# $^{248}$Cm SF decay 2000Rz02

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Coral M. Baglin | NDS 113, 2187 (2012) | 15-Sep-2012 |

Parent: $^{248}$Cm: E=0; $J^\pi=0^+$; $T_{1/2}=340\times10^3$ y *4*; %SF decay=?

2000Rz02: EUROGAM2 array of anti-Compton Ge detectors; new Kr lines identified by implementing double gates on known $^{92}$Kr and $^{156}$Nd lines; measured Eγ, γγγ coin, γγ(θ), linear polarization.

## $^{92}$Kr Levels

| E(level)† | Jπ‡ | E(level)† | Jπ‡ | E(level)† | E(level)† |
|---|---|---|---|---|---|
| 0.0 | $0^+$ | 2065.7 | 4 | 3171.7 | 4175.0 |
| 769.0 | $2^+$ | 2491.1 | | 3178.1 | 4979.5 |
| 1446.3 | $(1,2^+)$ | 2652.5 | | 3594.5 | |
| 1803.0 | $4^+$ | 2835.1 | | 3627.0 | |
| 1984.1 | | 3035.2 | | 3845.2 | |

† From least-squares fit to Eγ assigning equal weights to all data (authors do not state uncertainty in Eγ).
‡ From Adopted Levels. authors suggest $(2^+)$ for 1446 level.

## γ($^{92}$Kr)

| Eγ | Ei(level) | $J_i^\pi$ | Ef | $J_f^\pi$ | Mult.† | Comments |
|---|---|---|---|---|---|---|
| 32.5 | 3627.0 | | 3594.5 | | | Eγ: from level energy difference; transition shown In level scheme In fig. 4 of 2000Rz02, but energy not given. |
| 181.1 | 1984.1 | | 1803.0 | $4^+$ | | |
| 329.8 | 4175.0 | | 3845.2 | | | |
| 448.9 | 3627.0 | | 3178.1 | | | |
| 455.3 | 3627.0 | | 3171.7 | | | |
| 507.0 | 2491.1 | | 1984.1 | | | |
| 548.0 | 4175.0 | | 3627.0 | | | |
| 591.8 | 3627.0 | | 3035.2 | | | |
| 677.3 | 1446.3 | $(1,2^+)$ | 769.0 | $2^+$ | D | Mult.: (677γ)(769γ)(θ): $A_2=-0.20$ *6*, $A_4=+0.07$ *2*. |
| 688.1 | 2491.1 | | 1803.0 | $4^+$ | | |
| 759.4 | 3594.5 | | 2835.1 | | | |
| 769.0 | 769.0 | $2^+$ | 0.0 | $0^+$ | E2 | Mult.: from Adopted Gammas. |
| 804.5 | 4979.5 | | 4175.0 | | | |
| 810.0 | 3845.2 | | 3035.2 | | | |
| 849.5 | 2652.5 | | 1803.0 | $4^+$ | | |
| 1032.1 | 2835.1 | | 1803.0 | $4^+$ | | |
| 1034.0 | 1803.0 | $4^+$ | 769.0 | $2^+$ | E2 | Mult.: (1034γ)(769γ)(θ): $A_2=+0.12$ *1*, $A_4=+0.03$ *1*. Linear polarization of 1034γ = +1.0 *5*. |
| 1106.0 | 3171.7 | | 2065.7 | 4 | | |
| 1112.3 | 3178.1 | | 2065.7 | 4 | | |
| 1135.9 | 3627.0 | | 2491.1 | | | |
| 1192.7 | 3845.2 | | 2652.5 | | | |
| 1232.2 | 3035.2 | | 1803.0 | $4^+$ | | |
| 1296.7 | 2065.7 | 4 | 769.0 | $2^+$ | Q | Mult.: (1297γ)(769γ)(θ): $A_2=+0.06$ *3*, $A_4=+0.07$ *1*. Eγ=1269 In listing of γγ(θ) data In table 1 of 2000Rz02 for the first of these transitions is assumed to be a typographical error. |
| 1368.7 | 3171.7 | | 1803.0 | $4^+$ | | |

† Based on γγ(θ) and/or linear polarization data, except As noted.

