Irving Langmuir Papers

A Finding Aid to the Collection in the Library of Congress

Manuscript Division, Library of Congress
Washington, D.C.
2012

Contact information:
http://hdl.loc.gov/loc.mss/mss.contact

Additional search options available at:
http://hdl.loc.gov/loc.mss/eadmss.ms012160

LC Online Catalog record:
http://lccn.loc.gov/mm77029413

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Revised and expanded by Brian McGuire

Collection Summary

Title: Irving Langmuir Papers
Span Dates: 1871-1957
ID No.: MSS29413
Creator: Langmuir, Irving, 1881-1957
Extent: 32,000 items ; 107 containers plus 4 oversize ; 42.6 linear feet
Language: Collection material in English
Location: Manuscript Division, Library of Congress, Washington, D.C.
Summary: Chemist. Correspondence, diaries, experimental notebooks, writings, printed matter, and miscellaneous material containing data that led to scientific developments such as the gas-filled incandescent lamp, the high vacuum power tube, atomic hydrogen welding, and screening smoke generators for the armed forces. Includes material on cloud seeding experiments and smoked bathythermograph records obtained at Lake George, N.Y. Also includes material relating to Langmuir's student years.

Selected Search Terms

The following terms have been used to index the description of this collection in the Library's online catalog. They are grouped by name of person or organization, by subject or location, and by occupation and listed alphabetically therein.

People
Bohr, Niels, 1885-1962--Correspondence.
Bush, Vannevar, 1890-1974--Correspondence.
Langmuir, Irving, 1881-1957.
Stokowski, Leopold, 1882-1977--Correspondence.
Whitney, Willis Rodney, 1868-1958--Correspondence.

Organizations
General Electric Company. Research Laboratory.
Universität Göttingen--Students.

Subjects
Atomic hydrogen.
Bathythermograph.
Chemistry, Physical and theoretical.
Incandescent gas-lighting.
Incandescent lamps.
Military research.
Precipitation (Meteorology)--Modification.
Rain-making.
Smoke screens.
Snowpack augmentation.
Vacuum-tubes.
Water temperature--New York (State)--George, Lake (Lake)
Weather control.
Welding.
World War, 1939-1945--United States.

Places
George, Lake (N.Y. : Lake)
United States--Armed Forces.

Occupations
Chemists.

Administrative Information

Provenance

The papers of Irving Langmuir, chemist, were given to the Library of Congress as a bequest of Langmuir in 1958. An addition was received as a gift of Jerome S. Prener in 1988.

Processing History

The papers of Irving Langmuir were arranged and described in 1959. The collection was expanded and revised in 2005. The finding aid was revised again in 2012.

Additional Guides

Early descriptions of the Langmuir Papers appeared in the *Library of Congress Quarterly Journal of Current Acquisitions* 16, no. 3 (May 1959) and in the *Library of Congress Information Bulletin* 18, no. 4 (Jan. 26, 1959). In 1962, the Library published *Irving Langmuir, a Register and Index of His Papers in the Library of Congress.*

Copyright Status

The status of copyright in the unpublished writings of Irving Langmuir is governed by the Copyright Law of the United States (Title 17, U.S.C.).

Access and Restrictions

The papers of Irving Langmuir are open to research. Researchers are advised to contact the Manuscript Reading Room prior to visiting. Many collections are stored off-site and advance notice is needed to retrieve these items for research use.

Preferred Citation

Researchers wishing to cite this collection should include the following information: Container number, Irving Langmuir Papers, Manuscript Division, Library of Congress, Washington, D.C.

Biographical Note

Date	***Event***
1881, Jan. 31	Born, Brooklyn, N. Y.
1903	B.S, Columbia School of Mines, Columbia University, N.Y.
1906	Ph.D., University of Göttingen, Göttingen, Germany
1906-1909	Chemistry instructor, Stevens Institute, Hoboken, N.J.
1909-1950	Engaged in physical chemistry research, Research Laboratory of General Electric Co., Schenectady, N.Y
1932	Nobel Prize in Chemistry
1950-1957	Consultant to General Electric Research Laboratory
1957, Aug. 16	Died, Falmouth, Mass.

Scope and Content Note

The papers of Irving Langmuir (1881-1957) span the years 1881-1957 and consist of correspondence, experimental notebooks, diaries, and manuscripts of articles and speeches. The collection is organized into ten series: Diaries, Correspondence, Subject File, Laboratory Notebooks, Experimental Sheets, Article and Speech File, Printed Matter, Miscellany, Addition, and Oversize.

