44 K β^- decay (22.13 min) 1976Co06

	Hist	ory	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 190,1 (2023)	20-Jun-2023

Parent: ⁴⁴K: E=0; $J^{\pi}=2^{-}$; $T_{1/2}=22.13 \text{ min } 19$; $Q(\beta^{-})=5687.2 5$; $\%\beta^{-}$ decay=100

⁴⁴K-J^π,T_{1/2}: From ⁴⁴K Adopted Levels.

⁴⁴K-Q(β^{-}): From 2021Wa16.

1976Co06: Source of ⁴⁴Sc was prepared by the (γ ,n) reactions on natural Sc at the Livermore linear accelerator or by the (α ,dxn) reaction on natural Ca metal at the Berkeley 88-inch cyclotron. γ rays were detected with a Ge(Li) detector. Measured E γ , I γ . Deduced levels, branching ratios, log ft.

1973In02 (also 1969Ta03): ⁴⁴K activity was produced via ⁴⁴Ca(n,p) reaction with neutrons from 150-kV neutron generator of the Health Physics Branch of Atomic Energy of Canada Ltd. γ rays were detected with a Ge(Li) detector and a NaI(Tl) detector. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. Deduced levels.

Others:

T_{1/2}(⁴⁴K): 1973In02, 1961Hi17, 1960Su05, 1954Co70, 1954An25, 1937Wa06.

β⁻: 1970Le05, 1961Hi17, 1960Su05, 1954Co70.

γ: 1970La11, 1970Le05, 1961Hi17, 1960Su05, 1954Co70.

⁴⁴Ca Levels

E(level)	J^{π^+}	T _{1/2} †	Comments
0.0	0^{+}		
1157.0183 30	2+	2.94 ps 12	
1883.515 13	0^{+}	13.9 ps 42	
2283.113 9	4+	1.9 ps 7	
2656.503 12	2+	30 fs ³	
3044.243 28	4+	4.6 ps +13-10	
3301.26 5	2+	35 fs 18	
3307.864 10	3-	0.15 ps 6	
3357.27 27	$(2^+, 3, 4^+)$	<28 fs	
3580.4 6	0+		
3661.526 10	1-		
3676.081 12	(2^{+})		
3711.79 16	4-	<0.42 ns	
3776.26 12	2^{-}	<0.69 ns	
4094.0 6	$(2^+, 3, 4^+)$		
4260.27 35	$(2^+,3)$		
4315.22 14	(1,2,3)		
4358.427 28	3-		
4399.2 6	3-		
4409.170 14	$(1)^{-}$		
4436.7 5	$(1,2^+)$		
4552.636 23	(3)-		
4561.8? 6			
4572.6 5	(1,2,3)		
4649.4 5	2^{+}		
4824.4 6	(1,2,3)		
4866.10 11	1		
4884.02 8	$(1,2,3)^{-}$		
4892.6? 8			
4904			Additional information 1.
5025.72 21	3-		
5130.8 7	$(2,3)^+$		
5162.28 10	1		
5201.11 <i>31</i>	$(1,2,3)^{-}$		
5231.2? 10			

Continued on next page (footnotes at end of table)

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44 K β^- decay (22.13 min) 1976Co06 (continued)

⁴⁴Ca Levels (continued)

E(level)	J^{π}		Comments	
5325.0 6 5367.5 7				
5512? 5560.8.5	3-	Additional information 2.		

[†] From the Adopted Levels.

