^{3}H(^{30}Mg,p) 2010Wi11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Christian Ouellet, Balraj Singh	NDS 112,2199 (2011)	24-Aug-2011

The (t,p) reaction in inverse kinematic reaction. Beam=^{30}Mg at 1.8 MeV/nucleon, target=^{3}H+Ti with 500 μg/cm^2 Ti foil and 40 μg/cm^2 ^{3}H. ^{30}Mg beam produced by 1.4 GeV protons on UC_x target at REX-ISOLDE-CERN facility. Measured proton spectra and angular distributions using ΔE-E telescopes. The γ rays were recorded in coin with recoil protons using MINIBALL detector array. DWBA analysis of $\sigma(\theta)$ data for protons.
Relevance to island of inversion nuclei.

^{32}Mg Levels

E(level)	J$^\pi$	T$_{1/2}$	L	Comments
0	0$^+$		0	
886	2$^+$			No evidence of the direct population of this state in ^{3}H(^{30}Mg,p).
1058 *2*	0$^+$	>7 ns	0	T$_{1/2}$: estimated from GEANT4 simulations. E(level): 1083 *33* from proton spectrum.

γ(^{32}Mg)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.
172	6 *3*	1058	0$^+$	886	2$^+$	
886	4 *2*	886	2$^+$	0	0$^+$	
(1058)		1058	0$^+$	0	0$^+$	[E0]

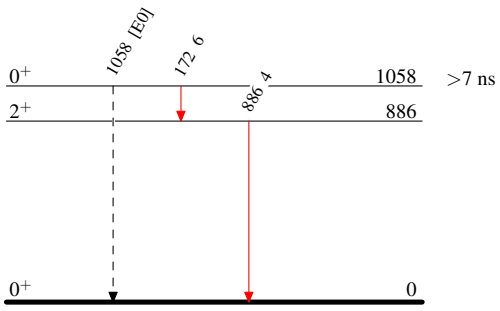
^{3}H(^{30}Mg,p) 2010Wi11

Level Scheme

Intensities: Relative I$_\gamma$

Legend

I$_\gamma$ < 2%×I$_\gamma^{max}$
I$_\gamma$ < 10%×I$_\gamma^{max}$
I$_\gamma$ > 10%×I$_\gamma^{max}$
γ Decay (Uncertain)



$^{32}_{12}Mg_{20}$