**Leaf Chromatography Lab**

**PURPOSE:**

You are a plant specialist and you are trying to prove to your friends that plants leaves actually contain more than one type of pigment at any given time. You are also trying to show them that when leaves change color they tend to have less chlorophyll in them. As a way to show them (and prove you are right), you decided to do leaf chromatography in order to separate the pigments.

**MATERIALS:**

|  |  |
| --- | --- |
| * 1-2 leaves per group * Chromatography paper strip * Coin * Beaker * Solvent- Acetone or isopropyl alcohol, approximately 10 mL | * Ruler * Pencil * Scissors * Tape * Tweezers * Pencil Crayons |

**PRE LAB QUESTIONS**

**Variables :**

Controlled: ­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Manipulated: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Responding: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Hypothesis**: (If… then… because…)

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**Procedure:** Please see attached page

**RESULTS**

**Data:** Colors/Pigments Observed

|  |  |  |  |
| --- | --- | --- | --- |
| Band Number | Distance Traveled | Band Color | Identity |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |

**Diagram of strips:** In the space provided below, please draw your chromatography paper and label the pigments you found in the leaf.

|  |
| --- |
|  |

**POST LAB QUESTIONS**

1. **Did the leaves you tested contain different pigments? Refer to your results to support your answer**

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1. **Describe any experimental errors/limiting factors of the experiment. How would you improve your experiment?**

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1. **Could we change the lab to obtain different results? Explain.**

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