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(Groupe de Lab. du C.N.R.S., 2 à 8, Rue Henry Dunant, 94, Thiais, France). *Chem. Phys. Lipids* 3, 11–28 (1969). The cryothermograms of the six pure triglycerides derived from palmitic and stearic acids have been determined by DTA. As well as revealing itself to be an excellent method of distinguishing between the positional isomers of the mixed triglycerides, DTA also showed that cooling triglycerides at a rate of 1.2C/min yielded an α_L form (except PSP), which on subsequent heating gave the β_L form with the symmetrical triglycerides, and the β'_L form with the non-symmetrical triglycerides. In the process of cooling melted triglycerides, various forms may appear depending on the rate of cooling. The symmetrical triglycerides, with the exception of SSS, give stable forms more easily than the non-symmetrical triglycerides. Further, a sub-β'_L form can be detected in the case of PSP, PSS and SPP.

LIPIDS OF STREPTOMYCES SIOYAENSIS. V: ON THE 2-HYDROXY-13-METHYL-TETRADECANOIC ACID FROM PHOSPHATIDYLETHANOLAMINE. J. Kawanami, A. Kimura, Y. Nakagawa and H. Otsuka (Shionogi Res. Lab., Shionogi and Co., Ltd., Fukushima-ku, Osaka, Japan). *Chem. Phys. Lipids* 3, 29–38 (1969). Phosphatidylethanolamine from *St. sioyaensis* afforded a double spot on a thin-layer chromatogram, typical of most glycosphingolipids from animal tissue. They were phosphatidylethanolamines one of which had only non-hydroxylated fatty acids and the other hydroxy fatty acids in addition to non-hydroxylated fatty acids, respeectively. The distribution of the fatty acids was studied by hydrolysis with snake venom phospholipase A. Hydroxy fatty acids were located in the β-position of the glycerol moiety, differing from the results for *Brucella abortus* phospholipids in which location in the α-position has beeen reported. The main hydroxy fatty acid was purified by preparative gas-liquid chromatography. The structure of the hydroxy fatty acid was analyzed by oxidation with lead tetraacetate, proton magnetic resonance and mass spectrometry, etc. From these results, it was shown that the main acid was 2-hydroxy-13-methyltetradecanoic acid.

FATTY ACIDS. PART 19. CONVERSION OF ALKENOIC ACIDS TO ALKYNOIC ACIDS BY BROMINATION-DEHYDROBROMINATION. F. D. Gunstone and G. M. Hornby (Dept. Chem., Univ. St. Andrews, North Haugh, St. Andrews, Scotland). *Chem. Phys. Lipids* 3, 91–7 (1969). Alkynoic acids (including octadec-10-ynoic, hendec-10-ynoic, and 12-hydroxy-octadec-9-ynoic) can be prepared from the cis alkenoic acids by bromination followed by dehydrobromination with sodium in liquid ammonia or with DBU (1,5-diazabicyclo(5.4.0)undec-5-ene). With other bases extensive migration of the unsaturated centre was observed and no satisfactory procedure for converting trans alkenoic acids to alkynoic acids without migration was discovered. Both types of alkenoic acids could be converted to enebromides, sometimes in high yield, with DBU and DBN (1,5-diazabicyclo(4.3.0)non-5-ene).

PHOSPHOLIPIDS OF MARINE INVERTEBRATES. V. E. Vaskovsky and E. Y. Kostetsky (Inst. Biol. Active Substances, Siberian Dept. of the Acad. of Sci. of the URRS, Vladivostok 22, USSR). *Chem. Phys. Lipids* 3, 102–5 (1969). The quantitative and qualitative phospholipid composition is reported for all the main phyla of the marine animals. No simple correlation was found between the phospholipid composition and taxonomic system of marine animals. Unusual phospholipids were shown in a great number of invertebrates.

CHARACTERIZATION OF THE STRUCTURE OF A 4-METHYL-$\Delta^{8,24}$-CHOLESTADIEN-3β-OL ISOLATED FROM RAT SKIN. A. Sanghvi (Dept. of Biochem., College of Med. Sci., Univ. of Minnesota, Minneapolis, Minn. 55455). *J. Lipid Res.* 11, 124–30 (1970). A new sterol has been isolated from the skin of rats treated with triparanol. Its chromatographic behavior on silicic acid-Celite columns and in gas-liquid chromatographic systems indicated it to be a 4-methyl-$\Delta^{8,24}$-cholestadien-3β-ol. The specific rotation, the delayed color reaction with Liebermann-Burchard reagent and the nuclear magnetic resonance (NMR) data support the $\Delta^{8(9)}$-unsaturation. Previous workers have shown that triparanol treatment results in an accumulation of Δ^{24}-unsaturated sterols in animal tissues. Consonant with this observation, the infrared, NMR and mass spectrometric data confirm the presence of a C-24(25) unsaturated side chain in this sterol.

GEL PERMEATION CHROMATOGRAPHY OF NEUTRAL HYDROXY LIPIDS ON SEPHADEX LH-20. M. Calderon and W. J. Baumann (Univ. of Minn., The Hormel Inst., Austin, Minn. 55912). *J. Lipid Res.* 11, 167–69 (1970). Gel-permeation chromatography on Sephadex LH-20, using ethanol as eluent, permits the resolution of neutral hydroxy lipids according to molecular size. The influence of molecular shape, functional groups, chain lengths and degree of unsaturation, as well as the effect of the eluent on the elution pattern are discussed. The usefulness of the method for the separation of classes of hydroxy lipids, which cannot be resolved by other chromatographic procedures, is demonstrated. Examples include the separations of 1,2- and 1,3-diglycerides from long-chain alcohols and of alkyl ethanediol monoethers from cholesterol.

FLUORIMETRIC DETERMINATION OF SPHINGOSINE AND ITS APPLICATION TO NATURAL MIXTURES OF GLYCOSPHINGOLIPIDS. L. Coles and G. M. Gray (The Lister Inst. of Preventive Med., Chelsea Bridge Road, London, S. W. 1, Eng.). *J. Lipid Res.* 11, 164–66 (1970). A sensitive estimation of sphingosine, by measurement of the fluorescence of a complex formed with 1-naphthylamino-4-sulfonic acid, is described. The practical range is 5–35 nmoles sphingosine. The method is used to estimate, in terms of sphingosine, amounts of ceramide and glycosphingolipids. The isolation of microamounts (5–30 μg) of individual glycosphingolipids from a mixture and their quantitative estimation is described. The percentage composition of a glycosphingolipid mixture from the kidneys of adult C57/BL male mice is given.

GAS-LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY OF SYNTHETIC CERAMIDES CONTAINING 2-HYDROXY ACIDS. S. Hammartrom, B. Samuelsson and Karin Sammuelsson (Dept. Med. Chem., Royal Vet. College, Dept. Neurol., Karolinska sjukhuset, Stockholm, Sweden). *J. Lipid Res.*, 11, 150–57 (1970). Ceramides containing either sphingosine or sphinganine and one of the 2-hydroxy acids, 14h:0, 16h:0, 18h:0, 20h:0, 22h:0, 24h:0, and 26h:0 were prepared and separated by gas chromatography as the 1,3,2'-tri-O-tri-methylsilyl derivatives. Mass spectrometric analyses of these derivatives showed that the

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