β^{-} radiations

E(decay)	E(level)	$I\beta^{-\dagger\ddagger}$	Log <i>ft</i>	Comments
(126.4.7)	5560.8	0.027.18	45 + 5 - 2	av $FR = 34.71.21$
(31979)	5367.5	0.023 19	59 + 8 - 3	av $E\beta = 98.80.32$
(362, 2, 8)	5325.0	0.029 17	65 + 4 - 2	av $E\beta = 114.04.29$
(302.2, 0) (486, 1, 6)	5201 11	0.11.6	59 + 4 - 2	av $E\beta = 160.21.23$
(524.9.5)	5162.28	0.066.11	6.20.7	av $E\beta = 175.14$ 19
(556.4 9)	5130.8	0.029 18	6.7 + 4 - 2	av $E\beta = 187.40.35$
(661.5 6)	5025.72	0.0077 24	7.50 14	av E β =229.15 20
(794.6 [#] 10)	4892.6?	0.0035 30	8.1 +9-3	av E β =283.65 37
(803.2 5)	4884.02	0.69 13	5.86 8	av $E\beta = 287.22 \ 21$
(821.1 5)	4866.10	0.29 5	6.28 7	av $E\beta = 294.68\ 21$
(862.8 8)	4824.4	0.08 4	6.9 + 3 - 2	av $E\beta = 312.16 \ 34$
(1037.8 7)	4649.4	0.08 5	7.2 +4-2	av $E\beta = 386.86 \ 30$
(1114.6 7)	4572.6	0.19 8	7.0 +3-2	av E β =420.24 31
(1125.4 [#] 8)	4561.8?	0.047 24	7.6 +3-2	av E β =424.96 35
(1134.6 5)	4552.636	4.5 7	5.63 7	av E β =428.98 22
(1250.5 7)	4436.7	0.025 13	8.1 +3-2	av E β =480.06 31
(1278.0 5)	4409.170	7.2 11	5.63 7	av Eβ=492.26 22
(1288.0 8)	4399.2	0.035 18	7.9 + 3 - 2	av Eβ=496.71 36
(1328.8 5)	4358.427	1.53 26	6.37 7	av E β =514.90 22
(1372.0 5)	4315.22	0.37 8	7.04 9	av E β =534.23 22
(1426.9 6)	4260.27	0.12 5	7.60 18	av E β =558.90 27
(1593.2 8)	4094.0	0.12 5	7.79 18	av E β =634.28 36
(1910.9 5)	3776.26	0.23 6	7.83 11	av E β =780.46 23
(2011.1 5)	3676.081	11.0 17	6.25 7	av E β =827.04 23
(2025.7 5)	3661.526	6.3 10	6.50 7	av E β =833.84 23
(2106.8 8)	3580.4	0.041 24	$9.9^{1u} + 4 - 2$	av E β =892.09 37
(2329.9 [#] 6)	3357.27	< 0.12	>8.5	av E β =976.45 28
(2379.3 5)	3307.864	29 4	6.14 6	av E β =999.74 24
(2385.9 5)	3301.26	0.21 10	8.3 +3-2	av E β =1002.85 24
(2643.0 5)	3044.243	0.12 9	$10.02^{1u} 33$	av Eβ=1141.76 23
(3404.1 5)	2283.113	0.53 21	10.05^{1u} 17	av Eβ=1501.99 24
(3803.7 5)	1883.515	1.53 27	9.89 ¹ <i>u</i> 8	av Eβ=1692.95 24
(4530.2 5)	1157.0183	1.6 7	8.6 +3-2	av $E\beta = 2033.35\ 24$
(5687.2 5)	0.0	34 10	9.66 ¹ <i>u</i> 13	av Eβ=2602.44 24
				$I\beta^-$: value adopted from 1970Le05.

[†] From intensity imbalance at each level for excited levels.
[‡] Absolute intensity per 100 decays.
[#] Existence of this branch is questionable.

$\gamma(^{44}Ca)$

Iγ normalization: From Σ I(γ to g.s.)=100–Iβ(g.s.), with Iβ(g.s.)=34 10 from 1970Le05.

