

## TAVOLA PERIODICA DEI NUCLEI ATOMICI

### configurazione dei livelli nucleari degli isotopi **CESIO** **Z = 55-a**

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{907.666}{907.25}$	Cs <sub>55</sub> <sup>112</sup>	$\frac{111.94986}{111.95030}$	55n	2+0	8+0	18+0	13+0	10+0	2+2	0+0	$\frac{1.3260M}{p0.50ms}$
$\frac{920.528}{920.74}$	Cs <sub>55</sub> <sup>113</sup>	$\frac{112.94472}{112.94449}$	55n	2+0	8+0	18+0	14+0	10+1	0+2	0+0	$\frac{1.48435M}{p16.7\mu s}$
$\frac{931.893}{931.64}$	Cs <sub>55</sub> <sup>114</sup>	$\frac{113.94118}{113.94145}$	55n	2+0	8+0	18+0	15+0	7+3	1+1	0+0	$\frac{12.40M}{ce570ms}$
$\frac{944.753}{944.87}$	Cs <sub>55</sub> <sup>115</sup>	$\frac{114.93604}{114.93591}$	55n	2+0	8+0	18+0	16+0	5+5	1+0	0+0	$\frac{9.00M}{ce1.40s}$
$\frac{954.623}{955.31}$	Cs <sub>55</sub> <sup>116</sup>	$\frac{115.93411}{115.93337}$	55n	2+0	8+0	18+0	17+0	3+6	1+0	0+0	$\frac{10.98M}{ce700ms}$
$\frac{967.247}{967.76}$	Cs <sub>55</sub> <sup>117</sup>	$\frac{116.92922}{116.92867}$	55n	2+0	8+0	18+0	19+0	0+7	1+0	0+0	$\frac{7.690M}{ce8.40s}$
$\frac{977.114}{977.80}$	Cs <sub>55</sub> <sup>118</sup>	$\frac{117.92729}{117.92659}$	55n	2+0	8+0	18+0	18+1	0+7	1+0	0+0	$\frac{9.670M}{ce14.0s}$
$\frac{989.732}{989.76}$	Cs <sub>55</sub> <sup>119</sup>	$\frac{118.92241}{118.922377}$	55n	2+0	8+0	18+0	16+3	1+6	1+0	0+0	$\frac{6.489M}{ce43.0s}$
$\frac{999.599}{999.42}$	Cs <sub>55</sub> <sup>120</sup>	$\frac{119.92048}{119.920677}$	55n	2+0	8+0	18+0	15+4	1+6	1+0	0+0	$\frac{8.284M}{ce61.3s}$
$\frac{1010.73}{1010.7}$	Cs <sub>55</sub> <sup>121</sup>	$\frac{120.91720}{120.917229}$	55n	2+0	8+0	18+0	15+5	1+5	0+1	0+0	$\frac{5.372M}{ce155s}$
$\frac{1019.33}{1019.8}$	Cs <sub>55</sub> <sup>122</sup>	$\frac{121.91663}{121.91611}$	55n	2+0	8+0	18+0	13+6	1+6	1+0	0+0	$\frac{7.210M}{ce21.18s}$
$\frac{1030.46}{1030.8}$	Cs <sub>55</sub> <sup>123</sup>	$\frac{122.91335}{122.912996}$	55n	2+0	8+0	18+0	13+7	1+5	0+1	0+0	$\frac{4.206M}{ce5.88m}$
$\frac{1039.07}{1039.5}$	Cs <sub>55</sub> <sup>124</sup>	$\frac{123.91277}{123.912258}$	55n	2+0	8+0	18+0	11+8	1+6	1+0	0+0	$\frac{5.930M}{ce30.9s}$
$\frac{1050.19}{1050.0}$	Cs <sub>55</sub> <sup>125</sup>	$\frac{124.90950}{124.909728}$	55n	2+0	8+0	18+0	11+9	1+5	0+1	0+0	$\frac{3.105M}{ce46.7m}$
$\frac{1058.80}{1058.3}$	Cs <sub>55</sub> <sup>126</sup>	$\frac{125.90892}{125.909452}$	55n	2+0	8+0	18+0	9+10	1+6	1+0	0+0	$\frac{4.801M}{ce1.64m}$
$\frac{1068.67}{1068.3}$	Cs <sub>55</sub> <sup>127</sup>	$\frac{126.90699}{126.907418}$	55n	2+0	8+0	18+0	8+11	1+6	1+0	0+0	$\frac{2.082M}{ce6.25h}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p^{-T}_{1/2}}$
