

## High Performance Liquid Chromatography (HPLC)

BRAND: WATERS

MODEL: HPLC-Pump600-Autosampler717- PDA996

LOCATION: K653 Room, 6<sup>th</sup> Floor, Chaloeprakiet Building, Phyathai Campus

CUSTODIAN: Sirichai Kositarat

System comprise of:

### 1. Waters 600E Multi solvent Delivery System

Description	Specification
Number of solvents	1 to 4
Automatic eluents sparging	Helium, programmable eluent selection and rate (0-100 ml/min)
Flow programmable	Isocratic, gradient, and flow programming
Flow rate range	0.00-20.00 ml/min, in 0.01 increments
Composition range	0 to 100%, in 1% increments for each of four reservoirs
Compositional accuracy	Better than 1.0%, independent of pressure

### 2. Waters 600E Controller

Description	Specification
LCD Display	5 inch
Program tables	flow rate, gradient, timed events 15 time-based step/table, 15 table capacity
Time-based multi-method capacity	includes linking Program table



### 3. Waters 717 plus Autosampler

Description	Specification
Number of solvents	1 to 4 solvents
Degasser	Helium degassing
Linearity (1 to 100 $\mu\text{l}$ )	At 1 to 100 $\mu\text{l}$ , Coefficient of deviation >0.99
Carryover	<0.1%
System pressure	4500 psi
Sample Temperature	4 to 40 $^{\circ}\text{C}$
Bandspreading	<10% Contribution for all solvent systems
Precision	At 5 to 50 $\mu\text{l}$ , RSD $\leq$ 0.5%
Flow accuracy	$\pm$ 1% or 10 $\mu\text{l}/\text{min}$
Number Sample/tray	1. Tray for sample 1 to 48 vial (vial 4 mL) 2. Tray for sample 1 to 96 vial (via1 1 mL)
Number for injection by program	1 to 99 vial
Minimum Sample Required	7 $\mu\text{l}$ using low volume inserts
Injection accuracy	$\pm$ 1 $\mu\text{l}$
Injection volume range	0 to 200 $\mu\text{l}$ (Standard) or 0 to 2000 $\mu\text{l}$
Total solvent volume	836 $\mu\text{l}$
Run time	0 to 999.9 min
Wash Flow, Solvent Rate	>0.4 mL per injection
Advance Sampling Routines	Priority Samples, Auto Standards, Auto Addition, and Auto Transfer
Operating Temperature Range	4 to 40 $^{\circ}\text{C}$



#### 4. Waters 996 Photodiode Array Detector

Description	Specification
Wavelength range	190-800 nm
Wavelength accuracy	$\pm 1$ nm
Linearity range	5% over $-0.1$ to $2.0$ AU
Spectra resolution	1.2 nm per photodiode
Baseline noise	$5 \times 10^{-5}$ AU peak-to-peak at 254 nm
Drift	$1 \times 10^{-3}$ AU/hour at 254nm (after warm-up)
Operating temperature	$4 - 40$ °C
Flow cell pathlength	10 mm
Light source	Deuterium lamp (D2)
Cell volume	8 $\mu$ L

