

TAVOLA PERIODICA DEI NUCLEI ATOMICI

configurazione dei livelli nucleari degli isotopi **ITTERBIO Z = 70-a**

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{P-T_{1/2}}$
$\frac{1170.12}{1170.1}$	Yb ¹⁴⁸ ₇₀	$\frac{147.96743}{147.96742}$	70n	2+0	8+0	18+0	26+0	6+1	1+7	1+0	$\frac{8.600M}{ce\ 250ms}$
$\frac{1180.93}{1181.4}$	Yb ¹⁴⁹ ₇₀	$\frac{148.96450}{148.96404}$	70n	2+0	8+0	18+0	27+0	4+2	1+7	1+0	$\frac{10.70M}{ce\ 700ms}$
$\frac{1194.83}{1194.7}$	Yb ¹⁵⁰ ₇₀	$\frac{149.95824}{149.95842}$	70n	2+0	8+0	18+0	29+0	1+3	1+7	1+0	$\frac{7.900M}{ce\ 700ms}$
$\frac{1205.78}{1205.6}$	Yb ¹⁵¹ ₇₀	$\frac{150.95515}{150.95540}$	70n	2+0	8+0	18+0	30+1	0+1	1+8	0+1	$\frac{9.200M}{ce\ 1.60s}$
$\frac{1218.54}{1218.4}$	Yb ¹⁵² ₇₀	$\frac{151.95012}{151.95029}$	70n	2+0	8+0	18+0	30+1	0+3	0+7	0+1	$\frac{5.470M}{ce\ 3.03s}$
$\frac{1227.26}{1227.2}$	Yb ¹⁵³ ₇₀	$\frac{152.94942}{152.94948}$	70n	2+0	8+0	18+0	26+3	1+3	1+7	1+0	$\frac{6.930M}{\alpha\ 4.20s}$
$\frac{1238.34}{1238.2}$	Yb ¹⁵⁴ ₇₀	$\frac{153.94619}{153.946394}$	70n	2+0	8+0	18+0	26+3	0+5	1+6	1+0	$\frac{5.4742M}{\alpha\ 0.409s}$
$\frac{1246.72}{1246.8}$	Yb ¹⁵⁵ ₇₀	$\frac{154.94586}{154.945782}$	70n	2+0	8+0	18+0	26+3	0+6	1+5	0+1	$\frac{5.3376M}{\alpha\ 1.793s}$
$\frac{1257.80}{1257.6}$	Yb ¹⁵⁶ ₇₀	$\frac{155.94263}{155.942818}$	70n	2+0	8+0	18+0	24+4	1+7	1+4	0+1	$\frac{3.574M}{ce\ 26.1s}$
$\frac{1265.51}{1265.9}$	Yb ¹⁵⁷ ₇₀	$\frac{156.94302}{156.942628}$	70n	2+0	8+0	18+0	24+4	0+8	1+4	0+1	$\frac{5.280M}{ce\ 38.6s}$
$\frac{1276.59}{1276.5}$	Yb ¹⁵⁸ ₇₀	$\frac{157.93979}{157.939866}$	70n	2+0	8+0	18+0	22+5	1+9	1+3	0+1	$\frac{2.690M}{ce\ 1.49m}$
$\frac{1284.31}{1284.4}$	Yb ¹⁵⁹ ₇₀	$\frac{158.94017}{158.94005}$	70n	2+0	8+0	18+0	22+5	0+10	1+3	0+1	$\frac{4.730M}{ce\ 1.67m}$
$\frac{1294.71}{1294.8}$	Yb ¹⁶⁰ ₇₀	$\frac{159.93767}{159.937552}$	70n	2+0	8+0	18+0	20+6	0+11	1+3	1+0	$\frac{2.140M}{ce\ 4.80m}$
$\frac{1302.43}{1302.6}$	Yb ¹⁶¹ ₇₀	$\frac{160.93804}{160.937902}$	70n	2+0	8+0	18+0	18+7	1+11	1+3	1+0	$\frac{4.060M}{ce\ 4.20m}$
$\frac{1311.83}{1312.6}$	Yb ¹⁶² ₇₀	$\frac{161.93662}{161.935768}$	70n	2+0	8+0	18+0	18+7	1+12	0+3	1+0	$\frac{1.650M}{ce\ 18.87m}$
$\frac{1320.21}{1320.2}$	Yb ¹⁶³ ₇₀	$\frac{162.936334}{162.936334}$	70n	2+0	8+0	18+0	18+7	1+13	0+2	0+1	$\frac{3.430M}{ce\ 11.05m}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{1329.61}{1330.0}$	Yb ¹⁶⁴ ₇₀	$\frac{163.93486}{163.934489}$	70n	2+0	8+0	18+0	16+8	1+14	1+1	0+1	$\frac{890.0K}{ce 75.8m}$
$\frac{1337.33}{1337.3}$	Yb ¹⁶⁵ ₇₀	$\frac{164.93528}{164.93528}$	70n	2+0	8+0	18+0	16+8	0+15	1+1	0+1	$\frac{2.640M}{ce 9.90m}$
$\frac{1347.07}{1346.7}$	Yb ¹⁶⁶ ₇₀	$\frac{165.93345}{165.933882}$	70n	2+0	8+0	18+0	14+9	1+15	1+2	0+0	$\frac{293.0K}{ce 56.7h}$
