Makmal Instrumentasi Berpusat CRIM (i-CRIM)
Pejabat Am Makmal i-CRIM, Aras 2,
Kompleks Penyelidikan UKM,
43600 UKM Bangi, Selangor.
Tel: 03-8911 8515 | Faks: 03-8911 8516 | Emel: crimlab@ukm.edu.my

Tarikh kuat kuasa
24/1/2022

BORANG PERMOHONAN/*REQUEST FORM*

1. Sila lengkapkan Borang Permohonan untuk perkhidmatan analisis/ bayaran pukal/ sebut harga/ *Please fill in the Request Form to get a quotation (if necessary).*
2. Sila rujuk lampiran untuk senarai harga, terma dan syarat */Please refer to the attachment for price list, terms and conditions.*
3. Borang yang telah lengkap diisi perlu di e-mel ke crimlab@ukm.edu.my / *Please send the complete form to crimlab@ukm.edu.my.*
4. Semasa penghantaran sampel, sila bawa Borang Permohonan asal atau Bukti Pembayaran untuk rujukan pegawai/ *Please bring the original Request Form or Payment Receipt for Officer's reference.*
5. Sampel yg telah siap dianalisis perlu diambil semula. Sampel akan dilupuskan jika tidak dituntut lebih dari 2 minggu/ *Please collect the samples that have been analyzed. Samples will be disposed 2 weeks after the conclusion of experiment.*

A. Maklumat Pemohon/*Applicant Information*

Nama/ *Name*				
No Matrik/ *Matric No*				
Alamat Jabatan / *Department Address*				
No. Tel/ *Tel. No*		E-mel/ *Email*		
Kategori/ *Category* *(Sila Tanda/ Please Tick)*	Prasiswazah/ *Undergraduate*		Kakitangan UKM/ *UKM Staff*	
	Sarjana/ *Master*		Luar UKM / *Non-UKM*	
	Doktor Falsafah/ *PhD*			

B. Maklumat Analisis/ *Analysis Information*

No.	*Kod Analisis / Analysis Code*	Bilangan / *No. of Sample*	Keterangan Sampel / *Sample Details (Method, temperature, etc.)*	Kod Promosi / *Promotional Code (if applicable)*

C. Bayaran Pukal/ Bulk Payment

Jumlah / Amount (RM)	Catatan / Remarks

D. Pengesahan/ *Acknowledgement*

Tandatangan pemohon / *Applicant Signature:*	Tandatangan Ketua Projek & Cop Rasmi / *Project Leader Signature & Official Stamp*:	
Kod Peruntukan (Pengguna UKM) / *Project Code (UKM User):*	Kos Analisis / *Analysis Cost:*	Tarikh / *Date*:

