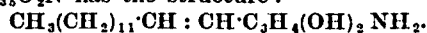


normal straight chain compounds. Sphingosine $C_{17}H_{35}O_2N$ has the structure:—



The actual part played by the lipins in the activity of the organism is still entirely unknown to us, but it will be of interest to allude to some of the hypotheses discussed by the author. It is, for instance, suggested that the lipins are the most labile of all the components of the colloidal systems which manifest the properties of living matter, and that they play an important rôle in the phenomena of metabolism. Apparently the degree of saturation of the fatty acids of the lipins can be influenced by the character of the diet, so that they play an important part in the history of fat metabolism. From the large proportion of lipin present in egg yolk it has been inferred that lecithin is a particularly suitable form of food for the developing animal. The beneficial effects of lecithin administered as food have been well established; it is said to produce an increase in body weight and generally to act as a stimulating agent to normal growth. It may be remarked that, contrary to the view prevailing up to 1911, the synthesis of the lipins can be effected in the organism even when only inorganic phosphates are supplied in the food. It was at one time thought that the vitamins or specific substances which are absolutely necessary for the production of growth in young animals were associated with lipins, but this has been disproved by the observation that the essential constituent for growth is still contained in purified butter fat, which was entirely free from lipins. Certain of the ductless glands contain a high proportion of lipins compared with tissues, such as muscle fibre.

As already indicated, the greatest confusion exists in this branch of chemistry, and Dr. Maclean finds it necessary to devote sections to protagon and a number of alleged lipins in which all the existing information is critically surveyed. The monograph will be indispensable to all future workers on the subject and should do much indeed to stimulate further investigation. Like the other monographs of the series, it contains a very full bibliography arranged in order of authors' names.

The author closes his preface with a graceful appreciation of the experimental work done by Thudichum over twenty years ago, and shows that recent advances are in many cases but corroborations of Thudichum's work, which met with much adverse criticism at the time. This criticism was resented vigorously by Thudichum, particularly in connexion with his conclusion that protagon had no claims to be considered as a chemical unit, but he has since proved to be entirely justified, and his original work has been largely overlooked by subsequent investigators on the Continent, who have re-published the same facts as new observations. This is the common experience of many English workers, and it is to be hoped that the good example set by Dr. Maclean in honouring the real pioneers will be more generally followed.

E. F. ARMSTRONG.

THE MANUFACTURE OF SULPHATE OF AMMONIA.
By G. T. CALVERT. *Second Edition.* Pp. 153.
(London: Benn Bros., Ltd.) Price: 7s. 6d. net.

This book, which does not claim to be "so much the work of a scientist as that of a practical works' man writing for his fellow workers," deals essentially with the practical aspect of the manufacture of sulphate of ammonia. The author sets out not only to give a general survey of the various processes involved, and the plants employed in this manufacture, but to deal in considerable detail with the difficulties most frequently encountered in the practical management of a sulphate of ammonia house. Excellent instructions are given

on the starting, working, and shutting down of the plant, and many useful hints are imparted, which only technical workers can fully appreciate.

The arrangement and treatment of the subject is well proportioned and systematic. The introductory chapters are devoted to the chemical control of the manufacture, simple methods of analysis of raw materials, finished products and spent liquor being described in some detail, whilst analytical data are furnished in the appendix. The subject of the supply and preheating of ammoniacal liquor receives some attention, but it is surprising to note that although the necessity of covering liquor storage tanks to prevent loss of ammonia is emphasised, no mention is made of provision for scrubbing the displaced air when the tank is filled—a practice which works' experience has shown to be very desirable.

A general survey is next given of the various types of stills in use, the apparatus required for securing an adequate supply of milk of lime to the stills, and the construction and practical working of ejector discharge and bottom discharge saturators. The descriptions of various types of apparatus together with their comparative advantages and disadvantages are well set out, and the numerous diagrams undoubtedly enhance their value; we fail, however, to notice any indication of the outputs to be expected from the several types of plant.

In the chapters dealing with the extraction and drying of the salt, the practice now adopted in many large works of separating mother liquor and salt in a hydro-extractor without the intermediate use of a draining table has escaped mention, and in the part dealing with the concentration of crude liquor, no consideration has been given to the removal of sulphuretted hydrogen, a recent development of no small interest to manufacturers of sulphate of ammonia. Apart from certain, but not unimportant, omissions of this kind, the book has distinct merits, and although it is intended primarily for the technical worker, it should also prove of interest and value to the student and to those who work in allied branches of chemistry.

H. HOLLINGS.

EDITORIAL NOTICES.

The Society as a body is not responsible for statements and opinions appearing in the Review.

Hon. Secretaries of Sections are earnestly requested to forward announcements of forthcoming meetings, and reports of past meetings, at the earliest possible opportunity.

The Editor would be pleased to consider original articles from Members of the Society and others, with a view to their insertion in the Review. They should be clearly written (preferably type-written) on one side of the paper only, and if a reply is wanted, a stamped and addressed envelope must be enclosed. The Editor would also be pleased to accept relevant news or notes, but the sources of information must always be stated. Contributions of either kind will be paid for, but in the event of duplication only the earliest received and published will be recognised.

To secure prompt attention, all communications concerning the contents of the Review, and the Calendar of Forthcoming Events, should be sent direct to: *The Review Editor, Society of Chemical Industry, Central House, Finsbury Square, E.C.2.* [Telephone: London Wall, No. 7331. Telegraphic Address: Induchem, Finsquare, London.]