

$^{96}\text{Ru}(^{78}\text{Kr},2n\gamma)$  2009Sa27

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Tibor Kibedi and Coral M. Baglin	ENSDF	15-Mar-2010

2009Sa27:  $^{96}\text{Ru}(^{78}\text{Kr},2n)$ , E=337-355 MeV; 96.52%  $^{96}\text{Ru}$  target; RITU gas-filled separator; JUROGAM Compton-suppressed Ge detector array (43 EUROGAM Phase I and GASP type detectors); fusion products implanted in double-sided Si strip detectors at focal plane of the GREAT spectrometer which also includes 28 Si PIN diodes, one segmented planar Ge detector and 3 clover Ge detectors; recoil decay tagging technique; measured  $E_\gamma$ ,  $E_\alpha$ , recoil- $\alpha(t)$ , parent-daughter  $\alpha$  correlations.

 $^{172}\text{Hg}$  Levels

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	Comments
0.0 <sup>#</sup>	0 <sup>+</sup>	
672.8 <sup>#</sup> 4	(2 <sup>+</sup> )	
1518.6 <sup>#</sup> 5	(4 <sup>+</sup> )	E(level): an alternative value of 1432.8 7 is possible depending on the order of 846 $\gamma$ and 760 $\gamma$ .
2278.6 <sup>#</sup> 8	(6 <sup>+</sup> )	

<sup>†</sup> From  $E_\gamma$ . note, however, that order of 846 $\gamma$  and 760 $\gamma$  is tentative.

<sup>‡</sup> Suggested by 2009Sa27 based on apparent band STRUCTURE..

<sup>#</sup> Band(A):  $K^\pi=0^+$  g.s. band.

 $\gamma(^{172}\text{Hg})$ 

$E_\gamma$	$I_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
672.8 4	100 26	672.8	(2 <sup>+</sup> )	0.0	0 <sup>+</sup>
760.0 6	42 16	2278.6	(6 <sup>+</sup> )	1518.6	(4 <sup>+</sup> )
845.8 3	47 16	1518.6	(4 <sup>+</sup> )	672.8	(2 <sup>+</sup> )

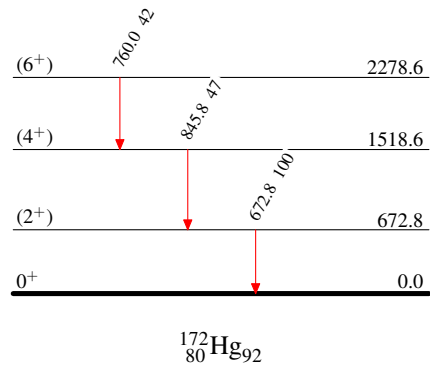
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## Level Scheme

Intensities: Relative  $I_\gamma$ 

## Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$



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Band(A):  $K^\pi=0^+$  g.s.  
band

(6<sup>+</sup>) 2278.6

760

(4<sup>+</sup>) 1518.6

846

(2<sup>+</sup>) 672.8

673

0<sup>+</sup> 0.0

$^{172}_{80}\text{Hg}_{92}$