^{82}Kr(p,γ),^{83}Kr(p,nγ) 1982Fa12

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 125, 201 (2015)	31-Dec-2014

E(p)=2.83 MeV on natural gas target. Measured Eγ, Iγ, $\gamma\gamma$; deduced $T_{1/2}$ using Doppler Shift Attenuation Method (DSAM) in two setups: singles spectra taken with a 25% Ge(Li) detector and $\gamma\gamma$ spectra taken with the Ge(Li) detector in coincidence with E>2 MeV γ rays in a NaI(Tl) detector. Kr gas served as both target and stopping medium.

^{83}Rb Levels

E(level)	J^{π} †	$T_{1/2}$	Comments
0	$5/2^-$		
5.3	$3/2^-$		
42.1	$9/2^+$		
389.4	$3/2^-$	8 ps *3*	$T_{1/2}$: from coincidence DSAM. Other: 9 ps *+6−4* from singles DSAM.
423.6	$5/2^+$	74 ps *+21−14*	$T_{1/2}$: from singles DSAM. Other: 83 ps *+80−35* from coincidence DSAM.
564.7	$(3/2^-,5/2,7/2^-)$	1.0 ps *+8−4*	$T_{1/2}$: from coincidence DSAM. Other: 0.8 ps *+7−6* from singles DSAM.
804.7	$(7/2)^+$	<1.0 ps	$T_{1/2}$: from singles DSAM. Other: <0.6 ps from coincidence DSAM, however, this analysis contains a contribution of up to 80% from the 763γ in ^{85}Rb.

† From the Adopted Levels.

γ(^{83}Rb)

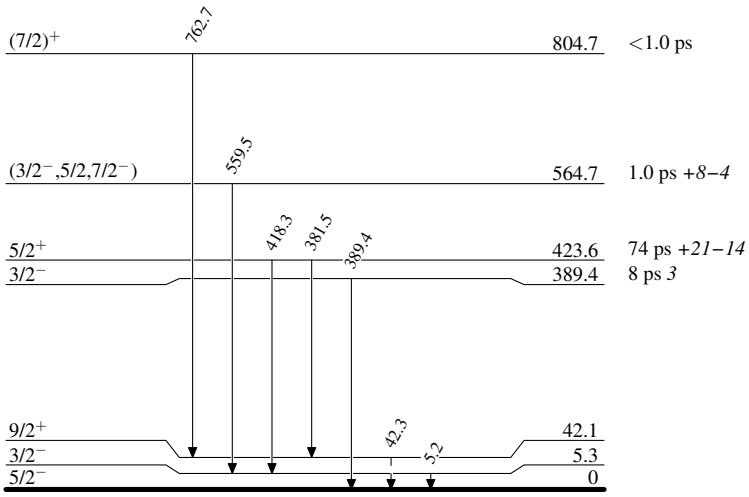
E_γ	E_i(level)	J_i^π	E_f	J_f^π
(5.2)	5.3	$3/2^-$	0	$5/2^-$
(42.3)	42.1	$9/2^+$	0	$5/2^-$
381.5	423.6	$5/2^+$	42.1	$9/2^+$
389.4	389.4	$3/2^-$	0	$5/2^-$
418.3	423.6	$5/2^+$	5.3	$3/2^-$
559.5	564.7	$(3/2^-,5/2,7/2^-)$	5.3	$3/2^-$
762.7	804.7	$(7/2)^+$	42.1	$9/2^+$

Legend

^{82}Kr(p,γ),^{83}Kr(p,nγ) 1982Fa12

Level Scheme

– – – – – – ► γ Decay (Uncertain)



$^{83}_{37}Rb_{46}$