

A NOVEL OXIDATION REACTION. A CORRECTION\*

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Recently we reported<sup>1</sup> the oxidation of a compound believed to be 2,2'-diamino-4,4'-dinitrodiphenylmethane<sup>2</sup> (I) to m-dinitrobenzene and m-nitroaniline. Further studies on this reaction now indicates that the starting material was the isomeric N,N'-bis(3-nitrophenyl)methylenediamine.

Reaction of I with acetic anhydride gave the acetyl derivative of m-nitroaniline as did reaction of I with chromic oxide in glacial acetic acid. Reduction of I with hydrogen and platinum oxide gave an oil (identified as N,N'-bis(3-aminophenyl)methylenediamine by anil formation, m.p. 262°, with 4-√bis(2-chloroethyl)amino $\overline{7}$ -o-tolualdehyde) which on treatment with benzoyl chloride gave the dibenzoyl derivative of m-phenylenediamine.

This facile acid hydrolysis led us to the conclusion that I was N,N'-bis(3-nitrophenyl)methylenediamine. Confirmation was obtained by reaction of formaldehyde and m-nitroaniline to yield a product<sup>3</sup> identical with I. Thus the formation of m-nitroaniline in the original reaction<sup>1</sup> could be considered as a hydrolysis product from I (probably after the oxidizing agent is destroyed since hydrolysis during the oxidation reaction should lead to 3,3'-dinitroazobenzene). The route to the m-dinitrobenzene in the oxidation of I, however, is still open to further investigation.

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<sup>1</sup> F. D. Popp and A. Catala, Tetrahedron Letters No. 23, 1071 (1962).

<sup>2</sup> Purchased under this name, from Aldrich Chemical Co., and K & K Labs.

<sup>3</sup> G. Pulvermacher, Ber. 25, 2762 (1892).