

$^{172}\text{Yb}(n,\gamma)$ E=resonance 1971Ri09

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	V. S. Shirley	NDS 75,377 (1995)	1-Oct-1993

$E(n)=140, 180, 202$ eV; $\theta=110^\circ$; Yb oxide targets, both natural and enriched (92.76%); measured primary $E\gamma, I\gamma$ for each resonance (Ge(Li), FWHM ≈ 8 keV at 6 MeV).

See [1966Wa14](#), [1968Mu05](#), [1972Ra26](#), [1973Li03](#), and [1984MuZY](#) for measurements of resonance parameters.

 ^{173}Yb Levels

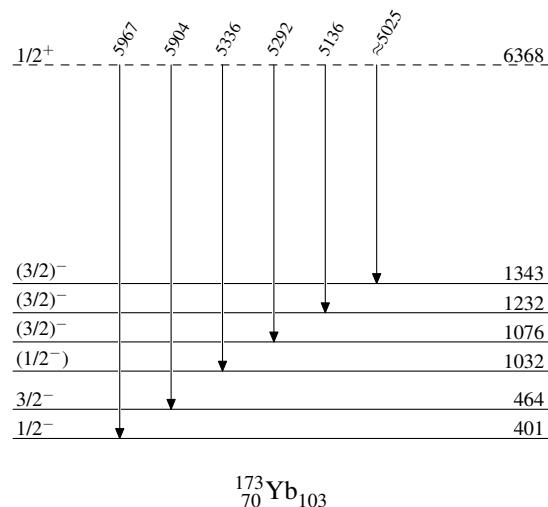
$E(\text{level})^\dagger$	J^π	Comments
401	$1/2^-$	
464	$3/2^-$	
1032	$(1/2^-)$	
1076	$(3/2)^-$	
1232	$(3/2)^-$	
1343	$(3/2)^-$	
(6368)	$1/2^+$	$E(\text{level})$: resonance capture states. J^π : neutron widths and s-wave neutron-strength-function systematics suggest resonances are s-wave (1984MuZY).

† Corrected to reflect $S(n)=6367.6$ 5 ([1993Au07](#)).

 $\gamma(^{173}\text{Yb})$

$E\gamma$	$E(\text{level})$	$I\gamma(140 \text{ eV})$	$I\gamma(180 \text{ eV})$	$I\gamma(202 \text{ eV})$
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≈ 5025	1343	≤ 12	10 10	≤ 6
5136 3	1232	100 15	10 8	≤ 6
5292 3	1076	48 13	74 13	7 4
5336 3	1032	85 10	44 10	7 4
5904 3	464	25 8	≤ 8	32 6
5967 3	401	12 8	100 15	100 9

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
≈ 5025	(6368)	$1/2^+$	1343	$(3/2)^-$
5136 3	(6368)	$1/2^+$	1232	$(3/2)^-$
5292 3	(6368)	$1/2^+$	1076	$(3/2)^-$
5336 3	(6368)	$1/2^+$	1032	$(1/2^-)$
5904 3	(6368)	$1/2^+$	464	$3/2^-$
5967 3	(6368)	$1/2^+$	401	$1/2^-$

$^{172}\text{Yb}(n,\gamma)$ E=resonance 1971Ri09Level Scheme $^{173}_{70}\text{Yb}_{103}$