

$^{214}\text{At}$   $\alpha$  decay (558 ns) [1982Ew01](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 121, 561 (2014)	31-Mar-2014

Parent:  $^{214}\text{At}$ :  $E=0.0$ ;  $J^\pi=1^-$ ;  $T_{1/2}=558$  ns  $10$ ;  $Q(\alpha)=8987$  4;  $\% \alpha$  decay=100.0  
[1982Ew01](#):  $^{214}\text{At}$  was produced from  $^{218}\text{Fr}$   $\alpha$  decay. Measured  $E\alpha$  and  $I\alpha$ .

 $^{210}\text{Bi}$  Levels

E(level)	$J^\pi$ †	$T_{1/2}$ †
0.0	$1^-$	5.012 d 5
319.8 4	$2^-$	
347.8 4	$3^-$	
563.1 6	$1^-$	

† From Adopted Levels.

 $\alpha$  radiations

$E\alpha$ †	E(level)	$I\alpha$ ‡@	HF#	Comments
8270 5	563.1	0.32 3	21.6	
8480 6	347.8	0.58 4	43	
8507 7	319.8	0.15 4	195	
8819 4	0.0	98.95 6	1.78	$E\alpha, I\alpha$ : recommended by <a href="#">1991Ry01</a> . Other value: 8812 ( <a href="#">1999Sh03</a> ).

† From [1982Ew01](#).  $E\alpha$ 's were calibrated to 8819 $\alpha$ , measured by [1982Bo04](#). Other measurements: [1951Me10](#), [1958To25](#), [1964Mc21](#), [1968Ha14](#), [1999Sh03](#).

‡ From [1982Ew01](#).

# Using  $r_0(^{210}\text{Bi})=1.5443$ , average of  $r_0(^{208}\text{Pb})=1.5394$  6,  $r_0(^{210}\text{Pb})=1.5408$  9,  $r_0(^{210}\text{Po})=1.532$  6, and  $r_0(^{212}\text{Po})=1.5649$  8 ([1998Ak04](#)).

@ Absolute intensity per 100 decays.