

38th Training Programme of NITUB



NITUB TRAINING PROGRAMME ON GC, GC-MS

09-15 December 2009

Organized by

Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB)

Venue

Department of Chemistry, University of Dhaka, Dhaka-1000

Organizing Committee

Professor Nilufar Nahar Department of Chemistry, DU	Convener
Professor Altaf Hussain General Secretary, NITUB	Member
Professor (Retired) M. Mosihuzzaman Department of Chemistry, DU	Member
Dr. Md. Iqbal Rouf Mamun Department of Chemistry, DU	Member
Dr. Mohammad Shoeb Department of Chemistry, DU	Member
Dr. Mohammad Arifur Rahman Department of Chemistry, DU	Member

All correspondence should be addressed to

Professor Altaf Hussain
General Secretary, NITUB
300 Elephant Road, Alishan Complex
Room 309 (2nd Floor)
Phone: 9673136
Cell: 01552421909; 01715105391
Fax: 880-2-8615583
Email: HTUnitub@bangla.net UTH
Website: www.nitub.org

Background

The Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB), a voluntary non-profit, non-political learned society, is functioning since 1994 with the aim of improving the capability of scientists and technical personnel in proper use, maintenance and repair of scientific equipment. The main function of NITUB is to train scientific & technical personnel and to repair non-functioning instruments.

NITUB is regularly conducting training programme on the use and maintenance of specific groups of instruments such as AAS, GC, HPLC, UV-VIS, IR and X-ray etc. So far, NITUB has conducted 37 training programmes (515 participants) on various groups of instruments. NITUB is also conducting Instrument Repair Programme through which non-functioning scientific instruments are being repaired (880 instruments repaired so far).

As gas chromatograph is quite commonly used in many laboratories in Bangladesh, demand for training programme on GC is high. Lately, a few GC-MS machines, including one in the DU Chemistry lab, are functioning well. Therefore, it was thought worthwhile to include GC-MS in the training programme. The research laboratory at the Department of Chemistry is constantly using GC and GC-MS, so it was considered to be the venue for the 38th NITUB training programme on GC, GC-MS.

Training Module

The 38th training programme of NITUB will include theoretical lectures on principle and function of GC and GC-MS and practical training sessions on operation, maintenance and trouble-shooting of these

instruments. The practical training will include extraction, clean up and analysis of the organic pollutants in different matrices, *e.g.* fish, soil and water. A Tentative schedule of the training programme is given in the circular. The detailed final programme will be sent to the selected participants in due course. University teachers, scientists from different research organizations and NITUB technical experts will conduct the training programme.

Participants

A maximum of 12 (twelve) participants will be selected from applicants of various universities, research institutions and private organizations. Applicants having GC facilities at his/her working place will have preference.

Registration

Applications for participants in the 38th training programme on GC, GC-MS should reach the **NITUB** office on or **before 20 November 2009** in the **Application Form** attached with the circular. Application must be sent through proper channel **along with a training fee of Tk. 10,000- (Taka ten thousand) in the form of a bank draft or pay order in the name of NITUB.** Training fee will include registration materials and, lunch and tea on the training days. Training fee for the applicants who are IFS (International Foundation for Science) Grantees will be paid from the fund forwarded to NITUB by IFS. IFS Grantees from the South Asia Region will also get financial assistance towards their travel and accommodation on a first come first served basis.

Selected participants will be informed by **25 November 2009** and the training fee of the applicants who could not be accommodated will be refunded.

Tentative Programme

09 December 2009 (Wednesday)

0830-0930 - Registration
0930-1030 - Inauguration
1030-1100 - Tea
1100-1200 - *Lecture 1*: Basic principles of gas chromatography
1200-1300 - *Lecture 2*: Introduction to gas chromatography-mass spectrometry (GC-MS)
1300-1400 - Lunch & Prayer
1400-1630 - Practical Sessions: 1
Introduction to GC and its detectors (FID, ECD, FTD & MSD)
1630 -1700 - Tea & Discussion

10 December 2009 (Thursday)

0900-1030 - Practical Session: 2*
Group-A: *Analysis of Persistent Organic Pollutants by GC-ECD*
Group-B: *Analysis of modern pesticides by GC-ECD/FTD*
Group-C: *Identification of organic pollutants by GC-MS*
1030-1100 - Tea
1100-1230 - Practical Session :2 continuation
1230-1330 - Lunch & Prayer
1400-1630 - Practical Session :2 continuation
1630 -1700 - Tea & Discussion

11 December 2009 (Friday)

0900-1000 - *Lecture 3*: Method development and validation for analysis of organic pollutants
1000-1030 - Tea
1030 -1300 - *Lecture 4*: Separation of organohalogen compounds by GC, GC-MS
Lecture 5: QC, QA, Trouble-Shooting and Maintenance of GC, GC-MS
1300- - Lunch

12 December 2009 (Saturday) Free day due to DU Convocation

13 December 2009 (Sunday)

0900-1030 - Practical Sessions: 3
Group-B: *Analysis of Persistent Organic Pollutants by GC-ECD*
Group-C: *Analysis of modern pesticides by GC-ECD/FTD*
Group-A: *Identification of organic pollutants by GC-MS*
1030-1100 - Tea
1100 -1300 Practical Sessions:3 Continuation
1300-1400 - Lunch & Prayer
1400-1630 - Practical Sessions:3 Continuation
1630 -1700 - Tea & Discussion

14 December 2009 (Monday)

0900-1030 - Practical Sessions: 4
Group-C: *Analysis of Persistent Organic Pollutants by GC-ECD*
Group-A: *Analysis of modern pesticides by GC-ECD/FTD*
Group-B: *Identification of organic pollutants by GC-MS*
1030-1100 - Tea
1100-1300 - Practical Sessions: 4 continuation
1300-1400 - Lunch & Prayer
1400-1630 - Practical Sessions: 4 continuation
1630 -1700 - Tea & Discussion

15 December 2009 (Tuesday)

0900-1100 - Practical Session: 5. Individual experiments by participants. Individual Problem solving
1100-1130 - Tea
1130-1300 - Practical Session: 5 Continuation
1300-1400 - Lunch & Prayer
1400-1500 - Open discussion
1500-1600 - Closing ceremony & distribution of certificates

* Participants will be divided into 3 groups for practical session

