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# Guide to the Lawrence H. Lanzl Papers 1929-2000



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## Descriptive Summary

<b>Identifier</b>	ICU.SPCL.LHLANZL
<b>Title</b>	Lanzl, Lawrence H. Papers
<b>Date</b>	1929-2000
<b>Size</b>	40.5 linear feet (63 boxes)
<b>Repository</b>	Special Collections Research Center University of Chicago Library 1100 East 57th Street Chicago, Illinois 60637 U.S.A.

**Abstract** Lawrence Lanzl (1921-2001) was a distinguished researcher in the area of medical physics, who worked both on the Manhattan Project and as a cancer researcher and professor of in the Department of Radiology while at the University of Chicago. This collection consists of 40.5 linear feet of Dr. Lanzl's research, correspondence, administrative and organizational material, and personal items.

## Information on Use

### Access

The collection is open for research, with the exception of Series VIII, Restricted. Materials in Box 64 contain letters of recommendation, which are restricted for 80 years from date of record creation.

### Citation

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

### Biographical Note

Lawrence H. Lanzl was born in Highland Park, Illinois in 1921. He received a B.S. degree in 1943 from Northwestern University, an M.S. degree in 1947 and a Ph.D. in 1951, both from the University of Illinois. He served on the Manhattan Project from 1944 to 1946, first in Chicago as part of Enrico Fermi's Metallurgical Laboratory, then in Los Alamos, New Mexico, and the University of California.

He returned to Illinois in 1946 as a research assistant at the University of Illinois. Beginning in 1951, he worked as a senior physicist at the University of Chicago's Argonne Cancer Research Hospital (later the Franklin McLean Memorial Research Institute), serving there until 1980 as a professor at the Institute and in the Department of Radiology. In 1960, he was certified by the

Illinois Board of Radiation Physics as a Radiation Hazards Control Expert, and in 1967-1968 he was First Officer at the Division of Life Sciences, International Atomic Energy Agency, Vienna, Austria. Lanzl also served as a senior scientist at the Rush-Presbyterian-St. Luke's Medical Center, as Professor and Chairman Emeritus in the Department of Medical Physics of the College of Health Science at Rush University, and Professor Emeritus in the Section of Medical Physics of the Department of Radiation Oncology.

One of Dr. Lanzl's most important achievements was developing an accurate and safe way to measure radiation dosage and effectiveness of diagnostic and treatment machines. While a Professor of Medical Physics in the Pritzker School of Medicine, Chicago, he developed "the Phantom," a synthetic human constructed of a human skeleton covered with synthetic rubber flesh that absorbs radiation in the same manner and amounts as human tissue. This tool became instrumental in developing, calibrating, and testing radiological devices which led to successful diagnosis and treatment of cancers and other health issues. Lanzl was always concerned with radiation protection and safety and sought to develop standards in those areas.

Lanzl was a member of numerous professional organizations, including the American Physical Society, American Society of Therapeutic Radiologists, Association of University Radiologists, Chicago Radiological Society, Hospital Physicists' Association (United Kingdom), International Radiation Protection Associations, Radiological Society of North America, Radiation Research Society, and the Physics Committee of the Illinois Radiological Society. He was a fellow of the American Association of Physicists in Medicine beginning in 1989 and had formerly served as a director (1959-1968) and president (1966-1967) of the association. Dr. Lanzl was president of the International Union of Physical and Engineering Science in Medicine from 1985 to 1988, and was also an honorary member of the Chinese Society of Medical Physics, and a fellow of the Health Physics Society and the American College of Radiology.

During his career, Lanzl received many awards for his contributions to the field of medical physics, including the Alumni Honor Award for Distinguished Service from the University of Illinois in 1984, a commendation for Outstanding Contributions in Radiation Safety and Protection from the Veterans Administration in 1975, and a Certificate of Appreciation from the United States War Department on the Manhattan Project in 1945. The Lawrence H. Lanzl Institute of Medical Physics in Seattle was named in his honor. Professor Lanzl died December 23, 2001 at the age of eighty.

### **Scope Note**

This collection documents Lanzl's research in the biomedical applications of atomic energy, his correspondence with other professionals, his work with scientific organizations, and his personal life. It is arranged into six series.

Series I: Research, contains Lanzl's work on the biological effects of radiation for use in diagnosing and treating diseases, especially cancer. This includes Lanzl's own data logbooks, research notes, offprints of Lanzl's publications and those of his colleagues, and correspondence with other professionals. This series has been divided into three subseries to distinguish topics: Subseries 1: Manhattan Project, contains the research Lanzl assisted on while working on the Manhattan Project at University of Chicago. This includes some of his military correspondence as a serviceman and research conducted at the university. Subseries 2: Radiation Science, contains the bulk of Lanzl's research, focusing mainly on the use of radiation to diagnose and treat cancer. This includes article offprints, lab notes, correspondence, and a large section of primary lab data. Subseries 3: Reprints, contains copies of articles that Lanzl wrote, a mostly complete record of his publications from 1944 to 1984. All subseries have been arranged chronologically.

Series II: Correspondence, contains Lanzl's professional correspondence with organizations and other professionals in the field of medical physics. Materials are arranged chronologically.

Series III: Organizations, contains Lanzl's material on various scientific organizations. Material in this series includes brochures, informational material, and talks presented at these organizations. This series has been divided into two subseries to distinguish oversized materials. Subseries 1: General, contains mostly correspondence, talks, and information from scientific organizations. Subseries 2: Oversized, contains oversized material pulled from other folders in the series. Both subseries have been arranged alphabetically.

Series IV: Course Material, contains Lanzl's course notes, lectures, and other materials related to classes that he taught or was enrolled in as a student. This includes mostly typewritten or handwritten notes on lectures and topics delivered in class. This series has been arranged chronologically.

Series V: Administrative, contains Lanzl's administrative files. This includes records of university administrative units, as well as professional organizations in which Lanzl served in an administrative or executive capacity. This series has been divided into two subseries to distinguish oversized materials. Subseries 1: General, contains Lanzl's notes on projects being conducted by several organizations. Subseries 2: Oversized, contains material reorganized from other folders in the series. Both subseries have been arranged alphabetically.

