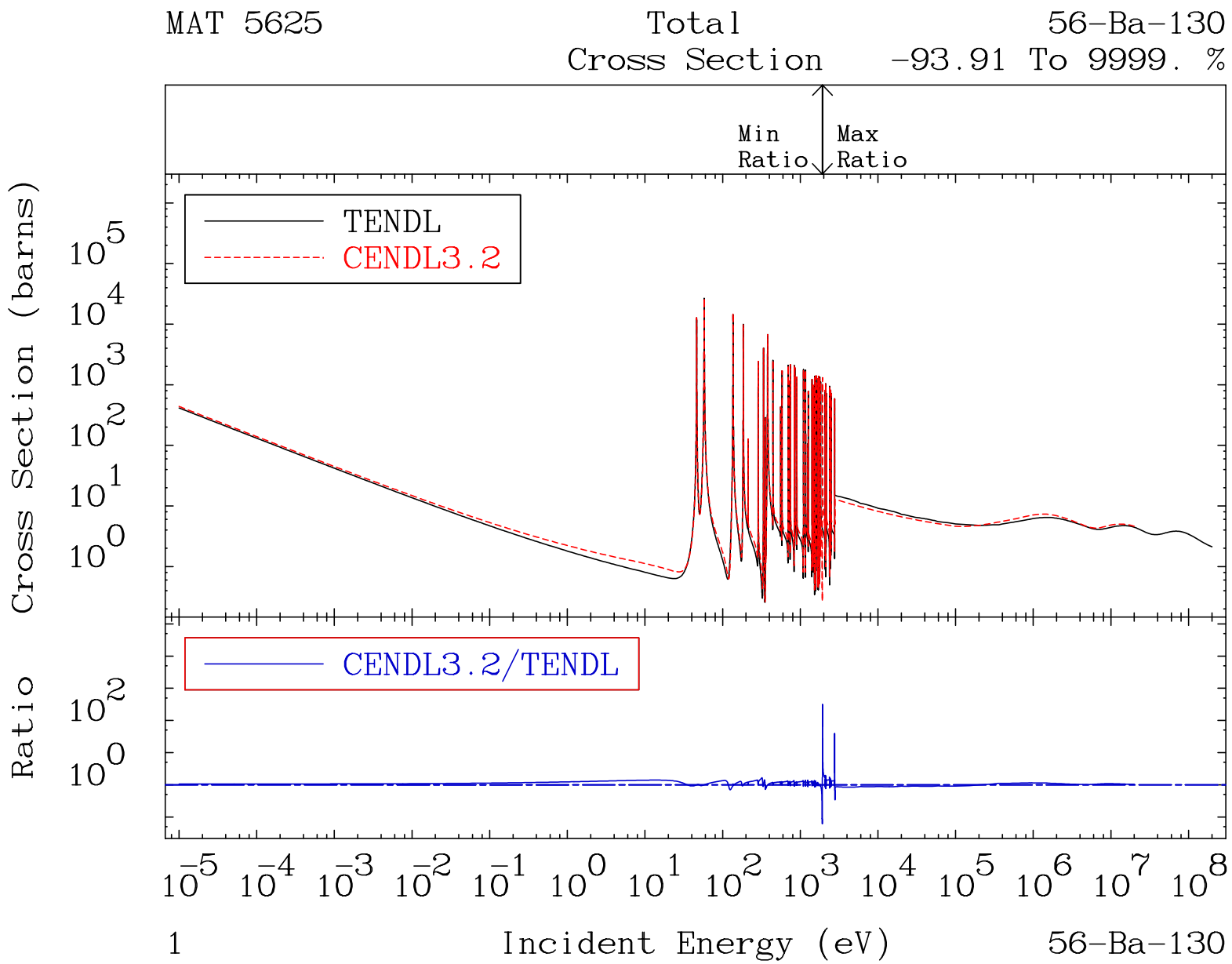
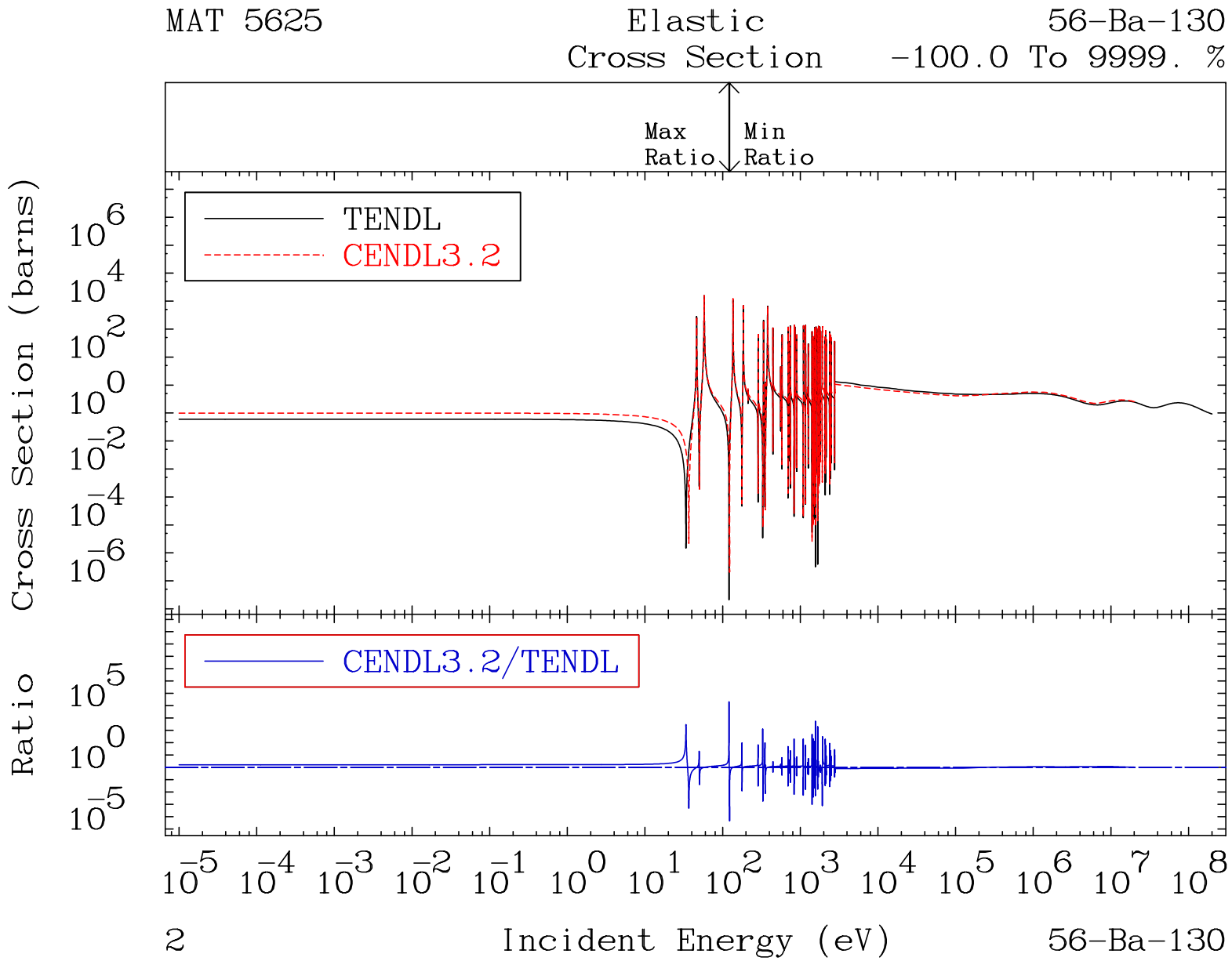
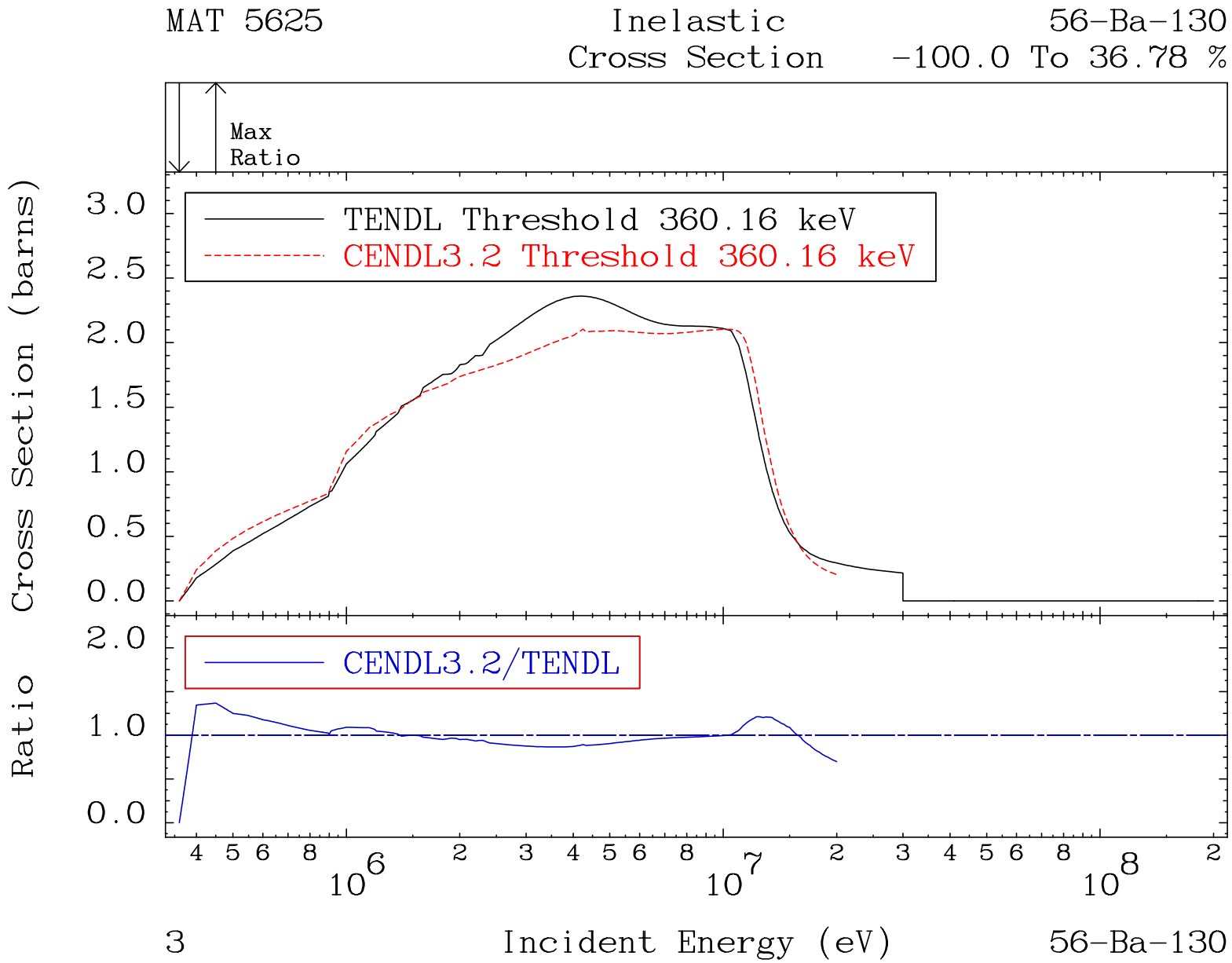
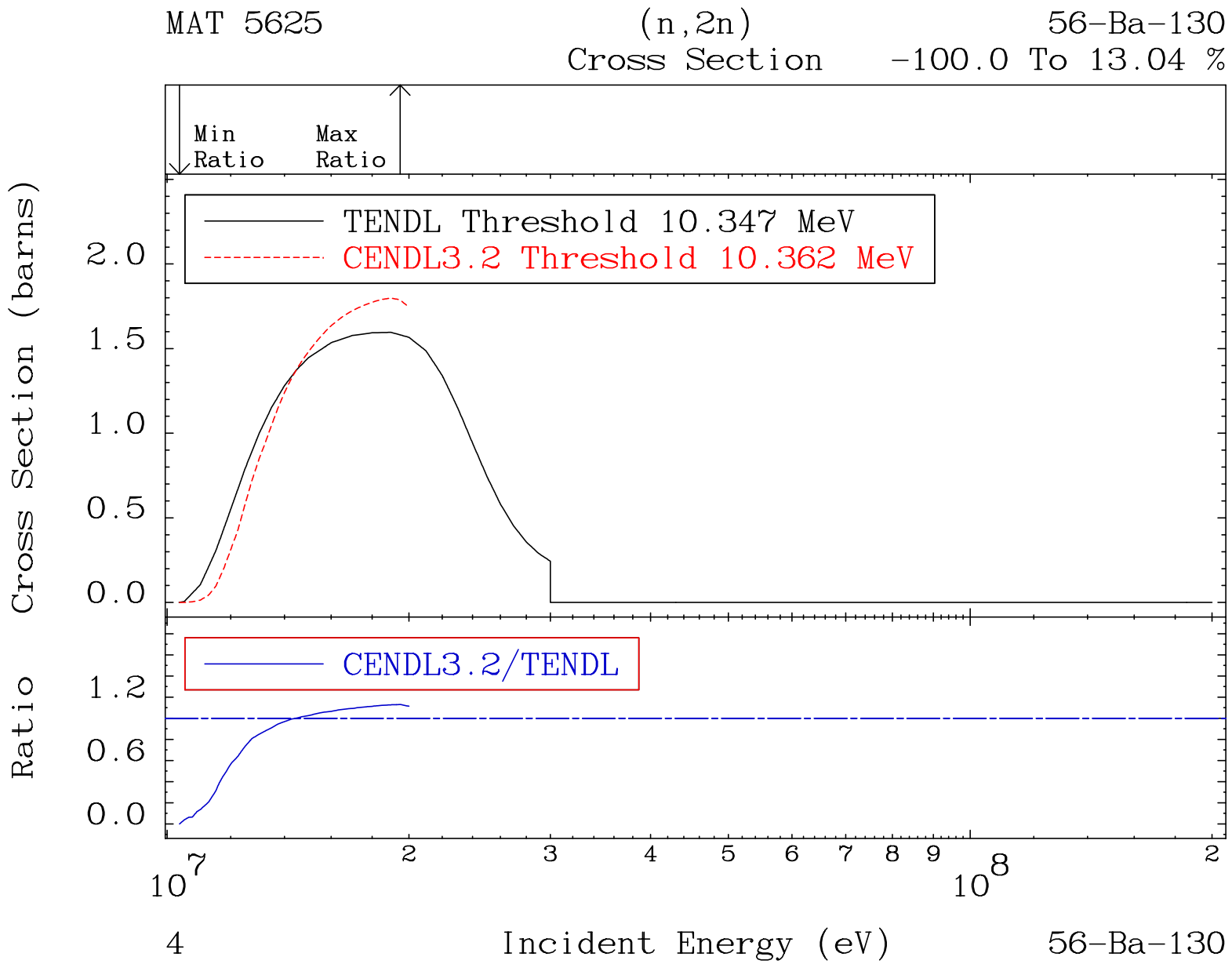
Program Complot
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

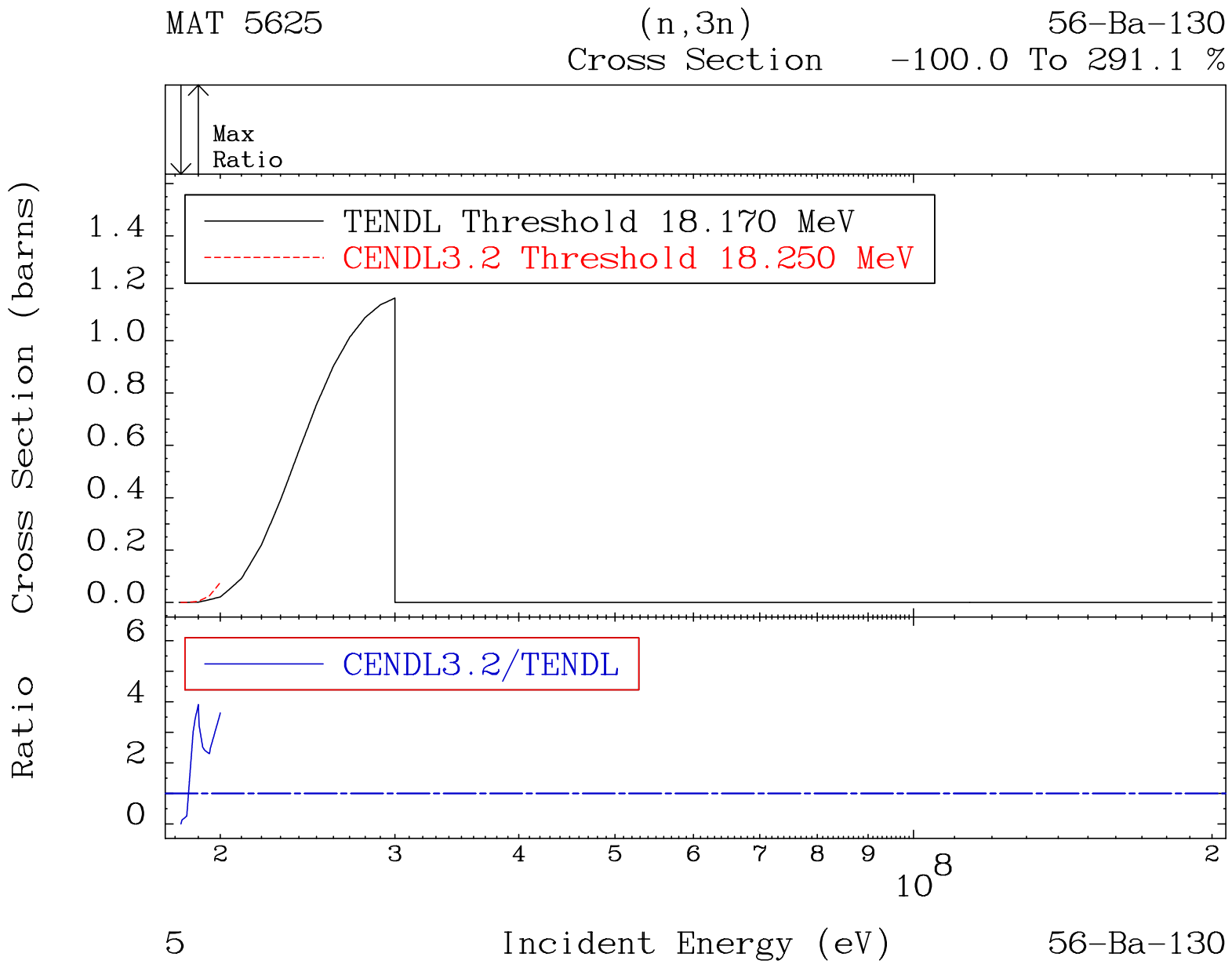
Press Mouse Button to Start

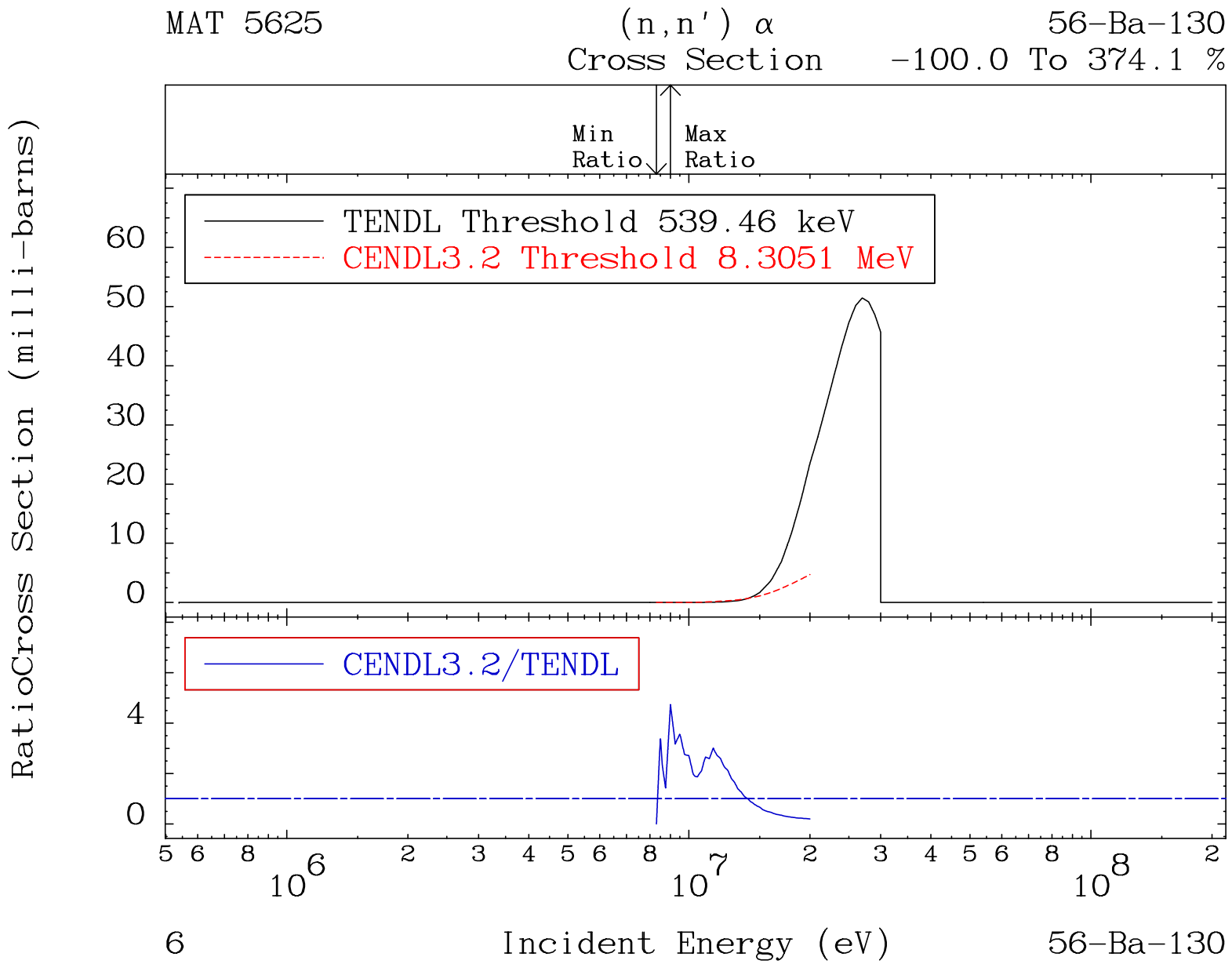

MAT 5625
Total
Cross Section
56-Ba-130
-93.91 To 9999. %
Min
Ratio
Max
Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
56-Ba-130

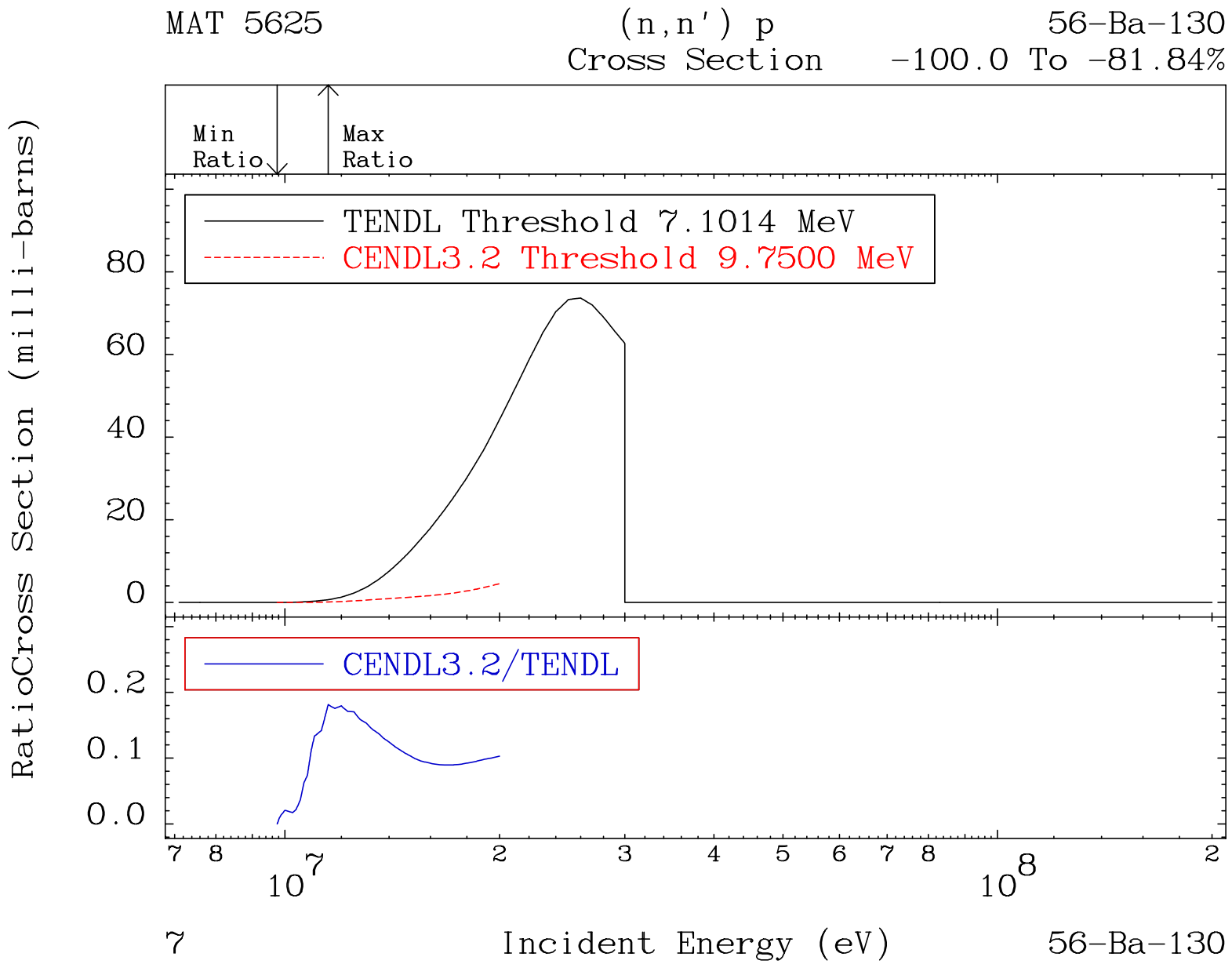

MAT 5625
Elastic
Cross Section
56-Ba-130
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
2
56-Ba-130

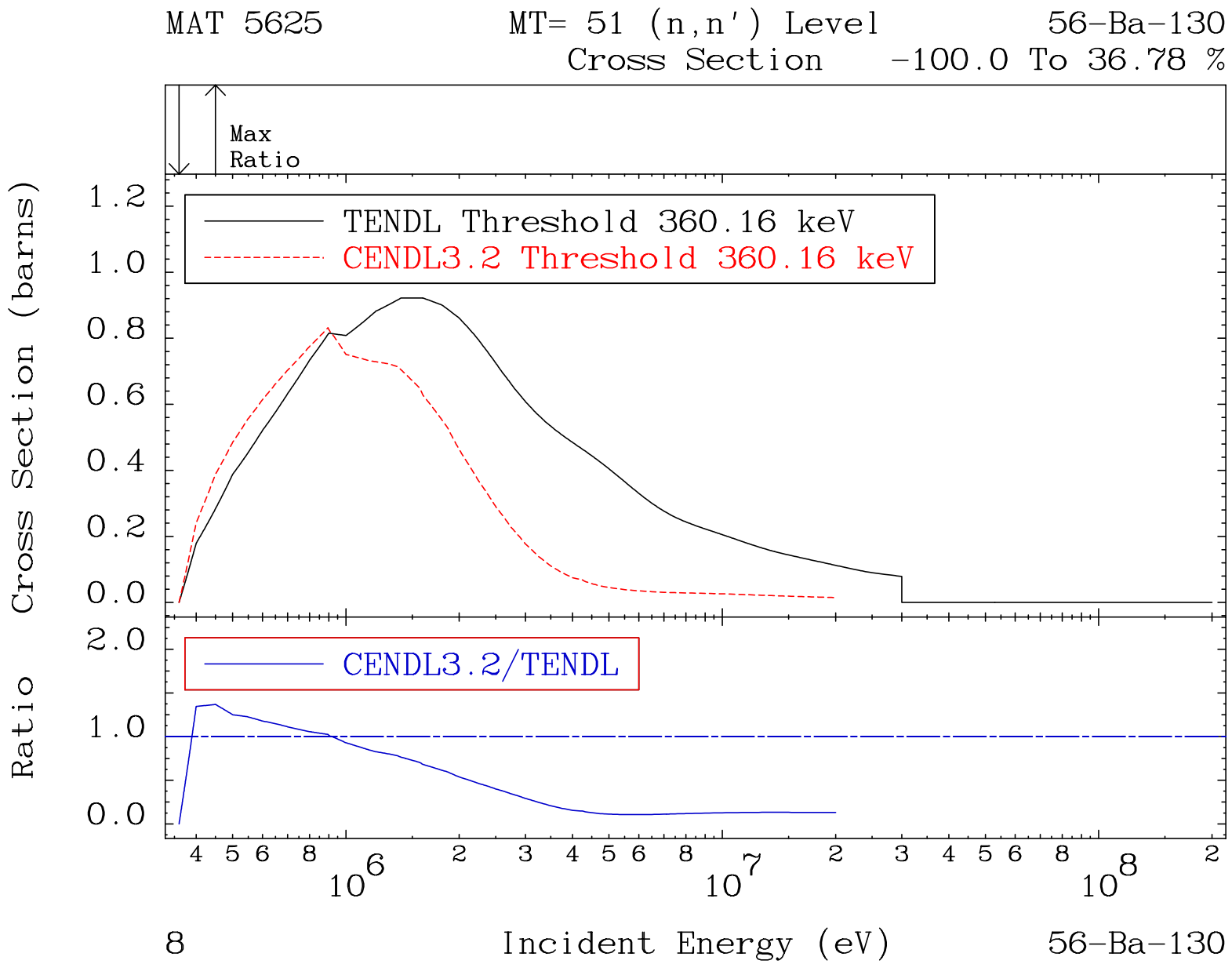

MAT 5625
Inelastic
Cross Section
56-Ba-130
-100.0 To 36.78 %
Max
Ratio
TENDL Threshold 360.16 keV
CENDL3.2 Threshold 360.16 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2.0
1.0
0.0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
3
56-Ba-130

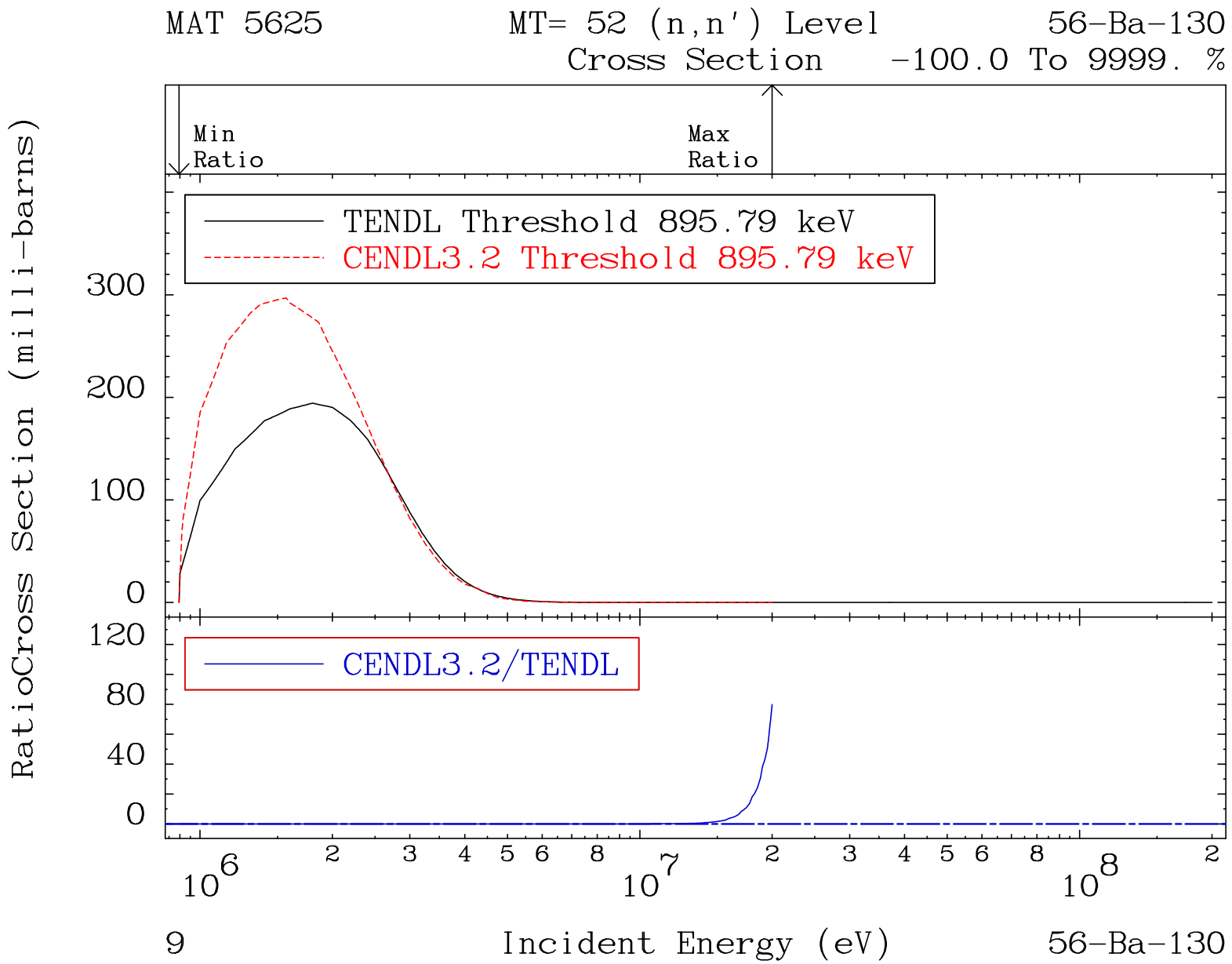

MAT 5625
(n,2n)
Cross Section
56-Ba-130
-100.0 To 13.04 %
Min Ratio
Max Ratio
TENDL Threshold 10.347 MeV
CENDL3.2 Threshold 10.362 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.0
1.5
1.0
0.5
0.0
1.2
0.6
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
56-Ba-130

