



LABORATORY WORK SHEET

Name of the Student : Roll Number :
Class : Semester : I
Course Code : AHSD05 Course Name : EC LAB
Name of the Course Faculty : Faculty ID :
Exercise Number : 07 Week Number : 08 Date :

DAY TO DAY EVALUATION:

| Marks | Aim / Preparation | Algorithm / Procedure | Source Code | Program Execution | Viva - Voce | Total |
|------------|-------------------|------------------------|-------------------------|----------------------------|-------------|-----------|
| | | Performance in the Lab | Calculations and Graphs | Results and Error Analysis | | |
| Max. Marks | 4 | 4 | 4 | 4 | 4 | 20 |
| Obtained | | | | | | |

Signature of Faculty

START WRITING FROM HERE :

Preparation of thiokol rubber

Aim : To synthesize thiokol rubber using sodium polysulphide with 1,2 - Dichloroethane.

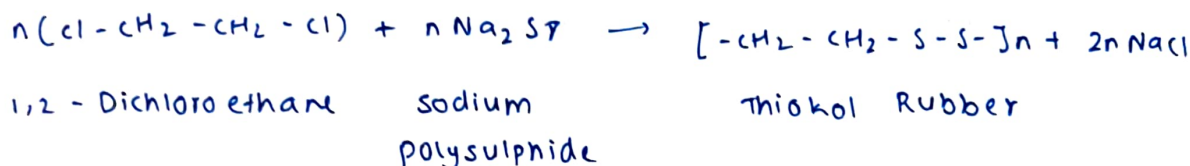
Apparatus : Breakers, glass rod, funnel etc.

chemicals required :

1. Sodium hydroxide
2. powdered sulphur
3. 1,2 - Dichloroethane
4. 5% H_2SO_4 etc.

Theory :

It is a rubbery white substance and is obtained by treating sodium polysulphide with 1,2 - Dichloroethane

Procedure :

1. In a 100ml beaker, dissolve 2gms NaOH in 50-60 ml of water.
2. Boil the solution and to this add in small lots with stirring 4gm of powdered sulphur. During addition and stirring the yellow solution turns deep red.
3. Cool it to 60-70°C and add 10 ml of 1,2 - Dichloroethane with stirring. Stir for an additional period of 20 min while rubber polymer separated out as lump.
4. Pour out the liquid from the beaker in the sink to obtain thiokol rubber. Wash under the tap.
5. Dry in the fold of filter paper, the yield is about 1.5 gm. Determine the solubility of the polymer in Benzene, Acetone, 5% H₂SO₄ and HNO₃ etc.

Result :

Yield obtained = 2.34 gm