

Electric Current

- stream of electrically charged particles passing through a given area
(movement of electrons in a wire)

A) Conductivity of **Solids**

- 1) Metals - contain many _____ electrons (good conductors)
- 2) Glass, fused quartz, rubber - good _____

- Few free electrons

Insulators have a High _____ - (Structural resistance to electrons flow)

- 3) Semiconductor - a material with a resistance _____

B) Conductivity of Liquids

- 1) pure liquids _____
- 2) liquid with dissolved _____ conduct
(_____ solution)
(ion movement transfers charge not electrons)

C) Conductivity of Gases

- Gases conduct when _____ exposed to:
 - a) high energy radiation
 - b) OR electric field
 - c) OR with collision with high speed particles

- Charge in a gas is transferred by _____/
plasma – very hot ionized gas

D) Conditions for passing current

- 1) complete circuit
- 2) _____ (voltage) supplied by some
source
ex. Battery generator
- 3) conductor