

• Fats and Oils

SOLVENT EXTRACTION OF LINSEED OIL AND ANALYSIS OF ITS PHOSPHOLIPIDS. A.S. El-Nockrashy and Y. El-Shattory (Fats and Oils Res. Lab., National Res. Center, Dokki Cairo, U.A.R.). *Seifen-Öle-Fette-Wachse* 99(12), 325-7 (1973). Six Egyptian types of linseed oil were extracted with six different dissolving agents and then tested for constants. Three different methods were used to identify the phospholipids in the different extracts.

METHOD FOR EXTRACTION OF TRACE AMOUNTS OF ZINC IN VEGETABLE OILS FOR COLORIMETRIC ESTIMATION WITH DITHOZONE. D.N. Sharma (Div. Agr. Chem., IARI, New Delhi-12). *Oils Oilseeds J.* 25(8), 5-6 (1973). Conventional methods for estimation of zinc based on dry ashing and wet oxidation are time consuming and inconvenient. A simple and accurate method for zinc extraction from oil with dilute HCl (1:1) and determined colorimetrically using dithozone. Applied to 24 commercial samples of groundnut oil, 63% were found to contain 0.5 ppm or less of zinc.

OIL REFINING. A STUDY ON THE NEUTRALIZATION LOSS DETERMINATIONS AND ITS CORRESPONDENCE WITH INDUSTRIAL PLANT LOSSES. J.M.P. Soler and F.R. Ayerbe (Inst. de la Grasa y sus Derivados, Dept. de Plantas Piloto, Sevilla, Spain). *Grasas y Aceites* 23, 419-27 (1972). A series of assays with olive oil, olive oil foots and oleaginous seed oils are made in order to establish the conditions for laboratory determination of neutralization losses. Variations are proposed that eliminate the rigidity of different factors in the AOCS methods for seed oils. Modification of the method for olive oil and olive oil foots made the test more rapid and exact. The laboratory results agree with industrial practice.

DETERMINATION OF TOTAL OIL IN CORN GERM BY INDIRECT COMPLEXOMETRY WITH Mg^{2+} . R. Garcia-Villanova and M.C.L. Martinez (Dept. de Bromatologia, Toxicologia y Analisis Quimico Aplicado, Facultad de Farmacia, Granada, Spain). *Grasas y Aceites* 24, 10-12 (1973). A new method is proposed for the determination of oil in corn germ by saponification with KOH solution, precipitating with an excess of standard solution of Mg^{2+} and titrating the filtrate with EDTA solution of identical molarity, using Eriochrome Black T as indicator. The results obtained are reproducible and the method is more selective than those based on extraction with organic solvents. The method permits determination of fat directly on wet samples and in less time than extraction procedures.

PESTICIDE RESIDUES IN EDIBLE FATS. II. ELIMINATION OF CHLORIDE INSECTICIDES DURING REFINING PROCESS. A. Vioque, T. Albi and M. Nosti (Inst. de la Grasa y sus Derivados, Dept. de Analisis y de Quimica y Microbiologia, Sevilla, Spain).

Grasas y Aceites 24, 20-26 (1973). Deodorization is necessary to eliminate chloride insecticides during the refining process. Temperatures must be as high as 240C for their removal. Even at this temperature, pesticides such as p,p'-DDT and p,p'-DDD are not completely eliminated.

DETERMINATION OF CHOLESTEROL USING O-PHTHALALDEHYDE. L.L. Rudel and M.D. Morris (Banting and Best Dept. of Med. Res., Univ. of Toronto, Toronto, Canada). *J. Lipid Res.* 14, 364-6 (1973). A simple, rapid method for the determination of cholesterol in plasma and tissue using o-phthalaldehyde is presented. Comparison of this method with the $FeCl_3$ method gave identical results. However, the o-phthalaldehyde determination is three times more sensitive than the $FeCl_3$ determination (molar extinction coefficients of 11,610 and 33,440 for $FeCl_3$ and o-phthalaldehyde, respectively), it takes less time to complete and the color developed is more stable. The o-phthalaldehyde method can be used to assay free and esterified cholesterol directly after thin-layer chromatographic separation.

ISOLATION OF CERAMIDE-MONOMETHYLAMINOETHYLPHOSPHONATE FROM THE LIPIDS OF TETRAHYMENA PYRIFORMIS W. C.V. Viswanathan and H. Rosenberg (Dept. of Biochem., John Curtin Schl. of Med. Res., Australian Natl. Univ., P.O. Box 334, Canberra City, ACT 2601, Australia). *J. Lipid Res.* 14, 327-30 (1973). Ceramide-monomethylaminoethylphosphonate has been isolated for the first time from the lipids of *Tetrahymena pyriformis W* and characterized on the basis of its chromatographic mobility, chemical analysis and infrared and nuclear magnetic resonance properties.

HYDROCARBONS AND POLYCHLORINATED BIPHENYLS FROM THE UNSAPONIFIABLE FRACTION OF ANHYDROUS MILK FAT. V.P. Flanagan and A. Ferretti (Dairy Prod. Lab., ARS, USDA, Washington, D.C. 20250). *J. Lipid Res.* 14, 306-11 (1973). Using a combination of gas-liquid chromatography and mass spectrometry, the presence of 39 aliphatic hydrocarbons was firmly established in the unsaponifiable fraction of anhydrous milk fat. The hydrocarbons were the C_{14} to C_{27} and the C_{28} to C_{31} straight-chain paraffins, their monoolefin analogs, and the C_{25} to C_{28} branched alkanes. Phytene (3,7,11,15-tetramethyl-n-hexadec-2-ene), identified for the first time in milk fat, was isolated and identified by high-resolution mass spectrometry and infrared analysis. The total hydrocarbon content amounted to 30 ppm of the milk fat. Polychlorinated biphenyls also were detected in trace amounts in the area of the chromatogram between the C_{18} and C_{28} hydrocarbons.

TRYPTAMIDES OF HYDROXY-CARBOXYLIC ACIDS IN OIL-CONTAINING SEEDS. F. Wurziger and U. Harms (Chem. und Lebensmitteluntersuchungsanstalt im Hygienischen Inst. der Freien und Hansestadt Hamburg, 2 Hamburg 36, Gorch-Fock-Wall 15-17). *Fette Seifen Anstrichmittel* 75, 121-6 (1973). Different amounts tryptamides of 5-hydroxy-carboxylic acids have been
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PAPERS**

AOCS 65TH ANNUAL SPRING MEETING

The Technical Program Committee has issued a call for papers to be presented at the AOCS 65th Annual Spring Meeting, April 28-May 1, 1974, in the Maria Isabel Sheraton and the Camino Real Hotels, Mexico City. Papers on lipids, fats and oils, and all related areas are welcome.

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