

# ■ Sample Preparation

## Introduction

All chemical analyses are not only focussed on the analytical methods used. In most cases the samples must be pre-treated in more or less complex procedures in order to be ready for measuring. Sample pre-treatment plays an important role in all analytical investigations. Besides sampling, measurement, calculation, and interpretation, sample preparation is one of the five key steps of all analytical procedures. Different types of samples must be prepared for different kinds of analytical methods. Hence a number of different sample preparation methods has been developed in the past. This course deals with most important sample preparation methods. The focus is on one hand on pre-treatment of samples with organic substances for chromatographic analysis and on the other hand on inorganic and organic samples for the determination of inorganic compounds, i.e. element- and species analysis.

## Contents and Aims

We provide you with knowledge for optimised preparation of samples. The course deals with: classical chemical sample digestion, microwave assisted digestion, sorbents for pre-concentration of analytes and separation of matrix components, extraction procedures.

The following extraction methods will be studied in detail: liquid-liquid extraction (LLE), solid phase extraction (SPE), solid phase micro extraction (SPME), accelerated sample extraction (ASE), membrane and headspace methods.

## Organisation

The authors present the subjects in a series of lectures. A discussion and training session follows after each lecture.

## Participants

Chemists, engineers, lab-technicians, head of laboratories, managers of department of testing

Duration	Time
2,5 days	November 2007

## Authors

Prof. Dr. Heinz-Martin Kuss, analytical chemist with many years experience in theory and practice in analytical chemistry and in education and teaching  
MSc Nabil Badr, analytical chemist

## Language

English and Arabic

## Certificate

After successful participation a certificate will be provided.

## Local organisation

ITA International Training Agency

## Partner organisation

Talecon is official partner of ITA International Training Agency, Beirut, with branch in Tripoli, Libya

## TALECON

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