${\rm E_{\gamma}}^{\dagger}$	$I_{\gamma}^{\dagger @}$	E _i (level)	\mathbf{J}_i^{π}	E_{f}	\mathbf{J}_{f}^{π}	Mult. [#]	δ#	a&	Comments
^x 174.35 25	1.0 2								
^x 209.98 25	0.3 2								
263.53 6	1.9 5	3307.864	3-	3044.243	4+				
353.67 25	0.3 2	3661.526	1-	3307.864	3-				
368.207 14	38.8 7	3676.081	(2^{+})	3307.864	3-				
374.85 10	3.3 8	3676.081	(2^{+})	3301.26	2+				
403.86 20	1.1 3	3711.79	4-	3307.864	3-	(M1)		0.000450 6	$\alpha(K)=0.000411\ 6;\ \alpha(L)=3.55\times10^{-5}\ 5;\ \alpha(M)=4.21\times10^{-6}\ 6$ $\alpha(N)=2.382\times10^{-7}\ 33$
^x 463.3 4	0.3 <i>3</i>								
646.5 <i>3</i>	1.5 5	4358.427	3-	3711.79	4^{-}				
651.355 9	52 2	3307.864	3-	2656.503	2+				
682.34 <i>3</i>	1.3 7	4358.427	3-	3676.081	(2^{+})				E_{γ},I_{γ} : other: 682.2 6 with I_{γ} =9.4 <i>19</i> (1973In02). Additional information 5.
696.9 ^a	≤0.1	4358.427	3-	3661.526	1-				
726.490 16	65 2	1883.515	0+	1157.0183	2+	E2		0.0002139 <i>30</i>	$\alpha(K)=0.0001950\ 27;\ \alpha(L)=1.680\times10^{-5}\ 24;$ $\alpha(M)=1.994\times10^{-6}\ 28$ $\alpha(N)=1.125\times10^{-7}\ 16$
733.0 4	2.8.12	4409.170	$(1)^{-}$	3676.081	(2^{+})				
747.63.3	36.2	4409.170	$(1)^{-}$	3661.526	1-				
761.10 3	21	3044.243	4+	2283.113	4+	M1+E2	-0.18 8	0.0001187 28	$\alpha(K)=0.0001082\ 26;\ \alpha(L)=9.30\times10^{-6}\ 22;$
									$\alpha(M)=1.105\times10^{-6}\ 26$ $\alpha(N)=6.27\times10^{-8}\ 15$
^x 766.8 5	0.8 7								
772.98 ^a	≤0.1	2656.503	2+	1883.515	0^{+}				
876.53 <i>3</i>	29.8 6	4552.636	(3)-	3676.081	(2^{+})				
891.10 12	1.6 6	4552.636	(3)-	3661.526	1-				
^x 983.58 15	31	2661 526	1-	2656 502	2+				
1005.0 9	0.5	3661.526	[- (2+)	2656.503	2+ 2+				
1019.55 /	14.5 0	36/6.081	(2^{+})	2656.503	2				E_{γ}, I_{γ} : other: 1020.0 4 with $I_{\gamma}=17.79$ (19731n02).
1024./38 1/	0614	3307.804	3 2-	2283.113	4 · 2-				
1050.00 10	9.0 14	4338.427	$(2^+ 2 4^+)$	3307.804	3 4+				
10/4.1 4	022	<i>3331.21</i> <i>11</i> 00 170	(2, 3, 4)	2203.113	+ 3-				
x1101.5 5	175	++07.170	(1)	5507.004	5				
1107.98 10	11.5.8	4409.170	$(1)^{-}$	3301.26	2^{+}				
1119.7 4	0.3 2	3776.26	2-	2656.503	$\frac{1}{2^{+}}$				

