

Meetings

AOCS National Meetings

1969-San Francisco, San Francisco Hilton, April 20-24. Minneapolis, Leamington Hotel, Oct. 5-8. April 26-30, 1970-New Orleans, Jung Hotel.

Sept. 27-Oct. 1, 1970-Chicago, Conrad Hilton Hotel.

AOCS Section Meetings

North Central Section-March 26, 1969, Swedish Club, Chicago.

Northeast Section-April 15, 1969, Military Park Hotel, Newark, N. J.; June 3, 1969, Whyte's Restaurant, New York City.

Other Organizations

- * March 10-15, 1969-Symposium of the Working Group Mass Spectrometry, Gesellschaft Deutscher Chemiker, Heidelberg, West Germany.
- * March 13, 1969-Synthetic Organic Chemical Manufacturers Association, Hotel Roosevelt, New York, N.Y. March 20, 1969-Organic Chemistry Symposium, Trent
 - University, Peterborough, Ontario, Canada. May 5-6, 1969-International Symposium on the Chem-
 - istry and Metabolism of Sphingolipids, Kellogg Center of Michigan University, Michigan.
 - May 8, 1969-Society of Cosmetic Chemists Semi-Annual Scientific Meeting, Americana Hotel, New York, N.Y. May 12-15, 1969—Twentieth Annual Mid-America Sym-
 - posium on Spectroscopy, Sheraton-Chicago Hotel, Chicago, Ill. May 18–23,
 - 1969 MassSpectrometry Symposia. Sheraton-Dallas Hotel, Dallas, Texas.
 - May 21-23, 1969-IMPI's Fourth Annual Microwave Power Symposium, University of Alberta, Edmonton, Alberta, Canada.
 - May 25-28-52nd Canadian Chemical Conference and Exhibition, Queen Elizabeth Hotel, Montreal, Quebec, Canada.
 - June 4-6, 1969-First Technicon International Congress Automated Analysis, Conrad Hilton Hotel, Chicago, Ill.
 - June 22-26, 1969-23rd Congress International d'Esthetique et de Cosmetologie (Vienna Congress), Wiener Hofburg, Vienna.
 - Aug. 17-24, 1969—3rd NMR Symposium, Physical Chemistry Division and University of Toronto, Toronto, Ontario, Canada. Sept. 7-11, 1969—XIIIth International Conference on
 - the Biochemistry of Lipids, Athens, Greece.
 - Sept. 8-9, 1969—Society of Cosmetic Chemists National Seminar, Riverfront Inn, St. Louis, Mo.
 - Nov. 2-7, 1969-Society of Cosmetic Chemists Arden House Conference, Joint Sponsorship with Columbia University College of Pharmacy, Arden House, Harriman, N.Y.
 - Dec. 2, 1969-Society of Cosmetic Chemists Annual Scientific Meeting and Medal Award Dinner Dance, Americana Hotel, New York City.

ABSTRACTS: FATS AND OILS

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content in mixed milk estimated by the thin-layer chroma-tographic method for a year were 28.3 (range, 17.0-39.3) and 1.5 (range, 0.5-2.9) μ g per gram of fat, respectively. Through-out seasons, a tocopherol varied from 29.2 to 39.3 (mean, 33.8) in summer (May-October), and from 17.0 to 28.0 (mean, 21.6) μ g per gram of fat in winter (November-April). γ -Tocopherol varied from 1.0 to 2.5 (mean, 1.8) in summer and from 0.3 to 2.9 (mean, 1.1) μ g per gram of fat in winter. and from 0.3 to 2.9 (mean, 1.1) µg per gram of fat in winter. Tocopherols other than a- and γ -tocopherol were not detected in any samples analyzed.

