UM
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JABATAN KIMI	4
PROSEDUR PENGENDA	<b>I</b>

JABATAN KIMIA	Kategori	Arahan Kerja
PROSEDUR PENGENDALIAN PERALATAN UV-VIS BAGI ANALISIS SAMPEL	Dokumen No.	AK/JK.P/E/02
	Tarikh   Semakan	06.09.2018   1
	Mukasurat:	1 daripada 13

# 1. TUJUAN

Tujuan prosedur ini dtubuhkan adalah untuk memberikan arahan yang jelas bagi langkah atau tatacara bagaimana menjalankan analisis sampel menggunakan peralatan Ultra Violet Visible Spectrophotometer.

## 2. SKOP

Terpakai untuk pengguna dari Jabatan Kimia.

# 3. PROSEDUR ARAHAN

#### A. Hidupkan Sistem (operator pegawai yang bertanggungjawab)

- 3.1 Hidupkan suis komputer dan uv-vis spectrophotometer di dinding
- 3.2 Hidupkan suis uv-vis spectrophotometer.
- 3.3 Hidupkan suis komputer.

### B. Prosedur Penggunaan Peralatan Uv-Vis Spectrophotometer

Pada desktop klik Windows, klik UVProbe 2.43.



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# 4. CARA-CARA SAMPEL DI ANALISA MENGGUNAKAN KAEDAH PHOTOMETRIC

4.1 Klik *Photometric* seperti dalam rajah di bawah ( gambar rajah 4.1 )

UVProbe - [Photometric]		- 6 ×
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	As.	
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	-0.001 Conc. (mg/l)	-0.000
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	0.400 -	-
	0.200 -	-
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4.2 Kemudian klik Connet (rujuk gambar rajah 4.2)

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		-0.00	Cono. (mg/l)	-0.000
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		0.200		-
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	ım.			
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				40 📆 陆 8/13/2018

Gambar rajah 4.2

UM	JABATAN KIMIA	Kategori	Arahan Kerja
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4.3 Akhir sekali tunggu sehingga semua lampu bertukar hijau dan klik OK

UVProbe - [Photometric] File Edit View Graph Operations Instrument Tools Window Help			- 8 ×
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Standard Table - [ Active ]		Standard Curve	
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		• • • • • • • • • • • • • • • • • • •	13/2018

# Gambar rajah 4.3

4.4 Klik Method 💆

- Masukkan nilai *Wavelength* (nm) seperti yang di nyatakan dalam Manual Experiment Contoh : 512

UVProbe - (Photometric)		
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		▲ 💔 📜 😼 8/13/2018

Gambar rajah 4.4 (1)

# JABATAN KIMIA

PROSEDUR PENGENDALIAN PERALATAN UV-VIS BAGI ANALISIS SAMPEL

	Kategori	Arahan Kerja
	Dokumen No.	AK/JK.P/E/02
	Tarikh   Semakan	06.09.2018   1
	Mukasurat:	4 daripada 13

UVProbe - [Photometric]		
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		8/13/2018

Gambar rajah 4.4 (2)

- Klik Next
- Pilih *Wavelength* dan masukkan WL1 (Contoh : 512) **rujuk gambar rajah 4.4 (2)**

UVProbe - [Photometric]		23
💶 File Edit View Graph Operations Instrument Tools Window Help		6 ×
Standard Table - [ Active ]	Standard Curve	
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Gambar rajah 4.4 (3)

UM

# JABATAN KIMIA

PROSEDUR PENGENDALIAN PERALATAN UV-VIS BAGI ANALISI SAMPEL

	Kategori	Arahan Kerja		
S	Dokumen No.	AK/JK.P/E/02		
	Tarikh   Semakan	06.09.2018   1		
	Mukasurat:	5 daripada 13		



Gambar rajah 4.4 (4)

- Klik Next
- Klik Next
- Pilih File Name (contoh : JUE) rujuk gambar rajah 4.4 (5)



