^{129}I(γ,γ):Mossbauer 1970De37,1981De35,1972Ro41

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Janos Timar and Zoltan Elekes, Balraj Singh	NDS 121, 143 (2014)	31-May-2014

1970De37: E=27.7 keV; measured Mossbauer effect in an external field and a Cu^{129}I absorber; deduced γ-mixing ratio, magnetic moment ratio.
1981De35: measured Mossbauer spectra, deduced magnetic dipole and electric quadrupole moments of 27.8-keV level.
1972Ro41: measured electric quadrupole moment.

^{129}I Levels

E(level)†	Jπ†	$T_{1/2}$†	Comments
0	7/2+		
27.793 *20*	5/2+	16.8 ns *2*	μ=+2.8045 *26* (1981De35) Q=−0.685 (1972Ro41) μ(27.8 level)/μ(g.s.)=1.0687 *11* (1970De37). Q: reanalyzed result is −0.604 *10* (2013StZZ); see also 2001Bi17 and 2000Ha64 for re-analysis of 1972Ro41 data. Other measurement: −0.42 *2* (1987Gr28).

† From Adopted Levels.

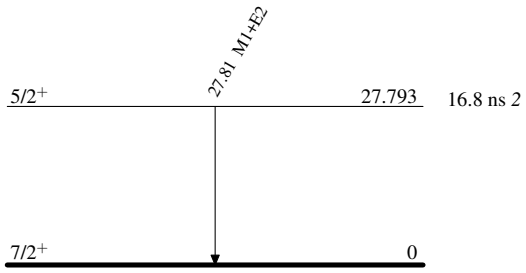
γ(^{129}I)

E_γ†	E_i(level)	J_i^π	E_f	J_f^π	Mult.†	δ	Comments
27.81 *5*	27.793	5/2+	0	7/2+	M1+E2	−0.045 *14*	δ: from relative intensities of the Mossbauer lines (1970De37).

† From Adopted Gammas.

^{129}I(γ,γ):Mossbauer 1970De37,1981De35,1972Ro41

Level Scheme



$^{129}_{53}I_{76}$