



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Institute of
Bioproduct Development



A 2 Day Course on **CHROMATOGRAPHY TECHNIQUES FOR HERBAL AND METABOLITES ANALYSIS**

17 - 18 June 2019

Jasmine Seminar Room,
N22, IBD, UTM Johor

course introduction

This course is specifically designed for those who are interested to know the basic chromatography technique in herbal and microbial metabolite. Chromatography is usually used for separating the components in a mixture. There are several different types of chromatography currently in use such as paper chromatography; thin layer chromatography (TLC), gas chromatography (GC), Liquid chromatography (LC); high performance liquid chromatography (HPLC); fast protein liquid chromatography (FPLC). The basic principles in all chromatographic methods require one static part (stationary phase) and one moving part (the mobile phase). The practical experience about TLC, automated TLC reader and HPLC setup, key components for compound separation, technical skills in sample pre-treatment, as well as data analysis and interpretation will be included, by our experienced and well-trained analysts in the laboratory. Therefore, students, researchers and laboratory technicians are encouraged to join the course to learn a comprehensive flow of chromatographic techniques, and to understand the chemistry happening behind the techniques.

course objectives

The course aims to:-

The objective of this workshop is to expose student/ researchers to the chromatography in herbal and microbial metabolite analysis, as well as to demonstrate the application of the techniques in TLC, HPLC and GC techniques.

course content

This course aims:

- Full hands-on training bioproducts extraction and different techniques of chromatographic analysis.
- Introduction of Chromatography Technique in chemical analysis Chromatography application in Industry
- To provide participants theoretical knowledge on the chromatography technique in herbal and microbial metabolite (TLC, HPLC, FPLC)
- To provide participants practical experience on handling extraction techniques, Thin Layer Chromatography (TLC), High Performance Liquid Chromatography (HPLC)



www.ibd.utm.my

enquiries

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Jalan Sultan Yahya Petra, 54100 Kuala Lumpur

tel : **+603.2615 4406** Attn: Yatie email : nikyati@ibd.utm.my

course fee

Fee is inclusive of lunch, refreshments and course materials.

Accommodation is not included.

Local Participant
RM **700**

**Register
NOW!**

A2 : A 2 Day Course on Chromatography Techniques For Herbal and Metabolites Analysis

17 - 18 June 2019

Jasmine Room, N22,
UTM Johor Bahru, Johor

YES! I would like to register the following participants

Name 1 _____

Job Title _____

Name 2 _____

Job Title _____

COMPANY INFORMATION

Company _____

Address _____

Town _____

State _____

Tel _____ Fax _____

Email _____

Method of Payment

Please kindly complete and return the reply form together with :

By cheque / Bank Draft which are made payable to **BENDAHARI UTM**

Payment direct to account

Account name **Bendahari UTM**

Bank **CIMB Bank Berhad**

Account No **8006053536**

Cancellation & Substitutions

A full refund will be promptly made for all written cancellations 2 weeks before the course. 50% refund will be made for written cancellations received 7 days before the course. A substitute may be made at any time.

Note

A) The organiser has the right to make any amendments that they deem to be in the best interest of the course and to cancel the course if insufficient registrations are received a week before course commencement date.

B) CERTIFICATE OF ATTENDANCE will be awarded at the end of the course.

course tutors



**ASSOC. PROF DR
CHUA LEE SUAN**

Assoc. Prof. Dr. Chua Lee Suan has completed her PhD in 2005 from Universiti Teknologi Malaysia. She is a registered chemist, university lecturer and Quality Manager for SAMP ISO/IEC 17025 Biofertilizer Laboratory (SAMP NO: 433). Her expertise in natural products, particularly for metabolite profiling of herbs and honey and has published more than 50 international research articles and serving as editor for reputed journals such as Journal of Ginseng Research and European Journal of Medicinal Plants.



**NURUL AZWA
MOHD YUNUS**

She is currently a Research Officer in Institute of Bioproduct Development, Universiti Teknologi Malaysia. She has 6 years of experience working in analytical laboratory and research. She has developed skills and expertise in performing analysis, data interpretation and operation & maintenance on multiple lab equipment; Mass Spectrometer, HPLC, GC, IC and AAS. She served as a Scientist in R&D Analytical Department of Biocon Sdn Bhd, a renowned biopharmaceutical manufacturing company. Over the years, she has helped in efforts to obtain regulatory approvals for insulins and derivatives now commercially available locally and globally. She used to work as a Research Officer in NIH Secretariat, Ministry of Health Malaysia doing research management and ethical approval.

Nurul Azwa obtained her BSc Biotechnology (2009) and Master of Biotechnology (2014) from Universiti Malaya. Her master dissertation was on Bioprocess Technology, focusing on optimization of biohydrogen production from several types of waste. She is a certified Halal Executive, Safety and Health Officer and GCP. Nurul Azwa has worked in cGMP, GDP and GLP facilities and well-versed with ISO 14001, ISO 17025 and OHSAS 18001.



**MRS. SITI HAJAR
BTE MAT SARIP**

Siti Hajar bte Mat Sarip is a Research Officer for the past 10 years in Institute Bioproduct Development (IBD) under Analytical & Biovalidation unit and previously she has been working in Soil, Water & Biofertilizer Laboratory unit and in Bioresources unit. She also appointed as a Deputy Quality Manager and Technical Manager in IBD Laboratory Services to maintained accredited laboratory as ISO 17025 requirements and now she appointed as Head of Analytical & Biovalidation unit since 2016. She has completed MSc. In Bioprocess Engineering at Universiti Teknologi Malaysia related to delivery system for pesticide ingredients. His expertise is related to ISO/IEC 17025 system and analytical laboratory.



**MRS
MAIZATULKMAL
YAHAYU**

She is currently a Research Officer for the past 5 years at Institute of Bioproduct Development (IBD) under Bioresources unit. She holds a Bachelor Science (Hons.) in Chemistry (2008) and Master of Science in Natural Product Chemistry (2012) from Universiti Putra Malaysia, respectively. She is a registered chemist from Institut Kimia Malaysia (IKM) and a lifetime member of Malaysian Natural Product Society (MNPS). Her research area mainly on the valorization of agricultural biomass particularly on the application of pyroligneous acid as wood preservative, plant growth promoter, antioxidant, anti-microbial and anti-inflammatory properties. She also involved in a research related to the production of activated carbon from pineapple and oil palm biomass.