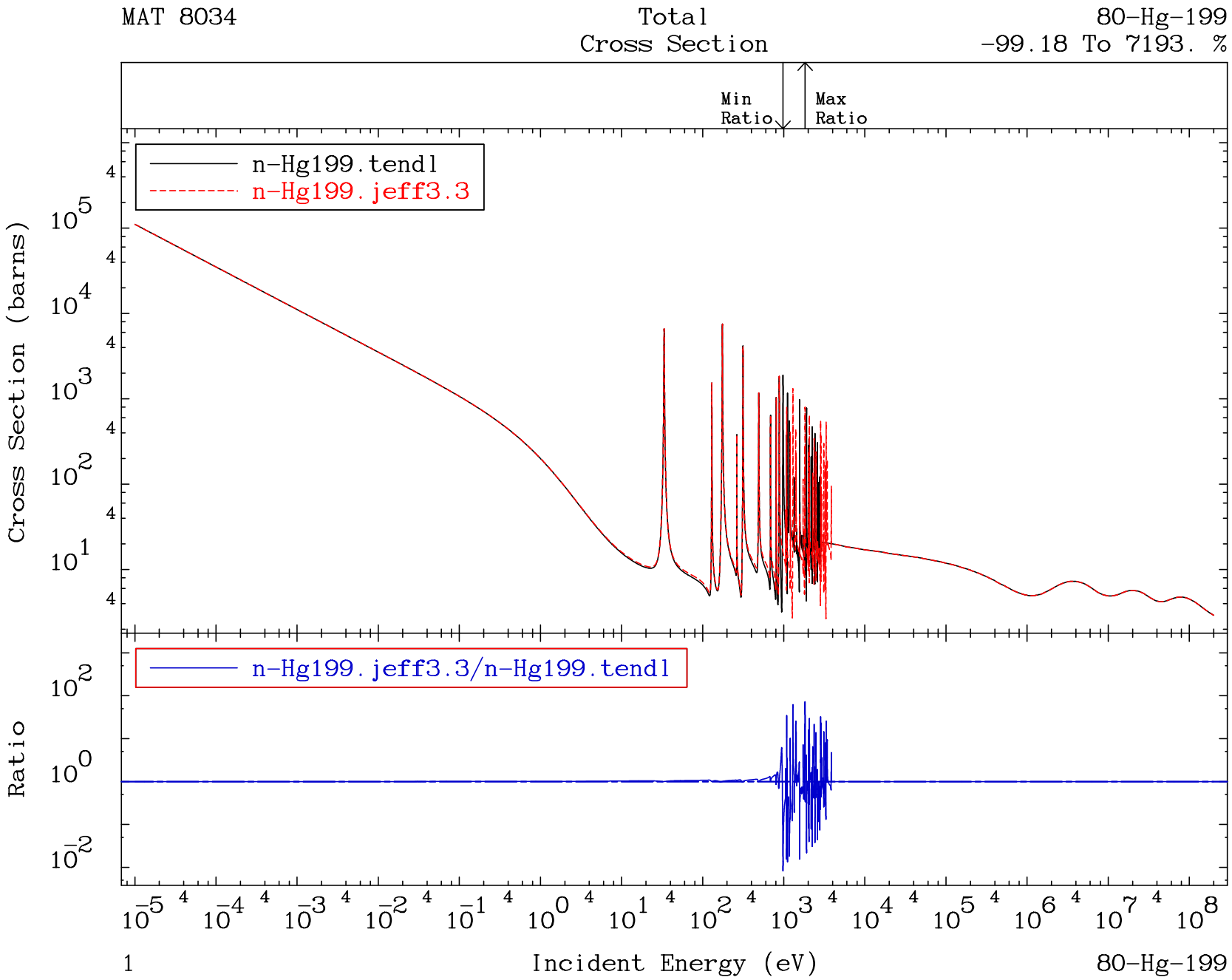
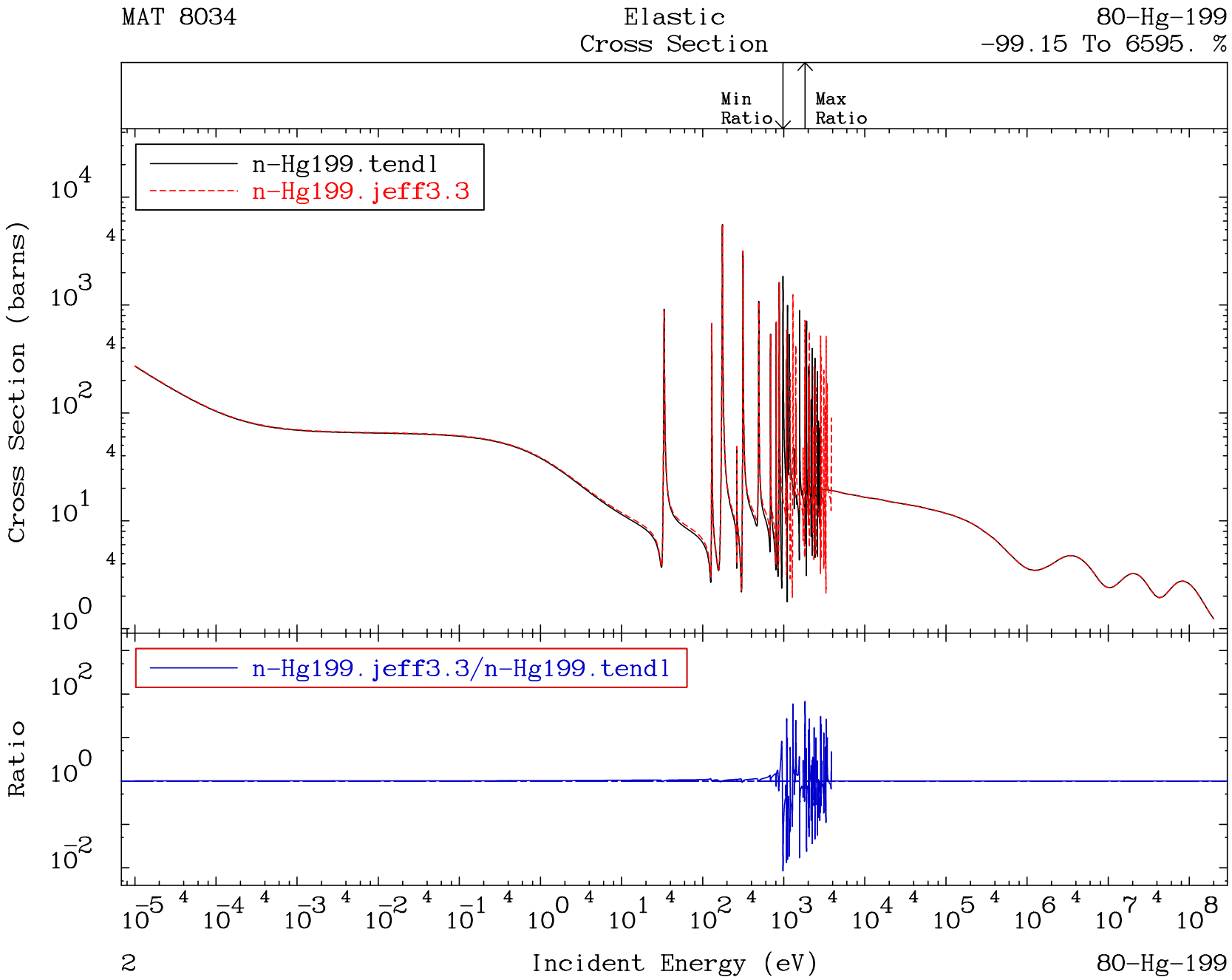
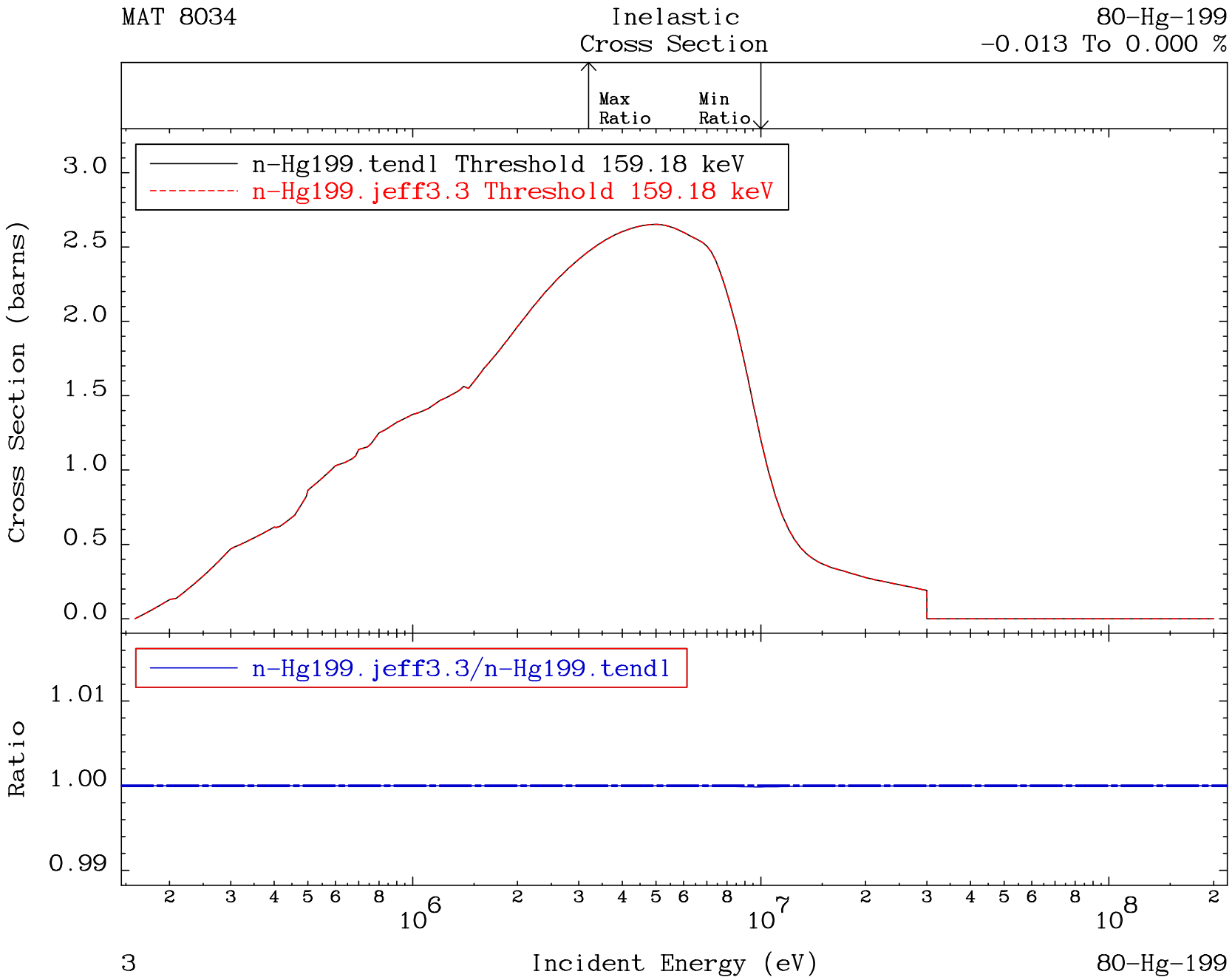
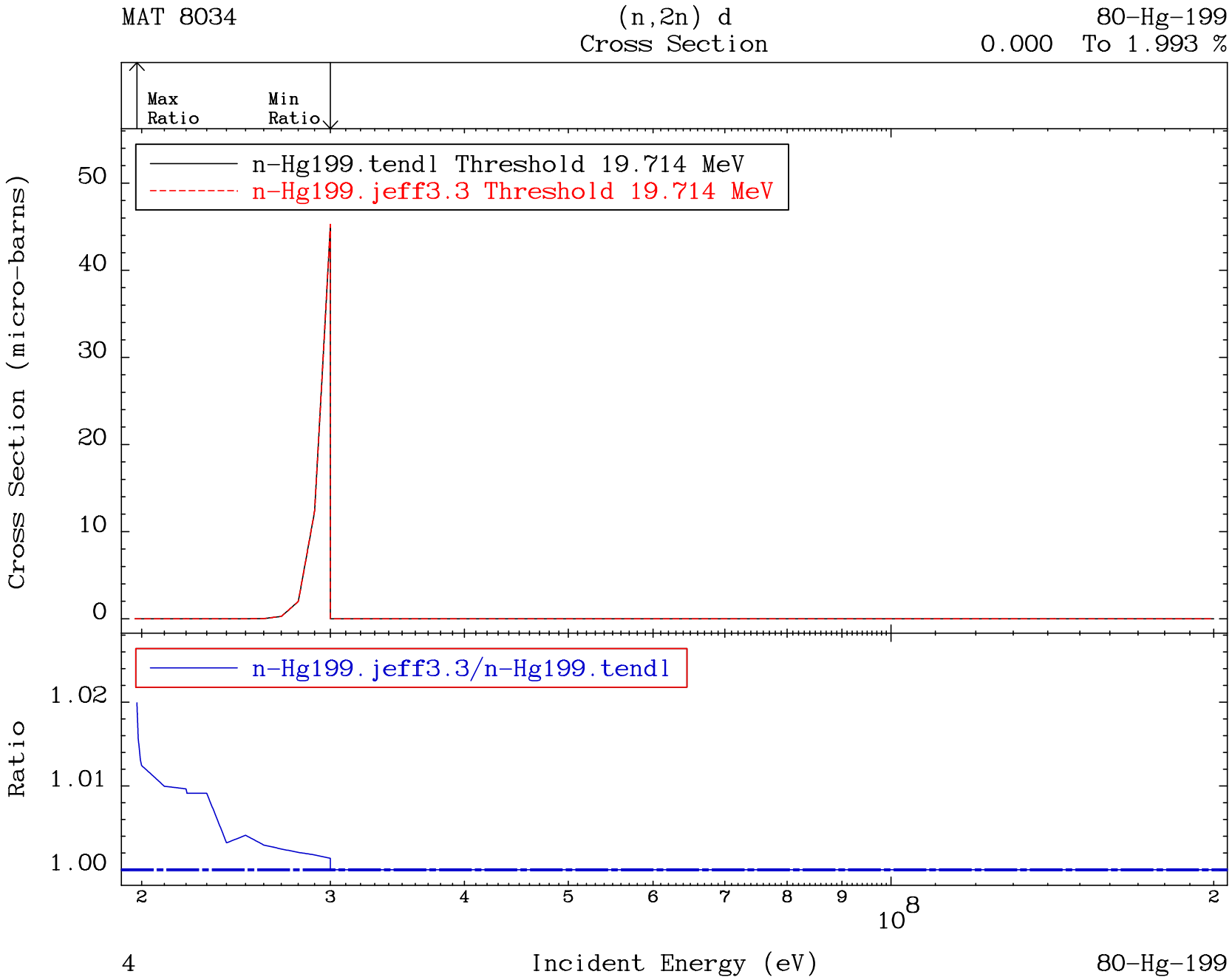
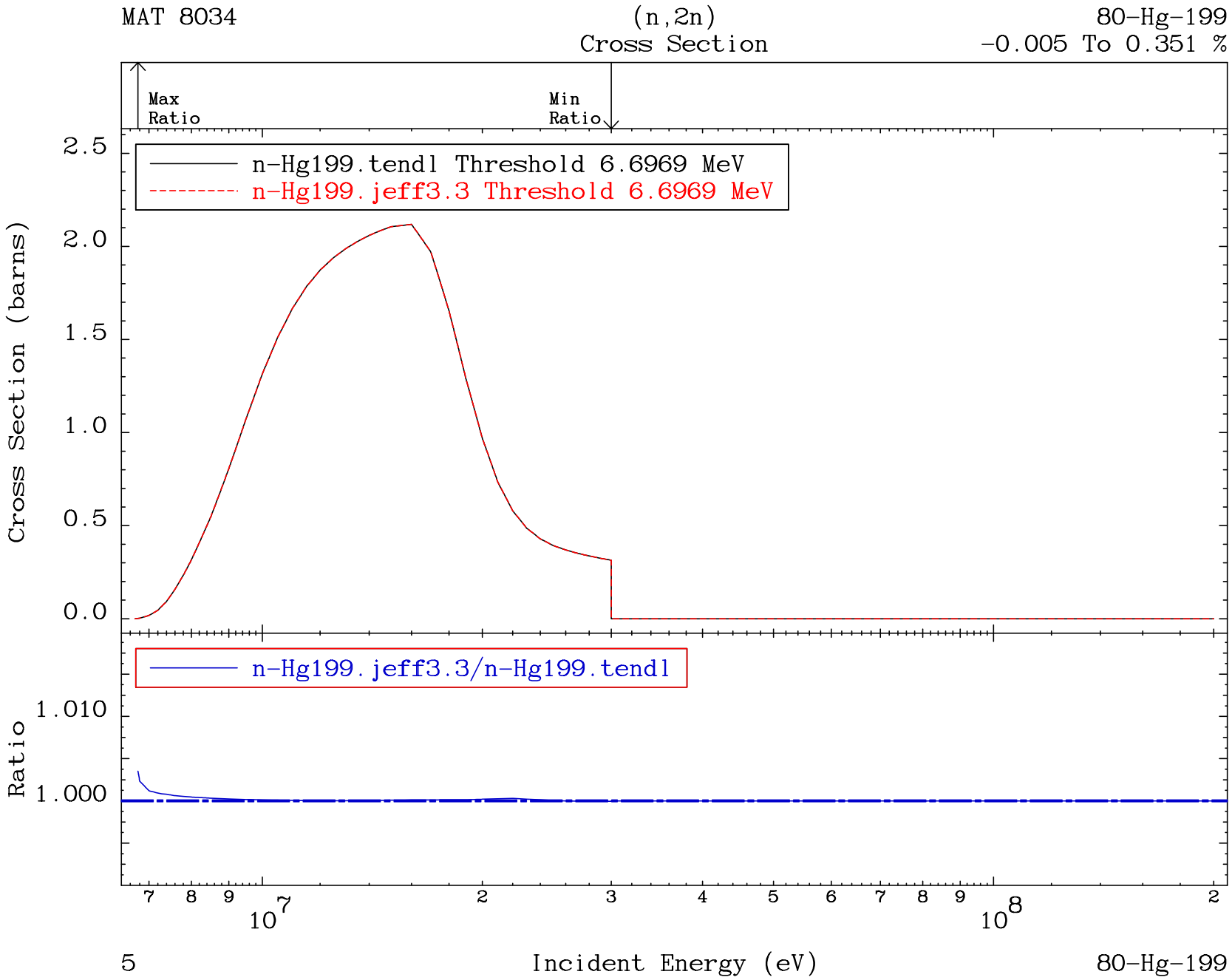
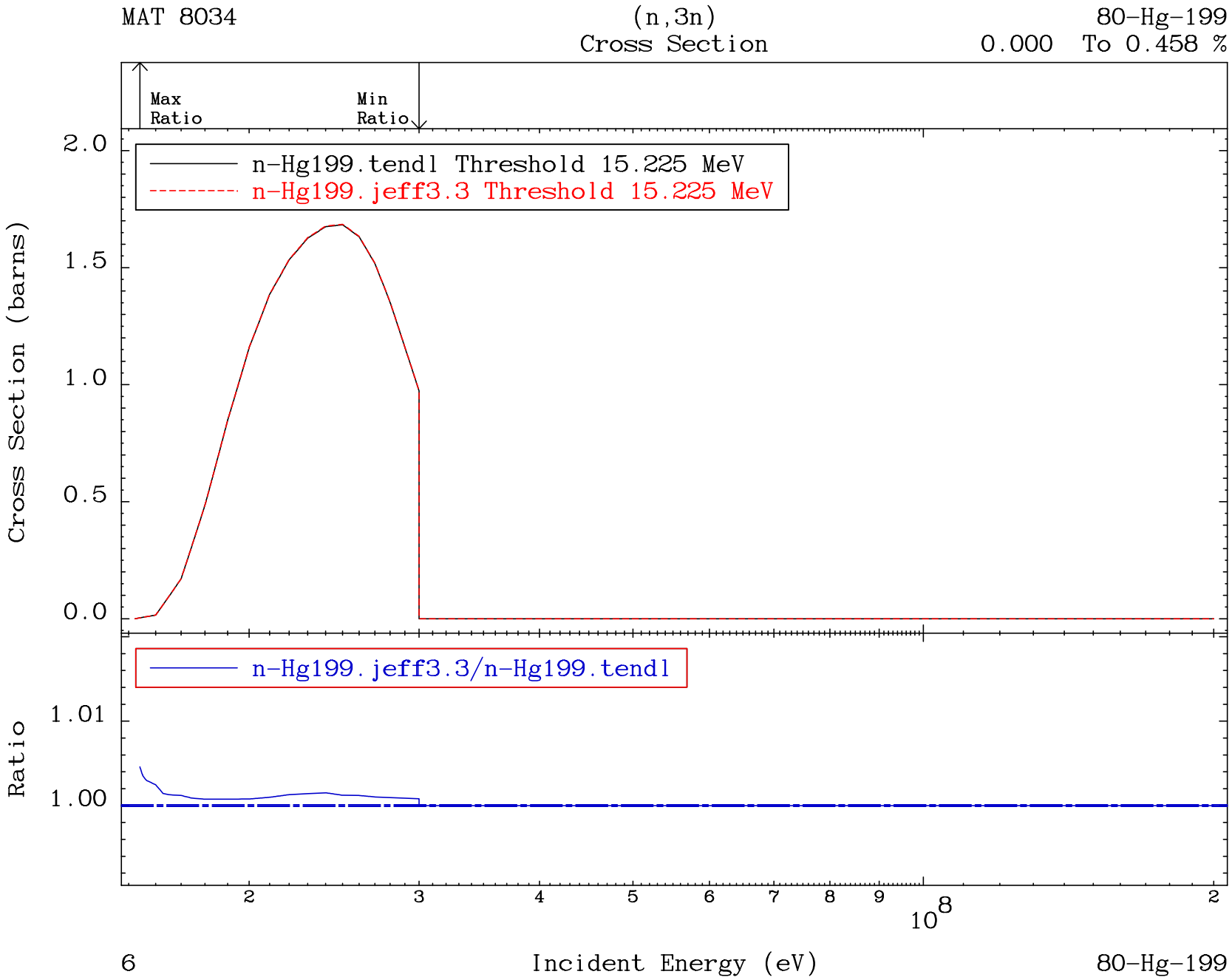

MAT 8034
Total
Cross Section
80-Hg-199
-99.18 To 7193. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
1
80-Hg-199

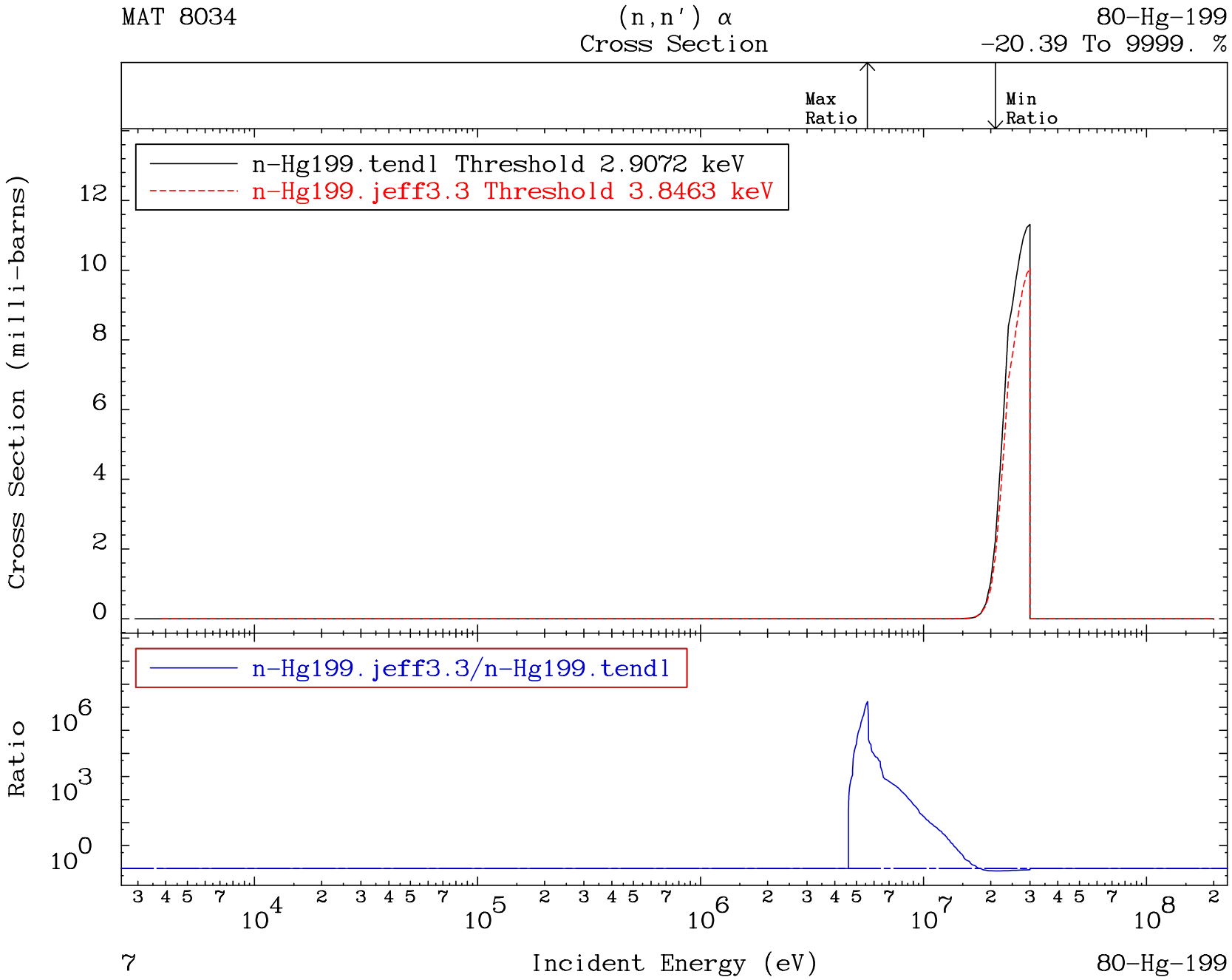

MAT 8034
Elastic
Cross Section
80-Hg-199
-99.15 To 6595. %
Min
Ratio
Max
Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
2
80-Hg-199

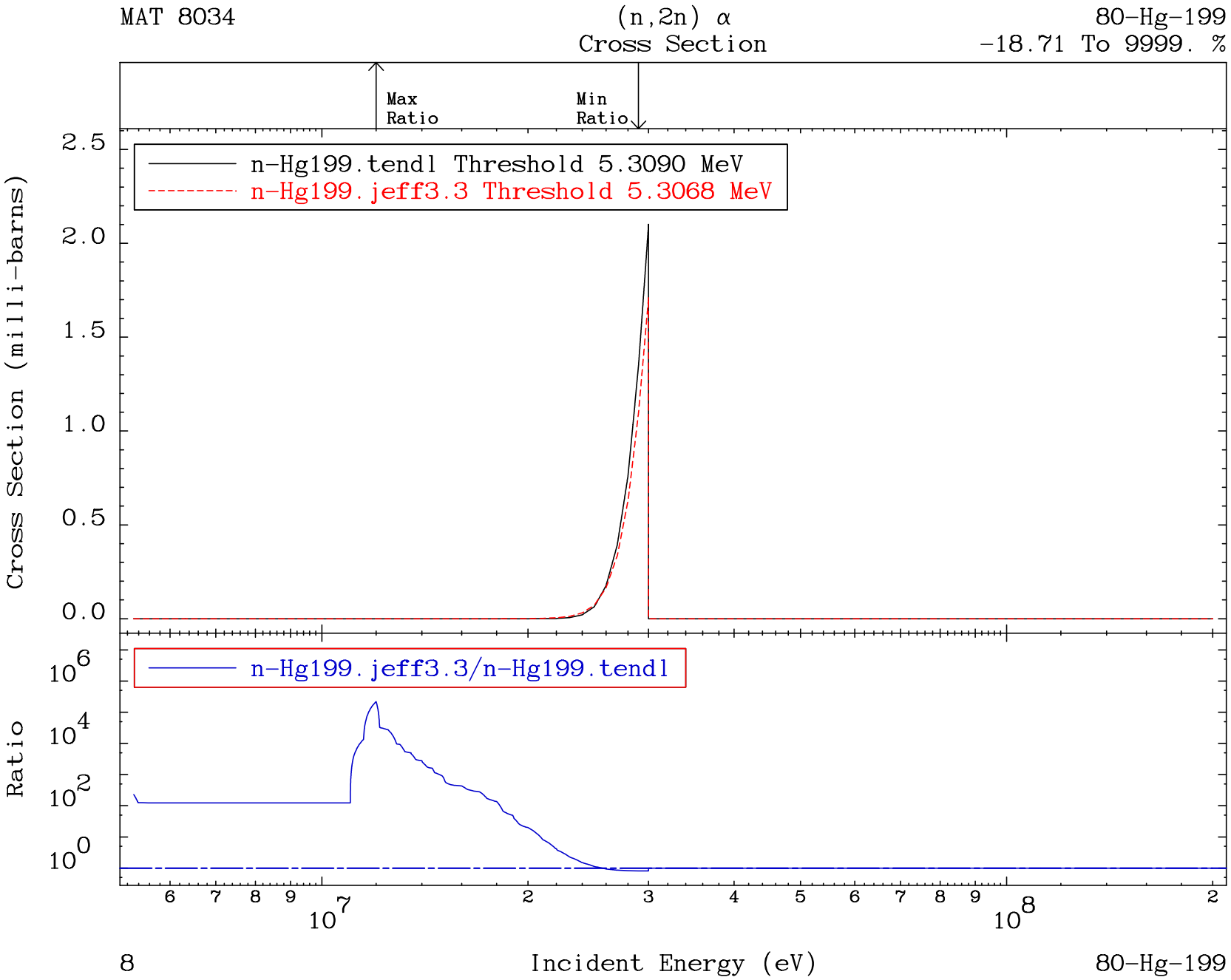

MAT 8034
Inelastic
Cross Section
80-Hg-199
-0.013 To 0.000 %
Max
Ratio
Min
Ratio
n-Hg199.tendl Threshold 159.18 keV
n-Hg199.jeff3.3 Threshold 159.18 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
80-Hg-199

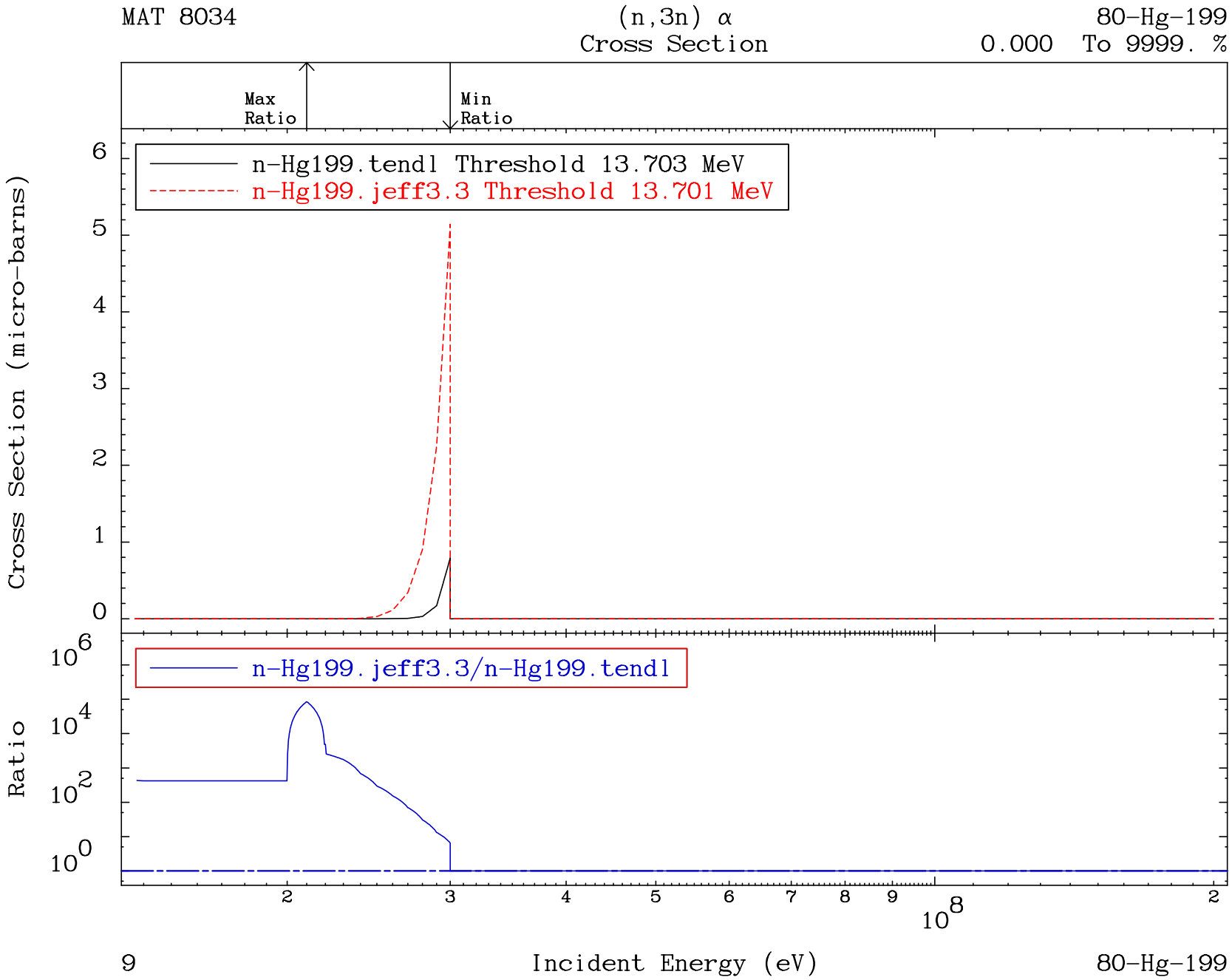

MAT 8034
(n,2n) d
Cross Section
80-Hg-199
0.000 To 1.993 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 19.714 MeV
n-Hg199.jeff3.3 Threshold 19.714 MeV
Cross Section (micro-barns)
50
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
2
10^8
4
Incident Energy (eV)
80-Hg-199

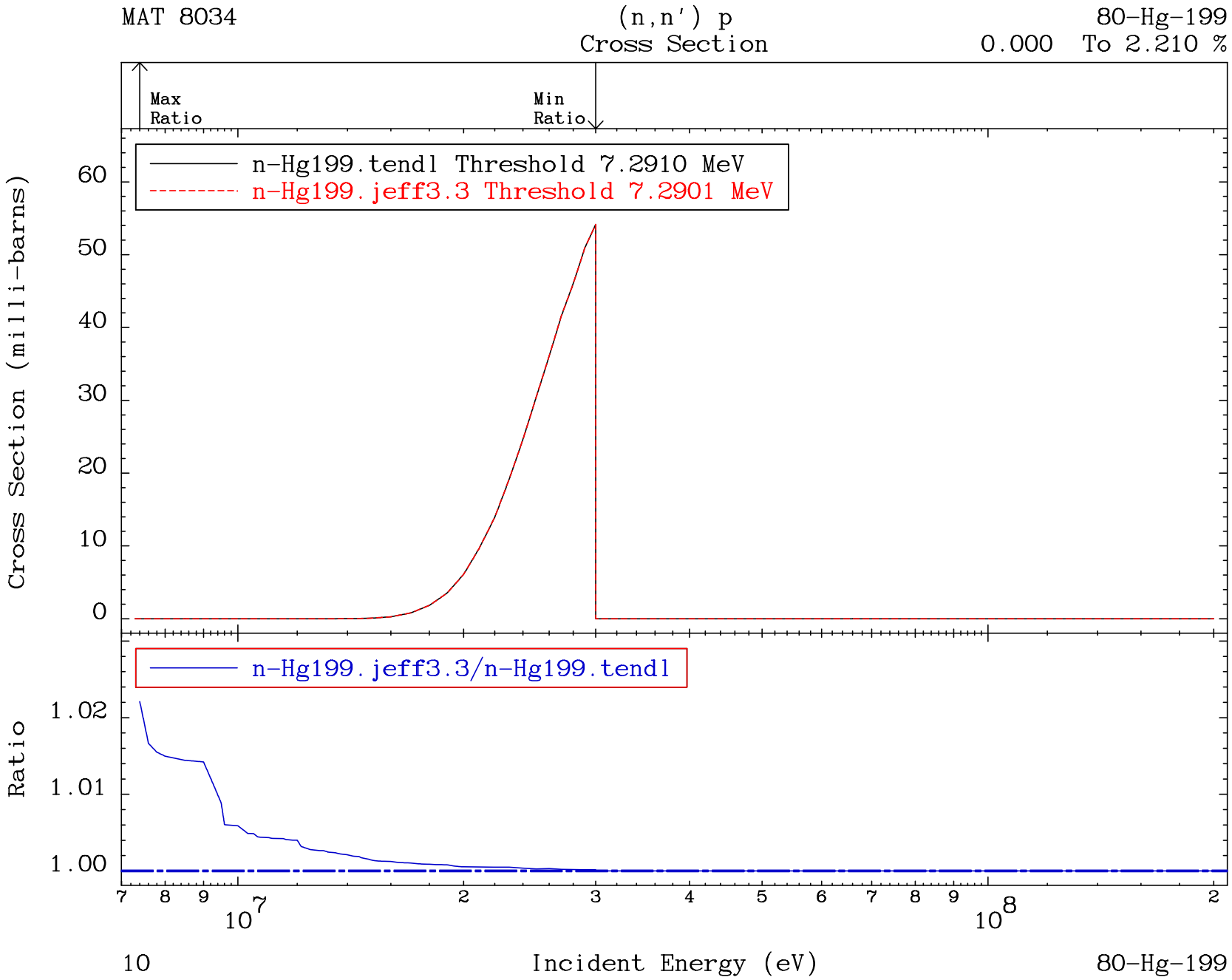

MAT 8034
(n,2n)
Cross Section
80-Hg-199
-0.005 To 0.351 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 6.6969 MeV
n-Hg199.jeff3.3 Threshold 6.6969 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.010
1.000
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
80-Hg-199

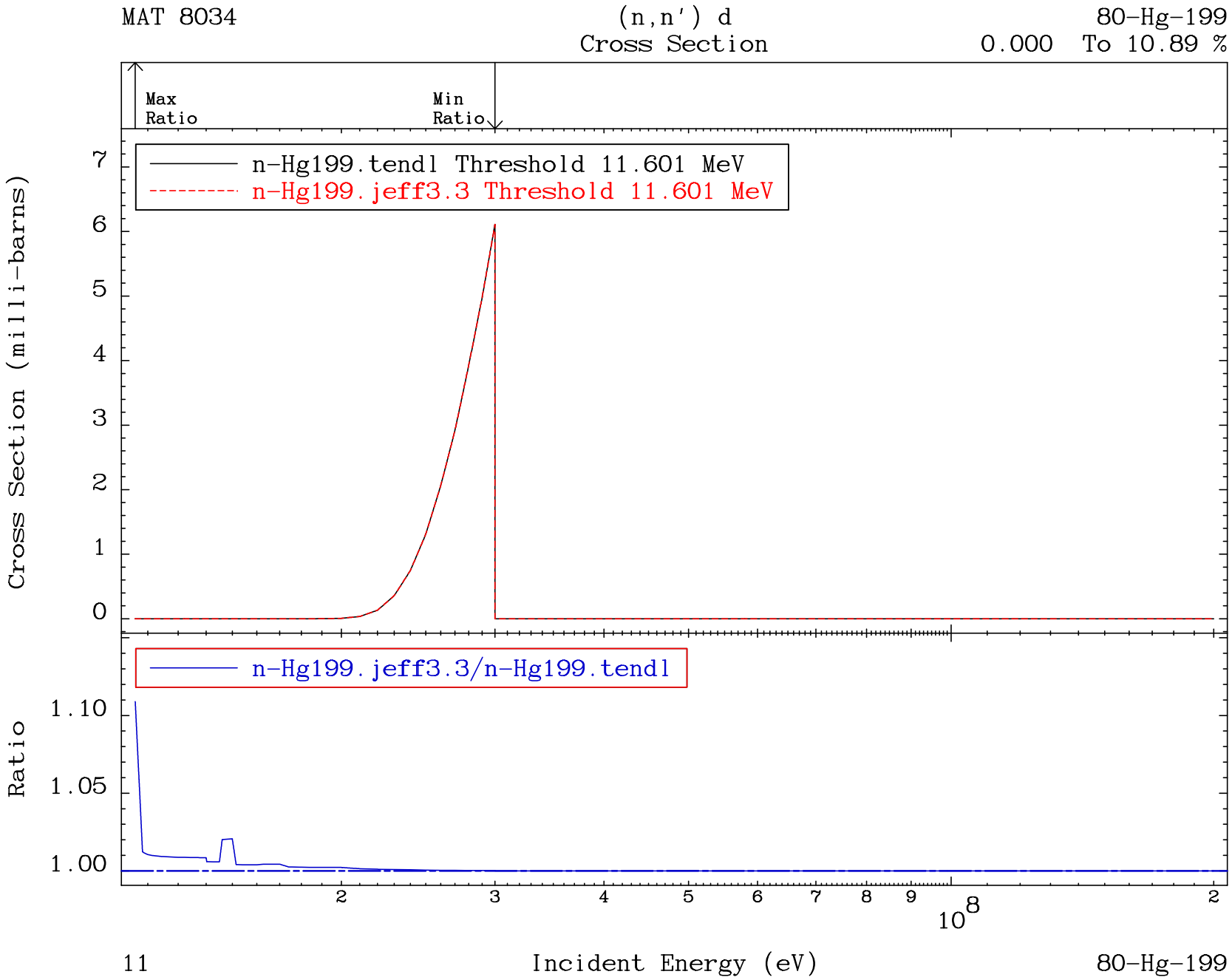

MAT 8034
(n,3n)
Cross Section
80-Hg-199
0.000 To 0.458 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 15.225 MeV
n-Hg199.jeff3.3 Threshold 15.225 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
80-Hg-199

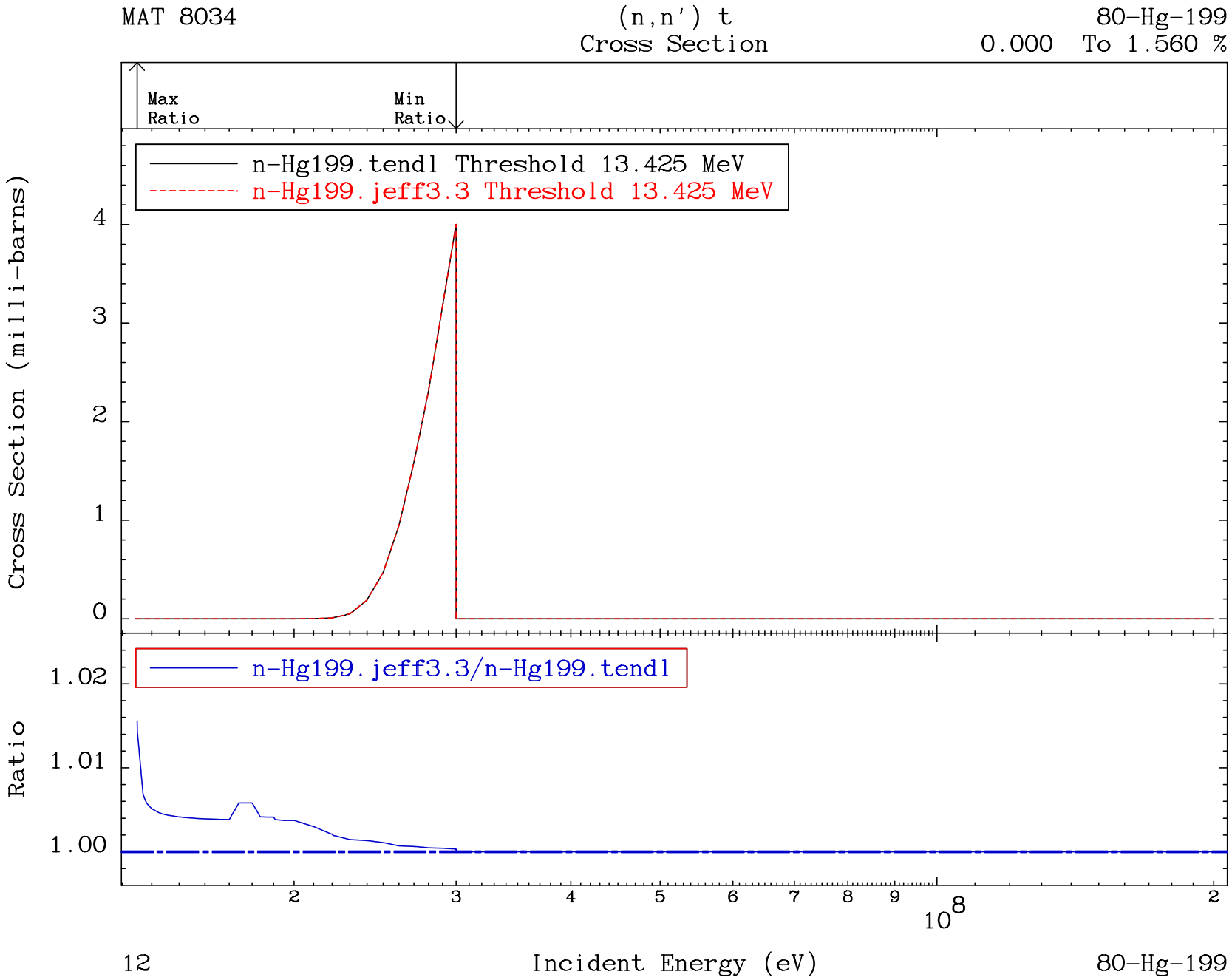

MAT 8034
(n,n') α
Cross Section
80-Hg-199
-20.39 To 9999. %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 2.9072 keV
n-Hg199.jeff3.3 Threshold 3.8463 keV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
10^0
10^3
10^6
3 4 5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
7
Incident Energy (eV)
80-Hg-199

