

New Books

J. F. Gerecht, Book Review Editor

Kosmetikum Feinseife: Abris seiner Technologie, Edited by Dieter Osteroth (Alfred Hüthig Verlag, Heidelberg, Germany, 1972, 152 p., DM 22).

This paperback volume represents the most up to date and detailed treatment of the present state of the art of toilet soap manufacturing. In the last two decades this subject has been thoroughly neglected, and there are essentially no current books available on it. Therefore this work represents an important contribution and will become a valuable tool to everyone in this field.

The book covers all phases of modern soap manufacture. The first chapter discusses the raw materials and additives used in the preparation of toilet soaps, including a comprehensive discussion of the various fat splitting processes, and addresses itself to such practical questions as construction materials, storage problems and pretreatment of raw materials.

Requirements for special soap additives such as perfumes, antimicrobial agents, dyes, antioxidants, bleaches and optical brighteners are treated in detail. There is a very useful comparison of the various continuous and batch processes for the manufacture of soap, via either the neutral fat or fatty acid route. In particular, the Mazzoni process and the DeLaval process are fully described. The book contains excellent flow diagrams and photographs of the most important units presently used in the industry.

Other processing techniques such as drying, finishing, stamping, plodding and milling are discussed, with many useful examples and illustrations.

The volume's closing chapter gives some very practical advice on chemical and technical production problems that might occur.

Kosmetikum Feinseife will prove to be an exceedingly useful tool to those in all aspects of this field—basic research, process development, engineering, management or operations. The book is written in German, and hopefully will also be published in English. The volume contains 47

drawings and photographs, and 120 references, and is part of a series, dealing with subjects of interest in the field of cosmetics, being assembled by Hans Freytag.

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Topics in Lipid Chemistry, Vol. 3, Edited by F.D. Gunstone (J. Wiley and Sons, Inc., New York, 1972, 282 p., \$17.50).

This volume represents a continuing effort to review various topics in lipid chemistry and to present the reader with a comprehensive up to date account of the current status of each topic presented. As in previous volumes, topics are in the area of lipid research, but here the emphasis is on chemistry.

Chapter 1, by R. Jensen, covers in a practical way the nuances of glyceride synthesis; methods for the syntheses of all types of glycerides are discussed. Dispersed throughout the chapter are helpful suggestions that will make the syntheses of glycerides a little less frustrating. Numerous references, including many from the 1970's, are given.

Chapter 2 concerns a review of the occurrence, properties and identification of fatty acids with conjugated unsaturation. It is appropriately authored by C.Y. Hopkins, who has discovered many of these compounds.

Chapter 3, by C.R. Smith, Jr., covers the fascinating problem of glyceride chirality. Upon definition of the problems involved, current methods used for the synthesis of active glycerides are covered. Stereospecific methods of analyses are reviewed as are applications in biochemistry and the use of natural triglycerides as sources.

Chapter 4, authored by W. Christie, deals with the production of fatty acids from hydrocarbons by microorganisms and covers the lipid composition of products formed from bacteria, yeasts, and molds. Chapter 5 represents a rather more practical discussion of the preparation of alkyl esters from fatty acids and lipids. The advantages and disadvantages of the commonly used methods for preparation of methyl esters from lipids are discussed. Procedures are given that have been recommended by the author.

The last and largest chapter deals with plant waxes, their isolation, characterization and chemical composition. This section was authored by Shiela and John Hamilton and represents the latest work in such waxes. Fascinating discussions of wax component, biosynthesis and the roles of plant surface waxes are included.

The bibliography included is very current. This volume, like the two previous ones, lists books and reviews (34) in the area of lipids that have appeared since publication of Volume 2 in this series. Each chapter has an adequate table of contents. An index of books and reviews is included, as is a short keyword type general index. This volume would be a good addition to any lipid library and would be especially useful to chemists involved in glyceride synthesis and the preparation of alkyl esters.

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THIRD INTERNATIONAL SYMPOSIUM: METAL-CATALYZED LIPID OXIDATION

Theoretical aspects
Analytical methods
Practical applications: fats, oils
and lipid-containing products

September 27–30, 1973

Maison des Centraux
8, rue Jean-Goujon - 75008 Paris

Organized by:

Institut des Corps Gras
Association Francaise des
Techniciens des Corps Gras
Ecole Superieure
d'Application des Corps Gras

Casparian, Gormley to fill NE Section executive posts



Mr. and Mrs. Don Fritz, Woburn Chemical Corp., and Manny Eijadi, PVO International.



