C(^{36}S,Xγ) 2008St18,2004St10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Narijauskas, J. H. Kelley, C. G. Sheu	ENSDF	9-June-2017

2004St10,2004St29,2008St18:
XUNDL sets compiled by S. Geraedts and B. Singh (McMaster) 2007-2008.
The authors populated ^{20}C using a cocktail beam of neutron-rich nuclides [^{25}Ne, ^{26}Ne, ^{27}Na, ^{28}Na, ^{29}Mg, and ^{30}Mg] that were produced by fragmenting an initial 77.5 MeV/nucleon ^{36}S beam at the GANIL/SISSI beamline. The cocktail beam was selected using the α spectrometer and focused on a carbon target that was coupled to a plastic scintillator.
Eγ, $\gamma\gamma$, γ(fragment) coincidences were measured using 74 BaF_2 detectors that surrounded the target with 4π and the SPEG spectrometer. The ^{20}C were identified using time-of-flight, energy loss and focal-plane position information. A single γ-ray transition was observed. Results are compared with shell-model calculations for analysis of J$^\pi$ values.
All data are from (2008St18).

^{20}C Levels

E(level)	J$^\pi$[†]	Comments
0	0$^+$	
1588 *20*	2$^+$	J$^\pi$: Systematics of e-e nuclei and shell-model predictions.

[†] From literature, and consistent with shell-model predictions shown in figure 4 of (2008St18).

γ(^{20}C)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
1588 *20*	2	1588	2$^+$	0	0$^+$

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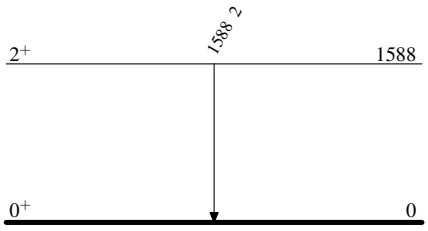
Level Scheme

Intensities: Relative I$_\gamma$



$^{20}_{6}C_{14}$