

# HPLC Basic Teaching Material For Empower Software

## 高效能液相層析系統 -

## 資料處理軟體基礎操作指引

美商沃特斯公司-台灣分公司

connections<sup>®</sup>

Waters

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## 第一章 電腦/層析軟體開機/開始操作畫面說明

- 1. 打開電腦電源開關,進入作業系統, 連續按兩下" EMPOWER LOGING" 圖像。
- 2. 輸入 UserName(原廠內設值: System)、 Password(原廠內設值: Manager),按 OK。



3. 進入 EMPOWER 畫面(Pro 或 Quick Start 介面,可依使用者設定而不同)。



## 第二章 資料處理系統操作介面/畫面說明



圖像	功	白白	描	述
Run Samples	開始樣品分析。			
Browse Project	Project 瀏覽、數	【據處理與列印。	0	
Configure System	層析系統設定。			
Process Data	數據處理。			
Review Data	數據瀏覽、處理。			
Print Data	報表列印·			

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## 第三章 資料夾(Project)之建立

Empower 2 軟體可建立子母資料夾,以方便資料管理。

System/Administrator - Configuration Manager								
File Edit View Records Tools Help								
🤊 💁 💕 💉 🗴 bee 🗖	Filter By: Iproject details	Edit View	2 <u>U</u> p	odate				
🗉 🖶 Empower Configuration 🛛 🔄	6	Full Name	Parent	Name	Schema			
🖻 🚇 Projects	1	PharmaceuticalQA\Detroit\2005_01	PharmaceuticalQA\Detroit	2005_01	vV_2005_01_000			
ClinicalBio	2	PharmaceuticalQA\Detroit\2005_02	PharmaceuticalQA\Detroit	2005_02	vv_2005_02_000			
Defaults	3	PharmaceuticalQA\Detroit\2005_03	PharmaceuticalQAVDetroit	2005_03	vv_2005_03_000			
Dissolution	4	PharmaceuticalQA\Detroit\2005_04	PharmaceuticalQAVDetroit	2005_04	vv_2005_04_000			
Environmental	5	PharmaceuticalQA\Detroit\2005_05	PharmaceuticalQAVDetroit	2005_05	vv_2005_05_000			
GC Data 1	6	PharmaceuticalQA\Detroit\2005_06	PharmaceuticalQA\Detroit	2005_06	vv_2005_06_000			
IndustrialNonPharma	7	PharmaceuticalQA\Detroit\2005_07	PharmaceuticalQAVDetroit	2005_07	VV_2005_07_000			
PatternMatch_SemoProject_1								
- PharmaceuticalDev								
🖻 📴 PharmaceuticalQA								
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2005_01	Г							
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2005_04	Г							
2005_05	F							
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Singapore								
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🗷 🗟 Sales Proiect 🛛 🗹	<				>			
For Help, press F1				7 Total				

#### 一、 建立母資料夾

1. 在 Empower 的 Pro 介面中·將滑鼠指在【Configure System】框框中·按一下進入。



2. 進入畫面之後,將滑鼠指在右邊的空白處,再按一下右鍵,選擇【New】。

System	n/Administrator - Configuration	Manager					_ <b>_</b> X
			Open Update Statistics Backup Project				
Filter	Default	Edit View Upd	Restore Project(s)	L		-	
🖃 🖶 Em	power Configuration	🍪 Name 🤇	Delete		Full Audit Trail	Locked	
	Acquisition Servers	1 Defaults ε	Clone	Ĺ			Default project
- 🖷	Systems	2 GPC 5	Move Project Data				
⊡-⊘	Libraries	3 LC_Right_on_Time S	Unlock Project	L			For the New Product S
L 🙎	Users	4 LT 5	Lock Project				2002.05.30
67	User Groups User Types	5 Parabens S	Manual <u>A</u> rchive Create Sample Archives	94			
	Plate Types	6 TVV_power 5	Properties				2002.5.22_test_sample
-1	System Audit Trail	7 TVV_salt 5		Ľ			no
1	Offline System Audit Trail	8 User_Huang S	Соба	È			Breeze+RI spectrum o
	Sample Archives		Hide Column				
🍈	Offline Project Archives		Show All Columns				
₽	Offline Sample Archives		Pri <u>n</u> t Table				
		+ ī	Table Properties	$\vdash$			
			Column Properties	H			
				-			
				_			
				_			
				_			
I		•					•
For Help, pr	ress F1						NUM //

#### 3. 選擇 【Project】";再按 【下一步】。



4. TableSpace: 50 MB (資料夾建立時規劃儲存方法的空間大小),若您需要電腦幫您自動 做追蹤紀錄,請在【Full Audit Trail Support】的欄位中打勾;在【Comment】欄位中 可以選擇【Slient】:不需要書寫註解即可完成存檔工作;【Unrestricted】:需要書寫註 解;【restricted】:限制性註解,必須自行建立註解項目。若在【Confirm Identity】中 打勾,表示若有存檔動作產生時必須輸入使用者密碼,選完之後,最後按【下一步】。

New Project Wizard - 1	ablespace		×
	Enter the amount of database t the new project. Note: This value may be chang TableSpace: 5 TableSpace Available: Full Audit Trail Sunno	tablespace to rese ged at any time. 50 📑 MB 62.56 MB	rve for
	Project Audit Trail Policies		
	Project Object	Comment	Confirm Identity
	1 Method S	Silent 💌	
	2 Result	Silent	
	3 Sample	Inrestricted Restricted	
	4 Deletion S	Silent	
	<上─毋圆 下─毋	<u>(N)</u> > 取	消」 説明

5. 在這個頁面中點選您會使用到的應用選項;選完後按【下一步】。

New Project Wizard - Opt	ions		<u>? ×</u>
	<u>E</u> nabled Options:	<ul> <li>✓Photo Diode Array</li> <li>✓ System Suitability</li> <li>✓ GPC</li> <li>✓ GPC/V</li> <li>Mass Spectrometry</li> <li>○ CE/CIA</li> <li>✓ Dissolution</li> <li>✓ Pattern Matching</li> <li>✓ Chemical Structures</li> </ul>	
<u> &lt;上一步</u>	·图 下一步(N)	> 取消	

- 6. 在【Allowed Access】中設定此資料夾的使用權限。選擇完後按【下一步】。
  - Owner Only 為只有建立資料夾的人能開啟使用
  - Owner and Group 只有建立資料夾的人及同一群組的人能開啟使用,若有設定 Group 可在 Allow Access to Groups 內選擇可使用此資料夾的群組。
  - Owner, Group and World 所有人都可開啟使用
    - (PS: 若使用者權限為系統管理者則可瀏覽所有資料夾)

New Project Wizard - Ac	New Project Wizard - Access Control					
	Allowed Access © Owner Only O Owner and Group O Owner, Group and World	Select the users that should have access to this project.				
	Group User Type	Select the type of				
	User's Own Type 💌	user access given to the group(s).				
	Allow Access to Groups					
	□Administrators □Guests	Select the group(s) to be given access to the project.				
	- World User Type	Colored a trace of				
	Uzer's Own Type	access given other Empower users.				
<u> &lt;上一</u> ź	步图 下一步刚 取	[消]				

7.在此畫面中您可將之前使用或已存檔的方法複製至新資料夾內·按【下一步】。

- View Filter: 數據篩選的方法。
- Custom Field:軟體內定或自行建立的欄位。
- Method : 儀器方法、注射表格、積分方法及報告方法。
- Preference:軟體的操作畫面。
- From Project : 選擇從哪一個資料夾。

New Project Wizard - Copy Selection	×
When the project is created would you like to:     Copy   Custom Fields   Methods   Projects   Construction   Construction <t< td=""><td></td></t<>	
<上一步(B) 下一步(M) > 取消 影	胡

8. 最後在這裡輸入資料夾名稱,若在【Full Audit Trail Support】的欄位中打勾必須在 【Project Comments】書寫文字;最後按【完成】。

New Project Wizard - N	lame Entry			×
	Project Name: Project Comments:	TEST1211 Testing		
	<u>~</u>	2 76/%	42/8	a7,99

9. 回到 Configure System 的主畫面中時 · 您便可以看到已經建立好的資料夾 ·

System/Administrator - Configuration Manager							_ 🗆 🗙
			Filter	Default	▼ Ed:	it Vie <u>w</u>	Update
Empower Configuration	6	Name	Owner	Create Date	Full Audit Trail	Locked	
	1	CIA_Default	System	01.12.2005 AM 02:06:47 PST		No Lock	CIA demor
Empower Nodes	2	Custom_Fields	System	01.12.2005 AM 02:07:04 PST		No Lock	Project co
	3	Defaults	system	29.11.2005 PM 11:49:10 PST		No Lock	Default pri
🖉 Users	4	Defaults1	System	01.12.2005 AM 02:07:12 PST		No Lock	Default pri
👷 User Groups	5	Defaults_FAT	System	01.12.2005 AM 02:07:23 PST	~	No Lock	Full Audit
E User Types	6	Demo	System	01.12.2005 AM 02:07:39 PST		No Lock	
System Audit Trail	7	Dissolution_Default	System	01.12.2005 AM 02:08:19 PST		No Lock	use to sho
🖏 Offline System Audit Trail	8	GC_Default	System	01.12.2005 AM 02:08:27 PST		No Lock	GC Demor
	9	GPC	System	01.12.2005 AM 02:13:02 PST	<b>V</b>	No Lock	Parent Pro
	10	LIMS	System	01.12.2005 AM 02:15:59 PST	<b>V</b>	No Lock	Parent Pro
	11	MS_Default	System	01.12.2005 AM 02:09:33 PST		No Lock	Default pri
	12	PatternMatch_Default	System	01.12.2005 AM 02:10:14 PST		No Lock	Chromatog
	13	PDA Default	System	01.12.2005 AM 02:09:54 PST		No Lock	Default PD
	14	SysSuit_Default	System	01.12.2005 AM 02:10:29 PST		No Lock	System su
	15	TEST1211	System	11.12.2005 PM 04:40:46 CST	V	No Lock	Testing
	16	Training	System	01 12 2005 AM 02 22 08 PST	~	No Lock	Parent Pro
	17	User	System	06.12.2005 AM 11:54:52 CST	<b>V</b>	No Lock	User
	18	ZQ_Default	System	01.12.2005 AM 02:10:47 PST		No Lock	ZQ Demor
	•						Þ
For Help, press F1						18 Total	11.

## 2. 建立子資料夾

- 1. 重覆建立母資料夾步驟 1~2。
- 2. 選擇母資料夾的位置; ex: TEST1211, 選完後按【下一步】。

New Project Wizard - New Project Parent	×
New Project Wizard - New Project Parent  Select New Project Parent  Please select the parent project for the project you are about to create.   Select New Project Parent  Please select the parent project for the project you are about to create.   Select New Project Parent  Please select the parent project for the project you are about to create.   Select New Project Parent  Please select the parent project for the project you are about to create.   Select New Project Parent  Please select the parent project for the project you are about to create.   Select New Project Parent  Please select the parent project for the project you are about to create.   Select New Project Parent  Please select the parent parent  Please selec	×
the project selected above.	
<上一步(B) 下一步(B) 取消 説明	

- 3. 重覆建立母資料夾步驟 4~8。
- 4. 回到 Configure System 的主畫面中時,您便可以在母資料夾下看到已經建立好的子資料 灰。

System/Administrator - Configuration Manager									
<u>File E</u> dit <u>V</u> iew Records <u>H</u> elp									
🔊 💁 🚰 💉 🔏 🖿				Filter	Default		<b>•</b>	Edit Vie <u>w</u>	<u>U</u> pdate
🖃 🖶 Empower Configuration 📃	6	Name	Owner	Create	Date	Full Audit Trail	Locked	Comments	Tablespace Que
🖻 🔁 Projects	1	TEST	System	11.12.2005 PM	04:50:51 CST	<b>V</b>	No Lock	Testing	
CIA_Default	Н		-,						
Custom_Fields	H								
Defaults									
Defaults1									
Defaults_FA T									
Demo	H								
Dissolution_Default	H								
GC_Default									
⊞ 👩 GPC									
E IMS									
MS_Default	H								
PatternMatch_Default	Н								
PDA Default									
SysSut_Default									
TEST1211									
Training	H								
	Н								
	H								
Empower Rodes									
Jystems									
Plate Types									
	L								
or Help, press F1 1 Total //									

## 第四章 分析儀器方法的設定(Instrument Method)

此章節只收載 Alliance 2695、UV 2489, 若有其它儀器設定請參考附件

1. 進入 Empower 【 Pro 】 的主畫面。

Empower Pro		
LOGIN LOGOUT ABOUT HELP	User: System DB: Local	
666		
Run Samples	Browse Project	Configure System
Process Data	Review Data	Print Data
	and the second distance of the second distanc	

2. 左邊欄位中選擇欲使用之 Project 名稱,右邊欄位中選擇欲使用的系統,選完後按【OK】。



3. 在 Edit 選單中選取【New Method Set..】。

20	590_996 in Def	aults as S	iystem/Adm	inistrator	- Run Sampl	es							- U ×
Eile	Edit View Inj	ect <u>A</u> ctio	ns <u>⊂</u> ustomize	<u>D</u> iagnosti	ics <u>H</u> elp								
De	New Method	Set   Set				XÈ	1	▶?	Run Only	•	Continue on Fault	•	
	Instrument M	ethod											
<mark></mark> ≪ ∨i	New Sample : Op <u>e</u> n Sample	5et <u>M</u> ethod Set Metho	l Template d Template										
	<u>A</u> mounts Sample Set Ir Dissolution G⊆ Sample Se	ifo it Info											
⊢	Plates												
⊢	Alter <u>R</u> unning	i Sample			<u> </u>	-1							
H	Cut			Ctrl+X									
	⊆opy <u>P</u> aste			Ctrl+V									
					1								
	_					-1							
						-1							
		-											
L.	11 Committee in		41.1	-									
<b>4</b>  ) ⊤	A Sample Sets	ARunnir		 <sub></sub>	<u>ل</u> (د م) س								
<u>fem</u>	<u>perature (C)</u>	Flow	( <u>mi/min)</u>		re (psi)	Instrument I Edit	Method:	Monitor	Setup				
Creat	e a new method :	set			System Idle - I	(nstrument l	Failure		TEST		<u>)</u> #	# 🕗	11.

4. 按【是】鍵,選擇使用精靈完成 Method Set 的製作。

Run Samp	les 🗙
⚠	Use the wizard to create this new method set?
	<u></u>

5. 建立新的儀器方法(Instrument Method),按【Create New】。

New Method Set : Select In	nstrument Method	<u>?</u> ×
	Please select the instrument method which is relevant to the data you will be using with this method set.	
	<上一步(B) 下一步(D) > 取消	說明

6. 出現【Instrument Method Editor】視窗, 視窗上方列出所使用之儀器型號。

Fi	未ī le	命名標題 in Defaults as S Edit View Help	ystem/Administrator - Instrument Method Editor	
	וב		00/5 W2996	
	G	eneral Degas   Events   F	low   Temperature   Solvents   Channel	<b>^</b>
		-General System Parameters -		
		<u>S</u> troke Volume	50uL (flow rates <= 1.23 mL/mig	
		Syringe Draw Rate(uL/sec)	Normal 💌 Pre Column Volume 0.0	
		Depth Of Needle(mm)	0.0 Chart Out %A	
		Column	No Change 💌 Needle Wash Time Normal 💌	
		<u>Equilibration</u> Time	0.00	
•				• •
Re	ady			11.

## 2690/2695 (Alliance System)

在【General】畫面下	
Stroke Volume :	請根據實驗的流速(Flow Rate)作設定
	Flow Rate < 0.53 mL/min · 選擇 25uL
	Flow Rate < 1.23 mL/min · 選擇 50 uL
	Flow Rate < 3.030 mL/min · 選擇 100 uL
	Flow Rate < 10.00 mL/min · 選擇 130 uL
Bubble Detect :	請打勾·儀器會自動偵測氣泡。
Syringe Draw Rate	<b>e (uL/sec)</b> :根據樣品的黏稠度選擇抽樣的速度(Fast : 5 uL /sec;
	Normal : 2.5 uL /sec ; Slow : 1 uL /sec) •
Pre Column Volun	ne (uL): 0.0 ·
Depth Of Needle (	(mm):取樣針離樣品瓶瓶底的距離 · 根據實際實驗作設定 ·
<b>Chart Out</b> :若有線	上監測器可直接監控以下的參數。
<b>Column</b> :若有Col	umn 選擇器,可選擇 Column 的位置。

**Needle Wash Time**: 清洗外部取樣針的時間,可根據實際樣品的潔淨程度做選擇 (Normal、Double、Extended)。

#### 在【Degas】畫面下

使用 He 作為 degas · 在 Reservoirs to Sparge(mL/min): 輸入 He 的除氣速率(ex:30) 使用 Degasser 作為 degas · 在 Degas Mode 選擇【ON】。

🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
General Degas   Events   Flow   Temperature   Solvents   Channel	<u>^</u>
Sparge	
Reservoirs to Sparge (mL/min) A D B 0.0 C 0.0 D 0.0	
- Degas	
Degas <u>M</u> ode	
	<b>▼</b>
Ready	

在【Events】畫面中可外控其他裝置的開或關。

➡ 未命名標題 in Defaults as Sy File Edit View Heln	/stem/Administrator ·	- Instrument Method E	ditor	
	0/5 W2996			
General Degas Events F	ow   Temperature   S	olvents   Channel	_	<b>^</b>
Enable Events       Switch 1       No Change   No Cha	ch <u>2</u> Switch <u>3</u> nge 💌 No Change	Switch <u>4</u>		
Programmed Events			_	
C Time Event	Function	Value Comments		
4				- -
Ready				11.

#### 在【Flow】畫面中

Pressure Limit:系統壓力上限值(High Limit):可設定 Column 所能承擔的最高壓力值 下限值(Low Limit):設定大於 0.避免溶劑流空氣泡進入系統中

#### **Programmed Flow** :

Pump Mode:溶劑比率不隨時間改變(Isocratic)或溶劑比率隨時間改變(Gradient) Accelerate:流速增加至 10mLl/min · 所需要的時間

<mark>]</mark> 未i	命名	標題 in De	faults as Sy	stem/Admin	aistrator -	Instrume	nt Method	Editor		
File	<u>E</u> dit	<u>V</u> iew <u>H</u> el	lp							
	2	a <u>(a</u> )	<	)/5 W299	96					
G	enera	l   Degas	Events Flo	ow Temp	erature   S	olvents   Cł	nannel			
	-Pres Hig	sure Limits- gh Limit	4000.0	Lov	v Limit	0.0				
	-Pro; <u>P</u> ur	grammed Flo np Mode [	ow Fradient	<u>A</u> cc	elerate to 1 )O	0.0 mL/min min ( 5.	in: 00 mL/min	/min)		
	6	Time	Flow	%A	%В	%C	%D	Curve	1	
	1		1.00	100.0	0.0	0.0	0.0		]	
									-	
	$\vdash$								-	
	$\vdash$								-	
	H									
Ready										1.

Gradient 表格中 Curve 所表示的意義如下如所示



#### 在【Temperature】畫面中

Column Temperature:設定 Column 的溫度(室溫~65℃);若為 Cooler (4~65℃) Sample Temperature:設定樣品存放的溫度(4~40℃)

File Edit Yiew Help         Image: Solvents Solvents Channel         General Degas Events Flow Temperature         Solvents Channel         Column Temperature         Column Temperature         Column Temperature         Column Temperature         Column Temperature         Solvents Column Temperature         Solvents Column Temperature         Solvents Column Temperature         Sample Temperature         Sample Temperature (Enable/Disable)         Sample Temperature         Sample Temperature <th>🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor</th> <th>- D ×</th>	🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	- D ×
Image: Solvents       Image: Solvents       Channel         General Degas       Events       Flow       Temperature         Column Temperature       Image: Solvents       Channel         Column Temperature       Image: Solvents       Column         Column Temperature       Image: Solvents       Solvents         Sample Temperature       Image: Solvents       Solvents         Sample Temperature       Sample Temperature       Solvents         Sample Temperature       Image: Solvents       Solvents         Range: Column Temperature       Image: Solvents       Solvents	<u>File Edit View H</u> elp	
General Degas       Events       Flow       Temperature       Solvents       Channel         Column Temperature		
Sample Temperature Sample Temperature (Enable/Disable) Sample Temperature -1.0 Target (degrees C) Sample 5.0 Temperature 5.0 Range (Plus/Minus degrees C)	General       Degas       Events       Flow       Temperature         Column Temperature       Column Temperature (Enable/Disable)         Column Temperature       -1.0       Column Temperature         Target (degrees C)       -1.0       Column Temperature         Range       (Plus/Minus degrees C)       0	
	Sample Temperature Sample Temperature (Enable/Disable) Sample Temperature Target (degrees C) Temperature (Plus/Minus degrees C)	 

#### 在【Solvent】畫面中,註明溶劑的種類

🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor 📃 🔲	×
<u>File Edit Yiew H</u> elp	
General   Degas   Events   Flow   Temperature   Solvents   Channel	
Solvent Descriptions	
Solvent A	
Solvent B	
Solvent C	
y I	
Solume D	
	┛
Ready	

在【Channel】畫面中,若儀器產生問題可線上監控以下儀器參數並將參數儲存至資料夾中

📲 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	<u> </u>
<u>File Edit View Help</u>	
General   Degas   Events   Flow   Temperature   Solvents Channel	-
Channel Settings	
<b>▼</b> Enable Channel	
Channel Name : 2690/5 - System Pressure	
Description	
Parameter to Monitor System Pressure	
Ready	11

#### 2489 偵測器

在【General】畫面下

Wavelength Mode: 點選 Single 或 Dual.

Wavelength: 輸入波長數值 (190~700nm)

Data Mode: 可選擇 Absorbance、Absorbance-MBF (若設定單一波長掃描)

Sampling Rate:採點的速率(ex: 1.0),若分析時間低於5min,建議增加採點速率至5或

10 °

Auto Zero On Inject Start :打 $\sqrt{}$ 。

Filter Time Constant(sec): Absorbance 可選擇 Slow、Fast、Normal 或 Other,設定 值愈大表示過濾雜訊能力越強。

Autozero on Wavelength change:當波長隨時間改變時是否要 Autoazro,可選擇

Offset to zero 或 Maintain Baseline。

🔒 未命名標題 in Training-05 as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
2489 UV/Visible Detector Single C Dual	
Channel A Analog Out 1 Events	
₩ Lamp On	?
Wavelength: Data Mode:	
254 nm Absorbance 💌	
Sampling Rate:	
1 💌 points/sec 🔽 Auto Zero On Inject Start	
Filter Time Constant: Auto Zero On Wavelength Changes:	
Normal V 2.0000 sec Maintain Baseline V	
,	
Comment:	
Ready	
🛃 開始 🛛 🚳 🔍 🤉 📾 P. 📑 🖡 👘 🗧	👷 📅 СН 🖮 🖉 🖗 😰 🗘 🔍 🖄 土 🕂 11:16

#### 在【Analog Out】畫面中

若實驗室內有自動收集器(Fraction collector),可利用軟體將波長的數據輸入收集器中, 利用收集器作純化工作。 Sensitivity:2.000 AUFS Data Mode:選擇 Absorbance A(Ch1) AUFS:輸出最大的訊號值(ex:2AU) Polarity:+或 -Voltage Offset:0mV Enable Chart Mark:打√

🔒 未命名標題 in Training-05 as System/Adm	inistrator - Instrument Method Editor		
<u>File Edit View H</u> elp			
□ ☞ ■ ● × w2489 w22690/5			
2489 UV/Visible Detector	Wavelength Mode		
Channel A Analog Out 1 Events			
Sensitivity:	Data Mode:		
Polarity:	Ratio Scaling:		
Posttive (+)			
Voltage Offset: 0 mV	Maximum Ratio:		
🗭 Enable Chart Marks			
	\ ±	,nero	[記录》 → F4 11-97     [1]
	<u>-</u> 本	(0) SEARCH	

#### 在【Event】畫面下

可在 Time Event 下設定 AutoZero、Lamp Off、波長變更等參數。

🔒 未命名標題 in Training-05 as System/Administrator - Instrument Method Editor	
File Edit Yiew Help	
2489 UV/Visible Detector Vavelength Mode © Single © Dual	
Channel A   Analog Out 1 Events	
Threshold Events Output Switch Timing ?	
Switch 1 On I 1.0000 AU Rect Wave Period Pulse	
Switch 2	
(Channel B) Jon _ proceeding for the proceeding for	
🔽 Run Events	
Time Event Parameter Channel	
2 Wavelength Time Constant	
4 Sensitivity Chart Mark	
5 Chart Polarity Auto Zero	
6 Lemp 7 Switch 1	
Switch 2 Threshold	
Keady	
📲 🛲 🚰 🕙 🔍 🍈 🖩 P. 📑 🖡	📽 🖓 🔁 🕈 CH 🖮 🧷 🕺 📜 🌾 🚺 🕺 上午 11:31

7. 所有儀器之分析條件皆設定完成後。進入 File→ Save As(另存新檔)。

🔓 未命名標題 in Defaults as System/Administrator - Instrument Method Editor
<u>File</u> Edit <u>V</u> iew <u>H</u> elp
New         Ctrl+N           Open         Ctrl+O           Save         Ctrl+S           Save As         W2487
Exit
General   Channel 1   Channel 2   Analog A   Analog B Events
Threshold Events Periods
Channel 1 : Absorbance A (Ch1)
Enable Threshold: 1.0000
Event: Switch 1 - Function: Off
Channel 2 : Absorbance A (Ch1) Pulse:
Enable Threshold: 1.0000
Event Switch 1 V Function: Off V
Timed Events
🖆 Time Event Channel Value Function Co 🔺
1 0.00 Lamp Off
2 2.00 Wavelength Channel A 230.00000
3 5.00 Wavelength Channel A 280.0000
4 8.0) Auto Zero Channel A
Save the active document with a new name

8. 輸入 Instrument Method 名稱, 再按 Save 鍵。

Save current Instrument Method	l		×
N <u>a</u> mes:			
Alliance			
Name: TEST			
	<u>S</u> ave	Cancel	<u>H</u> elp

9. 再進入 File→ Exit。

■表命名標題 in Defaults as System/Administrator - Instrument Method Editor File Edit View Help	<u>-                                    </u>
New         Ctrl+N           Open         Ctrl+O           Save         Ctrl+S           Save <u>A</u> s         W2690/5	
Exit General Events Channel 1 Channel 2	<u> </u>
Absorbance Mode Settings	
Output Mode: Absorbance 💌 Bandwidth: 4.8 💌	
Output Wavelength: 254.0 Offset: 0.000	
Ratio Mode Settings	
Ratio Wavelength: 254.0 Ratio Threshold: 0.001	
Ratio 0.001 Ratio 100.000	
Filter Settings	
Filter Type: Hamming Filter Response: 0	▼
	//.

