## $^{186}$W($^{7}$Li,2np$\gamma$) 2012MaZP

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Balraj Singh, [1] and Jun Chen[2] | NDS 169,1 (2020) | 15-Oct-2020 |

2012MaZP: E=31 MeV $^{7}$Li beam was produced from the Tandem Van de Graaff at IFIN-HH, Romania. Measured E$\gamma$, $\gamma\gamma$, half-life of first $2^+$ state in $^{190}$Os by $\gamma\gamma$(t) method using an array of eight HPGe detectors and 11 $LaBr_3$:Ce detectors. Half-life was measured from time difference between 187- and 361-keV transitions. Comparison with systematics of energies of low-lying levels and B(E2) values in neighboring nuclei.

### $^{190}$Os Levels

| E(level)[†] | $J^\pi$ | $T_{1/2}$ | Comments |
|---|---|---|---|
| 0 | $0^+$ | | |
| 186.7 | $2^+$ | 375 ps *20* | $T_{1/2}$: measured by 2012MaZP (also reported in 2013Ma74) from time difference between 187 depopulating $\gamma$ and 361-371 doublet feeding transitions. |
| 547.8 | $4^+$ | | |
| 557.98 | $2^+$ | | |

[†] From E$\gamma$ data.

### $\gamma$($^{190}$Os)

| E$\gamma$ | E$_i$(level) | $J_i^\pi$ | E$_f$ | $J_f^\pi$ | Mult. | $\alpha$[†] | Comments |
|---|---|---|---|---|---|---|---|
| 186.7 | 186.7 | $2^+$ | 0 | $0^+$ | E2 | 0.420 | B(E2)(W.u.)=72 *4*<br>E$\gamma$,Mult.: from the Adopted Gammas, energy is rounded value. |
| 361.1 | 547.8 | $4^+$ | 186.7 | $2^+$ | | | |
| 371.26 | 557.98 | $2^+$ | 186.7 | $2^+$ | | | |
| 557.97 | 557.98 | $2^+$ | 0 | $0^+$ | | | |

[†] 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.

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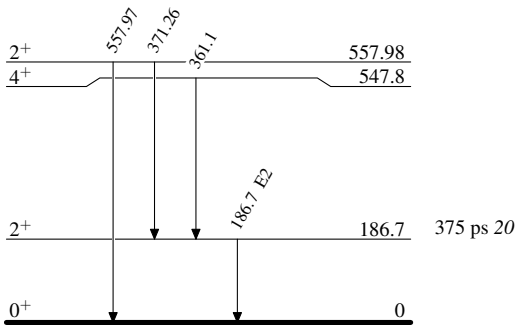
Level Scheme




$^{190}_{76}Os_{114}$