^{162}Dy(^{36}S,Fγ) 1996Po06

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 112, 1163 (2011)	15-Dec-2010

E(^{36}S)=162 MeV; Au-backed ^{162}Dy target; EUROGAM1 detector array (30 escape-suppressed, large-volume Ge detectors); measured Eγ (Eγ-100-2000 keV), Iγ, prompt $\gamma\gamma$ coin between transitions in complementary fission fragments.

^{93}Zr Levels

The authors were unable to construct a level scheme. However, based on the conclusions from other subsequent studies, the evaluator has been able to place most of the transitions from 1996Po06, As shown here.

E(level)†	E(level)†	E(level)†
0.0	2486.8 *8*	3331.9 *12*
950.3 *5*	2601.9 *9*	3657.9 *11*
2285.2 *7*	2990.4 *8*	4717.8 *12*
2375.5 *7*	3265.7 *9*	5480.2 *13*
		6648.3 *14*

† From least-squares fit to Eγ, assigning ΔE=0.5 keV to all Eγ data.

γ(^{93}Zr)

E$_\gamma$†	I$_\gamma$‡	E$_i$(level)	E$_f$	E$_\gamma$†	I$_\gamma$‡	E$_i$(level)	E$_f$	E$_\gamma$†	I$_\gamma$‡	E$_i$(level)	E$_f$
(66.2#)		3331.9	3265.7	392.2	21	3657.9	3265.7	1059.9	49	4717.8	3657.9
111.2	72	2486.8	2375.5	503.5	78	2990.4	2486.8	x1081.2	23		
115.1	19	2601.9	2486.8	705.2	43	2990.4	2285.2	1168.1	24	6648.3	5480.2
x180.6	27			x711.6	28			1335.0	52	2285.2	950.3
275.3	83	3265.7	2990.4	762.4	28	5480.2	4717.8	1425.1	100	2375.5	950.3
326.0	77	3657.9	3331.9	950.3	100	950.3	0.0				

† Uncertainties range from 0.2 to 0.5 keV, depending on Iγ.
‡ Uncertainties are 10%−30%.
# Transition expected but not observed; Eγ from level energy difference.
x γ ray not placed in level scheme.

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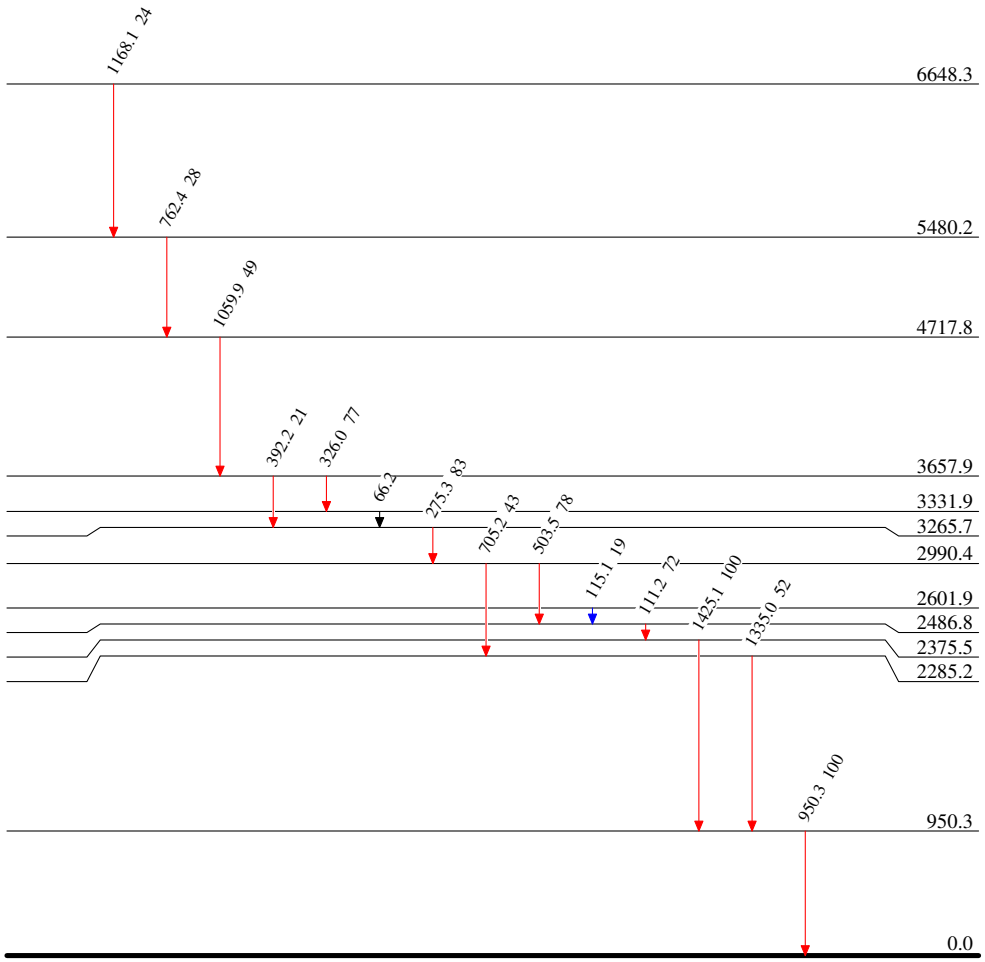
Level Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)



$^{93}_{40}Zr_{53}$