

$^2\text{H}(^{74}\text{Zn}, ^{74}\text{Zn}'\gamma)$ 2012Ni09

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	31-Mar-2017

2012Ni09 (also 2011Ni03): excited states in ^{74}Zn populated by knockout reaction on CD_2 target. Cocktail beam of ^{73}Zn , ^{74}Zn and ^{72}Cu was produced in fragmentation of 60 MeV/nucleon ^{76}Ge beam with $580 \mu\text{g}/\text{cm}^2$ ^9Be target. LISE spectrometer at GANIL used to separate fragments. Measured level lifetimes by RDDS method using Cologne Plunger device. Gamma rays were detected by eight segmented EXOGAM Ge clovers. The time-of-flight measured between two microchannel plate detectors (MCPs). Measured E_γ , $\gamma\gamma$ coin, lifetime by RDDS method. Deduced B(E2) value. Discussed systematics of N=30-50 nuclei and comparison with previous studies and shell-model calculations.

 ^{74}Zn Levels

E(level)	J^π	$T_{1/2}$	Comments
0	0^+		
605.9	2^+	18.7 ps 17	$T_{1/2}$: measured by 2012Ni09 using RDDS method and differential decay curve method.

 $\gamma(^{74}\text{Zn})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	Comments
605.9	605.9	2^+	0	0^+	E2	B(E2) \downarrow =0.0370 33 (2012Ni09) B(E2) deduced by authors from half-life.

 $^2\text{H}(^{74}\text{Zn}, ^{74}\text{Zn}'\gamma)$ 2012Ni09Level Scheme