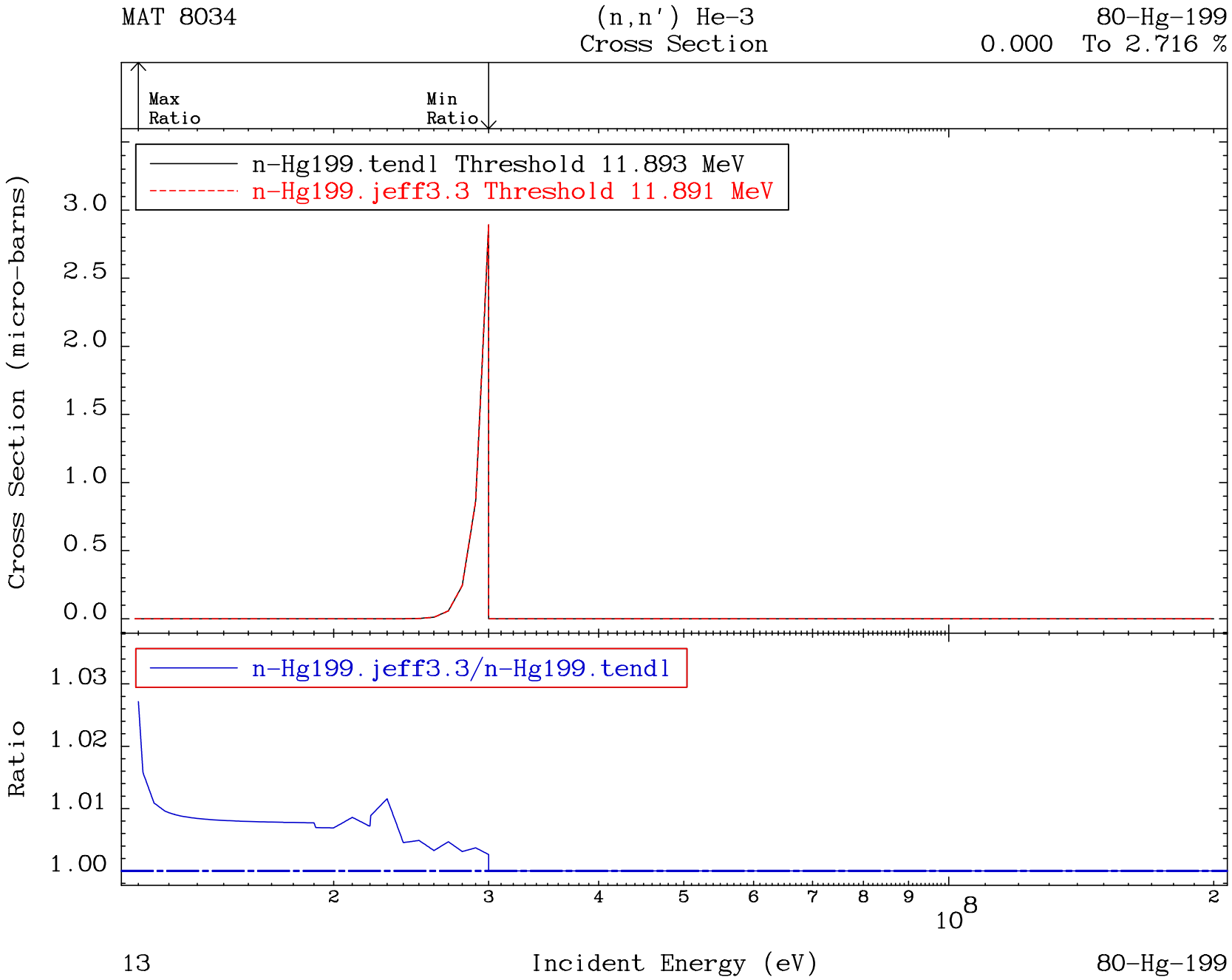

MAT 8034
(n,2n) α
Cross Section
80-Hg-199
-18.71 To 9999. %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.3090 MeV
n-Hg199.jeff3.3 Threshold 5.3068 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
10^6
10^4
10^2
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
80-Hg-199

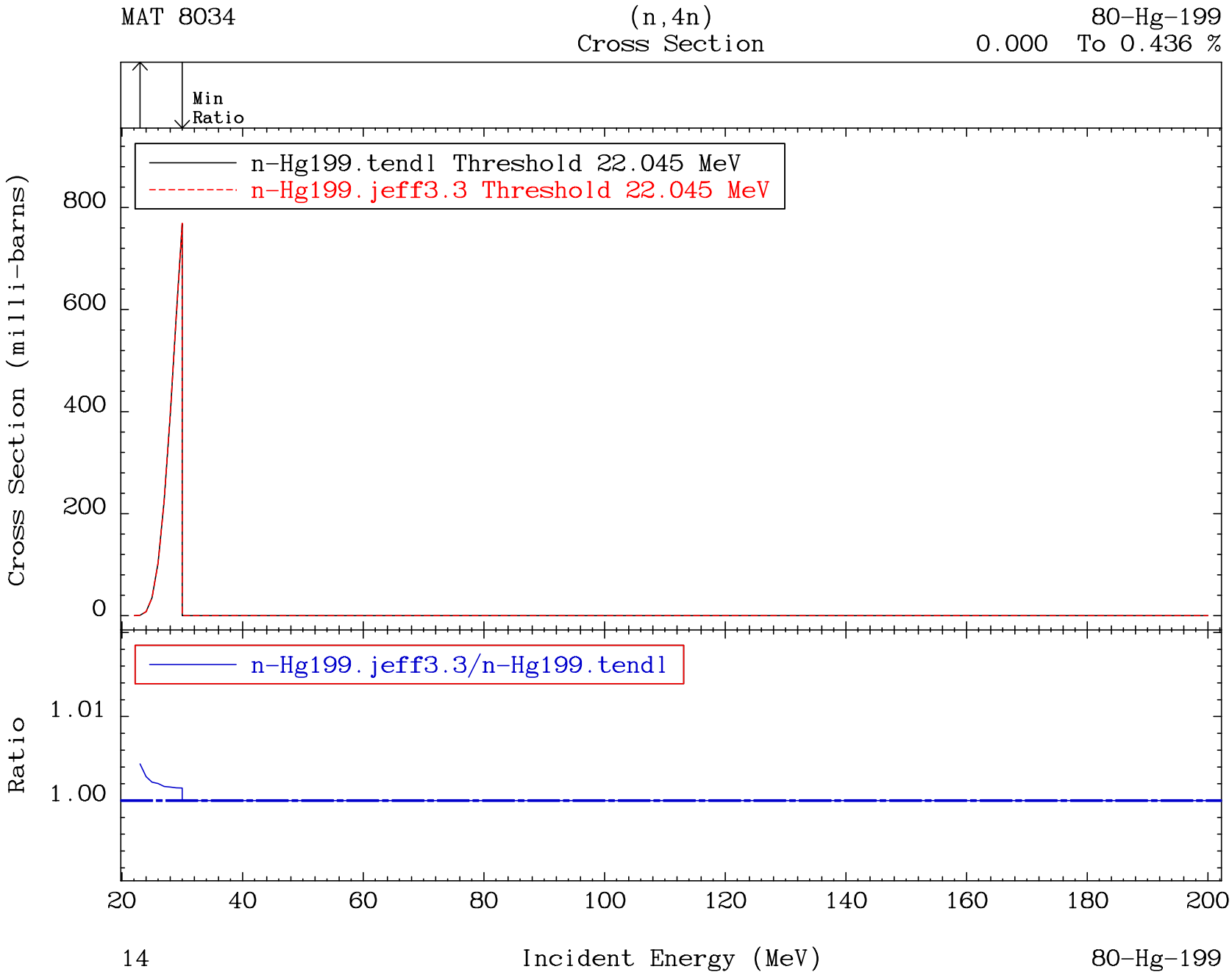

MAT 8034
(n,3n) α
Cross Section
80-Hg-199
0.000 To 9999. %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.703 MeV
n-Hg199.jeff3.3 Threshold 13.701 MeV
Cross Section (micro-barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
9
80-Hg-199

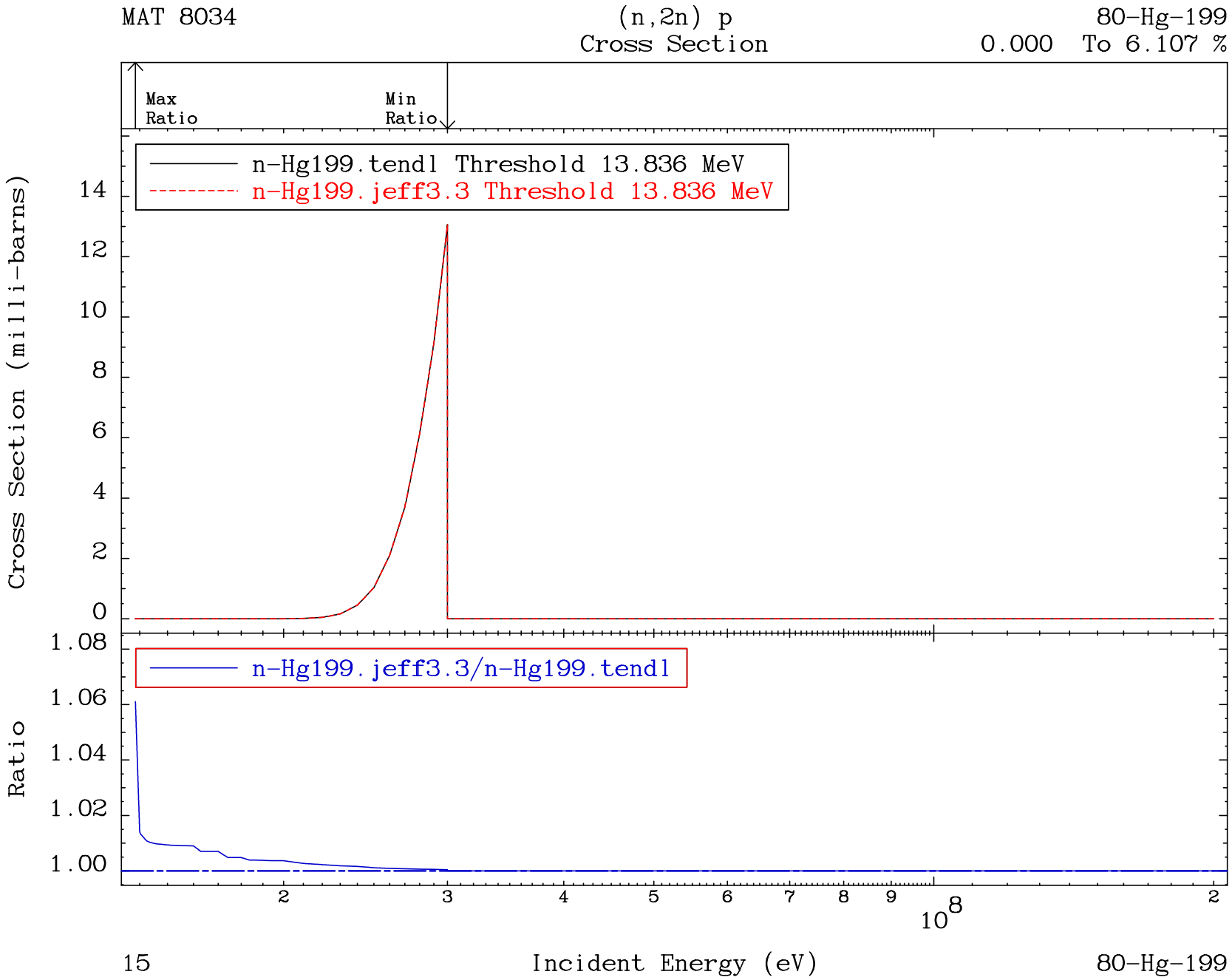

MAT 8034
(n,n') p
Cross Section
80-Hg-199
0.000 To 2.210 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 7.2910 MeV
n-Hg199.jeff3.3 Threshold 7.2901 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
80-Hg-199

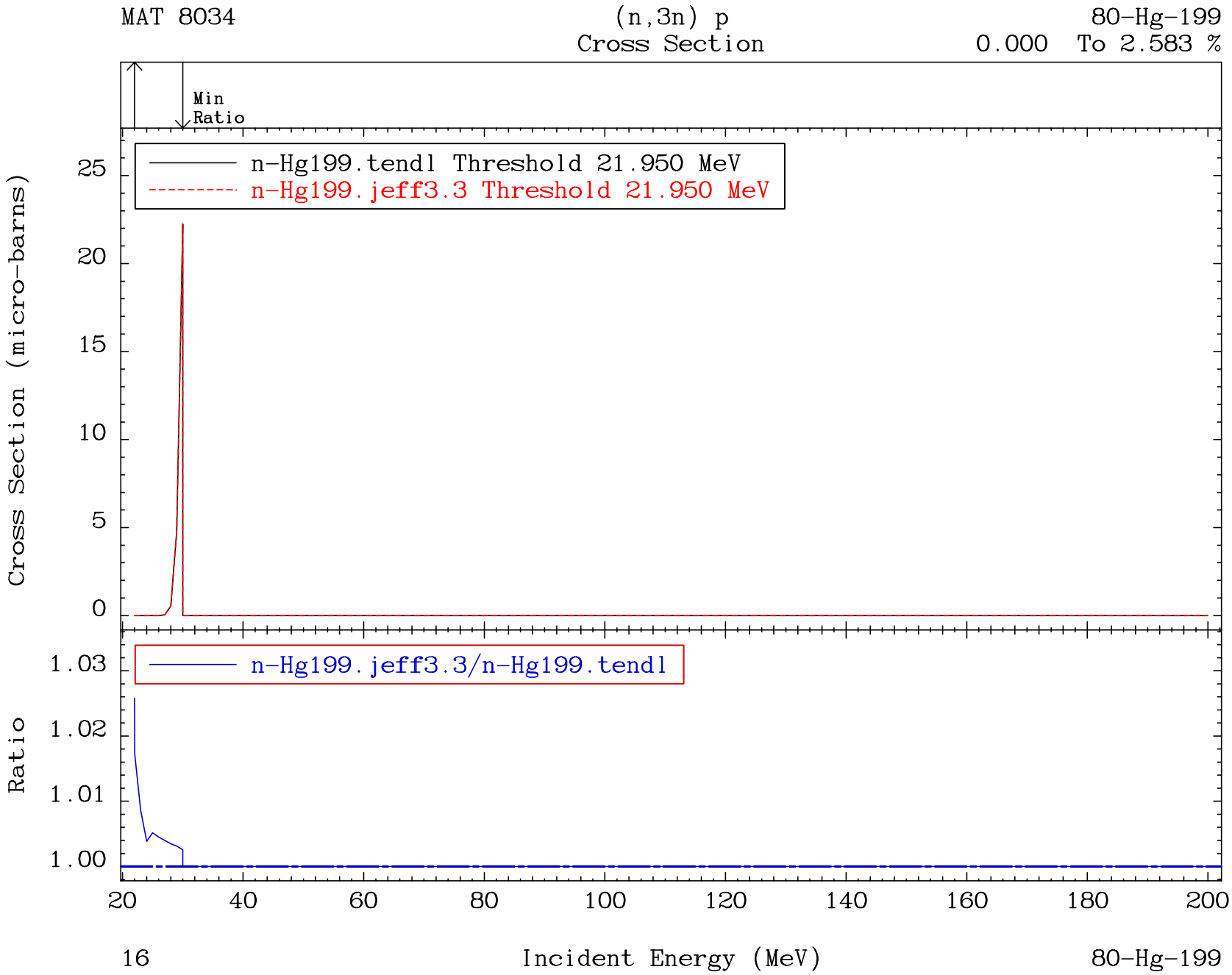

MAT 8034
(n,n') d
Cross Section
80-Hg-199
0.000 To 10.89 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 11.601 MeV
n-Hg199.jeff3.3 Threshold 11.601 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.05
1.10
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
80-Hg-199

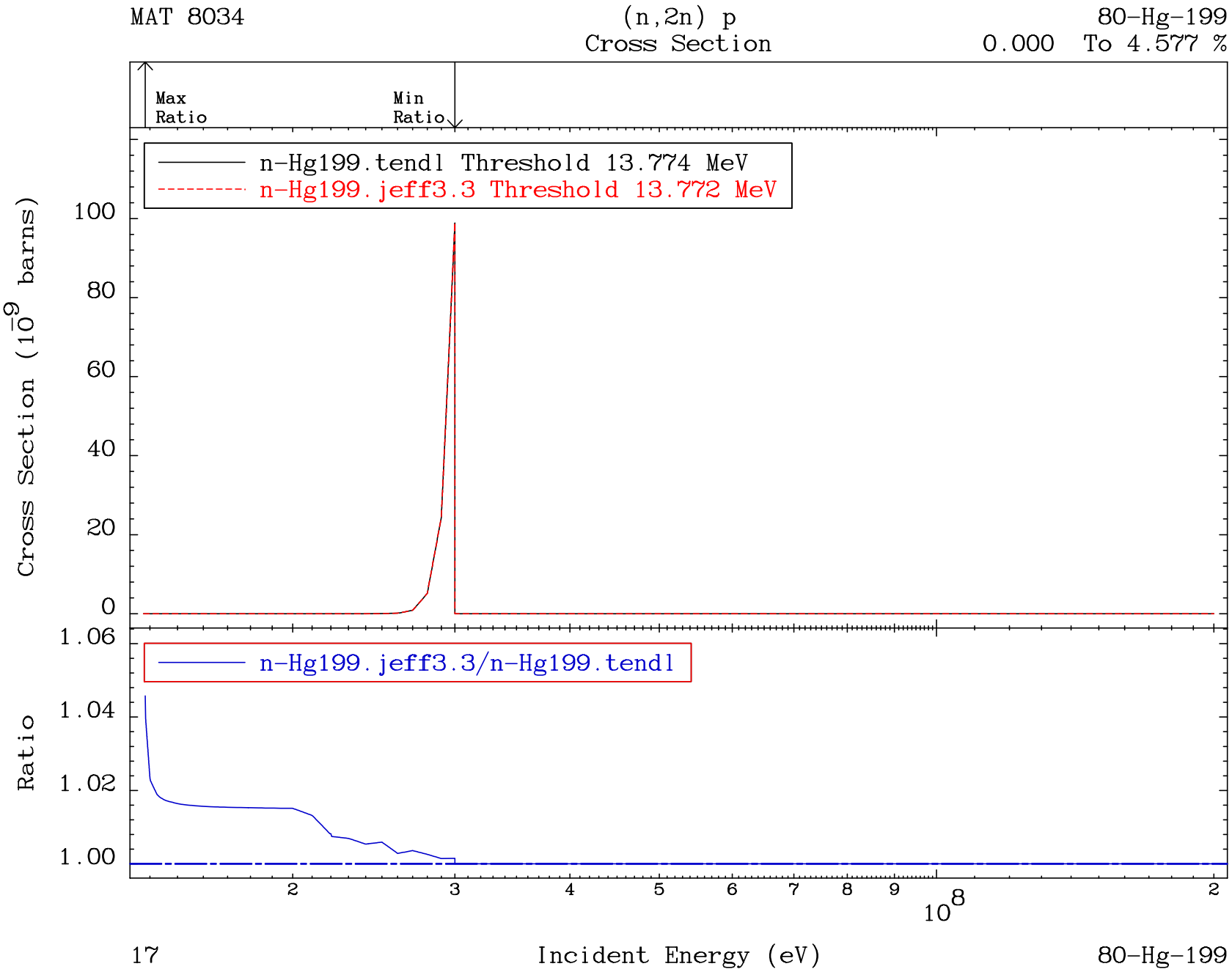

MAT 8034
(n,n') t
Cross Section
80-Hg-199
0.000 To 1.560 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.425 MeV
n-Hg199.jeff3.3 Threshold 13.425 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
1.02
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
80-Hg-199

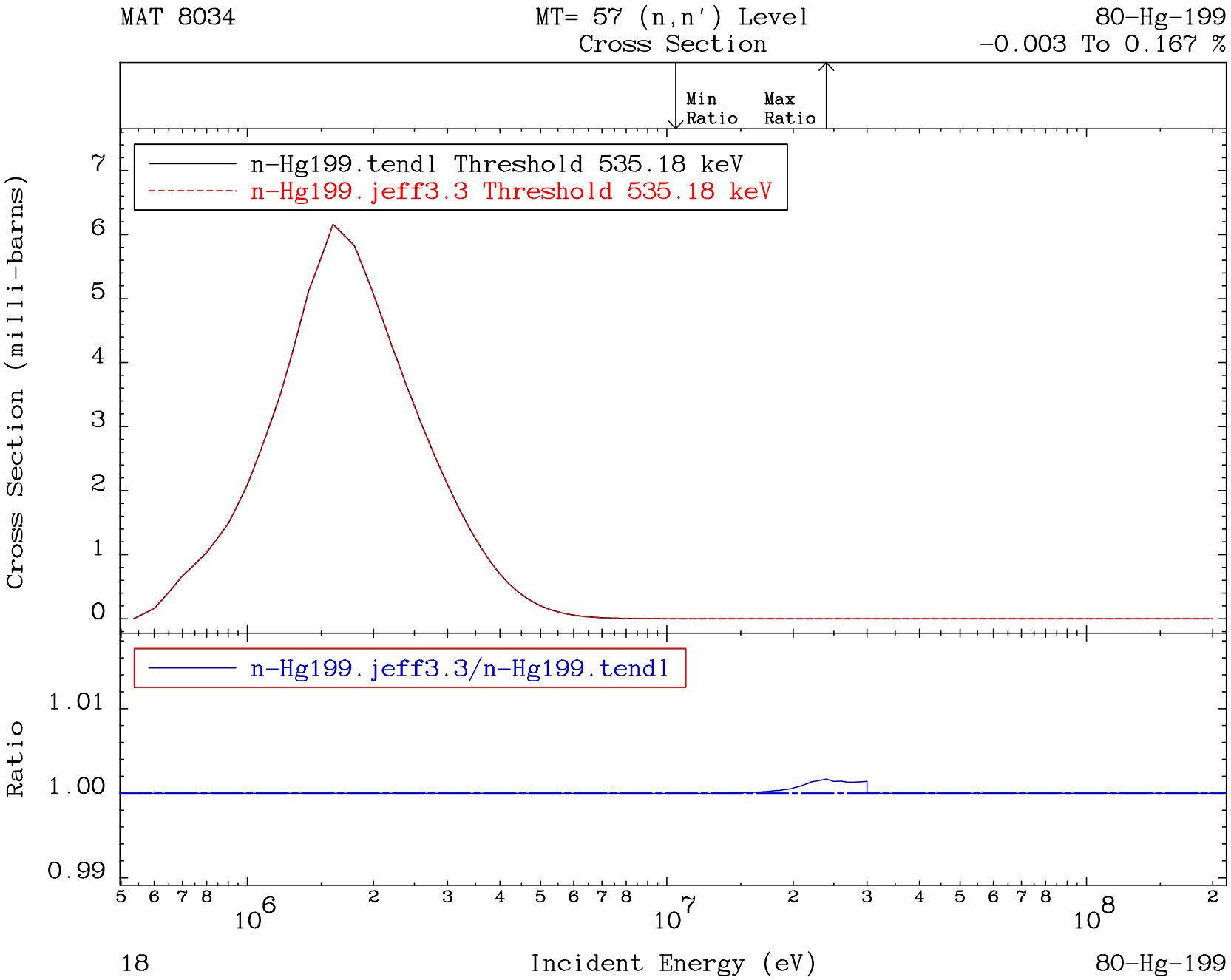

MAT 8034
(n,n') He-3
Cross Section
80-Hg-199
0.000 To 2.716 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 11.893 MeV
n-Hg199.jeff3.3 Threshold 11.891 MeV
Cross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
80-Hg-199

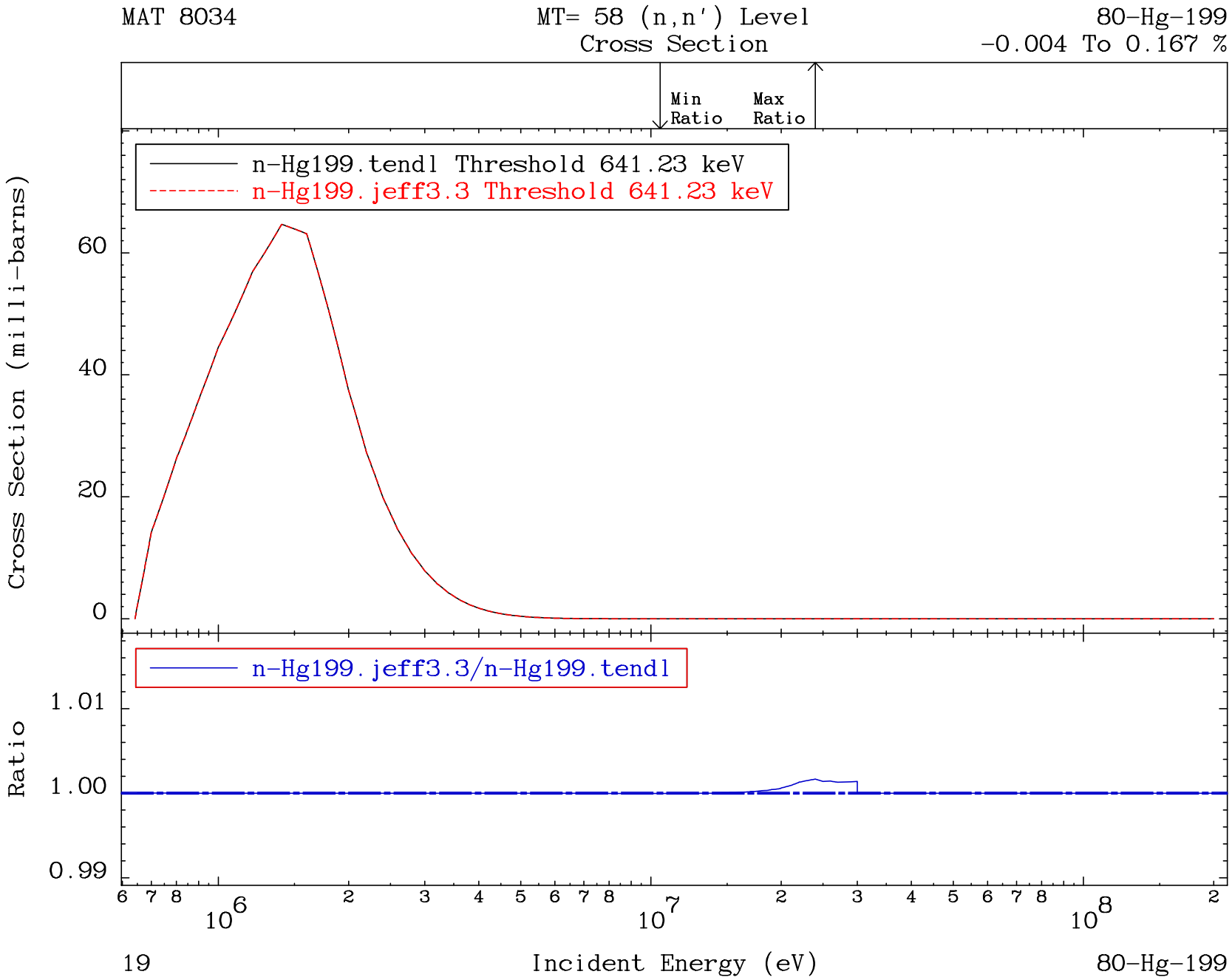

MAT 8034
(n,4n)
Cross Section
80-Hg-199
0.000 To 0.436 %
Min
Ratio
n-Hg199.tendl Threshold 22.045 MeV
n-Hg199.jeff3.3 Threshold 22.045 MeV
Cross Section (milli-barns)
800
600
400
200
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
20
40
60
80
100
120
140
160
180
200
14
Incident Energy (MeV)
80-Hg-199

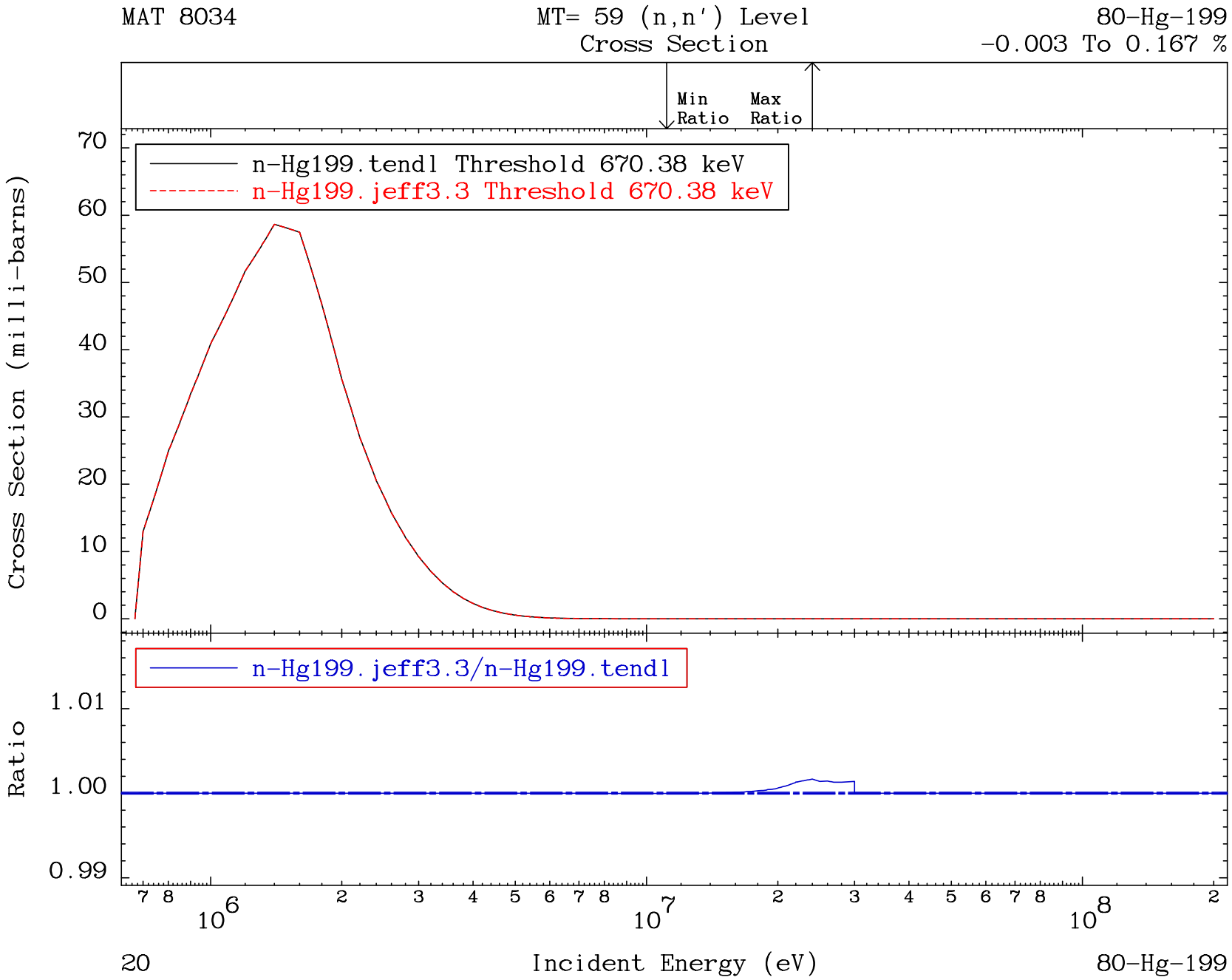

MAT 8034
(n,2n) p
Cross Section
80-Hg-199
0.000 To 6.107 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.836 MeV
n-Hg199.jeff3.3 Threshold 13.836 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.08
1.06
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
80-Hg-199

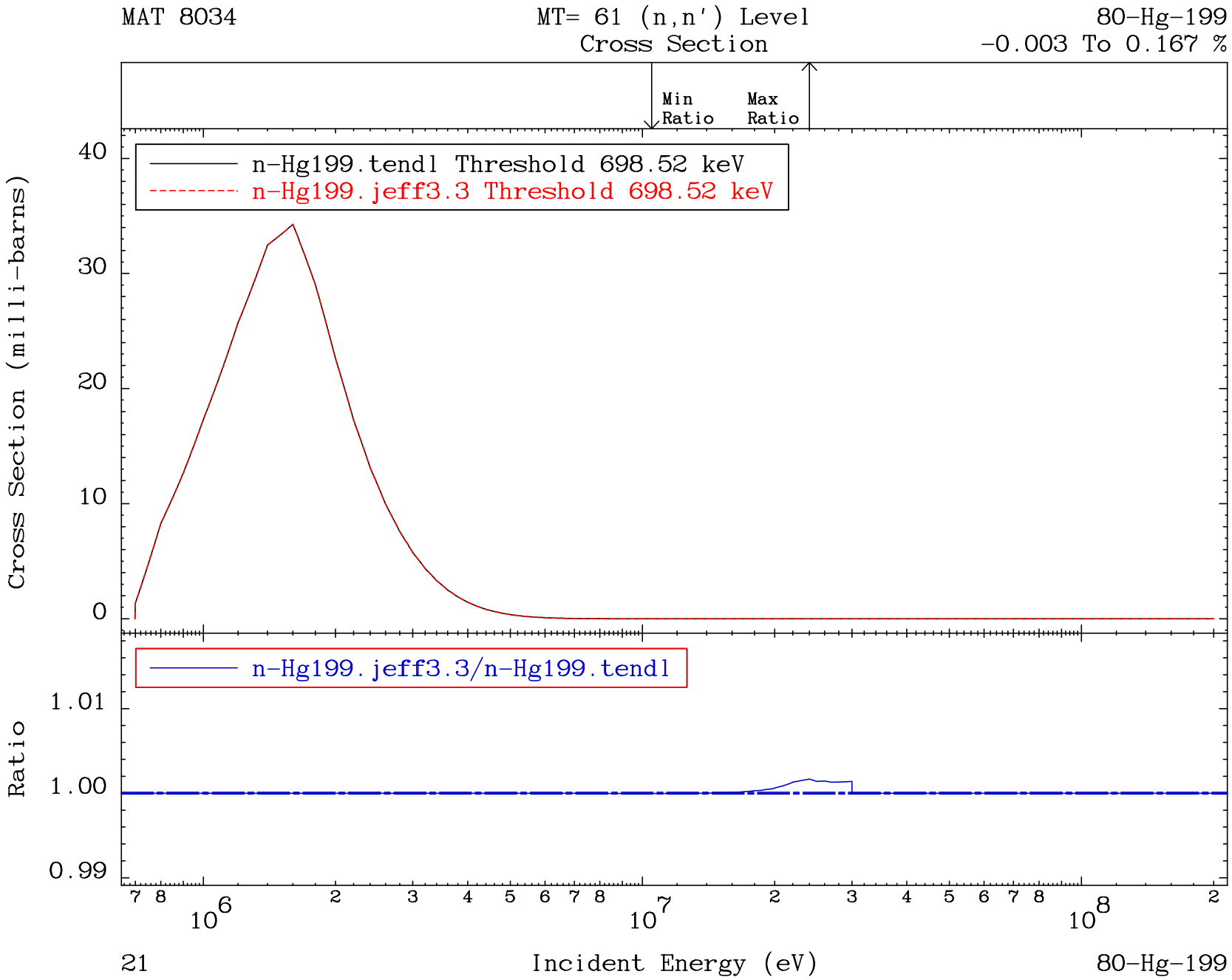

MAT 8034
(n,3n) p
Cross Section
80-Hg-199
0.000 To 2.583 %
Min
Ratio
n-Hg199.tendl Threshold 21.950 MeV
n-Hg199.jeff3.3 Threshold 21.950 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.03
1.02
1.01
1.00
20
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
80-Hg-199

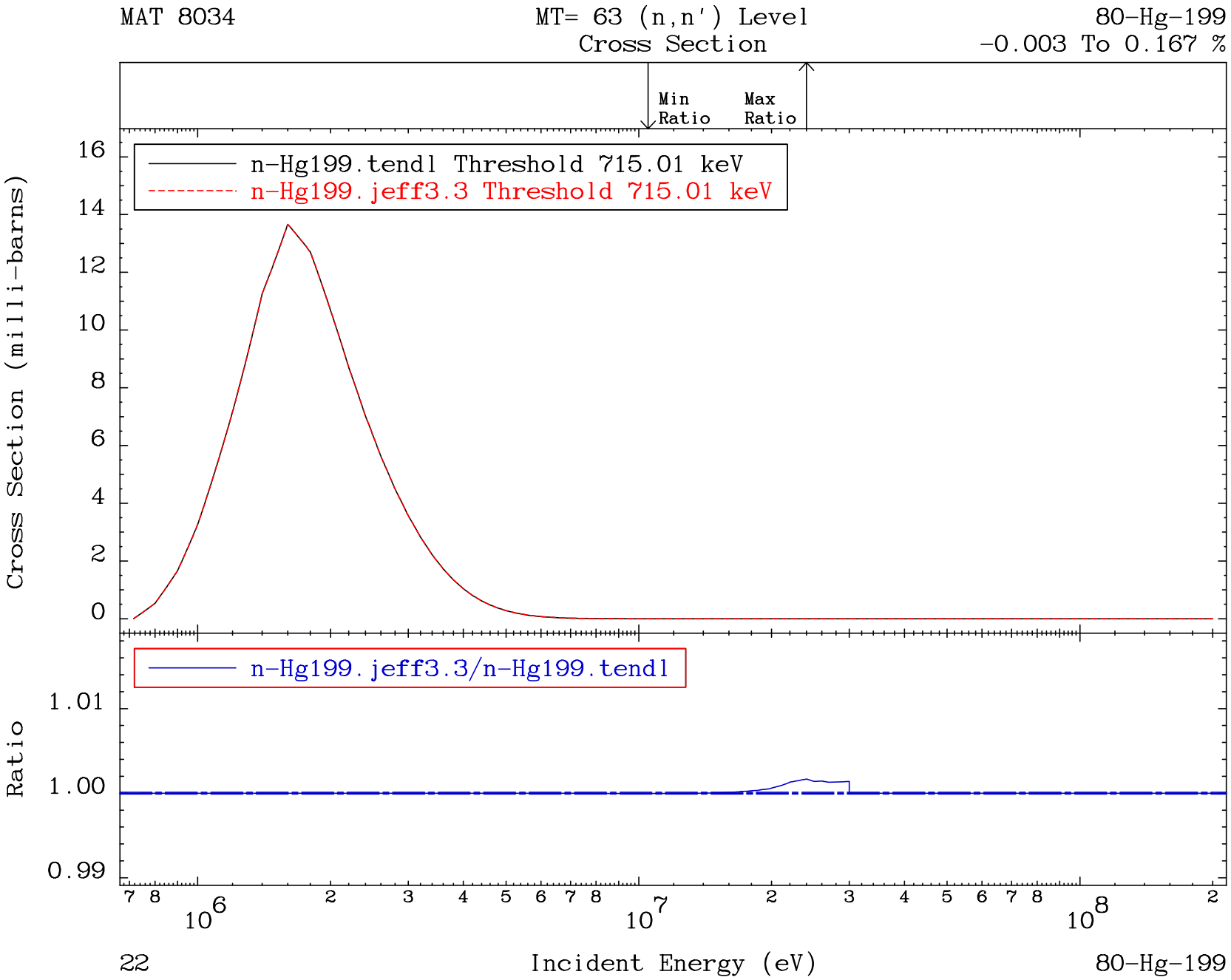

MAT 8034
(n,2n) p
Cross Section
80-Hg-199
0.000 To 4.577 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.774 MeV
n-Hg199.jeff3.3 Threshold 13.772 MeV
Cross Section (10^-9 barns)
100
80
60
40
20
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.06
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
80-Hg-199

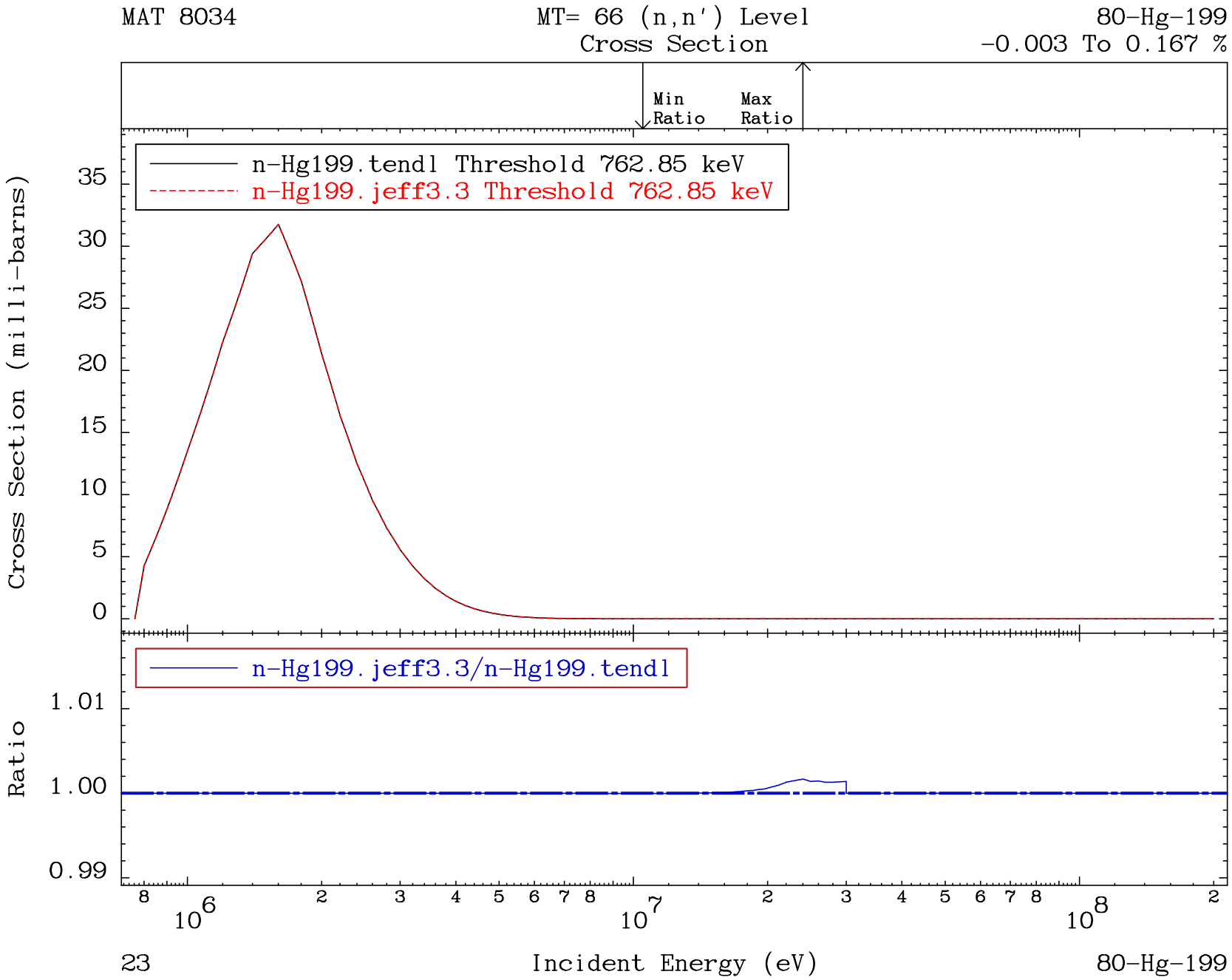

MAT 8034
MT= 57 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 535.18 keV
n-Hg199.jeff3.3 Threshold 535.18 keV
Cross Section (milli-barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
18
80-Hg-199

