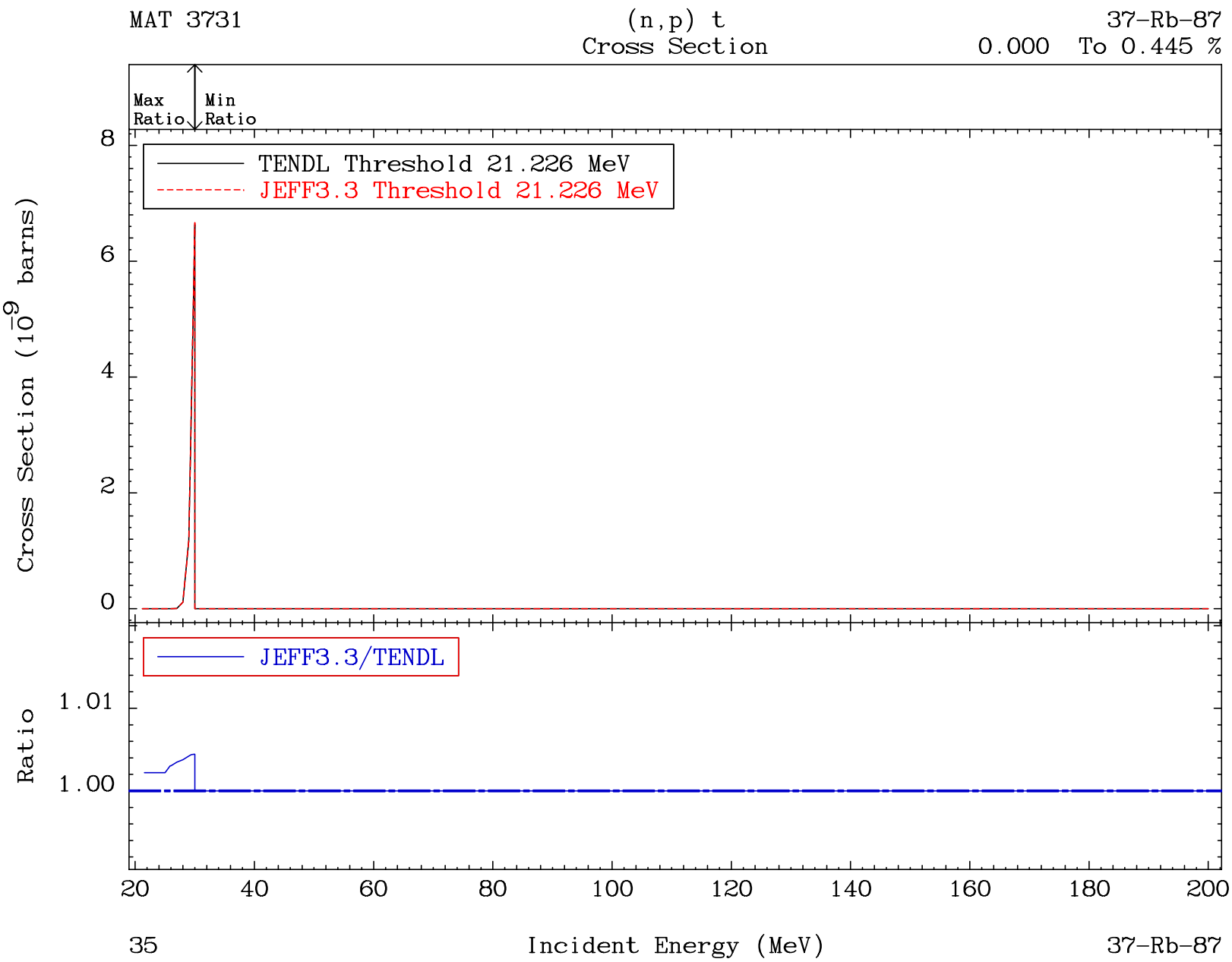

MAT 3731
(n,α)
Cross Section
37-Rb-87
-72.00 To 658.9 %
Min Ratio
Max Ratio
TENDL Threshold 1.1819 MeV
JEFF3.3 Threshold 1.1819 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
30
37-Rb-87

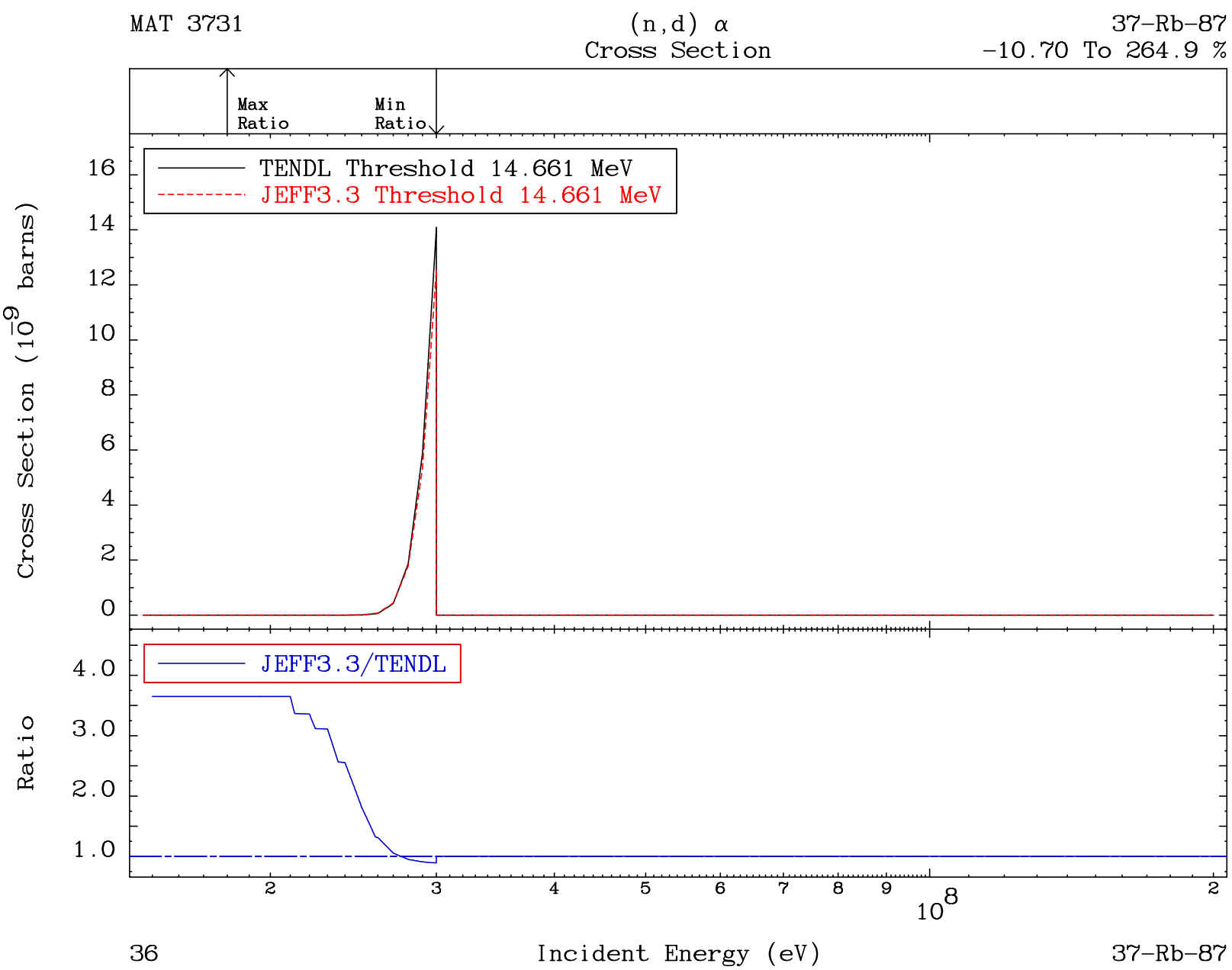

MAT 3731
(n,2α)
Cross Section
37-Rb-87
-93.26 To 2133. %
Min Ratio
Max Ratio
TENDL Threshold 9.2681 MeV
JEFF3.3 Threshold 9.2681 MeV
Cross Section (10^-9 barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^1
10^0
10^-1
9
10^7
2
3
4
5
6
7
8
9
10^8
2
31
Incident Energy (eV)
37-Rb-87

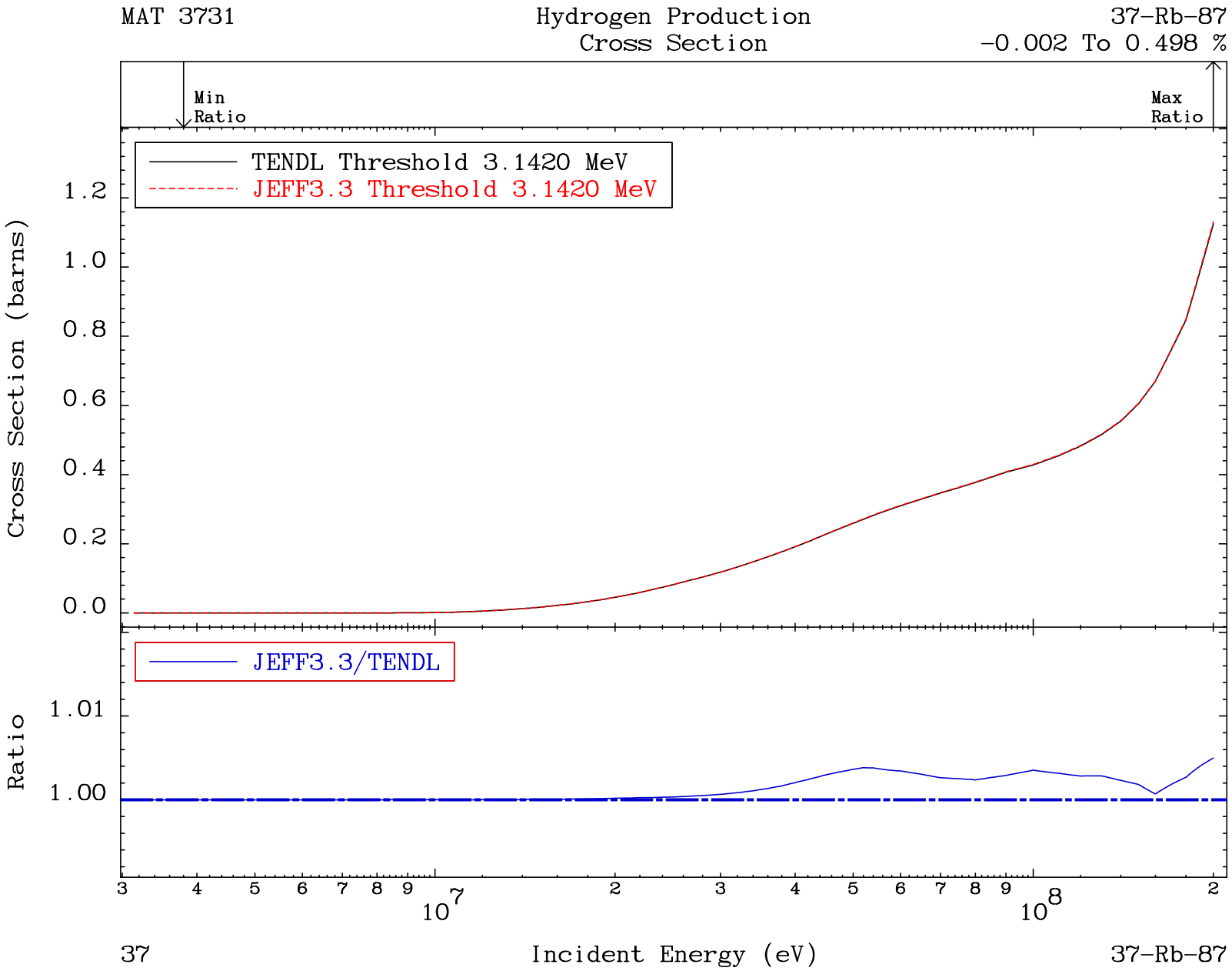

MAT 3731
(n,2p)
Cross Section
37-Rb-87
0.000 To 0.251 %
Max Ratio
Min Ratio
TENDL Threshold 15.652 MeV
JEFF3.3 Threshold 15.652 MeV
Cross Section (micro-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
32
Incident Energy (eV)
37-Rb-87

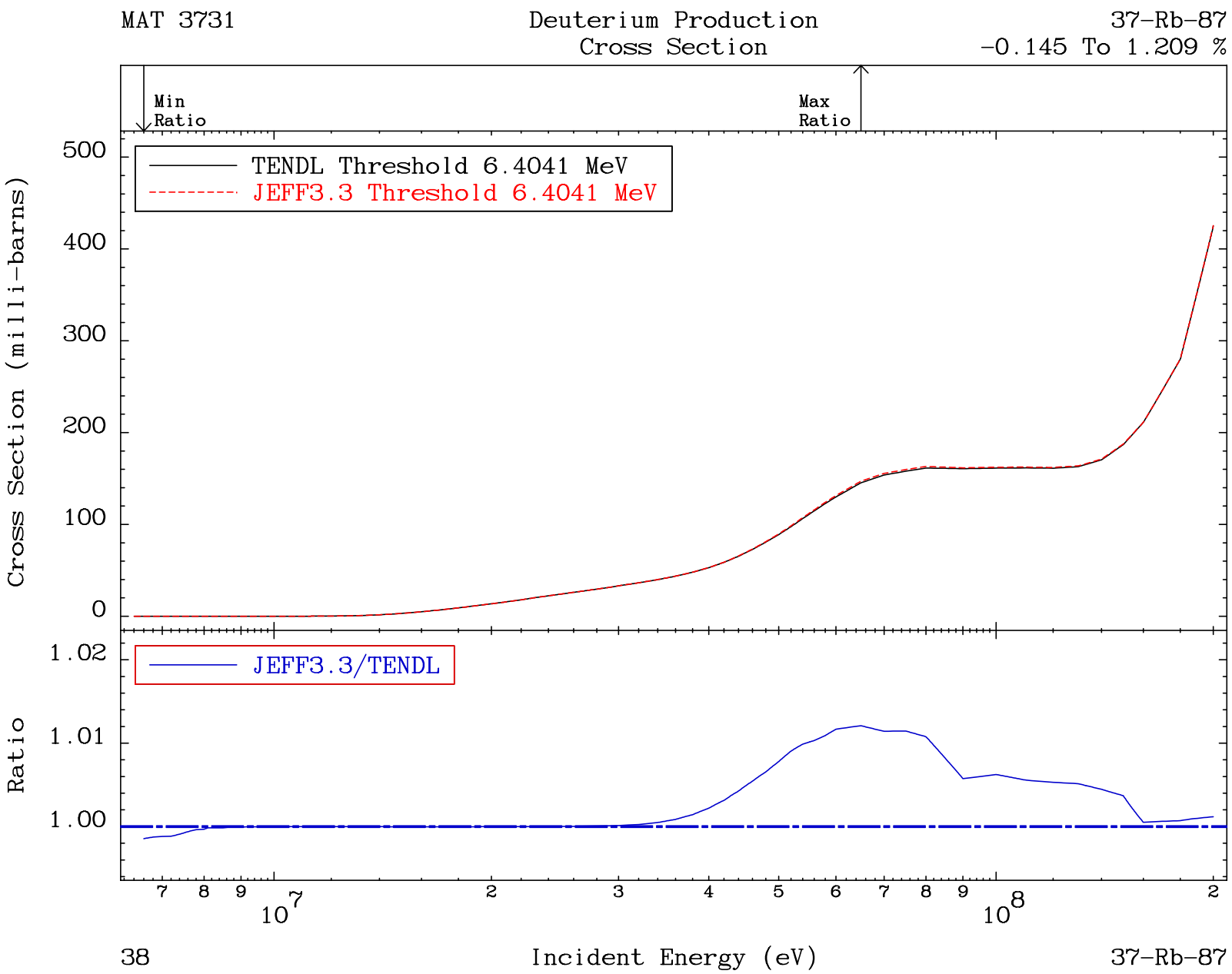

MAT 3731
(n,p) α
Cross Section
37-Rb-87
-11.84 To 389.8 %
Max Ratio
Min Ratio
TENDL Threshold 11.026 MeV
JEFF3.3 Threshold 11.026 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
33
37-Rb-87

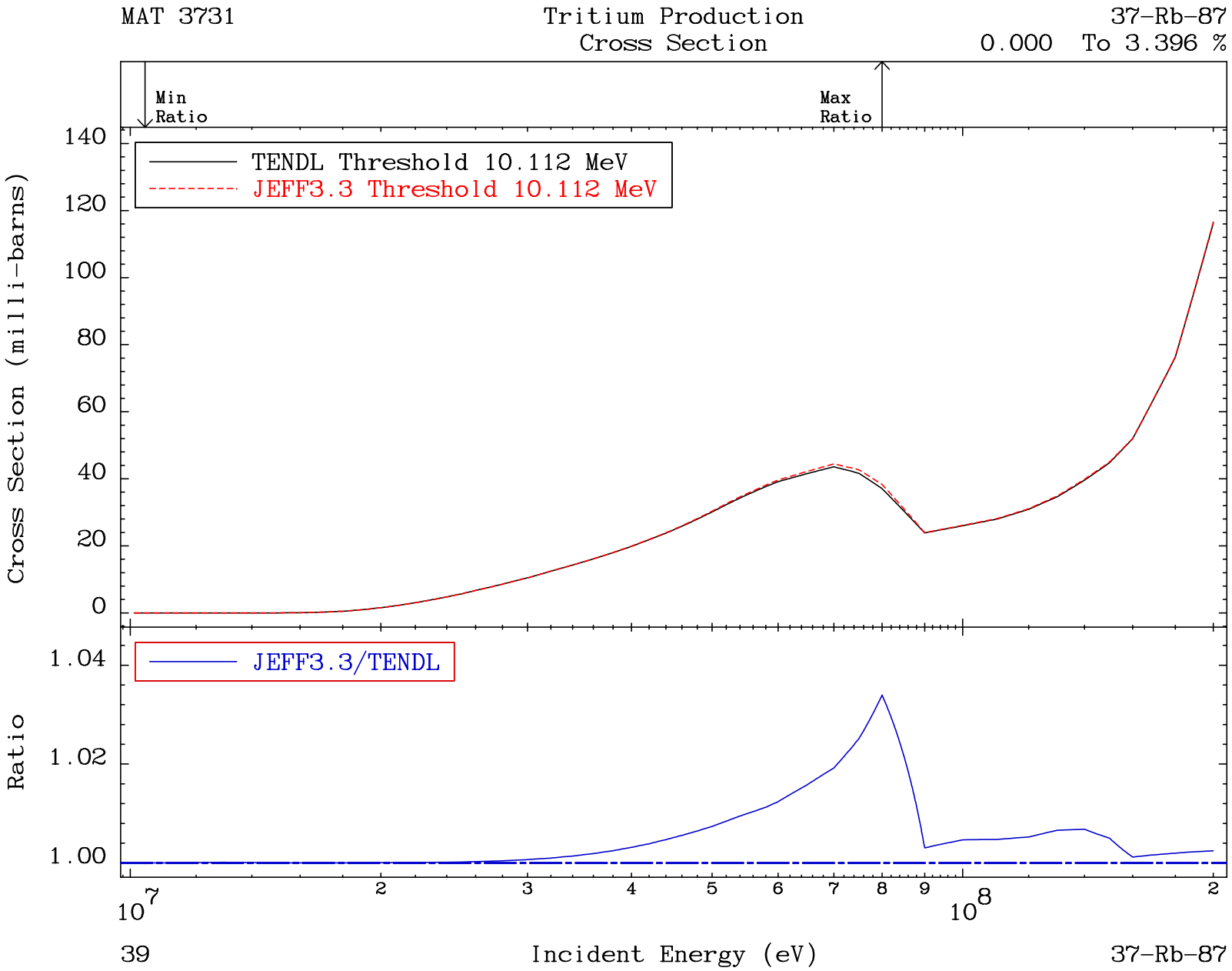

MAT 3731
(n,p) d
Cross Section
37-Rb-87
0.000 To 0.150 %
Max Ratio
Min Ratio
TENDL Threshold 18.589 MeV
JEFF3.3 Threshold 18.589 MeV
Cross Section (10^{-9} barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^{8}
2
34
Incident Energy (eV)
37-Rb-87

