

odor characteristic of peroxides. There were only two cans in the lot which gave affirmative test for peroxides which failed to give the characteristic odor, but these cans showed only a very slight reaction with the cadmium potassium iodide reagent. The close relation between the presence of peroxides and a certain kind of odor is evident.

### Summary

1. Under average conditions, if ether contains less than about 0.05% of aldehyde it will probably not be detected by the official aldehyde test in U.S.P. X, whereas the test employing solid potassium hydroxide will, by employing the precautions given in this paper, detect 0.01%.
2. Peroxides and alcohol, if present in the ether, produce characteristic appearances in this test and their effects are described.
3. Shaking with metallic mercury provides a convenient means of decomposing the organic peroxides naturally occurring in old ether with liberation of acetaldehyde in accordance with the work of Clover and of Wieland and Winkler on the constitution of these peroxides.
4. The presence of more than minute traces of peroxides in ether can be detected by a characteristic odor when the ether is evaporated to small volume and smelled after pouring upon paper.

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### NOTE

**Reduction of Benzophenone by Magnesium Amalgam. Correction.**—In a recent paper<sup>1</sup> we reported that magnesium amalgam did not reduce benzophenone, contrary to statements of others.<sup>2</sup> Because of the positive results obtained in the case of benzil<sup>3</sup> with magnesium amalgam, the experiments on benzophenone were repeated. We again experienced the same difficulty as before with amalgam that had been prepared as previously by heating together magnesium and mercury. However, in several instances of a number of experiments it was observed that a simple mixture of magnesium metal and mercury at room temperature effected reduction of benzophenone. We are at present at a loss to explain the differences in the results obtained.

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<sup>1</sup> Gomberg and Bachmann, *THIS JOURNAL*, 49, 236 (1927).

<sup>2</sup> Schlenk and Thal, *Ber.*, 46, 2847 (1913).

<sup>3</sup> Gomberg and Bachmann, *THIS JOURNAL*, 49, 2584 (1927).