# $^{125}$Sn IT decay (6.2 $\mu$s) 2000Pi03

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | J. Katakura | NDS 112, 495 (2011) | 1-Jan-2010 |

Parent: $^{125}$Sn: E=1892.8; $J^{\pi}=(19/2^+)$; $T_{1/2}$=6.2 $\mu$s *7*; %IT decay=100.0

2000Pi03: Isomer of $^{125}$Sn formed in $^{233}$U thermal neutron fission; LOHENGRIN spectrometer; Measured $\gamma$, ce, $\gamma\gamma$, $\gamma$-e, e-e, $T_{1/2}$; No ce were observed.

## $^{125}$Sn Levels

| E(level) | $J^{\pi}$ † | $T_{1/2}$ |
|---|---|---|
| 0.0 | $11/2^-$ | |
| 1087.35 *18* | $(15/2^-)$ | |
| 1218.86 *18* | $(13/2^-)$ | |
| 1880.01 *20* | $(15/2^+)$ | |
| 1892.8 *3* | $(19/2^+)$ | 6.2 $\mu$s *7* |

† From Adopted Levels.

## $\gamma(^{125}Sn)$

2000Zh47 report strong 792-1087 delayed cascade and a parallel but weak delayed 661-1218 cascade with a half-life of ≈7 $\mu$s.

| $E_\gamma$ | $I_\gamma$ | $E_i$(level) | $J^{\pi}_i$ | $E_f$ | $J^{\pi}_f$ |
|---|---|---|---|---|---|
| ≈10 | | 1892.8 | $(19/2^+)$ | 1880.01 | $(15/2^+)$ |
| 661.0 *2* | 20 *3* | 1880.01 | $(15/2^+)$ | 1218.86 | $(13/2^-)$ |
| 792.8 *2* | 40 *6* | 1880.01 | $(15/2^+)$ | 1087.35 | $(15/2^-)$ |
| 805.5 *2* | 40 *6* | 1892.8 | $(19/2^+)$ | 1087.35 | $(15/2^-)$ |
| 1087.5 *2* | 81 *12* | 1087.35 | $(15/2^-)$ | 0.0 | $11/2^-$ |
| 1218.7 *2* | 19 *3* | 1218.86 | $(13/2^-)$ | 0.0 | $11/2^-$ |

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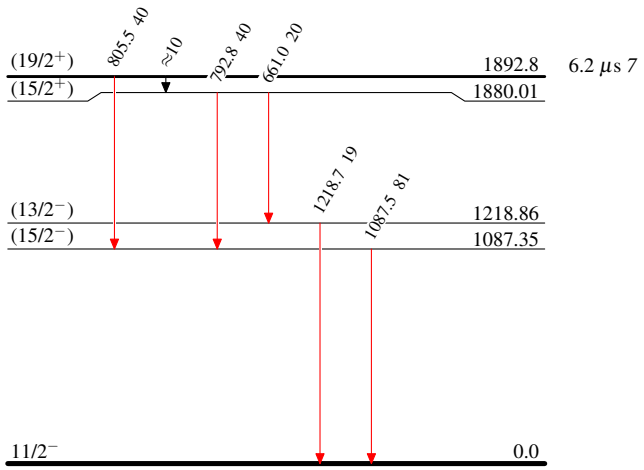
### Decay Scheme

Intensities: Relative $I_\gamma$
%IT=100.0

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




$^{125}_{50}Sn_{75}$