

# ANNUAL INDEX

## VOLUME 41

1964

### AUTHORS

#### A

- Achaya, K. T. See Pantulu, A. J.  
— Craig, B. M. and Youngs, C. G. The component fatty acids and glycerides of castor oil, 783  
Ackman, R. G. and Sipos, J. C. Application of specific response factors in the gas chromatographic analysis of methyl esters of fatty acids with flame ionization detectors, 377  
Ahern, J. J. See Pohle, W. D.  
Albi, M. A. See Vioque, A.  
Alfin-Slater, Roslyn B. and Melnick, Daniel. Essential fatty acid contents of various fats: Interpretations of values by physico-chemical tests, 145  
Allen, L. E. See Mustakas, G. C.  
Allen, R. R. Isomerization during hydrogenation. V. Methyl *cis* 6-, *cis* 9-, *cis* 12-octadecenoates, 521  
Allred, R. C., Setzkorn, E. A., and Huddleston, R. L. A Study of detergent biodegradability as shown by various analytical techniques, 13  
— See Setzkorn, E. A.  
— See Huddleston, R. L.  
Anderson, R. H. and Huntley, T. E. Prooxidant effect of some carbonyl compounds in vegetable oil, 686  
Anderson, R. M. See Ginn, M. E.  
Anfinsen, J. R. and Perkins, E. G. Letter to the editor re preparation of a-monoglycerides, 779  
Applewhite, T. H. See Binder, R. G.  
— See Diamond, M. J.  
Ascarelli, I. See Budowski, P.  
Ault, W. C. See Eisner, Abner  
— See Maeker, G.  
— See Maurer, E. W.

#### B

- Babayan, V. K., Kaunitz, H. and Sianetz, G. A. Nutritional studies of polyglycerol esters, 434  
Bagby, M. O. See Mikolajczak, K. L.  
Bains, G. S., Rao, S. V. and Bhatia, D. S. A colorimetric procedure for the estimation of fat acidity in peanuts and peanut meals, 831  
Baker, Doris. A colorimetric method for determining free fatty acids in vegetable oils, 21  
Barclay, A. S. See Earle, F. R.  
Barford, R. A. See Herb, S. F.  
— See Luddy, R. E.  
Barlow, D. O. Report of the Epoxidized Oils Subcommittee on oxirane oxygen, 1963, 86  
Baron, Seymour. See Molnar, N. M.  
Bauman, R. A. See Trowbridge, J. R.  
Beal, R. E., Eisenhauer, R. A. and Griffin, E. L., Jr. Continuous production of cyclic fatty acids, 683  
— See Eisenhauer, R. A.  
Bevens, C. D.  
Becher, Paul and Birkmeier, R. L. The determination of hydrophile-lipophile balance by gas-liquid chromatography, 169  
Bennett, J. E. and Byer, M. J. Studies of the oxygen bomb method for determining shortening stabilities, 505  
Berry, J. W. See Deutschman, A. J., Jr.  
Beveridge, J. M. See Hill, J. G.  
— See Kuksis, A.  
Bhatia, D. S. See Bains, G. S.  
Bhatti, M. K. See Craig, B. M.  
— and Craig, B. M. Silicic acid-silver nitrate chromatography as an enrichment technique in fatty acid analysis, 508  
Binder, R. G. See Diamond, M. J.  
— Applewhite, T. H., Diamond, M. J. and Goldblatt, L. A. Chromatographic analysis of seed oils. II. Fatty acid composition of dimorphotheca, 108  
Birkmeier, R. L. See Becher, Paul  
— See Brandner, J. D.  
Bistline, R. G., Jr. and Stirton, A. J. Experiments in the formulation of liquid detergents from tallow, 654  
Bitner, E. D. and Dutton, H. J. Automated manometric apparatus, 720

- See Butterfield, R. O.  
— See Rohwedder, W. K.  
Selke, E., Rohwedder, W. K. and Dutton, H. J. Isotopic effects during catalytic hydrogenation, 1  
Black, L. T. See Evans, C. D.  
— See Kirk, L. D.  
Blank, E. W. and Kelley, R. M. The analytical separation of surface active agents, 137  
Blank, M. L. S. See Privett, O. S.  
Schmidt, J. A. and Privett, O. S. Quantitative analysis of lipids by thin-layer chromatography, 371  
Bloom, F. W. See Riser, G. R.  
Bondi, A. See Budowski, P.  
Borden, W. T. See Desmond, C. T.  
Bradacs, L. K. and Schetelig, W. Effectiveness of detergent solutions, 161  
Brand, B. G., Schoen, H. O., Gast, L. E. and Cowan, J. C. Evaluation of fatty vinyl ether polymers and styrenated polymers for metal coatings, 597  
Brandner, J. D. See Wetterau, F. P.  
— and Birkmeier, R. L. The equilibrium distribution of acyl groups between primary and secondary hydroxyl positions in partial esters, 367  
Brenner, R. R. See Mercuri, Osvaldo  
Brown, M. L. See Zeringue, H. J.  
Brunner, C. A. Methods for removing detergents from waste waters, 813  
Buck, P. A. See Quencer, R. M.  
Budowski, P. Recent research on sesamin, sesamolin and related compounds, 280  
— Ascarelli, I., Gross, Jeana, Nir, I. and Bondi, A. Vitamin A activity of acidulated soybean soapstocks in chicks, 441  
Buswell, Katherine M. and Link, W. E. The quantitative determination of small amounts of nitrile in long chain fatty acids, 717  
Buswell, R. J. The determination of lactic acid in shortening containing lactylated glycerides, by liquid-liquid partition chromatography, 457  
Butterfield, R. O., Bitner, E. D., Scholfield, C. R., and Dutton, H. J. Analog computers and kinetics of hydrogenation, 29.  
— Letter to the editor re a new control system for monitoring countercurrent distribution with a recording refractometer, 843  
— Scholfield, C. R. and Dutton, H. J. Preparation of 9,15-octadecadienoate isomers, 397  
— See Scholfield, C. R.  
Byer, M. J. See Bennett, J. E.

#### C

- Carrazeni, N. F. See Mercuri, Osvaldo  
Carroll, K. K. and Herting, D. C. Gas-liquid chromatography of fat-soluble vitamins, 473  
Chacko, G. K. and Perkins, E. G. Letter to the editor re glyceride structure of cocoa butter, 843  
Chakrabarty, M. M. See Subbaram, M. R.  
Chandra, K. S. Studies in the changes in fatty acid composition in developing seeds, I, 251  
Chang, R. W. H. and Linn, Frances M. Letter to the editor re stabilization of linoleic acid by arginine and lysine against oxidation, 780  
Chipault, J. R. and Mizuno, G. R. Effects of ionizing radiation on fats. II. Accumulation of peroxides and other chemical changes, 468  
Chisolm, Mary J. See Hopkins, C. Y.  
Clarke, T., Devine, J., and Dicker, D. W. Application of the Ritter reaction to  $\alpha$ -olefins, 78  
Cochran, S. D. See Loeb, L.  
Cohen, Irving and Economou, Peter. Temperature studies of coacervating cationic soap solutions, 464  
Coleman, J. E., Hampson, J. W., and Saunders, D. H. Autoxidation of fatty materials in emulsion. II. Factors affecting the histidine-catalyzed autoxidation of emulsified methyl linoleate, 347

- Coleman, M. H. Letter to the editor re the pancreatic hydrolysis of natural fats. III, 247

- Cook, Linda L. See Kenney, H. F.  
Cooper, R. S. and Urfer, A. D. Sodium dialkyl phosphates: Surfactant properties and use in heavy detergents, 337  
Coughlin, F. J. See Weaver, P. J.  
Coursey, D. G., Eggins, H. O. W., and Simmonds, E. A. Letter to the editor re studies on Congo palm oil, 88  
Cousins, E. R. See Turner, H. V.  
Cowen, J. C. See Brand, B. G.  
— See Evans, C. D.  
— See Hoffman, R. L.  
— See Malbrouk, A. F.  
Crabb, N. T. and Persinger, H. E. The determination of polyoxyethylene nonionic surfactants in water at the parts per million level, 752  
Craig, B. M. and Bhatty, M. K. A naturally occurring all-*cis* 6,9,12,15-octadecatetraenoic acid in plant oils, 209  
— See Achaya, K. T.  
— See Bhatty, M. K.  
— See Downey, R. K.  
— See Subbaram, M. R.  
— See Takagi, Toru  
— See Tulloch, A. P.

- Crauer, L. S. and Pennington, H. Continuous refining of crude cottonseed miscella, 656

- Crisler, R. O. See Frazee, C. D.  
Crook, E. H., Fordyce, D. B., and Trebbi, G. F. Molecular weight distribution of nonionic surfactants. III. Foam, wetting, detergency, emulsification, and solubility properties of normal distribution and homogeneous p, *t*-octylphenoxyethoxyethanols, 231

- Cross, III, H. D. See Rubinfeld, J.

- Crossley, A. and Thomas, A. Keeping properties of edible oils. III. Identity of trace materials adsorbed from peanut oil by chromatography on alumina, 95

- Crutchfield, M. M., Irani, R. R. and Yoder, J. T. Quantitative applications of high-resolution proton magnetic resonance measurements in the characterization of detergent chemicals, 129

#### D

- Davison, V. L. See Scholfield, C. R.  
Day, E. A. See Lillard, D. A.  
Daxenbichler, M. E. See Miller, R. W.  
DeKonink, A. J. See Silk, M. H.  
Dempsey, A. H. See Marion, J. E.  
Desmond, C. T. and Borden, W. T. Identification of surface acting agents in admixture by thin layer chromatography, 552  
Deutschman, A. J., Jr., Berry, J. W., Kircher, H. W., and Sakir, C. M. Catalytic elimination of cyclopropene-containing acids, 175  
Devine, J. See Clarke, T.  
de Vries, B. Separation of triglycerides by column chromatography on silica impregnated with silver nitrate, 463  
Diamond, M. J. See Binder, R. G.  
— Applewhite, T. H., Knowles, R. E., and Goldblatt, L. A. Preparation of phosphorus esters of long-chain hydroxy fatty acids, 9  
— Knowles, R. E., Binder, R. G. and Goldblatt, L. A. Hydroxy unsaturated oils. II. Preparation and characterization of methyl dimorphoate and methyl lesquerolate from *dimorphotheca* and *lesquerella* oils, 430  
Dicker, D. W. See Clarke, T.  
Dollar, F. G. See Verberg, G. B.  
Downing, Jr., D. J. See Jurberg, J. A.  
Downey, R. K. and Craig, B. M. Genetic control of fatty acid biosynthesis in rapeseed (*Brassica napus* L.), 475  
Driessche, Therese V. Letter to the editor re the relation between iodine value and linoleic acid percentage in cottonseed oil, 248  
Dugan, L. R., Jr. See Frazee, C. D.  
— See Wolf, D. P.  
Dupuy, H. P. See Novak, A. F.

## ANNUAL INDEX

— See Verburg, G. B.  
**Dutton, H. J.** See Bitner, E. D.  
 — See Butterfield, R. O.  
 — See Emken, E. A.  
 — See Frankel, E. N.  
 — See Johnston, A. E.  
 — See Malbrouk, A. F.  
 — See Mounts, T. L.  
 — See Rohwedder, W. K.

