

$^9\text{Be}(^{238}\text{U},\text{X}\gamma)$  2010II01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	H. Iimura, J. Katakura, S. Ohya		NDS 180, 1 (2022)	1-Oct-2021

$^9\text{Be}$  (1g/cm<sup>2</sup>) target + a 750 MeV/A  $^{238}\text{U}$  beam by the SIS-18 synchrotron at GSI.  $^{126}\text{Sn}$  was selected by the FRS spectromete. The isomeric decay was measured during a 16  $\mu\text{s}$  time window by the RISING array comprising of eight Cluster (7 HpGe) detectors.

 $^{126}\text{Sn}$  Levels

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	T <sub>1/2</sub>	Comments
0.0	0 <sup>+</sup>		
1141.0	2 <sup>+</sup>		
2049.0	4 <sup>+</sup>		
2161.0	5 <sup>-</sup>		
2218.0	7 <sup>-</sup>	5.9 $\mu\text{s}$ 8	$\mu = -0.686$ 63 (2010II01) T <sub>1/2</sub> : from 909 $\gamma$ (t) + 1141 $\gamma$ (t) using a two-component fit (2010II01). The half-life of the topmost 10 <sup>+</sup> isomer at 2565 keV was fixed to T <sub>1/2</sub> =7.5 $\mu\text{s}$ 3. $\mu$ : from g=-0.098 9, measured using the time-differential perturbed angular distribution technique. configuration: $\nu^2$ (h <sub>11/2</sub> <sup>-1</sup> , d <sub>3/2</sub> <sup>-1</sup> ).
2487.0	(8 <sup>+</sup> )		
2563.3	(10 <sup>+</sup> )	7.5 $\mu\text{s}$ 3	T <sub>1/2</sub> : from 269 $\gamma$ (t) (2010II01). configuration: $\nu^2$ (h <sub>11/2</sub> <sup>-2</sup> ).

<sup>†</sup> From a least-squares adjustment with the assumption that all the E $\gamma$  values have the same uncertainty of 1 keV.

<sup>‡</sup> From Adopted Levels.

 $\gamma(^{126}\text{Sn})$ 

E $\gamma$ <sup>†</sup>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>
57	2218.0	7 <sup>-</sup>	2161.0	5 <sup>-</sup>
76	2563.3	(10 <sup>+</sup> )	2487.0	(8 <sup>+</sup> )
112	2161.0	5 <sup>-</sup>	2049.0	4 <sup>+</sup>
269	2487.0	(8 <sup>+</sup> )	2218.0	7 <sup>-</sup>
909	2049.0	4 <sup>+</sup>	1141.0	2 <sup>+</sup>
1141	1141.0	2 <sup>+</sup>	0.0	0 <sup>+</sup>

<sup>†</sup> From 2010II01.

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## Level Scheme