Series VI: Personal, contains material related to Lanzl's personal life. This includes his biographical information, curriculum vitae, publication notes, travel brochures, and newspaper clippings about the Kennedy assassination in 1963. This series has been divided into two subseries to distinguish oversized materials and artifacts. Subseries 1: General, contains several books from Lanzl's childhood and his publication notes. Subseries 2: Oversized Material and Artifacts, contains newspaper clippings related to the Kennedy assassination and various

badges and pins from Lanzl's work with scientific organizations. This series has been arranged chronologically.

Series VII, Restricted, contains letters of recommendation. Materials in Box 64 contain letters of recommendation, which are restricted for 80 years.

## **Related Resources**

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

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

Enrico Fermi. Collection

## **Subject Headings**

- Lanzl, Lawrence
- Cancer -- Research
- Manhattan Project (U.S.)
- Medical physics
- Radiation

## **INVENTORY**

### **Series I: Research**

Series I contains Lanzl's work on the biological effects of radiation and its uses in treating and diagnosing diseases such as cancer. Material in this series includes his lab data, article offprints, research notes, and correspondence. This series has been divided into three subseries: Subseries 1: Manhattan Project, which ranges from 1942-1951 (with some later articles detailing the continuing effects of the atomic bomb); Subseries 2: Radiation Science, from 1944-2000; and Subseries 3: Reprints, from 1944-1984.

Subseries 1: Manhattan Project, contains Lanzl's work as a physician studying the uses of radiation in medicine while at the Manhattan Project (University of Chicago). This contains service manuals, lab memos, as well as notes and articles on research.

Subseries 2: Radiation Science, contains Lanzl's work in medical physics and the use of radiation in cancer treatment while at the University of Chicago in the Franklin McLean Memorial Research Institute. This includes lab data, handwritten and typed notes, article offprints, and correspondence.

Subseries 3: Reprints, contains a nearly complete record of Lanzl's own articles on radiology and medical physics, published from 1944-1984. This includes article drafts, article reprints, and article offprints.

## **Subseries 1: Manhattan Project**

### **Box 1**

#### **Folder 1**

Manuals for servicemen during World War II, article reprint, 1939-1951

### **Box 1**

#### **Folder 2**

Military application, ration book, paperwork, 1942-1943

### **Box 1**

#### **Folder 3**

Hiring material, memos, lab notes, 1943-1945

### **Box 1**

#### **Folder 4**

Atomic energy, articles offprints, newspaper clippings, 1945-1950

### **Box 1**

#### **Folder 5**

Manhattan Project's aftermath, article offprints, newspaper clippings, 1946-1955

### **Box 2**

#### **Folder 1**

Scrapbook, newspaper clippings about World War II and the atomic bomb, 1944-1949

### **Box 3**

#### **Folder 1**

Newspaper clippings about World War II and atomic energy, 1945-1946

## **Subseries 2: Radiation Science**

### **Box 4**

#### **Folder 1**

Range of recoil of aluminum nuclei under pile neutron bombardment, article draft, notes, 1944

### **Box 4**

#### **Folder 2**

Article offprints, 1945-1956

### **Box 4**

#### **Folder 3**

Betatron studies, University of Illinois, article offprints, 1946-1949

### **Box 4**

#### **Folder 4**

Computation book 1, Betatron work, University of Illinois, index of computation books, 1946-1949

### **Box 4**

#### **Folder 5**

Beta-rate of decay of fission products, article offprint, 1948

### **Box 4**

#### **Folder 6**

Computation book 2, research on Bremsstrahlung, 1948-1949

### **Box 4**

**Folder 7**

Computation book 3, ratio of Bremsstrahlung cross-sections, 1949

**Box 4**

**Folder 8**

Computation book 4, ratio of Bremsstrahlung production with "Z", 1950

**Box 4**

**Folder 9**

Computation book 6, Bremsstrahlung experiments, 1950-1951

**Box 5**

**Folder 1**

Computation book 7, angular distribution of radiation and absolute Bremsstrahlung, 1950-1951

**Box 5**

**Folder 2**

Computation book 8, cobalt-60 coblicator, cobalt applicator, 1951-1955

**Box 5**

**Folder 3**

Articles about Lanzl and medical physics, 1951-1961

**Box 5**

**Folder 4**

Articles about Lanzl and medical physics, 1964-1993

**Box 5**

**Folder 5**

Cobalt-60 Therapy Unit, diagrams, negatives photographs, schematics, 1952-1955

**Box 6**

**Folder 1**

Cobalt-60 Therapy Unit Source, photos, article offprint, schematics, 1952-1963

**Box 6**

**Folder 2**

Linear Accelerator, part 1, spectrometer magnet photos, negatives, circa 1952

**Box 6**

**Folder 3**

Linear Accelerator, part 2, photos, diagrams, circa 1952-1957

**Box 6**

**Folder 4**

Linear Accelerator, part 3, photos, diagrams, article offprints, circa 1960

**Box 6**

**Folder 5**

Linear Accelerator, part 4, personnel photos, diagrams, correspondence, 1950's-1990

**Box 6**

**Folder 6**

Photographs, negatives, and diagrams of meetings, lab, and experiments, 1952-1985

**Box 6**

**Folder 7**

Cyclotron, Argonne National Laboratory, photos, circa 1952

**Box 7**



**Folder 1**

Computation book 8a, cobalt and yttrium, 1953

**Box 7**

**Folder 2**

Computation book 9, Cobalt-60 and Van de Graaff experiments, 1953

**Box 7**

**Folder 3**

"Measurement of 600-Curie Cobalt-60 Source," article offprint, 1953

**Box 7**

**Folder 4**

Computation book 9a, cobalt machine, 1953-1959

**Box 7**

**Folder 5**

"Kilocurie Revolving Cobalt-60 Unit for Radiation Therapy," article draft, 1953

**Box 7**

**Folder 6**

"Radiation Measurements of Several Cobalt-60 Slugs under Irradiation," article draft, 1954

**Box 7**

**Folder 7**

Computation book 10, deflection magnet and monitor ion chamber, 1954-1959

**Box 7**

**Folder 8**

Computation book 11, Cobalt-60 unit, 1954

**Box 7**

**Folder 9**

Computation book 12, Ion chamber depth does on cobalt unit, 1954

**Box 8**

**Folder 1**

Computation book 13, film dosimetry with cobalt-60 unit, 1954

**Box 8**

**Folder 2**

Argonne Cancer Research Hospital memos, article drafts, 1954-1969

**Box 8**

**Folder 3**

Computation book 14, miscellaneous problems, 1955

**Box 8**

**Folder 4**

Computation book 16, flux depression and half value layer, 1955

**Box 8**

**Folder 5**

"Neutron Flux Depression and Self-Protection Considerations in Reactor Activation of Cobalt-60 for Use in Moving Beam Therapy," article drafts, 1955

