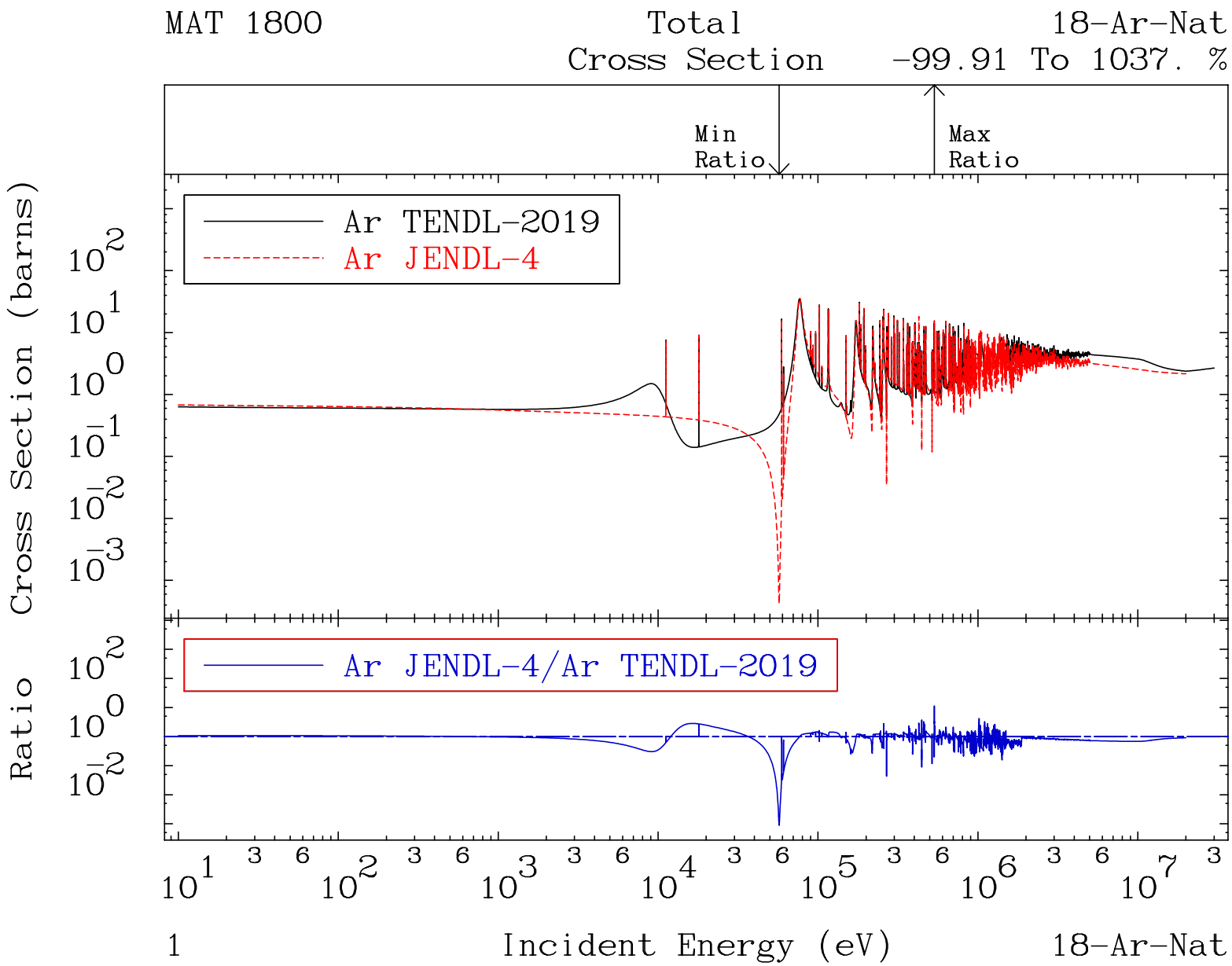
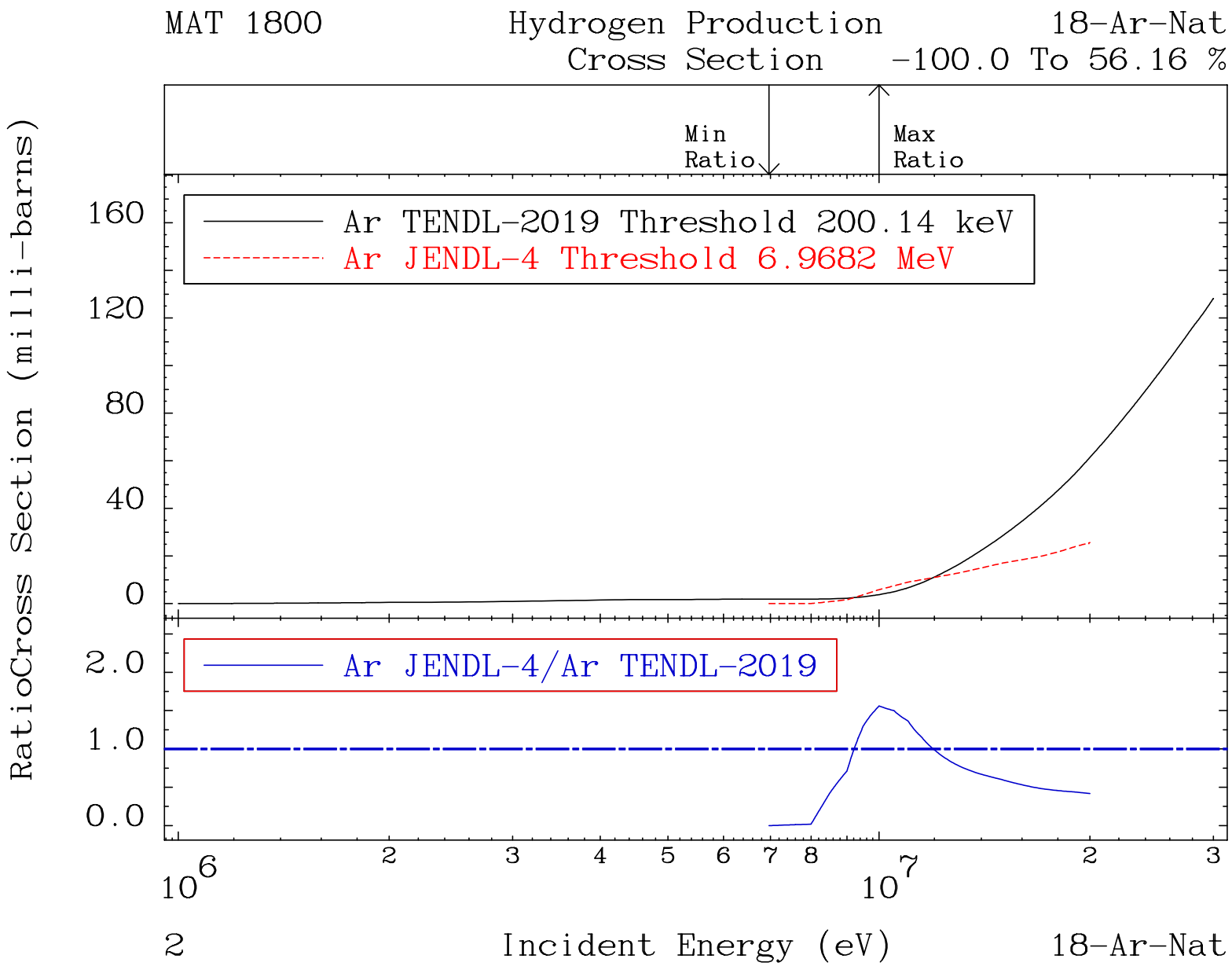
