

PERIODIC TABLE OF THE ELEMENTS

GROUP IA												VIII		IIB		IVA		VA		VIA		VIIA		VIII	
1 [1.007; 1009] -252.7 -259.2 0.071 1s ¹ Hydrogen H																							9 [4.002602; 4.002602] -269.9 -269.7 0.126 1s ² Helium He		
3 [6.938; 6.997] 1330 180.5 0.53 1s ² 2s ¹ Lithium Li	4 [9.012] 2770 1277 1.85 1s ² 2s ² Beryllium Be																						10 [20.1797; 20.1797] -246 -248.6 1.20 1s ² 2s ² 2p ⁶ Neon Ne		
11 [22.99] 892 97.8 0.97 [Ne]3s ¹ Sodium Na	12 [24.31] 1107 650 1.74 [Ne]3s ² Magnesium Mg																						18 [39.94] -185.8 -189.4 1.40 [Ne]3s ² 3p ⁶ Argon Ar		
19 [39.10] 760 63.7 0.87 [Ar]4s ¹ Potassium K	20 [40.08] 1440 838 1.55 [Ar]4s ² Calcium Ca	21 [44.96] 2730 1539 3.0 [Ar]3d ¹ 4s ² Scandium Sc	22 [47.90] 3260 1668 4.51 [Ar]3d ² 4s ² Titanium Ti	23 [50.94] 3450 1900 6.1 [Ar]3d ³ 4s ² Vanadium V	24 [52.00] 2865 1875 7.19 [Ar]3d ⁴ 4s ² Chromium Cr	25 [54.94] 2150 1245 7.43 [Ar]3d ⁵ 4s ¹ Manganese Mn	26 [55.85] 3000 1536 7.86 [Ar]3d ⁶ 4s ² Iron Fe	27 [58.93] 2900 1495 8.9 [Ar]3d ⁷ 4s ² Cobalt Co	28 [58.71] 2730 1453 8.9 [Ar]3d ⁸ 4s ² Nickel Ni	29 [63.54] 2595 1083 8.96 [Ar]3d ⁹ 4s ¹ Copper Cu	30 [65.37] 905 419.5 7.14 [Ar]3d ¹⁰ 4s ¹ Zinc Zn	31 [69.72] 2237 29.8 5.91 [Ar]3d ¹⁰ 4s ² 4p ¹ Gallium Ga	32 [72.59] 2830 937.4 5.32 [Ar]3d ¹⁰ 4s ² 4p ² Germanium Ge	33 [74.92] 613 817 5.72 [Ar]3d ¹⁰ 4s ² 4p ³ Arsenic As	34 [78.96(3)] 685 217 4.79 [Ar]3d ¹⁰ 4s ² 4p ⁴ Selenium Se	35 [79.90] 58 -7.2 3.12 [Ar]3d ¹⁰ 4s ² 4p ⁵ Bromine Br	36 [83.80] -152 -157.3 2.6 [Ar]3d ¹⁰ 4s ² 4p ⁶ Krypton Kr								
37 [85.47] 888 38.9 1.53 [Kr]5s ¹ Rubidium Rb	38 [87.62] 1380 768 2.6 [Kr]5s ² Strontium Sr	39 [88.91] 2927 1509 4.47 [Kr]4d ¹ 5s ² Yttrium Y	40 [91.22] 3580 1852 6.49 [Kr]4d ² 5s ² Zirconium Zr	41 [92.91] 3300 2468 8.4 [Kr]4d ³ 5s ² Niobium Nb	42 [95.92(2)] 3300 2468 8.4 [Kr]4d ⁴ 5s ¹ Molybdenum Mo	43 [98] - 2140 11.5 [Kr]4d ⁵ 5s ¹ Technetium Tc	44 [101.1] 4900 1966 12.2 [Kr]4d ⁵ 5s ² Ruthenium Ru	45 [102.9] 4500 1952 12.4 [Kr]4d ⁶ 5s ¹ Rhodium Rh	46 [106.4] 3980 1552 12.0 [Kr]4d ⁷ 5s ¹ Palladium Pd	47 [107.9] 2210 960.8 10.5 [Kr]4d ⁹ 5s ¹ Silver Ag	48 [112.4] 765 320.9 8.65 [Kr]4d ¹⁰ 5s ¹ Cadmium Cd	49 [114.8] 2000 156.2 7.31 [Kr]4d ¹⁰ 5s ² 5p ¹ Indium In	50 [118.7] 2270 231.9 7.30 [Kr]4d ¹⁰ 5s ² 5p ² Tin Sn	51 [121.8] 1380 630.5 6.62 [Kr]4d ¹⁰ 5s ² 5p ³ Antimony Sb	52 [127.6] 989.8 449.5 6.24 [Kr]4d ¹⁰ 5s ² 5p ⁴ Tellurium Te	53 [126.9] 183 113.7 4.94 [Kr]4d ¹⁰ 5s ² 5p ⁵ Iodine I	54 [131.3] -108.0 -111.9 3.06 [Kr]4d ¹⁰ 5s ² 5p ⁶ Xenon Xe								
