

Course Code	Course Name	Credits
26CH651	ORGANIC CHEMISTRY LAB	02

Objective

The objective of this laboratory course is to enlighten the students how to carry out the separation of organic components from the binary mixture and to prepare simple organic compounds using single and double stage preparations and to know the purification and recrystallization techniques for the prepared compounds.

1. Detection of elements (N, Cl, S) by Lassaigne's test.
2. Detection of the following functional groups by systematic chemical analysis:
Aromatic amino ($-\text{NH}_2$), aromatic nitro ($-\text{NO}_2$), Amido ($-\text{CONH}_2$, including imide), Phenolic $-\text{OH}$, Carboxylic acid ($-\text{COOH}$), Carbonyl ($>\text{C}=\text{O}$).
3. Preparation of Benzophenoneoxime from Benzophenone.
4. Preparation of Benzophenoneoxime to Benzanilide.
5. Preparation of *o*-chlorobenzoic acid from anthranillic acid.
6. Preparation of *p*-benzoquinone from hydroquinone.
7. Preparation of Anthraquinone from Anthracene.
8. Preparation of *p*-Nitrobenzoic acid from *p*-Nitrotoluene.
9. Preparation of *p*-Chlorotoluene from *p*-Toluidine.

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.