**E**

**Earle, F. R.** See Miller, R. W.  
 — See Kleiman, Robert  
 — Mikolajczak, K. L., Wolff, I. A., and Barclay, A. S. Search for new industrial oils. X. Seed oils of the calanduleae, 345  
**Economou, Peter.** See Cohen, Irving  
**Eggins, H. O. W.** See Coursey, D. G.  
**Eisenhauer, R. A.**, Beal, R. E., and Griffin, E. L. Cyclic fatty acids from linolenic acid, 60  
 — See Beal, R. E.  
**Eisner, Abner**, Perlstein, Theodore and Ault, W. C. Methanesulfonic acid-catalyzed additions IV. Additions to methyl linoleate, 557  
**Emery, E. M.** See Rubinfeld, J.  
**Emken, E. A.**, Scholfield, C. R., and Dutton, H. J. Chromatographic separation of *cis* and *trans* fatty esters by argentation with a macroreticular exchange resin, 388  
**Evans, C. D.** See Hoffman, R. L.  
 — Beal, R. E., McConnell, D. G., Black, L. T. and Cowan, J. C. Partial hydrogenation and winterization of soybean oil, 260  
 — Oswald, J. and Cowan, J. C. Soybean unsaponifiables: Hydrocarbons from deodorizer condensates, 406

**F**

**Farquhar, Margaret** See Litchfield, Carter  
**Farn, L. G.** See Sahasrabudhe, M. R.  
**Fauvel-Bouchet, E.** and Michel, G. Composition of insect waxes. I. Waxes of exotic coccidae: *Gascardia madagascariensis*, *coccus ceriferus* and *tachardia laccata*, 418  
**Feldman, G. L.** See Litchfield, Carter  
**Feuge, R. O.** See Gros, Audrey T.  
**Feuge, R. O.** See Tümer, H. V.  
**Fisher, Mary J.** See Novak, A. F.  
**Fizette, N. N.** See Heimberg, Murray  
**Ford, O. E.** Detergent effects of ultrasonics, 543  
**Fordyce, D. B.** See Crook, E. H.  
**Fore, Sara P.** See Novak, A. F.  
**Frampton, V. L.** See Kuck, J. C.  
**Frankel, E. N.**, Jones, E. P., and Glass, C. A. Letter to the editor re characterization of a methyl linoleate-iron carbonyl complex, 392  
 — Peters, Helen M., Jones, E. P., and Dutton, H. J. Homogeneous catalytic hydrogenation of unsaturated fats: Iron pentacarbonyl, 186  
**Fraze, C. D.**, Crisler, R. O., Williams, L. D., Pearson, A. M. and Dugan, L. R., Jr. Letter to the editor re infrared determination of alkyl branching in detergent ABS, 334  
 — Osburn, Q. W. and Crisler, R. O. Application of infrared spectroscopy to surfactant degradation studies, 808  
**Froines, J. R.** See Shuster, C. Yvonne

**G**

**Galbraith, A. R.**, Hale, P. and Robertson, J. E. The reaction of phosphorus trichloride with fatty acids, 104  
**Galli, Claudio.** See Rouser, George  
**Garrett, Vilma H.** See Lyon, C. K.  
**Garrison, L. J.** and Matson, R. D. A comparison by warburg respirometry and die-away studies of the degradability of select non-ionic surface-active agents, 799  
**Gast, L. E.** See Brand, B. G.  
 — See Schneider, Wilma  
**Gaughlin, E. J., Jr.** See Lehman, L. W.  
**Geminder, J. J.** Stearyl monoglyceridyl citrate as an emulsifier enhancer, 92  
**Gentry, H. S.** See Miller, R. W.  
**Ginn, M. E.**, Anderson, R. M. and Harris, J. C. Electrophoretic properties in aqueous detergent systems, 112  
**Glass, C. A.** See Frankel, E. N.  
 — See Johnston, A. E.  
**Goff, H. E., Jr.** See Jacobson, G. A.  
**Goldblatt, L. A.** See Binder, R. G.  
 — See Diamond, M. J.  
 — See Lyon, C. K.  
 — See Verburg, G. B.  
**Goldsmith, Grace A.** See Hamilton, J. G.  
**Gould, Constance W.** See Mayo, F. R.  
**Gouw, T. H.** and Vlugter, J. C. Physical properties of fatty acid methyl esters. I. Density and molar volume, 142  
 — and Vlugter, J. C. Physical properties of fatty acid methyl esters. II. Refractive index and molar refraction, 426  
 — and Vlugter, J. C. Physical properties of fatty acid methyl esters. III. Dispersion, 514

— and Vlugter, J. C. Physical properties of fatty methyl esters. IV. Ultrasonic sound velocity, 524  
 — and Vlugter, J. C. Physical properties of fatty acid methyl esters. V. Dielectric constant, 675  
**Gregory, R. L.** See Pohle, W. D.  
 — See Taylor, J. R.  
**Griffin, E. L., Jr.** See Beal, R. E.  
 — See Eisenhauer, R. A.  
 — See Mustakas, G. C.  
**Gros, Audrey T.** and Feuge, R. O. Preparation of partial glycerides by direct esterification, 727  
**Gross, Jeana** See Budowski, P.  
 — See Swartwout, J. R.  
**Groves, W. L.** See Watanabe, Henry  
**Gruber, E. H., Jr.**, Nelson, R. W. and Stansby, M. E. Fatty acid composition of oils from 21 species of marine fish, freshwater fish and shellfish, 662

**H**

**Haegerber, E. T.** See Maerker, G.  
**Hagan, Susie N.** See Hivon, Katherine J.  
**Hagemann, J. W.** See Smith, R. C., Jr.  
**Hale, P.** See Galbraith, A. R.  
**Hamilton, J. G.**, Muldry, J. E., McCracken, B. H., Goldsmith, Grace A., and Miller, O. N. The effect of neomycin on cholesterol metabolism, 760  
**Hammond, E. G.** and Hill, F. D. The oxidized-metallic and grassy flavor components of autoxidized milk fat, 180  
**Hampson, J. W.** See Coleman, J. E.  
**Haque, Rizwanul** See Malik, W. U.  
**Harris, J. A.**, Magne, F. C. and Skau, E. L. Methods for the determination of cyclopropanoid fatty acids. IV. Applications of the step-wise HBr titration method to the analysis of refined and crude oil, 309  
**Harris, J. C.** See Ginn, M. E.  
**Harrison, S. A.** See Paschke, R. F.  
**Hartman, L.** Letter to the editor re surface activity of symmetrical and unsymmetrical mono- and di-glycerides, 519  
**Heimberg, Murray**, Fizette, N. B. and Klausner, Howard. The action of adrenal hormones on hepatic transport of triglycerides and fatty acids, 774  
**Hendrikse, P. W.** The temperature dependence of the expansion coefficient of liquid glycerides, 184  
**Herb, S. F.**, Magidman, P., and Barford, R. A. A satisfactory GLC column for the determination of epoxyleic acid in seed oils, 222  
 — See Lundy, F. E.  
**Herrick, A. B.** See Trowbridge, J. R.  
**Herting, D. C.** See Carroll, K. K.  
**Hill, F. D.** See Hammond, E. G.  
**Hill, J. G.**, Kuksis, A. and Beveridge, J. M. The constancy of red blood cell lipids in man during extreme variations of dietary fat intake, 393  
**Hiscocks, E. S.** and Raymond, W. D. Some problems in improving tropical materials utilized by the United Kingdom oil milling industry, 224  
**Hitzman, D. O.** New accelerated test for rapid measurement of detergent biodegradability, 593  
**Hivon, Katherine J.**, Hagan, Susie N., and Wile, Edith B. Preparation and analysis of some food fats and oils for fatty acid content by gas-liquid chromatography, 362  
**Holmes, W. L.** Drugs affecting lipid synthesis, 702  
**Hopkins, C. Y.** and Chisholm, Mary J. Isolation of a natural isomer of linoleic acid from a seed oil, 42  
**Hopper, L. L. Jr.** See Verburg, G. B.  
**Hoffman, R. L.**, Evans, C. D. and Cowan, J. C. Soybean unsaponifiables: Chromatographic investigation of shell drain condensate from a commercial deodorizer, 116  
**Horning, E. C.** and Vandenhove, W. J. A. Gas Chromatography in lipid investigations, 707  
**Horning, Marjorie G.**, Knox, Kay L. and Mani, Lynda. Drugs and lipid transport, 697  
**Houle, C. R.** See Malins, D. C.  
**Huddleston, R. L.** and Allred, R. C. Evaluation of degradation using activated sludge, 732  
 — See Allred, R. C.  
 — See Setzkorn, E. A.  
**Huntley, T. E.** See Anderson, R. H.

**I**

**Inoue, H.** See Low, M. J. D.  
**Irani, R. R.** See Grutchfield, M. M.  
**Isbell, A. F.** See Litchfield, Carter

**J**

**Jacobson, G. A.**, Kirkpatrick, J. A. and Goff, H. E., Jr. A study of the applicability of a modified thiobarbituric acid test to flavor evaluation of fats and oils, 124  
**Jensen, R. E.** See Sampugna, J.  
**Johnson, K. L.** New nonionic detergents derived from epoxidized oils, 191

**Johnson, Ruth Ellen** See Kaunitz, Hans  
**Johnston, A. E.**, Glass, C. A. and Dutton, H. J. Hydrogenation of linolenate. XI. Nuclear magnetic resonance investigation, 788  
**Jones, E. P.** See Frankel, E. N.  
 — See Scholfield, C. R.  
**Jones, Quentin** See Kleiman, Robert  
 — See Miller, R. W.  
**Jordan, D. E.** Hydroxyl group determination in high molecular weight alcohols and complex organic mixtures, 500  
**Juliano, B. O.** See Lugay, J. C.  
**Jurberg, J. A.** and Dowling, D. J., Jr. Determination of foreign materials of plant origin in cotton linters, 545

**K**

**Kartha, A. R. A.** Letter to the editor re the configuration of the disaturated glycerides in *garcinia indica* and *vateria indica* seed fats, 456  
**Kaunitz, H.** See Babayan, V. K.  
 — and Johnson, Ruth Ellen. Nutritional effects of dihydroxystearic acid in rats, 50  
**Kelley, R. M.** See Blank, E. W.  
**Kenney, H. F.**, Komonowsky, Daria, Cook, Linda L., and Wrigley, A. N. Preparation and etherification reaction of fatty dichlorocyclopropanes, 82  
**Kilgore, Lois T.** and Luker, W. D. Fatty acid components of fried foods and fats used for frying, 496  
**Kinkel, P. R.** See McFarland, J. H.  
**Kircher, H. W.** The addition of mercaptans to methyl stearate and sterculene: An hypothesis concerning the nature of the biological activity exhibited by cyclopropane derivatives, 4  
 — The elaidinization of methyl oleate with mercaptans, 351  
 — See Deuschman, A. J., Jr.  
**Kirk, L. D.**, Black, L. T., and Mustakas, G. C. Mustard seed processing: essential oil composition, 599  
 — See McGhee, J. E.  
**Kirkpatrick, J. A.** See Jacobson, G. A.  
**Kitamori, Nobuyuki** See Mima, Hiroyuki  
**Kleiman, Robert**, Earle, R. R., Wolff, I. A. and Jones, Quentin. Search for new industrial oils. XI. Oils of Boraginaceae, 459  
**Knipprath, W. G.** and Mead, J. F. The metabolism of *trans*-octadecadienoic acid. Incorporation of *trans*, *trans*-octadecadienoic acid into the *C<sub>ω</sub>* polyunsaturated acids of the rat, 437  
**Knowles, R. E.** See Diamond, M. J.  
**Knox, Kay L.** See Horning, Marjorie G.  
**Komonowsky, Daria.** See Kenney, H. F.  
**Krewson, C. F.**, and Luddy, F. E. *Veronica anethemintica* (L.) willd. Highly purified epoxy components from the seed oil, 134  
 — and Scott, W. E. *Veronica anethemintica* (L.) willd. Extraction of oil or trivernolin from the seed, 422  
 — See Sampugna, J.  
**Krishnamurthy, R.** See Low, M. J. D.  
**Kuck, J. C.**, Pons, W. A., Jr. and Frampton, V. L. Physical and chemical properties of alumina bleached cottonseed oil, 104  
**Kuemmel, D. F.** Minor component fatty acids of common vegetable oils, 667  
**Kuksis, A.**, and McCarthy, M. J. Triglyceride gas chromatography as a means of detecting butterfat adulteration, 17  
 — McCarthy, M. J., and Beveridge, J. M. R. Triglyceride composition of native and rearranged butter and coconut oils, 201  
 — See Hill, J. G.  
 — See McCarthy, M. J.  
**Kummerow, F. A.** See Narayan, K. A.