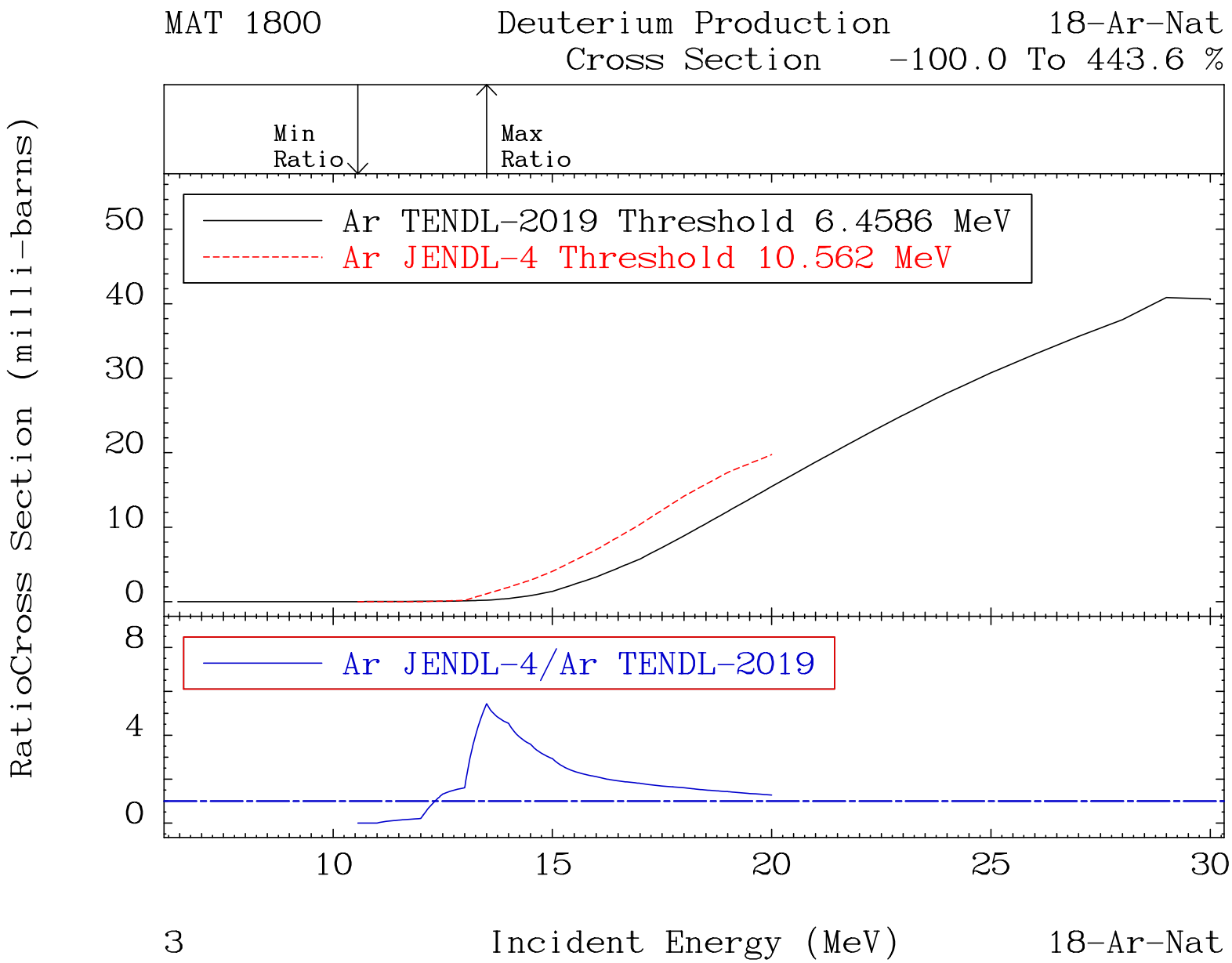
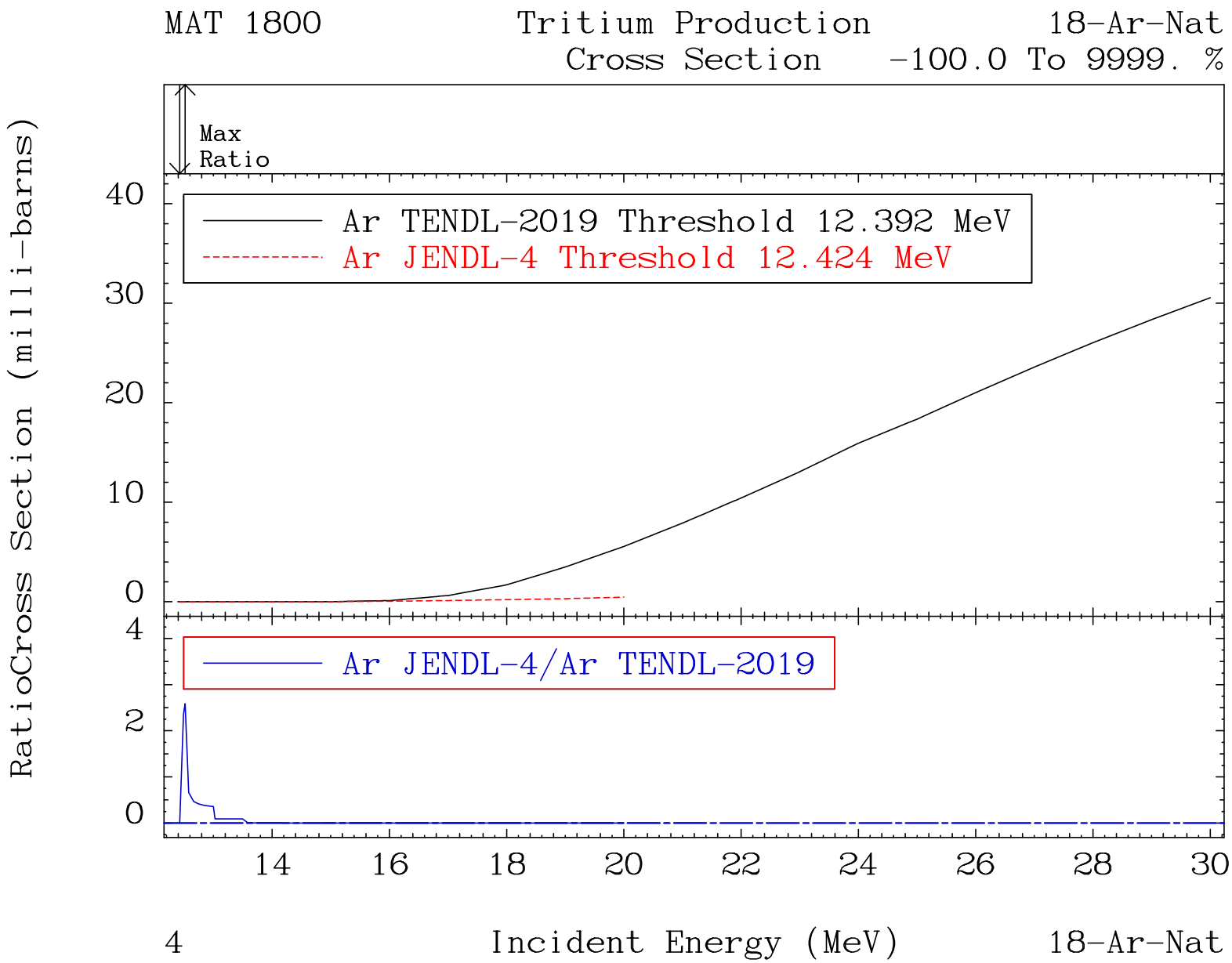
