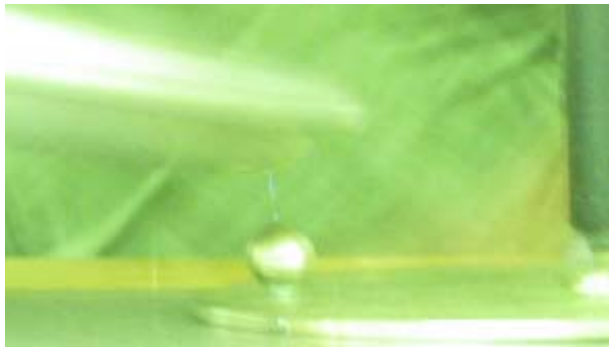
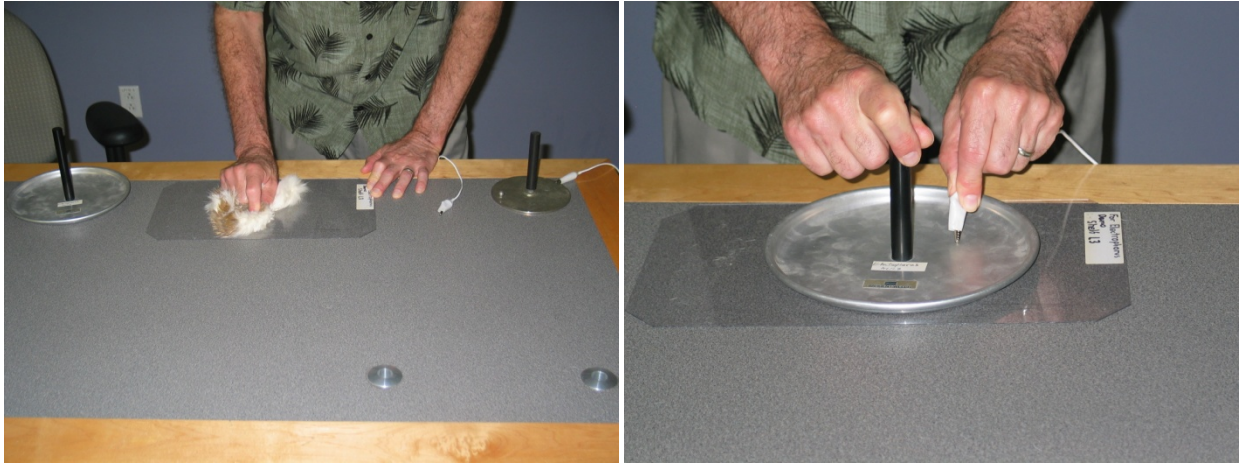


Electrophorus



Purpose: To demonstrate a way to charge an object repeatedly using induction.

Location: room 146, shelf L3; fur and alligator clips on L2

Begin by placing the clear, plastic sheet on the table. Place the smaller metal plate next to it and ground it to the underside of the desk with an alligator clip cable. Clip the other cable to ground and set it on the desktop. Charge the plastic sheet by rubbing it with fur, then, place the metal plate with the rounded edge on top of the plastic sheet. Touch the free alligator lead to the top surface of the (rounded edge) plate to bleed the charge on it to ground. Quickly bring the metal plate that was on the plastic close to the small sphere on the grounded plate. A spark should jump from (rounded edge) plate to the grounded plate. Repeat this process without rubbing the fur on the plastic to show that the plastic is not losing any charge, but is charging by induction. On a dry day you should be able to generate many visible and audible sparks without needing to recharge the plastic sheet. The sparks may be made more visible by turning down the lights. A Video Flex camera may be used to project visible spark images on the big screen.