

Name: _____

Science and Technology 404
Static Electricity: Electrostatic Series

Substances in electrostatic/triboelectric series

Tendency	Substance
High affinity for capturing electrons (tendency to acquire a negative charge)	Plastic Copper Ebonite (hard rubber) Wood Cotton Paper Silk Lead
Strong tendency to give up electrons (tendency to acquire a positive charge)	Wool Glass

1. What will be the charge on each of the following objects if they are rubbed together?

a) Plastic rod and wool cloth

Plastic rod: _____

Wool cloth: _____

b) Glass rod and cotton cloth

Glass rod: _____

Cotton cloth: _____

c) Copper rod and silk cloth

Copper rod: _____

Silk cloth: _____

d) Paper and plastic ruler

Paper: _____

Plastic ruler: _____

2. 1) An ebonite rod charged by rubbing it with silk

2) A glass rod is charged by rubbing it with wool

3) The charged glass rod is then brought close to the charged ebonite rod

What is the electrical force between the charged glass rod and the charged ebonite rod, attraction or repulsion? Explain.