Lonic equations

I What are ionic equations?

- chemical equ. which only include ions formed / changed
- ie 只包括真正参与reaction的物质
- Steps
 - 1. 写一次已经 balanced 的 equation
 - 2. 把 angueous 的物质折开成 ion
 - 3. 把沒改变过的 ion 删走 > spectator ion
 - 4. 確保內边 charge 的数量相等

2 Examples

Mg + Al2(SO4)3.

- $3Mg(s) + A|_2(SO_4)_3 caq$ $3MgSO_4 caq$ + $2A|_{cs}$ $\Rightarrow 3Mg + 2A|^{3+} \Rightarrow 3Mg^{2+} + 2A|_{cs}$ $3O_4^{2-}$ 決定过 $LHS = O + 2 \cdot (+3) = +6$

 - RHS = 3x(+2)+0=+6

Ca+HC1-

- Cas, +2HCl cag) -> CaCl2 cag) + Hz cg)
- ⇒ Ca + 2H⁺ → Ca²⁺ + H₂ → Cl⁻ 沒要过,H₂不能抓
 - LHS = 2x(+1) = +2 $RHS = 1 \times (tz) = t2$

Pb(NO3)2+Na2SO4-

- Pb(NO3)2 (ag) + NO12SO4 (ag) -> PbSO4 (s) + 2NO1NO3 (ag)
- $\Rightarrow Pb^{2+} + SO_4^{2-} \rightarrow PbSO_4 \rightarrow RbSO_4$, The property with the property of the property of
- LHS = (+2) + (-2) = 0RHS=0