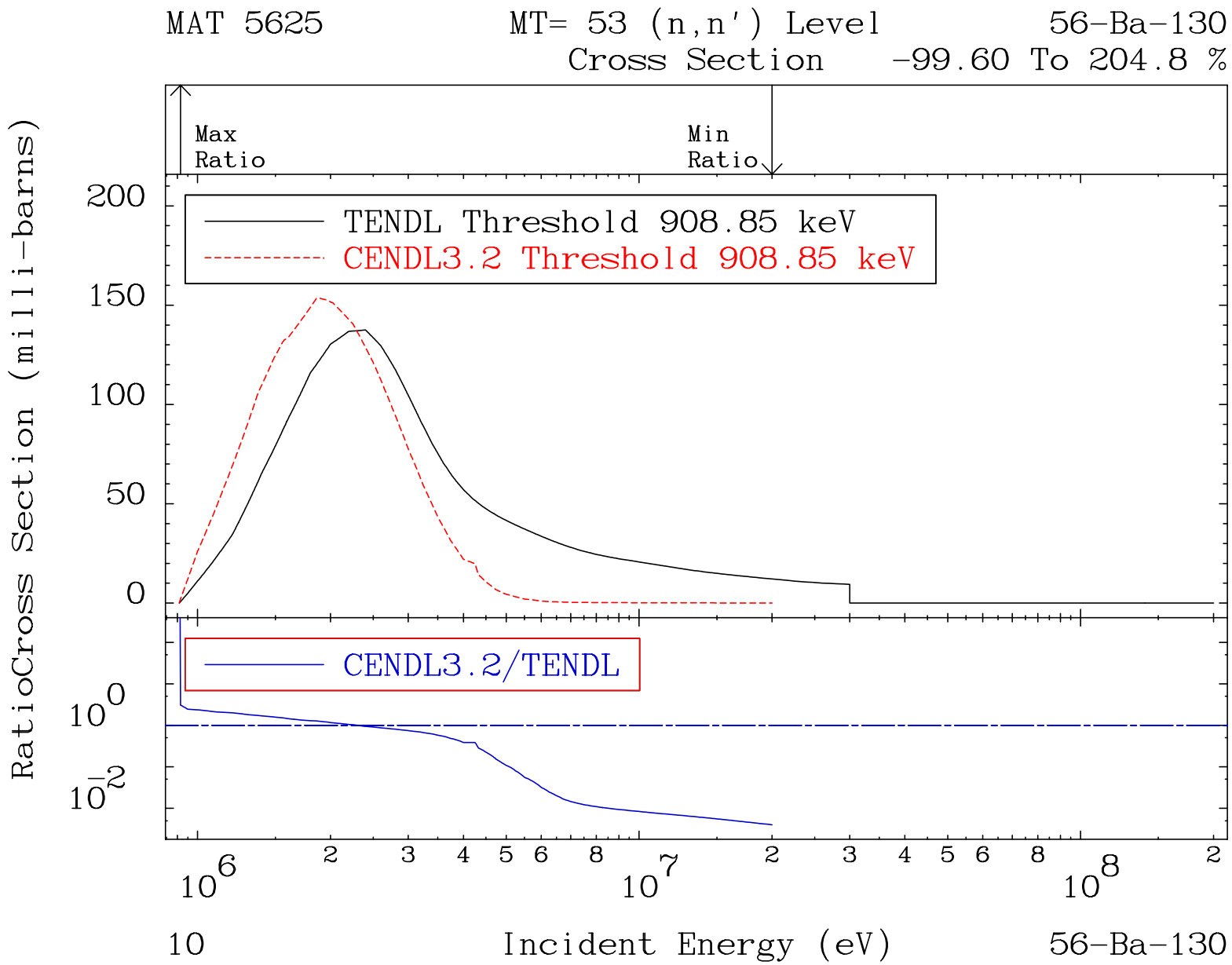

MAT 5625
(n,3n)
Cross Section
56-Ba-130
-100.0 To 291.1 %
Max
Ratio
TENDL Threshold 18.170 MeV
CENDL3.2 Threshold 18.250 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6
4
2
0
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
56-Ba-130

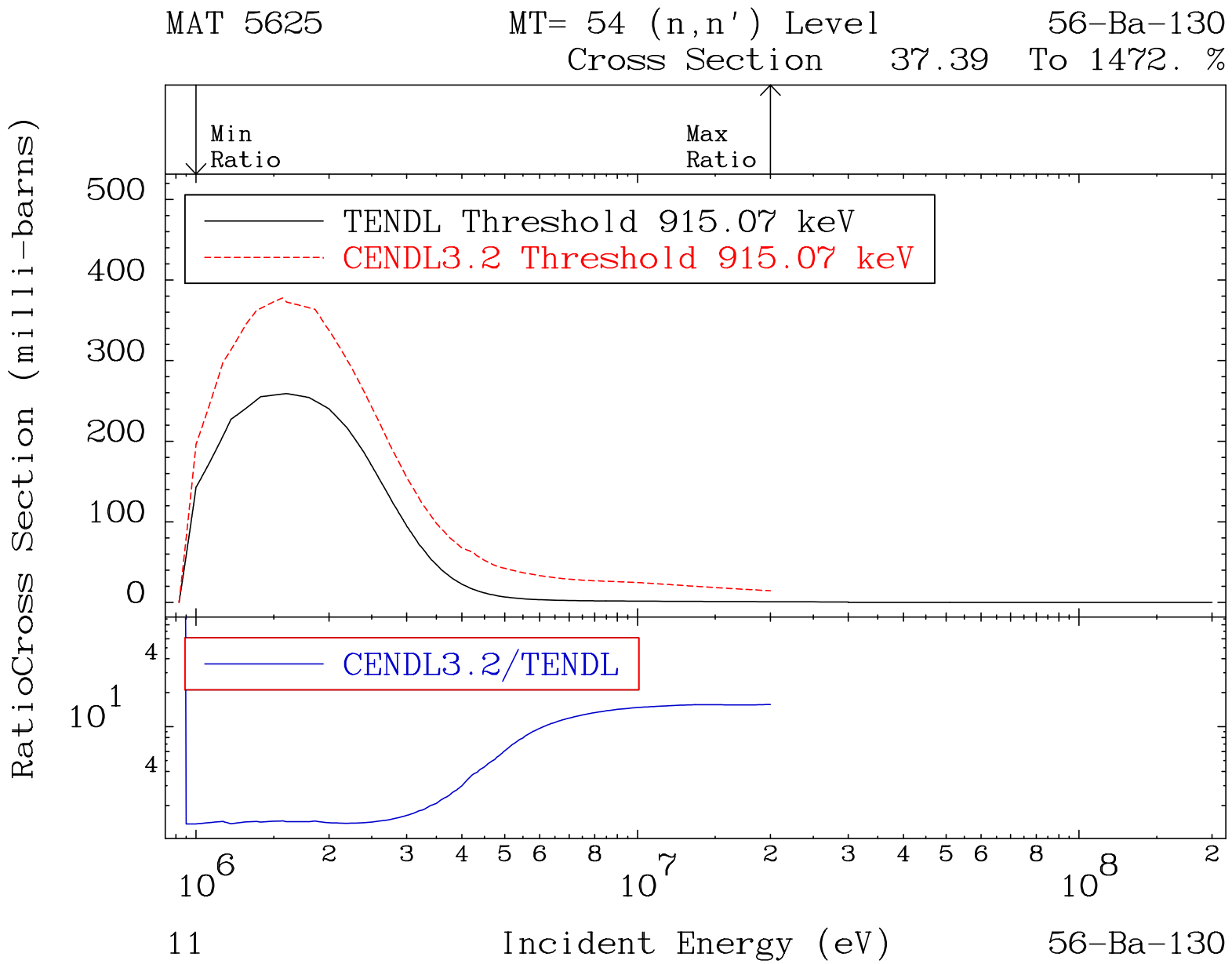

MAT 5625
(n,n') α
Cross Section
56-Ba-130
-100.0 To 374.1 %
Min Ratio
Max Ratio
TENDL Threshold 539.46 keV
CENDL3.2 Threshold 8.3051 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
6
56-Ba-130

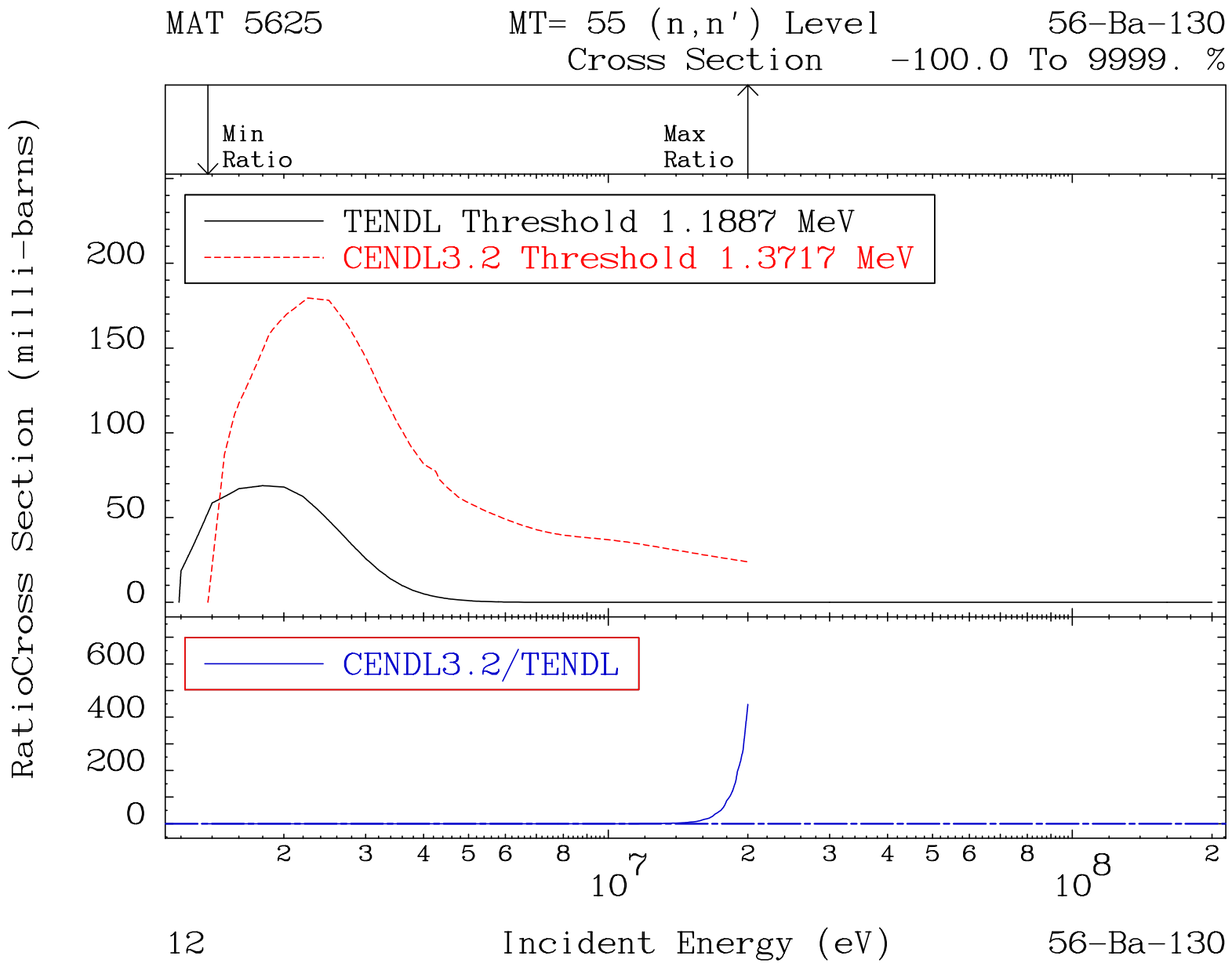

MAT 5625
(n,n') p
Cross Section
56-Ba-130
-100.0 To -81.84%
Min Ratio
Max Ratio
TENDL Threshold 7.1014 MeV
CENDL3.2 Threshold 9.7500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
0.2
0.1
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
7
Incident Energy (eV)
56-Ba-130

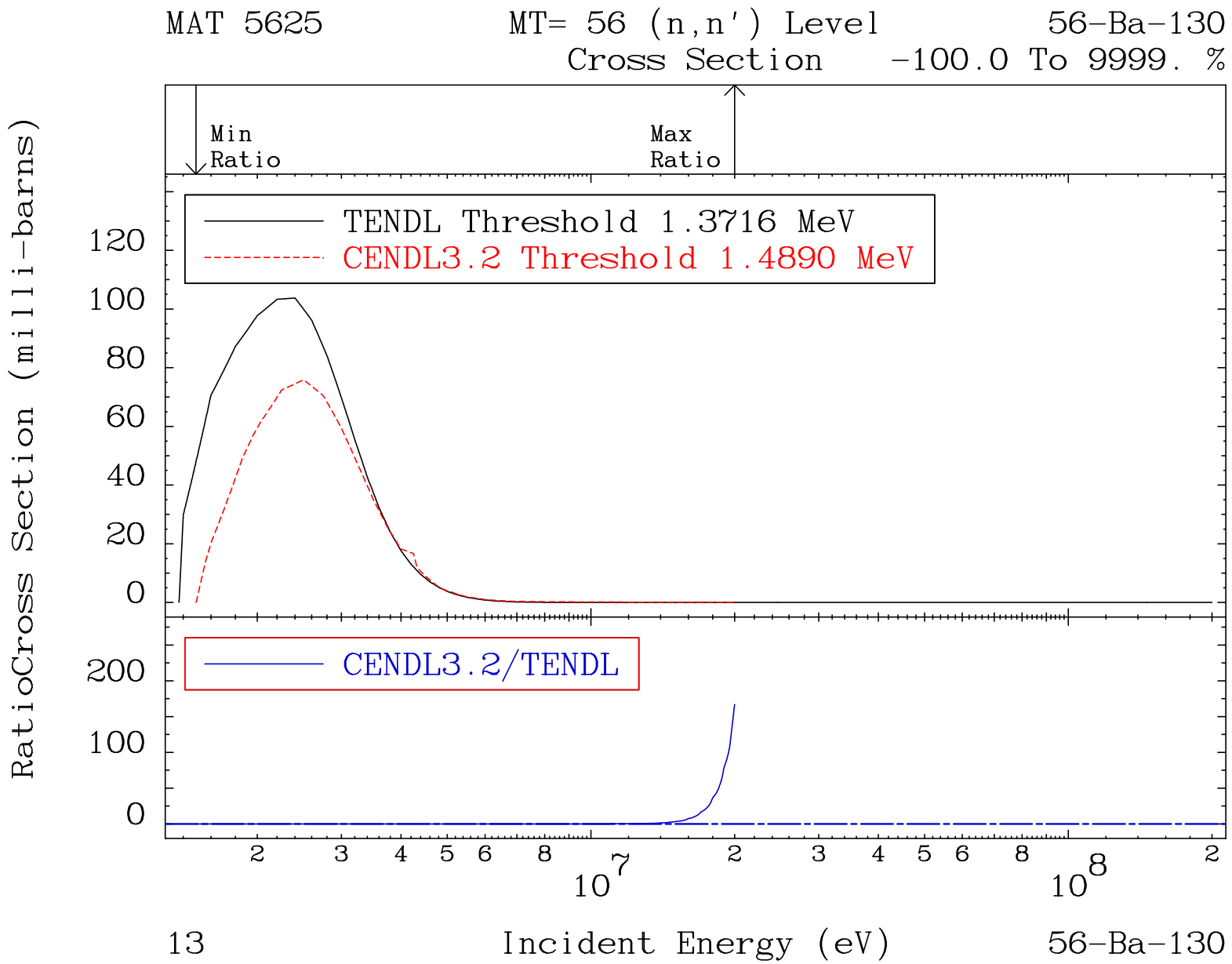

MAT 5625
MT= 51 (n,n') Level
56-Ba-130
Cross Section -100.0 To 36.78 %
Max
Ratio
TENDL Threshold 360.16 keV
CENDL3.2 Threshold 360.16 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
8
Incident Energy (eV)
56-Ba-130

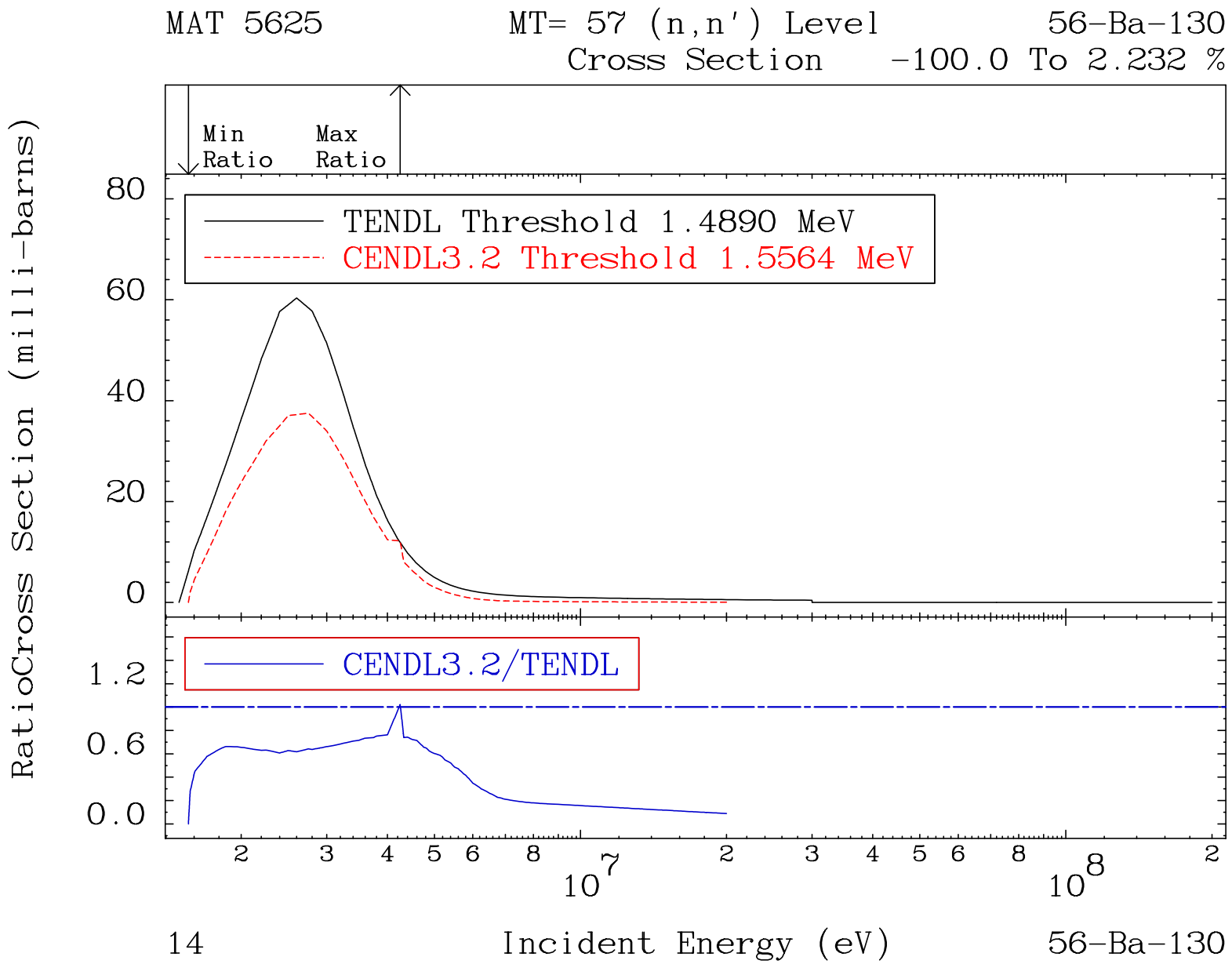

MAT 5625
MT= 52 (n,n') Level
56-Ba-130
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 895.79 keV
CENDL3.2 Threshold 895.79 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
300
200
100
0
120
80
40
0
10^6
10^7
10^8
2 3 4 5 6 8
Incident Energy (eV)
9
56-Ba-130

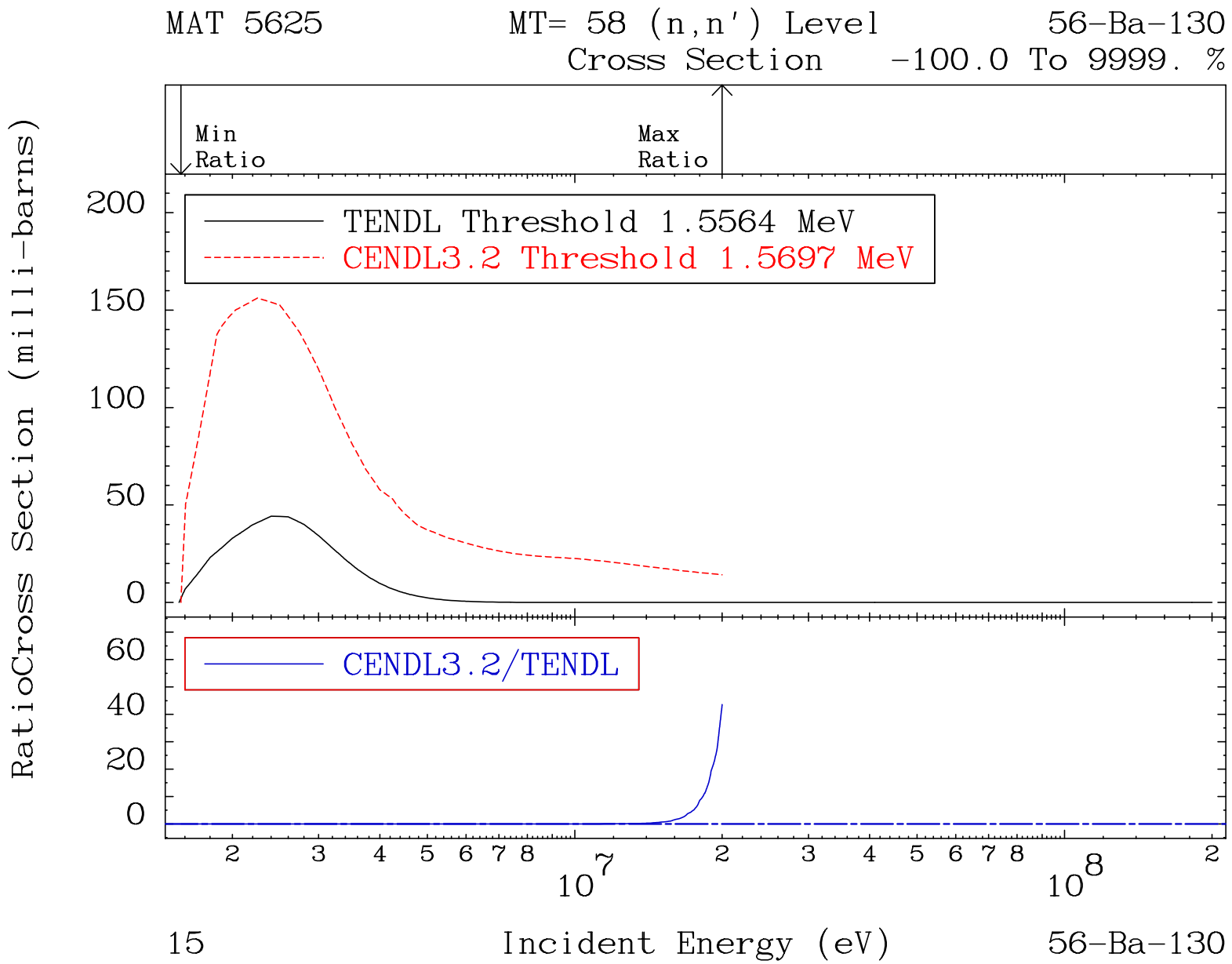

MAT 5625
MT= 53 (n,n') Level
56-Ba-130
Cross Section
-99.60 To 204.8 %
Max Ratio
Min Ratio
TENDL Threshold 908.85 keV
CENDL3.2 Threshold 908.85 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
10^{0}
10^{-2}
10^{6}
10^{7}
10^{8}
2 3 4 5 6 8
10
Incident Energy (eV)
56-Ba-130

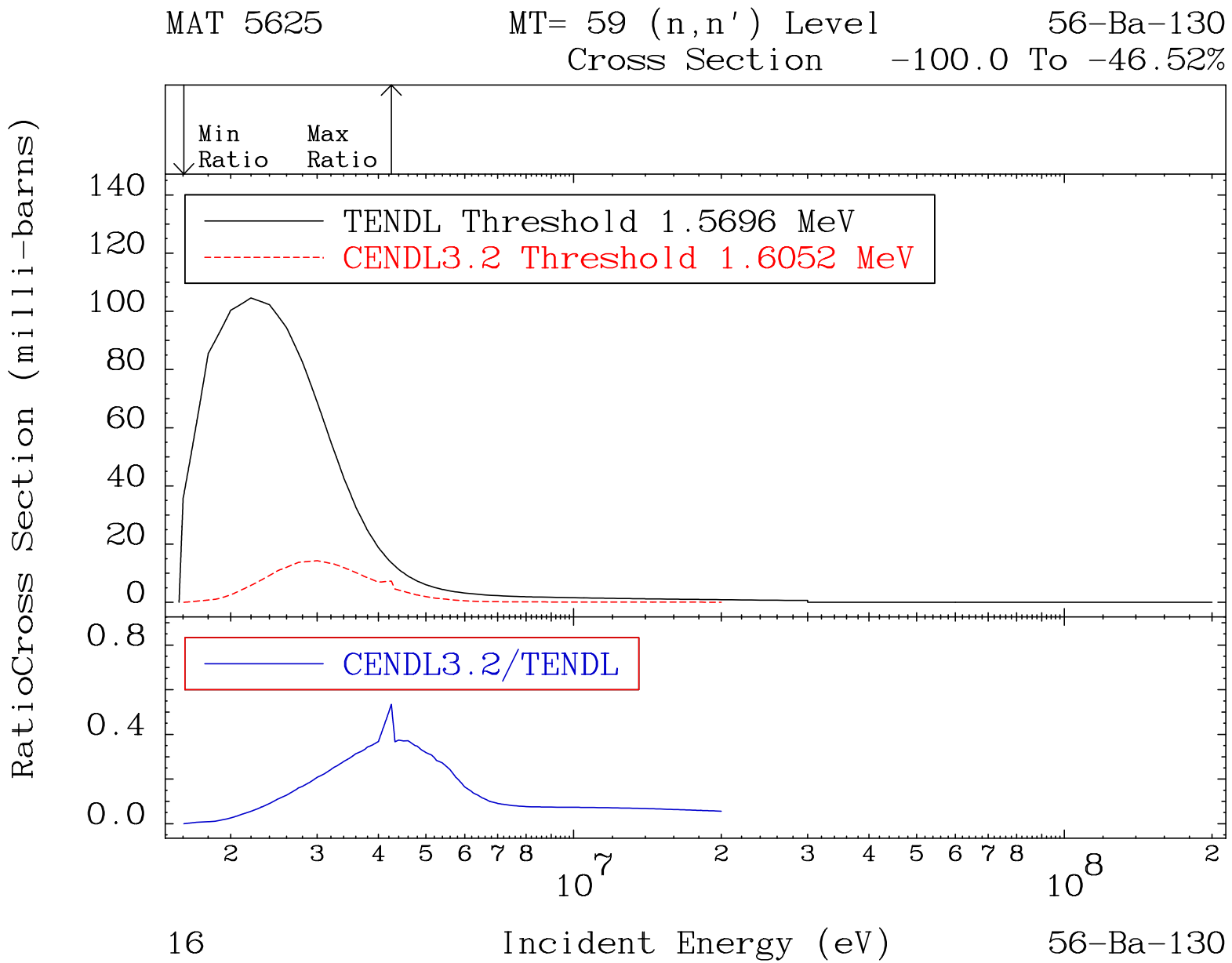

MAT 5625
MT= 54 (n,n') Level
56-Ba-130
Cross Section 37.39 To 1472. %
Min Ratio
Max Ratio
TENDL Threshold 915.07 keV
CENDL3.2 Threshold 915.07 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
11
56-Ba-130

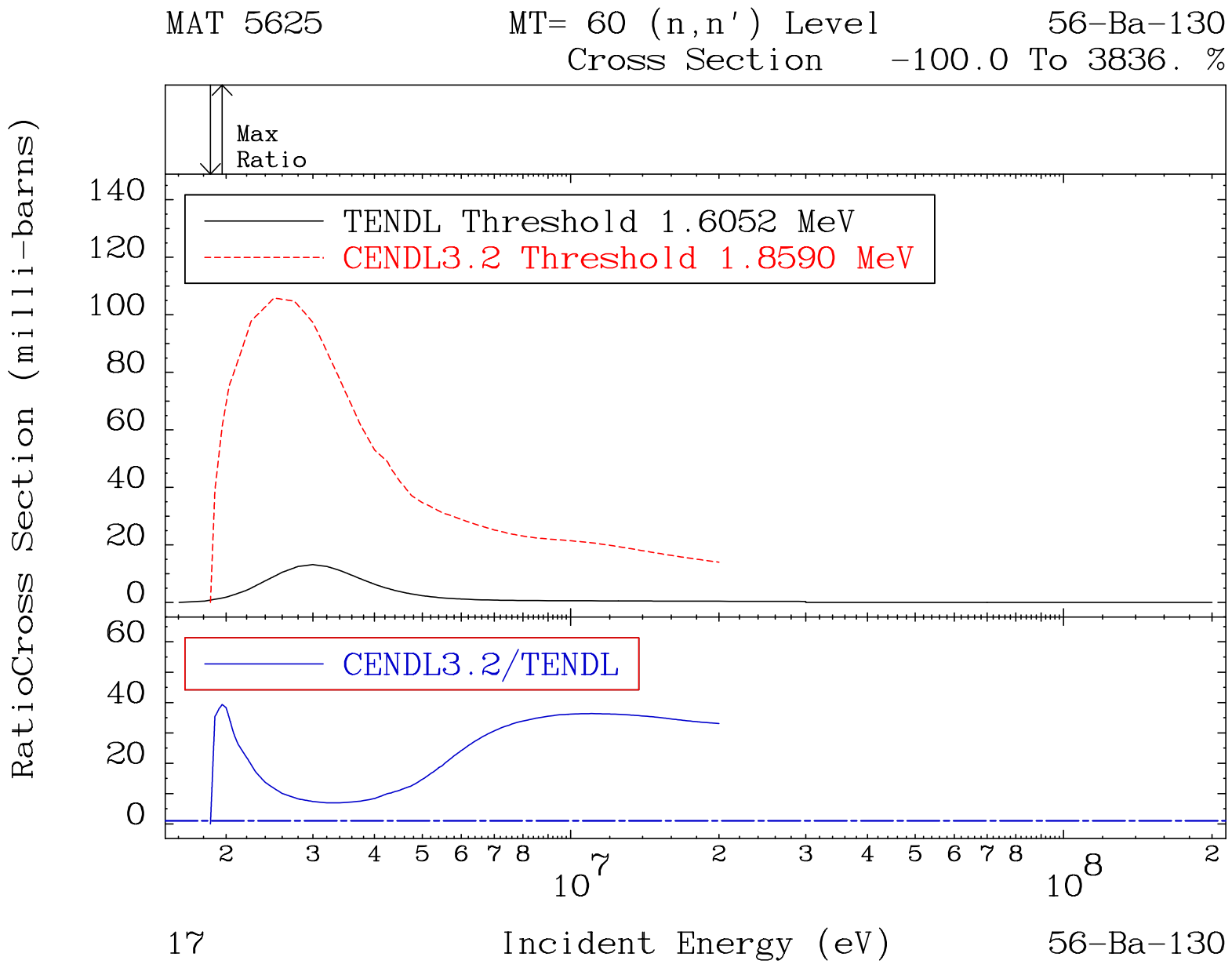

MAT 5625
MT= 55 (n,n') Level
56-Ba-130
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.1887 MeV
CENDL3.2 Threshold 1.3717 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
600
400
200
0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
12
Incident Energy (eV)
56-Ba-130

