

# Acid reactions

- overall and ionic equations

Hydrogen	H <sup>+</sup>	Chloride	Cl <sup>-</sup>
Sodium	Na <sup>+</sup>	Bromide	Br <sup>-</sup>
Silver	Ag <sup>+</sup>	Fluoride	F <sup>-</sup>
Potassium	K <sup>+</sup>	Iodide	I <sup>-</sup>
Lithium	Li <sup>+</sup>	Hydroxide	OH <sup>-</sup>
Ammonium	NH <sub>4</sub> <sup>+</sup>	Nitrate	NO <sub>3</sub> <sup>-</sup>
Barium	Ba <sup>2+</sup>	Oxide	O <sup>2-</sup>
Calcium	Ca <sup>2+</sup>	Sulphide	S <sup>2-</sup>
Copper(II)	Cu <sup>2+</sup>	Sulphate	SO <sub>4</sub> <sup>2-</sup>
Magnesium	Mg <sup>2+</sup>	Carbonate	CO <sub>3</sub> <sup>2-</sup>
Zinc	Zn <sup>2+</sup>	Hydrogencarbonate	HCO <sub>3</sub> <sup>-</sup>
Lead	Pb <sup>2+</sup>		
Iron(II)	Fe <sup>2+</sup>		
Iron(III)	Fe <sup>3+</sup>		
Aluminium	Al <sup>3+</sup>		

Table 1  
Valency of common ions

Reaction	
Sulphuric acid solution and aqueous sodium carbonate.	Overall :  ionic :
Nitric acid solution and lithium metal	Overall :  ionic :
Hydrochloric acid solution and magnesium sulphide powder	Overall :  ionic :
Sulphuric acid solution and sodium oxide powder.	Overall :  ionic :
Nitric acid solution and aqueous calcium hydroxide.	Overall :  ionic :
Hydrochloric acid solution and aqueous sodium sulphite.	Overall :  ionic :
Sulphuric acid solution and solid sodium hydroxide	Overall :  ionic :
Nitric acid solution and aqueous sodium carbonate.	Overall :  ionic :