

TAVOLA PERIODICA DEI NUCLEI ATOMICI

configurazione dei livelli nucleari degli isotopi **TUNGSTENO Z = 74-a**

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{1241.05}{1241.1}$	W_{74}^{158}	$\frac{157.97458}{157.97456}$	74n	2+0	8+0	18+0	31+0	3+0	2+9	0+1	$\frac{6.613M}{\alpha 1.25ms}$
$\frac{1250.62}{1250.7}$	W_{74}^{159}	$\frac{158.97298}{158.97292}$	74n	2+0	8+0	18+0	31+0	3+1	1+9	0+1	$\frac{6.450M}{\alpha 7.30ms}$
$\frac{1262.95}{1262.9}$	W_{74}^{160}	$\frac{159.96840}{159.96848}$	74n	2+0	8+0	18+0	31+0	2+3	0+9	1+0	$\frac{6.510M}{\alpha 91.0ms}$
$\frac{1272.25}{1272.0}$	W_{74}^{161}	$\frac{160.96708}{160.96736}$	74n	2+0	8+0	18+0	30+1	1+3	1+9	1+0	$\frac{5.923M}{\alpha 409ms}$
$\frac{1283.54}{1283.7}$	W_{74}^{162}	$\frac{161.96362}{161.963497}$	74n	2+0	8+0	18+0	30+1	0+5	1+8	1+0	$\frac{5.677M}{\alpha 1.36s}$
$\frac{1292.08}{1292.6}$	W_{74}^{163}	$\frac{162.96313}{162.96252}$	74n	2+0	8+0	18+0	30+1	0+6	1+7	0+1	$\frac{7.630M}{ce 2.67s}$
$\frac{1304.41}{1304.0}$	W_{74}^{164}	$\frac{163.95855}{163.958954}$	74n	2+0	8+0	18+0	28+2	1+7	0+7	1+0	$\frac{5.050M}{ce 6.30s}$
$\frac{1312.26}{1312.7}$	W_{74}^{165}	$\frac{164.95879}{164.95828}$	74n	2+0	8+0	18+0	28+2	0+8	0+7	1+0	$\frac{6.990M}{ce 5.10s}$
$\frac{1323.55}{1323.8}$	W_{74}^{166}	$\frac{165.95534}{165.955027}$	74n	2+0	8+0	18+0	26+3	1+9	0+6	1+0	$\frac{4.210M}{ce 19.2s}$
$\frac{1332.09}{1332.1}$	W_{74}^{167}	$\frac{166.954816}{166.954816}$	74n	2+0	8+0	18+0	26+3	1+10	0+5	0+1	$\frac{6.260M}{ce 19.9s}$
$\frac{1343.38}{1343.0}$	W_{74}^{168}	$\frac{167.95138}{167.951808}$	74n	2+0	8+0	18+0	26+3	0+12	0+4	0+1	$\frac{3.500M}{ce 50.9s}$
$\frac{1351.23}{1351.1}$	W_{74}^{169}	$\frac{168.95161}{168.951779}$	74n	2+0	8+0	18+0	24+4	1+12	0+4	0+1	$\frac{5.370M}{ce 74.0s}$
$\frac{1361.84}{1361.5}$	W_{74}^{170}	$\frac{169.94889}{169.949228}$	74n	2+0	8+0	18+0	22+5	1+13	0+4	1+0	$\frac{2.840M}{ce 2.42m}$
$\frac{1369.69}{1369.4}$	W_{74}^{171}	$\frac{170.94913}{170.94945}$	74n	2+0	8+0	18+0	22+5	0+14	0+4	1+0	$\frac{4.630M}{ce 2.38m}$
$\frac{1379.26}{1379.5}$	W_{74}^{172}	$\frac{171.94752}{171.94729}$	74n	2+0	8+0	18+0	20+6	0+15	1+3	1+0	$\frac{2.230M}{ce 6.60m}$
$\frac{1387.11}{1387.2}$	W_{74}^{173}	$\frac{172.94775}{172.94769}$	74n	2+0	8+0	18+0	18+7	1+15	1+3	1+0	$\frac{3.670M}{ce 7.60m}$
$\frac{1396.68}{1396.7}$	W_{74}^{174}	$\frac{173.94608}{173.94608}$	74n	2+0	8+0	18+0	18+7	1+16	0+3	1+0	$\frac{1.510M}{ce 33.2m}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{1404.54}{1404.2}$	W_{74}^{175}	$\frac{174.94637}{174.94672}$	74n	2+0	8+0	18+0	18+7	0+17	0+3	1+0	$\frac{2.780M}{ce\ 35.2m}$
$\frac{1412.39}{1413.3}$	W_{74}^{176}	$\frac{175.94661}{175.94563}$	74n	2+0	8+0	18+0	16+8	1+17	0+3	1+0	$\frac{720.0K}{ce\ 2.50h}$
