

$^{176}\text{Yb}(^{37}\text{Cl},3n\gamma)$ 2006Me03

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 121, 561 (2014)	31-Mar-2014

Thin (1 mg/cm²) ^{176}Yb target bombarded with ^{37}Cl beam, E=173, 179, 185 MeV. Recoiling fusion evaporation products were separated using a gas-filled spectrometer and implanted in a solar cell array. Measured $E\gamma$, $I\gamma$, γ - γ coin, excitation functions using six Compton-suppressed Clover HPGe detectors. The gamma rays presented here lie below at least one isomeric level. Assignment of γ rays to ^{210}Fr is confirmed by a second experiment with a thick (4 mg/cm²) ^{197}Au target bombarded with ^{16}O beam, E=90 MeV, via $^{197}\text{Au}(^{16}\text{O},3n\gamma)$ reaction.

 ^{210}Fr Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	6^+		E(level), J^π : From Adopted Level.
0+x		0.36 μs 14	$T_{1/2}$: From gate on 433.5 γ (2006Me03).

 $\gamma(^{210}\text{Fr})$

E_γ	I_γ	$E_i(\text{level})$
^x 202.1 4	50 10	
^x 231.4 4	40 10	
^x 247.4 4	60 10	
^x 408.8 4	110 10	
^x 433.5 4	100 10	
^x 515.2 4	110 20	
^x 619.5 5	110 30	
^x 690.9 4	130 10	

^x γ ray not placed in level scheme.