**Box 8**

**Folder 6**

Computation book 15, gas purifier, filling of monitor chamber, testing of purifier, photomultiplier, 1955-1956

**Box 8**

**Folder 7**

Computation book 19, visitors, 1956

**Box 9**

**Folder 1**

Computation book 17, linear accelerator experiments, 1956-1962

**Box 9**

**Folder 2**

"Atomic Medicine," photographs, diagrams, 1958

**Box 9**

**Folder 3**

Computation book 21, Lanzl and Eric Simmons, 1959

**Box 9**

**Folder 4**

Computation book 22, linear accelerator dosimetry, 1959

**Box 9**

**Folder 5**

Computation book 23, notes on computer programming, 1959

**Box 9**

**Folder 6**

European trip report on dosimetry, article draft, 1959

**Box 9**

**Folder 7**

Unpublished papers, 1959-1972

**Box 10**

**Folder 1-3**

Unpublished papers, 1975-1980, 1982-1989, 1990-2000

**Box 10**

**Folder 4**

Electron zone distribution, photographs, diagrams, 1960

**Box 10**

**Folder 5**

UNIVAC (Universal Automatic Computer) calculations of dose distribution for scanning electron beams, circa 1960

**Box 10**

**Folder 6**

Absorbed dose determination for scanning electron beams, article drafts, 1960

**Box 10**

**Folder 7**

Computation book 23a, glass dosimetry, chloral hydrate, 1960

**Box 10**

**Folder 8**

Computation book 24, mouse hair, 1960

**Box 11**

**Folder 1**

Computation book 25, tumors in mice, 1960

**Box 11**

**Folder 2**

Computation book 25a, Lynne Doss, 1960

**Box 11**

**Folder 3**

Computation book 25b, constant voltage ion chamber, 1960

**Box 11**

**Folder 4**

Computation book 26, electron pencil beam, heterogeneous phantom, 1960

**Box 11**

**Folder 5**

Photographs, negatives, and diagrams of work with phantom, c. 1960

**Box 11**

**Folder 6**

Diagrams of work with phantoms, c. 1960

**Box 11**

**Folder 7**

Phantom artificial human, photographs, schematics, article offprint, 1960-1961

**Box 11**

**Folder 8**

Computation book 27a, heterogeneous phantom, half value layer experiment, 1960-1961

**Box 12**

**Folder 1**

"Development of Heterogeneous Phantom for Radiation Therapy," article drafts, 1961

**Box 12**

**Folder 2**

"Report on Annual Information Meeting of the Biology Division, Oak Ridge National Laboratory," article drafts, 1961

**Box 12**

**Folder 3**

"Comparative Biological Evaluation of Three Types of Radiation," article drafts, 1961

**Box 12**

**Folder 4**

Computation book 27, Sievert ion chamber records, 1961

**Box 12**

**Folder 5**

Computation book 28, Alduson phantom, investigation of various films, central axis depth dose of cobalt-60, 1961

**Box 12**

**Folder 6**

Computation book 29, linear rotational therapy, 1961

**Box 12**

**Folder 7**

Computation book 29a, linear pencil beam data, c. 1961

**Box 12**

**Folder 8**

Computation book 33, cobalt, 1962

**Box 12**

**Folder 9**

"Report on Stray Magnetic Field Measurements," article drafts, 1962

**Box 13**

**Folder 1**

"Shielding Requirements of X-Ray Rooms I and II," article drafts, 1963

**Box 13**

**Folder 2**

Computation book 36, bone mineral experiment, 1963

**Box 13**

**Folder 3**

"Suggestions for Long Range Objective of the Section of Medical Physics, Department of Radiology," article draft, 1964

**Box 13**

**Folder 4**

Calibration of Skin Fold Measurement Device," article draft, 1964

**Box 13**

**Folder 5**

"Physical and Biological Investigations with High Energy Radiations," article drafts, 1965

**Box 13**

**Folder 6**

"Automatic Patient Contour Plotting Device," article draft, 1965

**Box 13**

**Folder 7**

"A Semi-Automatic Isodose Curve Plotter," article draft, 1965

**Box 13**

**Folder 8**

"Measurement of Bone Mineral Content Using a Radioisotopic Device," article draft, 1965

**Box 13**

**Folder 9**

Photographs of electron beam radiation accident, Rockford, Illinois, 1965-1966

**Box 13**

**Folder 10**

"Establishment and Maintenance of Accurate Linear Dose Calibration," article reprint, 1967

**Box 13**

**Folder 11**

"The Response of a Commercial Film Badge to High Energy Electrons, article reprints, 1967

**Box 13**

**Folder 12**

"Design of Polar Recorder for Transmission Ion Chamber and Patient Contour Plotting,"  
article reprints, 1967

**Box 13**

**Folder 13**

"Development of a Mechanical Isodose Plotting System," article reprints, 1967

**Box 13**

**Folder 14**

"Radiobiological Experience with High Dose Rate Electrons," article reprint, 1967

**Box 13**

**Folder 15**

"Biological Depth Dose Studies in Electron Beam Therapy Effects of Anagen Mouse  
Hairs," article reprint, 1967

**Box 13**

**Folder 16**

"Scanning Beam Radiotherapy with Automation," article draft, 1968

**Box 13**

**Folder 17**

"Studies of Bone Density and Bone Mineral Content," article draft, 1969

**Box 13**

**Folder 18**

"Comments for Proposed Simulator-Planning Unit Grant Request," draft, 1969

**Box 13**

**Folder 19-20**

Photographs, negatives, and diagrams of lab and work, circa 1960s

**Box 13**

**Folder 21**

"Impressions, Comments, and Recommendations Regarding the Radiation Dosimetry  
Programs of the International Atomic Energy Agency," article draft, 1970

**Box 13**

**Folder 22**

"Impact of Nuclear Physics on Biology and Medicine," article drafts, 1970

**Box 13**

**Folder 23**

"Report on Medical Physics Needs," transcript of talk given before the Radiological Society  
of North America, 1970

**Box 14**

**Folder 1**

"Status and Future Manpower Needs of Physicists in Medicine in the United States,"  
article draft, 1971

