

Department of Industrial Chemistry

Faculty of Science

IC (209)332 Fuel Analysis Laboratory

1(0/0-1/3)

Abbreviation -

Prerequisite IC 331 or concurrent to IC 331

This course is opened for MAJOR ELECTIVE COURSE

Course Description

American Standards of Testing and Materials (ASTM) distillation, proximate and ultimate analyses, vapor pressure measurement, viscosity and viscosity index measurements, cloud point, pour point and American Petroleum Institute (API) specific gravity measurements, aniline point and diesel index measurements, carbon residue and ash analyses, fuel color determination, corrosion test, gum analysis, sulfur content analysis and calorific value measurement, flash point, ignition point and smoke point measurements, gas analysis, Fischer analysis, and sediment and water content analyses.

Objective

Students will be experienced with experiments involving fuel analysis.

Laboratory Topics

Laboratory hours

1. American Standards of Testing and Materials (ASTM) distillation	3
2. Proximate and ultimate analyses	3
3. Vapor pressure measurement	3
4. Viscosity and viscosity index measurements	3
5. Cloud point, pour point and American Petroleum Institute (API) specific gravity measurements	3
6. Aniline point and diesel index measurements	3
7. Carbon residue and ash analyses	3
8. Fuel color determination	3
9. Corrosion test	3
10. Gum analysis	3
11. Sulfur content analysis and calorific value measurement	3
12. Flash point, ignition point and smoke point measurements	3
13. Gas analysis	3
14. Fischer analysis	3
15. Sediment and water content analyses	3

Total

 45