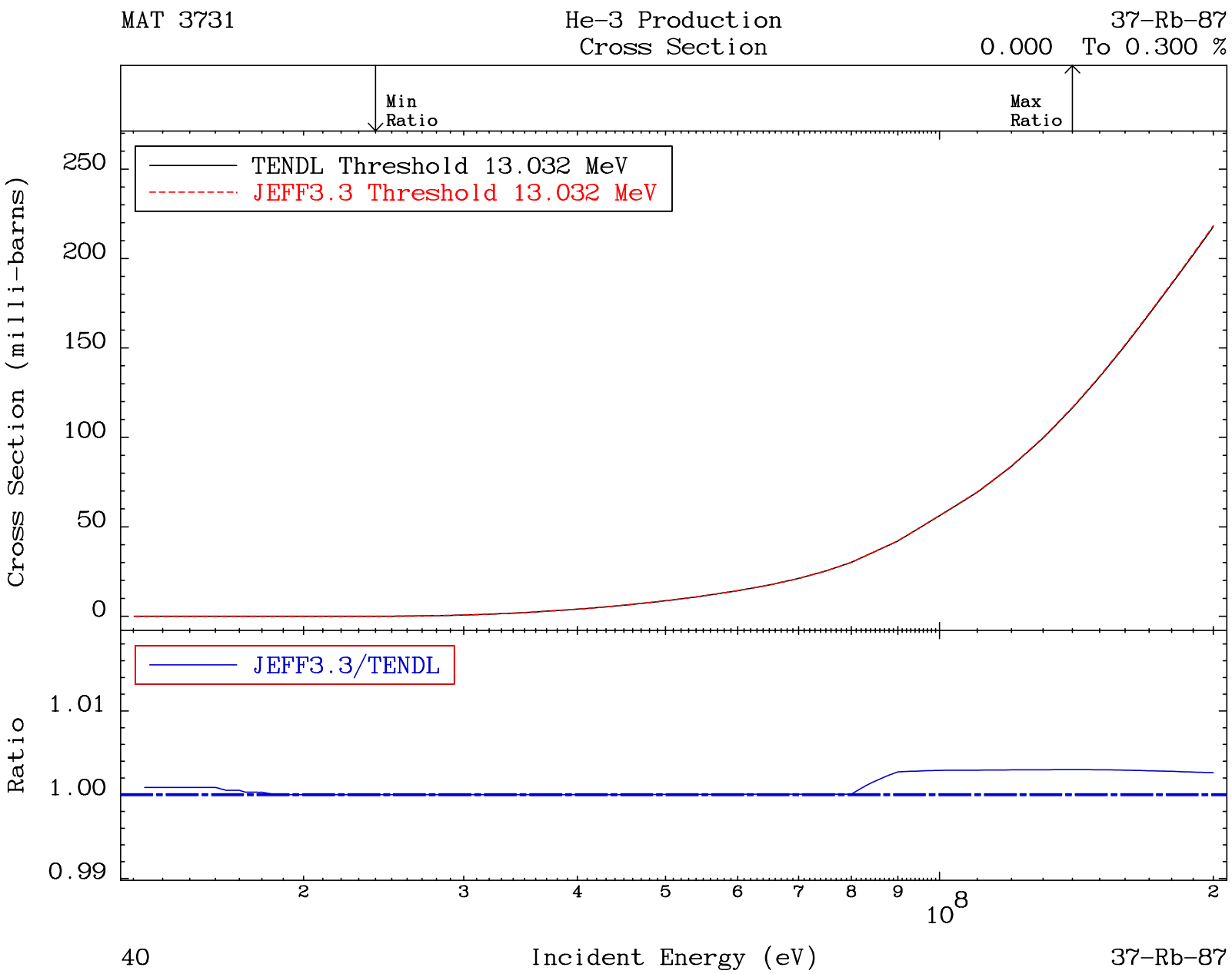

MAT 3731
(n,p) t
Cross Section
37-Rb-87
0.000 To 0.445 %
Max Ratio
Min Ratio
TENDL Threshold 21.226 MeV
JEFF3.3 Threshold 21.226 MeV
JEFF3.3/TENDL
Cross Section (10^-9 barns)
Ratio
Incident Energy (MeV)
35
37-Rb-87

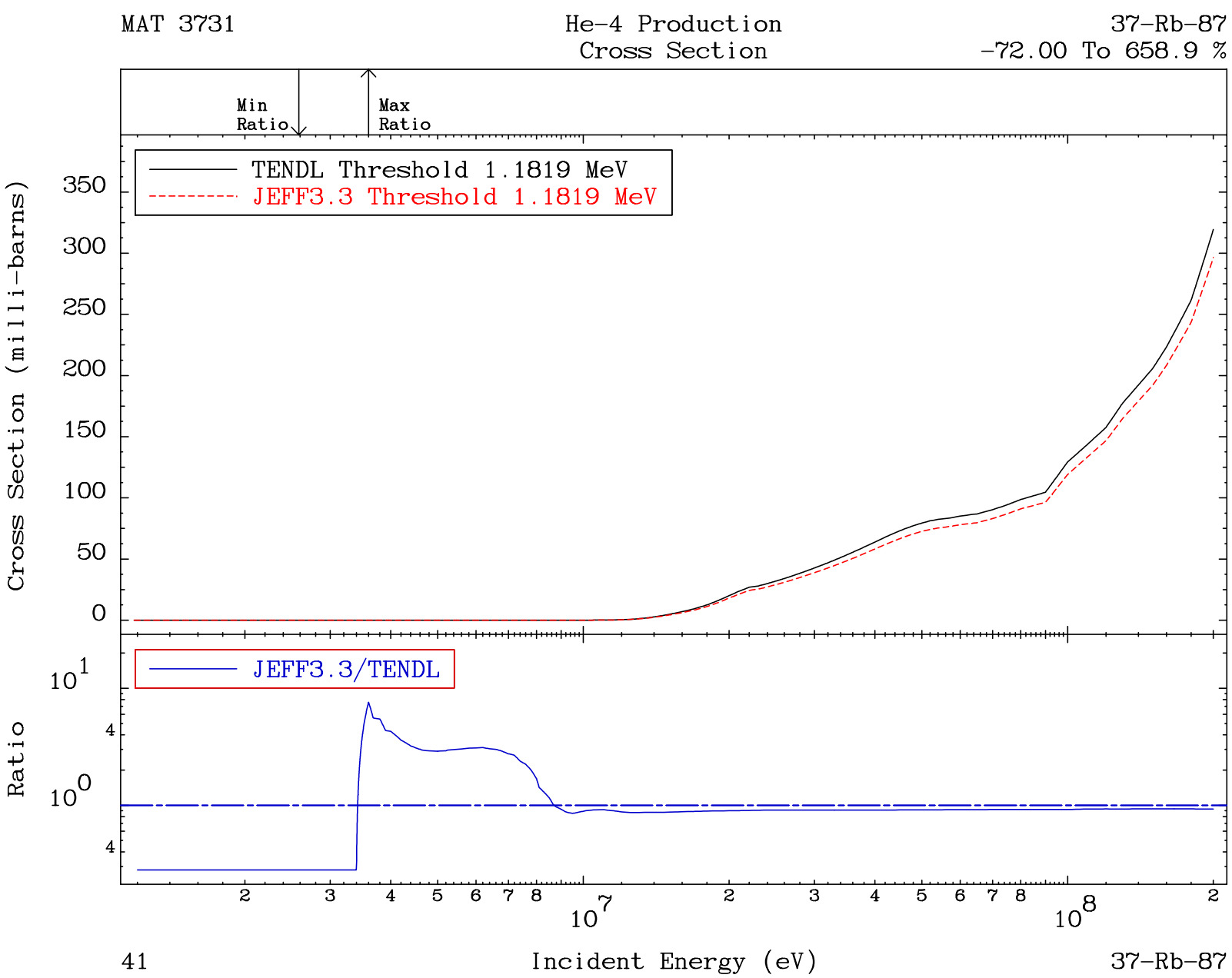

MAT 3731
(n,d) α
Cross Section
37-Rb-87
-10.70 To 264.9 %
Max Ratio
Min Ratio
TENDL Threshold 14.661 MeV
JEFF3.3 Threshold 14.661 MeV
Cross Section (10^{-9} barns)
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^{8}
2
36
Incident Energy (eV)
37-Rb-87

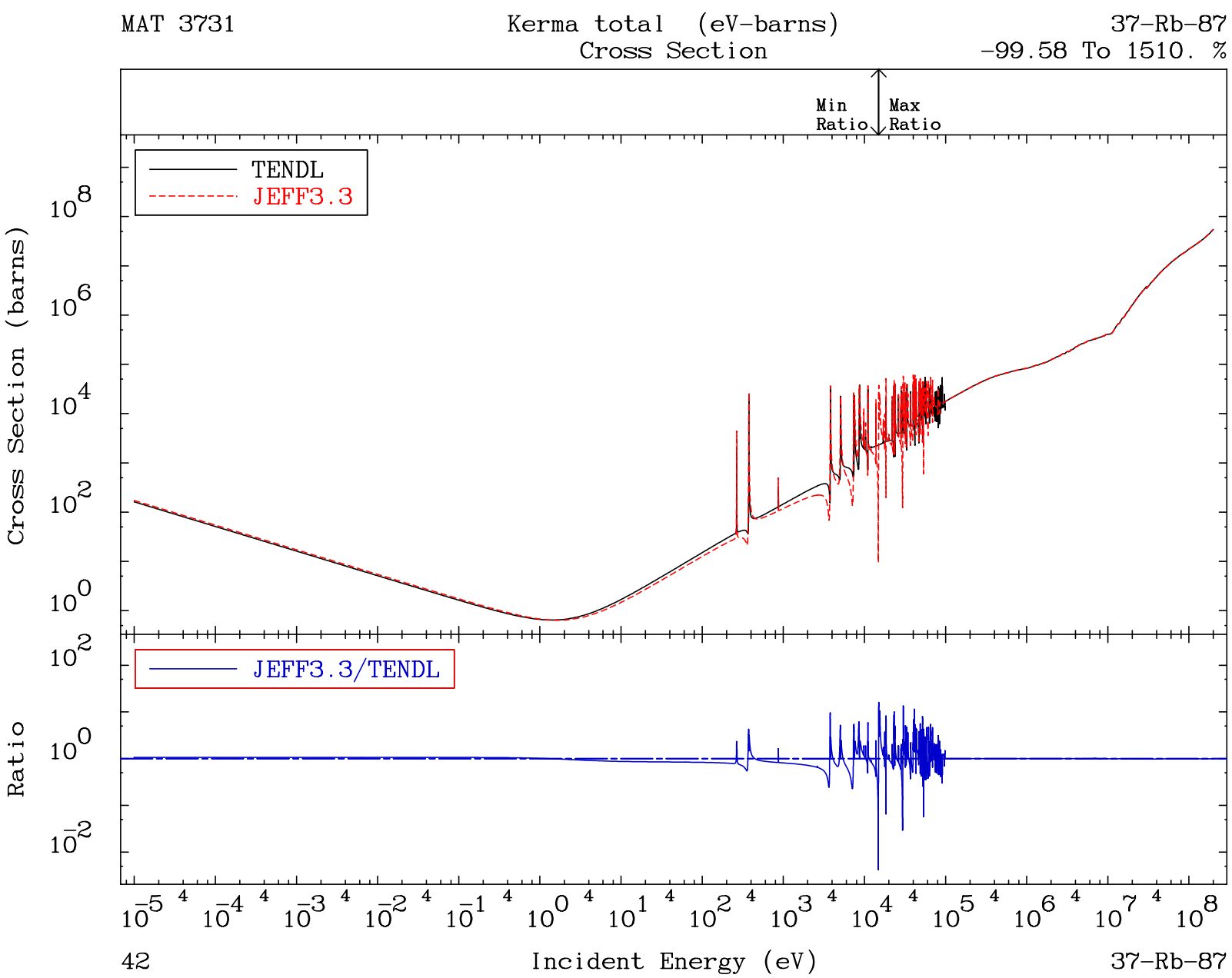

MAT 3731
Hydrogen Production
Cross Section
37-Rb-87
-0.002 To 0.498 %
Min Ratio
Max Ratio
TENDL Threshold 3.1420 MeV
JEFF3.3 Threshold 3.1420 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
37-Rb-87

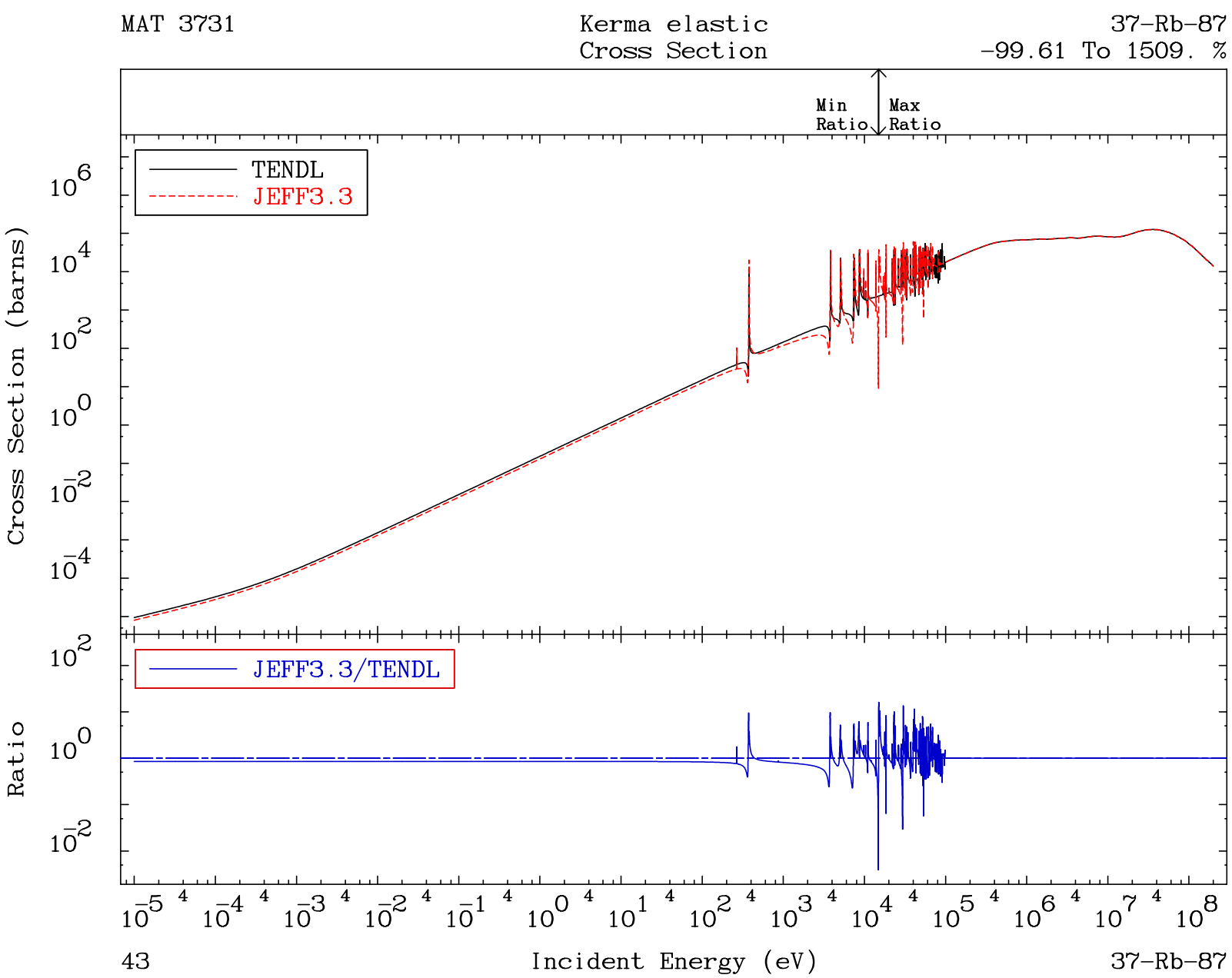

MAT 3731
Deuterium Production
Cross Section
37-Rb-87
-0.145 To 1.209 %
Min Ratio
Max Ratio
TENDL Threshold 6.4041 MeV
JEFF3.3 Threshold 6.4041 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
38
Incident Energy (eV)
37-Rb-87

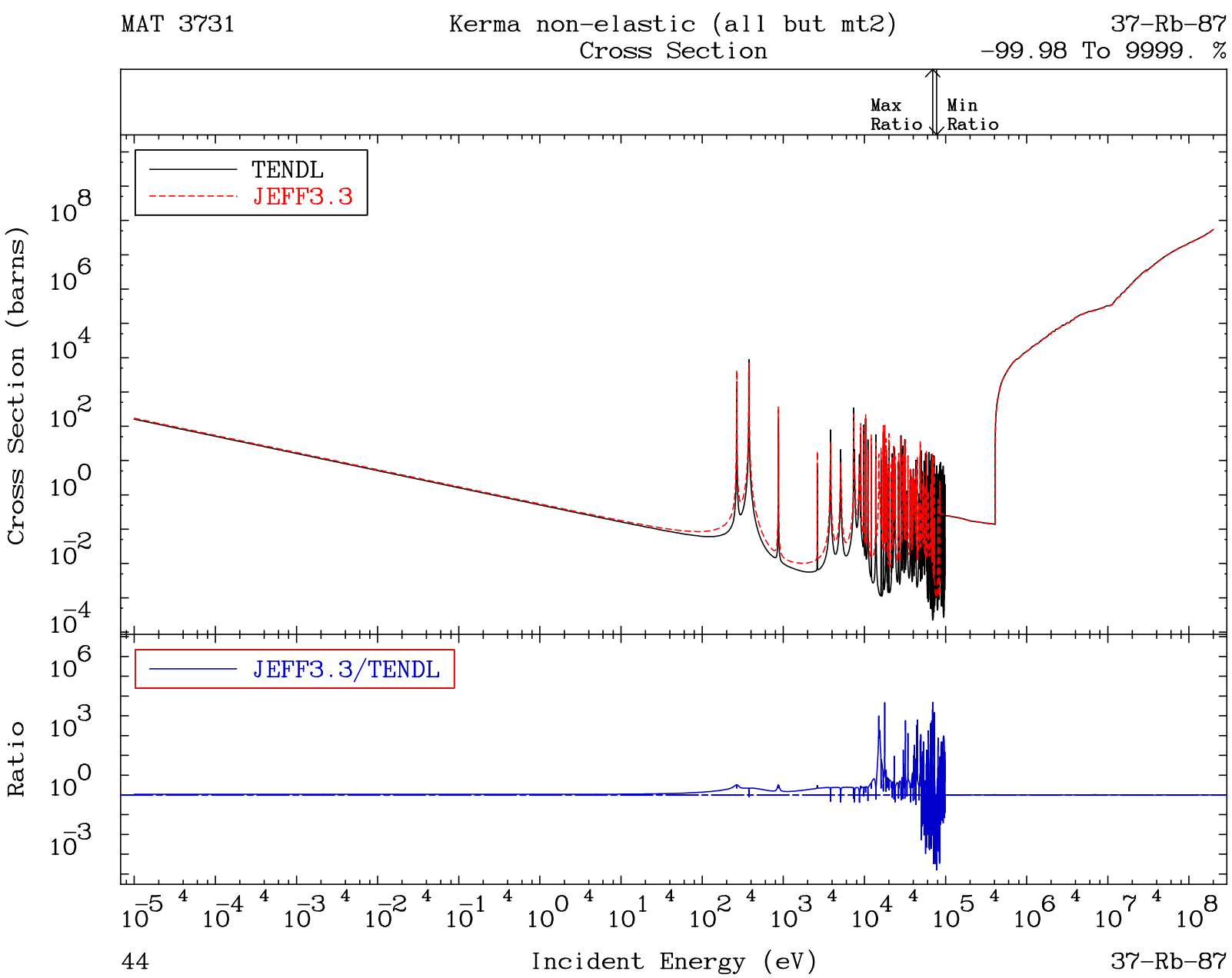

MAT 3731
Tritium Production
Cross Section
37-Rb-87
0.000 To 3.396 %
Min Ratio
Max Ratio
TENDL Threshold 10.112 MeV
JEFF3.3 Threshold 10.112 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
10^7
2
3
4
5
6
7
8
9
10^8
2
39
Incident Energy (eV)
37-Rb-87