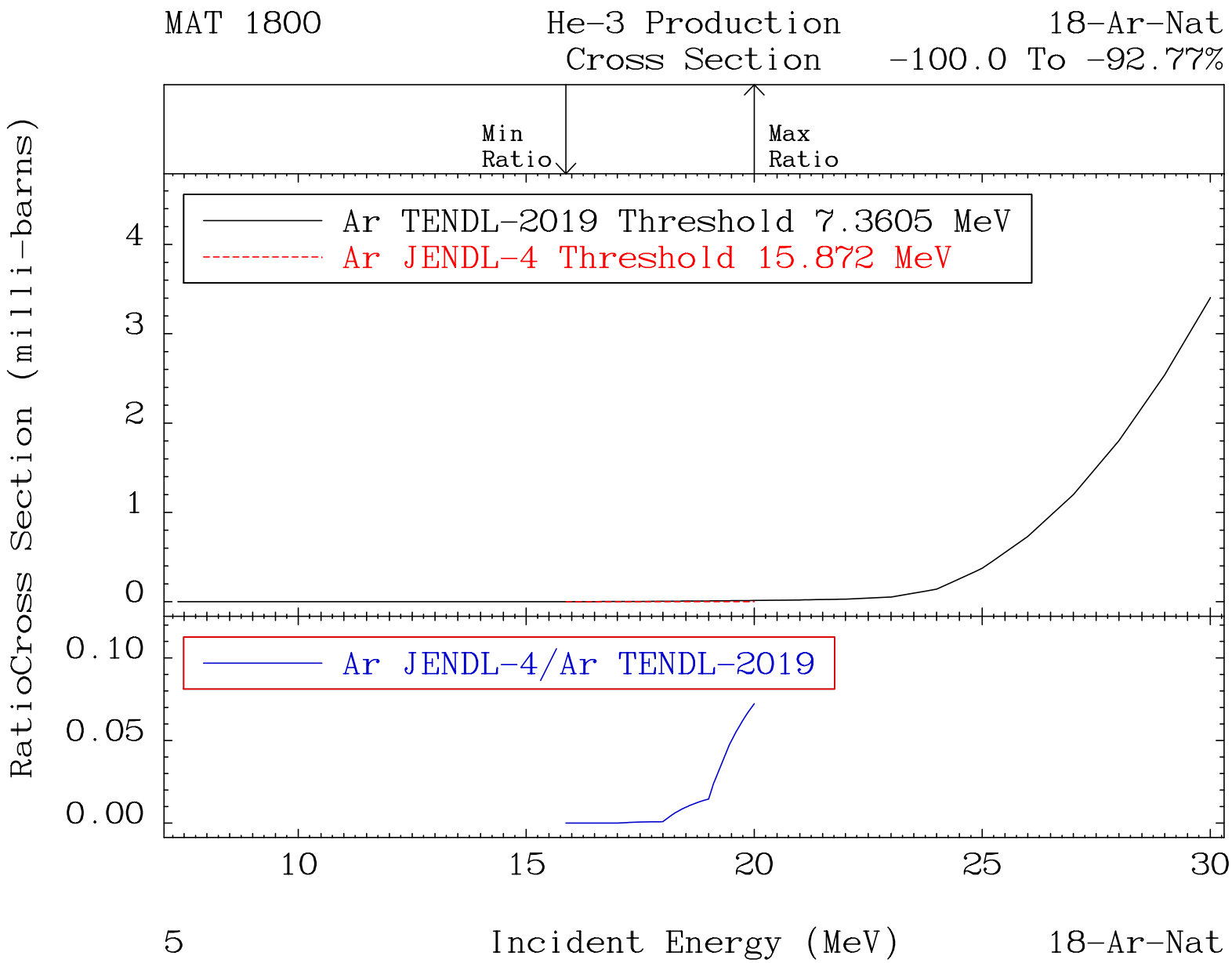
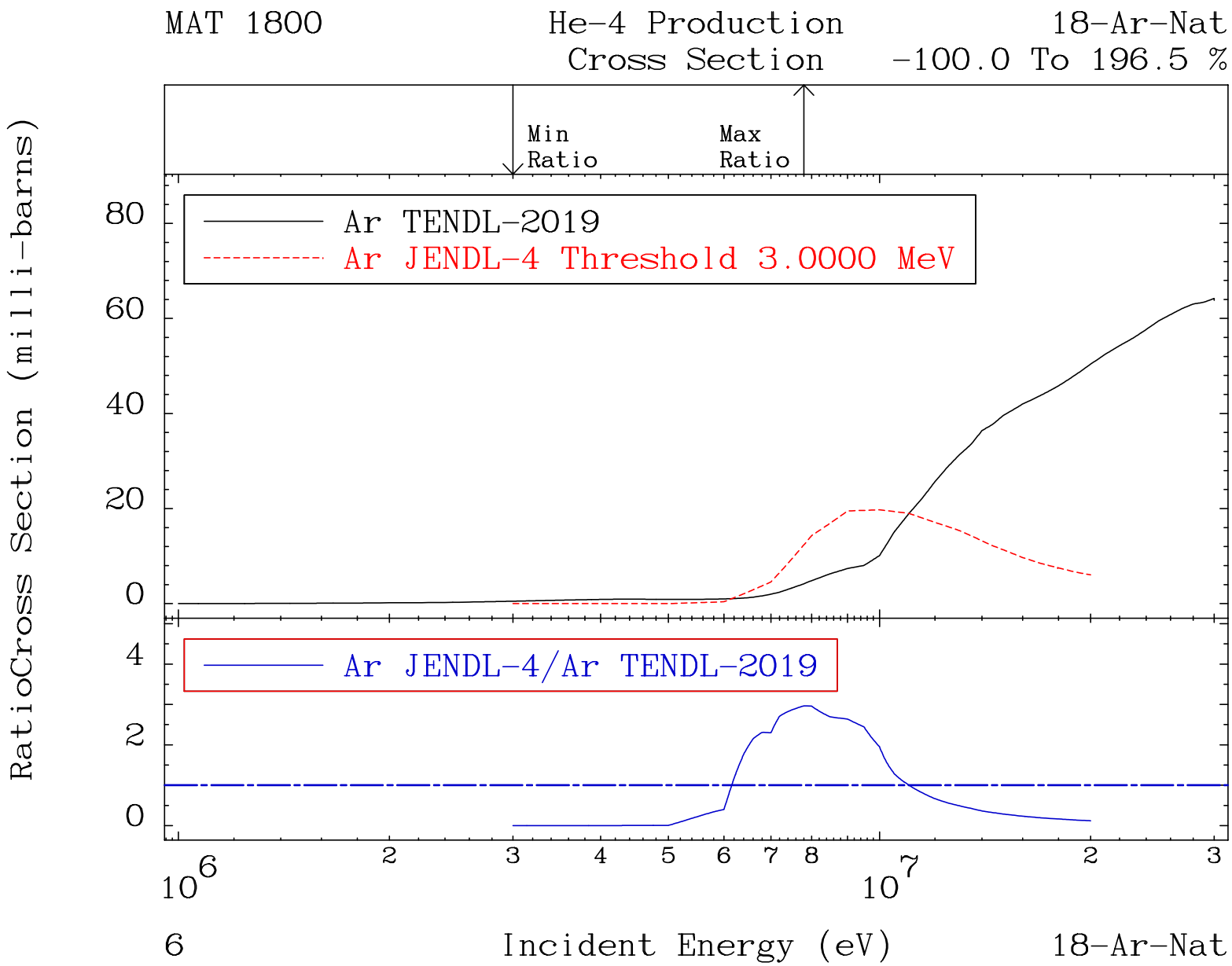

