

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION, AUSTRALIA

CHEMICAL RESEARCH LABORATORIES

THE Commonwealth Scientific and Industrial Research Organization (Australia) has changed the status of one of its largest research groups, the Division of Industrial Chemistry, which has its headquarters at Fishermen's Bend, Melbourne. The Division will in future be known as the C.S.I.R.O. Chemical Research Laboratories, and its chief, Dr. I. W. Wark, becomes the first director of the Laboratories. Two of the largest Sections of the Laboratories will become Divisions (the name used for the major units of C.S.I.R.O.'s activities). Dr. A. L. G. Rees will become chief of the new Division of Chemical Physics and Dr. K. L. Sutherland will become chief of the new Division of Physical Chemistry.

These two new Divisions together with the remaining four major Sections will comprise the Chemical Research Laboratories. These sections and their officers-in-charge are as follows: Minerals Utilization (Mr. R. G. Thomas); Organic Chemistry (Dr. H. H. Hatt); Cement and Ceramics (Mr. A. J. Gaskin); Chemical Engineering (Dr. H. R. C. Pratt). The Foundry Sands Section will continue to be affiliated with the group.

Dr. Wark has been chief of the C.S.I.R.O. Division of Industrial Chemistry since its formation in 1940. Under his guidance this group has grown until it now has a research staff of one hundred and a total staff of three hundred.

More than a third of the research staff has been recruited from overseas, and about half of the Australians have studied abroad for higher degrees.

An adventurous outlook on research within the Chemical Research Laboratories has produced outstanding contributions in many phases of chemical discovery, both in basic science and in the solution of practical problems.

Some of C.S.I.R.O.'s more spectacular applications of science have come from the Chemical Research Laboratories. These include the process using cetyl alcohol for controlling evaporation from dams and reservoirs; the process for separating hafnium from zirconium which is of significance for atomic-powered submarines; and a process for recovering uranium from its ores.

Dr. Wark's own personal research was concerned with the theory of the flotation process for separating minerals from ores, which is of major importance to the mining industry. His pioneering work as a physical chemist in this field gained for him a world-wide reputation, and his book, "Principles of Flotation", first published in 1938, became recog-

nized as a classic on the subject. He is a Fellow of the Australian Academy of Science. For many years he has taken a prominent part in the affairs of the Royal Australian Chemical Institute and has done much to gain a wider appreciation of the importance of chemistry and of science generally. He served as president of the Institute during the year 1957-58.

Dr. A. L. G. Rees, chief of the new Division of Chemical Physics, began his scientific career with a brief temporary lectureship in the University of Western Australia; then he became Beit Fellow at the Imperial College of Science and Technology, London. In 1941 he was awarded the Ph.D. of the University of London and joined the Philips organization in England as head of the Fundamental Research Group. He held this post until 1944, when he was appointed to C.S.I.R.O. to form the Chemical Physics Section. He has undertaken research into the structure and properties of materials. He is the author of many scientific papers on spectroscopy, electron diffraction, electron microscopy, luminescence and allied subjects. He is the author of a book—"Chemistry of the Defect Solid State" (Methuen, London, 1954). He is a Fellow of the Australian Academy of Science and of the Royal Australian Chemical Institute. He received the Institute's Rennie Memorial Medal in 1945 and its H. G. Smith Memorial Medal in 1951.

Dr. K. L. Sutherland, chief of the new Division of Physical Chemistry, began his research career on the froth flotation of minerals, which was supported by a group of mining companies, in the University of Melbourne. He joined C.S.I.R.O. in 1940 and continued his work on flotation, concentrating particularly on the kinetics of the process. He has gained world-wide recognition for his work in this field. In 1947 he was awarded the Davy Faraday Fellowship of the Royal Institution and worked in London for a period. Later, he was awarded the degrees of D.Sc. of the University of Melbourne and Ph.D. of the University of London. He returned to the Division of Industrial Chemistry in 1950. He recently collaborated with Dr. I. W. Wark in the revision of the second edition of Dr. Wark's book, "Principles of Flotation". He is a Fellow of the Royal Australian Chemical Institute. He received the Institute's Rennie Memorial Medal in 1943 and its H. G. Smith Memorial Medal in 1957. The University of Melbourne awarded him the Grimwade Prize in 1943 and the Syme Prize in 1948.

RURAL RESEARCH

THE lack of agricultural development in the comparatively well-watered section of tropical Australia has long presented an enigma. The region has been either hailed as a land of unlimited potentialities or written off as virtually worthless.

It is only in the post-war period that a systematic effort has been made to define the agricultural and

pastoral potentialities of the land and solve the problems limiting its exploitation. Officers of the Division of Land Research and Regional Survey of the Commonwealth Scientific and Industrial Research Organization have been in the forefront of this effort and have shown already that large areas of Northern Australia are capable of agricultural