

Sources of Energy

Electric current requires a source of energy to move the electrons (give them kinetic energy). The source of energy in DC circuits is a cell or battery. They convert chemical energy into electrical energy.

The cell was invented by Alessandro Volta, an Italian physicist, in 1800.

Components of a Cell

Electrodes – different metals so electrons are more “attracted” to one than the other.

Electrolyte – a chemical reaction takes place between the electrodes and electrolyte which frees up electrons to flow. (Must conduct electricity, may be an acid, base, or salt.)

In the first cell, the “Voltaic cell”, Volta used stacks of zinc and copper discs as the electrodes and salt water as the electrolyte.

Battery – two or more cells connected together.