

studied. ATP promotes glycerol- $^{14}\text{C}$  incorporation into all lipids and this incorporation is preferentially directed into phosphatidyl ethanolamine and lecithin when  $\text{Mg}^{2+}$  is added. The effect of CTP, in the presence of ATP and  $\text{Mg}^{2+}$ , is concentration dependent; 0.001 M CTP does not affect phosphatidyl ethanolamine and lecithin labeling but stimulates incorporation into diglycerides and triglycerides, whereas 0.01 M CTP suppresses phosphatidyl ethanolamine and lecithin labeling and promotes incorporation into diglycerides and triglycerides. The effects of 0.01 M CTP are  $\text{Mg}^{2+}$ -dependent. CMP has effects similar to those of CTP. Phosphoryl choline and cytidine diphosphate choline inhibit the labeling of phosphatidyl ethanolamine and lecithin in the rat-liver system studied.

RETROCONVERSION OF POLYUNSATURATED FATTY ACIDS IN VIVO BY PARTIAL DEGRADATION AND HYDROGENATION. H. Schlenk, Joanne L. Gellerman and D. M. Sand (Hormel Inst., Austin, Minn.). *Biochim. Biophys. Acta* 137, 420-6 (1967). 4,7,10,13,16-Docosapentaenoate, randomly labelled with  $^{14}\text{C}$ , was given to fat deficient rats. After 10 hours about 13% of the radioactivity of all liver fatty acids was located in 5,8,11,14-eicosatetraenoic (arachidonic) acid. Degradation of the arachidonic acid by decarboxylation and by ozonization showed that random labelling has been maintained in the course of the conversion. Therefore, the retroconversion of the pentaenoic into the tetraenoic acid must imply, besides degradation by not more than two carbon atoms, the biohydrogenation of the double bond closest to the carboxyl group.

THE EFFECT OF TUBE FEEDING OF GLUCOSE CORN OIL ON ADIPOSE TISSUE LIPOPROTEIN LIPASE ACTIVITY AND UPTAKE OF  $^{14}\text{C}$ -LABELED PALMITIC ACID OF CHYLE TRIGLYCERIDES IN VITRO. N. Pokrajac and W. J. Lossow (Dept. of Physiol. Univ. of Calif. Berkeley, Calif.). *Biochim. Biophys. Acta* 137, 291-5 (1967). The feeding of pure glucose or fat loads to fasted rats increased both the amount of lipoprotein lipase released from adipose tissue by heparin and the uptake *in vitro* of the  $^{14}\text{C}$  of triglycerides of very low-density chyle lipoproteins by that tissue. In both instances feeding glucose had a greater effect than feeding fat. Feeding a combination of glucose and fat had an effect similar to feeding glucose alone.

SITE SPECIFICITY OF BOVINE ADRENAL  $3\beta$ -HYDROXYSTEROID DEHYDROGENASE AND  $\Delta^3$ -KETOSTEROID ISOMERASE. Sarah G. Cheatum, A. W. Douville and J. C. Warren (Univ. of Kansas School of Med., Kansas City, Kan.). *Biochim. Biophys. Acta* 137, 172-8 (1967). The  $3\beta$ -hydroxysteroid dehydrogenase and  $\Delta^3$ -ketosteroid isomerase activities from the microsomal fraction of bovine adrenal cortex have been studied with emphasis on the site specificity for dehydrogenation and isomerization of the natural  $\text{C}_{19}$  and  $\text{C}_{21}$  steroid substrates. The data indicate a distinct isomerase site each of which is capable of utilizing both  $\text{C}_{19}$  and  $\text{C}_{21}$  substrates as shown by the following parameters: activity ratios during purification, pH curves, inactivation rates, and the kinetics of equimolar mixtures. These observations are similar to results with the same activities from bovine corpora lutea.

