DEC
CHEMICAL ENGINEERING DEPARTMENT
NEDUET

CHEMICAL ANALYTICAL LAB

Chemical Engineering

NED University of Engineering and Technology, Karachi

The department of Chemical Engineering of NED University of Engineering & Technology is an ever-evolving programme and is equipped with state-of-the-art research analysis laboratory where GC, GC-MS and HPLC are available for any hydrocarbon analyses along with aqueous samples with a range of materials that can be analysed. Trace metal analysis is possible with Atomic Absorption spectrometer fo any wastewater sample to potable water sample. Bomb Calorimeter is available for liquid and solid sample calorific value analysis. In addition, the Laboratory is engaged in R&D work in fields of specialized technologies that support production operations, including environmental technology.

Making use of the chemical engineering expertise and technology we leverage our strengths in analytical technologies necessary for commercial scale testing. We welcome any industry to come forward and work with us and we will provide our research faculty for collaboration and sustainable solution
to their problem.

Chemical testing and analysis services including composition analysis, trace contamination detection, metals testing, identification of unknowns and regulatory testing

Chemical testing and analysis is vital for regulatory compliance and to understand the quality and composition of chemical substances and materials that are used in products, industrial processes & manufacturing. Specialist industry knowledge, and expertise in applying the most relevant methodology are the keys to successful chemical testing. Advanced analytical instrumentation or a combination of techniques is necessary to solve problems or determine composition.

Department of Chemical Engineering
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Gas Chromatography

Gas Chromatograph (GC 2010 Plus, Shimadzu) equipped with Dimethyl polysiloxane column and FID detector, able to analyse Petrochemicals, Amines, hydrocarbons, pesticides, PCBs, phenols, sulfur compounds, flavorings, and fragrances.

Mass Spectrometery

Gas chromatograph – Mass Spectrometer (GC-MS QP-2010 Plus, Shimadzu) equipped with non-polar phenyl arylene polymer column and TCD detector which is an ideal candidate for the analysis of wide range of materials with their qualitative and quantitative analysis.

Aniline point

Aniline point measurement for Diesel Index/ Cetane number analysis is available.

Bomb Calorimeter

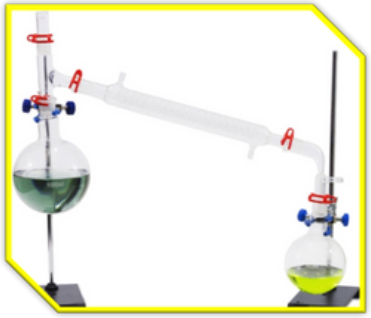
IKA C 200 Bomb Calorimeter is available for the analysis of gross calorific value of solid and liquid samples for academic demonstration and research purpose as well as commercial sample analysis

Viscosity

Brookfield DV-E Viscometer is available for the determination of the viscosity measurement of the samples

Atmospheric Distillation (ASTM-D86)

Atmospheric distillation of petroleum fractions can be performed in order to obtain ASTM D86 results that can further be translated into True boiling point (TBP) and Equilibrium Flash Vaporisation (EFV).



Atomic Absorption Spectrometry (AAS)

State of the art atomic absorption spectrometer with flame and graphite furnace for a variety of elemental analysis is available in aqueous solutions.

Milling and Screening

Hammer mill is available for size reduction of solid materials and screening can be performed with the help of sieve shaker for particle analysis within 800 microns until 63-micron range with specific intervals

High Performance Liquid Chromatography (HPLC)

The department has a versatile high performance liquid chromatograph LC-2010, which can analyze liquid phase samples having an autosampler which can hold 20 samples