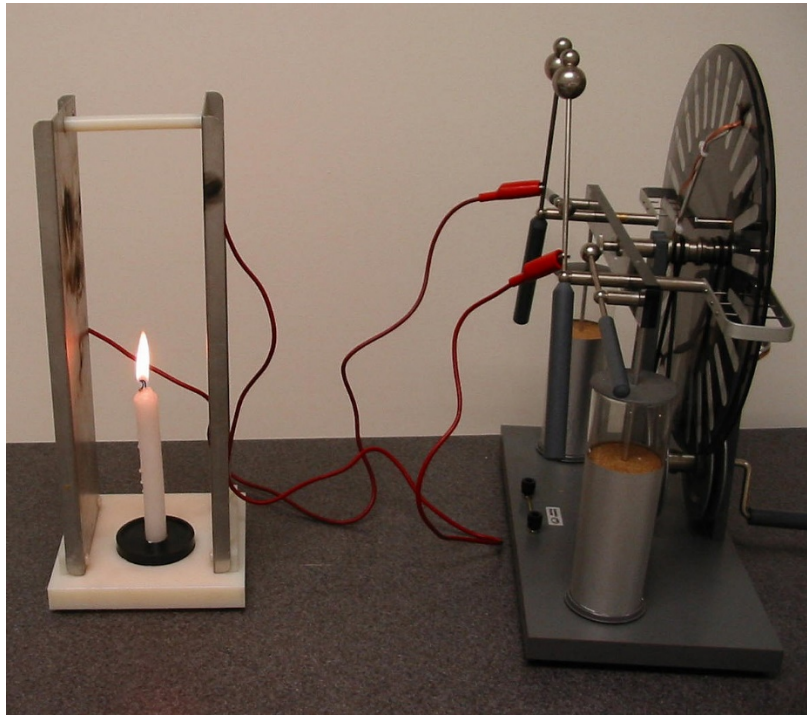


Electric Flame



Candle hooked to Wimhurst Machine



With E field on

Purpose: Demonstrates the net electric charge in a candle flame.

Put the candle between parallel plates. When a potential difference is applied to the plates, the flame distorts and points to one side. Candle flames have a lot of positive ions in them.

Note: If you use the Wimhurst Machine to power the plates, you can do a nice trick: While cranking, adjust the ball spacing until they

begin to spark regularly (put the Leyden jars into the circuit). You can see the flame return briefly to normal with each spark.

Extra Equipment: Wimhurst Machine

Location: Shelf E3