

${}^{198}\text{Pt}({}^{48}\text{Ca},\text{X}\gamma)$ 2004IsZX

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 179, 1 (2022)	30-Nov-2021

2004IsZX: E=8.5 MeV/nucleon ${}^{48}\text{Ca}$ beam was produced from the JAERI tandem-booster facility. γ rays from the isomer were detected with Ge detectors of an isomer-scope detecting projectile-like fragments in Si $\Delta\text{E-E}$ detectors and absorbing prompt γ rays in a tungsten γ -ray shield. Measured $E\gamma$, $\gamma\gamma$ -coin, fragment- $\gamma(t)$, $\gamma(\text{asymmetry})$. Deduced levels, isomer $T_{1/2}$.

2004IsZX propose a level scheme based on a 1^- level with unknown E=x separate from the g.s., which however has been resolved to be the g.s. by 2011Kr12 in ${}^{238}\text{U}({}^{48}\text{Ca},\text{X}\gamma)$.

 ${}^{48}\text{K}$ Levels

E(level)	J^π [†]	$T_{1/2}$	Comments
0.0	1^-		2004IsZX propose this 1^- level at E=x, on which all higher levels are based, while it has been resolved to be the g.s. by 2011Kr12.
279	2^-		
728	3^-		
2177	5^+	13 ns 2	$T_{1/2}$: from fragment- $\gamma(t)$ (2004IsZX).

[†] As proposed by 2004IsZX, except as noted; no details given.

 $\gamma({}^{48}\text{K})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]
279	279	2^-	0.0	1^-	D
449	728	3^-	279	2^-	D
1449	2177	5^+	728	3^-	M2

[†] From W(in plane)/W(out of plane) (2004IsZX).

 ${}^{198}\text{Pt}({}^{48}\text{Ca}, \text{X}\gamma)$ 2004IsZXLevel Scheme