^{46}K β^- decay: data set #2 1966Pa20

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 91, 1 (2000)	15-Jul-2000

Parent: ^{46}K: E=0.0; J^π=(2$^-$); $T_{1/2}$=105 s *10*; Q(β^-)=7716 *16*; %β^- decay=100.0
^{46}K-Produced in ^{48}Ca(d,α) E=15 MeV.
See ^{46}K β^- decay: data set #1 for alternate decay scheme. Substantial discrepancies exist between the two versions. Measured γ, β^-, $\gamma\gamma$.

^{46}Ca Levels

E(level)	J^π[†]	Comments
0.0	0$^+$	
1347	2$^+$	
3016	2$^+$	
3621	3$^-$	
4454?	(3$^-$)	J^π: based on log *ft*. Not found in any other data and not adopted; does not seem to correspond to J=2$^+$ 4430.2 *9* adopted level.
5047	(2,3$^-$)	J^π: based on log *ft*; not adopted.

[†] From Adopted Levels, except as noted.

β^- radiations

E(decay)	E(level)	Iβ^-[†‡]	Log *ft*	Comments
(2669 *16*)	5047	28	5.3	av Eβ=1140 *8*
(3262 *16*)	4454?	3	6.6	av Eβ=1424 *8*
(4095 *16*)	3621	8	6.6	av Eβ=1828 *8*
(4700 *16*)	3016	11	6.8	av Eβ=2123 *8*
6.3×10^3 *3*	1347	50	6.7	av Eβ=2940 *8*

[†] % transition intensity per decay; ΔIβ not given.
[‡] Absolute intensity per 100 decays.

γ(^{46}Ca)

E$_\gamma$	I$_\gamma$[†]	E$_i$(level)	J_i^π	E$_f$	J_f^π	Comments
1347 *1*	100	1347	2$^+$	0.0	0$^+$	
1439[‡]	3	4454?	(3$^-$)	3016	2$^+$	
1670 *2*	5 *2*	3016	2$^+$	1347	2$^+$	Placement based on level separation.
[x]1780 *2*	9 *2*					
2274 *2*	9 *5*	3621	3$^-$	1347	2$^+$	
3015 *5*	10 *5*	3016	2$^+$	0.0	0$^+$	
3700 *5*	31 *1*	5047	(2,3$^-$)	1347	2$^+$	

[†] For absolute intensity per 100 decays, multiply by ≈0.9.
[‡] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

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Decay Scheme

Intensities: Relative I_γ