 $^{44}_{20}$ Ca₂₄-3

				$^{44}\mathbf{K}\beta$	- decay (22.	.13 min)	1976Co06 (c	continued)	
γ ⁽⁴⁴ Ca) (continued)									
E_{γ}^{\dagger}	$I_{\gamma}^{\dagger @}$	E _i (level)	\mathbf{J}_i^{π}	E_{f}	\mathbf{J}_f^{π}	Mult. [#]	δ#	$\alpha^{\&}$	Comments
1126.076 10	131 2	2283.113	4+	1157.0183	2+	E2		7.12×10 ⁻⁵ 10	$\alpha(K) = 6.31 \times 10^{-5} \ 9; \ \alpha(L) = 5.42 \times 10^{-6} \ 8; \alpha(M) = 6.44 \times 10^{-7} \ 9 \alpha(N) = 3.65 \times 10^{-8} \ 5; \ \alpha(IPE) = 2.000 \times 10^{-6} \ 28$
1157.002 3	1000 1	1157.0183	2+	0.0	0+	E2		6.92×10 ⁻⁵ 10	$\alpha(K) = 5.05 \times 10^{-5} 8; \ \alpha(L) = 5.09 \times 10^{-6} 7; \ \alpha(M) = 6.05 \times 10^{-7} 8 $
1195.4	0.87	4552.636	(3)-	3357.27	$(2^+, 3, 4^+)$				u(11)=5.45×10 5, u(11)=4.15×10 0
1217.51 4	8.3 8	4884.02	(1,2,3)-	3661.526	1-				E_{γ}, I_{γ} : other: 1222.3 4 with $I_{\gamma}=5.6$ 11 (1973In02)
1244.75 5	14.3 5	4552.636	(3)-	3307.864	3-				E_{γ}, I_{γ} : other: 1244.6 5 with $I_{\gamma}=19.5 \ 10$ (1973In02).
^x 1272.8 4	1.4 13								
1285.0 ^a 10	≤0.3	4866.10	1	3580.4	0^{+}				
1363.7 8	0.2 2	5025.72	3-	3661.526	1-				
^x 1377.6 5	21								
*1427.5 4	1.9.9	0511.50	4-	2202 112	4.4				
1428.7 4	0.4 2	3/11.79	4	2283.113	4'		0.100.17	0 (0 10-5 1)	(W) 2 02 10-5 ((T) 2 500 10-6 25
1499.45 <i>4</i>	135 5	2656.503	2+	1157.0183	2+	M1+E2	-0.123 17	9.68×10 ⁻³ 14	$\alpha(K)=2.93\times10^{-5} 4; \alpha(L)=2.508\times10^{-6} 35; \alpha(M)=2.98\times10^{-7} 4$
1505.0		5001 11	(1, 2, 2) =	2676 001	(2^+)				$\alpha(N)=1.695\times10^{-6}$ 24; $\alpha(IPF)=6.47\times10^{-5}$ 9
1525.0	200	5201.11	(1,2,3)	36/6.081	(2^{+})				E_{γ}, I_{γ} : obscured by an impurity.
1575.93 x1625.07	3.0 9	4884.02	(1,2,3)	3307.864	3				
^x 1624.52.11	0.0 4								Placed by 10721p02 from a lovel at 5200
1034.32 11	4.0 9								but not seen in 1975002 from a level at 3509 ,
1658.69 <i>18</i>	3.7 9	4315.22	(1,2,3)	2656.503	2+				E_{γ} : other: 1658.3 4 with I γ =2.1 4 unplaced in 1973In02.
1701.9 <i>3</i>	1.7 7	4358.427	3-	2656.503	2+				
1752.629 10	70 <i>1</i>	4409.170	$(1)^{-}$	2656.503	2+				
1777.973 20	36.5 8	3661.526	1-	1883.515	0+	(E1)		0.000495 7	$\alpha(K)=1.367\times10^{-5}$ 19; $\alpha(L)=1.170\times10^{-6}$ 16; $\alpha(M)=1.389\times10^{-7}$ 19 $\alpha(N)=7.90\times10^{-9}$ 11; $\alpha(IPF)=0.000480$ 7
1810.4 7	1.2 8	4094.0	$(2^+, 3, 4^+)$	2283.113	4+				Additional information 4.
1884.5 10	0.4 3	5560.8	3-	3676.081	(2 ⁺)				E_{γ} , I_{γ} : other: 1880.2 <i>12</i> with I_{γ} ≈1.5 (1973In02).
1887.21 28	2 1	3044.243	4+	1157.0183	2+	E2		0.000283 4	$\alpha(K)=2.157\times10^{-5} \ 30; \ \alpha(L)=1.848\times10^{-6}$ 26; $\alpha(M)=2.195\times10^{-7} \ 31$ $\alpha(N)=1.248\times10^{-8} \ 17; \ \alpha(IPE)=0.000259 \ 4$
1893.2 4	1.9 9	5201.11	$(1,2,3)^{-}$	3307.864	3-				u(1) = 1.210/10 = 17, u(11) = 0.0002397
			< 1 1-1 1						