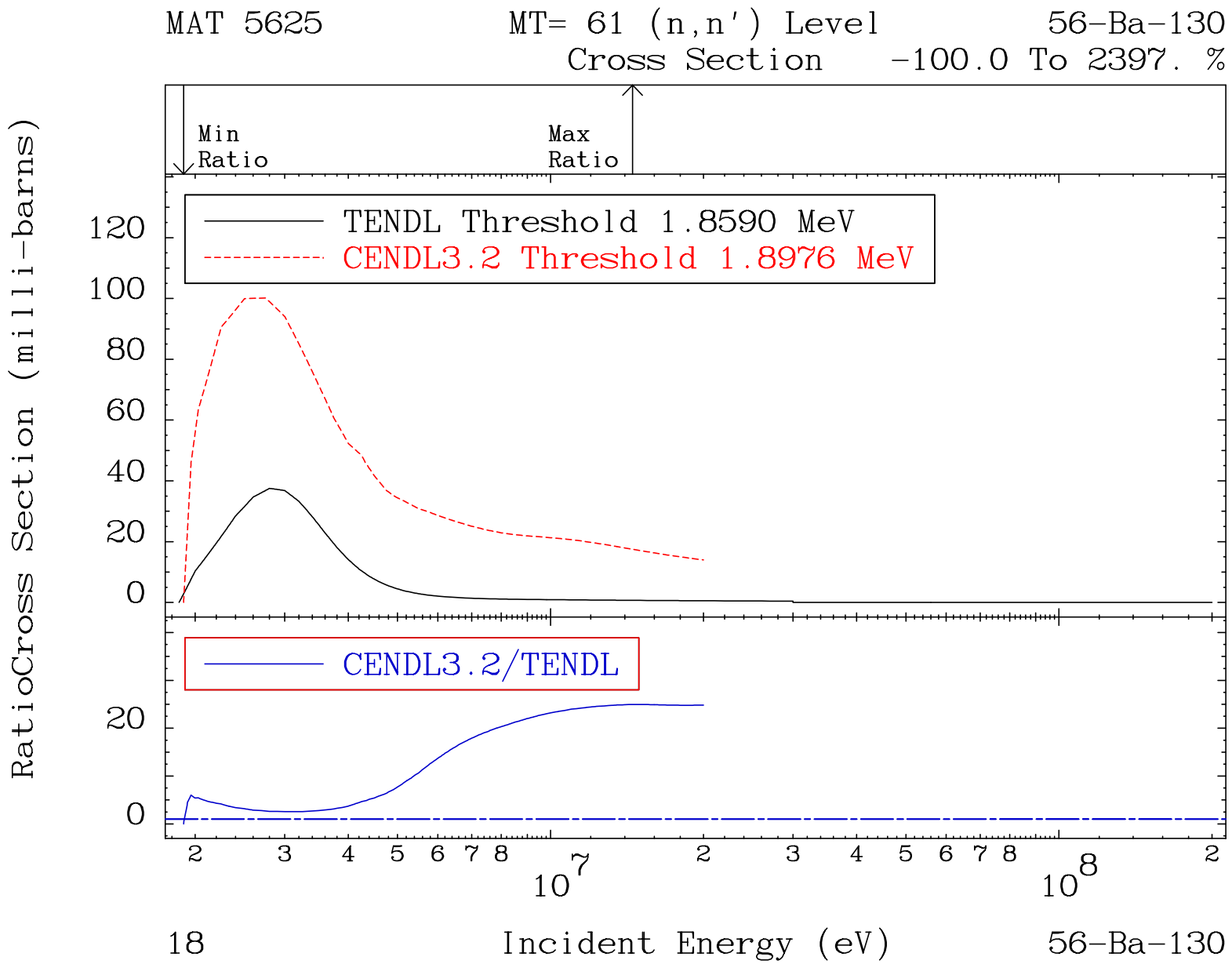

MAT 5625
MT= 56 (n,n') Level
56-Ba-130
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.3716 MeV
CENDL3.2 Threshold 1.4890 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
200
100
0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
13
Incident Energy (eV)
56-Ba-130

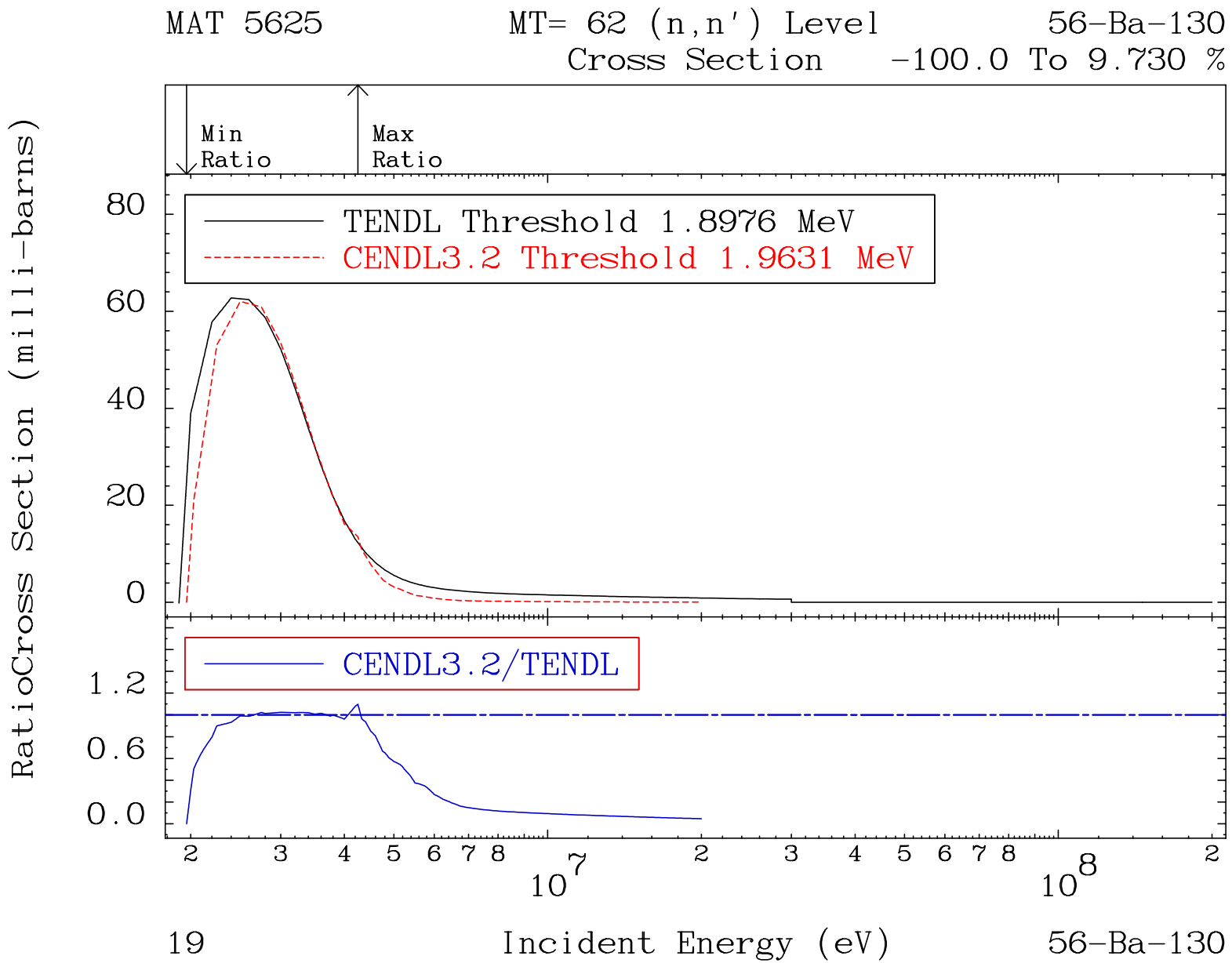

MAT 5625
MT= 57 (n,n') Level
56-Ba-130
Cross Section
-100.0 To 2.232 %
Min Ratio
Max Ratio
TENDL Threshold 1.4890 MeV
CENDL3.2 Threshold 1.5564 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
1.2
0.6
0.0
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
14
Incident Energy (eV)
56-Ba-130

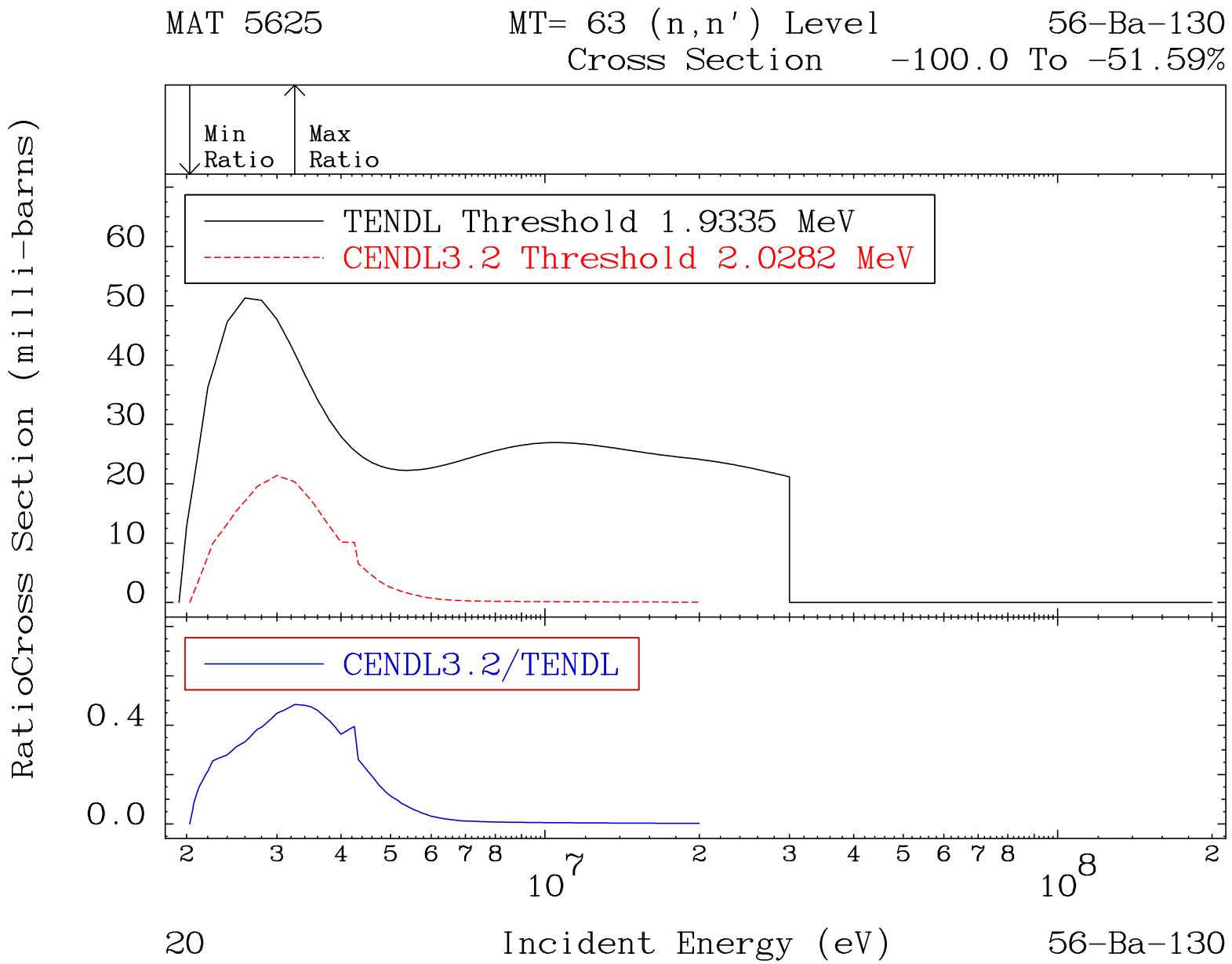

MAT 5625
MT= 58 (n,n') Level
56-Ba-130
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.5564 MeV
CENDL3.2 Threshold 1.5697 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
60
40
20
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
56-Ba-130

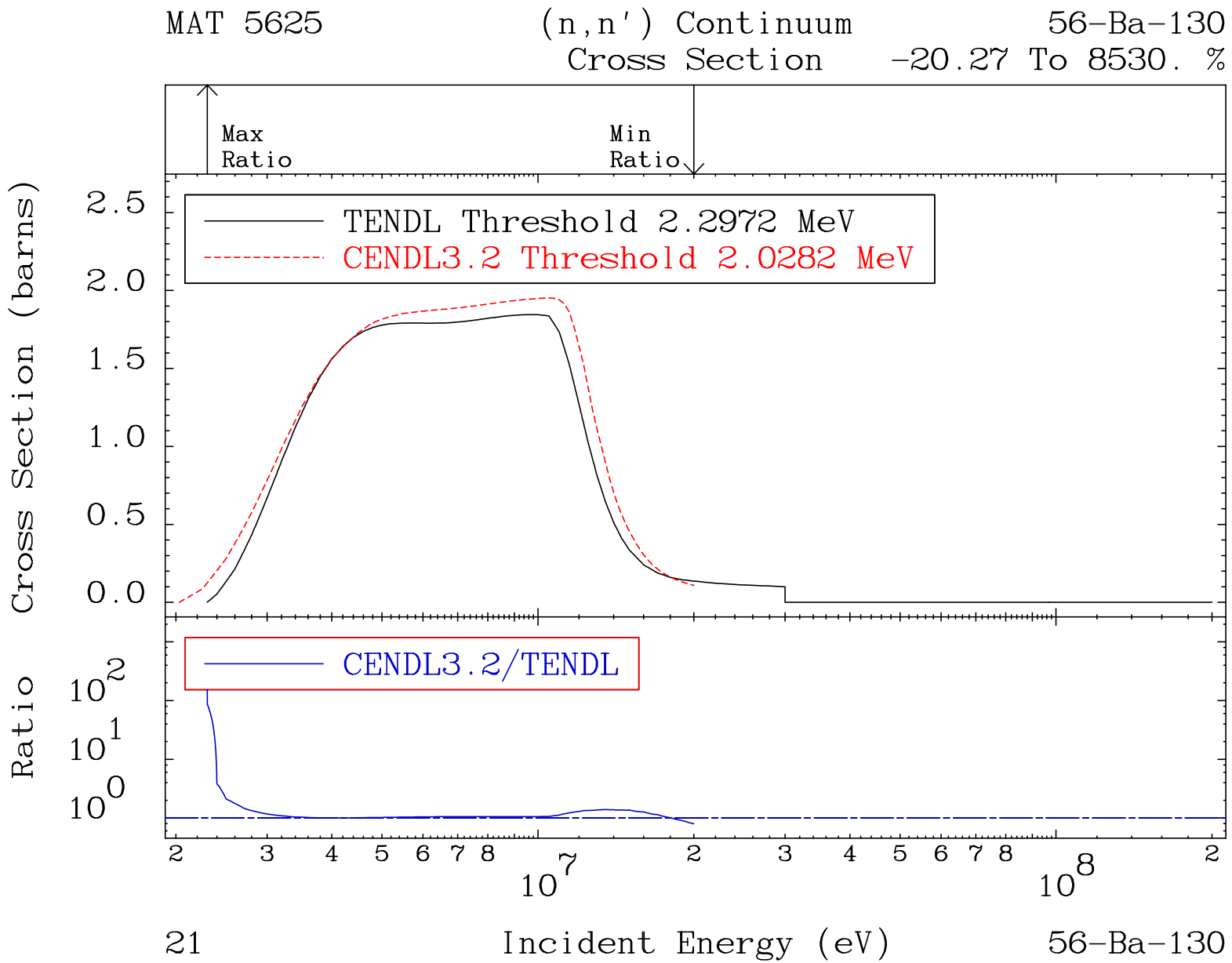

MAT 5625
MT= 59 (n,n') Level
56-Ba-130
Cross Section
-100.0 To -46.52%
Min Ratio
Max Ratio
TENDL Threshold 1.5696 MeV
CENDL3.2 Threshold 1.6052 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
0.8
0.4
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
56-Ba-130

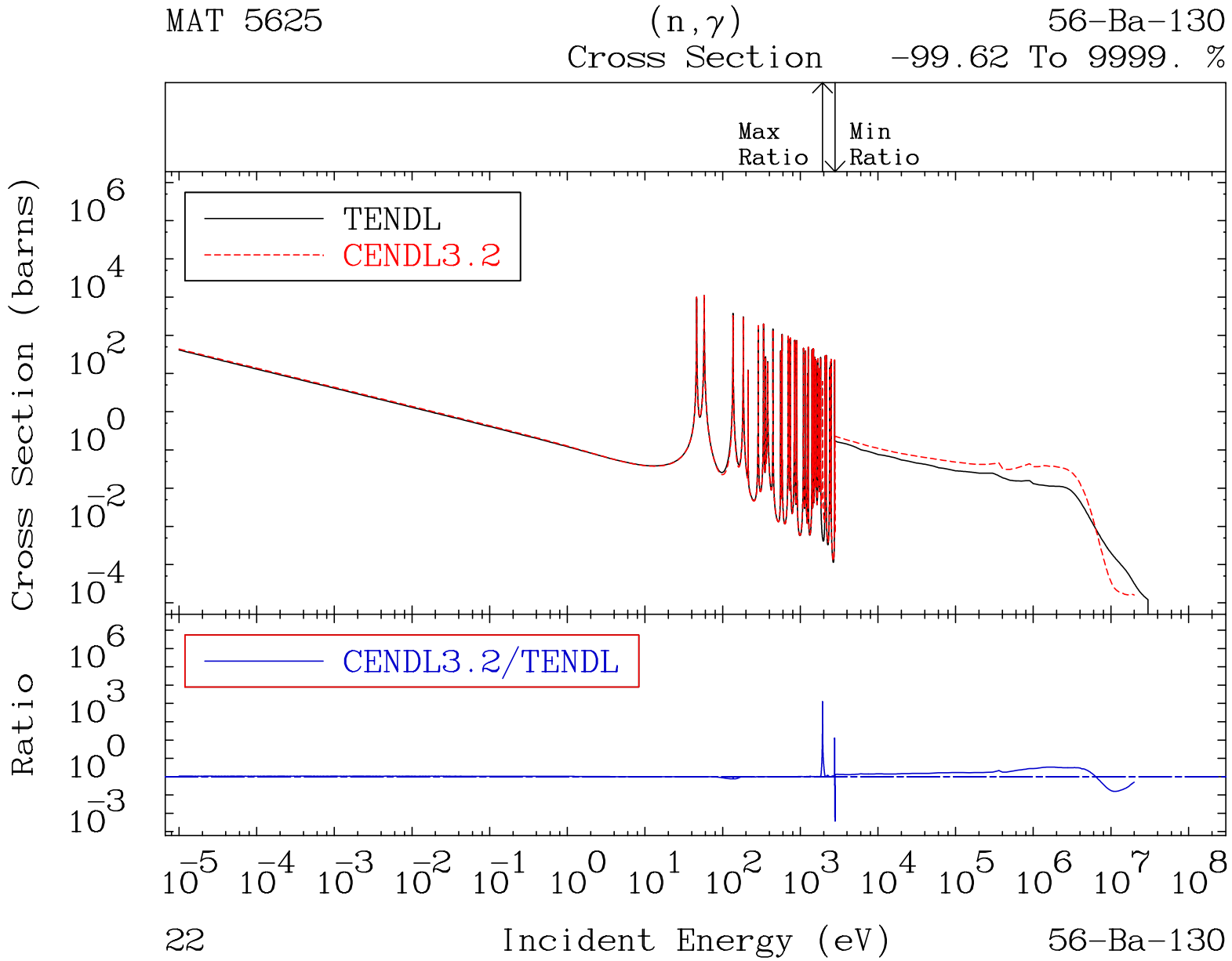

MAT 5625
MT= 60 (n,n') Level
56-Ba-130
Cross Section -100.0 To 3836. %
Max
Ratio
TENDL Threshold 1.6052 MeV
CENDL3.2 Threshold 1.8590 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
60
40
20
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
56-Ba-130

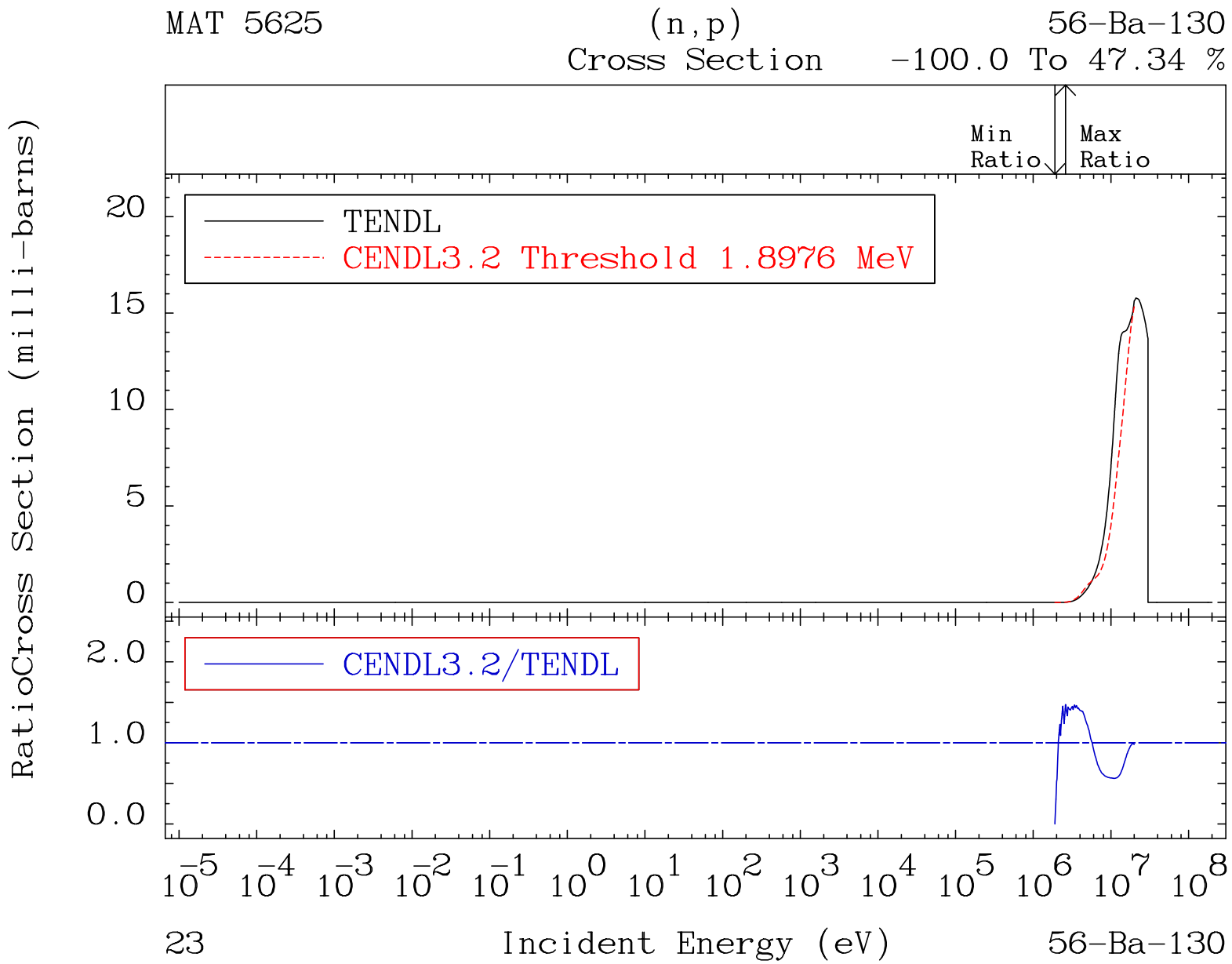

MAT 5625
MT= 61 (n,n') Level
56-Ba-130
Cross Section -100.0 To 2397. %
Min Ratio
Max Ratio
TENDL Threshold 1.8590 MeV
CENDL3.2 Threshold 1.8976 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
20
0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
56-Ba-130

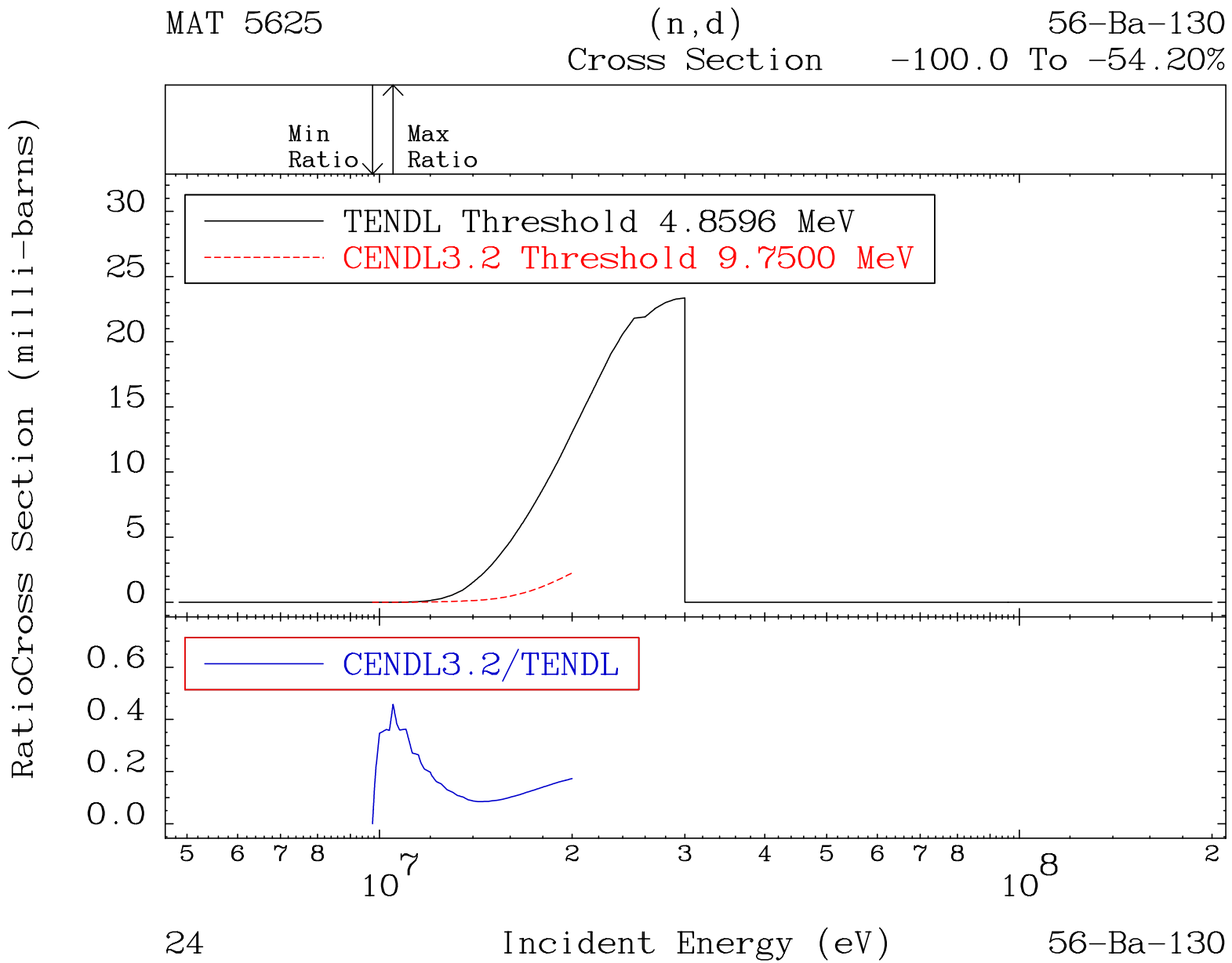

MAT 5625
MT= 62 (n,n') Level
56-Ba-130
Cross Section -100.0 To 9.730 %
Min Ratio
Max Ratio
TENDL Threshold 1.8976 MeV
CENDL3.2 Threshold 1.9631 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
1.2
0.6
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
19
Incident Energy (eV)
56-Ba-130

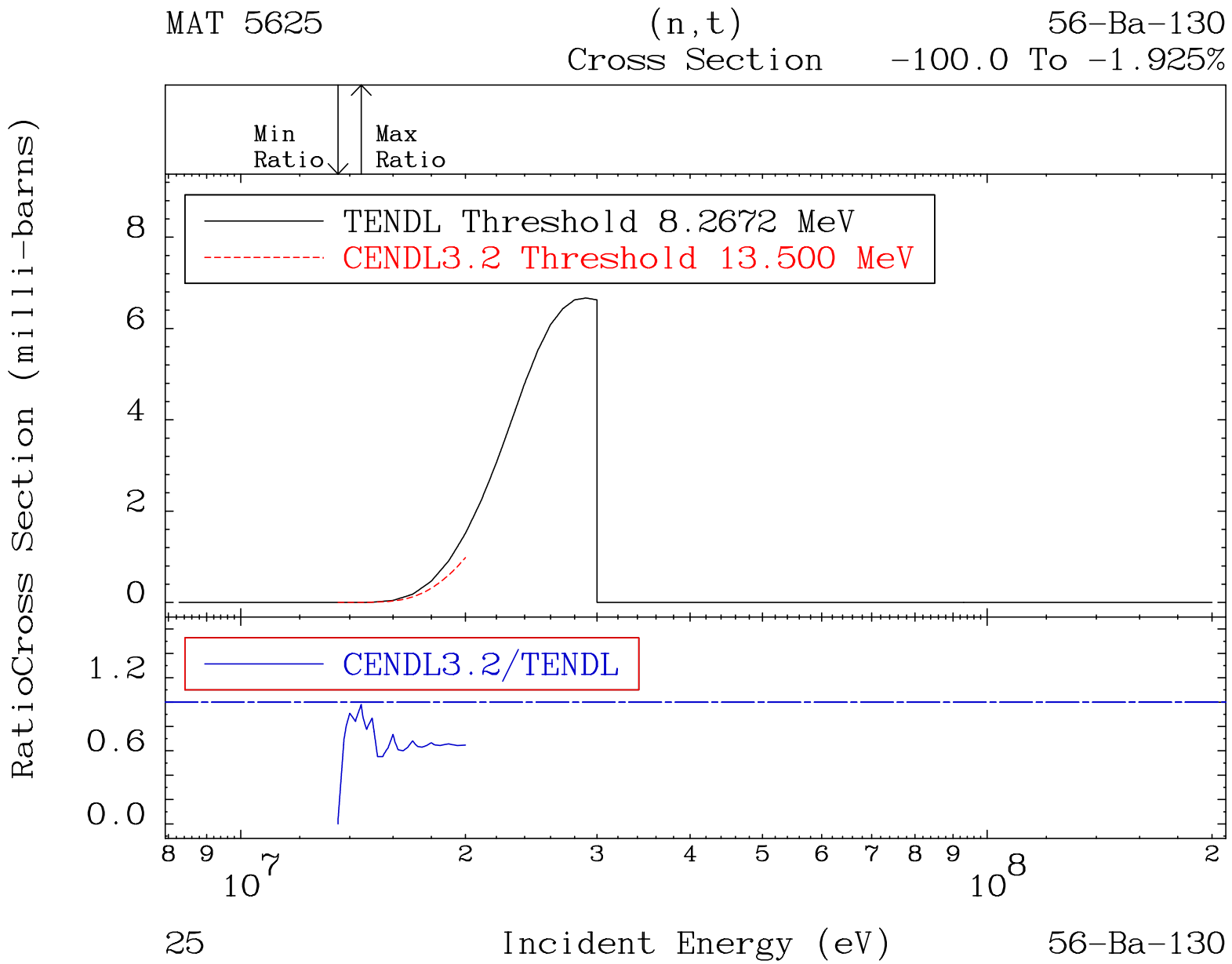

MAT 5625
MT= 63 (n,n') Level
56-Ba-130
Cross Section -100.0 To -51.59%
Min Ratio
Max Ratio
TENDL Threshold 1.9335 MeV
CENDL3.2 Threshold 2.0282 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
0.4
0.0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
56-Ba-130

