oleyl alcohol ester of the sophoroside of 17-hydroxyoleic acid (40%) together with lactonic and acidic hydroxy acid sophorosides. The major product was characterized as the octadecyl derivative 3 and the structure was established by degradation and by synthesis of the α anomer of the hepta-acetate. The composition of the fermentation product was obtained by gas-liquid chromatographic analysis of the trimethylsilyl ethers of the hydrogenated deacetylated products.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY ON SMALL PARTICLE SILICA GEL. R.E. Majors (Varian Aerograph, 2700 Mitchell Drive, Walnut Creek, Calif. 94598). *Anal. Chem.* **44**, 1722–26 (1972). Liquid chromatographic columns of 5- to 10-μm TLC grade silica gel have been packed by a high pressure, balanced density slurry technique. The columns have yielded HETP values of less than 0.1 mm at a linear velocity (v) of 1.18 cm/sec. For nitrobenzene ($k' = 4.3$), 15 effective plates per second were generated at 1.18 cm/sec. The HETP vs. v curve was lower than that obtained on Corasil II, a porous layer bead (PLB) adsorbent. The columns showed little loss of efficiency at high v's. The sample loading was greater than for an equal weight of PLB, but not so great as predicted by the ratio of surface areas.

APPARATUS FOR AUTOMATED GEL PERMEATION CLEANUP FOR PESTICIDE RESIDUE ANALYSIS. APPLICATIONS TO FISH LIPIDS. R.C. Tindle and D.L. Stalling (Fish-Pesticide Res. Lab., Columbia, Mo.). *Anal. Chem.* **44**, 1768–73 (1972). The gel permeation cleanup procedure for fish and other tissue extracts in pesticide residue analysis, previously reported by Stalling, Tindle, and Johnson, has been automated. The automated system allows unattended operation while processing up to 23 samples with the system as described. Reproducibility of recoveries were quite good (coefficient of variation 5%) and cross-contamination was estimated at less than 1%. The chromatography system was constructed from commercially available components so that other investigators may easily duplicate the device without the necessity for fabrication of special components.

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PHOSPHOLIPID SYNTHESIS IN HELA CELLS EXPOSED TO IMMUNOGLOBULIN G AND COMPLEMENT. F. Guttler (The Neurochem. Inst., DK-2200 Copenhagen N, Denmark). *Biochem. J.* **128**, 953–60 (1972). HeLa cells were cultured in the presence of heterologous immunoglobulin G and guinea-pig serum together with [^{32}P]phosphate. Incorporation of [^{32}P]-phosphate was significantly stimulated by anti-HeLa immunoglobulin G and complement-sufficient serum compared with immunoglobulin G from unimmunized rabbits and complement. Within 2.5h heat-inactivated guinea-pig serum and anti-HeLa immunoglobulin G stimulated [^{32}P]phosphate incorporation to the same extent as heat-inactivated complement and immunoglobulin G from unimmunized rabbits. Compared with cells exposed to immunoglobulin G from unimmunized rabbits together with complement, anti-HeLa immunoglobulin G with complement increased the phospholipid content of HeLa cells twofold with 5h of incubation. The stimulation of [^{32}P]phosphate turnover occurred in cells filling up their cytoplasma with vacuoles. This supports the suggestion that the accumulation of phospholipid in these cells may be concerned with the synthesis and function of cytomembranes.

SOME FACTORS INFLUENCING THE PRODUCTION OF PROTEIN ISOLATES FROM WHOLE FISH. W.W. Meinke, M.A. Rahman and K.F. Mattil (Food Protein R&D Ctr., Texas Eng. Exp. Sta., Texas A&M Univ., College Station, Tx 77843). *J. Food Sci.* **37**, 195–98 (1972). Protein solubility profiles indicate theoretical recovery of 45–55% of the protein ($N \times 6.25$) of whole fish as an isolate by extractions at pH 3 or 10–11 and precipitation at pH 5–6. Frozen fish may produce lower isolate yields than fresh fish. The quantity of fish protein dissolved at 22C is independent of fish solids up to 40g per 100 ml of extractant; however, the actual extract volume recoverable decreases with increased fish weight. At 55C gelation occurs and the recovery of the protein extract by centrifuging is impaired at pH 3. At high and low pH, NaCl decreases the protein solubility but enhances solubility at pH of minimum protein solubility.

