

# Bohr Hamiltonian Calculations for the W Isotopic Chain

David Muir

October 23, 2021

# List of Figures

1	Bohr Hamiltonian calculations for the $2_1$ states of the W isotopic chain with the UNEDF0 functional. . . . .	2
2	Bohr Hamiltonian calculations for the $3_1$ states of the W isotopic chain with the UNEDF0 functional. . . . .	2
3	Bohr Hamiltonian calculations for the $4_1$ states of the W isotopic chain with the UNEDF0 functional. . . . .	3
4	Bohr Hamiltonian calculations for the $5_1$ states of the W isotopic chain with the UNEDF0 functional. . . . .	3
5	Bohr Hamiltonian calculations for the $6_1$ states of the W isotopic chain with the UNEDF0 functional. . . . .	3
6	Bohr Hamiltonian calculations for the $7_1$ states of the W isotopic chain with the UNEDF0 functional. . . . .	4
7	Bohr Hamiltonian calculations for the $8_1$ states of the W isotopic chain with the UNEDF0 functional. . . . .	4
8	Bohr Hamiltonian calculations for the $0_2$ states of the W isotopic chain with the UNEDF0 functional. . . . .	4
9	W isotopic chain potential energy surfaces. . . . .	6

# W Isotopic Chain Analysis

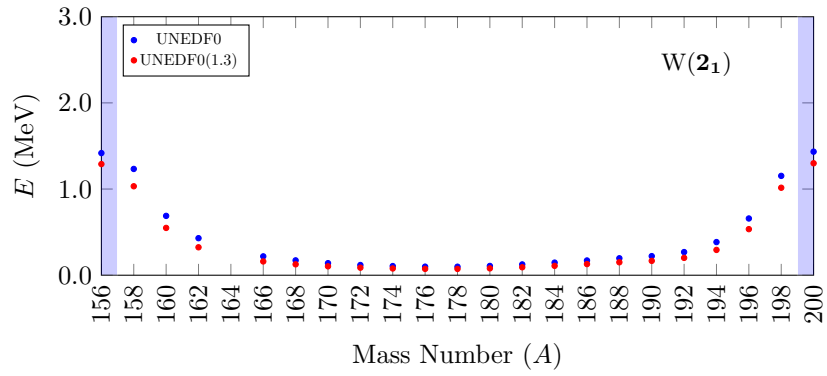


Figure 1: Bohr Hamiltonian calculations for the  $2_1$  states of the W isotopic chain with the UNEDF0 functional.

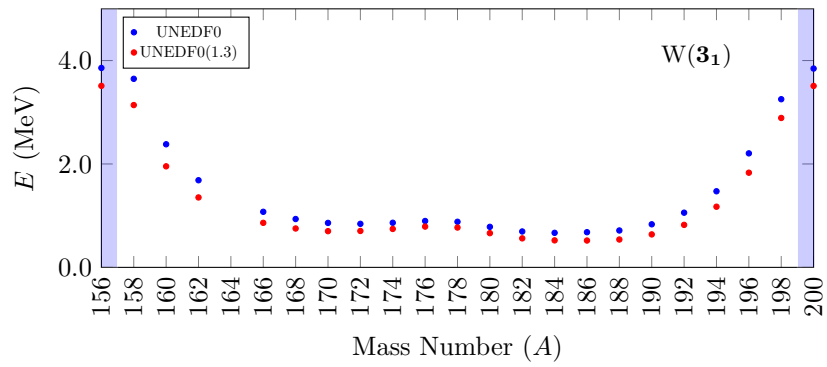


Figure 2: Bohr Hamiltonian calculations for the  $3_1$  states of the W isotopic chain with the UNEDF0 functional.

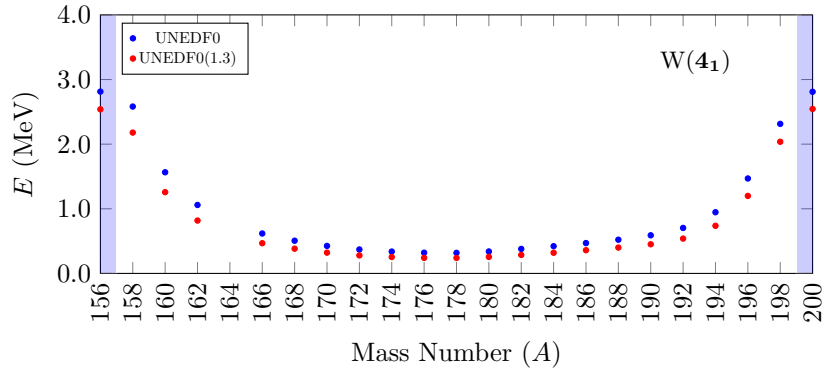


Figure 3: Bohr Hamiltonian calculations for the  $4_1$  states of the W isotopic chain with the UNEDF0 functional.

