8th Standard- Science

Chemical Effects of Electric Current

Some liquids are good conductors of electricity and some are poor conductors.

Most liquids that conduct electricity are the solution of acids, bases and salts.

Water: A Conductor or Insulator: The water that we get from sources such as tap, hand pumps, wells, ponds is not pure but a solution. The small number of mineral salts are naturally present in it. This water is thus a conductor of electricity. On the other hand, distilled water is free of salts, and thus an insulator.

Due to the heating effect of current, the filament of the bulb of the tester gets heated to a high temperature and it glows. Light emitting diodes (LED) glow even when a weak electric current flows through it.

Chemical Effects of Electric Current: The passage of an electric current through a conducting solution causes the chemical reaction. The resulting effects are called chemical effects of current.

Electroplating is an example of a chemical effect of current.

Applications of Electroplating: Electroplating is a very useful process. It is widely used for coating many metal objects and parts with a thin layer of a different metal.

Electrode: It is the metallic rod/conductor through which electricity enters or leaves an electrolyte.

Electroplating: The process of depositing a layer of any desired metal on another metallic object, by means of electricity, is called electroplating.

Good Conductors: The materials that allow the electric current to pass through them, are conductors of electricity. For example: Metals such as copper, aluminium.

LED: These are Light Emitting Diodes that contain two wires called leads. One lead slightly longer is always connected to the positive terminal of battery while the other lead is connected to the negative terminal of the battery.

Poor Conductors or Insulators: The materials, which do not allow an electric current to pass through them easily, are insulators. For example Rubber, plastic and wood.