INHIBITION OF HEPATIC STEROL OXIDATION BY CHOLANIC (BILE) ACIDS AND THEIR CONJUGATES. P. D. G. Dean and M. W. Whitehouse (Dept. of Biochem., Univ. of Oxford, Oxford, Gr. Brit.). *Biochim. Biophys. Acta* 137, 328-334 (1967). Evidence is presented that conjugated bile acids (50-200  $\mu\text{M}$ ) inhibit each of the following steps in sterol oxidation *in vitro* by rat- and mouse-liver preparations: (i) Transformation of cholesterol to trihydroxycoprostanol. Oxidation of 26-hydroxycholesterol to the corresponding  $\text{C}_{28}$ -carboxylic acid. Catabolism of  $3\beta$ -hydroxycholest-5-en-26-oic acid to  $3\beta$ -hydroxychol-5-en-24-oic acid and propionate. These bile salts did not inhibit the oxidation of propionate of an aliphatic analogue of a sterol  $\text{C}_{28}$ -carboxylic acid, namely 2-methyloctanoate, when added in concentrations smaller or equal to concentrations which inhibit mitochondrial ATP biosynthesis. The results are discussed in relationship to current theories of negative feedback control of hepatic cholesterol oxidation by bile salts in the enterohepatic circulation. It is suggested that bile salts may exert control at multiple sites, rather than at a unique site, in the overall sequence of sterol oxidation and bile acid formation.

COMPARATIVE STUDIES ON THE TURNOVER AND FATE OF PLASMA CHOLESTEROL IN THE CHICKEN. Michihiro Sugano and Masafuto Wada (Lab. Nutr. Chem., Dept. of Food Sci. and Techn., Kyushu Univ. School Agr., Fukuoka, Japan). *Biochim. Biophys. Acta* 137, 315-327 (1967). Differences in the rates of turnover and excretion of plasma cholesterol between male and

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## Call for Papers for Microwave Symposium

The 1968 Symposium on Microwave Power, sponsored by the International Microwave Power Institute, will be held at the Statler Hilton Hotel in Boston, Mass., March 21-23, 1968.

The Symposium will be concerned with the application of microwave power to processes within the food, agricultural forest product, textile, chemical, and other industries and to advanced concepts in scientific apparatus and power transmission systems.

Papers are being solicited. To be considered, abstracts should be submitted not later than January 1, 1968. Abstracts should be approximately 250 words in length and should be mailed to: 1968 Symposium on Microwave Power, Box 342, Weston, Massachusetts 02193.

## Canadians Plan First Sessions on Biological Engineering

The first Canadian technical sessions dealing with biochemical engineering will be presented during the 17th Canadian Chemical Engineering Conference in Niagara Falls, Ontario, Oct. 16-18, 1967.

This new frontier on chemical engineering is particularly important to the beverage, food, and metallurgical industries. Progress in the field will be explored in 11 papers at the Conference.

An invited lecture, "Engineering Problems Associated with the Fermentation of Hydrocarbons" will be given by A. E. Humphrey, University of Pennsylvania.

The current and future needs of Canadian industry for biochemical engineers will be estimated by M. Moo Young, University of Waterloo, Waterloo, Ont., who arranged the Biochemical Engineering sessions.

In addition to these sessions on Biochemical Engineering, the Conference will include a total of 116 other papers covering the entire range in chemical engineering.

Program details can be obtained from The Canadian Society for Chemical Engineering, 151 Slater Street, Ottawa 4, Ontario, Canada.

## Found—One Author!

The writer of "The Chromatographer's Lament," published in the July JAOCS, has been found, and all of those who, grimly or good-naturedly, identified with him in his sentiments, now know whom to thank for putting their own reflections into verse.

The author's letter follows:

Dear Sir:

I was both surprised and pleased to find my poem "The Chromatographer's Lament" in the July issue of your journal. However, since it is signed as "Author Unknown," I felt prompted to write you something as to its origin.

These verses were first written in May, 1966, while I was still employed by Shell Development Co., Houston, Texas. At that time, I was working on a "Special Analytical Problems" project under Dr. R. D. Schwartz, now with United Gas Corp., Shreveport, La., with whom I spent many pleasant hours probing the intricacies of capillary column GC.

I am currently a staff member of the Chemistry Department, University of Houston, where I am still engaged in GC research under Prof. Albert Zlatkis.

Thank you again for printing my verse and for your kind words.

RODERIC G. MATHEWS  
Research Assistant