**Box 14**

**Folder 2**

"Proposed Medical Physics Research Center," article drafts, correspondence, 1971

**Box 14**

**Folder 3**

"Medical Physics Aspects of Particle Accelerators in Radiation Therapy," article draft, 1972

**Box 14**

**Folder 4**

Evaluation of Californium-252 for the treatment of human tumors, preclinical aspects, diagrams, circa 1972

**Box 14****Folder 5**

"Spatial Coordinate Systems," article draft, 1972

**Box 14****Folder 6**

"Primary Hyperparathyroidism, the Utility of Conventional Roentgenography, Bone Densitometry, and Magnification Techniques," article drafts, 1972

**Box 14****Folder 7**

"Assessment of Relative Biological Effectiveness and Oxygen Enhancement Ratio of Californium-252 for Interstitial Application in Animal Tumor System and in Human Tumors, article drafts, correspondence, photos, 1973

**Box 14****Folder 8**

"Proposed High Linear Energy Transfer Projects Directed Towards Cancer Therapy to be Supported by a Line Item in the United States National Budget under the National Cancer Institute," article draft, correspondence, 1973

**Box 14****Folder 9**

"American Association of Physicists in Medicine Registry of Technical Experts in Radiation Medicine," paper presented for the International Atomic Energy Association Panel on dose computation and computerized treatment planning in radiotherapy, 1973

**Box 14****Folder 10**

"Assignment Report on Course in Hospital Physics," transcripts of talk given by the division of radiological protection at the Bhabha Atomic Research Centre, Trombay, Bombay, 1974

**Box 14****Folder 11**

"Remuneration Updated," transcript of talk, correspondence, 1974

**Box 14****Folder 12**

"Quality Assurance Proposal for Sections of Diagnostic Radiology and Therapeutic Radiology," article drafts, correspondence, 1974-1975

**Box 14****Folder 13**

"Assessment of Relative Biological Effectiveness and Oxygen Enhancement Ratio of Californium-252 for Interstitial Application in an Animal Tumor System and in Human Tumors," progress reports, diagrams, photos, correspondence, 1974-1975

**Box 14****Folder 14**

"Dose Contribution from Fission Spectrum Neutrons Moderated by Tissue-Equivalent Material," article drafts, 1975

**Box 15**

**Folder 1**

"Development and Application of the Liquid Dielectric Ionization Chamber to Mixed Field (Neutron and/or Photon) Dosimetry," article draft, 1975

**Box 15**

**Folder 2**

"Use of Fission Track Etch Detectors for In-Phantom Neutron Dose Determinations," article drafts, 1975

**Box 15**

**Folder 3**

"A Survey of Personnel Exposure in Nuclear Medicine," article draft, circa 1975

**Box 15**

**Folder 4**

"Radiation Physics, Radiobiology, and Clinical Considerations in the Use of Californium-252," transcripts of talk given, 1975

**Box 15**

**Folder 5**

"Skeletal Bone Mineral Studies in Hyperparathyroidism and Inflammatory Bowel Disease," transcripts of talk given, 1975

**Box 15**

**Folder 6**

"Thermoluminescence Dosimetry Applied to Gonadal Dose Determinations," article drafts of report to the government of Turkey, 1975

**Box 15**

**Folder 7**

"A Visit to the Franklin McLean Memorial Research Institute of Five Scientists from the Union of Soviet Socialist Republic," article drafts, correspondence, 1975

**Box 15**

**Folder 8**

"A Rational Approach to Patient Exposure to Radiation in the Hospital," article drafts, graphs, 1975

**Box 15**

**Folder 9**

"A Gynecological Dosimetry System," article drafts, 1976

**Box 15**

**Folder 10**

"Background Notes on the Need for High-Accuracy Dosimetry in Radiotherapy," article draft, 1976

**Box 15**

**Folder 11**

Automatic patient-contour measuring apparatus, photographs, diagrams, 1976

**Box 15**

**Folder 12**

"Dose and Time-Dose Fractionation Factor Comparisons for Moving Strip Therapy," article drafts, correspondence, 1976-1977

**Box 15**

**Folder 13**

"Dose Distribution Using a new Scanning Beam Technique for High-Energy Electron Therapy," figures from an unpublished paper, circa 1977

**Box 15**

**Folder 14**

"Radiation Exposure to Patients in Diagnostic and Therapeutic Radiology," article abstracts, 1977

**Box 15**

**Folder 15**

"Analog Dosimetry," report to the government of Israel, correspondence, 1977

**Box 15**

**Folder 16**

"Training Programs in Medical Physics in the United States," paper presented at the Symposium on Training Programs in Medical Physics, 1977

**Box 16**

**Folder 1**

"Committee on Radiation Calibration Needs in Therapy," report for the American Association of Physicists in Medicine Radiation Therapy Committee, 1977

**Box 16**

**Folder 2**

"Evaluation of the Need for Radiotherapy Calibrations in the United States," paper prepared for the International Symposium on National and International Standardization of Radiation Dosimetry, 1977

**Box 16**

**Folder 3-4**

"Radiation Calibration Needs in Therapy," article drafts, correspondence, presentations, diagrams, 1977-1978

**Box 16**

**Folder 5**

"Lens Dose Received from Different Foreign Body Localization Procedures," article draft, 1978

**Box 16**

**Folder 6**

"Determination of Gonadal Dose in Diagnostic Radiology in Turkey," article redrafts, correspondence, 1978

**Box 16**

**Folder 7**

"Guidelines for the Establishment and Functions of a Commission of Review and Accreditation of Training Programs for Medical Physicists," article drafts, correspondence, 1978

**Box 16**

**Folder 8**

"A Liquid Dielectric Radiation Quality Meter," article drafts, 1978

**Box 16**

**Folder 9**



"Recommendations on the Introduction of the New SI Units for use with Ionizing Radiation and Radioactivity," article draft, 1978

**Box 16**

**Folder 10**

"Second Standard Dosimetry Laboratory," report to the government of Ghana, correspondence, 1978

**Box 16**

**Folder 11**

"National Cancer Institute-Illinois Cancer Council Neutron Radiotherapy Facility," article drafts, correspondence, 1978

**Box 16**

**Folder 12**

"Radiation Received by Radiation Employees," paper prepared for the report of National Council of Radiation Protection Committee, 1978

