^{80}Kr(α,2nγ) 1983Hi01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. K. Tuli, E. Browne	NDS 157, 260 (2019)	1-Mar-2019

1983Hi01: E=28.7 MeV. Enriched target. Ge(Li), FWHM=3.5 keV at 1.33 MeV. Measured Eγ, Iγ, $\gamma\gamma$, angular distributions.
1981Fi03: E=28 MeV. Enriched target. Ge(Li), FWHM=1.5 keV at 1.1 MeV. Measured Eγ, Iγ, $\gamma\gamma$, angular distributions.
The decay schemes of both authors are nearly identical. The energies of 1981Fi03 are systematically ≈0.3% larger than those observed in (^{16}O,2n2pγ), while energies of 1983Hi01 are ≈0.06% smaller than in (^{16}O,2n2pγ).
Other: 1982MaYu.

^{82}Sr Levels

E(level)	J$^\pi$†	E(level)	J$^\pi$†	E(level)	J$^\pi$†	E(level)	J$^\pi$†
0	0^+	1686.6 *7*	3^+	2835.3 *5*	6^+	3686.4 *8*	(8^+)
573.4 *3*	2^+	1994.7 *5*	4^+	3240.9 *7*	8^+	4348.7 *10*	10^+
1175.4 *4*	2^+	2228.3 *5*	6^+	3336.6 *10*	6^-		
1327.8 *4*	4^+	2814.5 *9*	5^-	3621.1 *6*	8^+		

† From Adopted Levels.

γ(^{82}Sr)

E$_\gamma$†	I$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.‡	α@	Comments
445.5 *3*	2.1	3686.4	(8^+)	3240.9	8^+			
522.1 *3*	8.7	3336.6	6^-	2814.5	5^-			
573.4 *3*	100	573.4	2^+	0	0^+	(E2)	0.00245	α(K)=0.00216 *3*; α(L)=0.000243 *4*; α(M)=4.08×10^{-5} *6* α(N)=5.07×10^{-6} *8*; α(O)=3.16×10^{-7} *5*
602.0 *3*	19	1175.4	2^+	573.4	2^+			
607.0 *3*	3.0	2835.3	6^+	2228.3	6^+			
666.9 *3*	6.0	1994.7	4^+	1327.8	4^+			
754.3 *3*	62	1327.8	4^+	573.4	2^+	(E2)	1.16×10^{-3}	α(K)=0.001022 *15*; α(L)=0.0001129 *16*; α(M)=1.90×10^{-5} *3* α(N)=2.37×10^{-6} *4*; α(O)=1.507×10^{-7} *22*
785.8 *3*	7.6	3621.1	8^+	2835.3	6^+	(E2)	1.04×10^{-3}	α(K)=0.000920 *13*; α(L)=0.0001015 *15*; α(M)=1.703×10^{-5} *24* α(N)=2.13×10^{-6} *3*; α(O)=1.357×10^{-7} *19*
819.4 *4*	16	1994.7	4^+	1175.4	2^+			
840.6 *4*	9.0	2835.3	6^+	1994.7	4^+			
900.5 *3*	35	2228.3	6^+	1327.8	4^+	(E2)	7.42×10^{-4}	α(K)=0.000656 *10*; α(L)=7.19×10^{-5} *10*; α(M)=1.206×10^{-5} *17* α(N)=1.510×10^{-6} *22*; α(O)=9.70×10^{-8} *14*
1012.6 *5*	20	3240.9	8^+	2228.3	6^+	(E2)	5.62×10^{-4}	α(K)=0.000498 *7*; α(L)=5.42×10^{-5} *8*; α(M)=9.10×10^{-6} *13* α(N)=1.140×10^{-6} *16*; α(O)=7.37×10^{-8} *11*
1107.8 *7*	2.9	4348.7	10^+	3240.9	8^+	(E2)#	4.59×10^{-4}	α(K)=0.000406 *6*; α(L)=4.41×10^{-5} *7*; α(M)=7.39×10^{-6} *11* α(N)=9.28×10^{-7} *13*; α(O)=6.02×10^{-8} *9*; α(IPF)=8.67×10^{-7} *23*
1113.2 *6*	4.2	1686.6	3^+	573.4	2^+			
1175.4 *10*	6.7	1175.4	2^+	0	0^+			
1486.7 *8*	14	2814.5	5^-	1327.8	4^+			

Continued on next page (footnotes at end of table)

^{80}Kr(α,2nγ) 1983Hi01 (continued)

$\gamma(^{82}Sr)$ (continued)

† From 1983Hi01.
‡ Stretched E2 cascade from angular distribution (1983Hi01).
# Angular distribution prefers stretched Q cascade but is not very conclusive because of the large statistical errors.
@ Additional information 1.

