Nashville, Tenn., President L. C. Glenn presiding. The program of papers was as follows:

Memorial sketches of Dr. Brown Ayres and Professor Samuel M. Bain, by Dr. C. H. Gordon.

Annual address of the president, "Geography of the North Carolina-Tennessee boundary line," by Dr. L. C. Glenn.

"Recent oil and gas development work in Tennessee," by Wilbur A. Nelson.

"Luck," by Dr. F. B. Dresslar.

"The elimination of errors in a mental maze," by Professor Joseph Peterson.

"Archeology: new discoveries in the middle south," by W. E. Myer.

"Notes on the early history of the development of the mineral kingdom," by A. W. Evans.

"The feeding of the American army and some civilian applications," by Dr. Lucius P. Brown.

"Some entomological problems," by A. C. Morgan.

"Remarks on the orthoptera of Clarksville, Tenn.," by Henry Fox.

At the conclusion of the president's address a committee was appointed to recommend to the academy at its next meeting the adoption of a general name for the mountains of the Tennessee-North Carolina boundary line, taking into consideration all the different names that have been used and selecting the most authentic. This committee consists of Professor A. E. Parkins, of the department of geography, Peabody College; Dr. C. H. Gordon, of the department of geology, University of Tennessee, and Mr. Wilbur A. Nelson, state geologist of Tennessee.

The election of officers for the ensuing year resulted as follows: *President,* Dr. L. C. Glenn, Vanderbilt University, Nashville, Tenn.; *Vice-president,* Miss Jeanette M. King, Middle Tennessee State Normal School, Murfreesboro, Tenn.; *Editor,* Dr. C. H. Gordon, University of Tennessee, Knoxville, Tenn.; *Secretary-Treasurer,* Roscoe Nunn, U. S. Weather Bureau office, Nashville, Tenn.

ROSCOE NUNN,
Secretary

THE AMERICAN CHEMICAL SOCIETY—VI

ORGANIC DIVISION

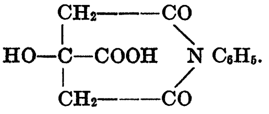
Lauder W. Jones, *Chairman*

H. L. Fisher, *Secretary*

Cymene as a solvent: A. S. WHEELER.

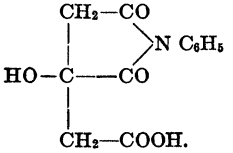
The action of basic reagents on certain Schiff's bases: A. S. WHEELER AND S. C. SMITH.

Structural problems of the aniline derivatives of citric acid: J. R. BAILEY AND E. B. BROWN. Bailey and Brown show that aniline reacts with methylene citric anhydride giving a product, which readily hydrolyzes with the elimination of formaldehyde and which the method of formation and analysis show to be citranilic acid constituted as follows:



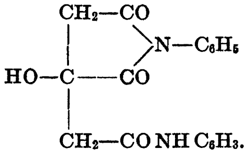
I.

This citranilic acid is a different product from a citranilic acid reported by Pebal,[1] which results from heating the mono-aniline salt of citric acid. With the constitution established for the Bailey-Brown citranilic acid, there remains only the isomeric structure for the Pebal compound, to wit,



II.

This investigation also establishes the constitution of Pebal's "Citrobianil"[2] as



III.

The anilanilde isomeric with III. can be made from citranilic acid I. The proof of structure of the two aniline derivatives of citric, II., and III., is typical of the theoretical deductions to be made concerning a number of correlated substances, the structures of which prior to the investigation of Bailey and Brown were in doubt. The detailed results of this work, when completed, will be submitted to the *Journal of the American Chemical Society* for publication.

The synthesis of capric acid: G. D. BEAL AND J. B. BROWN.

The action of phosphorus trichloride on ketones and aldehydes: JAMES B. CONANT AND A. D. MACDONALD.

Condensation of acetylene with benzene and its derivatives in the presence of aluminum chloride: OTTO W. COOK AND VICTOR J. CHAMBERS. Benzene, in addition to sym. diphenylethane and traces

---

[1] Ann., 82, 92 (1852).

