

7/16 EXPERIMENT NO-6

AIM: To study the effect of heat on given substances (carbonates)

APPARATUS: Test tube, delivery tube, glass rod, Bunsen's burner, test tube holder.

CHEMICALS: Given substances, litmus papers, lime water, acidified potassium permanganate solution, acidified potassium dichromate soln.

PROCEDURE:

1. A small portion of the given substance is taken in a clean and dry test tube and heated.
2. Observations are recorded, products are identified with the help of chemical tests and deductions are made where possible.

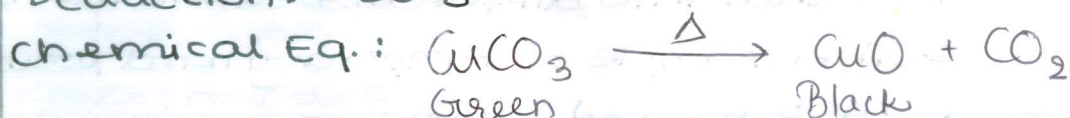
CONCLUSION:

1. CuCO_3 on heating decomposes to give CuO & CO_2
2. ZnCO_3 on heating decomposes to give ZnO & CO_2

Substance A:

SNO.	Tests	Observations.	Inference
1.	Take a small portion of given substance in a clean & dry test tube and heat it.	Original colour: Green Gas evolved: Colourless Colour of gas: Colourless Odour of gas: Odourless	The salt is decomposed to release a gas.
2.	Bring moist blue and red litmus papers 1 by one in contact with the gas.	Residue colour: Black.	The gas evolved is acidic in nature.
3.	Pass the gas through lime water. Pass excess of gas through lime water.	Nature: Acidic. Moist blue litmus paper turns red & red remains red. Lime water turns milky. Milkiness disappears.	Gas evolved may be CO ₂
4.	Pass the gas through acidified potassium permanganate solution.	The purple colour of KMnO ₄ remains unchanged.	Gas evolved is CO ₂ .

Deduction. The given substance is CuCO₃.



Substance B:

1.	Take a small portion of given substance in a clean & dry test tube and heat it.	Original colour: White Gas evolved: Colourless Colour of the gas: Colourless Odour of the gas: Odourless	The salt decomposes to release a gas.
2.	Bring moist blue and red litmus one by one in contact with gas.	Residue: Yellow when hot, white when cooled	
3.	Pass the gas through lime water. Pass excess gas through lime water.	Nature: Acidic Moist blue litmus paper turns red & red remains red. Lime water turns milky & then milkiness disappears.	Gas evolved is acidic in nature. Gas evolved may be CO ₂
4.	Pass gas through acidified potassium permanganate soln.	The purple colour doesn't change.	Gas evolved is CO ₂

Deduction: The given substance is ZnCO₃

