

3660* REPORT ON MICROCHEMICAL METHODS

By C. L. Ogg

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 The AOAC Referee recommends adoption of a C-H-N analyzer method and an oxygen flask method for chlorine and bromine.

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Report on Microchemical Methods

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Two collaborative studies on microchemical methods were conducted during the year, one by Laverne Scroggins, USDA, on C-H-N analyzer methods and the other by Al Steyermark, Rutgers University, on an oxygen flask combustion method for bromine and chlorine.

In the study on C-H-N analyzers, the parameters specified were based on the data obtained last year. Unfortunately, many of the collaborators failed to adjust their operating conditions to meet the specified conditions so their data were not used in the evaluation of the method. The 10 collaborators whose operating conditions were within the parameters specified obtained results for the 5 samples comparable to those obtained in earlier studies in which the older manual method for carbon and hydrogen and the Kjeldahl method for nitrogen were used. The Associate Referee recommends that the C-H-N analyzer method described in this year's report be adopted as official first action. The Referee concurs.

The oxygen flask method with mercurimetric titration for chlorine and bromine produced good results

for 22 of the 26 collaborators. The Associate Referee recommends that the method be adopted as official first action. The Referee concurs and suggests that a sulfur-containing halogen sample be included in a future study.

Recommendations

It is recommended—

- (1) That the C-H-N analyzer method and the oxygen flask method for chlorine and bromine be adopted as official first action and that these topics be continued.
- (2) That study of the oxygen flask method for sulfur be initiated.
- (3) That study on the topic of Molecular Weight be continued, either separately or in cooperation with ASTM Committee D20.70.