

^{11}O

Webb et al. reported the discovery of ^{11}O in the 2019 paper entitled “First Observation of Unbound ^{11}O , the Mirror of the Halo Nucleus ^{11}Li ” (2019We03). A secondary ^{13}O beam was produced from a 150 MeV/nucleon ^{16}O beam at the National Superconducting Cyclotron Facility at Michigan State University. The ^{11}O isotopes were then populated via two-neutron knockout reaction on a 1-mm thick ^9Be target and identified by measuring charged reaction products in the High Resolution Array (HiRA) consisting of 14 $\Delta\text{E-E}$ (Si-CsI(Tl)) detectors. “The energies Q_{2p} (and widths) of the four lowest-lying resonant states in ^{11}O obtained with V_0 optimized to the observed energy spectrum are 4.16(1.30) MeV for $3/2_1^-$, 4.65 (1.06) MeV for $5/2_1^+$, 4.85(1.33) MeV for $3/2_2^-$, and 6.28(1.96) MeV for $5/2_2^+$.”

Adapted from reference (2023Th03)

2019We03 T. B. Webb, S. M. Wang, K. W. Brown, R. J. Charity *et al.*, Phys. Rev. Lett. **122**, 122501 (2019).

2023Th03 M. Thoennessen, Int. J. Mod. Phys. E **32**, 2330001 (2023).

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