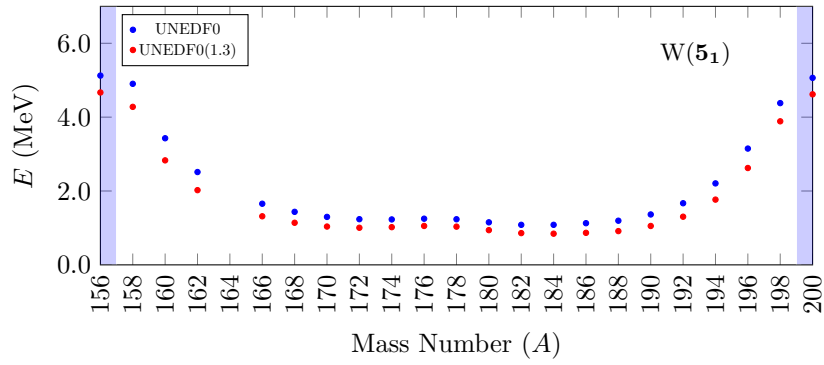


Figure 4: Bohr Hamiltonian calculations for the  $5_1$  states of the W isotopic chain with the UNEDF0 functional.

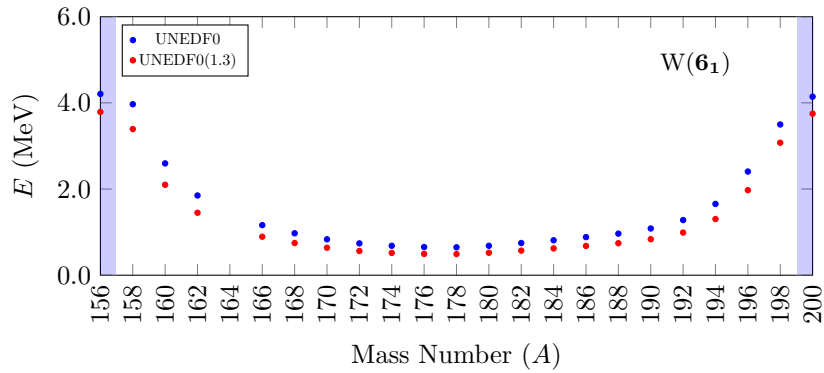


Figure 5: Bohr Hamiltonian calculations for the  $6_1$  states of the W isotopic chain with the UNEDF0 functional.

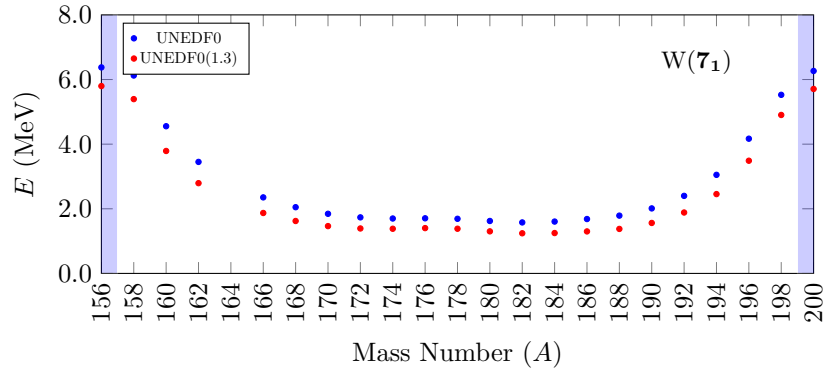


Figure 6: Bohr Hamiltonian calculations for the  $7_1$  states of the W isotopic chain with the UNEDF0 functional.

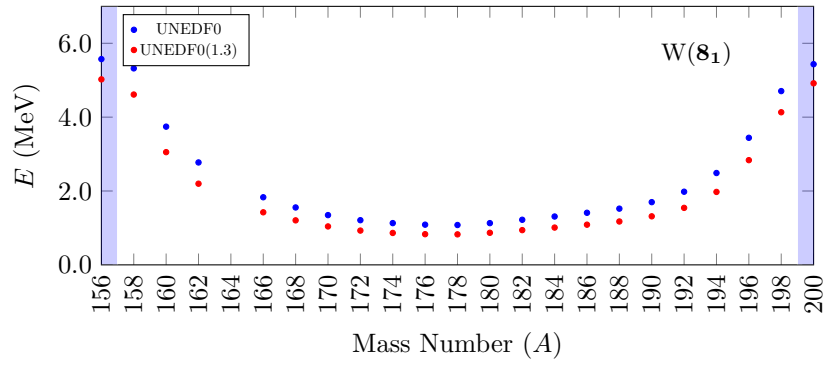


Figure 7: Bohr Hamiltonian calculations for the  $8_1$  states of the W isotopic chain with the UNEDF0 functional.

