## $^{150}$Nd($^{26}$Mg,$^{22}$Ne$\gamma$) 2005Ke08,2005Ke11

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | M. Shamsuzzoha Basunia | NDS 127, 69(2015) | 1-Apr-2015 |

2005Ke08,2005Ke11: $^{26}$Mg beam, E=160 MeV, bombarded onto a $^{150}$Nd target of thickness 0.4 mg/cm$^2$, deep-inelastic and multi-nucleon transfer reaction; $\gamma$ rays were detected using an array of 26 Ge clover detectors, 15 Ge cluster detectors, and a BGO array; measured E$\gamma$, $\gamma\gamma$ coin, deduced level scheme.

### $^{22}$Ne Levels

| E(level)[†] | J$^\pi$[‡] |
|---|---|
| 0 | $0^+$ |
| 1275.0 *10* | $2^+$ |
| 3358.2 *13* | $4^+$ |
| 4456.2 *13* | $2^+$ |
| 5523.3 *17* | $4^+$ |
| 6312.4 *17* | $6^+$ |
| 7341.6 *17* | $(3,4)^+$ |
| 7423.4 *20* | $(5^+)$ |
| 11033.9 *20* | $(8^+,6^+)$ |

[†] From least-squares fit to $\gamma$-ray energies, assuming $\Delta$E=1 keV.
[‡] From Adopted Levels.

### $\gamma$($^{22}$Ne)

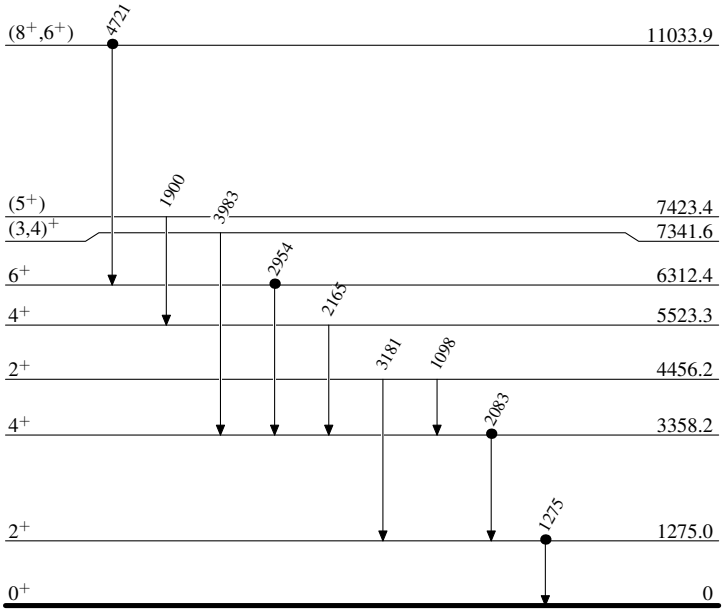
| E$_\gamma$ | E$_i$(level) | J$_i^\pi$ | E$_f$ | J$_f^\pi$ |
|---|---|---|---|---|
| 1098 | 4456.2 | $2^+$ | 3358.2 | $4^+$ |
| 1275 | 1275.0 | $2^+$ | 0 | $0^+$ |
| 1900 | 7423.4 | $(5^+)$ | 5523.3 | $4^+$ |
| 2083 | 3358.2 | $4^+$ | 1275.0 | $2^+$ |
| 2165 | 5523.3 | $4^+$ | 3358.2 | $4^+$ |
| 2954 | 6312.4 | $6^+$ | 3358.2 | $4^+$ |
| 3181 | 4456.2 | $2^+$ | 1275.0 | $2^+$ |
| 3983 | 7341.6 | $(3,4)^+$ | 3358.2 | $4^+$ |
| 4721 | 11033.9 | $(8^+,6^+)$ | 6312.4 | $6^+$ |

Legend

**$^{150}$Nd($^{26}$Mg,$^{22}$Neγ) 2005Ke08,2005Ke11**

Level Scheme

● Coincidence




$^{22}_{10}Ne_{12}$