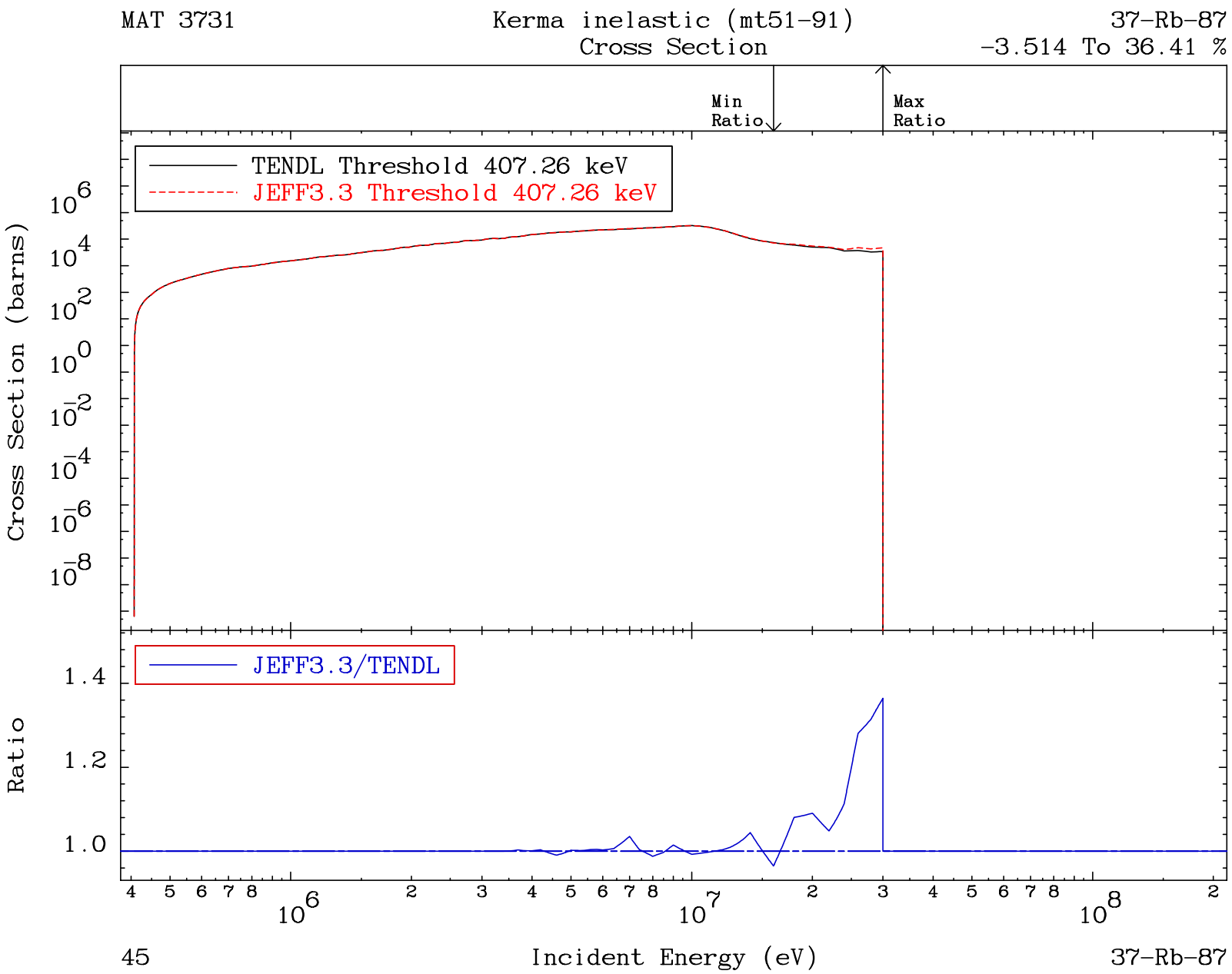

MAT 3731
He-3 Production
Cross Section
37-Rb-87
0.000 To 0.300 %
Min Ratio
Max Ratio
TENDL Threshold 13.032 MeV
JEFF3.3 Threshold 13.032 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
40
Incident Energy (eV)
37-Rb-87

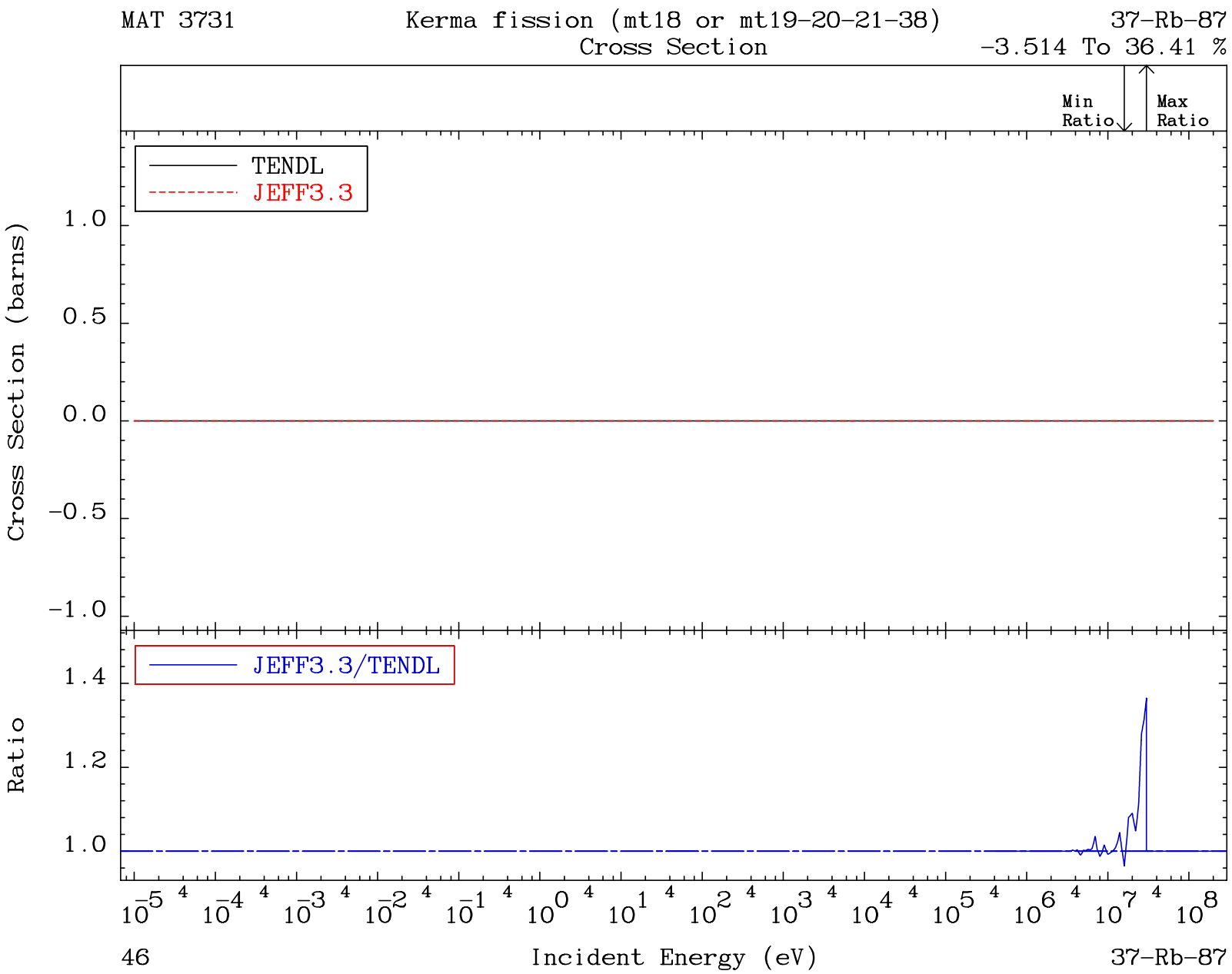

MAT 3731
He-4 Production
Cross Section
37-Rb-87
-72.00 To 658.9 %
Min Ratio
Max Ratio
TENDL Threshold 1.1819 MeV
JEFF3.3 Threshold 1.1819 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
41
Incident Energy (eV)
37-Rb-87

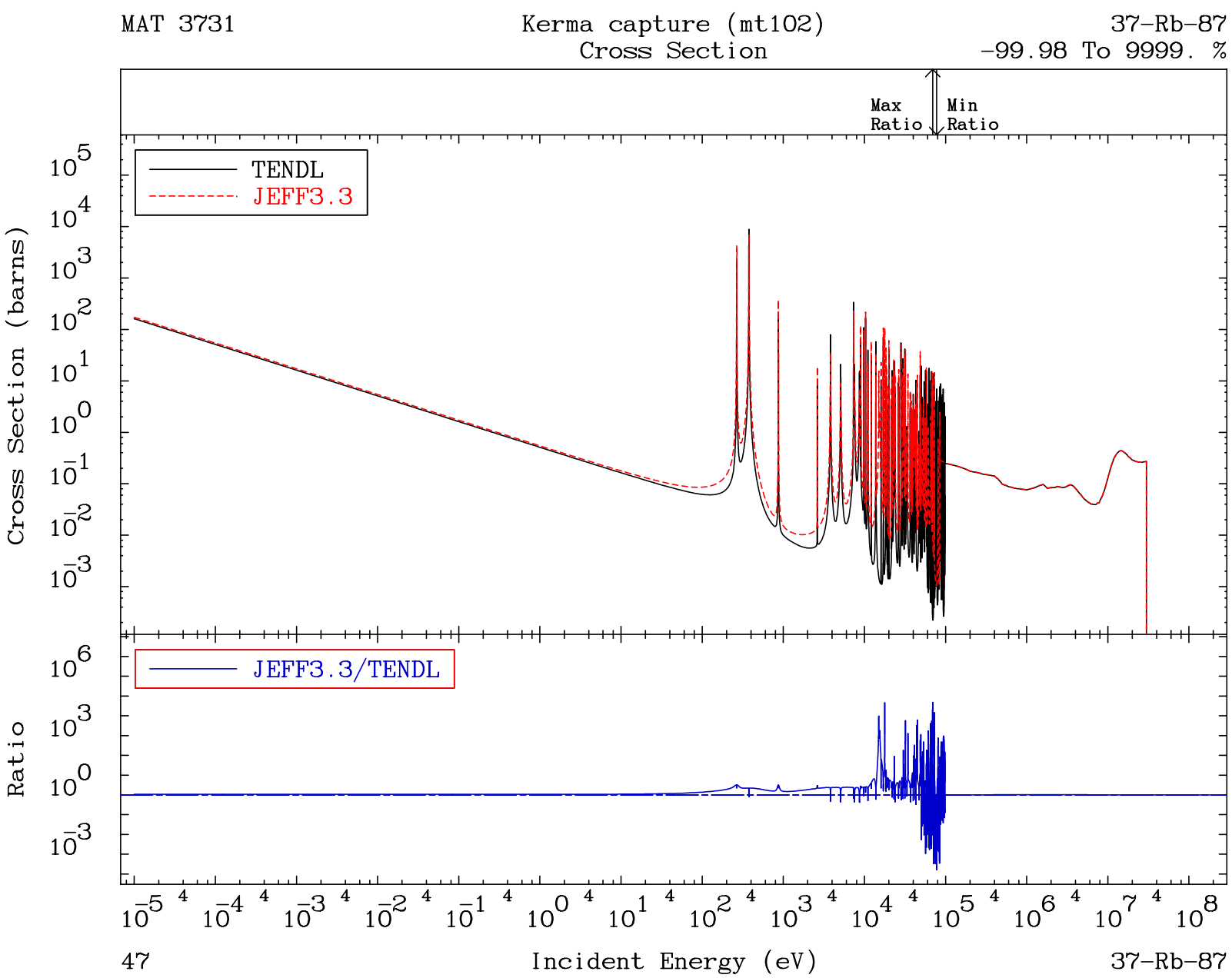

MAT 3731
Kerma total (eV-barns)
Cross Section
37-Rb-87
-99.58 To 1510. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
42
37-Rb-87

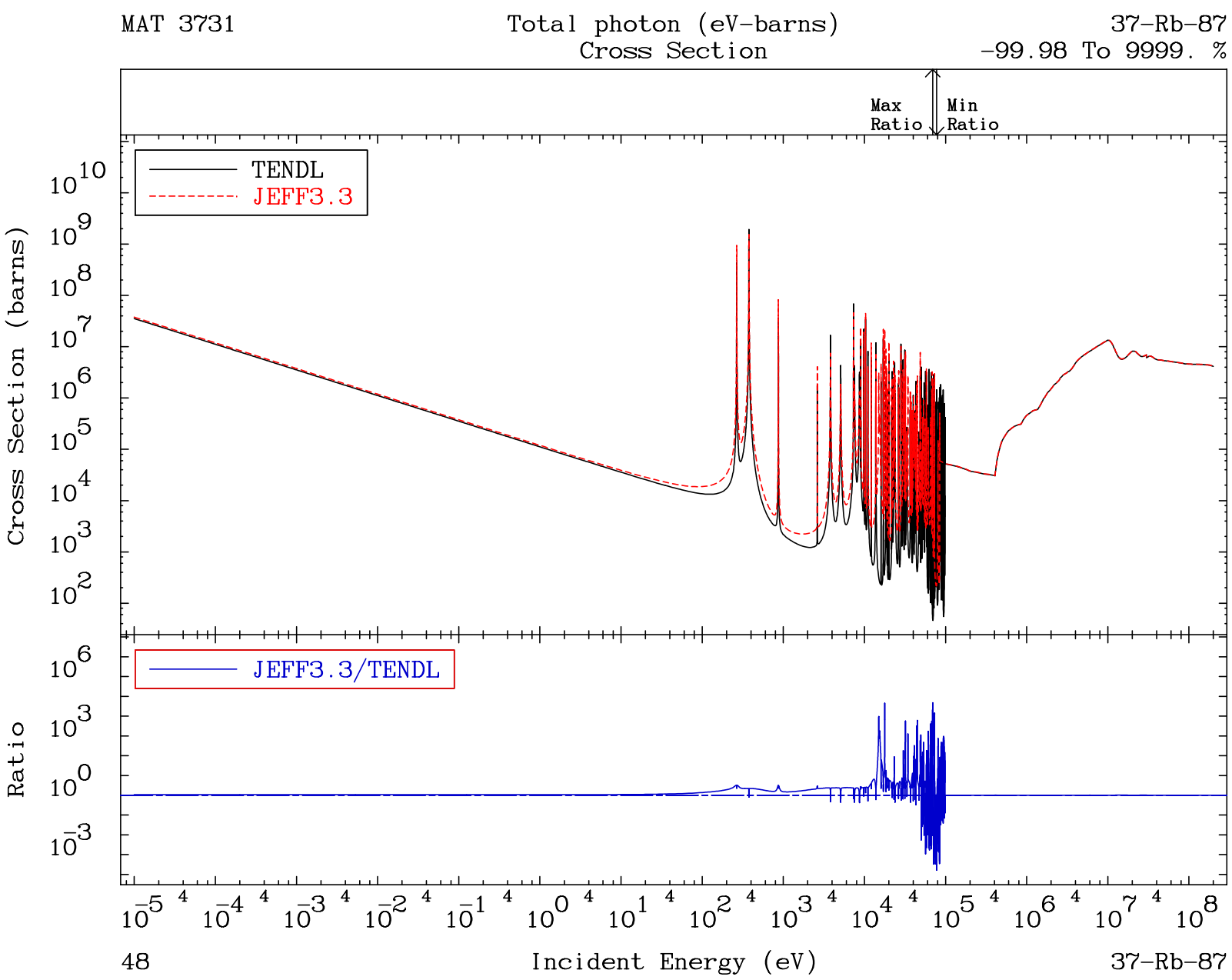

MAT 3731
Kerma elastic
Cross Section
37-Rb-87
-99.61 To 1509. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
43
37-Rb-87

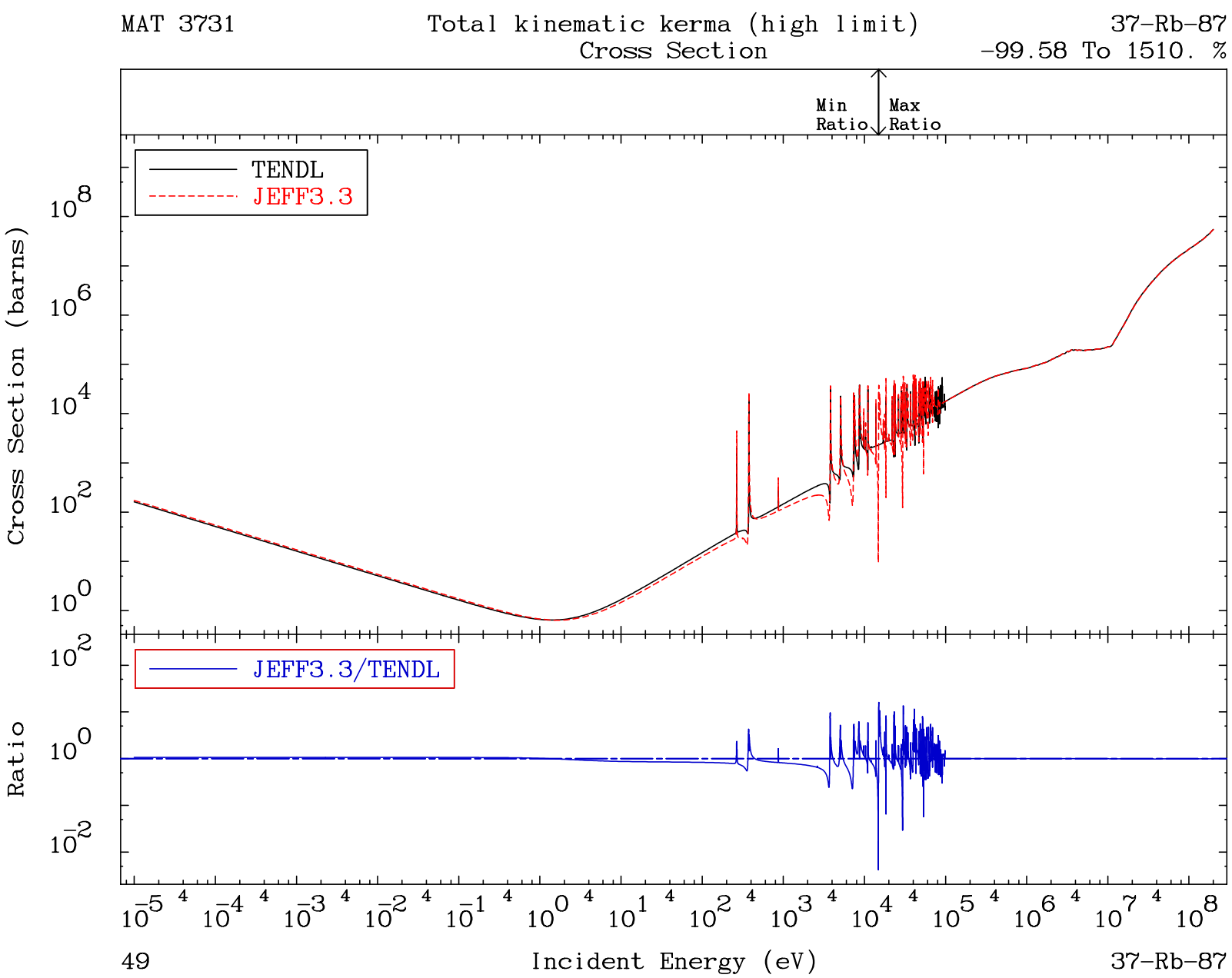

MAT 3731
Kerma non-elastic (all but mt2)
Cross Section
37-Rb-87
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
44
37-Rb-87

