

Station, New Haven, died suddenly November 20 following a heart attack. During his 19-year association with the Station he had become known for his development of methods for determining various constituents in plants.

Claude Fountain, 68, physicist, Naval Research Laboratory, and former president, Tennessee Academy of Science, died November 28 after a short illness.

George E. Shambaugh, 78, chairman, Department of Otolaryngology, Rush Medical School, and head, Otolaryngology Department, Presbyterian Hospital, died November 30.

Edgar J. Witzemann, 63, professor of physiological chemistry, University of Wisconsin Medical School, died November 30 after a short illness.

Godfrey Harold Hardy, 70, emeritus professor of pure mathematics, Cambridge University, died December 1 at Cambridge.

Raymond Harman-Ashley, 67, chairman, Department of Chemistry, St. Lawrence University, until his retirement in June, and inventor of the chemist's slide rule, died at his home December 1 after a short illness.

William Pepper, 73, dean emeritus, School of Medicine, University of Pennsylvania, died in University Hospital December 3, of a coronary thrombosis.

David L. Taylor, 31, assistant professor of botany, Department of Botany, University of Illinois, died December 6. Dr. Taylor joined the Illinois staff in September.

Make Plans for—

Northwest Scientific Association, December 26–27, Davenport Hotel, Spokane, Washington.

American Society for Professional Geographers, December 27–30, Charlottesville, Virginia.

Association of American Geographers, December 29–31, Charlottesville, Virginia.

Mineralogical Society of America, December 29–31, Ottawa, Canada.

COMMENTS

by Readers

We consider it our duty to offer the following information without delay, instead of waiting until we have accumulated enough data to write a detailed scientific report on our findings.

Surface tension measurements of solutions of sodium penicillin were carried out with the du Noüy tensiometer and the pendant drop technique. The results proved that solutions of sodium penicillin in distilled water are highly capillary active. The surface tension of a solution containing 10,000 units of penicillin sodium salt (Abbott)/cc. gave a surface tension of 31.7 dynes/cm.

Since the preparation, at least from a colloid-chemical point of view, must be considered to be composed of a hydrophilic cation and a hydrophobic complex anion comparable to soaps, it seemed only logical to assume that we are not dealing with true solutions, but hydrosols.

We therefore studied this preparation with a slit ultramicroscope. A highly colloidal system with particles ranging between approximately 100 and 500 $m\mu$ could be readily detected. The particles are anisometric, which is clearly evidenced by a very pronounced twinkling phenomenon. To make absolutely sure that this observation was not due to impurities contained in the commercial product used, we obtained, through the courtesy of Henry Welch, of the Federal Food and Drug Administration, a highly purified sodium salt of penicillin (F.D.A. Penicillin/Working Standard/Sodium Penicillin G/Potency 1,667 u/mg.), and dissolved it in triple-distilled water which, by itself, showed not the slightest indication of a Faraday-Tyndall cone. The solution, however, exhibited a very pronounced one, which clearly indicates that we are not dealing with a true solution, but with a colloidal sol.

Surface tension measurements of solutions of highly purified streptomycin calcium chloride complex of varying concentrations gave figures slightly above those obtained with distilled water at the same temperature. The preparation, if studied ultramicroscopically, however,

shows very pronouncedly that it is a colloidal sol and not a true solution. The particle size of the dispersed phase averaged 65 $m\mu$. That this sol is not capillary active might be due to the divalent calcium ion and its low degree of hydration. (ERNST A. HAUSER and RUTH G. PHILLIPS, *Massachusetts Institute of Technology*, and LT. (j.g.) JOHN W. PHILLIPS, MC USNR, *Naval Medical Research Institute, Bethesda, Maryland*.)



Lest some scientist needing a passport be discouraged by Dr. Bok's recent account of his unfortunate failure to obtain a passport within a limited time (*Science*, October 10, p. 341), may I describe a case in which the State Department acted with gratifying speed. One member of my recent Eclipse Expedition to Brazil mailed an application for a passport to Washington on March 25, and the passport was received by mail on April 3. No special telegrams were sent; no pressure was exerted by any government official. It seems to me that 9 days for a routine which normally requires three weeks represents excellent service. (CHARLES H. SMILEY, *Director, Ladd Observatory, Brown University*.)



The recent report of a study made by Davis and Briggs concerning the growth-promoting action of cellulose (*J. Nutrition*, 1947, 34, 295) reveals a not uncommon type of error in the design of diets which makes the results of their use questionable. In this study, glucose in the basal diet was replaced by cellulose. If the cellulose served as a source of carbohydrate in the diet, such a substitution would be justified. However, even if the data on "crude fiber" were acceptable as an index of digestibility, they indicate that the cellulose served mainly as an inert material, especially