

**TAVOLA PERIODICA DEI NUCLEI ATOMICI**  
**configurazione dei livelli nucleari degli isodiaferi I = +41**

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_\alpha(\text{eV})}{T_{1/2}}$
$\frac{1143.97}{-}$	$\text{Sb}_{51}^{143}$	$\frac{142.96815}{-}$	51n	2+0	6+1	0+9	1+15	1+4	0+11	0+1	$\frac{-}{\beta^-}$
$\frac{1162.26}{-}$	$\text{Te}_{52}^{145}$	$\frac{144.96499}{-}$	52n	2+0	8+0	0+9	0+16	1+4	0+11	0+1	$\frac{-}{\beta^-}$
$\frac{1179.30}{-}$	$\text{I}_{53}^{147}$	$\frac{146.96320}{-}$	53n	2+0	8+0	2+8	0+16	1+5	1+10	0+1	$\frac{-7.012\text{M}}{\beta^-}$
$\frac{1194.17}{-}$	$\text{Xe}_{54}^{149}$	$\frac{148.96372}{-}$	54n	2+0	8+0	0+9	0+16	1+5	1+11	1+0	$\frac{-3.585\text{M}}{\beta^-}$
$\frac{1211.08}{1211.0}$	$\text{Cs}_{55}^{151}$	$\frac{150.96206}{150.96219}$	55n	2+0	8+0	2+8	0+16	1+6	0+11	1+0	$\frac{-3.464\text{M}}{\beta^- 60\text{ms}}$
$\frac{1229.42}{1228.7}$	$\text{Ba}_{56}^{153}$	$\frac{152.95886}{152.95961}$	56n	2+0	8+0	4+7	0+16	0+8	0+10	1+0	$\frac{-6.929\text{M}}{\beta^- 80\text{ms}}$
$\frac{1245.28}{1245.3}$	$\text{La}_{57}^{155}$	$\frac{154.95833}{154.95835}$	57n	2+0	8+0	6+6	0+16	0+9	0+9	0+1	$\frac{-5.800\text{M}}{\beta^- 60\text{ms}}$
$\frac{1261.99}{1262.5}$	$\text{Ce}_{58}^{157}$	$\frac{156.95688}{156.95634}$	58n	2+0	8+0	6+6	0+16	0+10	1+8	0+1	$\frac{-5.700\text{M}}{\beta^- 50\text{ms}}$
$\frac{1278.64}{1278.6}$	$\text{Pr}_{59}^{159}$	$\frac{158.95549}{158.95550}$	59n	2+0	8+0	8+5	0+16	0+11	0+8	0+1	$\frac{-5.400\text{M}}{\beta^- 100\text{ms}}$
$\frac{1295.22}{1295.5}$	$\text{Nd}_{60}^{161}$	$\frac{160.95418}{160.95388}$	60n	2+0	8+0	8+5	0+16	0+12	1+7	0+1	$\frac{-4.900\text{M}}{\beta^- 200\text{ms}}$
$\frac{1311.12}{1311.0}$	$\text{Pm}_{61}^{163}$	$\frac{162.95360}{162.95368}$	61n	2+0	8+0	8+5	0+16	1+12	0+8	1+0	$\frac{-4.100\text{M}}{\beta^- 200\text{ms}}$
$\frac{1327.56}{1327.1}$	$\text{Sm}_{62}^{165}$	$\frac{164.95244}{164.95298}$	62n	2+0	8+0	8+5	0+16	1+13	1+7	1+0	$\frac{-3.300\text{M}}{\beta^- 200\text{ms}}$
$\frac{1341.40}{-}$	$\text{Eu}_{63}^{167}$	$\frac{166.95408}{-}$	63n	2+0	8+0	12+3	0+16	0+14	0+7	0+1	$\frac{-3.100\text{M}}{\beta^- 200\text{ms}}$
$\frac{1358.67}{1358.4}$	$\text{Gd}_{64}^{169}$	$\frac{168.95203}{168.952287}$	64n	2+0	8+0	12+3	0+16	0+15	0+7	1+0	$\frac{-2.800\text{M}}{\beta^- 1\text{s}}$
$\frac{1372.31}{1372.8}$	$\text{Tb}_{65}^{171}$	$\frac{170.95387}{170.95330}$	65n	2+0	8+0	12+3	0+16	1+15	1+6	0+1	$\frac{-2.400\text{M}}{\beta^- 500\text{ms}}$
$\frac{1388.47}{1388.5}$	$\text{Dy}_{66}^{173}$	$\frac{172.95301}{172.95300}$	66n	2+0	8+0	14+2	0+16	1+16	0+6	0+1	$\frac{-2.00\text{M}}{\beta^- 2\text{s}}$
$\frac{1402.92}{1402.9}$	$\text{Ho}_{67}^{175}$	$\frac{174.95399}{174.95405}$	67n	2+0	8+0	16+1	0+16	0+17	0+6	0+1	$\frac{-1.700\text{M}}{\beta^- 5\text{s}}$

