



# DEPARTMENT OF ENVIRONMENTAL QUALITY ANALYSIS



Department of Environmental Quality Analysis  
ISO/IEC 17025:2005

**VILAS 366**

## Functions - Tasks

- Development of techniques of analysis for environmental components;
- Research on methods of environmental toxicity analysis;
- Research on manufacture of nano materials and their application for treatment of toxic substances in the air and water environment;
- Investigation and assessment of environmental pollution levels caused by chemicals and pollution impacts to human health;
- Performance of standardized environmental analysis, and;
- Conduct of basic and advanced training in the field of environmental analysis.

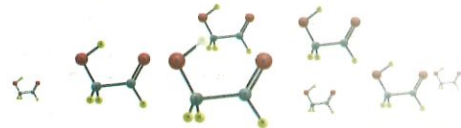
## Training

- Cooperation with domestic and abroad research institution for training various levels of bachelor, engineer, master and doctor, as well as government officials and staffs of enterprises in the field of environment;
- Organizing the training courses, both in national and international scale, on monitoring and analyzing the environment quality.

## International cooperation

- Cooperation with Nagoya University (Japan), The National Institute of Industrial Science and Technology (AIST - Japan), University of Paris VII

Montpellier 2 University (France), Dresden University of Technology (Germany), ERTC (Thailand), etc.



## Department of Environmental Quality Analysis

has analytical laboratory which is fully equipped with modern equipments such as AAS, HPLC, GC, ICP-MS, GC/MS/MS, LC/MS, GC/MS, etc., along with the young staffs who are highly skilled, experienced and have carried out lots of projects related to the environment;

- Analysis of pesticides, PCBs; VOCs in soil, water, air and solid waste samples by GC, GCMS and GCMSMS;
- Analysis of more than 60 elements including metals, non-metals, rare earths (La, Ce, etc.) in the soil, water, air, fertilizer and chemicals samples, etc. by ICPMS;
- Analyzing elemental form of inorganic - organic arsenic, inorganic - organic mercury and other compounds by coupling system ICPMS/HPLC;
- On-site devices for quickly measuring parameters such as: pH, temperature, noise level, turbidity, conductivity, salinity, TDS, DO, Eh, gases CO, NO<sub>x</sub>, SO<sub>x</sub>, H<sub>2</sub>S, NH<sub>3</sub>, acid vapor, etc.



Atomic Absorption Spectrometer AAS - 6800, Shimadzu, Japan



Inductively Couple Plasma - Mass Spectrometer ICP-MS, ELAN 9000 - Perkin Elmer Sciex, USA



Ion chromatograph, Shimadzu, Japan

Instruments for analysis of metals and trace inorganic compounds in Environment, food and biological samples

Analytical instrument for determination of toxic organic pollutant



Total Organic Carbon Analyser - Total Nitrogen Measuring Unit (TOC-Vcph), Shimadzu, Japan



Gas Chromatograph (GC), 2010, Shimadzu, Japan



Gas Chromatograph - Mass Spectrometer (GC-MS), QP-2010, Shimadzu, Japan



High Sensitivity Liquid Chromatograph Mass Spectrometer (LC-MS/MS), Thermo, Agilent

Instruments for field monitoring



Detection of pollutant from emission sources and ambient air pollution: Testo 350, Kimoto, Horiba, Multiwarn II, Drager, Sibata, Kanomax

Training on analytical technique and environmental monitoring



Training on environmental analytical technique



Monitoring for soil, water and air environments

Instruments for analysis of basic Parameters and sample preparation



UV-VIS 2450 equipment, Shimadzu, Japan



Speed wave 4, Berghof, Germany

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