Coulomb excitation 2004Yu10,2005Ya26

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde	NDS 121, 1 (2014)	20-Jun-2014

2004Yu10: ^{197}Au(^{54}Ni,^{54}Ni′γ) at E(^{54}Ni)=70.3 MeV/nucleon primary beam of ^{58}Ni at 95 MeV/nucleon and ^{9}Be target. Secondary beam of ^{54}Ni E=70.3 MeV/nucleon was produced from ^{197}Au target used for Coulomb excitation. Measured Eγ, γ(scattered ^{54}Ni) coin, cross section with SeGA array of 13 *32*-fold segmented HPGe detectors and a 1900 fragment separator.

2005Ya26: Pb(^{54}Ni,^{54}Ni′γ) at E(^{54}Ni)=42 MeV/nucleon, primary beam of ^{58}Ni at 140 MeV/nucleon and Ni target. Measured $\sigma(\theta)$, Eγ, Iγ, (particle)γ-coin following projectile Coulomb excitation, DWBA analysis.

^{54}Ni Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	0^+		
1396 *9*	2^+	0.89 ps *17*	B(E2)↑=0.061 *12* $T_{1/2}$: from B(E2). B(E2)↑: From weighted average of 0.063 *17* (2004Yu10) and 0.059 *17* (2005Ya26).

γ(^{54}Ni)

E_γ	E_i(level)	J_i^π	E_f	J_f^π
1396 *9*	1396	2^+	0.0	0^+

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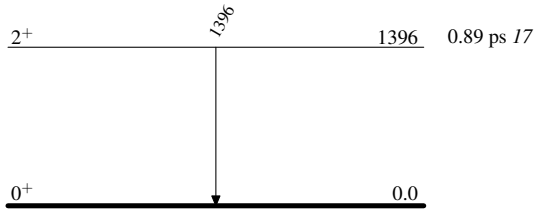
Level Scheme



$^{54}_{28}Ni_{26}$