87 [223] - (27) - [Xe]7s ¹ Francium Fr	88 [137.3] 1640 714 3.5 [Xe]6s ² Barium Ba	89 [138.9] 3470 920 6.17 [Xe]5d ¹ 6s ² Lanthanum La	90 [178.5] 5400 2222 13.1 [Xe]4f ¹ 5d ¹ 6s ² Hafnium Hf	91 [180.9] 5425 2996 16.6 [Xe]4f ² 5d ¹ 6s ² Tantalum Ta	92 [183.9] 5930 3410 19.3 [Xe]4f ² 5d ² 6s ² Tungsten W	93 [186.2] 5900 3180 21.0 [Xe]4f ³ 5d ¹ 6s ² Rhenium Re	94 [190.2] 5500 22.6 [Xe]4f ³ 5d ⁴ 6s ² Rhenium Os	95 [192.2] 5300 2454 22.5 [Xe]4f ⁴ 5d ⁴ 6s ² Iridium Ir	96 [195.1] 4530 1769 21.4 [Xe]4f ⁵ 5d ⁴ 6s ¹ Platinum Pt	97 [197.0] 2970 1063 19.3 [Xe]4f ⁵ 5d ⁵ 6s ¹ Gold Au	98 [200.6] 357 -38.4 13.6 [Xe]4f ⁵ 5d ⁶ 6s ² Mercury Hg	99 [204.3; 204.4] 1457 303 11.85 [Xe]4f ¹⁴ 5d ¹⁰ 6s ¹ 6p ¹ Thallium Tl	100 [207.2] 1725 327.4 11.4 [Xe]4f ¹⁴ 5d ¹⁰ 6s ² 6p ² Lead Pb	101 [209.0] 1560 9.8 [Xe]4f ¹⁴ 5d ¹⁰ 6s ² 6p ³ Bismuth Bi	102 [210] 254 (9.2) [Xe]4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁴ Polonium Po	103 [210] - (302) [Xe]4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁵ Astatine At	104 [222] (-61.8) (-71) [Xe]4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁶ Radon Rn								
55 [132.9] 690 28.7 1.90 [Rn]6s ¹ Cesium Cs	88 [226] - (700) 5.0 [Rn]7s ² Radium Ra	89 [227] 1050 3 [Rn]5f ¹⁴ 6d ¹ 7s ² Actinium Ac	104 [261.1] 5800 2400 23 [Rn]5f ¹⁴ 6d ² 7s ² Rutherfordium Rf	105 [268] - 5 [Rn]5f ¹⁴ 6d ³ 7s ² Dubnium Db	106 [271] - 6 [Rn]5f ¹⁴ 6d ⁴ 7s ² Seaborgium Sg	107 [270] - 7 [Rn]5f ¹⁴ 6d ⁵ 7s ² Bohrium Bh	108 [269] - 8 [Rn]5f ¹⁴ 6d ⁶ 7s ² Hassium Hs	109 [278] - 3, 4 [Rn]5f ¹⁴ 6d ⁷ 7s ² Meitnerium Mt	110 [281] - [Rn]5f ¹⁴ 6d ⁸ 7s ¹ Darmstadtium Ds	111 [281] - [Rn]5f ¹⁴ 6d ⁹ 7s ¹ Roentgenium Rg	112 [285] - 4, 2 [Rn]5f ¹⁴ 6d ¹⁰ 7s ² Copernicium Cn	113 [286] - [Rn]5f ¹⁴ 6d ¹⁰ 7s ² 7p ¹ Ununtrium Uut	114 [289] - [Rn]5f ¹⁴ 6d ¹⁰ 7s ² 7p ² Flerovium Fl	115 [289] - [Rn]5f ¹⁴ 6d ¹⁰ 7s ² 7p ³ Ununpentium Uup	116 [293] - [Rn]5f ¹⁴ 6d ¹⁰ 7s ² 7p ⁴ Livermorium Lv	117 [293] - [Rn]5f ¹⁴ 6d ¹⁰ 7s ² 7p ⁵ Ununseptium Uus	118 [293] - [Rn]5f ¹⁴ 6d ¹⁰ 7s ² 7p ⁶ Ununoctium Uuo								
