

Agilent Purification System, LAB EXERCISE

LAB TITLE

Getting familiar with the installation of an Agilent Purification System and the installation of an Agilent 1260 Prep System.

Lab Objectives

The purpose of this LAB is to familiarize yourself with the installation of an Agilent Purification System.

The LAB is divided into two parts:

- 1) Installing a Agilent Purification System
- 2) Installing a 1260 Prep System

Installation

1) Installing an Agilent Purification System

IMPORTANT: Use the required SPIFMs in this LAB

- a) Read the Agilent Purification System Site Prep Checklist, Installation Checklist and Familiarisation Checklist.
- b) Ensure that you have installed the hardware and the software as per relative SPIFMs and CBT.
- c) Create an instrument in OpenLAB and study all the different settings for each module (read the help if needed).
- d) Launch the instrument and bring into a ready state.
- e) In the dashboard, play with all the different possible settings for each of the modules.
- f) Create a method for your system with the following specifications, save and run this:
 - i) Eluent is water
 - ii) Sample is Caffeine
 - iii) Injection volume = **10µL (partial loop fill)**
 - iv) Flush volume: **minimal 2 x tubing volume**
 - v) Headspace pressure **On**
 - vi) Syringe speed **normal**
 - vii) Air segment **On**
 - viii) Wash **OFF**
 - ix) Runtime = **5 minutes**
 - x) Wavelength 1= **270nm**, wavelength 2= **243nm**
 - xi) Flow rate is **2mL per minute**
 - xii) Probe movement= **linear**

Installation

- g) Modify the above method with the following specifications, save under a different name and run:
- i) In the method setup, select the "**Autosampler Injector Program**" and check "**Injector Program**"
 - ii) Select Reagent A vial: **vial 85** and Reagent B vial: **vial 86** for mixing.
 - iii) Fill vial 85 with water and vial 86 with 0.5% acetone
 - iv) Set destination vial **Sample + 1**. (use vial 1 for sample)
 - v) Place an empty vial 2 in tray for the destination
 - vi) Create the following injector program:
 - (1) Add 100µL from Reagent A to destination vial
 - (2) Mix 100µL 2 times
 - (3) Add 200µL from Reagent B to destination vial
 - (4) Mix 100µL 2 times
 - (5) Add 500µL from Sample to Destination vial
 - (6) Mix 200µL 3 times
- h) Create a method for -, and run, the **test protocol** outlined in the Installation Checklist for the Agilent Purification System.
- i) Report the results here:
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Installation

2) Installing a 1260 Prep System

- a) Read the Agilent 1260 System Site Prep Checklist, Installation Checklist and Familiarisation Checklist.
- b) Ensure that you have installed the hardware and the software as per relative SPIFMs and CBT.
- c) Create an instrument in OpenLAB and study all the different settings for each module (read the help if needed).
- d) Launch the instrument and bring into a ready state.
- e) In the dashboard, play with all the different possible settings for each of the modules.
- f) Create a method for your system with the following specifications, save and run this:
 - i) Eluent is water
 - ii) Sample is Caffeine
 - iii) Injection volume = **10µL (partial loop fill)**
 - iv) Flush volume: **minimal 2 x tubing volume**
 - v) Headspace pressure **On**
 - vi) Syringe speed **normal**
 - vii) Air segment **On**
 - viii) Wash **OFF**
 - ix) Runtime = **5 minutes**
 - x) Wavelength 1= **270nm**, wavelength 2= **243nm**
 - xi) Flow rate is **2mL per minute**
 - xii) Probe movement= **linear**