MAT 1800
Total
Cross Section
18-Ar-Nat
-99.91 To 1037. %
Min
Ratio
Max
Ratio
Ar TENDL-2019
Ar JENDL-4
Cross Section (barns)
Ar JENDL-4/Ar TENDL-2019
Ratio
Incident Energy (eV)
1
18-Ar-Nat

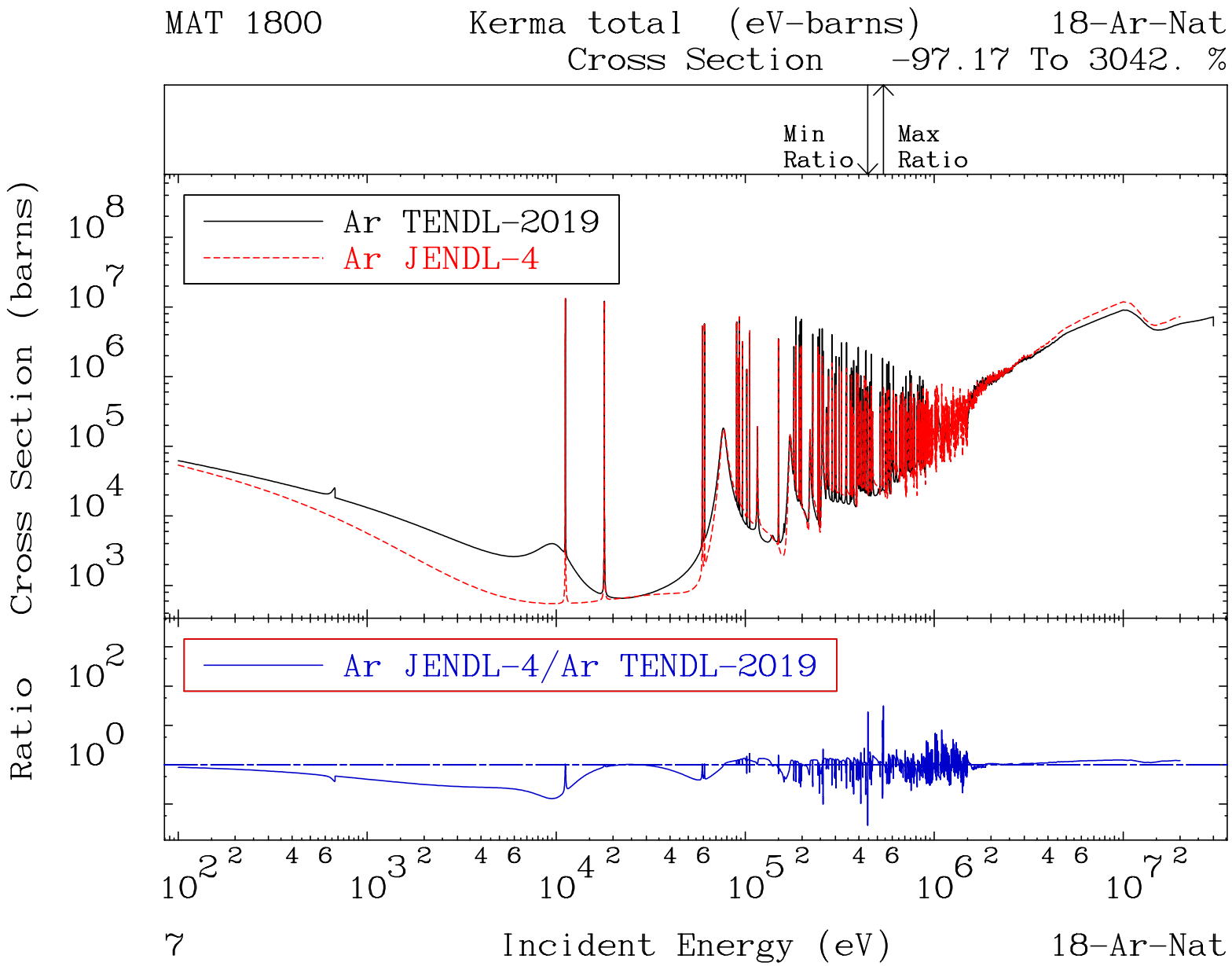

MAT 1800
Hydrogen Production
Cross Section
18-Ar-Nat
-100.0 To 56.16 %
Min Ratio
Max Ratio
Ar TENDL-2019 Threshold 200.14 keV
Ar JENDL-4 Threshold 6.9682 MeV
Ar JENDL-4/Ar TENDL-2019
RatioCross Section (milli-barns)
160
120
80
40
0
2.0
1.0
0.0
10^6
2
3
4
5
6
7
8
10^7
2
3
Incident Energy (eV)
18-Ar-Nat

