

(HI,xn γ) 2014Is04

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

$^{208}\text{Pb}(\text{HI},\text{xn}\gamma), ^{238}\text{U}(\text{HI},\text{xn}\gamma).$

2014Is04: The measurements were performed at the Argonne National Laboratory with the ATLAS superconducting linear accelerator and the Gammasphere detector array, which consisted of 100 Compton-suppressed Ge detectors. In two of these experiments, a 330-MeV ^{48}Ca beam was bombarding 55 mg/cm 2 ^{238}U and 50 mg/cm 2 ^{208}Pb targets, and in the third one, a 430-MeV ^{64}Ni beam was used with the ^{238}U target. For the detailed analysis, the data were unfolded into triple-coincidence events and sorted into separate prompt and delayed three-dimensional cubes. **2013Os04:** same experiment, less detailed conference proceeding. All data are from **2014Is04** unless otherwise noted.

 ^{128}Sn Levels

E(level)	J $^{\pi}$	E(level)	J $^{\pi}$	E(level)	J $^{\pi}$	E(level)	J $^{\pi}$
0 †	0 $^{+}$	2091.50 † 12	(7 $^{-}$)	3146.7 3	(9 $^{-}$)	3979.8 3	(13 $^{-}$)
1168.81 5	(2) $^{+}$	2412.71 † 14	(8 $^{+}$)	3553.9 3	(12 $^{+}$)	4099.5 4	(15 $^{-}$)
2000.35 † 7	(4 $^{+}$)	2491.97 † 20	(10 $^{+}$)	3772.1 3	(11 $^{-}$)		

† Level not established in **2012Is04**, taken from Adopted Levels.

 $\gamma(^{128}\text{Sn})$

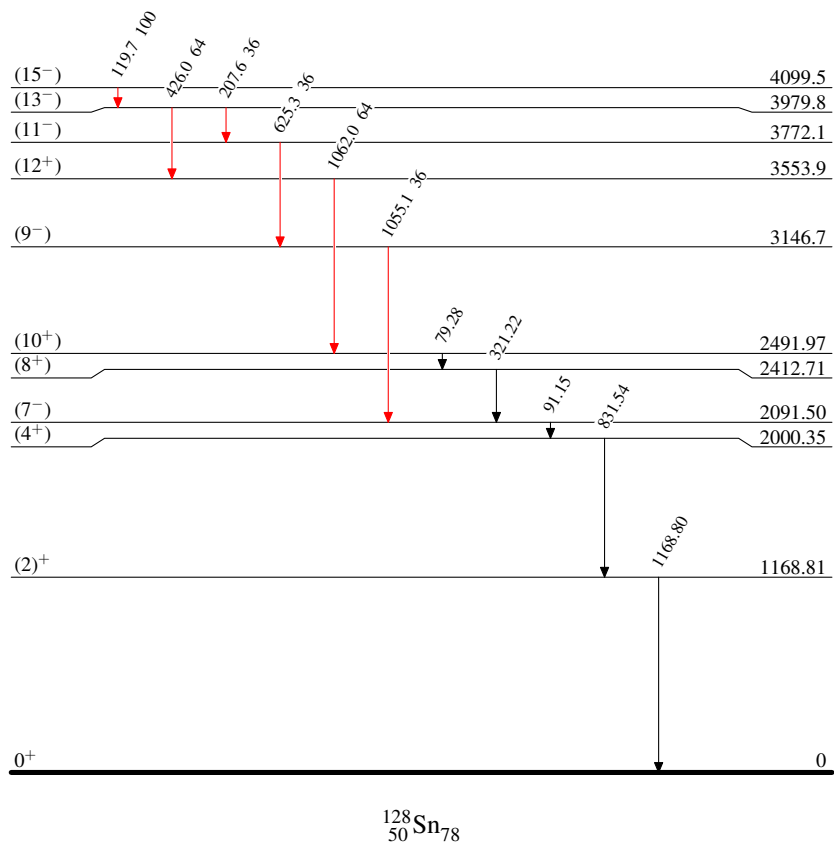
E $_{\gamma}$	I $_{\gamma}$	E $_i$ (level)	J $_i^{\pi}$	E $_f$	J $_f^{\pi}$	E $_{\gamma}$	I $_{\gamma}$	E $_i$ (level)	J $_i^{\pi}$	E $_f$	J $_f^{\pi}$
79.28 † 15		2491.97	(10 $^{+}$)	2412.71	(8 $^{+}$)	625.3 3	36 4	3772.1	(11 $^{-}$)	3146.7	(9 $^{-}$)
91.15 † 10		2091.50	(7 $^{-}$)	2000.35	(4 $^{+}$)	831.54 † 5		2000.35	(4 $^{+}$)	1168.81	(2) $^{+}$
119.7 2	100	4099.5	(15 $^{-}$)	3979.8	(13 $^{-}$)	1055.1 3	36 4	3146.7	(9 $^{-}$)	2091.50	(7 $^{-}$)
207.6 3	36 4	3979.8	(13 $^{-}$)	3772.1	(11 $^{-}$)	1062.0 3	64 6	3553.9	(12 $^{+}$)	2491.97	(10 $^{+}$)
321.22 † 7		2412.71	(8 $^{+}$)	2091.50	(7 $^{-}$)	1168.80 † 5		1168.81	(2) $^{+}$	0	0 $^{+}$
426.0 2	64 6	3979.8	(13 $^{-}$)	3553.9	(12 $^{+}$)						

† From Adopted Gammas, not observed in **2014Is04**.

(HI,xn γ) 2014Is04**Level Scheme**Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{128}_{50}\text{Sn}_{78}$