age of total saturated acids (86.4 per cent) was calculated from the iodine number by virtue of the fact that the unsaturated acids are known to be almost entirely oleic.

The dicarboxylic acid content (5.3 per cent) was found by the method of Tsujimoto (1) which is based, essentially, upon the petroleum-ether insolubility of these acids.

Identification of Myristic Acid. In view of the unsatisfactory nature of the identification of myristic acid (see foregoing section), said not to exist in Japan wax glycerides by Tsujimoto (6), further studies were made of the low-boiling constituents of the 1600 g. of esters resulting from the original alcoholysis. On fractionally distilling them at 0.25 mm. through a modified Widmer column, the following results (Table 2) were obtained:

TABLE 2

Identification of Myristic Acid

Fraction	Boiling range °C.	Weight g.	Properties of acids	
			Mol. wt.	Sol. pt. °C.
A	111-124	19.1	235.6	44.9
B	124-135	25.1	253.0	58.9

Fraction A was found to consist of myristic acid 72.8 per cent and palmitic acid 27.2 per cent; fraction B of myristic 11.4 per cent and palmitic 88.6 per cent. Methods analogous to those used in the identification of arachidic and behenic acids above were used. The presence of myristic acid is, therefore, assured.

Summary

Myristic and behenic acids, hitherto not reported therein, have been shown to be components of the glycerides of Japan "wax" in contrast to the nonexistence of an alleged heneicosanoic acid. Ester-fractionation analysis revealed the following composition: myristic acid 1.9 per cent, palmitic acid 67.5 per cent, stearic acid 11.6 per cent, arachidic acid 0.04 per cent, behenic acid 0.01 per cent, unsaturated acids 13.6 per cent, and dicarboxylic acids 5.3 per cent. A preliminary investigation of the latter resulted in the isolation of an acid which by virtue of its melting point and molecular weight has been tentatively characterized as heneicosane dicarboxylic acid (C_{23}). However, final proof of identity must rest upon subsequent synthesis of this acid.

LITERATURE CITED

(1) Tsujimoto, M. Bull. Chem. Soc. Japan *6*, 325 (1931).
(2) Eberhardt, L. E. Inaug. Dissert. Strasburg (1888).
(3) Ruzicka, L., Stoll, M., and Schinz, H. Helv. Chim. Acta *11*, 681 (1928).
(4) Flaschenträger, B., and Halle, F. Z. physiol. Chem. *190*, 120 (1930).
(5) Siina, S. J. Soc. Chem. Ind. Japan *43*, Supp. Binding, 173 (1940).
(6) Tsujimoto, M. Bull. Chem. Soc. Japan *10*, 212 (1935).
(7) Chibnall, A. C., and Piper, S. H. Biochem. J. *28*, 2215 (1934).
(8) Schuette, H. A., and Vogel, H. A. Oil and Soap *18*, 246 (1941).
(9) *Ibid.*, *17*, 155 (1940).
(10) Grün, A., and Janko, J. Z. deut. öl-Fett-Ind. *41*, 572 (1921); C. A. *16*, 845 (1922).

Report of the Soap Analysis Committee — 1942

The report of the Soap Analysis Committee for the current year must necessarily be brief and represents only a report of progress on unfinished subjects which have been studied previously by the Committee. Due to the fact that most of the members have been exceedingly busy under present existing conditions, it has been practically impossible to carry on any appreciable amount of cooperative studies. Such work as has been done has not yet been completed and, consequently, we are not in position to make an official report or recommendations.

Last year (1941) the Committee conducted some extensive studies in the determination of caustic potash and potassium carbonate in paste type soaps. The complete data of these studies were contained in our 1941 report and at the Committee meeting in October, 1941, some further studies were outlined to be undertaken by a sub-committee on the same problem. These studies are now under way but unfortunately no results are available at this time. It is hoped that these studies can be continued by the sub-committee and that a further report will be available at our next meeting.

One other item should be carried forward as a matter of record. The volumetric method for determination of tetra sodium pyrophosphate in soap was recommended for tentative adoption by the Committee at the 1941 Fall meeting. It is now recommended that this method be considered for official adoption at this time.

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