on peripheral parts of the lobules and hæmorrhage among liver cell trabeculæ.

From these results the investigators came to the conclusion that the extract must contain certain toxic agents injurious to the liver and acutely fatal to animals.

Before and after the twenty-fourth hour the symptoms differ from each other in a marked fashion. Pathological changes observed in the liver are of two kinds. It would appear that the biological response to the methanol extract must be a manifestation of two actions essentially different in properties but each injurious to the liver. Convincing evidence of this is obtained from the data concerning the solvents used for the methanol extract; rapid action seems to be detectable when the extract is suspended in water while delayed action is detectable when this extract is dissolved in oil.

With regard to the toxic metabolites of *P. islandicum*, the investigators concluded that, in the methanol extract of the fungus mat, two liver-injurious components co-exist which act fatally within a short time; one is a hydrophilic compound relatively rapid in action and the other a lipophilic compound which is much slower.

Chemical fractionation of the constituents in the methanol extract of the fungus mat indicated that lipophilic fractions, sterols and several pigments of the polyoxyanthraquinone group are obtained; among the latter is found a yellow pigment 'luteoskyrin', which has been unknown hitherto.

ICSU REVIEW

THE *ICSU Review* was initiated in 1958 as a new enterprise of the International Council of Scientific Unions, with the strong interest of the past president of Union, Dr. Lloyd Berkner. The intention was to have a publication especially devoted to the affairs of the Council with its thirteen federated scientific unions and its special committees. The *Review* would bring the progress now being made in the co-operation of working scientists from all over the world to the notice of specialists and a wider public which is not well informed on these activities. The new *Review* was edited by Sir Harold Spencer Jones.

After the death of Sir Harold, the position of the *Review* was considered and certain changes were thought to be desirable. The scope of the *Review* could be expanded so that it could cover even more effectively the full activities of the Union's constituent organizations. This objective could be reached only if the *ICSU Review* presents theories, projects or discoveries of world-wide importance, and is directed towards international science. It should bring members of the scientific community a knowledge of movements and trends in other sciences in a more comprehensive way than is done in the present scientific journals. To this end, the publication will in future include short articles from different branches of science, written in a style suitable for the non-specialist and the generally educated public. This will give a better presentation of the work of the scientific unions in its relation to the progress of knowledge and to world affairs; thus international co-operation will be presented in a living perspective.

The new issue (3, No. 1; 1961) is a first step towards realizing this goal and contains articles on *AGK*3—a co-operative programme in astronomy by F. P. Scott; international research programmes in oceanography by Dr. G. F. Humphrey; the world land use survey by Prof. L. Dudley Stamp; changing views on the Earth's crust by Prof. J. Tuzo Wilson; the mixed commission on the ionosphere by Prof. W. J. G. Beynon; biophysics by Prof. A. Engstrom; fluorine and African plants by Sir Rudolph Peters; a European project for a large observatory in the southern hemisphere by Dr. J. H. Oort; the international latitude service by C. A. Murray; and geophysical and space-tests of gravitational theories by Prof. R. H. Dicke. Dr. Donald Fraser has been appointed editor.

SYNTHESIS AND X-RAY ANALYSIS OF DIAMOND

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THE recent development of relatively simple ultra-high pressure equipment has stimulated research effort in this field. To the engineer the field is of importance because of its potential in producing a range of new materials, probably characterized by hardness and good refractory properties. A small team in the National Engineering Laboratory, East Kilbride, is investigating the synthesis of such new materials, and has constructed an ultra-high pressure apparatus capable of subjecting specimens to pressures of approximately 75,000 atm., and temperatures of approximately 2,000° K. In the proving of this apparatus, synthetic diamond crystals were produced. A detailed X-ray analysis was made of one of these, by the Plastics Division, Imperial Chemical Industries, Ltd.

The National Engineering Laboratory (U.K.) apparatus is based on the National Bureau of Standards (U.S.A.)[1] modification of the tetrahedral anvil apparatus[2]. In this apparatus the high-pressure cell