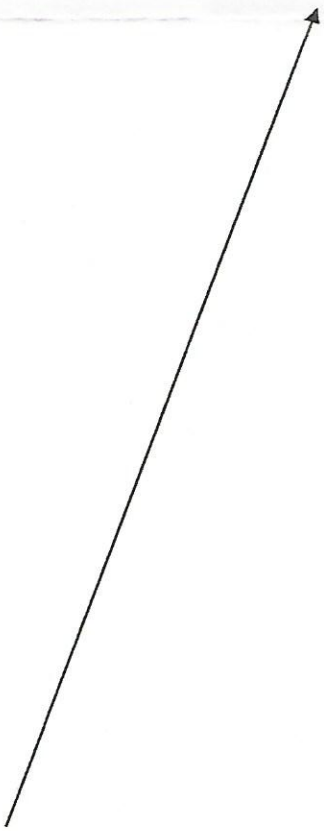
Triboelectric Series (separation of charge by rubbing)

positive end
(lose electrons)

air
human skin
asbestos
rabbit fur
acetate
glass
mica
human hair
nylon
wool
cat fur
lead
silk
aluminum
paper
(0) cotton (0)
steel
wood
amber
wax
vulcanized rubber
mylar
copper & nickel
brass & silver
synthetic rubber
gold & platinum
sulfur
acetate & rayon
celluloid
polyester
polystyrene
orlon



acrylic
rubber balloon
saran
cellophane tape
polyurethane
polyethylene
polypropylene
polyvinylchloride
silicon
teflon
silicone rubber

(gain electrons)
negative end

Ancient !

Ben Franklin	1747(?)	"positive" and "negative", single fluid, all sorts of stuff!!
	1752	lightening is electrical discharge (lightening rod)
	1753	Copely Medal, Royal Society ,MA Yale & Harvard

J.J. Thompson	1897 Electron
Ernst Rutherford	1911 Nucleus (coined word 'proton')
James Chadwick	1932 Neutron

Charles Coulomb (French) 1736-1806 | $K = 8.99 \times 10^9 = \frac{1}{4\pi\varepsilon_0}$

1785 $F \propto \frac{q_1 q_2}{r^2}$

Cavendish 1st
Not Published
1731-1810