RESOLUTION AND OPTIMIZATION IN GEL FILTRATION AND PERMEA-TION CHROMATOGRAPHY. J. C. Giddings (Dept. of Chem., Univ. of Utah, Salt Lake City, Utah 84112). Anal. Chem. 40, 2143-49 (1968). A theoretical study is presented of resolution in exclusion chromatography and the factors which influence it. Optimum parameters are suggested on the basis of general chromatographic theory and a recent entropy-based formulation for partition coefficients. It is concluded that highest resolution and speed will be associated with long, narrow columns with fine particles and high pressure drops. Tem-perature and solvent should be chosen to minimize viscosity. Pores should be relatively small, leading to early elution, and their total volume should be large. Grounds are presented for optimizing pore shape as well as size. Finally, these re-sults are used to predict the size and molecular weight in-crements needed for satisfactory resolution in columns of different efficiencies.

SOLVENT EXTRACTION OF AFLATOXINS FROM OILSEED MEALS. H. K. Gardner, Jr., S. P. Koltun and H. L. W. Vix (S. Reg. Res. Lab., New Orleans, La. 70119). J. Agr. Food Chem. 16, 990-3 (1968). Aflatoxin can be removed or significantly reduced in cottonseed and peanut meals by extracting with a tertiary solvent system of 54% acetone, 44% hexane and 2% water (by weight) or a binary solvent system of 90% acetone and 10% water (by weight). The tertiary solvent system simultaneously removes oil and aflatoxin from pre-pressed cake containing 12 to 15% oil, resulting in residual pressed cake containing 12 to 15% oil, resulting in residual lipids content of approximately 1% and aflatoxin levels of less than 40 p.p.b. The binary solvent system has reduced the aflatoxin content of prepressed cottonseed and peanut meals to less than 10 p.p.b. in small scale batch extractions and less than 40 p.p.b. in continuous pilot plant extractions. Both solvent systems offer economically feasible methods for reducing the aflatoxin in cottonseed and peanuts to a level of 30 p.p.b. or below. of 30 p.p.b. or below.

AUTOXIDATION OF SATURATED FATTY ACIDS. M. H. Brodnitz (International Flavors & Fragrances, Inc., 1515 Highway 36, Union Beach, N.J. 07735). J. Agr. Food Chem. 16, 994–999 (1968). Saturated fatty acids and their esters are known to undergo thermal oxidation. Farmer's hydroperoxide theory is, however, not applicable for these compounds. Several theories regarding the products and location of the initial oxidative attack are briefly reviewed. Recent work identifying monohydroperoxides as the initial products of autoxidation of methyl palmitate is described in some detail. The oxidation does not occur selectively at a single location along the ester and does not require the presence of unsaturation in the molecules. The effect of purity and temperature on the products of autoxidation of saturated fatty acids and its possible implications of these reactions for flavor chemistry are also discussed.

THE CHEMISTRY OF CASTOR OIL. A REVIEW. R. Rondeau (Documentation Ser. ITERG, Paris, Fr.). Rev. Franc. Corps Gras 15, 529–537 (1968). An extensive review of the most common chemical reactions is presented. Special emphasis is given to the reaction of the ester, double bond and hydroxy group.

DEPENDENCE OF YIELD AND COMPOSITION OF PILOT PLANT EX-DEPENDENCE OF VIELD AND COMPOSITION OF PILOT PLANT EX-TRACTED RAPESEED OIL UPON HARVESTING TIME AND METHOD. C. Defromont and M. Chanet (Inst. of Fats and Oils, Paris, Fr.). Rev. Franc. Corps Gras 15, 517-527 (1968). Two different times and three different methods have been used. Extraction yields are correlated with seed maturity and har-vesting method. These two factors affect the quantity of solid particles (foots) extracted with the oil during pressure ex-traction. Refining losses are affected. Fatty acid composition is not altered, however, free fatty acids, phosphorus, chloro-phyll, unsaponifiable, sterols, iodine value and color are modified. Proteins, glycosides and thioglucosides contained in the meals were examined, but changes from the norm were in the meals were examined, but changes from the norm were not reported.

^{*} Additions to previous calendar