58 [140.1] 3468 795 6.17 [Xe]4f ^{5d¹6s²} Cerium Ce	59 [140.9] 3127 935 6.77 [Xe]4f ^{5d¹6s²} Praseodymium Pr	60 [140.2] 3027 1024 7.00 [Xe]4f ^{5d¹6s²} Neodymium Nd	61 [147] - (1027) 3 [Xe]4f ^{5d¹6s²} Promethium Pm	62 [150.4] 1900 1072 7.54 [Xe]4f ^{5d¹6s²} Samarium Sm	63 [152.0] 1439 826 5.26 [Xe]4f ^{5d¹6s²} Europium Eu	64 [157.3] 3000 1312 7.89 [Xe]4f ^{5d¹6s²} Gadolinium Gd	65 [158.9] 2800 1356 8.27 [Xe]4f ^{5d¹6s²} Terbium Tb	66 [162.5] 2600 1407 8.54 [Xe]4f ^{5d¹6s²} Dysprosium Dy	67 [164.9] 2600 1461 8.80 [Xe]4f ^{5d¹6s²} Holmium Ho	68 [167.3] 2900 1497 9.05 [Xe]4f ^{5d¹6s²} Erbium Er	69 [168.9] 1727 1545 9.33 [Xe]4f ^{5d¹6s²} Thulium Tm	70 [173.0] 1427 824 6.98 [Xe]4f ^{5d¹6s²} Ytterbium Yb	71 [175.0] 3327 1652 - [Xe]4f ^{5d¹6s²} Lutetium Lu												
90 [232.0] 3850 1750 11.7 [Rn]5f ¹⁴ 6d ² 7s ² Thorium Th	91 [231.0] - (1230) 5, 4 15.4 [Rn]5f ¹⁴ 6d ¹ 7s ² Protactinium Pa	92 [238.0] 3818 1132 19.07 [Rn]5f ¹⁴ 6d ² 7s ² Uranium U	93 [237] - 6, 5, 4, 3 637 19.5 [Rn]5f ¹⁴ 6d ¹ 7s ² Neptunium Np	94 [242] 3235 640 [Rn]5f ¹⁴ 6d ² 7s ² Plutonium Pu	95 [243] - 6, 5, 4, 3 - 11.7 [Rn]5f ¹⁴ 6d ¹ 7s ² Americium Am	96 [247] - 3 - [Rn]5f ¹⁴ 6d ¹ 7s ² Curium Cm	97 [247] - 4, 3 - [Rn]5f ¹⁴ 6d ¹ 7s ² Berkelium Bk	98 [249] - 3 - [Rn]5f ¹⁴ 6d ¹ 7s ² Californium Cf	99 [254] - [Rn]5f ¹⁴ 6d ¹ 7s ² Einsteinium Es	100 [253] - [Rn]5f ¹⁴ 6d ¹ 7s ² Fermium Fm	101 [256] - [Rn]5f ¹⁴ 6d ¹ 7s ² Mendelevium Md	102 [254] - [Rn]5f ¹⁴ 6d ¹ 7s ² Nobelium No	103 [257] - [Rn]5f ¹⁴ 6d ¹ 7s ² Lawrencium Lr												

KEY

Atomic number: 79, 197.0

Boiling point (°C): 2970, 3.1

Melting point (°C): 1063

Density (g/ml): 19.3

Name: [Xe]4f¹⁴5d¹⁰6s¹
Gold

Atomic weight: Based upon carbon-12. () indicates most stable or best known isotope

Oxidation states: Bold indicates most stable

Symbol: Black — solid; Red — gas; Blue — liquid; Outline — synthetically prepared

Electron structure

ELEMENT CATEGORIES

- Alkali metal
- Alkali earth metal
- Lanthanide
- Actinide
- Transition metal
- Post-transition metal
- Metalloid
- Other nonmetal
- Halogen
- Noble gas
- Unknown chemical properties