C(^{36}S,Xγ)   2008So09

History

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

^{22}N was obtained from fragmentation of primary ^{36}S beam on carbon target (thickness 348 mg/cm^2), E=77.5 MeV/nucleon, followed by product nuclei selection by ALPHA spectrometer at GANIL and secondary beams of fragments for florine to magnesium with energies varying from 54 to 65 MeV passed an "active" target composed of a plastic scintillator (103 mg/cm^2) sandwiched between two carbon foils (51 mg/cm^2) at the dispersive focus of the SPEG spectrometer. Fragments of secondary beam were collected and identified at the focal plane in the SPEG spectrometer and 525 ^{22}N nuclei were observed. Measured Eγ, Iγ, $\gamma\gamma$-coin using 74 BaF$_2$ crystals and four HPGe detectors.

^{22}N Levels

E(level)	J$^{\pi\dagger}$
0	(0$^-$)
183 16	(1$^-$)
1017 25	(2$^-$)

† From comparison with shell-model calculations.

γ(^{22}N)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
183 16	100 22	183	(1$^-$)	0	(0$^-$)
834 19	41 9	1017	(2$^-$)	183	(1$^-$)

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Level Scheme

Intensities: Relative I$_\gamma$

Legend

I$_\gamma <$ 2%×I$_\gamma^{max}$
I$_\gamma <$ 10%×I$_\gamma^{max}$
I$_\gamma >$ 10%×I$_\gamma^{max}$

$^{22}_{7}$N$_{15}$