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THE CHESAPEAKE CHEMIST

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THE NOVEMBER MEETING

The next meeting of the Section will be held on Friday, November 21, and a very interesting evening is promised. Dr. Ernest Guenther will talk informally about his work with essential oils and his journeys over the world in search of them, and will show color movies of his travels and the products he has sought. This will include mention of oil of citronella from Java, oils of star anise and of cassia from Indo-China, oil of camphor from Japan, ylang ylang oil from the Philippines and oil of eucalyptus from Australia. Dr. Guenther has sought oil-yielding bay and limes in the West Indies and Mexico, oranges and pimenta in Jamaica, rosewood and balsam copaiba in Brazil, bitter orange in Paraguay and balsam Peru in Salvador. Such globe-circling pursuit of the components of delightful flavors and odors should make an interesting story. Come to the meeting — bring your family and friends!

Dr. Guenther is a graduate of the University of Zurich, where he was one of the first pupils of Dr. Paul Karrer. After working in Europe in the production of soaps, cosmetics and perfumes, Dr. Guenther came to America in 1924 as chief research chemist for Fritzsche Brothers, Inc. of New York, manufacturers and distributors of essential oils. Much of his time since has been spent in the perfume-producing regions of France and in travel over the world, touching the picturesque and out-of-the-way places in every continent. His wide experience with essential oils — in the field, in the laboratory, and in production — has made him one of the world's authorities on this subject. At the November meeting Dr. Guenther will tell us informally of some of his experiences. A formal presentation of his knowledge will be available soon with the publication of the first of several volumes of his work on "The Essential Oils."

The meeting will be preceded by a dinner at 6:30 in Levering Hall. Reservations should be made with Mr. John Herculson, 407 Murdock Road, Evergreen 896, by November 18.

Section Officers

Chairman Giles B. Cooke, 502 Yarmouth Road, Baltimore 4
 Vice-Chairman J. A. Herculson, 407 Murdock Road, Baltimore 12
 Secretary-Treasurer H. H. Lloyd, Goucher College, Baltimore 18

THE CHESAPEAKE CHEMIST is published each month from September through May by the Maryland Section, American Chemical Society.
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A former Baltimore chemist who presented a paper at the recent ACS meeting in New York was astonished to learn, upon return to the laboratory after the meetings, that she and her colleague had succeeded in making synthetic dyes and perfumes from a material associated with sand -- or so the newspapers stated and the public believed. The original report had been titled "An Electron Diffraction Study of Hexamethylcyclotrisiloxane." The sequence of thought followed by the science reporter who "popularized" this chemistry is not difficult to follow, however far-fetched it may be. Siloxane - silicon, oxygen - sand; trisiloxane - silicon in a six-membered ring - carbon like silicon - a benzene ring; the benzene ring - aromatic compounds - synthetic dyes and perfumes!

Absurd! Yes, but it was released to some four hundred newspapers, and the Baltimore "Sunpapers" printed it. So did many other papers, and now the authors of the original report are busy answering letters from hopefuls all over the country. Few of us can hope to discover oil in our own back yards, and so rise to riches overnight, but many a poor man is paying taxes on a few square yards of sand. Here, it would appear, is a heaven-sent chance to capitalize on this hitherto useless material, and so samples are arriving at the laboratory for investigation. The donor will supply the sand, the chemist will supply the skill, and they'll split the profits! Lo, the wonders of chemistry!

Such an incident can occur because of very poor reporting on the part of the science "reporter," and because of great ignorance and gullibility on the part of the ordinary man. Gullibility we shall have with us always, but we, as scientists, can do something about the ignorance. There is great need for simple, intelligent presentation of the principles and facts of science to interested "laymen." That is the chief purpose of the Speakers' Bureau which the Maryland Section is forming. Have you sent in to Dr. Carr the form you received in October, listing the talks you are prepared to give? You do not need to be an orator -- you need only to be interested and willing. Send the information to Dr. C. J. Carr at the University of Maryland, Lombard and Greene Streets, Baltimore 1.

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Recent additions to the books of the Industry and Science Department, Enoch Pratt Free Library, include:
 Brown -- Introduction to Engineering Plastics (1947)
 DeMonte -- The Technology of Adhesives (1947)
 Groggins -- Unit Processes in Organic Synthesis. 3rd ed. (1947)
 Kolthoff -- Volumetric Analysis. 2nd ed. (1947)

from page 4) Baltimore Biological Laboratory

Research at the Laboratory in the design of mechanical equipment has been directed toward improvement of automatic methods for delivering small volumes of liquids with high accuracy -- far greater than that attainable by hand with buret or pipet. Such accurately measured quantities may be delivered into ampoules which are filled and sealed aseptically, as in the handling of biologicals and antibiotics.

