

TAVOLA PERIODICA DEI NUCLEI ATOMICI

configurazione dei livelli nucleari degli isotopi **LUTEZIO Z = 71-a**

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{1180.21}{1180.1}$	Lu ₇₁ ¹⁵⁰	$\frac{149.97310}{149.97323}$	71n	2+0	8+0	18+0	26+0	8+0	1+7	0+1	$\frac{14.00M}{ce\ 45.0ms}$
$\frac{1193.77}{1193.4}$	Lu ₇₁ ¹⁵¹	$\frac{150.96721}{150.96758}$	71n	2+0	8+0	18+0	27+0	5+2	1+7	1+0	$\frac{1.75448M}{p\ 80.6ms}$
$\frac{1204.63}{1204.7}$	Lu ₇₁ ¹⁵²	$\frac{151.96421}{151.96412}$	71n	2+0	8+0	18+0	28+0	3+3	1+7	1+0	$\frac{12.90M}{ce\ 700ms}$
$\frac{1217.20}{1217.8}$	Lu ₇₁ ¹⁵³	$\frac{152.95938}{152.95877}$	71n	2+0	8+0	18+0	29+0	2+4	0+7	1+0	$\frac{8.700M}{\alpha\ 0.90s}$
$\frac{1227.04}{1227.0}$	Lu ₇₁ ¹⁵⁴	$\frac{153.95748}{153.95752}$	71n	2+0	8+0	18+0	30+0	0+5	1+6	0+1	$\frac{10.37M}{ce\ 1s}$
$\frac{1237.91}{1238.1}$	Lu ₇₁ ¹⁵⁵	$\frac{154.95448}{154.954316}$	71n	2+0	8+0	18+0	29+1	0+5	1+6	0+1	$\frac{5.803M}{\alpha\ 68.0ms}$
$\frac{1247.08}{1247.3}$	Lu ₇₁ ¹⁵⁶	$\frac{155.95330}{155.95303}$	71n	2+0	8+0	18+0	28+2	1+4	0+7	0+1	$\frac{5.596M}{\alpha\ 494ms}$
$\frac{1258.21}{1258.1}$	Lu ₇₁ ¹⁵⁷	$\frac{156.95002}{156.950098}$	71n	2+0	8+0	18+0	28+2	0+6	0+6	0+1	$\frac{6.971M}{ce\ 6.80s}$
$\frac{1267.65}{1266.9}$	Lu ₇₁ ¹⁵⁸	$\frac{157.94855}{157.949313}$	71n	2+0	8+0	18+0	26+3	0+7	1+5	0+1	$\frac{8.796M}{ce\ 10.6s}$
$\frac{1277.09}{1277.5}$	Lu ₇₁ ¹⁵⁹	$\frac{158.94708}{158.94663}$	71n	2+0	8+0	18+0	26+3	0+8	0+5	0+1	$\frac{6.120M}{ce\ 12.1s}$
$\frac{1286.53}{1286.1}$	Lu ₇₁ ¹⁶⁰	$\frac{159.94561}{159.94603}$	71n	2+0	8+0	18+0	24+4	0+9	1+4	0+1	$\frac{7.890M}{ce\ 36.1s}$
$\frac{1295.98}{1296.5}$	Lu ₇₁ ¹⁶¹	$\frac{160.94413}{160.94357}$	71n	2+0	8+0	18+0	24+4	0+10	0+4	0+1	$\frac{5.280M}{ce\ 77.0s}$
$\frac{1305.42}{1304.8}$	Lu ₇₁ ¹⁶²	$\frac{161.94266}{161.94328}$	71n	2+0	8+0	18+0	22+5	0+11	1+3	0+1	$\frac{6.990M}{ce\ 1.37m}$
$\frac{1314.86}{1314.9}$	Lu ₇₁ ¹⁶³	$\frac{162.94119}{162.94118}$	71n	2+0	8+0	18+0	22+5	0+12	0+3	0+1	$\frac{4.510M}{ce\ 3.97m}$
$\frac{1322.61}{1322.8}$	Lu ₇₁ ¹⁶⁴	$\frac{163.94153}{163.94134}$	71n	2+0	8+0	18+0	20+6	1+12	0+3	0+1	$\frac{6.370M}{ce\ 3.14m}$
$\frac{1332.05}{1332.7}$	Lu ₇₁ ¹⁶⁵	$\frac{164.94007}{164.939407}$	71n	2+0	8+0	18+0	18+7	1+13	1+2	0+1	$\frac{3.840M}{ce\ 10.74m}$

