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Guide to the Albert A. Michelson Papers 1891-1969



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Descriptive Summary

Identifier	ICU.SPCL.MICHELSON
Title	Michelson, Albert A. Papers
Date	1891-1969
Size	1 linear foot (3 boxes)
Repository	Special Collections Research Center University of Chicago Library 1100 East 57th Street Chicago, Illinois 60637 U.S.A.

Abstract Albert A. Michelson, physicist, professor. The Albert A. Michelson Papers consist of Michelson's correspondence (1906-1935), correspondence regarding the curation of Michelson's medals (1930-1940), cancelled checks, Michelson's notebook on the Velocity of Light Determination (1925), an inventory Michelson's materials held at Mount Wilson and Palomar Observatories, reprints of articles (1891-1925), biographical materials on Michelson, drafts of speech about Michelson, press releases from the University of Chicago (1924-1927), two copies of Michelson's notebook titled "Velocity of Light," and a typescript of a work about Michelson's interferometer.

Information on Use

Access

The collection is open for research.

Citation

When quoting material from this collection, the preferred citation is: Michelson, Albert A. Papers, [Box #, Folder #], Special Collections Research Center, University of Chicago Library

Biographical Note

Albert Abraham Michelson was born on December 19, 1852 in Strelno, Poland (then a part of Prussia) to Samuel and Rosalie Przlubska Michelson. Two years later the Michelson family left Strelno for Murphys, California where his father opened a dry goods store. Michelson attended Lincoln Grammar School in San Francisco, and graduated from Boys' High School in 1869. The family then moved to Virginia City, Nevada.

That same year Michelson won an appointment to the Naval Academy in Annapolis, Maryland. He was nominated by President Ulysses S. Grant after a recommendation from Senator William

M. Stewart and Congressman Thomas Fitch of Nevada. Michelson graduated in 1873, spent two years at sea in the West Indies, and returned to the Academy in 1875 as an instructor in physics and chemistry.

In 1879 Michelson was posted to the Nautical Almanac Office in Washington, D.C. to work with Simon Newcomb, but the next year he received a leave of absence to continue his studies in Europe. He studied at the Universities of Berlin and Heidelberg, the Collège de France, and the École Polytechnique in Paris. Michelson resigned from the Navy and took an appointment as Professor of Physics in the Case School of Applied Science, Cleveland, Ohio in 1883. In 1890 he left to take a position at Clark University in Worcester, Massachusetts. Two years later he became a Professor of Physics and the first head of the Department of Physics at the University of Chicago.

Michelson rejoined the Navy in 1918 to serve in World War I, but returned to Chicago and was eventually appointed to the first of the Distinguished Professorships in 1925. Four years later he resigned from the University to work at the Mount Wilson Observatory in Pasadena, California.

Michelson's achievements and honors during his long career are vast, but perhaps most impressive was his 1907 Nobel Prize in Physics—the first Nobel Prize won by an American scientist. He excelled in the study of optics, and gave a Nobel Prize acceptance speech “Recent Advances in Spectroscopy.” Other noteworthy achievements include the famous “Michelson-Morley experiment” (1887), which was acknowledged by Albert Einstein as an important foundation stone in the Theory of Relativity, and his work at Mount Wilson that produced the most accurate determination of the velocity of light ever obtained by strictly optical methods.

Michelson's many awards also include the Matteucci Medal (Società Italiana, 1904), Copley Medal (Royal Society, 1907), Elliot Cresson Medal (Franklin Institute, 1912), Draper Medal (National Academy of Sciences, 1916), Franklin Medal (Franklin Institute, 1923), the Medal of the Royal Astronomical Society (1923), and the Duddell Medal (Physical Society, 1929).

In addition to numerous papers, Michelson's works include *Velocity of Light* (1902), *Light Waves and Their Uses* (1899-1903), and *Studies in Optics* (1927). He was president of the American Physical Society (1900), the American Association for the Advancement of Science (1910-1911), and the National Academy of Sciences (1923-1927). He was a Fellow of the Royal Astronomical Society, the Royal Society of London, and the Optical Society. He was also an Associate of l'Académie Française.

Michelson married Margaret McLean Hemingway in 1877. The couple had two sons and a daughter—Albert Hemingway, Truman, and Elsa. They divorced, and Michelson married Edna

Stanton of Lake Forest, Illinois in 1899. They had three daughters—Madeleine, Dorothy, and Beatrice. Albert Abraham Michelson died on May 9, 1931 in Pasadena, California.

