$^9\text{Be}(^{238}\text{U},X\gamma)$ **1998Pf02**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan, C. M. Baglin, O. Gorbachenko, N. Todorovic	NDS 114, 661 (2013)	28-Feb-2013

^{211}Bi was produced by fragmentation of a 238-GeV beam of ^{238}U on a ^{9}Be target; fragments separated using the GSI projectile fragment separator (FRS) operated in achromatic mode, and identified using tof, energy loss, and magnetic rigidity; measured Eγ, implant-γ(t) using two Ge detectors; deduced isomer $T_{1/2}$.

^{211}Bi Levels

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	Comments
0.0	$9/2^-$		
829	$(13/2)^-$		
1131	$(17/2)^-$		
(1228)	$(21/2^-)$	70 ns 5	$T_{1/2}$: From Adopted Levels.
1257 10	$(25/2^-)$	1.4 μs 3	%IT=100
			E(level): From Adopted Levels.
			J$^{\pi}$: From $T_{1/2}$ and assumption of deexcitation to the $(21/2^-)$ level. However, an alternative assignment of $(29/2^-)$ cannot be excluded (1998Pf02).
			$T_{1/2}$: from implant-γ(t) (1998Pf02).
			Probable configuration=$((\pi\ 1h_{9/2})(\nu\ 1g_{9/2})^{+2})$.

[†] From Eγ, except as noted.
[‡] From Adopted Levels, unless otherwise specified.

$\gamma(^{211}\text{Bi})$

E$_\gamma$[†]	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	Mult.[‡]	α[#]	Comments
(29)	1257	$(25/2^-)$	1228?	$(21/2^-)$	[E2]	2.52×10^3	E$_\gamma$: from level-energy difference.
(97.4)	(1228)	$(21/2^-)$	1131	$(17/2)^-$	(E2)	7.59	E$_\gamma$: From Adopted Gammas.
302	1131	$(17/2)^-$	829	$(13/2)^-$	E2	0.1182	
829	829	$(13/2)^-$	0.0	$9/2^-$	E2	0.01015	

[†] From spectrum in fig. 4 (1998Pf02), except as noted.
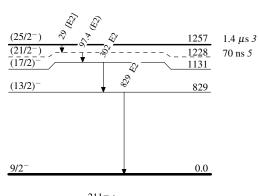[‡] From Adopted Gammas.
[#] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

$^{9}\text{Be}(^{238}\text{U},\text{X}\gamma)$ **1998Pf02**   Legend

Level Scheme

$^{211}_{83}\text{Bi}_{128}$