

NIELS BOHR CHRONOLOGY

- 1885 Born October 7th in Copenhagen, Denmark.
- 1903 Matriculation from Gammelholm School.
Started studying physics at the University of Copenhagen.
- 1907 The gold medal of the Royal Danish Academy of Sciences and Letters awarded for an essay on the determination of the surface tension of liquids.
- 1909 Master's degree.
- 1911 Doctor's thesis on the electron theory of metals.
- 1911-12 Research in Cambridge with J.J.Thomson.
- 1912 Research in Manchester with Ernest Rutherford.
Marries Margrethe Nørlund on August 1st.
- 1913 Theory of atomic constitution and spectra.
Lecturer at the University of Copenhagen.
- 1914-16 Lecturer at the University of Manchester.
- 1916 Professor of theoretical physics at the University of Copenhagen.
- 1917 Member of the Royal Danish Academy.
- 1921 Inauguration of the University Institute for Theoretical Physics.
- 1922 Theory of the periodic system.
Nobel prize in physics.
- 1927 Analysis of the problem of observations in atomic physics (complementarity).
- 1931 Offered the mansion of honour at Carlsberg.
- 1933 Analysis of the problem of measurement in quantum electrodynamics (together with Léon Rosenfeld).
- 1936 The liquid drop model of the atomic nucleus.
- 1939 President of the Royal Danish Academy.
Theory of nuclear fission (together with John A. Wheeler).
- 1943 Escape to Sweden.
- 1943-45 Attached to the British-American atomic energy project.
- 1945 Return to Denmark.
- 1950 Open Letter to the United Nations.
- 1955 Chairman of the Danish Atomic Energy Commission.
- 1962 Died on November 18th at his home at Carlsberg.

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THE NIELS BOHR ARCHIVE AT 25



The Niels Bohr Archive was formally established on 7 October 1985. This document was prepared in connection with the celebration of its 25th anniversary, held on 9 June 2011.

THE NIELS BOHR ARCHIVE: COLLECTIONS

Material originating from Niels Bohr

- Bohr Scientific Correspondence
- Bohr Nobel Prize Correspondence
- Bohr Scientific Correspondence, Supplement
- Bohr Scientific Manuscripts
- Bohr Scientific Manuscripts, Supplement
- Manuscripts, other authors
- Bohr General Correspondence
- Bohr Private Correspondence
- Bohr Political Correspondence
- Bohr Memorabilia
- Physics Models
- Slide Collection
- Harald Bohr Correspondence
- Bohr Family Correspondence
- Papers of Niels Bohr's paternal ancestors (Topsøe Collection)
- Bohr Newspaper Clippings
- Sound recordings of Niels Bohr lectures and interviews
- Recordings of Niels Bohr on Danish Radio
- Niels Bohr Film Collection
- Bohr Institute Administrative Records, up to 1962

Material originating from other physicists etc.

- George Hevesy Scientific Correspondence
- Léon Rosenfeld Papers
- Aage Bohr Papers
- Fritz Kalckar Papers
- Oskar Klein Papers
- Hans Anton Kramers Papers
- Léon Lichtenstein Papers
- Ludvig Valentin Lorenz Papers
- Allan Roy Mackintosh Papers
- Christian Møller Papers
- Bernard Peters Papers
- Mogens Pihl Papers
- Ebbe Rasmussen Papers
- Stefan Rozental Papers

Photographs

- Niels Bohr Archive Photograph Collection

Institutions

- Fysisk Forening - Records
- Parentesen - Records
- Selskabet for Naturlærrens Udbredelse - Records



PAST

The origins of the Niels Bohr Archive (NBA) may be dated to the 1950s, when Niels Bohr (1885-1962) set up a “secretariat” at his residence, the Carlsberg Mansion, in order to organize some of his letters and manuscripts. In the late 1950s, when the American Philosophical Society inaugurated the Archives for the History of Quantum Physics (AHQP) – an ambitious project to document the early history of quantum physics – Niels Bohr offered Carlsberg as the headquarters. This seemed only natural, as Bohr’s Copenhagen institute had been an international centre for developing quantum physics. As a result NBA (as it was called already then) became an original AHQP repository, offering its resources to historians of science from all over the world.

