

English Language Texts

Morgan, K. Z. (ed.). *Health Physics*, Volume 1, Number 1, Pergamon Press, New York (June 1958).

Soft cover, 100 pages

Minimum bid: \$300

“This, the first issue of *Health Physics*, the journal of the Health Physics Society, marks the formal appearance of the field of Health Physics in the family of scientific disciplines.” So begins Karl Z. Morgan’s foreword in the first-ever volume of *Health Physics*. This historic volume, published in June 1958, once belonged to Wade Patterson and his signature graces its cover. The issue includes articles by such notables as Lauriston S. Taylor, John Auxier, and Harald Rossi. In “What is Health Physics?” Walter D. Claus, U.S. Atomic Energy Commission, summarizes the origins and current (at the close of 1957) state of the field. Today, with the reinvigoration of the nuclear power industry, Claus’s concluding statement seems prophetic: “Good men are sincerely to be encouraged to enter this promising profession.” And so, we might add, are good women.

Gilbert, W. S., et al. *1966 CERN-LRL-RHEL Shielding Experiment at the CERN Proton Synchrotron*, Report UCRL-17941, Lawrence Radiation Laboratory, Berkeley, California (September 1958).

Hard cover, 358 pages

Minimum bid: \$50

In 1966, available data on the radiation problems at high-intensity accelerators, such as CERN, were “perplexing and even conflicting.” The authors of this report (William S. Gilbert, Denis Keefe, Joseph B. McCaslin, H. Wade Patterson, Alan R. Smith, and Lloyd D. Stephens at Lawrence Radiation Laboratory in Berkeley, California; Kenneth B. Shaw, Graham R. Stevenson, and Ralph H. Thomas at the Rutherford High Energy Laboratory in Chilton, Oxon, United Kingdom; and Ronald D. Fortune and Klaus Goebel at CERN in Geneva, Switzerland) set out to resolve many of these issues. The result is a report on their extensive, two-year study of the radiation environment at the 28-GeV CERN proton synchrotron. The authors measured proton beam loss, neutron spectra, radiation levels in the accelerator room, and transmission of radiation through earth shielding and along tunnels. Their results—the data and their analyses—are detailed in this report, which once belonged to Wade Patterson and is signed by Patterson, Smith, Stevenson, Thomas, and Goebel.

Casarett, A.P. *Radiation Biology*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey (1968).

Hard cover, 368 pages

Minimum bid: \$100

The dust jacket describes this text as “a broad unified coverage of the effects of ionizing radiation in biological systems at the molecular, cellular, organ, organism, and community levels. Including introductory material on radiation physics, dosimetry, and general biology, the book gives special attention to mammalian radiobiology. Possibly the most outstanding feature of this fully illustrated book is its broad coverage without overemphasis on specific areas.” In excellent condition, the book once belonged to the radiobiologist Dr. Lola Kelly, as evidenced by her signature on the title page.

Nachtigall, D. *Table of Specific Gamma Ray Constants*, Verlag Karl Thiemig KG, Munich (May 1969).

Soft cover, 102 pages

Minimum bid: \$50

This slim, pocket-sized volume hides a mountain of information. Written in English, German, and French, the book lists “newly calculated and reliable gamma values for 700 gamma-emitting nuclides. It is the most complete table of its kind at the present time.” The book is inscribed “To Ralph—in place of a beer! Dieter.”

Patterson, H.W., and R.H. Thomas. *Accelerator Health Physics*, Academic Press, New York (1973).

Hard cover, 668 pages

Minimum bid: \$500

This classic text was written by two University of California at Berkeley health physicists, Ralph Thomas and Wade Patterson, and is dedicated to a third, Professor Burton J. Moyer, who guided health physics studies at Berkeley from 1947 to 1970. Written to augment a four-week course in accelerator health physics taught annually at Lawrence Berkeley Laboratory, the text “distills nearly 50 years of combined experience in working with accelerators shared by the authors.” It emphasizes general principles and provides material necessary for a clear understanding of accelerator radiation problems that are unfamiliar to the average health physicist. Dr. Thomas will inscribe the book to the new owner.

Stewart, D.C. *Handling Radioactivity: A Practical Approach for Scientists and Engineers*, John Wiley and Sons, New York (1981).

Hard cover, 282 pages

Minimum bid: \$75

The author, Donald C. Stewart, was a biochemist who served until his retirement as the Associate Director of the Chemistry Division of Argonne National Laboratory. Written from the viewpoint of a chemist, the book is presented primarily with bench-scale radiochemistry in mind. The author's aim is "to present an overall view, in a descriptive and essentially nonmathematical way, of the practicalities of handling radioactivity." The book provides information on facility design, dosimetry, shielding, nuclear criticality, and waste disposal. "Handling Radioactivity is a valuable at-hand reference tool for all scientists and workers in the field who . . . are involved in dealing with radioactive materials, as well as for those who are encountering the problem for the first time." The book is inscribed "With compliments of the author."

Radiation Research Society and Health Physics Society. *Program Booklet of the 1976 Annual Scientific Meeting*, San Francisco, California (June 27—July 2, 1976).

Soft cover, 136 pages

Minimum bid: \$100

The booklet, signed by many members and the chair (Wade Patterson) of the Program Committee, chronicles the historic joint meeting of the Radiation Research Society and the Health Physics Society in the summer of 1976 in San Francisco, California. The booklet details the week-long conference, which offered hundreds of presentations on topics ranging from tumor radiobiology to accelerator health physics. It takes us back to a time when registration fees were \$30-\$40, San Francisco hotels offered free parking, and champagne flowed freely at the Monday evening reception.

