

11/10/20
Engineering
Physics
John Bardeen Papers, 1910-1991

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Biographical Note

- May 23, 1908 Born, Madison, Wisconsin - son of Medical School Dean Charles R. Bardeen and Althea Harmer
- 1923 University High and Madison Central
- 1928 B.S. Wisconsin, Electrical Engineering. Western Electric. Edward Bennett electrodynamics course
- 1929 M.S. Wisconsin, Electrical Engineering. J. H. Van Vleck
- 1930-33 Geophysicists, Gulf Research and Development Corporation - Leo J. Peters
- 1936 Ph.D. Princeton, Mathematics and Physics. E. P. Wigner
- 1935-38 Junior Fellow, Harvard. J. H. Van Vleck and P. W. Bridgman
- 1938 Married Jane Maxwell, July 18
- 1939-41 Assistant Professor of Physics, University of Minnesota
- 1941-45 Principal Physicist, U. S. Naval Ordnance Laboratory (Washington D.C.), magnetism and minesweeping
- 1945-51 Radar, Bell Telephone Laboratories, Murray Hill, New Jersey
- 1947 Surface physics - properties of contacts between metals of semi-conductors depend on electron behavior in surface energy levels
- 1948 Transistors with William B. Shockley and Walter Brattain. Point contact type
- 1951-75 Professor of Physics and Electrical Engineering, University of Illinois. Louis Ridenour. Xerox Corporation
- 1952 Transistor literature
- March 1953 Fortune article on transistors
Theoretical understanding of semiconductors
Explained why metal-germanium contact gives effect of a PN junction in a semiconductor - in terms of surface energy states
- 1956 National Academy of Science member
- 1957 Theory of Superconductivity - vanishing of electrical resistance of some metals at low temperatures
- 1975 Professor Emeritus, University of Illinois
- January 30, 1991 Died, Boston, Massachusetts

Research Areas:

Electrical conduction in semiconductors and metals; surface properties of semiconductors; theory of superconductivity; and diffusion of atoms in solids

Prizes and Honors:

- 1952 Ballantine Medal, Franklin Institute
- 1954 Buckley Prize (solid state)
- 1955 Scott Medal, D.Sc. Union
- 1956 Nobel Prize for Physics
- 1960 D.Sc. University of Wisconsin
- 1962 London Prize
- 1972 Nobel Prize for Physics
- 1974 D.Sc. University of Illinois
- 1977 Presidential Medal of Freedom

1987
1990

Lomonosov Award, Soviet Academy of Sciences
John Bardeen Chair in Physics and Electrical and Computer Engineering
Established at University of Illinois

Provenance

The University Archives received six accessions of John Bardeen's papers on the following dates: December 12, 1964; February 8, 1965; February 19, 1974; September 10, 1991; December 20, 1991; and May 19, 1992. Materials accessioned prior to 1991 were processed on receipt. The September 10, 1991 and May 19, 1992 accessions were processed January-June, 1996 when the other processed materials were integrated into the collection, and a new finding aid was prepared. Another accession was received September 27, 2002, from Professor Lillian Hoddeson who had held this additional material in an office in Engineering Sciences Building since the main body of Bardeen materials had been moved out of his office in 1991-92. The 2002 addition was processed upon receipt and added to the end of the existing collection, and modifications were made to the existing finding aid. On May 14, 2003 material donated to the Spurlock Museum by the estate of John Bardeen was accessioned.

Content and Arrangement

Papers of John Bardeen (1908-91), Professor of Electrical Engineering and Physics (1951-91), include publications (1930-91), dissertations and theses by Bardeen students (1952-85), correspondence (1945-70, 1972-91) and reports, preprints, reprints, drafts, speeches, notes, photographs, slides, tape recorded interviews, and motion pictures, (1910-91) concerning theoretical physics, solid state physics, development of the transistor, Bell Laboratories and the transistor (1936-68), xerography, development of the theory of superconductivity with J. R. Schrieffer and Leon Cooper, the applications of transistors and superconductivity, many body theory, Russian and Chinese physics research, American Physical Society, Army Research Office, Center for Advanced Study, International Union of Pure and Applied Physics, Naval Ordnance Laboratory, Navy Research Office, Sony Corporation, Supertex, Inc., White House Science Council (1979-83), and Xerox and its predecessor, the Haloid Company, electrolytic transistor invention patents (1910-60), consulting work, and the Physics Department. Correspondents include Walter H. Brattain, P. W. Bridgman, Leon Cooper, Harry G. Drickamer, H. Fröhlich, Jack E. Goldman, Nick Holonyak, Jr., Charles Kittel, J. R. Schrieffer, Karlheinz Seeger, Frederick Seitz, William B. Shockley, and J. H. Van Vleck. Tape recorded interviews contain comments on theoretical physicists, experimental physics, theory of superconductivity, many body theory, scientific publication, education, Dr. Charles Bardeen, solid state physics, considerations in coming to Illinois, recruitment of new faculty, scientific understanding and communication between and education of non-scientists and scientists. Motion pictures include a May 1972 interview with Bardeen, Brattain and Shockley on the development of the transistor and a December, 1972 Swedish film on the contributions of Bardeen, Cooper and Schrieffer to the theory of superconductivity. Reprints include Bardeen's December 11, 1956 Nobel lecture on "Semiconductor Research Leading to the Point Contact Transistor," and his December 11, 1972 Nobel Lecture on "Electron-Phonon Interactions and Superconductivity."

Processing and Finding Aids

Initial Subject File Processing

Working at the Physics Department under the direction of University Archivist Maynard Brichford, Tonya Lillie refoldered the material into acid-free folders, retaining the original arrangement of the folders and transcribing the original folder titles. Folders were assigned individual two-part sequential numbers, keyed to the number or letter of the original file cabinet drawers or boxes in which they were stored and to the number of the folder within that drawer or box. The Physics Department then prepared a "Master Index," providing a drawer-by-drawer inventory of Bardeen's file folders in their original order, and listing drawer number, folder-title, date and, in some cases, brief comments on folder contents.

On September 10, 1991, 48 cubic feet of Prof. Bardeen's papers were transferred to the University Archives and processing was conducted intermittently from October, 1991 through June, 1994. By June 1994, Brichford had identified four major groupings of files within the Bardeen Papers: publications, dissertations, correspondence, and subjects. He arranged chronologically the publications, dissertations, correspondence, and approximately one-quarter of the subject files. He had also begun to supply more descriptive folder titles and to assign more precise dates to folders in the subject files. Brichford and graduate assistant Ellen Swain produced a folder listing in WordPerfect format for drawers 1-9 this segment, sorted both by folder number (original order) and chronologically.

Subject File processing (January-June, 1996)

Under the direction of William Maher and Wanda Finney, graduate assistants Karen Hansen and Thomas Kmetz began processing the remainder of the subject files in January, 1996. Original folder numbers were retained. Descriptive folder titles, inclusive dates, and the date of the earliest document in each folder were assigned. The original short folder titles assigned by the Physics Department were retained on the folders, but more descriptive folder titles assigned by the University Archives were written in brackets on folders. Any unfolded material was assigned folder numbers keyed to its original box or drawer location. These folder numbers appear in brackets on folders.¹ Earliest dates, descriptive folder titles with inclusive dates, and folder numbers were entered into a WordPerfect merge file. Dates for Subject File folders processed by Brichford were reviewed and amended as necessary to list the date of the earliest document in each folder and provide the inclusive dates of all documents in those folders. The edited text of Brichford's list for drawers 1-9 was converted to a WordPerfect merge file and combined with the first merge file.

Folders in the Subject File which contained correspondence or dissertations were separated and placed chronologically in the Correspondence or Dissertation File respectively. Folders in the Subject File with no dates or with only approximate dates were assigned an earliest date of zero.

¹ In addition, groups of folders, which, in the original Physics Department numbering scheme, were assigned only one inclusive number (for example, D-1) have been assigned their own separate sequential numbers (such as D-1-1 through D-1-13).

The merge file was sorted by the earliest dated document (in the format year-month-day) and by folder number thereunder. Folders in the Subject File were then arranged chronologically by date of the earliest document in each folder. Subject File material separated from material processed prior to 1991 has been coded as coming from box "Z". The subject file portion of the papers is listed on the finding aid with the three fields used in sorting the subject file: earliest date, folder number, and folder title.

Subject File Processing (October 2002)

On September 27, 2002 2.3 cubic feet of material was received from the office of Lillian Hoddeson. According to her, after the transfer of Bardeen files to archives in 1992, the secretary of the physics department informed her that papers remained in the secretary's office. These were transferred to Lillian Hoddeson's office. She subsequently deposited them in archives. These files were re-organized by existing groupings, arranged chronologically, and added to the end of the existing series as boxes 124-130. A modified finding aid was then prepared.

Subject File Processing (September 2003)

On May 14, 2003, material was received from the Spurlock Museum. This material was arranged chronologically by topic and added to the end of the existing series as boxes 131-132. A modified finding aid was then prepared.

Duplicates and original folders

Duplicates (1.3 cubic feet) were separated from the papers and are being held unprocessed by the University Archives. File folders were replaced with acid-neutral folders during processing, and original folders have been retained by the Archives.

Searching the supplementary finding aid

To simplify the searching for topics, titles, and names, the finding aid is available on an IBM diskette for use with word-processing or searching software.

Access and Use Considerations

The chronological listing of Bardeen's correspondence currently provides only a summary indication of the breadth of his correspondence with other physicists, with scientists employed in government and industry, with his students, and with the general public. Bardeen's files, especially those in the Subject File often contain documents of several different types (e.g. preprints and reprints of other scientists, correspondence with colleagues, and drafts for his own scientific publications and speeches). In addition, dates for documents within folders can vary widely. As Maynard Brichford mentioned in a February 14, 1994 processing note, Bardeen's "files contain documents of different dates that have little relation to other contents, especially in [folders for] meetings and trips." While descriptive folder titles can capture types and subjects of most documents in individual folders, these folder titles do not provide the subject access points

that many research projects may require. Exploiting the full scope and significance of the Bardeen papers for the history of science and technology will thus be a cooperative venture of researchers and archivists in examining questions in detail beyond what appears on the folder title.

Box 1:

BIOGRAPHICAL

Complete list of John Bardeen's publications, 1930-91

Interview with John Bardeen by Maynard Brichford, University Archives, (two 7" open reel audio tapes), February 8, 1965

"An Interview with the Transistor Inventors," Bell Laboratories (sound color motion picture featuring J. Bardeen, W. B. Shockley, and W. H. Brattain, 12 min.), May 1972

Swedish Broadcasting Company, Nobel Fysik (three 5" audio tape reels), October 1972

U-matic videocassette containing March 19, 1990 dubs of 16 mm films:

"An Interview with the Transistor Inventors," May 1972, and

"Nobelpriset i fysik möte med John Bardeen, Leon N. Cooper, John Robert Schrieffer"

"Nobelpriset i fysik möte med John Bardeen, Leon N. Cooper, John Robert Schrieffer "Prize in Physics," 16 mm color film in English of meetings with Bardeen, Cooper and Schrieffer, produced for Swedish Radio by Bengt Feldreich and Ake Gustavson (one 10.5" reel, 20 min.), December 6, 1972

Box 2:

BIOGRAPHICAL

Interview with John Bardeen by Louise Geislors, WILL (one 7" audio tape reel, 3 3/4 IPS), November 6, 1973

Interview of John Bardeen by Lillian Hoddeson for the American Institute of Physics, May, 1977- April, 1978

Three audio cassette copies and typed transcripts (4 folders) accessioned from AIP September 2004

"The Early Days of the Transistor," a talk by Bardeen delivered to the student branch of the Institute of Electrical & Electronic Engineers (one audio cassette), February 28, 1979

Interview of John Bardeen by Lillian Hoddeson for the American Institute of Physics, February 1980. Typed transcripts accessioned from AIP September 2004.

NBI computer diskettes (four 8" disks), 1982-88

Bardeen lecture at U of I, recorded by R. T. Gladin and reproduced November-December 1991 for Nick Holonyak, Jr. (one VHS videotape), May 12, 1987

Bardeen and Holonyak interview with NHK - Japanese TV (one VHS videotape), 1990

Swedish TV presentation on 1972 Nobelists Bardeen, Cooper, and Schrieffer, reproduced by Nick Holonyak, Jr. and Jack Gladin (one VHS videotape), April 1992

John Bardeen Memorial, the Illini Union (one VHS videotape), February 8, 1991

Box 3:

BIOGRAPHICAL

Presentation of John Bardeen's medals, UIUC Board of Trustees meeting (one audio cassette), October 10, 1991

Nick Holonyak, Jr. correspondence on Bardeen and Holonyak interview with NHK, October 1992
 Photocopy of Transistor Press Release, 1948
 Bell Telephone System Technical Publication: Some Contributions to Transistor Electronics, 1949
 Biographical sketches, Bardeen vitae, IRS and Department of Defense personnel questionnaires, draft lists of publications, U of I Physics Department personal annual report, sabbatical leave report, 1954, 1959, 1960-61
 Photographs of Bardeen accepting Nobel Prizes, 1956, 1972, 1986
 "Nobel Prize Awarded to Transistor Inventors," Bell Laboratories Record November, 1956
 Reprints of articles by Shockley, Holonyak, Schrieffer, and V. L. Ginzburg, 1961, 1970, 1973, 1982
 New Year's note from Stockholm, ca. 1972
 "Three Men Who Changed Our World - 25 years later," Bell Laboratories Record December, 1972
 Bardeen's Nobel Lecture, "Electron-Phonon Interactions and Superconductivity," December 11, 1972
 List of Publications, J. Bardeen, 1974
 Alfred Nobel and the Nobel Prizes, Washington Award Banquet program, 1983-84 Nobel Foundation Directory, American Academy of Achievement Salute to Excellence, 1978, 1983-84, 1989
 Report of the White House Science Council: Federal Laboratory Review Panel May, 1983
 Popular press articles relating to superconductivity, 1986-88
 "Partial Listing of Certain of John Bardeen's Scientific Papers in his Physics Building office" by Jerome Rowley, (83 pages), 1988

Box 4:

BIOGRAPHICAL

"New Horizons in Physics," A Symposium in Celebration of John Bardeen's Eightieth Birthday (2 folders), 1988
 Science and Technology Center for High Temperature Superconductivity Site Visit Briefing, July 18-19, 1988
 Bardeen's nomination for the Charles Stark Draper Prize, 1989
 The Office Library of Professor John Bardeen, Master List of Books, ca. 1991
 John Bardeen Memorial, program and transcription, 1991
 Nick Holonyak, Jr. correspondence, Physics Today John Bardeen Special Issue, 1991-92
 Nick Holonyak, Jr., "John Bardeen, 1908-1991," NAE Memorial Tributes, vol. 6, 1993

Box 5:

PUBLICATIONS

Complete list of John Bardeen's publications, 1930-91

#1, 3-47, 49-52, 54, 1930-54

Box 6:

PUBLICATIONS

#55-69, 71-75, 77-80, 82-100, 1955-64

Box 7:

PUBLICATIONS

#101-127, 129-136, 1965-79

Box 8:

PUBLICATIONS

#137-173, 1980-91

Box 9:

DISSERTATIONS (produced by Bardeen students)

- 1952, Paul J. Lurgans
- 1954, Nick Holonyak, Jr.
- 1955, Thomas Nolan Morgan
- 1957, Newton Bernardes
- 1957, Daniel Charles Mattis
- 1957, John Robert Schrieffer
- 1957, R. C. Serrine
- 1958, Michael Francis Millea
- 1958, Milton William Valenta

Box 10:

DISSERTATIONS

- 1958, Ling Yun Wei
- 1959, Stephen Reynolds Arnold
- 1959, William Manos Portnoy
- 1960, Richard Elmo Coover
- 1960, Piotr B. Miller
- 1960, R. A. Missman
- 1960, Kendal True Rogers (2 folders)

Box 11:

DISSERTATIONS

1960-61, Toshihito Truneto (contains only John Bardeen's notes)
1961, Kenneth Rose
1961, Jerome Luther Hartke
1962, Daniel Warren Hone
1962, Peter Vance Gray
1963, John Warren Wilkins
1963, W. L. McMillan
1964, Toshiyuki Yamada
1964, Wayne Earl Tefft

Box 12:

DISSERTATIONS

1965, John Richard Clem
1966, Sang Boo Nam
1968, Wesley N. Mathews, Jr.
1968, Reiner Kümmel
1972-73, 1986, Preprints by K. N. Bennemann, Wesley N. Mathews, Jr. et al./doctoral
dissertation of Joseph N. Ross, Jr. (1986) (2 folders)
1972-73, Socrates Theodorus Pantelides (1973)

Box 13:

DISSERTATIONS

1973, David Lee Miller (2 folders)
1974, David William Allender
1974, James William Bray
1985-86, Samuel Cheng-Sheng Pan (1986) (2 folders)
1985, John Harris Miller, Jr.