### Gambar rajah 4.4 (5)

- Masukkan *Title* (Contoh : JUE20181101) **rujuk gambar rajah 4.4 (5)** 

	JABATAN KIMIA	Kategori	Arahan Kerja
UM	PROSEDUR PENGENDALIAN PERALATAN UV-VIS BAGI ANALISIS SAMPEL	Dokumen No.	AK/JK.P/E/02
		Tarikh   Semakan	06.09.2018   1
		Mukasurat:	6 daripada 13

- Klik Finish
- Klik Close
- 4.5 Catatkan SAMPEL ID dan CONC seperti yang telah diberi dalam Manual Standard Table (**rujuk gambar** rajah 4.5 )
- 4.6 Catatkan SAMPLE ID at Sample Table ( Active ) rujuk gambar rajah 4.6

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Gamb	ar rajah	4.5												
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3	std3			3.000					ΨË	0.500	-			1
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Gambar rajah 4.6

	JABATAN KIMIA
UM	PROSEDUR PENGENDALIA PERALATAN UV-VIS BAGI ANA
	SAMPEL

Т

N KIMIA	Kategori	Arahan Kerja
ENGENDALIAN	Dokumen No.	AK/JK.P/E/02
VIS BAGI ANALISIS	Tarikh   Semakan	06.09.2018   1
IPEL	Mukasurat:	7 daripada 13

4.7 Masukkan sepasang cuvettes diisi distill water ke dalam UV-VIS



Kedua-dua cuvette dimasukkan blank iaitu air suling.

Gambar rajah 4.7





Gambar rajah 4.9

	JABATAN KIMIA	Kategori	Arahan Kerja
UM	PROSEDUR PENGENDALIAN PERALATAN UV-VIS BAGI ANALISIS SAMPEL	Dokumen No.	AK/JK.P/E/02
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		Mukasurat:	8 daripada 13

4.10 Tukar sampel ( tukar cuvette bahagian hadapan sahaja )



4.11 Klik Read Std

Read Std.

UM	JABATAN KIMIA	Kategori	Arahan Kerja
	PROSEDUR PENGENDALIAN	Dokumen No.	AK/JK.P/E/02
	PERALATAN UV-VIS BAGI ANALISIS SAMPEL	Tarikh   Semakan	06.09.2018   1
		Mukasurat:	9 daripada 13
VProbe - [Photometric]			

VVProbe - [Photometric]		
1 File Edit View Graph Operations Instrument Tools Window Help		_ 6' ×
Standard Table - ( Active )	0.373	Standard Curve
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Read Next Standard (F9)		
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	(Fi	ename: File_100015_093934.ph0
		• () 📆 🔯 8/13/2018

Gambar rajah 4.11

- 4.12 Ulangi langkah 4.10 & 4.11 sehingga habis sampel
- 4.13 Klik Sample Table ( Active )

UM	JABATAN KIMIA	Kategori	Arahan Kerja
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Gambar rajah 4.13

4.14 Tukar sampel ( cuvette bahagian hadapan sahaja )



Gambar rajah 4.14

- 4.15 Klik *Read Unk* (rujuk gambar rajah 4.13)
- 4.16 Ulangi langkah 4.14 & 4.15 sehingga habis sampel

# 4.17 Klik Graph



### Gambar rajah 4.17

- Pilih Standard Curve Statistic
- Tik Correlation Coefficient
- Tik Chi Square

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Untuk print data:

- 1. Klik Standard Curve
- 2. Klik Print

VVProbe - (Photometric)					
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Standard Table - ( Active )		0.373	Standard Curve		
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	JABATAN KIMIA	Kategori	Arahan Kerja
UM	PROSEDUR PENGENDALIAN	Dokumen No.	AK/JK.P/E/02
	PERALATAN UV-VIS BAGI ANALISIS SAMPEL	Tarikh   Semakan	06.09.2018   1
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Cara shutdown peralatan selepas digunakan:

ii)

- i) Pastikan semua data telah disimpan
  - Klik Disconnet

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iii) Keluar daripada UV-Probe Software

# 5 PROSEDUR BERKAITAN

Instrument Usage/Service Application Procedure

GP-I-001

## 6 RUJUKAN SEMAKAN

SEMAKAN	DISEDIAKAN	DISEMAK	TARIKH	CATATAN
1	Juriah Binti Seko	Norzalida Zakaria	06.09.2018	Isu kali pertama