

¹⁰Li

¹⁰Li was first observed by Wilcox et al. in 1975 in “The (⁹Be,⁸B) Reaction and the Unbound Nuclide ¹⁰Li” (1975Wi26). A beam of 121 MeV ⁹Be accelerated by the Berkeley 88-inch cyclotron bombarded a ⁹Be target and ¹⁰Li was produced in the transfer reaction (⁹Be,⁸B). An unbound state of ¹⁰Li was identified by measuring the energy-loss and energy of the ⁸B ejectiles. “The observed Q-value for the ⁹Be(⁹Be,⁸B)¹⁰Li ground-state reaction was -34.06 ± 0.25 MeV, corresponding to a mass excess for ¹⁰Li of 33.83 ± 0.25 MeV. The nucleus ¹⁰Li is thus unbound to ⁹Li plus a neutron by 0.80 ± 0.25 MeV, somewhat more unbound than the current prediction of 0.21 MeV based on the Garvey-Kelson method.”

In 1966, Poskanzer et al. had shown that ¹⁰Li was particle unstable (1966Po09).

Adapted from reference (2012Th01)

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