[CONTRIBUTION FROM THE CHEMISTRY DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA, LOS ANGELES]

CORRECTION OF STRUCTURE FOR SEVERAL SUPPOSED 2-SUBSTITUTED 1-NAPHTHALENE DERIVATIVES

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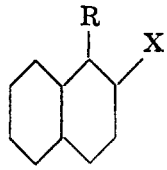
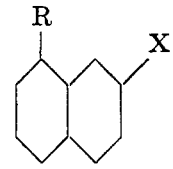
The work of Leonard and Hyson (1) indicates that the Friedel-Crafts acetylation of 2-acetamidonaphthalene (2) and 2-bromonaphthalene (2, 3) yields 8-acetyl derivatives, the 2-substituents [in contrast with the 1-substituents (4)] orienting the entering group to the unsubstituted ring. Thus it is necessary for us to correct the structures of several supposed 2-substituted 1-naphthalene derivatives.

In confirmation, we have found that the hypochlorite oxidation of the supposed 2-chloro-1-bromoacetonaphthone (2) yields an acid, m.p. 235–237° (uncorr.), undepressed on admixture with a sample of 7-chloro-1-naphthoic acid, m.p. 235–239° (uncorr.) available from the separation of the mixture of acids from the reaction of chlorobenzene with methyl furoate (5). Further, samples of the supposed α-di-*n*-butylaminomethyl-2-chloro-1-naphthalenemethanol hydrochloride, m.p. 124–124.5° [previously reported (2) 124.5–125°, 136.5–137°; two modifications], and the 7-chloro isomer, m.p. 123.5–125° [previously reported (6) 123–125°], melted at nearly identical temperatures. The mixed melting point showed no depression.

The necessary corrections involve change in structure from I to II



I



II

in the following cases (2): X = $NHCOCH_3$, R = $COCH_3$; X = NH_2, R = $COCH_3$; X = Cl, R = $COCH_3$ or $COCH_2Br$ (7) or $CH(OH)CH_2Br$ or $CH(OH)CH_2N(C_2H_5)_2$ or $CH(OH)CH_2N(C_4H_9)_2 \cdot HCl$ or $CH(OH)CH_2N(C_5H_{11})_2 \cdot HCl$ or $CH(OH)CH_2N(C_6H_{13})_2 \cdot HCl$; X = Br, R = $COCH_2Br$(7) or $CH(OH)CH_2Br$ or $CH(OH)CH_2N(C_4H_9)_2 \cdot HCl$.

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