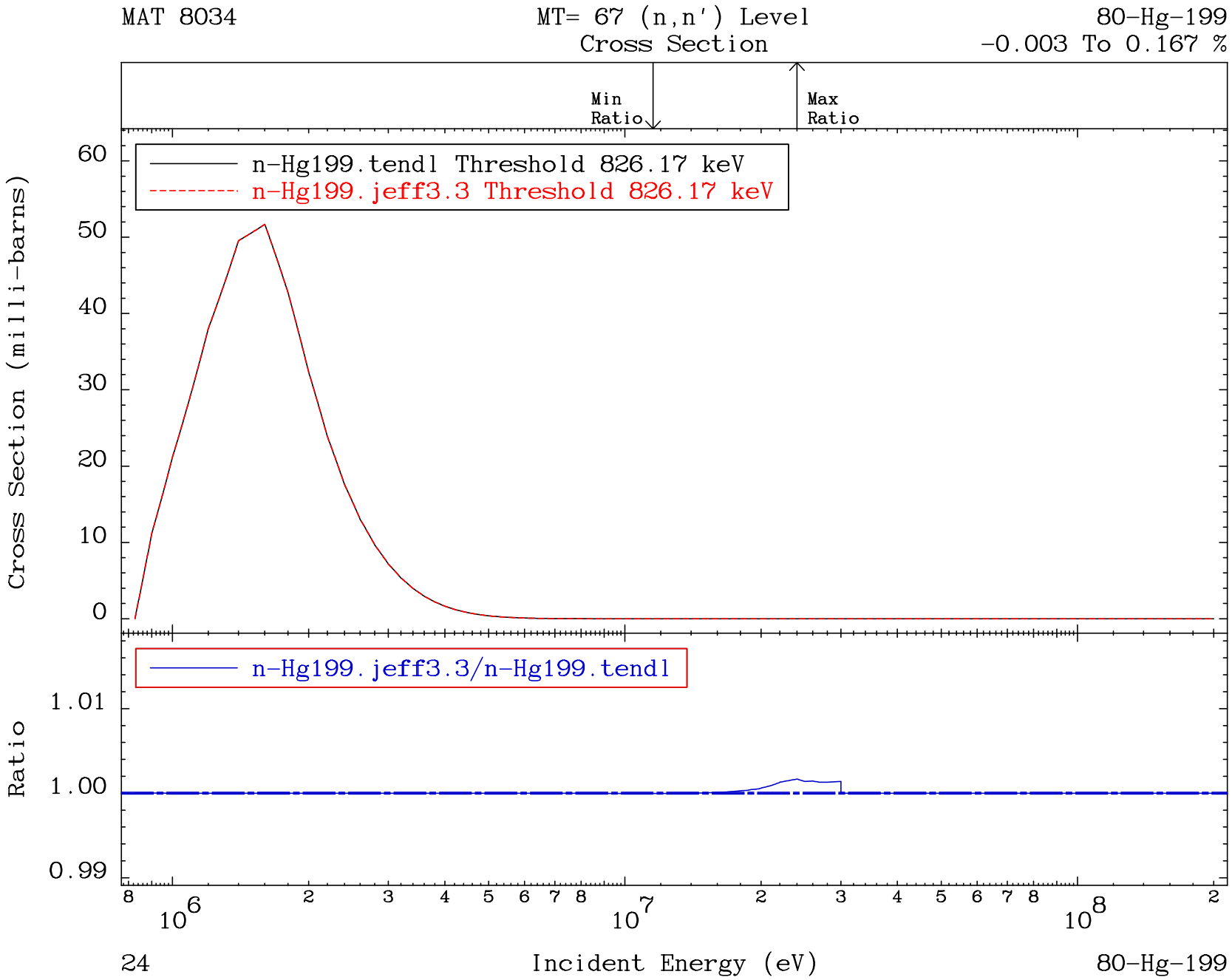

MAT 8034
MT= 58 (n,n') Level
Cross Section
80-Hg-199
-0.004 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 641.23 keV
n-Hg199.jeff3.3 Threshold 641.23 keV
Cross Section (milli-barns)
60
40
20
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
80-Hg-199

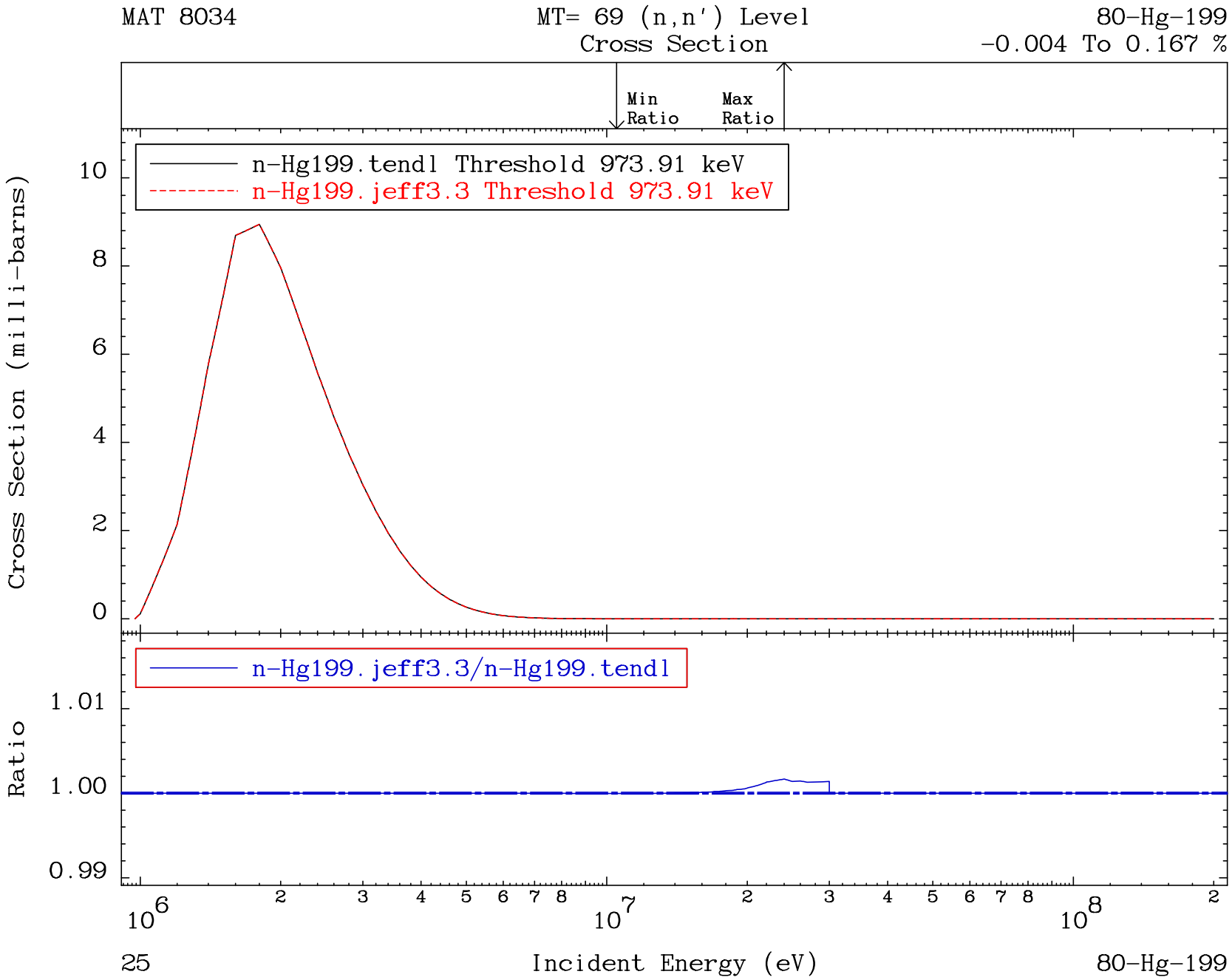

MAT 8034
MT= 59 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 670.38 keV
n-Hg199.jeff3.3 Threshold 670.38 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
80-Hg-199

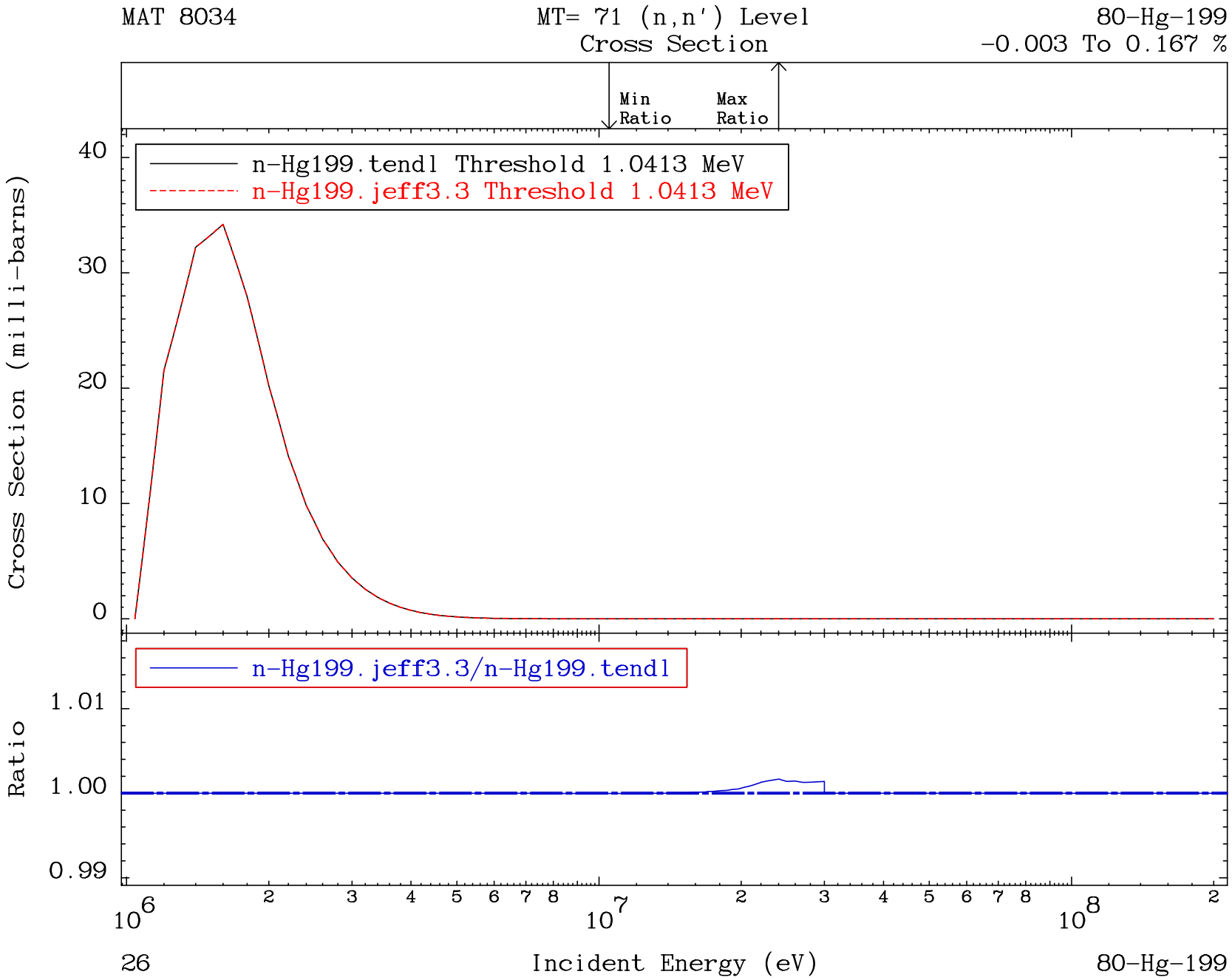

MAT 8034
MT= 61 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 698.52 keV
n-Hg199.jeff3.3 Threshold 698.52 keV
Cross Section (milli-barns)
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
80-Hg-199

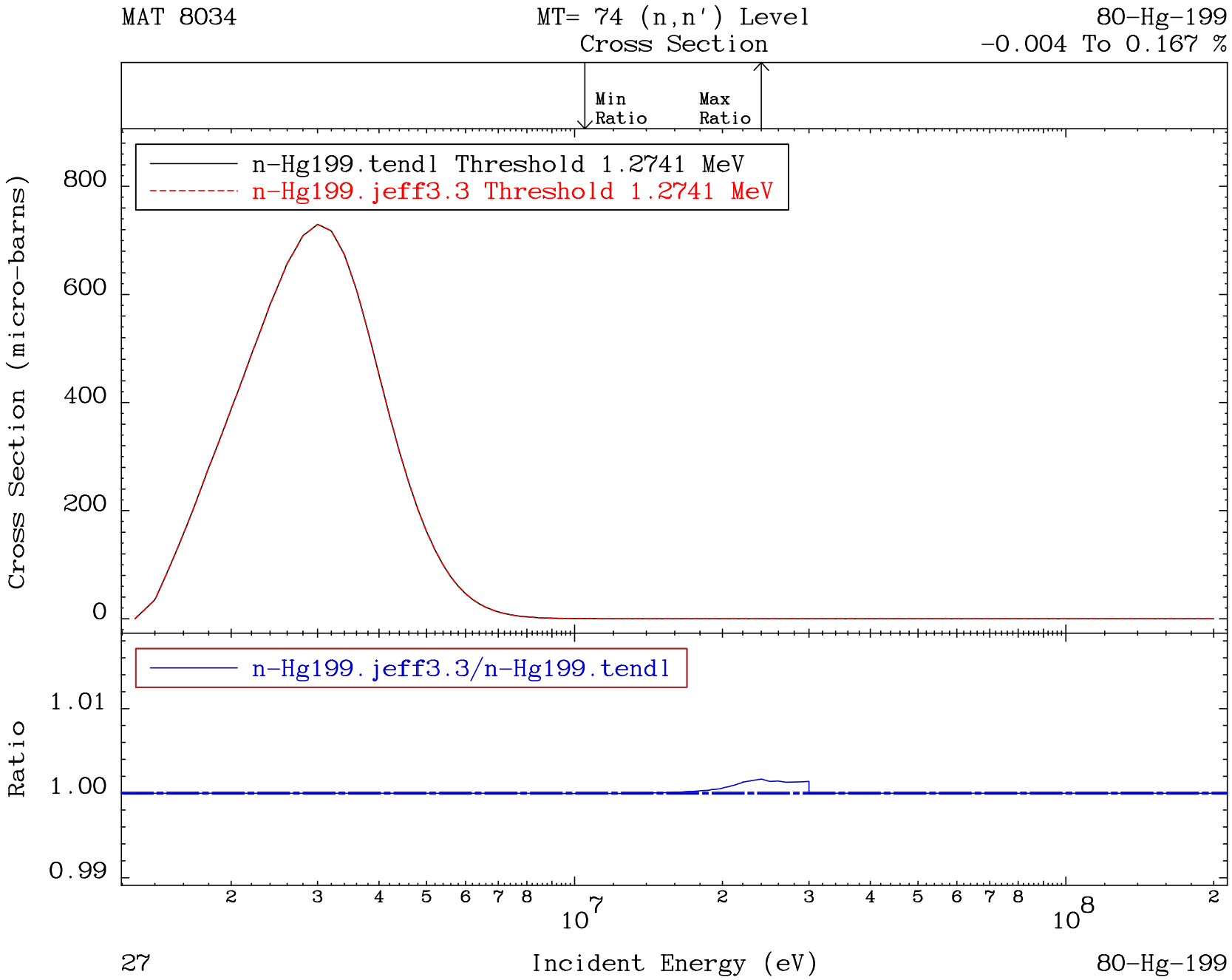

MAT 8034
MT= 63 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 715.01 keV
n-Hg199.jeff3.3 Threshold 715.01 keV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
80-Hg-199

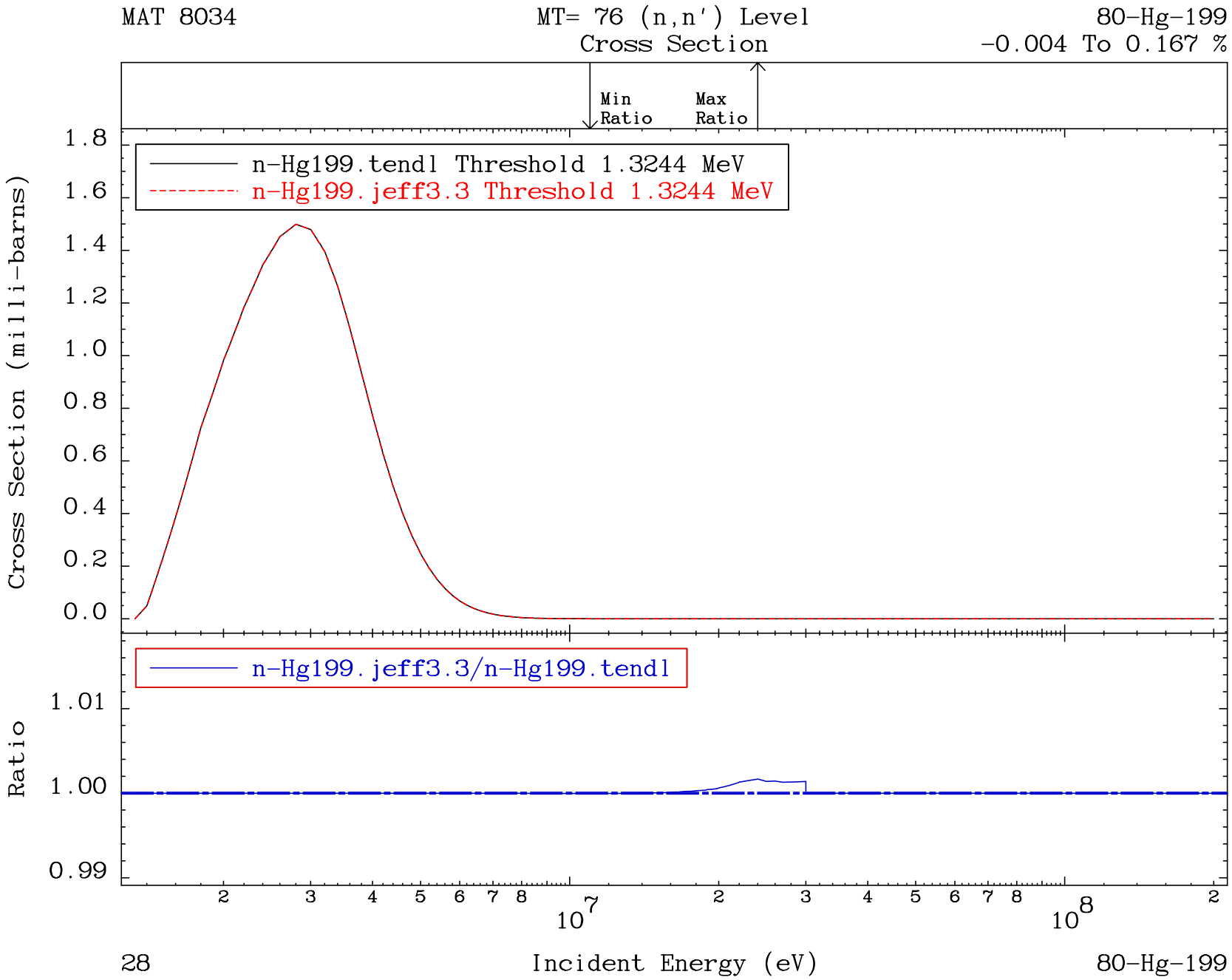

MAT 8034
MT= 66 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 762.85 keV
n-Hg199.jeff3.3 Threshold 762.85 keV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
23
Incident Energy (eV)
80-Hg-199

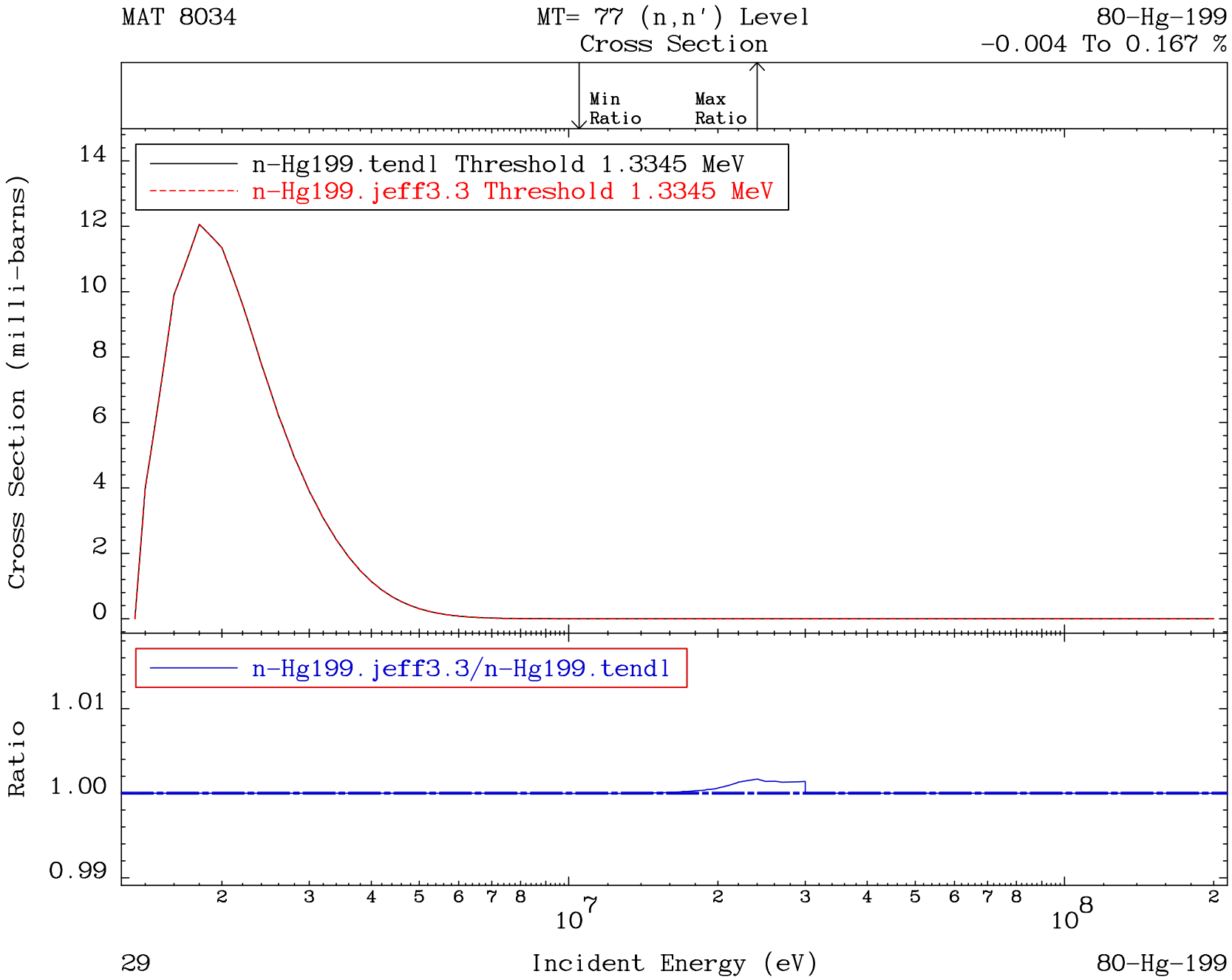

MAT 8034
MT= 67 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 826.17 keV
n-Hg199.jeff3.3 Threshold 826.17 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
8 2 3 4 5 6 7 8 2 3 4 5 6 7 8 2
10^6
10^7
10^8
24
Incident Energy (eV)
80-Hg-199

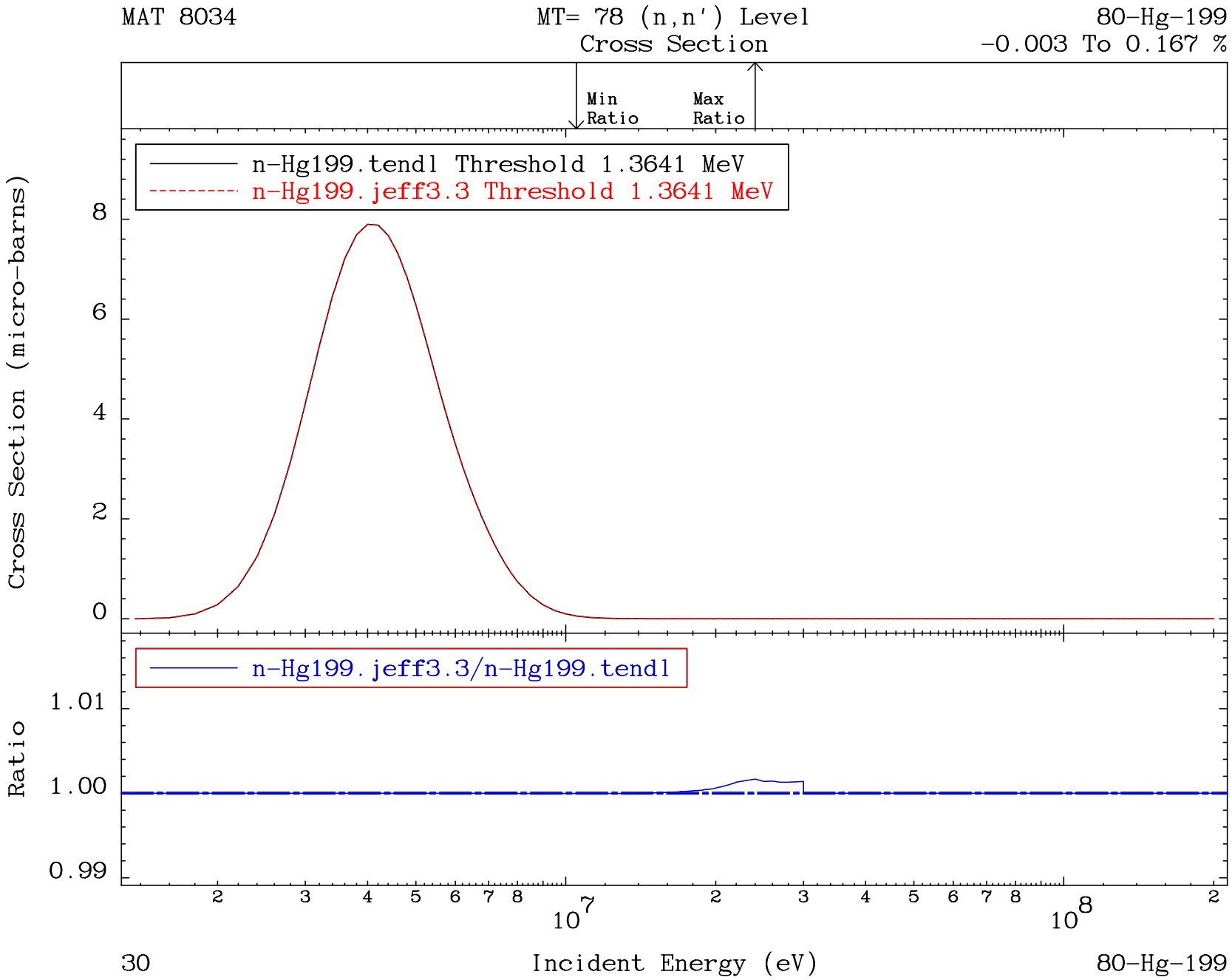

MAT 8034
MT= 69 (n,n') Level
Cross Section
80-Hg-199
-0.004 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 973.91 keV
n-Hg199.jeff3.3 Threshold 973.91 keV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
80-Hg-199

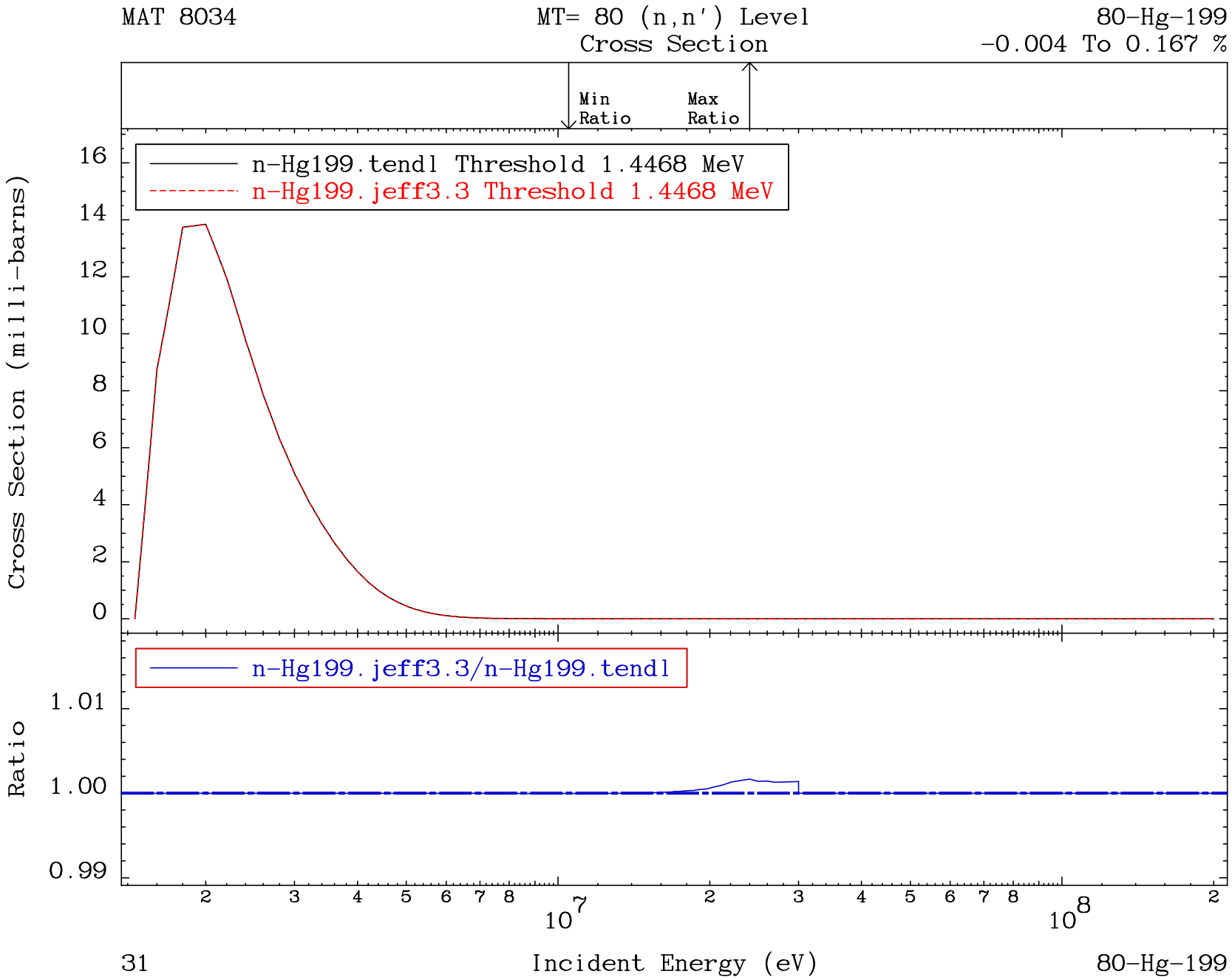

MAT 8034
MT= 71 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 1.0413 MeV
n-Hg199.jeff3.3 Threshold 1.0413 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
80-Hg-199

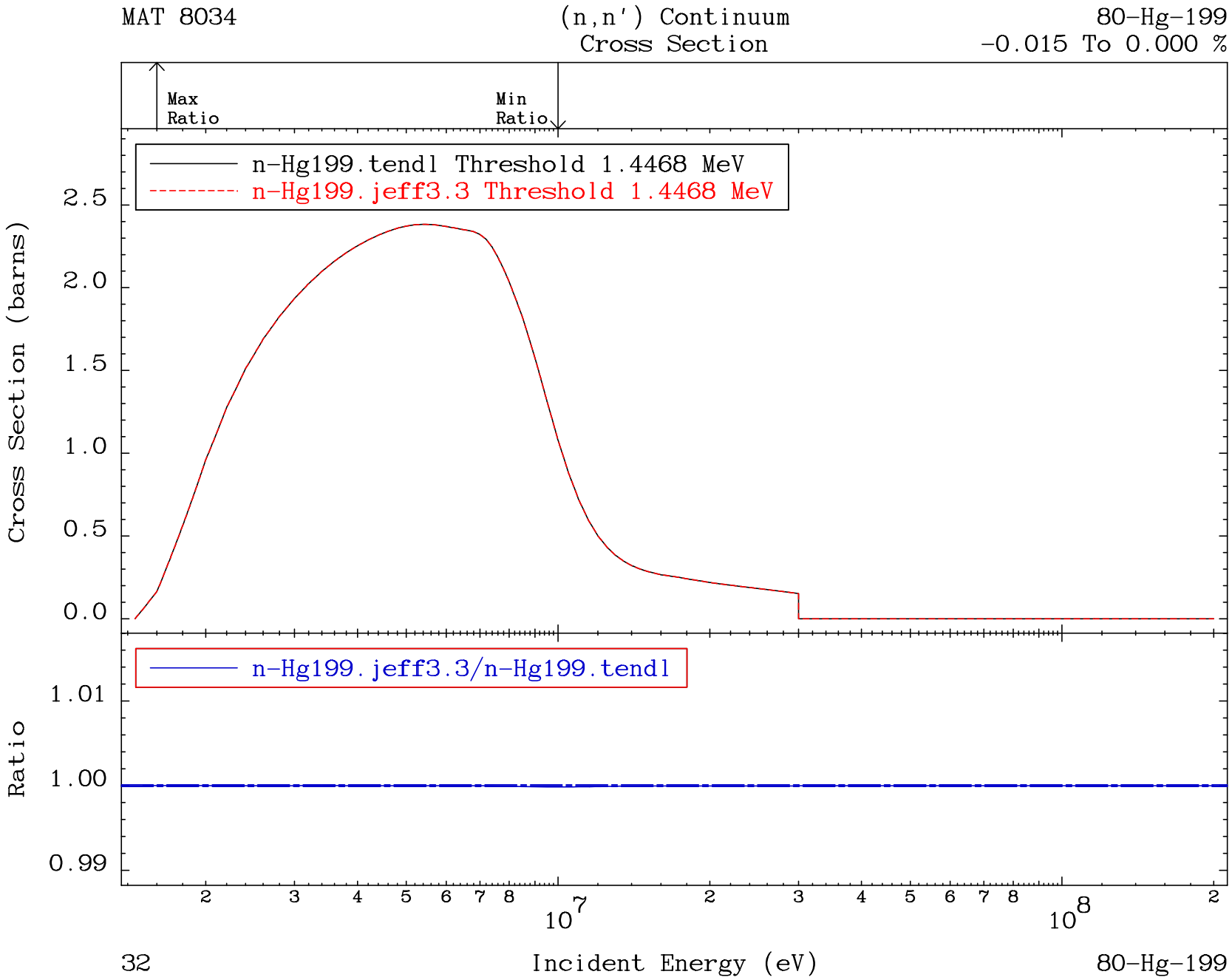

MAT 8034
MT= 74 (n,n') Level
Cross Section
80-Hg-199
-0.004 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 1.2741 MeV
n-Hg199.jeff3.3 Threshold 1.2741 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
27
Incident Energy (eV)
80-Hg-199

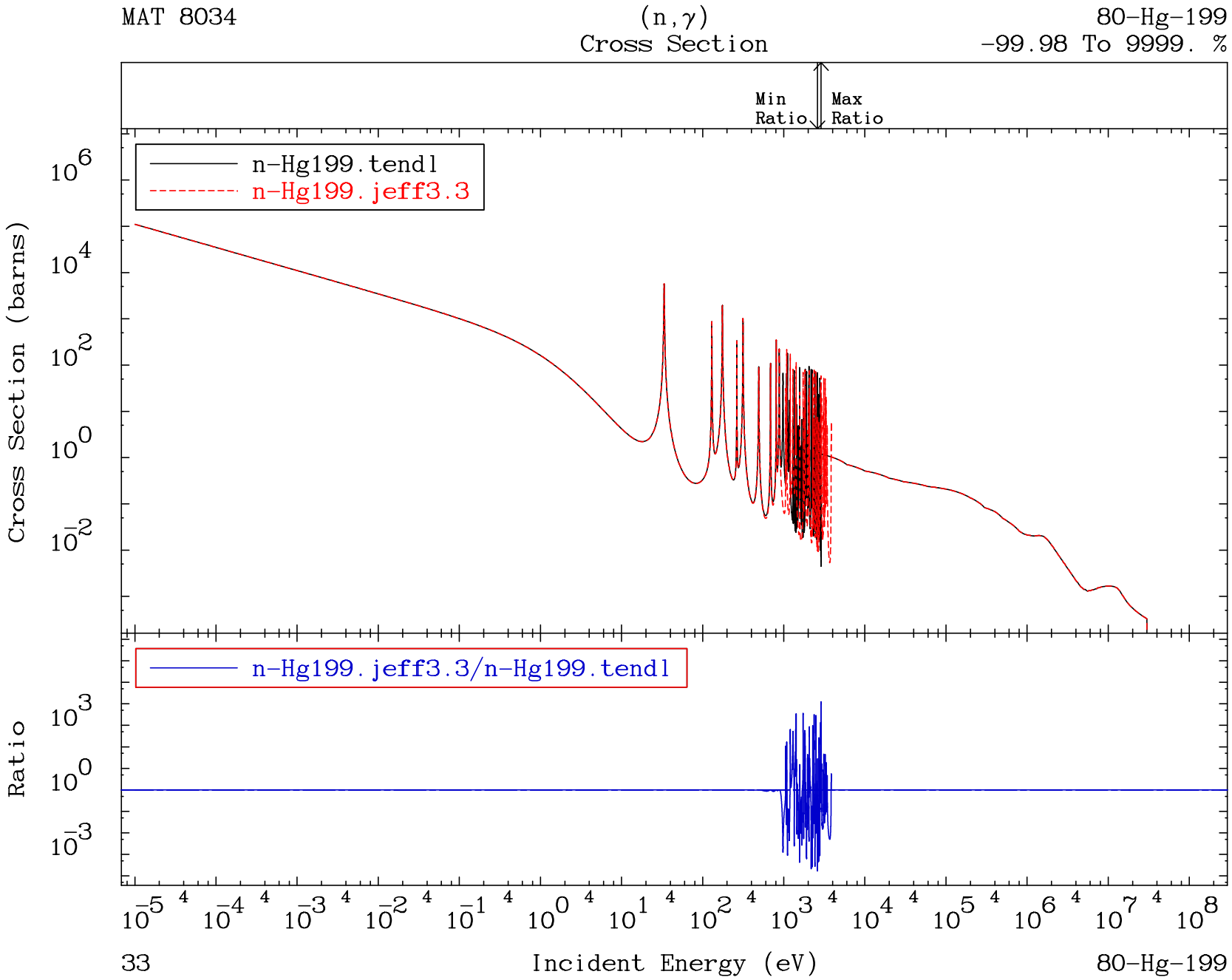

MAT 8034
MT= 76 (n,n') Level
Cross Section
80-Hg-199
-0.004 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 1.3244 MeV
n-Hg199.jeff3.3 Threshold 1.3244 MeV
Cross Section (milli-barns)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
28
Incident Energy (eV)
80-Hg-199

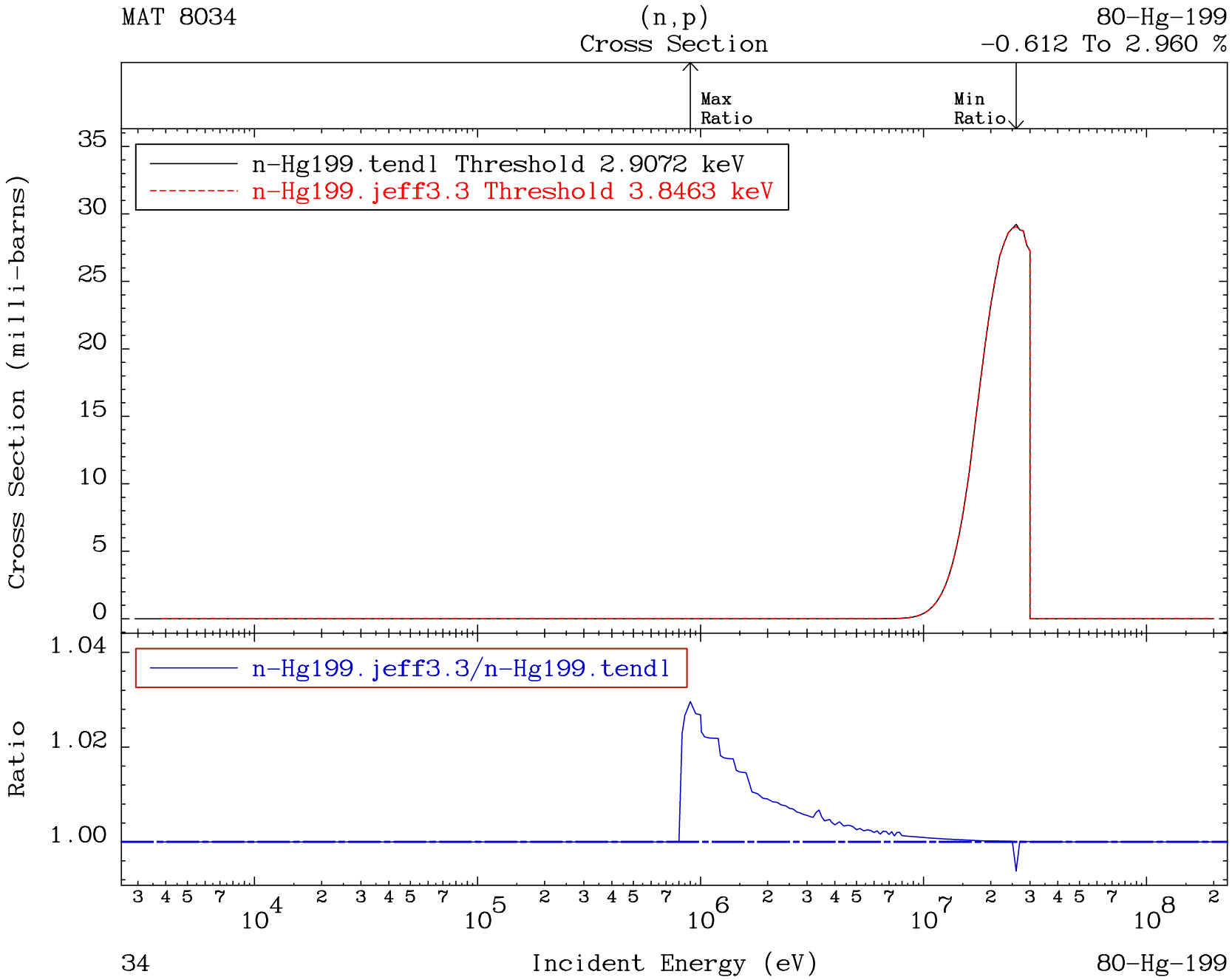

MAT 8034
MT= 77 (n,n') Level
Cross Section
80-Hg-199
-0.004 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 1.3345 MeV
n-Hg199.jeff3.3 Threshold 1.3345 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
80-Hg-199

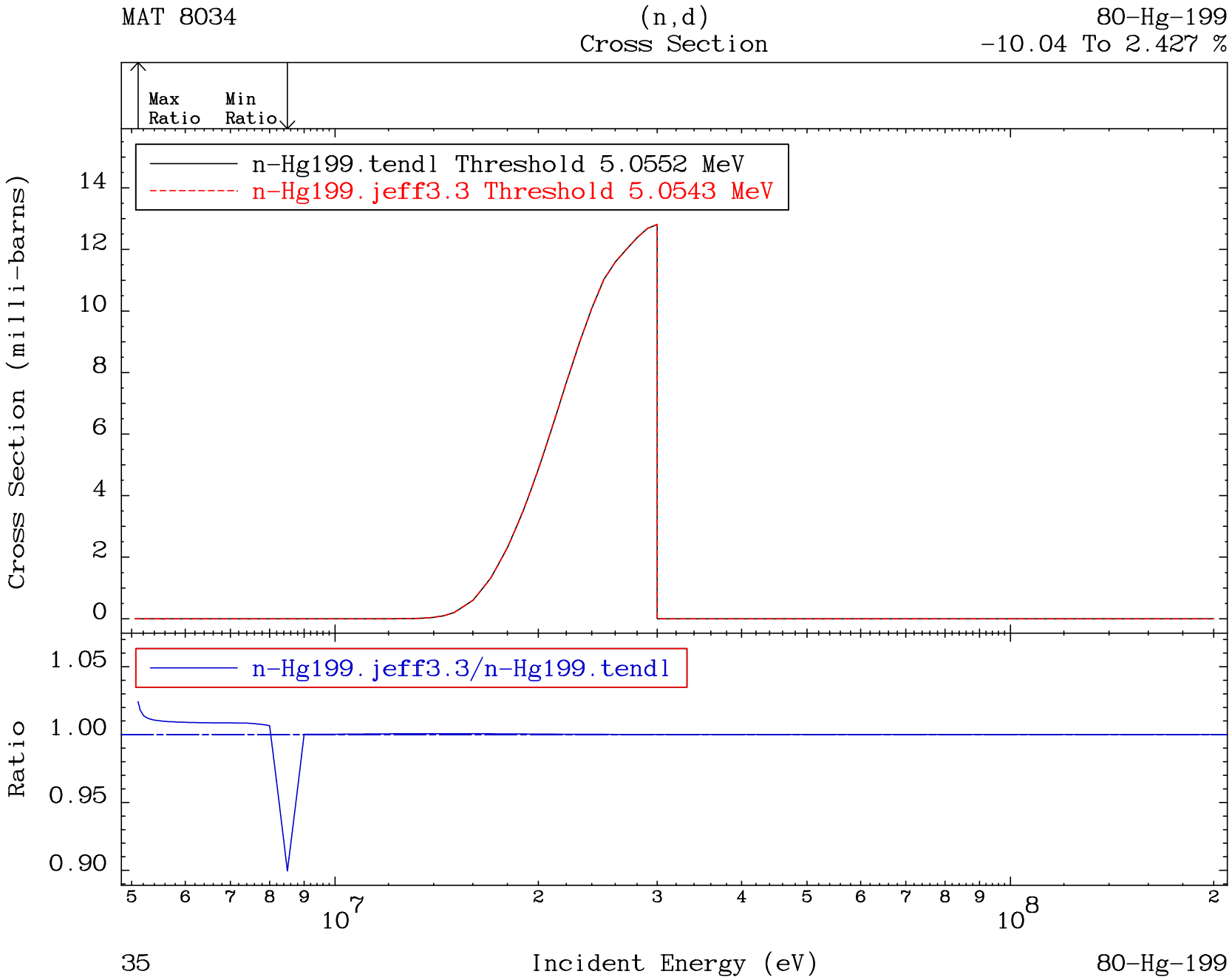

MAT 8034
MT= 78 (n,n') Level
Cross Section
80-Hg-199
-0.003 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 1.3641 MeV
n-Hg199.jeff3.3 Threshold 1.3641 MeV
Cross Section (micro-barns)
0
2
4
6
8
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
0.99
1.00
1.01
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
30
80-Hg-199