Box 14:

CORRESPONDENCE (Incoming and outgoing correspondence is arranged chronologically.
Folders containing only outgoing correspondence are so indicated.)

Early Correspondence, 1945, 1947-50
1950-51
1952-54
1954 (outgoing only)

January-May, 1955 (outgoing only)
January-May, 1955
June-December, 1955
January-April, 1956
May-December, 1956
1956 (outgoing only)

Box 15:

CORRESPONDENCE

January-May, 1957
June-December, 1957
January-June, 1957
July-December, 1957
January-May, 1958
June-December, 1958
January-June, 1958
July-December, 1958 (outgoing only)

Box 16:

CORRESPONDENCE

1959 (2 folders)
January-May, 1959
June-December, 1959
1960 (3 folders)
1960 (outgoing only)
1961 (2 folders)

Box 17:

CORRESPONDENCE

1961 (outgoing only)
1961-62
1962 (3 folders)
1963

Box 18:

CORRESPONDENCE

January-June, 1963
July-December, 1963
Personal correspondence, 1963-64
1963-64
January-June, 1964
July-December, 1964

Box 19:

CORRESPONDENCE

1964 (2 folders)
1965 (outgoing only)
January-June, 1965
July-December, 1965
Europe correspondence, 1965
1966 (outgoing only)

Box 20:

CORRESPONDENCE

January-June, 1966
July-December, 1966
1967 (outgoing only)
January-June, 1967
July-December, 1967

Box 21:

CORRESPONDENCE

1968 (2 folders)
1968 (outgoing only)
Personal correspondence, 1968, 1986
1969
1969 (outgoing only)

Box 22:

CORRESPONDENCE

La Jolla correspondence, 1969-70
1970 (4 folders)

Box 23:

CORRESPONDENCE

1972
January-August, 1972
September-December, 1972
January-June, 1973 (2 folders)
August-December, 1973 (2 folders)

Box 24:

CORRESPONDENCE

1974 (2 folders)
January-December, 1974
January, 1975 - July, 1977
1976 (2 folders)

Box 25:

CORRESPONDENCE

1977
August, 1977 - April, 1980 (2 folders) (outgoing only)
1978 (3 folders)
Charge density wave correspondence, 1978-80
1979

Box 26:

CORRESPONDENCE

1980 (2 folders)
June - December, 1982 (3 folders)
1981
1981-82
1982

Japan correspondence, 1982
1982-84

Box 27:

CORRESPONDENCE

1983
1983, 1986, 1989-90 (2 folders)
1984
1984-85
1985
1986 (2 folders)

Box 28:

CORRESPONDENCE

1986-89
Robert E. Thorne, 1986-90
1986, 1989-91 (2 folders)
1987
1987-88
1988

Box 29:

CORRESPONDENCE

Birthday letters, 1988
1988, 1990-91 (contains photographs)
1988-90
1989
1989-90
Karl Seeger, 1989-90
William A. Bardeen correspondence regarding John Bardeen's death, 1991

Box 30:

SUBJECT FILE (Documents on research, projects, lectures, and speaking engagements, arranged by date of earliest document, and containing notes, calculations, preprints, reprints, and photographs.)

<u>First</u> <u>Date</u> YYMMDD	<u>Folder</u> <u>Number</u>	<u>Folder Title and Inclusive Dates</u>
0 01-07		Superconductivity, tunneling, charge density wave transport, soliton transparencies
0 01-42		Theory/Tunneling, N.A.T.O. AGARD parts, ca. 1961
0 04-29		Materials Research Lab progress reports
0 04-45		Diagrams and charts for talk
0 04-47		Critical fields and currents
0 08-01		Research problems, phono-scattering
0 09-07		Understanding Superconductivity, notes and rough draft of article
0 09-11		Talk on recent developments
0 09-34		Excitonic superconducting, talk at Meeting Electronics Review
0 09-35		Solid State Physics Chicago Area Colloquium Talk, non-homogenous current flow in superconductors and list of slides
0 12-06		Surface states paper, ca. 1946
0 12-18		Theory of 1/f noise
0 12-20		Self-trapping of electrons
0 12-24		Cu ₂ O, impedance, data
0 12-25		Calculation of tunneling
0 12-27		Field effect across CU ₂ O rectifier
0 12-30		Surface conductivity
0 12-33		Neutron multiplication, ca. 1940
0 12-39		Formal theory of conductivity, ca. 1942
0 12-41		A.C. impedance rectifiers
0 12-53		I-V characteristics Van Roosbroeck units
0 12-61		H. Fröhlich's manuscript, "Theory of the Superconducting State"
0 12-65		W. G. Pfann's units

Box 31:

0 12-68		Mean free path
0 12-82		Herring, thermo polarizable media
0 13-39		Vortex lines talk, ca. 1969
0 13-55		Colloid and interface science-M. L. Hair, John R. Harbour, Vlad J. Norotny, Michael A. Hopper
0 14-22		Exact symmetry and exact solution of kondo problem, ca. 1970
0 15-17		Calculations notebook
0 16-08		Lectures and notes on "Theory of a Fermi Liquid" by D. Hone

SUBJECT FILE

<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
0 16-10		Case 3-9 patent, ca. 1948
0 17-21		Notes and calculations, Japan
0 18-03		Partial listing of certain of John Bardeen's scientific papers by Jerome Rowley
0 19-04		IBM Executary 224 Dictating Unit
0 19-08		Copy of Betamax videocassette of aerial view from a helicopter of Fermi National Accelerator Laboratory sent to Etori Yamane from John Bardeen
0 19-09		John Bardeen photographs (10 identical 8" X 10" glossies)

Box 32:

0 20-01		Experiments on temperature changes and superfluids with explanatory narrative (VHS videotape, 15 min.), and slides
0 20-02		Slides
0 21-01		Notes and calculations

Box 33:

0 23-07		Vortex structure report by L. Tewordt
0 23-20		"Depinning of Charge-Density Waves by Quantum Tunneling" draft by Bardeen
0 24-02		Benjamin Abeles, biographical sketch, list of publications, ca. 1971
0 24-03		W. H. Brattain
0 24-10		J. G. Dash
0 24-12		William L. Clinton
0 24-14		Peter J. Feibelman
0 24-33		Preprints, H. G. Drickamer (folder 1)
0 24-34		Preprints, H. G. Drickamer (folder 2)

Box 34:

0 24-35		H. G. Drickamer, "X-Ray Diffraction Studies of the Lattice Parameters of Solids Under Very High Pressure" and "The Effect of High Pressure On the Electronic Structure of Solids" (2 folders)
0 25-05		Bardeen's handbook article - theory of superconductivity
0 26-07		Original work on charge density waves tunneling paper
0 26-18		Research notes, ca. 1976

SUBJECT FILE

<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
<u>Box 35:</u>		
0 A-02-02		Bardeen drafts of papers and chapters
0 A-02-07		University Microfilms Inc. microfilm catalogue
0 A-02-08		"Materials Research Laboratory Program" and "Additional Projects in Materials Science"
0 B-07-02		Illinois Science Advisory Council members
0 E-27		Information for low temperature commission, ca. 1968
0 I-03		Charge density wave transparencies
0 I-04		17th International Low Temperature Physics Conference, Karlsruhe talk transparencies
0 I-08		Lecture - "Superconductivity: Past and Future"
0 I-19		Chapter VI - Selected Topics from the History of Semiconductor Physics and its Applications-Ernst Braun
0 I-26		Basis for semiconductor model - transparencies
0 I-27		Superconductivity transparencies
0 J-02		"Super-conductivity" handwritten manuscript on problem of magnetic superconductors
0 J-28		Electrolytic Analogues of the Transistor - talk at the symposium of the Institute of Fundamental Chemistry
0 J-29		Charge density wave notes, ca. 1985
0 J-31		Bardeen draft, "Universal Threshold Polarization for Depinning of Charge Density Waves: Application to Blue Bronze"
0 J-38		Charge density wave graphs
0 J-47		Institute of Electrical and Electronics Engineers award talk
0 J-54		Charge density wave transparencies

Box 36:

100621	04-50	Electrolytic transistor invention patent application, 1910, 1919-20, 1924-25, 1932-35, 1953-54, 1956-60
291008	26-15	Haloid Xerox Company correspondence, xerographic patents, 1929, 1955, 1958, 1960, 1962, 1965-67, 1979-80
291223	12-37	Cu ₂ O rectifier manuscript, 1929, 1934-35, 1947
30	19-06	The collected works of John Bardeen from 1930 to 1968, microfiche (15 copies), 1930-68
300128	16-17	Lilienfeld patents, 1930, 1932-33, 1940-41, 1948-49, 1952, 1966, 1988
340426	18-12	Correspondence, drafts, and reprints on superconductivity, low temperature, and solid state physics, 1934, 1957, 1973-78, 1989
3508	12-04	Notes on semiconductors, summer session, 1935, 1949, 1951-53
3604	07-01	Abrikosov - Aubrey reprints, 1936, 1938, 1951, 1954, 1959-60,

SUBJECT FILE

<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
		1962-63
<u>Box 37:</u>		
3612	12-54	Bell Labs manuscripts and graphs, 1936, 1946-47, 1949
370525	26-17	Hydrofoil invention, 1937, 1941-42, 1952, 1956, 1977
381230	12-31	Diffusion equation for D.C. bias, 1938, 1946
390417	11-03	Notes on superconductivity, 1939, 1941, 1945
3910	12-69	Analysis Purdue Ge data, 1939, 1946
400217	E-15	Calculations and a letter from the Department of Terrestrial Magnetism at the Carnegie Institution, 1940
400902	12-36	Manuscript CU_2O impedance theory, 1940, 1943, 1947
401015	11-13	Drafts of superconductivity paper, outlines of 1952 Bell Labs talk, 1940, 1952, 1957
<u>Box 38:</u>		
41	05-09	John Bardeen, "Electroprovodnost' Metallov," <u>Uspekhi Fizicheskikh Nauk</u> , T. xxv, vyp. I, 1941 ("The Electric Conductivity of Metals," <u>Progress of Physics</u> , vol. xxv, part I), 1941
4103	11-20	Bell Labs reprint for W. H. Brattain, table and charts, 1941
4504	12-44	Absorption infrared in Si (Briggs data), 1945, 1949-51, 1953-55
451119	12-52	Theory of conduction in Ge and Se, 1945, 1949
460227	12-42	Photoconductivity in infra-red, 1946
4604	12-14	Search for surface states, 1946-47
460419	12-38	Oxidation of CU, 1946
460627	12-21	Hall effect, thermo power, 1946
460705	12-73	General Si and Ge, 1946-47, 1950
460813	12-72	Ge-Sb units, 1946-47
460820	12-23	American Physical Society Talk, Debyl conference, 1946-47
461103	12-35	Talk on rectifiers, 1946
461119	12-71	Conductivity date of Ge and Si, 1946
4612	J-50	Reprints, technical reports, and status reports on germanium, copper oxidation, semi-conductors, and transistor electronics, 1946, 1948, 1953, 1955-56

SUBJECT FILE

<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
<u>Box 39:</u>		
47	12-47	Resistance Fe ₂ O ₃ , Ti, 1947
470116	12-10	Surface levels, 1947
470425	12-16	Si and Ge property analysis, 1947
470509	11-31	Bell Labs silicon analysis, charts and tables, 1947-48
470701	12-11	Nuclear quadruple moments, 1947
470919	12-62	Theory of A.C. impedance of Cu ₂ O Rectifier, 1947
471223	12-12	Second order quadruple interaction, 1947-48
480107	12-17	Triode, 1948
480115	19-01	Reprints, drafts, newsletters, and publications, 1948-51, 1954-55, 1957, 1964, 1967, 1976, 1978-80, 1984-85, 1990
<u>Box 40:</u>		
480226	16-12	Patent applications for cases 3-9, 1-7, and 4-11 (2 folders), 1948-49
480314	12-55	Pressure change of resistance of Te and Ge, 1948-49
4804	12-58	Notes on conference on X-rays, University of Wisconsin, 1948, 1950
480429	12-15	Notes on Purdue program report, 1948
480513	12-70	Calculations of Si conductivity, 1948
480525	12-08	Transistor history (folder 1), 1948-49, 1955, 1957, 1959, 1968, 1976, 1978
480525	12-09	Transistor history (folder 2), 1948-49, 1955, 1957, 1959, 1968, 1976, 1978
480528	11-15	"A Semi-Conductor Triode" draft and paper, 1948
<u>Box 41:</u>		
480601	I-37	National Academy of Sciences - Walter H. Brattain biography (3 folders), 1948-50, 1953, 1956, 1959, 1967-68, 1973, 1983, 1985, 1987-90
480603	09-15	Transistor History, documents regarding history of the transistor by William B. Shockley and Charles Weiner, correspondence and reprints, John Scott Award, 1948-49, 1958, 1972-75
480603	12-07	Ge-Diode theory, 1948-50
480702	12-63	<u>Physics Today</u> article correspondence and notes, 1948
480802	12-66	Pfann P-N transistors, 1948
480822	12-64	Transistor talks, 1948

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
4809	05-11	Reprints on germanium, the early transistor, magnetic interpretation, and superconductivity, 1948-50, 1954, 1956-58, 1990
4809	05-16	"The Transistor -- A Crystal Triode," <u>Electronics</u> , September, 1948
4809	18-02	Early days of transistor reprints and speech, 1948, 1952, 1988

Box 42:

481106	12-57	Diode characteristics, 1948
481129	12-50	Talk on energy bands and mobilities, 1948-50
481223	12-13	Comments on transistor paper, 1948
49	12-48	Ge thermal expansion, 1949
490107	12-67	Transistor calculations and Holmdel-Deal talk, 1949
490215	12-40	Change of contact potential with light, 1949, 1951
490317	12-26	A.C. impedance spot on Ge Moore's Data, 1949
490323	12-22	Calculations on range of α 's in Ge, 1949
490405	12-49	Data of price, 1949
490411	12-28	Oak Ridge National Laboratory, Tennessee, 1949
490420	12-51	"Diffusion in Binary Alloys," 1949
490608	12-32	Mobilities, 1949-50
490609	12-19	Theory of A-C Impedance, 1949
490628	12-34	Diffusion in alloys, 1949
4907	05-17	Leo J. Peters, "The Direct Approach to Magnetic Interpretation and its Practical Application," <u>Geophysics</u> , vol. 14, no. 3, July, 1949
490802	12-29	Forming and p-type transistors, 1949
491118	12-46	Radial flow at large fields, recombination at surface, 1949
491209	09-16	Semiconductors Talks, notes of 13 talks on semiconductors and transistors, 1949, 1956-57, 1959-61, 1963, 1966
491222	12-45	Absorption, Ge and Si, 1949-50

Box 43:

50	18-13	Reprints, drafts, publications, and correspondence regarding history of superconductivity, 1950-51, 1958, 1962, 1964, 1971, 1973-75, 1978-80, 1983
500102	09-05	Superconductivity literature, notes, Fröhlich's theory of superconductivity, reprints and correspondence on superconductivity, 1950-51
500131	12-59	Charge of resistance in magnetic field, 1950
500429	12-56	National Research Council Imperfections Conference, 1950
500516	12-43	Superconductivity, 1950
500701	25-08	Drafts on electron-phonon interactions and superconductivity for Herbert Fröhlich article, abstracts and reprints on superconductivity,

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
500701	25-09	1950-51, 1961, 1963, 1968, 1973 "Electron-Phonon Interactions and Superconductivity" by John Bardeen for Herbert Fröhlich volume, <u>Cooperative Phenomena</u> , 1950-51, 1960, 1966, 1971-73
<u>Box 44:</u>		
501001	01-25	Talk, Ottawa, Canada, 1950, 1953-56
501001	11-01	Electrons - vibration interactions, Bardeen, Shockley reprint, 1950, 1955
501003	09-17	Patents, three electrode circuit, oscillation generator, xerographic plate patents, 1950, 1952, 1962
501208	11-09	"Isotope Effect in Superconductivity" and "Criterion For Superconductivity" and "Field Variation of Superconducting Penetration Depth," with notes, correspondence, and calculations, 1950-51
51	04-23	Nobel Foundation, code of statutes, 1952, 1972
51	17-25	Grade books and grade rosters, Physics 381, 435, 463, 481, 489, 490, 491, 498 (folder 1), 1951, 1953-59, 1961-72, 1974
51	17-26	Grade books and grade rosters, Physics 381, 435, 463, 481, 489, 490, 491, 498 (folder 2), 1951, 1953-59, 1961-72, 1974
510119	11-04	Superconductivity surface (boundary) energy, drafts and calculations, 1951
510129	11-05	Talk on superconductivity, "Superconductivity and Lattice-Vibrations," 1951
<u>Box 45:</u>		
510201	11-41	Galley proofs, reprints, manuscripts, and correspondence for published articles, 1951, 1955-57, 1961
510226	12-60	Atomic constants, 1951
510411	J-08	Haloid Company, 1951, 1954-55
5110	11-30	International Conference on Theoretical Physics, Kyoto and Tokyo '53, 1951-54
511217	11-02	Superconductivity, manuscripts and notes, American Physical Society talk at Washington, 1951-52
52	04-26	IBM American Physical Society international prize for new materials, 1952, 1974
52	11-07	Washington American Physical Society talk '52, notes and calculations, "Calculation Of Surface Energies," draft, reprints, 1952
52	11-14	Draft and reprint of "Surface Properties of Germanium," drafts of "The Motion of Slow Electrons in a Polar Crystal," 1952-54