Included among the correspondence are letters from Langmuir to his mother while he was studying at the University of Göttingen in 1903-1906. Also in the collection are letters from fellow scientists Niels Bohr, Vannevar Bush, and Willis Rodney Whitney as well as correspondence exchanged with Leopold Stokowski concerning improvements in sound reproduction. The experimental notebooks,1894-1957, contain data relating to the development of the gas-filled incandescent lamp, the high vacuum power tube, atomic hydrogen welding, screening-smoke generators for use of the armed forces, and weather control. The notebooks are supplemented by an extensive Subject File on research topics such as cloud seeding experiments for the artificial production of snow and rain. In the Subject File as well are charts of Lake George in New York, various notebooks, and hundreds of smoked bathythermograph records obtained by Langmuir from Lake George.

The collection also contains drafts of speeches and articles by Langmuir, a small group of published scientific journals collected and annotated by him, newspaper clippings, a card reference file, photographs, and awards.

Arrangement of the Papers

This collection is arranged in ten series:

- Diaries, 1897-1902
- Correspondence, 1895-1957
- Subject File, 1910-1957
- Laboratory Notebooks, 1894-1957
- Experimental Sheets, 1902-1954
- Article and Speech File, 1898-1956
- Printed Matter
- Miscellany, circa 1871-1957
- Addition, 1927
- Oversize, 1897-1956

Description of Series

Container	*Series*
BOX 1	**Diaries, 1897-1902** Brief diary material for 1897 and 1900 and a detailed description of a trip across United States and Canada in 1902. Arranged chronologically.
BOX 1-7	**Correspondence, 1895-1957** Letters sent and received. Arranged chronologically.
BOX 8-43	**Subject File, 1910-1957** Handwritten and typewritten reports, charts and graphs, and some printed material. Arranged alphabetically by subject.
BOX 44-54	**Laboratory Notebooks, 1894-1957** Descriptions of experiments. Arranged chronologically.
BOX 55-78	**Experimental Sheets, 1902-1954** Experimental sheets consisting mostly of charts and graphs that supplement the laboratory notebooks. The sheets contain the number of the notebook to which they relate and are arranged by number of experiment.
BOX 79-91	**Article and Speech Files, 1898-1956** Articles and speeches in holograph, typed, and printed form. Arranged chronologically.
BOX 92-96	**Printed Matter** Magazines and extracts from scientific journals annotated by Langmuir. Unarranged.
BOX 97-107	**Miscellany, circa 1871-1957** A cash account book, fragmentary scientific notes, papers of fellow scientist S. Thompson, card reference file, photographs, degrees, and awards. Arranged by type of material.
BOX 107	**Addition, 1927** Letters from Willis R. Whitney and L. Brillouin to Langmuir.
BOX OV 1-OV 4	**Oversize, 1897-1956** Awards, certificates, commendations, correspondence, degrees, maps, photographs, and other material. Arranged according to type of material. Arranged and described according to the series and container from the items were removed.

Container List

Container	*Contents*
BOX 1	**Diaries, 1897-1902**
	Brief diary material for 1897 and 1900 and a detailed description of a trip across United States and Canada in 1902.
	Arranged chronologically.
BOX 1	1897, 1900, 1902
BOX 1-7	**Correspondence, 1895-1957**
	Letters sent and received.
	Arranged chronologically.
BOX 1	1895-1907
BOX 2	1908-1927
BOX 3	1928-1933
BOX 4	1934-1938
BOX 5	1940-1949
BOX 6	1950-1955
BOX 7	1956-1957, undated
BOX 8-43	**Subject File, 1910-1957**
	Handwritten and typewritten reports, charts and graphs, and some printed material.
	Arranged alphabetically by subject.
BOX 8	Aerosols
BOX 9	CS Films-Monolayers
BOX 9	Binaural
BOX 10	Miscellaneous
BOX 11-12	Cloud seeding
BOX 13	Icing filter theory
BOX 14-17	Icing, miscellaneous
BOX 18-23	Lake George Project *See also Oversize*
BOX 24-25	Marine meteorology
BOX 26	Patents, oil
BOX 27-29	Patents, miscellaneous
BOX 30	Smog, proteins
BOX 31-33	Taylor, J. B.
BOX 34-43	Weather control, United States Department of Commerce
BOX 44-54	**Laboratory Notebooks, 1894-1957**
	Descriptions of experiments.
	Arranged chronologically.
BOX 44	Bound vols.

