

|           |    | I<br>gruppo  |              | II<br>gruppo |              |              |              | III<br>gruppo |              | IV<br>gruppo |              | V<br>gruppo  |              | VI<br>gruppo |              | VII<br>gruppo |              | VIII<br>gruppo |              |  |
|-----------|----|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|----------------|--------------|--|
| 1 periodo | 1  | H<br>1.0079  |              |              |              |              |              |               |              |              |              |              |              |              |              |               |              | 2              | He<br>4.0026 |  |
|           |    | 3            | 4            |              |              |              |              |               |              |              |              |              |              |              |              |               |              |                |              |  |
| 2 periodo | 3  | Li<br>6.941  |              | Be<br>9.0122 |              |              |              |               |              |              |              |              |              |              |              |               |              |                |              |  |
|           |    | 11           | 12           |              |              |              |              |               |              |              |              |              |              |              |              |               |              |                |              |  |
| 3 periodo | 11 | Na<br>22.990 |              | Mg<br>24.305 |              |              |              |               |              |              |              |              |              |              |              |               |              |                |              |  |
|           |    | 19           | 20           | 21           | 22           | 23           | 24           | 25            | 26           | 27           | 28           | 29           | 30           | 31           | 32           | 33            | 34           | 35             | 36           |  |
| 4 periodo | 19 | K<br>39.098  | Ca<br>40.078 | Sc<br>44.956 | Ti<br>47.867 | V<br>50.942  | Cr<br>51.996 | Mn<br>54.938  | Fe<br>55.845 | Co<br>58.933 | Ni<br>58.693 | Cu<br>63.546 | Zn<br>65.39  | Ga<br>69.723 | Ge<br>72.64  | As<br>74.922  | Se<br>78.96  | Br<br>79.904   | Kr<br>83.80  |  |
|           |    | 37           | 38           | 39           | 40           | 41           | 42           | 43            | 44           | 45           | 46           | 47           | 48           | 49           | 50           | 51            | 52           | 53             | 54           |  |
| 5 periodo | 37 | Rb<br>85.468 | Sr<br>87.62  | Y<br>88.906  | Zr<br>91.224 | Nb<br>92.906 | Mo<br>95.94  | Tc<br>(98)    | Ru<br>101.07 | Rh<br>102.91 | Pd<br>106.42 | Ag<br>107.87 | Cd<br>112.41 | In<br>114.82 | Sn<br>118.71 | Sb<br>121.76  | Te<br>127.60 | I<br>126.90    | Xe<br>131.29 |  |
|           |    | 55           | 56           | 57-71        | 72           | 73           | 74           | 75            | 76           | 77           | 78           | 79           | 80           | 81           | 82           | 83            | 84           | 85             | 86           |  |
| 6 periodo | 55 | Cs<br>132.91 | Ba<br>137.33 | La-Lu        | Hf<br>178.49 | Ta<br>180.95 | W<br>183.84  | Re<br>186.21  | Os<br>190.23 | Ir<br>192.22 | Pt<br>195.08 | Au<br>196.97 | Hg<br>200.59 | Tl<br>204.38 | Pb<br>207.2  | Bi<br>208.98  | Po<br>(209)  | At<br>(210)    | Rn<br>(222)  |  |
|           |    | 87           | 88           | 89-103       | 104          | 105          | 106          | 107           | 108          | 109          | 110          | 111          | 112          |              |              |               |              |                |              |  |
| 7 periodo | 87 | Fr<br>(223)  | Ra<br>(226)  | Ac-Lr        | Rf<br>(261)  | Db<br>(262)  | Sg<br>(266)  | Bh<br>(264)   | Hs<br>(277)  | Mt<br>(268)  | Uun<br>(281) | Uuu<br>(272) | Uub<br>(285) |              |              |               |              |                |              |  |

|                           |                           |                           |                           |                          |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 57<br><b>La</b><br>138.91 | 58<br><b>Ce</b><br>140.12 | 59<br><b>Pr</b><br>140.91 | 60<br><b>Nd</b><br>144.24 | 61<br><b>Pm</b><br>(145) | 62<br><b>Sm</b><br>150.36 | 63<br><b>Eu</b><br>151.96 | 64<br><b>Gd</b><br>157.25 | 65<br><b>Tb</b><br>158.93 | 66<br><b>Dy</b><br>162.50 | 67<br><b>Ho</b><br>164.93 | 68<br><b>Er</b><br>167.26 | 69<br><b>Tm</b><br>168.93 | 70<br><b>Yb</b><br>173.04 | 71<br><b>Lu</b><br>174.97 |
|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|

|                          |                           |                           |                          |                          |                          |                          |                          |                          |                          |                          |                           |                           |                           |                           |
|--------------------------|---------------------------|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 89<br><b>Ac</b><br>(227) | 90<br><b>Th</b><br>232.04 | 91<br><b>Pa</b><br>231.04 | 92<br><b>U</b><br>238.03 | 93<br><b>Np</b><br>(237) | 94<br><b>Pu</b><br>(244) | 95<br><b>Am</b><br>(243) | 96<br><b>Cm</b><br>(247) | 97<br><b>Bk</b><br>(247) | 98<br><b>Cf</b><br>(251) | 99<br><b>Es</b><br>(252) | 100<br><b>Fm</b><br>(257) | 101<br><b>Md</b><br>(258) | 102<br><b>No</b><br>(259) | 103<br><b>Lr</b><br>(262) |
|--------------------------|---------------------------|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|