

## Local Activities and Opportunities

**Kansas' Association of Chemistry and Physics Teachers.** This association is held in two sections, both on the same dates, October 16, 17 and 18. The Northeast Section is to be held at Topeka and the Southwest Section at Hutchinson. The programs are somewhat different.

*Program of the Northeast Section.*

1. The Suggested High School Course of the American Chemical Society.
  - (a) From the standpoint of the High School—Harry James, Emporia High School.
  - (b) From the standpoint of the College—Robert Taft, University of Kansas.
2. The Suggested First-year Course in Chemistry of the Committee of the American Chemical Society—A. T. Bawden, Ottawa University.
3. The relation of the General Science Course to later Courses in Chemistry and Physics—Ray McClellan, Liberty Memorial H. S., Lawrence.
4. What Preparation Should be Required of the Teachers of High School Chemistry and Physics?

*Program of Southwest Section.*

1. The High School Chemistry Course as suggested by the American Chemical Society—John M. Michener, Chemistry Department, Wichita High School.
2. Use of the Electron Theory in the Teaching of Physics and Chemistry. Written by Prof. Lawrence Oncley and to be read by Prof. Merle Suter, both of the Chemistry and Physics Dept., Southwestern College.
3. Observation on Science Teaching. J. E. Edgerton, High School Supervisor.
4. Getting Results in General Science. Miss Ruth Rhoades, Science Dept., El Dorado High School.

**Tulane University.** The chemical instruction in the Schools of Pharmacy and Dentistry, Tulane University, has recently been reorganized under the direction of Prof. H. W. Moseley, Chairman of the Department of Chemistry. Mr. Ralph W. Bost, M.A., University of North Carolina, has been appointed instructor in chemistry in these schools.

Mr. Parry Borgstrom, Ph.D., California, has been added to the staff of the department of chemistry, as Assistant Professor of Industrial Chemistry. Dr. Borgstrom was formerly associated with the department of bio-chemistry, Tulane, and with the research laboratory of applied chemistry, Mass. Inst. of Technology.

**Louisiana State University.** In connection

with the building of the plant of the new State University at Baton Rouge, a handsome new chemical laboratory is being built under the direction of Dr. Chas. E. Coates, professor of chemistry. It will be finished and ready for occupancy with the opening of the University, in the Fall of 1925. The equipment and facilities of the laboratory are being modeled after the more recently constructed laboratories of Yale and Cornell, and when finished will be one of the finest laboratories of chemistry in the South.

**University of Buffalo.** D. Kumro, B.S., and M. Woodburn, B.S., instructors in chemistry at the University of Buffalo last year are doing graduate work this year. The former is at the University of Illinois and the latter at Northwestern University. L. M. Lawton, B.S. (Syracuse) and E. S. Pelowski, B.S., are the new instructors substituting for these men.

Prof. E. R. Riegel, Chairman of the program committee of the Western New York Section of the A. C. S. has completed arrangements for meetings at Buffalo and Niagara Falls during the coming season. There is promise of interesting meetings since the speakers' list includes Dr. G. H. A. Clowes, of Indianapolis, Prof. H. N. Holmes of Oberlin, Gen. Amos Fries of the CWS, Prof. H. H. Willard of Univ. of Michigan, Dr. E. Emmet Reid of Johns Hopkins, and Dr. Baekland, President of the Society.

**Organization of Chemistry Teachers.** Prof. A. P. Sy, of Buffalo, N. Y., reports that plans are being made to organize the chemistry teachers of Western New York, probably in connection with the Local Section of the A. C. S.

**Oberlin College.** The Palmolive Soap Fellowship (\$2000) has been awarded for the second year to Mr. Paul H. Fall, an Oberlin graduate. The research work is being done with Dr. W. D. Bancroft at Cornell University.

**West Virginia University.** The West Virginia University has opened with 782 chemistry students. There are 48 chemistry majors in the College of Arts and Sciences.

