

$^{208}\text{Pb}(\gamma, \text{p}), (\text{e}, \text{e}'\text{p})$  IAR [1975Sh12](#), [1975Sh13](#)

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Full Evaluation	M. J. Martin	NDS 108,1583 (2007)	1-Jun-2007

E=19.2-29.0 MeV ([1975Sh13](#)); 25.0, 40.0 MeV ([1975Sh12](#)).

Others: [1971Da04](#), [1970Do03](#).

Proton groups with energies 11 and 15.3 MeV are observed for bombarding energies >25.2 MeV;  $p(\theta)$  for these groups is isotropic ([1975Sh12](#)) which suggests that they are emitted through an isobaric analog resonance. For the background continuum  $p(\theta)$  is strongly asymmetric. The authors conclude that 11.0- and 13.5-MeV proton groups are emitted from the 25-MeV IAR and interpret these resonances as IAR of possible  $1^-$  and  $2^+$  levels predicted in  $^{208}\text{Tl}$  at 1500( $1^-$ ), 2100( $1^-$ ), and 2800( $2^+$ ) ([1970Do03](#)).

 $^{208}\text{Pb}$  LevelsE(level)24400<sup>†</sup>25000<sup>†</sup>27200<sup>‡</sup>

<sup>†</sup> Resonances at 24400 and 25000 were unresolved in the  $(\gamma, \text{p})$  cross section. E=25000 ([1975Sh13](#)), 24900 300 ([1971Da04](#)) for the combined resonances. [1975Sh13](#) deduce  $\Gamma_\gamma=530$  eV 80 if  $\Gamma(\text{P})/\Gamma=1.0$ , and 700 eV 100 if  $\Gamma(\text{P})/\Gamma=0.75$  for J=1.

<sup>‡</sup> [1975Sh13](#) deduce  $\Gamma_\gamma=150$  eV 50 if  $\Gamma(\text{P})/\Gamma=1.0$  and J=2. The authors point out that the value for  $\Gamma_\gamma$  may be about half that given here if possible contributions from virtual photons are included.