**L**

**Lehman, L. W.**, and Gauglitz, E. J., Jr. Synthesis of triglycerides from fish oil fatty acids, 533  
**Lew, H. Y.** Analysis of detergent mixtures containing amine oxides, 297  
**Lewis, Y. S.**, and Nelakantan, S. Determination of residual solvents in solvent extracted meals, 211  
**Lieber, Ellen.** See Rouser, George  
**Lillard, D. A.**, and Day, E. A. Degradation of monocarbonyls from autoxidizing lipids, 549  
**Link, W. E.** See Buswell, Katherine M.  
 — See Morrisette, R. A.  
 — See Shulman, G. P.  
**Linn, Frances M.** See Chang, R. W. H.  
**Litchfield, Carter**, Farquhar, Margaret, Reiser, Raymond. Analyses of triglycerides by consecutive chromatographic techniques. I. *Cuphea llavilla* seed fat, 558  
 — Reiser, Raymond, Isbell, A. F., and Feldman, G. L. Gas chromatography of *cis-trans* fatty acid isomers on nitrile silicone capillary columns, 52  
**Locke, J. E.** See Mansfield, R. C.  
**Loeb, L.**, Sanford, P. B. and Cochran, S. D. Soil removal as a rate process, 120  
**Low, M. J. D.**, Krishnamurthy, R. and Inoue, H. Vibration-stirred microhydrogenation, 433

- Luddy, F. E., Barford, R. A., Herb, S. F., Magidman, P., and Riemschneider, R. W. Pancreatic lipase hydrolysis of triglycerides by a semimicro technique, 693  
—See Krewson, C. F.
- Lugay, J. C., and Juliano, B. O. Fatty acid composition of rice lipids by gas-liquid chromatography, 273
- Luker, W. D. See Kilgore, Lois T.
- Lyon, C. K., Garrett, Vilma H., and Goldblatt, L. A. Rigid urethane foams from blown castor oils, 23

**M**

- McCarthy, M. J., and Kuksis, A. Exploitation of the selectivity of various chromatographic techniques for the study of the triglyceride structure of natural fats, 527  
—See Kuksis, A.
- McConnell, D. G. See Evans, C. D.
- McCracken, B. H. See Hamilton, J. G.
- McFarland, J. H., and Kinkel, P. R. Performance and properties of nonionic surfactants from linear secondary alcohols, 742
- McGhee, J. E., Kirk, L. D., and Mustakas, G. C. Mustard seed processing: Simple methods for following heat damage to protein meals, 359
- McKillican, Mary E. Studies of the phospholipids, glycolipids and sterols of wheat endosperm, 554  
—and Sims, R. P. A. The endosperm lipids of three Canadian wheats, 340

**M**

- Mabrouk, A. F. The kinetics of methyl linoleate emulsion autoxidation to the presence of polyhydroxy compounds, 384
- Maerker, G., Haeberer, E. T., and Ault, W. C. Acid-catalyzed conversion of epoxides to hydroxyesters, 585
- Magidman, P. See Herb, S. F.  
—See Luddy, R. E.
- Magne, F. C. See Harris, J. A.  
—See Mod, R. R.
- Mahadevan, V. Letter to the editor re conversion of oleyl and elaidyl tosylates to aldehydes, 520  
—Report of the literature review committee, part I, 559  
—Report of the literature review committee, part II, 623
- Malbrouk, A. F., Dutton, H. J., and Cowan, J. C. Homogeneous catalytic hydrogenation of sorbic acid with pentacyanocobaltalite, 1153
- Malik, W. U., and Haque, Rizwanul. On polarographic behavior of the palmitates and myristates of copper and cobalt, 411
- Malins, D. C., Wekell, J. C., and Houle, C. R. Reaction of acetyl nitrate with alcohol derivatives of fatty acids: A synthesis of nitrate esters, 44
- Mangold, H. K. Thin-layer chromatography of lipids, 762

- Mani, Lynda. See Horning, Marjorie G.
- Mankowich, A. M. Detergency: Micellar relationships of an anionic-nonionic surfactant mixture, 449
- Mankowich, A. M. Studies in detergency correlation, 47
- Mansfield, R. C., and Locke, J. E. The preparation of a series of molecularly homogeneous para-t-octylphenoxypoly (ethoxy) ethanol, 267
- Marion, J. E., and Dempsey, A. H. Fatty acids of pimento pepper seed oil, 548
- Martick, L. R. See Quencer, R. M.
- Matson, R. D. See Garrison, L. J.
- Maurer, E. W., Stirton, A. J., Ault, W. C., and Weil, J. K. Long chain  $\alpha$ -phosphono fatty acids, salts and esters, 205
- Mayo, F. R., and Gould, Constance W. Copolymerization of methyl esters of unsaturated  $C_{18}$  fatty acids, 25
- Mead, J. F. See Knipprath, W. G.
- Meijboom, P. W. Relationship between molecular structure and flavor perceptibility of aliphatic aldehydes, 326
- Melnick, Daniel. See Alfin-Slater, Roslyn B.
- Mercuri, Osvaldo, Carrazoni, N. F., and Brenner, R. R. Methyl oct-cis 2-enoate. Its synthesis, GLC behavior and infrared spectra, 89
- Metzger, Gershion. The true molecular weight of sulfonate soaps, 495
- Michel, G. See Faurot-Bouchet, E.
- Mikolajczak, K. L., and Bagby, M. O. Letter to the editor re double bond migration in methyl eleostearate during gas-liquid chromatographic analysis, 391  
—See Earle, F. R.
- Miller, O. N. See Hamilton, J. G.
- Miller, R. W., Daxenbichler, M. E., Earle, F. R., and Gentry, H. S. Search for new industrial oils. VIII. The genus *Limnanthes*, 167
- Earle, F. R., Wolff, I. A., and Jones, Q. Search for new industrial oils. IX. *Cuphea*, a versatile source of fatty acids, 279

- Miller, W. J. 46th annual report of the Smalley committee, 1963-1964, 452
- Mima, Hiroyuki, and Kitamori, Nobuyuki. Chromatographic analysis of sucrose esters of long chain fatty acids, 198
- Mizuno, G. R. See Chipault, J. R.
- Mod, R. R., Magne, F. C., and Skau, E. L. The preparation and plasticizing characteristics of piperidides of long chain fatty acids and N-fatty acyl derivatives of other cyclic imines, 237
- Magne, F. C. and Skau, E. L. The preparation and plasticizing characteristics of the *N,N*-bis(2-alkoxyethyl)amides of long chain fatty acids, 781
- Molnar, N. M., and Baron, Seymour. Two new stable polybrominated salicylanilides for antibacterial use in soap and detergent products, 478
- Mounts, T. L., and Dutton, H. J. Efficient production of biosynthetically labeled fatty acids, 537
- Morrisette, R. A., and Link, W. E. Gas-liquid chromatography of polar fatty derivatives, 415
- Muldrey, J. E. See Hamilton, J. G.
- Mustakas, G. C., Griffin, E. L., Jr., Allen, L. E., and Smith, O. B. Production and nutritional evaluation of extrusion-cooked full-fat soybean flour, 607  
—See Kirk, L. D.
- See McGhee, J. E.
- Myerly, R. C. See Steinle, E. C.

**N**

- Narayan, K. A., Sugai, Masuo, and Kummerow, F. A. Complex formation between oxidized lipids and egg albumin, 254
- Nelakantan, S. See Lewis, Y. S.
- Nelson, R. W. See Gruger, E. H., Jr.
- Netzel, D. A., Stanley, C. W., and Rathburn, D. W. A neutron activation method for soil removal measurements: a comparison of the reflectance method and the neutron activation method, 678
- Nickell, E. Christense. See Privett, O. S.
- Nir, I. See Budowski, P.
- Novak, A. F., Fisher, Mary J., Fore, Sara P., and Dupuy, H. P. Antimycotic activity of some fatty acid derivatives, 503

**O**

- O'Connor, R. T. Report of the instrumental techniques committee, AOCS, 1962-1963, 158
- Olcott, H. S. See Shuster, C. Yvonne
- Olsanski, V. L. See Wetterau, F. P.
- Olson, A. C. See Sweeney, W. A.
- O'Rourke, J. T. See Swisher, R. D.
- Osburn, Q. W. See Fraze, C. D.
- Osipow, L. I., Rosenblatt, W., and Snell, F. D. Soaps of monohydroxystearic acid in syn-dit compositions, 841
- Oswald, J. See Evans, C. D.

**P**

- Pantulu, A. J., and Achaya, K. T. Hydrogenolysis of saturated oleic and ricinoleic acids to the corresponding alcohols, 511
- Parry, R. M., Jr. See Sampugna, J.
- Paschke, R. F., Peterson, L. E., Harrison, S. A., and Wheeler, D. H. Dimer acid structures. The dehydro-dimer for methyl oleate and di-t-butyl peroxide, 56
- Peterson, L. E. and Wheeler, D. H. Dimer acid structures. The thermal dimer of methyl 10-trans, 12-trans, linoleate, 723
- Patton, E. L. See Pominski, J.
- Pearson, A. M. See Fraze, C. D.
- Peisker, K. V. Letter to the editor re a rapid semi-micro method for preparation of methyl esters from triglycerides using chloroform, methanol, sulphuric acid, 87
- Pennington, H. See Crauer, L. S.
- Perkins, E. G. The effect of dietary fat on the glyceride structure of rat carcass fat, 285  
—See Anfinsen, J. R.
- See Chacko, G. K.
- Perlstein, Theodore. See Eisner, Abner
- Persinger, H. E. See Crabb, N. T.
- Peters, Helen M. See Frankel, E. N.  
—See Rohwedder, W. K.
- Peterson, L. E. See Paschke, R. F.
- Pohle, W. D., Gregory, R. L., Weiss, T. J., Van Giessen, B., Taylor, J. R., and Ahern, J. J. A study of methods for evaluation of the stability of fats and shortenings, 795
- Gregory, R. L., and Van Giessen, B. Relationship of peroxide value and thiobarbituric acid value to development of undesirable flavor characteristics in fats, 649  
—See Taylor, J. R.
- Pominski, J., Patton, E. L., and Spadaro, J. J. Pilot plant preparation of defatted peanuts, 66
- Pons, W. A., Jr. See Kuck, J. C.
- Powers, T. J. See Weinberger, L. W.
- Privett, O. S. See Blank, M. L.

- Privett, O. S., and Blank, M. L. Studies on the metabolism of linoleic acid in the essential fatty acid-deficient rat, 292
- Nickell, E. Christense. Studies on the ozonization of ethyl oleate, 72

**Q**

- Quackenbush, F. W. See Subrahmanyam, V. V. R.
- Quencer, R. M., Buck, P. A., and Martick, L. R. The kinetics of autoxidation of methyl linoleate. The effect of added antioxidants and a new method for the evaluation of antioxidants, 650

**R**

- Rao, S. V. See Bains, G. S.
- Rathburn, D. W. See Netzel, D. A.
- Raymond, W. D. See Hiscocks, E. S.
- Rayner, E. T. See Verburg, G. B.
- Reiser, Raymond. See Litchfield, Carter
- Reynolds, J. R., and Youngs, C. G. Effect of seed preparation on efficiency and oil quality in filtration extraction of rapeseed, 63
- Rich, A. D. Some basic factors in the bleaching of fatty oils, 315
- Riemschneider, R. W. See Luddy, F. E.
- Riesz, C. H., and Weber, H. S. Catalysts for selective hydrogenation of soybean oil. I. An experimental method for evaluating selectivity, 380
- and Weber, H. S. Catalysts for selective hydrogenation of soybean oil. II. Commercial catalysts, 400
- and Weber, H. S. Catalysts for selective hydrogenation of soybean oil. III. Hydrogenation catalyst prepared on molecular sieves and other supports, 464
- Riser, G. R., Bloom, F. W., and Witnauer, L. P. Evaluation of butyl stearate, butyl oleate, butyl ricinoleate, and methyl linoleate as poly (vinyl chloride) plasticizers, 172

- Robertson, J. E. See Galbraith, A. R.

- Rock, S. P., and Roth, H. Factors affecting the rate of deterioration in the frying qualities of fats. I. Exposure to air, 228  
—and Roth, H. Factors affecting the rate of deterioration in the frying quality of fats. II. Type of heater and method of heating, 531

- Rohwedder, W. K., Bitner, E. D., Peters, Helen M., and Dutton, H. J. Deuterium-hydrogen exchange during the catalytic deuteration of methyl oleate, 33
- See Bitner, E. D.

- Rosenblatt, W. See Osipow, L. I.

- Roth, H. See Rock, S. P.
- Rouser, George, Galli, Claudio and Lieber, Ellen. Analytical fractionation of complex lipid mixtures: DEAE cellulose column chromatography combined with quantitative thin layer chromatography, 886

- Rubinfeld, J., Emery, E. M. and Cross, III, H. D. Straight-chain alkylbenzenes: structure and performance properties, 822

**S**

- Sahasrabudhe, M. R., and Farn, I. G. Effect of heat on triglycerides of corn oil, 264
- Sakir, C. M. See Deutschman, A. J., Jr.
- Sallans, H. R. Factors affecting the composition of Canadian oil seeds, 215
- Sampugna, J., Jensen, R. E., Parry, R. M., Jr., and Krewson, C. F. Lipolysis of trivernolin by pancreatic lipase, 132
- Sanford, P. B. See Loeb, L.
- Saunders, D. H. See Coleman, J. E.
- Schetelig, W. See Bradas, L. K.
- Schlenk, Hermann. See Sen, Nirmal
- Schmidt, J. A. See Blank, M. L.
- Schneider, Wilma, Gast, L. E., and Teeter, H. M. A convenient laboratory method for preparing *trans, trans*-9, 11-octadecadienoic acid, 605
- Schoen, H. O. See Brand, B. G.
- Scholfield, C. R., Butterfield, R. O., Davison, V. L., and Jones, E. P. Hydrogenation of linolenate. X. Comparison of products formed with platinum and nickel catalysts, 615  
—See Butterfield, R. O.
- See Emken, E. A.
- Scott, W. E. See Krewson, C. F.
- Selke, E. See Bitner, E. D.
- Sen, Nirmal, and Schlenk, Hermann. The structure of polyenoic odd and even-numbered fatty acids of mullet (*Mugil cephalus*), 241
- Setzkorn, E. A., Huddleston, R. L. and Allred, R. C. An evaluation of the river die-away technique for studying detergent biodegradability, 826  
—See Allred, R. C.
- Shulman, G. P., and Link, W. E. Thermal decomposition of dimethyltaurylamine oxide, 329
- Shuster, C. Yvonne, Froines, J. R., and Olcott, H. S. Phospholipids of tuna white muscle, 36

