

twenty of the more important proteids. Here the methods of purification referred to above have done admirable service, and their application has thrown much light on the products of the reactions in question. In this part of the work the 'esterification method' has proved to be of the greatest value. The mixture of crude amino acids is treated with alcohol and dry hydrogen chloride, and the product fractionated under highly reduced pressure (0.5 mm.).

Experiments on the peptones and albumoses have been made, but the results are not very definite; there is scarcely room for doubt that the substances obtained by the ordinary processes, such as precipitation from saline solutions, are not pure, individual compounds, but are mixtures, and new methods will be required for their satisfactory treatment. The peptones are probably complex mixtures of polypeptides.

Of the structure of these compounds little can be said with certainty at present, and practically nothing of that of albumin, for the fruitful investigation of which entirely novel methods will have to be discovered.

The number of new compounds which Fischer has obtained is already very large, and the thorough application of his methods will enormously increase it and will require the work of numerous chemists for many years. Of course this only represents a fraction of the actual quantity of work necessary, because new methods of synthesis and new combinations will undoubtedly be discovered. The question, therefore, arises, will the probable benefit be worth such a large outlay of time and money? There can be no hesitation in answering this in the affirmative. Only by the painstaking, careful investigation of all possible permutations and combinations of the polypeptides and their cogeners, can a firm foundation be laid for a real knowledge of the proteids and related compounds such as enzymes, toxins, etc., the importance of which to the biologist it is difficult to overestimate. The point may be put in another way: Suppose a true proteid were to be synthesized immediately, in some such simple—

and brutal—way as the heating of an amino acid in presence of a dehydrating agent, what would be gained? The answer is, practically nothing for biology and hardly anything more for chemistry.

All interested in science will join in the hope that Professor Fischer's restoration to health may be sufficiently permanent to enable him to continue, for many years, his wonderful and valuable investigations.

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JOHNS HOPKINS UNIVERSITY.

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*THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS AND THE METRIC SYSTEM.*

THE following preamble and resolutions concerning the 'metric system' were favorably reported to the board of directors of the institute by the standardization committee at the directors' meeting of March 23, 1906:

WHEREAS, The Metric System of Weights and Measures offers very great advantages by its simplicity, consistency, and convenience in every-day use, as well as in engineering and scientific calculations and computations; and

WHEREAS, These advantages have already been demonstrated by the universal adoption and entirely successful use of the metric system in all civilized countries, except Great Britain and the United States; and

WHEREAS, All the electrical units in universal use, such as the volt, ampere, ohm, watt, etc., are metric units; and

WHEREAS, The industrial use of these electrical units would be much facilitated by the general adoption of the metric system.

*Resolved*, That this committee unanimously recommends the introduction of the metric system into general use in the United States at as early a date as possible without undue hardship to the industrial interests involved.

*Resolved*, That this committee favors such legislation by Congress as shall secure the adoption of the metric system by each department of the national government as speedily as may be consistent with the public welfare.

The board subsequently submitted the matter to the membership for a letter ballot. Of the 3,300 associates and members residing in the United States, replies were received from 1,747 up to May 5. Of these 1,569 voted in favor of the resolutions and 178 against them.