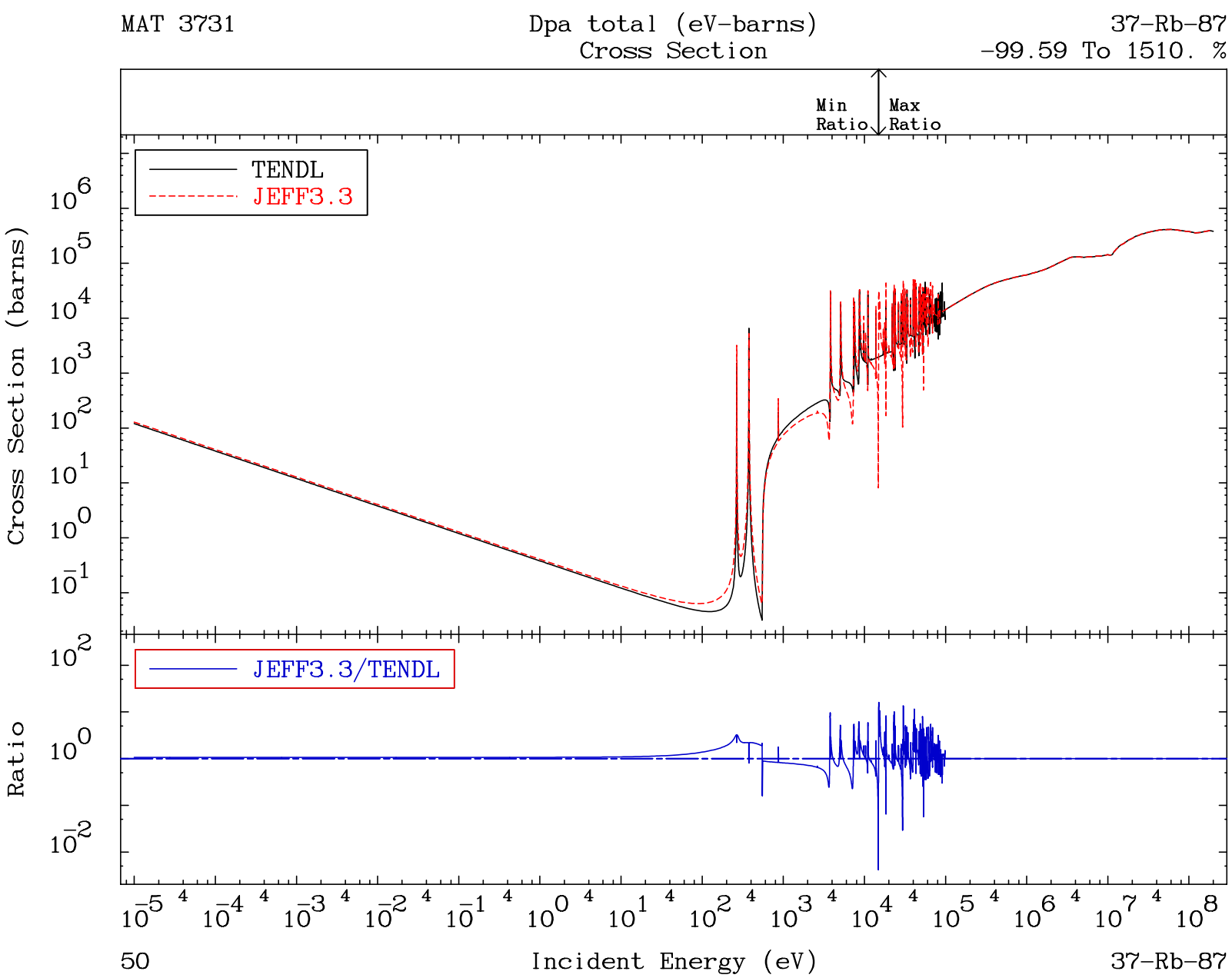

MAT 3731
Kerma inelastic (mt51-91)
Cross Section
37-Rb-87
-3.514 To 36.41 %
Min Ratio
Max Ratio
TENDL Threshold 407.26 keV
JEFF3.3 Threshold 407.26 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
45
37-Rb-87

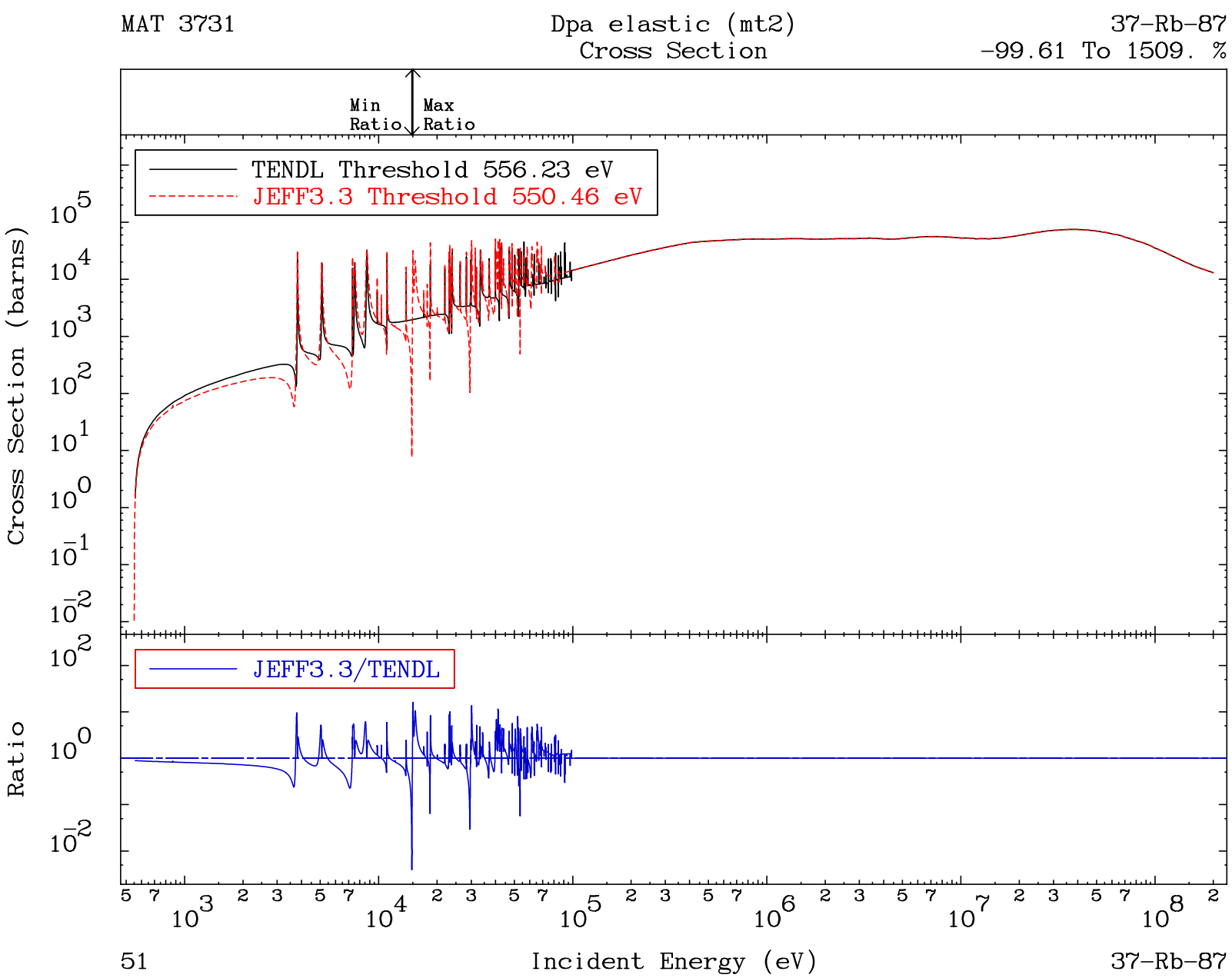

MAT 3731
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
37-Rb-87
-3.514 To 36.41 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
46
Incident Energy (eV)
37-Rb-87

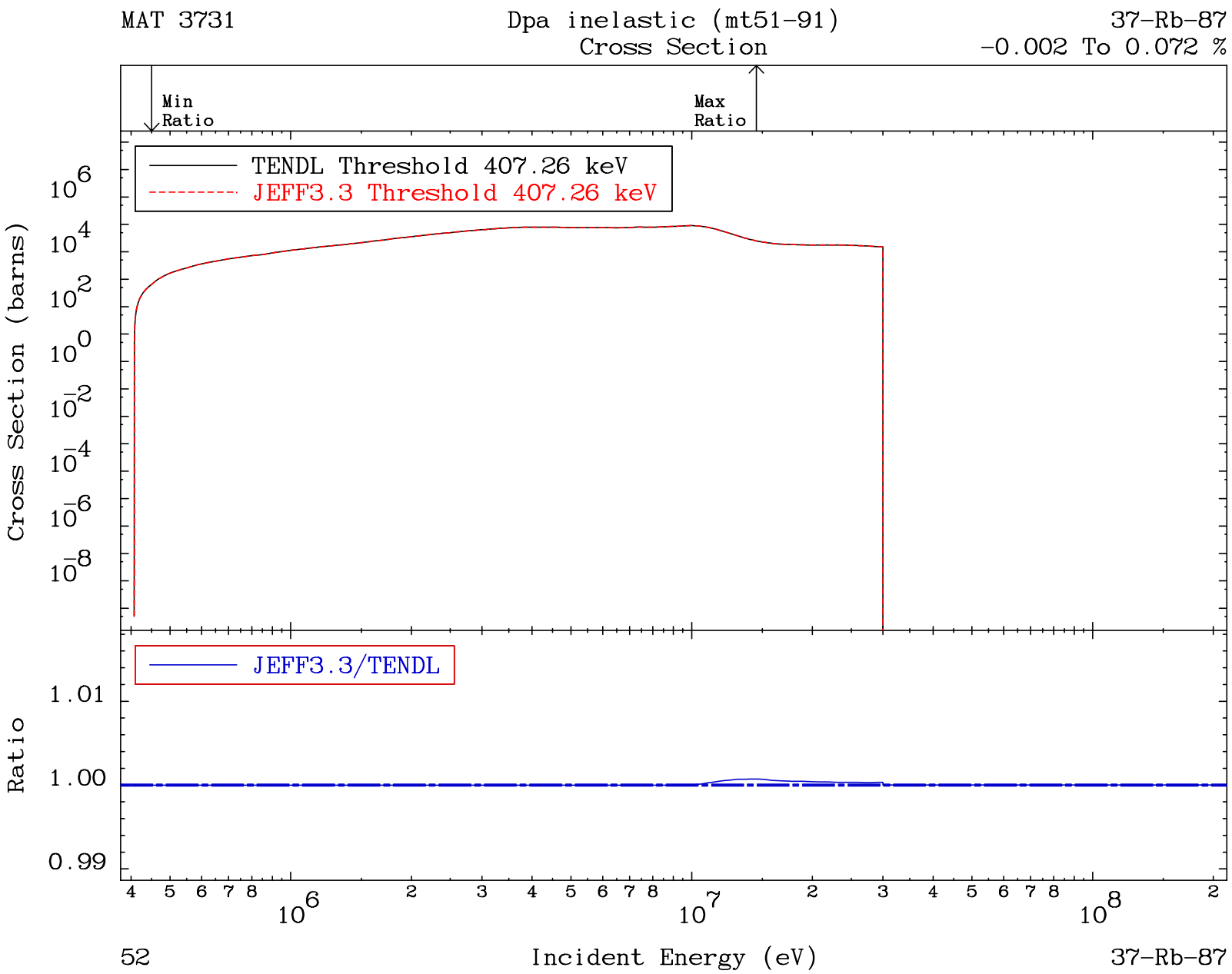

MAT 3731
Kerma capture (mt102)
Cross Section
37-Rb-87
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
47
37-Rb-87

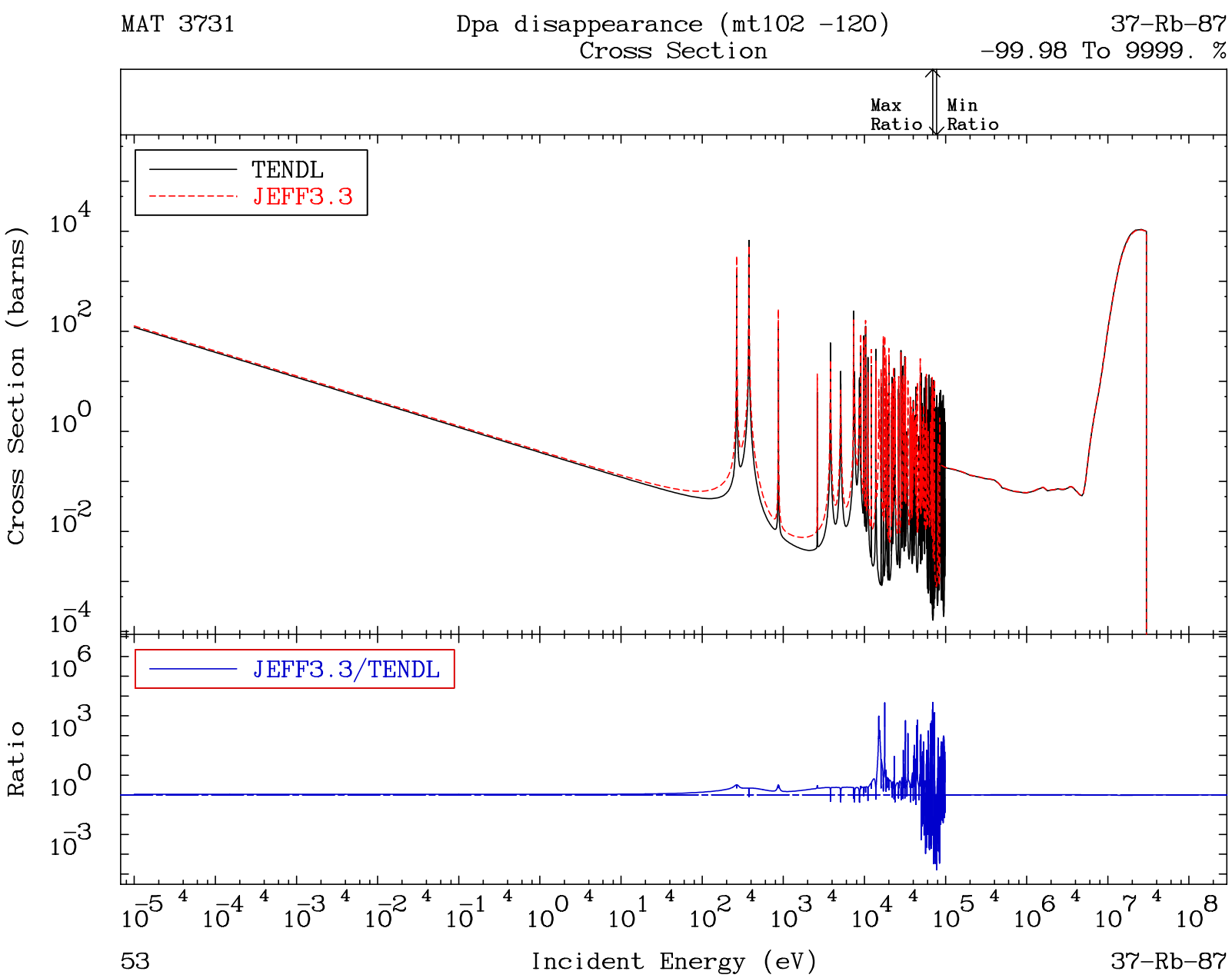

MAT 3731
Total photon (eV-barns)
Cross Section
37-Rb-87
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
48
Incident Energy (eV)
37-Rb-87

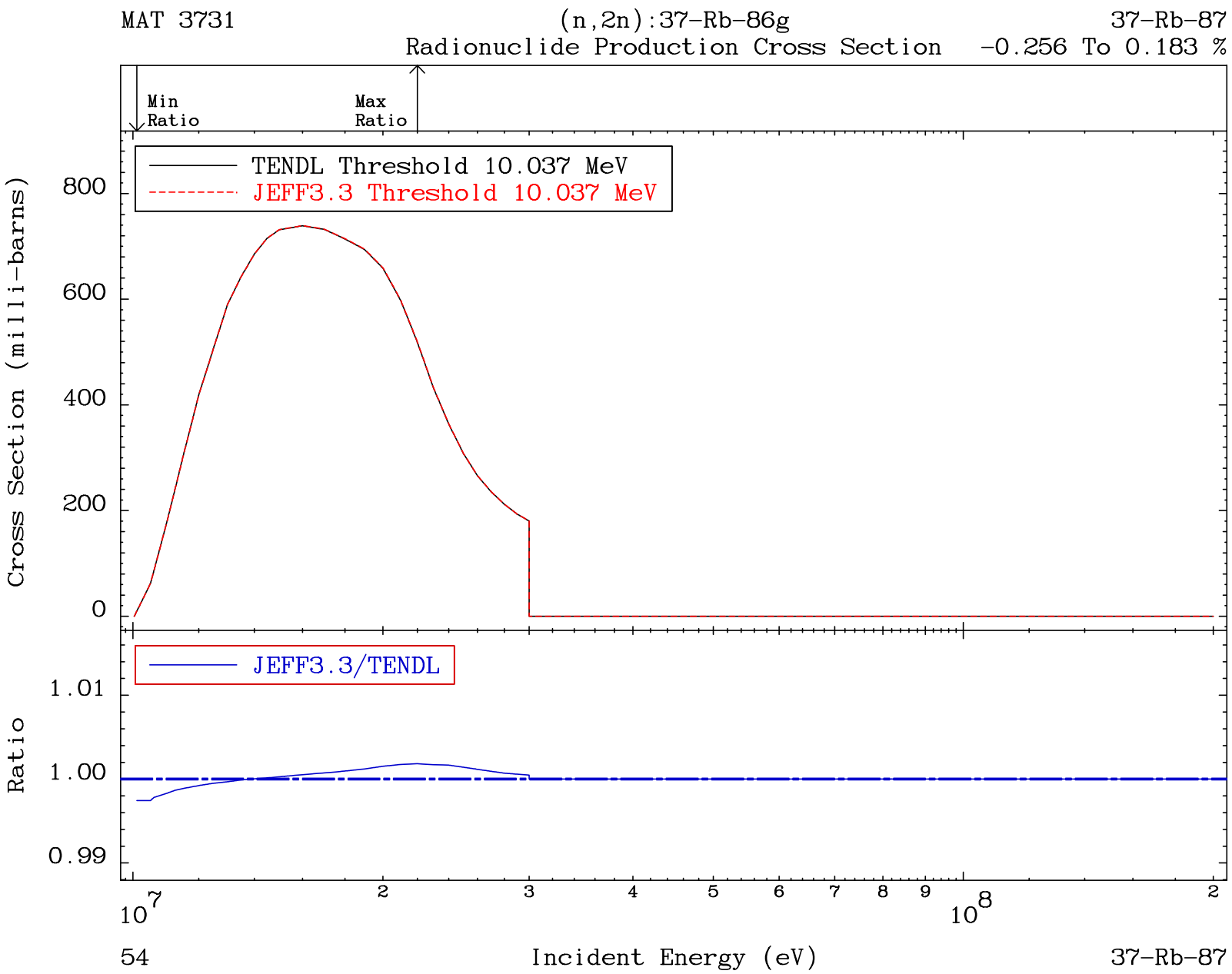

MAT 3731
Total kinematic kerma (high limit)
Cross Section
37-Rb-87
-99.58 To 1510. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
49
37-Rb-87

