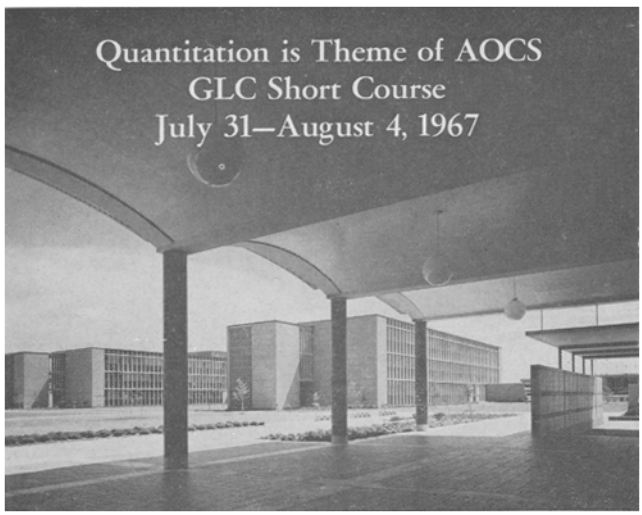

Rice University is Site of Course

Quantitation is the underlying theme of the AOCS GLC Short Course to be held at Rice University, Houston, Texas, July 31–August 4. Regardless of the particular application problems, the course provides the basic considerations in achieving the most accurate quantitative data. In addition to these general concepts, more detailed information will be offered on the analysis of specific lipid classes. These special applications were selected because as a class, the particular compounds are of both industrial and academic interest. A typical example is Randall Wood's lecture on the analysis of hydroxy fatty acids and partial glycerides. The techniques that he has developed for analyzing mono- and diglycerides is of interest to the industrial chemist because of the role that these compounds play as emulsifiers. The biochemist is interested in them because of their role as metabolic intermediates.

In a few cases, compounds were selected because the basic techniques for their analysis can be readily applied to related substances. A good example of such a presentation is Arnis Kuksis' lecture on the analysis of bile acids. Although these compounds are of little commercial interest, they represent a very difficult analytical problem requiring high temperature, high flow rates, short columns and low liquid phase concentrations. There are similar analytical problems in the food industry such as the analysis of polymerized contaminants in edible fats and oils etc. These problems are more readily attacked with some knowledge of the special techniques for high temperature GLC.

However, quantitative analysis is not the only useful application of GLC. It is also a very valuable aid to structural determination and some of the lectures cover that area of utilization. Of particular interest to lipid chemists is Morton Beroza's technique of structural determination by utilizing hydrogenation, ozonolysis and hydrogenalysis and Robert Ackman's method for tentative fatty acid identification based on retention data—both general procedures of tremendous value in characterizing the multitude of seed oils that are currently being studied.

As the demands on GLC continue to increase, the chromatographer must turn his thoughts to automation. A special group of three lectures is designed to provide the basis for this approach. Automatic sample injection is the basic requirement for automated GLC. Lars Appleqvist of the Swedish Seed Association will describe the system that he developed for the problem of analyzing hundreds of seed oil samples to determine their fatty acid composition. Jack Gill of Varian-Aerograph Co. will discuss automatic integration which carries many side benefits such as increased analysis time, increased sensitivity and a high degree of accuracy. Automatic gas chromatographs readily interface with computers and Robert Kleiman of the USDA will lecture on such a system to obtain complete automation.

The tuition fee for the course and the final program will be announced in the June issue of the JAOCS.