

Further Reading: Michael Faraday

General reading

Geoffrey Cantor, *Michael Faraday: Sandemanian and Scientist. A Study of Science and Religion in the Nineteenth Century*, (London, 1991).

David Gooding, *Experiment and the Making of Meaning: Human Agency in Scientific Observation and Experiment*, (Dordrecht, 1991).

David Gooding and Frank A.J.L. James (eds.), *Faraday Rediscovered: Essays on the Life and Work of Michael Faraday, 1791-1867*, (London, 1985).

Frank A.J.L. James (ed.), *'The Common Purposes of Life': Science and society at the Royal Institution of Great Britain*, (Aldershot, 2002).

Frank A.J.L. James, *Michael Faraday: A very short Introduction*. (Oxford, 2010)

Alan E. Jeffreys, *Michael Faraday: A List of His Lectures and Published Writings*, (London, 1960).

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)

W. Crookes. ed. *On the Various Forces in Nature*. (1873)

The liquefaction of gases (1896.)

Published texts by Faraday

The vast majority of Faraday's manuscripts, apart from letters, have been published on microfilm and cd. Frank A.J.L. James, *Guide to the Microfilm edition of the Manuscripts of Michael Faraday (1791-1867) from the Collections of the Royal Institution, The Institution of Electrical Engineers, The Guildhall Library [and] The Royal Society*, (2nd ed., Wakefield, 2001).

A typescript edition of Faraday's experimental notebooks has been published. Thomas Martin, *Faraday's Diary*, 7 volumes and index, London, 1932–36.

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:

Ronald Anderson, 'The Crafting of Scientific Meaning and Identity: Exploring the Performative Dimensions of Michael Faraday's Texts', *Perspectives on Science*, 2006, **14**: 7-39.

Ronald Anderson, 'The Referees' Assessment of Faraday's Electromagnetic Induction Paper of 1831', *Notes and Records of the Royal Society of London*, 1993, **47**: 243-56,

Henry Bence Jones, *Life and Letters of Faraday*, 1st and 2nd editions, 2 volumes, London, 1870

Giovanni Boato and Natalia Moro, 'Bancalari's role in Faraday's discovery of diamagnetism and the successive progress in the understanding of magnetic properties of matter', *Annals of Science*, 1994, **51**: 391-412.

Brian Bowers and Lenore Symons, *'Curiosity Perfectly Satisfied': Faraday's travels in Europe 1813-1815*, (London, 1991).

- Z. Buchwald, 'William Thomson and the mathematization of Faraday's electrostatics', *Historical Studies in the Physical Sciences*, 1977, **8**: 101-136
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- Geoffrey Cantor, 'The Scientist as Hero: Public Images of Michael Faraday', in M. Shortland and R. Yeo (eds.), *Telling Lives in Science: Essays on Scientific Biography*, (Cambridge, 1996), 171-93.
- Geoffrey Cantor, 'How Michael Faraday brought law and order to the West End of London', *Physis*, 1992, **29**: 187-203
- Geoffrey Cantor, 'Educating the Judgment: Faraday as a Lecturer', *Bulletin for the History of Chemistry*, 1991, **11**: 28-36,
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- June Z. Fullmer and Melvyn C. Usselman, 'Faraday's Election to the Royal Society: A Reputation in Jeopardy', *Bulletin for the History of Chemistry*, 1991, **11**: 17-28.
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- David Gooding, 'Mathematics and Method in Faraday's Experiments', *Physis*, 1992, **29**: 121-147
- David Gooding, 'Mapping Experiment as a Learning Process: How the First Electromagnetic Motor Was Invented', *Science Technology and Human Values*, 1990, **15**: 165-201.
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- David Gooding, 'Experiment and concept formation in electromagnetic science and technology in England in the 1820s', *History and Technology*, 1985, **2**: 151-176,
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- L. Hannah, *Electricity before Nationalisation: A Study of the Development of the Electricity Supply Industry in Britain to 1948*, (London, 1979),
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- Frank A.J.L. James, 'Harriet Jane Moore, Michael Faraday, and Moore's mid-nineteenth century watercolours of the interior of the Royal Institution', in James Hamilton (ed.), *Fields of Influence: Conjunctions of Artists and Scientists, 1815-1860*, (Birmingham, 2001), pp.111-128.
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Michael Faraday, FRS (22 September 1791 – 25 August 1867) was an English chemist and physicist (or natural philosopher, in the terminology of the time) who contributed to the fields of electromagnetism and electrochemistry. Faraday studied the magnetic field around a conductor carrying a DC electric current. Diamagnetism. Michael Faraday holding a glass bar of the type he used in 1845 to show that magnetism can affect light in a dielectric material.[36]. In 1845, Faraday discovered that many materials exhibit a weak repulsion from a magnetic field, a phenomenon he named diamagnetism. Faraday also found that the plane of polarisation of linearly polarised light can be rotated by the application of an external magnetic field aligned in the direction the light is moving. 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, (born September 22, 1791, Newington, Surrey, England—died August 25, 1867, Hampton Court, Surrey), English physicist and chemist whose many experiments contributed greatly to the understanding of electromagnetism. Michael Faraday: Further reading. Biographies, books and papers about Michael Faraday. Credit: Anna Gordon. Papers. A large proportion of Faraday's personal and experimental papers are held at the Royal Institution of Great Britain. Find out how to view the material. Faraday published only one book, *Chemical Manipulation, Being Instructions to Students in Chemistry* (1827). His other publications are collections of papers or lecture notes; his famous *Chemical History of a Candle* (1861) was edited and published by his friend William Crookes. Michael Faraday's books and manuscripts published after his death - Download the list. Downloads. Faraday reading list. Faraday publications list. Related links. Michael Faraday: A Very Short Introduction. Share this. Michael Faraday (1791-1867) is the famous British scientist who became famous in the field of experimental physics. It is known for the opening of electromagnetic induction which formed later the basis of industrial production of electricity. Faraday was a member of the numerous scientific organizations, including the London royal society and St. Petersburg academy of Sciences. He is considered by right the largest scientist-experimenter in the history of science. From poverty to science. Michael Faraday was born on September 22, 1791 in working family. His father and the elder brother were en