

MANGALORE UNIVERSITY
DEPARTMENT OF CHEMISTRY
M.Sc. APPLIED CHEMISTRY

ACP 557: INORGANIC CHEMISTRY PRACTICALS –IV

COURSE OUTCOME:

- The students will have practical experience in the determination of COD, DO,
- Students can study the presence of Nitrate, K in soil, Organic carbon, Sulphur and Phosphorus in Soil, Alkalinity of water samples,
- Fluoride in drinking water, Phosphoric acid in soft drinks, phosphates in detergents,
- Able to carry out Analysis of Heavy metals,

1. Determination of COD of a water sample,
2. Determination of dissolved oxygen (DO) by Winkler's method
3. Determination of nitrate & nitrite in water samples and sea water.
4. Analysis of heavy metals in waste water, sea water (Pb, Hg etc. By spectrophotometry)
5. Determination of available K in soil, 6. Determination of organic carbon in soil samples
7. Nephelometric determination of sulphate / phosphate.
8. Determination of alkalinity of water samples
9. Determination of fluoride in drinking water by spectrophotometry & ion selective electrode
10. Determination of phosphoric acid content in soft drinks
- 11 Spectrophotometric determination of sulphur and phosphorus present in soil.
12. Determination of phosphates in detergents
13. Any other experiment of interest.

REFERENCES:

1. A...I. Vogel: A Text book of Quantitative Inorganic Analysis, (ELBS), 1978.
2. APHA, AWWA and WPCF: Standard Method for the Examination of water and Waste Water (Washington DC),1989,
3. I. M. Kolthof and E.P. Sandell: Quantitative Chemical Analysis.McMillan,1980
4. I.Williams, Environmental Chemistry, Wiley, 2001
5. Lobinski and Marczenko, Comprehensive Analytical Chemistry, Vol.30, Elsevier,1996