

## **DETERMINATION OF MOISTURE CONTENT AND LOSS ON DRYING**

### **AIM:**

To determine the moisture content and loss on drying.

### **REQUIRMENTS:**

- ❖ Petridish
- ❖ Measuring cylinder
- ❖ Pipette
- ❖ Tray dryer
- ❖ Calcium carbonate
- ❖ Spatula
- ❖ Weighing balance

### **PROCEDURE:**

- ❖ Take clean dry petridish and weight it (x)
- ❖ Weigh 10g of calcium carbonate powder and transfer to petridish and weight it
- ❖ Add sufficient amount of water with the help of pipette to the powder until slurry form.
- ❖ Again weigh the petridish and note down weight (y)
- ❖ Place the petridish in tray dryer and weigh it at every 5 min
- ❖ Allow it to dry until it's constant weight the down the constant dry weight (z)
- ❖ Calculate the percentage loss on drying and percentage moisture content for the given sample.

### **REPORT:**

- ❖ The moisture content and loss on drying was determined
- ❖ The percentage of moisture content is =
- ❖ The loss on drying is =

**Calculation:**

Weight of empty petridish (x) =  
Weight of empty petridish +  
sample + water (y) = Weight  
of empty petridish + sample +  
water (After drying at every 5  
minutes) =

$$\text{Loss of drying} = \frac{\text{Weight of empty petridish + sample + water (Before drying)} - \text{Weight of empty petridish + sample + water (After drying at every 5 minutes)}}{\text{Weight of empty petridish + sample + water (Before drying)}}$$

$$\text{Percentage moisture content} = \frac{\text{Weight of empty petridish + sample + water (Before drying)} - \text{Weight of empty petridish + sample + water (After drying at every 5 minutes)}}{\text{Weight of empty petridish + sample + water (Before drying)}} \times 100$$