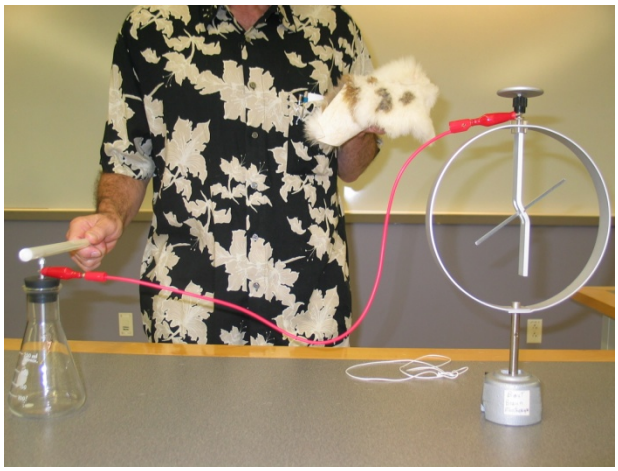
Conductor versus Insulator



Purpose: To demonstrate that some things easily conduct electric charge, but others don't.

Location: room 146, shelf L2; string in white cabinet

If two electroscopes are connected by a wire (patch cord with alligator clips), and one is charged using a Teflon^{R} rod that has been charged by rubbing it with fur, both electroscopes become charged, showing that metal wire conducts electric charge. (BE CAREFUL NOT TO LET THE CORD TOUCH THE DESKTOP – IT WILL DISCHARGE THE SCOPES!) You may need to expose much of the rod surface to the scope, or charge it more than once to get enough charge to show on the Braun scope.

Next, do the same experiment, but with the electroscopes connected by string, in which case only the scope touched by the rod will become charged, showing that string is not a good conductor of charge. (second photo)