^{208}Pb(^{17}O,^{16}O)   1987Fe04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. Chen [#] and F. G. Kondev	NDS 126, 373 (2015)	30-Sep-2013

Target ^{208}Pb J^π(g.s.)=0^+.

1987Fe04: E=376 MEV ^{17}O beam was produced from the coupled tandem cyclotron accelerators at the Holifield Heavy Ion Research Facility (HHIRF). A self-supporting enriched target of ^{208}Pb was used. Reaction products were momentum analyzed by a broad-range spectrograph, FWHM≈250 keV. Measured $\sigma(\theta)$. Deduced levels, J^π, spectroscopic factors from DWBA analysis.
Others: 1987Li04, 1979Fr07, 1982Ku14.

^{209}Pb Levels

E(level)[†]	J^{π}[‡]	S[#]	Comments
0	$9/2^+$	0.89	S: if configuration=$\nu(2g_{9/2})^{+1}$.
780	$11/2^+$	0.62	S: if configuration=$\nu(1i_{11/2})^{+1}$.
1510			E(level): unresolved doublet of 1420 and 1560. single-particle orbital $1j_{15/2}$+$3d_{5/2}$ (1979Fr07).
2030			E(level): from 1979Fr07, single-particle orbital $4s_{1/2}$.
2490	$7/2^+$	0.81	E(level): 2510 ($2g_{7/2}$+$3d_{3/2}$) from 1979Fr07.
			S: if configuration=$\nu(2g_{7/2}^{+1})$.
3070			
4000			

[†] From 1987Fe04, unless otherwise noted. The $\nu(4s_{1/2})$ state at 2033 was not observed by 1987Fe04.

[‡] From comparisons of experimental cross-section data with the DWBA predictions (1987Fe04).

[#] Values are relative spectroscopic factors normalized to the theoretical value of 0.89 for the ground state (1967Do02). See 1987Fe04 for additional values, deduced with other potentials, and for absolute values.