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From ENSDF

$^{44}_{20}\mathrm{Ca}_{24}$ -4

 $^{44}_{20}\mathrm{Ca}_{24}$ -4

				⁴⁴ K	β^- d	ecay (22.13 r	nin) 1976C o	006 (continued)		
γ ⁽⁴⁴ Ca) (continued)											
E_{γ}^{\dagger}	I_{γ}^{\dagger}	E _i (level)	\mathbf{J}_i^π	E_f	J_f^{π}	Mult. [#]	$\delta^{\#}$	α ^{&}	Comments		
1896.0 <i>9</i> 1916.0 <i>8</i> 1923 <i>a</i> 1976.9 <i>7</i> 1992 4 5	$ \begin{array}{r} 1.9 \ 14 \\ 2.3 \ 12 \\ \leq 0.9 \\ 0.9 \ 7 \\ 1.2 \ 8 \end{array} $	4552.636 4572.6 5231.2? 4260.27 4649.4	$(3)^{-} (1,2,3) (2^{+},3) 2^{+} $	2656.503 2656.503 3307.864 2283.113 2656 503	2^+ 2^+ 3^- 4^+ 2^+				Additional information 6.		
2144.23 8	12.9 8	3301.26	2^{+}	1157.0183	2^{+}				E_{γ} : other: 2146.5 5 with I_{γ} =19.7 10 from 1973InO2 is discrepant.		
2150.786 <i>17</i> 2167.8 <i>6</i> 2200.3 2268 5 <i>10</i>	391 8 1.3 7 0.2 2 0 5 4	3307.864 4824.4 3357.27 4552.636	3^{-} (1,2,3) (2 ⁺ ,3,4 ⁺) (3) ⁻	1157.0183 2656.503 1157.0183 2283.113	2^+ 2^+ 2^+ 4^+				E _γ : other: 2151.04 26 with Iγ=394 20 (1973In02).		
2280.8 ^{<i>a</i>} 7 2280.8 ^{<i>a</i>} 7 ^{<i>x</i>} 2324.3	≤0.5 0.6 4	5325.0	(5)	3044.243	4+				E_{γ} , I_{γ} : possibly a contaminant from ⁸⁸ Rb decay. Placement 3581 to 1157 (table I of 1976Co06) is incorrect.		
*2338.3 6	0.7 4								Placement 4771 to 1883 (table I of 1976Co06) is incorrect.		
^x 2364.2 ⁺ 6 2423.3 6	4.2 ⁺ 9 0.7 4	3580.4	0+	1157.0183	2+	(E2)		0.000535 8	$\alpha(K)=1.382\times10^{-5}$ 19; $\alpha(L)=1.183\times10^{-6}$ 17; $\alpha(M)=1.405\times10^{-7}$ 20 $\alpha(N)=8.00\times10^{-9}$ 11; $\alpha(IPF)=0.000520$ 7 Additional information 3		
x2497.3 9	0.6 5	2661 526	1-	1157 0193	2+				Additional mornation 5.		
2504.59 0 2518.991 <i>18</i> ×2598 4 6	11.2 9 167 3 0 7 5	3676.081	(2^+)	1157.0183	2^{+}				E_{γ} , I_{γ} : other: 2519.3 <i>3</i> with I_{γ} =135 7 (1973In02).		
2619.16 12	3.6 7	3776.26	2-	1157.0183	2+	(E1+M2)	-0.62 +7-8	0.00085 4	$\alpha(K)=1.06\times10^{-5} 5; \alpha(L)=9.0\times10^{-7} 4;$ $\alpha(M)=1.07\times10^{-7} 5$ $\alpha(N)=6.11\times10^{-9} 30; \alpha(IPF)=0.00084.4$		
2656.41 <i>3</i>	16.9 8	2656.503	2+	0.0	0+	E2		0.000643 9	$\alpha(K) = 1.185 \times 10^{-5} \ 17; \ \alpha(L) = 1.014 \times 10^{-6} \ 14; \alpha(M) = 1.204 \times 10^{-7} \ 17 \alpha(N) = 6.85 \times 10^{-9} \ 10; \ \alpha(IPF) = 0.000630 \ 9$		
2668 ^a 2711 ^x 2740.4 8 ^x 2745.0 10	≤0.05 0.3 <i>3</i> 0.11 9 <0.2	5325.0 5367.5		2656.503 2656.503	2+ 2+						
2847.6 7 x2909.4 ^{‡a} 10	$0.5 3 \approx 0.3^{\ddagger}$	5130.8	(2,3)+	2283.113	4+						
2937.8 <i>10</i> <i>x</i> 2973.0 <i>10</i>	0.8 <i>3</i> 0.3 <i>2</i>	4094.0	(2+,3,4+)	1157.0183	2+						
2982.47 15	2.2 3	4866.10	1	1883.515	0^+						