- Sikes, J. J.** Urea breakdown activity in cotton-seed, 69
- Silk, M. H.** and DeKoning, A. J. Phospholipids of the South African Pilchard (*sardina ocellata jenyns*), 619
- Simmons, E. A.** See Coursey, D. G.
- Sims, R. P. A.** See McKillican, Mary E.
- Singleton, W. S.** See Zeringue, H. J.
- Sinnhuber, R. O.** See Yu, T. C.
- Sipos, J. C.** See Ackman, R. G.
- Skau, E. L.** See Harris, J. A.  
— See Mod, R. R.
- Slanetz, C. A.** See Babayan, V. K.
- Smith, R. B.** See Mustakas, G. C.
- Smith, R. C., Jr.**, Hagemann, J. W., and Wolff, I. A. The occurrence of, 6,9,12,15-octadecatetraenoic acid in *echium plantagineum* seed oil, 290
- Smullin, C. F.** See Wetterau, F. P.
- Snell, F. D.** See Oisipow, L. I.
- Spadaro, J. J.** See Pominiski, J.
- Spanaler, W. G.** Dynamic foam test, 300
- Sparrow, K.** See Szonyi, C.
- Stanley, C. W.** See Netzel, D. A.
- Stansby, M. E.** See Gruger, E. H., Jr.
- Steinle, E. C.** Myerly, R. C. and Vath, C. A. Surfactants containing ethylene oxide: relationship of structure to biodegradability, 804
- Stillman, R. C.** Report of the commercial fats and oils analysis committee, 1964, 454
- Stirton, A. J.** See Bistline, R. G., Jr.
- Stirton, A. J.** See Maurer, E. W.
- Stirton, A. J.** See Weil, J. K.
- Subbaram, M. R.** Chakrabarty, M. M., Youngs, C. G., and Craig, B. M. Determination of the glyceride structure of fats: anomalous features of the seed fat of bitter gourd (*momordica charantia*), 691  
— and Youngs, C. G. Isomerization of monoethenoid acids during hydrogenation, 150  
— and Youngs, C. G. Determination of the glyceride structure of fats: Distribution of unsaturated acids, 445  
— and Youngs, C. G. Determination of the glyceride structure of fats: Analysis of 14 animal and vegetable fats, 535  
— See Youngs, C. G.
- Subrahmanyam, V. V. R.** and Quackenbush, F. W. Effect of oxygen and other factors in selenium catalyzed isomerization of unsaturated fatty acid esters, 275
- Sugai, Masuo.** See Narayan, K. A.
- Swartwout, J. R.** and Gross, Jeana. Glass paper chromatography and elatography of triglycerides, 378
- Sweeney, W. A.** and Olson, A. C. Performance of straight chain alkylbenzene sulfonates (LAS) in heavy-duty detergents, 815
- Swisher, R. D.** O'Rourke, J. T. and Tomlinson, H. D. Fish bioassays of linear alkylate sulfonates (LAS) and intermediate biodegradation products, 746
- Szonyi, C.** and Sparrow, K. Spectrophotometric determination of small amounts of 1-monoglycerides in fats, 535
- Takagi, Toru.** 5,11,14-eicosatrienoic acid in *podocarpus nagi* seed oil, 516  
— and Craig, B. M. Hydrogenation of conjugated fatty acids with hydrazine, 660
- Taylor, J. F.** See Therriault, D. G.
- Taylor, J. R.**, Pohle, W. D., and Gregory, R. L. Measurement of solids in triglycerides using nuclear magnetic resonance spectroscopy, 177  
— See Pohle, W. D.
- Teeter, H. M.** See Schneider, Wilma
- Therriault, D. G.** and Taylor, J. F. Lipid-protein interactions, 490
- Thomas, A.** See Crossley, A.
- Tomlinson, H. D.** See Swisher, R. D.
- Tooke, H. L.** and Wolff, I. A. Activation and specificity of *crambe abyssinica* seed lipase, 602
- Trebbi, G. F.** See Crook, E. H.
- Trowbridge, J. R.**, Herrick, A. B., and Baum, R. A. Use of rubber columns for the chromatographic separation of triglycerides and other non-polar compounds, 306
- Tulloch, A. P.** and Craig, B. M. Determination of double bond position in unsaturated triglycerides by analysis of the oxidation products by gas liquid chromatography, 322  
— Gas liquid chromatography of the hydroxy-, acetoxy-, and oxo-stearic acid methyl esters, 833
- Tümer, H. V.** Feuge, R. O., and Cousins, E. R. Raney nickel catalyst of improved stability and reactivity in the hydrogenation of triglycerides, 212  
— Feuge, R. O., Ward, T. L., and Cousins, E. R. Relative reactivity toward hydrogenation of the oleoyl group in the 2- and 1, 3-positions of triglycerides, 413
- Tuna, Naip.** Cholesterol-lowering effect of dextrothyroxine in patients with hypercholesterolemia and coronary disease, 756
- U**
- Urfer, A. D.** See Cooper, R. S.
- V**
- Vandenheuvel, W. J. A.** See Horning, E. C.
- Van Giessen, B.** See Pohle, W. D.
- Vath, C. A.** See Steinle, E. C.
- Verburg, G. B.**, Rayner, E. T., Yeadon, D. A., Honper, L. L., Jr., Goldblatt, L. A., Dollear, F. G., Dupuy, H. P., and York, Emil. Water-resistant, oil-based, intumescent fire-retardant coatings. I. Development formulations, 670
- Villagran, Ma del Pilar.** See Vioque, A.
- Vioque, A.**, Albi, M. A. and Villagran, Ma del Pilar. Trace elements in edible fats. VIII.
- Y**
- Yeadon, D. A.** See Verburg, G. B.
- Yoder, J. T.** See Crutchfield, M. M.
- York, Emil.** See Verburg, G. B.
- Youngs, C. G.**, and Subbaram, M. R. Determination of the glyceride structure of fats: Gas-liquid chromatography of oxidized glycerides, 218  
See Achaya, K. T.  
See Subbaram, M. R.  
See Reynolds, J. R.
- Yu, T. C.**, and Sinnhuber, R. O. Further observations on the 2-thiobarbituric acid method for the measurement of oxidative rancidity, 540
- Z**
- Zeringue, H. J.**, Brown, M. L., and Singleton, W. S. Chromatographically homogeneous egg lecithin as stabilizer of emulsions for intravenous nutrition, 688
- Zielinski, W. L., Jr.** Evaluation of the internal standard method for the quantitative estimation of oil polymer content by gas chromatography, 249

## SUBJECTS

**A**

- Acetoxy stearic acid**, gas-liquid chromatography of, 883
- Acetyl nitrate**, reaction with alcohol derivatives of fatty acids, 44
- Acid value**, colorimetric procedure for, in peanuts, 831
- Activated sludge**, degradation of detergents, 732
- Acyl groups**, equilibrium distribution between primary and secondary groups, 367
- Adducts**, ethylene oxide analysis by countercurrent distribution, 383
- Adrenal hormones**, action on hepatic transport of glycerides and fatty acids, 744
- Alcohols**, high molecular weight, hydroxyl determination in, 500  
— hydrogenolysis of saturated oleic and ricinoleic acids to, 511  
— linear secondary type, nonionic surfactants, 742
- Aldehydes**, from oleyl and eladyl tosylates, 520
- Aliphatic aldehydes**, relationship between molecular structure and flavor perceptibility, 326
- Alkylbenzene sulfonates**, detergency of straight chain, 815
- Alkylbenzenes**, performance of straight chain, 822
- Alkyldimethylamine oxides**, analysis of detergents containing, 297
- Alumina**, properties of bleached cottonseed oil, 101
- Amides**, determination of small amounts in, 717

- preparation and plasticizing characteristics of N,N-bis(2-alkoxyethyl), 781
- Amine oxide**, thermal decomposition of dimethylaurylamine oxide, 329
- Amine oxides**, analysis of detergents containing, 297
- Animal (and vegetable fats)** determination of glyceride structure of 14 varieties, 595
- Anionic-nonionic surfactant mixture**, miscellar relationship, 449
- Antibactericides**, two new polybrominated salicylanilides, 478
- Antioxidants**, new method of evaluation, 650  
— of methyl linoleate, kinetics, effect of antioxidants, 650
- Argentation and separation of cis and trans fatty esters** by chromatography, 388
- fatty materials in emulsion II, 347
- Arginine (and lysine)** stabilization of linoleic acid, 780
- Autoxidation**, control by a manometric apparatus, 720  
— methyl linoleate emulsions in the presence of polyhydroxy compounds, 331

**B**

- Bakery products**, determination of sorbitan monostearate in, 791
- Binding of lipids by proteins**, Symposium, beginning on page 481
- Biodegradability**, measurement, 738  
— of detergents, a rapid test for, 593  
— of detergents, use of infrared spectroscopy, 808

- Soybean oil "demetalization" with cation exchange resins, 785**
- Vlugter, J. C.** See Gouw, T. H.

**W**

- Ward, T. L.** See Tümer, H. V.
- Watanabe, Henry**, and Groves, W. L. Caking test for dried detergents, 311
- Weaver, P. J.** and Coughlin, F. J. Measurement of biodegradability, 738
- Weber, H. S.** See Riesz, C. H.
- Weil, J. K.**, and Stirton, A. J. Biodegradation of some tallow-based surface active agents in river water, 355  
— See Maurer, E. W.
- Weinberger, L. W.** and Powers, T. J. The detergents and water quality standards, 736
- Weiss, T. J.** See Pohle, W. D.
- Wekell, J. C.** See Malins, D. C.
- Westphal, Ulrich.** Binding of steroids to proteins, 481
- Wetterau, F. P.**, Olsanski, V. L., Smullin, C. F., and Brandner, J. D. Analysis of fatty acid-ethylene oxide adducts by countercurrent distribution, 383  
— Olsanski, V. L. and Smullin, C. F. The determination of sorbitan monostearate in cake mixes and baked cakes, 791
- Wheeler, D. H.** See Paschke, R. F.
- Wile, Edith B.** See Hivon, Katherine B.
- Williams, L. D.** See Frazee, C. D.
- Witnauer, L. P.** See Riser, G. R.
- Wolf, D. P.**, and Dugan, L. R., Jr. Structure of high melting glycerides from the milk fat-globule membrane, 139
- Wolf, I. A.** See Earle, F. R.  
— See Kleiman, Robert  
— See Miller, R. W.  
— See Smith, R. C., Jr.  
— See Tooke, H. L.
- Wrigley, A. N.** See Kenney, H. F.

**Y**

- Yeadon, D. A.** See Verburg, G. B.
- Yoder, J. T.** See Crutchfield, M. M.
- York, Emil.** See Verburg, G. B.
- Youngs, C. G.**, and Subbaram, M. R. Determination of the glyceride structure of fats: Gas-liquid chromatography of oxidized glycerides, 218  
See Achaya, K. T.  
See Subbaram, M. R.  
See Reynolds, J. R.
- Yu, T. C.**, and Sinnhuber, R. O. Further observations on the 2-thiobarbituric acid method for the measurement of oxidative rancidity, 540

**Z**

- Zeringue, H. J.**, Brown, M. L., and Singleton, W. S. Chromatographically homogeneous egg lecithin as stabilizer of emulsions for intravenous nutrition, 688
- Zielinski, W. L., Jr.** Evaluation of the internal standard method for the quantitative estimation of oil polymer content by gas chromatography, 249

**C**

- C<sub>20</sub> polyunsaturated acids**, incorporation of *trans, trans* octadecadienoic acid into rat metabolism, 437

