## $^{193}$Ir($\gamma$,$\gamma'$):res fluorescence 1967Me12,1970Me16

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | M. Shamsuzzoha Basunia | NDS 143, 1 (2017) | 31-Mar-2017 |

1967Me12: source: $^{193}$Os; high-speed-rotor technique used to tune $\gamma$-rays (Ge(Li) detector). 1970Me16: reevaluation of data.
1995La16: source: $^{137}$Cs, $^{60}$Co; measured excitation cross-section for the 10.53 d, 80.22 keV $^{193}$Ir isomer. Detected electrons (E≈70 keV), persumably ce(L)(80.22$\gamma$) from isomeric level (also 1994La33).
1996La27: source: bremsstrahlung 4 MeV endpoint. Measured excitation cross-section for the 10.53 d, 80.22 keV $^{193}$Ir isomer. Detected Ir L x ray.

### $^{193}$Ir Levels

| E(level) | J$^{\pi}$[†] | T$_{1/2}$[‡] | Comments |
|---|---|---|---|
| 0.0 | 3/2$^+$ | | |
| 460 | 3/2$^+$ | 11 ps *2* | T$_{1/2}$: from [(2J+1)/(2J(g.s.)+1)] x [$\Gamma^2_{\gamma 0}/\Gamma$] =7.6×10$^{-6}$ eV *12* (1967Me12); adopted value T$_{1/2}$=14.9 ps *18*. |
| 557 | (1/2)$^+$ | ≤4[#] ps | T$_{1/2}$: adopted value T$_{1/2}$=34 ps *8*. |
| 559 | 5/2$^+$ | 1.08[#] ps *16* | T$_{1/2}$: the value given in 1970Me16, mean life =1.65 *24*, had been corrected to reflect the adopted branching ratios and $\gamma$ properties (see adopted gammas). |
| 598.2 | 3/2$^-$ | 2.8 ps *+28−9* | T$_{1/2}$: from 1995La16. |

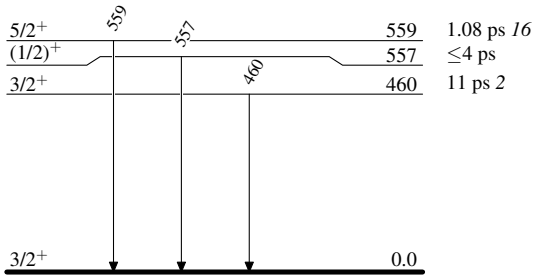
[†] From Adopted Levels.
[‡] From 1970Me16 (results of reanalysis of experimental measurements of 1967Me12); unless otherwise noted.
[#] From [(2J+1)/(2J(g.s.)+1)] x [$\Gamma^2_{\gamma 0}/\Gamma$] =7.9×10$^{-5}$ eV *6* for the combined 557+559 levels (1967Me12).

### $\gamma$($^{193}$Ir)

| E$_\gamma$ | E$_i$(level) | J$_i^{\pi}$ | E$_f$ | J$_f^{\pi}$ |
|---|---|---|---|---|
| 460 | 460 | 3/2$^+$ | 0.0 | 3/2$^+$ |
| 557 | 557 | (1/2)$^+$ | 0.0 | 3/2$^+$ |
| 559 | 559 | 5/2$^+$ | 0.0 | 3/2$^+$ |

## $^{193}$Ir(γ,γ′):res fluorescence 1967Me12,1970Me16

Level Scheme




$^{193}_{77}Ir_{116}$