

$^{252}\text{Cf}$  SF decay [1998ZhZH,1997Ha64,1995Zh39](#)

| Type            | Author  | History<br>Citation | Literature Cutoff Date |
|-----------------|---------|---------------------|------------------------|
| Full Evaluation | N. Nica | NDS 117, 1 (2014)   | 1-Oct-2013             |

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

[1998ZhZH,1997Ha64,1995Zh39](#): measured  $E_\gamma$ ,  $I_\gamma$ , x-ray x-ray coin,  $\gamma$ x-ray coin,  $\gamma\gamma(\theta)$ ,  $\gamma\gamma\gamma(\theta)$ .

All data are from [1998ZhZH](#) and [1997Ha64](#).

 $^{148}\text{Ba}$  Levels

| E(level) | $J^\pi$ <sup>†</sup> | Comments             |
|----------|----------------------|----------------------|
| 0.0      | $0^+$                |                      |
| 141.6    | $2^+$                |                      |
| 423.0    | $4^+$                |                      |
| 808.0    | $6^+$                | $J^\pi$ : $6^+$ .    |
| 962.8    | $(5^-)$              | $J^\pi$ : $(5^-)$ .  |
| 1256.0   | $7^-$                | $J^\pi$ : $(7^-)$ .  |
| 1265.0   | $8^+$                | $J^\pi$ : $8^+$ .    |
| 1645.7   | $9^-$                | $J^\pi$ : $(9^-)$ .  |
| 1768.3   | $10^+$               | $J^\pi$ : $10^+$ .   |
| 2118.1   | $(11^-)$             | $J^\pi$ : $(11^-)$ . |
| 2304.2   | $(12^+)$             | $J^\pi$ : $12^+$ .   |

<sup>†</sup> From Adopted Levels; supporting assignments from this data set based on  $\gamma\gamma(\theta)$ ,  $\gamma\gamma\gamma(\theta)$ , and systematics are given in the table comments.

 $\gamma(^{148}\text{Ba})$ 

| $E_\gamma$ | $I_\gamma$ <sup>†</sup> | $E_i(\text{level})$ | $J^\pi_i$ | $E_f$  | $J^\pi_f$ | $E_\gamma$ | $I_\gamma$ <sup>†</sup> | $E_i(\text{level})$ | $J^\pi_i$ | $E_f$  | $J^\pi_f$ |
|------------|-------------------------|---------------------|-----------|--------|-----------|------------|-------------------------|---------------------|-----------|--------|-----------|
| 141.6      |                         | 141.6               | $2^+$     | 0.0    | $0^+$     | 447.4      |                         | 1256.0              | $7^-$     | 808.0  | $6^+$     |
| 281.4      | 100                     | 423.0               | $4^+$     | 141.6  | $2^+$     | 457.0      | 28                      | 1265.0              | $8^+$     | 808.0  | $6^+$     |
| 293.2      |                         | 1256.0              | $7^-$     | 962.8  | $(5^-)$   | 472.4      |                         | 2118.1              | $(11^-)$  | 1645.7 | $9^-$     |
| 350.8      |                         | 2118.1              | $(11^-)$  | 1768.3 | $10^+$    | 503.3      | 11                      | 1768.3              | $10^+$    | 1265.0 | $8^+$     |
| 380.4      |                         | 1645.7              | $9^-$     | 1265.0 | $8^+$     | 535.9      |                         | 2304.2              | $(12^+)$  | 1768.3 | $10^+$    |
| 385.0      | 80                      | 808.0               | $6^+$     | 423.0  | $4^+$     | 539.8      |                         | 962.8               | $(5^-)$   | 423.0  | $4^+$     |
| 389.7      |                         | 1645.7              | $9^-$     | 1256.0 | $7^-$     |            |                         |                     |           |        |           |

<sup>†</sup> Relative intensity.

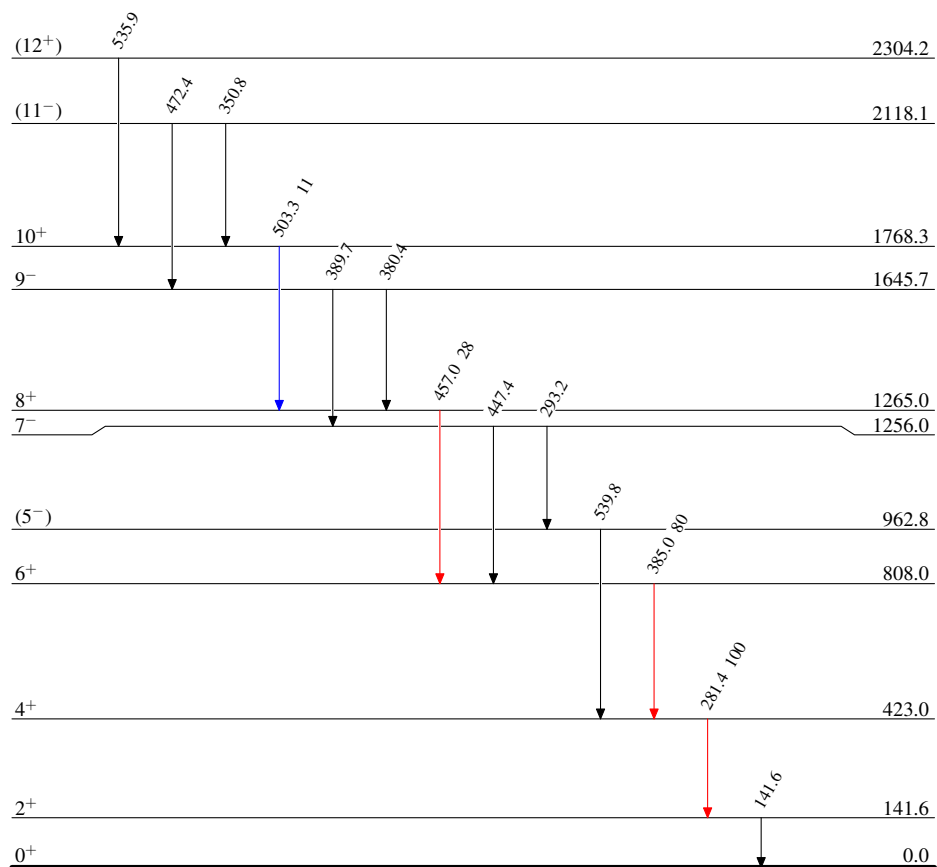
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## Level Scheme

 Intensities: Relative  $I_\gamma$ 

## Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$


 $^{148}_{56}\text{Ba}_{92}$