**Box 16**

**Folder 13**

"Biomedical Physics and Dosimetry," article draft, 1979

**Box 16**

**Folder 14**

"Comparison of Occupational Radiation Dose, Dose to Patients in Diagnostic Radiology, and Dose to the Public from Reactors," article draft, brochure from St. Luke's Medical Center, correspondence, 1979

**Box 17**

**Folder 1**

"Report to the Government of Thailand on the Secondary Standards Dosimetry Laboratory and Related Medical Physics Programs," article drafts, correspondence, pictures, article cutout, 1979

**Box 17**

**Folder 2**

"Maintenance and Quality Assurance Aspects in the Radiology Department of the Johns Hopkins Hospital," report drafts, correspondence, 1979

**Box 17**

**Folder 3**

"Nominal Standard Dose and Time Dose Factors Applied to High-Dose-Rate Brachytherapy," article drafts, circa 1979

**Box 17**

**Folder 4**

"Dosimetry and Risk Estimates in Diagnostic Medicine," paper given at American Association for the Advancement of Science Symposium, correspondence, 1982

**Box 17**

**Folder 5**

"Advanced in Medical Physics at the Medical Center," transcript of presentation given at Presbyterian-St. Luke's Hospital, 1984

**Box 17**

**Folder 6**

Scientific papers, brochure for Lanzl Institute of Medical Physics, 1993-2000

**Box 17**

**Folder 7**

Photographs of labs and staff, no date

**Box 17**

**Folder 8**

Parametrial depth dose distribution, diagrams, no date

**Box 17**

**Folder 9**

Photographs, negatives, Polaroid's of equipment, no date

**Box 17**

**Folder 10**

Patient movement detector diagrams, no date

**Box 17**

**Folder 11**

Diagrams of ionization, no date

**Subseries 3: Reprints**

**Box 18**

**Folder 1-4**

Lanzl article reprints, 1944-1973

**Box 18**

**Folder 5-7**

Lanzl article reprints, with index, 1946-1962

**Box 19**

**Folder 1-2**

Lanzl article reprints, 1953-1964

**Box 19**

**Folder 3-5**

Lanzl article reprints, with index, 1962-1967

**Box 19**

**Folder 6-8**

Lanzl article reprints, 1964-1974

**Box 20**

**Folder 1-3**

Lanzl article reprints, with index, 1967-1970

**Box 20**

**Folder 4-5**

Lanzl article reprints, 1968-1970

**Box 20**

**Folder 6-9**

Californium-252 article reprints, correspondence, 1968-1977

**Box 21**

**Folder 1-3**

Californium-252 article reprints, correspondence, 1968-1977

**Box 21**

**Folder 4-10**

Californium-252 article reprints, correspondence, 1971-1978

**Box 22**

**Folder 1-3**

Lanzl article reprints, with index, 1970-1972

**Box 22**

**Folder 4-5**

Lanzl article reprints, with index, 1971-1976

**Box 22**

**Folder 6-8**

Lanzl article reprints, 1975-1979

**Box 23**

**Folder 1**

Lanzl article reprints, 1975-1979

**Box 23**

**Folder 2-3**

Lanzl article reprints, with index, 1976-1978

**Box 23**

**Folder 4-5**

Lanzl article reprints, with index, 1978-1980

**Box 23**

**Folder 6-7**

Lanzl article reprints, with index, 1981-1984

**Box 23**

**Folder 8**

Index, list of reports and presentations, circa 1985

## **Series II: Correspondence**

Series II: Correspondence, contains Lanzl's professional correspondence with organizations and other professionals in the field of medical physics. This includes typewritten notes about radiology, dosimetry, and lab equipment. Materials are arranged chronologically.

**Box 24**

**Folder 1**

Professional correspondence, 1945-1951

**Box 24**

**Folder 2**

Professional correspondence, 1948-1952

**Box 24**

**Folder 3**

Correspondence on the activation of cobalt-60 for the teletherapy unit at the Argonne Cancer Research Hospital, 1952-1973

**Box 24**

**Folder 4-5**

Professional correspondence, 1953-1955

**Box 24**

**Folder 6**

Correspondence with Felix Wachsmann and others concerning moving field radiation therapy, 1953-1961

**Box 25**

**Folder 1-3**

Professional correspondence, 1955-1957

**Box 25**

**Folder 4-5**

Professional correspondence, 1958-1959

**Box 25**

**Folder 6**

Professional correspondence, 1958-1960

**Box 26**

**Folder 1-2**

Professional correspondence, 1960-1961

**Box 26**

**Folder 3-4**

Professional correspondence, 1962

**Box 26**

**Folder 5-6**

Professional correspondence, 1963

**Box 27**

**Folder 1**

Memoranda and correspondence, 1963

**Box 27**

**Folder 2**

Memoranda and correspondence, 1964

**Box 27**

**Folder 3-5**

Professional correspondence, 1964

**Box 27**

**Folder 6**

Correspondence with the White House and Illinois governors, 1964-1996

**Box 27**

**Folder 7-9**

Correspondence, 1965

**Box 28**

**Folder 1-2**

Professional correspondence, 1966

**Box 28**

**Folder 3**

Professional correspondence, 1967

**Box 28**

**Folder 4**

Professional correspondence, 1968

**Box 28**

**Folder 5-6**

Professional correspondence, 1969

**Box 29**

**Folder 1**

Correspondence and memoranda, 1969-1970

**Box 29**

**Folder 2-3**

Professional correspondence, 1970

**Box 29**

**Folder 4**

Professional correspondence, 1971

**Box 29**

**Folder 5**

Professional correspondence, 1972

**Box 29**

**Folder 6**

Professional correspondence, 1973

**Box 30**

**Folder 1-2**

Professional correspondence, 1974

**Box 30**

**Folder 3-4**

Professional correspondence, 1975

**Box 30**

**Folder 5-6**

Professional correspondence, 1976

**Box 30**

**Folder 7-8**

Professional correspondence, 1977

**Box 31**

**Folder 1-2**

Professional correspondence, 1978

**Box 31**

**Folder 3-5**

Professional correspondence, 1979

**Box 31**

**Folder 6**

Professional correspondence, 1982-1991

**Box 31**

**Folder 7**

Professional correspondence, 1992

**Box 31**

**Folder 8**

Professional correspondence, 1993-1994

**Box 31**

**Folder 9**

Professional correspondence, 1995-1998

**Box 32**

THERE IS NO BOX 32 IN THIS COLLECTION.

