h = peak height
a = attenuation factor
M = molecular weight of the corresponding unacetylated component

Using this formula, the calculated composition of the glyceride mixture is compared in Table I with that found in several GLPC determinations at several temperatures. It may be seen that the results are in reasonably good agreement with each other.

It is hoped that these preliminary experiments will serve to increase interest in the quantitative estimation of mono- and diglycerides by gas chromatography.

V. R. HUEBNER
Armour and Company
Chicago, Ill.

REFERENCE

1. McInnes, A. G., Tattrie, N. H., and Kates, M., "The Application of Gas-Liquid Partition Chromatography to the Microestimation of Monoglycerides," presented at the 32nd Fall Meeting, American Oil Chemists' Society, Chicago, Ill. October 20–22, 1958.

[Received March 2, 1959]

Report of the Examination Board, 1958-1959

DURING the year ended May 31, 1959, among their various active members, 40 commercial laboratories were granted referee certificates from the A.O.C.S. Examination Board, as follows:

7—Cottonseed, Oil Cake and Meal, Fatty Oils, and Tallow and Grease
14—Cottonseed, Oil Cake and Meal, and Fatty Oils
7—Cottonseed, Oil Cake and Meal
2—Oil Cake and Meal, Fatty Oils, and Tallow and Grease
1—Oil Cake, Meal and Fatty Oils
6—Oil Cake and Meal
2—Fatty Oils
1—Tallow and Grease

All laboratories certified for Oil Cake and Meal were automatically certified for Protein Concentrates.

During the certificate year C. E. Worthington of Barrow-Agee's Decatur, Ala., laboratory was transferred to Memphis, Tenn., O. M. Bakke of Houston Laboratories, Houston, Tex., and R. M. Dillard, Texas Testing Laboratories, Dallas, Tex., have retired from active chemical participation.

The chairman extends his thanks to all members of the Examination Board and to R. W. Bates and his efficient Smalley Committee for their excellent cooperation.

R. T. DOUGHTIE R. R. KING
E. R. HAHN R. C. STILLMAN
N. W. ZIELS, chairman

ABSTRACTS . . . . R. A. REINERS, Editor

ABSTRACTORS: Lenore Petschaft Africk, R. R. Allen, S. S. Chang, Sini'tiro Kawamura, F. A. Kummerow, and Dorothy M. Rathmann

• Fats and Oils

A SIMPLIFIED PROCEDURE FOR SYNTHESIS OF OLEIC-1-C^{14} ACID. Susanne von Schuching and E. Stutzman (Radioisotope Ser. and General Med. Research, Veterans' Administration Center, Martinsburg, W. Va. and Dept. of Biochem., The George Washington Univ. School of Med., Washington 5, D.C.). *J. Org. Chem.* 24, 345–6 (1959). Bergström's method for the introduction of a C^{14}-atom in the carboxyl position by means of the nitrile synthesis was modified for small scale experiments.

SYNTHESIS OF SOME OCTENOIC ACIDS. J. A. Knight and J. H. Diamond (The School of Chem. and the Engineering Expt. Sta., Georgia Inst. of Technology). *J. Org. Chem.* 24, 400–3 (1959). *Cis*-2-, -3-, -4-, and -6-octenoic acids were prepared by the catalytic semihydrogenation of the octynoic acids. *Trans*-3-, -4-, and -6-octenoic acids were obtained either directly or indirectly starting with a *trans* alkenoic acid obtained by a Knoevengal condensation. Physical properties, including infrared spectra, were determined for all of the acids and most of the intermediates. The infrared spectra of the *trans* compounds showed strong absorption in the region of 10.2–10.35 microns. None of the *cis* compounds showed absorption in this region.

ISOLATION FROM BUTTERFAT OF 14-METHYL PENTADECANOIC (ISOPALMITIC) ACID. R. P. Hansen, F. B. Shorland, and N. J. Cooke (Fats Research Lab., Dept. of Scientific & Ind. Research, Wellington, New Zealand). *Chemistry and Industry* **1959**, 124. C_{16} iso acid 14-methyl pentadecanoic acid was isolated from unhydrogenated butter fat and identified.

EVIDENCE FOR A NEW OXYGENATED FATTY ACID IN THE SEED OIL OF CHRYSANTHEMUM CORONARIUM. C. R. Smith, Jr., K. F. Koch, and I. A. Wolff (Northern Regional Research Lab., Peoria, Ill.). *Chemistry and Industry* **1959**, 259–60. A new epoxy fatty acid occurring in the seed oil of *Chrysanthemum coronarium* (family compositae) was named coronaric acid and its chemical structure proved to be *cis*-9:10-epoxy-*cis*-octadec-12-enoic acid.

INFLUENCE OF THE EXTRACTION OF LIPIDS FROM FLOUR ON GLUTEN DEVELOPMENT AND BREAKDOWN. A. H. Bloksma (Inst. for Cereals, Flour, and Bread T.N.O., Wageningen, The Netherlands). *Chemistry and Industry* **1959**, 253–4. The flour lipids play a role in the gluten development and breakdown. That the original dough properties are not restored completely upon reconstitution may be explained by either of the following three assumptions, namely (i) the contact with the solvent changes other flour constituents, e.g. the protein fraction; (ii) the flour lipids partly lose their essential properties during isolation, or (iii) upon reconstitution they do not reach the areas where they can exert their beneficial influence or reach these areas only after a long mixing time. Experiments also indicated that the mixing tolerance of a flour depends heavily upon the state of the flour lipids.

UNSATURATED FATTY ACIDS OF BUTTERFAT. W. E. Scott, S. F. Herb, P. Magidman, and R. W. Riemenschneider (Eastern Utilization Research and Development Div., Agr. Research Ser., U.S.D.A., Philadelphia 18, Pa.). *J. Agri. Food Chem.* 7, 125–9 (1959). The presence of C_{16} to C_{18} monoethenoid acids in butterfat was confirmed; the C_{12} and C_{14} acids were predominantly the *cis*-form, while the C_{16} and C_{18} acids had both *cis* and *trans* double bonds. The nonconjugated dienoic acids were found to be a mixture of *cis-cis* and either *cis-trans* or *trans-trans* isomers. Conjugated dienoic acids were identified as