

NAMING Rules (notes of emphasis)

- (1) MOST, but not all polyatomic end in -ate or -ite.
- (2) Exceptions would be NH_4^+ (Ammonium), CN^- (Cyanide) and OH^- (hydroxide).
- (3) All anions that end in -ate or -ite contain oxygen.
- (4) If 2 polyatomic differ by the number of oxygens, then the one with the fewer number of oxygens is -ite and the greater number is -ate.

i.e. SO_3^{2-} sulfite, SO_4^{2-} sulfate
or

ClO_2^- chlorite, ClO_3^- chlorate

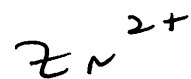
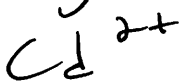
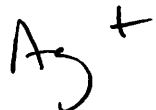
(5) An -ide means a simple binary compound - either ionic or molecular.

(6) -ite or -ate means a polyatomic ion that includes oxygen in formula

(7) Prefixes in the name indicate that the compound is molecular

(8) A Roman numeral after the name of the cation shows that it is a transition metal and shows its ionic charge.

(9) The transition metals



Always have these known charges
and do not need Roman numerals

Arriving Acids

- Acids are compounds that contain one or more H^+ and produce H^+ ions when dissolved in water.

$H_n X$ is general formula

① When the name of the anion (X) ends in -ide, the acid name starts with HYDRO - and the stem of the anion gets -ic on the end followed by the word "acid".

i.e. HCl (X) = chloride so Hydrochloric Acid

② When the name of the anion (X) ends in -ite, the stem of the anion gets -ous added followed by the word acid.

i.e. H_2SO_3 (X) = sulfite so sulfurous acid.

(3) When the anion name ends in -ate, the stem of the anion gets -ic added to it followed by the word acid.

i.e. HNO_3 (x) = nitrate

so nitric acid



i.e. H_2SO_4 (x) = sulfate

so sulfuric acid.