

ADOPTED LEVELS, GAMMAS for ⁸⁵Kr

Author: BALRAJ SINGH AND JUN CHEN Citation: Nuclear Data Sheets 116, 1 (2014)

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Q(β⁻)=687.0 keV 20 S_n= 7112.3 keV 20 S_p= 10986 keV 26 Q_α= -7516.2 keV 24

References:

A: ⁸⁵Br β- decay (2.90 m)

B: ⁸⁵Kr IT decay (4.480 h)

C: ⁸²Se(α,γn)

D: ⁸²Se(⁷Li,γ3np)

E: ⁸⁴Kr(n,γ),(n,n):resonances

F: ⁸⁴Kr(d,p),(polarized d,p)

G: ⁸⁶Kr(p,d)

H: ⁸⁶Kr(d,t)

I: ⁸⁶Kr(³He,α)

E _{level} (keV)	XREF	J ^π	T _{1/2}	E _γ (keV)	I _γ	γ mult.	F
0.0	ABCD FGHI	9/2+	10.739 y 14 % β ⁻ = 100				
304.871 20	ABC FGHI	1/2-	4.480 h 8 % IT = 21.2 5 % β ⁻ = 78.8 5	304.87 2	100	M4	0.0
1107.32 7	A C FGHI	1/2-, 3/2-		802.41 10	100		304.8
1140.73 7	ABC F I	5/2+	3.5 ps +28-14	1140.78 9	100	[E2]	0.0
1166.69 6	A C G I	(1/2, 3/2, 5/2-)		861.76 8	100		304.8
1223.98 7	A C G	(5/2-)	2.4 ps +6-4	919.06 8	100	(E2)	304.8
1342.61 5	A C F	(3/2+)		175.91 7 201.87 9 235.58 25 1037.83 8	56 3 23.1 18 8.3 26 100 8		1166.6 1140.7 1107.3 304.8
1416.57 9	A C GH	(5/2+)	0.42 ps 7	249.94 10 1416.48 13	30.9 17 100 8	[E1] (E2)	1166.6 0.0
1430.6 10	C FGH	1/2+		1125.7			304.8
1611.6 1	CD	(11/2+)	0.12 ps 3	1611.6 1	100	(M1+E2)	0.0
1847.0 10	C I	(7/2+)	0.08 ps +3-2	430.4 1847.1	8.4 100	(M1 (+E2)) (M1+E2)	1416.6 0.0
1873.52 18	BC F	(5/2)+	0.21 ps 14	531.1	100	(M1+E2)	1342.6
1931.6 1	CD	(13/2+)	0.33 ps 4	319.9 4 1931.6 1	2.9 100	(M1+E2) (E2)	1611.6 0.0
1938.83 9	A	(1/2+, 3/2, 5/2)		771.71 33 798.35 18 831.48 7	24 7 93 12 100 10		1166.6 1140.7 1107.3
1990.1 8	C G I	(9/2+)	0.23 ps 3	378.6 1990.0	17 100	(M1+E2) (M1+E2)	1611.6 0.0
1991.8 2	CD	(17/2+)	1.82 μs 5	60.2 2	100	E2	1931.6
2004.4 7	C GHI	(7/2+)	0.21 ps 4	588.3 2003.8			1416.6 0.0
2031.96 8	A GH	1/2-, 3/2-, 5/2-		689.39 8 865.22 8 924.63 8 1727.02 11	2.5 4 10.9 6 100 5 23.4 10		1342.6 1166.6 1107.3 304.8
2055.1 9	FGH	3/2+					

2113.4 8	C	G	(9/2+)	0.63 ps 6	501.6 2113.6	100	(M1+E2)	1611.6 0.0
2135.1 10	C	G	(9/2+)	0.22 ps 3	2135.1	100	(M1 (+E2))	0.0
2137.34 7	A C		(3/2,5/2)-	0.48 ps 21	263.84 17 794.78 10 913.31 9 1029.65 26 1832.50 10	7.1 22 69 5 90 6 15 3 100 5	[E1] [E1]	1873.5 1342.6 1223.5 1107.3 304.8
2144.9 6	C	G	(7/2+)	0.31 ps 6	271.2 1004.7 2144.6	29 31 100	(M1 (+E2)) (M1+E2) (M1+E2)	1873.5 1140.7 0.0
2235.2 10	C	H			2235.2	100		0.0
2383.5 10	C		(7/2+)	0.08 ps 3	2383.5	100	(M1+E2)	0.0
2425 50		G I	(5/2-,7/2-)					
2497.9 8	C		(9/2-)		886.3 1274.0	100	(E2)	1611.6 1223.5
2513.4 16		F	(3/2+,5/2+)					
2534.3 19	C	F	(3/2+,5/2+)		1367.7 1427.1			1166.6 1107.3
2573.7 22		F						
2593 4		F						
2602.4 13	C				598.0	100		2004.4
2617.9 20	C	F		0.42 ps 14	742.2 1475.6			1873.5 1140.7
2636.7 13	C		(11/2+)	0.17 ps 3	523.3	100	(M1+E2)	2113.4
2742.1 12		F	1/2+					
2784.5 12	C	G			639.6			2144.5
2797.7 12		FG	3/2+,5/2+					
2814.9 15	C	G	(9/2+)	0.24 ps 6	967.9	100	(M1+E2)	1847.0
2845.1 12		FG	(5/2)+					
2866.4 14		FG	1/2+					
2929.4 13	C				816.0	100		2113.4
3060.9 13		FG	3/2+					
3079.4 18 ?		F	(3/2+,5/2+)					
3113.9 15		F	1/2+					
3139.2 9	C		(9/2+:15/2+)	0.31 ps +10-3	1207.9 1527.4			1931.6 1611.6
3153.5 22		FG	1/2+					
3193.0 4	CD		(15/2,17/2+)	0.19 ps 3	1261.3 4	100		1931.6
3285.1 19		F	(1/2+)					
3300.4 21		F	(7/2+,9/2,11/2-)					
3320.4 21		F	7/2+,9/2+					
3340.6 19		FG	3/2+,5/2+					
3355.8 19		FG	(1/2+)					
3402.0 18		FG	(1/2+,7/2+,9/2+)					
3412.8 9	C		(13/2-)	0.69 ps 21	915.0 1801.1	100	(E1 (+M2))	2497.5 1611.6
3420.2 19		FG	(1/2+,7/2+,9/2+)					

