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

History

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

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.

Other:

2003Sa54: E=69 MeV beam was produced from the 14 UD BARC-TIER Pelletron accelerator at Mumbai. ΔE-E silicon detector telescopes. Measured $\sigma(\theta)$. Deduced target shell closure effect.

^{209}Bi Levels

E(level)†	S‡	Comments
0.0	0.47,0.70	S: if configuration=$\pi(1h_{9/2})^{+1}$.
900	0.51,0.67	S: if configuration=$\pi(2f_{7/2})^{+1}$.
1610	0.60,0.81	S: if configuration=$\pi(1i_{13/2})^{+1}$.
2820	0.35,0.47	S: if configuration=$\pi(2f_{5/2})^{+1}$.
3120	0.58,0.74	S: if configuration=$\pi(3p_{3/2})^{+1}$.

† From 1974Fo22.

‡ Calculated using finite-range DWBA with neutron parameters deduced from sub-Coulomb stripping measurements. S(^{11}B=^{10}Be+p) is taken to be 0.43. The pairs of values shown are based on two different sets of ^{11}B optical-model parameters. See also 1975Lo02 for further analysis of the data of 1974Fo22.