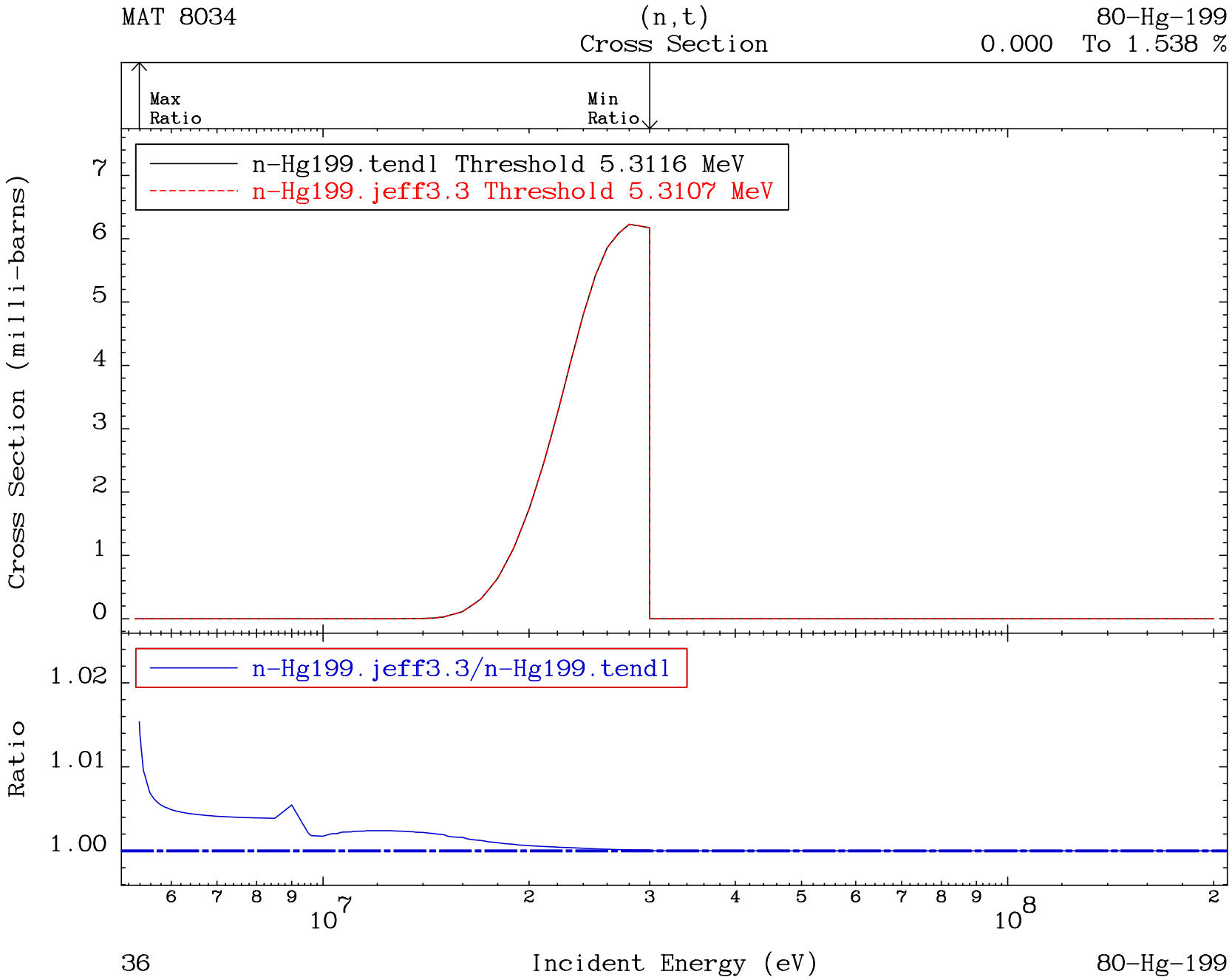

MAT 8034
MT= 80 (n,n') Level
Cross Section
80-Hg-199
-0.004 To 0.167 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 1.4468 MeV
n-Hg199.jeff3.3 Threshold 1.4468 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
80-Hg-199

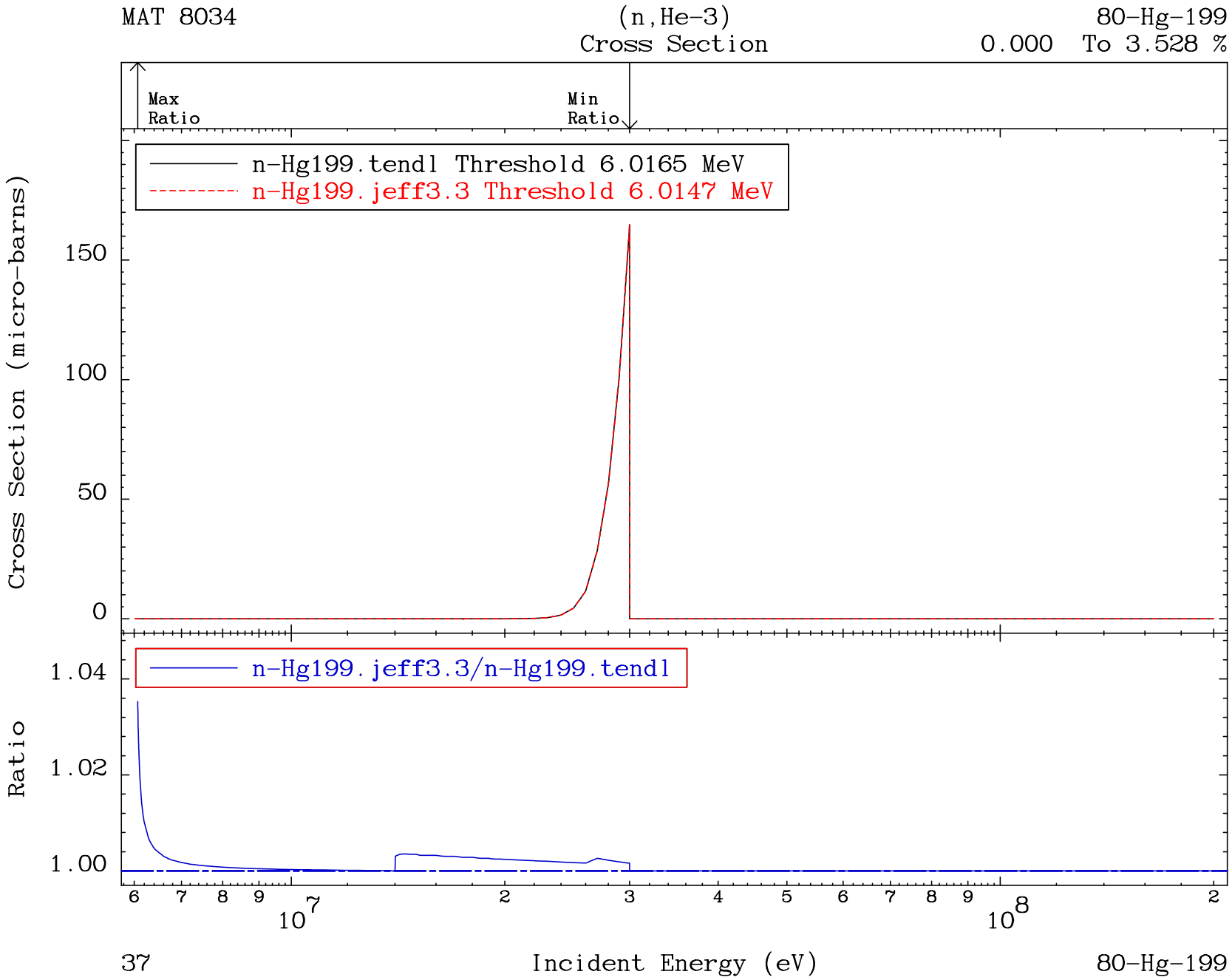

MAT 8034
(n,n') Continuum
Cross Section
80-Hg-199
-0.015 To 0.000 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 1.4468 MeV
n-Hg199.jeff3.3 Threshold 1.4468 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
32
Incident Energy (eV)
80-Hg-199

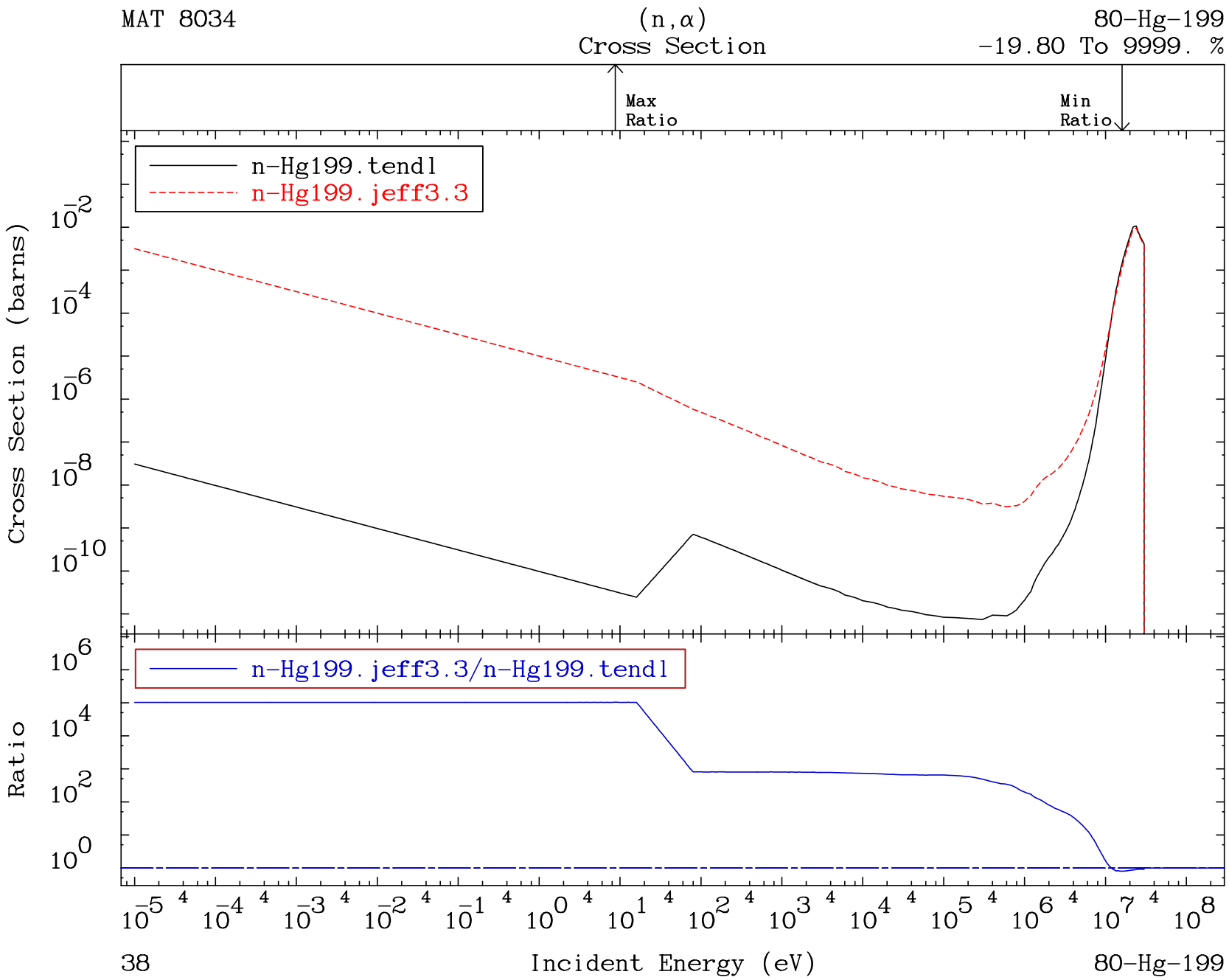

MAT 8034
(n,γ)
Cross Section
80-Hg-199
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
33
80-Hg-199

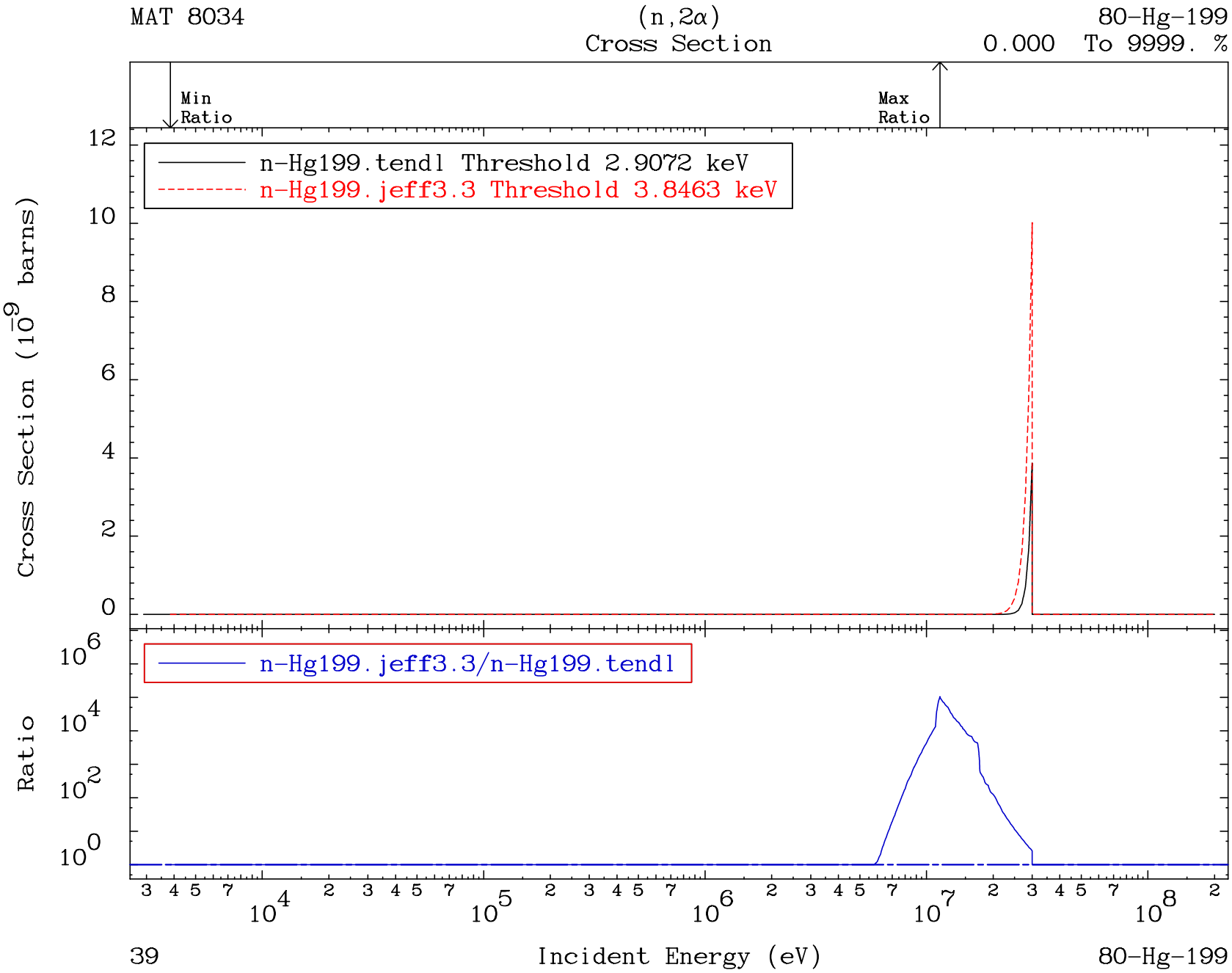

MAT 8034
(n,p)
Cross Section
80-Hg-199
-0.612 To 2.960 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 2.9072 keV
n-Hg199.jeff3.3 Threshold 3.8463 keV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.04
1.02
1.00
3 4 5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
34
Incident Energy (eV)
80-Hg-199

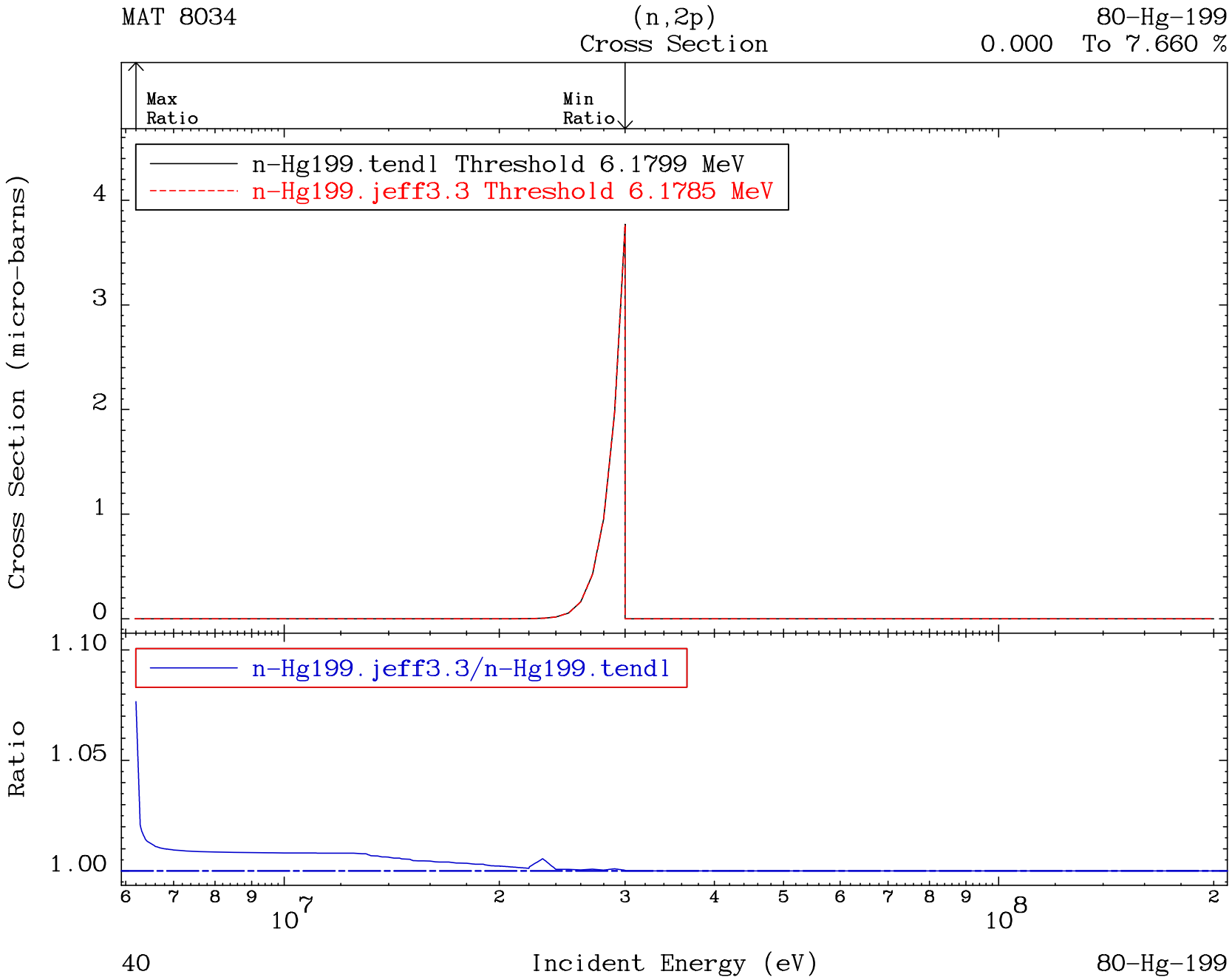

MAT 8034
(n,d)
Cross Section
80-Hg-199
-10.04 To 2.427 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.0552 MeV
n-Hg199.jeff3.3 Threshold 5.0543 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.05
1.00
0.95
0.90
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
35
Incident Energy (eV)
80-Hg-199

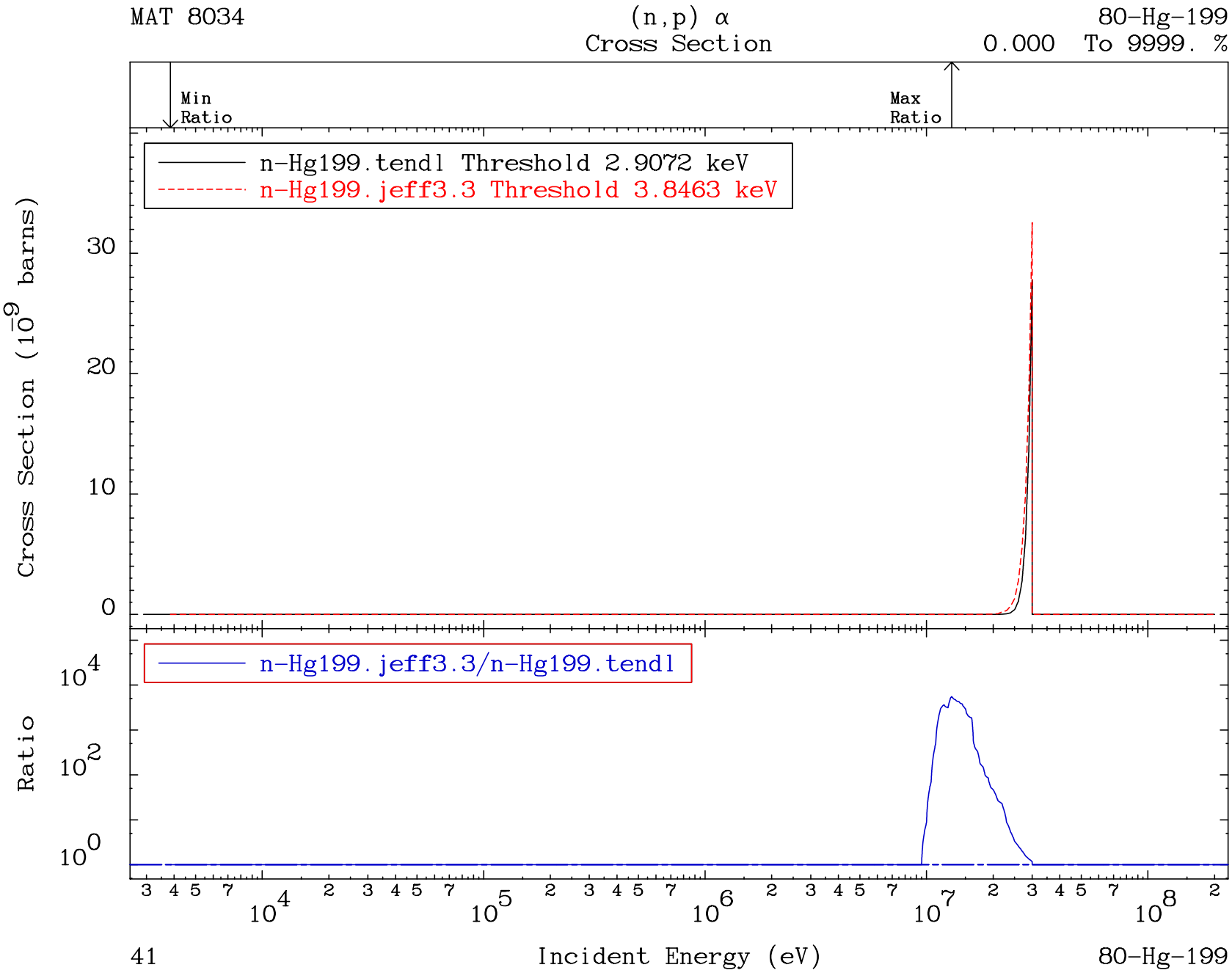

MAT 8034
(n,t)
Cross Section
80-Hg-199
0.000 To 1.538 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.3116 MeV
n-Hg199.jeff3.3 Threshold 5.3107 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
1.02
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
36
Incident Energy (eV)
80-Hg-199

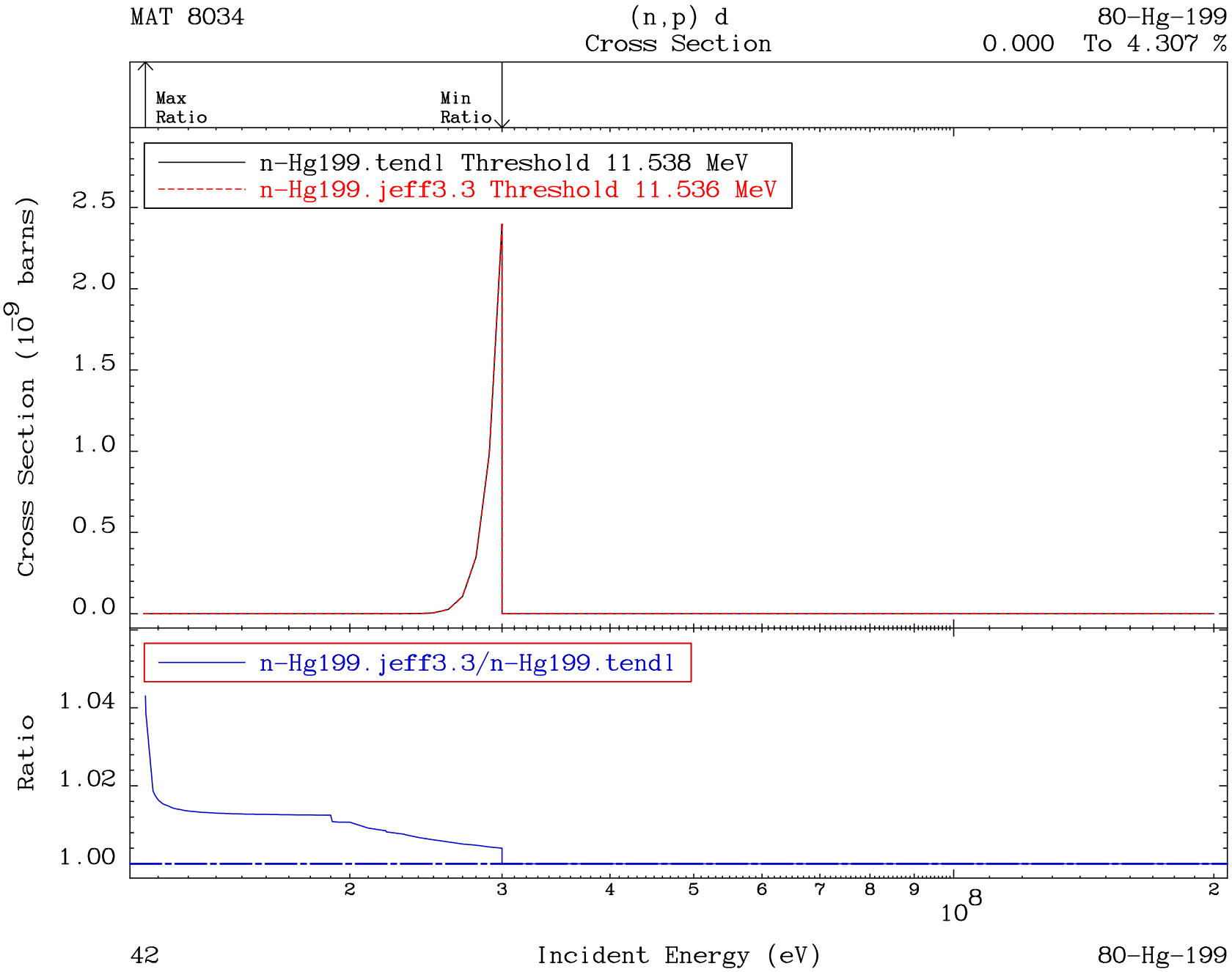

MAT 8034
(n,He-3)
Cross Section
80-Hg-199
0.000 To 3.528 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 6.0165 MeV
n-Hg199.jeff3.3 Threshold 6.0147 MeV
Cross Section (micro-barns)
150
100
50
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.04
1.02
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
80-Hg-199

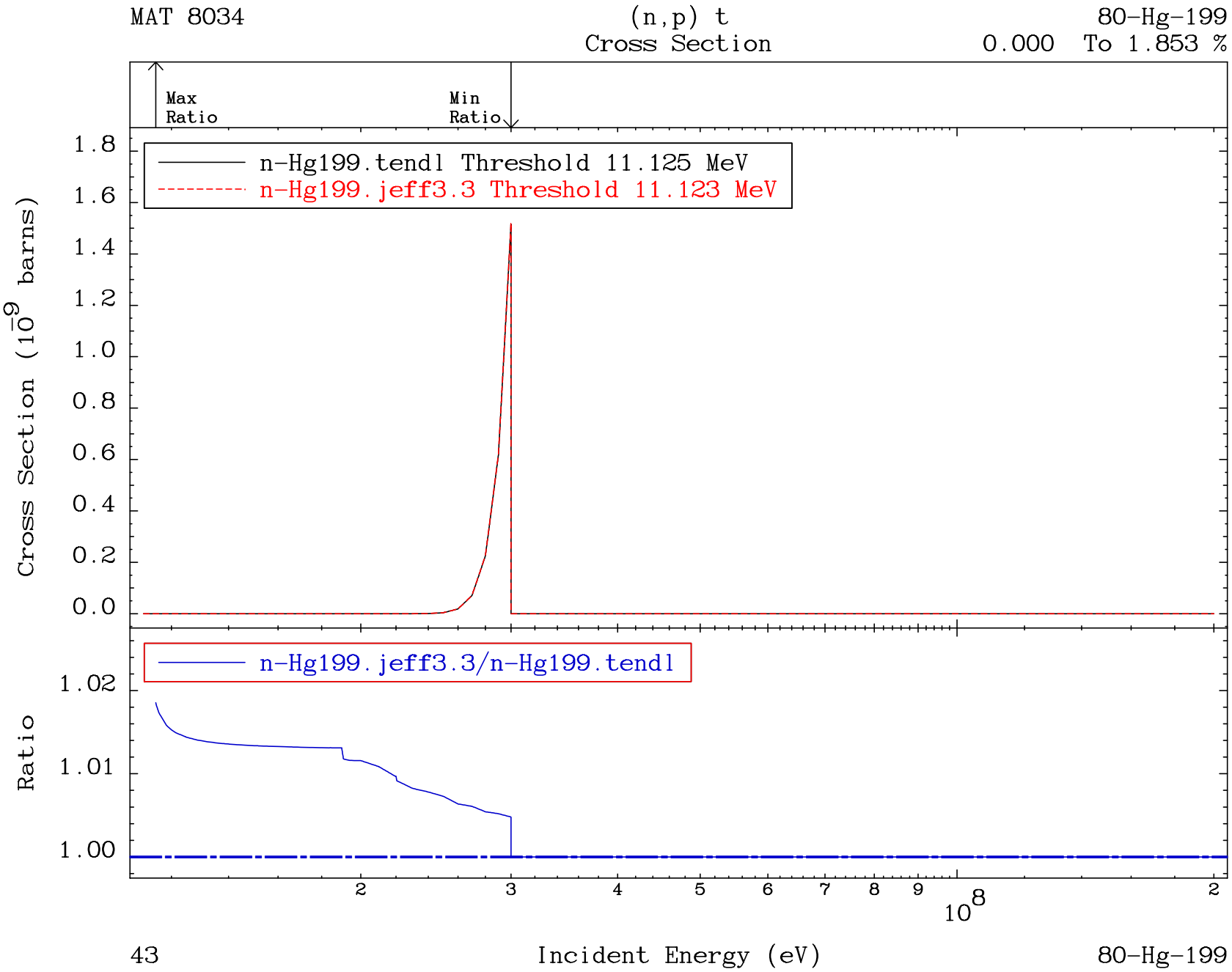

MAT 8034
(n,α)
Cross Section
80-Hg-199
-19.80 To 9999. %
Max Ratio
Min Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
38
80-Hg-199

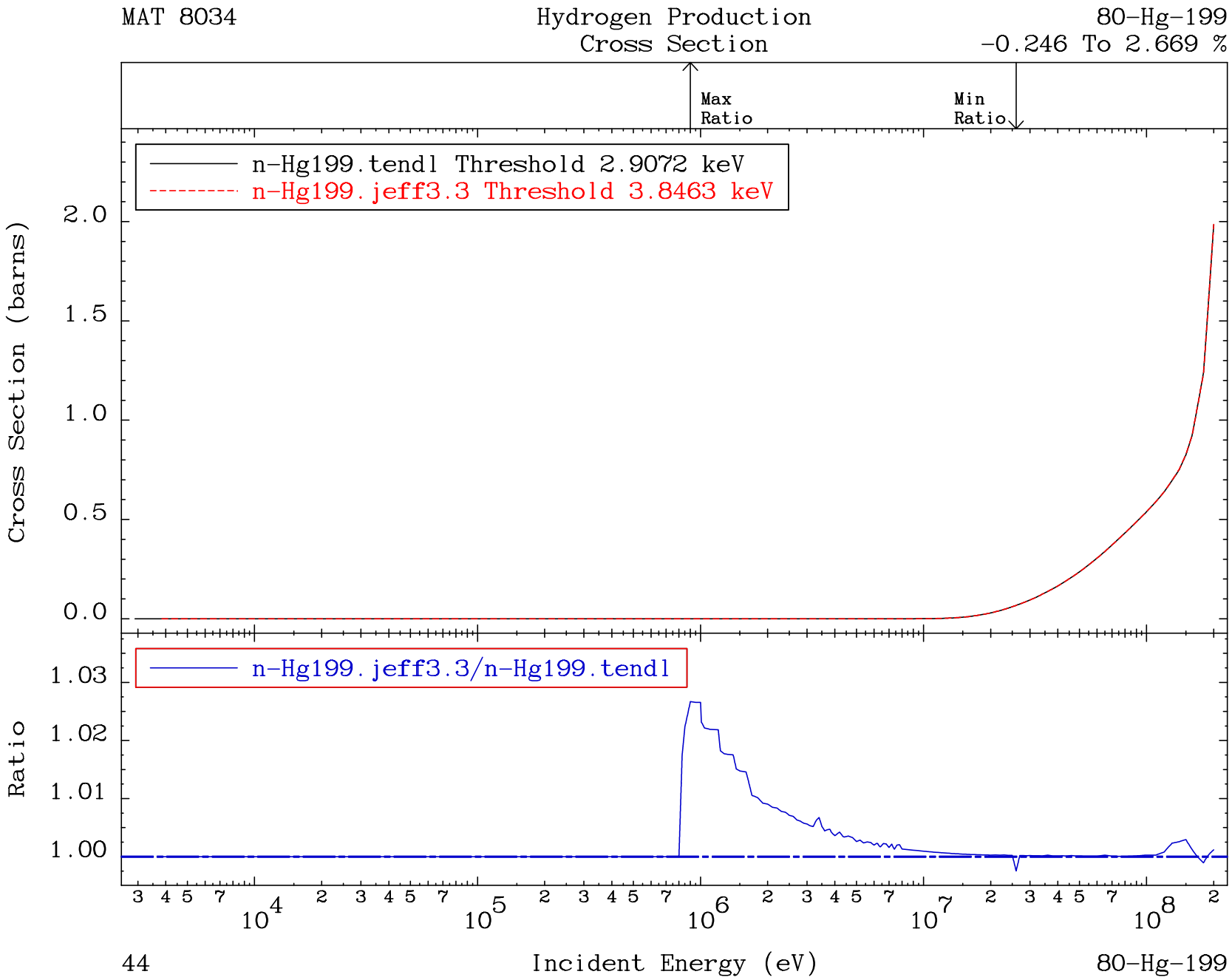

MAT 8034
(n,2α)
Cross Section
80-Hg-199
0.000 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 2.9072 keV
n-Hg199.jeff3.3 Threshold 3.8463 keV
Cross Section (10^-9 barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
39
80-Hg-199

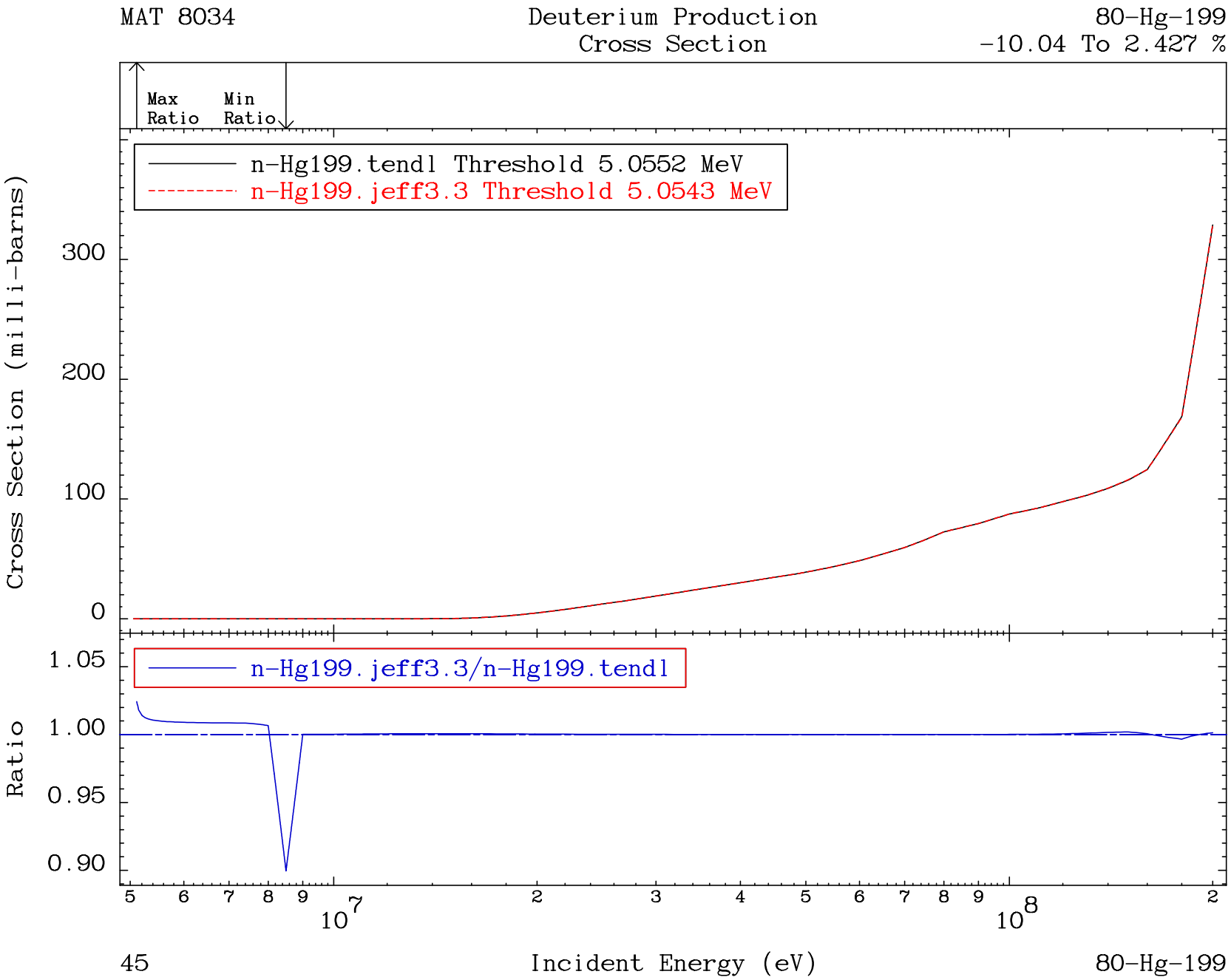

MAT 8034
(n,2p)
Cross Section
80-Hg-199
0.000 To 7.660 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 6.1799 MeV
n-Hg199.jeff3.3 Threshold 6.1785 MeV
Cross Section (micro-barns)
0
1
2
3
4
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.05
1.10
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
80-Hg-199

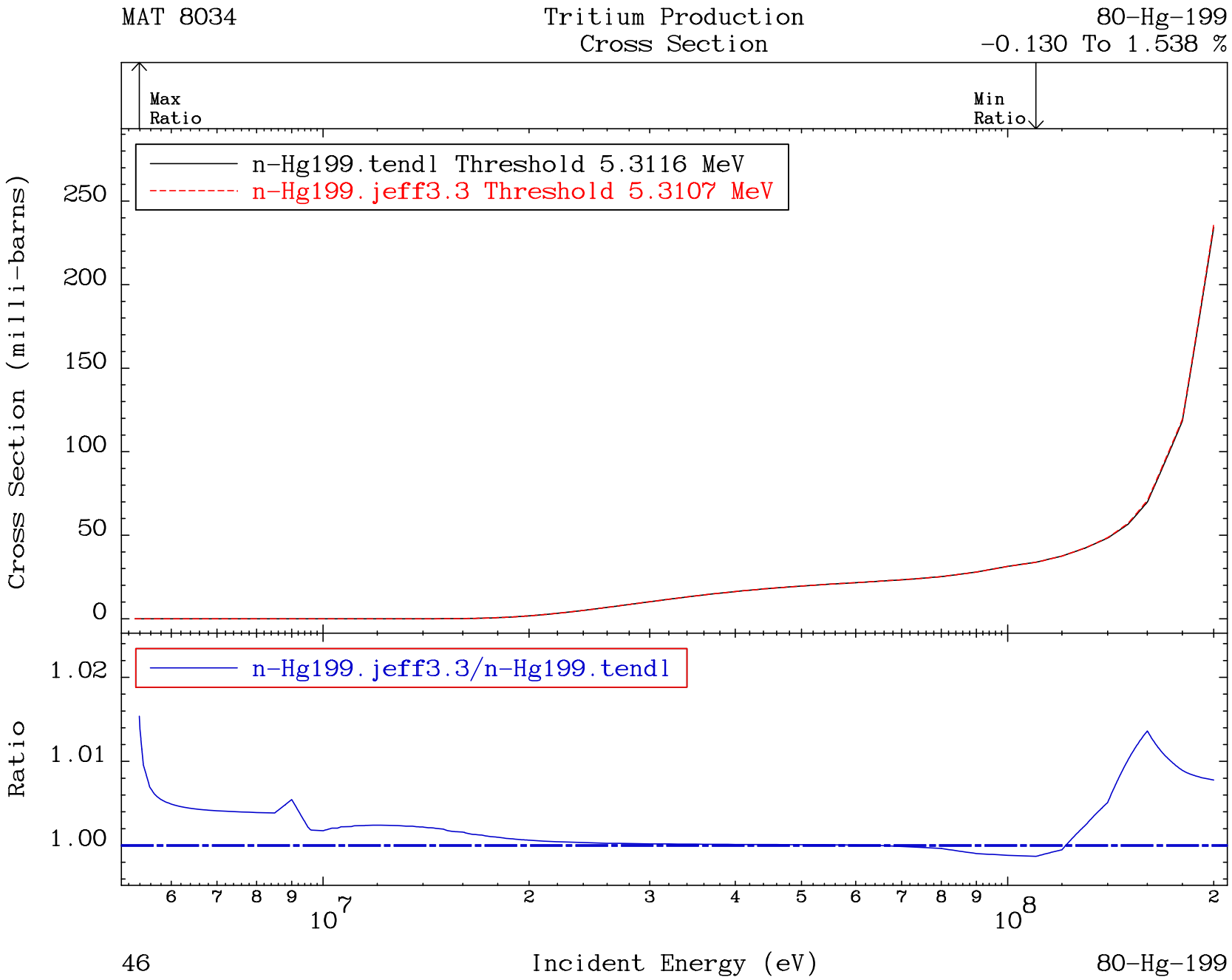

MAT 8034
(n,p) α
Cross Section
80-Hg-199
0.000 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 2.9072 keV
n-Hg199.jeff3.3 Threshold 3.8463 keV
Cross Section (10^-9 barns)
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
10^4
10^2
10^0
3 4 5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
41
Incident Energy (eV)
80-Hg-199