10. 按【**下一步】**鍵,。

New Method Set : Select Ir	nstrument Method	? ×
2 1 2 3 3 2 3 1 2 3 1 2 3 1 3 1 2 3 1 2 3 1 3 1 2 3 1 2 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	Please select the instrument method which is relevant to the data you will be using with this method set. 2695_996 TEST Create New	
	<上一步(B) 下一步(D) > 取消	

11. 此時暫不設定 Processing Method (積分方法)與 Report Method (報告方法) · 按【下 一步】鍵。

Select Default Methods		<u>?</u> ×
2 3 2 3 2 3 2 3 1 2 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 2 3 1 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 3 2 2 2 3 2	Choose methods for processing, reporting, and exporting channels. Processing Method: (No Processing) Derived channels will not be available (you must process in order to derive channels) Report Method: (No Reporting) Export Method: (No Exporting)	Edit
	<上一步B) 下一步M> 取消	

12. 輸入方法組名稱,再按 【完成】鍵。

Name Method Set	<u>?</u> ×
A method Name: EST Default Comments: Comments:	
<上一步(B) 完成 取消 説明	月

13. 進入 File→Exit。回到 "Run Samples" 畫面。

TEST - Method Set Editor		×
<u>File Edit View H</u> elp		
□ □ □ Method Set □ - √_ Data Channels □ - √_ Derived Channels	Instrument Method TEST  Default Processing Method  Default Report Method	Edit Edit Edit
	Channel Name Processing Method Report Method	
	Export Method  PDA 3D Blank Subtraction	
	<ul> <li>Save Extracted Channels</li> <li>Delete 3D Channel After Extraction</li> </ul>	
For Help, press F1		

## 第五章 分析樣品注射執行(Sample Set Method)

樣品的注射可分為單一樣品分析(Single Injection)及樣品組分析(Sample Set)

## 一、單一樣品分析(Single Injection)

1. 進入 Empower "Pro" 的主畫面。



2. 左邊欄位中選擇欲使用之 Project 名稱,右邊欄位中選擇欲使用的系統。

Run Samples		<u>?</u> ×
Project in which to acquire data:		Chromatographic Systems
Defaults GPC LC_Right_on_Time LT parabens TEST TEST TW_power TW_salt User_Huang	Use Run Samples' to run new samples at your Empower Workstation. Select the desired project and system from the displayed lists. When in the Run Samples Window, use the system control panel to equilibrate your system, or use the Sample Set Wizard to lead you through the process of creating a Sample Set to be run on the system.	2690_996 600_717_2487 717_2487_1525
		Use QuickStart Use Open Access

 在 Single 選項按一下,填入樣品名稱(Sample Name)、選擇樣品種類(Function)、選擇 方法 (Method Set)、樣品位置 (Vial)、注射體積 (Injection)、分析時間(Run Time),最 後再按 inject 鈕即可執行注射。

2690_996 in Defaults as System/Admini File Edit View Inject Actions Customize	strator - Run Samples Diagnostics Help			
▶ 2880		Run Only	Continue on Fe	ault
Sample Name:   Function: Inject Samples Method Set Vial: 1 Devel Injection 10.0 Run Time: 10.00 Devel Method Set Injection 20.00 Injection 20.		inject		
Mingle & Singles & Sengl II	Pressure (psi) Instrument Me	thod:		

- 4. 於收取圖譜當中,若須中斷收取時,按一下上列之"Abort"鍵(紅燈)。
- 5. 最後注射分析樣品完畢後,進入 File→Exit。

😤 2690_996 in Defaults as System	/Administrator	- Run Sample	5						_ 🗆 🗵
File Edit ⊻iew Inject Actions ⊆u	stomize <u>D</u> iagnosti	cs <u>H</u> elp							
New Sample Set Method Load Samples Save Sample Set Method Ctrl+ Save Sample Set Method <u>A</u> s	s <b>(</b>		<u>x</u> e t	₩?	Run Only	•	Continue on Fault	V	
Save Preferences		•							
Print Setup	evelop	<b>•</b>							
Injection 10.0	rentous								
Run Time: 10.00	Options								
<u>&gt;</u>	<u>_0'</u>								
Single & Samples & Samp			1]						
Temperature (°C) Flow (ml/min	<u>)</u> 📩 Pressu	re (psi) I:	nstrument Method	Monitor	▼ I Colum				
	<b></b>		Ean	Profilitor	setup				
Quit the application; prompts to save do	uments	System Idle					<b>]</b> #	<b>#</b> Θ	

## 二、樣品組分析 (Sample Set)

可選擇由設定精靈協助設定及自行設定兩種

#### A. 設定精靈協助設定

1. 進入 Empower "Pro" 的主畫面。

Enpower Pro		
LOGIN LOGOUT ABOUT HELP	User: System DB: Local	
Run Samples	Browse Project	Configure System
Process Data	Review Data	Print Data

3. 左邊欄位中選擇欲使用之 Project 名稱,右邊欄位中選擇欲使用的系統。



3. 按一	下	" Wi	za	rď	′ 鍵	0								
	26	90_996 in Def	aults	as Sy	stem/Admini	istrator - Run S	amples	;						
	File	<u>E</u> dit ⊻iew Inj	ect	Actions	⊆ustomize	Diagnostics Help	)							
	<b>)</b>	28			* <b>b</b>	🧼 III		X 🖻 🔒	▶?	Run Only	•	Continue on Fax	dt 💌	
/		S	ample	Set Me	thod: 未命名相	票題								
wizard	<b>ia</b> ∨ia	I SampleName	Inj Vol (ul)	# of Injs		Function								
	F													
	F			_										
	F													
		∖Sin <mark>ale )</mark> , San	nples	5 <b>(</b> St	nk 🖣		Þ							
	Temp	eratu <mark>e (°C)</mark>		Flow ()	ul/min)	Pressure (psi)	- In	strument Method:		-	7			
					-8			Edit	vlonitor	Setup				
	For He	p, press F1				System	(dle					<b>)</b> #	<b>«</b> # ⊘	11.

4. 選擇[Create samples set method using this wizard] · 按下一步。

New Sample Set Method Wizard	J-未命名標題	<u>?</u> ×
	<ul> <li>There are three ways you can create a sample set method if</li> <li>1) Manually create the new sample set method by defining sample and standard sequencing, specifying a method set, identifying standards and samples, and so on.</li> <li>2) Create a new sample set method using an existing sample set method template. This is the quickest way to create a sample set method.</li> <li>3) Use the Sample Set Method Editor to define the sample set method.</li> <li>Create a sample set method using this wizard</li> <li>Use an existing sample set method template</li> <li>Use an existing sample set method Editor instead of the wizard</li> <li>(L=#CB) T=#CD &gt; 取消</li> </ul>	

5. 選擇 LC or PDA/MS 或 GPC or GPC/V · 按 "下一步"鍵。

Select Sample Set Method Type	- 未命名標題	? X
Se Control of the second secon	<ul> <li>lect the type of sample set method to create.</li> <li>LC or PDA/MS</li> <li>GPC or GPC/V</li> <li>GC</li> <li>RF Internal Standards GC Syringe Info</li> </ul> fine the plates to be used with this sample set method. Define Plates lect a dissolution type. <ul> <li>Ng Dissolution</li> <li>Dissolution (Bath A)</li> <li>Dissolution (Bath A and B)</li> </ul>	
	<上一步(B) 下一步(M) > 取消 影	调

6. 選擇樣品及標準品執行方式,輸入第一個標準品放置的位置 (start Loading vial in tray position),按下一步。

Select Location of Standards	未命名標題	<u>? ×</u>
? ? ? ? ? ?	<ul> <li>First, select where standard injections should occur :</li> <li>No standards</li> <li>At start of sample set</li> <li>At start and end of sample set</li> <li>Throughout sample set (average all)</li> <li>Before each sample group</li> <li>Around each sample group (without overlap)</li> <li>Around each sample group (with overlap)</li> <li>Start loading vials in tray position :</li> </ul>	
	<上一步(B) 下一步(N) > 取消 1	胡

- No Standard:此次樣品組沒有標準品的注射。
- At start of Sample set: 一開始注射標準品。
- At start and end of sample set: 樣品組的前後各別注射標準品並將結果平均。
- Throughout of sample set (all average): 在樣品組中穿插注射標準品並將結果平均。
- Before each sample group:在樣品組中分組,每一小組的第一個樣品為標準
   品,其結果不平均
- Around each sample group (without overlap):在樣品組中分組,每一小組 的第一個樣品及最後一個樣品為標準品,其結果自行平均不與其他小組平均。
- Around each sample group (with overlap):在樣品組中分組,每一小組的第 一個樣品及最後一個樣品為標準品,每一組的最後一個標準品為下一組的第一 個標準品,其結果自行平均不與其他小組平均。
- 7. 選擇標準品的配置方式,按下一步。

Specify Calibration Options - 未	命名標題	<u>? ×</u>
Specify Calibration Options - #	☆名標題 Select calibration options : Standard Levels ● Each standard vial contains a different level standard ● Different standard levels are created with different injection volumes using an autosampler Locations of Standards in Tray ● All standard vials are located at the beginning of the autosampler tray ● Separate groups of standard vials are located throughout the autosampler tray	<u>?</u> ×
	<上一步图 下一步 D > 取消	

Standard Level

 Each Standard vial contains a different level standard:標準品的濃度是使用 者自行配製而成。  Different standard levels are create with different injection volume using autosampler:標準品的濃度是藉由自動注射器注射不同體積所產生的。
 Location of Standard in Tray

若選擇

- All standard vial are Located at the beginning of the autosampler tray
   樣品組的所有標準品都是注射同一瓶的標準品。
- Separate group of standard vials are located throughout the autosampler tray

樣品組的所有標準品必須分開裝瓶且放在每一小組樣品的前面或後面。

- 8. 依分析需求輸入標準品注射資料
  - Number of Standard vial in each group: 輸入標準品的數量
  - Number of levels in each standard gro up:每一小組的標準品的數量
  - Number of Injection per vial :每個標準品需要注射的次數
  - Injection volume : 注射體積
  - Run time:分析樣品時間
  - Method Set: 選擇欲使用之分析方法名稱
  - 按"下一步"鍵。

Describe Standard Bracket - :	未命名標題	? X
? ? ? ? ? ? ?	Next, describe your standard bracket.	
	<上一步(B) 下一步(M) > 取消	說明

- 9. 依分析需求輸入樣品注射資料
  - Number of sample: 輸入樣品的數量
  - Number of injection per vial:每個樣品需要注射的次數
  - Injection volume: 注射體積
  - Run time:分析樣品時間
  - Maximun # of sample per group: 每一 Group 的最大樣品數量
  - Method Set:選擇欲使用之分析方法名稱

按"下一步"鍵。

Describe Samples - 未命名標題	?×
Next, describe your samples :   Sample Information   Number of gamples :   Injection yolume :   20.0   Even time :   15/00   Even time :   Selject :   rom_method_set   Create New   Options	
<上一步(B) 下一步(B) 取消 影	调

- 10. 在"How should your standards be identified?"内,
  - SampleName: 輸入標準品的名稱
  - Incrementing :.在標準品名稱前加字串,字串會隨標準品數量遞增
  - Incrementing Suffix: 在標準品名稱後加字串,字串會隨標準品數量遞增
  - 在"How should your samples be identified?"内,
    - SampleName: 輸入樣品的名稱.
    - Incrementing :.在樣品名稱前加字串,字串會隨樣品數量遞增
    - Incrementing Suffix: 在樣品名稱後加字串,字串會隨樣品數量遞增
  - 按"下一步"鍵。

- 11. 依分析需求點選分析模式(Run Mode)
  - Run only: 單純分析樣品。
  - Run and process:分析樣品並計算樣品的結果。
  - Run and report:分析樣品並計算樣品的結果,最後列印報告。

當資料結果有問題時的處理方式 (Interactive system suitability)

- Continue on fault: 忽略此訊息繼續分析樣品
- Next sample on fault:繼續分析下一個樣品
- Nest sample set on fault:繼續分析下一個樣品組
- Reject on fault:重新注射有問題的樣品
- Stop on fault:立刻停止

按"下一步"鍵。

12. 列出此樣品組之分析狀況資料,按"完成" 鍵。

Summary - 未命名標題		? ×
	Sample set method summary : Standards at start of sample set Single set of standard vials Run mode: Run Only Start loading vials in tray position: 1 # of standard injections requested: 6 # of sample injections requested: 4 Approximate time to completion: 2h 00m	
	<ul> <li>pisplay the Component Editor when a user finishes creating a sample set method using wizard.</li> <li>OK, you're done! If you need to change anything, press "Aback". If you're satisfied with all entries, press "Finish" and the sample set method will be created.</li> <li>Options</li> </ul>	
	<上一步(B) 完成 取消 📑	党明

## 13. 在 File o Save Sample Set Method As

8	😍 2690_996 in Defaults as System/Administrator - Run Samples							- 🗆 🗵					
Elle Edit View Inject Actions Customize Diagnostics Help													
	<u>N</u> ew S Load :	Sample Set Me Samples	thod		, • • • • • • • • • • • • • • • • • • •	X		▶?	Run Only	•	Continue on Fault	•	
	Save	Sample Set Me Sample Set Me	schod A		-(11+5) 名標題								
	-				Eurotion								
	Save	Preferences											
	Revie	W			ibration	1							
	Princ :	becyp			ndards								
_	E <u>x</u> it				ndards								
4	3	Std3	10.0	1	Inject Standards								
5	4	Std4	10.0	1	Inject Standards								
6	5	Std5	10.0	1	Inject Standards								
7	6	Std6	10.0	1	Inject Standards								
8	7	Unk1	20.0	1	Inject Samples								
9	8	Unk2	20.0	1	Inject Samples								
10	9	Unk3	20.0	1	Inject Samples								
11	10	Unk4	20.0	1	Inject Samples								
L	-		-										
F	-		-			-11							
F	-		-										
F			-			-11							
F	-		-										
F			+										
•	► [\	Single \lambda Sam	ples	🖌 Sar		]]							
T	empera	ature (°C)	F	low (m	Vmin) Pressure (psi)	instrur	nent Method:						
						-			•				
					-8	Ed	it	Monitor	Setup				
Sar	e the	contents of th	ie edit	table a	as a sample set method System Idle						<b>(</b> )# <b>√</b> #		

#### 14. 輸入 Method 的名稱,按 Save。

Save current sample set metho	d		? ×
Names:			
<u>N</u> ame: TEST			
Default Comments:			•
<u>C</u> omments:			
	Save	Cancel	<u>H</u> elp

15. 於視窗右下方之 "Instrument Method" 選欄中,選擇欲使用之方法名稱,按一下 "Setup" 鍵,待電腦與儀器間連線設定無誤後,再按一下 "Monitor" 鍵,視窗 右側出現基線圖譜,若觀察基線穩定的話,按一下上列之 "Abort" 鍵(紅燈),停止觀 察基線。

*	📽 2690_996 in Defaults as System/Administrator - Editing 5S Method: TEST - Run Samples							-O×							
Eil	e <u>E</u> d	it ⊻iew Inje	ct A	ctions	<u>Customize</u> <u>Diagnostics</u> <u>H</u> elp										
l	6	2 B (			* <b>L</b> 🖉 🕅 🔳	Х	Ð	Ð	<b>№</b> ?	R	tun Only	•	Continue on Fau	lt 💌	
			Samp	ole Set	Method: TEST	Г									
S	Vial	SampleName	Inj Vol (ul)	# of Injs	Function										
1					Clear Calibration	11									
2	1	Std1	10.0		Inject Standards										
3	2	Std2	10.0	1	Inject Standards										
4	3	Std3	10.0	1	Inject Standards										
5	4	Std4	10.0	1	Inject Standards										
6	5	Std5	10.0	1	Inject Standards										
7	6	Std6	10.0	1	Inject Standards										
8	7	Unk1	20.0	1	Inject Samples										
9	8	Unk2	20.0	1	Inject Samples										
10	9	Unk3	20.0	1	Inject Samples										
11	10	Unk4	20.0	1	Inject Samples										
	-														
	-														
	-														
	_														
	-														
•		Single ) Sam	ples	( San	ж • <b>_</b>	11									
<u>T</u>	emper	ature (°C)	E	low (m	Vinin) Pressure (psi) I	nstru E	ument Me dit	thod:	Monitor	]	Setup				
For	Help,	press F1			System Idle								<b>]</b> #	🖌 🕖	11.

16. 按一下上列之 "Run" 鍵(綠燈)。

2690_996 in Defaults as System/Administrator - Editing SS Method: TEST - Run Samples         I           File         Edit View Inject Actions Customize Diagnostics Help         I														
0		20			8 b 🖉 💷 📰	Х	Đ	Þ	▶?	Run Only	•	Continue on Fau	dt 💌	
Ē			Samp	le Set I	Method: TEST									
66	Vial	SampleName	lnj Vol (ul)	#of Injs	Function									
1					Clear Calibration									
2	1	Std1	10.0	1	Inject Standards									
3	2	Std2	10.0	1	Inject Standards									
4	3	Std3	10.0	1	Inject Standards									
5	4	Std4	10.0	1	Inject Standards									
6	5	Std5	10.0	1	Inject Standards									
7	6	Std6	10.0	1	Inject Standards									
8	7	Unk1	20.0	1	Inject Samples									
9	8	Unk2	20.0	1	Inject Samples									
10	9	Unk3	20.0	1	Inject Samples									
11	10	Unk4	20.0	1	Inject Samples									
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⊢														
1		Single ) Sam	oles	(Sam										
T	mpera	ature (°C)	FI	ow (ml	Amin) ressure (psi) h	istrur Ed	nent Me it	thod:	Monitor	Setup				
For	Help,	press F1			System Idle							<b>)</b> #	<b>*</b> # 🕝	11.

17. 按 Run,開始依序注射分析樣品。

Run Sample Set ? X
You have selected lines in this sample set method
Do you wish to :
<ul> <li>Inject all rows</li> </ul>
C Inject only selected lines
Name for this sample set :
Sample set method name : TEST
_Settings for this Sample Set
🔲 Wait For User
Run Mode : Run Only
Suitability Mode : Continue on Fault
Printer : Select Printer
Shutdown Method :
<u>R</u> un Cancel Help

#### Run Mode

- Run only:單純分析樣品。
- Run and process:分析樣品並計算樣品的結果。
- Run and report:分析樣品並計算樣品的結果,最後列印報告。

#### **Suitability Mode**

- Continue on fault: 忽略此訊息繼續分析樣品
- Next sample on fault:繼續分析下一個樣品
- Nest sample set on fault:繼續分析下一個樣品組
- Reject on fault:重新注射有問題的樣品
- Stop on fault: 立刻停止

Shutdown Method : 若樣品組執行完畢後欲執行 Shutdown 請選擇方法

- 18. 於收取圖譜當中·若須中斷收取時·按一下上列之" Abort" 鍵(紅燈)· 停止收取圖譜。
- 19. 最後注射分析所有樣品完畢後,進入 File→Exit,退出 Run Samples 視窗。
| 2  | 2690                            | _996 in Def                              | aults a        | s Sys   | tem/Ad      | ministr        | ator - Run Sampl      | es           |         |            |      |       |   |               |            |            |  |
|----|---------------------------------|--|----------------|---------|-------------|----------------|-----------------------|--------------|---------|------------|------|-------|---|---------------|------------|------------|--|
| E  | e <u>E</u> d                    | it ⊻iew <u>I</u> nj                      | ect <u>A</u> c | tions:  | ⊆ustomi     | ze <u>D</u> ia | gnostics <u>H</u> elp |              |         |            |      |       |   |               |            |            |  |
|    | <u>N</u> ew S<br>Load :<br>Save | Sample Set Me<br>Samples<br>Sample Set M | ethod          |         | •<br>itrl+5 |                |                       | XB           |         | <b>N</b> ? | Run  | Only  | • | Continue on F | ault       | •          |  |
|    | Save                            | Sample Set M                             | ethod <u>A</u> | 5       |             | ESI            |                       | -1           |         |            |      |       |   |               |            |            |  |
|    | Save                            | Pre <u>f</u> erences                     |                |         |             |                | Function              |              |         |            |      |       |   |               |            |            |  |
|    | Revie<br>Print *                | w  |                |         |             | Ibration       | 1                     |              |         |            |      |       |   |               |            |            |  |
| -  | TTURC .                         | Jocgpini                                 |                |         |             | ndards         |                       |              |         |            |      |       |   |               |            |            |  |
| L  | Exit                            | 1  |                |         |             | ndards         | :                     |              |         |            |      |       |   |               |            |            |  |
| 4  | 3                               | Std3                                     | 10.0           | 1       | Inject St   | andards        | 2                     |              |         |            |      |       |   |               |            |            |  |
| 5  | 4                               | Std4                                     | 10.0           | 1       | Inject St   | andards        | 3                     |              |         |            |      |       |   |               |            |            |  |
| 6  | 5                               | Std5                                     | 10.0           | 1       | Inject St   | andards        | :                     |              |         |            |      |       |   |               |            |            |  |
| 7  | 6                               | Std6                                     | 10.0           | 1       | Inject St   | andards        | 2                     |              |         |            |      |       |   |               |            |            |  |
| 8  | 7                               | Unk1                                     | 20.0           | 1       | Inject Sa   | mples          |                       |              |         |            |      |       |   |               |            |            |  |
| 9  | 8                               | Unk2                                     | 20.0           | 1       | Inject Sa   | mples          |                       |              |         |            |      |       |   |               |            |            |  |
| 10 | 9                               | Unk3                                     | 20.0           | 1       | Inject Sa   | mples          |                       |              |         |            |      |       |   |               |            |            |  |
| 11 | 10                              | Unk4                                     | 20.0           | 1       | Inject Sa   | mples          |                       |              |         |            |      |       |   |               |            |            |  |
| L  |                                 |  |                |         |             |                |                       |              |         |            |      |       |   |               |            |            |  |
| L  |                                 |  |                |         |             |                |                       |              |         |            |      |       |   |               |            |            |  |
| L  |                                 |  |                |         |             |                |                       |              |         |            |      |       |   |               |            |            |  |
| L  |                                 |  |                |         |             |                |                       |              |         |            |      |       |   |               |            |            |  |
| L  |                                 |  |                |         |             |                |                       |              |         |            |      |       |   |               |            |            |  |
| L  |                                 |  |                |         |             |                |                       |              |         |            |      |       |   |               |            |            |  |
| ┝  |                                 | Sample Sets                              | à Run          | nina    |             |                |                       | -            |         |            |      |       |   |               |            |            |  |
| т  | emper                           | ature (CC)                               | FI             | ow (m   | lómin) E    |                | Precourse (poi)       | ,            |         |            |      |       |   |               |            |            |  |
| -  | cinpen                          | and ( C)                                 |                | 0 w (m. |             | <b>⊼</b> il    | Tressure (pa)         | Instrument M | lethod: |            |      |       |   |               |            |            |  |
|    |                                 |  |                |         |             | -              |                       | 2695_996     |         |            |      | 7     |   |               |            |            |  |
|    |                                 |  |                |         |             | 8              |                       | Edit         |         | Monitor    |      | Setup |   |               |            |            |  |
| Qu | it the a                        | application; pr                          | ompts t        | o save  | documer     | nts            | Sample Set - S        | Setting Up   |         |            | TEST | г     |   | <b>^</b> #    | <b>€</b> # | $\bigcirc$ |  |

