Smithsonian
National Museum of American History Kenneth E. Behring Center

Guide to Brookhaven National Laboratory Bubble Chamber Records

NMAH.AC.0522

NMAH Staff

1998

Archives Center, National Museum of American History
P.O. Box 37012
Suite 1100, MRC 601
Washington, D.C. 20013-7012
Business Number: Phone: 202-633-3270
Fax Number: Fax: 202-786-2453
archivescenter@si.edu
https://americanhistory.si.edu/archives

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Collection Overview

Repository:	Archives Center, National Museum of American History
Title:	Brookhaven National Laboratory Bubble Chamber Records
Date:	1959 - 1960
Identifier:	NMAH.AC.0522
Creator:	Brookhaven National Laboratory (Creator)
Source:	National Museum of American History (U.S.). Division of Electricity and Modern Physics (Collector)
Extent:	1.67 Cubic feet
Language:	English .
Container:	Box 1
Container:	Box 2

Administrative Information

Acquisition Information

Collection donated by Brookhaven National Laboratory, through Bernard J. McAlary, December 15, 1994.

Provenance

Collected by the Division of Electricity and Modern Physics, NMAH, transferred to the Archives Center December 12, 1994.

Separated Materials

The bubble chamber itself is in the Division of Medicine and Science. See Accession No. 1978.2309.

Processing Information

Collection is unprocessed.

Preferred Citation

Brookhaven National Laboratory Bubble Chamber Records, Archives Center, National Museum of American History.

Restrictions

Collection is open for research but is stored off-site and special arrangements must be made to work with it. Contact the Archives Center for information at archivescenter@si.edu or 202-633-3270.

Conditions Governing Use

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Scope and Contents

Documentary materials relating to the construction and operation of the 80-inch hydrogen bubble chamber at Brookhaven National Laboratory: a 16mm film of the construction of the bubble chamber; 6 reels of audiotapes from the operation of the bubble chamber, 8 rolls of 70mm film of particle tracks; 3 rolls of 35mm film of particle tracks; a log book of the bubble chamber, recording the discovery of the Omega-minus particle; an operations manual for the chamber; and a "user package" for the chamber. Some of the film records the discovery of the Omega-minus particle.

Arrangement

1 series. Unarranged.

Bibliography

See "80-inch Bubble Chamber" by Brookhaven National Laboratory, http://www.bnl.gov/bnlweb/history/80_inch.asp.

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Accelerators
Bubble chambers
Nuclear physics
Particle tracks
Particles (Nuclear physics)
Subatomic particles

Types of Materials:

Audiotapes -- 1950-2000
Logs (records)
Motion pictures (visual works) -- 1960-1980
Photographs -- 35mm -- 1950-2000
Photographs -- 70mm -- 1950-2000

Names:

National Museum of American History (U.S.). Division of Electricity and Modern Physics
United States. Dept. of Energy

Container Listing

80-inch Bubble Chamber Films

Construction of the 80 Inch Bubble Chamber, undated
1 Film reel (black and white, composite optical soundtrack, print; 16mm; 1250 feet)

Recording the discovery of the Ω- Particle, View 1
1 Film reel (70mm, 400 feet)
Notes: Notations on canister:

First Omega- Event; Frame #097025; Roll 53B - View 1; 96147-97071; Exp. #30

Recording the discovery of the Ω- Particle, View 2
1 Film reel (70mm, 500 feet)
Notes: Notations on canister:

First Omega- Event; Frame #097025; Roll 53B - View 2; V.3B; Exp. #30

Recording the discovery of the Ω- Particle, View 3
1 Film reel (70mm, 500 feet)
Notes: Notations on canister:

First Omega- Event; Frame #097025; Roll 53B - View 3; 96147-97080; Exp. #30

N-10133, Tracks
5 Film reels (70mm, various lengths)

Experiment 274, Position 1, 1970
1 Film reel (35mm, 900 feet)
Notes: Notation on canister:

Experiment: #274

Beam: Pi+

Energy: 7.88 BEV/C

Experimenter and Affiliation: BNL

Roll #3

Position #1

Experiment 274, Position 2, 1970
1 Film reel (35mm, 900 feet)
Notes: Notation on canister:

Experiment: #274

Beam: Pi+

Energy: 7.88 BEV/C

Experimenter and Affiliation: BNL

Roll #3

Position #2

Experiment 274, Position 3, 1970
1 Film reel (35mm, 900 feet)
Notes: Notation on canister:

Experiment: #274

Beam: Pi+

Energy: 7.88 BEV/C

Experimenter and Affiliation: BNL

Roll #3

Position #3

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