

Absorption Spectroscopy Worksheet

Observations

Draw your observations in the seven boxes below using colored pencils.

Electromagnetic spectrum

Potassium permanganate

Copper(II) chloride

Yellow solution

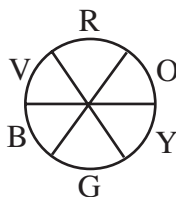
Orange solution

Erbium chloride

Praseodymium chloride

Post-Lab Questions

Use the pie chart presented to assist in answering Questions #1 and #2. Colors opposite each other on this wheel are known as complements.



1. Compare the relationship between the blue solution and orange solution in terms of their absorbance of visible light and the definition of complementary colors?
2. If a green solution had been placed on the overhead, predict which colors of light would be absorbed and which colors would be allowed to pass through.
3. What do the spectra of the rare earth elements, erbium and praseodymium, demonstrate?
4. Did erbium and praseodymium yield the results you initially predicted? Why or why not?