

^{12}O

^{12}O was first observed by KeKelis et al. in the 1978 paper “Masses of the unbound nuclei ^{16}Ne , ^{15}F , and ^{12}O ” (1978Ke06). An oxygen gas target was bombarded with 117 MeV α particles from the Berkeley 88-inch cyclotron. ^{12}O was produced in the transfer reaction $^{16}\text{O}(^4\text{He}, ^8\text{He})$ and identified by measuring the ejectiles in a quadrupole-sextupole-dipole (QSD) spectrometer. “...there is evidence for a group of seven counts near the location of the IMME prediction for the ^{12}O ground state as well as five counts which could represent transitions to a first excited state... This Q value implies a mass excess of 32.10 ± 0.12 MeV for ^{12}O .”

Adapted from reference (2012Th01)

1978Ke06 G. J. KeKelis, M. S. Zisman, D. K. Scott, R. Jahn *et al.*, Phys. Rev. C **17**, 1929 (1978).

2012Th01 M. Thoennessen, At. Data Nucl. Data Tables **98**, 43 (2012).

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