

¹⁶O(α ,⁸He) [1978Ke06](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, J. E. Purcell and C. G. Sheu		NP A968, 71 (2017)	1-Jan-2017

[1978Ke06](#): Evidence for a resonance in ¹²O was first reported by ([1978Ke06](#)) who measured the ⁸He recoils following α particle bombardment of a ¹⁶O filled gas cell target. The analysis indicated $\Delta M(^{12}\text{O})=32.10\text{ MeV}$ *I2*, and also showed indications of an excited state near $E_x\approx 1.0\text{ MeV}$ *I*. In the discussion, an argument based on the Wigner limit for reduced widths, suggests the diproton decay branching ratio of the ground state is 30%–90%.

¹²O Levels

E(level)	Comments
0	$\Delta M=32.10\text{ MeV}$ <i>I2</i> is deduced.
1.0×10^3 <i>I</i>	