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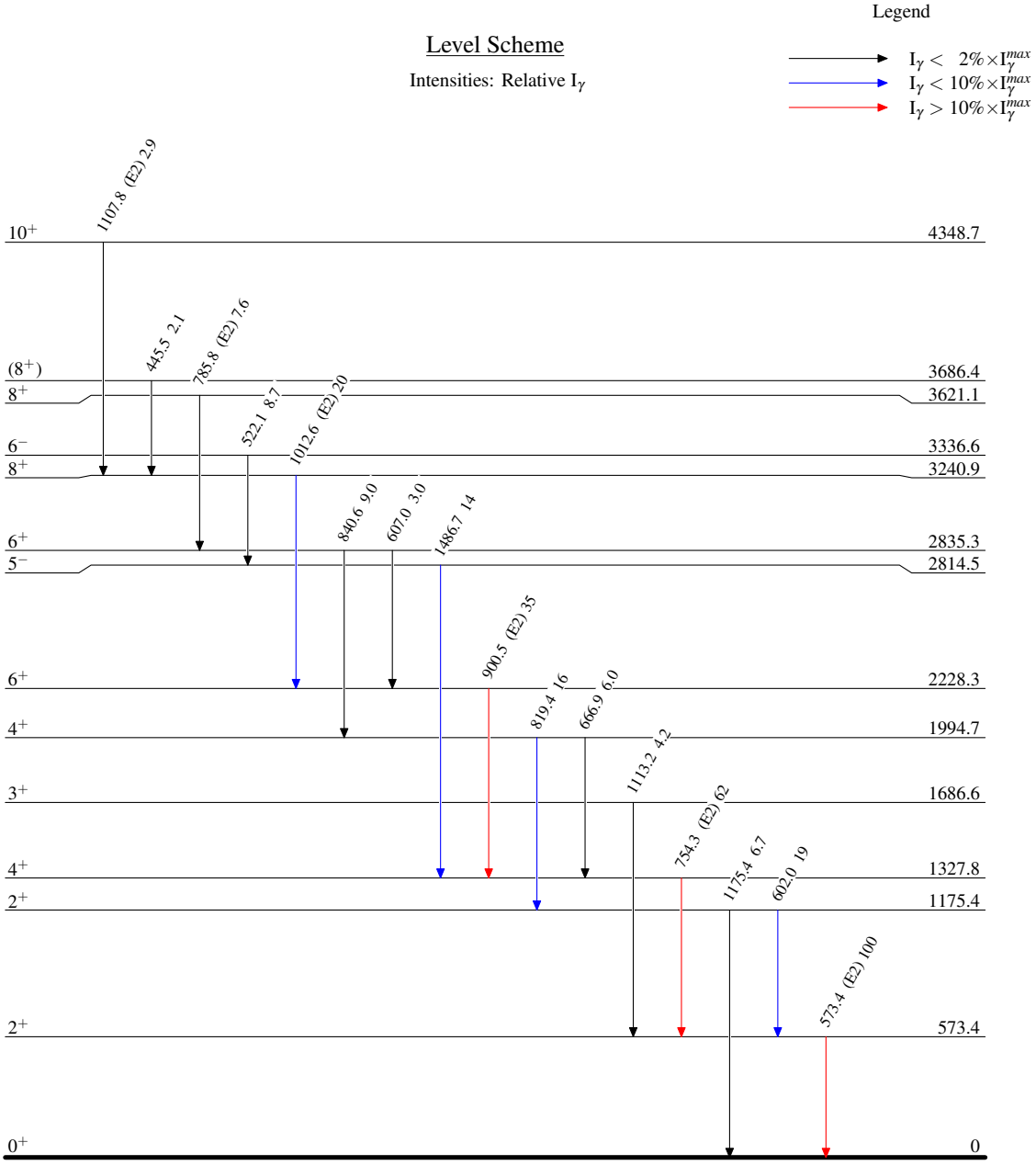
Level Scheme

Intensities: Relative I_γ



$^{82}_{38}Sr_{44}$