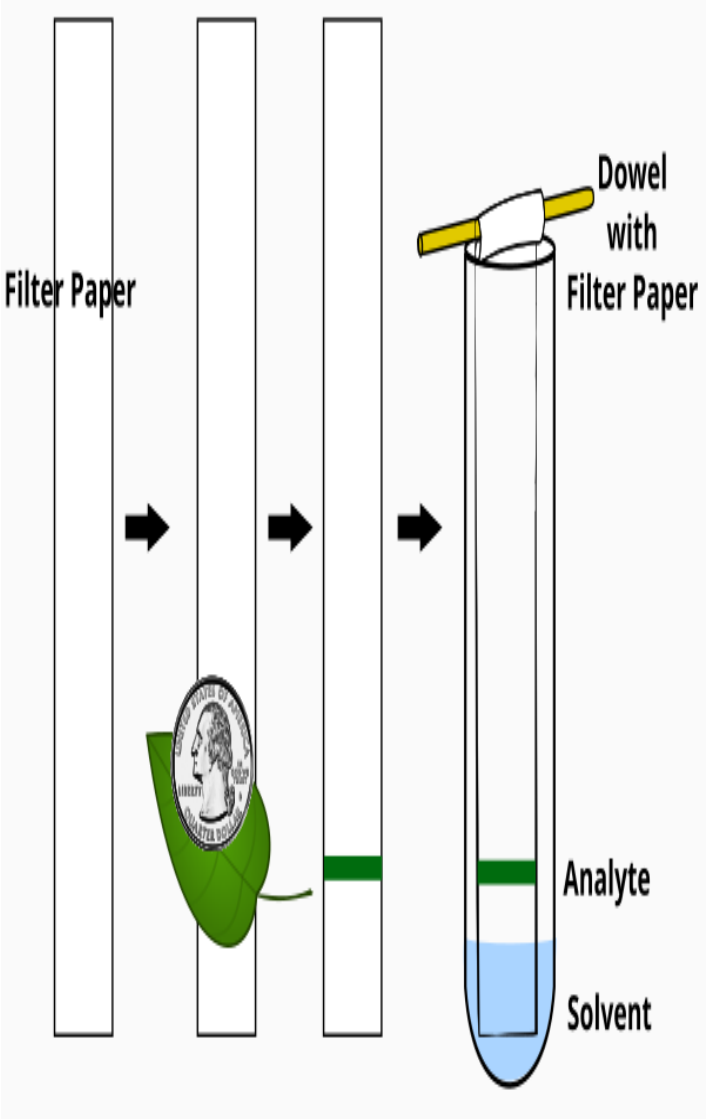
Photosynthetic Pigments

Extract and separate the pigments



1. Lay a strip of filter paper on the bench
2. about 2 cm from the bottom of the strip, place a fresh spinach leaf and rub a coin across the leaf to transfer pigment to the strip
3. The instructor will be provided with a spoonful of *Spirulina* powder that has been soaked in 10ml acetone overnight.
    - on a separate strip, the instructor will apply the Spirulina extract approximately 2cm from the bottom of the strip
4. Suspend the strips by a dowel or paper clip in a tube with about 3ml chromatography solution *(2 isooctane: 1 acetone: 1 diethyl ether*).
5. Develop the strips until the solvent reaches about 2 cm from the top

Chromatography Analysis

1. How many different pigments separate from the spinach extract? From the spirulina?
2. Are all pigments represented between the two extract?
3. The mobile phase is non-polar, what are the properties of each pigment?
4. Measure the R_f of each pigment.

Tags: quantitative reasoning