## $^{64}$Ni($^{18}$O,$^{17}$O$\gamma$) 1995Bl01

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Jun Chen | NDS 202,59 (2025) | 25-Feb-2025 |

1995Bl01: E=72 MeV $^{18}$O beam was produced from the Saclay tandem. Ejected particles were momentum-analyzed with a Q3D spectrometer. $\gamma$ rays were detected with the SAGA array consisting of six triple Ge telescopes BGO Compton suppressed each consisting of three crystals. Measured particles spectrum, E$\gamma$, I$\gamma$, particle-$\gamma$-coin, $\gamma$(t). Deduced levels, J, $\pi$, $T_{1/2}$.

### $^{65}$Ni Levels

| E(level)† | J$^\pi$‡ | $T_{1/2}$ | Comments |
|---|---|---|---|
| 0.0 | 5/2$^-$ | | |
| 63.4 *5* | 1/2$^-$ | | |
| 310.39 *19* | 3/2$^-$ | | |
| 692.8 *4* | 3/2$^-$ | | |
| 1017.01 *10* | 9/2$^+$ | 26.7 ns *10* | $T_{1/2}$: from 1013$\gamma$(t) (1995Bl01). |
| 1143 *4* | | | |
| 1272 *4* | 1/2$^-$ | | J$^\pi$: (5/2$^-$) in Adopted Levels. |
| 1418.1 *24* | 1/2$^-$ | | |
| 1920.7 *3* | 5/2$^+$ | | |

† From a least-squares fit to $\gamma$-ray energies.
‡ As given in 1995Bl01.

### $\gamma$($^{65}$Ni)

| E$\gamma$† | I$\gamma$† | E$_i$(level) | J$_i^\pi$ | E$_f$ | J$_f^\pi$ | E$\gamma$† | I$\gamma$† | E$_i$(level) | J$_i^\pi$ | E$_f$ | J$_f^\pi$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 310 *3* | 100 | 310.39 | 3/2$^-$ | 0.0 | 5/2$^-$ | x1265 *3* | 14.0 *30* | | | | |
| 382 *3* | | 692.8 | 3/2$^-$ | 310.39 | 3/2$^-$ | x1319 *3* | 43.0 *30* | | | | |
| x567 *3* | 14.0 *10* | | | | | x1344 *3* | 28.0 *22* | | | | |
| 629 *3* | 100 *7* | 692.8 | 3/2$^-$ | 63.4 | 1/2$^-$ | x1388 *6* | 4.0 *3* | | | | |
| 693 *3* | 21.0 *12* | 692.8 | 3/2$^-$ | 0.0 | 5/2$^-$ | 1418 *4* | 5.0 *4* | 1418.1 | 1/2$^-$ | 0.0 | 5/2$^-$ |
| 726 *4* | 7.0 *5* | 1418.1 | 1/2$^-$ | 692.8 | 3/2$^-$ | x1426 *6* | 5.0 *4* | | | | |
| 962 *4* | 5.0 *4* | 1272 | 1/2$^-$ | 310.39 | 3/2$^-$ | x1474 *6* | 2.0 *5* | | | | |
| 1013 *3* | 280 *10* | 1017.01 | 9/2$^+$ | 0.0 | 5/2$^-$ | x1501 *6* | 4.0 *4* | | | | |
| 1107 *4* | 9.0 *7* | 1418.1 | 1/2$^-$ | 310.39 | 3/2$^-$ | 1610 *5* | 48 *4* | 1920.7 | 5/2$^+$ | 310.39 | 3/2$^-$ |
| 1143 *4* | 22.0 *20* | 1143 | | 0.0 | 5/2$^-$ | x1815 *5* | 7.0 *5* | | | | |
| x1166 *4* | 3.0 *5* | | | | | x1901 *5* | 8.0 *6* | | | | |
| x1194 *4* | 15.0 *10* | | | | | x2475 *5* | | | | | |
| x1225 *3* | 33.0 *24* | | | | | | | | | | |

† From 1995Bl01.
x $\gamma$ ray not placed in level scheme.

## $^{64}$Ni($^{18}$O,$^{17}$O$\gamma$) **1995Bl01**

Level Scheme

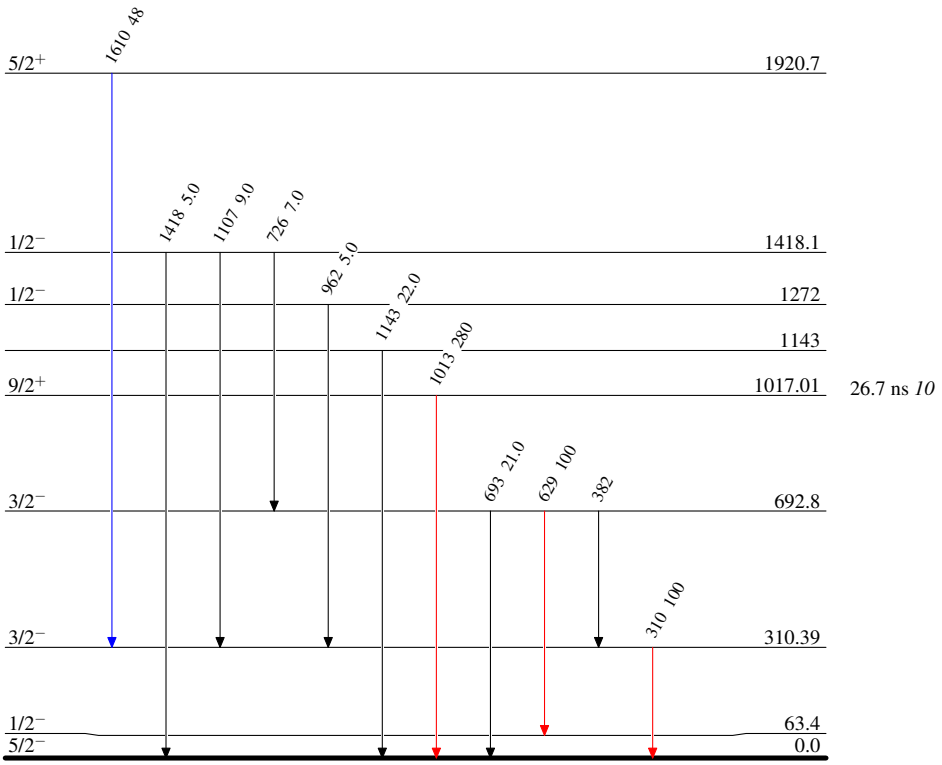
Intensities: Relative $I_\gamma$

Legend

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

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

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




$^{65}_{28}Ni_{37}$