TAVOLA PERIODICA DEI NUCLEI ATOMICI

configurazione dei livelli nucleari degli isotopi ORO Z = 79-a

$\frac{E_c(MeV)}{E_s(MeV)}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(eV)}{p\text{-}T_{1/2}}$
$\frac{1303.92}{1304.0}$	Au^{169}_{79}	$\frac{168.99823}{168.99808}$	79n	2+0	8+0	18+0	32+0	2+0	6+10	0+1	$\frac{2.47173M}{p\,150\mu s}$
$\frac{1313.70}{1313.9}$	Au^{170}_{79}	$\frac{169.99637}{169.99612}$	79n	2+0	8+0	18+0	32+0	4+0	3+11	0+1	$\frac{1.97804M}{ce\,286\mu s}$
$\frac{1326.30}{1326.0}$	Au^{171}_{79}	$\frac{170.99151}{170.991879}$	79n	2+0	8+0	18+0	32+0	5+1	0+12	1+0	$\frac{1.96314M}{p\,17\mu s}$
$\frac{1336.08}{1335.7}$	Au^{172}_{79}	$\frac{171.98967}{171.99004}$	79n	2+0	8+0	18+0	32+0	3+3	1+11	1+0	$\frac{6.923M}{\alpha\ 22.0ms}$
$\frac{1347.62}{1347.4}$	Au^{173}_{79}	$\frac{172.98595}{172.986237}$	79n	2+0	8+0	18+0	32+0	2+5	1+10	1+0	$\frac{6.836M}{\alpha\ 25.0ms}$
$\frac{1356.33}{1356.8}$	Au^{174}_{79}	$\frac{173.98527}{173.98476}$	79n	2+0	8+0	18+0	32+0	2+6	1+9	0+1	$\frac{6.699M}{\alpha\ 139ms}$
$\frac{1367.87}{1368.1}$	Au^{175}_{79}	$\frac{174.98154}{174.98127}$	79n	2+0	8+0	18+0	32+0	1+8	1+8	0+1	$\frac{6.562M}{\alpha\ 100ms}$
$\frac{1376.94}{1377.3}$	Au^{176}_{79}	$\frac{175.98047}{175.98010}$	79n	2+0	8+0	18+0	32+0	0+9	0+9	1+0	$\frac{6.558M}{\alpha\ 1.05s}$
$\frac{1388.48}{1388.4}$	Au^{177}_{79}	$\frac{176.97674}{176.976865}$	79n	2+0	8+0	18+0	30+1	1+10	0+8	1+0	$\frac{6.299M}{\alpha\ 1.53s}$
$\frac{1397.19}{1397.2}$	Au^{178}_{79}	$\frac{177.97603}{177.97603}$	79n	2+0	8+0	18+0	30+1	1+11	0+7	0+1	$\frac{9.670M}{ce\,2.60s}$
$\frac{1408.03}{1407.9}$	Au^{179}_{79}	$\frac{178.97308}{178.973213}$	79n	2+0	8+0	18+0	28+2	1+12	0+7	1+0	$\frac{7.290M}{ce\ 7.10s}$
$\frac{1416.73}{1416.6}$	Au^{180}_{79}	$\frac{179.97241}{179.972521}$	79n	2+0	8+0	18+0	28+2	1+13	0+6	0+1	$\frac{8.840M}{ce\ 8.10s}$
$\frac{1426.50}{1427.0}$	Au^{181}_{79}	$\frac{180.97059}{180.970079}$	79n	2+0	8+0	18+0	26+3	1+14	1+5	0+1	$\frac{6.503M}{ce\,13.7s}$
$\frac{1435.58}{1435.5}$	Au^{182}_{79}	$\frac{181.96950}{181.969618}$	79n	2+0	8+0	18+0	26+3	0+15	0+6	1+0	$\frac{7.870M}{ce\,15.5s}$
$\frac{1445.34}{1445.4}$	Au^{183}_{79}	$\frac{182.96769}{182.967593}$	79n	2+0	8+0	18+0	24+4	0+16	1+5	1+0	$\frac{5.586M}{ce\ 42.8s}$
$\frac{1453.35}{1453.6}$	Au^{184}_{79}	$\frac{183.96776}{183.967452}$	79n	2+0	8+0	18+0	22+5	1+16	1+5	1+0	$\frac{7.010M}{ce\ 20.6s}$

