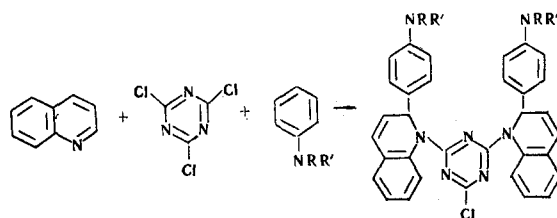


REACTION OF QUINOLINE WITH DIMETHYLANILINE IN THE PRESENCE OF 2,4,6-TRICHLORO-1,3,5-TRIAZINE

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We have previously reported that pyridylation of the activated aromatic ring (rather than acylation) with the formation of 4-(p-dimethylaminophenyl)pyridine (I) [1] occurs in the reaction of pyridine with dimethylaniline in the presence of acyl halides and aluminum chloride. Later, it was shown that the acyl halides in this reaction can be successfully replaced by cyanuric acid chloride (2,4,6-trichloro-1,3,5-triazine) with virtually no effect on the yields of I [2]. In this communication we have succeeded in the reaction of quinoline with dimethylaniline and its analogs in the presence of cyanuric acid chloride leading to the formation of 2,4-bis[2-(p-dialkylaminophenyl)-1,2-dihydro-1-quinolinyl]-6-chloro-1,3,4-triazine.



This reaction is apparently analogous to the reactions of N-acylquinolinium salts in situ with dialkyl anilines that we described in [3] and probably also includes a step involving intermediate formation of cyanuric acid chloride adducts with quinoline that react with the activated aromatic ring via an electrophilic substitution mechanism.

Thus, by brief agitation at room temperature of a mixture of cyanuric acid chloride, quinoline, and dimethylaniline in a ratio of 1:3:3 we obtained colorless crystals of 2,4-bis[2-(p-dimethylaminophenyl)-1,2-dihydro-1-quinolinyl]-6-chloro-1,3,5-triazine with mp 151-152° (from sec-octanol) and R_f 0.88. Found %: C 72.4; H 5.8; Cl 5.9; N 16.2; mol. wt. 630. $C_{37}H_{34}ClN_7$. Calculated %: C 72.6; H 5.6; Cl 5.8; N 16.0; mol. wt. 612.

The reaction of isoquinoline with dimethylaniline and its analogs proceeded similarly.

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