^{149}Sm(d,d′) 1967Ve04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 185, 2 (2022)	23-Aug-2022

$J^{\pi}(^{149}\text{Sm g.s.})=7/2^{-}$.

1967Ve04: E(d)=12 MeV from the Niels Bohr Institute tandem. Measured deuteron spectra at three angles. FWHM=10 keV. Excitation multipolarities deduced from three-angle data. Authors assign parities to levels based on this information. Evaluators have not used these assignments in the Adopted Levels because of discrepancy in L-values for some of the levels such as 696, 785 and 1046 (see the Adopted Levels).

^{149}Sm Levels

E(level)†	E(level)†	E(level)†	E(level)†
0	1035 *10*	1461# *10*	1837 *10*
350‡ *4*	1046‡ *10*	1482# *10*	1857 *10*
526‡ *4*	1072‡ *10*	1505# *10*	1903 *10*
590‡ *4*	1112‡ *10*	1533 *10*	1924 *10*
633‡ *4*	1121# *10*	1543 *10*	1956 *10*
665‡ *4*	1182# *10*	1573# *10*	1982 *10*
696# *4*	1195# *10*	1609 *10*	2056 *10*
709# *4*	1235‡ *10*	1632‡ *10*	2083 *10*
785# *4*	1279‡ *10*	1654 *10*	2115 *10*
828# *4*	1300‡ *10*	1667 *10*	2139 *10*
876# *4*	1330# *10*	1690 *10*	2176 *10*
914 *4*	1338# *10*	1731 *10*	2275 *10*
948‡ *4*	1370# *10*	1749 *10*	2301 *10*
988# *4*	1394# *10*	1818 *10*	

† Uncertainties assigned based on a general statement by 1967Ve04, that these are 4 keV near the ground state and up to 10 keV at the highest energies.

‡ Negative parity deduced from excitation multipolarity of 2.

Positive parity deduced from excitation multipolarity of 3.