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 $^{44}_{20}Ca_{24}$ -5

I

				⁴⁴ K /	3- de	ecay (22.13	8 min) 1976 C	Co06 (continued)				
	γ ⁽⁴⁴ Ca) (continued)											
E_{γ}^{\dagger}	I_{γ} †@	E _i (level)	J_i^{π}	E_f	\mathbf{J}_f^{π}	Mult. [#]	α ^{&}	Comments				
x3067.0 ^{<i>a</i>} 8 3103.2 4 3158.07 20 3201.27 7 x3217.3 6	0.2 2 1.1 4 2.6 4 12.1 9 0.5 3	4260.27 4315.22 4358.427	(2 ⁺ ,3) (1,2,3) 3 ⁻	1157.0183 1157.0183 1157.0183	2+ 2+ 2+			Placement 4374 to 1157 (table I of 1976Co06) marked as				
^x 3227.1 8	0.3 2							questionable. Placement 4384 to 1157 (table I of 1976Co06) marked as questionable.				
3242.0 6 3252.07 <i>13</i> 3279.0 7	0.6 <i>3</i> 2.7 <i>4</i> 0.3 <i>2</i>	4399.2 4409.170 4436.7	3^{-} (1) ⁻ (1.2 ⁺)	1157.0183 1157.0183 1157.0183	2^+ 2^+ 2^+			•				
3301.21 14	5.5 9	3301.26	2+	0.0	0 ⁺	E2	0.000919 13	$\alpha(K)=8.37\times10^{-6}$ 12; $\alpha(L)=7.16\times10^{-7}$ 10; $\alpha(M)=8.50\times10^{-8}$ 12 $\alpha(N)=4.84\times10^{-9}$ 7; $\alpha(IPF)=0.000909$ 13 E_{γ} : other: 3300.8 8 with I γ =4.6 9 unplaced in 1973In02; also a 3304.1 8 with I γ =3.8 8 placed from 3304 level in 1973In02.				
3307.7 5	0.3 1	3307.864	3-	0.0	0^+	(E3)	0.000666 9	$\alpha(K)=1.161\times10^{-5}$ <i>I6</i> ; $\alpha(L)=9.94\times10^{-7}$ <i>I4</i> ; $\alpha(M)=1.181\times10^{-7}$ <i>I7</i> $\alpha(N)=6.72\times10^{-9}$ 9; $\alpha(IPE)=0.000653$ 9				
3395.51 <i>4</i> 3404.6 <i>6</i> 3415 5 7	28.7 8 0.8 4	4552.636 4561.8? 4572.6	$(3)^{-}$	1157.0183 1157.0183	2^+ 2^+ 2^+							
3661.363 11	105 2	3661.526	(1,2,3) 1^{-}	0.0	0^{+}	(E1)	1.55×10 ⁻³ 2	$\alpha(K)=5.12\times10^{-6}$ 7; $\alpha(L)=4.37\times10^{-7}$ 6; $\alpha(M)=5.19\times10^{-8}$ 7 $\alpha(N)=2.96\times10^{-9}$ 4; $\alpha(IPF)=0.001545$ 22				
3676.7 <i>6</i> 3708.90 ^{<i>a</i>} 13	0.25 <i>11</i> ≤0.8	3676.081 4866.10	(2^+) 1	0.0 1157.0183	$0^+ 2^+$			E_{γ}, I_{γ} : other: 3674.9 4 with $I_{\gamma}=2.8$ 6 (1973In02). E_{γ}, I_{γ} : other: 3707.4 4 with $I_{\gamma}=1.6$ 3 (1973In02).				
3726.6 <i>4</i> 3747.1 ^{<i>a</i>} *3755.2 9	$0.5 \ 1 \le 0.01 \ 0.14 \ 9$	4884.02 4904	(1,2,3) ⁻	1157.0183 1157.0183	2^+ 2^+							
3868.56 22 x3967.8	1.1 <i>3</i> 0.11 <i>9</i>	5025.72	3-	1157.0183	2+							
4005 4044^{a} 4074.0^{a} 10 x_{4162} 5 ^a 8	$\begin{array}{c} 0.02 \ 2 \\ \leq 0.05 \\ 0.08 \ 8 \\ 0.09 \ 8 \end{array}$	5162.28 5201.11 5231.2?	$(1,2,3)^{-}$	1157.0183 1157.0183 1157.0183	2+ 2+ 2+							
4167.8 6 4210.1 10 x4337.9 ^a 8	0.16 8 0.09 8 0.09 8	5325.0 5367.5		1157.0183 1157.0183	$2^+ 2^+$							
4355 ^{<i>a</i>} 4403.6 6	≤ 0.05 0.06 4	5512? 5560.8	3^{-}	1157.0183 1157.0183	2^+ 2^+ 0^+			$E_{\rm e}$ L , where 4409.5 9 mids L, 1.70.24 (10721-00)				
4408.91 <i>19</i> 4437.0 <i>7</i>	0.92 15 0.12 8	4409.170 4436.7	(1) $(1,2^+)$	0.0	0^{+}			E_{γ}, I_{γ} : other: 4408.5 8 with $I_{\gamma}=1.70.34$ (19/31002).				

