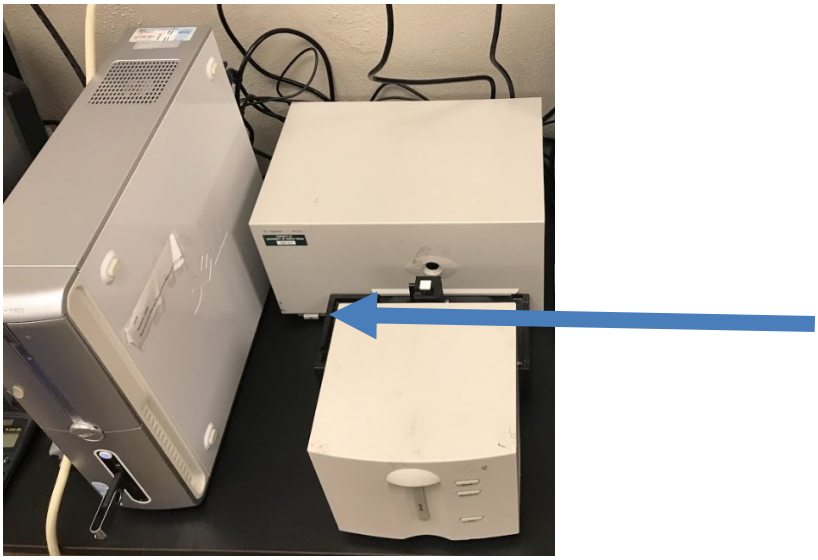
COLLEGE OF SCIENCE
DEPARTMENT OF PHYSICS

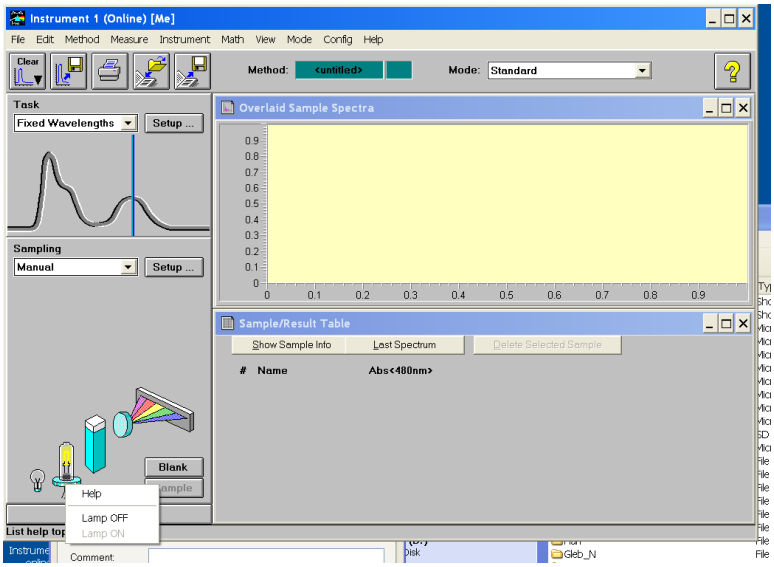
Operation manual for

Agilent 8453 Spectrophotometer

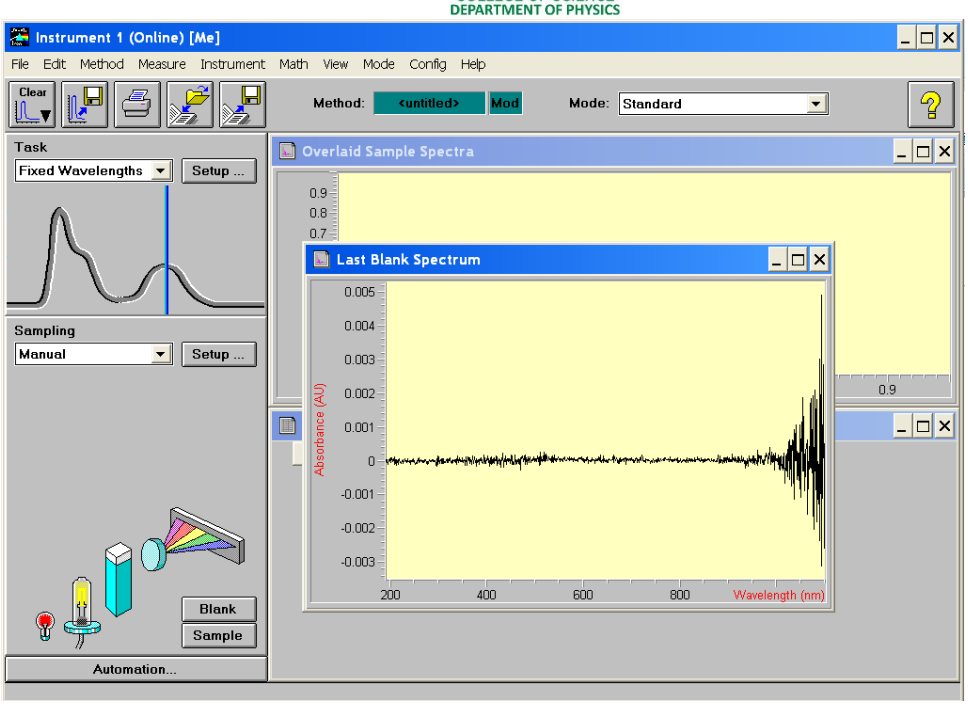
1. log onto the computer connected to the Agilent 8453 Spectrophotometer.
2. Turn the power on from the button shown below. The system will run auto alignment and shutter open and close during initialization.