On May 8, 1948, the United States Navy dedicated a new laboratory to Michelson in California's Mohave Desert. The Michelson Museum, located in the Michelson Laboratory, contains Michelson's early research apparatus, original manuscripts and research notes, reprints of published research papers, photographs, the Michelson medals, and the parchment announcing Michelson as the recipient of the 1907 Nobel Prize in Physics.

Scope Note

The Albert A. Michelson Papers consist of Michelson's correspondence (1906-1935), correspondence regarding the curation of Michelson's medals (1930-1940), cancelled checks, Michelson's notebook on the Velocity of Light Determination (1925), an inventory Michelson's materials held at Mount Wilson and Palomar Observatories, reprints of articles (1891-1925), biographical materials on Michelson, drafts of speech about Michelson, press releases from the University of Chicago (1924-1927), two copies of Michelson's notebook titled "Velocity of Light," and a typescript of a work about Michelson's interferometer.

Related Resources

The following related resources are located in the Department of Special Collections:

<http://www.lib.uchicago.edu/e/spcl/select.html>

Henry Gordon Gale. Papers

George Ellery Hale. Papers

University of Chicago. Department of Physics. Records

University of Chicago. Division of the Physical Sciences. Records

Subject Headings

- Michelson, Albert Abraham, 1852-1931
- Morley, Edward W.
- O'Donnell, Thomas J.
- Gale, Henry Gordon, 1874-1942
- Hale, George Ellery
- Mount Wilson Observatory, Pasadena, California
- United States Naval Academy, Annapolis, Maryland
- Physics
- Physicists

INVENTORY

Box 1

Folder 1

Correspondence, 1906-1935

- Michelson to George E. Hale, December 3, 1906 (photocopy)
- George E. Hale to Michelson, June 9, 1919 (photocopy)
- Michelson to Mr. Dickinson, June 10, 1929
- Michelson to Henry G. Gale, November 6, 1930
- Henry G. Gale to Michelson, Nov. 12, 1930
- Henry G. Gale to Michelson, April 1, 1931
- M. A. Lacroix, Académie des Sciences, Institut de France, to Gale, January 25, 1932
- H. F. Newell to Henry G. Gale, October 20, 1932
- Henry G. Gale to Newell, November 2, 1932
- Emile Picard, Académie des Sciences, Institut de France, to Gale, December 10, 1935

Box 1

Folder 2

Correspondence and materials related to Michelson's medals, 1930-1940

- John F. Moulds to Michelson, October 27, 1930
- Michelson to Mr. Plimpton, January 31, 1931
- John F. Moulds to Michelson, February 9, 1931
- List of Medals, February 2, 1931
- Lyman R. Flook to Emery B. Jackson, January 18, 1940
- Lyman R. Flook to Emery B. Jackson, January 27, 1940, with list of medals

Box 1

Folder 3

Cancelled checks

Box 1

Folder 4

Notebook, "Velocity of Light Determination," 1925, and accompanying typed description

Box 1

Folder 5

of archival material pertaining to A. A. Michelson at the Mount Wilson and Palomar Observatories in Pasadena, CA.

Box 1

Folder 6

Reprints, 1891-1914

- Visibility of Interference-Fringes in the Focus of a Telescope, Philosophic Magazine, March 1891
- Nouvelle méthode de tracer et d'observer des divisions de précision, formées par des traits lumineux sur fond noir, Procès-Verbaux, 1899
- On the Conditions which Affect the Spectro-Photography of the Sun, Astrophysical Journal, January 1895
- On the Limit of Visibility of Fine Lenses in a Telescope, Astrophysical Journal, June 1895

- The Echelon Spectroscope, Proceedings of the American Academy of Arts and Sciences, November 1899
- The Velocity of Light, The Decennial Publications, University of Chicago, 1902
- On the Spectra of Imperfect Gratings, Astrophysical Journal, November 1903
- A Reciprocal Relation in Diffraction, Philosophical Magazine, April 1905
- Form Analysis, Proceedings of the American Philosophical Society, 1906
- Recent Advances in Spectroscopy, Nobel Lecture, 1908 (2 copies)
- Effect of Reflection from a Moving Mirror on the Velocity of Light, Astrophysical Journal, April 1913 (2 copies)
- Determination of Periodicities by the Harmonic Analyzer with an Application to the Sun-Spot Cycle, Astrophysical Journal, October 1913 (2 copies)

