

## EXPERIMENT NO-2

### DETERMINATION OF TOTAL ,SUSPENDED, AND DISSOLVED SOLIDS

#### AIM

The aim of the experiments is determination of total, suspended and dissolved solids in water.

#### APPARATUS REQUIRED

1. Balance 2. Beaker 3. Measuring Cylinder 4. Filter paper/ or Gooch Crucible 5. Funnel 6. Dropper

#### PROCEDURE:

##### **(a) Measurement of Total Solids (TS)**

(1) Take a clear dry glass beaker of 150 ML capacity (which was kept at 103°C in an oven for 1 hour) and put appropriate identification mark on it. Weight the beaker and note the weight.

(2) Pour 100ml. of the thoroughly mixed sample, measured by the measuring cylinder, in the beaker.

(3) Place the beaker in an oven maintained at 103°C for 24hours. After 24 hours, when whole of the water has evaporated, cool the beaker and weight. Find out the weight of solids in the beaker by subtracting the weight of the clean beaker determined in step (1)

(4) Calculate total solids (TS) as follows:

Total Solids in water= Difference of weight of the beakers / Volume of sample X1000

##### **(b) Measurement of Total Dissolved Solids (TDS)**

(1) Same as above (step 1 of total solids).

(2) Take a 100 ml. of sample and filter it through a double layered filter paper or a Gooch Crucible and collect the filtrate in a beaker.

(3) Then repeat the same procedure as in steps (3) and (4) of the total solids determination and determine the dissolved solids contents as follows:

**CALCULATION:**

Dissolved solids, TDS (mg/l) = mg of solids in the beaker / (volume of sample)  
x 1000

Also total solid (TS)= Suspended Solids + Total dissolved Solids (TDS)

**NOTE:- See the experiment on the link below:-**

[https://www.youtube.com/watch?v=GJSe\\_Deo-\\_0&ab\\_channel=NCTEL](https://www.youtube.com/watch?v=GJSe_Deo-_0&ab_channel=NCTEL)