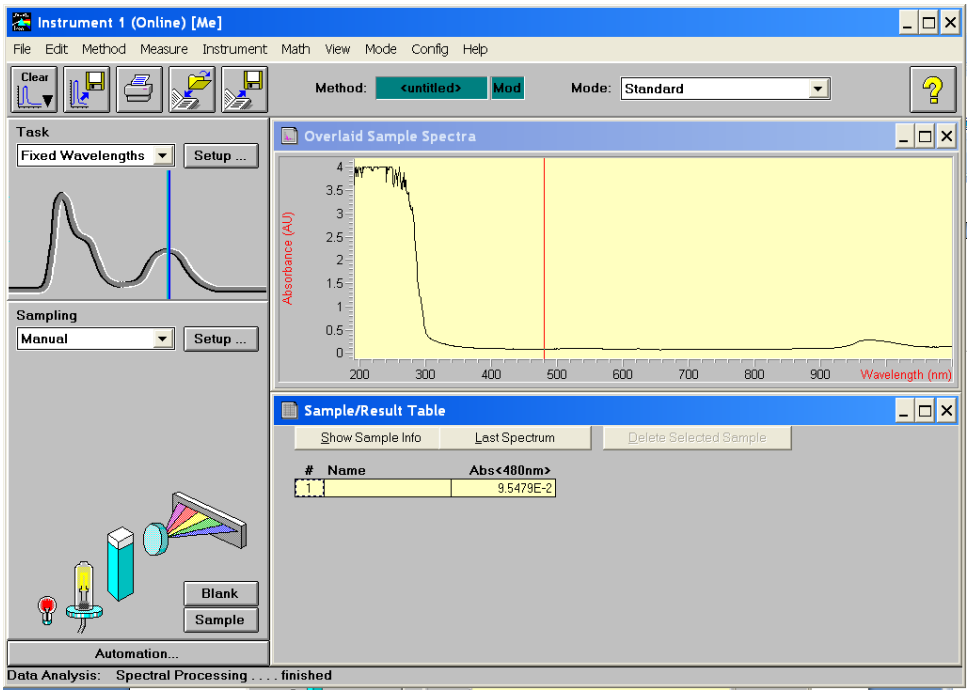
3. Run the software “Instrument 1(online)” on the desktop. Wait for the connection between the spectrophotometer and the computer. Click on the lamp and select “Lamp ON”. This will turn on the lamp for an excitation light source.



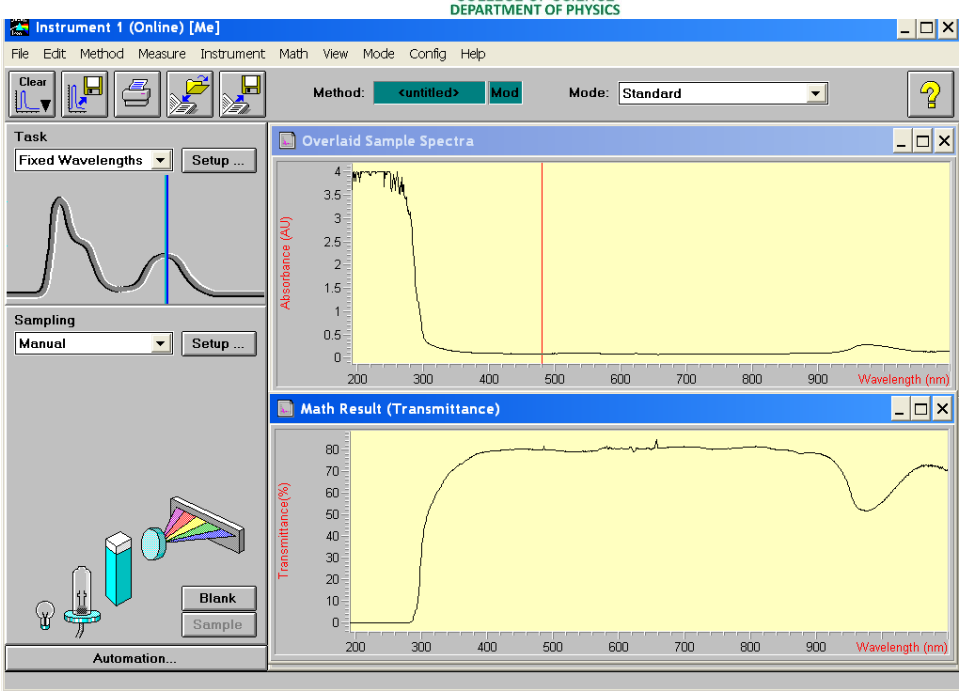
4. Load an empty cuvette and click “Blank”. A blank spectrum will be measured and displayed.



5. Next, load the sample solution in the same type of cuvette and click “Sample”. The absorbance spectrum is measured and displayed.



6. The transmittance spectrum can be calculated by going to “Math” – “Transmittance”. Save the data from “file” – “export the selected spectrum”.



7. Once done with the spectrophotometer, turn the lamps off, close the software, turn off the power of the system, and log out of the computer.
8. Fill in your name, date, time in, and time out on the logbook.

Reference

[1] System manual and introductions: https://drive.google.com/drive/folders/13OLDmE6gyMHA2wyLXu4HUYBvZ1dSrdAQ?usp=sharing