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|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1<br>H<br>1.01    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   | 2<br>He<br>4.00   |
| 3<br>Li<br>6.94   | 4<br>Be<br>9.02   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   | 5<br>B<br>10.81   | 6<br>C<br>12.01   | 7<br>N<br>14.01   | 8<br>O<br>16.00   | 9<br>F<br>19.00   | 10<br>Ne<br>20.18 |
| 11<br>Na<br>22.99 | 12<br>Mg<br>24.30 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   | 13<br>Al<br>26.98 | 14<br>Si<br>28.09 | 15<br>P<br>30.97  | 16<br>S<br>32.06  | 17<br>Cl<br>35.45 | 18<br>Ar<br>39.95 |
| 19<br>K<br>39.10  | 20<br>Ca<br>40.08 | 21<br>Sc<br>44.96 | 22<br>Ti<br>47.90 | 23<br>V<br>50.94  | 24<br>Cr<br>52.00 | 25<br>Mn<br>54.94 | 26<br>Fe<br>55.85 | 27<br>Co<br>58.93 | 28<br>Ni<br>58.70 | 29<br>Cu<br>63.55 | 30<br>Zn<br>65.38 | 31<br>Ga<br>69.72 | 32<br>Ge<br>72.59 | 33<br>As<br>74.92 | 34<br>Se<br>78.96 | 35<br>Br<br>79.90 | 36<br>Kr<br>83.80 |
| 37<br>Rb<br>85.47 | 38<br>Sr<br>87.62 | 39<br>Y<br>88.91  | 40<br>Zr<br>91.22 | 41<br>Nb<br>92.91 | 42<br>Mo<br>95.94 | 43<br>Tc<br>98    | 44<br>Ru<br>101.1 | 45<br>Rh<br>102.9 | 46<br>Pd<br>106.4 | 47<br>Ag<br>107.9 | 48<br>Cd<br>112.4 | 49<br>In<br>114.8 | 50<br>Sn<br>118.7 | 51<br>Sb<br>121.8 | 52<br>Te<br>127.6 | 53<br>I<br>126.9  | 54<br>Xe<br>131.3 |
| 55<br>Cs<br>132.9 | 56<br>Ba<br>137.3 | 57<br>La<br>138.9 | 72<br>Hf<br>178.5 | 73<br>Ta<br>181.0 | 74<br>W<br>183.9  | 75<br>Re<br>186.2 | 76<br>Os<br>190.2 | 77<br>Ir<br>192.2 | 78<br>Pt<br>195.1 | 79<br>Au<br>197.0 | 80<br>Hg<br>200.6 | 81<br>Tl<br>204.4 | 82<br>Pb<br>207.2 | 83<br>Bi<br>209.0 | 84<br>Po<br>209   | 85<br>At<br>210   | 86<br>Rn<br>222   |
| 87<br>Fr<br>223   | 88<br>Ra<br>226.0 | 89<br>Ac<br>227.0 | 104<br>Rf<br>261  | 105<br>Db<br>262  | 106<br>Sg<br>263  | 107<br>Bh<br>262  | 108<br>Hs<br>265  | 109<br>Mt<br>268  |                   |                   |                   |                   |                   |                   |                   |                   |                   |

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| 58<br>Ce<br>140.1 | 59<br>Pr<br>140.9 | 60<br>Nd<br>144.2 | 61<br>Pm<br>145   | 62<br>Sm<br>150 | 63<br>Eu<br>152.0 | 64<br>Gd<br>157.3 | 65<br>Tb<br>158.9 | 66<br>Dy<br>162.5 | 67<br>Ho<br>164.9 | 68<br>Er<br>167.3 | 69<br>Tm<br>168.9 | 70<br>Yb<br>173.0 | 71<br>Lu<br>175.0 |
| 90<br>Th<br>232.0 | 91<br>Pa<br>231.0 | 92<br>U<br>238.0  | 93<br>Np<br>237.1 | 94<br>Pu<br>244 | 95<br>Am<br>243   | 96<br>Cm<br>247   | 97<br>Bk<br>247   | 98<br>Cf<br>251   | 99<br>Es<br>252   | 100<br>Fm<br>257  | 101<br>Md<br>258  | 102<br>No<br>259  | 103<br>Lr<br>260  |