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MDE

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## A COLLEGE OF CHEMISTRY

[EDITOR'S NOTE: This article is written in the sincere attempt to start profitable discussion of the subject. A College of Chemistry has been the dream of many who have labored here faithfully to establish the present reputation of the department. Eventually this dream will be realized. Proper action now may hasten its realization. At least, the matter is worthy of consideration.]

The question "Shall there be a College of Chemistry?" has been in the minds of the thinking people of the department for some time. It must be answered sometime, and it seems that the time is ripe for united thinking and concerted action.

The location of any course of study should be determined by the subject included in its curriculum. To this end, glance at the curriculums for chemistry and chemical engineering. (The curriculum for chemistry is an average one chosen from the several optional ones.)

### FIRST AND SECOND YEARS

Rhetoric	6 hours
German	8 hours
Mathematics	15 hours
Physics	9 hours
Physical Education	2 hours
Military	4 hours
Mineralogy	3 hours
T. & A. M. (or History)	3 hours
Chemistry	18 hours

### THIRD AND FOURTH YEARS

<i>Chemists</i>	<i>Chemical Engineers</i>
Economics	T. & A. M.
E. E.	M. E.
Electives	E. E.
Chemistry	Electives
	Chemistry

Now classify those subjects which might be considered as belonging exclusively to the Engineering College, Commerce College, etc. Rhetoric, Mathematics, German, Military, and the like are not determining subjects since they are required in nearly all courses.

T. & A. M. is an engineering subject; Economics is a commerce subject, and so on.

The classification results in this:

	<i>Chemistry</i>	<i>Chemical Engineering</i>
Non-determining subjects ---	47 hours	47 hours
Commerce subjects -----	3 hours	0 hours
Engineering subjects -----	4 hours	18 hours
L. A. & S. subjects-----	3 hours	0 hours
Electives -----	8 hours	8 hours
Chemistry -----	71 hours	63 hours
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Total-----	136 hours	136 hours

Obviously, we are out of place. Our course of study cannot be considered as belonging in the College of Liberal Arts and Sciences. Phi Beta Kappa has recognized this fact for some time since it has barred chemists and chemical engineers from membership. We would be even more out of place in the College of Engineering. There is only one thing to be done. There must be a College of Chemistry!

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## PUBLICITY

During the war a great impetus was given to Chemistry, chiefly because it was so essential to our war activities. The Chemist was then, for the first time, brought into the limelight. The American Public, which had previously classed a Chemist as a sort of drug clerk, was made to appreciate his true value, to some extent at least.

The shortage of dyes in this country was perhaps the first thing to do this. The young men had to have a particular shade of blue for their neckties, and the ladies simply couldn't get along without green feathers for their hats. So there gradually developed a vague idea that Chemists did do something besides dole out Epsom salts and Uncle Henry's Infallible Cold Cure.

The development of our explosives industry, the manufacture of poison war gases, and the increased activity of industry in general, introduced a great demand for Chemists. Students everywhere began to study chemistry with renewed interest. In chemical circles there was intense activity, but the general public knew comparatively little about it. The newspapers were too full of war news, murder cases, and baseball scores. There was no room for such ordinary things as the discoveries of science. They could not possibly affect the ordinary person, hence he was not interested in them. Thus the great stress which was brought to bear upon the chemical world was lost upon the public; not entirely, fortunately, for the popular conception of a Chemist was considerably improved.

Realizing that much of the obscurity of the Chemist and his works is due to the lack of publicity, the American Chemical Society has inaugurated methods for changing this condition. It has established a Chemical News Service, whose function it is to present to the public in an intelligible and interesting manner the recent discoveries of Chemistry. The article on Neon, found elsewhere in this issue is an example of its good work. One might think it a hopeless task to attempt to interest the layman in such a thing. Indeed, it would be if one were to tell him about the physical properties of Neon, its zero group relations, etc., but simply mention the fact that he can use Neon on his Ford to tell which spark plug is dirty, and you have his undivided attention to the end.

Besides the News Service, a Chemical Roundtable has been established, which clips articles of general interest from the *Journal of Industrial and Engineering Chemistry* and publishes them as a bulletin to be posted in public places. Recently many large industrial concerns are advertising the fact that their staff of Chemists makes it possible for them to turn out better products than their competitors. Mo-lyb-denum Springs, 99 44/100% Soap, and the like are giving the Chemists a lot of free publicity. No doubt we deserve it. We surely need it.

The average Chemist works solely for the love of his science. He shuns publicity. He does not care for public opinion or appreciation of his work. He is perfectly willing to hide his Mazda within the confines of his laboratory walls. Formerly, such an attitude was one of commendable modesty, but not now. The welfare of our science demands public support. Public support necessitates publicity.

