(HI,xnγ)

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103, 1 (2004)	31-Jul-2004

^{124}Sn(^{13}C,3nγ) E=48.4 MeV (1990LoZY), E=48 MeV (1982BeZY).
^{133}Cs(α,p2nγ) E=55 MeV (1980Mo27).

^{134}Ba Levels

Preliminary level scheme is that of 1990LoZY (short note only). No details available. Others: 1987Dr13, 1982BeZY, 1980Mo27.

E(level)	J^π	$T_{1/2}$	Comments
0.0	0^+	stable	
604.7 *3*	2^+		
1168.0	2^+		
1400.7 *4*	4^+		
1643.3	3^+		
1969.8	4^+		
1986.4 *4*	5^-	52 ns *6*	$T_{1/2}$: from γγ(t) (1980Mo27).
2211.4 *5*	(6^+)		
2271.4 *5*	7^-		
2299.8 *5*	(6^+)		
2377.1 *5*	(6)		
2779.8	(6^+)		
2835.9 *6*	(8^+)		
2912.9 *6*			
2957.2 *6*	(10^+)	2.63 μs *14*	g=−0.20 *1* $T_{1/2}$: from 1982BeZY. g-factor: DPAD (1982BeZY,1986BeYY). Configuration=$(\nu\ h_{11/2})^{-2}$.
3011.8			
3240.3 *6*	(9^-)		
3242.3			
3311.3			
3328.4			
3459.3			
3504.2			
3599.3			
3635.9	(10^+)		
3898.9			
3954.3			
4001.2 *7*			
4083.3			
4517.2			
4549.9	(12^+)		
4635.2			
5001.2			
5015.2			
5230.9	(14^+)		

(HI,xnγ) (continued)

γ(^{134}Ba)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[@]	Comments
16		1986.4	5^-	1969.8	4^+			
121.3[†] *3*	13 *5*	2957.2	(10^+)	2835.9	(8^+)	E2	0.981	α(K)=0.673; α(L)=0.2429; α(M)=0.0524 Mult.: α(exp)=1.7 *10* (1980Mo27).
217		3459.3		3242.3				
243		1643.3	3^+	1400.7	4^+			
285.1[†] *3*	23 *2*	2271.4	7^-	1986.4	5^-	[E2]	0.0534	α(K)=0.0433; α(L)=0.00805; α(M)=0.00169
326		1969.8	4^+	1643.3	3^+			
328[&]		3240.3	(9^-)	2912.9				
357		3599.3		3242.3				
390.7[†] *3*	9 *2*	2377.1	(6)	1986.4	5^-			
475		1643.3	3^+	1168.0	2^+			
484		5001.2		4517.2				
495		3954.3		3459.3				
498		5015.2		4517.2				
516		4517.2		4001.2				
536		2835.9	(8^+)	2299.8	(6^+)			
[x]544.7[†‡] *3*	3 *1*							
547		3504.2		2957.2	(10^+)			
563		1168.0	2^+	604.7	2^+			
565		2835.9	(8^+)	2271.4	7^-			
569		1969.8	4^+	1400.7	4^+			
585.5[†] *3*	26 *3*	1986.4	5^-	1400.7	4^+	E1		α(K)=0.00197; α(L)=0.00024
604.7[†] *3*	100 *7*	604.7	2^+	0.0	0^+	E2		α(K)=0.00503; α(L)=0.00072
624.5[†] *3*	34 *3*	2835.9	(8^+)	2211.4	(6^+)	(E2)		α(K)=0.00464; α(L)=0.00066
641.5[†] *3*	17 *2*	2912.9		2271.4	7^-			
681		5230.9	(14^+)	4549.9	(12^+)			
712		3011.8		2299.8	(6^+)			
712		3954.3		3242.3				
[x]735.9[†‡] *3*	6 *2*							
760.9[†] *3*	7 *2*	4001.2		3240.3	(9^-)			
795.7[†] *3*	76 *6*	1400.7	4^+	604.7	2^+	E2		α(K)=0.00258; α(L)=0.00035
800		3635.9	(10^+)	2835.9	(8^+)			
810		2779.8	(6^+)	1969.8	4^+			
810.7[†] *3*	36 *4*	2211.4	(6^+)	1400.7	4^+	(E2)		α(K)=0.00248; α(L)=0.00033
843		4083.3		3240.3	(9^-)			
865		3242.3		2377.1	(6)			
899.1[†] *3*	25 *4*	2299.8	(6^+)	1400.7	4^+			
914		4549.9	(12^+)	3635.9	(10^+)			
934		3311.3		2377.1	(6)			
968.9[†] *3*	11 *2*	3240.3	(9^-)	2271.4	7^-	(E2)		α(K)=0.00166; α(L)=0.00022 Mult.: from γ(θ) (1980Mo27).
971		3242.3		2271.4	7^-			
986		3898.9		2912.9				
1038		1643.3	3^+	604.7	2^+			
1040		3311.3		2271.4	7^-			
1117		3328.4		2211.4	(6^+)			
1131		4635.2		3504.2				
1365		1969.8	4^+	604.7	2^+			
1382.0[†] *3*	3 *1*	1986.4	5^-	604.7	2^+	[E3]		α(K)=0.00152; α(L)=0.00021

[†] From 1980Mo27.