Box 1

Folder 7

Reprints, 1914-1925

- Preliminary Results of Measurements of the Rigidity of the Earth, Astrophysical Journal, March 1914 (2 copies, one is a photocopy)
- The Ruling and Performance of a Ten Inch Diffraction Grating, Proceedings of the American Philosophical Society, May-July 1915 (2 copies)
- The Laws of Elastico-Viscous Flow, July-August 1917
- The Rigidity of the Earth, Astrophysical Journal, December 1919, with Henry G. Gale (2 copies, one is a photocopy)
- On the Application of Interference Methods to Astronomical Measurements, Astrophysical Journal, 1920
- Measurement of the Diameter of an Orionis with the Interferometer, Astrophysical Journal, 1921
- Measurement of the Diameter of Alpha-Orionis by the Interferometer, Proceedings of the National Academy of Sciences, May 1921
- Some Recent Applications of Interference Methods, Proceedings of the Physical Society of London, June 15, 1921
- On the Effect of Small Particles in the Vitreous Humor, The Optical Society of America and Review of Scientific Instruments, September 1924
- On the Limit of Accuracy in Optical Measurement, The Optical Society of America and Review of Scientific Instruments, February 1924
- The Effect of the Earth's Rotation on the Velocity of Light, Astrophysical Journal, April 1925, with Henry G. Gale
- Light-Waves as Measuring Rods for Sounding the Infinite and the Infinitesimal, The University Record, April 1925
- Measurement of Jupiter's Satellites by Interference, undated

Box 1

Folder 8

Miscellaneous biographical materials:

- Triumph in Physics: Prof. Michelson's Great Discovery, The Chicago Herald, October 19, 1893, photocopy
- Presentation of the Franklin Medal and Certificate of Honorary Membership, May 16, 1923, reprint

- Professor Michelson's New Einstein Test, in The Literacy Digest, July 4, 1925, photostat
- Motion Pictures in the Michelson-Morley Experiment at the University of Chicago, in The University of Chicago News Letter, June 9, 1927
- The Nobel Laureates, by Karl K. Darrow, 1928, reprint
- News of the Quadrangles, by John P. Howe, in University of Chicago Magazine, January 1930
- Michelson and Tufts Retire from the U. of C., in the Milwaukee Wisconsin Journal, photocopy, June 14, 1930
- Albert A. Michelson, by Henry G. Gale, in Astrophysical Journal, July 1931, reprint (2 copies)
- Rhapsody of Light: The Life of Albert Abraham Michelson, by the Creative Dramatics Group, University of Chicago, July 24, 1944
- An Introduction to Interferometry, by Thomas J. O'Donnell, 1960, reprint
- The Albert A. Michelson Nobel Prize and Lecture, Publications of the Michelson Museum No. 2, 1966
- Michelson in the Navy: The Navy in Michelson, by Dorothy Michelson Livingston, 1969, pamphlet
- Naval Weapons Center Assists Naval Academy with Michelson Hall Dedication, in NWC Rocketeer, vol. 23, no. 18, May 9, 1969
- Las Investigaciones del Profesor A.A. Michelson, by Henry Crew, in El Mundo de Hoy: Chicago, E.U.A., undated, reprint
- Albert Abraham Michelson: The Man Who Measured the Speed of Light, undated, pamphlet
- Michelson Hall, pamphlet from the United States Naval Academy, Annapolis, Maryland, undated

Box 1

Folder 9

Miscellaneous

- Drawing of Michelson's interferometer
- Photocopies of selected pages from Michelson's "Light Waves and Their Uses," undated
- Invitation to a dinner in honor of Michelson
- Menu and program from a dinner in honor of Michelson, January 3, 1908
- Program for A Tribute to Albert A. Michelson, U.S. Naval Academy, Friday May 9, 1969
- Program for Michelson Hall Dedication Ceremony, U.S. Naval Academy, Saturday May 10, 1969

Box 1

Folder 10

Typewritten drafts of speech about Michelson

Box 1

Folder 11

Press releases regarding A. A. Michelson, 1924-1927

Box 1

Folder 12

Exhibit captions for exhibit of Michelson's scientific instruments, 1930

- "The Ruled Grating"
- "The Harmonic Analyzer"
- "The Angle Interferometer"
- "The Velocity of Light"

Box 2

Folder 1

Copy of Michelson's Notebook, The Velocity of Light

Box 2

Folder 2

Copy of Michelson's Notebook, The Velocity of Light

Box 3

Folder 1

Typescript of "Applied Telescopic Optics and Interferometry: Albert A. Michelson's Light Wave Measuring Rod The Cosmic Unit of Metrology," by T.J. O'Donnell

Box 3

Folder 2

Photocopy of "Applied Telescopic Optics and Interferometry: Albert A. Michelson's Light Wave Measuring Rod The Cosmic Unit of Metrology," by T.J. O'Donnell and accompanying letters (1967)