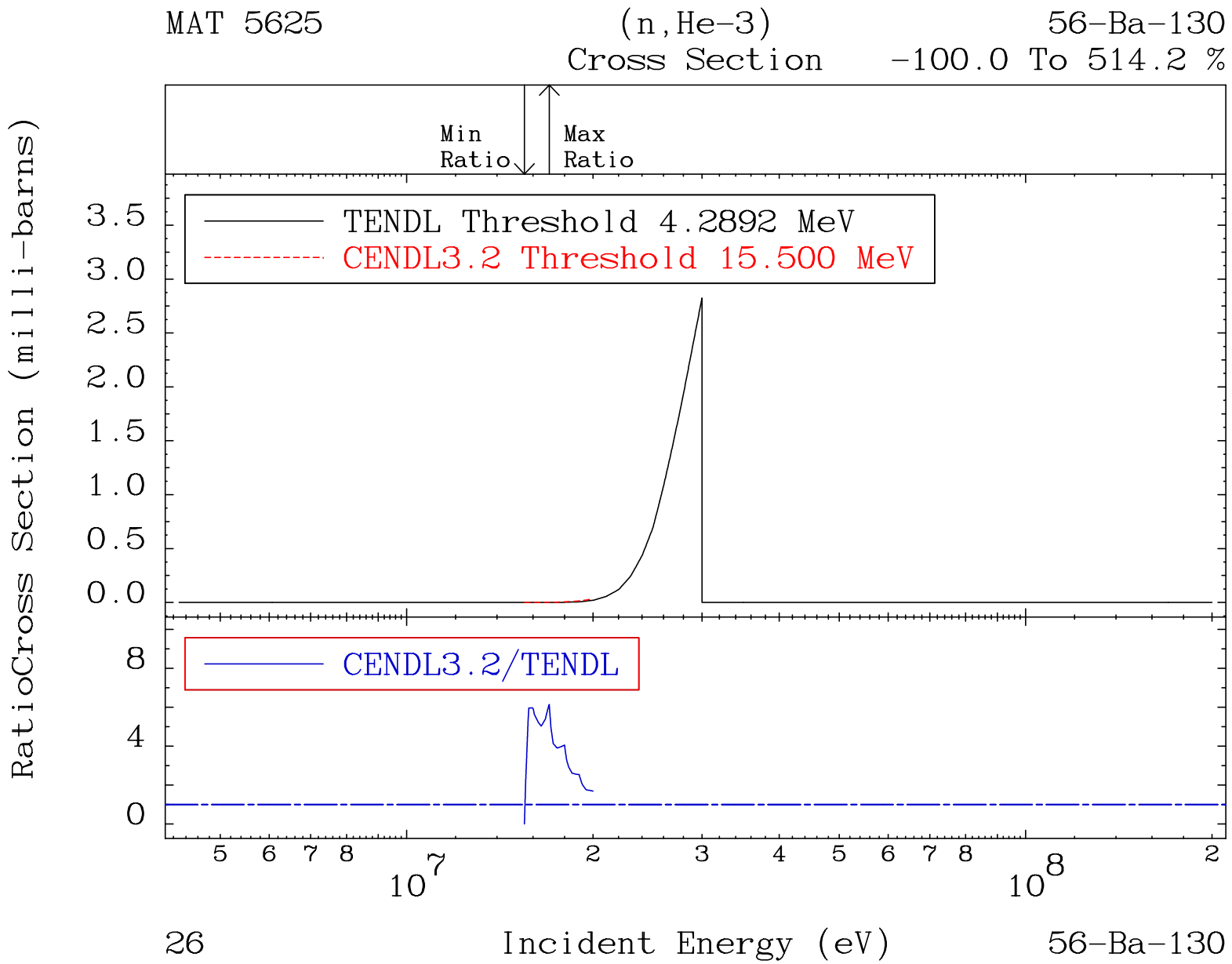

MAT 5625
(n,n') Continuum
Cross Section
56-Ba-130
-20.27 To 8530. %
Max Ratio
Min Ratio
TENDL Threshold 2.2972 MeV
CENDL3.2 Threshold 2.0282 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
CENDL3.2/TENDL
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
56-Ba-130

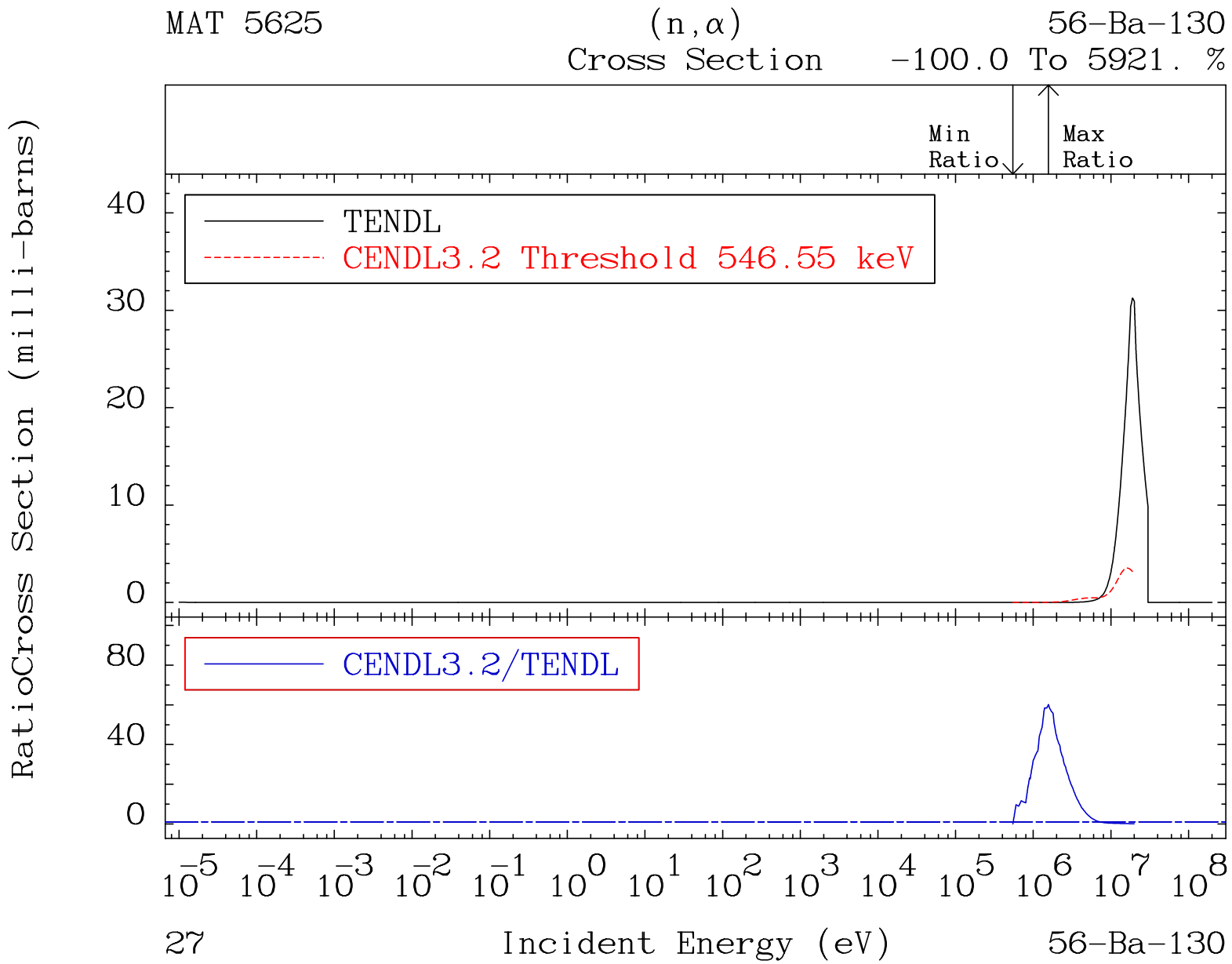

MAT 5625
(n,γ)
Cross Section
56-Ba-130
-99.62 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
22
56-Ba-130

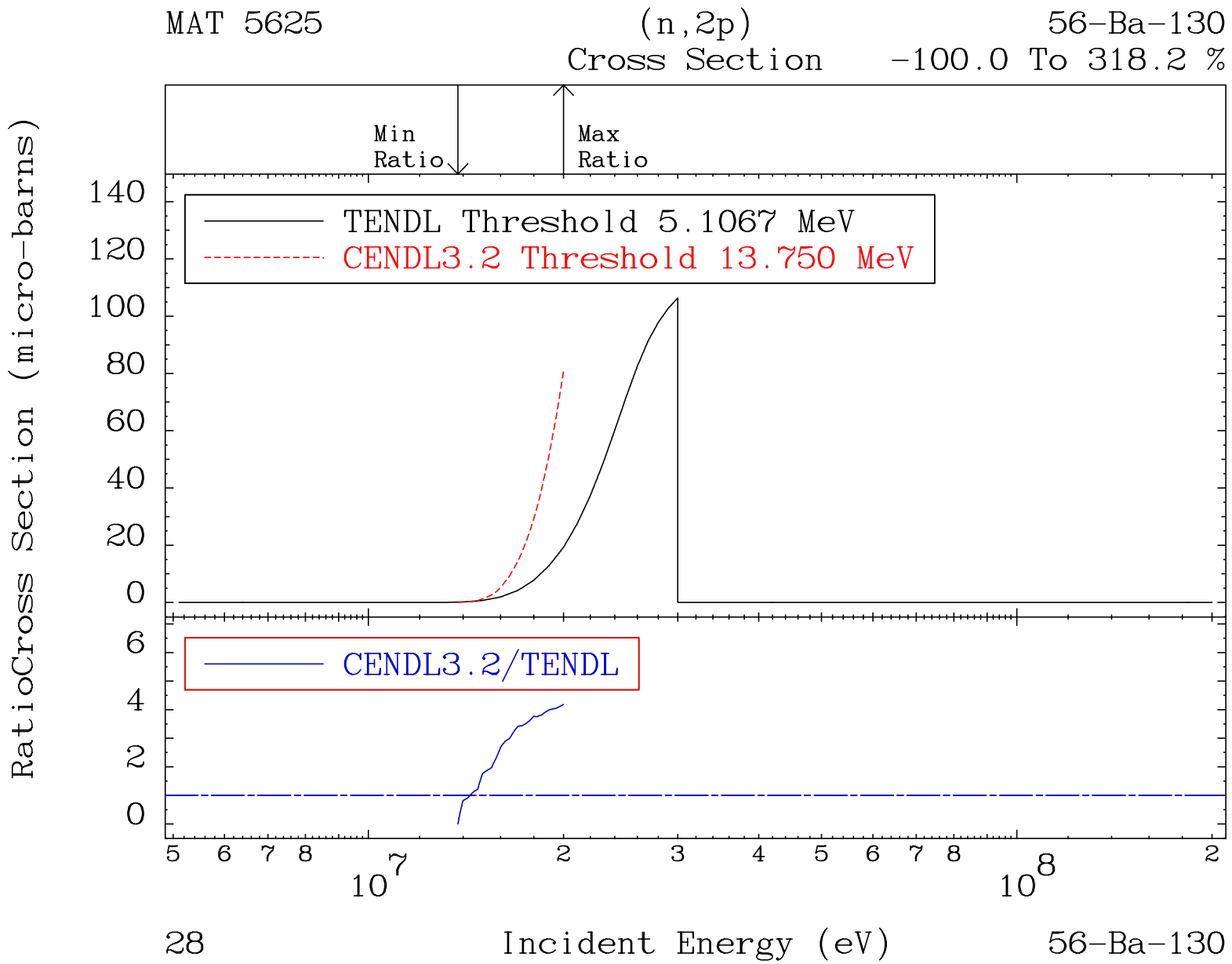

MAT 5625
(n,p)
Cross Section
56-Ba-130
-100.0 To 47.34 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 1.8976 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
2.0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
23
Incident Energy (eV)
56-Ba-130

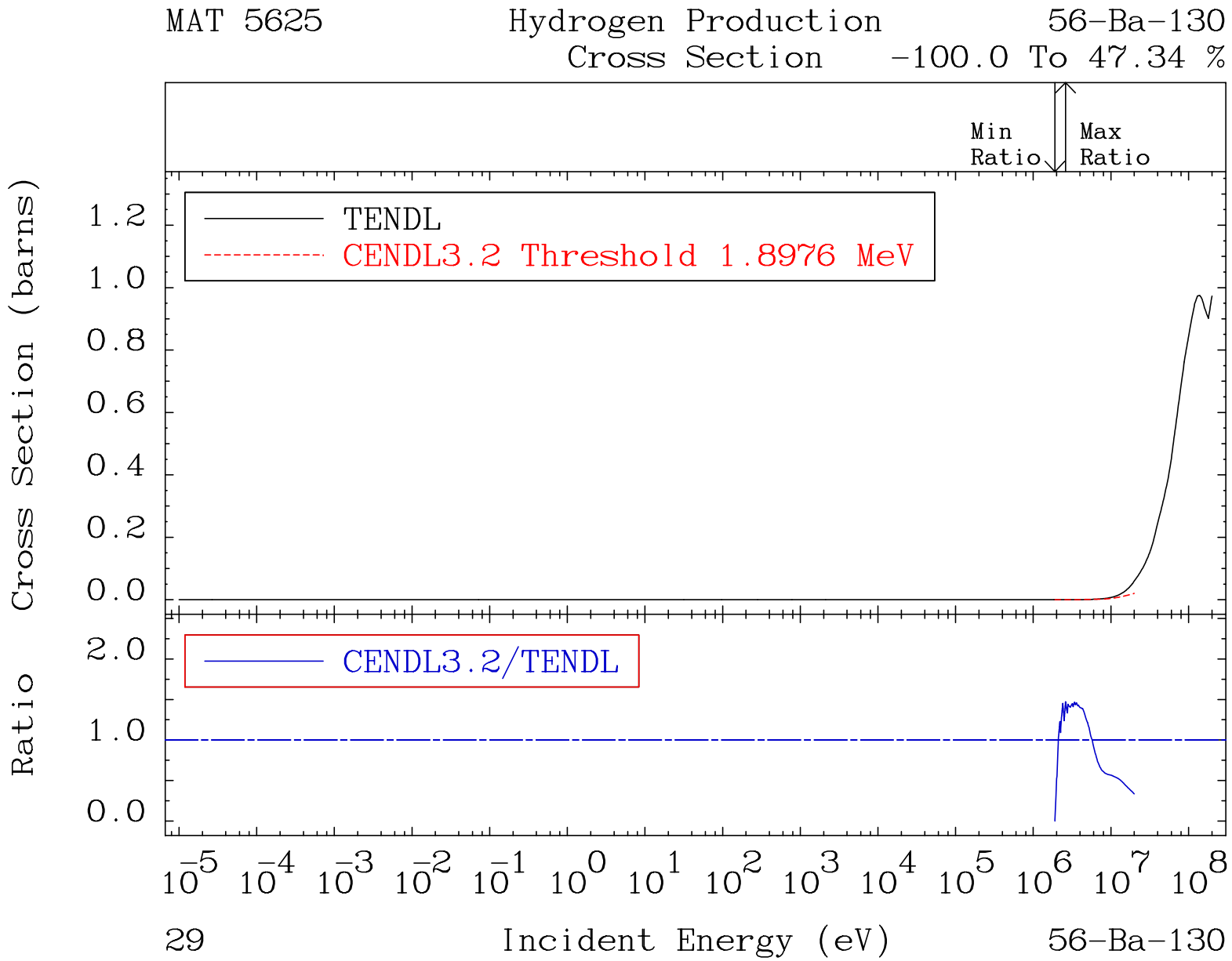

MAT 5625
(n,d)
56-Ba-130
Cross Section
-100.0 To -54.20%
Min Ratio
Max Ratio
TENDL Threshold 4.8596 MeV
CENDL3.2 Threshold 9.7500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
0.6
0.4
0.2
0.0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
56-Ba-130

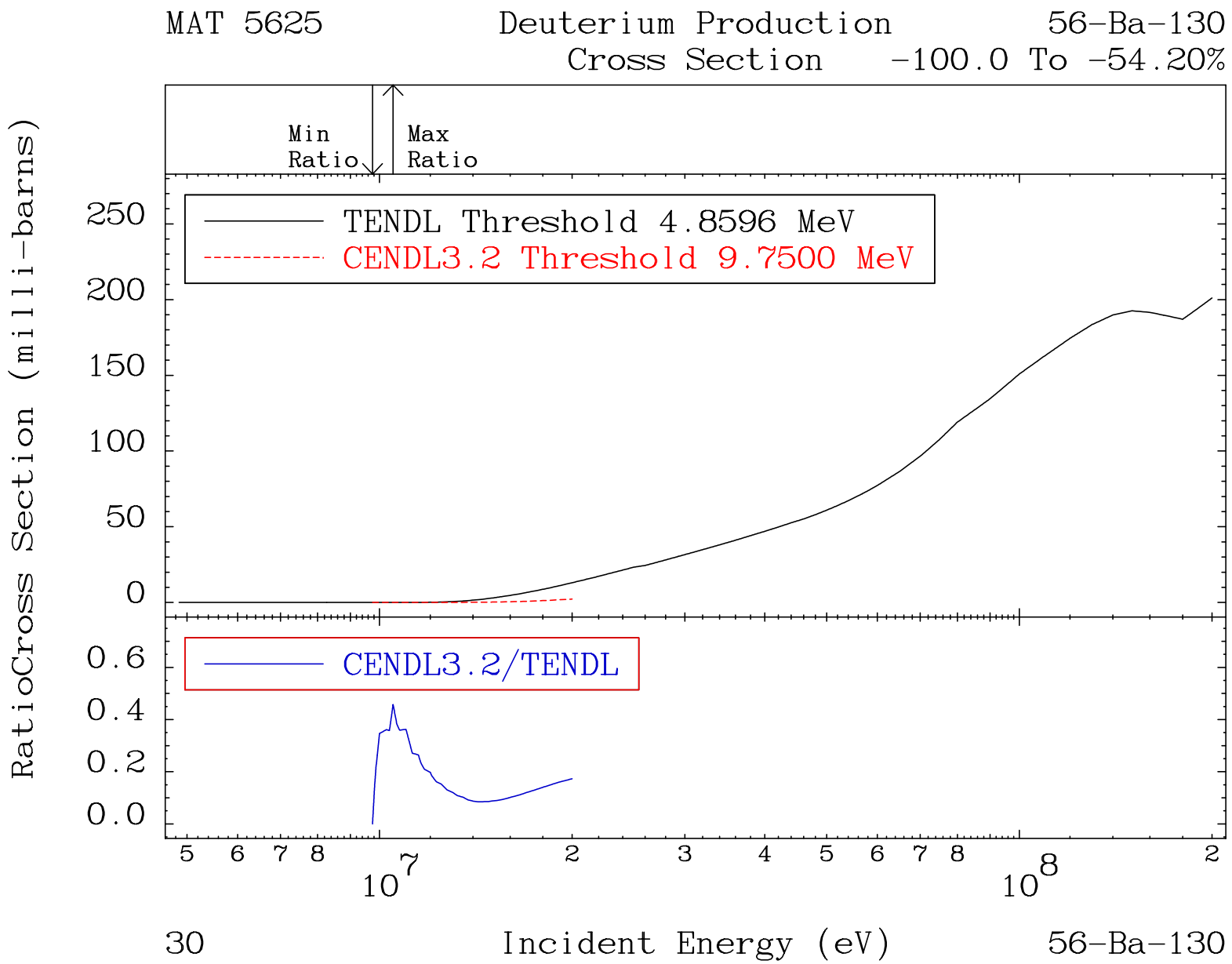

MAT 5625
(n,t)
Cross Section
56-Ba-130
-100.0 To -1.925%
Min Ratio
Max Ratio
TENDL Threshold 8.2672 MeV
CENDL3.2 Threshold 13.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
8
6
4
2
0
1.2
0.6
0.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
56-Ba-130

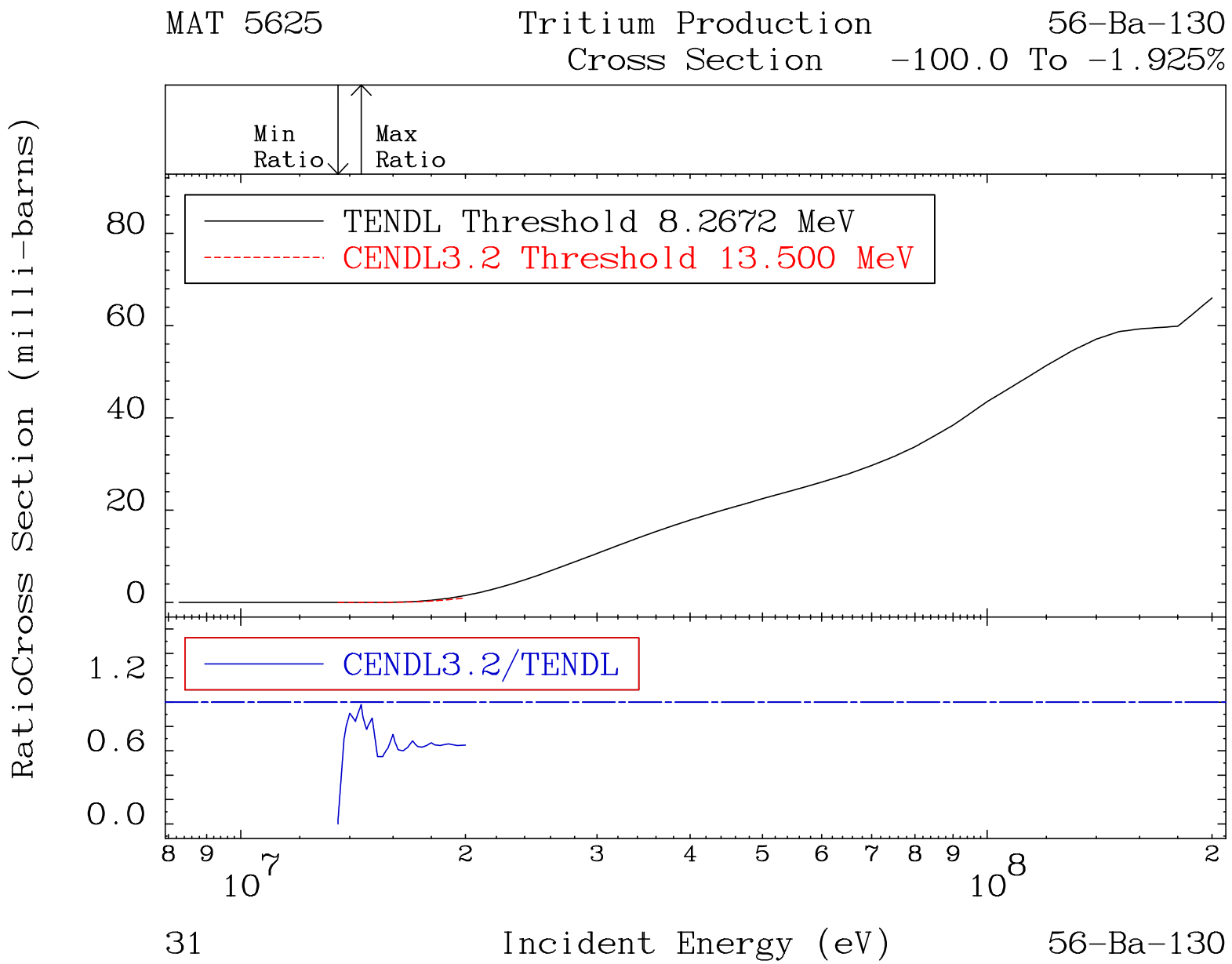

MAT 5625
(n,He-3)
Cross Section
56-Ba-130
-100.0 To 514.2 %
Min Ratio
Max Ratio
TENDL Threshold 4.2892 MeV
CENDL3.2 Threshold 15.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
8
4
0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
56-Ba-130

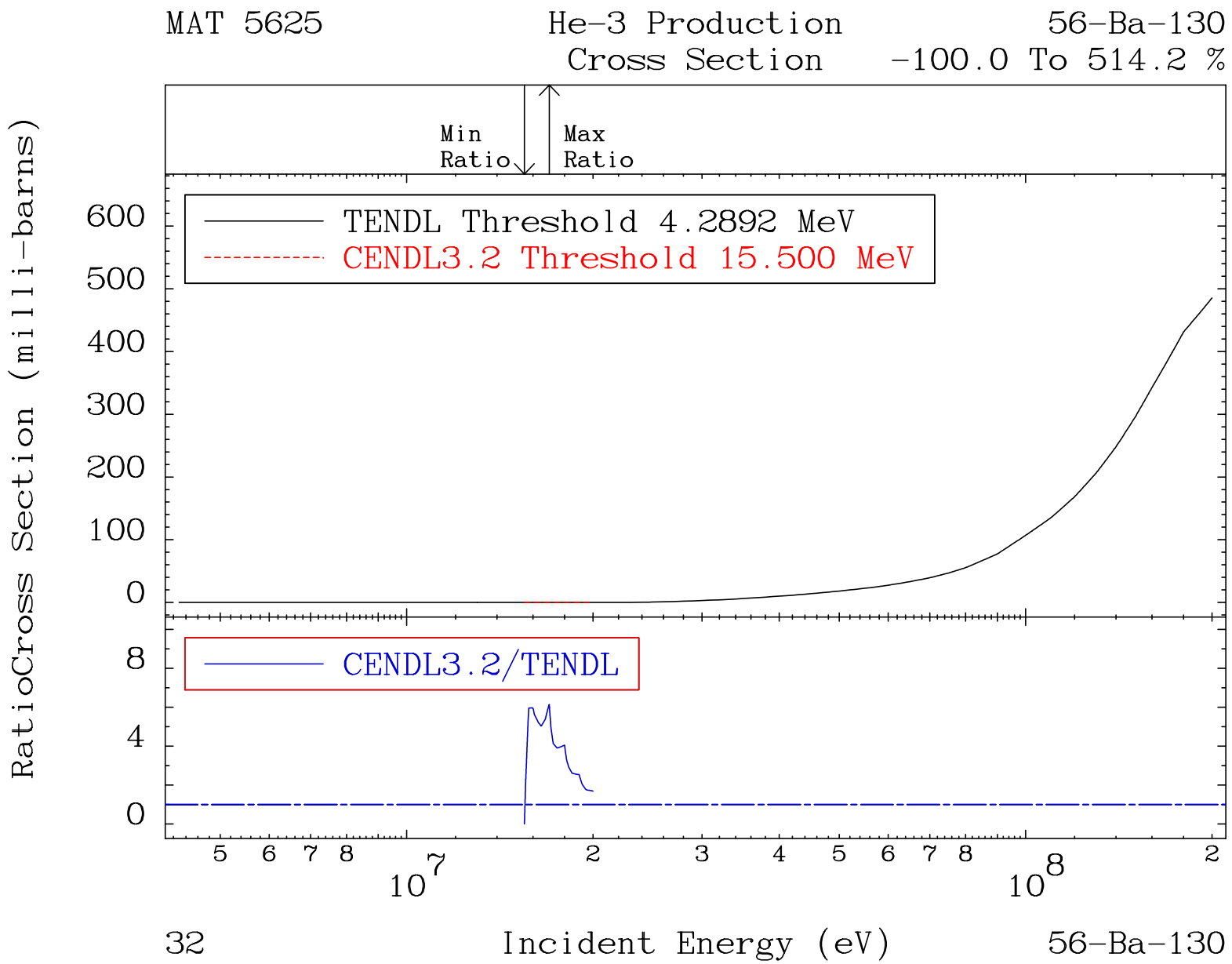

MAT 5625
(n,α)
Cross Section
56-Ba-130
-100.0 To 5921. %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 546.55 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
80
40
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
27
Incident Energy (eV)
56-Ba-130

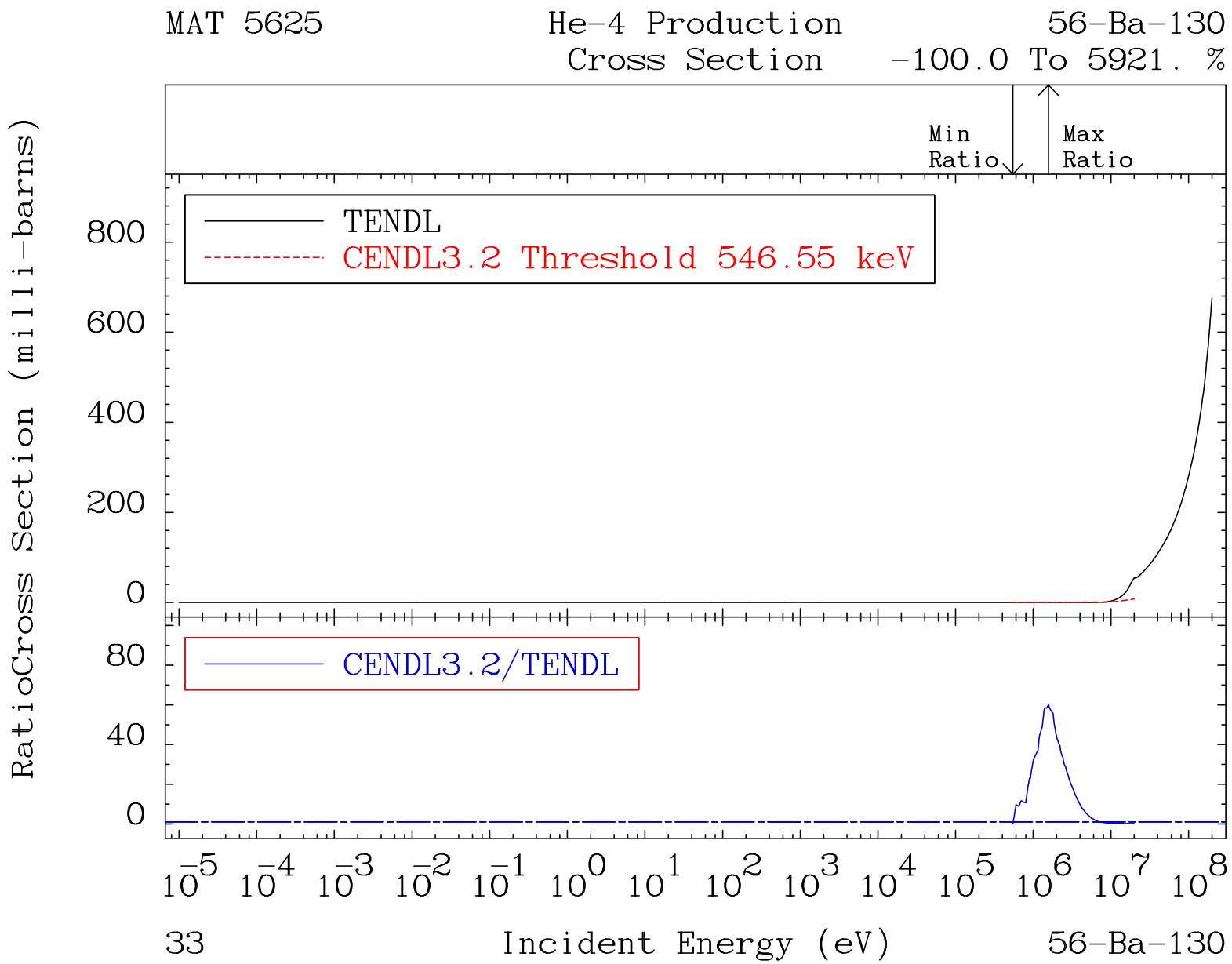

MAT 5625
(n,2p)
56-Ba-130
Cross Section
-100.0 To 318.2 %
Min Ratio
Max Ratio
TENDL Threshold 5.1067 MeV
CENDL3.2 Threshold 13.750 MeV
CENDL3.2/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
28
56-Ba-130

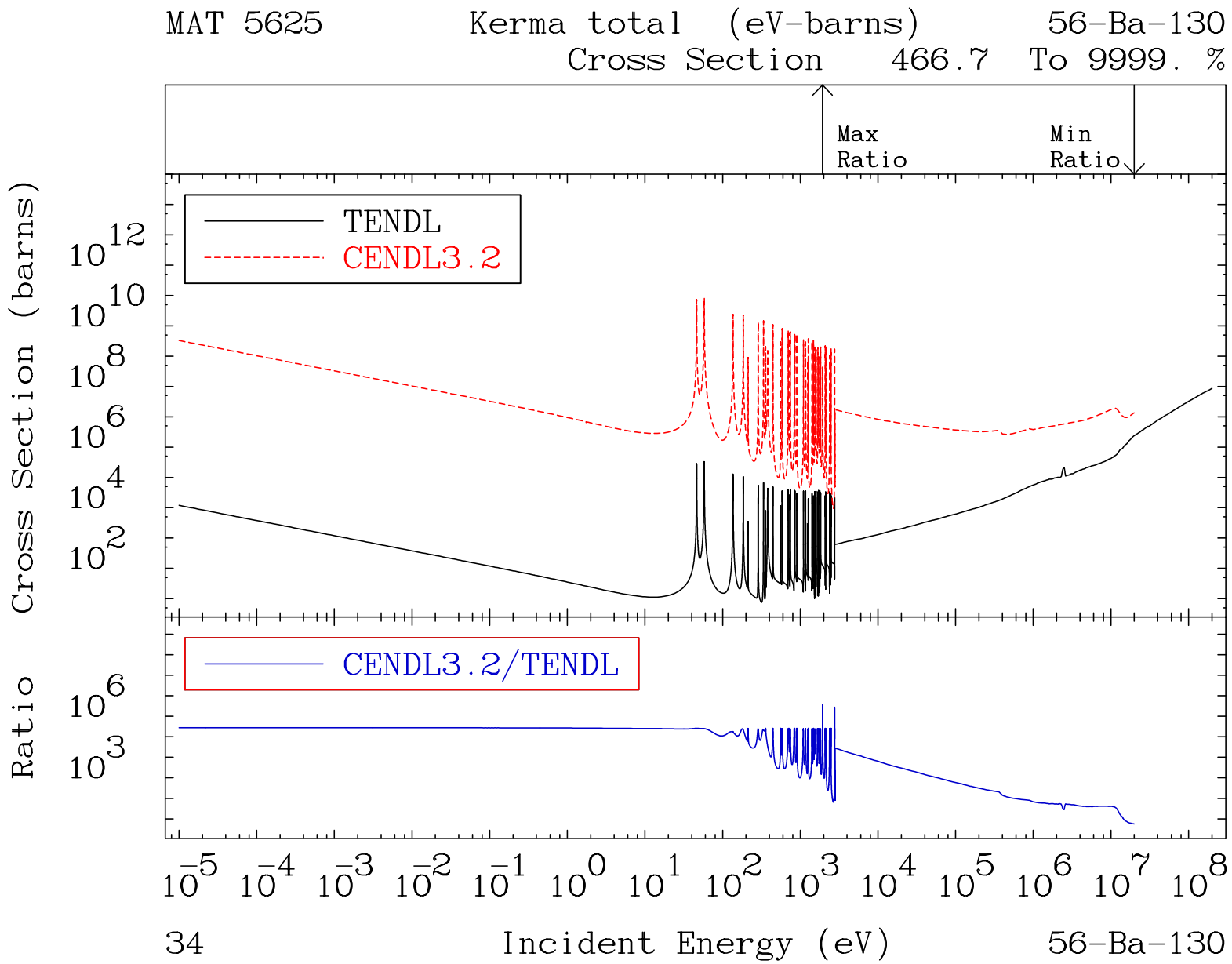

MAT 5625
Hydrogen Production
56-Ba-130
Cross Section
-100.0 To 47.34 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 1.8976 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
29
Incident Energy (eV)
56-Ba-130

