

**NOTE.**

*The Preparation of 4-Methoxy-2 : 5-toluquinone.* By JULIUS N. ASHLEY.

KNOEVENAGEL and BÜCKEL (*Ber.*, 1901, **34**, 3996) showed that the condensation of 1 : 4-benzoquinone with methyl alcohol in the presence of zinc chloride gave 2 : 5-dimethoxy-1 : 4-benzoquinone. It was thought that the use of toluquinone in this reaction might lead to the production

of 3 : 6-dimethoxy-2 : 5-toluquinone. None of this substance was found, but only 4-methoxy-2 : 5-toluquinone, which had been prepared previously by Luff, Perkin, and Robinson (J., 1910, 97, 1137). Toluquinone (10 g.) was added to a hot solution of anhydrous zinc chloride (12 g.) in methyl alcohol (50 c.c.) and the solution was heated under reflux for 1 hour. The hot mixture was filtered, and after standing overnight in ice, the crude quinone was filtered off and washed with a little cold methyl alcohol; it (2.5 g.) had m. p. 165—170°. Crystallisation from ethyl alcohol (charcoal) gave 2 g. of pure 4-methoxy-2 : 5-toluquinone, which formed glistening golden spangles, m. p. 172—173°, not depressed on admixture with a specimen prepared by the method of Luff *et al.* (*loc. cit.*) (Found: C, 63.3, 63.1; H, 5.2, 5.2; OMe, 20.7. Calc. for  $C_8H_8O_3$ : C, 63.1; H, 5.3; OMe, 20.4%).

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