

# Ionic Equations, Precipitation Reactions and Half Equations

The key areas of study in this topic are:

- writing ionic equations
- preparation of a pure sample of an insoluble salt
- oxidation and reduction in terms of loss and gain of electrons
- writing and combining half equations

By the end of this topic I should be able to:	Start	End
0.4 Write balanced ionic equations		
Write (ionic) half equations [extracted from other syllabus points]		
Explain redox reactions in terms of gain or loss of electrons [extracted from other syllabus points]		
3.19 Recall the general rules which describe the solubility of common types of substances in water: <ul style="list-style-type: none"> <li>• all common sodium, potassium and ammonium salts are soluble</li> <li>• all nitrates are soluble</li> <li>• common chlorides are soluble except those of silver and lead</li> <li>• common sulfates are soluble except those of lead, barium and calcium</li> <li>• common carbonates and hydroxides are insoluble except those of sodium, potassium and ammonium</li> </ul>		
3.20 Predict, using solubility rules, whether or not a precipitate will be formed when named solutions are mixed together, naming the precipitate if any		
3.21 Describe the method used to prepare a pure, dry sample of an insoluble salt		