

1. Give a brief explanation of gas chromatography and describe how it was used in this lab.
2. What are some of the limitations of gas chromatography?
3. Do you think all forms of chromatography would be useful in separating mixtures with many components? Why or why not?
4. Using the formula:

$$\text{Retention Time } R_f = \frac{\text{distance traveled by a compound from origin}}{\text{distance traveled by solvent from origin}}$$

Calculate how far the compound moved on the paper if the solvent moved 15 centimeters and the R_f value of one of the compounds in the mixture was 0.85.

5. Why is gas chromatography often paired with mass spectrometry when analyzing unknowns?
6. Stationary, mobile, gas and liquid phases...what is the significance of each of these in chromatography?