- Caking test**, for dried detergents, 311  
**Calendula**, 345  
**Calenduleae seed oil**, composition, 345  
**Carbohydrates**, autoxidation of methyl linoleate in the presence of, 331  
**Carbonyl compounds**, pro-oxidant effects in vegetable oil, 686  
**Castalis nudicaulis**, 345  
**Castor oil**, composition of, 783  
**Castor oils**, urethane foams from, 23  
**Castor seeds**, studies on the changes in fatty acid composition of I, 251  
**Catalysis**, conversion of epoxyesters to hydroxyesters, 585  
**Catalyst**, improved Raney type, 212  
— iron pentacarbonyl, 186  
**Catalysts**, a comparison of various metals for selective hydrogenation, 400  
— for selective hydrogenation of soybean oil 400  
— for selective hydrogenation of soybean oil III, 464  
— ni and pt, comparison in hydrogenation of linolenate, 615  
**Cationic soap solutions**, temperature studies, 461  
**Chilopsis linearis**, natural isomer of linoleic acid from, 42  
**Cholesterol**, lowering effect of dextro-thyroxine, 756  
**Cholesterol metabolism**, the effect of neomycin, 760  
**Chromatographic analysis**, migration of double bond, 391  
— of triglycerides of *cuphea llavia* seed fat, 588  
— separation of *cis* and *trans* fatty esters, 388  
— separation of triglycerides and other non-polar compounds using rubber columns, 306  
— sucrose esters of long-chain fatty acids, 198  
**Chromatographic techniques**, study of glyceride structure, 527  
**Chromatography**, *cis-trans* fatty acid isomers, 58  
— *cuprea* a new industrial oil, 279  
— determination of the double bond position in unsaturated triglycerides by analysis of the oxidation products, 322  
— determination of epoxoleic acid in seed oils by, 222  
— determination of glyceride structure of oxidized glycerides, 218  
— determination of hydrophile-lipophile balance, 169  
— determination of lactic acid in shortening, by liquid-liquid partition, 457  
— gas, in lipid investigation. Symposium I, 707  
— gas-liquid of fat soluble vitamins, 473  
— gas liquid, of hydroxy, acetoxy and oxo-stearic methyl esters, 833  
— gas liquid of polar fatty acid derivatives, 415  
— glass paper, and elatography of triglycerides, 378  
— heated corn oil, 264  
— identity of trace materials in peanut oils, keeping quality, 95  
— of complex lipids, 836  
— methyl oct-*cis*-2-enolate, 89  
— of p-t-OPE<sub>n</sub>-o compounds, 267  
— of rice lipids, 273  
— of unsaponifiables of soybean oil, 117  
— rapid method of preparing methyl esters, 87  
— response factors with flame ionization detectors, 377  
— seed oils, dimorphotheca oil, 108  
— separation of triglycerides on silica impregnated with silver nitrate, 403  
— silicic acid silver nitrate as an enrichment technique, 508  
— thin-layer determination of nitriles in long chain fatty amines, 717  
— thin-layer identification of surface active agents, 552  
— thin-layer, lipids, 762  
— triglycerides of butterfat, 17  
— use of an internal standard of polymer content of oils, 249  
**Chrysanthemoides**, 845  
**Citrate**, emulsifier enhancer, 92  
**Coatings**, fire retardant I. Developmental formulations, 670  
**Cobalt** (and copper) myristates and palmitates, polarographic behavior of, 411  
**Coccus ceriferis**, composition of, 418  
**Cocoon butter**, glyceride structure of, 843  
**Coconut oils**, composition of native and rearranged, 201  
**Coefficient of expansion**, triglycerides, temperature dependence, 184  
**Complexes**, oxidized lipids and egg albumin, 254  
**Composition**, native and rearranged butter oils, 201  
**Congo palm oil**, letter to editor, 88  
**Conjugation and isomerization of fatty acids by selenium**, 275  
**Copper and cobalt**, palmitates and myristates, polarographic behavior, 411  
**Corn oil**, effect of heat on triglycerides, 264  
**Coronary disease**, lowering of cholesterol with dextro-thyroxine, 756  
**Cotton linters**, determination of foreign materials, 545  
**Cottonseed**, urea breakdown activity, 69  
**Cottonseed oil**, alumina bleached, 101  
— continuous refining in miscella stage, 656  
— determination of cyclopropenoic fatty acids. IV. By hydrogen bromide titration, 309  
**Countercurrent distribution**, analysis of ethylene oxide adducts, 383  
— control system for monitoring, 843  
**Crambe abyssinica**, activation and specificity, 602  
**Cubebin**, pseudo, 280  
**Cuphea**, new industrial oils IX, 279  
**Cuphea llavia**, analysis of triglycerides by chromatographic techniques I, 588  
**Cyclic fatty acids**, continuous production of, 683  
**Cyclic fatty acids**, from linolenic, 60  
**Cyclopropene-containing acids**, catalytic elimination of, 175  
**Cyclopropene derivatives**, biological activity, 4  
**Cyclopropenoic fatty acids**, methods for the estimation of IV, 309
- D**
- Deep fat frying**, factors affecting the rate of deterioration II, 531  
— fatty acid components of fat (used), 496  
**Degradation**, of monocarboxyls from autoxidizing lipids, 549  
**Deodorization**, soybean unsaponifiables from shell drain condensate, 116  
**Deodorizer distillates**, hydrocarbons from, 406  
**Detergency**, micellar relationships of an anionic-nonionic mixture, 449  
**Detergent chemicals**, high resolution proton magnetic resonance measurements, 129  
**Detergent biodegradability**, rapid test for, 593  
**Detergent solutions**, laboratory method for measuring effectiveness, 161  
**Detergents**, analysis of mixtures containing amine oxides, 297  
— analytical separation, 137  
— and water quality standards, 736  
— biodegradability as shown by analytical techniques, 13  
— biodegradation, in river water, 355  
— caking test, 311  
— degradability of select nonionic, 799  
— degradation with activated sludge, 732  
— dynamic foam test, 300  
— effects of ultrasonics, 543  
— electrophoretic properties, 112  
— from tallow, heavy duty type, 654  
— infrared determination of alkyl branching, 334  
— measurement of biodegradability, 738  
— new nonionic from epoxidized oils, 191  
— performance of LAS in, 815  
— removal of, 813  
— river die-away, evaluation of, for, 826  
— sodium dialkyl phosphates surfactant properties, 337  
— soil removal as a rate process, 120  
— studies in detergency correlation, 47  
— temperature studies of coacervating cationic soap solutions, 461  
— two new polybrominated salicylanilides for antibacterial action, 478  
**Deuteration**, hydrogen exchange catalysts deuteration of methyl oleate, 33  
**Dextro-thyroxine**, effect in lowering cholesterol, 756  
**Dialkyl phosphates**, surfactant properties and use in heavy detergents, 337  
**Dichlorocyclopropanes**, etherification reaction and preparation, 82  
**Dielectric constant**, of fatty acid methyl esters V, 675  
**Dietary fat variations**, effect on red blood cells, 393  
**Dihydroxystearic acid**, nutritional effects, 50  
**Dimer acid structures**, the thermal dimer of methyl 10-*trans*, 12-*trans* linoleate, 723  
**Dimer acids**, structure, 56  
**Dimethylaurylamine oxide**, thermal decomposition, 329  
**Dimorphotheca**, preparation of methyl esters from II, 480  
— 345  
**Dimorphotheca oil**, fatty acid composition by GLC, 108  
**Disaturated glycerides**, configuration in *garcinia indica* and *vateria indica* seed fats, 456  
**Dispersion**, physical properties of methyl esters III, 514  
**Di-t-Butyl peroxide**, dimers from, 56  
**Double bond**, migration during GLC analysis, 391  
**Double bond position** of unsaturated triglycerides, determination of GLC, 322  
**Drugs affecting lipid synthesis** I. symposium, 702  
— and lipid transport, I, symposium, 697
- E**
- Echium plantagineum** seed oil and occurrence of 6,9,12,15-octadecatetraenoic acid, 290
- F**
- Fagarol**, 280  
**Fats**, stability of, 795  
**Fats and oils**, preparation and analysis by GLC, 362  
— trace metals in, 785  
**Fatty acid analysis**, silicic acid-silver nitrate chromatography as an enrichment technique, 508  
**Fatty acid composition** of rice lipids by GLC, 273  
**Fatty acid derivatives**, their antimycotic activity, 503  
**Fatty acid isomers**, *cis-trans* by GLC, 52  
**Fatty acid methyl esters**, density and molar volume, 143  
— physical properties II. Refraction index and molar refraction, 426  
— physical properties IV. Ultrasonic sound velocity, 524  
— physical properties V. Dielectric coatings, 675  
**Fatty acids**, action of adrenal hormones on hepatic transport, 774  
— alpha-phosphono derivatives, 205  
— changes in developing in castor seeds (*recinum communis*), 251  
— components of fat used in frying, 496  
— composition of oils from 21 species of fish, 662  
— contents of various fats, 145  
— continuous production of cyclic type, 683  
— copolymerization of methyl esters, 25  
— *cuprea*, new industrial oils IX, 279  
— cyclopropenoic type IV, 309  
— distribution of individual saturated and unsaturated in glycerine structure, 445  
— food fats, preparation and analysis by GLC, 362  
— hydrogenated of conjugated type with hydrazine, 600  
— hydrogenolysis to alcohols, 511  
— minor components of vegetable oil, 677  
— N,N-bis(2-alkoxyethyl)amides of long chain, 781  
— octadecatetraenoic in *echium plantagineum*, 290  
— of castor oil, 783  
— of pimento peper seed oil, 548  
— piperidides, and N-fatty acyl derivatives of cyclic imines, 237  
— production of labeled types, 537  
— reactions with phosphorus trichloride, 104  
**Fatty derivatives**, GLC of, 415  
**Fatty esters**, separation of *cis* and *trans* by argentation and chromatograph, 388  
**Fatty oils**, basic factors in the bleaching, 315  
**Fire retardant coatings**, I. Developmental formulations, 670  
**Fish oil**, fatty acid composition of 21 species, 662  
**Fish oil fatty acids**, synthesis of triglycerides, 533  
**Flame ionization detectors**, for the gas chromatographic analysis of methyl esters, 377

- Flavor**, its relationship to peroxide value and/or thiobarbituric acid value, 649  
— perceptibility, relationship with molecular structure in aliphatic aldehydes, 326  
**Flavor components**, milk fat, 181  
**Flavor evaluation**, fats and oils by modified thiobarbituric acid test, 124  
**Foam test**, dynamic, 300  
**Foreign material**, in cotton linters, estimation of, 545  
**Fractionation**, of corn oil before and after heating by silicic and chromatography, 264  
**Free fatty acid**, colorimetric method for, 21  
**Fried foods**, fatty acid components of fat used, 496  
**Frying fats**, factors affecting deterioration, 228  
— factors affecting the rate of deterioration II, 531

**G**

- Garcinia indica**, configuration of the disaturated glycerides in, 456  
**Gascardia madagascariensis**, composition of, 418  
**Gas-liquid chromatography**, of polar fatty derivatives, 415  
— Methyl esters of hydroxy, acteoxy and oxo-stearic acid, 833  
— preparation and analysis of food fats, 362  
**Genetics**, control of fatty acid biosynthesis in rapeseed, 475  
**Glucosides**, in mustard seed, 359  
**Glyceride structure**, analysis of 14 animal and vegetable fats, 595  
— bitter gourd, (*Momordica charantia*) 691  
— determination of oxidized glycerides by gas-liquid, 218  
— the effect of dietary fat on (rat carcass), 285  
— of cocoa butter, 843  
**Glyceride structure of fats**, distribution and determination of, 445  
— selectivity of chromatographic techniques for study, 527  
**Glycerides**, of castor oil, 783  
— preparation of partial type by direct esterification, 727  
**Glycolipids** of wheat endosperm, 554

**H**

- Hexa oxyethylene glycol**, reaction with p-t-octyphenyl-B-chloroethyl ether, 267  
**Histidine**, catalyzed autoxidation of emulsions II, 347  
**Hydrazine**, hydrogenation of conjugated fatty acids with, 600  
**Hydrocarbons from soybean oil**. Deodorizer distillates, 406  
**Hydrogen bromide**, titration of cyclopropenoic fatty acids in refined and crude oils, 309  
**Hydrogenation**, and winterization of soybean oil, 206  
— catalysts for selective processing of soybean oil III, 464  
— control by manometric apparatus, 720  
— isomerization during V. Methyl cis 6, cis 9, cis 12-octadecenoates, 521  
— isotopes effects, 1  
— isomerization of mono ethenoid acids, 150  
— kinetics by analog computers, 29  
— kinetics of, 380  
— linolenate of, 788  
— micro, vibration stirred, 433  
— of conjugated fatty acids with hydrazine, 600  
— of linolenate X, ni and pt catalysts, 615  
— of sorbic acid with pentacyanocobaltate II, catalysts, 153  
— relation reactivity of oleoyl group in the 2 and 1-3 position of triglycerides, 413  
— soybean oil II, selectivity of commercial catalysts, 400  
— using iron pentacarbonyl, 186  
— with improved Raney nickel catalyst, 212  
**Hydrogenation I**, soybean oil, method for evaluating selectivity, 380  
**Hydrogenolysis**, of saturated oleic and ricinoleic acids to alcohols, 511  
**Hydrolysis** of triglycerides, semimicro techniques with lipases, 693  
**Hydrophile-lipophile balance**, by gas liquid chromatography, 169  
**Hydroxyl**, equilibrium distribution of acyl groups in partial esters, 367  
— group determination in high molecular weight alcohols and organic mixtures, 500  
**Hydroxy fatty acids**, preparation of phosphorus esters, 9  
**Hydroxy stearic acid**, gas-liquid chromatography of, 833  
**Hydroxy unsaturated oils II**. Preparation and characterization of methyl dimorpholate and lesquerolate, 430  
**Hydroxyesters**, from epoxyesters, 585  
**Hypercholesterolemia**, cholesterol lowering effect of dextro-thyroxine, 756