If we are to give Chemistry its proper place in this world, we must all adopt the policy of the Californian and upon every occasion arise and "say a few words" about Chemistry.

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## BOOKS AND MORE BOOKS

Since the last ILLINOIS CHEMIST was published, there have been many changes taking place in our very own chemistry library. It is necessary to say "very own" here, because it seems some people must have such an idea, judging from the mysterious and sly manner in which books have recently migrated from the library.

It was the intention here to tell of a different migration of books, however. Miss Sparks has been collecting books for years, rare journals and most precious pamphlets. Now, her persistent efforts have brought great confusion to the shelves. She had to stack books under the tables, on her coat rack, in the corner, and even all over her desk. It was nothing

unusual to come in, searching for a book, and have to excavate a few tables in order to find it. The hurried and impatient researcher has no time to waste in digging around the corners of the room, and overturning tables to find his desired abstract.

Miss Sparks had not been asleep to dire need while she was thus causing to be purchased so many valuable papers. Far from it! After a certain length of time our halls were filled with long piles of girder-like steel. It was not until then that we realized how truly wonderful our librarian really was. More shelves! More stacks! Prayers answered!

In due course of time the library donned a new aspect. Instead of books a few feet deep on the tables, they were now a few yards deep. It was only temporary, though, as the old stacks had to be shifted in order to give more room for the new. The old stack that had housed Kopp, fully four score and ten years, turned green with jealousy when it learned that a young upstart of a rack would now boast of the world-famous set of volumes. The south rack was very well pleased with the shift, as the terrible physical chemistry books, very weighty material, were to be taken from it.

The decorative artists of the University have never given the shelves their second protective covering, and so the mighty tables are still groaning under their loads. With a light spring ahead, after a little more winter, and a hot summer, we can predict that the racks will be favored by a new coat of paint before long.

As soon as the new shelves are painted, the books all replaced, the library will be one of the finest of chemistry libraries in the world. With its eleven thousand volumes, endless periodicals and foreign journals, it is one to be proud of, to be treated well. There are four new racks installed, adding many miles of space. It will be a hard task for the librarian to say, as is customary, "Fourth stack, south side, third tier, second rod from the top, eighth book from the left end, one with a green cover. About page 203 is what you wish." The books will assume new locations. The desk sleuths will have to learn the game all over. Let us help the people in charge of the library by being patient and in after years we will be proud to say that we helped make the University of Illinois Chemistry Library what it is.

## Organic Chemical Synthesis at Illinois

**D**URING the past six months the production of organic research chemicals in this country has received a great stimulus and it is worthy of note that the University of Illinois was among the pioneers in this field. The work was started at the University of Illinois by Dr. C. G. Derick, who allowed certain seniors and graduate students to work during the summers of 1915 and 1916, on the preparation of chemicals which they would need for their research in the following fall. In 1916, however, Dr. Derick left the University for an industrial position with the National Aniline and Chemical Company, and Dr. Adams took up the work and extended the preparations to include special organic chemicals which were needed in industrial work, as well as those needed in the University laboratories.

In all probability the Department of Organic Manufacturers owes a great part of its success to the preparation of dimethyl glyoxime, a reagent used in considerable quantities for the determination of nickel in steel. During the war, when this substance was in great demand, a suitable method was worked out for the preparation of this compound, and considerable amounts were sold to industrial concerns. The small profit from the sale of this reagent made possible the preparation of other rare chemicals which would not otherwise have been carried out. In addition to serving the needs of industrial chemistry the production of dimethyl glyoxime gave the University of Illinois

of preparation had been satisfactorily worked out it was published in the *Journal* of the American Chemical Society, and made available for general uses. An English reviewer, James C. Irvine, regards this publication as "specially noteworthy in view of the public-spirited policy which it reflects."

It soon became evident that the laboratory facilities here would not be sufficient for the proper development of this line of work, and after some time the Eastman Kodak Company agreed to take over the work. Dr. H. T. Clark is in charge of this work, and Ivar N. Hultman, '17, is in charge of the laboratory. The new Eastman catalog lists over one thousand chemicals, and new ones are being continually added.

Although the dispensing of finished products has been given over to the Eastman Kodak Company, the work is still being actively continued at the University of Illinois. The results of the experiments carried on in the "summer preps" are published in the form of University Bulletins. Thus far three of these bulletins have been published, including nearly one hundred preparations. It is the plan of the department to publish one of the bulletins annually.

That the need for good methods for organic syntheses has been widely felt is evident from the welcome which has been accorded the book of "Organic Syntheses," which has been published by a committee consisting of Professor Adams, Dr. Clarke, Dr. Conant, and Dr. Kamm.

The fact that the organic synthetical work carried