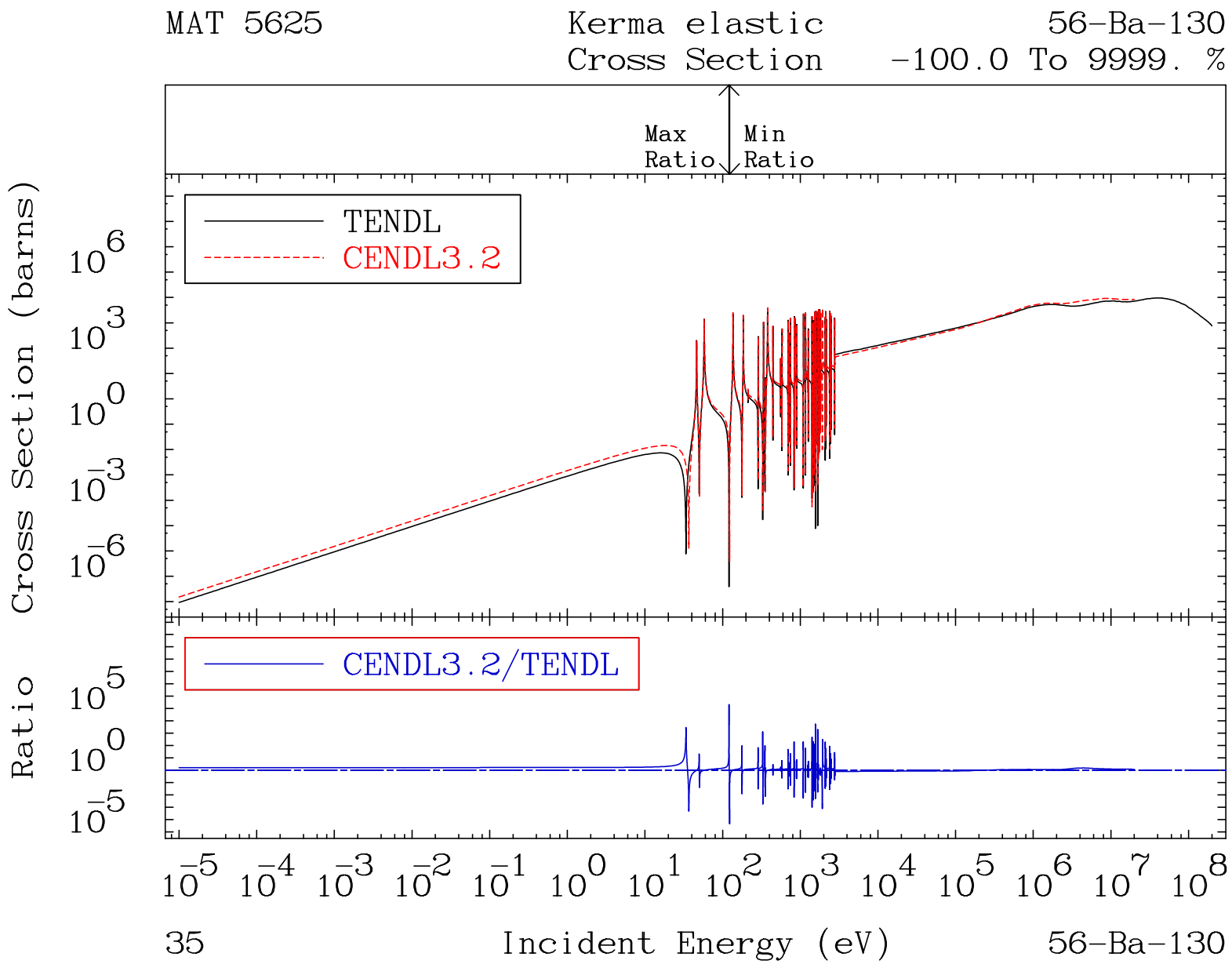

MAT 5625
Deuterium Production
56-Ba-130
Cross Section
-100.0 To -54.20%
Min Ratio
Max Ratio
TENDL Threshold 4.8596 MeV
CENDL3.2 Threshold 9.7500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
0.6
0.4
0.2
0.0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
56-Ba-130

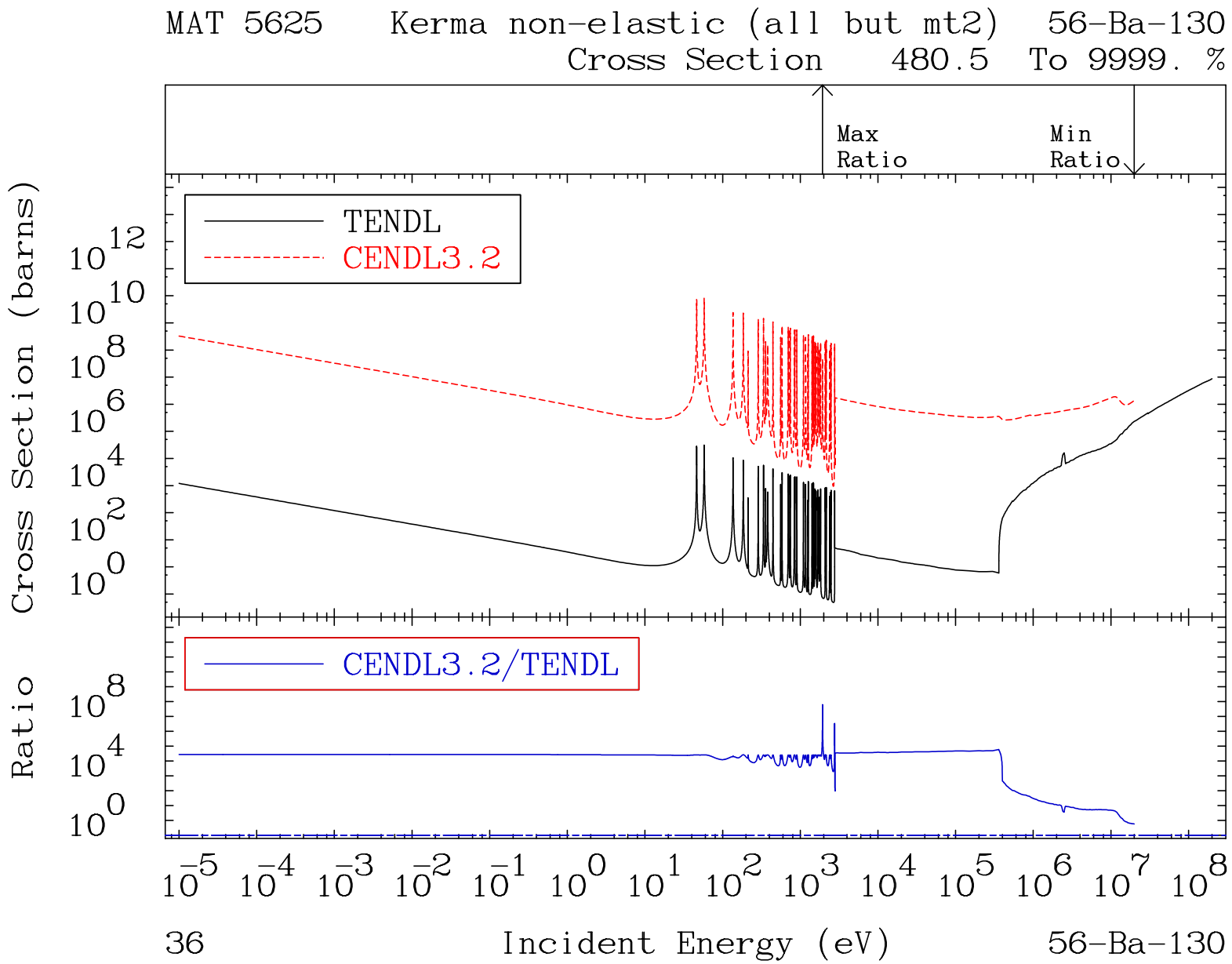

MAT 5625
Tritium Production
56-Ba-130
Cross Section
-100.0 To -1.925%
Min Ratio
Max Ratio
TENDL Threshold 8.2672 MeV
CENDL3.2 Threshold 13.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
1.2
0.6
0.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
56-Ba-130

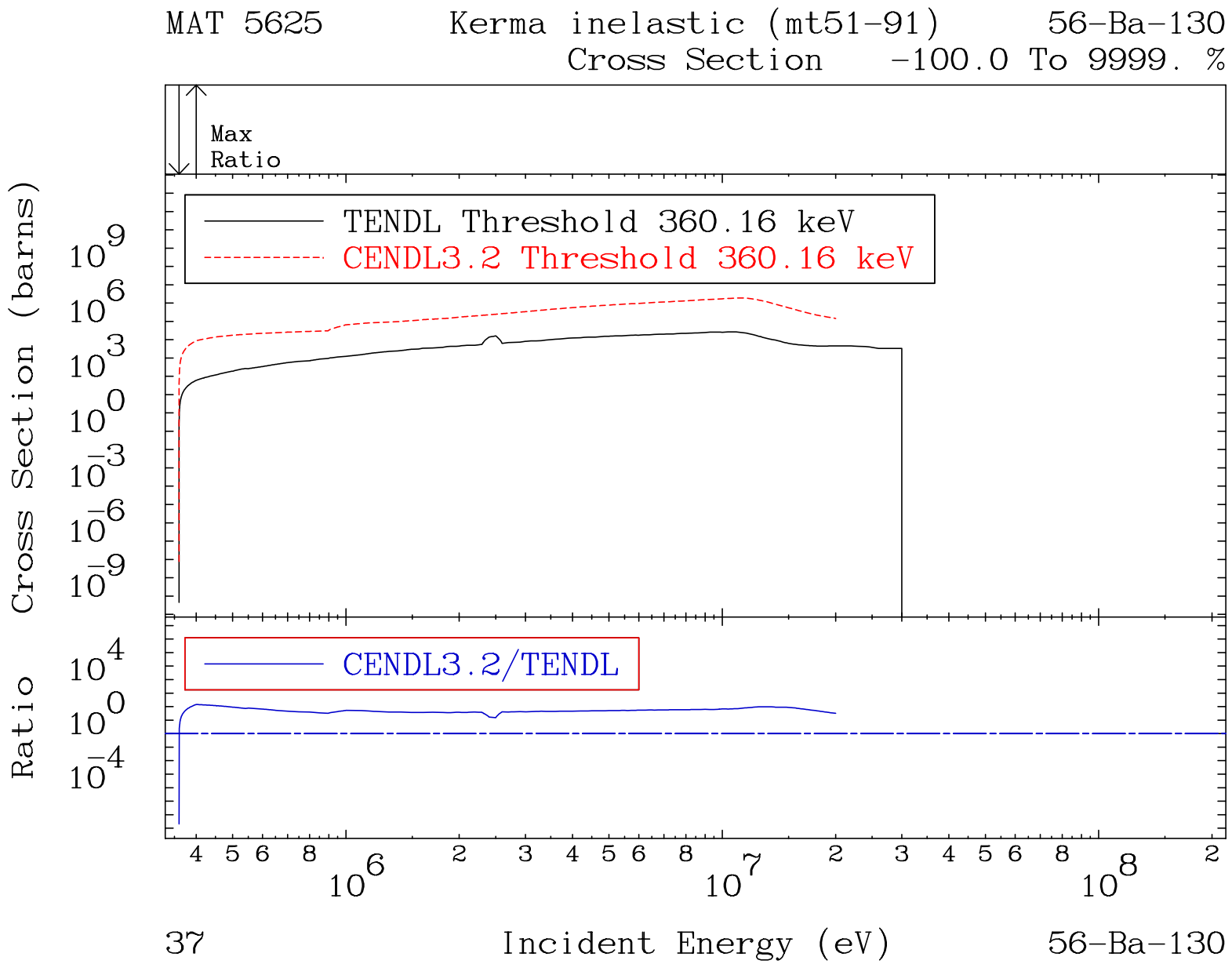

MAT 5625
He-3 Production
Cross Section
56-Ba-130
-100.0 To 514.2 %
Min Ratio
Max Ratio
TENDL Threshold 4.2892 MeV
CENDL3.2 Threshold 15.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
600
500
400
300
200
100
0
8
4
0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
56-Ba-130

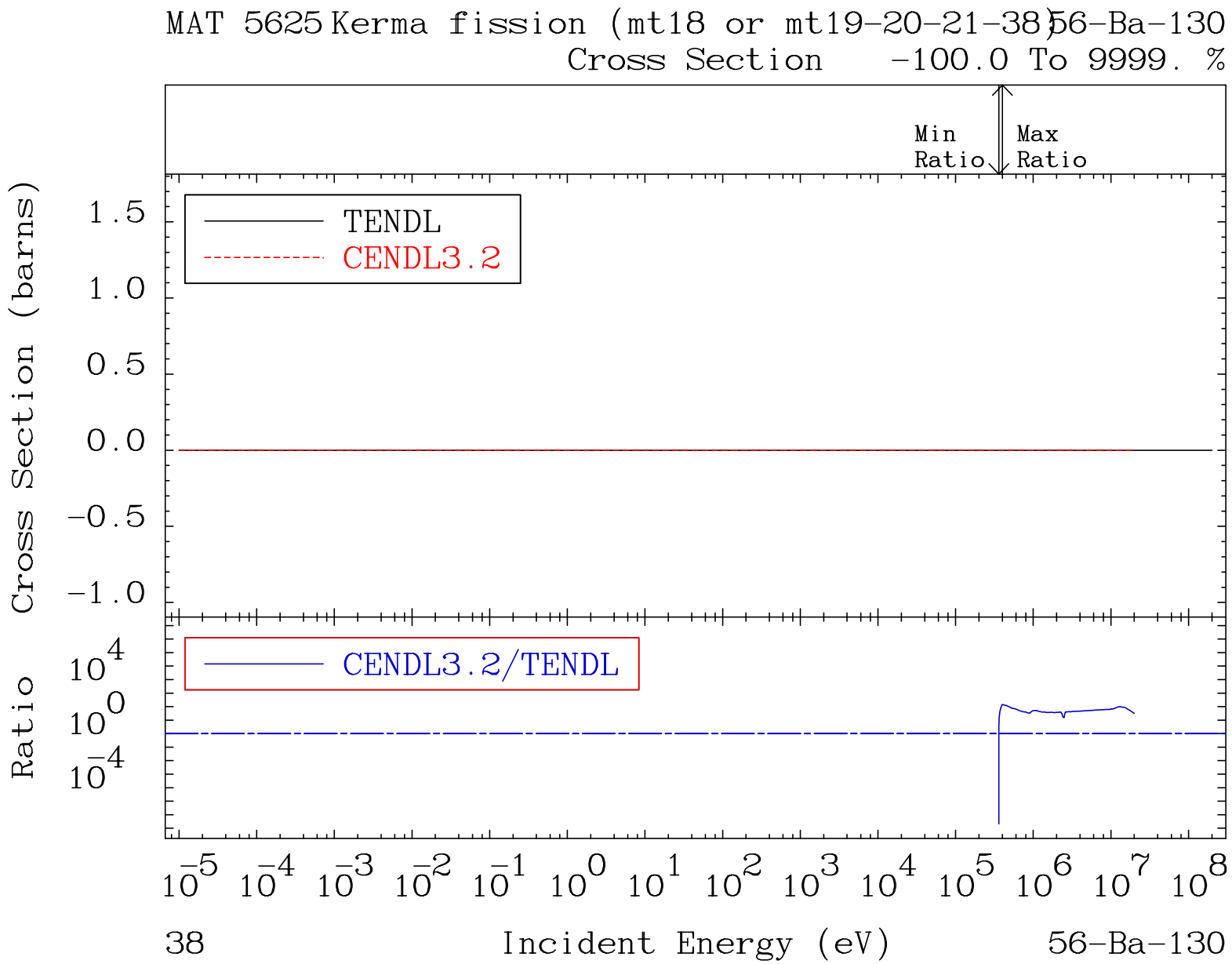

MAT 5625
He-4 Production
Cross Section
56-Ba-130
-100.0 To 5921. %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 546.55 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
80
40
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
33
Incident Energy (eV)
56-Ba-130

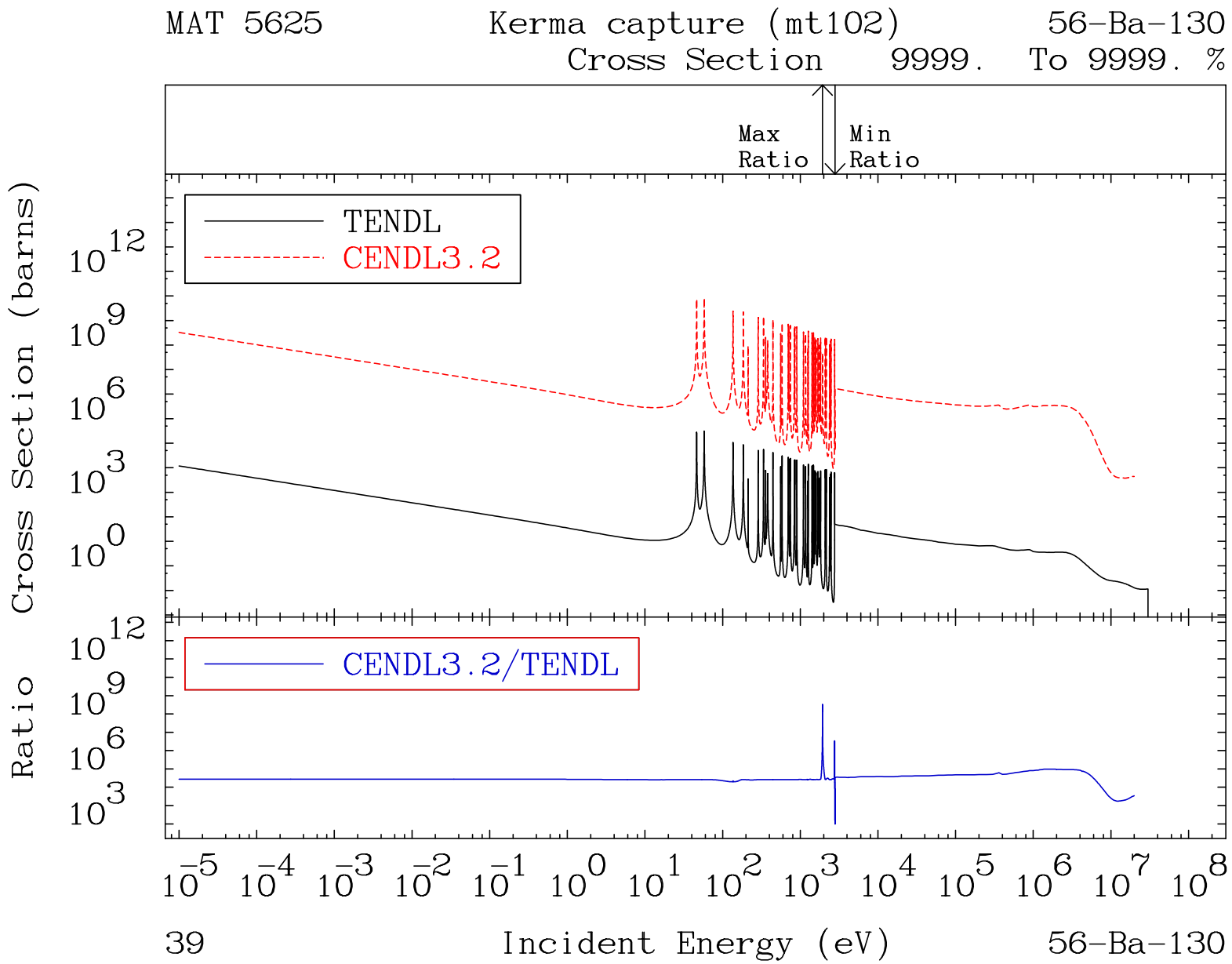

MAT 5625
Kerma total (eV-barns)
56-Ba-130
Cross Section 466.7 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
34
56-Ba-130

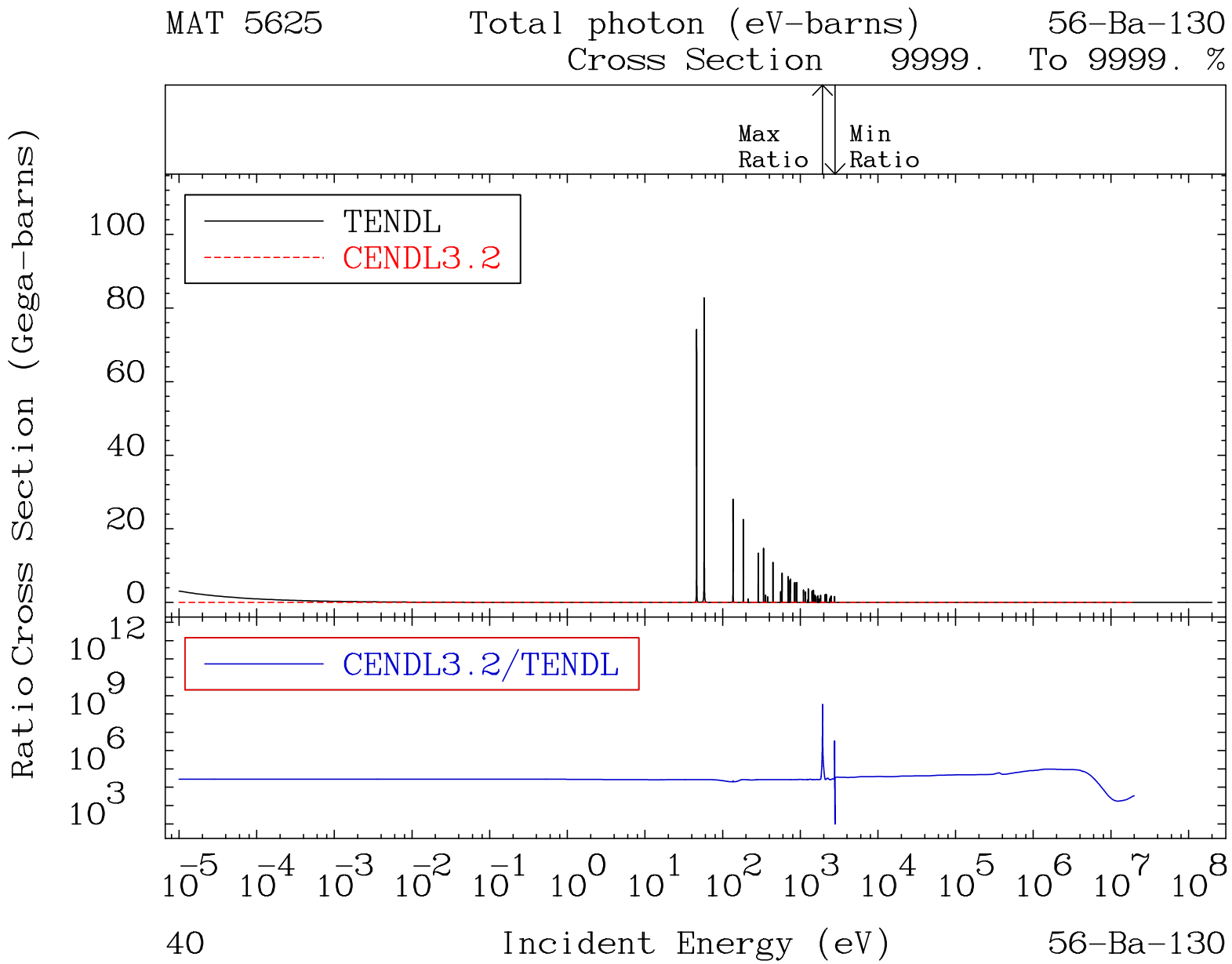

MAT 5625
Kerma elastic
Cross Section
56-Ba-130
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
35
56-Ba-130

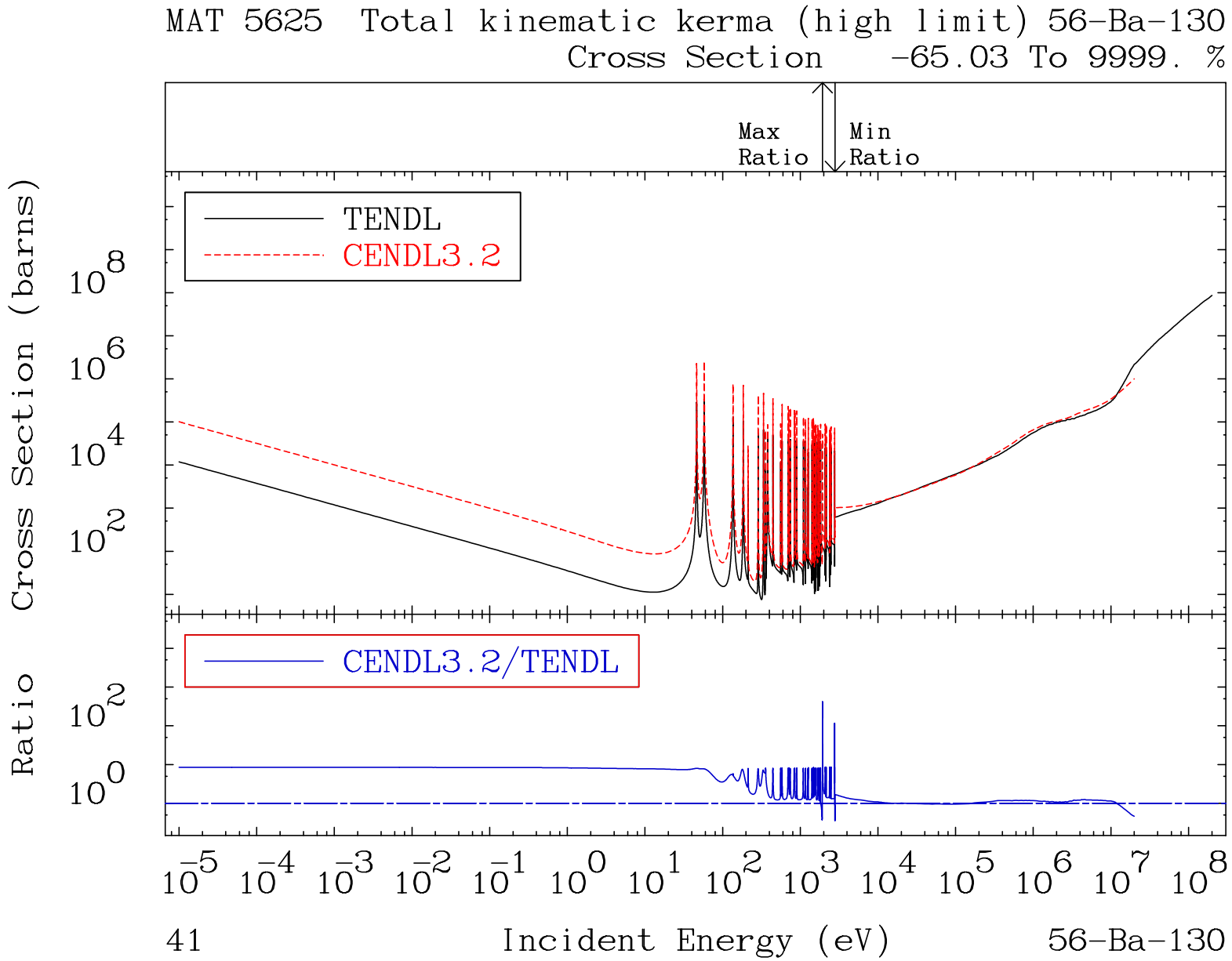

MAT 5625 Kerma non-elastic (all but mt2) 56-Ba-130
Cross Section 480.5 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
36
56-Ba-130

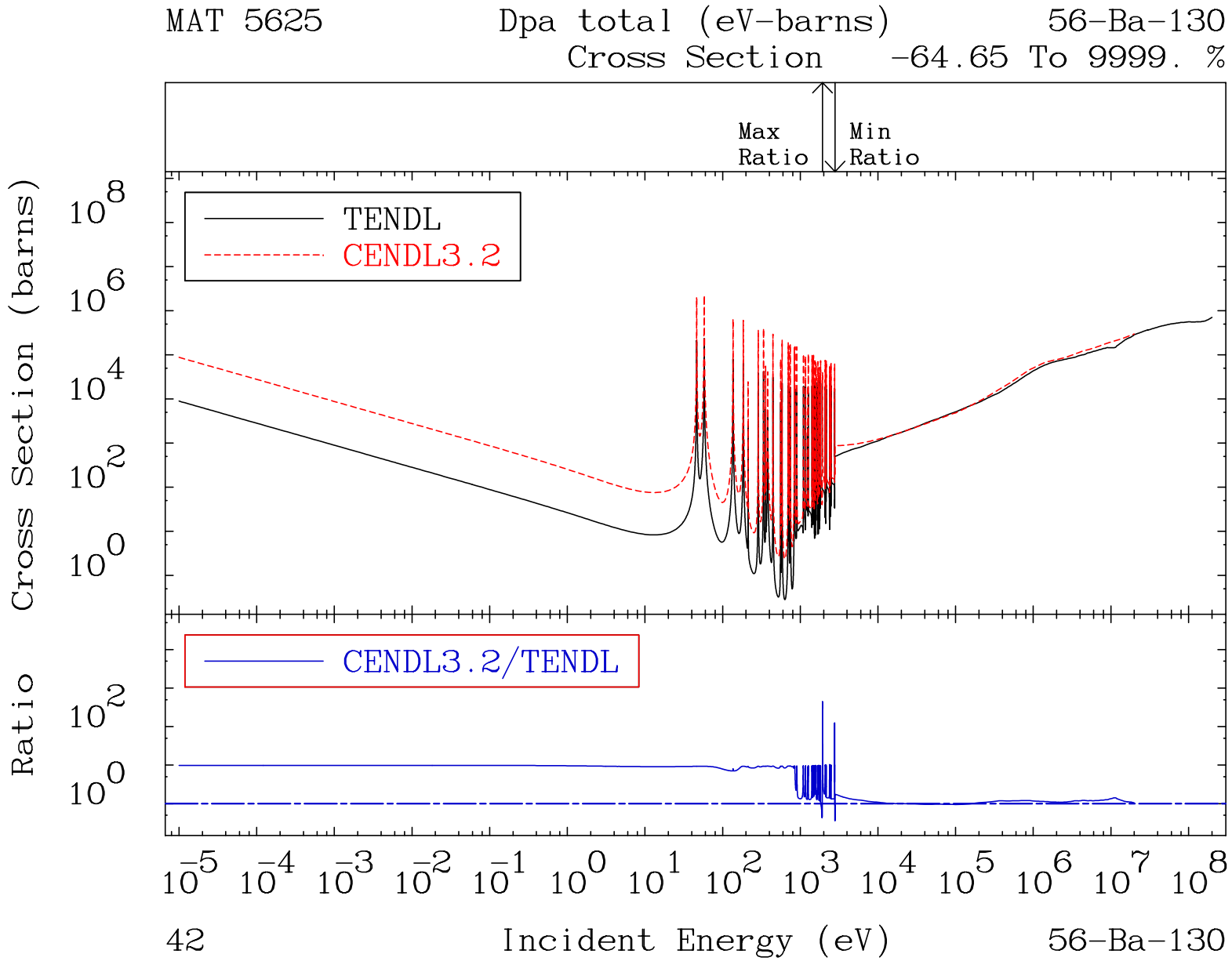

MAT 5625
Kerma inelastic (mt51-91)
56-Ba-130
Cross Section -100.0 To 9999. %
Max
Ratio
TENDL Threshold 360.16 keV
CENDL3.2 Threshold 360.16 keV
Cross Section (barns)
10^9
10^6
10^3
10^0
10^-3
10^-6
10^-9
CENDL3.2/TENDL
Ratio
10^4
10^0
10^-4
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
37
Incident Energy (eV)
56-Ba-130

