labile. In the case of the 4,4′-dichloro-2,3′-dinitrodiphenyl, neither of the chlorine atoms was labile under these conditions. This was considered evidence supporting the conclusion that the third nitro group was in the 5′-position.

As a whole, our results confirmed the conclusions arrived at by Shaw and Turner. The fact that they were secured by somewhat different methods renders them still more valuable as supporting evidence.

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Preparation of Diethylisopropylamine

BY SAUL CASPE

No appreciable reaction takes place between isopropyl bromide and diethylamine on boiling under atmospheric pressure. In the early experiments[1] it was found that a yield of 10% was obtained on heating these reactants for forty-two hours in the presence of copper and sodium bromide. The yield was increased to 30% by the use of an autoclave, with the above accelerators, at 140° for six hours. The reaction was promoted to an even greater extent by the presence of glycerol. A mixture of 123 g. of isopropyl bromide, 94.9 g. of diethylamine and 50 g. of glycerol was gently heated under reflux for seventy-two hours; the resulting amines were liberated with alkali, dried with potassium hydroxide and fractionally distilled, when 67 g. (60% of the theoretical amount) of a product boiling at 108° was obtained. A similar yield was obtained when the glycerol was replaced by an equal weight of ethylene glycol; with half that quantity of mannitol, the yield amounted to only 25 g.

Diethylisopropylamine is a colorless liquid, miscible in all proportions with water. Its specific gravity is 0.75.

Anal. Calcd. for $C_7H_{17}N$: C, 73.00; H, 14.80; N, 12.20. Found: C, 73.41; H, 14.82; N, 12.16.

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[1] W. F. Whitmore and S. Caspe, unpublished data, 1930.