to both; from another it belongs to neither. The detailed study of such 'passage beds' wherever they occur would be of the greatest value in contributing to complete our world picture of the geological history during the Cretaceous-Eocene transition period.

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BIOSYNTHESIS BY ALGAE

DURING the Rationalization Exhibition held in July-August 1953, at Dusseldrof, the 'Kohlenstoffbiologische Forschungstation' at Essen-Bredeney, exhibited a pilot plant using a culture of algæ for the biosynthesis of organic substances such as fats, proteins and carbohydrates.

The idea behind the scheme is to provide favourable conditions for biosynthesis by utilizing industrial waste gases (CO_2 and heat) and solar energy. Vertical glass columns of about 2 metres in length are arranged about a vertical axis. These are filled with a nutrient solution containing nitrogen, phosphorus, potassium and other minor elements. To these a suspension of algæ is added A mixture of air and CO_2 from waste gases, freed from harmful matter, in particular sulphur, is blown through the solution. The whole is exposed to sunlight while a neon tube situated in the middle of the system of vertical tubes supplies artificial light when required. The CO_2 added is about 2 per cent. by volume. The algæ propagates rapidly.

After a period of 1-2 days, one half of the liquid is drained off for centrifuging. The substance separated is then dried. It has a content of proteins or lipoids depending on the composition of the nutrient solution. High nitrogen content of the solution results in a dry substance containing 50-60 per cent. proteins. Low nitrogen content, on the other hand, results in a dry substance of about 15 per cent. lipoids. Sterile culture can be made with this glass column method only with the algæ species *Chlorella vulgaris*, of the variety "viridis". The fats, proteins and carbohydrates obtained by this method can be used for many purposes after hydrolytic processing such as an ingredient for animal food and as raw materials for the chemical, pharmaceutic and cosmetic industries.

SYMPOSIUM ON INDIGENOUS DRUGS AND INSECTICIDES

AT a Symposium on Indigenous Drugs and Insecticides held under the auspices of the National Institute of Sciences of India at Bombay in August 1953, forty-one papers were presented by about 60 authors working in 22 different laboratories of the country The material was divided into two groups, *viz*, (I) Indigenous Drugs, and (II) Insecticides. Under the first group, thirty-five papers dealing with (*a*) chemistry of plant products, (*b*) pharmacology and chemotherapy of plant products, (*c*) biochemistry of plant products, (*d*) therapeutics of plant and mineral products, (*e*) pharmaceutical botany and pharmacognosy of medicinal plants, and (*f*) general aspects, were included. There were six papers in the second group. A perusal of the abstracts of the papers reveals that a successful attempt has been made to cover the different aspects of this wide subject.

In our country where the native systems of medicine like Ayurveda, Siddha and Yunani, have successfully thrived side by side with the fast-advancing allopathic system, intensive pursuit of organized and systematic study of indigenous drugs is of paramount importance for the scientific development of the former systems of medicine It is happy that the National Institute of Sciences organized this Symposium, which should act as a stimulant for increased activities in this useful field. The full papers, when published, will be read with great interest.

B. H. IYER.