**Series III: Organizations**

Series III contains Lanzl's material on scientific organizations of which he was a part – brochures, informational material, and talks presented at these organizations. This series has been divided into two subseries to distinguish oversized materials.

Subseries 1: General, contains typewritten correspondence, article reprints, memos, and information on organizations.

Subseries 2: Oversized, contains large charts, maps, and blueprints. A note has been made where these have been taken from other folders in the series.

**Subseries 1: General**

**Box 33**

**Folder 1-3**

American Association of Physicists in Medicine, correspondence, administrative material, reports, minutes, 1958-1962

**Box 33**

**Folder 4-6**

American Association of Physicists in Medicine, correspondence, reports, minutes, 1963-1967

**Box 33**

**Folder 7**

American Association of Physicists in Medicine, correspondence arranged by topic, with index, 1966-1967

**Box 33**

**Folder 8**

American Association of Physicists in Medicine, correspondence arranged by topic, 1966-1967

**Box 34**

**Folder 1- 2**

American Association of Physicists in Medicine, correspondence arranged by topic, 1966-1967

**Box 34**

**Folder 3-4**

American Association of Physicists in Medicine, Committee on Radiation Protection, correspondence and reports, 1973-1977

**Box 34**

**Folder 5**

American Association of Physicists in Medicine, correspondence, reports, minutes, 1976

**Box 34**

**Folder 6-7**

American Association of Physicists in Medicine – American College of Radiology,  
"Manpower Need in Medical Physics," report drafts, graphs, correspondence, 1972-1974

**Box 34**

**Folder 8**

American Association of Physicists in Medicine, agenda, reports, 1978

**Box 34**

**Folder 9**

American Association of Physicists in Medicine, correspondence, reports, minutes,  
1981-1982

**Box 35**

**Folder 1**

American Roentgen Ray Society, fifty-seventh annual meeting, program booklet, 1956

**Box 35**

**Folder 2-4**

Center for Diagnostic Imaging Research, correspondence, minutes, reports, treatment  
planning, equipment reports, 1972-1977

**Box 35**

**Folder 5**

Congreso Interamericano de Radiologia, fifth annual meeting, program, 1955

**Box 35**

**Folder 6**

Congreso Internacional de Radiologia, sixth annual meeting, program, 1956

**Box 35**

**Folder 7**

Cooperative Studies in Radiation Therapy, correspondence, minutes, reports, 1957-1958

**Box 35**

**Folder 8**

Health Physics Society, first topical symposium on personnel radiation dosimetry,  
program, 1967

**Box 35**

**Folder 9-10**

International Atomic Energy Agency, correspondence, staff directories, bulletins,  
1963-1999

**Box 36**

**Folder 1-2**

Illinois Department of Nuclear Safety, Radiation Protection Advisory Council,  
correspondence, memos, reports, 1967-1987

**Box 36**

**Folder 3-5**

Illinois State Government, Radiation Protection Advisory Council, correspondence,  
reports, brochures, minutes, article drafts, 1966-1997

**Box 36**

**Folder 6**

Institutional Review Board, Illinois Cancer Council, Fermi National Accelerator  
Laboratory, correspondence, minutes, reports, 1975-1982

**Box 36**

**Folder 7-8**

International Atomic Energy Agency, correspondence, staff directories, bulletins, 1963-1999

**Box 37****Folder 1-3**

International Atomic Energy Agency, staff directories, bulletins, reports, 1964-1999

**Box 37****Folder 4-5**

International Commission on Radiation Units, task group on electron beam dosimetry, correspondence, memoranda, reports, procedures, 1964-1968

**Box 37****Folder 6-7**

International Conference on Medical Imaging, Medical Physics, and Precision Radiation Therapy, Guangzhou, China, correspondence, proceedings, memoranda, 1997-2000

**Box 38****Folder 1**

International Conference on Medical Physics, second meeting of the International Organization for Medical Physics, program book, 1969

**Box 38****Folder 2-3**

International Congress of Radiology, book of abstracts, programs, 1962-1965

**Box 38****Folder 4**

International Council of Scientific Unions, yearbook, 1991

**Box 38****Folder 5**

"International Networks for Addressing Issues of Global Change," program of Sigma Xi, 1993

**Box 38****Folder 6**

King Faisal Specialist Hospital and Research Centre, correspondence, plans, reports, informational material, 1975 (blueprints have been moved to subseries 3, Oversized)

**Box 38****Folder 7**

Los Alamos, informational pamphlets, articles, tourist information, reports, correspondence, 1944-1971

**Box 39****Folder 1-3**

Los Alamos, informational pamphlets, articles, tourist information, reports, correspondence, 1971-1993 (a map has been moved to subseries 3, Oversized)

**Box 39****Folder 4**

Marie Curie Foundation, Poland, Dr. O. Chomicki, correspondence between Chomicki and Lanzl about foundation and meeting of Polish Society of Medical Physics, photographs, 1986-1997

**Box 39**



**Folder 5**

National Council on Radiation Protection and Measurements, correspondence, memos, reports, minutes, 1969-1986

**Box 39**

**Folder 6**

Oak Ridge National Laboratory, charts, correspondence, memos, 1974-1989, (a map has been moved to subseries 3, Oversized)

**Box 39**

**Folder 7**

Pan American Health Organization, study group meeting on radiation health, Guayaquil, Ecuador, 1969

**Box 39**

**Folder 8**

Phantom/Cobalt reports, newspaper clippings, Newsweek copy, 1959-1961

**Box 40**

**Folder 1**

Programs of scientific organizations, 1953-2000

**Box 40**

**Folder 2**

Proposed Cancer Center, University of Chicago, correspondence, report, 1971

**Box 40**

**Folder 3**

"Radiation Processing Workshop," brochure for five-day intensive course, 1968

**Box 40**

**Folder 4**

Radiation Research Society, program for sixteenth annual meeting, 1968

**Box 40**

**Folder 5-9**

The Radiological Society, programs for annual meetings, 1946-1960

**Box 41**

**Folder 1-3**

Secondary Standard Dosimetry Laboratories, reports, newsletters, correspondence, 1967-2000

**Box 41**

**Folder 4**

University of Chicago, "Trustees and Officers Articles of Incorporation, By-Laws, Statutes," 1962, 1965

