**L153. Investigations in Electrostatics**

**Part B**

For reference, copy and paste all the principles from Part A here:

Investigation III

1. Rub a Styrofoam cup with fur. Pass the cup over one of the following:  a) the back of your hand, b) another person’s hair. What do you observe?
2. Rub an inflated balloon with fur and bring the balloon near various objects in order to observe its effects. How are these effects similar or different if you rub the balloon against your hair instead? Bring the rubbed balloon near but not touching a thin stream of water. Describe what you observe.
3. Tear some scrap paper into very tiny bits and place them on the table top. Rub a plastic ruler or the Plexiglas with fur and bring the rubbed strip near but not quite touching the bits. Careful observation is required here in order to see everything that happens. Describe what you observe.
4. Which of your observations in steps 1-3 of this investigation can be explained with principles that you formulated previously?
5. Formulate any additional principles that you need to explain your observations in this investigation.
6. Tear off about a 6" square of aluminum foil. Bring it near both top and bottom test strips. How are the strips affected?
7. Rub the Plexiglas with fur. Place the piece of foil on the Plexiglas and then turn it over. What does the foil do?

Now remove the foil and bring it near the test strips. Is the result different from the previous step?

1. How can you explain your observations with the foil using the principles you've devised?