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$\frac{1418.25}{1418.2}$	Er <sup>177</sup> <sub>68</sub>	$\frac{176.95402}{176.95405}$	68n	2+0	8+0	14+2	0+16	1+17	1+6	1+0	$\frac{-1.600M}{\beta^- 3s}$
$\frac{1432.52}{1432.4}$	Tm <sup>179</sup> <sub>69</sub>	$\frac{178.95519}{178.95534}$	69n	2+0	8+0	16+1	0+16	0+18	1+6	1+0	$\frac{-1.00M}{\beta^- 20s}$
$\frac{1447.36}{1447.0}$	Yb <sup>181</sup> <sub>70</sub>	$\frac{180.95575}{180.95615}$	70n	2+0	8+0	18+0	0+16	0+19	1+5	0+1	$\frac{-790K}{\beta^- 1m}$
$\frac{1461.43}{1461.0}$	Lu <sup>183</sup> <sub>71</sub>	$\frac{182.95714}{182.95757}$	71n	2+0	8+0	18+0	0+16	1+19	1+5	0+1	$\frac{-585K}{\beta^- 58.0s}$
$\frac{1475.42}{1475.2}$	Hf <sup>185</sup> <sub>72</sub>	$\frac{184.95861}{184.95882}$	72n	2+0	8+0	18+0	2+15	0+20	1+5	0+1	$\frac{262K}{\beta^- 3.50m}$
$\frac{1489.33}{1489.0}$	Ta <sup>187</sup> <sub>73</sub>	$\frac{186.96017}{186.96053}$	73n	2+0	8+0	18+0	2+15	1+20	1+5	0+1	$\frac{300K}{\beta^- 2.30m}$
$\frac{1503.45}{1503.1}$	W <sup>189</sup> <sub>74</sub>	$\frac{188.96150}{188.96191}$	74n	2+0	8+0	18+0	4+14	1+20	0+7	0+0	$\frac{500K}{\beta^- 10.7m}$
$\frac{1517.15}{1517.3}$	Re <sup>191</sup> <sub>75</sub>	$\frac{190.96328}{190.963125}$	75n	2+0	8+0	18+0	6+13	0+21	0+7	0+0	$\frac{495K}{\beta^- 9.80m}$
$\frac{1532.48}{1531.7}$	Os <sup>193</sup> <sub>76</sub>	$\frac{192.96331}{192.964152}$	76n	2+0	8+0	18+0	6+13	0+22	1+6	0+0	$\frac{-340K}{\beta^- 30.11h}$
$\frac{1545.99}{1545.4}$	Ir <sup>195</sup> <sub>77</sub>	$\frac{194.96530}{194.965980}$	77n	2+0	8+0	18+0	6+13	1+22	1+6	0+0	$\frac{233K}{\beta^- 2.50h}$
$\frac{1559.41}{1559.4}$	Pt <sup>197</sup> <sub>78</sub>	$\frac{196.96738}{196.967340}$	78n	2+0	8+0	18+0	8+12	0+23	1+6	0+0	$\frac{549K}{\beta^- 18.8915h}$
$\frac{1574.49}{1573.5}$	Au <sup>199</sup> <sub>79</sub>	$\frac{198.96768}{198.968765}$	79n	2+0	8+0	18+0	10+11	0+24	0+6	0+0	$\frac{174.5K}{\beta^- 3.139d}$
$\frac{1587.71}{1587.4}$	Hg <sup>201</sup> <sub>80</sub>	$\frac{200.96998}{200.970302}$	80n	2+0	8+0	18+0	10+11	1+24	0+6	0+0	$\frac{334.0K}{st}$
$\frac{1600.84}{1600.9}$	Tl <sup>203</sup> <sub>81</sub>	$\frac{202.972344}{202.972344}$	81n	2+0	8+0	18+0	12+10	0+25	0+6	0+0	$\frac{908.0K}{st}$
$\frac{1612.06}{1614.2}$	Pb <sup>205</sup> <sub>82</sub>	$\frac{204.97682}{204.974482}$	82n	2+0	8+0	18+0	12+10	0+25	1+6	0+0	$\frac{1.4672M}{ce 1.73 \cdot 10^7 a}$
$\frac{1623.18}{1625.9}$	Bi <sup>207</sup> <sub>83</sub>	$\frac{206.98137}{206.978471}$	83n	2+0	8+0	18+0	14+9	0+25	0+7	0+0	$\frac{3.2818M}{ce 31.55a}$
$\frac{1634.16}{1637.6}$	Po <sup>209</sup> <sub>84</sub>	$\frac{208.98607}{208.982430}$	84n	2+0	8+0	18+0	14+9	0+25	1+7	0+0	$\frac{4.9792M}{\alpha 102a}$

