

TAVOLA PERIODICA DEI NUCLEI ATOMICI

configurazione dei livelli nucleari degli isotopi **CADMIO** **Z = 48-a**

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{776.357}{775.92}$	Cd_{48}^{95}	$\frac{94.94940}{94.94987}$	$\frac{48}{47n}$	2+0	8+0	18+0	8+0	5+0	7+0	0+0	$\frac{13.00M}{ce\ 5.0ms}$
$\frac{793.437}{793.41}$	Cd_{48}^{96}	$\frac{95.93973}{95.93977}$	48n	2+0	8+0	18+0	9+0	8+0	3+0	0+0	$\frac{9.10M}{ce\ 1.03S}$
$\frac{805.560}{805.97}$	Cd_{48}^{97}	$\frac{96.93538}{96.93494}$	48n	2+0	8+0	18+0	10+0	8+1	1+0	0+0	$\frac{10.40M}{ce1.10S}$
$\frac{821.197}{821.06}$	Cd_{48}^{98}	$\frac{97.92726}{97.92740}$	48n	2+0	8+0	18+0	14+0	4+1	0+1	0+0	$\frac{5.430M}{ce9.20S}$
$\frac{831.927}{831.36}$	Cd_{48}^{99}	$\frac{98.92440}{98.92501}$	48n	2+0	8+0	18+0	15+0	1+3	1+0	0+0	$\frac{6.781M}{ce16.0S}$
$\frac{843.826}{843.83}$	Cd_{48}^{100}	$\frac{99.92029}{99.92029}$	48n	2+0	8+0	18+0	15+1	0+3	1+0	0+0	$\frac{3.943M}{ce49.1S}$
$\frac{853.163}{853.40}$	Cd_{48}^{101}	$\frac{100.91893}{100.91868}$	48n	2+0	8+0	18+0	14+2	0+3	1+0	0+0	$\frac{5.498M}{ce1.36m}$
$\frac{865.060}{865.40}$	Cd_{48}^{102}	$\frac{101.91483}{101.91446}$	48n	2+0	8+0	18+0	12+4	1+2	1+0	0+0	$\frac{2.587M}{ce5.50m}$
$\frac{874.396}{874.44}$	Cd_{48}^{103}	$\frac{102.91347}{102.91342}$	48n	2+0	8+0	18+0	11+5	1+2	1+0	0+0	$\frac{4.148M}{ce7.30m}$
$\frac{886.296}{885.84}$	Cd_{48}^{104}	$\frac{103.90936}{103.90985}$	48n	2+0	8+0	18+0	11+6	0+2	1+0	0+0	$\frac{1.146M}{ce57.7m}$
$\frac{894.241}{894.27}$	Cd_{48}^{105}	$\frac{104.90950}{104.90947}$	48n	2+0	8+0	18+0	10+7	1+1	0+1	0+0	$\frac{2.737M}{ce55.5m}$
$\frac{904.969}{905.14}$	Cd_{48}^{106}	$\frac{105.90664}{105.90646}$	48n	2+0	8+0	18+0	9+8	0+2	1+0	0+0	$\frac{2.775M}{\frac{2ce3.6 \cdot 10^{20}a}{1.25\%}}$
$\frac{912.914}{913.06}$	Cd_{48}^{107}	$\frac{106.90678}{106.90662}$	48n	2+0	8+0	18+0	8+9	1+1	0+1	0+0	$\frac{1.415M}{ce6.50h}$
$\frac{923.642}{923.40}$	Cd_{48}^{108}	$\frac{107.90393}{107.90418}$	48n	2+0	8+0	18+0	7+10	0+2	1+0	0+0	$\frac{269.0K}{\frac{2ce1.9 \cdot 10^{18}a}{0.89\%}}$
$\frac{930.416}{930.73}$	Cd_{48}^{109}	$\frac{108.90532}{108.90498}$	48n	2+0	8+0	18+0	5+11	1+2	1+0	0+0	$\frac{215.2K}{ce461.4d}$
$\frac{940.924}{940.65}$	Cd_{48}^{110}	$\frac{109.90270}{109.90300}$	48n	2+0	8+0	18+0	5+12	1+1	0+1	0+0	$\frac{st}{12.49\%}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p \cdot T_{1/2}}$
$\frac{947.700}{947.62}$	Cd ₄₈ ¹¹¹	$\frac{110.90409}{110.90418}$	48n	2+0	8+0	18+0	5+12	0+2	0+1	0+0	$\frac{\text{st}}{12.80\%}$
$\frac{957.037}{957.02}$	Cd ₄₈ ¹¹²	$\frac{111.90274}{111.90276}$	48n	2+0	8+0	18+0	4+13	0+2	0+1	0+0	$\frac{\text{st}}{24.13\%}$
$\frac{963.818}{963.56}$	Cd ₄₈ ¹¹³	$\frac{112.90412}{112.90440}$	48n	2+0	8+0	18+0	2+14	1+2	0+1	0+0	$\frac{321.9\text{K}}{\beta^- 8.0 \cdot 10^{15} \text{a}}$ 12.22%
$\frac{971.975}{972.60}$	Cd ₄₈ ¹¹⁴	$\frac{113.90403}{113.90336}$	48n	2+0	8+0	18+0	0+15	1+3	1+0	0+0	$\frac{541.4\text{K}}{2\beta^- 2.1 \cdot 10^{18} \text{a}}$ 14.73%