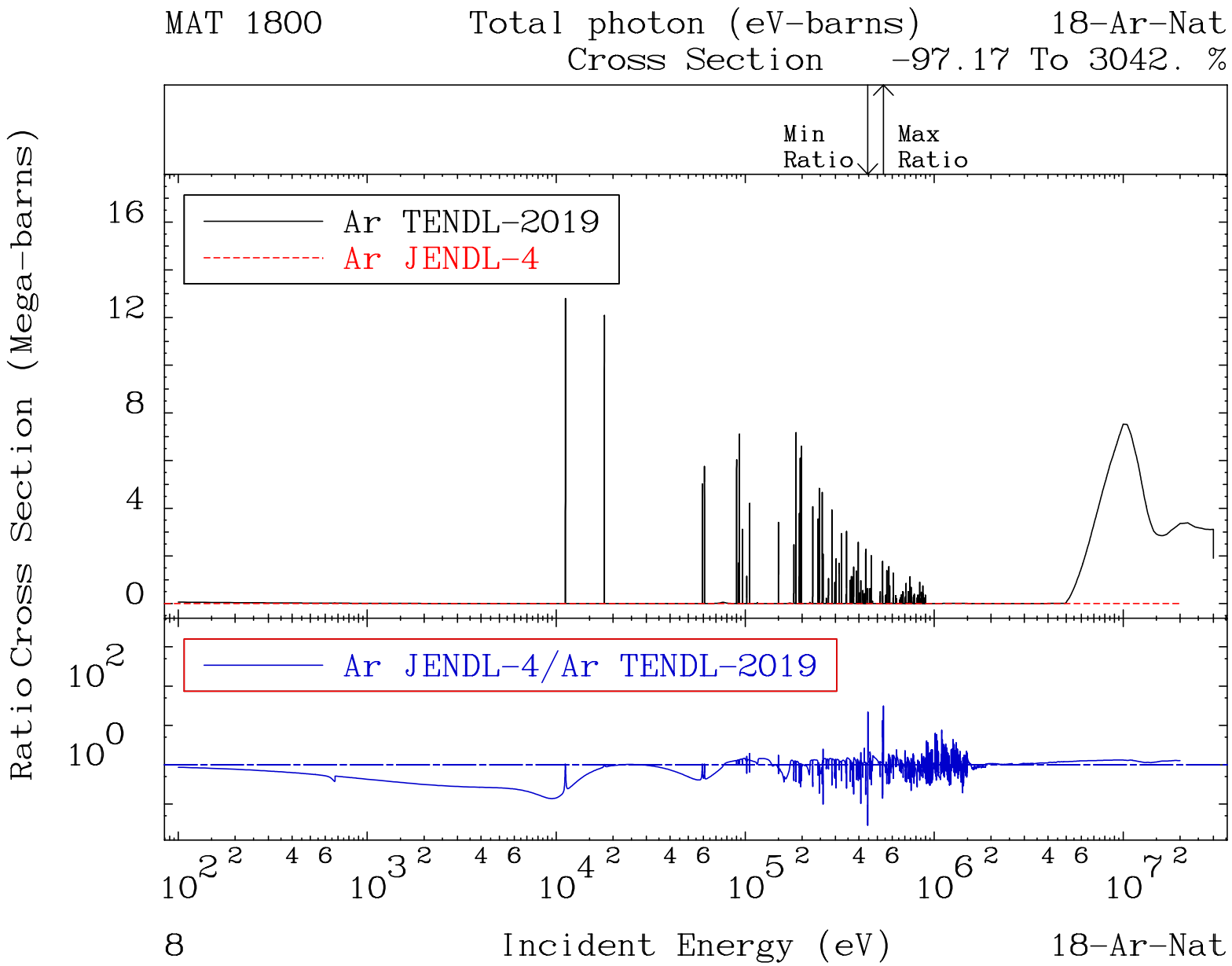

MAT 1800
Deuterium Production
Cross Section
18-Ar-Nat
-100.0 To 443.6 %
Min Ratio
Max Ratio
Ar TENDL-2019 Threshold 6.4586 MeV
Ar JENDL-4 Threshold 10.562 MeV
Ar JENDL-4/Ar TENDL-2019
RatioCross Section (milli-barns)
Incident Energy (MeV)
3
18-Ar-Nat