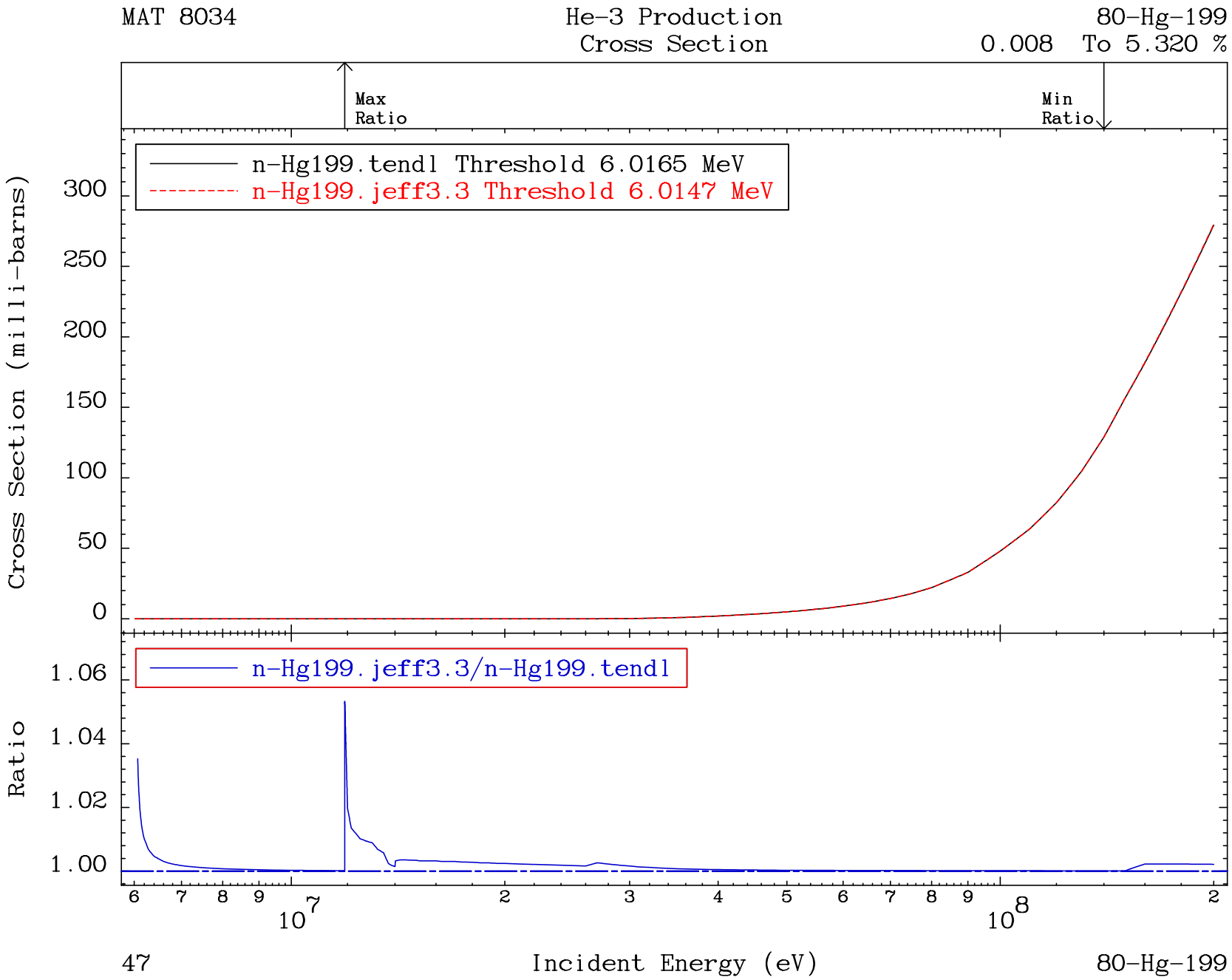

MAT 8034
(n,p) d
Cross Section
80-Hg-199
0.000 To 4.307 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 11.538 MeV
n-Hg199.jeff3.3 Threshold 11.536 MeV
Cross Section (10^{-9} barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
42
Incident Energy (eV)
80-Hg-199

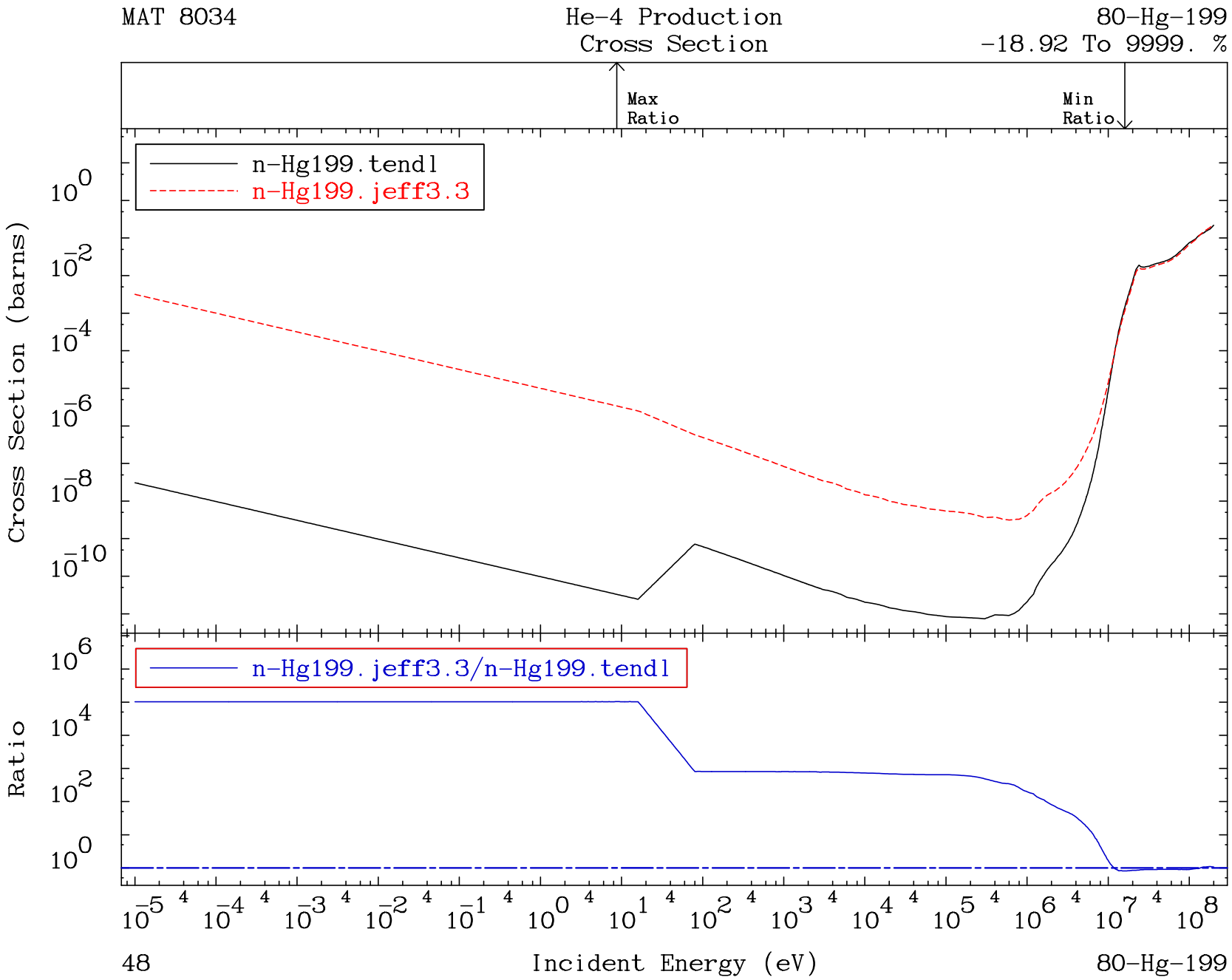

MAT 8034
(n,p) t
Cross Section
80-Hg-199
0.000 To 1.853 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 11.125 MeV
n-Hg199.jeff3.3 Threshold 11.123 MeV
Cross Section (10^{-9} barns)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
43
Incident Energy (eV)
80-Hg-199

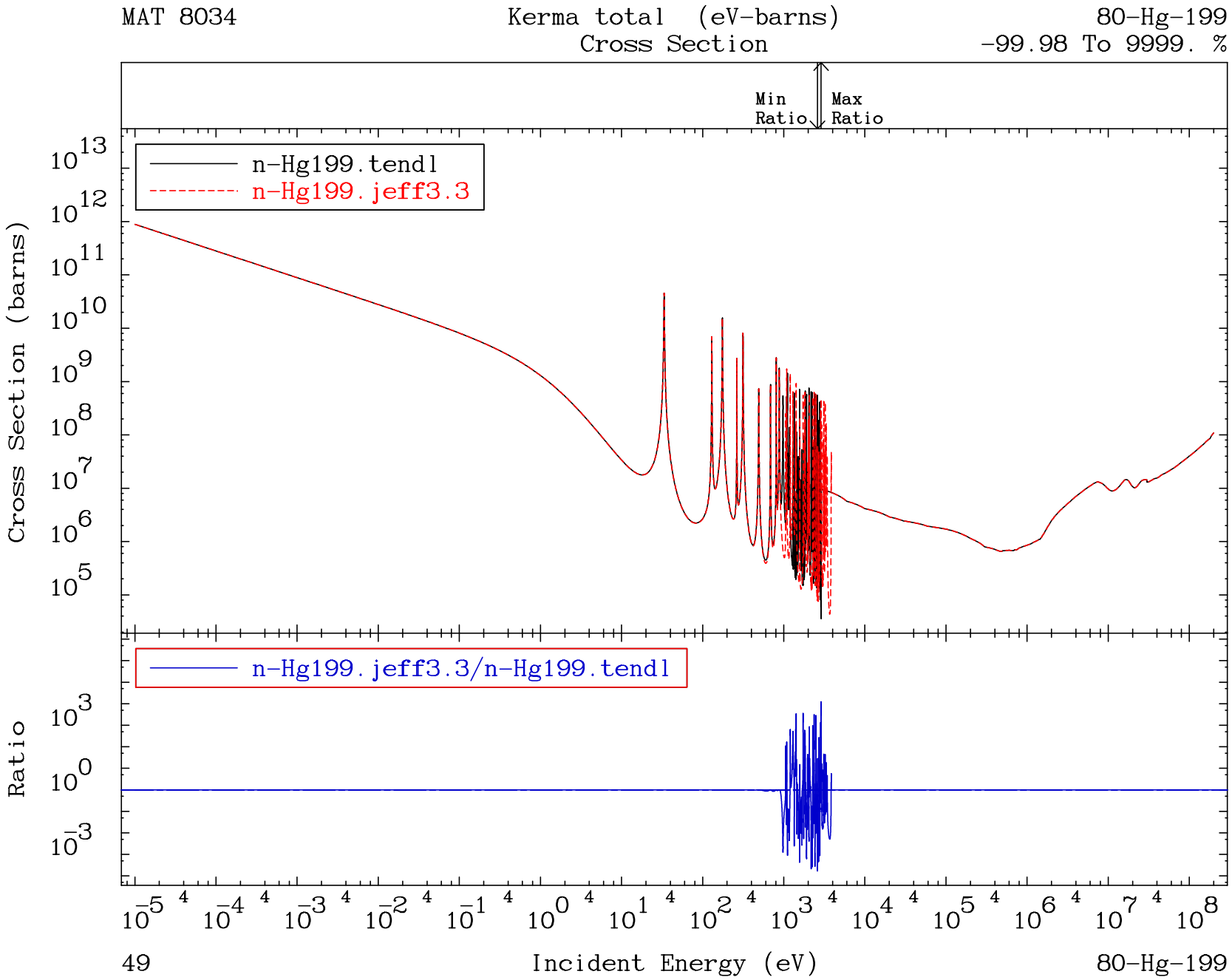

MAT 8034
Hydrogen Production
Cross Section
80-Hg-199
-0.246 To 2.669 %
Max
Ratio
Min
Ratio
n-Hg199.tendl Threshold 2.9072 keV
n-Hg199.jeff3.3 Threshold 3.8463 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.03
1.02
1.01
1.00
3 4 5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
44
Incident Energy (eV)
80-Hg-199

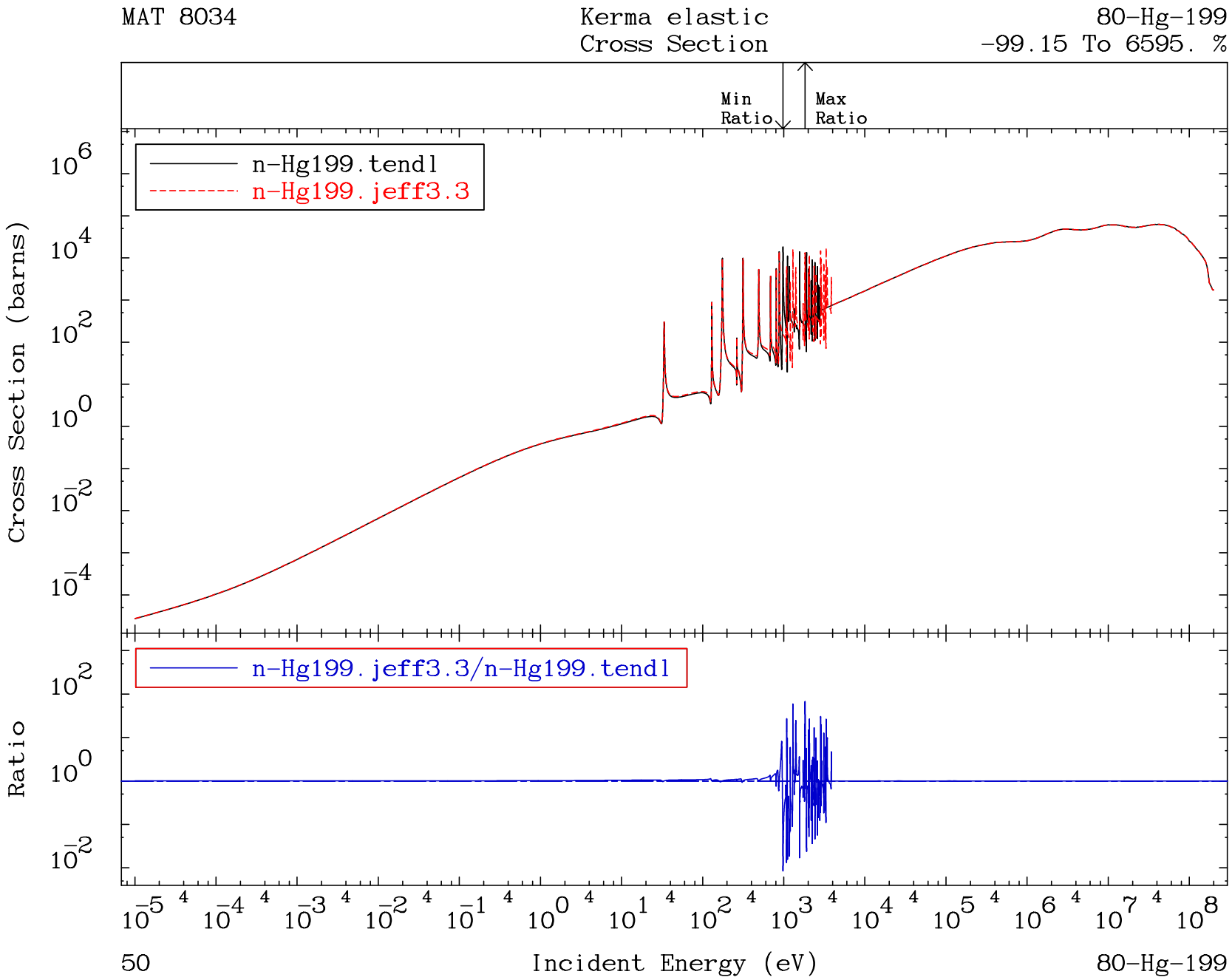

MAT 8034
Deuterium Production
Cross Section
80-Hg-199
-10.04 To 2.427 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.0552 MeV
n-Hg199.jeff3.3 Threshold 5.0543 MeV
Cross Section (milli-barns)
300
200
100
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.05
1.00
0.95
0.90
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
80-Hg-199

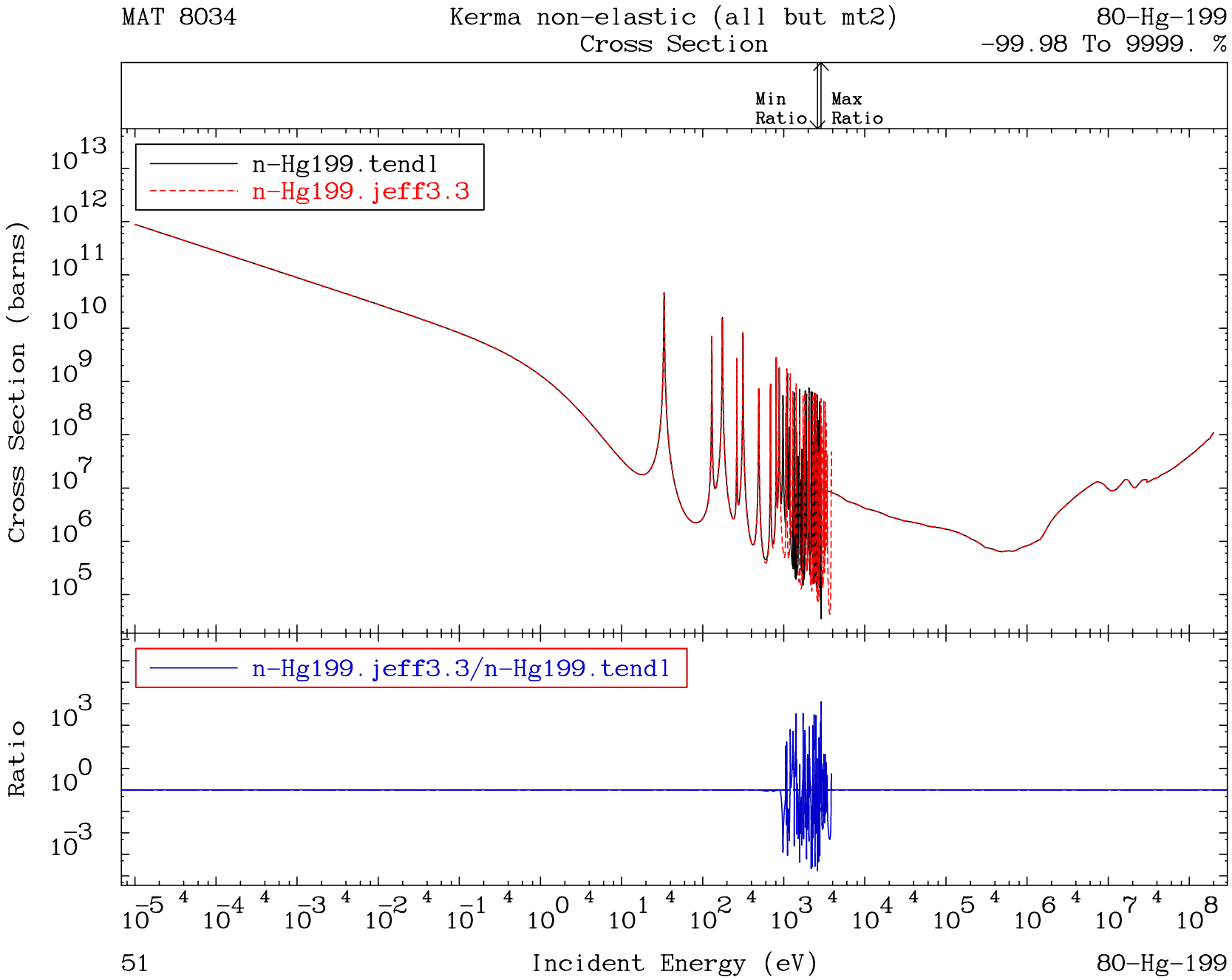

MAT 8034
Tritium Production
Cross Section
80-Hg-199
-0.130 To 1.538 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.3116 MeV
n-Hg199.jeff3.3 Threshold 5.3107 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
80-Hg-199

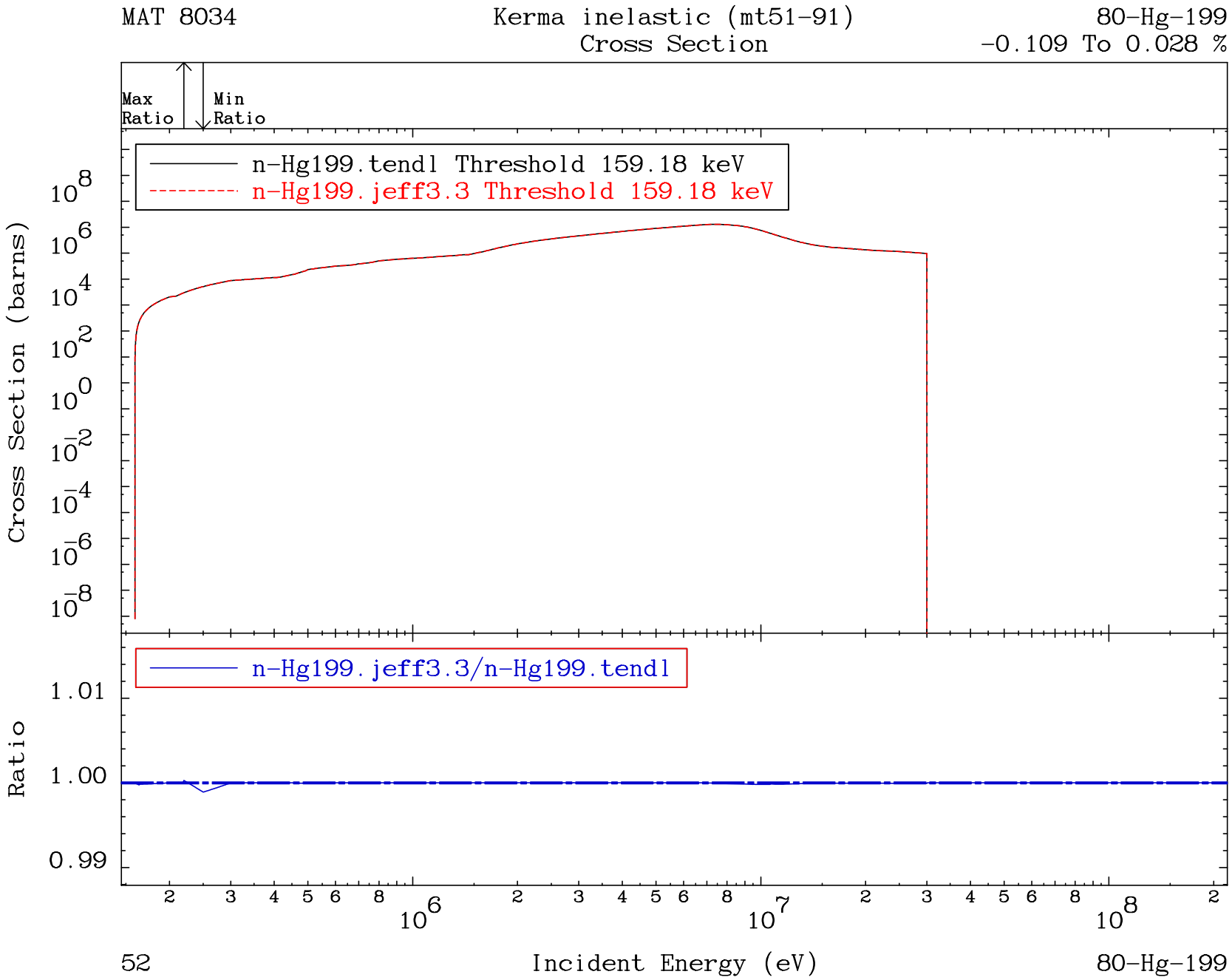

MAT 8034
He-3 Production
Cross Section
80-Hg-199
0.008 To 5.320 %
Max
Ratio
Min
Ratio
n-Hg199.tendl Threshold 6.0165 MeV
n-Hg199.jeff3.3 Threshold 6.0147 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.06
1.04
1.02
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
80-Hg-199

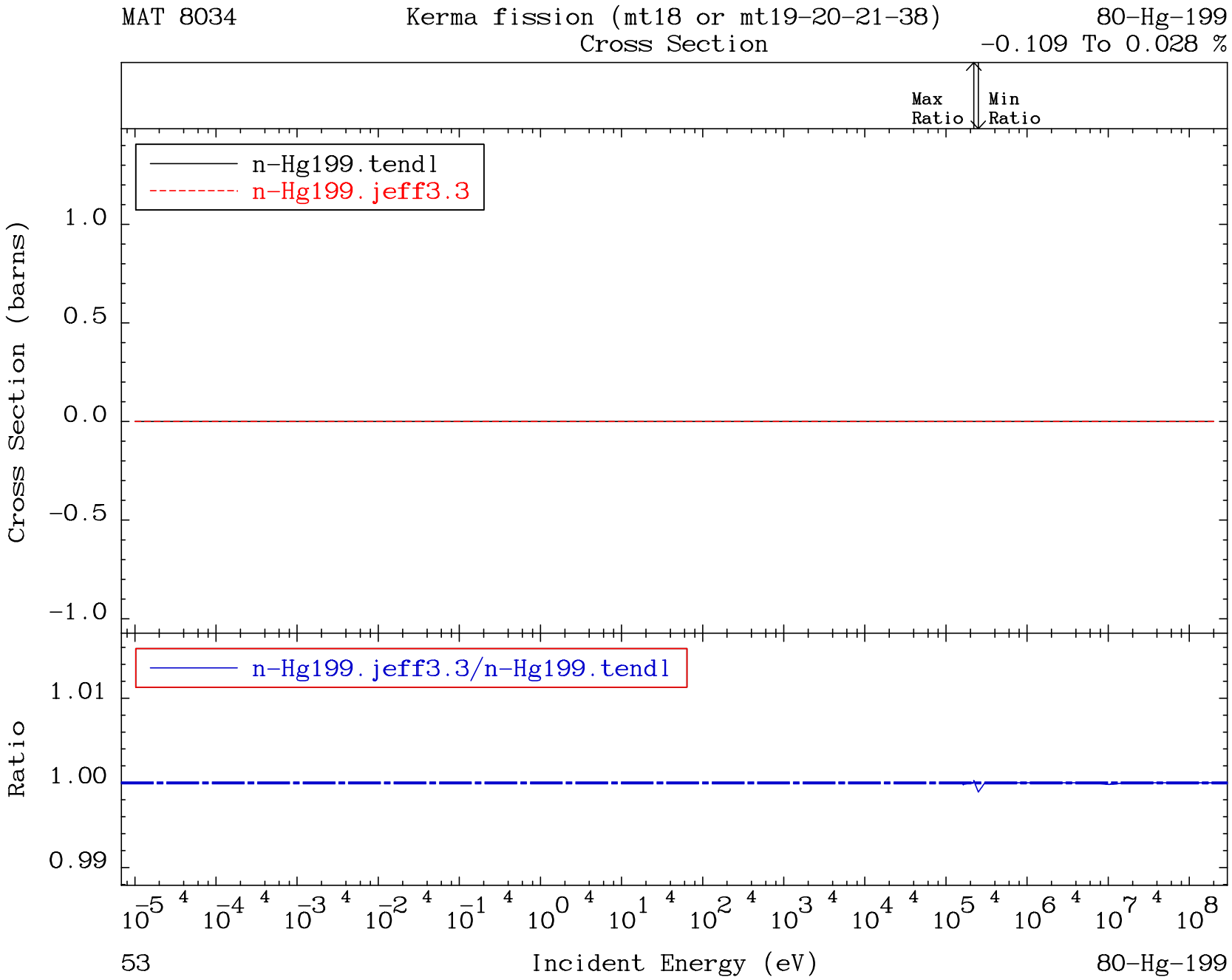

MAT 8034
He-4 Production
Cross Section
80-Hg-199
-18.92 To 9999. %
Max
Ratio
Min
Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
48
80-Hg-199

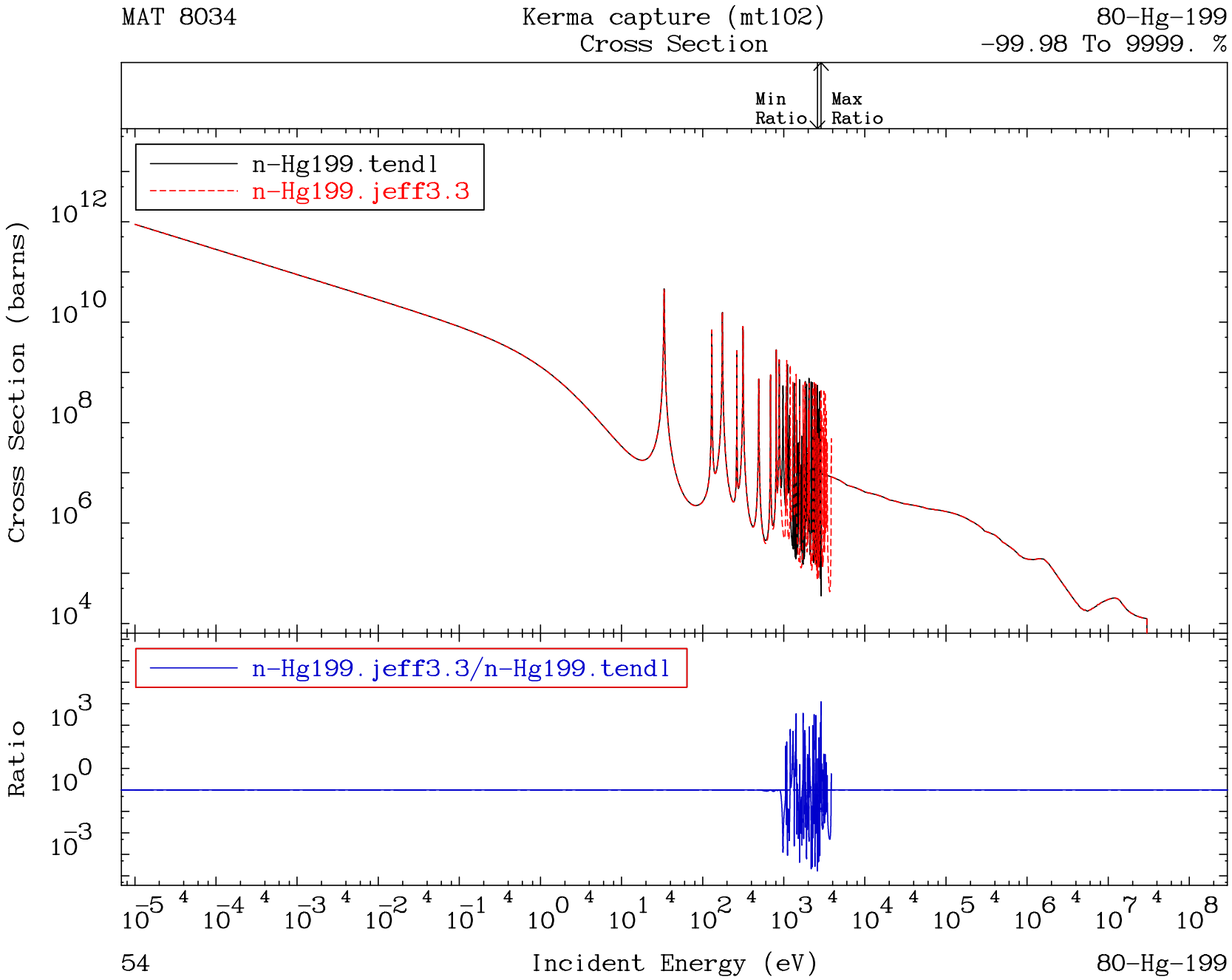

MAT 8034
Kerma total (eV-barns)
Cross Section
80-Hg-199
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
49
80-Hg-199

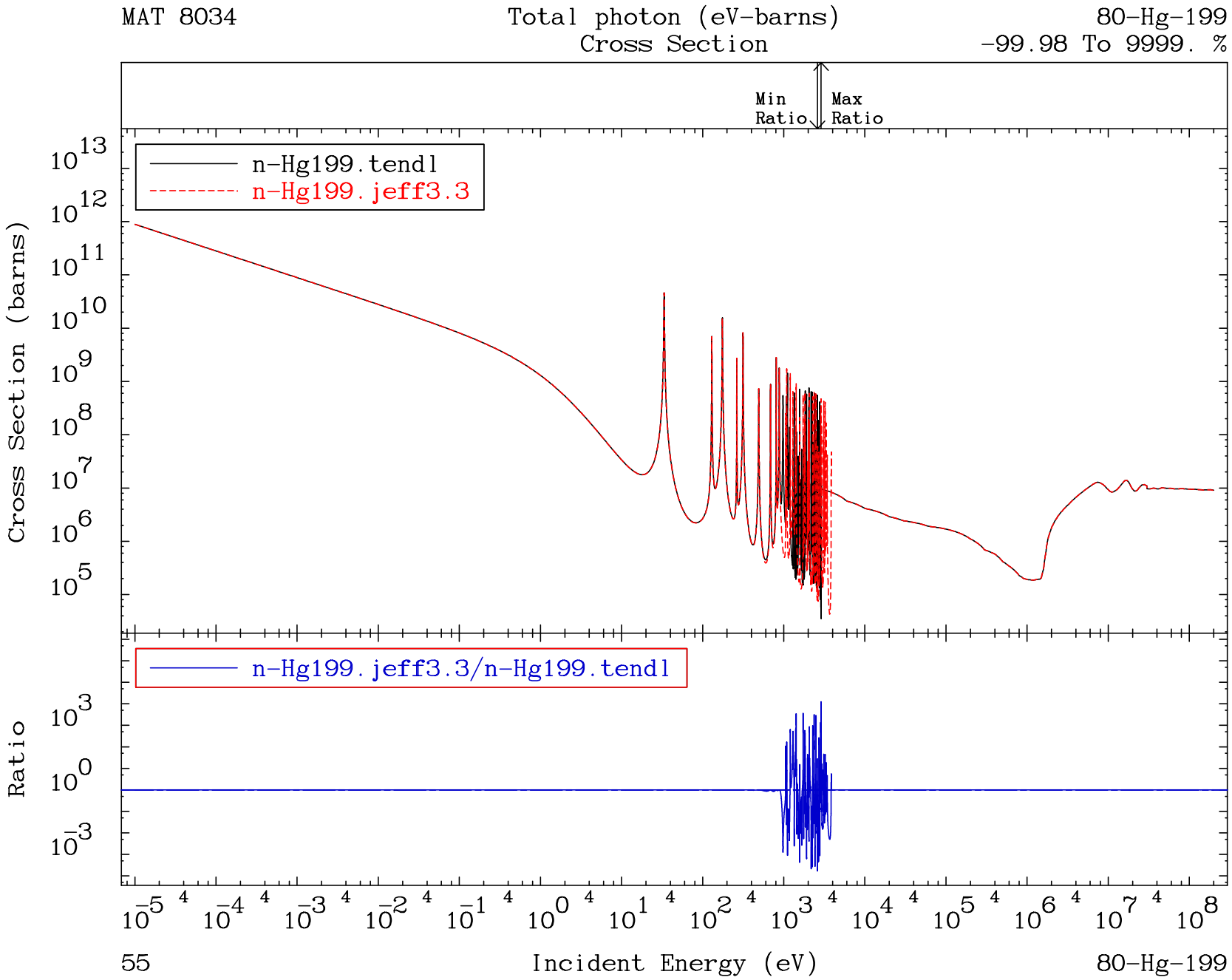

MAT 8034
Kerma elastic
Cross Section
80-Hg-199
-99.15 To 6595. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
50
80-Hg-199

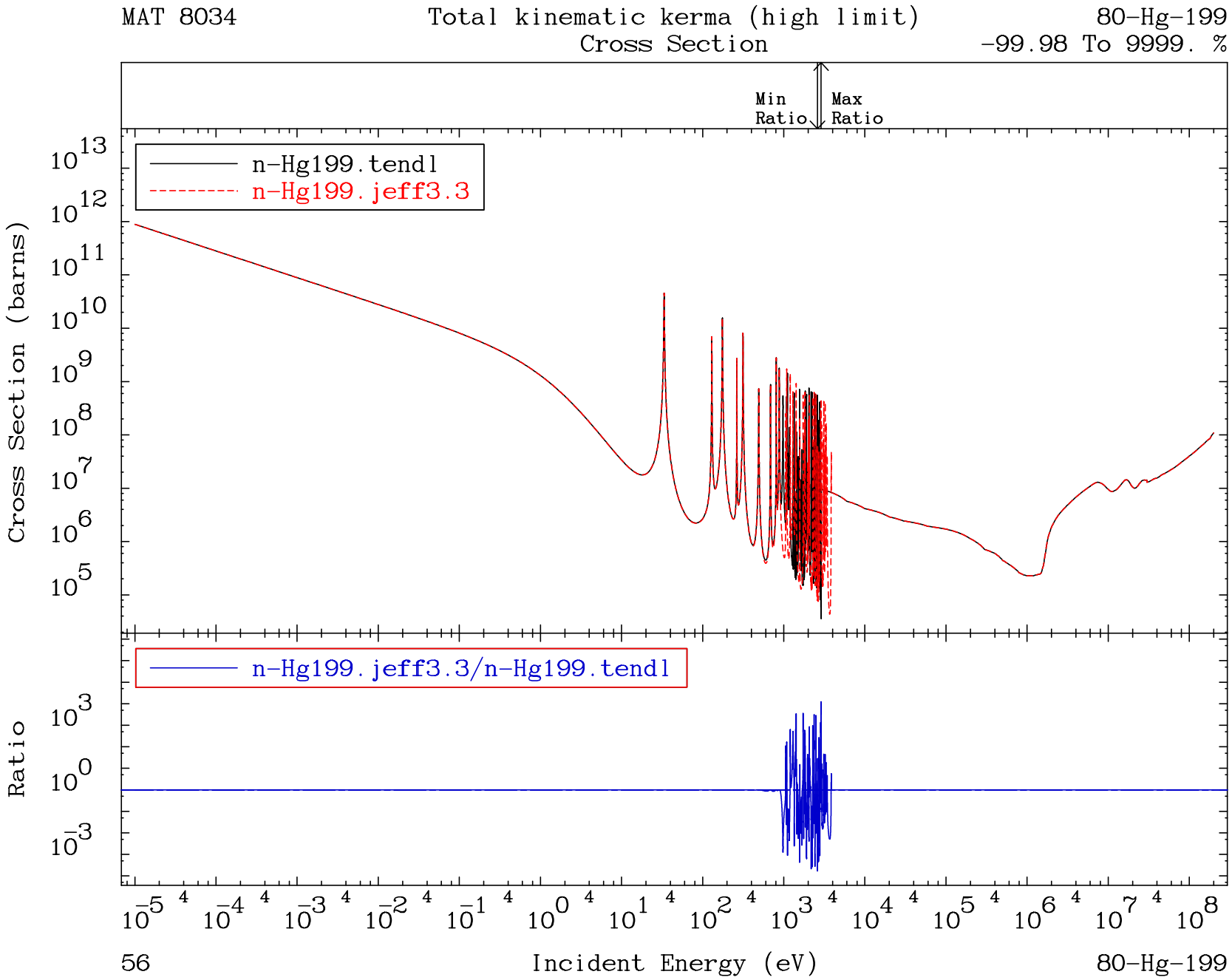

MAT 8034
Kerma non-elastic (all but mt2)
Cross Section
80-Hg-199
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
51
80-Hg-199

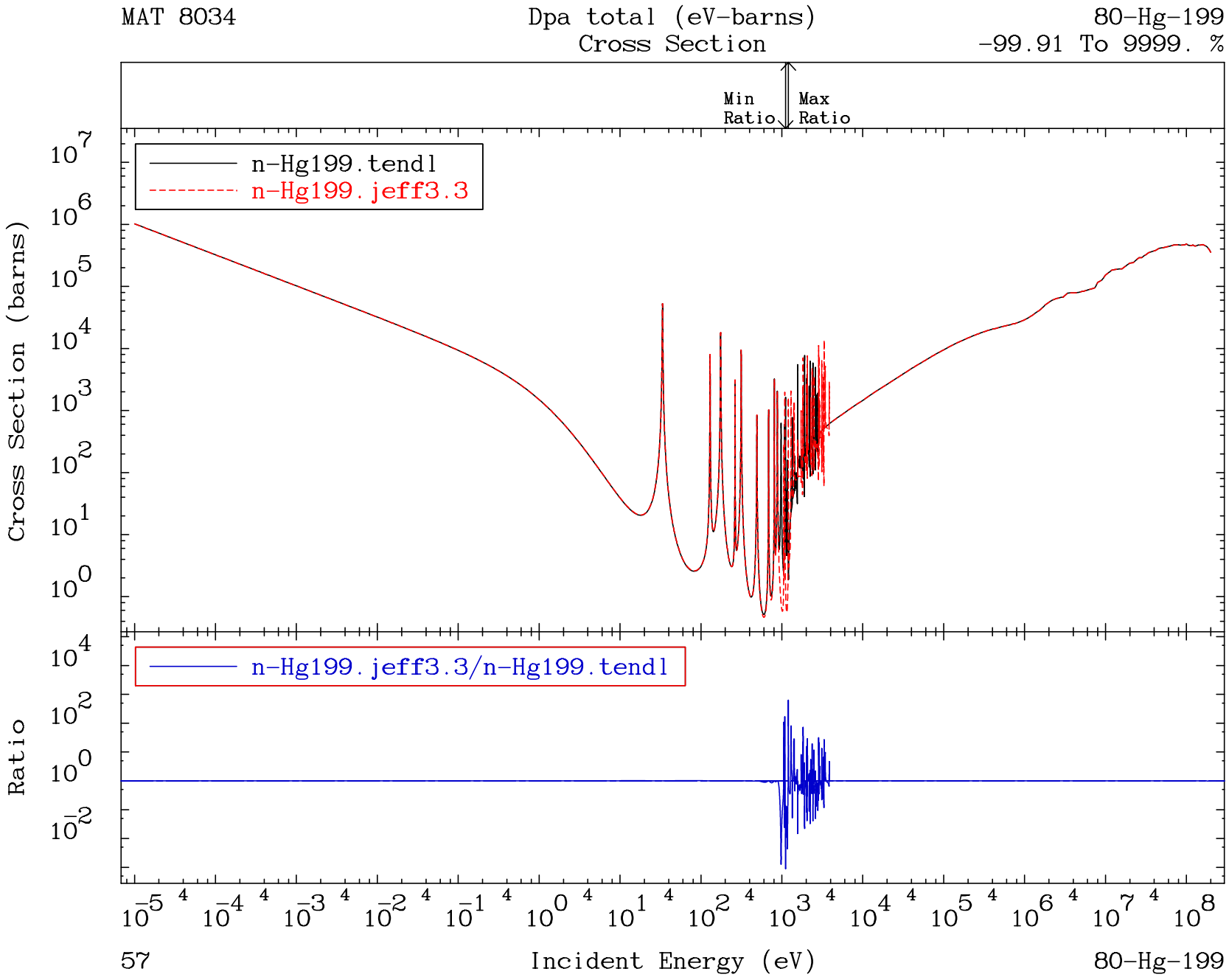

MAT 8034
Kerma inelastic (mt51-91)
Cross Section
80-Hg-199
-0.109 To 0.028 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 159.18 keV
n-Hg199.jeff3.3 Threshold 159.18 keV
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
52
80-Hg-199

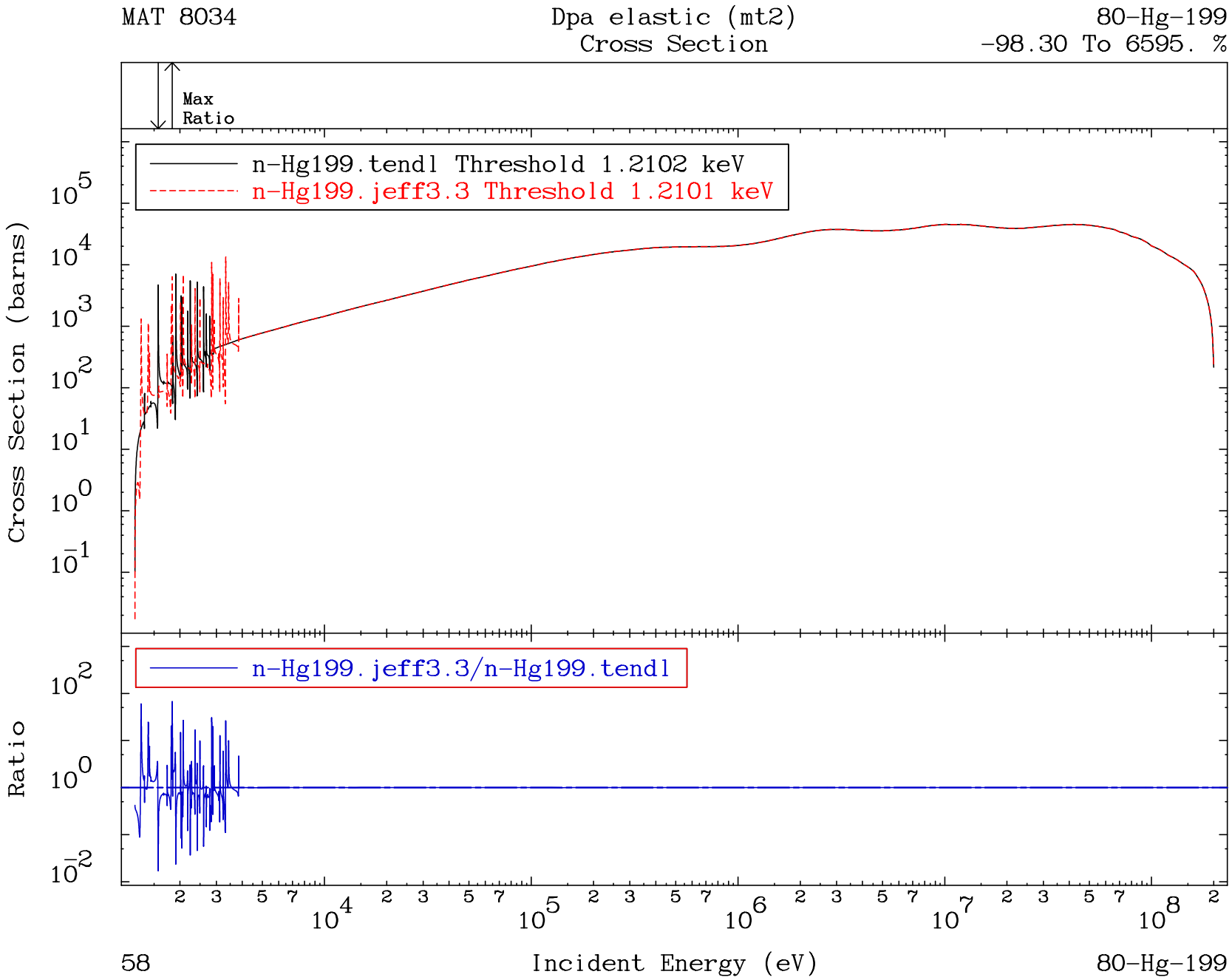

MAT 8034
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
80-Hg-199
-0.109 To 0.028 %
Max Ratio
Min Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
53
Incident Energy (eV)
80-Hg-199