DIFFUSION EXTRACTION OF CHLOROGENIC ACID FROM SUNFLOWER KERNELS. F.W. Sosulski (Dept. of Crop Sci., Univ. of Saskatchewan, Saskatoon, Canada). C.W. McCleary and F.S. Soliman. *J. Food Sci.* **37**, 253–6 (1972). The diffusion of phenolic and quinic acids from dehulled sunflower kernels into aqueous solvents was compared with ethanol extraction of sunflower meal. The diffusion rate was temperature dependent and, at 80C, the aqueous procedure was more effective than reflux extraction with 95% ethanol in removing chlorogenic, caffeic and quinic acids from sunflower samples. After oil extraction, the meals from diffused kernels were light in color at alkaline pH while control and ethanol-extracted meals were green. Losses of diffused solids varied between 11 and 14% but only a small percentage of nitrogen diffused from the dehulled seeds and no oil was found in the freeze-dried extracts. Oil quality and yield were not affected by the diffusion process.

MECHANISM OF DIELDRIN-INDUCED FAT ACCUMULATION IN RAT LIVER. Satish C. Bhatia and T.A. Venkitasubramanian (Dept. of Biochem., Vallabhbhai Patel Chest Inst., Univ. of Delhi, Delhi-7, India). *J. Agr. Food Chem.* **20**, 993–6 (1972). Dieldrin was administered orally to male albino rats at a dose level of 30 mg/kg and the effects on hepatic lipid metabolism were determined. Liver total lipid content was increased ($p < 0.05$) and this change was confined only to the triglyceride fraction; phospholipid and cholesterol levels remained unaltered. This was paralleled by an increase in incorporation of glucose-^{14}C into glyceride-glycerol. The incorporation of the isotope into fatty acids and the activity of hepatic fatty acid synthetase were significantly reduced in insecticide-administered rats, indicating an inhibition of lipogenesis by dieldrin. The secretion of triglycerides into plasma is unaffected. Hence, the accumulation of fat in the liver during dieldrin toxicity is ascribed to enhanced hepatic synthesis of triglycerides, due to increased availability of free fatty acids and α-glycerophosphate.

SPECIFIC INHIBITION OF MITOCHONDRIAL FATTY ACID OXIDATION BY 2-BROMOPALMITATE AND ITS COENZYME A AND CARNITINE ESTERS. J.F.A. Chase and P.K. Tubbs (Dept. of Biochem., Univ. of Cambridge, Cambridge CB2 1QW, U.K.). *Biochem. J.* **129**, 55–65 (1972). The CoA and carnitine esters of 2-bromopalmitate are extremely powerful and specific inhibitors of mitochondrial fatty acid oxidation. 2-Bromopalmitoyl-CoA, added as such or formed from 2-bromopalmitate, inhibits the carnitine-dependent oxidation of palmitate or palmitoyl-CoA, but not the oxidation of palmitoylcarnitine, by intact liver mitochondria. 2-Bromopalmitoylcarnitine inhibits the oxidation of palmitoylcarnitine as well as that of palmitate or palmitoyl-CoA. It has no effect on succinate oxidation, but inhibits that of pyruvate, 2-oxoglutarate or hexanoate; however, the oxidation of these substrates (but not of palmitate, palmitoyl-CoA or palmitoyl-carnitine) is restored by carnitine.

CALL FOR NOMINATIONS
AWARD OF MERIT

The Society Award of Merit is to be presented to qualified Society members at the 64th Annual Meeting, New Orleans, April 29-May 2, 1973.

The Award is given to recognize current and past achievements in serving the Society:

(a) Active productive service to AOCS committee work.

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(d) Any distinguished service to the Society not herein otherwise specifically provided for.

Nominations shall cite the record of the nominee which qualifies him for the Award, and five copies of the nomination shall be submitted to James Lyon, Executive Director, American Oil Chemists' Society, 508 S. Sixth, Champaign, Illinois 61820 before February 2, 1973. ■