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
52	18-05	Drafts, reprints, and publications on the history of the transistor and superconductivity (2 folders), 1952, 1958, 1961, 1964, 1966-67, 1969, 1972, 1975-76, 1978, 1980-81, 1984, 1986-89
<u>Box 46:</u>		
52	18-17	Reprints, drafts, conferences, and talk on superconductivity, 1952, 1961-62, 1965, 1969, 1971, 1978
520205	17-17	Plans for semiconductor research, 1952
520205	18-06	Drafts, reprints, and publications (2 folders), 1952, 1966, 1984-85, 1987
520208	I-06	The early days of the transistor, 1952, 1960, 1990
5203	11-18	Notes for Purdue report, 1952
520326	05-08	Navy Research Office contracts - proposals, 1952-54, 1958, 1961
520403	09-01	IRE-AIEE Solid Device Meeting, Institute of Radio Engineers and American Institute of Electronic Engineering Conference on Semiconductor Devices Research, 1952
520508	09-37	Superconductivity talks, 21 talks on superconductivity, 1952, 1955-63, ca. 1975
<u>Box 47:</u>		
520527	12-05	Summer session on semiconductors, 1952-53, 1968
520602	12-80	Conduction in solids, University of Wisconsin, summer, 1952
520609	09-32	Transistor summer school, summer school program, lecture notes at MIT, class experiments, Physics of Transistors Talk at Bell Labs, 1952-53
520609	16-09	Bell Labs talks, outline and reprints on low temperature physics and superconductivity, 1952, 1955
520701	26-16	Haloid Xerox Battelle correspondence, research and conferences on xerographic plates (2 folders), 1952-55, 1958-59
521021	09-02	Electrical Engineering Department information and graduate colloquium rules for '67, graduate committee, staff seminars, calendar of graduate college, 1952-53, 1962, 1967
521231	05-03	Army Research Office contracts - progress reports, 1952, 1954-55, 1957-59, 1961-67, 1969, 1973, 1975
5301	09-27	American Physical Society Talk, Detroit, Michigan, Surface Barrier effects, notes and reprints on surface properties, correspondence, 1953-54
5301	16-04	Semiconductor reprints, notes, draft, lectures, and publication, 1953-54, 1957, 1975

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
<u>Box 48:</u>		
530122	24-17	Nick Holonyak, Jr. 60th birthday, 1953, 1962, 1972, 1976, 1986, 1988
5302	03-12	National Academy of Sciences condensed matter physics panel, 1953, 1955, 1957-58, 1962, 1965, 1966, 1981-82
530210	11-10	Correspondence relating to Bardeen's article in <u>Handbuch der Physik</u> , 1953-55
530210	11-11	Superconductivity notes, "Theory of the Meisner Effect in Superconductors," 1951-55
530224	05-04	Army Research Office contracts - proposals, 1953-54, 1957-59, 1962, 1964-67, 1970-71, 1973
530622	04-42	Transistor devices lectures given by John Bardeen, R. N. Hall, R. M. Ryder, William B. Shockley at the Graduate Summer School in Semiconductors and Transistor Electronics, 1953
530622	04-43	Semiconducting materials lectures given by E. Conwell, A. Rose, F. Seitz, H. L. Vink, E. K. Weise at the Graduate Summer School in Semiconductors and Transistor Electronics, 1953
530627	03-43	Fritz London endowment, 1953, 1972-74, 1977-78, 1982
5309	05-02	Navy Research Office technical reports, 1953, 1956
<u>Box 49:</u>		
5309	05-10	Navy Research Office technical reports, numbers 2-8, 1953-56
5309	05-12	S. R. Morrison, "Some Surface Effects on Germanium Technical Report" no. 2, 1953
530916	09-47	Light Amplification Papers and Correspondence, Institute of Electrical and Electronics Engineers AdCom meeting, articles and reprints, Gordon Teal letter, 1953, 1962-63, 1986-87
531208	01-22	Semiconductors Amsterdam meeting, 1953-54
531217	01-21	Low Temperature Conference, Houston, Texas, 1953
54	23-14	TCNQ fluctuation superconductivity, 1954, 1973
540115	05-07	Navy Research Office contracts - progress reports, 1954-67
<u>Box 50:</u>		
540415	01-23	Buckley committee solid state physics, 1954-57
5405	07-04	Electrolytic analog transistor and patent documents, 1954, 1964, 1974, 1983, 1986, ca, 1987
540615	05-13	Hubert Bulliard, "Photomagnetic Effect in Germanium and Silicon," <u>The Physical Review</u> vol. 94, no. 6, June 15, 1954
540629	11-28	European trips, 1954, 1958, 1962

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
541101	14-26	Correspondence and notes of Raydong Sun (2 folders), 1954, 1958
550226	09-51	Wave Functions for Li and Na Correspondence, correspondence, tables and calculations, 1955-56, 1964
550314	05-06	Air Force Office of Scientific Research contracts - progress reports, 1955, 1957-64
550329	09-36	General Electric agreement, consulting agreements and correspondence, 1955-59
<u>Box 51:</u>		
550503	12-81	Noise in semiconductors, drafts and correspondence Bardeen, J. M. Richardson, S. Roy Morrison, 1955
550601	J-22	U.S. Army Research Office technical reports, 1955, 1961, 1974
550609	12-83	Summer school at Les Houches, Paris, 1955-56
550901	04-37	Ge and Si Diffusion, reports, notes, correspondence (M. W. Valenta, M. F. Millea, G. L. Pearson, Ramasastry, W. W. Tyler), 1955-56, 1958-59, 1961
551101	11-06	Book review, Cohen tenure, correspondence, calculations, and abstracts, 1955-56
551107	26-19	Haloid Xerox Company correspondence and notes on meetings, includes photograph of John Bardeen, 1955-58
5512	09-33	Solid state physics history project, fundraising letters by John Bardeen to industries, minutes and summaries of organizational meetings, correspondence, question list, 1955, 1979-83
<u>Box 52:</u>		
551215	12-75	Book on superfluids, 1955, 1957-59
551228	01-11	National Science Foundation Low Temperature Physics Program Conference, 1955
56	04-44	Foreign reprints by John Bardeen through 1933, 1956, 1961, 1964, 1972-74, 1983
56	04-52	Nobel Prize lectures, National Science Foundation award, and history of superconductivity, 1956-57, 1966, 1972, 1975, 1978
56	05-15	Harry Letaw, Jr., "Thermal Acceptors in Germanium," <u>Journal of the Physics and Chemistry of Solids</u> , vol. 1, 1956
56	15-04	Notes and lectures on low temperature physics and reprints on superconductivity, 1956, 1958-59, 1962
56	C-02	Notes, drafts, and reprints (2 folders), 1956-57, 1959-63
5601	G-09	Reprints, Stephen Brunauer, "Einstein in the Navy," 1956, 1979, 1985-86
560116	13-33	Symposium on technology of diffusion devices by the staff of Bell

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
		Telephone Laboratories for licensees of Western Electric Company, 1956
<u>Box 53:</u>		
560214	09-52	Refereed articles and comments for <u>Physics Review</u> , correspondence, 1956-58
560227	Z-01	P. C. Banbury, correspondence and application for a visiting professorship at UIUC, 1956
560306	01-24	Semiconductors Conference, Garmisch, 1956
560306	27-01	Technical panel on semi-conductors, National Academy of Sciences, National Research Council, 1956
560412	Z-07	Toll correspondence regarding Maryland loyalty oath requirement for centennial lecturers, 1956
5605	09-44	Surface properties talks, talk at San Francisco, talk on semi-conductors surface physics Gulf Research Lab, notes for Copenhagen lecture, 1956, 1958-59
560501	A-03	Ph.D. Preliminary Exam for Emery Wisman, 1956, 1961-62
560524	11-32	International symposium at Garmisch, John Bardeen's paper "Methods for Determination of Distribution of Surface States in Ge and Si," 1956
560910	19-02	Drafts and reprints by John Bardeen and others, 1956-57, 1960-62, 1964, 1976-77, 1979-81, 1983-85, 1989
561102	01-29	Nobel Prize Stockholm trip, 1956-57
561106	18-19	Correspondence, drafts, and reprints on superconductor, 1956-58, 1961, 1976
561107	16-11	Drafts, galleys, reprints, and correspondence, 1956-58
561115	15-14	Collected papers and tables on the theory of conductivity, 1956-58

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
<u>Box 54:</u>		
561211	09-14	Nobel lecture, semiconductor research leading to the point contact transistor correspondence, 1956-57, 1960
57	11-12	Drafts of chapters, <u>Theory of Superconductivity</u> , 1957
570101	25-11	Proofs for 1972 Nobel lecture and <u>World Book Encyclopedia</u> , 1964 American Society for Testing Materials lecture, reprints on superconductivity, 1957, 1963-64, 1969, 1972-73
570111	05-05	Air Force Office of Scientific Research - proposals, 1957, 1959, 1961, 1963, 1965-66, 1968, 1970
570212	01-34	Rochester Semiconductors Conference, 1957-58
570615	01-30	Superconductivity Conference, Brussels-Leiden, 1957-58
570617	11-35	National Science Foundation committee for atmospheric sciences, theory of superconductivity technical report (John Bardeen, L. Cooper, and J. R. Schrieffer), 1957, 1961
<u>Box 55:</u>		
570625	A-01	Quantum Chemistry Group for Research in Atomic State Theory, Uppsala University, Sweden, technical notes numbers 1-4, 1957
5707	17-20	Tetsuo Tsukamoto, new germanium NPN grown junction crystal for high frequency transistor, July, 1957
5707	26-33	Japanese Universities information, drafts and reprints, 1957, 1968, 1973-77
570719	03-39	Transistor early days address, electrical engineering symposium, Ohio University, 1957, 1979
570719	09-25	Science and government talk, Normal University, Bloomington, Illinois, science and government talk and 2/24/60 talk on President's Science Advisory Council activities and need for better public understanding of science, 1957, 1960-61
570723	23-03	Superconductivity history, 1957, 1966, 1972
570828	A-02	Office of Naval Research, directories of scientists and physicists in Europe, 1957, 1959-60
<u>Box 56:</u>		
571028	04-18	Nobel nominations, reprints, nominations, biographies (2 folders), 1957, 1960-62, 1966-68, 1971, 1974

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
571125	09-43	Michelson Award talks, also talk at American Physical Society Meeting (1970), Bell Labs record (Jul/Aug 68), special report "Electronics Magazine" (2/19/68), 1957, 1961, 1968, 1970
571201	04-09	Superconductivity Conference, Stanford, reprints, papers and notes, 1957, 1965-66, 1968-69
571201	18-15	Publication, reprints, and draft regarding superconductivity, 1957, 1962, 1973
571211	18-04	Reprints, drafts, and notes on the history of the transistor and superconductivity (2 folders), 1957-58, 1962, 1973, 1975-76, 1978, 1980-82, 1987-88
571219	16-13	Physics class papers for 436D, 490, and 491, and reprints, 1957, 1962, 1965-67

Box 57:

571219	16-15	Physics 362, 436D, 490, and 491 class papers, reprints, and drafts, 1957, 1961-62, 1965-67
58	09-49	Superconductivity talk, four reprints on superconductivity, notes, talk <u>Advances in the Theory</u> , 1958, 1963, 1968
58	14-25	Bardeen notebooks (3 folders), 1958-60, 1963-64, 1966, 1968
58	18-10	Transistor history, 1958, 1964, 1968

Box 58:

580314	01-35	Proceedings of Midwest Conference on Theoretical Physics, St. Louis, 1958
580402	01-33	Rochester Semiconductors Conference, 1958
580415	A-01-01	Quantum Chemistry Group for Research in Atomic, Molecular, and Solid-State Theory, Uppsala University, Sweden, technical notes, nos. 10, 12-13, 1958
580513	18-18	Correspondence regarding publication, recommendations, European trip, and physics, 1958-
59580607	11-29	Navy Department's "European Scientific Notes" '59, superconductivity conference booklet '59, summary of papers given at exposition in Brussels '58, 1958-59
580715	04-01	Flux Flow in Low-K Superconductors with Richard D. Sherman, 1958, 1961, 1971, 1974-75
580715	23-12	Current flow superconducting and normal boundaries, 1958, 1969-72

Box 59:

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
580801	A-01-02	Quantum Chemistry Group for Research in Atomic, Molecular, and Solid-State Theory, Uppsala University, Sweden, technical notes, nos. 15, 16, 18, 1958
580801	J-10	Papers of students under my direction, 1958-59, 1965, 1973
580818	01-32	Rochester Semiconductors Conference, 1958
580825	01-36	International Conference on Electrical Properties of Metals, 1958
580901	A-02-03	Lists of Nobel Prize winners, American Physical Society Division of Solid State Physics membership, ARPA-SSSP meeting attendees, recipients of superconductivity reports, Electron Tunneling in Solids Symposium attendees, 1958-59, 1961
580915	A-01-03	Quantum Chemistry Group for Research in Atomic, Molecular, and Solid-State Theory, Uppsala University, Sweden, technical notes, nos. 17, 19-21, 23, 1958-59
580924	09-03	Karlheinz Seeger final reports to Signal Corps on investigations of microwave duplexer switching mechanism, diagrams, 1958

Box 60:

581106	12-74	Book on superconductivity by Bardeen and J. R. Schrieffer, 1958-59
581111	04-04	Physics 490, notes, problems, and lectures, 1958, 1961-63
581201	15-03	Calculations notebook, 1958, 1963, 1965
581207	09-40	President's Science Advisory Committee, announcement of decision to put National Science Foundation in charge of coordinating scientific information, advised by President's Science Advisory Committee, travel details, 1958, 1960
581227	09-48	Strengthening American Science, President's Science Advisory Committee pamphlet and two newspaper clippings with short paragraphs on two colleges, 1958
59	09-54	European trips, Hotel Ukraine, Moscow, closing speech, notes, reprint, 1959
59	12-77	Correspondence and notes on manuscript on superfluids, 1959-60, 1962
59	22-07	"Quantum Fluids" The Physical Society of Japan, "The Theory of Fermi Liquid" by Abrikosov and Khalatinikov, "The Structure of and Properties of Metal - Semi Conductor Interfaces" by Brillson, and "The Impact of Energy on Industrial Growth," by Kümmel, 1959, 1979, 1982
590206	13-32	Texas Instruments, Jack Kilby integrated circuit patent, 1959, 1970

Box 61:

590215	23-06	Gapless superconductor, thin films, 1959, 1962-64
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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
590301	J-09	Superconductivity and solid state physics talks, 1959, 1964-66, 1968, 1972
590420	A-01-04	Quantum Chemistry Group for Research in Atomic, Molecular, and Solid-State Theory, Uppsala University, Sweden, technical notes, nos. 24-26, 28, 1959
590422	14-20	Science Advisory Council correspondence, application, itinerary, reprints, and newspaper clippings, 1959, 1970, 1978, 1980-83
590521	01-20	Semiconductor Conference, London, 1951
590526	B-11	Graduate fellowships pamphlets, 1959
5906	01-48	Low Temperature Physics Conference, Columbus, Ohio, 1959, 1963-65
590619	01-28	Europe summer, 1958, 1962

Box 62:

590712	A-01-05	Quantum Chemistry Group for Research in Atomic, Molecular, and Solid-State Theory, Uppsala University, Sweden, technical notes, nos. 30, preprint numbers 125, 127-130, 143, 1959, 1964-65
5909	01-47	Russia trip reports, 1959
5910	15-11	Tunneling calculations, notes, drafts, publications and reprints, 1959, 1961
591113	A-02-04	National Academy of Sciences, <u>Science</u> preprint, organization information, and membership lists, 1959-62
591215	18-16	Reprints on superconductivity, Bardeen "Advances in Superconductivity" drafts and reprints, 1959, 1961-63, 1969-70, 1973
591222	04-30	Physics class problems, 1959-60, 1963, 1965
60	01-37	Semiconductor Physics Conference, Prague, 1960
60	01-51	Superconductivity Research Conference, IBM, Yorktown Heights, New York, 1960-61
60	03-54	Yale correspondence, 1960-62

Box 63:

60	12-02	Proposal for a midwest electronics research laboratory (folder 1), 1960, 1962-64
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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
60	12-03	Proposal for a midwest electronics research laboratory (folder 2), 1960, 1962-64
60	13-12	Revision for Condon and Odishaw, <u>Handbook of Physics</u> , second edition, 1960, 1962-63
6001	09-24	Semiconductor specialists dinner talk, Chicago, correspondence and reprint on semiconductor research, 1960, 1963
600113	11-24	Trips to Prague and Russia, International Conference on Semiconductor Physics, Prague, report, correspondence, programs, and abstracts, 1960
6004	J-52	J. Bardeen and J. R. Schrieffer, Recent Developments in Superconductivity, 1960
600524	27-05	Haloid Xerox Incorporated, 1960-65
<u>Box 64:</u>		
600815	13-13	Notes and drafts for talks on superconductivity, Stockholm and University of Utah, 1960, 1966, 1971-72
600912	11-39	Reports on federal support of science, 1960-61
601017	11-36	Funding, recruitment, and management of federally financed research and development projects, 1960-62
601020	01-45	Semiconductor Talk, ACS, Rochester, land grant college dinner, 1960-61
601026	22-27	Correspondence with and reprints of E. G. D. Cohen, 1960-62, 1966-68, 1970-71, 1977, 1984, 1989
601028	09-21	Prague and U.S.S.R. trip report, report to National Academy of Sciences on 8/25 - 9/25 visit to solid state laboratories, 1960
<u>Box 65:</u>		
601209	01-38	N.A.T.O./AGARD Materials Science Symposium, Advanced Group Materials Science, Paris, 1960-61
601209	01-39	N.A.T.O./AGARD Materials Science Symposium, Advanced Group Materials Science, Paris, 1960-61
601221	01-41	N.A.T.O./AGARD Materials Science Symposium, Paris, 1960-61
601229	01-44	IBM Superconductivity Conference, 1960-61
61	09-38	Rochester talk, semiconductors, 1961
61	15-08	Low temperature physics notes, physics 498C lecture notes and He ³ draft, 1961-62
61	B-05-01	Lecture notes-Physics 498C, 1961-62

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
6101	27-03	Federal Council on Science and Technology, Interdepartmental Committee for Atmospheric Science and Technology - Xerox Corporation, 1960-61
610127	27-04	Atmospheric science, 1961-62
<u>Box 66:</u>		
610415	01-40	Gordon Conference, 1961
610417	01-26	Travel vouchers, 1961
610505	01-54	Conferences, 1961-62
610512	01-49	Midwest Conference on Theoretical Physics, 1961
610515	01-46	N.A.T.O./AGARD Materials Science Symposium, Paris, 1961
610515	27-10	Excitonic superconductivity, 1961-78
610523	09-22	Center for Advanced Studies dinner talk, 1961
610606	04-48	Physics 435, Physics 490, and diagrams, 1961-63, 1973
610615	18-11	International Conference on the Science of Superconductivity, Hamilton, New York, 1961-63, 1974
610623	11-35	President's Science Advisory Committee, 1961-62
610623	11-37	Review of effectiveness of private contracts for government research and development, 1961
6107	11-08	Notes on Critical Fields and Currents, draft of "Quantization of Flux in a Superconducting Cylinder," 1961
610701	01-27	President's Science Advisory Committee travel, 1961
<u>Box 67:</u>		
610706	11-19	Notes and calculations for papers, "Calculation of Critical Current Density," "Calculation of Free Energy as a Function of Gap for General T," "Calculation of Current Density, small z, y," "Tunneling from a Many-Particle Point of View," 1961-62
6110	18-26	Reprints and conference information on superconductivity and low temperature physics, <u>Industrial Research</u> , "Scientist of the Year" article, 1961, 1964-65, 1968, 1970-72, 1974-76
6111	07-39	Field effect transistor, three reprints, 1961-62, 1986
611204	15-09	Physics problems notebooks, Physics 489 and 490, 1961-62, 1964
611206	12-76	Bardeen paper on critical fields and currents in superconductors, 1961-62
62	23-05	Notes on Mathias seminar and superconductivity drafts and reprints, 1962, 1966-70

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
62	23-15	Superconductivity materials notes, drafts, and reprints, 1962, 1970-72

Box 68:

6201	07-07	Superconductive tunneling, 1962
6201	22-13	Draft for "The Early Days of the Transistor," reprints of "Review of the Present Status of the Theory of Superconductivity," other articles by Seeger, Ginley, Baker, Richards, Shen, Harris, Lloyd, and Clarke, 1962, 1979-80
620109	11-34	Federal Council for Science and Technology, 1962
620115	A-02-01	Hughes Aircraft Company, information retrieval program, progress report, 1962
620213	01-43	Superconductivity Conference planning, Hamilton, New York, 1962-63
620313	11-23	President's Science Advisory Committee Atmospheric Sciences Group, 1962
620328	13-15	<u>The Quantum Theory of Atoms, Molecules, and the Solid State</u> - drafts and correspondence, 1962, 1965-66
620329	01-31	Eta Kappa Nu Talk, 1962
620329	09-26	Eta Kappa Nu Talk, need for quality people in the civil service, 1962
620330	11-40	Report of the Advisory Panel on Nuclear Structure Physics (formerly Low Energy Physics), 1962-63
620405	01-53	"Clear Surfaces" Conference, New York, 1962
620420	11-38	"Strengthening the Behavioral Sciences," pamphlet, 1962
6205	09-30	Microelectronics talk, ITT, engineering education and changing technology notes with correspondence and article by Gordon Brown, 1962-63
6206	01-58	French theoretical physics, superconductivity, Corsica, 1962
620601	01-52	Midwest Conference on Theoretical Physics Proceedings, 1962

Box 69:

620701	15-07	Tunneling drafts, reprints, and notes, 1962
620706	01-55	Low Temperature, London, 1962
620730	G-05	Army Research Office correspondence DA-HC04-69-C0007 C0005, 1962, 1964-75
620815	13-35	SN boundaries, 1962, 1972
620815	J-24	Superconductivity talks, China and Leiden, 1962, 1975, 1979
620928	15-05	Physics 491 notes, 1962
6210	14-05	Reprint, correspondence, and drafts on motion of flux lines, 1962,

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
		1965-66
6210	22-20	Documents relating to Charles F. Gallo, 1962-63, 1967, 1973-74, 1980, 1982, 1984, 1987
621022	27-02	Atmospheric Science Panel, questions concerning meteorological satellites, 1962
6212	27-25	Ga (As _{1-x} P _x) p-n junction laser diode (color photograph), 1962 [oversize box 30]
621228	Z-12	John Bardeen chair of the International Conference on the Science of Superconductivity, August 26-28, 1963, Colgate University, Hamilton, New York, 1962-63
63	01-59	Russian documents, 1963
63	B-04-02	American Physical Society, Committee on the Character of APS Meetings, report, American Physical Society Council, preliminary agenda and minutes, Washington, D. C. meeting, 1963-67
6301	03-53	Nobel correspondence, draft, 1972 Nobel acceptance speech, 1963, 1972-73
6301	22-34	Drafts and reprints on charge density waves and superconductivity, encyclopedia article correspondence, Five Continent Peace Initiative, 1963, 1981-82, 1984-86

Box 70:

630131	18-27	Xerox Corporation talks and correspondence, 1963-65
630215	14-12	Current oscillation in silicon reprints and drafts, 1963-67
6304	01-50	Solid State Theory Conference, Moscow, 1963
630404	09-06	Talk - Moscow, notes reprints, pamphlet in Russian, translated Russian interview of John Bardeen, 1963-64
630418	09-28	Industrial Research Conference talk, Purdue, Basic Research talk and Industry-University Research Forum talk 4/18/63, 1963, 1965-66
630418	09-39	Industry - University Research Forum talk, talk on industrial visitors program (and Sloan Foundation Grant Notice) at Illinois (4/25/63), 1963
630515	01-57	Xerox fall planning conference, London, 1963
630518	18-01	John Bardeen photographs, 1963, 1985 [oversize box OS-30]
630523	16-14	Notebooks concerning physics classes, 1963, 1965, 1967

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
630711	09-12	Physics of Solid Surfaces Conference talk, Providence, notes, reprints, correspondence regarding various conferences, International Conference on the Physics and Chemistry of Solid Surfaces, 1963-64
630812	01-56	Transport phenomena in many-particle systems, Banff, 1963
630820	E-19	International Union of Pure and Applied Physics, location of 13th International Conference on Low Temperature Physics, 1963, 1968-72

Box 71:

631024	13-01	American Society for Testing Material talk, 1963-64
631202	18-25	Drafts, reprints, notes, papers, University of Illinois at Chicago faculty search committee, travel and conference itinerary, prize nominations, 1963, 1971, 1974-77, 1988
631225	12-78	Bardeen and Michael Stephen, abstract on calculation of free energy of superconducting, 1963-64
64	04-49	Diagrams and charts for talk (contains photograph), 1964, 1968, 1972
64	15-10	Calculations and lecture notes for Physics 131B and 463, superconductor and superfluids reprint, 1964, 1966-67
64	27-24	Club and organization membership cards, international postage stickers, Johnson/Humphrey pin, 1964, 1977, 1988, 1990
640121	B-04-04	American Physical Society minutes (folder 1), 1964-66
640121	B-04-05	American Physical Society minutes (folder 2), 1964-66

Box 72:

640124	09-08	American Society for Testing and Materials talk, Philadelphia, notes and correspondence, 1964
640128	17-32	Bardeen photographs and University of Illinois Photo Services work orders, 1964, ca. 1975, 1978, 1981, 1985, 1989-90
640212	09-19	Talk - Recent Developments: Phenomenological Theories, 1964
640326	12-79	Ultrasonic attenuation, V. M. Bobetic, 1964
640408	E-14	International Union of Pure and Applied Physics correspondence, general assembly, 1964, 1966, 1968-71
6405	14-01	Patent information, 1964-66
640501	13-28	President's commission on the patent system (contains photographs), 1964-67

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640505	D-13	American Physical society executive committee meeting, New York, 1964-65, 1967
640508	E-10	International Union of Pure and Applied Physics, commission on very low temperatures, 1964-67, 1971
640621	01-61	Solid Surfaces Conference, Brown University, 1964
<u>Box 73:</u>		
640623	13-31	Texas Instruments, Jack Kilby integrated circuit patent, 1964, 1969-70
640627	25-01	Autograph requests (4 folders), 1964-68, 1970-74, 1976-77, 1979-81, 1984, 1990-91
640717	18-28	Xerox Corporation and Bell Laboratories correspondence, memos, and talks, Air Force Office of scientific research news reports, meetings, and drafts, 1964-66
640717	B-07-03	Report on automatic teaching and full employment, 1964
640724	B-07	Governor's Advisory Committee, 1964
640727	14-16	Fluctuation relaxation notes, reprints, correspondence, and drafts, 1964, 1968-70
<u>Box 74:</u>		
640807	B-07-12	Proposal for the establishment of a computation center, 1964
640810	B-07-01	Illinois Science Advisory Council minutes, 1964-65
640831	01-60	9th Low Temperature Physics Conference, Columbus, Ohio, 1964
6409	19-03	Correspondence, blank UIUC post-doc position application, draft of superconducting magnet research, notes, list of publications, 1964-65, 1971, 1986
6409	B-07-11	Report by the Pennsylvania Governor's Council of Science and Technology, 1964
640901	G-04	Army Research Office financial statement DA-HC04-69-C0007 C0005, 1964-72
640902	E-1	Correspondence concerning International Union of Pure and Applied Physics, 1964-72
640925	09-04	Engineers, Scientists, Physicians for Johnson/Humphrey, pamphlets, letters, and newsletters of this group. (A letter by Satterthwaite says Bardeen helped make an ad for the <u>News Gazette</u> , 1964
641008	C-04	Robert W. Hellwarth correspondence (outgoing only), 1964-65
6411	B-07-07	Report on the need to increase human environment and economic activity, 1964
641112	16-07	Basic research notes, drafts, reprints, and lectures, 1964-66, 1974
641112	Z-02	Talk presented at Xerox dedication ceremonies, "The Role of Basic

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		Research," 1964
641130	13-18	Solution of Gor'kov equation, 1964-65
6412	04-35	Collective excitations on electrodynamics of superconductors paper, A. I. Larkin and notes, 1964-65
641204	14-06	Vortex motion, 1964-65
641221	24-27	Sang Boo Nam, 1964, 1967, 1969-72, 1974
650119	B-07-09	Article by Dr. John C. Frye on activities of state geological survey, 1965

Box 75:

650228	11-16	"Hall Effect and Vortex Motion," paper as part of Physics 463 course, 1965, 1971, 1973-75
6503	B-07-04	Report on development of forest and associated land resources of Illinois, 1965
650320	D-12	American Physical Society council meeting, New York (3 folders), 1965, 1967
650326	B-07-10	Chicago Engineering and Science Center, Incorporated, goals and purposes, 1965
650329	15-12	Sussex summer meeting on quantum fluids correspondence, notes, and drafts, 1965
650413	C-03	Philippe Choquard correspondence (outgoing only), 1965
650426	B-04-08	American Physical Society, Committee on the Character of APS Meetings, minutes and correspondence, Washington, D.C. (folder 1), 1965-66
650426	B-04-09	American Physical Society, Committee on the Character of APS Meetings, report, Washington, D.C. (folder 2), 1965-66
650501	09-09	Talk - Xerox, Basic Research in the Industrial Labs, 1965
650518	09-46	Superconductivity Talk, Pittsburgh, Bardeen photographs, outline for talk, 1965
650520	D-07	American Physical Society Executive Committee, New York, 1965-69
650602	15-13	10th International Conference on Low Temperature Physics (2 folders), 1965-67

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
<u>Box 76:</u>		
650618	26-31	Notes, correspondence, travel itinerary, reprints, and drafts, 1965, 1977, 1979-81
650622	16-16	Reprint requests, 1965-66
650629	13-14	<u>The Quantum Theory of Atoms, Molecules, and the Solid State</u> - correspondence, 1965-66
650725	04-05	Bardeen, Baym, Pines Manuscript on He ³ atoms, papers, calculations, correspondence with Baym and Pines, 1965-66
6508	15-02	He ³ -He ⁴ solutions reprints and drafts, 1965-67
650816	14-07	Minneapolis talk, 1965-68
650816	14-19	Mixtures talk and low temperature physics notes, drafts, and reprints, 1965-66
650816	24-09	Robert M. Cleary, 1965, 1968, 1970-71
6509	14-02	Recommendations for national document handling systems, 1965
<u>Box 77:</u>		
6509	15-01	Image display regarding PLATO computer system, 1965-66
6509	27-12	Talk on patents for AAAS meeting, December '66, 1965-67
650925	14-04	Correspondence, drafts, and notes on flux flow, 1965-66
651023	13-11	Superconductors and superfluids - proofs and correspondence, 1965-67
651115	03-40	Iran superconductivity and semiconductor lectures, 1965, 1973-76
651115	13-10	Superconductors and superfluids proofs, 1965-66
651115	13-34	Xerox advisory group, 1965, 1974
651115	15-16	Mattie D.C. exact solution of a many-fermion system and its association boson field notes, drafts, and correspondence, 1965-68
651115	25-10	Reprints on superconductivity, notes on fluctuations (2 folders), 1965, 1970-73
<u>Box 78:</u>		
651115	26-27	Reprints and notes on superconductivity, 1965, 1969, 1972, 1974-76
651117	04-32	W. L. Everitt and Wheeler Loomis nominations for honorary degree, 1965, 1968-69
651230	B-04-06	American Physical Society, Committee on the Character of APS Meetings, Gaseous Electronics Conference, Atlanta, 1965-66
651231	B-04-03	American Physical Society auditor's report, 1965-67

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
66	13-16	Drafts, history of superconductivity research, Center for Theoretical Studies, University of Miami, Coral Gables, Florida, 1966, 1969
66	14-24	Department letters, newsletters, and publications (2 folders), 1966-67, 1969-70, 1976
66	23-10	Talk in Japan, 1966, 1968-70
660111	27-13	Talks - Japan, Purdue, India, Hungary, and Korea, 1966, 1972, 1976-77
660124	14-14	Vladimir Galaixo correspondence regarding his theory, 1966
660125	B-04-01	American Physical Society Council, minutes, meeting in New York, 1966
660131	B-04-07	American Physical Society, Committee on the Character of APS Meetings, Physics of Free Atoms Conference, Berkeley, 1966

