

$^{59}\text{Co}(\pi^+, \pi^-)$ **1991Mo02**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 151, 1 (2018)	1-Apr-2018

1991Mo02: $E(\pi^+)=292$ MeV, $\theta_{\text{lab}}=5^\circ, 11^\circ$; observed double IAS and GDR built on IAS. For further discussion and additional results from authors of **1991Mo02**, see **1991Fo02**, **1994Mo04**, **1994Sm05**, **1996Mo03**. Supersedes **1989Mo09**.

1994Sm05: $E(\pi^+)=295$ MeV, $\theta_{\text{lab}}=5^\circ, 11^\circ$; FWHM ≈ 0.5 MeV for elastic peak; measured Q value and cross section for double IAS.

 ^{59}Cu Levels

E(level) [†]	Γ	Comments
11.1×10^3		Double IAS. E from 1991Mo02 based on $Q=-15.9$ MeV <i>1</i> (1991Mo02). Other Q: -16.10 MeV <i>6</i> (1994Sm05).
27.9×10^3 [‡]	7.0 [‡] MeV <i>10</i>	GDR \otimes IAS resonance; not a discrete level. $Q=-32.7$ MeV <i>4</i> (1991Mo02).

[†] From **1991Mo02**. The evaluator assumes that these values have been corrected for any energy-scale offset resulting from 1.079 gm/cm² target thickness. Authors do not give $Q(\beta^-)$ value or other evidence for g.s. population.

[‡] Deduced by **1991Mo02** for the single resonance peak observed. However, this resonance presumably is an unresolved doublet comprised of $T_<$ and $T_>$ components; a two-level fit to the observed resonance gives $Q=-30.9$ MeV *5*, $\Gamma=3.7$ MeV *9* and $Q=-34.3$ MeV *6*, $\Gamma=5.0$ MeV *16* for the respective components (**1991Mo02**).