

Question 1- Many ionic crystals contain water molecules. These salts are called hydrated crystals.

Most hydrated crystals such as Cobalt chloride can be dehydrated by thermo decomposition



Using the following information and steps, determine the water of crystallisation of CoCl_2 (find x)

Experimental results

Mass of hydrated crystals before it was heated = 4.29 g

Mass after heated (dehydrated) = 2.34 g

- Determine the amount of anhydrous CoCl_2

Molar mass of CoCl_2 is _____

Amount of CoCl_2 is _____

- Determine the amount of water loss

Mass of hydrated – Mass of anhydrous = Mass of water loss = _____

Molar mass of H_2O is _____

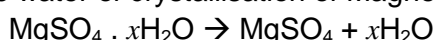
Amount of H_2O is _____

- Determine the molar ratio

The molar ratio between CoCl_2 : H_2O is _____

Question Two

Using the steps above, determine the water of crystallisation of Magnesium sulphate



Experimental results

Mass of hydrated crystals before it was heated = 1.40 g

Mass after heated (dehydrated) = 0.68 g