

$^{252}\text{Cf}$  SF decay [2011Li34](#)

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

Parent:  $^{252}\text{Cf}$ :  $E=0.0$ ;  $J^\pi=0^+$ ;  $T_{1/2}=2.645$  y 8; %SF decay=3.092 8

$^{252}\text{Cf}$ -%SF decay: %SF( $^{252}\text{Cf}$ )=3.092 8.

60  $\mu\text{Ci}$   $^{252}\text{Cf}$  source sandwiched between Fe foils mounted At center of 7.62 cm plastic ball (used to absorb  $\beta$  rays and conversion electrons); Gammaspere detector array; measured  $E_\gamma$ ,  $\gamma\gamma\gamma$  coin.

 $^{92}\text{Kr}$  Levels

| $E(\text{level})^\dagger$ | $J^\pi^\ddagger$ | $E(\text{level})^\dagger$ | $J^\pi^\ddagger$ | $E(\text{level})^\dagger$ | $J^\pi^\ddagger$ | $E(\text{level})^\dagger$ | $J^\pi^\ddagger$ |
|---------------------------|------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|------------------|
| 0.0                       | $0^+$            | 2492.3 14                 | $(6^+)$          | 3073.6 16                 |                  | 4123.2 19                 |                  |
| 768.6 9                   | $2^+$            | 2653.2 14                 | $(6^+)$          | 3172.1 13                 | $(6^+)$          | 4176.4 15                 | $(10^+)$         |
| 1446.0 9                  | $2^+$            | 2684.0 16                 |                  | 3178.4 13                 | $(6^+)$          | 4185.4 17                 |                  |
| 1803.9 12                 | $(4^+)$          | 2698.9 16                 |                  | 3594.5 19                 |                  | 4394.9 17                 |                  |
| 1985.2 14                 | $(4^+)$          | 2835.2 16                 |                  | 3626.7 13                 | $(8^+)$          | 4980.5 18                 | $(12^+)$         |
| 2066.0 12                 | $(4^+)$          | 3036.4 14                 | $(6^+)$          | 3846.0 14                 | $(8^+)$          |                           |                  |

$^\dagger$  From least-squares fit to  $E_\gamma$ , assigning 1 keV uncertainty to all  $E_\gamma$  data.

$^\ddagger$  Authors' suggested values based primarily on regional systematics.