Left to right: Mr. and Mrs. Glen L. Greene, Hoffmann-LaRoche, and Mr. and Mrs. Rudy Krukar, Givaudan Corp.

At the June 5th meeting of the AOCS Northeast Section, the following officers and directors were elected for the 1973-74 term: Robert Casparian, president; H.P. Gormley, vice-president; Kak-yuen Tao, treasurer; and J.C. Kern, secretary. Directors: J. Munson, S. Dominik, P. Kalustian, J. Marcus and S. Lee.

The group was addressed by Ahmad Moustafa, director of research and development, Miami Margarine Co., Cincinnati, Ohio. Moustafa discussed the processing and production of margarine in the U.S. and Europe, describing typical installations and processes as well as the quality control measures used. He also discussed the flavor aspects of margarine formulation, including the use of butter cultures, lipolyzed materials and special flavor concentrates in the U.S. and in Europe. ■



Glen Jacobsen, meeting chairman, with Ahmad Moustafa, speaker of the evening.



Ahmed Moustafa with Mrs. and Mr. Glen Jacobsen, Campbell Soup.



Mr. and Mrs. Jack Flint, White Chemical Co., and Myra O. Barker, Hoffmann-LaRoche.



Ted Pelloso and Mr. and Mrs. Jack Marcus, Theobald Industries, with Bud Gormley (standing), Hoffmann-LaRoche.

Chang completes sojourn in South Korea



AOCS Past-President Stephen S. Chang accepts a plaque expressing appreciation for his technical assistance in food processing from Chul Ki Min, president of the Shin Hueng Flour Mill Co., Ltd. Chang, who is professor of food chemistry at Rutgers, New Brunswick, N.J., visited South Korea as a guest of the Shin Hueng Co., which is located in Seoul. During his stay in Korea, Chang presented a special lecture on the recent development of flavor and lipid chemistry at the annual meeting of the Korean Society of Food Science and Technology.



Chang showed a special interest in the manufacture of ginseng extract and ginseng tea by the Shin Hueng Flour Mill Co. He and Min were photographed with the plants during a trip to the ginseng farm.

AOCS Past-President 30 year career

J.C. Cowan, who has won international fame for increasing outlets for U.S. soybeans in domestic and export markets, retired June 30, 1973, from USDA's Northern Regional Research Laboratory in Peoria, Illinois.

Head of the Oilseed Crops Laboratory since 1943, Cowan directed 30 years of fundamental and applied research to increase the use of soybean products and linseed oil. He led investigations on flavor stability of soybean oil that resulted in substantial improvement in the commercial quality of edible soybean oil and in increased use of soybean salad oil in the U.S. Under his leadership a linseed oil research product was perfected that aids in curing and protecting concrete. This emulsion retards entrance of water and salt; prolongs resistance to scaling; improves abrasion resistance; and cuts costs of roads, bridges, and other public and private concrete construction.

Cowan and his group have many accomplishments to their credit. They established a taste-panel method of grading soybean oil organoleptically, which is standard in industry today. Their work on oriental foods led to the export of identity-preserved U.S. soybeans to Japan for making traditional fermented foods. They made soybean oil derivatives as coatings that protect metals from acids and alkali, and converted soybean oil to dimer acids to make polyamide resins now used globally in printing inks, heat-sealing adhesives and epoxy glues. Their fundamental research included studies of the glyceride structure of soybean and other vegetable oils, as well as the amino acid composition of soybean protein. New chemicals were produced by the reaction of oleic acid, a component of such fats and oils as soybean and linseed, with ozone, a form of oxygen, or carbon monoxide. Basic and applied scientific advances led to the development of commercially successful water-based emulsion paints from linseed oil.

More than 200 publications bear Cowan's name as author or coauthor, besides numerous chapters in authoritative books. In addition, he holds 49 patents—all assigned to the Secretary of Agriculture.

In July 1940, Cowan was among the first appointees at the Northern Laboratory. By August he was the first to be at work before the Peoria facilities were completed. Bradley University permitted him to start research in its chemistry department that led to the development of synthetic rubbers and polyamide resins from soybean oil and that earned him a Superior Service Award from the Department of Agriculture in 1948. He was a member of two research teams cited for Superior Service in 1952 and 1963.

An active AOCS member since 1941, Cowan was the first organic chemist to win the Alton E. Bailey Achievement Medal in 1961 for contributing to the technology of soybean oils. This award, established by the AOCS North Central Section, was the first one offered in the general field of fats, oils, soaps and detergents.