NBA’s first priority soon became the publication of the Niels Bohr Collected Works, a project started by Niels Bohr’s younger colleague, Léon Rosenfeld, and supported mainly by the Carlsberg Foundation. Volume 1 was published in 1972. In 1977, his project was left to Erik Rüdinger, who also took over the task of looking after the Archive.

In 1985, in connection with the centennial for Niels Bohr’s birth, NBA was formally established as an independent institution under the Danish Ministry of Education, with an annual grant

covering most of the day-to-day expenses, to be supplemented with grants from private foundations. On this occasion NBA, now housed at its current address at the Niels Bohr Institute (NBI), received the majority of Bohr’s letters and manuscripts as well as other relevant items through a deed of gift from Niels Bohr’s widow and sons. These papers, which have been conserved, ordered and catalogued, comprise the core of the holdings.

Over the years the collections at NBA have been augmented with supplementary papers originating from Niels Bohr as well as from several of Bohr’s contemporaries, such as Hevesy, Rosenfeld, Kramers and Klein, in addition to physicists of the next generation, notably Aage Bohr.

Erik Rüdinger was Director of NBA until 1989, when he was succeeded by Finn Aaserud, who also took over as General Editor of the Collected Works which were completed with the publication of Volume 12 in 2006. In 2008, the Collected Works were published in a new limited edition with an added cumulative index. The new edition is also available as an e-book.

PRESENT

In addition to historical research and archival work, including making material available to scholars all over the world, NBA has taken on an outreach function primarily directed towards high-school students but also the general public. There is a public series of history of science seminars with lectures by internationally prominent scholars. The numerous requests regarding research and use of NBA material are handled by the staff of three.

With support from the Danish State Lottery a main priority is currently the digitization of NBA’s archival collections. Thus, descriptions of the collections are now available on the internet, often down to document level. There is an on-going effort to digitize the documents themselves, for preservation purposes as well as to make the

material available on the internet to *bona fide* researchers. Over the next several years the digitization will continue, so that all the archival material will gradually become available on the internet according to international archival standards.

NBA is frequently offered new material. In order to secure important archival documents that may otherwise be lost, a systematic effort is underway to contact physicists at NBI. Extensive oral history interviews with prominent physicists, such as Nobel laureates Aage Bohr and Ben Mottelson, are particularly helpful for securing such material. These interviews are deposited for the use of researchers.

NBA is becoming increasingly involved in the preparations for the 100th anniversary in 2013 of Bohr’s atomic model, which was published in a trilogy of articles, “On the Constitution of Atoms and Molecules”, which started a revolution in physics. In addition to providing material for projects instigated by others, NBA will itself be responsible for research publications and conferences. A new international edition of Bohr’s trilogy will be published with an extensive introduction by historian of science John L. Heilbron, and a historical publication based on the otherwise closed early correspondence between Bohr and his future wife Margrethe Nørlund will shed important new light on Bohr both as a scientist and a person.

FUTURE

The digitization and securing of new collections will continue. “Born digital” material poses a special new challenge. NBA hopes to pioneer this area by close collaboration with NBI’s physicists and by following closely developments in the area through its already substantial international network in the science archives community.

The 2013 celebrations will be a landmark for the history of science and may serve, if resources can be found, as a stepping stone for a substantial increase in NBA’s activities, which would make it possible to meet the ever-increasing number of requests from researchers at home and abroad. Equally important, NBA needs to develop its own research potential with resident historians of science carefully choosing relevant historical projects and carrying them out on the basis of the archival collections, the major part of which is as yet not used for such purposes. In this regard, several new ideas and visions are currently being developed. In the longer run, such activities will help encourage a much-needed expansion of the field of history of science at the University of Copenhagen.

