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## SHORT COMMUNICATIONS

# Quinonimine Formation in the Reaction of 6-Hydroxy-2,2,4-trimethyl-1,2-dihydroquinoline with 1-Chloro-2,3-epoxypropane

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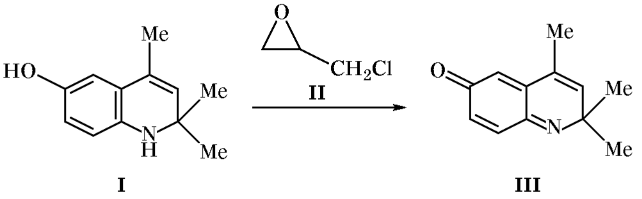
We have revealed an anomalous reaction of 6-hydroxy-2,2,4-trimethyl-1,2-dihydroquinoline (**I**) with 1-chloro-2,3-epoxypropane (**II**). Instead of expected O-alkylation, which is typical of reactions of **II** with phenols [1], oxidation of quinoline **I** occurred to give 2,2,4-trimethyl-2,6-dihydroquinolin-6-one (**III**):



No analogous reactions were found in the literature. The structure of product **III** was confirmed by the $^1$H NMR and IR spectra and elemental analysis. Quinoline **III** was previously synthesized by oxidation of 2,2,4-trimethyl-1,2-dihydroquinoline with potassium nitrosodisulfonate [2] and silver oxide in 20% yield [3]. The discovered reaction provides a more convenient method for preparation of quinonimine **III**, for it ensures a greater yield of the product.

**2,2,4-Trimethyl-2,6-dihydroquinoline (III).** *a*. A mixture of 1.85 g (0.2 mol) of 1-chloro-2,3-epoxypropane, 0.5 g (0.03 mol) of 6-hydroxy-2,2,4-trimethyl-1,2-dihydroquinoline (**I**), 50 ml of 50% aqueous sodium hydroxide, 100 ml of benzene, and 0.1 g of tetrabutylammonium iodide was stirred for 1 h at 50–60°C [4]. The organic phase was separated, washed with water until neutral reaction, dried, and passed through a column charged with $Al_2O_3$ using benzene as eluent. The eluate was evaporated, and the residue was recrystallized from hexane. Yield 50%.

*b*. A mixture of equimolar amounts (0.03 mol) of compounds **I** and **II**, 1 g of anhydrous potassium carbonate, and 20 ml of acetone was refluxed until compound **I** disappeared according to the TLC data (Silufol plates, development with iodine vapor or by heating). The mixture was poured into water, the product was extracted into benzene, and the extract was treated as described above in *a*. Yield 50%, mp 66–67°C; published data [2, 3]: mp 67°C. IR spectrum, $\nu$, $cm^{-1}$: 1620, 1660; no NH or OH absorption was observed. $^1$H NMR spectrum, $\delta$, ppm: 1.35 s (6H, $CH_3$), 1.99 s (3H, $CH_3$), 6.25 s (1H, CH), 6.58 s (1H, CH), 7.18 s (1H, CH).

The IR spectrum was recorded on a UR-20 spectrometer in mineral oil. The $^1$H NMR spectrum was obtained on a Bruker AC-300 instrument (300 MHz) in DMSO-$d_6$ with TMS as internal reference.

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