^{9}Be(^{136}Xe,Xγ) 2011Pi05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Zoltan Elekes and Janos Timar	NDS 129, 191 (2015)	28-Feb-2015

2011Pi05: ^{136}Xe beam with E=750 MeV/nucleon impinged on a 4 g/cm^2 thick ^{9}Be target within the rising campaign at GSI, Darmstadt using 15 large-volume Ge cluster detectors. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma$(t). Comparison with shell-model calculations.

^{128}Sn Levels

E(level)	J$^\pi$[†]	T$_{1/2}$	Comments
0	0$^+$		
1169.0 *10*	(2)$^+$		
2001.0 *14*	(4$^+$)		
2092.0 *17*	(7$^-$)		
2413.0 *20*	(8$^+$)		
2492.0 *21*	(10$^+$)	3.00 μs *15*	T$_{1/2}$: measured in 2011Pi05 by γ(t).
3147.0? *20*	(9$^-$)		
3553.0? *22*	(12$^+$)		
3772.0? *21*	(11$^-$)		
3979.0 *22*	(13$^-$)		
4098.0 *24*	(15$^-$)	220 ns *30*	T$_{1/2}$: from time distribution of delayed γ rays (2011Pi05). Proposed configuration=$\nu h^{-3}_{11/2} d^{-1}_{3/2}$, with four neutron holes in ^{132}Sn maximally aligned to J^π=15$^-$.

[†] from Adopted Levels.

γ(^{128}Sn)

Eγ	Iγ[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	I$_{(\gamma+ce)}$	Comments
79 *1*		2492.0	(10$^+$)	2413.0	(8$^+$)		B(E2)(W.u.)=0.341 *17* (2011Pi05) I(γ+ce)(long)=1030 *80*.
91 *1*		2092.0	(7$^-$)	2001.0	(4$^+$)		
119 *1*		4098.0	(15$^-$)	3979.0	(13$^-$)	190 *25*	B(E2)(W.u.)=1.51 *21* (2011Pi05)
207 *1*		3979.0	(13$^-$)	3772.0?	(11$^-$)	55 *10*	
321 *1*		2413.0	(8$^+$)	2092.0	(7$^-$)		I(long)=1110 *30*.
426 *1*	100 *10*	3979.0	(13$^-$)	3553.0?	(12$^+$)		I(long)=100 *10*.
625 *1*	47 *8*	3772.0?	(11$^-$)	3147.0?	(9$^-$)		
832 *1*		2001.0	(4$^+$)	1169.0	(2)$^+$		
1055 *1*	33 *9*	3147.0?	(9$^-$)	2092.0	(7$^-$)		
1061 *1*	118 *4*	3553.0?	(12$^+$)	2492.0	(10$^+$)		
1169 *1*		1169.0	(2)$^+$	0	0$^+$		

[†] Uncertainty estimated by evaluator.

^{9}Be(^{136}Xe,Xγ) 2011Pi05

Level Scheme

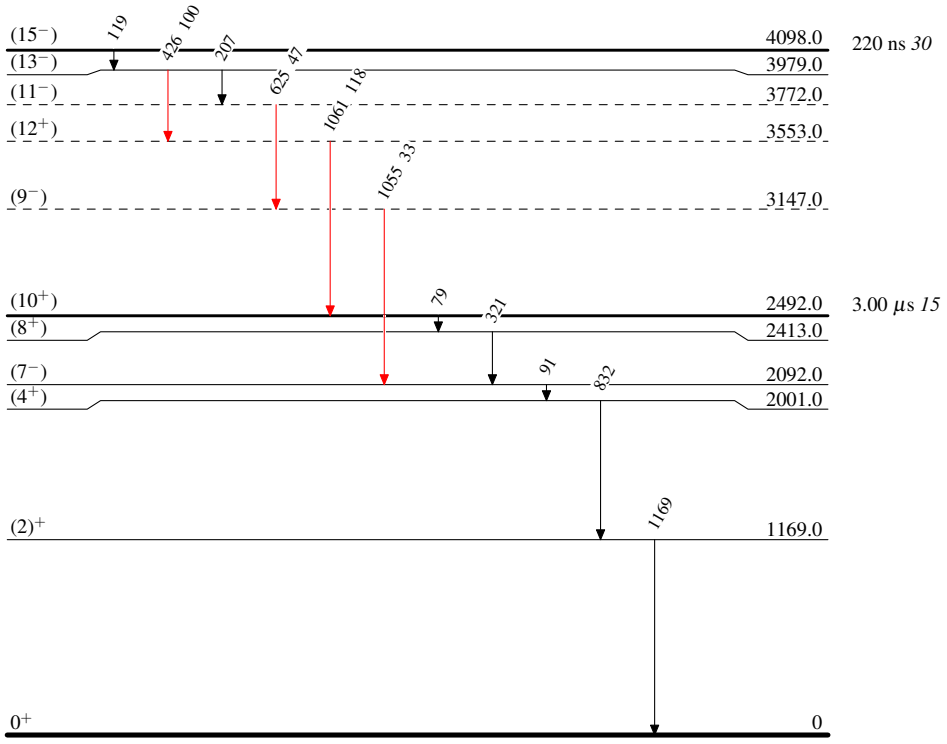
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{128}_{50}Sn_{78}$