The new chemistry building at West Virginia University is progressing satisfactorily. The second floor is ready for the cement. The contractors expect to have the building under roof on or before mid-winter.

R. B. Dustman, Ph.D., Chicago, A. R. Collett, Ph.D., Yale, and C. E. Garland, Ph.D., Johns Hopkins, have joined the chemistry staff of West Virginia University.

**Fellowship at the University of Missouri.** This fellowship will pay one thousand dollars a

year. It is expected that the appointee will complete the work for the doctorate in connection with this investigation. The man must have a good training in chemistry, a fair training in physics, one or more courses in physical chemistry, preferably some colloid chemistry, a bent for investigation, some agricultural training or

agricultural experience, a Master's Degree or who has practically completed the work necessary to secure one, and some knowledge of foreign languages. For further information write to Dr. Richard Bradfield, University of Missouri, College of Agriculture, Department of Soils, Columbia, Mo.

## Recent Books

**A Diagnostic Study of the Subject Matter of High School Chemistry.** By S. R. POWERS, Ph.D. Teachers College Contribution to Education, No. 149. Published by Teachers College, Columbia University. 1924. viii. 84 pages.

This monograph is a report of a study made at University of Minnesota. It comprises 9 chapters, 25 tables and an appendix. To ascertain the relative difficulty of topics taught in elementary chemistry, the ability in different schools, and the degree of retention of subject matter, 8 tests were run in 1920-22 in 15 Minnesota high schools and 28 high schools outside Minnesota. In all 350 items were used, from 20 to 102 per test. These were selected from the most widely used texts and covered valence, elements mixtures and compounds, chemical composition, definitions, activity series, biography, chemical changes (laboratory and commercial), uses of substances, solubility, numerical ratios and calculations, names for formulas, formulas for names, completing equations and writing entire equations.

The percentages of correct answers to each item are given in full, are tabulated in different ways and then are discussed at length from the point of view of the difficulty of the items. They are given as follows: (1) the achievement in different schools, (2) do the items of the tests fairly represent the subject matter of the textbooks? (3) how long do students retain the facts which they have learned about chemistry? and (4) achievement of university students. Succeeding chapters deal with summaries, recommendations and construction and study of the scales.

To try to abstract here the conclusions derived from the tables would not do justice to the wealth of information found in these pages. The showing made by the students in many cases is rather discouraging. "A large proportion of the textbook material means little or nothing to 50% or more of the students who have studied one of these texts in high school for one year."

The investigation reveals, however, that radical changes in content of high school chemistry and methods of instruction are much needed and indicated where some of these changes might be made. Constructive teachers would do well to familiarize themselves with results of Dr. Powers' work. The monograph must be read closely to get all the points.

Adverse criticisms are: Certain items tend to confuse the reader and make him lose the point, *e. g.*, wide variation in the number of students taking tests, and in the number of questions in different sections of the tests, failure to bring out clearly the difference between the terms per cent correct, per cent scores, grade scores, scale scores, ranks, rank orders, medians, median scores, ability levels, quartiles, etc. In a few instances abbreviations are used without showing what they signify. Misprints were found on pages 4, 18, 19, 27, 46 and 55, but the context makes the meaning clear. The phrase "the precipitation of calcium bicarbonate with slaked lime" on pages 23, 24 and 43 is ambiguous. Some of the above criticisms disappear, however, if the monograph is intended for a limited and specialized reading public rather than for general reading by teachers.

The reviewer regrets that so many of the items Dr. Powers has selected deal with nomenclature, facts, and to some extent with principles. Many of these are easily forgotten. One wonders how the students would have fared on items testing their ability to reason or to think chemically. Many high school teachers trust that they are getting across some of the reasoning ability rather than straight memory work. This does not condemn the monograph under review but simply suggests another angle of approach. This monograph should be in the hands of every chemistry teacher and it should prove of much help in the correlation work now being done by the Division of Chemical Education of the American Chemical Society.

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