



UNIVERSITI SAINS MALAYSIA

PUSAT PENGAJIAN SAINS KIMIA

SCHOOL OF CHEMICAL SCIENCES

UNIVERSITI SAINS MALAYSIA

11800 USM, PULAU PINANG

Tel: 04-653 3540

BILIK ALATAN GC-MS MUPA/G09

Tarikh

(Date)

Staf Bertugas

(Staff In-Charge)

012-543 4387 (Mr. Megat)

BORANG PERMOHONAN ANALISIS GC-MS

(GAS CHROMATOGRAPHY MASS SPECTROMETRY, GC-MS ANALYSIS APPLICATION FORM)

Nama Pemohon (Applicant's Name)		No. Telefon (Phone No.)	
Alamat Email (Email Address)		Tandatangan Pemohon (Applicant's Signature)	
Pusat Pengajian/Makmal (School/Lab)		*No. Matrik/Staf (Matric/Staf No.)	
Status Pemohon, sila tanda ✓ (Applicant's Status, please mark ✓)	<input type="checkbox"/> Pelajar PhD (PhD student)	<input type="checkbox"/> Pelajar sarjana (MSc student)	<input type="checkbox"/> Pelajar tahun akhir (Undergraduate / FYP student)
Nama Penyelia (Supervisor's Name)		No. PO / No. Resit Pembayaran (Purchase Order No. / Receipt No.)	
Tandatangan Penyelia (Supervisor's Signature)		Cop Penyelia (Supervisor's Stamp)	

*Untuk USM sahaja (USM only)

MAKLUMAT SAMPEL
(SAMPLE INFORMATION)

No.	Nama / Kod Sampel Sample Name / Code	Pelarut; sila nyatakan (Solvent; please specify)	Ketoksikan, jika ada sila tandakan ✓ (Toxicity; if any please mark ✓)
1.			
2.			
3.			
4.			
5.			
Jumlah Sampel (Total Number of Sample)			

SPESIFIKASI METOD
(METHOD SPECIFICATION)

GC-FID Trial Run Parameter Details				GC-MS Run Details (Operator Use)			
*It is compulsory to attach GC-FID parameter and GC trace chromatogram				*GC-MS parameter following the given GC-FID parameter with an adjustment needs			
Phase	Ramping Temp. (°C)	Temp. (°C)	Holding Time (min)	Phase	Ramping Temp. (°C)	Temp. (°C)	Holding Time (min)
(Initial)				(Initial)			
Phase 1				Phase 1			
Phase 2				Phase 2			
Column Flow Rate (ml/min) *maximum rate: 2ml/min		Injector Temp. (°C)		Column Flow Rate (ml/min) *maximum rate: 2ml/min		Injector Temp. (°C)	
Split Ratio	1:	Detector Temp. (°C)		Split Ratio	1:	MS Quad (°C)	150
				Mass Range	___ to ___	MS Source (°C)	230
				Solvent delay (min)		GCMS Transfer Line Temp. (°C)	280

KEGUNAAN PEJABAT
(OFFICE USE)

Tarikh Terima Sampel (Sample Received Date)		Tarikh Lengkap Analisis (Completed Analysis Date)	
Tandatangan dan Cop Pegawai Bertugas (Signature and Stamp of Officer In-Charge)			

General Rules and Requirements:

- Sampel mestilah dalam julat 0.5 – 2 ml sahaja.
(Sample must be in the range of 0.5 ml – 2 ml only).
- Pelarut adalah diwajibkan dibawa bersama sampel untuk membilas picagari.
(Solvent is required to be brought with sample to rinse the syringe).
- Sampel mestilah bersifat meruap dan larut di dalam pelarut organik. Air dan sample akues adalah tidak diterima.
(Sample must be volatile and dissolve in organic solvent. Water and aqueous sample will not be accepted).
- Sampel perlulah bersih, homogen dan ditapis dengan membrane penapis terlebih dahulu.
(Sample need to be clean, homogenous and filtered with filter membrane beforehand).
- Sampel perlu dilabelkan dengan jelas.
(Sample need to be clearly labelled).
- Sampel daripada sisa petroleum dan minyak sawit diwajibkan untuk ditukar kepada lemak dan metil ester.
(It is compulsory for sample from petroleum waste and palm oil to be converted to derivative form, fatty acid and methyl ester).
- Parameter dan kromatogram GC-FID adalah diwajibkan untuk dilampirkan bersama borang ini.
(It is compulsory to attach GC-FID parameter and chromatogram with this form).
- Sila lampirkan jurnal rujukan bersama borang ini.
(It is compulsory to attach journal of reference with this form).
- Semua harga analisis adalah tertakluk kepada perubahan.
(All analysis prices are subject to change).
- Anggaran menunggu untuk keputusan adalah dalam tempoh 1 – 2 minggu.
(Estimated waiting period for result is within 1 – 2 weeks).