## Adopted Levels, Gammas

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | E. Browne | NDS 107,2579 (2006) | 1-Nov-2004 |

Q($\beta^-$)=1343 *16*; S(n)=5791 *15*; S(p)=8.86×10$^3$ *3*; Q($\alpha$)=2829 *20* 2012Wa38
Note: Current evaluation has used the following Q record 1500 SY5820 SY8970 SY2840 syst 2003Au03.

### $^{232}$Ra Levels

Cross Reference (XREF) Flags

A $^{232}$Fr $\beta^-$ decay

| E(level) | J$^\pi$[†] | $T_{1/2}$ | XREF | Comments |
|---|---|---|---|---|
| 0[#] | 0$^+$ | 4.2 min *8* | A | %$\beta^-$=100<br>$T_{1/2}$: from 1986Gi08. Spallation of tungsten followed by mass separation. Parent of $^{232}$Ac, Actinium x rays measured. |
| 54.5[#] *10* | (2$^+$) | | A | |
| 179.2[#] *15* | (4$^+$) | | A | |
| 367.6[#] *18* | (6$^+$) | | A | |
| 849.2? *25* | (3 to 6)[‡] | | A | |
| 900.2 *25* | (3 to 6)[‡] | | A | |
| 1050 *3* | (3 to 6)[‡] | | A | |

[†] From rotational band structure.
[‡] From $\gamma$-ray decay to levels with $J^\pi$=(2$^+$) and $J^\pi$=(4$^+$).
[#] Band(A): g.s. rotational band.

### $\gamma$($^{232}$Ra)

| E$_i$(level) | J$_i^\pi$ | E$_\gamma$ | I$_\gamma$ | E$_f$ | J$_f^\pi$ | Mult. | $\alpha$[†] | Comments |
|---|---|---|---|---|---|---|---|---|
| 54.5 | (2$^+$) | 54.5 *10* | 100 | 0 | 0$^+$ | [E2] | 172 | E$_\gamma$: Placement in level scheme is based on level systematics in even-even Ra and Th nuclides (2004Pe17). |
| 179.2 | (4$^+$) | 124.7 *10* | 100 | 54.5 | (2$^+$) | [E2] | 3.7 | |
| 367.6 | (6$^+$) | 188.4 *10* | 100 | 179.2 | (4$^+$) | [E2] | 0.72 | |
| 849.2? | (3 to 6) | 670[‡] *2* | 100 | 179.2 | (4$^+$) | | | |
| 900.2 | (3 to 6) | 721 *2* | 100 | 179.2 | (4$^+$) | | | |
| 1050 | (3 to 6) | 682 *2* | 100 | 367.6 | (6$^+$) | | | |

[†] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on $\gamma$-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[‡] Placement of transition in the level scheme is uncertain.

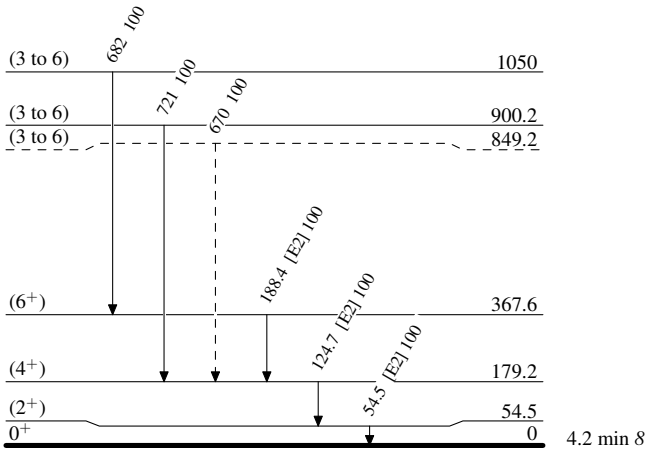
**Adopted Levels, Gammas**

Legend

Level Scheme

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)




$^{232}_{88}Ra_{144}$

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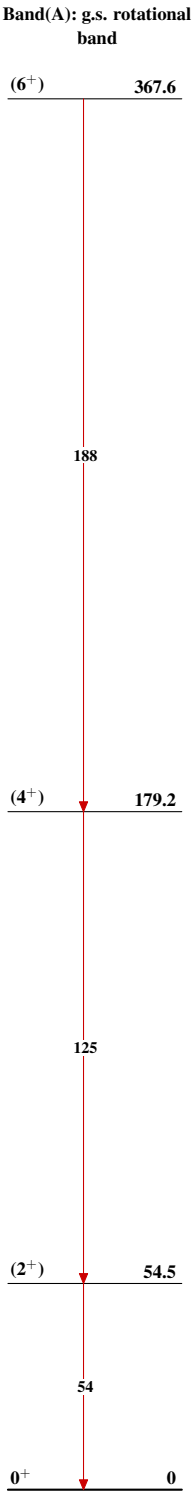


$^{232}_{88}Ra_{144}$