

## TAVOLA PERIODICA DEI NUCLEI ATOMICI

### configurazione dei livelli nucleari degli isotopi **RUTERFORDIO Z = 104-a**

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{P-T_{1/2}}$
$\frac{1851.90}{-}$	Rf <sub>104</sub> <sup>251</sup>	$\frac{251.09945}{-}$	104n	2+0	8+0	18+0	32+0	1+24	0+18	0+1	
$\frac{1860.51}{-}$	Rf <sub>104</sub> <sup>252</sup>	$\frac{252.09887}{-}$	104n	2+0	8+0	18+0	32+0	0+25	0+18	0+1	—
$\frac{1867.15}{1867.7}$	Rf <sub>104</sub> <sup>253</sup>	$\frac{253.10041}{253.10069}$	104n	2+0	8+0	18+0	30+1	0+25	1+18	0+1	$\frac{9.600M}{\alpha 48\mu\text{s}}$
$\frac{1876.16}{1876.2}$	Rf <sub>104</sub> <sup>254</sup>	$\frac{254.09940}{254.10018}$	104n	2+0	8+0	18+0	30+1	0+25	0+20	0+0	$\frac{-}{FS 23\mu\text{s}}$
$\frac{1882.81}{1882.42}$	Rf <sub>104</sub> <sup>255</sup>	$\frac{255.10093}{255.10134}$	104n	2+0	8+0	18+0	28+2	0+25	1+20	0+0	$\frac{9.055M}{\alpha 2.30\text{s}}$
$\frac{1889.47}{1891.4}$	Rf <sub>104</sub> <sup>256</sup>	$\frac{256.10244}{256.10117}$	104n	2+0	8+0	18+0	28+2	0+25	0+21	0+0	$\frac{-}{FS 6.4\text{ms}}$
$\frac{1896.12}{1897.8}$	Rf <sub>104</sub> <sup>257</sup>	$\frac{257.10397}{257.10299}$	104n	2+0	8+0	18+0	26+3	0+25	1+21	0+0	$\frac{9.083}{\alpha 4.7\text{s}}$
$\frac{1902.77}{1905.4}$	Rf <sub>104</sub> <sup>258</sup>	$\frac{258.10549}{258.10349}$	104n	2+0	8+0	18+0	26+3	0+25	0+22	0+0	$\frac{-}{FS 14.7\text{ms}}$
$\frac{1909.42}{1911.5}$	Rf <sub>104</sub> <sup>259</sup>	$\frac{259.10702}{259.10564}$	104n	2+0	8+0	18+0	24+4	0+25	1+22	0+0	$\frac{9.130M}{\alpha 3.20\text{s}}$
$\frac{1916.08}{1918.8}$	Rf <sub>104</sub> <sup>260</sup>	$\frac{260.10853}{260.10644}$	104n	2+0	8+0	18+0	24+4	0+25	0+23	0+0	$\frac{-}{FS 21.0\text{ms}}$
$\frac{1922.73}{1924.7}$	Rf <sub>104</sub> <sup>261</sup>	$\frac{261.11006}{261.10877}$	104n	2+0	8+0	18+0	22+5	0+25	1+23	0+0	$\frac{8.650M}{\alpha 1.90\text{s}}$
$\frac{1929.38}{1931.7}$	Rf <sub>104</sub> <sup>262</sup>	$\frac{262.11159}{262.10992}$	104n	2+0	8+0	18+0	22+5	0+25	0+24	0+0	$\frac{-}{FS 2.3\text{s}}$
$\frac{1936.03}{1937.3}$	Rf <sub>104</sub> <sup>263</sup>	$\frac{263.11311}{263.11255}$	104n	2+0	8+0	18+0	20+6	0+25	1+24	0+0	$\frac{-}{FS 10.0\text{m}}$
$\frac{1942.69}{1943.3}$	Rf <sub>104</sub> <sup>264</sup>	$\frac{264.11463}{264.11397}$	104n	2+0	8+0	18+0	20+6	0+25	0+25	0+0	$\frac{8.100M}{\alpha 1\text{h}}$
$\frac{1949.34}{1948.8}$	Rf <sub>104</sub> <sup>265</sup>	$\frac{265.11615}{265.11673}$	104n	2+0	8+0	18+0	18+7	0+25	1+25	0+0	$\frac{7.900M}{\alpha 13\text{h}}$
$\frac{1955.99}{1955.7}$	Rf <sub>104</sub> <sup>266</sup>	$\frac{266.11768}{266.11799}$	104n	2+0	8+0	18+0	18+7	0+25	0+26	0+0	$\frac{7.700M}{\alpha 10\text{h}}$
$\frac{1960.69}{1961.1}$	Rf <sub>104</sub> <sup>267</sup>	$\frac{267.12130}{267.12080}$	104n	2+0	8+0	18+0	16+8	1+24	0+27	0+0	$\frac{7.800M}{\alpha 5\text{h}}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{1967.34}{1966.6}$	Rf <sub>104</sub> <sup>268</sup>	$\frac{268.12282}{268.12362}$	104n	2+0	8+0	18+0	14+9	1+24	1+27	0+0	$\frac{7.800M}{\alpha \text{ 1h}}$
$\frac{1971.65}{-}$	Rf <sub>104</sub> <sup>269</sup>	$\frac{269.12686}{-}$	104n	2+0	8+0	18+0	14+9	1+24	0+27	0+1	—
$\frac{1977.52}{-}$	Rf <sub>104</sub> <sup>270</sup>	$\frac{270.12922}{-}$	104n	2+0	8+0	18+0	12+10	0+24	1+28	1+0	—
$\frac{1983.00}{-}$	Rf <sub>104</sub> <sup>271</sup>	$\frac{271.13201}{-}$	104n	2+0	8+0	18+0	12+10	0+24	1+28	0+1	—
$\frac{1989.66}{-}$	Rf <sub>104</sub> <sup>272</sup>	$\frac{272.13352}{-}$	104n	2+0	8+0	18+0	12+10	0+24	0+29	0+1	—

$E_c(\text{MeV})$  = 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