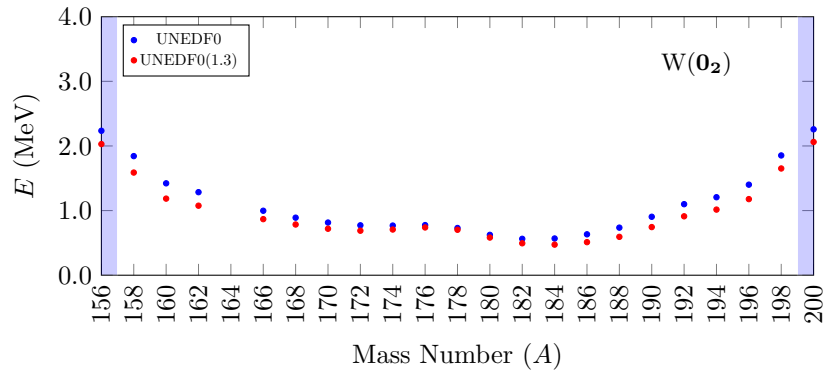
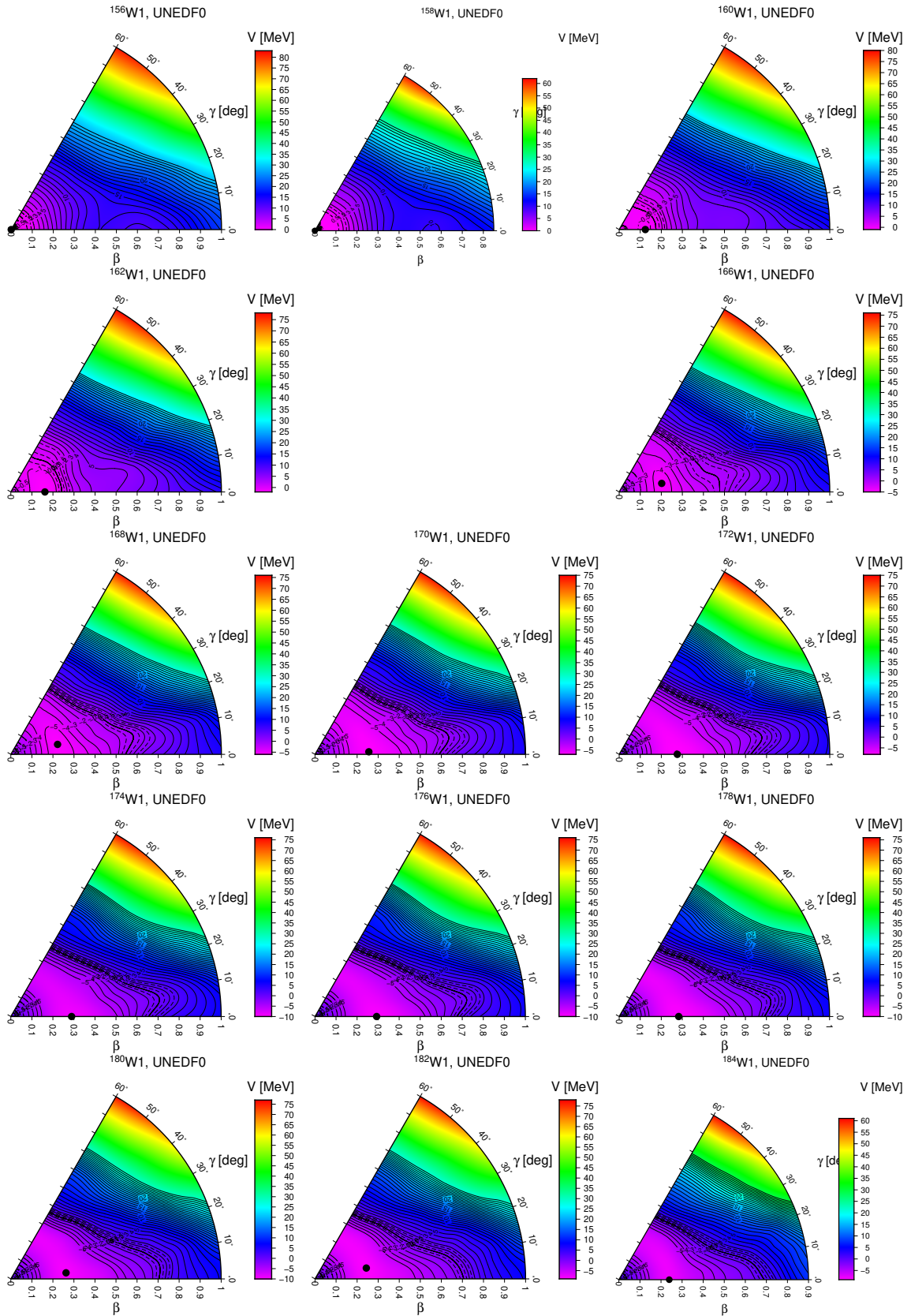