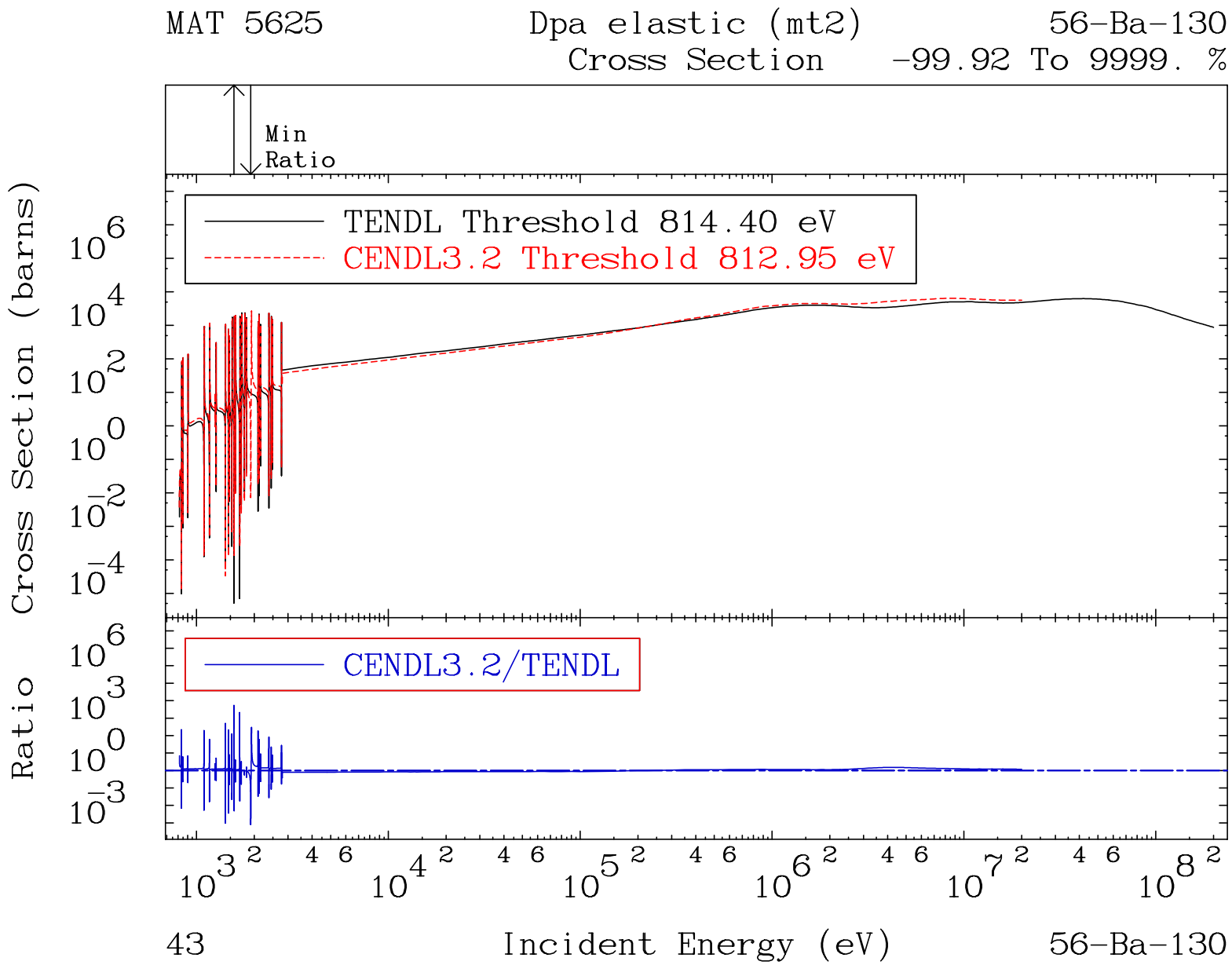

MAT 5625 Kerma fission (mt18 or mt19-20-21-38) 56-Ba-130
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{4}
10^{0}
10^{-4}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
38
Incident Energy (eV)
56-Ba-130

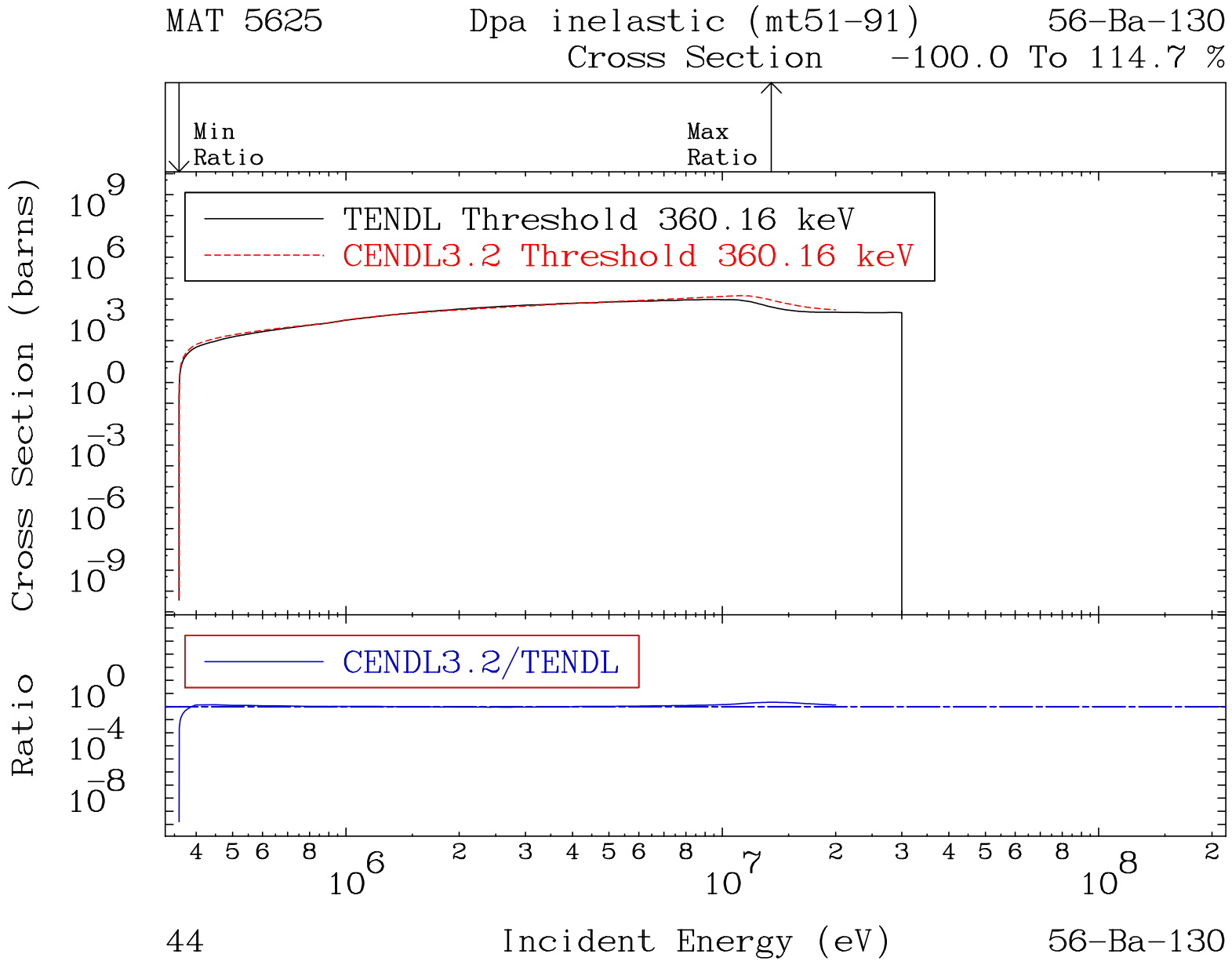

MAT 5625
Kerma capture (mt102)
56-Ba-130
Cross Section 9999. To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
39
56-Ba-130

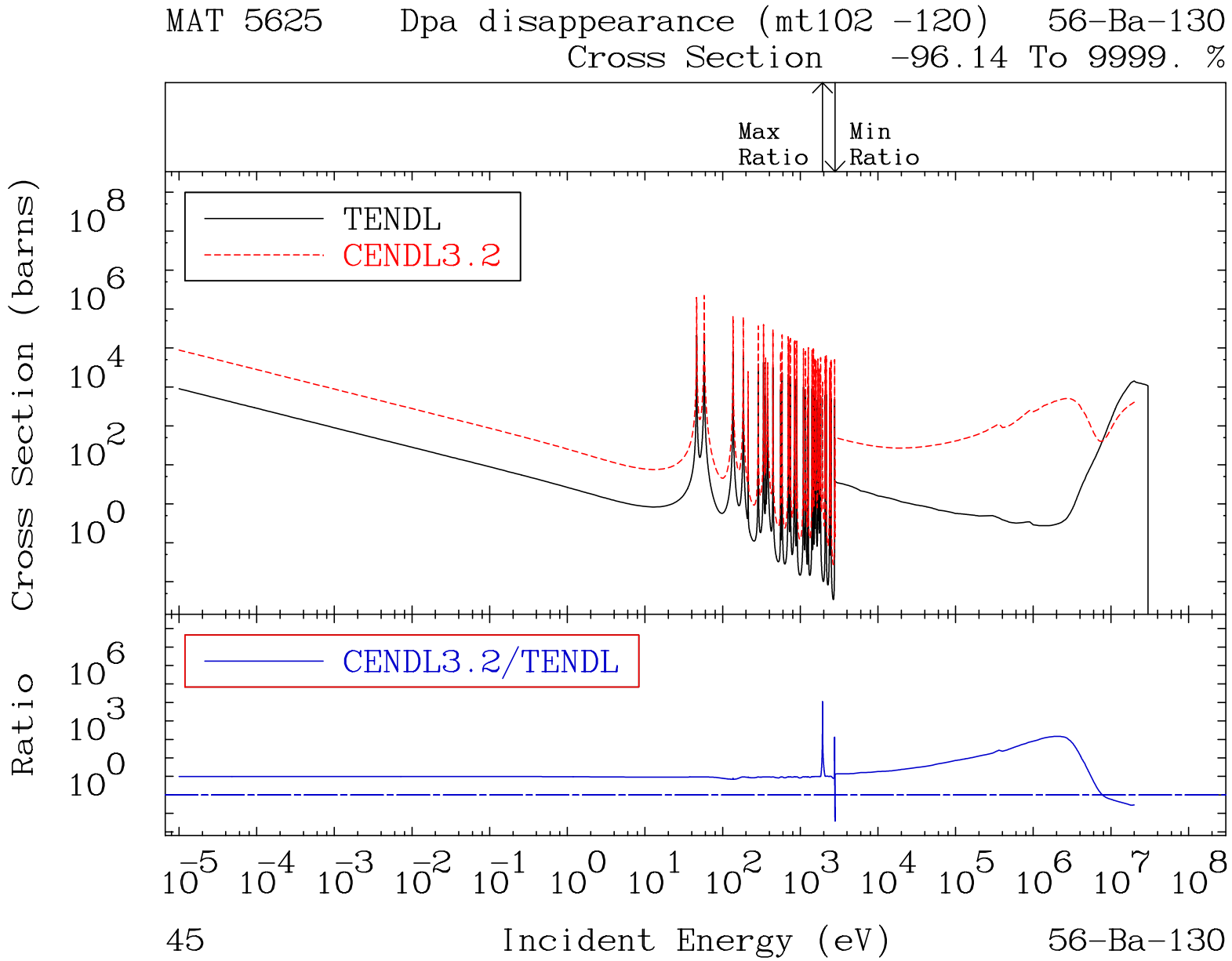

MAT 5625
Total photon (eV-barns)
56-Ba-130
Cross Section 9999. To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Ratio Cross Section (Giga-barns)
100
80
60
40
20
0
10^{12}
10^{9}
10^{6}
10^{3}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
40
Incident Energy (eV)
56-Ba-130

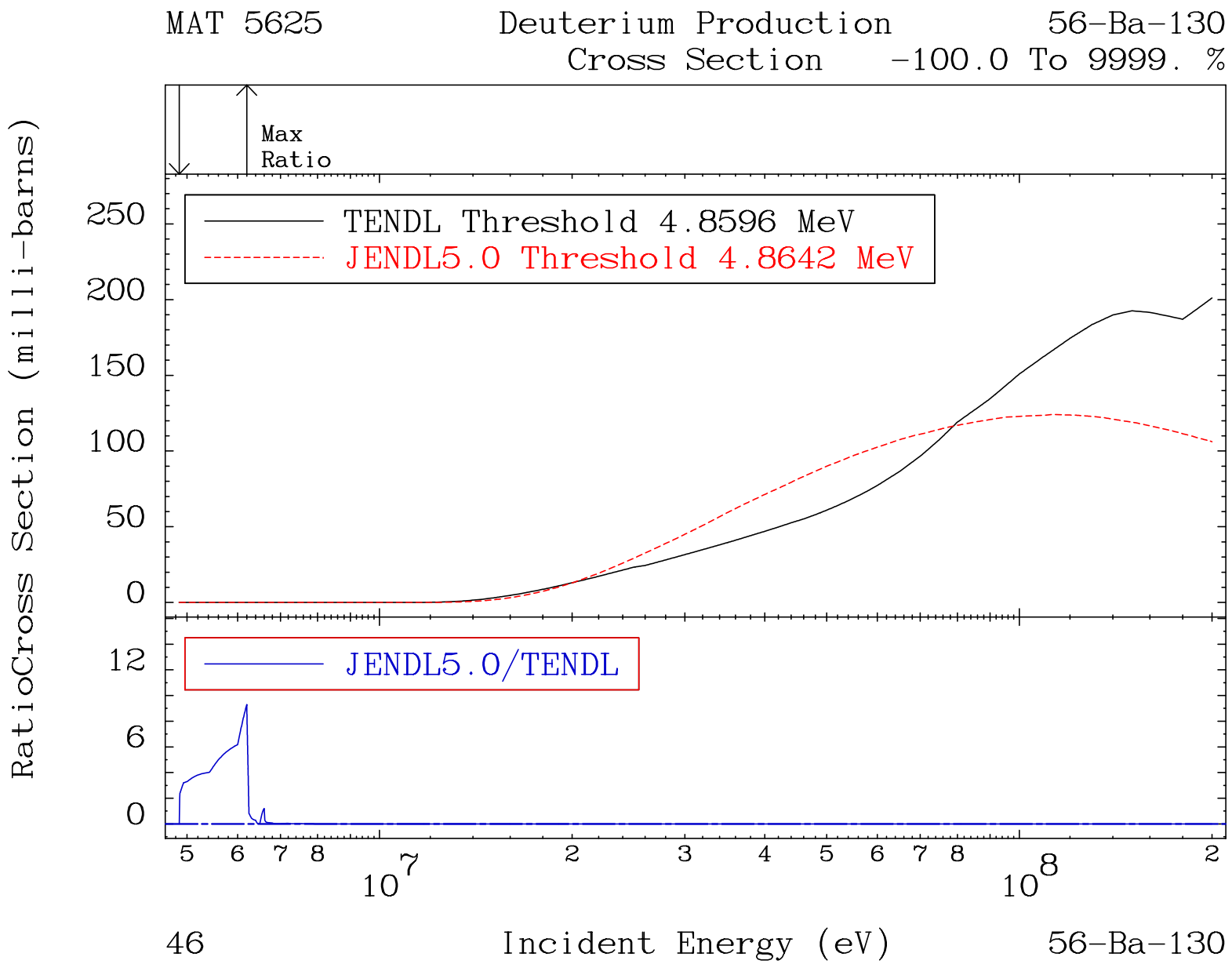

MAT 5625 Total kinematic kerma (high limit) 56-Ba-130
Cross Section -65.03 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
10^{8}
10^{6}
10^{4}
10^{2}
CENDL3.2/TENDL
Ratio
10^{2}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
41
Incident Energy (eV)
56-Ba-130

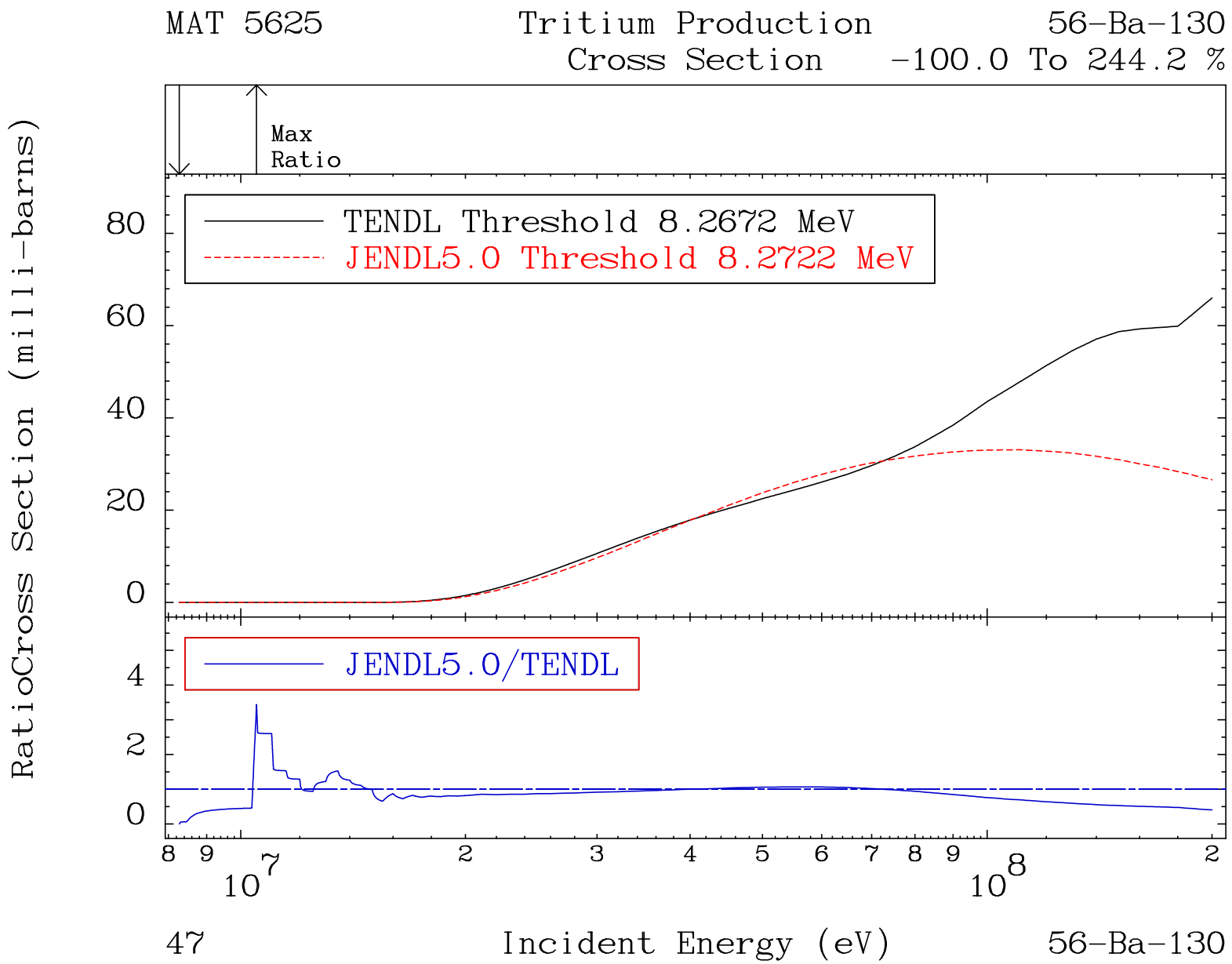

MAT 5625
Dpa total (eV-barns)
56-Ba-130
Cross Section
-64.65 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
56-Ba-130

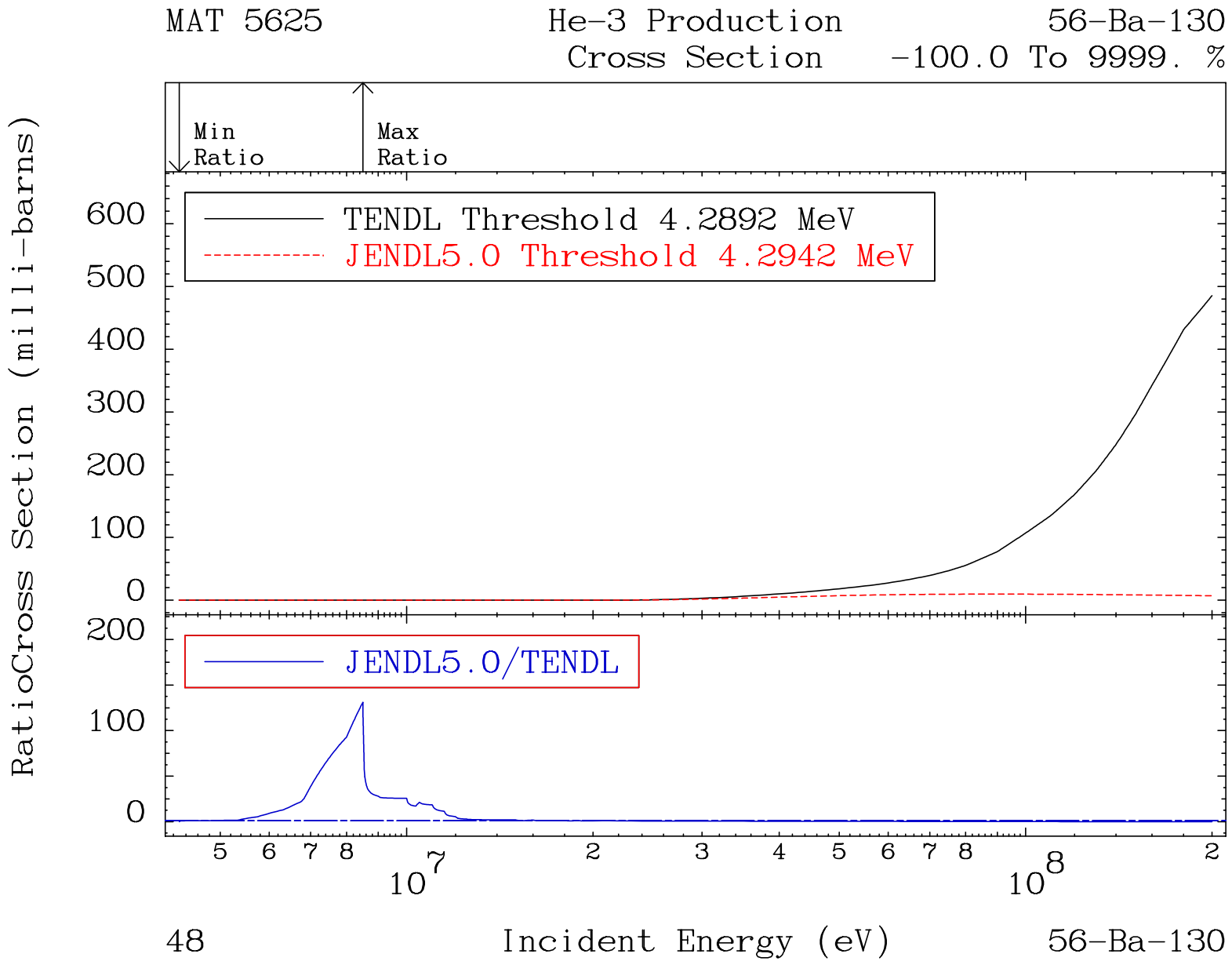

MAT 5625
Dpa elastic (mt2)
Cross Section
56-Ba-130
-99.92 To 9999. %
Min
Ratio
TENDL Threshold 814.40 eV
CENDL3.2 Threshold 812.95 eV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
43
56-Ba-130

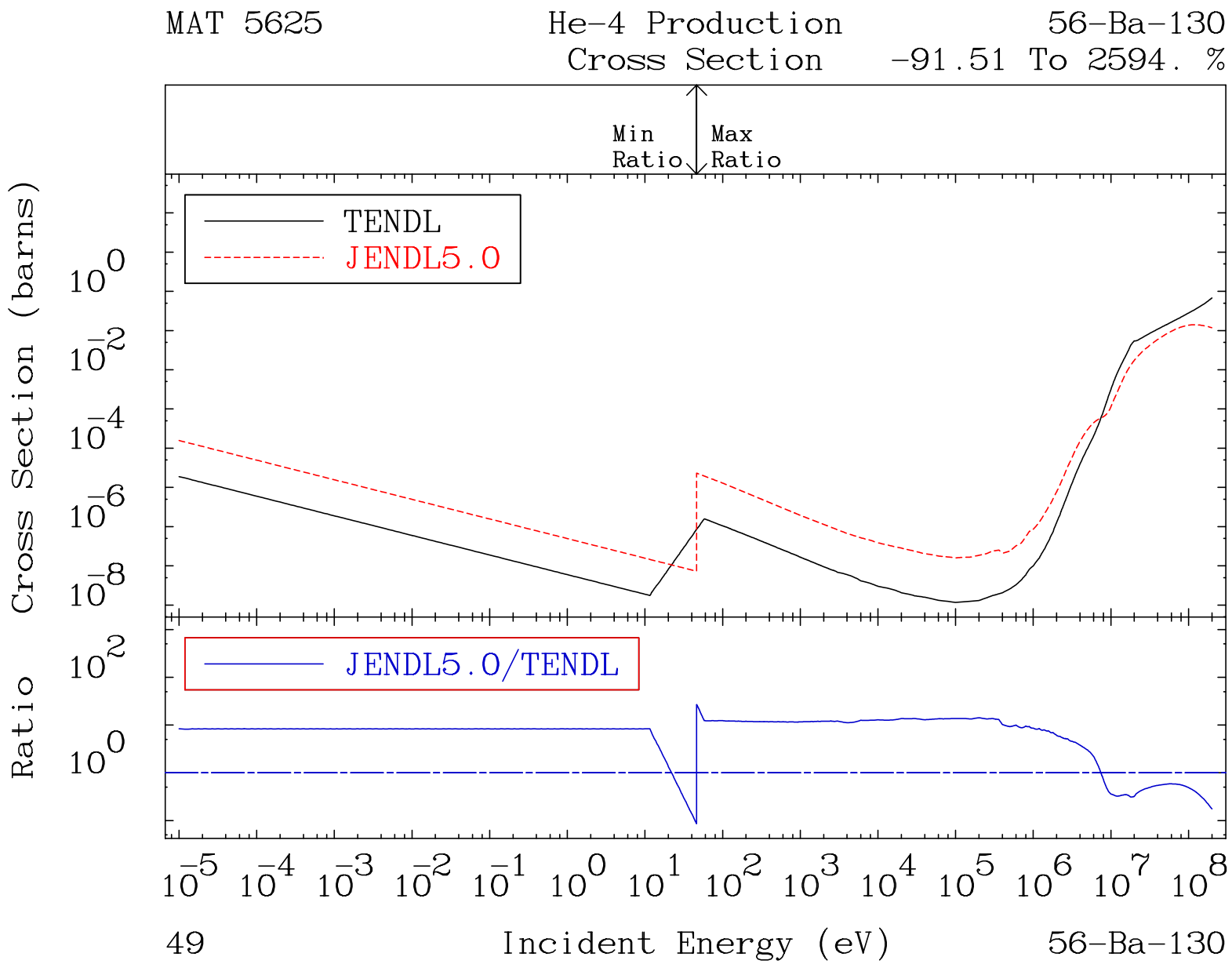

MAT 5625
Dpa inelastic (mt51-91)
56-Ba-130
Cross Section -100.0 To 114.7 %
Min Ratio
Max Ratio
TENDL Threshold 360.16 keV
CENDL3.2 Threshold 360.16 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
44
56-Ba-130

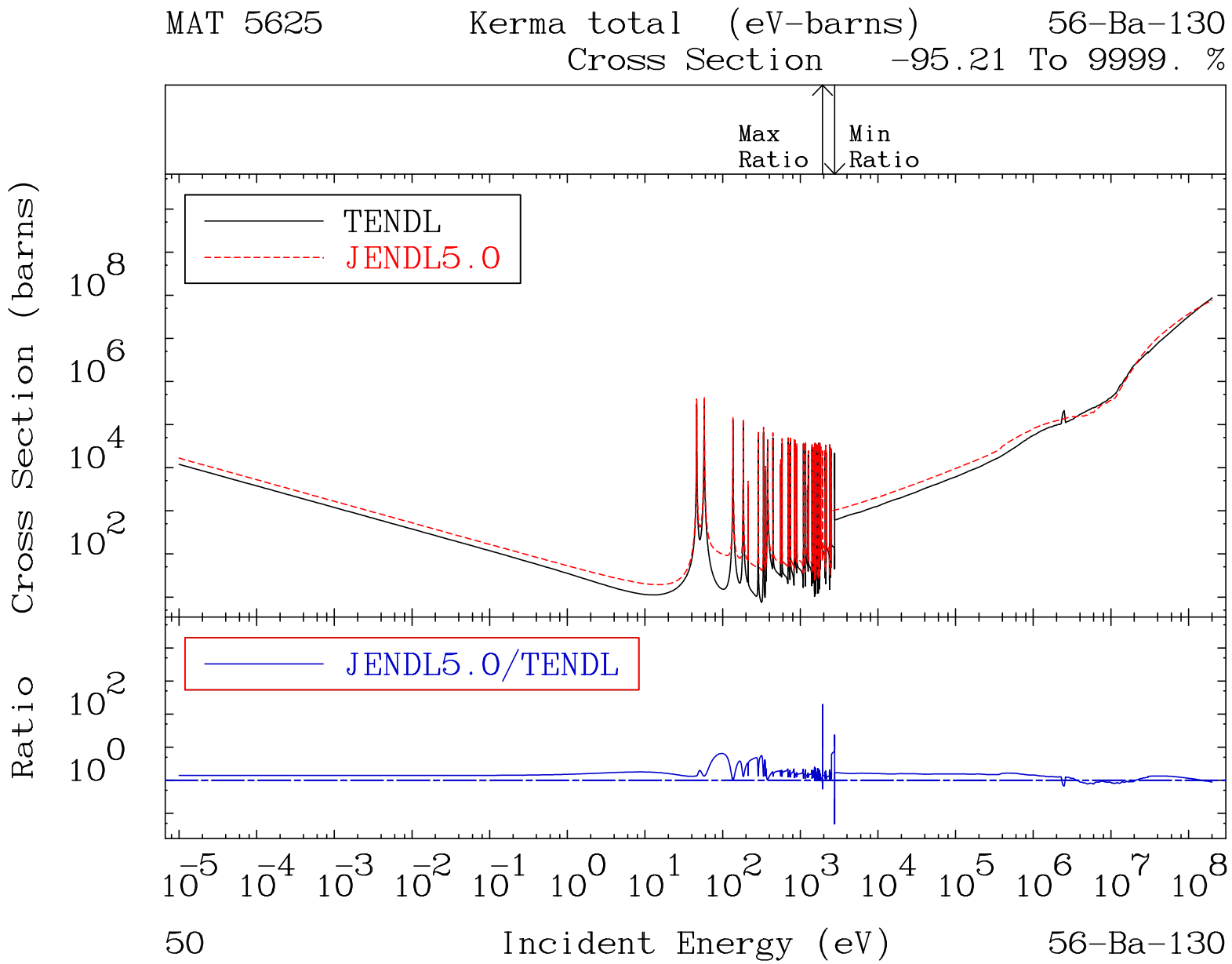

MAT 5625 Dpa disappearance (mt102 -120) 56-Ba-130
Cross Section -96.14 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
45
56-Ba-130