Box 79:

6602	E-21	American Institute of Physics directories of officers and members of governing bodies, 1966-70
660218	D-02-02	American Physical Society, Committee on the Character of APS Meetings, New York meeting, 1966-68
660228	B-07-06	Progress report - land and resources, 1966
6603	D-06	American Physical Society meeting, 1966-68
660316	D-08	American Physical Society Los Alamos, New Mexico meeting, 1966-68
660324	14-11	Paper for 10th International Conference on Low Temperature Physics, 1966-67
660412	09-23	Conference on Superconductivity in Science and Technology Talk, Chicago, 1966
660418	D-03	American Physical Society Washington, D.C. meeting (3 folders), 1966-68
660608	11-27	Second International Conference On Tunneling Phenomena In Solids, 1966-67
660809	13-17	National Inventors Council talk, 1966-67
660810	B-07-08	Report on minerals and energy, 1966
660830	B-07-05	Report on land and natural resources, 1966

Box 80:

660831	09-42	Vortex lines talk, notes, calculations, paper "Macroscopic Quantum Effects and Vortex Motion in Superconductors," 1966, 1969
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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
660903	E-08	International Union of Pure and Applied Physics, reports on the commission on very low temperatures, 1966-68
660916	13-30	Patent commission material, 1966-68
661021	D-01-11	American Physical Society, Committee on the Character of APS Meetings, Gaseous Electronics Conference, San Francisco, 1966
661027	09-29	Electron devices meeting talk, University-Industry interaction in solid state research, 1966
661028	D-01-08	American Physical Society, Committee on the Character of APS Meetings, Conference on II-VI Compounds, Brown University, Providence, Rhode Island, 1966
6611	E-03	International Union of Pure and Applied Physics membership, 1966-67, 1969, 1972
661121	B-05	Bardeen - Physics 491, 1966-67
661201	B-04	American Physical Society meeting in Nashville, 1966
661214	D-01-12	American Physical Society, Committee on the Character of APS Meetings, Hyperfine Interactions Detected by Nuclear Radiation, 1966-67
661227	D-01-09	American Physical Society, Committee on the Character of APS Meetings, Computers in Chemistry, California, 1966-67
67	04-16	O. B. Buckley Solid State Physics Prize, nomination of C. P. Slichter, 1967, 1972
6701	04-34	Michelson-Morely Award, Cleveland, Ohio, Basic Research in Industrial Laboratory booklet in <u>Industrial Research</u> , 1967-68
670105	D-14	American Physical Society Washington, D.C. meeting, 1967
670109	D-15	American Physical Society executive committee meeting, Chicago, 1967
670112	D-17	American Physical Society meeting Stanford, California, 1967
670116	D-02-04	American Physical Society, Committee on the Character of APS Meetings, correspondence with Karl Darrow, W. W. Havens, Jr., John Archibald Wheeler, 1967
<u>Box 81:</u>		
670117	D-02-03	American Physical Society, Committee on the Character of APS Meetings, Washington, D.C. meeting (2 folders), 1967
670130	D-16	American Physical Society meeting, New York, 1967
6702	E-16	International meetings, 1967-68
670202	11-26	Glasgow trip, correspondence regarding honorary degree, 1966-67

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
670210	24-31	Preprints and reprints, M. E. Hawley, Y. Suzumura, S. Abe, A. Schmid, J. K. Jain, K. Kawabata, J. P. Carbotte, L. Kramer, A. E. Jacob, et al., 1966-68, 1970-72, 1985-86
670220	15-06	Physics 463 problems course, Spring, 1967
670311	14-13	Fluxline motion correspondence, notes, drafts, and reprints, 1966-67
<u>Box 82:</u>		
670321	04-07	Superconductivity Conference, Stanford, program and correspondence, 1967-69
670321	04-10	Type II Superconductivity, notes, 1967
670322	D-01-13	American Physical Society, Committee on the Character of APS Meetings, Neutron Cross Sections and Technology, Washington, D.C., 1967
670401	A-01-06	Quantum Chemistry Group for Research in Atomic, Molecular, and Solid-State Theory, Uppsala University, Sweden, preprint numbers 190-191, and preliminary research reports, nos. 200, 209, 212-213, 1967-68
6705	15-18	Welch Foundation talk rough draft and summary, 1967-68
670511	D-01-03	American Physical Society, Committee on the Character of APS Meetings, Vacuum Ultraviolet Radiation Physics-Interaction with Solids Conference, 1967
670519	D-02-01	American Physical Society, Committee on the Character of APS Meetings, Change in Date for New York meeting, 1967
670525	E-17	International Union of Pure and Applied Physics 13th International Conference on Low Temperature Physics, executive committee, 1967-69, 1971
670615	E-24	International Union of Pure and Applied Physics 13th International Conference on Low Temperature Physics, 1967-69
670705	D-01-04	American Physical Society, Committee on the Character of APS Meetings, Conference on Intrinsic Noise in Superconductors, 1967-68 670706 14-03 Calculations, drafts, and correspondence on vortex core, 1967-68
670706	D-01-05	American Physical Society, Committee on the Character of APS Meetings, International Conference on the Metal-Nonmetal Transition, San Francisco, 1967-68
670725	E-13	International Union of Pure and Applied Physics-sponsored conferences, 1967-70, 1972
670726	E-25	International Union of Pure and Applied Physics 12th International Conference on Low Temperature Physics (folder 1), 1967-70
670726	E-26	International Union of Pure and Applied Physics 12th International Conference on Low Temperature Physics (folder 2), 1967-70

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
<u>Box 83:</u>		
670803	04-46	Diagrams, charts, and photographs for talk, 1967
670823	D-11	American Physical Society New York meeting, 1967-68
6709	25-04	Paraconductivity, 1967, 1969-72
670905	13-37	Xerox technical advisory panel, 1967-70
670918	D-01-07	American Physical Society, Committee on the Character of APS Meetings, Gas Phase Molecular Structure Conference, Austin, Texas, 1967
671014	24-20	Reiner Kümmel, 1967, 1969-74
671101	D-01-10	American Physical Society, Committee on the Character of APS Meetings, Topical Conference on Exploding Wires, Boston, 1967
671106	15-15	Welch Foundation itinerary and correspondence, 1967
671116	D-01-02	American Physical Society, Committee on the Character of APS Meetings, Plasma Instability in Astrophysics, Pacific Grove, California, 1967
671122	D-01-01	American Physical Society, Committee on the Character of APS Meetings, Symposium on Relativistic Astrophysics, Dallas, Texas, 1967
671204	18-14	Publication, reprint, and correspondence regarding superconductivity, 1967, 1975, 1977
671205	D-01-06	American Physical Society, Committee on the Character of APS Meetings, Physical Electronics Conference, Minneapolis, 1967
<u>Box 84:</u>		
671213	14-08	Kümmel normal and superconducting boundary correspondence and drafts, 1967-69
671222	D-09	American Physical Society Berkeley, California meeting, 1967-68
68	24-32	Preprints and reprints, A. E. Jacobs, J. A. Cohen, H. G. Drickamer, et al., 1968, 1971
68	E-11	International Council of Scientific Unions, yearbooks and bulletin, 1968-69, 1971
68	J-48	Comstock Award presentation, 1968
680108	D-05	American Physical Society meeting, Miami Beach, Florida, 1968-69
680110	14-10	Vortex structure notes, correspondence, drafts, and reprints, 1968-69
<u>Box 85:</u>		
680122	01-66	U.S.-Soviet Symposium, Moscow, 1968
6802	E-32	American Institute of Physics journals and publications (folder 1), 1968-69

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
6802	E-33	American Institute of Physics journals and publications (folder 2), 1968-69
680213	14-18	Xerox correspondence, 1968-69
680215	24-15	Nick Holonyak, Jr., 1968-69, 1971-72, 1974, 1985-86
6803	03-28	Transistor history, 1968, 1971, 1979-81
680307	D-10	American Physical Society meeting Boston, Massachusetts, 1968
680311	16-23	60th birthday, 1968
<u>Box 86:</u>		
680313	A-02-06	Conference on fluctuations in superconductors, 1968
680509	E-23	International Union of Pure and Applied Physics, replies to Low Temperature questionnaire, 1968
6806	25-12	European trip, 1968, 1971-72
680601	A-01-07	Quantum Chemistry Group for Research in Atomic, Molecular, and Solid-State Theory, Uppsala University, Sweden, preliminary research reports, nos. 214-215, 218-221, 226, 1968
680606	E-06	International Union of Pure and Applied Physics 13th International Conference on Low Temperature Physics (folder 1), 1968-72
680606	E-07	International Union of Pure and Applied Physics 13th International Conference on Low Temperature Physics (folder 2), 1968-72
680610	23-04	Vortex lines, 1968-69
680617	24-25	Jared Logan Johnson, 1968-70, 1972-73
6807	25-03	Papers on superfluidity and amorphous semiconductors (2 folders), 1968, 1971, 1973
680719	D-04	American Physical Society meeting, La Jolla, California, 1968-69
<u>Box 87:</u>		
680728	A-01-08	Quantum Chemistry Group, International Summer Institute, Uppsala University, Sweden, list of preliminary research reports, nos. 1-208, 1968
6808	E-28	Low Temperature commission meeting, Kyoto, 1968-70
680819	13-38	Xerox technical advisory panel, 1968-69

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
680901	G-06	Bardeen DA-HA04-69-C0007, Army Research Office DA-HC04-74-C0005, 1968-76
680901	G-07	Progress reports C0005 and Army Research Office DA-HC04-69-C0007, 1968-75
680906	E-31	Protest letters on holding 1970 American Physical Society Annual Meeting in Chicago in light of the 1968 Chicago riots, 1968-69
680927	E-30	American Physical Society meeting, Miami Beach, November, 1968
681003	09-55	Solid State Physics and Graduate Education, American Physical Society, Dallas, notes, visit to Argonne (1970), physics club of Chicago, correspondence, 1968, 1970
681017	E-29	American Physical Society meeting, New York, February, 1969
681022	04-33	Langmuir Prize, Charles P. Slichter, 1968
681102	13-29	Comments on shielding by surface states-talk for Near Zero Conference, Stanford, 1968, 1976-78, 1981-82
681110	14-15	Talk at Case Western Reserve University, drafts and reprint on superconductivity, 1968-69
<u>Box 88:</u>		
69	04-24	International Union of Pure and Applied Physics Very Low Temperature Committee correspondence, 1969, 1972
69	13-27	Reprint - O. H. LeBlanc, Jr. "Tetraphenylborate Conductance Through Lipid Bilayer Membranes," <u>Biochimica et Biophysica Acta</u> , 1969
69	23-11	Utah Frontiers of Science Series, 1969-71
69	25-17	Specific heat, 1969, 1971-72
690108	01-62	U.S.-U.S.S.R. Physics Symposium, New York, 1969-70
690115	24-13	H. J. Deuling, 1969, 1974-75
690117	24-19	Vincent Bendix Award for Nick Holonyak, Jr., 1969-70, 1972-74
690213	14-09	Vortex lines reprint, correspondence, drafts, notes and calculations, 1969
690325	E-22	American Physical Society executive committee meeting minutes, 1969
690801	23-01	Intermediate state, 1969
690807	E-09	International Union of Pure and Applied Physics, memos, report on the commission on very low temperatures, 1969-70
690930	E-20	International Union of Pure and Applied Physics 13th International Conference on Low Temperature Physics, national organizing committee, 1969-72

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
6910	04-12	13th Low Temperature Physics Conference, Boulder, Los Alamos and London Award, 1969, 1971-72
6910	04-13	International Union of Pure and Applied Physics Ballot, Very Low Temperature Commission, 1969, 1972
6910	22-04	Superconductivity talk at Berkeley, March 2, '83, 1969, 1978, 1983
6910	E-05	International Union of Pure and Applied Physics, commission on very low temperatures meeting report, 1969, 1972

Box 89:

691015	E-02	International Union of Pure and Applied Physics helium conservation, 1969-71
6911	25-07	Diamagnetism, 1969-73
6911	25-20	Reprints by Bardeen and others on fluctuations of the superconducting order parameter (2 folders), 1969-72
691218	04-31	Industrial Research & Development, DOD, National Science Policy, Emilio Daddario statements, correspondence, 1969-70
70	25-16	Exciton mechanism, 1970-72
70	25-19	Reprints by P. C. Hohenberg, Bardeen, R. D. Park on fluctuations, Josef T. Devreese on polarons (2 folders), 1970-73

Box 90:

700106	04-36	Astronomy Head Search Committee, Icko Iben, 1970-72
700202	14-23	UIUC Electrical Engineering department letters, <u>Washington Science Trends</u> newsletters, 1970
700302	01-63	12th International Conference on Low Temperature Physics, Kyoto, 1970
700318	09-50	Superconductivity article for <u>Encyclopedia Americana</u> , draft galley, photos, correspondence, 1970
7005	13-36	Reprints, notes, correspondence on superconductivity, 1970-72, 1974
7006	07-41	Excitonic mechanisms of superconductivity, excitonic mechanisms paper, 3M talk abstract (1/28/86), correspondence, 1970, 1972-73, 1986
700608	24-22	B. Lischke reprints on flux penetration in superconducting cylinders, 1970
700814	24-28	C. T. Sah, 1970-72, 1974, 1976, 1985
700904	A-02-05	Conference and symposium pamphlets, 1970, 1972, 1974
700918	13-52	Xerox consulting-technical advisory panel, 1970, 1976, 1978-79
7010	J-14	John Bardeen vita, 1970
701001	G-03	Army Research Office progress report DA-HC04-69-C0007 (2

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
		folders), 1970-73
701007	E-04	International Union of Pure and Applied Physics correspondence, 1970-72
7011	24-11	Ross A. Deegan, 1970-72
<u>Box 91:</u>		
701125	26-35	Reports on China trip (folder 1), 1970, 1975-76
701125	26-36	Reports on China trip (folder 2), 1970, 1975-76
71	13-04	XIV General Assembly - International Union of Pure and Applied Physics talk, Washington, D.C., September 20-25, 1972, 1971-72
71	13-22	Vortex motion, 1971-72, 1975-77
71	19-05	UIUC Center for Advanced Study announcement of faculty and activities, 1971-72
710126	E-18	International Union of Pure and Applied Physics, national committee, 1971-72
710204	23-09	"Non-Homogenous Superconductors" Chicago area colloquium, 1971
710208	24-07	William L. Clinton, 1971-72
710312	23-02	Statistical physics seminar, 1971
710429	04-21	International Union of Pure and Applied Physics Meeting agenda, correspondence with Dr. T. Sugawara, minutes, news bulletin, reports, 1971-72
<u>Box 92:</u>		
710507	25-02	Reprint requests (4 folders), 1971-76
710510	23-16	Nobel letters of congratulations, 1971-73
710512	23-08	Talk at Northwestern University, 1971
710614	J-06	Industrial affiliates program in physical electronics, 1971
710702	16-06	European visit, drafts, reprints, notes, chemistry symposium, U.S. patent information, 1971, 1974-75
710707	22-35	Notes, drafts, and reprints on charge density waves and superconductivity, Aspen Institute for Humanistic Studies workshop, and Gordon Conference (2 folders), 1971, 1974, 1977, 1979, 1983-85
710816	13-46	Xerox expense accounts, 1971-75
<u>Box 93:</u>		
10915	B-02	National Science Foundation, Army Research Office papers and reprints (2 folders), 1971-74

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
710924	04-19	13th International Conference on Low Temperature Physics, Boulder, correspondence on speakers, 1971-72
711006	24-23	E. F. Hammel, 1971
711029	13-05	China Trip '76, 1971, 1974-76
711115	13-23	44th Steinmetz Memorial Lecture, Schenectady, New York, 1971, 1973
711215	13-48	Xerox Corporation memos and correspondence, 1971-73, 1977-78
72	07-30	Charge density waves article, reprints, and transparencies for 3M talk on January 28, 1986 in Chicago, 1972, 1976, 1980, 1983, 1985-86

Box 94:

72	24-30	Preprints and reprints, M. B. Maple, G. S. Cohen, D. M. Ginsberg, A. D. Singh Nagi, et al., 1972, 1984, 1986
7201	18-29	Reprints, drafts, and notes (2 folders), 1972-76
720105	04-11	U.S.-U.S.S.R. Institute of Theoretical Physics Proposal, D. Pines correspondence, 1972, 1974
720208	13-54	Xerox consulting - technical advisory panel, 1972-78
720209	04-14	National Academy of Sciences meeting, Washington, correspondence, invitations, travel vouchers, 1972
7203	I-16	Landau's contribution, 1972, 1987-88
720418	04-17	American Institute of Physics, Friends of the Center for History of Physics, 1972
720418	25-14	Correspondence, European trip 1972, Walter Schottky colloquium, Erlanger, Germany, 1972
720502	13-06	American Solid State Physics delegation to the People's Republic of China, 1972-75

Box 95:

7206	22-06	"Fluctuations dans les Supraconducteurs (variations du paramètre d'ordre dans l'espace et le temps)," 1972
720715	24-18	A. Barry Kunz, 1972
720801	04-20	J. Bardeen, William B. Shockley statements for Bell Laboratories <u>Record</u> article, 1972
720812	I-21	May Bradford Shockley (1879-1977) commemorative booklet, 1972, 1977, 1989
720814	23-22	Notes, drafts, reprints, and correspondence on superconductivity, 1972-73
720824	E-12	International Union of Pure and Applied Physics, remarks on very low temperature commission and report on very low temperature,

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
		1972
720828	01-64	Institute of Electrical and Electronics Engineers Intercon, NYC, 1972-73
720921	25-13	XIV General Assembly International Union of Pure and Applied Physics talk, 1972
720922	24-06	J. P. Carbotte, 1972
720927	24-24	Frank E. Jaumot, Jr., 1972
721016	24-16	Award nomination materials, including Holonyak's biography, 1972, 1975-79
721024	09-45	Nobel prize award for BCS theory, 6 copies of Nobel Prize article from <u>Nature</u> (May 1972), nomination of John Bardeen for Nobel Prize by Slichter, 1972
721112	09-10	Rockford Talk, copy of talk and list of slides, 1972
721113	11-25	Correspondence for travel and visits in Europe-Lindau, 1972-73
721117	04-22	Joint U.S.-U.S.S.R. Institute for Theoretical Physics, Moscow, 1972-73
721201	09-31	Electron-Phonon interactions in superconductivity talk, Stockholm, 1972
721209	04-38	"Supercold Superprize" article, <u>National Observer</u> , 1972
721215	01-65	Penn-Princeton superconductivity lectures, 1972-73
721223	J-44	U.S.-Japan joint seminar - "Technological Applications of Tetrahedral Amorphous Solids," July 19-23, 1982 Palo Alto, California, 1972, 1982

Box 96:

721226	G-02	Army Research Office reports DA-HC04-69-C0007 C0005, 1972-73
73	13-26	Calculation of Strässler-Toombs diagrams, 1973-74
73	27-22	University of Illinois publications 1973, 1975, 1982, 1989
730103	04-27	Cecil Lane symposium, Yale University, 1973
730107	25-15	David Miller correspondence on superconductivity in the PbTe surface, reprints on superconductivity and solid state physics, 1973
730228	04-40	Physics Appointment and Promotions Committee documents, 1973-74
7303	18-31	Reprints, preprints, drafts, and notes (2 folders), 1973, 1975-76
730306	25-06	Electron-phonon interactions and superconductivity, 1973
730307	13-42	Publications and memoranda, Xerox Research Laboratories and Xerox Research Centre of Canada, 1973-75
730328	B-03	Superconducting fluctuations, Bardeen, 1973

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
730606	07-43	Unity of Concepts in Physics background papers, copies and reprints of articles, 1973-79
7307	J-40	Macroscopic quantum phenomena from pairing in superconductors, 1973
730731	09-13	"The Invention of the Transistor - An Example of Creative-Failure Methodology," William B. Shockley draft, 1973
7308	17-18	Leo Esaki nomination, 1973-74, 1984-89
7308	24-08	Kai-Yuan Chung, 1973
730827	04-15	National Science Foundation development grant review at University of Maryland, 1973
730830	13-56	Xerox consulting, 1973, 1975, 1977-80, 1982
731101	07-09	High Tc conductors, transparencies, papers, 1973, 1978, 1984-86
74	G-01	National Science Foundation proposal GH 33634, 1974-75
7401	13-40	Paraconductivity, 1974

Box 98:

7401	23-24	Notes, drafts, and reprints on charge density waves, notes from Sapporo, Japan meeting, and Nishina talk, 1974, 1983
740101	26-14	Drafts and reprints regarding NbSe ₃ (2 folders), 1974, 1977, 1979-80
740212	04-25	Nobel laureates dinner talk, NYC, 1974
740227	11-22	Reprints and preprints, <u>Physics Bulletin</u> November '75, 1974-76
740305	04-06	Technology assessment program, energy assessment, Emilio Daddario, 1974
7404	04-28	14th International Conference on Low Temperature Physics, Helsinki, Finland, 1974
740425	24-04	M. Alterelli's trip, 1974
7405	03-44	Reprints, 1974-76

Box 99:

740508	03-45	Reprints, 1974-75
740520	04-39	3rd International Conference on Unity of the Sciences, London, also Roger Larson to Shareholder on Larson safety caps, 1974
740624	18-30	Draft of "The Design and Synthesis of Organic Metals" by A. F. Garito and A. J. Heeges, 1974
7407	24-01	M. Altarelli, report on three conferences, 1974
7408	27-20	Pamphlets - Bangalore, American Physical Society, Bell Labs, Institute for Solid State Physics, also preprints and reprints, Bardeen, L. P. Vor'kov, O. N. Dorokhov, A. A. Gogolin, V. I. Mel'nikov, 1974-76, 1982

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
740802	17-19	Makoto Kikuchi, Sony Corporation, correspondence (contains photograph), 1974-75, 1990
740802	24-26	R. D. Sherman, The Aerospace Corporation, 1974
741002	13-24	Meeting ³ He, 1974-76
741009	27-17	Grenoble Conference on Low Temperature Physics, "Evolution of Superconductivity," 1974, 1977-78
741023	04-02	Los Alamos consultancy visit, security clearance forms, 1974-75
741028	24-05	J. P. Carbotte, Steacie Prize, 1974
<u>Box 100:</u>		
741115	04-03	American Academy of Arts and Sciences Meeting, Wingspread, Wisconsin, 1974
741115	13-41	Dr. Uzi Landman Suit against Xerox, Bardeen, et. al, 1974-75
741206	04-41	American Academy of Arts and Sciences, Midwest Center, Racine, Wisconsin, 1974
741217	22-01	Notes for Physics 463, 1974
75	13-20	One-dimensional systems, 1975-77
75	17-22	Physics postdoctoral research staff 1945-75 University of Illinois, 1975
75	17-22	Physics postdoctoral research staff, 1975
75	17-23	Doctors of Philosophy in Physics 1910-1975, University of Illinois, 1975
75	17-24	Department of Physics newsletter, University of Illinois, 1975, 1979
75	26-26	Japanese companies and draft of "Chapter III: The Superconducting Transition Temperature," 1975-77, 1980
7501	16-03	Iran lectures correspondence, itinerary, and journal, 1975-76
750226	13-47	Visiting committee for the Materials Research Laboratory at Brown University, 1975-76

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
750325	13-03	CECAM/ZWO meeting, Nijmegen, Netherlands, September 13-14, 1976, Conference on Organic Conductors and Semiconductors, Siófok, Hungary, September 1976, 1975-76
<u>Box 101:</u>		
750421	27-21	Letter from Max Bardeen, memo, notebook, Congressional Record (vol. 128 no. 20), life insurance, and postcards, 1975, 1982, 1989
750529	27-15	Trips - India and Japan, 1975-77
750912	18-22	General Electric publication on metal complexes, draft on nickel, and National Academy of Engineering membership nomination, 1975-76
7510	26-28	India and Japan trip, 1975-77, 1980
751021	17-28	C. Herring, reports on tour of physics institutes in China, 1975
76	07-33	High Temperature Superconductors, reprints and correspondence about visitors, 1976-78, 1984-85
76	11-17	Solutions of Gor'kov equations, talk at San Diego, Russian preprint, 1976
76	Z-08	Reprint of W. W. Fenton's "Fluctuation Conductivity Near A Pearls Lattice Distortion" with notes to Bardeen in the margins, 1976, 1981
760120	22-14	Correspondence relating to the second Rochester Conference on Superconductivity, 1976
760220	13-21	Superfluids, Gordon Research Conference, Brewster Academy, Wolfeboro, New Hampshire, 1976-77
760224	03-41	"Local Gauge Invariance and the Bound State Nature of Hadrons" by W. A. Bardeen and R. B. Pearson, 1976
760226	16-05	John Bardeen visit to Brown University draft of comments, 1976
<u>Box 102:</u>		
760325	J-53	Articles on pressure tuning spectroscopy, macroscopic quantum tunneling, high temperature superconductivity, thermoelectrical effects in superconductors, 1976, 1980
760426	27-14	Trips-Hungary and Holland, 1976
7606	03-59	"Electron Spectroscopy" by Kai Siegbahn, 1976
7607	13-44	Gordon K. Teal, Nick Holonyak, 1976, 1978
760817	13-08	Applied Superconductivity Conference, Stanford, 1976
760903	03-34	<u>Industrial Research</u> Scientist of the Year Award lecture, Chicago, 1976

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
760903	13-02	Sixth joint U.S.-U.S.S.R. symposium on current topics in the theory of condensed matter, Boston, October 18-22, 1976
760922	13-09	Superconductivity: past and future, lecture <u>Industrial Research Magazine</u> , 1976
760930	13-25	Frontiers in condensed matter physics symposium, UIUC, includes group photograph with identifications of participants, 1976
7610	18-09	<u>Industrial Research</u> , October 1976 with "Scientist of the Year" (Bardeen) article, 1976
7610	18-20	Talk at St. Andrews, Scotland, 1979 on the history of superconductivity, 1976, 1978
7610	27-23	"Scientist of the Year," <u>Industrial Research</u> article, 1976
761004	03-25	China trip, 1976, 1979-80
761004	13-07	Sixth joint U.S.-U.S.S.R. symposium on current topics in the theory of condensed matter, Boston, 1976
761013	16-43	Memorandum on Xerox Company meetings, 1976
761025	26-32	Correspondence, notes, peer review, conference material, 1976-77
761109	27-18	Fiftieth anniversary of Bose statistics - Japan, and visits to institutes in Delhi, Madras, Bangalore and Bombay, 1976-77
761210	27-11	Correspondence concerning National Academy of Sciences conference, Gordon Research Conference, <u>Dictionary of International Biography</u> , <u>Collier's Encyclopedia</u> , consulting for Xerox, 1976-77
<u>Box 103:</u>		
761223	27-19	Honorary degree from Cambridge, 1976-77
77	13-19	Karlheinz Seeger - nonlinear electronic transport in TTF-TCNQ, 1977-78
770310	24-21	Chih-Tang Sah nomination for National Academy of Engineering, Heineman Prize committee, 1977
770517	18-23	Notes on phase transition, 1977
770523	22-23	Charge density wave depinning, 1977, 1982
770718	27-16	Notes, drafts, charts, reprints, and IBM Research Report on Nbse ₃ , superconductivity, and charge density waves, 1977
770831	13-49	Karlsruhe-Humboldt Prize, 1977-78
770831	13-50	International Conference on Quasi One-Dimensional Conductors, Dubrovnik Yugoslavia, 1977-78
771007	03-36	Venezuela National Academy of Science foreign member, 1977-80
771107	09-18	Bell Labs Dinner Talk, 1977 Nobel for solid state research by Anderson, Mott and Van Vleck, 1977-78
771122	18-21	Transparencies and draft on superconductivity, 1977
771208	13-43	Seventh U.S.- U.S.S.R. Symposium on Current Problems in the

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
78	22-02	Theory of Condensed Matter, Moscow, 1977 "Transport by Charge-Density Waves in Linear-Chain Conductors," M. B. Maple, "Superconductivity and Magnetic Order," Bardeen's vita, "Reminiscences from the Early Days of Solid State Physics," 1978-79, 1983
78	27-06	Papers on China (contains photographs), 1978-80

Box 104:

78	J-51	Drafts on superconductivity and charge density wave motion in NbSe ₃ , 1978, 1980-82, 1991
780209	27-09	International Conference on Quasi One-Dimensional Conductors, Dubrovnik Yugoslavia, 1978
780220	22-16	Preprints and reprints by Greenstein, Wolfe, Kamimura, and Gourley, 1978
780313	03-55	Xerox Corporation visit report, Rochester, 1978-81
780316	27-07	Correspondence concerning China trip, 1978-80
780321	09-53	History of Solid State Physics Meeting, London, draft of talk, history of solid state physics for Venezuela, correspondence regarding meeting, draft of talk for Bell Labs dinner, report on HSSP project, 1978-79
780606	07-06	Venezuela National Academy of Sciences, correspondence with Miguel Parra Leon, 1978-79
780608	03-35	Evolution of superconductivity, 1978
780612	13-45	Charles B. Duke - nomination for 1979 Davisson-Germer Prize, 1978
7807	26-10	Charge density waves, 1978-79
780720	13-51	Xerox visit, Webster, New York, technical advisory panel, 1978
780815	01-12	Classical vs. quantum model charge density wave transport, 1978, 1985
780815	26-22	Notes and correspondence on charge density waves, 1978, 1982, 1984
780818	13-53	Xerox consulting - technical advisory panel visit to Xerox Research Centre of Canada, 1978-79
780818	18-07	History of solid state physics article to be published in <u>World Book Encyclopedia</u> , correspondence, notes, galley proof, 1978, 1982

Box 105:

780823	J-41	Evolution of Superconductivity - 15th International Conference on Low Temperature Physics, Grenoble France, August 23-29, 1978
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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
780901	Z-09	B. I. Verkin correspondence regarding Soviet exchange of scientific information, 1978
7810	15-33	Superconductivity conference booklet, scientific publications, and lab booklets, 1978, 1981-82
79	15-28	Scientific research for N.A.S.A. and U.S. Navy and White House Science Council lab reviews, 1979-82
79	26-05	Publication, essays, research notes, correspondence from George Grüner, and notes for talk at Northwestern University, 1979-81
790301	22-05	Articles photocopied from: <u>The Institute</u> , <u>Current Contents</u> , <u>Business Week</u> , <u>Applied Physics Letters</u> , also a Bardeen vita, lecture notes, and calculations, 1979-81, 1984
7904	26-34	Interview of John Bardeen by Lillian Hoddeson and Hoddeson's "The Emergence of Basic Research in the Bell Telephone system, 1875-1915," 1979
7905	J-45	Early Days of the Transistor - E. W. Mueller memorial lecture, April 17, 1980, 1979-80
790528	22-12	Calculations, drafts, and reprints relating to charge density waves, 1979-82
790612	J-01	Ashrok Misra, Birla Institute of Technology, Mesra, India, 1979

Box 106:

7907	15-23	White House Science Council notes, correspondence, reprints, and agendas, 1979, 1982
790716	07-42	Unity of concepts in the structure of matter, expansion of 1980 article for publication in Chinese <u>Progress in Physics</u> , 1979-81
790908	14-17	Unity of concepts notes, reprints, correspondence, 1979-80
790913	01-10	Nobel meeting, Lindau, 1979, 1983-85
790913	03-22	John Bardeen, "Reminiscences of the Early Days of Solid State Physics," correspondence, notes, and agenda for February 7-8, 1980 Meeting on Proposed Historical Study of Solid-State Physics, Santa Barbara, 1978-80
7911	26-03	Notices of the American Math Society, 1979
7911	26-13	Correspondence, notes, preprints on low temperature charge density waves semi-conducting (2 folders), 1979-81

Box 107:

7911	26-21	Correspondence and reprints on charge density waves, 1979, 1983-85
791107	03-23	Japan, Taiwan Visit, 1979, 1981-82, 1987
791126	03-37	Faculty Allerton Conference on Industry and University Research,

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
		1979-80
80	15-31	White House Science Council documents, 1980, 1982
8002	22-08	Reprints by Frank Herman, Nick Holonyak, Jr., Bardeen, and Lillian Hoddeson, 1980-83
8002	22-15	Notes on "Ground State" and "Non-Equilibrium Phenomena In Superconductors" by Bardeen, and "Quantum-Well Heterostructure Lasers" by Holonyak, 1980
800303	03-18	Math Department Search Committee, 1980
800315	J-43	Correspondence, drafts, abstracts, notes on solid state physics, linear-chain conductors, origins of the transistor, 1980-81, 1983-85, 1989
800414	26-29	Honorary degree ceremony at the University of St. Andrews, Scotland, 1980
800422	03-15	16th International Conference of Low Temperature Physics, 1980-81 81800430 I-18 Report on a visit to The Peoples Republic of China as an exchange lecturer, 1980
800530	03-42	China exchange trip, 1980
800722	26-09	Charge density waves, 1980-81
800906	26-04	Tunneling theory of charge density waves depinning, 1980-81