The production side of the company's activities is concerned with the marketing of culture media and instruments studied and developed in the Laboratory. Several types of culture media are produced, all of published composition prepared by published methods. They are media which can perform more complex work more simply, and which possess greater capacity and adaptability than many of the older formulas. Thus the Laboratory was the first to make commercially available Brewer's thioglycollate medium for sterility testing by the methods now prescribed by the National Institute of Health, the Food and Drug Act, the U.S. Pharmacopia XIII and the National Formulary VIII. In this medium the sodium thioglycollate present makes possible, by its reducing action, the presence of both reduced and oxidized conditions in the same preparation, so that both anaerobes and aerobes may be grown in the same medium. The B.B.L. likewise pioneered in the commercial preparation of the first pure bile salt medium for the diagnosis of enteric diseases.

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OPEN MEETINGS OF INTEREST TO MARYLAND CHEMISTS

Maryland chemists have received a special invitation from the Maryland Chapter of the American Society of Mechanical Engineers to attend their meeting on November 24. The guest speaker will be Mr. Jack Wilson, physicist of Allis-Chalmers Manufacturing Company, who will discuss "Solar Radiation and its Engineering and Physical Effects." Mr. Wilson is described as a vital and interesting speaker, and is expected to consider particularly the principles of nuclear energy in its relation to solar radiation. The meeting will be held at the Engineers Club, 6 West Fayette Street, at 8:00 P.M., and will be preceded by cocktails at 6:00 and dinner at 6:30. Those who wish to attend the dinner should make reservations at the Engineers Club (Lexington 6914) by Friday, November 21. No reservations are needed for attendance at the lecture.

The Baltimore Chapter of the American Institute of Chemists will meet on November 19 and invites all Maryland chemists to attend the trip, dinner and meeting planned for that date. The Chapter will make a trip through the laboratories of Hynson, Westcott and Dunning from 3:30 to 5:00, and will meet at the Stafford Hotel for dinner at 6:00. After dinner Dr. Paul Reid of Hynson, Westcott and Dunning will speak on "Penicillin." No reservations are needed for the trip or evening meeting, but dinner reservations should be made with Mr. J. Bernard Edmonds, 3816 Greenmount Avenue, Baltimore 18, Belmont 6688.



NEXT MEETING 8:30 P.M., Friday, November 24
PLACE Room 101, Remsen Hall, Johns Hopkins
Charles & 34th Streets

SPEAKER Dr. Ernest Guenther

SUBJECT Essential Oils

DINNER 6:30, Levering Hall, Johns Hopkins,
Charles & 33rd Streets

The meeting is open to any who are interested.
Save Friday, December 12, for the next meeting.
Bring another chemist.

Dr. Guenther

GETTING ACQUAINTED WITH CHESAPEAKE CHEMISTRY

XIII. Baltimore Biological Laboratory, Inc. (Courtesy of Harriette D. Vera)

The Baltimore Biological Laboratory, at 1640 Gorsuch Avenue, was established in the mid-1930's by Theodore Carski, a Maryland Section chemist, to prepare culture media from pure substances or from specified materials according to known and published procedures. The Laboratory has pioneered in this field in its production of reproducible bacteriological culture media. Such work involves application of biochemical methods in the field of bacterial nutrition, and so is of interest to chemists.

The Laboratory has a staff of fourteen technicians and machinists, directed by Mr. Carski as President and by Dr. Harriette D. Vera as Director of Research. Research and development work at B.B.L. is done chiefly in two fields -- bacterial nutrition and the design of mechanical equipment.

The research in the nutrition of bacteria has involved particularly a study of the characteristics of enzymatic digests from various proteins and proteinacious materials and of their possibilities for use in culture media. Peptones from various sources have been studied and characterized, as have peptones fortified with various amino acids and vitamins to secure increased nutritive value. This program is planned to further the Laboratory's policy of developing reproducible culture media as replacement for the formulas, used not so long ago, which might show variation in behavior with every batch. Reliable and accurate research involving the use of nutritive culture media cannot progress unless the nutrient environment of the organism can be accurately controlled. To this end, studies have been made of the purity of various substrates and methods of producing pure substrates. Research in devising culture formulas has been directed particularly toward the elimination of complicated procedures, materials difficult to obtain, and materials of such variable composition as ascitic fluid. When such methods and materials can be replaced by simple procedures using substances of established purity or reproducible mixtures, work in the field of bacteriology becomes more satisfying, whether it be on a research, control or production basis. Moreover, improvements in medical diagnosis may result, particularly for difficult cases such as infections due to anaerobes. (to page 3