

Definitions and Concepts for Edexcel Chemistry A-level

Topic 3: Redox 1

Oxidation number: The charge of an ion or a theoretical charge of an atom in a covalently bonded compound assuming the bond becomes ionic.

Oxidation: Loss of electron, increase in oxidation number.

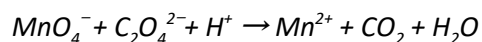
Reduction: Gain in electrons, decrease in oxidation number.

Redox: A reaction that involves oxidation and reduction.

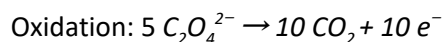
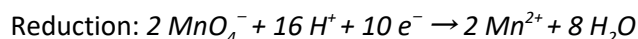
Oxidising agent: Accepts electrons and gets reduced in a redox reaction (causes the oxidation of other species).

Reducing agent: Donates electrons and gets oxidised in a redox reaction (causes the reduction of other species).

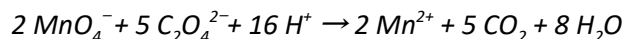
Half-equations: A full redox equation could be split into two half-equations, oxidation and reduction. This concept is useful for balancing complex redox reactions, such as:



can be split into:



And combined to give the balanced redox equation:



Disproportionation: A redox reaction involving an element in a single species being simultaneously oxidised and reduced,

