^{9}Be(^{238}U,Xγ) 2009Al29

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 201,346 (2025)	21-Jan-2025

2009Al29: ^{238}U beam at 1 GeV/A energy was provided by the SIS-18 accelerator at GSI, Darmstadt. The ≈2 s spills were separated by ≈2 s periods without beam. Target consisting of 2.5 g/cm^2 ^{9}Be with 223 mg/cm^2 Nb backing. The fragments were selected by the FRagment Separator (FRS), optimized for selection of ^{205}Pb ions, slowed down in a variable-thickness aluminium degrader and finally implanted in an active stopper, consisting of six double-sided silicon detectors, each of size 5 × 5 cm^2 and 1 mm thickness. The stopper was surrounded by the RISING array comprising of 15 Euroball cluster Ge detectors. Measured Eγ, Iγ, γ(t), and $\gamma\gamma$ coin.

^{206}Hg Levels

E(level)	J$^\pi$[†]	$T_{1/2}$	Comments
0.0	0$^+$	8.32[†] min *13*	
1068	2$^+$	1.27[†] ps *17*	
2102	5$^-$	2.09[†] μs *2*	
2466	(7$^-$)		
3623	(8$^+$)		
3723	(10$^+$)	96 ns *15*	$T_{1/2}$: From γ(t) in 2009Al29.

[†] From Adopted Levels, unless otherwise stated.

γ(^{206}Hg)

E$_\gamma$[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
364	2466	(7$^-$)	2102	5$^-$
1034	2102	5$^-$	1068	2$^+$
1068	1068	2$^+$	0.0	0$^+$
1157	3623	(8$^+$)	2466	(7$^-$)
1257	3723	(10$^+$)	2466	(7$^-$)

[†] From figure 1 of 2009Al29.

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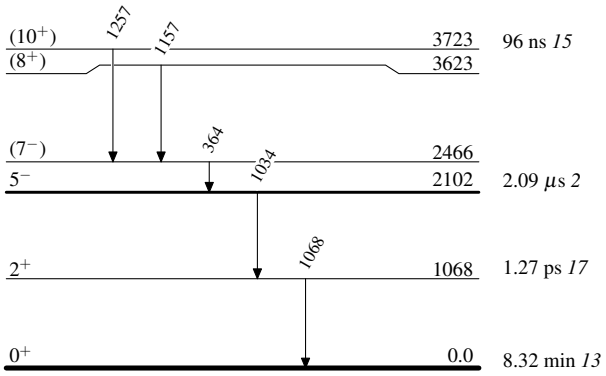
Level Scheme



$^{206}_{80}Hg_{126}$