Be(^{208}Pb,Xγ) 2005Ca02,2011St21

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 177, 509, 2021	4-Jul-2021

2005Ca02: E(^{208}Pb)=1000 MeV/A at GSI. Target: 1.6 g/cm^2 beryllium target; Detectors: fragment mass separator, four HPGE (clover) detectors located at the focal plane; Measured: Eγ, Iγ, $\gamma\gamma$ coin, γ(t); Deduced: level scheme, $T_{1/2}$ Others: 2001Ca13, 2002Po15 and 2003Po14. All these results are from the same collaboration.

2011St21: E(^{208}Pb)=1000 MeV/A from the SIS-18 synchrotron (GSI). ^{9}Be 2.526 g/cm^2-thick target, backed by a ^{93}Nb foil of thickness 0.223 g/cm^2. Fragments were identified in flight by the Fragment Separator (FRS), based on time of flight, Bρ and energy loss. Transmitted ions were slowed in Al degraders and stopped in a plastic catcher. The stopper was surrounded by the RISING γ-ray spectrometer. Measured Eγ, Iγ, delayed γ rays, isomer lifetime.

^{203}Au Levels

E(level)†	J$^\pi$‡	$T_{1/2}$‡	Comments
0	3/2$^+$	60 s *6*	
563.3 *3*	(7/2$^+$)		
641 *3*	11/2$^-$	140 μs *44*	E(level): From Adopted Levels. $T_{1/2}$: From 563γ(t) in 2011St21. Other: 0.04 ms *+700−2* from 563.3γ(t) in 2005Ca02. Experimental isomeric ratio=2.5% *+8−10* (2011St21). Configuration=$\pi(h^{-1}_{11/2})$.

† From a least-squares fit to Eγ, unless otherwise stated.
‡ From Adopted Levels, unless otherwise stated.

γ(^{203}Au)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
(78 *3*)	641	11/2$^-$	563.3	(7/2$^+$)	E$_\gamma$: From level energy differences (not observed directly). The authors in 2011St21 observed no K X-rays, thus suggesting that Eγ is below the K-electron binding energy (B$_{e^-}$(K)=80.725 keV).
563.3 *3*	563.3	(7/2$^+$)	0	3/2$^+$	

† From 2005Ca02.

Legend

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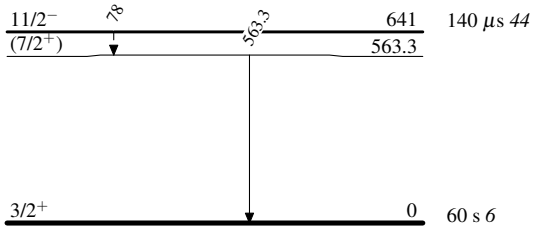
Level Scheme

γ Decay (Uncertain)



$^{203}_{79}Au_{124}$