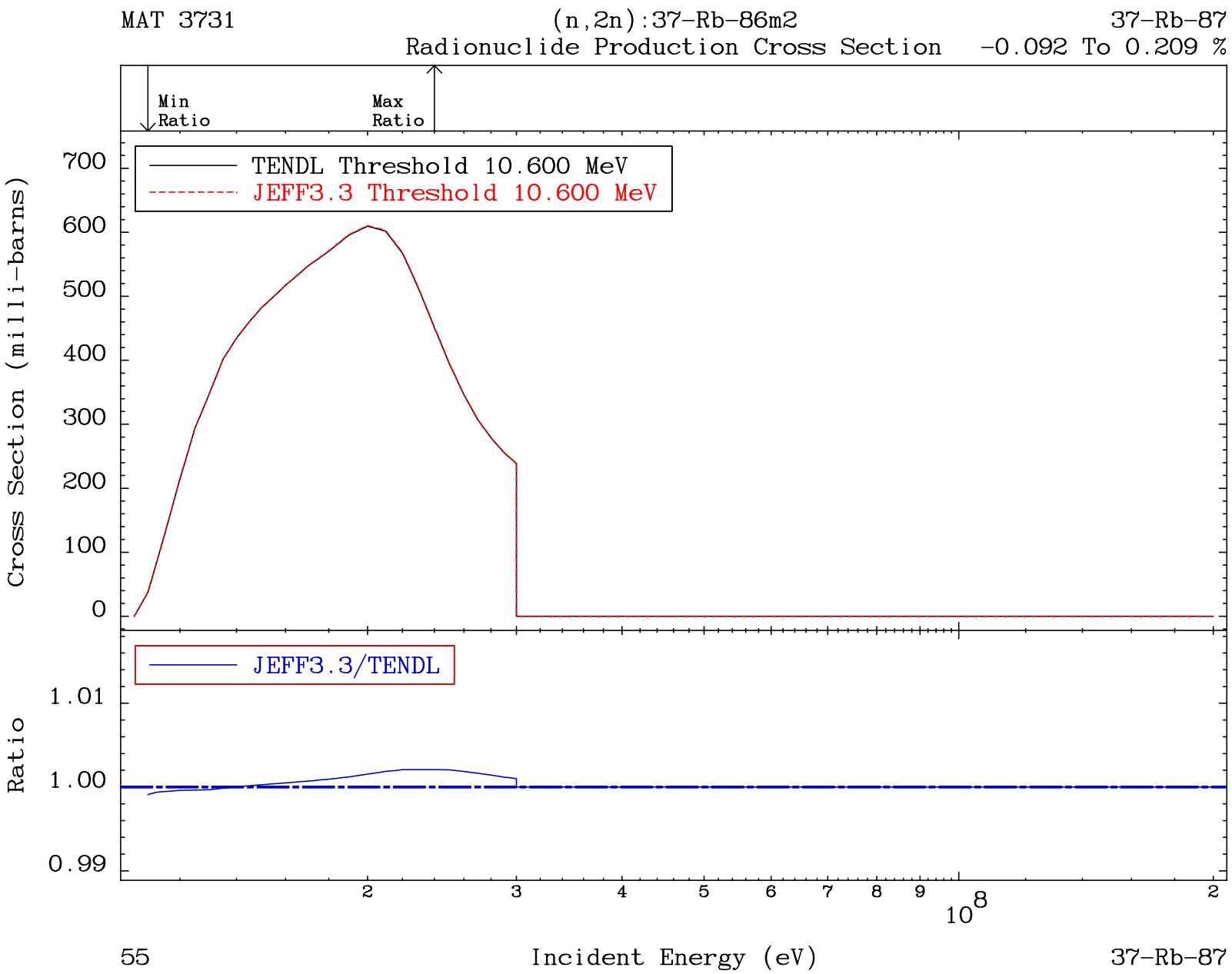

MAT 3731
Dpa total (eV-barns)
Cross Section
37-Rb-87
-99.59 To 1510. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
50
37-Rb-87

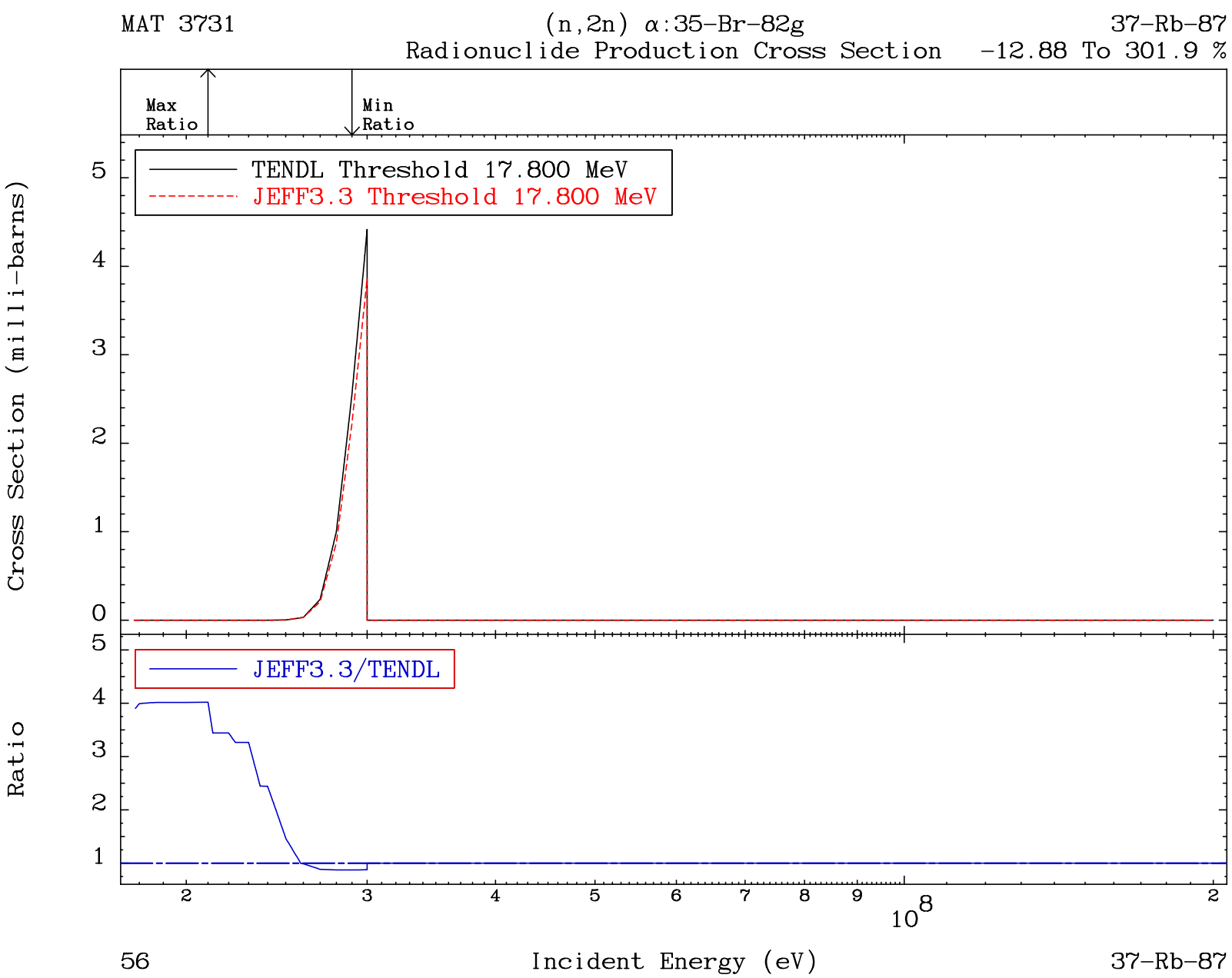

MAT 3731
Dpa elastic (mt2)
Cross Section
37-Rb-87
-99.61 To 1509. %
Min Ratio
Max Ratio
TENDL Threshold 556.23 eV
JEFF3.3 Threshold 550.46 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
51
37-Rb-87

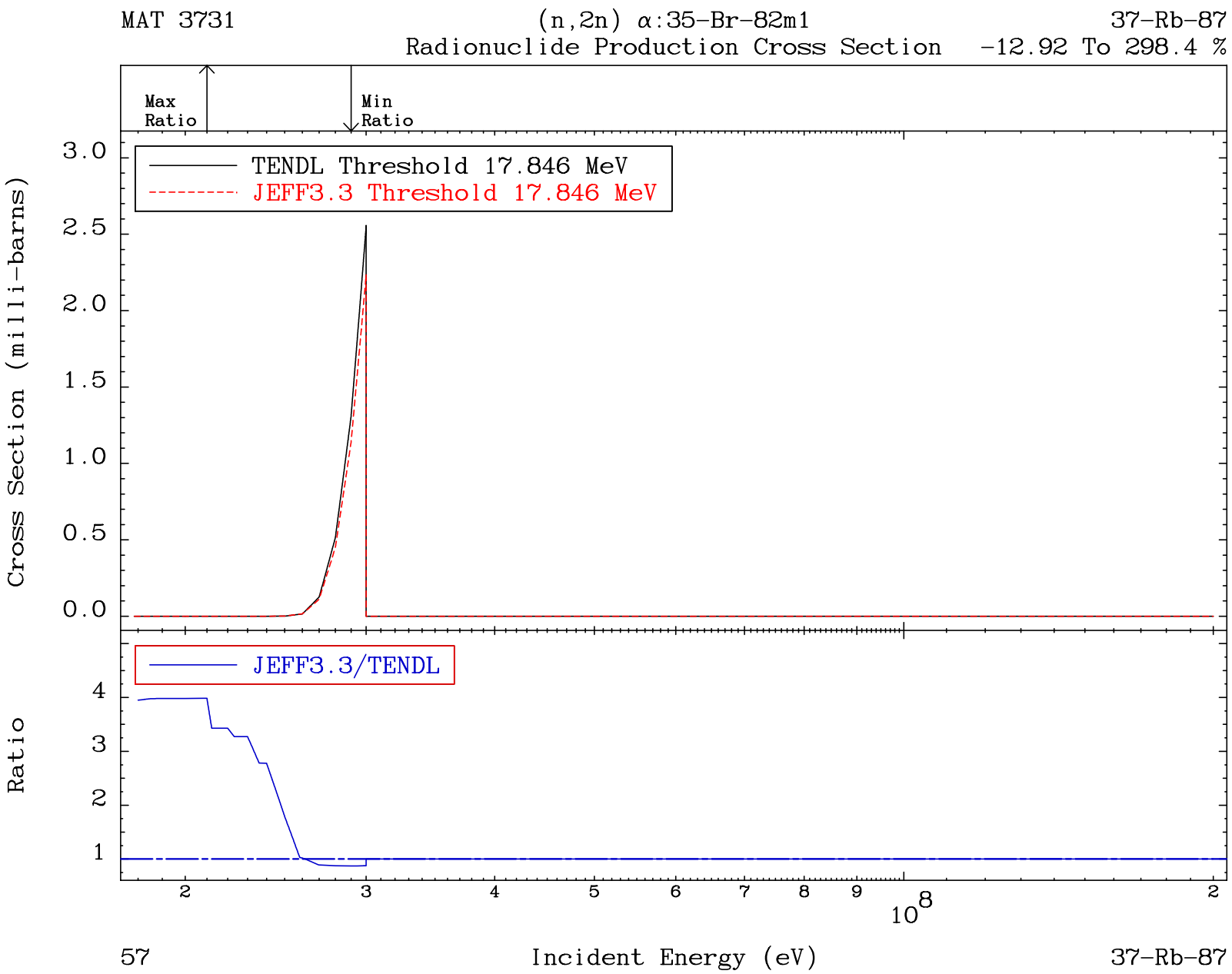

MAT 3731
Dpa inelastic (mt51-91)
Cross Section
37-Rb-87
-0.002 To 0.072 %
Min Ratio
Max Ratio
TENDL Threshold 407.26 keV
JEFF3.3 Threshold 407.26 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
52
37-Rb-87

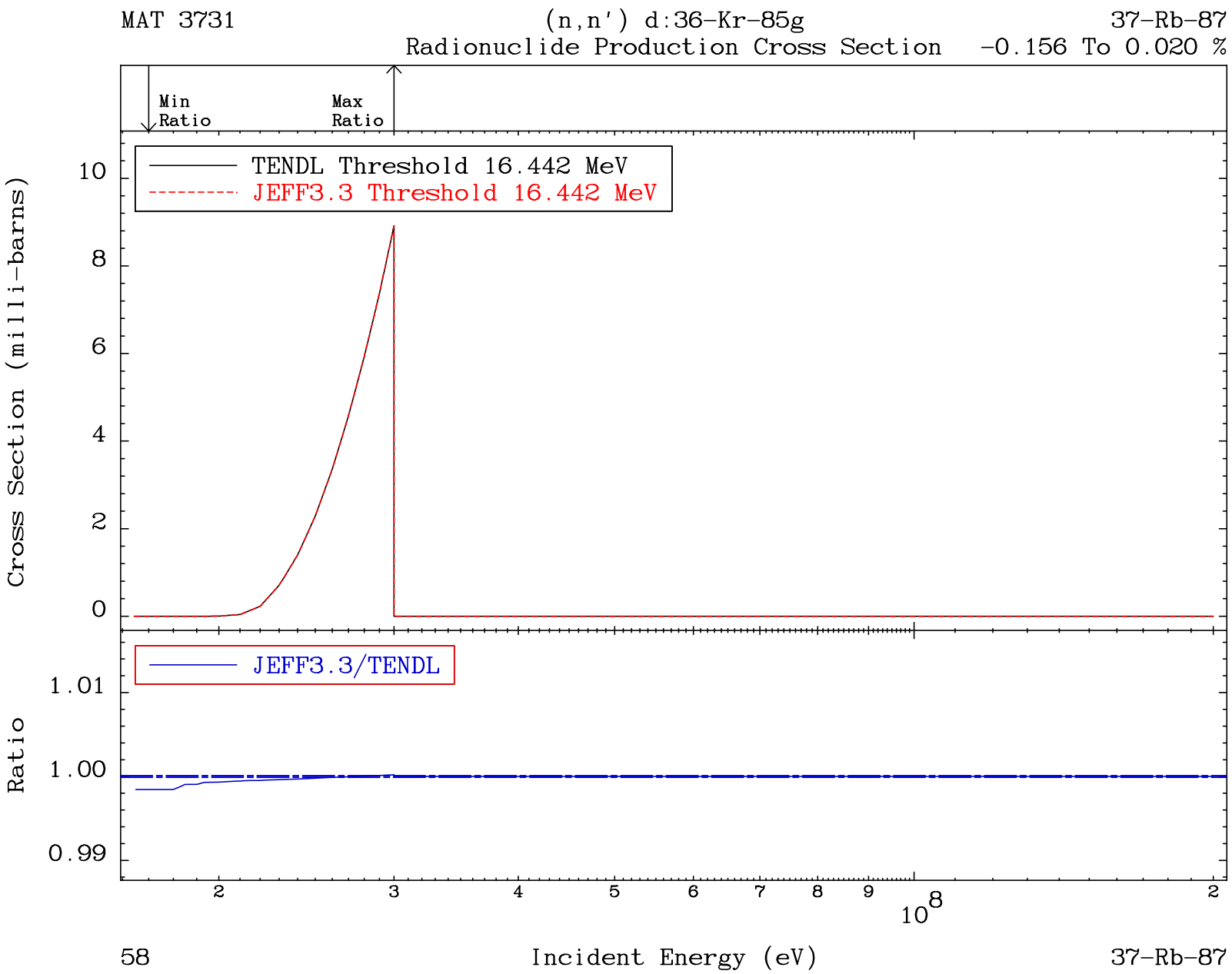

MAT 3731
Dpa disappearance (mt102 -120)
Cross Section
37-Rb-87
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
53
37-Rb-87

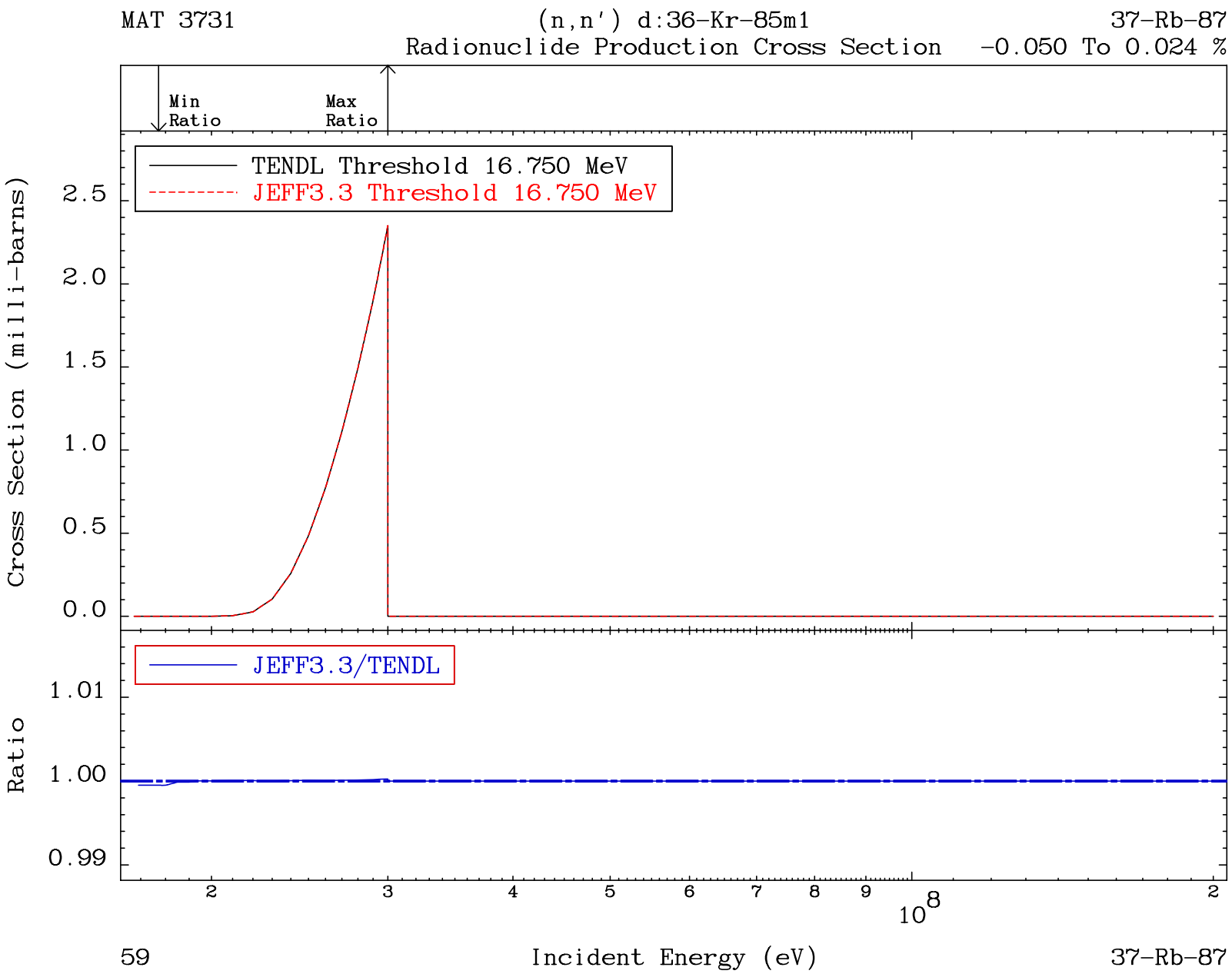

MAT 3731
(n,2n):37-Rb-86g
37-Rb-87
Radionuclide Production Cross Section
-0.256 To 0.183 %
Min Ratio
Max Ratio
TENDL Threshold 10.037 MeV
JEFF3.3 Threshold 10.037 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^7
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
37-Rb-87

