

E0 TRANSITIONS IN EVEN-EVEN NUCLEI OF DYSPROSIUM WITH $A = 156, 158, 160$

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Experimental and theoretical justification of reliable existence of transitions with multipolarity $E0$ and their placement in decay schemes is sometimes insufficient and requires additional investigations [1–3]. To this end, analysis was given to conversion electron intensity lines of $E0$ and $E0+E2$ transitions in the $^{156,158,160}\text{Dy}$ nuclei measured at different spectrometers (see Table), γ -ray spectra, and γ - γ coincidence spectra. Structures and probabilities of transitions are calculated for 0^+ states and compared with the experimental data.

Table. Relative intensities of electron conversion lines from $E0$ - u $E0+E2$ - transitions in ^{160}Dy , measured on different beta spectrometers.

Line	$\pi\sqrt{2}$ (1966) [3]	β -spectrograph, $2\pi\sqrt{2}$ (1969)[3]	UMB (1978) [3]	β -spectrograph (2006-2009)	Mini-orange, Si(Li) (2001-2009)
K672.3	0.21±0.06	<0.1	0.25±0.04	0.34	0.27±0.03
K673.1				0.62	
K681.3	1.0±0.2	0.9±0.2	1.20±0.05	0.24	1.20±0.10
K682.3				0.90	
K703.4		0.4±0.1		0.33	<0.033
K1262.8	1.1±0.2	1.05±0.10	1.09±0.10		1.1±0.1
K1271.0	0.9±0.1	0.93±0.10	0.81±0.10	0.24	0.9±0.1
K1271.9				1.06	
K1280.0	0.5±0.1	0.45±0.05	0.36±0.04	0.53	0.40±0.04
K1456.7					<0.006
K1708.2				0.33	<0.01
K1952.3	0.15±0.03	0.16±0.03	0.15±0.02	0.15	0.15±0.02

1. D.G.Burke *et al.* // Nucl. Phys. A. 1988. V.483. P.221.
2. D.D.Bogashenko *et al.* // Izv. RAN. Ser. Fiz. 2006. V.70. P.309.
3. V.G.Kalinnikov *et al.* // «Nucleus-2008». Moscow. 2008. P.88.