### B 自行設定

6	269	5_248	37 in	Water	s_2010 as Sy	stem/Admi	inistrator - Ru	ın Samples													_ @ 🔼
E	le <u>E</u> d	it <u>V</u> i	iew ]	[nject	<u>A</u> ctions <u>C</u> usto	omize <u>H</u> elp	)														
	) O	2			۵ ا	۵.		Xet	App	ly Table Preference	s Sam	ple Set Metl	nod		•	Run	Only		▼ Next Sa	unple Set on Fault 💌	1
Γ								Sample Se	et Method: 未	命名標題											
6	Vial	lnj Vol (uL)	#of Injs	Label	SampleName	Level	Function	Method Set / Report Method	Label Reference	Processing	Run Time (Minutes)	Data Start (Minutes)	Next Inj. Delay (Minutes)	Auto Additions	Sample/Veight	Dilution					
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		Singl	eàs	ample	s 🔏 Sample S	Sets 🔏 Run	ning /	I	1			I	l		1						
Γ								Sample Set	Time Remain	ing: 00:00:00	- Instru	ument Meth	od:			Flow (mL	min)	- Pi	ressure (psi)	Temperature (°C)	1
								Total Samples	Time Remain	ing: 00:00:00					•			Δĭ			
ſ	Samı	ole S	et	•	0.000 0.002	0.004 n no	06 0.008 0.010	New	Sample Set Ti	me:	E	dit	Monito	or	Setup			-			
Eo	r Heln	nness	F1					<b>J</b> [[				5	rstern Idle						Ĥ#	ø.	A
	<b>-</b> 	物合		c 🗉		• •	» 🚱 м	🗑 2 👻 🗁 I	■ #	es C ELE.	<b>1 2</b> .		Empo	wer2 Backu	φ.				····· ?	<	12:53
	- v.			-																	

- Vial : 樣品放置的位置
- Inj. Vol(uL):注射體積
- # of Inj.:注射的次數 (最多 99 次)
- Sample Name: 樣品名稱

- Function : Inject sample (注射樣品)、Inject Standard(注射標準品)、 Equilibrate(平衡) ......
- Method set/ Report method:所使用的方法群組或報告方法
- Processing: Don't Process or report(只有作實驗)、Don't report(作完實驗並 分析結果)、Normal(作完實驗、分析結果最後列印報告)、Ignore faults (忽略錯誤 訊息)
- Run Time:分析時間 (最多 650 分鐘)
- Data Start:數據開始收集的時間
- Next Inject Delay:要延後多久再執行下一個樣品注射
- Sample weight: 樣品重量
- Dilution:稀釋體積
- 2. 在 File→ Save Sample Set Method As

-	2690	)_996 in Def	aults a	is Sys	tem/Adı	ministrator - Run	Sample	5							- O ×
Eil	e <u>E</u> d	it <u>V</u> iew <u>I</u> nje	ect A	tions	⊆ustomi	ze <u>D</u> iagnostics <u>H</u>	elp								
	<u>N</u> ew S Load	Sample Set Me Samples	thod		•	• 🔷 🕅		X		▶?	Run Only	•	Continue on Fe	ult 💌	
	Save	Sample Set Me	schod A	ر اد	un <del>t</del> o	名標題									
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	Save	Preterences				rancion									
	<u>R</u> evie	W				ibration		1							
	Print :	Setyp				ndards									
	Exit					ndards		11							
4	3	Std3	10.0	1	Inject Sta	andards									
5	4	Std4	10.0	1	Inject Sta	andards									
6	5	Std5	10.0	1	Inject Sta	andards									
7	6	Std6	10.0	1	Inject Sta	andards									
8	7	Unk1	20.0	1	Inject Sa	mples									
9	8	Unk2	20.0	1	Inject Sa	mples									
10	9	Unk3	20.0	1	Inject Sa	mples									
11	10	Unk4	20.0	1	Inject Sa	mples									
	-		-												
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H			-					1							
•	ÞΔ	Single <b>)</b> San	ples	(San	¥ •		F	11							
T	emper	ature (°C)	F.	ow (m	Vmin)	Pressure (psi		nstri	ument Method:						
							L I I				<b>_</b>				
						~~		E	Edit	Monitor	Setup				
													A		
2a/	re the	contents of th	ie eait	table a	is a sampli	e sec method pyster	n tale						,⊎#	*# 🛛	11.

#### 3. 輸入 Method 的名稱,按 Save。

Save current sam	ple set metho	d		? ×
N <u>a</u> mes:				
Name:	TEST			
_				
<u>D</u> efault Comments:				<b>•</b>
<u>C</u> omments:				
	I			
		Couro	Correct	Holp
		<u>9</u> 876		<u> </u>

4. 於視窗右下方之 "Instrument Method" 選欄中,選擇欲使用之方法名稱,按一下 "Setup" 鍵,待電腦與儀器間連線設定無誤後,再按一下 "Monitor" 鍵, 視窗右 側出現基線圖譜,若觀察基線穩定的話,按一下上列之 "Abort" 鍵(紅燈),停止觀察基 線。

e Fi	2690 e Ec	)_996 in Defa lit View Inie	ultsa ct A	as Sys ctions	tem/Administrator - Editing SS N Customize Diagnostics Help	Metho	od: TEST - Run :	Sample	5				<u>_                                    </u>
0	6	28	2		<b>* % ⊘ ₩</b>	X		▶?	Run Only	•	Continue on Fault	•	
Ē			Sam	ole Set	Method: TEST								1
G	Vial	SampleName	Inj Vol (ul)	# of Injs	Function								
1					Clear Calibration	1							
2	1	Std1	10.0	1	Inject Standards								
3	2	Std2	10.0	1	Inject Standards								
4	3	Std3	10.0	1	Inject Standards								
5	4	Std4	10.0	1	Inject Standards								
6	5	Std5	10.0	1	Inject Standards								
7	6	Std6	10.0	1	Inject Standards								
8	7	Unk1	20.0	1	Inject Samples								
9	8	Unk2	20.0	1	Inject Samples								
10	9	Unk3	20.0	1	Inject Samples								
11	10	Unk4	20.0	1	Inject Samples								
	-	L				-11							
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4	ÞΔ	Single ) Sam	ples	/ Sam						_			
<u>T</u>	emper	ature (°C)	E	<u>ow (m</u>	Vmin) 📩 Pressure (psi) 1	Instrur Ed	ment Method: dit	fonitor	Setup				
For	Help,	press F1			System Idle						°# 🖌	- Ø	

5. 按一下上列之 " Run" 鍵(綠燈)。

😭 File	2690 Ed	<b>_996 in Defa</b> it View Inie	ultsa ct A	is Sys	tem/Administrator - Editing SS M Customize Diagnostics Help	leth	od: TEST	- Run	Sample	5				
0	5	& 8 (	2		<b>* \\\\\\\\\\\\\</b>	Х		B	▶?	Run Only	•	Continue on Fault	•	
Ē			Samp	le Set	Method: TEST	Г								
60	Vial	SampleName	Inj ∀ol (ul)	# of Injs	Function									
1					Clear Calibration	1								
2	1	Std1	10.0		Inject Standards									
3	2	Std2	10.0	1	Inject Standards									
4	3	Std3	10.0	1	Inject Standards									
5	4	Std4	10.0	1	Inject Standards									
6	5	Std5	10.0	1	Inject Standards									
7	6	Std6	10.0	1	Inject Standards									
8	7	Unk1	20.0	1	Inject Samples									
9	8	Unk2	20.0	1	Inject Samples									
10	9	Unk3	20.0	1	Inject Samples									
11	10	Unk4	20.0	1	Inject Samples									
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Π	١V	Single 🕽 Sam	ples	(San		11								
Te	mper	ature (°C)	F	iow (m	Minini Pressure (psi)	nstru E	ument Met	hod:	Aonitor	▼ Setup				
For	Help,	press F1			System Idle							<u>)</u> #	<b>#</b> 0	11.

6. 按 Run,開始依序注射分析樣品。

Run Sample Set
You have selected lines in this sample set method
Do you wish to :
<ul> <li>Inject all rows</li> </ul>
C Inject only selected lines
Name for this sample set : TEST Sample set method name : TEST
Settings for this Sample Set
Run Mode : Run Only
Suitability Mode : Continue on Fault
Printer : Select Printer
Shutdown Method :
<u>R</u> un Cancel Help

### Run Mode

- Run only:單純分析樣品。
- Run and process:分析樣品並計算樣品的結果。

— Run and report:分析樣品並計算樣品的結果,最後列印報告。

#### **Suitability Mode**

- Continue on fault: 忽略此訊息繼續分析樣品
- Next sample on fault:繼續分析下一個樣品
- Nest sample set on fault:繼續分析下一個樣品組
- Reject on fault:重新注射有問題的樣品
- Stop on fault:立刻停止

Shutdown Method : 若樣品組執行完畢後欲執行 Shutdown 請選擇方法

- 7. 於收取圖譜當中,若須中斷收取時,按一下上列之 "Abort" 鍵(紅燈), 停止收取圖譜。
- 8. 最後注射分析所有樣品完畢後,進入 File→Exit,退出 Run Samples 視窗。

8	2690	_996 in Def	aults a	s Sys	tem/Ad	ministrator - R	un Sampl	25							
Eile	e <u>E</u> di	it <u>V</u> iew <u>I</u> nji	ect <u>A</u> e	tions	⊆ustomi	ze <u>D</u> iagnostics	Help								
	<u>N</u> ew 9 Load 1 Save 1	Sample Set Me Samples Sample Set Mi	ethod		• Tr/+5	<b>₀</b>		X	e e	▶?	Run Only	•	Continue on Fault	•	
	Save:	Sample Set Mi Sample Set Mi	ethod A		2011-1-22	EST		_							
	_					Eurotion									
	Save	Preterences				- Function									
	<u>R</u> evie	W				ibration									
	Print S	Setyp				ndards									
	E⊻it					ndards									
4	3	Std3	10.0	1	Inject St	andards		1							
5	4	Std4	10.0	1	Inject St	andards									
6	5	Std5	10.0	1	Inject St	andards									
7	6	Std6	10.0	1	Inject St	andards									
8	7	Unk1	20.0	1	Inject Sa	amples									
9	8	Unk2	20.0	1	Inject Sa	amples									
10	9	Unk3	20.0	1	Inject Sa	amples									
11	10	Unk4	20.0	1	Inject Sa	amples									
								-1							
								-11							
नि	) IX	Sample Sets	<u>λ</u> Run	ning			j.								
Te	mpera	ature (°C)	F	ow (m	<u>l/min)</u>	Pressure	( <u>psi)</u>	Instrum 2695_9	ent Method: 996		Y				
								Edi	t	Monitor	Setup				
Quit	the a	application; pr	ompts t	o save	e documer	nts Sar	mple Set - S	etting L	Jp		TEST		<b>]</b> # <b>⊀</b> ₄	ŧ Θ	11

## C 如何修改已經執行的 Sample set

1. Edit→ [ Alter Running Sample]

<b>2</b> 2	595_:	2467	/ in 1	Waters	_2010 as Sys	rtem/Admin	istrator - Run S	amples													_ 7 🛛
Eile	Edit	Yie	w þ	sject ,	Actions Queto	omize <u>H</u> elp															
0 <sub>0</sub>	<u>N</u> 01	ew M pen b	ethod (ethor	Set I Set			ļļ	X 🖻 🗳	Apply Ta	de Preferences	Sample Se	t Method			•	Run On	ly	• 1	Next San	aple Set on Fault 💌	
	In	istrua	ent N	fethod.				Active sample	set : 201010	01											
<b>s</b> v	N	ew Se pgn S	unple lample	Set <u>M</u> e : Set M	thod Template ethod Template		Function	Method Set / Report Method	Label Reference	Processing	Run Time (Minutes)	Data Start (Minutes)	Next Inj. Delay (Minutes)	Auto Additions	SampleWeigt	e Dèle					
1 1			. den				ect Samples	Waters_09		Normal	10.00	0.00	0.00		1.0000	0 1.00					
2 2	2.	mple	Set h	nfo			ect Samples	Waters_09		Normal	10.00	0.00	0.00		1.0000	0 1.00					
3 3	D	issolu	tion				ect Samples	Waters_09		Normal	10.00	0.00	0.00		1.0000	0 1.00					
4 4	0	⊆ Sia	ngle S	let Info			ect Samples	Waters_09		Normal	10.00	0.00	0.00		1.0000	0 1.00					
5 5	P)	ates					ect Samples	Waters_09		Normal	10.00	0.00	0.00		1.0000	0 1.00					
5 6	A	Her R	main	er Same	ale		ect Samples	Waters_09		Normal	10.00	0.00	0.00		1.0000	0 1.00					
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4)	A SI	ingle	AS:	mple	s 🖌 Sample S	sets ) Runni	na /			·	·		·	·	1						
								Sample Set Time	Remaining:	01:00:00	Instrument	Method:			Flo	v (mL/m		Pressure (po	0	Temperature (°C)	
VV26	90/5							Total Samples Time	Remaining:	01:00:00	Waters OS				-						
W26	90/5	B									1				-						
Sa	mple	e Se	t	*	0.00 0.02	0.04 n.08 Liters	0.08 0.10	New Sampl	le Set Time: [	00.00.00	Edit		Somfor	Set	up		-4				
Alter	tuni	ng Sa	mples									Sample	Set - Setting	Up		2010	01001		0#	×u (	0
-	<i>Max</i>	台		9 0		• • *	😡 м. 👔	2 - 🗀 i	T 10.	C	E 6	2	Empower2 I	Backup	_			è	- 12	? < 🖻 🖀 🕏 🛡	13:27

2. 選擇[**確定]**。

Run San	nples 🛛 🛛
<u>.</u>	To edit this method, processing will be paused when the current line is completed. Acquisition will not continue, and any queued sample sets will remain queued, until you either abort this sample set or continue by pressing the Run' button.
	<b>【 一 雅定 二 】</b>

2. 修改完後 · 在 File→ [Save Sample Set Method]

	tem Ad int	autrator - Kun aa	mpies												
Edit Yiew Inject Actions Costs	mine Help														
New Sample Set Method	h_ m	im = [	v 🗈 🖍 🛙	Apply Tal	le Preferences	Sample Se	Method			-	Run Only		W Next S	annale Set on Bank 💌	
Load Samples	0		~								present of the		2 Janaa	anys offen road	
Seve Sample Set Method Chi+S			Sample Set Met	hod 未渝省相	意思										
save settine set method Wr	l		Method Set /	Label		Run	Data	Next Inj.	Auto						
Save Preferences	Lana	Parkaton	Report Method	Reference	matesing	(Minutes)	(Mnutes)	(Mrxtes)	Additions	samplering					
Apply Isble Preferences		inject Samples	vVaters_09		Normal	10.00	0.00	0.00		1.0000	0 1.00				
Save Table Preferences		Inject Samples	vVaters 09		Normal	10.00	0.00	0.00		1.0000	0 1.00				
Save As Table Preferences	-	Inject Samples	Waters 09		Normal	10.00	0.00	0.00		1,0000	0 1.00				
Deade 160% Lingestrates	-	Inject Samples	Waters 09		Normal	10.00	0.00	0.00		1,0000	0 1.00				
Revine	-	Inject Samples	shisters 09		Normal	10.00	0.00	0.00		1,0000	0 1.00				
Print Setgp	<u> </u>	Injust Sancias	Where 09		Normal	10.00	0.00	0.00		1 0000	0 1.00				
Egit .	<u> </u>	Inject Service	Addees (2)		Normal	10.00	0.00	0.00		1 0000	0 1.00				
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			Sample Set Time I	Remaining:	00.00.00	Instrument	Method:			190	a dury unit	- 5	Listone (bit)	temperature (C)	
			Total Samples Time I	Remaining:	00:00:00	Waters_09				-					
Sample Set • 0.000 0.002	0.004 n no	6 0.008 0.010	New Sampl	e Set Time: [	01:10:00	Eðit		fonitor	Sett	D.		-9			
Save the contents of the edit table as a sample	bodtem tee						System	die - Instru	nent Feilure		2010	1001	(le	<b>X</b> a	a
	0.0	" 🗛 Ган		at Free o		<b>B</b> 2 1		mpawer/21	Backup	_			<b>.</b>		

### 4. 按一下上列之 " Run" 鍵(綠燈)。

tele	2690 Edi	_996 in Defa t <u>V</u> iew Injec	u <mark>ltsa</mark> :t <u>A</u> o	is Sys	tem/Administrator - Editing SS M Customize Diagnostics Help	leth	od: TES	T - Run	Sample	25				
0	•	20	)		8 <b>b</b> Ø III 🔳	Х	Ð	Ð	<b>№?</b>	Run Only	•	Continue on Fau	ılt 💌	
			Samp	le Set	Method: TEST									
60	Vial	SampleName	lnj Vol (ul)	#of Injs	Function									
1					Clear Calibration									
2	1	Std1	10.0	1	Inject Standards									
3	2	Std2	10.0	1	Inject Standards									
4	3	Std3	10.0	1	Inject Standards									
5	4	Std4	10.0	1	Inject Standards									
6	5	Std5	10.0	1	Inject Standards									
7	6	Std6	10.0	1	Inject Standards									
8	7	Unk1	20.0	1	Inject Samples									
9	8	Unk2	20.0	1	Inject Samples									
10	9	Unk3	20.0	1	Inject Samples									
11	10	Unk4	20.0	1	Inject Samples									
		Single ) Sam	oles	(San										
Te	mpera	ature (°C)	FI	ow (m	Mmin) Teressure (psi) I	nstru E	ment Me lit	thod:	vlonitor	Setup				
For	Help,	press F1			System Idle							<b>(</b> )#	<b>«</b> # 0	11.

Run Sample Set ? 🗙
You have selected lines in this sample set method
Do you wish to :
Inject all rows
C Inject only selected lines
Name for this sample set : TEST Sample set method name : TEST
Settings for this Sample Set
Run Mode : Run Only
Suitability Mode : Continue on Fault
Printer : Select Printer
Shutdown Method :
Run Cancel Help

### Run Mode

- Run only:單純分析樣品。
- Run and process:分析樣品並計算樣品的結果。
- Run and report:分析樣品並計算樣品的結果,最後列印報告。

### Suitability Mode

- Continue on fault: 忽略此訊息繼續分析樣品
- Next sample on fault:繼續分析下一個樣品
- Nest sample set on fault:繼續分析下一個樣品組
- Reject on fault:重新注射有問題的樣品
- Stop on fault:立刻停止

Shutdown Method :若樣品組執行完畢後欲執行 Shutdown 請選擇方法

# 第六章 標準品濃度的填寫

1. 回到 Empower 主畫面。



2. 連續左鍵按兩下" Browse Project" 功能鍵, 選擇欲使用之 Project 名稱,按 OK。

Browse Project	? ×
Use 'Browse Project' to open the Millennium32 Project Window. Select the desired project from the displayed list. Use the Project Window to: - Create methods for acquiring, processing and reporting. - Copy methods and data between projects or to Windows folders on the desired drive. - Review data. - Preview data. - Acquire data.	Project to Browse       CIA_Default       Custom_Fields       Demo       Dissolution_Project       GC_Default       JOAN       Inda       PDA       SalesT_LC       Shinny       TEST         OK     Cancel

3. 在【Sample Sets】的畫面中,將欲填寫標準品的 Sample Sets 反黑,按右鍵選擇【Alter Sample】即進入樣品濃度填寫畫面。

🔒 Dissolution_Default as System/Adm	ninistrator - Project		
$\underline{F}ile  \underline{E}dit  \underline{V}iew  \underline{I}ools  \underline{D}atabase  \underline{A}ppl$	ication <u>H</u> elp		
A R R R R R R R R R R R R R R R R R R R			
Filter Default	- Fdit	View   Undate	
Sample Sets Injections Channel	els Methods Resul	t Sets  Results   P	eaks   Sign Offs   Curves   View Filters   Custom Fields
Sample Set Name     Sample Set	1 Start Date	DissolutionSystem	
2 PrednisoneE New Method	12:46:06 EDT -04:00	DissolutionSystem	
Review			
Pre <u>v</u> iew/Publisher			
Process	L		-
Print	L		-
Alter Sample			-
Run Samples	1		
Copy <u>T</u> o Project			
Lock Channel	L		
<u>U</u> nlock Channel	L		
<u>V</u> iew As ►			
Delete Row(s)			
Сору	L		-
Paste	L		4
Hide Column			
Show All Columns			
Pri <u>n</u> t Table			
Table Properties	L		
Colu <u>m</u> n Properties	J		4
			4
			1
2 total		1	
🏄 開始 📑 Empo 😭 2695 🤅	Process Diss	olu 🗀 Empo	

4 在 Edit 中選擇【Amount】。

N <sub>0</sub> I	😽 PrednisoneBathA2 in Dissolution_Default as System/Administrator - Alter Sample Set 📃 🔲 🗙									
File	E	<u>lit ⊻</u> iew <u>H</u> elp								
R	1	Cuţ	Ctrl+X							
Ē	-	<u>С</u> ору	Ctrl+C	P						
		Paste Ctrl+V		Sample Type	Samplet					
		<u>A</u> mount								
1		Dissolution								
2	1	G <u>C</u> Sample Set Info		Standard	Standard					
3	2	Insert Row		Unknown	Prednison					
4	2	Delete Row		Unknown	Prednison					
5	2	Plates		Unknown	Prednison					
6	2	Elia Gunala Gas Information		Unknown	Prednison					
7	2_	Eon sample set mormation		Unknown	Prednison					
8	3	∐iew Sample History		Unknown	Prednison					
9		View SampleSet <u>M</u> ethod History								
10	1	<u>R</u> ename SampleSet		Standard	Standard					
11	33	TIME20 Inject Samples		Unknown	Prednison					
12	34 TIME20 Inject Samples			Unknown	Prednison 💌					
┛										
Oper	is the	e component editor			11.					

 在【All Samples】內填入 Component Name 及濃度之後,若要填寫濃度單位請記得在 單位前加【<】的符號 ex : < mg/mL,填完後再按【OK】。</li>

F	Component E	ditor						
E	ile <u>E</u> dit <u>V</u> iew	<u>H</u> elp						
🕑 📴 🖶 🕺 🕺 👘 💼 📢 SampleSet Type: STANDARDS ONLY								
Current Vial         Type :         Standard           Row :         1         Vial :         1         Type :         Standard								
	Components							
	🕩 Value dn/dc (V	/ial)						
	Component	Value (Standard)	Value (Standard)	Value (Standard)	Units (Vial)			
1	Acetone	937.500000	1875.000000	3750.000000				
2	Acetophenone	2.500000	5.000000	10.000000				
3	Propiophenone	2.500000	5.000000	10.000000				
4 Butyrophenone		2.500000	5.000000	10.000000				
IL								
IE	Current A	l Samples <i>I</i>					F	
	Prev	Next			[	OK	Cancel	
Fo	or Help, press F1							

6. 按 Save 並關畢視窗。

Ne	😼 Sample(s) in Defaults as System/Administrator - Alter Sample 📃 🔲 🗶								
Ē	<u>File Edit View H</u> elp								
•	Vial	Label	Save Sample Type	SampleName	Method Set / Report Method	Level	SampleV		
1	1	S0101	Standard	PQ Std. 2.5x	LC Demo Method Set	1	1.		
2	2	S0102	Standard	PQ Std 5.0x	LC Demo Method Set	2	1.		
3	3	S0103	Standard	PQ Std 10x	LC Demo Method Set	3	1.		
Г									
F									
F									
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4									
Sa	ave :	the ch	anges just made				11.		

