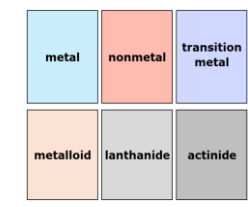
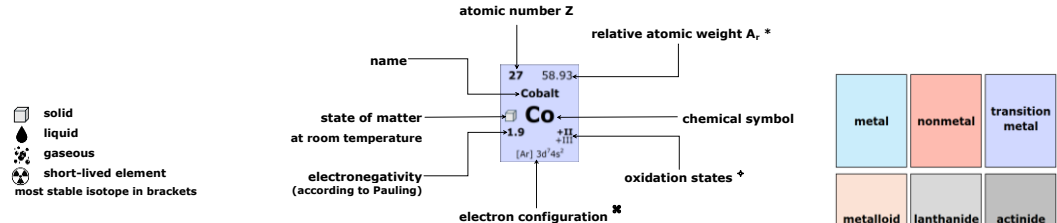


	GROUP 1 IA ALKALI METALS	GROUP 2 IIA ALKALINE EARTH METALS	GROUP 3 IIIB	GROUP 4 IVB	GROUP 5 VB	GROUP 6 VIB	GROUP 7 VIIB	GROUP 8	GROUP 9 VIIIb TRIADS	GROUP 10	GROUP 11 Ib	GROUP 12 IIB	GROUP 13 IIIA EARTH METALS	GROUP 14 IVA CARBON GROUP	GROUP 15 VA NITROGEN GROUP	GROUP 16 VIA OXYGEN GROUP	GROUP 17 VIIA HALOGENS	GROUP 18 0 NOBLE GASES
PERIOD 1	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1 1.008 Hydrogen H 2.2 +I 1s¹</p> </div> <div style="width: 45%;"> <p>2 4.003 Helium He -- 0 1s²</p> </div> </div>																	
PERIOD 2	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>3 6.94 Lithium Li 1.0 +I 1s²2s¹</p> </div> <div style="width: 45%;"> <p>4 9.012 Beryllium Be 1.6 +II 1s²2s²</p> </div> </div>																	
PERIOD 3	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>11 22.99 Sodium Na 0.9 +I [Ne] 3s¹</p> </div> <div style="width: 45%;"> <p>12 24.31 Magnesium Mg 1.2 +II [Ne] 3s²</p> </div> </div>																	
PERIOD 4	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>19 39.10 Potassium K 0.8 +I [Ar] 4s¹</p> </div> <div style="width: 45%;"> <p>20 40.08 Calcium Ca 1.0 +II [Ar] 4s²</p> </div> </div>																	
PERIOD 5	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>37 85.47 Rubidium Rb 0.8 +I [Kr] 5s¹</p> </div> <div style="width: 45%;"> <p>38 87.62 Strontium Sr 1.0 +II [Kr] 5s²</p> </div> </div>																	
PERIOD 6	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>55 132.91 Cesium Cs 0.7 +I [Xe] 6s¹</p> </div> <div style="width: 45%;"> <p>56 137.33 Barium Ba 0.9 +II [Xe] 6s²</p> </div> </div>																	
PERIOD 7	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>87 (223) Francium Fr 0.7 +I [Rn] 7s¹</p> </div> <div style="width: 45%;"> <p>88 (226) Radium Ra 0.9 +II [Rn] 7s²</p> </div> </div>																	



* Atomic weight according to IUPAC International Union of Pure and Applied Chemistry (2022)	58 140.12 Cerium Ce 1.1 +III +IV [Xe] 4f ¹ 5d ¹ 6s ²	59 140.91 Praseodymium Pr 1.1 +III [Xe] 4f ³ 6s ²	60 144.24 Neodymium Nd 1.1 +III [Xe] 4f ⁴ 6s ²	61 (145) Promethium Pm [Xe] 4f ⁵ 6s ²	62 150.36 Samarium Sm 1.2 +II +III [Xe] 4f ⁶ 6s ²	63 151.96 Europium Eu 1.2 +II +III [Xe] 4f ⁷ 6s ²	64 157.25 Gadolinium Gd 1.2 +III [Xe] 4f ⁷ 5d ¹ 6s ²	65 158.93 Terbium Tb 1.2 +III [Xe] 4f ⁹ 6s ²	66 162.50 Dysprosium Dy 1.2 +III [Xe] 4f ¹⁰ 6s ²	67 164.93 Holmium Ho 1.2 +III [Xe] 4f ¹¹ 6s ²	68 167.26 Erbium Er 1.2 +III [Xe] 4f ¹² 6s ²	69 168.93 Thulium Tm 1.3 +III [Xe] 4f ¹³ 6s ²	70 173.05 Ytterbium Yb 1.1 +II +III [Xe] 4f ¹⁴ 6s ²	71 174.97 Lutetium Lu 1.3 +III [Xe] 4f ¹⁴ 5d ¹ 6s ²
* Oxidation states: most common valence in bold print	90 232.04 Thorium Th [Rn] 6d ² 7s ²	91 231.04 Protactinium Pa [Rn] 5f ² 6d ¹ 7s ²	92 238.03 Uranium U [Rn] 5f ³ 6d ¹ 7s ²	93 (237) Neptunium Np [Rn] 5f ⁴ 6d ¹ 7s ²	94 (244) Plutonium Pu [Rn] 5f ⁶ 7s ²	95 (243) Americium Am [Rn] 5f ⁷ 7s ²	96 (247) Curium Cm [Rn] 5f ⁸ 6d ¹ 7s ²	97 (247) Berkelium Bk [Rn] 5f ⁹ 7s ²	98 (251) Californium Cf [Rn] 5f ¹⁰ 7s ²	99 (252) Einsteinium Es [Rn] 5f ¹¹ 7s ²	100 (257) Fermium Fm [Rn] 5f ¹² 7s ²	101 (258) Mendelevium Md [Rn] 5f ¹³ 7s ²	102 (259) Nobelium No [Rn] 5f ¹⁴ 7s ²	103 (262) Lawrencium Lr [Rn] 5f ¹⁴ 7s ² 7p ¹ *