

|                                              |                                |                                 |                                                                                                                                                                                                                                                                                                                              |                                      |                                |                                   |                                  |                                |                                   |                                     |                                   |                                    |                                 |                                  |                                  |                                    |                                |                                  |  |                          |
|----------------------------------------------|--------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------|-----------------------------------|----------------------------------|--------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|------------------------------------|---------------------------------|----------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------|--|--------------------------|
| Anzahl der Elektronen besetzen Außen-Schale. | 1                              | 2                               | 3                                                                                                                                                                                                                                                                                                                            | 4                                    | 5                              | 6                                 | 7                                | 8                              | 9                                 | 10                                  | 11                                | 12                                 | 13                              | 14                               | 15                               | 16                                 | 17                             | 18                               |  |                          |
| 1                                            | 1,0<br>H<br>Wasserstoff<br>1   | Das Periodensystem der Elemente |                                                                                                                                                                                                                                                                                                                              |                                      |                                |                                   |                                  |                                |                                   |                                     |                                   |                                    |                                 | SC                               |                                  |                                    |                                |                                  |  | 4,0<br>He<br>Helium<br>2 |
| 2                                            | 6,9<br>Li<br>Lithium<br>3      | 9,0<br>Be<br>Beryllium<br>4     | <div><div>1,0<br/>H<br/>Wasserstoff<br/>1</div><div>Atommasse in u<br/>Elementsymbol<br/>Name des Elements<br/>Ordnungszahl=Zahl der Protonen</div></div> <div></div> <div><a href="https://goo.gl/3Vfy9Z">https://goo.gl/3Vfy9Z</a></div> |                                      |                                |                                   |                                  |                                |                                   |                                     |                                   |                                    |                                 |                                  | 20,2<br>Ne<br>Neon<br>10         |                                    |                                |                                  |  |                          |
| 3                                            | 23,0<br>Na<br>Natrium<br>11    | 24,3<br>Mg<br>Magnesium<br>12   | 27,0<br>Al<br>Aluminium<br>13                                                                                                                                                                                                                                                                                                | 28,1<br>Si<br>Silicium<br>14         | 31,0<br>P<br>Phosphor<br>15    | 32,1<br>S<br>Schwefel<br>16       | 35,5<br>Cl<br>Chlor<br>17        | 39,9<br>Ar<br>Argon<br>18      | 69,7<br>Ga<br>Gallium<br>31       | 72,6<br>Ge<br>Germanium<br>32       | 74,9<br>As<br>Arsen<br>33         | 79,0<br>Se<br>Selen<br>34          | 79,9<br>Br<br>Brom<br>35        | 83,8<br>Kr<br>Krypton<br>36      | 126,9<br>I<br>Jod<br>53          | 127,6<br>Te<br>Tellur<br>52        | 126,9<br>I<br>Jod<br>53        | 131,3<br>Xe<br>Xenon<br>54       |  |                          |