$\frac{978.751}{978.74}$	Cd ₄₈ ¹¹⁵	$\frac{114.90542}{114.90543}$	48n	2+0	8+0	18+0	0+15	0+4	1+0	0+0	$\frac{1.4487\text{M}}{\beta^- 53.46\text{h}}$
$\frac{988.082}{987.44}$	Cd ₄₈ ¹¹⁶	$\frac{115.90407}{115.90476}$	48n	2+0	8+0	16+1	1+15	0+4	1+0	0+0	$\frac{2.8095\text{M}}{2\beta^- 3.3 \cdot 10^{19} \text{a}}$ 7.49%
$\frac{993.468}{993.22}$	Cd ₄₈ ¹¹⁷	$\frac{116.90695}{116.90722}$	48n	2+0	8+0	16+1	1+15	0+4	0+1	0+0	$\frac{2.521\text{M}}{\beta^- 2.49\text{h}}$
$\frac{1001.40}{1001.6}$	Cd ₄₈ ¹¹⁸	$\frac{117.90710}{117.90691}$	48n	2+0	8+0	14+2	1+15	0+5	1+0	0+0	$\frac{523.0\text{K}}{\beta^- 50.3\text{m}}$
$\frac{1007.01}{1006.8}$	Cd ₄₈ ¹¹⁹	$\frac{118.90974}{118.90992}$	48n	2+0	8+0	14+2	1+15	0+5	0+1	0+0	$\frac{3.720\text{M}}{\beta^- 2.69\text{m}}$
$\frac{1015.17}{1015.0}$	Cd ₄₈ ¹²⁰	$\frac{119.90965}{119.90985}$	48n	2+0	8+0	12+3	1+15	0+6	1+0	0+0	$\frac{1.770\text{M}}{\beta^- 50.8\text{s}}$
$\frac{1020.05}{1020.1}$	Cd ₄₈ ¹²¹	$\frac{120.91307}{120.91298}$	48n	2+0	8+0	12+3	0+16	0+5	1+0	0+1	$\frac{4.780\text{M}}{\beta^- 13.5\text{s}}$
$\frac{1027.66}{1027.9}$	Cd ₄₈ ¹²²	$\frac{121.91357}{121.91333}$	48n	2+0	8+0	10+4	0+16	1+5	0+1	1+0	$\frac{2.960\text{M}}{\beta^- 2.54\text{s}}$
$\frac{1032.20}{1032.5}$	Cd ₄₈ ¹²³	$\frac{122.91736}{122.91700}$	48n	2+0	8+0	10+4	0+16	1+5	0+1	0+1	$\frac{6.110\text{M}}{\beta^- 2.10\text{s}}$
$\frac{1039.81}{1040.0}$	Cd ₄₈ ¹²⁴	$\frac{123.91785}{123.91765}$	48n	2+0	8+0	8+5	0+16	0+6	1+1	1+0	$\frac{4.170\text{M}}{\beta^- 1.25\text{s}}$
$\frac{1044.36}{1044.7}$	Cd ₄₈ ¹²⁵	$\frac{124.92163}{124.92125}$	48n	2+0	8+0	8+5	0+16	0+6	1+1	0+1	$\frac{7.130\text{M}}{\beta^- 680\text{ms}}$
$\frac{1051.96}{1051.8}$	Cd ₄₈ ¹²⁶	$\frac{125.92214}{125.92235}$	48n	2+0	8+0	6+6	0+16	1+6	0+2	1+0	$\frac{5.560\text{M}}{\beta^- 515\text{ms}}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p - T_{1/2}}$
$\frac{1055.96}{1056.0}$	Cd ¹²⁷ ₄₈	$\frac{126.92651}{126.92644}$	48n	2+0	8+0	6+6	0+16	0+6	0+3	1+0	$\frac{8.460M}{\beta^- 370ms}$
$\frac{1062.70}{1062.7}$	Cd ¹²⁸ ₄₈	$\frac{127.92794}{127.92793}$	48n	2+0	8+0	4+7	0+16	1+6	0+3	1+0	$\frac{7.110M}{\beta^- 280ms}$
$\frac{1067.25}{1066.8}$	Cd ¹²⁹ ₄₈	$\frac{128.93172}{128.93215}$	48n	2+0	8+0	4+7	0+16	1+6	0+3	0+1	$\frac{9.500M}{\beta^- 242ms}$
$\frac{1073.48}{1073.3}$	Cd ¹³⁰ ₄₈	$\frac{129.93370}{129.93390}$	48n	2+0	8+0	2+8	0+16	1+6	0+4	1+0	$\frac{8.350M}{\beta^- 162ms}$
$\frac{1075.14}{1075.1}$	Cd ¹³¹ ₄₈	$\frac{130.94058}{130.94067}$	48n	2+0	8+0	2+8	0+15	0+8	0+4	1+0	$\frac{12.67M}{\beta^- 68.0ms}$
$\frac{1079.12}{1078.6}$	Cd ¹³² ₄₈	$\frac{131.94497}{131.94555}$	48n	2+0	8+0	0+9	0+15	1+7	0+5	1+0	$\frac{11.50M}{\beta^- 97.0ms}$
$\frac{1083.11}{-}$	Cd ¹³³ ₄₈	$\frac{132.94935}{-}$	48n	2+0	8+0	0+9	0+15	0+7	0+6	1+0	$\frac{9.990M}{\beta^- 57.0ms}$
$\frac{1087.08}{-}$	Cd ¹³⁴ ₄₈	$\frac{133.95376}{-}$	48n	2+0	6+1	0+9	0+15	1+6	0+7	1+0	$\frac{8.120M}{\beta^-}$

$E_c(\text{MeV})$ = 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