Oxidation of Sulphinamides with 1-Chlorobenzotriazole

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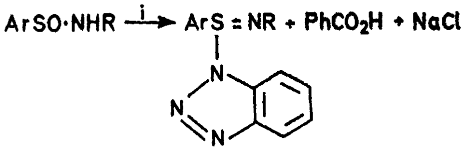
Summary Oxidation of sulphinamides with 1-chlorobenzotriazole with a heterogeneous buffer produces novel imidosulphinamides and not sulphonimidoyl chlorides.

Recently Jonsson and Johnson stated that treatment of a sulphinamide with 1-chlorobenzotriazole in dichloromethane at room temperature resulted in formation of a sulphonimidoyl chloride.[1a] Apparently, the sulphonimidoyl chloride (**1**), $R^1S(=O)(Cl)=NR^2$, generated *via* 1-chlorobenzotriazole was not isolated[1b] but was treated *in situ* with a nucleophile to afford other sulphonimidoyl derivatives (*e.g.*, amides, or phenyl esters).

Contrarily, in our laboratory the reaction of sulphinamides with 1-chlorobenzotriazole in dichloromethane at 0° did not produce the derived sulphonimidoyl chlorides but gave the novel sulphonamidines (**2**).



(2) a; $R = C_6H_{11}$, Ar = Ph
b, R = Ph, Ar = *p*-tolyl

Reagents: i, 1-chlorobenzotriazole–dichloromethane–sodium benzoate.

The only difference between our work and that of Jonsson and Johnson[1] is that we employed an heterogeneous buffer ($PhCO_2Na$). Correct elemental analysis were obtained for the products.

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[1] E. U. Jonsson and Carl R. Johnson, *J. Amer. Chem. Soc.*, 1971, **93**, (a) 5606; (b) p. 5307.