

**CAJ ANALISIS UNTUK PERALATAN UTAMA**  
ANALYSIS CHARGERS FOR MAJOR EQUIPMENTS

BIL NO.	PERALATAN EQUIPMENT	PELANGGAN LUAR EXTERNAL CLIENT	PELANGGAN USM INTERNAL CLIENT (USM)	PELAJAR PASCA SISWAZAH PPSK POSTGRADUATE STUDENT (SCS)	PELAJAR TAHUN AKHIR PPSK UNDERGRADUATE STUDENT (SCS)
1.	<b>AAS</b> 1) Per element 2) 5 element 3) More than 7 elements	RM 70.00 RM 250.00 RM 350.00	RM 20.00	RM 15.00 / element (50 samples including standard)	RM 15.00 / element (50 samples including standard)
2.	<b>BET Porosimeter</b> 1) Macropore analysis 2) Mesapore analysis 3) Micropore analysis	RM 200.00 RM 300.00 RM 500.00	RM 100.00 RM 200.00 RM 300.00	RM 75.00 RM 75.00 RM 120.00	RM 75.00 RM 75.00 RM 120.00
3.	<b>FTIR</b>	RM 200.00	RM 50.00	RM 5.00 / 30 minutes  RM 10.00 / hour  (Max 4 slot per week / student)  • Without sample preparation • Own Kbr	RM 5.00 / 30 minutes  RM 10.00 / hour  (Max 4 slot per week / student)  • Without sample preparation • Own Kbr
4.	<b>Gas Chromatography (GC – FID)</b>	RM 100.00	RM 80.00	RM 10.00 / sample  RM 250.00 / 50 samples	RM 10.00 / sample  RM 250.00 / 50 samples
5.	<b>GC – MS</b>	RM 450.00	RM 150.00	RM 50.00	RM 50.00
6.	<b>Ion Chromatography (IC)</b>	RM 100.00	RM 50.00	RM 20.00	RM 20.00

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7.	<b>NMR (Liquid only)</b> 1) <sup>1</sup> H (64 scan) 2) <sup>13</sup> C (1 hour) 3) DEPT (45/90/135) 4) <sup>13</sup> C & DEPT (45/90/135) > 1 hour 5) 2D (COSY, HSQC, HMBC, NOESY)	RM 170.00 RM 200.00 RM 200.00 NA RM 500.00	RM 50.00 RM 120.00 RM 120.00 RM 150.00 RM 360.00	RM 20.00 RM 80.00 RM 80.00 RM 150.00 RM 200.00	RM 20.00 RM 80.00 RM 80.00 RM 150.00 RM 200.00
8.	<b>NMR (Liquid only-Bulk*)</b>  1) H (64 scan) 2) <sup>13</sup> C (1 hour) 3) DEPT (45/90/135) 4) 2D (COSY, HSQC, HMBC, NOESY)  *Semua caj adalah tanpa penggunaan pelarut, rujuk operator untuk lain-lain caj. *All charges are without the use of solvent, consult operator for other charges.	RM 5000.00 (6 months)  <i>Conditions:</i> <i>No limit</i>  60 samples 60 samples 20 samples	RM 5000.00 (6 months)  <i>Conditions:</i> <i>No limit</i>  60 samples 60 samples 20 samples	RM 7000.00 (12 months)  <i>Conditions:</i> <i>No limit</i>  60 samples 60 samples 20 samples	NA

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9.	<b>Spectrofluorometer</b>	RM 100.00	RM 50.00	NA	NA
10.	<b>TGA/ DSC</b> 1) Heating Rate (20°C) 2) Heating Rate (10°C) 6) Heating Rate (5°C)	RM 100.00 RM 200.00 RM 400.00	RM 50.00 RM 100.00 RM 200.00	RM 30.00 RM 60.00 RM 120.00	RM 30.00 RM 60.00 RM 120.00
11.	<b>Total Organic Carbon (TOC) Analyser</b>	RM 100.00 (liquid) RM 150.00 (solid)	RM 100.00	RM 36.00	RM 36.00
12.	<b>UV (only for Lambda 35)</b> Solid sample	RM 100.00	RM 80.00	RM 20 / hour	RM 20 / hour



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**Terma dan syarat:**

*Terms and condition:*

1. Semua harga analisis adalah tertakluk kepada perubahan.  
*(All analysis prices are subject to change).*
2. Harga yang dipaparkan adalah sebagai rujukan sahaja.  
*(All analysis prices displayed is for reference only).*
3. Harga analisis adalah tidak termasuk caj konsultasi.  
*(All analysis prices does not include the consulation fees).*
4. Sila email ke [mupa@usm.my](mailto:mupa@usm.my) bagi sebutharga.  
*(Please email to [mupa@usm.my](mailto:mupa@usm.my) for quotation).*