# 第七章 積分方法的設定

# (Processing Method for 2D Data)

積分方法可分為二類:一為傳統積分(Tradition Integration),另一為 Apex Track Integration

## 1. Tradition Integration

- 1. 在【Sample Sets】的畫面中,將欲處理的 Sample Sets 反黑,按右鍵選擇【View As】
  - →【Channel】即進入 Channel 畫面 。

🖿 Defaults as System/Administrator - Project	- 7 X									
Bile Edit Yew Icols Dethlase Application Help										
Filter Defenit Edit Verg Update Max Rows 1000 14 4 b bi										
Sample Sets Injections Channels Methods Result Sets Results Peaks Sign Offs Curves View Filters Custom Fields										
Sanple Set Name Sanple Set Start Date System Name										
1 2009_12_17 2009年12月17日 12:58:01 Asia/Tapel 2005_2407										
2 lest1 2009/0.05月20日10.58.15 Asia/Taipei 2695_2996										
3 PQ Sansie Set Kern Matbod										
Beview										
Pargiew@ublisher										
Brocess										
Print										
Expert.										
Ann gange										
Copy To Project										
Tab Charal										
Look Count										
Yew As Directions										
Delete Rov(r)										
Group Bank Sat										
Rote Instrument Methods										
Bangle Column Sample Set Methods										
Show All Columns										
Prigt Table										
Table Pyoperties.										
Contigue roperates										
3 total										
🔧 💯 🖄 🖄 🛱 🗑 🕒 🕲 🦈 🥥 Mail. 🕼 3 M 🧰 2 M 📴 2 M 😂 2004. 😭 Def Empower2 Backers	😑 🛛 🕺 🔍 🖻 🕁 🖏 13.52									

2. 點選最低濃度的標準品或樣品,按右鍵選擇【Review】。

	Defaults	as 🤆	System	/Administrat	or - Project						
F	ile Edit '	View	r Tool	s Database	Help						
		_ തി/	— കിലിയി								
			⊒¥   reer								
1											
F	ilter Select	Samp	ole Name		👻 Edit	View	<u>U</u> pdate				
	Sample S	Sets	Injectior	ns Channels N	1ethods   Result Sets   R	esults   F	eaks  Sign Offs  C	urves	View Filters	Custom Fields	1
65	SampleName	Vial	Injection	Sample Type	Date Acquired	Channel	Channel Description	1			
1	PQ Unk. 4	7	1	Unknown	1997/9/17 下午 05:37:56	486	254nm	1			
2	PQ Unk. 3	6	1	Unknown	1997/9/17 下午 05:30:59	486	254nm				
з	PQ Unk. 2	5	1	Unknown	1997/9/17 下午 05:24:04	486	254nm				
4	PQ Unk. 1	4	1	Unknown	1997/9/17 下午 05:17:07	486	254nm				
5	PQ Std 10×	з	1	Standard	1997/9/17 下午 05:10:10	486	254nm				
6	PQ Std 5.0×	2	1	Standard	1997/9/17 下午 05:03:14	486	254nm				
7	PQ Std. 2.5×	1	1	Standard	1997/9/17 下午 04:56:03	486	254nm				
L											
L											
L											
L								-			
L								-			
⊢								-			
⊢								-			
F								-			
H								-			
H								-			
⊫ E∢	r Help, pre:	ss F:	1	1	1	1	1				7 Selected

3. 點選小精靈(Wizard)來建立數據處理方法。



4. 選擇【Create a New Processing Method】 · 按下" OK" 。

Processing Method Wizard	? ×					
You can use the Processing Method wizard to edit the current						
processing method or to create a new processing method.						
Note: If you edit an existing processing method using the Processing Method wizard, the software will clear the calibration associated with the edited processing method and current 2D channel.						
Create a <u>N</u> ew Processing Method						
C Edit an Existing Processing Method.						
OK Cancel <u>H</u> elp						

5. Processing Type:選擇 LC Integration Algorithm:選擇 Traditional Use Processing method Wizard: 打√ 按下"OK"。

<b>New Processing Method</b>	
Processing <u>T</u> ype:	J.C
Integration <u>A</u> lgorithm:	Iraditional
🔽 Use Processing Met	od <u>W</u> izard
🔲 Include a Cross Ch	nel Internal Standard
OK Cau	el <u>H</u> elp

6. 輸入最小之積分寬度 (Peak Width) ·利用滑鼠放大功能從欲積分的訊號中選擇一支最窄 的訊號當成最小之積分寬度 · 按【下一步】鍵 ·



 輸入最小之積分斜率值 (Threshold)·利用滑鼠放大功能在基線的位置選擇一段雜訊當成 最小之積分斜率值,按【下一步】鍵。



8. 圈選圖譜中需要積分之範圍,利用滑鼠放大功能或直接輸入開始及結束的時間,按【下一步】鍵。

Integration - Integratio	on Region - 486 🛛 🙎 🗶
2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3	Zoom in on the area where you would like to perform integration. Note: This step activates Inhibit Integration events outside of the selected zoom area.
	< 上一步 (B) 下一步 (M) > 取消 説明 )

9. 設定最小積分面積(Minimum Area)、最小積分之峰高(Minimum Height),按【下一步】 鍵。



**10.** 選擇定量方法,以峰面積(Area)或高度定量(Height),以重量(Amount)或濃度 (Concentration) 定量,檢量線型式(Linear),按【下一步】鍵。

Calibration - General - 4	86	<u>? ×</u>	1
<b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	<ul> <li>Select the method of quantitation.</li> <li>Specify whether component information is entered as amounts (not affected by the injection volume) or concentration (must be compensated by the injection volume).</li> <li>Select the calibration curve fit type.</li> </ul>	Area	
	<上一步图 下一步图 >	取消 説明	

11. 按【是】: 會 copy 曾在 Amount Table 中填寫的 Component Name。
 按【否】: 用鍵盤鍵入 Component Name。

Review	×
?	Components need channel names to perform Cross Channel Internal Standard processing.
	Channel names allow you to specify that the Internal Standard, RT Reference, and/or Must peaks are found in a different channel than the other peaks.
	Do you want to add channel names to the new components so you can perform Cross Channel Internal Standard processing?
	If you choose Yes, all the new components added in this step will have the name of the current channel copied into their Channel fields.
	If you choose No, all the new components added in this step will not have their Channel fields filled in.
	<u>是(Y)</u> 否(N)

### 12. 選"是"。請在"Name"欄選正確組分名稱(例如 Acetone..),按【下一步】鍵。



### 13. 此步驟省略,直接按【下一步】鍵。

Calibration - Default Am	Calibration - Default Amounts - 486							
2 1 2 3 3 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	Ente in th ə	r an amount and the corres e table. Note: The amoun nd are superceded by amou Window or with t	ponding units for a ts entered here are unts entered in the he Alter Sample to	each component default amounts Run Samples ol.				
2 1 3	6	Name	Amount	Units				
	1	Acetone						
	2	Acetophenone						
2 3	3	Propiophenone						
3 3	4	Butyrophenone						
< 上一步(B) 下一步(N) > 取消 説明								

14. 選擇校正的形式若為外標則選擇【External Standard Calibration】;
 若為內標則選擇【Single Internal Standard】或【Multiple Internal Standard】·並將
 內標準品的 peak 標示上去·按【下一步】鍵。

Calibration - Internal St	andards - 486	? ×
2 3 1 2 3 3 1 2 3 1 2 2 1 2 3 1 2 2 3 1 2 1 2	Select type of calibration: • External Standard Calibration OR Internal Standard Calibration • Single Internal Standard • Multiple Internal Standards	
	<上一步(B) 下一步(B) 下一步(C) > 取消 說明	

15. 最後請輸入此計算方法之名稱,按【完成】鍵。

Processing Method Nar	ne - 486		<u>?</u> ×
2 1 2 3 3 1	Method Name:	demo	
2 2 3 3 3 3	Default Comments:		•
1       1	Comments:		A
	<u>&lt;上一步</u> 圖	完成 取消 說明	月

16. 出現 Component name 及滞留時間。



## 2. ApexTrack Integration

在【Sample Sets】的畫面中·將欲處理的 Sample Sets 反黑·按右鍵選擇【View As】
 →【Channel】即進入 Channel 畫面 。

Defaults as Sys	tem/Administrator - Pro	vient							
File Edit View I	ools Database Applicatio	on Help							
	🛛 🏉 🎥 🕥	9							
Filter Default		▼ Ed	lit Vie <u>w</u> ∐pdə	be Max Rows:	1000		M		
▲ ► Sample Sets	Injections Channels 1	Methods Res	ult Sets Result	s Peaks Sign (	offs Curves V	iew Filters Cu	ustom Fields		 
🚱 Sample Set Name	Sample Set Start	Date S	System Name						
1 2009_12_17	2009年12月17日 13:59:3	31 Asia/Taipei	2695_2487						
2 test1	2009年05月20日 10:58:1	5 Asia/Taipei	2695_2996						
3 PQ Sample Set	New Method	54 US/Eastern 🧳	Alliance						
	Review								
<b></b>	Preyiew/Publisher								
	Process								
	Print								
	Alter Sample								
	Run Samples								
	Copy <u>T</u> o Project								
	Lock Channel								
	Unlock Channel								
	View As	Injections	H						
	Delete Row(s)	<u>C</u> hannels Results							
	Сору	Result Sets	H						
	Paste	Instrument Me	ethods						
	Hide Column	Sample Set M	etho <u>d</u> s						
	Show All Columns								
	Pri <u>n</u> t Table								
	Table Properties								
H	Column Properties								
3 total	•								
4 開始	0 1 1 1 2 0 0	🐵 👋 😡	Mai 🕢 3	M 👻 🛅 2 W	• En	269	Def	Empower2 Backup	🖮 🛛 🗘 🌾 🗹 🎽 🐌 🛄 13:52

2. 點選最低濃度的標準品或樣品,按右鍵選擇【Review】。

	D	efaults	as S	System	/Administrat	or - Project						×
E	Eile	<u>E</u> dit	⊻iew	/ <u>T</u> ool	s <u>D</u> atabase	Help						
	A-0.	🚍 🔟 [		s 🔛	No 😑 💼 🖻							
I		8 🗗										
F	ilter	Select	Samt	le Name		- Edit	View	Update				
Ē	1	1.000001	bount	)		<u> </u>		<u> </u>			r	1
		Sample S	Sets	Injection	ns Channels M	1ethods   Result Sets   R	esults   P	eaks  Sign Offs  Cu	irves   View 1	Filters	Custom Fields	
5	Sar	mpleName	Vial	Injection	Sample Type	Date Acquired	Channel	Channel Description				
1	PQ	Unk. 4	7	1	Unknown	1997/9/17 下午 05:37:56	486	254nm				
2	PQ	Unk. 3	6	1	Unknown	1997/9/17 下午 05:30:59	486	254nm				
3	PQ	Unk. 2	5	1	Unknown	1997/9/17 下午 05:24:04	486	254nm				
4	PQ	Unk. 1	4	1	Unknown	1997/9/17 下午 05:17:07	486	254nm				
5	PQ	Std 10x	3	1	Standard	1997/9/17 下午 05:10:10	486	254nm				
6	PQ	1 Std 5.0×	2	1	Standard	1997/9/17 下午 05:03:14	486	254nm				
7	PQ	2 Std. 2.5×	1		Standard	1997/9/17 下午 04:56:03	486	254nm				
Г												
									1			
Г									1			
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									1			
E												
E									1			
									1			
E									1			
F	⊃r ⊦	Help, pres	ss Fi	1	•	•	•	•	•			7 Selected

3. 點選小精靈(Wizard)來建立數據處理方法。



4. 選擇【Create a New Processing Method】,按下"OK"。

Processing Method Wizard	? ×
You can use the Processing Method wizard to edit the current processing method or to create a new processing method.	
Note: If you edit an existing processing method using the Processing Method wizard, the software will clear the calibration associated with the edited processing method and current 2D channel.	
Create a <u>New Processing Method</u>	
🔿 Edit an Existing Processing Method	
Cancel <u>H</u> elp	

5. Processing Type:選擇 LC Integration Algorithm:選擇 ApexTrack Use Processing method Wizard:打√ 按下"OK"。



 6. 圈選圖譜中需要積分之範圍,利用滑鼠放大功能或直接輸入開始及結束的時間,按【下一步】鍵。



 軟體自動顯示 Peak Width 及 Threshold · 若不滿意其數值請將 Clear Peak Width and Threshold 打√ · 即可自行設定 Peak Width 及 Threshold · 選擇完畢後按【下一步】鍵。



8. 設定最小積分面積(Minimum Area)、最小積分之峰高(Minimum Height),按【下一步】 鍵。



9. 選擇定量方法 · 以峰面積(Area)或高度定量(Height) · 以重量(Amount)或濃度
 (Concentration) 定量 · 檢量線型式(Linear) · 按【下一步】鍵。

Calibration - General - 4	86	<u>? X</u>
<b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b> <b>3</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	<ul> <li>Select the method of quantitation.</li> <li>Specify whether component information is entered as amounts (not affected by the injection volume) or concentration (must be compensated by the injection volume).</li> <li>Select the calibration curve fit type.</li> </ul>	Area
l	<上一步围 下一步刚 >	取消 説明

10. 按【是】: 會 copy 曾在 Amount Table 中填寫的 Component Name。

• •
•

Review	×
?	Components need channel names to perform Cross Channel Internal Standard processing.
v	Channel names allow you to specify that the Internal Standard, RT Reference, and/or Must peaks are found in a different channel than the other peaks.
	Do you want to add channel names to the new components so you can perform Cross Channel Internal Standard processing?
	If you choose Yes, all the new components added in this step will have the name of the current channel copied into their Channel fields.
	If you choose No, all the new components added in this step will not have their Channel fields filled in.

11. 選"是"。請在"Name"欄選正確組分名稱(例如 Acetone..),按【下一步】鍵。



12. 此步驟省略,直接按【下一步】鍵。

Calibration - Default Amounts - 486								
2 3 Enter an amount and the corresponding units for each component in the table. Note: The amounts entered here are default amounts and are superceded by amounts entered in the Run Samples Window or with the Alter Sample tool.								
2 2 3	6	Name	Amount	Units				
	1	Acetone						
	2	Acetophenone						
2 3	3	Propiophenone						
3	3 4 Butyrophenone							
< 上一步 (B) 下一步 (M) > 取消 説明								

13. 選擇校正的形式若為外標則選擇【External Standard Calibration】;
 若為內標則選擇【Single Internal Standard】或【Multiple Internal Standard】,並將
 內標準品的 peak 標示上去,按【下一步】鍵。

Calibration - Internal St	andards - 486	? X
2 3 1 2 2 1 2 3 1 2 2 1 2 3 1 2 2 1 2 2 3 1 2 3 1 2 3 1 2 3 1 2 1 2	Select type of calibration: • External Standard Calibration OR Internal Standard Calibration • Single Internal Standard • Multiple Internal Standards	
	<上一步(B) 下一步(N) > 取消 說	明

14. 最後請輸入此計算方法之名稱,按【完成】鍵。

Processing Method Nar	ne - 486	<u>? X</u>
2 1 2 3 3 1	Method Name: demo	
	Default Comments:	•
1       1	Comments:	ł
	<上一步(B) 完成 取消 。	說明

#### 15. 出現 Component name 及滯留時間。



# 第八章 製作檢量線(校正曲線)

# (Calibration Curve)

在【Sample Sets】的畫面中,將欲處理的 Sample Sets 反黑,按右鍵選擇【View As】
 →【Channel】即進入 Channel 畫面 。

Co Defentio es ford	ter Maninister ter Berlins		
File Edit View T	cole Database Application 1	Helm	
	🛾 🖉 🔐 📢 🥝		
Filter Default		▼ Edit View Up	plate Max Rove: 1000
▲ ► Sample Sets	Injections Channels Meth	ods Result Sets Resu	ults Peaks Sign Offs Curres View Filters Custom Fields
Sample Set Name	Sample Set Start Date	System Name	
1 2009_12_17	2009年12月17日 13:59:31 As	sia/Taipei 2095_2407	4
3 PQ Sample Set	4003/200 843/8 40/05/64 15	SEastern Allance	
_	New Method.		
	Review		
	Foryww/Fublisher		
	Print		
H	Export		
	Alter Sample		
	Kyasampes		4
<u> </u>	Copy To Project		
	Lock Channel		1
_	Unock Channel		
_	Yate As Is	pechons hannels	
	Delete Row(s)	eralta	
	<u>C</u> opy Re	emit Sets	
	Loin 24	unple Set Methods	
	Hide Column Show All Columns		
H	Print Table		
	Table Description		
	Column Properties		
-			
2 svtal			]
		* <b>•</b> •	In the Part Process of the International States
- vusa	- <u></u>		

2. 到 Channel 畫面, **圈選 Standard**, 按右鍵選擇【Process】。

🔁 demo as System/Administra	tor - Project		_ 8 ×
<u>File E</u> dit <u>V</u> iew <u>T</u> ools <u>D</u> ataba	se <u>H</u> elp		
	<u>N</u> ew Method	▶	
Filter Select Sample Name	<u>R</u> eview	Update	
Sample Sets   Injections   Channe	<u>C</u> ompare	Peaks   Sign Offs   Curves   View Filters   Custom Fields	
SampleName Vial Injection Sample	Pre <u>v</u> iew/Publisher	annel Channel Description	
1 PQ Unk. 4 7 1 Unknown	Process	6 254nm	
2 PQ Unk. 3 6 1 Unknown	Prin <u>t</u>	6 254nm	
3 PQ Unk. 2 5 1 Unknown	Export	6 254nm	
4 PQ Unk. 1 4 1 Unknown	Alter <u>S</u> ample	6 254nm	
5 PQ Std 10x 3 1 Standard	R <u>u</u> n Samples	6 254nm	
6 PQ Std 5.0x 2 1 Standard	Conv To Project	6 254nm	
7 PQ Std. 2.5x 1 1 Standard		6 254nm	
	Lock Channel		
	Unlock Channel		
	⊻iew As	▶ <u></u>	
	<u>D</u> elete Row(s)		
	Сору		
	Paste		
	Hide Column		
	Show All Columns		
	Pri <u>n</u> t Table		
For Help, press F1	Table Properties	7 Selec	ted:

3. 在 Use specified processing method 中選擇所需要的 Method,若要將先前的校正曲 線刪除 Clear Calibration 請打勾,再按【OK】。

demo - Background Processing and Reporting	? X
<ul> <li>Processing</li> <li>✓ Process</li> <li>○ Use acquisition method set (i.e. from the sample set used to acquire data)</li> </ul>	
O Use specified method set	-
<ul> <li>Use specified processing method</li> </ul>	•
Clear Calibration	
Reporting LC PQ Print WINTERNAT/HP2100 N_test	_
Is acquisition method set (i.e. from the sample set used to acquire data)	
○ Use specified method set	~
O Use specified report method	<b>V</b>
Exporting Export	
• Use acquisition method set (i.e. from the sample set used to acquire data)	
Use specified method set	<u> </u>
C Use specified export method	~
OK Cancel He	elp

4. 在 Result 選項, Update 一下,將所要瀏覽的資料反黑,按右鍵【Review】。

	a demo as System/Administrator - Project												
E	ile	<u>E</u> dit j	<u>V</u> iew <u>T</u> ool	s <u>D</u> atabase	Help								
ſ													
F	Filter today Edit View Update												
	Sample Sets   Injections   Channels   Methods   Result Sets   Results   Peaks   Sign Offs   Curves   View Filters   Custom Fields												
5	Vial	Injection	SampleName	Injection Volume (ul)	Sample Type	LOD	Result Set Name	Date Acquired	Date Processed	Faults	Channel	Char	
1	7	1	PQ Unk. 4	20.00	Unknown			1997/9/17 下午 05:37:56	2002/12/26 下午 03:38:50		486	$\square$	
2	6	1	PQ Unk. 3	20.00	Unknown			1997/9/17 下午 05:30:59	2002/12/26 下午 03:38:50	Г	486	$\square$	
3	5	1	PQ Unk. 2	20.00	Unknown			1997/9/17 下午 05:24:04	2002/12/26 下午 03:38:49		486		
4	4	1	PQ Unk. 1	20.00	Unknown			1997/9/17 下午 05:17:07	2002/12/26 下午 03:38:49		486		
5	3	1	PQ Std 10x	20.00	Standard			1997/9/17 下午 05:10:10	2002/12/26 下午 03:38:49		486		
6	2	1	PQ Std 5.0×	20.00	Standard			1997/9/17 下午 05:03:14	2002/12/26 下午 03:38:49		486		
7	1	1	PQ Std. 2.5x	20.00	Standard			1997/9/17 下午 04:56:03	2002/12/26 下午 03:38:49		486		
L													
L													
L													
L													
L												$\square$	
L												$\square$	
F													
4												►	
Fo	or He	elp, pres	ss F1							7 Se	lected		

### 5. 進入 Review 畫面可看到分析定量的結果,在 Window 選項中選擇【Calibration】。

🚟 PQ Unk. 1 in demo as System,	/Administrator - Re	view - [Main Wir	ndow]			_	a×
🔼 Eile Edit View Plot Proces	s <u>N</u> avigate <u>O</u> ption:	s <u>W</u> indow <u>S</u> pe	ectrum Review	<u>L</u> ibrary <u>H</u> e	elp	_	Ð×
	R.K.K. K. P. P	e Processing I <u>R</u> esults	Method	= 🗾 🖪	<b>6 1</b>	• 4	
▲ 0.18		Cali <u>b</u> ration Method Set		4 4 4	4./01		
0.16	4				-		
0.14	E .	<u>3</u> D PIOL			enor enor		
0.12	i i i i i i i i i i i i i i i i i i i	Pattern <u>M</u> at	ich	-			
₹ 0.10		Cascade			ntyr		
0.08	E E	Tile <u>H</u> orizon	tally	1	K.		
0.06	Cett	Tile <u>V</u> erticall	y İ		`{		
0.04	, I	Arrange <u>I</u> co	Arrange Icons Close <u>A</u> ll				
0.02	( ) (	Close <u>A</u> ll					
		🔼 🖌 1 Main Wind		· · · · · ·			ᅱ
0.50 1.00 3.5302 Minutes: 0.1975 AU	1.50 2.00 2	2.5( <u> </u>		4.50	5.00	5.50	6.00
							▶
Name Retention Time Area (μV*sec)	% Area Height (µ∀) Int Type	Amount Units Peak	Type Peak Codes	Structure 1 Name	Structure 1 Description	Structure 1 Mol VVt	Stru Fo
1 Acetone 1.249 792423	28.02 187682 BB 3	761.896 Found	Q09 C25				
2 Acetophenone 2.133 781272	27.62 157244 BB	10.028 Found	Q09 C25				
3 Propiophenone 3.111 622045	21.99 105251 BB	10.033 Found	Q09 C25				
4 Butyrophenone 4.781 632793	22.37 80992 BB	10.045 Found	Q09 C25				
Calibration Curve Mindow	aks / ath Sati 土合々輝館		Proc Meth:	土企力輝麗	41		