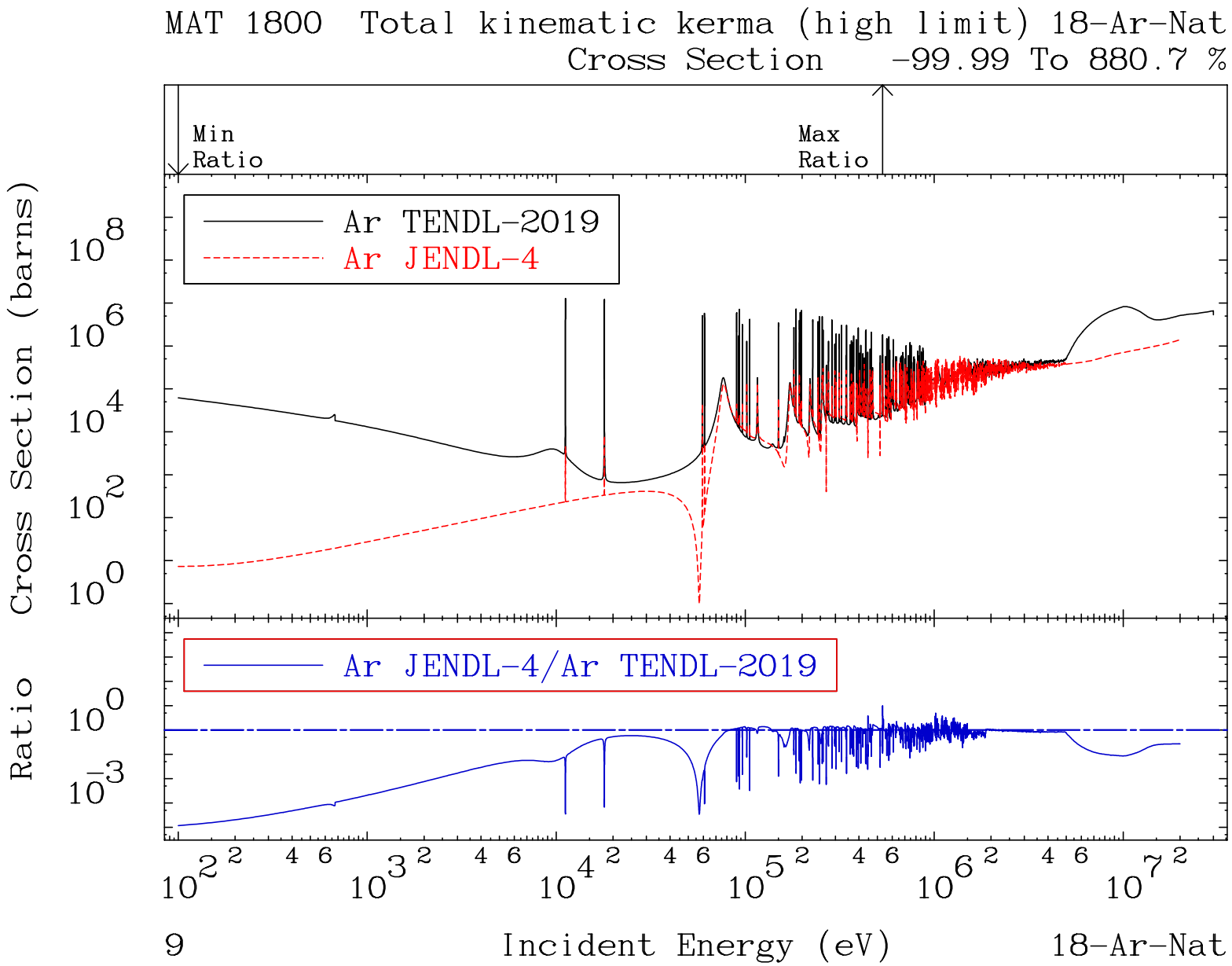

MAT 1800
Tritium Production
Cross Section
18-Ar-Nat
-100.0 To 9999. %
Max
Ratio
Ar TENDL-2019 Threshold 12.392 MeV
Ar JENDL-4 Threshold 12.424 MeV
Ar JENDL-4/Ar TENDL-2019
RatioCross Section (milli-barns)
Incident Energy (MeV)
4
18-Ar-Nat

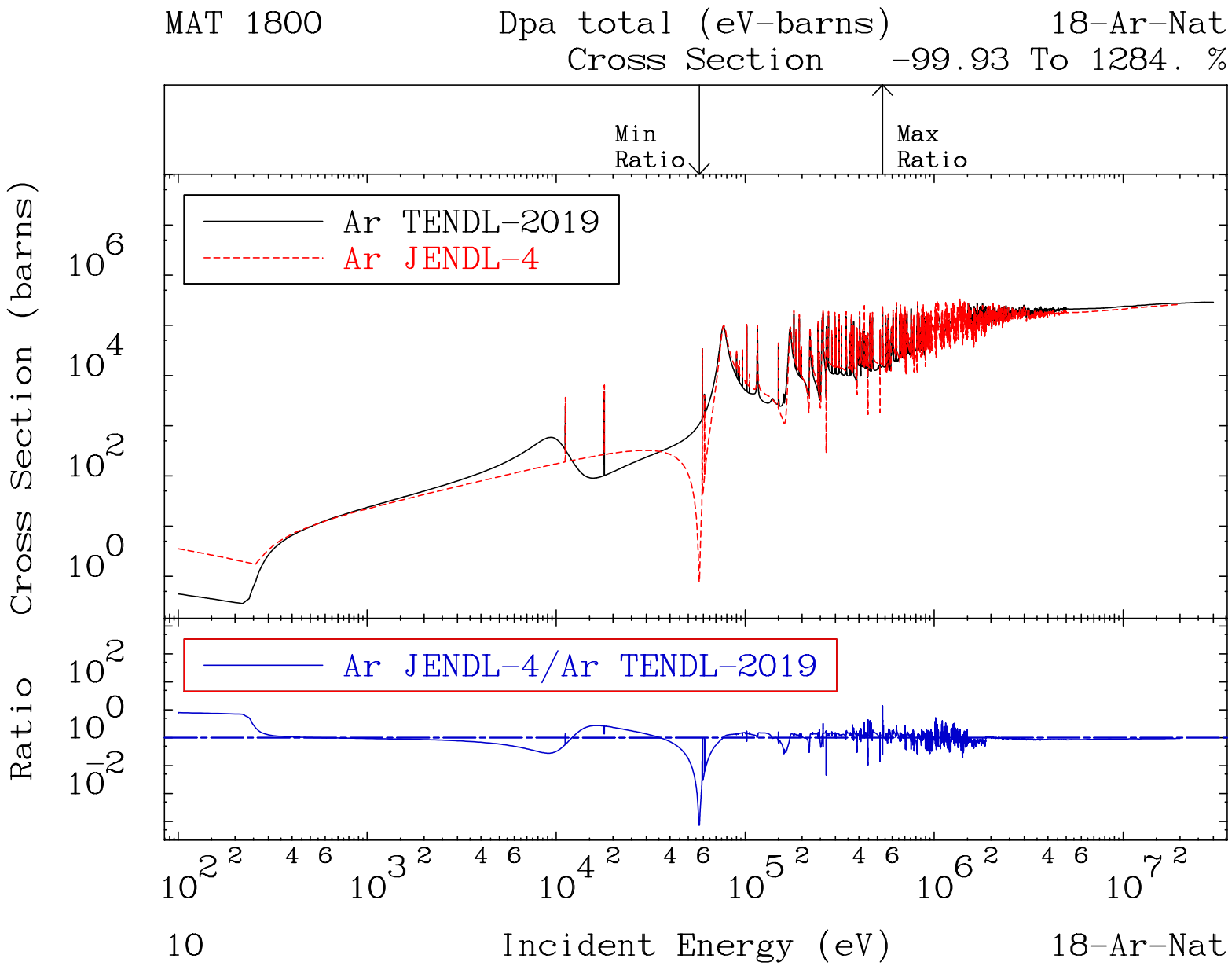

MAT 1800
He-3 Production
Cross Section
18-Ar-Nat
-100.0 To -92.77%
Min
Ratio
Max
Ratio
Ar TENDL-2019 Threshold 7.3605 MeV
Ar JENDL-4 Threshold 15.872 MeV
Ar JENDL-4/Ar TENDL-2019
RatioCross Section (milli-barns)
0
1
2
3
4
0.00
0.05
0.10
10
15
20
25
30
5
Incident Energy (MeV)
18-Ar-Nat