L

44 K β^- decay (22.13 min) 1976Co06 (continued)

γ ⁽⁴⁴Ca) (continued)

E_{γ}^{\dagger}	$I_{\gamma}^{\dagger @}$	E _i (level)	\mathbf{J}_i^{π}	$\mathbf{E}_f \mathbf{J}_f^{\pi}$	Comments
^x 4471.5 6	0.11 8				
4651	0.14 8	4649.4	2^{+}	$0.0 \ 0^+$	
4865.81 15	2.8 1	4866.10	1	$0.0 \ 0^+$	
4892.3 8	0.06 5	4892.6?		$0.0 \ 0^+$	
5025.4 8	0.03 2	5025.72	3-	$0.0 \ 0^+$	
5161.96 10	1.11 7	5162.28	1	$0.0 \ 0^+$	E_{γ}, I_{γ} : other: 5157.0 5 with $I_{\gamma}=1.20 \ 24 \ (1973 In 02)$.
5231.0 ^a	≤0.01	5231.2?		$0.0 \ 0^+$	
5561.3 ^a 10	0.05 4	5560.8	3-	$0.0 \ 0^+$	

[†] From 1976Co06, unless otherwise noted. All quoted intensities are relative to $I\gamma=1000$ for 1157 γ . Values are also available in 1973In02 and are mostly in a good agreement with values in 1976Co06, but less complete and less precise. Discrepant values are given under comments.

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[‡] From 1973In02. [#] From the Adopted Gammas.

[@] For absolute intensity per 100 decays, multiply by 0.058 9.

& Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

^{*a*} Placement of transition in the level scheme is uncertain.

 $x \gamma$ ray not placed in level scheme.

$\frac{44}{10}$ K β^{-} decay (22.13 min) 1976Co06



44 K β^- decay (22.13 min) 1976Co06



44 K β^- decay (22.13 min) 1976Co06