**Box 41**

**Folder 5**

University of Chicago, graduate program informational material, 1968-1975

**Box 42**

**Folder 1**

University of Illinois at Urbana-Champaign, annual list of publications of the faculty, 1946-1949

**Box 42**

**Folder 2**

University of Illinois at Urbana-Champaign, commencement programs, 1947-1980's

**Box 42**

**Folder 3-4**

University of Illinois at Urbana-Champaign, department of physics newsletter, 1975-1987

**Box 42**

**Folder 5**

University of Illinois at Urbana-Champaign, department of physics staff and doctoral student information, circa 1975

**Box 42**

**Folder 6**

Veteran's Administration, correspondence, 1973-1984

**Box 42**

**Folder 7**

Vietnam, correspondence and reports with Vietnamese institutes of physics and government, 1979-1980

**Box 43**

**Folder 1**

World Congress on Medical Physics and Biomedical Engineering, Kyoto, Japan, program, 1991

**Box 43**

**Folder 2-7**

World Health Organization-International Atomic Energy Agency, seminar on education and training of medical physicists, reports, papers, course material, correspondence, circa 1972 (a chart has been moved to subseries 3, Oversized)

**Subseries 2: Oversize**

**Box 44**

**Folder 1**

International Atomic Energy Agency, seminar chart, 1969

**Box 44**

**Folder 2**

King Faisal Specialist Hospital, blueprints, 1975

**Box 44**

**Folder 3**

Los Alamos, newspaper clippings, map of Los Alamos, 1970s

**Box 44**

**Folder 4**

Oak Ridge National Laboratory, map, circa 1974

**Series IV: Course Material**

Series IV contains Lanzl's course notes, lectures, and other materials related to classes that he taught or was enrolled in as a student. The majority of this series represents Lanzl's own coursework in physics at Northwestern University. This includes mostly typewritten or handwritten notes on lectures and topics delivered in class, with a few handbooks for instructors. This series has been arranged chronologically.

**Box 45**

**Folder 1**

"Laboratory Instructions in Physics, Course B4-Mechanics," Northwestern University, 1938-1939

**Box 45**

**Folder 2-3**

Laboratory section 13, Physics A, notebooks, 1939-1940

**Box 45**

**Folder 4**

"Handbook for A Lab Instructors," physics department, Northwestern University, 1942

**Box 45**

**Folder 5**

Laboratory notebook, Physics C7, X-rays, circa 1942

**Box 45**

**Folder 6**

Laboratory notebook, Physics C2, Heat, 1942-1943

**Box 45**

**Folder 7**

"Annals of the Dearborn Observatory of Northwestern University," volume 4, 1943

**Box 45**

**Folder 8**

"Laboratory Instructions in Physics, Course A," Northwestern University, 1943-1944

**Box 45**

**Folder 9**

Laboratory notebook, Physics C5, Mechanics, 1943-1944

**Box 46**

**Folder 1-2**

Laboratory notebooks, Physics C3, Optics lab, glass plates, 1943-1946

**Box 46**

**Folder 3**

Laboratory notebook, Quantum Mechanics, 1944-1948

**Box 46**

**Folder 4**

Laboratory notebook, Electrodynamics, 1945

**Box 46**

**Folder 5**

Laboratory notebook, Quantum Mechanics, Professor W. Pauli, 1946

**Box 46**

**Folder 6**

Laboratory notebook, Physics 30, Electromagnetism, Professor E.H. Williams, 1946

**Box 47**

**Folder 1**

Laboratory notebook, Math 71a-71b, 1946

**Box 47**

**Folder 2**

Laboratory notebook, Line Spectra and Atomic Structure, 1946

**Box 47**

**Folder 3-4**

Laboratory notebook, Nuclear Physics, Professor M. Goldhaber, 1946-1947

**Box 47**

**Folder 5**

Laboratory notebook, Dynamics, 1947

**Box 47**

**Folder 6**

Laboratory notebook, Heat, 1947

**Box 48**

**Folder 1**

Laboratory notebook, Theoretical Physics, 1947

**Box 48**

**Folder 2**

Laboratory notebook, Physics C2, Heat, 1947-1948

**Box 48**

**Folder 3**

Laboratory notebook, Physics 146, Electrodynamics, 1948

**Box 48**

**Folder 4**

Laboratory notebook, Physics 62, Kinetic Theory, 1948

**Box 48**

**Folder 5**

Laboratory notebook, Quantum Theory lecture notes, 1948-1949

**Box 49**

**Folder 1**

Laboratory notebook, Nuclear Physics, 1949

**Box 49**

**Folder 2**

Laboratory Notebook, Reactor Theory, 1951

**Series V: Administrative**

Series V contains Lanzl's administrative files. This includes administrative files for several groups, including the physics department and scientific organizations. These files are drawn mainly from Lanzl's service in an executive position, such as president or vice president, for the various organizations, or as a consultant for a project, training seminar, or government. This series has been divided into three subseries to distinguish restricted materials and separate oversized materials. Subseries 1, General, contains Lanzl's notes on projects being conducted by several organizations. Subseries 2, Oversized, contains some oversized materials that have been reorganized from other folders. This series has been arranged alphabetically.

Subseries 1: General, contains mainly correspondence, minutes, and memoranda on several scientific organizations such as the American Association of Physicists in Medicine. It is mainly focused on several projects being undertaken by various organizations, from the construction of a reflecting magnet to studies of manpower needs in the field of medical physics.

Subseries 2: Oversized, contains some maps, blueprints, and other documents that have been reorganized from other folders. The folders from which these materials were removed are noted in the inventory.

