

$^{92}\text{Mo}({}^3\text{He},t)$ 1973Ha02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

$E({}^3\text{He})=27.5$ MeV, FWHM=55-68 keV, $\theta(\text{lab})=12^\circ-65^\circ$. DWBA analysis of $\sigma(\theta)$ (shape not reproduced very well).

 ^{92}Tc Levels

E(level)	J^π [†]	Comments
0.0	8^+	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})8^+$.
203 15	$5,6^+$	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})6^+$.
267 15	$3^+,4^+$	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})4^+$.
373 15	$5,6^+$	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})5^+$.
531 15	$3^+,4^+$	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})3^+$.
583 20	$1^+,2^+,4^-$ [‡]	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})2^+$.
693 20	9^+	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})9^+$.
968 20	$5,6^+$	Configuration= $((\pi 1g_{9/2})(\nu 2p_{1/2})^{-1})5^-$. However, $J^\pi=6^+$ is favored in Adopted Levels; if correct, configuration must be incorrect.
1129 20	≤ 3	
1222 20	≤ 3	
1324 25	≤ 3	
1453 25	$1^+,2^+,4^-$	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})2^+$ and possibly another configuration.
1613 25	≤ 3	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})1^+$ and possibly another configuration.
3813 30	0^+	Configuration= $((\pi 1g_{9/2})(\nu 1g_{9/2})^{-1})0^+$; isobaric analog of ^{92}Mo g.s., based on strength of excitation, E(level) and $\sigma(\theta)$ (1973Ha02).

[†] Authors' assignments, based on excitation energies and systematics of $({}^3\text{He},t)$ angular distributions, and by analogy to the $^{88}\text{Sr}({}^3\text{He},t)^{88}\text{Y}$ reaction. Authors' suggested principal configuration, which gives the authors' preferred J^π , is indicated for each level.

[‡] Configuration= $((\pi 1g_{9/2})(\nu 2p_{1/2})^{-1})4^-$ also possible (1973Ha02), but not consistent with adopted $J^\pi=(2^+)$.