**I**

- Imines**, N-fatty acyl derivatives, 237  
**Industrial oils X**, *calendulae* seed, 345  
— new XI, oil of Boraginaceae, 459  
**Infrared**, determination of alkyl branching of detergents, 334  
**Infrared spectra**, methyl oct-cis-2-enoate, 89  
**Infrared spectroscopy**, use of for surfactant degradation determination, 808  
**Insect waxes I**, composition of, 418  
**Instron universal tester**, 311  
**Iodine value**, relationship with linoleic acid content of cottonseed oil, 248  
**Ionizing radiation**, effect upon fats, 468  
**Iron carbonyl-methyl linoleate**, complex of a characterization, 392  
**Iron pentacarbonyl**, catalyst for hydrogenation, 186  
**Ironweed**, extraction of, 422  
**Ironweed seed oil**, epoxy components, 184  
**Isomerization**, during hydrogenation V. Methyl cis 6, cis 9, cis 12-octadecenoates, 521  
— of mono ethanol acids during hydrogenation, 150  
— selenium catalyzed of unsaturated fatty acid esters, 275  
— with selenium effect of oxygen and other materials, 275  
**Isomers**, preparation of 9, 15 Octadecadienoate types, 397  
**Isopropylidene glycerol**, in the preparation of monoglycerides, 779  
**Isotopes**, studies in hydrogenation, 1

**L**

- Lactic acid**, determination of in shortening containing lactylated glycerides, 457  
**Lactylated glycerides**, in shortening, determination of lactic acid, 457  
**Lesquerella**, preparation of methyl esters from II, 430  
**Limnanthes**, new industrial oils, 167  
**Linoleaidic acid**, metabolism in the essential fatty acid-deficient rat, 292  
**Linoleate**, dimer of methyl 10-trans, 12-trans, 723  
**Linoleic acid**, natural isomers from *Chilopsis linearis*, 42  
— stabilization with lysine and arginine, 780  
**Linoleic acid content**, cottonseed oil, relationship with iodine number, 248  
**Linolenate**, hydrogenation of, comp. of ni and pt catalysts, 615  
— hydrogenation of, 788  
**Linolenic acid**, cyclic acids from, 60  
**Lipase**, of *crambe abyssinica*, 602  
**Lipase hydrolysis** of triglycerides, a semimicro technique, 693  
**Lipid metabolism I**, drugs affecting lipid synthesis, 702  
— gas chromatography in lipid investigation, 707  
— symposium drugs and lipid transport, 697  
**Lipid-protein reactions**, 490  
**Lipids**, analysis of by thin-layer chromatography, 371  
— and sterols of wheat endosperm, 554  
— chromatographic analysis of, 836  
— (endosperm) of Canadian wheat, 340  
— of 21 species of fish, 662  
— oxidized, complexes with egg albumin, 254  
— thin-layer chromatography of, 762  
— thin-layer chromatography of, 836  
**Lipolysis**, of trivernolin, 132  
**Lysine** (and arginine) stabilization of linoleic acid, 780

**M**

- Magnetic resonance**, characterization of detergent chemicals, 129  
**Manometric apparatus**, for hydrogenation, autoxidations, etc., 720  
**Meal**, determination of solvent in, 211  
**Melamine phosphates I**, fire retardant coatings, 670  
**Mercaptans**, addition to methyl stearate and stearic acid, biological activity of cyclopropane derivatives, 4  
— elaidinization of methyl oleate, 351  
**Metabolism**, of linoleaidic acid in rats, 292  
— of trans, trans octadecadienoic acid, 437  
— the effect of neomycin on cholesterol, 760  
**Metal coatings**, evaluation of vinyl ether polymers, and styrenated polymers for, 597  
**Metal soap**, polarographic behavior, 411  
**Methanesulfonic acid**, acid catalyzed additions IV to methyl linoleate, 557  
**Methyl eleostearate**, double bond migration during GLC analysis, 391  
**Methyl esters**, GLC analysis by flame ionization detectors, 377  
— of fatty acids, physical properties, 426  
— physical properties III. Dispersion, 514  
— physical properties IV. Ultrasonic sound velocity, 524  
— rapid semi-micro method of preparation, 87

- Methyl linoleate**, autoxidation of in the presence of polyhydroxy compounds, 331  
— emulsions, histidine-catalyzed II, 347  
— iron carbonyl complex, characterization, 392  
— kinetics of oxidation, 650  
— methanesulfonic acid additions to, by acid catalysis IV, 557

- Methyl oct-cis-2-enoate**, synthesis GLC, infrared spectra, 89  
**Methyl oleate**, deuteriation, 33  
— elaidinization with mercaptans, 351  
— studies on ozonization, 72  
— the dehydro-dimer from, 56

- Micellar relationships** of anionic-non anionic surfactant mixtures, 449  
**Microhydrogenation**, by vibration stirring, 433  
**Milk fat**, oxidized-metallic and grassy flavor components, 181  
— structure of high melting glycerides, 189

- Molar refraction**, of methyl esters, 426  
**Molecular structure**, relationship with flavor perceptibility in aliphatic aldehydes, 326

- Molecular weight** of sulfonate soap, 495  
**Momordica charantia**, bitter gourd, glyceride structure of, 691  
**Monocarboxyls**, degradation of, from autoxidizing lipids, 549

- Monoglycerides**, equilibrium distribution of acyl groups, 367  
— preparation by direct esterification, 727  
— preparation using isopropylidene glycerol, 779  
— surface activity of symmetrical and unsymmetrical types, 519

- Monglycerides in fats**, spectrophotometric determination of small amounts, 535  
**Mugil cephalus**, structure of fatty acids from, 241

- Mullet** (*Mugil cephalus*), structure of fatty acids from, 241  
**Mustard seed**, processing, method for following heat damage, 359  
— processing, oil composition, 599

- Mycotic (anti) activity** of some fatty acid derivatives, 503

**N**

- Natural fats**, pancreatic hydrolysis of, 247  
**Neomycin**, effect on cholesterol metabolism, 760

- Neutron activation method** for measuring soil removal, 678

- New industrial oils**, genus *limnanthes*, 167

- New industrials IX**, *cuphea*, 279

- Nitrate esters**, a synthesis, 44

- Nitriles**, determination of in long chain fatty amides, 717

- Nonionic surfactants**, molecular weight distribution, 281

- Nuclear magnetic resonance**, determination of solid fat index, 177

- hydrogenation of linolein use of, 788

- Nutrition**, effects of dihydroxystearic acid in rats, 50

- evaluation of extrusion-cooked soybean flour, 607

- intravenous, stabilizing of emulsions with egg lecithin, 688

- studies of polyglycerol esters, 434

- studies on the metabolism of, in the essential fatty acid-deficient rat, 292

- the effect of dietary fat on the glyceride structure of rat carcass fat, 285

- vitamin A activity of soybean soapstock, 441

**O**

- 11-Octadecenoic acid**, method of preparation of the *trans, trans*-9 type, 605

- (*trans, trans*) incorporation into *C<sub>20</sub>* polyunsaturated acids of the rat, 437

- Octadecadienoate isomers**, preparation of 397

- Octadecatetraenoic acid**, in plant oils, 209

- occurrence in *echium plantagineum* seed oil, 290

- (6,9,12) from oil of *Boraginaceae*, 459

- Octylphenoxyethoxyethanol**, molecular weight distribution, foam, wetting, detergency, etc., 231

- Oil seeds**, Canadian, factors affecting, 215

- Oleic acid**, elaidinization, 351

- Oleoyl group**, relative reactivity in the 2 and 1-3 position, 413

- Osteospermum**, 345

- Oxidation**, of lipids; degradation of monocarboxyls, 549

- pro-oxidant effects of carbonyl compounds in vegetable oil, 686

- Oxo-stearic**, GLC of methyl ester of, 833

- Oxygen bomb**, studies of stability, 505

- Ozonization**, of methyl oleate, 72

**P**

- Pancreatic hydrolysis**, of natural fats, 247

- Para-octylphenoxyethyl (ethoxy) ethanols**, homogenous series, 267

**Peanuts**, fat acidity, colorimetric procedure for, in, 851  
— pilot plant preparation of defatted product, 66  
**Pepper seed oil (pimento)**, fatty acids of, 548  
**Peroxides**, formed by ionizing radiation on fats, 468  
**Peroxide value**, relationship to flavor characteristics, 649  
**Petitgram oil**, composition by GLC using rubber columns, 306  
**Phosphates**, sodium dialkyl, surfactant properties in heavy duty detergents, 337  
**Phospholipids**, analysis by TLC, 371  
— of South African pilchard (*sardina ocellata jenyns*), 619  
— tuna white muscle, 36  
**Phosphono fatty acids salts and esters**, 205  
**Phosphorus esters**, of long-chain hydroxy fatty acids, 9  
**Phosphorus trichloride**, reactions with fatty acids, 104  
**Pimento pepper seed oil**, fatty acids of, 548  
**Piperidides**, of long-chain fatty acid, preparation and plasticizing characteristics, 237  
**Plant oils**, a naturally occurring all-cis 6,9,12, 15-octadecatetraenoic acid, 209  
**Plasticizers**, from butyl esters, 172  
— N,N-bis(2-alkoxyethyl)amides as, 781  
**Podocarpus nagi**, 6,11,14-Eicosatrienoic acid in, 516  
**Polar fatty derivatives**, gas liquid chromatography of, 415  
**Polarographic behavior** of fatty acids of copper and cobalt, 411  
**Polyglycerol esters**, nutritional studies, 434  
**Polymer content**, oils estimation by use of an internal standard and gas chromatography, 249  
**Polymerization**, heated corn oil, 264  
— methyl esters of unsaturated fatty acids, 25  
**Polyoxyethylene surfactants**, determination of in water, 752  
**Polyurethane**, I fire retardant coatings, 670  
**Preparation of, trans, trans -9, 11-Octadecenoic acid**, 605  
**Processing**, continuous production of cyclic fatty acids, 683  
— continuous refining of cottonseed oil in miscella stage, 666  
— mustard seed (*Brassica juncea*), 599  
— of extrusion-cooked full fat soybean flour, 607  
**Protein-lipid reactions**, 490  
**Protein meals**, method for following heat damage, 358  
**Proteins**, binding to steroids, 481  
**Pyrethrum**, 280

**R**

**Radioactive fatty acids**, production of, 537  
**Radioactive labeling of polyunsaturated acids**, 437  
**Radiation**, effect of ionizing type on fats II, 468  
**Rancidity**, measurement of by 2-thiobarbituric acid, 540  
**Rapeseed**, effect of seed preparation on efficiency of extraction and oil quality, 63  
— genetic control of fatty acid biosynthesis, 475  
**Rat fat**, the effect of dietary fat on the glyceride structure of the fat, 285  
**Recinum communis**, studies on the changes in fatty acid composition of I, 251  
**Refining**, cottonseed oil in miscella stage (continuous), 656  
**Reflectance method**, soil removal measurements, a comparison with neutron activation method, 678  
**Refraction index**, of methyl esters, 426  
**Resins**, trace metal removal, cation exchange for, 785  
**Rice lipids**, fatty acid composition by gas-liquid chromatography, 273

**Ritter reaction**, application to olefins, 79  
**Rubber columns**, for GLC separation of triglycerides and other non-polar compounds, 306

**S**

**Salicylanilides**, two new stable polybrominated types, 478  
**Saponification**, a comparison of two methods, 336  
**Sardina ocellata jenyns**, (South African pilchard) phospholipids of, 619  
**Saturated and unsaturated fatty acids**, Determination of structure of fats, 445  
**Selectivity**, hydrogenation, a measure of using soybean oil, 380  
**Selenium**, catalyzed isomerization of unsaturated fatty acid esters, 275  
**Seagolin**, 280  
**Sesamin**, sesamolin and related compounds, recent research, 280  
**Sesamolin**, sesamin and related compounds, recent research, 280  
**Sesamum angolense**, 280  
**Sesamum indicum**, recent research on, 280  
**Shortening**, determination of lactic acid in, 457  
**Shortenings**, stability of, 795  
**Silver nitrate on silica**, separation of triglycerides by column chromatography, 403  
**Soap**, the true molecular weight of the sulfonate type, 495  
— temperature studies of coacervating cationic type, 461  
**Soapstock**, acidulated, vitamin A activity in the chick, 441  
**Sodium dialkyl phosphates**, surfactant properties, use in heavy detergents, 337  
**Soil removal**, as a rate process, 120  
**Soil removal measurements**, neutron activation method, 678  
**Solid fat index**, using nuclear magnetic resonance, 177  
**Solvent**, residual determination in meals, 211  
**Sorbic acid**, hydrogenation with pentacyanocobaltate II, 153  
**Sorbitan monostearate**, determination of, 791  
**South African pilchard** (*sardina ocellata jenyns*), phospholipids of, 619  
**Soybean flour**, production and nutritional value of extrusion-cooked full fat type, 607  
**Soybean oil**, catalysts for selective hydrogenation III, 464  
— hydrocarbons from, deodorizer distillates, 406  
— method for evaluating selectivity of hydrogenation, 380  
— partial hydrogenation and winterization, 260  
— selective hydrogenation with various catalysts, 400  
— trace metal removal, 785  
**Soybean soapstock**, vitamin A activity in chicks, 441  
**Soybeans**, unsaponifiables from shell drain condensate, 116  
**Spectrophotometric analysis** of fats for monoglyceride content, 535  
**Stability**, evaluation of methods for, 795  
— studies with the oxygen bomb method, 605  
**Steroids**, binding to proteins, 481  
**Sterols and lipids** of wheat endosperm, 554  
**Styrenated polymers**, evaluation of for metal coatings, 597  
**Sucrose esters**, chromatographic analysis, 198  
**Sulfonate soap**, the true molecular weight of, 495  
**Sulfonates**, linear alkylate type, fish bioassays, 746  
**Surface active agents**, analytical separation, 187  
— degradability of select nonionic, 799  
— identification by thin layer chromatography, 552  
**Surface activity**, of symmetrical and unsymmetrical monoglycerides, 519  
**Surfactants**, determination of polyoxyethylene nonionic type in water, 752

