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A Guide to the
William Edwards Stephens Papers
1939-1980

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UPT 50 S836

Prepared by Timothy H. Horning

March 2014

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PROVENANCE

The William Edwards Stephens papers were donated to the University Archives by Dr. Walter D. Wales, former dean of the College of Arts and Sciences, in 1983 (accession number 87: 22).

ARRANGEMENT

The William Edwards Stephens papers are organized into five series – Research and Writings, Dean File, Teaching Material, Students' Material, and Photographs – each of which are arranged alphabetically.

BIOGRAPHICAL NOTE

William Edwards Stephens, noted nuclear physicist, was born in May 29, 1912 in St. Louis, Missouri. He received B.S. and M.A. degrees from St. Louis' Washington University in 1932 and 1934, respectively and a Ph.D. from the California Institute of Technology in 1938. From 1938

to 1940 he served as Research Fellow at the Westinghouse Research Laboratories in Pittsburgh, Pennsylvania and from 1940 to 1941 he was an Instructor in Physics at Stanford University.

In 1941 Dr. Stephens joined the University of Pennsylvania as an Instructor of Physics and was later promoted to Professor of Physics in 1948, a position he held until his death in 1980. From 1963 to 1969 he served as Chair of the Physics Department and from then as Dean of the College of Arts and Sciences 1969 to 1974. Dr. Stephens authored many contributions to professional journals, including *Physical Review* and the *Journal of American Physics*, edited the textbook *Nuclear Fission and Atomic Energy* (1948), and, with President of the University of Pennsylvania Dr. Gaylord P. Harnwell, co-authored the textbook *Atomic Physics: An Atomic Description of Physical Phenomena* (1955).

During World War II, Dr. Stephens participated in research on behalf of the Office of Scientific Research and Defense (OSRD), a government agency that coordinated scientific research for military purposes. His efforts earned him the Army-Navy Certificate of Merit.

Dr. Stephens was a member of Phi Beta Kappa, Sigma Xi, the American Institute of Physics, and the American Astronomical Society, as well as a fellow of the American Association for the Advancement of Science and the American Physical Society, and a founding member of the Association of Philadelphia Scientists, a group that was opposed to government interference in scientific research. He was also an avid yachtsman, having participated in several Newport (Rhode Island) to Bermuda races.

SCOPE AND CONTENT

The papers of William Edwards Stephen are all professional in nature and document his involvement with the University of Pennsylvania as a Professor of Physics (1941-1980), Chair of the Physics Department (1963-1969), and Dean of the School of Arts and Sciences (1969-1974). This documentation includes research and notes pertaining to astrophysics and nuclear physics, notebooks and papers from students in his physics courses, working files pertaining to his appointment as dean, and a small amount of photographs and negatives associated with his research.

CONTROLLED ACCESS HEADINGS

Corporate Name(s)

- University of Pennsylvania. Dept. of Physics.

Subject(s)

- Nuclear physics--Study and teaching.
- Physics--Study and teaching--Pennsylvania--Philadelphia.

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INVENTORY

RESEARCH AND WRITINGS	Box	Folder
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<i>Atomic Physics: An Atomic Description of Physical Phenomena</i> , Harnwell, Gaylord P., and William E. Stephens. York, PA: The Maple Press Company 1955	1	2
Betatron Therapy 1945-1950	1	3
Burnout of S Band Video Crystals 1945	1	4
Carbon Burning Nuclear Reactions 1974	1	5
Carbon-Carbon Interactions 1968-1969	1	6
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Cloud Chamber n.d.	1	9
Contact Potential Difference in Crystal Rectifiers 1946	1	10
Cosmic Ray and Elementary Particles Group Technical Report 1960	1	11
Cosmic Rays 1951-1955	1	12
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Crystals and Silicon Surfaces 1943-1948	1	15
Effects of Tapping on Barrier Capacity 1943	1	16
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Present Status of Semiconductor Particle Counters 1959	2	11
Proposed Princeton-Pennsylvania Three-Billion Volt High Intensity Proton Synchrotron 1955	2	12
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Search for Naturally Occuring Superheavy Element Z=110 and A=294 n.d.	2	21
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Correspondence: Stellar, Eliot 1973-1974	2	37
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Physics Department Annual Report to Dean 1974	2	39
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Physics 522 1960-1961	3	10
STUDENTS' MATERIAL	Box	Folder
Notebook: Cho, K. S., Physics 521 and Physics 522 1957-1958	3	11
Notebook: Cho, K. S., Physics 522 n.d.	3	12
Notebook: Moses, Kenneth A., Physics 522 Lab Book 1956	3	13

Papers

Barash, Leonard, <i>Nuclear Magnetic Resonance</i> 1960	3	14
Chun, Kee W., <i>Transistor in Theory and Experiments</i> 1952	3	15
Horden, Joel H., <i>Nuclear Resonance Fluorescence</i> 1960	3	16
John, Robert H., <i>The Omegatron</i> 1960	3	17
Letson, George M., <i>Einstein Relation and Mobility of Holes in N-type Germanium</i> 1955	3	18
Tessler, George, <i>Beta-Ray Spectrometer</i> 1959	3	19
Toms, M. Elaine, <i>Mesons</i> 1951	3	20
Wagner, Joseph, <i>Nuclear Magnetic Resonance</i> n.d.	3	21

PHOTOGRAPHS	Box	Folder
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