trace elements, atmospheres, concentration of various nutrients and forms of carbon and nitrogen—can be determined.

## SUMMARY

A papyrographic micro-method for the separation, characterisation and semi-quantitative determination of the non-volatile organic acids in a mixture of them, is described.

The method is characterised by its simplicity, elegance, rapidity and ease of manipulation and has been shown to be adaptable to micro quantities of test samples.

The applicability of this method for a determination of the organic acid make-up of beers fermented by fungi has been demonstrated. The employment of this method as a helpful routine for a taxonomic characterisation of fungi, for evaluating the comparative acid-producing efficiency of different types, strains and mutants of fungi, and for a study of the

optimum conditions favouring the production of a given acid, is suggested.

Further, the method offers possibilities in the detection of intermediates and new acids formed during fermentation of carbohydrates just as the papyrographic method helped in the detection of new amino acids.

Our grateful thanks are due to the Council of Scientific and Industrial Research for financing the scheme on National Collection of Type Cultures of which this work forms a part. Our sincere thanks are also due to the Director for his kind interest.

1. Govindarajan, V. S., and Sreenivasaya, M., Curr. Sci., 1950, 19, 39. 2. Lugg, J. W. H., and Overell, B. T., Nature, 1947, 160, 87. 3. —, Aust. J. Sci. Res., 1948, 1A, 98. 4. Added in proof: Use of buffered solvent and application to study of path of carbon in photosynthesis in given by Benson, A. A., et. al. J. Amer. Chem. Soc., 1950, 72, 1710.

## CENTRAL GLASS AND CERAMIC RESEARCH INSTITUTE

THE Central Glass and Ceramic Research Institute which was opened by the Hon'ble Dr. B. C. Roy, Chief Minister of West Bengal, during the last week of August at Calcutta, constitutes the fourth in the chain of National Laboratories and will satisfy a longfelt need. Even in 1918, the Indian Industrial Commission had recommended the setting up of such an Institute. During World War II, the need for the Institute was felt even more acutely. In 1942, the Government of India approved the establishment of the Institute and a Committee with Dr. S. S. Bhatnagar, Director, Scientific and Industrial Research, as Chairman, was appointed to prepare the plans. The proposals of the Committee were approved by the Governing Body of the Council of Scientific and Industrial Research in 1944 and a sum of Rs. 12 lakhs was sanctioned towards capital expenditure. The construction of the technological block commenced in 1945 and technical work has been going on there since 1948. But it was only in December 1945 that the late Shri. Ardeshir Dalal, the then Member of the Viceroy's Executive Council for Planning and Development, laid the foundation-stone of the main building. Actual construction was, however, undertaken only after additional funds were sanctioned in September 1948. The Institute will conduct fundamental research having a bearing on the different branches of glass and ceramics. Its other functions will be

testing and standardisation, technical assistance to the glass and ceramics industry, dissemination of information and training of technologists for special work. The scope of its work includes research and investigation in glass, pottery and porcelain, enamels and refractories.

Apart from fundamental research, an important function of the Institute will be to render technical help to the industry in the improvement of the quality of products and to induce the industry, by demonstrating the benefits of scientific processes, to utilize and adopt improved techniques in works operations. In the course of time, the Institute will encourage the factories to send their workers for short training courses so that they may apply the knowledge so gained in manufacturing operations. Research staff will also be sent to visit factories in order that they may acquire factory experience.

The Institute will work in collaboration with industry, universities, other research organisations and Government departments for the collection of data and the dissemination of technical information. For this purpose, the Institute will also maintain a library for the use of workers and will organise a museum where a wide collection of finished articles, samples of raw materials in various regions, processed raw materials and other items of interest to the industry, will be displayed.