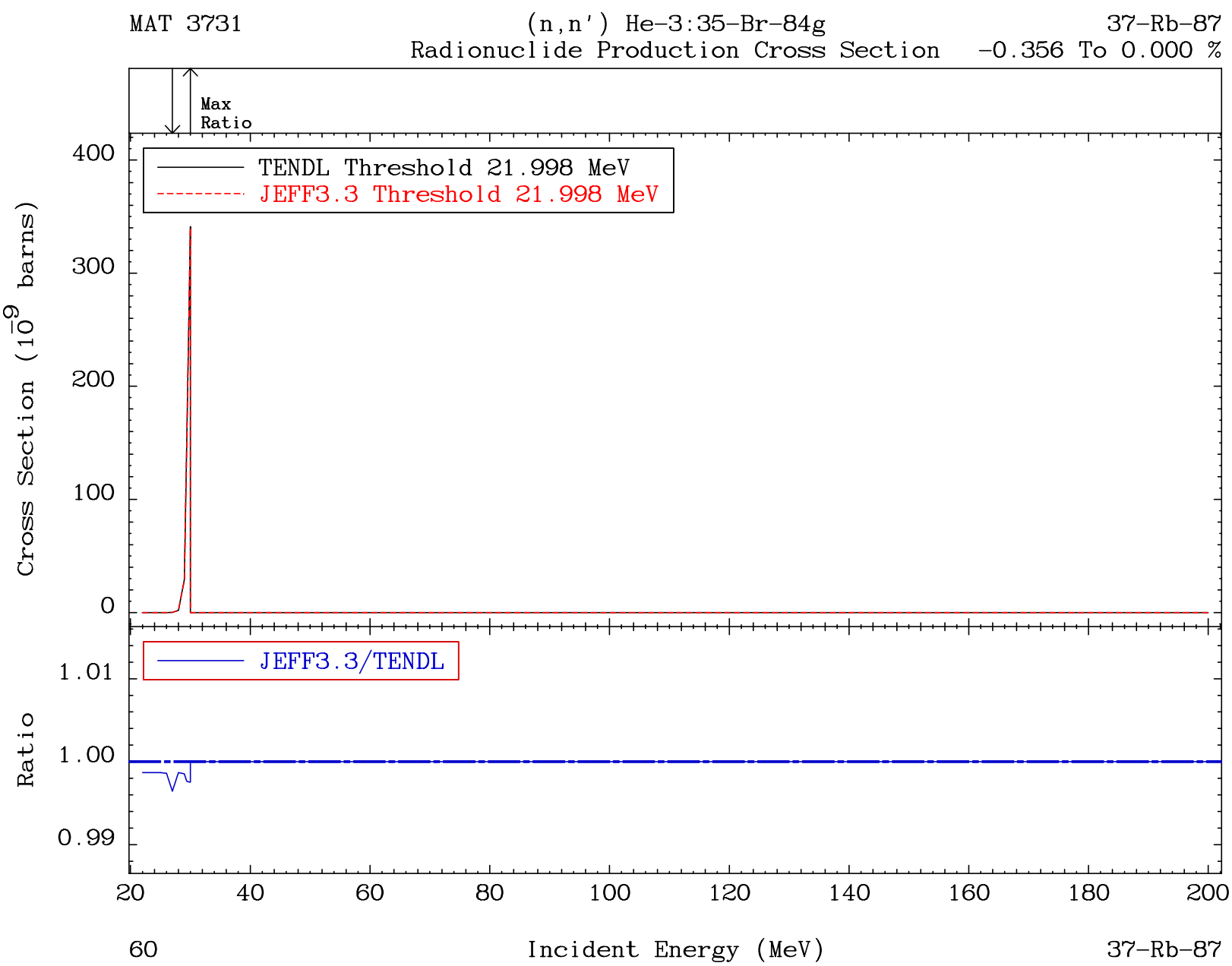

MAT 3731
(n,2n):37-Rb-86m2
37-Rb-87
Radionuclide Production Cross Section
-0.092 To 0.209 %
Min Ratio
Max Ratio
TENDL Threshold 10.600 MeV
JEFF3.3 Threshold 10.600 MeV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
55
Incident Energy (eV)
37-Rb-87

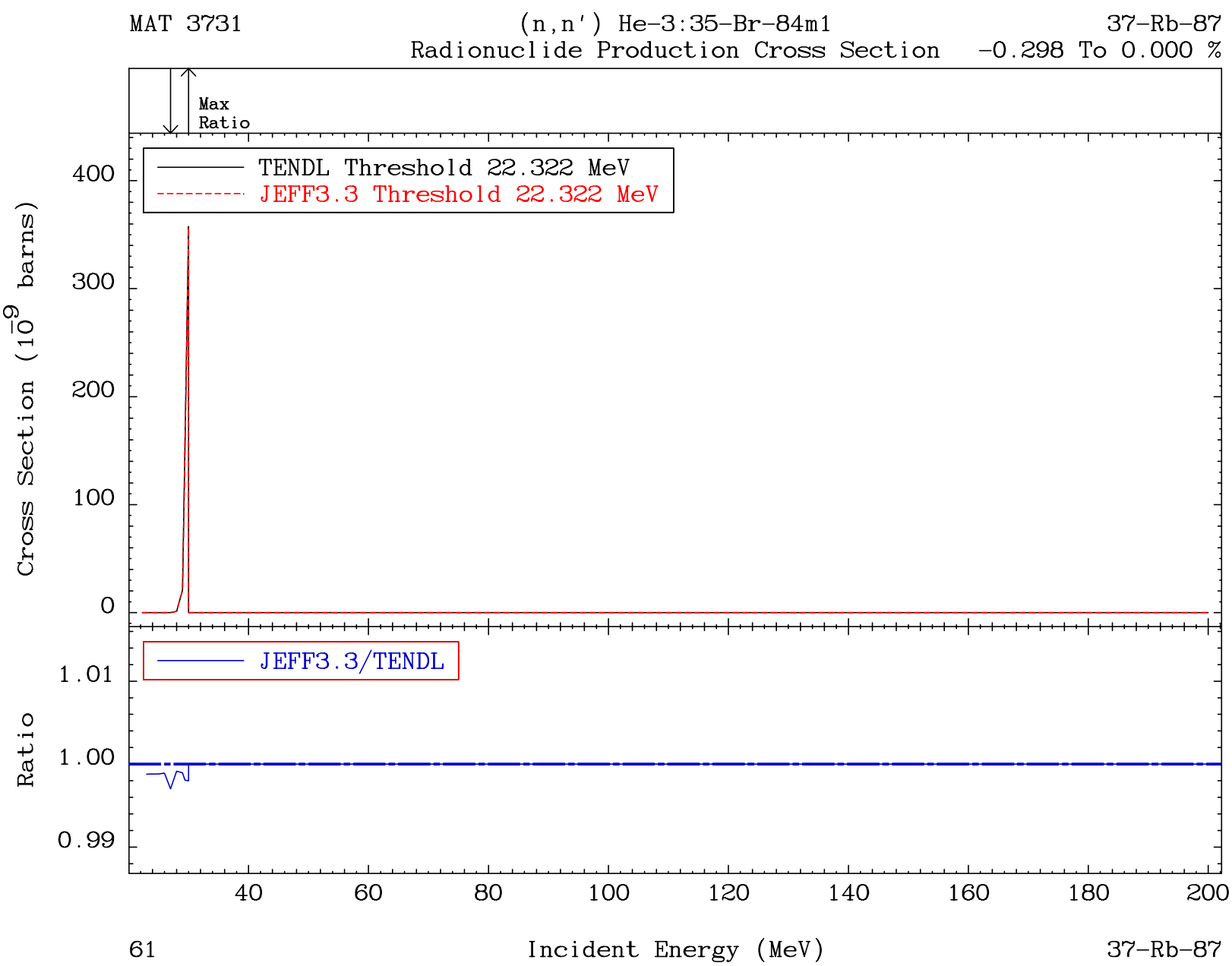

MAT 3731
(n,2n) α:35-Br-82g
37-Rb-87
Radionuclide Production Cross Section
-12.88 To 301.9 %
Max Ratio
Min Ratio
TENDL Threshold 17.800 MeV
JEFF3.3 Threshold 17.800 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
56
37-Rb-87

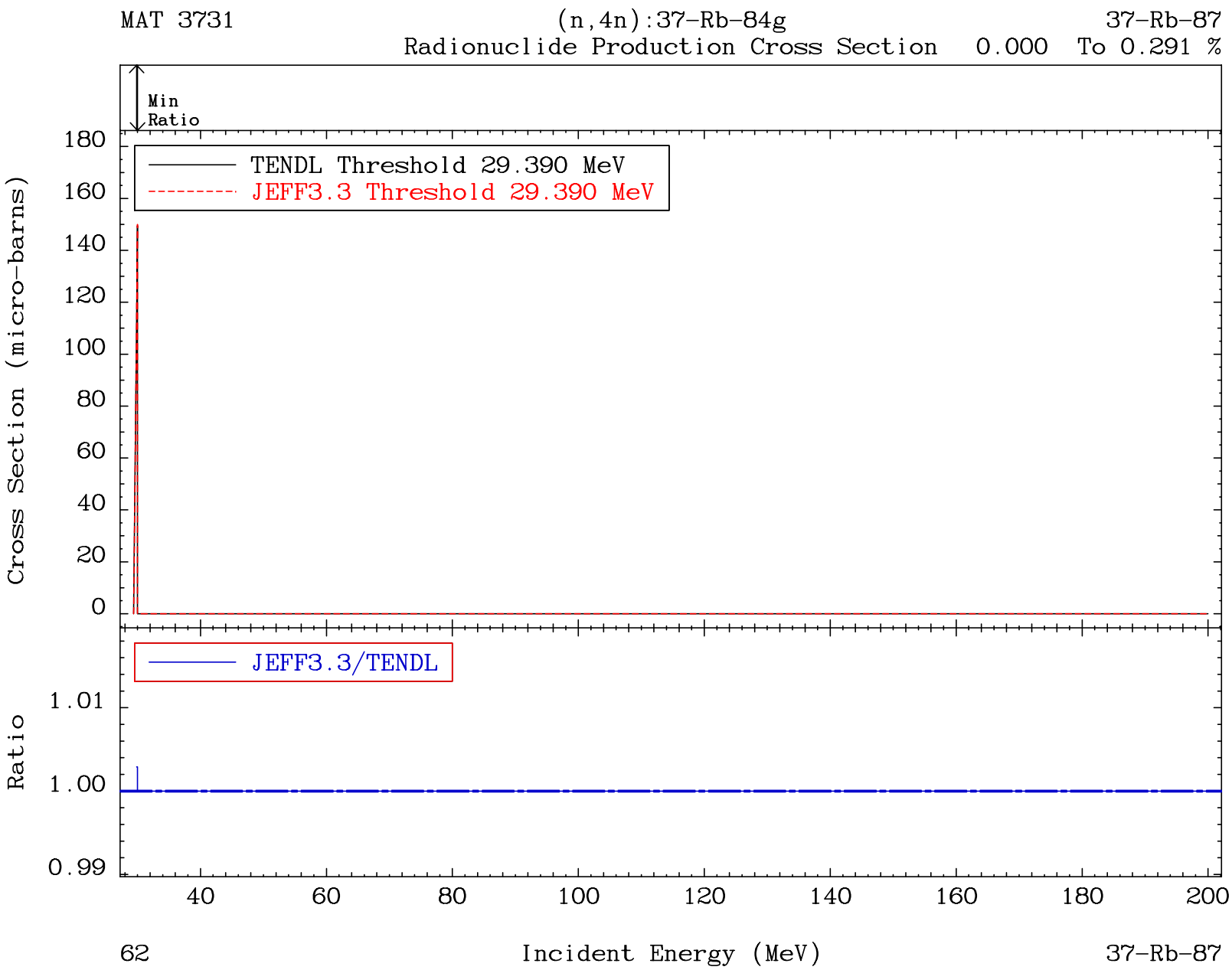

MAT 3731
(n,2n) α:35-Br-82m1
37-Rb-87
Radionuclide Production Cross Section -12.92 To 298.4 %
Max Ratio
Min Ratio
TENDL Threshold 17.846 MeV
JEFF3.3 Threshold 17.846 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
4
3
2
1
2
3
4
5
6
7
8
9
10^8
2
57
Incident Energy (eV)
37-Rb-87

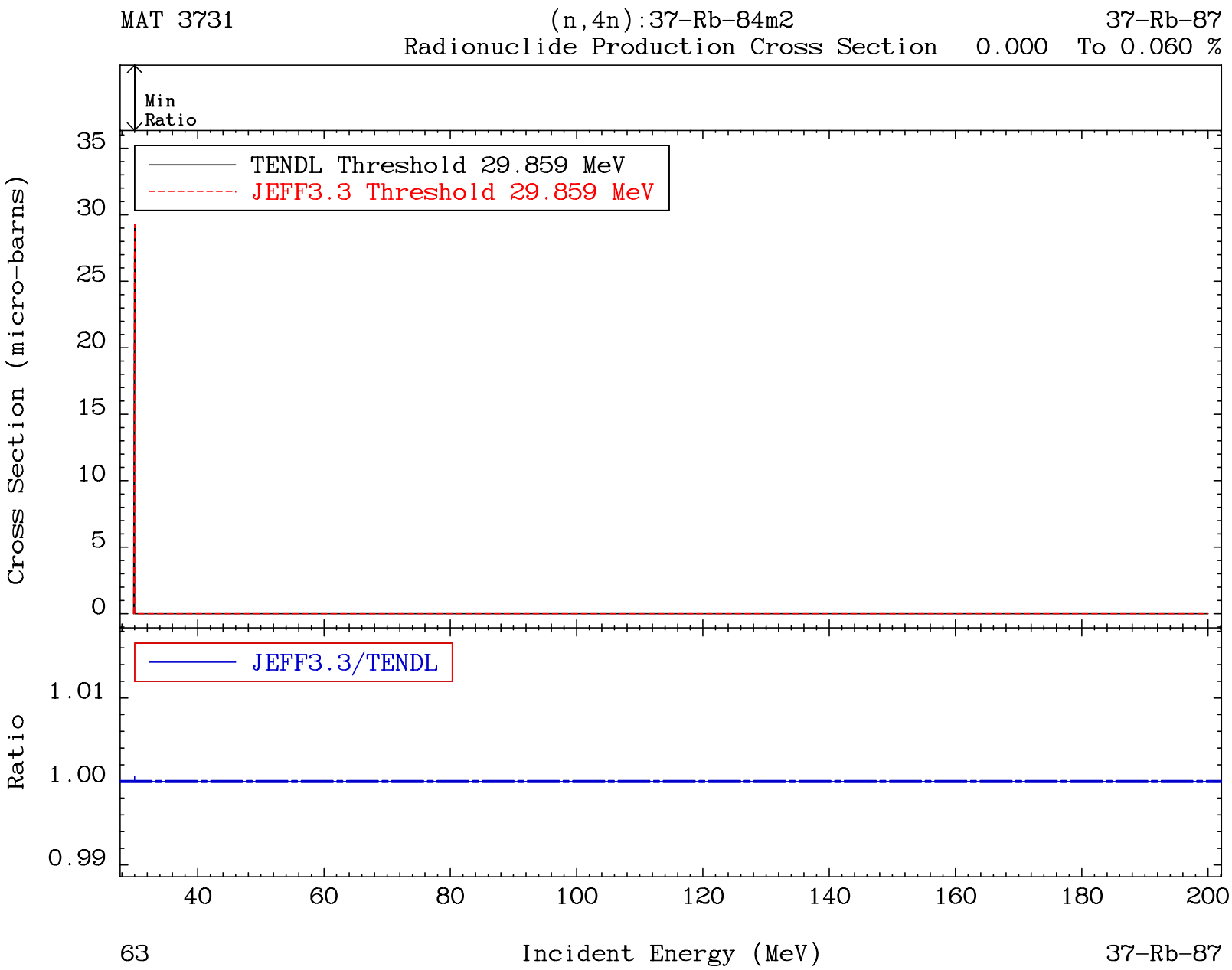

MAT 3731
(n,n') d:36-Kr-85g
37-Rb-87
Radionuclide Production Cross Section
-0.156 To 0.020 %
Min Ratio
Max Ratio
TENDL Threshold 16.442 MeV
JEFF3.3 Threshold 16.442 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
37-Rb-87

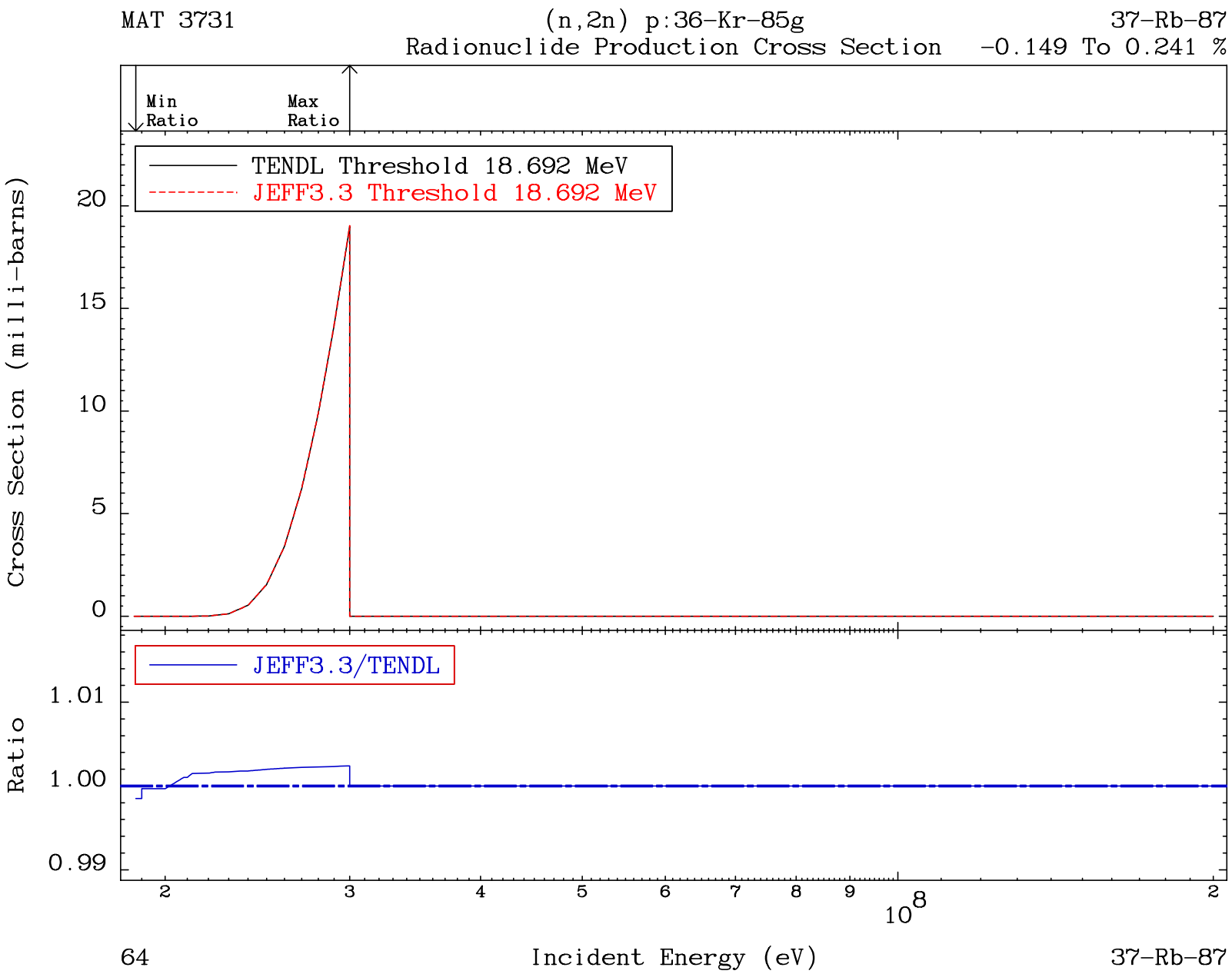

MAT 3731
(n,n') d:36-Kr-85m1
37-Rb-87
Radionuclide Production Cross Section
-0.050 To 0.024 %
Min Ratio
Max Ratio
TENDL Threshold 16.750 MeV
JEFF3.3 Threshold 16.750 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
59
Incident Energy (eV)
37-Rb-87