### 6. 在此畫面可得知校正曲線的結果。

	PQ Std ] Eile E	10x in demo as       dit     View       Plot       Image: Comparison of the second se	System/Admini Process Naviga	strator - Revie te Options \ [요 》 운 맥	ew - [Calibrati Mindow Help 대답답답 않	on Curve Win	idow] = 🗾 🖪		_ = × _ = × _ = ×		
с	Method     demo     Date/Time     2002/12/26 下午 03:56:06       System     Alliance     Channel     486       Component     Acetone     ▼     Time     1.249       Equation     Y = 2.10e+002 X + 1.42e+003										
	R^2         0.999964         R         0.999982         Standard Error         2.567579e+003           RSS         6.592461e+006         RSD         65.265706         Weighting         None           Codes										
	] 말 <sup>50000</sup>	0	B			200.002400.002600.					
24	58.2821 A	mount, 1.665e+005 An	ea		Amount				F		
I	Calil	pration /							F		
5	Level	X Value	Response	Calc. Value	% Deviation	Manual Point	Ignore	Result Id	Channel Id		
2	2	1875 00000	397727 000000	1884 790558	-0.696			3592	1173		
3	3	3750.000000	789235.000000	3746.736481	-0.087			3599	1180		
H	N India	vidual Points 🖌 Aver	rage Points /		•				Þ		
Fo	▲  ▶  <u>\ Individual Points &amp; Average Points /   ↓</u> For Help, press F1 Meth Set: 未命名標題 Proc Meth: demo []										

# 第九章 樣品定性及定量分析

在【Sample Sets】的畫面中,將欲處理的 Sample Sets 反黑,按右鍵選擇【View As】
 →【Channel】即進入 Channel 畫面 。

🔁 Defaults as S	System/Administrator - Proj	ject							<b>a</b> X
Eile Edit Yiew	Icols Database Applicatio	on Help							
	1 🗐 🍊 🚰 📢	۵ 🐚 🕲	6						
Filter Default		▼ Edit Viry	Updat	Max Rows: 1000	14 A >	M			
▲ ► Sample S	ets Injections Channels M	Methods Result Set	Results	Peaks Sign Offs Cur	res View Filters	Custom Fields			
Sample Set No	ime Sample Set Start	Date System	Name						
1 2009_12_17	2009年12月17日 13:59:3	11 Asia/Taipei 2695_2	407						
2 best1	2009年05月20日10.58:1	5 Asia/Taipei 2695_2	996						
3 PQ Sample Se	New Method	4 US/Eastern Aliance							
H	Review		-						
	Porgiew/Publisher		-						
	grocess								
	Print								
	Aller Samala								
	Ryn Samples								
	Copy Io Project								
	Lock Channel		_						
H	Unlock Channel		_						
	⊻iew As →	Injections	Н						
H	Delete Row(s)	Channels	H						
H	Conv	Recults Recult Sets	H.						
H	Porte	Instrument Methods	H.						
	Wide Column	Sample Set Methods	Н						
	Show All Columns		_						
	Print Table								
	Table Pgoperties Column Properties								
3 total	-		_						
A 1864		A * AN	6.0		- <b>P</b> 262	CO Det	Empower? Backyn		1 12-52
- 019 <del>4</del>		W Hal	100.00		unt 🛃 209	Det	Emporenz Dickup		a 19597

2. 到 Channel 畫面, **圈選 Sample**,按右鍵選擇【Process】。

👱 demo as System/Administra	tor - Project		_ 8 ×
<u>Eile Edit View Tools D</u> ataba	se <u>H</u> elp		
	New Method		
Filter Select Sample Name	Review	Update	
Sample Sets   Injections   Channe	<u>C</u> ompare	Peaks Sign Offs Curves View Filters Custom Fields	
SampleName Vial Injection Sample	Pre <u>v</u> iew/Publisher	annel Channel Description	
1 PQ Unk. 4 7 1 Unknown	Process	6 254nm	
2 PQ Unk. 3 6 1 Unknown	Prin <u>t</u>	6 254nm	
3 PQ Unk. 2 5 1 Unknown	Export	6 254nm	
4 PQ Unk. 1 4 1 Unknown	Alter <u>S</u> ample	6 254nm	
5 PQ Std 10x 3 1 Standard	Run Samples	6 254nm	
6 PQ Std 5.0x 2 1 Standard	Conv To Project	6 254nm	
7 PQ Std. 2.5x 1 1 Standard	oopy <u>to mojoodii</u>	_ 6 254nm	
	Lock Channel		
	Unlock Channel		
	⊻iew As		
	<u>D</u> elete Row(s)		
	Copy		
	Paste		
	Hide Column		
	Show All Columns		
	Pri <u>n</u> t Table		
For Help, press F1	Table Properties	7 Sele	cted

3. 在 Use specified processing method 中選擇所需要的 Method · Clear Calibration 不 打√· 再按【OK】。

demo - Background Processing and Reporting	? X
Processing Process C Use acquisition method set (i.e. from the sample set used to acquire data)	
C Use specified method set	-
<ul> <li>Use specified processing method demo</li> </ul>	•
Clear Calibration demo1	
Reporting LC PQ	
Print WINTERNATVHP2100 N_test	<u>`</u> _
• Use acquisition method set (i.e. from the sample set used to acquire data)	
C Use specified method set	-
C Use specified report method	~
Exporting Export	
<ul> <li>Use acquisition method set (i.e. from the sample set used to acquire data)</li> </ul>	
C Use specified method set	~
C Use specified export method	~
OK Cancel He	:lp

4. 在 Result 選項 · Update 一下 · 將所要瀏覽的資料反黑 · 按右鍵【Review】 ·

4	demo as System/Administrator - Project												
Ē	ile	<u>E</u> dit 1	<u>V</u> iew <u>T</u> ool	s <u>D</u> atabase	Help								
ſ													
F	ilter	today				Ē	dit Vie <u>w</u> Upd	ate					
		Sample S	Sets   Injection	ns Channels I	Methods   Result	Sets	Results Peaks	Sign Offs Curves Vie	ew Filters   Cus	tom Fields	1		
5	Vial	Injection	SampleName	Injection Volume (ul)	Sample Type	LOD	Result Set Name	Date Acquired	Date Proce	ssed	Faults	Channel	Char
1	7	1	PQ Unk. 4	20.00	Unknown			1997/9/17 下午 05:37:56	2002/12/26 下午	- 03:38:50		486	$\square$
2	6	1	PQ Unk. 3	20.00	Unknown			1997/9/17 下午 05:30:59	2002/12/26 下午	- 03:38:50		486	
3	5	1	PQ Unk. 2	20.00	Unknown			1997/9/17 下午 05:24:04	2002/12/26 下午	- 03:38:49		486	
4	4		PQ Unk. 1	20.00	Unknown			1997/9/17 下午 05:17:07	2002/12/26 下午	= 03:38:49		486	
5	3	1	PQ Std 10x	20.00	Standard			1997/9/17 下午 05:10:10	2002/12/26 下午	= 03:38:49		486	
6	2	1	PQ Std 5.0x	20.00	Standard			1997/9/17 下午 05:03:14	2002/12/26 下午	- 03:38:49		486	
7	1	1	PQ Std. 2.5x	20.00	Standard			1997/9/17 下午 04:56:03	2002/12/26 下午	= 03:38:49		486	
L													
L													
L													
L													$\square$
H													$\vdash$
H													$\vdash$
$\vdash$													$\square$
4													Þ
F	or H	elp, pres	ss F1								7 Se	lected	

#### 5. 進入 Review 畫面可看到分析定量的結果。



# 第十章 列印報告

#### A. 整批圖譜列印:

1. 在【Results】中將所欲列印的資料反黑,按右鍵選擇【Print】。

🔁 Defaults as System/Administrator - Project										_ 8 ×
<u>File Edit View Tools Database H</u> elp										
Γ	_ <u>-</u>					Review				
Filte	r Default				▼ Ed	Compare				
Sample Sets   Injections   Channels   Methods   Result Sets						Pre⊻iew/Publisher Process		Curves   View Filters   Cust	om Fields	
6	SampleName	Vial	Injection	Sample Type	Processed Channel Di	Print		Date Processed	Processing Metho	od 🔺
11	PQ Unk. 4	7	1	Unknown	254nm	Export	6	2002/12/19 下午 02:45:10	LC PQ	
12	PQ Unk. 1	4	1	Unknown	254nm	R <u>u</u> n Samples	17	2002/12/19 下午 02:41:16	LC PQ	
13	PQ Unk. 3	6	1	Unknown	254nm	Conv To Project	- 19	2002/12/19 下午 02:41:16	LC PQ	
14	PQ Unk. 4	7	1	Unknown	254nm		- 6	2002/12/19 下午 02:41:16	LC PQ	
15	PQ Unk. 2	5	1	Unknown	254nm	Lock Channel	14	2002/12/19 下午 02:41:16	LC PQ	
16	PQ Std 5.0x	2	1	Standard	254nm	Unlock Channel	_ 4	2002/12/19 下午 02:41:15	LC PQ	
17	PQ Std 10x	3	1	Standard	254nm	∐iew As	۰ o	2002/12/19 下午 02:41:15	LC PQ	
18	PQ Std. 2.5×	1	1	Standard	254nm	Delete Row(s)	13	2002/12/19 下午 02:41:15	LC PQ	
19	PQ Unk. 3	6	1	Unknown	254nm		- 9	2002/10/29 上午 11:11:36	Training_1029	
20	PQ Unk. 4	7	1	Unknown	254nm	<u>C</u> opy	6	2002/10/29 上午 11:11:36	Training_1029	
21	PQ Std. 2.5×	1	1	Standard	254nm	raste	_13	2002/10/29 上午 11:11:35	Training_1029	
22	PQ Std 5.0x	2	1	Standard	254nm	<u>H</u> ide Column	4	2002/10/29 上午 11:11:35	Training_1029	
23	PQ Std 10x	3	1	Standard	254nm	Show All Columns	_ 0	2002/10/29 上午 11:11:35	Training_1029	
24	PQ Unk. 2	5	1	Unknown	254nm	Pri <u>n</u> t Table	14	2002/10/29 上午 11:11:35	Training_1029	
25	PQ Unk. 1	4		Unknown	254nm	Table Descention	- 7	2002/10/29 上午 11:11:35	Training_1029	
26	PQ Unk. 1	4	1	Unknown	254nm	Column Properties	17	2002/10/29 上午 11:01:43	Training_1029	
27	PQ Unk. 2	5	1	Unknown	254nm	ioonomi i i oo.z.	<del>.</del> .J4	2002/10/29 上午 11:01:43	Training_1029	
28	PQ Unk. 4	7		Unknown	254nm	1997/9/17 下午 05:37	7:56	2002/10/29 上午 11:01:43	Training_1029	
29	PQ Unk. 3	6		Unknown	254nm	1997/9/17 下午 05:30	):59	2002/10/29 上午 11:01:43	Training_1029	
30	PQ Std 5.0x	2	1	Standard	254nm	1997/9/17 下午 05:03	3:14	2002/10/29 上午 11:01:42	Training_1029	
		2		Chan dand	054				Tusisis n 4000	

 在【Reporting】中選擇【Use specified report method】並套用報告方法,再按【OK】, 即可完成圖譜列印。

Defaults - Background Processing and Reporting	×
Processing Process © Use acquisition method set (i.e. from the sample set used to acquire data)	
C Use specified method set	1
C Use specified processing method	
Clear Calibration 🔲 Use Existing Integration How: Calibrate and Quantitat	
Reporting Print EPSON LASER EPL-N1200C	1
C Use acquisition method set (i.e. from the sample set used to acquire data)	
○ Use specified method set	1
<ul> <li>Use specified report method</li> <li>Default Individual Report</li> </ul>	i
Exporting Export	
(• Use acquisition method set (i.e. from the sample set used to acquire data)	_
C Use specified method set	
C Use specified export method	1
OK Cancel Help	

## B. 預覽圖譜列印:

#### 1. 在【Results】中將所欲列印的資料反黑,按右鍵選擇【Preview/ Publisher】

📴 Defaults as System/Administrator - Project				Nous Mathed				_ 8 ×		
<u>File E</u> dit <u>V</u> iew <u>T</u> ools <u>D</u> atabase <u>H</u> elp										
		อปส				<u>R</u> eview				
E			2/ Inst			<u>C</u> ompare				
Г						Pre <u>v</u> iew/Publisher				
Fi	lter Defaul	t			▼ Ed	Process				
				Frm <u>i</u>	-					
Sample Sets   Injections   Channels   Methods   Result Sets			] <u>Export</u> [( Run Samples F		Curves   View Filters   Custom Fields					
G	SampleName	Vial	Injection	Sample Type	Processed Channel De			Date Processed	Processing Metho	여 🔺
11	PQ Unk. 4	7	1	Unknown	254nm	Copy <u>T</u> o Project	6	2002/12/19 下午 02:45:10	LC PQ	_
12	PQ Unk. 1	4	1	Unknown	254nm	Lock Channel	7	2002/12/19 下午 02:41:16	LC PQ	_
13	PQ Unk. 3	6	1	Unknown	254nm		9	2002/12/19 下午 02:41:16	LC PQ	
14	PQ Unk. 4	7	1	Unknown	254nm		6	2002/12/19 下午 02:41:16	LC PQ	
15	PQ Unk. 2	5	1	Unknown	254nm	<u>V</u> iew As	4	2002/12/19 下午 02:41:16	LC PQ	
16	PQ Std 5.0x	2	1	Standard	254nm	Delete Row(s)	4	2002/12/19 下午 02:41:15	LC PQ	
17	PQ Std 10x	3	1	Standard	254nm	Conv	0	2002/12/19 下午 02:41:15	LC PQ	
18	PQ Std. 2.5x	1	1	Standard	254nm	Paste	3	2002/12/19 下午 02:41:15	LC PQ	
19	PQ Unk. 3	6	1	Unknown	254nm	-	9	2002/10/29 上午 11:11:36	Training_1029	
20	PQ Unk. 4	7	1	Unknown	254nm	Hae Column	6	2002/10/29 上午 11:11:36	Training_1029	
21	PQ Std. 2.5x	1	1	Standard	254nm	Puon VII Colmunz	3	2002/10/29 上午 11:11:35	Training_1029	
22	PQ Std 5.0x	2	1	Standard	254nm	Pri <u>n</u> t Table	4	2002/10/29 上午 11:11:35	Training_1029	
23	PQ Std 10x	3	1	Standard	254nm	Table Properties	0	2002/10/29 上午 11:11:35	Training_1029	
24	PQ Unk. 2	5	1	Unknown	254nm	Column Properties	4	2002/10/29 上午 11:11:35	Training_1029	
25	PQ Unk. 1	4	1	Unknown	254nm	1997/9/17 下午 05:17:0	7	2002/10/29 上午 11:11:35	Training_1029	
26	PQ Unk. 1	4	1	Unknown	254nm	1997/9/17 下午 05:17:0	7	2002/10/29 上午 11:01:43	Training_1029	
27	PQ Unk. 2	5	1	Unknown	254nm	1997/9/17 下午 05:24:0	4	2002/10/29 上午 11:01:43	Training_1029	
28	PQ Unk. 4	7	1	Unknown	254nm	1997/9/17 下午 05:37:5	6	2002/10/29 上午 11:01:43	Training_1029	
29	PQ Unk. 3	6	1	Unknown	254nm	1997/9/17 下午 05:30:5	9	2002/10/29 上午 11:01:43	Training_1029	
30	PQ Std 5.0x	2	1	Standard	254nm	1997/9/17 下午 05:03:1-	4	2002/10/29 上午 11:01:42	Training_1029	
24	00.0440	<u> </u>	4	lot	054	ADDITION TO TA DEMONS	~		Tueieien 4000	
For	For Help, press F1 39 Selected									

2. 在 Use the following Report Method 選擇所需要的報告方法,再按 OK 即可。

Open Report Method 🛛 🤶 🔀					
Please select the Report Method that you would like to use to preview the data that you have selected:					
🔿 Use the Report Method Default Individual Report in the acquisition Method Set LC Demo Method Set.					
C Uge the Report Method named Default.					
○ Use a Report Method that was generated to be appropriate for the selected data.					
• Use the following Report Method: Default Individual Report					
○ Use the <u>c</u> urrently open Report Method named 未命名標題.					
OK Cancel Help					

3. 即可預覽列印報告。若要預覽下一份層析報告,請按 Next Report;若要列印報告請按 Print。


# 第十一章 備份資料夾

(Backup Project)

1. 在 Empower 的 Pro 介面中,將滑鼠指在【Configure System】框框中,按一下進入。

E Empower Pro		
LOGIN LOGOUT RBOUT HELP	User: System DB: Local	
<b>Run Samples</b>	Browse Project	Configure System
Process Data	Review Data	Print Data

2. 進入畫面之後·將滑鼠指在右邊欄位中您預備份的資料夾·將此反黑(您可以一次選擇好 幾個 project 同時進行備份)·再按一下右鍵·選擇【Back up】。

System/Administrator - Configuration Elle Edit View Records Tools Help	Ma	anager				<u>×</u>	
Filter Default		Edit View U	pdate				
🖃 🖶 Empower Configuration	6	Name	Owner	Create Date	Full Audit Trail Locke	d	
Projects	1	Defaults	system	2002/8/14 下午 03:02:35		Default project	
Acquisition Servers	2	GPC	System	2002/9/9 下午 02:45:50			
+ Vibraries	3	LC_Right_on_Time	System	2002/8/19 下午 04:43:39		For the New Product S	
🖉 Users	4	LT	System	2002/8/14 下午 03:58:09		2002.05.30	
👷 User Groups	5	Parabens	System	2002/12/25 上午 10:47:04			
Plate Types	6	TEST	System	2003/1/9 上午 11:08:30	Open	13/01/09 Set Up	
System Audit Trail	7	TVV_power	System	2002/8/14 下午 03:58:4	Update Statistics	2.5.22_test_sampl	
offline System Audit Trail	8	TVV_salt	System	2002/8/14 下午 04:00::	Backup Project		
Project Archives	9	User_Huang	System	2002/8/14 下午 03:57:4	Restore Project(s)	eze+RI spectrum	
Offline Project Archives	Г				Delete		
Offline Sample Archives	Г				New		
-	Г				Move Project Data		
	Г				Unlock Project		
	Г				Lock Project		
	Г				Manual <u>A</u> rchive		
					Create Sample Archive	es 📃	
					Eroperaes		
					⊆opy		
	•				<u>H</u> ide Column	•	
For Help, press F1					Show All Columns		

若資料夾備份有選到母資料夾會有以下畫面,若欲備份母資料夾中的子資料夾則選擇
 【是】;只想備份母資料夾請選擇【否】。



在此畫面下,您可以再次確認欄位中出現的資料夾是否是您欲備份的,若正確請按【下一步】。

Backup Project Wizard -	Comment Entry	×
	You have elected to backup project(s)          Defaults       Image: Constraint of the second sec	
	<上一步(E) 下一步(E) > 取消 説明	

5. 按【Browse】·在這裡選擇您欲存放的磁碟機位置·選擇完後按【下一步】。



瀏覽資料夾	? ×	
Please select the destination for the backup files.		
E Contactoria		按卜 Browse 鍵·即會出現此畫面·冉
⊞		從這裡選擇磁碟機路徑。
HI32 project HI32 project Newsletter		
· ⊡ Pre_sales · ⊡ RECYCLER		
E Software		
□ System volume information □ Tai_Power □ 小短片	-	
確定	取消	

6. 電腦會開始執行備份資料,當備份完畢,會出現【completed successfully】,此時再按下一步。

Backup Project Wizard - E	Backup Display	<u>? ×</u>
	<ul> <li>exporting snapshot logs</li> <li>exporting job queues</li> <li>exporting refresh groups and children</li> <li>exporting dimensions</li> <li>exporting post-schema procedural objects a</li> <li>exporting statistics</li> <li>Export terminated successfully without warns</li> </ul>	ar. ir.
	The export completed successfully, but no da	at
	•	Þ.
	<上一步(B) 下一步(D) > 取消 說	明

7. 最後按下完成即可。



8. 檢查 Backup 過程中是否有錯誤訊息產生

Defoultr						I 🖬 🔀
植菜田 植粉色 检视仪 我的最爱	(山) 工具(1) 説明(11)					1
G == X + 🕤 - 🗗 🔎 B	戦争 😥 資料夾 🔛 -					
Hith The Carp	A TOD A - N					
C Documents and Settingridents	(e) Bly Leisans	Calculate 1 1				A PAR
PERMIT N	6號 ~	大小	8422	1942 1943		
SAZAHXII O	i beckup.log	5 KB	文手文件	2010/10/1 16:11		
	all/3.det	JEB I	AI 個來	2009/3/24 11:48		
其他位置	all // det	35.8 1	JAI 福美	2009/3/24 11:48		
(3. 6Th	allou det	JEB I	JAI 檔案	2009/0/24 11:48		
G MIN	21183 fail	388 1	JAT 檔案	2009/3/24 11:48		
100921#	1100.0at	3 KB 1	JA1 檔案	2009/3/24 11:48		
發表的電話	2 d1189.dat	3 KB I	DAT 檔案	2009/3/24 11:48		
43 第56上的完成	i d1192.dat	3 KB I	DAI檔案	2009/3/24 11:48		
		SKB I	DAI檔案	2009/5/21 15:33		
and the second	i d2436.dat	24 KB I	DAT檔案	2009/5/21 15:33		
法制法封 余	a d2683.dat	39 KB I	DAI檔案	2009/12/7 14:57		
	i d2852 dat	24 KB I	DAT檔案	2009/12/21 9:28		
	司 d2072.dat	29 KB I	DAT檔案	2009/12/31 10:29		
	10,1 d2876.dat 10,1	936 KB I	DAT 檔案	2009/12/31 10:29		
	₫ d2880.dat	29 KB I	DAT檔案	2009/12/31 10:29		
	nd d2004.dat 10,1	017 KB I	DAT檔案	2009/12/31 10:29		
	i d2971 det	24 KB I	DAT 檔案	2010/2/1 12:41		
	nd d2975.dat	24 KB I	DAT 檔案	2010/2/1 12:41		
	d2992.dat 6;	275 KB I	DAT 檔案	2010/2/11 4:26		
	ad d2996 dat 15,0	011 KB I	DAT 檔案	2010/2/11 4:26		
	rt d3000 dat	17 KB I	DAT 檔案	2010/2/11 4:25		
	3 d 3004 dat	24 KB I	DAT 檔案	2010/2/11 4:26		
	₩ 43008.4mt 7.	704 KB I	DAT WWW	2010/2/11 4:26		
	ad 3012 dat 14,1	096 KB I	DAT 檔案	2010/2/11 4 26		
	3 d 3016 dat	16 KB I	DATAS	2010/2/11 4:25		
	=3.4.3020 Aut 64	007 KB I	DATAST	2010/2/11 4 26		
	ad 3024 dat 14.	901 KB I	ATAS	2010/2/11 4:26		
	H 43029 Au	17 KB I	DAT 40 T	2010/2/11 4:25		
	Default: EXP 261	RONKE F	YP ROT	2010/10/1 16:11		
	Default INF	IND 3	TAP 17 10	2010/10/1 16:11		
	S Defaulte EVP CV2	280 0	100 BONE	2010/10/1 16:12		
	B Defealty DVE CV2	280 0	100 100	2010/10/1 16:12		
	Deniest Internity but	AVD	or statutor de	2010/10/1 16:12		
	C train Crankbull og	Gar.	ATAIT.	2010/10/1 10:12		
	🖸 🗇 🦈 🥥 Regle	E Enpo	(a) Reap	All System	Empower2 Backup	- 8 C C C C C C C C C C C C C C C C C C
		No.	Contraction of the second	Contraction of the local sectors of the local secto		

9. 打開 Backup.log 檔案,出現"Export terminated successfully without warnings."表示備份成功。

ackup.log - 記事本			
(F) 編輯(E) 格式(Q) 檢親(Y)	說明任)		
. exporting table	METHOD	243 rows exported	
. exporting table	MILLDATABASEVERSION	1 rows exported	
. exporting table	PEAK	309 rows exported	
. exporting table	PEAKGPC	0 rows exported	
. exporting table	PEAKGPCU	0 rows exported	
. exporting table	PEAKMS	0 rows exported	
. exporting table	PEAKPDA	0 rows exported	
. exporting table	PREFERENCES	306 rows exported	
. exporting table	PROJECTINTEGRITY	5 rows exported	
. exporting table	REGION	0 rows exported	
. exporting table	REPORTS	0 rows exported	
. exporting table	RESULT	71 rows exported	
. exporting table	RESULTSET	5 rows exported	
. exporting table	ROBUSTNESSRESULT	0 rows exported	
. exporting table	SAMPLESET	3 rows exported	
. exporting table	SAMPLESETRECORDING	0 rows exported	
. exporting table	SIGNOFF	0 rows exported	
exporting table	STUDYUTEWAS	8 rows exported	
exporting table	SUITPEAK	281 rows exported	
exporting table	UAL TRATIONSTURY	8 rows exported	
exporting table	IIII TESTRATA	8 rows exported	
exporting table	IIAI TESTRESIII T	8 rows exported	
exporting table	UTAL	69 rows exported	
exporting table	UTEMETLITER	65 rows exported	
exporting table	UTENTENDIDE	8 nows exported	
. exporting table	01EWIEHF1D3	a rows exported	
exporting synonyns			
exporting views			
exporting stored proced	ures		
exporting operators			
exporting referential i	ntegrity constraints		
exporting triggers			
exporting indextypes	The second s		
exporting bitmap, funct	ional and extensible indexes		
exporting posttables ac	tions		
exporting materialized	views		
exporting snapshot logs			
exporting job queues			
exporting refresh group	s and children		
exporting dimensions			
exporting post-schema p	rocedural objects and actions		
exporting statistics	82		
xport terminated success	fully without warnings.		
		System/Administrator - Configuration Manager	
	a 🕒 📖 🙀 Re 🔂 2 W 🗸	Fill Km Han Swa have Empower's Backup	💼 ? 🎽 候 🎽 🖉 🦉 🌾

