

## 5C10.20 - SLIDING CAPACITORS

Key words: Capacitor, electric field,

### **Equipment List:**

1. Capacitor
2. Power supply
3. Device for charging the capacitor
4. Electrometer
5. Optional: dielectrics like for example a book

### **How to assemble and operate:**

- Connect the capacitor to an electrometer.
- Charge the capacitor.
- Try moving one plate of the capacitor closer or further away from the other plate and observe what is shown on the electrometer (for example, putting the plates close together, charging them and then pulling them apart results in rising voltage).
- One can also use a dielectric, for example a book, to put it between the plates and observe the result.

### **Description/Theory:**

This demonstration illustrates how capacitors work under various conditions and parameters.

### **Comments/Notes:**