^{36}Ar(^{16}O,^{12}C) 1972Br40

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 140, 1 (2017)	30-Sep-2015

1972Br40: E=45 MeV beam was produced from the Heidelberg MP tandem Van de Graaff accelerator incident on a gas target of enriched ^{36}Ar. Reaction products were detected with a ΔE-E semiconductor telescope. Measured ^{12}C spectra. Deduced rotational band based on excited 0^+.

1973Te04: (^{16}O,^{12}Cγ) E=58 MeV. Measured (^{12}C)γ coin; γ-ray data for 3904 and 5278 levels. See (HI,xnγ) dataset.

^{40}Ca Levels

E(level)	Jπ†	Comments
3353‡	0^+	E(level),Jπ: from Adopted Levels; not seen in (^{16}O,^{12}C).
3.9×10^3‡ *1*	(2^+)	
5.25×10^3‡ *10*	(4^+)	
6.9×10^3‡ *1*	(6^+)	
9.9×10^3‡ *1*	(8^+)	
12.4×10^3‡ *1*	(10^+)	

† Tentative assignment based on band structure (1972Br40).

‡ Band(A): Possible $K^\pi=0^+$ band.

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Band(A): Possible $K^{\pi}=0^{+}$ band

(10^{+}) **12400**

(8^{+}) **9900**

(6^{+}) **6900**

(4^{+}) **5250**

(2^{+}) **3900**

0^{+} **3353**

$^{40}_{20}Ca_{20}$