

${}^{12}\text{C}({}^8\text{He}, {}^6\text{H})$ 2008Ca22

<u>Type</u>	<u>Author</u>	<u>Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	J. E. Purcell, C. G. Sheu	ENSDF	23-March-2017

A $E({}^8\text{He})=15.4$ MeV/nucleon beam from the GANIL-SPIRAL facility, produced via the ${}^{12}\text{C}({}^{13}\text{C}, {}^8\text{He})$ reaction, impinged on a C_4H_{10} gas target. In ${}^{12}\text{C}({}^8\text{He}, {}^6\text{H}){}^{14}\text{N}$ reactions, the ${}^6\text{H}$ decays into ${}^3\text{H}+3\text{n}$. Events with ${}^{14}\text{N}$ and ${}^3\text{H}$ detected in coincidence were analyzed, and a resonance was observed at 2.91 MeV +85-95 above the ${}^3\text{H}+3\text{n}$ threshold with a width of 1.5 MeV +18-4. The cross section was found to be 19 $\mu\text{b}/\text{sr}$ +62-13 over the range of angles from 8.7° to 48.2°.

 ${}^6\text{H}$ Levels

<u>E(level)</u>	<u>Γ</u>	<u>$E_{\text{res}}({}^3\text{H}+3\text{n})(\text{MeV})$</u>	<u>Comments</u>
0	≈ 1.52 MeV	≈ 2.91	E(level): From $E_{\text{res}}({}^3\text{H}+3\text{n})=2.91$ MeV +85-95. Γ : From $\Gamma=1.5$ MeV +18-4.