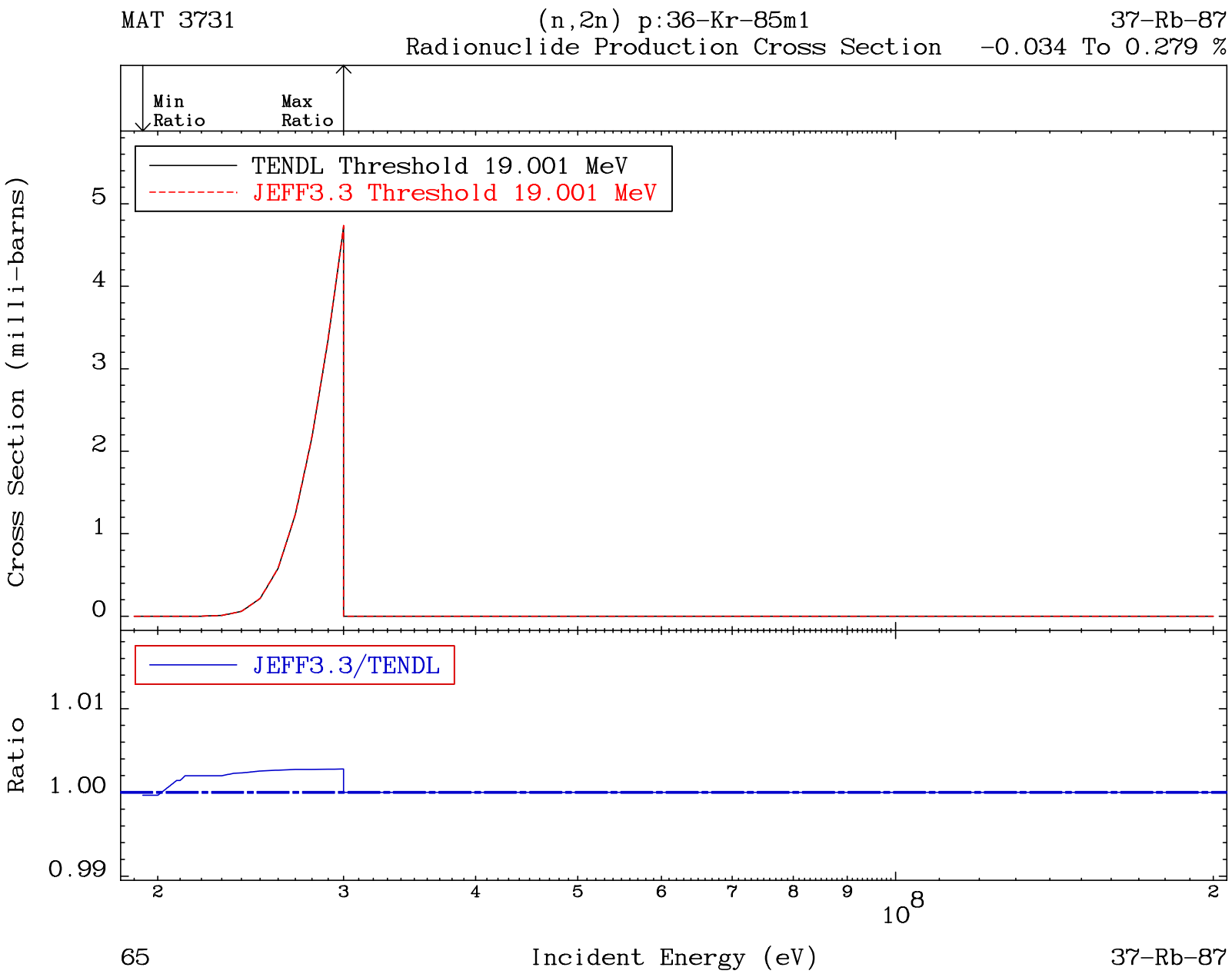

MAT 3731
(n,n') He-3:35-Br-84g
37-Rb-87
Radionuclide Production Cross Section
-0.356 To 0.000 %
Max
Ratio
TENDL Threshold 21.998 MeV
JEFF3.3 Threshold 21.998 MeV
Cross Section (10-9 barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
60
Incident Energy (MeV)
37-Rb-87

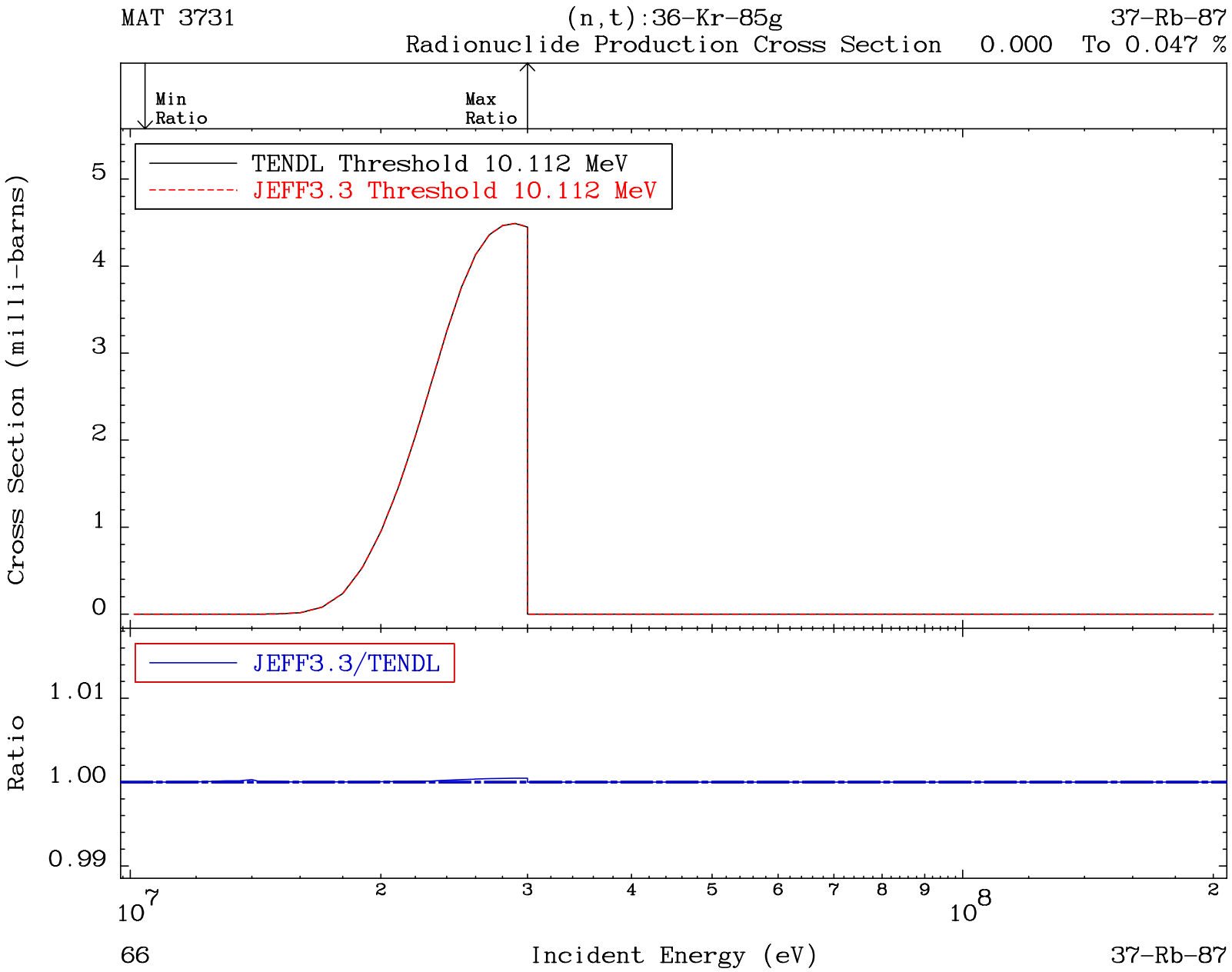

MAT 3731
(n,n') He-3:35-Br-84m1
37-Rb-87
Radionuclide Production Cross Section
-0.298 To 0.000 %
Max
Ratio
TENDL Threshold 22.322 MeV
JEFF3.3 Threshold 22.322 MeV
Cross Section (10-9 barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
61
Incident Energy (MeV)
37-Rb-87

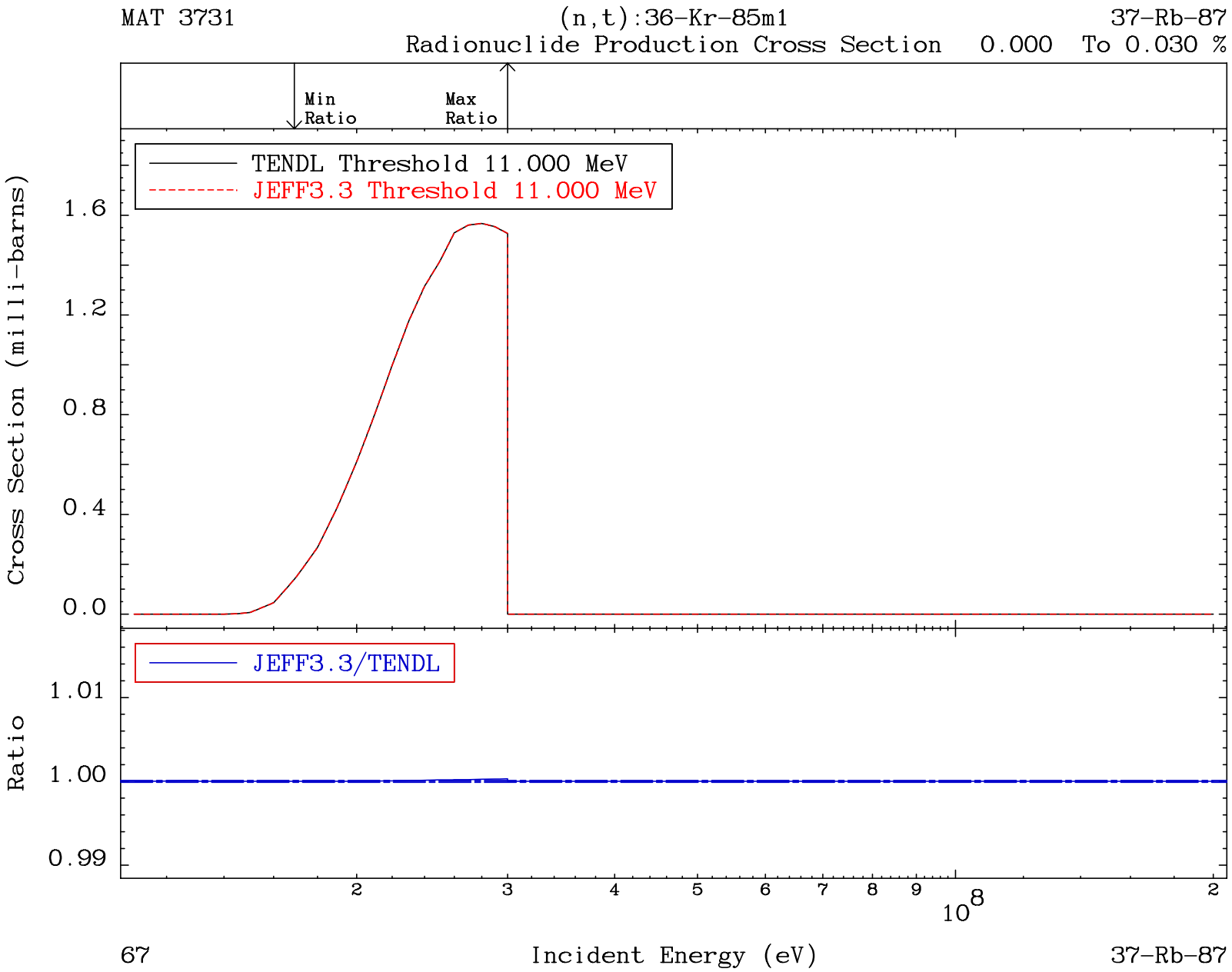

MAT 3731
(n,4n):37-Rb-84g
37-Rb-87
Radionuclide Production Cross Section 0.000 To 0.291 %
Min Ratio
TENDL Threshold 29.390 MeV
JEFF3.3 Threshold 29.390 MeV
Cross Section (micro-barns)
180
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
62
Incident Energy (MeV)
37-Rb-87

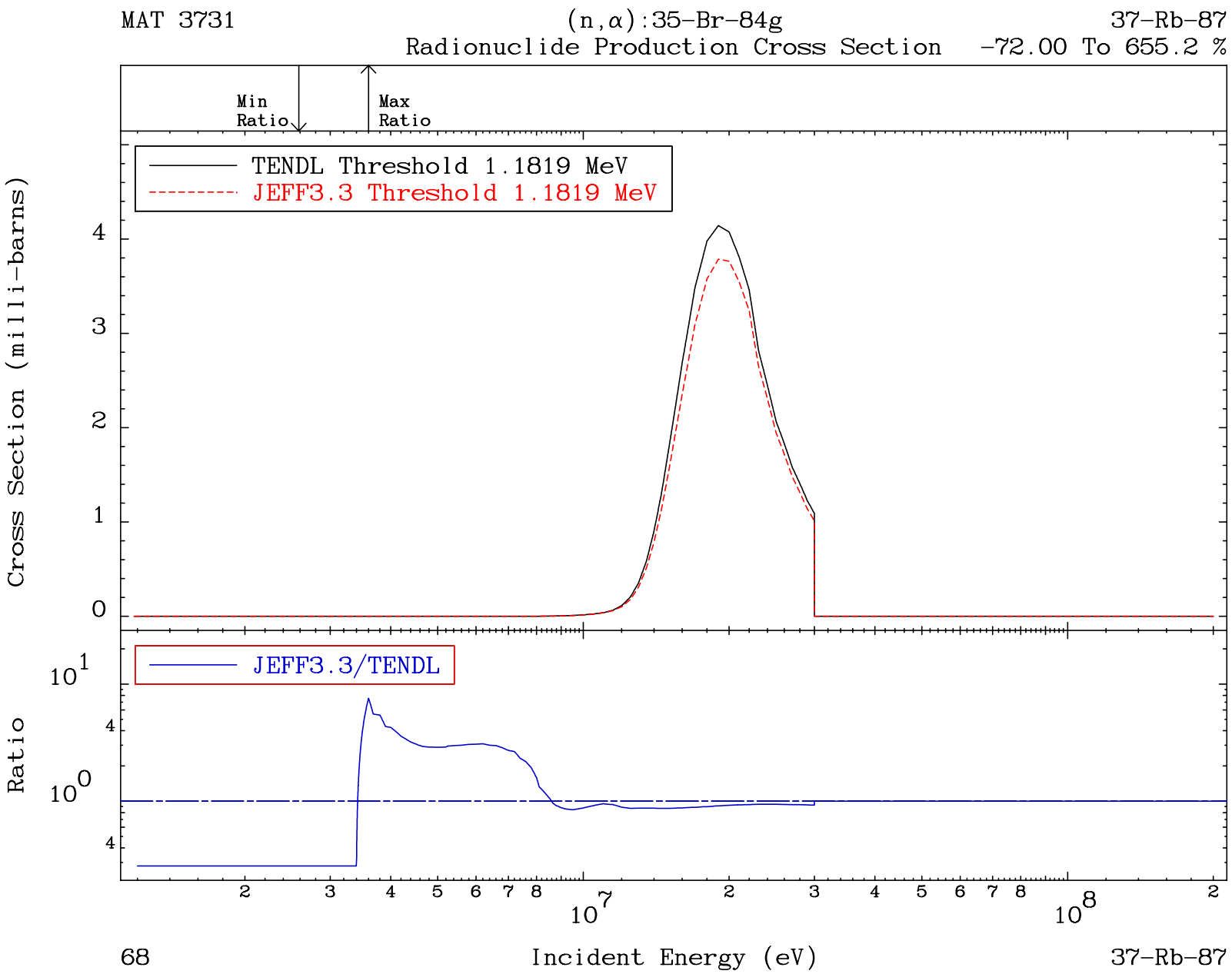

MAT 3731
(n,4n):37-Rb-84m2
37-Rb-87
Radionuclide Production Cross Section 0.000 To 0.060 %
Min Ratio
TENDL Threshold 29.859 MeV
JEFF3.3 Threshold 29.859 MeV
Cross Section (micro-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
63
Incident Energy (MeV)
37-Rb-87

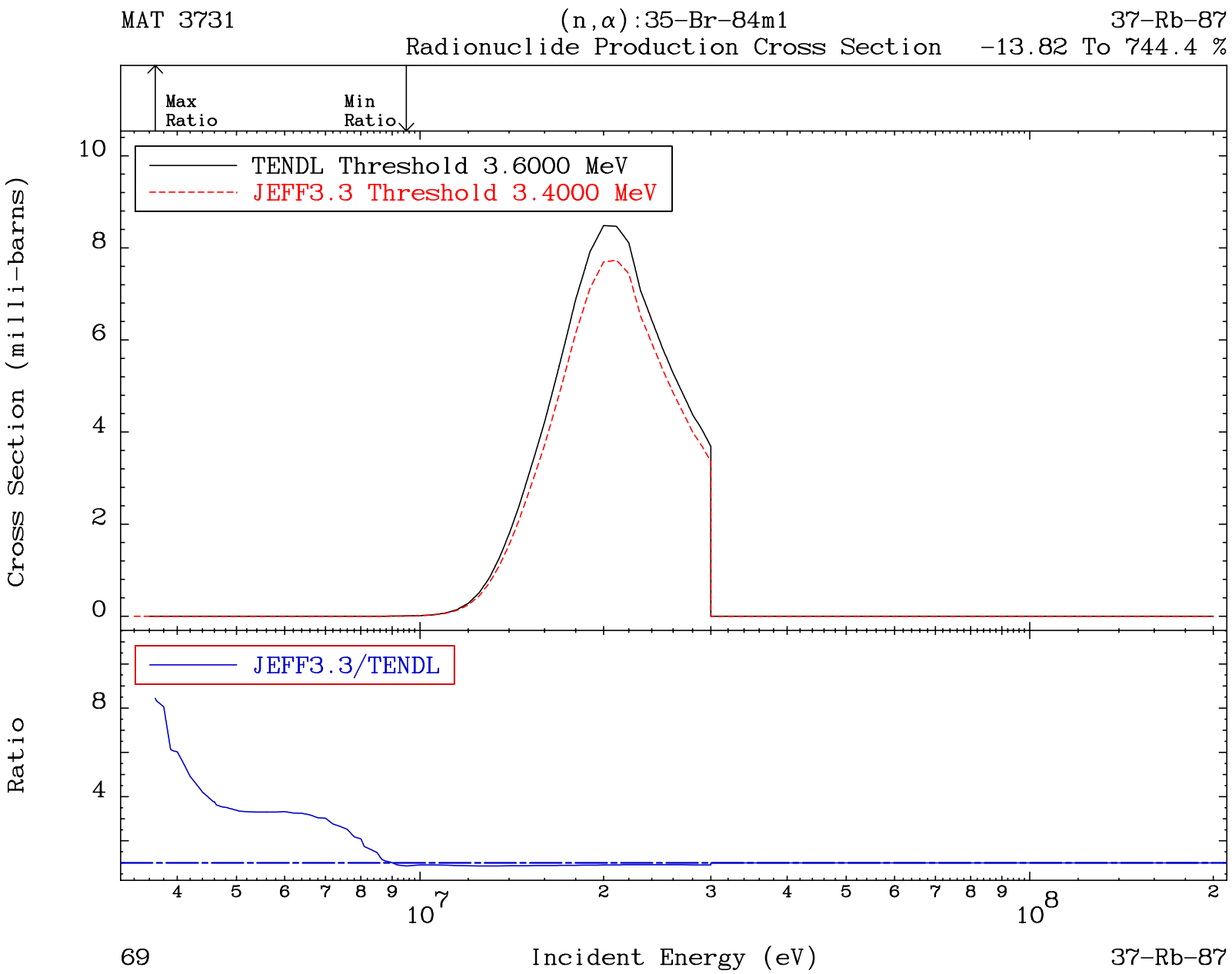

MAT 3731
(n,2n) p:36-Kr-85g
37-Rb-87
Radionuclide Production Cross Section
-0.149 To 0.241 %
Min Ratio
Max Ratio
TENDL Threshold 18.692 MeV
JEFF3.3 Threshold 18.692 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
37-Rb-87

