160 Gd(34 S,x γ),(37 Cl,X γ) 1994Fo04

1994Fo04: 159-MeV 34 S and 167-MeV 37 Cl beams were produced from the Argonne Tandem Linac Accelerator System (ATLAS). Targets were 1 mg/cm² 98.1% enriched 160 Gd backed by 15 mg/cm² gold. γ rays were detected using the Argonne-Notre Dame BGO γ -ray facility consisting of 12 Compton-suppressed Ge detectors and a 50-element bismuth germanate (BGO) array. Measured E γ , I γ , $\gamma\gamma$ -coin. Deduced levels. $\gamma\gamma$ -coin gates were placed on known γ rays in specific A 160 products to select individual reaction channels and identify coincident γ rays in light product partners.

35S Levels

E(level) [†]	$J^{\pi \ddagger}$
0	3/2+
1991	$7/2^{-}$
4022	$(9/2^{-})$

† From Ey data in 1994Fo04.

[‡] As given in 1994Fo04.

$$\gamma(^{35}S)$$

$$\frac{\text{E}_{\gamma}^{\top}}{1991}$$
 $\frac{\text{E}_{i}(\text{level})}{1991}$ $\frac{\text{J}_{i}^{\pi}}{7/2^{-}}$ $\frac{\text{E}_{f}}{0}$ $\frac{\text{J}_{f}^{\pi}}{3/2^{+}}$
2031 4022 (9/2⁻) 1991 7/2⁻

[†] From 1994Fo04.

160 Gd(34 S,x γ),(37 Cl,X γ) 1994Fo04

Level Scheme