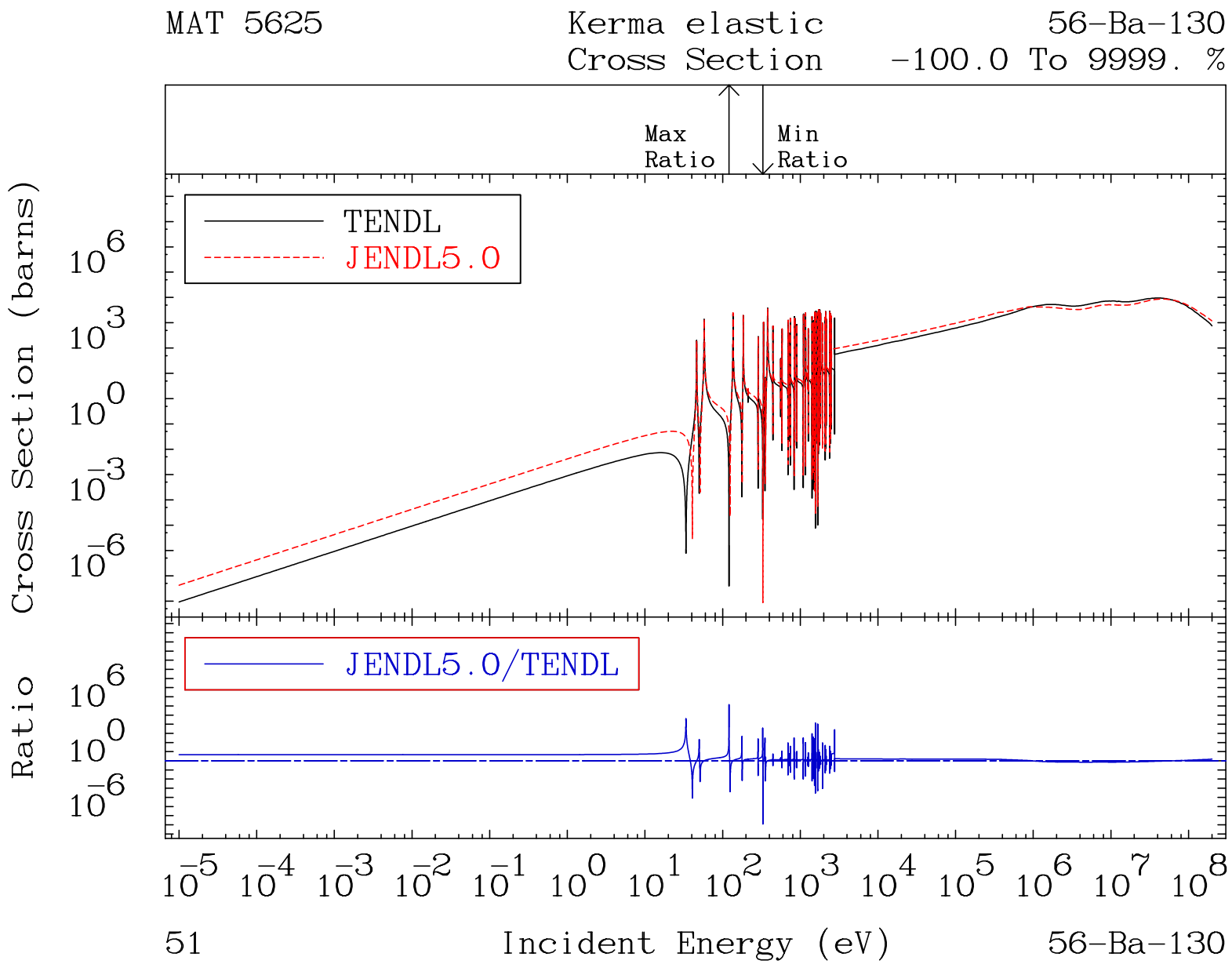

MAT 5625
Deuterium Production
56-Ba-130
Cross Section -100.0 To 9999. %
Max
Ratio
TENDL Threshold 4.8596 MeV
JENDL5.0 Threshold 4.8642 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
12
6
0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
46
Incident Energy (eV)
56-Ba-130

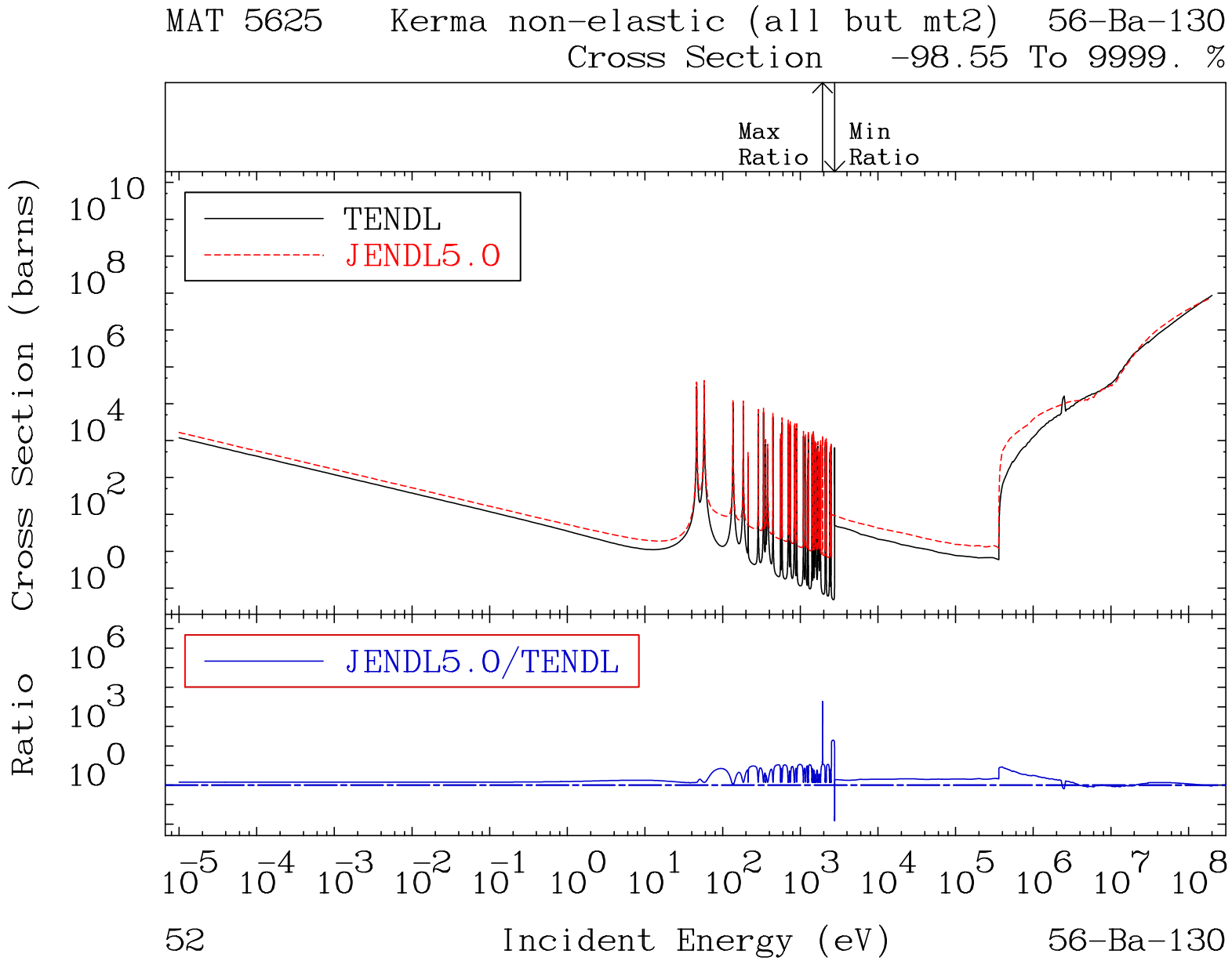

MAT 5625
Tritium Production
56-Ba-130
Cross Section
-100.0 To 244.2 %
Max
Ratio
TENDL Threshold 8.2672 MeV
JENDL5.0 Threshold 8.2722 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
4
2
0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
56-Ba-130

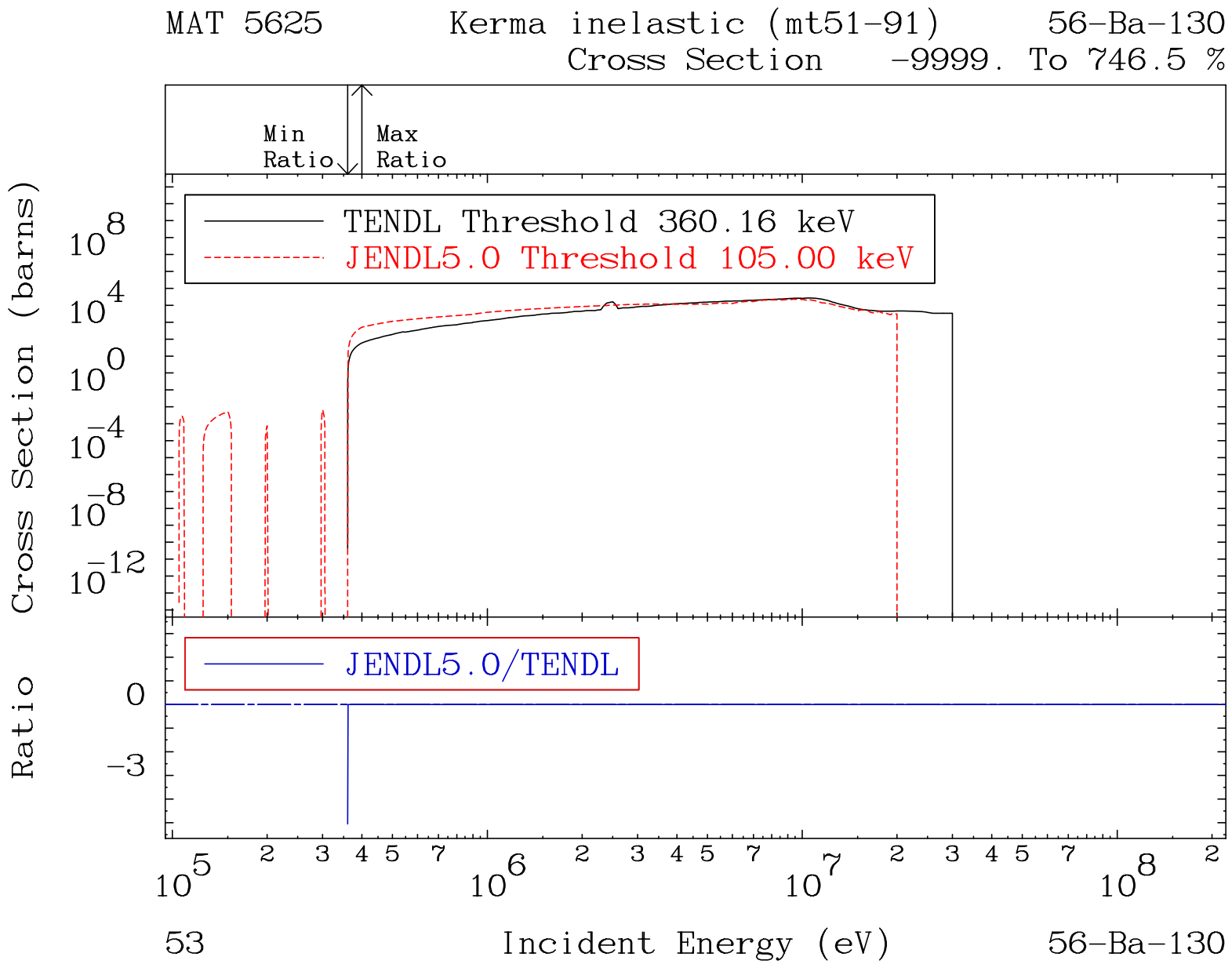

MAT 5625
He-3 Production
Cross Section
56-Ba-130
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 4.2892 MeV
JENDL5.0 Threshold 4.2942 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
600
500
400
300
200
100
0
200
100
0
5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
48
Incident Energy (eV)
56-Ba-130

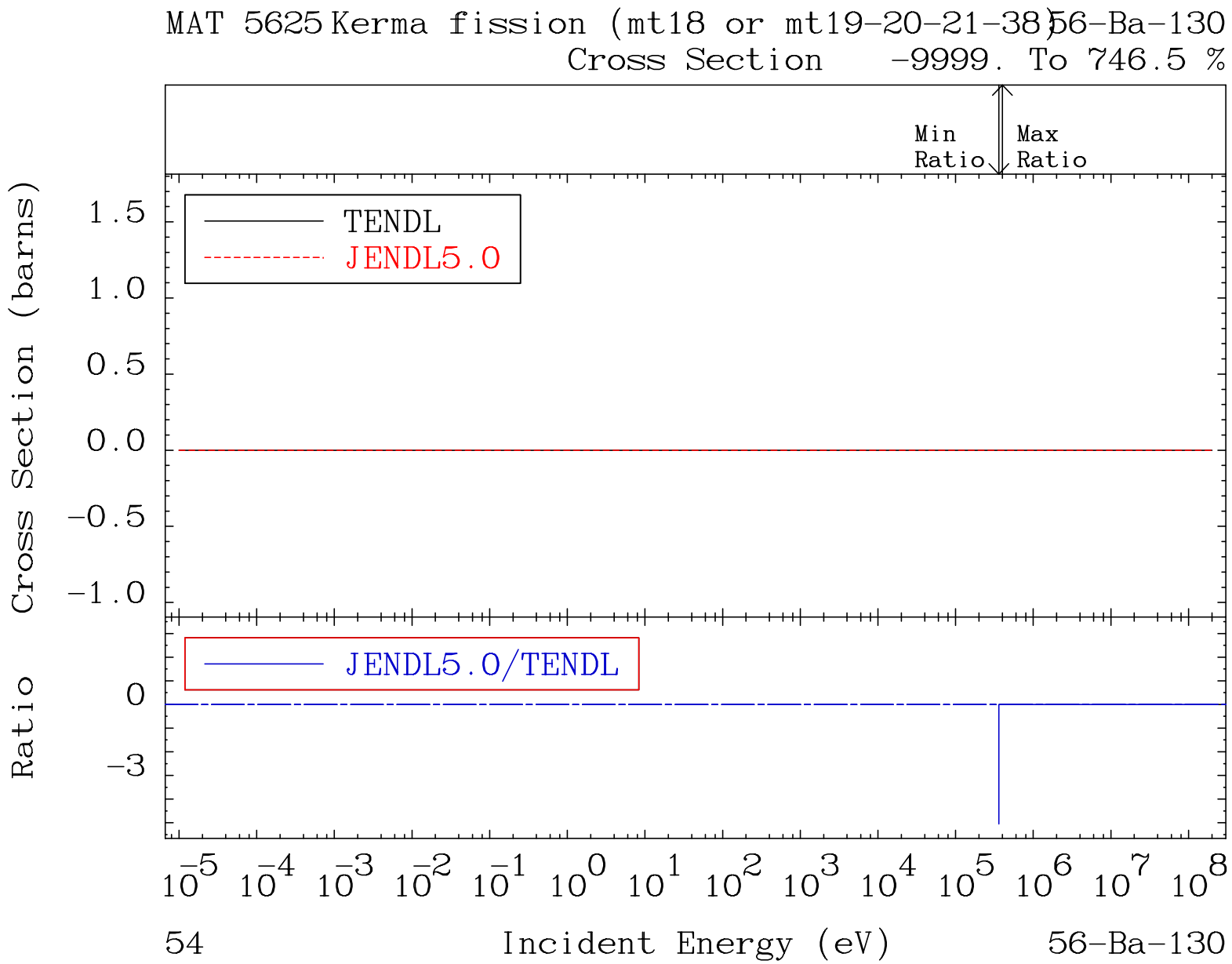

MAT 5625
He-4 Production
Cross Section
56-Ba-130
-91.51 To 2594. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
49
56-Ba-130

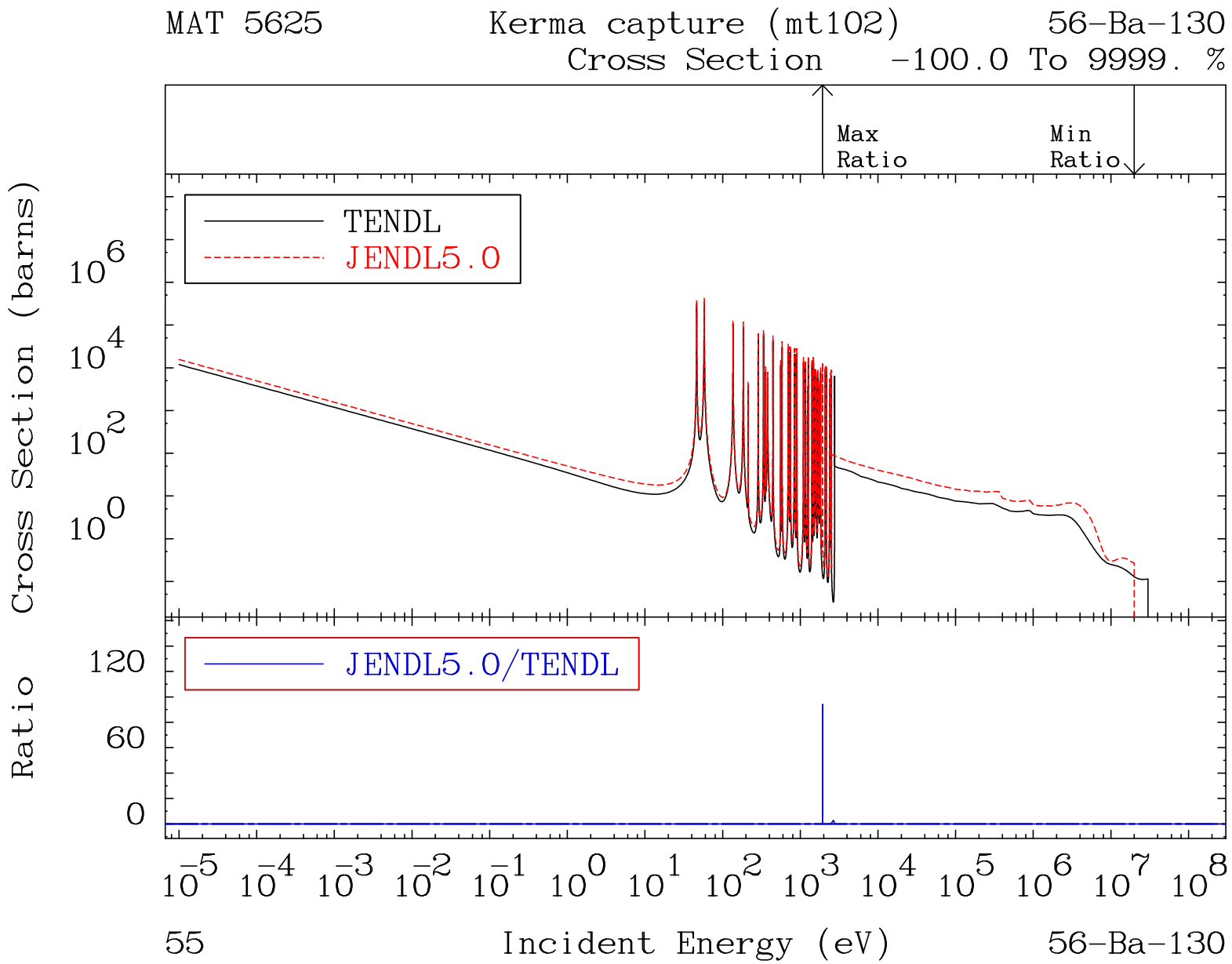

MAT 5625
Kerma total (eV-barns)
56-Ba-130
Cross Section -95.21 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
50
56-Ba-130

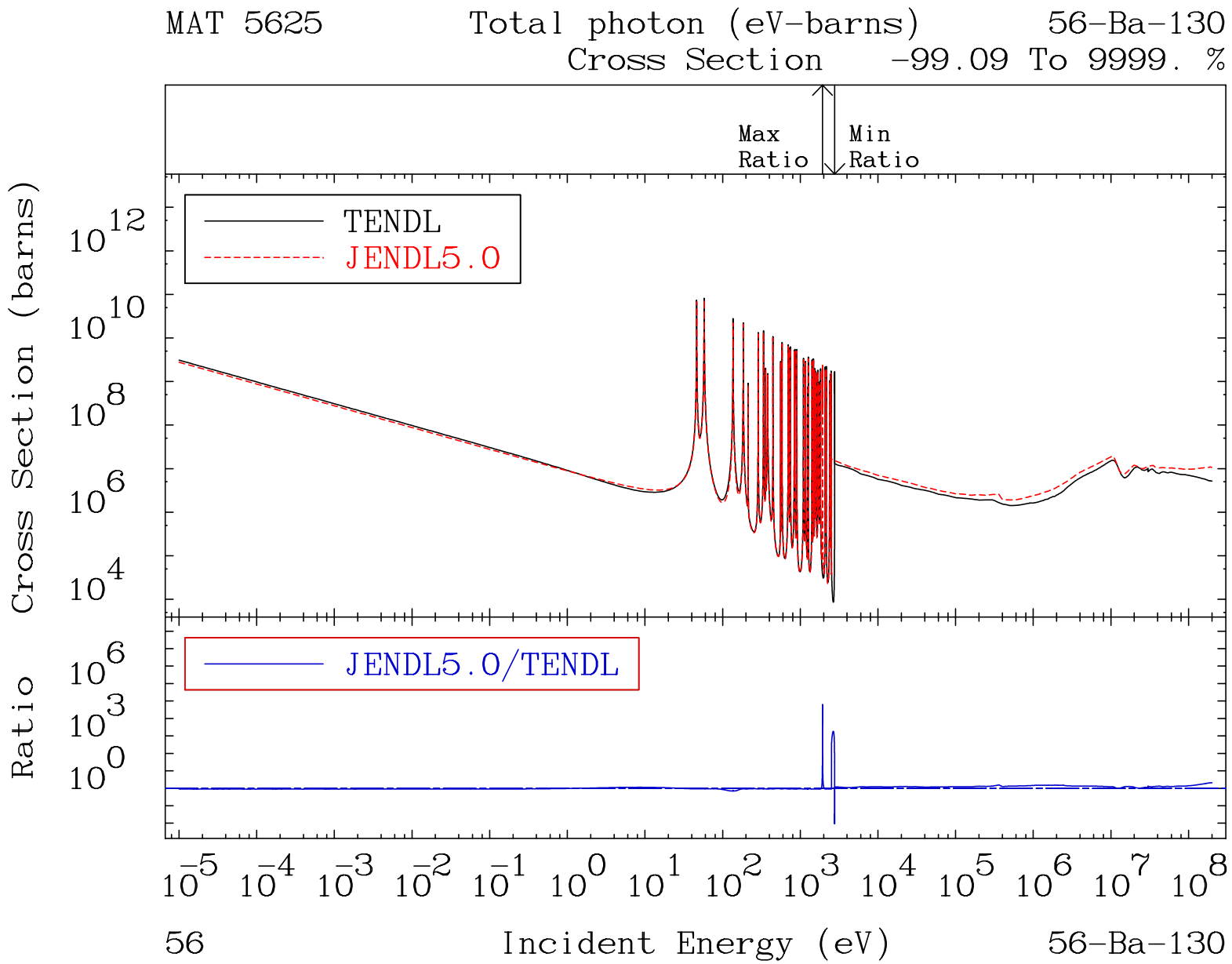

MAT 5625
Kerma elastic
Cross Section
56-Ba-130
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
51
56-Ba-130

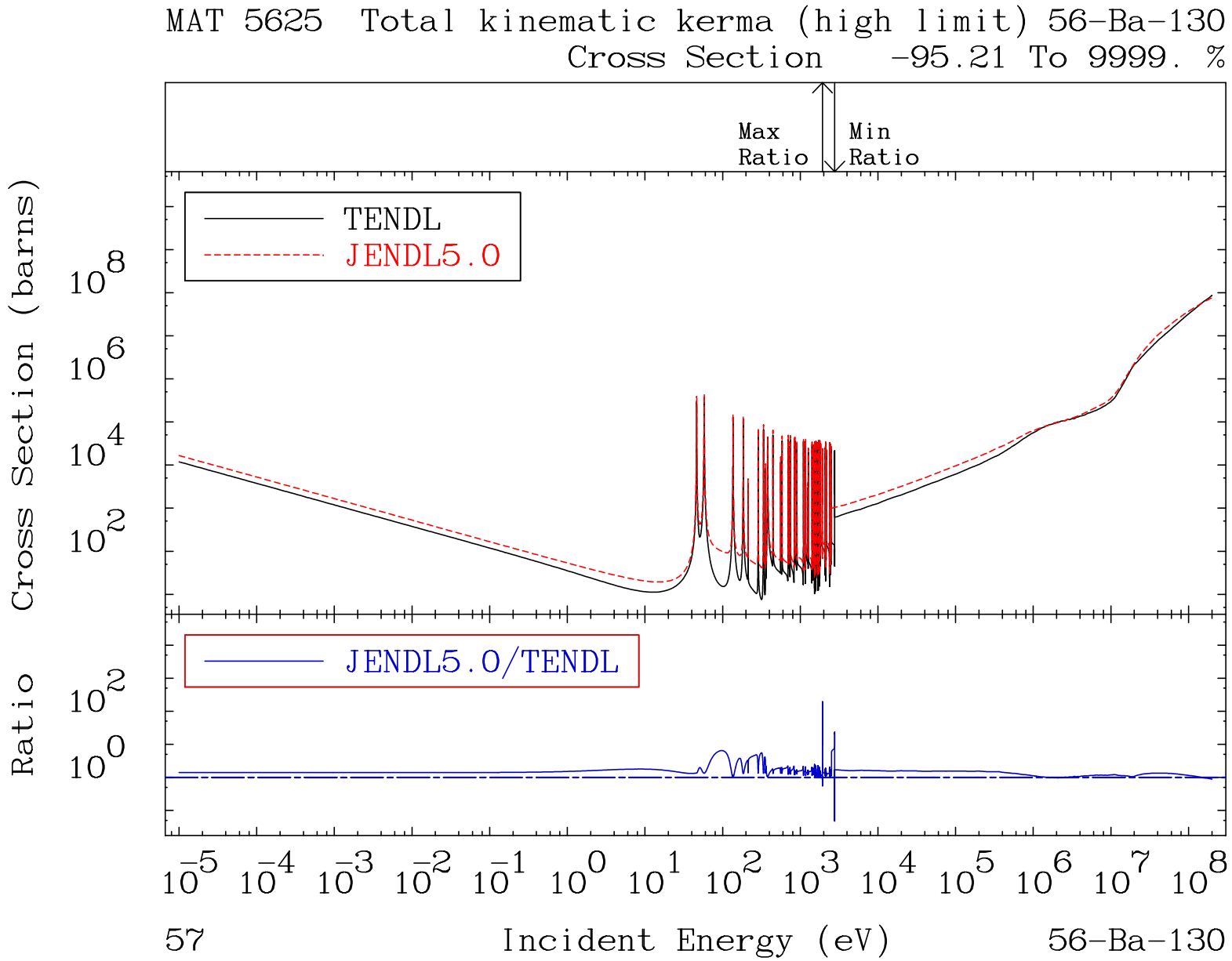

MAT 5625 Kerma non-elastic (all but mt2) 56-Ba-130
Cross Section -98.55 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
52
56-Ba-130

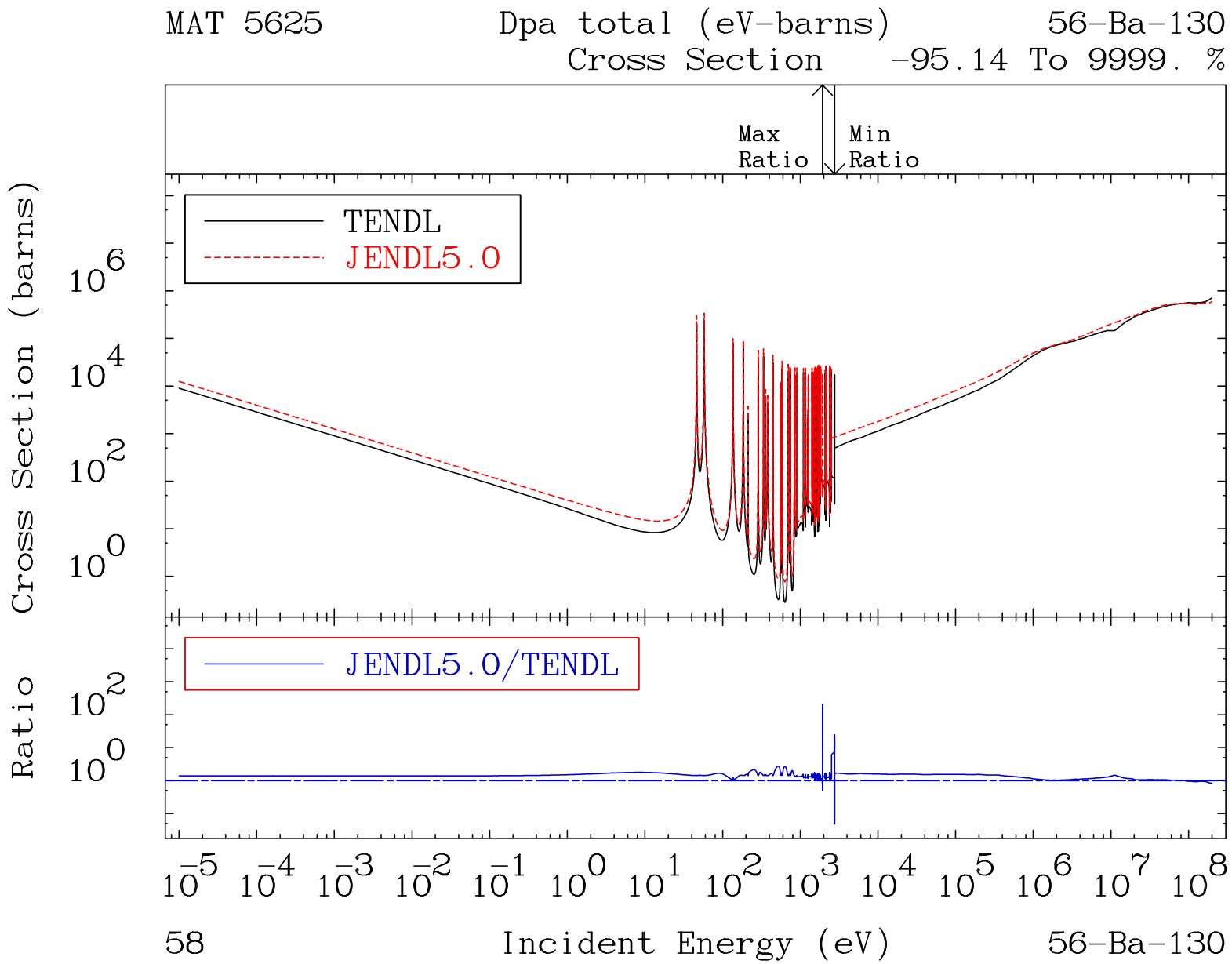

MAT 5625
Kerma inelastic (mt51-91)
56-Ba-130
Cross Section -9999. To 746.5 %
Min Ratio
Max Ratio
TENDL Threshold 360.16 keV
JENDL5.0 Threshold 105.00 keV
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
53
56-Ba-130

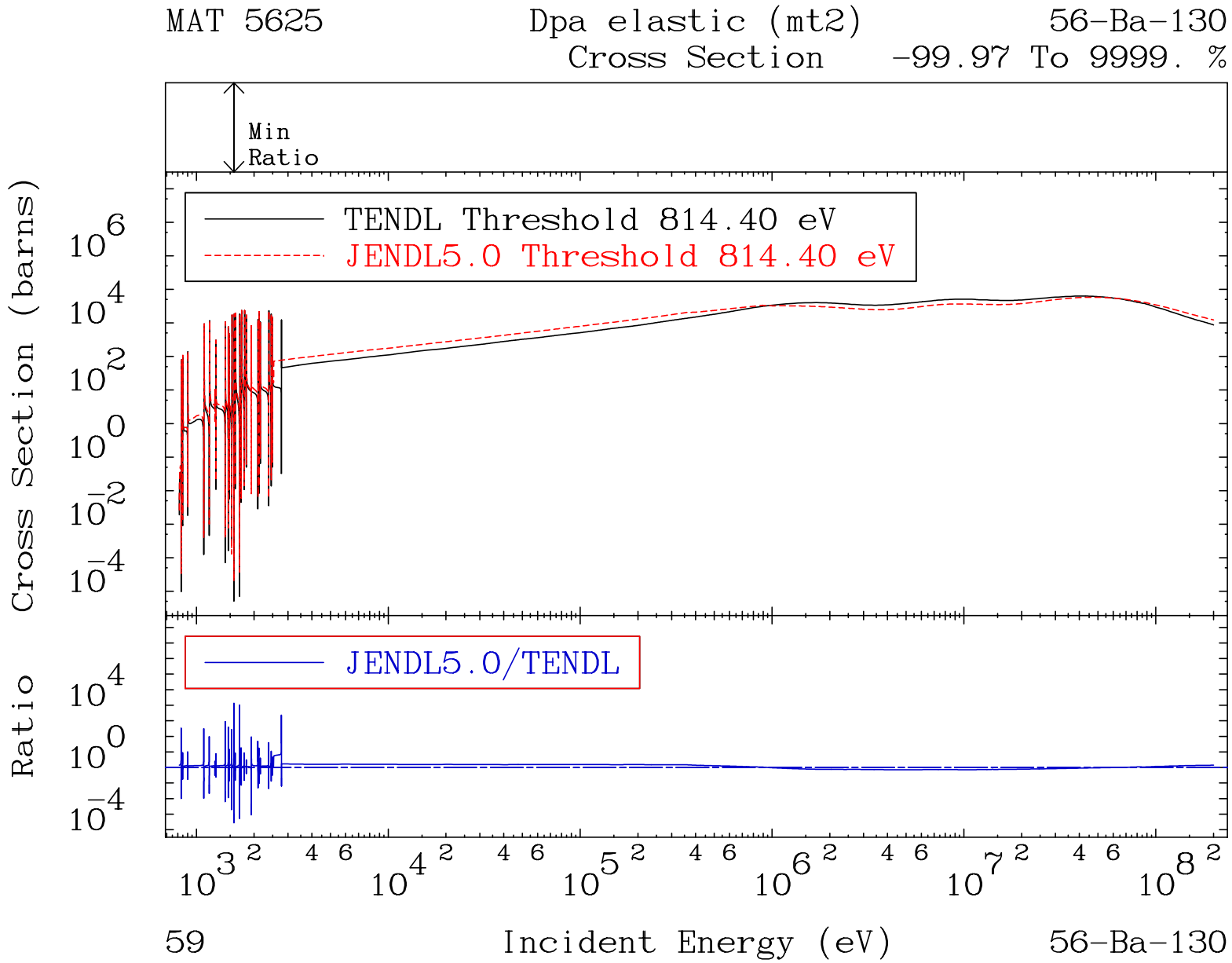

MAT 5625 Kerma fission (mt18 or mt19-20-21-38) 56-Ba-130
Cross Section -9999. To 746.5 %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
0
-3
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
54
Incident Energy (eV)
56-Ba-130