$\frac{E_c(MeV)}{E_s(MeV)}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(eV)}{p\text{-}T_{1/2}}$
$\frac{1463.12}{1463.3}$	Au^{185}_{79}	$\frac{184.96593}{184.965789}$	79n	2+0	8+0	18+0	22+5	1+17	0+5	1+0	$\frac{4.820M}{ce\ 4.25m}$
$\frac{1471.13}{1471.2}$	Au^{186}_{79}	$\frac{185.96600}{185.965953}$	79n	2+0	8+0	18+0	22+5	0+18	0+5	1+0	$\frac{6.150M}{ce\ 10.7m}$
$\frac{1480.90}{1480.5}$	Au^{187}_{79}	$\frac{186.96418}{186.964568}$	79n	2+0	8+0	18+0	20+6	0+19	1+4	1+0	$\frac{3.710M}{ce\ 8.30m}$
$\frac{1487.84}{1487.9}$	Au^{188}_{79}	$\frac{187.96539}{187.965324}$	79n	2+0	8+0	18+0	20+6	1+19	0+4	0+1	$\frac{5.528M}{ce\ 8.84h}$
$\frac{1496.91}{1497.3}$	Au^{189}_{79}	$\frac{188.96432}{188.963948}$	79n	2+0	8+0	18+0	18+7	0+20	1+4	1+0	$\frac{2.903M}{ce\ 28.9m}$
$\frac{1504.21}{1504.6}$	Au^{190}_{79}	$\frac{189.96515}{189.964700}$	79n	2+0	8+0	18+0	18+7	0+20	1+5	0+0	$\frac{4.442M}{ce\ 42.8m}$
$\frac{1513.99}{1513.6}$	Au^{191}_{79}	$\frac{190.96331}{190.96370}$	79n	2+0	8+0	18+0	18+7	0+21	0+5	0+0	$\frac{1.890M}{ce\ 3.18h}$
$\frac{1520.22}{1520.7}$	Au^{192}_{79}	$\frac{191.96529}{191.964813}$	79n	2+0	8+0	18+0	16+8	0+21	1+5	0+0	$\frac{3.516M}{ce\ 4.94h}$
$\frac{1530.00}{1529.4}$	Au^{193}_{79}	$\frac{192.96346}{192.964150}$	79n	2+0	8+0	18+0	16+8	0+22	0+5	0+0	$\frac{1.076M}{ce\ 17.65h}$
$\frac{1536.23}{1536.3}$	Au^{194}_{79}	$\frac{193.96543}{193.965365}$	79n	2+0	8+0	18+0	14+9	0+22	1+5	0+0	$\frac{2.501M}{ce\ 38.02h}$
$\frac{1544.24}{1544.7}$	Au^{195}_{79}	$\frac{194.96550}{194.965035}$	79n	2+0	8+0	18+0	12+10	1+22	1+5	0+0	$\frac{226.8K}{ce\ 196.098d}$
$\frac{1550.48}{1551.3}$	Au^{196}_{79}	$\frac{195.96746}{195.966570}$	79n	2+0	8+0	18+0	12+10	1+22	0+6	0+0	$\frac{1.507M}{ce\ 1.1669d}$
$\frac{1560.25}{1559.4}$	Au^{197}_{79}	$\frac{196.96564}{196.966569}$	79n	2+0	8+0	18+0	10+11	1+23	1+5	0+0	**st**
$\frac{1566.49}{1565.9}$	Au^{198}_{79}	$\frac{197.96761}{197.968242}$	79n	2+0	8+0	18+0	10+11	1+23	0+6	0+0	$\frac{1.3729M}{\beta^- 2.6948d}$
$\frac{1574.49}{1573.5}$	Au^{199}_{79}	$\frac{198.96768}{198.968765}$	79n	2+0	8+0	18+0	10+11	0+24	0+6	0+0	$\frac{451.5K}{\beta^- 3.139d}$
$\frac{1580.73}{1579.7}$	Au^{200}_{79}	$\frac{199.96965}{199.97073}$	79n	2+0	8+0	18+0	8+12	0+24	1+6	0+0	$\frac{2.240M}{\beta^- 48.4m}$

$\frac{E_c(MeV)}{E_s(MeV)}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(eV)}{p\text{-}T_{1/2}}$
$\frac{1586.97}{1586.9}$	Au^{201}_{79}	$\frac{200.97161}{200.971657}$	79n	2+0	8+0	18+0	8+12	0+24	0+7	0+0	$\frac{1.262M}{\beta^- 26.0m}$
$\frac{1593.20}{1593.0}$	Au^{202}_{79}	$\frac{201.97359}{201.97381}$	79n	2+0	8+0	18+0	6+13	0+24	1+7	0+0	$\frac{2.950M}{\beta^- 28.4s}$
$\frac{1599.44}{1599.8}$	Au^{203}_{79}	$\frac{202.97556}{202.975155}$	79n	2+0	8+0	18+0	6+13	0+24	0+8	0+0	$\frac{2.126M}{\beta^- 60.0s}$
$\frac{1605.68}{1605.5}$	Au^{204}_{79}	$\frac{203.97752}{203.97772}$	79n	2+0	8+0	18+0	4+14	0+24	1+8	0+0	$\frac{2.700M}{\beta^- 10.3s}$
$\frac{1611.55}{1611.6}$	Au^{205}_{79}	$\frac{204.97989}{204.97987}$	79n	2+0	8+0	18+0	2+15	1+24	1+7	0+1	$\frac{3.400M}{\beta^- 32.5s}$
$\frac{1617.09}{-}$	Au^{206}_{79}	$\frac{205.98260}{-}$	79n	2+0	8+0	18+0	2+15	0+24	0+9	1+0	$\frac{6.600M}{\beta^- >300ns}$
$\frac{1619.78}{-}$	Au^{207}_{79}	$\frac{206.99228}{-}$	79n	2+0	8+0	18+0	0+16	0+23	1+10	1+0	$\frac{5.400M}{\beta^- >300ns}$
$\frac{1624.25}{-}$	Au^{208}_{79}	$\frac{207.98843}{-}$	79n	2+0	8+0	16+1	0+16	1+22	1+11	1+0	$\frac{7.200M}{\beta^- >300ns}$
$\frac{1629.42}{-}$	Au^{209}_{79}	$\frac{208.99536}{-}$	79n	2+0	8+0	16+1	0+16	1+22	1+11	0+1	$\frac{6.100M}{\beta^- >300ns}$

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

$\mathbf{E_s}(MeV)$ = valore sperimentale dell'energia di legame

$\mathbf{m_c}$ = valore calcolato della massa atomica

$\mathbf{m_s}$ = valore sperimentale della massa atomica

n = numero di neutroni centrali attivi

1-7 = numero quantico associato al livello

$\mathbf{p} + \mathbf{d}$ = (numero di protoni) + (numero di deutoni) in orbita

p -$\mathbf{T}_{1/2}$ = particella emessa – periodo di dimezzamento

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

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