In the analysis of Samples 1 and 2 the solutions had to be filtered to remove suspended organic matter in order to permit titration with permanganate, yet no trouble was encountered in titrating with dichromate without filtration. Samples 3–6 inclusive did not contain organic matter. All of these results are average results of closely agreeing duplicating analyses.

## Conclusions.

- r. The concentration of acid should be small when titrating small amounts of iron with dichromate, using ferricyanide as indicator on the spot plate. If the concentration is quite large ferric chloride should be added to give a sharper color change on the spot plate.
- 2. Boric acid counteracts the influence of hydrofluoric acid in the dichromate titration of ferrous iron and hence addition of this reagent to the hydrofluoric acid extraction of the silicate yields a solution in which the ferrous iron can be accurately titrated with dichromate, using ferricyanide as indicator on a spot plate.

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## NOTE.

Use of Acetone for Drying Chemical Utensils.—Acetone is miscible in all proportions with water. It has a boiling point of 56°. On account of these two properties acetone is an excellent substance to use as a wash to facilitate the drying of glassware, especially flasks, bottles, etc. After cleaning and rinsing with water the vessel is allowed to drain a short time, then sufficient acetone is added to give a good wash. After again draining a few seconds the remaining acetone is removed by drawing air through the vessel by inserting a glass tube which is connected to suction, or by the application of heat. The author has found the use of acetone very serviceable, replacing the use of alcohol to remove the water, then ether to remove the alcohol. The acetone has the merit of being cheaper than either alcohol or ether at the present time.

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[Contribution from the Chemical Laboratory of the University of South Dakota.]

## DERIVATIVES OF PHENYL ETHER.

By Alfred N. Cook and Frank F. Sherwood. Received June 9, 1915.

2-Nitro-4'-methyl phenyl ether (NO<sub>2</sub>.C<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>.CH<sub>3</sub>) was first prepared by one of the authors¹ of this paper about sixteen years ago and some of its derivatives were prepared and studied. Subsequently some other compounds of an analogous nature and corresponding derivatives

<sup>1</sup> Am. Chem. J., 24, 525-529 (1900).