

PET AND NMR: NEW PERSPECTIVE IN NEURO IMAGING AND IN CLINICAL NEUROCHEMISTRY.
L. Battistin, F. Gerstenbrand, Eds. New York, Alan R. Liss, Inc., 1986, 518 pp, \$90.00

PET & NMR: New Perspectives in Neuro Imaging and in Clinical Neurochemistry is the 21st volume in the series, "Neurology and Neurobiology". The book represents the proceedings of a symposium held in Padova, Italy in May of 1985. The symposium was intended to "underline the relevance in new technologies, such as PET & NMR, in diagnostic procedures and neurochemical research in man."

After several papers on the historic development of neurology and neuroimaging techniques, 28 papers concerning topics of clinical and theoretical PET & NMR are presented. An appreciated difference between this book and the proceedings of many symposia, is that most of the papers in this text are understandable to persons not expert in the field. The topics of the papers are, however, generally narrow and the book would be of most interest to neurologists and nuclear medicine physicians interested in neuro imaging.

As this publication does represent the proceedings of a symposium, the topics are not as well organized as they would be in a standard text. This is particularly true in the NMR section; papers on the theoretical considerations in metabolic NMR imaging are intermixed with papers describing specific, and sometimes esoteric, clinical considerations. Nevertheless, "PET & NMR" could be a useful library reference for these topics, particularly as an intermediate publication between general texts and specific papers scattered in various peer review journals.

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PHYSICS AND ENGINEERING OF MEDICAL IMAGING.

Riccardo Guzzardi, Ed. Dordrecht, The Netherlands, Martinus Nijhoff Publishers, 1987, 1012 pp, \$210.00

This massive book is a record of the proceedings of the NATO Advanced Study Institute on "Physics and Engineering of Medical Imaging" held in Maratea, Italy, 23 September-5 October 1984. Various topics in the general areas of digital radiology, NMR imaging, nuclear medicine, x-ray CT, and ultrasound are treated in widely varying depths and degrees of rigor. Some papers are formal and mathematical, while others are more conversational.

The audience for this book appears to be researchers in the broadly defined field of medical imaging. The prohibitive price

makes this a library reference volume rather than a private library text. The diligent reader will likely be rewarded.

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NUCLEAR PHARMACY: An Introduction to the Clinical Application of Radiopharmaceuticals.

H.M. Chilton, R. Witcofski, Ed. Philadelphia, Lea and Febiger, 1986, 190 pp, \$22.50

Over the years, nuclear pharmacy has become an essential part of clinical nuclear medicine. The importance of this discipline in clinical diagnosis and its growth can be attributed to the availability of excellent new radiopharmaceuticals and new imaging instrumentation. An introductory book on nuclear pharmacy is a welcome addition to this important area of clinical nuclear medicine. The authors state that this book is an attempt to introduce nuclear pharmacy to "students of nuclear pharmacy (including pharmacists, physicians, and technologists) covering the subject matter in depth sufficient to be of some permanent value". After carefully reading this book, I must congratulate the authors for their superb effort in achieving their stated goal. To this reviewer who is more familiar with "research" oriented books on the subject of radiopharmaceuticals, reading this small book on nuclear pharmacy has had some very refreshing effect on what nuclear pharmacy is all about.

This book can be broadly divided into four divisions: (1) Physical aspect of nuclear pharmacy; (2) Preparation and quality control of radiopharmaceuticals; (3) Clinical use of radiopharmaceuticals; and (4) Data on radiation parameters and regulatory affairs. This work starts out with "what is nuclear pharmacy" and proceeds through 19 chapters such as production of radionuclides, instruments, radiation dose and risks, technetium-99m generator, and all relevant radiopharmaceuticals used in clinical nuclear medicine. There are chapters on therapeutic applications of radiopharmaceuticals, federal regulations affecting radiopharmaceuticals, and radiation control and protection. Dr. Witcofski deserves credit for his precise delineation of "difficult" physics in those chapters dealing with physical aspects of radionuclides and instrumentation. Yes! There is an excellent but small chapter on imaging instruments. The section on clinical selection of radiopharmaceuticals is extremely well written. The physico chemical properties of radiopharmaceuticals are well outlined in a chapter and contain important and useful information. Another chapter this reviewer was impressed with discusses radiopharmaceuticals for tumor detection and hematological studies. This chapter presents details on monoclonal antibodies, mechanism of localization of gallium-67 etc. I am pleasantly surprised to find this information in an introductory book on nuclear pharmacy.

The appendix (A-F) is a treasure cove of important and useful information. Radiation absorbed dose for most clinical radiopharmaceuticals are listed here. Also included is a procedure on how to safely open a package containing radiopharmaceuticals! This work is really what it says on its title "An