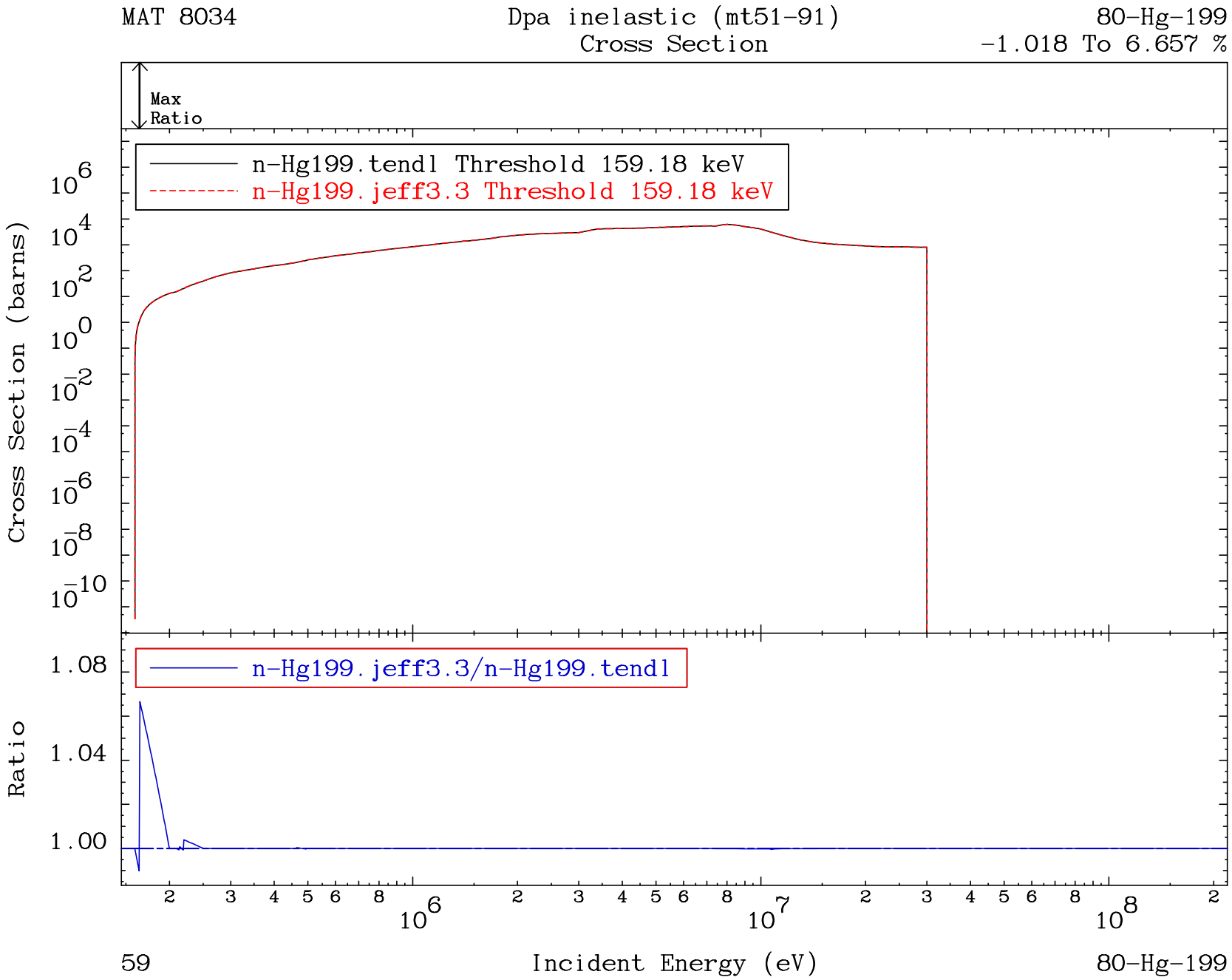

MAT 8034
Kerma capture (mt102)
Cross Section
80-Hg-199
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
54
80-Hg-199

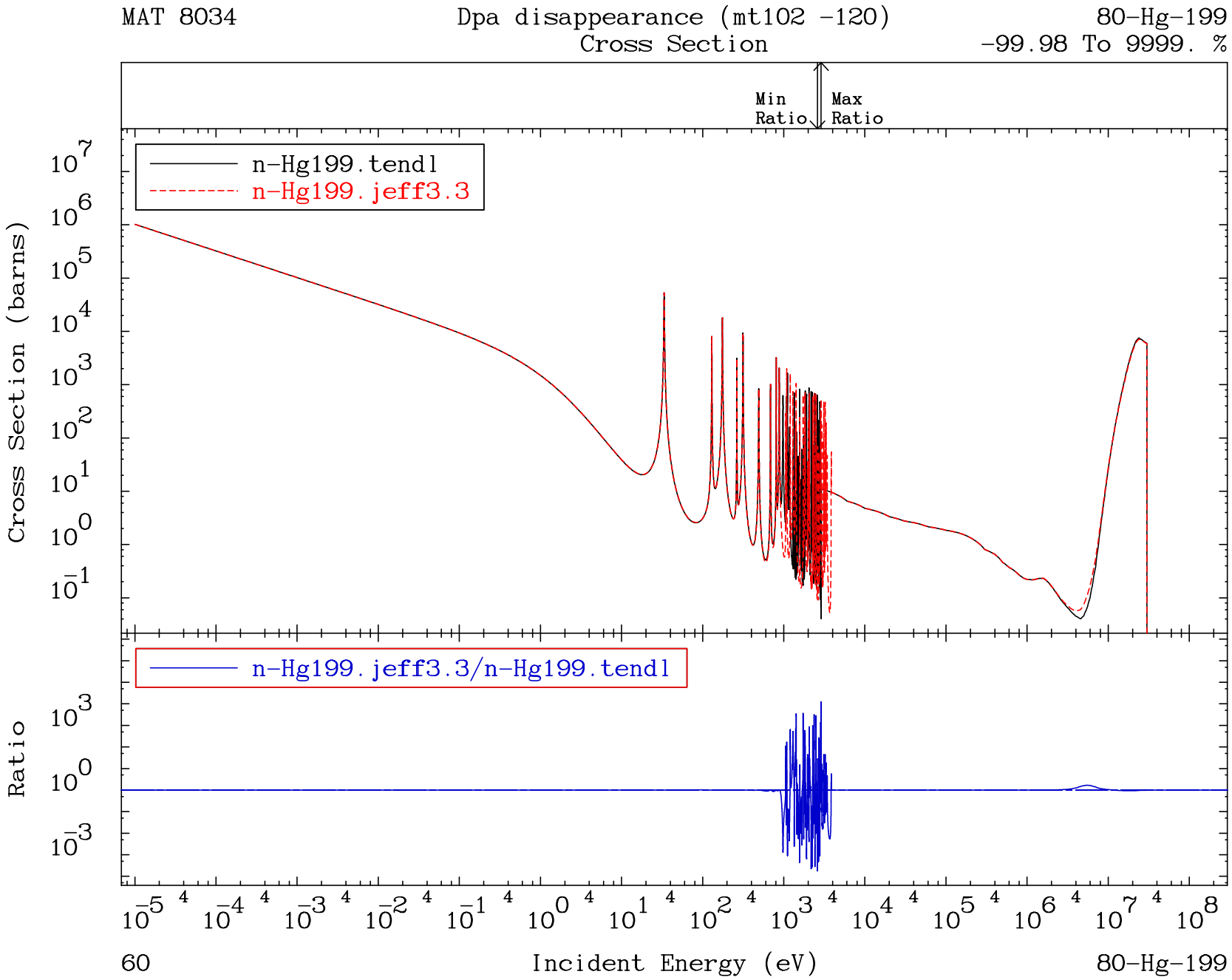

MAT 8034
Total photon (eV-barns)
Cross Section
80-Hg-199
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
55
80-Hg-199

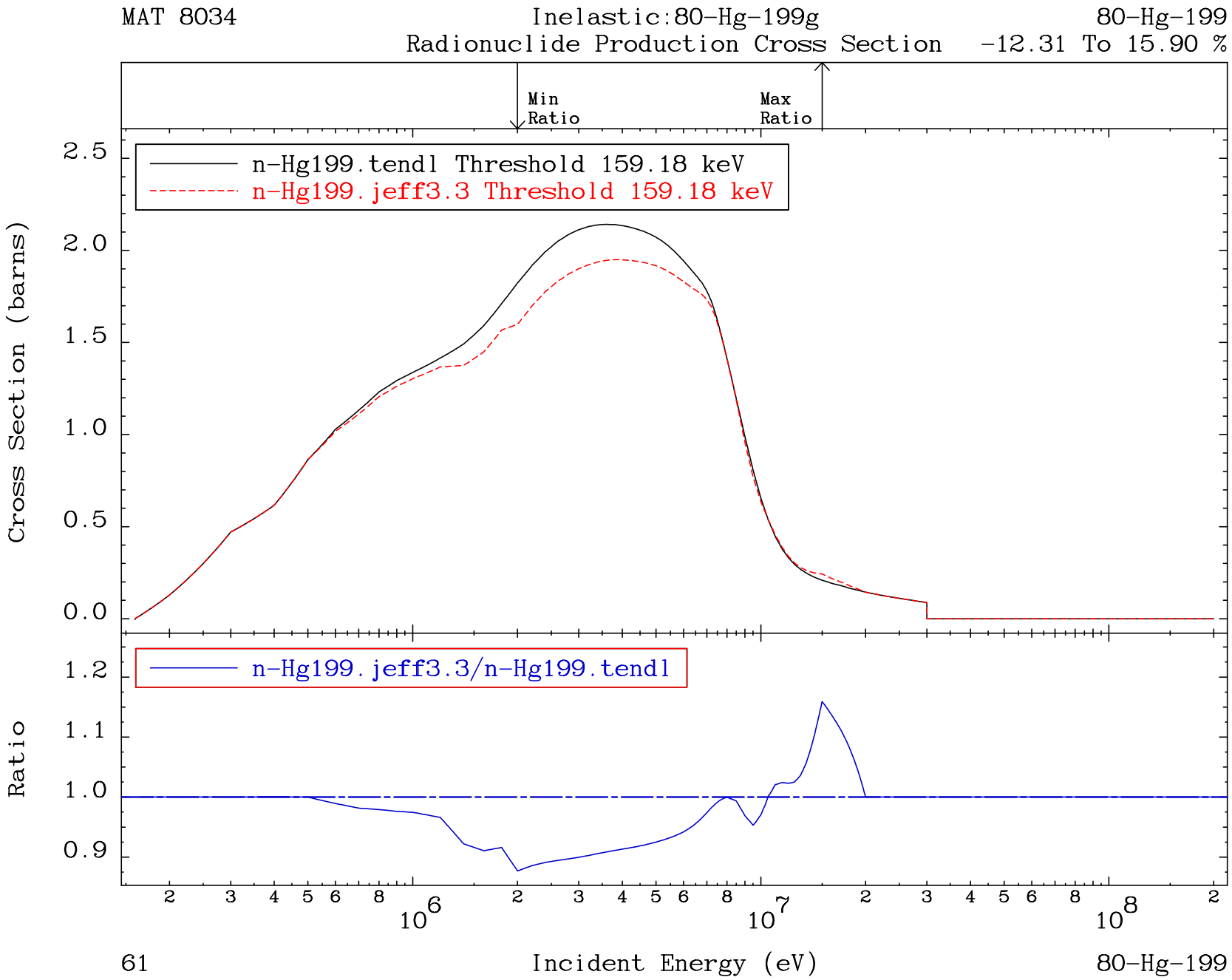

MAT 8034
Total kinematic kerma (high limit)
Cross Section
80-Hg-199
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
56
80-Hg-199

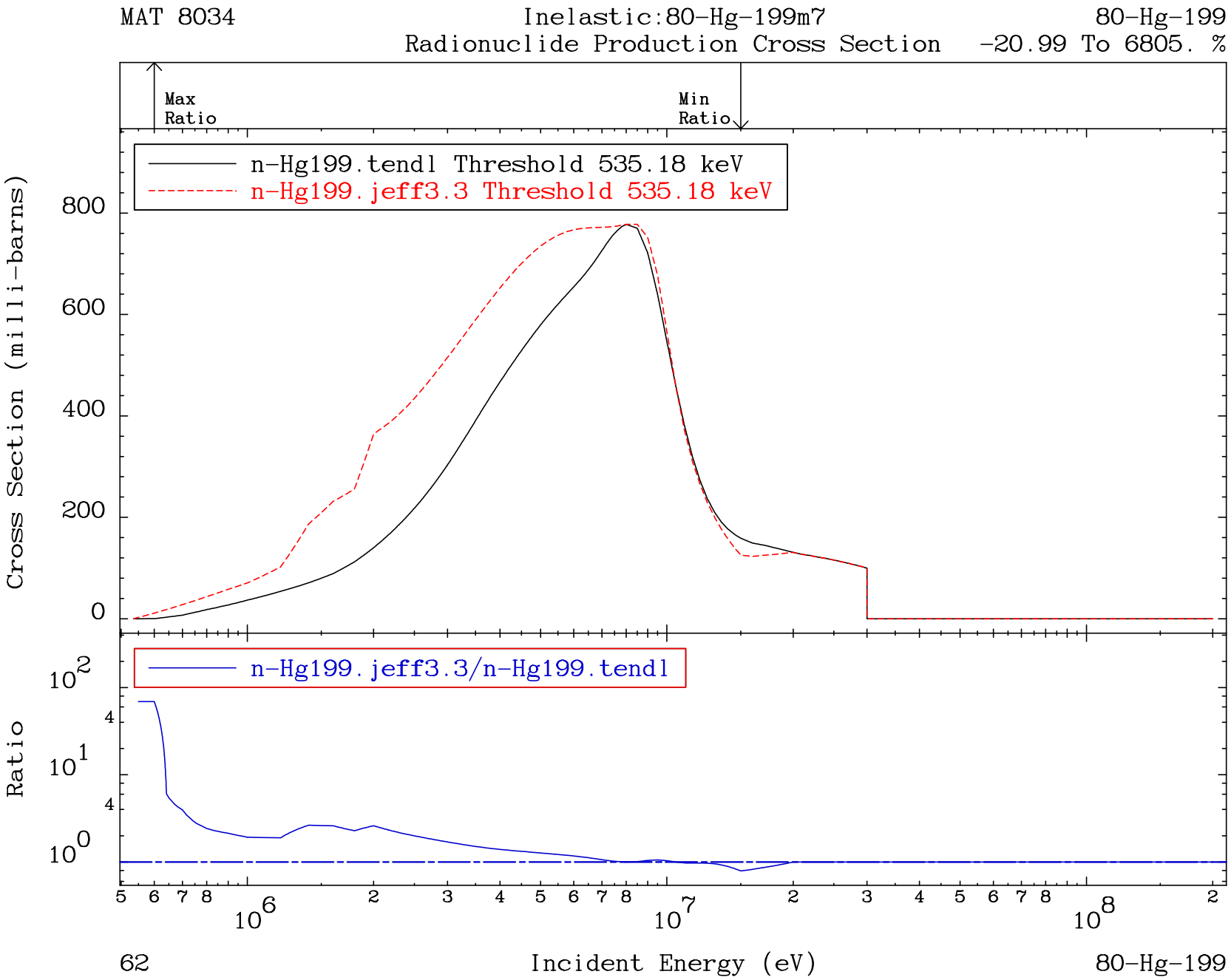

MAT 8034
Dpa total (eV-barns)
Cross Section
80-Hg-199
-99.91 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
57
Incident Energy (eV)
80-Hg-199

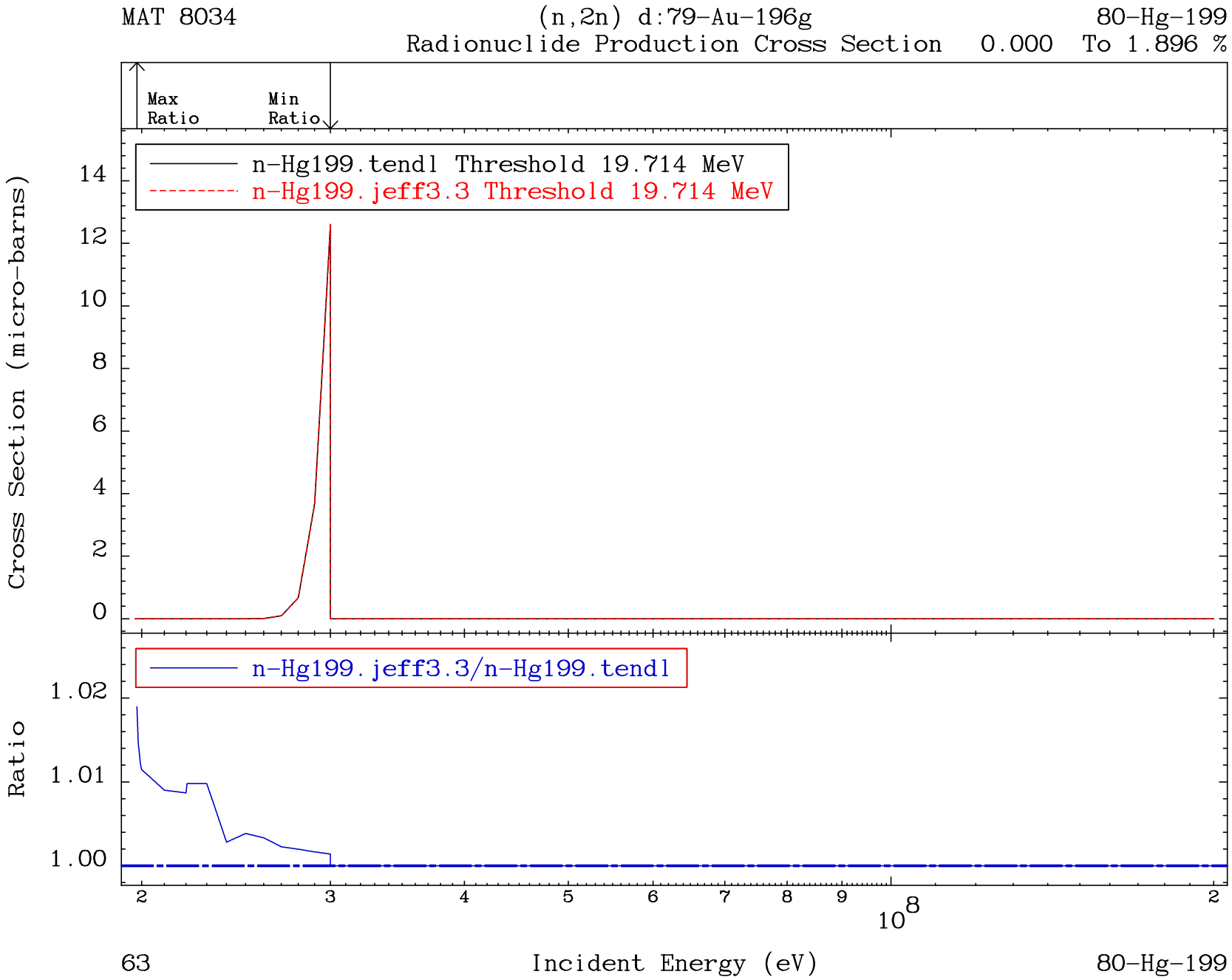

MAT 8034
Dpa elastic (mt2)
Cross Section
80-Hg-199
-98.30 To 6595. %
Max
Ratio
n-Hg199.tendl Threshold 1.2102 keV
n-Hg199.jeff3.3 Threshold 1.2101 keV
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
58
80-Hg-199

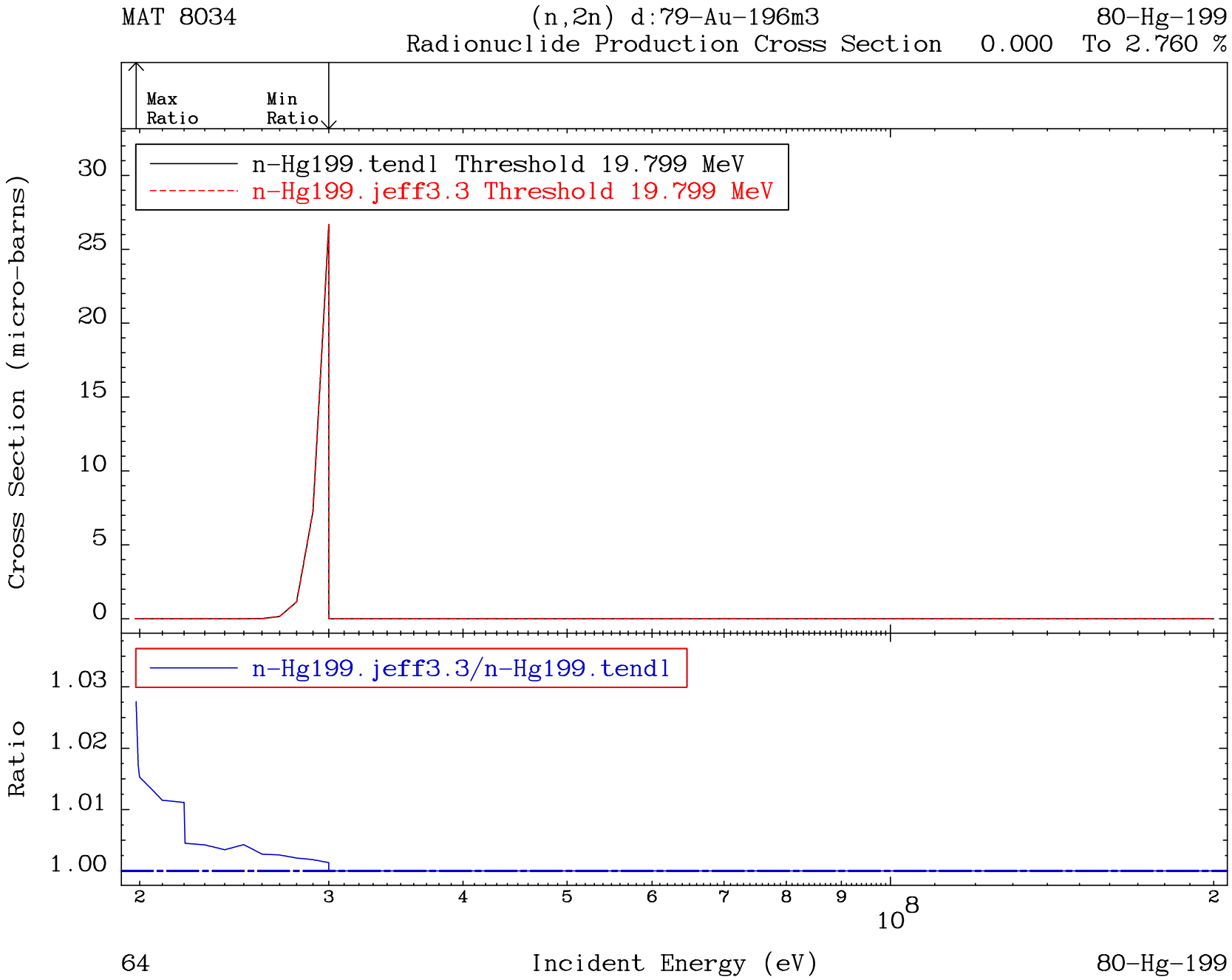

MAT 8034
Dpa inelastic (mt51-91)
Cross Section
80-Hg-199
-1.018 To 6.657 %
Max
Ratio
n-Hg199.tendl Threshold 159.18 keV
n-Hg199.jeff3.3 Threshold 159.18 keV
Cross Section (barns)
10^6
10^4
10^2
10^0
10^-2
10^-4
10^-6
10^-8
10^-10
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.08
1.04
1.00
2 3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
59
Incident Energy (eV)
80-Hg-199

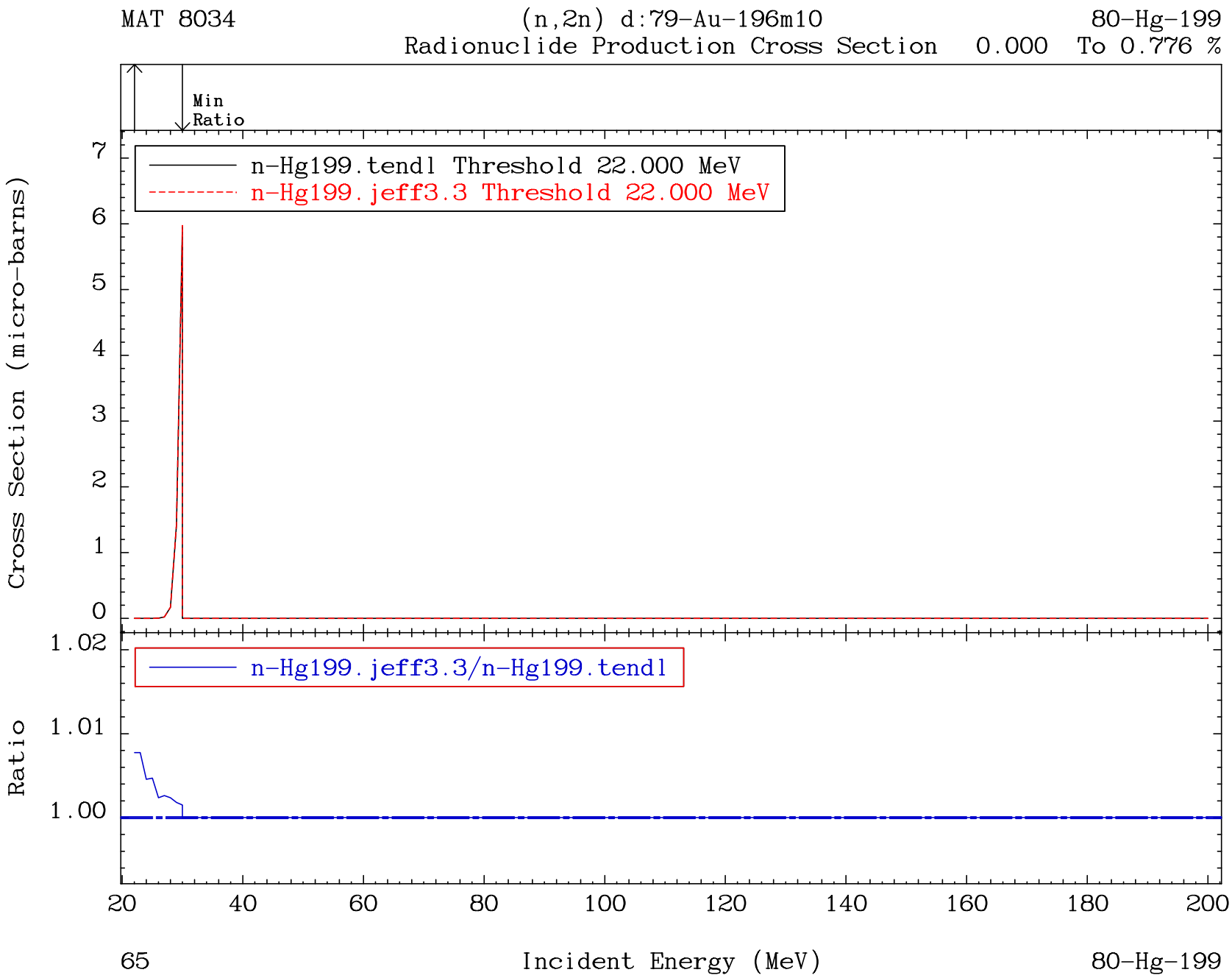

MAT 8034
Dpa disappearance (mt102 -120)
Cross Section
80-Hg-199
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
Incident Energy (eV)
60
80-Hg-199

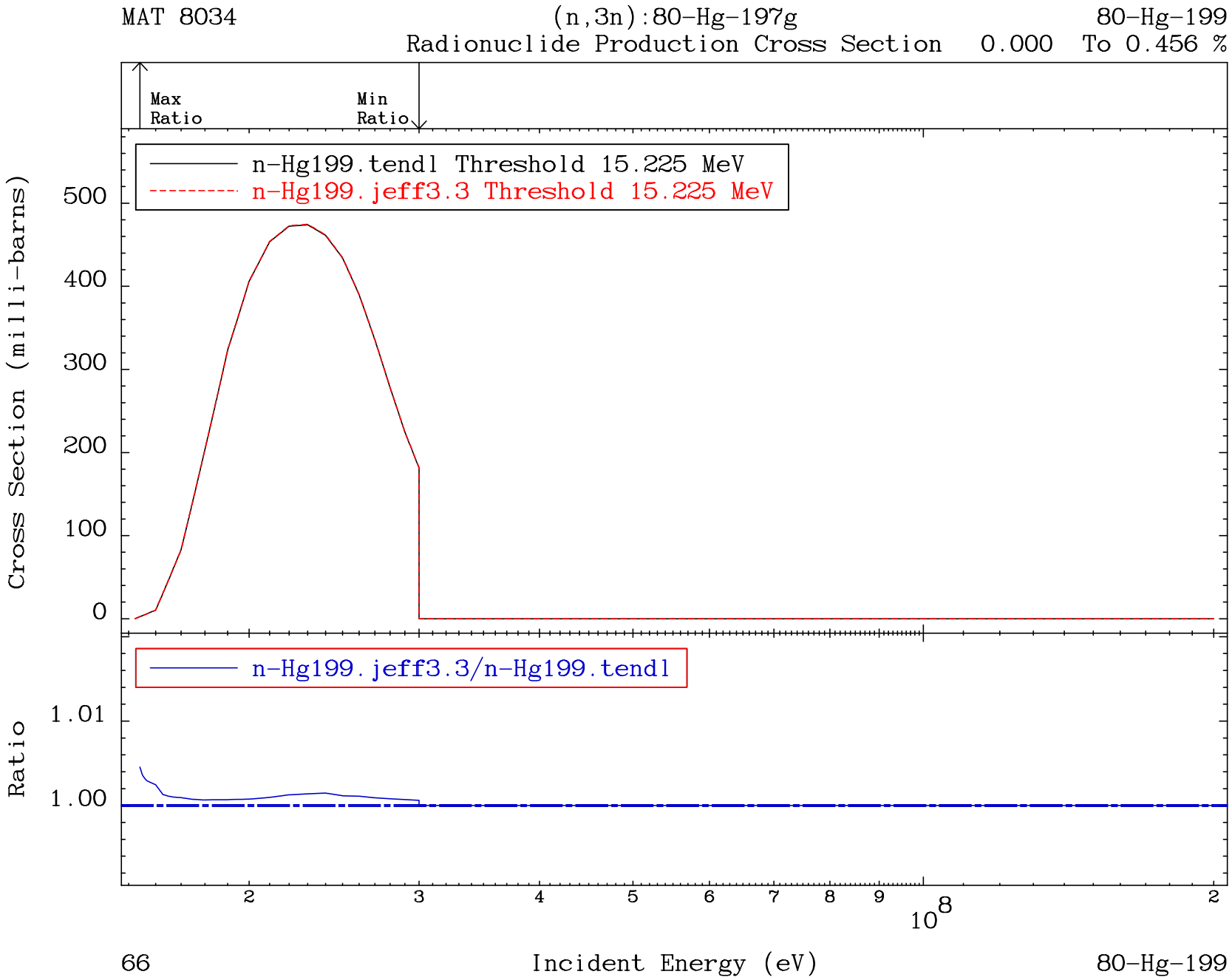

MAT 8034
Inelastic:80-Hg-199g
80-Hg-199
Radionuclide Production Cross Section -12.31 To 15.90 %
Min Ratio
Max Ratio
n-Hg199.tendl Threshold 159.18 keV
n-Hg199.jeff3.3 Threshold 159.18 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.2
1.1
1.0
0.9
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
61
Incident Energy (eV)
80-Hg-199

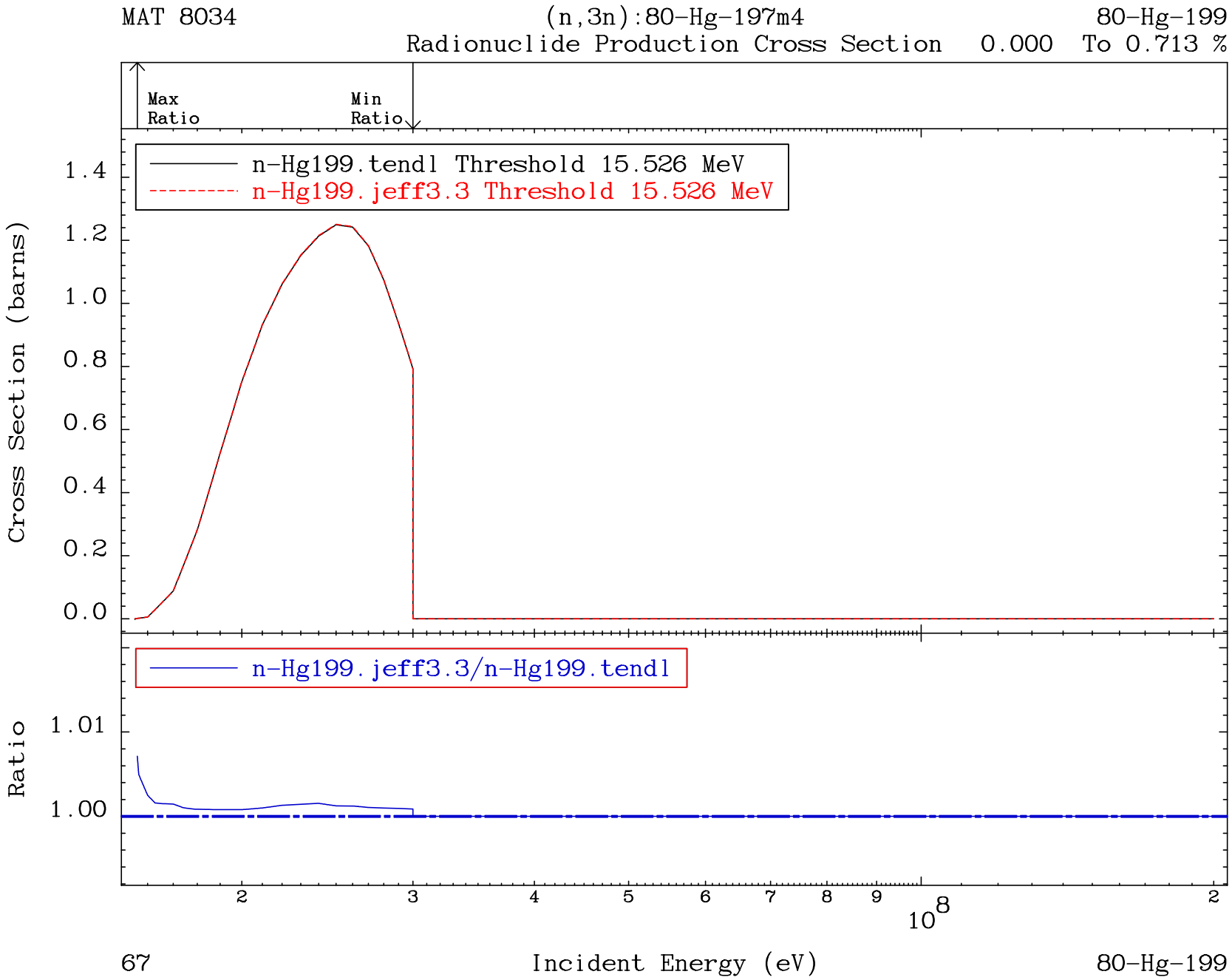

MAT 8034
Inelastic:80-Hg-199m7
80-Hg-199
Radionuclide Production Cross Section -20.99 To 6805. %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 535.18 keV
n-Hg199.jeff3.3 Threshold 535.18 keV
Cross Section (milli-barns)
800
600
400
200
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
10^2
10^1
10^0
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
62
Incident Energy (eV)
80-Hg-199

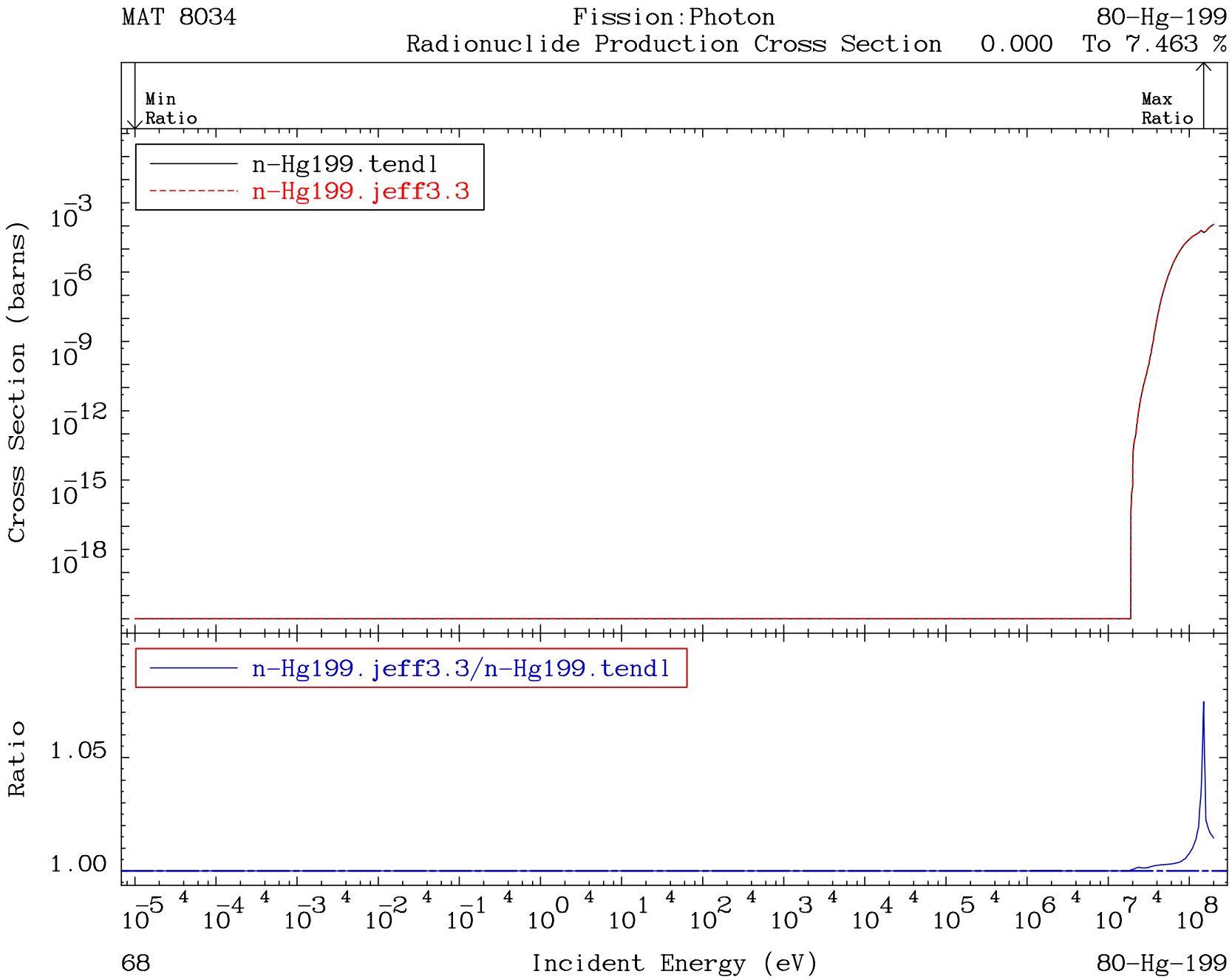

MAT 8034
(n,2n) d:79-Au-196g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.896 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 19.714 MeV
n-Hg199.jeff3.3 Threshold 19.714 MeV
Cross Section (micro-barns)
14
12
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
80-Hg-199

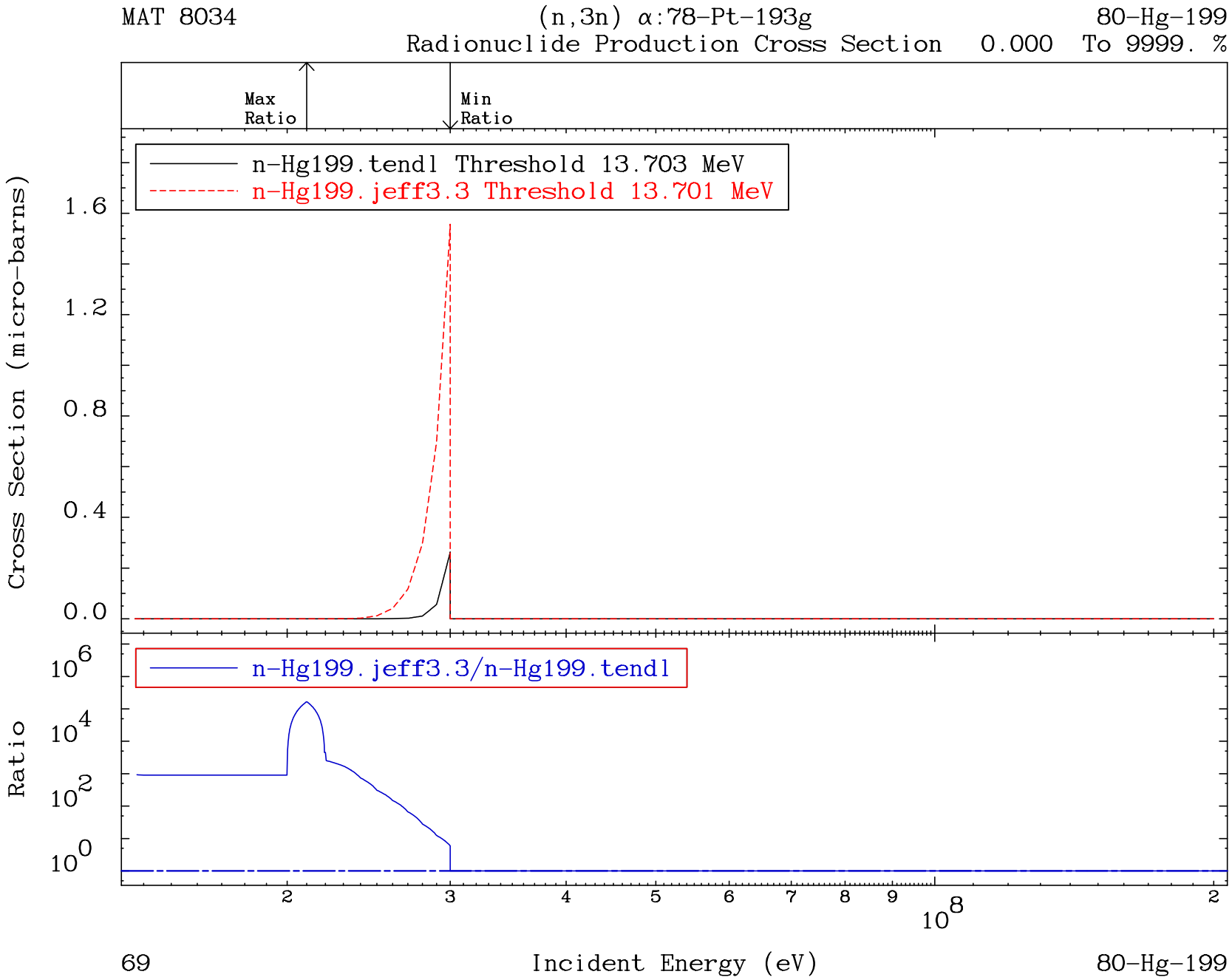

MAT 8034
(n,2n) d:79-Au-196m3
80-Hg-199
Radionuclide Production Cross Section 0.000 To 2.760 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 19.799 MeV
n-Hg199.jeff3.3 Threshold 19.799 MeV
Cross Section (micro-barns)
30
25
20
15
10
5
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
80-Hg-199

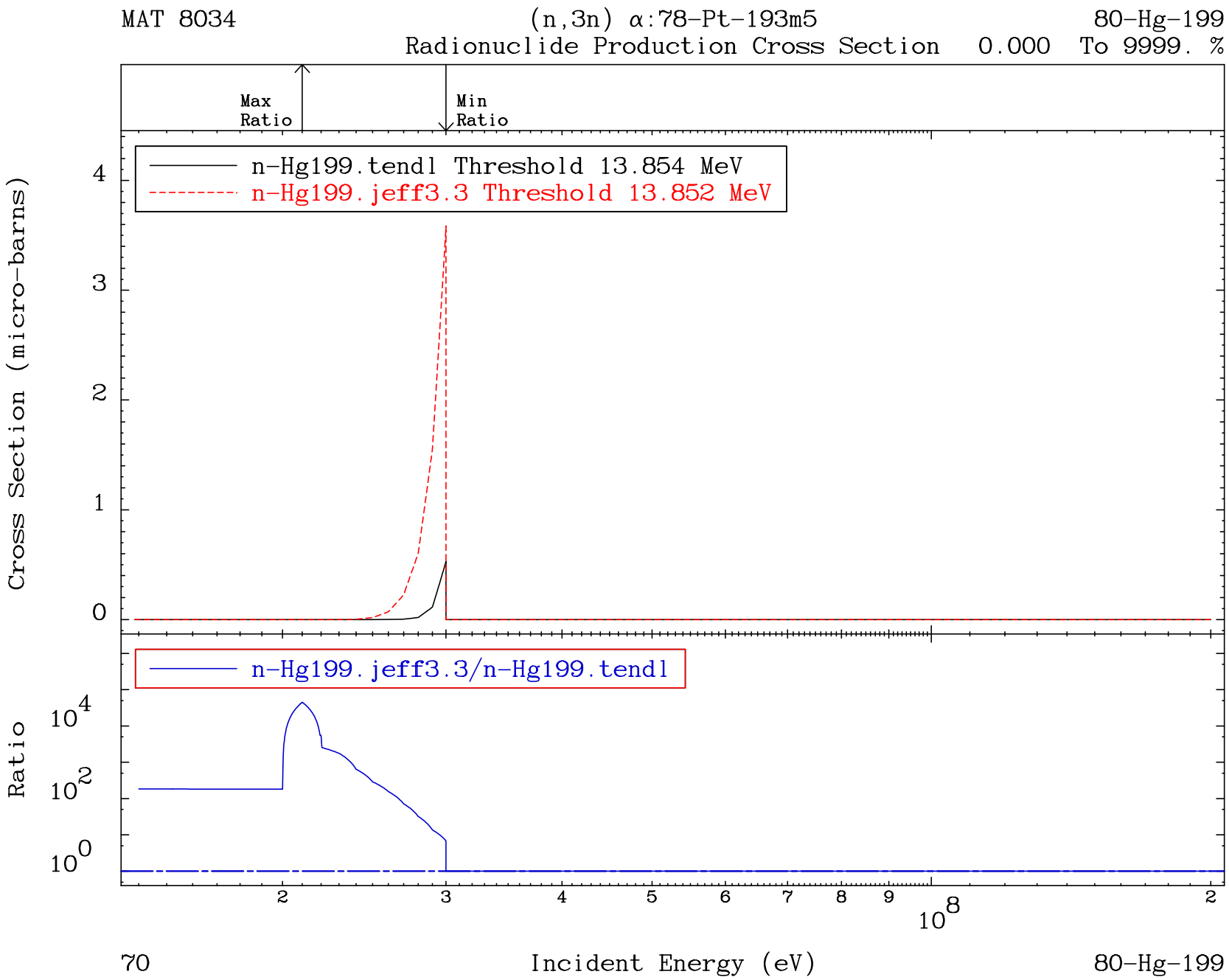

MAT 8034
(n,2n) d:79-Au-196m10
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.776 %
Min
Ratio
n-Hg199.tendl Threshold 22.000 MeV
n-Hg199.jeff3.3 Threshold 22.000 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
7
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
1.02
20
40
60
80
100
120
140
160
180
200
65
Incident Energy (MeV)
80-Hg-199