第十二章 還原資料夾 ( Restore Project)

1. 在 Empower 的 Pro 介面中,將滑鼠指在【Configure System】框框中,按一下進入。



2. 進入畫面之後,將滑鼠指在右邊的空白處,再按一下右鍵,選擇【Restore Project】。

System/Administrator - Configuration	📲 System/Administrator - Configuration Manager						
<u>File Edit View Records Tools Help</u>							
🥦 💁 💕 💉 🗶 🐧 🛍	3	<b>№?</b>					
				_			
Filter Default	] ]	Edit Vie <u>w</u> U	pdate				
Empower Configuration	6	Name	Owner	Create Date	Open		
Projects	1	Defaults	system	2002/8/14 下午 03:02:3:	Update Statistics	ult project	
Acquisition Servers	2	GPC	System	2002/9/9下午 02:45:50	Backup Project		
Libraries	3	LC_Right_on_Time	System	2002/8/19 下午 04:43:3	Restore Project(s)	he New Product S	
🖉 Users	4	LT	System	2002/8/14 下午 03:58:0	<u>D</u> elete	2.05.30	
👷 User Groups	5	Parabens	System	2002/12/25 上午 10:47:0	New		
Dista Types	6	TEST	System	2003/1/9 上午 11:08:30	Move Project Data	3/01/09 Set Up	
System Audit Trail	7	TVV_power	System	2002/8/14 下午 03:58:4	Unlock Project	2.5.22_test_sample	
🚽 Offline System Audit Trail	8	TVV_salt	System	2002/8/14 下午 04:00:3	Lock Project		
Project Archives	9	User Huang	System	2002/8/14 下午 03:57:4	Manual <u>A</u> rchive	ze+RI spectrum o	
Sample Archives	F				Create Sample Archives	· · ·	
Offline Sample Archives	F				Properties		
on the sample mentres	F				⊆ору	L	
	F				Hide Column		
	F				Show All Columns		
	F				Pri <u>n</u> t Table		
	F				Table P <u>r</u> operties Colu <u>m</u> n Properties		
	L						
	•					•	
For Help, press F1						NUM //	

3. 選擇資料夾的硬碟機存放路徑,再按下一步。



4. 選擇欲存放的母資料夾,再按【OK】。

Select Project	×
Please select the new parent project for project(s). Currently selected project parent:	
CIA_Default Custom_Fields Defaults Defaults Defaults Defaults_FAT Demo Competent Dissolution_Default GC_Default	
OK Cancel Help	

5. 將欲還原的資料夾在【Restore】中打勾,再按【下一步】。

Name       Restore?       Proposed Name       Path       Tablespace Qit         1       Defaults       Image: Defaults_C C: Empower/Projects       Image: Defaults_FAT	Res	tore Project(s)	Wizard - S	Set Project Para	meters	
1       Defaults       Image: Contemporal content of the projects         2       Defaults_FAT       Image: Content of the projects         3       demo       Image: Content of the projects         4       demo\TEST       Image: Content of the projects         4       demo\TEST       Image: Content of the projects         5       demo\TEST2       Image: Content of the projects         6       TEST1211       Image: Content of the projects         4       Carefully check all columns for all projects to be restored. Note that if a project being restored already exists in this database, Empower will propose a new name for the restored version of the project. You may alter the restored projects tablespace quotas and some of the audit trail settings of older restored projects.         Note that if you decide that you want to skip restoring any of the selected projects, you may simply uncheck the Restore? checkbox.	6	Name	Restore?	Proposed Name	Path	Tablespace QL
2       Defaults_FAT       Image: Defaults_FAT1       C: VEmpower/Projects         3       demo       Image: demo1       C: VEmpower/Projects         4       demo/TEST       Image: demo1/TEST       C: VEmpower/Projects         5       demo/TEST2       Image: demo1/TEST2       C: VEmpower/Projects         6       TEST1211       Image: TEST1211       C: VEmpower/Projects         Image: Carefully check all columns for all projects to be restored. Note that if a project being restored already exists in this database, Empower will propose a new name for the restored version of the project.         You may alter the restored projects tablespace quotas and some of the audit trail settings of older restored projects.         Note that if you decide that you want to skip restoring any of the selected projects, you may simply uncheck the Restore? checkbox.	1	Defaults		Defaults2	C:\Empower\Projects	
3       demo       Image: Constraint of the selected projects         4       demo\TEST       Image: Constraint of the selected projects         5       demo\TEST2       Image: Constraint of the selected projects         6       TEST1211       Image: Constraint of the selected project of the select o	2	Defaults_FAT	•	Defaults_FAT1	C:\Empower\Projects	
4       demo\TEST       Image: demo1\TEST       C:\Empower\Projects         5       demo\TEST2       Image: demo1\TEST2       C:\Empower\Projects         6       TEST1211       Image: TEST1211       C:\Empower\Projects         4       Carefully check all columns for all projects to be restored. Note that if a project being restored already exists in this database, Empower will propose a new name for the restored version of the project.         You may alter the restored projects tablespace quotas and some of the audit trail settings of older restored projects.         Note that if you decide that you want to skip restoring any of the selected projects, you may simply uncheck the Restore? checkbox.	3	demo	•	demo1	C:\Empower\Projects	
5       demo\TEST2       Image: demot\TEST2       C:\Empower\Projects         6       TEST1211       Image: TEST1211       C:\Empower\Projects         Image: demote the set of the se	4	demo\TEST	•	demo1\TEST	C:\Empower\Projects	
6       TEST1211       TEST1211       C:VEmpower/Projects         Image: Carefully check all columns for all projects to be restored. Note that if a project being restored already exists in this database, Empower will propose a new name for the restored version of the project. You may alter the restored projects tablespace quotas and some of the audit trail settings of older restored projects.         Note that if you decide that you want to skip restoring any of the selected projects, you may simply uncheck the Restore? checkbox.	5	demo\TEST2	•	demo1\TEST2	C:\Empower\Projects	
Carefully check all columns for all projects to be restored. Note that if a project being restored already exists in this database, Empower will propose a new name for the restored version of the project. You may alter the restored projects tablespace quotas and some of the audit trail settings of older restored projects. Note that if you decide that you want to skip restoring any of the selected projects, you may simply uncheck the Restore? checkbox.	6	TEST1211	•	TEST1211	C:\Empower\Projects	<b>_</b>
	Ca exi Yo pro No un	refully check all co ists in this database u may alter the res ojects. te that if you decid check the Restore?	olumns for ; , Empower stored proje le that you 'checkbox.	all projects to be re will propose a new cts tablespace quot want to skip restor	estored. Note that if a project being and for the restored version of t as and some of the audit trail settin ing any of the selected projects, yo	restored already he project. gs of older restored u may simply

6. 此時電腦開始執行還原動作,當系統做完時,會出現 files were copied successfully,此 時再按【完成】鍵。

importing table importing table Import terminated successfully wit	"VIEWFILI A "VIEWTEMPI hout warnings
Copied file D:\M32_PR~1\PARABE~1\d Copied file D:\M32_PR~1\PARABE~1\d	11035.dat to ( 11039.dat to ( 11043.dat to ( 11047.dat to ( 11051.dat to ( 11055.dat to ( 11059.dat to (
A total of 8 files were copied suc	cessfully. ▼

附錄一

## PCM/2414 儀器方法設定

1. 進入 Empower 【 Pro 】 的主畫面。



2. 左邊欄位中選擇欲使用之 Project 名稱,右邊欄位中選擇欲使用的系統,選完後按【OK】。

Run Samples		<u>? ×</u>
Project in which to acquire data: <b>Defaults</b> GPC LC_Right_on_Time LT parabens TEST TW_power TW_salt User_Huang	Use Run Samples' to run new samples at your Empower Workstation. Select the desired project and system from the displayed lists. When in the Run Samples Window, use the system control panel to equilibrate your system, or use the Sample Set Wizard to lead you through the process of creating a Sample Set to be run on the system.	Chromatographic Systems 2690 996 600 717 2487 717_2487_1525
		Use QuickStart Use Open Access

3. 在 Edit 選單中選取【New Method Set..】。

2	590_996 in Defau	lts as Syst	em/Adminis	trator - R	un Sample	25								
Eile	Edit View Inject	<u>A</u> ctions	<u>C</u> ustomize <u>D</u> i	iagnostics	Help		1 • 1	- 1						
ľ	Open Method Se	et		— Ū		XB		<u></u>	Run Only	•	Contin	ue on Fault	•	
	Instrument Meth	nod												
<b>⊗</b> ∨i	New Sample Set Op <u>e</u> n Sample Se	Method Ten t Method Te	nplate mplate											
	<u>A</u> mounts Sample Set Info Dissolution G⊆ Sample Set I	 nfo												
	Plates					1								
⊢	Alter <u>R</u> unning Sa	ample												
H	Cut		Ctr	1+X		-1								
	<u>C</u> opy <u>P</u> aste		Ctr	1+C		1								
<u> </u>						-1								
		+				-11								
						1								
		_				-11								
						-11								
┫┢	🖌 Sample Sets λ	Running /			ŀ									
Tem	.perature (°C)	Flow (ml/	min) 🛋	Pressure (	<u>ipsi)</u> ]]	Instrument M Edit	ethod:	Monitor	Setup					
Creat	e a new method set			Sys	tem Idle - I	nstrument Fa	ailure		TEST		<b>)</b> #	¥#	$\Theta$	11.

4. 按【是】鍵,選擇使用精靈完成 Method Set 的製作。

Run Samp	les 🗙
⚠	Use the wizard to create this new method set?
	<u>〔是(♡)</u> 否(№ 取消

5. 建立新的儀器方法(Instrument Method) · 按【Create New】。

New Method Set : Select I	nstrument Method	<u>?</u> ×
	Please select the instrument method which is relevant to the data you will be using with this method set.	
	<上一步(B) 下一步(A) > 取消	說明

6. 出現【Instrument Method Editor】視窗, 視窗上方列出所使用之儀器型號。

File	n <mark>titled</mark> <u>E</u> dit	<mark>in Defaul</mark> ∛iew <u>H</u> elı	ts as Systen )	/Administr	ator - Inst	rument M	ethod Editor		<u>-                                    </u>
	<b>6</b>	I <u>1</u> ×	PCM/15	XX SATA			22790/5	474	
F	Flow	Events	Solvents						<u>*</u>
	– Pump	) Settings — I E	ump Enable	H	igh Pressure ow Pressure	Limit: 400 Limit: 0.0	00.0		
	- Progr	ammed Flo	w Pump	<u>M</u> ode: <mark>Grad</mark>	ient 📘	·			
	6	Time	Flow	%A	%В	%C	Curve		
	1		1.00	100.0	0.0	0.0			
									_
					1	1			<b>▼</b>
Ready									

### PCM

在【Flow】畫面中

Pressure Limit:系統壓力上限值(High Limit):可設定 Column 所能承擔的最高壓力值 下限值(Low Limit):設定大於 0,避免溶劑流空氣泡進入系

統中

### **Programmed Flow :**

Pump Mode:溶劑比率不隨時間改變(Isocratic)或溶劑比率隨時間改變(Gradient)

Accelerate:流速增加至 10mLl/min · 所需要的時間

Gradient 表格中 Curve 所表示的意義如下如所示



在【Events】畫面中可外控其他裝置的開或關。

🔁 Untit	tled in De	faults as Sys	tem/Administra	ator - Inst	rument Meti	hod Editor	
<u>File E</u> d	lit <u>V</u> iew	Help					
			1/15xx SATA			90/5 W474	
Flor	W Even	ts Solvents					
			E <u>n</u> able Events				
	😚 Time	Event	Function	Interval	Comments	]	
	1 0.00	Event 1 🔻	Off			1	
		i –				1	
						1	
		+	1			· .	<b>_</b>
Ready							11.

在【Solvent】畫面中,註明溶劑的種類

### 2414 / 2410 RI 偵測器

在【General】畫面下

Dutitled in Defaults as System/Administrator - Instrument Method Editor	
General Temperature	
Channel Settings Channel Name: 410	
Description:	
Sampling Rate: 1 Unit Label: mV	
Filter Time: 1.0 💌 Sensitivity: 4	
Polarity: + 💌 🖾 Auto Zero at tO	
	•
Ready	11.

Description: 輸入敘述說明.

Sampling Rate: 採點的速率(ex:2). Unit Label: 層析圖譜 Y 軸的單位(mV 和 DelRIU) Filter Time: 過濾雜訊的能力,設定值越大過濾能力越強. Sensitivity: 訊號的大小,設定值越大訊號越強;相對雜訊也越強 Polarity: + 或 -. Auto Zero at t<sub>0</sub>:請打勾

在【Temperature】畫面下

Internal Temp Enable : 偵測器內部溫度設定,請打勾. Internal Temperature: 內部溫度設定值(30-50℃) External Temp1 and 2 Enable : Column 的溫度設定,請打勾. External Temp1and 2 : Column 的溫度設定值(室溫~150℃).

🖬 Untitled in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
D C R         R <td></td>	
General Temperature	<b>_</b>
_ Internal Heater	
✓ Internal Temp Enable Internal Temperature: 30.0	
External Heater 1	
External Temp1 Enable External Temp 1: 0.0	
External Heater 2	
External Temp <u>2</u> Enable Exter <u>n</u> al Temp 2: 0.0	
	- -
Ready	

7. 所有儀器之分析條件皆設定完成後。進入 File→ Save As(另存新檔)。

🔓 未命名標題 in Defaults as System/Administrator - Instrument Method Editor
<u>File</u> Edit <u>V</u> iew <u>H</u> elp
New         Ctrl+N           Open         Ctrl+O           Save         Ctrl+S           Save As         W2487
Exit
General   Channel 1   Channel 2   Analog A   Analog B Events
Threshold Events Periods
Channel 1 : Absorbance A (Ch1)
Enable Threshold: 1.0000
Event: Switch 1 - Function: Off
Channel 2 : Absorbance A (Ch1) Pulse:
Enable Threshold: 1.0000
Event Switch 1 V Function: Off V
Timed Events
🖆 Time Event Channel Value Function Co 🔺
1 0.00 Lamp Off
2 2.00 Wavelength Channel A 230.00000
3 5.00 Wavelength Channel A 280.0000
4 8.0) Auto Zero Channel A
Save the active document with a new name

8. 輸入 Instrument Method 名稱, 再按 Save 鍵。

Save current Instrument Method	d 🔀
N <u>a</u> mes:	
Alliance	
Name: TEST	
Home. [1101	
	<u>Save</u> Cancel <u>H</u> elp

9. 再進入 File→ Exit。

■ 未命名標題 in Defaults as System/Administrator - Instrument Method Editor File Edit View Help	
New         Ctrl+N           Open         Ctrl+O           Save         Ctrl+S           Save As         W2690/5	
Exit General Events Channel 1 Channel 2	-
Absorbance Mode Settings	
Output Mode: Absorbance 🗨 Bandwidth: 4.8 💌	
Output Wavelength: 254.0 Offset: 0.000	
Ratio Mode Settings	
Ratio Wavelength: 254.0 Ratio Threshold: 0.001	
Ratio 0.001 Ratio 100.000	
Filter Settings	
Filter Type: Hamming Filter Response: 0	
	1.

10. 按【下一步】鍵,。

New Method Set : Select I	nstrument Method	<u>? ×</u>
2 1 2 3 3 2 3 1 2 3 1 2 3 1 2 3 1 3 1 2 3 1 2 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	Please select the instrument method which is relevant to the data you will be using with this method set. 2695_996 11981 Create New	
	<上一步(B) 下一步(B) 取消	說明

11. 此時暫不設定 Processing Method (積分方法)與 Report Method (報告方法) · 按【下 一步】鍵。

Select Default Methods		<u>?</u> ×
	Choose methods for processing, reporting, and exporting channels. Processing Method: (No Processing) Derived channels will not be available (you must process in order to derive channels) Report Method: (No Reporting) Export Method: (No Exporting)	Edit
	<上一步(B) 下一步(M) > 取消	

12. 輸入方法組名稱,再按 【完成】鍵。

Name Method Set	<u>?×</u>
A method Name: EST Default Comments: Comments:	
<上一步(B) 完成 取消 說明	1

13. 進入 File→Exit。回到 "Run Samples" 畫面。

TEST - Method Set Editor				×
☐ — Method Set ⊕ — A Data Channels — A Derived Channels	Instrume Default Processi Default Repo Channel Name	nt Method TEST ag Method vit Method Processing Method	Report Method	Edit Edit Edit
The Male surge Fi	Expo PDA 3D Blank S F	tt Method ubtraction Seve Extracted Channels Delete 3D Channel After :	Extraction	

附錄二

### e2695/2465 儀器方法設定

1. 進入 Empower 【 Pro 】 的主畫面。



2. 左邊欄位中選擇欲使用之 Project 名稱,右邊欄位中選擇欲使用的系統,選完後按【OK】。

Run Samples		<u>? ×</u>
Project in which to acquire data: <b>Defaults</b> GPC LC_Right_on_Time LT parabens TEST TW_power TW_salt User_Huang	Use Run Samples' to run new samples at your Empower Workstation. Select the desired project and system from the displayed lists. When in the Run Samples Window, use the system control panel to equilibrate your system, or use the Sample Set Wizard to lead you through the process of creating a Sample Set to be run on the system.	Chromatographic Systems 2690 996 600 717 2487 717_2487_1525
		Use QuickStart Use Open Access

3. 在 Edit 選單中選取【New Method Set..】。

2	590_996 in Defau	lts as Syst	em/Adminis	trator - R	un Sample	25								
Eile	Edit View Inject	<u>A</u> ctions	<u>C</u> ustomize <u>D</u> i	iagnostics	Help		1 • 1	- 1						
ľ	Open Method Se	et		— Ū		XB		<u></u>	Run Only	•	Contin	ue on Fault	•	
	Instrument Meth	nod												
<b>⊗</b> ∨i	New Sample Set Op <u>e</u> n Sample Se	Method Ten t Method Te	nplate mplate											
	<u>A</u> mounts Sample Set Info Dissolution G⊆ Sample Set I	 nfo												
	Plates					1								
⊢	Alter <u>R</u> unning Sa	ample												
H	Cut		Ctr	1+X		-1								
	<u>C</u> opy <u>P</u> aste		Ctr	1+C		1								
<u> </u>						-1								
		+				-11								
						1								
		_				-11								
						-11								
┫┢	🖌 Sample Sets λ	Running /			ŀ									
Tem	perature (°C)	Flow (ml/	min) 🛋	Pressure (	<u>ipsi)</u> ]]	Instrument M Edit	ethod:	Monitor	Setup					
Creat	e a new method set			Sys	tem Idle - I	nstrument Fa	ailure		TEST		<b>)</b> #	¥#	$\Theta$	11.

4. 按【是】鍵,選擇使用精靈完成 Method Set 的製作。

Run Samp	iles 🗙
⚠	Use the wizard to create this new method set?
	<u>是(1)</u> 否(11) 取消

5. 建立新的儀器方法(Instrument Method) · 按【Create New】。

New Method Set : Select Ir	nstrument Method	<u>? ×</u>
	Please select the instrument method which is relevant to the data you will be using with this method set. 2695 996 Create New	
	<上一步(B) 下一步(B) 取消	說明

6. 出現【Instrument Method Editor】視窗, 視窗上方列出所使用之儀器型號。

Fi	未ī le	命名標題 in Defaults as S Edit View Help	ystem/Administrator - Instrument Method Editor	
	וב		00/5 W2996	
	G	eneral Degas   Events   F	low   Temperature   Solvents   Channel	<b>^</b>
		—General System Parameters —		
		<u>S</u> troke Volume	50uL (flow rates <= 1.23 mL/mig	
		Syringe Draw Rate(uL/sec)	Normal 💌 Pre Column Volume 0.0	
		Depth Of Needle(mm)	0.0 Chart Out %A	
		Column	No Change 💌 Needle Wash Time Normal 💌	
		<u>Equilibration</u> Time	0.00	
•				• •
Re	ady			11.

## 2690/2695 (Alliance System)

在【General】畫面下	
Stroke Volume :	請根據實驗的流速(Flow Rate)作設定
	Flow Rate < 0.53 mL/min · 選擇 25uL
	Flow Rate < 1.23 mL/min · 選擇 50 uL
	Flow Rate < 3.030 mL/min · 選擇 100 uL
	Flow Rate < 10.00 mL/min · 選擇 130 uL
Bubble Detect :	請打勾·儀器會自動偵測氣泡。
Syringe Draw Rate	<b>e (uL/sec)</b> :根據樣品的黏稠度選擇抽樣的速度(Fast : 5 uL /sec;
	Normal : 2.5 uL /sec ; Slow $\pm$ 1 uL /sec) $\circ$
Pre Column Volun	ne (uL): 0.0 ·
Depth Of Needle (	[ <b>mm]</b> :取樣針離樣品瓶瓶底的距離‧根據實際實驗作設定。
<b>Chart Out</b> :若有線	上監測器可直接監控以下的參數。
<b>Column</b> :若有Col	umn 選擇器,可選擇 Column 的位置。

**Needle Wash Time**: 清洗外部取樣針的時間,可根據實際樣品的潔淨程度做選擇 (Normal、Double、Extended)。

### 在【Degas】畫面下

使用 He 作為 degas · 在 Reservoirs to Sparge(mL/min): 輸入 He 的除氣速率(ex:30) 使用 Degasser 作為 degas · 在 Degas Mode 選擇【ON】。

🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
General Degas   Events   Flow   Temperature   Solvents   Channel	<u>^</u>
Sparge	
Reservoirs to Sparge (mL/min) A D B 0.0 C 0.0 D 0.0	
Degas <u>M</u> ode Off	
	► ▲ L
Ready	11.

