



Chem!stry

Name: ()

Class:

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Valency Table

Definition of valency: The number of electrons lost by a metal or gained by a non-metal when it reacts to obtain the electronic configuration of a noble gas. **Note:** The charges on the ions are written for reference and should *not* be included in the final formula, e.g. NaCl *not* Na^+Cl^- .

	Valency = 1	Valency = 2	Valency = 3
Cations:	Ammonium – NH_4^+ Hydrogen – H^+ Lithium – Li^+ Potassium – K^+ Silver – Ag^+ Sodium – Na^+ Group 1 metals and any transition metal whose name is followed by (I), e.g. <i>copper(I) oxide</i> .	Calcium – Ca^{2+} Lead – Pb^{2+} Magnesium – Mg^{2+} Zinc – Zn^{2+} Group 2 metals and any transition metal whose name is followed by (II), e.g. <i>copper(II) sulfate</i> .	Aluminium – Al^{3+} Group 13 metals and any transition metal whose name is followed by (III), e.g. <i>iron(III) chloride</i> .

	Valency = 1	Valency = 2	Valency = 3	Valency = 4
Anions:	Bromide – Br^- Chloride – Cl^- Ethanoate – CH_3COO^- Fluoride – F^- Hydride – H^- Hydroxide – OH^- Iodide – I^- Manganate(VII) – MnO_4^- Nitrate – NO_3^- Nitrite – NO_2^-	Carbonate – CO_3^{2-} Dichromate(VI) – $\text{Cr}_2\text{O}_7^{2-}$ Oxide – O^{2-} Sulfate – SO_4^{2-} Sulfide – S^{2-} Sulfite – SO_3^{2-}	Nitride – N^{3-} Phosphate PO_4^{3-} Phosphide – P^{3-}	Carbide – C^{4-} Silicide – Si^{4-} Note: These anions are rarely – if ever – seen in nature and their symbols are only given for guidance to help you write chemical formulae.