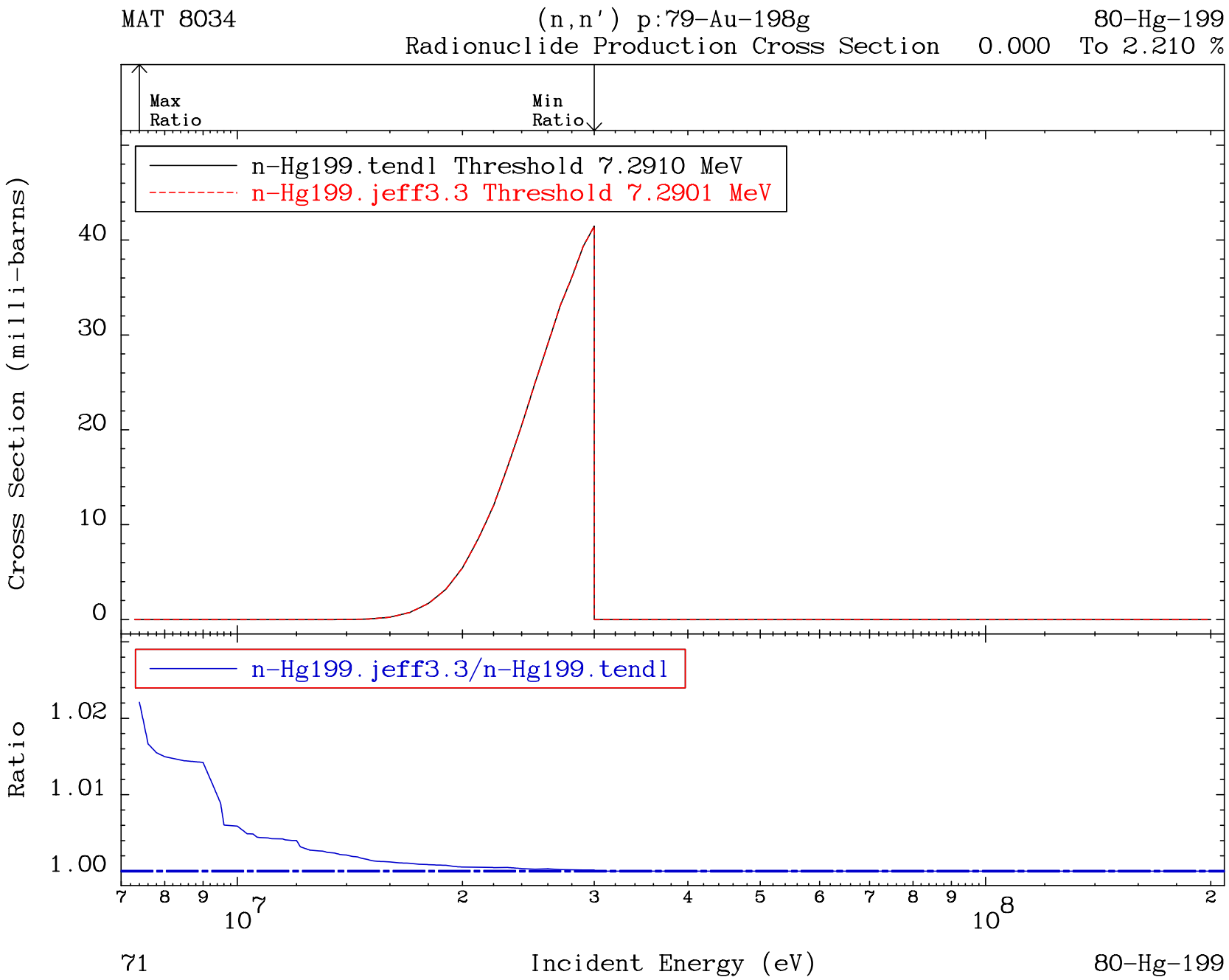

MAT 8034
(n,3n):80-Hg-197g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.456 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 15.225 MeV
n-Hg199.jeff3.3 Threshold 15.225 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
66
Incident Energy (eV)
80-Hg-199

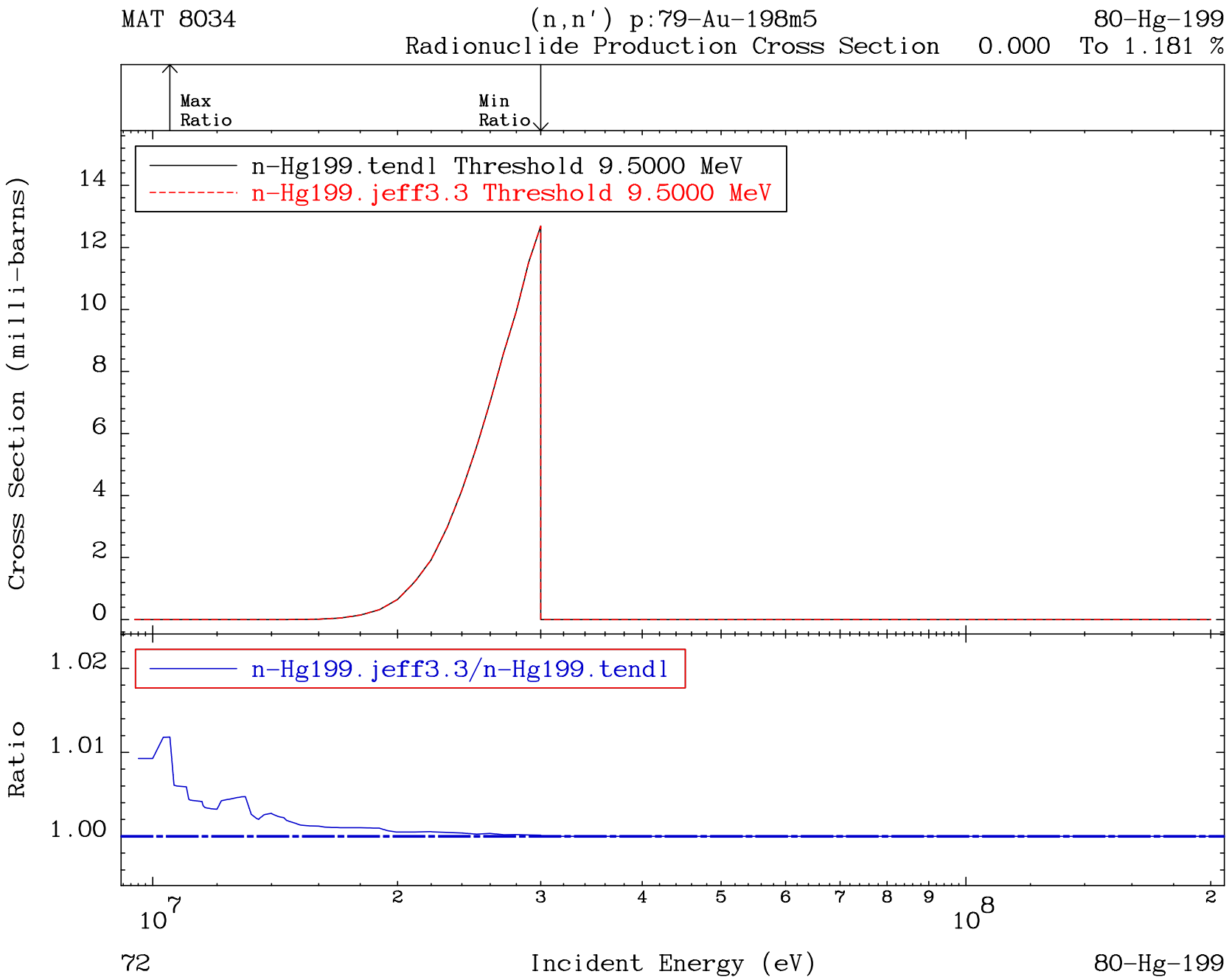

MAT 8034
(n,3n):80-Hg-197m4
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.713 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 15.526 MeV
n-Hg199.jeff3.3 Threshold 15.526 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
67
Incident Energy (eV)
80-Hg-199

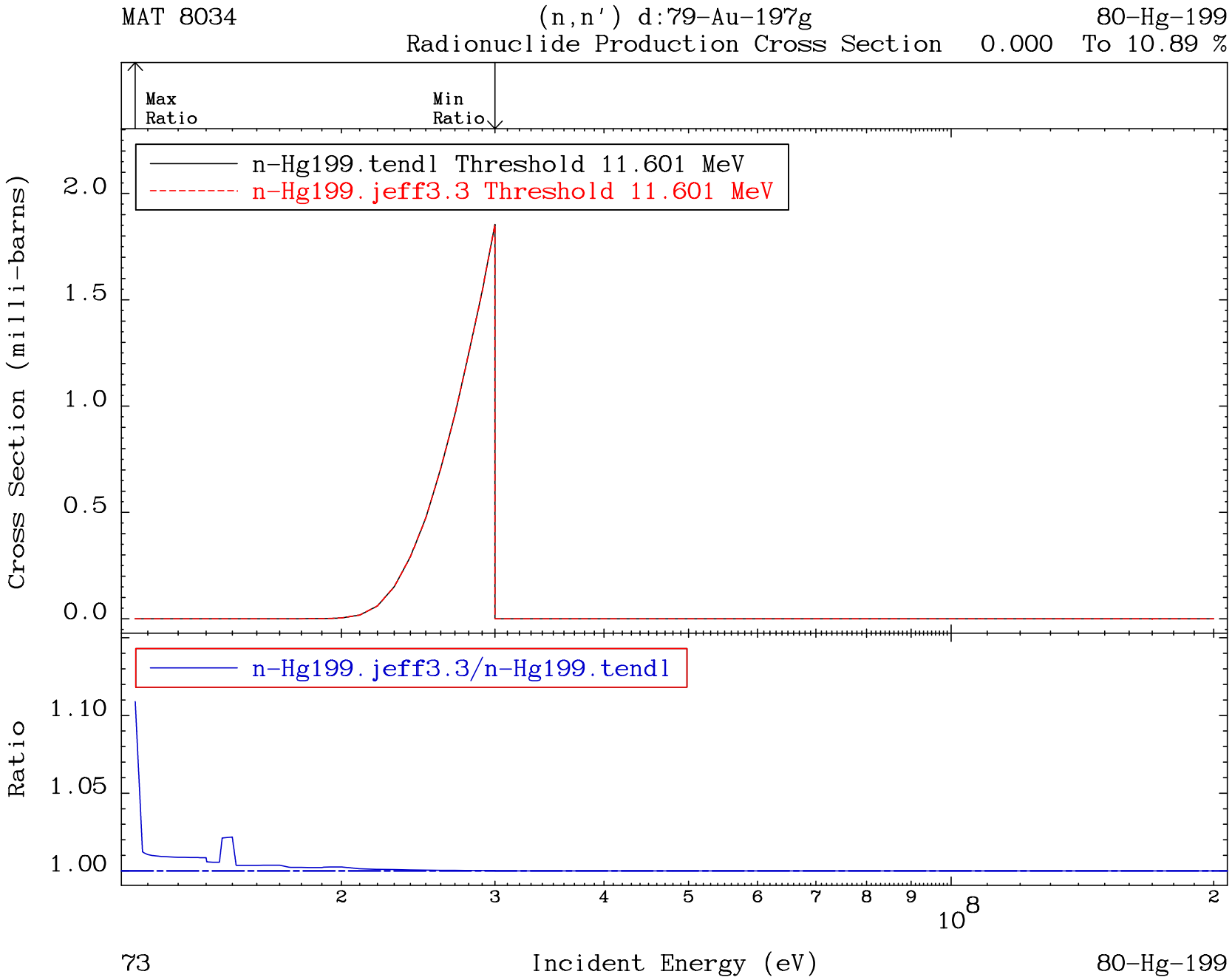

MAT 8034
Fission:Photon
80-Hg-199
Radionuclide Production Cross Section 0.000 To 7.463 %
Min Ratio
Max Ratio
n-Hg199.tendl
n-Hg199.jeff3.3
Cross Section (barns)
10-3
10-6
10-9
10-12
10-15
10-18
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.05
1.00
10-5 10-4 10-3 10-2 10-1 100 101 102 103 104 105 106 107 108
68
Incident Energy (eV)
80-Hg-199

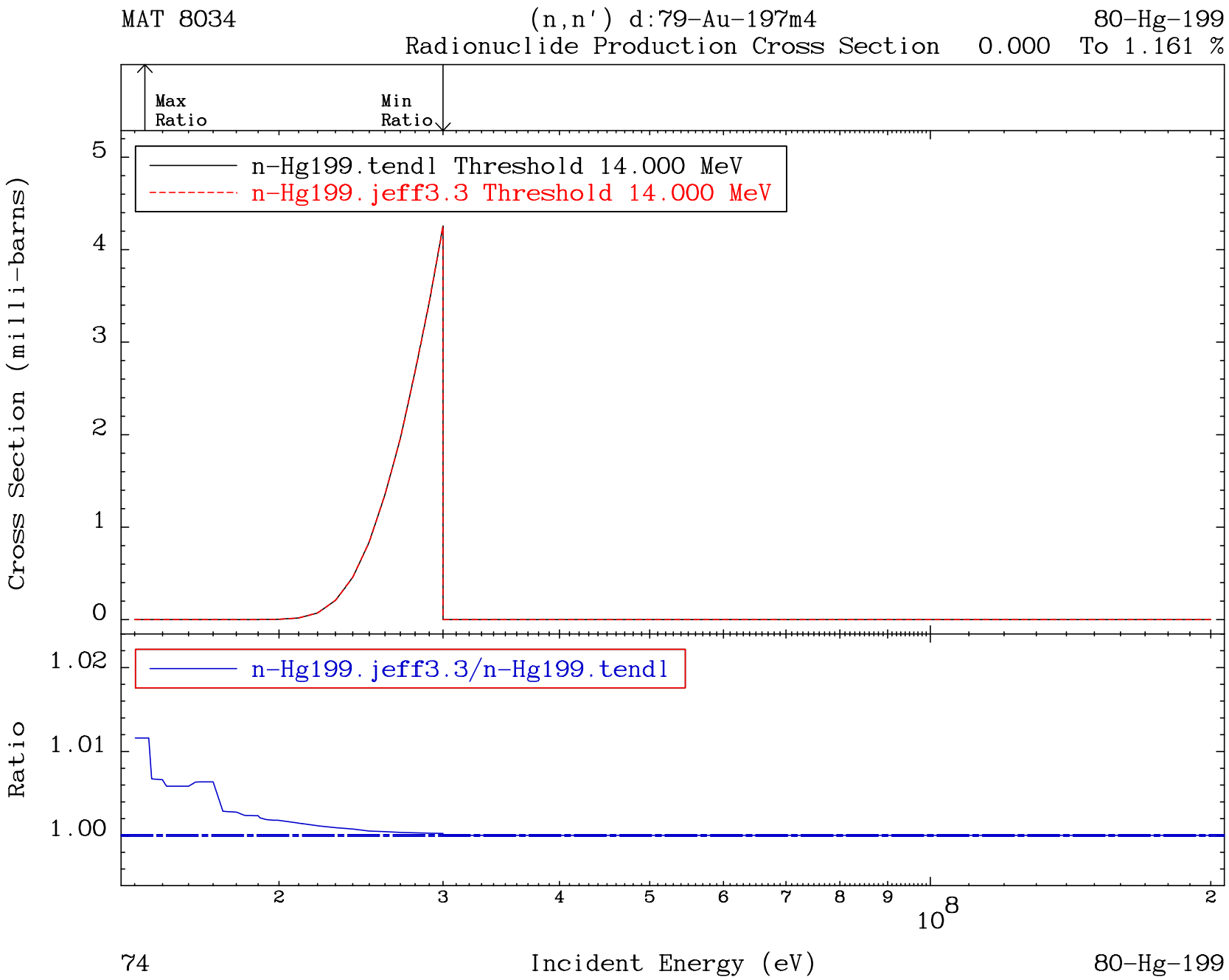

MAT 8034
(n,3n) α:78-Pt-193g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.703 MeV
n-Hg199.jeff3.3 Threshold 13.701 MeV
Cross Section (micro-barns)
1.6
1.2
0.8
0.4
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
10^6
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
69
Incident Energy (eV)
80-Hg-199

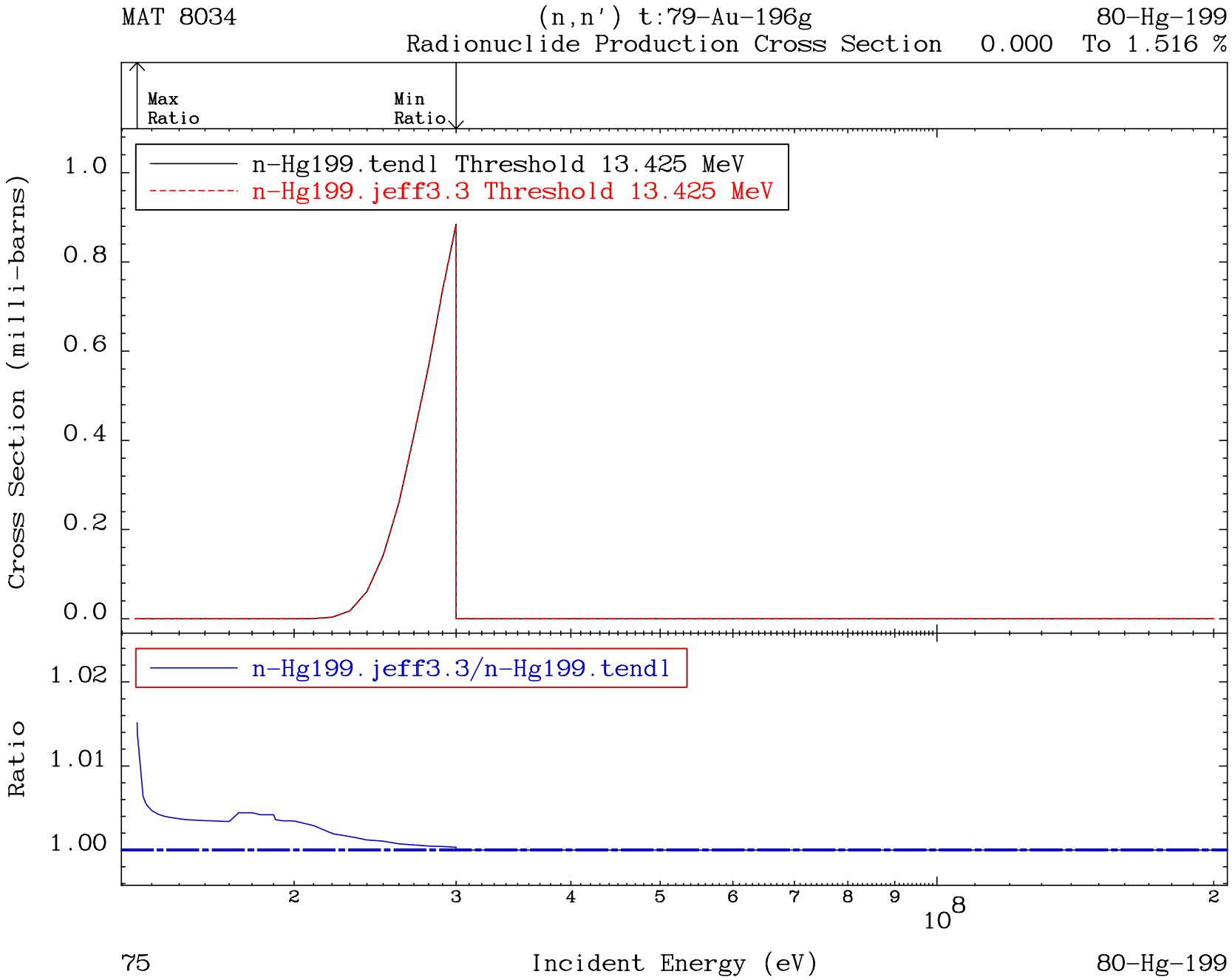

MAT 8034
(n,3n) α:78-Pt-193m5
80-Hg-199
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.854 MeV
n-Hg199.jeff3.3 Threshold 13.852 MeV
Cross Section (micro-barns)
0
1
2
3
4
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
10^0
10^2
10^4
2
3
4
5
6
7
8
9
10^8
2
70
Incident Energy (eV)
80-Hg-199

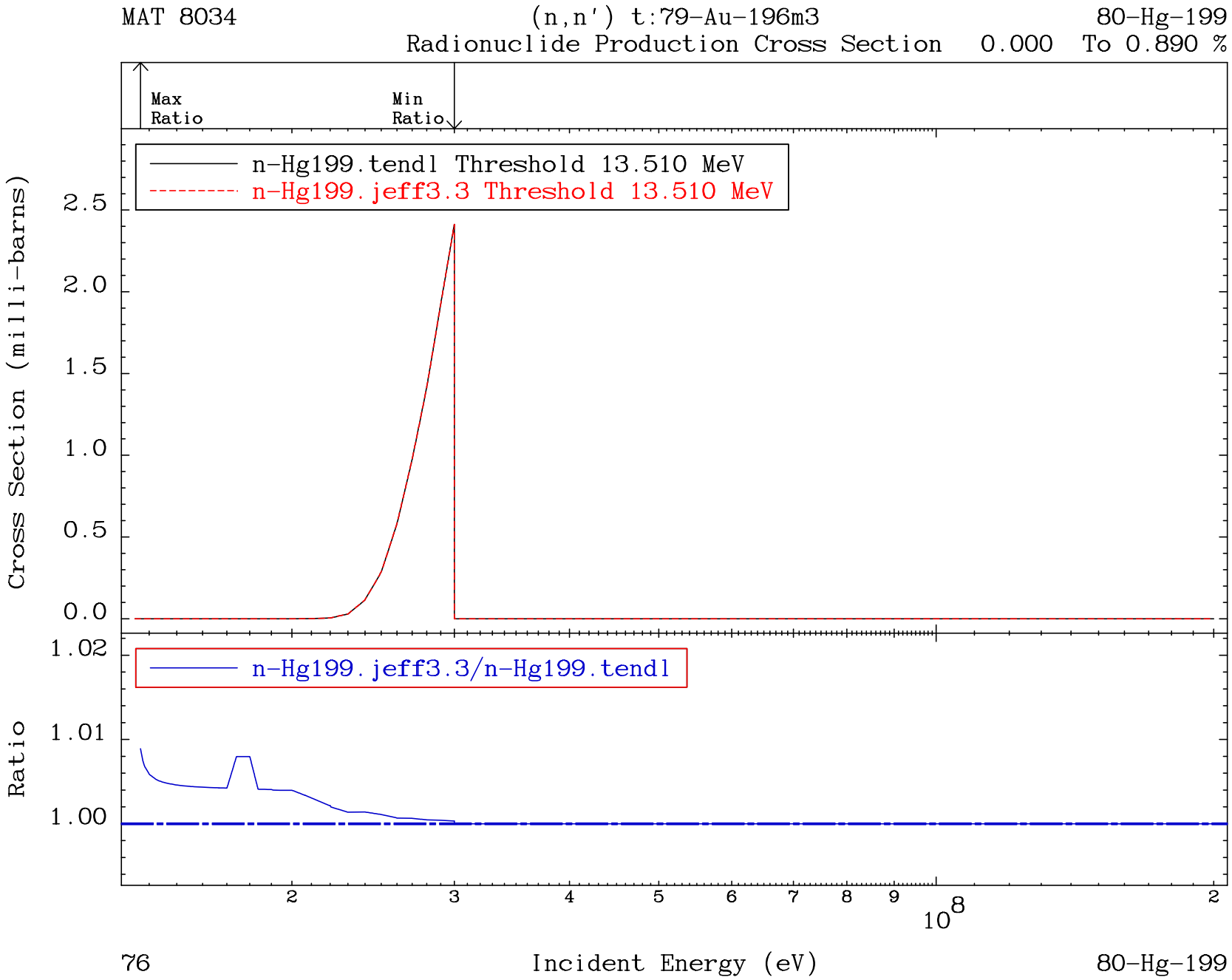

MAT 8034
(n,n') p:79-Au-198g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 2.210 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 7.2910 MeV
n-Hg199.jeff3.3 Threshold 7.2901 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
71
Incident Energy (eV)
80-Hg-199

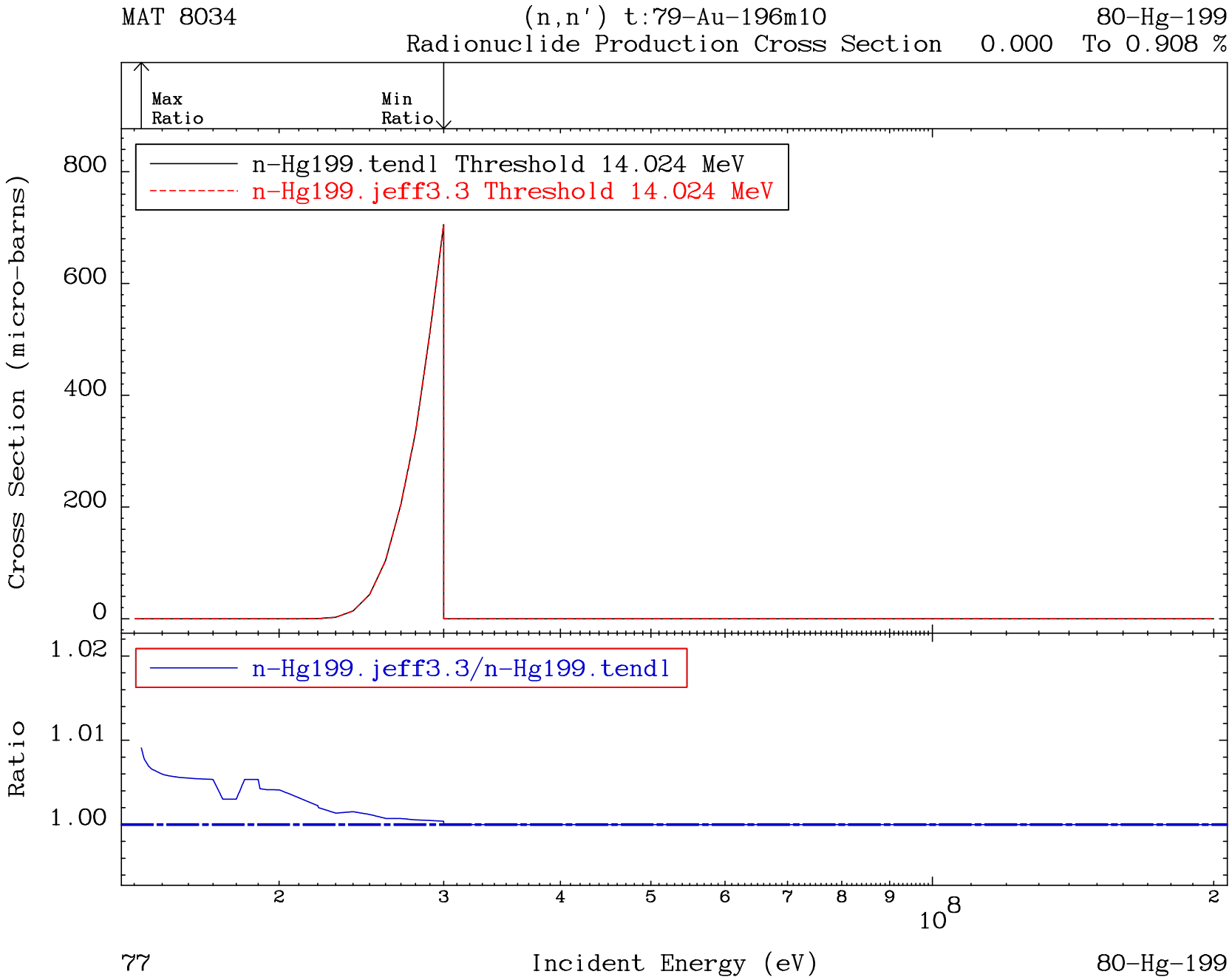

MAT 8034
(n,n') p:79-Au-198m5
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.181 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 9.5000 MeV
n-Hg199.jeff3.3 Threshold 9.5000 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
1.02
10^7
2
3
4
5
6
7
8
9
10^8
2
72
Incident Energy (eV)
80-Hg-199

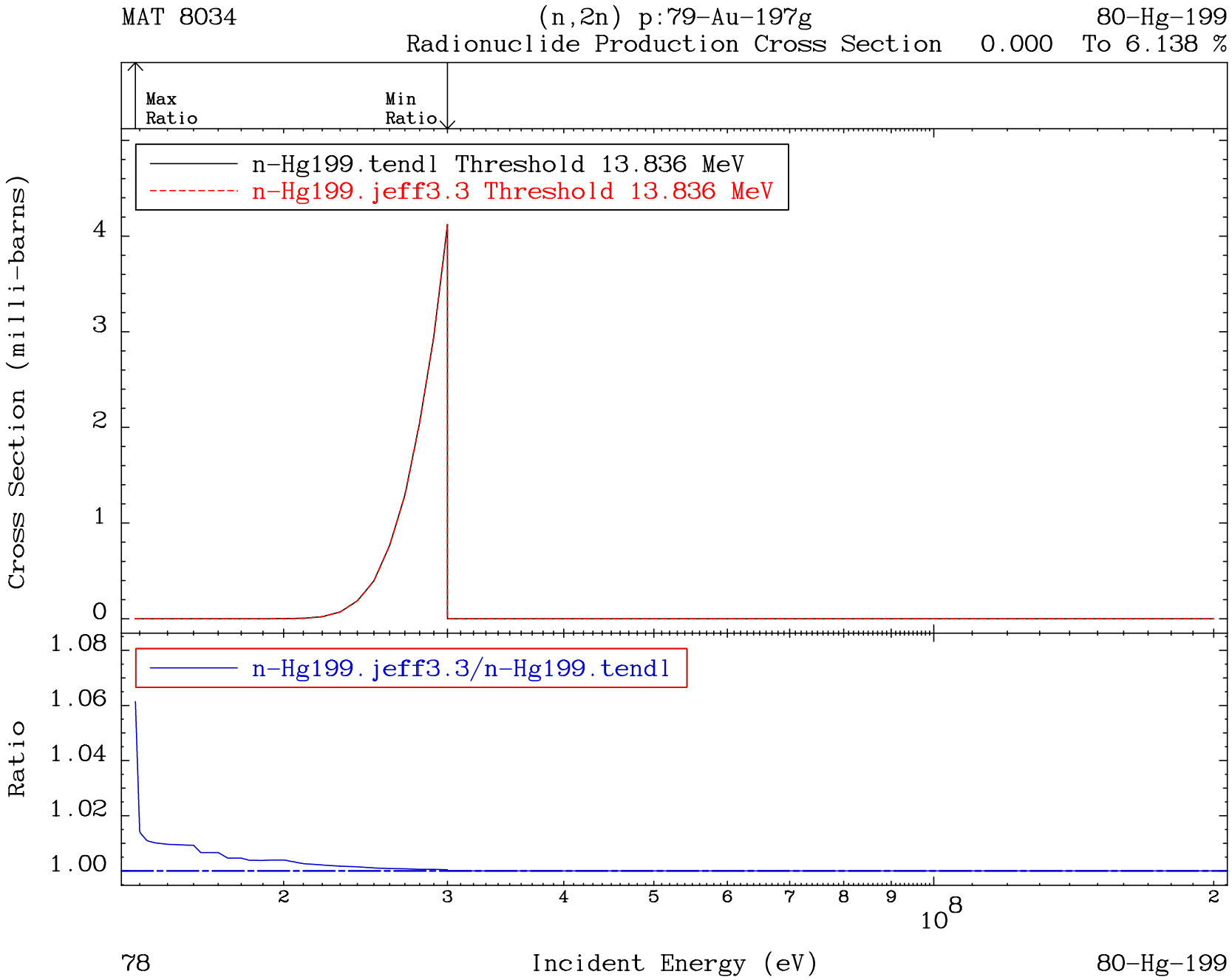

MAT 8034
(n,n') d:79-Au-197g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 10.89 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 11.601 MeV
n-Hg199.jeff3.3 Threshold 11.601 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
9
10^8
2
73
Incident Energy (eV)
80-Hg-199

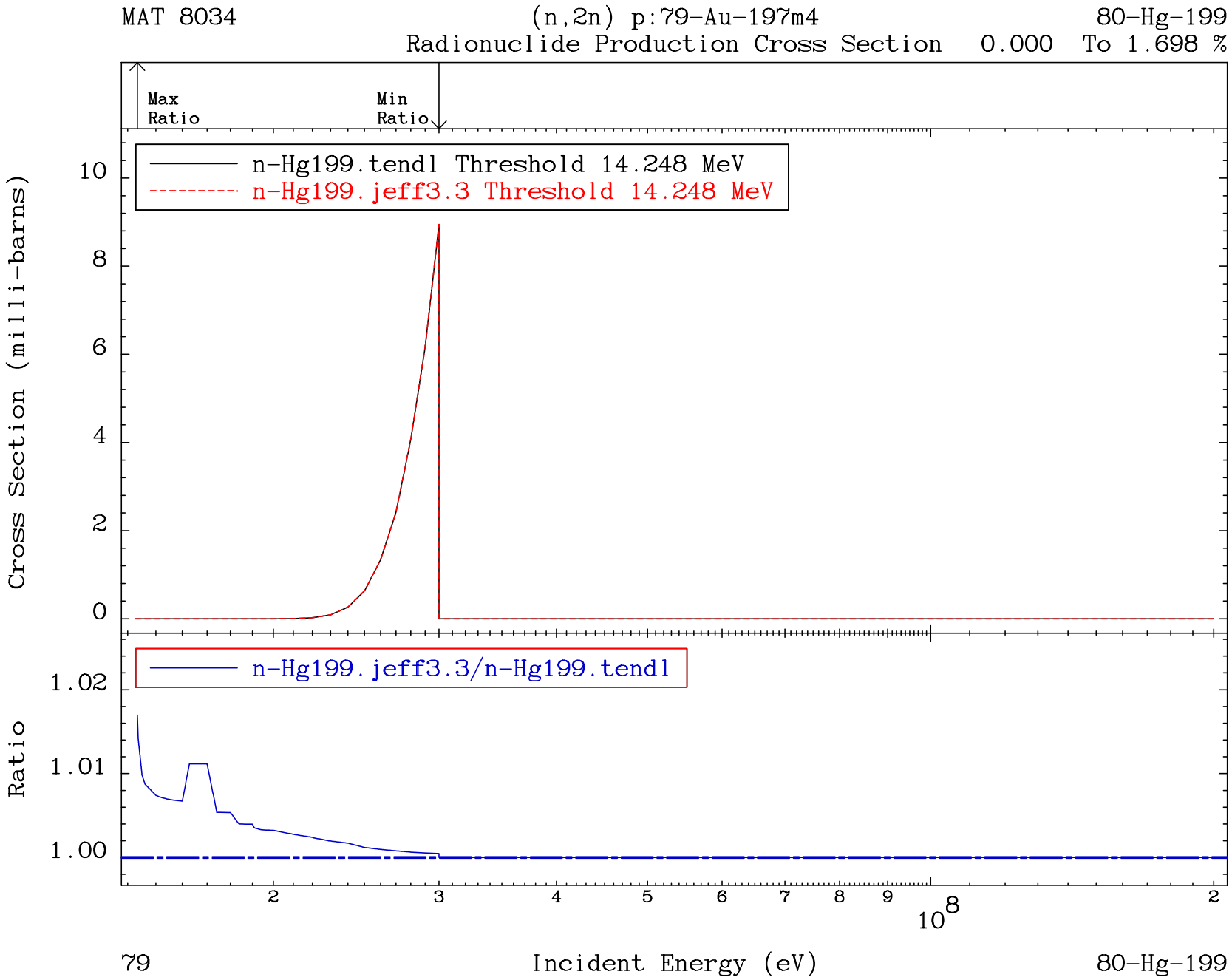

MAT 8034
(n,n') d:79-Au-197m4
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.161 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 14.000 MeV
n-Hg199.jeff3.3 Threshold 14.000 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
1.02
2
3
4
5
6
7
8
9
2
10^8
74
Incident Energy (eV)
80-Hg-199

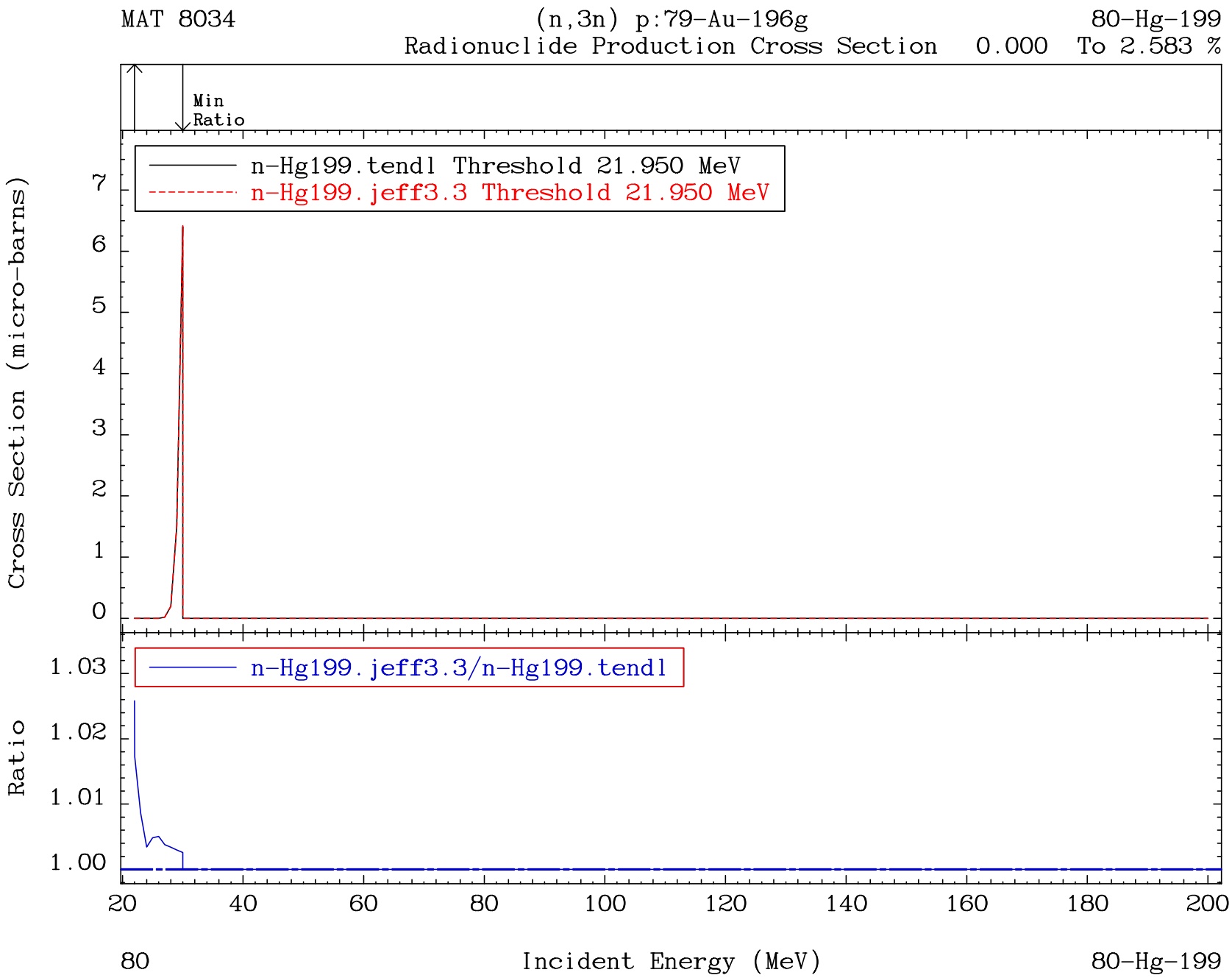

MAT 8034
(n,n') t:79-Au-196g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.516 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.425 MeV
n-Hg199.jeff3.3 Threshold 13.425 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
75
Incident Energy (eV)
80-Hg-199

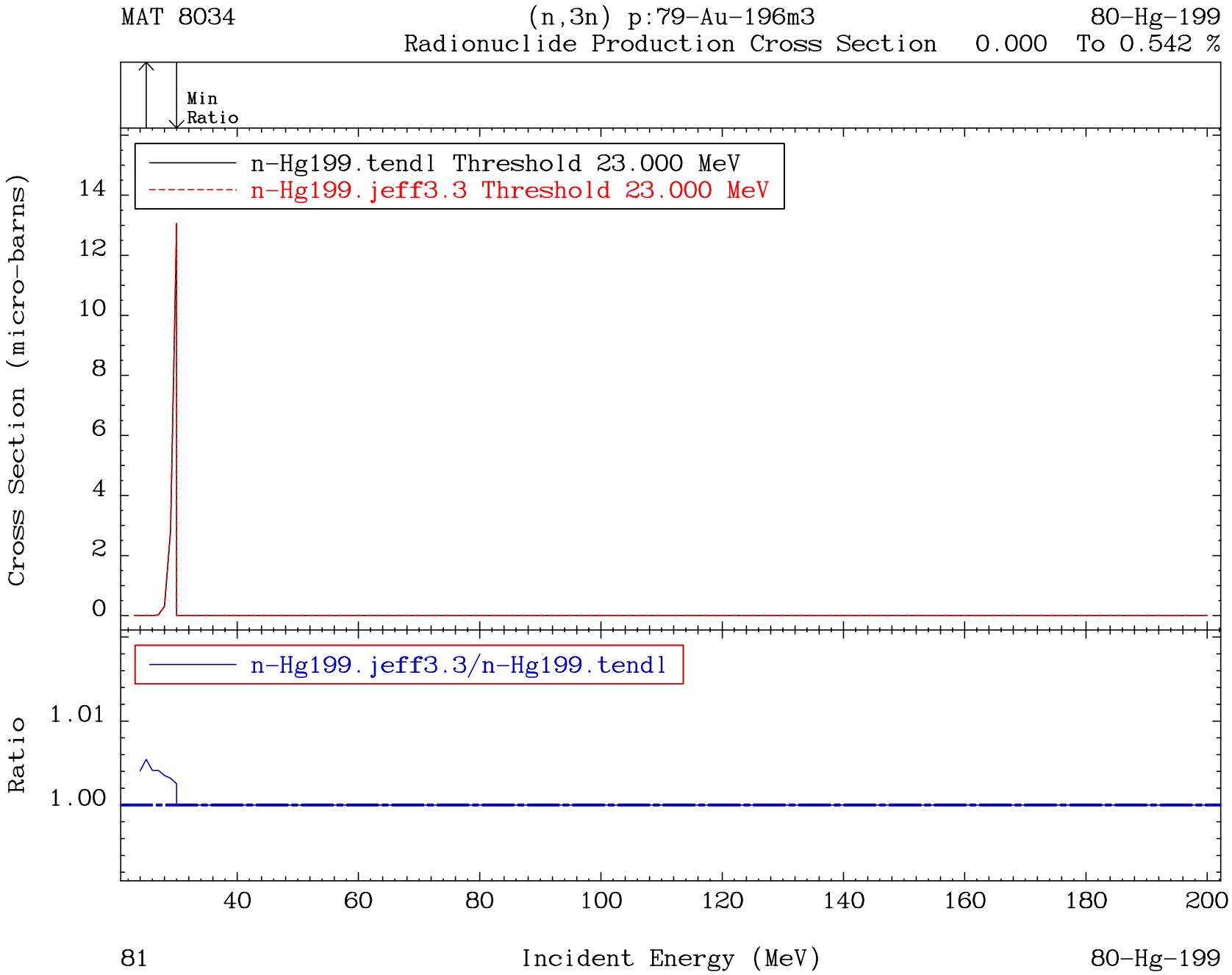

MAT 8034
(n,n') t:79-Au-196m3
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.890 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.510 MeV
n-Hg199.jeff3.3 Threshold 13.510 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
76
Incident Energy (eV)
80-Hg-199

