制备型高效液相色谱仪

一、准备

1. 准备所需的流动相，用合适的 0.45μm 滤膜过滤，超声脱气至少 20min。

2. 根据待检样品的需要更换合适的洗脱柱（注意方向）。

3. 配制样品和标准溶液，用 0.45μm 滤膜过滤。

4. 检查仪器各部件的电源线、数据线和输液管道是否连接正常。

二、 开机

1. 接通电源，打开电脑显示器、主机，然后打开色谱工作站。

2. 参数设定 （在 ***Method*** 画面上）

2.1 波长设定，将光标置于 UV-VIS 检测器波长设定的栏内，输入所需波长值，按[***Enter***]键确认。2.2 流速设定，将光标置于流量设定的栏内，输入所需的流量，按[***Enter***]键确认。流动相比例设 定，将光标置于流动相混合比率设定的栏内，在 A-D 上，输入所需流动相的混合比率，按[***Enter***]键确认。柱温设定，将光标置于柱温箱温度设定栏，输入柱温箱所需的温度，按[***Enter***]键确认。

3. 每更换流动相均需排气泡，按[***Purg***e]键，指示灯亮，输液泵开始工作，清洗完成后自动停止。

4. 平衡系统

按《EC2006 色谱数据工作站操作规程》打开“色谱工作站”软件，输入实验信息并设定各项方法参数后，等待系统平衡（分为 等度洗脱和梯度洗脱两种方式平衡），观察基线变化，如果冲洗至基线漂移<0.01mV/min，噪声为<0.001mV 时，可认为系统已达到平衡状态，可以进样。

5. 进样

5.1 进样前按检测器[***Zero***]键调零，按软件中 [零点校正] 按钮校正基线零点。

5.2 按下系统控制器面板上的 ***Run*** 键，系统自动进样。

三、 清洗柱及进样系统和关机

1. 数据采集完毕后，关闭检测器，继续以工作流动相冲洗 20min 后，（如流动相含缓冲盐，换为不含缓冲盐的同比例流动相在冲洗 20min），再换用纯水冲洗系统及色谱柱至少 60min，最后用甲醇 或乙腈冲洗至少 30min。

2. 冲洗完柱后，将整个流路都置于有机溶剂中，清洗整个流路及进样系统。

3. 清洗完成后，先将流量降到 0，关闭电源开关。

4. 每次实验完毕，均需更换循环瓶中的水。

5. 认真填写仪器使用记录。

PHPLC Quick Start Operation Manual

1. Preparation

1.1 Prepare all the mobile phase, filtrate them with 0.45μm filter membrane, degassing at lest 20min by Ultrasonic oscillations instrument.

1.2 Change column according to the sample (pay attention to the direction).

1.3 Prepare sample and standard solution, filtrate with 0.45μm filter membrane.

1.4 Check the instrument to make sure all line be connected normally.

2. Starting up

2.1 Switch on, turn on the computer, turn on the chromatographic work station.

2.2 Parameters Setting (On ***Method*** menu)

A. Wavelength setting: input the wavelength needed in the wavelength setting form of UI-VIS detector. Click ***Enter***. B. Flow rate setting: input the flow rate needed in the flow rate setting form. Click ***Enter***. C. Mobile phase ratio setting: from A-D, input the mobile phase mixing ratio needed in the mobile phase setting form. Click ***Enter***. D. Column temperature setting: input the temperature needed in the Column temperature setting form. Click ***Enter***.

2.3 Degassing: press ***Purge***, then the indicator light on. It'll stop automatically after degassing.

2.4 Balance System

After inputting the parameters needed and setting the method, use the mobile phase to balance the system. Observe the change situation of Base line. If the base line drifts <0.01mV/min and the noise <0.001mV, the system is considered to be balanced and be ready for sample injection.

2.5 Sample Injection

Before injecting sample, click ***Zero*** to calibrate the base line to zero. Click ***Run*** in the controller panel, the system will inject samples automatically.

3. Clean Column, Injection System and Power off

3.1 After data collection, turn off the detector, continue to use the working mobile phase to wash the column and system for 20min, then change to DI water to wash for at least 60min, finally change to Methanol or Acetonitrile to wash for at least 30min.

3.2 After clean the column and the system, bring the flow rate to zero. Then power off.

3.3 Change the circulation water each time after using.

3.4 Fill in the instrumentation record earnestly.