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Descriptive Summary

Identifier  ICU.SPCL.LHLANZL
Title  Lanzl, Lawrence H. Papers
Date  1929-2000
Size  40.5 linear feet (63 boxes)
Repository  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 or 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
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
  "Measurements 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

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
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

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

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

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

Box 16
Folder 2

Box 16
Folder 3-4

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

Box 16
Folder 11

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
California-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
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

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
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
Box 41
Folder 4
University of Chicago, "Trustees and Officers Articles of Incorporation, By-Laws, Statues," 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

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**

**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
Facsimilie 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
Box 58
Folder 12
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
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