Box 108:

800908	26-01	Quantum detector or mixer making use of linear-chain charge-density-wave materials proposal, 1980-82
800926	03-16	University of Illinois Medical Center centennial talk, 1980-81
801112	03-30	University of Illinois Medical Center centennial talk, 1980-81
801124	26-02	Talk on charge density waves, 1980
8012	15-37	Hanford lab reports and Los Alamos lab newsletter, 1980-81
801215	03-38	Charge density waves depinning by tunneling paper, 1980-81
801215	26-08	Charge density waves notes, reprints, 1980-81
801219	03-24	Nobel Prize winners convocation, Pittsburgh, 1980
801226	03-17	Wolf Foundation Physics Prize Award Committee, 1980-81
81	03-27	FBI Security Clearance, 1981

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
81	15-35	Lab reports, notes, and papers for Department of Energy review, 1981-82
81	J-04	Superconductivity: Theory and Critical Temperatures, 1981, 1986
<u>Box 109:</u>		
8101	15-36	Progress reports of Los Alamos Meson Physics Facility, 1981
810105	26-06	Correspondence from George Grüner regarding results of experiments proposed by Bardeen, 1981
810205	07-40	Superconductive materials and theory, article for Pergamon Press Encyclopedia of Materials Science and Engineering, reprints and correspondence, 1981-82
810220	26-11	Paper with Grüner, 1981
8103	15-27	Beltsville Agricultural Research Center, Beltsville, MD and U of I research agreement with Agrigenetics Research Associates, Ltd., 1981-83
8103	I-24	Transparencies high T _c , 1981, 1986-87
8103	Z-03	Masayuki Ido, Hokkaido University Department of Physics, Sapporo, Japan, correspondence and preprints and reprints for charge density waves, hall effect, and NbSe ₃ , 1981-82
810307	03-56	Low-Dimensional Semiconductors Conference, Boulder, Colorado, 1981
810515	I-01	Drafts on superconductivity and other macroscopic quantum phenomena (2 folders), 1981, 1987-88, 1990
810522	I-20	William B. Shockley obituaries, 1981, 1989
810706	03-26	Charge Density Waves Gordon Research Conference, 1981
8109	17-11	Nobel Prize nomination forms, 1981, 1984-85, 1988-90
<u>Box 110:</u>		
810917	15-25	Reports, presentation, article, minutes, agreement, and talk on scientific research, 1981-83
810929	15-32	White House Science Council Lab Review Panel documents, 1981-82
811001	03-33	Washington Award Dinner "Electronics and Medicine" talk, 1981, 1983
811008	03-32	International project meeting, history of solid state physics, 1981
811218	03-11	Mac Arthur Chair, 1981-82
820208	03-14	Near Zero Conference, Shielding by Surface States, Stanford, 1982

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
820209	15-22	White House Science Council reports, correspondence, and agendas, 1982
820222	15-34	White House Science Council Lab Review Board reports, 1982
820224	03-13	White House Science Council travel (contains photograph), 1982-83

Box 111:

820305	17-03	National Academy of Sciences, election of members ballot, constitution and bylaws, 1982-83
820322	15-29	White House Science Council lab reviews and articles, 1982
820322	15-30	White House Science Council lab reviews and research and development, 1982
820415	15-24	White House Science Council Lab Review Panel reports, 1982-83
820511	26-23	<u>Science 84</u> , American Association for the Advancement of Science publication, 1982, 1984
820511	J-36	Growth of Semiconductor Technology and Devices - Nihan University talk, 1982
820524	07-32	Akira Tonomura reprints and correspondence regarding visit to University of Illinois, 1982-83, 1985-86
820622	26-20	Federal Laboratory Review Panel proposed agenda, 1982
820714	J-55	Charge density wave motion in NbSe ₃ , macroscopic phase coherence, charge density wave tunneling, 1982-83

Box 112:

820730	15-21	White House Science Council report and correspondence on lab panel, 1982-83
8208	J-26	Current oscillations and stability of charge density wave motions in NbSe ₃ , 1982
820816	03-20	Nonlinear transports Sapporo meeting, 1982-83
8209	15-26	Final reports of the Energy Research Advisory Board, volumes II and III, 1982
821101	22-03	Notes and calculations, <u>Physical Review Letters</u> v. 51, no. 11, 1982-83
821213	26-30	Reprints and drafts from other scholars (2 folders), 1982-84
83	11-21	Reprint "Die Frühzeit des transistors: 1946 bis 1955" ("Early Days of the Transistor"), 1983
83	17-10	Nobel Foundation directory, 1983

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
83	23-18	Drafts on charge density waves, NbSe ₃ , and TaS ₃ , 1983
<u>Box 113:</u>		
830115	23-21	Reports and reprints on non-linear conductivity, 1983
830127	J-05	A. Zawadowski, 1983
830131	03-21	"Electronics and Medicine" Washington award dinner, 1983
830213	03-10	Supertex Board of Directors meeting, 1983-84
830225	23-23	Drafts, reprints, and correspondence on charge density waves, 1983-84
830305	23-17	Charge density waves drafts and reprints, correspondence, 1983-84
830328	17-02	National Academy of Sciences biographical supporting material, members and foreign associates, 1983
830426	17-05	National Academy of Sciences press releases, 1983-84
830504	03-06	Saporo Conference, 1983
830511	14-21	Memoranda for White House Science Council, 1983
<u>Box 114:</u>		
830512	Z-04	Mahandra Prasad, head of the Physical Chemistry Division, National Sugar Institute - Kanpur, letter and "Electronic Current from Electron-Hole Conductor In Absence of External Potential," 1983
830704	22-09	Notes and calculations, preprints and reprints by Bardeen, Tasaki, Wonneberger, Kuper, and Seeger, 1983-85
830714	03-02	Supertex Corporation semiconductors correspondence, 1983-84, 1987
830718	18-08	Meester Flim, et al. correspondence regarding superconductivity, 1983
830719	I-29	"Background Leading to the Microscopic Theory of Superconductivity" - draft for Kostas Gavroglu's book, 1983, 1989-90
830912	07-15	Narrow band noise and steps, George Grüner correspondence, reprints, notes, calculations, 1983-85
830920	04-08	Supertex Board Meeting, clippings, history, plan, reports, 1983-86
831024	23-19	Drafts and reprints on charge density waves, 1983-84
831118	07-18	Yamada Conference, Lake Yamanaka, Japan, also International Conference on Science and Technology of Synthetic Metals, Kyoto, Japan, 6/1 - 6/86, 1983, 1985-86

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<u>Box 115:</u>		
831205	22-28	Charge density wave depinning, 1983-84
84	01-09	Grüner paper on blue bronze, 1984, 1988
84	07-02	"Beginnings of Solid State Physics & Engineering" in <u>The Bridge</u> , 1984, 1986
84	17-12	List of Nobel Prize winners, 1984-86
84	22-10	Drafts by Bardeen, preprints by Bardeen and Barisic, 1984-85
840214	02-06	John Tucker correspondence, University of California, Santa Barbara, 1984, 1986-88
840215	J-35	"Depinning of Charge-Density Waves by Quantum Tunneling," draft for Las Vegas talk, 1984-86
8403	03-03	Supertex business plan, 1984
840301	17-01	National Academy of Sciences election of members, preference ballot, 1984
840323	07-37	Charge density wave tunneling correspondence, reprints, notes, 1984-86
<u>Box 116:</u>		
840328	17-30	"John Bardeen The Inventor of the Transistor" by elementary school student Melissa Epstein, 1984
8404	26-25	Draft of Lillian Hoddeson, Gordon Baym, and Michael Eckart's "Chapter 2: Development of the Quantum Mechanical Theory of Solids: 1926-33," 1984
8404	27-08	Condensed matter physics in the 1980s, 1984
840529	03-29	Princeton mathematics in 1930s interview, 1984
8407	J-07	Federal Laboratory Review Panel progress report, volumes I and II, 1984
840706	I-28	Superconductivity - transparencies and notes, 1984-85
840713	22-11	<u>Physical Review Letters</u> papers, 1984-85
840717	07-36	Charge density wave depinning, tunneling theory, Karlheinz Seeger's 60th birthday article, notes and reprints, 1984-87
840810	03-31	National Academy of Engineering Founders Award, beginnings of solid state physics talk, 1984
840814	03-05	Supertex travel, 1984-87
840815	07-38	Fred Brown reprints and preprints, 1984-86

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<u>First Date</u>	<u>Folder Number</u>	<u>Folder Title and Inclusive Dates</u>
<u>Box 117:</u>		
840815	22-19	Reprints by Bardeen and others relating to charge density waves, 1984-87
840823	22-33	Proof, drafts, and reprints on charge density waves, 1984-86
8410	26-24	Draft, reprints, and preprints regarding charge density waves, 1984-85
841003	07-21	Founders Award, National Academy of Engineering, beginnings of solid state physics and engineering talk for Founders Award, 1984, 1986
841008	07-03	Forward to Carolyn Caddes' <u>Silicon Valley Portraits</u> , 1984-86
841017	J-20	Death of William L. McMillan, 1984-85
8411	17-31	<u>The Institute</u> "Engineering Academy Honors Prominent Institute of Electrical and Electronics Engineers Members," 1984
841126	J-46	Beginnings of solid state physics and engineering - abstract, 1984
85	02-25	Charge density waves pinning by quantum tunneling, 1985-88
85	17-04	National Academy of Sciences election of members, 1985
<u>Box 118:</u>		
8501	J-03	Condensed matter physics in the 1980s (2 folders), 1985
850110	17-14	American Philosophical Society, suggestion for membership form and class ballot, 1985, 1991
850126	03-01	Supertex, fiscal year 1986 business plan, 1985
850204	01-17	<u>Physics Review Physica Scripta</u> paper, drafts, and referees' comments, 1985, 1988
850322	J-30	Notes for charge density wave talks, 1985
850322	J-39	Notes on charge density waves, 1985-86
850331	03-19	Supertex, Inc.: Superior Technologies in Superconductors August 9, 1985 Sunnyvale, CA board meeting, 1985
850406	07-35	Charge density wave alloys, George Grüner correspondence, reprints, 1984-86
8506	07-34	Antique Wireless Association Conference, Applied Superconductors Conference, Baltimore, Maryland, 1985-86
8506	I-15	Clippings on superconductivity, 1985, 1987
8507	07-23	Star Wars, <u>Arms Control Today</u> article, "Origins of Star Wars," Union of Concerned Scientists, Senate Hearing on strategic defense initiative, 1985-86
850807	07-29	Charge density waves, Shapiro Steps papers, letters, notes, 1985
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850826	01-19	Reprints on charge density waves, 1985-87, 1989
850826	I-05	Draft of "Basis for Tunneling Theory of Charge Density Wave Depinning," 1985
851001	01-01	Karlheinz Seeger visit, 1985, 1987-89
851001	07-28	Robert E. Thorne drafts on phase locking in charge density wave transport; Shapiro Step reprints, 1985
8511	07-22	Strategic defense initiative article with Hans A. Bethe, <u>New York Times</u> , anti-SDI article, staff report to three senators, 1985-86
851108	07-34-01	Applied Superconductivity Conference, foundations and small scale applications, 1985-86
851118	07-20	Yamada Conference, Lake Yamanaka, Japan, also International Conference on Science and Technology of Synthetic Metals, Kyoto, Japan, Korean Physical Society Meeting, 5/13-21/86, 1985-86
851127	22-24	Ginzburg article and drafts, 1985-86
851218	J-19	Robert J. Meyer - requests for letters of recommendation, 1985-86
851231	07-25	Ernest Braun Article, draft of and comments on Braun "semiconductors" for solid state history book, 1985-86
86	02-10	John Tucker Letter, 1986-87
860110	17-13	Douglas D. Osheroff, Robert C. Richardson, David M. Lee - nomination for Nobel Prize, 1986
860126	07-12	Aspen winter Condensed Matter Physics Conference, charge density waves in solids, 1986-87
860207	03-08	Supertex board meeting, 1986
<u>Box 120:</u>		
860228	03-07	Supertex, expenses, 1986
8603	07-16	Depinning of charge density waves by quantum tunneling talk, Las Vegas, NV, 1986
860324	J-27	Depinning of charge density waves by quantum tunneling -Las Vegas talk, 1986
860415	07-24	Physics and Engineering College information, 1986
860515	22-18	Robert E. Thorne manuscript, 1986-87
860526	01-15	<u>Physics Review</u> paper, 1986, 1989
860526	J-25	<u>Synthetic Metals</u> paper, <u>Physica</u> paper, V. L. Ginzburg anniversary article and notes, 1986
860526	J-34	Tunneling model of charge density wave transport-abstract for the Yamada conference, 1986
860630	07-13	Hans Dehmelt Nobel Prize nomination, 1986-87
860708	07-19	Yamada conference, charge density waves papers and notes, 1986
8608	07-14	Transistor history '46-'55, 1986
861020	07-08	John Wheatley Low Temperature Symposium, Los Alamos, 1986

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861027	J-33	14th Midwest Solid State Theory Symposium, 1986
861110	07-05	High Temperature Superconductors Symposium, Anaheim, California, 1986-87
861128	07-10	V.L. Ginzburg anniversary article, microscopic theory of charge density wave transport, 1986
861208	07-11	Sid Shapiro Award ceremony, Rochester, New York, Institute of Electrical and Electronics Engineers fellow, 1986-87
861209	07-31	Golden Plate Award, 1986 banquet of the Golden Plate book and correspondence, 1986-87
861212	07-17	American Academy of Achievement, Golden Plate Award, Malibu, California, 1986
861227	I-33	Theories of High Tc Superconductors - abstract, 1986-87
87	22-17	Proposal to the National Science Foundation, "Microscopic Structure and Dynamics of Charge Density Waves," 1987
87	22-31	Notes, drafts, and transparencies for Sony meeting in Tokyo, 1987, 1990
8701	I-25	Superconductivity transparencies, 1987

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870109	03-04	Supertex board meeting, 1987
8704	02-08	H. Takayama letters, 1987-88
870407	J-37	Superconductivity: Past and Present - abstract for PEAP meeting, 1987
870409	03-09	Supertex board agenda, 1987
870513	01-05	Article for Grüner volume, 1987-88
870610	01-13	Semiconductor Research American Physical Society, New Orleans, 1987-89
870621	I-13	Superconductivity, 1987-88
8707	01-03	Wigner Meetings Nobel Symposium, London, Copenhagen, 1987-88
870928	01-14	Excitonic superconductivity in layer structures, 1987
871028	22-21	Drafts of Van Vleck lecture and forward for the Hatfield volume, 1987

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871102	Z-05	Nick Holonyak, Jr., correspondence with Hisashi (Sam) Schichijo at Texas Instruments, 1987
871201	09-41	Spacetime Symmetries Symposium, talk in honor of E. Wigner, College Park, Maryland, 1987-88
88	01-08	Charge density waves visuals, 1988
88	02-27	Hatfield Book high temperature SC material, 1988
88	J-42	Shapiro Steps - La Jolla talk, 1988
880225	J-32	SuperconiX Inc. list of high temperature superconductors for sale, 1988
880406	02-26	PEAP Physical Electronics workshop, University of Illinois, 1988
880419	I-23	High Tc, 1988
880613	01-16	Landau Symposium, 1988
880613	J-12	Phase coherence in charge density wave transport, 1988
880707	02-09	Xerography 80th anniversary meeting, Rochester, 1988
880719	I-35	Karen Fitzgerald articles for Institute of Electrical and Electronics Engineers <u>Spectrum</u> , 1988-89
8811	01-06	High temperature superconductors meeting, Stanford, 1988-89
881130	01-04	Singivi Symposium, 1988
89	01-02	Thorne talk, 1989

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89	17-27	The Center for Advanced Study, faculty and staff, University of Illinois, 1989-91
89	I-36	Charge density waves, 1989-90
890118	01-18	Charge density wave systems physics review letters, 1989
890310	22-25	Kilby/Noyce Nobel nomination, Leroy Chang's nomination for the National Medal of Science, the Morton Award, the Sarnoff Award, and the Liebmann Award, 1989-90
890420	I-10	Masters of Modern Physics - American Institute of Physics, 1989
890427	22-32	Meeting in Madison, Mack lecture, 1989-90 3rd International New Materials Conference and Exhibition, Osaka, Japan, October 1-5, 1990, and Sony Corporation, May 1990, 1989-90
890912	I-07	NHK Broadcast Program (Japanese television), 1989
8910	G-10	College conference programs, Rochester and Boston, 189-91
891115	22-29	Drafts, notes, and transparencies on superconductivity, reprint on charge density waves, and Japanese newspaper clipping and correspondence, 1989-90
891130	I-32	NHK interview, 1989-90
892808	I-11	Microelectronics building dedication and Sony endowed chair, 1989
90	17-09	National Research Council preferred hotels, 1990

