

**Biophysics Program Records, 1931-1969
(Bulk 1945-1969)**



**Carnegie Institution of Washington
Department of Terrestrial Magnetism Archives
Washington, DC**

Finding aid written by:
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May, 2005

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(Bulk 1945-1969)**

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DTM-2005-06

Introduction

Abstract: This collection contains eleven volumes of 173 published and unpublished articles; papers presented at symposia and conferences; and reports on biophysics chiefly from 1946-1969. The articles report early research in the areas of deoxyribonucleic acid (DNA), Escherichia coli (E. coli), and ribonucleic acid (RNA).

Extent: 1.25 linear feet; 1 records center carton

Acquisition: The records have been in the possession of the Department of Terrestrial Magnetism (DTM) since their creation.

Access Restrictions: There are no restrictions to this collection.

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Preferred Citation: Biophysics Program Records, 1931-1969, Department of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D.C.

Processing: This collection was processed by Ann Mulfort in May 2005 through the generous support of the National Historical Publications and Records Commission.

During the processing of this collection, the archivist photocopied the separate lists of bibliographic citations of each volume. An annotated copy of the accumulated list is found in the control file, for efficient inspection by the researcher.

Administrative History

From the 1930s, visiting scientists to the Department of Terrestrial Magnetism (DTM) utilized its resources for biological and medical studies. One of those scientists was Winifred G. Whitman who studied the effects of gamma-rays on laboratory rats and published the results of her work in 1931. At the conclusion of World War II, when DTM's work on war efforts ceased, scientists trained in nuclear physics with an interest in biology drove the development of a program for scientific research in the field of biophysics. The availability of the newly constructed cyclotron and its ability to produce radioactive materials encouraged this new field of study.

Collaboration and training increased between the physicists of DTM and biologists in other organizations such as the National Cancer Institute, Johns Hopkins Hospital, and the Department of Embryology of the Carnegie Institution. Significant collaborators and researchers in this field at DTM include Philip H. Abelson, Ellis T. Bolton, Roy J. Britten, Dean B. Cowie, and Richard B. Roberts.

The first major subject of investigation was *Escherichia coli* (*E. coli*). Other topics of investigation included deoxyribonucleic acid (DNA) and ribonucleic acid (RNA). In 1964, the Bolton/McCarthy study on DNA was reported in scientific publications around the country.

Abelson left the Biophysics Section in 1953 to become the Director of the Geophysical Laboratory of Carnegie Institution of Washington (CIW). In 1971, Abelson became President of CIW, and by 1974, he and the trustees of the institution analyzed the contributions being made in the area of biophysics. It was determined that the work being performed no longer fell within the mission of DTM, and it was therefore officially disbanded.

Scope and Contents Note

This collection is comprised of one records center carton of 173 published and unpublished articles; papers presented at symposia and conferences; and reports which chronicle DTM's research in biophysics from 1931 to 1969. Each of the eleven volumes includes a bibliographic citations list of the volume's contents. A copy of the combined bibliographic lists is in the control file. The bulk of the materials begin at the conclusion of World War II and end in 1969. Authors largely represented in this collection include Bolton, Britten, Cowie, and Roberts.

Arrangement

The files are arranged chronologically by year of work.

Folder Listing

	<u>Box</u>	<u>Folder</u>
Biophysics Publications, 1931, 1939, 1941, 1945-1969, n.d.		
Biophysics Publications, Vol. 1, 1931, 1939, 1941, 1945-1949	1	1
Biophysics Publications, Vol. 2, 1949-1953, n.d. [1 of 2]		2
Biophysics Publications, Vol. 2, 1949-1953, n.d. [2 of 2]		3
Biophysics Publications, Vol. 3, 1954-1955, n.d.		4
Biophysics Publications, Vol. 4, 1956?, 1958, n.d. [1 of 2]		5
Biophysics Publications, Vol. 4, 1956?, 1958, n.d. [2 of 2]		6
Biophysics Publications, Vol. 5, 1958-1959, n.d. [1 of 2]		7
Biophysics Publications, Vol. 5, 1958-1959, n.d. [2 of 2]		8
Biophysics Publications, Vol. 6, 1960-1962, n.d. [1 of 2]		9
Biophysics Publications, Vol. 6, 1960-1962, n.d. [2 of 2]		10
Biophysics Publications, Vol. 7, 1961-1962, n.d. [1 of 2]		11
Biophysics Publications, Vol. 7, 1961-1962, n.d. [2 of 2]		12
Biophysics Publications, Vol. 8, 1963-1964, n.d. [1 of 2]		13
Biophysics Publications, Vol. 8, 1963-1964, n.d. [2 of 2]		14
Biophysics Publications, Vol. 9, 1964-1965, n.d. [1 of 2]		15
Biophysics Publications, Vol. 9, 1964-1965, n.d. [2 of 2]		16
Biophysics Publications, Vol. 10, 1966-1967 [1 of 2]		17
Biophysics Publications, Vol. 10, 1966-1967 [2 of 2]		18
Biophysics Publications, Vol. 11, 1968-1969		19

Subject Terms

Topics: Biophysics
DNA
Escherichia coli
RNA

Corporate Names: Carnegie Institution of Washington. Dept. of Terrestrial Magnetism.

Personal Names: Bolton, Ellis T.
Britten, Roy J.
Cowie, Dean B.
Roberts, Richard B. (Richard Brooke), 1910-

Forms: Grey literature
Manuscripts for publication

Bibliography

Brown, L., Biophysics, *Centennial History of the Carnegie Institution of Washington, Volume II, The Department of Terrestrial Magnetism*. Cambridge: Cambridge University Press, 2004.

Related Collections

Small caps denote series names.

Department of Terrestrial Magnetism General Files. Department of Terrestrial Magnetism, Carnegie Institution of Washington. See the following folder titles in this collection:

CHRONOLOGICAL FILES for these folder titles:

- Biophysics
- Biophysics (Int. Res.) [International Research]; Osawa (Japan)
- Biophysics Program [DTM]
- Biophysics Recommendations 1973
- (INT.) Biophysics
- Manuscripts – Biophysics
- Manuscripts – Biophysics 1967
- South American Research – Biophysics and Earth's Crust

ARCHIVES FILES for these folder titles:

- Biophysics
- Biophysics – Reports on Bolton/McCarthy study
- Biophysics Program – History