

$^{208}\text{Pb}(p,\gamma)$: giant resonance 1974Sn01

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

E=17.5-25.0 MeV proton beam was produced from the three-stage FN accelerator at the University of Washington. Target was self-supporting 2.8 mg/cm² ^{208}Pb . γ -rays were detected with a 10 inch by 10 inch. NaI detector. Measured $\gamma(\theta)$. Deduced resonance.

Excitation function and asymmetry measured for unresolved γ 's to g.s., 897, and 1608 levels.

 ^{209}Bi Levels

E(level)	Comments
0.0 ≈ 23000	$\Gamma \approx 3.5$ MeV Based on a comparison with a collective E0 or E2 resonance observed at ≈ 22 MeV in $^{208}\text{Pb}(e,e')$, the authors suggest that the observed resonance at 23 MeV is a collective E2 excitation. Observation in (p, γ) rules out E0.