^{208}Pb(^{11}B,^{10}B) 1974Fo22

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^+.

1974Fo22: E=72.2 MeV ^{11}B beam was produced from the Oak Ridge isochronous cyclotron. Target was 100 μg/cm^2 ^{208}Pb evaporated onto a 40 μg/cm^2 carbon foil. Reaction products were momentum analyzed with an Elbek spectrograph and detected by an proportional counter, FWHM=185-250 keV. Measured $\sigma(\theta)$. Deduced levels, spectroscopic factors from DWBA analysis.

Others: 2003Sa54, 1973An14.

E: From 1974Fo22.

^{209}Pb Levels

E(level)	S†	Comments
0.0	1.38	S: if configuration=$\nu(2g_{9/2})^{+1}$.
780	1.56	S: if configuration=$\nu(1i_{11/2})^{+1}$.
1420‡		
1570‡		
2490	1.56	S: If configuration=$\nu(2g_{7/2})^{+1}$. ≤10% of this strength is estimated by the authors as being due to the unresolved $\nu(3d_{3/2})$ level at 2540 keV.

† Calculated using finite-range DWBA with neutron parameters deduced from sub-Coulomb stripping measurements. S(11β=^{10}B+n) is taken to be 1.09. Some contribution to the strengths for the $\nu(i_{11/2})$ and $\nu(g_{7/2})$ levels could be coming from excited ^{10}B states at 717 and 1740 keV (1974Fo22).

‡ Unresolved in $\sigma(\theta)$.