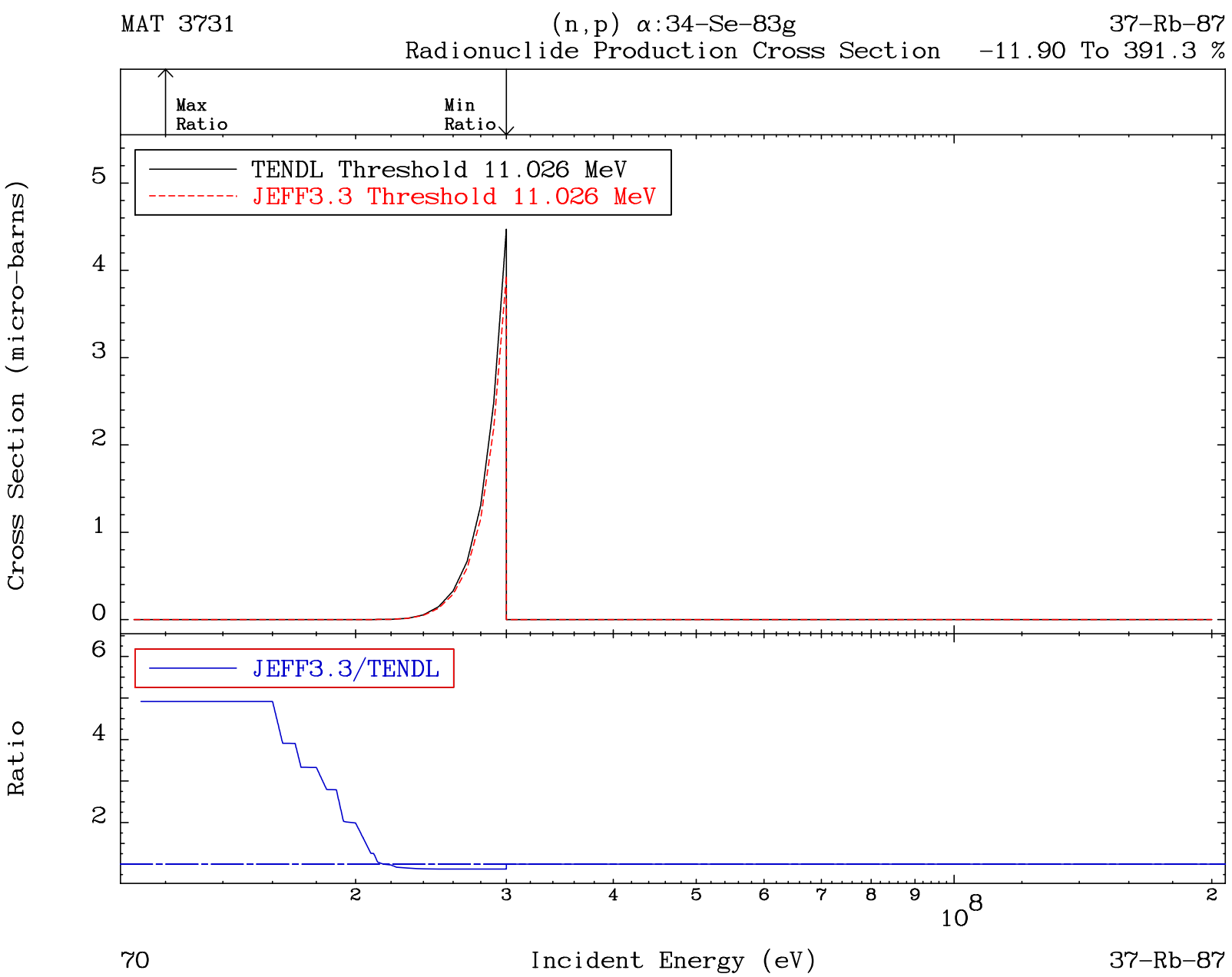

MAT 3731
(n,2n) p:36-Kr-85m1
37-Rb-87
Radionuclide Production Cross Section
-0.034 To 0.279 %
Min Ratio
Max Ratio
TENDL Threshold 19.001 MeV
JEFF3.3 Threshold 19.001 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
37-Rb-87

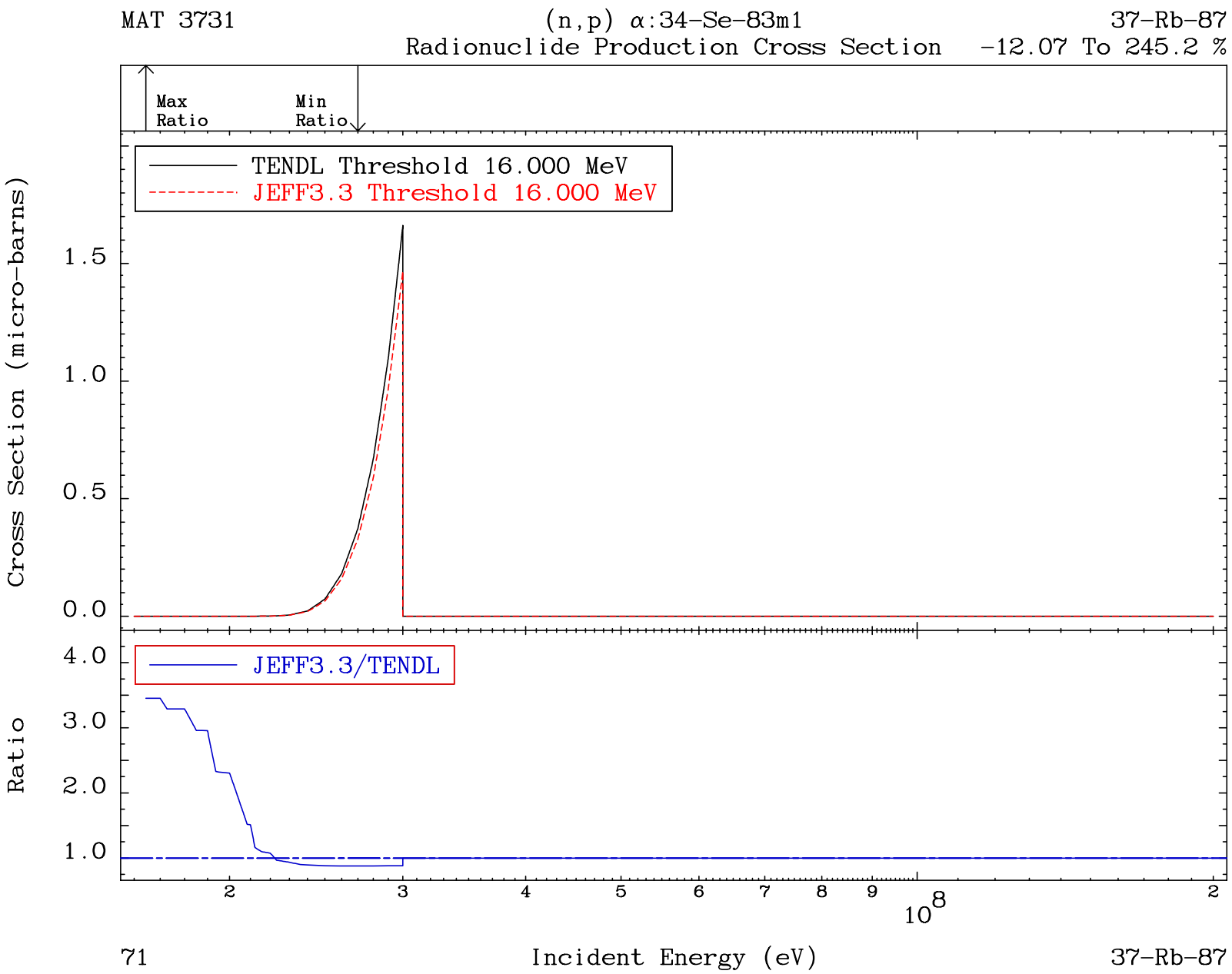

MAT 3731
(n,t):36-Kr-85g
37-Rb-87
Radionuclide Production Cross Section 0.000 To 0.047 %
Min Ratio
Max Ratio
TENDL Threshold 10.112 MeV
JEFF3.3 Threshold 10.112 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
0.99
1.00
1.01
10^7
2
3
4
5
6
7
8
9
10^8
2
66
Incident Energy (eV)
37-Rb-87

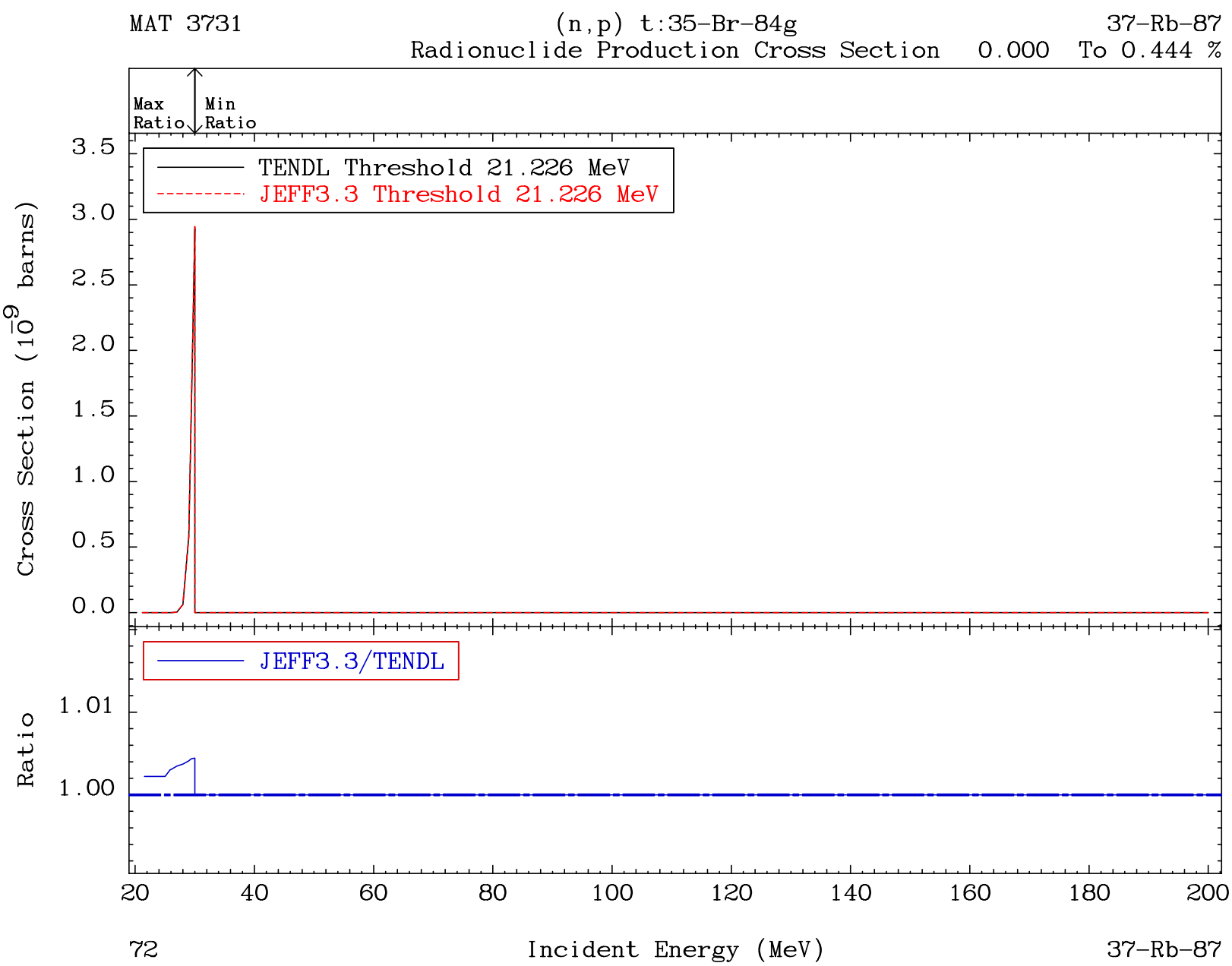

MAT 3731
(n,t):36-Kr-85m1
37-Rb-87
Radionuclide Production Cross Section 0.000 To 0.030 %
Min Ratio
Max Ratio
TENDL Threshold 11.000 MeV
JEFF3.3 Threshold 11.000 MeV
Cross Section (milli-barns)
1.6
1.2
0.8
0.4
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
67
Incident Energy (eV)
37-Rb-87

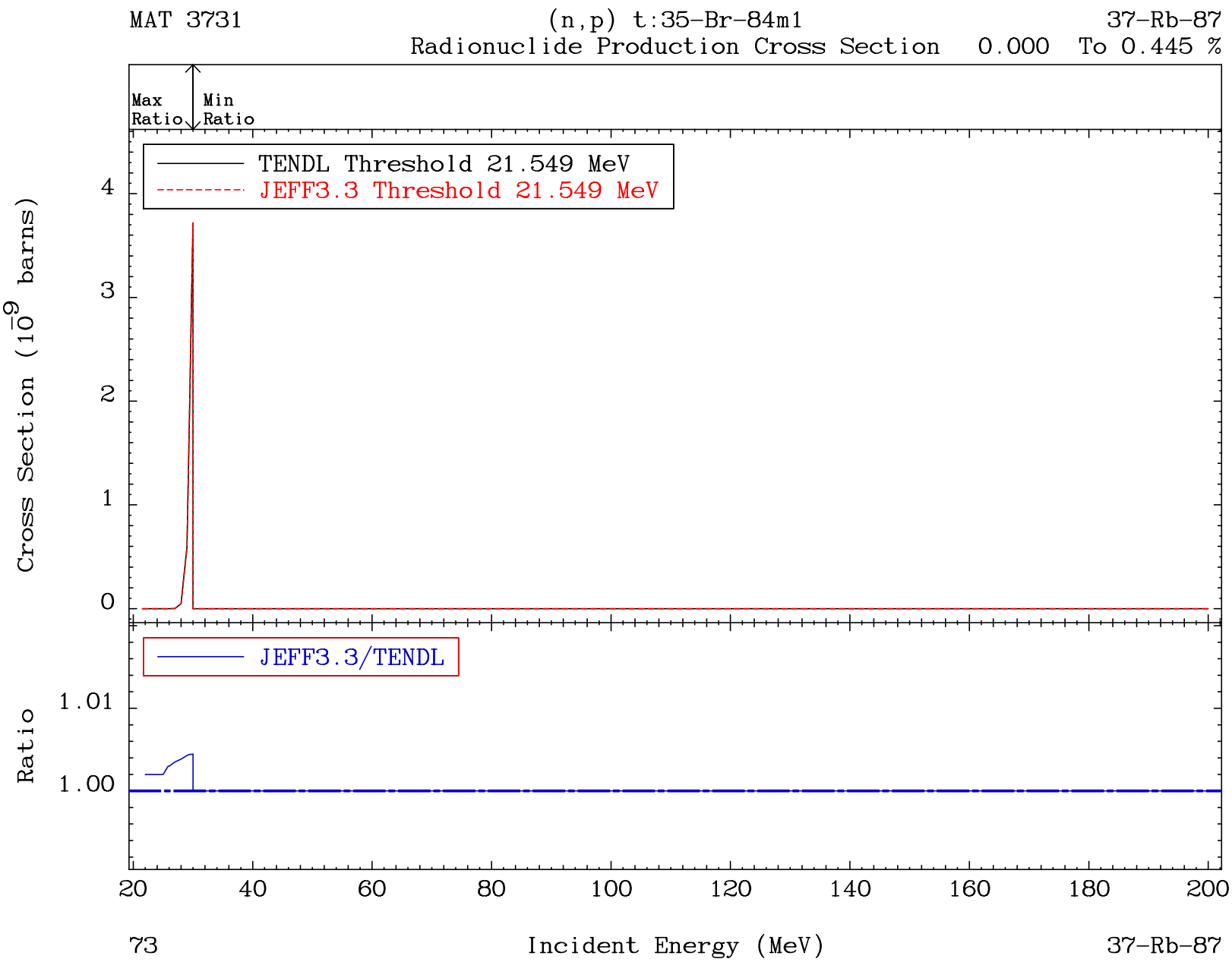

MAT 3731
(n,α):35-Br-84g
37-Rb-87
Radionuclide Production Cross Section -72.00 To 655.2 %
Min Ratio
Max Ratio
TENDL Threshold 1.1819 MeV
JEFF3.3 Threshold 1.1819 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
37-Rb-87


MAT 3731
(n,α):35-Br-84m1
37-Rb-87
Radionuclide Production Cross Section -13.82 To 744.4 %
Max Ratio
Min Ratio
TENDL Threshold 3.6000 MeV
JEFF3.3 Threshold 3.4000 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
69
37-Rb-87


MAT 3731
(n,p) α:34-Se-83g
37-Rb-87
Radionuclide Production Cross Section -11.90 To 391.3 %
Max Ratio
Min Ratio
TENDL Threshold 11.026 MeV
JEFF3.3 Threshold 11.026 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
70
37-Rb-87


MAT 3731
(n,p) α:34-Se-83m1
37-Rb-87
Radionuclide Production Cross Section -12.07 To 245.2 %
Max Ratio
Min Ratio
TENDL Threshold 16.000 MeV
JEFF3.3 Threshold 16.000 MeV
Cross Section (micro-barns)
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
71
Incident Energy (eV)
37-Rb-87


MAT 3731
(n,p) t:35-Br-84g
37-Rb-87
Radionuclide Production Cross Section 0.000 To 0.444 %
Max Ratio
Min Ratio
TENDL Threshold 21.226 MeV
JEFF3.3 Threshold 21.226 MeV
Cross Section (10^{-9} barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
20
40
60
80
100
120
140
160
180
200
72
Incident Energy (MeV)
37-Rb-87


MAT 3731
(n,p) t:35-Br-84m1
37-Rb-87
Radionuclide Production Cross Section 0.000 To 0.445 %
Max Ratio
Min Ratio
TENDL Threshold 21.549 MeV
JEFF3.3 Threshold 21.549 MeV
Cross Section (10^{-9} barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
1.00
1.01
20
40
60
80
100
120
140
160
180
200
73
Incident Energy (MeV)
37-Rb-87