

# Battery technology

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The primary, and arguably most noble, intent of the battery is to assist mankind's pursuit of practicality. Electricity had always fascinated human kinesis our ancestor; s first witness of lightning. In ancient Greece, Thales observant rubbing amber, for which the Greek word is electro, could generate an electric charge. In 1938 a Jar was found just outside of Baghdad, Iraq that may be the first battery. Nowadays battery is used to power, advanced machine, electric appliances mandatory of electronics that are integrated to mankind.

Having fulfilled its duty devolved practicality for human to operate electronics, the battery could be titled one of the most important inventions ever made. There are currently types of battery, disposable batteries which are designed to be used once indicated when they are worn out, and rechargeable battery which are designed to be recharged and reuse until their ability to store electrical energy idiosyncratically. Normally a battery such as the AAA, C or D has two terminals, one is marionettes and the other one is marked negative. In a battery, electrons collect on the negative terminal of the battery.

The electrons will flow from the negative to the positive terminal as fast as they can. Normally, you connect some type of load to the battery using a wire, without any load the battery will wear out vernacularly. TLS also tends to be dangerous, especially with large batteries. Wait the consumption of energy increasing from time to time, the battleground's is one of the world's most leading industries. The rapid growth of advanced technology made it inevitable for batteries to not develop more Andromeda. Researchers all over

the world are using the battery technology to make more environment friendly energy source.

The battery has the ability to store amount of energy based from their types; this kind of energy source could penetrated into heavy machineries thus replacing the use of non-renewable sources that are not environment friendly. Batteries are considered environment friendly because of its production method. There are two ways to store energy into a battery; one is by formulating a chemical reaction, and two is by charging it. Through the charging method, it only takes a transfer of electric energy from another power source. The battery is a device that converts chemical energy

into electricity. Like most important inventions, this device has many different versions from the 19th century, making the history of the battery quite interesting. The battery is a combination of many different elements that have been created, used for almost every aspect of modern life. The battery has made a progressive transformation from a crude invention made of simple elements to one of complexity and vast potential. The battery has helped in the growth of technology, and has become a big innovation toward modern living because of it. The invention of the battery can be dated back to 1780.

C. In Baghdad, Iraq where it was used in a process to electroplate objects with a thin layer of metal just like how gold and jewelry are plated today. From 1780 to about 1786, Luigi Galvani observed that when pieces of iron and brass are connected to frog's legs, he got them to twitch. This

started the interest in what was known as voltaic electricity, after Alessandro Volta. From 1796-1799 he experimented with such elements as Zinc and Silver and invented what was known as the FL In this highly technological world with advanced machines, electronics have been woven into almost every aspect of everyday life.

Batteries are integrated into the majority of any electric appliance found in the home and work place, and therefore could be titled as one of the most important tools to ever be invented. The knowledge of how batteries operate is substantial to understanding the basics of any electrical contraption. The first evidence of batteries was dated to be from in the neighborhood of BIBB. C. These ancient batteries were discovered in archaeological digs in Baghdad, Iraq. These antiquated batteries were used in simple operations to electroplate objects with a thin layer of metal, much the same way we plate things with gold and silver.

Much later, batteries were re-discovered in 1800 by a man named Alessandro Volta. The electrical unit of potential was named after him-the volt.

Alessandro Volta was born in 1745 and died in 1827, and in this time period he re-produced one of the most important parts of life. He developed the battery by alternating pieces of electrolyte soaked discs (sodium chloride), zinc, and copper plates. These plates and discs were stacked in a 1 2 3 order, and when a wire was placed on the two poles of the battery it would produce electricity.

Battery chemistry is a complex science to gain complete knowledge about, but basic battery chemistry will be covered. " An electrochemical cell uses

energy released from a spontaneous chemical redox reaction to generate electric current. The current is derived from the flow of electrons conducted through the metal and the movement of ions in a solution, called electrolytic conduction. A battery consists of a single electrochemical cell or a number of cells connected in series. "(Fisher, 518) A battery could be created by using a Zinc anode and a copper cathode.

An anode is a part of an electrochemical cell that releases electrons to the cathode, therefore being oxidized, and a cathode receives the electrons from the anode, therefore it undergoes reduction. So to create the Zinc/Copper battery, the Zinc rod would be placed into a Zinc Sulfate solution(ZnSO<sub>4</sub>), and the Copper rod would go into the Copper Sulfate solution(CuSO<sub>4</sub>). When the two rods are connects in some way, by wire or by deliberate touch, many things happen. Durable and reliable their batteries are. But which battery lasts the longest?

Will a more expensive, brand name battery really last longer than a generic battery? Before we make a hypothesis that addresses this question, let's learn about the two most common types of batteries. Alkaline batteries are made with potassium hydroxide, which is a basic solution (meaning it can neutralize an acid). A non-alkaline battery is made with ammonium chloride and zinc. The ammonium chloride is acidic. Alkaline batteries tend to be more expensive than their non-alkaline counterparts, just like brand-name batteries are more expensive than generics. But in each case, what are people really paying for?