

^{88}Br IT decay (5.3 μs) [1999Ge01](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan and A. A. Sonzogni		NDS 115, 135 (2014)	1-Nov-2013

Parent: ^{88}Br : E=270.1 5; $J^\pi=(3^-,4^-,5^-)$; $T_{1/2}=5.3 \mu\text{s}$ 4; %IT decay=100.0

^{88}Br activity produced with $^{241}\text{Pu}(\text{n},\text{F})$, En=thermal and separated using LOHENGRIN spectrometer with $\Delta\text{E-E}$ for fission fragment identification. Measured $\text{E}\gamma$, $\text{I}\gamma$, $\gamma\gamma$, ce, and $T_{1/2}$ using two large volume Ge and two Si(Li) detectors.

Others: [2010Re01](#), [2009Fo05](#), [1976SeZN](#), [1972GrYM](#), [1970Gr38](#).

α : [Additional information 1](#).

 ^{88}Br Levels

E(level) [†]	J^π [†]	$T_{1/2}$	Comments
0.0	(2 ⁻)	16.34 [†] s 8	% β^- =100; % β^- n=6.58 18
159.20 23	(1 ⁻ ,2 ⁻ ,3 ⁻)		
270.1 5	(3 ⁻ ,4 ⁻ ,5 ⁻)	5.3 μs 4	%IT=100 $T_{1/2}$: weighted average of 5.1 μs 4 (1999Ge01), 4.9 μs 4 (1976SeZN) and 6.3 μs 5 (1970Gr38 , 1972GrYM). Other 4 μs 1 (extracted from Fig. 2 of 2009Fo05 by evaluator). Configuration of $(\text{vd}_{5/2}\pi\text{p}_{3/2})_{4-}$ is favored by 1999Ge01 based on comparison with ^{88}Rb .

[†] From the Adopted Levels.

 $\gamma(^{88}\text{Br})$

$\text{E}\gamma$	$\text{E}_i(\text{level})$	J^π_i	E_f	J^π_f	Mult.	δ	α	$\text{I}_{(\gamma+\text{ce})}$ [†]	Comments
110.9 5	270.1	(3 ⁻ ,4 ⁻ ,5 ⁻)	159.20	(1 ⁻ ,2 ⁻ ,3 ⁻)	E2		0.599 14	100	ce(K)/(γ +ce)=0.322 5; ce(L)/(γ +ce)=0.0445 11; ce(M)/(γ +ce)=0.00704 18; ce(N)/(γ +ce)=0.000595 15 $\alpha(\text{K})=0.516$ 12; $\alpha(\text{L})=0.0712$ 17; $\alpha(\text{M})=0.0113$ 3; $\alpha(\text{N})=0.000951$ 22 $\alpha(\text{K})_{\text{exp}}=0.48$ 10. Mult.: from $\alpha(\text{K})_{\text{exp}}$.
159.1 5	159.20	(1 ⁻ ,2 ⁻ ,3 ⁻)	0.0	(2 ⁻)	M1+E2	0.24 2	0.0397 13	100	ce(K)/(γ +ce)=0.0337 11; ce(L)/(γ +ce)=0.00380 14; ce(M)/(γ +ce)=0.000603 22; ce(N)/(γ +ce)= 5.53×10^{-5} 19 $\alpha(\text{K})=0.0350$ 12; $\alpha(\text{L})=0.00395$ 14; $\alpha(\text{M})=0.000627$ 23; $\alpha(\text{N})=5.75 \times 10^{-5}$ 20 $\alpha(\text{K})_{\text{exp}}=0.047$ 10. Mult., δ : 1999Ge01 reported a M1 multipolarity, however, the $\alpha(\text{K})_{\text{exp}}$ value and the ratio of intensities suggest an E2 admixture. Using $\text{I}\gamma(110.9)/\text{I}\gamma(159.1)=0.65$ (and an estimated uncertainty of 5% based on Fig. 4), one obtains $\delta=0.24$ 2. Alternatively, using $\alpha(\text{K})_{\text{exp}}=0.047$ 10, $\delta=0.44$ 15. In either case, the sign of

Continued on next page (footnotes at end of table)

⁸⁸Br IT decay (5.3 μs) 1999Ge01 (continued)

γ(⁸⁸Br) (continued)

<u>E_γ</u>	<u>E_i(level)</u>	Comments
		the mixing ratio cannot be determined.

[†] Absolute intensity per 100 decays.

⁸⁸Br IT decay (5.3 μs) 1999Ge01

Decay Scheme

%IT=100.0