Continued on next page (footnotes at end of table)

(HI,xnγ) (continued)

$\gamma(^{134}Ba)$ (continued)

‡ Feeding 52-ns isomer.
# From 1982BeZY, except as noted.
@ 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.
& Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

(HI,xnγ)

Level Scheme

Intensities: Type not specified

Legend

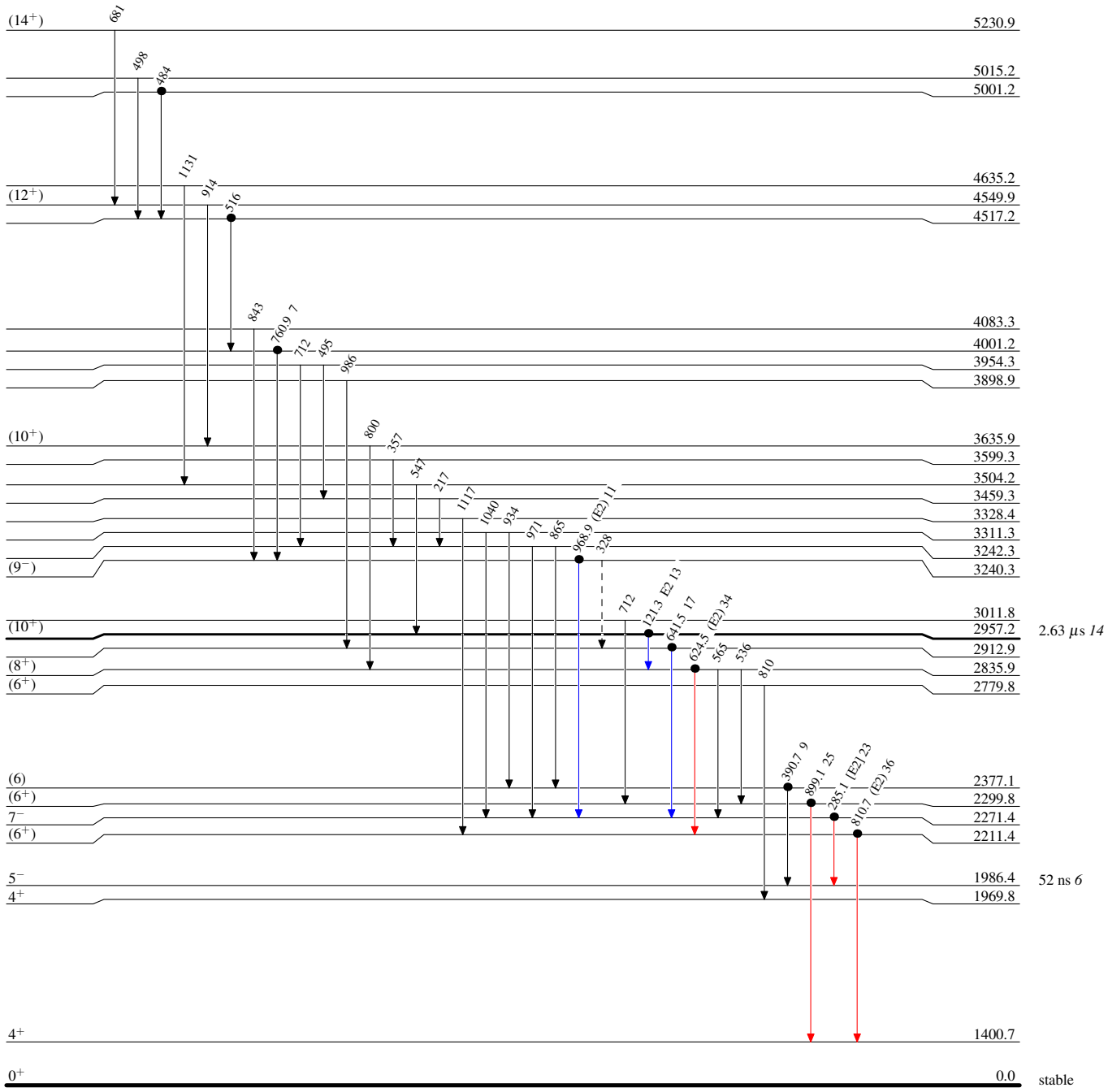
$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

γ Decay (Uncertain)

Coincidence

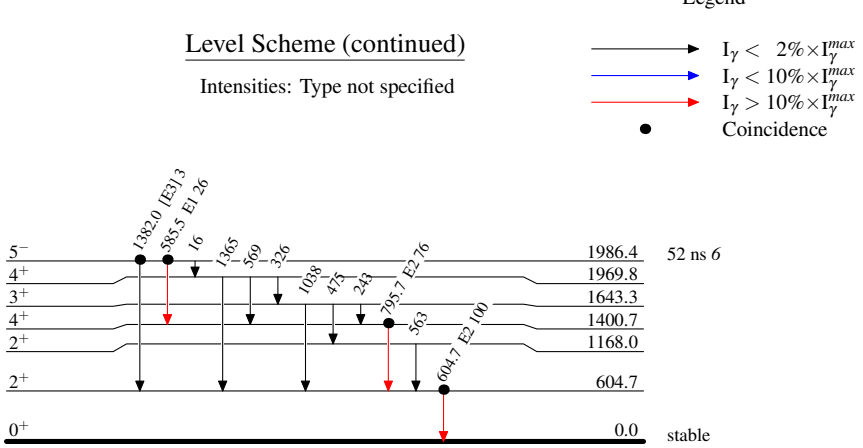


$^{134}_{56}Ba_{78}$

(HI,xnγ)

Level Scheme (continued)

Intensities: Type not specified



$^{134}_{56}Ba_{78}$