[2] Ann., 82, 87 (1852).

of styrene[3] produces 9, 10-dimethylanthracene-dihydride. Toluene gives xylene, mesitylene, pseudocumene, ditolylethane, and 2, 7-dimethyl anthracene with some 2, 6-dimethyl and beta monomethyl anthracenes. Chlorbenzene produces p, p-dichlor diphenylethane and at least one higher compound as yet unidentified. Nitro benzene does not condense. The investigation is being continued.

The structure of azoxy compounds: Oliver Kamm and E. E. A. Campbell.

The purification and some physical properties of some aliphatic alcohols: R. F. Brunel.

The limit of esterification of certain aliphatic alcohols and acids: R. F. Brunel and Elsie Tobin.

Schiff bases and related compounds: William J. Hale.

The oscillation theory of colors—hydrazobenzene and azobenzene: Gerald L. Wendt, Ruth O'Brien and F. W. Sullivan.

The chemistry of the heptane solution: (I.) Introductory remarks; (II.) Physical constants of heptane: Edward Kremers.

The chemistry of the heptane solution: (III.) Purification of heptane; (IV.) Hydrohalogen solutions of heptane: D. C. L. Sherk.

Report on the production of synthetic organic chemicals in the research laboratory of the Eastman Kodak Company for the year 1918–19: C. E. K. Mees.

Perchlormethylmercaptan: Oregon B. Helfrich and E. Emmet Reid.

Butyl alcohol as medium for saponification: A. M. Pardee, B. Hasche and E. Emmet Reid.

Halogen-substituted phenacyl bromides as reagents for the identification of acids: W. L. Judefind and E. Emmet Reid.

Molecular rearrangement in the acylation of certain aminophenols: L. Chas. Raiford. In the preparation of diacylated derivatives of certain ortho-aminophenols, in which the acyl radicals bound to oxygen and to nitrogen, respectively, are different, it has been found, upon examination of the products, that the heaviest of these radicals was always found attached to nitrogen, regardless of the order in which they were introduced, which indicates a rearrangement in one case. The acyl radicals so far employed are acetyl and benzoyl, and the bases tested are 2-aminophenol, 2-amino-4-methyl-6-bromophenol, and 2-amino-4, 6-dibromophenol. Apparently the presence of an acid-forming substituent in the aminophenol does not change the course of the reaction.

A more nearly rational system of units: Elliott Q. Adams.

Certain metallic derivatives of hydroxy-anthraquinones: M. L. Crossley.

Pyrogenic conversion of phenol to napthalene: M. L. Crossley.

Reduction of dihydroxythymoquinone by means of palladium-hydrogen: Nellie Wakeman. Dihydroxythymoquinone, in alcoholic or ethereal solution, reduced by hydrogen in the presence of finely divided palladium, loses its red color, the solution becoming colorless. Upon evaporation of the solvent, in contact with air, the color returns and red crystals of dihydroxythymoquinone result. Evaporated in an atmosphere of hydrogen, flaky white crystals are obtained. These, upon exposure to the air, change to red dihydroxythymoquinone. Reduced in the same way in acetic acid anhydride solution, dihydroxythymoquinone yields a tetra-acetyl derivative which is stable in the air, and separates in colorless prismatic crystals melting at 180°–182°.

Congo red and some similar disazo-dyes: W. R. Orndorff and F. E. Carruth.

Synthesis of anthracene from naphthalene: C. W. Colver and W. A. Noyes.

Positive iodine in derivatives of acetylene: L. B. Howell and W. A. Noyes.

The attraction between organic substances and water, and the adsorption of organic substances: W. D. Harkins.

Determination of the viscosity of pyroxylin solutions: E. F. Higgins and E. C. Pitman. (By title.)

Charles L. Parsons,
Secretary

(To be continued)

SCIENCE

A Weekly Journal devoted to the Advancement of Science, publishing the official notices and proceedings of the American Association for the Advancement of Science

Published every Friday by

THE SCIENCE PRESS
LANCASTER, PA. GARRISON, N. Y.
NEW YORK, N. Y.

Entered in the post-office at Lancaster, Pa., as second class matter

---

[3] Varet and Vienne, *Compt. Rnd.*, 164–1375.