## $^{143}$Nd($^{3}$He,d),($\alpha$,t) 1975Ma04

| History | | | |
|---|---|---|---|
| Type | Author | Citation | Literature Cutoff Date |
| Full Evaluation | A. A. Sonzogni | NDS 93, 599 (2001) | 1-Dec-2000 |

$J^{\pi}(^{143}Nd)=7/2^{-}$.
($^{3}$He,d): E=24, 27 MeV. FWHM=17 keV.
($\alpha$,t): E=24, 27 MeV. FWHM=10 keV.
See 1975Ma04 for differential cross sections.

### $^{144}$Pm Levels

| E(level)† | Jπb | L& | E(level)† | Jπb | L& | E(level)† | Jπb | L& | E(level)† | Jπb | L& |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | $5^{-}$ | 2[a] | 280 *1* | $(3)^{-}$ | 2+4 | 1080 *2* | $(4^{-},5^{-})$ | (2) | 1451 *3* | $^{+}$ | 5 |
| 60‡ *2* | $(4)^{-}$ | 2+4 | 364 *1* | $(2)^{-}$ | 2+4 | 1104 *2* | $^{+}$ | 5 | 1468# *5* | | (2) |
| 67‡ *2* | $(3)^{-}$ | 2+4 | 513 *1* | $(7)^{-}$ | 4[a] | 1127 *2* | $^{+}$ | 5 | 1501# *3* | | (2) |
| 84 *3* | $(2)^{-}$ | 2 | 841 *2* | $(9)^{+}$ | 5 | 1184 *2* | $^{-}$ | 2 | 1543# *6* | | (2) |
| 172 *1* | $(6)^{-}$ | 2+4 | 877 *2* | $^{-}$ | 2 | 1214 *2* | $^{+}$ | 5 | 1609 *3* | | (2) |
| 195 *1* | $(5)^{-}$ | 4 | 896 *2* | $(2,3)^{+}$ | 5 | 1243 *3* | | (2) | 1640@ *5* | | (2) |
| 209 *2* | $(4)^{-}$ | 2+4 | 947 *2* | $(4,5)^{+}$ | 5 | 1278# *5* | | (2) | 1654@ *5* | | (2) |
| 233 *1* | $(6)^{-}$ | 2+4 | 979 *3* | $(^{-})$ | (2) | 1377 *2* | | (2) | | | |
| 254 *3* | $(1)^{-}$ | 2+4 | 1021 *2* | $(2,3)^{+}$ | 5[a] | 1426# *4* | | (2) | | | |

† From $^{143}$Nd($\alpha$,t) E=27 MeV.
‡ Not resolved in ($^{3}$He,d).
# From ($^{3}$He,d) E=27 MeV, obscured in ($\alpha$,t).
@ From ($^{3}$He,d). Not reported in ($\alpha$,t).
& From comparison of $\sigma(^{3}He,d)/\sigma(\alpha,t)$ with DWBA (1976Ma27).
[a] L(p) confirmed from angular distribution in ($^{3}$He,d) (1976Ma27).
[b] See in-beam data for basis of J assignments. Parity is from L values.