



conductivity – high for good conductors.

V Ohm's Law $J = \sigma E$

Observables:

$V = EL$

$I = JA$

$J = \sigma V/L$



$I = V/(L/\sigma A)$



$R = \frac{L}{\sigma A}$



$I = V/R$

Note: "Conventional current flow", I , is opposite to direction electrons flow

resistance
 $\rho = 1/\sigma$