

of an alcohol containing one more carbon atom, as described by Wojcik and Adkins.³ No other hydrocarbon was isolated in quantity sufficient for identification, although there was some evidence that a fraction boiling at 130–50° contained *n*-nonane. However, inasmuch as dodecyl and tetradecyl alcohols are the principal constituents of "Lorol," the amount of hydrocarbon formed from any of the other alcohols present should be small.

(3) Wojcik and Adkins, *THIS JOURNAL*, **55**, 1293 (1933).

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RECEIVED JUNE 7, 1933
PUBLISHED SEPTEMBER 5, 1933

COMMUNICATIONS TO THE EDITOR

PHOSPHOROUS FLUROCHLORIDES

Sir:

We have found that the fluorination of PCl_3 by SbF_3 in the presence of SbCl_5 ¹ yields three gases, PF_3 in large amounts and two new gases, PF_2Cl boiling at approximately -48° and melting at approximately -166° , and small amounts of a PFCl_2 boiling a little below room temperature. These new substances are colorless both as gas and liquid, and fume in moist air. Variations of the experimental conditions indicate that the best yields are obtained when 450 parts of PCl_3 and 10 parts of SbCl_5 are vigorously stirred while sublimed SbF_3 is slowly added at room temperature.

The low yields by the above method caused us to try converting the PF_3 to the fluorochlorides. It was found that by passing an equimolecular gaseous mixture of PCl_3 and PF_3 through a glass tube filled with broken porcelain heated by an electric furnace so that the temperature of the exit gases was 200° , 50% of the mixture was converted to PF_2Cl and PFCl_2 in one pass. We are trying this same general method on mixtures of other non-polar chlorides and fluorides. The complete results of these investigations will be reported later.

(1) Booth and Swinehart, *THIS JOURNAL*, **54**, 4751 (1932).

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RECEIVED JUNE 30, 1933 PUBLISHED SEPTEMBER 5, 1933

AN ATTEMPT TO PREPARE A CHLORIDE OR FLUORIDE OF XENON

Sir:

Frequent attempts have been made to prepare compounds of the noble gases with more electronegative elements, but the results have not been