| 4                                            | 39,1<br>K<br>Kalium<br>19      | 40,1<br>Ca<br>Calcium<br>20     | 45,0<br>Sc<br>Scandium<br>21                                                                                                                                                                                                                                                                                                 | 47,9<br>Ti<br>Titan<br>22            | 50,9<br>V<br>Vanadium<br>23    | 52,0<br>Cr<br>Chrom<br>24         | 54,9<br>Mn<br>Mangan<br>25       | 55,8<br>Fe<br>Eisen<br>26      | 58,9<br>Co<br>Cobalt<br>27        | 58,7<br>Ni<br>Nickel<br>28          | 63,5<br>Cu<br>Kupfer<br>29        | 65,4<br>Zn<br>Zink<br>30           | 69,7<br>Ga<br>Gallium<br>31     | 72,6<br>Ge<br>Germanium<br>32    | 74,9<br>As<br>Arsen<br>33        | 79,0<br>Se<br>Selen<br>34          | 79,9<br>Br<br>Brom<br>35       | 83,8<br>Kr<br>Krypton<br>36      |  |                          |
| 5                                            | 85,5<br>Rb<br>Rubidium<br>37   | 87,6<br>Sr<br>Strontium<br>38   | 88,9<br>Y<br>Yttrium<br>39                                                                                                                                                                                                                                                                                                   | 91,2<br>Zr<br>Zirkonium<br>40        | 92,9<br>Nb<br>Niobium<br>41    | 95,9<br>Mo<br>Molybdän<br>42      | (99,0)<br>Tc<br>Technetium<br>43 | 101,1<br>Ru<br>Ruthenium<br>44 | 102,9<br>Rh<br>Rhodium<br>45      | 106,4<br>Pd<br>Palladium<br>46      | 107,9<br>Ag<br>Silber<br>47       | 112,4<br>Cd<br>Cadmium<br>48       | 114,8<br>In<br>Indium<br>49     | 118,7<br>Sn<br>Zinn<br>50        | 121,8<br>Sb<br>Antimon<br>51     | 127,6<br>Te<br>Tellur<br>52        | 126,9<br>I<br>Jod<br>53        | 131,3<br>Xe<br>Xenon<br>54       |  |                          |
| 6                                            | 132,9<br>Cs<br>Caesium<br>55   | 137,3<br>Ba<br>Barium<br>56     | 57<br>bis<br>71                                                                                                                                                                                                                                                                                                              | 178,5<br>Hf<br>Hafnium<br>72         | 180,9<br>Ta<br>Tantal<br>73    | 183,9<br>W<br>Wolfram<br>74       | 186,2<br>Re<br>Rhenium<br>75     | 190,2<br>Os<br>Osmium<br>76    | 192,2<br>Ir<br>Iridium<br>77      | 195,1<br>Pt<br>Platin<br>78         | 197,0<br>Au<br>Gold<br>79         | 200,6<br>Hg<br>Quecksilber<br>80   | 204,4<br>Tl<br>Thallium<br>81   | 207,2<br>Pb<br>Blei<br>82        | 209,0<br>Bi<br>Wismuth<br>83     | (209)<br>Po*<br>Polonium<br>84     | (210)<br>At*<br>Astat<br>85    | (222)<br>Rn*<br>Radon<br>86      |  |                          |
| 7                                            | (223)<br>Fr*<br>Francium<br>87 | 226,1<br>Ra*<br>Radium<br>88    | 89<br>bis<br>103                                                                                                                                                                                                                                                                                                             | (261)<br>Rf*<br>Rutherfordium<br>104 | (262)<br>Db*<br>Dubnium<br>105 | (263)<br>Sg*<br>Seaborgium<br>106 | (262)<br>Bh*<br>Bohrium<br>107   | (269)<br>Hs*<br>Hassium<br>108 | (268)<br>Mt*<br>Meitnerium<br>109 | (271)<br>Ds*<br>Darmstadtium<br>110 | (272)<br>Rg*<br>Röntgenium<br>111 | (277)<br>Cn*<br>Copernicium<br>112 | (284)<br>Nh*<br>Nihonium<br>113 | (289)<br>Fl*<br>Flerovium<br>114 | (288)<br>Mc*<br>Moscovium<br>115 | (292)<br>Lv*<br>Livermorium<br>116 | (292)<br>Ts*<br>Tenness<br>117 | (294)<br>Og*<br>Oganesson<br>118 |  |                          |
| Anzahl der mit Elektronen besetzten Schalen. | 1                              | 2                               | 3                                                                                                                                                                                                                                                                                                                            | 4                                    | 5                              | 6                                 | 7                                | 8                              | 8                                 | 8                                   | 8                                 | 8                                  | 57 - 71                         | 89 - 103                         | Lanthanoide                      | Actinoide                          | Metalle                        | Edelgase                         |  |                          |
| * Nur radioaktive Isotope bekannt.           |                                |                                 |                                                                                                                                                                                                                                                                                                                              |                                      |                                |                                   |                                  |                                |                                   |                                     |                                   |                                    |                                 |                                  |                                  |                                    |                                |                                  |  |                          |