^{208}Pb(^{76}Ge,Xγ) 1998Fo04,1999Fo10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. K. Tuli, P. Blokhin, J. Kaur, J. Y. Lee and N. Sharma	NDS 114, 661 (2013)	28-Feb-2013

Target: ^{208}Pb. Projectile: ^{76}Ge, E=450 MeV. Heavy-ion multinucleon transfer process. Measured Eγ, Iγ, $\gamma\gamma$ coin, $\gamma\gamma$(t) coin. Deduced levels half-life. Detector: GASP array, which consisted of 40 Compton-suppressed hyperpure Ge detectors for γ rays, and an inner BGO ball of 80 elements.

^{211}Po Levels

E(level)	J$^\pi$[†]	$T_{1/2}$	Comments
0.0	9/2$^+$	0.516 s *3*	$T_{1/2}$: From Adopted Levels.
1462	(25/2$^+$)	25.2 s *6*	$T_{1/2}$: From Adopted Levels.
1819	(27/2$^+$)		
2135	(31/2$^-$)	0.25 μs *7*	
2866	(33/2$^-$)		
3443	(37/2$^+$)		
4365	(37/2$^-$)		
4874	(43/2$^+$)	2 μs *1*	

[†] J^π assignments are based on expected values from shell-model calculations.

γ(^{211}Po)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[‡]	α[†]	Comments
316	2135	(31/2$^-$)	1819	(27/2$^+$)	(M2)	1.559	α(K)=1.169 *17*; α(L)=0.294 *5*; α(M)=0.0728 *11* α(N)=0.0189 *3*; α(O)=0.00393 *6*; α(P)=0.000494 *7* Mult.: From transition-intensity balance.
357	1819	(27/2$^+$)	1462	(25/2$^+$)	(M1)	0.315	α(K)=0.256 *4*; α(L)=0.0446 *7*; α(M)=0.01051 *15* α(N)=0.00270 *4*; α(O)=0.000566 *8*; α(P)=7.32×10^{-5} *11* Mult.: From transition-intensity balance.
509	4874	(43/2$^+$)	4365	(37/2$^-$)	[E3]	0.1037	α(K)=0.0532 *8*; α(L)=0.0375 *6*; α(M)=0.00987 *14* α(N)=0.00255 *4*; α(O)=0.000502 *7*; α(P)=5.23×10^{-5} *8* B(E3)(W.u.)=24 *12* Mult.: Expected E3, similar to 686γ, 16$^+$ to 13$^-$ transition in 210Po (1998Fo04).
577	3443	(37/2$^+$)	2866	(33/2$^-$)			
673	2135	(31/2$^-$)	1462	(25/2$^+$)	E3	0.0461	α(K)=0.0288 *4*; α(L)=0.01293 *19*; α(M)=0.00332 *5* α(N)=0.000857 *12*; α(O)=0.0001712 *24*; α(P)=1.87×10^{-5} *3*
731	2866	(33/2$^-$)	2135	(31/2$^-$)			
922	4365	(37/2$^-$)	3443	(37/2$^+$)			
1308	3443	(37/2$^+$)	2135	(31/2$^-$)	E3	0.00956 *14*	α=0.00956 *14*; α(K)=0.00731 *11*; α(L)=0.001696 *24*; α(M)=0.000414 *6* α(N)=0.0001065 *15*; α(O)=2.19×10^{-5} *3*; α(P)=2.64×10^{-6} *4*; α(IPF)=6.16×10^{-6} *9*
1499	4365	(37/2$^-$)	2866	(33/2$^-$)			

[†] Additional information 1.
[‡] From Adopted Gammas.

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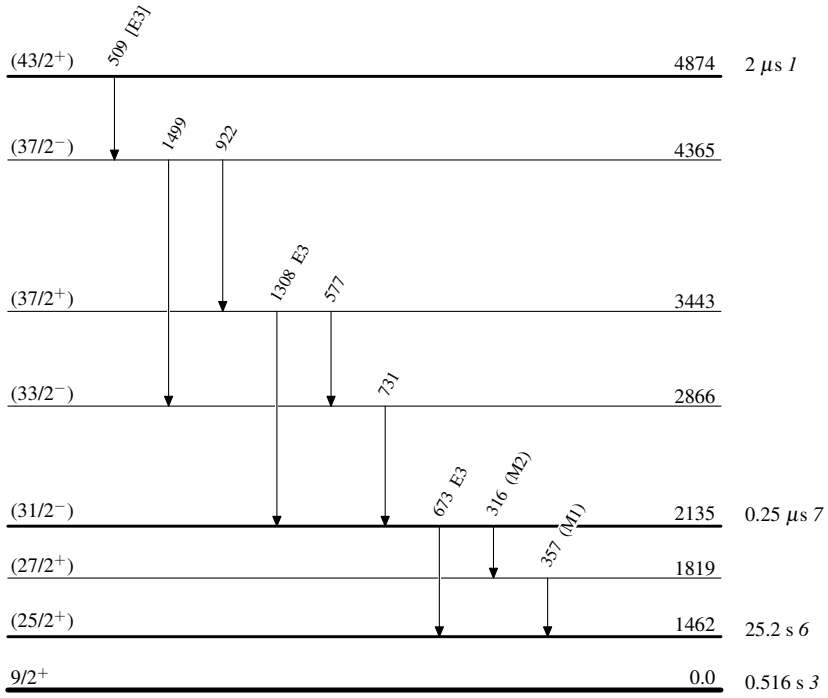
Level Scheme



$^{211}_{84}Po_{127}$