

C(${}^{26}\text{Ne},\text{X}\gamma$) **2017Va24**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia, Anagha Chakraborty		NDS 186, 2 (2022)	31-Mar-2022

${}^{24}\text{F}$ was observed from neutron decay of ${}^{25}\text{F}$. ${}^{25}\text{F}$ was produced via one-proton knockout reaction from ${}^{26}\text{Ne}$ secondary beams, $E=456$ MeV/nucleon (at entrance), on a CH_2 target (thickness 922 mg/cm^2). ${}^{26}\text{Ne}$ was produced from fragmentation of ${}^{40}\text{Ar}$ beam, $E=490$ MeV/nucleon, on a ${}^9\text{Be}$ target (thickness 4 g/cm^2). Fragments were separated and selected by the fragment separator at GSI facility and identified event-by-event from energy loss and time-of-flight. γ rays were detected by 159 NaI crystals of the 4π Crystal ball detector. Two pairs of double-sided silicon strip detectors (DSSSD) placed before and after the reaction target to determine the energy loss. Also two scintillation fiber detectors (GFIs), composed of 480 fibers and time-of-flight wall (TFW) composed of plastic scintillator paddles, were used in combination with DSSSD detectors to identify atomic number 'Z' and mass number 'A'. Measured E_γ .

 ${}^{24}\text{F}$ Levels

E(level)	J^π [†]	Comments
0.0	(3 ⁺)	
≈ 510	(2 ⁺)	E(level): From γ ray energy. 2017Va24 assume the γ ray as a likely transition from 2_1+ to the 3^+ g.s. in ${}^{24}\text{F}$.

[†] From Adopted Levels.

 $\gamma({}^{24}\text{F})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
510	≈ 510	(2 ⁺)	0.0	(3 ⁺)

C(${}^{26}\text{Ne},\text{X}\gamma$) **2017Va24**Level Scheme