

$^{124}\text{Sn}(^{48}\text{Ca},6n\gamma)$ 1994OI04

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|-----------------|----------------------|------------------------|
| Full Evaluation | Coral M. Baglin | NDS 109, 1103 (2008) | 1-Mar-2008 |

Other: 2001Bu11; E=215 MeV; measured recoil-gated conversion electron spectra with and without a gate on the L line of the 228-keV 4^+ to 2^+ g.s. band transition in ^{166}Yb .

1994OI04: E=210, 220 and 225 MeV; 97% ^{124}Sn target stack; HERA array consisting of 20 Compton-suppressed Ge detectors and an inner ball of 40 BGO detectors; measured E_γ and $\gamma\gamma$ coin.

 ^{166}Yb Levels

| E(level) [†] | J ^π | E(level) [†] | J ^π | E(level) [†] | J ^π | E(level) [†] | J ^π |
|-----------------------|------------------|-----------------------|------------------|-----------------------|-------------------|-----------------------|-------------------|
| 0.0+x | J [‡] | 966.4+x 16 | J+5 [#] | 2392.6+x 19 | J+10 [‡] | 4149.6+x 22 | J+15 [#] |
| 162.6+x 10 | J+1 [#] | 1217.0+x 18 | J+6 [‡] | 2722.6+x 20 | J+11 [#] | 4531.2+x 23 | J+16 [‡] |
| 334.9+x 13 | J+2 [‡] | 1486.2+x 18 | J+7 [#] | 3064.1+x 20 | J+12 [‡] | 4921.6+x 24 | J+17 [#] |
| 524.9+x 13 | J+3 [#] | 1772.7+x 18 | J+8 [‡] | 3416.6+x 21 | J+13 [#] | | |
| 735.5+x 16 | J+4 [‡] | 2075.2+x 19 | J+9 [#] | 3778.4+x 21 | J+14 [‡] | | |

[†] From least-squares fit to E_γ , assigning $\Delta E=1$ keV for all data.

[‡] Band(Z): $((\pi 7/2[523])+(\pi 7/2[404]))(\nu i_{3/2}^2)$? band. Configuration assignment supported by large B(M1)/B(E2) ratios, bandhead energy and crossing frequency arguments (1994OI04).

[#] Band(z): $((\pi 7/2[523])+(\pi 7/2[404]))(\nu i_{3/2}^2)$? band. See comment on signature partner of this band.

 $\gamma(^{166}\text{Yb})$

| E_γ [†] | E_i (level) | J _i ^π | E_f | J _f ^π | E_γ [†] | E_i (level) | J _i ^π | E_f | J _f ^π |
|-------------------------|---------------|-----------------------------|----------|-----------------------------|-------------------------|---------------|-----------------------------|----------|-----------------------------|
| 162.6 | 162.6+x | J+1 | 0.0+x | J | 381.6 | 4531.2+x | J+16 | 4149.6+x | J+15 |
| 172.3 | 334.9+x | J+2 | 162.6+x | J+1 | 390.4 [‡] | 4921.6+x | J+17 | 4531.2+x | J+16 |
| 190.0 | 524.9+x | J+3 | 334.9+x | J+2 | 400.6 [‡] | 735.5+x | J+4 | 334.9+x | J+2 |
| 210.6 | 735.5+x | J+4 | 524.9+x | J+3 | 441.5 | 966.4+x | J+5 | 524.9+x | J+3 |
| 230.9 | 966.4+x | J+5 | 735.5+x | J+4 | 481.5 [‡] | 1217.0+x | J+6 | 735.5+x | J+4 |
| 250.6 | 1217.0+x | J+6 | 966.4+x | J+5 | 519.8 | 1486.2+x | J+7 | 966.4+x | J+5 |
| 269.2 | 1486.2+x | J+7 | 1217.0+x | J+6 | 555.7 | 1772.7+x | J+8 | 1217.0+x | J+6 |
| 286.5 | 1772.7+x | J+8 | 1486.2+x | J+7 | 589.0 | 2075.2+x | J+9 | 1486.2+x | J+7 |
| 302.5 | 2075.2+x | J+9 | 1772.7+x | J+8 | 619.9 | 2392.6+x | J+10 | 1772.7+x | J+8 |
| 317.4 | 2392.6+x | J+10 | 2075.2+x | J+9 | 647.4 | 2722.6+x | J+11 | 2075.2+x | J+9 |
| 330.0 | 2722.6+x | J+11 | 2392.6+x | J+10 | 671.5 | 3064.1+x | J+12 | 2392.6+x | J+10 |
| 341.5 | 3064.1+x | J+12 | 2722.6+x | J+11 | 694.0 | 3416.6+x | J+13 | 2722.6+x | J+11 |
| 352.5 | 3416.6+x | J+13 | 3064.1+x | J+12 | 714.3 | 3778.4+x | J+14 | 3064.1+x | J+12 |
| 361.8 | 3778.4+x | J+14 | 3416.6+x | J+13 | 733.0 | 4149.6+x | J+15 | 3416.6+x | J+13 |
| 362.3 | 524.9+x | J+3 | 162.6+x | J+1 | 752.8 | 4531.2+x | J+16 | 3778.4+x | J+14 |
| 371.2 | 4149.6+x | J+15 | 3778.4+x | J+14 | 772.0 | 4921.6+x | J+17 | 4149.6+x | J+15 |