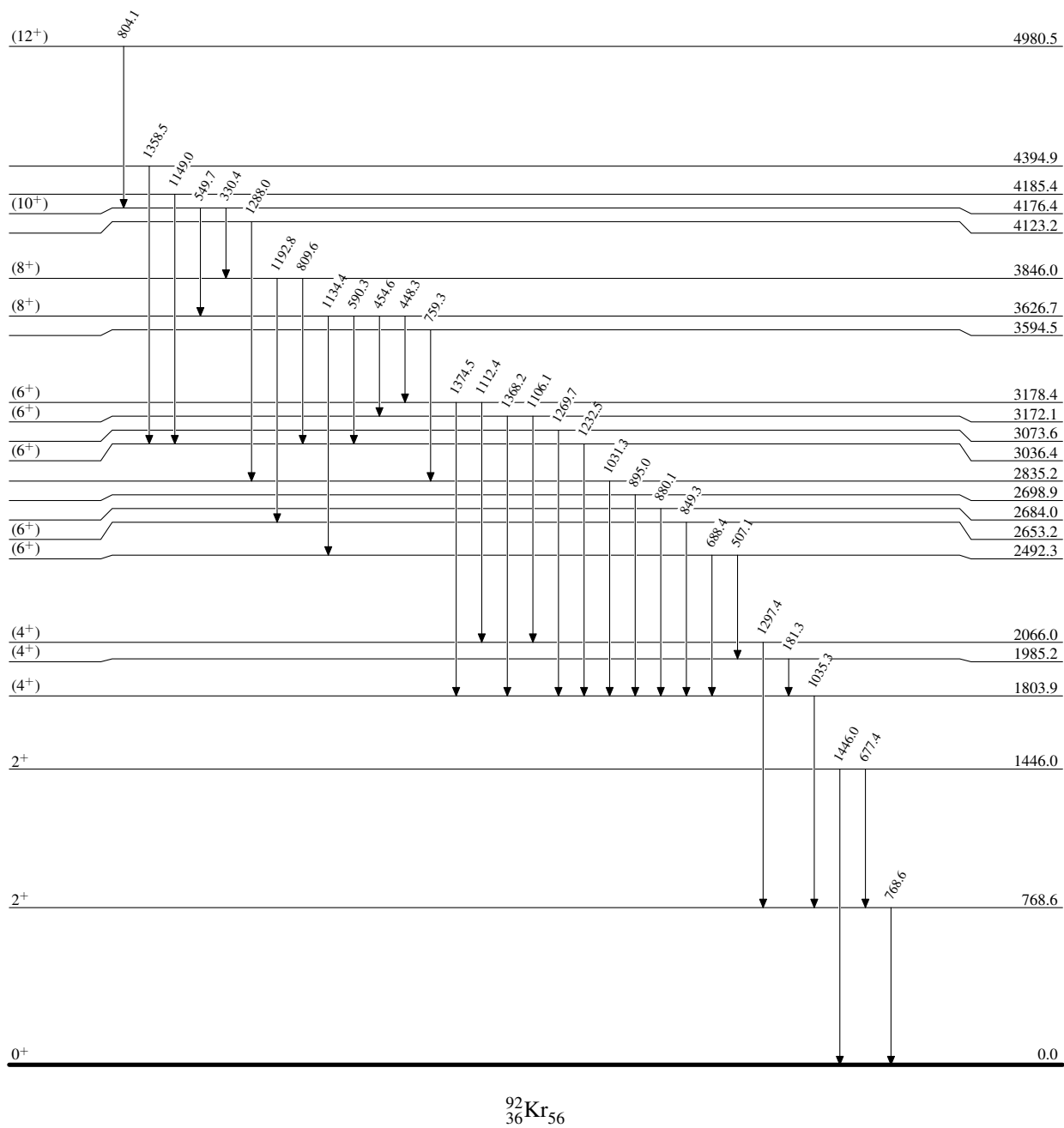
 $\gamma(^{92}\text{Kr})$ 

| $E_\gamma^\dagger$ | $E_i(\text{level})$ | $J_i^\pi$ | $E_f$  | $J_f^\pi$ | $E_\gamma^\dagger$ | $E_i(\text{level})$ | $J_i^\pi$ | $E_f$  | $J_f^\pi$ |
|--------------------|---------------------|-----------|--------|-----------|--------------------|---------------------|-----------|--------|-----------|
| 181.3              | 1985.2              | $(4^+)$   | 1803.9 | $(4^+)$   | 1031.3             | 2835.2              |           | 1803.9 | $(4^+)$   |
| 330.4              | 4176.4              | $(10^+)$  | 3846.0 | $(8^+)$   | 1035.3             | 1803.9              | $(4^+)$   | 768.6  | $2^+$     |
| 448.3              | 3626.7              | $(8^+)$   | 3178.4 | $(6^+)$   | 1106.1             | 3172.1              | $(6^+)$   | 2066.0 | $(4^+)$   |
| 454.6              | 3626.7              | $(8^+)$   | 3172.1 | $(6^+)$   | 1112.4             | 3178.4              | $(6^+)$   | 2066.0 | $(4^+)$   |
| 507.1              | 2492.3              | $(6^+)$   | 1985.2 | $(4^+)$   | 1134.4             | 3626.7              | $(8^+)$   | 2492.3 | $(6^+)$   |
| 549.7              | 4176.4              | $(10^+)$  | 3626.7 | $(8^+)$   | 1149.0             | 4185.4              |           | 3036.4 | $(6^+)$   |
| 590.3              | 3626.7              | $(8^+)$   | 3036.4 | $(6^+)$   | 1192.8             | 3846.0              | $(8^+)$   | 2653.2 | $(6^+)$   |
| 677.4              | 1446.0              | $2^+$     | 768.6  | $2^+$     | 1232.5             | 3036.4              | $(6^+)$   | 1803.9 | $(4^+)$   |
| 688.4              | 2492.3              | $(6^+)$   | 1803.9 | $(4^+)$   | 1269.7             | 3073.6              |           | 1803.9 | $(4^+)$   |
| 759.3              | 3594.5              |           | 2835.2 |           | 1288.0             | 4123.2              |           | 2835.2 |           |
| 768.6              | 768.6               | $2^+$     | 0.0    | $0^+$     | 1297.4             | 2066.0              | $(4^+)$   | 768.6  | $2^+$     |
| 804.1              | 4980.5              | $(12^+)$  | 4176.4 | $(10^+)$  | 1358.5             | 4394.9              |           | 3036.4 | $(6^+)$   |
| 809.6              | 3846.0              | $(8^+)$   | 3036.4 | $(6^+)$   | 1368.2             | 3172.1              | $(6^+)$   | 1803.9 | $(4^+)$   |
| 849.3              | 2653.2              | $(6^+)$   | 1803.9 | $(4^+)$   | 1374.5             | 3178.4              | $(6^+)$   | 1803.9 | $(4^+)$   |
| 880.1              | 2684.0              |           | 1803.9 | $(4^+)$   | 1446.0             | 1446.0              | $2^+$     | 0.0    | $0^+$     |
| 895.0              | 2698.9              |           | 1803.9 | $(4^+)$   |                    |                     |           |        |           |

$^\dagger$  Uncertainty unstated by authors.

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## Level Scheme

 $^{92}_{36}\text{Kr}_{56}$