Unit 1 Inorganic Reactions

Write full equations for these reactions;

1. Thermal decomposition of calcium carbonate

CaCO3(s) → CaO(s) + CO2(g)

1. Magnesium oxide and hydrochloric acid

MgO(s) + 2HCl(aq) → MgCl2(aq) + H2O(l)

1. Sodium carbonate and nitric acid

Na2CO3(aq) + HNO3(aq) → NaNO3(aq) + H2O(l) + CO2(g)

1. Zinc and sulphuric acid

Zn(s) + H2SO4(aq) → ZnSO4(aq) + H2(g)

1. Calcium hydroxide and hydrochloric acid

Ca(OH)2(aq) + 2HCl(aq) → CaCl2(aq) + 2H2O(l)

Write ionic equations for these reactions, **including state symbols**

1. Sodium hydroxide solution and copper sulfate solution

Cu2+(aq) + 2OH−(aq) → Cu(OH)2(s)

1. Lead nitrate solution and sodium ethanaote solution (NaCH3COO(aq))

Pb2+(aq) + 2CH3COO−(aq) → Pb(CH3COO)2(s)

1. Potassium sulfate solution and barium chloride solution.

Ba2+(aq) + SO42−(aq) → BaSO4(s)

1. Chlorine solution and potassium bromide solution

Cl2(aq) + 2Br−(aq) → 2Cl−(aq) + Br2(aq)

1. Zinc and cobalt(II) sulfate (CLUE: Zn is more reactive than Co)

Zn(s) + Co2+(aq) → Zn2+(aq) + Co(s)