In 1968, Cowan served as the 59th president of the AOCS, after having been vice-president, secretary for 2 years, and a member-at-large on its governing board for another 2 years. He has been an associate editor of *JAACS* since 1954; served as book review editor, 1954-59; and arranged annual short courses as chairman of the education committee, 1959-62.

In 1945, Cowan chaired the Peoria Section of the American Chemical Society, and in 1968 was national chairman of the ACS Division of Organic Coatings and Plastics Chemistry. He has been an institutional member of Research and Development Associates, an advisory body to the former Quartermaster Food and Container Institute.

J.C. Cowan concludes with USDA



Internationally known for his work on the technology of vegetable oils, Cowan has participated in various world congresses in the field of fats, lipids and polymers—in 1959 at Cannes, in 1961 at Montreal, in 1962 at London, in 1964 at Hamburg, in 1968 at Rotterdam, in 1971 at Copenhagen and in 1972 at Göteborg. During this time he made invited tours of European vegetable oil refining plants on behalf of the Soybean Council of America and the American Soybean Institute. These organizations also called upon his services for regional conferences in Iran and India.

Cowan has been a long-time member of the Soybean Research Council and the American Soybean Association. At its 50th anniversary in 1970, the American Soybean Association conferred on him a certificate of meritorious service, and in June 1973, the National Flaxseed Processors Association presented him with an engraved plaque "in appreciation of his contributions to the chemistry of linseed oil and to the flaxseed industry." ■

Committee for Surface-Active Agents confers in Paris

The Board of the Comité International des Dérivés Tensio-actifs (C.I.D.) (International Committee for Surface-Active Agents) held its annual session in Paris on May 11, 1973, under the direction of Chairman Dürig.

After a report on the activities of the president and the three technical commissions (analyses, tests, terminology), the C.I.D. Board elected the following members for a 4 year term: honorary chairman, Dürig, Switzerland; chairman, Miro, Spain; vice-president, Friberg, Sweden; auditors, Kohler, Switzerland, and Donckerwolcke, Belgium; president of the International Commission for Analyses, Miro, Spain; president of the International Commission for Tests, Marcou, France; and president of the International Commission for Terminology, Langmann, Germany.

The C.I.D. Board accepted the offer made by the U.S.S.R. to hold the Seventh International Congress for Surface-Active Agents in Moscow in 1976.

Finally, it approved the creation of a fourth commission to study ecological problems. ■

Sixth International Sunflower Conference

July 22–24, 1974
Bucharest, Romania

Contact: Ion Trifu, Academy of Agricultural and Forestry Sciences, Blvd. Marasti 61, Bucharest I, Romania

ACS head chairs first Committee of Scientific Society Presidents

Creation of a Committee of Scientific Society Presidents, which will work for the development of a constructive national science policy, has been announced by the group's first chairman, Alan C. Nixon, president of the American Chemical Society. The committee also will make known the views of the scientific community on public issues involving science and technology.

The 13 societies initially represented on the committee have a total membership of about 200,000. Several other societies have expressed interest in joining the group.

The committee's mode of operation will be rather informal. It will seek to reach a consensus on each problem it studies and then issue a public statement expressing that consensus. The information obtained through committee studies and discussions also will be used to form the basis for increased public service activity within the individual participating societies.

One of the most important aims will be to establish and maintain effective interaction with governmental bodies. The committee also will seek to increase the flow of information to the public about the goals and contributions of science.

In the committee's opinion, according to ACS President Nixon, the U.S. now has no science policy. Should one be adopted, it could be carried out in several ways: through a cabinet-level department of science and technology, through a reestablished office of science and technology headed by a science advisor of the President, or through a council or commission on science policy.

The committee decided to examine the whole question of a national science policy and to consider it at the next meeting, to be held in Washington on October 6. The committee expects to issue a position paper on the subject as an outcome of that meeting.

Other topics to be explored include guidelines for employment of scientists, a scientific manpower policy, a national education policy and interdisciplinary curricula. The committee also proposes to formulate a statement setting forth the opinions of American scientists regarding the Soviet Government's treatment of Russian scientists who wish to emigrate.

Ralph E. Thiers, president of the American Association of Clinical Chemists, has been elected secretary of the committee, which will meet at least three times a year. Other organizations represented are: American Institute of Biological Scientists, American Institute of Chemists, American Mathematical Society, American Oil Chemists' Society, American Physical Society, American Society of Microbiology, Federation of American Scientists, Federation of American Societies for Experimental Biology, National Science Teachers Association, Optical Society of America and Society for Applied Spectroscopy. ■