$\frac{1420.24}{1420.4}$	W_{74}^{177}	$\frac{176.94685}{176.94664}$	74n	2+0	8+0	18+0	16+8	0+18	0+3	1+0	$\frac{2.020M}{ce\ 132m}$
$\frac{1429.13}{1429.2}$	W_{74}^{178}	$\frac{177.945576}{177.945876}$	74n	2+0	8+0	18+0	14+9	1+18	1+3	0+0	$\frac{91.3K}{ce\ 21.6d}$
$\frac{1436.98}{1436.2}$	W_{74}^{179}	$\frac{178.94621}{178.94707}$	74n	2+0	8+0	18+0	14+9	0+19	1+3	0+0	$\frac{1.066M}{ce\ 37.05m}$
$\frac{1444.83}{1444.6}$	W_{74}^{180}	$\frac{179.94644}{179.946704}$	74n	2+0	8+0	18+0	12+10	1+19	1+3	0+0	$\frac{147.2K}{\frac{2ce\ 6.6 \cdot 10^{17}a}{0.12\%}}$
$\frac{1450.96}{1451.3}$	W_{74}^{181}	$\frac{180.94853}{180.948197}$	74n	2+0	8+0	18+0	12+10	1+19	0+4	0+0	$\frac{188.0K}{ce\ 121.2d}$
$\frac{1458.82}{1459.3}$	W_{74}^{182}	$\frac{181.94876}{181.948204}$	74n	2+0	8+0	18+0	12+10	0+20	0+4	0+0	$\frac{st}{26.50\%}$
$\frac{1464.94}{1465.5}$	W_{74}^{183}	$\frac{182.95085}{182.950223}$	74n	2+0	8+0	18+0	10+11	0+20	1+4	0+0	$\frac{1.6753M}{\frac{\alpha\ 1.3 \cdot 10^{19}a}{14.31\%}}$
$\frac{1472.79}{1473.6}$	W_{74}^{184}	$\frac{183.95109}{183.950223}$	74n	2+0	8+0	18+0	8+12	1+20	1+4	0+0	$\frac{1.6514M}{\frac{\alpha\ 1.8 \cdot 10^{20}a}{30.64\%}}$
$\frac{1478.93}{1478.7}$	W_{74}^{185}	$\frac{184.95316}{184.953419}$	74n	2+0	8+0	18+0	8+12	1+20	0+5	0+0	$\frac{432.6K}{\beta^- 75.1d}$
$\frac{1486.78}{1485.9}$	W_{74}^{186}	$\frac{185.95340}{185.954364}$	74n	2+0	8+0	18+0	8+12	0+21	0+5	0+0	$\frac{491.4K}{\frac{2\beta^- 2.3 \cdot 10^{19}a}{28.43\%}}$
$\frac{1491.19}{1491.3}$	W_{74}^{187}	$\frac{186.957172}{186.957161}$	74n	2+0	8+0	18+0	6+13	1+20	0+6	0+0	$\frac{1.3123M}{\beta^- 24.00h}$
$\frac{1497.32}{1498.2}$	W_{74}^{188}	$\frac{187.95941}{187.958489}$	74n	2+0	8+0	18+0	4+14	1+20	1+6	0+0	$\frac{349.0K}{\beta^- 69.78d}$
$\frac{1503.45}{1503.1}$	W_{74}^{189}	$\frac{188.96150}{188.96191}$	74n	2+0	8+0	18+0	4+14	1+20	0+7	0+0	$\frac{2.500M}{\beta^- 10.7m}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p - T_{1/2}}$
$\frac{1509.58}{1510.0}$	W_{74}^{190}	$\frac{189.96358}{189.96318}$	74n	2+0	8+0	18+0	2+15	1+20	1+7	0+0	$\frac{1.270M}{\beta^- 30.0m}$
$\frac{1514.66}{1514.8}$	W_{74}^{191}	$\frac{190.96679}{190.96660}$	74n	2+0	8+0	18+0	0+16	1+20	1+7	1+0	$\frac{3.240M}{\beta^- 20s}$
$\frac{1520.80}{1521.4}$	W_{74}^{192}	$\frac{191.96887}{191.96817}$	74n	2+0	8+0	18+0	0+16	1+20	0+8	1+0	$\frac{2.100M}{\beta^- 10s}$
$\frac{1525.21}{-}$	W_{74}^{193}	$\frac{192.97280}{-}$	74n	2+0	8+0	18+0	0+16	0+20	0+9	1+0	$\frac{4.00M}{\beta^- >300ns}$
$\frac{1530.31}{-}$	W_{74}^{194}	$\frac{193.97599}{-}$	74n	2+0	8+0	18+0	0+16	0+20	0+9	0+1	$\frac{3.00M}{\beta^- >300ns}$

$E_c(\text{MeV})$ = 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