



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-FID

MUPA/G09	274/G09
K211/G09A	Organic (Organic)
Analisis (Analysis)	375/G09
	Tak Organik (Inorganic)
Tarikh (Date)	
Staf Bertugas (Staff In-Charge)	012-543 4387 (Mr. Megat) * 019-351 5424 (Mr. Zamri) 012-4415990 (Ms. Ainina) 011-4069 7974 (Ms. Hasniza)

BORANG PERMOHONAN ANALISIS GC-FID

(GAS CHROMATOGRAPHY FLAME IONISATION DETECTOR, GC-FID 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 (Matrix/Staff No.)	
Status Pemohon, sila tanda ✓ (Applicant's Status, please mark ✓)	Pelajar PhD (PhD student)	Pelajar sarjana (MSc student)	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 Parameter Details				Capillary Column Type	
Phase	Ramping Temp. (°C)	Temp. (°C)	Holding Time (min)	Type of Capillary Column; please mark ✓	
(Initial)				High Polar	Medium Polar
Phase 1				Polar	Non-Polar
Phase 2				Column's Type / Name	Internal Diameter (mm)
Volume of Sample (µl)		Injector Temp. (°C)		Length (m)	Thickness (µm)
Column Flow Rate (ml/min) *maximum rate: 2ml/min		Detector Temp. (°C)			
Split Ratio	1:				

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 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).
- Sila lampirkan jurnal rujukan bersama borang ini.
It is compulsory to attach journal of reference with this form.
- Sampel perlu dilabelkan dengan jelas.
(Sample need to be clearly labelled).
- 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).