

$^{106}\text{Nb} \beta^-$  decay [1983Sh06](#)

| Type            | Author                     | History | Citation            | Literature Cutoff Date |
|-----------------|----------------------------|---------|---------------------|------------------------|
| Full Evaluation | D. De Frenne and A. Negret |         | NDS 109, 943 (2008) | 1-May-2007             |

Parent:  $^{106}\text{Nb}$ :  $E=0.0$ ;  $T_{1/2}=0.93$  s 4;  $Q(\beta^-)=9160$  SY;  $\% \beta^-$  decay=100.0

[1983Sh06](#): activity from mass separated, but not isotopically pure, sample produced in  $^{235}\text{U}(n,F)$ . Measured:  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ ,  $\gamma(t)$ .

Deduced:  $^{106}\text{Mo}$  levels,  $J^\pi$ .

 $^{106}\text{Mo}$  Levels

| E(level)  | $J^\pi$ † | $T_{1/2}$ | Comments   |
|-----------|-----------|-----------|--|
| 0.0       | $0^+$     | 8.4 s 5   | $\% \beta^- = 100$<br>$T_{1/2}$ : from Adopted Levels, Gammas. |
| 171.548 8 | $2^+$     |           |  |
| 522.4 3   | $4^+$     |           |  |
| 710.8     | $2^+$     |           |  |
| 885.6     | $3^+$     |           |  |
| 956.6     | $(0^+)$   |           |  |
| 1033.4?   | $6^+$     |           |  |
| 1068.5    | $4^+$     |           |  |
| 1279.9    |           |           |  |
| 1435.9    | $4^+$     |           |  |

† From Adopted Levels.

 $\gamma(^{106}\text{Mo})$ 

$\Delta E$ : Uncertainties communicated orally to the evaluators by one of the authors (K. Sistemich, January 1984).

| $E_\gamma$ | $I_\gamma$ | $E_f(\text{level})$ | $J_i^\pi$ | $E_f$   | $J_f^\pi$ | Comments  |
|------------|------------|---------------------|-----------|---------|-----------|---|
| 171.548 8  | 100 2      | 171.548             | $2^+$     | 0.0     | $0^+$     | $E_\gamma$ : from curved crystal spectrometer ( <a href="#">1979Bo26</a> ). |
| 350.7 2    | 39 2       | 522.4               | $4^+$     | 171.548 | $2^+$     |   |
| 511.3‡ 5   | 6 4        | 1033.4?             | $6^+$     | 522.4   | $4^+$     |   |
| 539.2 2    | 15 3       | 710.8               | $2^+$     | 171.548 | $2^+$     |   |
| 545.7 5    | 6 3        | 1068.5              | $4^+$     | 522.4   | $4^+$     |   |
| 549.9 5    | 9 3        | 1435.9              | $4^+$     | 885.6   | $3^+$     |   |
| 710.7 2    | 11 4       | 710.8               | $2^+$     | 0.0     | $0^+$     |   |
| 714.0 2    | 30 5       | 885.6               | $3^+$     | 171.548 | $2^+$     |   |
| 725.1 2    | 17 6       | 1435.9              | $4^+$     | 710.8   | $2^+$     |   |
| 785.0 2    | 6 4        | 956.6               | $(0^+)$   | 171.548 | $2^+$     |   |
| 896.9 5    | 9 5        | 1068.5              | $4^+$     | 171.548 | $2^+$     |   |
| 1108.3 5   | 6 4        | 1279.9              |           | 171.548 | $2^+$     |   |

† Uncertainties communicated orally to the evaluators by one of the authors (K. Sistemich, January 1984).

‡ Placement of transition in the level scheme is uncertain.

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## Decay Scheme

Intensities: Relative  $I_\gamma$ 

## Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$
- - - - - →  $\gamma$  Decay (Uncertain)
- Coincidence

