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The Action of Hydrogen Peroxide on Glycolic Acid

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ing products can be identified by independent syntheses from a saturated ketone.

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CONDENSATION OF P-DIMETHYLAMINOBENZALDEHYDE WITH VANILLALACETONE SUBSTITUTION PRODUCTS

MARGARET M. COOPER AND L. CHAS. RAIFORD

In previous work¹ it was found that when the hydrazones of unsymmetrical dibenzalacetones rearrange to the isomeric pyrazolines, the closing of the ring involved the unsaturation farthest away from the phenyl nucleus containing the halogen or nitro radical. Since these substituents are often spoken of as "negative" in character, it was decided to test the behavior of compounds containing substituents that might be regarded as "positive."

To this end there has been prepared a series of unsymmetrical ketones in which one of the groups is the p-dimethylaminobenzal radical, and the other is a substituted vanillal residue. These ketones will be converted into the corresponding hydrazones and the direction of rearrangement determined.

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THE ACTION OF HYDROGEN PEROXIDE ON GLYCOLIC ACID

HARRY SHIPLEY FRY AND KENNETH L. MILSTEAD

In a previous paper² a new mechanism of reaction termed "Perhydrolysis," was proposed to account for the apparently anomalous reactions which occur when simple organic compounds are treated with hydrogen peroxide. The proposed mechanism has been confirmed by the quantitative data obtained in the case of

¹ J. Am. Chem. Soc., 55, 1125 (1933).

² Fry and Payne, J. Am. Chem. Soc. 53, 1973 (1931).

formaldehyde, methyl alcohol, formic acid, acetaldehyde, and acetic acid.

It is the object of this paper to give the results of the extension of this quantitative study to glycolic acid and to offer further evidence in support of the proposed mechanism of reaction.

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