在【Events】畫面中可外控其他裝置的開或關。

➡未命名標題 in File Edit Wiene	n Defaults as Sy Help	stem/Administrator	- Instrum	ent Method E	ditor	_ 🗆 🗵
		V5 W2996				
General Deg	as Events Flo	w Temperature S	olvents   C	hannel ]		-
Event Initia Enable Switch No Chang	al States • Events 1 Switc: ge  No Chan	h <u>2</u> Switch <u>2</u> ge 💽 No Change	e No	Switch <u>4</u> O Change 💽		
Programme	ed Events				_	
🙁 Tim	e Event	Function	Value	Comments		
	· ·					_
4 Ready						

### 在【Flow】畫面中

Pressure Limit:系統壓力上限值(High Limit):可設定 Column 所能承擔的最高壓力值 下限值(Low Limit):設定大於 0,避免溶劑流空氣泡進入系統中

### **Programmed Flow :**

Pump Mode:溶劑比率不隨時間改變(Isocratic)或溶劑比率隨時間改變(Gradient) Accelerate:流速增加至 10mLl/min · 所需要的時間

<mark>。</mark> 未 File	命名 Edit	標題 in De View Hel	efaults as Sy 10	stem/Admi	nistrator -	Instrume	nt Method	Editor		<u>-                                    </u>
	- 2/1			) N5 W29	<b></b> 96					
G	enerə — Pre:	l   Degas   ssure Limits-	Events Flo	ow Temp	perature   S	olvents   Cl	nammel			<u> </u>
	Hig - Pro Pui	gh Limit grammed Fla mp Mode 🚺	4000.0		w Limit elerate to 10	0.0 0.0 mL/min min (5	in: 00 mL/min	/min)		
	6	- ımı Time	Flow	* , %A	%В	%C	%D	Curve	1	
	1		1.00	100.0	0.0	0.0	0.0			
	-									
										┛
Ready										

Gradient 表格中 Curve 所表示的意義如下如所示



### 在【Temperature】畫面中

Column Temperature:設定 Column 的溫度(室溫~65℃);若為 Cooler (4~65℃) Sample Temperature:設定樣品存放的溫度(4~40℃)

<mark>書</mark> 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View Help</u>	
General       Degas       Events       Flow       Temperature         Column Temperature	
Sample Temperature Sample Temperature (Enable/Disable)	
Sample Temperature -1.0 Sample 5.0 Target (degrees C) Range (Plus/Minus degrees C)	
Ready	

### 在【Solvent】畫面中,註明溶劑的種類

<mark>。未命名標題 in D</mark> e ïle <u>E</u> dit <u>V</u> iew <u>H</u> e	efaults as System/Administrator - Instrument Method Editor slp	_ 🗆 ×
	× W2690/5 W2996	
General Degas	Events Flow Temperature Solvents Channel	
_Solvent Descrip	ptions	
Solvent <u>A</u>	×	
Solvent <u>B</u>		
Solvent <u>C</u>		
Solvent <u>D</u>		

在【Channel】畫面中, 若儀器產生問題可線上監控以下儀器參數並將參數儲存至資料夾中

🖥 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
General   Degas   Events   Flow   Temperature   Solvents Channel	<u> </u>
Channel Settings	
Enable Channel	
Channel Name : 2690/5 - System Pressure	
Description	
Permutative Maniferry Personal and	
Tarameter in territion Polytem Lieszme	
	<b>_</b>
<u> ۱</u>	
Ready	//

#### 2465 偵測器

在【General】畫面下

Mode: 可選擇 DC、Pulse 及 Scan 三種

### 若選擇【DC Mode】

Potential: 設定電壓(Ec),單位為 Volts。

Enable Oven: 若有 Colum 請溫度設定請√在下方設定所需溫度。

Polarity: 可選擇 Positive 或 Negative

Time Constant:設定值愈大表示過濾雜訊能力越強。

Data Rate: 採點的速率(ex: 1.0), 若分析時間低於 5min, 建議增加採點速率至 5 或 10。

Range: 設定層析圖的 Y 軸最大單位(200μA~10pA)

Range Offset:零點的位置是在Y軸最大單位的幾%,內定值為O。

Enable Cell: 若要執行實驗請√,沒有進行實驗將√取消,以保護 Cell 增加其使用壽命。 Compensation On: 若√儀器會自動歸零。

🔁 Catecholamine_100nA in Waters as System/Administrator - Instrument Method Editor	
<u>File E</u> dit <u>V</u> iew <u>H</u> elp	
General Events	-
Mode:       Potential         Image:       Ec (volts)         35       "C         Polarity:       Positive         Positive       Range:         Time Constant:       50 nA         10       sec         Range Offset:       0         0       % of Range         Data Rate:       5         5       points/sec         Enable Cell       Compensation On	
Ready	

若選擇【Pulse Mode】大部分應用於 Carbohydrates

PAD Potential: 設定 E1、E2、E3 及 t1、t2、t3。

E1、t1:主要是測定(measurement)、收資料(Data)。

E2、t2:主要是清潔(Cleaning) Working electrode,通常會設定比較高的電壓。

E3、t3:主要是平衡(Condition) electrode,通常會設定負的電壓。

Sampling Rate(ts): 採點的速率(ex: 100 msec), t1-ts 為穩定的時間(Stabilization

time)

Enable Oven: 若有 Colum 請溫度設定請√在下方設定所需溫度。

Polarity: 可選擇 Positive 或 Negative

Time Constant:設定值愈大表示過濾雜訊能力越強。

Range: 設定層析圖的 Y 軸最大單位(200µA~10nA)

Range Offset:零點的位置是在Y軸最大單位的幾%,內定值為O。

Enable Cell: 若要執行實驗請√·沒有進行實驗將√取消,以保護 Cell 增加其使用壽命。 Compensation On: 若√儀器會自動歸零。

Catecholamine_100nA in Waters as System/Administrator - Instrument Method Editor	
<u>File Edit V</u> iew <u>H</u> elp	
General Events	
Mode:PAD Potential E (volts) t (msec)Sampling Time: $\overrightarrow{v}$ Enable Oven1 $+0.10$ $300$ $1$ $35$ Polarity:2 $+0.80$ $300$ $1$ $7$ Polarity: $3$ $-0.60$ $300$ $1$ $7$ Positive $\overrightarrow{v}$ Range: $1$ $1$ $1.0$ $\sec$ $50$ nA $\overrightarrow{v}$ $1$ $1.0$ $\sec$ $70$ frame $1$ $1$ $1.0$ $\sec$ $60$ frame $1$ $1.0$ $\sec$ $70$ frame $1.0$ $\sec$ $70$ frame $1.0$ $\sec$ $10$ $1.0$ $10$ $10$ $1.0$ $10$ $10$ $1.0$ $10$ $10$ $1.0$ $10$ $10$ $1.0$ <	
Comment	
	_
Ready	

#### 若選擇【Scan Mode】

Potential: E1 為起始電壓設定值, E2 為最後電壓設定值

Sampling Rate(ts): 採點的速率(ex: 100 msec) · t1-ts 為穩定的時間(Stabilization time)

Enable Oven: 若有 Colum 請溫度設定請√在下方設定所需溫度。

Scan Rate:可設定每秒掃多少mV (1~50mV/sec),內設值為 5mV。

Range: 設定層析圖的 Y 軸最大單位(200µA~10nA)

Range Offset:零點的位置是在Y軸最大單位的幾%,內定值為0。

Enable Cell: 若要執行實驗請√,沒有進行實驗將√取消,以保護 Cell 增加其使用壽命。

Catecholamine_100nA in Waters as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
General Events	<u> </u>
Mode:       Potential       Scan Rate:         Image:       Image:       Image:         Source       Source       Min Runtime for a Full Cycle:         Polarity:       Range:       Source         Data Rate:       Source       Range:         Image:       Source       Range:         Image:       Source       Range         Image:       Source       Source         Image:       Image       Source         Image:       Image	
Comment	
1	
Ready	

## 在【Event】畫面下

無須設定任何參數。

Catecholamine_100nA	in Waters as System/	Administrator - Instru	ament Method Editor	
<u>File E</u> dit <u>V</u> iew <u>H</u> elp				
	W2690/5			
General Events				-
Initial Switch States				
Relay1: Open	<ul> <li>AUX1: High</li> </ul>	•		
Relav2: Open	AUX2: TEAL			
Tronger  Open	- High			
Enable Timed Event	S		_	
Time (min)	Event	Parameter		
1	¢			
3			-	
4	•		-	
5				
6				
			<u>×</u>	
•				
Ready				

7. 所有儀器之分析條件皆設定完成後。進入 File→ Save As(另存新檔)。

🌇 Catecholamine_100nA in Waters as System/Administrator - Instrument Method Editor 📃 🔲	$\mathbf{ imes}$
<u>File</u> <u>E</u> dit <u>V</u> iew <u>H</u> elp	
New         Ctrl+N           Open         Ctrl+O           Save         Ctrl+S           W2690/5         W2465	
Exit General Degas Events Flow Temperature Solvents Channel	-
General System Parameters	
Stroke Volume 100uL (flow rates <= 3 030 mL/r 💌 🔽 Bubble Detect	
Syringe Draw Rate(uL/sec) Fast  Pre Column Volume 0.0	
Depth Of Needle(mm) 0.0 <u>Chart Out</u> %A	
Column No Change Needle Wash Time Normal -	
4	-
Save the active document with a new name	

8. 輸入 Instrument Method 名稱, 再按 Save 鍵。

Save current In:	strument Method	1		×
N <u>a</u> mes:				
Alliance				
<u>N</u> am	e: TEST			
		<u>S</u> ave	Cancel	<u>H</u> elp

9. 將儀器設定畫面關閉。

10. 按【**下一步】**鍵,。

New Method Set : Select I	? ×	
2 3 2 3 1 2 3 2 3 1 2 3 2 3 1 3 1	Please select the instrument method which is relevant to the data you will be using with this method set.	
	<上一步(B) 下一步(B) 取消	

11. 此時暫不設定 Processing 與 Report Method · 按 【下一步】鍵。

Select Default Methods		<u>? ×</u>
	Choose methods for processing, reporting, and exporting channels. Processing Method: (No Processing) Derived channels will not be available (you must process in order to derive channels) Report Method: (No Reporting) Export Method: (No Exporting)	Edit
	<上一步(B) 下一步(M) > 取消 取消	

12. 輸入方法組名稱,再按【完成】鍵。

Name Method Set		? ×
	Method Name: TEST Default Comments: Comments:	
	<上一步(E) 完成 取消 說明	

## 13. 進入 File→Exit。回到 "Run Samples" 畫面。

	•	
IESI - Method Set Editor		×
<u>File Edit View H</u> elp		
□-□> Method Set	Instrument Method TEST	Edit Edit
⊡ – ‰ Data Channels ⊸	Default Report Method	Edit
	Channel Name Processing Method Report Method Channel Name Processi	
	Export Method PDA 3D Blank Subtraction Save Extracted Channels Delete 3D Channel After Extraction	
For Help, press F1		



## e2695/2998/2414 儀器方法設定

1. 進入 Empower 【 Pro 】 的主畫面。



2. 左邊欄位中選擇欲使用之 Project 名稱,右邊欄位中選擇欲使用的系統,選完後按【OK】。

Run Samples		<u>? ×</u>
Project in which to acquire data: Defaults GPC LC_Right_on_Time LT parabene_0109 Parabens TEST TW_power TW_salt User_Huang	Use Run Samples' to run new samples at your Empower Workstation. Select the desired project and system from the displayed lists. When in the Run Samples Window, use the system control panel to equilibrate your system, or use the Sample Set Wizard to lead you through the process of creating a Sample Set to be run on the system.	Chromatographic Systems 2690 996 600 717 2487 717_2487_1525
		Use QuickStart Use Open Access

3. 在 Edit 選單中選取【New Method Set..】。

20	590_996 in Defau	lts as Syste	m/Administrator ·	Run Sample	:5						-OX
Eile	Edit View Inject	. <u>A</u> ctions ⊆	ustomize <u>D</u> iagnosti	s <u>H</u> elp							
ľ	Open Method Se	st					Run Only	Con	ntinue on Fault	•	
	Instrument Meth	nod									
🙁 🗸	New Sample Set Op <u>e</u> n Sample Se	Method Temp t Method Tem	late plate								
	Amounts Sample Set Info. Dissolution GC Sample Set I	 nfo			-						
	Plates										
H	Alter <u>R</u> unning Sa	imple			-1						
Þ	Cu <u>t</u> Gopy		Ctrl+X Ctrl+C								
H-	Paste		Ctrl+V		-1						
					1						
H					-1						
					-1						
H					-1						
	I Sample Sets		1	,							
Tem	perature (°C)	Flow (ml/m	in) ressu	re (psi) I	nstrument Method	l: Monitor	Setup				
Create	e a new method set		:	5ystem Idle - II	nstrument Failure		TEST	<b>)</b> #	<b>*</b> #	$\bigcirc$	11.

4. 按【是】鍵,選擇使用精靈完成 Method Set 的製作。

Run Samp	iles 🗙
⚠	Use the wizard to create this new method set?
	<u>是(1)</u> 否(11) 取消

5. 建立新的儀器方法(Instrument Method) · 按【Create New】。

New Method Set : Select I	nstrument Method	<u>? ×</u>
	Please select the instrument method which is relevant to the data you will be using with this method set.	
	<上一步(B) 下一步(D) 取消	說明

6. 出現【Instrument Method Editor】視窗, 視窗上方列出所使用之儀器型號。

•	未	命名標題 in Defaults as S	ystem/Administrator - Instrument Method Editor	
Fil	e ļ	<u>E</u> dit <u>V</u> iew <u>H</u> elp		
	נ נ		90/5 W2996	
	Ge	eneral Degas Events F	low   Temperature   Solvents   Channel	<b>^</b>
	[	– General System Parameters –		
		<u>S</u> troke Volume	50uL (flow rates <= 1.23 mL/mid 💌 🔽 Bubble Detect	
		Syringe Draw Rate(uL/sec)	Normal Pre Column Volume 0.0	
		Depth Of Needle(mm)	0.0 Chart Out %A	
		Column	No Change 🔽 Needle <u>W</u> ash Time Normal 💌	
		Equilibration Time	0.00	
	L			
				<b>_</b>
⊡				
Rea	dy			11.

### 2690/2695 (Alliance System)

在	【General】畫面下	
	Stroke Volume	:請根據實驗的流速(Flow Rate)作設定
		Flow Rate < 0.53 mL/min  · 選擇 25uL
		Flow Rate < 1.23 mL/min  · 選擇 50 uL
		Flow Rate < 3.030 mL/min · 選擇 100 uL
		Flow Rate < 10.00 mL/min · 選擇 130 uL
	Bubble Detect :	請打勾·儀器會自動偵測氣泡。
	Syringe Draw Rat	:e (uL/sec):根據樣品的黏稠度選擇抽樣的速度(Fast:5 uL /sec;
		Normal : 2.5 uL /sec ; Slow $: 1 \text{ uL /sec}$ ) $^{\circ}$
	Pre Column Volu	me (uL): 0.0 °
	Depth Of Needle	(mm):取樣針離樣品瓶瓶底的距離‧根據實際實驗作設定。
	Chart Out: 若有約	泉上監測器可直接監控以下的參數。
	Column:若有Co	olumn 選擇器,可選擇 Column 的位置。

**Needle Wash Time**: 清洗外部取樣針的時間,可根據實際樣品的潔淨程度做選擇 (Normal、Double、Extended)。

### 在【Degas】畫面下

使用 He 作為 degas,在 Reservoirs to Sparge(mL/min):輸入 He 的除氣速率(ex:30) 使用 Degasser 作為 degas,在 Degas Mode 選擇【ON】。

🖥 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit V</u> iew <u>H</u> elp	
General Degas Events Flow Temperature Solvents Channel	
Sparge	
Reservoirs to Sparge (mL/min) A D B 0.0 C 0.0 D 0.0	
Degas	
Degas <u>M</u> ode Off <u>-</u>	•
Ready	11.

## 在【Events】畫面中可外控其他裝置的開或關。

🔒 未命	お名標題 in :	Defaults as Sy	stem/Administrator	- Instrum	ent Method E	ditor	
<u>File</u>	<u>a</u> dit <u>V</u> iew <u>I</u>	<u>I</u> elp					
	<b>- 1</b>	×	)/5 W2996				
Gei	eneral   Degas Event Initial : Enable E Switch <u>1</u> No Change	Events F States vents Switt	ow Temperature h 2 Switch, nge V No Change	Solvents   C	Channel Switch <u>4</u>		
	Programmed	Events		1			
	😘 lime	Event	Function	Value	Comments		
	_						
	-						
		+					
		+		-			
		1		1			
Ready							11.

### 在【Flow】畫面中

Pressure Limit:系統壓力上限值(High Limit):可設定 Column 所能承擔的最高壓力值 下限值(Low Limit):設定大於 0,避免溶劑流空氣泡進入系統中

### **Programmed Flow** :

Pump Mode:溶劑比率不隨時間改變(Isocratic)或溶劑比率隨時間改變(Gradient) Accelerate:流速增加至 10mLl/min · 所需要的時間

🔁 未命	1名	標題 in De	efaults as Sy	stem/Admin	aistrator -	Instrume	at Method	l Editor		_	
<u>File</u> <u>E</u>	dit	<u>V</u> iew <u>H</u> el	lp.								
	<u> </u>	J <u>(1</u> )	<	W299	96						
Ge	nera	l   Degas	Events Flo	ow Temp	erature   So	olvents   Cł	uannel				<u> </u>
	Pres Hig	sure Limits- zh Limit	4000.0	Lov	v Limit	0.0					
	Pro; <u>P</u> ur	grammed Flo np Mode 🧃	ow	<u>A</u> cc	elerate to 10 )0	0.0 mL/min min ( 5.	in: 00 mL/min	/min)			
	6	Time	Flow	%A	%В	%C	%D	Curve	ו		
	1		1.00	100.0	0.0	0.0	0.0				
									-		
	$\vdash$								-		
	H								-		
	H								1		
										- 1	<u> </u>
Ready	_										-

### Gradient 表格中 Curve 所表示的意義如下如所示



## 在【Temperature】畫面中

Column Temperature:設定 Column 的溫度(室溫~65℃);若為 Cooler (4~65℃) Sample Temperature:設定樣品存放的溫度(4~40℃)

🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
General       Degas       Events       Flow       Temperature       Solvents       Channel         Column       Temperature       Golumn Temperature (Enable/Disable)       Column       50       Enable/Disable)         Column       Temperature       F1.0       Column       50         Target (degrees C)       F1.0       Column femperature       50         Range       (Plus/Minus degrees C)       degrees C)       F1.0	<u> </u>
Sample Temperature	
🗖 Sample Temperature (Enable/Disable)	
Sample Temperature Target (degrees C) -1.0 Sample Temperature Range (Plus/Minus degrees C)	Ţ
Ready	

### 在【Solvent】畫面中,註明溶劑的種類

🖡 未命名標題 in Defaults as System/Admi	istrator - Instrument Method Editor
<u>File E</u> dit <u>V</u> iew <u>H</u> elp	
	<b>2</b> 6
General Degas Events Flow Temp	erature Solvents Channel
Solvent Descriptions	
Solvent A	<u>A</u>
	<u></u>
Solvent B	
	<u></u>
Solvent C	
Solvent D	
	<u>v</u>
•	
Ready	li.

在【Channel】畫面中, 若儀器產生問題可線上監控以下儀器參數並將參數儲存至資料夾中

📭 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	- 🗆 ×
<u>File Edit View H</u> elp	
General Degas Events Flow Temperature Solvents Channel	<u> </u>
Channel Settings	
Enable Channel	
Channel Name : 2690/5 - System Pressure	
Description	
Parameter to Monitor System Pressure	
	<b>_</b>
4	
Ready	1

## 2998 PDA

在【General】畫面中,可設 PDA 3D 掃瞄

	¥2690/5		
998 PDA Detector			
General 2D Channels Analog Out	t   Events		
🔽 Lamp On		?	
🔽 Enable 3D Data			
λ Range: 210	nm to 400 nm		
Resolution: 1.2	▼ nm		
Sampling Rate: Filter	Time Constant: Exposure Time:		
10 v points/sec Norr	nal 💌 JU.2000 sec Auto 💌 mas	30	
🔽 Interpolate 370 nm Line Regio	m 🔽 Interpolate 656 nm Line Region		
Comment:			
	m		
Comment:			

Enable 3D 打√ λ Range: 輸入欲掃瞄之波長, 設定範圍為 190nm~800nm 任何波段 Resolution(UV 光譜解析度):選擇最佳的光譜解析度 1.2 · 數字越大解析度越差 Sampling Rate: 採點的速率(ex: 1.0 ) · 若分析時間低於 5min · 建議增加採點速率至 5 或 10 ° Filter Time Constant : 若須要過濾雜訊 · 請打勾 ; 可選擇 Slow · Normal · Fast 或 Other · 設定值愈大表示過濾雜訊能力越強。 Interpolate 370nm Line Region : 打√ Interpolate 656nm Line Region : 打√ 軟體會根據 370nm and 656nm 的光源強度決定 Exposure Time

在【2D Channel】中

Channel 1: 打√; 設定收集的波長,可同時設定 8 組波長。

Data Mode: 可選擇 Absorbance、Absorbance-Compensated、

Absorbance-Compensated \

Max Plot、Difference、Sum 或 Ratio

Resolution: 收集的波長的範圍(ex:1.2nm;設定的波長±0.6nm)。

📲 रूक्ने देही हुँ in Training-05 as System/Administrator - Instrument Method Editor 🔹 💽 💌
File Edit Yiew Help
2998 PDA Detector
General 2D Channels Analog Out Events
Data Mode 2. ✓ Channel 1 Absorbance 254 1.2 ✓ nm resolution Channel 2 Absorbance I a Model
A Constance - Constance in Protection in Protection - Market - Mar
Ratio
Ready
#### 在【Analog Out】中

若實驗室內有自動收集器(Fraction collector),可利用軟體將波長的數據輸入收集器中,利用收集器作純化工作。

🎦 未命名標題 in Training-05 as System/Administrator	- Instrument Method Editor			_ 7 🗙
<u>File E</u> dit <u>V</u> iew <u>H</u> elp				
2998 PDA Detector				
General   2D Channels Analog Out   Events		1		
Output 1	Output 2			
Channel: 1: Absorbance at 254 nm	2: Absorbance at 280 nm			
Full Scale Range: 2.000 units	2.000 units			
Full Scale Ratio: 100	100			
Full Scale Voltage: 2000 mV	2000 mV			
Voltage Offset: 0 mV	0 mV			
Ready				
🛃 開始 🛛 🚱 🙆 🔿 👋 🔍 単 📑 E. 📑	副設 😭 H 📾 P. 🔥 未	(AFCARCH	) - CH 🖮 🗡 🛯 🔇 🗐 😼 😥 😣	🛃 🖌 💫 上午 10:49

若使用此功能必須在 2D Channel 設定波長, Analog out 可同時輸出 2 個波長訊號。

Channel: 選擇欲輸出之波長 Full Scale Range: 2 Units Full Scale Voltage: 2000mV Voltage Offset: 0 mV

#### 在【Events】中

可設定關燈的時間:

例如 : Time 中設定 0 min; 在 Event 中選擇 Lamp; Parameter 中選擇 Off。 可設定隨時間改變波長:(若使用此功能必須在 2D Channel 設定波長)

例如 : Time 中設定 10 min; 在 Event 中選擇 Wavelength; Parameter 中選擇波長。 可設定 Resolution、Autozero......

♣ 朱命名儒题 in Training-05 as System/Administrator - Instrument Method Editor	8
Eile Edit Yerw Help	
2998 PDA Detector       Orarall 20 Chaush   Aalog Ost Events   Instability       Svelch 1       Bochaug Y       Bocha	
3     Beschinks (20)       4     Auto Zero       5     Lango 1       6     Beschink (20)       7     Ibsechold	
Resty	
1/////////////////////////////////////	Ŧ 11.02

## 2414 / 2410 RI 偵測器

#### 在【General】畫面下

🖥 Untitled in Defaults as System/Administrator - Instrument Method Editor	- U ×
<u>File Edit View H</u> elp	
PCM/15xx         SAT/IN         W410         W2790/5         W474	
General Temperature	<u> </u>
Channel Settings-	
Channel Name: 410	
Description:	
Sampling Rate: 1 Unit Label: mV 💌	
Filter <u>I</u> ime: <u>1.0</u> <u>Sensitivity</u> : <u>4</u>	
Polarity: + 🔽 🖾 Auto Zero at t0	
	-
Ready	11.

Description: 輸入敘述說明.

Sampling Rate: 採點的速率(ex:2). Unit Label: 層析圖譜 Y 軸的單位(mV 和 DelRIU) Filter Time: 過濾雜訊的能力,設定值越大過濾能力越強. Sensitivity: 訊號的大小,設定值越大訊號越強;相對雜訊也越強 Polarity: + 或 -. Auto Zero at to:請打勾

在【Temperature】畫面下

Internal Temp Enable : 偵測器內部溫度設定,請打勾. Internal Temperature: 內部溫度設定值(30-50℃) External Temp1 and 2 Enable : Column 的溫度設定,請打勾. External Temp1and 2 : Column 的溫度設定值(室溫~150℃).

Untitled in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
D C R         R <td></td>	
General Temperature	<b>_</b>
_ Internal Heater	
La Internal Tama Facility Internal Tamasantons 200	
Internal Lemp Enable Internal Temperature: 30.0	
External Heater 1	
Fytemal Tempi Frable: External Temp 1: 00	
External Heater 2	
External Temp <u>2</u> Enable Exter <u>n</u> al Temp 2: 0.0	
<u>  </u>	•
Ready	1

7. 所有儀器之分析條件皆設定完成後。進入 File→ Save As(另存新檔)。

🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	_ 🗆 🗵
File Edit View Help	
New         Ctrl+N           Open         Ctrl+O           Save         Ctrl+S           W2690/5         W2996	
Exit	<b></b>
General Events Channel 1 Channel 2	
Absorbance Mode Settings	
Output Mode: Absorbance - Bandwidth: 4.8	
Output Wavelength: 254.0 Offset: 0.000	
- Ratio Mode Settings-	
Ratio Wavelength: 254.0 Ratio Ilveshold: 0.001	
Ratio 0.001 Ratio 100.000	
- Filter Settings	
Filter Type: Hamming  Filter Response: 0	
Save the source document with a new name	11.

