

Hydrogen
alkali metals

1a	Alkaline earths	
1	1 H Hydrogen g	
2a		
2	3 Li Lithium s	4 Be Beryllium s
3	11 Na Sodium s	12 Mg Magnesium s
4	19 K Potassium s	20 Ca Calcium s
5	37 Rb Rubidium s	38 Sr Strontium s
6	55 Cs Cesium s	56 Ba Barium s
7	87 Fr Francium s	88 Ra Radium s
3b	4b	5b
6b	7b	8b
21 Sc Scandium s	22 Ti Titanium s	23 V Vanadium s
24 Cr Chromium s	25 Mn Manganese s	26 Fe Iron s
27 Co Cobalt s	28 Ni Nickel s	
39 Y Yttrium s	40 Zr Zirconium s	41 Nb Niobium s
42 Mo Molybdenum s	43 Tc Technetium s	44 Ru Ruthenium s
45 Rh Rhodium s	46 Pd Palladium s	
57 La* Lanthanum s	72 Hf Hafnium s	73 Ta Tantalum s
74 W Tungsten s	75 Re Rhenium s	76 Os Osmium s
77 Ir Iridium s	78 Pt Platinum s	
89 Ac** Actinium s	104 Rf Rutherfordium –	105 Ha Hahnium –
106 Sg Seaborgium –	107 Ns Nielsbohrium –	108 Hs Hassium –
109 Mt Meitnerium –		

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l = liquid at STP
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– = not found in nature

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Rare earths

Lanthanides

Actinides

*	58 Ce Cerium s	59 Pr Praseody- mium s	60 Nd Neody- mium s	61 Pm Prome- thium s	62 Sm Samarium s	63 Eu Europium s	64 Gd Gadolinium s
**	90 Th Thorium s	91 Pa Protacti- nium s	92 U Uranium s	93 Np Neptunium –	94 Pu Plutonium –	95 Am Americium –	96 Cm Curium –

Inert
gases

Boron
group

Carbon
group

Nitrogen
group

Oxygen
group

Halogens

Electron
subshells
filled

1s

Coin metals

1b	2b							4s3d	4s4p
29 Cu Copper s	30 Zn Zinc s	31 Ga Gallium s	32 Ge Germanium s	33 As Arsenic s	34 Se Selenium s	35 Br Bromine l	36 Kr Krypton g		
47 Ag Silver s	48 Cd Cadmium s	49 In Indium s	50 Sn Tin s	51 Sb Antimony s	52 Te Tellurium s	53 I Iodine s	54 Xe Xenon g	5s4d	5s5p
79 Au Gold s	80 Hg Mercury l	81 Tl Thallium s	82 Pb Lead s	83 Bi Bismuth s	84 Po Polonium s	85 At Astatine s	86 Rn Radon g	6s5d	6s6p

Light platinum metals: Ru, Rh and Pd
Heavy platinum metals: Os, Ir and Pt

4f	65 Tb Terbium s	66 Dy Dysprosium s	67 Ho Holmium s	68 Er Erbium s	69 Tm Thulium s	70 Yb Ytterbium s	71 Lu Lutetium s
5f	97 Bk Berkelium –	98 Cf Californium –	99 Es Einsteinium –	100 Fm Fermium –	101 Md Mendelee- vium –	102 No Nobelium –	103 Lr Lawren- cium –

Some controversy remains concerning the naming of elements 104 – 109. Element 104 is also called Kurchatovium (Ku).