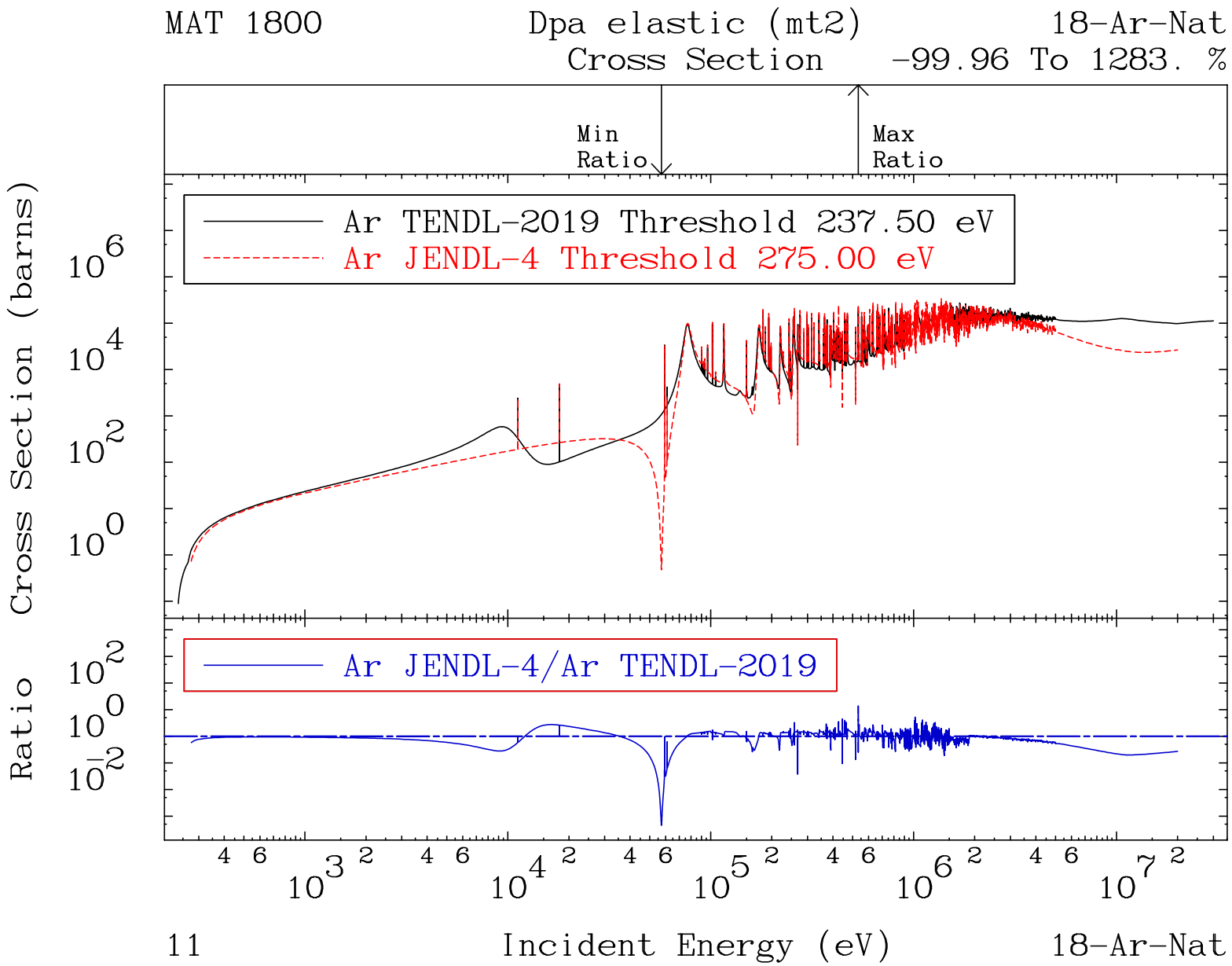

MAT 1800
He-4 Production
Cross Section
18-Ar-Nat
-100.0 To 196.5 %
Min
Ratio
Max
Ratio
Ar TENDL-2019
Ar JENDL-4 Threshold 3.0000 MeV
Ar JENDL-4/Ar TENDL-2019
RatioCross Section (milli-barns)
80
60
40
20
0
4
2
0
10^6
2
3
4
5
6
7
8
10^7
2
3
6
Incident Energy (eV)
18-Ar-Nat

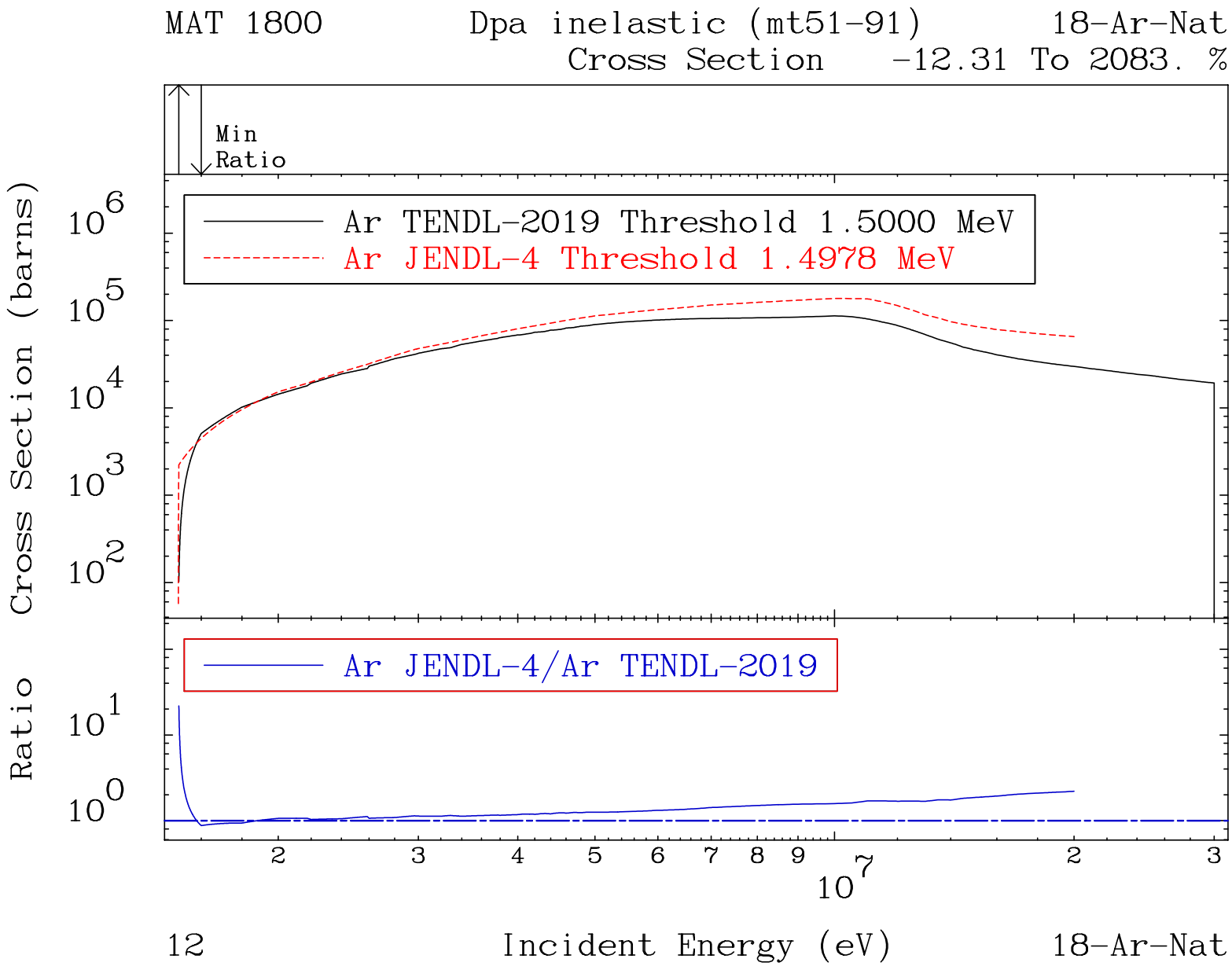

MAT 1800
Kerma total (eV-barns)
18-Ar-Nat
Cross Section -97.17 To 3042. %
Min Ratio
Max Ratio
Ar TENDL-2019
Ar JENDL-4
Cross Section (barns)
Ar JENDL-4/Ar TENDL-2019
Ratio
Incident Energy (eV)
7
18-Ar-Nat