— from ethylene oxide, 804  
— performance and properties (linear secondary alcohols), 742  
**Syndets**, degradability of select, 799  
— monohydroxy soaps in, 841  
**Synthesis of triglycerides** from fish oil fatty acids, 533

**T**

**Tachardia lacca**, 418  
**Tallow**, heavy duty detergents from, 654  
**Tallow based surface active agents**, biodegradation of, in river water, 355  
**Thermal decomposition of**, of dimethylaurylamine oxide, 329  
**Thermal degradation**, corn oil, 264  
**Thiobarbituric acid**, flavor evaluation of fats and oils, 124  
— method for measuring the rancidity of fats, 540  
**Thiobarbituric acid value**, relationship to flavor characteristics, 649  
**Toxophorols**, determination by GLC, 473  
**Tosylates**, conversion to aldehydes, 520  
**Triglycerides**, coefficient of expansion and temperature dependence, 184  
— glass paper chromatography and elatography of triglycerides, 378  
— hepatic transfer, action of adrenal hormones, 774  
— of *Cuphea llavaria*, 588  
— relative reactivity of the oleyl group to hydrogenation, 2 and 1-3 positions, 413  
— separation by column chromatography, 403  
— separation using GLC and rubber columns, 306  
— synthesis from fish oil fatty acids, 583  
**Trivernolin from veronica anthelminatica seed**, 422  
**Trivernolin**, lipolysis by lipase, 132  
**Tropical materials**, problems of improving, 224  
**Tuna**, phospholipids of white muscle, 36

**U**

**Ultrasonic sound velocity IV**, as applied to physical properties of fatty acid methyl esters, 524  
**Ultrasonics**, effects on detergents, 543  
**United Kingdom**, problems in improving tropical materials, 224  
**Unsaponifiables** from soybean oil deodorizer distillate, 406  
**Unsaturated triglycerides**, determination of the double bond position, 322  
**Urea**, breakdown activity in cottonseed, 69  
**Urethane foams**, from blown castor oils, 23

**V**

**Vateria indica**, configuration of the disaturated glycerides in, 456  
**Vegetable oils**, minor fatty acid components of, 667  
— pro-oxidant effects of some carbonyl compounds in, 686  
**Vernonia anthelminatica**, epoxy components, 134  
— extraction of the oil or Trivernolin, 422  
**Versamid 900**, chromatographic analysis, 415  
**Vibration**, stirrer for microhydrogenation, 433  
**Vinyl ether polymers**, evaluation of for metal coatings, 597  
**Vitamin A**, activity in soybean soapstock, 441  
**Vitamins**, fat soluble, determination by gas-liquid chromatography, 473

**W**

**Water**, detergent removal from, 813  
— the determination of polyoxyethylene non-ionic surfactants in, 752  
— quality standards and detergents, 736  
**Wheat**, endosperm lipids-Canadian, 340  
**Wheat endosperm**, studies of lipids, 554  
**Winterization**, after hydrogenation of soybean oil, evaluation, 260

**COMMITTEES****A**

**AOCS-ASTM Committee on Fatty Nitrogen** establishes Task Group 5, (8) 45

**C**

**Commercial fats and oils**, Committee report, 1964, 454

**E**

**Education Committee Report**, (9) 20

**Epoxidized Oils**, Subcommittee report on oxirane oxygen, 1963, 86

**I**

**Industrial Oils and Derivatives**, 1964 report of subcommittees, (1) 12

**Instrumental Techniques Report**, 1962-1963, 158

**L**

**Literature Review**, annual report, 1964, Part I, (8) 559

annual report, 1964, Part II, (9) 623

**S**

**Smalley**, committee announces program, (6) 28  
— 46 annual committee report 1963, 1964, 452  
**Smalley Program**, 1964-65, program underway, strong participation expected, (7) 35

## NEWS

## A

- Aerosols**, international encyclopedia soon to be published by A. Herzka, London, (7) 47  
**Analabs**, Sponsoring Gas and TLC course, June 15-19 1964, (6) 38  
**AOCS Award in Lipid Chemistry**, to be sponsored by Applied Science Laboratories, (5) 17  
— call for nominations, (11) 43  
— deadline for nominations announced, (12) 23  
**AOCS-ASQC**, Evop short course termed success, (12) 54  
**AOCS-ASQC-ASTM Short Course**, June statistics course successful, (8) 49  
**AOCS Award in Lipid Chemistry**, Erich Baer receives first award (9) 13  
**Applied Science Laboratories**, sponsoring AOCS Award in Lipid Chemistry, (5) 17  
**ASQC and AMA**, sponsor 3 day testing methods course, (2) 33  
**ASTM**, meeting on gas chromatography, (8) 30  
— holds 13th annual conference on mass spectrometry, (12) 43  
**Axelrod, Bernard**, Book Review—*Advances in Enzymology* Volume XXV, published by John Wiley & Sons (10) 20

## B

- Erlich Baer**, wins AOCS Award in Lipid Chemistry, (9) 13  
**Bates, N. A.** Book Review—The Chemistry of Natural Products 2, symposium sponsored by IUPAC and the Czechoslovak Chemical Society, (8) 28  
**Becker, K. W.** Editorial—Solvent Extraction Engineering and Design, (10) 8  
**Betzig, H. M.** Earlier Payout Through Tight Project Scheduling and Control (3) 58  
**Biodegradable detergents**, SDA voluntary changeover, (1) 24  
**Blank, M. L.** Honorable mention in Bond Award, (7) 16  
**Bond Award**, presented to R. K. Downey and co-author R. M. Craig. Honorable mentions to M. L. Blank and Helen A. Moser, (7) 16  
**Book Review—Advances in Enzymology**, Volume XXV, published by John Wiley & Sons, (10) 20  
— Advances in Food Research, Vol. XI, edited by Chichester, Mrak, and Stewart, (1) 18  
— Advances in Organic Chemistry: Methods and Results edited by Raphael, Taylor and Wynberg, (6) 42  
— Advances in Petroleum Chemistry and Refining, Vol. VII, edited by Kohe and McKetta, Jr., (1) 31  
— Advances in Physical Chemistry, Volume 1, edited by S. G. Cohen, A. S. Streitwieser, Jr. and R. W. Taft, (8) 28  
— An Introduction to Clay Colloid Chemistry by van Ophusen, (6) 42  
— Block and Graft Copolymers, by Ceresa, (1) 18  
— Chemistry: A Survey of Principles, by Ewing and Meyer, (1) 18  
— The Chemistry of Natural Products 2, symposium sponsored by IUPAC and the Czechoslovak Chemical Society, (8) 28  
— The Chemistry and Physics of Rubber-Like Substances, edited by Bateman, (9) 54  
— Chromatographic Sterol Analysis as Applied to the Investigation of Milk Fat and Other Oils and Fats, by Peereboom, (9) 54  
— Colloidal Surfactants, Some Physicochemical Properties by Shipoda, Nakagawa, Tamamushi and Isemura, (6) 42  
— Color: A Guide to Basic Facts and Concepts, by Burnham, Hanes, and Bartleson, (1) 28  
— Electrons in Atoms, by Lothian, (8) 28  
— Gas Phase Chromatography, Vol. I, II, III, by Kaiser, (12) 55  
— Industrial Waxes, Vol. I, II, by Bennett, (11) 22  
— Information Retrieval and Machine Translation, Vol. III, edited by Kent, (11) 22  
— Infrared Band Handbook by Szymanski, (5) 32  
— Ionic Equilibria in Analytical Chemistry, by Freiser and Fernando, (8) 28  
— Man-Made Transuranium Elements by Seaborg, (5) 32  
— Mass Transfer Process Calculations, by Sawistowski and Smith, (12) 55  
— Molecular Spectroscopy, General and Introductory Lectures, Fifth European Congress on, Molecular Spectroscopy,

- reprinted from Pure and Applied Chemistry, (11) 22  
— Newer Methods of Preparative Organic Chemistry edited by W. Foerst, (6) 42  
— Physical Chemistry of Petroleum Solvents, by Reynolds (11) 22  
— The Science of Surface Coatings, edited by Chatfield, (8) 28  
— Standard Methods for the Analysis of Oils, Fats and Soaps for the International Union of Pure and Applied Chemistry, published by IUPAC, (10) 20  
— Syntheses Synthetic Resins, edited by Kunstharsfabrik Synthese N. V., (12) 55  
— Thin Layer Chromatography by Bobbitt, (5) 32  
— Viscosity and Flow Measurement: A Laboratory Handbook of Rheology, by Van Wazer, Lyons, Kim, and Colwell, (1) 18  
— Zone Melting of Organic Compounds, by Herington, (1) 28  
**Brown, J. B.** to be honored at the Fall Meeting in Chicago, (6) 28  
**Bueltsman, C. G.**, and Pattison, E. S. Editorial—Detergent Developments to Protect Water Quality, (11) 4  
**Butler, G. B.** Book Review—Block and Graft Copolymers, by Ceresa, (1) 18

## C

- Candidates for election, 1964-65, (2) 16  
**Canisius College**, holds gas chromatography course, (12) 43  
**Carnes, W. J.** Book Review—Gas Phase Chromatography, Vol. I, II, III, by Kaiser, (12) 55  
**Castor oil**, report, (3) 68  
**Castor Oil Import**, ICOA establishes uniform specifications, (7) 46  
**Cavanagh, G. C.** Editorial—Safety in Solvent Plant Operation and Miscella Refining, (10) 4  
**Chemurgic Council**, 28th Annual Conference to be held in March, 1964, (2) 38  
**Chicago Engineering and Science Center**, progress being made towards building (8) 47  
**CHI-BIPCA**, Congress date changed, (9) 56  
**Coleman, W. T.** Book Review—Color: A Guide to Basic Facts and Concepts, by Burnham, Hanes, and Bartleson, (1) 28  
**Commentary, AOCS**, A Bright Future in Steady Growth Report of the President 1963-64, (6) 6  
— Penn State Symposium to survey present status of lipid research, (7) 8  
— Summary of Governing Board Action, Report of the President, (12) 8  
**Constitution, AOCS**, membership approves changes, (11) 8  
**Cottonseed Processing Clinic**, held 13th Annual Meeting in New Orleans, (4) 16  
— annual program announced, (2) 8  
**Craig, B. M.** Honored as co-author on Bond Award with R. K. Downey, (7) 16  
**Crisler, R. O.** Book Review—Information Retrieval and Machine Translation, Vol. III, edited by Kent, (11) 22  
**Custom Service Chemicals**  
— hosts TLC seminar workshops, (11) 14  
— hosts TLC workshops, (6) 46

## D

- Dasher, G. F.** Book Review—Viscosity and Flow Measurement: A Laboratory Handbook of Rheology, by Van Wazer, Lyons, Kim, and Colwell, (1) 18  
**Day, E. A.** honored by IFT, (6) 30  
**Downey, R. K.** Presented with Bond Award, (7) 16
- F**
- Fairhall, A. W.** Book Review—Man-Made Transuranium Elements by Seaborg, (5) 32  
**Fatty Acid Report**,  
— (1) 37  
— (2) 18  
— (3) 64  
— (5) 35  
— (6) 64  
— (7) 46  
— (9) 20  
— (10) 16  
— (11) 24  
**Fatty Acid Producers' Report**, (5) 35  
**Fatty Acids Report**, (6) 64  
— (7) 46  
— production, (10) 16

- Fenske, M. R.** Book Review—Advances in Petroleum Chemistry and Refining, Vol. VII, edited by Kohe and McKetta, Jr., (1) 31  
**Feuge, R. O.** Editorial—Confectionery Fats: Their Current Status and Potential Market, (4) 4

