^{248}Cm SF decay 1996Be06

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 93, 599 (2001)	1-Dec-2000

Parent: ^{248}Cm: E=0.0; $J^\pi=0^+$; $T_{1/2}=3.48\times10^5$ y *6*; %SF decay=8.39

Eurogam1 array with 5 Leps, 45 Compton-suppressed Ge detectors.

Measured $\gamma\gamma$, x-ray$\gamma\gamma$. Observed coincidence with transition in ^{102}Mo.

Fission cumulative yield (1977RiZX): 0.0060% 6 (^{235}U E=th); 0.126% 18 (^{238}U E=fast); 0.0011% 2 (^{239}Pu E=th); 0.0007% 7 (^{233}Th E=th).

^{144}Xe Levels

E(level)	J^π[†]
0.0[‡]	0^+
252.6[‡]	(2^+)
644.3[‡]	(4^+)
1132.2[‡]	(6^+)
1688.0[‡]	(8^+)
2302.7[‡]	(10^+)

[†] From $\gamma(\theta)$ and assuming γ's are members of rotational band.

[‡] Band(A): g.s. band.

$\gamma(^{144}Xe)$

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
252.6		252.6	(2^+)	0.0	0^+
391.7	100	644.3	(4^+)	252.6	(2^+)
487.9	68	1132.2	(6^+)	644.3	(4^+)
555.8	59	1688.0	(8^+)	1132.2	(6^+)
614.7		2302.7	(10^+)	1688.0	(8^+)

[†] Relative intensity in coincidence with 252.6γ. Uncertainties vary from 3% for strongest lines to 10% for weaker ones.

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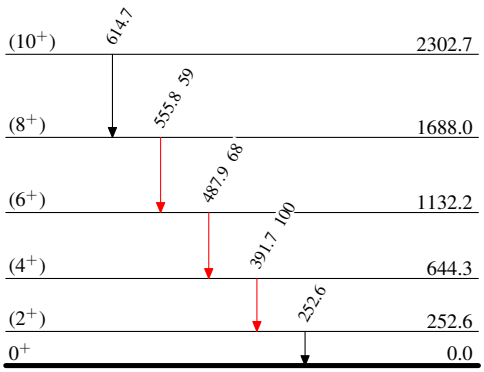
Level Scheme

Intensities: Type not specified

Legend

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



$^{144}_{54}Xe_{90}$

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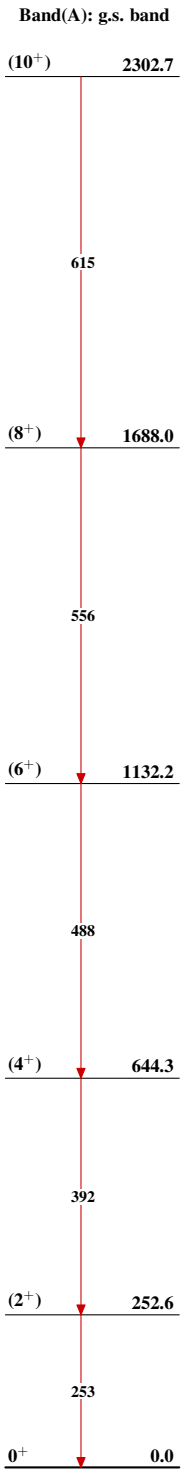

$^{144}_{54}Xe_{90}$