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90	17-16	Harry G. Drickamer, "Forty Years of Pressure Tuning Spectroscopy," <u>American Review of Materials Science</u> , 1990
900109	Z-10	R. Robert Brattain personal correspondence, 1990
<u>Box 123:</u>		
900131	17-15	National Medal of Science nomination form, 1990
900320	22-26	Talk at University of Illinois materials workshop, June 25, 1990, 1989-90
900321	I-30	Superconductivity lecture, 1990
900323	17-07	Natl. Acad. of Engineering nomination for membership packet, 1990
900327	I-14	Materials and Mechanisms of Superconductivity - International Conference, Kanazawa, Japan, July 22-26 1991, 1990
900401	I-12	Papers on superconductivity, H. Monien, D. Pines, and others, 1990
900406	19-07	Slides regarding transistors and conductivity, diagrams, early transistors, invitation to physics department luncheon, 1990
9005	22-22	<u>Physics World</u> , May '90 and <u>American Heritage of Invention and Discovery</u> , Spring/Summer '90, 1990
900508	02-02	Patent and Copyright Bicentennial Conference, Washington D.C., 1990
900513	I-02	"Superconductivity and Other Macroscopic Quantum Phenomena" - talk for Sony, May 13, 1990, Tokyo, 1990
900608	I-22	Third International New Materials Conference and Exhibition, October 1-5, Osaka, Japan, 1990,
900924	I-31	Articles by K. K. Likharev, 1990
901101	17-06	National Academy of Sciences, 1991 election ballot, 1990
901112	Z-11	Yung Woo Park correspondence regarding high Tc superconductor, 1990
901118	Z-06	George Grüner, University of California at Los Angeles, Department of Physics, correspondence, 1990
901121	J-11	Richard Chasman, Argonne National Laboratory, 1990
901127	J-13	Oxford honorary degree, 1990
9012	J-15	<u>Vintage Electrics</u> , 1990
910104	17-08	National Academy of Engineering, ballot and nomination forms, 1991
9103	18-24	National Academy of Engineering ballot for election of members and foreign associates and vita of Arkadii G. Aronov, 1991

Box 124:

(Note: Boxes 124-130 were created from material that was accessioned September 27, 2002, from Professor Lillian Hoddeson who had held this additional material in an office in

Engineering Sciences Building since the main body of Bardeen materials had been moved out of his office in 1991-92. The 2002 addition was processed upon receipt and added to the end of the existing collection, and modifications were made to the existing finding aid.)

BIOGRAPHICAL

The Vincent Bendix Research Medal Presented to John Bardeen by American Society for Engineering Education, 1964
 Nomination of John Bardeen for the IEEE Medal of Honor, 1969
 Newspaper and Magazine Clippings on John Bardeen, 1965-1987
 Pakistan Academy of Sciences Certificate of Membership, 1982
 Symposium in Celebration of Bardeen Eightieth Birthday, 1988
 Appointment Book, 1988
 Appointment Book, 1989
 Supercurrents: The Superconductivity Magazine - Interview with Colleagues of Bardeen, 1988-1989

CORRESPONDENCE

Letters of Recommendation A-J, 1957-1990 (4 folders)
 (Note: Letters of Recommendation were written by Dr. Bardeen primarily for students and colleagues)

Box 125:

Letters of Recommendation K-Z, 1957-1990 (6 folders)

Box 126:

John Bardeen's Second Nobel Prize
 Letters of Congratulations from Corporations, Personal Letters, Phone Messages, 1972-1973
 Remarks at the Banquet, Itinerary, Letters from Corporations, Government and Academic Institutions, 1972-1973
 Henry-Marsh Fund Committee Correspondence (Chairman: John Bardeen), 1975-1979 (4 folders)
 Frontiers in Condensed Matter Physics: Symposium in Honor of Professor John Bardeen, 1976
 Department of Mathematics Head Search Committee, 1979NAS Panel on Condensed Matter Physics, 1981-1982
 White House Science Council, 1982-1983
 Outgoing Correspondence, 1985

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Award Nomination for National Model of Science for Gordon K. Teal by John Bardeen, 1986 (2 folders)

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Walter Houser Brattain (1902-1987): A Biographical Memoir
 Technical Memoranda on Transistor Related Research at Bell Telephone Laboratories, 1948-1949

Box 128:

Technical Memoranda on Transistor Related Research at Bell Telephone Laboratories, 1948-1950 (4 folders)
 Publication Reprints of Other Physics Professors' Work at UIUC, 1964-1970
 Theory of Superconductivity - Talk Given at Conference on Superconductivity, May 1966
 Solid State Physics: Past and Future Paper for Lecture, Sept. 1968

Box 129:

Encyclopedia Americana "Superconductivity" Article Agreement and Manuscript, Mar. 1970
 Non-homogeneous Current Flow in Superconductors Paper for Talk at Sandia Lab, Nov. 1970
 The Past and Future of Solid State Physics and Superconductivity: Past and Future - Talk Given at University of Utah, Nov. 1971
 Outline of Lectures on Space and Time Changes of the Order Parameter and Fluctuations in Superconductors, May 1972
 The Transistor after 25 Years - Paper for Talk, Nov. 1972
 Manuscripts on Superconductivity and Solid State Physics, 1973-1986
 Potential Applications of Superconductivity, Jan. 1971
 Talk at Depauw, Sept. 1973
 China Project, Oct. 1975
 Basic Research and Industrial Development - Lecture in Iran, Oct. 1975
 Development of Semiconductor Electronics - Lecture at Pahlavi University, Dec. 1975
 Comments on Visit to Brown University, Feb. 1976
 Introduction of Speak at Tykociner Lecture, Mar. 1976
 Comments on Superconducting Science and Technology at Stanford, CA, Aug. 1976
 Summary Remarks Presented at Conference on Organic Conductors and Semiconductors, Aug. 1976
 Nonequilibrium Phenomena in Superconductors - Manuscript, 1978
 Recent Development and Comments - Manuscript for Chapter in Highly Conducting One-

Dimensional Solids, Feb. 1978-1979

Excitonic Superconductivity - Manuscript for Journal of Less Common Metals, Aug. 1978

Concluding Remarks for International Conference on Quasi-one-dimensional Conductors, Sept. 1978

A Brief History of Solid State Physics - Notes for Presentation to Academia de Ciencias Fisicas Matematicas, Venezuela, 1979

Theory of Nonohmic Conduction from Charge Density Waves - Manuscript, 1979

Unity of Concepts in the Structure of Matter - Manuscript and Correspondence, Sept. 1979-1981

Report on Visit to People's Republic of China, 1980

Invention Proposal - Quantum Detector or Mixer Making Use of Linear Chain Charge Density Wave Materials, Sept. 1980

Tunneling Theory of Charge Density Wave Depinning Manuscript and Correspondence on Publication, Nov. 1980

Field and Frequency Dependence of Charge Density Wave Conduction in NbSe₃ - Manuscript, 1981

Discussion Group on 'Interaction of Industry and University Research' Summary Statement, 1981

Introductory Remarks for Tykociner Lecture, 1981

Talk for TSH Sing, Spring 1981

Talk at Clarkson, May 1981

Electronics and Medicine: Past and Future - Address to College of Medicine on Centennial of the University, Oct. 1981

Stability and Noise of Charge-Density-Wave Motion in NbSe₃ Manuscript, Feb. 1982

Superconductivity Theory - Manuscript for Encyclopedia of Materials Science and Engineering, Mar. 1982

Box 130:

Comments on Shielding by Surface States - Talk for Near Zero Conference, Stanford, Mar. 1982

Current Oscillations and Stability of Charge Density Wave Motion in NbSe₃ Manuscript, Aug. 1982

Electronics and Medicine - Paper for Talk at Washington Award Dinner, Feb. 1983

Charge Transport by Charge Density Waves - Vareena Lectures Paper, June 1983

Depinning of Charge-density Waves by Quantum Tunneling - Manuscript, Feb. 1984

Origins of the Transistor and Solid State Electronics - Manuscript, June 1984

IEEE Spectrum - Comments for Supplement, Apr. 1984

Soliton Theory of Charge Density Wave Depinning - Manuscript for Conference, Sept. 1984

Soliton Model of Charge Density Wave Depinning - Manuscript, Oct. 1984

Dynamics of Charge-Density Waves in Orthorhombic TaS₃ - Manuscript, Oct. 1984

Beginning of Solid State Physics in Engineering - Paper for Talk, Oct. 1984

Macroscopic Quantum Tunneling in Quasi-One Dimensional Metals - Manuscript and Correspondence, May 1985

Depinning of Charge-Density Waves by Quantum Tunneling - Lecture Notes for Las Vegas Meeting, Mar. 1986

Basis for Tunneling Theory of Charge Density Wave Depinning - Manuscript Submitted to

Zeitsf Phys. B, Feb. 1987
 Prehistory of Semiconductor Laser - Manuscript for Optoelectronics Forum, Mar. 1987
 Excitonic Superconductivity In Layer Structures - Manuscript, June 1987
 Development of a Tunneling Model of Charge Density Wave Depinning - Manuscript, June 1987
 Superconductivity: History and Recent Developments - Von Vleck Lecture, Oct. 1987
 Theories of High Tc Superconductors - Materials for Res. Society Meeting, Nov. 1987
 Solid State Physics - Manuscript for Article to Appear in Solid State Technology Special Issue, Dec. 1987
Superconductors - Forward by John Bardeen, Dec. 1987
 Obituary for Walter Brattain in Physics Today, Jan. 1988
 Classical vs. Quantum Models of Charge-Density Wave Depinning in Quasi-One-Dimensional Metals - Manuscript and Correspondence, Feb. 1988
 "A Collection of John Bardeen's Publications on Semiconductors and Superconductivity," Oct. 1989
 Theory of Size Effects in Depinning of Charge Density Waves - Manuscript, Jan. 1990
 Superconductivity Theory - Revised Manuscript for Encyclopedia of Magnetic and Superconducting Materials, Jan. 1991

Box 131:

(Note: The following material was donated to the Spurlock Museum by John Bardeen, and subsequently accessioned from the museum May 14, 2003.)

Certificates, Citations, and Awards (See Also Oversize Box 132)

The Order of Lincoln from the Lincoln Academy of Illinois
 Zeta Psi Fraternity Certificate, October 1925
 American Physical Society Oliver E. Buckley Solid State Physics Prize, January 29, 1954
 American Academy of Arts and Sciences Membership Certificate, May 13, 1957
 Center for Advanced Study Membership Certificate, September 1, 1959
 Etta Kappa Nu Association Membership Certificate, March 29, 1962

 American Society for Testing and Materials, February 3, 1964
 Wisconsin Academy of Sciences, Arts, and Letters Honorary Membership, May 9, 1970
 University of Illinois Board of Trustees Distinguished Service Award, December 20, 1972
 National Inventors Hall of Fame Certificate of Induction, February 10, 1974
 Omicron Delta Kappa Membership Certificate, May 5, 1974
 Pahlavi Lecture Series Commemorative Certificate, December 1, 1975
 Phi Kappa Phi Membership Certificate, 1976
 Alexander Von Humboldt Award, 1977
 University of Illinois Distinguished Service Medallion Award, May 21, 1978
 Golden Key National Honor Society Honorary Member, March 3, 1982
 Institute of Electrical and Electronics Engineers IEEE Centennial Medal, 1984
 State of Illinois House of Representative Resolution No. 1370 Honoring John Bardeen,

May 10, 1988

Honorary Degrees (See Also Oversize Box 132)

University of Notre Dame Introduction of John Bardeen at Commencement

Union College Doctor of Science Diploma, Letter from President, and Booklet "Union Worthies: Charles Proteus Steinmetz," 1955

University of Wisconsin Commencement Program, 1960

News clippings Concerning Honorary Degree, June 6, 1960

Western Reserve University Doctor of Science Diploma, Commencement Program, 1966

Rose Polytechnic Institute Diploma, Commencement Program, June 1966

University of Glasgow Graduation Ceremony Programs, June 21, 1967

Princeton University Commencement Program and article "A Commentary on Princeton Commencement, June 11, 1968

Michelson Morley Award at Case Western Reserve University

News clippings, 1968

Correspondence, Award Dinner, Program, 1968

Rensselaer Polytechnic Institute Commencement Program, Doctor of Science Diploma, 1969

Busch Reising Museum Dinner for Honorary Degree Recipients, June 8, 1973

Harvard University Commencement Program, Correspondence, June 14, 1973

University of Minnesota Honorary Doctor of Science Diploma, Commencement Program, Script, December 12, 1973

University of Michigan Honorary Doctor of Science Diploma, Commencement Program, Correspondence, 1974

University of Illinois Honorary Doctor of Science, May 19, 1974

University of Pennsylvania Commencement Program, Guest List, Citation from Board of Trustees for Honorary Degree, May 28, 1976

Indian Institute of Technology Honorary Doctor of Science Diploma, 1977

University of Cambridge Speeches of the Orator at Presentation of Recipients of Honorary Degree, June 10, 1977

University of Illinois Commencement 1978 News Clippings and Correspondence - John Bardeen receives Honorary Degree and Distinguished Service Award, 1978

Georgetown University 108th Annual Commencement Program and Diploma, May 27, 1979

University of St. Andrews Laureation Address, July 7, 1980

Clarkson College of Technology Honorary Doctor of Science Diploma, Commencement Program, May 17, 1981

Soviet Academy of Sciences Diploma Translation, September 1982

Hungary Academy of Sciences Honorary Degree, 1986

Correspondence, News Clippings Concerning Awards

Hiromi Arisawa Congratulatory Card (Japan Academy)

L.D. Landau Institute Letter to John Bardeen on 80th Birthday

Haloid Company to John Bardeen, November 26, 1956

Lincoln Academy of Illinois Convocation and Installation of Members - Newspaper Clippings Concerning and Program, February 1965

National Medal of Science Award Press Release and Remarks of President, 1965-1966

Commemorative Envelope: "Progress in Electronics", July 10, 1973
 Franklin Institute Medal Award Correspondence and News Clippings, 1975
 Presidential Proclamation: National Inventors' Day, January 30, 1979
 Art Buchwald, May 29, 1979
 Letter from President George Bush, October 4, 1989
Life Magazine: 100 Most Important Americans of the 20th Century, 1990
 Illiniwek Billed Baseball Cap - Cross Reference to Artifact Collection at Archives Research Center.

Box 132: (Map size folder in UAR 49-4)

Certificates, Citations, Awards

Praeses Concilium Et Sodales Regalis Societatis Londini
 Society of the Sigma Xi Membership, January 1929
 Franklin Institute Stuart Ballantine Medal, October 1952
 City of Philadelphia John Scott Medal and Premium, September 17, 1954
 American Philosophical Society Fellow, April 1958
 President's Science Advisory Committee, 1959
 American Academy of Arts and Sciences Fellow, May 13, 1959
 The Fritz London Award to John Bardeen September 1962
 Vincent Bendix Award, 1964
 National Medal of Science, 1965
 State of Illinois Appointment Laureate Lincoln Academy, 1966
 Symposium in Honor of John Bardeen's 60th Birthday, May 23, 1968
 University of Pennsylvania Moore School of Electrical Engineering Harold Pinder Award, November 11, 1968
 Institute of Electrical and Electronics Engineers Medal of Honor, November 10, 1970
 Xerox Corporation Certificate of Achievement, November 27, 1972
 Xerox Corporation Resolution Honoring John Bardeen, May 16, 1974
 Institute of Electronics and Telecommunication Engineers, January 7, 1977
 Le Academia de Ciencias Fisicas, Matematicas y Naturales, June 1978
 Institute of Electrical and Electronics Engineers Honorary Member, January 1, 1981
 Osterreichische Akademie Der Wissenschaften, May 20, 1985

Honorary Degrees

National Academy of Sciences Diploma, April 27, 1954
 University of Glasgow Honorary Degree Diploma, 1967
 Princeton University Honorary Degree Diploma, 1968
 Universitatis Dominae Nostra a Laru Honorary Degree Diploma, 1970
 Honorary Doctor of Science Degree Diploma, 1973
 University of Pennsylvania Honorary Degree Diploma, 1976
 University of Delhi Honorary Degree Diploma and Special Convocation, January 1977
 Collegium Georgiopolitanum, 1979
 University of St. Andrews Honorary Degree Diploma, 1980

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