

7. Radiotopes in Medicine. R. R. Tarrice and M. S. Blumberg. SRIA-13. Stanford Research Institute, Menlo Park, Calif. SRI Project No. IU-2567. 187 pp. (Dec. 1959). Office of Technical Services, U.S. Dept. of Commerce, Washington 25, D.C.

The Atomic Energy Commission has sponsored training, research grants, subsidies, and information programs in the field of nuclear medicine. Workers in the field of nuclear medicine have seen a remarkable growth in the availability of radiomaterials within the past 13 years. The major source of this supply has been the Oak Ridge National Laboratory. This production facility has made in excess of 130,000 shipments of radioisotopes valued at more than \$18 million. One-half of this has been for use in the medical profession. Data are summarized on the medical uses of isotopes in the United States. There are 135 references.

-- Nuclear Sci. Absts.

9. Biochemical Effects of Ionizing Radiation. Margery U. Ord and L. A. Stocken. Ann. Rev. Nuclear Sci. 9, 523-552 (1959).

Data on the biochemical effects of ionizing radiation in carbohydrate, fatty acid, and protein metabolism of various animals are reviewed. Changes in enzyme activities after irradiation in vivo and in vitro are discussed. Data on irradiation damage to nucleic acids and nucleoproteins are reviewed. The influence of oxygen on the response of cells and tissues to ionizing radiation is discussed. Descriptions of substances which can exert protective effects to ionizing radiation under certain conditions are given. -- Nuclear Sci. Absts.

99. On the Present Possibilities of Washing Radioactive Substances off the Skin of Living Animals. J. Nosek and V. Chmelar. Health Phys. 2, 306-307 (Feb. 1960).

Experiments on animals showed that a detergent and sodium salts of EDTA acid or a detergent and sodium salts of polyphosphoric acids are effective for the decontamination of living skin contaminated with long-life fission products of uranium-235. The formulas are included for two decontaminating solutions which proved effective. -- Nuclear Sci. Absts.

100. A Profile of Dispensary Visitors in an Atomic Energy Research and Development Plant. J. C. Hipps and R. E. Masters. A.M.A. Arch. Ind. Health 21, 559-563 (June 1960).

This is a brief description of the dispensary medical services in a research and development atomic-power plant employing about 4,000 persons. There is a male-to-female employee ratio of 5:1. The magnitude of the services is presented, along with a discussion of the reason for visits to the dispensary, disposition of industrial and non-industrial cases, and extent of treatment of the latter. Some emphasis has been placed on the physician's participation as compared with the total services provided.

ENVIRONMENTAL MEASUREMENTS

101. Some Aspects of Gas Chromatography. P. J. Farenden and M. P. Muncie. Bull. Brit. Coal Utilization Research Assn. 23, 366-376 (Aug.-Sept. 1959).

Typical of the many studies of gas reaction kinetics that have been made possible by the development of gas chromatography are those of the behavior of various hydrocarbons in internal combustion engines, the reactions of free radicals, and the competitive halogenation of hydrocarbons. It is also a most convenient method for the analysis of azeotropic mixtures. Chromatographic data also provide the necessary information for the determination of adsorption isotherms and the evaluation of certain thermodynamic functions. Most of the