$\frac{1075.79}{1076.0}$	Cs <sub>55</sub> <sup>128</sup>	$\frac{127.90801}{127.907749}$	55n	2+0	8+0	18+0	8+11	0+7	1+0	0+0	$\frac{3.929M}{ce3.66m}$
$\frac{1085.65}{1085.7}$	Cs <sub>55</sub> <sup>129</sup>	$\frac{128.90609}{128.906064}$	55n	2+0	8+0	18+0	7+12	0+7	1+0	0+0	$\frac{1.197M}{ce32.06h}$
$\frac{1092.77}{1093.1}$	Cs <sub>55</sub> <sup>130</sup>	$\frac{129.90711}{129.906709}$	55n	2+0	8+0	18+0	5+13	1+7	1+0	0+0	$\frac{2.981M}{ce29.21m}$
$\frac{1102.63}{1102.4}$	Cs <sub>55</sub> <sup>131</sup>	$\frac{130.90519}{130.905464}$	55n	2+0	8+0	18+0	4+14	1+7	1+0	0+0	$\frac{355.0K}{ce9.689d}$
$\frac{1109.75}{1109.5}$	Cs <sub>55</sub> <sup>132</sup>	$\frac{131.90621}{131.906434}$	55n	2+0	8+0	18+0	4+14	0+8	1+0	0+0	$\frac{2.1232M}{ce6.480d}$
$\frac{1118.36}{1118.5}$	Cs <sub>55</sub> <sup>133</sup>	$\frac{132.90563}{132.905452}$	55n	2+0	8+0	18+0	4+14	0+9	0+0	0+0	<b>st</b>
$\frac{1125.47}{1125.4}$	Cs <sub>55</sub> <sup>134</sup>	$\frac{133.90666}{133.906718}$	55n	2+0	8+0	18+0	2+15	1+9	0+0	0+0	$\frac{2.059M}{\beta^-2.0652a}$
$\frac{1132.59}{1134.2}$	Cs <sub>55</sub> <sup>135</sup>	$\frac{134.90768}{134.905977}$	55n	2+0	8+0	18+0	2+15	0+10	0+0	0+0	$\frac{268.9K}{\beta^-2.3 \cdot 10^6a}$
$\frac{1139.70}{1141.0}$	Cs <sub>55</sub> <sup>136</sup>	$\frac{135.90872}{135.907312}$	55n	2+0	8+0	18+0	0+16	1+10	0+0	0+0	$\frac{2.5482M}{\beta^-13.04d}$
$\frac{1146.82}{1149.3}$	Cs <sub>55</sub> <sup>137</sup>	$\frac{136.90974}{136.907089}$	55n	2+0	8+0	18+0	0+16	0+11	0+0	0+0	$\frac{1.17563M}{\beta^-30.08a}$
$\frac{1153.93}{1153.7}$	Cs <sub>55</sub> <sup>138</sup>	$\frac{137.91077}{137.911017}$	55n	2+0	8+0	16+1	0+16	1+11	0+0	0+0	$\frac{5.375M}{\beta^-33.41m}$
$\frac{1159.54}{1159.6}$	Cs <sub>55</sub> <sup>139</sup>	$\frac{138.91341}{138.913364}$	55n	2+0	8+0	14+2	0+16	1+11	1+0	0+0	$\frac{4.213M}{\beta^-9.27m}$
$\frac{1163.66}{1164.0}$	Cs <sub>55</sub> <sup>140</sup>	$\frac{139.91765}{139.917282}$	55n	2+0	8+0	14+2	0+16	0+11	1+1	0+0	$\frac{6.220M}{\beta^-63.7s}$
$\frac{1169.28}{1169.5}$	Cs <sub>55</sub> <sup>141</sup>	$\frac{140.92028}{140.920046}$	55n	2+0	8+0	14+2	0+16	0+11	0+2	0+0	$\frac{5.253M}{\beta^-24.84s}$
$\frac{1173.39}{1173.6}$	Cs <sub>55</sub> <sup>142</sup>	$\frac{141.92454}{141.924299}$	55n	2+0	8+0	12+3	0+16	1+10	0+3	0+0	$\frac{7.320M}{\beta^-1.684s}$
$\frac{1179.01}{1178.8}$	Cs <sub>55</sub> <sup>143</sup>	$\frac{142.92717}{142.927352}$	55n	2+0	8+0	10+4	0+16	1+10	1+3	0+0	$\frac{6.262M}{\beta^-1.791s}$

