

$^{170}\text{Er}(^{238}\text{U},\text{X}\gamma)$ 2004Wu05

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	08-Dec-2015

2004Wu05: $E(^{238}\text{U})=1358$ MeV from ATLAS-ANL facility. Measured E_γ , $\gamma\gamma$, (charged particle) γ (coin) with the Gammasphere array of 100 Compton-suppressed Ge detectors and the highly segmented parallel-plate avalanche counter array, CHICO, which was used to measure scattering angles for both recoiling reaction products and their time-of-flight difference. No heavy shield was used for the BGO component of Gammasphere.

 ^{172}Er Levels

<u>$E(\text{level})^\dagger$</u>	<u>J^π</u>	<u>$E(\text{level})^\dagger$</u>	<u>J^π</u>	<u>$E(\text{level})^\dagger$</u>	<u>J^π</u>	<u>$E(\text{level})^\dagger$</u>	<u>J^π</u>
0.0 ‡	0 ⁺	530.0 ‡	6 ⁺	1884.8 ‡	12 ⁺	3897.5 ‡	18 ⁺
77.0 ‡	2 ⁺	896.8 ‡	8 ⁺	2489.9 ‡	14 ⁺	4685.5 ‡	20 ⁺
254.5 ‡	4 ⁺	1351.1 ‡	10 ⁺	3163.9 ‡	16 ⁺	5527.5 ‡	22 ⁺

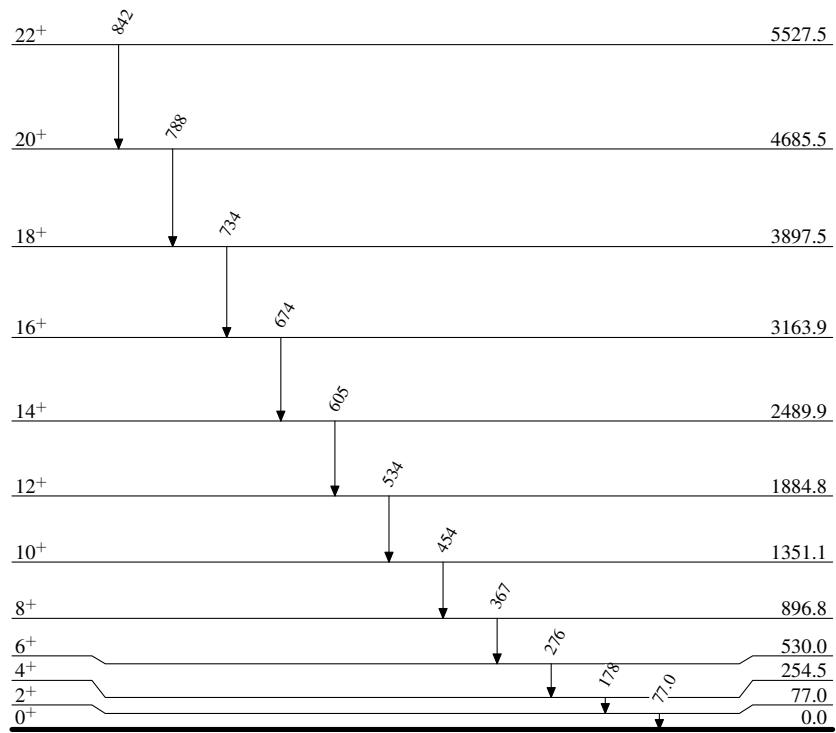
† From E_γ values.

‡ Band(A): g.s. band.

 $\gamma(^{172}\text{Er})$

<u>E_γ^\dagger</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Comments</u>
77.0 5	77.0	2 ⁺	0.0	0 ⁺	E_γ : from Adopted Gammas.
178 1	254.5	4 ⁺	77.0	2 ⁺	
276 1	530.0	6 ⁺	254.5	4 ⁺	
367 1	896.8	8 ⁺	530.0	6 ⁺	
454 1	1351.1	10 ⁺	896.8	8 ⁺	
534 1	1884.8	12 ⁺	1351.1	10 ⁺	
605 1	2489.9	14 ⁺	1884.8	12 ⁺	
674 1	3163.9	16 ⁺	2489.9	14 ⁺	
734 1	3897.5	18 ⁺	3163.9	16 ⁺	
788 1	4685.5	20 ⁺	3897.5	18 ⁺	
842 1	5527.5	22 ⁺	4685.5	20 ⁺	

† 2004Wu05 quote an uncertainty of ≈ 1 keV for transition energies.

$^{170}\text{Er}(^{238}\text{U},\text{X}\gamma)$ 2004Wu05Level Scheme $^{172}_{68}\text{Er}_{104}$

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Band(A): g.s. band

<u>22⁺</u>	<u>5527.5</u>
842	
<u>20⁺</u>	<u>4685.5</u>
788	
<u>18⁺</u>	<u>3897.5</u>
734	
<u>16⁺</u>	<u>3163.9</u>
674	
<u>14⁺</u>	<u>2489.9</u>
605	
<u>12⁺</u>	<u>1884.8</u>
534	
<u>10⁺</u>	<u>1351.1</u>
454	
<u>8⁺</u>	<u>896.8</u>
367	
<u>6⁺</u>	<u>530.0</u>
276	
<u>4⁺</u>	<u>254.5</u>
178	77.0
<u>0⁺</u>	<u>0.0</u>

 $^{172}_{68}\text{Er}_{104}$