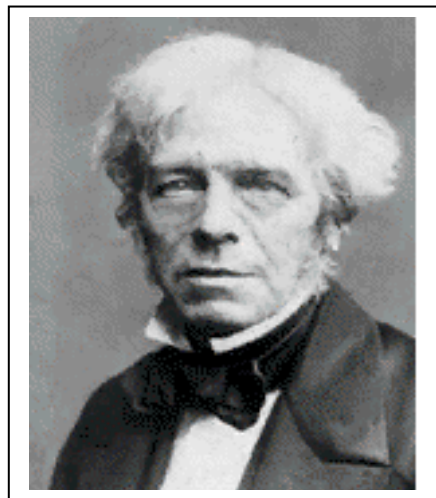## Michael Faraday (1791 – 1867)

He was a great chemist as well as physicist. He made electricity a domestic and industrial slave. His achievements are among the highest ever attained by humanity, for the fruits of them may never be exhausted.

Michael Faraday was born at Newington Butts, London. His father, James Faraday, was a blacksmith. He was hard put to it to make ends meet, and the young Michael experienced the hardships of poverty throughout his childhood. His education was minimal. At the age of thirteen, he had to leave the school and go out to earn his living. He became an errand boy for neighboring book-seller. His job consisted mainly of carrying and delivering newspapers. It is hard now to imagine becoming a great scientist without secondary schooling; what Faraday lacked was a training in mathematics. He was a self-taught scientist; he had practically no proper education.

Faraday belonged to a very religious group. They did not believe in pride and vanity and Faraday turned down the presidency of the Royal Society and a knighthood.

At the Royal Institution, Davy engaged him as a laboratory assistant at 6 dollars a week. He went every working day into his laboratory with some new question to put experimentally to Nature and he never paused until he had a sufficient answer, 'yes' or 'no', to his query. During his work at this period both he and Davy were several times injured by explosions of chloride of nitrogen, a dangerous gas. Faraday had first been a bookbinder, and he had gained Davy's favour by presenting him with a bound copy of notes made at his lectures. Lady Davy used him as a menial and almost drove him to return home. At Geneva Davy was the guest of his friend, who was shocked when he found out that Farady was living with the servants. The courteous host accommodate by sending Faraday's meals to his own room.

In 1836 Faraday made world's first installation in the South Foreland Lighthouse, which was to be lighted by electricity. After the intense, original and lonely work concerning electricity, and perhaps from getting too much mercury into his system in the laboratory, Faraday had a breakdown in health in 1839. His nerves were shattered, and his mind was seriously shaken. For three years he did nothing, not even reading on science. At length he retired, giving up his last active work in 1865. From then until his death on August 25, 1867, he spent his time, with failing memory, "just waiting".