

Spectrometer Guide

1 Overview

You will measure the spectrum of your team's stressing LED using the spectrometer to characterize the exact stressing conditions for your cell. The data collected by all teams will also be used later in the semester.

This measurement should take only about 10 minutes. The spectrometer room is a small space, so only two teams can be in there at a time.

Important

Make sure to remove your cell from the stressing station before proceeding so as not to damage it.

2 Procedure

Note

You will receive an error message ("ERROR DURING CREATION THE OUT FILE") when you open the ASEQ program. Click "OK" and ignore it.

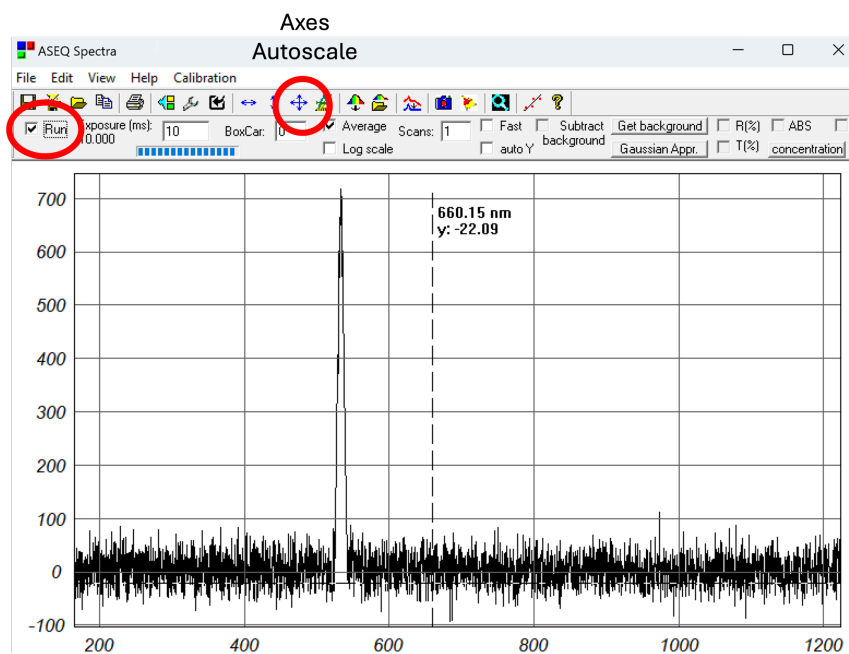


Figure 1: ASEQ spectrum screenshot

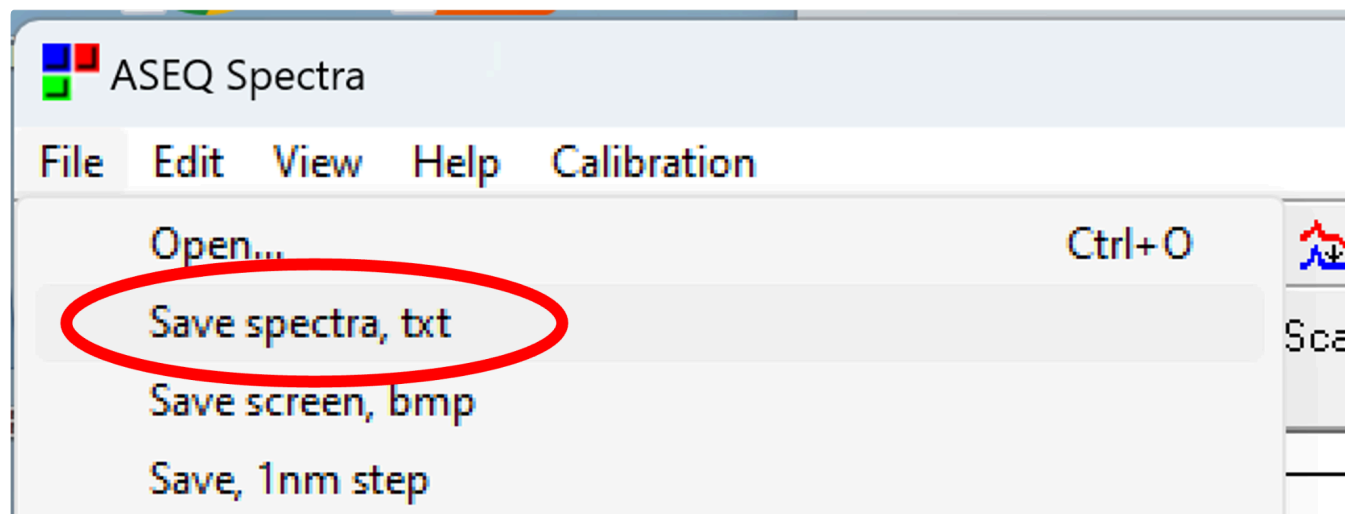


Figure 2: ASEQ file save menu

1. Find your team's stressing station and remove the hot plate so you can more easily measure the spectrum.
2. Open the "Spectrometer" folder on the Desktop and launch the "ASEQ_16bits V1_15" program.
3. Move the spectrometer from the cart and center it under the LED at your stressing station.
4. Click the "Run" checkbox in the top left corner.
5. Click the autoscale button (four arrows icon) in the toolbar to auto scale the axes. Your spectrum should look similar to Figure 1.
6. To save your spectrum, click on the "File" menu and select "Save spectra, txt" (see Figure 2). Be sure to note where the file is being saved to and use proper naming conventions!
7. Upload the spectrum file to your team Google Drive folder.
8. Close the "ASEQ_16bits V1_15" program.
9. Move the spectrometer back to the cart.
10. Double check that you moved your data to your team Google Drive folder and that the spectrometer program is closed. If it is not, the next group to log in will not be able to open it.
11. Log out of the computer.
12. Put the hot plate back in your stressing station.