

${}^{24}\text{Mg}({}^{24}\text{Mg}, 2\alpha p\gamma)$ 2008Sa04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 149, 1 (2018)	1-Jan-2018

2008Sa04: E=91.72 MeV (for ON resonance), 92.62 MeV (for OFF resonance) beam was produced from the Legnaro XTU Tandem accelerator. Target was $40 \mu\text{g}/\text{cm}^2$ ${}^{24}\text{Mg}$ film on a $15 \mu\text{g}/\text{cm}^2$ carbon backing. γ rays were detected with the GASP 4π array of 40 HPGe detectors and charged particles were detected with the 4π EUCLIDES array of 40 Si detectors ΔE -E. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, particle- γ -coin.

Level scheme is from Adopted Levels, Gammas. **2008Sa04** reported 15 γ rays from the decay of a $J^\pi=36^+$ resonance in ${}^{24}\text{Mg}+{}^{24}\text{Mg}$ system but didn't place them in the level scheme.

 ${}^{39}\text{K}$ Levels

E(level)	J^π †	E(level)	J^π †	E(level)	J^π †	E(level)	J^π †
0	$3/2^+$	3943	$11/2^-$	6434	$13/2^+$	7776	$17/2^+$
2814	$7/2^-$	5353	$11/2^-$	6474	$15/2^+$	8028	$19/2^-$
3597	$9/2^-$	5717	$13/2^-$	7141	$15/2^-$	9908	$(21/2^+)$

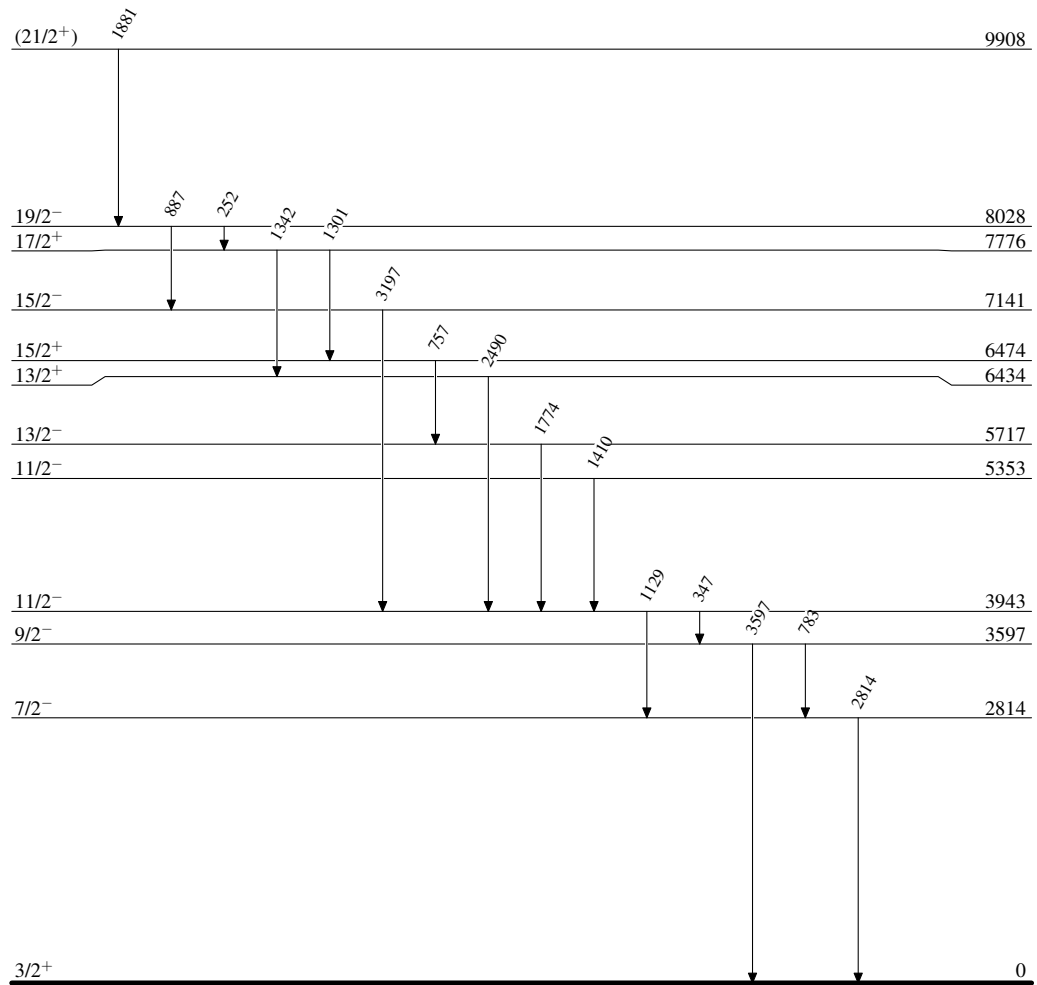
† From Adopted Levels.

 $\gamma({}^{39}\text{K})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
252	8028	$19/2^-$	7776	$17/2^+$	1410	5353	$11/2^-$	3943	$11/2^-$
347	3943	$11/2^-$	3597	$9/2^-$	1774	5717	$13/2^-$	3943	$11/2^-$
757	6474	$15/2^+$	5717	$13/2^-$	1881	9908	$(21/2^+)$	8028	$19/2^-$
783	3597	$9/2^-$	2814	$7/2^-$	2490	6434	$13/2^+$	3943	$11/2^-$
887	8028	$19/2^-$	7141	$15/2^-$	2814	2814	$7/2^-$	0	$3/2^+$
1129	3943	$11/2^-$	2814	$7/2^-$	3197	7141	$15/2^-$	3943	$11/2^-$
1301	7776	$17/2^+$	6474	$15/2^+$	3597	3597	$9/2^-$	0	$3/2^+$
1342	7776	$17/2^+$	6434	$13/2^+$					

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Level Scheme

 ${}^{39}_{19}\text{K}_{20}$