^{9}Be(^{208}Pb,Xγ) 2008St20,2008StZY

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. J. Chiara and F. G. Kondev	NDS 111,141 (2010)	1-Oct-2009

2008St20,2008StZY: 2.526-g/cm^2 ^{9}Be target; E(^{208}Pb)=1 GeV/A, beam on 10 s, off 8 s; GSI Fragment Separator, scintillator detectors for mass identification via ToF and for position information, multiwire detectors for position information, ΔE of fragments in gas ionization chambers, 7-mm plastic stopper for implantation of fragments, array of 15 HPGe cluster detectors with 15% total efficiency at 662 keV; measured Eγ, Iγ, γ(t), $\gamma\gamma$-coin. See also 2007Po13, 2007St11 and 2009St16.
Additional information 1.

^{204}Pt Levels

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	Comments
0.0	0$^+$		
872.0? *10*	(2$^+$)		E(level): The energy of this level depends on the order of the 872γ and 1123γ, which could not be determined experimentally in this study, but were placed based on comparison with the ^{206}Hg level scheme and shell-model calculations. If the γ's are interchanged, this level energy is instead 1123 keV.
1995.0 *15*	(5$^-$)	5.5 μs *7*	Proposed configuration: $\pi[(d_{3/2})^{-1}(h_{11/2})^{-1}]$.
1995.0+x	(7$^-$)	55 μs *3*	E(level): γ decay to the 1995-keV level is expected, but not observed. 2008St20 suggest Eγ is below the K x-ray threshold of 78.4 keV due to the absence of observed x rays associated with this decay. Such a low-energy transition would be dominated by internal conversion. Proposed configuration: $\pi[(d_{3/2})^{-1}(h_{11/2})^{-1}]$.
3056+x? *1*	(8$^+$)		E(level): The energy of this level depends on the order of the 1061γ and 97γ, which could not be determined experimentally in this study, but were placed based on comparison with the ^{206}Hg level scheme and shell-model calculations. If the γ's are interchanged, this level energy is instead 2092+x keV. Proposed configuration: $\pi[(h_{11/2})^{-2}]$.
3153+x *1*	(10$^+$)	146 ns *14*	Proposed configuration: $\pi[(h_{11/2})^{-2}]$.

[†] From a least-squares fit to Eγ.
[‡] From 2008St20, based on comparison with the ^{206}Hg level scheme and shell-model calculations.
[#] From 2008St20, deduced from time difference between fragment implantation and subsequent γ decay.

γ(^{204}Pt)

E$_\gamma$[†]	I$_\gamma$[‡]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
97 *1*	1.8 *3*	3153+x	(10$^+$)	3056+x?	(8$^+$)	I$_\gamma$: It is stated in 2008StZY that a time-walk effect may have resulted in a lower observed intensity for this transition.
872 *1*		872.0?	(2$^+$)	0.0	0$^+$	
1061 *1*	20.7 *11*	3056+x?	(8$^+$)	1995.0+x	(7$^-$)	
1123 *1*		1995.0	(5$^-$)	872.0?	(2$^+$)	
1158 *1*	3.7 *5*	3153+x	(10$^+$)	1995.0+x	(7$^-$)	

[†] Uncertainties not given in 2008St20; assigned by evaluators.
[‡] From 2008StZY.

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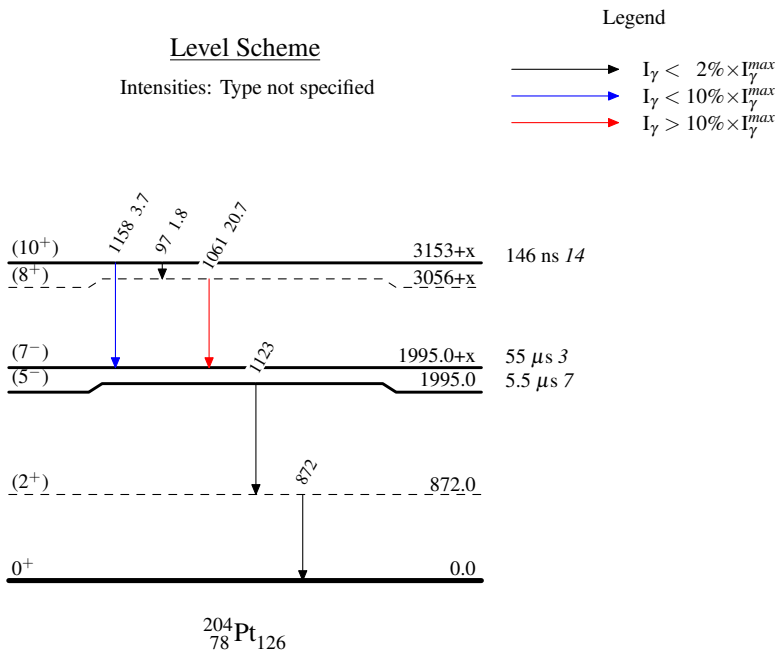
Level Scheme

Intensities: Type not specified



$^{204}_{78}Pt_{126}$