chloroplasts were apparently unchanged by the staining process. In a series of more than 30 slides of the root of smilax, the differentiation was very good and the contents of the storage parenchyma cells, such as starch grains and calcium oxalate rosettes, were apparently unchanged by the staining process.

Of twenty-seven alcohol-soluble stains used, only one—Sudan III—proved entirely unsuccessful. Those which were called "poor" in the discussion of Method I were applied with a fair degree of success on a few slides. However, they required special handling which increased the time consumed to such an extent as to render the stain of little practical value. For example, Hæmatin was used as a primary stain on several slides, but it had to be flamed on the slide several successive times without washing after application, and then counterstained with a rapidly acting stain from Group I of Table I. Likewise, Methyl Red was used as a counterstain by applying a primary stain such as Methylene Blue several times, then using the Methyl Red and flaming it on the slide several times. For this reason those stains called "poor" should be entirely discarded due to the fact that they require too much time, too much handling and they do not give as good results as others which are easily applied.

A possible disadvantage of this method was seen in the fact that each slide must be handled individually throughout the entire staining process. However, in the usual methods of staining, the slides must be given individual handling at some stage of the process even when they are stained in groups.

Another possible disadvantage of this method which was apparent was that the staining solutions were used only once. The primary stain must be flamed and occasionally the counterstain also. The washing was brief, so the counterstain was rapidly discolored by the primary stain which was partially retracted. However, if the stains were applied by means of a medicine dropper, only two to four drops were used. The concentration of the staining solutions need never be greater than 1 per cent and in most cases could probably be considerably less. For example, Methylene Blue was equally effective in 0.1 per cent and in 1 per cent solution. Malachite Green was equally effective in 0.1 per cent, 1 per cent and in 7.5 per cent (saturated) solution.

SUMMARY

This paper is presented as a preliminary report, and it is hoped that these methods (although two methods were described separately, both are dependent upon the same principle, namely, flaming the primary stain) may prove of value to other workers in the field, and also that additional information may be brought to light by further investigation.

The authors feel that the great saving of time effected by this method should attract the attention of others interested in perfecting rapid methods of differential botanical staining.

At this time the results of these investigations are applicable only to temporary mounts. The first slides stained by this method were mounted in Canada balsam October 25, 1938. Sufficient time has not elapsed for confirmation of the permanency of the stains.

It is the intention of the authors to conduct further research on this problem; to attempt to establish a more standardized technique; to investigate further the concentration of the staining solution necessary for effective differentiation, as well as to apply other stains and combinations of stains to this technique.

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## Announcement of a Study to Evaluate Original Serologic Tests for Syphilis

More than five years ago the Committee on Evaluation of Seriodiagnostic Tests for Syphilis, in coöperation with the United States Public Health Service, conducted a study to evaluate original serologic tests for syphilis or modifications thereof in the United States. The results of this study were published shortly after the investigation was completed.[1]

Consideration is now being given by the Committee to the organization of a second evaluation study of original serologic tests for syphilis or modifications thereof within the next year. The second evaluation will be conducted utilizing methods comparable to those employed in the first study.[2]

Serologists who have an original serologic test for syphilis or an original modification thereof and who desire to participate in the second evaluation study should submit their applications not later than October 1, 1940. The applications must be accompanied by a complete description of the technic of the author's serologic test or modification. All correspondence should be directed to the Surgeon General, United States Public Health Service, Washington, D. C.

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[1] *Ven. Dis. Inform.*, Washington, 16 (1935), 189. *J. Am. Med. Assoc.*, Chicago, 104 (June 8, 1935), 2083.

[2] *J. Am. Med. Assoc.*, Chicago, 103 (Dec. 1, 1934), 1705.