

Radiochemical Centre, 1964). Two thousand items are listed, and there is a new medical section comprising 76 radioactive chemicals, prepared and tested to pharmaceutical standards, which are in some measure of routine use in medical diagnosis or therapy. In the other sections the classification follows that of previous editions. The facilities are grouped under the headings: radioisotopes and labelled compounds; labelling, irradiation and other services; radiation sources; and radioactive material for instrument calibration. An index and some general information on ordering, registration, packaging and payment, are included. The Centre does not sell radium except in quantities of less than 5 mg, and in the United Kingdom all radium is issued on loan under the terms of a written agreement specifying an annual hire charge, payable six-monthly. The general section on radiochemicals has 1,125 entries, 390 more than in the 1962 edition. Fifty isotopes, mostly cyclotron-produced materials, are listed for the first time. Primary isotopes and labelled compounds are grouped together in a single alphabetical list, the primary isotopes in capital letters. A general trend to labelling at higher specific activities is evident, particularly with compounds with wide biochemical interest such as amino-acids and sugars. Some of the tritium-labelled compounds approach theoretical maxima of specific activity. The number and variety of radiation sources have increased substantially, and the section dealing with these sources consists of two parts—sources for clinical use and sources for the laboratory and factory. Each entry includes a summary of the relevant nuclear data, a description of the method of construction amplified by an illustration where appropriate, and the methods used for testing and measurement. The list of sources for radiotherapy includes new patterns of cobalt-60 ophthalmic applicators, caesium-137 needles for interstitial use, and improved flexible  $\beta$ -emitting sheet material. For laboratory and industrial use there is an increased range of sources containing americium-241; sources of caesium-137 for radiography, level gauging or laboratory instruments; and of strontium-90 for thickness gauging, in a ceramic form especially resistant to accidental damage and to high temperatures; and the recently developed cobalt-57 sources for Mössbauer experiments. Technical information on each item in the catalogue is of necessity brief, but more detailed information is given in *The Radiochemical Manual* and in the *Technical Bulletins* issued by the Centre.

### X-ray Crystallography

AN international summer school in "X-ray Crystallography" was held at Peterhouse College, Cambridge, during August 31—September 12. The course was arranged with twenty one-hour lectures and twenty two-hour periods of exercises involving only drawings and interpretations. Roughly half the work was devoted to the various types of X-ray diffraction photographs, their interpretation and proper use, and the second half to diffractometry and physical aids, other than X-rays, in determining crystal structures. The course was planned so that someone who had little knowledge of many aspects of X-ray crystallography would be able to follow most of the subject-matter. It was also arranged that the most recent developments in each of the matters dealt with were described. The students came from Belgium, Finland, France, Italy and Norway and they all had some knowledge of a part of the subject. Such a course seems appropriate for students of this kind because it enables them to obtain a more comprehensive view of X-ray crystallography. The lectures and demonstrations were given by Dr. W. A. Wooster.

### National Institute of Oceanography

VOLUME 11 of the National Institute of Oceanography's Collected Reprints (published by the Institute, at Godalming, Surrey) contains 62 papers and articles. Classified

according to subject, 30 are physical, 20 are biological, six are on the geology or geophysics of the sea-bed, two are chemical and four are general. There are no fewer than 14 papers on waves, providing evidence that this is still one of the main lines of research of the Institute and one in which its workers are keeping in the forefront of activity. Most of these papers deal with the observational and analytical techniques for studying the spectra of ocean waves, particularly the directional spectra. A number of other physical papers are concerned with long waves, internal waves, tides and mean sea level, including one on a comparison of the geodetic reference levels of England and France using oceanographic methods. Among the papers on biological subjects, including fisheries, there is a group of five on whales and whaling (a long-standing interest of the Institute), and six on particular species or groups of marine animals. Several papers describe improved apparatus and techniques, including nets and their closing mechanism. A further group of papers deals with the use of acoustic techniques for the study of various features of the sea bed and of the sediment and rocks below the bottom. The Institute's new research vessel, R.R.S. *Discovery*, was commissioned in December 1962, and the present volume includes descriptions of the ship and her scientific equipment.

### Veterinary Non-proprietary Names

THE *British Veterinary Codex* Revision Committee has adopted the following non-proprietary names for the veterinary substances indicated:

Non-proprietary name	Other names
Amicarbalide	<i>NN'</i> -di( <i>m</i> -amidmophenyl)urea; 3,3'-diamidnocarbanilide. 'Diampron' is the isethionate.
Amprolium	1-(4-amino-2-propylpyrimidin-5-ylmethyl)-2-methylpyridinium chloride. The hydrochloride is an ingredient of 'Amprol', 'Amprolmix', and 'Panoxin'.
Diminazene	<i>pp'</i> -diamidinodiazaminobenzene. The acetate is an ingredient of 'Berenil'.
Metriphonate	dimethyl 2,2,2-trichloro-1-hydroxyethylphosphonate; chlorofos; trichlorophon; Bayer L13/59; 'Dipterex'; 'Dyvon'; 'Neguvon'; 'Tugon'.
Naphthalophos Thenium	<i>N</i> -(diethoxyphosphinyloxy)naphthalimide; 'Rametin'. <i>NN</i> -dimethyl- <i>N</i> -(2-phenoxyethyl)- <i>N</i> -(2-thenyl)-ammonium. The cloylate is an ingredient of 'Ancaris' and 'Canopar'.
Tylosin	An antibiotic derived from an actinomycete resembling <i>Streptomyces fradiae</i> . 'Tylan'.

The non-proprietary names are reported to be free from conflict with trade marks registered in Great Britain and Northern Ireland, and these names, or names resembling them, will not be registered as trade marks for pharmaceutical products or drugs in those countries. Some of the names, other than the chemical names, appearing in the second column above are registered trade marks. The adoption of a non-proprietary name does not necessarily imply that the *British Veterinary Codex* Revision Committee recommends the use of the substance in veterinary medicine or that the substance will be included in the *British Veterinary Codex*, although, if a substance is included, it is intended that the non-proprietary name shall be the title of the monograph. The *British Veterinary Codex* Revision Committee has undertaken, at the request of the Association of the British Pharmaceutical Industry, to provide non-proprietary names for veterinary products, and all requests from manufacturers and other interested persons for the provision of such names should be addressed to the Secretary, *British Veterinary Codex* Revision Committee, the Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, London, W.C.1.

*Amendment to List No. 1 (Nature, 202, 136; 1964):*

Diaveridine This is an ingredient of 'Darvisul'.

### Kootenay National Park, Canada

KOOTENAY National Park is an area of exceptional scenic beauty consisting of 'rows' of mountains alternating with open valleys. It stretches for more than 60 miles parallel to the north-west-south-east trend of the Rocky Mountains, and, along its width, crosses various mountain