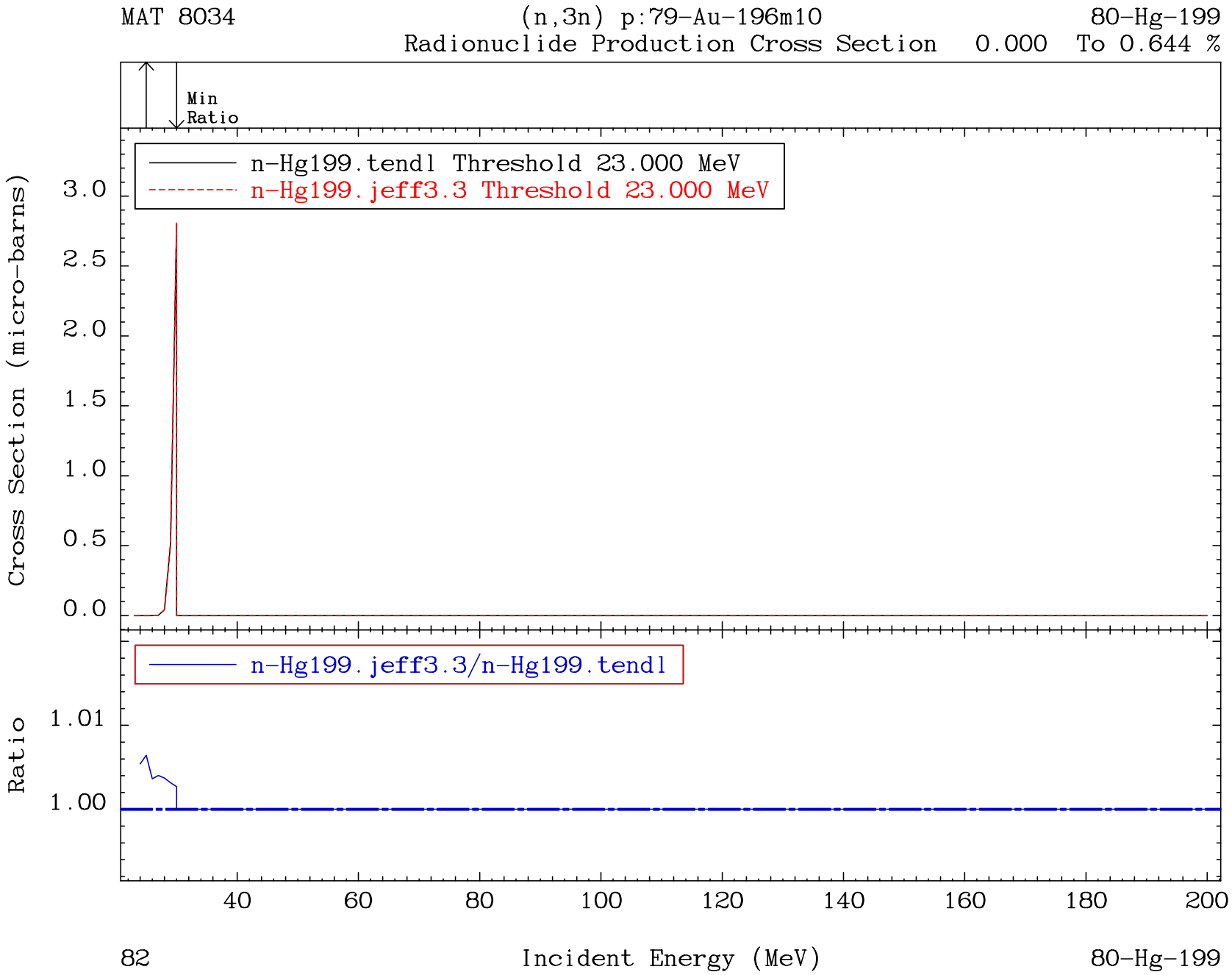

MAT 8034
(n,n') t:79-Au-196m10
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.908 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 14.024 MeV
n-Hg199.jeff3.3 Threshold 14.024 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
77
Incident Energy (eV)
80-Hg-199

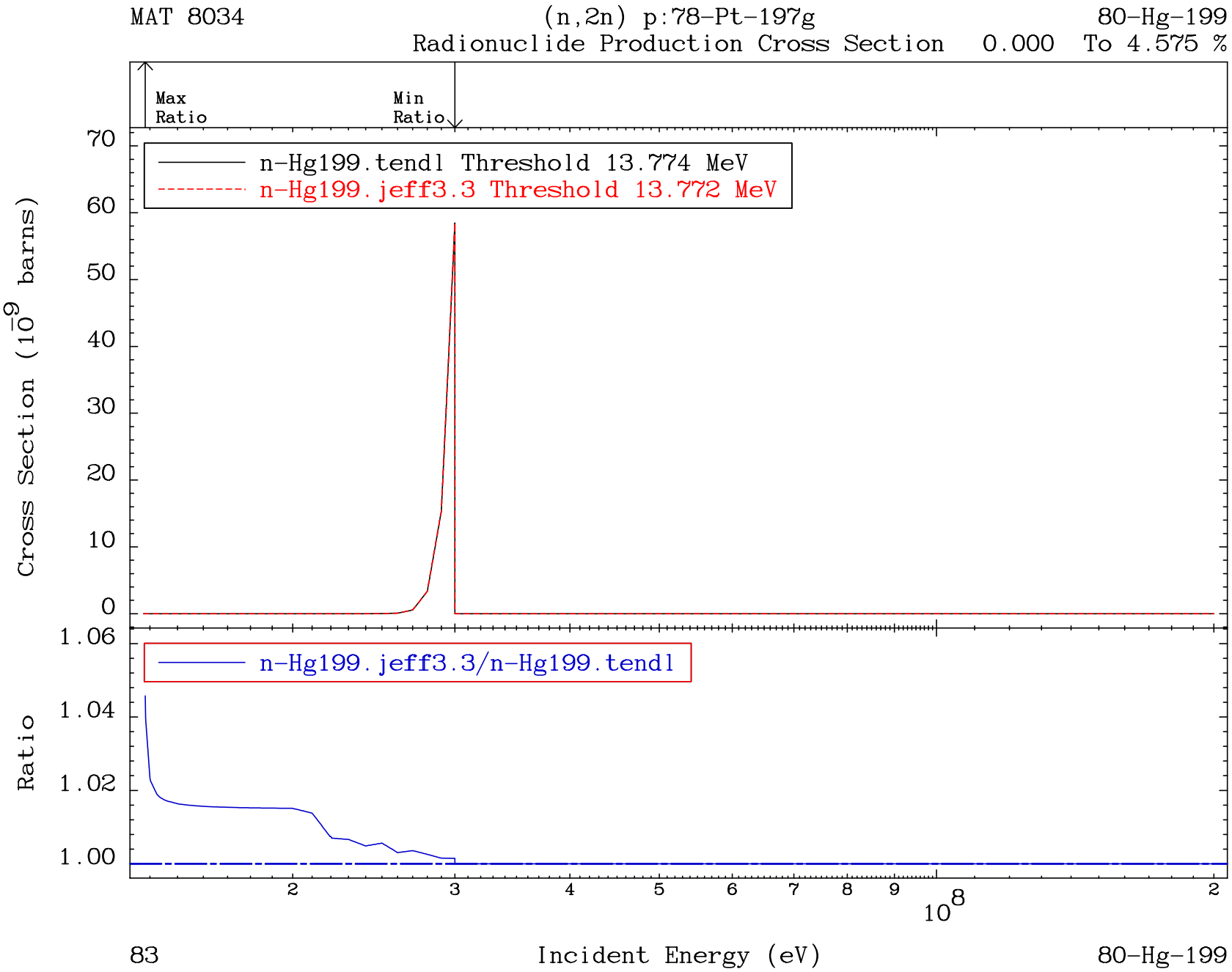

MAT 8034
(n,2n) p:79-Au-197g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 6.138 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.836 MeV
n-Hg199.jeff3.3 Threshold 13.836 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.02
1.04
1.06
1.08
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
80-Hg-199

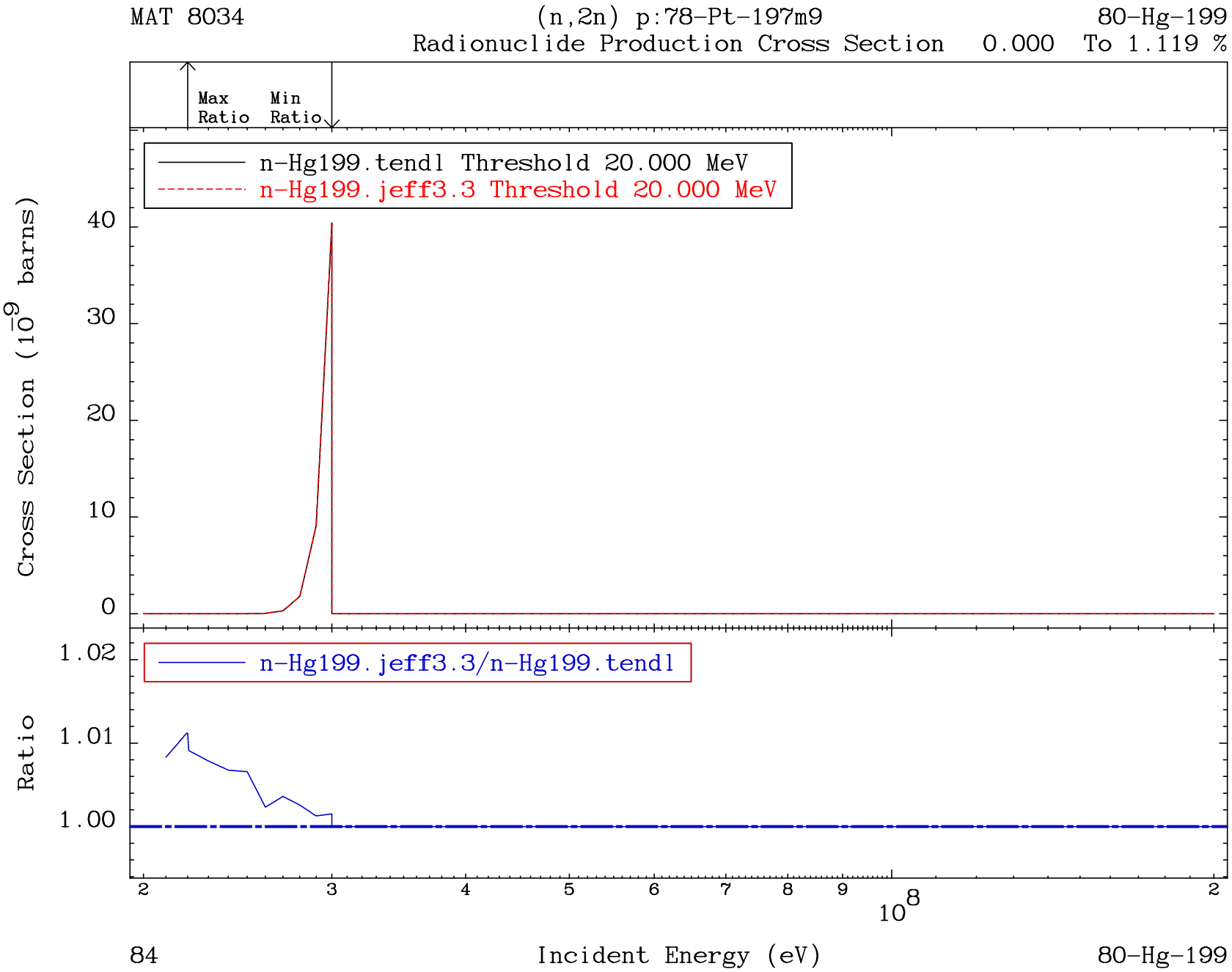

MAT 8034
(n,2n) p:79-Au-197m4
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.698 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 14.248 MeV
n-Hg199.jeff3.3 Threshold 14.248 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
80-Hg-199

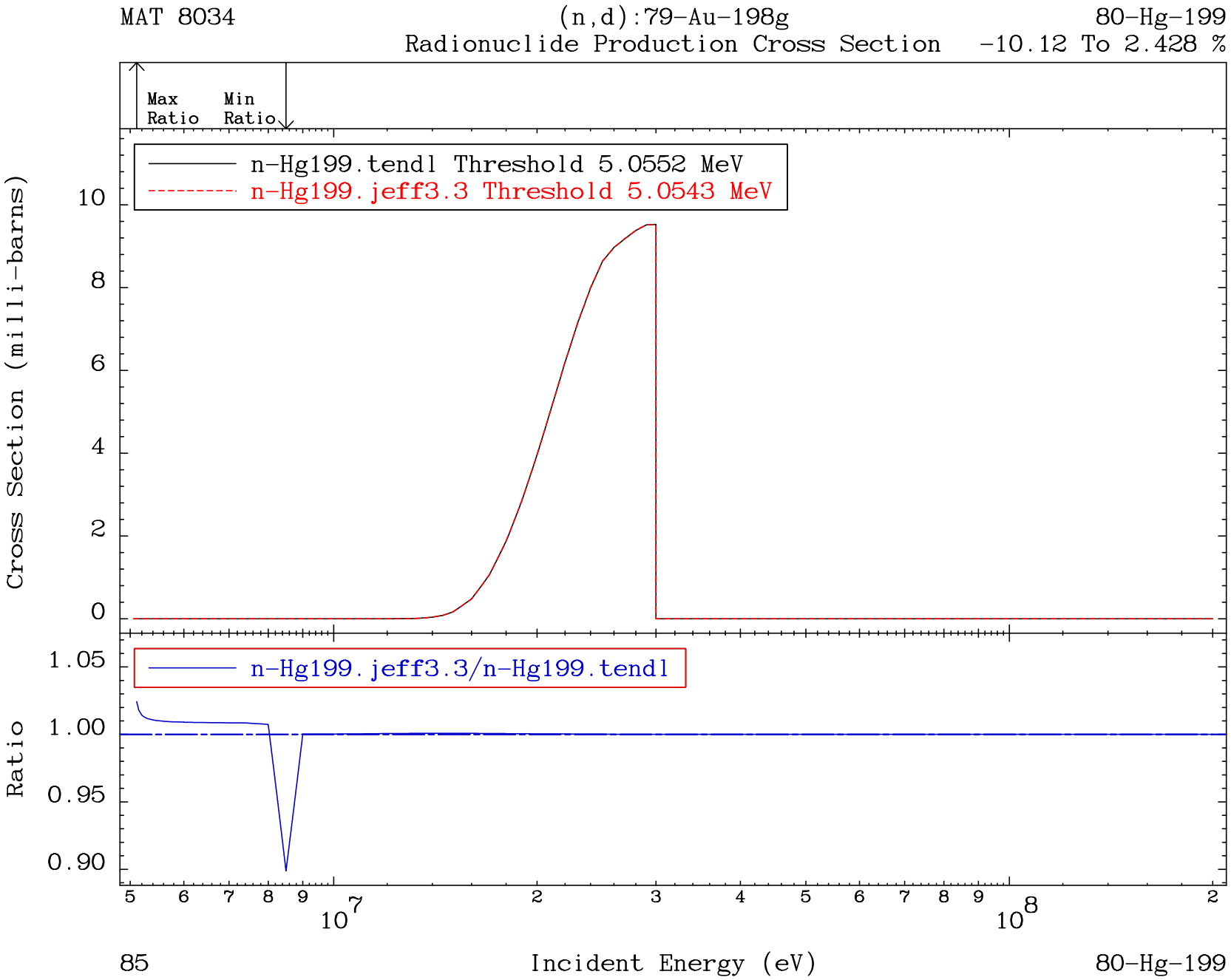

MAT 8034
(n,3n) p:79-Au-196g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 2.583 %
Min
Ratio
n-Hg199.tendl Threshold 21.950 MeV
n-Hg199.jeff3.3 Threshold 21.950 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
7
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
1.02
1.03
20
40
60
80
100
120
140
160
180
200
80
Incident Energy (MeV)
80-Hg-199

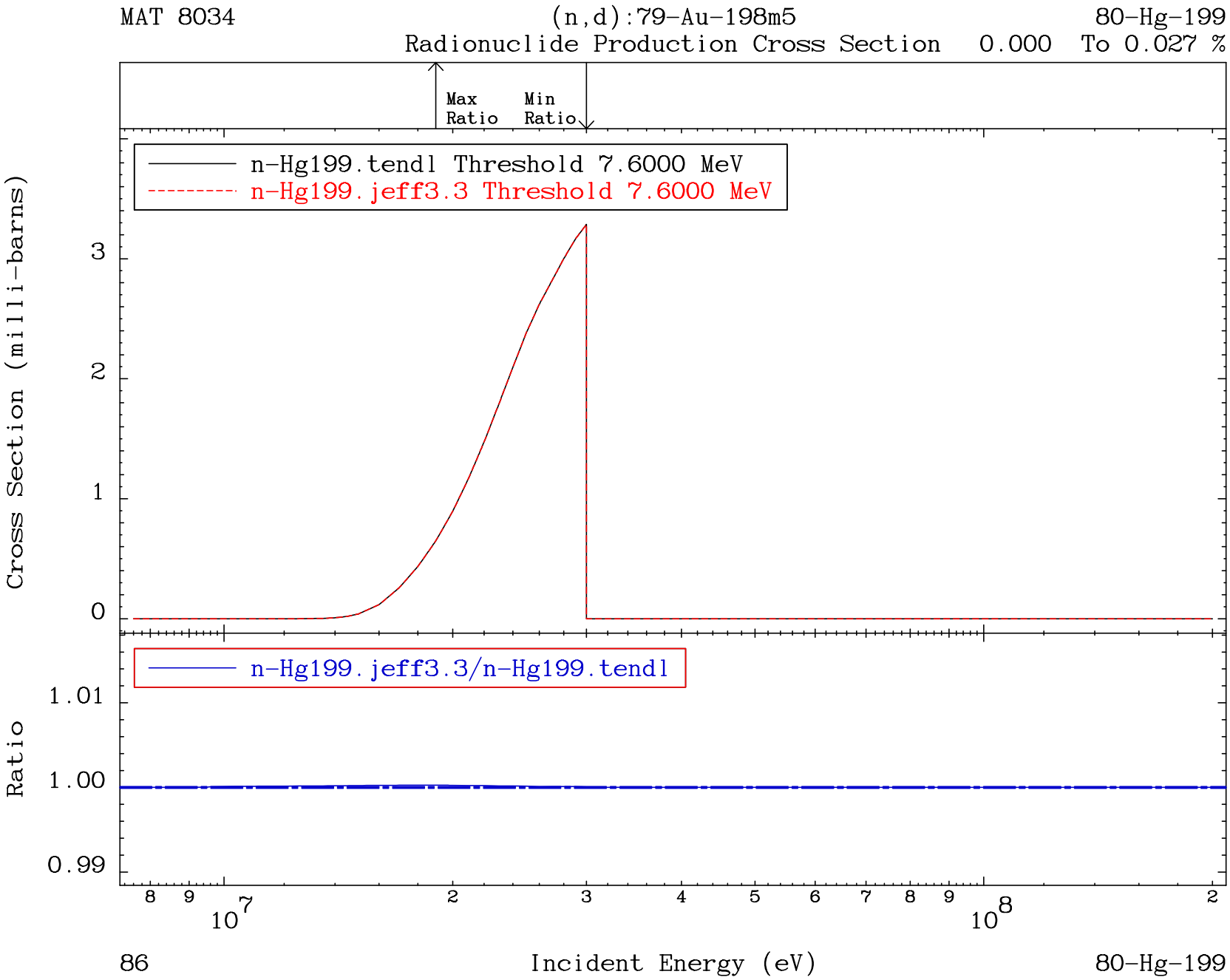

MAT 8034
(n,3n) p:79-Au-196m3
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.542 %
Min Ratio
n-Hg199.tendl Threshold 23.000 MeV
n-Hg199.jeff3.3 Threshold 23.000 MeV
Cross Section (micro-barns)
0
2
4
6
8
10
12
14
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
40
60
80
100
120
140
160
180
200
81
Incident Energy (MeV)
80-Hg-199

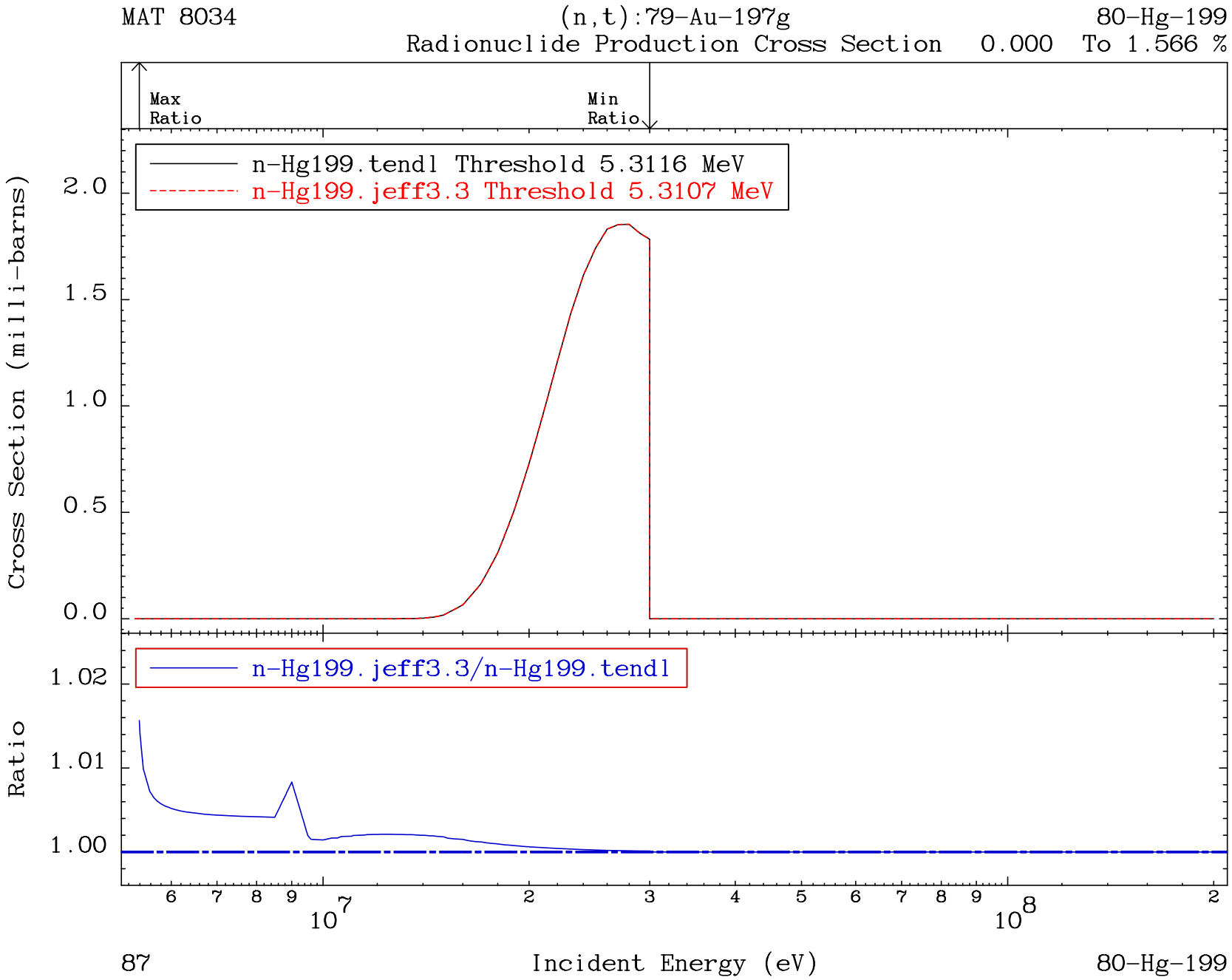

MAT 8034
(n,3n) p:79-Au-196m10
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.644 %
Min Ratio
n-Hg199.tendl Threshold 23.000 MeV
n-Hg199.jeff3.3 Threshold 23.000 MeV
Cross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
40
60
80
100
120
140
160
180
200
82
Incident Energy (MeV)
80-Hg-199

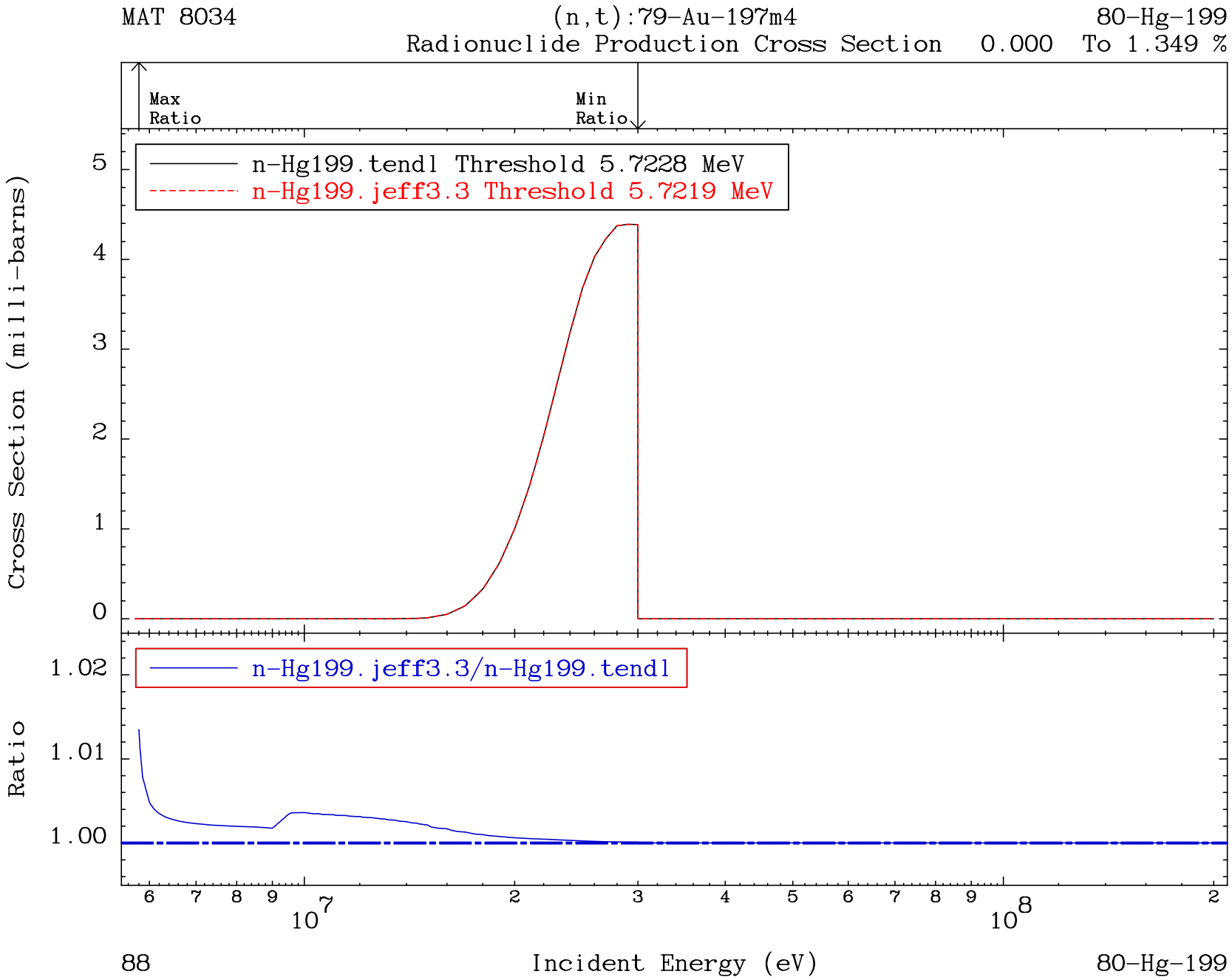

MAT 8034
(n,2n) p:78-Pt-197g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 4.575 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 13.774 MeV
n-Hg199.jeff3.3 Threshold 13.772 MeV
Cross Section (10^{-9} barns)
70
60
50
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.06
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
80-Hg-199

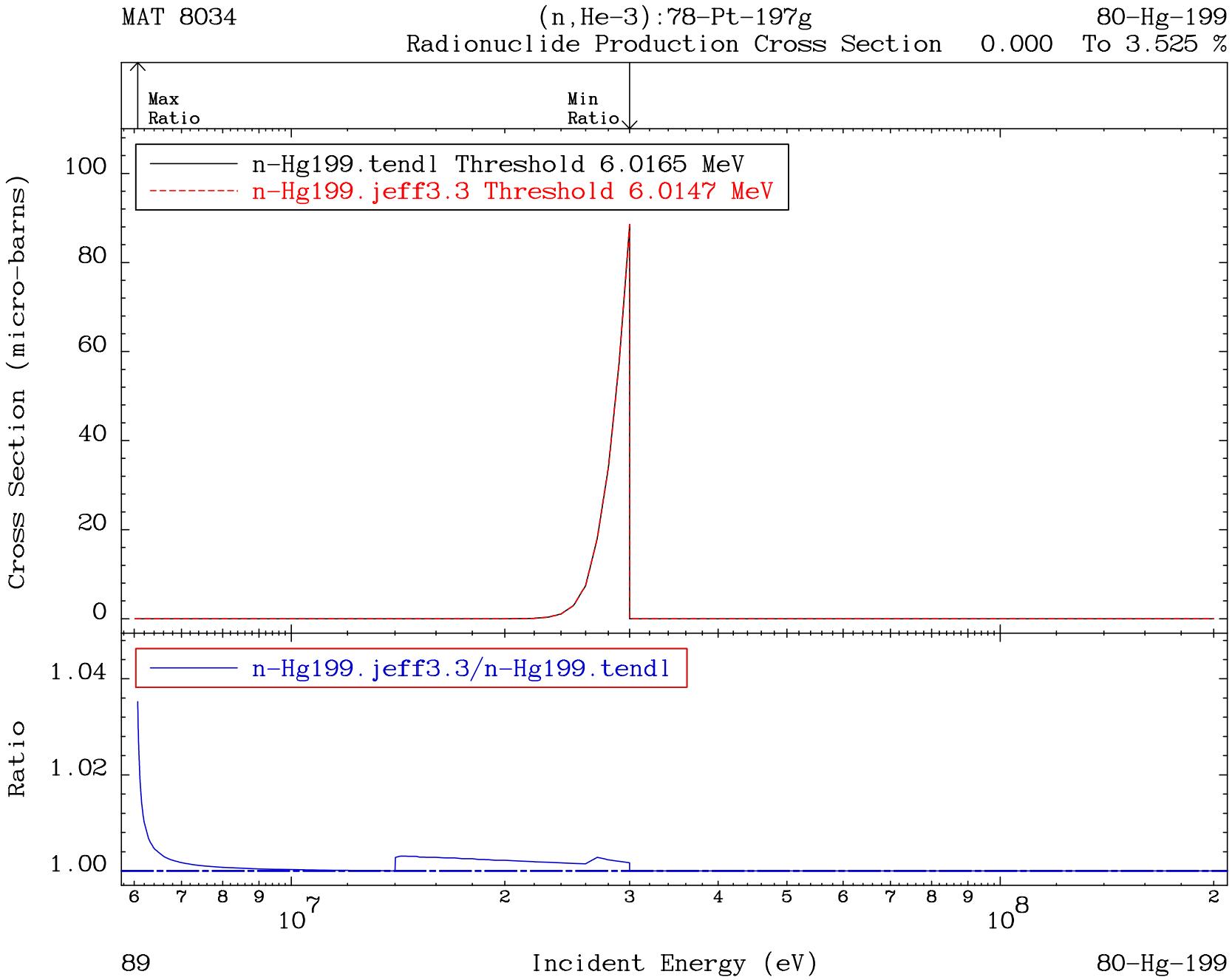

MAT 8034
(n,2n) p:78-Pt-197m9
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.119 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 20.000 MeV
n-Hg199.jeff3.3 Threshold 20.000 MeV
Cross Section (10^{-9} barns)
40
30
20
10
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^{8}
2
84
Incident Energy (eV)
80-Hg-199

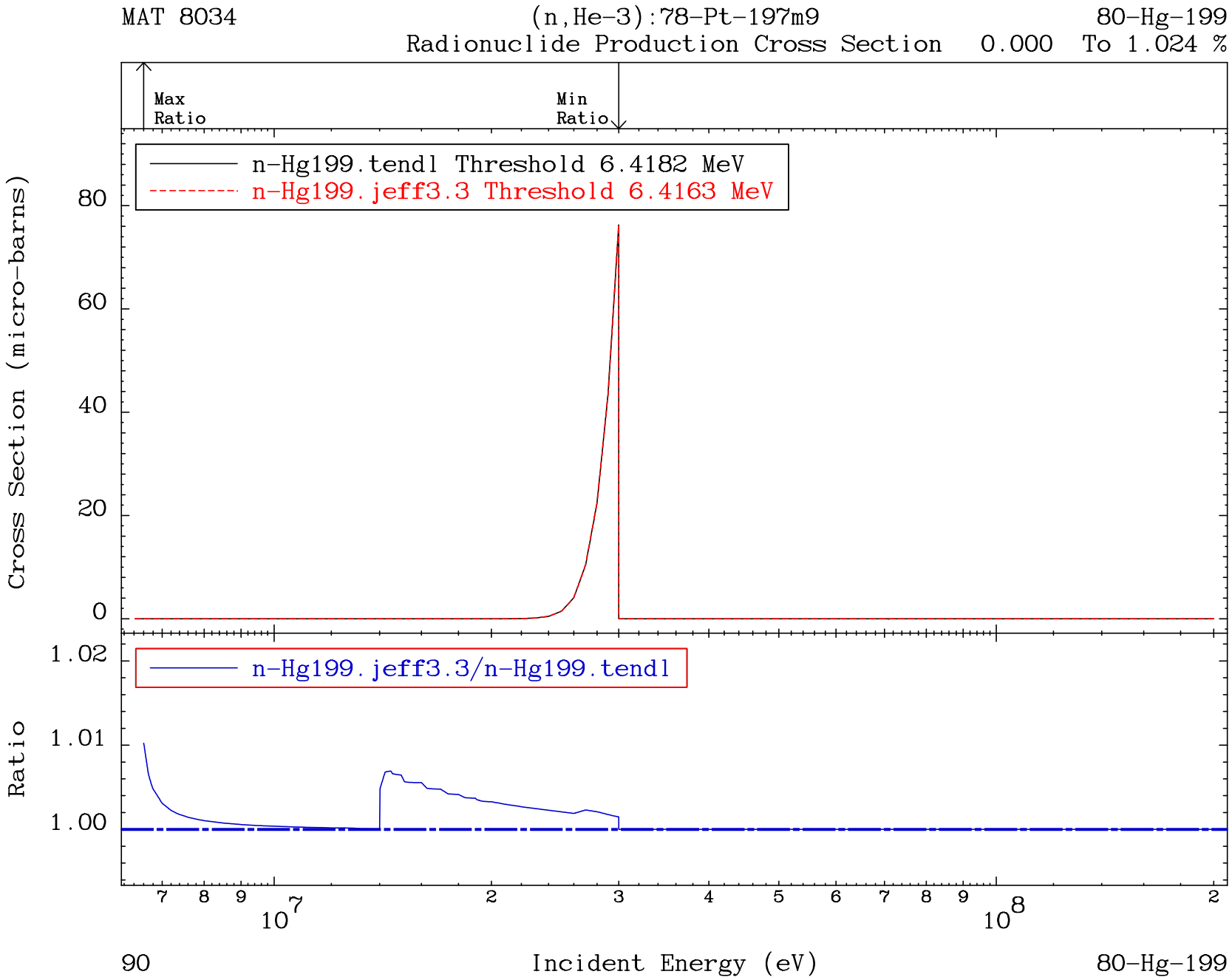

MAT 8034
(n,d):79-Au-198g
80-Hg-199
Radionuclide Production Cross Section -10.12 To 2.428 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.0552 MeV
n-Hg199.jeff3.3 Threshold 5.0543 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
0.90
0.95
1.00
1.05
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
85
80-Hg-199

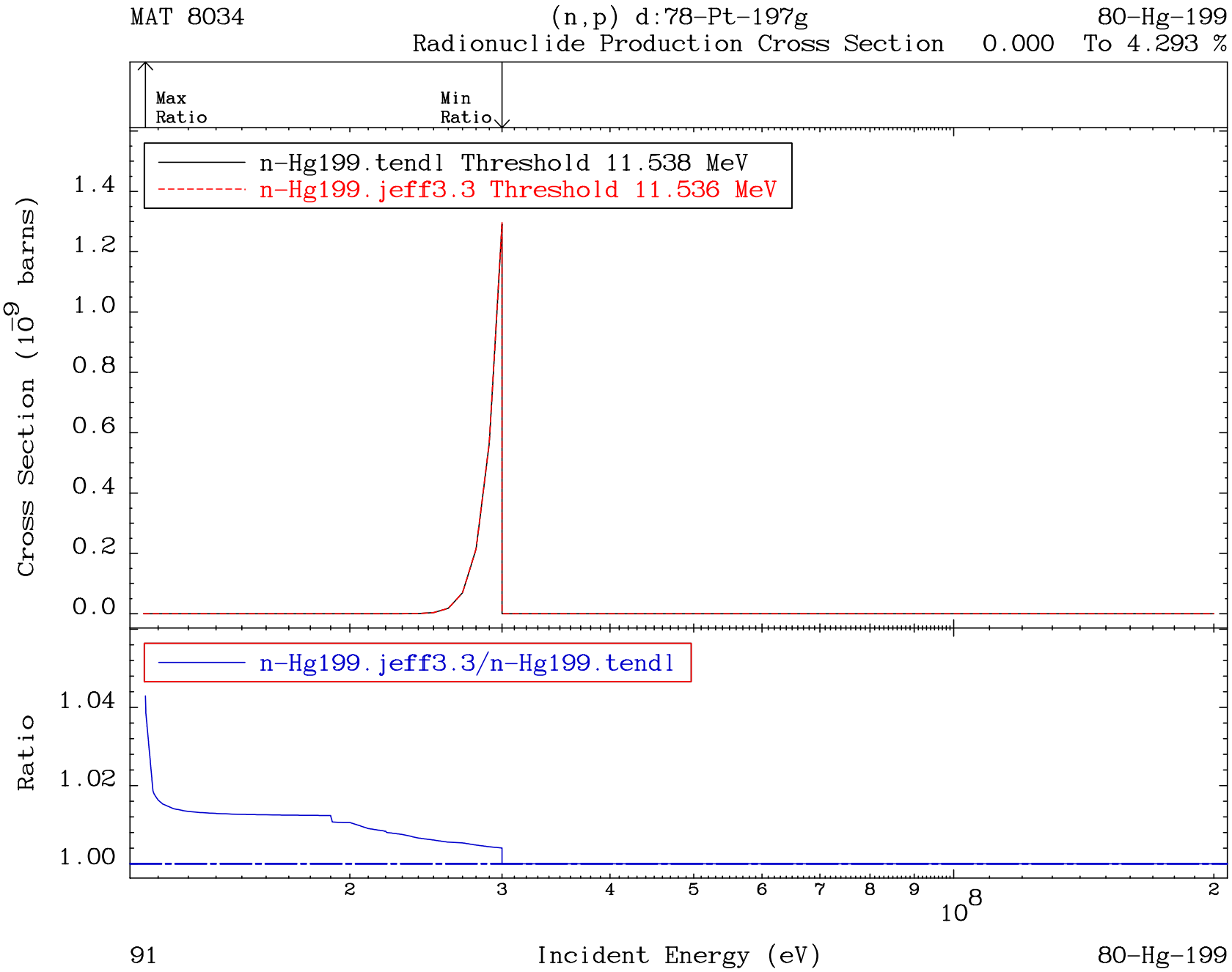

MAT 8034
(n,d):79-Au-198m5
80-Hg-199
Radionuclide Production Cross Section 0.000 To 0.027 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 7.6000 MeV
n-Hg199.jeff3.3 Threshold 7.6000 MeV
Cross Section (milli-barns)
0
1
2
3
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.01
1.00
0.99
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
86
Incident Energy (eV)
80-Hg-199

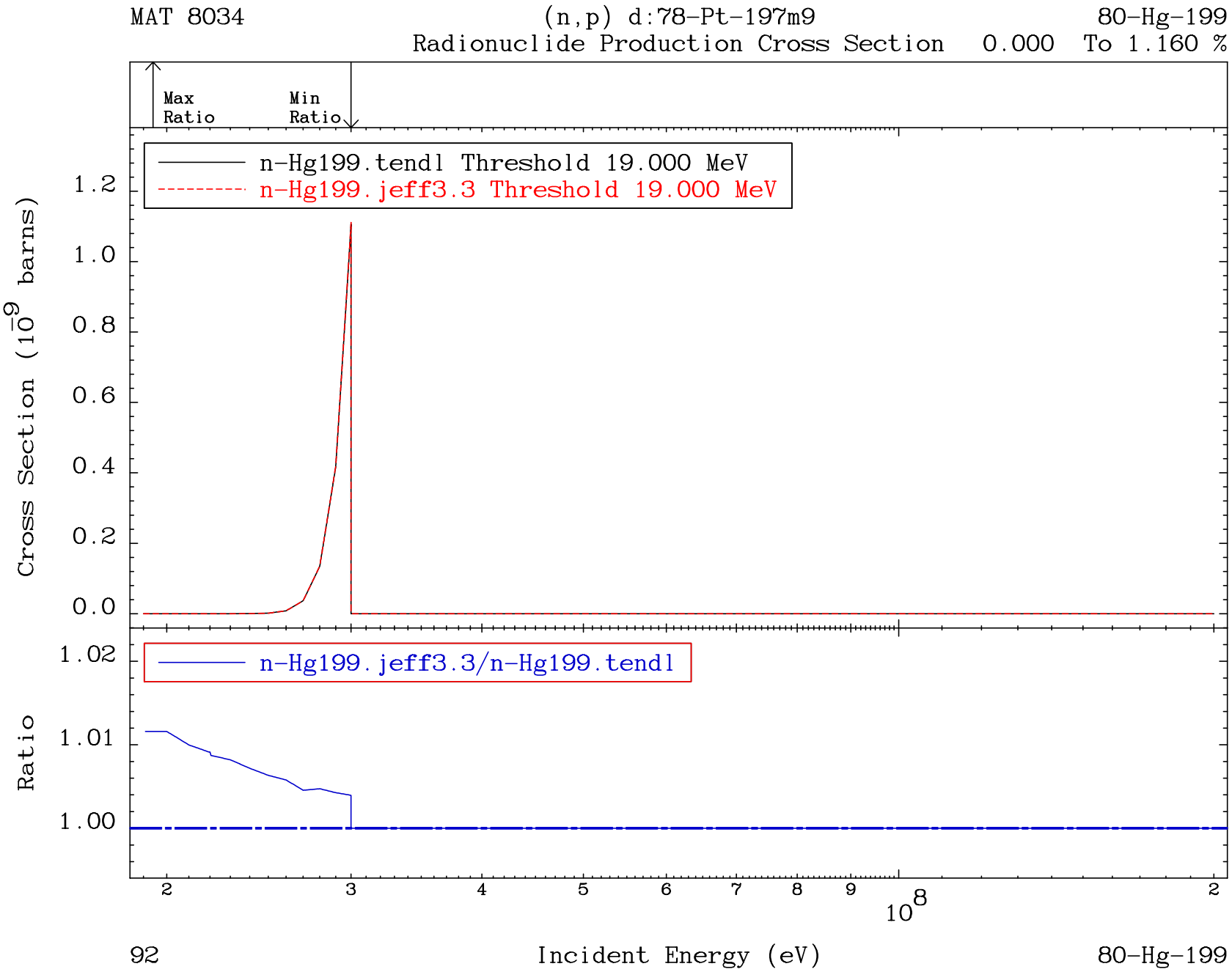

MAT 8034
(n,t):79-Au-197g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.566 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.3116 MeV
n-Hg199.jeff3.3 Threshold 5.3107 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
87
Incident Energy (eV)
80-Hg-199


MAT 8034
(n,t):79-Au-197m4
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.349 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 5.7228 MeV
n-Hg199.jeff3.3 Threshold 5.7219 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.00
1.01
1.02
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
88
Incident Energy (eV)
80-Hg-199


MAT 8034
(n,He-3):78-Pt-197g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 3.525 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 6.0165 MeV
n-Hg199.jeff3.3 Threshold 6.0147 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.04
1.02
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
89
Incident Energy (eV)
80-Hg-199


MAT 8034
(n,He-3):78-Pt-197m9
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.024 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 6.4182 MeV
n-Hg199.jeff3.3 Threshold 6.4163 MeV
Cross Section (micro-barns)
80
60
40
20
0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
90
Incident Energy (eV)
80-Hg-199


MAT 8034
(n,p) d:78-Pt-197g
80-Hg-199
Radionuclide Production Cross Section 0.000 To 4.293 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 11.538 MeV
n-Hg199.jeff3.3 Threshold 11.536 MeV
Cross Section (10^{-9} barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
80-Hg-199


MAT 8034
(n,p) d:78-Pt-197m9
80-Hg-199
Radionuclide Production Cross Section 0.000 To 1.160 %
Max Ratio
Min Ratio
n-Hg199.tendl Threshold 19.000 MeV
n-Hg199.jeff3.3 Threshold 19.000 MeV
Cross Section (10^{-9} barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Hg199.jeff3.3/n-Hg199.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
92
Incident Energy (eV)
80-Hg-199