## G

- Ganuchean, J. J.**, elected to honorary membership, (5) 7  
**Gas Chromatography**, Instrument Society of America sponsoring a five day Intermediate Level short course, (7) 16  
**Gas Chromatography Institute**, to hold course on April 3, 1964, (2) 38  
**Gilbert, T. W.** Book Review—Chemistry: A Survey of Principles, by Ewing and Meyer, (1) 18  
**Glycerine**, July production, (10) 18  
— May production statistics, (8) 64  
— production, (11) 44  
— production, (12) 10  
— production up for October 1963, (1) 32  
— production down for January, 1964, (4) 24  
— production for Feb., 1964, (5) 37  
— production, 1964, (2) 19  
— production up, (3) 66  
— production, (9) 72  
— production down April, 1964, (7) 24  
**Gordon Research**, conferences on Lipid Metabolism to be held June 15-19, 1964 in Meriden, New Hampshire, (4) 31  
**Governing Board**, Annual Report, (6) 8  
**Guide to Authors**, general publication policies, (1) 34a

## H

- Hackerman, Norman**, to present 1964 Mattiello Memorial Lecture, (6) 64  
**Harlan, J. W.** Editorial—Applications of Nuclear Magnetic Resonance Spectroscopy in the Fat and Oil Industry, (9) 4  
**Harvin, R. L.** See Mayland, B. J.  
**Herrmann, K. W.** Book Review—Colloidal Surfactants. Some Physicochemical Properties by Shinoda, Nakagawa, Tamamushi and Isemura, (6) 42  
**Hoerr, C. W.** Editorial—X-ray diffraction of fats, (7) 4  
**Hopper, T. H.**, elected to honorary membership, (5) 7

## I

- IFSCC Twenty Countries Represented at 3rd Congress**, (8) 18  
**Indian Council**, organizes seminar, (6) 28  
**International Congress**, attracts representatives from 40 countries, (12) 43  
**International Congress of Agriculture and Food Industries**, will meet at Abidjan, Ivory Coast, Africa in November 1964, (4) 24  
**International Congress on Surface Active Substances**, meetings will be held in Brussels, Belgium, September 7-12, 1964, (4) 62  
**ISA**, offers short course on gas chromatography, (11) 44

## J

- Jones, J. H.** Book Review—Advances in Petroleum Chemistry and Refining, Vol. VII, edited by Kohe and McKetta, Jr., (1) 31

## K

- Karunakaran, Arthur**, Book Review—The Chemistry and Physics of Rubber-Like Substances, edited by Bateman, (9) 54  
**Kaufman, F. L.** Editorial—Infrared Spectroscopy of Fats and Oils, (8) 5  
**Klausch, V.** Book Review—Syntheses Synthetic Resins, edited by Kunstharsfabrik Synthese N. V., (12) 55  
**Kropp, P. J.** Book Review—Advances in Organic Chemistry: Methods and Results edited by Raphael, Taylor and Wynberg, (6) 42  
— Book Review—Newer Methods of Preparative Organic Chemistry edited by Foerst (6) 42

## L

- Lundberg, W. O.** Editorial—A Bright Future in Steady Growth, Report of the President, 1963-64, (6) 6  
— honored by Society of Chemical Industry, (12) 51  
**Lyness, W. J.** Book Review—The Science of Surface Coatings, edited by Chatfield, (8) 28

**M**

**McKerrigan, A. A.** Some Aspects of the Edible Fat Industry in the United Kingdom, (4) 56  
**McHale, J. C.** See Report on Fats and Oils.

**M**

**MacGee Award**, nominations now being accepted, (3) 69  
 — to be presented to Raghuvir and Roubal, (9) 11

**Margrave, J. L.** Book Review—Molecular Spectroscopy, General and Introductory Lectures, Fifth European Congress on Molecular Spectroscopy, reprinted from Pure and Applied Chemistry, (11) 22

**Martin, J. J.** Book Review—Mass Transfer Process Calculations, by Sawistowski and Smith, (12) 55

**Marvell, E. N.** Book Review—Zone Melting of Organic Compounds, by Herington, (1) 28

**Mayland, B. J.**, Harvin, R. L. and Trimarke, C. R. Recent trends in hydrogen plant technology, (6) 26

**Meetings of AOCS**. 1964, Spring, New Orleans, biodegradable detergents Symposium featured, (3) 14  
 calendar of social events, (3) 22  
 committee room assignments, (3) 34  
 features Symposium on thermal oxidation and polymerization in fats, (3) 36

ladies program, (2) 6  
 ladies' program completed (3) 26

plans nearing completion, (1) 8  
 tall oil symposium featured, (3) 88

technical program and abstracts, (3) 4  
 55th Annual Spring Meeting, New Orleans record attendance and papers, (7) 6

— 1964, Fall, Abstracts of Papers 38th Fall Meeting Chicago, Illinois, (8) 16

A Golden Opportunity, (8) 8  
 AOCS in Chicago, (9) 6

Calling All Processors, (9) 6  
 deadline for titles and abstracts, (4) 8  
 donors and prize winners announced, (12) 14

exhibit area expanded, (5) 12  
 exposition layout, product and company listing, (9) 18

governing board wives visit arts club, (12) 64  
 highlights of meeting, (12) 16

International Flavor in the Keynote, (6) 16  
 Ladies' program of Fall Meeting Announces Industry Prize Donors, (9) 11

38th fall meeting, Chicago  
 programming under way, (7) 12

Room Assignments for Committee Meeting, (9) 42

— 1965 Spring, Houston committee named, (11) 6

symposium on natural fat triglycerides planned, (11) 16

symposium on triglyceride analysis to honor Professor Hilditch, (12) 12

**Metcalfe, L. D.** Editorial—Gas Chromatography in the Fat and Oil Industry, (5) 4

**Miller, Clara E.** Book Review—Physical Chemistry of Petroleum Solvents by Reynolds, (11) 22

**Milner, R. T.** represents AOCS at Food Protection Committee, (2) 8

**Moser, Helen A.** Honorable mention in Bond Award, (7) 16

**Mysels, K. J.** Book Review—An introduction to Clay Colloid Chemistry by van Olphen, (6) 42

**N**

**National Academy of Science**, aids White House study of utilization of scientific and engineering manpower, (8) 45

**National Renderers Association**, advance promotional program in Japan, (1) 32  
 names new officers, (1) 37

— president reports on world market survey, (3) 32

— report on status of Japanese activities, (3) 68

— to report future consumption of fats in feed, (7) 16

— variety keynotes of New Orleans Meeting, (11) 44

**National Research Council**, Lowers daily calorie allowances for adults, (7) 35

**Norelco**, schedules x-ray school, (8) 80  
**North Dakota State University**, holding 6th Annual Symposium on New Coatings and New Coating Material, June 1-4, 1964, Fargo, N.D., (4) 20

**O****Obituary**

— Aaland, A. E., (10) 35  
 Bruce, G. N., (9) 30  
 — Douglas, W. F., (11) 45  
 — Gerardt, C. A., (4) 22  
 — Kishler, I. M., (8) 63  
 — Ott, Emil, Jr., (5) 37  
 — Prosch, W. R., (7) 35  
 — Santoro, W. E., (12) 54  
 — Scherr, O. L., (5) 37  
 — Suter, H. R., (7) 35

**O'Connor, R. T.** Editorial—Applications of mass spectroscopy in fatty acid and lipid chemistry, (6) 4  
**Officers**, 1964-65 officers announced, (5) 6  
**OTA**, co-sponsors oil and fat symposium, (9) 56

**P**

**Paint Technology Journal**, announces annual award competition, (8) 68

**Pattison, E. S.** See Buellman, C. G.  
**Person, W. B.** Book Review—Electrons in Atoms, by Lothian, (8) 28

**Pittsburgh Conference**, preliminary announcement of 1965 meeting, (8) 46

**Poem, Hiawatha's Insect Attractant**, (10) 6

**Pollock, J. M.** Book Review—Advances in Food Research, Vol. XI, edited by Chichester, Mrak, and Stewart, (1) 18

**Porter, F. B.**, past president honored by associates, (8) 62

**Potts, T. J.** Book Review—Standard Methods for the Analysis of Oils, Fats and Soaps for the International Union of Pure and Applied Chemistry, published by IUPAC, (10) 20

**Puckett, E. Rita**. Book Review—Thin-Layer Chromatography by Bobbitt, (5) 32

**Q**

**Quackenbush, F. W.** appointed AOCS book review editor, (6) 64

**R**

**Referee Chemists**, official list, 1964-65, (7) 46  
**Regional Research Laboratory of India**, holds seminar on fatty acids, February, 1965, (11) 14

**Rensselaer Polytechnic Institute**, offers principles course on color technology, (11) 16

**Report on Fats and Oils**, by J. E. McHale. Bottoms Up, (1) 6

— Bright Future, (3) 18  
 — Do it yourself, (8) 6

— End of the Road, (6) 19  
 — Gladly the Cross Hedge I'd Bear, (4) 10  
 — Through A Glass Darkly, (2) 4

— Tummy Turn-up Time, (5) 13

**Rouser, George**, Editorial—Penn State Symposium to survey present status of lipid research, (7) 8

**S****Sections of AOCS**

— **North Central Section**, E. A. Knaggs highlights water resources problem attributed to detergents, (10) 16

— A. E. Griffin speaks, (12) 10  
 — E. A. Knaggs speaks at first meeting, (9) 30

Governing board meeting June 4th, (7) 38

J. H. Guill, Jr. speaks at November, 1963 meeting, (1) 24

C. W. Hoerr speaks at March 4, 1964 meeting, (4) 12

E. E. Rice speaks at Jan. 22 meeting, (3) 28  
 Weatherman, Harry Volkman speaker, (6) 16

— **Northeast Section**, announcement of Philadelphia Meeting, (10) 16

S. S. Chang speaks at meeting June 2, 1964, (5) 17  
 enthusiastic attendance at 3rd Annual Symposium held April 7, 1964, (5) 12

holds 3rd annual Symposium, (2) 18  
 N. W. Kempf speaks at first meeting (9) 30  
 N. W. Kempf and R. Sasin speak at first two meetings, (11) 14  
 Symposium plans complete, (3) 29  
 section officers elected, Dr. Chang speaks, (7) 38

— Southwest, announces new officers, (9) 30  
**Seed Crushers Congress**, 42nd congress held in Wiesbaden, (7) 20

**Silvis, S. J.** Editorial—Continuous feeding, Mixing and spray drying of detergent formulations, (12) 4

**Sinclair, H. M.**, describes AOCS Symposium in new Hiawatha Poem, (10) 6

**Sixth International Congress on Biochemistry**, to meet in New York July 26-August 1, 1964, (6) 18

**Smalley Committee**, program announced, (6) 28

**Soap and Detergent Association**, changeover to biodegradable detergents, (1) 24

**Society of Cosmetic Chemists**, held annual meeting December 3, 1963, (2) 8

**Soybean Convention**—ASA, NSPA and SCA to convene simultaneously in Kansas City, Mo. August 17-18, 1964, (6) 18

**Special Libraries Association**, translation center reaches new high, (11) 44

**Special Short Course**, sponsored by AOCS, ASQC and ASTM, June 25-27, 1964, (5) 6

**Spect, Dean**. Editorial—The Rendering Industry, Versatile Materials Open New Fields of Industrial Application, (4) 18

**Standards Committee**, 1964 report, (7) 18  
 Summer School, in Chemistry and Technology, (9) 41

**Superior Service Award**, USDA honors five scientists, three AOCS included, (7) 20

**Symposium**, 1964, additional papers added to program, (5) 8

— complete program, (6) 12

— educational symposium to supplant 1964 Short Course (3) 54

lipid Symposium draws praise from chemists attending, (9) 8

— will feature quantitative methodology, (4) 6

**T**

**Tallow**, world production report, (1) 29

**Thompson, Proctor**. Commentary—Pacquin Avenue, Columbia Missouri, (11) 48

**Trimarke, C. R.** See Maryland, B. J.

**U**

**U.C.L.A.**, announces research conference on gas chromatography, (11) 8

**University of Missouri**, schedules two paint courses for July, 1964, (6) 18

**USDA**, has open house, (12) 26

**U. S. Government**, offers grants for Latin America exchange program, (4) 24

**V**

**Villemoz, C. L.** Book Review—Chromatographic Sterol Analysis as Applied to the Investigation of Milk Fat and Other Oils and Fats, by Peereboom, (9) 54

**W**

**Wellington, R. R.** Safe Handling of LP-Gas, (4) 28

**Wharton, H. W.** Book Review—Infrared Band Handbook by Szymanski, (5) 32

Ionic Equilibria in Analytical Chemistry, by Freiser and Fernando, (8) 28

**Wilder, E. A.** Book Review—Industrial Waxes Vol. I, II, by Bennett, (11) 22

**Woerfel, J. R.** Editorial—Edible Meat Fats—Current Status of Production and Use in the United States, (1) 4

**World conference**, on cottonseed protein held in New Orleans, (3) 21

**Z**

**Zettlemoyer, A. C.** Book Review—Advances in Physical Chemistry, Volume I, edited by S. G. Cohen, A. S. Streitwieser, Jr. and R. W. Taft, (8) 28