

The Fellowships are open to men who have taken thorough undergraduate courses in chemistry and physics (and preferably also courses in mathematics through the calculus), and who have already demonstrated their interest and resourcefulness in scientific work. Applicants should have already received, or should expect to receive before September 1919, a bachelor's degree, or better, a master's degree, from a college or university of recognized standing.

The new chemistry building, which was erected in 1917, provides excellent facilities for instruction and research. A permanent annual income of \$10,000 has been provided for the support of chemical research.

Advanced courses in chemistry, varied somewhat in different years, are offered to the Teaching Fellows and other properly qualified students, in the following subjects: Chemistry of the Rarer Elements, Organic Chemistry (Special Topics), Surface and Colloid Chemistry, Radiochemistry and Photochemistry, Kinetic and Electron Theories. In addition, Fellows coming from other institutions have the opportunity of attending two somewhat unique courses offered to junior and senior students at Throop College, namely, the unusually thorough problem course in Physical Chemistry consisting of 150 classroom exercises, and the laboratory course in Special Analytical Methods which familiarizes the student with a large variety of physico-chemical and other special methods of analysis.

Dr. Arthur A. Noyes, Director of Chemical Research at Throop College, in coöperation with the other professors of the chemistry department, will suggest to the Teaching Fellows a variety of problems for research, and will be in close touch with their research work during the portion of the year which he spends at the college.

In physics and mathematics, work of an advanced character is being organized under the supervision of Dr. Robert A. Millikan, Director of Physical Research at Throop College; Dr. Harry Bateman, Professor of Aeronautical Research and Mathematical Physics; and Dr. James H. Ellis, Assistant Professor of Physicochemical Research.

Applications should be sent to Professor Stuart J. Bates, Throop College of Technology, Pasadena, California, so as to reach him not later than April first of each year.

DENATURED ALCOHOL

FORMULA NO. 30 FOR SPECIAL DENATURATION OF ALCOHOL FOR USE BY CHEMICAL AND PHYSICAL LABORATORIES

Treasury Department

Office of Commissioner of Internal Revenue
Washington

To Collectors of Internal Revenue and Others Concerned:

The following formula, designated as No. 30, in Regulations No. 30, revised, for the special denaturation of alcohol to be used exclusively as a reagent for analytical and testing purposes by chemical and physical laboratories, is hereby authorized:

To each 100 gallons of pure 95 per cent ethyl alcohol add 10 gallons of pure methyl alcohol, which methyl alcohol is to have a specific gravity of not more than 0.810 at 60° F.

Alcohol so denatured shall not be redistilled or purified before use, and is not to be recovered for reuse. The use of specially denatured alcohol, Formula No. 30, will not be permitted until the intended use and method of its use is fully and satisfactorily set forth in the application filed.

Laboratories availing themselves of the privilege here granted must duly qualify, keep records, and otherwise comply with the law and regulations, as in the case of manufacturers using specially denatured alcohol. The form of bond will be 582 or 582-A.

Approved: CARTER GLASS
Secretary of the Treasury
February 20, 1919

DANIEL C. ROPER
Commissioner of Internal Revenue

THE NEXT PHARMACOPOEIA

May 1920, only a little more than a year hence, will again witness the assembling in Washington of the delegates to the United States Pharmacopoeial Convention. This fact should stimulate pre-convention activity on the part of those who have had experience with the present revision and are prepared to suggest improvements for a new edition.

It is desirable at this time that pharmacists, physicians, chemists, botanists, biological experts, or any others who use the U. S. P. IX should submit to the chairman of the Revision Committee, either personally or through associations, such helpful information as their experience may have suggested, or which may have come to their attention.

These suggestions will be compiled systematically and circularized to the present Revision Committee, the authors being credited in each instance with the recommendations, and the compilation will be submitted to the 1920 convention for the benefit of the new Committee of Revision.

The Committee of Revision earnestly urges coöperation in the preparation of this report and requests that suggestions be sent in on a special form, using a *separate sheet for each subject*. As many forms as are desired may be obtained from Charles H. LaWall, Chairman of the Committee of Revision of the United States Pharmacopoeia, 39 S. Tenth St., Philadelphia, Pa.

AMMONIACAL SILVER OXIDE SOLUTIONS

In the course of some recent work in this laboratory, circumstances called for the use of an ammoniacal solution of silver oxide.

Several explosions, one of them being serious, resulted from handling this material.

Silver nitride (Ag_3N) and related explosive compounds are well known, but it is commonly asserted that they are only formed by the prolonged action of ammonium hydroxide on silver oxide in the presence of air. Precautions had been accordingly taken to exclude air and also to use only freshly prepared material, yet it was made painfully evident that this did not prevent silver nitride from being formed, nor is there any obvious theoretical reason why access of air should play any part in its formation.

In the circumstances, a warning as to the properties of ammoniacal silver oxide solutions and the ease with which readily and powerfully detonating compounds are generated in them seems not out of place.

ALFRED TINGLE

ANALYTICAL LABORATORY
DEPT. OF CUSTOMS AND INLAND REVENUE
OTTAWA, CANADA, October 25, 1918

CONCERNING MANUFACTURE OF SULFONIC ACIDS

The Department of Agriculture announces that the Color Laboratory of the Bureau of Chemistry, of this Department, has developed, on a laboratory scale, a new process for the manufacture of certain sulfonic acids. This process, as carried out in the laboratories, appears so promising that it is thought that some manufacturers of chemicals and dyestuffs in this country may be able to supply their demands for these and other valuable compounds by this process, provided the process can be reproduced upon a technical scale so as to obtain results commensurate with the laboratory investigations. The process refers particularly to the sulfonation in the vapor phase of benzene, naphthalene, and other hydrocarbons.

With a view to helping the chemical industry of this country, the Department of Agriculture hereby announces that it is ready to assist manufacturers who wish to produce these compounds. The expenses of the technical installation and of the