## $^{85}$Ga $\beta^-$n decay 2009Gr06

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | A. A. Sonzogni, M. Fadil, and B. Pfeiffer | NDS 110,2815 (2009) | 30-Sep-2009 |

Parent: $^{85}$Ga: E=0.0; $T_{1/2}$≈70 ms; Q($\beta^-$n)=9650 *SY*; %$\beta^-$n decay>40.0

$^{85}$Ga-Q($\beta^-$n): 9650 *500* (syst,2009AuZZ). Other: 10120 *590* (syst,2003Au03).

$^{85}$Ga-$T_{1/2}$: as quoted by 2009Gr06 without details as how it was measured. Previous to this result, the $^{85}$Ga g.s. $T_{1/2}$ was estimated to be>150 ns from the time-of-flight through a mass separator.

$^{85}$Ga-%$\beta^-$n decay: %$\beta^-$n>40 quoted by 2009Gr06 without details as how it was measured. No other measurement exists. In 2002Pf03, estimates of this branching ratio are equal to 60.39 % using the Kratz-Hermann systematics, and about 100% using QRPA calculations.

2009Gr06: $^{238}$U(p,F), E=54 MeV, fission fragments decay studied using ORNL′s Low-energy Radioactive Ion Beam Spectroscopy Station. Measured $\gamma$, $\gamma\beta$.

### $^{84}$Ge Levels

| E(level) | $J^\pi$ |
|---|---|
| 0.0 | $0^+$ |
| 624 | $(2^+)$ |

### $\gamma(^{84}Ge)$

| $E_\gamma$ | $E_i$(level) | $J_i^\pi$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|
| 624 | 624 | $(2^+)$ | 0.0 | $0^+$ |

## $^{85}$Ga $\beta^-$n decay 2009Gr06

### Decay Scheme