Container	*Contents*
BOX 44	1894-1911, Mar. 21
BOX 45	1911, Mar. 21-1915, Dec. 17
BOX 46	1915, Dec. 17-1921, Jan. 19
BOX 47	1921, Jan. 19-1927, Mar. 29
BOX 48	1927, May 4-1932, June 23
BOX 49	1932, July 6-1936, Aug. 10
BOX 50	1940, June 13-1944, Sept. 21
BOX 51	1944, Sept. 21-1950, Jan. 28
BOX 52	1950, Jan.31-1957, July 22
BOX 52	Chemical Warfare Service, 1940-1942
BOX 52	Miscellaneous, 1949-1951
BOX 53	Small notebooks
BOX 53	1902-1948
BOX 54	1950-1954
BOX 55-78	**Experimental Sheets, 1902-1954**
	Experimental sheets consisting mostly of charts and graphs that supplement the laboratory notebooks.
	The sheets contain the number of the notebook to which they relate and are arranged by number of experiment.
BOX 55	H. A. Jones
BOX 56	Nos. 53-160
BOX 57	Nos. 168-209
BOX 58	Nos. 210-222
BOX 59	Nos. 223-291
BOX 60	Nos. 317-378
BOX 61	Nos. 380-416
BOX 62	Nos. 419-451
BOX 63	Nos. 461-481
BOX 64	Nos. 482-487
BOX 65	Nos. 488-502
BOX 66	Nos. 503-507A
BOX 67	Nos. 508A-512
BOX 68	Nos. 513-523
BOX 69	Nos. 524-529
BOX 70	Nos. 530-536A
BOX 71	Nos. 537-547
BOX 72	Nos. 548-548C, II
BOX 73	Nos. 549-552
BOX 74	Nos. 553-558
BOX 75	Nos. 558-560
BOX 76	Nos. 561-565A
BOX 77	Nos. 565B-567A

Container	*Contents*
BOX 78	No. 568 and unnumbered
BOX 79-91	**Article and Speech Files, 1898-1956** Articles and speeches in holograph, typed, and printed form. Arranged chronologically.
BOX 79	Articles
BOX 79	1902-1931
BOX 80	1932-1937
BOX 81	1937-1938
BOX 82	1938-1944
BOX 83	1945-1950
BOX 84	1951-1956
BOX 85	1956, undated
BOX 86	Undated
BOX 86	Bound vols.
BOX 86	Undated
BOX 87	1913-1939
BOX 88	1931-1939
BOX 88	Graphs and illustrations for articles
BOX 89	Speeches
BOX 89	1898-1933
BOX 90	1933-1949
BOX 91	1950-1956, undated
BOX 91	Lecture notes, 1907-1956, undated
BOX 92-96	**Printed Matter** Magazines and extracts from scientific journals annotated by Langmuir. Unarranged.
BOX 92-96	Miscellaneous
BOX 97-107	**Miscellany, circa 1871-1957** A cash account book, fragmentary scientific notes, papers of fellow scientist S. Thompson, card reference file, photographs, degrees, and awards. Arranged by type of material.
BOX 97	General
BOX 98	Cash account book, 1871, 1877, 1907
BOX 98	Papers of S. Thompson
BOX 99-100	Miscellaneous scientific notes
BOX 101	Miscellaneous scientific notes
BOX 101	Newspaper clipping
BOX 102	Photographs *See also Oversize*
BOX 103-104	Card reference file
BOX 105	Awards and degrees *See also Oversize*
BOX 105	Certificates and Commendations *See also Oversize*

Container	*Contents*
BOX 106-107	Formerly classified material
BOX 107	**Addition, 1927**
	Letters from Willis R. Whitney and L. Brillouin to Langmuir.
BOX 107	Letters from Willis Rodney Whitney and L. Brillouin to Langmuir, 1927
BOX OV 1-OV 4	**Oversize, 1897-1956**
	Awards, certificates, commendations, correspondence, degrees, maps, photographs, and other material.
	Arranged according to type of material. Arranged and described according to the series and container from the items were removed.
BOX OV 1	Subject File
BOX OV 1	Lake George Project (Container 18)
BOX OV 2	Miscellany
BOX OV 2	Photographs (Container 102)
BOX OV 3	Awards and degrees (Container 105)
BOX OV 4	Certificates and commendations (Container 105)