SENARAI HARGA CAJ MAKMAL i-CRIM/ i-CRIM *LABORATORY ANALYSIS PRICE LIST*

ALAT/ *INSTRUMENT*	**KOD/ *CODE***	**JENIS ANALISIS/ *TYPE OF ANALYSIS***	**KOS/ *COST***	
			UKM	***Non-UKM***
AFM Atomic Force Microscope	AFM 01	Topography (AFM) (contact /semi contact/non-contact)	RM100/sample	RM240/sample
	AFM 02	Topography (STM) (Scanning Tunnelling Microscope)	RM110/sample	RM250/sample
	AFM 03	Electrical Properties / Kelvin Probe (KPM) / Conductive AFM (CP-AFM) / Electrical Force Microscope (EFM))	RM130/sample	RM280/sample
		Magnetic Properties (Magnetic Force (MFM))		
		Mechanical Properties (Force Modulation (FMM) / Piezoresponse Force (PFM) / Lithography/Pinpoint (adhesion force, modules, stiffness)		
	AFM 04	Nanoindentation	RM70/sample	RM200/sample
	AFM 05	Force Measurement (Force Spectroscopy)	RM70/sample	RM200/sample
	AFM 06	Scanning Thermal Microscope (ShTM)	RM80/sample	RM220/sample
CHNS/O CHNS/O Elemental Analyzer	CHNS 01	Element C, H, N & S	RM100/sample	RM300/sample
	CHNS 02	Element O	RM100/sample	RM300/sample
DSC Differential Scanning Calorimeter	DSC 01	Standard Temperature (-60°C to 500°C)	RM80/sample	RM130/sample
	DSC 02	Low Temperature (min -160°C)	RM100/sample	RM160/sample
	DSC 03	Heat Capacity	RM200/sample	RM250/sample
FESEM Field Emission Scanning Electron Microscope	SEM 01	FESEM	RM150/test	RM400/test
	SEM 02	**(Add on)** EDX	RM50/test	RM150/test
	SEM 03	**(Add on)** EDX + Mapping	RM100/test	RM300/test
FTIR Fourier Transform Infrared Spectrometer	FTIR 01	Attenuated Total Reflection (ATR)	RM50/sample	RM100/sample
FT-NMR 400 Fourier Transform Nuclear Magnetic Resonance 400 MHz	NMR4 01	1H	RM40/sample	RM80/sample
	NMR4 02	13C	RM40/hour	RM80/hour
	NMR4 03	2D	RM40/hour	RM80/hour
FT-NMR 600 Fourier Transform Nuclear Magnetic Resonance 600 MHz	NMR6 01	1H	RM100/Sample	RM150/sample
	NMR6 02	13C	RM100/hour	RM150/hour
	NMR6 03	2D	RM100/hour	RM150/hour
GC-MS Gas Chromatography–Mass Spectrometer	GC 01	GC-MS (Liquid Injection)	RM100/test	RM200/test
	GC 02	SPME (Solid Phase Micro Extraction)	RM200/test	RM400/test
HPLC High-Performance Liquid Chromatography Spectrometer	HPLC 01	Analytical	RM50/sample	RM100/sample
	HPLC 02	Semi Prep /FCPC	RM1500/project	RM3000/project
ICP-MS Inductively Coupled Plasma Mass Spectrometer	ICP 01	Environmental Standard (Ca Na Mg K Al Cr Mn Fe Cu As Se Ni Zn Ag Cd Sn Sb Ba Pb)	RM220/sample	RM360/sample
	ICP 02	Rare Earth Standard (Ce Dy Er Eu Gd Ho La Lu Nd Pr Sc Sm Tb Th Tm Y Yb)	RM180/sample	RM360/sample
NPSA Nano Particle Size Analyzer	NPSA 01	Particle Size (0.6 nm – 6 µm)	RM35/sample	RM70/sample
	NPSA 02	Zeta Potential	RM50/sample	RM100/sample
PL Photoluminescence Spectrometer	PL 01	Emission	RM45/sample	RM135/sample
	PL 02	Excitation	RM45/sample	RM135/sample
	PL 03	Lifetime Measurement	RM120/sample	RM200/sample
POL Automatic Polarimeter	POL 01	Optical/ Specific Rotation	RM50/test	RM100/test
PSA Particle Size Analyzer	PSA 01	Particle size (10 nm – 5 mm)	RM50/sample	RM100/sample
	PSA 02	Imaging (> 8µm)	RM100/sample	RM200/sample
RAMAN Raman Spectrometer	RA 01	Point Measurement	RM100/Sample	RM150/Sample
	RA 02	Depth Profiling	RM120/sample	RM250/sample
	RA 03	Mapping	RM200/hour/sample	RM300/hour/sample
SC-XRD Single Crystal X-Ray Diffractometer	SC 01	Diffraction Analysis	RM150/sample	RM330/sample
SP Surface Profiler	SP 01	Thickness Measurement	RM25/sample	RM70/sample
STA Simultaneous Thermal Analyzer	STA 01	Heating Rate 5 °C/min + Temperature Range (max 1500°C)	RM100/sample + RM6/100°C	RM150/sample + RM10/100°C
	STA 02	Heating Rate 10 °C/min + Temperature Range (max 1500°C)	RM80/sample + RM6/100°C	RM120/sample + RM10/100°C
	STA 03	Heating Rate 20 °C/min + Temperature Range (max 1500°C)	RM60/sample + RM6/100°C	RM100/sample + RM10/100°C
TEM Transmission Electron Microscope	TEM 01	Imaging	RM200/test	RM450/test
	TEM 02	Imaging/Hour	RM400/hour	600/hour
	TEM 03	**(Add on)** Diffraction	RM50/test	RM100/test