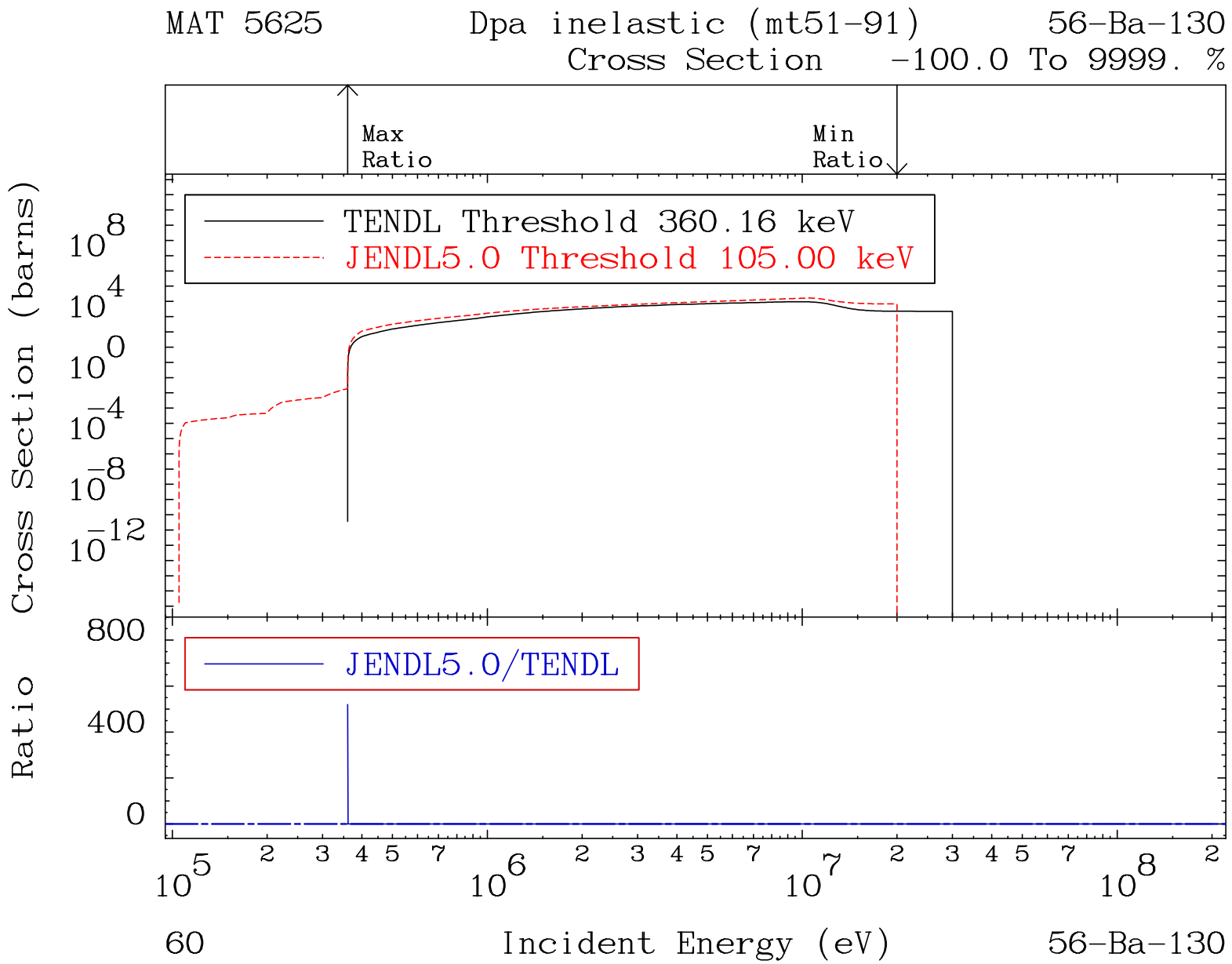

MAT 5625
Kerma capture (mt102)
56-Ba-130
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
10^6
10^4
10^2
10^0
JENDL5.0/TENDL
Ratio
120
60
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
55
Incident Energy (eV)
56-Ba-130

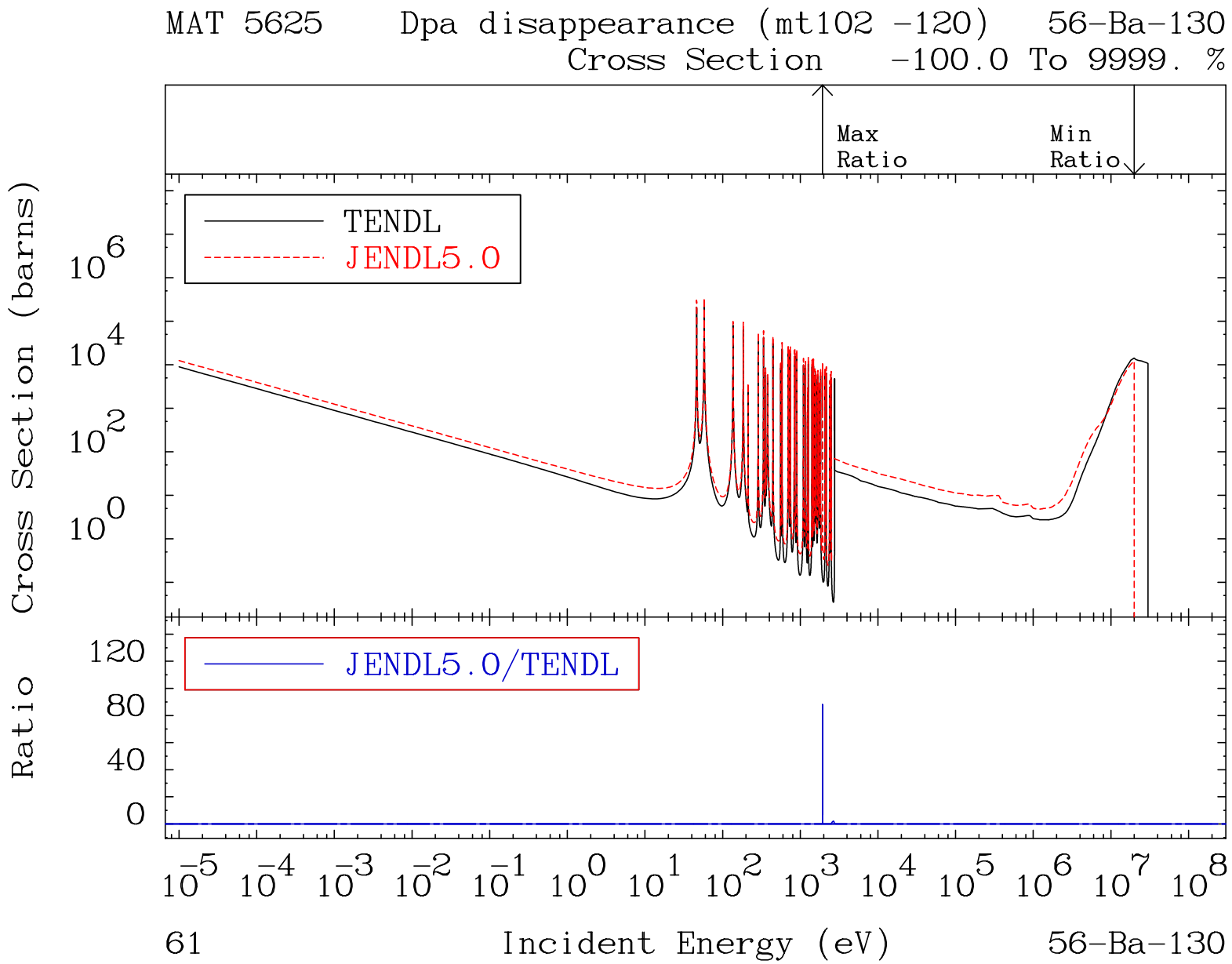

MAT 5625
Total photon (eV-barns)
56-Ba-130
Cross Section -99.09 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
56
56-Ba-130

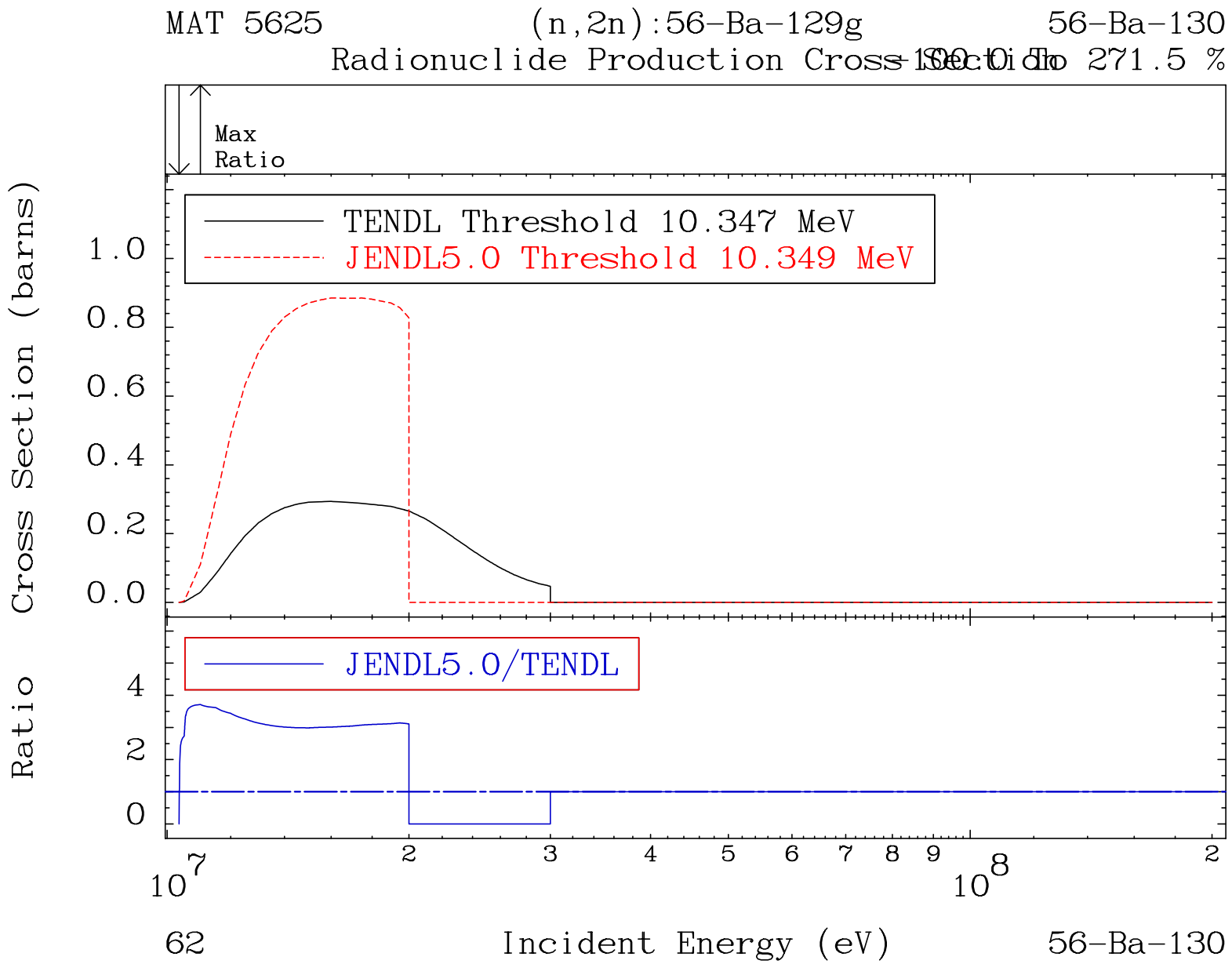

MAT 5625 Total kinematic kerma (high limit) 56-Ba-130
Cross Section -95.21 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
57
56-Ba-130

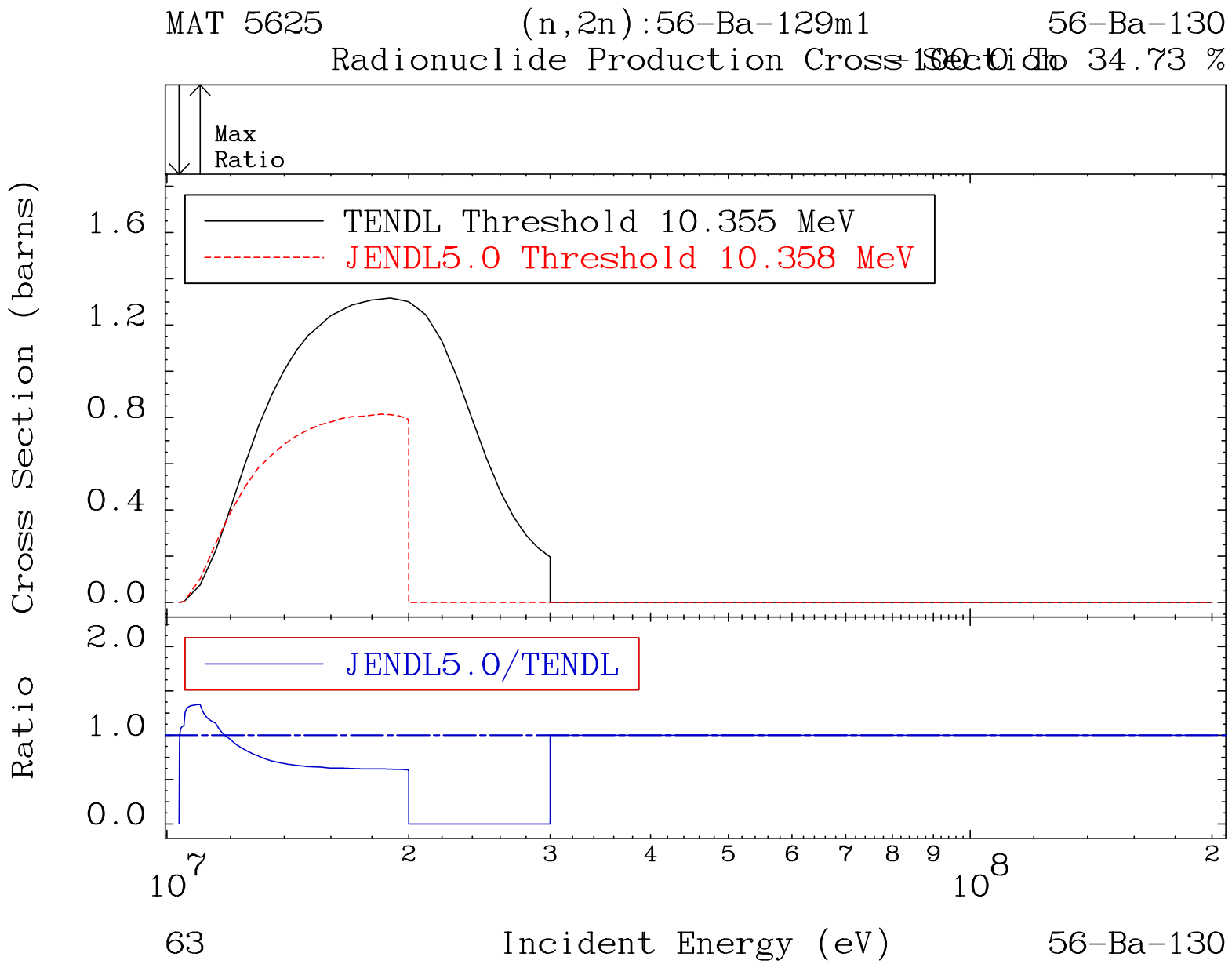

MAT 5625
Dpa total (eV-barns)
56-Ba-130
Cross Section -95.14 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
58
56-Ba-130

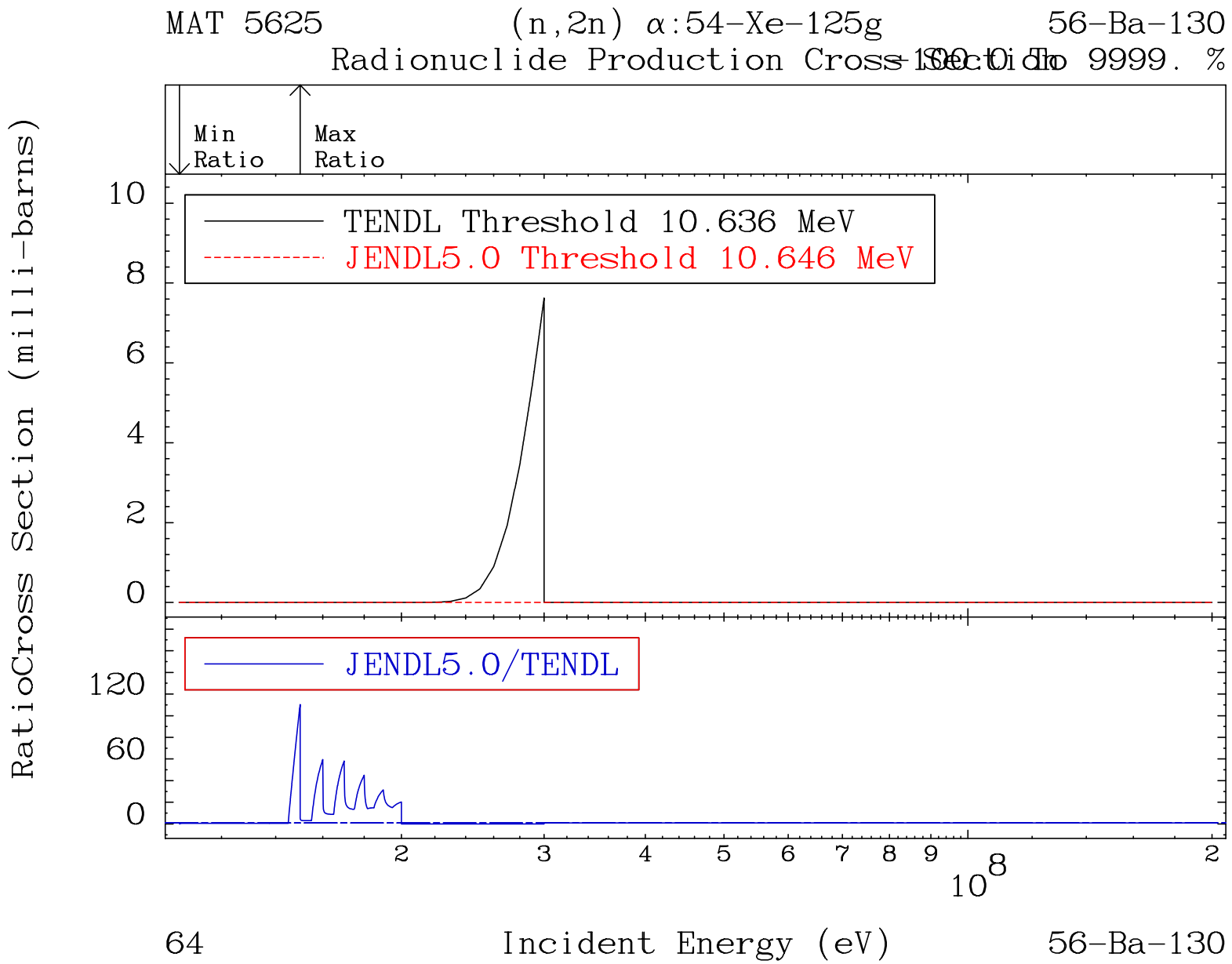

MAT 5625
Dpa elastic (mt2)
Cross Section
56-Ba-130
-99.97 To 9999. %
Min
Ratio
TENDL Threshold 814.40 eV
JENDL5.0 Threshold 814.40 eV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
59
56-Ba-130

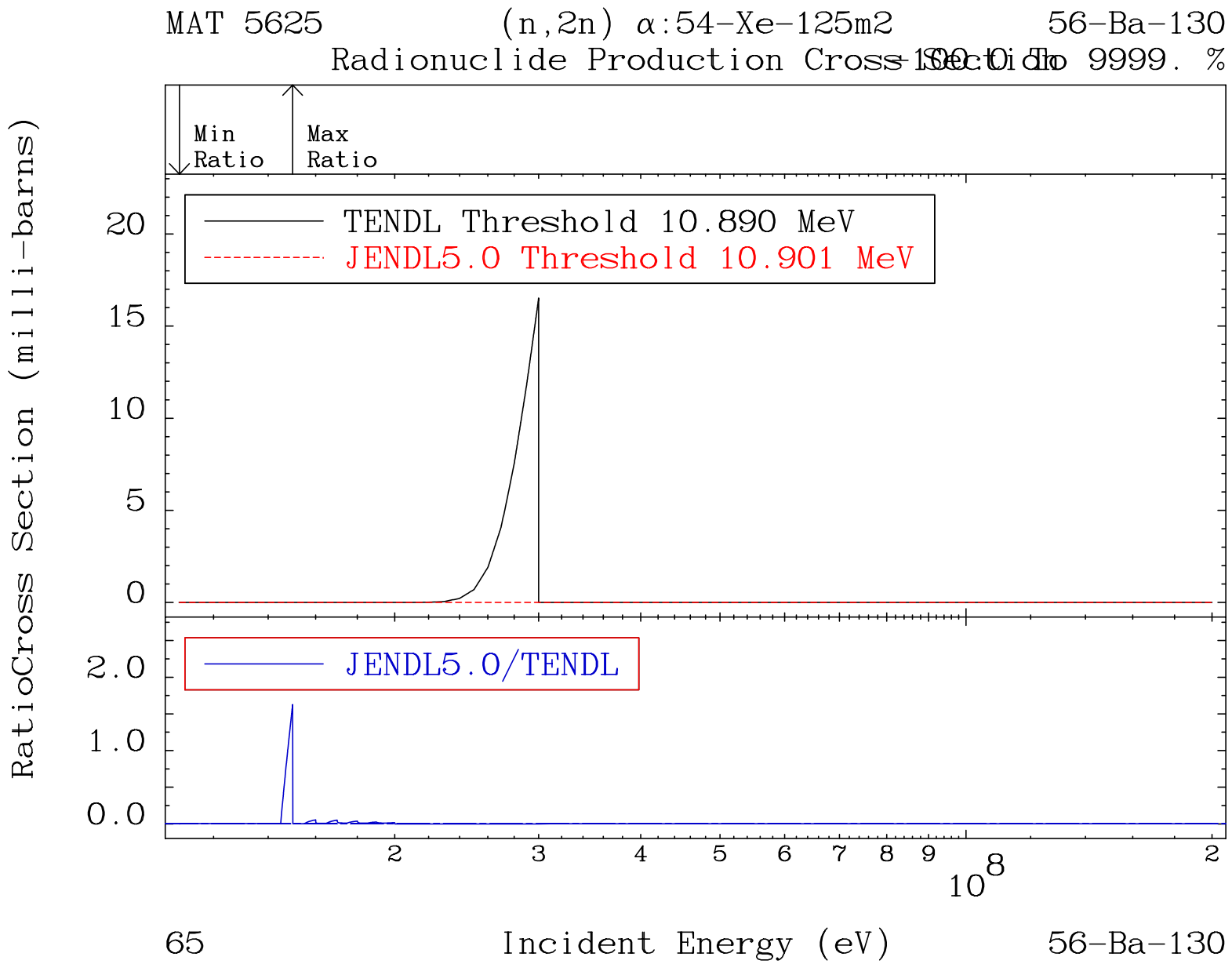

MAT 5625
Dpa inelastic (mt51-91)
56-Ba-130
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 360.16 keV
JENDL5.0 Threshold 105.00 keV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
60
56-Ba-130

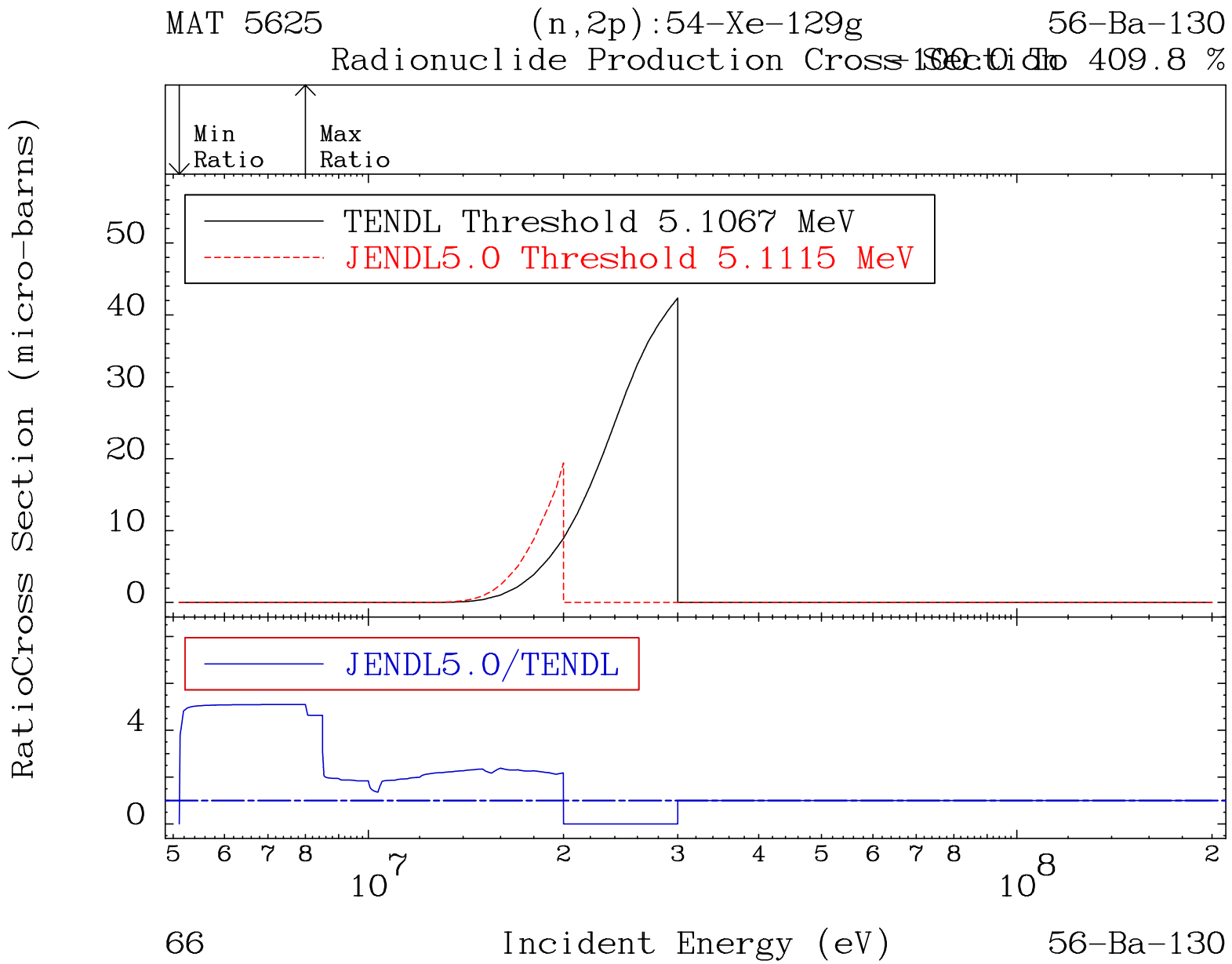

MAT 5625 Dpa disappearance (mt102 -120) 56-Ba-130
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
61
56-Ba-130

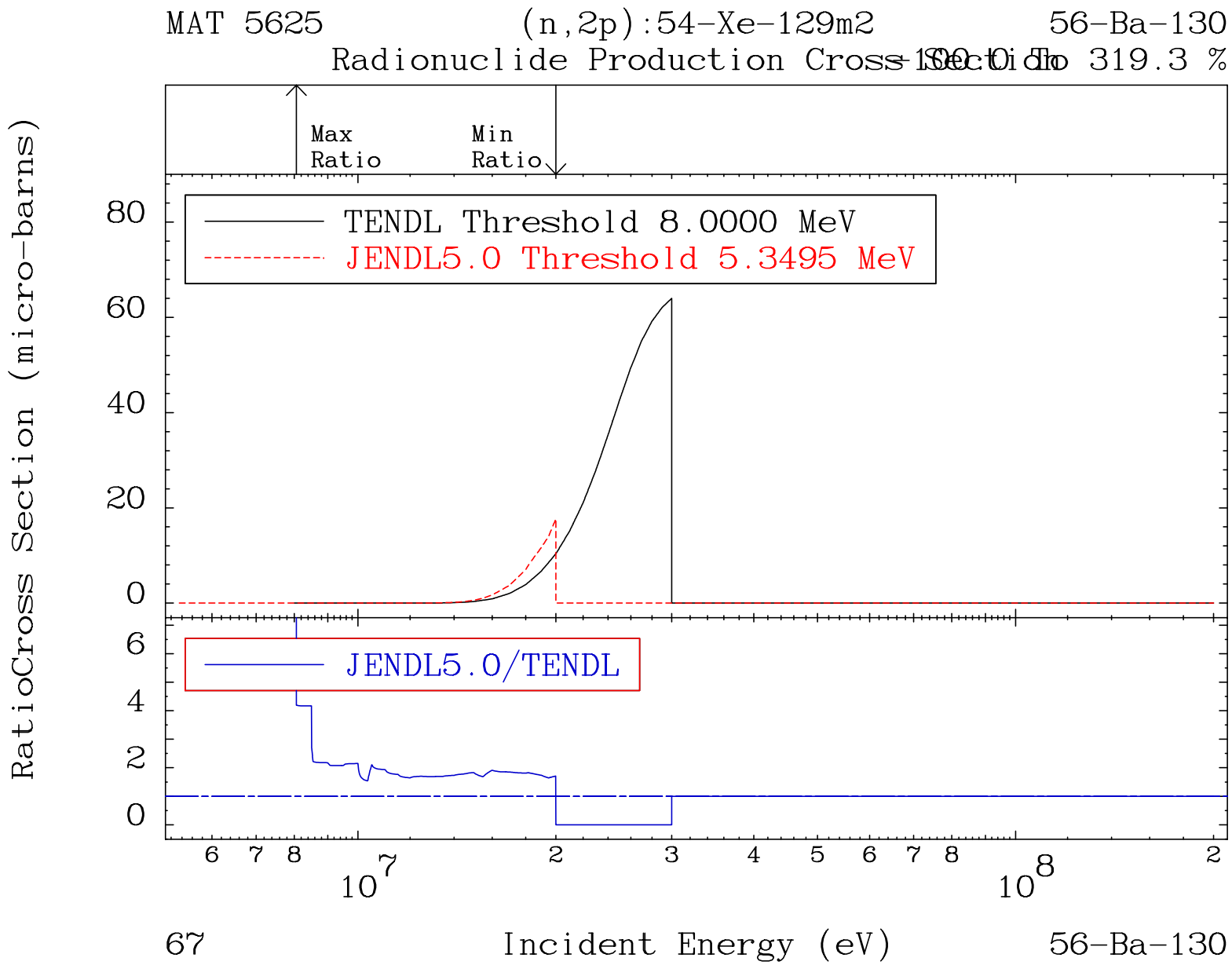

MAT 5625
(n,2n):56-Ba-129g
56-Ba-130
Radionuclide Production Cross Section To 271.5 %
Max
Ratio
TENDL Threshold 10.347 MeV
JENDL5.0 Threshold 10.349 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.0
0.8
0.6
0.4
0.2
0.0
4
2
0
10^7
2
3
4
5
6
7
8
9
10^8
2
62
Incident Energy (eV)
56-Ba-130


MAT 5625
(n,2n):56-Ba-129m1
56-Ba-130
Radionuclide Production Cross Section
Max
Ratio
TENDL Threshold 10.355 MeV
JENDL5.0 Threshold 10.358 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.6
1.2
0.8
0.4
0.0
2.0
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
56-Ba-130


MAT 5625
(n,2n) α:54-Xe-125g
56-Ba-130
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.636 MeV
JENDL5.0 Threshold 10.646 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
10
8
6
4
2
0
120
60
0
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
56-Ba-130


MAT 5625
(n,2n) α:54-Xe-125m2
56-Ba-130
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.890 MeV
JENDL5.0 Threshold 10.901 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
56-Ba-130


MAT 5625
(n,2p):54-Xe-129g
56-Ba-130
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 5.1067 MeV
JENDL5.0 Threshold 5.1115 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
66
56-Ba-130


MAT 5625
(n,2p):54-Xe-129m2
56-Ba-130
Radionuclide Production Cross Section To 319.3 %
Max Ratio
Min Ratio
TENDL Threshold 8.0000 MeV
JENDL5.0 Threshold 5.3495 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
67
56-Ba-130