Kase, K.R., and W.R. Nelson. *Concepts of Radiation Dosimetry*, Pergamon Press, New York (1978).

Hard cover, 219 pages

Minimum bid: \$200

According to its preface, the authors developed the book from a Stanford University seminar series that they taught on radiation dosimetry. Both authors were health physicists at the Stanford Linear Accelerator Center. Presented at a level that requires a background in advanced math and physics, the book emphasizes dosimetry of high-energy photons and charged particles (electrons, pions, and muons). Six chapters lead the reader from basic concepts, through interactions with

matter, to dose calculations and measurement. The book is inscribed to Ralph Thomas from both authors: "Thanks for your encouragement and support."

Nero, A.V., Jr. *A Guidebook to Nuclear Reactors*, University of California Press, Berkeley, California (1979).

Soft cover, 290 pages

Minimum bid: \$75

Writing in 1979, Anthony Nero stated that the purpose of this book is to "describe and illustrate reactors as they actually exist and to indicate the basic forms that nuclear systems may take in the future." The book is divided into four parts:

- Part I provides a general introduction to nuclear power plants;
- Part II describes commercially available reactors, their basic systems, safety design, and operational characteristics;
- Part III discusses issues basic to the future development of nuclear power; and
- Part IV describes advanced reactors, including breeder reactors.

At its publication, the book was hailed as "a well-illustrated and concise description of the important reactor types and fuel cycles" (Nuclear News), "an excellent discussion of a highly technical subject" (Library Journal), and "a useful and balanced overview of nuclear reactors in an authoritative yet simple style" (Science Books and Films). The book is inscribed "To Ralph Thomas with regards, Tony Nero."

Nelson, W.R., and T.M. Jenkins (ed.). *Computer Techniques in Radiation Transport and Dosimetry*, Plenum Press, New York (1980).

Hard cover, 521 pages

Minimum bid: \$75

The text is a compilation of 31 lectures and presentations given at the International School of Radiation Damage and Protection held in Erice, Sicily, in October 1978. Attended by 41 scientists from 14 countries, the course presented lectures summarizing computer techniques that can be applied to radiation protection, medical physics, design of high-energy physics detectors, accelerator component design, and cosmic ray physics. Lecture topics include methods and application of discrete ordinates in low-energy neutron-photon transport, the intranuclear cascade evaporation model, and unfolding techniques for activation detector analysis. The text "serves as an excellent reference for electromagnetic and hadronic cascade calculations and is of interest to a wide variety of scientists in this pioneering field." The book is inscribed to Ralph Thomas from Walter R. (Ralph) Nelson and Theodore (Ted) Jenkins.

Swanson, W.P. *Radiological Safety Aspects of the Operation of Electron Linear Accelerators*, Technical Report 188, International Atomic Energy Agency, Vienna (1979).

Soft cover, 327 pages

Minimum bid: \$150

This book is the second in a series of technical reports on radiological safety at accelerators. Written for accelerator manufacturers, users, and managers, as well radiation safety personnel, the book is a manual for preparing and implementing radiation protection programs at all types of electron linear accelerators, both operating and planned. Medical, industrial, and high-energy accelerators are discussed separately, and the specific issues at each type of accelerator are considered. Topics include electron accelerator uses and characteristics, and radiation types, shielding, and measurement. The book also considers problems unique to electron accelerators: thick-target Bremsstrahlung, the electromagnetic cascade, estimation of secondary radiation yields from thick targets, and instrumental corrections for accelerator duty factor. This volume is inscribed by the author to Wade Patterson: "I'm proud to be in the same profession as a man like you! Best regards."

Swanson, W.P. *Radiological Safety Aspects of the Operation of Electron Linear Accelerators*, Technical Report 188, International Atomic Energy Agency, Vienna (1979).

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Thomas, R.H., and G.R. Stevenson. *Radiological Safety Aspects of the Operation of Proton Accelerators*, Technical Report 283, International Atomic Energy Agency, Vienna (1988).

Soft cover, 474 pages

Minimum bid: \$150

This book is the third in a series of technical reports on radiological safety at accelerators: the first focused on neutron generators and the second emphasized electron linear accelerators. The report was conceived as a “guide for the planning and implementation of radiation protection programmes for all types of positive ion accelerators.” In six chapters, the book discusses proton accelerator development and characteristics, the radiation environment (resulting from prompt radiation fields and induced radioactivity) and its measurement, shielding, safety programs, and environmental impacts. The final chapter provides sources of information and a bibliography. The book will be inscribed to the new owner by Dr. Thomas.

National Council on Radiation Protection and Measurements. *Radiation Protection for Particle Accelerator Facilities*. NCRP Report 144, Bethesda, Maryland (December 2003).

Hard cover, 499 pages

Minimum bid: \$150

The first version of this book, *Radiation Protection Design Guidelines for 0.1—100 MeV Particle Accelerator Facilities* (NCRP Report 51), was published in 1977. Twenty-five years later, the National Council on Radiation Protection and Measurements (NCRP) convened a scientific committee to review and update NCRP Report 51 to include “new shielding data, extension of the energy range up to the giga-electron volt region, skyshine radiation, transmission of radiation through ducts and labyrinths, induced radioactivity, and environmental considerations such as radioactive airborne and liquid effluents.” The chair of the committee was Dr. Ralph Thomas and the committee’s work resulted in NCRP Report 144. The purpose of NCRP Report 144 is to provide radiation protection guidance, identifying aspects unique or of major importance to particle accelerators and suggesting methods of ensuring safe accelerator operation. The book will be inscribed to the new owner by Dr. Thomas.
