

# Standard Operating Procedure: UV-Vis Spectrophotometer (Cary 50)

Last Updated: 06/06/2016 by C.Tichnell

## **General Operation Description:**

The Cary 50 UV-Vis Spectrophotometer is typically always powered on (which is confirmed through the green light in the front), and thus most operation takes place on the computer located to the right of the spectrophotometer. First, log onto the Windows desktop (user name: McCusker Group). Then, calibrate the instrument by opening the System Information program on the desktop. After calibration, open the Scan program to acquire data.

Data acquisition is performed by first setting the experimental parameters (i.e. spectral window, scan speed, etc.). Then, open the spectrophotometer cavity door and load a cuvette with only solvent (the blank) into the instrument. After closing the cavity door perform the zero function followed by a baseline scan. Once that is complete, remove the blank from the cavity and add a solution of your compound with the same solvent used in the blank to same cuvette (the sample). Place the sample into the cavity and collect a spectrum by pressing the Start button towards the top of the program.

When spectral acquisition has completed, save data, remove sample from the cavity, close the cavity door, exit the Scan program and log off of the Windows desktop. Your blank and sample solutions should be disposed of into the appropriate waste container.

If more information is needed pertaining to instrument usage, step by step operational details are located in a document next to the Cary 50 system.

## **Personal Protective Equipment:**

Safety glasses, gloves (when handling blank and sample—gloves should not touch computer) and lab coat

## **Hazards:**

Solvents and samples could be dangerous to you.

Cuvettes could break and provide sharp objects.

## **Waste Disposal:**

Dispose of solvent blank and sample solution in appropriate waste container(s)

## **Material Safety Data Sheets:**

Call the ORCBS (355-0153) or see lab copy for sample in question if available