

Inquiry Summary

How do plant pigments vary between leaves?



BLM1: Plant Pigment Chromatography Inquiry Summary

Student Name(s): _____

Date: _____

Inquiry Question: What is the testable question for this inquiry?

Hypothesis and Rationale: What do you anticipate/predict your results to show and why?

Observations:

Place the paper strips here. Beside each strip, label the origin, chlorophyll *a*, chlorophyll *b*, the xanthophylls and the solvent front for each chromatogram. Tape the strips to this sheet once they are dry.

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Conclusion:

Based on our results, we conclude that:

This _____ (proves/disproves) our hypothesis.

Discussion:

What evidence proves or disproves your hypothesis?

Extension:

Calculate the Retardation (or Retention) Factor for each of the resulting pigments on each chromatography strip using the equation below:

$$R_f = \text{total distance travelled by a pigment band} \div \text{total distance the solvent travelled}$$

| Pigment Type | Rf Values for Strip #1 Pigments _____ (Indicate Leaf Type) | Rf Values for Strip #2 Pigments _____ (Indicate Leaf Type) |
|--------------|---|---|
| | | |
| | | |
| | | |
| | | |

What is the relationship between these values and the distance the pigments travelled?