$\frac{1353.11}{1353.7}$	Yb ¹⁶⁷ ₇₀	$\frac{166.93563}{166.93495}$	70n	2+0	8+0	18+0	14+9	1+15	0+3	0+0	$\frac{1.954M}{ce 17.5m}$
$\frac{1362.50}{1362.8}$	Yb ¹⁶⁸ ₇₀	$\frac{167.93421}{167.933897}$	70n	2+0	8+0	18+0	12+10	1+16	1+2	0+0	$\frac{1.40927M}{2ce 1.3-10^{14}a}$ 0.13%
$\frac{1370.22}{1369.7}$	Yb ¹⁶⁹ ₇₀	$\frac{168.93459}{168.93519}$	70n	2+0	8+0	18+0	12+10	0+17	1+2	0+0	$\frac{898.4K}{ce 32.018d}$
$\frac{1377.93}{1378.1}$	Yb ¹⁷⁰ ₇₀	$\frac{169.93498}{169.934762}$	70n	2+0	8+0	18+0	10+11	1+17	1+2	0+0	st 3.04%
$\frac{1383.97}{1384.7}$	Yb ¹⁷¹ ₇₀	$\frac{170.93716}{170.936326}$	70n	2+0	8+0	18+0	10+11	1+17	0+3	0+0	st 14.28%
$\frac{1393.37}{1392.8}$	Yb ¹⁷² ₇₀	$\frac{171.93573}{171.936381}$	70n	2+0	8+0	18+0	8+12	1+18	1+2	0+0	st 21.83%
$\frac{1399.41}{1399.1}$	Yb ¹⁷³ ₇₀	$\frac{172.93791}{172.938211}$	70n	2+0	8+0	18+0	8+12	1+18	0+3	0+0	st 16.13%
$\frac{1407.12}{1406.6}$	Yb ¹⁷⁴ ₇₀	$\frac{173.93830}{173.938862}$	70n	2+0	8+0	18+0	8+12	0+19	0+3	0+0	st 31.83%
$\frac{1413.16}{1412.4}$	Yb ¹⁷⁵ ₇₀	$\frac{174.94048}{174.941276}$	70n	2+0	8+0	18+0	6+13	0+19	1+3	0+0	$\frac{470.7K}{\beta^- 4.185d}$
$\frac{1419.20}{1419.3}$	Yb ¹⁷⁶ ₇₀	$\frac{175.94266}{175.942572}$	70n	2+0	8+0	18+0	6+13	0+19	0+4	0+0	$\frac{1.0884M}{2\beta^- 1.6-10^{17}a}$ 12.76%
$\frac{1425.23}{1424.8}$	Yb ¹⁷⁷ ₇₀	$\frac{176.94485}{176.945261}$	70n	2+0	8+0	18+0	4+14	0+19	1+4	0+0	$\frac{1.4008M}{\beta^- 1.911h}$
$\frac{1431.27}{1431.6}$	Yb ¹⁷⁸ ₇₀	$\frac{177.94703}{177.946647}$	70n	2+0	8+0	18+0	4+14	0+19	0+5	0+0	$\frac{646.0K}{\beta^- 74.0m}$
$\frac{1436.29}{1436.4}$	Yb ¹⁷⁹ ₇₀	$\frac{178.95030}{178.95017}$	70n	2+0	8+0	18+0	2+15	0+19	0+5	1+0	$\frac{2.600M}{\beta^- 8.0m}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p \cdot T_{1/2}}$
$\frac{1442.33}{1442.5}$	Yb_{70}^{180}	$\frac{179.95249}{179.95233}$	70n	2+0	8+0	18+0	0+16	0+19	1+5	1+0	$\frac{2.300M}{\beta^- 2.40m}$
$\frac{1447.36}{1447.0}$	Yb_{70}^{181}	$\frac{180.95575}{180.95615}$	70n	2+0	8+0	18+0	0+16	0+19	1+5	0+1	$\frac{3.900M}{\beta^- 1m}$
$\frac{1453.40}{-}$	Yb_{70}^{182}	$\frac{181.95793}{-}$	70n	2+0	8+0	18+0	0+16	0+19	0+6	0+1	$\frac{1.900M}{\beta^-}$
$\frac{1457.75}{-}$	Yb_{70}^{183}	$\frac{182.96193}{-}$	70n	2+0	8+0	16+1	0+16	1+18	0+7	0+1	$\frac{3.250M}{\beta^-}$
$\frac{1462.11}{-}$	Yb_{70}^{184}	$\frac{183.96591}{-}$	70n	2+0	8+0	16+1	0+16	0+18	0+8	0+1	$\frac{3.890M}{\beta^-}$

E_c (MeV) = valore calcolato dell'energia di legame

E_s (MeV) = valore sperimentale dell'energia di legame

m_c = valore calcolato della massa atomica

m_s = valore sperimentale della massa atomica

n = numero di neutroni centrali attivi

1-7 = numero quantico associato al livello

$p + d$ = (numero di protoni) + (numero di deutoni) in orbita

$p \cdot T_{1/2}$ = particella emessa – periodo di dimezzamento

E_p (eV) = energia della particella emessa