|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | **Chemistry** | | | | | | | | | | | | | | | | 2 | |
| **H** | **He** | |
| Hydrogen | Helium | |
| 1.008 | 4.003 | |
| 3 | 4 |  | | | | | | | | | | 5 | 6 | 7 | 8 | 9 | 10 | |
| **Li** | **Be** | **B** | **C** | **N** | **O** | **F** | **Ne** | |
| Lithium | Beryllium | Boron | Carbon | Nitrogen | Oxygen | Fluorine | Neon | |
| 6.94 | 9.01 | 10.81 | 12.01 | 14.01 | 16.00 | 19.00 | 20.18 | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
| **Na** | **Mg** | **Al** | **Si** | **P** | **S** | **Cl** | **Ar** | |
| Sodium | Magnesium | Aluminum | Silicon | Phosphorus | Sulfur | Chlorine | Argon | |
| 22.99 | 24.31 | 26.98 | 28.09 | 30.97 | 32.06 | 35.45 | 39.95 | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **K** | **Ca** | **Sc** | **Ti** | **V** | **Cr** | **Mn** | **Fe** | **Co** | **Ni** | **Cu** | **Zn** | **Ga** | **Ge** | **As** | **Se** | **Br** | **Kr** |
| Potassium | Calcium | Scandium | Titanium | Vanadium | Chromium | Manganese | Iron | Cobalt | Nickel | Copper | Zinc | Gallium | Germanium | Arsenic | Selenium | Bromine | Krypton |
| 39.10 | 40.08 | 44.96 | 47.87 | 50.94 | 52.00 | 54.94 | 55.85 | 58.93 | 58.69 | 63.55 | 65.39 | 69.72 | 72.61 | 74.92 | 78.96 | 79.90 | 83.80 |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **Rb** | **Sr** | **Y** | **Zr** | **Nb** | **Mo** | **Tc** | **Ru** | **Rh** | **Pd** | **Ag** | **Cd** | **In** | **Sn** | **Sb** | **Te** | **I** | **Xe** |
| Rubidium | Strontium | Yttrium | Zirconium | Niobium | Molybdenum | Technetium | Ruthenium | Rhodium | Palladium | Silver | Cadmium | Indium | Tin | Antimony | Tellurium | Iodine | Xenon |
| 85.47 | 87.62 | 88.91 | 91.22 | 92.91 | 95.94 | 97.91 | 101.07 | 102.91 | 106.42 | 107.87 | 112.41 | 114.82 | 118.71 | 121.76 | 127.60 | 126.90 | 131.30 |
| 55 | 56 | 57 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 |
| **Cs** | **Ba** | **La** | **Hf** | **Ta** | **W** | **Re** | **Os** | **Ir** | **Pt** | **Au** | **Hg** | **Tl** | **Pb** | **Bi** | **Po** | **At** | **Rn** |
| Cesium | Barium | Lanthanum | Hafnium | Tantalum | Tungsten | Rhenium | Osmium | Iridium | Platinum | Gold | Mercury | Thallium | Lead | Bismuth | Polonium | Astatine | Radon |
| 132.91 | 137.34 | 138.91 | 178.49 | 180.95 | 183.84 | 186.21 | 190.23 | 192.22 | 195.09 | 196.97 | 200.59 | 204.38 | 207.19 | 208.98 | 208.98 | 209.99 | 222.02 |
| 87 | 88 | 89 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116  (292) |  |  |
| **Fr** | **Ra** | **Ac** | **Rf** | **Db** | **Sg** | **Bh** | **Hs** | **Mt** | **Ds** | **Rg** |  |  |  |
| Francium | Radium | Actinium | Rutherfordium | Dubnium | Seaborgium | Bohrium | Hassium | Meitnerium |  |  |  |  |  |
| 223.02 | 226.03 | 227.03 | 261.11 | 262.11 | (263) | (262) | (265) | (266) | (269) | (272) | (277) |  | (289) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 58  **Ce**  Cerium  140.12 | 59  **Pr**  Praseodymium  140.91 | 60  **Nd**  Neodymium  144.24 | 61  **Pm**  Promethium  144.91 | 62  **Sm**  Samarium  150.36 | 63  **Eu**  Europium  151.96 | 64  **Gd**  Gadolinium  157.25 | 65  **Tb**  Terbium  158.91 | 66  **Dy**  Dysprosium  162.50 | 67  **Ho**  Holmium  164.93 | 68  **Er**  Erbium  167.26 | 69  **Tm**  Thulium  168.93 | 70  **Yb**  Ytterbium  173.04 | 71  **Lu**  Lutetium  174.97 |
| 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 |
| **Th** | **Pa** | **U** | **Np** | **Pu** | **Am** | **Cm** | **Bk** | **Cf** | **Es** | **Fm** | **Md** | **No** | **Lr** |
| Thorium | Protactinium | Uranium | Neptunium | Plutonium | Americium | Curium | Berkelium | Californium | Einsteinium | Fermium | Mendelevium | Nobelium | Lawrencium |
| 232.04 | 231.04 | 238.03 | (237) | (244) | (243) | (247) | (247) | (251) | (252) | (257) | (258) | (259) | (262) |