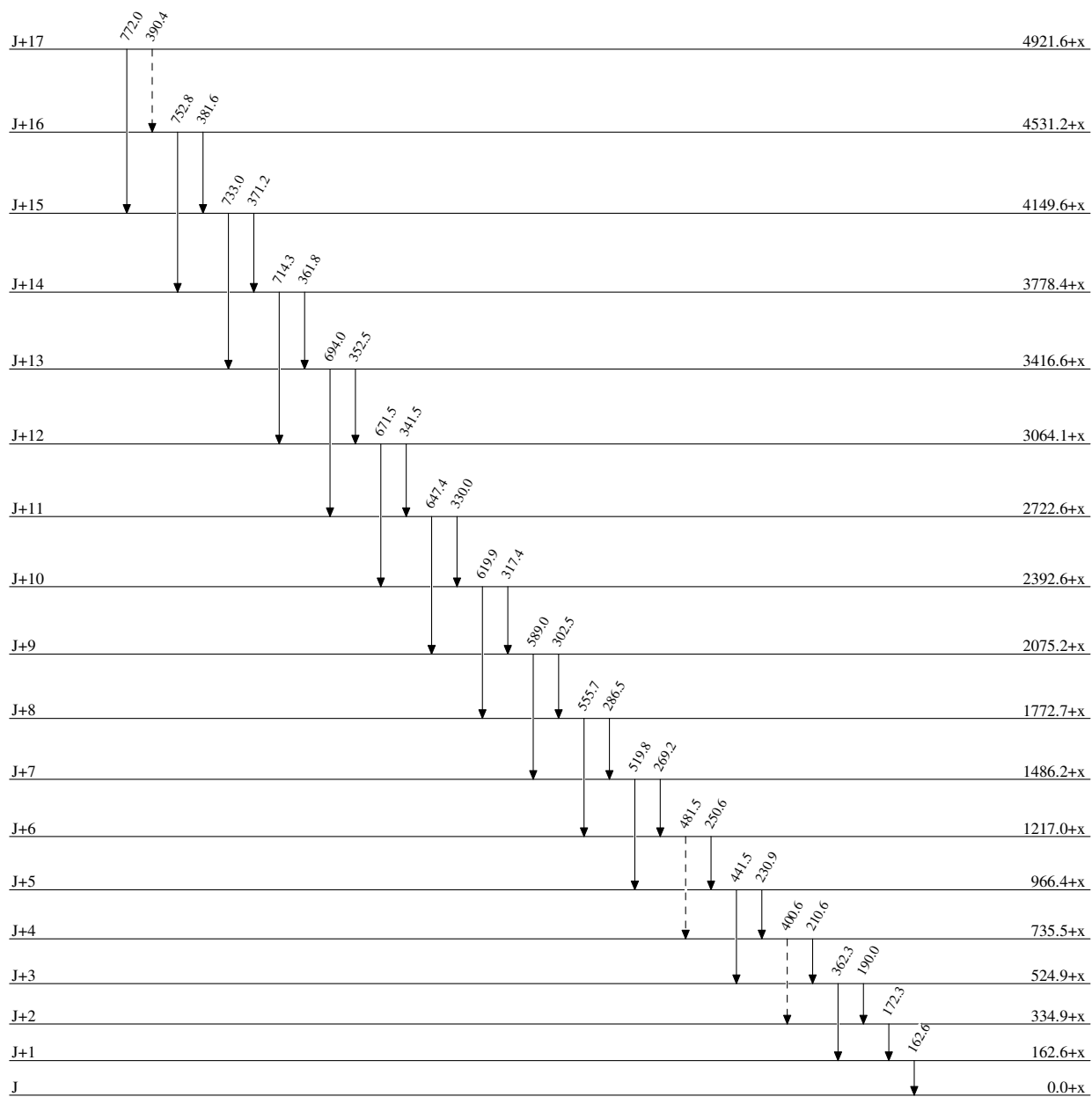
[†] From 1994OI04; uncertainty unstated by authors.

[‡] Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme

-----► γ Decay (Uncertain) ${}^{166}_{70}\text{Yb}_{96}$