

${}^{23}\text{O}$ $\beta^{-}\text{n}$ decay 2007Su05

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 127, 69(2015)	1-Apr-2015

Parent: ${}^{23}\text{O}$: $E=0$; $J^{\pi}=1/2^{+}$; $T_{1/2}=97$ ms 8; $Q(\beta^{-}\text{n})=3760$ 90; $\% \beta^{-}\text{n}$ decay=7 2

${}^{23}\text{O}$ - $T_{1/2}$: from weighted average of six $\gamma(t)$ data (2007Su05).

${}^{23}\text{O}$ - $Q(\beta^{-}\text{n})$: from 2012Wa38.

${}^{23}\text{O}$ - $\% \beta^{-}\text{n}$ decay: $\% \beta^{-}\text{n}=7$ 2 (2007Su05). Other value: 32 7 (1990Mu06).

${}^{23}\text{O}$ beam was produced from a primary beam of ${}^{48}\text{Ca}$ at 140 MeV/nucleon on a ${}^9\text{Be}$ target. The fragments were separated by A1900 fragment separator. The beam of ${}^{23}\text{O}$ was used in a pulsed mode of 300 ms timing. The detection system consisted of implantation detector (3 mm plastic scintillator), an array of 16 neutron time-of-flight detectors and eight γ -ray detectors of segmented germanium array. ${}^{23}\text{O}$ identification was achieved by time-of-flight and energy loss information in silicon detectors. Measured E_{γ} , I_{γ} , $\gamma\gamma$, (particle) γ coin, β , $\gamma\beta$ coin, delayed neutrons, isotopic half-life by timing of γ rays, β rays and delayed neutrons.

 ${}^{22}\text{F}$ Levels

<u>E(level)[†]</u>	<u>J^{π}[†]</u>
0.0	(4 ⁺)
71.65 20	(3 ⁺)
709.1 3	(2 ⁺)

[†] From Adopted Levels.

 $\gamma({}^{22}\text{F})$

<u>E_{γ}</u>	<u>I_{γ}[†]</u>	<u>$E_i(\text{level})$</u>	<u>J_i^{π}</u>	<u>E_f</u>	<u>J_f^{π}</u>
638 3	1.5 8	709.1	(2 ⁺)	71.65	(3 ⁺)

[†] Absolute intensity per 100 decay.

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Decay Scheme

Intensities: Type not specified