Figure 8: Bohr Hamiltonian calculations for the  $0_2$  states of the W isotopic chain with the UNEDF0 functional.



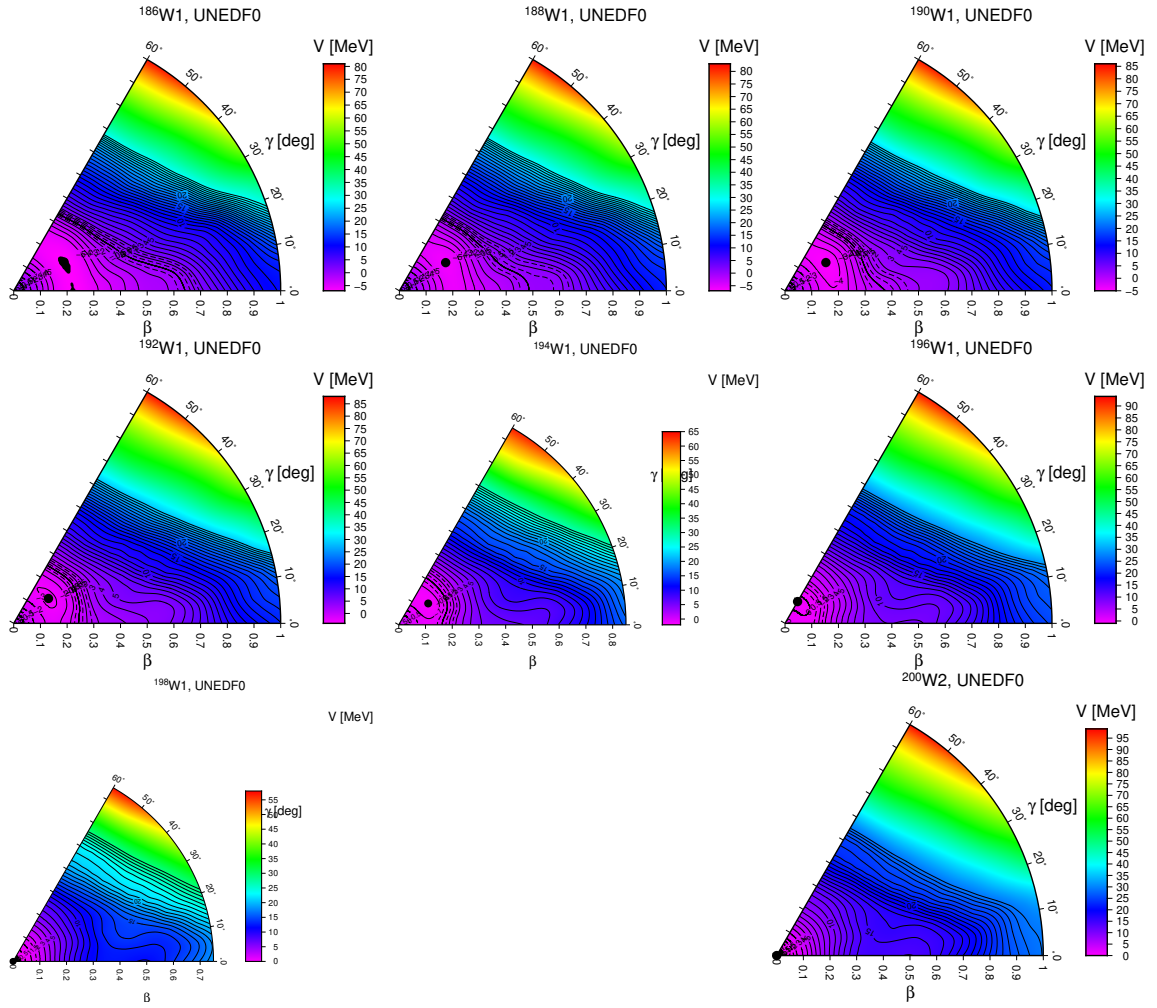


Figure 9: W isotopic chain potential energy surfaces.