CO-OPERATING LABORATORIES

Sample No.	Kind of fat.	Armour & Co. (Mr. Vollertsen).	Canada Packers, Ltd. (Mr. McLeod).	Inst. of Am. Meat Packers. (Mr. Vibrans).	Lever Bros. Co. (Mr. Flynn).	Procter & Gamble Co. (Mr. Eckey).	Purdue University (Mr. Shrewsbury).	The Wm. Schluderberg-T. J. Kurdle Co. (Mr. Seidel).	Swift & Co. (Mr. Irwin).	Wilson & Co. (Mr. Robinson).
		Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.
1....	Lard	16	15	19	16	18	15	12	18	18
2....	Comp.	9	9	9	9	9	8	11	11	10
3....	Hyd. CSO	33	30**	57	31	49	*	36	58	44**
4....	CSO	12	11	10	9	10	*	12	10	11

*Couldn't get consistent results.
**Test was discontinued and never repeated.

laboratories whose data were out of line last year agree much more satisfactorily on the co-operative samples sent out this year. Of the three additional laboratories to which samples were sent, one of them submitted data which are in agreement with the data from the other co-operating laboratories. The other two laboratories reported that they were unable to get good checks on duplicate tests and the data they submitted to the committee and which are attached to this report clearly indicate this.

Again the explanation for the lack of agreement of the data furnished by these two laboratories appears to lie in the fact that in both instances the laboratories had not had the apparatus very long and the kinks were not all ironed out of them, or in other words some undiscovered factor was responsible for the low results reported.

In conclusion, the majority of this committee are of the opinion that there are sufficient data available in the literature, on co-operative samples sent out by this committee and in the hands of our members to demonstrate successfully that in the hands of an experienced operator the active oxygen or peroxide method for judging the relative stabiliity of fats and oils, which do not contain volatile antioxidants, is not only the best routine accelerated test available but it is also reliable and worthy of the support of this society and the edible fat and oil industry. The majority of this committee further agree that, although this test is not perfect, the fat and oil industry will be helped more than hindered if the terminology dealing with keeping quality can be clarified and made more consistent.

We, therefore, recommend that the active oxygen or peroxide test for judging the relative stability of edible fats and oils be made a tentative method of the society and that the committee be continued to work on the test.

A summary of the data on the co-operative samples is attached.

Respectfully submitted,

E. W. Eckey
J. W. Flynn
J. B. Geiger
A. H. Gill
W. H. Irwin
W. G. McLeod
A. A. Robinson
J. J. Vollertsen
T. L. Wheeler
F. C. Vibrans
(Chairman)

APPLICATION

Application for Referee Certificate (First Notice). Mr. G. H. Kyser, director of the Barrow-Agee Laboratory at Cairo, Ill., has applied for an A.O.C.S. referee certificate reading on cottonseed, cake and meal.

AMERICAN CHEMICAL SOCIETY

San Francisco, Calif., Meeting Program—August 19 to 23, 1935

DIVISION OF AGRICULTURAL AND FOOD CHEMISTRY

D. K. Tressler, Chairman; H. R. Kraybill, Secretary; W. V. Cruess, Local Assistant
Italian Room, St. Francis

Tuesday Morning and Afternoon

9:00—Joint Symposium on Elements Required in Small Amounts in Animal Nutrition with Divisions of Biological Chemistry and Medicinal Chemistry (see next column).

2:00—Joint Symposium on Vitamins with the Divisions of Biological Chemistry and Medicinal Chemistry (see next column).

Wednesday Morning

Symposium on the Chemistry and Technology of Wine.

Joint Symposium with the Division of Industrial and Engineering Chemistry.

9:00—1. E. M. Brown and V. deF. Henriques. Vinification as Practiced in California Wineries.

9:25—2. F. M. Champlin, H. E. Goresline, and D. K. Tressler. The Manufacture of Champagne and Sparkling Burgundy.

9:50—3. Charles S. Ash. Metals in Wineries.

10:15—Discussion.

10:25—4. C. H. McCharles and G. A. Pitman. Recent Observations on Methods of Wine Analysis.

10:40—5. L. G. Saywell. Effect of Flter Aids and Filter Material on Wine Composition.

10:55—6. G. L. Marsh and M. A. Joslyn. Effect of Temperature on Rate of Precipitation of Cream of Tartar from Wine.

11:10—7. Harry E. Goresline, Carl S. Pederson, and E. A. Beavens. Studies on the Pasteurization of New York State Wines.

11:25—8. Mark M. Morris. The Nature of the Volatile Acids of Wine.

11:40—Discussion.

12:15—Divisional Luncheon.

Wednesday Afternoon

General Papers

2:00—9. S. Palkin. Some Improvements in Frac-

tionating Assembly Units Other than the Column Including a Precision Oil Gage. (Lantern.)

2:20—10. G. E. Halliday and H. R. Kraybill. The Preparation of Crude Phosphatids from Soy-Bean Oil.

2:35—11. G. L. Baker and R. F. Kneeland. Preliminary Study of Cranberry Jelly.

2:45—12. LeRoy S. Weatherby and Lowell R. Dailey. Studies on Dehydrated Vegetables. I. Natural Alkalinity through Buffer Action.

3:00—13. H. C. Diehl, Horace Campbell, and J. A. Berry. Some Observations on the Freezing Preservation of Peas.

3:10—14. R. O. Bengis. On the Oxidation of the Fat Fraction of Roasted Coffee.

