

Rates of Evaporation Lab

Question: How do intermolecular forces affect the evaporation rates of liquids?

Background Information (look up info on intermolecular forces and strength of bonds in water, isopropyl alcohol, and acetone and write about them here):

Acetone- dipole dipole

Water- hydrogen bonds

Isopropyl alcohol- hydrogen bonds

Hypothesis: If I place a droplet of water, acetone, and isopropyl alcohol on wax paper, then _____ will evaporate the fastest.

Variables

Independent:

Dependent:

Controlled:

Materials:

Procedure:

Label each of 3 small plastic cups.

A distilled water

B isopropyl alcohol

C acetone

Use a dropper to collect about 1 mL of distilled water and place the water in the cup labeled A. Place the dropper on the paper towel directly in front of the cup. Repeat with other liquids.

Place a square of wax paper in front of each cup. Put a single drop of each liquid on the corresponding wax paper and time how long it takes to evaporate. If greater than 5 minutes write > 300 s on the data table.

Data Table:

Type of Liquid	Time to Evaporate

Bar Graph (x axis type of liquid, y axis time to evaporate):

Conclusion: (do you reject or accept your hypothesis and why do you think the results turned out the way they did?)