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Experiment Goal

Obtaining an Absorbance Spectrum

In obtaining an absorbance spectrum, you are getting a graph representation of how light is interacting with a solution, and how that relates to the solution color. This interaction is very important in scientific and medical fields and that color can give a lot of information. The color of a solution can give information on concentration of chemicals, how much acid is present, if a reaction has happened, or even if something has gone bad or not. In the following pages, you will learn how obtain an absorbance spectrum for each of the samples you prepared, and use that spectrum to relate to why the solution is the color that it is.

Terms you will need to know for the experiment

Light

Color

Wavelength

Absorbance

Transmittance

Concepts you will learn

How does light interact with a solution?

What types of light will a solution absorb or transmit?

How are absorbance and transmittance related?

How do absorbance and transmittance relate to the color of the solution?

Skills you will learn

How to use a spectrophotometer

How to obtain an absorbance spectrum

How to use that absorbance spectrum to relate to solution color