8. 輸入 Instrument Method 名稱, 再按 Save 鍵。

Save current Instr	ument Method			×
Names: Alliance				
] <u>N</u> ame:	TEST			
		Save	Cancel	Help

9. 再進入 File→ Exit。

New     Ctrl+N       Open     Ctrl+O       Save     Ctrl+S	
Save <u>As</u> <u>W2690/5</u> W2996	
Exit	-
Absorbance Mode Settings       Output Mode:     Absorbance       Output Mavelength:     254.0   Offset:       0.000	
Ratio Mode Settings <u>R</u> atio Wavelength:     254.0     Ratio <u>Threshold</u> :     0.001       Ratio     0.001     Ratio     100.000	
Filter Settings Filter Type: Hamming Filter Response: 0	× ×

10. 按【**下一步】**鍵,。

New Method Set : Select I	nstrument Method	? ×
	Please select the instrument method which is relevant to the data you will be using with this method set. 2695_996 TEST Create New	
	<上一步(B) 下一步(B) 取消	

11. 此時暫不設定 Processing 與 Report Method · 按 【下一步】鍵。

Select Default Methods		<u>?×</u>
	Choose methods for processing, reporting, and exporting channels. Processing Method: (No Processing) Derived channels will not be available (you must process in order to derive channels) Report Method: (No Reporting) Export Method: (No Exporting)	Edit
	<上一步(B) 下一步(B)	

12. 輸入方法組名稱,再按【完成】鍵。

Name Method Set	? ×
A thod Name: ESS Comments: Comments: Comments	
< 上一步(B) 完成 取消 [	說明

# 13. 進入 File→Exit。回到 "Run Samples" 畫面。

TEST - Method Set Editor				×
<u>File Edit View H</u> elp				
F F X B E				
	Instrument N	Method TEST		Edit
	Default Processing N	Method	•	Edit
⊡ Data Channels Derived Channels	Default Report M	Method	•	Edit
	😒 Channel Name	Processing Method	Report Method	
	<b>F</b>			
	Export M	lethod		
	PDA 3D Blank Subt	raction		
	<b>—</b> S	ave Extracted Channels		
	_ D	Delete 3D Channel After Ex	draction	
For Help, press F1				

# 附錄四

## e2695/2998/2475 儀器方法設定

1. 進入 Empower 【 Pro 】 的主畫面。



2. 左邊欄位中選擇欲使用之 Project 名稱,右邊欄位中選擇欲使用的系統,選完後按【OK】。

Run Samples		<u>? ×</u>
Project in which to acquire data: Defaults GPC LC_Right_on_Time LT parabene_0109 Parabens TEST TW_power TW_salt User_Huang	Use Run Samples' to run new samples at your Empower Workstation. Select the desired project and system from the displayed lists. When in the Run Samples Window, use the system control panel to equilibrate your system, or use the Sample Set Wizard to lead you through the process of creating a Sample Set to be run on the system.	Chromatographic Systems 2690_996 600_717_2487 717_2487_1525
		Use QuickStart Use Open Access

3. 在 Edit 選單中選取【New Method Set..】。

26	690 <u>-</u> 9	96 in D	efault	s as Sy	/stem/	Admir	istrator	- Ru	n Sample	25											
Eile	Edit <u>N</u> e	⊻iew I w Metho	nject d Set	<u>A</u> ction	.s <u>⊂</u> ust	omize	Diagnost	ics I	<u>H</u> elp			en l									
	Qr	en Meth	od Set					Ш		X	비비		NY.	Run	Only		<b>_</b>	Continue	e on Fault	<b>_</b>	
	Īn	strument	Metho	bd						$ \begin{bmatrix} \\ \\ \end{bmatrix} \begin{bmatrix} \\ \\ \end{bmatrix} $											
😙 🗸	Ne Op	w Sample D <u>e</u> n Samp	e Set <u>(</u> le Set	<u>1</u> ethod Method	Templati I Templa	в te															
	An Sa Di: G <u>C</u> Pla	nounts mple Set solution Sample ates ter <u>R</u> unni	, Info,, Set In ng Sar	, fo, nple			Christy														
$\vdash$	<u>C</u> a	iΡV				1	Ctrl+C	H		-											
		ample Se re (°C)	is <b>λ</b> Ι	Running			Press	ure (p	• • •		ment Me	thod:				T					
						-0	2			E	dit		Monitor		Setup						
Create	e a ne	w metho	d set					Syste	em Idle - I	nstru	ment Fai	lure		TES	ſ			<b>)</b> #	×,	. 0	1.

4. 按【是】鍵,選擇使用精靈完成 Method Set 的製作。

Run Samp	iles 🗙
⚠	Use the wizard to create this new method set?
	<u>是(1)</u> 否(11) 取消

5. 建立新的儀器方法(Instrument Method) · 按【Create New】。

New Method Set : Select Ir	nstrument Method	<u>? ×</u>
	Please select the instrument method which is relevant to the data you will be using with this method set. 2695 996 Create New	
	<上一步(B) 下一步(B) 取消	說明

6. 出現【Instrument Method Editor】視窗, 視窗上方列出所使用之儀器型號。

<b>-</b>	未命名標題 in Defaults as	System/Administrator - Instrument Method Editor	
File	<u>E</u> dit <u>V</u> iew <u>H</u> elp		
		90/5 W2996	
	General Degas Events	Flow   Temperature   Solvents   Channel	<u> </u>
	General System Parameters		
	Stroke Volume	50uL (flow rates <= 1 23 mL/min 💌 Bubble Detect	
	Syringe Draw Rate(uL/sec)	Normal 💌 Pre Column Volume 0.0	
	Depth Of Needle(mm)	0.0 🚊 Chart Out 🖗 💌	
	Column	No Change 🔽 Needle <u>W</u> ash Time Normal 💌	
	Equilibration Time	0.00	
			Ţ
┛			
Rea	ly		11.

# 2690/2695 (Alliance System)

在【General】畫面下	
Stroke Volume :	請根據實驗的流速(Flow Rate)作設定
	Flow Rate < 0.53 mL/min · 選擇 25uL
	Flow Rate < 1.23 mL/min · 選擇 50 uL
	Flow Rate < 3.030 mL/min · 選擇 100 uL
	Flow Rate < 10.00 mL/min · 選擇 130 uL
Bubble Detect :	請打勾·儀器會自動偵測氣泡。
Syringe Draw Rate	<b>e (uL/sec)</b> :根據樣品的黏稠度選擇抽樣的速度(Fast : 5 uL /sec;
	Normal : 2.5 uL /sec ; Slow : 1 uL /sec) •
Pre Column Volun	ne (uL): 0.0 ·
Depth Of Needle (	(mm):取樣針離樣品瓶瓶底的距離 · 根據實際實驗作設定 ·
<b>Chart Out</b> :若有線	上監測器可直接監控以下的參數。
<b>Column</b> :若有Col	umn 選擇器,可選擇 Column 的位置。

**Needle Wash Time**: 清洗外部取樣針的時間,可根據實際樣品的潔淨程度做選擇 (Normal、Double、Extended)。

#### 在【Degas】畫面下

使用 He 作為 degas · 在 Reservoirs to Sparge(mL/min): 輸入 He 的除氣速率(ex:30) 使用 Degasser 作為 degas · 在 Degas Mode 選擇【ON】。

🖡 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
General Degas   Events   Flow   Temperature   Solvents   Channel	<u>^</u>
Sparge	
Reservoirs to Sparge (mL/min) A D B 0.0 C 0.0 D 0.0	
Degas <u>M</u> ode Off	
	► ▲ L
Ready	11.

在【Events】畫面中可外控其他裝置的開或關。

■ 未命	<b>ì名標</b>	題 in D	efaults as Sy	stem/Administrator	- Instrum	ent Method E	ditor	
<u>File E</u>	<u>i</u> dit <u>1</u>	<u>/</u> iew <u>H</u>	elp					
	<u></u>		×	W2996				
Ger	neral	Degas	Events Flo	ow Temperature S	Solvents   C	hannel		<b>_</b>
Г	Event	Initial St	ates					
		<u>n</u> able Ev vitch <u>1</u>	ents Swite	h 2 Switch 3	3	Switch 4		
	No C	- hange	No Char	nge 💌 No Change	- No	Change 💌		
	D		'un anta					
	nioga a	Time	Event	Function	Valua	Comments		
	H	Time	Lyon	T UNCLOT	Value	Comments		
	-							
					1			
								<b>_</b>
Ready								1.

### 在【Flow】畫面中

Pressure Limit:系統壓力上限值(High Limit):可設定 Column 所能承擔的最高壓力值 下限值(Low Limit):設定大於 0,避免溶劑流空氣泡進入系統中

#### **Programmed Flow** :

Pump Mode:溶劑比率不隨時間改變(Isocratic)或溶劑比率隨時間改變(Gradient) Accelerate:流速增加至 10mLl/min · 所需要的時間

<mark>ī</mark> 未	命名	標題 in De	efaults as Sy	stem/Admi	nistrator -	Instrume	nt Method	Editor		_	
File	<u>E</u> dit	<u>V</u> iew <u>H</u> el	lp .								
	2	<b>]</b> <u>(</u> )	<	)/5 W29	<b>2</b> 96						
G	enera - Pres	l   Degas   sure Limits-	Events Fl	ow Temp	perature   S	olvents   Cl	hannel		_		-
	H <u>i</u> g	gh Limit	4000.0	Lo	w Limit	0.0					
	-Pro; Pur	grammed Fig np Mode 🧕	ow Fradient	<u>A</u> cc	elerate to 1 DO	0.0 mL/min min (5	in: .00 mL/min	/min)	_		
	6	Time	Flow	%A	%В	%C	%D	Curve			
	1		1.00	100.0	0.0	0.0	0.0				
			I I						-		
											⊾
Ready											//

### Gradient 表格中 Curve 所表示的意義如下如所示



## 在【Temperature】畫面中

Column Temperature:設定 Column 的溫度(室溫~65℃);若為 Cooler (4~65℃) Sample Temperature:設定樣品存放的溫度(4~40℃)

📭 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
	<u> </u>
General Degas   Events   Flow   Temperature   Solvents   Channel	
Column Temperature	
🗖 Column Temperature (Enable/Disable)	
Column Temperature Target (degrees C)	
Sample Temperature	
Sample Temperature (Enable/Disable)	
Sample Temperature -1.0 Sample Temperature Temperature Range (Plus/Minus degrees C)	<b>.</b>
Ready	1.

### 在【Solvent】畫面中,註明溶劑的種類

<mark>•</mark> 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit Yiew H</u> elp	
General   Degas   Events   Flow   Temperature   Solvents   Channel	
Solvent Descriptions	
Solvent A	
Solvent B	
Solvent C	
Solvent D	
<b></b>	
Kean y	11.

在【Channel】畫面中, 若儀器產生問題可線上監控以下儀器參數並將參數儲存至資料夾中

📭 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
General Degas Events Flow Temperature Solvents Channel	<b>_</b>
Channel Settings	
Enable Channel	
Channel Name : 2690/5 - System Pressure	
Description	
Parameter to Monitor System Pressure	
Ready	

### 2998 PDA

# 在【General】畫面中,可設 PDA 3D 掃瞄

🖥 未命名標題 in Training-05 as System/Administrator - Instrument Method Editor
Eie Edit Yiew Help
2998 PDA Detector General   2D Channels   Analog Out   Events
✓ Lamp On ?
🔽 Enable 3D Data
$\lambda$ Range: 210 nm to 400 nm
Resolution: 12 v nm
Sampling Rate:     Filter Time Constant:     Exposure Time:       10     points/sec     Normal     0 2000     sec     Auto     mase       Interpolate 370 nm Line Region     Interpolate 656 nm Line Region
Comment:
r Ready
🛃 開始 🖉 🛛 🔿 🐂 🔚 🛊 🗧 🛟 🕹 上午 1021

Enable 3D 打√

λ Range:輸入欲掃瞄之波長,設定範圍為 190nm~800nm 任何波段

Resolution(UV 光譜解析度):選擇最佳的光譜解析度 1.2 · 數字越大解析度越差

Sampling Rate: 採點的速率(ex: 1.0), 若分析時間低於 5min, 建議增加採點速率至 5 或 10。

Filter Time Constant:若須要過濾雜訊,請打勾;可選擇 Slow、Normal、Fast 或 Other,設定值愈大表示過濾雜訊能力越強。

Interpolate 370nm Line Region : 打 √

Interpolate 656nm Line Region : 打√

軟體會根據 370nm and 656nm 的光源強度決定 Exposure Time

在【2D Channel】中

Channel 1:打√;設定收集的波長,可同時設定8組波長。

Data Mode:可選擇 Absorbance、Absorbance-Compensated、

Absorbance-Compensated \

Max Plot、Difference、Sum 或 Ratio

Resolution: 收集的波長的範圍(ex:1.2nm;設定的波長±0.6nm)。

🔁 未命名標題 in Training-05 as System/Administrator	- Instrument Method Editor			_ 7 🗙
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>H</u> elp				
2998 PDA Detector				
General 2D Channels Analog Out Events				
Data Mode     λ       ▼ Channel1     Absorbance     254       ■ Channel2     Absorbance     Mode       Mass Plot     Mass Plot     Mode       Mass Plot     Difference     Sum       Ratio     Sum     Ratio	2 12 mm resolution			
Ready				
💾 開始 🛛 🔗 🔿 🔌 🔍 単 📑 E. 📑		,nero	S - CH 🚔 🗡 🗐 🕄 🕄 🕄 🕄 🖏 🗐 🗙 🖓 😒	上午 10:39

#### 在【Analog Out】中

若實驗室內有自動收集器(Fraction collector),可利用軟體將波長的數據輸入收集器中,利用收集器作純化工作。

🔁 未命名標题 in Training-05 as System/Administrator	- Instrument Method Editor	
<u>File Edit View H</u> elp		
2998 PDA Detector		
General   2D Channels Analog Out   Events		
Output 1	Output 2	
Channel: 1: Absorbance at 254 nm	2: Absorbance at 280 nm	
Full Scale Range: 2.000 units	2.000 units	
Full Scale Ratio: 100	100	
Full Scale Voltage: 2000 mV	2000 mV	
Voltage Offset: 0 mV	0 mV	
Ready		
🛃 開始 🖌 🚱 🔿 🐣 🔍 📱 📑 🖬 E. 📑	🕽 🕃 H 🗰 P. 🔂 🕸 💏 Seensch 🍼	- CH 🚔 アミズ 同意 🛠 🕽 🛒 🖓 🖓 🛼 🗐 🗙 上午 10:49

若使用此功能必須在 2D Channel 設定波長, Analog out 可同時輸出 2 個波長訊號。

Channel: 選擇欲輸出之波長 Full Scale Range: 2 Units Full Scale Voltage: 2000mV Voltage Offset: 0 mV

#### 在【Events】中

可設定關燈的時間:

例如 : Time 中設定 0 min; 在 Event 中選擇 Lamp; Parameter 中選擇 Off。 可設定隨時間改變波長:(若使用此功能必須在 2D Channel 設定波長)

例如 : Time 中設定 10 min; 在 Event 中選擇 Wavelength; Parameter 中選擇波長。 可設定 Resolution、Autozero......

🖥 未命名標題 in Training-05 as System/Administrator - Instrument Method Editor
Ede <u>Edit Yiew H</u> elp
2998 PDA Detector
General 2D Channels Analog Out Events
Initial State Threshold Events State Threshold ?
Switch 1 No Change V None V On V 11000
Switch 2 No Change V Mone
samity home for two
🔽 Run Events
Time Event Passweter Channel
2 Wevelangth Previdence (D)
2 Chart Mark 2007
5 Lenp South 1
6 Switch 2 7 Threshold

### 2475 FLR

🔁 QUINONEXO in Quinonexo as System/Administrator - Instrument Method Editor	
<u>File Edit View H</u> elp	
Mode ② 2D <u>LL</u> ③ 3D 上 Specify Channels Scan General Outputs Events	<u> </u>
Image: Lamp On       Image: Channel A       Channel B $\lambda$ ex       327       Image: Image: Data Mode:       Image: Image: Data Image: Comment: Channel A         Data Mode:       Image: Image: Data Image: Comment: Channel A       Image: Image: Channel B       Image: Image: Data Image: Channel B	?
Data Units: Emission  Data Rate: 5  pts/sec PMT Gain: 10	
Ready	

Mode: 可以選擇 2D(已知 ex 及 em 波長)或 3D (可掃描 ex 及 em 圖譜)

在【General】中

Lamp On: 打勾;若要執行關燈動作,請將 Lamp on 打勾取消

#### 選擇 2 D

請在 Channel A 中設定λex 及λem 波長,若要同時設定多種波長可依序在 Channel B、C、D中打勾,再輸入λex 及λem 波長,最多設定 4 個 Channel。(若隨時間變化 λex 及λem 波長則另有設定方式(在 Events 中設定)。

- Data Mode: 選擇 Emission。
- Data Unit:選擇 Emission。
- **Data Rate**:採點的速率(ex: 1.0 or 2),若分析時間低於 5min,建議增加採點速率至 5 或 10。
- PMT Gain: 訊號放大比。

Enable Auto Zero: 設定自動歸零

On Inject: 打勾

From Keyboard or Event In: 打勾

Noise Filter: 設定過濾雜訊

Type: 選擇 Hamming

Time Constant:設定值為 0.1~5.0;設定值愈大表示過濾雜訊能力越強。

🚹 未命名標題 in Quinonexo as System/Administrator - Instrument Method Editor	
<u>File Edit Yiew H</u> elp	
Mode C 2D LL C 3D L	<u> </u>
Specify Channels Scan	
General Outputs Events	
🔽 Lamp On	?
Scan Type Fixed Wavelength: Varying Wavelength:	
$\lambda_{ex}$ [350 nm $\lambda_{em}$ ]390 to [490 nm $\odot$ Emission	
at approximate intervals of 5.0 nm	
Comment: 2475 Scan	
Data Units: Emission  Contract  Contract Contrac	
Data Rate: 1 _ pts/sec From Keypad or From Keypad or Event In	
PMT Gain: 1 V	
•	ب ۱
Ready	

選擇 3D
Scan Type
Excitation:掃描 excitation螢光波長
Emission:掃描 emission螢光波長
Fixed Wavelength:設定λex 或λem 波長
Varying Wavelength:設定波長掃描範圍(190~900nm),若是掃描 emission螢光 波長,其波長起始點並須大於λex 10nm。Ex:若λex 為

350nm·設定 emission 的波長範圍必須從 360nm 開始

## 在【Output】中

🐴 未命名標題 in Quinonexo as System/Administrator - Instrument Method Editor				
<u>File E</u> dit <u>V</u> iew <u>H</u> elp				
□ ☞ ■ ⓐ × ₩2690/5 ₩2998 ₩24				
Mode ② 2D <u>LL</u> ③ 3D 上 Specify Channels Scan General Outputs Events		<u> </u>		
Analog 1 Output Mode: Emission	Analog 2 Emission	?		
Sensitivity: 10000 EUFS Polarity: Positive (+) 💌	10000 EUFS Positive (+)			
Voltage Offset: 0 mV	0 mV			
Chart Marks: 🔽 Enable	🔽 Enable			
<ul> <li>✓</li> <li>Ready</li> </ul>				

若實驗室內有自動收集器(Fraction collector),可利用軟體將波長的數據輸入收集器

中·利用收集器作純化工作。 Sensitivity: 設定 10000 EUFS Polarity: 可選 Positive or Negative Voltage Offset: 0 mV Chart Marks: Enable 打勾

### 在【**Events**】中

可設定隨時間改變λex 或λem 波長:(若使用此功能必須在 2D Channel 設定波長) 在 Event 中選擇 PMT Gain 、 Autozero........。

<mark>-</mark> } #	命名標題	in Quinon	exo as System/Admin	istrator - Instrur	nent Method Edi	itor	
<u>F</u> ile	<u>File Edit V</u> iew <u>H</u> elp						
	<b>2</b>		W2690/5	W2475			
	Mode 2D La Specify ( General   Ou Threshold Char Swith Char With Char With Char With Char With Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Char Swith Swih Swith Swih Swith Swih Swih Swih Swih S	Channels htputs Even I Events I Events h 1 nnel A) h 2 nnel B) ents	C 3D ⊢ Scan ts Dff ▼ 100.0 Dff ▼ 100.0	Auto Zen Maintain	o on Wavelength or Baseline 💌	r Gain Changes:	?
		Time (min)	Event	Value	Channel	Pulse Period	s
	1		-			Rect Wav 50% Duty	e Period (at • Cycle):
	2		Ex Wavelength Em Wavelength			0.2	sec
	4		PMT Gain				
	5		Chart Mark			Pulse Wi	lth:
	6		Chart Polarity Auto Zero			1.0	sec
	7		Lamp Switch 1			<b>v</b>	
•			Switch 2				
Ready	r		1 hreshold				

7. 所有儀器之分析條件皆設定完成後。進入 File→ Save As(另存新檔)。

🐴未命名標題 in Defaults as System/Administrator - Instrument Method Editor	- 🗆 🗵
File Edit View Help	
New         Ctrl+N           Open         Ctrl+O           Save         Ctrl+S           W2690/5         W2996	
Exit	<u> </u>
General Events Channel 1 Channel 2	
Absorbance Mode Settings	
Output Mode: Absorbance 💌 Bandwidth: 4.8 💌	
Output Wavelength: 254.0 Offset: 0.000	
- Ratio Mode Settings	
Ratio Wavelength: 254.0 Ratio Ihreshold: 0.001	
Ratio 0.001 Ratio 100.000	
-Filter Settings-	
Filter Type: Hamming <b>v</b> Filter Response: 0 <b>v</b>	
Save the active document with a new name	

8. 輸入 Instrument Method 名稱, 再按 Save 鍵。

Save current Names:	Instrument M	ethod		×
Alliance				
ı	Jame: TEST			
-				
		<u>S</u> ave	Cancel	Help

8. 再進入 File→ Exit。

■ 未命名標題 in Defaults as System/Administrator - Instrument Method Editor	
File     Edit     yiew     Heip       New     Ctrl+N       Open     Ctrl+O       Save     Ctrl+S       Nave     M2690/5	
Exit General Events Channel 1 Channel 2	-
Absorbance Mode Settings       Output Mode:       Absorbance       Output Mavelength:       254.0   Offset:       0.000	
Ratio Mode Settings <u>Ratio Wavelength:</u> 254.0       Ratio <u>0.001</u> Ratio <u>0.001</u>	
Filter Settings Filter Type: Hamming V Filter Response: 0 V	
	11.

9. 按【下一步】鍵,。

New Method Set : Select I	nstrument Method	? ×
2 3 2 3 1 2 3 1 2 3 3 2 3 3 3 3 3 3 3 3	Please select the instrument method which is relevant to the data you will be using with this method set. 2695_996 1985 1985 Create New	
	<上一步(B) 下一步(B) 取消	說明

10. 此時暫不設定 Processing 與 Report Method · 按 【下一步】鍵。

Select Default Methods		<u>? ×</u>
2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2	Choose methods for processing, reporting, and exporting channels. Processing Method: [(No Processing)) Derived channels will not be available (you must process in order to derive channels) Report Method: [(No Reporting) Export Method: [(No Exporting)	
	<上一步(B) 下一步(M) > 取消	

11. 輸入方法組名稱,再按 【完成】鍵。

Name Method Set	? ×
Method Name: Comments: Comments:	
<上一步(B) 完成 取消 說	明

# 12. 進入 File→Exit。回到 "Run Samples" 畫面。

TEST - Mathod Sat Editor	
File Edit View Heln	
Instrument Method TEST	Edit Edit
Image: Second	Edit
Channel Name Processing Method Report Method Channel Name University of the second sec	
Export Method PDA 3D Blank Subtraction Save Extracted Channels D black	
For Help, press F1	