Further Reading: Michael Faraday

**General reading**


**Published books by Faraday, mainly collections of papers and lecture notes, some published after his death:**

*Chemical Manipulation, Being Instructions to Students in Chemistry*. (1827).

*Experimental Researches in Electricity, Vol I, II & III* (1837, 1844, 1855)

*Experimental Researches in Chemistry and Physics* (1859).

W. Crookes. ed. *A Course of six lectures on the Various Forces of Matter* (1860)

W. Crookes. ed. *A Course of six lectures on the Chemical History of a Candle*, (1861)


*The liquefaction of gases* (1896.)

**Published texts by Faraday**


The complete correspondence of Michael Faraday is currently being compiled. Five volumes have been published with the sixth in progress. Frank A.J.L. James, *The Correspondence of Michael Faraday*, (London, 1991-2008).

**In-depth reading:**


David Gooding, ‘Experiment and concept formation in electromagnetic science and technology in England in the 1820s’, *History and Technology*, 1985, 2: 151-176,


Frank A.J.L. James, ‘“the civil-engineer’s talent”: Michael Faraday, science, engineering and the English lighthouse service, 1836-1865’, *Transactions of the Newcomen Society*, 1999: 70: 153-60


José Romo and Manuel G. Doncel, ‘Faraday’s initial mistake concerning the direction of induced currents, and the manuscript of Series I of his Researches’, Archive for the History of the Exact Sciences, 1994, 47: 291-385.


Michael Faraday's discoveries of electromagnetic induction and of the laws of electrolysis led to the invention of the first electric motor. Faraday's mother stayed at home to take care of Michael and his three siblings, and his father was a blacksmith who was often too ill to work steadily, which meant that the children frequently went without food. Despite this, Faraday grew up a curious child, questioning everything and always feeling an urgent need to know more. Because of his early reading and experiments with the idea of force, he was able to make important discoveries in electricity later in life and eventually became a chemist and physicist. Michael Faraday, the third of four children of James Faraday (1761–1810) and his wife, Margaret Hastwell Faraday (1764–1838), was born in Newington Butts on 22nd September 1791. James Faraday and all his children belonged to the small Christian sect called in Scotland the Glasites after their founder, John Glas, and in England the Sandemanians, after Robert Sandeman, who had brought these religious views to the country. Faraday worked as a blacksmith with James Boyd, a Sandemanian ironmonger of Welbeck Street, London. Faraday later recalled: "my education was of the most ordinary descript Michael Faraday, English physicist and chemist whose many experiments contributed greatly to the understanding of electromagnetism. Among his achievements, he was the first to produce an electric current from a magnetic field and invented the first electric motor and dynamo. Learn about his life and career. John Stambaugh Professor of the History of Science; Director, Program in the History and Philosophy of Science and Technology, Cornell University, Ithaca, New York. Author of Michael Faraday. Last Updated: Jan 22, 2021 See Article History. MICHAEL FARADAY, the hero of James Hamilton's studious if slightly bewildering new biography, was one of the greatest experimental scientists ever. He invented the electric motor, generator and transformer -- thus, as Hamilton notes, putting "the Age of Steam . . . on notice to quit." He discovered the basics of electromagnetism, from which sprang everything from the electronics industry to Einstein's relativity. Originally Answered: When reading Maxwell, Faraday, Lord Kelvin and more recently Nikola Tesla and Richard Feynman. All of them, seem compared to other, to explain quite complex phenomena with words and without exclusively relying on mathematics why? Michael Faraday (September 22, 1791 – August 25, 1867) was an English physicist and chemist who is one of the most influential scientists of all time. His most important contributions, and best known work, were on the closely connected phenomena of electricity and magnetism, but he also made very significant contributions in chemistry. Faraday was principally an experimentalist; in fact, he has been described as the "best experimentalist in the history of science". He did not know any advanced