$\frac{E_c(\text{MeV})}{E_s(\text{MeV})}$	Sa	$\frac{m_c}{m_s}$	n	1	2	3	4	5	6	7	$\frac{E_p(\text{eV})}{p-T_{1/2}}$
$\frac{1183.14}{1182.5}$	$\text{Cs}_{55}^{144}$	$\frac{143.93140}{143.932077}$	55n	2+0	8+0	10+4	0+16	0+10	1+4	0+0	$\frac{8.500M}{\beta^- 0.994s}$
$\frac{1187.25}{1187.4}$	$\text{Cs}_{55}^{145}$	$\frac{144.93565}{144.935526}$	55n	2+0	8+0	8+5	0+16	1+9	1+5	0+0	$\frac{7.460M}{\beta^- 587ms}$
$\frac{1191.38}{1191.0}$	$\text{Cs}_{55}^{146}$	$\frac{145.93989}{145.94029}$	55n	2+0	8+0	8+5	0+16	0+9	1+6	0+0	$\frac{9.370M}{\beta^- 321ms}$
$\frac{1195.48}{1195.5}$	$\text{Cs}_{55}^{147}$	$\frac{146.94416}{146.94416}$	55n	2+0	8+0	6+6	0+16	1+8	1+7	0+0	$\frac{8.250M}{\beta^- 230ms}$
$\frac{1198.72}{1198.8}$	$\text{Cs}_{55}^{148}$	$\frac{147.94933}{147.94922}$	55n	2+0	8+0	6+6	0+16	0+8	0+8	1+0	$\frac{4.900M}{\beta^- 146ms}$
$\frac{1202.83}{1203.4}$	$\text{Cs}_{55}^{149}$	$\frac{148.95359}{148.95293}$	55n	2+0	8+0	4+7	0+16	1+7	0+9	1+0	$\frac{5.400M}{n\beta^- 150ms}$
$\frac{1206.96}{1206.6}$	$\text{Cs}_{55}^{150}$	$\frac{149.95782}{149.95817}$	55n	2+0	8+0	4+7	0+16	0+7	0+10	1+0	$\frac{5.700M}{n\beta^- 100ms}$
$\frac{1211.08}{1211.0}$	$\text{Cs}_{55}^{151}$	$\frac{150.96206}{150.96219}$	55n	2+0	8+0	2+8	0+16	1+6	0+11	1+0	$\frac{7.200M}{n\beta^- 60ms}$
$\frac{1215.20}{-}$	$\text{Cs}_{55}^{152}$	$\frac{151.96630}{-}$	55n	2+0	8+0	2+8	0+16	0+6	0+12	1+0	$\frac{5600M}{n\beta^-}$
$\frac{1219.32}{-}$	$\text{Cs}_{55}^{153}$	$\frac{152.97054}{-}$	55n	2+0	8+0	2+8	0+16	1+5	0+13	1+0	$\frac{9.380M}{\beta^-}$
$\frac{1223.44}{-}$	$\text{Cs}_{55}^{154}$	$\frac{153.97479}{-}$	55n	2+0	8+0	0+9	0+16	0+5	0+14	1+0	$\frac{5.260M}{n\beta^-}$
$\frac{1228.16}{-}$	$\text{Cs}_{55}^{155}$	$\frac{154.97838}{-}$	55n	2+0	8+0	0+9	0+16	0+5	0+14	0+1	$\frac{6.010M}{n\beta^-}$

$E_c(\text{MeV})$  = 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