3470.6 17	F	(7/2+, 9/2, 11/2-)					
3535.4 2	D	(17/2-)	342.4 4	≈4		3193.6	
			1543.6 1	100	D	1991.8	
3545.9 22	FG						
3575.4 24	FG	3/2+, 5/2+					
3592.2 23	FG	3/2+, 5/2+					
3638.0 17	F	1/2+					
3729 3	FG	1/2+					
3745 3	FG	3/2+, 5/2+					
3802 3	F	3/2+, 5/2+					
3804.4 3	CD	(19/2-)	269.0 1	100	D+Q	3535.4	
			1812.6 2	54		1991.8	
3872.8 22	F						
3912.1 18	F						
3927.1 20	F	1/2+					
3945.3 20	F						
3974.9 21	FG						
4033.0 23	FG	3/2+, 5/2+					
4046.3 24	FG						
4111.4 3	CD	(21/2-)	307.0 1	100	D	3804.4	
4146 10	F	1/2+					
4335 10	F	3/2+, 5/2+					
4450 10	F	3/2+, 5/2+					
4547 10	F	3/2+, 5/2+					
4623 10	F						
4692 10	F						
4790.6 4	D	(23/2-)	679.2 2	100	D+Q	4111.4	
7112.81	E	1/2+					
7113.45	E	(1/2-)					
7113.69	E	1/2+					
7114.49	E	1/2+					
7115.05	E						
7117.54	E	1/2+					
7117.88	E						
7119.02	E						
7120.51	E						
7123.13	E	1/2+					
7123.54	E						
7125.67	E						
7125.97	E						
7126.87	E						
7127.57	E						
7128.79	E	1/2+					
7129.38	E						

7130.85	E	
7131.41	E	
7132.04	E	
7133.88	E	1/2
7134.02	E	
7135.29	E	
7136.30	E	1/2+
7136.37	E	
7136.48	E	
7136.65	E	
7136.98	E	
7138.11	E	1/2+
7138.21	E	
7138.92	E	
7139.61	E	
7140.27	E	
7141.06	E	
7141.84	E	
7142.98	E	
7144.01	E	
7144.93	E	1/2+
7145.83	E	
7146.04	E	
7146.18	E	
7146.49	E	
7146.57	E	
7147.14	E	
7148.73	E	
7150.47	E	1/2+
7151.58	E	
7152.01	E	
7152.40	E	
7152.88	E	1/2+
7155.49	E	
7155.80	E	
7156.01	E	
7156.38	E	
7157.29	E	
7158.94	E	
7159.69	E	
7160.05	E	
7160.76	E	1/2+
7161.70	E	
7161.90	E	

7162.00	E	
7162.92	E	
7163.62	E	1/2+
7166.39	E	
7166.48	E	
7167.71	E	
7170.00	E	
7170.55	E	
7171.57	E	
7172.09	E	
7172.27	E	
7172.90	E	1/2+
7174.18	E	
7174.63	E	
7175.59	E	
7175.73	E	
7176.72	E	
7177.87	E	1/2+
7178.22	E	
7180.33	E	
7181.28	E	
7181.29	E	1/2+
7182.31	E	
7182.40	E	
7183.74	E	
7184.95	E	
7185.28	E	
7186.03	E	
7186.77	E	
7186.78	E	1/2+
7188.27	E	
7189.77	E	
7189.97	E	
7190.32	E	
7190.79	E	
7191.05	E	
7192.19	E	
7192.54	E	
7192.99	E	
7193.17	E	
7196.29	E	
7197.19	E	
7197.46	E	1/2+
7197.64	E	

7198.72	E	
7199.15	E	
7199.57	E	
7200.13	E	
7200.99	E	
7201.52	E	1/2+
7201.52	E	
7202.84	E	
7203.21	E	
7203.56	E	
7204.40	E	
7205.14	E	
7205.39	E	
7206.92	E	
7207.50	E	
7207.77	E	
7208.79	E	
7209.08	E	
7210.09	E	
7211.08	E	
7212.26	E	
7212.58	E	
7213.31	E	
7213.74	E	
7213.93	E	
7215.43	E	
7216.97	E	
7218.20	E	
7218.91	E	
7219.82	E	
7220.12	E	
7221.01	E	
7222.01	E	
7222.50	E	
12900	G	(3/2-)
13300	G	(5/2-)
14200	G	(1/2-)