be interpreted as a succession of electronic transitions which converge to limits corresponding to the photo-ionization of particular electrons within the molecule. This phase of Dr. Price's work was started while he was a Commonwealth Fellow at the Johns Hopkins University during 1932–35 and developed later at Cambridge, where he was on the staff of the Physical Chemistry Department and held a fellowship of Trinity College.

During the later years of the Second World War, Dr. Price became attached to Imperial Chemical Industries, Ltd. (Billingham Division), where he applied infra-red techniques to industrial problems, particularly those concerned with the war effort. During 1946–47 he was research associate at the Molecular Spectroscopy Laboratory in the University of Chicago, and in 1949 he took up his appointment at King's College, London. His contributions in infra-red spectroscopy include the experimental evidence for the bridge structure of diborane and its metal derivatives, the elucidation of the nature of the vibrations of the peptide link, the theory of infra-red reflexion spectra from molecular crystals, and high-resolution studies of emission spectra of molecules and radicals. Dr. Price has during the past few years contributed greatly to the teaching duties and administration of the Physics Department at King's College.

Ford Prize for Peaceful Uses of Atomic Energy

On the opening day of the Geneva Conference on the Peaceful Uses of Atomic Energy, it was announced by the Ford Motor Co. that it will put aside one million dollars to provide an annual prize for the best contribution to the subject. The award is to be made by an international jury, and the honorarium of 75,000 dollars and a medal may go to an individual or a group of scientists, irrespective of race or political views. If no award is made, the money is to be used for providing fellowships for scientists likely to contribute to the advancement of the peaceful application of atomic energy. This munificent gesture is a response, the Company states, to President Eisenhower's appeal to industry to offer an incentive in finding new ways of using atomic energy for the benefit of the human race, and has been made by Mr. Henry Ford and his brothers as a memorial to their father.

New Reactor at Harwell

A full-scale, very low-power model of the Dounreay fast reactor has been built at Harwell and should be in operation before the end of this year. It has been named ZEUS (Zero Energy Uranium System) and will provide data relating to the design and operation of the Dounreay experimental plant. ZEUS is a fast reactor like ZEPHYR (the Zero Energy Fast Reactor), and the reacting core contains only the fuel, its canning material, and the coolant; there is no moderating material such as heavy water or graphite to slow down the neutrons. The fuel is uranium highly enriched in uranium-235 (from the diffusion plant at Capenhurst), instead of the plutonium fuel used in ZEPHYR. The fuel is in the form of long tubes which are mounted vertically to form a hexagonal-shaped core. The core is surrounded by an envelope of natural uranium, the purpose of which is to absorb the neutrons from the core and so produce plutonium. The Dounreay reactor and ZEUS are both breeder reactors in the sense that the amount of plutonium produced in the reactor should exceed the amount of uranium-235 burned in the core. It is not expected that the breeding margin will be as high as it was in ZEPHYR, where the amount of fresh plutonium produced in the reactor was found to be about double the amount consumed in the core. The operating power-level of ZEUS will be only about one-millionth of that of the proposed Dounreay reactor. This will be sufficient for experimental studies. Because of the complex technical problems which they pose, fast reactors will not play a prominent part in the early stages of the utilization of atomic energy; but when they do come into widespread use they will make it possible for a substantial supply of fissile material to be obtained economically from a relatively modest supply of uranium.

Radio-astronomy at Cambridge

The University of Cambridge has accepted the offer of a gift by Mullards, Ltd., of ten annual subscriptions of £10,000 each, for continuing and extending the work in radio-astronomy which is now being carried out at the Cavendish Laboratory. It is intended to set up a new observatory on a site near Cambridge, which will be known as the Mullard Radio-astronomy Observatory. The grant will make it possible both to obtain the use of the land to provide laboratory buildings, and to construct new instruments. It is hoped in this way to develop a number of the lines of research which now appear to offer great promise. During the past two years a survey of radio stars has been completed at Cambridge which led to the location of nearly two thousand radio sources. Only a small fraction of these could be related to optically observable objects, and an analysis of their apparent distribution in space has suggested that most of them represent an extremely rare and intense class of source; on this interpretation most of the sources observed lie beyond the reach of the most powerful optical telescopes, in regions where the predictions of different cosmological theories diverge. The extension of these observations, their comparison with cosmological theories, as well as work on the general emission from the galaxy and on the structure of the outer layers of the solar atmosphere, represent some of the investigations which it is hoped to undertake at the new Observatory.

International Co-operation on Purification of Brackish Water

Great Britain has joined an international scheme for research on de-salting saline waters by electrodialysis; the work will be carried out in The Netherlands. In many countries, difficulty is being found in providing the increasing quantities of fresh water required for domestic and industrial use. For example, sea-water is infiltrating into freshwater wells in the Thames estuary and it is becoming more and more difficult to suggest other sources that do not involve expensive, long-distance pumping. Talks on the possibilities of various methods of de-salting water have been going on for some time under the auspices of O.E.E.C. One promising process is electrodialysis —the removal of salts from a liquid flowing between pairs of ion-selective membranes, by means of an electric field. Research on this method is already well advanced in The Netherlands. The Dutch recently offered to carry out development work in co-operation with other countries showing an interest. Great Britain has joined The Netherlands, South Africa,