

$^{31}\text{Na} \beta^- 2n$ decay **1993K102**

| Type | Author | History | Citation | Literature Cutoff Date |
|-----------------|------------------------|---------|---------------------|------------------------|
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Parent: ^{31}Na : $E=0$; $J^\pi=3/2^+$; $T_{1/2}=17.0$ ms 4; $Q(\beta^- 2n)=7.13 \times 10^3$ 21; $\% \beta^- 2n$ decay=0.9 2

1993K102: ^{31}Na was produced bombarding a uranium carbide target with 600 MeV protons from the CERN synchrocyclotron, mass separated at the ISOLDE facility; NE102 and NE213 scintillator and HPGe detectors; Measured: E_γ , I_γ , γ -N coin.

 ^{29}Mg Levels

| E(level) | J^π | Comments |
|------------|---------|--------------------------------|
| 0 | $3/2^+$ | J^π : From Adopted Levels. |
| 54.60 10 | | |
| 1093.82 23 | | |
| 1638.05 20 | | |

 $\gamma(^{29}\text{Mg})$

| E_γ | I_γ^\dagger | $E_i(\text{level})$ | E_f | J_f^π |
|------------|--------------------|---------------------|-------|-----------|
| (54.6 1) | | 54.60 | 0 | $3/2^+$ |
| 1039.2 2 | 0.03 1 | 1093.82 | 54.60 | |
| 1638.0 2 | 0.02 1 | 1638.05 | 0 | $3/2^+$ |

† Absolute intensity per 100 decays.

 $^{31}\text{Na} \beta^- 2n$ decay **1993K102**Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

Legend

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

