

High Performance Liquid Chromatography (HPLC)

BRAND: WATERS

MODEL: HPLC-Pump600-ECD-Conductivity Detector

LOCATION: K653 Room, 6th 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 467 Pulsed Electrochemical Detector (ECD)

Description	Specification
Controlled voltage	± 2 V
Standard output Analog	10mV and 1 V
Cell Type Single electrode	all cell components contained in a plug-in module
Cell volume - standard	4 mil (0.004") gasket 4 μ l
Cell pressure Stainless steel	30 psi, Non-metallic: 5 psi
DC Mode	
Working potential range	± 2000 mv
Current ranges	First Range: 0.1 nA to 100 nA, Second Range: 0.1 μ A to 100 μ A (selectable in 1-2-5 sequence)
Current offset	First Range: ± 160 nA, Second Range: ± 160 μ A
Time constant	Single Potentiostat: 0.1 to 5 sec
Working potential range	+2000 mV in 1 mV increments (E1, E2 and E3 pulse potentials individually programmable)
Pulse Mode	
Pulse timing	3 pulse widths programmable for each measurement
Current ranges First Range	0.1 nA to 100 nA, Second Range: 0.1 μ A to 100 μ A selectable in 1-2-5 sequence)
Scan Mode	
Potential range	+2000mV (initial and final potentials individually programmable)
Current range First Range	0.1 nA to 100 nA, Second Range: 0.1 μ A to 100 μ A (selectable in 1-2-5 sequence)
Scan rate	1 mV/sec to 100 mV/sec (selectable in 1-2-5 sequence)



4. Waters 432 Conductivity Detector

Description	Specification
Conductivity range	0.005 to 10,000 μS
Drift rate	<0.05 $\mu\text{S/hr/}^\circ\text{C}$ (ambient) (BASE 200 μS , SENS 0.005, Eluent 1 mM KCl)
Noise range	<0.005 $\mu\text{S/cm}$ (BASE 200 μS , SENS 0.005, Eluent 1 mM KCl)
Flow cell volume	0.6 μl , maximum pressure 70 psi
Temperature control	Internal temperature in flow cell can set 9 steps from OFF, 30, 35, 40, 45, 50, 55, 60, 65 $^\circ\text{C}$ Performance 0.5 $^\circ\text{C/hr}$
Response times	Fast 0.25 sec, Standard: 0.5 sec, Slow: 1.0 sec
Increments sensitivity	10 steps, 0.0001 to 1.0 and S
Baseline range	10 to 10000
Penta-electrod	Low noise, ppb level detectable
Operating Temperature Range	4 to 35 $^\circ\text{C}$