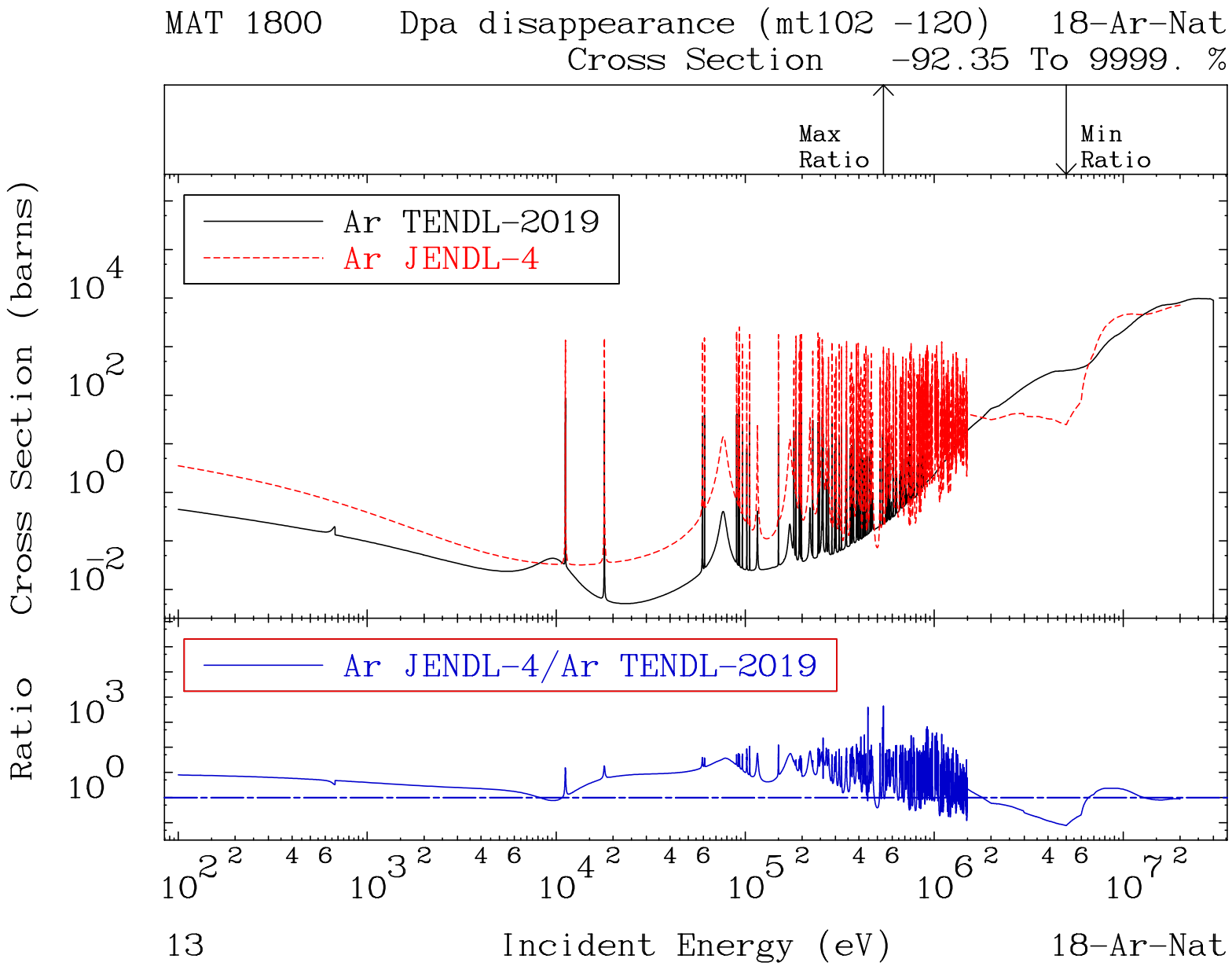

MAT 1800
Total photon (eV-barns)
Cross Section
18-Ar-Nat
-97.17 To 3042. %
Min Ratio
Max Ratio
Ar TENDL-2019
Ar JENDL-4
Ar JENDL-4/Ar TENDL-2019
Ratio Cross Section (Mega-barns)
Incident Energy (eV)
8
18-Ar-Nat


MAT 1800 Total kinematic kerma (high limit) 18-Ar-Nat
Cross Section -99.99 To 880.7 %
Min Ratio
Max Ratio
Ar TENDL-2019
Ar JENDL-4
Cross Section (barns)
Ar JENDL-4/Ar TENDL-2019
Ratio
Incident Energy (eV)
9
18-Ar-Nat


MAT 1800
Dpa total (eV-barns)
Cross Section
18-Ar-Nat
-99.93 To 1284. %
Min Ratio
Max Ratio
Ar TENDL-2019
Ar JENDL-4
Cross Section (barns)
Ar JENDL-4/Ar TENDL-2019
Ratio
Incident Energy (eV)
10
18-Ar-Nat


MAT 1800
Dpa elastic (mt2)
Cross Section
18-Ar-Nat
-99.96 To 1283. %
Min Ratio
Max Ratio
Ar TENDL-2019 Threshold 237.50 eV
Ar JENDL-4 Threshold 275.00 eV
Cross Section (barns)
Ar JENDL-4/Ar TENDL-2019
Ratio
Incident Energy (eV)
11
18-Ar-Nat


MAT 1800
Dpa inelastic (mt51-91)
18-Ar-Nat
Cross Section -12.31 To 2083. %
Min
Ratio
Ar TENDL-2019 Threshold 1.5000 MeV
Ar JENDL-4 Threshold 1.4978 MeV
Ar JENDL-4/Ar TENDL-2019
Cross Section (barns)
Ratio
Incident Energy (eV)
12
18-Ar-Nat


MAT 1800 Dpa disappearance (mt102 -120) 18-Ar-Nat
Cross Section -92.35 To 9999. %
Max Ratio
Min Ratio
Ar TENDL-2019
Ar JENDL-4
Cross Section (barns)
Ar JENDL-4/Ar TENDL-2019
Ratio
Incident Energy (eV)
13
18-Ar-Nat