	TEM 04	**(Add on)** EDX	RM100/test	RM200/test
UV-VIS-NIR Ultraviolet/Visible/Near Infrared Spectrometer	UV 01	Absorbance/Transmittance/Reflectance	RM35/sample	RM135/sample
XRD X-Ray Diffractometer	XRD 01	Normal XRD (up to 15 min)	RM70/15min/sample	RM200/15min/sample
	XRD 02	XRD Hi Resolution	RM300/hour/sample	RM500/hour/sample
	XRD 03	Software Analysis	Free	RM200/day
XRF X-Ray Fluorescence Spectrometer	XRF 01	Elemental & Oxide Group Analysis	RM120/Sample	RM250/sample
	XRF 02	Micro Mapping	RM80/sample	RM150/sample
XPS X-Ray Photoelectron Spectrometer	XPS 01	Elemental Scan	RM250/sample	RM350/sample
	XPS 02	**(Add on)** Etching & Depth Profiling	RM150/sample	RM200/sample
	XPS 03	**(Add on)** Mapping	RM100/sample	RM150/sample

TERMA DAN SYARAT/ TERMS AND CONDITIONS

Perkara	Terma & Syarat
Kod Promosi/ *Promotional Code*	• Kod Promosi ini hanya tertakluk kepada promosi semasa sahaja dan hanya sah bagi penghantaran sampel dalam tempoh 1 tahun dari tarikh borang diterima. / *This Promotion Code only applicable during a promotion period. Samples submission is within 1 year after the date of successful application.* • Pengguna boleh melayari laman sesawang Makmal iCRIM di www.ukm.my/icrim atau media sosial rasmi www.facebook.com/makmalcrimukm untuk maklumat lanjut. / P*lease refer to our website www.ukm.my/icrim or official media social www.facebook.com/makmalcrimukm for further information about promotion.*
Bayaran Pukal/ *Bulk Payment*	• Pengguna boleh membuat pra-pembayaran bagi perkhidmatan yang ditawarkan. Tempoh aktif akaun pukal adalah dalam masa 2 tahun dari tarikh permohonan. *User can set up a bulk account by pre-pay for any services offered. The bulk account's active period is 2 years from the date of successful application.* • Pengguna boleh memanjangkan tempoh aktif akaun dengan menambah bayaran seterusnya. Setelah tempoh tamat, baki tidak akan dipulangkan. *User can extend the account's active period by adding further payment. In the event of account expiry, any remaining amount in the account are not refundable.* • Semasa penghantaran sampel, sila bawa bersama salinan Borang Permohonan yang telah diluluskan beserta Borang Permohonan baharu dengan maklumat sampel/analisis. / *Please bring a copy of approved application form with added information about the sample/analysis during sample submission.*
Penghargaan/ *Acknoledgment*	• Mohon nyatakan penghargaan di dalam jurnal/ makalah kepada Makmal i-CRIM seperti berikut: / *Please express your appreciation to Makmal i-CRIM in journals/papers/ publication as follows:* **Penghargaan diberikan kepada Pusat Pengurusan Penyelidikan dan Instrumentasi di atas perkhidmatan analisis yang diberikan/*The authors acknowledge Centre for Research and Instrumentation Management (CRIM) for the analytical services given.***