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$\frac{1645.04}{1648.2}$	At <sup>211</sup> <sub>85</sub>	$\frac{210.99088}{210.987496}$	85n	2+0	8+0	18+0	16+8	0+25	0+8	0+0	$\frac{5.9824\text{M}}{ce\ 7.214\text{h}}$
$\frac{1656.19}{1657.6}$	Rn <sup>213</sup> <sub>86</sub>	$\frac{212.99540}{212.993883}$	86n	2+0	8+0	18+0	16+8	0+25	1+8	0+0	$\frac{8.243\text{M}}{\alpha\ 19.5\text{ms}}$
$\frac{1666.42}{1667.0}$	Fr <sup>215</sup> <sub>87</sub>	$\frac{215.00091}{215.000341}$	87n	2+0	8+0	18+0	18+7	0+25	0+9	0+0	$\frac{9.540\text{M}}{\alpha\ 86.0\text{ns}}$
$\frac{1676.82}{1676.7}$	Ra <sup>217</sup> <sub>88</sub>	$\frac{217.006237}{217.006320}$	88n	2+0	8+0	18+0	18+7	0+25	0+9	1+0	$\frac{9.161\text{M}}{\alpha\ 1.60\mu\text{s}}$
$\frac{1685.74}{1686.4}$	Ac <sup>219</sup> <sub>89</sub>	$\frac{219.01315}{219.01242}$	89n	2+0	8+0	18+0	18+7	1+24	0+10	1+0	$\frac{8.830\text{M}}{\alpha\ 11.8\mu\text{s}}$
$\frac{1696.45}{1696.4}$	Th <sup>221</sup> <sub>90</sub>	$\frac{221.01814}{221.018184}$	90n	2+0	8+0	18+0	18+7	1+24	1+10	1+0	$\frac{8.127\text{M}}{\alpha\ 2.80\text{ms}}$
$\frac{1707.10}{1706.4}$	Pa <sup>223</sup> <sub>91</sub>	$\frac{223.02320}{223.02396}$	91n	2+0	8+0	18+0	20+6	1+24	0+11	1+0	$\frac{8.330\text{M}}{\alpha\ 5.10\text{ms}}$
$\frac{1716.55}{1716.7}$	U <sup>225</sup> <sub>92</sub>	$\frac{225.02954}{225.029391}$	92n	2+0	8+0	18+0	22+5	1+24	0+11	0+1	$\frac{8.014\text{M}}{\alpha\ 95.0\text{ms}}$
$\frac{1727.07}{1726.9}$	Np <sup>227</sup> <sub>93</sub>	$\frac{227.03474}{227.03496}$	93n	2+0	8+0	18+0	22+5	1+24	1+11	0+1	$\frac{7.816\text{M}}{\alpha\ 510\text{ms}}$
$\frac{1737.52}{1737.4}$	Pu <sup>229</sup> <sub>94</sub>	$\frac{229.04001}{229.04015}$	94n	2+0	8+0	18+0	24+4	1+24	0+12	0+1	$\frac{7.590\text{M}}{\alpha\ 67.0\text{s}}$
$\frac{1747.16}{1747.7}$	Am <sup>231</sup> <sub>95</sub>	$\frac{231.04615}{231.04556}$	95n	2+0	8+0	18+0	24+4	0+24	1+13	1+0	$\frac{7.500\text{M}}{ce\ 30\text{s}}$
$\frac{1757.48}{1758.2}$	Cm <sup>233</sup> <sub>96</sub>	$\frac{233.05156}{233.050771}$	96n	2+0	8+0	18+0	26+3	0+24	0+14	1+0	$\frac{7.470\text{M}}{ce\ 23.0\text{s}}$
$\frac{1768.49}{1768.2}$	Bk <sup>235</sup> <sub>97</sub>	$\frac{235.05624}{235.05658}$	97n	2+0	8+0	18+0	24+4	1+24	1+13	0+1	$\frac{7.800\text{M}}{\alpha\ 20\text{s}}$
$\frac{1778.70}{1778.4}$	Cf <sup>237</sup> <sub>98</sub>	$\frac{237.06176}{237.06207}$	98n	2+0	8+0	18+0	28+2	1+24	0+14	0+1	$\frac{8.220\text{M}}{FS\ 0.80\text{s}}$
$\frac{1788.84}{-}$	Es <sup>239</sup> <sub>99</sub>	$\frac{239.06737}{-}$	99n	2+0	8+0	18+0	28+2	1+24	1+14	0+1	$\frac{7.966\text{M}}{-}$
$\frac{1798.92}{-}$	Fm <sup>241</sup> <sub>100</sub>	$\frac{241.07304}{-}$	100n	2+0	8+0	18+0	30+1	1+24	0+15	0+1	$\frac{8.106\text{M}}{FS\ 0.73\text{ms}}$
$\frac{1808.93}{-}$	Md <sup>243</sup> <sub>101</sub>	$\frac{243.07878}{-}$	101n	2+0	8+0	18+0	30+1	1+24	1+15	0+1	$\frac{8.250\text{M}}{-}$