

Lab: Build a Cap

Background

This is a run and shoot lab. You will be building a .65 nf parallel-plate capacitor using paper, aluminum foil and tape.

Objective

To think about how a parallel plate capacitor (with dielectric) is built, and to use the relationship between the capacitance of a parallel plate cap and its plate area, distance between plates and dielectric constant are related.

Equipment

Paper (thickness .000425 meters, dielectric constant 1.44), aluminum foil, tape and scissors.

Grade

Your grade will be determined depending upon how close your capacitor's capacitance comes to .65 nf, as measured using an Impedance Bridge.