## **Subseries 1: General**

### **Box 50**

#### **Folder 1**

American Association of Physicists in Medicine, manpower reports, correspondence, memoranda, 1969-1973

### **Box 50**

#### **Folder 2**

American Association of Physicists in Medicine, Science Committee, minutes, correspondence, memoranda, 1964-1973

### **Box 50**

#### **Folder 3-4**

American Association of Physicists in Medicine, United States Bureau of Standards, "Report of the Committee on Radiation Calibration Needs in Therapy of the American Association of Physicists in Medicine," two copies, 1979

### **Box 50**

#### **Folder 5-6**

American Association of Physicists in Medicine, Science Committee, minutes, correspondence, memoranda, 1988-1992

### **Box 51**

#### **Folder 1**

American Board of Health Physics, Radiology, correspondence, minutes, reports, memoranda, 1968-1977

### **Box 51**

#### **Folder 2-3**

American International School, minutes, reports, correspondence, memoranda, 1966-1968

### **Box 51**

#### **Folder 4-5**

Atomic Energy Commission, pamphlet publications by and about the Commission and atomic energy; magazine copies about nuclear energy, 1946-1995

### **Box 52**

#### **Folder 1-2**

Argonne National Laboratory, news bulletins, information, and correspondence, 1955-2000

### **Box 52**

#### **Folder 3**

Bhabha Atomic Research Centre, India, pamphlets and information on tourist spots, Indian atomic energy projects, 27th Annual Congress of Radiology in Indore, and Asian Regional Conference on Medical Physics in Bombay, correspondence, 1970-1988

### **Box 52**

#### **Folder 4**

Bhabha Atomic Research Centre, information on Indian atomic energy projects, newspaper clippings, First Annual Conference of Indian Association for Radiation Protection in Bombay, Asian Regional Conference on Medical Physics in Bombay, correspondence, 1973-1986

**Box 52**

**Folder 5**

Californium 252, original copy, copy of grants, minutes of meetings, correspondence concerning research to develop Californium 252 as an alternative radiological treatment to cancer, graphs, photographs, 1972-1977

**Box 52**

**Folder 6**

"Current Copyright Practice," article offprint, 1962

**Box 53**

**Folder 1-3**

International Organization for Medical Physics, correspondence, minutes, reports on administrative matters, lists of membership, 1969-2000

**Box 53**

**Folder 4-5**

International Union of Physical and Engineering Sciences, memoranda and minutes, reports, 1985-2002

**Box 54**

**Folder 1-3**

Los Alamos Meson Physics Facility, correspondence, memoranda, reports, minutes, information about User Groups, proposals and reports concerning development of pion dosimetry, 1969-1977

**Box 54**

**Folder 4-5**

Radiation electron beam accident, reports, correspondence, photographs, article drafts, and documentation attempting to assess and treat radiation accidents, focusing on the case of Robert Carpenter in 1965, 1965-1985

**Box 54**

**Folder 1**

Radiation electron beam accident, reports, correspondence, photographs, article drafts, and documentation attempting to assess and treat radiation accidents, focusing on the case of Robert Carpenter in 1965, 1965-1985

**Box 54**

**Folder 2**

Reflecting magnet for linear accelerator 5-50 MeV at Argonne Cancer Research Hospital, papers, correspondence, reports, 1949-1960

**Box 55**

**Folder 1-6**

Site visit reports, correspondence and site visit reports assessing radiology departments and research facilities, 1967-1996

**Box 56**

**Folder 1-6**

Trip reports, reports of radiology departments and research facilities outside of the United States in Africa, Europe, and India, 1959-1986

## **Subseries 2: Oversize**

### **Box 57**

#### **Folder 1-2**

Architectural plans and graphs for reflecting magnet for the linear accelerator at Argonne Cancer Research Hospital, 1949-1960

### **Box 57**

#### **Folder 3**

Facsimile of documents by Conrad Roentgen in honor of the Ninth International Congress of Radiology at Munich, 1959

## **Series VI: Personal**

Series VI contains material related to Lanzl's personal life. This includes his biographic information, curriculum vitae, publication notes, travel brochures, and newspaper clippings about the Kennedy assassination in 1963. There are also several school books from when Lanzl was in the eighth grade. This series has been divided into two subseries to distinguish oversized materials and artifacts. Subseries 1, General, contains mostly school books from Lanzl's early life and copies of his publications. Subseries 2, Oversized and Artifacts, contains oversized materials and numerous badges and pins from his affiliation with scientific organizations. This series has been arranged chronologically.

Subseries 1: General, contains school books from Lanzl's childhood, as well as his publication notes and curriculum vitae.

Subseries 2: Oversized and Artifacts, contains oversized materials relating to Lanzl's later academic life, the Kennedy assassination, and numerous badges, pins, and medallions reflecting his work with various scientific organizations over his career.

## **Subseries 1: General**

### **Box 58**

#### **Folder 1**

Brochures and pamphlets for Chicago attractions, 1929-1943

### **Box 58**

#### **Folder 2**

School book, "Waukegan Booklet," 1931

### **Box 58**

#### **Folder 3**

School book, "Greek People," 1932

### **Box 58**

#### **Folder 4-8**

School books, "Airplane Pictures," 1933

### **Box 58**

#### **Folder 9**

School book, "Balloon Flights," 1933

**Box 58**

**Folder 10**

School book, "Myths," 1934

**Box 58**

**Folder 11**

School book, "My Bird Book," 1934

**Box 58**

**Folder 12**

School book, "Bird Book," 1934

**Box 58**

**Folder 13**

Northwestern University commencement ceremony booklet, 1943

**Box 59**

**Folder 1**

Tickets and program to Democratic National Convention, Chicago, 1944

**Box 59**

**Folder 2-7**

Publications 1-128, article offprints, with index, 1946-1971

**Box 60**

**Folder 1-5**

Publications 130-260, article offprints, 1971-1979

**Box 61**

**Folder 1-6**

Publications 260-372, article offprints, 1979-1988

**Box 62**

**Folder 1**

Publications 373-412, article offprints, 1988-1997

**Box 62**

**Folder 2**

Curriculum vitae, circa 1980

**Box 62**

**Folder 3**

Curriculum vitae, circa 1990

**Subseries 2: Oversized Material and Artifacts**

**Box 63**

**Folder 1**

Life 17, 5 (July 31, 1944)

**Box 63**

**Folder 2**

Photograph of an observatory, circa 1950

**Box 63**

**Folder 3**

Newspaper clippings on the Kennedy assassination and aftermath, November 1963

**Box 63**



**Folder 4**

The University of Chicago Magazine 57, 5 (February 1965)

**Box 63**

**Folder 5**

Life 64, 7 (February 16, 1968)

**Box 63**

**Folder 6**

Badges, atomic energy paraphernalia, 1950s-1990s

**Box 63**

**Folder 7**

Medals, pins, medallions from scientific organizations, circa 1930s-1980s

**Box 63**

**Folder 8**

Ribbons, pins from American Association of Physicists in Medicine, no date

**Restricted**

Series VII, Restricted, contains administrative records and letters of recommendation. Materials in Box 64 contain letters of recommendation, which are restricted for 80 years from date of record creation.

**Box 64**

**Folder 1-5**

Letters of Recommendation, 1970-1992