^{243}Np β^- decay   **1987Mo29**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja, E. A. Mccutchan	NDS 121, 695 (2014)	30-Sep-2013

Parent: ^{243}Np: E=0.0; J$^\pi$=(5/2); T$_{1/2}$=1.85 min *15*; Q(β^-)=2121 *SY*; %β^- decay=100.0

The ^{243}Np β^- decay scheme has not been studied in detail. Only one γ was observed by 1987Mo29.

1987Mo29: ^{243}Np produced by 835 MeV ^{136}Xe beam on ≈800 μg/cm^2 ^{244}Pu at UNILAC accelerator at GSI followed by chemical separation. Half-life determined from observed gamma. The intensities of the β branches to the ^{243}Pu g.s. and to the 288-keV level were estimated by 1987Mo29 by assuming their log ft values to be the same as those for analogous β transitions from ^{241}Np decay. From this assumption, the absolute photon intensity was deduced as Iγ(287.7γ)≈0.15%, if it is M1.

^{243}Pu Levels

E(level)	J$^\pi$ [†]
0.0	7/2$^+$
287.7 *1*	5/2$^+$

[†] From Adopted Levels.

β^- radiations

E(decay)	E(level)
(1833[†] *SY*)	287.7
(2121[†] *SY*)	0.0

[†] Existence of this branch is questionable.

γ(^{243}Pu)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Comments
287.7 *1*	0.15 *1*	287.7	5/2$^+$	0.0	7/2$^+$	E$_\gamma$: measured by 1987Mo29. I$_\gamma$: deduced by 1987Mo29 by assuming β branch to 287 level to have log ft analogous to transition in ^{241}Np.

^{243}Np β^- decay   1987Mo29

Decay Scheme

Intensities: Type not specified

(5/2)   0.0   1.85 min *15*

Q_{β^-}=2121 *SY*   %β^-=100

$^{243}_{93}$Np$_{150}$

287.7 0.15

5/2$^+$ 287.7

7/2$^+$ 0.0

$^{243}_{94}$Pu$_{149}$