3:35—15. C. L. Shrewsbury, H. R. Kraybill, and R. B. Withrow. The Determination of Carotene by the Photo-electric Colorimeter and Spectrophotometer.

3:50—16. P. W. Alston and E. T. Winslow. Filtration of Fruit Juices in the Cannery.

Thursday Morning and Afternoon

9:00—17. Wayne E. White. A Field Method for the Estimation of Lead as Spray Residue.

9:20—18. W. M. Hoskins and C. A. Ferris. A Method of Analysis for Fluoride and Its Application to the Determination of Spray Residue on Food Products.

9:35—19. A C. Sessions. Preparation of a Fungicide and Its Adjustment to Meet the Requirement of the Disease and the Host.

9:55—20. Joseph M. Ginsburg and John B. Schmitt. Wetting, Spreading, and Emulsifying Properties of Sulfated Diphenyl Compounds.

—21. H. L. Cupples. Wetting and Spreading Properties of Aqueous Solutions. II. Oleic Acid-Sodium Carbonate Mixtures. (By Title.)

10:10—22. R. H. Robinson. Supplementary Solvents for the Removal of Spray Residues on Apples.

10:25—23. Russell N. Loomis and Emil Bogen. Poisoning Poisonous Spiders. An Experimental Investigation of Insecticides against the Black Widow Spider (Latrodectus Macians).

10:40—24. W. T. McGeorge. Effect of Hydroxyl Ions on the Chemical Composition of the Ash of Plants.

11:00—25. T. F. Buehrer. Hydrolytic Equilibria Involved in Alkaline Calcareous Soils.

11:20—Annual Business Meeting.

12:20—Trip to Wineries.

ABSTRACTS

Oils and Fats

Edited by
W. F. BOLLENS and M. M. PISKUR

Absorption of ultraviolet light by certain vegetable oils as a function of their commercial treatment. J. Guillot. *Ann. fals.* 28, 69-75 (1935); cf. Chevallier, G. and Chabre, *C. A.* 27, 617, 3503.—By use of Chevalier and Dubouloz' spectrophotometric method (*C. A.* 26, 5841) on 1% solns. of olive oil in C_6H_{14}, it was found that virgin or "extra" olive oils have an absorption coeff. (log I/I^o, in which I and I_0 are the intensities for the soln. and solvent, resp.) at 2700 A. of less than 0.200; higher values indicate either a refined oil or a mixt. of refined and virgin oils.

Action of kieselguhr on oils at high temperatures. M. P. Belopol'skiĭ and O. B. Maksimov. *Bull. Far Eastern Branch Acad. Sci. U. S. S. R.* No. 9, 117-23 (in English 124) (1934).—The polymerizing action of kieselguhr on oils was studied with the oil of Japanese sardine (ivasa freed from the solid fraction by filtration at 15° and then treated with NaOH and bleached with tonzil (a clay). The oil was heated, with stirring, in a current of CO_2 at 250° for 5 hrs. with and without the addn. of 10% of com. and 2 kinds of Kahlbaum kieselguhr activated at 450°. To study the effect of sol. oxides in kieselguhr, these were removed with H_2SO_4, while the influence of absorbed air and moisture was investigated by heating at 3-mm. pressure in a current of CO_2 as above. Conclusions: Kieselguhr accelerates the polymerization of oils. At 250° the polymerization is accompanied by a partial decompn. of the oil with the formation of free acids. *In vacuo* kieselguhr has very little effect. No direct relation was observed between the degree of polymerization of oil by kieselguhr and its compn. Heating the oil with 25% kieselguhr at 250° does not affect the contents and properties of the solid acids, *i. e.*, no isomerization of the acids of the oleic series takes place.

CHAS. BLANC.

Hydrogenation of the solid fraction (stearin) of Japanese sardine oil. M. P. Belopol'skiĭ and O. B. Maksimov. *Bull. Far Eastern Branch Acad. Sci. U. S. S. R.* No. 9, 111-15 (in English 116) (1934).—The solid fraction filtered from the oil of Japanese sardine (ivasa) at 8-10° produced on hydrogenation in the presence of Ni-kieselguhr catalyst, an odorless fat, m. 28.9°, solidifying at 24.3°, I No. 94.66.

CHAS. BLANC.

The application of high-tension electric discharge to the catalytic hydrogenation process. I. Iwawo Seto. *J. Soc. Chem. Ind., Japan* 38, Suppl. binding 85-6 (1935).—Application of a. c. in oil hardening at 200° gave an odorless oil without occurrence of polymerization. The velocity of hydrogenation increased with rising voltage up to a satn. point. When d. c. was used, the Ni catalyst suspended in the oil was deposited on the cathode and the time required to sep. the catalyst increased with decreasing I nos. of the hardened oil. Alternate application of a. c. and d. c. permits a continuous cycle, giving first increased hydrogenation velocity and then catalyst sepn. The same catalyst could be used 38 times before its activity diminished. KARL KAMMERMEYER.

Color reactions for the identification of hydrogenated fish oils. M. N. Ghose and H. K. Pal. *Analyst* 60, 240-1 (1935).—The test recommended by Tortelli and Jaffé (*C. A.* 8, 3723; 9, 1255) can be modified so that, in place of the transient rose color, a persistent pink can be obtained. Dissolve 3 g. of the oil in 6 ml. of $CHCl_3$-AcOH (1:1) mixt. Add Br_2 dropwise until a faint pink color appears and allow to stand 10 min. With other oils the pink color does not appear, but on

Courtesy "Chemical Abstracts"