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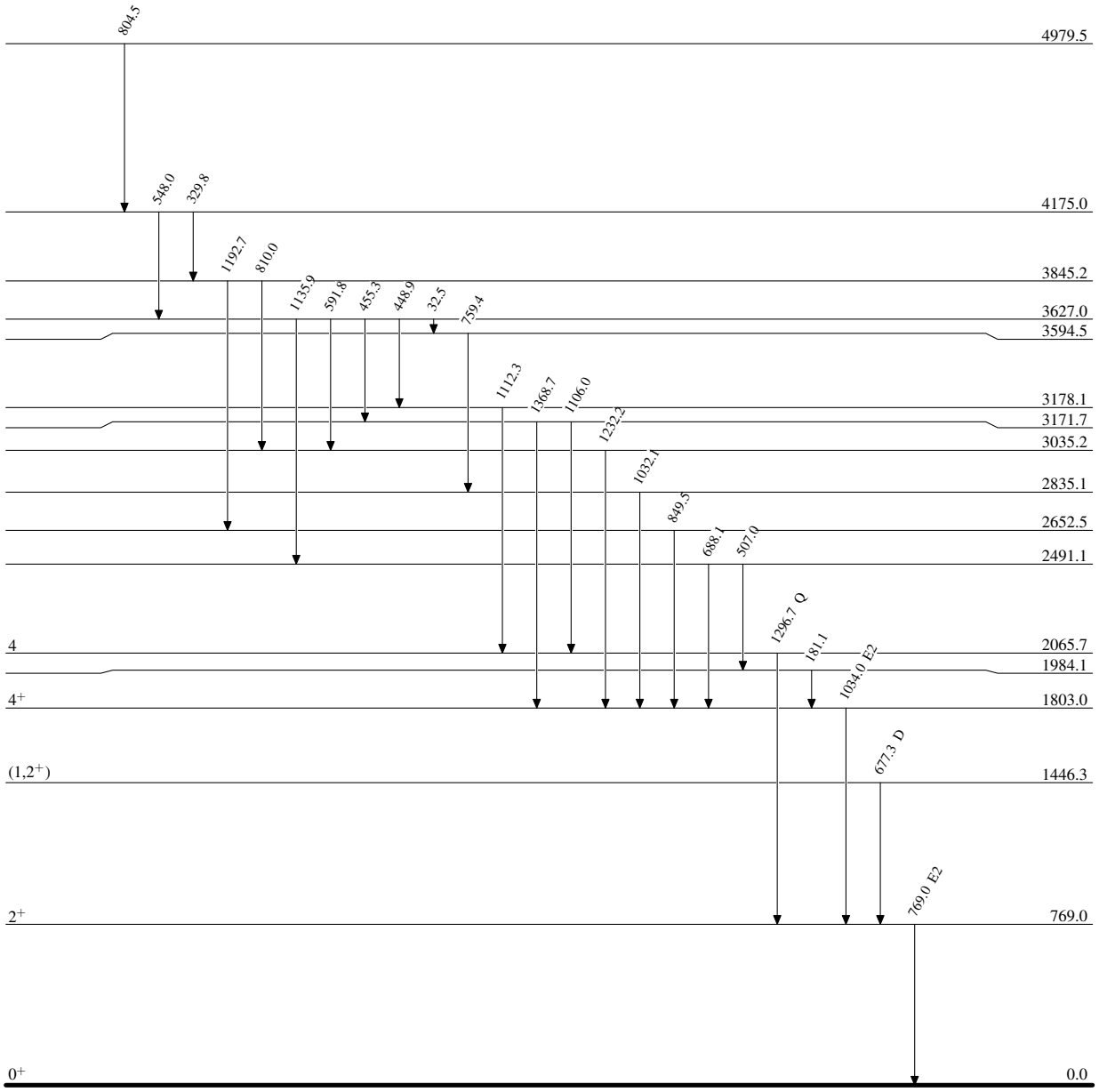
Level Scheme




$^{92}_{36}Kr_{56}$