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$\frac{1339.80}{1340.3}$	Lu ₇₁ ¹⁶⁶	$\frac{165.94041}{165.93986}$	71n	2+0	8+0	18+0	18+7	0+14	1+2	0+1	$\frac{5.570M}{ce\ 2.65m}$
$\frac{1349.25}{1349.9}$	Lu ₇₁ ¹⁶⁷	$\frac{166.93893}{166.93827}$	71n	2+0	8+0	18+0	18+7	0+15	0+2	0+1	$\frac{3.090M}{ce\ 51.5m}$
$\frac{1356.99}{1357.5}$	Lu ₇₁ ¹⁶⁸	$\frac{167.93929}{167.93874}$	71n	2+0	8+0	18+0	16+8	1+15	0+2	0+1	$\frac{4.510M}{ce\ 5.50m}$
$\frac{1366.79}{1366.6}$	Lu ₇₁ ¹⁶⁹	$\frac{168.93743}{168.937651}$	71n	2+0	8+0	18+0	16+8	0+16	0+3	0+0	$\frac{2.293M}{ce\ 34.06d}$
$\frac{1374.54}{1373.9}$	Lu ₇₁ ¹⁷⁰	$\frac{169.93777}{169.938475}$	71n	2+0	8+0	18+0	14+9	1+16	0+3	0+0	$\frac{3.459M}{ce\ 2.012d}$
$\frac{1382.29}{1382.5}$	Lu ₇₁ ¹⁷¹	$\frac{170.93812}{170.937913}$	71n	2+0	8+0	18+0	14+9	0+17	0+3	0+0	$\frac{1.4782M}{ce\ 8.24d}$
$\frac{1390.04}{1389.5}$	Lu ₇₁ ¹⁷²	$\frac{171.93846}{171.939086}$	71n	2+0	8+0	18+0	12+10	1+17	0+3	0+0	$\frac{2.5183M}{ce\ 6.70d}$
$\frac{1397.79}{1397.7}$	Lu ₇₁ ¹⁷³	$\frac{172.93881}{172.9389306}$	71n	2+0	8+0	18+0	12+10	0+18	0+3	0+0	$\frac{669.9K}{ce\ 1.37a}$
$\frac{1403.85}{1404.4}$	Lu ₇₁ ¹⁷⁴	$\frac{173.94097}{173.940338}$	71n	2+0	8+0	18+0	10+11	0+18	1+3	0+0	$\frac{1.3736M}{ce\ 3.31a}$
$\frac{1411.60}{1412.1}$	Lu ₇₁ ¹⁷⁵	$\frac{174.94131}{174.940772}$	71n	2+0	8+0	18+0	8+12	1+18	1+3	0+0	st 97.41%
$\frac{1417.66}{1418.4}$	Lu ₇₁ ¹⁷⁶	$\frac{175.94347}{175.942686}$	71n	2+0	8+0	18+0	8+12	1+18	0+4	0+0	$\frac{1.1941M}{\beta^- 3.76 \cdot 10^{10}a}$ 2.59%
$\frac{1425.42}{1425.5}$	Lu ₇₁ ¹⁷⁷	$\frac{176.94381}{176.943758}$	71n	2+0	8+0	18+0	8+12	0+19	0+4	0+0	$\frac{500.7K}{\beta^- 6.647d}$
$\frac{1431.47}{1431.5}$	Lu ₇₁ ¹⁷⁸	$\frac{177.945958}{177.945955}$	71n	2+0	8+0	18+0	6+13	0+19	1+4	0+0	$\frac{2.101M}{\beta^- 28.4m}$
$\frac{1439.22}{1438.3}$	Lu ₇₁ ¹⁷⁹	$\frac{178.94632}{178.947327}$	71n	2+0	8+0	18+0	4+14	1+19	1+4	0+0	$\frac{1.408M}{\beta^- 74.59h}$
$\frac{1443.60}{1444.0}$	Lu ₇₁ ¹⁸⁰	$\frac{179.95028}{179.94988}$	71n	2+0	8+0	18+0	4+14	0+19	1+5	0+0	$\frac{3.100M}{\beta^- 5.70m}$
$\frac{1450.34}{1450.1}$	Lu ₇₁ ¹⁸¹	$\frac{180.95171}{180.95197}$	71n	2+0	8+0	18+0	4+14	1+19	0+5	1+0	$\frac{2.700M}{\beta^- 3.50m}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{1455.37}{1455.3}$	Lu ₇₁ ¹⁸²	$\frac{181.95498}{181.95504}$	71n	2+0	8+0	18+0	2+15	1+19	0+5	0+1	$\frac{4.170M}{\beta^- 2.0m}$
$\frac{1461.43}{1461.0}$	Lu ₇₁ ¹⁸³	$\frac{182.95714}{182.95757}$	71n	2+0	8+0	18+0	0+16	1+19	1+5	0+1	$\frac{3.800M}{\beta^- 58.0s}$
$\frac{1465.80}{1466.0}$	Lu ₇₁ ¹⁸⁴	$\frac{183.96111}{183.96091}$	71n	2+0	8+0	18+0	0+16	0+19	1+6	0+1	$\frac{5.100M}{\beta^- 19.0s}$
$\frac{1471.87}{-}$	Lu ₇₁ ¹⁸⁵	$\frac{184.96326}{-}$	71n	2+0	8+0	18+0	0+16	0+19	0+7	0+1	$\frac{3.330M}{\beta^-}$
$\frac{1476.23}{-}$	Lu ₇₁ ¹⁸⁶	$\frac{185.96724}{-}$	71n	2+0	8+0	16+1	0+16	1+18	0+8	0+1	$\frac{5.170M}{\beta^-}$
$\frac{1482.28}{-}$	Lu ₇₁ ¹⁸⁷	$\frac{186.96941}{-}$	71n	2+0	8+0	14+2	0+16	1+18	1+8	0+1	$\frac{3.720M}{\beta^-}$

$E_c(\text{MeV})$ = valore calcolato dell'energia di legame

$E_s(\text{MeV})$ = 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

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

$E_p(\text{eV})$ = energia della particella emessa